BOARD OF COUNTY COMMISSIONERS LEON COUNTY, FLORIDA

AGENDA

REGULAR MEETING

County Commission Chambers Leon County Courthouse 301 South Monroe Street Tallahassee, FL

Tuesday, June 9, 2015 3:00 P.M.

COUNTY COMMISSIONERS

Mary Ann Lindley, Chairman At-Large

Jane Sauls District 2

John Dailey District 3

Bryan Desloge District 4



Bill Proctor, Vice Chair District 1

Kristin Dozier District 5

Nick Maddox At-Large

Vincent S. Long County Administrator

Herbert W. A. Thiele County Attorney

The Leon County Commission meets the second and fourth Tuesday of each month. Regularly scheduled meetings are held at 3:00 p.m. The meetings are televised on Comcast Channel 16. A tentative schedule of meetings and workshops is attached to this agenda as a "Public Notice." Selected agenda items are available on the Leon County Home Page at: www.leoncountyfl.gov. Minutes of County Commission meetings are the responsibility of the Clerk of Courts and may be found on the Clerk's Home Page at www.clerk.leon.fl.us

Please be advised that if a person decides to appeal any decision made by the Board of County Commissioners with respect to any matter considered at this meeting or hearing, such person will need a record of these proceedings, and for this purpose, such person may need to ensure that verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. The County does not provide or prepare such record (Sec. 286.0105, F.S.).

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Community & Media Relations, 606-5300, or Facilities Management, 606-5000, by written or oral request at least 48 hours prior to the proceeding. 7-1-1 (TDD and Voice), via Florida Relay Service.

Board of County Commissioners

Leon County, Florida

Agenda

Regular Public Meeting Tuesday, June 9, 2015, 3:00 p.m.

INVOCATION AND PLEDGE OF ALLEGIANCE

Commissioner Jane Sauls

AWARDS AND PRESENTATIONS

None.

CONSENT

- 1. Approval of Minutes: April 28, 2015 Budget Policy Workshop for FY 2015/16 (Clerk of the Court/Finance/Board Secretary)
- 2. Adoption of Revision to Leon County Personnel Policies and Procedures (County Administrator/County Administration)
- 3. Authorization to Negotiate a Revised Memorandum of Understanding with the University of Florida Regarding the Leon County Cooperative Extension Program (County Administrator/County Administration)
- 4. Approval of Payment of Bills and Vouchers Submitted for June 9, 2015, and Pre-Approval of Payment of Bills and Vouchers for the Period of June 10 through June 22, 2015 (County Administrator/Financial Stewardship/Office of Management & Budget)
- Approval of the Fallschase Village Center Building and Site Design Guidelines and Standards Manual (County Administrator/Development Support & Environmental Management/Development Services)
- 6. Approval of Proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 with Florida Department of Transportation (County Administrator/Public Works/Engineering)

<u>Status Reports:</u> (These items are included under Consent.)

- 7. Acceptance of the Leon County Citizens Advisory Water Resources Committee 2014 Annual Report (County Administrator/PLACE/Planning)
- 8. Acceptance of Status Report on Posting Fish Consumption Advisories at Leon County Boat Landings
 (County Administrator/Public Works/Engineering)

CONSENT ITEMS PULLED FOR DISCUSSION

CITIZENS TO BE HEARD ON NON-AGENDAED ITEMS

3-minute limit per speaker; there will not be any discussion by the Commission

GENERAL BUSINESS

- 9. Acceptance of a Report on Local Economic Conditions and National Rankings (County Administrator/Office of Economic Vitality)
- 10. Approval of Agreement Awarding Bid to Allen's Excavation, Inc. in the Amount of \$685,132 for the Construction of Lake Heritage Dam Improvements (County Administrator/Public Works/Engineering)
- 11. Consideration of Full Board Appointments to the Architectural Review Board and Council on Culture and Arts
 (County Administrator/County Administration/Agenda Coordinator)

SCHEDULED PUBLIC HEARINGS, 6:00 P.M.

- 12. Second and Final Public Hearing to Adopt Proposed Revisions to the Bradfordville Chapter 163
 Development Agreement
 (County Administrator/ Development Support & Environmental Management/Development Services)
- 13. First of Two Public Hearings on Proposed Revisions to the Leon County Land Development Code to Amend the Rural Zoning District
 (County Administrator/ Development Support & Environmental Management/Development Services)
- 14. First of Two Public Hearings to Consider Proposed Revisions to the Leon County Land Development Code to Amend the Lake Protection Zoning District (County Administrator/ Development Support & Environmental Management/Development Services)
- 15. First of Two Public Hearings to Consider a Proposed Ordinance to Amend the Stormwater Standard for the Lake Jackson Basin (County Administrator/ Development Support & Environmental Management/Environmental Services)

CITIZENS TO BE HEARD ON NON-AGENDAED ITEMS

3-minute limit per speaker; Commission may discuss issues that are brought forth by speakers.

COMMENTS/DISCUSSION ITEMS

Items from the County Attorney

<u>Items from the County Administrator</u>

Discussion Items by Commissioners

RECEIPT AND FILE

ADJOURN

The next Regular Board of County Commissioners Meeting is scheduled for Tuesday, June 23, 2015 at 3:00 p.m.

All lobbyists appearing before the Board must pay a \$25 annual registration fee. For registration forms and/or additional information, please see the Board Secretary or visit the County website at www.leoncountyfl.gov

2015

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PUBLIC NOTICE

2015 Tentative Schedule

All Workshops, Meetings, and Public Hearings are subject to change All sessions are held in the Commission Chambers, 5th Floor, Leon County Courthouse unless otherwise indicated. Workshops are scheduled as needed on Tuesdays from 12:00 to 3:00 p.m.

<u>Month</u>	<u>Day</u>	<u>Time</u>	Meeting Type
June 2015	Tuesday 9	3:00 p.m.	Regular Meeting
		6:00 p.m.	Second and Final Public Hearing to Adopt Proposed Revisions to the Bradfordville Chapter 163 Development Agreement
			First of Two Public Hearings to Consider Proposed Revisions to the Leon County Land Development Code to Amend the Lake Protection Zoning District
			First of Two Public Hearings on Proposed Revisions to the Leon County Land Development Code to Amend the Rural Zoning District
			First of Two Public Hearings to Consider a Proposed Ordinance to Amend the Stormwater Standard for the Lake Jackson Basin
	Tuesday 16- Friday 19	FAC Annual Conference & Educational Exposition	St. Johns County
	Monday 22	3:00 – 5:00 p.m.	Intergovernmental Agency (IA) City Commission Chambers
	Tuesday 23	9:00 a.m. – 3:00 p.m.	FY 2015/2016 Budget Workshop
		3:00 p.m.	Regular Meeting
		6:00 p.m.	First and Only Public Hearing on the Refinancing of the Remaining Capital Improvement Revenue Bonds, Series 2005
			First and Only Public Hearing for Adoption of Fire Rescue Services Non-ad Valorem Assessment Roll
	Thursday 25	9:30 – 11:30 a.m.	Community Redevelopment Agency City Commission Chambers
	Monday 29	1:00 p.m.	Capital Region Transportation Planning Agency City Commission Chambers

Month	<u>Day</u>	<u>Time</u>	Meeting Type
July 2015	Friday 3	Offices Closed	JULY 4 TH HOLIDAY OBSERVED
	Tuesday 7	9:00 a.m. – 3:00 p.m.	FY 2015/2016 Budget Workshop, if necessary
		3:00 p.m.	Regular Meeting
		6:00 p.m.	Second and Final Public Hearing to Adopt Proposed Revisions to the Leon County Land Development Code to Amend the Lake Protection Zoning District
			Second and Final Public Hearing to Adopt Proposed Revisions to the Leon County Land Development Code to Amend the Rural Zoning District
			Second and Final Public Hearing to Adopt a Proposed Ordinance to Amend the Stormwater Standard for the Lake Jackson Basin
	Thursday 9	9:30 – 11:30 a.m.	Community Redevelopment Agency City Commission Chambers
	Friday 10– Monday 13	NACo Annual Conference	Mecklenburg County/Charlotte, North Carolina
	Tuesday 21	No Meeting	BOARD RECESS
	Wednesday 29	National Urban League Annual Conference	Fort Lauderdale Broward County
August 2015	Friday 14 – Sunday 16	Chamber of Commerce Annual Conference	Sandestin
	Tuesday 11	No Meeting	BOARD RECESS
	Tuesday 25	No Meeting	BOARD RECESS
	Monday 31	1:00 p.m.	Capital Region Transportation Planning Agency City Commission Chambers
		5:00 – 8:00 p.m.	Intergovernmental Agency (IA) City Commission Chambers

<u>Month</u>	<u>Day</u>	<u>Time</u>	Meeting Type
September 2015	Monday 7	Offices Closed	LABOR DAY HOLIDAY
	Tuesday 15	3:00 p.m.	Regular Meeting
		6:00 p.m.	First Public Hearing Regarding Tentative Millage Rates and Tentative Budgets for FY 2016
	Wednesday 16 – Saturday 19	Congressional Black Caucus Annual Legislative Conference	Washington, D.C.
	Monday 21	1:00 p.m.	CRTPA Meeting; City Commission Chambers
	Wednesday 23 – Friday 25	FAC Policy Committee Conference and County Commissioner Workshops	St. Petersburg Pinellas County
	Thursday 24	4:00 p.m.	CRA Meeting; City Commission Chambers
	Sunday 27 – Wednesday 30	ICMA Annual Conference	Seattle/King County Washington
	Tuesday 29	1:30 – 3:00 p.m.	Workshop on Update from the Council on Culture & Arts on the Implementation of the Cultural Plan
		3:00 p.m.	Regular Meeting
		6:00 p.m.	Second Public Hearing on Adoption of Millage Rates and Budgets for FY 2016
October 2015	TBD	FAC Advanced County Commissioner Program	Part 1 of 3 Gainesville; Alachua County
	Tuesday 13	3:00 p.m.	Regular Meeting
	Monday 19	9:00 a.m. – 1:00 p.m.	CRTPA Retreat; Location to be determined
	Tuesday 27	3:00 p.m.	Regular Meeting
	Thursday 29	9:30 – 11:30 a.m.	CRA Meeting; City Commission Chambers
November 2015	Wednesday 11	Offices Closed	VETERAN'S DAY OBSERVED
	Monday 16	1:00 p.m.	CRTPA Meeting; City Commission Chambers
	Tuesday 17	3:00 p.m.	Reorganization of the Board Regular Meeting
	Wednesday 18- Friday 20	FAC Legislative Conference and Commissioner Workshops	Nassau County
	Thursday 19	9:30 – 11:30 a.m.	CRA Meeting; City Commission Chambers
	Thursday 26	Offices Closed	THANKSGIVING DAY
	Friday 27	Offices Closed	FRIDAY AFTER THANKSGIVING DAY

Month	<u>Day</u>	<u>Time</u>	Meeting Type	
December 2015	Monday 7	9:00 a.m. – 4:00 p.m.	Board Retreat	
	Tuesday 8	3:00 p.m.	Regular Meeting	
	Thursday 10	9:30 – 11:30 a.m.	Community Redevelopment Agency City Commission Chambers	
	Tuesday 22	No Meeting	BOARD RECESS	
	Friday 25	Offices Closed	CHRISTMAS DAY	
January 2016	Friday 1	Offices Closed	NEW YEAR'S DAY	

Citizen Committees, Boards, and Authorities 2015 Expirations and Vacancies

www.leoncountyfl.gov/committees/expire.asp

VACANCIES

Affordable Housing Advisory Committee

Board of County Commissioners (2 appointments)

A member who represents employers within the jurisdiction.

A member who is actively engaged in the banking or mortgage banking industry in connection with affordable housing.

Human Services Grant Review Committee

Commissioner – District II: Sauls, Jane (1 appointment)

Minority, Women & Small Business Enterprise (M/WSBE) Committee

Commissioner - District II: Sauls, Jane (1 appointment)

Science Advisory Committee

Commissioner - District I: Proctor, Bill (1 appointment) Commissioner – District V: Dozier, Kristin (1 appointment)

EXPIRATIONS

JUNE 30, 2015

Adjustment and Appeals Board

Board of County Commissioners (1 appointment) Tallahassee City Commission (1 appointment)

Architectural Review Board

Board of County Commissioners (1 appointment)

Planning Commission

Board of County Commissioners (1 appointment) Tallahassee City Commission (2 appointments)

JULY 31, 2015

Educational Facilities Authority

Board of County Commissioners (3 appointments)

Enterprise Zone Agency Development (EZDA) Board of Commissioners

Board of County Commissioners (2 appointments)

Water Resources Committee

Commissioner – At-Large I: Lindley, Mary Ann (1 appointment)

Commissioner - District I: Proctor, Bill (1 appointment) Commissioner - District II: Sauls, Jane (1 appointment)

Commissioner - District III: Dailey, John (1 appointment)

AUGUST 31, 2015

Code Enforcement Board

Commissioner - District I: Proctor, Bill (1 appointment) Commissioner - District III: Dailey, John (1 appointment) Commissioner - District IV: Desloge, Bryan (1 appointment) Commissioner – District V: Dozier, Kristin (1 appointment)

SEPTEMBER 30, 2015

Commission on the Status of Women and Girls

Board of County Commissioners (3 appointments)

Commissioner – At-Large I: Lindley, Mary Ann (1 appointment)

Commissioner – At-Large II: Maddox, Nick (1 appointment)

Commissioner - District II: Sauls, Jane (1 appointment)

Commissioner - District IV: Desloge, Bryan (1 appointment)

Tallahassee City Commission (4 appointments)

Council on Culture & Arts

Board of County Commissioners (4 appointments)

Housing Finance Authority (and CDBG Citizens Task Force)

Commissioner - District II: Sauls, Jane G. (1 appointment)

Palmer Munroe Teen Center Board of Trustees

Board of County Commissioners (1 appointment)

OCTOBER 31, 2015

Canopy Roads Citizens Committee

Board of County Commissioners (2 appointment)

Tourist Development Council

Board of County Commissioners (1 appointment)

DECEMBER 31, 2015

Human Services Grants Review Committee

Commissioner - At-large I: Lindley, Mary Ann (1 appointment)

Commissioner - At-large II: Maddox, Nick (1 appointment)

Commissioner - District I: Proctor, Bill (1 appointment)

Commissioner - District II: Sauls, Jane G. (1 appointment)

Commissioner - District III: Dailey, John (1 appointment)

Commissioner - District IV: Desloge, Bryan (1 appointment)

Commissioner - District V: Dozier, Kristin (1 appointment)

Joint City/County Bicycle Working Group

Board of County Commissioners (4 appointments)

Tallahassee City Commission (2 appointments)

Library Advisory Board

Commissioner - At-large I: Lindley, Mary Ann (1 appointment)

Commissioner - District II: Sauls, Jane (1 appointment)

Commissioner - District III: Dailey, John (1 appointment)

Commissioner - District IV: Desloge, Bryan (1 appointment)

Leon County Board of County Commissioners

Notes for Agenda Item #1

Leon County Board of County Commissioners

Cover Sheet for Agenda #1

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Approval of Minutes: April 28, 2015 Fiscal Year 2016 Budget Workshop

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Betsy Coxen, Finance Director, Clerk of the Court & Comptroller
Lead Staff/ Project Team:	Rebecca Vause, Board Secretary

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Approve the minutes of the April 28, 2015 Fiscal Year 2016 Budget Workshop.

Attachment:

1. April 28, 2015 Fiscal Year 2016 Budget Workshop

LEON COUNTY BOARD OF COUNTY COMMISSIONERS FISCAL YEAR 2016 BUDGET WORKSHOP April 28, 2015

The Leon County Board of County Commissioners met for a FY 2016 Budget Workshop on Tuesday, April 28, 2015.

Attending were: Chairman Mary Ann Lindley, Vice Chairman Bill Proctor and Commissioners Jane Sauls, Nick Maddox, John Dailey, Kristin Dozier and Bryan Desloge. Also attending were County Attorney Herb Thiele, Finance Director Betsy Coxen and Board Secretary Rebecca Vause.

Chairman Lindley called the FY 2016 Budget Workshop to order at 9:00 a.m.

Facilitators: Vincent long, County Administrator

Alan Rosenzweig, Deputy County Administrator

Scott Ross, Director, Director, Office of Financial Stewardship

County Administrator Long announced that this was the first of two workshops to discuss the tentative FY 2016 budget and a second is scheduled for June $23^{\rm rd}$; whereby staff will provide a more detailed budget to the Board. Another workshop is scheduled for July, if needed. He relayed that prior decisions by the Board have positioned the County for long term fiscal stability. He noted that the Board had during hard economic times maintained fees and passed on significant property tax savings. Additionally, the Board has tackled significant long term chronic fiscal issues such as stormwater, transportation and solid waste. County Administrator Long pointed out that the Board's action have provided the necessary resources to continue maintaining the County as a financially viable origination that was specifically recognized by the international ratings agency Fitch during the County's last bond rating review.

Workshop Item #1: Fiscal Year 2016 Preliminary Budget Overview

Mr. Ross noted that the County is in the beginning stages of developing its budget and final revenue and expenditure estimates will not be available until the June 23rd budget workshop; however, the preliminary budget shortfall range is between \$3.8 and \$8.5 million. He explained that staff contemplates the continued use of general revenue fund balance to balance the budget. He stated that staff will continue to analyze department budgets and prioritize capital project funding requests and develop options to bring back a balanced budget and options at the July 23rd workshop.

This item was accepted without objection or comment.

Workshop Item #2: Adoption of Proposed Revised Policy No. 13-1, Retitled "Sidewalk Eligibility Criteria and Implementation" and Approval of Sidewalk Tier Prioritization and Funding Allocations

County Administrator Long stated that with the passage of the sales tax and the Board's dedication of gas revenues, the County has committed millions of dollars to support new sidewalk construction. Based on Board direction, staff has reviewed the existing program and offered a series of recommendation which revise the existing sidewalk policy. He noted that while the proposed policy acknowledges that the Safe Routes to School (SRTS) is of the highest priority, other sidewalks throughout the County also provide a significant community benefit which warrant funding consideration.

Kathy Burke, Engineering Services Director, provided an overview of the proposed revisions. She stated that the proposed policy creates two priority lists: 1) Safe Routes to School, and 2) Community Sidewalk Enhancements and also provided explanation on the criteria utilized for the projects within those lists. She also mentioned staff's recommendation that 60% of funding be directed toward SFTS projects and 40% to community enhancements.

Commissioner Maddox moved, duly seconded by Commissioner Dailey, approval of Options 1, 2, 3 & 4: 1) Adopt proposed revised Policy No. 13-1, retitled "Sidewalk Eligibility Criteria and Implementation; 2) Approve Safe Routes to Schools and Community Sidewalk Enhancements Tier Prioritization Lists, and direct staff to start with Tier 1 projects; 3) For the development of the FY 2016 Budget, continue to allocate \$750,000 per year of the County's Sales Tax dollars to the sidewalk program, and 4) For the development of the FY 2015 budget, continue to allocate 50% of the County's local option gas tax to the sidewalk program.

Commissioner Desloge suggested that consideration be given, where feasible, to the use of trails when the installation of sidewalks is prohibitive.

Commissioner Dozier voiced her appreciation for the proposed process, but also encouraged staff to consider alternative options, such as trails, etc.

Commissioner Dailey noted that the revised policy provides a clear policy on how projects are ranked. Regarding the SRTS program, he asked if the school district has any responsibility for infrastructure costs, such as sidewalks, when a new development is constructed near a school. Ms. Burke responded that it would fall to the County to complete unless there is a development agreement.

The motion carried 6-0 (Commissioner Proctor out of Chambers)

Workshop Item #3: Future of the Apalachee Solid Waste Facility

County Administrator Long conveyed that the County has been preparing for the formal closure of the landfill for some time; however, an analysis conducted by the County's consulting engineer deemed that the site had at least 31 years of capacity. He relayed that this issue was discussed by the Board at its annual retreat and staff was asked for a more detailed analysis of the fiscal, environmental, operational and neighborhood impacts to be conducted before a decision is made.

Deputy County Administrator Rosenzweig provided background on this issue. He explained that Florida counties are statutorily responsible for solid waste disposal. In 2001 the county opened the transfer station and through an agreement with Waste Management the waste collected at that site is disposed of in Jackson County (at an annual cost of approximately \$4.3 million). Additionally the County partnered with Marpan Recycling in 2008 to help increase the County's recycling rate. He noted that the solid waste facility operations include yard waste, hazardous material, electronics, free mulch, the swap-shop and material that cannot be recycled by Marpan. Mr. Rosenzweig mentioned that there is an existing landfill permit that is valid until 2019 and is renewed every five years. He noted that the Board has a number of strategic priorities and strategic initiatives relating to the management of solid waste. He conveyed that the solid waste facility although intended to operate as an enterprise find, continues to rely upon the use of solid waste fund balance and general revenues to support its operation. He indicated that the current model is not sustainable in the long term without either increasing revenues and/or decreasing expenditures. Mr. Rosenzweig then provided the Board an overview of the options being proposed: 1) Complete Closure of the Landfill; 2) Redirect all Class 1 Solid Waste from the Transfer Station to the Landfill; 3) A hybrid solution that includes both Class 1 solid waste disposal at the landfill and through the transfer station, and 4) Dispose of the minimum amount of waste at the landfill necessary to keep the permit active and offset any projected shortfall through an increase in the transfer station tip fee. He stated that staff recommends, based on the analysis, the formal closure of the landfill and proceed with the long term master planning of the site.

Commissioner Maddox moved, duly seconded by Commissioner Desloge, approval of Option 1: Direct staff to proceed with the next steps in developing the preliminary budget and associated tip fees to support a complete closure of the landfill and begin the corresponding long-term master planning of the site.

Commissioner Maddox encouraged the expediency in the implementation of the master planning of the Apalachee Regional Park.

Commissioner Dozier stated that she was happy with staff's conclusion on this matter and excited about the possible future development of the site. She confirmed that the rural waste centers would not be affected by the landfill closure and that the property would continue to maintain the swap shop site. Regarding future development of the property, she asked that available options for the County regarding renewables be considered. She noted that the site was the venue for cross-country events and home to the local radio control club and encouraged staff to consider smaller programs/projects such as these in the redevelopment of the site.

Commissioner Desloge established with County Administrator Long that the analysis contemplated the County's future disposal options in the region should issues arise with the current provider. Commissioner Desloge commended staff on the analysis and looks forward to potential development options for the property.

Commissioner Dailey pointed out that under the leadership of Mr. Mills and County Administrator Long, and the partnership with Marpan, the County has increased its recycling rates.

Commissioner Proctor affirmed with staff that a section of the property would remain for collection of storm debris.

Commissioner Maddox requested that staff conduct an inventory of County facilities for youth sports (football, baseball, soccer) while developing the master plan. County Administrator Long responded that would be part of the master planning analysis, which will be back before the Board early in the planning process.

The motion carried 7-0.

Workshop Item #4: Acceptance of a Status Report on the Current Healthcare Landscape and Consideration of Opportunities to Enhance the Delivery of Healthcare Services

County Administrator Long relayed that while there are a number of unresolved health care related issues at the State level (Medicaid expansion and Low Income Pool (LIP) Program), the County continues to provide support for those citizens in need by providing millions of dollars annually to outside provider agencies and by working with health care providers to leverage resources. He commented that while the approach being recommended by staff represents a fundamental shift in the County's methodology toward funding community based health care providers, he believed it would provide improved coordination with CareNet agencies and maximize the collective impact.

Erin Calabro, Director, Office of Human Services and Community Partnerships, provided a detailed overview of the local healthcare landscape, opportunities to enhance healthcare services which included: 1) The establishment of a healthcare district and administration office; 2) the establishment of a Big Bend Baker Act and Marchman Act Central Receiving Facility at Apalachee Center; 3) Establishing a Medical Home; 4) Creation of Community Paramedic Program, and information on the Competitive Provider Reimbursement Pool Funding model.

Commissioner Maddox voiced his enthusiasm for the suggested direction in the delivery of health care and the new funding model, which he deemed would make for a more efficient system.

Commissioner Maddox moved, duly seconded by Commissioner Desloge approval of Options 1, 2, 3, 4 & 5: 1) Accept staff report on the creation of a healthcare special district and a County healthcare Administration Office; 2) Accept staff report on the Proposed Big Bend Central Receiving Facility for Mental Health and Substance Abuse Patients; 3) Accept staff report on the Community Paramedic Program and continue to develop this program in partnership with area stakeholders and bring back to the Board at a later date; 4) Accept staff report and encourage Bond and NMC, and Apalachee to coordinate with the TMH Transition Center to assist patients in establishing a medical home, and 5) Approve the Competitive Provider Reimbursement Pool Funding Model for the FY 2016 Primary Healthcare Program and bring back a budget discussion item to determine the appropriate funding levels.

Commissioner Proctor projected his disappointment at the prospect that the State would not accept funds related to Medicaid Expansion and asked County Attorney Thiele if there were options available to the County to help alleviate the projected \$3.1 million increase in Medicaid costs. County Attorney Thiele responded that this is a topic of discussion amongst County Attorney's and there is at least an argument being made that this would represent an unfunded mandate. Mr. Thiele added that this is a topic of discussion at the Florida Association of Counties Conference in June. Commissioner Proctor requested that the motion include direction that the County Attorney continue to advise the Board regarding pending healthcare legislation, specifically as it related to a possible unfunded mandate. Commissioner Maddox, as the maker of the motion, accepted the amendment.

Commissioner Proctor expressed his support for the establishment of a health care special district. He ascertained from Deputy Administrator Rosenzweig that the Primary Healthcare MSTU has not been levied for several years and the ordinance authorizing the ability to levy the tax had been repealed by the Board. Commissioner Proctor recommended that this funding source not be overlooked and that it be used to fund the establishment of a Healthcare Special District.

Commissioner Proctor requested an amendment which encourages the CareNet agencies to continue to coordinate and work collaboratively with the Kearney Center to improve access to healthcare. Commissioner Maddox, as the maker of the motion, accepted the amendment.

Commissioner Proctor requested that the motion include a request to the City that they offer Neighborhood Medical Center (NMC) a \$1 per year lease for its facility. Commissioner Maddox stated, that while he supported the idea, did not accept the amendment; however, suggested that the County draft a letter for the Chairman's signature requesting they offer NMC rent abatement through its lease of City property.

Commissioner Proctor requested that the motion include a request to the City that they match the County's \$1.35 million in healthcare funding. Commissioner Maddox, while supportive of the idea, did not accept the amendment; however, suggested this be brought back as an agenda item or be a topic of discussion at a future Mayor/Chair meeting. Chairman Lindley stated that she would present the topic at a future meeting with Mayor Gillum.

Commissioner Dailey shared that he served as Chair of the Apalachee Center Board of Directors and confirmed with County Attorney Thiele that he did not have a conflict. He commended staff on the "very innovative" recommendations. He expressed support for the new funding model and looked forward to creating a Community Paramedic Program. He stated for the record, that he was concerned that Medicaid Expansion has not been passed by the Legislature and submitted that the lack of Medicaid Expansion would have a tremendous impact on all local governments.

Commissioner Dozier noted that the State's decision on Medicaid Expansion would have an impact on the County's budget. She voiced support for the creation of a healthcare special district and the proposed funding approach.

Commissioner Desloge asked that staff throughout the year monitor the flow of funds to ensure that the funds are not one entity does not deplete the majority of the provider reimbursement pool funds to the detriment of another organizations' viability.

The motion, as amended: Commissioner Maddox moved, duly seconded by Commissioner Desloge approval of Options 1, 2, 3, 4 & 5: 1) Accept staff report on the creation of a healthcare special district and a County healthcare Administration Office; 2) Accept staff report on the Proposed Big Bend Central Receiving Facility for Mental Health and Substance Abuse Patients; 3) Accept staff report on the Community Paramedic Program and continue to develop this program in partnership with area stakeholders and bring back to the Board at a later date; 4) Accept staff report and encourage Bond and NMC, and Apalachee to coordinate with the TMH Transition Center to assist patients in establishing a medical home; 5) Approve the Competitive Provider Reimbursement Pool Funding Model for the FY 2016 Primary Healthcare Program and bring back a budget discussion item to determine the appropriate funding levels. Additional direction: 6) Encourage the CareNet agencies to continue to coordinate and work collaboratively with the Kearney Center to improve access to healthcare; and 7) Direct the County Attorney to continue to advise the Board regarding pending healthcare legislation, specifically as it related to a possible unfunded mandate.

The motion carried 7-0.

Workshop Item #5: Analysis of Fire Rescue Services Rate Study and Alternative Funding Options

County Administrator Long reminded the Board that the City and County are in the second year of an 11 year Interlocal Agreement on this issue. A new rate study was recently completed to determine an appropriate fire services fee and needs to be adopted by the Board. County Administrator Long conveyed that staff have provided analysis for the Board to consider one of two options: 1) to impose a new fire services fee effective October 1, which is consistent with the plan contemplated in the Agreement, or 2) levy the fee at a lower rate for a period of time allowing voters the opportunity to authorize a referendum for an alternative funding source through the imposition of a sales tax to fund fire services.

Jeff Rackley, Government Services Group, Inc. (GSG) presented the City of Tallahassee/Leon County Fire Services Assessment Program Update for Fiscal Year 2015-16. (A copy of the full report was included in the Board's workshop packet.) He indicated that the very same presentation had been offered to the City Commission at its last meeting. Mr. Rackley noted that a number of different data components were utilized to update the study:

- Apportionment Methodology:
 - Fire Department five-year Proforma Budget
 - Service Zones (rural and urban)
 - Fire Call Data
 - Ad Valorem Tax Roll Assessment Roll
- Non-Government and Government Calculations and Rates

Commissioner Desloge, upon confirmation by Deputy Administrator Rosenzweig that no comparative analysis had been conducted, suggested that this be considered so that he and the Board can be better educated.

Commissioner Proctor submitted that the fees proposed for "Industrial Warehouse" category were not equitable when compared to Commercial and Non-Government categories.

Commissioner Sauls inquired about the positioning of emergency vehicles in rural posts and asked if trucks would be stationed at these permanently. County Administrator Long acknowledged that units from the rural stations are pulled closer to town and into service. He stated that this is a matter of resources and as more units are added into the system it is the goal to keep the sites manned 24/7.

Commissioner Proctor expressed a concern that the fire assessment is not contingent upon the size of a residential unit and asked for clarification on why this is so. Mr. Rackley responded that the emergency response is the same no matter the size of the home and indicated that he was not aware of any area where a fire assessment methodology was based on square footage of residential properties. He acknowledged that this is something that possibly could be done; however, there may be legal or operational concerns. Commissioner Proctor followed up upon learning that square footage is used in the non-residential category to calculate rate and expressed frustration that the methodology whereby all categories would be rated based upon square footage was not the direction given to GSG.

Deputy Administrator Rosenzweig relayed that under the current fee structure the County pays the City approximately \$6.7 million for fire services and the rate would increase to \$7.9 million based on the new rate calculation and these rates would be maintained for the next five years. He pointed out that the two zones do not align with political jurisdictions, but based purely on service delivery. He reviewed the billing methods utilized by residents in the unincorporated area. Mr. Rosenzweig then provided details on the options presented for Board consideration. Additionally, he shared more detail on the possibility of funding fire services through a one-cent surtax and actions to be taken to bring this about. He conveyed that the City Commission, at its last meeting, adopted the study as presented by GSG and would impose the rates effective October 1 as recommended by the consultant.

Commissioner Proctor moved, duly seconded by Commissioner Maddox, approval of Options 2, 4, 5 & 6: 2) Approve for FY 2016 and FY 2017 implementing the proposed fire rescue charges at a 15% reduction utilizing existing fund balances to support the required payment to the City and approve implementing the proposed fire rescue charges at the full rates for FY 2018; 4) Direct staff to prepare for the adoption of the Fire Rescue Services Rates at the May 26, 2015 meeting; 5) Authorize staff to send first class notices to property owners who have the assessment on their tax bill notifying them of the maximum rate increase and authorize staff to schedule a public Hearing on June 23, 2015, to impose the new rates, and authorize the assessment to be placed on the tax bill, if applicable, and 6) Instruct staff to bring back additional information regarding the possibility of funding fires services through a 1-cent surtax at the June 23, 2015 Budget Workshop.

Commissioner Maddox stated that he was pleased with staff's effort and creativity in addressing this issue. He voiced an interest in an agenda item for a comparative analysis of fire service costs and fees (as mentioned earlier by Commissioner Desloge) as compared to other counties.

Commissioner Dozier stated that she has never been comfortable with fire services fee structure. She mentioned that should the Board pursue the sales tax option, at least 25% of the sales tax would be paid by non-residents, who she noted enjoy the protections provided when working/shopping in Leon County. She submitted that this process spreads out the costs, makes it more fair and the average family would pay less in sales tax than the current fire service fee. She strongly urged consideration for the issue to be on the November 2016 ballot. Her concern is the County carrying the burden of placing the issue before the voters and having no control over the budget. She acknowledged that the County has no control over the budget for fire services; however, suggested that the County Administrator and City Manager be required to meet annually to review the budget (fire services) and that the Board be provided some type of efficiency report.

Commissioner Desloge commented that it was only fair to have a comparison on how the County's fire services "stack up" against comparative counties. He asserted that the current billing situation is cumbersome and would like to look at other options to pay for this service.

Commissioner Dailey appreciated staff's hard work on this issue and the County Attorney's reminder that the County has very limited legal options for funding fire services. He stated that he would support the motion on the table.

Chairman Lindley voiced her appreciation for the options presented and opined it was a good plan going forward.

Commissioner Dozier echoed Commissioner Sauls concerns about the number of vehicles for volunteer fire departments and infrastructure deficits in the rural areas. She recalled that the recently approved penny sales tax extension allows for two percent of revenues to be utilized for the Livable Infrastructure for Everyone (LIFE) program, which would include installation of hydrants and other infrastructure needs. She expressed concerns about the difficulty in recruiting for volunteer fire departments and asked staff to be look at creative solutions for working with volunteers in the outlying areas.

County Administrator Long acknowledged that with the additional sales tax, Leon County would have the highest sales tax in the state; however, he opined that in a matter of a few years, this would be the predominate method of funding fire services in Florida.

Commissioner Dailey established with County Administrator that any funds generated by the penny above what is contractually owed to the City could be used for capital improvements in the rural area.

The motion carried 7-0.

Chairman Lindley expressed appreciation to staff for an excellent and well prepared budget workshop.

There being no further business to come before the Board, Chairman Lindley adjourned the Budget Workshop at 11:39 a.m.

		LEOI	N COUNTY, FLORIDA
ATT	EST:		
		BY:	
			Mary Ann Lindley, Chairman
			Board of County Commissioners
BY:			
	Bob Inzer, Clerk of the Circuit Court		
	and Comptroller		

Leon County Board of County Commissioners

Notes for Agenda Item #2

Leon County Board of County Commissioners

Cover Sheet for Agenda #2

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Adoption of Proposed Revision to Leon County Personnel Policies and

Procedures

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator
Lead Staff/ Project Team:	Candice Wilson, Human Resources Director

Fiscal Impact:

This item is estimated to have limited financial impact, which will be supported within the current budget.

Staff Recommendation:

Option #1: Adopt proposed revised Personnel Policies and Procedures, Section VII - Attendance and Leave – Annual Leave Sell Back Program (Attachment #1).

Title: Adoption of Proposed Revision to Leon County Personnel Policies and Procedures

June 9, 2015

Page 2

Background:

Leon County's Annual Leave Sell Back program allows qualifying employees to voluntarily request and receive compensation for up to 40 hours of annual leave each year the program is offered. Staff is seeking Board approval to amend the policy to increase the number of hours persons employed on a contractual basis ("Contract Employees") may sell back.

Analysis:

Qualifying employees may voluntarily request and receive compensation for no less than eight hours and no more than 40 hours of accrued annual leave each year that the Annual Leave Sell Back program is offered. To qualify for annual participation, employees must use no less than 40 hours of annual leave prior to submitting their request to sell back a portion of their annual leave, and have a balance of no less than 120 hours of annual leave after the request is processed for payment. The program is offered annually, unless the Board directs it not to be offered for a particular year.

Contract Employees accrue annual leave at the same rate as senior management staff. Employees, including Contract Employees, forfeit annual leave hours in excess of 240 hours as of January 31 each year. Most employees are able to schedule time away from work, and do not forfeit annual leave. Less than 10% of employees forfeited annual leave time this year, with a median forfeiture of 12 hours (one and one half days). It has been difficult for Contract Employees to get time away from work to take their accrued annual leave. This year, for example, the County Administrator forfeited 192 hours of annual leave. The proposed revised policy allows Contract Employees to voluntarily sell back up to 100 hours of their annual leave each year the program is offered, which is approximately half of the annual leave they accrue during the year.

Options:

- 1. Adopt proposed revised Personnel Policies and Procedures, Section VII Attendance and Leave Annual Leave Sell Back Program (Attachment #1).
- 2. Do not adopt proposed revised Personnel Policies and Procedures, Section VII Attendance and Leave Annual Leave Sell Back Program.
- 3. Board direction.

Recommendation:

Option #1.

Attachment:

1. Proposed revised Personnel Policies and Procedures, Section VII - Attendance and Leave - Annual Leave Sell Back Program

7.25. Annual Leave Sell Back Program

Leon County shall provide an Annual Leave Sell Back program unless the County Administrator otherwise recommends, and the Board approves, that an Annual Leave Sell Back program will not be offered for a particular year. Leon County's Annual Leave Sell Back program will be administered in accordance with procedures developed by the County Administrator and maintained by the Division of Human Resources, and in accordance with the following policy provisions. For the purposes of this section, the term "Contract Employees" shall mean persons employed by the Board of County Commissioners on a contractual basis; the term "Regular Employees" shall mean persons who are employed by the Board of County Commissioners on an other than contractual basis; and the term "Employees" shall mean both Regular Employees and Contract Employees.

- A. Regular Employees may voluntarily request and receive compensation for **no less** than eight hours and no more than 40 hours of their accrued annual leave balance and Contract Employees may voluntarily request and receive compensation for **no less than eight hours and no more than 100 hours** of their accrued annual leave balance each year that an Annual Leave Sell Back program is offered, in accordance with the following:
 - 1. Leon County shall provide an annual election window each year that the Annual Leave Sell Back program is offered. Each year that the Annual Leave Sell Back program is offered, the election window (1) shall not close earlier than September 1, and (2) shall not close later than the time required to process and distribute payment for Sell Back elections, that were timely and properly submitted, by no later than the last payroll in December.
 - 2. Employees requesting to sell back annual leave shall timely and properly submit their Sell Back election during the annual election window. Once the annual election window closes, the employee's Sell Back election is irrevocable and employees cannot increase, reduce or choose to use the annual leave hours the employee elected to sell back in any other way;
 - 3. Employees shall have an accrued annual leave balance of no less than 120 hours (1) at the time employee's Sell Back election is submitted, and (2) at the time employee's annual leave sell back is processed for payment. If sufficient accrued annual leave is not available, employee's sell back hours will be reduced accordingly, so that each employee's accrued annual leave balance will not be less than the requisite 120 hours (1) at the time the employee's Sell Back election is submitted, and (2) at the time the employee's annual leave sell back is processed for payment;
 - 4. Employees shall have accrued no less than 40 hours of annual leave (1) during the calendar year in which the Sell Back election is submitted, and (2) prior to employee's submission of employee's Sell Back election;
 - 5. Employees shall have used no less than 40 hours of annual leave (1) during the calendar year in which the Sell Back election is submitted, and (2) prior to employee's submission of employee's Sell Back election; and

- 6. Employee's Sell Back elections shall be for whole hour increments of accrued annual leave time. Sell back payments shall not be made for partial hours of accrued annual leave time.
- 7. Employees are precluded from transferring unused sick leave to annual leave, in accordance with Section 7.17 Credit for Unused Sick Leave, and also participating in the Annual Leave Sell Back Program during the same calendar year.
- B. Employees shall be paid for the annual leave they sell back to Leon County at the employee's rate of pay at the time the sell back payment is processed, on an hour-for-hour basis.
- C. Employee's accrued annual leave balance shall be reduced by the number of hours the employee sells back to Leon County, on an hour-for-hour basis.
- D. Employees shall receive compensation for employee's annual leave sell back hours prior to the last payroll in December each calendar year that the Annual Leave Sell Back program is offered, to the extent such Sell Back elections are timely and properly submitted and received.
- E. Employee's Sell Back elections that are not timely and properly submitted and received may be denied and not processed for payment.

Leon County Board of County Commissioners

Notes for Agenda Item #3

Leon County Board of County Commissioners

Cover Sheet for Agenda #3

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Authorization to Negotiate a Revised Memorandum of Understanding with the

University of Florida in Regards to the Leon County Cooperative Extension

Program

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator
Lead Staff/ Project Team:	Maggie Theriot, Assistant to the County Administrator Robert Mills, Director, Resource Stewardship

Fiscal Impact:

This item has no fiscal impact.

Staff Recommendation:

Option #1: Authorize the County Administrator to negotiate and execute a revised

memorandum of understanding with the University of Florida in regards to the Leon County Cooperative Extension Program, in a form approved by the County

Attorney.

Title: Authorization to Negotiate a Revised Memorandum of Understanding with the University of Florida in Regards to the Leon County Cooperative Extension Program June 9, 2015

Page 2

Report and Discussion

Background:

The Florida Cooperative Extension service was established as a part of Food and Agricultural Sciences of the University of Florida by Federal and State legislation for the purpose of "extending" educational services of the University to the people of the State on subjects regarding agriculture, home economics, 4H and youth, community and natural resource development and marine development. Currently, the University of Florida Cooperative Extension Service - Institute of Food and Agricultural Sciences (UF-IFAS) operates through a partnership with Leon County to conduct educational Extension Programs in Leon County. Leon County executed the initial Memorandum of Understanding (MOU) with UF-IFAS in October 1983. The MOU was revised in January of 1995 and again in 2008. The current MOU (2008) was patterned to follow the same structure and content of the original MOU. The 2008 revisions also updated financial contribution and some basic terminology (Attachment #1).

Analysis:

Throughout the state and nation, Cooperative Extension programs exist in partnership with Land Grant Universities and local governments. An Extension program exists in every Florida county; however, the nature of the program and details of cooperative partnership vary among each locality. The current Leon County Extension MOU outlines operational and staffing protocols that guide the relationship between Leon County and the University. A primary element of the cooperative partnership is a shared responsibility in staffing expense and oversight.

Unlike traditional Department/Divisions of Leon County government, Cooperative Extension is a mix of various categories of positions, each of which have unique funding sources, functions, and supervisory oversight (Attachment #2). This variation adds complexity to the daily operations of program delivery. Relating to funding, most Extension Agents derive 30% of salary and benefits from Leon County and the remaining 70% from the University. There is an exception of one Agent, the Forester position, which is funded 100% by Leon County. There is another class of staff known as Program Specialists, which, like Agents, deliver educational outreach but do so with reduced credentials. Program Specialist positions receive no County funding but rather are supported via federal grants, the University of Florida, or other partnerships. A third group of staff at Cooperative Extension are Administrative Support, whereas Leon County provides for 100% of salary and benefits.

This shared partnership is further complicated when it comes to day-to-day supervision and oversight of the various categories of employees. The current MOU is void of explicit guidance as to day-to-day supervision, performance reviews, and disciplinary authority. Traditionally all staff, regardless of their employer, are supervised by the County Extension Director. However, circumstances have arisen from time to time that call into question the correct procedures and policies to apply towards personnel management, including the legal domain. This vagueness has contributed to increasing complications in the past few years for both Leon County and the University.

Title: Authorization to Negotiate a Revised Memorandum of Understanding with the University of Florida in Regards to the Leon County Cooperative Extension Program June 9, 2015

Page 3

As a result, staff began exploring opportunities to streamline and clarify elements of personnel management and program oversight. During staff's research, it was discovered that St. Johns County recently adopted a new MOU that addresses many of the same issues being faced in Leon County (Attachment #3). This agreement shifts the nature of partnership to a streamlined arrangement where all staff members become University employees with all salary, benefits, and personnel management being provided singularly by the University. With this shift, the County would still provide level funding in support of these staff members via routine reimbursement to University, upon being invoiced. The budgeted level of support would not change, only the management structure of Extension staff. This model would offer clarity to impacted staff, related human resources, administration, and counsel, of both the County and the University, thereby avoiding potentially conflicting or overlapping policies and procedures.

The cooperative partnership goes beyond personnel and includes operational support. Leon County budgets approximately \$540,000 annually for salary and direct operational expenditures such as travel, professional memberships, and program supplies. Additionally, the County provides support by way of building maintenance and information technology of more than \$100,000 in support of the Cooperative Extension agreement.

Should the Board authorize staff to negotiate a revised MOU, the St. Johns County model will be the basis of such changes. Staff has confirmed the University's support of this approach. Both parties agree there is no intention of changing the number of employees or level of funding. It is anticipated the negotiations will be finalized and the revised MOU in place for the start of fiscal year 2016.

Options:

- 1. Authorize the County Administrator to negotiate and execute a revised memorandum of understanding with the University of Florida in regards to the Leon County Cooperative Extension Program, in a form approved by the County Attorney.
- 2. Do not authorize the County Administrator to negotiate and execute a revised memorandum of understanding with the University of Florida in regards to the Leon County Cooperative Extension Program.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Current Memorandum of Understanding for Leon/University of Florida
- 2. Leon County Cooperative Extension organizational chart
- 3. St. Johns County Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

Between

Florida Cooperative Extension Service,
Institute of Food and Agricultural Sciences,
University of Florida Board of Trustees

And

Leon County, Florida

The purpose of this Memorandum of Understanding is to establish, articulate and enhance the collaborative relationship between the Florida Cooperative Extension Service, University of Florida-Institute of Food and Agricultural Sciences (hereinafter referred to as "EXTENSION SERVICE") and Leon County, Florida (hereinafter referred to as "COUNTY"). This agreement states the desire of the EXTENSION SERVICE and COUNTY to work cooperatively to enhance the well being of the citizens of Leon County, each carrying out their agreed upon responsibilities. The EXTENSION SERVICE'S mission is to focus on contemporary issues and the needs of the people. It employs an interactive educational process involving the people in issue identification, priority setting, program delivery and impact assessment. The EXTENSION SERVICE and COUNTY will work together at all times to mutually assist the other, to the extent possible, to benefit Leon County residents.

The Florida Cooperative Extension Service was established as part of the University of Florida Institute of Food and Agricultural Sciences by Federal and State legislation for the specific purpose of extending educational programs of the University of Florida to the people of the State of Florida on subjects relating to agriculture, horticulture, family and consumer science,

4-H and youth development, community and natural resource development, energy, sea grant and other programs that may be deemed appropriate. The EXTENSION SERVICE has been serving and meeting the needs of the residents of Leon County through a continuously operating program since 1915.

This collaborative arrangement between State Extension Services and County Governments exist throughout the United States. However, the details of the actual agreements are unique to each county to assure that local needs are properly addressed. Each Memorandum of Understanding is a resource that explains these details for the Florida Cooperative Extension Service and the respective county.

This Memorandum of Understanding establishes the responsibilities and relationships that exist between the EXTENSION SERVICE and COUNTY.

Cooperative Extension Agents hired by EXTENSION SERVICE and COUNTY shall hereinafter be referred to as "Extension Faculty".

Cooperative Extension Agents hired by COUNTY shall hereinafter be referred to as "Courtesy Extension Faculty"

The parties agree as follows:

A. Hiring Extension Faculty

- 1. Extension Service and the County will jointly agree on whether to fill vacancies in positions of Extension Faculty.
- 2. Extension Service will establish minimum requirements and qualifications for the employment of Extension Faculty.
- 3. Extension Service will receive and examine applications for employment for Extension Faculty.
- 4. Extension Service will interview and screen applicants to determine their

qualifications and availability for employment as Extension Faculty.

5. Extension Service will recommend to the County qualified applicants for appointment to vacant or new Extension Faculty positions in accordance with the provisions of Section 1004.37, Florida Statutes.

B. Salaries of Extension Faculty

- 1. Extension Service and the County will each pay its own respective portion of all salaries for Extension Faculty but will not be responsible for payment of the other party's portion.
- 2. Extension Service will determine the total amount of the starting base salary of each Extension Faculty member.
- 3. Extension Service will pay 70% and the County will pay 30%. After initial hire, each party will determine future salary adjustments for its portion of the total salary, except with respect to promotion increases, which will be determined as set forth in paragraph B.4. Each party may, at its sole discretion, pay a bonus at any time to Extension Faculty member(s), as a non-base salary increase, provided that such party will be solely liable for the payment of such bonus.
- 4. Extension Service will determine the total dollar amount of rank promotion salary increases for promotion to Agents II, III, and IV and a Special Pay Plan increase following every seven years of Agent IV status. The County will pay that percentage of the rank promotion salary increase that is equivalent to the percentage of the Extension Faculty member's salary the County was paying immediately prior to the effective date of the increase. Extension Service will pay the remainder of the rank promotion salary increase.

5. When merit raises are granted by either the County or the University, the University evaluation determined annually will be used by both entities.

C. Extension Faculty Support by Extension Service

- 1. Extension Service will provide Extension Faculty with official envelopes, bulletins (designed for free distribution), leaflets and other publications for educational purposes.
- 2. Extension Service will provide the leadership for administration and supervision of Extension Programs and Extension Faculty.
- 3. Extension Service will develop and administer a personnel management plan for Extension Faculty that will provide for:
 - a. The annual review of each Extension Faculty member's performance.
 - b. Counseling for job improvement where needed.
 - c. Periodic county program reviews.
- 4. Extension Service will provide State Extension Subject Matter Specialists to train County Extension Faculty in current technology and other changes affecting agriculture, family and consumer science, 4-H, community and natural resource development, energy and sea grant programs and to assist them in the conduct of work in these areas.
- 5. Extension Service will provide Extension Faculty with training programs as appropriate to maintain effective program delivery.
- 6. Extension Service will develop and maintain a County Advisory

 Committee System to insure that county Extension Service programs are based on the particular needs of the people in the county.
- 7. Extension Service will provide funds for official travel expenses and per

diem of Extension Faculty for in-service training and for other out-of-county program development meetings selected by Extension Service.

D. Extension Faculty Support by County

- 1. The County will provide office space and equipment, administrative associates and other support personnel, utilities, telephone, office supplies, funding for official county travel (except as otherwise provided herein with respect to in-service training), demonstration materials and other items needed for efficient operation of the County Extension Office and program.
- 2. The County will coordinate computer network access with Extension to ensure that all extension faculty and staff have access to University of Florida computer network resources. In an effort to mitigate the risks associated with such access from County's computer systems, Extension Service provides security management of such computer network resources for all those accessing such resources.
- The County will also confer and advise with the District and County
 Extension Directors and County Extension Advisory Committee relative to county
 Extension programs.

E. Office Policies

- 1. The policies established by the University of Florida in administering leave, including annual, sick, civil, holiday, and military leave, and regarding payment of unused annual and sick leave upon separation, shall apply to Extension Faculty.
- County policies will apply with respect to office hours and holidays for Extension Faculty.

- 3. Extension Service and County will cooperate in maintaining a safe and comfortable workplace environment consistent with established workplace practices.
- 4. The parties to this Agreement will be jointly responsible for, and cooperate with each other in, accommodating all special needs participants during educational programs conducted through the Extension Service. Except as provided in the foregoing sentence, Extension Service and the County will remain separately responsible for compliance with the American Disabilities Act at their facilities and each remains responsible for providing access to any facility or building owned by such party in compliance with the American Disabilities Act.
- 5. Extension Faculty will not be classified under a county classification system.

F. Miscellaneous

- 1. This Memorandum of Understanding shall be amended only by written amendments, which must be signed by both parties.
- 2. Either party may terminate this agreement without penalty or cause by giving the other party at least six (6) months written notice of its intent to do so.
- 3. Extension Service is self-insured for worker's compensation, general liability and automobile liability through the State of Florida's Risk Management Trust Fund. Throughout the term of this Agreement, Extension Service will carry insurance that meets the requirements of Florida law applicable to state entities. As of the date of this Agreement, such insurance covers University employees and volunteers, as defined in Section 110.502, Florida Statutes.
- 4. This agreement shall be effective on November 18, 2008.

Jimmy G. Check, Vice President
Institute of Food and Agricultural Sciences
University of Florida

Jaylor

Larry R. Arrington, Extension Dean and Director
Institute of Food and Agricultural Sciences
University of Florida

Date

Jaylor

Date

Jaylor

Date

Date

Jaylor

Date

Date

LEON COUNTY, FLORIDA

BY:
Bryan Desloge, Chairman
Board of County Commissioners

ATTEST:
Bob Inzer, Clerk of the Court
Leon County Torida

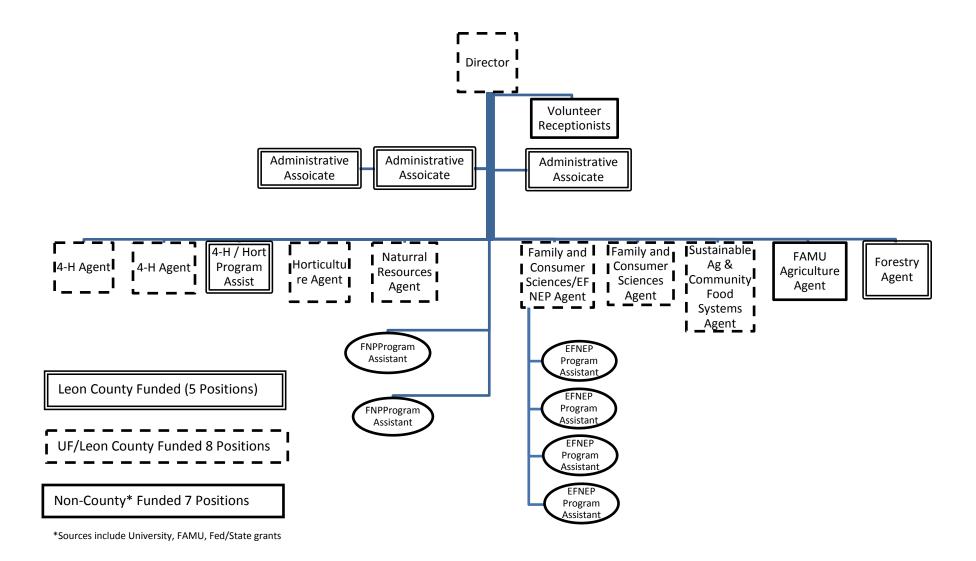
BY:

Approved as to Form:

Herbert W.A. Thiele, Esq.

County Attorney

Cooperative Extension Organizational Chart



RESOLUTION NO. 2014 - 169

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, APPROVING THE TERMS, CONDITIONS AND PROVISIONS OF AN AGREEMENT WITH THE UNIVERSITY OF FLORIDA TO PROVIDE EXTENSION SERVICES; AND AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO EXECUTE THE AGREEMENT ON BEHALF OF THE COUNTY

RECITALS

WHEREAS, under the laws of the State of Florida and the Smith-Lever Act of May 8, 1914, the University of Florida ("University"), through its Cooperative Extension Service, is charged with the dissemination of information on agriculture, family life, horticulture, youth development, coastal issues and many other related topics resources; and

WHEREAS, the University is responsible for planning and implementing educational programs for growers, families, homeowners, and young people within the St. Johns County, Florida ("County"); and

WHEREAS, the St. Johns County Board of Commissioners ("Board") and the University seek to enter into an agreement setting forth the terms, provisions and conditions that would provide for such programming in the County; and

WHEREAS, the Board has reviewed the terms, provisions and conditions of the proposed agreement (attached hereto, an incorporated herein) and finds that entering into the agreement to provide extension services best serves the interests of the citizens of the County.

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, as follows:

- Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as finds of fact.
- Section 2. The Board approves the terms, provisions and conditions of the proposed agreement between the County and the University to provide extension services within the County Administrator.
- Section 3. The Board hereby authorizes the County Administrator, or designee, to execute an agreement, in substantially the same form and format as attached hereto, on behalf of the County.

Section 4. To the extent that there are typographical and/or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution maybe revised without subsequent approval by the Board of County Commissioners.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, Florida, this 17th day of June, 2014.

BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS/COUNTY, FLORIDA

By:____

RENDITION DATE 6/19/2014

By: \(\sum_\)\(\overline{\pi}\

ATTEST: Cheryl Strickland, Clerk

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Res 2014-169

Agreement for Extension Services

THIS AGREEMENT FOR EXTENSION SERVICES entered into on July 3, 2014 between ST. JOHNS COUNTY, a political subdivision of the State of Florida, hereinafter referred to as "COUNTY," and the University of Florida, Board of Trustees, hereinafter referred to as "UNIVERSITY."

WITNESSETH

WHEREAS, under the laws of the State of Florida and the Smith-Lever Act of May 8, 1914 (38 Statute 372), the UNIVERSITY is charged with the dissemination of information on agriculture, family life, horticulture, natural resources, Sea Grant, and youth development through its Cooperative Extension Service to the public in the state of Florida; and

WHEREAS, this function is performed through the Extension Service-United States Department of Agriculture and State staff of Extension Specialist and resident Extension workers in the state; and

WHEREAS, the UNIVERSITY is responsible for planning and implementing educational programs for growers, families, homeowners, and young people within the COUNTY; and

WHEREAS, said programs will be developed and implemented in the COUNTY by Extension Agents employed by the UNIVERSITY and as approved by the COUNTY to work directly with local advisory committees and Extension personnel; and

WHEREAS, the Extension Agents will utilize appropriate Extension personnel from the UNIVERSITY and educational methods including the program development process, area subject matter information and other materials or methods as deemed necessary by Extension Agents in various program areas to conduct the aforesaid education programs.

NOW, THEREFORE, in consideration of the mutual covenants and provisions contained herein, the parties hereto agree as follows:

1. PURPOSE

a. The Florida Extension Service was established as an integral part of the Institute of Food and Agricultural Sciences (IFAS), University of Florida, for the public purpose of "extending" research-based educational information from the University to the people of the State of Florida on subjects relating to agriculture, aquaculture, family and consumer sciences, 4-H youth development, environmental horticulture, natural resources, Sea Grant, energy and other programs deemed necessary. The Florida Extension Service makes the findings of research in these areas available to the people of Florida through the

University of Florida, IFAS, Extension Service, in partnership with the Florida Boards of County Commissioners.

- b. To assure that educational programs meet the needs of local clientele, and comply with Section 1004.37 of the Florida Statutes, it is essential that the University of Florida and the County identify respective responsibilities.
- c. This Memorandum of Understanding (hereinafter referred to as "AGREEMENT") establishes the respective responsibilities of the University of Florida, through IFAS Extension Service (UNIVERSITY) and the COUNTY. The purpose of this AGREEMENT is to specify the terms under which each the UNIVERSITY and the COUNTY will contribute to personnel, educational, technical and research information to Extension Service in the COUNTY.

2. GOALS AND OBJECTIVES

The UNIVERSITY and the COUNTY hereby acknowledge the following goals and objectives:

- a. Implement a public education plan to target specific groups such as homeowners, residents, businesses, youth, commercial industry associations, and community groups.
- b. Distribute educational materials to the community.
- c. Conduct equivalent outreach activities.
- d. Regional marketing, branding and other public information and promotional efforts.
- e. Support of the agricultural community through education, research, and consulting.

3. TERMINATION OF POSITION AND SERVICES

This AGREEMENT may be terminated at will by either party hereto giving 1 year prior written notice thereof to the other.

4. RESPONSIBILITIES

- a. Responsibilities of UNIVERSITY.
 - 1) With respect to county extension faculty (Extension Agents or Program Extension Agent appointments, hereinafter referred to as either "Extension Faculty" or "Extension Agents"), and other support personnel (the non-faculty employees in the extension office), the University shall:

- a) Establish minimum employment requirements and qualifications for extension faculty and staff.
- b) Recruit, interview, screen, and hire candidates for employment as extension faculty and staff.
- c) Establish the total amount of the starting base salaries of extension faculty. COUNTY and UNIVERSITY will jointly determine how much funding each party will contribute for Extension Agent and Staff salaries and benefits. The percentages paid by the COUNTY will be outlined and paid in accordance with Exhibit A.
- d) Pay Extension's proportionate share of the funding for salaries and fringe benefits of Extension Faculty as more specifically set out in ARTICLE V and Exhibit A.
- e) The UNIVERSITY will determine the total dollar amount of any cost-of-living, merit, bonuses, and rank promotion salary increases for each Extension Faculty and Staff and submit the proposed COUNTY's portion of the funding for this figure to the St. Johns County Board of County Commissioners annually through Exhibit A for the Board's review and adoption.
- 2) With respect to management and administration, Extension shall:
 - a) Through the County Extension Director (CED), prepare and submit a proposed annual budget request to the St. Johns County Board of County Commissioners for the County's share of funds for salaries, operating expenses, equipment, and other program support for Extension work in the COUNTY. As part of this process, the CED will engage in a joint planning session with County Administration.
 - Provide in-service training for Extension Faculty and provide funds for official travel to such training and other extension out-ofcounty program development meetings.
 - c) Provide a staff of state extension specialists to train Extension Faculty in current technology and to assist Extension Faculty in the conduct of educational programs in these areas.
 - d) Provide Extension Faculty with official extension stationery, envelopes, educational materials, including access to the IFAS computer network and software, and postage to the extent the Extension budget will allow.
 - e) Through the District Extension Director (DED) and CED, develop and administer a personnel management plan for Extension Faculty (including CED) and Staff that will provide for an annual review of each Extension Agent and Staff member's performance.

- f) Provide general administrative and supervisory leadership for Extension programs and personnel, in compliance with UNIVERSITY personnel policies and procedures, state and federal Affirmative Action and Equal Employment Opportunity requirements.
- g) Through the CED, develop and maintain a "grass-roots" county advisory committee system to ensure that Extension programs are based on the needs and priorities of the people in COUNTY.
- h) Through the CED, adhere to COUNTY fiscal processes and policies in the administration of operating funds provided by COUNTY.
- On a quarterly basis, the CED will provide a report to the County Administrator or designee regarding the progress of Extension programs and services.
- j) The County Administrator or designee will be included as a participant in any planning or advisory committee.

b. Responsibilities of COUNTY.

- With respect to broad program authorization, all extension programs within the COUNTY are subject to the COUNTY authorization and approval. Substantive program changes (additions, deletions, etc.) are subject to COUNTY approval prior to implementation.
- With respect to Extension Faculty and Staff, the COUNTY shall pay the COUNTY's proportionate share of the funding for salaries and fringe benefits of the Extension Faculty and Staff as more specifically set out in Section 5 and Exhibit A.
- 3) With respect to management and administration, the COUNTY shall:
 - Review and consider the annual departmental budget requests from UNIVERSITY and take action thereon as the COUNTY may deem appropriate.
 - b) Provide and maintain the office space, equipment, supplies, utilities (including telephone and internet connection), demonstration materials and vehicles. The COUNTY will provide the following services related to COUNTY-owned equipment.
 - a. Utilities include installation and maintenance of computer network resources (including cabling, switches, routers, UPS), as well as system interface devices (computers), authorized domain access accounts, access to network file shares, web services, and data backup/retention services for disaster recovery.

- b. Within the term of this AGREEMENT, the COUNTY will move towards compliance with meeting at least the minimum UF requirements for computer resources that can be found at http://www.it.ufl.edu/policies/student-computing-requirements/.
- c. Cooperate with authorized UNIVERSITY computer/network support personnel for expansion/repair of required UNIVERSITY services and software.
- d. All computer/network service requests made by UNIVERSITY locations should be afforded the same consideration, response, and prioritization as other COUNTY departments and services.
- e. For UNIVERSITY owned equipment, the COUNTY may provide courtesy repair services if requested and resources are available.
- f. Provide funding and/or vehicles for official county travel (both in-county and out-of-county), and other operational needs of the County Extension office as the COUNTY may deem appropriate.
- g. All use of COUNTY owned vehicles will be in strict compliance with all COUNTY vehicle policies and requirements.
- 4) Provide a representative as designated by the County Administrator to participate in the advisory committee system referenced in section 4 a. 2) g) above.
- c. General provisions regarding management and administration:
 - 1) Extension Faculty shall follow UNIVERSITY policies relative to office hours and holidays.
 - COUNTY shall allow Extension employees access to appropriate COUNTY owned facilities and county owned vehicles in accordance with COUNTY policies and procedures.
 - 3) The parties' respective involvement in funding multi-county agent appointments will be negotiated on a case-by-case basis.
 - 4) Extension Faculty are professional employees exempt from the provisions of the Fair Labor Standards Act. Based upon determined position type Extension TEAMS (staff) may or may not be exempt from the provisions of the Fair Labor Standards Act.

- 5) The Extension program shall follow COUNTY fiscal processes and polices for utilizing COUNTY operating funds.
- 6) Extension Faculty will be permitted to charge appropriate fees to extension program participants. These fees will be retained by UF/IFAS Extension for use in program development and support, agent training, professional presentations, professional membership, reference materials and minor equipment purchases.
 - a) On a quarterly basis, the UNIVERSITY will submit to the COUNTY an accounting of the fees collected.
 - b) The UNIVERSITY Staff will refer persons wishing to rent the Agricultural Center for private events to the St. Johns County Department of Parks and Recreation to complete any applications, waivers, and payment of fees related to facility rental. The University will help facilitate all such rentals.

5. FUNDING AND PAYMENTS

- a. The COUNTY agrees to pay the UNIVERSITY not more than the total sum as indicated in Exhibit A towards salary expenses. This total sum represents the COUNTY's share of funding the salary and fringe benefits as outlined by Exhibit A. The COUNTY's payment of salary expenses shall be made on a costreimbursable basis.
- b. Salary outlines in Exhibit A will be modified and submitted to the COUNTY annually by the UNIVERSITY. Exhibit A is an estimate of projected salary expenses for the year and shall not require a separate written addendum to this agreement in order to implement annual changes in salaries and related fringe benefits. Actual expenses may vary during the year due to vacancies, midyear promotions, new hires or unexpected increases in fringe benefit costs. Proposed salary dollar figures in Exhibit A will be submitted annually to the COUNTY for review and approval by the following time table:

Proposed Annual Budget by March 31st or in accordance with the COUNTY's budget calendar – UNIVERSITY will include proposed figures for the COUNTY to begin its budget process.

- c. UNIVERSITY will not charge Facilities and Administrative costs to the COUNTY.
- d. Quarterly, on January 10, April 10, July 10, and October 10, UNIVERSITY will invoice COUNTY for payment of the cost reimbursable and actual payroll expenses incurred during the applicable 3-month period. COUNTY will make payment on these invoices within 30 days of their receipt. UNIVERSITY invoices will be issued in accordance to the "Anticipated Payment Schedule" in Exhibit A.

6. <u>TERM - RENEWAL - MODIFICATION</u>

- a. This AGREEMENT shall be effective as of July 3, 2014 and shall continue through September 30, 2019, unless modified or terminated earlier.
- b. This AGREEMENT may be extended by mutual written agreement of the parties in five (5) year increments. Multiple five (5) year extensions may be granted. All extensions must be formally approved by the Board prior to the end of the then effective term.
- c. Either party may terminate this AGREEMENT at any time, without penalty or cause, by giving one (1) year written notice to the other party.
- d. This AGREEMENT is the entire agreement between the parties and may be modified at any time by mutual consent of both parties evidenced by execution with the same formality.

7. MAINTENANCE OF RECORDS

The UNIVERSITY will keep adequate records and supporting documentation applicable to this contractual matter. Said records and documentation will be retained by the UNIVERSITY for a minimum of five (5) years from the date of termination of this AGREEMENT. The COUNTY and its authorized agents shall have the right to audit, inspect and copy all such records and documentation as often as the COUNTY deems necessary during the period of this AGREEMENT and during the period of five (5) years thereafter; providing, however, such activity shall be conducted only during normal business hours. The COUNTY during the period of time expressed by the preceding sentence shall also have the right to obtain a copy of and otherwise inspect any audit made at the direction of the UNIVERSITY as concerns the aforesaid records and documentation.

8. LIABILITY

a. The UNIVERSITY assumes any and all risks of personal injury and property damage attributable to the negligent acts or omissions of the UNIVERSITY and the officers, employees, servants, and agents thereof while acting in the scope of their employment by UNIVERSITY. UNIVERSITY, as a state agency, warrants and represents that it is self-funded for liability insurance, both public and property, with such protection being applicable to the UNIVERSITY's officers, employees, servants and agents while acting within the scope of their employment by the UNIVERSITY. UNIVERSITY and COUNTY further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida;

- (2) the consent of the UNIVERSITY, the State of Florida, or their agents and agencies to be sued; or (3) a waiver of the sovereign immunity of the UNIVERSITY, the State of Florida, and their agents and agencies beyond the waiver provided in Section 768.28, Florida Statutes.
- b. The COUNTY assumes any and all risks of personal injury and property damage attributable to the negligent acts or omissions of the COUNTY and the officers, employees, servants, and agents thereof while acting in the scope of their employment by COUNTY. COUNTY, as a political subdivision of the state of Florida, warrants and represents that it is self-funded for liability insurance, both public and property, with such protection being applicable to the COUNTY's officers, employees, servants and agents while acting within the scope of their employment by the COUNTY. COUNTY AND UNIVERSITY further agree that nothing contained herein shall be construed or interpreted as 1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; 2) the consent of the COUNTY or its agents and agencies to be sued; or 3) a waiver of the sovereign immunity of the COUNTY and its agents and agencies beyond the waiver provided in Section 768.28, Florida Statutes.
- c. This provision relating to liability, is separate and apart from, and is in no way limited by, any insurance provided by parties hereto pursuant to this AGREEMENT or otherwise.

9. CONTRACTUAL REQUIREMENTS

- a. UNIVERSITY shall maintain all books, records and documents directly pertinent to performance under this AGREEMENT in accordance with generally accepted accounting principles consistently applied. Each party to this AGREEMENT or their authorized representatives shall have reasonable and timely access to such records of each other party to this AGREEMENT for public records purposes during the term of the AGREEMENT and for five (5) years following the termination of this AGREEMENT. If an auditor employed by the COUNTY or Clerk determines that monies paid to the UNIVERSITY pursuant to this AGREEMENT were spent for purposes not authorized by this AGREEMENT, the University shall repay the monies together with interest calculated pursuant to Sec. 55.03, FS, running from the date the monies were paid to the UNIVERSITY.
- b. *Governing Law*. This AGREEMENT shall be governed by and construed in accordance with the laws of the State of Florida applicable to contracts made and to be performed entirely in the State.
- c. Binding Effect. The terms, covenants, conditions and provisions of this AGREEMENT shall bind and inure to the benefit of the COUNTY and UNIVERSITY and their respective legal representatives, successors, and assigns.

- d. Nondiscrimination. The COUNTY and UNIVERSITY agree that there will be no discrimination against any person, and it is expressly understood that upon a determination by a court of competent jurisdiction that discrimination has occurred, this AGREEMENT automatically terminates without any further action on the part of any party, effective the date of the court order. The COUNTY and UNIVERSITY agree to comply with all Federal and Florida statutes, and all local ordinances, as applicable, relating to nondiscrimination.
- e. Covenant of No Interest. The COUNTY and UNIVERSITY covenant that neither presently has any interest, and shall not acquire any interest, which would conflict in any manner or degree with its performance under this AGREEMENT, and that only interest of each is to perform and receive benefits as recited in this AGREEMENT.
- f. Code of Ethics. The COUNTY agrees that officers and employees of the COUNTY recognize and will be required to comply with the standards of conduct for public officers and employees as delineated in Section 112.313, Florida Statutes, regarding, but not limited to, solicitation or acceptance of gifts; doing business with one's agency; unauthorized compensation; misuse of public position, conflicting employment or contractual relationship; and disclosure or use of certain information.
- g. No Solicitation/Payment. The COUNTY and UNIVERSITY warrant that, in respect to itself, it has neither employed nor retained any company or person, other than a bona fide employee working solely for it, to solicit or secure this AGREEMENT and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for it, any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this AGREEMENT. For the breach or violation of the provision, the University agrees that the COUNTY shall have the right to terminate this AGREEMENT without liability and at its discretion, to offset from monies owed, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration.
- h. Public Records. The COUNTY and UNIVERSITY shall allow and permit reasonable access to, and inspection of, all documents, papers, letters or other materials in its possession or under its control subject to the provisions of Chapter 119, Florida Statutes, and made or received by the COUNTY and UNIVERSITY in conjunction with this AGREEMENT; and the COUNTY shall have the right to unilaterally cancel this AGREEMENT upon violation for this provision by UNIVERSITY.

- i. Non-Waiver of Immunity. Notwithstanding the provisions of Sec. 768.28, Florida Statutes, the participation of the COUNTY and UNIVERSITY in this AGREEMENT and the acquisition of any commercial liability insurance coverage, self-insurance coverage or local government liability insurance pool coverage shall not be deemed a waiver of immunity to the extent of liability coverage, nor shall any contract entered into by the COUNTY be required to contain any provision for waiver.
- j. Privileges and Immunities. All of the privileges and immunities for liability, exemptions from laws, ordinances, and rules and pensions and relief, disability, workers' compensation and other benefits which apply to the activity of officers, agents, or employees of any public agents or employees of the COUNTY, when performing their respective functions under this AGREEMENT within the territorial limits of the COUNTY shall apply to the same degree and extent to the performance of such functions and duties of such officers, agents, volunteers, or employees outside the territorial limits of the COUNTY.
- k. Legal Obligations and Responsibilities. Non-Delegation of Constitutional or Statutory Duties. This AGREEMENT is not intended to, nor shall it be construed as, relieving any participating entity from any obligation or responsibility imposed upon the entity by law except to the extent of actual and timely performance thereof by any participating entity, in which case the performance may be offered in satisfaction of the obligation or responsibility. Further, this AGREEMENT is not intended to, nor shall it be construed as, authorizing the delegation of the constitutional or statutory duties of the COUNTY, except to the extent permitted by the Florida constitution, state statute and case law.
- I. Non-Reliance by Non-Parties. No person or entity shall be entitled to rely upon the terms, or any of them, of this AGREEMENT to enforce or attempt to enforce any third-party claim or entitlement to or benefit of any service or program contemplated hereunder, and the COUNTY and UNIVERSITY agree that neither the COUNTY nor the UNIVERSITY or any agent, officer or employee of either shall have the authority to inform, counsel, or otherwise indicate that any particular individual or group of individuals, entity or entities, have entitlements or benefits under this AGREEMENT separate and apart, inferior to or superior to the community in general or for the purposes contemplated in this AGREEMENT.
- m. No Personal Liability. No covenant or agreement contained herein shall be deemed to be a covenant or agreement of any member, officer, agent or employee of the COUNTY in his or her individual capacity, and no member, officer, agent or employee of the COUNTY shall be liable personally on this AGREEMENT or be subject to any personal liability or accountability by reason of the execution of this AGREEMENT.

- n. Execution in Counterparts. This AGREEMENT may be executed in any number of counterparts, each of which shall be regarded as an original, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this AGREEMENT by signing any such counterpart.
- o. Section Headings. Section headings have been inserted in this AGREEMENT as a matter of convenience of reference only, and it is agreed that such section heading are not a part of this AGREEMENT and will not be used in the interpretation of any provision of this AGREEMENT.

10. NOTICES

Any notice, request, demand, consent approval or other communication required or permitted by this AGREEMENT shall be given or made in writing and shall be served (as elected by the party giving such notice) by one of the following methods: a) hand delivery to the other party; b) delivery by commercial overnight courier service; or c) mailed by registered or certified mail (postage prepaid), return receipt requested. For the purposes of notice the addresses are:

To County:

St. Johns COUNTY County Administration 500 San Sebastian View St. Augustine, FL 32084 To University:

UNIVERSITY OF FLORIDA
Division of Sponsored Research
219 Grinter Hall, PO Box 115500
Gainesville, FL 32611-5500

And copied to

UNIVERSITY OF FLORIDA
IFAS Extension Administration
1062 McCarty Hall D, PO Box 110220
Gainesville, FL 32611-0220

This AGREEMENT is executed by the parties.

FOR COUNTY:

6/19/14 DATE

ATTEST: Clerk of Court

Deputy Clerk

APPROVED AS TO FORM:

County Attorney office

6 /19/14

FOR THE UNIVERSITY:

University of Florida

Brian C. Miller

Assistant Director of Research

Exhibits:

A: Salary and Benefits of Extension Faculty

Leon County Board of County Commissioners

Notes for Agenda Item #4

Leon County Board of County Commissioners

Cover Sheet for Agenda #4

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Approval of Payment of Bills and Vouchers Submitted for

June 9, 2015 and Pre-Approval of Payment of Bills and Vouchers for the

Period of June 10 through June 22, 2015

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/Division Review:	Alan Rosenzweig, Deputy County Administrator
Lead Staff/ Project Team:	Scott Ross, Director, Office of Financial Stewardship

Fiscal Impact:

This item has a fiscal impact. All funds authorized for the issuance of these checks have been budgeted.

Staff Recommendation:

Option #1: Approve the payment of bills and vouchers submitted for June 9, 2015, and preapprove the payment of bills and vouchers for the period of June 10 through June 22, 2015.

Title: Approval of Payment of Bills and Vouchers Submitted for June 9, 2015and Pre-Approval of Payment of Bills and Vouchers for the Period of June 10 through June 22, 2015

June 9, 2015

Page 2

Report and Discussion

This agenda item requests Board approval of the payment of bills and vouchers submitted for approval June 9, 2015 and pre-approval of payment of bills and vouchers for the period of June 10 through June 22, 2015. The Office of Financial Stewardship/Management and Budget (OMB) reviews the bills and vouchers printout, submitted for approval during the June 9, 2015 meeting, the morning of Monday, June 8, 2015. If for any reason, any of these bills are not recommended for approval, OMB will notify the Board.

Due to the Board not holding a regular meeting the third Tuesday in June, it is advisable for the Board to pre-approve payment of the County's bills for June 10 through June 22, 2015, so that vendors and service providers will not experience hardship because of delays in payment. The OMB office will continue to review the printouts prior to payment and if for any reason questions payment, then payment will be withheld until an inquiry is made and satisfied, or until the next scheduled Board meeting. Copies of the bills/vouchers printout will be available in OMB for review.

Options:

- 1. Approve the payment of bills and vouchers submitted for June 9, 2015, and pre-approve the payment of bills and vouchers for the period of June 10 through June 22, 2015.
- 2. Do not approve the payment of bills and vouchers submitted for June 9, 2015, and do not pre-approve June 10 through June 22, 2015.
- 3. Board direction.

Recommendation:

Option #1.

VSL/AR/SR/cc

Leon County Board of County Commissioners

Notes for Agenda Item #5

Leon County Board of County Commissioners

Cover Sheet for Agenda #5

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Approval of the Fallschase Village Center Building and Site Design

Guidelines and Standards Manual

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator David McDevitt, Director, Department of Development Support and Environmental Management Ryan Culpepper, Director, Development Services Division
Lead Staff/ Project Team:	Scott Brockmeier, Development Services Administrator David McDevitt, Director, Department of Development Support and Environmental Management

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Approve the Fallschase Village Center Building and Site Design Guidelines and

Standards Manual (Attachment #1).

Title: Approval of the Fallschase Village Center Building and Site Design Guidelines and

Standards Manual

June 9, 2015 Page 2

Report and Discussion

Background:

On December 12, 2005, Leon County and AIG Baker entered into a Chapter 163 (Florida Statutes) Development Agreement, which was recorded in the Public Records of Leon County as Official Record Book 3420, Page 2132 - Fallschase DRI Development Agreement ("Agreement"). The Agreement includes a number of development entitlements, such as 750,000 square feet of commercial/retail use, 1,514 dwelling units, and 35,000 square feet of office use. The entitlements were in exchange for a number of commitments from AIG Baker, including donation of 200 acres located along the north side of Upper Lake Lafayette, dedication of a one acre tract of land for public use, as well as several transportation-related improvements and dedications at Buck Lake Road, Mahan Drive and Weems Road. The Agreement also includes several Exhibits, one of which contains an additional agreement with the Buck Lake and Weems neighborhoods (Buck Lake – Fallschase Agreement or "BLA Agreement").

The Agreement required establishment of a Planned Unit Development (PUD) district and concept plan, which were later approved in 2006 (Ordinance No.: 06-02). Since 2006, several development applications have been approved, and the following buildings have been constructed in the Commercial Mixed-Use District of the PUD: Costco, Wal-Mart, Bass Pro Shops (formerly Sportsman's Warehouse), Retail "C" (currently under construction) and a McDonald's. As of the date of this report, approximately 478,840 square feet of commercial/retail development has been constructed within the PUD. All of the entitlements for residential and office development remain available.

In 2007, AIG Baker received site plan approval from the Development Review Committee (DRC) for a mixed-use, pedestrian-oriented development proposal within the "Village Center." However, not long after the site plan was approved, the economy fell into a recession and the plans eventually expired. Eventually, ownership of the property changed and the undeveloped commercial property within the Village Center sat dormant for several years.

In 2013, Lormax Stern, representing the new owner of the undeveloped commercial properties (CPP Fallschase II, LLC and CPP Fallschase II SPE, LLC), approached the County with plans to subdivide the Village Center. It was during this time, that Lormax Stern, as the applicant, was made aware of design requirements for the Village Center included within the Agreement and PUD.

The PUD (Section 6-10) establishes that the developer and the County will cooperate to fashion architectural design standards, which govern non-residential and multi-family development in the PUD (Attachment #2). In 2006, AIG Baker received approval of the *Fallschase Design Review Guidelines* (Attachment #3). The 2006 Design Review Guidelines is a document that was intended to capture the agreements reached between AIG Baker, the Buck Lake Alliance (BLA), and Leon County; however, given the initial developer was no longer involved, and the fact that there were significant changes in the market and economy since 2006, it was evident there would need to be a new vision for the Village Center. While reviewing the Fallschase Village Commercial Retail "A" and "B" Site and Development Plans at their meeting on October 1, 2014, the Development Review Committee (DRC) required the developer to work with representatives of the BLA and County Staff to develop a design manual specifically for the Village Center.

Title: Approval of the Fallschase Village Center Building and Site Design Guidelines and Standards Manual

June 9, 2015

Page 3

Analysis:

Through numerous meetings and significant negotiation, the developer, the BLA and County Staff have agreed upon a new manual for the Village Center – the "Fallschase Village Center Building and Site Design Guidelines and Standards Manual" (Attachment #3). This manual will supplement the 2006 Design Review Guidelines with respect to the Village Center and will ensure overall architectural harmony and unification of future buildings throughout the entire commercial component of Fallschase. It also establishes two distinct districts within the Village Center (Village Center and Village District), as well as gateways into the development that will serve to provide increased architectural treatment and scale. The 2006 Design Review Guidelines will continue to apply to the area of the commercial component of Fallschase outside the Village Center. On May 20, 2015, the DRC reviewed the final version, and recommended Board approval of the Fallschase Village Center Building and Site Design Guidelines and Standards Manual.

Options:

- 1. Approve the Fallschase Village Center Building and Site Design Guidelines and Standards Manual (Attachment #1).
- 2. Do not approve the Fallschase Village Center Building and Site Design Guidelines and Standards Manual.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Fallschase Village Center Building and Site Design Guidelines Manual
- 2. Section 6-10 of the Fallschase PUD Architectural Design Standards
- 3. Fallschase Design Review Guidelines dated May 22, 2006

VL/AR/DM/RC/SB

FALLSCHASE VILLAGE CENTER

BUILDING AND SITE DESIGN GUIDELINES AND STANDARDS MANUAL

LEON COUNTY, FLORIDA

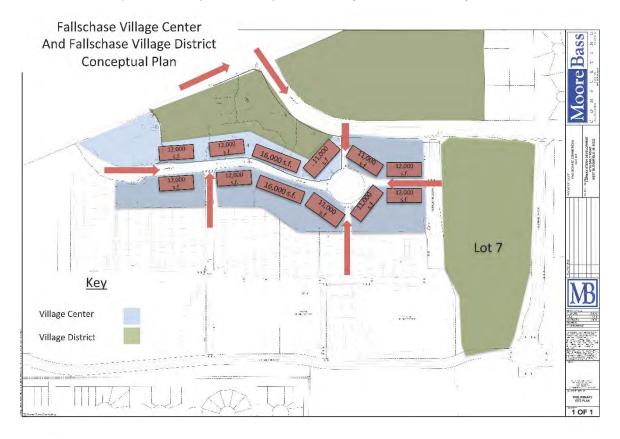


FALLSCHASE VILLAGE CENTER

The *Village Center* is the area located adjacent to Lagniappe Way highlighted in blue on the map below. The *Village Center* will contain pedestrian-oriented development wherein buildings and their primary facades (and entries) are located adjacent to Lagniappe Way, forming a street wall.

The *Village District* includes all other areas designated Fallschase Commercial/Mixed-Use within the Fallschase Planned Unit Development that are located outside of the *Village Center* with the exception of the large retail stores north of Acadian Boulevard. The *Village District* is highlighted in green on the map below and specifically includes the 13-acre parcel as shown on it. Development within the *Village District* is intended to compliment the architectural design of *Village Center* buildings and be consistent and support the goals of the *Village Center* as noted herein.

The Fallschase Village Center and Fallschase Village District Conceptual Plan below (the "Conceptual Plan") is intended to be a visual representation of the Village Center and Village District and shall not be used to determine final location or size of buildings or the location of supporting infrastructure. The red arrows on the Conceptual Plan depict Gateways to the Village Center and Village District.



Pursuant to the Buck Lake-Fallschase Agreement, buildings for single owners/tenants shall not exceed 10,000 square feet, with the exception of one additional single owner/tenant store not to exceed 25,000 square feet.

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Attachments

- 1. Leon County Ordinance No. 06-02, Fallschase PUD Rezoning Approval
- 2. Buck Lake Fallschase Agreement
- 3. Fallschase Design Review Guidelines (May 22, 2006)
- 4. University of Florida IFAS Extension Report
- 5. Perimeter Landscape Plan
- 6. Fallschase Tree Inventory

BACKGROUND AND GOALS

Fallschase is a mixed-use (residential and nonresidential) development of regional impact ("DRI") in Leon County, Florida, that was approved in 1974 pursuant to Section 163.3167(8), Florida Statutes.

The development of Fallschase is governed by, among other things, (a) the Fallschase DRI Development Agreement dated December 12, 2005, recorded in Official Records Book 3420, at Page 2132 of the Public Records of Leon County, Florida (the "Development Agreement") and (b) Leon County Ordinance No.: 06-02 adopted on January 31, 2006, recorded in Official Records Book 3453, at Page 1074 of the Public Records of Leon County, Florida (Attachment # 1), which approved the rezoning of Fallschase to the zoning category Planned Unit Development (the 202-page "PUD Concept Plan" approved by Leon County pursuant to the Ordinance is hereinafter referred to as the "PUD"). In addition to the rights of its members as citizens interested in the development of Fallschase, the neighborhood association Buck Lake Alliance, Inc., a Florida corporation (the "BLA"), has certain contractual rights related to the development of Fallschase which are reflected in the Buck Lake-Fallschase Agreement (the "BLA Agreement") dated November 28, 2005. A copy of the BLA Agreement is attached to the Fallschase DRI Development Agreement as Exhibit "H" and is made a part of it pursuant to paragraph 21 of the Development Agreement. A copy of the BLA Agreement is attached hereto as Attachment # 2.

The Village Center and Village District are areas within the commercial component of the Fallschase DRI. The ultimate design goal for the Village Center and the Village District is to create a sense of place within the commercial component of the Fallschase DRI that is attractive, functional and includes a mixture of pedestrian-scale uses with unified architectural themes and integrated site design. The guidelines and standards contained herein (hereinafter referred to as this "Manual") are intended to enhance compatibility with land uses within the Fallschase DRI as well as with nearby residential neighborhoods, and to encourage pedestrian activity within the development and facilitate transit accessibility.

The guidelines and standards outlined in this Manual are intended to promote a framework for architectural and site design that applies to the Village Center and Village District. Site design within the Village Center and Village District will focus primarily on the creation of public space (street and store frontages) and human-scale design that encourages people to walk, shop, linger and enjoy the village atmosphere. This Manual is intended to: (a) establish a single architectural theme for the Village Center, so that there is consistency in architectural scheme, materials and colors for the Village Center; (b) provide a complimentary design approach to the Village Center architecture in the Village District so that there is continuity, symmetry and balance; (c) encourage creative solutions consistent with a single architectural theme to enhance the design of future buildings within the Village Center and Village District to promote livability within Fallschase; and (d) create a desirable destination which is designed in a manner that promotes pedestrian mobility. The information contained in this Manual is neither intended to be a commitment to one particular building design on the part of any developer within the Village Center and Village District, nor is intended to imply the necessity for redundant or ordinary architecture or a specific requirement for two-story buildings. However, the architecture created will establish an architectural theme for the Village Center and the Village Center District so that there is continuity, symmetry and balance in all buildings and comply with the guidelines and standards in this Manual.

Fallschase Village Center Building and Site Design Guidelines and Standards - 2015

The Development Agreement, as well as page 6-10 of the PUD, provides that the Developer and the County cooperate to fashion "architectural design standards prior to the approval of any site or development plan based on the Development Agreement and attached exhibits." The design standards used by Leon County for the commercial component of *Fallschase* - outside the *Village Center* - has been the *Fallschase Design Review Guidelines* dated May 22, 2006 (the "2006 Guidelines"- **Attachment #3**).

The current owner (the "Owner") of the property comprising the *Village Center* (which is the successor in title to the developer identified in the Development Agreement) desires to complete the development of the *Village Center* and *Village District* and construct buildings and other improvements. This Manual will supplement the 2006 Guidelines with respect to the *Village Center and Village District*, will be the document contemplated by Section 6-10 of the PUD, and will insure overall architectural harmony and unification of future and existing buildings throughout the entire commercial component of *Fallschase*. To the extent that any provision of this Manual conflicts with, or creates an ambiguity when compared to the 2006 Guidelines, the terms and provisions of this Manual shall control and prevail. The 2006 Guidelines will continue to apply to the area of the commercial component of *Fallschase* outside the *Village Center and Village District*.

All applicants for development approval within the *Village Center* shall submit illustrative documentation to confirm and demonstrate compliance with these guidelines and standards at the time of site and development plan and building plan review. As used herein, the term "shall" or "will" indicates a mandatory standard; the terms "should" and "may" indicate permissive opportunities or guidelines and should not be construed as mandatory requirements.

Nothing in this Manual is intended to expand or diminish the rights and obligations of the parties under the BLA Agreement including, but not limited to, the Section A.2 references to the AIG Patton Creek Center.

This Manual was approved by the Development Review Committee of Leon County, Florida, on May _____, 2015. Any subsequent changes to the Manual or the 2006 Guidelines shall be approved by the Leon County Board of County Commissioners.



Example of a Gateway

SECTION I. BUILDING ORIENTATION

The public realm is an area within the *Village Center* that is generally located between the street curb face to the back of the sidewalk. This area generally includes sidewalks, street trees, benches, bicycle racks, planters and public spaces. The private realm is generally the area between the primary building facade and the back of the sidewalk. The private realm includes shop fronts, entries, outdoor seating, awnings, signage, arcades and porticos. The connection of the public and private realms plays an important role in creating a sense of place and enhancing the pedestrian experience. Additionally, the *Village District* buildings and the patrons visiting those establishments shall have "walkable" access to the *Village Center* buildings in a "pedestrian-friendly" manner.

Building orientation within the *Village Center* shall be amenable to walking, reinforcing the connection between the public and private realms and creating opportunities for window shopping, outdoor seating and community interaction. Buildings shall be used to create a "street wall" along Lagniappe Way that provides pedestrians a safe and comfortable atmosphere. Buildings along Lagniappe Way shall be positioned close to the front property line and should occupy a major portion of the width of the lot, with the exception of breaks necessary for driveways or pedestrian ways that lead to parking and service areas. Buildings shall be located so they can be safely and conveniently accessed from adjacent and surrounding areas.

1. Corner parcels

Buildings and properties fronting a street corner in the *Village Center* shall recognize the opportunity to draw interest from passersby and thereby provide the highest visual interest and architectural treatments visible from the *Village Center*. Buildings located on a corner parcel that include frontage along Lagniappe Way shall be oriented so that both frontages and facades are given equal design consideration. The facades facing the two street frontages shall employ the same architectural features and visual interest.

a. Gateways

Buildings located at entrances to the Village Center, as depicted with red arrows on the Conceptual Plan, shall be considered gateways designed with increased articulation architectural treatment. Also, buildings located adjacent to Mahan Drive or Buck Lake Road shall be considered gateway buildings to the Buck Lake and Fallschase Communities and shall be designed with increased articulation and architectural treatment. It is understood that these buildings may be single owner, national chain type buildings, but their architectural design shall compliment Village Center buildings. Gateway locations are included on the Conceptual Plan.



Do This: A building with desirable treatments along each frontage. Parking is located to the rear and is also available on-street. Image source: Google Earth



Don't Do This: A building that is positioned so that the rear is facing the main entry or gateway to the development. This approach is not inviting to pedestrians.

b. **Building entries**

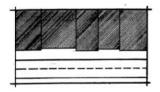
The primary facade and entry of buildings within the *Village Center* shall face Lagniappe Way. For buildings that front Lagniappe Way, at least one entry way shall be adjacent to the Lagniappe Way sidewalk frontage. Entrances from parking areas are encouraged and are considered a secondary access. Multiple entries are permissible and encouraged but not required.

2. 'Build-to' Lines

Buildings fronting Lagniappe Way shall be established so that little or no separation between the frontage sidewalk and the building exists. It is anticipated that stores may increase the width of sidewalks and thus the depth of the building setback. Some areas may be slightly adjusted to accommodate courtyards, plazas or outdoor dining areas. Illustration "a" is preferred below.

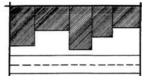


clearly



a.





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Do This: A building that is located up to the sidewalk is most effective in defining public space and is inviting to pedestrians.

SECTION II. BUILDING SCALE, MASSING AND FACADE TREATMENT

Architectural features and patterns provide visual interest. Building facades shall be designed to reduce the mass, scale, and uniform monolithic appearance of large, unadorned walls. Buildings shall include architectural features and details that provide visual interest for the pedestrian.

Visual interest shall be accomplished by varying the building's mass in height and width so it appears divided into smaller, distinct massing elements with architectural details visible at a pedestrian scale. Large, unadorned walls or uniform monolithic facades shall be avoided. Pedestrian-scale facade treatments such as canopies, overhangs, arcades, gabled entryways, and porticos can play an important role in developing a sense of place.

1. Scale

Limiting the footprint size for individual tenants within the Village Center is important for insuring development on a pedestrian-scale. Within the Village Center, the Development Agreement limits buildings for single-owners/tenants to 10,000 square feet. One additional single-owner/tenant building not to exceed 25,000 square feet is allowed in the SW quadrant of the intersection of Mahan Drive and Buck Lake Road and a "theatre size building" specifically approved by the DRC for a

movie theatre in the Village District. For additional details refer to the BLA Agreement included as Attachment #2.

2. Building Mass and Roof Lines

Massing shall reinforce pedestrian ways, articulate entries and relate to the size and shape of adjoining buildings the contrast of larger buildings next to smaller buildings shall be avoided. Design of buildings shall include a complimentary transition in scale, form and height from adjacent buildings.

Roof lines shall be varied in height and mass to increase visual interest. Lengthy roofs with some transition, but appearing to be flat shall not be used within the Village Center or Village District.

3. Facades and Defining Elements

Building facades shall be designed to reduce the mass, scale and monolithic appearance of large, unadorned walls. Facades shall include plane projections or recesses to break uninterrupted lengths. Asymmetrical and contrasting horizontal and vertical geometries shall be used. As previously mentioned, vertical elements, including towers and parapets are important for creating Gateways.



and scale with varying changes in roof height that is not subtle.



Don't do this: Blank, monolithic walls and a flat roof along a pedestrian frontage that does not have windows, doors, or other pedestrian-scale treatments.

a. Defining the Public Realm

Facades that face primary street frontages shall incorporate design treatments such as arcades, display windows, entry areas, structural bays, awnings, or other similar features that occur along at least 60 percent of the primary facade. Secondary facades, such as those that are located on a corner parcel, shall employ the same treatments.

With respect to buildings occupied by a single occupant and having a street frontage greater than fifty feet, doors or entrances providing public access shall be provided at intervals of no greater than fifty feet.

b. Storefronts

Storefront windows shall be framed to help break up a solid glass appearance. Kick-plates, as well as framing around storefront doors will help accomplish this objective. However, there shall be a combination of materials used for storefronts rather than using an all glass and aluminum framing approach.

Fallschase Village Center Building and Site Design Guidelines and Standards - 2015

Storefronts on corner lots in the *Village Center* shall be designed to address each frontage with distinction in mass, architectural elements, changes in shapes/planes and building materials. Entries at corner lots will be used to create contrast and visual interest.

c. Fenestration

Windows are important because they offer human scale to buildings. Windows engage pedestrians by connecting the interiors of storefronts and shops with the public and private realms. The following shall apply to fenestration in the *Village Center* and *Village District*:

I. <u>Placement</u> – It is important that primary building facades incorporate windows that help support the creation of the public realm. Stores shall utilize transparent windows along the primary frontage. The use of faux windows shall be prohibited along the ground level for the primary

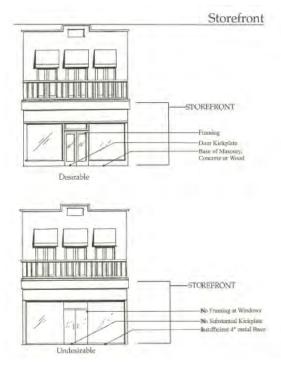


Illustration Credit: City of Winter Park – CBD Facade Design Guidelines

customer entrance to the building. Placement of windows on the building facade shall be at a location and scale appropriate for the pedestrian environment and the overall building design.

- II. <u>Recessed</u> Windows shall not be flush with the exterior wall surface or plane. Windows should be recessed at least three inches. Use of wainscoting and reveals can be used to enhance the perceived depth of windows.
- III. <u>Grouping</u> windows shall be grouped across the primary facades of buildings to help establish continuity, thus avoiding blank walls.

Except for building materials and colors, the following is a picture of buildings as an example that complies with the intent of the architectural requirements of this Manual and potential non-Gateway buildings for the *Village Center*. The intent of this pictures is to assure that the Owner, the County and the BLA are interpreting the provisions of this Manual in a similar way. Future buildings may vary from these pictures so long as the buildings continue to meet all the requirements of this Manual.



SECTION III. PARKING

1. Arrangement and Location

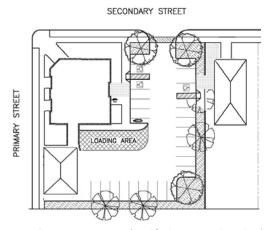
Priority within the Village Center and Village District is given to the pedestrian and bicyclist. However, many visitors will arrive by vehicle. Off-street parking areas shall be located in a way that does not compromise the continuity of the Village Center and Village District buildings or pedestrian corridors. Parking shall not be located in mass, but shall be disbursed throughout the Village Center and Village District. Parking shall be located behind the rear of buildings within the Village Center. Article IV, Section 10-4.308 of the Land Development Code pertaining to Low Impact Development shall apply.

- a. Along Lagniappe Way, off-street parking areas shall be provided to the rear of structures.
- b. Within the Village Center limited on-street parking may be provided to increase pedestrian safety and as a method of traffic calming. The location, design and configuration of on-street parking shall be approved by the County Engineer and the Tallahassee Fire Department.
- c. Parking lots shall be designed with shared access points in an effort to reduce curb cuts.

2. Shared Parking

Shared parking is envisioned as a necessity within the Village Center and Village District so as to avoid an excess amount of parking. The Village Center has the benefit of being within close proximity of large amounts of existing parking developed as part of the large retail store areas to the south (Wal-Mart, Costco, Bass Pro, etc.).

a. It is anticipated that overflow parking needs of the Village Center and Village District will be accommodated by the large retail parking areas to the south of the Village Center but not in such a manner that would violate existing (i.e. as of May 1, 2015) recorded covenants, restrictions, easements.



Credit: Ventura, CA (modified using Photoshop): Illustration shows a shared parking arrangement. Limited access to the primary street helps create a "street wall."

b. Parking for uses within the Village Center and Village District shall be limited to providing the actual number of spaces for the proposed land use as established in Article VII, Division 5 of the Land Development Code. At the time of site plan review, feasibility of shared parking arrangements between adjacent and nearby uses shall be explored and applied where possible.

3. Access

Accessways to parking lots from Lagniappe Way shall be limited to the minimum number that is necessary in an effort to reduce the number and width of curb cuts. Adjacent parking lots shall be interconnected whenever possible.

a. Parking areas shall clearly delineate pedestrian routes and incorporate multiple connections to adjacent sites and uses.

b. Interconnected parking lots and pedestrian ways shall be utilized to reduce the need for curb cuts to Lagniappe Way.

4. Bicycle Parking

In addition to the walkable design of the *Village Center*, bicycle racks encourage short trips and errands from visitors of nearby neighborhoods. Bicycle racks shall be located towards the front of sites which allows bicyclists quick and efficient access to shops within the *Village Center* and *Village District*. The style of bicycle rack shall be consistent throughout the *Village Center* and *Village District*.



SECTION IV. LOCATION AND SCREENING OF SERVICE AREAS AND EQUIPMENT

1. Location

Loading and service areas shall be located to the rear, side or an interior location where visibility from public streets and windows of neighboring buildings will be minimized to the greatest extent practical.

2. <u>Screening of Outdoor Service Areas</u>

The visibility of loading zones, trash collection areas, refuse bins (dumpsters) and mechanical equipment shall be mitigated by the use of screening materials appropriate for the *Village Center* and *Village District*.

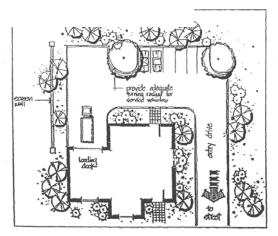
- a. Masonry walls of no less than six feet in height shall be used to enclose dumpsters. These enclosures shall be constructed from building materials (and colors) used for the primary building facade.
- b. Service areas shall be screened with evergreen landscape materials that are of sufficient height and opacity (at maturity) to reasonably reduce visibility from nearby streets and residential areas. Native plant materials shall be the predominant plant material used for screening.
- c. Service gates to any enclosed service area shall be constructed of metal or a similar durable non-wood material. The use of chain link fencing or metal slats is not permissible.

3. Screening of Rooftop Mechanical Equipment

Rooftop mechanical equipment such as air conditioners and ventilating equipment shall be screened with materials that match the building components or a screened parapet wall that surrounds the equipment so that it is not visible from public view.



public view will ? same as those



nnd

SECTION V. BUILDING MATERIALS

Building materials are important in providing an attractive environment that blends harmoniously into the Buck Lake community while complementing the existing commercial portions of Fallschase. Brick shall be the predominant material (i.e., at least 51%) used on the building facades. Stone may be used up to 25% of a building façade. Other complimentary materials such as wood or fiber cement siding, as well as other high quality or man-made materials, such as stucco, EIFS (Exterior Insulation and Finish System) may be used but shall be limited to 15% of a facade. Use of textured concrete materials shall only be appropriate for use within the secondary facade service areas and shall be limited to 20% of the vertical surface of the service area wall or structure enclosure. Roof tops which are visible from Lagniappe Way shall be metal standing seam, architectural grade asphalt shingles, or tile. Site plans and building plans shall incorporate architectural treatments and landscaping that mitigate visibility of flat roofs and rooftop equipment within the Village Center and the Village District.

1. Building Materials Review

- a. Applications for site plan review shall include colorized elevation drawings with material and color samples. This information shall be supplied by digital and hard copies to the Buck Lake Alliance Community Committee for its preliminary review and comment at least seven (7) days prior to filing the application and information with Leon County.
- b. At the time of site plan review, the Leon County Development Review Committee shall be the entity that has the final authority to approve the colorized elevation drawings and proposed building materials subsequent to demonstration, by the applicant, of compliance with these guidelines.

2. Buildings in the Village District

Buildings located within the Village District shall use the same building materials and colors used within the Village Center or those which have been determined to be complimentary, thus achieving a unified architectural theme. As noted, buildings near Mahan Drive and Buck Lake Road are very important buildings since they serve as the gateway to the Buck Lake and Fallschase Communities. These buildings should receive heightened architectural treatment and shall be complimentary with the architectural style of *Village Center* buildings.

3. Building Materials and Paint Colors

The following are building materials and colors utilized in the construction of the retail stores south of Lagniappe Way and shall be incorporated into the design of buildings within the Village Center and Village District for a unified theme. Other complimentary materials and colors, predominantly earthtone, may be utilized, but shall be approved by the Leon County Development Review Committee. The examples provided below are not intended to limit the materials available for use, but rather to depict acceptable "earthtone" principle colors.







"Chardonnay Country Ledgestone" by Owens Corning



Benjamin Moore Ashwood

- 4. Architectural features within the Village Center and Village District, unless otherwise noted, shall
 - Varying building heights and building massing
 - A themed variety of building facade styles
 - Uniform facade depths along the primary and secondary street frontages
 - Low angle pitch standing seam metal hip roofs and gabled roofs
 - Varied parapet roof lines

include:

- Decorative stone and brick vertical accents
- Limited use of stucco accent panels and borders (i.e. EIFS Exterior Insulated Finish System)
- Roof caps and cornices
- Shielded roof top equipment
- A variety of complimentary and natural earth-tone colors
- Pergolas, gazebos or similar accessory structures that are complimentary to the development of the Village Center (not required in the Village District).

SECTION VI. LIGHTING

Page 6-13 of the PUD emphasizes lighting that is 'Dark-Sky friendly,' which reduces the amount of light leaving the site and spilling over onto adjacent properties. Lighting fixtures shall be designed to be compatible with a high-volume pedestrian environment.

- 1. Dark-Sky Friendly
 - a. Lighting for all buildings constructed after the approval of this Manual shall be designed to
 minimize night-sky light pollution, and to prevent direct illumination of any off-site properties.
 All exterior lighting used in parking areas shall be "fully shielded" with recessed bulbs and filters
 which conceal the source of illumination.
 - b. <u>Prohibited fixtures</u> "Shoebox" style lighting is not appropriate within the *Village Center* or *Village District*. Fixtures that do not recess the source of illumination are not acceptable for use within the *Village Center* and *Village District*.

- c. Light levels Light levels at the property line should not exceed 0.1 footcandles when adjacent to off-site non-residential development and not more than 0.05 footcandles at residential property boundaries.
- d. Fixtures Lighting fixtures shall use a reflector system that allows for efficient distribution of light and reduction of glare. The use of recessed light fixtures and fully-shielded luminaires shall be required to minimize off-site lighting impacts. No wall or roof-mounted flood lights or spot lights used as general grounds lighting are permitted.







The above pictures are examples of light fixtures with recessed bulbs that are fully shielded within the housing and are permitted (Colors to be selected).

2. Lighting Height

The maximum height of light poles within parking areas shall be limited to 20 feet (as measured from finished grade to the top of the pole or fixture). As a general rule of thumb, parking lot light poles should be spaced to provide adequate illumination of the parking lot in conformance with these standards.

3. Walkway Lighting

Walkway lighting within the Village Center and Village District shall be provided at a scale that is appropriate for the pedestrian. Lighting for pedestrian walkways shall be limited to a height of 15 feet (as measured from grade to the top of the pole or fixture). As a general rule of thumb, walkway lighting fixtures should be spaced approximately 30 feet apart.

4. Lighting for Wall Signage

To reduce glare, wall signs within the Village Center and Village District shall only be externally illuminated with downward directed lighting that is mounted above the sign.

Fallschase Village Center Building and Site Design Guidelines and Standards - 2015

SECTION VII. PUBLIC SPACE

Public spaces shall be incorporated as part of the Village Center. Public spaces will help create a sense of place and should serve additional functions within the development (e.g. bio-retention stormwater facility, gathering space for special events, outdoor eating areas, etc.).

Public spaces and landscape areas shall provide visual connection between adjacent sites and all Village Center buildings, by creating unobstructed views and applying the use of complementary elements found within the Village Center (i.e. walkways, shade, hardscape materials, and lighting). A narrative describing how public spaces will be addressed shall be provided for each proposed site plan application within the Village Center.



Do this: Open space that offers comfortable seating and shade.

Pedestrian connections between the Village District and the Village Center shall incorporate landscaping, shade trees, and benches similar to what are shown in the above picture. A narrative describing how public space(s) on such pedestrian connections will be addressed shall be provided for each proposed site plan application within the Village District.

SECTION VIII. LANDSCAPING

Landscaping within the Village Center and Village District will comply with the landscape requirements of Section 6 of the PUD and this Manual. The vitality of the Village Center and Village District will depend in large part on the landscaping and its ability to enhance buildings, pedestrian walkways, view scapes and parking areas. Landscaping shall be arranged so that it can be maintained. Landscape materials used within the Village Center and Village District shall conform to the species and other recommendations by the University of Florida IFAS Extension Report dated August 21, 2014 (attachment 4).

1. Perimeter Landscaping ("Beautification Strips" at Mahan Drive and Buck Lake Road)

As of the approval of this Manual, the beautification strips along these roadways are not adequately planted and shall be augmented with native plantings of various heights and species that meet the proposed plantings illustrated with the PUD. These beautification strips are part of the Village Center and Village District landscaping requirements and are crucial to the view scape of the Village Center and Village District. A copy of this plan is attached as attachment 5. This plan must be implemented and completed no later than 120 days from the approval date of this Manual. If not timely completed, no further development orders (including building permits or certificates of occupancy) will be approved within the Village Center or Village District.

2. Street Trees

Applications for development within the Village Center shall include street trees along both sides of the Lagniappe Way frontage with spacing at approximately 40 feet on-center. Exceptions may be necessary for curb cuts, street lighting, underground utilities and other design elements unique to the site. Existing street trees may need to be replanted to ensure their vitality. In situations where trees have been identified as in decline, on the Fallschase Tree Inventory (attachment #6), remedial efforts shall be implemented or in the alternative, replacement plantings shall be installed prior to the issuance of a certificate of occupancy for the first building in the *Village Center* or *Village District*. Regarding the Bass Pro, Costco, McDonald's, and Walmart properties, the Owner shall urge the owners of each such property to address any tree deficiency matters in the same fashion.

3. <u>Supplemental Vegetation</u>

Required landscape buffers should meet opacity requirements [landscape buffers providing a minimum of fifty percent (50%) opacity (at maturity) when viewed from the public right-of-way] and should use a palette of native and naturalized plant species. Major pedestrian corridors should be articulated with trees and shrubs, pergolas, arcades, or other landscape or architectural design elements. Flowers, shrubs, grasses and other vegetation appropriate for an urban environment and the conditions of the site can be utilized in conjunction with the tree well where the street trees are planted. The use of native species shall be required.



Native Blanket Flower is drought tolerant and provides curb appeal in beds. Photo: Floridata.com

4. Landscape Beds

Landscape beds shall be appropriately irrigated and mulched within an area that has sufficient room and growing medium to ensure longevity. Beds shall be planted intermittently along the pedestrian routes within the *Village Center* and *Village District* with native plants and species that are drought tolerant.

5. Plantings to Reduce Erosion

Landscape beds and native groundcovers are preferred over centipede grass. The use of native ground covers shall be planted on slopes or near retaining walls for stabilization or in areas where erosion is likely to occur.

SECTION IX. SIGNS

It is the intent of this section to provide signage that will enhance the pedestrian environment. Wall signs shall be limited to the area established within Article IX of the Leon County Land Development Code. Since the *Village Center* and *Village District* are part of a larger overall shopping center, individual ground signs for stores within the *Village Center* and *Village District* are not permissible and will only be provided on one of the three large shopping center ground signs that are adjacent to US 90 (Mahan Drive). No additional or separate pylon signage shall be constructed on Mahan Drive or Buck Lake Road.

The following standards shall apply to all signs within the Village Center and Village District:

1. <u>Prohibited Signs</u>

Except for those existing on the date this Manual is approved, ground signs of any type are prohibited within the *Village Center* and *Village District*. *Village Center* and *Village District* signage is available on the larger shopping center signs located adjacent to Mahan Drive. The use of digital, flashing, or animated signs (motion) shall not be permissible for use.

2. Wall Signs

Wall signs on buildings within the *Village Center* and *Village District* shall be governed by the Leon County Code, except otherwise provided herein. Each establishment shall be allowed at least one wall sign and establishments having primary facades on two streets shall be allowed a second wall sign (No more than one wall sign per establishment shall be installed on each frontage).

Allowable wall sign surface area for an establishment with a façade facing a street shall be calculated as 1½ square feet of sign surface area for each linear foot of street frontage. The maximum surface area of all wall signs per establishment is 200 square feet (aggregate). Establishments with public access through the rear of the building shall be allowed an additional wall sign at the rear entrance for the purpose of identifying the establishment from the rear parking area. The rear identification sign shall be limited to ten (10) square feet of sign surface area and shall be deducted from the overall wall sign surface area allocated for the establishment.

3. Mounting

Signs shall not be mounted above the cornice or roof line of the building. Sign shall not be mounted on a projecting parapet or above the average height of a roof line for any structure.

4. Blade Signs

In addition to the one wall sign, each establishment is permitted to have one hanging blade sign per sidewalk frontage not to exceed six square feet in area and shall not exceed the width of the canopy. Blade signs are intended to provide perpendicular, pedestrian-scale signage that identifies storefronts at a pedestrian scale. Excessive branding and graphics shall be avoided.

5. <u>Illumination</u>

Wall signs shall be externally illuminated with lighting that is downward directed onto the sign. For example, the "neck-down" lighting used to illuminate the Costco wall sign is deemed appropriate for use within the *Village Center* and *Village District*.

6. Flags

There shall be no outside flags of any type in the *Village Center* or the *Village Center* District that are attached to buildings. Freestanding flag poles that are 20 feet or less in height are permissible in the *Village Center* and *Village District*.



GLOSSARY OF TERMS

Arcade – A series of arches that has intermittent openings which are supported by pillars, columns or piers.

Architectural Features – Building elements that can be functional and ornamental attached to or projecting from exterior walls and surfaces such as, but not limited to: cornices, shingles and roof materials, windows, awnings, galleries, porticos, roofs, eaves, sills, trim, pillars and posts.

Average Peak Demand (Parking) – The time(s) of day in which parking demand is highest.

Awning – A roof-like cover that is made of metal and is designed to serve as protection from the weather and incorporated as a decorative feature that projects from the exterior wall of the building along the pedestrian frontage, over windows and entries.

Blade Sign — Is a type of non-illuminated sign that projects from the wall of a building that is perpendicular to the sidewalk and intended for use under awnings, roofs or other coverings to identify tenant space within the private realm.

Build-to Lines – An alignment establishing a specified distance from the property line (street right-of-way line) along which the building is required to be built.

Cornice – A projecting horizontal decorative molding along the top wall of a building which projects outwards beyond the exterior wall and roof line.

Facade – The exterior elevation of a building. The primary facade is specific to the elevation that fronts the main adjacent street. The secondary façade is specific to the elevation that fronts the parking area when located in the rear of a building.

Gateway – Areas located on or near Mahan Drive and Buck Lake Road and prominent corner parcels within the Fallschase Village Center that are visual symbols through landscaping, building height, scale, and other distinctive building elements. Buildings in these areas will be situated in a manner to address internal development as well as external surroundings. Gateway locations are included on the Conceptual Plan.

Public Space – Gathering areas such as, but not limited to: outdoor dining areas, parks, plazas, squares, pergolas and gazebos which are intended to provide access and use to the public for enjoyment and leisure.

Parapet – A low wall at the edge of a roof or extending beyond the roof line.

Pedestrian Scale – Development that is appropriately sized on a human scale so as to create walkable and comfortable places for people.

Public Realm – The area located between the street curb face to the back of the sidewalk. This area generally includes sidewalks, street trees, benches, bicycle racks, planters and public open spaces.

Private Realm - The area located between the primary building facade and the back of the sidewalk. The private realm includes shop fronts, entries, outdoor seating, awnings, signage, arcades and porticos.

Storefront – The portion of a building that is accessible from the primary building facade.

Shared Parking – A system of parking areas shared by multiple tenants where each tenant may have different peak demand times within a 24-hour period thus allowing for spaces to be shared.

Village Center – As defined on page 1 of this Manual.

Village District –As defined on page 1 of this Manual.

Wainscoting – Decorative paneling, usually wood, that often serves as a decorative covering or finish for the lower portion of a wall.

LEON COUNTY ORDINANCE NO. 06 - 02

AN ORDINANCE AMENDING LEON COUNTY ORDINANCE NO. 92-11 TO PROVIDE FOR A CHANGE IN ZONE CLASSIFICATION FROM R-3 SINGLE-FAMILY DETACHED, ATTACHED TWO-FAMILY RESIDENTIAL TO M-1 LIGHT INDUSTRIAL IN LEON COUNTY, FLORIDA; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA:

SECTION 1. The Official Zoning Map as adopted in Leon County Ordinance No. 92-11 is hereby amended as it pertains to the real property subject to the "Fallschase DRI Development Agreement" executed between Leon County and AIG-Baker Tallahassee, LLC on December 12, 2005, described as follows:

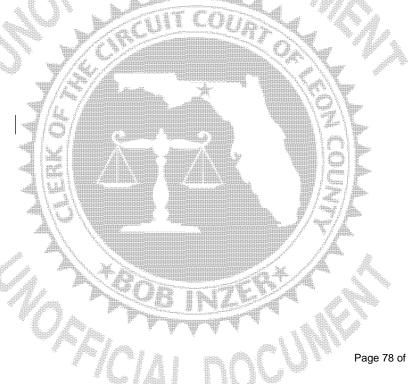
RZ-510: From the R-2 single family detached residential zoning district and the R-3 single family detached, attached two family residential zoning district to the PUD23 district; and to amend the existing PUD concept plan that applies to the entire PUD23 Fallschase Planned Unit Development zoning district as thus amended.

See Exhibit "A," attached hereto and incorporated herein, containing the legal description and a map Exhibit "B" of the real property.

SECTION 2. The Fallschase Planned Unit Development Concept Plan is amended to comply with and implement the "Fallschase DRI Development Agreement" executed between Leon County and AIG-Baker Tallahassee, LLC on December 12, 2005 subject to the following conditions:

See Exhibit "C", attached hereto and incorporated herein. on page 11

SECTION 3. The application of the owners of the property described in Section 1 for amendment to the existing Fallschase PUD zoning district is hereby granted and approved, and the Leon County Code of Laws is hereby amended to incorporate the Plan of Development filed



with said application, as amended herein, and each and every part thereof, as if set forth herein at length. The said Plan of Development and all papers, and documents constituting a part thereof being on file in the office of the Tallahassee-Leon County Planning Department, including those revisions thereto appertaining adopted by the Board of County Commissioners, and such property shall be designated on the Official Zoning Map as PUD.

SECTION 4. All Ordinance or parts of Ordinance in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict, except to the extent of any conflicts with the Tallahassee-Leon County 2010 Comprehensive Plan as amended which provisions shall prevail over any parts of this ordinance which are inconsistent, either in whole or in part, with said Comprehensive Plan.

SECTION 5. If any word, phrase, clause, section or portion of this Ordinance shall be held invalid or unconstitutional by a court of competent jurisdiction, such portion or words shall be deemed a separate and independent provision and such holding shall not affect the validity of the remaining portions of this Ordinance.

SECTION 6. This Ordinance shall become effective as provided by law.

DULY PASSED AND ADOPTED by the Board of County Commissioners of Leon County, Florida, on this <u>Jist</u> day of <u>January</u>, 2006.



LEON COUNTY, FLORIDA

Bill Proctor, Chairman

Board of County Commissioners

ATTEST:

Bob Inzer, Clerk of the Court

Bv:





EXHIBIT "A"

Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

for Fallschase August 16, 2005 Revised November 17, 2005

MBC# 1469.001/05-284

SURVEY DESCRIPTION:

A parcel of land located in Sections 22, 26, and 27, Township 1 North, Range 1 East; Leon County, Florida and described in Official Records Book 2299 page 01776 of the Public Records of Leon County, Florida, more particularly described by recent survey as follows:

BEGIN at a found 8" terra cotta monument marking the Southwest Comer of Section 26, Township 1 North, Range 1 East, Leon County, Florida, and run South 89° 51' 28" West along said South Boundary of said Section 27 a distance of 638.47 feet to a 4 inch by 4 inch concrete monument (#732) marking a point on the Northeasterly right of way boundary of the Seaboard Coast Line Railroad (120' right of way) (O.R. 1076, Pg. 542; P.B. 12, Pg. 83) and a point on a curve concave to the northeasterly; Thence northwesterly along said right of way boundary and said curve with a radius of 1849.86 feet; through a central angle of 10° 05' 54" for an arc distance of 326.04 feet (chord of said arc being North 46° 12' 41" West 325.62 feet) to a 4 inch by 4 inch concrete monument (#732); Thence North 41° 09' 59" West along said right of way boundary 495.05 feet to a 4 inch by 4 inch concrete monument (#732) marking a point of curve to the left; Thence northwesterly along said right of way boundary and said curve with a radius of 1918.24 feet; through a central angle of 09° 29' 19" for an arc distance of 317.68 feet (chord of said arc being North 45° 52' 56" West 317.31 feet) to a 4 inch by 4 inch concrete monument (#732); Thence leaving said Northeasterly right of way boundary run North 00° 29' 59" West along the West boundary of the East half of the East half of said Section 27 a distance of 2957.63 feet to a 4 inch by 4 inch concrete monument (#1254) 149.70 feet South of the Northwest corner of the Southeast Quarter of the Northeast Quarter of said Section 27; Thence leaving said West boundary run South 89° 51' 36" West 678.21 feet to a 4 inch by 4 inch concrete monument (#1254); Thence South 89° 54' 00" West 719.78 feet to a 4 inch by 4 inch concrete monument; Thence run South 89° 51' 29" West 1220.53 feet to a 4 inch by 4 inch concrete monument (#1254) on the easterly right of way boundary of Weems Road (66' right of way) (P.B. 12, Pg. 90); Thence North 00° 16' 34" East along said easterly right of way boundary 149.86 feet to a 4 inch by 4 inch concrete monument (#1254); Thence leaving said East right of way boundary run North 89° 51' 56" East 1217.85 feet to a 1/2 inch pinched pipe; Thence North 00° 05' 23" West 1231.36 feet to a 4 inch by 4 inch concrete monument (#6988), on the southerly right of way boundary of State Road No. 10 (U.S. 90); thence North 67° 19' 30" East along said southerly right of way boundary 127.13 feet to a 4 inch by 4 inch concrete monument (#6988) on the southerly right of way boundary of Old Buck Lake Road; Thence run South 89° 58' 46" East along said southerly right of way boundary 1055.25 feet to a 4 inch by 4 inch concrete monument (#1254) marking a point of a non tangent curve to the left; Thence northeasterly, easterly and southwesterly along said curve with a radius of 50.00 feet through a central angle of 193° 40' 57" for an arc distance of 169.02 feet (chord of said arc being North 36° 28' 20" West 99.29 feet) to a 4 inch by 4 inch concrete monument (#1254); Thence North 89° 59' 16" West along the northerly right of way boundary of Old Buck Lake Road 805.27 feet to a 4 inch by 4 inch concrete monument (#6988) at the intersection with the southerly right of way boundary of said State Road No. 10; Thence North 67° 31' 35" seconds East along said southerly right of way boundary 119.03 feet to a 4 inch by 4 inch concrete monument (#6988); Thence South 20° 01' 36 " East along said Southerly Right of

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1469.001 – Fallschase Overall Legal Description Page 2 of 4

Way Boundary 3.27 feet to a 4 inch by 4 inch concrete monument (#6988); Thence North 67° 13' 06" East along said southerly right of way boundary 557.72 feet to a 4 inch by 4 inch concrete monument (#6988); Thence run North 22° 41' 46" West along said southerly right of way boundary 3.28 feet to a 4 inch by 4 inch concrete monument (#6988); Thence North 67° 15' 38" East along said southerly right of way boundary 171.10 feet to a 4 inch by 4 inch concrete monument (#6988); Thence South 67° 41' 02" East along the southerly right of way boundary 29.38 feet to a 4 inch by 4 inch concrete monument (#6988); Thence leaving said southerly right of way boundary run South 25° 10' 12" East along the westerly right of way boundary of County Road C-158, Buck Lake Road (right of way width varies) 111.71 feet to a 4 inch by 4 inch concrete monument (#6988) marking a point of curve to the left; Thence southeasterly along said right of way and said curve a with radius of 550.00 feet through a central angle of 54° 36' 38" for an arc distance of 524.22 feet (chord of said arc being South 53° 49' 42" East 504.60 feet) to a 4 inch by 4 inch concrete monument (#1254) on the westerly right of way boundary of Fallschase Boulevard and a curve concave northerly; Thence continuing southeasterly along said southerly right of way boundary of County Road C-158 and said curve with a radius of 550.00 feet through a central angle of 09° 08' 35" for an arc distance of 87.77 feet, (chord of said arc being South 85° 34' 34" East 87.68 feet) to a nail and cap (#732); Thence run North 89° 59' 52" East along said southerly right of way boundary 51.19 feet to a 4 inch by 4 inch concrete monument (#1254) on the Easterly Right of Way boundary of said Fallschase Boulevard; said point also lying on a curve concave southeasterly; Thence northeasterly along said southerly right of way boundary and said curve with a radius of 50.00 feet through a central angle of 36° 48' 14" for an arc distance of 32.12 feet (chord of said curve being North 71° 32' 50" East 31.57 feet) to a 4 inch by 4 inch concrete monument (damaged); Thence South 89° 57' 11" East along said southerly right of way boundary 961.85 feet to a 6 inch by 6 inch concrete monument (DOT) marking a point of curve to the left; Thence easterly along said right of way and said curve with a radius of 5928.56 feet through a central angle of 01° 26' 45" for an arc distance of 149.60 feet (the chord of said arc being North 89° 14' 45" East 149.59 feet) to a half inch iron pipe; Thence leaving said Right of Way boundary run South 00° 33' 52" West along the West boundary of property described in O.R. Book 1076, Page 542 of the Public Records of Leon County, Florida 719.25 feet to a 1/2 inch iron pin; Thence North 87° 27' 22" East along the South boundary of said property 215.59 feet to a ½ inch iron pin; Thence North 00° 01' 55" East along the East boundary of said property 718.24 feet to an iron pin (#5509) on the said south right of way boundary of County Road C-158; Thence North 87° 07' 47" East along said south right of way boundary 268.95 feet to a 6 inch by 6 inch concrete monument (DOT) marking a point of curve to the right; Thence easterly along said right of way boundary and said curve with a radius of 3779.33 feet through a central angle of 08° 25' 31" for an arc distance of 555.74 feet, (chord of said curve being South 88° 28' 10" East 555.24 feet) to a 4 inch by 4 inch concrete monument; Thence leaving said right of way boundary run South 00° 12' 37" East along the westerly boundary of property described in O.R.2280, Pg. 430 of the Public Records of Leon County, Florida 308.33 feet to a 4 inch by 4 inch concrete monument; Thence run North 89° 44' 31" East along the southerly boundary of said property 149.81 feet to a 4 inch by 4 inch concrete monument (#3208); Thence run North 00° 14' 13" West along the easterly boundary of said property 289.83 feet to a 4 inch by 4 inch concrete monument on said south right of way boundary of County Road C-158 marking a curve concave to the southerly; Thence southeasterly along said right of way boundary and said curve with a radius of 3779.33 feet through a central angle of 00° 37' 35" for an arc distance of 41.31 feet, (chord of said arc being South 81° 39' 25" East 41.30 feet) to a nail and cap (#7245); Thence South 81° 28' 03" East along said southerly right of way boundary 626.13 feet to a 4 inch by 4 inch concrete monument; thence leaving said right of way boundary run South 00° 01' 16" West 492.23 feet to a 4 inch by 4 inch concrete monument; Thence run North 89° 28' 38" East 322.86 feet to a 4 inch by 4 inch concrete monument (broken); Thence North 52° 27' 53" East 86.76 feet to a 4 by 4 concrete monument (broken); Thence run North 89° 38' 57" East 225.98 feet to a 4 inch by 4 inch concrete monument on the westerly right of way boundary of Davis Drive (60' right of way) (P.B. 34, Pg. 55); Thence run South 00° 00' 45" West along said Westerly right of way boundary 59.85 feet to a 4 inch by 4 inch concrete monument;



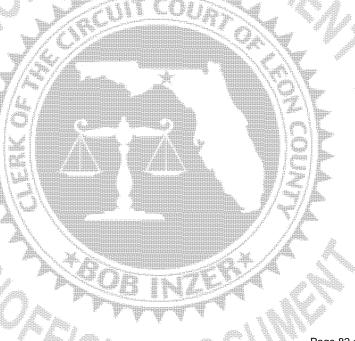
1469.001 – Fallschase Overall Legal Description Page 3 of 4

Thence leaving said right of way boundary run South 89° 43' 34" West 179.71 feet to a 4 inch by 4 inch concrete monument; Thence South 00° 18' 20" East 162.55 feet to a 4 inch by 4 inch concrete monument; Thence run North 89° 31' 14" East 180.49 feet to a iron pin (#4792) on the westerly right of way of Davis Drive; Thence South 00° 03' 34" East along said westerly right of way boundary 163.15 feet to a 4 inch by 4 inch concrete monument (broken); Thence leaving said right of way boundary run South 89° 42' 18" West 180.17 feet to a 4 inch by 4 inch concrete monument (x-top); Thence South 00° 17' 14" East 162.14 feet to a 4 inch by 4 inch concrete monument; Thence South 00° 16' 09" East 162.97 feet to a 4 inch by 4 inch concrete monument; Thence North 89° 30' 15" East 162.26 feet to an iron pin (#4792) on the westerly right of way of Davis Drive (60' right of way) (P.B.34, Pg.55); Thence North 89° 58' 21" East 60.43 feet to an iron pin (#4792) on the easterly right of way boundary of said Davis Drive; Thence South 07° 36' 18" West along said easterly right of way boundary 101.82 feet to a ¾ inch iron pipe; Thence leaving said easterly right of way boundary run North 89° 47' 09" East 420.33 feet to a ½ inch iron pin; Thence North 00° 02' 08" East 100.01 feet to a 1/2 inch iron pin; Thence North 89° 51' 28" East 249.69 feet to a 1/2 inch iron pin on the easterly right of way boundary of Thrush Drive (60' right of way) (P.B.34, Pg.55); Thence South 00° 16' 32" East 99.63 feet to a 3/4 inch iron pipe; Thence North 89° 53' 15" East 199.78 feet to a 1/2 inch iron pin; Thence North 89° 49' 16" East 199.66 feet to a 1/2 inch iron pin; Thence North 00° 08' 21" West 100.00 feet to a 1/2 inch iron pin on the westerly right of way boundary of Ibis Drive (60' right of way) (P.B.34, Pg.55); Thence North 89° 54' 38" East 59.94 feet to a 3/4 inch iron pipe on the easterly right of way boundary of said Ibis Drive; Thence South 00° 23' 31" East 20.33 feet to an iron pin (#4016); Thence South 89° 38' 06" East 199.80 feet to a 6 inch terra cotta monument; Thence North 89° 50' 38" East 673.61 feet to an iron axle; Thence South 00° 28' 00" East 3922.81 feet to a 4 inch by 4 inch concrete monument; Thence South 89° 59' 42" West along the South boundary of said Section 26 a distance of 4525.03 feet to the POINT OF BEGINNING containing 681.00 acres more or less.

TOGETHER WITH:

A parcel of land described in Official Records Book 1747, Pg. 375 of the Public Records of Leon County, Florida; more particularly described by recent survey as follows:

Commence at the Southeast corner of Section 22, Township 1 North, Range 1 East, Leon County, Florida and run North 00 degrees 31 minutes 42 seconds West, 6.17 feet to the Northerly Right of Way boundary of County Road No. C-158 (Buck Lake Road) (80 foot Right of Way); Thence North 89° 46' 04" West along said right of way boundary 261.08 feet to a concrete monument (#1254); Thence North 01° 09' 35" East along the right of way boundary of County Road No. C-158 (Buck Lake Road) (100 foot right of way) a distance of 8.79 feet to a concrete monument (#1254) for the POINT OF BEGINNING; From said POINT OF BEGINNING run North 00° 29' 59" West 528.18 feet to a 4 inch by 4 inch concrete monument (#1254); Thence South 89° 52' 36" West 407.77 feet to an axle; Thence South 89° 56' 00" West 425.13 feet to a 4 inch by 4 inch concrete monument (#4792) on the southeasterly right of way of State Road No.10 (U.S. No.90); Thence South 67° 14' 28" West along said right of way boundary 299.55 feet to a 4 inch by 4 inch concrete monument (#6988); Thence North 22° 07' 40" West along said right of way boundary 6.65 feet to a 4 inch by 4 inch concrete monument (#6988); Thence South 67° 15' 47" West along said right of way boundary 115.96 feet to a 4 inch by 4 inch concrete monument (#6988); Thence South 23° 38' 46" West 27.03 feet to a 4 inch by 4 inch concrete monument (#6988), at the intersection of said Southeasterly right of way boundary with the Northeasterly right of way boundary of County Road No. C-158 (Buck Lake Road); Thence South 26° 27' 19" East along said northeasterly right of way boundary 110.74 feet to a 4 inch by 4 inch concrete monument (#1254) marking a point of curve to the left; Thence southeasterly along said right of way boundary and said curve with a radius of 450.00 feet through a central angle of 63° 39' 12" for an arc distance of 499.93 feet (chord of said arc being South 58° 11' 35" East 474.62 feet) to a 4 inch by 4 inch concrete monument (#1254); Thence South 89° 59' 10" East along said right of way boundary 781.37 feet to the POINT OF BEGINNING: Containing 13.21 acres, more or less.





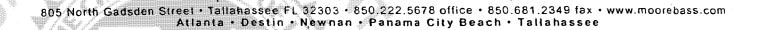
Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

Legal Description Individual Lots in Fallschase West Village, Unit 1A

December 1, 2005 MBC# 1469.001/05-284

DESCRIPTION:

Lots 1, 3, and 5, Block "N"; Lots 1, 7, 8, 9 and 10, Block "M"; Lots 3 and 5, Block "K"; Lots 1 and 4, Block "E"; Lots 3 and 7, Block "G"; Lot 5, Block "H" all in Fallschase West Village, Unit 1A, a subdivision as per map or plat thereof recorded in Plat Book 13, Pages 96-104 of the public records of Leon County, Florida.





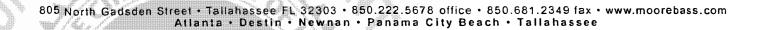
Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

Legal Description Individual Lots in Fallschase West Village, Unit 1B

December 1, 2005 MBC# 1469.001/05-284

SURVEY DESCRIPTION:

Lots 5, 23 and 33, Fallschase West Village, Unit 1B, a subdivision as per map or plat thereof recorded in Plat Book 14, Page 1 of the public records of Leon County, Florida.





Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

Legal Description 2.0 Acre Parcel Fallschase West Village

December 1, 2005 MBC# 1469.001/05-284

SURVEY DESCRIPTION:

A 2.0 acres parcel of land located in Section 26, Township 1 North, Range 1 East, Leon County, Florida as described in O.R. Book 1911, Page 1622 of the Public Records of Leon County, Florida more particularly described by recent survey as follows.

Commence at the Southwest corner of the Northeast Quarter of the Northeast Quarter of Section 26, Township 1 North, Range 1 East, Leon County, Florida, and run North 89° 38' 06" West 199.80 feet to a point on the easterly right of way boundary of Ibis Drive; Thence North 00° 23' 31" West along said right of way boundary 20.33 feet; Thence leaving said easterly right of way boundary, run South 89° 54' 38" West 59.94 feet to the westerly right of way boundary of Ibis Drive; Thence South 00° 08' 21" East along said right of way boundary 100.00 feet; Thence leaving said westerly right of way boundary, run South 89° 49' 16" West 199.66; Thence South 89° 53' 15" West 199.78 feet to the easterly right of way boundary of Thrush Drive; Thence North 00° 16' 32" West along said easterly right of way boundary 99.63 feet; Thence leaving said easterly right of way boundary, run South 89° 51' 28" West 249.69 feet; Thence South 00° 02' 08" West 100.01 feet; Thence South 89° 47' 09" West 420.33 feet; Thence South 07° 31' 18" West 328.57 feet to a point of curve to the left; Thence southeasterly said curve, concave to the east, with a radius of 696.24 feet through a central angle of 29° 31' 11" for an arc distance of 358.71 feet (the chord of said arc being South 07° 13' 11" East 354.76 feet); Thence South 22° 05" 49" East 207.33 feet to the POINT OF BEGINNING. From said POINT OF BEGINNING run South 21° 56' 03" East 304.01 feet; Thence run North 74° 00' 33" East 238.50 feet; Thence North 04° 19' 38" West 312.23 feet; Thence South 73° 25' 26" West, 333.12 feet to the POINT OF BEGINNING. Containing 2.00 acres, more or less.

Together with that certain grant of easement as recorded in Official Records Book 895, Page 951 of the Public Records of Leon County, Florida.

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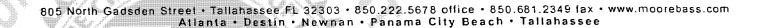
Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

Description of 0.08 Acre Tract in Fallschase West Village

December 1, 2005 MBC# 1469.001/05-284

SURVEY DESCRIPTION:

A 5 foot strip of land lying in said Section 27, Township 1 North, Range 1 East, Leon County, Florida and described as being the Westerly 5 feet of Lot 2, Block "N", of Fallschase West Village – Unit 1A as recorded in Plat Book 13, Pages 96-104 of the Public Records of Leon County, Florida; Containing 0.08 of an acre, more or less.



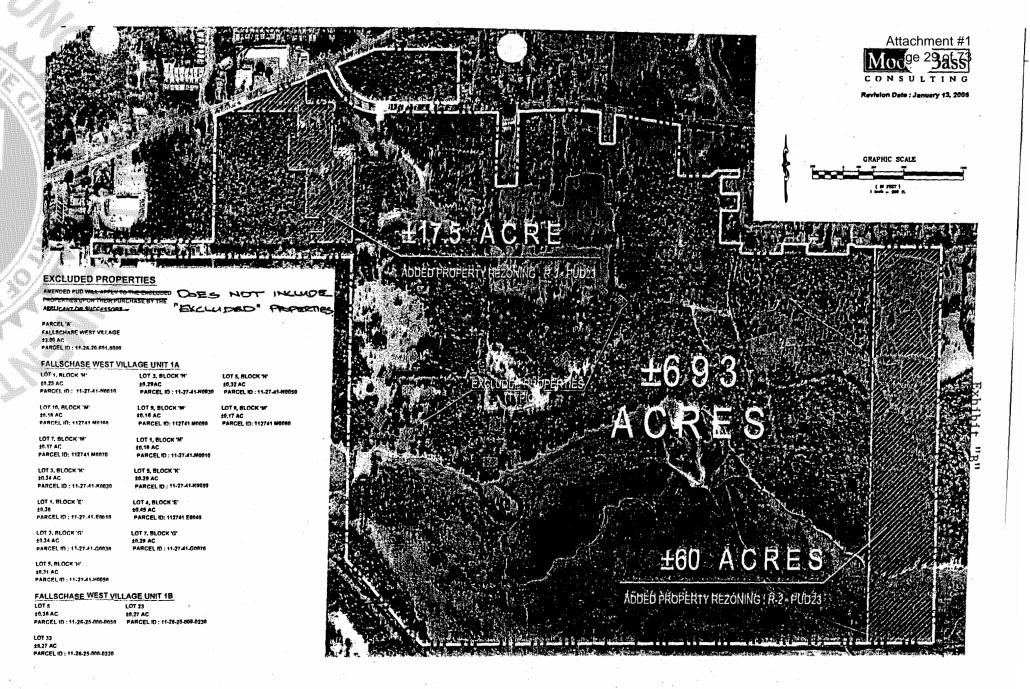


Exhibit "C"

Conditions of Approval:

Prior to approval of the Final PUD, the following conditions shall be complied with or met:

- 1. The Table of Contents (TOC) in the PUD shall be revised to reflect revisions and the inclusion of additional material from the DA within the PUD (per DGEM and other staff recommendations). The TOC should provide page numbers for the sections/headers cited.
- 2. The PUD should be revised to include an index.
- 3. The PUD should be revised to include the following sections of the DA, either within the "main body" or cross-referenced within the body and attached as exhibits:
 - a) Section 3, last sentence, regarding applicability to "excluded properties."
 - b) Section 6, in its entirety or subsections (1)-(3), regarding the applicant's rights to use of the Southern Property after conveyance to the County.
 - c) Section 7, subsections (c) and (d), regarding relocation and alteration of stormwater management facilities, as portrayed on the PUD Concept Plan; and, the use of lakefront lots to accommodate compensating volume for floodplain storage, respectively.
 - d) Section 8, in its entirety, regarding donation of property for County facilities.
 - e) Section 9, in its entirety, regarding the PUD approval process for this property.
 - f) Section 10, in its entirety, regarding the approval process for PUD final development plans.
 - g) Section 11, in its entirety, regarding the process for obtaining an Environmental Management Permit for development within the PUD.
 - h) Section 13, in its entirety, plus, Exhibit "E," regarding waivers and exemptions.
 - i) Section 14, a list of transportation, stormwater management, and other capital improvements that, through the approval of the DA, the applicant has committed to provide.
 - j) Section 16, in its entirety, regarding the preclusion of road connection to Weems Plantation and Meadow Hills.
 - k) Section 17, in its entirety, regarding the utility infrastructure and service provider for the PUD.
- 4. The applicant shall provide the County with all of the necessary documents and information that may be required by the county attorney to assure the

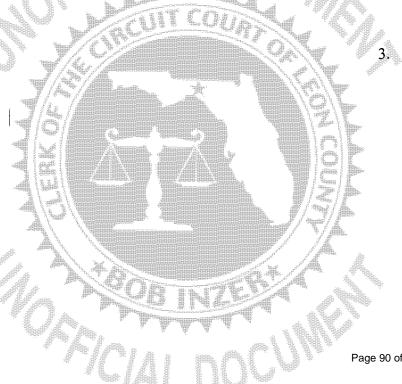
page 148 of PUD



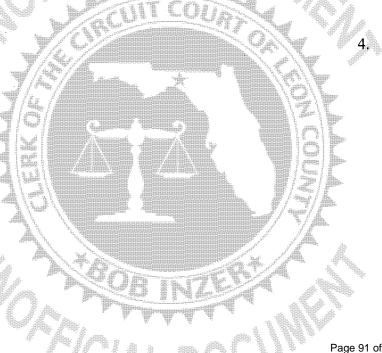
- county that the development project may be lawfully completed according to the plans sought to be approved.
- 5. The PUD application shall be revised to include proof of ownership (including, signatures the current owner(s) of the property included in the PUD application attesting to their ownership and their filing of this application (or the filing of this application on their behalf, by others)).
- 6. Pursuant to §10-915(b)(3), Leon County Land Development Code, the PUD application should be revised to include affidavit(s) from the current owner(s) of the property included in the PUD attesting to their authorization of others to represent their interests in this application.
- 7. The PUD application should be revised to include a summary describing the development proposed to be allowed within the PUD district (a project summary, in narrative form).
- 8. The PUD application should be revised to include revised PUD definitions, provided by the applicant under separate cover on or about December 7, 2005.
- 9. The PUD shall be revised to state who/what entity(ies) will responsible for construction, ownership, and maintenance of streets and stormwater facilities to be provided to serve the PUD.
- 10. The PUD includes an added property map. Staff recommends the following revisions with regard to this map: 1) For the two added properties label, or indicate through the legend, the various rezonings embodied (i.e., R-2 to PUD; and, R-3 to PUD); 2) provide a map of the excluded properties.
- 11. The Conceptual Land Use Plan (and other Plans & maps in the PUD) document) shall be revised to delete the background shadow layout image. Alternatively, this image shall be made legible, as it will be binding as to the form of development depicted thereupon. An additional alternative, if the applicant desires to keep such illustration but not be bound to it, is to provide a separate map, with appropriate annotation regarding applicability.
- 12. The Conceptual Land Use Plan shall be revised to reconcile the nomenclature used on this plan and within the PUD text (to obtain consistency).
- 13. The table summarizing the land use type and development proposed to be allowed in each component/district/subdistrict should be revised to clearly specify the range of minimum and maximum residential density and/or nonresidential (intensity (in square feet floor space/acre) allowed in each component.
- 14. The PUD shall be revised to include an explicit development standard governing the maximum limit of residential units allowed within the PUD. The ability to develop 16 residential du/ac in the FC-CM component must be reconciled with other references in the PUD and DA to a maximum number of 1514 dwelling units within the entire PUD. Accordingly, the PUD shall be revised to include a mechanism or standard that reduces the number of residential allowed within the FC-SF & FC-MF components for every dwelling unit developed elsewhere in the PUD (and the converse).



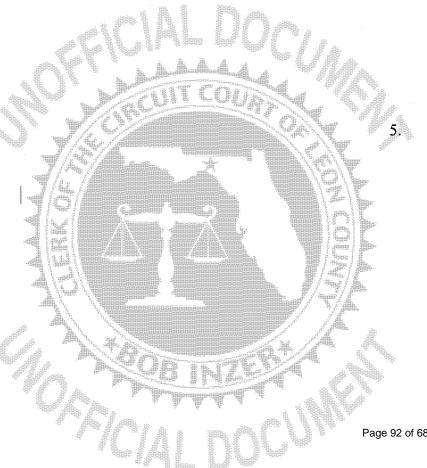
- . 15. The number of residential units shall not exceed 1,514 on the entire property, and the ratio of single-family dwellings to multi-family/condominium dwellings may be modified, pursuant to Section 7 of the Development Agreement.
 - 16. Maps in the PUD should be revised to recognize the removal of the SCL Railroad and its replacement with the CSX Railroad.
 - 17. The PUD concept plan document shall be revised to include documentation of proposed utility providers' willingness and ability to serve the proposed development. In addition, annotation should be included in the PUD concept plan regarding the proposed disposition of the existing utility system, preferably as a "standard" within the text.
 - 18. The conceptual circulation plan should be revised to include annotation providing for the ability to allow, at the stage of final site and development plan application, additional cross-access connections to other properties, in particular, bicycle and pedestrian connections, so long as such connections would not violate any provision of the DA or neighborhood agreement incorporated within the DA.
 - 19. The conceptual circulation plan and text of the PUD concept plan document should be revised to include annotation providing for the accommodation of service by transit (in particular, bus service), including the acknowledgement that streets and parking lots may require design adjustments during final site and development plan application to provide for bus pull-offs; transit and school bus stops; and related facilities. The PUD should be revised to specify that all transit bus stops provided within the PUD will be on a concrete or other impervious pad and will be covered.
 - 20. In regard to "Archaeological/Historical Resources" in the PUD concept plan document: staff recommends that the PUD stipulate that a clearance letter (or other appropriate instrument) will be sought and obtained for affected areas within the PUD prior to the issuance of any site and development plan approval for such areas.
 - 21. In regard to "Listed Species" in the PUD concept plan document: staff strongly recommends that this section stand on its own; i.e., it should not be a sub-section under "Archaeological/Historical Resources."
 - 22. In regard to "Height Requirements and Zero Lot Lines" in the PUD concept plan document: staff strongly recommends that this section be split into two sections, one regarding height requirements and the other, setbacks (and each be titled appropriately).
 - 23. The PUD concept plan document, where stories are used, should stipulate the limit in maximum stories.
 - 24. In regard to "Commercial Lighting" in the PUD concept plan document: delete "See International Dark-Sky Association at ..." Specific information provided at that web site should either be explicitly set out in the PUD or appropriately crossreferenced.
 - 25. The "Residential Lighting" section in the PUD concept plan document uses the following terms that require definition: "Low wattage;" and "Low lumen."
 - 26. The PUD concept plan document uses both "FC-MR" and "FC-MF" to refer to the same component; this inconsistency requires reconciliation.



- 27. The PUD should be revised to include a "standard" or obligation, specifying that AIG-Baker and the County will work together to fashion architectural/design standards governing the FC-MR district and non-residential development within the PUD; that these standards will be completed after the PUD adoption, but prior to application (or at least, approval) of any site and development plan for the PUD; that these standards shall be approved by AIG-Baker and the Board; and, that these standards be based on the DA and attached exhibits.
- 28. The PUD should be revised to include milestones, a timeline, or other mechanism(s) to determine when transportation-related obligations of AIG-Baker, set out in the DA, will be commenced (and completed).
- 29. The PUD concept plan document should be revised to include a "standard" stipulating that the DA is the "default standard" for purposes of interpretation and application.
- 30. A Natural Features Inventory shall be consistent with the process set forth in Exhibit C of the Development Agreement.
- 31. The revised definitions should be provided for the final PUD document.
- 32. The final signed Development Agreement with all the exhibits should be included in the final PUD document.
- 33. The Location Maps should be corrected to clearly identify the subject properties.
- 34. The land use identified as FC-OS occurs twice in the legend with different color identifiers. Staff recommends that these two have different identifying legends, such as FC-IOS and FC-LOS.
- 35. The Conceptual Master Plan should address the location of stormwater treatment from the reconstruction of Buck Lake Road.
- 36. The Conceptual Utility Plan should be deleted or modified to reflect the Land Use
- 37. The Conceptual Circulation Plan shall be revised to accurately reflect the existing circulation (current connection to Buck Lake Road is not as shown and existing roadway extends beyond southern terminus shown).
- 38. The Pedestrian Circulation Plan shall be modified to include bike access.
- 39. The Conceptual Circulation Plan shall be revised to be consistent with the proposed/anticipated traffic controls.
- 40. The Conceptual Circulation Plan shall be revised to state "connections to existing public roads will be subject to the approval of the COT, Leon County, and FDOT as applicable."
- 41. Proposed or anticipated signal locations shall be shown on the Circulation Plan sheet.
- 42. Revise the Concept Plan to add 10' Utility Easements adjacent to each side of the proposed Local Street Section.
- 43. The typical collector street section should be identified as Main and/or Secondary Roads and provide for Bike Paths, either on-street or off-street.
- 44. The typical boulevard section should be identified as Main and/or Secondary Roads and provide for Bike Paths, either on-street or off-street.
- 45. Landscaping for proposed roads and stormwater management facilities should conform to proper roadway design for safety and also for proper coordination with utility placement.



- 46. The Concept Plan should provide a statement to the effect that "where roadway design will be within public rights of way, such as connections to existing roads, the applicable regulatory body (COT, Leon County, FDOT) shall review and approve the design."
- 47. The PUD should address how the franchising of water and sewer services is intended to occur.
- 48. The Concept Plan should be amended to provide bicycle/pedestrian access to the proposed open space area(s).





THIS AGREEMENT is entered into as of the 28th day of November, 2005, by and between AIG BAKER DEVELOPMENT, L.L.C., a Delaware Limited Liability Company and/or its successors and assigns, (hereafter "AIG") and The Buck Lake Alliance, a Florida corporation, (hereafter "BLA"). AIG and BLA mutually agree that the following terms and conditions shall be incorporated by reference into the Fallschase Development Agreement (hereafter "the Development Agreement") between Leon County and AIG. This Agreement shall be an exhibit to the Development Agreement, and the terms and conditions set out below shall have the same force and effect as if said terms and conditions were set out in the Development Agreement.

A. Commercial Development

- 1. The total retail commercial development on the site will be 750,000 square feet, and the total office development on the site will be 35,000 square feet. The mixed use development shall be drawn from these totals. AIG will adhere to the Letter of Intent from Ronald L. Carlson, Executive Vice-President -- Development, AIG Baker Shopping Center Properties, L.L.C., to the Buck Lake Alliance dated November 18, 2005, attached hereto as Exhibit "1," expressing AIG's commitment to a quality development. The Buck Lake Alliance acknowledges that this letter is a statement of intent, and is not enforceable by legal action. The Buck Lake Alliance may refer to the Letter of Intent in regard to the PUD Concept Plan or later site plans if it believes that AIG is departing from the intent expressed therein.
- 2. The area east of Mahan Drive, north of the new commercial entrance road, extending along Buck Lake Road just past the entrance from Buck Lake Road into Fallschase, as shown on Exhibit B.2 of the Fallschase Development Agreement, will be known as the "Village Center." The Village Center architecture will be equal to or better than the architecture of AIG's Patton Creek center. See photos attached as composite Exhibit "2." The Village Center stores shall include one national drug store not to exceed 16,000 square feet, located at the corner of Mahan Drive and the new commercial center access road, and one additional single owner/tenant store not to exceed 25,000 square feet. All other buildings for single owners/tenants shall not exceed 10,000 square feet. Any larger buildings shall be designed for multiple owners or multiple tenants. The theatre will conform to the style and materials of the Village Center, but certain design features and signage required to maintain the owner/tenant's corporate identity shall be determined by the owner/tenant.
- 3. The main commercial area located generally south of the new east-west access road, east of the Fallschase property boundary, and west of the new north-south entrance road, as shown on Exhibit B.2, may include larger stores, not to exceed a total of 500,000 square feet for all stores in this area. The larger stores will be designed to compliment the village center appearance.
- 4. The two ponds located on either side of Fallschase Boulevard at the south end of the commercial area will be wet detention stormwater treatment facilities for all commercial and office facilities and associated parking areas south of Buck Lake Road. These ponds will be

Experient at β130 p.m. on June 1, 2015

designed consistent with the best practices of civil engineering design to minimize the unlikely event of a failure.

- AIG agrees to extend the landscaping proposed to border Buck Lake Road along Mahan Drive adjacent to Fallschase as shown on Exhibit "B.3" of the Development Agreement.
- 6. AIG agrees to a 4 story height limit throughout the mixed use area, located east of the north-south entrance road and south of Buck Lake Road, as shown on Exhibit B.2 of the Development Agreement.

B. Residential Development

- 8. The total number of residential units shall be 1,514 (757 single family and 757 multi-family). AIG agrees to a 3 story height limit for residential structures adjacent to Buck Lake Road. All other residential structures will be limited to 5 stories and 70 feet maximum building height.
- 9. AIG agrees to a minimum 30 foot vegetated buffer along the entire eastern boundary of Fallschase, and along the northern boundary beginning at the northeastern corner of the Property and extending west to Davis Road.
- 10. AIG agrees that multi-family residential will not be located adjacent to the lakefront, or adjacent to the eastern boundary, or adjacent to the western boundary south of the commercial and mixed use development.
- 11. If AIG acquires additional property adjacent to Buck Lake Road, it will be limited to residential uses.
- 12. AIG will adhere to the lighting standards set out in Exhibit "D, VI, and VII" to the Development Agreement to avoid unnecessary spillover of light into the atmosphere (upward) or off the Fallschase property.

C. <u>Lakefront Single-family Lots</u>

- 13. All lakefront lots, except the lots on the two "fingers," will be platted as depicted on Exhibit B. 4 of the Development Agreement, so that each house will be located above the 51 foot contour. Houses will be elevated 3 feet above the 51 foot contour. The only disturbance below the 51 foot contour will be for swales within the lot to treat stormwater for each individual lot, and for the homeowner's landscaping and maintenance within the lot. Stormwater treatment shall meet or exceed the standards in Exhibit "D" of the Development Agreement.
- 14. The lakefront lots located on the two fingers, as shown on Exhibit B.4 of the Development Agreement may include a house location below the 51 foot contour. AIG may build retaining walls surrounding the fingers and place additional fill on the fingers as necessary. Otherwise, the only disturbance permitted below the 51 foot contour will be for stormwater treatment and for the homeowner's landscaping and maintenance within the lot. Stormwater

Posted at 3:30 p.m. on June 1, 120 15

treatment shall meet or exceed the standards in Exhibit D of the Fallschase Development Agreement.

D. Weems Neighborhood

15. The letter dated November 18, 2005, from Ronald L. Carlson, Executive Vice-President -- Development, AIG Baker Shopping Center Properties, L.L.C., to The Weems Communities, attached hereto as Exhibit "3" is incorporated herein by reference. The terms and conditions expressed in the letter shall have the same force and effect as all other terms of this Agreement.

E. PUD and Site Plan Review

- 16. AIG will submit the PUD concept plan and all subsequent site plans (including the commercial area photometric lighting plan) to the BLA Community Committee before it files the plans with County for approval. The Community Committee shall have seven (7) days to review and comment on the plan prior to AIG filing said plans with the County. The Committee's comments shall be advisory only.
- development rights for the Fallschase DRI/PUD in excess of those approved in the Development Agreement to the portion of the Southern Property to be donated to Leon County. At the same time, AIG shall release, waive, extinguish and otherwise relinquish any and all claims that it may have to vested development rights to develop the Fallschase DRI/PUD at a density in excess of that approved in the Development Agreement. A copy of the assignment, release and waiver shall be recorded in the public records of Leon County, and a copy thereof shall be filed with the Department of Community Affairs and a copy provided to the BLA President.

AIG BAKER SHOPPING CENTER PROPERTIES, LLC, a Delaware Limited	BUCK LAKE ALLIANCE,
Liability Company	
Marell Rail	
By: Van Car	Ву:
Printed Name: KONAUS L-(ARLSON	Printed Name: John D. Dew MTitle: President, Buck Lake Alliance, Inc.
Title: EXECUTIVE VICE PRESIDE	MTitle: President, Buck Lake Alliance, Inc.
Date: 1//28/05	Date: November 28, 2005



November 18, 2005

Buck Lake Alliance c/o Carlos Alvarez, Esquire

Re: Fallschase Commercial Architecture

Dear Carlos:

AIG Baker Shopping Center Properties, LLC, is pleased to present the following architectural commitments for the Fallschase commercial district.

Main Commercial Area:

This is the area south of the new access road off Mahan. All large store retail (with certain exceptions) will be located in this area. Square footage in this area will be limited to 500,000 square feet. If Wal-Mart is a tenant in this area, they will be required to use the highest level "village store" concept in their store-front criteria book. All other large stores will complement this style to the extent possible (based upon the length of the frontage). Exterior materials will be predominantly brick or brick with EFIS wall treatments.

The Village District:

This district is comprised of all the remaining commercial and mixed-use areas. A 16,000 square foot drug store will be allowed on the NW corner of the new access road and Mahan. Another large store, not to exceed 25,000 square feet, will be allowed at the SE corner of the Mahan and Buck Lake Road. The architecture of this store will be similar to the photo of Barnes and Noble enclosed herewith. A theater of approximately 75,000 square feet will be allowed on the tract on the north side of Buck Lake Road. The style and materials used on this building will be the same as those used in the village stores, but certain design and signage will be required to maintain their corporate identity.

All other stores, offices and residences will be designed in the style shown on the enclosed photographs. Brick will be the predominant material used on the buildings. The sizes and height limitations on these buildings are outlined in our Agreement.

Please call me if you have any questions.

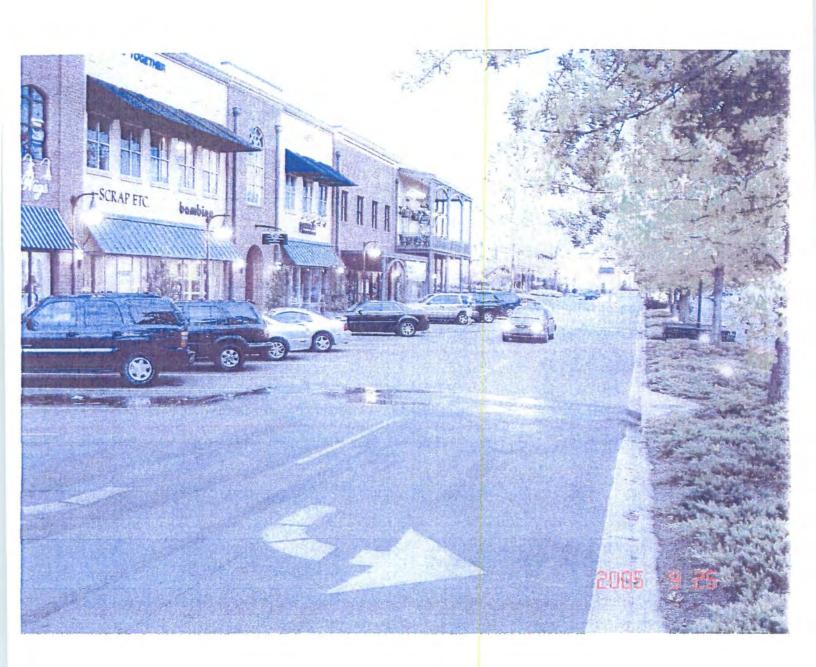
Very truly yours

Executive Vice President -

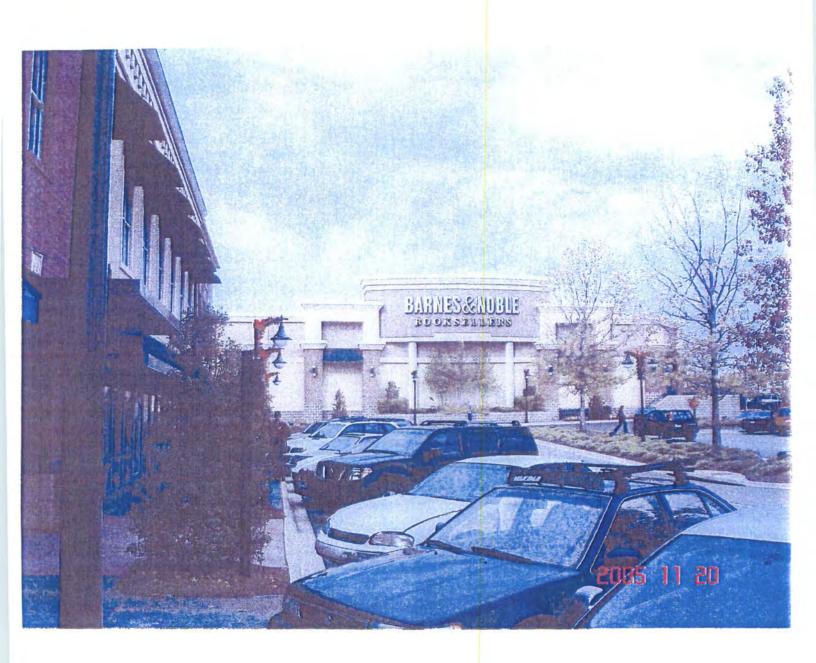
Development

Exhibit 1











November 22, 2005

Mr. Leroy Peck Mr. Jim Wells The Weems Communities

Re: Fallschase Development issues relating to the Weems Communities

Dear Leroy and Jim:

The following is a listing of the issues we discussed and their resolution.

- 1. Sewer We have asked the City of Tallahassee to serve the Fallschase Development with all utilities, including sanitary sewer. While we have confidence the City will provide such utilities, until we have a written commitment we must keep the existing on-site sewer plant as an option to serve the commercial development of Fallschase. Upon receipt of said commitment and our closing of the purchase of the said property, we will issue a letter to you confirming that the sewer plant will be dismantled.
- Storm Water Management The ditch along the eastern boundary of Fallschase will be relocated into the 30' easement that presently exists along the Fallschase property line.

The design for the handling of stormwater off the commercial development of the Fallschase property will be subject to best civil engineering design practices and the overflow of stormwater runoff will be directed westerly, in the event of a storm system failure. This overflow will enter the Fallschase stormwater system which will direct stormwater away from the Weems Communities.

The stormwater ponds serving the commercial development of Fallschase will be wet ponds if soils conditions allow. These ponds will be designed under best practices of civil engineering design to minimize the unlikely event of a failure.

If the road referred to as Fallschase Boulevard Extension is built, we will restrict
commercial truck traffic from using this road through signage. Landscaping and
dumpster enclosures will be used to minimize noise from these types of
operations.

Exhibit 3

- 4. a. Fallschase Boulevard Extension will contain a buffer strip of no less than 30 feet from the southern curb of the roadway. Plantings in the buffer will include two rows of 3' shrubbery that will grow to 6' at maturity. No less than 125 trees will be planted in the buffer strip.
 - b. Retaining Walls. No retaining wall shall exceed 15' in height. If a wall is needed that is higher than 15', there will be a bench of 8' (horizontally) insert in the wall profile. Such walls will be constructed from textured material such as split-face block. Any benches will be landscaped with proper screening materials.
 - c. Commercial buildings shall be set back from the northern boundary of the Weems Communities by at least 150 feet.

Fallschase Boulevard Extension – If built, the traffic impacts on Weems Road, the intersection of Weems Road and Easterwood and the intersection of Easterwood and Capitol Circle will be mitigated by the governmental entities involved or by a cost-sharing agreement between the governmental entities and the Fallschase Developer.

No attached housing will border any existing residential community contiguous to the Fallschase property.

We will provide technical data from our lighting engineers that will show that light generation shall be shielded to minimize lighting spillover.

All slopes bordering the Weems Communities will be designed by registered civil engineers utilizing best management practices.

Most of the rear walls of the buildings will be screened by appropriate landscaping and the rear walls will be constructed with split-face block painted in two complementary colors.

We prefer to use evergreen trees in most of our landscaping design with complementing deciduous hardwood trees.

We will provide a six foot combination sidewalk and bike path for the length of the Fallschase Boulevard Extension and pedestrian crossings on the Fallschase Boulevard Extension will be striped and signage will be installed to alert motorists of the crossing.

At the appropriate time, we will appoint a project manager for the commercial development and will provide you with the contact information.

We will meet the county standards for siltation and runoff management during construction. Heavy equipment operation will be restricted to the hours of 6:00 AM to 10:00 PM daily.

AIG Baker Shopping Center Properties welcomes this opportunity to work with the Weems Communities and we look forward to being your neighbors. Please note that the terms offered herein are only between the Weems Communities and AIG Baker Shopping Center Properties and will become effective upon our closing of the purchase of the Fallschase property.

This document will be binding on AIG Baker Development, L.L.C., its successors and assigns, and the homeowner associations of the Weems Communities.

If you have any questions or comments, please do not hesitate to contact me.

AIG Baker Development, L.L.C.
Ronald L. Carlson
Executive Vice President -
Development
cc: Robert Apgar, Esquire Andrew Lewis
Acceptance:
The Weems Communities
Ву:
Data

Very truly yours,

FALLSCHASE

Leon County, Tallahassee Florida

Appendix 4



Design Review Guidelines

May 22, 2006

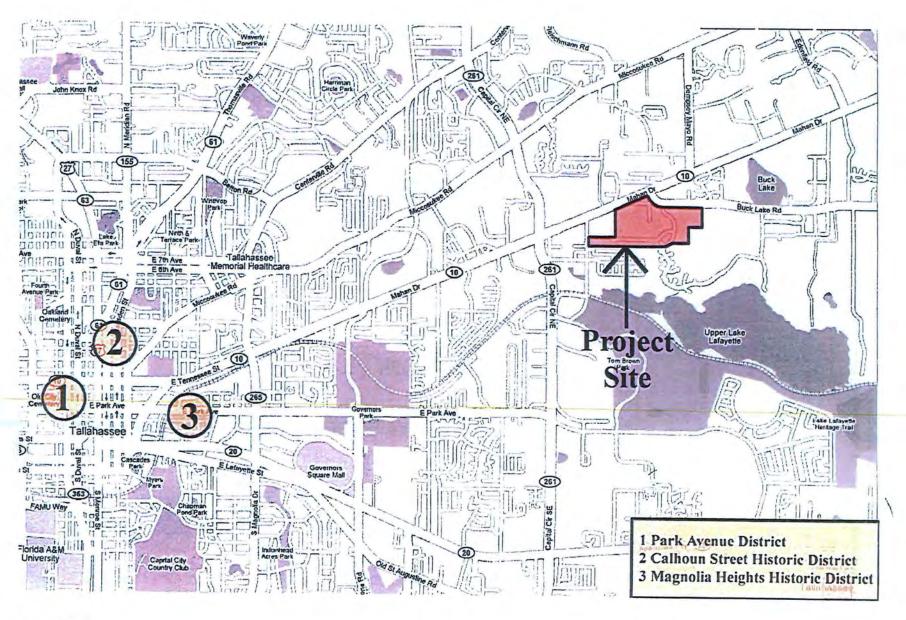


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PART I DESIGN REVIEW GUIDELINES





I. INTRODUCTION

The community of Fallschase introduced a new lifestyle to Leon County in Northern, Florida creating a mixed-use environment for shopping, living, working and playing. The development integrates a range of retail offerings, housing types, office, and recreational facilities into a unified whole.

Located in Tallahassee, Florida between US 90 (Mahan Road) on the North, Weems Road on the West and Lake Lafayette on the south, Fallschase is well situated in a community that has a tradition of quality development, established historical neighborhoods and exceptional design.

These guidelines have been created primarily to assist owners, tenants and developers at Fallschase in working together toward the common objectives of the development to reinforce the regional identity and of life reflected in the built environment. The Fallschase Design Guidelines recognize these qualities and strive to further expand on these accomplishments.

The Design Guidelines are not to be considered a commitment to a particular design or designs on the part of the project developer. Nor are they in any way intended to imploy the creation of a redundant, bland or unimaginative environment. Rather, they aim to establish the character of the overall development and encourage creative solutions that support the projects objectives and design intent. Functioning as a frame work for owners and tenants to work within, they will enhance the beauty, harmony and livability of Fallschase.





Manual Attachment #3





Attachment #1

GUIDELINE OBJECTIVES

Create an attractive and functional mixed use development and a unifying style for Fallschase.

The Fallschase Architectural Design Standards are not predicated on slavish recreation of a historical vernacular architecture, but rather take historical references evident in the Calhoun Street, Magnolia Heights and Park Avenue Historical Districts of Tallahassee where a rich mixture of "Frame Vernacular" and Queen Ann Style Architecture combine with Classical Architectural Details to create street frontages referred to as "Main Street". The standards are intended to facilitate compatibility with nearby neighborhoods and to facilitate pedestrian activity within the development as well as transit accessibility.

The building facades appear as if they were constructed over time by a variety of Architects fulfilling their owner's varied programs and needs. The thoughtful integration of these visually rich traditions results in a distinctive identity for Fallschase.

- Establish a unique sense of character and place through creative and harmonious use with architecture, landscape, lighting, signage and amenities.
- Fallschase places a heavy emphasis on creating quality commercial public spaces with unique focal points and distinctive landscaping.

 Architecture at Fallschase employs appropriate building scale, massing and articulation. Attention to detail is encouraged at all areas, and should be further developed at the pedestrian level and at areas of high visibility.
- Uphold the sense of quality and commitment established by the architectural history of Tallahassee.

Fallschase contributes to the regional identity long established in its historical districts. By supporting the aesthetic direction and values of the community, Fallschase creates a high quality of life for visitors and residents alike.

Incorporate the best current design and planning concepts.



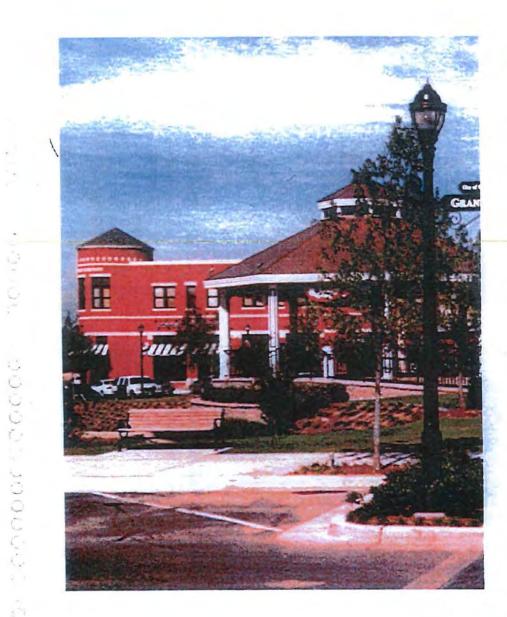
Manual Attachment #3





Fallschase enhances the physical environment through high quality design practices. Sound planning principles create fluid and pleasing pedestrian and vehicular circulation patterns. Careful building siting and orientation on the existing sloped terrain and presentation of many large trees is further complimented by a studied application of landscaped zones, including charming square and park areas. The sensitive integration of mixed-use and other residential components allows residents to enjoy the benefits of a vibrant community in combination with more subdued residential atmosphere.





PART II

ARCHITECTURE, SITE PLANNING, SIGNANGE, LIGHTING



I. ARCHITECTURE

The architecture of Fallschase serves as the backdrop, the setting with in which the every day activities of the community unfold. The buildings and environment affect the inhabitant's perceptions, outlook and daily lives through factors such as spatial quality, visual harmony, historical references and comfort and convenience.

Specific building elements and dimensions define the architectural spatial qualities at Fallschase. Varying building heights and massing are maintained at an appropriate, often intimate scale and avoid dwarfing their surrounding. Changes in massing achieved with vertical accents announce tenant location and punctuate the visual landscape. Façade articulation, particular for the larger format retail stores creates light and shadow transitions, visual interest, and further break down building scale into the human realm. A combination of hip type low angled standing seam metal roofs and flat parapet rooflines provide visual variety and opportunities for change in material and texture. The internal streets and walkways between buildings encourage strolling and discovery.

Visual harmony at Fallschase is achieved through thoughtful application of combination of surface treatments. The warm earth tone color palette from the stucco finished walls to the richly textured red brick recall buildings in Tallahassee's historical neighborhoods. Changes in color animate facades and groups of buildings. Variety in texture at buildings or façade transitions differentiates buildings and creates shade and shadow.



Sample Mixed Used Elevations Retail-First Floor Residential-Second Floor



Sample Mixed Used Elevations Retail-First Floor Residential-Second Floor



Ornamental metal balcony railing set in front of deep balconies, combined with canvas and metal awnings add vitality and activates building façades and reinforces the identity of the community.

The style and character of the elegant Historical Districts of Tallahassee is conveyed through Fallschase façade and building design, building siting, ornament and surface treatments. Industrial building references recall Gallies Hall/Monroe Opera House at Adams and Jefferson Street that was constructed in 1892.

Comfort and convenience round out the architecture of Fallschase and distinguish it from ordinary commercial retail developments. Awnings, arcades, beautiful landscape and other devices shade the pedestrians; ease of circulation results from well planned building siting and logical building entry locations; intimate courtyards and site amenities provide places to rest and gather.



Sample Shop Elevations



Sample Shop Elevations



Page 113 of 683

II. SITE PLANNING

General characteristics of site planning at Fallschase.

Site planning at Fallschase requires careful consideration of both the built environment and the natural landscape. Designers should bare in mind the following objectives:

Creation of a functional open space for public use that are integrated onto the overall concepts.

Outdoor Public Use and Open Space: Nonresidential and multifamily residential development are encouraged and should be designed to establish, define and integrate outdoor public use areas into the development. Public use areas can incorporate (but should not be limited to) such uses and activities as seating, dining, special events, and entertainment. Well-defined pedestrian corridors should be utilized to interconnect such areas within the various phases and sub-phases of the Fallschase Planned Unit Development.







III. SIGNAGE

Identity, way finding and residential signage at Fallschase shall incorporate a common theme in keeping with the design vocabulary of the project. Particular, cohesive designs will establish project identity signage and a program of way finding sign types and environmental graphics will be incorporated into the project.

The guidelines are intended to provide an appropriate level of sign control without limiting creative sign design by tenants and businesses. The following standards apply to the Fallschase Planned Unite Development:

Signs shall be either monument-type (constructed with a base maintaining full width to the sign face) or pedestal-mounted. Ground signs shall be comprised of an exterior material and finish consistent with the architectural language and unique identity of Fallschase.

All signage shall comply with Leon County Signage Standards







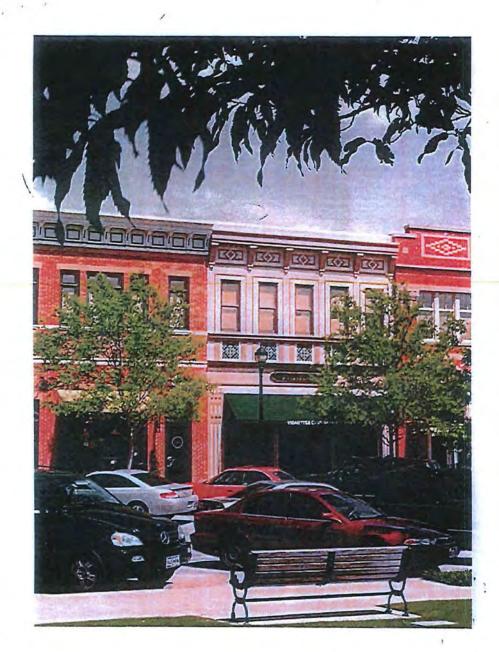
IV. LIGHTING

Lighting sets the tone for all of Fallschase and serves to enhance the nocturnal atmosphere by creating delightful spaces with soft pools of light and sparkling reflections. Proper lighting not only creates enchanting, inviting spaces and experiences but also functions as an integral element of way finding systems by creating a sense of safety and well being. Outdoor lighting techniques at Fallschase should accent architectural entries, hardscape and plant features with the landscape.

Outdoor lighting shall be designed to minimize night-sky, light pollution to prevent direct illumination of adjacent off-site properties by the use of recessed light fixtures and shielded luminaires. Lighting fixtures will be "shoebox" type lights which are fully shielded meaning the light source is concealed within the housing.







PART 3

GENERAL ARCHITECTURAL CHARACTERISTICS



I. INTRODUCTION

The design criteria outlined herein is intended to provide a design standard whereby large footprint buildings and other retail and mixed use building being planned for Fallschase can be assimilated within the context of the development without detracting from the scale connectivity, traffic patterns, walk-ability and image of the area.

II. GENERAL ARCHITECTURAL CHARACTERISTICS

The following architectural consideration must be taken into account in the design of all buildings at Fallschase.

- Facades should be articulated to reduce the massive scale or impersonal appearances of large retail buildings.
- Buildings should have architectural features and patterns that provide visual interest.
 - Variation in roof lines should be used to add interest and to reduce the scale of buildings.
- Building materials should be aesthetically pleasing and compatible with the material palette established for the development and in harmony with the neighborhood.
- Entryway design elements and variations should give orientation and aesthetically pleasing character to the building.











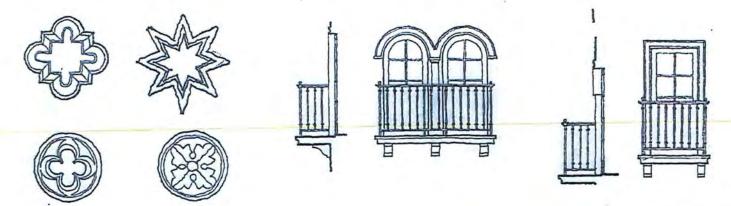


Manual Attachment #3

 Vertical architectural features can help pedestrians orient themselves in the landscape and often serve to mark stairways, ntries and sometimes signage.



Carefully placed ornamentation reinforces the project's identity through motif and richness of detail such as relief bands, pendants and key stones made of cast stone. Medallions add texture and ornament to a building façade. These may be used to punctuate facades above arches or entryways and be useful elements to break up large wall surfaces with limited fenestration.



- Cornices and wall caps provide a decorative termination element for building parapets and flat roofs. They also serve to direct water away from the top of a building façade and should be sealed appropriately.
- Awnings and canopies provide sun and rain protection along walk ways and add color and texture to the building façade. Awning shapes may
 - be curved or rectangular depending on the corresponding window shape.









Manual Attachment #3

- Balconies function as compositional façade points and act as centering elements of a façade establishing a relationship between the building up
 per levels and the street level and can provide opportunity for planting.
- Roof forms and extended parapets should be used to provide visual interest and screen mechanical equipment.







III. SUMMARY

These general guidelines in conjunction with those outlined in the Fallschase Architecture Design Standard prepared by Leon County should be the basis for design and review in order that the Fallschase Development meets the design goals established herein.



IFAS EXTENSION

Leon County 615 Paul Russell Road Tallahassee, Fl 32301-7099

Phone: (850) 606-5202 Fax: (850) 606-5201

Website: http://leon.ifas.ufl.edu/ E-mail: rosenthals@leoncountyfl.gov

August 21, 2014

Dear John Outland,

This letter is in reference to our meetings at and or about the parking lot and surrounding grounds of the Fallschase Commercial Center located on the southside of Bucklake road. At these meeting you showed me trees and asked me about some of their declining conditions and what the cause of this was. City of Tallahassee Urban Beautification & Forestry Supervisor Cris Revell was also at these meeting and UF/Leon County Horticulture Extension Agent Taylor Vandiver was also consulted. The following is a summarization of our work.

We found that many of the trees in the parking lot islands were in poor shape. Some of this is due to inadequate rooting space, selection of tree species, and soil qualities. To explore soils qualities both chemical and physical properties were tested. Soil chemical properties were done by having the soil analyzed for both pH and nutrient availabilities (see attached tests). To summarize, it was found that other than a normal amount of nitrogen recommended for replenishment, for the most part, soil nutrient qualities were adequate. Soil percolation tests were also conducted to determine structure and porosity (see attached test). The six percolation tests showed consistently, that the soil in the parking lot islands and perimeter areas is poorly drained. This condition makes it difficult for tree roots to carry on respiration. Also, the compacted soil does not absorb water very well so that these trees probably receive much less water than rainfall would indicate.

Plants (including trees) should be planted in appropriate rooting zone areas for the mature size of the plant (tree). This is explained well in the UF publication on parking island sizes at . . . http://hort.ifas.ufl.edu/woody/island-sizes.shtml For this project, we recommend that rooting spaces created follow the Landscape Architectual Graphic Design Standards (Hopper, 2007).

In addition to adding more space to parking islands, some of the lack of rooting space can be compensated by using pervious pavement when possible. These pervious pavements allow for some oxygen (for respiration) and percolation so that roots can grow under them better than impervious pavements do. See picture below of a pervious driveway as an example.



We also found that throughout the grounds, some trees were planted too deep and we suspect that the size of planting hole was too small (soil compaction would be less if planting holes would be properly dug). Much information on the aforementioned subjects can be found at the UF site . . . http://hort.ifas.ufl.edu/woody/planting.shtml

Tree species and ground covers should be better matched to the growing conditions (soil conditions, rooting space and micro climate) that they are being grown in. This can be determined during the planning process for the islands so as to better match these trees to the site. See the following web page for the aforementioned subjects . . . http://hort.ifas.ufl.edu/woody/urban-design.shtml

For the perimeter areas that have better rooting areas I recommend that trees be added that represent the community to give the public a sense of place. Species to consider would be those from our native plant communities such as longleaf wiregrass redhills plant communities, North Florida red oak forests or beech magnolia forests. Specific plants could include longleaf and shortleaf pines, post oak, white oak, swamp chestnut oak, mockernut and pignut hickories, hophornbeam and American beech.

In the case of groundcovers and small shrubs we found that improvements could be made that would make the area more aesthetically pleasing and, in the future, potentially alleviate the amount of maintenance and replacement of plants. Due to the poor nature of the soil and extreme conditions of the area, the use of native plants is strongly encouraged. Our native plants our tough and can handle situations with lower water and fertilizer amendments. They can also, stand up to the extreme heat that this area will require. A few examples of native plants that would thrive at this site include: native grasses (such as muhly grass, cordgrass and wiregrass); groundcovers (such as bluestem grass and twin flower); small shrubs (such as yaupon holly, yucca, coontie, and oakleaf

hydrangea in shadier areas); and perennials (such as milkweed, blanket flower, blackeyed Susan, Stokes' aster and salvia).

Also for these areas, it would be good to consider wildflowers as are managed by DOT in its interstate medians and roadsides. You could also consider creating mulched areas to grow wildflowers to reducing mowing needs.

It was also found that maintenance was inadequate as the irrigation system was broken and mulching and pruning was not done properly.

Proper mulching will help protect the soil from soil compaction and overtime help improve soil structure and porosity. Proper mulching also reduces competition from grass. Inadequate mulching in the larger lawn areas was found to be a great contributor to poor growth. It will also help protect trees from damage by string trimmers and mowers. See the following web pages for information on proper mulching and pruning.

http://hort.ifas.ufl.edu/woody/mulching.shtml

http://hort.ifas.ufl.edu/woody/pruning.shtml

We recommend that future installation and maintenance of trees be supervised by an ISA (International Society of Arboriculture) certified arborist. See attached information on how to hire a tree service.

Please feel free to contact me if you have any questions.

Sincerely,

Stanton Rosenthal

Extension Agent-Forestry

Phone number 606-5202

cc: Cris Revell, ISA certified arborist and Urban Beautification & Forestry Supervisor, City of Tallahassee

Taylor Vandiver, Horticulture Extension Agent, University of Florida IFAS /Leon County Extension

Attachments:

Manual Attachment #5

FALLSCHASE COMMERCIAL CENTER

LANDSCAPE PLAN PERIMETER / R.O.W. REPLANTING

OWNER:

R: <u>CLIENT</u>:

PROJECT:

CONTENTS:

CPP FALLSCHASE II, LLC

COLUMBUS PACIFIC PROPERTIES & LORMAX STERN DEVELOPMENT COMPANY 38500 WOODWARD AVE., SUITE 200 BLOOMFIELD HILLS, MI 48304

FALLSCHASE
COMMERCIAL
PERIMETER / R.O.W.
REPLANTING PLANS

1.0 COVER SHEET

2.1 - 2.3 EXISTING CONDITIONS MAPS

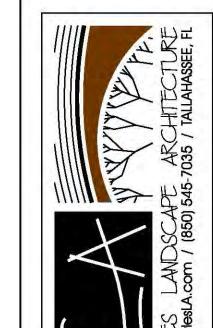
3.1 - 3.3 LANDSCAPE PLANS

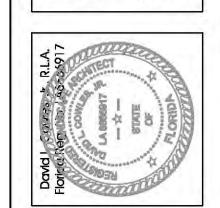
REVISIONS

FALLSCHASE COMMERCIAL CENTER
PERIMETER / R.O.W. REPLANTING
COLUMBUS PACIFIC PROPERTIES &
LORMAX STERN DEVELOPMENT COMPANY

DATE: 12/19/2014
DRAWN BY: DLC

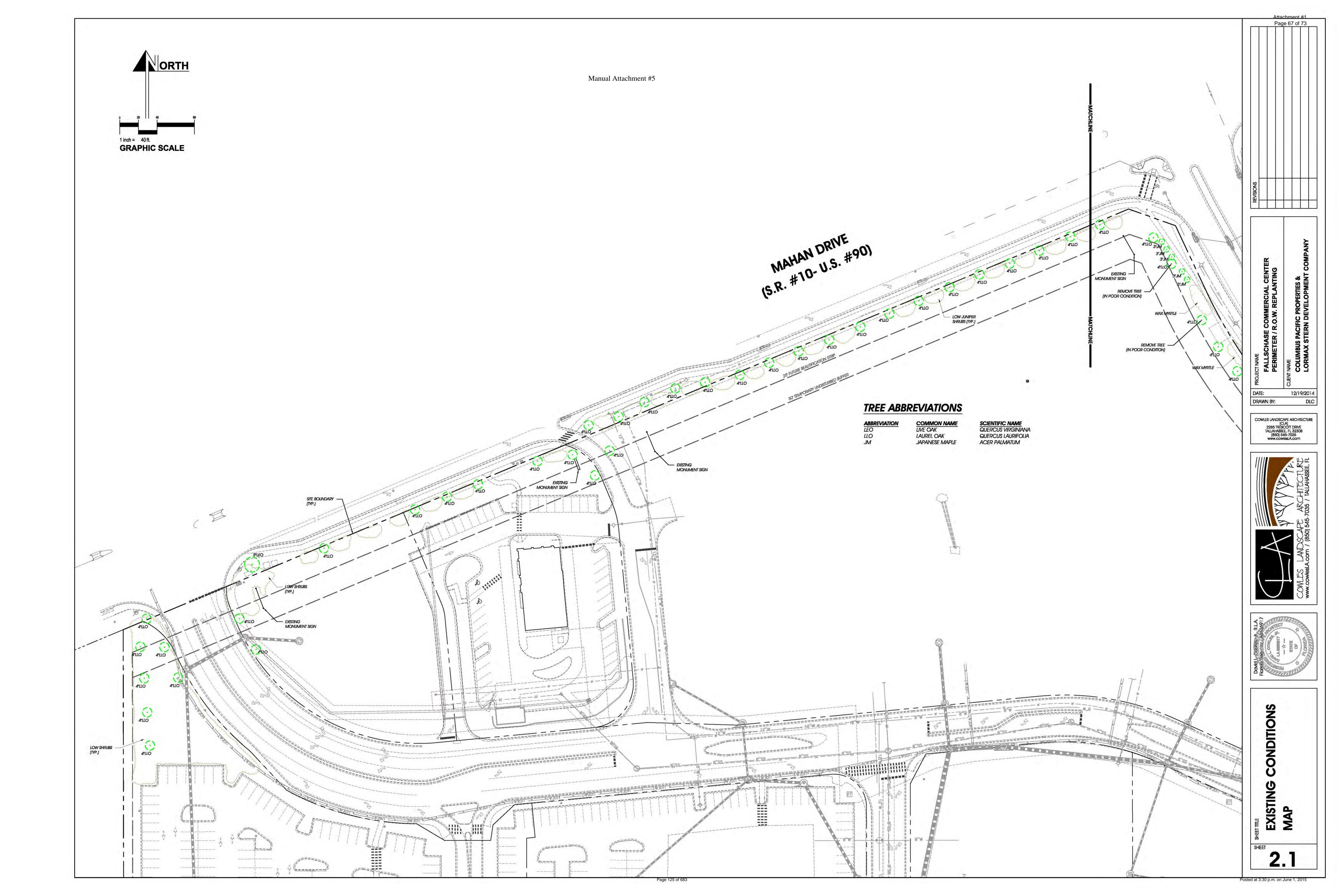
COWLES LANDSCAPE ARCHITECTURE (CLA)
2285 TRESCOTT DRIVE
TALLAHASSEE, FL 32308
(850) 545-7035
www.cowlesla.com

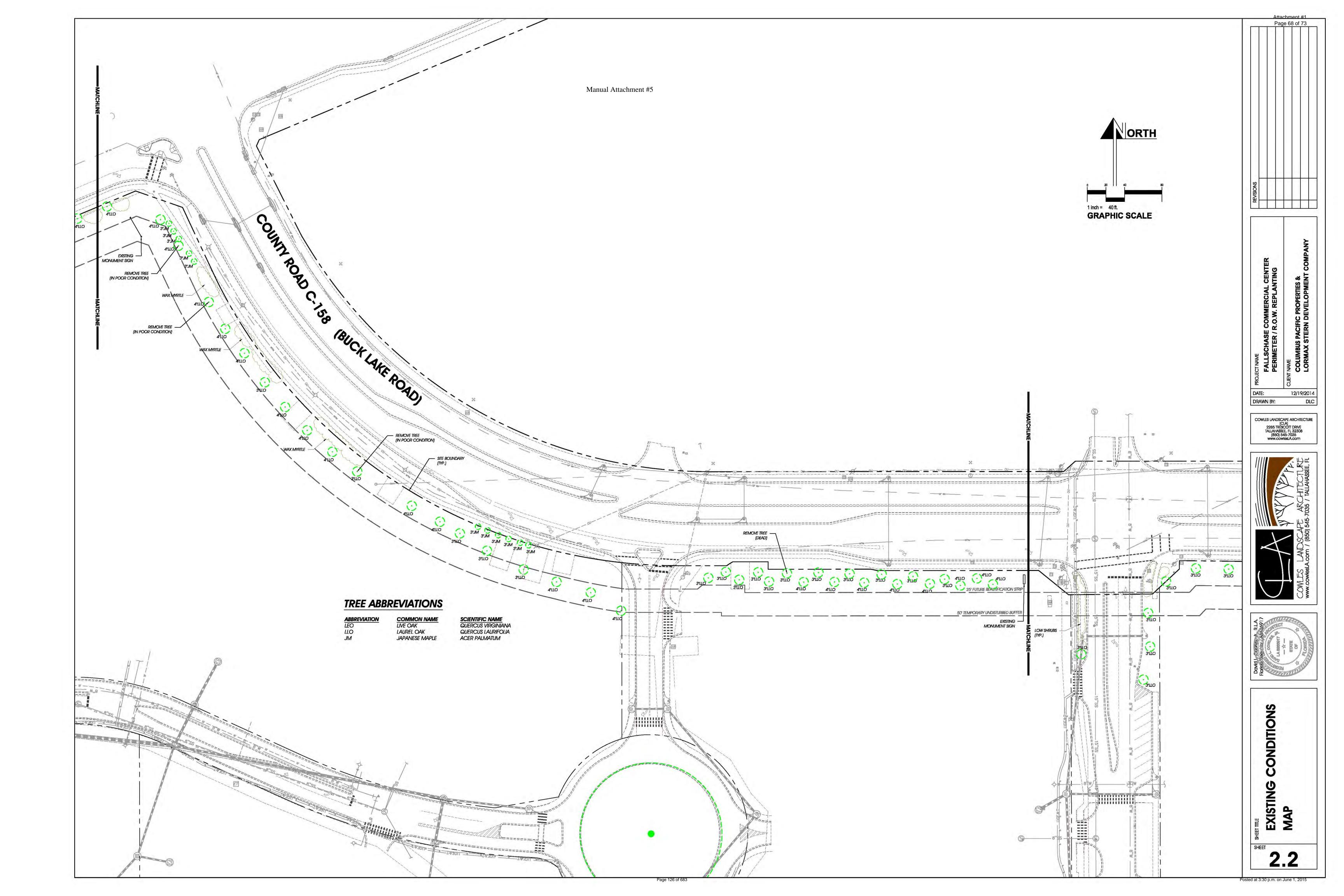


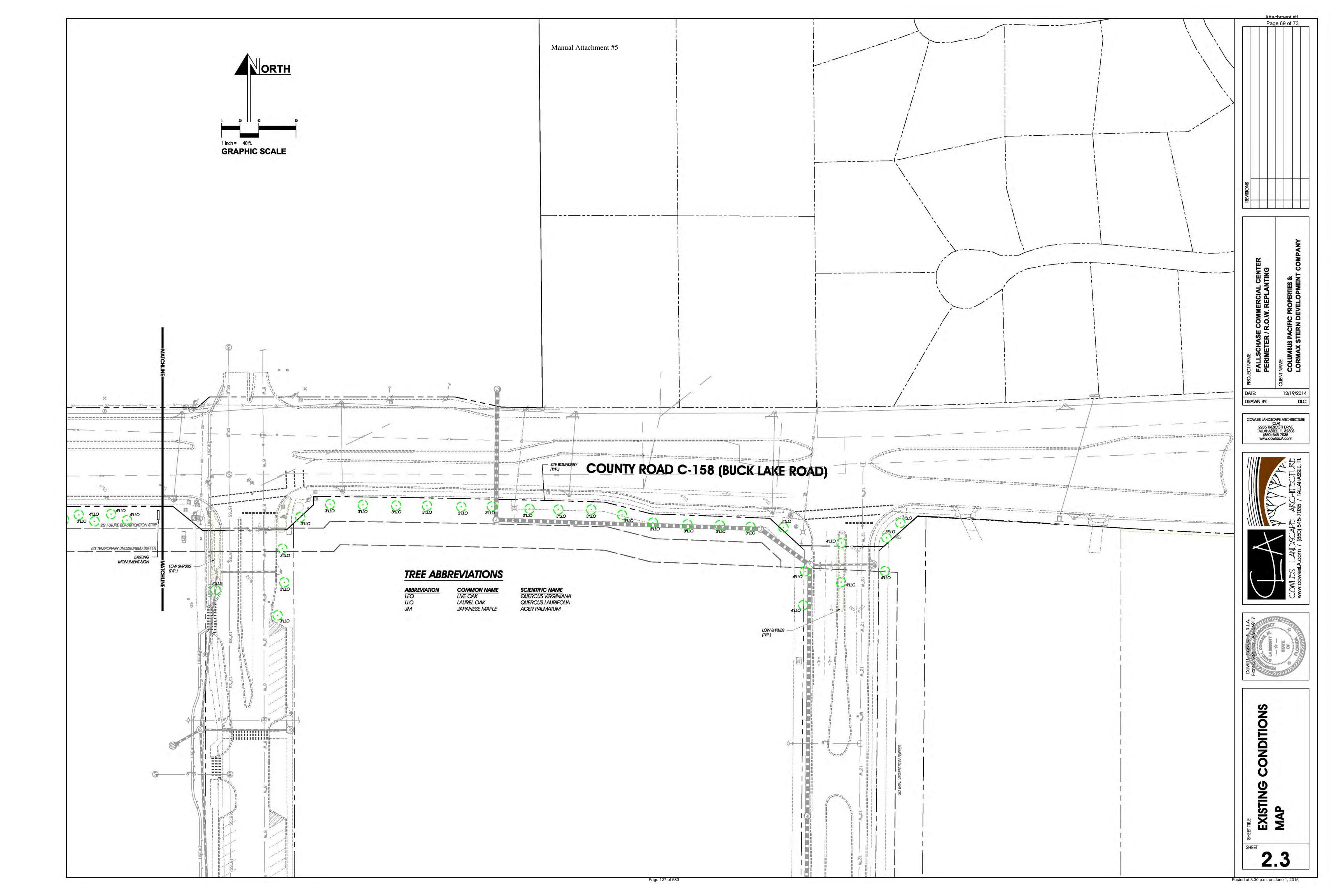


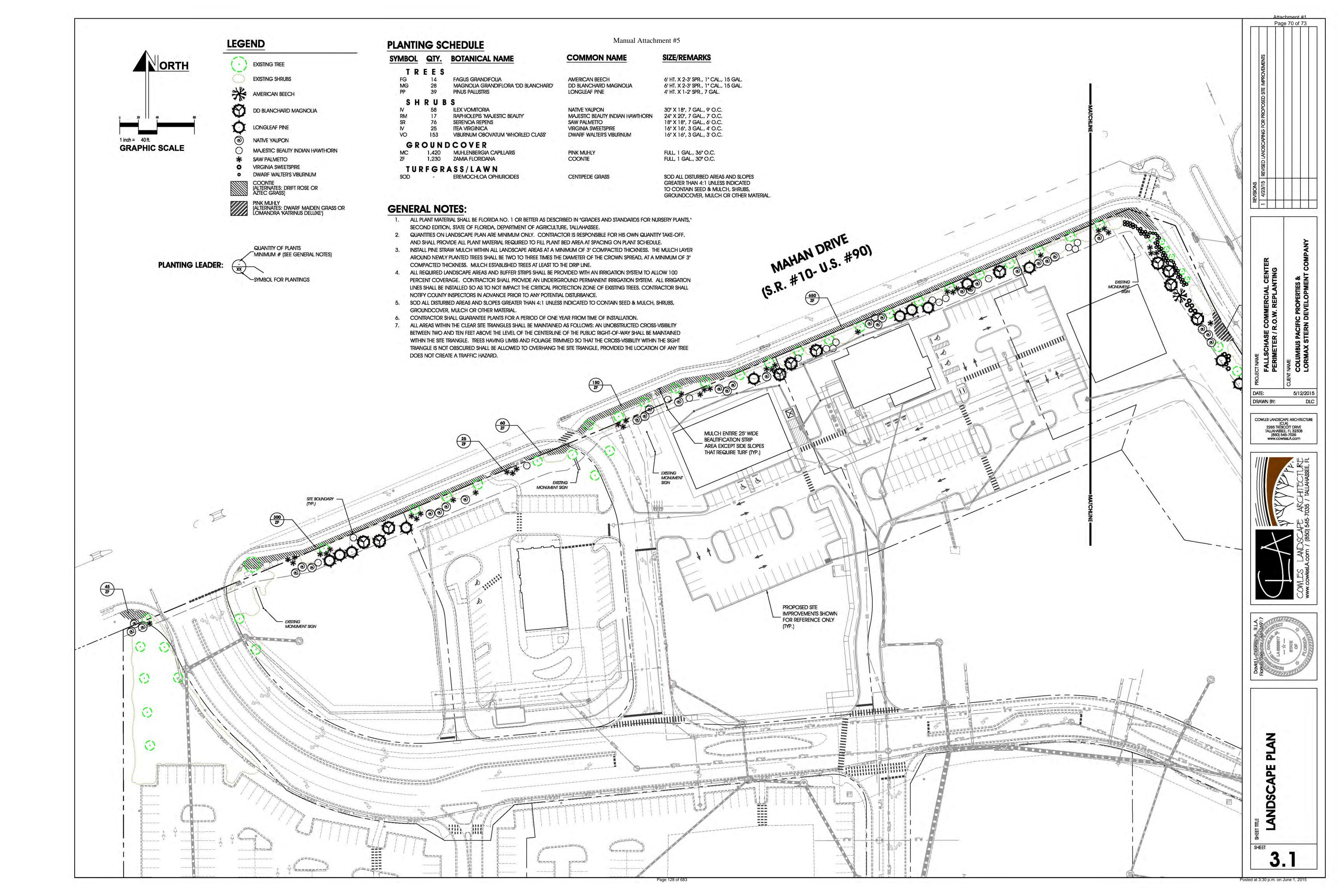
COVER SHEET

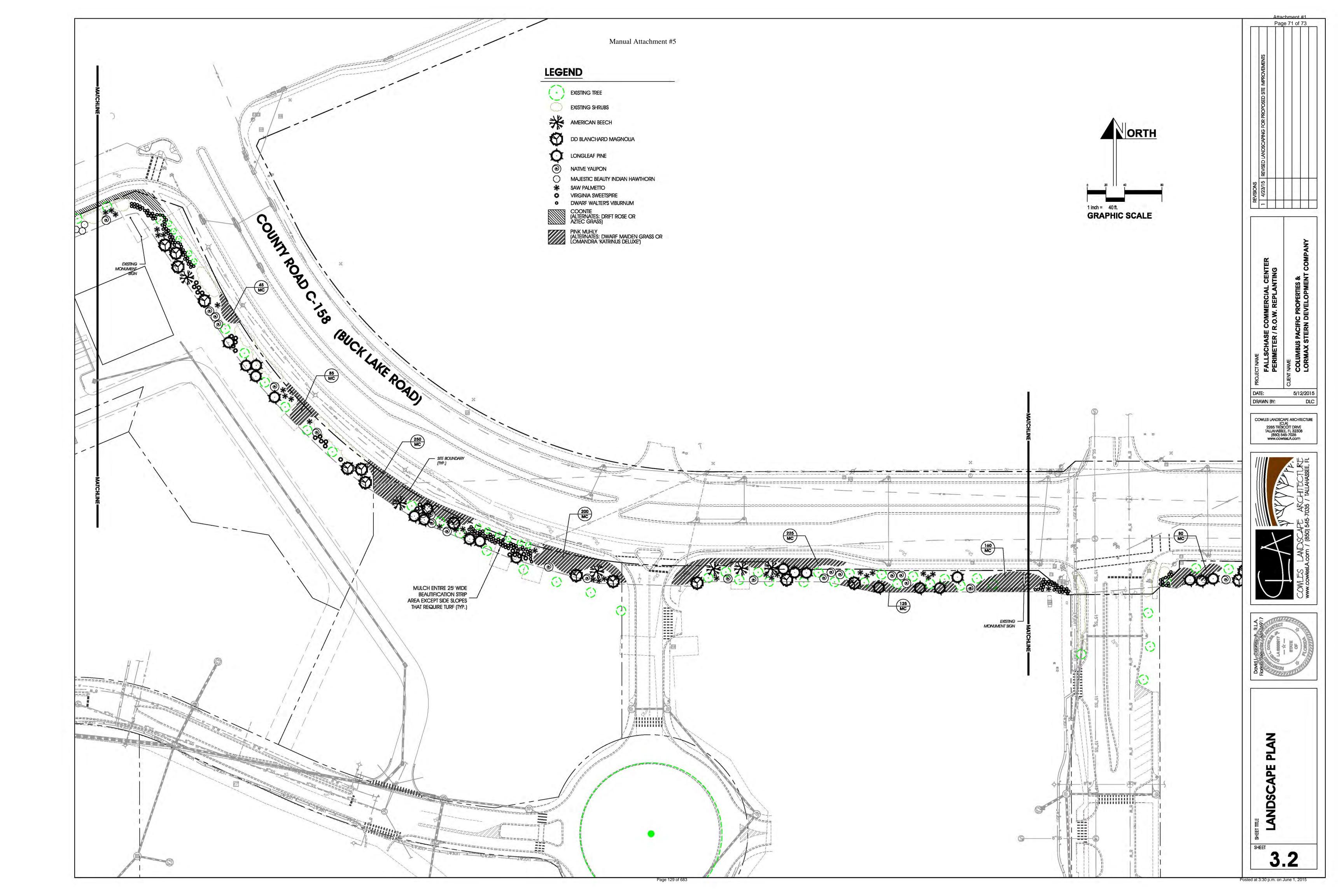
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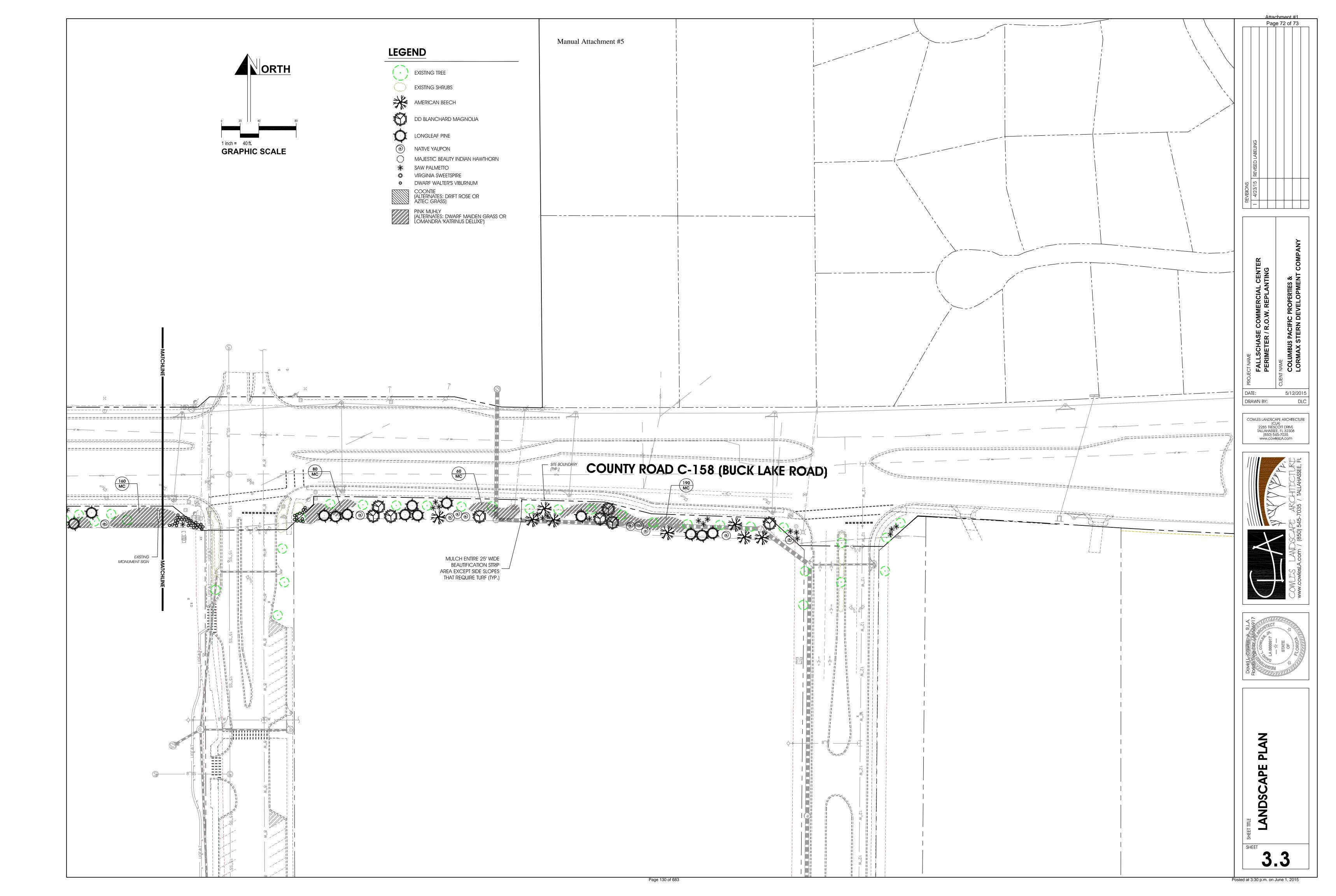


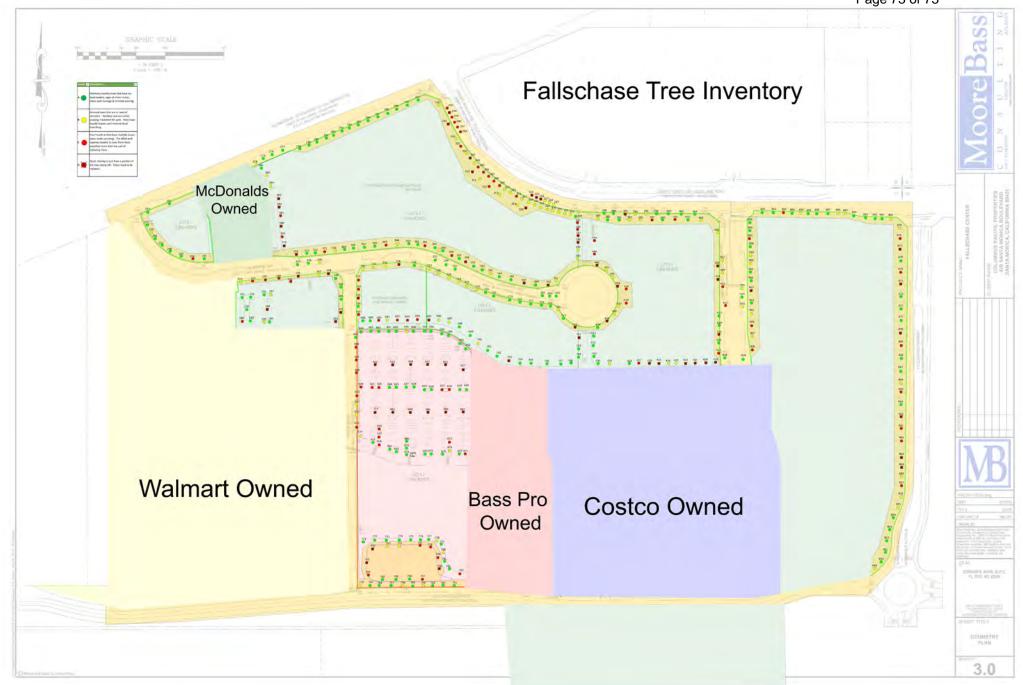












Architectural Design Standards

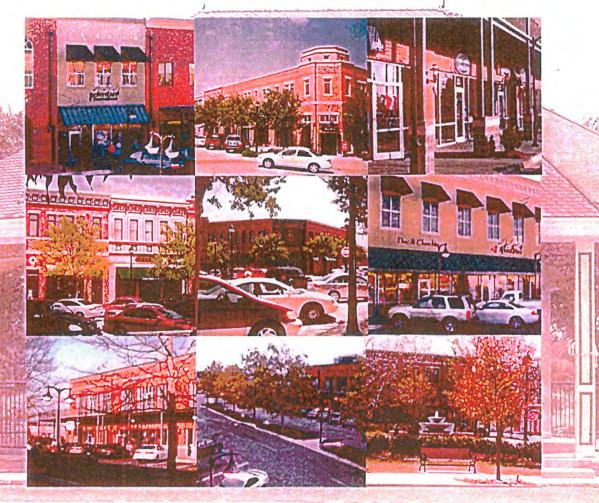
AIG Baker and the County shall cooperate to fashion architectural design standards to govern the FC – R (Multi-Family Residential) district and non-residential development within the PUD. These standards require further negotiation which will be completed after the adoption of the PUD but prior to the approval of any site or development plan for the PUD. These standards will be approved by both AIG Baker and the County Administrator and they will be based on the DA and its attached exhibits. If AIG Baker and the County Administrator fail to reach agreement, the matter shall be submitted to the BCC for decision. The standards may be modified only by written agreement between AIG Baker and the county as evidenced by BCC action.

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FALLSCHASE

Appendix 4

Leon County, Tallahassee Florida



Design Review Guidelines

May 22, 2006



Posted at 3:30 p.m. on June 1, 2015

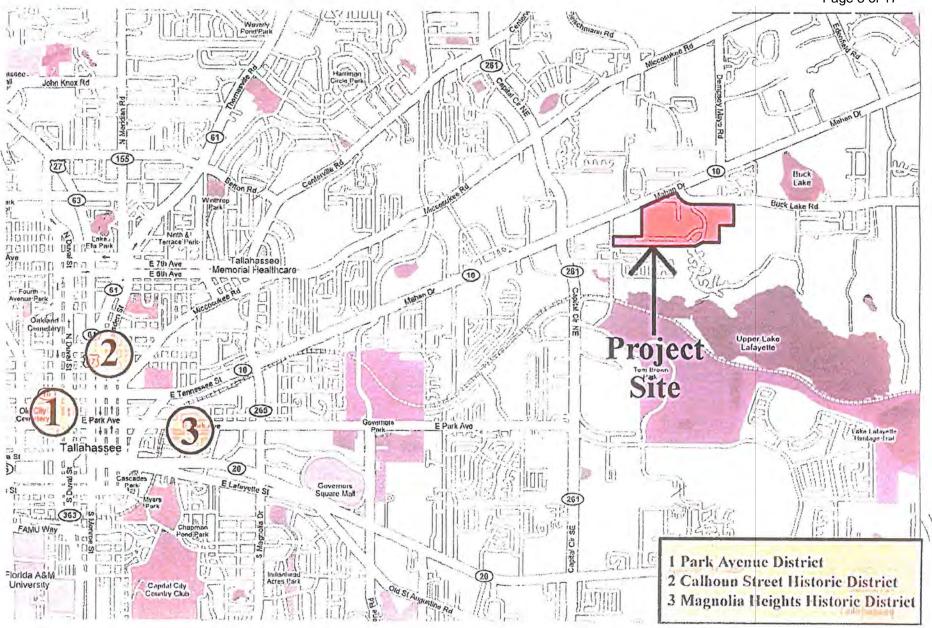
Attachment #3 Page 2 of 17

Location Map

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PART I DESIGN REVIÉW GUIDELINES



I. INTRODUCTION

The community of Fallschase introduced a new lifestyle to Leon County in Northern, Florida creating a mixed-use environment for shopping, living, working and playing. The development integrates a range of retail offerings, housing types, office, and recreational facilities into a unified whole.

Located in Tallahassee, Florida between US 90 (Mahan Road) on the North, Weems Road on the West and Lake Lafayette on the south, Fallschase is well situated in a community that has a tradition of quality development, established historical neighborhoods and exceptional design.

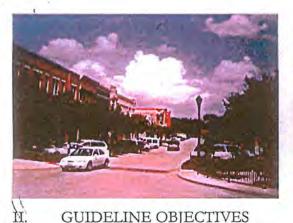
These guidelines have been created primarily to assist owners, tenants and developers at Fallschase in working together toward the common objectives of the development to reinforce the regional identity and of life reflected in the built environment. The Fallschase Design Guidelines recognize these qualities and strive to further expand on these accomplishments.

The Design Guidelines are not to be considered a commitment to a particular design or designs on the part of the project developer. Nor are they in any way intended to imploy the creation of a redundant, bland or unimaginative environment. Rather, they aim to establish the character of the overall development and encourage creative solutions that support the projects objectives and design intent. Functioning as a frame work for owners and tenants to work within, they will enhance the beauty, harmony and livability of Fallschase.













GUIDELINE OBJECTIVES

Create an attractive and functional mixed use development and a unifying style for Fallschase.

The Fallschase Architectural Design Standards are not predicated on slavish recreation of a historical vernacular architecture, but rather take historical references evident in the Calhoun Street, Magnolia Heights and Park Avenue Historical Districts of Tallahassee where a rich mixture of "Frame Vernacular" and Queen Ann Style Architecture combine with Classical Architectural Details to create street frontages referred to as "Main Street". The standards are intended to facilitate compatibility with nearby neighborhoods and to facilitate pedestrian activity within the development as well as transit accessibility.

The building facades appear as if they were constructed over time by a variety of Architects fulfilling their owner's varied programs and needs. The thoughtful integration of these visually rich traditions results in a distinctive identity for Fallschase.

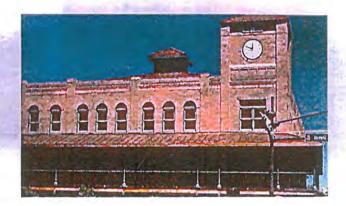
- Establish a unique sense of character and place through creative and harmonious use with architecture, landscape, lighting, signage and amenities.
- Fallschase places a heavy emphasis on creating quality commercial public spaces with unique focal points and distinctive landscaping. Architecture at Fallschase employs appropriate building scale, massing and articulation. Attention to detail is encouraged at all areas, and should be further developed at the pedestrian level and at areas of high visibility.
- Uphold the sense of quality and commitment established by the architectural history of Tallahassee.

Fallschase contributes to the regional identity long established in its historical districts. By supporting the aesthetic direction and values of the community, Fallschase creates a high quality of life for visitors and residents alike.

Incorporate the best current design and planning concepts.

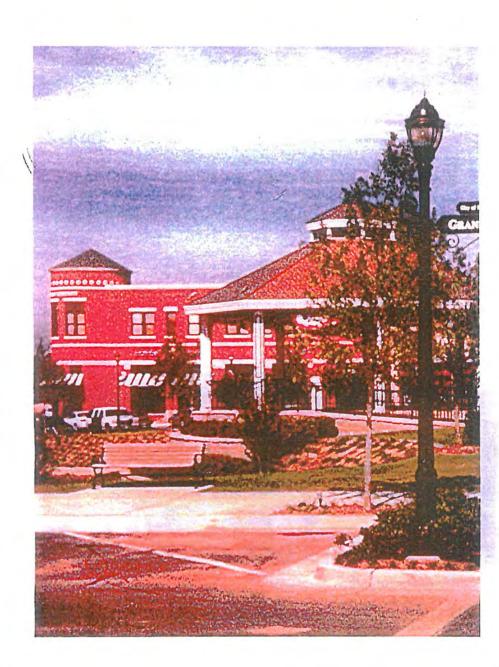






Fallschase enhances the physical environment through high quality design practices. Sound planning principles create fluid and pleasing pedestrian and vehicular circulation patterns. Careful building siting and orientation on the existing sloped terrain and presentation of many large trees is further complimented by a studied application of landscaped zones, including charming square and park areas. The sensitive integration of mixed-use and other residential components allows residents to enjoy the benefits of a vibrant community in combination with more subdued residential atmosphere.





PART II

ARCHITECTURE, SITE PLANNING, SIGNANGE, LIGHTING



I. ARCHITECTURE

The architecture of Fallschase serves as the backdrop, the setting with in which the every day activities of the community unfold. The buildings and environment affect the inhabitant's perceptions, outlook and daily lives through factors such as spatial quality, visual harmony, historical references and comfort and convenience.

Specific building elements and dimensions define the architectural spatial qualities at Fallschase. Varying building heights and massing are maintained at an appropriate, often intimate scale and avoid dwarfing their surrounding. Changes in massing achieved with vertical accents announce tenant location and punctuate the visual landscape. Façade articulation, particular for the larger format retail stores creates light and shadow transitions, visual interest, and further break down building scale into the human realm. A combination of hip type low angled standing seam metal roofs and flat parapet rooflines provide visual variety and opportunities for change in material and texture. The internal streets and walkways between buildings encourage strolling and discovery.

Visual harmony at Fallschase is achieved through thoughtful application of combination of surface treatments. The warm earth tone color palette from the stucco finished walls to the richly textured red brick recall buildings in Tallahassee's historical neighborhoods. Changes in color animate facades and groups of buildings. Variety in texture at buildings or façade transitions differentiates buildings and creates shade and shadow.



Sample Mixed Used Elevations Retail-First Floor Residential-Second Floor



Sample Mixed Used Elevations Retail-First Floor Residential-Second Floor



Ornamental metal balcony railing set in front of deep balconies, combined with canvas and metal awnings add vitality and activates building façades and reinforces the identity of the community.

The style and character of the elegant Historical Districts of Tallahassee is conveyed through Fallschase façade and building design, building siting, ornament and surface treatments. Industrial building references recall Gallies Hall/Monroe Opera House at Adams and Jefferson Street that was constructed in 1892.

Comfort and convenience round out the architecture of Fallschase and distinguish it from ordinary commercial retail developments. Awnings, arcades, beautiful landscape and other devices shade the pedestrians; ease of circulation results from well planned building siting and logical building entry locations; intimate courtyards and site amenities provide places to rest and gather.



Sample Shop Elevations



Sample Shop Elevations



General characteristics of site planning at Fallschase.

Site planning at Fallschase requires careful consideration of both the built environment and the natural landscape. Designers should bare in mind the following objectives:

Creation of a functional open space for public use that are integrated onto the overall concepts.

Outdoor Public Use and Open Space: Nonresidential and multifamily residential development are encouraged and should be designed to establish, define and integrate outdoor public use areas into the development. Public use areas can incorporate (but should not be limited to) such uses and activities as seating, dining, special events, and entertainment. Well-defined pedestrian corridors should be utilized to interconnect such areas within the various phases and sub-phases of the Fallschase Planned Unit Development.





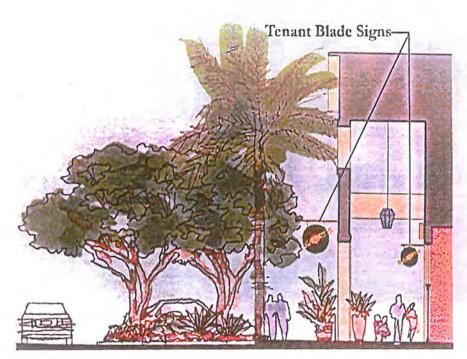


Identity, way finding and residential signage at Fallschase shall incorporate a common theme in keeping with the design vocabulary of the project. Particular, cohesive designs will establish project identity signage and a program of way finding sign types and environmental graphics will be incorporated into the project.

The guidelines are intended to provide an appropriate level of sign control without limiting creative sign design by tenants and businesses. The following standards apply to the Fallschase Planned Unite Development:

- Signs shall be either monument-type (constructed with a base maintaining full width to the sign face) or pedestal-mounted.
- Ground signs shall be comprised of an exterior material and finish consistent with the architectural language and unique identity of Fallschase.

All signage shall comply with Leon County Signage Standards

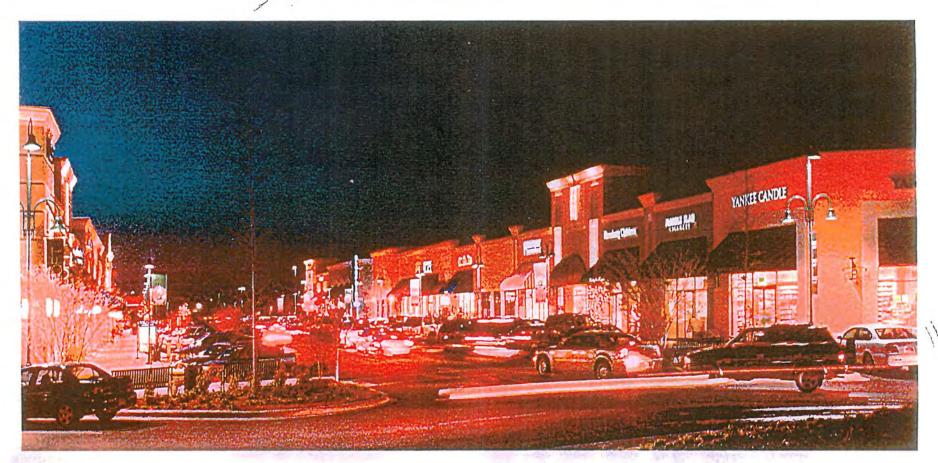




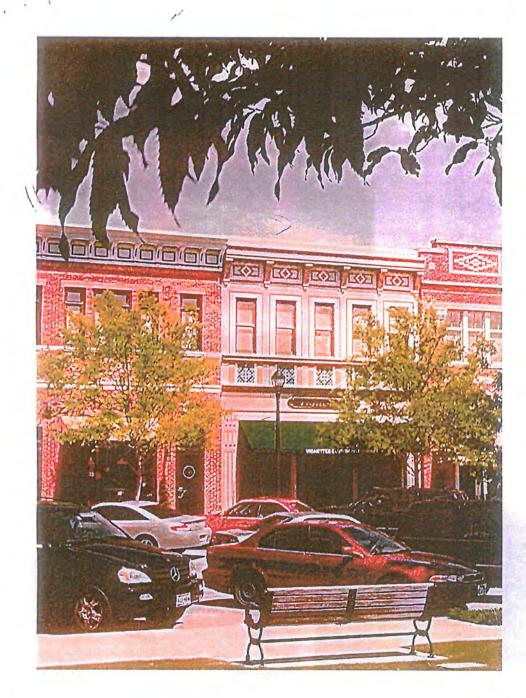


Lighting sets the tone for all of Fallschase and serves to enhance the nocturnal atmosphere by creating delightful spaces with soft pools of light and sparkling reflections. Proper lighting not only creates enchanting, inviting spaces and experiences but also functions as an integral element of way finding systems by creating a sense of safety and well being. Outdoor lighting techniques at Fallschase should accent architectural entries, hardscape and plant features with the landscape.

Outdoor lighting shall be designed to minimize night-sky, light pollution to prevent direct illumination of adjacent off-site properties by the use of recessed light fixtures and shielded luminaires. Lighting fixtures will be "shoebox" type lights which are fully shielded meaning the light source is concealed within the housing.







PART 3

GENERAL ARCHITECTURAL CHARACTERISTICS



I. INTRODUCTION

The design criteria outlined herein is intended to provide a design standard whereby large footprint buildings and other retail and mixed use building being planned for Fallschase can be assimilated within the context of the development without detracting from the scale connectivity, traffic patterns, walk-ability and image of the area.

II. GENERAL ARCHITECTURAL CHARACTERISTICS

The following architectural consideration must be taken into account in the design of all buildings at Fallschase.

- Facades should be articulated to reduce the massive scale or impersonal appearances of large retail buildings.
- Buildings should have architectural features and patterns that provide visual interest.
- Variation in roof lines should be used to add interest and to reduce the scale of buildings.
- Building materials should be aesthetically pleasing and compatible with the material palette established for the development and in harmony with the neighborhood.
- Entryway design elements and variations should give orientation and aesthetically pleasing character to the building.

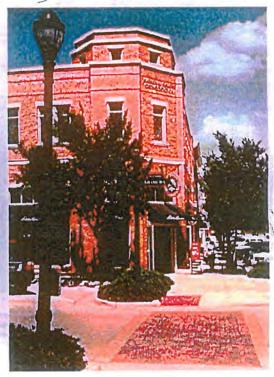




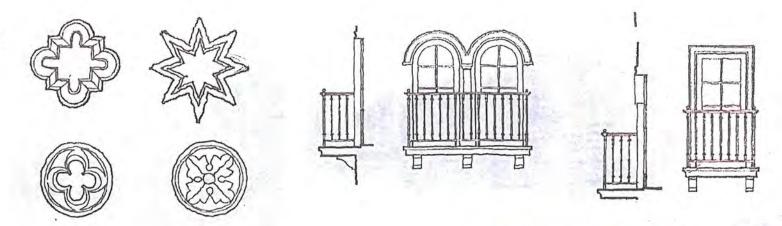








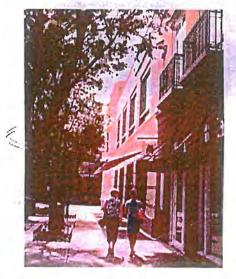
- Vertical architectural features can help pedestrians orient themselves in the landscape and often serve to mark stairways, ntri eaged 600ft imes signage.
- Decorative metal railings can serve as an important element to enhance pedestrian scale.
- Carefully placed ornamentation reinforces the project's identity through motif and richness of detail such as relief bands, pendants and key stones made of cast stone. Medallions add texture and ornament to a building façade. These may be used to punctuate facades above arches or entryways and be useful elements to break up large wall surfaces with limited fenestration.



- Cornices and wall caps provide a decorative termination element for building parapets and flat roofs. They also serve to direct water away from the top of a building façade and should be sealed appropriately.
- Awnings and canopies provide sun and rain protection along walk ways and add color and texture to the building façade. Awning shapes may
 - be curved or rectangular depending on the corresponding window shape.





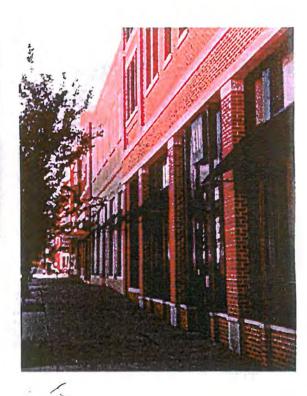




- Balconies function as compositional façade points and act as centering elements of a façade establishing a relationship between the building up per levels and the street level and can provide opportunity for planting.
- Roof forms and extended parapets should be used to provide visual interest and screen mechanical equipment.







III. SUMMARY

These general guidelines in conjunction with those outlined in the Fallschase Architecture Design Standard prepared by Leon County should be the basis for design and review in order that the Fallschase Development meets the design goals established herein.



Leon County Board of County Commissioners

Notes for Agenda Item #6

Leon County Board of County Commissioners

Cover Sheet for Agenda #6

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Approval of the Proposed Traffic Signal Maintenance and Compensation

Agreement Phase 2 with the Florida Department of Transportation

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator
Lead Staff/ Project Team:	Katherine Burke, P.E., Acting Public Works Director

Fiscal Impact:

This item has a fiscal impact. The County will realize an additional \$38,159 reimbursement from the Florida Department of Transportation for FY 2016, bringing the total reimbursement to \$101,384. The increase will be included in the proposed FY 2016 budget. Cost escalations with the City of Tallahassee have not yet been determined, but are expected to at least mirror the reimbursement increase.

Staff Recommendation:

Option #1: Approve the proposed Traffic Signal Maintenance and Compensation Agreement

Phase 2 with the Florida Department of Transportation (Attachment #1), and

authorize the County Administrator to execute.

Title: Approval of the Proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 with the Florida Department of Transportation

June 9, 2015

Page 2

Report and Discussion

Background:

As allowed in Florida Statute 335.055, the Florida Department of Transportation (FDOT) routinely contracts with counties and cities for the maintenance and operation of intersection traffic control devices, such as traffic signals, where the signals are the responsibility of FDOT. These agreements establish the relationship and responsibilities of the local agency and FDOT. By this process, local agencies can provide electric power and maintenance of these facilities more efficiently than it would be possible for FDOT, and FDOT can reimburse local agencies for the costs associated with this maintenance.

On March 9, 1983, Leon County entered into a traffic signal maintenance contract with FDOT. Subsequently, on November 3, 1983, Leon County and the City of Tallahassee entered into an agreement, whereby the City of Tallahassee will operate and maintain traffic signal systems that are the responsibility of Leon County or of FDOT, by agreement with Leon County. Leon County establishes electric service for each traffic signal installation with the appropriate electric service provider for the location of each signal. On May 28, 2002, the Board approved a new agreement with FDOT, which became effective September 20, 2002. Amendment No. 1 to the 2002 Agreement was approved by the Board during the September 23, 2009 Board meeting.

Beginning the first of this calendar year, FDOT began the process of developing a new Traffic Signal Maintenance and Compensation Agreement. Several statewide conference calls were held between FDOT and a number of local agencies. FDOT developed a Phase 1 Agreement, which only a limited number of local agencies executed; as many local agencies objected to several of the new requirements in the Phase 1 Agreement. In July 2014, FDOT held additional meetings to address the local agencies' concerns (Attachment #2). One major concern was mast arm maintenance. FDOT developed the Phase 1-B Agreement, which includes removal of the provisions for mast arm maintenance, as well as the reimbursement of costs associated with the maintenance of traffic control systems (signals) at intersections, intersection control beacon, pedestrian flashing beacons, Emergency/Fire Department signal, speed activated warning displays, and traffic warning beacons where FDOT has a responsibility to install such signals.

On December 9, 2014, the Board approved the Phase 1-B Traffic Signal Maintenance Agreement as an initial step toward a completely updated agreement. The City of Tallahassee executed this interim agreement with the understanding that FDOT would continue to work with local governments on the language and requirements of the agreement.

Analysis:

Staff has reviewed the proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 and recommends approval. The proposed Agreement increases the FDOT reimbursement amount from \$63,225 to \$101,384. With the approval of the proposed Agreement, the County will realize an additional \$38,159. The increase will be included in the proposed FY 2016 budget. Staff has been coordinating with the City of Tallahassee, as the City maintains the traffic signal system for the County. The City Commission will be considering the approval of the Agreement at its June 10th meeting.

Title: Approval of the Proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 with the Florida Department of Transportation

June 9, 2015

Page 3

The new Agreement with maintaining agencies defines maintenance responsibilities, incorporates maintenance records retention, provides clarification on performance requirements reporting, and incorporates additional compensation from FDOT.

Major elements of this Agreement require:

- Certain minimum inspections
- Documentation of inspections with submittal to FDOT via an annual report
- Clarifies responsibilities for replacement of mast arms
- Includes withholding of payment for failure to document and/or provide the level of required maintenance.

A separate maintenance agreement with the City of Tallahassee will be brought to the Board later this year to incorporate the performance standards FDOT is requiring be incorporated into the maintenance agreement with the City, as well as the increased costs resulting from the additional reporting. The City has been a long-standing partner with the County for maintenance of all County traffic signals and it is fully expected that this high level of cooperation will continue.

Options:

- 1. Approve the proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 with the Florida Department of Transportation (Attachment #1), and authorize the County Administrator to execute.
- 2. Do not approve the proposed Traffic Signal Maintenance and Compensation Agreement Phase 2 with the Florida Department of Transportation.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Traffic Signal Maintenance and Compensation Agreement Phase 2
- 2. Florida Department of Transportation Meeting Minutes from July 30, 2014

750-010-22 TRAFFIC OPERATIONS 04/15 Page 1 of 5

	CONTRACT NO FINANCIAL PROJECT NO F.E.I.D. NO).
day of	RAFFIC SIGNAL MAINTENANCE AND COMPENSATION AGREEMENT ("Agreem., between the Florida Depart Florida, herein called the "Department", and	ent"), is entered into this tment of Transportation, an agency of , Florida, ("Maintaining Agency").
	WITNESSETH:	
A.	The Department is authorized under Section 335,055, Florida Statutes, to enter into	this Agreement.
В.	The Maintaining Agency is authorized under_ and has authorized its undersigned representative to enter into and execute this A Agency.	to enter into this Agreement Agreement on behalf of the Maintaining
	DW, THEREFORE, in consideration of the mutual covenants contained in the A knowledged, the parties mutually agree and covenant as follows:	greement, the sufficiency of which is

- 1. The Maintaining Agency shall be responsible for the maintenance and continuous operation of the traffic signals, interconnected and monitored traffic signals (IMTS) (defined as signals that are interconnected with telecommunications and are monitored at a central location), traffic signal systems (defined as central computer, cameras, message signs, communications devices, interconnect / network, vehicle, bicycle & pedestrian detection devices, traffic signal hardware and software, preemption devices, and uninterruptible power supplies ("UPS")), control devices (defined as intersection control beacons, traffic warning beacons, illuminated street name signs, pedestrian flashing beacons (i.e., school zone flashing beacons, pedestrian crossing beacons, and Rectangular Rapid Flashing Beacons)), and emergency/fire department signals and speed activated warning displays. The Maintaining Agency shall be responsible for the payment of electricity and electrical charges incurred in connection with operation of such traffic signals and signal systems and devices upon completion of installation of each signal or device. All traffic signals and control devices mentioned in this paragraph are referred to in this Agreement as "Traffic Signals and Devices".
- 2. The Department agrees to pay the Maintaining Agency an annual compensation amount based on the Department's fiscal year. The compensation amount consists of the cost of the maintenance and continuous operation of the Traffic Signals and Devices as identified in Exhibit A. Payments by the Department will be made in accordance with Exhibit B. In the case of construction contracts, the Maintaining Agency shall be responsible for the payment of electricity and electrical charges incurred in connection with the operation of the Traffic Signals and Devices, and shall undertake the maintenance and continuous operation of these Traffic Signals and Devices upon final acceptance of the installation by the Department, the Maintaining Agency will have the opportunity to inspect and request modifications or corrections to the installation(s) and the Department agrees to undertake those modifications or corrections prior to final acceptance so long as the modifications or corrections comply with the Agreement, signal plans, and specifications previously approved by both the Department and Maintaining Agency. Repair or replacement and other responsibilities of the installation contractor and the Department, during construction, are contained in the Department's Standard Specifications for Road and Bridge Construction.
- The Maintaining Agency shall maintain and operate the Traffic Signals and Devices in a manner that will ensure safe and efficient
 movement of highway traffic and that is consistent with maintenance practices prescribed by the International Municipal Signal
 Association (IMSA) and operational requirements of the Manual on Uniform Traffic Control Devices (MUTCD), as amended.
- 4. The Maintaining Agency's maintenance responsibilities include, but are not limited to, locates, preventive maintenance (periodic inspection, service and routine repairs), restoration of services, and emergency maintenance (trouble shooting in the event of equipment malfunction, failure, or damage). Restoration of services may include temporary poles, stop signs or other methods to maintain traffic. The Maintaining Agency shall record its maintenance activities in a traffic signal maintenance log.
- 5. The Department intends to conduct a structural inspection of the mast arm structures and strain poles every 60 months, which inspection shall comply with the checklist included in Exhibit C, attached to and incorporated in this Agreement. The inspection report will serve as a 90-day notification to the Maintaining Agency that deficiencies exist which require preventative maintenance and periodic maintenance. Preventative maintenance includes but is not limited to: spot painting, cleaning, all wiring issues, graffiti removal, all signal related issues (lighting, signs and connections), and response to traffic impact including repair and replacement of all components damaged by the traffic impact. For any new painted mast arms installed after the date of this agreement, preventative maintenance includes all items described above and also includes repainting, tightening of nuts, replacing missing or deficient bolts, replacement of missing cap covers or equivalent, replacement of missing or deficient access hole cover plates, and repairing improper grounding. Damaged mast arm structures and strain poles must be properly repaired or replaced by the Maintaining Agency. If the Maintaining Agency is not successful in recovering damage costs from responsible party(ies) within 180 days from the occurrence of damage, the Department will reimburse the Maintaining Agency for costs

750-010-22 TRAFFIC OPERATIONS 04/15 Page 2 of 5

incurred due to traffic impacts to mast arms, which reimbursements will be processed after the Department receives a properly completed and supported invoice from the Maintaining Agency. The Department will pursue reimbursements from individuals and/or the third parties who cause damages to mast arms and are liable for replacement/repair costs. Failure to perform preventative maintenance after notification of an inspection deficiency will result in the Maintaining Agency being responsible for the corrective actions. If spot painting or any other described preventative maintenance is not carried out, there shall be a 25% retainage of the annual compensation amount for the affected signal locations until the preventative maintenance is performed. For each month subsequent to the expiration of the 90-day notice given to the Maintaining Agency that preventative maintenance deficiencies exist, 1/12th of the annual compensation amount for the affected signal locations will be forfeited up to 25% of the annual compensation amount. In the case of a total paint failure on a mast arm installed prior to the date of this Agreement, the Department will fund the cost of repainting. This does not include any mast arm that was installed with a separate mast arm painted finish agreement. The terms of that agreement will control.

6. Periodic maintenance includes but is not limited to: repair of cracks in the mast arm structure; removal and/or repair of grout pads; resetting of anchor bolts; and repair or replacement of deteriorated anchor bolts and nuts. For any new mast arm installations after the date of this Agreement, if a Maintaining Agency requests a painted mast arm, the Maintaining Agency agrees to perform all required periodic and preventative maintenance. Any periodic maintenance performed on the mast arm structure by the Maintaining Agency needs Department approval prior to commencement of work and shall be performed within 90 days unless under an emergency situation. Any and all work performed by the Maintaining Agency must conform to the current Department Standard Specifications for Road and Bridge Construction as applicable. Mast arms that the Department determines to be at the end of its useful life will be replaced by the Department so long as documented preventative maintenance and any applicable periodic maintenance was satisfactorily performed by the Maintaining Agency.

The Table below summarizes the roles of the Maintaining Agency and the Department with regard to preventative and periodic maintenance of mast arms:

Maintaining Agency	Florida DOT						
Preventative maintenance of all mast arm structures	Periodic maintenance of all mast arm structures (except for any new painted and existing painted structures with signed separate Agreement)						
Periodic maintenance of structures (for any new painted and existing painted structures with signed separate Agreement)							
Damage repair or replacement of structures	Compensate Maintaining Agency for damage repair or replacement of structures						
	Replacement at end of life cycle of the structure						

- 7. The Department will reimburse the Maintaining Agency for costs incurred due to traffic impacts to traffic signal controller cabinet assemblies, traffic signal battery backup, UPS cabinet assemblies, pedestrian flashing beacons, strain pole repair or replacement, and all devices shown in Exhibit A, if the Maintaining Agency is not successful in recovering damage costs from responsible parties. The Maintaining Agency will be responsible for pursuing reimbursements from individuals and/or the third parties that cause damages. However, if the Maintaining Agency is not successful in recovering damage costs from responsible party(les) within 180 days from the occurrence of damage, the Department will pursue reimbursements from individuals and/or the third parties who cause damages and are liable for replacement/repair costs to the traffic signal controller cabinet assemblies, traffic signal battery backup, UPS cabinet assemblies, pedestrian flashing beacons, strain poles, and all devices shown in Exhibit A. Applicable reimbursements will be processed after the Department receives a property completed and supported invoice from the Maintaining Agency.
- 8. The Maintaining Agency may remove any component of the installed equipment for repair or testing; however, it shall only make permanent modifications or equipment replacements and only if the equipment provided is capable of performing at minimum the same functions as the equipment being replaced. The Department shall not make any modifications or equipment replacements without prior written notice to and consultation with the Maintaining Agency.
 - a. The Maintaining Agency shall implement and maintain the timing and phasing of the traffic signals in accordance with the Department's timing and phasing plans, specifications, special provisions, Department re-timing projects, and the Department's Traffic Engineering Manual. The Maintaining Agency shall obtain prior written approval from the Department for any modification in phasing of signals and flash times (where applicable). Signal Systems timings (cycle length, split, offsets, sequence) are considered operational changes and may be changed by the Maintaining Agency to accommodate changing needs of traffic. The Maintaining Agency may make changes in the signal timing provided these changes are made under the direction of a qualified Professional Engineer registered in the State of Florida. The Maintaining Agency shall make available a copy of the timings to the Department upon request. The Department reserves the right to examine equipment, timing and phasing at any time and, after consultation with the Maintaining Agency, may specify modifications. If the Department specifies modification in timing or phasing, implementation of such modifications will be coordinated with, or made by, the Maintaining Agency. All signal timing and phasing records shall be retained by the Maintaining Agency for at least three (3) years, and will be made available to the Department upon request.

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- The Maintaining Agency shall note in the maintenance log any changes in timings and phasings, and keep a copy of the timings and phasings, and any approval documentation in a file. A copy of the log shall be provided to the Department upon request. Maintaining Agencies may provide this information electronically.
- 10. The Maintaining Agency and the Department shall update Exhibit A on an annual basis which Exhibit A is attached to and incorporated in this Agreement. Exhibit A will contain all Traffic Signals and Devices on the State Highway System which are within the jurisdiction of the Maintaining Agency, those that are maintained by the Maintaining Agency and those that are maintained but not included for compensation. No changes or modifications may be made to Exhibit A during the Department's fiscal year for compensation. New Traffic Signals and Devices added by the Department during its fiscal year must be maintained and operated by the Maintaining Agency upon the Department's final acceptance as stated in paragraph 2. The Maintaining Agency and the Department shall update Exhibit A preceding each Department's fiscal year, which will include all new Department Traffic Signals and Devices added during the Department's previous fiscal year and delete those removed. Exhibit A will need to be incorporated into this Agreement by an amendment to this Agreement each time Exhibit A is updated. The Maintaining Agency will begin receiving compensation for new Traffic Signals and Devices in the Department's fiscal year after the Traffic Signals and Devices are installed and final acceptance is given by the Department. In the event that no change has been made to the previous year's Exhibit A, a certification from the Maintaining Agency shall be provided to the Department certifying that no change has been made to Exhibit A in the Department's previous fiscal year. The annual compensation will be a lump sum payment (minus any retainage or forfeiture) as set forth in Exhibit B. Future payments will be based on the information provided in Exhibit A, in accordance with the provisions as set forth in Exhibit B, attached to and incorporated in this Agreement.
- Payment will be made in accordance with Section 215.422, Florida Statutes.
- 12. There shall be no reimbursement for travel expenses under this Agreement.
- Bills for fees or other compensation for services or expenses shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof.
- 14. The Maintaining Agency should be aware of the following time frames. Inspection and approval of goods or services shall take no longer than twenty (20) working days. The Department has twenty (20) days to deliver a request for payment (voucher) to the Department of Financial Services. The twenty (20) days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.
- 15. If a payment is not available within forty (40) days, a separate interest penalty at a rate as established pursuant to Section 55.03(1), Florida Statutes, will be due and payable, in addition to the invoice amount, to the Maintaining Agency. Interest penalties of less than one (1) dollar will not be enforced unless the Maintaining Agency requests payment. Invoices returned to a Maintaining Agency because of Maintaining Agency preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.
- 16. A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this Individual include acting as an advocate for contractors or vendors who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (850) 413-5516 or by calling the Division of Consumer Services at 1-877-693-5236.
- 17. Records of costs incurred under the terms of this Agreement shall be maintained and made available upon request to the Department at all times during the period of this Agreement and for three (3) years after final payment is made. Copies of these documents and records shall be furnished to the Department upon request. Records of costs incurred include the Maintaining Agency's general accounting records and the project records, together with supporting documents and records, of the contractor and all subcontractors performing work on the project, and all other records of the Contractor and subcontractors considered necessary by the Department for a proper audit of costs.
- 18. In the event this contract is for services in excess of \$25,000.00 and a term for a period of more than one (1) year, the provisions of Section 339.135(6)(a), F.S., are hereby incorporated:

"The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the Comptroller of the Department that such funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding 1 year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verballm in all contracts of the Department which are for an amount in excess of \$25,000.00 and which have a term for a period of more than 1 year."

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- 19. The Department's obligation to pay is contingent upon an annual appropriation by the Florida Legislature.
- 20. An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.
- 21. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.
- 22. The Department shall consider the employment by any contractor of unauthorized aliens a violation of Section 274A(e) of the Immigration and Nationality Act. If the contractor knowingly employs unauthorized aliens, such violation will be cause for unilateral cancellation of this Agreement.
- 23. The Maintaining Agency may be subject to inspections of Traffic Signals and Devices by the Department. Such findings will be shared with the Maintaining Agency and will be the basis of all decisions regarding payment reduction, reworking, Agreement termination, or renewal. If at any time the Maintaining Agency has not performed the maintenance responsibility on the locations specified in the Exhibit A, the Department has the option of (a) notifying the Maintaining Agency of the deficiency with a requirement that it be corrected within a specified time, otherwise the Department shall deduct payment for any deficient Traffic Signal(s) and Device(s) maintenance not corrected at the end of such time, or (b) take whatever action is deemed appropriate by the Department. Any suspension or termination of funds does not relieve any obligation of the Maintaining Agency under the terms and conditions of this Agreement.
- 24. The Department shall monitor the performance of the Maintaining Agency in the fulfillment of the agreement. The Maintaining Agency shall submit an annual Report prior to June 30 of each year detailing the following:
 - a. Critical Detection device malfunctions: Critical detection is defined as the detection on side-streets and in left turn lanes on the main streets, and all pedestrian/bicycle detection. Repairs to the side-street and main street left turn detections shall be made within sixty (60) days of discovery and repairs to the pedestrian detection shall be made within 72 hours after notification. All these events shall be logged into the annual report. If repairs cannot be performed within 60 days, the agency shall document the reasons why. Discovery of such events shall be logged into the annual report. The Maintaining Agency shall ensure that 90% of all critical detectors systemwide are operating properly at all time. Any time the level drops below 90%, the Agency would have ninety (90) days to correct the situation. A 5% retainage of the total annual compensation amount (as shown in Exhibit A) will be withheld whenever the 90% critical detection requirement is not met within the 90-day period.
 - b. Traffic signal preventative maintenance inspections: All traffic signals shall receive at least one (1) minor preventative maintenance inspection, preferably two inspections, within a twelve (12) month period. Preventative maintenance inspection shall include verification that all detection is working, the signal is cycling properly, the ventilation system is functioning and filters are clean. Basic traffic cabinet maintenance shall also verify power feed voltages, verify that the vehicle and pedestrian indications are functioning properly, test the effective functioning of pedestrian push buttons, and check hinges and door locks. At least one (1) conflict monitor test shall be performed during a twelve (12) month period. Each test is to be documented and included in the annual report to the Department. The inspection report should note the location, date of inspection and any items noted. If the traffic signals do not receive at least one (1) minor preventative maintenance inspection during a twelve (12) month period, there shall be a 20% retainage of the annual compensation amount for the affected signal locations until the preventative maintenance inspection is made. If not performed within the state's fiscal year, the 20% retainage of the annual compensation amount for the affected signal locations will be forfeited.
 - c. For any traffic signals that are interconnected with telecommunications and their real-time operation is electronically monitored via software by personnel at a central location and are therefore receiving the higher compensation amount as described in Exhibit B, the name(s), titles of those monitoring those intersections, and the location of the central monitoring facility(s) are to be documented and contained in the annual report submitted to the Department.
 - d. In addition to the above requirements, if at least 50% of the traffic signals are not inspected and if at least half of the critical detection requirements as stated in 24a are not met, the Department will retain an additional 25% of the remaining compensation amount.

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- 25. The Maintaining Agency may enter into agreements with other parties pertaining to Traffic Signals and Devices including, but not limited to, agreements relating to costs and expenses incurred in connection with the operation of traffic signals and devices on the State Highway System, provided that such Agreements are consistent with the mutual covenants contained in this Agreement. The Maintaining Agency shall furnish a copy of such agreements to the Department.
- This Agreement may not be assigned or transferred by the Maintaining Agency in whole or in part without consent of the Department.
- 27. The Maintaining Agency shall allow public access to all documents, papers, letters, or other material subject to provisions of Chapter 119, Florida Statutes, and made or received by the Maintaining Agency in conjunction with this Agreement. Failure by the Maintaining Agency to grant such public access will be grounds for immediate unilateral cancellation of this Agreement by the Department.
- 28. This Agreement is governed by and construed in accordance with the laws of the State of Florida. The invalidity or unenforceability of any portion of this Agreement does not affect the remaining provisions and portions hereof. Any failure to enforce or election on the part of the Department to not enforce any provision of this Agreement does not constitute a waiver of any rights of the Department to enforce its remedies hereunder or at law or in equity.
- 29. This term of this Agreement is twenty (20) years; provided that either party may cancel this Agreement prior to the expiration of the term of this Agreement. A minimum notice period of two (2) years plus the remaining months of the Department's fiscal year shall be provided to the other party in writing. Should the Maintaining Agency provide its written notice of cancellation to the Department, the notice shall be endorsed by the elected body (County Commission, City Council, or local agency governing body) under which the Agency operates.
- 30. Upon execution, this Agreement cancels and supersedes any and all prior Traffic Signal Maintenance Agreement(s) between the parties, except specific separate Agreements covering painted mast arm maintenance or any other aspect related to the painting of mast arms.
- 31. The Department reserves the right to remove select critical corridors or critical intersections from the Maintaining Agency's obligation under this Agreement. The remaining intersections and corridors would continue to be covered under this Agreement. The Department will provide a minimum of one year notice prior to take-over of maintenance of critical corridors or critical intersections.
- 32. The Department agrees that the Maintaining Agency must comply with State law regarding appropriations and budgets. This Agreement shall not be interpreted to conflict with State law applicable to the Maintaining Agency.
- 33. The Maintaining Agency shall:
 - a. utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Maintaining Agency during the term of the contract; and
 - expressly require any contractors and subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.
- 34. Exhibits A, B, and C are attached and incorporated by reference.
- 35. This Agreement contains all the terms and conditions agreed upon by the parties.

IN WITNESS WHEREOF, the parties have caused these presents to be executed, the day and year first above written.

, Flor	ida STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
(Maintaining Agency) By	Ву
(Authorized Signature)	(Authorized Signature)
Print/Type Name:	Print/Type Name:
Title:	Title:
Attest:	Legal Review:
Attorney: Date:	

TRAFFIC SIGNAL INTER Effective Date: Maintaining Agency:		LEON COUNTY		ND OPERATED FO	2016	
Traffic Signal #	Intersection Locations	Traffic Signal Type	Compensate (Yes or No)	FDOT FY Unit Rate	Percent of State	Total Amount
001 SR 20 (US 27) @ CR 2195 (WW KELLEY RD)/CR 1543 (CHAIRES CROSSROADS)		TS	Yes	\$3,040.00	100.00%	\$3,040.00
002	SR 10 (US 90/MAHAN DR) @ CR 1543 (CHAIRES CROSSROADS)/CR 0345 (CRUMP RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
003	SR 61 @ CR 0342 BRADFORDVILLE / BANNERMAN RD	TS	Yes	\$3,040.00	100.00%	\$3,040.00
004	SR 10 (US 90/MAHAN DR) @ CR 1568 (BUCK LAKE RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
005	SR 63 (US 27) @ SR 263 (CCNW/CR 361 OLD BAINBRIDGE)	тѕ	Yes	\$3,040.00	100.00%	\$3,040.00
006	SR 263 @ CR 356 (FRED GEORGE RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
007	SR 261 @ CR 259 (TRAM RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
008	SR 261 @ SR 363 (WOODVILLE HWY)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
009	SR 263 @ SR 61 (CRAWFORDVILLE HWY)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
010	SR 263 @ CR 2203 (SPRINGHILL RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
011	SR 63 @ CROWDER/FRED GEORGE RD (CR 0356)	TS	Yes	\$3,040.00	100.00%	\$3,040.00

TRAFFIC SIGNAL INTERSECTIONS MAINTAINED AND OPERATED FOR FY

2016

Effective Date:

Maintaining Agency:

LEON COUNTY

CONTRACT #: AM249

Traffic Signal #	Intersection Locations	Traffic Signal Type	(Yes or No)	FDOT FY Unit Rate	Percent of State	Total Amount
012	SR 63 @ SESSIONS ENT. TO SAM'S CLUB	TS	Yes	\$3,040.00	100.00%	\$3,040.00
013	SR 63 @ PERKINS RD/FAULK DR	TS	Yes	\$3,040.00	100.00%	\$3,040.00
014	SR 363 (WOODVILLE HWY) @ ROSS RD	TS	Yes	\$3,040.00	100.00%	\$3,040.00
015	SR 10 (US 90/MAHAN DR) @ VINELAND DR	TS	Yes	\$3,040.00	100.00%	\$3,040.00
016	SR 363 @ CR 2204 (OAK RIDGE RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
017	SR 20 W @ CR 1581 (AENON CHURCH)	TS	Yes \$3,0		100.00%	\$3,040.00
018	SR 20 @ SR 263 (CCSW)	TS	Yes \$3,040.00		100.00%	\$3,040.00
019	SR 10 (US 90/MAHAN DR) @ CR 1553 (PEDRICK RD/LAYFAYETTE OAKS)	CR 1553 CK FAYETTE		\$3,040.00	100.00%	\$3,040.00
020	SR 61 (US 319) @ SHELFER RD	TS	Yes	\$3,040.00	100.00%	\$3,040.00
022	SR 10 (US 90/TENNESSEE ST) @ CR 1581 (AENON CHURCH RD)	ST) @ TS Yes \$3,040.00		100,00%	\$3,040.00	
023	SR 366 (PENSACOLA ST) @ NINA ST	TS	Yes	\$3,040.00	100.00%	\$3,040.00
024	SR 61 (WAKULLA SPRINGS RD) @ SR 369 (CRAWFORDVILLE HWY)	TS	Yes	\$3,040.00	100.00%	\$3,040.00

TRAFFIC SIGNAL INTERSECTIONS MAINTAINED AND OPERATED FOR FY

2016

Effective Date:

Maintaining Agency:

LEON COUNTY

CONTRACT #: AM249

Traffic Signal #	Intersection Locations	Traffic Signal Type	Compensate (Yes or No)	FDOT FY Unit Rate	Percent of State	Total Amount
025	SR 10 (US 90/MAHAN TS DR) @ LAGNIAPPE WAY		Yes	\$3,040.00	100.00%	\$3,040.00
026	SR 10 (US 90/MAHAN DR) @ DEMPSEY MAYO RD	TS	Yes \$3,040.00		100.00%	\$3,040.00
028	SR 10 (US 90/TENNESSEE ST) @ CR 1585 (GEDDIE RD)	TS	Yes	\$3,040.00	100.00%	\$3,040.00
030	SR 61 @ OAKRIDGE RD FB	ICB	Yes	\$1,064.00	100.00%	\$1,064.00
031	SR 10 (US 90/MAHAN DR) @ EDENFIELD RD	TS	TS Yes \$3,040.00		100.00%	\$3,040.00
032	SR 10 (US 90/MAHAN DR) @ THORNTON RD FB	ICB	Yes \$1,064.00		100.00%	\$1,084.00
033	SR 10 (US 90/MAHAN DR) @ WALDEN RD	TS	rs Yes \$3,040.00		100.00%	\$3,040.00
034	SR 263 (CCSW) @ GUM ROAD	TS	Yes \$3,040.00		100.00%	\$3,040.00
035	SR 20 @ GEDDIE ROAD	TS	Yes	\$3,040.00	100.00%	\$3,040.00
036	SR 20 (BLOUNTSTOWN HWY) @ BRADEN RIVER FIRE DEPT	FDS	Yes \$1,064.00		100.00%	\$1,064.00
037	SR 10 (US 90/MAHAN) @ CHAIRES CROSS RD EB	TWB	Yes	\$304.00	100.00%	\$304.00

TRAFFIC SIGNAL INTERSECTIONS MAINTAINED AND OPERATED FOR FY 2016 **Effective Date:** Maintaining Agency: LEON COUNTY CONTRACT #: AM249 Total FDOT FY Unit Rate Percent Compensate Traffic Traffic Signal Type Intersection Locations of State (Yes or No) Amount Signal # 038 SR 10 (US 90/MAHAN) Yes \$304.00 100.00% \$304.00 TWB @ CHAIRES CROSS RD WB 039 SR 20 (US 27) @ Yes \$608.00 100.00% \$608.00 TWB CHAIRES CROSS RD EB median and shoulder SR 20 (US 27) @ 040 \$304.00 100.00% \$304.00 Yes TWB CHAIRES CROSS RD WB 041 SR 363 (WOODVILLE \$608.00 100.00% \$608.00 Yes SZ HWY) @ OAKRIDGE ELEM SCHOOL \$608.00 042 SR 61 (US Yes 100.00% \$608.00 SZ 27/MONROE) @ CANOPY OAKS **ELEMENTARY SCHOOL** SR 363 @ WOODVILLE ELEMENTARY 043 Yes \$608.00 100.00% \$608.00 SZ SCHOOL - SZ SR 383 @ WOODVILLE Yes \$608.00 100.00% \$608.00 044 SAWD ELEMENTARY SCHOOL-Speed Feedback 046 SR 61 (US Yes \$304.00 100.00% \$304.00 TWB 319/THOMASVILLE HWY) @ LAWTON CHILES HIGH SCHOOL \$304.00 100.00% \$304.00 SR 61 (US Yes 047 TWB 319/THOMASVILLE HWY) @ LAWTON CHILES HIGH SCHOOL 048 SR 20 Yes \$304.00 100.00% \$304.00 SAWD (BLOUNTSTOWN HWY) WEST OF COE'S

LANDING

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Effective Date: Maintaining Agency:		LEON COUNTY		CONTRACT		
Traffic Signal #	Intersection Locations	Traffic Signal Type	Compensate (Yes or No)	FDOT FY Unit Rate	Percent of State	Total Amount
049	SR 20 (BLOUNTSTOWN HWY) WEST OF LUTHER HALL RD	SAWD	Yes	\$304.00	100.00%	\$304.00
050	SR 20 (BLOUNTSTOWN HWY) EB	TWB	Yes	\$304.00	100.00%	\$304.00
051	SR 20 (BLOUNTSTOWN HWY) EB	TWB	Yes	\$304.00	100.00%	\$304.00
052	SR 20 (BLOUNTSTOWN HWY) EB	TWB	Yes	\$304.00	100.00%	\$304.00
053	SR 20 (BLOUNTSTOWN HWY) WB	TWB	Yes	\$304.00	100.00%	\$304.00
054	SR 20 (BLOUNTSTOWN HWY) WB	TWB	Yes	\$304.00	100.00%	\$304.00
055	SR 20 (BLOUNTSTOWN HWY) WB	TWB	Yes	\$304.00	100.00%	\$304.00

Grand Total \$101,384.00

I certify that the above traffic signals will be maintained and operated in accordance with the requirements of the Traffic Signal Maintenance and Compensation Agreement.

For Satisfactory completion of all services detailed in this Agreement for this time period, the Department will pay the Maintaining Agency a Total Lump Sum of: \$101,384.00

Maintaining Agency	Date	District Traffic Operations Engineer	Date
Printed or Typed Name/Title			

750-010-22 TRAFFIC OPERATIONS 04/15 Exhibit B Page 1 of 1

EXHIBIT B TRAFFIC SIGNAL MAINTENANCE AND COMPENSATION AGREEMENT

1.0 PURPOSE

This exhibit defines the method and limits of compensation to be made to the Maintaining Agency for the services described in this Agreement and in Exhibit A and method by which payments will be made.

2.0 COMPENSATION

For the satisfactory completion of all services detailed in this Agreement and Exhibit A of this Agreement, the Department will pay the Maintaining Agency the Total Lump Sum (minus any retainage or forfeiture) in Exhibit A. The Maintaining Agency will receive one lump sum payment (minus any retainage or forfeiture) at the end of each fiscal year for satisfactory completion of service.

Beginning in the fiscal year 2016-17, for traffic signals which are not interconnected with telecommunications and are not monitored at a central location, the compensation amount shall be \$3,131. The compensation amount for traffic signals that are interconnected with telecommunications and are monitored at a central location shall be \$4,500 per signal location. These differential compensation amounts shall be in effect beginning July 1, 2016. The Table below shows the compensation amount for the various devices for fiscal years 2015-16 and 2016-17, and beyond.

Total Lump Sum (minus any retainage or forfeiture) Amount for each fiscal year is calculated by adding all of the individual intersection amounts.

Pedestrian Flashing Beacon: includes school zone beacons, pedestrian crossing beacons, and rectangular rapid flashing beacons (RRFB). School zones, crosswalks and warning sign locations shall be paid at a unit rate regardless of the number of individual beacons or poles.

Unit Compensation Rates per Intersection on the State Highway System

FY	Traffic Signal s (TS)	Traffic Signal - Interconnect ed & monitored (IMTS)	Intersecti on Control Beacon (ICB)	Pedestria n Flashing Beacon (PFB)	Emergen cy Fire Dept. Signal (FDS)	Speed Activate d Warning Display (SAWD) or Blank Out Sign (BOS)	Traffic Warni ng Beaco n (TWB)	Travel Time Detect or	Uninterrupti ble Power Supplies (UPS)
2014-	S	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(,,,,,	1,1,57	(100)	1200/	(1002)	-	(0.0)
15*	2,951		\$738	\$295	\$738	\$148	\$148		
2015-16	3,040		760	608	1,064	304	304		
2016-17	3,131	4,500	783	626	1,096	313	313	100	100
2017-18	Based o	on the Consume	r Price Index	(CPI), the 20	16-17 comp	ensation an	nounts wi	ll be revise	ed upwards.
2018-19	Based on the CPI, the 2017-18 compensation amounts will be revised upwards.								
2019-20	Based o	on the CPI, the 2	018-19 comp	ensation arr	ounts will b	e revised up	wards.		

^{*}Compensation pro-rata based on intersection approaches or legs on State Highway System.

Based on the Consumer Price Index (CPI), the Unit Rate for the following fiscal year will be adjusted accordingly, unless otherwise specified in an amendment to this Agreement. However, if CPI is negative, there shall be no reduction from the previous year's compensation.

3.0 PAYMENT PROCESSING

The Maintaining Agency shall invoice the Department in a format acceptable to the Department, on an annual basis for the reimbursement costs incurred by the Maintaining Agency for the previous year prior to June 30th of each year . For example, the Maintaining Agency shall submit its invoice for the previous year beginning July 1, 2015 through June 30, 2016 no later than June 30, 2016.

750-010-22 TRAFFIC OPERATIONS 04/15 Exhibit C Page 1 of 1

EXHIBIT C

TRAFFIC SIGNAL MAST ARM CHECKLIST

Traffic Signal Mast Arm Checklist

- · Foundation, including condition of grout pad if present
- · Anchor bolts and nuts
- Base plate
- · Base plate connection to vertical member
- · Hand hole and hand hole covers and inside of vertical member by removing hand hole covers
- · Connections between vertical and horizontal members
- Any member splices
- Attachments
- Member caps



Florida Department of Transportation

RICK SCOTT GOVERNOR 1074 Highway 90 Chipley, FL 32428 ANANTH PRASAD, P.E. SECRETARY

MEETING NOTES

July 30, 2014

9:00am - 11:00am

FDOT District Three Traffic Signal Maintenance Agreement Negotiations Meeting

Location: FDOT District Three Ponce De Leon Operations Center

Purpose: Negotiations Meeting for Phase II of the Traffic Signal Maintenance Agreement

Facilitator: Mark Wilson, PE (FDOT State Traffic Engineer)

- Mark Wilson led roll call and introductions were given for all attendees.
- Phase I of the Traffic Signal Maintenance Agreement has been signed by some local agencies and not others. Mark Wilson has presented the local agencies' concerns to the state.
- Phase I-B will be made available soon for the local agencies to sign which includes the removal
 of the provisions in the Phase I agreement for mast arm maintenance. For those agencies which
 already signed the Phase I Agreement, an Amendment is being developed for them to sign. The
 Amendment and Phase I-B agreement include the removal of mast arm language.
- Discussion for Phase II began.
- Approval was obtained to increase the per signal costs for 2015-16 to \$3,040 per signal with the following provisions:
 - o The reimbursement is \$3,040 per signal, with no deductions for the approaches that are local roads. Approach deductions are planned for removal in Phase 2 of the Agreement. Programming for the new payment amounts begin on 07/01/2015.
 - o This gives about an average increase of over 70%payment to local agencies for signal maintenance statewide. Previous funding did not appear to cover all the necessary costs to the local agencies. It is to be noted that this is an average increase.
 - The total statewide funding for signal maintenance is approximately \$17 million which is authorized to increase by an additional \$14 million under the Phase 2 Agreement.
- Performance measures need to be developed to show the effectiveness of the signal maintenance expenditure. At a minimum, this should include:
 - Signal inspections at least once a year for every signal, funded by FDOT out of the established \$3,040 per signal allocation, with documented reports.
 - An agreed-upon minimum percentage of detector functionality.

Page 1 of 3

- Agreed-upon acceptable response times for urban and rural areas.
- Performance measures will be developed following discussions at all Districts.
- Signal Maintaining Agencies may invoice quarterly instead of yearly, for those that choose to do so; however, a quarterly reports will need to be provided with the invoice. Management will decide on uniformity in Quarterly Reports /invoicing.
- FDOT is getting good service for the funding provided.
- Currently there is not a cancellation clause in the agreement. If locals do not want to do signal
 maintenance, FDOT can take it over; however, FDOT will need transition time (may need a 5year cancellation Notice) to get a contractor on board. This is open for discussion for possible
 inclusion in the new contract.
- There is a need to discuss the 3% annual increase in the current contract. This will depend on the agreed-upon reimbursement amounts.
- For the Annual Performance Reporting, it was suggested to gather any existing reports the local agencies currently have.
- Jared Perdue, District Three Traffic Operations Engineer, asks local agencies thinking about
 opting out to please notify him as soon as possible so he can prepare a transition plan for either a
 contractor or other local agency to take over the maintenance. Keith Bryant, P.E., Bay County
 Traffic Engineer, asked if the Phase I amendment needs board approval and Mark Wilson
 responded that it depends on the local government rules.
- Randy Showers, P.E., Okaloosa County Traffic Engineer, asked what happens if they do not sign the Phase 1B Agreement. Mark Wilson responded that the current Agreement will still be in effect. However, Mark Wilson encouraged all Agencies to consider signing the Phase 1B Agreement since it includes additional compensation for additional devices, and removal of mast arm language which was a major concern for most Agencies that elected not to sign.
- The new reimbursements for beacons was displayed, showing the amount for a full signal increased from \$2,951 to \$3,040, pedestrian flashing beacon from 10% to 20%, or \$295.10 to \$608.00 per zone, emergency signals from 25% to 35%, or \$737.75 to \$1,064.00, and speed and traffic warning beacons from 5% to 10%, or \$147.55 to \$304.00.
- Wayne Bryan, City of Tallahassee, stated that it is difficult to split operations and maintenance
 costs. Mark Wilson noted that only the field maintenance costs are being discussed as a part of
 this Agreement.
- It was noted that a template of costs will be sent to each agency
- Performance Measures Preventative Maintenance
 - A routine inspection at a minimum should include: signal cycling, detector repair work and conflict monitor test.
 - Some local agencies bought testers from the manufacturer for conflict monitor testing.
 But that may not be appropriate for smaller agencies with few signals.
 - o Detector Repair Need to distinguish between critical and non-critical detectors
 - If the detector outage can cause the signal to malfunction or affect the operation of the signal system, it is considered critical. Detectors for side streets (all), main street left turns, and pedestrians are critical.
 - For delays in detector repair, there is a form to explain occurrence. If a resurfacing project is in construction, the loops could be out for 6 months or

Page 2 of 3

- more. An agency may wait to repair a loop if a project will be coming through in, the near future.
- It was proposed that a minimum of 95% of the critical detectors must be functional.
- Some have issues with poor pavement that won't hold a loop for very long.
- An alternate detection device (infrared) can be deployed temporarily until a critical loop can be repaired.
- Performance Measures Response time
 - Currently, some Agencies give a 1 hour of response time for a signal outage while others give 2 hours of response time for a signal outage.
- Mark Wilson asked if there were any legal issues with the contract that we had not already discussed. There were none.
 - Moving forward, there will be follow up discussions to finalize the Agreement.
- Annual and Quarterly Reports
 - Agencies keep detailed records of signal maintenance for court cases.
 - Records include dates of the inspections, detector functionality check, and conflict monitor testing. District 3 does not have issues with annual reports.
 - FDOT may give the option to invoice and report annually or quarterly.
- Look into utilizing exhibits and attachments to prevent passing a whole new agreement every time.
- ITE & IMSA have published a traffic signal maintenance book to use for performance measures
 that would be a good resource.
- Jared Perdue, FDOT DTOE, suggested each agency provide best practices that are currently
 utilized by them to help develop the performance measures for inspections.
- There are 792 signals in District 3, which receives \$1.948 million in funding; \$1.6 million more
 has been requested.
- It is helpful to complete a Phase II Agreement by September/October
- One Agency asked if they turned maintenance over to the state, would the 4 generators at their traffic signals remain. Mark Wilson responded that he would prefer that they stay and they would work out an agreement with them.
- A question was asked about traffic signals with red light running cameras. If those locations were turned over to FDOT for maintenance, would the red light running cameras remain? Mark Wilson stated that FDOT will discuss this aspect.
- Meeting adjourned.

Leon County Board of County Commissioners

Notes for Agenda Item #7

Leon County Board of County Commissioners

Cover Sheet for Agenda #7

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Acceptance of the Leon County Citizens Advisory Water Resources Committee

2014 Annual Report

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator Wayne Tedder, Director of P.L.A.C.E Cherie Bryant, Manager, Tallahassee-Leon County Planning Department
Lead Staff/ Project Team:	Stephen Hodges, Senior Planner

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Accept the Leon County Citizens Advisory Water Resources Committee 2014

Annual Report (Attachment #1).

Title: Acceptance of the Leon County Citizens Advisory Water Resources Committee 2014 Annual Report June 9, 2015 Page 2

Report and Discussion

Background:

The Bylaws of the Leon County Citizens Advisory Water Resources Committee (WRC) require the Chair or his/her designee to provide an annual report of the actions of the committee to the Board. This agenda item requests Board acceptance of the 2014 WRC Annual Report.

Analysis:

The WRC was established by the Board in 1995. The committee was charged by the Board:

"...to consider the values provided to the public by the various lakes and related water resources of Leon County, including groundwater, and to recommend to the Board policies, regulations, management activities and long-term funding strategies that protect or enhance these values. In assessing these values, the WRC proposes to consider the various impacts to these resources from accelerated runoff, including flooding and surface and groundwater degradation. Last, to better accomplish these tasks the WRC also proposes to consider an ecosystems approach wherever applicable."

As part of its charter, the WRC continues to review policies and regulations addressing surface and ground water management and other related issues. The WRC's recommendations to the Board have been recognized and incorporated into many Board discussions. The WRC Annual Report summarizes the WRC's activities and actions for the Board's consideration.

Options:

- 1. Accept the Leon County Citizens Advisory Water Resources Committee 2014 Annual Report (Attachment #1).
- 2. Do not accept the Leon County Citizens Advisory Water Resources Committee 2014 Annual Report.
- 3. Board direction.

Recommendation

Option #1.

Attachment:

1. Leon County Citizens Advisory Water Resources Committee 2014 Annual Report

Leon County Citizens Advisory Water Resources Committee

2014 Annual Report



2014 Annual Report of the Leon County Citizens Advisory Water Resources Committee

Topics for Review and Recommendations:

Review of Comprehensive Plan Amendments

The Committee reviewed several proposed Comprehensive Plan amendments and made the following recommendations for Board consideration:

- Remove Half-acre Restriction in LP (Cycle 2014-1 amendment PCT140112) The
 Committee voted unanimously to recommend that the Board delay this proposed
 amendment and to direct staff to address this proposed policy change as part of a larger
 amendment addressing both the City and County's development clustering options in the
 Lake Protection Future Land Use category in the Land Use Element of the
 Comprehensive Plan.
- Sustainable Development in Lake Protection (Cycle 2015-1, PCT150104) The Committee reviewed early drafts of this proposed policy change, and then voted in early 2015 to recommend that the Board support the staff recommendation to adopt the proposed policy amendment.
- Commercial Uses in the Rural Future Land Use Category (Cycle 2015-1, PCT150105) The Committee reviewed early drafts of this proposed policy change, and then voted in early 2015 to recommend that the Board support the staff recommendation to adopt the proposed policy amendment.

Presentations

- 1. Michael Hill of the Florida Fish and Wildlife Conservation Commission (FWC) gave a presentation to the Committee on the history and current status of Lake Iamonia and its management plan. The Committee later voted unanimously to send a letter to the Board with several recommendations concerning Lake Iamonia and its 1991 management plan.
- 2. Ms. Catherine Bray from the City of Tallahassee's Underground Utilities division gave a presentation on the Weems Road Stormwater Treatment facility upgrades project. The Committee asked staff to return to the Committee in 2015 to report on the completion of this project and its effects on stormwater quality entering Upper Lake Lafayette.
- 3. Leon County Public Works staff made a presentation to the Committee on Nitrogen Cycling in Leon County lakes.
- 4. Leon County Department of Development Support and Environmental Management staff provided a status update on how runoff from gas stations and parking lots is regulated through the Leon County Land Development Code.

- 5. County Public Works staff presented a status update to the Committee concerning a "Waters of the United States" regulatory initiative by the U.S. Environmental Protection Agency.
- 6. Lauren Rushing, an intern with the Planning Department, gave a presentation on the proposed Lake Jackson Blueway/Paddling Trail.

Other Actions

1. Acting upon a recommendation by the County's Agenda Coordinator and Planning staff, the Committee voted unanimously to change their bylaws to extend the terms of committee member from two to four years.

Recommendations to the Board

- 1. The Committee discussed, and then voted unanimously to provide a letter of support to the Board for a proposed water quality treatment options study, and to recommend that the Board elevate this study to the list of Blueprint 2020 Tier 1 projects.
- 2. The Committee unanimously voted to send a letter to the Board recommending that the existing Lake Iamonia Management Plan be updated as necessary, and that the County should continue to coordinate with and support continuing efforts to de-muck the lake to improve fish habitat.
- 3. The Committee unanimously voted to send a letter of support to the Board for the proposed Lake Jackson Blueway/Paddling Trail.
- 4. The Committee unanimously voted to send their proposed bylaw changes extending the terms of committee members from two to four years to the Board for consideration.

Leon County Board of County Commissioners

Notes for Agenda Item #8

Leon County Board of County Commissioners

Cover Sheet for Agenda #8

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Acceptance of a Report on Posting Fish Consumption Advisories at Leon

County Boat Landings

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator Kathy Burke, P.E., Acting Director, Public Works
Lead Staff/ Project Team:	Theresa B. Heiker, P.E., Stormwater Management Coordinator

Fiscal Impact:

As recommended, this item has no current fiscal impact; however, if the County did post fish consumption advisories, depending on the approach, costs could range from \$75 per sign to \$6,000 for a small kiosk for each boat landing.

Staff Recommendation:

Option # 1: Accept the status report on posting fish consumption advisories at Leon County boat landings and take no further action.

Title: Acceptance of a Report on Posting Fish Consumption Advisories at Leon County Boat Landings
June 9, 2015

Page 2

Report and Discussion

Background:

On November 18, 2014, the Board directed staff to bring back an agenda item regarding signage at Leon County waterbodies and boat landings where a fish consumption advisory has been issued by the State of Florida. At the May 26, 2015 meeting, staff provided the Board a brief discussion on fish consumption from Leon County fresh waterbodies as part of the Water Quality Monitoring Annual Report.

Analysis:

Overall, Leon County enjoys healthy waterbodies throughout the unincorporated area. Data collected by the Water Quality Monitoring Program demonstrates most lakes and streams meet state criteria as "fishable, swimmable" waters year-round. Information about each waterbody can be viewed at the 2015 Water Quality Report available on-line through the Leon County Water Resources website.

Fish Consumption Advisories:

Most freshwater fish in Florida are considered safe to eat. The Florida Department of Health (DOH) encourages eating two meals per week of fish as part of a healthy diet. In 1983, mercury was recognized to be accumulating in fish statewide, creating a potential human health risk. Mercury is a toxic metal which can cause learning and memory problems for young children in particular. It is emitted to the air by human activities, such as manufacturing or burning coal for fuel, and from natural sources, such as volcanoes. When released into the atmosphere, certain forms of mercury (e.g. elemental) can be transported over a range of distances before being deposited back to the earth's surface. Deposition can occur on local, regional, or global scales. According to the U.S. Environmental Protection Agency, less than half of all mercury deposition within the U.S. comes from U.S. sources, although deposition varies by geographic location. The research in Florida indicates that mercury contamination can be present in otherwise seemingly pollution free waterbodies.

The Florida Fish and Wildlife Conservation Commission (FFWCC), the Florida Department of Environmental Protection (DEP), and DOH operate jointly to determine if mercury or other environmental chemicals are present in fish from Florida waters. In most instances, FFWCC determines what fish species should be sampled and collects those samples. DEP measures the levels of chemicals in the fish tissue. DOH determines the potential for adverse human health effects from consuming the fish and issues fish consumption advisories when needed. The advisories are not intended to discourage fish consumption overall, but to encourage the anglers to choose fish lower in mercury and limit eating some species from certain waters.

The DOH publishes "Basic Guidelines for Eating Fish," which describes the relative levels of mercury expected in the different fish species where a waterbody has not been tested (Attachment #1). Generally, the "Guidelines" identifies the number of meals per week that can be safely consumed.

Title: Acceptance of a Report on Posting Fish Consumption Advisories at Leon County Boat Landings
June 9, 2015
Page 3

In January 2003, DOH issued a statewide advisory that urged limited consumption of largemouth bass from all state waters (one meal per month), reflecting that increased sampling indicated widespread mercury contamination in largemouth bass. A waterbody-specific fish consumption advisory recommends the amount of specific fish to eat or avoid. DOH provides a booklet at each county health department and posts these local advisories and updates on their Fish Consumption Advisory Website. Additionally, the FFWC links to this website to provide information to local anglers.

The Leon County Water Resources webpage provides the DOH information specific to the County's local waters. All but one of the advisories in Leon County are due to mercury. Lake Munson carries an additional limit for largemouth bass 19 inches or longer which matches the statewide advisory for largemouth bass in general. These are restricted due to polychlorinated biphenols (PCBs), an industrial toxin suspected to suppress the immune system. The local fish consumption advisories are listed in Attachment #2.

Signage:

Leon County maintains 26 boat landings throughout the County (Attachment #3). Two waterbodies (three landings) would not be affected by a decision to post specific advisory signage (Lake Carr and Lower Lake Lafayette). The signs would be subject to updating as new data is collected by the State agencies. Based on staff contacts with both agencies, neither FFWC nor DOH provide funding or support to place signs at boat landings. Neither agency expressed objection to Leon County placing signage independent of State participation. Both agencies expressed reservations that posting signage might discourage anglers from fishing posted waterbodies, or that the signs would not be able to convey the full intent of the advisory. Counties statewide were surveyed to determine if any other communities provided this information. Thirty-eight responded, and none post any signage on their lakes. The responding counties are listed in Attachment #4.

If Leon County pursued the option of posting fish consumption advisories based on the DOH listings, the proposed signs could be as simple as a notice that fish consumption advisory applies to the waterbody with a listing of the DOH website address for further information. This could be achieved with a small sign on a channel post near the boat launch. The second option would be to individualize signs for each waterbody showing the species and recommended frequency of consumption, also referring anglers to the DOH website for further information. This could be achieved with larger signs on the post. An example from Wisconsin is provided in Attachment #5. The most informative option would be to establish a small kiosk with photographs of the affected fish, an explanation of how a fish consumption advisory is established (with the DOH website address), and general information about the waterbody health from the Water Quality Annual Report. This final option would provide opportunities for other public education efforts such as water quality protection. Depending on the option pursued, costs could range from \$75 per sign to upwards of \$6,000 for a small kiosk. These costs can then be budgeted in the FY 16 budget.

Title: Acceptance of a Report on Posting Fish Consumption Advisories at Leon County Boat Landings

June 9, 2015

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Conclusion:

Fish is an excellent source of nutrition and generally safe to eat. The State of Florida provides information through the FWCC and FDOH websites and brochures that assist consumers in selecting the type and amount of fish to eat and avoid. Leon County relays this information through the Water Resources web page as well. Since the State consumption guidelines apply to all waters, not solely to those specifically tested, staff does not recommend posting advisory signs. Both agencies expressed reservations that posting signage might discourage anglers from fishing posted waterbodies, or that the signs would not be able to convey the full intent of the advisory. Additional public outreach through the Leon County Water Resources web page and the County Link assists the state agencies in reaching the general public with this information.

Options:

- 1. Accept the status report on posting fish consumption advisories at Leon County boat landings and take no further action.
- 2. Direct staff to prepare a budget discussion item for posting of fish consumption advisories at Leon County boat landings.
- 3. Board direction.

Recommendation:

Option # 1.

Attachments:

- 1. DOH Basic Guidelines for Freshwater Fish Consumption
- 2. Leon County Fish Consumption Advisories
- 3. Map Leon County Maintained Landings
- 4. Counties Confirmed as not posting Fish Consumption Advisories
- 5. Individualized Sign Example

Florida's freshwater fish fun to catch, good to eat & healthy too!

WHY EAT FISH? Eating fish may help reduce your risk of heart attack and stroke. Fish high in omega 3 fatty acids—a type of fatty acid that supports fetal, infant and child brain and eye development—are good for mothers and children.

HOW MUCH SHOULD I EAT? Adults should eat about 8 ounces of fish each week, and women who are pregnant, or breastfeeding, should eat 8 to 12 ounces (cooked weight) of fish per week. Eating a variety of fish has the most benefit.

WHAT ABOUT MERCURY EXPOSURE? For most people, the risk of eating mercury-exposed fish is not a health concern, but developing fetuses and young children are more sensitive to the effects mercury has on the brain. Women of childbearing age and young children should eat fish with low mercury levels. Mercury can't be cut away, cleaned or cooked out of fish.



Fish recipes from "Heart-Healthy Fish Recipes From Real Floridians" cookbook are available at www.doh.state.fl.us/floridafishadvice/.

Basic guidelines for eating freshwater fish caught in Florida

For more complete species and site-specific information call 850.245.4299, and request a copy of the Florida Department of Health's Fish Consumption Advisory booklet, or visit www.doh.state.fl.us/floridafishadvice/.

Women of childbearing age & young children

EAT 1 MEAL PER WEEK OF THESE FISH WITH VERY LOW MERCURY:









EAT 1 MEAL PER MONTH OF THESE FISH WITH LOW MERCURY:

black crappie ■ channel catfish ■ white catfish ■ redbreast sunfish ■ spotted sunfish ■ warmouth ■ mayan chlid ■ chain pickerel

Black bass and largemouth bass: In the southern region, fish smaller than 14 inches. For other regions, follow the legal-size limits.

If in one month you eat a meal of the fish listed above: Don't eat anymore fish listed as eat 1 meal per month. Instead eat only other high omega-3, low-mercury fish for the remainder of the month, try: Atlantic salmon, rainbow trout and striped mullet.

Do NOT eat: Black bass and large mouth bass in the southern region that are larger than 14 inches. Avoid eating bowfin and gar.

FOLLOW SITE-SPECIFIC ADVICE FOR THESE FISH:

butterfly peacock ■ flathead catfish ■ longear sunfish ■ blue tilapia ■ shadow bass ■ blue catfish ■ oscar ■ spotted bullhead catfish sunshine/striped/white bass ■ yellow bullhead catfish

Women not planning to be pregnant & men

EAT 2 MEALS PER WEEK OF THESE FISH WITH VERY LOW MERCURY:









EAT 1 MEAL PER WEEK OF THESE FISH WITH LOW MERCURY:

black crappie ■ channel catfish ■ white catfish ■ spotted sunfish ■ warmouth ■ mayan chlid ■ chain pickerel

Black bass and largemouth bass: In the southern region, fish smaller than 14 inches. For other regions, follow the legal-size limits.

EAT 1 MEAL PER MONTH OF THESE FISH WITH MODERATE MERCURY:

Black bass and largemouth bass: In the southern region, fish larger than 14 inches.

If in one month you eat a meal of the fish listed above: Don't eat any more fish listed as *eat 1 meal per month*. Instead eat only other high omega-3, low-mercury fish for the remainder of the month, try: Atlantic salmon, rainbow trout, mullet and other wild-caught, oily fish.

FOLLOW SITE-SPECIFIC ADVICE FOR THESE FISH:

butterfly peacock ■ flathead catfish ■ longear sunfish ■ blue tilapia ■ shadow bass ■ blue catfish ■ oscar spotted bullhead catfish ■ sunshine/striped/white bass ■ yellow bullhead catfish

This information is brought to you by the Florida Departments of Agricul (Ragent)800 of 1688 Services, Environmen (Robstet) edition on Health, and the Florida Fish and Wildlife Conservation Commission.



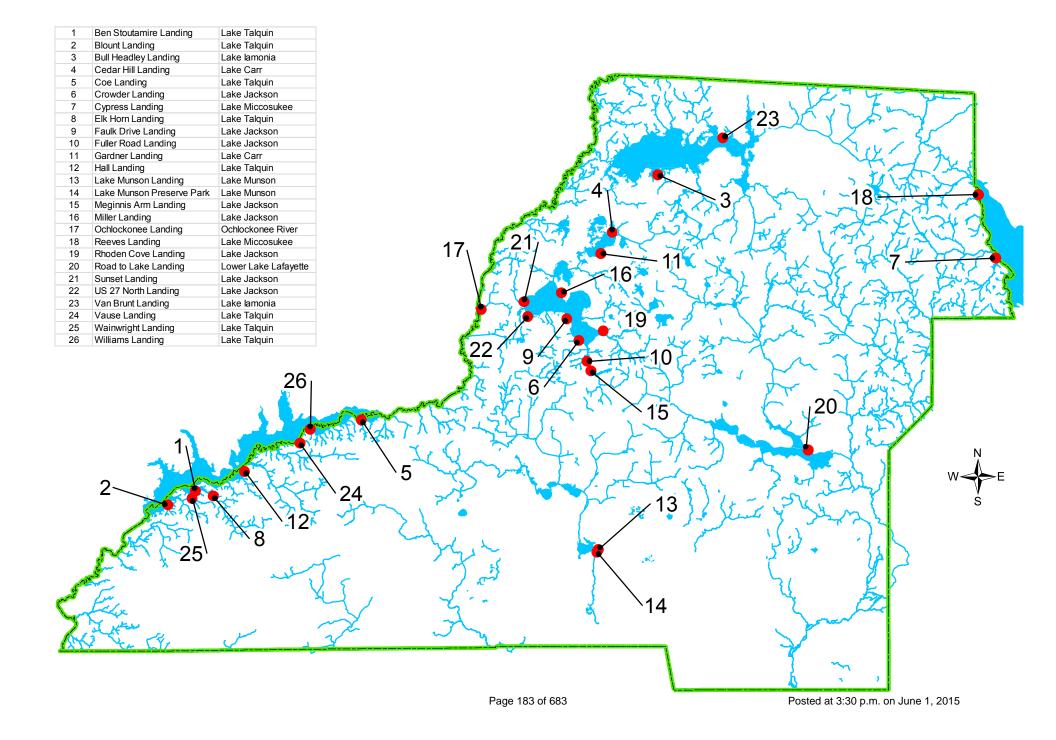
Fish Consumption Advisories

Mercury is a toxic metal that can cause learning and memory problems to children and can be naturally found in the environment or may occur due to pollution from electric power plants, mining and other industrial sources. Most Florida fish have low to medium levels of mercury. Another industrial toxin found in fish are polychlorinated biphenols (PCBs), which have been known to cause cancer and can negatively affect the immune system, reproductive system, nervous system, and endocrine system of animals including humans. To lower the risk of harm from mercury (or other contaminants, including PCBs) found in fish caught in Florida, the Florida Department of Health (FDOH) developed a set of guidelines based on tests of various freshwater waterbodies to allow people to determine the amount of fish to eat or avoid. The guidelines for Leon County waterbodies are shown in the following table. For more information regarding fish advisories please click here. http://www.floridahealth.gov/prevention-safety-and-wellness/healthy-weight/nutrition/seafood-consumption/documents/2013-advisory-brochure.pdf

Water Body	Species	Women of childbearing age, young children (# of meals)	All Other Individuals (# of meals)
Lake Iamonia	Bluegill, Redear sunfish, Black crappie	One per week	Two per week
Lake famonia	Brown bullhead catfish	Two per week	Two per week
	Largemouth bass	One per month	One per week
Lake Jackson	Largemouth bass	One per month	One per week
Lake Jackson	Bluegill, Redear sunfish	Two per week	Two per week
Lake Miccosukee	Bluegill	Two per week	Two per week
Lake Miccosukee	Largemouth bass	One per month	One per week
Lake Munson (PCBs)	Largemouth bass 19 inches or more	One per month	One per month
	Brown bullhead catfish, Bluegill, Redear sunfish	Two per week	Two per week
Lake Munson	Largemouth Bass	One per week	Two per week
	Black crappie	One per month	One per week
Lake Talquin	Bluegill, Black crappie, Brown bullhead catfish, Redbreast sunfish, Redear sunfish, Spotted bullhead catfish	Two per week	Two per week
	Largemouth bass	One per month	One per month
Lake Tom John	Largemouth bass	One per month	One per week
Moore Lake	Largemouth bass	One per month	One per month
Ochlockonee River and	Bluegill, Redbreast sunfish	One per month	One per week
tributaries	Channel catfish, Spotted sunfish, Warmouth	One per month	One per week

	Flathead catfish, Redear sunfish	One per month	One per month
	Largemouth bass	DO NOT EAT	One per month
Ochlockonee River	Bluegill, Redbreast sunfish, Redear sunfish, Spotted sunfish, Warmouth	One per month	One per week
north of US 90 bridge	Black crappie	One per month	One per month
	Flathead catfish, Largemouth bass	DO NOT EAT	One per month
Piney Z Lake	Redear sunfish, Warmouth	Two per week	Two per week
Timey Z Lake	Bluegill, Brown Bullhead catfish	One per week	Two per week

Leon County Maintained Landings



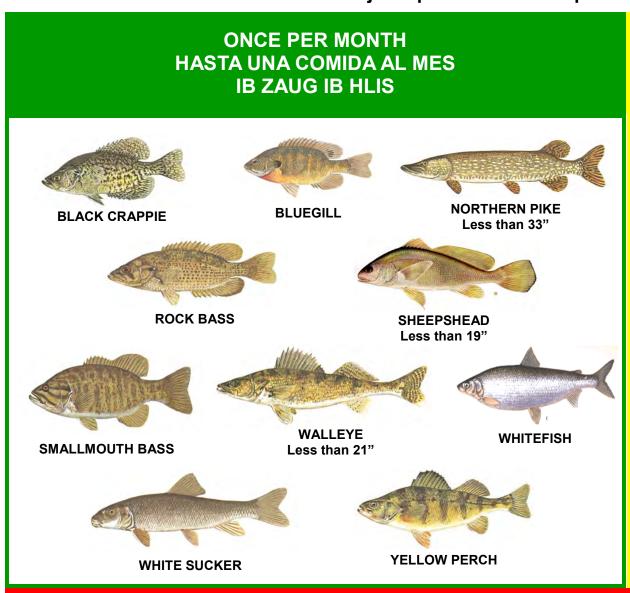
The following County's confirmed that they do not post fish consumption advisories:
Alachua
Bay
Broward
Charlotte
Citrus
Clay
Collier
Columbia
DeSoto
Escambia
Franklin
Gadsden
Gilchrist
Glades
Gulf
Hardee
Hendry
Hernando
Highlands
Hillsborough
Holmes
Indian River
Jefferson
Lake
Lee
Manatee
Marion
Martin
Monroe
Nassau
Santa Rosa
Sarasota
Seminole
Sumter
Suwannee
Taylor
Wakulla
Washington

NOTICE

Fish from these waters contain chemicals. Eating too much may be harmful, especially for women and children. Follow the safe fish eating guidelines below.

Los peces de estas aguas están contaminados. Su consumo puede ser malo para la salud, especialmente las mujeres y niños. Para protejerse y protejer a su familia, siga las recomendaciones siguientes.

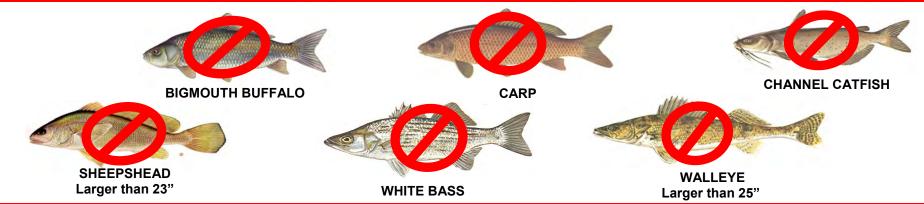
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ONCE EVERY TWO MONTHS HASTA UNA COMIDA CADA DOS MESES **IB ZAUG OB HLIS TWG**



DO NOT EAT NUNCA CONSUMIR COV NTSES NO NOJ TSIS TAU



This information is based on the Wisconsin Departments of Health Services and Natural Resources joint fish consumption advisories. For more information or to obtain a fish advisory booklet, please contact your local health department.

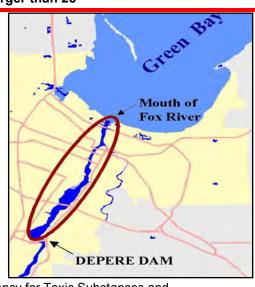
http://dhs.wi.gov



http://dnr.wi.gov

FOX RIVER FROM DEPERE DAM





DOWNSTREAM TO THE MOUTH

Leon County Board of County Commissioners

Notes for Agenda Item #9

Leon County Board of County Commissioners

Cover Sheet for Agenda #9

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Acceptance of Report on Local Economic Conditions and National Rankings

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator Ken Morris, Assistant County Administrator
Lead Staff/ Project Team:	Joshua Pascua, Management Analyst

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Board direction.

Title: Acceptance of Report on Local Economic Conditions and National Rankings

June 9, 2015

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Report and Discussion

Background:

At its May 12, 2015 meeting, the Board directed staff to bring back an agenda item regarding the establishment of a blue ribbon citizens panel on the 'economic and educational divide' to investigate, analyze, and make recommendations on how Leon County could expand economic opportunities for all Leon County residents in response to two recently published studies that portrayed Leon County in a negative light. The first study was reported by the *Tallahassee Democrat* on February 22, 2015, and found Tallahassee to be the most economically segregated city in the country (Attachment #1). On May 4, 2015, a *New York Times* article on intergenerational mobility research suggested that poor children in Leon County have significant difficulty ascending the income ladder compared to other counties in the U.S. (Attachment #2).

This agenda item offers a brief summation and analysis on the complex research and findings reached by the aforementioned studies. In addition, this item presents options for the Board's consideration to establish a citizens panel to further review these findings and provide recommendations to address these matters.

Analysis:

The following provides an overview and analysis of the research that informed the *Tallahassee Democrat* article and *New York Times* article. Subsequent to the research analysis, staff provides an outline for a potential blue ribbon citizens group to investigate, analyze, and make recommendations on how the community can expand economic opportunity for all Leon County citizens.

America's Most Economically Segregated Cities

The February 22, 2015 *Tallahassee Democrat* article draws on a study by the University of Toronto's Martin Prosperity Institute entitled "America's Most Economically Segregated Cities" (Attachment #3). Using U.S. Census numbers, the study examines the geography of economic segregation across America along three dimensions: income, education, and occupation. The article succinctly interprets the findings from the study:

In other words, the report says the city's rich people (households with incomes over \$200,000) and poor people (households below the poverty level) live in different neighborhoods, separating themselves from each other more than in any other city in the U.S.

"It is not just that the economic divide in America has grown wider; it's that the rich and poor effectively occupy different worlds, even when they live in the same cities and metros," the report says.

It is important to note that the study looks beyond the political boundaries of the City of Tallahassee and Leon County. The study compares the economic indicators among the different parts of the Tallahassee metropolitan statistical area (metro), which include Gadsden, Jefferson, Leon, and Wakulla Counties. Therefore, the findings indicate that within the Tallahassee metro area are pockets of extreme poverty, areas of great affluence, and very little mixture of both when compared to other metro areas across the country.

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The study suggests that all three types of economic segregation—income, educational, and occupational—are associated with one another and that economic segregation is conditioned by the behavior and location choices of more advantaged groups. That is to say, more advantaged groups have the resources to isolate themselves from less advantaged groups. For example, affluent families in the Tallahassee area may choose to live in an expensive coastal home or move to a highly rated school zone.

Dr. Karen Cyphers, VP of Research & Policy with the Sachs Media Group authored a rebuttal to the America's Most Economically Segregated Cities study (Attachment #4). Dr. Cyphers' rebuttal raises several concerns on the methodology of the study and the use of the emotionally charged term 'segregation' as a cornerstone of the research. In addition, Dr. Cyphers points out the unique metrics that accompany college towns that make them difficult to compare to other metro areas, as well as the inherent association between homogeneous cities and low levels of economic segregation.

The metros with the lowest levels of overall economic segregation are mainly smaller and medium-sized cities. All ten of the least economically segregated metros in the country have 300,000 people or less. That a city of Tallahassee's size has the highest overall segregation index is an outlier in the data. However, metros that have a significant university presence (college towns) are generally rated as being highly segregated in this economic study. According to the study, many of the metros where the poor are most segregated are college towns such as State College, Pennsylvania (home to Penn State), New Haven (Yale University), Madison, Wisconsin (University of Wisconsin), and Boulder, Colorado (University of Colorado). This is attributed to the fact that university students tend to live near their school, creating a large concentration of people in a particular area whom typically have little or no income in comparison to the rest of the community. The Tallahassee metro has three large higher education institutions and many smaller ones serving its population, making its student-to-resident ratios differ from most small metro areas. Additionally, this high student-to-resident ratio may have influenced why the study ranks the Tallahassee metro as having a high service-class (occupational) segregation. Serviceclass jobs like restaurant work are the kinds of jobs that many of these students fulfill in Tallahassee.

Similarly, the study considers segregation along education lines. It should be no surprise that among metros with the highest segregation of the highly educated (bachelor degrees or better), college towns like Tallahassee again rise to the top. Related to education segregation is a trend of income segregation. The study finds that higher income segregation is associated with more advanced knowledge-based metros. For instance, the study indicates an association of higher income segregation for communities that have larger shares of college graduates and larger shares of the workforce in the creative class. The Tallahassee metro has larger shares of college graduate and creative class workers compared to cities of similar size. In addition, the immediate Tallahassee area has a greater concentration of college graduates and creative class types than its neighboring counties within its metro designation, which exacerbates the segregation measurement.

As pointed out by Dr. Cyphers, the least economically segregated metros according to this study are places that are largely homogeneous, with most of the population resembling one another in income, job sector, education levels, etc. Based on the metrics used in this report, the Tallahassee metro would look far less economically segregated if its entire population lived below the poverty line or if it was a blue-collar company town that paid similar wages to all. Dr. Cyphers goes further by identifying an association between the shares of population in a metro that are black, Latino, or Asian with higher levels of economic segregation. For example, some of the metro areas with the lowest levels of economic segregation according to this study have very little racial diversity, while Leon County is approximately 63% white:

- Fond du Lac, WI (91% white, #1 least segregated metro overall)
- Monroe, MI (88% white, #2 least segregated metro overall)
- St. George, UT (87% white, #3 least segregated metro overall)

The study concedes that their measure of segregation is positively associated with the share of the population that is black. The study seems to suggest that an area with a high minority racial composition is shaped that way due to economic segregation, but fails to consider that minority enclaves may have formed and persist due to the area having strong familial, cultural, and historical ties for minority residents. That is to say, areas with a high minority population may have that demographic because of choice, not economic segregation. A local example would be the generations of families that have resided in Frenchtown and the residents today that wish to reinvigorate the historic African American community rather than relocate to other parts of the city.

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Intergenerational Mobility

The May 4, 2015 *New York Times* article draws on a study by the Harvard University Equality of Opportunity Project (Attachment #5). The study found that every extra year that a child spends in a better neighborhood environment improves the child's economic outcome as an adult, indicated by measures such as income, likelihood of college attendance, and probability of avoiding teenage pregnancy. Children who moved to a better neighborhood at an older age still benefited from an improved environment, but not to the same degree they would have if they had moved at a younger age. Variation in the impacts on mobility from moving differs for boys and girls, depending on the child's age when their family moves. Despite the variation, the results of the study suggest that moving children from high-poverty areas to lower-poverty areas may play a large role in decreasing the intergenerational persistence of poverty.

According to the *New York Times*' calculations based on the study, a child in a poor family growing up in Leon County would earn \$1,920 less, or seven percent, compared to the national average during the early-adult period from ages 20 through 26 (or \$320 a year). This indicates that poor children in Leon County have more difficulty ascending the income ladder compared to other counties in the U.S. Leon County ranks 329th out of 2,478 counties in terms of intergenerational mobility for poor kids, better than only about 13 percent of counties. Twelve Florida counties ranked below Leon County. In addition, the study found that counties with higher rates of upward mobility among low-income children tend to have less economic and racial segregation, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households.

Intergenerational mobility (mobility) is a measure of the extent to which a child's economic opportunities depend upon his or her parents' income with the idea that a person with upward mobility would have a higher lifetime income than their parents' lifetime income. This study focuses on examining if mobility is affected by moving to a good neighborhood (area with upward mobility) versus moving to a bad neighborhood (area with downward mobility) over a series of steps. To do this, the study uses earnings records to effectively track the careers and neighborhoods of five million people over 17 years.

The first part of the study looks to show that the area in which a child grows up has significant causal effects on his or her prospects for upward mobility. To show this, the study estimates the mobility of permanent residents: children of parents who do not move between the years 1996-2012 (years for study's sample data). To determine mobility, the household income of children between ages 24-30 was compared with their parents' family income (averaged between years 1996-2000). This was done for all permanent residents, after which the data was fed into a regression analysis to determine the extent to which a county was upwardly/downwardly mobile. Next, the household income of children whose parents relocated between the years 1996-2012 (movers) are compared to permanent residents of the county in which they relocated to (household income of movers is calculated in the same way as that for permanent residents).

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The study shows that when families move to a county with better upward mobility, the mobility of the mover family outperforms the permanent residents of their original county. The data also indicates that the earlier a family moves to the better county (i.e. the longer they live in the county) the greater the impact on the child's income, on average. To make the analysis even more robust, the study compares siblings within the same family of movers to be able to show that the difference in sibling outcomes is proportional to the difference in their exposure to better environments. Younger siblings who moved from a lower performing area to a better one earned more as adults than their older siblings who were part of the same move.

The second part of the study presents estimates of the causal effect on children's incomes and characterizes the properties of areas that produce good outcomes. First, the study uses a regression model to estimate the fixed effect on mobility for each county. From this regression model, the study constructs a forecast of each county's causal effect on mobility (i.e. moving to 'County A' increases your earning potential by \$1,000 for every year you live there until adulthood). The county-level forecasts identify the best and worse counties in the U.S. in terms of their causal effects on mobility.

Mobility in Leon County

The study concluded that there are five categories that exhibit the strongest relationship with mobility: racial demographics, segregation, school quality, social capital, and family structure. The study suggests that mobility is tied to place and that place-based policies would be needed to improve a place's mobility. However, the study fails to make recommendations on the role of local governments, if any, in addressing personal issues like a person's family structure, where someone chooses to live (segregation), or how involved in the community a person chooses to be (social capital). Additionally, the study notes how income data sources were used to determine intergenerational mobility (mobility), but a significant concern of this study is that the data sources used to draw correlations between place and mobility are not clearly noted. For instance, the study notes a strong correlation between the outcomes of permanent residents and measures of school quality. In its data set, the study notes test score percentile as one of its measures of school quality, but does not explain where the test score data comes from. Leon County students take a number of standardized tests each year, but each is different and not all are being administered nationwide. Furthermore, the study does not answer the question of whether the factors that distinguish higher-mobility places are causing the differences or are themselves effects of other underlying causes (i.e. are poor schools a factor of low mobility or is another factor causing both poor schools and low mobility?).

According to the study, poor children in Leon County have more difficulty ascending the income ladder compared to their peers across the U.S. Leon County ranks 329th out of 2,478 counties in terms of intergenerational mobility, better than only about 13 percent of counties. Only fifteen Florida counties provide a boost to a poor child's earning potential vs. growing up in an average community. According to the study's calculations, a child in a poor family growing up in Leon County would earn \$1,920 less, or seven percent, compared to the national average at age 26. This is not the difference of annual income. It is the difference in total earned income over the course of early adulthood, which is defined as ages 20–26 for the data compiled by the *New York Times* and presented in Table #1.

Table #1 compares Leon County to other Florida counties in terms of how much children in poor and rich families would earn growing up compared to the national average along with several other mobility factors identified in this study. In comparison to the Tallahassee metro area, a child could do better growing up in Wakulla County (-\$480 income potential compared to the national average), but would be worse off in Jefferson (-\$2,790 income potential compared to the national average) and Gadsden Counties (-\$3,910 income potential compared to the national average).

Table #1: Intergenerational Mobility Factors: Leon County vs. Other Florida Counties

County Name		milies vs. onwide Better Than % of Counties Nation Wide	Rich Families vs. Nationwide Child Income Potential Change* Nation Wide		Racial Segre -gation	Income Segre -gation	% Children with Single Mothers
Holmes	+\$1,840	68%	+\$1,450	62%	0.113	0.004	20.0%
Wakulla	-\$480	30%	-\$570	19%	0.013	0.008	22.1%
Alachua	-\$480	30%	-\$2,160	5%	0.139	0.131	29.5%
Lake	-\$610	28%	-\$2,700	2%	0.104	0.036	21.0%
Osceola	-\$670	27%	-\$2,380	4%	0.128	0.036	21.7%
St. Lucie	-\$1,590	16%	-\$570	19%	0.243	0.057	24.8%
Leon	-\$1,920	13%	-\$2,910	2%	0.151	0.179	29.0%
St. Johns	-\$2,080	12%	-\$1,700	7%	0.138	0.091	17.7%
Jefferson	-\$2,790	07%	-\$2,190	4%	0.002	0.001	25.4%
Escambia	-\$3,870	02%	+\$150	33%	0.140	0.067	30.1%
Gadsden	-\$3,910	02%	-\$2,420	04%	0.105	0.014	37.5%

Source: Chetty and Hendren (2015): Causal Effects, Mobility Estimates and Covariates by County, CZ, and Birth Cohort - Complete County-Level Dataset

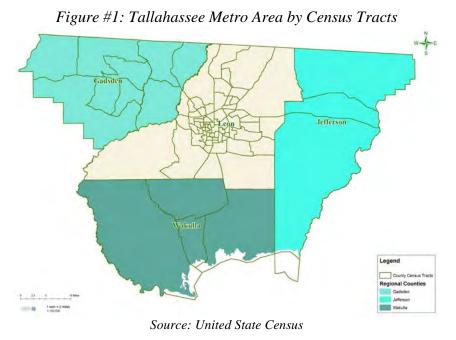
Compared with the rest of the country, rich boys and girls in Leon County see income potential loss. As seen in Table #1, the estimated income potential of Leon County children, as reported in the *New York Times* article, shows more potential income loss for rich kids (-\$2,910) compared to poor kids (-\$1,920). In fact, this data finds that affluent children in Leon County fare worse than their low-income counterparts when compared nationally. Children of rich families in Leon County fall in the bottom two percentile nationally for income change while low-income Leon County children are in the bottom 13 percentile. This suggests that further examination of the issue may call for across the board understanding of the national competitiveness of local earnings as opposed to exploring issues of income inequality.

^{*}Not an annualized figure. Income change measured by total earnings from ages 20–26.

The May 4, 2015 *New York Times* article compares Leon County to Holmes County (the second highest performing in the state), noting that every year a poor child spends in Holmes County adds about \$90 to his or her annual household income at age 26, compared with a childhood spent in the average American county. Over the course of early adulthood (up to age 20 for the study), the difference adds up to about \$1,840 more, or seven percent, than the national average. This is compared to Leon County where a child is estimated to make \$1,920, or seven percent, less in average income as a young adult. There are some important differences between Leon County (population 283,988) and Holmes County (population 19,650). Holmes County may appear more upwardly mobile than Leon County, but that is likely because Holmes County is a more homogenous community with less variation in its income range; there are many farmers that have a similar household income. Comparatively, Leon County is a center of commerce with a higher mix of high-income earners (i.e.: doctors and lawyers) vs. low-income earners (i.e.: fast-food workers) than Holmes County. As previously explored by Dr. Cyphers in response to the America's Most Economically Segregated Cities study, comparisons of Leon County to a rural homogeneous county are not recommended (Attachment #4).

Also, Table #1 compares Leon County against its neighbors and other peer Florida counties in regards to factors the study found to affect mobility, such as less segregation (by income and race) and family structure (i.e.: children with single mothers). The study's racial segregation measure is a correlation coefficient in a statistical regression equation where the lower the number, the less racially segregated the county is. In regards to racial segregation, Jefferson County appears to be much less racially segregated than Leon County, even though both have a similar countywide demographics (Leon County is 63% white/31% black, and Jefferson County is 62% white/35% black). However, this comparison is likely skewed based on how the study determines racial shares by census tract. Figure #1 shows that Jefferson County has fewer and

larger census tracts compared to Leon County, which has more compact census tracts. This means that a neighborhood with a high minority concentration might factor more heavily in the racial composition of a small urban census tract than a large, rural census tract. In the urban census tract the neighborhood might 75% of a Leon County census tract area, whereas the same neighborhood might only be 10% of a Jefferson County census tract area.



Income segregation similarly looks at differences across census tracts. The study's income segregation measure is a correlation coefficient in a statistical regression equation where the lower the number, the less income segregation there is in the county. This presents the same concern as the racial segregation measure in that urban census tracts are smaller and can more easily be skewed than rural census tracts. Based on this, it is no surprise that Table #1 generally shows that rural counties have a lower rate of income segregation than more urban counties. Additionally, it is possible that Leon County's ranking in income segregation and overall intergenerational mobility is influenced by the County's high concentration of university students. As previously discussed in the 'America's Most Economically Segregated Cities' analysis section, Leon County's measure of income segregation is skewed by a concentration of college students who typically have little to no income. The study evaluates mobility based on a child's income between ages 24-30. This is the age range of many graduate students which typically have lower household incomes compared to their peers. This means that in Leon County, many of its residents between ages 24-30 are at the very beginning of their career or have not started their career, while residents in other communities between ages 24-30 have started their careers. This may disproportionately influence how mobility is calculated for Leon County.

It should be noted that the study's use of household income to measure mobility favors communities where young people are married and potentially have two incomes. Graduate students tend to start their careers later in life than their peers and are less likely to get married between ages 24-30 (while they're still in school). Generally, communities, such as Leon County, that have a large student population, will not have the same percentage of married households ages 24-30 as other communities; college communities like Alachua and Leon Counties have lower marriage rates compared to other Florida counties.

When comparing the mobility of certain areas, the study often compares the mobility of children with parents in the 25th percentile (poor families) and in the 75th percentile (rich families). It is interesting to note that mobility is lowest for both groups in the southeastern and southwestern parts of the U.S. The southern parts of the U.S. are characterized by sprawling suburban developments as opposed to dense city blocks found in the northeastern U.S. Sprawling development is typified by poorer people leaving in the inner city and more affluent people living on the suburban edges. This can have significant economic impacts on a community that may be reflected in this study on mobility. One impact is that employment centers have often followed their workers, which led to suburban office parks and vacant office spaces in the downtown areas in these regions of the country. This makes it difficult for poor people in the inner city to find employment opportunities near where they live. This is compounded because southern counties are typically automobile-dependent, as sprawling communities make it more difficult to have an effective mass-transit system; meaning, that it is difficult for poor people to get to the job opportunities on the edges of the community.

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Summary

This agenda item offers a brief summation and analysis on the complex research and findings reached in two studies that portray Leon County in a negative light. Much of the data used in these studies are from reliable resources that do not present many surprises, good or bad, but they are used to draw conclusions and national comparisons/rankings that raise many concerns.

The University of Toronto's Martin Prosperity Institute entitled "America's Most Economically Segregated Cities" found Tallahassee to be the most economically segregated city in the country. The study suggests that all three types of economic segregation—income, educational, and occupational—are associated with one another and that economic segregation is conditioned by the behavior and location choices of more advantaged groups. That is to say, more advantaged groups have the resources to isolate themselves from less advantaged groups.

The national ranking rightly draws the ire of residents and policy makers alike, but the premise behind the study is that this is a behavioral trait of certain residents rather than a public policy matter. That being said, the ranking itself warrants the analysis provided herein which found that many of the metros where the poor are most segregated are college towns such as State College, Pennsylvania (home to Penn State), New Haven (Yale University), Madison, Wisconsin (University of Wisconsin), and Boulder, Colorado (University of Colorado). This is attributed to the fact that university students tend to live near their school, creating a large concentration of people in a particular area whom typically have little or no income in comparison to the rest of the community. It should be no surprise that among metros with the highest segregation of the highly educated (bachelor degrees or better), college towns like Tallahassee again rise to the top. The study finds that higher income segregation is associated with more advanced knowledgebased metros. For instance, the study indicates an association of higher income segregation for communities that have larger shares of college graduates and larger shares of the workforce in the creative class. Conversely, as pointed out by Dr. Cyphers, the least economically segregated metros are places that are largely homogeneous, with most of the population resembling one another in income, job sector, education levels, etc.

The May 4, 2015 *New York Times* article draws on a study by the Harvard University Equality of Opportunity Project. The study focused on intergenerational mobility and the income potential of children that grow up in one location versus another. The media report focused on the study's calculations which indicate that poor children in Leon County have more difficulty ascending the income ladder compared to other counties ranking it 329th out of 2,478 counties in terms of intergenerational mobility for poor kids, better than only about 13 percent of counties. More specifically, a child that grows up in a poor family in Leon County would earn \$1,920 less, or seven percent, compared to the national average during the early-adult period from ages 20 through 26 (or \$320 a year). The illustration of the cumulative \$1,920 figure over six years appears much more significant than an annualized figure of \$320.

Much of the media coverage focused on the mobility of low-income children suggesting that these children are at a distinct disadvantage in Leon County because of their parents' household income level. However, low-income children in Leon County outperform all others in regards to future income when compared to the national averages. Children of rich families in Leon County fall in the bottom two percentile nationally for income change while low income Leon County children are in the bottom 13 percentile. This suggests that further examination of the issue may call for across the board understanding of the national competitiveness of local earnings as opposed to exploring issues of income disparity.

The *New York Times* article goes a step further by comparing Leon County to Holmes County (the second highest performing in the state), noting that every year a poor child spends in Holmes County adds about \$90 to his or her annual household income at age 26, compared with a childhood spent in the average American county. Over the course of early adulthood (up to age 20 for the study), the difference adds up to about \$1,840 more, or seven percent, than the national average. Most people familiar with Leon or Holmes Counties would rarely attempt to draw comparisons between the two given the differences in size, demographics, etc. Additional concerns are raised throughout this analysis on the conclusions drawn from the methodology of using census tracts to measure 'segregation' levels for race, income, and education. In addition, measurements of household incomes for young adults in the 24-30 range can be drastically different in locations such as Leon and Holmes Counties due to the number of graduate students and young professionals waiting longer to get married.

At worst, these studies may call for better across the board understanding of the national competitiveness of local earnings as opposed to exploring issues of income disparity. Both studies rely very much on patterns of human and social behaviors (community engagement, single parents, relocation, etc.) that rarely influenced by public policy makers. Both studies appear to skew heavily against college towns for several reasons covered throughout this analysis. Ironically, some of the metro areas found to be the most segregated are college towns in which the local community has embraced as models such as Madison, Wisconsin and Boulder, Colorado.

Academic research and studies, in general, should be openly welcomed by a community willing to engage in self-reflection but caution should be used before weighing public policy decisions based on said research. However, a growing trend of concern in academia is the utilization of partial data and provocative headlines to draw attention to these types of studies and their conclusions. These studies are noteworthy for academic purposes due to their use of important measurements and variables but often have little practical value to policy makers.

Citizen Committee on Expanding Economic Opportunities

After reviewing the research presented, the Board may desire to create a blue-ribbon citizens group to investigate, analyze, and make recommendations on how the community can expand economic opportunities for all Leon County citizens. The studies suggest that economic segregation and intergenerational mobility are related to non-economic factors such as school quality, violent crime, family structure, and other social issues. These social issues are often deep and complex and may be outside the County's ability to directly influence. Additionally, both studies suggest that economic segregation and intergenerational mobility issues are tied to place.

As such, a blue-ribbon citizens group would likely focus their efforts on Southside area of Tallahassee, an area of the community previously identified as economically disadvantaged for which numerous resources and investments have been, and will continue to be, made by the County.

It is important to note that there are already ongoing efforts to actively address issues on the Southside. The Board recently funded the South City Revitalization Council which aims to address many of the social issues identified in these studies by focusing service needs that empower families. The Community Leadership Council on Gun Violence is a citizen task force that has been developing action plans for programs, services, best practices, and initiatives to reduce gun violence, which disproportionately impacts residents on the Southside. Consultants from the Urban Land Institute recently examined conditions in the South City area and made recommendations on opportunities for community development. The Community Advisory Council was recently formed by the Florida Department of Health, Florida A&M and Florida State universities, and the NAACP to focus on health issues for residents living in the Southside and Frenchtown areas. Additionally, the County and its local government partners are actively addressing issues on the Southside through the provision of services, capital investments, and community engagement. Efforts by the County, City, and Sheriff's Office described in the October 14, 2014 'Staff Report on Community Efforts to Address Issues on the Southside' demonstrate each organization's long-term commitment to the residents and neighborhoods of the Southside (Attachment #6).

The County continues to identify opportunities for collaboration with governmental and community partners to spur economic growth and improve the quality of life on the Southside. Based on the amount of attention being paid to socio-economic issues pertaining to the Southside by a diverse coalition of government and civic organizations, it is possible that a new citizen committee that addresses economic segregation and intergenerational mobility would duplicate existing initiatives.

Should the Board wish to establish a citizen panel to further review these studies and their findings in order to make recommendations to address some of these concerns, staff would recommend that each Commissioner make one appointment to serve on a panel that could immediately assemble so that its findings can be brought back to the Board in the fall. An enabling resolution could be brought back for the July 7th Board meeting, at which time Commissioners could make their appointments to the committee. The County Administrator would assign a staff liaison to support the committee, as needed. Following the appointments, the committee would meet regularly for 90 days to further review these studies and make recommendations to expand economic opportunities for all Leon County citizens, with the goal of completing its report in time for the Board's December retreat.

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Options:

- 1. Accept staff report on the "Segregated City: The Geography of Economic Segregation in America's Metros" and "Impacts of Neighborhoods on Intergenerational Mobility" studies.
- 2. Direct staff to prepare an Enabling Resolution to Establish a Citizen Committee on Closing the Gap on the Economic and Educational Divide.
- 3. Do not accept staff report on the "Segregated City: The Geography of Economic Segregation in America's Metros" and "Impacts of Neighborhoods on Intergenerational Mobility" studies.
- 4. Board direction.

Recommendation:

Board direction.

Attachments:

- 1. February 25, 2015 *Tallahassee Democrat* Article on Economic Segregation Research
- 2. May 4, 2015 New York Times Articles on Intergenerational Mobility Research
- 3. February 2015 Martin Prosperity Institute Study Entitled "Segregated City: The Geography of Economic Segregation in America's Metros"
- 4. A Rebuttal to "America's Most Economically Segregated Cities"
- 5. May 2015 Harvard Study Entitled "Impacts of Neighborhoods on Intergenerational Mobility"
- 6. October 14, 2014 Staff Report on Community Efforts to Address Issues on the Southside

Report calls Tallahassee 'most economically segregated'

Karl Etters, Tallahassee Democrat 9:26 p.m. EST February 25, 2015

Tallahassee tops the list of the most economically segregated cities in the U.S., according to a report released Monday by the University of Toronto's Martin Prosperity Institute. Greater Tallahassee Chamber of Commerce officials, however, are calling the data "flawed."

Using U.S. Census numbers, researchers Richard Florida and Charlotta Mellander tried to determine how 350 metro areas in the U.S. were ranked by three segregation factors: economics, education and occupation.

Florida's capital city ranked No. 1 on the combined list, followed by Trenton, N.J., Austin, Tucson, San Antonio, Houston and Dallas. Tallahassee also tops the list in overall income segregation, the report found, followed by Cleveland and Detroit.

In other words, the report says the city's rich people (households with incomes over \$200,000) and poor people (households below the poverty level) live in different neighborhoods, separating themselves from each other more than in any other city in the U.S.

"It is not just that the economic divide in America has grown wider; it's that the rich and poor effectively occupy different worlds, even when they live in the same cities and metros," the report says.

Of Tallahassee's 186,000 in population, 30 percent is below the poverty level and the median household income was roughly \$40,000 annually, according to U.S. Census data between 2009 and 2013. The poverty line, as defined by the Census, is an annual income of \$23,000 for a family of four.

The report generally found larger cities with higher population densities were more likely to have more distance between the rich and the poor. That a city of Tallahassee's size has the highest divide is an outlier in the data.

Richard Florida was not available for comment, but Chamber and Leon County Economic Development Council President Sue Dick said the report uses data from outside of the Tallahassee metro area, including Gadsden, Jefferson and Wakulla counties, which skews the results.

"The methodology of the study is fundamentally flawed by using regional data and attributing it to Tallahassee specifically," Dick wrote in an email. "Worse yet, the authors used misleading, emotionally-charged and inaccurate language."

One of the explanations for Tallahassee's anomalous status could be the presence of universities. Segregation of highly educated people is generally greatest in larger, denser cities, but metros with universities have a strong divide between jobs requiring higher education — like doctors, researchers, professors and administrators — and low-skill jobs that provide basic services to the institutions.

Dick noted that with two major universities and a community college in Tallahassee, there is a natural gap between higher wage earners, well established in their careers, and students, who generally have little to no income.

Tallahassee's unemployment rate has remained mostly below the state's rate in the past decade, only rising above it last summer briefly. The number has since declined to 4.9 percent in December, and in the last year the Chamber is reporting 2,700 jobs have been added in the region and it contributed to more than 75 start-up companies.

"Everyone who has lived in Tallahassee or visited here considers it the capital of the quality of life, even as we continue to work on raising the fortunes of every segment of the community," Dick wrote.

The Chamber enlisted Karen Cyphers, a public policy researcher, adjunct professor at Florida State University and Tallahassee-based Sachs Media Group's research division vice president to refute the researchers' report.

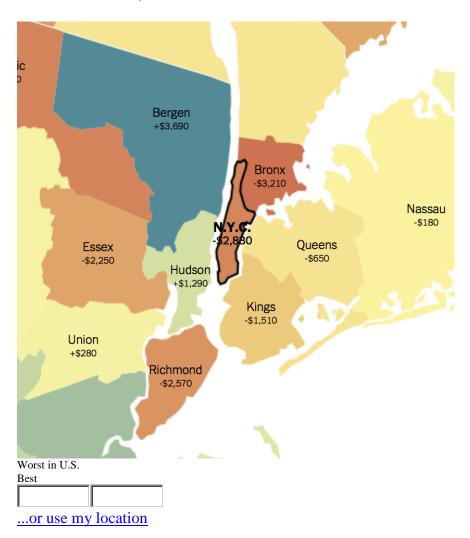
Cyphers' rebuttal says the study fails to define "economically segregated" and objects to the use of the politically-charged word to describe the contrast between communities, without noting the strides being taken to address affordable housing, education access, poverty and health care.

"This study, however, fails to capture the true issues we face today," Cyphers' report says, "just as it fails to define our community with a poorly measured and inappropriate term."

Richard Florida, one of the researchers, is the author of "The Rise of the Creative Class," which examined the link between creative workers and the economic success of cities. That book became an international best seller and positioned him as a leading thinker in the area of urban theory.

The Best and Worst Places to Grow Up: How Your Area Compares

Children who grow up in some places go on to earn much more than they would if they grew up elsewhere. MAY 4, 2015



Leon County is very bad for income mobility for children in poor families. It is better than only about 13 percent of counties.

<u>Location matters</u> – enormously. If you're poor and live in the Tallahassee area, it's better to be in Holmes County than in Jefferson County or Gadsden County. Not only that, the younger you are when you move to Holmes, the better you will do on average. Children who move at earlier ages are less likely to become single parents, more likely to go to college and more likely to earn more.

But even Holmes County is below the national average. Every year a poor child spends in Holmes County addssubtracts about \$90 to from his or her annual household income at age 26, compared with a childhood spent in the average American county. Over the course of a full childhood, which is up to age 20 for the purposes of this analysis, the difference adds up to about \$1,800, or 7 percent, moreless in average income as a young adult.

These findings, particularly those that show how much each additional year matters, are from a new study by Raj Chetty and Nathaniel Hendren that has huge consequences on how we think about poverty and mobility in the United States. The pair, economists at Harvard, have long been known for their work on income mobility, but the latest findings go further. Now, the researchers are no longer confined to talking about which counties merely correlate well with income mobility; new data suggests some places actually cause it.

Consider Leon County, Fla., our best guess for where you might be reading this article. (Feel free to change to another place by selecting a new county using the search boxes throughout this page.)

It's among the worst counties in the U.S. in helping poor children up the income ladder. It ranks 329th out of 2,478 counties, better than only about 13 percent of counties. Compared with the rest of the country, it is also bad for rich boys and rich girls.

Here are the estimates for how much 20 years of childhood in Leon County adds or takes away from a child's income (compared with an average county), along with the national percentile ranking for each.

What a Childhood in Leon County Does to Future Income

For poor kids

Group	Income chg.	Nat. pct.
All kids	-\$1,920	13%
Boys	-\$2,060	11%
Girls	-\$1,690	19%

For average-income kids

Group	Income chg.	Nat. pct.
All kids	-\$2,520	4%
Boys	-\$3,060	2%
Girls	-\$1,820	10%

For rich kids

Group	Income chg.	Nat. pct.
All kids	-\$2,910	2%
Boys	-\$3,830	1%
Girls	-\$1,810	9%

For kids in the top 1%

Group	Income chg.	Nat. pct.
All kids	-\$2,960	3%
Boys	-\$4,130	2%
Girls	-\$1,640	11%

Across the country, the researchers found five factors associated with strong upward mobility: less segregation by income and race, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households. In general, the effects of place are sharper for boys than for girls, and for lower-income children than for rich.

"The broader lesson of our analysis," Mr. Chetty and Mr. Hendren write, "is that social mobility should be tackled at a local level." Here's where Leon County stands among its neighbors.

How Leon County ranks among places in the Tallahassee area

COUNTY	POOR BOYS	POOR GIRLS	AVERAGE BOYS	AVERAGE GIRLS	RICH BOYS	RICH GIRLS	RICHEST BOYS	RICHEST GIRLS	MEDIAN RENT
Holmes	1st	1st	2nd	1st	3rd	4th	3rd	4th	\$364
Calhoun	2nd	2nd	1st	3rd	1st	2nd	1st	2nd	\$331
Washingto	n 3rd	3rd	3rd	2nd	2nd	1st	2nd	1st	\$371
Wakulla	4th	5th	5th	5th	5th	5th	6th	5th	\$511
Jackson	5th	4th	4th	4th	4th	3rd	4th	3rd	\$360
Leon	6th	6th	7th	6th	8th	6th	8th	7th	\$652
Jefferson	7th	7th	6th	8th	6th	8th	5th	8th	\$391
Gadsden	8th	8th	8th	7th	7th	7th	7th	6th	\$361

In some places, the new estimates of mobility conflict with earlier estimates. For example, <u>previous estimates</u> suggested that New York City was a good place for lower-income children to grow up: Children raised in lower-income families in New York had above-average outcomes in adulthood.

But New York appeared above average in part because it has a large number of immigrants, who have good rates of upward mobility no matter where they live: Nothing about New York in particular caused these children to do better.

To remove variation that was simply caused by different types of people living in different areas, Mr. Chetty and Mr. Hendren based the latest estimates on the incomes of more than five million children who moved between areas when they were growing up in the 1980s and 1990s. These estimates are causal: They suggest moving a given child to a new area would in fact cause him or her to do better or worse.

In the new estimates, Manhattan ranks among the worst counties in the country for girls from lower-income families.

Here, better or worse is measured by the household incomes of children in early adulthood. This makes New York look worse than it would if individual incomes were used, because it, along with Northern California, has some of the lowest marriage rates in the country. Manhattan is actually better than most of the country at raising the individual incomes of poor girls. Marriage rates, too, are strongly affected by where children grow up.

For a family with a parent in his or her 40s, the 25th percentile corresponds to an annual income of about \$30,000; the 50th percentile to about \$60,000; the 75th percentile to about \$100,000; and the top 1 percent to more than \$500,000. Estimates are based on children born between 1980 and 1986, and their neighborhoods in the 1980s and 1990s. Median rent is for 2000, in 2012 dollars. At the 25th percentile, the margin of error for each of the county estimates is around \$1,100.

Source: Raj Chetty and Nathaniel Hendren, <u>"The Impacts of Neighborhoods on Intergenerational Mobility"</u>

By GREGOR AISCH, ERIC BUTH, MATTHEW BLOCH, AMANDA COX and KEVIN QUE

Martin **Prosperity** Institute SEGREGATED CITY The Geography of Economic Segregation in America's Metros Cities

The Martin Prosperity Institute, housed at the University of Toronto's Rotman School of Management, explores the requisite underpinnings of a democratic capitalist economy that generate prosperity that is both robustly growing and broadly experienced.

Richard Florida is the Director of the Cities Project at the MPI, where he and his colleagues are working to influence public debate and public policy. Rich is focused on the critical factors that make city regions the driving force of economic development and prosperity in the twenty-first century.

SEGREGATED CITY

The Geography of Economic Segregation in America's Metros

Richard Florida Charlotta Mellander

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1. Executive Summary

Americans have become increasingly sorted over the past couple of decades by income, education, and class. A large body of research has focused on the dual migrations of more affluent and skilled people and the less advantaged across the United States. Increasingly, Americans are sorting not just between cities and metro areas, but within them as well.

This study examines the geography of economic segregation in America. While most previous studies of economic segregation have generally focused on income, this report examines three dimensions of economic segregation: by income, education, and occupation. It develops individual and combined measures of income, educational, and occupational segregation, as well as an Overall Economic Segregation Index, and maps them across the more than 70,000 Census tracts that make up America's 350-plus metros. In addition, it examines the key economic, social, and demographic factors that are associated with them. Its key findings are as follows.

The following metros have the highest and lowest levels of economic segregation:

- Tallahassee and Trenton have the highest levels of overall economic segregation in the U.S., followed by Austin, Tucson, San Antonio, Houston, Ann Arbor, Bridgeport, and Los Angeles.
- Four of the ten most segregated large U.S. metros, those with populations of one million or more, are in Texas: Austin, San Antonio, Houston, and Dallas. Almost all of the most segregated smaller metros are college towns.
- Among large metros, New York, Dallas, Philadelphia, Chicago, and Memphis also exhibit high degrees of economic segregation.
- The metros with the lowest levels of economic segregation are mainly medium-sized and smaller. There are more than 200 small and medium-sized metros with levels of overall segregation that are less than even the least segregated of the 51 large metros. The ten least segregated metros all have 300,000 people or less.
- The least segregated large metros include Orlando, Portland, Minneapolis-St. Paul, Providence, and Virginia Beach. Rustbelt metros like Cincinnati, Rochester, Buffalo, and Pittsburgh also have relatively low levels of economic segregation.

The three types of segregation—income, educational, and occupational—are related to one another in the following ways:

- All three types of segregation—income, educational, and occupational—are associated with one another. If a metro is segregated on one dimension, it increases the likelihood of it being segregated on the others.
- Of the three main types of segregation, income segregation is the most marked, followed by educational and occupational segregation.
- Economic segregation appears to be conditioned by the location decisions of more advantaged groups. The creative class is more

segregated than either the working class or service class. College grads are more segregated than those who did not graduate from high school. The wealthy are more segregated than the poor—indeed they are the most segregated of all, and by a considerable margin.

The following social, demographic and economic factors are associated with economic segregation:

- Economic segregation is positively associated with population size and density. It is also positively correlated to two other sets of factors that follow from metro size and density: how people commute to work and the breakdown of liberal versus conservative voters.
- Economic segregation tends to be more intensive in high-tech, knowledge-based metros. It is positively correlated with high-tech industry, the creative class share of the workforce, and the share of college grads. In addition, it is associated with two key indicators of diversity, the share of the population that is gay or foreign-born, which tend to coincide with larger, denser and more knowledge-based metros.
- Economic segregation is connected to the overall affluence of metros, with positive correlations to average metro wages, income, and economic output per capita.
- Race factors in as well. Economic segregation is positively associated with the share of population that is black, Latino, or Asian, and negatively associated with the share that is white.
- Economic segregation is associated with income inequality and even more so than with wage inequality. Its effects appear to compound those of economic inequality and may well be more socially and economically deleterious than inequality alone.

It is not just that the economic divide in America has grown wider; it's that the rich and poor effectively occupy different worlds, even when they live in the same cities and metros.

2. Introduction

Economic inequality has been apparent within cities since ancient times. Indeed, it was Plato, in *The Republic*, who wrote that: "any city, however small, is in fact divided into two, one the city of the poor, the other of the rich." ¹

America has long been divided between rich and poor. But the gap has been widening. As *The Economist's* Ryan Avent has noted, "income gaps between metropolitan areas are simply staggering. Personal income per person in the San Francisco metropolitan area (the richest large metro) is \$66,591. In Riverside (the poorest large metro), income per person is less than half that at \$31,900. Taking smaller metros the difference is bigger; Bridgeport, Connecticut's personal income per person is \$81,068, to \$22,400 in McAllen, Texas. So one way America defuses its inequality problem is by separating the rich from the poor by hundreds of miles." ²

These divides are also growing within cities and regions—where the rich and poor are increasingly geographically separated as well. A 2012 report by the <u>Pew Research Center</u> found that the segregation of upper- and lower-income households had risen in 27 of America's 30 largest metros.³

A large <u>number</u> of <u>studies</u> have <u>documented</u> the sharp <u>rise</u> in the <u>inequality</u> of nations over the <u>past</u> several decades.⁴ Other studies have documented the worsening <u>geography</u> of <u>inequality</u> across U.S. cities and metros.⁵ But if cities and urban areas have always been unequal, economic segregation—the geographical sorting of people by income, education, and socio-economic class—has been growing.⁶

Most <u>studies</u> of <u>economic segregation</u> focus on <u>income</u>. But <u>sociologists</u> have <u>long noted</u> the <u>intersection</u> and interplay of three factors in the shaping of socio-economic status and class position: income, education, and occupation. This report seeks to add to our understanding of the geography of economic segregation by providing an empirical examination of all three of its core dimensions.

Our measures of segregation compare the distribution of different groups of people in metro neighborhoods to the rest of the population. We introduce seven individual and combined measures of income, educational, and occupational segregation, and an Overall Economic Segregation Index. The individual indexes are based on the <u>Index of Dissimilarity</u> developed by sociologists Douglas Massey and Nancy Denton, which compares the spatial distribution of a selected group of people with all others in that location, 9 and they are calculated across the more than 70,000 census tracts that make up America's 350-plus metros. 10 (The Appendix provides more detail on our measures, variables, and methods.)

This report begins with detailed maps that track the geography for each of the individual and combined measures of income, educational, and occupational segregation. The metros with the highest levels of segregation are shaded dark purple; blue indicates moderate levels of segregation; and light blue, lower levels of

segregation. We then compare these various types of segregation, identifying the types that are more or less severe. After that, we introduce an Overall Economic Segregation Index, a composite measure based on the three main types of segregation.

This report also explores the key economic, social, and demographic factors that bear on economic segregation, summarizing the key findings of our correlation analysis. (We note that correlation does not imply causality; it simply points to associations between variables.) The concluding section summarizes the key findings and discusses their implications.

3. Mapping Economic Segregation

This section presents the seven individual and combined measures for income, educational, and occupational segregation and maps them across U.S. metros.

3.1 Income Segregation

We begin with the geography of income segregation in America. We first examine the segregation of poverty—the extent to which poor people live in neighborhoods where the majority of residents are poor. We then turn to the segregation of the wealthy—the extent to which rich people live in neighborhoods with other rich people. After this, we combine the two measures in an overall index of income segregation.

3.1.1 Segregation of the Poor

Poverty in America is an enormous problem. According to the United States Census Bureau, 15 percent of Americans or 46.5 million people lived below the poverty line in 2012. 11 And those poor are increasingly segregated and isolated. As Cornell University's Kendra Bischoff and Sean Reardon of Stanford University note, "the proportion of [poor] families in poor neighborhoods doubled from 8 percent to 18 percent between 1970 and 2009 and the trend shows no signs of abating." ¹²

Poverty is not just a lack of money. In his classic book *The Truly Disadvantaged*, William Julius Wilson called attention to the deleterious social effects that accompany spatial concentration of poverty, which "include the kinds of ecological niches that the residents of these neighbor-

hoods occupy in terms of access to jobs and job networks, availability of marriageable partners, involvement in quality schools, and exposure to conventional role models." ¹³ The Harvard sociologist Robert Sampson highlights the enduring effects that accompany concentrated poverty, noting that: "the stigmatization heaped on poor neighborhoods and the grinding poverty of its residents are corrosive," leading ultimately to "greater 'moral cynicism' and alienation from key institutions," setting in motion a "cycle of decline." ¹⁴

We define poverty according to the <u>Census</u> <u>definition</u>¹⁵ of \$11,485 for a single person and \$23,000 for a family of four.

Exhibit 1 maps the segregation of the poor across U.S. metros. It is important to remember that we are not measuring the extent of poverty per se, but the extent to which the poor are geographically separated and segregated from more affluent populations. A metro can have high levels of poverty but relatively low levels of poverty segregation if the poor are evenly spread and mixed in with the broader population.

Exhibit 1.1 shows the ten largest metros—those with one million or more people—where the poor face the highest and lowest levels of segregation.

The large metros where the poor are most segregated are mainly in the Midwest and the Northeast. Milwaukee is first, followed by Hartford, Philadelphia, Cleveland, and Detroit.

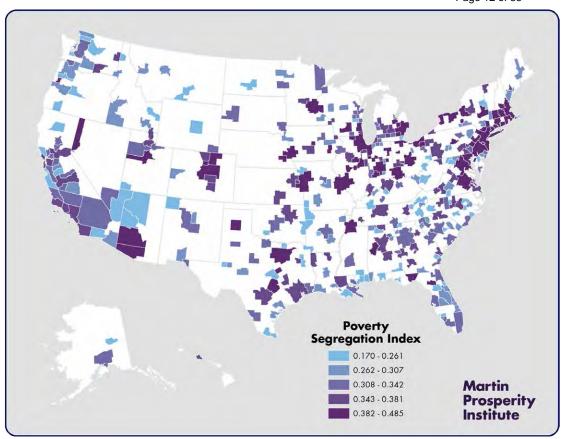


Exhibit 1: Segregation of the Poor

New York, Buffalo, Denver, Baltimore, and Memphis round out the top ten. With the significant exceptions of New York and Denver, most of these are Rustbelt metros that have been hard hit by deindustrialization. Having seen outmigration of their wealthy and middle class populations, the "back to the city" movement has mostly passed them by.

When we look across all 350-plus U.S. metros, the picture changes somewhat. Seven of the ten most segregated metros are small and medium-sized (see Exhibit 1.2). Only three large metros—Milwaukee, Philadelphia, and Hartford—remain on this list. Many of these smaller metros are college towns. State College, Pennsylvania (home to Penn State) has the high-

est level of poverty segregation in the country; Ann Arbor (University of Michigan) ranks fifth; Ames, Iowa (Iowa State) eighth, and New Haven (Yale University) is tenth. Madison, Wisconsin (University of Wisconsin); Boulder, Colorado (University of Colorado); Iowa City, Iowa (University of Iowa); and Champaign-Urbana, Illinois (University of Illinois) all register relatively high levels of poverty segregation as well. All of these communities suffer from the classic town-gown split, as university faculty, students, and administrative staff cluster around campuses and the rest of the city is left to service workers. Often this pattern of economic segregation has been exacerbated by university expansion efforts that encroached upon and displaced urban neighborhoods.

Rank	Metro	Index	Rank Out of All Metros
1	Milwaukee-Waukesha-West Allis, WI	0.478	2
2	Hartford-West Hartford-East Hartford, CT	0.462	6
3	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.455	9
4	Cleveland-Elyria-Mentor, OH	0.435	15
5	Detroit-Warren-Livonia, MI	0.433	16
6	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.428	20
7	Buffalo-Niagara Falls, NY	0.416	28
8	Denver-Aurora-Broomfield, CO	0.413	30
9	Baltimore-Towson, MD	0.413	33
10	Memphis, TN-MS-AR	0.410	34

Exhibit 1.1: Large Metros where the Poor are Most Segregated

The large metros where the poor are the least segregated (*Exhibit 1.3*) are divided between Sunbelt service and tourism-based economies and four metros with substantial tech sectors—San Jose, in the heart of Silicon Valley, Seattle, Portland, Oregon, and Salt Lake City. Four of the ten metros with the lowest levels of poverty segregation are in Florida—Orlando, Tampa, Miami, and Jacksonville. Other large metros with relatively low levels of poverty segregation include Los Angeles, ranked 228th overall; Atlanta, 204th; and Houston, 241st.

When the list is extended to include all metros, the metros with the least poverty segregation are all small (*Exhibit 1.4*). In fact, there are 86 smaller and medium-sized metros where the poor are less segregated than in the least segregated of the 51 large metros. Jacksonville, North Carolina has the lowest level of poverty segregation in the country, followed by Medford, Oregon; Hinesville-Fort Stewart, Georgia; and Prescott, Arizona. But, what are the factors that bear on the segregation of the poor across metros?

The poor face higher levels of segregation in larger, denser metros. The segregation of the poor is closely associated with density (0.54) and population size (0.43).

The segregation of the poor is more pronounced in more affluent metros. The segregation of the poor is associated with key markers of regional development like income (0.40), wages (0.46), and economic output per capita (0.34). Though San Jose, Seattle, Portland, and Salt Lake City are obvious exceptions, the poor also face greater levels of segregation in more advanced, knowledge-based metros. The segregation of the poor is positively associated with human capital (0.51), and creative class (0.48). This likely reflects the fact that size, density, affluence, and knowledge-based economies all tend to go together. That said, the segregation of the poor is more modestly correlated with housing costs (0.29).

The association between race and the segregation of the poor across America's metros is weaker than one might think. The segregation of the poor is positively associated with the

Rank	Metro	Index
1	State College, PA	0.485
2	Milwaukee-Waukesha-West Allis, WI	0.478
3	Reading, PA	0.476
4	Decatur, IL	0.469
5	Ann Arbor, MI	0.468
6	Hartford-West Hartford-East Hartford, CT	0.462
7	Bridgeport-Stamford-Norwalk, CT	0.460
8	Ames, IA	0.458
9	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.455
10	New Haven-Milford, CT	0.450

Exhibit 1.2: Metros where the Poor are Most Segregated

Rank	Metro	Index	Rank Out of All Metros
1	Orlando-Kissimmee-Sanford, FL	0.274	87
2	Portland-Vancouver-Hillsboro, OR-WA	0.299	123
3	Tampa-St. Petersburg-Clearwater, FL	0.319	171
4	San Jose-Sunnyvale-Santa Clara, CA	0.322	178
5	Jacksonville, FL	0.325	183
6	Miami-Fort Lauderdale-Pompano Beach, FL	0.327	185
7	Seattle-Tacoma-Bellevue, WA	0.331	191
8	Salt Lake City, UT	0.334	199
9	Oklahoma City, OK	0.336	202
10	Riverside-San Bernardino-Ontario, CA	0.337	203

Exhibit 1.3: Large Metros where the Poor are Least Segregated

share of the population that is black (0.12) and Asian (0.22), but is not significantly associated with the share that is white or Latino. It's important to point out that our analysis does not consider the long-held connection between race and poverty at the individual level, but rather the connection between race and the segregation of the poor across metros.

Almost by definition, one would think that the places where the poor are more segregated would be beset with higher levels of economic inequality. But interestingly, we find only a modest relationship between the segregation of the poor and inequality. The segregation of the poor is modestly associated (0.22) with income inequality, which includes dividends, royalties,

Rank	Metro	Index
1	Jacksonville, NC	0.170
2	Medford, OR	0.185
3	Hinesville-Fort Stewart, GA	0.189
4	Prescott, AZ	0.190
5	Idaho Falls, ID	0.190
6	Palm Coast, FL	0.192
7	Dover, DE	0.193
8	Morristown, TN	0.193
9	Punta Gorda, FL	0.195
10	Carson City, NV	0.211

Exhibit 1.4: Metros where the Poor are Least Segregated

and interest, though it is more strongly associated with wage inequality (0.42). This underlines the fact that income inequality and income segregation, while related, are not necessarily the same thing.

The segregation of the poor does appear to be strongly affected by the location choices of the wealthy, the subject to which we now turn.

3.1.2 Segregation of the Wealthy

The top 1 percent of American earners take home 25 percent of the nation's annual income and control 35 percent of its wealth. ¹⁶ Increasingly, they live in their own exclusive enclaves as well. As the Nobel Prize-winning economist Joseph Stiglitz scathingly put it, they "have the best houses, the best educations, the best doctors, and the best lifestyles, but there is one thing that money doesn't seem to have bought: an understanding that their fate is bound up with how the other 99 percent live." ¹⁷

The substantial and growing gap between the rich and everyone else is not just an economic divide—it is inscribed on our geography. While there have always been affluent neigh-

borhoods, gated enclaves, and fabled bastions of wealth like Newport, East Hampton, Palm Beach, Beverly Hills, and Grosse Pointe, the people who cut the lawns, cooked and served the meals, and fixed the plumbing in their big houses used to live nearby—close enough to vote for the same councilors, judges, aldermen, and members of the board of education. That is less and less the case today.

Exhibit 2 maps the segregation of wealthy households, which we define as households with annual incomes of \$200,000 or more, the highest income group reported in the Census and close to the \$232,000 threshold for the top 5 percent. ¹⁸

Exhibit 2.1 shows the ten large metros where the wealthy are the most segregated from other income groups.

Memphis tops the list, followed by Louisville and Birmingham. The top ten also includes Rustbelt metros like Cleveland and Detroit, which have lost industry and blue-collar jobs, and Sunbelt metros like Charlotte, Miami, and San Antonio.

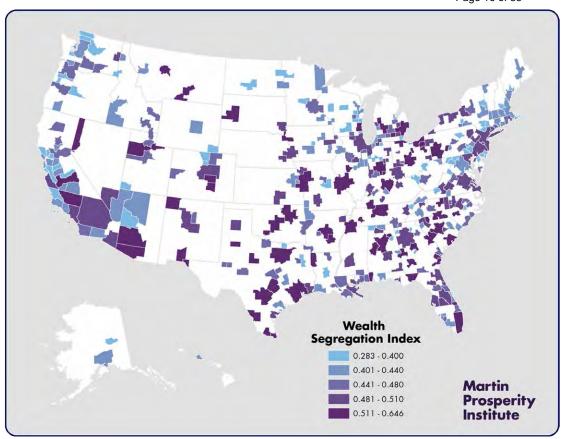


Exhibit 2: Segregation of the Wealthy

When we extend the list to include all metros (Exhibit 2.2), a number of smaller and mediumsized metros rise to the top. In fact, smaller metros take the top four spots and account for six of the ten most wealth-segregated metros. Laredo, Texas ranks first, followed by Jackson, Tennessee; El Paso, Texas; and Great Falls, Montana. Memphis is fifth, with Tucson, Arizona and Columbus, Georgia sixth and seventh. Birmingham, Louisville, and San Antonio drop to eighth, ninth, and tenth respectively. Sioux City, Iowa (11th); Tallahassee, Florida (12th); Toledo (14th) and Akron, Ohio (18th); Fresno, California (15th); Brownsville, Texas (16th); Las Cruces, New Mexico (19th); Reno, Nevada (20th); Spartanburg, South Carolina (21st); Augusta, Georgia (22nd), and Mansfield, Ohio

(24th) also number among America's 25 most segregated metros on this score.

Interestingly, the large metros where the wealthy are least segregated (*Exhibit 2.3*) are mainly on the East and West Coasts and include some of America's leading high-tech knowledge centers, which have some of the highest income levels in the nation. San Jose is the metro where the wealthy are the least segregated from other segments of the population, followed by nearby San Francisco, Washington, D.C., Seattle, Hartford, Boston, Providence, Portland, Oregon, Minneapolis-St. Paul, and Sacramento. The relatively high wages that knowledge and professional workers receive enable them to share some neighborhoods with

Rank	Metro	Index	Rank Out of All Metros
1	Memphis, TN-MS-AR	0.582	5
2	Birmingham-Hoover, AL	0.576	8
3	Louisville-Jefferson County, KY-IN	0.575	9
4	San Antonio-New Braunfels, TX	0.567	10
5	Cleveland-Elyria-Mentor, OH	0.560	13
6	Detroit-Warren-Livonia, MI	0.552	17
7	Nashville-Davidson-Murfreesboro-Franklin, TN	0.549	23
8	Columbus, OH	0.547	25
9	Charlotte-Gastonia-Rock Hill, NC-SC	0.541	29
10	Miami-Fort Lauderdale-Pompano Beach, FL	0.540	31

Exhibit 2.1: Large Metros where the Wealthy are Most Segregated

Rank	Metro	Index
1	Laredo, TX	0.646
2	Jackson, TN	0.617
3	El Paso, TX	0.611
4	Great Falls, MT	0.601
5	Memphis, TN-MS-AR	0.582
6	Tucson, AZ	0.581
7	Columbus, GA-AL	0.578
8	Birmingham-Hoover, AL	0.576
9	Louisville-Jefferson County, KY-IN	0.575
10	San Antonio, TX	0.567

Exhibit 2.2: Metros where the Wealthy are Most Segregated

the super-wealthy, even though the gap between rich and poor may be substantial in these places.

Though it might seem counterintuitive that the wealthy would be less segregated in these metros, it may simply reflect the fact that a larger number of households in these metros are at or above the \$200,000 income cutoff for the wealthy (the highest cut-off in the Census data),

so a larger share of this population ends up being distributed across tracts in similar concentrations to other groups, instead of concentrating in just a few tracts. If the income cutoff were higher, we would likely see greater segregation of the truly rich. As it stands, there appears to be more mixing of higher-income professional and knowledge workers alongside the super wealthy in these metros.

Rank	Metro	Index	Rank Out of All Metros
1	San Jose-Sunnyvale-Santa Clara, CA	0.378	45
2	San Francisco-Oakland-Fremont, CA	0.418	106
3	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.428	119
4	Seattle-Tacoma-Bellevue, WA	0.430	124
5	Hartford-West Hartford-East Hartford, CT	0.431	125
6	Boston-Cambridge-Quincy, MA-NH	0.440	144
7	Providence-New Bedford-Fall River, RI-MA	0.447	150
8	Portland-Vancouver-Hillsboro, OR-WA	0.460	179
9	Minneapolis-St. Paul-Bloomington, MN-WI	0.461	180
10	Sacramento-Arden-Arcade-Roseville, CA	0.462	181

Exhibit 2.3: Large Metros where the Wealthy are Least Segregated

In general, the wealthy are less segregated in smaller metros (Exhibit 2.4). There are 44 smaller and medium-sized metros that have lower levels of wealth segregation than San Jose and more than a hundred with lower levels than San Francisco. The metros with the very lowest levels of wealth segregation are all smaller, such as Barnstable Town on Cape Cod in Massachusetts, which has the lowest level of wealth segregation in the country, Warner Robins, Georgia; Fond du Lac, Wisconsin; St. George, Utah; and Kingston, New York.

But what are the underlying factors that are associated with the geographic segregation of the wealthy?

It might seem reasonable to presume that the overall affluence and economic status of a metro would have some bearing on how segregated its wealthy are, but that is not what we find. In fact, the segregation of the wealthy is weakly and negatively associated with per capita incomes across metros (with a correlation of -0.15), and not statistically associated with average wages or economic output per capita. This is less of a mystery than it seems. As not-

ed above, this may reflect the fact that professionals and knowledge workers earn enough in those places to live in neighborhoods alongside the truly rich.

In contrast to almost every other type of segregation we examine here, the segregation of the wealthy is not statistically associated with either the wealth of metros (income, wages or economic output) or with key indicators of the transition to more knowledge-driven economies (the share of adults that are college grads or the share of the workforce in the creative class), though it is modestly associated with the concentration of high-tech industry (0.26).

The segregation of the wealthy is greater in larger metro areas (with a correlation of 0.38 to population size), though the correlation to density is considerably weaker (0.17).

The geographic segregation of the wealthy overlaps long standing racial cleavages. The wealthy are less segregated in metros where white people make up a greater share of the total population (with a negative correlation of -0.29). And they are more segregated in metros

Rank	Metro	Index
1	Barnstable Town, MA	0.283
2	Warner Robins, GA	0.305
3	Fond du Lac, WI	0.308
4	Madera, CA	0.309
5	Lewiston, ID-WA	0.312
6	St. George, UT	0.314
7	Jefferson City, MO	0.317
8	Sherman-Denison, TX	0.318
9	Kingston, NY	0.318
10	Monroe, MI	0.321

Exhibit 2.4: Metros where the Wealthy are Least Segregated

that have higher shares of black residents (with an even higher positive correlation of 0.34). The segregation of the wealthy is more modestly associated with the share that is Latino (0.15); there is no statistical correlation with the share that is Asian.

The segregation of the wealthy is modestly related to income inequality (0.31), though less so to wage inequality (0.22). Part of this may be due to the simple numerical fact that the population we are considering here is already a very exclusive group of people, roughly one percent of the population by definition.

It is worth noting that the economic segregation of the wealthy is more marked than the segregation of the poor. It is in fact the most severe of any of the types of segregation we examined. The mean or average metro scores 0.456 on the segregation of the wealthy compared to 0.324 for the segregation of the poor and even lower values for the other types of economic segregation we discuss below.

It is not so much the size of the gap between

the rich and poor that drives segregation as the ability of the super-wealthy to isolate and wall themselves off from the less well-to-do. The Harvard political philosopher Michael Sandel has dubbed this phenomenon the "skyboxification" of American life.¹⁹

3.1.3 The Geography of Overall Income Segregation

We now turn to overall income segregation, using an index that combines the segregation ranks for both the poor and the wealthy into a single measure. While the two measures above capture the levels of segregation in metros for each group, this combined index shows the relative segregation of each metro as compared to all the other metros included in the study.

Exhibit 3 maps the geography of overall income segregation.

Exhibit 3.1 lists the ten large metro areas with the highest levels of overall income segregation. Cleveland comes in first, followed by Detroit, Memphis, Milwaukee, and Columbus, Ohio. Philadelphia, Phoenix, Buffalo, Kansas City, and Nashville round out the top ten. These are mainly Rustbelt metros which have experienced considerable white flight and deindustrialization and which have not experienced a back to the city movement.

When we include all metros in our rankings (Exhibit 3.2), Tallahassee rises to the top spot, Cleveland and Detroit fall to second and third, and Akron, Reno, Toledo, and Tucson enter the top ten.

Exhibit 3.3 shows the large metros with the lowest levels of overall income segregation. Knowledge-based, high-tech metros like Washington, D.C., Seattle, Portland, San Francisco, San Diego, and San Jose are among the ten least segregated large metros by income. Boston (ranked 238th) and Los Angeles (283rd) also have relatively low levels of overall income segregation. This likely reflects the lower levels for segregation of the wealthy based on the income cutoff of \$200,000 as discussed above. It is also worth noting that that the segregation of poverty remains considerable in many of them.

When the list is extended to include all metros (*Exhibit 3.4*), the ones with the lowest levels of overall income segregation turn out to be smaller. 85 smaller and medium-sized metros have lower levels of income segregation than the least segregated large metro. Fond du Lac, Wisconsin has the lowest level of income segregation of any metro in the country, followed by Wenatchee, Washington; St George, Utah; Glens Falls, New York; and Prescott, Arizona.

Overall, we find income segregation to be the highest in older Rustbelt metros. These findings are in line with other research. In their detailed study of income segregation, Reardon and Bischoff conclude that: "Most of the metros that experienced large increases in segregation from 1970–2007 were in the Northeast or the

Rustbelt. The long-term increases in income segregation in these metropolitan areas may have been fuelled by both the growth of the suburbs in many of these places and by the rising income inequality that accompanied the decline of the manufacturing sector in the Rustbelt and the mill towns of the Northeast." ²⁰

But what factors bear on the geography of overall income segregation?

Overall income segregation is greater in larger, denser regions. It is positively associated with population size (0.53) and density (0.44).

Overall income segregation is somewhat associated with more advanced knowledge-based metros. It is modestly associated with both the share of adults who are college graduates (0.30) and the share of the workforce in the creative class (0.35) and even more so with the concentration of high-tech industry (0.48). Though some of the biggest and most important tech centers—San Jose, Seattle, and San Francisco—have relatively low levels of overall income segregation, these metros appear to be exceptions to a general rule. Across all metros, overall income segregation remains associated with the clustering and concentration of high-tech industry, knowledge, and talent.

Race factors in as well. Overall income segregation is higher in metros where black people make up a larger share of the population (with a positive correlation of 0.30) and lower in metros where white people make up a larger share (-0.25). However it is not statistically associated with the share of people who are Latino, Asian, or foreign-born.

Overall income segregation is higher in metros that are more unequal. It is positively associated with wage inequality (0.40) and more modestly so with income inequality (0.32).

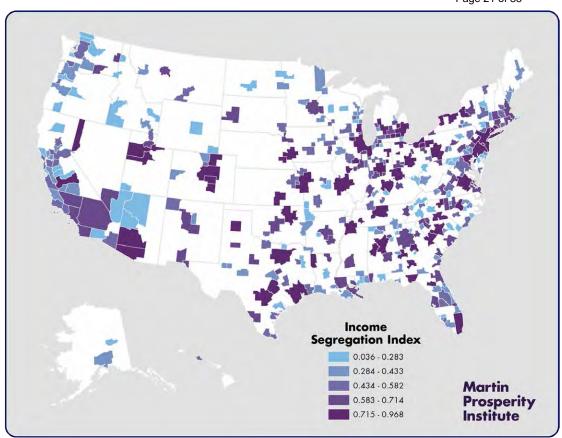


Exhibit 3: Overall Income Segregation

Economic segregation is not just about income; it reflects and drives our deeper class divisions. The following sections cover education and occupation, which figure into the equation as well.

Rank	Metro	Index	Rank Out of All Metros
1	Cleveland-Elyria-Mentor, OH	0.964	2
2	Detroit-Warren-Livonia, MI	0.957	3
3	Memphis, TN-MS-AR	0.948	4
4	Milwaukee-Waukesha-West Allis, WI	0.935	5
5	Columbus, OH	0.912	8
6	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.887	11
7	Phoenix-Mesa-Scottsdale, AZ	0.882	12
8	Buffalo-Niagara Falls, NY	0.864	16
9	Kansas City, MO-KS	0.861	17
10	Nashville-Davidson-Murfreesboro-Franklin, TN	0.858	19

Exhibit 3.1: Large Metros with the Highest Levels of Income Segregation

Rank	Metro	Index
1	Tallahassee, FL	0.968
2	Cleveland-Elyria-Mentor, OH	0.964
3	Detroit-Warren-Livonia, MI	0.957
4	Memphis, TN-MS-AR	0.948
5	Milwaukee-Waukesha-West Allis, WI	0.935
6	Akron, OH	0.933
7	Reno-Sparks, NV	0.921
8	Columbus, OH	0.912
9	Toledo, OH	0.904
10	Tucson, AZ	0.900

Exhibit 3.2: Metros with the Highest Levesl of Income Segregation

Rank	Metro	Index	Rank Out of All Metros
1	San Jose-Sunnyvale-Santa Clara, CA	0.311	86
2	Portland-Vancouver-Beaverton, OR-WA	0.421	134
3	Seattle-Tacoma-Bellevue, WA	0.439	146
4	Orlando-Kissimmee, FL	0.447	151
5	San Francisco-Oakland-Fremont, CA	0.485	166
6	Sacramento-Arden-Arcade-Roseville, CA	0.563	211
7	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.579	214
8	San Diego-Carlsbad-San Marcos, CA	0.586	218
9	Riverside-San Bernardino-Ontario, CA	0.589	222
10	Las Vegas-Paradise, NV	0.617	234

 ${\bf Exhibit~3.3: Large~Metros~with~the~Lowest~Levels~of~Income~Segregation}$

Rank	Metro	Index
1	Fond du Lac, WI	0.036
2	Wenatchee, WA	0.042
3	St. George, UT	0.054
4	Glens Falls, NY	0.057
5	Prescott, AZ	0.058
6	Longview, TX	0.075
7	Monroe, MI	0.077
8	Fairbanks, AK	0.088
9	Bend, OR	0.091
10	Dover, DE	0.095

Exhibit 3.4: Metros with the Lowest Levels of Income Segregation

3.2 Educational Segregation

Education is a key factor in economic success, whether of individuals, nations, or cities. Economists have long <u>noted</u> a close <u>correlation</u> between educational attainment or <u>human capital</u> and <u>economic</u> success. ²¹ <u>Jane Jacobs</u> and <u>Robert Lucas</u> showed how the clustering of people in cities drives innovation and economic growth. ²² Harvard economist Edward Glaeser and his collaborators have <u>documented</u> the growing divergence of educated populations across U.S. cities and metro regions, a process Florida dubbed "<u>the means migration</u>." ²³

But while the dynamics of talent clustering across cities and metro areas has been closely examined, there are fewer studies of the ways that educational groups sort and segregate within them.

To get at this, we examine the educational segregation of two groups: the less educated, those who did not complete high school, and the highly educated, those with a college degree and above. We then develop a composite index of overall educational segregation to determine which metros are the most segregated in terms of education.

3.2.1 Segregation of the Less Educated

Exhibit 4 maps the segregation of the less educated, which we measure as the share of adults who did not complete high school.

Exhibit 4.1 shows the large metros where those without a high school degree are the most segregated. The pattern here is quite a bit different from income segregation. In contrast to income segregation, where Rustbelt metros were the most segregated, all ten of the metros where the less educated are most segregated are in the Sunbelt and the West. In fact, eight of the ten are either in Texas or California. Austin tops the list, followed by Denver, Los Angeles,

Phoenix, and Dallas. San Diego, San Antonio, Houston, San Francisco, and San Jose round out the top ten. Interestingly, a number of metros on this list—San Francisco, San Jose, and San Diego among them—have relatively low levels of overall income segregation and especially of segregation of the wealthy.

When we include all metros in our rankings (Exhibit 4.2), two college towns—Santa Cruz and Boulder—rise to the very top of the list. This again reflects the long-standing towngown divide in educational attainment. Salinas and Oxnard, California and Tucson, Arizona, another college town, also enter the top ten. Sunbelt metros again dominate this list.

Exhibit 4.3 lists the ten large metros where those without high school degrees are the least segregated. In contrast to the pattern for income segregation, a series of Rustbelt metros are the least segregated on this score. Pittsburgh tops the list, followed by Orlando, Louisville, Buffalo, and Tampa. New Orleans, St. Louis, Cincinnati, Virginia Beach, and Portland round out the top ten. This is a mix of older industrial metros and tourist and service-based metros in the Sunbelt. Detroit also exhibits a relatively low level of educational segregation, ranking 244th of all metros. The low level of educational segregation in the Rustbelt likely stems from the legacy of its once relatively high wage, but low skill, working class neighborhoods as well as its relatively low housing costs.

When the list is extended to include all metros (*Exhibit 4.4*), smaller ones rise to the top. There are 117 smaller and medium-sized metros with lower levels of educational segregation than the least segregated of the 51 large metros.

We now turn to the factors that are associated with the segregation of the less educated.

Less educated groups face higher degrees of segregation in larger, denser metros. Educational segregation is positively correlated with both density (0.63) and population size (0.58). As noted above, housing costs tend to be higher in larger, denser metros and the segregation of the less educated is significantly associated with housing costs (0.52).

The less educated also face higher levels of segregation in more affluent, knowledge-based metros. The segregation of non-high school grads is positively associated with income (0.37), wages (0.54), and economic output (0.41). It is strongly associated with both the share of adults who are college graduates (0.47) and the share of the workforce in the creative

class (0.48), and even more so with the concentration of high-tech industry (0.58). While the pattern for individual metros differs, these findings are similar to those for income segregation. The segregation of the less educated is also associated with two measures of diversity: the share of population that is foreign-born (0.57) and gay (0.52), two factors that are also associated with larger, more affluent, more knowledge-based metros.

The segregation of the less educated is negatively associated with the share of the workforce in the blue-collar working class (-0.39). As noted above, a large working class means relatively well-paying jobs for less educated people. The segregation of the less educated is positively

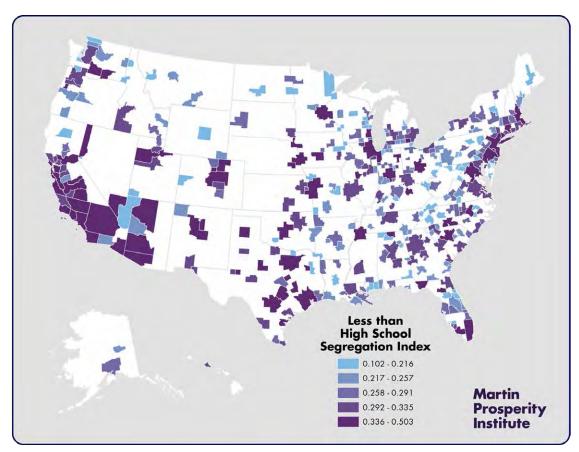


Exhibit 4: Segregation of the Less Educated (without a high school degree)

Rank	Metro	Index	Rank Out of All Metros
1	Austin-Round Rock-San Marcos, TX	0.451	4
2	Denver-Aurora-Broomfield, CO	0.446	6
3	Los Angeles-Long Beach-Santa Ana, CA	0.442	7
4	Phoenix-Mesa-Glendale, AZ	0.428	8
5	Dallas-Fort Worth-Arlington, TX	0.428	9
6	San Diego-Carlsbad-San Marcos, CA	0.412	11
7	San Antonio-New Braunfels, TX	0.406	14
8	Houston-Sugar Land-Baytown, TX	0.398	18
9	San Francisco-Oakland-Fremont, CA	0.395	20
10	San Jose-Sunnyvale-Santa Clara, CA	0.393	21

Exhibit 4.1: Large Metros where those without a High School Degree are Most Segregated

Rank	Metro	Index
1	Santa Cruz-Watsonville, CA	0.503
2	Boulder, CO	0.456
3	Salinas, CA	0.455
4	Austin-Round Rock-San Marcos, TX	0.451
5	Oxnard-Thousand Oaks-Ventura, CA	0.449
6	Denver-Aurora-Broomfield, CO	0.446
7	Los Angeles-Long Beach-Santa Ana, CA	0.442
8	Phoenix-Mesa-Glendale, AZ	0.428
9	Dallas-Fort Worth-Arlington, TX	0.428
10	Tucson, AZ	0.421

Exhibit 4.2: Metros where those without a High School Degree are Most Segregated

associated with wage inequality (0.58), though less so with income inequality (0.36).

Race plays a role in predictable but also in less obvious ways. The segregation of the less educated is negatively associated with the share of the population that is white (-0.42). Conversely it is positively associated with the share of the population that is Latino (0.46) and Asian

(0.36). But it is not statistically associated with the share of population that is black.

This observation doesn't contradict the long-documented fact that black people have less access to better schools and lower overall levels of education. It simply means that there is no connection between the share of black residents in a metro and the segregation of the less educated

Rank	Metro	Index	Rank Out of All Metros
1	Pittsburgh, PA	0.244	118
2	Orlando-Kissimmee-Sanford, FL	0.255	142
3	Louisville-Jefferson County, KY-IN	0.281	199
4	Buffalo-Niagara Falls, NY	0.284	202
5	Tampa-St. Petersburg-Clearwater, FL	0.287	208
6	New Orleans-Metairie-Kenner, LA	0.287	210
7	St. Louis, MO-IL	0.291	217
8	Cincinnati-Middletown, OH-KY-IN	0.294	219
9	Virginia Beach-Norfolk-Newport News, VA-NC	0.301	229
10	Portland-Vancouver-Hillsboro, OR-WA	0.303	238

Exhibit 4.3: Large Metros where those without a High School Degree are Least Segregated

Rank	Metro	Index
1	Lewiston, ID-WA	0.102
2	Palm Coast, FL	0.103
3	Fond du Lac, WI	0.122
4	Williamsport, PA	0.136
5	Coeur d'Alene, ID	0.141
6	Danville, VA	0.145
7	Altoona, PA	0.150
8	Huntington-Ashland, WV-KY-OH	0.155
9	Hagerstown-Martinsburg, MD-WV	0.157
10	Morristown, TN	0.160

Exhibit 4.4: Metros where those without a High School Degree are Least Segregated

overall. It also does not mean that Asians and Latinos are more segregated than black people, just that less educated groups are more segregated in metros where shares of Latinos and Asians are higher.

It's also worth pointing out that white people make up more than 50 percent of the popula-

tions of 350 out of the 359 metros covered. In 233 metros they make up more than 75 percent of the population and in 50 metros they make up 90 percent or more. Black people made up the majority in only one U.S. metro in 2010, while their share was less than 5 percent in 143 metros. Places with higher shares of black people and Latinos have also faced higher levels

of income inequality than places with higher shares of white people, and this may be a reflection of that.

It is important to remember that this study examines the associations between geographic segregation in metros by income, education, and occupation and the shares of various racial and ethnic groups within those metros. It does not consider whether those places are more or less segregated along racial and ethnic lines.

We now turn to the flip side of educational segregation—the segregation of the highly educated.

3.2.2 Segregation of Highly Educated *Exhibit* 5 maps the geographic segregation of the

Exhibit 5 maps the geographic segregation of the highly educated, which we measure as the share of adults who have completed college.

Exhibit 5.1 shows the ten large metros where college graduates are the most segregated.

They are mainly in the Sunbelt, with Birmingham, Alabama topping the list. The rest of the top ten includes Houston, Los Angeles, Columbus, Memphis, San Antonio, Louisville, Dallas, Charlotte, and Chicago.

When we look at the pattern across all 350 plus U.S. metros (Exhibit 5.2), a number of smaller and medium-sized metros rise to the very top, especially college towns. State College, Pennsylvania (home of Penn State University) has the highest level of human capital segregation of any metro in the country. Salinas, California is second; Trenton-Ewing, New Jersey (home of Princeton University) is third; Bloomington, Indiana (home of the University of Indiana) is fourth; and College-Station-Bryan, Texas (Texas A&M) is fifth. Birmingham, Alabama falls to sixth; Houston is seventh; Los Angeles eighth; and Columbus, Ohio (Ohio State University) drops to ninth. Blacksburg, Virginia (Virginia Tech) is now tenth overall. The highly educated are also quite segregated in college towns like Durham-Chapel Hill (University of North Carolina and Duke), Tucson (University of Arizona), Tallahassee (Florida State), Gainesville (University of Florida), Morgantown (West Virginia University), Athens (University of Georgia); and Auburn, Alabama (Auburn University). Here again we see the divide between professors, doctors, researchers, and administrators and the low skill workers who provide the colleges with basic services.

The large metros where highly educated people are the least segregated (*Exhibit 5.3*) include Orlando, Tampa, Miami, and Las Vegas in the Sunbelt as well as such northern cities as Providence, Hartford, Minneapolis-St. Paul, Rochester, and Buffalo. The highly educated are more modestly segregated in several larger, knowledge-based metros, including Portland (246th), Pittsburgh (257th), Boston (274th), San Jose (305th), and Seattle (296th).

When smaller metros are included (*Exhibit 5.4*), the picture changes. There are 165 small and medium-sized metros where college grads are less segregated than in the least segregated of the 51 large metros. St. George, Utah has the lowest level of human capital segregation of all, followed by Lewiston, Idaho; Sherman, Texas; Fond du Lac, Wisconsin; Elizabethtown, Kentucky; Mankato, Minnesota; Great Falls, Montana; Joplin, Missouri; and Barnstable, Massachusetts on Cape Cod.

So what factors are associated with greater or lesser levels of geographic segregation of the highly educated?

For all of the disparities between town and gown in college towns, the segregation of highly educated people is greatest in larger, denser metros. The geographic segregation of the highly educated is modestly associated with density (0.39) and population size (0.54).

Despite the long established connection between education, or human capital, and income, we find the segregation of the highly educated to be only weakly associated with income (0.15), though it is more closely associated with wages (0.34) and economic output per capita (0.34).

The segregation of the highly educated is more pronounced in high-tech, knowledge-based regions. It is correlated with the concentration of high-tech industry (0.50) and the creative class (0.42) but less so with the share of adults that are college grads (0.32). These patterns mirror those we have seen for the segregation of the less educated as well as for income segregation. The segregation of college grads is also

positively associated with two measures of diversity, the proportion of the population that is gay (0.39) and foreign-born (0.33), factors that are also associated with larger, more affluent, more knowledge-based economies. Conversely, it is modestly negatively correlated with the working class (-0.25).

The segregation of the highly educated is connected to race. It is positively associated with the share that is black (0.34), Latino (0.25), and Asian (0.24) and negatively associated with the share that is white (-0.45). This is a different pattern than the segregation of the less educated and more in line with what we would expect.

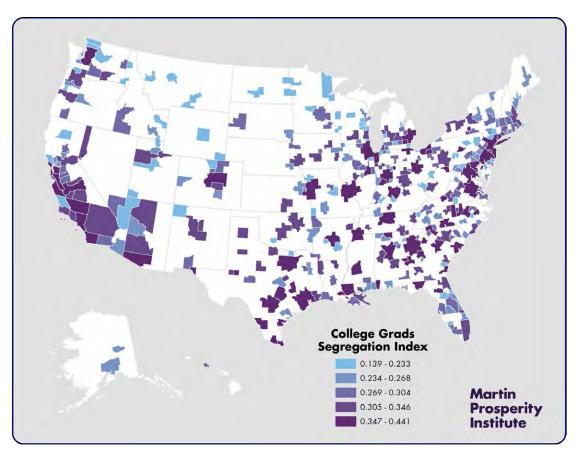


Exhibit 5: Segregation of the Highly Educated (College Grads)

The segregation of the highly educated is higher in metros with greater levels of economic inequality (0.58) and wage inequality (0.55).

Unlike the segregation of the poor and the uneducated, which reflects a lack of options,

the more highly educated have the means to separate themselves; they self-segregate by choice. But those choices limit and constrain the options open to the less educated. To get at that connection, we now turn to our measure of overall educational segregation.

Rank	Metro	Index	Rank Out of All Metros
1	Birmingham-Hoover, AL	0.424	6
2	Houston-Sugar Land-Baytown, TX	0.419	7
3	Los Angeles-Long Beach-Santa Ana, CA	0.406	8
4	Columbus, OH	0.403	9
5	Memphis, TN-MS-AR	0.399	11
6	San Antonio-New Braunfels, TX	0.395	12
7	Louisville-Jefferson County, KY-IN	0.388	16
8	Dallas-Fort Worth-Arlington, TX	0.387	17
9	Charlotte-Gastonia-Rock Hill, NC-SC	0.384	20
10	Chicago-Joliet-Naperville, IL-IN-WI	0.380	23

Exhibit 5.1: Large Metros where College Grads are Most Segregated

Rank	Metro	Index
1	State College, PA	0.441
2	Salinas, CA	0.435
3	Trenton-Ewing, NJ	0.431
4	Bloomington, IN	0.429
5	College Station-Bryan, TX	0.426
6	Birmingham-Hoover, AL	0.424
7	Houston-Sugar Land-Baytown, TX	0.419
8	Los Angeles-Long Beach-Santa Ana, CA	0.406
9	Columbus, OH	0.403
10	Blacksburg-Christiansburg-Radford, VA	0.399

Exhibit 5.2: Metros where College Grads are Most Segregated

Rank	Metro	Index	Rank Out of All Metros
1	Orlando-Kissimmee-Sanford, FL	0.281	166
2	Virginia Beach-Norfolk-Newport News, VA-NC	0.284	171
3	Las Vegas-Paradise, NV	0.288	178
4	Providence-New Bedford-Fall River, RI-MA	0.290	184
5	Hartford-West Hartford-East Hartford, CT	0.294	195
6	Minneapolis-St. Paul-Bloomington, MN-WI	0.297	201
7	Tampa-St. Petersburg-Clearwater, FL	0.300	205
8	Rochester, NY	0.316	235
9	Miami-Fort Lauderdale-Pompano Beach, FL	0.316	236
10	Buffalo-Niagara Falls, NY	0.317	237

Exhibit 5.3: Large Metros where College Grads are Least Segregated

Rank	Metro	Index
1	St. George, UT	0.139
2	Lewiston, ID-WA	0.141
3	Sherman-Denison, TX	0.155
4	Fond du Lac, WI	0.167
5	Elizabethtown, KY	0.169
6	Great Falls, MT	0.171
7	Joplin, MO	0.174
8	Barnstable Town, MA	0.174
9	Monroe, MI	0.174
10	Missoula, MT	0.175

Exhibit 5.4: Metros where College Grads are Least Segregated

3.2.3 The Geography of Overall Educational Segregation

Exhibit 6 maps the overall geography of educational segregation based on our composite index, which combines the ranks of segregation of both the highly and the less educated.

Exhibit 6.1 lists the ten large metros with the highest levels of overall educational segregation. Seven of the top metros are in the West or Southwest. Los Angeles tops the list followed by four Texas metros: Houston, Dallas, San Antonio, and Austin. San Diego, Chicago, Columbus, Charlotte, and San Francisco round out the top ten. The list is substantially different from that of income segregation, where Rustbelt metros predominated.

When we extend the list to all metros (*Exhibit 6.2*), Salinas displaces Los Angeles as the metro with the highest overall level of educational segregation. Bakersfield and Fresno, California also enter the top ten, along with Trenton-Ewing. All four large Texas metros remain on the list.

Exhibit 6.3 shows the large metros with the lowest levels of overall educational segregation. Orlando tops the list, followed by Pittsburgh, Virginia Beach, Tampa, and Buffalo. Providence, Portland, Rochester, Minneapolis-St. Paul, and Hartford round out the list.

A number of other large metros have relatively low to moderate levels of educational segregation. These include New Orleans (ranked

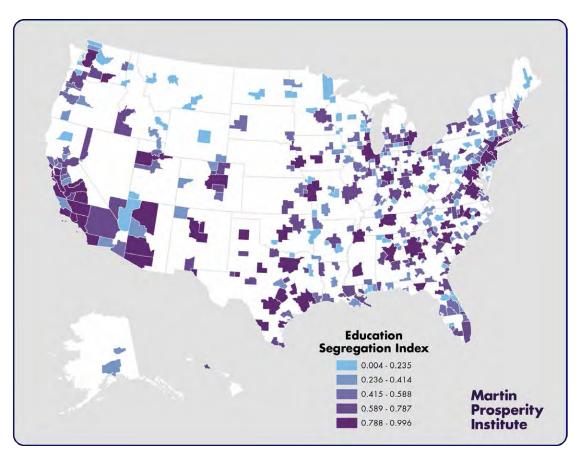


Exhibit 6: Overall Educational Segregation

Rank	Metro	Index	Rank Out of All Metros
1	Los Angeles-Long Beach-Santa Ana, CA	0.982	2
2	Houston-Sugar Land-Baytown, TX	0.968	3
3	Dallas-Fort Worth-Arlington, TX	0.967	4
3	San Antonio, TX	0.967	4
5	Austin-Round Rock, TX	0.955	7
6	San Diego-Carlsbad-San Marcos, CA	0.937	10
7	Chicago-Naperville-Joliet, IL-IN-WI	0.932	11
8	Columbus, OH	0.922	15
9	Charlotte-Gastonia-Concord, NC-SC	0.908	19
10	San Francisco-Oakland-Fremont, CA	0.907	20

Exhibit 6.1: Large Metros with the Highest Levels of Overall Educational Segregation

Rank	Metro	Index
1	Salinas, CA	0.996
2	Los Angeles-Long Beach-Santa Ana, CA	0.982
3	Houston-Sugar Land-Baytown, TX	0.968
4	Dallas-Fort Worth-Arlington, TX	0.967
4	San Antonio, TX	0.967
6	Trenton-Ewing, NJ	0.961
7	Austin-Round Rock, TX	0.955
7	Bakersfield, CA	0.955
9	Fresno, CA	0.950
10	San Diego-Carlsbad-San Marcos, CA	0.937

Exhibit 6.2: Metros with the Highest Levels of Overall Educational Segregation

256th overall), Las Vegas (262nd) as well as Miami (282nd) and Detroit (291st).

Once again, the picture changes when smaller metros are included. In addition to the top ten metros listed in *Exhibit 6.4*, there are 149 other small and medium-sized metros that have lower levels of educational segregation than the least segregated of the 51 large metros.

Our correlation analysis backs this up. We find overall educational segregation to be greater in larger, denser metros. It is positively associated with density (0.56) and even more so with population size (0.62).

Overall educational segregation is also greater in more high-tech, knowledge-based regions. Our overall measure of educational segregation

Rank	Metro	Index	Rank Out of All Metros
1	Orlando-Kissimmee, FL	0.429	150
2	Pittsburgh, PA	0.522	187
3	Virginia Beach-Norfolk-Newport News, VA-NC	0.557	201
4	Tampa-St. Petersburg-Clearwater, FL	0.575	211
5	Buffalo-Niagara Falls, NY	0.611	223
6	Providence-New Bedford-Fall River, RI-MA	0.631	229
7	Portland-Vancouver-Beaverton, OR-WA	0.674	246
8	Rochester, NY	0.677	248
9	Minneapolis-St. Paul-Bloomington, MN-WI	0.687	251
10	Hartford-West Hartford-East Hartford, CT	0.688	252

Exhibit 6.3: Large Metros with the Lowest Levels of Overall Educational Segregation

Rank	Metro	Index
1	Lewiston, ID-WA	0.004
2	Fond du Lac, WI	0.010
3	Elizabethtown, KY	0.026
4	Hagerstown-Martinsburg, MD-WV	0.035
5	Monroe, MI	0.036
5	Williamsport, PA	0.036
7	Joplin, MO	0.039
8	St. George, UT	0.042
9	Coeur d'Alene, ID	0.045
10	Sheboygan, WI	0.047

Exhibit 6.4: Metros with the Lowest Levels of Overall Educational Segregation

is positively associated with both the share of the work force in the creative class (0.50) and even more so with the concentration of hightech industry (0.59). Educational segregation is also higher in metros where immigrants and gay people make up greater shares of the population (both correlations are 0.48), factors that are associated with larger, more knowledgebased metros. Even though education correlates closely with income, overall educational segregation is only modestly associated with regional income (0.28), though it is more closely correlated with both wages (0.47) and economic output per person (0.41).

Educational segregation is connected to race. It is lower in metros where white people make up

a greater share of the population (-0.48) and it is higher (though more modestly correlated) in metros where black people (0.23), Latinos (0.38), and Asians (0.32) make up greater shares of the population.

Educational segregation is also associated with higher levels of inequality. Overall educational segregation is closely associated with income inequality (0.51) and even more so with wage inequality (0.61).

While the most segregated metros by income and education differ, the general pattern is the same: Both types of segregation are greater in larger, denser, more knowledge-based metros.

Education is the most important economic asset a person can have. Growing up in an area with good schools and low dropout rates is a huge benefit but it is one that is increasingly available to the affluent alone. Underfunded, over-crowded schools and a lack of positive role models are neighborhood effects that compound and perpetuate the cycle of disadvantage.

A third component of socio-economic class is occupation. In the next section, we examine the extent to which the different occupational groups or classes are geographically segregated.

3.3 Occupational Segregation

The kind of work a person does stands alongside income and education as a key marker of socio-economic class. America has seen widespread deindustrialization and the decline of its once dominant blue-collar working class as its labor market has bifurcated into high-skill, highpay jobs that turn on technology, ideas, and creativity, and low-skill, low-pay service work.

In this section, we examine the segregation of the three major occupational classes—the creative class of knowledge workers, the even faster growing but lower-paid service class, and the declining blue-collar working class.

3.3.1 Creative Class Segregation

We begin with the <u>creative class</u>, which makes up about a third of the U.S. workforce. ²⁴ Its 40 million plus members work in occupations spanning computer science and mathematics; architecture, engineering; life, physical, and social science; education, training, and library science; arts and design, entertainment, sports, and media; and management, business and finance, law, sales management, healthcare, and education. Creative class workers earn an average of \$70,000 per year, accounting for roughly half of all U.S. wages. ²⁵

Exhibit 7 maps the segregation of the creative class across U.S. metros.

There is substantial overlap between this map and the map of college grads above. This makes sense as both reflect concentrations of talent and skill, though it should be remembered that the two are not identical. While roughly nine in ten college grads hold creative class jobs, just 60 percent of the creative class are college graduates. ²⁶

Exhibit 7.1 shows the large metros where the creative class is most segregated. Los Angeles is in first place, followed by Houston, San Jose, San Francisco, New York, Austin, San Antonio, San Diego, and Chicago. While older Rustbelt metros topped the list for income segregation and sprawling Sunbelt metros dominated where educational segregation was concerned, the metros where the creative class is most segregated tend to be large and knowledge-based. Four of the ten are in Texas.

When we expand the list to include all metros (*Exhibit 7.2*), a number of smaller ones also show substantial levels of segregation. Trenton-Ewing (which includes Princeton University) rises to

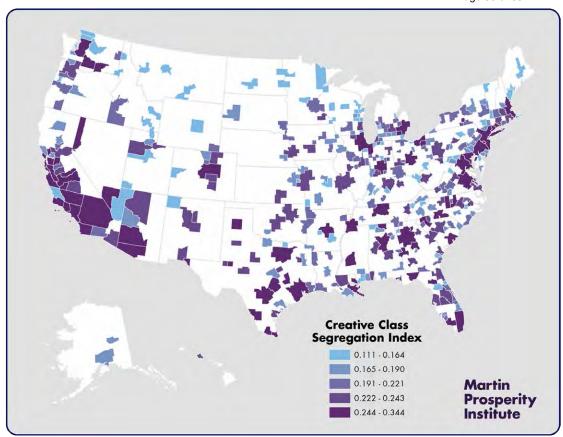


Exhibit 7: Segregation of the Creative Class

second place, and Salinas is the third most highly segregated metro in the country on this score. Houston falls to fourth overall, while San Jose moves to fifth.

Two smaller metros in California's San Joaquin Valley, Hanford-Corcoran and Bakersfield-Delano, rank sixth and seventh. San Francisco, Dallas, and New York drop to eighth, ninth, and tenth overall.

The creative class is also highly segregated in college towns like Ann Arbor, Durham-Chapel Hill, Tucson, Gainesville, and College Station, where educated residents are also highly segregated. The two kinds of segregation are closely correlated with one another (with a correlation of 0.89).

As seen in *Exhibit 7.3*, Minneapolis-St. Paul is the large metro where the creative class is least segregated, followed by Rochester, Buffalo, Cincinnati, Providence, Milwaukee, and Hartford. Jacksonville, Tampa, and Virginia Beach round out the top ten.

When the list is extended to include all metros (Exhibit 7.4), the metros where the creative class is least segregated all turn out to be small. In fact, there are more than 161 smaller and medium-sized metros where the creative class is less segregated than it is in the least segregated large metro. Many of these smaller places, especially in the Northeast and the Midwest, are struggling manufacturing cities, where the creative class comprises a relatively small share

Rank	Metro	Index	Rank Out of All Metros
1	Los Angeles-Long Beach-Santa Ana, CA	0.344	1
2	Houston-Sugar Land-Baytown, TX	0.327	4
3	San Jose-Sunnyvale-Santa Clara, CA	0.310	5
4	San Francisco-Oakland-Fremont, CA	0.301	8
5	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.300	9
6	Dallas-Fort Worth-Arlington, TX	0.294	10
7	Austin-Round Rock-San Marcos, TX	0.284	15
8	San Antonio-New Braunfels, TX	0.284	16
9	San Diego-Carlsbad-San Marcos, CA	0.282	17
10	Chicago-Joliet-Naperville, IL-IN-WI	0.281	18

Exhibit 7.1: Large Metros where the Creative Class is Most Segregated

Rank	Metro	Index
1	Los Angeles-Long Beach-Santa Ana, CA	0.344
2	Trenton-Ewing, NJ	0.336
3	Salinas, CA	0.335
4	Houston-Sugar Land-Baytown, TX	0.327
5	San Jose-Sunnyvale-Santa Clara, CA	0.310
6	Hanford-Corcoran, CA	0.308
7	Bakersfield, CA	0.305
8	San Francisco-Oakland-Fremont, CA	0.301
9	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.300
10	Dallas-Fort Worth-Arlington, TX	0.294

Exhibit 7.2: Metros where the Creative Class is Most Segregated

of the workforce. Mankato, Minnesota has the lowest level of creative class segregation in the country, followed by Lewiston-Auburn, Maine; St. Cloud, Minnesota; Joplin, Missouri; and Rome, Georgia.

But what factors are associated with higher and lower levels of creative class segregation?

Creative class segregation is closely correlated with population (0.60) and density (0.56). The segregation of the creative class is also positively associated with the share of residents using transit to get to work (0.42), another indicator of greater density and connectivity. The geographic segregation of the creative class is somewhat higher in metros where housing prices eat

Rank	Metro	Index	Rank Out of All Metros
1	Minneapolis-St. Paul-Bloomington, MN-WI	0.200	162
2	Rochester, NY	0.214	199
3	Buffalo-Niagara Falls, NY	0.216	206
4	Cincinnati-Middletown, OH-KY-IN	0.221	216
5	Providence-New Bedford-Fall River, RI-MA	0.222	220
6	Milwaukee-Waukesha-West Allis, WI	0.222	222
7	Hartford-West Hartford-East Hartford, CT	0.222	224
8	Jacksonville, FL	0.223	226
9	Tampa-St. Petersburg-Clearwater, FL	0.225	236
10	Virginia Beach-Norfolk-Newport News, VA-NC	0.226	239

Exhibit 7.3: Large Metros where the Creative Class is Least Segregated

Rank	Metro	Index
1	Lewiston-Auburn, ME	0.111
2	St. Cloud, MN	0.117
3	Joplin, MO	0.119
4	Rome, GA	0.120
5	Bay City, MI	0.122
6	Wausau, WI	0.123
7	St. George, UT	0.124
8	Elizabethtown, KY	0.125
9	Missoula, MT	0.125
10	Hinesville-Fort Stewart, GA	0.125

Exhibit 7.4: Metros where the Creative Class is Least Segregated

up greater shares of household incomes (with a correlation of 0.28).

Not surprisingly, creative class segregation goes along with the wealth and affluence of regions. The segregation of the creative class is positively associated with average wages (0.48), but less so with economic output per person (0.35) and

per capita income (0.24). Creative class segregation is higher in metros with larger concentrations of high-tech industry (0.55). The creative class is also more segregated in metros with higher percentages of foreign-born residents (0.59) and gay residents (0.52).

As with other forms of economic segregation,

the segregation of the creative class is bound up with long standing racial cleavages. Creative class segregation is higher in metros where black people make up a greater share of the population (0.22), and even more so with shares of population that are Latino (0.45) and Asian (0.37). Creative class segregation is lower in metros where white people make up a greater share of the population (-0.51).

The segregation of the creative class is connected to the level of income inequality (0.48) and even more so to wage inequality (0.58). The bigger the gap between the rich and the poor, and the bigger the split between high-paid knowledge and low-wage service work, the greater the segregation of the classes tends to be. Here again, we see that while individual metros score differently on each measure, the underlying factors that bear on the different types of economic segregation are similar.

Creative class workers have the most skills and the most education, and they earn the highest wages. When they are concentrated in their own enclaves, they magnetize resources, amenities, and investments away from less-advantaged neighborhoods.

3.3.2 Service Class Segregation

With sixty million plus members, the service class is the largest occupational class, encompassing 46 percent of the U.S. workforce. Its members toil in the fastest growing but lowest paid job categories in the United States, such as food preparation and service, retail sales, and personal care, earning an average of \$30,000 per year, less than half of what the members of the creative class earn.²⁷

Exhibit 8 maps the segregation of the service class across the United States.

Exhibit 8.1 lists the large metros where the

service class is most segregated. It reads like a who's who of large knowledge-based metros. San Jose tops the list and Washington, D.C. is second, followed by San Francisco, New York, and Boston. Philadelphia, Baltimore, San Diego, Austin, and Los Angeles complete the top ten.

When the list is extended to include all metros (Exhibit 8.2), it's striking how many college towns come to the fore. Ithaca (Cornell), Ann Arbor (University of Michigan), Trenton-Ewing (Princeton), Gainesville (University of Florida), and Tallahassee (Florida State) are in the top five. San Jose, in the heart of Silicon Valley, remains in the top ten, as do Washington, D.C. and San Francisco, both with very high creative class shares. Interestingly, Atlantic City makes the list, despite its very high share of service employment.

Exhibit 8.2 lists the large metros where the service class is least segregated. Salt Lake City takes the top spot, followed by Minneapolis-St. Paul, Riverside, Kansas City, and Cincinnati. Charlotte, Portland, Milwaukee, St. Louis, and Jacksonville round out the list. Other large metros with relatively low levels of service class segregation include Phoenix, which ranks 220th, Oklahoma City (204th), Dallas (203rd) and Atlanta (173rd).

When the list is extended to include all metros (*Exhibit 8.4*), five of the top ten least segregated are in Michigan and Wisconsin.

But what economic and demographic factors are associated with the segregation of the service class?

The segregation of the service class tracks the size and density of regions, though less so than for the creative class. Service class segregation is positively associated with density (0.39) and more modestly with the size of population (0.28).

The service class faces higher levels of segregation in more affluent metros, but here again the correlations are more modest than for the creative class. The segregation of the service class is only modestly associated with income (0.33) and economic output per person (0.33), but more so with wages (0.41). It is only modestly associated with housing costs (0.30).

The segregation of the service class is more strongly associated with key markers of knowledge-based regions, especially the share of adults who are college graduates (0.46) and the share of the workforce in the creative class (0.47). Conversely, the segregation of the service class is negatively associated with the share of the workforce in the working class (-0.46).

The segregation of the service class is higher in more diverse metros. It is positively associated with the share of population that is gay (0.42) and more modestly associated with the share that is foreign-born (0.26).

Race plays a modest role in the segregation of the service class. Service class segregation is most closely associated with the share of population that is Asian (0.36) and it is more modestly associated with the share that is black (0.17). It is modestly negatively associated with the share that is white (-0.28). It is not statistically associated with the share that is Latino.

The segregation of the service class is greater in metros with higher levels of socio-economic

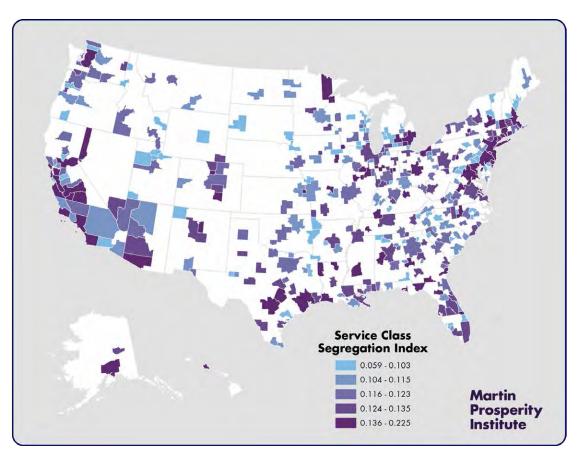


Exhibit 8: Segregation of the Service Class

inequality. It is modestly associated with income inequality (0.35) and more so with wage inequality (0.41).

It is important to remember that service class segregation is more reflective of the residential choices of the creative class than those of the service class itself, whose members live where they can afford to. It's also important to remember that the majority of American workers belong to the service class, which has absorbed many formerly blue-collar workers. The rise of the service class goes along with the decline of the working class, which we turn to next.

Rank	Metro	Index	Rank Out of All Metros
1	San Jose-Sunnyvale-Santa Clara, CA	0.185	6
2	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.181	7
3	San Francisco-Oakland-Fremont, CA	0.178	9
4	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.176	11
5	Boston-Cambridge-Quincy, MA-NH	0.161	18
6	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.158	19
7	Baltimore-Towson, MD	0.154	24
8	San Diego-Carlsbad-San Marcos, CA	0.150	29
9	Austin-Round Rock-San Marcos, TX	0.149	33
10	Los Angeles-Long Beach-Santa Ana, CA	0.142	49

Exhibit 8.1: Large Metros where the Service Class is Most Segregated

Rank	Metro	Index
1	Ithaca, NY	0.225
2	Ann Arbor, MI	0.202
3	Trenton-Ewing, NJ	0.197
4	Gainesville, FL	0.194
5	Tallahassee, FL	0.192
6	San Jose-Sunnyvale-Santa Clara, CA	0.185
7	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.181
8	Salinas, CA	0.180
9	San Francisco-Oakland-Fremont, CA	0.178
10	Atlantic City-Hammonton, NJ	0.176

Exhibit 8.2: Metros where the Service Class is Most Segregated

3.3.3 Working Class Segregation

The past several decades have been marked by the steady decline of the working class. The working class made up 21 percent of the workforce in 2011—down substantially from 40 percent in 1970. It spans not just factory production but installation, maintenance and repair, transportation, and construction occupations.

Its members average roughly \$37,000 a year in salary and wages. 28

Exhibit 9 maps the segregation of the working class across the United States.

Exhibit 9.1 lists the large metros where the working class is most segregated. This list includes

Rank	Metro	Index	Rank Out of All Metros
1	Salt Lake City, UT	0.093	36
2	Minneapolis-St. Paul-Bloomington, MN-WI	0.104	75
3	Riverside-San Bernardino-Ontario, CA	0.110	111
4	Kansas City, MO-KS	0.113	127
5	Cincinnati-Middletown, OH-KY-IN	0.114	138
6	Charlotte-Gastonia-Rock Hill, NC-SC	0.115	142
7	Portland-Vancouver-Hillsboro, OR-WA	0.117	163
8	Milwaukee-Waukesha-West Allis, WI	0.117	165
9	St. Louis, MO-IL	0.117	167
10	Jacksonville, FL	0.117	170

Exhibit 8.3: Large Metros where the Service Class is Least Segregated

Rank	Metro	Index
1	Fond du Lac, WI	0.059
2	Muskegon-Norton Shores, MI	0.067
3	Hot Springs, AR	0.069
4	Sheboygan, WI	0.072
5	Odessa, TX	0.072
6	El Centro, CA	0.075
7	Ogden-Clearfield, UT	0.076
8	Battle Creek, MI	0.078
9	Monroe, MI	0.079
10	Casper, WY	0.080

Exhibit 8.4: Metros where the Service Class is Least Segregated

centers of the idea economy (Austin, Washington, D.C., San Francisco, San Jose, Raleigh-Cary, and Charlotte) and one beacon of the knowledge-energy economy (Houston).²⁹

When the list is expanded to all metros (Exhibit 9.2), Los Angeles and Austin remain in first and second places, but a number of college towns come to the fore: Durham-Chapel Hill (Duke and the University of North Carolina). Bloomington (University of Indiana), Ann Arbor (University of Michigan), and Blacksburg (Virginia Tech).

Exhibit 9.3 lists the large metros where the working class is least segregated. Hartford comes in first, followed by Providence, Buffalo, Virginia Beach, and Orlando. Milwaukee, New

Orleans, Rochester, Las Vegas, and Cincinnati round out the list. Other large metros with relatively low levels of working class segregation include Tampa, which ranks 290th, Jacksonville (271st), Detroit (268th), and Cleveland (261st).

When the list is extended to include all metros (Exhibit 9.4), smaller places like Kokomo, Indiana; Madera-Chowchilla, California; Wenatchee, Washington; Racine, Wisconsin; and Lewiston, Idaho rise to the fore. All in all, there are more than 185 small and medium-sized metros where the working class is less segregated than the least segregated of the 51 large metros.

But what broader factors bear on the segregation of the working class?

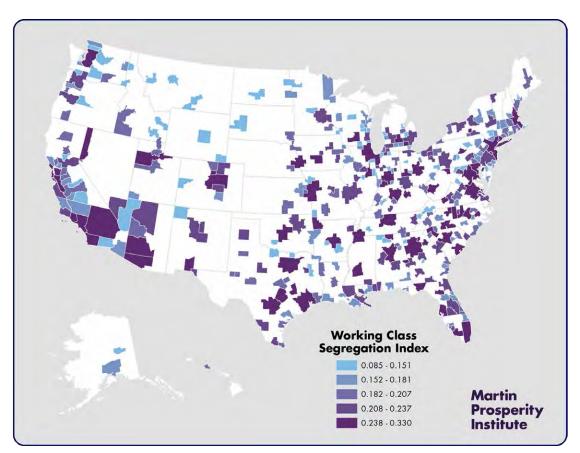


Exhibit 9: Segregation of the Working Class

The segregation of the working class is greater in larger, denser metros. It is positively associated with density (0.42) and even more so with population (0.61). It correlates with wages (0.44) and economic output per person (0.43), but more modestly with income (0.34).

The working class is more segregated in advanced knowledge-based metros. It is positive-

ly associated with the share of the workforce in the creative class (0.59), the share of adults with college degrees (0.57), and the concentration of high-tech industry (0.65).

Race plays a role as well. The segregation of the working class is greater in metros with higher concentrations of black (0.23) and Asian (0.33) residents and lower in those with greater levels

Rank	Metro	Index	Rank Out of All Metros
1	Los Angeles-Long Beach-Santa Ana, CA	0.330	1
2	Austin-Round Rock-San Marcos, TX	0.321	2
3	Dallas-Fort Worth-Arlington, TX	0.304	6
4	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.303	7
5	Raleigh-Cary, NC	0.301	8
6	San Francisco-Oakland-Fremont, CA	0.300	9
7	San Jose-Sunnyvale-Santa Clara, CA	0.296	12
8	Houston-Sugar Land-Baytown, TX	0.295	13
9	Charlotte-Gastonia-Rock Hill, NC-SC	0.287	17
10	Columbus, OH	0.287	18

Exhibit 9.1: Large Metros where the Working Class is Most Segregated

Rank	Metro	Index
1	Los Angeles-Long Beach-Santa Ana, CA	0.330
2	Austin-Round Rock-San Marcos, TX	0.321
3	Durham-Chapel Hill, NC	0.315
4	Bloomington, IN	0.308
5	Ann Arbor, MI	0.305
6	Dallas-Fort Worth-Arlington, TX	0.304
7	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.303
8	Raleigh-Cary, NC	0.301
9	San Francisco-Oakland-Fremont, CA	0.300
10	Blacksburg-Christiansburg-Radford, VA	0.300
		· · · · · · · · · · · · · · · · · · ·

Exhibit 9.2: Metros where the Working Class is Most Segregated

Rank	Metro	Index	Rank Out of All Metros
1	Hartford-West Hartford-East Hartford, CT	0.195	186
2	Providence-New Bedford-Fall River, RI-MA	0.196	189
3	Buffalo-Niagara Falls, NY	0.202	203
4	Virginia Beach-Norfolk-Newport News, VA-NC	0.209	223
5	Orlando-Kissimmee-Sanford, FL	0.215	239
6	Milwaukee-Waukesha-West Allis, WI	0.220	248
7	New Orleans-Metairie-Kenner, LA	0.223	253
8	Rochester, NY	0.223	255
9	Las Vegas-Paradise, NV	0.223	256
10	Cincinnati-Middletown, OH-KY-IN	0.224	257

Exhibit 9.3: Large Metros where the Working Class is Least Segregated

of white residents (-0.32). Working class segregation is also greater in more diverse metros, being positively associated with both the share of population that is foreign-born (0.34) and gay (0.46).

The segregation of the working class is also greater in metros with higher levels of inequality. It is positively associated with both income (0.50) and wage inequality (0.63).

Having considered each of the major socioeconomic classes, we now look at occupational segregation overall.

3.3.4 The Geography of Overall Occupational Segregation

Our measure of overall occupational segregation combines the three separate measures of creative, service, and working class residential segregation into a single index. If the individual measures chart the extent to which the members of one occupational class or another predominate within individual census tracts, the overall measure captures the extent to which the members of the three classes are segregated from one another.

Exhibit 10 maps the geography of over-all occupational segregation across the United States.

Exhibit 10.1 shows the large metros with the highest levels of overall occupational segregation. Not surprisingly, knowledge and tech hubs top the list. San Jose has the highest level of occupational segregation, followed by San Francisco, Washington, D.C., and Austin. Los Angeles, New York, Houston, San Diego, San Antonio, and Columbus, Ohio round out the top ten. This pattern is quite a bit different than for income segregation, where Rustbelt metros

Rank	Metro	Index
1	Kokomo, IN	0.085
2	Madera-Chowchilla, CA	0.088
3	Wenatchee-East Wenatchee, WA	0.098
4	Racine, WI	0.102
5	Lewiston, ID-WA	0.106
6	Fond du Lac, WI	0.108
7	Hot Springs, AR	0.113
8	Grand Junction, CO	0.115
9	Mount Vernon-Anacortes, WA	0.117
10	Michigan City-La Porte, IN	0.118

Exhibit 9.4: Metros where the Working Class is Least Segregated

predominate, or educational segregation, where Sunbelt metros were at the top. Three of the ten most segregated metros are in Texas.

When we extend the list to all metros (Exhibit 10.2), Trenton-Ewing jumps to first place. The college towns of Ann Arbor and Durham-Chapel Hill also join the top ten. Here again we see the effects of the town-gown divide.

Exhibit 10.3 lists the large metros with the lowest levels of occupational segregation. The least segregated is Minneapolis-St. Paul. The list includes older industrial metros like Cincinnati, Milwaukee, Rochester, and Buffalo, as well as Sunbelt metros like Salt Lake City, Jacksonville, Portland, and Virginia Beach. Other large metros with relatively low levels of occupational segregation are Orlando (272nd), Kansas City (265th), and St. Louis (242nd).

Again, the places with the lowest levels of occupational segregation are all small metros. More than 163 small and medium-sized metros have lower levels of overall occupational segregation than the least segregated of the 51 large metros.

But what underlying factors bear on the broad patterns of occupational segregation?

As we saw with the individual measures for occupational and almost every other type of economic segregation, size matters. Overall occupational segregation is positively correlated with density (0.52) and even more strongly with population size (0.60). Since larger metros tend to attract more knowledge work, they experience a more intensive polarization of skills.

Overall occupational segregation is greater in wealthier, more affluent regions. It is correlated with average wages (0.48), economic output per person (0.41), and somewhat less so with per capita income (0.32). Occupational segregation is also modestly associated with median monthly housing costs (0.34).

Occupational segregation is bound up with the transition from the manufacturing to the creative economy. The three major classes are more separated in metros with larger concentrations of the creative class (0.55) and college grads (0.50), and even more so in those with larger concentrations of high-tech industry (0.60). Occupational segregation is also greater in more diverse metros—those with higher percentages of foreign-born (0.42) and gay residents (0.51).

Occupational segregation is lower in metros with greater shares of the working class (-0.43). It is not statistically associated with the shares of service class.

Occupational segregation is bound up with long standing racial cleavages, though the correlations are generally modest. It is higher in metros where black people (0.26) and Latinos (0.24) make up greater shares of the population,

and even more so with the share of population that is Asian (0.36). Conversely, occupational segregation is lower in metros where white residents make up a greater share of the population and the magnitude of the correlation is larger (-0.42).

Occupational segregation is positively associated with the level of income inequality (0.53) and even more so with wage inequality (0.63).

Again, despite the differences in the ranks of individual metros, there are broad commonalities in the factors underpinning the various types of economic segregation.

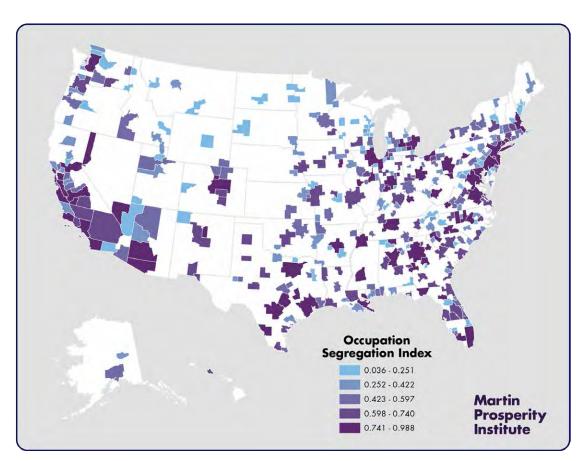


Exhibit 10: Overall Occupational Segregation

Rank	Metro	Index	Rank Out of All Metros
1	San Jose-Sunnyvale-Santa Clara, CA	0.981	2
2	San Francisco-Oakland-Fremont, CA	0.979	3
3	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.971	4
4	Austin-Round Rock, TX	0.956	7
5	Los Angeles-Long Beach-Santa Ana, CA	0.955	8
6	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.953	9
7	Houston-Sugar Land-Baytown, TX	0.936	13
8	San Diego-Carlsbad-San Marcos, CA	0.924	14
9	San Antonio, TX	0.918	15
10	Columbus, OH	0.904	16

Exhibit 10.1: Large Metros with the Highest Levels of Overall Occupational Segregation

Rank	Metro	Index
1	Trenton-Ewing, NJ	0.988
2	San Jose-Sunnyvale-Santa Clara, CA	0.981
3	San Francisco-Oakland-Fremont, CA	0.979
4	Washington-Arlington-Alexandria, DC-VA-MD-WV	0.971
5	Ann Arbor, MI	0.968
6	Durham, NC	0.964
7	Austin-Round Rock, TX	0.956
8	Los Angeles-Long Beach-Santa Ana, CA	0.955
9	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.953
10	Bridgeport-Stamford-Norwalk, CT	0.946

Exhibit 10.2: Metros with the Highest Levels of Overall Occupational Segregation

As with educational and income segregation, occupational segregation appears to be more closely related to the locational choices of the affluent. The well-paid members of the creative class are both more mobile and have more discretion about where they choose to live than the members of the other two classes—and they mostly choose to cluster together. The

mean segregation score for the creative class across all U.S. metros is 0.206 compared to 0.196 for the working class and 0.120 for the service class.

The previous sections have examined the geography and levels of income, educational, and occupational segregation. In the next section,

we compare them to one another, examining to what extent they correlate with one another, which is to say, whether higher levels of one kind of segregation increase the likelihood that others will be higher as well.

Rank	Metro	Index	Rank Out of All Metros
1	Minneapolis-St. Paul-Bloomington, MN-WI	0.464	164
2	Cincinnati-Middletown, OH-KY-IN	0.567	199
3	Providence-New Bedford-Fall River, RI-MA	0.577	204
4	Salt Lake City, UT	0.579	206
5	Milwaukee-Waukesha-West Allis, WI	0.590	214
6	Rochester, NY	0.594	216
7	Buffalo-Niagara Falls, NY	0.608	222
8	Jacksonville, FL	0.619	231
9	Portland-Vancouver-Beaverton, OR-WA	0.626	233
10	Virginia Beach-Norfolk-Newport News, VA-NC	0.636	238

Exhibit 10.3: Large Metros with the Lowest Levels of Overall Occupational Segregation

Rank	Metro	Index
1	Racine, WI	0.036
2	Fond du Lac, WI	0.038
2	Monroe, MI	0.038
4	Bay City, MI	0.056
5	Hot Springs, AR	0.059
6	Lewiston, ID-WA	0.068
7	Elkhart-Goshen, IN	0.072
8	Lewiston-Auburn, ME	0.074
9	Farmington, NM	0.084
10	Hagerstown-Martinsburg, MD-WV	0.084

Exhibit 10.4: Metros with the Lowest Levels of Overall Occupational Segregation

3.4 How do different types of economic segregation compare?

We now turn to the connections between these various types of segregation. To what degree are income, educational, and occupational segregation related to, or different from, one another?

To get at this, *Exhibit 11* summarizes the correlations among the various types of economic segregation.³⁰

As one might expect, the various segregation measures are associated with one another, some closely, some more modestly. The specific correlations range from 0.25 to 0.86, with the majority over 0.40 and many in the range of 0.50 to 0.80. The bottom line: When a metro is segregated on one measure, it is likely to be segregated on the others as well. While some metros rank higher and some lower on individual types of economic segregation, the troubling reality is that segregation is all of a piece.

We know that the various types of segregation are related. But are some types more severe than others? To get at this, we examined how segregated the average or "mean" metro is for each of the seven measures. We also looked at the range of segregation across metros, charting the lowest and highest levels of segregation for each segregation measure.

Exhibit 12 compares the segregation scores for the average metro as well as the values for the most and least segregated metros for each of our segregation measures. Smaller values reflect lower levels of segregation; higher values reflect greater segregation.

Of the three types of economic segregation, occupational segregation is the least severe. The segregation of the creative class is slightly higher (0.206) than that of the working class

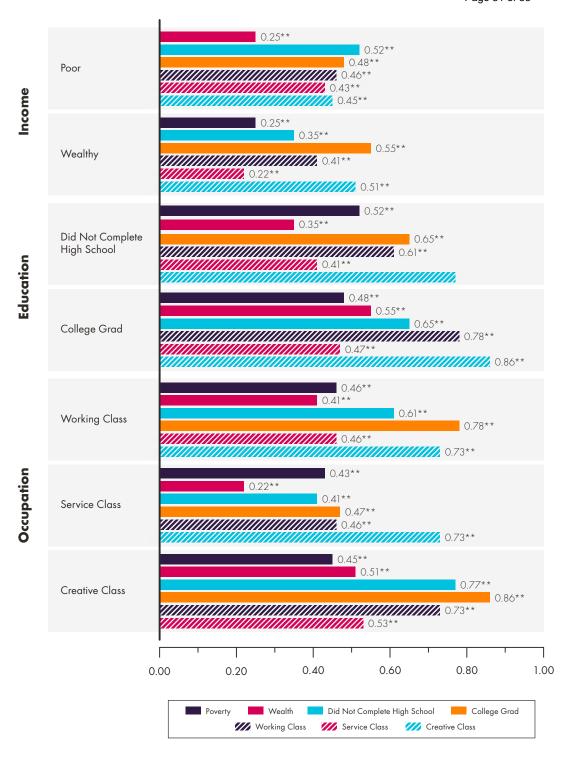
(0.196). The segregation of the service class is quite a bit lower (0.120). This likely reflects the fact that the service class makes up nearly half of all occupations across the United States and is therefore more evenly spread out geographically across tracts within metros.

Educational segregation occupies the middle ground between income and occupational segregation. The mean values for the less educated and the highly educated are quite similar (0.277 and 0.288 respectively). That said, the range for less educated groups is greater, indicating a broader range of segregation, even though the means are similar.

The segregation of poverty has a mean value of 0.323, higher than any type of occupational or educational segregation. But the most severe form of segregation by far is the segregation of the wealthy, with a mean value of 0.456.

These findings suggest that economic segregation is driven by the behavior and location choices of more advantaged groups. In each case—for income, educational, and occupational segregation—the mean scores for more advantaged groups are higher than for less advantaged groups. This is so for occupational segregation, where the creative class has a higher mean segregation score than either the working class or service class; for educational segregation, where college grads have a slightly higher mean segregation score than do those who did not graduate from high school; and it is especially true for income segregation, where wealth segregation has a much higher score than poverty segregation.

We now turn to a single omnibus index that combines all of these measures: the Overall Economic Segregation Index.



 $^{^{\}star\star}$ indicates significance at the 1 percent level.

Exhibit 11: Correlates for the Various Types of Economic Segregation

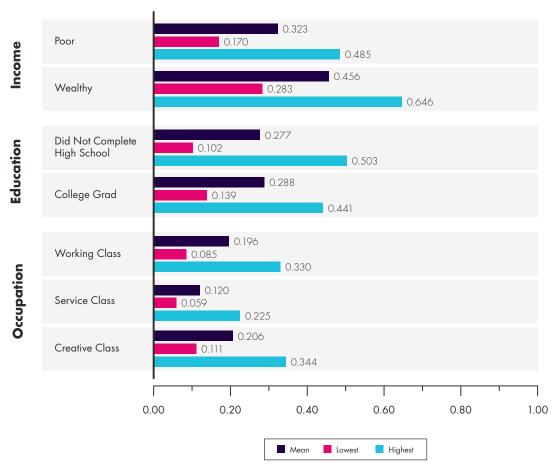


Exhibit 12: Values for Mean, Lowest, and Highest Levels of Economic Segregation

3.5 The Overall Economic Segregation Index

The Overall Economic Segregation Index is based on the ranks of all seven measures of income, educational, and occupational segregation that were discussed above (see the Appendix for more detail on this).

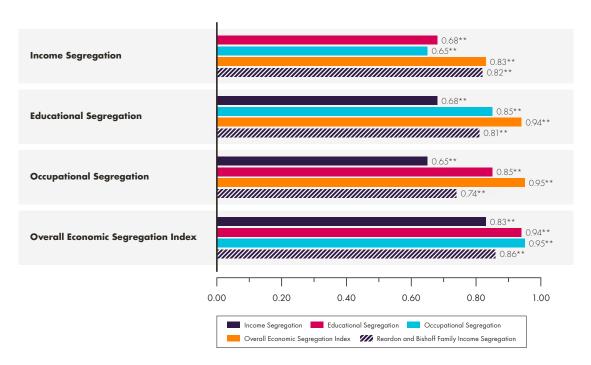
Exhibit 13 shows the correlations between the Overall Economic Segregation Index and the three major indexes of income, educational, and occupational segregation. All are fairly closely correlated with it as well as with one another (with correlations ranging from 0.65 to 0.94). We also examined the correlations between our measures and a commonly cited measure of family income segregation by Reardon and Bischoff. Even though their study covers only the

largest 117 metropolitan areas, those with more than 500,000 people, the correlations are again considerable, ranging from 0.74 to 0.86.³¹

Exhibit 14 maps the Overall Economic Segregation Index across the U.S. metros.

Exhibit 14.1 lists the ten large metros with the highest values on the Overall Economic Segregation Index. Austin is first, followed by Columbus, San Antonio, Houston, and Los Angeles. New York, Dallas, Philadelphia, Chicago, and Memphis round out the top ten. America's six largest metros are on the list. Four of the most segregated large metros are in Texas.

A number of college towns rise to the top when we expand the list to cover all metros (*Exhibit*



** indicates significance at the 1 percent level

Exhibit 13: Correlates for the Various Segregation Indexes

14.2). Tallahassee (home to Florida State University) jumps to first place and Trenton-Ewing (Princeton University) to second, while Austin falls to third. Tucson (University of Arizona) and Ann Arbor (University of Michigan) also make the list, along with Bridgeport-Stamford-Norwalk.

Exhibit 14.3 lists the large metros with the lowest values on the Overall Economic Segregation Index. Orlando ranks first followed by Portland, Oregon; Minneapolis-St. Paul, Providence, and Virginia Beach. Tampa, Jacksonville, Riverside, Cincinnati, and Hartford round out the ten least

segregated large metros. Other large metros with relatively low levels of overall economic segregation include Rochester (264th), Buffalo (267th), Pittsburgh (268th), and New Orleans (275th).

Exhibit 14.4 extends the list to all metros. The metros with the lowest levels of overall segregation are all smaller. There are more than 200 small and medium-sized metros where overall segregation is less than in the least segregated of the 51 large metros. All of the top ten least segregated metros have fewer than 300,000 people.

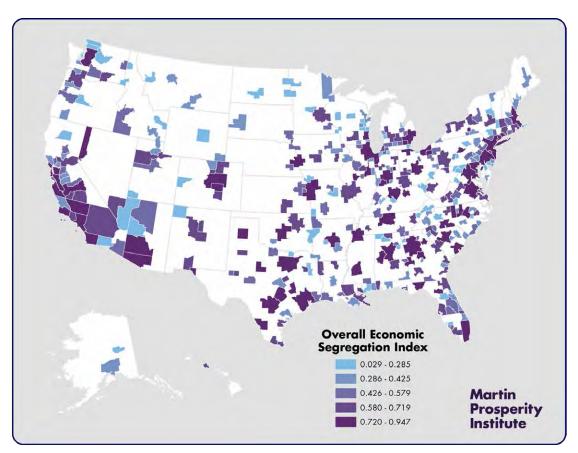


Exhibit 14: Overall Economic Segregation Index

Rank	Metro	Index	Rank Out of All Metros
1	Austin-Round Rock, TX	0.925	3
2	Columbus, OH	0.912	4
3	San Antonio, TX	0.903	6
4	Houston-Sugar Land-Baytown, TX	0.903	7
5	Los Angeles-Long Beach-Santa Ana, CA	0.893	10
6	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.889	11
7	Dallas-Fort Worth-Arlington, TX	0.875	12
8	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	0.873	13
9	Chicago-Naperville-Joliet, IL-IN-WI	0.868	15
10	Memphis, TN-MS-AR	0.867	16

Exhibit 14.1: Large Metros with the Highest Levels of Overall Economic Segregation

Rank	Metro	Index
1	Tallahassee, FL	0.947
2	Trenton-Ewing, NJ	0.933
3	Austin-Round Rock, TX	0.925
4	Columbus, OH	0.912
5	Tucson, AZ	0.906
6	San Antonio, TX	0.903
7	Houston-Sugar Land-Baytown, TX	0.903
8	Ann Arbor, MI	0.902
9	Bridgeport-Stamford-Norwalk, CT	0.898
10	Los Angeles-Long Beach-Santa Ana, CA	0.893

Exhibit 14.2: Metros with the Highest Levels of Overall Economic Segregation

Rank	Metro	Index	Rank Out of All Metros
1	Orlando-Kissimmee, FL	0.548	203
2	Portland-Vancouver-Beaverton, OR-WA	0.581	217
3	Minneapolis-St. Paul-Bloomington, MN-WI	0.596	223
4	Providence-New Bedford-Fall River, RI-MA	0.611	233
5	Virginia Beach-Norfolk-Newport News, VA-NC	0.634	239
6	Tampa-St. Petersburg-Clearwater, FL	0.646	244
7	Jacksonville, FL	0.649	246
8	Riverside-San Bernardino-Ontario, CA	0.672	256
9	Cincinnati-Middletown, OH-KY-IN	0.673	259
10	Hartford-West Hartford-East Hartford, CT	0.674	260

Exhibit 14.3: Large Metros with the Lowest Levels of Overall Economic Segregation

Rank	Metro	Index
1	Fond du Lac, WI	0.029
2	Monroe, MI	0.049
3	St. George, UT	0.074
4	Lewiston, ID-WA	0.075
5	Dover, DE	0.089
6	Coeur d'Alene, ID	0.097
7	Morristown, TN	0.099
8	Bay City, MI	0.113
9	Sherman-Denison, TX	0.115
10	Hagerstown-Martinsburg, MD-WV	0.116

Exhibit 14.4: Metros with the Lowest Levels of Overall Economic Segregation

4. What kinds of metros are more segregated than others?

We have seen which metros have the highest and lowest levels of overall economic segregation. We know that being segregated along one dimension increases the likelihood that a metro will be segregated along others. And we have seen that the geography of income segregation is more severe than either educational or occupational segregation.

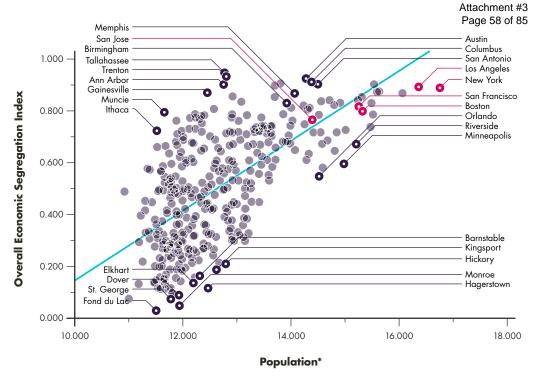
We now turn to the underlying factors and characteristics of metros that are associated with higher or lower levels of overall economic segregation.

4.1 Size and Density

The Overall Economic Segregation Index is closely associated with the size (0.64) and density (0.56) of metros (Exhibit 15, 16, and 17). The correlations across all measures are positive and significant, with many in the 0.5s and 0.6s. Economic segregation clearly appears to be a feature of larger, denser metros.

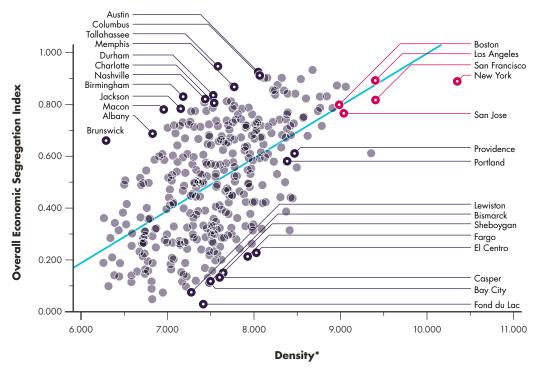
4.2 Wealth and Affluence

Economic segregation is related to the wealth and affluence of metros (see Exhibit 18). The Overall Economic Segregation Index is positively associated with wages (0.46) and economic output per capita (0.41), and somewhat less so with per capita income (0.29). These factors play a bigger role for occupational and educational segregation than for income segregation. The correlations are mainly positive and significant, with many in the high to mid-0.4s. The big exception is the segregation of the wealthy, where the correlations are either not significant or mildly negative and significant.



*Note: Logged

Exhibit 15: Overall Economic Segregation Index and Population



*Note: Population Weighted

Exhibit 16: Overall Economic Segregation Index and Density

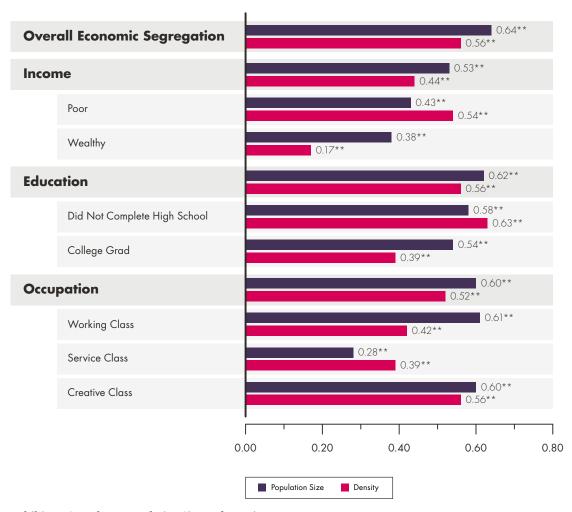


Exhibit 17: Correlates Population Size and Density

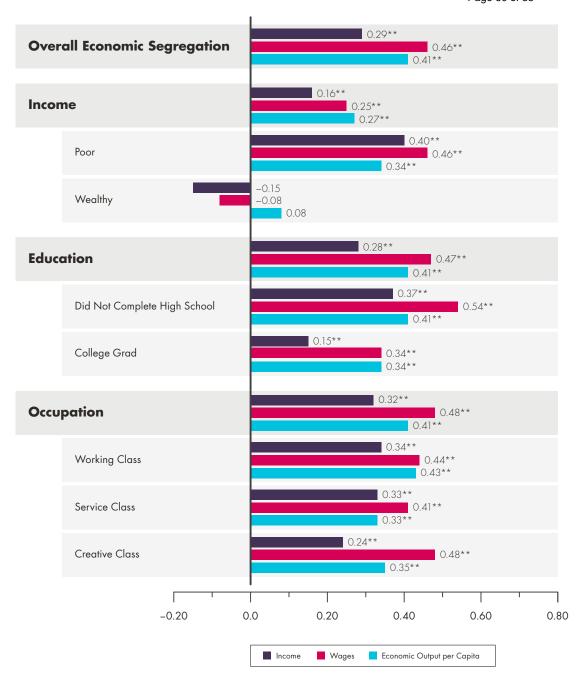


Exhibit 18: Correlates for Income, Wages, and Economic Output per Capita

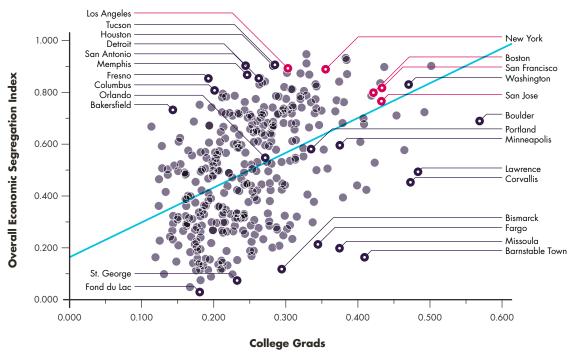


Exhibit 19: Overall Economic Segregation Index and College Grads

4.3 Knowledge-Based Economies

Economic segregation is even more closely associated with key markers of the knowledge economy than it is with affluence (see Exhibit 19, 20, 21, and 22). The Overall Economic Segregation Index is positively associated with the share of adults who hold college degrees (0.47), the creative class share of the workforce (0.53), and even more so with the concentration of high-tech industry (0.62). These correlations are among the highest in our analysis.

The biggest outlier is the segregation of the wealthy, where the correlations are smaller or statistically insignificant. The segregation of the poor, on the other hand, is substantially associated with college grads, high-tech industry, and the creative class.

Conversely, we find (see Exhibit 23 and 24) that economic segregation is negatively associated with the level of unionization (-0.18) and the share of workers in blue-collar working class occupations (-0.37), key indicators of traditional industrial economic structures. Having a larger working class appears to militate against economic segregation.

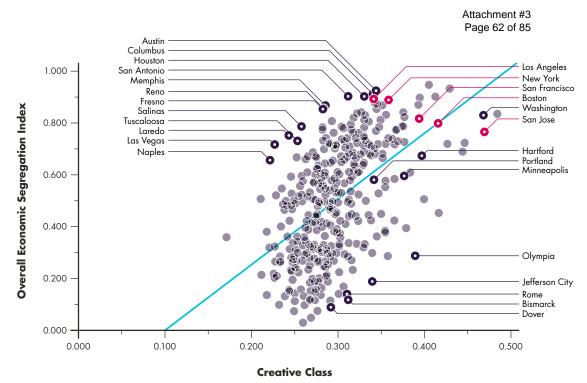


Exhibit 20: Overall Economic Segregation Index and Creative Class

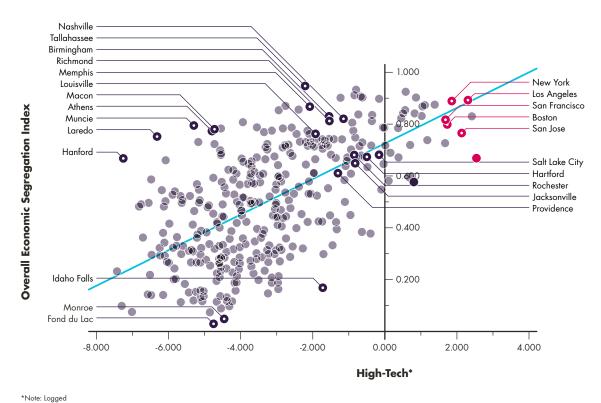


Exhibit 21: Overall Economic Segregation Index and High-Tech

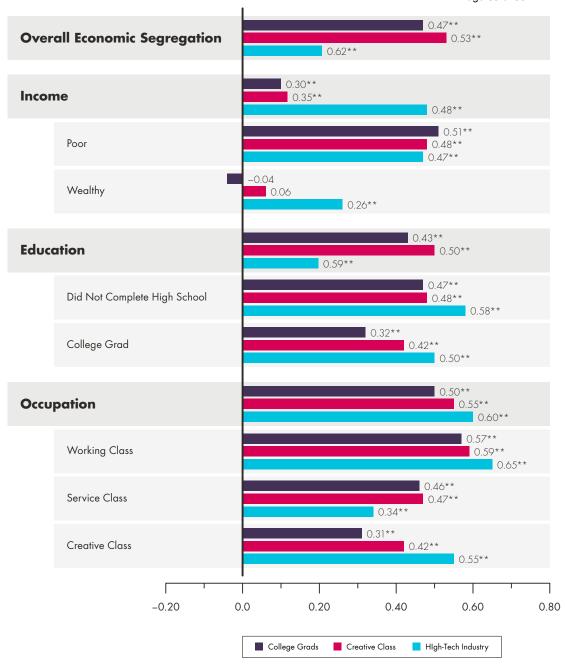


Exhibit 22: Correlates for College Grads, Creative Class, and High-Tech Industry

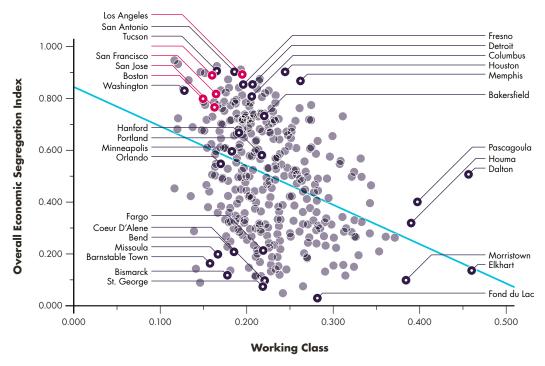


Exhibit 23: Overall Economic Segregation Index and Working Class

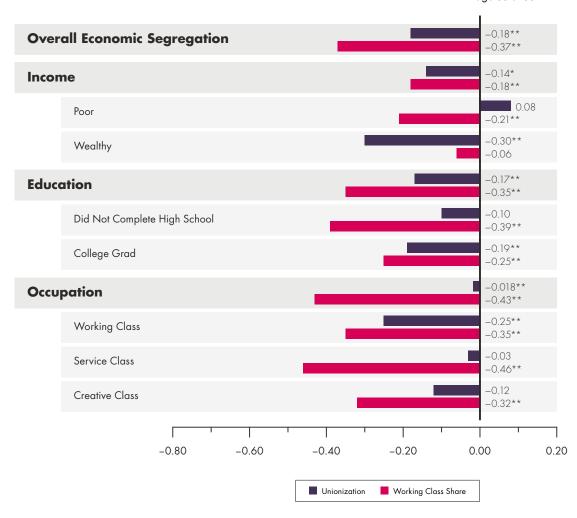


Exhibit 24: Correlates for Industrial Economic Structures: Unionization and Working Class Share

4.4 Housing Costs

Many point to gentrification and the rising real estate values that go along with it as a key factor in the displacement and isolation of lower income groups.

Interestingly enough, we find only modest associations between median housing costs and overall economic segregation (see Exhibit 25). There is a modest correlation between median housing costs and the Overall Economic Seg-

regation Index (0.31) and an even weaker one between housing costs as a share of income and overall economic segregation (0.17).

Housing costs appear to play a greater role in occupational and educational segregation than in income segregation, where the correlations are insignificant. This result again seems to be driven by the relationship between housing costs and the segregation of the wealthy, which is negative. Housing costs are modestly associ-

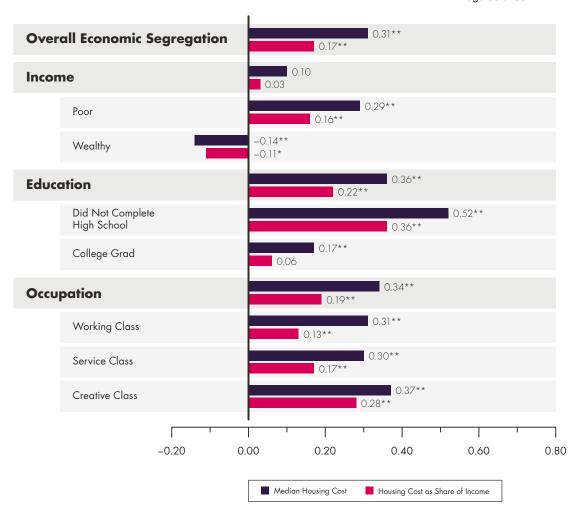


Exhibit 25: Correlates for Housing Costs

ated with the segregation of the poor. Overall housing costs appear to play a bigger role than housing costs as a share of income.

It's important to remember that we are looking at median values, which do not capture the distribution of housing costs within a metro. A metro with little variation in costs for housing can end up with the same median value for housing as a metro where the variation ranges from very cheap to very expensive. It's also im-

portant to remember that our analysis covers all 350-plus U.S. metros. Housing costs in high-cost metros like New York or San Francisco likely play a much larger role in residential segregation than they do on average.

4.5 How We Get to Work

Economic segregation is also bound up with whether we take transit or drive a car to work (see Exhibit 26).

The Overall Economic Segregation Index is positively associated with the share of commuters who take transit to work (0.49). The correlations are similar for each of the three major segregation measures, though they are stronger for occupational (0.50) and educational segregation (0.44) than for income segregation (0.37). This again appears to be mainly driven by the result for the segregation of the

wealthy. Ironically and troublingly, access to transit tends to raise housing values, meaning that the poor—the people who need transit the most—have the least access to it, and hence to economic opportunity.

On the flip side, overall economic segregation is lower in metros where greater shares of commuters drive to work alone (-0.22). This association is stronger for occupational segregation (-0.31) and educational segregation (-0.26) than for income segregation (where it is not statistically significant). These results likely reflect the broader effects of size and density. Transit

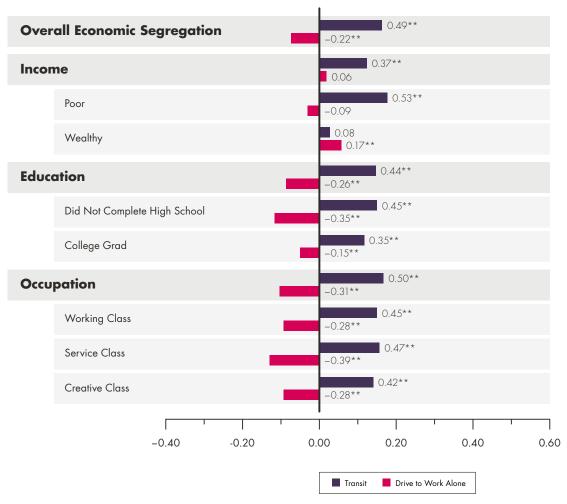


Exhibit 26: Correlates for Transit and Drive to Work Alone

is associated with larger denser regions; commuters are more likely to drive to work alone in smaller and more sprawling metros.

4.6 Political Orientation

Economic segregation is connected to the long-standing divisions between conservative and liberal places—but not in the way that liberals and conservatives might suppose (see Exhibit 27). The Overall Economic Segregation Index is positively associated with liberalism, measured by the share of voters who cast their ballots for Obama in 2012 (0.32) and it is negatively associated with conservatism, measured

by the share that voted for Romney (-0.31). The correlations are relatively similar for all the major segregation measures, though once again the associations for the segregation of the wealthy are statistically insignificant.

This also likely reflects the broader effects of size and density. Larger, more diverse, and more knowledge-based metros tend to lean liberal. And liberal politics are closely associated with density. According to one <u>analysis</u>, metros reach a tipping point where they turn from liberal to conservative at a density of roughly 700 to 800 people per square mile.³²

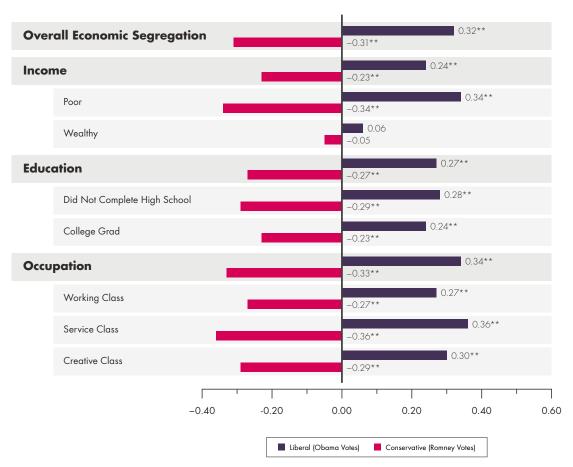


Exhibit 27: Correlates for Liberal and Conservative Politics

4.7 Race

Race remains a key marker of stratification in American society. A broad body of studies documents the connection between race, poverty, and segregation. ³³ NYU sociologist Patrick Sharkey points out that "two-thirds of black children who were raised in the poorest quarter of U.S. neighborhoods a generation ago now raise their own children in similarly poor neighborhoods. About half of all black families have lived in the poorest American neighborhoods over the last two generations, compared to just 7 percent of white families." ³⁴

Economic segregation and race are correlated, as we have seen (Exhibit 28, 29, and 30). The Overall Economic Segregation Index is negatively associated with the share of residents that are white (-0.43) and positively associated with the shares that are black (0.29), Latino (0.24) and Asian (0.30). Generally speaking, race plays a relatively larger role in educational and occupational segregation than income segregation, with the exception of black population shares. The share of the population that is black is positively related to all three main types of economic segregation. It is slightly more closely related to income segregation, though the differences are modest.

The Latino share of population is also positively related to all three types of segregation, though it is not statistically associated with the segregation of poverty or of the service class. The Asian share of the population is positively related to educational and occupational segregation, but is not statistically associated with income segregation. This again reflects the effect of the segregation of the wealthy.

Conversely, the share of the population that is white is negatively associated with all three types of economic segregation—income, educational, and occupational segregation, though it appears to play a larger role in educational and occupational separation than in income segregation. It has a weak relationship to the segregation of the poor, where it is statistically insignificant.

Generally speaking, our findings suggest that the white share of the population plays a relatively greater role in economic segregation than the shares of racial and ethnic minorities.

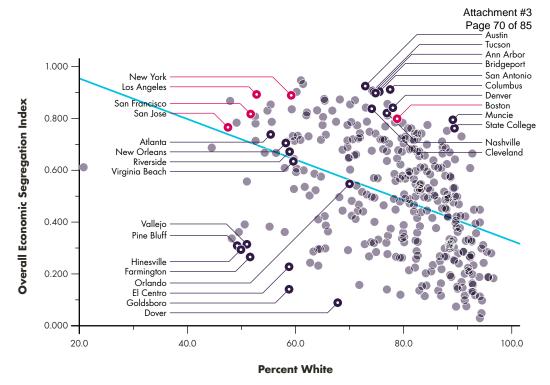


Exhibit 28: Overall Economic Segregation Index and White

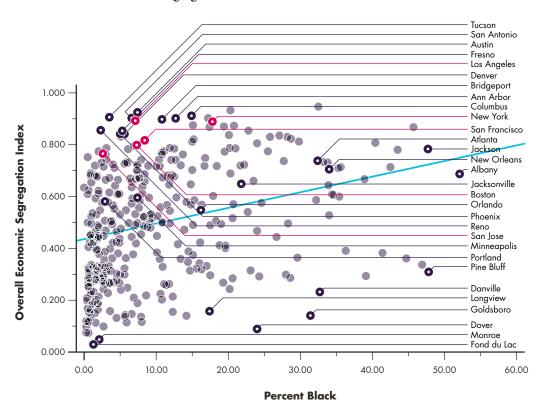


Exhibit 29: Overall Economic Segregation Index and Black

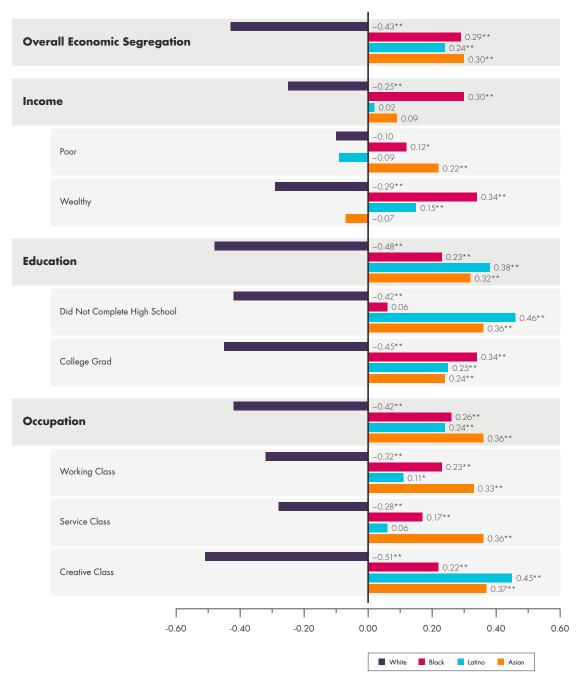


Exhibit 30: Correlates for Race

4.8 Inequality

One might think that metros with higher levels of economic inequality would also be beset with higher levels of economic segregation, almost by definition.

Our analysis confirms that inequality and economic segregation are related (see Exhibit 31, 32, and 33). The Overall Economic Segregation Index is positively associated with income inequality (0.52) and even more so with wage inequality (0.62). The correlations between inequality and the various measures of economic segregation are positive and range from a low of around 0.20 to a high of more than 0.60. The majority of correlations fall into the range of the

high 0.40s to 0.50. Once again, the correlations are higher for educational and occupational segregation than for income segregation.

While income inequality and residential segregation do go together, it is important to remember that they are not the same thing. As Reardon and Bischoff note, "although income inequality is a necessary condition for income segregation, it is not sufficient." ³⁵ A city or metro might be quite unequal but not particularly segregated if lower and upper income groups are distributed evenly across neighborhoods. Likewise, a city or metro could be highly segregated but relatively equal if its different economic groups reside in different neighborhoods.

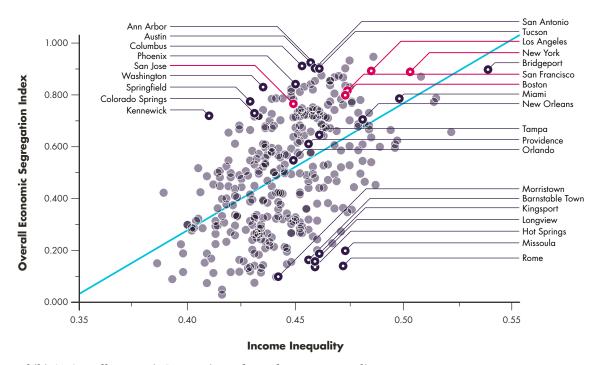


Exhibit 31: Overall Economic Segregation Index and Income Inequality

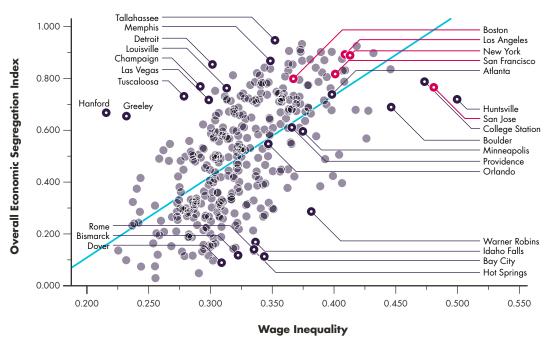


Exhibit 32: Overall Economic Segregation Index and Wage Inequality

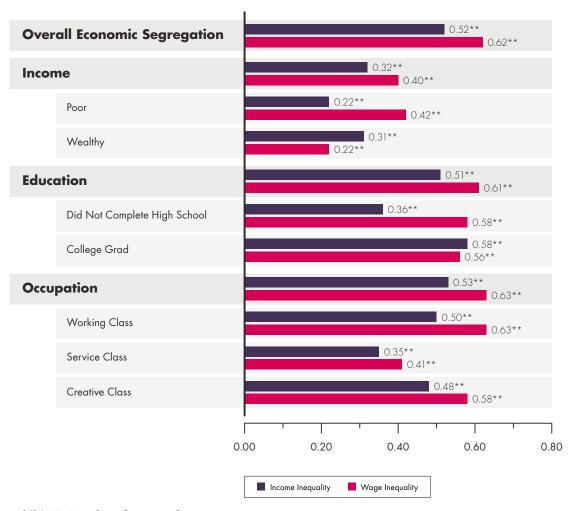


Exhibit 33: Correlates for Inequality

5. Conclusion

This report has mapped measures of economic segregation spanning income, education, and occupation; developed an overall index of economic segregation which combines all three; and examined the key factors associated with economic segregation across U.S. metros.

Our key findings with regard to the geography of economic segregation are as follows.

- Older Rustbelt metros top the list on income segregation. More sprawling Sunbelt metros top the list on educational segregation. And larger and more knowledge-based metros top the list on occupational segregation.
- While larger metros generally experience higher levels of economic segregation, two medium-sized ones—Tallahassee and Trenton—register the highest levels of overall economic segregation in the country.
- Among large metros, Los Angeles, Austin, Houston, New York, Dallas, Philadelphia, Chicago, and Memphis face high degrees of segregation.
- Four Texas metros—Austin, San Antonio, Houston, and Dallas—rank among the ten most segregated large metros. Most of the higher-ranking smaller metros are college towns.
- The metros with the lowest levels of overall economic segregation are mainly smaller and medium-sized ones. There are more than 200 small and medium-sized metros where overall segregation is less than in the least segregated of the 51 large metros. All ten of the least segregated metros in the country have 300,000 people or less.

 The least segregated large metros include Orlando, Portland, Minneapolis-St. Paul, Providence, and Virginia Beach. Rustbelt metros like Cincinnati, Rochester, Buffalo, and Pittsburgh also have relatively low levels of overall economic segregation.

When we compare the types of economic segregation to one another we find that:

- All three types of segregation—income, educational, and occupational—are associated with one another. If a metro is segregated on one dimension, it increases the likelihood that it is segregated on the others.
- Economic segregation appears to be conditioned by the behavior and location choices of more advantaged groups. The creative class is more segregated than either the working class or service class. College grads are more segregated than those who did not finish high school. The wealthy are more segregated than the poor—indeed they are the most segregated of all and by a considerable margin. These more advantaged groups have the resources to isolate themselves from less advantaged groups.

This last finding is in line with other research on the subject. A Pew study <u>found</u> that the population of high-income residents living in high-income neighborhoods or tracts doubled between 1980 and 2010 compared to the population of low-income households living in low-income neighborhoods, which grew by just 5 percentage points over the same period. ³⁶ Or as Reardon and Bischoff <u>note</u>, "During the last

four decades, the isolation of the rich has been consistently greater than the isolation of the poor." ³⁷

Even though different metros stand out on different types of economic segregation, our correlation analysis reveals that the same underlying economic and demographic factors are associated with each of the major types of segregation and with economic segregation overall.

- Economic segregation is associated with the size and density of metros. The correlations for each are among the highest in our analysis. It is also related to two other sets of factors that follow from metro size and density: the way that people commute to work and the breakdown of liberal versus conservative voters.
- Economic segregation is connected to the overall wealth and affluence of metros, with positive correlations to wages, economic output per capita, and income.
- Economic segregation tends to be higher in knowledge-based metros, with positive correlations to high-tech industry, the creative class, and college grads. These correlations are among the very highest in our analysis.
- Economic segregation is also associated with two key indicators of diversity—the share of the population that is gay or foreign-born which tend to coincide with larger, denser, and more knowledge-based metros.
- Economic segregation is related to race. It is positively associated with the share of the population that is black, Latino, or Asian, and negatively associated with the share that is white. Economic segregation is more closely associated with the share that is white than with others, which suggests that it is driven by the locational patterns and decisions of those at the top of the socio-economic order.
- Economic segregation is closely connected to income inequality and even more so with wage inequality.

Segregation and inequality appear to compound and exacerbate each other's effects. Research by economist Rebecca Diamond has shown that high-skill, high-pay workers derive additional advantages from living in safer neighborhoods with better schools, better health care, and a wider range of services and amenities. The inequality of overall "well-being" that they enjoy is 20 percent higher than the simple wage gap between college and high school grads can account for.

Conversely, less advantaged communities suffer not just from a lack of economic resources but from related neighborhood effects like higher rates of crime and drop-outs, infant mortality, and chronic disease. NYU's Sharkey argues that disadvantaged groups are literally "stuck in place," pointing out that "neighborhood inequality is multigenerational, something that is passed down from parents to children in the same way that genetic background and financial wealth are transmitted across generations." ³⁹

A widely cited 2014 <u>study</u> by researchers at Harvard and the University of California at Berkeley examined how racial segregation, family structure, school quality, and social capital affected lower income children's ability to move up the economic ladder, based on a sample of more than 40 million children born between 1980 and 1991 and their parents. ⁴⁰ Economic segregation was negatively associated with absolute upward mobility, the ability of low-income children to move up the economic ladder, and positively associated with relative mobility, the gap between low and high-income children.

As family-supporting manufacturing jobs have disappeared, so have America's once middle-income neighborhoods. In 1970, roughly two-thirds (65 percent) of Americans lived in neighborhoods that could be described as middle income; today that number is just slightly more than four in ten (42 percent), according to

Bischoff and Reardon. ⁴¹ Over the same time span, the proportion of families living in affluent neighborhoods rose from 7 to 15 percent and the share living in poor neighborhoods increased from 8 to 18 percent. Income segregation grew in nearly nine in ten U.S metros with populations over 500,000.

A decade or so ago, Bill Bishop noted how talented and educated people were concentrating more in some places than others, a tendency he dubbed "the big sort." ⁴² The big sort has now become an even bigger sort. America's cities and metropolitan areas have cleaved into clusters

of wealth, college education, and highly-paid knowledge-based occupations that are juxtaposed to concentrations of poverty, low levels of education, and poorly-paid service occupations.

Where cities and neighborhoods once mixed different kinds of people together, they are now becoming more homogenous and segregated by income, education, and occupation. Separating across these three key dimensions of socio-economic class, this bigger sort threatens to undermine the essential role that cities have played as incubators of innovation, creativity, and economic progress.

6. Appendix

6.1 Variables, Data, and Methodology

This section presents our variables, data, and methodology. The data cover the more than 70,000 U.S. tracts across all 359 U.S. metropolitan regions.

6.1.1 Segregation Measures

Our key measures of economic segregation are as follows:

Income Segregation

- *Segregation of the Poor:* This covers households below the poverty level in 2010.
- Segregation of the Wealthy: This covers households with an income above \$200,000, the highest income group reported by tract by the Census in 2010.
- Overall Income Segregation: This combines the two measures above into a single index. All data are from the 2010 U.S. Census.⁴³

Educational Segregation

- Segregation of Non-High School Grads: This measures the residential segregation of adults with less than a high school degree.
- Segregation of College Grads: This measures the segregation of adults with a college degree or more.
- Overall Educational Segregation: This combines the two educational measures into a single index. All data are from the 2010 U.S. Census.

Occupational Segregation

- Creative Class Segregation: This measures the residential segregation of the creative class.
- Service Class Segregation: This measures the residential segregation of individuals who hold low-skill, low-pay service jobs.

- Working Class Segregation: This measures the residential segregation of the blue collar working class.
- Overall Occupational Segregation: This is an index of the three occupational segregation measures above. All data are from the 2010 American Community Survey.

Overall Economic Segregation Index

This index combines the rank of the seven income, education, and occupation measures into an index of overall economic segregation.

6.1.2 How We Define and Measure Segregation

The seven individual indexes are all calculated based on the Index of Dissimilarity. 44 Developed by sociologists Douglas Massey and Nancy Denton, it compares the distribution of a selected group of people with all others in that location. The more evenly distributed a group is compared to the rest of the population, the lower the level of segregation. This Dissimilarity Index ranges from 0 to 1, where 0 reflects no segregation and 1 reflects complete segregation.

The Dissimilarity Index, D, can be expressed as:

$$D = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{x_i}{X} - \frac{y_i}{Y} \right|$$

where x_i is the number of individuals in our selected group in tract i, X is the number of the selected group in the metropolitan area, yi is the number of "others" in the Census tract, and Y is the corresponding number in the metropolitan area. X is the number of Census tracts in the metropolitan area. X gives a value to the

degree to which our selected group is differently distributed across Census tracts within the metropolitan area, compared to all others. D ranges from 0 to 1, where 0 denotes minimum spatial segregation and 1 the maximum segregation. The more evenly distributed a group is compared to the rest of the population, the lower the level of segregation.

The combined measures of income segregation, educational segregation, and occupational segregation as well as the Overall Economic Segregation Index are created by combining rankings on each of these individual indexes. Thus, we no longer can interpret the index value as 0 equal to no segregation and 1 equal to complete segregation. These combined index values create a relative measure where the highest index value indicates the most segregated metro.

6.1.3 Economic, Social, and Demographic Variables

We also examine the relationships between economic segregation and the following demographic, economic, and social variables.

Income per Capita: Average income per capita from the <u>2010 American Community Survey</u> (ACS).⁴⁵

Wages: Average metro wage level from the <u>United States Bureau of Labor Statistics</u> (BLS) for the year 2010.⁴⁶

Economic Output per capita: Based on Gross Regional Product per capita, data are from <u>United States Bureau of Economic Analysis</u> (BEA) for 2010.⁴⁷

College Grads: The share of adults with a college degree or more from the 2010 ACS. 48

Creative Class: The regional share of employment in the following occupational groups: computer

science and mathematics; architecture, engineering; life, physical, and social science; education, training, and library science; arts and design work, entertainment, sports, and media; and professional and knowledge work occupations in management, business and finance, law, sales management, healthcare, and education. This is based on 2010 data from the BLS. 49

Working Class: The regional share of employment in manufacturing, construction and extraction, installation, maintenance and repair, production, transportation and material moving occupations. Also based on 2010 data from the BLS.⁵⁰

Service Class: The regional share of employment in low-skill, low-wage service class jobs including: food preparation and food-service-related occupations, building and grounds cleaning and maintenance, personal care and service, lowend sales, office and administrative support, community and social services, and protective services. Also based on 2010 BLS data. ⁵¹

High-Tech Industry: Based on the Tech-Pole Index developed by Ross Devol of the Milken Institute, ⁵² which measures the percentage of total economic output that comes from high-technology industries compared to the nationwide percentage of high-technology industrial output as a percentage of total U.S. high-technology industrial output. These data are from the <u>Census County Business Patterns</u> for 2010. ⁵³

Unionization: The share of the employed workers that are union members. From the Current Population Survey available at http://unionstats.com for the year 2010.⁵⁴

Median Housing Costs: We include two measures: median monthly housing costs and housing costs as a share of household income, both from the 2010 ACS.⁵⁵

Population Size: Metro population based on <u>2010</u> <u>ACS</u>. A logged version is used for the correlation analysis.

Density: This is "population-weighted density" based on distance from the city center or city hall. This comes from the <u>United States Census</u> and is for the year 2010.⁵⁶

Transit: The share of the population that uses public transportation to get to work, from the 2010 ACS.⁵⁷

Drive to Work Alone: The share of population that drives to work alone, a proxy for sprawl, also from the 2010 ACS. ⁵⁸

Race: We measure four major racial groups per the <u>2010 ACS</u>: the share of population that is white, black, Asian, and Hispanic.⁵⁹

Foreign-Born: The percentage of population that is foreign-born, from the $\underline{2010~ACS}$.

Gay Index: A location quotient for the concentration of gay and lesbian households from the <u>ACS</u> for the years 2005–2009.⁶¹

Liberal or Conservative: The share of metro voters who voted for Obama versus Romney in 2012. The metro data are compiled from county level figures published in *The Guardian*. ⁶²

Inequality: Income inequality is based on the conventional Gini Coefficient measure and is from the <u>2010 ACS</u>. Wage Inequality is calculated based on the <u>Theil index</u>, an entropy measure that captures differences in wage between the three major occupational classes from the <u>2010 BLS</u>. ⁶³

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Martin Prosperity Institute Rotman School of Management University of Toronto 105 St. George St., Ste. 9000 Toronto, ON M5S3E6

w martinprosperity.org e assistant@martinprosperity.org t 416.946.7300 f 416.946.7606

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A Rebuttal to "America's Most Economically Segregated Cities"

Dr. Karen Cyphers

VP of Research & Policy

Sachs Media Group, Breakthrough Research

A few big strikes

- This report uses data from the Tallahassee Metro Statistical Area which includes Leon, Gadsden, Jefferson and Wakulla Counties, but in writing refers only to the city itself.
- This report also fails to clearly define what "economic segregation" means, and...
- Makes the mistake of using a politically-charged word to describe differences between regions.

Unfair Metrics for College Towns

- To the study's own admission, "almost all of the most segregated smaller metros are college towns"
- This makes sense:
 - Students are more often geographically separated, living near campus.
 - Students tend to be employed in low-wage settings regardless of how much they eventually earn.
 - Tallahassee has three large colleges and many smaller ones serving its population, making its student-to-resident ratios differ from most smaller metro areas.

What would it mean to be among the least "segregated" in this study?

- In this study, the "least segregated" areas are places that are largely homogenous, with most of the population resembling one another in income, job sector, education levels, etc.
- According to the metrics used in this report,
 Tallahassee would look far less economically
 "segregated" if our entire population lived below the poverty line.
- ... But nobody can argue that would be a good thing.

What would it mean to be among the least "segregated" in this study?

- Indeed, this study admitted that their measure of segregation is "positively associated with the share of the population that is black, Latino, or Asian."
- This makes their methods perhaps a better indicator of racial composition than of segregation. The two are not synonyms.
- For example, look at some of the metro areas that this study reports having the lowest levels of "economic segregation":
 - Fond du Lac, WI (91% white)
 - Monroe, MI (88% white)
 - St. George, UT (87% white)
 - Tallahassee, FL (53% white)

Tallahassee is diverse and creative... and that is a good thing

- Just two years ago, the same author of this report praised
 Tallahassee for our large and growing share of "Creative Class" workers.
- The author, Richard Florida, has written extensively on the benefits to communities of fostering creative class jobs. He writes that cities that attract and retain creative residents prosper.
- Rather than noting Tallahassee's growth in the creative sector as a positive, this current study actually punishes Tallahassee for having a large portion of creative class workers who may live in different areas than service or blue collar workers.

Tallahassee is improving, too...

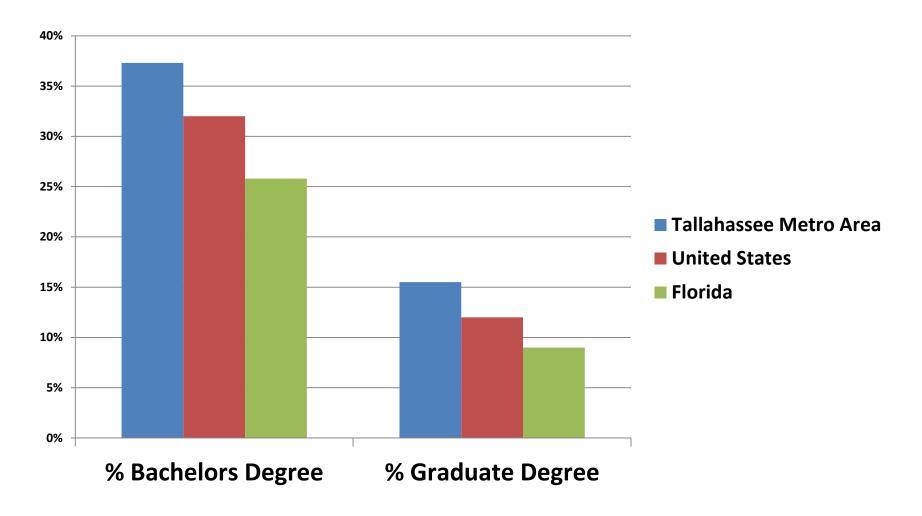
- What this study calls "segregation" may more accurately be a depiction of growth or improvement, at least in the case of Tallahassee.
- The Tallahassee Metro Area has, and still faces, higher than average rates of poverty.
- Our counties, cities, and residents have been working hard to reverse this trend, and we're making progress.
- Part of that progress means growing and adapting... and these efforts bring their own challenges.
- Part of that progress also means succeeding, but that happens in stages.

Tallahassee is improving, too...

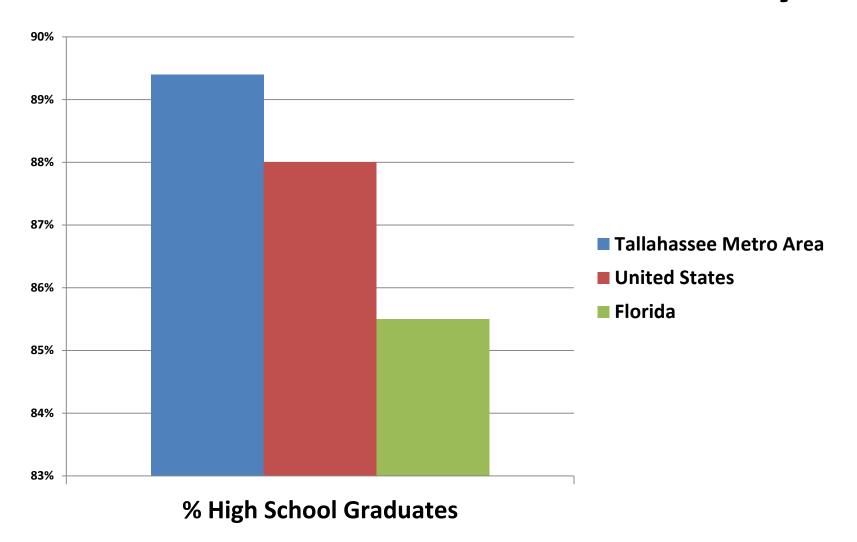
 In 2012, Tallahassee was noted for being among the nation's best midsized cities for job growth.

 In that same year, Tallahassee was listed among the 10 best cities for millennials, praised for its accessibility to housing and education.

Here's how Tallahassee looks today...



Here's how Tallahassee looks today...



The work never ends to improve

- The Big Bend area has a lot of promise, and we are working hard to address many challenges:
 - Affordable housing
 - Education
 - Poverty
 - Health care, and more...
- This study, however, fails to capture the true issues we face, just as it fails to define our community with a poorly measured and inappropriate term.

The Impacts of Neighborhoods on Intergenerational Mobility: Childhood Exposure Effects and County-Level Estimates*

Raj Chetty and Nathaniel Hendren Harvard University and NBER

May 2015

Abstract

We characterize the effects of neighborhoods on children's earnings and other outcomes in adulthood by studying more than five million families who move across counties in the U.S. Our analysis consists of two parts. In the first part, we present quasi-experimental evidence that neighborhoods affect intergenerational mobility through childhood exposure effects. In particular, the outcomes of children whose families move to a better neighborhood – as measured by the outcomes of children already living there – improve linearly in proportion to the time they spend growing up in that area. We distinguish the causal effects of neighborhoods from confounding factors by comparing the outcomes of siblings within families, studying moves triggered by displacement shocks, and exploiting sharp variation in predicted place effects across birth cohorts, genders, and quantiles. We also document analogous childhood exposure effects for college attendance, teenage birth rates, and marriage rates. In the second part of the paper, we identify the causal effect of growing up in every county in the U.S. by estimating a fixed effects model identified from families who move across counties with children of different ages. We use these estimates to decompose observed intergenerational mobility into a causal and sorting component in each county. For children growing up in families at the 25th percentile of the income distribution, each year of childhood exposure to a one standard deviation (SD) better county increases income in adulthood by 0.5%. Hence, growing up in a one SD better county from birth increases a child's income by approximately 10%. Low-income children are most likely to succeed in counties that have less concentrated poverty, less income inequality, better schools, a larger share of two-parent families, and lower crime rates. Boys' outcomes vary more across areas than girls, and boys have especially poor outcomes in highly-segregated areas. In urban areas, better areas have higher house prices, but our analysis uncovers significant variation in neighborhood quality even conditional on prices.

^{*}The opinions expressed in this paper are those of the authors alone and do not necessarily reflect the views of the Internal Revenue Service or the U.S. Treasury Department. This work is a component of a larger project examining the effects of tax expenditures on the budget deficit and economic activity. All results based on tax data in this paper are constructed using statistics originally reported in the SOI Working Paper "The Economic Impacts of Tax Expenditures: Evidence from Spatial Variation across the U.S.," approved under IRS contract TIRNO-12-P-00374 and presented at the Office of Tax Analysis on November 3, 2014. We thank David Autor, Gary Chamberlain, Max Kasy, Lawrence Katz, and numerous seminar participants for helpful comments and discussions. Sarah Abraham, Alex Bell, Augustin Bergeron, Jamie Fogel, Nikolaus Hildebrand, Alex Olssen, Benjamin Scuderi, and Evan Storms provided outstanding research assistance. This research was funded by the National Science Foundation, the Lab for Economic Applications and Policy at Harvard, and Laura and John Arnold Foundation.

I Introduction

To what extent are children's opportunities for economic mobility shaped by the neighborhoods in which they grow up? Despite extensive research, the answer to this question remains debated. Observational studies by sociologists have documented significant variation across neighborhoods in economic outcomes (e.g., Wilson 1987, Sampson et al. 2002, Sharkey and Faber 2014). However, experimental studies of families that move have found little evidence that neighborhoods affect economic outcomes (e.g., Katz et al. 2001, Oreopoulos 2003, Ludwig et al. 2013).

In this paper, we present new quasi-experimental evidence on the effects of neighborhoods on intergenerational mobility and reconcile the conflicting findings of prior work. Our analysis, which uses data from de-identified tax records covering the U.S. population from 1996-2012, consists of two parts.

Part I: Quasi-Experimental Evidence of Childhood Exposure Effects. In the first part of this paper, we measure the degree to which the differences in intergenerational mobility across areas documented in observational studies are driven by causal effects of place. In previous work (Chetty, Hendren, Kline, and Saez 2014), we documented substantial variation across commuting zones in children's expected earnings (measured by their percentile rank in the national income distribution) conditional on their parents' income. This geographic variation in intergenerational mobility could be driven by two very different sources. One possibility is that neighborhoods have causal effects on economic mobility: that is, moving a given child to a different neighborhood would change her life outcomes. Another possibility is that the observed geographic variation is due to systematic differences in the types of people living in each area, such as differences in demographic makeup or wealth.

We test these explanations and identify the causal effects of neighborhoods by studying more than five million families who move across counties and exploiting differences in their children's ages when they move. We first show that children whose parents move to a better neighborhood – i.e., a CZ or county where children of permanent residents (non-movers) at their income percentile have higher earnings in adulthood – earn more themselves.² Symmetrically, those who move to worse

¹We characterize neighborhood (or "place") effects at two geographies: counties and commuting zones (CZs), which are aggregations of counties that are similar to metro areas but cover the entire U.S., including rural areas. Naturally, the variance of place effects across these broad geographies is a lower bound for the total variance of neighborhood effects, which would include additional local variation.

²We measure children's incomes between the ages of 24 and 30; our results are not sensitive to varying the age at which child income is measured within this range.

neighborhoods have lower earnings as adults.³ Importantly, the changes in earnings are proportional to the fraction of childhood spent in the new area. On average, spending an extra year in a CZ or county where the mean rank of children of permanent residents is 1 percentile higher increases a child's expected rank by approximately 0.03-0.04 percentiles. Stated differently, the outcomes of children who move converge to the outcomes of permanent residents of the destination area at a rate of approximately 3-4% per year of exposure.

Under the assumption that the timing of parents' moves is orthogonal to children's potential outcomes – an assumption that we revisit and validate below – this convergence pattern implies that neighborhoods have substantial *childhood exposure effects*. That is, every additional year of childhood spent in a better environment improves a child's long-term outcomes. The convergence is linear with respect to age: moving to a better area at age 8 instead of 9 is associated with the same improvement in earnings as moving to that area at age 15 instead of 16. The exposure effects persist until children are in their early twenties. Extrapolating over the duration of childhood, from age 0 to 20, the roughly 3.5% annual convergence rate implies that at least 50% and as much as 70% of the variance in observed intergenerational mobility across counties and commuting zones is due to the causal effects of place. We find analogous childhood exposure effects for several other outcomes, including college attendance, teenage employment, teenage birth, and marriage.

The critical identification assumption underlying our approach is that children whose parents move to a better (or worse) area at a young age have comparable potential outcomes to children whose parents move when they are older. This orthogonality condition would be violated if, for instance, parents who move to a better area when their children are young are wealthier or invest more in their children. In addition, moving may itself be correlated with other factors – such as a higher-paying job or a change in marital status – that directly affect children in proportion to exposure time. We use three approaches to account for such selection and omitted variable biases: controlling for observable factors, isolating moves triggered by exogenous events, and implementing a set of sharp placebo (or overidentification) tests.

We control for factors that are fixed within the family (e.g., parent education) by including family fixed effects when estimating exposure effects, as in Plotnick and Hoffman (1996) and Aaronson

³Throughout the paper, we refer to areas where children have better outcomes in adulthood as "better" neighborhoods. We use this terminology without any normative connotation, as there are of course many other amenities of neighborhoods that may be relevant from a normative perspective.

⁴Formally, 0.035*20 = 70% is a point estimate under the assumption that the causal effects and sorting components are uncorrelated. Without this assumption, the variance of predicted values, $(0.035*20)^2 = 0.49$, provides a lower bound.

(1998). This approach identifies exposure effects from comparisons between siblings, effectively asking whether the difference in outcomes between two siblings in a family that moves is proportional to the size of the age gap between them. We obtain an annual exposure effect of approximately 4% per year with family fixed effects, very similar to our baseline estimates. Controlling for parents' incomes and marital status in each year also has no effect on the estimates.

Of course, one may still be concerned that whatever unobserved change induced a family to move (e.g., a wealth shock) may also have had direct effects on their children's outcomes. To account for such unobserved factors, we next focus on a subset of moves where we have more information what caused the move. We identify moves that occur as part of large outflows from ZIP codes, which are typically caused by natural disasters or local plant closures. To remove the endogeneity of individual choice – for example, wealthier parents with young children sorting to better areas in response to the shock – we instrument for the change in neighborhood quality using the average change in neighborhood quality of those who move out of the ZIP code during the years in our sample. Once again, we obtain exposure effect estimates similar to the baseline in this subsample displaced by such exogenous shocks.

While the instrumental variables approach further validates the baseline exposure effect design in the small subset of areas that experience displacement shocks, our ultimate goal is to develop credible estimates of exposure effects for all areas in the U.S. We therefore turn to a third approach – implementing placebo (overidentification) tests that exploit heterogeneity in place effects across subgroups – which in our view is ultimately the most compelling method of assessing the validity of the design. We begin by analyzing heterogeneity in place effects across birth cohorts. Although there is considerable persistence in outcomes within CZs over time, some places improve and others decline. Exploiting this variation, we show that, in a multivariable regression, the outcomes of children who move to a new area converge to the outcomes of permanent residents of the destination in their own birth cohort but not those of surrounding birth cohorts (conditional on their own birth cohort predictions). It would be unlikely that sorting or omitted variables would produce such a sharp cohort-specific pattern, especially because the cohort-specific effects are only observed ex-post after children grow up. Hence, this evidence of cohort-specific convergence supports the view that our neighborhood exposure effect estimates are not confounded by selection and omitted variable biases.

Next, we implement analogous placebo tests by exploiting variation in the *distribution* of outcomes, as opposed to focusing solely on mean outcomes. For instance, low-income children who

spend their entire childhood in Boston or San Francisco have similar outcomes on average, but children in San Francisco are more likely to end up in the upper tail (top 10%) or lower tail (bottom 10%) of the income distribution. The causal exposure effects model predicts convergence not just at the mean but across the entire distribution; in contrast, it would be quite unlikely that omitted variables (such as changes in parent wealth) would happen to perfectly replicate the entire distribution of outcomes in each area. In practice, we find clear evidence of distributional convergence: controlling for mean outcomes, children's outcomes converge to predicted outcomes in the destination across the distribution in proportion to exposure time, again at a rate of approximately 3.5% per year.

Finally, we find analogous results when analyzing heterogeneity in outcomes across genders. Though place effects are highly correlated for boys and girls, there are some differences in predicted outcomes by gender across neighborhoods. For instance, highly-segregated areas tend to have lower mean outcomes for boys than girls. We find that when a family with both a daughter and a son moves to an area that is particularly good for boys, their son's outcomes improve in proportion to exposure time to the destination much more than their daughter's outcomes. Once again, if our findings were driven by sorting or omitted variables, one would not expect to find stark differences in impacts by gender unless families' unobservable investments in their children are differentially correlated with where they move.

Overall, these results suggest that neighborhoods matter for children's long-term outcomes and suggest that at least half of the variance in observed intergenerational mobility across areas is due to the causal effect of place. But, it does not directly tell us which areas produce the best outcomes. In the second part of this paper, we address this question by estimating the causal effect of each county and commuting zone (CZ) in the U.S. on children's earnings in adulthood.

Part II: County-Level Estimates of Causal Effects. We estimate each CZ and county's causal effect on children's incomes and characterize the properties of areas that produce good outcomes in four steps.

First, we estimate the fixed effect for each county (or CZ) using a regression model that is identified from families who move across areas with children of different ages. To understand how the model is identified, consider families in the New York area. If children who moved from Manhattan to Queens at younger ages earn more as adults, we can infer that Queens has positive childhood exposure effects relative to Manhattan under our central assumption that the timing of families' moves are orthogonal to their children's potential outcomes. Building on this logic, we

use our sample of cross-county movers to regress children's earnings in adulthood on fixed effects for each county interacted with the fraction of childhood spent in that county. We estimate the county fixed effects separately by parent income level, permitting the effects of each area to vary with family income. We also include origin by destination fixed effects when estimating this model, so that each county's effect is identified purely from differences in the *age of the children* when families move across areas.

In the second step of our analysis, we estimate the variance components of a latent variable model of neighborhood effects, treating the fixed effects as the sum of a latent causal effect and noise due to sampling error. We estimate the signal variance of neighborhood effects by subtracting the portion of the variance in the fixed effects due to noise. For a child with parents at the 25th percentile of the national income distribution, we estimate that spending one additional year of childhood in a one SD better county (population weighted) increases household income at age 26 by 0.17 percentile points, which is approximately equivalent to an increase in mean earnings of 0.5%. Extrapolating over 20 years of childhood, this implies that growing up in a 1 SD better county from birth would increase a child's income in adulthood by approximately 10%.

Neighborhoods have similar effects in percentile rank or dollar terms for children of higherincome parents, but matter less in percentage terms because children in high-income families have
higher mean earnings. For children with parents at the 75th percentile of the income distribution,
the signal SD of annual exposure effects across counties is 0.16 percentiles, which is approximately
0.3% of mean earnings. Areas that produce better outcomes for children in low-income families are,
on average, no worse for those from high-income families. This finding suggests that the success of
the poor in certain areas of the U.S. does not necessarily come at the expense of the rich.

Our estimates imply that roughly two-thirds of the variation in intergenerational mobility across counties documented in (Chetty et al., 2014) for children in low-income (25th percentile) families is driven by causal effects. The remaining one third is driven by sorting, i.e. systematic differences in the characteristics of the people living in each county. The causal and sorting components are approximately uncorrelated with each other: there is no evidence that families with better unobservables systematically sort to better counties conditional on parent income in equilibrium.

The variance components of our model of neighborhood effects allow us to quantify the degree of signal vs. noise in each CZ and county's fixed effect estimate. In CZs and counties with large populations, such as Cook County in Chicago, the signal accounts for 75% of the variance in the fixed effect estimate. However, in smaller counties, more than half of the variance in the fixed effect

estimates is due to noise. As a result, the raw fixed effects are not appropriate for forming forecasts of each county's causal effect for most counties.

In the third step of our analysis, we construct forecasts of each county's causal effect using a simple shrinkage estimator. We construct the best (minimum mean-squared-error) linear prediction of each county's causal effect by taking a weighted average of the fixed effect estimate based on the movers and a prediction based on permanent residents' outcomes. The permanent residents' mean outcomes have very little sampling error, but are imperfect predictors of a county's causal effect because they combine causal effects with sorting. Therefore, in large counties, where the degree of sampling error in the fixed effect estimates is small, the optimal predictor puts most of the weight on the fixed effect estimate based on the movers. In smaller counties, where the fixed effects estimates are very imprecise, the estimator puts more weight on the predicted outcome based on the permanent residents. The county-level predictions obtained from this procedure yield unbiased forecasts of the impacts of each county in the sense that moving a child to a county with a 1 percentile higher predicted effect will increase that child's earnings in adulthood by 1 percentile on average.

We use our county-level forecasts to identify the best and worst counties in the U.S. in terms of their causal effects on intergenerational mobility. Each additional year that a child spends growing up in Dupage County, IL – the highest-ranking county in terms of its causal effect on upward mobility among the 100 largest counties in the U.S. raises her household income in adulthood by 0.80%. This implies that growing up in Dupage County from birth – i.e., having about 20 years of exposure to that environment – would raise a child's earnings by 16% relative to the national average. In contrast, every extra year spent in the city of Baltimore – one of the lowest-ranking counties – reduces a child's earnings by 0.7% per year of exposure, generating a total earnings penalty of approximately 14% for children who grow up there from birth.⁵

Our estimates of causal effects at the county and commuting zone (CZ) level are highly correlated with the raw statistics on intergenerational mobility reported in (Chetty et al., 2014), but there are several significant differences. For example, children who grow up in New York City have above-average rates of upward mobility. However, the causal effect of growing up in New York City on upward mobility – as revealed by analyzing individuals who move into and out of New York – is negative relative to the national average. This negative effect of growing up in New York is masked

⁵These estimates are based on data for children born between 1980-86 and who grew up in the 1980's and 1990's. We find that neighborhoods' effects generally remain stable over time, but some cities have presumably gotten better in the 2000's, while others may have gotten worse.

when one simply studies the average outcomes of children who grow up there because families who live in New York tend to have unusually high rates of upward mobility. In particular, New York has a very large share of immigrants, and we find evidence consistent with immigrants having higher rates of upward mobility independent of where they live.

We find that neighborhoods matter more for boys than girls: the signal SD of county-level effects for boys is roughly 1.5-times that of girls in low-income (25th percentile) families. Moreover, the distribution of county-level forecasts is wider and has a thick lower-tail for boys, with some counties such as Baltimore and Wayne County in Detroit producing extremely negative outcomes for boys but less so for girls. Areas with high degrees of segregation and sprawl generate particularly negative outcomes for boys relative to girls. There are also significant gender differences related to marriage rates. For example, Northern California generates high levels of individual earnings for girls, but produces lower levels of household income because fewer children get married in their 20s.

What are the properties of areas that improve upward mobility? In the last step of our analysis, we characterize the properties of counties and CZs that produce good outcomes by correlating the estimated causal and sorting effects with observable characteristics. Within CZs, counties that produce better outcomes for children in low-income families tend to have five characteristics: lower rates of residential segregation by income and race, lower levels of income inequality, better schools, lower rates of violent crime, and a larger share of two-parent households. For high income families, we find positive correlations with school quality, social capital, and inequality. But, we find measures of segregation and poverty are not strongly correlated with the causal effects of counties on high-income families. However, they are strongly correlated with the sorting component for high-income families, implying that high-income families with good unobservables tend not to live in cities that generate worse outcomes for the poor (such as segregated areas).

Urban areas, particularly those with substantial concentrated poverty, typically generate much worse outcomes for children than suburbs and rural areas for both low- and high-income families. We also find that areas with a larger African-American population tend to have lower rates of upward mobility. These spatial differences amplify racial inequality across generations: we estimate that roughly one-fifth of the gap in earnings between blacks and whites can be attributed to the counties in which they grow up.

Finally, we evaluate how much more one has to pay in terms of housing costs to live in areas that generate good outcomes for children. Across CZs, we find a *negative* correlation with housing prices, as rural areas have low house prices and tend to produce better outcomes. However, across

counties within CZs, counties that offer better prospects for children have higher house prices and rents. The correlation between rents and children's outcomes is particularly strong in cities that have high levels of segregation and sprawl, which may explain the persistence of poverty across generations in such cities.

Although rents are correlated with upward mobility in large cities, there are some bargains to be found. For example, in the New York metro area, Hudson County, New Jersey offers much higher levels of upward mobility than Queens or the Bronx even though median rents in that area are comparable to the New York boroughs over the period we study. If we divide neighborhood effects into the component that projects onto observable factors such as poverty and dropout rates and the residual "unobservable" component, only the observable component is capitalized in rents and house prices. Our findings show that there is substantial scope for households to move to areas within their CZ that produce better outcomes for children without paying higher rents, and our estimates provide guidance in identifying such areas empirically.

The idea that exposure time to neighborhoods plays an important role has been recognized since at least Wilson (1987) and Jencks and Mayer (1990), and has received growing attention in the sociology literature (Crowder and South (2011), Wodtke et al. (2011, 2012); Wodtke (2013), and Sharkey and Faber 2014). Here, we show that this exposure time perspective helps to reconcile a large observational literature documenting wide variation in outcomes across areas with an experimental literature that generally finds little effects of neighborhoods on economic outcomes. Most notably, our findings help reconcile the discrepancy between the findings from the Moving to Opportunity Experiment and observational studies documenting substantial variation in children's outcomes across areas even after controlling for observable differences in characteristics.

Prior analyses of the MTO experiment have focused primarily on the effects of neighborhoods on adults and older youth (e.g. Kling et al. (2007)) and have not explicitly tested for exposure effects among children. In a companion paper (Chetty, Hendren, and Katz, 2015), we link the MTO data to tax records and show that the MTO data exhibit the same exposure time patterns as those we document here. In particular, we find large treatment effects for children who moved to better neighborhoods at young ages but not those who moved at older ages. More generally, our findings imply that much of the variation across neighborhoods documented in observational studies does in fact reflect causal effects of place, but that these effects arise through accumulated childhood exposure rather than impacts on adults.

The rest of the paper is organized as follows. In Section II, we present a stylized model of

neighborhood effects to formalize our empirical objectives. Section III describes the data. Sections IV-VI present the analysis underlying the first part of the paper. Section IV presents baseline estimates of average neighborhood exposure effects on earnings by studying the effects of moving to areas where prior permanent residents are doing better (or worse). Section V presents a series of tests validating our baseline identification assumptions and Section VI presents estimates of exposure effects for other outcomes. Sections VII-X comprise the second part of our analysis. Section VII presents the fixed effect estimates based on movers. Section VIII presents estimates of the variance components of the neighborhood effects model. Section IX presents our forecasts of each county and CZs causal effect based on the shrinkage estimator. In Section X, we correlate the estimated place effects with observables. Section XI concludes and discusses our findings in the context of prior work. Estimates of neighborhood effects and related covariates are available by commuting zone and county on the project website.

II Model and Empirical Objectives

We begin with a stylized model of neighborhood effects and location choice. We use this model to define the estimands of interest, derive estimating equations, and formalize the identification assumptions underlying our research design.

II.A Setup

Consider a discrete time model in which parents live for T periods. Children i = 1, ..., I are born in year t = 1 and leave their parents' household and enter the labor market in year T_C . Let y_i denote a long-term outcome (e.g., earnings in adulthood) of child i. Let f(i) denote the family to which child i is born; we allow multiple children per family to compare siblings' outcomes. Let p(f(i)) the percentile rank of child i's parents in the national income distribution, and c(f(i), t) the neighborhood in which his family lives in year t. We treat parent income p(i) = p(f(i)) as exogenous and fixed over time.⁶ Our model consists of a specification for the production function for children's outcomes y_i and the parents' choice of location c(i, t) in each period.

Children's outcomes y_i are a function of neighborhood characteristics, family inputs, and disruption costs of moves during childhood. Let μ_{pc} denote the causal effect of growing up in neighborhood c for one's entire childhood (i.e., from periods 1 to T_C) for a child with parents at percentile p.

⁶In our empirical analysis, we show this assumption does not affect our results by controlling for changes in income and measures of income separately by year.

Allowing neighborhoods to have heterogeneous effects across the parent income distribution turns out to be important empirically. Let θ_{it} denote the family inputs in year t, which we interpret as a combination of active investments by parents (e.g., via financial resources or time) and variation in latent ability (e.g., due to genetics). We model the child's outcome y_i as an additive function of the neighborhood and family inputs she receives over her childhood net of disruption costs of moves:

$$y_i = \bar{\theta}_i + \sum_{t=1}^{T_C} [\lambda_t \mu_{p(i), c(f(i), t)} - \kappa_t I\{c(i, t) \neq c(i, t - 1)\}], \tag{1}$$

where $\bar{\theta}_i = \sum_{t=1}^{T_C} \frac{1}{T_C} \theta_{it}$ is the mean level of parental inputs to child i and $I\{c(i,t) \neq c(i,t-1)\}$ denotes an indicator for having moved neighborhoods in year t. The weights λ_t allow for the possibility that some periods of a child's life may be more important than others for long-term development, where $\lambda_t > 1$ ($\lambda_t < 1$) indicates year t is relatively more (less) important than other years of childhood. Let $\Lambda_m = \sum_{t=1}^m \lambda_t$ denote the cumulative sum of growing up in a one-unit better area from birth to age m. We normalize $\Lambda_{T_c} = \sum_{t=1}^{T_C} \lambda_t = T_C$. Equation (1) imposes that the parent's location c(i,t) after the child has left the house $(t > T_C)$ has no causal effect on the child's outcome – an assumption we test below. The coefficients κ_t measure the disruption cost of moving neighborhoods at year (or age) t, with $\kappa_1 \equiv 0$.

The production function for y_i in (1) imposes two substantive restrictions that are relevant for our empirical analysis. First, it assumes that neighborhood effects are additive, i.e. there are no complementarities between neighborhood quality across years, and do not vary across individuals conditional on parent income p.⁷ Second, it assumes that the disruption costs of moving κ_t do not vary across neighborhoods.⁸ Equation (1) does allow for critical ages in which neighborhood outcomes may be more important (by varying λ_t), and in our baseline analysis we allow for these differences. However, for many outcomes, our empirical findings will suggest that a simpler linear exposure time specification with $\lambda_t = 1$ fits the data quite well:

$$y_i = \bar{\theta}_i + \sum_c m_{i,c} \mu_{pc} + \bar{\kappa}_i \tag{2}$$

where $\bar{\theta}_i$ is the mean of parental inputs, $\sum_c m_{i,c} \mu_{pc}$ is the sum of exposure effects⁹ where $m_{i,c}$

⁷We defer the identification of complementarities and heterogeneity to future work. If the true production function features complementarities or heterogeneity, our reduced-form empirical estimates of μ_{pc} can be interpreted as the mean effect of spending an extra year in area c for the individuals who move to c from other areas.

⁸The key assumption for identification of μ_{pc} will be that κ_t cannot vary in a differentially age-dependent manner across neighborhoods; it is feasible to extend the model to allow for disruption cost that varies across neighborhoods but for which the age-gradient of κ_t does not vary across neighborhoods.

⁹Note that $\sum_{t=1}^{T_C} \lambda_t \mu_{p(i),c(f(i),t)} = \sum_c m_{i,c} \mu_{pc}$ if $\lambda_t = 1$ for all t.

is the number of years (of childhood, $t \leq T_C$) that child i spends in neighborhood c, and $\bar{\kappa}_i = \sum_{t=1}^{T_C} \frac{1}{T} \kappa_t I\{c(i,t) \neq c(i,t-1)\}$ is the net impact of moving disruptions.

While we do not attempt to estimate a utility function over parents' choice of neighborhoods and investments in children, it is useful for some of our empirical tests below¹⁰ to conceptualize parents making decisions to maximize their expected utility. We imagine that parents of child i, f(i), choose neighborhoods, c(f(i), t), to maximize some lifetime utility function of children's outcomes, parent inputs, and other neighborhood- and time-specific factors:

$$\mathbb{E}\left[U_f(\overrightarrow{y_f}, \overrightarrow{\theta_f}, \overrightarrow{\chi_f})|\Omega\right] \tag{3}$$

where $\overrightarrow{y_f} = \{y_i | f(i) = f\}$ denotes the vector of outcomes for the children in family f, $\overrightarrow{\theta_f} = \{\theta_{it} | f(i) = f\}$ is the vector of family inputs, and $\overrightarrow{\chi_f} = (\chi_{f,c(f,1)},...,\chi_{f,c(f,t)})$ denotes other factors that vary across neighborhoods and time, such as local amenities, job opportunities and proximity to work, and local house prices. Parents choose a sequence of investment levels $(\theta_1,...,\theta_{T_C})$ and neighborhoods c(i,1),...,c(i,T) to maximize their expected utility U_f given their resource constraints and knowledge, Ω , about how their choices affect outcomes.

II.B Empirical Objectives

Objective #1. Our empirical analysis has two objectives, which we define here using (hypothetical) randomized experiments. Our first objective is directly motivated by the current debate in the literature on neighborhood effects. Prior work has documented robust differences in children's outcomes y_i across neighborhoods in observational data (e.g., Wilson 1987, Jencks and Mayer 1990, Massey 1993, Brooks-Gunn et al. 1993, Cutler et al. 1997, Leventhal and Brooks-Gunn 2000, Sampson et al. 2002). But experimental evidence to date finds little evidence that moving children to better neighborhoods – e.g., those with lower poverty rates – improves outcomes. Therefore, our first goal is to determine whether moving to an area in which other children do well has a causal effect on children's outcomes and to provide a lower bound on the fraction of the variation in observed economic outcomes reflects the causal effects of neighborhoods.

To formalize our first question, observe that the mean outcome of children who spend their entire childhood in area c is $\bar{y}_{pc} = T_C \mu_{pc} + \bar{\theta}_{pc}$, where $\bar{\theta}_{pc} = E[\frac{1}{T} \sum \theta_{it} | c(i,t) = c]$ is the mean level of investment in children by families who live in that area and $T_C \mu_{pc}$ is the cumulative effect of childhood exposure to area c. Mean parent investments $\bar{\theta}_{pc}$ vary across areas due to endogenous

¹⁰Specifically, in Section V.C we provide tests of our identification of neighborhood effects by exploiting restrictions on the parents' information set, Ω , in how neighborhoods can affect their children's outcomes in adulthood.

parent sorting and may be correlated with μ_{pc} .¹¹ We are interested in whether and by how much the mean outcomes across places reflect the causal impacts of those places. In other words, we seek to estimate $E\left[\mu_{pc}|\bar{y}_{pc}\right]$.

One intuitive way to answer this question would be to randomly assign children to neighborhoods at a given age $m \in [1, T_C]$ and estimate the best linear predictor of children's outcomes y_i in the experimental sample using \bar{y}_{pc} :

$$y_i = \alpha + \beta_m \bar{y}_{pc} + \varepsilon_i \tag{4}$$

Given estimates $\overrightarrow{\beta} = \{\beta_m\}_{m=1}^{T_C}$, we define the exposure effect of moving to a better area at age m by $\beta_m - \beta_{m-1}$. Under the simple a linear exposure model in equation (2), the exposure effect is constant and given by $\beta_m - \beta_{m-1} = E\left[\mu_{pc}|\bar{y}_{pc}\right]$ for all m.¹²

Estimating exposure effects (i.e. the pattern of β_m across different ages, m) provides answers to several questions. First, finding a positive effect (at any age) allows us to reject the null that neighborhoods do not matter, a null of interest given experimental evidence to date. Second, the values of the exposure effects at different ages are informative about the ages at which neighborhood environments matter most for children's outcomes.¹³ Finally, the magnitude of β_1 – the impact of assigning children to better neighborhood from birth – yields bounds on the variance of place effects, $\sigma_{\mu\nu}^2 = Var(\mu_{pc})$:

$$\frac{T_c^2 \sigma_{\mu_p}^2}{\sigma_{\bar{\nu}_p}^2} \ge \beta_1^2 \tag{5}$$

Intuitively, the variance of predicted effects based on permanent resident outcomes \bar{y}_{pc} , $\beta_1^2 \sigma_{\bar{y}_p}^2$ is a lower bound for the total variance of place effects, $T_c^2 \sigma_{\mu p}^2$, of obtaining an entire childhood (T_c years) of exposure to the place effect.¹⁴ Under an additional assumption of no covariance between

$$y_i = (T_c - \Lambda_m)\mu_{pc} - \kappa_m + \nu_i, \tag{6}$$

where $E[\nu_i|c]=0$ (the neighborhood effect before age m is subsumed in the error term ν_i because of random assignment). To see that that $\sigma_{\mu_p}^2 \geq T_c^2 Var(\beta_1 \bar{y}_{pc}) = T_c^2 \beta_1^2 \sigma_{\bar{y}_p}^2$, note that $Var(\beta_1 \bar{y}_{pc}) = \beta_1^2 Var(\bar{y}_{pc}) = Cov(T_c \mu_{pc}, \bar{y}_{pc})/\sigma_{\bar{y}_{pc}}^2 = \sigma_{\mu_p}^2 \frac{Cov(T_c \mu_{pc}, \bar{y}_{pc})}{\sigma_{\bar{y}_{pc}}^2 \sigma_{\mu_p}^2} = T_c^2 \sigma_{\mu_p}^2 \rho_{\mu_{pc}\bar{y}_{pc}}^2 \leq T_c^2 \sigma_{\mu_p}^2$ because the correlation coefficient $\rho_{\mu_{pc}\bar{y}_{pc}} \leq 1$.

¹¹For example, parents who place higher weight on their children's outcomes may choose to live in areas that are better for their child (higher μ_{pc}) and also invest more in their child directly (higher θ_{it}), leading to $Cov(\mu_{pc}, \bar{\theta}_{pc}) > 0$ in equilibrium. Conversely, parents may choose to invest in neighborhoods as a substitute for other investments, leading to $Cov(\mu_{pc}, \bar{\theta}_{pc}) < 0$.

¹²We assume that β does not vary across parent income percentiles p to simplify notation, but one could estimate (4) separately by p to identify a coefficient β_p for each p. In our empirical application, we show that β_p does not vary significantly across percentiles.

¹³More precisely, the pattern of $\{\beta_m\}$ identifies the ages at which moving to a better environment, as measured by the outcomes of prior residents, has the largest effects. Other measures of the quality of a child's environment could potentially generate different critical ages.

 $^{^{14}}$ To see this, we can use (1) to write the outcome of a child who is randomly assigned to a neighborhood c at age

the sorting and causal components $(\mu_p \text{ and } \theta_i)$, β_1 is exactly equal to the fraction of variance that is due to the causal effect, $\beta_1 = \frac{T_c^2 \sigma_{\mu_p}^2}{\sigma_{i-}^2}$. 15

Another key advantage of estimating $E\left[\mu_{pc}|\bar{y}_{pc}\right]$ is that it will facilitate a range of high powered placebo (overidentification) tests that utilize the information contained in the distribution of outcomes of permanent residents in an area to test for the presence of bias from sorting patterns (e.g. families of children with high θ_{pc} moving to places with high μ_{pc} when their kids are young). But, while $\overrightarrow{\beta}$ tells us about the average effects of exposure to neighborhoods where prior residents are doing better, $E\left[\mu_{pc}|\overline{y}_{pc}\right]$, estimating $\overrightarrow{\beta}$ itself is not adequate to identify the causal effects of growing up in each neighborhood c, $\{\mu_{pc}\}_{c=1}^{C}$.

Objective #2. Our second objective – which we take up in Part II (starting in Section VII) – is to directly estimate fixed effects for each place μ_{pc} to determine the causal impact of an additional year of exposure to each commuting zone and county in the U.S. The ideal experiment to estimate μ_{pc} would be to randomly assign children at each parent income level p to each neighborhood from birth. One could then identify each place's causal effect simply using mean observed outcomes in each area ($\mu_{pc} = \bar{y}_{pc}$), since random assignment guarantees $\bar{\theta}_{pc}$ does not vary across places (for all p).¹⁶ In contrast to Objective #1, this does not require any information about the outcomes of permanent residents, \bar{y}_{pc} .

In Section VII, we construct unbiased estimates of μ_{pc} . We then decompose observed outcomes, \bar{y}_{pc} , into causal (μ_{pc}) and sorting ($\bar{\theta}_{pc}$) components, and estimate the variance of these components in Section VIII. This exercise breaks up the observed pattern of intergenerational mobility in the U.S. into a component due to the causal effects of places and a component due to systematic differences in the types of people living in different places who provide differential inputs to their children, θ_i . Next, in Section IX we combine our fixed effect estimates of μ_{pc} (identified solely from movers) with the estimate of $E\left[\mu_{pc}|\bar{y}_{pc}\right] = \beta\bar{y}_{pc}$ (identified using information in permanent resident outcomes) to form a forecast of each place's causal effect, μ_{pc}^f , that minimizes mean-square prediction error and delivers unbiased forecasts. Finally, in Section X we characterize the correlates

$$\beta_1 = \frac{cov\left(T_c\mu_{pc}, \bar{y}_{pc}\right)}{var\left(\bar{y}_{pc}\right)} = \frac{T_c^2 \sigma_{\mu_{pc}}^2}{\sigma_{\bar{y}_{pc}}^2}$$

¹⁵To see this, note that

¹⁶In principle, one could go straight to identifying the causal effects of place $\{\mu_{pc}\}$ without identifying β . We do not take this approach for two reasons that we discuss further below: (1) we are able to estimate β under weaker orthogonality assumptions than μ_{pc} and (2) we obtain much more precise estimates of β than $\{\mu_{pc}\}$ by using data on prior residents' outcomes to collapse the problem into estimating one parameter rather than estimating thousands of place effects. Given that a key question in the literature is whether neighborhoods matter at all, we view credible estimation of β as a critical first step before turning to secondary questions about which neighborhoods are better or worse.

of places with high values of μ_{pc} by regressing our estimates on observables, such as poverty rates and local school quality.

The remainder of the paper implements these empirical objectives using observational data on families who move across neighborhoods.

III Data, Geographic Definitions, and Summary Statistics

We use data from federal income tax records spanning 1996-2012. The data include both income tax returns (1040 forms) and third-party information returns (e.g., W-2 forms), which give us information on the earnings of those who do not file tax returns. Our analysis sample is essentially identical to that used to study intergenerational mobility in Chetty et al. (2014), and much of what follows in this section is taken directly from that paper.¹⁷ Here, we briefly summarize the key variable and sample definitions. Note that in what follows, the year always refers to the tax year (i.e., the calendar year in which the income is earned).

III.A Sample Definitions

Our base dataset of children consists of all individuals who (1) have a valid Social Security Number or Individual Taxpayer Identification Number, (2) were born between 1980-1991¹⁸, and (3) are U.S. citizens as of 2013. We impose the citizenship requirement to exclude individuals who are likely to have immigrated to the U.S. as adults, for whom we cannot measure parent income. We cannot directly restrict the sample to individuals born in the U.S. because the database only records current citizenship status.

We identify the parents of a child as the first tax filers (between 1996-2012) who claim the child as a child dependent and were between the ages of 15 and 40 when the child was born. If the child is first claimed by a single filer, the child is defined as having a single parent. For simplicity, we assign each child a parent (or parents) permanently using this algorithm, regardless of any subsequent changes in parents' marital status or dependent claiming.

If parents never file a tax return, we do not link them to their child. Although some low-income individuals do not file tax returns in a given year, almost all parents file a tax return at some point between 1996 and 2012 to obtain a tax refund on their withheld taxes and the Earned Income

¹⁷See Online Appendix A of Chetty et al. (2014) for a detailed description of how we construct the analysis sample starting from the raw population data. The records are complete as of the summer of 2013. This implies they include a complete set of information returns, but potentially exclude some amendments and late filings for 1040s in 2012. Restricting our baseline analysis to use data through 2011 yields very similar results.

¹⁸The teen labor outcomes in Figure XI include additional data from children born up to 1996.

Tax Credit (Cilke 1998). We are therefore able to identify parents for approximately 95% of the children in the 1980-1991 birth cohorts. The fraction of children linked to parents drops sharply prior to the 1980 birth cohort because our data begin in 1996 and many children begin to the leave the household starting at age 17 (Chetty et al. (2014); Online Appendix Table I). This is why we limit our analysis to children born during or after 1980.

Our full analysis sample includes all children in the base dataset who (1) are born in the 1980-91 birth cohorts, (2) for whom we are able to identify parents, and (3) whose mean parent income between 1996-2000 is strictly positive (which excludes 1.2% of children).¹⁹

Geographic Definitions: We conceptualize neighborhood effects using a hierarchical model in which children's outcomes depend upon conditions in their immediate neighborhood (e.g., peers or resources in their city block), local community (e.g., the quality of schools in their county), and broader metro area (e.g., local labor market conditions). We characterize neighborhood effects first at the level of commuting zones (CZs) and then at the level of counties. CZs are aggregations of counties based on commuting patterns in the 1990 Census constructed by Tolbert and Sizer (1996). Since CZs are designed to span the area in which people live and work, they provide a natural starting point as the coarsest definition of "neighborhoods." CZs are similar to metropolitan statistical areas (MSA), but unlike MSAs, they cover the entire U.S., including rural areas. There are 741 CZs in the U.S.; on average, each CZ contains 4 counties and has a population of 380,000. Online Appendix Figure I provides an illustration of the Boston CZ.

Permanent Residents: We define the "permanent residents" of each CZ c as the subset of parents who reside in a single CZ c in all years of our sample, 1996-2012. Two points should be kept in mind in interpreting our definition of permanent residents. First, our definition conditions on parents' locations, not children's locations in adulthood. The CZ where a child grew up may differ from the CZ where he lives when we measure her earnings in adulthood. Second, because our data start in 1996, we cannot measure parents' location over their children's entire childhood. For the 1980 birth cohort, we measure parents' location between the ages of 16 and 32; for the 1993 birth cohort, we measure parents' location between 3 and 19. This creates measurement error in children's childhood environment that is larger in earlier birth cohorts. Fortunately, we find that our results do not vary significantly across birth cohorts, and in particular remain similar for the

¹⁹We limit the sample to parents with positive income because parents who file a tax return (as required to link them to a child) yet have zero income are unlikely to be representative of individuals with zero income and those with negative income typically have large capital losses, which are a proxy for having significant wealth.

²⁰For example, in the 1980-82 birth cohorts, 38% of children live in a different CZ in 2012 relative to where their parents lived in 1996 (Chetty et al. 2014).

most recent birth cohorts. The reason such measurement error turns out to be modest empirically is that most families who stay in a given area for several years tend not to have moved in the past either. For example, among families who stayed in the same CZ when their children were between ages 16-24, 81.5% of them lived in the same CZ when their children were age 8. Table I presents the summary statistics for the permanent residents of CZs sample. There are approximately 44 million children in our full sample, 22.9M of whom we observe at ages 24 and above.

Movers: We allocate those whose parents do not stay in the same CZ into our CZ movers sample. Table I illustrates there are 16.5M total movers across CZs in our full analysis sample. 7.8M of these children move just once during 1996-2012, 4.7M move twice, 2M move 3 times, and 2M move more than 3 times.

County. We also repeat our process of defining permanent residents and movers using the county-level definition of geography. Here, we have 19.9M permanent residents who we observe incomes at or above age 24. We also focus below on a sample of 1-time movers across counties. Of these who we can observe outcomes above age 24, 654K children move just once across CZs and 617.5K children move just once across counties within CZs.

III.B Variable Definitions and Summary Statistics

In this section, we define the key variables we use to measure intergenerational mobility. We measure all monetary variables in 2012 dollars, adjusting for inflation using the consumer price index (CPI-U).

Parent Income. Following Chetty et al. (2014), our primary measure of parent income is total pre-tax income at the household level, which we label parent family income. More precisely, in years where a parent files a tax return, we define family income as Adjusted Gross Income (as reported on the 1040 tax return) plus tax-exempt interest income and the non-taxable portion of Social Security and Disability benefits. In years where a parent does not file a tax return, we define family income as the sum of wage earnings (reported on form W-2), unemployment benefits (reported on form 1099-G), and gross social security and disability benefits (reported on form SSA-1099) for both parents.²¹ In years where parents have no tax return and no information returns, family income is

²¹The database does not record W-2's and other information returns prior to 1999, so non-filer's income is coded as 0 prior to 1999. Assigning non-filing parents 0 income has little impact on our estimates because only 2.9% of parents in our core sample do not file in each year prior to 1999 and most non-filers have very low W-2 income (Chetty et al. (2014)). For instance, in 2000, median W-2 income among non-filers was \$29. Furthermore, defining parent income based on data from 1999-2003 (when W-2 data are available) yields virtually identical estimates (Chetty et al. (2014)). Note that we never observe self-employment income for non-filers and therefore code it as zero; given the strong incentives for individuals with children to file created by the EITC, most non-filers likely have very low levels

coded as zero.²²

Our baseline income measure includes labor earnings and capital income as well as unemployment insurance, social security, and disability benefits. It excludes non-taxable cash transfers such as TANF and SSI, in-kind benefits such as food stamps, all refundable tax credits such as the EITC, non-taxable pension contributions (e.g., to 401(k)'s), and any earned income not reported to the IRS. Income is always measured prior to the deduction of individual income taxes and employee-level payroll taxes.

In our baseline analysis, we average parents' family income over the five years from 1996 to 2000 to obtain a proxy for parent lifetime income that is less affected by transitory fluctuations (Solon 1992). We use the earliest years in our sample to best reflect the economic resources of parents while the children in our sample are growing up.²³ This approach implies that the age of the child when the parental income is measured will vary across cohorts. However, all of our analysis below will be done conditional on a child's cohort.

Parent Location. Following Chetty et al. (2014), children are assigned ZIP codes of residence based on their parents' ZIP code on the form 1040 in which the parent is matched to the child. In the few cases where a parent files a F1040 claiming the child but does not report a valid ZIP code, we search information returns (such as W-2 and 1099-G forms) for a valid ZIP code in that year. We map these ZIP codes to counties based on the 1999 Census crosswalk between ZIP codes and counties.²⁴ To account for zipcode changes over time, we match missing zipcodes to the 2011 zipcode to county crosswalk constructed by the department of housing and urban development. We then assign counties to commuting zones using the crosswalk provided by David Dorn.²⁵

Child Income. We define child family income in exactly the same way as parent family income, however we measure it separately at different ages of the child (age 24-30) and we define household

of self-employment income as well.

²²Importantly, these observations are true zeros rather than missing data. Because the database covers all tax records, we know that these individuals have 0 taxable income.

²³Formally, we define mean family income as the mother's family income plus the father's family income in each year from 1996 to 2000 divided by 10 (or divided by 5 if we only identify a single parent). For parents who do not change marital status, this is simply mean family income over the 5 year period. For parents who are married initially and then divorce, this measure tracks the mean family incomes of the two divorced parents over time. For parents who are single initially and then get married, this measure tracks individual income prior to marriage and total family income (including the new spouse's income) after marriage. These household measures of income increase with marriage and naturally do not account for cohabitation; to ensure that these features do not generate bias, we assess the robustness of our results to using individual measures of income.

²⁴We also assign geographic location based on the latitude and longitude of these zipcode centroids provided in this crosswalk.

²⁵See download E6 on http://www.ddorn.net/data.htm, also available at http://www.equality-of-opportunity.org/data.

income based on current marital status rather than marital status at a fixed point in time. Because family income varies with marital status, we also report results using individual income measures for children, constructed in the same way as for parents. We define individual income as the sum of individual W-2 wage earnings, UI benefits, SSDI payments, and half of household self-employment income (see Online Appendix A of Chetty et al. (2014) for more details)

College Attendance. We define college attendance as an indicator for having one or more 1098-T forms filed on one's behalf when the individual is aged 18-23. Title IV institutions – all colleges and universities as well as vocational schools and other post-secondary institutions eligible for federal student aid – are required to file 1098-T forms that report tuition payments or scholarships received for every student. Because the 1098-T forms are filed directly by colleges independent of whether an individual files a tax return, we have complete records on college attendance for all children. The 1098-T data are available from 1999-2012. Comparisons to other data sources indicate that 1098-T forms capture college enrollment quite accurately overall (Chetty et al. (2014), Appendix B).²⁶

Teenage Birth. We define an indicator of teenage birth if the child is listed as a parent on a birth certificate between the ages of 13 and 19, using data on the birth certificates for the U.S. population.²⁷

Teenage Employment. We construct an indicator of teen employment simply as an indicator of filing a form W-2 in the year in which the child is age a. We focus primarily on ages 16-18. Because these outcomes are measured earlier in a child's life, they allow us to extend the cohorts considered in this analysis to the 1996 cohort.

Summary Statistics. Table I reports summary statistics for the full sample of non-movers and movers. Mean parent family income is \$79,802 for CZ non-movers and \$71,422 for those that move 1-3x between 1996-2012 (in 2012 dollars). Children in our non-movers sample have a median family

²⁶Colleges are not required to file 1098-T forms for students whose qualified tuition and related expenses are waived or paid entirely with scholarships or grants. However, the forms are frequently available even for such cases, presumably because of automated reporting to the IRS by universities. Approximately 6% of 1098-T forms are missing from 2000-2003 because the database contains no 1098-T forms for some small colleges in these years (Chetty et al. (2014)). To verify that this does not affect our results, we confirm that our estimates of college attendance by parent income gradients are very similar for later birth cohorts (not reported).

²⁷Birth certificate information comes from the DM-2 database maintained by the Social Security Administration. Comparing the data to population birth records from the CDC suggests that the 2008-2012 records appear to miss roughly 10% of births in the U.S. To verify the robustness of our results, we have replicated all of our analysis using dependent claiming to define teen birth; we define a woman as having a teen birth if she ever claims a dependent who was born while she was between the ages of 13 and 19. We obtain very similar results using this measure of teen birth. However, we do not use this definition as our primary measure since it only covers children who are claimed as dependents by their mothers (as opposed to, say, grandparents).

income of \$35,400 when they are approximately 30 years old and \$32,000 in the 1-3x movers sample. 69% of non-movers and 63.6% of 1-3x movers are enrolled in a college at some point between the ages of 18 and 23. 11% of women non-movers have a teenage birth and 13.7% of 1-3x women movers have a teenage birth.

Part 1: Estimates of Childhood Exposure Effects

IV Baseline Estimates of Childhood Exposure Effects

In this section, we address our first empirical objective: assessing how much of the difference in observed outcomes across neighborhoods in the U.S. reflects causal effects of place. We begin by characterizing the heterogeneity in the earnings of children of permanent residents across commuting zones. We then turn to the sample of families that move across CZs to estimate the effects of childhood exposure to areas where permanent residents have better outcomes.

IV.A Geographical Variation in Outcomes of Permanent Residents

We begin by characterizing spatial variation in the outcomes of children who grew up in a single area for their entire childhood. Our analysis builds closely on Chetty et al. (2014), and much of this subsection is drawn from that study. The main difference is that here we focus on children whose families never move in order to characterize spatial variation for "permanent residents" rather than all children.

We first document the mean outcomes of children of permanent residents. To account for the fact that neighborhoods may have different effects across parent income levels and over time, we measure children's mean incomes conditional on parent income in each CZ, separately for each birth cohort. Chetty et al. (2014) show that measuring parent and children incomes using percentile ranks (rather than dollar levels or logs) has significant statistical advantages. Following their approach, we measure the percentile rank of the parents of child p(i) based on their positions in the national distribution of parents who have children in child i's birth cohort. Similarly, we define children's percentile ranks y_i based on their positions in the national distribution of child incomes within their birth cohorts.

Figure 1 shows how we calculate mean outcomes for children born in 1985 to parents who are permanent residents of the Chicago CZ. This figure plots the mean child rank at age 26 within each percentile bin of the parent income distribution, $E[y_i|p(i)=p]$. The conditional expectation of a child's rank given his parents' rank is almost perfectly linear. This linearity of the rank-rank relationship is a very robust property across CZs (Chetty et al. (2014), Online Appendix Figure IV). Exploiting this linearity, we can parsimoniously summarize the rank-rank relationship for permanent residents of CZ c in birth cohort s by regressing child rank on parent rank:

$$y_i = \alpha_{cs} + \psi_{cs} p_i + \varepsilon_i. \tag{7}$$

We then define the expected rank of a child in birth cohort s whose parents have a national income rank of p and are permanent residents of CZ c as the fitted values from this regression:

$$\bar{y}_{pcs} = \alpha_{cs} + \psi_{cs} p. \tag{8}$$

For example, in Chicago, $\bar{y}_{25,c,1985} = 40.8$ for children growing up at the 25th percentile of the national income distribution and $\bar{y}_{75,c,1985} = 56.1$ for children growing up at the 75th percentile.

Figure II presents a heat map of children's mean rank outcomes at age 26 given parents at the 25th percentile (Panel A) and 75th percentile (Panel B) of the national income distribution. Appendix Figure VI replicates these maps using age 30 outcomes. We construct these maps by dividing CZs into deciles based on their estimated value of $\bar{y}_{25,c,1985}$ and $\bar{y}_{75,c,1985}$. Lighter colors represent deciles with higher mean outcomes. As documented by Chetty et al. (2014), there is significant variation in children's mean outcomes across CZs, especially for children from low-income families. For example, the population-weighted standard deviation (SD) of $\bar{y}_{25,c,1985}$ across CZs is 3.6 percentiles, while the SD of $\bar{y}_{75,c,1985}$ is 2.8 percentiles. Places where low income children do well are not always the same as those where high-income children do well.²⁸ For instance, low-income children in California do particularly well, but high-income children do not. See Section V.C of Chetty et al. (2014) for a more detailed discussion of the key spatial patterns in these maps.

The spatial heterogeneity documented in Figure II is consistent with prior work documenting heterogeneity in children's outcomes based on where they grew up in observational data. The key question is whether these differences in outcomes are driven by the causal effects of place or differences in the people who live in each place. We turn to this issue in the next subsection.

IV.B Baseline Estimates of Exposure Effects

IV.B.1 Setup

We identify β_m – defined in equation (4) as the effect of moving at age m to a neighborhood where prior residents have one percentile better outcomes \bar{y}_{pcs} – by studying the outcomes of children whose families move across neighborhoods with children of different ages. To align with the conceptual experiment, we focus on the sample of movers who have only 1 origin and 1 destination CZ and stay in the destination for at least 2 years (i.e. move prior to 2011 in our sample). This results in a sample of 6.9M movers, roughly 3.2M of which we observe at ages 24 and above. For the baseline analysis, we add two additional restrictions: we restrict attention to families that moved

²⁸The correlation between $\bar{y}_{25,c,1985}$ and $\bar{y}_{75,c,1985}$ is 0.56.

more than 100 miles from their prior location and we restrict attention to CZ's with a population above 250,000 based on the 2000 Census. These restrictions exclude roughly half of the 1-time movers sample, rendering an analysis sample size of 1,553,021 for children with outcomes observed at age 24 and above, as shown in Table 1. We impose the distance restriction to remove cases where families move short distances but happen to cross our discrete CZ boundaries. We impose the 250K population restriction to ensure we have a very high quality measure of the outcomes of permanent residents. This larger population (and hence greater precision for permanent resident outcomes) is not essential for the baseline estimates, but for some of the tests that follow, the larger sample size enables very precise tests for selection effects.²⁹

To simplify exposition, we begin by focusing on families who move across neighborhoods exactly once between 1996 and 2012. We then show that including families who move multiple times yields similar results. Let m(i) denote the age at which child i moves neighborhoods in the one-time movers sample. Let o(i) denote the child's origin neighborhood (where he lives until age m-1) and d(i) denote the destination (where he lives from m to T_C). We identify β_m by comparing the mean outcomes of children whose families start in the same area o and move to different areas d at a given age m.

To begin, consider the following fixed-effects regression using the set of movers at a fixed age m:

$$y_i = \alpha_{gos} + b_m \Delta_{odps} + \eta_{1i}, \tag{9}$$

where α_{qos} denotes a fixed effect for each origin o by parent income decile q in birth cohort s and $\Delta_{odps} = \bar{y}_{pds} - \bar{y}_{pos}$ is the difference in predicted outcomes of permanent residents in the destination versus origin for the given parent income level p and birth cohort s.³⁰ Note that with origin-by-parent income fixed effects, this regression yields similar estimates if we replace Δ_{odps} with \bar{y}_{pos} . We use the Δ_{odps} notation here as it will remain the variable of interest later on when we also identify b_m using variation from the origin conditional on the destination.

Figure III presents a non-parametric analog of the regression in (9) for children who move at

²⁹Appendix Table II shows that impact of removing these restrictions on the baseline results is fairly minor: we obtain an attenuation of the estimates by 10-20%. This attenuation is to be expected with measurement error in the permanent residents outcomes and coarseness of CZ boundaries without the distance restriction. Not imposing the population restriction does lead to significant attenuation in the family fixed effects specifications. This is to be expected because outcomes of permanent residents are estimated separately by cohort, which generates greater within-family measurement error than cross-family measurement error. By focusing on CZs with populations above 250K, we are able to abstract from issues associated with measurement error in permanent resident outcomes.

³⁰We use parent income deciles rather than percentiles to define the fixed effects to simplify computation. In practice, we find that using finer bins to measure parent income groups has little effect on the results.

age m=13. To construct this binned scatter plot, we first demean both y_i and Δ_{odps} within the parent decile (q) by origin (o) by birth cohort (s) cells in the sample of movers at age m=13 to construct residuals: $y_i^r = y_i - E[y_i|q,o,s,m]$ and $\Delta_{odps}^r = \Delta_{odps} - E[\Delta_{odps}|q,o,s,m]$. We then divide the Δ_{odps}^r residuals into twenty equal-size groups (vingtiles) and plot the mean value of y_i^r vs. the mean value of Δ_{odps}^r in each bin.³¹

Figure III shows that children who move to areas where children of permanent residents earn more as adults themselves have higher income ranks in adulthood. The estimated coefficient of $b_{13} = 0.629$ implies that a 1 percentile increase in \bar{y}_{pds} is associated with a 0.629 percentile increase in y_i for the children who move at age 13. This regression coefficient combines the causal effect of moving to a better area (β_m) with a selection effect, namely that children whose families move to better areas may have better family environments as well. Formally, in Online Appendix A, we show that the coefficient b_m in this regression can be written as

$$b_m = \beta_m + \delta_m,$$

where the selection effect

$$\delta_m = \frac{cov(\theta_i, \bar{y}_{pds}^r)}{var(\bar{y}_{pds}^r)}$$

measures the relationship between mean family inputs $\theta_i = \frac{1}{T_C} \sum \theta_{it}$ and mean destination quality \bar{y}_{pds} for children who move at age m conditional on parent decide by origin by cohort fixed effects. In general, we expect the selection effect $\delta_m > 0$ based on our model because families that seek better neighborhoods for their children will also invest more in their children directly.

IV.B.2 Exposure Effects

To separate selection effects δ_m from the causal effect β_m , we compare children who move at different ages under the following identification assumption, which we evaluate in detail in subsequent sections.

Assumption 1. Selection effects do not vary with the child's age at move: $\delta_m = \delta$ for all m.

Assumption 1 allows for the possibility that the families who move to better areas may differ from those who move to worse areas, but requires that the *timing* of when families move to better or worse areas is orthogonal to mean inputs $\bar{\theta}_i$ and mean disruption costs, $\bar{\kappa}_i$. Under this assumption, we can obtain consistent estimates of the exposure effect at age m – i.e., the effect of spending year

³¹The regression coefficients and standard errors reported are estimated on the underlying microdata using OLS regressions.

m in a better area – using $b_m - b_{m+1} = \beta_m - \beta_{m+1}$. We can go further and estimate δ by studying the outcomes of children whose families move after their income is measured, e.g. in period $t \geq 26$ if income is measured at age 26. Because such moves cannot have a causal effect on children's outcomes at age 26, the coefficient $b_m = \delta$ for $m \geq 26$ under Assumption 1. Using the estimated selection effect, we can identify the causal effect of moving to a better area at age m as $\beta_m = b_m - \delta$.

We implement this strategy in Figure IV. In Panel A of Figure IV, the series in circles reports estimates of (9) for each age m between 11 and 30, measuring children's income at age 26. To increase precision, we pool all cohorts and estimate a single regression including separate interactions for Δ_{opds} for each age of move. Let M_i denote a vector that indicates the year in which child i's family moves; formally, M_i is a vector of length T with all elements equal to 0 except element m(i), which is equal to 1. Similarly, let S_i denote a vector that indicates child i's birth cohort; it has all elements equal to 0 except element s(i), and omits the most recent cohort for which data is available (1986 for outcomes measured at age 26). We run the regression:

$$y_i = \alpha_{qosm} + B' M_i \Delta_{odps} + \alpha' M_i + C' S_i \Delta_{odps} + \eta_{2i}$$
(10)

where $B'M_i\Delta_{odps}=\sum_m b_m\Delta_{odps}$ and $C'S_i=\sum_{s<\bar{s}}c_s\Delta_{odps}$. The estimates of $B=\{b_m\}$ decline linearly until approximately age 23, after which they level off and remain constant at a value of approximately 0.178. The linear decline is consistent with an exposure effect, i.e. that moving to a better neighborhood earlier in childhood yields larger improvements in long-term outcomes. The fact that $b_m>0$ for m>26 is direct evidence of a selection effect $(\delta>0)$.

The series in triangles in Figure IVa replicates the series in circles, measuring children's income ranks at age 24 instead of 26. This allows us to estimate b_m starting at age 9 and reveals that the linear exposure effect pattern continues back to age 9.32 The insensitivity of our estimates to the age of outcome measurement may be surprising given that children's income ranks change rapidly in their mid 20's, with college graduates experiencing steeper wage growth as they enter the labor force (Haider and Solon (2006), Chetty et al. (2014)). However, our estimates of b_m are based on the extent to which the incomes of children who move correlate with the incomes of permanent residents in the destination measured at the *same age*. The incomes of permanent residents serve

 $^{^{32}}$ In Appendix Figure II, we replicate our baseline specification measuring income at ages 24, 26, 28, and 30. Measuring income at later ages restricts the age range over which we can study moves – for age 30 outcomes we can study moves starting at age 15. All four series display very similar patterns in the overlapping age ranges, showing that our estimates of b_m are not very sensitive to the age at which we measure children's incomes in adulthood. Moreover, all series pivot to a flat line above age 23, suggesting age 24 is the earliest age for which one can measure income outcomes from exposure effects. Section VI.A applies the baseline specification to other outcomes that can be measured at younger ages, including teen labor force participation, teen birth, and college attendance.

as goalposts that allow us to measure convergence in incomes at relatively early ages in adulthood, even before we observe children's permanent income.³³ We therefore measure income at age 24 in the remainder of this section in order to study moves at earlier ages.

When measuring income at age 24, we interpret the coefficients above age 23 as reflecting selection. The linearity of the relationship between b_m and the age at move m in Figure IVa below age 23 implies that the exposure effect $b_m - b_{m+1} = \beta_m - \beta_{m+1}$ is approximately constant with respect to age at move m. We estimate a slope of these points of -0.044 below age 24. That is, moving one year earlier to an area with 1 percentile better outcomes produces a 0.044 (s.e. = 0.0018) percentile improvement in earnings.

The estimated slope after age 23 is 0.001 (s.e. = 0.011). The fact that this slope is not significantly different from 0 is consistent with the assumption that selection effects $\delta_m = \delta$ do not vary with age. Extrapolating the line above age 23 to age 23 implies an estimate of $\delta = 0.125$. Moreover, the absence of any discrete jump in these coefficients around the year of income measurement suggests there is no discontinuous effect of arriving in an area that produces good outcomes just before age 24. It follows that under Assumption 1, the causal effect of moving at age m to an area with one percentile better outcomes and staying in the area until age 23 is $\beta_m = (23 - m) \times 0.044$.

The preceding analysis implicitly assumes that children move with their parents until age 23. In practice, not all children follow their parents, particularly after they complete high school at age 18. To account for this issue, note that the estimates of b_m in (10) can be interpreted as intent-to-treat (ITT) estimates, in the sense that they capture the causal effect of moving (plus the selection effect) for children whose families moved at age m. We can obtain treatment-on-the-treated (TOT) estimates for the children who actually move by inflating the ITT estimates by the fraction of children who move at each age m, ϕ_m : $\beta_m^{TOT} = (b_m - \delta)/\phi_m$. We measure ϕ_m as the fraction of children who are claimed as dependents, attend college, or work in the destination CZ in the years after the parental move.³⁴ Online Appendix Figure III plots the TOT estimates β_m^{TOT} and the ITT estimates $\beta_m = b_m - \delta$ for $m \leq 23$ using $\delta = 0.125$ as estimated above. We estimate a slope for

 $^{^{33}}$ For example, suppose a good neighborhood c sends many children to college and generates relatively low incomes at age 24. In this case, we will obtain a *higher* estimate of b_m if a child who moves to area c has a *low* level of income at age 24. We do not study income before age 24 because a large fraction of children are enrolled in college at earlier ages; instead, we directly study college attendance as an outcome below.

³⁴More precisely, for children less than or equal to 18 at the time of the move, we define moving with one's parents as ever being claimed by parents filing from the destination CZ or ever having a W-2 or 1098-T (college attendance form) filed from the destination CZ. For children above age 18, we define moving as ever having a W-2 or 1098-T in the destination CZ.

 β_m^{TOT} of 0.040, in contrast to the "ITT" slope of 0.044. The TOT and ITT estimates line up very closely, for two reasons. First, virtually all children move with their parents below age 18. Second, between ages 18 and 23, approximately 59% of children move with parents on average. Because the treatment effects β_m converge toward 0 as m approaches 23, inflating these values by ϕ_m has a second-order impact on the exposure effect gradient.

The TOT estimates show that the exposure impacts β_m decline between the ages of 18 and 23 for children who do move with their parents. When we measure income at age 24, we cannot determine whether the exposure effects stabilize after age 24 because moving after age 24 has no effect or because we measure income at that point. However, measuring income at later ages – e.g., age 26 as in Figure IVa or age 30 as in Appendix Figure II – reveals that the estimates of b_m are constant after age 23, suggesting that moving after that age has little causal effect on outcomes. In context of our model in Section II, this implies that $T_C = 23$, i.e. neighborhood environments affect children's long-term outcomes until they are in their early twenties.

Origin-Variation Experiment. Up to this point, the exposure coefficient is identified using variation in the quality of exposure to the destination, holding the origin fixed. An alternative source of variation is to consider two individuals who move to the same destination but differ in the quality exposure to their origin. To explore this, we can simply replace the α_{qosm} fixed effects in equation (10) with α_{qdsm} fixed effects that interact parent income decile, destination CZ, cohort, and age of the child at the time of the move. With this modification, b_m is identified from variation in the origins of the individuals, as opposed to the destinations. Online Appendix Figure IV presents the estimates of b_m . These estimates reveal a strikingly symmetric pattern relative to the estimates of b_m in Figure IVa: the later the family moved to the destination, the more the child's outcomes match the permanent residents in the origin, and this pattern levels off at around age 23.35

Parsimonious (Baseline) specification. The specification in equation (10) includes more than 200,000 fixed effects. This renders these specifications more difficult to implement in small samples and creates difficulty in introducing additional controls such as family fixed effects. As a more parsimonious alternative, we show here that one can drop these fixed effects and instead control for the outcomes of permanent residents in the origin and destination location. We replace the fixed effects, α_{qosm} , in equation (10) with indicators for the child's age at move, $\alpha' M_i$, interactions of the child's age at move with parental income, $B'_p M_i p$, cohort dummies, $\psi' S_i$, and interactions of cohort

³⁵Indeed, the sum of the coefficients $b_m + b_m^o$ is close to 1 for each m.

dummies with the predicted rank outcomes in the origin, $C'_oS_i\bar{y}_{pos}$. As in equation (10), we include cohort interactions with Δ_{odps} , which is equivalent to simply controlling for cohort interactions with the predicted outcomes in the destination, $C'S_i\bar{y}_{pds}$.³⁶ We estimate the following regression specification:

$$y_i = B' M_i \Delta_{odps} + \alpha' M_i + B'_p M_i p + \psi' S_i + C' S_i \bar{y}_{pds} + C'_o S_i \bar{y}_{pos} + \eta_{3i}, \tag{11}$$

where B is a vector of coefficients, b_m , on the difference in predicted outcomes in the destination and origin location, α is a vector of age-at-move fixed effects, B_o is a vector of coefficients on the predicted outcome in the origin, B_p is a vector of coefficients on the parent rank, ψ is a vector of birth cohort fixed effects, and C and C_o are vectors of coefficients on predicted outcomes in the origin and destination interacted with birth cohort.

In this specification, the coefficients of interest are $B = \{b_m\}$, the impacts of moving at age m to an area where permanent residents have 1 percentile better outcomes relative to the origin. The $\alpha' M_i$ controls for difference in the child's age at the time of the move (e.g. disruption effects), and the $B'_p M_i p$ term controls for differences in children's outcomes by parent rank. The remaining terms control for the levels of the origin and destination predictions separately by birth cohorts. Allowing these controls to vary with birth cohort is potentially important because our ability to measure parent's locations during childhood varies across birth cohorts (since we only observe locations between 1996 and 2012, and children in our sample are born starting in 1980). As discussed in Section IV.A, this leads to greater measurement error in \bar{y}_{pos} and \bar{y}_{pds} for earlier birth cohorts, as we do not observe parent location in the early years of childhood for these cohorts.

Figure IVb plots the coefficients $\{b_m\}$ obtained from estimating (11). The coefficients are similar to those obtained from the more flexible specification used to construct Figure IVa. Regressing the b_m coefficients on m for $m \leq 23$, we obtain a slope of 0.038 (s.e. 0.02). We can also estimate this slope directly on the micro data. To do so, we further simplify the equation in (11) by parameterizing the coefficients $B'M_i\Delta_{odps}$ in Figure IVb using separate lines above and below age 23:

$$y_{i} = \alpha' M_{i} + \gamma I(m \le 23) \Delta_{odps} + \beta I(m \le 23)(23 - m) \Delta_{odps} + \gamma_{>23} I(m > 23) \Delta_{odps}$$
(12)
+ $\beta_{>23} I(m > 23)(23 - m) \Delta_{odps} + B'_{p} M_{i} p + \psi' S_{i} + C' S_{i} \bar{y}_{pds} + C'_{o} S_{i} \bar{y}_{pos} + \eta_{3i}$

Column (1) of Table 2 shows that the estimated exposure effect from this specification is $\beta = 0.040$

³⁶As in equation (10), we omit the most recent birth cohort (1988 for income at age 24) interaction with Δ_{odps} .

(s.e. = 0.002), similar to the other estimates.³⁷ Intuitively, we are able to omit origin fixed effects because the origin prediction for permanent residents \bar{y}_{pos} provides a good measure of the origin place effect μ_{pos} . Equations 11 and 12 form our baseline specifications for the remainder of the paper.

Columns (2)-(5) illustrate the robustness of the results to varying the sample and set of controls. Column (2) restricts the sample to $m \leq 23$; Column (3) restricts the sample to $m \leq 18$; Column (4) further restricts the sample in (3) to children who are claimed by in the destination CZ; Column (5) drops the cohort-varying controls for outcomes of prior residents, $C'S_i\bar{y}_{pds} + C'_oS_i\bar{y}_{pos}$, and replaces them with a single control for the outcome of those in the origin, \bar{y}_{pos} . In general, we find similar estimates across these specifications, with slightly attenuated coefficients in the specification without the cohort-varying controls for outcomes of prior residents.

The estimates of $B = \{b_m\}$ in equation (11) and (12) are identified from both the destination and origin of the movers. In contrast, to Figure IVa includes origin by age-at-move fixed effects so that only the destination variation identifies b_m . Using the parsimonious specification, we can introduce controls for the predicted outcomes of permanent residents in the origin interacted with the child's age at the time of the move, $B^o M_i \bar{y}_{pds}$. Column (6) presents the results from introducing these controls into equation 12. This yields an estimate of 0.041, similar to the baseline slope of 0.040.

We interpret the slope of β to reflect the effect of exposure time to neighborhoods while growing up. This contrasts with other ways in which neighborhoods could matter for children's adult outcomes, such as the quality of the local labor market. Indeed, the fact that 10 year olds look more like the destination outcomes than 20 year olds suggests it is not the result of a discrete in or out - access to labor markets. To see this more clearly, Column (7) adds the child's CZ as a fixed effect (interacted with cohort) into the baseline specification. Of course, this specification controls for an endogenous outcome – as a result, the effect is attenuated to a slope of 0.03. But, it illustrates that the exposure pattern is better described as the result of exposure time to the area when growing up as opposed to a differential propensity to be in a particular labor market in adulthood.

Multiple Moves. The exposure time interpretation of our results is further supported by looking at the experience of multiple movers. The baseline specification in (12) provides a natural method

 $^{^{37}}$ The coefficient of 0.040 differs from the 0.038 slope in Figure IVb because of differential weighting across the age distribution when using the regression on the micro data.

for incorporating them into the analysis. Given a child with origin o, let d_j denote the jth destination location. We construct $\Delta^j_{odps} = \Delta_{od_jps} = \bar{y}_{pds} - \bar{y}_{pos}$ as the difference in the child's predicted outcome based on prior residents in destination j and the origin. We then multiply each Δ_j by the years of exposure below age 23 the child has in destination j.

Columns 8(a)-(c) of Table 2 presents estimates of the coefficients from a single regression that includes coefficients on the first, second, and third moves in the specification that generalizes equation (12) to incorporate exposure-time coefficients on each Δ_j for $j=1,2,3.^{38}$ We generalize the controls by including $\sum_j C'_j S_i \bar{y}_{pds}$ instead of $C' S_i \bar{y}_{pds}$. And, we replace $\alpha' M_i$ with 3 terms for the number of years of under-23 exposure to the first, second, and third place. We replace $B'_p M_i p$ with 3 terms reflecting the interactions of the number of years of under-23 exposure to the first, second, and third destinations.

Overall, we find very similar estimates using multiple movers to the 0.040 baseline estimate in column (1). We estimate a slope of 0.040 on the first destination, 0.037 for the second destination, and 0.031 on the third destination. Constraining the coefficients to be equal yields a coefficient of 0.039, again very similar to the baseline estimated slope of 0.040.

These results further support an exposure time interpretation over a theory of labor market access or age-specific effects. Children who leave before reaching adulthood still have outcomes correlated with their permanent resident counterparts in proportion to the time they spend growing up in the place. Along with the specification in Column (7) controlling for the child's location in adulthood, this again suggests that the effect is driven by where one grows up, as opposed to providing access to a particular labor market.

The multiple moves specification also suggests the pattern is not driven by heterogeneous critical age effects. In the simple 1-time movers specification, the destination could be more important for a 10 year old moving than a 15 year old moving for two reasons: (a) places matter in proportion to exposure time or (b) there is something about moving at age 10 to a good destination as opposed to age 15. Put differently, it could just be that experiences at age 10 are more important for determining earnings than experiences at age 15. However, the fact that we obtain similar results when pooling the analysis in the exposure time model suggests that living in a destination from age 10-12 has roughly the same impact as living there from age 13-15. This suggests places matter because of exposure time, not because of age-specific effects that are more important at younger ages. Every year spent in a better neighborhood tends to improve the child's outcomes in adulthood.

³⁸As shown in Table 1, roughly 3% of the sample has more than 3 moves.

IV.B.3 Subgroup Heterogeneity

We also explore heterogeneity of effects across other sub-samples in Online Appendix Table III. Column 1 replicates the baseline analysis in equation (12). Columns 2 and 3 divide the sample into children whose parents have household income below or above the national median and replicate this baseline specification in these subsamples. We find significant exposure effects for both low-and high-income movers, with some evidence of larger effects for higher income populations. In Columns 4 and 5, we evaluate whether moves to areas with better or worse predicted outcomes relative to the origin neighborhood have different effects. Models of learning predict that moving to a better area will improve outcomes but moving to a worse area will not. In practice, we find little evidence of such an asymmetry: if anything, the point estimate of exposure effects for negative moves is larger. This result suggests that what matters for children's mean long-term outcomes is continuous exposure to a better environment. Finally, columns (6) and (7) report estimates separately by gender; here we find exposure effects of 0.041 for males and 0.042 for females. Overall, the exposure effect pattern is quite similar across subgroups.

IV.B.4 Summary

The key descriptive fact that emerges from the analysis above is that the outcomes of movers converge linearly to the outcomes of permanent residents of the destination area in proportion to time of exposure. Under Assumption 1 – i.e., that the types of families that move at different ages are comparable – this pattern implies that neighborhoods have causal exposure effects on children's long-term outcomes. The fact that the exposure impacts β_m are approximately linear implies that every additional year of exposure to a neighborhood where children have better outcomes – whether at age 9 or age 18 – has roughly the same benefit. This result implies that neighborhood environments have important effects well after early childhood. However, these conclusions rest on Assumption 1, which we now evaluate in detail.

V Quasi-Experimental Validation of Baseline Design

Assumption 1 could potentially be violated through differential sorting or omitted variables. In this section, we address these concerns using three methods. First, we control for observables and family fixed effects; second, we identify exposure effects using displacement shocks; third, we conduct outcome-based placebo tests, described in more detail in Section V.C.

V.A Sibling Comparisons and Controls for Observables

Our first approach to account for potential differences across children who move at different ages is to control for observable factors. It is useful to partition $\theta_i = \sum_{t=1}^{T_C} \theta_{it}$ into two components: a component $\bar{\theta}_i$ that reflects inputs that are fixed within families, such as parent genetics and education, and a residual component $\tilde{\theta}_i = \theta_i - \bar{\theta}_i$ that can vary over time within families, such as parents' jobs, marital status, or children's ability.

The most obvious potential violation of Assumption 1 is that families who invest more in their children (higher $\bar{\theta}_i$) move to better neighborhoods at earlier ages, which would bias our estimated exposure effect β upward. A natural method of controlling for differences in fixed family factors $\bar{\theta}_i$ is to include family fixed effects when estimating (11).³⁹ For example, consider a family that moves to a better area with two children, who are ages m_1 and m_2 at the time of the move. The exposure effect β is identified by the extent to which the difference in sibling's outcomes, $y_1 - y_2$, covaries with their age gap interacted with the quality of the destination CZ, $(m_1 - m_2)\bar{y}_{pds}$.⁴⁰ This sibling comparison nets out any variation due to fixed family inputs $\bar{\theta}_i$, as noted in prior work.

Table 3 and Figure Va present the results of adding family fixed effects to the baseline specification. Figure Va replicates Figure IVb with the addition off family fixed effects. We obtain a slope of 0.044, as shown in Column (4) of Table 3. This is similar to the baseline estimate of 0.04, replicated in Column (1). Column (5) adds controls for the age of the child at the time of the move interacted with the predicted outcomes of permanent residents in the origin. This yields a similar slope of 0.043, which is also similar to the analogous slope of 0.041 without family fixed effects, as shown in Column (2). Throughout, we obtain virtually the same pattern of exposure effects as in Figure IV.

As illustrated in Figure Va, the one parameter that does change is the level of the selection effect, δ . Once we include family fixed effects, the level of the selection effect (i.e., the level of

³⁹The idea of using sibling comparisons to better isolate neighborhood effects dates was discussed in the seminal review by Jencks and Mayer (1990). Plotnick and Hoffman (1996) and Aaronson (1998) implement this idea using data on 742 sibling pairs from the Panel Study of Income Dynamics, but reach conflicting conclusions due to differences in sample and econometric specifications. More recently, Andersson et al. (2013) use a siblings design to estimate the impact of vouchers and public housing. Our analysis also relates to papers that seek to identify critical periods by studying immigrants (Basu (2010); van den Berg et al. (2014)). Our approach differs from Basu (2010), and van den Berg et al. (2014) in that we focus on how the difference in siblings' outcomes covaries with the outcomes of permanent residents in the destination neighborhood, whereas they effectively estimate the mean difference in siblings' outcomes as a function of the age gap.

⁴⁰To the extent to which siblings are in different cohorts, the exposure effect is also formally identified from variations the outcomes of permanent residents in differing cohorts. We explore these variations in more detail in Section V.C.

 b_m after age 24) becomes statistically insignificant.⁴¹ This is precisely what one would expect if selection effects do not vary with children's ages, as in Assumption 1. The introduction of family fixed effects reduces the *level* of the b_m coefficients by accounting for selection, but does not affect the *slope* of the b_m coefficients.

The research design in Figure Va accounts for bias due to fixed differences in family inputs $\bar{\theta}_i$, but it does not account for time-varying inputs $\tilde{\theta}_i$. For example, moves to better areas may be triggered by events such as job promotions that directly affect children's outcomes in proportion to their time of exposure to the destination. Such shocks would bias our estimate of β upward even with family fixed effects.

Income and marital status are both strong predictors of children's outcomes in adulthood. Fortunately, we can directly control for these two time-varying factors in our data, as we observe parents' incomes and marital status in every year from 1996-2012. Figure Vb replicates Figure Va, controlling for changes parent income and parent marital status (in addition to family fixed effects). We construct the parental income rank by cohort by year, and use this to construct the difference in the parental income rank in the year after the move relative to the year before the move. We include this measure of income change and a full set of its interaction with 23 - m and an indicator for m > 23. We also construct an indicator for the child's mother's marital status and construct four indicators for possible marital status changes (married \rightarrow married, married \rightarrow un-married, un-married, un-married, un-married, un-married). We then interact these four indicators with a full set of its interaction with 23 - m and an indicator for m > 23. Controlling for changes in parent income and marital status, in addition to family fixed effects, has little effect on the mean estimated exposure effect.⁴²

Cohort Controls. The baseline specification includes separate controls for each cohort for the predicted outcome of permanent residents in the destination and origin. While the addition of these controls do not significantly alter the baseline specification, they do have some effects on the family fixed effect specification that are important to note. In particular, the level of the intercept is slightly declining in cohort, which is consistent with the origin being more accurately measured for later cohorts. Hence, comparisons between children born in the 1986 and 1988 cohort will naturally have a smaller slope in the absence of cohort-varying intercepts, because the intercept is generally

⁴¹The intercept, δ , is identified even with family fixed effects because \bar{y}_{pds} varies across birth cohorts.

⁴²Column (7) of Table 3 also shows a specification that includes a full set of parental income rank controls for each year (1996-2012) fully interacted with cohort dummies (in addition to family fixed effects). Here again, we obtain a similar exposure slope of 0.043 (s.e. 0.008).

higher for the 1986 cohorts than the 1988 cohorts. For this reason, we include cohort-varying intercepts in our baseline specification. However, to highlight the robustness, Column (3) drops these cohort controls in the baseline specification and Column (6) adds family fixed effects. With the introduction of family fixed effects, the estimated slope coefficient drops from 0.036 to 0.031, consistent with attenuation from the negative correlation between the intercept and the cohort and the increased reliance on cohort comparisons within as opposed to across families. Hence, our baseline analysis includes these cohort controls to prevent such bias.

Multiple moves. Column (9) of Table 3 presents results from the regression in Column (8) of Table 2 that incorporates all moves, in addition to 1-time movers. Here, we find a slope of 0.039 (s.e. 0.004), very similar to the analogous slope of 0.039 (s.e. 0.001) without family fixed effects.

Individual income. Our baseline specifications use the child's family income as the outcome of interest. Hence the baseline results incorporate cases where those with high earnings potentials choose to realize these potentials in the marriage market instead of the labor market. However, the results are robust to studying individual income. Column (10) of Table 3 illustrates that the exposure time slope when measuring individual income as the outcome is 0.036 with family fixed effects, similar to the baseline slope of 0.040 for individual income, shown in Column (10) of Table 2.

While changes in income and family structure are not a significant source of bias, other unobserved factors could still be correlated with moving to a better area. The fundamental identification problem is that any unobserved shocks that induce child i's family to move to a better area could be positively correlated with parental inputs θ_{it} . These increased parental inputs could potentially increase the child's earnings y_i in proportion to the time spent in the new area $(T_C - m)$ even in the absence of neighborhood effects. For example, a wealth shock in period m might lead a family to increase investments θ_{it} in periods t > m, which would improve y_i in proportion to $(T_C - m)$ independent of neighborhood effects. In the next two subsections, we address concerns about bias due to such unobserved, time-varying factors using two different approaches.

V.B Displacement Shocks

Our first approach to accounting for unobservable shocks is to identify a subset of moves where we have some information about the shock that precipitated the move. To motivate our approach, suppose we identify a subset of families who were forced to move from an origin o to a nearby destination d because of an exogenous shock such as a natural disaster. We know that these

families did not choose to move to a different neighborhood because of an unobservable shock. Hence, it is plausible that the level of parental inputs θ_i does not covary systematically with the quality of the destination \bar{y}_{pds}^r differentially by child age, i.e. that Assumption 1 holds in such a subsample.

To operationalize this approach, we identify displacement shocks based on population outflows at the ZIP code level. Let K_{zt} denote the number of families who leave ZIP code z in year t in our full sample and \bar{K}_z mean outflows between 1996 and 2012. We define the shock to outflows in year t in ZIP z as $k_{zt} = K_{zt}/\bar{K}_z$. High outflow rates k_{zt} are frequently driven by events such as natural disasters or local plant closures.

While many of the families who move in subsamples with large values of k_{zt} do so for exogenous reasons, their destination d is still the result of an endogenous choice that could lead to bias. For example, families who choose to move to better areas (higher \bar{y}_{pds}) when induced to move by an exogenous shock might also invest more in their children. To eliminate potential biases arising from endogenous choices of destinations, we isolate variation arising purely from the average change in neighborhood quality for individuals who are displaced. Let $E[\Delta_{odps}|q,z]$ denote the mean predicted outcome in the destinations to which individuals in origin zipcode z and parent decile q move. We instrument for the difference in predicted outcomes in each family's destination relative to origin (Δ_{odps}) with $E[\Delta_{odps}|q,z]$ and estimate (12) using 2SLS to obtain IV estimates of exposure effects, β^{IV} . Intuitively, β^{IV} is identified by asking whether displacement shocks that happen to occur in areas where more families to areas with better average outcomes for children generates larger improvements in outcomes for children

Figure VI presents the results of this analysis. To construct this figure, we take ZIP-year cells with above-average outflows $(k_{zt} > 1)$ and divide them into (population-weighted) deciles based on the size of the shock k_{zt} . To ensure that large outflows are not simply driven by very small underlying populations, we exclude zipcode-by-year cells with less than 10 children leaving in the year.⁴³ The first point in Figure VI shows the estimate of β using all observations with $k_{zt} > 1$. The second point shows the estimate of β using all observations with k_{zt} at or above the 10th percentile. The remaining points are constructed in the same way, with the last point representing an estimate of β using data only from ZIP codes in the highest decile of outflow rates. The dotted

⁴³The mean sample size within a parent decile-by-zipcode-by-year cell is 42 (median is 25). To ensure the results are not driven by a bias towards OLS due to the many instruments problem, we have replicated the analysis restricting to cells with at least 50 children and obtained similar results that are statistically indistinguishable from the results presented in Figure VI.

lines show a 95% confidence interval for the regression coefficients.

If our baseline estimates were driven entirely by selection, one would expect the estimates of β to fall toward 0 as we restrict the sample to individuals who are more likely to have been induced to move because of an exogenous shock. But the coefficients remain quite stable: even in the top decile, where outflow rates are on average 34% higher than the annual mean for the ZIP code, $\beta = 0.38$ (s.e. 0.13).

In sum, when we focus on families who move to a better (higher \bar{y}_{pds}) area for what are likely to be exogenous reasons, we find clear evidence that children who are younger at the time of the move earn more as adults. These findings indicate that our estimates of exposure effects capture the causal effects of neighborhoods rather than other unobserved factors that change when families move.

V.C Outcome-based Placebo (Over-Identification) Tests

While the preceding results are re-assuring about the validity of the baseline design, a priori some of the tests conducted so far are not "sharp" tests of the presence of selection bias. For example, in the family fixed effects design, one could imagine risk-averse households compensate a younger sibling with greater investment, θ_i , in the event they move to a worse place. In the displacement shocks analysis, one could imagine differential impacts of place for those who move in response to an exogenous shock as opposed to those whose moves occur in equilibrium. So, while we are re-assured that these tests suggests our analysis is not confounded by selection or omitted variable bias, we present a set of additional tests that can potentially be applied even in settings where the previous methods may not deliver consistent results.

The outcome-based placebo tests exploit plausible assumptions about the preferences and information set of parents choosing to move to different locations. Recall that in equation (3), we assume parents choose locations to maximize their expected utility given their opportunities and their information set, Ω . Bias arises in our baseline estimates of equation (12) if parents that choose different levels of θ_i are choosing different levels of exposure to good places for their children.

Equation (12) implies that Δ_{odps} is a sufficient statistic for measuring the impacts of places on children's outcomes. We let $\Delta_{odps}^{placebo}$ denote a "placebo" prediction if the difference between the true prediction and the placebo prediction, $\Delta_{odps}^{placebo} - \Delta_{odps}$, is either not known to the individual at the time parents choose neighborhoods or not a factor that enters into the parental decision to move to the place. As a result, when parents select good (or bad) places, as measured by Δ_{odps} , they will on

average select places that are good (or bad) as measured by $\Delta_{odps}^{placebo}$. Hence, adding $\Delta_{odps}^{placebo}$ to the regressions in equation (12) provides a test of omitted variable bias, providing a source of validation for the baseline design on the full sample of moves. We construct outcome-based placebos along three dimensions: birth cohorts, quantiles of the income distribution, and child gender.

Birth Cohorts. Place effects are generally quite stable across cohorts: the autocorrelation of \bar{y}_{pcs} with $\bar{y}_{pc,s-1}$ is 0.95 at p=25 and 0.92 at p=75. Good places in one year are, on average, good places in the next year. However, outcomes in some areas (such as Oklahoma City) have improved over time, while others (such as Sacramento) have gotten worse. Since the causal effect of an area c on a child i's outcomes depends on the properties of the area in the years the child lives there, permanent residents' outcomes $\bar{y}_{pc,s(i)}$ for a child's own birth cohort s(i) should be much stronger predictors of exposure effects than \bar{y}_{pcs} for other cohorts. In contrast, while parents may know that some areas are better than others for improving their children's outcomes, it is unlikely that they know whether a place is particularly good for their child's own cohort relative to nearby cohorts, as these outcomes are realized 10-15 years after the move.

Formally, we assume that if unobservables θ_i are correlated with the current cohort place effect, they are also correlated with the place effects of neighboring cohorts:

$$Cov(\theta_i, m\Delta_{odp,s(i)}|X) > 0 \Rightarrow Cov(\theta_i, m\Delta_{odps'}|X, m\Delta_{odp,s(i)}) > 0$$
 (13)

where X corresponds to the additional control variables in equation (12). Under this assumption, mean outcomes for permanent residents in *other* birth cohorts $(s' \neq s(i))$ in the destination CZ can be used to test between selection and causal effects of neighborhoods. Let t = s - s(i) index birth cohorts relative to a child's true cohort s(i). We implement such placebo tests by estimating linear exposure effect models of the following form:

$$y_{i} = \alpha' M_{i} + \sum_{t=-4}^{4} \{ \tilde{\gamma}_{t} I(m \leq 23) \Delta_{odpt} + \tilde{\beta}_{t} I(m \leq 23) (23 - m) \Delta_{odpt} + \gamma_{o} I(m \leq 23) \Delta_{odpt}$$

$$+ \beta_{o} I(m \leq 23) (23 - m) \Delta_{odpt} \} + \kappa_{t} \bar{y}_{pot} + B'_{p} M_{i} p + \psi' S_{i} + C' S_{i} \bar{y}_{pds} + C'_{o} S_{i} \bar{y}_{pos} + \eta_{3i}$$

$$(14)$$

This equation replicates our baseline model in (12), except that we include not just the difference in the predicted outcomes based on permanent residents in the destination relative to the origin,

 $^{^{44}}$ In Oklahoma City, \bar{y}_{pcs} at p=25 went from 43.0 for the 1980 cohort to 46.3 for the 1986 cohort. Conversely, in Sacramento \bar{y}_{pcs} at p=25 went from 46.6 to 42.5. College attendance rates followed a similar pattern. Compared to the national average increase in college attendance for p=25 of 5.6pp between the 1981 and 1988 cohorts, Oklahoma city increased 8.4pp (50.1% in the 1981 cohort to 58.5% in the 1988 cohort) and Sacramento increased 2.5pp (52.8% to 55.3%).

 $\Delta_{odps(i)}$ for the child's own cohort, but also the predictions for the four preceding and subsequent cohorts Δ_{odpt} .

To illustrate the resulting patterns, the series in red triangles in Figure VII plots $\tilde{\beta}_t$ when we estimate (14) including only the predicted outcome for a single cohort \bar{y}_{pdt} . In other words, we exchange Δ_{odps} with Δ_{odpt} in the baseline regressions. Here, the estimates of $\tilde{\beta}_t$ are similar to our baseline estimate of $\beta = 0.040$ for the leads and lags, which is to be expected given the high degree of serial correlation in place effects.

The series in blue circles in Figure VII plots the coefficients, $\tilde{\gamma}_t$, in equation (14) for t = -4, ..., 4, Here, we find small coefficients on the placebo exposure effects ($\tilde{\gamma}_t$ for $t \neq 0$). Moreover, the exposure effect estimate for the correct (own cohort, t = 0) coefficient drops only slightly relative to the baseline estimate of $\beta = 0.040$ when we include predictions from surrounding cohorts.

Under (13), the results in Figure VII imply that our baseline estimates of β are unbiased, i.e. that Assumption 1 holds. Intuitively, the fact that children's outcomes do not correlate in an exposure-dependent manner with the predictions from other cohorts, conditional on the own-cohort prediction, implies that our estimates of β reflect causal neighborhood effects, which are cohort-specific, rather than omitted variables resulting from correlations of neighborhood choice and other parental inputs, which are *not* cohort-specific under (13). The logic of this test is analogous to an event study: provided that unobserved shocks θ_i do not happen to covary exactly with the destination place effect for the child's own cohort and not surrounding cohorts, the coefficient at t = 0 in Figure VII identifies the causal effect of exposure to a better area.

Quantiles: Distributional Convergence. Places differ not only in children's mean outcomes, but also in the distribution of children's outcomes. For example, consider children who grow up in Boston and San Francisco in families at the 25th percentile of the national income distribution. In both of these CZs, children's mean percentile rank at age 24 is $\bar{y}_{25,c,1980} = 46$. However, children in San Francisco are more likely to end up in the upper or lower tail of the income distribution. The probability of reaching the top 10% is 7.3% in San Francisco vs. 5.9% in Boston; the corresponding probabilities for the bottom 10% are 15.5% and 11.7%.

If neighborhoods have causal exposure effects, we would expect convergence in mover's outcomes not just at the mean but across the entire distribution in proportion to exposure time. It is less likely that omitted factors such as wealth shocks would perfectly replicate the distribution of outcomes of permanent residents in each CZ, for reasons analogous to those above. Indeed, families are unlikely to be able to forecast their child's eventual quantile in the income distribution, making it difficult

to sort precisely on quantile-specific neighborhood effects. Second, even with such knowledge, there is no strong reason to expect unobserved shocks such as changes in wealth to have differential and potentially non-monotonic effects across quantiles, in precise proportion to the outcomes in the destination.

To formalize this test, let q_{pcs} denote the qth quantile of the income distribution of children's of permanent residents in area c, and let $\Delta_{odps}^q = q_{pds} - q_{pos}$. If individuals do not know the precise quantile at which their children will fall in the income distribution 10-15 years after making their neighborhood choices, then it is natural to assume the following: if unobservables θ_i are correlated positively with outcomes at a given quantile q, they are also correlated with mean outcomes conditional on the quantile outcome:

$$Cov(\theta_i, m\Delta_{odp,s(i)}^q | X^q) > 0 \Rightarrow Cov(\theta_i, m\Delta_{odps} | X^q, m\Delta_{odp,s(i)}^q) > 0$$
 (15)

where X^q are the control variables in equation (12) with the modification that $C'S_i\bar{y}_{pds} + C'_oS_i\bar{y}_{pos}$ is replaced with $C'S_iq_{pds} + C'_oS_iq_{pos}$. For example, it seems natural to assume that if parents are sorting to places where children are likely to end up in the top 10% of the income distribution then they're also sorting to places where, on average, children have higher incomes. Under the assumption in equation (15), the heterogeneity of exposure effects across the income distribution can be used to test between selection and causal effects. We implement these tests by focusing on outcomes in tails: reaching the top 10% of the income distribution or the bottom 10% of the income distribution.

We begin by constructing predictions of the probability of having an income above the 90th percentile or below the 10th percentile of the national income distribution at age 24 for children of permanent residents in each CZ c. We regress an indicator for being in the upper or lower 10% on parent ranks within each CZ using an equation analogous to (7) but that includes a quadratic term in parental income to account for nonlinearities at extreme quantiles identified in Chetty et al. (2014). We then calculate the predicted probability of being below the 10th percentile π_{pcs}^{10} and above the 90th percentile π_{pcs}^{90} using the fitted values from these regressions, as in (8).

Figure VIIIa presents a binned scatter plot of the probability a child is in the top 10%, y_i^{90} vs. the destination prediction π_{pds}^{90} and the mean rank prediction \bar{y}_{pds} in the sample of children who move at or before age 13. The series in circles shows the non-parametric analog of a partial regression of a child's outcome on π_{pds}^{90} , controlling for the \bar{y}_{pds} and the analogous predicted outcomes based on prior residents in the origin, π_{pos}^{90} and \bar{y}_{pos} . To construct this series, we regress both y_i^{90}

and π_{pds}^{90} on the mean predicted income rank, \bar{y}_{pds} , and the analogous origin controls, π_{pos}^{90} and \bar{y}_{pos} , bin the π_{pcs}^{90} residuals into 20 equal-sized bins, and plot the mean residuals of y_i^{90} vs. the mean residuals of π_{pcs}^{90} within each bin. The series in triangles is constructed analogously, except that we plot residuals of y_i^{90} vs. residuals of \bar{y}_{pcs} , the predicted mean rank.

Figure VIIIa shows that children who move before age 13 to areas where children are more likely to be in the top 10% are much more likely to reach the upper tail themselves: a 1 percentile increase in π_{pcs}^{90} is associated with an 0.651 percentile increase in the movers' probability of reaching the top 10%, controlling for the mean rank outcomes of permanent residents in the origin and destination CZ along with the top 10% prediction in the origin CZ. In contrast, conditional on the probability of reaching the top 10%, variation in the mean predicted outcome has no impact at all on a child's probability of reaching the top 10% (slope of 0.030).

Figure VIIIb replicates Figure VIIIa using non-employment (roughly the bottom 10%) as the outcome instead of reaching the top 10%. Once again, we find that children's probabilities of reaching the lower tail are strictly related to the predicted probability of reaching the lower tail based on permanent residents' outcomes rather than the predicted mean outcome. The fact that mean predicted outcomes of permanent residents \bar{y}_{pcs} have no predictive power implies that other omitted factors, which are not quantile-specific under (15), do not drive our findings.

In Table IV, we estimate exposure effect models analogous to (12) using the distributional predictions instead of mean predictions. In Columns 1-3, the dependent variable is an indicator for having income in the top 10% of the income distribution. Column 1 replicates the baseline specification in equation (9), using $\Delta_{odps}^{90} = \pi_{pds}^{90} - \pi_{pos}^{90}$ instead of the mean prediction $\Delta_{odps} = \bar{y}_{pds} - \bar{y}_{pos}$. We obtain an exposure effect estimate of $\beta = 0.043$ per year in this specification, similar to our baseline estimates. In Column 2, we use the mean prediction Δ_{odps} instead. Here, we obtain an estimate of 0.022, which is to be expected given the high degree of correlation in place effects across quantiles: places that push children into the top 10% also tend to improve mean outcomes. In Column 3, we include both the quantile prediction Δ_{odps}^{90} and the mean prediction Δ_{odps} , identifying the coefficients purely from differential variation across quantiles within CZs. Consistent with the findings in Figure VIII, we find that the coefficient on the quantile prediction remains unchanged at approximately 0.04, while the coefficient on the mean prediction is not significantly different from 0.

Columns 4-6 of Table IV replicate columns 1-3, using an indicator for being unemployed (defined

 $^{^{45}}$ Analogous to the baseline specification, we include cohort dummy interactions with π_{pds}^{90} and π_{pos}^{90} .

as an indicator for not having a W-2) as the dependent variable and using the prediction for being unemployed, Δ^{U}_{odps} instead of Δ^{90}_{odps} as the key independent variable. We find very similar patterns: children's probabilities of being in the lower tail of the income distribution are strongly predicted by the quantile-specific prediction rather than the mean prediction. In sum, we find evidence of distributional convergence: controlling for mean outcomes, children's outcomes converge to predicted outcomes in the destination across the distribution in proportion to exposure time, at a rate of approximately 4% per year. Under the assumption in equation (15), these results imply that our exposure effect estimates are driven by causal effects of neighborhoods rather than other unobserved factors. Intuitively, it would be quite unlikely that omitted variables (such as changes in parent wealth) would happen to perfectly replicate the entire distribution of outcomes in each area.

Gender. Finally, we conduct an analogous set of placebo tests using heterogeneity in place effects by child gender. To implement these tests, we first construct gender-specific predictions of the mean outcomes of children of permanent residents. We estimate the relationship between child and parent ranks within each CZ using (7) separately for boys and girls. We then define \bar{y}_{pcs}^g as the mean predicted outcome for permanent residents of CZ c in birth cohort s and gender $g \in \{m, f\}$, as in (8).

Places that are better for boys and generally better for girls as well: the (population-weighted) correlation of \bar{y}_{pcs}^m and \bar{y}_{pcs}^f across CZs is 0.9 at p=0.50. However, there is some variation. Online Appendix Figure V presents a heat map of $\bar{y}_{pcs}^m - \bar{y}_{pcs}^f$ that highlights where differences in outcomes are largest across genders. For example, the difference in outcomes between males versus females is high in Syracuse and Albany, NY (i.e. comparatively good for males versus females), and low in Milwaukee, WI (i.e. comparatively good for females relative to males).

Figure IX presents a binned scatter plot of children's ranks vs. the difference in the destination and origin prediction, Δ^g_{odps} , for their own gender (circles) and the prediction Δ^{-g}_{odps} for the other gender (triangles) in the sample of children who move at or before age 13. Each series shows the non-parametric analog of a partial regression of a child's outcome on the prediction for a given gender, controlling for the other-gender prediction. To construct the series in circles, we regress both y_i and Δ^g_{odps} on Δ^{-g}_{odps} and origin by parent income decile by cohort by gender fixed effects.

⁴⁶There is no reason that the rate of convergence should be identical across all quantiles of the income distribution because the prediction for permanent residents at each quantile π_{pcs}^{90} could reflect a different combination of causal effects and sorting. The key test is whether the prediction for the relevant quantile has more predictive power than predictions at the mean or other quantiles.

We then bin the Δ_{odps}^g residuals into 20 equal-sized bins, and plot the mean residuals of y_i vs. the mean residuals of Δ_{odps}^g within each bin. The series in triangles is constructed analogously, except that we plot residuals of y_i vs. residuals of Δ_{odps}^{-g} , the prediction for the *other* gender. Figure IX shows that children who move before age 13 to areas where children of their own gender have better outcomes do much better themselves: a 1 percentile increase in the mean rank \bar{y}_{pds}^g for g = g(i) is associated with a 0.523 percentile increase in the movers' mean rank. In contrast, conditional on the own-gender prediction, variation in the prediction for the other gender is associated with only a 0.144 percentile increase in the movers' mean rank.

In Table V, we estimate exposure effect models analogous to (12) with separate predictions by gender. Column 1 replicates the baseline specification in (12), using the gender-specific prediction Δ_{odps}^g instead of the prediction that pools both genders. We continue to obtain an exposure effect estimate of $\beta = 0.038$ per year in this specification, consistent with our baseline results.⁴⁷ In Column 2, we use the prediction for the other gender Δ_{odps}^{-g} instead. Here, we obtain an estimate of 0.034, which is to be expected given the high degree of correlation in place effects across genders. In Column 3, we include predictions for both genders, identifying the coefficients purely from differential variation across genders within CZs. Consistent with the findings in Figure IX, we find that the coefficient on the own gender prediction is larger than the other-gender prediction.⁴⁸

In principle, it could be the case that parents know that a given place is better for one particular gender relative to the other. Therefore, it is also illustrative to combine this test with family fixed effects. Columns 4-6 of Table V replicate Columns 1-3, including family fixed effects so that the estimates are identified purely from sibling comparisons. Column 7 replicates Column 6, restricting the sample to families that have at least one boy and one girl. The own-gender prediction remains a much stronger predictor of children's outcomes than the other-gender prediction when we compare siblings' outcomes within families.

The differences between the own-gender and other-gender predictions support the view that the impacts of moving on children's outcomes reflects the causal effects of place rather than other omitted factors θ_i . In order for the patterns in Figure IX and Table V to be explained by other factors, families with higher inputs θ_i in child i would have to sort to areas where children of child

⁴⁷In Online Appendix Table 2, we show that the exposure effect estimates are 0.039 and 0.04 for boys and girls using predicted outcomes that do not vary across genders.

⁴⁸It is not surprising that the other gender prediction remains positive, as the prediction for the other gender may be informative about a place's effect for children of a given gender due to measurement error. In general, finding a 0 effect on the "placebo" prediction is sufficient but not necessary to conclude that there is no sorting under an assumption analogous to (13).

i's gender do especially well. Such sorting may certainly be feasible to some extent; for instance, families who invest a lot in boys might seek to avoid highly segregated areas. However, such sorting would be much more difficult for families with children of two different genders, as it would require finding a neighborhood where the differences in outcomes of children of permanent residents across genders matches the difference in inputs θ_i across children within the family, in proportion to the age gap between the children. The fact that we find very similar results when we identify from sibling comparisons within families with a boy and a girl thus suggests that sorting is unlikely to be driving the heterogeneous impacts by gender.⁴⁹

Together, these placebo tests show that our baseline design which simply compares families that move with children at different ages turns out to yield consistent estimates of exposure effects. We believe that selection and omitted variable effects do not confound the raw OLS estimates significantly for two reasons. First, the degree of age-dependent sorting across large geographies such as CZs and counties may be limited, as families seeking better schools or environments for their children at certain ages presumably move more locally. Second, children's outcomes conditional on parent income are not significantly correlated with mean parent incomes in an area (Chetty et al. (2014)). As a result, moving to a better area for children is actually not systematically associated with parents finding better jobs, mitigating what might be the most important confounding factor.

Summary. The results in this section show that any omitted variable correlated with the other factors affecting children's outcomes, θ_i , that generates bias in our exposure effect estimates must: (1) operate within the family in proportion to exposure time (family fixed effects); (2) be orthogonal to changes in parental income and marital status (controls for observables); (3) be correlated with the onset of large outflow shocks, such as Hurricane Katrina, in a way that is correlated the mean outcomes of where people go from the displaced areas (displacement shocks regressions); and (4) replicate the permanent residents' outcomes by birth cohort, quantile, and gender in proportion to exposure time and conditional on placebo measures of these outcomes (outcome-based placebo tests). We believe that most plausible omitted variables are unlikely to have all of these properties and therefore conclude that places have causal effects on children in proportion to the amount of time they spend growing up in the area.

⁴⁹The gender test is less definitive than the cohort and distributional convergence tests because gender-specific variation is easier to observe at the point of the move than cohort- or quantile-specific differences. However, the fact that the coefficients on the own- and other-gender predictions differ quite substantially suggest that gender-specific sorting to neighborhoods would have to be quite substantial to explain the findings.

VI Exposure Effect Estimates for Other Outcomes and Geographies

VI.A Other Outcomes

The analysis to this point illustrates the exposure effects of places on children's incomes. Here, we illustrate that this convergence occurs when measuring other outcomes. Figure X presents the baseline estimates for college attendance and marriage. For Panel A, we replicate the baseline specification in equation 11 replacing Δ_{odps} with $\Delta_{odps}^c = c_{pds} - c_{pos}$, where c_{pcs} is the fraction of children at parental income rank p who go to college. Here, we find a significant slope of 0.037 (0.003). While the graph is increasing as one considers moves at earlier ages, there is some evidence of a flattening slope below age 13. This suggests that, if anything, exposure to areas as a teenager are more important for college attendance than exposure in middle school years.

In Panel B, we replicate the baseline equation 11 replacing Δ_{odps} with $\Delta_{odps}^{mar} = mar_{pds} - mar_{pos}$, where mar_{pcs} is the fraction of children at parental income rank p who are married at age y. Panel B presents the results for both age 24 and age 26. We find a significant slope of 0.025 (0.02), which suggests places have causal effects on marriage in proportion to childhood exposure to the area.

Figure XI explores events that occur earlier in a child's life, exploring the role of place in affecting outcomes during the teenage years. Panels (a)-(c) consider an indicator for teen employment at ages 16-18 (based on the existence of a form W-2). Here, we find fairly discontinuous pattern: children that move at age 14 or 15 to a destination where more 16 year olds work are much more likely to work when age 16 than children that move at age 17. In contrast, children whose parents move when their kids are older than 16 years old are not more likely to work. This suggests places have causal effects on the likelihood that children work in formal employment at young ages. The effects are sharp and not proportional to exposure time. Yet at the same time they potentially provide insights into the nature of the exposure effect of childhood. The discontinuous pattern is consistent with a model that the "exposure effect" for earnings is the aggregation of the effects from a set of discrete experiences during childhood, such as having a summer job. The fact that the intercept reaches approximately 0.8 at young ages suggests that roughly 80% of the variation in teenage labor force participation rates permanent residents across commuting zones reflects the causal effects those places.

Panel D in Figure XI considers teen birth, defined as being the parent listed on a birth certificate prior to age 20. We construct gender-specific predictions based on prior residents in each birth cohort and plot the estimated coefficients b_m from the baseline specification in Equation (11) replacing Δ_{odps} with $\Delta_{odps}^{tb} = r_{pds} - r_{pos}$, where r_{pcs} is the fraction of permanent residents in CZ c with parental income p in cohort s who have a child. We find significant exposure patterns for teen birth for both and girls. The pattern is linear below age 20 for males. For females, we find a linear exposure pattern prior to age 18, with some evidence of a sharp drop at age 18, consistent with exposure at ages 17-18 being a fairly critical time for teen birth outcomes for females.

In short, using the baseline design, we find evidence of exposure effects on college and teenage outcomes.

VI.B County-level Estimates

The analysis to this point focuses on moves across CZs, which is a quite broad notion of geography. This broader notion of geography affords us large samples of 1-time movers with which to create precise forecasts based on permanent residents. This allows us to conduct detailed robustness analysis and our outcome-based placebo tests. However, as shown in Figure II(c,d), there is considerable variation in outcomes across counties, in addition to CZ. Here, we apply our baseline design to a county-level analysis.

Table 6 replicates the baseline analysis at the finer county geography. We construct \bar{y}_{pcs} using county-level permanent residents and we consider two samples of 1-time county movers.⁵⁰ First, we consider a sample of 1-time movers who move at least 100 miles between counties with populations above 250,000, analogous to the same sample restrictions we impose on the 1-time CZ movers. Column (1) shows we obtain a baseline slope of 0.035, slightly lower than our baseline slope of 0.040 at the CZ level. The smaller slope is consistent with a slightly larger degree of residential sorting at the county, as opposed to the CZ level – a finding we revisit in more detail in Section X. Column (2) adds family fixed effects to the baseline specification in Column (1) and obtains an exposure slope of 0.033 (0.011), not significantly different from the baseline slope of 0.035. This suggests the quasi-experimental design is not confounded by dynamic sorting patterns operating at the county level within the CZ.

Within CZ Moves. While our baseline analysis focused on moves above 100 miles, Columns (3)-(7) in Table 6 explore moves across counties within CZs. Column (3) replicates the baseline specification using moves across counties with populations at least 250,000, measuring outcomes of the children at age 24. Here, we obtain a slope of 0.022 (s.e. 0.003), significantly lower than the

⁵⁰Appendix Table 1 provides summary statistics for these samples analogous to the CZ-samples.

estimate of 0.035 we obtain for longer distance moves. This drop is consistent with what one would expect if the child's environment was not completely altered as a result of these shorter moves.

Foreshadowing further analysis in Section VII, Column (4) measures the child's outcome (and predicted outcomes of permanent residents) at age 26 instead of age 24. Here, we obtain a similar but slightly higher slope of 0.032. Column (5) stacks the data across outcomes at age 24-32. Here, we obtain a more precisely estimated coefficient of 0.027 (s.e. 0.002). Column (6) adds family fixed effects to the specification in Column (5) and obtains a similar slope of 0.029 (s.e. 0.025). While our estimate remains stable, it is considerably more imprecise with the addition of family fixed effects across counties within CZs. Finally, Column (7) considers within-CZ moves across counties with populations of at least 10,000. Here, we obtain a similar but perhaps slightly attenuated coefficient of 0.024 relative to the 0.027 in column (5), consistent with the smaller samples used to estimate the predicted outcomes of permanent residents.

VI.C Summary of Part 1

On average, exposure to areas where permanent residents have better outcomes raises the expected outcomes of the children that move there. Across CZs and counties, the outcomes of movers converge to the outcomes of permanent residents at a rate of around 0.03 to 0.04 percent per year. Multiplying this by 20 years of exposure to form β_1 in equation (5), it implies $\beta_1 = 20*0.035 = 0.7^{51}$ Hence, $\beta_1^2 = 0.49$. The lower bound in equation (5) therefore implies that at least 49% of the variation in outcomes across areas reflects the causal effects of these places. Under the additional assumption of no covariance between the sorting and causal effects (which we provide evidence for in Part 2), this result implies that 70% of the variance in intergenerational mobility across areas reflects the causal effects of place.

⁵¹Alternatively, one could assume 15 years of exposure (which corresponds more closely to our sample window), and hence $\beta_1 = 15*0.035 = 0.525$. This would imply a lower bound of $\beta_1^2 = 0.28$ and a point estimate of $\beta_1 = 52.5\%$ under the assumption of no covariance between the sorting and causal effects.

Part 2: Causal Estimates by CZ and County

VII Identification of Causal Effects Using Fixed Exposure Effects Design

While the analysis of Part 1 provides estimates of the variance of place effects, it does not provide estimates for each particular area. In general, the observed outcomes in any given area will partially reflect sorting of different types of residents (e.g. with different θ_i) and partially reflect causal effects μ_c . This section develops a fixed effects model to estimate the causal effect of each place, μ_c . We build on the exposure-time identification strategy but estimate these fixed effects without using information contained in the permanent resident outcomes. To do so, we estimate separate exposure effects for each place in the U.S., as opposed to a single average exposure effect.

Using the resulting fixed effect estimates, we then proceed in three steps in the remainder of part 2. First, in Section VIII, we use these resulting estimates to measure the variance components of the model outlined in Section II (i.e. the variance of μ_{pc} and $\bar{\theta}_{pc}$). Second, in Section IX, we provide forecasts of each place's causal effect and use this to generate list of the "best" and "worst" counties to grow up in the U.S. in terms of their impacts on a child's income. To develop these forecasts, we use a combination of the fixed effects (which contain sampling error) estimated in this section with the forecasts based on permanent residents (which contain little sampling variation but are biased because of sorting) in a manner that minimizes mean-square error. Finally, in Section X, we measure the characteristics of places that improve childrens' outcomes, μ_{pc} , and places in which the outcomes of permanent residents are confounded by the presence of sorting, $\bar{\theta}_{pc}$.

VII.A Identifying neighborhood effects, μ_{pc}

Returning to our structural equation (2), under linear exposure effects, we have for 1-time movers:

$$y_i = (T_c - m) (\mu_{pd} - \mu_{po}) + T_c \mu_{po} + \bar{\theta}_i + \kappa_0$$

where we assume for simplicity that $\bar{\kappa}_i = \kappa_0$ (alternatively, one can think of $\bar{\theta}_i$ as incorporating heterogeneous disruption effects). The key identification assumption is as follows.

Assumption 2. Conditional on origin and destination, the choice of when to move is independent of other inputs, $\bar{\theta}_i$, for all origin-destination pairs.

Assumption 2 is stronger than Assumption 1 because it requires that exposure time is not con-

founded with sorting for any particular origin-destination pair.⁵² In contrast, Assumption 1 only requires that the exposure time is not confounded with sorting on average across areas where permanent residents are doing better (or worse) on average. To control for other origin-destination pair-specific effects, we write

$$\bar{\theta}_i = \alpha_{odps} + \eta_{4i}$$

where η_{4i} is independent of the exposure time to the origin and destination location and

$$\alpha_{odps} = \left(\alpha_{od}^{0} + \alpha_{od}^{P} p + \psi_{od}^{0} s + \psi_{od}^{1} s^{2} + \psi_{od}^{2} s p + \psi_{od}^{3} s^{2} p\right) 1 \left\{d\left(i\right) = d; o\left(i\right) = o\right\}$$
(16)

captures variation in outcomes across parent income (p), cohort (s), origin (o), and destination (d). We parameterize separate controls for each origin-by-destination pair that vary linearly in parental income and include a quadratic term in cohort. These cohort controls ensure that the exposure-time coefficient is identified holding fixed the year of outcome measurements for the child. This motivates the empirical model

$$y_{i} = \underbrace{(T_{c} - m)}_{\text{Exposure}} \left[\underbrace{(\mu_{d}^{0} + \mu_{d}^{P} p) \, 1 \, \{d \, (i) = d\}}_{\text{Dest. FE}} - \underbrace{(\mu_{o}^{0} + \mu_{o}^{P} p) \, 1 \, \{o \, (i) = o\}}_{\text{Orig. FE.}} \right] + \alpha_{odps} + \eta_{4i}$$
 (17)

The causal impact of an additional year of exposure to destination d relative to origin o for a child with parental income rank p is given by $\left(\mu_d^0 + \mu_d^P p\right) 1 \left\{d\left(i\right) = d\right\} - \left(\mu_o^0 + \mu_o^P p\right) 1 \left\{o\left(i\right) = o\right\}$. We assume these fixed effects of places are linear in parental income, consistent with the observation that movers outcomes are well-approximated by a weighted average of permanent residents' outcomes, and the outcomes of permanent residents are well-approximated using a linear function in parental income, as shown in Figure I.⁵³

VII.B Outcomes

In Section IV, we focused primarily on the child's income rank at age 24, which led to similar regression coefficients on the permanent residents in each CZ. Intuitively, the permanent resident outcomes provided a "goalpost" for characterizing the impact of places at various ages of outcome measurement, so that movers on average picked up 3-4pp of the permanent resident outcomes per year of exposure. In estimating place fixed effects, we no longer use the permanent residents as

⁵²In addition to the origin-destination pair fixed effects, we also re-estimate our model using moves above age 23 to construct placebo estimates of place effects. We show below that these placebo estimates are consistent with the identification assumption and suggests violations of this assumption are not generating bias in our estimates.

⁵³We have also estimated the model with quadratic terms in parental income and find very similar results.

goalposts. As a result, we focus on the child's income rank at a slightly older age – age 26 – instead of age 24. To motivate this particular choice for the age of outcome measurement, Appendix Figure VII reports the correlation of permanent resident outcomes, \bar{y}_{pc} , at ages 20-32 with the permanent resident outcomes at age 32. While the correlation at age 24 is 0.83, this correlation across CZs reaches 0.93 at age 26.⁵⁴ As a result, we are confident that our measure of the impacts of places on childrens' income at age 26 is likely to be highly correlated with their impacts on incomes at older ages.

VII.C CZ Estimation

At the CZ level, estimation of the thousands of parameters in equation (17) is not directly feasible on the micro data due to computational constraints. We therefore estimate these fixed effects in two steps. First, for every origin-destination pair, we estimate a regression of child outcomes on exposure time to the destination, $T_c - m$,

$$y_i = (T_c - m) \left(\mu_{od}^0 + \mu_{od}^1 p \right) + \alpha_{odps} + \eta_{5i}$$
 (18)

where $\mu_{od}^0 + \mu_{od}^1 p$ represents the impact of spending an additional year of childhood in destination d relative to origin o for the set of people moving from o to d with parental income rank p. We include the controls for parental income and cohort given by equation (16).

Given an estimate of $\mu_{od}^p = \mu_{od}^0 + \mu_{od}^1 p$ for each origin and destination, we regress

$$\mu_{od}^p = G\mu_{pc} + \eta_{6od} \tag{19}$$

where G is an $N_c^2 \times N_c$ matrix of the form

$$G = \begin{array}{cccc} -1 & 0 & +1 \\ -1 & 0 & +1 \\ +1 & -1 & 0 \end{array}$$

To construct the G matrix, we enumerate all origin-destination pairs as rows, and all unique places as columns. For each origin-destination row, we code the column corresponding to the destination as +1, the column corresponding to the origin as -1, and all other columns as 0. This matrix collapses the N_c^2 pairwise exposure effects, μ_{od}^p , into a vector of N_c place fixed effects, $\vec{\mu}_p = (\mu_{p1}, ..., \mu_{pN_c})^{,55}$

⁵⁴As shown in Chetty et al (2014), the child's income rank at age 30-32 does not appear to suffer significant lifecycle bias. Hence, our measure of place effects at age 26 are likely to be highly correlated with the measures of place effects on measures of lifetime income.

⁵⁵We thank Gary Chamberlain for pointing out this useful design-matrix representation of the estimates in equation (17) in terms of origin-by-destination regressions.

We estimate $\vec{\mu}_p = \{\mu_{pc}\}$ using the regression in equation (19), weighting each origin-destinationpair observation by the precision of the estimated μ_{od}^p in the origin-destination cell. To reduce the impact of statistical noise in the estimation process, we restrict to origin-destination cells with at least 25 observations. We let $\hat{\mu}_{pc}$ denote the resulting estimates of μ_{pc} .

The G matrix has N_c columns, but its columns sum to zero; hence it only has rank $N_c - 1$. Intuitively, we can only identify the impact of exposure to places relative to one omitted place. We therefore normalize $\hat{\mu}_{pc}$ to have population-weighted mean zero weighting by population in the 2000 Census, so that μ_{pc} corresponds to the the impact of exposure to place c relative to where the average population lives. Because we utilize a two-step estimation process, we rely on a bootstrap method to compute the standard errors of $\hat{\mu}_{pc}$. We construct 100 samples with replacement (resampling by family) and measure the standard deviation of the estimated μ_{pc} in these bootstrap iterations.

We estimate $\hat{\mu}_{pc}$ using our baseline sample of 1-time movers who move at or below age $T_c = 23.^{56}$ This yields a sample of 1,869,560 for the child's income rank at age 26. Throughout, we drop estimates of μ_{pc} in CZs with populations less than 25,000 (but include these movers estimates for μ_{od}^p so that moves to and from these CZs still contribute to the estimated vector of CZ effects).⁵⁷

Standard Errors. For our baseline results for below-median (p25) and above-median (p75) income families, we estimate a standard error for $\hat{\mu}_{pc}$ using a bootstrap procedure. We construct 100 samples (with replacement) and repeat our two-step estimation procedure, yielding se_{pc} as the estimated standard error across these bootstrap iterations. We have also verified that these standard errors would deliver very similar estimates if instead one simply used the analytical standard errors from the regression in equation (19). Formally, the bootstrap method imposes a clustering of the standard errors at the origin-by-destination level. In practice, however, both approaches deliver very similar standard error estimates. We provide both standard errors for the baseline specifications in Online Data Tables 3 and 4. For our other outcome and sample specifications, we use the analytic standard errors in equation (19) for simplicity.

Results. The full set of estimates are available in Online Data Table 3. Figure XII presents maps of estimates of the impact of exposure to each CZ (relative to an average CZ), $\hat{\mu}_{cp}$, on the child's income rank at age 26 for children with below-median income parents (p25) and above-

 $^{^{56}}$ Relative to the sample used in the baseline analysis in Table 4, we include movers in years 2011-2012 and include movers who moved less than 100 miles. Appendix Table II shows that our baseline results in Section IV are robust to these extensions. In particular, we include shorter distance moves because it increases the connectedness of the graph of moves across the U.S., thereby reducing estimation error for each fixed effect, μ_c .

⁵⁷Note that movers to and from these small CZs will still contribute to the overall estimates of the fixed effects as they affect the fixed effect estimates for larger CZs.

median income parents (p75). The estimates suggest significant variation in exposure effects across CZs. For example, we find that areas like the South (e.g. Louisiana, Alabama, Mississippi, Georgia, and Virginia) and Mountain West (e.g. Nevada, Utah, Wyoming, and Montana) tend to produce lower outcomes; in contrast, the Midwest, Northeast, and Western South (e.g. Texas, Oklahoma, Kansas, and New Mexico) tend to have higher causal effects. However, the standard errors associated with these estimates are non-trivial. We discuss this issue further in Section VIII below.

VII.D County Estimation

We replicate our analysis of place effects at the county level. To do so, we estimate fixed effects in equation (17) directly for each county separately within each CZ. Then, given each county estimate within each CZ, we add the CZ-level effect. This provides nationwide county-level estimates.

In principle, one could have attempted to estimate county-level place effects directly. In practice, there are over 3,000 counties in the U.S., which leads to $3,000^2 = 9M$ possible origin-destination combinations that would enter the G matrix in equation (19). Such estimation is computationally infeasible and at finer geographies the G matrix becomes singular in finite samples. In contrast, by focusing on moves across counties within CZs, we can estimate the fixed effects in equation (17) directly without relying on a two-step estimator.⁵⁸

We estimate county-level place effects for CZs with populations of at least 25,000 people on the sample of 1-time movers across counties within CZs who move at or below $T_C = 23$. This includes 1,323,455 movers. We report estimates of $\hat{\mu}_{pc}$ for counties with populations of at least 10,000 people. We impose the restriction (without loss of generality) that the coefficients, $\hat{\mu}_c^0$ and $\hat{\mu}_c^P$ have a population-weighted mean of zero within each CZ. This provides an estimate of $\hat{\mu}_{pc} = \hat{\mu}_c^0 + p\hat{\mu}_c^P$ for every county within each CZ.

To aggregate across CZs to national county-level estimates, we sum the CZ-level estimate and the county level estimate. This produces estimates for 2,379 counties nationwide, covering 98.2% of the US population.⁵⁹ Online Appendix Table 4 presents results for the full sample of county estimates.

$$\begin{array}{ll} \alpha_{odps} = & \left(\alpha_{od}^{0} + \alpha_{od}^{P}p\right) 1 \left\{d\left(i\right) = d; o\left(i\right) = o\right\} \\ & + \left(\psi_{d}^{0}s + \psi_{d}^{1}s^{2} + \psi_{d}^{2}sp + \psi_{d}^{3}s^{2}p\right) 1 \left\{d\left(i\right) = d\right\} \\ & - \left(\psi_{o}^{0}s + \psi_{o}^{1}s^{2} + \psi_{o}^{2}sp + \psi_{o}^{3}s^{2}p\right) 1 \left\{o\left(i\right) = o\right\} \end{array}$$

⁵⁸Due to computational constraints, we do not allow the cohort controls to vary at the origin-destination level in the county-level estimation. Formally, we assume α_{odpq} in equation (16) is given by:

so that we include county-specific cohort controls that are quadratic in cohort and interacted with parental income.

⁵⁹In cases where CZs are only one county, we simply use the CZ estimate.

VII.E Robustness

Appendix Table V reports the correlation of our baseline estimates with alternative specifications.⁶⁰ Panel A of Appendix Table V reports the results for the CZ-level estimates; Panel B reports the estimates for the county level estimates.

Income Controls. Our baseline specification controls solely for a single measure of parental income. If moves to a particular place are systematically associated with increases in parental income, one might worry that the increase in income is what's driving the improved child outcomes in proportion to exposure time, as opposed to the impact of the place. Here, we replicate the analysis, adding controls for income changes before versus after the move and their interactions with the child's age at the time of the move (analogous to the income controls added in Column (5) of Table 3). For each origin by destination in the CZ regressions in equation (18), we add terms for Δp and $\Delta p * m$, where $\Delta p = p_{post} - p_{pre}$. p_{pre} is the income rank of the parents in the year prior to the move and p_{post} is the income rank of the parents in the year after the move.⁶¹ At the county level, we include terms for Δp and $\Delta p * m$ interacted with county dummies directly in equation (17).

Including these controls and their interactions with the age of the child at the time of the move, m, leads to very similar results. The estimates at the CZ level for below-median income families are correlated 0.946 with the baseline specification; this correlation is 0.942 for above-median income families. At the county level, the estimates are also very similar, with correlations of 0.974 at p25 and 0.973 at p75. In short, controlling for income changes interacted with the child's age at the time of the move leads to estimates that are very similar to the baseline specification.

Linearity. Equation (17) models the impact of places as a linear function of parental income. This is motivated by the strong linearity we observe in outcomes amongst permanent residents, but could potentially be violated when constructing the causal effects of places. Here, we relax the linearity assumption in two ways. First, we include quadratics in parental income. This specification generates very similar estimates that are highly correlated with our baseline estimates at both p25 and p75. At p25, we estimate a correlation of 0.94 at the CZ level and 0.876 at the county level; At p75 we estimate a correlation of 0.932 at the CZ level and 0.777 at the county level.

Second, we split the sample into below-median p < 0.50 and above-median p > 0.50 families

⁶⁰As noted above, for the alternative specifications at the CZ level, we use the analytical standard errors derived from the OLS regression in equation (19).

⁶¹So, instead of α_{odpq} in equation (16), we include additional terms $\alpha_{od\Delta p}^0 \Delta p + \alpha_{od\Delta p}^1 \Delta p * m$.

and estimate the model separately on these two samples. Across CZs, the split-sample estimates have a correlation of 0.839 with the baseline estimates for below-median income families (p25) and 0.784 for above-median income families (p75). At the county level, the estimates are correlated at 0.841 for below-median income families and 0.659 for above-median income families. In short, consistent with the linearity in the outcomes of permanent residents shown in Figure I, the results are quite robust to relaxing the assumption of linearity in parental income.

Cost of Living. Our baseline estimates do not adjust for cost of living differences across areas. This is natural if one believes such differences largely reflect differences in amenities. But, it is also useful to illustrate the robustness of the results to adjusting both parent and child income ranks for cost of living differences across areas. To do so, we construct adjusted income ranks for both parents and children that divide income in year t by a cost of living index (based on ACCRA) corresponding to the location of the individual in that year.⁶² We then re-compute the 5-year averages for parental income (1996-2000) and their associated national ranks, along with the national ranks for the child's income at age 26.

Across commuting zones, the cost of living-adjusted estimates are correlated 0.748 with the baseline specification for below-median income families and 0.797 for above-median income families. Across counties, cost of living adjustments lead to estimates that are correlated 0.808 for below-median income families and 0.852 for above-median income families. So while there are some differences, the broad spatial pattern is similar after adjusting for cost of living differences.

Overall, our baseline estimates are robust to controlling for changes in income, relaxing the linearity in parental income rank assumption, and adjusting for costs of living. All of these robustness specifications produce alternative estimates of place effects and are available at the CZ and county level in Online Data Table 3 (CZ) and Online Data Table 4 (County).

VIII Model and Estimation Variance Components

We begin our analysis of the estimates of $\hat{\mu}_{pc}$ by using them to analyze the variance of place effects at the CZ and county level. In particular, we use these estimates to quantify the variance components of the model, including the standard deviation of place effects across CZs and counties, and the correlation of the effects for children in below and above-median income families.

⁶²See Chetty et al. (2014) for a detailed discussion of this cost of living adjustment. Loosely, we use a predicted value of the ACCRA index that allows us to expand the coverage of ACCRA to all CZs.

VIII.A Variance of Exposure Effects Across CZs

Table VII reports the standard deviation of place effects across CZs and counties. We arrive at these standard deviation estimates as follows. The raw standard deviation of $\hat{\mu}_{25,c}$ across CZs is 0.248, as reported in column (1). However, this variance of $\hat{\mu}_{pc}$ comes from two components: variation in the true place effects, μ_{pc} , and an orthogonal sampling error, ϵ_{pc} ,

$$\hat{\mu}_{pc} = \mu_{pc} + \epsilon_{pc}$$

Therefore, we can compute the variance of the true place effects, $\sigma_{\mu_{pc}}^2$, as

$$\sigma_{\mu_{pc}}^2 = \sigma_{\hat{\mu}_{pc}}^2 - \sigma_{\epsilon_{pc}}^2 \tag{20}$$

where $\sigma_{\hat{\mu}_{pc}}^2$ is the variance of the estimated place effects and $\sigma_{\epsilon_{pc}}^2$ is the estimated variance of the statistical noise (because $\hat{\mu}_{pc}$ is an unbiased estimator, we have $E\left[\epsilon_{pc}|\mu_{pc}\right] = 0$ so that $cov\left(\epsilon_{pc},\mu_{pc}\right) = 0$). We estimate the variance of the statistical noise as

$$\sigma_{\epsilon_{pc}}^2 = E\left[se_{pc}^2\right]$$

where se_{pc} denotes the standard error of $\hat{\mu}_{pc}$ and the expectation is taken across CZs using precision weights $(1/se_{pc}^2)$.

The second row of Table VII reports the standard deviation of the sampling error, $\sigma_{\epsilon_{pc}} = 0.210$, which implies a signal standard deviation of $\sigma_{\mu_{pc}} = 0.132$. A one standard deviation increase in $\mu_{25,c}$ across CZs corresponds to a 0.132 percentile increase in the child's rank per year of additional exposure to the CZ.

To put these units in perspective, we can scale these percentile changes to reflect the dollar-peryear increases in child earnings. To do so, we construct the mean income of permanent residents in each CZ for parents at each income percentile, $\bar{y}_{pc}^{\$}$. We then regress $\bar{y}_{pc}^{\$}$ on the mean rank outcomes, \bar{y}_{pc} across CZs for each parent income rank, p. This yields a coefficient of \$818 for p = 25, suggesting that each additional income rank corresponds to an additional \$818 of earnings at age 26.⁶³ Therefore, a 1 standard deviation increase in $\mu_{25,c}$ for children in below-median income families corresponds to 0.132*818 = \$108 increase in mean earnings. Normalizing by the mean

⁶³In principle one could have estimated place effects directly on mean income; indeed, replicating our baseline analysis using mean income as an outcome instead of mean income rank leads to estimates that are correlated at 0.92 at the CZ level (p25). However, the variance in mean incomes renders estimation quite difficult – indeed, as shown in Appendix Table 7, we cannot estimate a positive signal variance for the mean income specifications due to excess estimation error. Trimming outliers does allow us to estimate a signal variance; but the rank-rank specification has the advantage that we can estimate on the entire sample without trimming.

income of children at age 26 in below-median income families of \$26,091, the estimate suggests a 0.4% increase in mean earnings per year of exposure.⁶⁴

For children in above-median income families, we estimate that the standard deviation of place effects is 0.107 percentiles. To put this in perspective, we can repeat the above scaling procedure for p75, which suggests each additional income rank corresponds to an additional \$840 of earnings at age 26. Normalizing the mean income of children from above-median income families of \$40,601, it suggests a 1 standard deviation increase in $\mu_{75,c}$ corresponds to a 0.22% increase in mean earnings per year of exposure.⁶⁵

The variation in place effects is high for children in both above- and below-median income families. From a dollar-weighted perspective, the impacts are roughly similar for children in above- and below-median income families, reflecting the higher incomes earned by children from above-median income families offsetting the lower percentile improvement. But, in percentage terms, there is much more variation in forecasts for those in below-median families, reflecting their comparatively lower mean incomes.

Relationship between $\mu_{25,c}$ and $\mu_{75,c}$. Is there a tradeoff between areas that promote better outcomes for disadvantaged children and those in more affluent backgrounds? On the one hand, the world could be such that outcomes in a given area are a zero-sum process, so that better outcomes for children in affluent families come at the expense of outcomes for children in lower-income families. On the other hand, the process that generates higher outcomes in some CZs could be one that spans the parental income distribution – a rising tide that lifts all boats.

Across CZs, we find that areas that promote better outcomes for poor children are, on average, areas that promote better outcomes for more affluent children as well. Table VII reports the correlation between $\mu_{25,c}$ and $\mu_{75,c}$ of 0.724. Importantly, we estimate this correlation using two separate samples of above and below-median income families. We construct an estimate of $\mu_{25,c}$ on the subsample of children with p < 0.5 and we construct an estimate of $\mu_{75,c}$ on the subsample of children with p > 0.5. We then re-compute the signal standard deviations on these two samples

 $^{^{64}}$ An alternative methodology to arrive at income increases would have been to directly estimate the place effects on income as opposed to ranks. Appendix Table V, rows 10 and 11, report the correlation of the resulting estimates of μ_{pc} for income with our baseline rank estimates and illustrates they are very highly correlated. However, they contain considerably greater sampling uncertainty given the high variances in income outcomes. Indeed, we are unable to estimate a point estimate for the variance of place effects on income at the county level using this methodology. Trimming outliers restores the ability to estimate the place effect for incomes, but such trimming is arbitrary; therefore we focus on rank outcomes as our baseline methodology.

 $^{^{65}}$ Throughout the rest of the paper, we provide scalings for other outcomes and samples, such as gender-specific estimates on family and individual income. When scaling these rank measures to incomes and % increases, we reconstruct the scaling factors using the same methodology outlined here.

(0.134 and 0.107 respectively, as shown in Appendix Table 5) and compute the covariance between these two estimates. The ratio of the covariance to the product of the standard deviations yields our estimated signal correlation of 0.724.⁶⁶

In short, across CZs there is wide variation in exposure effects. And, areas that promote better outcomes for affluent children also, on average, promote better outcomes for low-income children.

VIII.B Variance of Exposure Effects Across Counties

Across counties in the US, we estimate a standard deviation of $\mu_{25,c}$ of 0.165 and of $\mu_{75,c}$ of 0.155. Again scaling this to percentage changes in income, a 1 standard deviation higher value of $\mu_{25,c}$ corresponds to a \$818*1.65 = \$1,349 increase in earnings, or 0.5% of mean earnings. This suggests that there is roughly an equal amount of variation in place effects across CZs as across counties within CZs. To see this, note that the standard deviation of place effects for counties within CZs for children at p25 is 0.099, which is slightly below the estimates of 0.132. For above-median income families, we estimate a standard deviation of place effects of 0.107 across CZs and 0.112 across counties within CZs.

At the county-level, we again find that areas that produce better outcomes for children in belowmedian income families also produce better outcomes for children in above-median income families.

Using the split-sample methodology discussed in Section VII.E (see footnote 66), we estimate a
correlation between $\mu_{25,c}$ and $\mu_{75,c}$ of 0.287, implying a correlation across counties within CZs of
0.08. This is lower than the positive association we find across CZs. This suggests that there may
be tradeoffs at the local level, consistent with the patterns of greater residential sorting across finer
geographic units.

VIII.C Sorting versus Causal Effects

A one standard deviation increase in $\mu_{25,c}$ at the county level corresponds to roughly a 0.5% increase in earnings. Scaling this by 20 years of exposure implies that a 1 standard deviation increase in

$$\rho = \frac{cov\left(\mu_{25,c}, \mu_{75,c}\right)}{\sigma_{\mu_{25,c}}\sigma_{\mu_{75,c}}} = \frac{cov\left(\hat{\mu}_{25,c}, \hat{\mu}_{75,c}\right)}{\sigma_{\mu_{25,c}}\sigma_{\mu_{75,c}}}$$

where we estimate $\hat{\mu}_{25,c}$ and $\hat{\mu}_{75,c}$ on separate p < 0.5 and p > 0.5 samples so that their estimation errors are not mechanically correlated. This yields $cov\left(\hat{\mu}_{25,c},\hat{\mu}_{75,c}\right) = cov\left(\mu_{25,c},\mu_{75,c}\right)$. We compute the signal SDs, $\sigma_{\mu_{25,c}}$, using these half-sample estimates, which are reported in Appendix Table 5. As in the calculation of the signal SD for the baseline specifications, we use precision weights to calculate these signal SDs, weighting observations by the square of their estimated standard errors. When measuring $cov\left(\hat{\mu}_{25,c},\hat{\mu}_{75,c}\right)$, we measure the precision as the inverse of the sum of the two standard errors squared, $prec = \frac{1}{se(\mu_{25,c})^2 + se(\mu_{75,c})^2}$.

⁶⁶More precisely, we compute this correlation as

 $\mu_{25,c}$ causes an increase in earnings of roughly 10%, or 20*0.165 = 3.308 percentiles for children who spend their entire childhood in a particular place. Following the model in Section II, we can use the causal effects of exposure to each place, combined with an estimate of the total relevant exposure time, T_C , to decompose the observed outcomes of permanent residents into sorting and causal components.

To do so, an estimate of T_C is required to aggregate the per-year measure of the exposure effect, μ_{pc} , to the impact of full exposure during childhood, $T_c\mu_{pc}$. We can then estimate the selection component of the permanent residents by taking the difference between the permanent resident outcomes, \bar{y}_{pc} , and the full childhood exposure effect, $T_c\mu_{pc}$.

$$\hat{\theta}_{pc} = \bar{y}_{pc} - T_c * \hat{\mu}_{pc}$$

Under the assumption – maintained in the model in Section II – that the causal effects of places are the same for movers and permanent residents, this provides a measure of the expected rank of the permanent residents in a place, c, in the counterfactual world in which they grew up in an average place.

Of course, our estimates of the mean selection effect in an area, $\bar{\theta}_{pc}$, will depend on our assumption about T_c . Our baseline results document a robust linear exposure pattern between the ages of 11 and 23 for incomes measured at age 26. This suggests a value of T_C between 12 and 23, but it does not necessarily suggest which estimate is most appropriate (or indeed whether the linearity of the model holds at earlier ages). For most of our analysis, we make a benchmark assumption of $T_C = 20$, but assess the robustness of this assumption to $T_c = 12$ and $T_c = 23$. It is important to note that our procedure for estimating the per-year exposure effects, μ_{pc} , does not require us to make an assumption about T_c ; rather, this is only required for using the outcomes of permanent residents to estimate the mean selection component, $\bar{\theta}_{pc}$.

Appendix Table VI reports the estimated values of the outcomes of permanent residents, \bar{y}_{pc} , the causal component based on $T_C = 20$ years of exposure, $20 * \hat{\mu}_{pc}$, and the sorting component, $\hat{\theta}_{pc}$, for the 10 largest CZs in the US (Online Data Tables 3 and 4 allow one to construct these estimates for any CZ or county). In Los Angeles, children of below median income permanent residents have incomes at the 44.8 percentile of the national income distribution of 26 year olds on average. Los Angeles has an estimate of $\hat{\mu}_{25,c} = -0.17$. 20 years of exposure implies a causal effect of -3.41pp (s.e. 0.85) of growing up in LA relative to an average CZ. This suggests that children who happened to grow up in Los Angeles would, on average fall at the 48.2 percentile if they grew

up in an average place as opposed to Los Angeles (as reported in Column (2)).

Conversely, we can consider Washington, DC. Children who grow up in below-median income households that are permanent residents in DC on average fall at the 45.1 percentile, roughly similar to Los Angeles. However, we estimate a causal effect per year of exposure of $\hat{\mu}_{25,c} = 0.16$, which suggests 20 years of exposure increases the child's income rank by 3.27pp (s.e. 1.34) relative to an average CZ. This suggests that the types of children who grew up in Washington, DC would on average fall at the 41.8 percentile (45.1 - 3.3) if they grew up in an average place as opposed to Washington, DC. So, although DC and LA have similar observed outcomes of permanent residents in below-median income families, $\bar{y}_{25,c}$, the exposure effect to DC, $\mu_{25,DC}$, is significantly higher than LA, $\mu_{25,LA}$.

A range of other patterns emerge for children in above-median income families. For example, permanent residents in New York have higher outcomes than those in LA (56.73 versus 52.69). However, we estimate a causal effect, $T_C\mu_{75,c}$, of 20 years of exposure of -5.47 in LA and -0.78 in NY. This suggests the observed difference between NY and LA permanent resident outcomes is largely accounted for by the difference in the effects these places have on children's outcomes, as opposed to differences in the types of children and families that live in these areas, $\bar{\theta}_{75,c}$.

Model Variance Components.

Panel B of Table VII reports the variance-covariance structure of the model parameters across CZs, $\bar{\theta}_{pc}$, \bar{y}_{pc} , and μ_{pc} . Across CZs, more of the variation is due to the causal effect of places as opposed to the sorting of different types of people to different areas. For children in below-median income families, we estimate a population-weighted standard deviation of CZ place effects for 20 years of exposure, $T_c\mu_c$, of 20*0.132=2.647, as noted above. In contrast, We estimate a standard deviation of the sorting component, $\bar{\theta}_{25,c}$, of 1.960, and we estimate a correlation between the sorting and causal effect close to zero (-0.021).⁶⁷ Similarly, for above-median income families, we

$$cov\left(T_c\mu_{pc},\bar{\theta}_{pc}\right) = \beta_p var\left(\bar{y}_{pc}\right) - var\left(T_c\mu_{pc}\right)$$

Now, to obtain the variance of the sorting component, we have

$$var\left(\bar{\theta}_{pc}\right) = var\left(\bar{y}_{pc}\right) - var\left(T_{c}\mu_{pc}\right) - 2cov\left(T_{c}\mu_{pc}, \bar{\theta}_{pc}\right)$$

which provides an estimate of $var(\bar{\theta}_{pc})$. Given this, we can construct the correlation between the sorting and causal components as

$$corr\left(T_{c}\mu_{pc}, \bar{\theta}_{pc}\right) = \frac{cov\left(T_{c}\mu_{pc}, \bar{\theta}_{pc}\right)}{var\left(T_{c}\mu_{pc}, \bar{\theta}_{pc}\right)}$$

We obtain this estimate by regressing $T_c\hat{\mu}_{pc}$ on \bar{y}_{pc} , yielding $\beta_p = \frac{cov\left(T_c\hat{\mu}_{pc}, \bar{y}_{pc}\right)}{var\left(\bar{y}_{pc}\right)}$. We then multiply by $var\left(\bar{y}_{pc}\right)$, yielding $\beta_p var\left(\bar{y}_{pc}\right) = cov\left(T_c\hat{\mu}_{pc}, \bar{y}_{pc}\right) = cov\left(T_c\mu_{pc}, \bar{y}_{pc}\right)$. Then, noting that $\bar{y}_{pc} = \bar{\theta}_{pc} + T_c\mu_{pc}$ we have

find a standard deviation of $T_c\mu_{75,c}$ of 2.139, in contrast to a standard deviation of $\bar{\theta}_{pc}$ of 1.097.

Across counties within CZs, more of the variation in observed outcomes reflects the sorting of different types of people to different counties, $\bar{\theta}_p$, as opposed to the causal effect of those counties. Summing counties and CZs, we estimate a standard deviation of the causal effect of 20 years of exposure of 3.308 percentiles at p25 and 3.092 percentiles at p75. This is roughly the same order of magnitude as the standard deviation of the sorting component of 3.033 and 3.203 at p25 and p75, respectively. As a result, across counties within CZs, the sorting component SD is greater than the causal component. The county-within-CZ causal effect standard deviation is 1.984 at p25 and 2.233 at p75, which contrasts with a standard deviation of the sorting components of 2.315 and 3.009 at p25 and p75. Put differently, we find evidence that a larger fraction of the variation in outcomes of permanent residents across counties within CZs reflects residential sorting on unobservables, θ_i , as opposed to the causal effects, μ_{pc} .

Robustness to alternative choices of T_C . Appendix Table VII presents the model covariance structure for $T_C\mu_{pc}$ and $\bar{\theta}_{pc}$ under the alternative assumptions of $T_c=12$ and $T_c=23$. As expected, using $T_C=12$ implies both (i) a higher standard deviation of the selection component and (ii) a higher covariance between the sorting and causal component. In general, if $T_C=12$ we estimate a positive correlations between the sorting component and the causal effect, suggesting that those with higher θ_i tend to live in places with higher μ_{pc} . Conversely, if $T_C=23$, the estimates of the sorting variance is lower and the correlation between the sorting and causal effects are generally negative, which would imply that those with higher θ_i tend to live in places with lower μ_{pc} . However, the general pattern remains of more variation in the sorting component than the causal component at the county within CZ level.

IX Combining Permanent Residents and Fixed Effects to Form Optimal Predictions

What are the places with the highest and lowest causal effects on children's outcomes? To this point, we have not focused heavily on the particular estimates of $\hat{\mu}_{pc}$. The fourth row of Table VII illustrates why: we find a signal to noise ratio, $\frac{\sigma_{\mu pc}^2}{\sigma_{epc}^2}$, of 0.398 for $\hat{\mu}_{25,c}$ at the CZ level, illustrating that roughly 71% (= $\frac{1}{1+0.398}$) of the variation across CZs in the estimated place effects reflects sampling variation as opposed to the causal effect of the place. At the county-level, these signal to noise ratios are even smaller: we estimate a signal to noise ratio of 0.14-0.17 across counties across CZs, and 0.08-0.11 across counties within CZs. So, while we can use the estimates of $\hat{\mu}_{pc}$ to

measure the variance of exposure effects and sorting components, we cannot use these estimates to form reliable predictions about exposure effects for every place.

For larger cities, like New York, we obtain fairly precise estimates (e.g. an estimate of -0.15 with s.e. of 0.04, as shown in Appendix Table VI), but in smaller CZs and counties our estimates are more imprecise. If one were to sort CZs based on their estimated $\hat{\mu}_{pc}$, the ordering of places from top to bottom would likely be driven by sampling error, as opposed to the true causal effect, μ_{pc} .

IX.A Optimal Forecasts

In the presence of sampling error, the goal of forecasting the "best" and "worst" places differs from the goal of finding unbiased estimates. We construct optimal forecasts by imagining the hypothetical experiment of randomly assigning a child to place c. We wish to construct an unbiased forecast of the causal exposure effect that place will have on her, μ_{pc} . Up to this point, we have two potential causal effects to assign to this child. The first is a projection based on the outcomes of permanent residents, $\beta \bar{y}_{pc}$: on average, each year of exposure generates a convergence to the permanent resident outcomes at a rate of 0.03-0.04. This estimate is precise (\bar{y}_{pc} is effectively measured without sampling uncertainty given the large samples of permanent residents) but is biased because \bar{y}_{pc} contains a sorting component, $\bar{\theta}_{pc}$. Second, we have our estimated causal effect, $\hat{\mu}_{pc}$. This estimate is unbiased (under Assumptions 1 and 2) but contains non-trivial sampling uncertainty.

To construct optimal linear forecasts, we resolve the classic bias-variance tradeoff by conducting a hypothetical regression of the true causal effect on our two estimates:

$$\mu_{pc} = \rho_{1,pc}\bar{y}_{pc} + \rho_{2,pc}\hat{\mu}_{pc} + \eta^f$$

which yields an optimal forecast $\mu_{pc}^f = \hat{\rho}_0 + \hat{\rho}_1 \bar{y}_{pc} + \hat{\rho}_2 \hat{\mu}_{pc}$ that will minimize the mean-square error, $\sum_c \left(\mu_{pc}^f - \mu_{pc}\right)^2$, and form an unbiased forecast of the causal effect conditional on the forecast, $E\left[\mu_{pc}|\mu_{pc}^f\right] = \mu_{pc}^f$.

If we knew the causal effect of each place with certainty, μ_{pc} , we could run this regression and obtain the optimal forecast weights, $\hat{\rho}_j$. Absent knowledge of μ_{pc} , we proceed using the following methodology. Because $\hat{\mu}_{pc}$ is an unbiased estimate of μ_{pc} , we can form a prediction for μ_{pc} based on the permanent residents by regressing $\hat{\mu}_{pc}$ on \bar{y}_{pc} , yielding a coefficient β_p . For simplicity, we

⁶⁸For simplicity, we imagine \bar{y}_{pc} has been demeaned to have mean zero across places; alternatively, one can add a constant into the forecast.

assume β_p and \bar{y}_{pc} are non-stochastic; because of the large samples, incorporating the sampling uncertainty of β_p and \bar{y}_{pc} leads to very minimal changes in any of our estimates. We can then construct the residuals

$$\hat{\epsilon}_{pc} = \hat{\mu}_{pc} - \beta_p \bar{y}_{pc}$$

Let \hat{s}_{pc} denote the standard error of $\hat{\mu}_{pc}$ estimated in equation (17). Because $\beta_p \bar{y}_{pc}$ is non-stochastic, \hat{s}_{pc} is also the standard error of the residuals, $\hat{\epsilon}_{pc}$. Moreover, $E\left[\mu_{pc}|\bar{y}_{pc}\right] = \beta_{pc}\bar{y}$, so that it must be the case that $\rho_1 + \rho_2 = 1$. Hence, the problem of choosing the best linear forecast, μ_{pc}^f , reduces to the question of how much weight to place on the residuals, $\hat{\epsilon}_{pc}$. This will be given by the regression coefficient:

$$\rho_{2,pc} = \frac{cov\left(\hat{\epsilon}_{pc}, \mu_{pc}^f - \beta_p \bar{y}_{pc}\right)}{var\left(\hat{\epsilon}_{pc}\right)} = \frac{\chi_{pc}}{1 + \chi_{pc}}$$

where χ_{pc} is the signal-to-noise ratio of the residuals for place c. These are given by

$$\chi_{pc} = \frac{\sigma_{\epsilon_{pc}}^2}{\sigma_{\epsilon_{pc}}^2 + \hat{s}_{pc}^2}$$

where $\sigma_{\epsilon_{pc}}^2$ is the estimated variance across places c of the true residuals (which is fixed across places, c) and \hat{s}_{pc}^2 is the estimated sampling variance of the residuals for each place c (which varies across places, c). We compute $\sigma_{\epsilon_{pc}}^2$ for each place c using the formula:

$$\sigma_{\epsilon_{pc}}^2 = \sigma_{\mu_{pc}}^2 - \sigma_{\beta\bar{y}_{pc}}^2$$

where $\sigma_{\mu_{pc}}^2$ is the estimated signal variance of the true place effects (see Panel A of Table VII) and $\sigma_{\beta\bar{y}_{pc}}^2$ is the variance of the predicted values based on permanent residents.⁶⁹ Hence, our optimal forecast is given by

$$\mu_{pc}^{f} = \beta_{p} \bar{y}_{pc} + \frac{\sigma_{\epsilon_{pc}}^{2}}{\sigma_{\epsilon_{pc}}^{2} + \hat{s}_{pc}^{2}} (\hat{\mu}_{pc} - \beta_{p} \bar{y}_{pc})$$
(21)

The forecasts place more weight on the fixed effect estimates of a given place, c, if (a) there is more residual signal variance contained in these fixed effects across places, $\sigma_{\epsilon_{pc}}^2$ and (b) there is less sampling error in the fixed effect estimate of a given place, \hat{s}_{pc}^2 . Note that the optimal weights vary across places according to the precision of the estimated fixed effects. If the fixed effects were estimated with perfect precision, $\hat{s}_{pc}^2 = 0$ so that the optimal forecast would place a weight of 1 on the unbiased fixed effects estimates. In places where the fixed effects are estimated with greater sampling error, the optimal forecast places more weight on the predictions based on permanent residents – the MSE-minimizing forecast accepts some bias in order to reduce variance.

⁶⁹Both the signal variance across places, $\sigma^2_{\mu_{pc}}$, and the variance of the predicted values, $\sigma^2_{\beta\bar{y}_{pc}}$, are estimated using precision weights, $\frac{1}{\hat{s}_{pc}}$.

IX.B Estimation

Appendix Table IV reports the estimates of β_p across specifications and parental income levels, along with the standard deviation of predicted values, $\sigma_{\beta\bar{y}_{pc}}$, and the standard deviation of the residuals, $\sigma_{\epsilon_{pc}}^2$. For CZs, we estimate a value for β of 0.032 at p25 and 0.038 at p75. For counties, we estimate β_p of 0.027 at p25 and 0.023 at p75. All estimates are roughly similar to our baseline exposure effect estimates.⁷⁰

Consistent with the results in Section IV illustrating that the permanent resident outcomes are predictive of the causal effects, we estimate that the predictions $\beta_p \bar{y}_{pc}$ capture a significant portion of the underlying place effects. Across CZs, the predictions based on permanent residents have a standard deviation of 0.106 at p25 and 0.097 at p75, as compared to the total signal standard deviation of 0.132 and 0.107 reported in Table VII. Across counties, we estimate a standard deviation of the predictions based on permanent residents of 0.115 and 0.076 at p25 and p75, which correspond to analogous signal standard deviations of 0.165 and 0.155. But while the predictions based on permanent residents do capture a significant portion of the variation in causal effects, the residual standard deviations are also quite large. Across CZs, we find estimates of $\sigma_{\epsilon_{pc}}$ ranging from 0.08 at p25 and 0.045 at p75 across CZs. Across counties, we find estimates of 0.118 and 0.135 at p25 and p75. Hence, there is still considerable information in the estimated place effects, μ_{pc} , not captured in the forecasts based on permanent residents.

In large CZs, we estimate that the variation of $\hat{\mu}_{pc}$ accounts for roughly 75% of the variance – hence, the optimal forecasts will place considerable weight on the fixed effect estimates. In contrast, in smaller CZs, the raw fixed effect estimates become noisier, so that the optimal forecasts place considerably more weight on the permanent residents. Online Data Tables 3 and 4 contain all the underlying estimates that are required for replication of this forecasting methodology.⁷¹

IX.C Baseline Forecasts

Highest and Lowest CZs. Figure XIII plots the resulting values of $\mu_{p,c}^f$ for below-median (p25) and above-median (p75) income families. Table VIII lists the forecasts for the 50 largest CZs, sorted in descending order from highest to lowest values of $\mu_{25,c}^f$. We also report the root mean square

⁷⁰In contrast to our baseline estimates in Section IV, the estimates here are not cohort-varying and the slope estimate does not contain cohort-varying intercepts. Hence, a more natural comparison is to column (5) of Table II, which has a coefficient of 0.036 (s.e. 0.002).

⁷¹While our forecasts are "optimal" conditional on finding a linear combination of the permanent resident forecast and the fixed effect, they are sub-optimal in that they do not use all of the available information in the joint distribution of the fixed effect estimates and permanent resident outcomes. For example, an interesting direction for future work would be to construct a forecast that incorporates the fixed effect estimates of neighboring counties.

error for each forecast, which provides a measure of how much, on average, one would expect these forecasts to be from the true place effect, μ_{nc} .⁷²

Among the 50 largest CZs, we estimate that Salt Lake City, Utah has the highest causal effect on children in below-median income families. Every additional year spent growing up in Salt Lake City increases a child's earnings by 0.166 percentiles (rmse 0.066) relative to an average CZ. In dollar units⁷³, this corresponds to a \$136 increase in annual income per year of exposure, a roughly 0.52% increase; aggregating across 20 years of exposure, this is a 10% increase in the child's income for growing up in Salt Lake City as opposed to an average CZ.

Conversely, at the bottom of the list we estimate that every additional year spent growing up in New Orleans reduces a child's earnings by 0.214 percentiles (rmse 0.065) per year relative to an average CZ. This corresponds to a decrease of \$175 per year of exposure, or roughly 0.67%. Multiplying by 20 years of exposure, this implies that growing up in Salt Lake City as opposed to New Orleans would increase a child's income from a below-median income family by \$6,223, or roughly 24%.

As illustrated in Column (4), there is fairly wide variation across CZs in the forecasted impact of places on children's earnings. Relative to an average CZ, every year spent in New York lowers annual incomes at age 26 by roughly \$95.5 (0.366%); every year in Detroit lowers incomes by \$111 (0.425%); every year in Minneapolis increases incomes by \$84 (0.32%). For above-median income families, we estimate that Los Angeles produces the lowest outcomes. Every year spent growing up in Los Angeles reduces incomes for children in above-median income families by 0.226 percentiles, which corresponds to \$189, or roughly 0.466% reduction in incomes at age 26 per year of exposure during childhood.

Highest and Lowest Counties. Table IX presents estimates from the 100 largest counties, focusing on those in the top and bottom 25 based on the causal effect on family income rank for children in below-median income families, $\mu_{25,c}^f$. Figure XIV plots the forecasts for the New York City and Boston Combined Statistical Areas (CSAs). We find wide variation in place effects, even

⁷²The RMSE provides a more appropriate measure of uncertainty than the standard error, which is considerably lower than the RMSE because the values are shrunk to the outcomes of permanent residents, which are statistically precise but contain the sorting component.

 $^{^{73}}$ Recall from above that we can scale these percentile changes to reflect the dollar-per-year increases in child earnings. We construct the mean income of permanent residents in each CZ for parents at each income percentile, $\bar{y}_{pc}^{\$}$. We then regress $\bar{y}_{pc}^{\$}$ on the mean rank outcomes, \bar{y}_{pc} across CZs for each parent income rank, p. This yields a coefficient of \$818 for p=25 and \$840 for p=75, suggesting that each additional income rank corresponds to an additional \$818 of earnings at age 26 at p=25 and \$840 at p=75. Normalizing by the mean income of children at age 26 in below-median income families of \$26,091 at p25 and \$40,601 at p75 yields the percentage increase in child's earnings.

at close distances. For example, every additional year spent growing up in Hudson County, NJ increases incomes for children in below-median income families by 0.066pp (rmse 0.101), which corresponds to an increase of \$54, or 0.208% of the mean child income for those in below-median income families. Conversely, every year spent growing up in the Bronx, NY reduces incomes by 0.174pp (rmse 0.076), which corresponds to an decrease of \$142, or 0.544% of mean income. Combining these estimates, a child from a below-median income family that spends 20 years growing up in Hudson, NJ as opposed to the Bronx, NY will have incomes that are 15% (\$3,920) higher.

At the top of the list, we find that Dupage county, IL (western suburbs of Chicago) has the highest causal effect on children from below-median income families. Every year spent growing up in Dupage increases a child's income by 0.255 percentiles (rmse 0.09), which corresponds to an increase of \$209 or 0.80%. This contrasts with the nearby Cook county (Chicago) which lowers a child's earnings by 0.204 percentiles per year (rmse 0.06), corresponding to a reduction in incomes of \$167, or 0.64%. Twenty years spent growing up in the western suburbs of Chicago as opposed to Chicago proper increases a child's income on average by \$7,520, or roughly 28.8%.

At the bottom of the list of the 100 largest counties, we estimate that Mecklenburg County (Charlotte, NC) and Baltimore, MD have the lowest causal effect on the incomes of children in below-median income families. Every year spent growing up in Mecklenburg, NC reduces a child's income by 0.231 percentiles, which corresponds to \$189 per year (0.72%) in earnings at age 26. This implies that twenty years of exposure to Dupage county, IL relative to Charlotte, NC would raise a child's income from a below-median income family by \$7,948, or roughly a 30.5% increase in the earnings of a child from a below-median income family.

IX.D Estimates by Gender and Gender-Averaged Estimates

Estimates by Gender. In Section V.C we showed that the outcomes of permanent residents across genders are highly correlated (0.9 at p50), but they are not identical. Building on this, we construct measures of $\hat{\mu}_{pc}$ separately by child gender. Appendix Table V (rows 6 and 7) reports the correlation with the baseline specification and the signal standard deviation of the gender-specific estimates.

There is more variation in place effects, $\mu_{25,c}$, for boys in low-income households than for girls in low-income households. Across counties, we find a signal standard deviation of 0.277 for males and 0.172 for females. To illustrate the particular CZs and counties that have gender-specific effects, Tables X and XI present forecasts, $\mu_{25,c}^f$ separately by gender across CZs and counties. For brevity,

we focus on the impacts on children in below-median income (p25) families; Online Data Tables 3 and 4 present the results for all CZs and counties using the linear model to construct measures at all parental income percentiles, p.

Table X presents the estimates for the 50 largest CZs for below-median income families for boys and girls separately. Online Appendix Figure X presents the national forecasts by CZ for males and females in below-median (p25) income families. For males in below-median income families, Minneapolis, MN has the highest effect of 0.155 percentiles per year of exposure, corresponding to a 0.5% increase in mean family income per year of exposure relative to the average CZ.⁷⁴ In contrast, the Detroit CZ has the lowest causal effect on family income for boys; every year a below-median income child spends growing up in Detroit lowers their incomes by 0.77%.

For females in below-median income families, New Orleans has the lowest causal effect on family income; every additional year spent in New Orleans lowers their incomes by -0.285 (s.e. 0.098) percentiles, a reduction of 0.932%. In contrast, we find that Salt Lake City, Utah has the highest causal effect on the family incomes of females. Every year spent growing up in Salt Lake City increases a female child's income from a below-median income family by 0.234 percentiles, or roughly 0.767%.

Table XI zooms in to the finer county-level geography. For males in below-median income families, Bergen County, NJ and Bucks County, PA have the highest causal effect on family income of males, increasing incomes at a rate of 0.831% and 0.841% per year of exposure. Conversely, Baltimore, MD has the lowest causal effects on male family income. Every additional year of exposure to Baltimore for males in low-income families lowers their income by 1.393%. Put differently, these suggest that 20 years of exposure to Bucks County, PA as opposed to Baltimore, MD for males in below-median income families would increase their income by 44.7%.

In contrast, we find slightly different patterns for girls. An additional year of exposure to Baltimore for women in below-median income families reduces their family income by -0.082 percentiles, or -0.27% per year. For Bergen County, NJ, and Bucks, PA we continue to find positive effects on females in below-median income families corresponding to a 0.56% and 0.46% increase in income per year of exposure.

⁷⁴To obtain this translation from percentiles into dollars and percentage increase in dollars, we follow the same procedure as above for average income across genders. We construct the mean gender-specific income of permanent residents in each CZ for parents at each income percentile, $\bar{y}_{pc}^{\$}$. We then regress $\bar{y}_{pc}^{\$}$ on the mean rank outcomes, \bar{y}_{pc} across CZs for each parent income rank, p, separately by gender. This yields the percentile-to-dollar translation. Normalizing by the gender-specific mean income of children at age 26 in below-median income families yields the percentage increase in child's earnings.

Overall, the patterns illustrate a wider variation in the role of place in determining boys as opposed to girls outcomes. To illustrate this, Appendix Figure VIII plots the cumulative distribution of forecast values, μ_{25c}^f across counties for males and females. As one would expect given the higher signal standard deviation, the distribution is more dispersed for males than for females. Moreover, the distribution is also slightly skewed for males: there is a thicker "left tail" of places that produce particularly poor outcomes for boys as opposed to girls. This suggests that there are pockets of places across the U.S., like Baltimore MD, Pima AZ, Wayne County (Detroit) MI, Fresno CA, Hillsborough FL, and New Haven CT, which seem to produce especially poor outcomes for boys. Twenty years of exposure to these counties lowers a child's income by more than 14% relative to an average county in the US.

Gender-averaged Estimates. Given the evidence of heterogeneity in effects across genders, we also present baseline rankings by CZ and county that allow for different models for girls and boys and then average the resulting estimates. Indeed, one could be worried that the pooled estimate does not recover the mean effect across gender due to subgroup heteroskedasticity or finite sample bias from differential fractions of males and females moving across areas. To that aim, Column (10) of Table XI reports the average of the two gender forecasts, which can be compared to the pooled specification estimate in Column (7).

In practice, these two estimates deliver nearly identical forecasts – their population-weighted correlation across counties is 0.97. Table XI is sorted in descending order according to the gender-averaged specification in Column (10).⁷⁵ We estimate that Dupage county increases a child's income by 0.756% per year of exposure; in contrast, we estimate that Baltimore, MD decreases a child's income by 0.864% per year. Twenty years of exposure to Dupage county versus Baltimore will increase a child's annual income (averaging across genders) by 32.4%.

IX.E Individual Income

Our baseline results focus on family income rank. Aggregating income across married spouses has the benefit of not penalizing joint household decision-making in which only one of the family members engages in primary employment. On the other hand, using a family income definition, as opposed to an individual income definition, means that the event of marriage can significantly increase one's measured income.

Therefore, a complementary outcome of interest is the individual's own income rank in the

⁷⁵To construct the RMSE, we take the square root of the sum the square of the two gender-specific forecasts.

national (cohort-specific) distribution of individual income. We replicate all of the analysis at both the CZ and county level, analogous to our baseline estimates for family income. Appendix Figure XI presents the national maps of the forecasts at the CZ level for individual income. Appendix Table VIII and IX present the estimates for the 50 largest CZs and top 25/bottom 25 of the 100 largest counties.

Broadly, the family income measures are similar to the baseline household income results.⁷⁶ However, there are some notably different patterns. Most saliently, cities have higher impacts on individual income than on family income, consistent with lower rates of marriage and an impact of places on age of marriage. For example, at the CZ level for children with below-median income parents, each additional year of exposure to New York decreases a child's family income by -0.117 percentiles (rmse 0.039) or -0.366%, but it increases individual income by 0.017 percentiles (rmse 0.039), or 0.054%.⁷⁷ Similarly, San Francisco increases a child's family income by 0.029 percentiles (rmse 0.060) or 0.09%, but it increases a child's individual income by 0.070 (rmse 0.062), or 0.23%.

Much of the difference is driven by the impact on females, and the patterns are broadly consistent with joint household decision-making combined with the evidence in Figure X that places have causal effects on marriage. For males, Minneapolis is not only the CZ with the highest impact on family income but also on individual income. For females, Philadelphia is the place with the highest impact on female individual income. Every additional year of exposure to Philadelphia increases a female's individual earnings by 0.203 percentiles (rmse 0.073), or 0.716%. However, New Orleans remains at the bottom of the list for female individual income: every additional year of exposure to New Orleans lowers a female's individual income by 0.468%.

Across income definitions and gender subgroups, male individual and household income along with female family income are all highly correlated with the baseline pooled family income specification. Our forecasts of individual and family income for males are correlated at 0.86 and 0.8 at the county level with the baseline family income specification at p25 pooling across genders. And, our forecasts for family income of females at p25 are correlated 0.92 with the baseline family income specification. But, our forecasts for female individual income at p25 are correlated only 0.38 with the baseline family income specification pooling across genders.

The importance of differential marriage rates across places in driving these patterns is illus-

⁷⁶The raw estimates of $\mu_{25,c}$ are correlated at 0.8 with the baseline estimates at the CZ level and 0.77 at the county level, as shown in row 5 of Appendix Table V.

⁷⁷We follow the procedures outlined above for translating percentiles to percentage increases in the child's individual income at age 26.

trated by a few additional examples. For example, exposure to the Salt Lake City CZ causes a 0.767% increase in family income per year of exposure, but a 0.123% decrease in individual income per year of exposure, consistent with a hypothesis that Salt Lake City has a causal exposure effect on marriage and increases the likelihood that females drop out of the labor force after marriage. In larger cities with lower marriage rates, we generally find a more muted but opposing pattern. Exposure to Boston, MA increases female household income by 0.039%, but increases female individual income by 0.369%. Exposure to Washington, DC increases female household income by 0.353% but increases female individual income by 0.522%.

Across counties, Bergen County, NJ has the highest place effects on individual earnings among the 100 largest counties for both males and females. Every year of exposure to Bergen County increases a male child's income from a below-median income family by 1.014% for males and 0.752% for females. Conversely, Baltimore, MD has the lowest effect for males: every additional year of exposure to Baltimore lowers a male's income by 0.487 percentiles, or 1.405%. Interestingly, although we find places like Baltimore and Charlotte produce generally lower outcomes for females, the county with the lowest impact on female individual income is San Bernardino County, CA. Every year of exposure to San Bernardino lowers a female's individual income by 0.119 percentiles (rmse 0.064), or roughly 0.42%.

Our analysis here only scratches the surface of the many potentially interesting underlying patterns. The results for the baseline family income and individual income, for the pooled and gender-specific samples are provided in Online Data Table 1 (CZ) and Online Data Table 2 (County).

X Characteristics of Good Neighborhoods and Positively-sorted Neighborhoods

What are the characteristics of good neighborhoods? Here, we relate the variation in the properties of neighborhoods to variation in our measure of neighborhood effects, μ_{pc} . We focus primarily on a set of characteristics that Chetty et al. (2014) explored as potential correlates of rates of observed intergenerational mobility. Chetty et al. (2014) found that observed patterns of upward mobility are correlated with measures of race, segregation, income inequality, K-12 school quality, social capital, and family structure; they also considered a range of other variables were less correlated with mobility, including measures of state and local taxes, college accessibility, local labor market conditions, and migration. In this section, we correlate these variables with the causal effects of

CZs and counties.⁷⁸

In addition to characterizing the correlates of place effects, μ_{pc} , we also use our model for the observed outcomes of permanent residents, $\bar{y}_{pc} = \bar{\theta}_{pc} + T_c \mu_{pc}$, to decompose the observed pattern with permanent resident outcomes, \bar{y}_{pc} , into the portions driven by the causal component, $T_C \mu_{pc}$, and the sorting component, $\bar{\theta}_{pc}$ in each place. This asks whether the correlations in Chetty et al. (2014) are driven by correlations with the causal effects of places, μ_{pc} , or differences in the composition of types of people in each place, θ_i (or both).

Tables XII-XV and Figures XV and XVI report the results. For Tables XII-XV, Column (1) reports the standard deviation of the covariates.⁷⁹ Column (2) reports the correlation of the covariate with μ_{pc} (note this is also the correlation with $T_C\mu_{pc}$ for any T_C).⁸⁰ Column (3) reports the coefficient of a univariate regression of \bar{y}_{pc} on the standardized covariate (each row corresponds to a separate regression). We standardize each covariate by subtracting its population weighted mean and dividing by its standard deviation, using population weights from the 2000 Census. Further, we weight the regressions using 2000 population.⁸¹ Each coefficient is the average increase in the causal effect and sorting component corresponding to a 1 standard deviation increase in the covariate. We also report the standard errors for each estimate, which are clustered at the state level for the CZ regressions and CZ level for the county-within-CZ regressions to account for spatial autocorrelation.

Column (4) reports the coefficient of a univariate regression of $T_c\mu_{pc}$ on the standardized covariate under the assumption that $T_C = 20$. Column (5) reports the coefficient of a univariate regression of $\bar{\theta}_{pc} = \bar{y}_{pc} - T_C\mu_{pc}$ on the standardized covariate. Note that the coefficients in columns (4) and (5) sum to the coefficient in column (3), so that they provide a decomposition of the observed relationship between the covariate and outcomes of permanent residents into their causal and sorting components. Tables XII and XIII report results from CZ-level regressions for below-median (Table XII) and above-median (Table XIII) families. Tables XIV and XV report results from county-within-CZ regressions that include CZ fixed effects. We report estimates separately for $\mu_{25,c}$ (Table XIV) and $\mu_{75,c}$ (Table XV). Appendix Tables X-XIII replicate these tables using

⁷⁸Relative to Section IX, we do not use the forecasted place effects for the correlations; rather, the measurement error in $\hat{\mu}_{pc}$ is not a problem for this section because it enters on the left-hand side of the regressions.

⁷⁹Appendix Table XIV provides precise definitions and sources for each covariate used in the analysis.

⁸⁰We estimate this correlation by regressing $\hat{\mu}_{pc}$ on the standardized covariate and then divide by the estimated signal standard deviation of μ_{pc} , shown in Table 7.

⁸¹This ensures that the coefficients have a population-level interpretation. However, as noted above, for estimation of all model parameters (e.g. the standard deviation of μ_{pc} , $\bar{\theta}_{pc}$) we precision-weight the observations to obtain efficient estimates of these parameters. The results are similar if instead we weighted these regression coefficients by precision instead of population.

gender-specific estimates for $\mu_{25,c}$.

For a selected set of covariates, Figures XV and XVI present a visual representation of the decomposition of the coefficients on the permanent residents into sorting and causal effects. The vertical black lines represent the coefficients on the permanent residents. The bars represent the coefficients on the causal component, $T_C\mu_{pc}$, and the dotted lines connecting the bars to the vertical black lines represent the coefficient on the sorting component. Figure XV presents the results for below-median income families and Figure XVI presents the results for above-median income families. Panel A provides the results at the CZ level and Panel B presents the results for regressions across counties within CZs.

The tables and figures present a wide range of covariates; for brevity, we focus our discussion on several themes that emerged in the exploration.

X.A Race

One of the salient findings in Chetty et al. (2014) is that areas with a higher fraction of African Americans have much lower observed rates of upward mobility. Column (2) of Table XII shows outcomes of permanent residents in below-median income families (p25) in CZs that have a one standard deviation higher fraction of black residents are -2.418pp (s.e. 0.229) lower – which corresponds to roughly 7.6% lower earnings. A natural question is whether this pattern is the result of different people living in different places (a sorting component) or the causal effect these places are having on children in these areas.

Figure XV, Panel A illustrates that this pattern is driven by a relationship with both the sorting and causal component. Roughly half of the spatial correlation with permanent resident outcomes is due to the sorting component; half due to the causal component. On average, 20 years of exposure to a CZ with a 1 standard deviation higher fraction black residents lowers a child's income rank by 1.361 (s.e. 0.339) percentiles for those in below-median income families. This coefficient is presented in the first bar in Figure XV. Scaling by the standard deviation of $\mu_{25,c}$, we find a correlation between the fraction of black residents and the causal effect of the CZ, $\mu_{25,c}$, of -0.514 (s.e. 0.128) reported in Column (2) of Table XII and the far right column of Figure XV. Conversely, the remainder 1.027 (= 2.388 – 1.361) is the coefficient on the sorting component. Those who grow up in below-median income families in a CZ with a 1 standard deviation higher fraction black residents have outcomes that would be 1.027pp lower than average regardless of where they grew up.

Across counties within CZs, we find a similar pattern shown in Panel B of Figure XV: there is a negative relationship between \bar{y}_{pc} and the fraction of black residents, which is driven by a relationship with both the causal and sorting components. We find a coefficient of -2.253 (s.e. 0.174) on permanent residents, which decomposes into -0.632 (s.e. 0.201) for the causal component and -1.622 (s.e. 0.220) for the sorting component. And, it implies a correlation of -0.319 (s.e. 0.103) between the fraction of black residents and the causal effect of exposure to the county within the CZ.

For above-median income families, we also find strong negative correlations of outcomes of permanent residents with the fraction of black residents. However, here we find this is largely driven by the sorting component. As shown in Table XIII, those who grow up in above-median income families in a CZ (county-within-CZ) with a 1 standard deviation higher fraction black residents have outcomes that would be -0.501pp (-1.671pp) lower than average regardless of where they grew up. This suggests that the strong negative correlations of children's outcomes for above median income families with the fraction black residents is largely driven by a strong correlation with the sorting component across places.

Overall, these results highlight the potential bias from inferring the causal effects of places solely from the outcomes of permanent residents. However, the evidence here validates the hypothesis that, on average, African Americans live in neighborhoods that cause lower outcomes for children in low-income families (Wilson (1987, 1996); Sampson (2008)). The average impact of exposure from birth, $20 * \mu_{25,c}$, in counties weighted by the fraction of black residents in the county is -1.38. In contrast, the average impact of exposure from birth, $20 * \mu_{25,c}$, in counties weighted by one minus the fraction of black residents in the county is 0.305. This suggests that, on average, African Americans live in counties that produce 1.69 percentile lower outcomes. Scaling this to percentage changes in incomes, it suggests the counties in which African Americans live cause incomes to be 5.3% lower relative to the counties in which non-African Americans live. Given the black-white earnings gap of 25% (Fryer (2010)), this suggests roughly 20% is explained solely by the differences in the counties in which these children grow up.

X.B Segregation, Concentrated Poverty, and Inequality

A large literature in the social sciences argues that neighborhoods with higher degrees of economic and racial segregation and areas of concentrated poverty and inequality are worse places for children to grow up. In this vein, Chetty et al. (2014) document a strong correlation between upward

mobility and measures of segregation, inequality, and concentrated poverty. But, while one might wish to infer that these neighborhoods depress upward mobility, there are many reasons to expect that the types of individuals that live in these neighborhoods differ on their unobserved inputs provided to their children, θ_i .

The first two sets of rows in Tables XII-XV illustrate the regression results for measures of segregation, concentrated poverty, and inequality. Five themes emerge from this decomposition.

1. Poverty rates and Segregation across CZs. First, we find no significant correlation with exposure effects and poverty rates across CZs, as shown in the second row of Figure XV, Panel A. This suggests that, at the CZ level of geography, poverty rates are not a very useful proxy for the causal effect of the place on low-income children's outcomes. However, we do find a significant correlation across CZs with measures of segregation, inequality, and sprawl. As reported in Table XII, twenty years of exposure to a CZ with a 1 standard deviation higher fraction of people with commute times less than 15 minutes on average increases a child's income by 2.317 (s.e. 0.353) percentiles for children in below-median income families, corresponding to a more than 7% increase in income. This implies a correlation of 0.875 (s.e. 0.133) between commute times and the causal effects of CZs for below-median income families. Similarly, for the gini coefficient, we find a negative correlation of -0.765 (s.e. 0.131) with the exposure effects of CZs for below-median income families. Spending 20 additional years in a CZ with a one standard deviation higher gini coefficient on average lowers a child's income by -2.024 (s.e. 0.346) percentiles, which corresponds to a more than 6% reduction in income.

We also find evidence that highly segregated areas are especially bad for boys. Appendix Table X illustrates that CZs with a one standard deviation higher fraction of people with commute times shorter than 15 minutes cause an increase in males incomes of 3.364 (0.450) percentiles, which corresponds to \$2,453 or a 10% increase in income at age 26. For females, the impact is more modest, with a coefficient of 1.940 (0.558) percentiles, corresponding to a 6.4% increase in incomes, as shown in Appendix Table XI. Importantly, these correlations with commute times are unlikely the direct effect of being closer to jobs. Recall we estimate these place effects using the exposure time methodology: the earlier a child gets to a place with a shorter commute time on average the higher his or her earnings will be. In this sense, it is likely some characteristic of places correlated with commute times that drives the underlying pattern. Indeed, we find similar patterns with other measures of segregation (e.g. Theil indices), as indicated in Appendix Tables X and XI. Overall, commuting zones with higher degrees of segregation and sprawl are areas that generally produce

lower outcomes for children in low-income families, especially boys.

2. Urban areas and areas with more immigrants have low causal effects but are positively sorted. Second, we find that across CZs, areas with greater population density (i.e. cities) have both (a) lower causal effects but (b) positive sorting components for children in belowmedian income families. Regressing the causal component on the standardized log population density, we obtain a coefficient of -1.713 (s.e. 0.315) for children in below-median income families (correlation of -0.647). Yet, we find a positive coefficient of 0.633 (s.e. 0.278) for the sorting component, suggesting that the observed correlation with permanent residents over-states the true causal effects of large cities.

There are many reasons this positive sorting could occur. The results in Table XII do provide suggestive evidence consistent with the hypothesis that immigrants generate some of the positive sorting patterns. We find a positive coefficient of 1.417 (s.e. 0.315) when regressing the sorting component on the fraction foreign born, which is the largest coefficient we find in the data for the sorting component in Table XII (Column 5). This is consistent with the idea that (a) immigrants tend to live in urban areas and (b) children in poor immigrant families tend to have higher outcomes than children in native families with the same parental income level. As a result, the outcomes of permanent residents over-state the impacts these places have on intergenerational mobility. This is also consistent with, for example, New York having a relatively high rate of upward mobility (Chetty et al. (2014)), even though we estimate that it has some of the lowest causal effects on children from below-median income families.

3. Segregation and inequality do not positively correlate with the causal effects for above-median income families. Third, for above-median income families, we find no evidence that areas with more racial and economic segregation tend to produce better outcomes for children in affluent families. If anything, across CZs, areas with higher degrees of segregation and inequality have negative impacts on children's earnings from above-median income families. Figure XVI illustrates these patterns with fraction black residents, poverty share, and racial segregation – we generally find small causal effects. However, we do continue to find very strong negative correlations between the causal effects across CZs and measures of income inequality and other measures of segregation. The correlation of $\mu_{75,c}$ with income segregation is -0.557 (0.167) and with the gini coefficient is -0.694 (s.e. 0.227). This is related to the observation noted above (and in Table VII) that CZs that produce better outcomes for poor children also produce better outcomes for more affluent children.

- 4. Poverty rates are weakly correlated with $\mu_{25,c}$ across counties measures of segregation and income inequality are stronger correlates. Fourth, across counties within CZs we find a correlation between $\mu_{25,c}$ and poverty rates of -0.232 (s.e. 0.108), suggesting this traditional metric for place quality is correlated with place effects at a more local level. However, we continue to find stronger correlations with other measures of county characteristics, including measures of economic and racial segregation and income inequality. Twenty years of exposure to a county within a CZ with a one-standard deviation higher gini coefficient lowers the child's income rank by -0.813 (s.e. 0.270) percentiles, which corresponds to a 2.5% reduction in income. Twenty years of exposure to a county within a CZ with a one standard deviation degree of economic segregation (Theil index) causes on average a reduction in the child's income rank of -0.837 (s.e. 0.200).
- 5. There is greater sorting across counties. Finally, across counties within CZs, we observe patterns consistent with higher degrees of residential sorting at finer geographies, as a higher fraction of the observed correlation appears to reflect variation in the sorting components. This is perhaps best illustrated by the dashed lines corresponding to the sorting component in Panel B of both Figure XV and XVI. For those in below-median income families, counties with a higher degrees of residential segregation and income inequality have lower outcomes for permanent residents; and indeed, the coefficients for the permanent residents are larger than what can be accounted for by 20 years of exposure, suggesting a portion of the observed relationship with permanent residents reflects a sorting pattern. For example, using the racial segregation Theil index, we find a negative coefficient of -0.735 (s.e. 0.190) for the causal effect, but a coefficient of -1.501 (s.e. 0.195) for the sorting component. This suggests that the observed correlation of outcomes of children in below-median income families with measures of segregation and concentrated poverty reflects both a sorting and causal component.

For those in above-median income families, we find larger evidence of sorting and less evidence of a correlation with the causal effect. The racial segregation theil index has a positive coefficient of 0.309 (s.e. 0.211) for the causal effect, but a negative coefficient of -1.642 (s.e. 0.223) for the sorting component. The observed negative relationship across counties within CZs for those in above-median income families with measures of segregation and concentrated poverty largely reflects a correlation with the sorting, not the causal, component.⁸²

 $^{^{82}}$ In principle, the extent to which the variables are correlated with the sorting component depends on our assumption for T_c . However, in this instance, there is very minimal observed correlation between these variables and the causal effect; whereas there is an observed significant relationship with the outcomes of permanent residents. Hence,

In sum, the fact the negative correlation of place effects with these measures of segregation, inequality, and concentrated poverty is consistent with the idea that these conditions may play a causal role in limiting the economic outcomes of disadvantaged youth. However, our results add in several ways to this literature. First, in contrast to the pure spatial mismatch theory (Wilson (1987, 1996)), the exposure effects documented here operate when growing up, not during adulthood.⁸³ Second, we find strong evidence that CZs with more segregation and concentrated poverty have negative effects on kids from both rich and poor families – there does not appear to be a tradeoff whereby places with greater segregation improve outcomes for above-median income families. Third, at the finer geography of counties within CZs, counties with more segregation have negative effects on poor children; but a nontrivial portion of the observed negative correlation between observed outcomes of children in more affluent outcomes reflects a correlation with the sorting component, as opposed to a causal effect.

X.C Family Stability

Across CZs, there is a strong relationship between upward mobility and measures of family stability. Areas with lower fractions of single parents have much higher rates of upward mobility (Chetty et al. (2014)). This could reflect the causal effects of CZs with more single parents, but it could also reflect an impact of growing up in a single versus two-parent household or other family demographic effects.

In Table XII and Figure XV (Panel A), we present evidence that both effects are operating. For children in below-median income families, 20 years of exposure to CZs with a 1 standard deviation higher fraction of single parent households causes a child's income rank to be 1.5pp (s.e. 0.316) lower on average, or 4.7% reduction in incomes. This corresponds to a correlation of -0.567 (s.e. 0.119) between the fraction of single parents and the place effects, $\mu_{25,c}$. However, children living in areas with one standard deviation larger share of single parents on average will have outcomes that are 0.909pp lower than the average child regardless of where they live. Hence, slightly more than half of the observed relationship between family stability and upward mobility reflects the causal effects these areas are having on children's outcomes, as shown in Figure XV (Panel A).

Across counties within CZs, we find a similar pattern but find larger evidence of a correlation with sorting patterns. A one standard deviation higher fraction of single parents in the county

the conclusion that most of the relationship with the permanent residents is driven by a correlation with the sorting component is not overly dependent on our choice of T_c .

⁸³This is consistent with the ideas expressed in Sampson (2008).

corresponds to -0.747 (s.e. 0.212) reduction in the child's income percentile but a -1.739 (s.e. 0.195) lower sorting component. So although both are significantly different from zero, a significant fraction of the relationship between the fraction of single parents and the outcomes of permanent residents reflects a sorting pattern.

For above median income families, we also observe a negative relationship between the fraction of single parent households and child outcomes of permanent residents across CZs and across counties within CZs, as shown in Figure XVI. Yet we find a minimal correlation between the fraction of single parents and the causal effect of the CZ on children in above-median income families. Hence, the observed lower outcomes in counties and CZs with a higher fraction of single parents for children in above-median income families is almost entirely driven by a correlation with the sorting component, not the causal effect.

X.D Social Capital

Social capital has been argued to play an important role in promoting upward mobility (Coleman (1988); Putnam (1995)), and measures of social capital are strongly positively correlated with the causal effects of place across CZs. Twenty years of exposure to CZs with a 1 standard deviation higher level of the social capital index of Rupasingha and Goetz (2008) cause an increase in incomes of 1.845 (s.e. 0.352) percentiles for children from below-median income backgrounds (Table XII) and 1.417 (s.e. 0.434) percentiles for above-median income backgrounds (Table XIII). In contrast, we find slightly negative coefficients for the sorting component. This suggests the observed correlation of intergenerational mobility with social capital across areas of the US largely reflects the differences in the causal effects of these places on childrens' outcomes from both high and low income backgrounds. Although this is only a correlation with the causal effects and does not establish a causal relationship between social capital and economic outcomes, it is consistent with the theory that social capital is a mechanism for promoting better outcomes for children across the parental income distribution.

We also find evidence that measures of social capital are more strongly correlated with the causal effects on low-income boys as opposed to girls outcomes. Twenty years of exposure to a CZ with a one standard deviation higher measure of the social capital index will increase a boys' income in adulthood by 2.609 (s.e. 0.447) percentiles, a 7.8% increase in income; for girls the increase is only 1.164 (s.e. 0.508) percentiles, or a 3.8% increase in income. Similarly, twenty years of exposure to CZs with a one standard deviation higher violent crime rate will cause, on average, a reduction

in boys' incomes by -2.244 (0.366) percentiles, or 6.7%, but a reduction of girls' incomes by -1.322 (s.e. 0.580) percentiles, or 4.3%. CZs with more social capital and lower crime rates seem to have positive causal effects, especially on boys.⁸⁴

X.E K-12 Education

Across CZs, outcomes of permanent residents are strongly correlated with measures of school quality. Tables XII-XIII and Figures XV-XVI illustrate that much of this correlation reflects the causal effects these places have on children. For children in below-median income families, moving to a CZ with a 1 standard deviation higher (income-residualized) test score percentile causes an increase in child's income percentile of 1.346pp (s.e. 0.269) for 20 years of exposure, corresponding to a 4.2% increase in incomes at age 26. Similarly, we find a coefficient of 1.473 (s.e. 0.438) for children in above median income families, corresponding to a 3.0% increase in income. CZs where children have higher test scores have higher causal effects on children's earnings in young adulthood.

Across CZs, we find no statistically significant positive correlations between measures of school quality and the sorting component, suggesting that much of the observed pattern reflects a correlation with the causal effects of these CZs. However, across counties within CZs, we do begin to find significant correlations with the sorting component, consistent with the existence of a greater degree of residential sorting at these finer geographies. Indeed, our estimates suggest much of the observed pattern of permanent residents reflects this sorting component across counties. We find coefficients from regressing the sorting component on residualized test scores of 1.055 (s.e. 0.316) at p25 and 0.958 (s.e. 0.334) at p75. However, we continue to find significant positive coefficients for below-median income families of 0.702 (s.e. 0.259) for the causal component, suggesting counties with higher quality schools have significantly positive impacts on below-median income children's outcomes.

Finally, we also find some evidence that areas with high quality measures of the K-12 education system have especially higher causal effects on low-income (p25) boys relative to girls. Across CZs, we estimate that places with a one standard deviation higher residualized test scores cause boys to

⁸⁴At the county-within-CZ level, we do not find strong correlations with measures of social capital. However, we do find stronger negative correlations with other measures related to social capital including the violent crime rate. Across CZs, the violent crime rate has a strong negative correlation with both the causal and sorting components. Across counties within CZs, areas with a 1 standard deviation higher violent crime rate cause a reduction in children's incomes of -0.635 (s.e. 0.211) percentiles for those in below-median income families, corresponding to a correlation of -0.320 with the exposure effects. However, for above-median income families we find no significant correlation with the causal effects; rather, for both above and below-median income families we find strong negative correlations between the violent crime rate and the sorting component of the place.

earn 2.116 (0.402) percentiles more at age 26, or 6.3%. In contrast for girls the increase is 0.534 (s.e. 0.391) percentiles, or 1.7%. We find similar patterns for the dropout rate and student/teacher ratio; areas with higher measures of the quality of the K-12 education system have higher causal effects, especially on low-income boys.

X.F Other Covariates

We explored a wide range of covariates in our analysis, ranging from measures of the number and affordability of local colleges, structure of the local tax code and measures of tax expenditures, and measures of migration. Tables XII-XV report those correlations and coefficients. Appendix Tables X-XIII report the results for the gender-specific place effect estimates for below-median (p25) income families. We omit a detailed discussion of each of these covariates, as even this list of covariates is far from exhaustive. Online Data Tables 3 and 4 provide the raw data for future work exploring these patterns in more detail.

X.G Prices

Does it cost more to live in places that improve childrens' outcomes? In the last two rows of Tables XII-XV, we correlate our measures of place effects, μ_{pc} , with the median rent and median house price from the 2000 Census.⁸⁵ More expensive areas generally produce lower, not higher, outcomes. We find a strong negative correlation of -0.324 (s.e. 0.133) between $\hat{\mu}_{25,c}$ and house prices and -0.424 (s.e. 0.139) with rent.⁸⁶ The negative correlation with prices is perhaps not surprising, since rural areas have higher causal effects and are also less expensive. But, moving from an urban commuting zone to a rural commuting zone requires not only purchasing a new house – it generally requires obtaining a new job. Because the availability of jobs is another important factor in a location decision, it is potentially misleading to consider the negative correlation with rent and house prices as an indication that it is cheaper on net to move to a CZ with a higher causal effect.

We find more salient patterns when looking across counties within CZs. The location decision within a commuting zone aligns more closely with the conceptual experiment of holding fixed the set of job opportunities available to families when making location choices. Table XIV shows that across counties within CZs, house prices and rents are not positively correlated with $\mu_{25,c}$. But while we find zero correlation on average across counties within CZs, it turns out this masks several

 $^{^{85}}$ More specifically, we take the median prices in the county and average them across counties within the CZ.

⁸⁶We find even stronger negative correlations for $\mu_{75,c}$ of -0.648 (s.e. 0.120) for house prices and -0.718 (s.e. 0.180), as shown in Table 10.

patterns in urban versus rural and segregated versus non-segregated CZs.

Figure XVII explores these patterns by quantifying how much, on average, it costs to move to a place with a 1-unit higher causal effect in various types of CZs across the U.S. To construct this measure, we seek hypothetical regression of prices on μ_{pc} . We obtain these coefficients by regressing prices on the forecast estimates, μ_{pc}^f , which remove the attenuation from the sampling uncertainty in $\hat{\mu}_{pc}$.⁸⁷ Figure XVII splits the sample into CZs with populations above and below 100K. Within the large CZs, we split them into those with above median segregation and below-median segregation, where segregation is defined as the fraction of people with commute times less than 15 minutes. In each sample, Figure XVII presents binned scatter plots of median rent on the forecasted place effects for children in below-median income families, $\mu_{25,c}^f$, conditional on CZ fixed effects, weighted by 2000 population.

Figure XVIIa illustrates that in large segregated CZs, moving to a county that is forecasted to increase a child's income rank by 0.1 percentiles per year (for children in below-median income families) incurs, on average, a \$52 increase in median monthly rent.⁸⁸ In contrast, in large non-segregated CZs, Figure XVIIb illustrates that we find no such pattern: counties that are forecast to increase a child's income rank by 0.1 percentiles per year have, on average, \$6 lower monthly rent, which is not statistically distinguishable from zero. In other words, there is a price-quality tradeoff across counties in large, highly-segregated CZs; but this tradeoff does not appear to emerge in large CZs with below-median levels of segregation.

In smaller CZs with populations below 100,000, we find that counties that produce better outcomes are actually cheaper. Moving to a county that is forecast to increase a child's income rank by 0.1 percentiles per year (for children in below-median income families) is associated with, on average, \$18 lower median monthly rents.⁸⁹ This negative correlation with prices across counties in rural CZs offsets the positive patterns we find in large segregated CZs, so that a pooled analysis does not reveal any underlying significant correlations with prices. In urban segregated CZs, rents are higher in areas that produce higher outcomes.

⁸⁷Note that using the forecasts that incorporate permanent resident outcomes would introduce bias from the sorting component embodied in the permanent resident outcomes. Hence, we construct these forecasts by scaling $\hat{\mu}_{pc}$ by the signal-to-total-variance ratio, and do not use the permanent residents in the optimal forecast.

⁸⁸We find very similar patterns for all of the results in this section if use the 25th percentile of the rent distribution in each county, as opposed to the median

⁸⁹Although we do not have conclusive evidence on why this negative pattern exists, we have explored whether any correlates in Tables 9-12 can explain this pattern by having an inverse correlation with the county's effect on children and median rental prices. One such variable that follows this pattern is income inequality. In CZs with populations below 100,000, we find a strong negative correlation between the county place effects, $\mu_{25,c}$, and income inequality (e.g. as measured by the gini coefficient on incomes below the top 1%); but counties with higher income inequality generally have higher median rents amongst CZs with populations below 100,000.

Observables versus Unobservables. For families choosing to live in a particular location, it is perhaps difficult to know the place's impact on their child's outcomes later in life. As shown in Tables XII-XV, these place impacts are highly correlated with potentially observable measures of place quality, such as schools, social capital, segregation, and family structure. As a result, one can think of $\mu_{25,c}$ as having two components: an "observable" component that is projected onto observable covariates (excluding the permanent resident outcomes), such as school quality, social capital, etc, and an unobservable component that is the residual after projecting this forecast onto the observable covariates. It is natural to ask which of these two components is driving the positive correlation with housing prices in large CZs.

To explore this, we regress the county-level fixed effect estimates $\hat{\mu}_{pc}$ in CZs with populations greater than 100,000 on several standardized covariates in Tables XII-XV: the fraction of single parents, the fraction with travel time less than 15 minutes, the gini-99 coefficient (gini coefficient on incomes below the top 1%), the fraction below the poverty line, and a measure of school quality using an income-residualized measure of test scores. We include CZ fixed effects and restrict to CZs with populations above 100,000. We then define the observable component as the predicted value from this regression. We define the unobservable component as the residual from this regression, which we shrink by its signal-to-noise ratio so that it is an unbiased forecast of the residual for a particular place.⁹⁰

Figure XVIIIa illustrates that the positive correlation with monthly rent is driven entirely by the observable component of $\mu_{25,c}^f$, despite using only a handful of variables to span the observable subspace. Moving to a county within a CZ that produces a 0.1 percentile increase (i.e. a 0.3% increase in the child's earnings) per year exposure of based on its observable characteristics costs \$102.56 (s.e. \$8.35) per month, holding the unobservable component constant. In contrast, we find no significant relationship between prices and the unobservable component. Moving to a county within a CZ that will produce a 0.1 percentile increase per year of exposure based on its unobservable characteristics costs only \$21.68 per month (s.e. \$12.36), holding the observable

⁹⁰Using these observables, we obtain a standard deviation of predicted values of 0.055 implying that roughly one-third of the signal variance is captured by our observable component.

⁹¹Figure XVIII provides a non-parametric representation of the (partial) regression coefficients obtained from regressing monthly rent on the observable and unobservable components, conditional on CZ fixed effects. For Figure XVIIIa, we regress the observable component of $\mu_{25,c}^f$ on CZ fixed effects and the unobservable component and bin the residuals into 20 equally sized vingtile bins. We also regress median monthly rent on the same CZ fixed effects and unobservable component of $\mu_{25,c}^f$. Figure XVIIIa then plots the average of this residual in the 20 vingtile bins. The slope then represents the partial regression of median monthly rents on the observable component of μ_{pc}^f , controlling for CZ fixed effects and the unobservable component of μ_{pc}^f . Figure XVIIIb repeats this process, interchanging the observable and unobservable components.

components constant.

Assuming that, all else equal, parents prefer to raise their children in places that have higher causal effects on income, the pattern is consistent with a couple of hypotheses: On the one hand, it could be the case that parents cannot uncover the unobservable component and it is therefore not incorporated into prices. Alternatively, it could be the case that parents do know about the unobservable component, but that places with positive unobservable components also have other worse amenities that prevent a higher price from being realized. A deeper analysis of the potential existence of such amenities is beyond the scope of this paper. But more generally, this finding suggests a potential direction for future work to better understand the objective function that parents are maximizing when choosing where to raise their children and the information set or heuristics they use to evaluate these decisions.

XI Conclusion

Where children grow up affects their outcomes in adulthood in proportion to the time they spend in the place. The idea that exposure time to neighborhoods plays an important role has been recognized since at least Wilson (1987) and Jencks and Mayer (1990). Our results highlight that it is exposure during childhood that appears to matter most, up to the early twenties – and that at least 50% of the variation in intergenerational mobility across the U.S. reflects the causal effects of childhood exposure.

The importance of accounting for differences in exposure during childhood when analyzing neighborhood effects has received growing attention in the sociology literature (Sharkey and Faber 2014, Crowder and South (2011), and Wodtke et al. (2011, 2012); Wodtke (2013)). And, this exposure time perspective helps to reconcile a large observational literature documenting wide variation in outcomes across areas with an experimental literature that generally finds little effects of neighborhoods on economic outcomes. At first glance, our results might appear to be inconsistent with experimental evidence on the impacts of neighborhoods on economic outcomes. Most notably, the Moving to Opportunity (MTO) housing voucher experiment documents little in the way of economic impacts on adults and older youth (e.g. Kling et al. (2007)). However, if neighborhoods have causal effects in proportion to the exposure time to the neighborhood, then the subset of children that would benefit most from moving out of high poverty areas would be those who were youngest at the time of the experiment, precisely the subset of participants whose long-term outcomes have not, until recently, been available for analysis.

In a follow-up paper (Chetty, Hendren, and Katz (2015)), we link the MTO data to tax data and show that the MTO data exhibit the same exposure time patterns as those we document here. Children whose families received an experimental housing voucher and moved to a low-poverty neighborhood at young ages (e.g., below age 13) earn 30% more in their mid 20's than the control group. Children who moved at older ages do not show such gains, consistent with exposure time being a key determinant of neighborhood effects.

Relative to MTO, the advantage of the present paper is its ability to estimate neighborhood effects on a national scale. In Part 2, we use the exposure effects design to estimate the causal effect of spending an additional year growing up in each county in the U.S. We characterize the properties of areas with positive causal effects, but importantly our correlational analysis does not provide direct evidence on the factors that cause places to produce better outcomes for children. To facilitate further investigation of these issues, we have made all of the county- and CZ-level estimates of causal and sorting effects available on the project website. We provide the estimates by gender for individual and family income disccused above and also provide estimates for other outcomes and subgroups not explored in detail here, such as college attendance and marriage and estimate for children in single vs. two-parent households. We hope these data facilitate future work exploring the mechanisms through which neighborhoods have causal effects on intergenerational mobility.

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Online Appendix A. Fixed Effects Estimator of Exposure Effect.

In this appendix, we show that the fixed effects regression in (9) yields a coefficient $b_m = \beta_m + \delta_m$. The regression in (9) is equivalent to the univariate OLS regression.

$$y_i - \bar{y}_{pom} = b_m(\bar{y}_{pd} - \bar{y}_{pdom}) + \eta_i \tag{22}$$

where $\bar{y}_{pom} = E[y_i|p(i) = p, o(i) = o, m(i) = m]$ is the mean outcome for those who start in o and move elsewhere at age m and $\bar{y}_{pdom} = E[\bar{y}_{pd}||p(i) = p, o(i) = o, m(i) = m]$ is the mean outcome of the permanent residents in the destinations to which these individuals move.

Using the model in (1), the outcomes of children in the one-time movers sample can be written as

$$y_i = \Lambda_m \mu_{po} + (1 - \Lambda_m)\mu_{pd} + \theta_i - \kappa_m$$

where μ_{po} and μ_{pd} represent the causal effects of the origin and destination at percentile p, and $\theta_i = \frac{1}{T} \sum \theta_{it}$ is the mean level of investment by parents in child i over his childhood. It follows that

$$\bar{y}_{pom} = \Lambda_m \mu_{po} + (1 - \Lambda_m) \bar{\mu}_{pdom} + \bar{\theta}_{pom} - \kappa_m,$$

where $\bar{\theta}_{pom} = E[\theta_i|p(i) = p, o(i) = o, m(i) = m]$ and $\bar{\mu}_{pdom} = E[\mu_{pd}|p(i) = p, o(i) = o, m(i) = m]$ are the mean level of parental inputs and mean destination place effects in this sample. The deviation in child i's outcome relative to other movers from his origin is

$$y_i - \bar{y}_{pom} = (1 - \Lambda_m)(\mu_{pd} - \bar{\mu}_{pdom}) + (\theta_i - \bar{\theta}_{pom})$$

Using the definition of β_m in (4) in a randomly assigned sample at age m, $E[\varepsilon_i|c] = 0$ and hence $E[y_i|c] = \alpha_m + \beta_m \bar{y}_{pc}$. In the same sample, equation (6) implies $E[y_i|c] = (1 - \Lambda_m)\mu_{pc} - \kappa_m$. It follows that

$$(1 - \Lambda_m)\mu_{pc} = \kappa_m + \alpha_m + \beta_m \bar{y}_{pc}$$

and hence

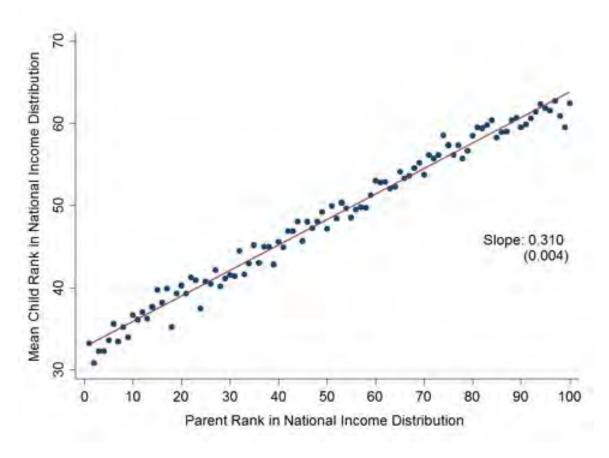
$$(1 - \Lambda_m)(\mu_{pd} - \bar{\mu}_{pdom}) = \beta_m(\bar{y}_{pd} - \bar{y}_{pdom}).$$

Therefore, the regression coefficient b_m in (22) is

$$b_{m} = \frac{Cov((1 - \Lambda_{m})(\mu_{pd} - \bar{\mu}_{pdom}) + \theta_{i} - \bar{\theta}_{pom}, \bar{y}_{pd} - \bar{y}_{pdom})}{Var(\bar{y}_{pd} - \bar{y}_{pdom})}$$
$$= \beta_{m} + \frac{Cov(\theta_{i} - \bar{\theta}_{pom}, \bar{y}_{pd} - \bar{y}_{pdom})}{Var(\bar{y}_{pd} - \bar{y}_{pdom})} = \beta_{m} + \delta_{m}$$

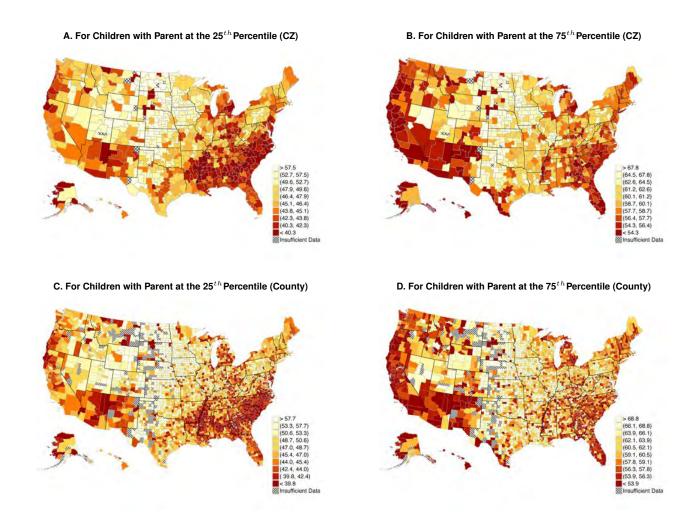
because $Cov(\bar{\theta}_{pom}, \bar{y}_{pd} - \bar{y}_{pdom}) = 0.$

FIGURE I: Mean Child Income Rank at Age 26 Vs. Parent Income Rank for Children Raised in Chicago



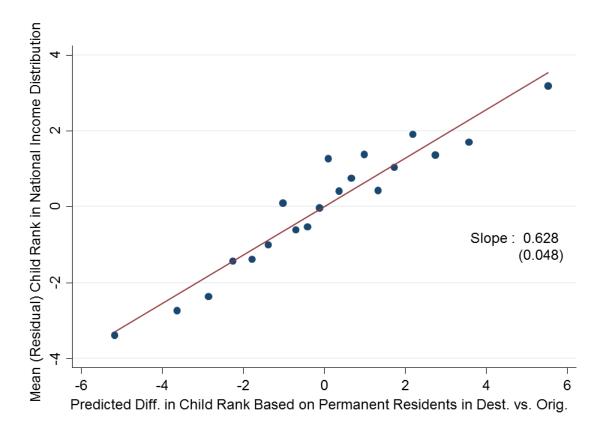
Notes: This figure presents a non-parametric binned scatter plots of the relationship between mean child income ranks and parent income ranks for all children raised in Chicago. Figure measures income of the children at age 26 using the 1985 cohort. Child income is family income at age 26, and parent income is mean family income from 1996-2000. We define a child's rank as her family income percentile rank relative to other children in her birth cohort and his parents' rank as their family income percentile rank relative to other parents of children in the core sample. The ranks are constructed for the full geographic sample, but the graph illustrates the relationship for the sub-sample of families who report living in Chicago for all years of our sample, 1996-2012. The figure then plots the mean child percentile rank at age 26 within each parental percentile rank bin. The slope and best-fit lines is estimated using an OLS regression on the micro data. Standard errors are reported in parentheses.

FIGURE II: Predicted Income Rank at Age 26 - Permanent Residents



Notes: These figures illustrate the geographic variation in child income rank outcomes at age 26 from the 1985 cohort amongst our sample of permanent residents across commuting zones (CZs) and counties in the U.S. Panel A reports the expected rank for children whose parental income is at the 25th percentile of the income distribution of parents, and Panel B reports the expected rank for children whose parental income is at the 75th percentile. Both figures use the baseline family income definitions for parents and children. The figure restricts to the subset of parents who stay in the commuting zone throughout our sample period (1996-2012) (but does not restrict based on the geographic location of the child at age 26). To construct this figure, we regress child income rank on a constant and parent income rank in each CZ, exploiting the linearity property shown in Figure I. Panel A then reports the predicted child rank outcome for parents at the 25th percentile of the family income distribution (~\$30K per year). Panel B reports the predicted child rank outcome for parents at the 75th percentile of the family income distribution (~\$97K per year).

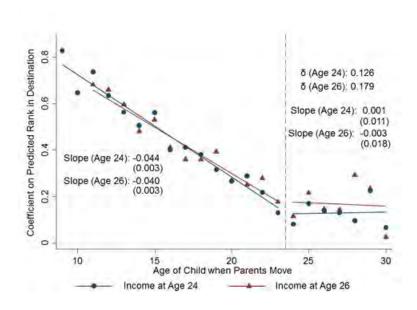
FIGURE III: Movers' Outcomes at Age 26 vs. Predicted Outcomes Based on Residents in Destination Moves at Age 13



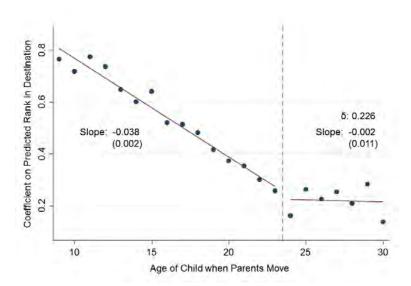
Notes: This figure presents a non-parametric illustration of the b_{13} coefficient in equation (6). The sample includes all children in 1-time moving households whose parents moved when the child was 13 years old. Child income is measured when the child is age 26. The figure is constructed by first partialing out the fixed effects (the interaction of (a) origin CZ, (b) the child's age at the parental move, (c) cohort, and (d) parental income deciles): we regress the difference in the destination versus origin prediction, Δ_{odps} , on the fixed effects and the child rank outcome on the fixed effects. The figure then plots the relationship between these residuals from each of these regression. We construct 20 equal sized bins of the residuals from the destination regression and, in each bin, plot mean of the residuals from the child rank regression.

FIGURE IV: Exposure Effect Estimates for Children's Income Rank in Adulthood

A. Income at Age 24 and 26



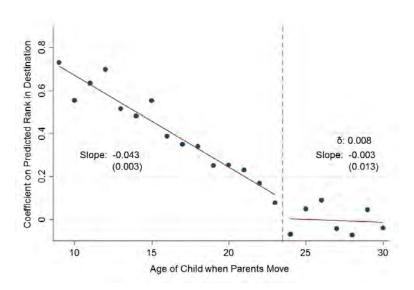
B. Income at Age 24



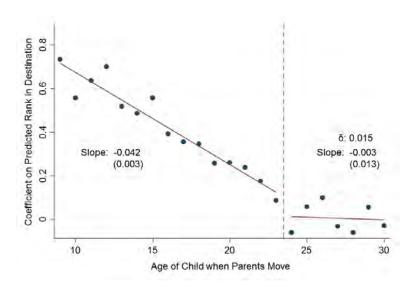
Notes: Panel A presents estimates of the coefficients, $B = (b_m)$, in equation (7) for various ages of the child of income measurement. The sample includes all children in 1-time moving households. Child income is measured when the child is age 24, and 26. We estimate these coefficients by regressing the child's family income rank on the difference in the predicted family income rank based on prior residents in the destination location relative to the origin location (computed using the linear regression illustrated in Figure I) interacted with each age of the child at the time of the move. We include the set of fixed effects for origin by parent income decile by cohort by the child's age at the time of the move (as in Figure III). Panel B presents estimates from the specification in equation (9). This specification drops the large set of fixed effects and instead includes (a) dummies for the child's age at the time of the move, (b) parental rank (within the child's cohort) interacted with child age dummies, and (c) cohort dummies and predicted outcomes in the destination and origin interacted with cohort dummies. Panels A and B report slopes and intercepts from a regression of the b_m coefficients on m separately for $m \le 23$ and m > 23. We compute δ as the predicted value of the line at age 23 using the b_m estimates for m > 23.

FIGURE V: Exposure Effect Estimates for Children's Income Rank in Adulthood with Controls for Observables

A. Family Fixed Effects

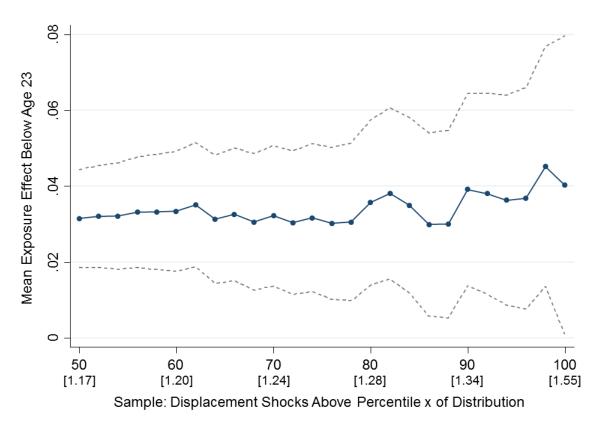


B. Family Fixed Effects and Time Varying Controls



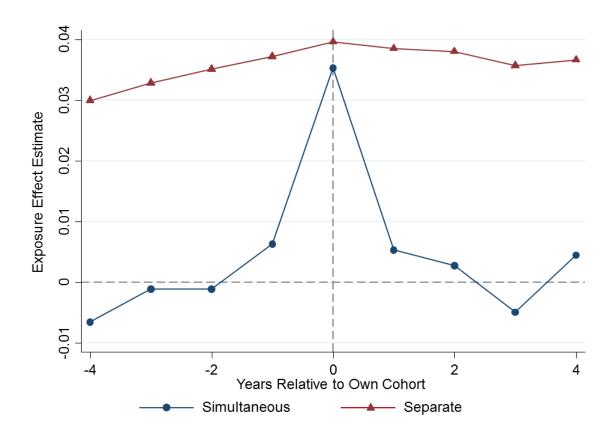
Notes: This figure presents estimates of the coefficients, $B = (b_m)$, in specifications that add family fixed effects (Panel A) and both family fixed effects and controls for changes in marital status and parental income (Panel B). Panel A presents estimates of b_m from the baseline specification in equation (9) with the addition of family fixed effects. Panel B adds family fixed effects along with a set of controls for income rank changes marital status changes around the time of the move. To do so, we construct parental income ranks by cohort by year of outcome measurement. We interact the differences in parental ranks in the year before versus after the move with a linear interaction with the child age at the time of the parental move (for ages below 24) and an interaction with an indicator for child age greater than 23 at the time of the parental move. We also construct a set of indicators for marital status changes. We define marital status indicators for the year before the move and the year after the move and construct indicators for being always married, getting divorced, or being never married (getting married is the omitted category). We include these variables and their linear interactions with the child age at the time of the parental move (for ages below 24) and an interaction with an indicator for child age greater than 23 at the time of the parental move. As in Figure IV, we report slopes and intercepts from a regression of the b_m coefficients on m separately for $m \le 23$ and m > 23. We compute δ as the predicted value of the line at age 23 using the b_m estimates for m > 23.

FIGURE VI: Displacement Shocks IV Exposure Effects Estimates



Notes: This figure presents estimates of the exposure time slope for a subsample of moves restricted to zipcode-by-year observations with large outflows, instrumenting for the change in predicted outcomes based on prior residents, Δ_{odps} , with the average change in predicted outcomes for the given origin. More specifically, for each zipcode in our sample of children in the 1980-1993 cohorts, we calculate the number whose parents leave the (5-digit) zipcode in each zipcode, z, in year t, m_{zt} . Then, we compute the average number of people who leave in a given year across our 1997-2012 sample window, \bar{m}_z . We then divide the outflow in a zipcode-year observation, m_{zt} , by the mean outflow for the county to construct our measure of the displacement shock, $d = \frac{m_{zt}}{\bar{m}_{zt}}$. The horizontal axis presents the results for varying quantile thresholds of d ranging from the median to the 95th percentile. The corresponding mean value of d for the sample is presented in brackets. For each zipcode, we compute the mean value of Δ_{odps} for each parental income decile (pooling across all years and all movers in the zipcode). Throughout, we restrict to zipcode-years with at least 10 observations. Then, for each sample threshold, the figure presents IV estimates of the exposure slope for values of d above the threshold.

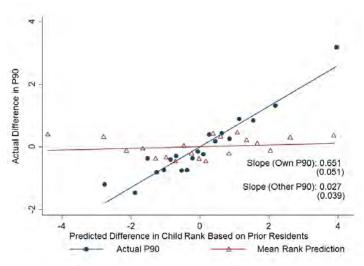
FIGURE VII: Exposure Effects Based on Cross-Cohort Variation, with Cohort-Varying Intercepts



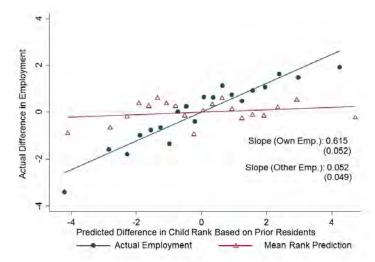
Notes: This figure presents estimates of the exposure time slope using own and placebo cohort place predictions. The sample includes all children in 1-time moving households whose parents moved when the child was less than or equal to 23 years old. The series in red traingles plots estimates of 9 separate regressions using place predictions for child in cohort c as if s/he were in cohort c+k, where k ranges between -4 and 4. By construction, the estimate for k=0 corresponds to the baseline slope of 0.040, illustrated in Figure IV (Panel B). Regressions include the predicted outcomes based on prior residents in the origin and destination (for cohort c+k), and the interactions of the child's age at the time of the move with the predicted outcomes in the origin and destination based on prior residents (for cohort c+k). To be consistent with the baseline specifications, regressions also include dummy indicators for true cohort and its interaction with the predicted outcomes in the origin location. The blue series reports coefficients from a single regression that includes all variables in each of the regressions for k=-4,...,4 and plots the coefficient on the interaction of the child's age at the time of the move with the predicted outcome based on prior residents in the destination location in cohort c+k.

FIGURE VIII: Movers' Outcomes vs. Predicted Employment and Probability of Reaching top 10% in Destination

A. Probability of Reaching Top 10%

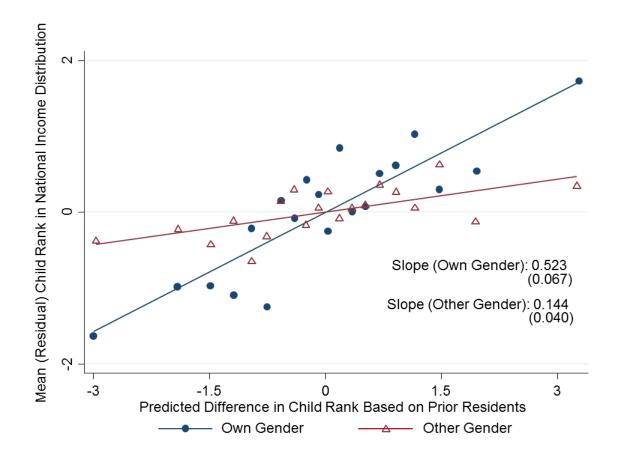


B. Employment



Notes: This figure presents binned scatter plots analogous to Figure III, but with the outcome being employed at age 24 and the event that the child reaches the top 10% of the income distribution at age 24 (Panel A) and the event that the child is employed (Panel B), controlling for the mean rank predictions. In Panel A, we construct the event that the child is in the top 10% of the national (cohort-specific) income distribution. Using permanent parental residents in each CZ, we compute the fraction of children in the top 10% of the national cohort-specific income distribution. The blue series presents a non-parametric representation of the relationship between the event the child is in the top 10% and the predicted chance that the child is in the top 10% based on the prior residents in the destination CZ, controlling for the predicted chance the child is in the top 10% based on prior residents in the origin CZ and placebo controls for the predicted mean child rank in the origin and destination locations. Analogous to the binned scatter plots above, we partial out these controls, bin the residuals for the regression of the destination location into 20 equal bins, and plot the mean residual of the child outcome in each bin. For the red series, we instead plot the placebo relationship between the child being in the top 10% and the predicted mean rank of the child in the destination, controlling for the mean rank predictions in the origin and the top 10% predictions in both the origin and destination. In Panel B, we define employed is defined as filing a w2 at some point during the age of 24. We then repeat this process replacing the event the child is in the top 10% with the event that the child is employed. The blue series presents a non-parametric representation of the relationship between the event the child is employed and the prediction based on the prior residents in the destination CZ, controlling for the predicted chance the child is employed based on prior residents in the origin CZ and placebo controls for the predicted mean child rank in the origin and destination locations. Analogous to the binned scatter plots above, we partial out these controls, bin the residuals for the regression of the destination location into 20 equal bins, and plot the mean residual of the child outcome in each bin. For the red series, we instead plot the placebo relationship between the child being employed and the predicted mean rank of the child in the destination, controlling for the mean rank predictions in the origin and the employment predictions in both the origin and destination.

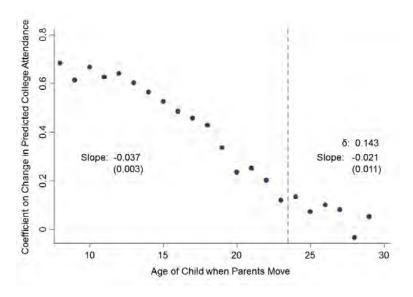
FIGURE IX: Movers' Outcomes vs. Gender-Specific Predicted Outcomes in Destination



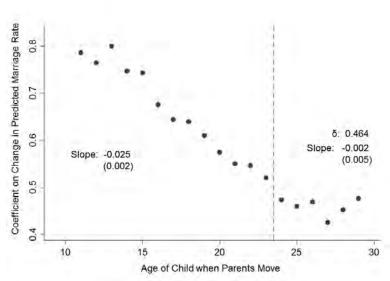
Notes: This figures presents binned scatter plots analogous to Figure III, but using gender-specific predicted outcomes based on prior residents. The blue series provides a non-parametric representation of the relationship between the child's own gender place prediction and the child's outcome; the red series provides a non-parametric representation of the relationship between the other (placebo) gender place predictions for the child's outcome, controlling for the own gender prediction. The sample includes all children in 1-time moving households whose parents moved when the child was less than or equal to 13 years old. Child income is measured when the child is age 26. For the blue circle series, we regress the own gender destination prediction for the child's outcome on the other gender destination prediction, other gender origin prediction, and own gender origin prediction. Similarly, we regress the child's income rank on the other gender destination prediction, other gender origin prediction, and own gender origin prediction. The figure then plots the relationship between these residuals from these regressions with sample means added to center the graphs. We construct 20 equal sized bins of the residuals from the destination regression and, in each bin, plot mean of the residuals from the child rank regression. For the red series, we repeat this process but using the placebo (other) gender predictions. We regress the other gender destination prediction for the child's outcome on the own gender destination prediction, other gender origin prediction, and own gender origin prediction. Similarly, we regress the child's income rank on the own gender destination prediction, other gender origin prediction, and own gender origin prediction. The red triangle series then plots the relationship between these residuals from these regressions with sample means added to center the graphs.

FIGURE X: Exposure Effect Estimates for College Attendence (18-23) and Marriage at Age 26

A. College Attendance (Age 18-23)

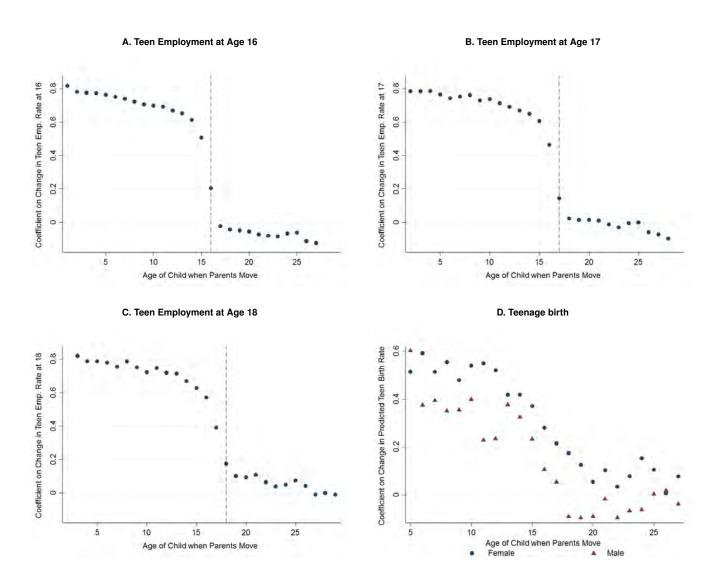


B. Marriage (Age 26)



Notes: This figure presents exposure effect estimates for college and marriage outcomes. In Panel A, we replicate the baseline specification (equation 9) replacing the child's outcomes with an indicator for college attendence at any age between 18-23. We construct separate analogous predicted outcomes based on the prior residents in each CZ for each outcome. We define college attendence as the existence of a 1098-T form (indicating college enrollment) when the child is 18-23 years old and restrict the sample to observations we observe for years 18-23. Because we observe college attendance in years 1999-2012, we obtain estimates for ages at move of 8-29. In Panel B, we replicate the baseline specification (equation 9) replacing the child's outcomes with an indicator for being married at age age 26 using the child's filing status at age 26.

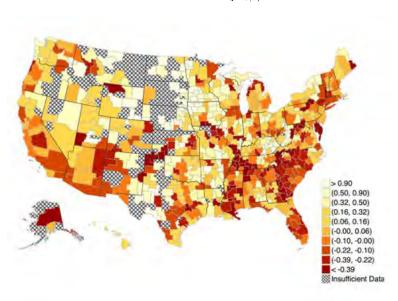
FIGURE XI: Exposure Effect Estimates for Teen Outcomes



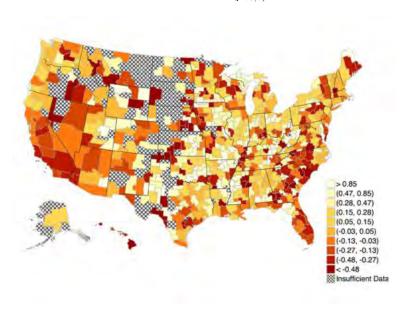
Notes: This figure presents exposure effect estimates for teen outcomes. Panels A-C replicate the baseline specification with origin prediction controls (Figure IV, Panel B), but replaces the child's outcomes with an indicator for working at age 16-18 (defined as the existence of a W-2 during the year in which the child turned age a). Panel D presents estimates from the baseline specification using teen birth as the outcome. We define teenage birth as having a birth in the calendar year prior to turning age 20 using birth certificate records from the social security administration's death master file (DM-2), and estimate the model separately for males and females.

FIGURE XII: The Geography of Exposure Effects on Income Across CZs





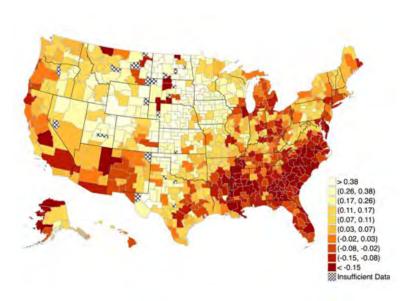
B. At 75th Percentile ($\mu_{75,c}$)



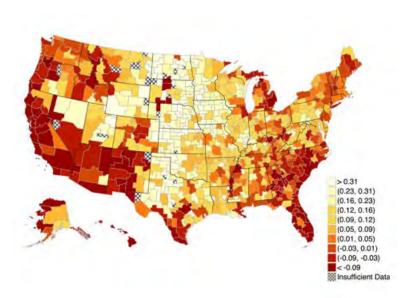
Notes: These figures present estimates of place effects, $\hat{\mu}_{pc}$ in for child income rank at age 26 by Commuting Zone, for children from families at the 25th percentile and 75th percentile of the parental income distribution. Section V discusses the estimation strategy and sample restrictions. The values represent the causal effect of spending 1 additional year growing up in a CZ (relative to a population-weighted average CZ).

FIGURE XIII: Predicted Estimates: National CZ

A. At 25th Percentile ($\mu_{25,c}$)

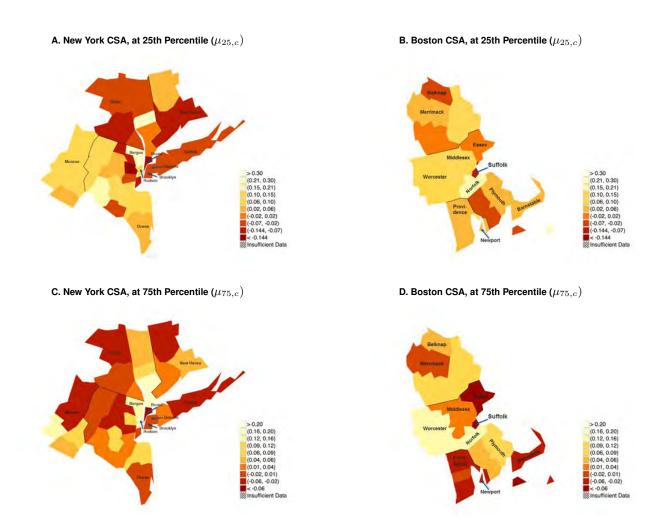


B. At 75th Percentile ($\mu_{75,c}$)



Notes: These figures present forecast estimates of each CZ's causal effects, μ_{pc}^f , for below-median (p=25) and above-median (p=75) income families. We compute these forecasts using the methodology discussed in Section IX.A and, in particular, using the formula in Equation 21. For small-population CZs for which we do not have fixed effect estimates, we display the permanent resident outcomes (which corresponds to the natural assumption that $\hat{s}_{pc} = \infty$ in Equation 21 in the case when we have no fixed effect estimate).

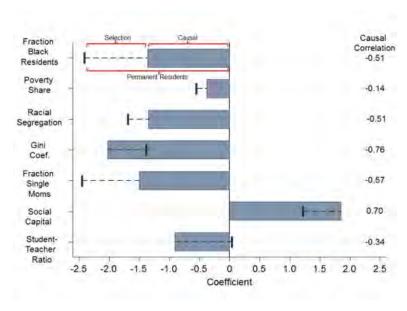
FIGURE XIV: Predicted Estimates for NY and Boston CSA by County



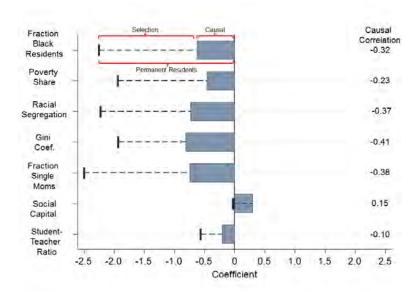
Notes: These figures present forecast estimates of the county-level causal effects, μ_{pc}^f , for below-median (p=25) and above-median (p=75) income families in the New York and Boston Combined Statistical Areas (CSAs). We compute these using the formula in Equation 21 using the county-level fixed effect estimates, $\hat{\mu}_{pc}$ (which are the sum of the CZ and county-within-CZ estimates, as discussed in Section XII.D), and the permanent resident forecasts, \bar{y}_{pc} , for each county.

FIGURE XV: Predictors of Exposure Effects For Children with Parents at 25^{th} Percentile





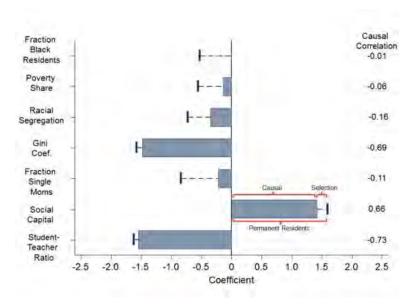
B. At the County Level; within CZs



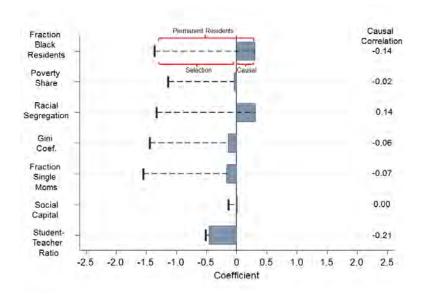
Notes: These figures show the coefficients of regressions of the model components for below-median income families (p = 25) on a set of covariates analyzed in Chetty et al. (2014) which are normalized to have mean zero and unit standard deviation. The vertical line represents the coefficient from a regression of the permanent resident outcomes, $\bar{y}_{25,c}$, on the covariate. The solid bar represents the coefficient from a regression of the causal component, $T_c\mu_{25,c}$, on the covariate, so that the difference between the bar and the vertical line (denoted by the dashed horizontal line) represents the regression coefficient from a regression of the sorting component, $\bar{y}_{25,c} - T_c\mu_{25,c}$, on the covariate. The column on the far left divides the regression coefficient by the standard deviation of $\mu_{25,c}$, providing the implied correlation between the covariate and the causal effects. We restrict the sample to CZs and counties for which we have both causal fixed effects and permanent resident outcome measurements. The covariate definitions are provided in Appendix Table X. Results for additional covariates provided in Tables XII-XV. Panel A presents the results at the CZ level. Panel B presents the results at the county within CZ level by conditioning on CZ fixed effects.

FIGURE XVI: Predictors of Exposure Effects For Children with Parents at 75th Percentile

A. At the Commuting Zone Level



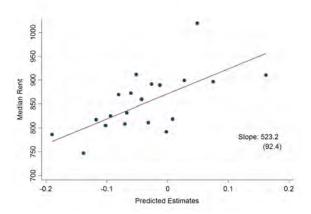
B. At the County Level; within CZs



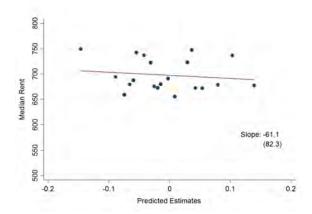
Notes: These figures show the coefficients of regressions of the model components for above-median income families (p=75) on a set of covariates analyzed in Chetty et al. (2014) which are normalized to have mean zero and unit standard deviation. The vertical line represents the coefficient from a regression of the permanent resident outcomes, $\bar{y}_{75,c}$, on the covariate. The solid bar represents the coefficient from a regression of the causal component, $T_c\mu_{75,c}$, on the covariate, so that the difference between the bar and the vertical line (denoted by the dashed horizontal line) represents the regression coefficient from a regression of the sorting component, $\bar{y}_{75,c} - T_c\mu_{75,c}$, on the covariate. The column on the far left divides the regression coefficient by the standard deviation of $\mu_{75,c}$, providing the implied correlation between the covariate and the causal effects. We restrict the sample to CZs and counties for which we have both causal fixed effects and permanent resident outcome measurements. The covariate definitions are provided in Appendix Table X. Results for additional covariates provided in Tables XII-XV. Panel A presents the results at the CZ level. Panel B presents the results at the county within CZ level by conditioning on CZ fixed effects.

FIGURE XVII: Median Rent versus Exposure Effects

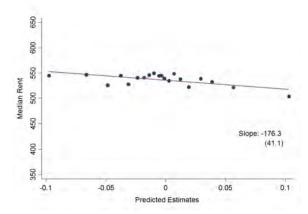
A. Above-Median Segregated CZs with Populations above 100,000



B. Below-Median Segregated CZs with Populations above 100,000



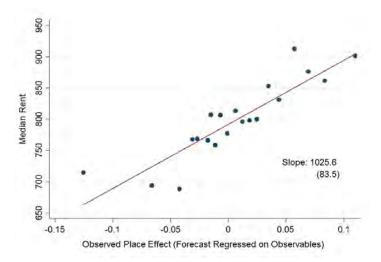
C. CZs with Populations below 100,000



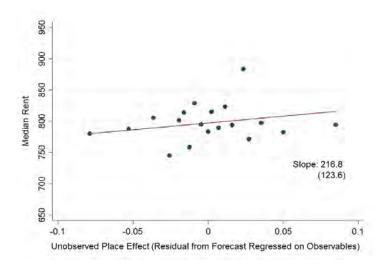
Notes: This figure presents binned scatterplots corresponding to a regression of median rent in the county (from the 2000 Census) on the predicted exposure effect for that county at p=25, $\mu_{25,c}^f$. In contrast to the model in Section IX, we construct the forecasts $\mu_{25,c}^f$ using only the fixed effect estimates, $\hat{\mu}_{25,c}$ normalized by their signal-to-total variance ratio (we do not incorporate information from permanent residents, \bar{y}_{pc} , in order to avoid picking up correlations between prices and the sorting components). Panels A-C present binned scatter plots of the relationship between median rent in the county and the predicted exposure effect of the county, conditional on CZ fixed effects. We split counties into three groups: those in CZs with populations above and below 100,000 based on the 2000 Census. We then split the set of CZs with populations above 100,000 into two groups: those with above-median segregation/sprawl and below-median segregation/sprawl, where segregation/sprawl is defined by the fraction of people in the CZ that have commute times less than 15 minutes. Panel A reports the binned scatterplot for CZs with above-median segregation/sprawl and CZ populations above 100,000. Panel C reports the binned scatterplot for CZs with population below 100,000.

FIGURE XVIII: Median Rent versus Unobservable and Observable Exposure Effects

A. Median Rent versus Observable Component



B. Median Rent versus Unobservable Component



Notes: This figure presents binned scatter plots corresponding to a regression of median rent on the observable and unobservable components of the county-level forecasts, μ_{25c}^f , on the sample of CZs with populations above 100,000, conditional on CZ fixed effects. We construct the observable component by regressing $\hat{\mu}_{25,c}$ on five covariates that are standardized to have mean zero and unit variance: the fraction of children with single parents, the fraction with travel time less than 15 minutes, the gini coefficient restricted to the 0-99th percentiles of the income distribution (which equals the gini minus the fraction of income accruing to the top 1%), the fraction below the poverty line, and a residualized measure of test scores (see Appendix Table X for further variable details). We weight observations by the estimated precision of $\hat{\mu}_{25,c}$. We then define the "observable" component as the predicted values from this regression. For the unobservable component, we take the residual from this regression and multiply it by its estimated total variance divided by the signal variance of the residual. The total variance is given by the variance of the residuals, weighted by the estimated precision of $\hat{\mu}_{25,c}$. To construct the signal variance of the residual, we estimate the noise variance as the mean of the square of the standard errors, weighted by the estimated precision of $\hat{\mu}_{25,c}$. Given the observable and unobservable components, Panel A presents the binned scatterplot corresponding to the regression of median rent on the observable component, controlling for CZ fixed effects and the unobservable component. We regress median rent on the the unobservable component and CZ fixed effects and construct residuals. We then regress the observable component on the unobservable component and CZ fixed effects and construct residuals. We bin these residuals of the observable component into vengtiles and within each vingtile plot the average of the median rent residuals. Hence, the slope of the line corresponds to the partial regression coefficient of a regression of median rent on the observable component, controlling for the unobservable component and CZ fixed effects. For Panel B, we replace the observable and unobservable components in the process for Panel A, so that the slope of the graph corresponds to the partial regression coefficient on the unobservable component in a regression of median rent on the observable and unobservable components of the forecast.

ONLINE APPENDIX FIGURE I

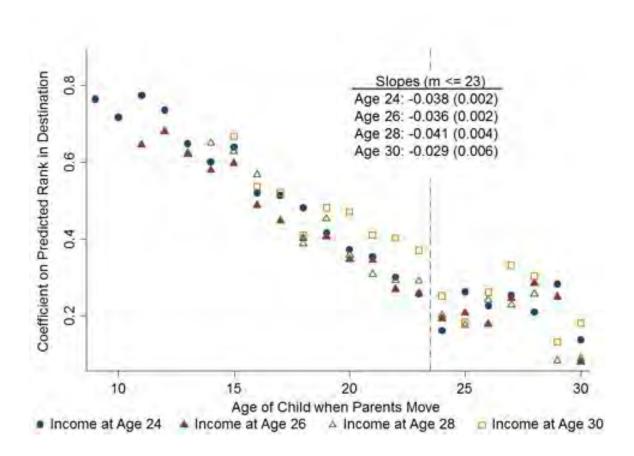
Map of Boston CZ



 $\it Notes$: This figure presents a county map of the Boston commuting zone.

ONLINE APPENDIX FIGURE II

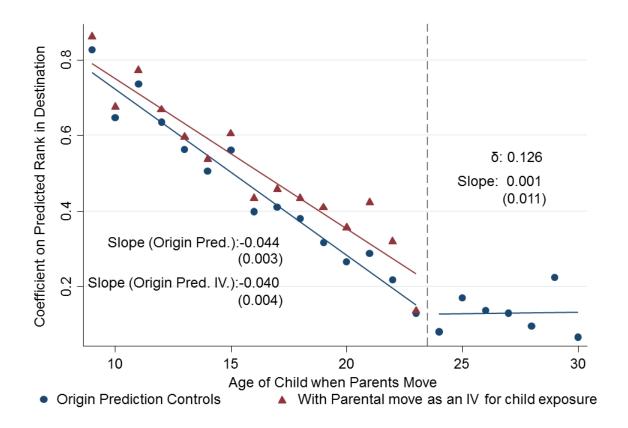
Exposure Effect Estimates at Age 24, 26, 28, and 30



Notes: This figure replicates our baseline specification in equation (8), shown in Figure IVb, using incomes measured at age 24, 26, 38, and 30. The figure presents estimates of b_m for the specification in equation (6) that includes origin by parent income decile by cohort by child age at move fixed effects. The figure reports the slopes from a regression of the b_m coefficients on m for $m \le 23$, with standard errors in parentheses.

ONLINE APPENDIX FIGURE III

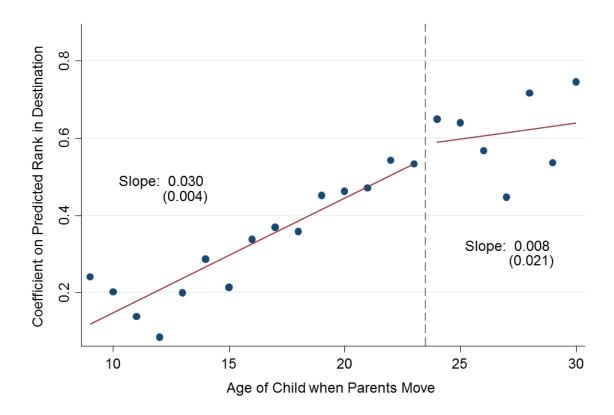
Exposure Effect Estimates using Parental Move as an Instrument for Child Exposure



Notes: This figure presents estimates of the coefficients b_m adjusted for the probability that the child follows the parent to the destination. Formally, we construct the fraction of children who follow their parents when the parents move when the child is m years old, ϕ_m , as the fraction of children who either (a) file a tax return in the destination, (b) have a form W-2 mailing address in the destination location, or (c) attend a college (based on 1098-T filings by institutions) in the destination location. The figure plots the series of $b_m^{IV} = \frac{b_m - \delta}{\phi_m} + \delta$, where $\delta = 0.125$ is the estimated selection effect shown in Figure IVa.

ONLINE APPENDIX FIGURE IV

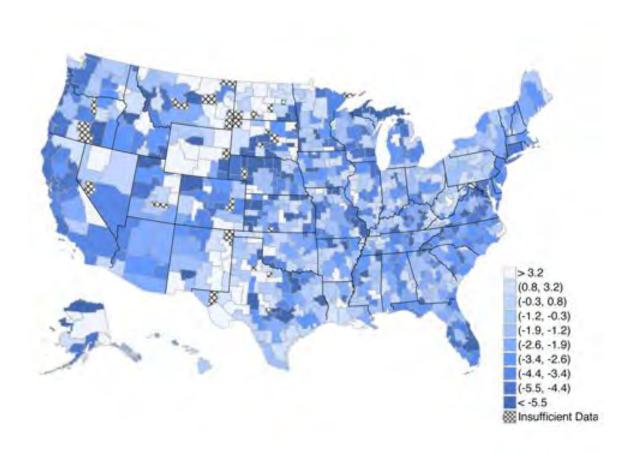
Exposure Effect Estimates using Origin Variation



Notes: This figure presents estimates of b_m^o from equation (8) separately for each age of the child at the time of the parental move, m (multipled by -1). Child income is measured at age 24. We use the same sample and specification as Figure IVa, but replace α_{qos} fixed effects with α_{qds} fixed effects and replace \bar{y}_{pds} with \bar{y}_{pos} , so that the slope is identified from variation in the origin exposure. As in Figure IVa, the figure reports the estimated slopes from a regression on the dots on the figure.

ONLINE APPENDIX FIGURE V

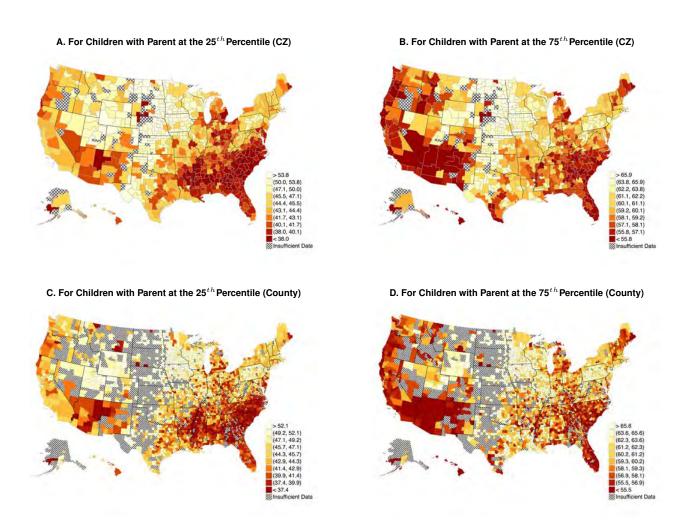
Map of Difference in Gender Outcomes, $\bar{y}_{pcs}^m - \bar{y}_{pcs}^f$, Evaluated at the 25th Percentile of Parental Income,



Notes: This figure presents estimates of the difference in male versus famale outcomes of permanent residents, $\bar{y}_{pcs}^m - \bar{y}_{pcs}^f$ by CZ, c, for income at age 24. To estimate \bar{y}_{pcs}^m and \bar{y}_{pcs}^f , we estimate linear regressions of child rank on parent income rank for each CZ on separate male and female samples, pooling cohorts 1980-1988 cohorts.

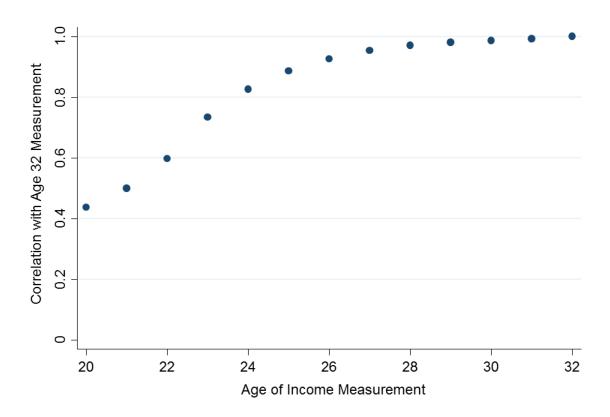
ONLINE APPENDIX FIGURE VI

Predicted Income Rank at Age 30 - Permanent Residents



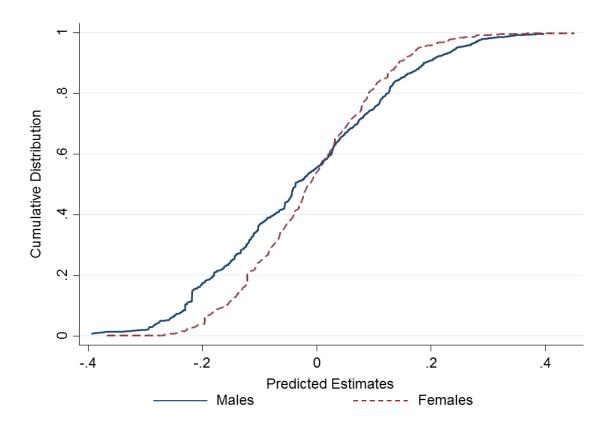
Notes: These figures present the estimated \bar{y}_{pcs} by CZ and County for p=25 and p=75.

ONLINE APPENDIX FIGURE VII: Correlations of place effects by age (p25)



Notes: This figure presents the estimated correlation between \bar{y}_{pc} across CZs when measured at age 32 with measurements at earlier ages (20-32). Correlations are weighted by CZ population in the 2000 Census. The vertical axis presents the estimated correlation; the horizontal axis corresponds to the varying age of income measurement.

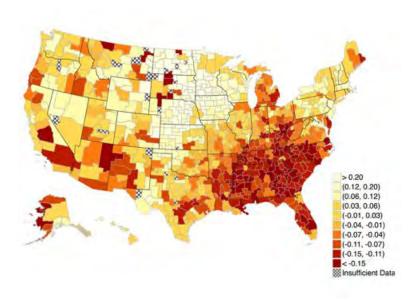
ONLINE APPENDIX FIGURE VIII: Distribution of Predicted Values by Gender



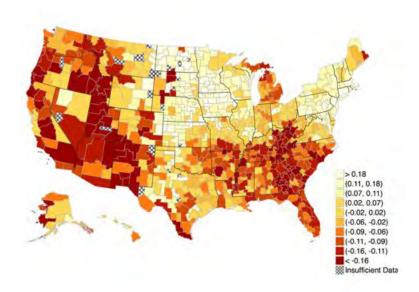
Notes: This figure presents the cumulative distribution of the gender-specific forecasts of county exposure effects for family income for children in below-median (p25) income families, $\mu^f_{25,c}$. The solid (blue) line presents the cumulative distribution for male forecasts. The dashed (red) line presents the cumulative distribution of the female forecasts.

ONLINE APPENDIX FIGURE IX: Predicted Estimates: National CZ - Using Individual Incomes





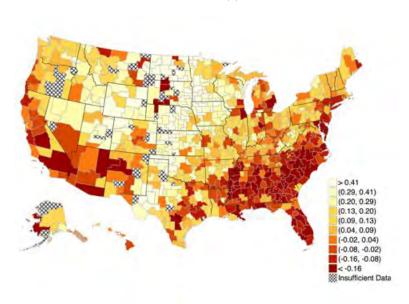
B. At 75th Percentile ($\mu_{75,c}$)



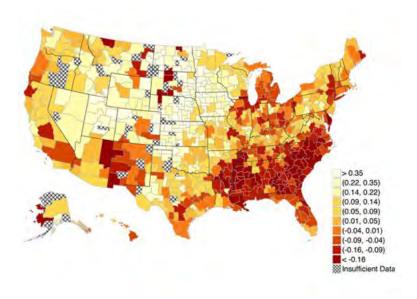
Notes: These figures present forecast estimates of each CZ's causal effects on individual income (as opposed to family income, shown in Figure XIII), μ_{pc}^f , for below-median (p=25) and above-median (p=75) income families. We estimate the fixed effects, $\hat{\mu}_{pc}$, and permanent resident outcomes, \bar{y}_{pc} , using the child's individual income at age 26. We then compute these forecasts using the methodology discussed in Section IX.A and, in particular, using the formula in Equation 21. For small-population CZs for which we do not have fixed effect estimates, we display the permanent resident outcomes (which corresponds to the natural assumption that $\hat{s}_{pc} = \infty$ in Equation 21 in the case when we have no fixed effect estimate).

ONLINE APPENDIX FIGURE X: Predicted Estimates: National CZ - Male and Female





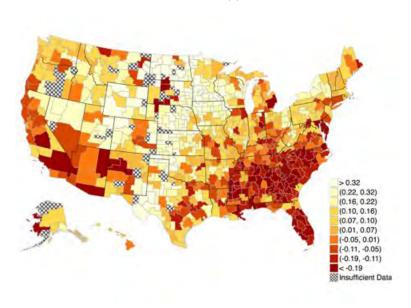
B. Female ($\mu_{25,c}$)



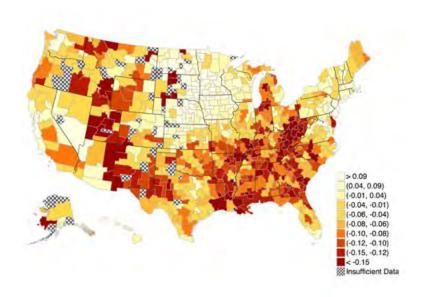
Notes: These figures present forecast estimates of each CZ's causal effects on family income for children in below-median (p=25) families on separate samples of male (Panel A) and female (Panel B) children. We estimate the fixed effects, $\hat{\mu}_{pc}$, and permanent resident outcomes, \bar{y}_{pc} , using the child's family income at age 26 on separate gender samples. We then compute these forecasts using the methodology discussed in Section IX.A and, in particular, using the formula in Equation 21. For small-population CZs for which we do not have fixed effect estimates, we display the permanent resident outcomes (which corresponds to the natural assumption that $\hat{s}_{pc} = \infty$ in Equation 21 in the case when we have no fixed effect estimate).

ONLINE APPENDIX FIGURE XI: Predicted Estimates: National CZ - Male and Female - Using Individual Incomes





B. Female ($\mu_{25,c}$)



Notes: These figures present forecast estimates of each CZ's causal effects on individual income for children in below-median (p=25) families on separate samples of male (Panel A) and female (Panel B) children. We estimate the fixed effects, $\hat{\mu}_{pc}$, and permanent resident outcomes, \bar{y}_{pc} , using the child's individual income at age 26 on separate gender samples. We then compute these forecasts using the methodology discussed in Section IX.A and, in particular, using the formula in Equation 21. For small-population CZs for which we do not have fixed effect estimates, we display the permanent resident outcomes (which corresponds to the natural assumption that $\hat{s}_{pc} = \infty$ in Equation 21 in the case when we have no fixed effect estimate).

TABLE I
Summary Statistics for CZ Permanent Residents and Movers

Variable	Mean	Std. Dev.	Median	Sample Size
	(1)	(2)	(3)	(4)
Non-Movers			/	\ /
Parent Income	79,802	310,537	52,800	44,175,313
Child family income at 24	24,853	130,276	19,700	22,933,771
Child family income at 26	33,706	149,981	26,200	17,592,224
Child family income at 30	48,377	129,801	35,400	7,239,831
Child individual earnings at 24	20,484	193,368	17,000	23,046,067
College attendence (18-23)	0.69	0.46	1.00	23,526,466
College quality (18-23)	31,306	13,138	30,900	23,526,466
Teen Birth (13-19)	0.11	0.31	0.00	16,829,532
Teen employment at age 16	0.28	0.45	0.00	43,950,854
Number of movers				
1 time	7,784,976			
2 times	4,725,843			
3 times	2,010,537			
4+ times	2,043,889			
Total	16,565,245			
1 time -3 times Movers				
Parent Income	71,422	285,880	44,100	14,521,356
Child family income at 24	23,484	62,130	18,200	6,810,190
Child family income at 26	31,249	90,855	23,700	5,127,832
Child family income at 30	44,812	133,057	32,200	2,059,365
Child individual earnings at 24	18,804	54,408	15,200	6,810,190
College attendence (18-23)	0.636	0.481	1.000	7,067,553
College quality (18-23)	29,386	12,537	28,700	7,067,553
Teen Birth (13-19)	0.137	0.344	0.000	5,225,131
Teen employment at age 16	0.268	0.443	0.000	14,521,356
One-time Movers	0- 0-4	0.40.4.40		
Parent Income	85,271	316,143	48,500	3,418,710
Child family income at 24	23,867	56,564	18,700	1,553,021
Child family income at 26	32,419	108,431	24,300	1,160,278
Child family income at 30	47,882	117,450	33,200	460,457
Child individual earnings at 24	19,781	48,784	16,200	1,553,021
College attendence (18-23)	0.695	0.460	1.000	1,622,145
College quality (18-23)	31,332	13,430	30,600	1,622,145
Teen Birth (13-19)	0.109	0.311	0.000	1,212,352
Teen employment at age 16	0.257	0.437	0.000	3,418,710

Notes: The table presents summary statistics for the samples used in the CZ-level analyses. We split the summary statistics into the permanent residents ("non-movers") whose parents do not move across CZs throughout our sample window (1996-2012) and movers. Section III provides details on variable and sample definitions.

TABLE II Exposure Effect Estimates

	B	aseline Spe	C	Claimed	No Cohort	Origin	Child CZ		Pooled	d moves		Individual
Specification:	Pooled	Age ≤ 23	Age ≤ 18	Sample	Controls	Controls (Destination)	Fixed Effects	1st Destination	2nd Destination	3rd Destination	Constrained	Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8a)	(8b)	(8c)	(9)	(10)
Exposure Slope	0.040 (0.002)	0.041 (0.002)	0.041 (0.006)	0.031 (0.005)	0.036 (0.002)	0.041 (0.002)	0.031 (0.002)	0.040 (0.001)	0.037 (0.004)	0.031 (0.006)	0.039 (0.001)	0.040 (0.002)
Controls												
Cohort-Varying Intercept	Х	Χ	Χ	Χ		Х		Х	Х	Х	X	Х
Child age (m) x y _{ops} Interactions						X						
Child Income Definition	Family	Family	Family	Family	Family	Family	Family	Family	Family	Family	Family	Individual
Num of Obs.	1,553,021	1,287,773	687,323	604,602	1,553,021	1,553,021	1,473,218	4,374,418	4,374,418	4,374,418	4,374,418	1,553,021

Notes: Table II reports the coefficients on the child's age at the time of the parental move interacted with the difference in the predicted outcomes based on prior residents in the destination relative to the origin. Coefficients are multipled by -1 to correspond to exposure to destination. We allow separate lines allowed for child age <= 23 and child age > 23 at the time of the parental move. Column (1) reports the coefficient β in equation (9). Column (2) restricts the sample to those below age 23 at the time of the move. Column (3) restricts the sample to those below age 18. Column (4) further restricts to the sample of children who are claimed as a dependent on a 1040 in the destination CZ in the years subsequent to the move. Column (5) drops the cohort interactions with the predicted outcomes of permanent residents in the origin and destination location and instead includes one control for the predicted outcomes of those in the origin location. Column (6) adds controls for the child's age at move interacted with the predicted outcomes of those in the origin location to the baseline specification in column (1) and equation (9). Column (7) adds the child's CZ in adulthood (2012) as a fixed effect. Column (8a-c) present estimates for the exposure effect of the 1st, 2nd, and 3rd move using the sample of 1-3-time movers, as opposed to the 1-time movers sample. Column (9) presents the estimates of the exposure effect restricting the coefficient to be the same across each move. Column (10) presents the baseline specification (equation 9) using individual income for both the outcome and predicted outcomes in the origin and destination

TABLE III
Exposure Effect Estimates: Family Fixed Effects and Time-Varying Controls for Income and Marital Status

	В	aseline Spe	C.	Family FE							
Specification:	Baseline	Origin Controls	No Cohort Controls	Baseline	Origin Controls	No Cohort Controls	Inc Controls	Inc/Mar. Controls	Multiple Moves	Individual Income	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Exposure Slope	0.040 (0.002)	0.041 (0.002)	0.036 (0.002)	0.044 (0.008)	0.043 (0.009)	0.031 (0.005)	0.043 (0.008)	0.043 (0.008)	0.039 (0.004)	0.036 (0.005)	
Controls											
Cohort-Varying Intercept Child age (m) x y _{ops} Interactions	Х	X X		Χ	X X		Χ	X X	Χ	Χ	
Family FE Income and Marital Status				Х	Х	Х	Х	Х	Х	Χ	
Changes							Χ	Χ			
Child Income Definition	Family	Family	Family	Family	Family	Family	Family	Family	Family	Individual	
Num of Obs.	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021	4,374,418	1,553,021	

Notes: This table presents estimates of the exposure effect estimated with the inclusion of family fixed effects and controls for changes in parental income and marital status around the time of the move. Columns (1) and (2) replicate the baseline specification in Table 2 for which β is identified using the pooled variation (Column 1) and the destination variation (Column 2), as outlined in equation (9), Column (3) presents the baseline estimates in equation (9) without the inclusion of cohort-specific controls (i.e. no cohort dummies or interactions of these dummies with the predicted outcomes based on prior residents in the origin or destination CZ). Column (4) adds family fixed effects to the specification in equation (9). Column (5) adds family fixed effects to the specification in equation (9) that also includes interactions of the child's age at the time of the parental move and the predicted outcomes based on the prior residents in the origin CZ. Column (5) takes the baseline specification in column (1) and adds family fixed effects and controls separately for each age of the child, fully interacted with cohort dummies (1980-1988). Column (6) adds family fixed effects to this specification in column (3) that does not include cohort-specific controls. Column (7) add family fixed effects and year- and cohort-specific controls for parental income for each age of the child and cohort over the range of our data (1996-2012). Column (8) takes the baseline specification in column (1) and adds both family fixed effects and controls for changes in marital status and income around the time of the parental move, along with their interaction with under-23 exposure time the child has in the destination CZ. We construct the parental income rank by cohort by year, and use this to construct the difference in the parental income rank in the year after the move relative to the year before the move. We include this measure of income change and a full set of its interaction with 23-m and an indicator for m>23. We also construct an indicator for the child's mother's marital status by year and construct 4 indicators for possible marital status changes (married -> married, married -> un-married, un-married -> married, un-married -> un-married). We then interact these four indicators with a full set of its interaction with 23m and an indicator for m>23. Column (9) adds family fixed effects to the specification incorporating all movers (not just 1x movers) in Column (8) of Table 2. Finally, Column (10) illustrates the robustness of the family fixed effects results to individual income as the outcome, as opposed to family income. This column presents the exposure slope in the specification in column (10) of Table 2 with the addition of family fixed effects.

TABLE IV
Distributional Convergence

	Child	d Rank in top	10%	C	hild Employe	ed
	(1)	(2)	(3)	(4)	(5)	(6)
Distributional Prediction	0.043 (0.002)		0.040 (0.003)	0.046 (0.003)		0.045 (0.004)
Mean Rank Prediction (Placebo)		0.022 (0.002)	0.004 (0.003)		0.021 (0.002)	0.000 (0.003)
Num. of Obs.	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021	1,553,021

Notes: Table presents estimates of the exposure time relationships for the outcome of being in the top 10% of the cohort-specific income distribution at age 24 and being employed. We define employment as an indicator for filing a W-2 at some point during the year in which the child is age 24. Analogous to these outcomes, we construct predicted outcomes using permenent residents each CZ. Column (1) presents the estimated exposure time slope using top 10% indicator as the dependent variable and predicted outcomes based on permanent residents in the origin and destination CZ. Column (2) continues to use the indicator of being in the top 10% as the dependent variable, but uses the mean rank predictions from the baseline regressions as the origin and destination predictions. Column (3) combines all variables in specifications (1) and (2). Column (4) presents the estimated exposure time slope using an indicator of being employed as the dependent variable and predicted outcomes based on permanent residents in the origin and destination CZ. Column (5) retains the employment indicator as the dependent variable but replaces the predicted outcomes in the origin and destination with the mean rank predictions from the baseline regressions. Column (6) combines all variables in specifications (4) and (5).

TABLE V Gender Placebos

	No F	amily Fixed E	Effects		Family	Fixed Effects	-
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Own Gender Prediction	0.038 (0.002)		0.031 (0.003)	0.031 (0.006)		0.027 (0.006)	0.0308 (0.007)
Other Gender Prediction (Placebo)		0.034 (0.002)	0.009 (0.003)		0.017 (0.006)	0.017 (0.006)	0.0116 (0.007)
Family Fixed Effects				X	X	Х	X
Sample		Full Sample	:		Full Sample	9	2-Gender HH
Num. of Obs.	1,552,898	1,552,898	1,552,898	1,552,898	1,552,898	1,552,898	490964

Notes: Table presents estimates of the exposure time relationships using gender-specific predictions based on prior residents. The outcome is child rank when the child is 24 years old. Column (1) presents estimates for the baseline specification replacing the predicted outcomes based on prior residents in the origin and destination with gender-specific predictions. Column (2) replaces own-gender predicted outcomes with predicted outcomes in the origin and destination based on the other gender. Column (3) combines all variables in the specification in (1) and (2). Columns (4)-(6) repeat the specifications in (1)-(3) with the addition of family fixed effects. Column (7) repeats the specification in (6) but restricts to households with at least two children and at least one of each gender.

Table VI
County Exposure Effect Estimates

	Baselir	ne Spec.		W	ithin CZ Mov	/es	
Specification:	Baseline	Family FE	Age 24	Age 26	Age ≥ 24	Family FE	Small CZs
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Exposure Slope	0.035 (0.003)	0.033 (0.011)	0.022 (0.003)	0.032 (0.004)	0.027 (0.003)	0.029 (0.025)	0.024 (0.002)
Num of Obs.	654,491	654,491	617,502	457,140	2,900,311	2,900,311	7,311,431

Notes: Table II reports exposure effect coefficients in equation (9), analogous to those presented in Tables II and III, using county-level predictions for the sample of 1-time county movers. Column (1) presents the baseline specification analogous to Column (1) of Table 2, replacing CZ-level predictions with county-level predictions based on prior residents. We restrict the sample to moves of at least 100 miles and require the county-level population to be at least 250,000 in the origin and destination county. Column (2) adds family fixed effects to the specification in Column (1). Columns (3)-(7) drop the distance restriction and consider the set of within-CZ county moves (between counties with populations of at least 250,000). Column (3) replicates the baseline specification. Column (4) replicates the baseline specification using income at age 26 as the outcome, analogous to the outcomes considered in Section V. Column (5) presents the pooled estimate that stacks all outcomes for ages 24 and above (multiple observations per person). Column (6) adds family-by-age of outcome fixed effects to the specification in Column (5). Column (7) expands the sample in Column (5) to include moves between all CZs with populations above 10,000).

Table VII

Model Variance Components: Causal and Selection Effects

	Commuti	ing Zones	Cou	nties	County	within CZ
	Below Median (p25)	Above Median (p75)	Below Median (p25)	Above Median (p75)	Below Median (p25)	Above Median (p75)
Model Component	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Exposure Effect Estimates						
Signal vs. Noise (per year of exposure)						
Raw (per year) Exposure Effect (SD)	0.248	0.243	0.434	0.435	0.357	0.361
Noise (SD)	0.210	0.218	0.402	0.407	0.343	0.344
Signal of Exposure Effects (SD)	0.132	0.107	0.165	0.155	0.099	0.112
Signal to Noise Ratio	0.398	0.241	0.170	0.144	0.084	0.106
Correlation between p25 and p75 Exposure Effects	0.7	724	0.2	287	0.0	080
Panel B: Model Variance Components						
Sorting vs. Causal Components (T _C =20 yrs)						
Causal Effect (SD of Signal)	2.647	2.139	3.308	3.092	1.984	2.233
Permanent Residents (SD)	3.259	2.585	4.203	3.257	2.653	1.982
Sorting Component (SD)	1.960	1.097	3.033	3.203	2.315	3.009
Correlation between Sorting and Causal Effect	-0.021	0.193	-0.123	-0.465	-0.246	-0.753

Notes: This table presents the estimated variance components of the fixed effects model in equation (16). Panel A presents the estimates of the raw variance of the estimates. The first row presents the raw standard deviation across CZs, weighting by precision (1/SE, where SE is the estimated standard error of the estimate). The second row presents the estimated standard deviation of the sampling noise (again weighted by precision, 1/SE). The third row presents the estimated signal standard deviation, computed using the formula Signal_Variance = Total Variance - Noise Variance. The fourth row presents the signal to noise ratio (=Signal Variance / Noise Variance). The last row of panel A presents the correlation between the 25th and 75th percentile estimates. To construct this correlation, we compute the covariance using a split sample of above-median and below-median samples to estimate the p75 and p25 estimates, respectively, to avoid mechanical correlations, and then divide by the standard deviations of the p25 and p75 place effects (estimated on these split samples) to arrive at an estimate of the correlation. Panel B presents the model variance components. The first row presents the standard deviation of the causal effects (=20*signal of exposure effects). The second row presents the standard deviation of the permanent resident outcomes (precision weighted). The third row presents the standard deviation of the sorting component (precision weighted). See the text for details on computing this standard deviation. The fourth row presents the estimated correlation between the sorting and causal effect across CZs. The columns present the estimates across counties. Columns (1)-(2) present the estimates for counties within CZs. For example, we compute the standard deviations using the identity: var(county within cz) = var(county) - var(cz).

Table VIII
Predicted Place Effects for 50 Largest CZs

		Below	-Median In	come Parent	s (p25)	Above	-Median Ir	come Parent	s (p75)		
		Family Incor			aling	Family Inco		Sca	· /	Row	
	01-1-	Prediction	RMSE	\$ Increase	% Increase	Prediction	RMSE	\$ Increase	% Increase	Number	
Commuting Zone	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Salt Lake City	UT	0.166	0.066	135.9	0.521	0.105	0.041	88.4	0.218	(1)	
Seattle	WA	0.140	0.059	114.3	0.438	-0.009	0.038	-7.3	-0.018	(2)	
Washington DC	DC	0.105	0.051	85.8	0.329	0.062	0.034	51.7	0.127	(3)	
Minneapolis	MN	0.103	0.065	84.1	0.322	0.077	0.041	65.0	0.160	(4)	
Fort Worth	TX	0.057	0.061	46.6	0.178	0.049	0.039	41.3	0.102	(5)	
San Diego	CA	0.056	0.054	46.1	0.177	-0.131	0.038	-110.0	-0.271	(6)	
Boston	MA	0.055	0.061	45.3	0.174	0.033	0.040	27.7	0.068	(7)	
Manchester	NH	0.051	0.070	41.8	0.160	0.025	0.041	20.7	0.051	(8)	
San Jose	CA	0.048	0.065	39.1	0.150	-0.118	0.039	-99.2	-0.244	(9)	
Las Vegas	NV	0.043	0.057	35.0	0.134	-0.078	0.039	-65.6	-0.162	(10)	
Denver	CO	0.042	0.065	34.0	0.130	-0.060	0.038	-50.5	-0.124	(11)	
Portland	OR	0.038	0.067	31.0	0.119	-0.091	0.041	-76.4	-0.188	(12)	
San Francisco	CA	0.029	0.060	23.4	0.090	-0.119	0.037	-99.6	-0.245	(13)	
Pittsburgh	PA	0.013	0.065	10.8	0.041	0.104	0.041	87.6	0.216	(14)	
Newark	NJ	0.012	0.051	9.5	0.036	0.057	0.034	48.2	0.119	(15)	
Providence	RI	0.007	0.067	5.7	0.022	0.022	0.042	18.4	0.045	(16)	
Sacramento	CA	0.006	0.058	4.6	0.018	-0.144	0.038	-120.6	-0.297	(17)	
Phoenix	AZ	0.004	0.049	3.1	0.012	-0.018	0.038	-15.1	-0.037	(18)	
Buffalo	NY	-0.003	0.067	-2.2	-0.009	0.010	0.041	8.6	0.021	(19)	
Kansas City	MO	-0.007	0.067	-5.4	-0.021	0.020	0.042	16.7	0.041	(20)	
Houston	TX	-0.007	0.050	-20.7	-0.021	0.020	0.036	5.3	0.013	(21)	
Miami	FL	-0.025	0.044	-20.7	-0.080	-0.201	0.039	-169.0	-0.416	(22)	
Philadelphia	PA	-0.020	0.057	-23.5	-0.090	0.005	0.037	3.9	0.010	(23)	
Grand Rapids	MI	-0.029	0.037	-25.7	-0.090	0.066	0.037	55.6	0.010	(24)	
Dallas	TX	-0.031	0.070	-30.8	-0.098	-0.009	0.043	-7.8	-0.019	(25)	
	OH	-0.036	0.062	-34.7	-0.118	-0.009	0.030	-7.8 -21.1	-0.019		
Cleveland										(26)	
Bridgeport	CT	-0.045	0.059	-37.2	-0.143 -0.149	0.028	0.038 0.042	23.6	0.058	(27)	
Jacksonville	FL	-0.048	0.061	-39.0		-0.071		-59.6	-0.147	(28)	
Milwaukee	WI	-0.048	0.067	-39.3	-0.150	0.044	0.042	37.1	0.091	(29)	
Dayton	OH	-0.062	0.071	-51.1	-0.196	0.015	0.043	12.9	0.032	(30)	
Cincinnati	OH	-0.082	0.069	-67.3	-0.258	0.063	0.041	53.1	0.131	(31)	
Columbus	OH	-0.086	0.068	-70.7	-0.271	0.006	0.042	5.3	0.013	(32)	
Nashville	TN	-0.087	0.070	-71.4	-0.274	-0.027	0.042	-22.6	-0.056	(33)	
St. Louis	MO	-0.090	0.067	-73.7	-0.282	0.029	0.041	24.6	0.061	(34)	
Austin	TX	-0.097	0.066	-79.6	-0.305	-0.098	0.040	-82.6	-0.203	(35)	
Baltimore	MD	-0.103	0.066	-84.1	-0.322	0.067	0.039	56.4	0.139	(36)	
San Antonio	TX	-0.110	0.063	-90.1	-0.345	-0.078	0.040	-65.2	-0.160	(37)	
Tampa	FL	-0.114	0.048	-92.8	-0.356	-0.128	0.040	-107.8	-0.265	(38)	
New York	NY	-0.117	0.039	-95.5	-0.366	-0.032	0.035	-26.7	-0.066	(39)	
Indianapolis	IN	-0.118	0.070	-96.9	-0.371	-0.019	0.041	-16.3	-0.040	(40)	
Atlanta	GA	-0.124	0.043	-101.3	-0.388	-0.094	0.036	-78.7	-0.194	(41)	
Los Angeles	CA	-0.130	0.038	-105.9	-0.406	-0.226	0.032	-189.4	-0.466	(42)	
Detroit	MI	-0.136	0.054	-111.0	-0.425	-0.125	0.039	-105.3	-0.259	(43)	
Orlando	FL	-0.136	0.054	-111.3	-0.427	-0.137	0.040	-115.1	-0.284	(44)	
Chicago	IL	-0.154	0.048	-126.2	-0.484	-0.035	0.033	-29.1	-0.072	(45)	
Fresno	CA	-0.164	0.062	-134.3	-0.515	-0.120	0.042	-100.6	-0.248	(46)	
Port St. Lucie	FL	-0.174	0.057	-142.6	-0.547	-0.198	0.040	-166.7	-0.410	(47)	
Raleigh	NC	-0.195	0.065	-159.3	-0.610	-0.114	0.041	-96.0	-0.236	(48)	
Charlotte	NC	-0.205	0.061	-167.6	-0.642	-0.084	0.040	-70.7	-0.174	(49)	
New Orleans	LA	-0.214	0.065	-175.3	-0.672	-0.060	0.042	-50.1	-0.123	(50)	

Notes: Table presents per-year exposure predictions for the 50 largest CZs using the estimation strategy discussed in Section VIII. Column (1) reports the predictions for the child's family income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to dollars by multiplying the estimates in column (1) by 818, the coefficient obtained by regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26. Column (4) divides the income impacts in column (3) by the mean income of children from below-median (p25) income families of \$26,090. Columns (5)-(8) report the analogous statistics for above-median income families. Column (5) reports the prediction for the child's family income rank at age 26; column (6) reports the root mean square error. Column (7) scales the numbers in Column (1) by 2.068, the coefficient obtained by regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26. Column (8) divides the income impacts on column (5) by the mean income of children from above-median (p75) income families of 40,601.

Table IX
Predicted Place Effects for 100 Largest Counties (Top and Bottom 25)

-		Below-	Median In	come Parent	s (p25)	Above	-Median Ir	ncome Parent	s (p75)	
		Family Inco			aling	Family Inco			iling	Row
		Prediction	RMSE	\$ Increase	% Increase	Prediction	RMSE	\$ Increase	% Increase	Number
County	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Dupage	IL	0.255	0.090	208.8	0.800	0.076	0.077	63.8	0.157	(1)
Fairfax	VA	0.239	0.100	195.5	0.749	0.265	0.096	222.5	0.548	(2)
Snohomish	WA	0.224	0.099	182.9	0.701	0.058	0.094	48.9	0.120	(3)
Bergen	NJ	0.220	0.102	179.7	0.689	0.152	0.099	127.7	0.315	(4)
Bucks	PA	0.198	0.101	161.6	0.620	-0.023	0.098	-19.3	-0.047	(5)
Norfolk	MA	0.183	0.101	149.6	0.573	0.151	0.099	126.5	0.312	(6)
Montgomery	PA	0.155	0.096	127.0	0.487	0.072	0.092	60.5	0.149	(7)
Montgomery	MD	0.151	0.099	123.5	0.473	0.003	0.098	2.2	0.005	(8)
King	WA	0.149	0.084	121.8	0.467	0.077	0.076	64.8	0.160	(9)
Middlesex	NJ CA	0.146 0.141	0.102 0.095	119.1 115.2	0.456 0.442	0.013 -0.069	0.101 0.091	11.2 -58.3	0.027 -0.144	(10)
Contra Costa	MA	0.141	0.095	100.6	0.442	0.009	0.091	-56.5 11.0	0.027	(11)
Middlesex Macomb	MI	0.123	0.091	91.1	0.386	0.013	0.089	23.1	0.027	(12) (13)
Salt Lake	UT	0.111	0.088	80.7	0.349	0.028	0.091	13.8	0.037	(14)
Ventura	CA	0.099	0.093	80.6	0.309	-0.055	0.093	-46.0	-0.113	(14)
San Mateo	CA	0.035	0.100	69.2	0.309	-0.035	0.093	-40.0	-0.113	(16)
Worcester	MA	0.075	0.102	61.4	0.235	0.130	0.102	109.3	0.269	(17)
Monmouth	NJ	0.075	0.107	61.2	0.235	0.073	0.096	61.7	0.152	(18)
Honolulu	HI	0.073	0.100	59.9	0.230	-0.130	0.113	-109.2	-0.269	(19)
Hudson	NJ	0.066	0.101	54.4	0.208	0.161	0.110	135.5	0.334	(20)
Kern	CA	0.062	0.086	50.4	0.193	-0.059	0.110	-49.9	-0.123	(21)
Clark	NV	0.059	0.074	48.3	0.185	-0.046	0.087	-38.9	-0.096	(22)
San Diego	CA	0.058	0.063	47.8	0.183	-0.136	0.064	-114.4	-0.282	(23)
Providence	RI	0.048	0.101	39.2	0.150	-0.043	0.108	-35.8	-0.088	(24)
San Francisco	CA	0.045	0.100	37.1	0.142	-0.183	0.104	-154.0	-0.379	(25)
Jefferson	KY	-0.137	0.105	-112.3	-0.431	0.022	0.111	18.5	0.046	(75)
Franklin	ОН	-0.137	0.092	-112.4	-0.431	0.114	0.096	95.9	0.236	(76)
San Bernardino	CA	-0.140	0.062	-114.5	-0.439	-0.245	0.073	-205.9	-0.507	(77)
Davidson	TN	-0.141	0.098	-115.6	-0.443	-0.036	0.105	-29.8	-0.073	(78)
Pima	AZ	-0.142	0.083	-116.5	-0.446	-0.139	0.099	-116.7	-0.287	(79)
Montgomery	OH	-0.142	0.104	-116.5	-0.447	-0.016	0.116	-13.2	-0.032	(80)
Travis	TX	-0.147	0.089	-120.2	-0.461	-0.159	0.087 0.098	-133.6	-0.329	(81)
Essex	NJ TX	-0.147 -0.152	0.096 0.090	-120.5 -124.7	-0.462 -0.478	0.074 -0.092	0.098	61.8 -77.4	0.152 -0.191	(82) (83)
Bexar Milwaukee	WI	-0.152 -0.158	0.090	-124.7 -129.4	-0.476 -0.496	-0.092	0.122	-77.4 -22.4	-0.191 -0.055	
Riverside	CA	-0.156	0.090	-129.4	-0.490	-0.02 <i>1</i> -0.248	0.097	-22.4	-0.055	(84) (85)
Los Angeles	CA	-0.164	0.007	-131.0	-0.514	-0.254	0.073	-212.9	-0.513	(86)
Wake	NC	-0.104	0.101	-139.8	-0.536	-0.254	0.102	-79.1	-0.324	(87)
New York	NY	-0.173	0.076	-141.5	-0.542	-0.275	0.100	-230.7	-0.568	(88)
Fulton	GA	-0.173	0.077	-141.6	-0.543	0.024	0.083	19.9	0.049	(89)
Bronx	NY	-0.174	0.076	-142.0	-0.544	-0.201	0.107	-169.1	-0.416	(90)
Wayne	MI	-0.182	0.077	-148.6	-0.570	-0.073	0.079	-61.5	-0.152	(91)
Orange	FL	-0.193	0.077	-157.9	-0.605	-0.093	0.092	-77.9	-0.192	(92)
Cook	IL	-0.204	0.060	-166.9	-0.640	-0.030	0.051	-24.9	-0.061	(93)
Palm Beach	FL	-0.208	0.084	-169.8	-0.651	-0.314	0.097	-263.9	-0.650	(94)
Marion	IN	-0.209	0.097	-170.8	-0.655	-0.102	0.091	-85.4	-0.210	(95)
Shelby	TN	-0.210	0.093	-171.5	-0.657	0.030	0.103	25.2	0.062	(96)
Fresno	CA	-0.215	0.089	-176.1	-0.675	-0.051	0.110	-42.4	-0.105	(97)
Hillsborough	FL	-0.220	0.088	-180.3	-0.691	-0.192	0.102	-161.4	-0.397	(98)
Baltimore City	MD	-0.223	0.092	-182.4	-0.699	-0.017	0.097	-14.6	-0.036	(99)
Mecklenburg	NC	-0.231	0.095	-188.6	-0.723	-0.090	0.100	-75.5	-0.186	(100)

Notes: Table presents per-year exposure predictions for the top 25 and bottom 25 largest counties using the estimation strategy discussed in Section VIII, sorted by the impact on family income rank for children in below-median (p25) income families. Column (1) reports the predictions for the child's family income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to dollars by multiplying by the estimates in column (1) by 3.13, the coefficient obtained by regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26. Column (4) divides the income impacts in column (3) by the mean income of children from below-median (p25) income families of \$26,090. Columns (5)-(8) report the analogous statistics for above-median income families. Column (5) reports the prediction for the child's family income rank at age 26; column (6) reports the root mean square error. Column (7) scales the numbers in Column (1) by 2.068, the coefficient obtained by regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26. Column (8) divides the income impacts on column (5) by the mean income of children from above-median (p75) income families of 40,601.

Table X
Predicted Place Effects for 50 Largest CZs for Below-Median Income Parents (p25)

		Male	Family Ir	icome	Female	Family	Income	Po	ooled Sp	ec		Average	9	
Commuting	State	Prediction	RMSE	% Increase			% Increase			% Increase			% Increase	Row Number
Zone	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Number
Seattle	WA	0.154	0.101	0.457	0.217	0.087	0.711	0.140	0.059	0.438	0.185	0.067	0.581	(1)
Minneapolis	MN	0.155	0.130	0.461	0.154	0.101	0.503	0.103	0.065	0.322	0.154	0.082	0.484	(2)
Salt Lake City	UT	0.060	0.131	0.178	0.234	0.105	0.767	0.166	0.066	0.521	0.147	0.084	0.461	(3)
Washington DC	DC	0.078	0.097	0.233	0.108	0.081	0.353	0.105	0.051	0.329	0.093	0.063	0.292	(4)
Portland	OR	0.070	0.037	0.233	0.100	0.100	0.333	0.103	0.067	0.329	0.084	0.003	0.262	(5)
Fort Worth	TX	0.127	0.124	0.290	0.040	0.090	0.069	0.057	0.061	0.118	0.059	0.073	0.202	(6)
Las Vegas	NV	-0.029	0.103	-0.087	0.021	0.030	0.482	0.037	0.057	0.176	0.059	0.060	0.185	(7)
San Diego	CA	0.019	0.091	0.056	0.087	0.076	0.402	0.043	0.054	0.134	0.053	0.064	0.163	(8)
San Francisco	CA	-0.005	0.101	-0.014	0.086	0.085	0.281	0.029	0.060	0.090	0.033	0.066	0.107	(9)
Pittsburgh	PA	-0.005	0.101	-0.01 4 -0.005	0.000	0.005	0.230	0.029	0.065	0.090	0.041	0.084	0.127	(10)
•	MA	0.002	0.132	0.163	0.070	0.102	0.230	0.013	0.065	0.041	0.034	0.069	0.107	(10)
Boston San Jose	CA	-0.127	0.100	-0.378	0.012	0.009	0.618	0.033	0.065	0.174	0.033	0.009	0.105	(11)
	NH					0.093		0.046				0.073		. ,
Manchester	CO	0.063 0.035	0.137 0.116	0.187 0.104	-0.011 0.008	0.106	-0.036 0.026	0.051	0.070 0.065	0.160	0.026 0.021	0.086	0.081 0.067	(13)
Denver										0.130				(14)
Phoenix	AZ	-0.054	0.084	-0.161	0.076	0.075	0.250	0.004	0.049	0.012	0.011	0.056	0.035	(15)
Cleveland	OH	0.096	0.121	0.284	-0.078 0.069	0.099	-0.256	-0.042	0.062	-0.133	0.009	0.078	0.027	(16)
Sacramento	CA RI	-0.076	0.100 0.131	-0.227 -0.004		0.085	0.228	0.006	0.058	0.018	-0.003 -0.004	0.066	-0.011	(17)
Providence		-0.001			-0.007	0.103	-0.023	0.007	0.067	0.022			-0.013	(18)
Newark	NJ	0.039	0.084	0.116	-0.048	0.072	-0.158	0.012	0.051	0.036	-0.004	0.056	-0.014	(19)
Buffalo	NY	-0.008	0.124	-0.024	-0.007	0.099	-0.022	-0.003	0.067	-0.009	-0.007	0.079	-0.023	(20)
Grand Rapids	MI	0.003	0.144	0.009	-0.049	0.109	-0.161	-0.031	0.070	-0.098	-0.023	0.090	-0.072	(21)
Kansas City	MO	-0.042	0.135	-0.125	-0.013	0.104	-0.041	-0.007	0.067	-0.021	-0.027	0.085	-0.086	(22)
Columbus	OH	0.060	0.132	0.178	-0.118	0.102	-0.387	-0.086	0.068	-0.271	-0.029	0.084	-0.092	(23)
Philadelphia	PA	-0.088	0.090	-0.260	0.024	0.078	0.080	-0.029	0.057	-0.090	-0.032	0.060	-0.099	(24)
Cincinnati	OH	-0.002	0.135	-0.007	-0.071	0.104	-0.234	-0.082	0.069	-0.258	-0.037	0.085	-0.116	(25)
Jacksonville	FL	0.032	0.118	0.094	-0.114	0.095	-0.374	-0.048	0.061	-0.149	-0.041	0.076	-0.129	(26)
Dallas	TX	-0.146	0.095	-0.434	0.060	0.079	0.197	-0.038	0.055	-0.118	-0.043	0.062	-0.135	(27)
Miami	FL	-0.103	0.083	-0.306	0.014	0.073	0.046	-0.026	0.044	-0.080	-0.044	0.055	-0.139	(28)
Houston	TX	-0.094	0.090	-0.279	0.005	0.076	0.016	-0.025	0.050	-0.079	-0.045	0.059	-0.140	(29)
Dayton	OH	-0.073	0.145	-0.217	-0.045	0.109	-0.146	-0.062	0.071	-0.196	-0.059	0.091	-0.184	(30)
Austin	TX	-0.073	0.125	-0.217	-0.064	0.100	-0.210	-0.097	0.066	-0.305	-0.069	0.080	-0.215	(31)
Bridgeport	CT	-0.114	0.109	-0.339	-0.032	0.090	-0.106	-0.045	0.059	-0.143	-0.073	0.071	-0.230	(32)
St. Louis	MO	-0.061	0.132	-0.182	-0.100	0.102	-0.327	-0.090	0.067	-0.282	-0.080	0.083	-0.252	(33)
Milwaukee	WI	-0.114	0.135	-0.339	-0.059	0.105	-0.194	-0.048	0.067	-0.150	-0.087	0.086	-0.272	(34)
Nashville	TN	-0.057	0.139	-0.170	-0.118	0.105	-0.386	-0.087	0.070	-0.274	-0.087	0.087	-0.274	(35)
Indianapolis	IN	-0.052	0.135	-0.154	-0.159	0.104	-0.522	-0.118	0.070	-0.371	-0.106	0.085	-0.331	(36)
Tampa	FL	-0.169	0.089	-0.501	-0.067	0.077	-0.218	-0.114	0.048	-0.356	-0.118	0.059	-0.369	(37)
Atlanta	GA	-0.132	0.075	-0.393	-0.125	0.065	-0.410	-0.124	0.043	-0.388	-0.129	0.050	-0.404	(38)
Baltimore	MD	-0.240	0.114	-0.714	-0.022	0.094	-0.071	-0.103	0.066	-0.322	-0.131	0.074	-0.410	(39)
New York	NY	-0.137	0.065	-0.409	-0.151	0.059	-0.493	-0.117	0.039	-0.366	-0.144	0.044	-0.452	(40)
Los Angeles	CA	-0.206	0.057	-0.613	-0.089	0.052	-0.291	-0.130	0.038	-0.406	-0.147	0.039	-0.462	(41)
Detroit	MI	-0.259	0.103	-0.771	-0.043	0.086	-0.141	-0.136	0.054	-0.425	-0.151	0.067	-0.474	(42)
San Antonio	TX	-0.168	0.115	-0.500	-0.141	0.093	-0.461	-0.110	0.063	-0.345	-0.154	0.074	-0.484	(43)
Port St. Lucie	FL	-0.258	0.109	-0.766	-0.057	0.089	-0.187	-0.174	0.057	-0.547	-0.157	0.070	-0.493	(44)
Chicago	IL	-0.235	0.081	-0.698	-0.118	0.070	-0.386	-0.154	0.048	-0.484	-0.176	0.053	-0.553	(45)
Fresno	CA	-0.245	0.113	-0.727	-0.109	0.094	-0.358	-0.164	0.062	-0.515	-0.177	0.073	-0.555	(46)
Orlando	FL	-0.225	0.088	-0.670	-0.138	0.078	-0.451	-0.136	0.054	-0.427	-0.182	0.059	-0.570	(47)
Raleigh	NC	-0.198	0.120	-0.588	-0.204	0.096	-0.666	-0.195	0.065	-0.610	-0.201	0.077	-0.629	(48)
Charlotte	NC	-0.191	0.114	-0.567	-0.267	0.092	-0.875	-0.205	0.061	-0.642	-0.229	0.073	-0.718	(49)
New Orleans	LA	-0.187	0.127	-0.557	-0.285	0.098	-0.932	-0.214	0.065	-0.672	-0.236	0.080	-0.740	(50)

Notes: Table presents per-year exposure predictions by gender for the 50 largest CZs. Estimates are for children in below-median (p25) income families. Column (1) reports the predictions for the child's family income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to the percentage dollar increase by multiplying the estimates in column (1) by the regression coefficient from regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26 divided by the mean income of children from below-median (p25) income families. Columns (4)-(6) repeat the analysis on the sample of female children. Columns (7)-(9) report the baseline (pooled gender) forecasts. Columns (10) reports the average of the two gender-specific forecasts. Column (11) reports the mse of this forecast, constructed as the square root of the sum of the squared male and female rmse divided by two. Column (12) scales this to the percentage increase in incomes using the same scaling factors as in Column (9). The rows are sorted in decending order according to the gender-average specification.

Table XI

Predicted Place Effects for 100 Largest Counties (Top and Bottom 25 based on Family Income Rank)

-		Male	Family In	come	Femal	e Family I	ncome	Р	ooled Sp	ec		Average		
		Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	- Row Number
County	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Number
Dupage	IL	0.205	0.157	0.608	0.278	0.112	0.909	0.255	0.090	0.800	0.241	0.096	0.756	(1)
Snohomish	WA	0.234	0.178	0.696	0.224	0.122	0.732	0.224	0.099	0.701	0.229	0.108	0.718	(2)
Bergen	NJ	0.279	0.190	0.831	0.171	0.124	0.560	0.220	0.102	0.689	0.225	0.113	0.706	(3)
Bucks	PA	0.283	0.186	0.841	0.141	0.123	0.461	0.198	0.101	0.620	0.212	0.112	0.664	(4)
Contra Costa	CA	0.243	0.167	0.724	0.144	0.116	0.471	0.141	0.095	0.442	0.194	0.102	0.607	(5)
Fairfax	VA	0.155	0.189	0.461	0.231	0.124	0.755	0.239	0.100	0.749	0.193	0.113	0.604	(6)
King	WA	0.187	0.139	0.557	0.174	0.106	0.570	0.149	0.084	0.467	0.181	0.087	0.566	(7)
Norfolk	MA	0.209	0.186	0.622	0.135	0.123	0.443	0.183	0.101	0.573	0.172	0.112	0.540	(8)
Montgomery	MD	0.126	0.185	0.376	0.208	0.122	0.682	0.151	0.099	0.473	0.167	0.111	0.525	(9)
Middlesex	NJ	0.131	0.193	0.391	0.143	0.124	0.469	0.146	0.102	0.456	0.137	0.115	0.430	(10)
Montgomery	PA	0.074	0.168	0.220	0.177	0.118	0.579	0.155	0.096	0.487	0.125	0.103	0.393	(11)
Ventura	CA	0.183	0.181	0.545	0.053	0.123	0.174	0.099	0.100	0.309	0.118	0.109	0.371	(12)
Middlesex	MA	0.128	0.159	0.381	0.079	0.114	0.260	0.123	0.091	0.386	0.104	0.098	0.325	(13)
Macomb	MI	0.042	0.157	0.126	0.136	0.113	0.447	0.111	0.088	0.349	0.089	0.097	0.280	(14)
San Mateo	CA	0.071	0.190	0.211	0.106	0.124	0.348	0.085	0.102	0.265	0.089	0.113	0.278	(15)
Hudson	NJ	0.175	0.188	0.521	-0.017	0.122	-0.057	0.066	0.101	0.208	0.079	0.112	0.247	(16)
Salt Lake	UT	-0.015	0.174	-0.044	0.156	0.122	0.511	0.099	0.095	0.309	0.071	0.106	0.221	(17)
Pierce	WA	0.092	0.170	0.273	0.030	0.119	0.099	0.033	0.096	0.104	0.061	0.104	0.191	(18)
Providence	RI	0.110	0.190	0.326	0.012	0.125	0.039	0.048	0.101	0.150	0.061	0.114	0.190	(19)
Kern	CA	0.101	0.149	0.300	0.017	0.110	0.054	0.062	0.086	0.193	0.059	0.093	0.184	(20)
Monmouth	NJ	0.010	0.192	0.031	0.103	0.125	0.338	0.075	0.103	0.235	0.057	0.114	0.178	(21)
San Diego	CA	0.027	0.106	0.082	0.079	0.088	0.258	0.058	0.063	0.183	0.053	0.069	0.166	(22)
Worcester	MA	0.020	0.203	0.059	0.068	0.129	0.221	0.075	0.107	0.235	0.044	0.120	0.137	(23)
Hennepin	MN	0.081 0.084	0.172	0.242 0.249	0.004 -0.001	0.119	0.014	-0.024 0.027	0.094	-0.076	0.043	0.105	0.134	(24)
Hartford	СТ	0.004	0.192	0.249	-0.001	0.125	-0.004	0.027	0.102	0.084	0.041	0.114	0.129	(25)
Davidson	TN	-0.095	0.182	-0.284	-0.153	0.121	-0.501	-0.141	0.098	-0.443	-0.124	0.109	-0.390	(75)
Fairfield	CT	-0.227	0.198	-0.675	-0.038	0.127	-0.125	-0.101	0.104	-0.318	-0.133	0.118	-0.416	(76)
New Haven	CT	-0.252	0.182	-0.748	-0.015	0.122	-0.051	-0.085	0.099	-0.267	-0.133	0.110	-0.418	(77)
Essex	NJ	-0.081	0.174	-0.241	-0.195	0.118	-0.637	-0.147	0.096	-0.462	-0.138	0.105	-0.432	(78)
Montgomery	ОН	-0.152	0.196	-0.451	-0.133	0.127	-0.437	-0.142	0.104	-0.447	-0.143	0.117	-0.447	(79)
San Bernardino	CA	-0.200	0.096	-0.596	-0.085	0.082	-0.280	-0.140	0.062	-0.439	-0.143	0.063	-0.448	(80)
Monroe	NY	-0.234	0.215	-0.695	-0.057	0.132	-0.186	-0.108	0.110	-0.338	-0.145	0.126	-0.455	(81)
Shelby	TN	-0.151	0.162	-0.448	-0.154	0.116	-0.505	-0.210	0.093	-0.657	-0.152	0.099	-0.478	(82)
Jefferson	AL CA	-0.182	0.191	-0.540 -0.648	-0.142	0.125	-0.463	-0.102	0.102 0.045	-0.320	-0.162	0.114	-0.507	(83)
Los Angeles New York	NY	-0.218 -0.118	0.067 0.127	-0.0 4 6 -0.351	-0.122 -0.228	0.060 0.098	-0.398 -0.747	-0.164 -0.173	0.045	-0.514 -0.542	-0.170 -0.173	0.045 0.080	-0.532 -0.543	(84) (85)
Riverside	CA	-0.116	0.127	-0.331	-0.228	0.098	-0.747	-0.173	0.076	-0.505	-0.173 -0.178	0.068	-0.559	(86)
Palm Beach	FL	-0.265	0.105	-0.824	-0.071	0.007	-0.23 4 -0.275	-0.101	0.084	-0.651	-0.176	0.008	-0.566	(87)
Wake	NC	-0.277	0.140	-0.624	-0.004	0.112	-0.275	-0.208	0.101	-0.536	-0.182	0.092	-0.571	(88)
Fulton	GA	-0.225	0.130	-0.581	-0.139	0.123	-0.433	-0.171	0.101	-0.543	-0.186	0.113	-0.582	(89)
Marion	IN	-0.190	0.130	-0.439	-0.176	0.101	-0.576	-0.173	0.077	-0.5 4 5 -0.655	-0.192	0.002	-0.603	(90)
Pima	AZ	-0.387	0.172	-1.151	-0.237	0.116	-0.773	-0.209	0.087	-0.446	-0.192	0.103	-0.608	(90)
Bronx	NY	-0.367	0.137	-0.760	-0.001	0.098	-0.448	-0.142	0.083	-0. 44 0 -0.544	-0.194	0.097	-0.615	(92)
Milwaukee	WI	-0.230	0.127	-0.740	-0.137 -0.144	0.098	-0. 44 6 -0.471	-0.174	0.076	-0.344	-0.196	0.000	-0.616	(92)
Wayne	MI	-0.2 4 9 -0.293	0.135	-0.740 -0.872	-0.144 -0.106	0.122	-0.471	-0.156 -0.182	0.096	-0. 490 -0.570	-0.196	0.109	-0.616	(93)
Fresno	CA	-0.293	0.155	-0.872	-0.130	0.104	-0.347 -0.427	-0.162	0.077	-0.570	-0.206	0.005	-0.620	(94)
Cook	IL	-0.230	0.133	-0.683	-0.196	0.113	-0.427	-0.213	0.069	-0.640	-0.213	0.090	-0.667	(96)
Orange	FL	-0.230	0.093	-0.731	-0.184	0.079	-0.601	-0.204	0.000	-0.605	-0.215	0.082	-0.673	(97)
Hillsborough	FL	-0.274	0.120	-0.731	-0.155	0.033	-0.509	-0.193	0.077	-0.691	-0.215	0.000	-0.673	(98)
Mecklenburg	NC	-0.214	0.131	-0.640	-0.133	0.113	-0.509	-0.220	0.000	-0.723	-0.215	0.095	-0.673	(99)
Baltimore City	MD	-0.469	0.175	-1.393	-0.223	0.113	-0.737	-0.231	0.093	-0.723	-0.220	0.103	-0.864	(100)
Datamore Oity	שוזיו	0.400	0.100	1.000	0.002	V. 112	U.£1U	J.22J	0.002	0.000	0.210	0.000	0.004	(100)

Notes: Table presents per-year exposure predictions by gender for the top 25 and bottom 25 of the 100 largest counties. Estimates are for children in below-median (p25) income families. Column (1) reports the predictions for the child's family income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to the percentage dollar increase by multiplying the estimates in column (1) by the regression coefficient from regressing the permanent resident outcomes at p25 for child family income at age 26 on the analogous outcomes for child rank at age 26 divided by the mean income of children from below-median (p25) income families. Columns (4)-(6) repeat the analysis on the sample of female children. Columns (7)-(9) report the baseline (pooled gender) forecasts. Columns (10) reports the average of the two gender-specific forecasts. Column (11) reports the mse of this forecast, constructed as the square root of the sum of the squared male and female rmse divided by two. Column (12) scales this to the percentage increase in incomes using the same scaling factors as in Column (9). The rows are sorted in decending order according to the gender-average specification.

TABLE XII

Regressions of Place Effects Across Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

-		Standard	Exposure Effect	t Correlation	R	egression D	ecompositio	n on Model	Component	S
		Deviation of Covariate (1)	(2)		Permanent (3		Causal (2 (4		Sort (5	
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.100	-0.514	(0.128)	-2.418	(0.229)	-1.361	(0.339)	-1.027	(0.306)
	Poverty Rate	0.041	-0.144	(0.156)	-0.551	(0.296)	-0.381	(0.412)	-0.174	(0.408)
Segregation	Racial Segregation Theil Index	0.107	-0.510	(0.109)	-1.693	(0.249)	-1.351	(0.288)	-0.294	(0.312)
and Poverty	Income Segregation Theil Index	0.034	-0.574	(0.137)	-1.141	(0.307)	-1.518	(0.364)	0.448	(0.378)
,	Segregation of Poverty (<p25)< td=""><td>0.030</td><td>-0.549</td><td>(0.145)</td><td>-1.287</td><td>(0.280)</td><td>-1.452</td><td>(0.384)</td><td>0.233</td><td>(0.366)</td></p25)<>	0.030	-0.549	(0.145)	-1.287	(0.280)	-1.452	(0.384)	0.233	(0.366)
	Segregation of Affluence (>p75)	0.039	-0.580	(0.130)	-1.027	(0.320)	-1.534	(0.345)	0.579	(0.384)
	Share with Commute < 15 Mins	0.095 1.376	0.875 -0.647	(0.133)	1.624 -1.143	(0.322) (0.345)	2.317 -1.713	(0.353) (0.315)	-0.718 0.633	(0.325)
	Log. Population Density	1.370	-0.047	(0.119)	-1.143	(0.345)	-1./13	(0.313)	0.033	(0.278)
	Household Income per Capita for Working-Age Adults	6,945	-0.304	(0.150)	-0.217	(0.282)	-0.805	(0.397)	0.618	(0.275)
Income	Gini coefficient for Parent Income	0.083	-0.765	(0.131)	-1.387	(0.501)	-2.024	(0.346)	0.686	(0.381)
Distribution	Top 1% Income Share for Parents	5.032	-0.493	(0.095)	-0.347	(0.289)	-1.304	(0.251)	0.994	(0.206)
	Gini Bottom 99%	0.054	-0.713	(0.107)	-1.795	(0.384)	-1.888	(0.284)	0.135	(0.398)
	Fraction Middle Class (Between National p25 and p75)	0.061	0.700	(0.141)	1.615	(0.404)	1.853	(0.374)	-0.299	(0.393)
	Local Tax Rate	0.006	-0.126	(0.138)	0.002	(0.301)	-0.332	(0.365)	0.286	(0.306)
	Local Tax Rate per Capita	0.381	-0.292	(0.172)	-0.078	(0.255)	-0.774	(0.454)	0.678	(0.348)
Tax	Local Government Expenditures per Capita	680.7	-0.300	(0.131)	0.235	(0.278)	-0.794	(0.346)	1.026	(0.405)
	State EITC Exposure	3.708	0.151	(0.154)	0.799	(0.296)	0.400	(0.407)	0.404	(0.258)
	State Income Tax Progressivity	2.336	-0.080	(0.158)	0.592	(0.205)	-0.212	(0.419)	0.814	(0.415)
	School Expenditure per Student	1.312	-0.015	(0.147)	0.254	(0.286)	-0.041	(0.388)	0.291	(0.358)
K-12	Student/Teacher Ratio	2.681	-0.346	(0.108)	0.038	(0.386)	-0.915	(0.285)	1.028	(0.385)
Education	Test Score Percentile (Controlling for Parent Income)	7.204	0.509	(0.102)	0.787	(0.662)	1.346	(0.269)	-0.623	(0.562)
	High School Dropout Rate (Controlling for Parent Income)	0.016	-0.551	(0.138)	-1.628	(0.329)	-1.458	(0.366)	-0.112	(0.294)
	Number of Colleges per Capita	0.007	0.647	(0.136)	0.547	(0.250)	1.713	(0.359)	-1.127	(0.351)
College	Mean College Tuition	3,315	-0.147	(0.106)	-0.113	(0.275)	-0.389	(0.280)	0.290	(0.324)
	College Graduation Rate (Controlling for Parent Income)	0.104	0.141	(0.116)	0.519	(0.267)	0.373	(0.307)	0.139	(0.209)
	Labor Force Participation Rate	0.047	0.141	(0.162)	0.278	(0.286)	0.373	(0.428)	-0.076	(0.338)
Local Labor	Fraction Working in Manufacturing	0.062	0.028	(0.147)	-0.239	(0.301)	0.073	(0.390)	-0.276	(0.320)
Market	Growth in Chinese Imports 1990-2000 (Autor and Dorn 2013)	0.979	-0.032	(0.117)	0.176	(0.231)	-0.086	(0.309)	0.301	(0.213)
	Teenage (14-16) Labor Force Participation Rate	0.101	0.554	(0.138)	1.293	(0.467)	1.466	(0.365)	-0.223	(0.520)
Migration	Migration Inflow Rate	0.011	-0.174	(0.139)	-0.054	(0.278)	-0.459	(0.368)	0.452	(0.286)
wiigration	Migration Outflow Rate	0.007	-0.117	(0.129)	0.208	(0.284)	-0.311	(0.342)	0.569	(0.280)
	Fraction of Foreign Born Residents	0.100	-0.447	(0.104)	0.196	(0.286)	-1.184	(0.275)	1.417	(0.315)
0:-1	Social Capital Index (Rupasingha and Goetz 2008)	0.936	0.697	(0.133)	1.216	(0.392)	1.845	(0.352)	-0.692	(0.411)
Social	Fraction Religious	0.107	0.178	(0.172)	1.062	(0.361)	0.471	(0.456)	0.551	(0.278)
Capital	Violent Crime Rate	0.001	-0.679	(0.115)	-0.959	(0.584)	-1.798	(0.305)	0.871	(0.467)
E	Fraction of Children with Single Mothers	0.036	-0.567	(0.119)	-2.458	(0.345)	-1.500	(0.316)	-0.909	(0.382)
Family	Fraction of Adults Divorced	0.015	0.040	(0.156)	-0.710	(0.287)	0.106	(0.414)	-0.781	(0.273)
Structure	Fraction of Adults Married	0.034	0.522	(0.141)	1.449	(0.365)	1.382	(0.373)	-0.007	(0.410)
	Median House Prices	82,926	-0.324	(0.133)	0.286	(0.270)	-0.858	(0.351)	1.194	(0.202)
Prices	Median Monthly Rent	206.8	-0.424	(0.133)	-0.006	(0.270)	-1.123	(0.368)	1.186	(0.202)

Notes: This table presents estimates of regressions of the place effects for children in below-median income families (p25) at the CZ level on normalized covariates. Appendix Table XIV provides a definition and source for each of these variables. Each covariate is standardized to have mean 0 and standard deviation 1 using population weights by CZ from the 2000 Census. Column (1) reports the standard deviation of the covariate prior to this normalization. Column (2) reports the correlation between the place exposure effect and the covariate; we then divide this coefficient (and its standard error) by the estimated signal standard deviation (reported in Table VII) to arrive at the correlation and its standard error. Column (3) reports the coefficient of a regression of the permanent resident outcomes on the normalized covariate (and its standard error). Columns (4)-(5) decompose this regression coefficient into the regression of the place exposure effect (multiplying by 20 years of exposure) on the normalized covariate (Column (4)) and the sorting component (=permenant resident outcomes - 20*place exposure effect) on the normalized covariate. All regressions include population weights using 2000 Census populations. Standard errors presented in parentheses are clustered at the state level to account for spatial autocorrelation.

TABLE XIII
Regressions of Place Effects Across Commuting Zones on Selected Covariates (Above-Median Income Parents (p75))

		Standard	Exposure Effect	Correlation	R	Regression Decomposition on Model Components				
		Deviation of Covariate (1)	(2)		Permanent Residents (3)		Causal (20 years) (4)		Sort 5	•
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.100	-0.005	(0.203)	-0.539	(0.343)	-0.011	(0.434)	-0.501	(0.262)
	Poverty Rate	0.041	-0.063	(0.209)	-0.563	(0.227)	-0.134	(0.446)	-0.455	(0.331)
Segregation	Racial Segregation Theil Index	0.107	-0.163	(0.102)	-0.737	(0.185)	-0.348	(0.219)	-0.358	(0.244
and Poverty	Income Segregation Theil Index Segregation of Poverty (<p25)< td=""><td>0.034 0.030</td><td>-0.557</td><td>(0.167)</td><td>-1.395</td><td>(0.236)</td><td>-1.190 -0.969</td><td>(0.357)</td><td>-0.170</td><td>(0.249</td></p25)<>	0.034 0.030	-0.557	(0.167)	-1.395	(0.236)	-1.190 -0.969	(0.357)	-0.170	(0.249
	Segregation of Poverty (<p25) (="" affluence="" of="" segregation="">p75)</p25)>	0.030	-0.453 -0.623	(0.148) (0.179)	-1.271 -1.472	(0.206) (0.250)	-0.969	(0.317) (0.383)	-0.265 -0.107	(0.243 (0.255
	Share with Commute < 15 Mins	0.039	0.602	(0.179)	1.555	(0.222)	1.288	(0.321)	0.287	(0.233
	Log. Population Density	1.376	-0.423	(0.140)	-1.012	(0.261)	-0.905	(0.299)	-0.073	(0.221
	Household Income per Capita for Working-Age Adults	6,945	-0.334	(0.162)	-0.619	(0.196)	-0.714	(0.346)	0.123	(0.258
	Gini coefficient for Parent Income	0.083	-0.694	(0.227)	-1.586	(0.473)	-1.483	(0.485)	-0.074	(0.302
Income Distribution	Top 1% Income Share for Parents	5.032	-0.514	(0.172)	-1.055	(0.372)	-1.099	(0.369)	0.062	(0.218
Distribution	Gini Bottom 99%	0.054	-0.585	(0.175)	-1.444	(0.230)	-1.252	(0.374)	-0.170	(0.311
	Fraction Middle Class (Between National p25 and p75)	0.061	0.487	(0.177)	1.512	(0.264)	1.041	(0.379)	0.440	(0.322
	Local Tax Rate	0.006	-0.086	(0.188)	-0.244	(0.237)	-0.185	(0.402)	-0.096	(0.265
	Local Tax Rate per Capita	0.381	-0.264	(0.203)	-0.432	(0.193)	-0.564	(0.435)	-0.007	(0.297
Tax	Local Government Expenditures per Capita	680.7	-0.695	(0.247)	-1.209	(0.368)	-1.486	(0.529)	0.250	(0.290
	State EITC Exposure	3.708	0.161	(0.132)	0.674	(0.245)	0.345	(0.283)	0.336	(0.184
	State Income Tax Progressivity	2.336	-0.416	(0.329)	-0.749	(0.563)	-0.890	(0.704)	0.144	(0.224)
	School Expenditure per Student	1.312	0.031	(0.188)	0.148	(0.325)	0.067	(0.401)	0.082	(0.222
K-12 Education	Student/Teacher Ratio	2.681	-0.726	(0.191)	-1.628	(0.177)	-1.553	(0.408)	-0.040	(0.320)
	Test Score Percentile (Controlling for Parent Income)	7.204	0.689	(0.205)	1.669	(0.186)	1.473	(0.438)	0.173	(0.383
	High School Dropout Rate (Controlling for Parent Income)	0.016	-0.196	(0.153)	-0.902	(0.273)	-0.420	(0.327)	-0.437	(0.291
	Number of Colleges per Capita	0.007	0.518	(0.220)	1.086	(0.254)	1.109	(0.470)	0.161	(0.354
College	Mean College Tuition	3,315	0.127	(0.169)	0.342	(0.255)	0.272	(0.362)	0.085	(0.242
	College Graduation Rate (Controlling for Parent Income)	0.104	-0.025	(0.149)	0.276	(0.276)	-0.054	(0.318)	0.325	(0.288
	Labor Force Participation Rate	0.047	-0.037	(0.213)	0.246	(0.265)	-0.079	(0.457)	0.353	(0.351
	Fraction Working in Manufacturing	0.062	0.356	(0.173)	0.674	(0.232)	0.761	(0.369)	-0.052	(0.306
Market	Growth in Chinese Imports 1990-2000 (Autor and Dorn 2013) Teenage (14-16) Labor Force Participation Rate	0.979 0.101	0.011 0.476	(0.139) (0.253)	0.240 1.482	(0.168) (0.305)	0.023 1.017	(0.297) (0.542)	0.241 0.452	(0.242
	,			, ,		, ,				(0.349
Migration	Migration Inflow Rate	0.011	-0.529	(0.148)	-0.638	(0.202)	-1.131	(0.317)	0.525	(0.273
g.a.a	Migration Outflow Rate	0.007	-0.514	(0.159)	-0.957	(0.214)	-1.100	(0.340)	0.173	(0.321
	Fraction of Foreign Born Residents	0.100	-0.858	(0.182)	-1.572	(0.316)	-1.835	(0.388)	0.283	(0.232
Social Capital	Social Capital Index (Rupasingha and Goetz 2008)	0.936	0.663	(0.203)	1.590	(0.244)	1.417	(0.434)	0.157	(0.342
	Fraction Religious	0.107	0.248	(0.148)	1.252	(0.207)	0.531	(0.318)	0.689	(0.266
	Violent Crime Rate	0.001	-0.780	(0.199)	-1.334	(0.287)	-1.669	(0.425)	0.343	(0.255
Family Structure	Fraction of Children with Single Mothers	0.036	-0.105	(0.184)	-0.851	(0.331)	-0.225	(0.393)	-0.581	(0.248
	Fraction of Adults Divorced	0.015	0.105	(0.195)	-0.529	(0.291)	0.226	(0.417)	-0.720	(0.292
	Fraction of Adults Married	0.034	0.480	(0.181)	1.419	(0.304)	1.027	(0.388)	0.351	(0.264
Prices	Median House Prices	82,926	-0.648	(0.120)	-1.224	(0.204)	-1.387	(0.256)	0.193	(0.198
	Median Monthly Rent	206.8	-0.718	(0.180)	-1.367	(0.282)	-1.536	(0.385)	0.207	(0.260

Notes: This table presents estimates of regressions of the place effects for children in above-median income families (p75) at the CZ level on normalized covariates. Appendix Table XIV provides a definition and source for each of these variables. Each covariate is standardized to have mean 0 and standard deviation 1 using population weights by CZ from the 2000 Census. Column (1) reports the standard deviation of the covariate prior to this normalization. Column (2) reports the correlation between the place exposure effect and the covariate. We compute this as the regression coefficient of the place exposure effect estimate on the covariate; we then divide this coefficient (and its standard error) by the estimated signal standard deviation (reported in Table VII) to arrive at the correlation and its standard error. Column (3) reports the coefficient of a regression of the permanent resident outcomes on the normalized covariate (and its standard error). Columns (4)-(5) decompose this regression coefficient into the regression of the place exposure effect (multiplying by 20 years of exposure) on the normalized covariate (Column (4)) and the sorting component (=permenant resident outcomes - 20*place exposure effect) on the normalized covariate. All regressions include population weights using 2000 Census populations. Standard errors presented in parentheses are clustered at the state level to account for spatial autocorrelation.

TABLE XIV
Regressions of Place Effects Across Counties within Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

		Standard	Exposure Effect	Correlation	on Regression Decomposition on Model Components					s
		Deviation of Covariate (1)	(2)		Permanent Residents (3)		Causal (20 years) (4)		Sort 5	
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents Poverty Rate	0.130 0.056	-0.319 -0.232	(0.103) (0.108)	-2.253 -1.940	(0.174) (0.224)	-0.632 -0.461	(0.205) (0.214)	-1.622 -1.491	(0.220) (0.200)
Segregation and Poverty	Racial Segregation Theil Index Income Segregation Theil Index	0.119 0.039	-0.371 -0.422	(0.096) (0.101)	-2.231 -1.686	(0.145) (0.113)	-0.735 -0.837	(0.190) (0.200)	-1.501 -0.838	(0.195) (0.197)
	Segregation of Poverty (<p25) (="" affluence="" of="" segregation="">p75)</p25)>	0.034 0.046	-0.463 -0.357	(0.103) (0.107)	-1.810 -1.460	(0.128) (0.123)	-0.919 -0.708	(0.204) (0.212)	-0.884 -0.737	(0.206) (0.199)
	Share with Commute < 15 Mins Log. Population Density	0.104 1.752	0.019 -0.269	(0.117) (0.112)	0.198 -1.764	(0.188) (0.267)	0.037 -0.533	(0.233) (0.221)	0.196 -1.230	(0.313) (0.297)
	Household Income per Capita for Working-Age Adults	9,236	0.056	(0.140)	0.814	(0.249)	0.112	(0.278)	0.702	(0.199)
Income Distribution	Gini coefficient for Parent Income Top 1% Income Share for Parents	0.113 0.064	-0.410 -0.227	(0.136) (0.095)	-1.933 -0.943	(0.413) (0.256)	-0.813 -0.451	(0.270) (0.188)	-1.117 -0.492	(0.274) (0.234)
	Gini Bottom 99% Fraction Middle Class (Between National p25 and p75)	0.112 0.075	-0.410 0.129	(0.136) (0.134)	-1.936 0.711	(0.412) (0.260)	-0.814 0.255	(0.270) (0.265)	-1.119 0.428	(0.273) (0.231)
Tax	Local Tax Rate Local Tax Rate per Capita Local Government Expenditures per Capita	0.010 0.475 1.062	-0.212 -0.146 -0.299	(0.124) (0.107) (0.135)	-0.853 -0.412 -1.013	(0.609) (0.502) (0.545)	-0.421 -0.290 -0.593	(0.246) (0.212) (0.267)	-0.480 -0.140 -0.447	(0.545) (0.468) (0.438)
	State EITC Exposure State Income Tax Progressivity	3.745 2.358	-0.013 -0.192	(0.211) (0.270)	-0.084 -0.132	(0.061) (0.128)	-0.026 -0.381	(0.419) (0.535)	-0.061 0.249	(0.392) (0.574)
K-12 Education	School Expenditure per Student Student/Teacher Ratio Test Score Percentile (Controlling for Parent Income) High School Dropout Rate (Controlling for Parent Income)	1.505 2.837 9.630 0.024	-0.066 -0.104 0.354 -0.375	(0.121) (0.107) (0.130) (0.129)	-0.274 -0.572 1.750 -1.777	(0.339) (0.210) (0.360) (0.214)	-0.130 -0.207 0.702 -0.743	(0.240) (0.212) (0.259) (0.256)	-0.233 -0.344 1.055 -1.054	(0.393) (0.300) (0.316) (0.303)
College	Number of Colleges per Capita Mean College Tuition College Graduation Rate (Controlling for Parent Income)	0.012 4,421 0.139	-0.039 -0.017 0.035	(0.177) (0.138) (0.156)	-0.415 -0.330 -0.543	(0.183) (0.255) (0.203)	-0.078 -0.033 0.069	(0.352) (0.274) (0.309)	-0.426 -0.297 -0.615	(0.342) (0.397) (0.338)
Local Labor Market	Labor Force Participation Rate Fraction Working in Manufacturing Teenage (14-16) Labor Force Participation Rate	0.058 0.070 0.109	-0.096 0.244 0.087	(0.124) (0.129) (0.124)	0.897 0.941 1.026	(0.234) (0.143) (0.205)	-0.190 0.485 0.172	(0.245) (0.257) (0.245)	1.136 0.490 0.864	(0.234) (0.255) (0.253)
Migration	Migration Inflow Rate Migration Outflow Rate Fraction of Foreign Born Residents	0.019 0.014 0.109	-0.036 0.009 -0.029	(0.085) (0.124) (0.124)	0.996 0.119 -0.633	(0.225) (0.235) (0.217)	-0.072 0.018 -0.058	(0.169) (0.246) (0.246)	1.095 0.126 -0.568	(0.225) (0.249) (0.239)
Social Capital	Social Capital Index (Rupasingha and Goetz 2008) Fraction Religious Violent Crime Rate	1.102 0.129 0.002	0.148 0.075 -0.320	(0.148) (0.137) (0.106)	-0.033 0.025 -1.742	(0.221) (0.168) (0.141)	0.293 0.149 -0.635	(0.293) (0.271) (0.211)	-0.344 -0.152 -1.118	(0.348) (0.284) (0.200)
Family Structure	Fraction of Children with Single Mothers Fraction of Adults Divorced Fraction of Adults Married	0.070 0.017 0.063	-0.377 -0.336 0.333	(0.107) (0.132) (0.094)	-2.500 -1.670 2.390	(0.257) (0.161) (0.131)	-0.747 -0.667 0.661	(0.212) (0.261) (0.186)	-1.739 -1.019 1.719	(0.195) (0.259) (0.203)
Prices	Median House Price Median Monthly Rent	124,006 219.3	-0.058 0.078	(0.068) (0.125)	0.158 0.737	(0.406) (0.227)	-0.115 0.154	(0.134) (0.248)	0.278 0.623	(0.379) (0.254)

Notes: This table presents estimates of regressions of the place effects for children in below-median income families (p25) at the county level on normalized covariates, conditional on a set of CZ fixed effects. Appendix Table XIV provides a definition and source for each of these variables. Each covariate is standardized to have mean 0 and standard deviation 1 using population weights by CZ from the 2000 Census. Column (1) reports the standard deviation of the covariate prior to this normalization. Column (2) reports the correlation between the place exposure effect and the covariate conditional on CZ fixed effects. We compute this as the regression coefficient of the place exposure effect estimate on the covariate conditional on CZ fixed effects; we then divide this coefficient (and its standard error) by the estimated signal standard deviation (reported in Table VII, column (5)) to arrive at the correlation and its standard error. Column (3) reports the coefficient of a regression of the permanent resident outcomes on the normalized covariate (and its standard error), conditional on CZ fixed effects. Columns (4)-(5) decompose this regression coefficient into the regression of the place exposure effect (multiplying by 20 years of exposure) on the normalized covariate (Column (4)) and the sorting component (=permenant resident outcomes - 20*place exposure effect) on the normalized covariate. All regressions include populations. Standard errors presented in parentheses are clustered at the CZ level to account for spatial autocorrelation.

TABLE XV
Regressions of Place Effects Across Counties within Commuting Zones on Selected Covariates (Above-Median Income Parents (p75))

		Standard	Exposure Effect	Correlation	Regression Decomposition on Model Components					s
		Deviation of Covariate (1)	(2)			ermanent Residents (3)		Causal (20 years) (4)		ing)
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents Poverty Rate	0.130 0.056	0.137 -0.020	(0.138) (0.164)	-1.363 -1.138	(0.102) (0.111)	0.305 -0.044	(0.309) (0.366)	-1.671 -1.108	(0.342) (0.342)
Segregation and Poverty	Racial Segregation Theil Index Income Segregation Theil Index Segregation of Poverty (<p25)< td=""><td>0.119 0.039 0.034</td><td>0.138 -0.055 -0.081</td><td>(0.095) (0.108) (0.116)</td><td>-1.329 -1.255 -1.283</td><td>(0.120) (0.075) (0.082)</td><td>0.309 -0.123 -0.181</td><td>(0.211) (0.241) (0.258)</td><td>-1.642 -1.123 -1.094</td><td>(0.223) (0.235) (0.255)</td></p25)<>	0.119 0.039 0.034	0.138 -0.055 -0.081	(0.095) (0.108) (0.116)	-1.329 -1.255 -1.283	(0.120) (0.075) (0.082)	0.309 -0.123 -0.181	(0.211) (0.241) (0.258)	-1.642 -1.123 -1.094	(0.223) (0.235) (0.255)
	Segregation of Affluence (>p75) Share with Commute < 15 Mins Log. Population Density	0.046 0.104 1.752	-0.039 0.079 -0.043	(0.110) (0.104) (0.262) (0.122)	-1.144 0.208 -1.453	(0.087) (0.170) (0.154)	-0.087 0.177 -0.096	(0.232) (0.586) (0.273)	-1.045 0.064 -1.358	(0.225) (0.604) (0.264)
Income Distribution	Household Income per Capita for Working-Age Adults Gini coefficient for Parent Income Top 1% Income Share for Parents Gini Bottom 99% Fraction Middle Class (Between National p25 and p75)	9,236 0.113 0.064 0.112 0.075	-0.025 -0.064 -0.010 -0.065 -0.136	(0.098) (0.134) (0.145) (0.134) (0.143)	0.227 -1.443 -0.936 -1.444 0.661	(0.114) (0.174) (0.170) (0.173) (0.144)	-0.057 -0.144 -0.022 -0.144 -0.304	(0.219) (0.299) (0.324) (0.298) (0.318)	0.287 -1.298 -0.918 -1.299 0.956	(0.231) (0.422) (0.443) (0.421) (0.325)
Tax	Local Tax Rate Local Tax Rate per Capita Local Government Expenditures per Capita State EITC Exposure State Income Tax Progressivity	0.010 0.475 1.062 3.745 2.358	-0.008 -0.022 -0.184 0.014 -0.145	(0.143) (0.105) (0.103) (0.152) (0.101)	-0.534 -0.352 -0.689 -0.053 -0.123	(0.486) (0.479) (0.393) (0.035) (0.107)	-0.017 -0.049 -0.411 0.032 -0.324	(0.319) (0.235) (0.230) (0.340) (0.225)	-0.546 -0.313 -0.298 -0.087 0.198	(0.620) (0.550) (0.454) (0.335) (0.253)
K-12 Education	School Expenditure per Student Student/Teacher Ratio Test Score Percentile (Controlling for Parent Income) High School Dropout Rate (Controlling for Parent Income)	1.505 2.837 9.630 0.024	0.051 -0.206 0.031 0.148	(0.166) (0.163) (0.119) (0.174)	-0.198 -0.513 1.021 -1.064	(0.345) (0.247) (0.118) (0.121)	0.113 -0.460 0.070 0.330	(0.370) (0.365) (0.265) (0.388)	-0.378 -0.043 0.958 -1.403	(0.371) (0.322) (0.334) (0.404)
College	Number of Colleges per Capita Mean College Tuition College Graduation Rate (Controlling for Parent Income)	0.012 4,421 0.139	-0.148 -0.154 -0.077	(0.188) (0.137) (0.148)	-0.166 -0.324 -0.485	(0.153) (0.181) (0.122)	-0.329 -0.343 -0.173	(0.421) (0.306) (0.331)	0.116 0.021 -0.313	(0.440) (0.351) (0.320)
Local Labor Market	Labor Force Participation Rate Fraction Working in Manufacturing Teenage (14-16) Labor Force Participation Rate	0.058 0.070 0.109	-0.136 0.155 0.013	(0.152) (0.174) (0.194)	0.195 0.890 0.486	(0.183) (0.079) (0.160)	-0.303 0.345 0.028	(0.340) (0.388) (0.434)	0.530 0.573 0.466	(0.361) (0.402) (0.442)
Migration	Migration Inflow Rate Migration Outflow Rate Fraction of Foreign Born Residents	0.019 0.014 0.109	-0.305 -0.163 0.192	(0.122) (0.142) (0.089)	0.486 -0.275 -0.739	(0.110) (0.211) (0.125)	-0.682 -0.365 0.428	(0.274) (0.316) (0.198)	1.189 0.104 -1.162	(0.252) (0.301) (0.223)
Social Capital	Social Capital Index (Rupasingha and Goetz 2008) Fraction Religious Violent Crime Rate	1.102 0.129 0.002	0.003 -0.105 0.059	(0.159) (0.153) (0.146)	-0.136 0.013 -0.954	(0.166) (0.149) (0.147)	0.007 -0.235 0.132	(0.356) (0.342) (0.326)	-0.157 0.231 -1.092	(0.415) (0.357) (0.319)
Family Structure	Fraction of Children with Single Mothers Fraction of Adults Divorced Fraction of Adults Married	0.070 0.017 0.063	-0.074 -0.123 0.162	(0.137) (0.160) (0.172)	-1.556 -0.929 1.652	(0.093) (0.153) (0.099)	-0.165 -0.274 0.361	(0.307) (0.356) (0.384)	-1.384 -0.660 1.285	(0.304) (0.333) (0.360)
Prices	Median House Price Median Monthly Rent	124,006 219.3	-0.228 -0.045	(0.050) (0.117)	-0.264 0.033	(0.117) (0.239)	-0.508 -0.101	(0.111) (0.262)	0.251 0.162	(0.114) (0.265)

Notes: This table presents estimates of regressions of the place effects for children in above-median income families (p75) at the county level on normalized covariates, conditional on a set of CZ fixed effects. Appendix Table XVI provides a definition and source for each of these variables. Each covariate is standardized to have mean 0 and standard deviation 1 using population weights by CZ from the 2000 Census. Column (1) reports the standard deviation of the covariate prior to this normalization. Column (2) reports the correlation between the place exposure effect and the covariate conditional on CZ fixed effects. We compute this as the regression coefficient of the place exposure effect estimate on the covariate conditional on CZ fixed effects; we then divide this coefficient (and its standard error) by the estimated signal standard deviation (reported in Table VII, column (5)) to arrive at the correlation and its standard error. Column (3) reports the coefficient of a regression of the permanent resident outcomes on the normalized covariate (and its standard error), conditional on CZ fixed effects. Columns (4)-(5) decompose this regression coefficient into the regression of the place exposure effect (multiplying by 20 years of exposure) on the normalized covariate (Column (4)) and the sorting component (=permenant resident outcomes - 20*place exposure effect) on the normalized covariate. All regressions include populations. Standard errors presented in parentheses are clustered at the CZ level to account for spatial autocorrelation.

Appendix Table 1
Summary Statistics for Permanent Residents and Movers

Variable	Mean Std. Dev. Median Sample Size								
variable	(1)	(2)	(3)	(4)					
Panel A: County Permanent Residents and I	Movers								
Non-Movers									
Parent Income	81,932	320,026	54,800	37,689,238					
Child family income at 24	25,066	136,016	19,900	19,956,828					
Child family income at 26	34,091	157,537	26,600	15,364,222					
Child family income at 30	48,941	133,264	36,200	6,355,414					
Child individual earnings at 24	20,686	202,833	17,300	20,069,124					
College attendence (18-23)	0.703	0.457	1.000	20,418,691					
College quality (18-23)	31,608	13,207	31,400	20,418,691					
Teen Birth (13-19)	0.107 0.276	0.309 0.447	0.000 0.000	14,503,588					
Teen employment at age 16	0.276	0.447	0.000	37,464,779					
One-time Movers Across CZ Sample	04.720	400 605	EE 100	1 400 240					
Parent Income Child family income at 24	94,738 23,815	400,685 72,306	55,100 18,200	1,498,319 654,491					
Child family income at 26	32,532	139,563	24,300	483,407					
Child family income at 20 Child family income at 30	48,834	110,619	33,500	188,801					
Child individual earnings at 24	20,247	61,185	16,000	654,491					
College attendence (18-23)	0.717	0.451	1.000	690,207					
College quality (18-23)	32,171	14,001	31,900	690,207					
Teen Birth (13-19)	0.103	0.304	0.000	524,194					
Teen employment at age 16	0.233	0.423	0.000	1,498,319					
One-time Movers Within CZ Sample									
Parent Income	84,850	356,758	48,900	1,425,096					
Child family income at 24	24,006	68,559	18,300	617,502					
Child family income at 26	32,993	75,520	24,500	457,140					
Child family income at 30	49,974	108,248	33,500	179,856					
Child individual earnings at 24	20,844	56,639	16,500	617,502					
College attendence (18-23)	0.719	0.450	1.000	650,045					
College quality (18-23)	32,883	14,086	33,200	650,045					
Teen Birth (13-19)	0.095	0.293	0.000	496,122					
Teen employment at age 16	0.245	0.430	0.000	1,425,096					
Panel B: CZ and County Samples for Fixed Effects Estimation in Section VII									
CZ Movers Sample									
Parent Income	74,390	293,213	45,200	6,791,026					
Child family income at 24	23,613	49,457	18,500	2,692,104					
Child family income at 26	31,559	83,716	24,400	1,869,560					
Child family income at 30	45,225	91,195	33,300	616,947					
Child individual earnings at 24	18,787	42,333	15,600	2,692,104					
College attendence (18-23)	0.625	0.484	1.000	4,026,000					
College quality (18-23)	29,005	12,284	27,700	4,026,000					
Teen Birth (13-19)	0.121	0.326	0.000	2,321,994					
Teen employment at age 16	0.279	0.449	0.000	6,791,026					
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County Movers Sample	Э
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Parent Income	76,285	276,185	51,500	3,772,532
Child family income at 24	24,569	54,583	19,500	1,756,981
Child family income at 26	32,985	70,944	25,700	1,323,455
Child family income at 30	47,500	104,900	34,700	532,388
Child individual earnings at 24	19,832	45,082	16,800	1,756,981
College attendence (18-23)	0.637	0.481	1.000	2,316,963
College quality (18-23)	29,691	12,521	29,200	2,316,963
Teen Birth (13-19)	0.115	0.319	0.000	1,356,990
Teen employment at age 16	0.274	0.446	0.000	3,772,532

Notes: The table presents summary statistics for county movers sample discussed in Section VI (Panel A) and the sample used for the fixed effect estimation in Section VII (Panel B).

Appendix Table II
Population and Distance Restrictions

			No Distance	9	100	Miles (Base	eline)	200 Miles			
	Baseline (1)	Pop > 50K	Pop > 250K	Pop > 500K	Pop > 50K		Pop > 500K	Pop > 50K		Pop > 500K	
-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Exposure Slope	0.040 (0.002)	0.032 (0.001)	0.035 (0.002)	0.037 (0.002)	0.036 (0.001)	0.039 (0.002)	0.040 (0.002)	0.037 (0.002)	0.039 (0.002)	0.041 (0.002)	
Num of Obs.	1,553,021	3,066,854	2,199,834	1,607,626	2,126,859	1,609,330	1,210,164	1,719,687	1,345,125	1,036,668	

Notes: This table presents estimates of the baseline specification in equation (9) varying the sample restriction. Column (1) presents the baseline sample restricting to populations in the origin and destination CZ of greater than 250,000 people based on the 2000 Census and requiring a distance of move > 100 miles between zipcode centroids. Columns (2)-(10) vary these distance assumptions and population restrictions.

Appendix Table III Heterogeneity in Exposure Effects

	(1) 0.040 (0.002) 1,553,021	Parenta	I Income	Mo	ves	Child	Gender
		Above Median Income	Below Median Income	Positive Moves	Negative Moves	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Exposure Slope		0.047 (0.003)	0.031 (0.003)	0.030 (0.004)	0.040 (0.004)	0.041 (0.003)	0.042 (0.003)
Num of Obs.	1,553,021	803,189	749,832	783,936	769,085	783,181	769,717

Notes: This table presents estimates of the heterogeneity in the baseline exposure time estimates (Column (1) of Table II) for various subsamples. Column (1) reports the baseline coefficient. Column (2) (Column (3)) restricts to moves by parents with above (below) median income (median defined as parent rank = 0.5; note there are more observations of 1x movers with parent rank > 0.5, reflecting the fact that the likelihood of moving is increasing in parental income). Column (4) (Column (5)) restricts to moves in which the predicted outcomes based on prior residents in the destination are higher (lower) than in the origin. Columns (6) and (7) restrict the sample to male and female children, respectively.

Appendix Table IV Prediction Regressions

C	Z	Cou	unty
Below	Above	Below	Above
Median	Median	Median	Median
Income	Income	Income	Income
(1)	(2)	(3)	(4)
0.032	0.038	0.027	0.023
(0.003)	(0.004)	(0.002)	(0.003)
0.106	0.097	0.115	0.076
0.224	0.222	0.419	0.429
0.210	0.218	0.402	0.407
0.080	0.045	0.118	0.135
595	595	2 370	2,370
	Below Median Income (1) 0.032 (0.003) 0.106 0.224 0.210	Median Income Median Income (1) (2) 0.032 0.038 (0.004) (0.004) 0.106 0.097 0.224 0.222 0.210 0.218 0.080 0.045 0.045	Below Median Income Above Median Income Below Median Income (1) (2) (3) 0.032 (0.003) (0.004) (0.002) (0.002) 0.106 (0.097 (0.115) (0.224) (0.222) (0.419) (0.210) (0.218) (0.402) (0.080) (0.045) (0.118) 0.402

Notes: This table presents the coefficients from the regression of the fixed effects on permanent resident outcomes. The first row presents this regression coefficient (regression is precision-weighted). The lower four rows present the standard deviation of the predicted values, the standard deviation of the residual values, and the estimated signal and noise standard deviation (computed under the simplifying assumption of no uncertainty in the permanent resident outcomes).

Appendix Table V
Correlates of Alternative Measures of Place Effects

		Variable	Below Median In (p=25th pe		Above Median In (p=75th pe	
			Correlation with Baseline (1)	Signal SD (2)	Correlation with Baseline (3)	Signal SD (4)
Panel A: CZ (Corre	elations				
		Baseline	1.000	0.132	1.000	0.107
	1.	Income Change Controls	0.946	0.151	0.942	0.111
Robustness	2.	Quadratic Income	0.940	0.144	0.932	0.134
	3.	Split Sample (Above/Below Median)	0.839	0.134	0.784	0.107
	4.	COLI adjusted	0.748	0.230	0.797	0.206
	5.	Individual Income	0.800	0.126	0.767	0.119
	6.	Males	0.706	0.213	0.677	0.104
	7.	Females	0.668	0.160	0.677	0.127
	8.	Males (Individual Income)	0.663	0.231	0.596	0.112
		Females (Individual Income)	0.425	0.129	0.494	0.200
		Individual income (\$, not ranks)	0.746	102.1	0.659	125.4
		Family Income (\$, not ranks)	0.921	132.7	0.888	143.6
Panel B: Coul	nty C	Correlations				
		Baseline	1.000	0.165	1.000	0.155
	1.	Income Change Controls	0.974	0.177	0.973	0.193
Robustness	2.	Quadratic Income	0.876	0.180	0.777	0.162
	3.	Split Sample (Above/Below Median)	0.841	0.208	0.659	0.195
	4.	COLI adjusted	0.808	0.253	0.852	0.235
	5.	Individual Income	0.771	0.144	0.754	0.175
	6.	Males	0.645	0.277	0.631	0.274
	7.	Females	0.656	0.172	0.639	0.196
	8.	Males (Individual Income)	0.586	0.277	0.547	0.247
	9.	Females (Individual Income)	0.404	0.110	0.433	0.287
		Individual income (\$, not ranks)	0.696		0.611	280.6
	11.	Family Income (\$, not ranks)	0.872		0.785	363.8

Notes: Table presents the correlation of exposure effects under alternative specifications with the baseline (child income rank at age 26) estimates. Column (1) reports the correlation with the baseline estimates for below-median income families. We weight the observations by inverse of the sum of the variances of the two specifications. Column (2) reports the estimated signal standard deviation for the alternative specification. Columns (3) and (4) repeat columns (1) and (2) on the sample of above-median income families (p75).

Appendix Table VI
Decomposition of College Attendance Outcomes into Causal and Sorting Components for 10 Largest CZs

		Below	Median Inc	ome Paren	ts	Above	Median Inc	ome Paren	ts	
		Permanent	De	ecompositio	n	Permanent	Decomposition			
Commuting	State	Residents	Sorting	Causal	(s.e.)	Residents	Sorting	Causal	(s.e.)	
Zone	State	(1)	(2)	(3)	4)	(5)	(6)	(7)	(8)	
Los Angeles	CA	44.80	48.21	-3.41	(0.85)	52.69	58.16	-5.47	(0.91)	
New York	NY	43.94	46.91	-2.97	(0.89)	56.73	57.51	-0.78	(1.14)	
Chicago	IL	41.00	44.61	-3.60	(1.22)	56.65	57.45	-0.80	(1.01)	
Newark	NJ	44.92	44.77	0.16	(1.31)	58.45	56.71	1.74	(1.09)	
Philadelphia	PA	42.08	41.65	0.43	(1.65)	58.02	58.62	-0.60	(1.29)	
Detroit	MI	38.62	40.46	-1.84	(1.46)	53.14	53.39	-0.25	(1.55)	
Boston	MA	46.50	45.74	0.76	(1.87)	58.32	57.59	0.73	(1.79)	
San Francisco	CA	45.55	45.21	0.34	(1.85)	54.26	56.55	-2.29	(1.34)	
Washington DC	DC	45.10	41.84	3.27	(1.34)	57.58	54.80	2.78	(1.04)	
Houston	TX	44.25	45.04	-0.78	(1.30)	57.24	56.58	0.66	(1.22)	

Notes: Table presents estimates of the sorting and causal effects of several CZs. Column (1) presents the permanent resident average child income rank at age 26 for those with below-median parent income rank (p25). Column (3) presents the estimated causal component, which equals 20*u, where u is the estimated causal effect of an additional year of exposure (evaluated at p=25). Column (2) presents the sorting component, which equals column (1) - column (3). Column (4) presents the standard error of the estimated causal effect, which equals 20 times the standard error of the estimated per-year causal effect. Columns (5)-(8) repeat columns (1)-(4) evaluating the estimates for children in above-median income families (p75).

 $\label{eq:local_point} \mbox{Appendix Table VII} \\ \mbox{Model Variance Components: Robustness to Alernative $T_{\rm C}$ Assumptions}$

	Commut	ing Zones	Cou	nties	County	within CZ
	Below Median (p25)	Above Median (p75)	Below Median (p25)	Above Median (p75)	Below Median (p25)	Above Median (p75)
Model Component	(1)	(2)	(3)	(4)	(5)	(6)
Baseline (T _C =20)						
Sorting vs. Causal Components (T _C =20 yrs)						
Causal Effect (SD of Signal)	2.647	2.139	3.308	3.092	1.984	2.233
Permanent Residents (SD)	3.259	2.585	4.203	3.257	2.653	1.982
Sorting Component (SD)	1.960	1.097	3.033	3.203	2.315	3.009
Correlation between Sorting and Causal Effect	-0.021	0.193	-0.123	-0.465	-0.246	-0.753
Full 23 years (T _C =23)						
Sorting vs. Causal Components (T _C =23 yrs)						
Causal Effect (SD of Signal)	3.044	2.459	3.804	3.556	2.281	2.568
Permanent Residents (SD)	3.259	2.585	4.203	3.257	2.653	1.982
Sorting Component (SD)	2.008	1.082	3.133	3.443	2.406	3.269
Correlation between Sorting and Causal Effect	-0.219	-0.101	-0.278	-0.567	-0.360	-0.795
Observed Exposure (T _C =12)						
Sorting vs. Causal Components (T _C =12 yrs)						
Causal Effect (SD of Signal)	1.588	1.283	1.985	1.855	1.190	1.340
Permanent Residents (SD)	3.259	2.585	4.203	3.257	2.653	1.982
Sorting Component (SD)	2.207	1.515	3.156	2.847	2.256	2.410
Correlation between Sorting and Causal Effect	0.461	0.704	0.301	-0.089	0.100	-0.569

Notes: Table presents estimated model variance components in Panel B of Table VII for alternative assumptions of the number of years of exposure corresponding to "full" exposure. The first set of results presents the baseline (20 years). See notes to Table VII for details on the calculation of these statistics. The second set of results report the estimates under the assumption that permanent residents obtain 23 years of exposure. The lower set of estimates assume individuals obtain 12 years of exposure, which is the number of years we observe in our data for outcomes at age 26.

Appendix Table VIII
Predicted Place Effects for 50 Largest CZs for Below-Median Income Parents (p25) Individual Income

		Male Ir	ndividual	Income	Female	Individua	al Income	Po	ooled Sp	ec		Average	1	_
				% Increase			% Increase			% Increase	Prediction		% Increase	Row
Commuting Zone	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Number
Minneapolis	MN	0.186	0.139	0.537	0.170	0.091	0.600	0.161	0.070	0.530	0.178	0.166	0.586	(1)
Newark	NJ	0.156	0.090	0.450	0.144	0.068	0.508	0.151	0.052	0.497	0.150	0.113	0.494	(2)
Seattle	WA	0.154	0.107	0.446	0.110	0.080	0.387	0.140	0.064	0.462	0.132	0.133	0.435	(3)
Boston	MA	0.148	0.113	0.428	0.105	0.082	0.369	0.151	0.062	0.499	0.127	0.140	0.416	(4)
Washington DC	DC	0.078	0.102	0.225	0.148	0.076	0.522	0.136	0.058	0.448	0.113	0.127	0.372	(5)
Cleveland	ОН	0.179	0.129	0.518	0.027	0.088	0.095	0.048	0.072	0.158	0.103	0.156	0.339	(6)
Buffalo	NY	0.164	0.133	0.473	0.027	0.088	0.097	0.118	0.072	0.387	0.096	0.159	0.315	(7)
San Francisco	CA	0.003	0.108	0.008	0.135	0.078	0.477	0.070	0.062	0.230	0.069	0.133	0.228	(8)
Philadelphia	PA	-0.077	0.096	-0.222	0.203	0.073	0.716	0.081	0.060	0.268	0.063	0.120	0.208	(9)
Fort Worth	TX	0.104	0.116	0.301	-0.012	0.081	-0.043	0.036	0.061	0.120	0.046	0.142	0.152	(10)
Pittsburgh	PA	0.067	0.142	0.194	0.012	0.091	0.043	0.037	0.073	0.123	0.040	0.168	0.131	(11)
Las Vegas	NV	-0.060	0.096	-0.173	0.137	0.072	0.485	0.049	0.058	0.120	0.039	0.120	0.127	(11)
Portland	OR	0.122	0.030	0.353	-0.049	0.072	-0.171	0.043	0.036	0.100	0.033	0.120	0.127	(12)
Providence	RI	0.122	0.133	0.333	0.049	0.088	0.054	0.017	0.074	0.050	0.037	0.168	0.122	(14)
San Jose	CA	-0.083	0.141	-0.239	0.013	0.081	0.034	0.048	0.073	0.137	0.030	0.108	0.059	(14)
Manchester	NH	0.054	0.148	0.157	-0.020	0.093	-0.071	0.039	0.078	0.129	0.017	0.175	0.056	(16)
Bridgeport	CT	-0.057	0.117	-0.165	0.084	0.082	0.297	0.056	0.063	0.183	0.014	0.143	0.045	(17)
Phoenix	AZ	-0.031	0.088	-0.090	0.047	0.069	0.167	0.010	0.053	0.033	0.008	0.112	0.027	(18)
Denver	CO	0.009	0.124	0.026	-0.006	0.086	-0.020	-0.016	0.066	-0.051	0.002	0.151	0.005	(19)
New York	NY	-0.043	0.069	-0.123	0.037	0.056	0.132	0.017	0.039	0.054	-0.003	0.089	-0.009	(20)
Grand Rapids	MI	0.090	0.156	0.259	-0.095	0.095	-0.335	-0.048	0.080	-0.159	-0.003	0.183	-0.009	(21)
Columbus	ОН	0.055	0.142	0.159	-0.072	0.090	-0.252	-0.085	0.072	-0.279	-0.008	0.168	-0.027	(22)
San Diego	CA	-0.011	0.104	-0.033	-0.019	0.077	-0.068	-0.007	0.057	-0.024	-0.015	0.129	-0.050	(23)
Cincinnati	OH	-0.042	0.144	-0.120	0.009	0.091	0.033	-0.037	0.076	-0.122	-0.016	0.171	-0.053	(24)
Sacramento	CA	-0.110	0.107	-0.316	0.075	0.078	0.266	-0.005	0.057	-0.015	-0.017	0.132	-0.056	(25)
Salt Lake City	UT	-0.029	0.141	-0.085	-0.035	0.093	-0.123	-0.010	0.075	-0.032	-0.032	0.168	-0.106	(26)
Milwaukee	WI	-0.103	0.146	-0.298	0.015	0.093	0.054	0.028	0.073	0.094	-0.044	0.173	-0.145	(27)
Miami	FL	-0.164	0.088	-0.472	0.074	0.068	0.262	-0.015	0.055	-0.049	-0.045	0.112	-0.147	(28)
St. Louis	MO	-0.073	0.141	-0.211	-0.017	0.090	-0.059	-0.037	0.073	-0.123	-0.045	0.167	-0.148	(29)
Dayton	OH	-0.064	0.156	-0.184	-0.027	0.095	-0.096	-0.069	0.078	-0.227	-0.046	0.183	-0.150	(30)
Jacksonville	FL	0.013	0.126	0.039	-0.108	0.085	-0.380	-0.042	0.069	-0.137	-0.047	0.152	-0.155	(31)
Kansas City	MO	-0.072	0.144	-0.207	-0.038	0.092	-0.132	-0.034	0.075	-0.111	-0.055	0.170	-0.180	(32)
Dallas	TX	-0.165	0.100	-0.475	0.045	0.074	0.158	-0.062	0.056	-0.204	-0.060	0.125	-0.197	(33)
Houston	TX	-0.067	0.096	-0.195	-0.059	0.071	-0.209	-0.087	0.056	-0.286	-0.063	0.119	-0.209	(34)
Austin	TX	-0.091	0.133	-0.262	-0.043	0.089	-0.151	-0.114	0.074	-0.376	-0.067	0.160	-0.220	(35)
Indianapolis	IN	-0.069	0.145	-0.200	-0.070	0.092	-0.247	-0.064	0.075	-0.212	-0.070	0.171	-0.229	(36)
Chicago	IL	-0.193	0.085	-0.557	0.038	0.066	0.134	-0.059	0.053	-0.195	-0.077	0.107	-0.255	(37)
Nashville	TN	-0.098	0.148	-0.283	-0.064	0.092	-0.225	-0.109	0.076	-0.360	-0.081	0.174	-0.266	(38)
Detroit	MI	-0.198	0.109	-0.570	-0.004	0.032	-0.021	-0.103	0.070	-0.371	-0.102	0.174	-0.335	(39)
Baltimore	MD	-0.130	0.122	-0.757	0.031	0.085	0.109	-0.056	0.069	-0.184	-0.102	0.149	-0.380	(40)
Tampa	FL	-0.202	0.094	-0.757	-0.039	0.003	-0.137	-0.030	0.054	-0.104	-0.110	0.143	-0.385	(41)
Charlotte	NC	-0.193	0.034	-0.550	-0.058	0.083	-0.137	-0.113	0.069	-0.424	-0.117	0.110	-0.410	
	TX	-0.191 -0.178	0.121	-0.550 -0.513	-0.058 -0.085	0.083	-0.206 -0.298	-0.129 -0.136	0.069	-0.424 -0.448	-0.124 -0.131	0.147	-0.410 -0.432	(42)
San Antonio														(43)
Los Angeles	CA	-0.199	0.060	-0.573	-0.082	0.050	-0.289	-0.138	0.037	-0.454	-0.140	0.078	-0.462	(44)
Port St. Lucie	FL	-0.272	0.116	-0.786	-0.010	0.081	-0.037	-0.152	0.063	-0.502	-0.141	0.141	-0.465	(45)
Orlando	FL	-0.269	0.093	-0.775	-0.042	0.072	-0.149	-0.129	0.054	-0.424	-0.155	0.117	-0.512	(46)
Fresno	CA	-0.232	0.121	-0.670	-0.088	0.084	-0.309	-0.152	0.070	-0.501	-0.160	0.148	-0.526	(47)
Raleigh	NC	-0.239	0.128	-0.690	-0.086	0.086	-0.304	-0.202	0.067	-0.666	-0.163	0.154	-0.535	(48)
Atlanta	GA	-0.229	0.079	-0.660	-0.098	0.062	-0.344	-0.158	0.044	-0.520	-0.163	0.100	-0.537	(49)
New Orleans	LA	-0.223	0.137	-0.643	-0.133	0.088	-0.468	-0.197	0.070	-0.649	-0.178	0.163	-0.585	(50)

Notes: This table presents per-year exposure effect predictions on individual income by gender for the 50 largest CZs. Estimates are for children in below-median (p25) income families. Column (1) reports the predictions for the child's individual income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to the percentage dollar increase by multiplying the estimates in column (1) by the regression coefficient from regressing the permanent resident outcomes at p25 for child individual income at age 26 on the analogous outcomes for child rank at age 26 divided by the mean individual income of children from below-median (p25) income families. Columns (4)-(6) repeat the analysis on the sample of female children. Columns (7)-(9) report the pooled gender forecasts. Columns (10) reports the average of the two gender-specific forecasts. Column (11) reports the rmse of this forecast, constructed as the square root of the sum of the squared male and female rmse divided by two. Column (12) scales this to the percentage increase in incomes using the same scaling factors as in Column (9). The rows are sorted in decending order according to the gender-average specification.

Appendix Table IX
Predicted Place Effects for 100 Largest Counties (Top and Bottom 25 based on Individual Income Rank)

		Male I	ndividual	Income	Female	Individua	I Income	F	ooled Sp	ес		Average		Row
		Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	Prediction	RMSE	% Increase	Number
County	State	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Number
Bergen	NJ	0.351	0.192	1.014	0.213	0.080	0.752	0.288	0.099	0.949	0.282	0.208	0.930	(1)
Norfolk	MA	0.308	0.188	0.889	0.190	0.080	0.671	0.274	0.098	0.902	0.249	0.204	0.820	(2)
Middlesex	NJ	0.263	0.194	0.760	0.159	0.080	0.560	0.216	0.100	0.713	0.211	0.210	0.695	(3)
Dupage	IL	0.234	0.159	0.676	0.149	0.076	0.524	0.217	0.089	0.714	0.191	0.177	0.630	(4)
Hudson	NJ	0.279	0.190	0.806	0.103	0.080	0.363	0.169	0.098	0.556	0.191	0.206	0.629	(5)
Bucks	PA	0.251	0.188	0.726	0.115	0.080	0.404	0.200	0.099	0.658	0.183	0.204	0.602	(6)
Fairfax	VA	0.153	0.190	0.443	0.197	0.080	0.694	0.229	0.099	0.754	0.175	0.206	0.576	(7)
Middlesex	MA	0.228	0.162	0.659	0.119	0.077	0.421	0.179	0.089	0.588	0.174	0.179	0.573	(8)
Montgomery	MD	0.164	0.186	0.475	0.177	0.079	0.624	0.168	0.097	0.554	0.171	0.202	0.562	(9)
King	WA	0.205	0.141	0.592	0.134	0.074	0.471	0.215	0.082	0.708	0.169	0.159	0.557	(10)
Ventura	CA	0.278	0.184	0.802	0.048	0.080	0.170	0.122	0.098	0.401	0.163	0.200	0.537	(11)
Contra Costa	CA	0.217	0.170	0.627	0.095	0.078	0.334	0.142	0.092	0.467	0.156	0.187	0.514	(12)
Suffolk	NY	0.214	0.168	0.618	0.096	0.078	0.338	0.136	0.091	0.449	0.155	0.185	0.511	(13)
Monmouth	NJ	0.156	0.193	0.449	0.121	0.080	0.427	0.149	0.100	0.492	0.138	0.209	0.455	(14)
Snohomish	WA	0.185	0.179	0.533	0.041	0.079	0.144	0.149	0.096	0.489	0.113	0.196	0.371	(15)
Worcester	MA	0.143	0.204	0.413	0.080	0.081	0.283	0.152	0.103	0.499	0.112	0.220	0.367	(16)
Erie	NY	0.214	0.210	0.616	0.004	0.082	0.014	0.069	0.105	0.226	0.109	0.225	0.358	(17)
Nassau	NY	0.103	0.151	0.298	0.110	0.076	0.389	0.081	0.085	0.266	0.107	0.169	0.351	(18)
Prince Georges	MD	0.126	0.173	0.363	0.079	0.078	0.279	0.043	0.093	0.143	0.102	0.190	0.337	(19)
Providence	RI	0.163	0.191	0.470	0.041	0.080	0.144	0.085	0.099	0.280	0.102	0.208	0.335	(20)
San Mateo	CA	0.057	0.192	0.166	0.140	0.080	0.494	0.122	0.099	0.402	0.099	0.208	0.325	(21)
Macomb	MI	0.160	0.159	0.462	0.014	0.076	0.051	0.071	0.088	0.235	0.087	0.177	0.287	(22)
Hartford	CT	0.081	0.193	0.234	0.068	0.080	0.241	0.071	0.100	0.267	0.007	0.209	0.246	(23)
Suffolk	MA	0.116	0.175	0.334	0.000	0.078	0.066	0.001	0.093	0.020	0.073	0.192	0.221	(24)
San Francisco	CA	-0.032	0.173	-0.093	0.162	0.078	0.572	0.109	0.098	0.359	0.065	0.192	0.221	(25)
Bronx	NY	-0.192	0.132	-0.556	0.025	0.072	0.090	-0.058	0.076	-0.191	-0.084	0.150	-0.275	(75)
Tulsa	OK	-0.121	0.188	-0.348	-0.057	0.079	-0.200	-0.052	0.097	-0.171	-0.089	0.204	-0.292	(76)
Cook	IL	-0.191	0.098	-0.551	0.001	0.063	0.003	-0.081	0.061	-0.268	-0.095	0.116	-0.313	(77)
Gwinnett	GA	-0.221	0.166	-0.637	0.022	0.077	0.078	-0.047	0.090	-0.155	-0.099	0.183	-0.326	(78)
Marion	IN	-0.132	0.173	-0.380	-0.085	0.078	-0.300	-0.113	0.091	-0.373	-0.108	0.189	-0.357	(79)
Jefferson	KY	-0.157	0.196	-0.452	-0.071	0.081	-0.251	-0.136	0.099	-0.446	-0.114	0.212	-0.375	(80)
Hillsborough	FL	-0.208	0.152	-0.601	-0.030	0.076	-0.105	-0.128	0.086	-0.421	-0.119	0.170	-0.392	(81)
Wayne	MI	-0.231	0.138	-0.667	-0.016	0.073	-0.057	-0.102	0.078	-0.335	-0.124	0.156	-0.407	(82)
Los Angeles	CA	-0.203	0.070	-0.585	-0.054	0.052	-0.192	-0.144	0.044	-0.474	-0.129	0.087	-0.423	(83)
Montgomery	OH	-0.183	0.195	-0.528	-0.080	0.080	-0.281	-0.137	0.099	-0.451	-0.131	0.211	-0.432	(84)
Travis	TX	-0.226	0.159	-0.653	-0.041	0.076	-0.144	-0.169	0.089	-0.556	-0.134	0.176	-0.440	(85)
Mecklenburg	NC	-0.243	0.173	-0.701	-0.037	0.078	-0.130	-0.147	0.094	-0.484	-0.140	0.190	-0.460	(86)
Milwaukee	WI	-0.262	0.180	-0.756	-0.025	0.079	-0.087	-0.081	0.093	-0.268	-0.143	0.197	-0.472	(87)
Palm Beach	FL	-0.280	0.150	-0.809	-0.006	0.076	-0.023	-0.153	0.084	-0.505	-0.143	0.168	-0.472	(88)
Bexar	TX	-0.255	0.180	-0.735	-0.042	0.080	-0.149	-0.155	0.088	-0.509	-0.148	0.197	-0.489	(89)
Bernalillo	NM	-0.280	0.178	-0.807	-0.023	0.079	-0.080	-0.089	0.089	-0.292	-0.151	0.195	-0.497	(90)
Cobb	GA	-0.243	0.175	-0.702	-0.064	0.078	-0.227	-0.152	0.094	-0.500	-0.154	0.192	-0.506	(91)
Wake	NC	-0.274	0.189	-0.790	-0.043	0.079	-0.151	-0.190	0.097	-0.627	-0.158	0.205	-0.521	(92)
Fresno	CA	-0.235	0.158	-0.679	-0.082	0.076	-0.289	-0.165	0.089	-0.542	-0.159	0.175	-0.522	(93)
Orange	FL	-0.339	0.128	-0.979	0.003	0.071	0.012	-0.120	0.074	-0.395	-0.168	0.147	-0.553	(94)
San Bernardino	CA	-0.218	0.099	-0.629	-0.119	0.064	-0.420	-0.186	0.062	-0.612	-0.168	0.118	-0.555	(95)
Fulton	GA	-0.291	0.134	-0.840	-0.079	0.072	-0.280	-0.168	0.077	-0.553	-0.185	0.152	-0.610	(96)
Pima	AZ	-0.367	0.159	-1.059	-0.014	0.077	-0.048	-0.112	0.085	-0.369	-0.190	0.177	-0.626	(97)
Riverside	CA	-0.277	0.109	-0.798	-0.116	0.067	-0.408	-0.213	0.066	-0.701	-0.196	0.128	-0.646	(98)
Jefferson	AL	-0.341	0.190	-0.985	-0.098	0.080	-0.344	-0.173	0.098	-0.570	-0.219	0.206	-0.722	(99)
Baltimore City	MD	-0.487	0.157	-1.405	0.014	0.076	0.048	-0.140	0.088	-0.460	-0.237	0.175	-0.779	(100)
Datamore Oity	MID	-0.701	0.101	-1.700	0.017	0.070	0.070	-0.170	0.000	-0.700	-0.201	0.173	-0.110	(100)

Notes: This table presents per-year exposure effect predictions on individual income by gender for the top 25 and bottom 25 amongst the 100 largest counties. Estimates are for children in below-median (p25) income families. Column (1) reports the predictions for the child's individual income rank at age 26. Column (2) reports the root mean square error for this prediction, computed as the square root of 1/(1/v_r + 1/v)) where v_r is the residual signal variance and v is the squared standard error of the fixed effect estimate. Column (3) scales the numbers to the percentage dollar increase by multiplying the estimates in column (1) by the regression coefficient from regressing the permanent resident outcomes at p25 for child individual income at age 26 on the analogous outcomes for child rank at age 26 divided by the mean individual income of children from below-median (p25) income families. Columns (4)-(6) repeat the analysis on the sample of female children. Columns (7)-(9) report the pooled gender forecasts. Columns (10) reports the average of the two gender-specific forecasts. Column (11) reports the rmse of this forecast, constructed as the square root of the sum of the squared male and female rmse divided by two. Column (12) scales this to the percentage increase in incomes using the same scaling factors as in Column (9). The rows are sorted in decending order according to the gender-average specification.

Appendix Table X
Regressions of Place Effects For Males Across Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

		Standard	Exposure Effect	Correlation	Re	egression De	ecompositio	n on Model	Component	.s
		Deviation of Covariate (1)	(2)		Permanent (3		Causal (2 (4	. ,	Sort (5	
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.100	-0.351	(0.122)	-2.683	(0.260)	-1.494	(0.519)	-1.153	(0.446
	Poverty Rate	0.041	-0.018	(0.137)	-0.351	(0.325)	-0.076	(0.583)	-0.290	(0.597
Coaroastion	Racial Segregation Theil Index	0.107	-0.479	(0.100)	-2.049	(0.243)	-2.041	(0.427)	0.045	(0.391
Segregation and Poverty	Income Cogregation Theil Indox	0.034	-0.574	(0.119)	-1.665	(0.316)	-2.444	(0.506)	0.853	(0.481
and Foverty	Segregation of Poverty (<p25)< td=""><td>0.030</td><td>-0.539</td><td>(0.124)</td><td>-1.789</td><td>(0.287)</td><td>-2.295</td><td>(0.526)</td><td>0.578</td><td>(0.474</td></p25)<>	0.030	-0.539	(0.124)	-1.789	(0.287)	-2.295	(0.526)	0.578	(0.474
	Segregation of Affluence (>p75)	0.039	-0.587	(0.115)	-1.548	(0.334)	-2.501	(0.491)	1.029	(0.487
	Share with Commute < 15 Mins	0.094	0.790	(0.106)	2.187	(0.302)	3.364	(0.450)	-1.190	(0.394
	Log. Population Density	1.370	-0.569	(0.119)	-1.675	(0.357)	-2.423	(0.505)	0.810	(0.372
	Household Income per Capita for Working-Age Adults	6,943	-0.358	(0.127)	-0.755	(0.309)	-1.526	(0.543)	0.811	(0.424
Income	Gini coefficient for Parent Income	0.083	-0.636	(0.130)	-1.798	(0.501)	-2.710	(0.555)	0.965	(0.482
Distribution	Top 1% Income Share for Parents	5.029	-0.478	(0.113)	-0.845	(0.322)	-2.035	(0.483)	1.226	(0.389)
Distribution	Gini Bottom 99%	0.054	-0.531	(0.085)	-1.962	(0.400)	-2.260	(0.363)	0.346	(0.492)
	Fraction Middle Class (Between National p25 and p75)	0.061	0.606	(0.119)	2.074	(0.403)	2.581	(0.505)	-0.569	(0.539
	Local Tax Rate	0.006	-0.105	(0.137)	-0.267	(0.334)	-0.446	(0.584)	0.116	(0.483
	Local Tax Rate per Capita	0.328	-0.304	(0.150)	-0.621	(0.374)	-1.293	(0.637)	0.663	(0.511
Tax	Local Government Expenditures per Capita	680.2	-0.265	(0.141)	-0.179	(0.320)	-1.127	(0.601)	0.938	(0.674
	State EITC Exposure	3.709	0.198	(0.168)	0.751	(0.325)	0.842	(0.715)	-0.083	(0.504
;	State Income Tax Progressivity	2.337	-0.110	(0.148)	0.452	(0.223)	-0.469	(0.629)	0.935	(0.599)
	School Expenditure per Student	1.312	-0.050	(0.106)	0.043	(0.296)	-0.213	(0.450)	0.252	(0.447)
K-12	Student/Teacher Ratio	2.678	-0.348	(0.090)	-0.183	(0.398)	-1.481	(0.384)	1.384	(0.461
Education	Test Score Percentile (Controlling for Parent Income)	7.197	0.497	(0.094)	1.005	(0.663)	2.116	(0.402)	-1.178	(0.619
	High School Dropout Rate (Controlling for Parent Income)	0.016	-0.421	(0.113)	-1.718	(0.363)	-1.791	(0.481)	0.134	(0.438
	Number of Colleges per Capita	0.007	0.647	(0.127)	0.877	(0.257)	2.754	(0.539)	-1.820	(0.542
College	Mean College Tuition	3,315	-0.079	(0.094)	-0.268	(0.308)	-0.335	(0.401)	0.097	(0.445
	College Graduation Rate (Controlling for Parent Income)	0.104	0.222	(0.103)	0.696	(0.312)	0.947	(0.438)	-0.258	(0.389
	Labor Force Participation Rate	0.047	0.100	(0.149)	0.072	(0.343)	0.426	(0.633)	-0.328	(0.491
Local Labor	Fraction Working in Manufacturing	0.062	0.118	(0.128)	-0.022	(0.347)	0.503	(0.546)	-0.480	(0.398
Market	Growth in Chinese Imports 1990-2000 (Autor and Dorn 2013)	0.979	0.058	(0.092)	0.266	(0.256)	0.249	(0.390)	0.060	(0.319
	Teenage (14-16) Labor Force Participation Rate	0.101	0.429	(0.123)	1.388	(0.462)	1.826	(0.522)	-0.496	(0.659
Migration	Migration Inflow Rate	0.011	-0.214	(0.108)	-0.134	(0.308)	-0.912	(0.459)	0.832	(0.373
Migration	Migration Outflow Rate	0.007	-0.177	(0.107)	-0.092	(0.298)	-0.753	(0.457)	0.712	(0.448
	Fraction of Foreign Born Residents	0.100	-0.457	(0.093)	-0.238	(0.330)	-1.946	(0.398)	1.745	(0.470
Coolel	Social Capital Index (Rupasingha and Goetz 2008)	0.934	0.613	(0.105)	1.412	(0.400)	2.609	(0.447)	-1.260	(0.552
Social	Fraction Religious	0.107	0.142	(0.145)	1.163	(0.394)	0.603	(0.616)	0.512	(0.431
Capital	Violent Crime Rate	0.001	-0.527	(0.086)	-1.168	(0.598)	-2.244	(0.366)	1.120	(0.597
Family	Fraction of Children with Single Mothers	0.036	-0.323	(0.117)	-2.584	(0.341)	-1.374	(0.499)	-1.156	(0.483
Structure	Fraction of Adults Divorced	0.015	0.104	(0.128)	-0.596	(0.341)	0.441	(0.546)	-0.994	(0.429
Structure	Fraction of Adults Married	0.033	0.379	(0.120)	1.825	(0.359)	1.613	(0.509)	0.136	(0.484
D. C.	Median House Prices	82,847	-0.354	(0.100)	-0.175	(0.331)	-1.507	(0.426)	1.389	(0.316
Prices	Median Monthly Rent	206.7	-0.466	(0.113)	-0.568	(0.373)	-1.982	(0.482)	1.490	(0.431

Notes: This table replicates Table XII in the text using Place Effects and Permanent Residents characteristics For Males Only

Appendix Table XI
Regressions of Place Effects for Males Across Counties within Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

		Standard	Exposure Effect	Correlation	Re	egression D	ecompositio	n on Model	Component	.S
		Deviation of Covariate (1)	(2)		Permanent (3		Causal (2 (4		Sort 5	
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.130	0.059	(0.206)	-2.394	(0.202)	0.211	(0.734)	-2.608	(0.742)
	Poverty Rate	0.055	0.016	(0.192)	-1.983	(0.271)	0.056	(0.684)	-2.048	(0.778
0	Racial Segregation Theil Index	0.118	-0.232	(0.083)	-2.442	(0.163)	-0.824	(0.294)	-1.622	(0.310
Segregation and Poverty	Income Segregation Theil Index	0.039	-0.381	(0.129)	-1.919	(0.129)	-1.355	(0.460)	-0.568	(0.469
and Poverty	Segregation of Poverty (<p25)< td=""><td>0.034</td><td>-0.401</td><td>(0.130)</td><td>-2.028</td><td>(0.142)</td><td>-1.427</td><td>(0.464)</td><td>-0.607</td><td>(0.479</td></p25)<>	0.034	-0.401	(0.130)	-2.028	(0.142)	-1.427	(0.464)	-0.607	(0.479
	Segregation of Affluence (>p75)	0.045	-0.342	(0.127)	-1.686	(0.138)	-1.217	(0.451)	-0.469	(0.449
	Share with Commute < 15 Mins	0.102	-0.197	(0.264)	0.301	(0.201)	-0.700	(0.940)	1.014	(0.941
	Log. Population Density	1.718	-0.291	(0.128)	-2.039	(0.296)	-1.037	(0.456)	-1.011	(0.504
	Household Income per Capita for Working-Age Adults	9,222	-0.127	(0.164)	0.729	(0.252)	-0.453	(0.585)	1.181	(0.615
Income	Gini coefficient for Parent Income	0.113	-0.226	(0.108)	-2.102	(0.494)	-0.804	(0.384)	-1.294	(0.424
Distribution	Top 1% Income Share for Parents	0.064	-0.076	(0.098)	-1.093	(0.326)	-0.270	(0.350)	-0.819	(0.402
Distribution	Gini Bottom 99%	0.112	-0.227	(0.108)	-2.105	(0.493)	-0.806	(0.384)	-1.295	(0.424
	Fraction Middle Class (Between National p25 and p75)	0.074	0.060	(0.154)	0.872	(0.275)	0.213	(0.548)	0.647	(0.563
	Local Tax Rate	0.009	-0.241	(0.294)	-0.975	(0.687)	-0.858	(1.046)	-0.131	(0.841
	Local Tax Rate per Capita	0.432	-0.204	(0.281)	-0.530	(0.586)	-0.728	(0.999)	0.190	(0.760
Tax	Local Government Expenditures per Capita	1.019	-0.212	(0.211)	-1.106	(0.611)	-0.755	(0.751)	-0.368	(0.587
	State EITC Exposure	3.750	-0.061	(0.121)	-0.067	(0.059)	-0.218	(0.432)	0.142	(0.440
	State Income Tax Progressivity	2.365	-0.073	(0.167)	-0.101	(0.138)	-0.260	(0.594)	0.159	(0.649
	School Expenditure per Student	1.483	0.129	(0.195)	-0.472	(0.424)	0.459	(0.695)	-0.951	(0.777
K-12	Student/Teacher Ratio	2.816	-0.587	(0.481)	-0.549	(0.226)	-2.089	(1.712)	1.554	(1.760
Education	Test Score Percentile (Controlling for Parent Income)	9.610	0.141	(0.128)	1.879	(0.417)	0.503	(0.456)	1.381	(0.537
	High School Dropout Rate (Controlling for Parent Income)	0.024	-0.412	(0.289)	-1.920	(0.248)	-1.465	(1.028)	-0.465	(1.052
0 "	Number of Colleges per Capita	0.011	0.258	(0.157)	-0.444	(0.199)	0.917	(0.557)	-1.419	(0.531
College	Mean College Tuition	4,421	0.030	(0.122)	-0.365	(0.267)	0.106	(0.434)	-0.473	(0.488
	College Graduation Rate (Controlling for Parent Income)	0.139	0.197	(0.171)	-0.617	(0.206)	0.701	(0.608)	-1.318	(0.597
Local Labor	Labor Force Participation Rate	0.058	-0.327	(0.297)	0.882	(0.261)	-1.164	(1.056)	2.076	(1.039
Market	Fraction Working in Manufacturing	0.070	0.492	(0.280)	1.119	(0.163)	1.752	(0.998)	-0.622	(1.010
	Teenage (14-16) Labor Force Participation Rate	0.108	-0.345	(0.460)	1.020	(0.228)	-1.229	(1.636)	2.250	(1.629
Migration	Migration Inflow Rate	0.019	-0.144	(0.120)	1.104	(0.250)	-0.512	(0.427)	1.627	(0.487
3	Migration Outflow Rate	0.014	-0.129	(0.137)	0.071	(0.244)	-0.458	(0.488)	0.541	(0.515
	Fraction of Foreign Born Residents	0.109	-0.018	(0.074)	-0.776	(0.246)	-0.064	(0.263)	-0.709	(0.369
0	Social Capital Index (Rupasingha and Goetz 2008)	1.096	0.045	(0.126)	-0.146	(0.246)	0.159	(0.448)	-0.321	(0.478
Social Capital	Fraction Religious	0.128	0.176	(0.159)	-0.031	(0.185)	0.627	(0.565)	-0.673	(0.563
	Violent Crime Rate	0.002	-0.176	(0.085)	-1.804	(0.170)	-0.626	(0.302)	-1.181	(0.339
Family	Fraction of Children with Single Mothers	0.069	-0.222	(0.130)	-2.613	(0.316)	-0.789	(0.464)	-1.820	(0.541
Structure	Fraction of Adults Divorced	0.017	-0.227	(0.428)	-1.777	(0.174)	-0.806	(1.524)	-0.977	(1.523
	Fraction of Adults Married	0.062	0.073	(0.138)	2.551	(0.168)	0.260	(0.491)	2.290	(0.530
Prices	Median House Price	124,001	-0.067	(0.087)	0.160	(0.378)	-0.239	(0.310)	0.401	(0.612
1 11003	Median Monthly Rent	217.8	-0.160	(0.213)	0.608	(0.246)	-0.568	(0.759)	1.194	(0.724

Notes: This table replicates Table XIV in the text using Place Effects and Permanent Residents characteristics For Males Only

Appendix Table XII
Regressions of Place Effects for Females Across Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

		Standard	Exposure Effect	Correlation	Re	egression De	ecompositio	n on Model	Component	.s
		Deviation of Covariate (1)	(2)		Permanent (3		Causal (2 (4	• ,	Sort (5	
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.100	-0.430	(0.125)	-2.163	(0.242)	-1.371	(0.398)	-0.763	(0.428
	Poverty Rate	0.041	-0.137	(0.113)	-0.756	(0.289)	-0.436	(0.361)	-0.324	(0.437
Segregation	Racial Segregation Theil Index	0.107	-0.348	(0.147)	-1.344	(0.262)	-1.110	(0.468)	-0.185	(0.519
and Poverty	Income Segregation Theil Index	0.034	-0.312	(0.150)	-0.620	(0.304)	-0.995	(0.480)	0.448	(0.528
and Foverty	Segregation of Poverty (<p25)< td=""><td>0.030</td><td>-0.321</td><td>(0.157)</td><td>-0.787</td><td>(0.281)</td><td>-1.023</td><td>(0.500)</td><td>0.306</td><td>(0.525</td></p25)<>	0.030	-0.321	(0.157)	-0.787	(0.281)	-1.023	(0.500)	0.306	(0.525
	Segregation of Affluence (>p75)	0.039	-0.297	(0.142)	-0.506	(0.312)	-0.949	(0.455)	0.515	(0.515
	Share with Commute < 15 Mins	0.094	0.608	(0.175)	1.081	(0.350)	1.940	(0.558)	-0.914	(0.577
	Log. Population Density	1.368	-0.503	(0.129)	-0.619	(0.340)	-1.603	(0.413)	1.062	(0.484
	Household Income per Capita for Working-Age Adults	6,943	-0.135	(0.133)	0.310	(0.266)	-0.429	(0.424)	0.774	(0.380
Income	Gini coefficient for Parent Income	0.083	-0.540	(0.132)	-0.984	(0.502)	-1.722	(0.420)	0.788	(0.545)
Distribution	Top 1% Income Share for Parents	5.028	-0.302	(0.114)	0.139	(0.266)	-0.963	(0.364)	1.148	(0.347)
Distribution	Gini Bottom 99%	0.054	-0.545	(0.150)	-1.634	(0.388)	-1.739	(0.477)	0.148	(0.559)
	Fraction Middle Class (Between National p25 and p75)	0.061	0.485	(0.165)	1.171	(0.416)	1.548	(0.527)	-0.448	(0.580)
	Local Tax Rate	0.006	-0.107	(0.137)	0.236	(0.286)	-0.342	(0.437)	0.544	(0.436
	Local Tax Rate per Capita	0.328	-0.174	(0.172)	0.412	(0.321)	-0.557	(0.549)	0.966	(0.519
Tax	Local Government Expenditures per Capita	676.9	-0.044	(0.134)	0.635	(0.251)	-0.140	(0.427)	0.778	(0.441
	State EITC Exposure	3.709	-0.039	(0.178)	0.845	(0.279)	-0.124	(0.566)	0.972	(0.484)
	State Income Tax Progressivity	2.337	0.067	(0.101)	0.729	(0.210)	0.214	(0.323)	0.527	(0.343)
	School Expenditure per Student	1.312	-0.060	(0.176)	0.449	(0.293)	-0.191	(0.562)	0.639	(0.503)
K-12	Student/Teacher Ratio	2.678	-0.004	(0.128)	0.276	(0.373)	-0.013	(0.410)	0.358	(0.510)
Education	Test Score Percentile (Controlling for Parent Income)	7.196	0.167	(0.123)	0.568	(0.666)	0.534	(0.391)	-0.032	(0.591
	High School Dropout Rate (Controlling for Parent Income)	0.016	-0.372	(0.156)	-1.543	(0.330)	-1.187	(0.499)	-0.300	(0.452
	Number of Colleges per Capita	0.007	0.399	(0.144)	0.241	(0.267)	1.272	(0.460)	-1.066	(0.413
College	Mean College Tuition	3,315	-0.307	(0.111)	0.031	(0.267)	-0.978	(0.356)	1.029	(0.387
	College Graduation Rate (Controlling for Parent Income)	0.104	-0.058	(0.101)	0.354	(0.235)	-0.184	(0.322)	0.523	(0.317)
	Labor Force Participation Rate	0.047	0.095	(0.114)	0.488	(0.259)	0.304	(0.362)	0.198	(0.366)
	Fraction Working in Manufacturing	0.062	-0.018	(0.159)	-0.424	(0.274)	-0.059	(0.508)	-0.343	(0.560)
Market	Growth in Chinese Imports 1990-2000 (Autor and Dorn 2013)	0.979	-0.118	(0.129)	0.106	(0.218)	-0.375	(0.411)	0.515	(0.359)
	Teenage (14-16) Labor Force Participation Rate	0.101	0.296	(0.170)	1.196	(0.483)	0.945	(0.542)	0.201	(0.623
Migration	Migration Inflow Rate	0.011	-0.004	(0.140)	0.046	(0.258)	-0.014	(0.447)	0.101	(0.390
Migration	Migration Outflow Rate	0.007	0.052	(0.142)	0.514	(0.281)	0.166	(0.452)	0.392	(0.360
	Fraction of Foreign Born Residents	0.100	-0.198	(0.123)	0.616	(0.254)	-0.633	(0.393)	1.281	(0.382
Social	Social Capital Index (Rupasingha and Goetz 2008)	0.934	0.365	(0.159)	1.013	(0.398)	1.164	(0.508)	-0.211	(0.531
	Fraction Religious	0.107	0.056	(0.183)	0.949	(0.351)	0.179	(0.583)	0.737	(0.441
Capital	Violent Crime Rate	0.001	-0.414	(0.182)	-0.764	(0.603)	-1.322	(0.580)	0.596	(0.538
Family	Fraction of Children with Single Mothers	0.036	-0.501	(0.129)	-2.329	(0.371)	-1.598	(0.412)	-0.682	(0.552
Structure	Fraction of Adults Divorced	0.015	0.089	(0.160)	-0.803	(0.259)	0.282	(0.509)	-1.052	(0.427
Structure	Fraction of Adults Married	0.033	0.430	(0.152)	1.080	(0.378)	1.373	(0.484)	-0.364	(0.555
D.1	Median House Prices	82,845	-0.139	(0.171)	0.739	(0.226)	-0.445	(0.546)	1.234	(0.452)
Prices	Median Monthly Rent	206.7	-0.200	(0.165)	0.550	(0.304)	-0.639	(0.525)	1.258	(0.406

Notes: This table replicates Table XII in the text using Place Effects and Permanent Residents characteristics for Females Only

Appendix Table XIII

Regressions of Place Effects for Females Across Counties within Commuting Zones on Selected Covariates (Below-Median Income Parents (p25))

		_	Exposure Effect	Correlation	Re	gression De	ecompositio	n on Model	Component	S
		Deviation of Covariate (1)	(2)		Permanent (3)		Causal (2 (4	• ,	Sort 5	0
		Std. Dev	Correlation	s.e.	Coeff	(s.e.)	Coeff	(s.e.)	Coeff	(s.e.)
	Fraction Black Residents	0.130	-0.371	(0.255)	-2.131	(0.159)	-0.486	(0.334)	-1.646	(0.347
	Poverty Rate	0.055	0.139	(0.478)	-1.940	(0.199)	0.183	(0.626)	-2.129	(0.600
	Racial Segregation Theil Index	0.118	-0.452	(0.281)	-2.049	(0.140)	-0.593	(0.368)	-1.459	(0.36
Segregation	Income Segregation Theil Index	0.039	-0.488	(0.237)	-1.451	(0.113)	-0.640	(0.311)	-0.806	(0.29
and Poverty	Segregation of Poverty (<p25)< td=""><td>0.034</td><td>-0.540</td><td>(0.244)</td><td>-1.596</td><td>(0.129)</td><td>-0.708</td><td>(0.320)</td><td>-0.885</td><td>(0.31</td></p25)<>	0.034	-0.540	(0.244)	-1.596	(0.129)	-0.708	(0.320)	-0.885	(0.31
	Segregation of Affluence (>p75)	0.045	-0.420	(0.241)	-1.224	(0.122)	-0.551	(0.316)	-0.668	(0.30
	Share with Commute < 15 Mins	0.102	0.335	(0.530)	0.174	(0.199)	0.439	(0.694)	-0.253	(0.75
	Log. Population Density	1.715	-0.453	(0.306)	-1.520	(0.269)	-0.593	(0.401)	-0.927	(0.43
	Household Income per Capita for Working-Age Adults	9,222	-0.222	(0.348)	0.921	(0.263)	-0.291	(0.456)	1.210	(0.39
	Gini coefficient for Parent Income	0.113	-0.775	(0.325)	-1.783	(0.358)	-1.016	(0.426)	-0.766	(0.34
Income	Top 1% Income Share for Parents	0.064	-0.693	(0.455)	-0.812	(0.214)	-0.909	(0.596)	0.100	(0.57
Distribution	Gini Bottom 99%	0.112	-0.775	(0.324)	-1.786	(0.357)	-1.015	(0.424)	-0.770	(0.34
	Fraction Middle Class (Between National p25 and p75)	0.075	-0.086	(0.348)	0.516	(0.263)	-0.112	(0.456)	0.614	(0.43
	Local Tax Rate	0.009	0.234	(0.795)	-0.808	(0.619)	0.306	(1.042)	-1.132	(1.42
	Local Tax Rate per Capita	0.432	0.005	(0.499)	-0.316	(0.463)	0.007	(0.654)	-0.331	(0.98
Tax	Local Government Expenditures per Capita	1.016	-0.502	(0.223)	-0.954	(0.532)	-0.657	(0.292)	-0.312	(0.62
	State EITC Exposure	3.752	0.449	(0.381)	-0.105	(0.065)	0.588	(0.500)	-0.703	(0.46
	State Income Tax Progressivity	2.365	-0.039	(0.599)	-0.164	(0.125)	-0.051	(0.785)	-0.114	(0.83
	School Expenditure per Student	1.483	1.135	(1.332)	-0.240	(0.405)	1.488	(1.745)	-1.749	(1.87
K-12	Student/Teacher Ratio	2.816	-0.317	(0.371)	-0.575	(0.231)	-0.416	(0.486)	-0.143	(0.58
Education	Test Score Percentile (Controlling for Parent Income)	9.612	0.346	(0.490)	1.654	(0.335)	0.454	(0.642)	1.202	(0.68
	High School Dropout Rate (Controlling for Parent Income)	0.024	-0.449	(0.348)	-1.682	(0.205)	-0.589	(0.456)	-1.105	(0.45
	Number of Colleges per Capita	0.011	0.201	(0.863)	-0.491	(0.197)	0.264	(1.130)	-0.810	(1.12
College	Mean College Tuition	4,421	-0.079	(0.296)	-0.305	(0.249)	-0.103	(0.387)	-0.206	(0.52
	College Graduation Rate (Controlling for Parent Income)	0.139	-0.374	(0.359)	-0.480	(0.207)	-0.491	(0.471)	0.007	(0.51
	Labor Force Participation Rate	0.058	-0.116	(0.502)	1.019	(0.225)	-0.152	(0.658)	1.189	(0.65
Local Labor	Fraction Working in Manufacturing	0.070	0.272	(0.370)	0.818	(0.140)	0.356	(0.484)	0.473	(0.47
Market	Teenage (14-16) Labor Force Participation Rate	0.108	-0.065	(0.497)	1.075	(0.201)	-0.085	(0.651)	1.160	(0.62
	Migration Inflow Rate	0.019	-0.227	(0.277)	0.938	(0.217)	-0.297	(0.363)	1.247	(0.37
Migration	Migration Outflow Rate	0.014	-0.070	(0.349)	0.203	(0.247)	-0.092	(0.457)	0.309	(0.45
	Fraction of Foreign Born Residents	0.109	-0.081	(0.371)	-0.500	(0.202)	-0.107	(0.486)	-0.390	(0.45
	Social Capital Index (Rupasingha and Goetz 2008)	1.096	0.370	(0.604)	0.072	(0.219)	0.485	(0.791)	-0.426	(0.81
Social	Fraction Religious	0.128	-0.230	(0.380)	0.050	(0.179)	-0.302	(0.497)	0.334	(0.51
Capital	Violent Crime Rate	0.002	-0.681	(0.320)	-1.713	(0.132)	-0.892	(0.419)	-0.822	(0.38
	Fraction of Children with Single Mothers	0.069	-0.429	(0.268)	-2.392	(0.212)	-0.562	(0.352)	-1.826	(0.26
Family	Fraction of Adults Divorced	0.017	-0.763	(0.404)	-1.617	(0.169)	-0.999	(0.529)	-0.629	(0.54
Structure	Fraction of Adults Married	0.062	0.304	(0.299)	2.245	(0.113)	0.398	(0.392)	1.845	(0.38
	Median House Price	124,012	-0.182	(0.139)	0.173	(0.461)	-0.239	(0.182)	0.413	(0.43
Prices	Median Monthly Rent	217.7	0.058	(0.139)	0.173	(0.401)	0.239	(0.162)	0.413	(0.46

Notes: This table replicates Table XIV in the text using Place Effects and Permanent Residents characteristics For Females Only

Appendix Table XIV Commuting Zone and County Characteristics: Definitions and Data Sources

Notes: This table provides a description of each variable used in Section X and reported in Tables 12 to 15 and Figures XV and XVI. For variables obtained at the county level, we construct population-weighted means at the CZ level. See Appendix D of Chetty et al. (2014) for further details on data sources and construction of the variables.

	Variable (1)	Definition (2)	Source (3)
	Fraction Black	Number of individuals who are black alone divided by total population	2000 Census SF1 100% Data Table P008
	Poverty Rate	Fraction of population below the poverty rate	2000 Census SF3 Sample Data Table P087
	Racial Segregation	Multi-group Theil Index calculated at the census-tract level over four groups: White alone, Black alone, Hispanic, and Other	2000 Census SF1 100% Data Table P008
egregation and	Income Segregation	Rank-Order index estimated at the census-tract level using equation (13) in Reardon (2011); the δ vector is given in Appendix A4 of Reardon's paper. H(p _k) is computed for each of the income brackets given in the 2000 census. See Appendix D for further details.	2000 Census SF3 Sample Data Table P052
Poverty	Segregation of Poverty (<p25)< td=""><td>H(p25) estimated following Reardon (2011); we compute H(p) for 16 income groups defined by the 2000 census. We estimate H(p25) using a fourth-order polynomial of the weighted linear regression in equation (12) of Reardon (2011).</td><td>2000 Census SF3 Sample Data Table P052</td></p25)<>	H(p25) estimated following Reardon (2011); we compute H(p) for 16 income groups defined by the 2000 census. We estimate H(p25) using a fourth-order polynomial of the weighted linear regression in equation (12) of Reardon (2011).	2000 Census SF3 Sample Data Table P052
	Segregation of Affluence (>p75) Fraction with Commute < 15 Mins	Same definition as segregation of poverty, but using p75 instead of p25 Number of workers that commute less than 15 minutes to work divided by total number of workers. Sample restricts to workers that are 16 or older and not	2000 Census SF3 Sample Data Table P052 2000 Census SF3 Sample Data Table P031
	Logarithm of Population Density	working at home. Logarithm of the Population Density where the Population Density is defined as the Population divided by the Land Area in square miles.	2000 Census Gazetteer Files
	Household Income per Capita	Aggregate household income in the 2000 census divided by the number of people aged 16-64	2000 Census SF3 Sample Data Table P054
	Gini	Gini coefficient computed using parents of children in the core sample, with income topcoded at \$100 million in 2012 dollars	Tax Records, Core Sample of Chetty et al. (2014)
Income Inequality	Top 1% Income Share	The fraction of income within a CZ going to the top 1% defined within the CZ, computed using parents of children in the core sample	Tax Records, Core Sample of Chetty et al. (2014)
	Gini Bottom 99% Fraction Middle Class (between p25 and p75)	Gini coefficient minus top 1% income share Fraction of parents (in the core sample) whose income falls between the 25th and 75th percentile of the national parent income distribution	Tax Records, Core Sample of Chetty et al. (2014) Tax Records, Core Sample of Chetty et al. (2014)
	Local Tax Rate	Total tax revenue per capita divided by mean household income per capita for working age adults (in 1990)	1992 Census of Government county-level summari
	Local Tax Rate Per Capita	Total tax revenue per capita	1992 Census of Government county-level summar
Tax	Local Govt Expenditures Per Capita	Total local government expenditures per capita	1992 Census of Government county-level summar
	Tax Progressivity	The difference between the top state income tax rate and the state income tax rate for individuals with taxable income of \$20,000 in 2008	2008 state income tax rates from the Tax Foundati
	State EITC Exposure	The mean state EITC top-up rate between 1980-2001, with the rate coded as zero for states with no state EITC	Hotz and Scholz (2003)
	School Expenditure per Student	Average expenditures per student in public schools	NCES CCD 1996-1997 Financial Survey
	Student Teacher Ratio	Average student-teacher ratio in public schools	NCES CCD 1996-1997 Universe Survey
C-12 Education	Test Score Percentile (Income adjusted) High School Dropout Rate (Income adjusted)	Residual from a regression of mean math and English standardized test scores on household income per capita in 2000 Residual from a regression of high school dropout rates on household income per capita in 2000. Coded as missing for CZs in which dropout rates are missing	George Bush Global Report Card NCES CCD 2000-2001
	Number of Colleges per Capita	for more than 25% of school districts. Number of Title IV, degree offering insitutions per capita	IPEDS 2000
	College Tuition	Mean in-state tuition and fees for first-time, full-time undergraduates	IPEDS 2000
College	College Graduation Rate (Income Adjusted)	Residual from a regression of graduation rate (the share of undergraduate students that complete their degree in 150% of normal time) on household income per capita in 2000	IPEDS 2009
Local Labor	Labor Force Participation Share Working in Manufacturing Growth in Chinese Imports	Share of people at least 16 years old that are in the labor force Share of employed persons 16 and older working in manufacturing. Percentage growth in imports from China per worker between 1990 and 2000,	2000 Census SF3 Sample Data Table P043 2000 Census SF3 Sample Data Table P049 Autor, Dorn, and Hanson (2013)
Market	Teenage (14-16) Labor Force Participation	Fraction of children in birth cohorts 1985-1987 who received a W2 (i.e. had positive wage earnings) in any of the tax years when they were age 14-16	Tax Records, Extended Sample
Minor	Migration Inflow Rate	Migration into the CZ from other CZs (divided by CZ population from 2000 Census)	IRS Statistics of Income 2004-2005
Migration	Migration Outlflow Rate	Migration out of the CZ from other CZs (divided by CZ population from 2000 Census)	IRS Statistics of Income 2004-2005
	Fraction Foreign Born	Share of CZ residents born outside the United States	2000 Census SF3 Sample Data Table P021
	Social Capital Index	Standardized index combining measures of voter turnout rates, the fraction of people who return their census forms, and measures of participation in	Rupasingha and Goetz (2008)
Social Canital		community organizations	
Social Capital	Fraction Religious		Association of Religion Data Archives
Social Capital	Fraction Religious Violent Crime Rate	community organizations	Association of Religion Data Archives Uniform Crime Reports
	Violent Crime Rate Fraction of Children with Single Mothers	community organizations Share of religious adherents Number of arrests for serious violent crimes per capita Number of single female households with children divided by total number of households with children	Uniform Crime Reports 2000 Census SF3 Sample Data Table P015
	Violent Crime Rate Fraction of Children with Single Mothers Fraction of Adults Divorced	community organizations Share of religious adherents Number of arrests for serious violent crimes per capita Number of single female households with children divided by total number of households with children Fraction of people 15 or older who are divorced	Uniform Crime Reports 2000 Census SF3 Sample Data Table P015 2000 Census SF3 Sample Data Table P018
Social Capital	Violent Crime Rate Fraction of Children with Single Mothers	community organizations Share of religious adherents Number of arrests for serious violent crimes per capita Number of single female households with children divided by total number of households with children	Uniform Crime Reports 2000 Census SF3 Sample Data Table P015

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Leon County Board of County Commissioners

Cover Sheet for Agenda #13

October 14, 2014

To:	Honorable Chairman and Members of the Board
From:	Vincent S. Long, County Administrator
Title:	Acceptance of Staff Report on Community Efforts to Address Issues on the Southside

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/Division Review and Approval:	Alan Rosenzweig, Deputy County Administrator
Lead Staff/ Project Team:	Shington Lamy, Assistant to the County Administrator

Fiscal Impact:

This item has a fiscal impact. The item proposes a partnership between Leon County and the City of Tallahassee for the development of a South City Community Garden, which would include the use of a County-owned parcel located on Orange Avenue and Meridian Street and financial support

through the access of the County's Community Garden Program grant funds, which are in the FY 15 budget.

Staff Recommendation:

Option #1: Accept the staff report on community efforts to address issues on the Southside.

Option #2: Approve the partnership between Leon County and City of Tallahassee for the development of a South City Community Garden on the County-owned parcel located on Orange Avenue and Meridian Street, and authorize the County Administrator to execute a license agreement with the City of Tallahassee, in a form approved by the County Attorney.

Report and Discussion

Background:

On September 2, 2014, the Board directed staff to provide a report on County as well as community efforts to address issues on the Southside of Leon County. Leon County has a long tradition of providing programs, services, and capital investments that improve the economic opportunity and quality of life of citizens on the Southside. The following analysis outlines the concerns that have consistently been raised in regards to the Southside. Additionally it presents the efforts of the County, the City, and Sheriff's Office to address the issues that are presented.

Analysis:

For the purpose of the item, the Southern Strategy Area, which is defined in the County Comprehensive Plan, was utilized as a general boundary in identifying, collecting, and reporting efforts of the County and other community partners in the Southside of the community (Attachment #1). This area encompasses neighborhoods surrounding the Palmer Munroe Community Center, Florida A&M University, and James A. Rickards High School, as well as the Crown Ridge and South City neighborhoods.

According to data collected by the Tallahassee Police Department between 2011 and 2013, a significant amount of firearm incidents occur within the Southside and a disproportionate amount of suspects (89%) and victims (75%) are black males. Additionally, according to the Department of Health, infant mortality rates in census tracts located in the Southside are consistently higher than other portions of Leon County. In 2012, approximately 13% of infants in the South City census tracts were born with a low birth weight.

Additionally, many of the neighborhoods in the Southside reside in census tracts that the United State Agriculture Department (USDA) designates as food deserts. USDA defines a food desert as a census tract with a substantial share of residents who live in low-income areas that have low levels of access to a grocery store or healthy, affordable food retail outlets. Earlier this year, Harvey's Supermarket, which was, located less than a mile from the South City neighborhood, closed. Many South City residents identified Harvey's as their primary source for fresh produce.

The County, as well as its local government partners, has implemented an array of programs, services, initiatives, and capital improvement projects to improve the economic and quality of life for the residents on the Southside, as detailed in the following.

Leon County

Leon County has a long tradition of providing the programs, services, and infrastructure that improve the economic opportunity and quality of life of citizens on the Southside. Within the past few years, the County opened a community center and library in the Woodville area and expanded the Dr. B.L. Perry, Jr. Branch Library.

The County's most recent Press the Chest was held on June 7, 2014 with a focus on engaging minorities and neighborhoods on the Southside. The event, which attracted approximately 700 Leon County citizens, was held at the Florida A&M University's Al Lawson Jr. Multipurpose Center. Leon County EMS provided hands-on CPR training and demonstration on the use of AEDs. Participants received an American Heart Association CPR Anytime kit, which contains a CPR mannequin, DVD, and educational materials and supplies. The kits allow enabled participants to train family and friends in the use of these vital procedures. The following presents information on the County's ongoing and future programs and services that seek to impact and engage Southside citizens.

Southern Strategy Area

As previously mentioned, the boundary of the Southern Strategy Area was generally utilized to identify and analyze efforts to address issues on the Southside. The policies and map of the Southern Strategy Area was originally adopted into the Comprehensive Plan in 1998 and reviewed by the County and City Commissions every three years. Based on Census data, the unemployment rate within the area is traditionally significantly higher than the rest of Leon County. Although the Southern Strategy Area only comprises 13% of the County's population, 44% of total reported crime occurred within its boundary.

Recognizing the issues in the Southern Strategy Area, the Board has placed a high priority on projects that would provide for greater economic growth and enhance the quality of life. These projects include the widening of Woodville Highway, redevelopment of the North Florida Fairgrounds, and enhancements to Springhill Road and Lake Bradford Road. The projects have been identified by the Board funding through the sales tax extension. Additionally, the Board committed \$500,000 over a five-year period for the construction of the Comprehensive Emergency Services Center, which will relocate the Shelter into the Southern Strategy Area.

Primary Healthcare

For more than 10 years, the County's CareNet program has delivered primary healthcare and specialty care services to uninsured residents in Leon County through partnerships with local healthcare providers. Many uninsured residents live on the Southside. Additionally, census tracts within the Southside are designated as medically underserved areas by the U.S. Department of Health and Human Services. As a result, the County's annual funding of \$1.7 million significantly expands access to care for of residents on the Southside. The facilities, programs, and services offered by the County's healthcare partners are largely located in the Southside, providing greater access and convenience to patients.

Housing

The Leon County Housing Division provides first-time homebuyers down paymensessistance, foreclosure prevention assistance, as well as home rehabilitation and home replacement services to extremely low, very low, low, and moderate income level residents to have safe and sanitary supply of affordable housing. Within the past year, Southside homeowners comprised more than a third of clients that received assistance through Housing Division's programs and services. Additionally, two times a year, the Housing Division hosts the Leon County Home Expo to educate homeowners and potential homebuyers on maintaining their homes, prevent foreclosures, and provide down payment assistance to veterans and first-time homebuyers. The events that occur at the County's Railroad Avenue facility are well attended by a considerable amount of Southside residents.

On September 5, 2014, the County held its Day of Service event in the Southside neighborhood of Crown Ridge Estates. More than 200 volunteers, including County Commissioners and County staff, assisted 37 homeowners with neighborhood landscaping, yard debris removal, painting, and pressure washing.

Libraries

The Leon County library system regularly provides programs and services to Southside residents at the Dr. B.L. Perry, Jr. Branch Library and Woodville Branch Library. The programs and services, including Baby Time, Story Time, and homework assistance promote literacy and the importance of learning through reading. Local organizations regularly utilize meetings rooms at the two branch libraries to educate residents on essential skill sets, including resume writing and typing.

Club of Honest Citizens

In its continuous effort to engage citizens through unique and meaningful programs, the County partnered with Village Square to host three Club of Honest Citizen events in the spring. The Club of Honest Citizens events, which were held in intimate social settings, fostered greater social interaction between citizens and County Government. In an effort to engage a more diverse audience at future Club of Honest Citizens events, the Board directed staff to partner with local organizations to attract citizens in the minority and college community, as well as hold an event on the Southside. The event will take place in April 2015. County staff and Village Square are working to identify potential partners for the event, which may include churches and businesses located on the Southside.

City of Tallahassee (City)

The City has implemented several projects and programs to address the socio-economic issues and infrastructure needs in the Southside area, including many in partnership with the County. The City's most recent efforts have focused on the South City neighborhood. To assist the neighborhood, the City created the Creating Awareness of Resources and Educational Services (CARES) program. Utilizing existing resources within City departments and divisions, the CARES Program provides resources and support in an effort to improve the quality of life in the neighborhood. These resources include a number of neighborhood cleanup events; distribution of emergency preparedness kits to residents; free home energy assessments; installation of energy saving light bulbs, water-efficient facets/showerheads, and weather stripping in South City homes; construction of a rain garden; health and fitness events, and educational programs.

In addition, the City meets regularly with members of the South City Revitalization Coeffe had the newly formed South City Neighborhood Association that was created with the assistance of the City. The City's Park and Recreation Departments continues to provide guidance to the South City Neighborhood Association to encourage sustained participation by residents in the neighborhood.

In order to address gun violence in the community with an emphasis on the Southside, the Tallahassee Police Department (TPD) formed the Community Leadership Council on Gun Violence (Council) in July 2014. The Council, which is led by the TPD Chief, is comprised of 18 members largely representing Southside residents, business owners, and community organizers, as well as the offices of the Sheriff, State Attorney, and Public Defender. The Council meets monthly with the goal of developing action plans for programs, services, best practices, and initiatives to reduce gun violence, which disproportionately impact resident on the Southside.

In regards to capital infrastructure investments on the Southside, the City has scheduled several water, sewer, and stormwater improvement projects for the 2015 fiscal year (Attachment #2). The projects address flooding and reliable sewer service concerns in a number of Southside neighborhoods providing an improved quality of life.

Leon County Sheriff's Office (Sheriff's Office)

Within the past year, the Sheriff's Office has held several events within the Southside to improve safety, increase crime prevention, and promote literacy. The events were all held at apartment complexes in the Southside neighborhood to ensure access and convenience for residents. Many of the Sheriff's Office's events are geared to protect and/or educate minors and young adults in the community. Victim advocate and child identification kits were distributed to encourage families to record information for child-missing incidents. During the summer, the Sheriff's office holds a weeklong read-a-thon at various apartment complexes on the Southside. The Sheriff's Office also holds the Sheriff Adventure Camp Program each summer exposing at-risk youth to leadership skills and substance abuse education. Many of the youth that participate in the summer program reside in the Southside.

In preparation for the new school year, meet and greet sessions were held at Southside apartments with area school resource officers to provide information on gang awareness. In April 2014, career day events were held in conjunction with Goodwill providing assistance with resume writing, interview preparation, and job location. Safety Day events were held at various Southside apartment complexes in partnership with Leon County Emergency Medical Services to raise awareness on the use of seat belts, provide training on proper installation of child car seats, and distribute free bike helmets.

The Sheriff's Office also utilizes Neighborhood Crime Watch program in neighborhoods throughout the Southside to educate citizens, maintain and provide effective crime prevention programs and establish relationships and partnerships with the community. In an effort to provide greater assistance and collaboration of the programs and services in the community, the Sheriff's Office is currently implementing the SPIRIT Project. The 90-day pilot program will provide the Sheriff's Office the ability to refer residents with direct social services in the community. The Sheriff's Office has been working with a number of agencies and organization in the community including Big

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Brothers and Big Sisters, the Boys and Girls Club, and the 50 Large Foundation. Pathough the SPIRIT Project is being implemented countywide, the Sheriff's Office expects a significant number of Southside residents to benefit from the program.

Collaborative Efforts

The County continually identifies opportunities for collaborative efforts that address the socioeconomic and infrastructure needs of the Southside. Recently, there has been extensive collaboration between the County and City to address the challenges of the Southside and engage the citizens of the community. These efforts of collaboration maximize County and City resources to provide opportunities that improve the economic conditions and quality of life in the Southside.

Enterprise Zone

In 2002, the County and the City jointly applied to create an approximately 20 square mile enterprise zone, which includes portions of the Southside community. The Enterprise Zone offers an assortment of tax incentives to businesses and residents that encourage private investment and increase employment opportunities within the area. Tax incentives include a sales and use tax credit, tax refund for business machinery and equipment used in an enterprise zone and sales tax refund for building materials. The goals of the Enterprise Zone include promoting private sector investments, providing increased employment opportunities for Enterprise Zone residents, and promoting stability by increasing home ownership in the Enterprise Zone.

Palmer-Munroe

In June 2010, Leon County partnered with the City and Leon County School Board to maintain and expand services at Palmer Munroe Teen Center. The Center, which had initially been identified for closure by the City, provides the most vulnerable youth in the community with programming that promotes social responsibility and civic awareness. Youth that attend the Center receive a unique blend of educational classes, workshops, and recreational activities. The County provides \$150,000 annually for the programs and services at Palmer Munroe, which is overseen by the City's Parks, Recreation, and Neighborhood Affairs Department. The County's effort with its local governmental partners also led to the collaboration with the Florida Department of Juvenile Justice for a restorative justice program.

TIGER Grant

This spring, the County and City partnered to submit a TIGER grant to U.S. DOT for the construction of sidewalks within the South City neighborhood and along Magnolia Drive that is adjacent to South City. Although the project was not awarded a TIGER grant, the County and City, through the Blueprint Intergovernmental Agency (IA), will consider committing funds for the construction of a multi-use trail on Magnolia Drive at future IA meeting. The project would significantly benefit residents in the South City neighborhood that regularly utilize the road for mass transit.

Sales Tax Extension

The current one-cent infrastructure sales tax, which has funded projects such as Capital Circle, Gaines Street, and FAMU Way, is scheduled to expire on December 31, 2019. Recognizing the importance of the continued investment in the community, the County and City have partnered to

appoint citizens to the Sales Tax Committee, identify and review potential projects, and the public on the proposed one-cent sales tax extension. The citizens of Leon County will vote on November 4, 2014 whether to extend the one-cent infrastructure sales tax through 2040, which would include several projects on the Southside as reflected in Table 1.

Table 1. Sales Tax Extension Projects on the Southside

Monroe-Adams Placemaking	\$7,000,000
Orange Avenue Placemaking	\$4,100,000
Fairgrounds	\$12,000,000
FAMU Entry Points	\$1,500,000
Southside Gateway	\$29,700,000
Airport Gateway	\$58,700,000
Capital Circle Southwest	\$70,000,000
Orange Avenue Widening	\$33,100,000
Total	\$216,100,000

Additionally, as reflected in Table 2, funding set aside for countywide projects would also provide opportunity for further capital investments in the Southside.

Table 2. Countywide Sales Tax Extension Projects

	V
Water Quality & Stormwater Improvements	85,000,000
Bike Routes	15,000,000
Sidewalks	50,000,000
Greenways	20,000,000
StarMetro	12,200,000
L.I.F.E.	2% of the penny sales tax
Economic Development	12% of the penny sales tax

South City Community Garden

In partnership, the County and City have been in discussions with citizen groups on the development of a community garden in the South City neighborhood. Earlier this year, Harvey's Supermarket, which was located less than a mile from South City, closed. Many South City residents identified Harvey's as their primary source for fresh produce.

The County and City have worked with the South City Revitalization Council, South City Neighborhood Association, and Tallahassee Food Network to identify the opportunity to develop a community garden that would provide access to fresh fruits and vegetables to the neighborhood. Preliminary collaborative discussions have identified a vacant County-owned parcel located on the corner of Orange Avenue and Meridian Street as an appropriate location for the community garden. The City would provide startup support and resources through its community garden program toward the development of the community garden. In addition to the use of the property, the County would provide financial support through the access of the County's Community Garden Program grant funds that are included in the FY 15 budget. The Tallahassee Food Network would provide

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education and training to residents on producing and consuming fresh foods. In order and education are training to residents on producing and consuming fresh foods. In order affectuate the proposed concept of the proposed community partnership, staff recommends that the Board authorize the County Administrator to enter into a license agreement with the City for the use of the property for the South City Community Garden.

The Tallahassee Democrat also intends to hold a Make-A-Difference event on Saturday, October 25th in the South City neighborhood to promote and engage residents on healthy eating and fitness. Should the County authorize the use of the County-owned property for a community garden, the event would take place at the site and would include a 5k run and a gardening and seeding demonstration led by the Tallahassee Food Network.

Conclusion

The County and its local government partners are actively addressing the issues on the Southside through provision of services, capital investments, and community engagement. Ongoing and future efforts of the County, City, and Sheriff's Office demonstrate each organization long-term commitment to the residents and neighborhoods of the Southside. The County will continue to identify opportunities for collaboration with governmental and community partners to spur economic growth and improve the quality of life on the Southside.

Options:

- 1. Accept the staff report on community efforts to address issues on the Southside.
- 2. Approve the partnership between Leon County and City of Tallahassee for the development of a South City Community Garden on the County-owned parcel located on Orange Avenue and Meridian Street, and authorize the County Administrator to execute a license agreement with the City of Tallahassee, in a form approved by the County Attorney.
- 3. Do not accept the staff report on Community Efforts to Address Issues on the Southside.
- 4. Do not authorize the County Administrator to execute a license agreement with the City of Tallahassee, in a form approved by the County Attorney, for the use of the County-owned property located at Orange Avenue and Meridian Street for a South City Community Garden.
- 5. Board direction.

Recommendation:

Options #1 and #2.

Attachments:

- 1. Southern Strategy Area Map
- 2. Map of City of Tallahassee Improvement Projects within the Southern Strategy Area

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Leon County Board of County Commissioners

Notes for Agenda Item #10

Leon County Board of County Commissioners

Cover Sheet for Agenda #10

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Approval of Agreement Awarding Bid to Allen's Excavation, Inc. in the

Amount of \$685,132 for the Construction of Lake Heritage Dam

Improvements

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator Katherine Burke, P.E., Director of Engineering Services
Lead Staff/ Project Team:	Charles Wu, P.E., Chief of Engineering Design Mitzi McGhin, Right-of-Way Agent George Su, P.E., Senior Design Engineer

Fiscal Impact:

This item has been budgeted through the Blueprint 2000 Water Quality Enhancements. Adequate funding is available in the capital improvement budget.

Staff Recommendation:

Option #1: Approve the Agreement awarding bid to Allen's Excavation, Inc. in the amount of

\$685,132 for the Construction of Lake Heritage Dam Improvements

(Attachment #1), and authorize the County Administrator to execute.

Title: Approval of Agreement Awarding Bid to Allen's Excavation, Inc. in the Amount of \$685,132 for the Construction of Lake Heritage Dam Improvements

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Report and Discussion

Background:

Blueprint 2000 set aside \$50 million (split 50/50 between the City and the County) of its 80% share of the Sales Tax Extension for stormwater and water quality retrofits. A total of \$5 million of the County's \$25 million is set-aside to retrofit existing County Stormwater facilities and enhance their function. Lake Heritage Dam Improvements is the last of the three projects designated to receive this funding for implementation. The other two projects, Sharer Road Ditch Improvements and Lake Munson Dam Improvements, have been completed.

The existing private Lake Heritage Dam was constructed prior to 1977 and is located in the Lake Heritage Estates residential neighborhood on the south side of Apalachee Parkway (Attachment #2). The Lake Heritage Dam is an earthen dam, approximately 14 feet high. The existing primary outfall system consists of a control valve and riser structure in the lake and a corrugated metal pipe through the dam. The County has an easement for maintenance of this control structure, hence the responsibility of its repair. A secondary spillway system consists of swales and culverts between private residences on the east side of the lake. The primary outfall system is currently in a "failed" condition because the control valve has been rusted and fallen into the lake. The discharge pipe is clogged up and there is no control to the water levels. Additionally, the earthen dam is endangered by the trees grown within the embankments. For some time, leakage/seepage has been observed around and through the pipe. This leakage has increased over the years.

The project's goal is to reconstruct the discharge structure and spillway to regain the control of the originally intended function of the discharge system.

The proposed improvements consist of maintaining the existing normal lake level at elevation 86.8 NAVD by constructing a new overflow weir at the dam to serve as the primary spillway, without mechanical control mechanism. Overall, this project will restore functions of the Lake Heritage outfall structures and allow storms to pass through the dam in a safe and controlled manner, while adhering to the Leon County code requirements for flood protection elevation.

Analysis:

The Invitation to Bid for Construction was advertised locally on March 26, 2015. A total of 737 registered vendors were notified through the automated procurement system. A total of 62 vendors requested bid packages and the County received two bids on April 28, 2015 (Attachment #3). The lowest bidder is Allen's Excavation, Inc. with an estimated total of \$685,132. The second bid received from Talcon Group, LLC. was deemed unresponsive because of the incomplete bid prices. This is a unit price contract with lump sum pay items, and the Contractor will be paid based on the actual completion of the individual lump sum pay items or quantity of the individual unit price pay items (Attachment #4).

The Minority, Women, and Small Business Enterprise (MWSBE) Division reviewed the MWBE Participation plans and determined the bid from Allen's Excavation, Inc. met the Aspirational

Title: Approval of Agreement Awarding Bid to Allen's Excavation, Inc. in the Amount of \$685,132 for the Construction of Lake Heritage Dam Improvements

June 9, 2015

Page 3

Targets (17% MBE & 9% WBE) set for this project. The second bid did not meet the goals because of missing bid prices and unresponsiveness (Attachment #5).

After Board's approval of the bid award, the construction is anticipated to commence in July 2015 and be completed in February 2016.

Options:

- 1. Approve the Agreement awarding bid to Allen's Excavation, Inc. in the amount of \$685,132 for the construction of Lake Heritage Dam improvements (Attachment #1), and authorize the County Administrator to execute.
- 2. Do not approve the Agreement awarding bid to Allen's Excavation, Inc. in the amount of \$685,132 for the construction of Lake Heritage Dam improvements.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Draft Construction Agreement
- 2. Project Location Map
- 3. Bid Tabulation Sheet
- 4. Bid Pricing Sheet
- 5. MWSBE Analysis

AGREEMENT

THIS AGREEMENT, by and between LEON COUNTY, a charter county and a political subdivision of the State of Florida, hereinafter referred to as the "County" and ALLEN'S EXCAVATION, INC., hereinafter referred to as the "Contractor."

WHEREAS, the County has determined that it would be in the best interest of the citizens of Leon County, Florida, that the County be able to utilize the services of private persons when such services cannot be reasonably provided by the County; and

WHEREAS, the County has determined that it would be better to contract for these services than to hire the necessary personnel to satisfy the needs of the County: and

WHEREAS, in order to secure the lowest cost for these services, the County has sought and received competitive bids from contractor for such services.

NOW, THEREFORE, the parties hereto agree as follows:

SERVICES TO BE PROVIDED

The Contractor hereby agrees to provide to the County services related to Lake heritage Dam Improvements in accordance with: 1) Lake Heritage Dam Improvements, Bid# BC-04-28-15-25 which is attached hereto and incorporated herein as Exhibit A, to the extent that it is not inconsistent with this Agreement; and 2) the Contractor's bid submission, which is attached hereto and incorporated herein as Exhibit B, to the extent that it is not inconsistent with this Agreement or with Exhibit A.

WORK

Any work to be performed shall be upon the written request of the County Administrator or his representative, which request shall set forth the commencing date of such work and the time within which such work shall be completed.

The performance of Leon County of any of its obligations under this Agreement shall be subject to and contingent upon the availability of funds lawfully expendable for the purposes of this Agreement for the current and any future periods provided for within the bid specifications.

3. TIME AND LIQUIDATED DAMAGES

The work to be performed under this contract shall be commenced within fifteen (15) days of the Notice to Proceed. All work to be performed under this Contract shall be completed within two hundred eighty (280) consecutive calendar days of the Notice to Proceed. If the work to be performed under this Contract is not completed within the time set forth above, or within such extra time as may be granted by the County, the Contractor shall be deemed to be in default. For each day the Contractor is in default, the Contractor or its Surety shall pay to the County, not as a penalty, but as liquidated damages, an amount based on the bid price and according to Section 8-10 of the FDOT's Standard Specifications for Road and Bridge Construction, 2010 Edition.

Permitting the Contractor to continue and finish the work or any part of it after the expiration of the contract time allowed, including extensions, if any, shall in no way act as a waiver on the part of County of the liquidated damages due under the contract.

CONTRACT SUM

The Contractor agrees that for the performance of the Services as outlined in Section 1 above, it shall be remunerated by the County according to the unit prices contained in the Contractor's bid proposal, Exhibit

B, which is attached hereto.

5. PAYMENTS TO THE GENERAL CONTRACTOR

- A. The General Contractor shall submit to the Owner a schedule of values for the project. Pay requests shall be sworn statements based upon the progress made and submitted to the Owner on a monthly basis. Payment by the Owner to the General Contractor of the statement amount shall be made within twenty (20) days after approval of the Architect-Engineer and submitted to the Owner. Ten percent (10%) retainage shall be held at the discretion of the Owner and Architect, the 10% retainage shall be reduced to 5% at 50% completion of the work.
- B. Final Payment Final payment constituting the unpaid balance of the cost of the Project and the General Contractor's fee, shall be due and payable within 45 days after the Project is delivered to the Owner, finished and ready for beneficial occupancy, or when the Owner occupies the Project, whichever event first occurs provided that the Project be then substantially completed and this agreement substantially performed. However, if there should remain work to be completed, the General Contractor and the Architect-Engineer shall list those items prior to receiving final payment and the Owner may retain a sum equal to 200% of the estimated cost of completing any unfinished work and the applicable portion of the General Contractor's retain age, provided that said unfinished items are listed separately and estimated cost of completing any unfinished items are likewise listed separately. Thereafter, Owner shall pay to General Contractor, monthly, the amount retained from each incomplete item after each of said items is completed.
- C. Payments to Subcontractors The General Contractor shall promptly, but not later than 10 days after receipt of payment from the Owner, pay all the amount due subcontractors less a retain age of ten percent (10%). If there should remain items to be completed, the General Contractor and Architect-Engineer shall list those items required for completion and the General Contractor shall require the retain age of a sum equal to 200% of the estimated cost of completing any unfinished items, provided that said unfinished items are listed separately and the estimated cost of completing any unfinished items likewise listed separately. Thereafter, The General Contractor shall pay to the subcontractors, monthly, the amount retained for each incomplete item after each of said items is completed. Before issuance of final payment without any retain age, the subcontractor shall submit satisfactory evidence that all payrolls, material bills and other indebtedness connected with the Project have been paid or otherwise satisfied, warranty information is complete, as-built markups have been submitted and instruction for the Owner's operating and maintenance personnel is complete. Final payment may be made to certain select subcontractors who work is satisfactorily completed prior to the total completion of the Project but only upon approval of the Owner.
- D. Delayed Payments by Owner If the Owner shall fail to pay the General Contractor within 20 days after the receipt of an approved payment request from the General Contractor, then the General Contractor may, upon fourteen (14) additional days advance written notice to the Owner and the Architect-Engineer stop the Project until payment of the Amount owing has been received, provided that the payment request has been submitted in sufficient detail to comply with the guidelines of the Office of the Clerk of the Circuit Court for Leon County. In the event that there is a dispute in the amount of the pay request, then only the disputed amount shall be held until resolved and the undisputed amount shall be paid within the time limits as stated within this paragraph. If undisputed amounts are timely paid, then the General Contractor shall not stop the Project in any fashion and the progress of the project shall not be interrupted. Both parties agree that best efforts be made to resolve the disputed amount.
- E. Payment for Materials and Equipment Payments will be made for material and equipment not incorporated in the work but delivered and suitably stored at the site (or another location, subject to prior approval and acceptance by the Owner on each occasion).

PROMPT PAYMENT INFORMATION REQUIREMENTS

A. The County Project Manager is:

Name: George Su

Street Address: 2280 Miccosukee Road City, State, Zip Code: Tallahassee, FL 32308

Telephone: 850-606-1500

E-mail: sushin@leoncountyfl.gov

B. The Contractor's Project Manager is:

Name:

Street Address: City, State, Zip Code:

Telephone: E-mail:

C. Proper form for a payment request for this contract is:

For the purposes of this section, the term "Agent" shall refer to the Engineer when the County (Owner) has engaged their professional services an to serve as an Agent for a project. In those instances when no Agent has been retained for the project, the County shall provide services as Agent with its own staff.

When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Agent/Owner a comprehensive list of items to be completed or corrected prior to final payment. For contracts less than \$10 million in value, the list must be developed within 30 calendar days of substantial completion. For contracts more than \$10 million in value, the list must be developed within 30 calendar days of substantial completion unless the parties agree in writing to extend it up to 60 days. Failure to include an item on such list does not alter the responsibility of the contractor to complete all Work in accordance with the Contract Documents.

Upon receipt of the Contractor's list, the Agent/Owner will make an inspection to determine whether the Work or designated portion is substantially complete. If the Agent/Owner's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, it shall be added to the list and the Contractor shall, before the issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Agent/Owner. In such case, the Contractor shall then submit a request for another inspection by the Agent/Owner to determine Substantial Completion.

Upon completion or correction of all the items on the list, the Contractor may submit a payment request for all remaining retainage. The County may withhold up to 150% of the cost of any incomplete items.

D. Payment Dispute Resolution: Section 14.1 of the Leon County Purchasing and Minority, Women and Small Business Enterprise Policy details the policy and procedures for payment disputes under the contract.

7. STATUS

The contractor at all times relevant to this Agreement shall be an independent contractor and in no event shall the Contractor nor any employees or sub-contractors under it be considered to be employees of Leon

County.

INSURANCE

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's bid.

- A. Minimum Limits of Insurance. Contractor shall maintain limits no less than:
 - General Liability: \$1,000,000 Combined Single Limit for bodily injury and property damage per
 occurrence with a \$2,000,000 annual aggregate. Completed operations coverage will be
 provided for a period of three (3) years beyond termination and/or completion of the project.
 Coverage must include bodily injury and property damage, including Premise/Operations: a per
 location aggregate, Broad Form Contractual liability; Broad Form Property Damage; Fire Legal
 liability; Independent Contractors coverage; Cross Liability & Severability of Interest
 Clauses; and Personal Injury (deleting employee and contractual exclusions), and coverage
 for explosion, collapse, and underground (X,C,U).
 - Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage. (Non-owned, Hired Car).
 - 3. Workers' Compensation and Employers Liability: Insurance covering all employees meeting Statutory Limits in compliance with the applicable state and federal laws and Employer's Liability with a limit of \$500,000 per accident, \$500,000 disease policy limit, \$500,000 disease each employee. Waiver of Subrogation in lieu of Additional Insured is required.

B. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

- C. Other Insurance Provisions The policies are to contain, or be endorsed to contain, the following provisions:
 - General Liability and Automobile Liability Coverages (County is to be named as Additional Insured).
 - a. The County, its officers, officials, employees and volunteers are to be covered as insureds as respects; liability arising out of activities performed by or on behalf of the Contractor, including the insured's general supervision of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protections afforded the County, its officers, officials, employees or volunteers.
 - b. The Contractor's insurance coverage shall be primary insurance as respects the County, it officers, officials, employees and volunteers. Any insurance of self-insurance maintained by the County, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

- Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the county, its officers, officials, employees or volunteers.
- d. The Contractor's insurance shall apply separately to each insured against whom claims is made or suit is brought, except with respect to the limits of the insurer's liability.

All Coverages

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the County.

- Acceptability of Insurers. Insurance is to be placed with insurers with a Best's rating of no less than A:VII
- E. Verification of Coverage. Contractor shall furnish the County with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and approved by the County before work commences. The County reserves the right to require complete, certified copies of all required insurance policies at any time.
- F. Subcontractors. Contractors shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

9. PERMITS

The Contractor shall pay for all necessary permits as required by law not specifically identified by Leon County.

10. LICENSES

The Contractor shall be responsible for obtaining and maintaining his city or county occupational license and any licenses required pursuant to the laws of Leon County, the City of Tallahassee, or the State of Florida. Should the Contractor, by reason of revocation, failure to renew, or any other reason, fail to maintain his license to operate, the contractor shall be in default as of the date such license is lost.

11. ASSIGNMENTS

This Agreement shall not be assigned or sublet as a whole or in part without the written consent of the County nor shall the contractor assign any monies due or to become due to him hereunder without the previous written consent of the County.

12. PAYMENT AND PERFORMANCE BOND

A Payment and Performance Bond in the amount of 100% of the estimated project cost shall be supplied by the Contractor at the time of Agreement execution. Also, a Payment and Material Bond for the Agreement amount shall be supplied by the Contractor at the same time.

Payment and Performance and Material Bonds shall provide that, in the event of non-performance on the part of the Contractor the bond can be presented for honor and acceptance at an authorized representative or institution located in Tallahassee, Florida. The Payment and Performance Bond shall be in the following form:

PUBLIC CONSTRUCTION BOND

the time and in the manner prescribed in the fined in Section 255.05(1), Florida Statutes
in called Owner, in the sum of \$ nal representatives, successors, and assigns s that if Principal: Principal and Owner for construction of, the the time and in the manner prescribed in the fined in Section 255.05(1), Florida Statutes
s that if Principal: Principal and Owner for construction of , the the time and in the manner prescribed in the fined in Section 255.05(1), Florida Statutes sed directly or indirectly by Principal in the
the time and in the manner prescribed in the fined in Section 255.05(1), Florida Statutes
its, and attorney's fees, including appellate incipal under the contract; and
shed under the contract for the time specified in Ill force.
nent must be in accordance with the notice and es.
apliance or noncompliance with any formalitie Gurety's obligation under this bond.
r

Payment bonds executed as a result of the requirements herein by a surety shall make reference to Section 255.05, Florida Statutes, by number and shall contain reference to the notice and time limitation provisions in Section 255.05, Florida Statutes.

13. INDEMNIFICATION

(Name of Surety)

The Contractor agrees to indemnify and hold harmless the County, its officials, officers and employees, from and against any and all liabilities, damages, losses and costs, including, but not limited to reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of this agreement.

The County may, at its sole option, defend itself or required the Contractor to provide the defense. The Contractor acknowledges that the sum of ten dollars (\$10.00) of the amount paid to the Contractor constitutes sufficient consideration for the Contractor's indemnification of the County, its officials, officers and employees.

It is understood that the Contractors responsibility to indemnify and defend the County, it officials, officers and employees is limited to the Contractors proportionate share of liability caused by the negligent acts or omissions of the Contractor, its delegates, agents or employees.

MINORITY BUSINESS ENTERPRISE (M/WBE) PARTICIPATION

The Contractor shall meet or exceed the M/WBE participation levels stated in the Contractor's M/WBE Participation Statement included as part of the Contractor's response for this project, see Exhibit B, attached hereto and made a part hereof except when the County Good Faith Committee approves an exception.

The Contractor shall provide a monthly report to the Leon County Minority, Women and Small Business Enterprise Division in a format and manner prescribed by the Division. The report shall, at a minimum, indicate the business name of each certified Minority Business Enterprise or Women Business Enterprise sub-contractor utilized, the amount paid, the type of work performed, the appropriate invoice date, and the payment date to the Division.

Should Contractor's sub-contractor utilization fall below the level required in this Agreement or should Contractor substitute MWBE sub-contractors without prior written approval of the Division, the Contractor may be in breach of the Agreement. Contractors found in breach of their Agreement with the County may be suspended from bidding on and/or participation in any future County projects for up to three (3) years as provided in Section 15 of the Purchasing and Minority, Women, and Small Business Enterprise Policy 96-1.

Any change in the subcontractor utilization as listed on the participation plan (Exhibit B), must be approved by the MWSBE Division. Should the Contractor determine that the MWBE named in their participation plan submittal is unavailable or cannot perform the work, the Contractor shall request a change order. Such change order must be submitted to the MWSBE Division in writing at 2284 Miccosukee Road, Tallahassee, Florida or by facsimile to (850) 606-1651.

15. AUDITS, RECORDS, AND RECORDS RETENTION

The Contractor agrees:

- a. To establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting procedures and practices, which sufficiently and properly reflect all revenues and expenditures of funds provided by the County under this Agreement.
- b. To retain all client records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to this Agreement for a period of five (5) years after termination of the Agreement, or if an audit has been initiated and audit findings have not been resolved at the end of five (5) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of this Agreement.
- c. Upon completion or termination of the Agreement and at the request of the County, the Contractor will cooperate with the County to facilitate the duplication and transfer of any said records or documents during the required retention period as specified in paragraph 1 above.
- d. To assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, state, or other personnel duly authorized by the County.
- e. Persons duly authorized by the County and Federal auditors, pursuant to 45 CFR, Part 92.36(I)(10), shall have full access to and the right to examine any of provider's Agreement and related records and documents, regardless of the form in which kept, at all reasonable times for as long as records are retained.

f. To include these aforementioned audit and record keeping requirements in all approved subcontracts and assignments.

MONITORING

To permit persons duly authorized by the County to inspect any records, papers, documents, facilities, goods, and services of the provider which are relevant to this Agreement, and interview any clients and employees of the provider to assure the County of satisfactory performance of the terms and conditions of this Agreement.

Following such evaluation, the County will deliver to the provider a written report of its findings and will include written recommendations with regard to the provider's performance of the terms and conditions of this Agreement. The provider will correct all noted deficiencies identified by the County within the specified period of time set forth in the recommendations. The provider's failure to correct noted deficiencies may, at the sole and exclusive discretion of the County, result in any one or any combination of the following: (1) the provider being deemed in breach or default of this Agreement; (2) the withholding of payments to the provider by the County; and (3) the termination of this Agreement for cause.

17. TERMINATION

Leon County may terminate this Agreement without cause, by giving the Contractor thirty (30) days written notice of termination. Either party may terminate this Agreement for cause by giving the other party hereto thirty (30) days written notice of termination. The County shall not be required to give Contractor such thirty (30) day written notice if, in the opinion of the County, the Contractor is unable to perform its obligations hereunder, or if in the County's opinion, the services being provided are not satisfactory. In such case, the County may immediately terminate the Agreement by mailing a notice of termination to the Contractor.

18. PUBLIC ENTITY CRIMES STATEMENT

In accordance with Section 287.133, Florida Statutes, Contractor hereby certifies that to the best of his knowledge and belief neither Contractor nor his affiliates has been convicted of a public entity crime. Contractor and his affiliates shall provide the County with a completed public entity crime statement form no later than January 15 of each year this Agreement is in effect. Violation of this section by the Contractor shall be grounds for cancellation of this Agreement by Leon County.

19. UNAUTHORIZED ALIEN(S)

The Contractor agrees that unauthorized aliens shall not be employed nor utilized in the performance of the requirements of this solicitation. The County shall consider the employment or utilization of unauthorized aliens a violation of Section 274A(e) of the Immigration and Naturalization Act (8 U.S.C. 1324a). Such violation shall be cause for unilateral termination of this Agreement by the County.

20. EMPLOYMENT ELIGIBILITY VERIFICATION

- a. Contractor agrees that it will enroll and participate in the federal E-Verify Program for Employment Verification under the terms provided in the "Memorandum of Understanding" governing the program. Contractor further agrees to provide to the County, within thirty days of the effective date of this contract/amendment/extension, documentation of such enrollment in the form of a copy of the E-Verify "Edit Company Profile' screen", which contains proof of enrollment in the E-Verify Program (this page can be accessed from the "Edit Company Profile" link on the left navigation menu of the E-Verify employer's homepage).
- b. Contractor further agrees that it will require each subcontractor that performs work under this contract to enroll and participate in the E-Verify Program within sixty days of the effective date of this contract/amendment/extension or within sixty days of the effective date of the contract between the Contractor and the subcontractor, whichever is later. The Contractor shall obtain from the subcontractor(s) a copy of the "Edit Company Profile" screen indicating enrollment in the E-Verify

Program and make such record(s) available to the Agency upon request.

- c. Contractor will utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of: (a) all persons employed during the term of the Agreement by Contractor to perform employment duties within Florida; and (b) all persons (including subcontractors) assigned by Contractor to perform work pursuant to the Agreement.
 - Contractor must use E-Verify to initiate verification of employment eligibility for all persons employed during the term of the Agreement by Contractor to perform employment duties within Florida within 3 business days after the date of hire.
 - 2) Contractor must initiate verification of each person (including subcontractors) assigned by Contractor to perform work pursuant to the Agreement within 60 calendar days after the date of execution of this contract or within 30 days after assignment to perform work pursuant to the Agreement, whichever is later.
- d. Contractor further agrees to maintain records of its participation and compliance with the provisions of the E-Verify program, including participation by its subcontractors as provided above, and to make such records available to the County or other authorized state entity consistent with the terms of the Memorandum of Understanding.
- e. Compliance with the terms of this <u>Employment Eligibility Verification</u> provision is made an express condition of this contract and the County may treat a failure to comply as a material breach of the contract.

21. NON-WAIVER

Failure by the County to enforce or insist upon compliance with any of the terms or conditions of this Agreement or failure to give notice or declare this Agreement terminated shall not constitute a general waiver or relinquishment of the same, or of any other terms, conditions or acts; but the same shall be and remain at all times in full force and effect.

22. DELAY

No claim for damages or any claim other than for an extension of time shall be made or asserted against the County by reason of any delays. The Contractor shall not be entitled to an increase in the contract sum or payment or compensation of any kind from the County for direct, indirect, consequential, impact or other costs, expenses or damages, including but limited to costs of acceleration or inefficiency, arising because of delay, disruption, interference or hindrance from any cause whatsoever, whether such delay, disruption, interference or hindrance be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery of damages by the Contractor for hindrances or delays due solely to fraud, bad faith, or active interference on the part of the County or its agents. Otherwise, the Contractor shall be entitled only to extensions of the contract time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided above.

23. REVISIONS

In any case where, in fulfilling the requirements of this Agreement or of any guarantee, embraced in or required thereby it is necessary for the Contractor to deviate from the requirements of the bid, Contractor shall obtain the prior written consent of the County.

24. VENUE

Venue for all actions arising under this Agreement shall lie in Leon County, Florida.

25. CONSTRUCTION

The validity, construction, and effect of this Agreement shall be governed by the laws of the State of Florida.

26. CONFLICTING TERMS AND CONDITIONS

In the instance that any other agreement exists concerning the matters herein, then the terms and conditions in this Agreement shall prevail over all other terms and conditions.

ORDER OF PRECEDENCE

- 1. Agreement
- 2. Solicitation Document
- 3. Vendor Response

ATTACHMENTS

Exhibit A - Solicitation Document Exhibit B - Contractor Response Exhibit C - Tabulation Sheet

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AGREEMENT BETWEEN LEON COUNTY AND ALLEN'S EXCAVATION, INC. BC-04-28-15-25

BY:

Herbert W. A. Thiele, Esquire

County Attorney

this Agreement. LEON COUNTY, FLORIDA ALLEN'S EXCAVATION, INC. Ву: Ву: Vincent S. Long President or designee County Administrator Printed Name Date: Title: Date: ATTEST: Bob Inzer, Clerk of the Circuit Court & Comptroller Leon County, Florida BY: Approved as to Form: Leon County Attorney's Office

WHERETO, the parties have set their hands and seals effective the date whereon the last party executes

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

Location: 1800-3 N. Blair Stone Road, Tallahassee, Florida 32308

I, INSTRUCTION TO BIDDERS

To Insure Acceptance of Your Bid, Please Follow These Instructions:

Items listed on the bid checklist in this form and all other items required within this
invitation to bid must be executed and/or submitted in a sealed envelope. Address
your sealed envelope as follows:

- Bid must be typed or printed in ink. All corrections made by the bidder prior to the opening must be initialed and dated by the bidder. No changes or corrections will be allowed after bids are opened.
- Bid must contain an <u>original, manual</u> signature of an authorized representative of the company.
- 4. The bid opening shall be public on the date and time specified on the bid. It is the bidder's responsibility to assure that the bid is delivered at the proper time and location. Bids which are received after the bid opening time will be returned unopened to the bidder.
- Bidders are expected to examine the specifications, delivery schedule, bid prices and extensions and all general and special conditions of the bid prior to submission. In case of error in price extension, the unit price will govern.
- 6. Special Accommodation: Any person requiring a special accommodation at a Pre-Bid Conference or Bid opening because of a disability should call the Division of Purchasing at (850) 606-1600 at least five (5) workdays prior to the Pre-Bid Conference or Bid opening. If you are hearing or speech impaired, please contact the Purchasing Division by calling the County Administrator's Office using the Florida Relay Service which can be reached at 1(800) 955-8771 (TDD).

NOTE: ANY AND ALL CONDITIONS OR REQUIREMENTS ATTACHED HERETO WHICH VARY FROM THE INSTRUCTIONS TO BIDDERS WILL BE PRECEDENT.

PURPOSE:

Leon County is seeking the services of a qualified vendor to perform work on Lake Heritage Dam which includes but is not limited to: demolition and removal of existing control structure, removal of the discharge pipe and water main, construction of concrete spillway/weir and handrails, construction of a dewatering system, reclamation of disturbed areas, and all work called out on the construction plans and in the bid documents.

SCHEDULE OF EVENTS

Below in Table 1 is the current schedule of the events that will take place as part of this solicitation. Leon County reserves the right to make changes or alterations to the schedule as the Leon County determines is in the best interests of the public. If any changes to the Schedule of Events are made, Leon County will post the changes on the Leon County website either as a public meeting notice, or as an addendum, as applicable. It is the responsibility of Registered Planholders and other interested persons and parties to review the Purchasing Division's website to stay informed of the Schedule of Events, addenda issued, and public meetings scheduled. The website addresses follow:

Addenda: http://www.leoncountyfl.gov/procurementconnect/

Public Meetings: http://www.leoncountyfl.gov/procurementconnect/

	Table 1 - Schedule of Events
Date and Time (all eastern time)	Event
March 26, 2015	Release of the ITB
April 15, 2015 at 11:00 a.m.	MANDATORY PRE-BID MEETING: A mandatory pre-bid meeting will be held at Leon County Purchasing's offices, located at 1800-3 North Blair Stone Road, Tallahassee, FL 32308.
Not later than: April 17 at 5:00 p.m.	QUESTIONS/INQUIRIES DEADLINE: Date and time by which questions and inquiries regarding the ITB must be received by Leon County.
Not later than: April 28, 2015 at 2:00 p.m.	BID SUBMISSION DUE DATE/OPENING OF TECHNICAL RESPONSE: Date and time by which Bid Submissions must be received by the Leon County Purchasing Division, located at 1800-3 North Blair Stone Road, Tallahassee, FL 32308.

BID INFORMATION AND CLARIFICATION:

Questions pertaining to bid procedures or regarding the specifications should be addressed to Shelly Kelley and Don Tobin, phone(850) 606-1600; fax (850) 606-1601; E-mail kelleys@leoncountyfl.gov and tobind@leoncountyfl.gov. Bidders are requested to send such requests to both representatives of the Purchasing Division. Email inquiries are preferred.

Each Bidder shall examine the solicitation documents carefully; and, no later than seven days prior to the date for receipt of bids, he shall make a written request to the County for interpretations or corrections of any ambiguity, inconsistency or error which he may discover. All interpretations or corrections will be issued as addenda. The County will not be responsible for oral clarifications. No negotiations, decisions or actions shall be initiated or executed by the proposer as a result of any discussions with any County employee prior to the opening of proposals. Only those communications which are in writing from the County may be considered as a duly authorized expression on the behalf of the Board. Also, only communications from firms which are in writing and signed will be recognized by the Board as duly authorized expressions on behalf of proposers.

ADDENDA TO SPECIFICATIONS

If any addenda are issued after the initial specifications are released, the County will post the addenda on the Leon County website at: http://www.leoncountyfl.gov/procurementconnect/. For those projects with separate plans, blueprints, or other materials that cannot be accessed through the internet, the Purchasing Division will make a good faith effort to ensure that all registered bidders (those who have been registered as receiving a bid package) receive the documents. It is the responsibility of the bidder prior to submission of any bid to check the above website or contact the Leon County Purchasing Division at (850) 606-1600 to verify any addenda issued. The receipt of all addenda must be acknowledged on the bid response sheet.

PROHIBITED COMMUNICATIONS

Any Form of communication, except for written correspondence with the Purchasing Division requesting clarification or asking questions, shall be prohibited regarding a particular request for proposal, request for qualification, bid, or any other competitive solicitation between:

- Any person or person's representative seeking an award from such competitive solicitation; and
- Any County Commissioner or Commissioner's staff, or any county employee authorized to act on behalf of the Commission to award a particular contract.

For the purpose of this section, a person's representative shall include, but not be limited to, the person's employee, partner, officer, director, consultant, lobbyist, or any actual or potential subcontractor or consultant of the person.

The prohibited communication shall be in effect as of the release of the competitive solicitation and terminate at the time the Board, or a County department authorized to act on behalf of the Board, awards or approves a contract, rejects all bids or responses, or otherwise takes action which ends the solicitation process.

The provisions of this section shall not apply to oral communications at any public proceeding, including pre-bid conferences, oral presentations before selection committees, contract negotiations during any public meetings, presentations made to the Board, and protest hearings. Further, the provisions of this section shall not apply to contract negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence with any employee, County Commissioner, or decision-making board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.

The penalties for an intentional violation of this article shall be those specified in §125.69(1), Florida Statutes, as amended, and shall be deemed supplemental to the penalties set forth in Section 1-9 of the Code of Laws, Leon County, Florida.

REGISTRATION:

Bidders obtain solicitation documents from sources other than the Leon County Purchasing Division MUST officially register with the County Purchasing Division in order to be placed on the planholders list for the solicitation. Bidders should be aware that solicitation documents obtained from sources other than those listed above may be drafts, incomplete, or in some other fashion different from the official solicitation document(s). Failure to register through the Purchasing Division may cause your submittal to be rejected as non-responsive.

CONTRACTOR'S QUALIFICATIONS

The Primary Contractor must be certified by the Florida Department of Transportation (FDOT) in the Drainage, Grading, or Concrete Work Class. Copies of current Certificate of Qualifications shall be submitted to Leon County concurrent with the bid document. Failure to demonstrate FDOT certification in the fashion described may result in the rejection of the bid.

PREPARATION AND SUBMISSION OF BID:

Each Bidder shall submit Bid Prices and other requested information, including alternates or substitutions if allowed by this invitation to bid, on the proper forms and in the manner herein prescribed. Any erasures or other corrections in the Bid must be explained or noted over the signature of the Bidder. Bids containing any conditions or irregularities of any kind may be rejected by the County. All bids must be submitted in a sealed envelope or other appropriate container. Facsimiles will not be accepted. It is the intention of the County to award this bid based on the low total bid price and/or other criteria herein contained meeting all specifications.

REJECTION OF BIDS:

The County reserves the right to reject any and/or all bids when such rejection is in the best interest of the County.

RECEIPT AND OPENING OF BIDS:

Bids will be opened publicly at the time and place stated in the Invitation to Bid. The person whose duty it is to open them will decide when the specified time has arrived and no bids received thereafter will be considered. No responsibility shall be attached to any person for the premature opening of a Bid not properly addressed and identified. At the time fixed for the opening of bids, the bids will be made public and posted on the Purchasing Division website at: http://www.leoncountyfl.gov/procurementconnect/. A bidder may request, in their bid submittal, a copy of the tabulation sheet to be mailed in a bidder provided, stamped self-addressed envelope for their record.

Sealed bids, proposals, or replies received by the County pursuant to a competitive solicitation are exempt from public records requirements until such time as the County posts an intended decision or until 30 days after opening of the documents, whichever is earlier.

WITHDRAWAL OF BIDS:

Bids may be withdrawn by written or telegraphic request received from Bidders prior to the time fixed for opening. Negligence on the part of the Bidder in preparing the Bid confers no right for the withdrawal of the bid after it has been opened.

AWARD OF BIDS/BID PROTEST:

The bid will be awarded to the lowest responsive, responsible bidder, unless otherwise stated elsewhere in this document. The County reserves the right to waive any informality in bids and to award a bid in whole or in part when either or both conditions are in the best interest of Leon County.

Notice of the Intended Decision will be posted on the Leon County website at: http://www.leoncountyfl.gov/procurementconnect/ for a period of seventy-two (72) consecutive hours, which does not include weekends or County observed holidays. Failure to file a protest within the time prescribed in Leon County Policy No. 96-1, Purchasing and Minority, Women and Small Business Enterprise Policy, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings. Notice of intent of bid protest shall be made in writing to the Purchasing Director, 1800-3 N. Blair Stone Road, Tallahassee, Florida 32308. The bidder shall be responsible for inquiring as to any and all award recommendation/postings.

Should concerns or discrepancies arise during the bid process, bidders are encouraged to contact the Purchasing Division prior to the scheduled bid opening. Such matters will be addressed and/or remedied prior to a bid opening or award whenever practically possible. Bidders are not to contact departments or divisions regarding the bidder complaint.

PLANHOLDERS

As a convenience to bidders, Leon County has made available via the internet lists of all registered planholders for each bid or request for proposals. The information is available on-line at: http://www.leoncountyfl.gov/procurementconnect/ by simply clicking the planholder link at the bottom of the list of documents for each respective solicitation. A listing of the registered bidders with their telephone and fax numbers is designed to assist bidders in preparation of their responses.

BID GUARANTEE:

Bids shall be accompanied by a 5% bid guarantee which shall be a Bid Bond, Certified or Cashier's Check or Bank Draft (no cash, company, or personal checks will be accepted), made payable to the Board of County Commissioners, Leon County, Florida. Such check, bank draft, or bond shall be submitted with the understanding that the bonds will be held until award of bid.

The County reserves the right to hold the Bid Guarantee until after a contract has been entered into or a purchase order has been executed. The accepted Bidders bid bond will be held until execution of this contract and may be forfeited due to non-performance.

The check or bond shall be submitted with the understanding that it shall guarantee that the Bidder will not withdraw his bid for a period of 90 days after the scheduled closing time for the receipt of bids. It shall also guarantee that the successful bidder will enter into a contract within ten (10) days after he has received notice of acceptance of his bid. In the event of withdrawal of bid, or failure to enter into and fully execute the contract within ten (10) days the contractor may be deemed in to be in default. In such an event, the contractor shall be liable to the County for the full amount of the default.

OCCUPATIONAL LICENSES AND REGISTRATIONS:

The contractor shall be responsible for obtaining and maintaining throughout the contract period any required occupational license and other licenses required pursuant to the laws of Leon County, the City of Tallahassee, or the State of Florida. The bidder shall submit with the bid a copy of the company's local business or occupational license(s) or a written statement on letterhead indicating the reason no license exists.

If the bidder is operating under a fictitious name as defined in Section 865.09, Florida Statutes, proof of current registration with the Florida Secretary of State shall be submitted with the bid. A business formed by an attorney actively licensed to practice law in this state, by a person actively licensed by the Department of Business and Professional Regulation or the Department of Health for the purpose of practicing his or her licensed profession, or by any corporation, partnership, or other commercial entity that is actively organized or registered with the Department of State shall submit a copy of the current licensing from the appropriate agency and/or proof of current active status with the Division of Corporations of the State of Florida or such other state as applicable.

Failure to provide the above required documentation may result in the bid being determined as non-responsive.

UNAUTHORIZED ALIEN(S)

The Contractor agrees that unauthorized aliens shall not be employed nor utilized in the performance of the requirements of this solicitation. The County shall consider the employment or utilization of unauthorized aliens a violation of Section 274A(e) of the Immigration and Naturalization Act (8 U.S.C. 1324a). Such violation shall be cause for unilateral termination of this Agreement by the County. As part of the response to this solicitation, please complete and submit the attached form "AFFIDAVIT CERTIFICATION IMMIGRATION LAWS."

MINORITY and WOMEN BUSINESS ENTERPRISE AND EQUAL OPPORTUNITY POLICIES

- A. Minority Business Enterprise (MBE) and Women (WBE) Business Enterprise Requirements
 - The purpose of the Minority and Women-Owned Business Enterprise (MWBE) Program is to effectively communicate Leon County procurement and contracting opportunities, through

enhanced business relationships, to end disparity and to increase participation opportunities for certified minority and women-owned business enterprises in a competitive environment. This program shall:

- Eliminate any policies and/or procedural barriers that inhibit MBE and WBE participation in our procurement process.
- Established targets designed to increase MBE and WBE utilization proportionate to documented under utilization.
- Provide increased levels of information and assistance available to MBE's and WBEs.
- Implement mechanisms and procedures for monitoring MBE and WBE compliance by prime contractors.
- The term "Certified Minority Women Business Enterprise" (MWBE) is defined as Minority Business Enterprise (MBE) and Women Business Enterprise (WBE) firms certified by Leon County or the City of Tallahassee. Some firms with MBE or WBE certification by the State of Florida may be accepted under a reciprocal agreement but those from other governmental organizations are not accepted by Leon County.
- 3. Each Respondent is strongly encouraged to secure MBE and WBE participation through purchase(s) of those goods or services to be provided by others. Firms responding to this bid are hereby made aware of the County's targets for MBE and WBE utilization. Respondents that require assistance or guidance with these MBE or WBE requirements should contact: Shanea Wilks, Leon County Minority, Women, and Small Business Enterprise Director, by telephone at (850) 606-1650; fax (850) 606-1651 or by e-mail wilkssh@leoncountyfl.gov.

Respondent <u>must complete</u> and submit the attached Minority and Women Business Enterprise Participation Plan form. Failure to submit the completed Minority and Women Business Enterprise Participation Plan form may result in a determination of non-responsiveness for the bid.

If the aspirational target is not met, you must denote your good faith effort on the Participation Plan Form. All respondents, including MBE's, and WBE's shall either meet the aspirational target(s), or if not met, demonstrate in their bid response that a good faith effort was made to meet the aspirational target(s). Failure to complete such good faith effort statement may result in the bid being non-responsive. Below, are policy examples of good faith efforts that respondents can use if they are not meeting the aspirational target. These examples can be used to demonstrate the good faith effort.

- a. Advertised for participation by M/WBEs in non-minority and minority publications within the Market area, including a copy of the advertisement and proof of the date(s) it appeared – or by sending correspondence, no less than ten (10) days prior to the submission deadline, to all M/WBEs referred to the respondent by the MWSBE Division for the goods and services to be subcontracted and/or supplied
- b. Documented that the bidding Prime Contractor provided ample time for potential MBE and/or WBE subcontractors to respond to bid opportunities, including a chart outlining the schedule/time frame used to obtain bids from MBE and WBE Vendors as applicable to the aspirational Target.
- Contacted the MWSBE Division for a listing of available MAWBEs who provide the services needed for the bid or proposal.
- d. Contacted MBEs and/or WBEs who provide the services needed for the bid or proposal.

- Documented follow-up telephone calls with potential M/WBE subcontractors seeking participation.
- f. Allowed potential M/WBE Subcontractors to review bid specifications, blueprints and all other Bid/RFP related items at no charge to the M/WBEs.
- g. Contacted the MWSBE Division, no less than five (5) business days prior to the Bid/RFP deadline, regarding problems the with respondent is having in achieving and/or reaching the aspirational targets.
- Other documentation indicating their Good Faith Efforts to meet the aspirational targets.
 Please provide details below.

For goods and/or services to be performed in this project, the following are the aspirational targets for participation by certified MBE's and/or WBE's.

Construction Sub-Contractor Targets:

Minority Business Enterprise - 17% Woman Business Enterprise - 9%

- Definitions for the above targets follow:
 - a. Minority/Women Business Enterprise (MWBE) a business that is owned and controlled by at least 51% by one or more minority persons or by at least 51% by one or more women, and whose management and daily operations are controlled by one or more such persons shall constitute a Minority/Women business Enterprise. No business owned or controlled by a white female shall be considered a minority business for the purpose of this program if the ownership was brought about by transfer of ownership interest to the woman or women, other than by decent, within two (2) years following the sale or transfer of ownership. For the purpose of this program, all applicants for certification as a bona fide MWBE shall be an independent business entity which provides a commercially useful function. No business owned and controlled by a white male and transferred or sold to a minority or woman/women, for the purpose of participation in the County's MWBE Program, shall be considered eligible for MWBE Certification.
 - Minority Person an individual who is a citizen of the United States or a lawfully admitted permanent resident and who is a(n):
 - African/Black Americans All persons having origins in any of the Black African racial groups not of Hispanic origins and having community identification as such.
 - 2) Hispanic Americans All persons (Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race) reared in a Hispanic environment and whose surname is Hispanic and having community identification as such.
 - 3) Asian American All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands and having community identification as such.
 - 4) American Indians, Alaskan Natives and American Aleuts All persons having origins in any of the original people of North America, maintaining identifiable tribal affiliations through membership and participation and having community identification as such.

c. Women - American Woman

- 6. Prime contractors will negotiate in good faith with interested MWBE's, not rejecting a MWBE as unqualified or unacceptable without sound business reasons based on a through investigation of their capabilities. The basis for rejecting any MWBE deemed unqualified or unacceptable by the Prime Contractor shall be included in the Good Faith Effort documentation. The Prime Contractor shall not impose unrealistic conditions of performance on MWSBE's seeking subcontracting opportunities.
- Leon County reserves the right to request supporting documentation as evidence of good faith
 efforts indicated above at any time. Failure to provide supporting documentation when requested
 shall deem your bid/proposal as non-responsive.

B. Equal Opportunity/Affirmative Action Requirements

The contractors and all subcontractors shall agree to a commitment to the principles and practices of equal opportunity in employment and to comply with the letter and spirit of federal, state, and local laws and regulations prohibiting discrimination based on race, color, religion, national origin, sex, age, handicap, marital status, and political affiliation or belief.

For federally funded projects, in addition to the above, the contractor shall agree to comply with Executive Order 11246, as amended, and to comply with specific affirmative action obligations contained therein.

In addition to completing the Equal Opportunity Statement, the Respondent shall include a copy of any affirmative action or equal opportunity policies in effect at the time of submission.

LOCAL PREFERENCE IN PURCHASING AND CONTRACTING

- Preference in bidding. In purchasing of, or letting of contracts for procurement of, personal property, materials, contractual services, and construction of improvements to real property or existing structures in which pricing is the major consideration, the authorized purchasing authority of Leon County may give a preference to local businesses in making such purchase or awarding such contract, as follows:
 - a) Individuals or firms which have a home office located within Leon, Gadsden, Wakulla, or Jefferson County, and which meet all of the criteria for a local business as set forth in this article, shall be given a preference in the amount of five percent of the bid price.
 - b) Individuals or firms which do not have a home office located within Leon, Gadsden, Wakulla, or Jefferson County, and which meet all of the criteria for a local business as set forth in this article, shall be given a preference in the amount of three percent of the bid price.

The maximum cost differential shall not exceed \$20,000.00. Total bid price shall include the base bid and all alternatives or options to the base bids which are part of the bid and being recommended for award by the appropriate authority.

- Preference in bidding for construction services in projects estimated to exceed \$250,000. Except where otherwise prohibited by federal or state law or other funding source restrictions, in the purchasing of, or letting of contracts for procurement of construction services for improvements to real property or existing structures that are estimated to exceed \$250,000 in value, the County may give preference to local businesses in the following manner:
 - a) Under a competitive bid solicitation, when the lowest responsive and responsible bid is submitted by an individual or firm that is not a local business, then the local business that submitted the lowest responsive and responsible bid shall be offered the opportunity to perform the work at the lowest bid amount, if that local business's bid was not greater than 110% of the lowest responsive and responsible bid amount.

- b) All contractual awards issued in accordance with the provisions of this subsection (paragraph 2) shall contain aspirational trade contractor work targets, based on market and economic factors, of 85 percent as follows: The successful individuals or firms shall agree to engage not less than 85 percent of the dollar value of trade contractor work with local businesses unless the successful individuals or firms prove to the County's satisfaction, that the trade contractor work is not available locally with the Leon, Gadsden, Wakulla or Jefferson County area. The term "trade contractor" shall mean a subcontractor who contracts with the prime contractor and whose primary activity is performing specific activities (e.g., pouring concrete, masonry, site preparation, framing, carpentry, dry wall installation, electrical, plumbing, painting) in a construction project but is not responsible for the entire project.
- Local business definition. For purposes of this section, "local business" shall mean a business which:
 - a) Has had a fixed office or distribution point located in and having a street address within Leon, Gadsden, Wakulla, or Jefferson County for at least six (6) months immediately prior to the issuance of the request for competitive bids or request for proposals by the County; and
 - Holds any business license required by the County, and, if applicable, the City of Tallahassee;
 and
 - Is the principal offeror who is a single offeror; a business which is the prime contractor and not a subcontractor; or a partner or joint venturer submitting an offer in conjunction with other businesses.
- 3. Certification. Any bidder claiming to be a local business as defined, shall so certify in writing to the Purchasing Division. The certification shall provide all necessary information to meet the requirements of above. The Local Vendor Certification Form is enclosed. The purchasing agent shall not be required to verify the accuracy of any such certifications, and shall have the sole discretion to determine if a bidder meets the definition of a "local business."

INSURANCE:

Bidders' attention is directed to the insurance requirements below. Bidders should confer with their respective insurance carriers or brokers to determine in advance of bid submission the availability of insurance certificates and endorsements as prescribed and provided herein. The Insurance Certification Form attached hereto is to be completed and submitted as part of your bid response. If an apparent low bidder fails to comply strictly with the insurance requirements, that bidder may be disqualified from award of the contract.

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's bid.

- Minimum Limits of Insurance. Contractor shall maintain limits no less than:
 - a. General Liability: \$1,000,000 Combined Single Limit for bodily injury and property damage per occurrence with a \$2,000,000 annual aggregate. Completed operations coverage will be provided for a period of three (3) years beyond termination and/or completion of the project. Coverage must include bodily injury and property damage, including Premise/Operations: a per location aggregate, Broad Form Contractual liability; Broad Form Property Damage; Fire Legal liability; Independent Contractors coverage; Cross Liability & Severability of Interest Clauses; and Personal Injury (deleting employee and contractual exclusions), and coverage for explosion, collapse, and underground (X,C,U).
 - Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage. (Non-owned, Hired Car).

c. Workers' Compensation and Employers Liability: Workers' Compensation insurance covering all employees and meeting statutory requirements in compliance with the applicable state and federal laws and Employer's Liability with a limit of \$500,000 per accident, \$500,000 disease policy limit, \$500,000 disease each employee. Walver of Subrogation in lieu of Additional Insured is required.

2. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

- Other Insurance Provisions The policies are to contain, or be endorsed to contain, the following provisions:
 - General Liability and Automobile Liability Coverages (County is to be named as Additional Insured).
 - The County, its officers, officials, employees and volunteers are to be covered as insureds as respects; liability arising out of activities performed by or on behalf of the Contractor, including the insured's general supervision of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protections afforded the County, its officers, officials, employees or volunteers.
 - The Contractor's insurance coverage shall be primary insurance as respects the County, it officers, officials, employees and volunteers. Any insurance of self-insurance maintained by the County, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
 - Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the county, its officers, officials, employees or volunteers.
 - The Contractor's insurance shall apply separately to each insured against whom claims is made or suit is brought, except with respect to the limits of the insurer's liability.

b. All Coverages

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the County.

- Acceptability of Insurers. Insurance is to be placed with insurers with a Best's rating of no less than A:VII.
- Verification of Coverage. Contractor shall furnish the County with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and approved by the County before work commences. The County reserves the right to require complete, certified copies of all required insurance policies at any time. Certificates of Insurance acceptable to the County shall be filed with the County prior to the commencement of the work. These policies described above, and any certificates shall specifically name the County as an additional Insured and shall contain a provision that coverage afforded under the policies will not be canceled until at least thirty (30) days prior to written notice has been given to the

County.

Cancellation clauses for each policy should read as follows: Should any of the above described policies be canceled before the expiration date thereof, the issuing company will mail thirty (30) days written notice to the Certificate Holder named herein.

 Subcontractors. Contractors shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

AGREEMENT:

After the bid award, the County will, at its option, prepare a purchase order or an agreement specifying the terms and conditions resulting from the award of this bid. Every procurement of contractual services shall be evidenced by a written agreement. The bidder will have five calendar days after receipt to acknowledge the purchase order or execute the agreement.

The performance of Leon County of any of its obligations under the purchase order or agreement shall be subject to and contingent upon the availability of funds lawfully expendable for the purposes of the purchase order or agreement for the current and any future periods provided for within the bid specifications.

PUBLIC ENTITY CRIMES STATEMENT:

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list. By submission of a proposal in response to this document, the vendor certifies compliance with the above requirements as stated in Section 287.133, Florida Statutes.

MANUFACTURERS' NAME AND APPROVED EQUIVALENTS:

Manufacturers' names, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not intended to limit competition. The bidder may offer any brand for which he is an authorized representative, which meets or exceeds the specifications for any item(s). If bids are based on equivalent products, indicate on the bid form the manufacturer's name and catalog number. Bidder shall submit with his bid, cuts, sketches, and descriptive literature and/or specifications. The bidder should also explain in detail the reason(s) why and submit proof that the proposed equivalent will meet the specifications and not be considered an exception thereto. The Leon County Board of County Commissioners reserves the right to be the sole judge of what is equal and acceptable. Bids which do not comply with these requirements are subject to rejection. If Bidder fails to name a substitute it will be assumed that he is bidding on, and he will be required to furnish goods identical to bid standard.

IDENTICAL TIE BIDS:

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. Bidder must complete and submit as part of the bid response the attached "IDENTICAL TIE BID" form. Failure to submit a completed form may result in the bid being determined as non-responsive.

ETHICAL BUSINESS PRACTICES

- A. <u>Gratuities.</u> It shall be unethical for any person to offer, give, or agree to give any County employee, or for any County employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or performing in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, subcontract, or to any solicitation or proposal therefor.
- B. <u>Kickbacks.</u> It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.
- C. The Board reserves the right to deny award or immediately suspend any contract resulting from this proposal pending final determination of charges of unethical business practices. At its sole discretion, the Board may deny award or cancel the contract if it determines that unethical business practices were involved.
- II. CONTRACT PROVISIONS

PAYMENT AND PERFORMANCE BOND

A Payment and Performance Bond in the amount of 100% of the estimated project cost shall be supplied by the Contractor at the time of Agreement execution. Also, a Payment and Material Bond for the Agreement amount shall be supplied by the Contractor at the same time.

Payment and Performance and Material Bonds shall provide that, in the event of non-performance on the part of the Contractor the bond can be presented for honor and acceptance at an authorized representative or institution located in Tallahassee, Florida. The Payment and Performance Bond shall be in the following form:

PUBLIC CONSTRUCTION BOND Bond No.(enter bond number)

BY THIS BOND, We	, as Principal and		
a corporation, as Surety, are bound to	, herein called Owner, in the sum of \$		for
payment of which we bind ourselves, our he	irs, personal representatives, successors, and assigns,	jointly	and
severally.		44	

THE CONDITION OF THIS BOND is that if Principal:

- Performs the contract dated , between Principal and Owner for construction of , the contract being made a party of this bond by reference, at the time and in the manner prescribed in the contract; and
- Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
- 3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
- Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED on this the

day of

, 2013.

(Name of Principal)

By:

(As Attorney-In-Fact)

(Name of Surety)

Payment bonds executed as a result of the requirements herein by a surety shall make reference to Section 255.05, Florida Statutes, by number and shall contain reference to the notice and time limitation provisions in Section 255.05, Florida Statutes.

TIME AND LIQUIDATED DAMAGES

The work to be performed under this contract shall be commenced within fifteen (15) days of the Notice to Proceed. All work to be performed under this Contract shall be completed within two hundred eighty (280) consecutive calendar days of the Notice to Proceed. If the work to be performed under this Contract is not completed within the time set forth above, or within such extra time as may be granted by the County, the Contractor shall be deemed to be in default. For each day the Contractor is in default, the Contractor or its Surety shall pay to the County, not as a penalty, but as liquidated damages, an amount based on the bid price and according to Section 8-10 of the FDOT's Standard Specifications for Road and Bridge Construction, 2010 Edition.

Permitting the Contractor to continue and finish the work or any part of it after the expiration of the contract time allowed, including extensions, if any, shall in no way act as a waiver on the part of County of the liquidated damages due under the contract.

EMPLOYMENT ELIGIBILITY VERIFICATION

- 1. Contractor agrees that it will enroll and participate in the federal E-Verify Program for Employment Verification under the terms provided in the "Memorandum of Understanding" governing the program. Contractor further agrees to provide to the County, within thirty days of the effective date of this contract/amendment/extension, documentation of such enrollment in the form of a copy of the E-Verify "'Edit Company Profile' screen", which contains proof of enrollment in the E-Verify Program (this page can be accessed from the "Edit Company Profile" link on the left navigation menu of the E-Verify employer's homepage).
- 2. Contractor further agrees that it will require each subcontractor that performs work under this contract to enroll and participate in the E-Verify Program within sixty days of the effective date of this contract/amendment/extension or within sixty days of the effective date of the contract between the Contractor and the subcontractor, whichever is later. The Contractor shall obtain from the subcontractor(s) a copy of the "Edit Company Profile" screen indicating enrollment in the E-Verify Program and make such record(s) available to the Agency upon request.
- 3. Contractor will utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of: (a) all persons employed during the term of the Agreement by Contractor to perform employment duties within Florida; and (b) all persons (including subcontractors) assigned by Contractor to perform work pursuant to the Agreement.
 - a. Contractor must use E-Verify to initiate verification of employment eligibility for all persons employed during the term of the Agreement by Contractor to perform employment duties within Florida within 3 business days after the date of hire.

- b. Contractor must initiate verification of each person (including subcontractors) assigned by Contractor to perform work pursuant to the Agreement within 60 calendar days after the date of execution of this contract or within 30 days after assignment to perform work pursuant to the Agreement, whichever is later.
- 4. Contractor further agrees to maintain records of its participation and compliance with the provisions of the E-Verify program, including participation by its subcontractors as provided above, and to make such records available to the County or other authorized state entity consistent with the terms of the Memorandum of Understanding.
- Compliance with the terms of this <u>Employment Eligibility Verification</u> provision is made an express condition of this contract and the County may treat a failure to comply as a material breach of the contract.

PAYMENTS TO THE GENERAL CONTRACTOR

Payments to the Contractor shall be made according to the requirements of the Local Government Prompt Payment Act, sections 218.70 - 218.79, Florida Statutes.

STATUS

The Contractor shall at all times, relevant to this contract, be an independent contractor and in no event shall the Contractor, nor any employees or sub-contractors under it, be considered to be employees of Leon County.

AUDITS, RECORDS, AND RECORDS RETENTION

The Contractor agrees:

- To establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting procedures and practices, which sufficiently and properly reflect all revenues and expenditures of funds provided by the County under this contract.
- 2. To retain all client records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to this contract for a period of five (5) years after termination of the contract, or if an audit has been initiated and audit findings have not been resolved at the end of five (5) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of this contract.
- Upon completion or termination of the contract and at the request of the County, the Contractor will
 cooperate with the County to facilitate the duplication and transfer of any said records or documents
 during the required retention period as specified in paragraph 1& 2 above.
- To assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, state, or other personnel duly authorized by the County.
- Persons duly authorized by the County and Federal auditors, pursuant to 45 CFR, Part 92.36(I)(10), shall
 have full access to and the right to examine any of provider's contract and related records and
 documents, regardless of the form in which kept, at all reasonable times for as long as records are
 retained.
- To include these aforementioned audit and record keeping requirements in all approved subcontracts and assignments.

MONITORING

To permit persons duly authorized by the County to inspect any records, papers, documents, facilities, goods, and services of the provider which are relevant to this contract, and interview any clients and employees of the provider to assure the County of satisfactory performance of the terms and conditions of this contract.

Following such evaluation, the County will deliver to the provider a written report of its findings and will include written recommendations with regard to the provider's performance of the terms and conditions of this contract. The provider will correct all noted deficiencies identified by the County within the specified period of time set forth in the recommendations. The provider's failure to correct noted deficiencies may, at the sole and exclusive discretion of the County, result in any one or any combination of the following: (1) the provider being deemed in breach or default of this contract; (2) the withholding of payments to the provider by the County; and (3) the termination of this contract for cause.

RIGHT TO INSPECT PLANT

The County may, at its discretion, inspect the part of the plant or place of business of a contractor or any subcontractor which is related to the performance of any contract awarded, or to be awarded, by Leon County. The right expressed herein shall be included in all contracts or subcontracts that involve the performance of any work or service involving Leon County.

TERMINATION

The County may terminate this Agreement without cause, by giving the Contractor thirty (30) days written notice of termination. Either party may terminate this Agreement for cause by giving the other party hereto thirty (30) days written notice of termination. The County shall not be required to give Contractor such thirty (30) day written notice if, in the opinion of the County, the Contractor is unable to perform its obligations hereunder, or if thin the County's opinion, the services being provided are not satisfactory. In such case, the County may immediately terminate the Agreement by mailing a notice of termination to the Contractor.

This Agreement may be terminated by the County if the Contractor is found to have submitted a false certification as required under section 215.471 (5), Florida Statutes, been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or been engaged in business operations in Cuba or Syria.

WARRANTIES:

Bidder will warrant title to all goods sold as provided for in Section 672, Florida Statutes.

WORK

Contractor understands that no amount of work is guaranteed to it nor is the County under an obligation to utilize the services of the Contractor in those instances where the work to be performed can be done by County personnel or under separate contract. Any work to be performed shall be upon the written request of the County Administrator or his representative, which request shall set forth the commencing date of such work and the time within which such work shall be completed.

PERMITS

The Contractor shall pay for and obtain all necessary permits as required by law not specifically identified by Leon County.

CONFLICTING TERMS AND CONDITIONS

In the instance that terms, conditions, specifications, or other instruments are provided by architects, engineers, or persons other than County Procurement concerning the matters herein, then the terms and conditions in this Solicitation document shall prevail over all other terms and conditions.

ASSIGNMENT

This contract shall not be assigned or sublet as a whole or in part without the written consent of the County, nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the County.

INDEMNIFICATION

The Contractor agrees to indemnify and hold harmless the County, its officials, officers and employees, from and against any and all liabilities, damages, losses and costs, including, but not limited to reasonable attorneys fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of this agreement.

The County may, at its sole option, defend itself or required the Contractor to provide the defense. The Contractor acknowledges that the sum of ten dollars (\$10.00) of the amount paid to the Contractor constitutes sufficient consideration for the Countractor's indemnification of the County, its officials, officers and employees.

It is understood that the Contractors responsibility to indemnify and defend the County, it officials, officers and employees is limited to the Contractors proportionate share of liability caused by the negligent acts or omissions of the Contractor, its delegates, agents or employees.

PENALTIES:

BIDS MAY BE REJECTED AND/OR Bidder(S) DISQUALIFIED FOR THE FOLLOWING REASONS:

- Consistent failure to respond to bid invitation for three (3) consecutive instances.
- Failure to update the information on file including address, product, service or business descriptions.
- Failure to perform according to contract provisions.
- 4. Conviction in a court of law of any criminal offense in connection with the conduct of business.
- Clear and convincing evidence of a violation of any federal or state anti-trust law based on the submission of bids or proposals, or the awarding of contracts.
- Clear and convincing evidence that the bidder has attempted to give a Board employee a gratuity of any kind for the purpose of influencing a recommendation or decision in connection with any part of the Board's purchasing activity.
- Other reasons deemed appropriate by the Board of County Commissioners.

TECHNICAL SPECIFICATIONS

SUMMARY OF WORK

The proposed Lake Heritage Dam Improvements project is located in Section 8, Township 1 South, Range 2 East, in Leon County, Florida.

The Scope of the work: to be performed includes demolition and removal of existing control structure, removal of the discharge pipe and water main, construction of concrete spillway/weir and handrails, construction of a dewatering system, reclamation of disturbed areas, and all work called out on the construction plans and in the bid documents.

2. GENERAL REQUIREMENTS

The construction sequence and design notes are shown on the construction plans. The construction procedure, materials, equipment&, and the technical specifications listed herein, shall be in accordance with the following specifications and contract documents:

- Special Provisions of the Technical Specifications.
- 2.2 Lake Heritage Dam Improvements Project Manual
- Leon County Supplemental Specifications to Florida Department of Transportation's (FDOT) Standard Specifications for Road and Bridge Construction, 2010 Edition.
- 2.4 Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, 2010 Edition and all supplemental documents thereto.
- 2.5 FOOT Roadway and Traffic Design Standards, 2010 Edition.
- 2.6 Manual on Uniform Traffic Control Devices (MUTCD), U.S. Department of Transportation Federal Highway Administration, Latest Edition.

In the event of any conflict between the specifications, this contract shall be governed in the above specifications order.

MANDATORY PREBID CONFERENCE

Contractors are required to attend the pre-bid conference and the subsequent on-site meeting to be qualified for bidding.

SPECIAL PROVISIONS

- 4.1 An allowance of <u>280</u> calendar days has been set for completion of this project, including utility coordination. CONSTRUCTION SEQUENCE is provided on construction plans for reference.
- 4.2 The primary contractor shall be prequalified by FDOT in the Drainage, Grading, or Concrete Work Class. All materials used for this project shall be on the FDOT's Approved Product List or from a plant certified by a program accepted by FDOT when applicable.
- 4.3 Contractor shall conduct a pre-construction meeting, inviting all involved regulatory agencies and utilities. Contractor shall not start work until all permits have been received and the "Notice to Proceed" from Leon County has been issued. The Contractor shall post all applicable permits and provide advanced notice flyers to adjacent property owners before construction. Contractor shall deliver the construction schedule to the County for review and approval prior to the pre-construction meeting.
- 4.4 A National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities may apply to this Contract. It is Contractor's responsibility to secure the NPDES permit prior to commencement of construction. A copy of the NPDES permit application form can be obtained through the Florida Department of Environmental Protection's (FDEP) web site at: httl://www.dep.state.fl.us/water/stormwater/npdes/permits forms.htm. A copy of the permit shall be provided to the Leon County Public Works Department
- 4.5 The liquidated damages will be set based on the bid price and according to Section 8-10 of the FOOT's Standard Specifications for Road and Bridge Construction, 2010 Edition.
- 4.6 It is Contractor's responsibility to verify the survey control points for construction stakeouts. Before the final walkthrough, Contractor shall provide the as-built survey to Project Owner for the construction record. The costs for construction stakeouts and as-built survey are considered incidental and included in

the total contract price.

- 4.7 The exact location of all utilities in the vicinity of construction activities shall be determined by Contractor prior to construction. Contractor shall contact all utility companies through Sunshine State One Call of Florida, Inc. (1-800-432-4770) two business days in advance of beginning construction.
- 4.8 Working hours shall be from 8:30a.m. to 4:30p.m., Monday through Friday, however, upon the request of Contractor, County Engineer or his/her designee, may consider an alternative to these working hours based on the time of the year, site, weather, and traffic conditions.
- 4.9 Contractor is required to provide one year warranty to cover the materials and craftsmanship for the constructed facilities after the County's final acceptance.
- 4.10 Leon County shall reserve the right to sample any or all materials to determine whether or not materials meet the required specifications. Failure to meet specifications shall be cause for cancellation of delivery and rejection of materials provided for partial or full payment as determined by the County representative.
- 4.11 Contractor shall submit the maintenance of traffic (MOT) plan to Leon County for approval and coordinate with the Leon County Chief of Construction Management to implement the plan. The Contractor shall maintain access to all existing streets and private entrances throughout project construction. MOT shall use traffic control devices listed in the Manual for Uniform Traffic Control Devices and follow FOOT Roadway Standard Indices.
- 4.12 Contractor shall furnish, erect, and maintain all necessary barricades, warning, and detour signs with suitable and adequate lights while providing flagmen where necessary to reduce traffic, and take all other precautions to protect the workers and the public. If a street closing is required, a detour routing shall be developed of and receive approval from the County Engineer or his/her designee.
- 4.13 Obstructions and barricades shall be lighted at night and such lights shall be steady burning from sunset to sunrise. All such signage and traffic control within the limits of the project shall be done in accordance with the County Engineer or his/her designee, applicable OSHA regulations and MUTCD, Part 6.
- 4.14 Contractor shall remove all equipment from the roadway and the shoulder during nonworking hours to ensure the least practicable interference with traffic and pedestrians.
- 4.15 Contractor shall verify and clearly mark all property lines and easement limits prior to construction in the project area. Any public or private property damaged outside the project limits by construction activities shall be restored / repaired at the Contractor's expense. Prior to construction commencement, Contractor shall take pictures and video tape the existing conditions of adjacent properties for the record to prevent future disputes. Provide the County Representative a copy of the pictures and videos for record.
- 4.16 Any monument within the limits of construction is to be protected. If in danger of damage, Contractor shall notify the Engineer of Record and the County Representative.
- 4.17 It is the Contractor's responsibility to establish a staging area with County Engineer's review and approval prior to commencement of construction. Contractor is required to obtain a temporary construction staging area permit from Leon County Development Support and Environmental Management Department if the staging area is outside the County easements, right-of-way, or properties. Contractor is also responsible to obtain necessary permits ifrequired by any other agencies.
- 4.18 Proposed drainage structures and pipes shown in the plans and profiles shall be constructed to the layout, elevations, and grades as shown in the plans and profiles. Modifications to the proposed layout or elevations shall be approved by the Engineer of Record.
- 4.19 No night work shall be performed.

- 4.20 Contractor is required to conduct the as-built survey and submit it to Engineer of Record for final acceptance and produce the post-construction certificate.
- 4.21 Additional Specifications:
- (a) To maintain the riprap shape as designed on Sheet CD-2, wet grout shall be Used to fill voids between the rocks.
- (b) Pay Item 10 New Chain Link Fence and Gate shall have black vinyl coating.
- (c) Pay Items 12(a) and 12(b) require Centipede for the grass type. Watering is Contractor's responsibility to provide the required warranty. Contractor is responsible to maintain the grass establishment during the one year warranty period.
- ATIACHMENTS

The following permits are provided for Contractor to comply with construction related permit Requirements:

Attachment #1 NWFWMD Permit No. 1629

Attachment#2 Leon County Permit LEM 14-00040

Attachment #3 Army Corps of Engineers Nationwide Permit No. SAJ-2014-01963

BID CHECKLIST:

	nit the items on the following list and any other items required by any section of this invitation for bids.
	it is provided as a courtesy and may not be inclusive of all items required within this invitation for bids.
Com	npleted Bid Response Sheet with Manual Signature
Affid	lavit Immigration Laws
Mino	ority/Women Business Enterprise Participation Plan/Good Faith Statement
Iden	itical Tie Bid Statement
Insu	rance Certification Form
Con	tractor's Business Information Form
Non	Collusion Affidavit
Cert	ification/Debarment Form
App	licable Licenses/Registrations

BID RESPONSE SHEET

		Section District
		Shelly W. Kelley
		Purchasing Director
		Mary Ann Lindley
		Chairman
This proposal is sul	omitted by the below named fir	m/individual by the undersigned authorized representative.
	1-	
		(Firm Name)
	BY	
		(Authorized Representative)
	-	(Printed or Typed Name)
	ADDRESS	
	1 J. W	
	EMAIL ADDRESS	
	TELEPHONE	
	FAX	
ADDENDA ACKNO	OWLEDGMENTS: (IF APPLIC	CABLE)

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Addendum #2 dated _____ Initials

Addendum #3 dated ______ Initials

BASE BID TOTAL FROM UNIT PRICE SHEET:

Bid Title: Lake Heritage Dam Improvements Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM



BID RESPONSE SHEET

The Board of County Commissioners, Leon County, reserves the right to accept or reject any and/or all bids in the best interest of Leon County.

> Shelly W. Kelley - Purchasing Director

> > Mary Ann Lindley

is proposal is subm	itled by the below name	d firm/individual by the undersigned authorized represe
		Aller's Excaration Inc.
	BY	(Authorized Representative)
		Allen Weldon (Printed or Typed Name)
	ADDRESS	6403 Woodwilk Hwy
		Talkhassee FL 32305
	EMAIL ADDRESS	nhall allens exceptmal.com
	TELEPHONE	850-421-6872
	FAX	850 - 421- 2391
	/LEDGMENTS: (IF API	
Addendum #1 dated	NH Initials	
Addendum #2 daled	MHInitials	
Addendum #3 dated	Initials	

BASE BID TOTAL FROM UNIT PRICE SHEET:\$ 685 /132.00 SIX HUNDRED EIGHTY FIVE TXDUSTUD ONE HUNDRED THIRTY TWO DOLLARS AND NO CENTS

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

AFFIDAVIT CERTIFICATION IMMIGRATION LAWS

Leon County will not intentionally award County contracts to any contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324 A(e) (Section 274a(e) of the Immigration and Nationality Act ("INA").

Leon County may consider the employment by any Contractor of Unauthorized Aliens a violation of Section 274A(e) of the INA. Such violation by the Recipient of the employment provision contained in Section 274A(e) of the INA shall be ground for unitateral cancellation of the contract by Leon County.

BIDDER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

Company Name: Allen's Exce	avation lac.
Signature: Ollo Welse	Tille: PRESIDENT
STATE OF FUNIOA COUNTY OF LESS	
Sworn to and subscribed before me this 28	1h day of <u>Apr. 11</u> , 2015.
Personally known	NOTARY PUBLIC
OR Produced identification	Notary Public - State of
(Type of identification)	My commission expires: REBECCA R. WHITE Commission # EE 077341 Expires May 8, 2015 Bonded Thru Troy Fein Insurance 800-385-7019
	Printed, typed, or stamped commissioned name of notary

The signee of this Affidavit guarantees, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made.

LEON COUNTY RESERVES THE RIGHT TO REQUEST SUPPORTING DOCUMENTATION,

RECEIVED

2014 APR 28 PH 1: 19

PURCHASING DIVISION LEON COUNTY

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

MINORITY AND WOMEN BUSINESS ENTERPRISE (MWBE) PARTICIPATION PLAN FORM

Respondent:	ALLENS	EXCAVATION	1 ×	
Troubolitability		545 CA 1 661 1300 C	1.1.4	

All respondents, including Minority Business Enterprises (MBEs) and Women Business Enterprises (WBEs), shall complete and submit this M/WBE Participation Plan with their proposal. Through submission of its bid/proposal, Respondent certifies, acknowledges and agrees that the Participation Level and the Good Faith Efforts herein designated are accurate and true; and, that the individual whose manual signature is on this submission is duly authorized on behalf of the respondent to make such certification.

For the purposes of MWBE participation on Leon County projects, the following definition applies:

"Certified Minority Business Enterprise (MBE) and Women Business Enterprise (WBE)" are firms certified by Leon County or the City of Tallahassee. Some firms with MBE or WBE certification by the State of Florida may be accepted under a reciprocal agreement but, those from other governmental organizations are not accepted by Leon County"

DIRECTIONS: Each respondent must designate in Section 3 its level of MWBE participation. If the aspirational targets are not met or exceeded, Section 2 must be completed. All Respondents are to list subcontractors as appropriate in Sections 3 and 4.

SECTION 1 - ASPIRATIONAL TARGET FOR MANBE PARTICIPATION

The aspirational target for this project is:

Aspirational Target for Construction

M/WBE Classification	Aspirational Target(s)
Certified Minority Business Enterprises (MBE)	17% of the total anticipated contract value
Certified Women Business Enterprises (WBE)	9% of the total anticipated contract value

SECTION 2 - GOOD FAITH EFFORT

The following list of the good faith efforts criteria complies with Leon County's Purchasing and Minority, Women, and Small Business Enterprise Policy. This criteria is used in the determination of whether a contractor has performed and documented good faith efforts. Also, the basis for rejecting a MWBE deemed unqualified or unacceptable by the Prime Contractor shall be documented and included in the respondent's Good Faith Effort documentation.

- 1. Please identify <u>all</u> of the following activities that your firm has done as Good Faith Effort in order to secure MVVBE participation and submit documentation of such. Failure to designate those actions you have done as "Good Faith" and provide documentation of <u>all</u> Good Faith Efforts completed by your firm may result in your proposal being determined as non-responsive. Please check the appropriate boxes that apply to your good faith activities:
 - a. Advertised for participation by MWBEs in non-minority and minority publications within the Market area, including a copy of the advertisement and proof of the date(s) it appeared - or by sending correspondence, no less than ten (10) days prior to the submission deadline, to all MWBEs referred to the respondent by the MWSBE Division for the goods and services to be subcontracted and/or supplied
 - b. Documented that the bidding Prime Contractor provided ample time for potential MBE and/or WBE subcontractors to respond to bid opportunities, including a chart outlining the schedule/time frame used to obtain bids from MBE and WBE Vendors as applicable to the

Bid Title: Lake Heritage Dam Improvements Bid No: BC-04-28-15-25 Opening Date: April 28, 2015 at 2:00 PM aspirational Target. Contacted the MWSBE Division for a listing of available MWBEs who provide the services needed for the bid or proposal. O d. Contacted MBEs and/or WBEs who provide the services needed for the bid or proposal. 13° Documented follow-up telephone calls with potential M/WBE subcontractors seeking e. participation. Allowed potential M/WBE Subcontractors to review bid specifications, blueprints and all other 13 f. Bid/RFP related Items at no charge to the M/WBEs. Contacted the MWSBE Division, no less than five (5) business days prior to the Bid/RFP deadline, regarding problems the with respondent is having in achieving and/or reaching the aspirational targets. Other documentation indicating their Good Faith Efforts to meet the aspirational largets. Please provide details below.

- 2. Prime contractors will negotiate in good faith with interested MWSBE's, not rejecting a MWSBE as unqualified or unacceptable without sound business reasons based on a through investigation of their capabilities. The basis for rejecting any MWBE deemed unqualified or unacceptable by the Prime Contractor shall be included in the Good Faith Effort documentation. The Prime Contractor shall not impose unrealistic conditions of performance on MWSBE's seeking subcontracting opportunities.
- Leon County reserves the right to request supporting documentation as evidence of good faith efforts indicated above at any time. Failure to provide supporting documentation when requested shall deem your bid/proposal as non-responsive.

PARTICIPATION PLAN FORM continued on following pages.

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

SECTION 3 - RESPONDENT'S PROPOSED MWBE PARTICIPATION

Respondent shall complete the following Table identifying each certified MWBE firm they intend to use on this project. Attach additional sheets as necessary.

	- fi	ABE and WBE Int	ended Utilizati	on	
Firm's Name (Requires Leon County or City of Tallahassee MVVBE certification) ¹	Firm's Location Address (Must be in Leon, Gadsden, Jefferson or Wakulla Counties, FL to be certified)	Firm's Telephone Number	Ethnic Group ² (B, A, H, N, F)	Total Dollar Amount of MWBE Participation	Type of Service to Provide
Minority and Women Busin	ness Enterprise(s)				
a. MURE BASS CONSULTING INC	805 N. GADSOCH ST. TALLAHASSEC FL 32303	222-5678	W	\$9,300.00	SUZVEY/LAYOUT/ASBUILT
b. METAL FREALLATION !-	3600-0 WEEMS RO. THURHASSEE FL 31317	205-2300	W	\$18,905.00	FABRICATE VINSTALL RAILINGS
C. BANKERMAN CANDSCAPE	2931 KERRY FOREST DIENY FAMAJASSEE FL 32309	524-4444	W	133,457.00	EMOSIUN CONTROLL SUDISEED MULLA
d. ALL PRO ASPINAT E CONSTRUOTION	141 WEBSTER RD. CRANFORDINE FL 32327	241-2876	B	\$116,473.00	CONCRETE INSTILL /ASPIMILT
е.					
f,					
Total Bid Amount \$ 685	132,00	Total MVVBE Pa	I rticipation \$ /	78,135,W	MBE Participation % 17,0% WBE Participation % 9,0% (MBE or WBE Participation \$ 178,135,00) Total Bid \$) 685,132,00

¹Certification Attach and submit a copy of each MBE and WBE certification with the proposal.

²Ethnic Group Use following abbreviations for MBE's: African American (B); Asian American (A); Hispanic American (H); and Native American (N). WBEs include Non-Minority Female (F) owned firms.

Bid Title: Lake Heritage Dam Improvements Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

SECTION 4 - NON-MWBE SUBCONTRACTORS

Respondent shall complete the following Table identifying non-MBE or WBE's subcontractors it anticipates utilizing on the project.

Firm's Name	Firm's Address	Firm's Phone	Total Dollar Amount	Type of Service to Provide
a. RBM CONTRACTING SCRUCES, LLC	BEACA FL 32459	850 - 622 ·	\$72,117.W	SIKET PILING INSTALLATION
b.				
c.				
d.				
е.				
f.				
g.				
h.				
i.				

Bid No: BC-04-28-15-25

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EQUAL OPPORTUNITY/AFFIRMATIVE ACTION STATEMENT

- The contractors and all subcontractors hereby agree to a commitment to the principles and practices of equal
 opportunity in employment and to comply with the letter and spirit of federal, state, and local laws and regulations
 prohibiting discrimination based on race, color, religion, national region, sex, age, handicap, marital status, and
 political affiliation or belief.
- The contractor agrees to comply with Executive Order 11246, as amended, and to comply with specific affirmative action obligations contained therein.

Signed: alle Weller

Tille: President

Firm: ALLEN'S EXCAVATION INC.

Address: 6403 WODOVILLE NIGHTAY TAKLANASSEE FL 32305

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

IDENTICAL TIE BIDS

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use
 of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against
 employees for violations of such prohibition.
- Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drugfree workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employees will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilly or noto contenders to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
- Impose a sanction on, or require the satisfactory participation in a drug assistance or rehabilitation program if such
 is available in the employee's community, by any employee who is so convicted.
- Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person	on authorized to sign the statement, I certify the following:
(Check one	and sign in the space provided.)
	This firm complies fully with the above requirements.
	This firm does not have a drug free work place program at this time.
Of Bidder's Sig	Der Welden
	esident
Title	or.1 28, 2015
Date	

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

CONTRACTOR'S BUSINESS INFORMATION

COMPANY INFORMATION

ME: ALLEN'S EXCAVATION INC.	
Street Address: 6403 WOODVILLE BIGA	WAY
City, State, Zip: TRUANASSEE FL 323	305
Taxpayer ID Number: 59 - 258 4971	
Telephone: 850-421-6872	Fax: 850-421- 2391
Trade Style Name	

TYPE OF BUSINESS ORGANIZATION (check one)

Sole Proprietorship	Limited Liability Company
General Partnership	Joint Venture
Limited Partnership	Trust
Corporation	Other (specify)
Sub-chapter S Corporation	

AUTHORIZED SIGNATORIES/NEGO FIATORS

The Bidder represents that the following persons are authorized to sign and/or negotiate contracts and related documents to which the bidder will be duly bound:

Name	Title	Telephone	E-Mail
ALLEN HELDON	PARSIOEST	421-6872	
HEATH WELOOD	SECTIMEASUMEN	421-6872	
NEW MILLOW	30777073090		

FLORIDA CONSTRUCTION INDUSTRIES LICENSING BOARD

Please provide the following information for all licenses required by Florida statutes of the Prime Contractor for the performance of the work in this project

Primary Licensee	GREGORY HEATH WELDER
License Type	MADERBROUND LITHLY & EXCANATION

License Number:		
CUC	1224114 Expirati	on Dale: AUGUST 31,2016
Qualified Business License (ce	ertificate of authority) number:	
Alternate Licensee		
License Type		
License Number:	Expiral	ion Dale:
Bidder may use additional shee	els to provide information for all applicable lic	censes and shall provide copies of each license as a part of the bid
IST COMPANIES FROM WH	OM YOU OBTAIN SURETY BONDS	
Surety Company 1		
Company Name	MENCHANTS BOND,	Sto CompANY
Contact's Name	CHIP CAMPBELL	4
Telephone		
Fax		
Address	1-888-378-1376 3373-B CAPITAZ CINCLE NE TALLAHASSEE FL 32308	
Surety Company 2		
Company Name		
Contact's Name		
Telephone		
Fax		
Address		
Present Amount of Bonding Coverage (\$):	Has your application for surety bond evideclined?	er been During the past 2 years, have you been charged with a failure to meet the claims of your subcontractors or suppliers?
75M.	□ Yes XNo	□ Yes × No
		ation on (If yes, please provided detailed information on reverse)

Bid No: BC-04-28-15-25

2.

Opening Date: April 28, 2015 at 2:00 PM

NON-COLLUSION AFFIDAVIT

The undersigned being first duly sworn as provided by law, deposes and says:

The undersigned is authorized to make this Affidavit on behalf of.

Commission # EE 077341 Expires May 8, 2015

- This Affidavit is made with the knowledge and intent that it is to be filed with the Board of County Commissioners, Leon County, Florida and that it will be relied upon by said County, in any consideration which may give to and any action it may take with respect to this Proposal.
- (Name of Corporation, Partnership, Individual, etc.) (Type of Business), formed under the laws of FLOWDA
 (State of which he/she is ____ PMC510Coll (Sole Owner, partner, president, etc.) 3. Neither the undersigned nor any other person, firm or corporation named in above Paragraph 2, nor anyone else to the knowledge of the undersigned, have themselves solicited or employed anyone else to solicit favorable action for this Proposal by the County, also that no head of any department or employee therein, or any officer of Leon County, Florida is directly interested therein. This Proposal is genuine and not collusive or a sham; the person, firm or corporation named above in Paragraph 2 has not colluded, conspired, connived or agreed directly or indirectly with any bidder or person, firm or corporation, to put in a sham Proposal, or that such other person, firm or corporation, shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person, firm or corporation, to fix the prices of said proposal or proposals of any other bidder; and all statements contained in the proposal or proposals described above are true; and further, neither the undersigned, nor the person, firm or corporation named above in Paragraph 3, has directly or indirectly submitted said proposal or the contents thereof, or divulged information or data relative thereto, to any association or to any member or agent TAKEN, SWORN AND SUBSCRIBED TO BEFORE ME this 28 to Day of April ,20/3 Or Produced Identification Personally Known Type of Identification NOTARY PUBLIC (Print, Type or Stamp Commissioned Name of Notary Public) REBECCAR, WHITE

My Commission Expires: ___

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

INSURANCE CERTIFICATION FORM

To indicate that Bidder/Respondent understands and is able to comply with the required insurance, as stated in the bid/RFP document, Bidder/Respondent shall submit this insurances sign-off form, signed by the company Risk Manager or authorized manager with risk authority.

	rating of no less than A	EVII?	
	YES DNO)	
	Commercial General Llability:	Indicate Best Rating: Indicate Best Financial Classification:	A
	Business Auto:	Indicate Best Rating: Indicate Best Financial Classification:	XI
i.	Is the insurer to be used YES	Ο Α	isted by Best with a rating of no less than A:VII?
	If answer is NO, provid	de name and address of insurer:	
		- 3	
2.	Is the Respondent a agreement?		g limits (next page) as required for the services
nsu A.M	rance will be placed will Best ratings of no less	th Florida admitted Insurers unless other than A:VII unless otherwise accepted by L	wise accepted by Leon County. Insurers will have eon County.
Rec	uired Coverage and Lim	ils	
The	required types and limit sure to carefully review er levels.	s of coverage for this bid/request for prop and ascertain that bidder/proposer eithe	posals are contained within the solicitation package or has coverage or will place coverage at these or

Bid Title: Lake Heritage Dam Improvements Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

Required Policy Endorsements and Documentation

Certificate of Insurance will be provided evidencing placement of each insurance policy responding to requirements of the contract.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers, or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Endorsements to insurance policies will be provided as follows:

Additional insured (Leon County, Florida, its Officers, employees and volunteers) - General Liability & Automobile Liability

Primary and not contributing coverage-General Liability & Automobile Liability

Waiver of Subrogation (Leon County, Florida, its officers, employees and volunteers)- General Liability, Automobile Liability, Workers' Compensation and Employer's Liability

Thirty days advance written notice of cancellation to County - General Liability, Automobile Liability, Worker's Compensation & Employer's Liability.

Please mark the appropriate box:

Coverage is in place

Coverage will be placed, without exception □

The undersigned declares under penalty of perjury that all of the above insurer information is true and correct.

Name	Lynda Turner	Signature Lynda Turnar	
	Typed or Printed		
Date	4/14/2015	Title Agent	
		(Company Risk Manager or Manager with Risk Authority)	

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, And OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

- 1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b) Have not within a three-year period preceding this been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or tocal) with commission of any of these offenses enumerated in paragraph (1)(b) of this certification; and
 - d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- No subcontract will be issued for this project to any party which is debarred or suspended from eligibility to receive federally funded contracts.

Signature	Men alelden
O.g. a.a.	PRESIDENT
Title	
	ALLENS EXCAPATION INC.
Contractor	
	6403 LONGVILLE IDIENNAY TAKANDRESEE FL 32305
Address	

Bid Title: Lake Heritage Dam Improvements

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

CERTIFICATION OF TRADES WORK

This bid has an aspirational trade contractor work target of 85 percent of the dollar value of trade contractor work with local businesses unless the bidder provides proof to the County's satisfaction, that the trade contractor work is not available locally with the Leon, Gadsden, Wakulla or Jefferson County area.

The following definitions shall apply for purposes of this section:

- a. "Local business" shall mean a business which has had a fixed office or distribution point located in and having a street address within Leon, Gadsden, Wakulla, or Jefferson County for at least six (6) months immediately prior to the issuance of the request for competitive bids or request for proposals by the County.
- b. The term "trade contractor" shall mean a subcontractor who contracts with the prime contractor and whose primary activity is performing specific activities (e.g., pouring concrete, masonry, site preparation, framing, carpentry, dry wall installation, electrical, plumbing, painting) in a construction project but is not responsible for the entire project.

The successful contractor, at the time of development of the project schedule of values, shall provide a listing of the trade contractor work to be performed. As the project progresses, the names of the trade contractors performing the work and the dollar value and percentage participation of each shall be provided in a manner to be prescribed by the County.

The Bidder shall complete the following section designating the commitment to trade contractor participation for this project. If the aspirational target of 85 percent of the dollar value of trade contractor work cannot be met, the Bidder shall provide such information necessary to establish that the work is not available from local trade contractors.

6	Bidder agrees to engage not less than 85 percent of the dollar value of trade contractor work with loopusinesses.	cal

Bidder agrees to engage not less than _____ percent of the dollar value of trade contractor work with local businesses and has explained why the aspirational target cannot be met.

The undersigned is an authorized signatory for the bidder and understands that the commitment made herein shall be a contractual provision of the project for the successful contractor and, further, that if bidder is the successful contractor all prescribed reporting will be done in an accurate and timely manner.

BY

Color Weller

(Authorized Representative)

ALLEY MELON PRESIDENT

(Printed or Typed Name)

DATE

APRIL 28, 1015

Bid Title: Lake Heritage Dam Improvements

Bid No: BC-04-28-15-25

Opening Date: April 28, 2015 at 2:00 PM

LOCAL VENDOR CERTIFICATION

The undersigned, as a duly authorized representative of the vendor listed herein, certifies to the best of his/her knowledge and belief, that the vendor meets the definition of a "Local Business." For purposes of this section, "local business" shall mean a business which:

a) Has had a fixed office or distribution point located in and having a street address within Leon, Gadsden, Wakulla, or Jefferson

- Has had a fixed office or distribution point located in and having a street address within Leon, Gadsden, Wakulla, or Jefferson County for at least six (6) months immediately prior to the issuance of the request for competitive bids or request for proposals by the County; and
- Holds any business license required by Leon County (or one of the other local counties), and, if applicable, the City of Tallahassee; and
- Is the principal offeror who is a single offeror; a business which is the prime contractor and not a subcontractor; or a partner or
 joint venturer submitting an offer in conjunction with other businesses.

Please complete the following in support of the self-certification and submit copies of your County and City business licenses. Failure to provide the information requested will result in denial of certification as a local business.

Business Name: ACLEN'S EXCAVATION INC		
Current Local Address: 6403 140001121E HILBI		Phone: 421-6872
TALLANASSEE FL 32305		Phone: 421-6872 Fax: 421-2391
f the above address has been for less than six months, plea	se provide the prior address.	
Length of time at this address:		
Home Office Address:		Phone:
		Fax:
STATE OF COUNTY OF The foregoing instrument was acknowledged before me this By ALEA WELDOA (Name of officer or agent, title of officer or agent) a Corporation, on beha (State or place of incorporation) or has produced	(Name of c	
Return Completed form with supporting	Sign	ature of Notary
documents to:		Slamp Name of Notary
Leon County Purchasing Division 1800-3 N. Blair Stone Road Tallahassee, Florida 32308		itle or Rank
REBECCA R. WHITE Commission # EE 077341 Expires May 8, 2015 Borded Thru Troy Faio Insurance 500-365-71		Number, if Any

LEON COUNTY PURCHASING DIVISION BID TABULATION SHEET BC-04-28-15-25

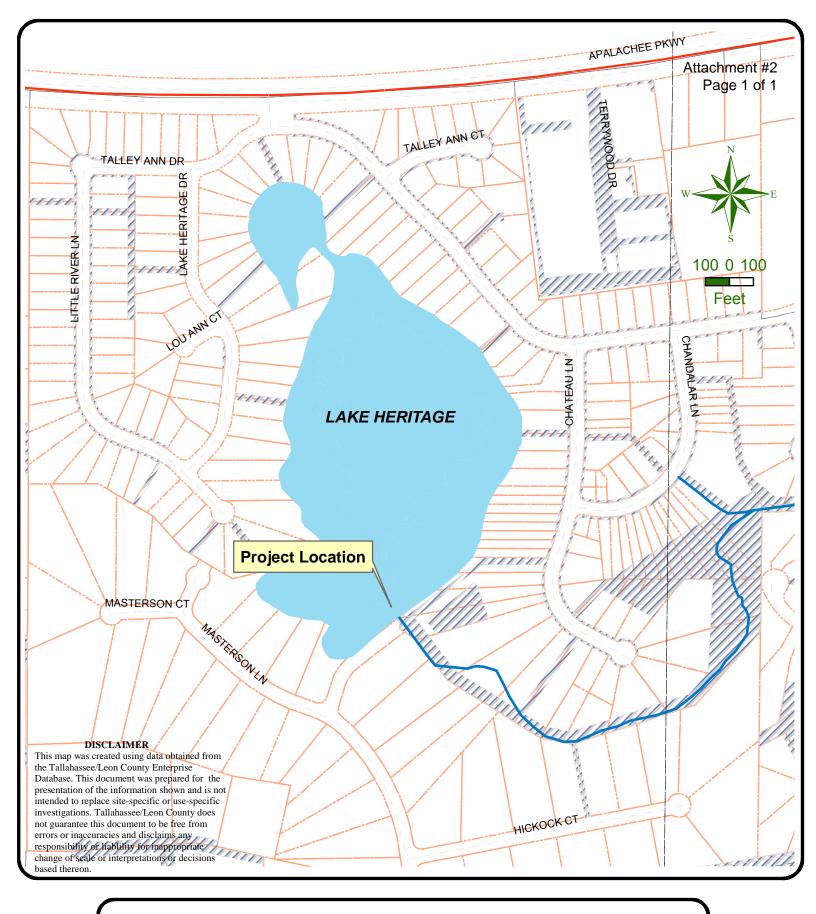
Bid Title: Lake Heritage Dam Improvements

Opening Date: Tuesday, April 28, 2015 at 2:00 PM

item/Vendor	Talcan Gray, LLC	Allen's Excavation	
Manual Signature	Υ ' '	Y	
Affidavit of Immigration	У	У	
MWSBE	Ý	У	4
Tie Bid	Y	У	
Contractor's Business Info	Y	Ý	
Non Collusion	Y	Y	
Insurance	Y	Ý	
Certificate Debarment	7	Ý	
Certificate of Trades	1	Y	
Base Bid:	M	\$685,132.00	
No Bid:			

Tabulated By:

Page 507 of 683



Lake Heritage Dam Improvements Location Map

Leon County Public Works
Posted at 3:30 p.m. on June 1, 20

LEON COUNTY PURCHASING DIVISION BID TABULATION SHEET

BC-04-28-15-25

Bid Title: Lake Heritage Dam Improvements

Opening Date: Tuesday, April 28, 2015 at 2:00 PM

Item/Vendor	Talcan Gray, LLC	Allen's Excavation	
Manual Signature	Y	Y	
Affidavit of Immigration	У	Ý	
MWSBE	Ý	Y	
Tie Bid	Y	Y	
Contractor's Business Info	Y	Y	
Non Collusion	Y	Y	
Insurance	Y	Ý	
Certificate Debarment	7	Ý	
Certificate of Trades	4	Y	
Base Bid:	W	\$685,132.00	
No Bid:			

Tabulated By:

LAKE HERITAGE DAM IMPROVEMENTS PROJECT PROJECT NO. 2015-

TTEM	DEGCRIPATON	OVI A DEPENDE		ALCOTTO
NO.	DESCRIPTION	QUANTITY	7.0	AMOUNT
PORTY SEVE ONE HUNOR TWENT	Mobilization; the lump sum price of thouses dollars and zero dollars and zero cents (\$47,125.00).	1	LS	\$ 47,125,00
1h SEXENTEEN TH WUNDAED FIL	Site Preparation; the lump sum price of dollars and ZECO cents (\$17,60.00).	1	LS	\$ 17.680.40
1c That'ys). Nudoteo n	Temporary Erosion and Sediment Control; the lump sum price of dollars and ZERD cents (\$36,693.0).	1	LS	\$36,693.00
1d	Clearing, Grubbing, and Tree Removal; the lump sum price of FIRE NUMBER TO PO dollars and ZERO cents (\$29,500-to).	OD NEMOID	LS	\$29,500,00
2 SIXENT HUMONEO	Excavation; the lump sum price of dollars and <u>Eco</u> dollars and <u>Eco</u> cents (\$ 16,25.00).	1	LS	\$ 16,250.00
/	Excavation and Backfill of Unsuitable Materials; the unit price of Y FIGHT dollars and CENTY FIVE cents (\$48,75) per cubic yard.	350 \$48.75	CY	\$ 17,060,50
da	Demolition and Removal of Existing Spillway Valve and Pipe; the lump sum price of OF THOSALO dollars and Cents (\$ 1,150 00).	1	LS	\$ 1,000 00
Ab THINES	Demolition and Removal of Existing Water Line; the lump sum price of Minores Theory Fire dollars and 2 Euro cents (\$ 325.00).	i	LS	\$ 325.00
.5	Concrete Spillway Weir; the lump sum price of dollars and 2ERD cents (\$ 196,560,00).	1	LS	\$ 196, 540.00
X.	PIVE HUMDRED SIXTY	3		ec., 1

6021-84063 100% For Construction 00300-3

March 2015

TTEM	Carlo di la carica ta d			10 10 11 11
NO.		QUANTITY		AMOUNT
6	Spillway Guardrail; the lump sum price of Twenty Four Thankful dollars and cents (\$ 24,700.00).	1	LS	\$ 24,700.w
5				* 11 1170
7	Backfill Spillway Excavation; the lump sum price of Exchanges sery dollars and cents (\$ 16,478.07).	1	LS	\$16,478.00
8	Backfill and Grading Dam; the lump sum price of Elett Thousand fall and dollars and ZEAO cents (\$ \$ 450.00).	i	LS	\$8,450.00
			OW F	\$ 8,807,50
9a ONE HUSOME	Riprap Bedding Stone; the unit price of THATY FIVE dollars and FIFTY cents (\$ 135.50) per cubic yard	65 135.50	CY	\$ 0,30 1130
96	Riprap; the unit price of DAE NONATED SIXT dollars and ZERD cents	170 /63,00	CY	\$ 27,710,00
	(\$_163,00) per cubic yard.			
90	Underdrain System; the lump sum price of ONE THOUSHAM the lump sum price of ENERLOPES WINDOWS (\$ 1,550.00).	1	LS	\$ 1,560.00
10	New Chain Link Fence and Gate; the unit price of The Cry and dollars and ZEAD cents (\$ 39.00) per linear foot.	35 \$39.00	LF	\$ 1,365.00
11a	Furnish, Install, Maintain, and Remove Temporary Stream Diversion and Bypass	1	LS	\$ 180,836.0
lbaty Tabusano s Tablaty SIX	Pumping; the lump sum price of JE NUMAR dollars and ZERO cents (\$ 180,834.00).	160		
11ь	Furnish, Install, Maintain, and Remove/Abandon Dewatering System; the lump sum price of THRTY N.JE THO dollars and ZERO cents	1 ISANO	LS	\$ 39,000.00

© 2015 CDM Smith All Rights Reserved Attachment #4 Page 3 of 3

ITEM NO.	DESCRIPTION	QUANTITY		AMOUNT'
12a	Reclamation of Disturbed Areas Sod; the unit price of Fully dollars and ZERO cents (\$ 4.00) per square yard.	810 4,00	SY	\$ 3,240.00
12b	Reclamation of Disturbed Areas Seed; the unit price of ZEAD dollars and SIXTY FIVE cents (\$ 0.65) per square yard.	6,600 .65	SY	\$4,200.00
13	Miscellaneous Work and Clean-up; the lump sum price of FINE HIGHER dollars and ZERO cents (\$6,500 in).	1	LS	\$ 6,500.00

TOTAL BASE BID (TEMS I THROUGH 13)

In Words: \$ SIX HUNDRED EIGHTY FIXE THOUSAND ON E HUNDRED THURTYTIN DOLLARS AND NOCESTS.

In Figures: \$ 685,132.00

6021-84063 100% For Construction 00300-5

March 2015

BOARD OF COUNTY COMMISSIONERS

Inter-Office Memorandum

Date: May 1, 2015

To: George Su, Senior Design Engineer

Engineering Division

Department of Public Works

From: Shanea Y. Wilks, Director

Minority, Women, & Small Business Enterprise (MWSBE) Division

Office of Economic Vitality

Subject: M/WBE Analysis for the Lake Heritage Dam Improvements (BC-04-28-15-25)

The Minority, Women, & Small Business Enterprise (MWSBE) Division reviewed the MWBE Participation Plans for two (2) firms to determine if the 17% MBE and 9% WBE Aspirational Targets for Construction Subcontracting were achieved for the Lake Heritage Dam Improvements Project.

The submitted MWBE Participation Plans for each bidder are as follows:

Allen's Excavation, Inc. met the M/WBE Aspirational Target for Construction Subcontracting; therefore, the Good Faith Effort Form is not required. The MWBE firms listed below are the firms **Allen's Excavation, Inc.** intends to utilize on this project.

Total Bid Amount	\$685,132				
Name of M/WBE	Race/Gender	Certifying Agency	Goods & Services	M/WBE Dollars	M/WBE Utilization
Moore Bass Consulting, Inc.	Non-Minority Female	City of Tallahassee	Survey/Layout/As Built	\$9,300	1.4%
Metal Fabrication & Sales of Tallahassee, LLC	Non-Minority Female	Leon County	Fabricate & Install Railings	\$18,905	2.8%
Banner Landscape, LLC	Non-Minority Female	City of Tallahassee	Erosion Control/Sod/Seed & Mulch	\$33,457	4.9%
All Pro Asphalt & Construction	African American Male	Leon County	Concrete Work & Asphalt Repair	\$116,473	17%
		_			_
Total M/WBE Dollars				\$178	,135
Total M/WBE Utilization Percentage				26.1	1%

Talcon Group, LLC did not meet the MWBE Aspirational Target for Construction Subcontracting. **Talcon Group, LLC** was missing information within their Bid Response, and was therefore deemed "Unresponsive" on the Bid Submission Due Date.

Leon County Board of County Commissioners

Notes for Agenda Item #11

Leon County Board of County Commissioners

Cover Sheet for Agenda #11

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Consideration of Full Board Appointments to the Architectural Review Board

Council on Culture & Arts

County Administrator Review and Approval:	Vincent S. Long, County Administrator	
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator	
Lead Staff/ Project Team:	Christine Coble, Agenda Coordinator	

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Appoint Ronald McCoy to the Architectural Review Board in the owner of

property zoned Historical Preservation category for a term of three years.

Option #2: Make one appointment in the Volunteer category to the Council on

Culture & Arts for a term of four years.

Option #3: Make one appointment in the Marketing category to the Council on

Culture & Arts for a term of four years.

Option #4: Reappoint John Lawrence in the Historical/Heritage category to the Council on

Culture & Arts for a term of four years.

Title: Consideration of Full Board Appointments to the Architectural Review Board and Council on Culture & Arts

June 9, 2015

Page 2

Report and Discussion

Background:

This agenda requests full Board appointments to the Architectural Review Board and Council on Culture & Arts.

Analysis:

Architectural Review Board (ARB)

<u>Purpose</u> The responsibility of ARB is to review and make recommendations on the listing of properties on the Local Register Historic Places; protect the character of property in the Historic Preservation Overlay (HPO) designation; and, on behalf of City and County, administers federal Certified Local Government program for historic preservation. (Attachment #1).

<u>Composition:</u> Members serve three-year terms, expiring June 30. According to ARB Bylaws, members may not serve more than two consecutive terms. The Board has four citizen appointments - two owners of property zoned HPO, one member of American Institute of Architects (AIA), and one member representing Tallahassee Trust for Historic Preservation (TTHP).

<u>Vacancy</u>: The County-appointed position of "Owner of Property zoned HPO" held by Valerie Jean Connor expires June 30, 2015. Ms. Connor is not eligible for reappointment. An application has been received from Ronald McCoy (Attachment #2), who is eligible to serve.

Table 1: Architectural Review Board

Term Expiration	Applicant	Recommended Action
Valerie Jean Connor (no longer eligible)	Ronald McCoy	Full Board to make appointment.

Council on Culture & Arts (COCA)

<u>Purpose:</u> The responsibility of COCA is to coordinate and disseminate information regarding cultural events and opportunities (Attachment #3).

<u>Composition:</u> COCA has 17 members – eight citizen appointees by the Board, seven citizen appointments by the City, one City Commissioner, and one County Commissioner. Members serve four-year terms, expiring Sepember 30. The County has one appointment from the following categories: Business, Heritage, Marketing, Practicing Artist, Tourism, Volunteer, and two At-Large members. No Council member may serve more than two full terms.

<u>Vacancy:</u> Three County-appointed positions - Mike Vasilinda (Marketing category), Anne Mackenzie (Volunteer category), and John Lawrence (Heritage category) - will expire September 2015. Mr. Vasilinda and Ms. Mackenzie are not eligible for reappointment. COCA is required to forward/recommend three names for each vacancy. The COCA Nominating Committee has forwarded a letter with the names recommended in each category (Attachment #4). The six related applications are attached (Attachments #5 - #10). Mr. Lawrence is interested in reappointment and is eligible (Attachment #11).

Title: Consideration of Full Board Appointments to the Architectural Review Board and Council on Culture & Arts

June 9, 2015

Page 3

Table 2: Council on Culture and Arts

Vacancy	Applicant	Recommended Action
Mike Vasilinda (Marketing) (no longer eligible)	Lucia Fishburne Jillian Fry Susan VanHoeij	Full Board to make one appointment.
Anne Mackenzie (At-Large) (no longer eligible)	Barbara Goldstein William "Rick" Minor Adriene Wright	Full Board to make one appointment.
John Lawrence (Historical/Heritage)	John Lawrence	Full Board to make reappointment.

Options:

- 1. Appoint Ronald McCoy to the Architectural Review Board in the owner of property zoned Historical Preservation category for a term of three years.
- 2. Make one appointment in the Marketing category to the Council on Culture & Arts for a term of four years.
- 3. Make one appointment in the Volunteer category to the Council on Culture & Arts for a term of four years.
- 4. Reappoint John Lawrence in the Historical/Heritage category to the Council on Culture & Arts for a term of four years.
- 5. Board direction.

Recommendation:

Options #1, #2, #3, and #4.

Attachments:

- 1. Eligibility & Criteria Architectural Review Board
- 2. Application Ronald McCoy
- 3. Eligibility & Criteria Council on Culture & Arts
- 4. Letter from COCA regarding Marketing and Volunteer appointments
- 5. Application Lucia Fishburne
- 6. Application Jillian Fry
- 7. Application Susan VanHoeij
- 8. Application Barbara Goldstein
- 9. Application Rick Minor
- 10. Application Adrienne Bryant Wright
- 11. Letter from COCA regarding reappointment

Architectural Review Board

Responsibility:

- 1. Reviews and makes recommendations on the listing of properties on the Local Register Historic Places;
- 2. Reviews changes, except for routine maintenance, to the exterior of properties zoned HPO, and issues or denies Certificates of Appropriateness;
- 3. When necessary to protect the character of property in the HPO, grants variances in accordance with the provisions stipulated in the applicable City or County ordinance; and
- 4. Administers federal Certified Local Government program for historic preservation, on behalf of City and County. (Source: Bylaws adopted by BCC on 6/24/94.)
- 5. Directs appeals of its decisions to the Planning Commission, which hears appeals and makes recommendations to the County Commission.

Created By:

Ch. 266.116 F.S., 1981 - Leon County Code Sec 10-853 (pg CD 10:162) Sec. 8.6, Ch. 27 - City Code

Bylaws approved 6/28/94; ordinance amendments approved 8/9/94 and 10/28/97

Appointments:

10 members:

- 4 appointed by BCC
- 4 appointed by City
- 1 Planning Commission (Chairman or his designee)
- 1 Planning Department Director

As of 11/97, the Tallahassee Trust for Historic Preservation, Inc. (TTHP) (formerly Historic Preservation Board) is comprised of the sitting members of the HPB as of May 1997 when the Articles of Incorporation were approved. The TTHP may appoint up to 12 additional members. It will make recommendations to the Board for appointment to the ARB from its membership. City and County Commissions each select one TTHP member for appointment to the ARB.

Terms:

Three years; Terms expire June 30

Number of terms allowed: 2 full consecutive (except Planning Commission chairman and Planning Department Director); Vacancies are filled for the remainder of an unexpired term.

Eligibility Criteria:

Eligibility Criteria:

- 4 owners of property zoned HPO (City and County each appoints two)
- 2 members of American Institute of Architects (City and County each appoints one)
- 2 members of Tallahassee Trust for Historic Preservation, Inc. (City and County each appoints one) Chairman of the Planning Commission, or designee Director of the Planning Department

Schedule:

Noon, first Wednesday of every month (unless no items are scheduled for the agenda.

Type of Report:

Reports are required by the Federal Certified Local Government (CLG) program. Provides annual report to City and County, to be submitted in Nov. of each year for the previous fiscal year.

Contact Person/Staff:

Contact Information:

Melissa Stoller Executive Director Tallahassee Trust for Historic Preservation, Inc 423 East Virginia Street Tallahassee, FL 32301 Ph. 488-7334 FAX 488-7333

Email: Melissataltrust@comcast.net

Members:

Conner, Valerie	Begin Term:	Original Date: 6/9/2009	Category: Owner of property zoned
Jean Not eligible	7/10/2012 End Term: 6/30/2015 Type: three years	Appointed by: Board of County Commissioners	historical Preservation Email: <u>jeaniemak@aol.com</u>
Hammond, Rhonda Hammond Design	Begin Term: 5/26/2015	Original Date: 5/26/2015	Category: Representing AIA (Architect)
Group	End Term: 6/30/2018 Type: three years	Appointed by: Board of County Commissioners	Email: rhonda@hdg-architects.com
Crawford, Elizabeth,	beth, Begin Term: 5/26/2015 End Term: 6/30/2018 Type: Reappointment	Original Date: 9/24/2013	Category: Tallahassee Trust for Historic Preservation
		Appointed by: Board of County Commissioners	Representative Email: betsy.crawford@cci.fsu.edu
Gaske, Frederick	Begin Term: 5/28/2013 End Term: 6/30/2016 Type: three years	Original Date: 5/28/2013	Category: Owner of property zoned historical Preservation
		Appointed by: Board of County Commissioners	Email: fgaske@hotmail.com

ADVISORY COMMITTEE APPLICATION FOR BOARD APPOINTMENT

It is the applicant's responsibility to keep this information current.

To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at Coblec@leoncountyfl.gov

Applications will be discarded if no appointment is made after two years.



Name: Ronald Ma Cay	Date: 5-15-15
Home Phone: 467-314-4978 Work Phone: 856-644-3646 Email: famukappa 770	
Occupation: Accounting Manager Employer: Florida State Univers	
Please check box for preferred mailing address. 9 Work Address: City/State/Zip:	9
9 Home Address (Required to determine County residency) 3217 wheatley Rd City/State/Zip: Tallakassee FL 32305	
Do you live in Leon County? 9\(\) 9 No If yes, do you live within the City limits? 9\(\) Do you own property in Leon County? 9\(\) 9 No If yes, is it located within the City limits?	
Are you currently serving on a County Advisory Committee? 9Yes 9No If Yes, on what Committee(s) are you a member? Have you served on any previous Leon County committees? If Yes, on what Committee(s) have you served? A califectual Review 3 or	sar & 10-14 yrs ag
Are you interested in serving on any specific Committee(s)? If yes, please indicate your present Choice: Architectual Review Board 2nd Choice:	
If not interested in any specific Committee(s), are you interested in a specific subject methose areas in which you are interested:	atter? If yes, please note
If you are appointed to a Committee, you are expected to attend regular meetings. How many days per month would you be willing to commit for Committee work? 919 2 And for how many months would you be willing to commit that amount of time? 92 9 3 What time of day would be best for you to attend Committee meetings? 9 Day 9 Night	
(OPTIONAL) Leon County strives to meet its goals, and those contained in various maintaining a membership in its Advisory Committees that reflects the diversity of the corportional for Applicant, the following information is needed to meet reporting requirements a Race: 9 Caucasian 9 African American 9 Hispanic 9 Asian	mmunity. Although strictly and attain those goals. 9 Other
Sex: 9 Male 9 Female Age: 67 Disabled? 9 District 9 District 2 9 District 3 9 District 4 9 District 5 9	Yes (No)

on this Application. Please attach your resume, if one is available. I previously served on the AFB. As a historic pro I have Keen interest in the preservation of historic in Tallahassee.	e; any of your profi re effective in Leon e of the Committee in perty owner rice properti	County;
References (you must provide at least one personal reference who is not a family member):		
Name: John Crutch-field Telephone: 850-766-5	858	
Address: Florida State University Tallahassee, th 32:	306	
Name: Dr. Perry crowell Telephone: 850-591-9	817	
Address: Florida State University Tallahassee, FL 32	306	
	NT ACTION BY THE ASSIST YOU IN ANS ENTATION PUBL	BOARD WERING
www.leoncountyfl.gov/bcc/committees/training.asp BEFORE YOUR APPLICATION IS DEEM		CATION
	9 Yes	(No
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if application will you be receiving any compensation that is expected to influence your vote, action, or p	able? 9(Yes)	~
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if application will you be receiving any compensation that is expected to influence your vote, action, or property or a Committee? 9 Yes 9 No If yes, from whom? Do you anticipate that you would be a stakeholder with regard to your participation on a Co-Do you know of any circumstances that would result in you having to abstain from voting or	able? 9 Yes articipation	9 No
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if application will you be receiving any compensation that is expected to influence your vote, action, or property on a Committee? 9 Yes 9 No 1f yes, from whom? Do you anticipate that you would be a stakeholder with regard to your participation on a Co Do you know of any circumstances that would result in you having to abstain from voting of conflicts? 9 Yes 9 No 1f yes, please explain. Do you or your employer, or your spouse or child or their employers, do business with Leon	able? 9 (es) articipation mmittee? 9 Yes n a Committee due t	9 No
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if application will you be receiving any compensation that is expected to influence your vote, action, or por a Committee? 9 Yes No If yes, from whom? Do you anticipate that you would be a stakeholder with regard to your participation on a Co Do you know of any circumstances that would result in you having to abstain from voting o conflicts? 9 Yes No If yes, please explain.	able? 9 (es) articipation mmittee? 9 Yes n a Committee due to n County? 9 Yes	9 No 9 No o voting
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if application will you be receiving any compensation that is expected to influence your vote, action, or property on a Committee? 9 Yes	able? 9 Yes articipation mmittee? 9 Yes n a Committee due to n County? 9 Yes te a continuing or fro 9 Yes	9 No 9 No o voting

Council on Culture & Arts

Responsibility:

Coordinates and disseminates information regarding cultural events and opportunities.

Created By:

1985 - Section 265.32, Florida Statutes; County/City Resolution 1985 - City/County Interlocal Agreement

Appointments:

15 members;

8 - BCC

7 - City

- 1 County Commissioner, voting ex-officio
- 2 City Commissioner, voting ex-officio

Terms:

4 year terms. Terms expire September 30. No council member who serves two full terms shall be reappointed to the Council during the 2-year period following expiration of his or her term. Anyone appointed to fill an unexpired term is eligible for reappointment for two full, 4-year terms, and is then subject to the eligibility criteria at the conclusion of their second full term.

Eligibility Criteria:

One appointment from each of the following categories:

At-Large

At-Large

Business

Heritage

Marketing

Practicing Artist

Tourism

Volunteer

Schedule

Generally meets every other month at COCA's offices from 4:00-5:30 pm.

Contact Person/Staff:

Audra Pittman, Executive Director 816 S. Martin Luther King Jr. Boulevard Tallahassee, FL 32301

Office: 224-2500

Fax: 224-2515

Email: <u>audra@cocanet.org</u>

Members:

Mackenzie, Anne	Begin Term: 11/11/2011 End Term: 9/30/2015 Type: four years	Original Date: 1/10/2006 Appointed by: BOCC	Category: Volunteer Email: anne@cocanet.org
Lawrence, John	Begin Term: 11/8/2011	Original Date: 12/8/2009	Category: History/Heritage Email: john@cocanet.org
	End Term: 9/30/2015 Type: four years	Appointed by:	
Vasilinda, Mike Mike Vasilinda Productions, Inc.	Begin Term: 11/8/2011 End Term:	Original Date: 10/24/2006	Category: Marketing and public relations Email: mike@cocanet.org
roddetions, me.	9/30/2015 Type: four years	Appointed by: BOCC	Email: mike@cocanet.org
Wood, Rosanne	Begin Term: 12/11/2012 End Term:	Original Date: 12/11/2012	Category: At-Large Email: rosannewood@gmail.com
	9/30/2016 Type: four years	Appointed by: BOCC	
Hogge, Stephen	Begin Term: 9/15/2013 End Term:	Original Date: 11/8/2011	Category: At Large Email: stephen@cocanet.org
	9/30/2017 Type: four years	Appointed by: BOCC	
LaCivita, Beth	aCivita, Beth Begin Term: 2/11/2014 End Term:		Category: Tourism Email: historybooking@toursintallahassee.com
	12/31/2017 Type: four years	Appointed by: BOCC	
Davant, Claudia Begin Term: 5/26/2015 End Term:		Original Date: 5/26/2015	Category: At-Large Email: claudia@adamsstadvocates.com
	9/30/2018 Type: four years	Appointed by: BOCC	
Ritchie, Louise Begin Term: 3/10/2015 End Term:		Original Date: 3/10/2015	Category: Practicing Artist Email: louiseritchie@aol.com
	9/30/2018 Type: four years	Appointed by: BOCC	
Lindley, Mary Ann Board of County Commissioners	Begin Term: 1/1/2015 End Term:	Original Date: 1/1/2015	Category: BOCC Rep Email: lindleym@leoncountyfl.gov
33	12/31/2018 Type: four years	Appointed by: BOCC	



May 18, 2015

Commissioner Mary Ann Lindley Office of the County Commission 301 S. Monroe Street, 5th Floor Tallahassee, FL 32301

Dear Commissioner Lindley,

Two County-appointed positions on the Council on Culture & Arts Board of Directors will become vacant in September 2015 when the terms of Anne Mackenzie and Mike Vasilinda end.

COCA is required to put forth three names to the County Commission for each vacancy. As recommended by COCA's Executive Committee, approved unanimously by COCA's Board of Directors, and in accordance with our organization's bylaws, the Board submits the following individuals for your consideration. Careful thought was given to the skills and influence these new appointees will need to compliment the current membership of the Board, as well as the demographic composition of the board as a whole.

Marketing (currently filled by Mike Vasilinda)

Susan Van Hoeij, VP Proposal Manager, Bank of America Jillian Fry, Graphic Designer, Rowland Publishing Inc. Lucia Fishburne, Communications Consultant/Adjunct Instructor and Program Administrator, FSU

Volunteer (currently filled by Anne Mackenzie)

Audra Attman

William "Rick" Minor, Consultant, City of Tallahassee Adrienne Bryant Wright, Managing Principal/President, Abelita LLC Barbara Goldstein, President, Holocaust Education Resource Council

We look forward to hearing from you soon regarding the Commission's actions. And, as always, feel free to contact us if you have any questions.

cultural@Ragerfall.throf 683

www.coconet.org

Sincerely,

Dr. Audra Pittman **Executive Director**

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobleC@leoncountyfl.gov
Applications will be discarded if no appointment is made after two years.



Date: 4/28/15 Email: Ifishburne@comcast.net ork Address:
ork Address:
sidency)
d property in Leon County? 40 years
mmittee? <u>X No</u>
nmittees? X No
ve experience in more than one field, please
ected to attend regular meetings. commit for Committee work? 1 2 to 3 <u>X 4 or</u> commit that amount of time? 2 3 to 5 <u>X 6 or</u> committee meetings? <u>X Day X Night</u>
is, and those contained in various federal artisory Committees that reflects the diversity dicant, the following information is needed. Asian Other Disabled? Yes X No District 4 9 District 5 X
on on or

"People Focused, Performance Driven."

In the space below briefly describe or list the following: any previous experience on other Committees; your educational background; your skills and experience you could contribute to a Committee; any of your professional licenses and/or designations and indicate how long you have held them and whether they are effective in Leon County; any charitable or community activities in which you participate; and reasons for your choice of the Committee indicated on this Application. Please attach your resume, if one is available.

- Extensive experience on boards, councils, etc. (see resume)
- MS in Marketing Communications, FSU
- Held several state-level positions with marketing and public relations responsibilities within the economic and workforce development arena (see resume)
- Accredited in Public Relations (APR national accreditation)
- I'm interested in serving on the COCA board so that I can contribute to the growth and expansion
 of the creative industries and talent in our county. Coupled with our outstanding natural assets, a
 robust cultural community will help increase tourism, attract and retain a talented and skilled
 workforce and help market the area as a viable location for businesses.

References (you must provide at least one personal reference who is not a family member):

Name: Dale Brill

Telephone:

850-766-0143

Address: 941 Carlton Drive; Tallahassee, FL 32301

Name: Del Suggs

Telephone: 850-980-1737

Address:

2300 Cypress Cove Drive; Tallahassee, FL 32310

IMPORTANT LEGAL REQUIREMENTS FOR ADVISORY COMMITTEE MEMBERSHIP AS A MEMBER OF AN ADVISORY COMMITTEE, YOU WILL BE OBLIGATED TO FOLLOW ANY APPLICABLE LAWS REGARDING GOVERNMENT-IN-THE-SUNSHINE, CODE OF ETHICS FOR PUBLIC OFFICERS, AND PUBLIC RECORDS DISCLOSURE. THE CONSEQUENCES OF VIOLATING THESE APPLICABLE LAWS INCLUDE CRIMINAL PENALTIES, CIVIL FINES, AND THE VOIDING OF ANY COMMITTEE ACTION AND OF ANY SUBSEQUENT ACTION BY THE BOARD OF COUNTY COMMISSIONERS. IN ORDER TO BE FAMILIAR WITH THESE LAWS AND TO ASSIST YOU IN ANSWERING THE FOLLOWING QUESTIONS, YOU MUST COMPLETE THE ORIENTATION AT WWW.leoncountyfl.gov/bcc/committees/training.asp BEFORE YOUR APPLICATION IS DEEMED COMPLETE.

Have you completed the Orientation?

X Yes No

Are you willing to complete a financial disclosure form and/or a background check, if applicable?

Will you be receiving any compensation that is expected to influence your vote, action, or participation on a Committee? Yes X No If yes, from whom?

Do you anticipate that you would be a stakeholder with regard to your participation on a Committee? Yes X No

Do you know of any circumstances that would result in you having to abstain from voting on a Committee due to voting conflicts? Yes X No If yes, please explain.

Do you or your employer, or your spouse or child or their employers, do business with Leon County? Yes X No If yes, please explain.

Do you have any employment or contractual relationship with Leon County that would create a continuing or frequently recurring conflict with regard to your participation on a Committee? Yes XNo If yes, please explain.

All statements and information provided in this application are true to the best of my knowledge.

Signature: hum fr

Please return Application

LUCIA M. FISHBURNE

7645 Tanya Ct. Tallahassee, FL 32317 850.544.9506 Ifishburne@comcast.net

EDUCATION/CREDENTIALS

Florida State University, Tallahassee, FL

- Ph.D. Candidate (ABD), Communication Research and Theory, Florida State University 1995
- 人 M.S., Marketing Communication and Information Technology 1993
- A B.S., Psychology (Criminology minor) 1976

Public Relations Society of America (PRSA) - Universal Accreditation Board

APR (Accredited in Public Relations) - 2005

ORGANIZATIONAL, BOARD, AND OTHER ACTIVITIES

- Film Florida Board of Directors, Member and Chair, Education Council, June 2014 current
- → Wakulla Springs State Park, Wildlife Survey Volunteer, Feb. 2013 current
- FSU Communicators' Network, Member, June 2012 current
- Digital Graffiti, Alys Beach, FL, Judge, 2008 current (annual event)
- VISIT Florida Board of Directors, Member, 2009 2011
- Florida Public Relations Association (FPRA), Capital Chapter, Board Member, Prof. Development Committee Chair, Networking Committee Chair, 2006 - 2008
- Florida Film & Entertainment Advisory Council (FFEAC), Member, 2000 2008

PROFESSIONAL EXPERIENCE

Communications Consultant, Tallahassee, FL

February 2013 - current

Florida State University, Tallahassee, FL

Executive Director, Florida Book Awards Adjunct Instructor, School of Communication

May 2014 - current August 2012 - current

Visiting Research Associate, School of Communication February 2012 - current Program Consultant, Office of Intellectual Property Development

& Commercialization

July 2012 - April 2013

Florida Governor's Office of Film & Entertainment

February 2008 - December 2011

Tallahassee, FL

Director/State Film Commissioner

- Planned and directed both external and internal public relations and marketing communications strategies, including advertising, traditional and social media campaigns
- Handled media inquiries and public information requests, provided media interviews, presentations, speeches; participated on panels at industry and educational events
- Served on the Governor's leadership team and as a liaison between principals and leaders in the film and entertainment industry within and outside of the state
- Served as the Governor's spokesperson on stakeholder councils, task forces, boards. committees, associations and to the legislature
- Planned and managed \$1 million operating budget; negotiated and managed contracts
- Administered \$254 million economic development incentive program

- A Conducted research and prepared annual reports, performance reports, white papers
- Developed, in conjunction with industry input, recommendations regarding policies and strategies for growing Florida's \$17.9 billion entertainment industry
- Supervised seven staff members and additional interns

Workforce Florida, Inc., Tallahassee, FL Communications Director

April 2002 - February 2008

- Developed and managed state level marketing communications and public relations strategies; handled media relations and public information requests
- → Managed marketing/outreach budget, contracts
- A Researched and wrote press releases, articles, annual and other reports
- Published weekly e-newsletter for the workforce and economic development community
- Developed content and coordinated website design and production for www.WorkforceFlorida.com
- Principal in the creation, development, and branding of the statewide employment website www.EmployFlorida.com
- A Established and maintained working relationships with stakeholders and partners
- Created and provided leadership for the Employ Florida Communication Consortium
- A Represented Workforce Florida on stakeholder councils, task forces, committees
- Managed statewide projects, programs, and initiatives
- Provided staff support to board committees and task forces

Workforce Florida, Inc., Tallahassee, FL

July 1998 - April 2002

Manager, Incumbent Worker (IWT) Program

- Wrote and obtained Initial USDOL planning grant to create and pilot a statewide grant program to assist employers in skills upgrade training for their current employees
- Managed pilot program contract
- → Developed, established and managed final "in-house" program
- ▲ Marketed and promoted program
- A Reviewed applications and made funding recommendations
- A Negotiated and managed contracts with funded companies
- Oversaw and made recommendations for program budget
- ▲ Established and developed relationships with state level and local stakeholders
- Developed and applied performance measures to evaluate program effectiveness
- Designed and conducted research and presented information to policy makers
- A Recommended legislative, policy and procedural changes
- A Represented Workforce Florida at national, state meetings, and conferences
- Developed and managed a nationally recognized plastics manufacturing industry consortium training project

Florida Department of Education, Tallahassee, FL

November 1995 - June 1998

School-to-Work Program Specialist &

Coordinator/Executive Director, Florida Institute for Film Education (FIFE)

- Served as film and entertainment industry liaison for the Department
- Developed and facilitated relationships between entertainment industry executives and public and private post-secondary TV/Film/Video production program leaders
- Provided overall administration including budget management and reports
- Coordinated statewide marketing, public relations and staff development activities
- Created and published quarterly newsletter, various reports and articles
- Served as a judge for the annual Universal Studios High School Video Competition

- → Managed board meetings, communications and stakeholder relations
- A Developed and implemented statewide staff development
- ▲ Co-chaired the 1998 Florida School-To-Work Conference Program Committee

TEACHING AND OTHER ACADEMIC EXPERIENCE

- ▲ Instructor, COM 3070, Careers in Communication, Fall 2013 current
- Instructor, COM 4905, Communication Careers Practicum, Fall 2012 Spring 2013
- Instructor, COM 4470, Desktop Multimedia, Fall 1995 Spring 1997
- Assistant to the Chair (Dr. Amy Wetherby), Dean Search Committee, FSU College of Communication, Spring 1994
- Executive Assistant to the Chair (Dr. Barry Sapolosky), Board of Regents Review, FSU Department of Communication, Fall 1993

RESEARCH, PUBLICATIONS, AND WRITING ACTIVITIES

- Workforce Florida: Strengthening competitiveness through Incumbent Worker Training (August 31, 2000)
 Report to State of Florida Department of Labor and Employment Security and the United States
 Department of Labor.
- Kaye, B. K., & Fishburne, L. M. (Spring 1997). NYPD Blue and Media Hype: An analysis of sex and indecent language. New Jersey Journal of Communication, 5, (1), pages 81-103.
- Fishburne, L. M., and Montgomery, D. (1995). Customer service: The on-going conversation. In Forrest, E. & Mizerski, R. (eds), Interactive marketing: The future present. NTC: Lincolnwood, iL
- Fishburne, L. M., Wotring, C. E., & Forrest, E. (1993), "The effects of tempo and texture on listeners' responses to contemporary music" (presented at INFORMS International Marketing Science Conference, 3/8/96, Gainesville, FL)
- "MathTV" (1994) Compact Disc Interactive (CD-i) Algebra and Geometry Appreciation (research in conjunction with other faculty and students at FSU)

GRANT WRITING

- US Department of Labor Employment and Training Administration, Planning Grant, 1999 (Florida Incumbent Worker Training Program)
- △ US Department of Health and Human Services, 1977 1981 (YMCA Youth Home)
- US Department of Labor/National Collaboration of Youth, Youth Employment Grant, 1980

CREATIVE ACTIVITIES

- Vocal Producer and vocalist, "Making Smoke for Jacksonville" (2002), Audio CD
- A Co-Producer, "School-To-Work Orientation Video" (1997), Fla. Dept. of Education
- Songwriter/Performer, "The Dream" (1995), "Cascades Collection" Audio CD. (CRC 9501 CD)
- Songwriter/Performer, "Suspect of Love" (1992), Original composition and recording used in the Victor Nunez film "Ruby in Paradise" (top film at the 1993 Sundance Film Festival)
- Composer/Performer/Producer, "Algebra TV" (1994) Interactive (CD-i), Winner Milia '95 international multimedia conference in Cannes, France new talent division

AWARDS AND HONORS

- 2002 National Association of Workforce Boards' Theodore E. Small Workforce Partnership Award – accepted on behalf of Workforce Florida with the Society for the Plastics Industry (SPI) for the Florida Plastics Learning Consortium
- ▲ 1995 The Honor Society of Phi Kappa Phi Chapter #037
- ▲ 1994 FlorIda State University College of Communication The Outstanding Masters Student Award

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobleC@leoncountyfl.gov Applications will be discarded if no appointment is made after two years. Name: Jillian Fry Date: Email: jilliankfry@gmail.com Home Phone: 850-528-8235 Work Phone: Rowland Publishing, Inc. (Tallahassee Magazine, Occupation: graphic designer Employer: 850 Business Magazine, Emerald Coast Magazine) Please check box for preferred mailing address. ☐ Work Address: City/State/Zip: Mathematical Home Address (Required to determine County residency) 1420 N. Meridian Road, #210 Tallahassee, FL 32303 City/State/Zip: Do you live in Leon County? ■Yes □ No If yes, do you live within the City limits? ■Yes □ No Do you own property in Leon County? ☐Yes 🗵 No If yes, is it located within the City limits? ☐Yes ☐ No 26 years in Leon Co., For how many years have you lived in and/or owned property in Leon County? vears including approx.15 as a property owner. Are you currently serving on a County Advisory Committee? ☐ Yes 🌣 No If Yes, on what Committee(s) are you a member? No No Have you served on any previous Leon County committees? □Yes If Yes, on what Committee(s) have you served? Please indicate your area of expertise. If you have experience in more than one field, please check all that apply. ☐ Business ☐ Heritage Marketing ☐ Practicing Artist ☐ Volunteer ☐ Tourism ☐ At-Large ☐ At-Large If you are appointed to this Committee, you are expected to attend regular meetinas. How many days per month would you be willing to committee work? ⋈ 1 ⋈ 2 to 3 □ 4 or more And for how many months would you be willing to commit that amount of time?

2

3 to 5

6 or more What time of day would be best for you to attend Committee meetings?

Day

Night (OPTIONAL) Leon County strives to meet its goals, and those contained in various federal and state laws, of maintaining a membership in its Advisory Committees that reflects the diversity of the community. Although strictly optional for Applicant, the following information is needed to meet reporting requirements and attain those goals. M Caucasian ☐ African American ☐ Hispanic ☐ Asian □ Other ☐ Male ☐ Female ☐ Yes Sex: Disabled? X No Age: District 1 District 5 District 2 District 3 District 4

In the space below briefly describe or list the following: educational background; your skills and experience you co licenses and/or designations and indicate how long you have any charitable or community activities in which you participat on this Application. Please attach your resume, if one is available.	ould contribute held them an te; and reason	e to a Committee; any of whether they are effect	of your protive in Leo	ofessional on County;
I've provided this information on page 3 and a resume on page 3 and a resume on page 3. My full resume is available on Linkedin at https://www.iinked		anfry		
References (you must provide at least one personal reference	who is not a fa	amily member):		
Name: Diane Tomasi	Telephone:	850-567-2192		
Address: 3214 Del Rio Terrace, Tallahassee, FL 3231				
Rosanne Dunkleberger	Telephone:	850-524-4239		
Address: 3714 Galway Drive, Tallahassee, FL 32309	Terephone.			
OF COUNTY COMMISSIONERS. IN ORDER TO BE FAMILIAR THE FOLLOWING QUESTIONS, YOU MUS www.leoncountyfl.gov/bcc/committees/training.asp BEFORE Y	ST COMP	LETE THE OF	RIENTATIO	N AT
Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or Will you be receiving any compensation that is expected to inf on a Committee? Yes XNo If yes, from whom?			M Yes iX Yes on	□ No □ No
Do you anticipate that you would be a stakeholder with regard Do you know of any circumstances that would result in you he conflicts? Yes No If yes, please explain.	aving to absta	in from voting on a Com	mittee due	⊠ No to voting
Do you or your employer, or your spouse or child or their employer, yes,	plea	ise		ĭ No explain.
Do you have any employment or contractual relationship with recurring conflict with regard to your participation on a Commif yes, please explain.		nat would create a contin	uing or tre ☐ Yes	equently is No
All statements and information provided in this application are	true to the be	st of my knowledge.		
Signature: Gillian K. Fry				
Please return Application by mail: Christine Coble, Agenda Coordinator 301 South Monroe Street				
Tallahassee, FL 32301				
by email: coblec@leoncountyfl.gov by fax: 850-606-5301				
Online: http://cms.leoncountyfl.gov/servicerequest/committeeapp	lication.aspx			

In the space below briefly describe or list the following: any previous experience on other Committees; your educational background; your skills and experience you could contribute to a Committee; any of your professional licenses and/or designations and indicate how long you have held them and whether they are effective in Leon County; any charitable or community activities in which you participate; and reasons for your choice of the Committee indicated on this Application. Please attach your resume, if one is available.

Prior Committee Service:

Leadership Tallahassee (Tallahassee Chamber of Commerce) 1999-present

Board of Governors 2-year appointment, 2009-2011, and six committees since 2000

Big Bend Hospice

Spring Fling Committee Member, 2000 - 2009

Junior League of Tallahassee

Chair, Family Fun Roundup (1200+ guests) & Hoedown (informal, 200+ guests), 2000 – 2001 Chair, Masquerade de Mille Gala (black-tie fundraising event, 200+ guests), 1999 – 2000

Educational Background:

TCC, continuing ed. in Graphic Design, 2011-2013

FSU, M.A. in Interior Design, 2011-2013

FSU, B.A. in Creative writing w/ Marketing & Communications minor, 1989-1990

UF, A.A., liberal studies, 1985-1989

Relevant Skills and Experience:

Experience developing and implementing branding and marketing strategies; graphic design expertise Demonstrated commitment to the non-profit sector

Resourceful; open-minded, creative, and respectful

Experienced leader; confident and outgoing; comfortable taking initiative; strategic planning experience

Excellent written and verbal communication skills; successful grant-writing experience

Enthusiasm for Tallahassee and the arts

Effective presence in meetings and on task forces

Broad network of community contacts and a willing ambassador of COCA

Commitment to Community:

Partial list of Charitable & Community activities/organizations I've either attended, supported financially, or donated design work to in the past 12 months:

First Fridays Tallahassee Museum Haunted Trail Opening Nights
Kitty Glitter Fright Night Film Fest Mag Lab Open House
Springtime Tallahassee Downtown Farmers & Produce Arti Gras

Green Arts Fest Downtown Farmers & Produce Arts Gras

Market Springtime Tallahassee

Chef Sampler Winterfest Jewish Food Festival
Manna on Meridian Gingerbread House Workshop LeMoyne Chain of Parks Art

FAMU Grape Harvest Festival Tallahassee Theatre Festival

Goodwood Jams Market Days T.O.U.R. Gulde event, Mission San Greek Food Festival FSU Rez High Ropes Course Luis

New Leaf Farm Tour Operation Prom Dress T.O.U.R. Guide event, Museum of

Library Book Sale

Undies Sundays for the homeless

Florida History

Food Truck Thursdays (SPUMC) Cascades Park concert
Community Mural on Gaines Jazz & Blues Festival

Reason for Applying to COCA Board in Marketing seat:

After a period of personal growth (continuing education and career shift), I am excited to recommit to my community. What better way than supporting our vibrant arts community? This opening is a perfect match of my talents, expertise, and interest.

Jillian Fry

850.528,8235 jilliankfry@gmail.com online portfolio: behance.net/jillianfry linkedin.com/jillianfry

Graphic Designer with Marketing, Event, and Writing experience

I am a graphic designer and writer with nearly 15 years of experience in creative and professional services.

Rowland Publishing, Tallahassee

Ad Designer: Tallahassee Magazine, 850 Business Magazine, EC Magazine

August 2013-current

- Solve clients' design problems while meeting publisher's design aesthetic: conceive, design, write, revise, and deliver high-quality, effective, production-ready ads in an efficient, quality-conscious manner,
- Research and write original, effective copy as needed; adhere to AP Style for publications. Accurately proof and correct copy and graphics.
- Make it work: optimize, revise, and pre-flight client-supplied and/or existing graphics to ensure production specifications are met.
- · Complete many small, fast-turn projects with meticulous attention to detail.
- Keep colleagues looking good: understand requests and preferences of internal clients and adjust workflow accordingly. Bring late ads and exceptions to manager's attention in a timely fashion.
- Prioritize and organize workflow effectively so that all deadlines to internal and external customers are met.
 Anticipate conflicts before they arise. Step forward and push hard at crunch time.
- Share knowledge, assist others, and do what it takes for successful project completion. Work with Sales, Production, Editorial and Traffic to provide effective, efficient service to our clients.

Moore Communications Group, Tallahassee Graphic Designer and PR Account Coordinator

June 2012-July 2013

- Coordinated, designed, and produced solutions for print and digital media, including ads, social media, e-cards, rack cards, flyers, lapel pins, brochures; establish and ensure consistency of branding for clients entering new media
- Researched, wrote, and edited social media content, press releases, LTEs, and op-eds
- · Established and managed social media communities for multiple clients; ensured consistent branding
- Managed multiple deadlines accurately, adjusting in response to new projects and schedule changes
- · Tracked and recorded time into firm billing software; met budget for both retainer and hourly clients

The Pod, Tallahassee Graphic Design Intern

February-June 2012

- Designed for digital and print media, including annual reports, newsletters, logos, web banners, flyers, posters
- · Wrote creative copy, social media content, articles, blog posts

LLT Building Corporation, Tallahassee

Director of Business Development/Marketing and Graphic Design

2000-2003

- Managed all graphic design and marketing efforts, including layout, writing, and production of RFP response proposals and presentations
- Led team coordination on RFQ responses, including joint ventures. Collaborated with team executives, project management, and marketing staff to communicate complex ideas, messages, and concepts to both external and internal audiences. Projects awarded includ FSU's Ruby Diamond Auditorium (\$32.9m); Student Wellness Center (\$37m); and College of Medicine (\$50m)
- Effectively planned, prioritized, organized, and completed multiple projects, adjusting quickly and decisively in response to new issues and opportunities

Education

Continuing education in Graphic Design, Tallahassee Community College Master of Arts, Interior Design, Florida State University Bachelor of Arts, Writing, Florida State University (Marketing/Communications minor) 2011-2013

2005

1990

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobleC@leoncountyfi.gov



Applications will be o	discarded if n	o appointment is	s made after tv	vo years.	Winds of
Name: Susan VanHoeij					Date: 4/27/15
Home Phone: 850-339-0041	Work Phor	ne:	Email:	svanhoeij@l	notmail.com
Occupation: VP/Proposal Ma	nager	Employer: B	ank of Ameri	ca	
Please check box for preferred ☐ Work Address: City/State/Zip:	mailing addre	ess.			
M Home Address (Required to 3634 Ox Hill Ct., Tallah City/State/Zip:					
Do you live in Leon County? Do you own property in Leon C For how many years have you i	ounty? □Ye	s 🗆 No If yes	, is it located t	within the City	/ limits? □Yes □ No
Are you currently serving on a (If Yes, on what Committee(s) ar			□Yes ☑ No	0	
Have you served on any previous if Yes, on what Committee(s) ha			□Yes	™ No	
Please indicate your area of exp ☐ Business ☐ Heritage ☐ At-Large ☐ At-Large	pertise. If you		e in more than		
if you are appointed to this meetings. How many days per month wou And for how many months wou What time of day would be best	ıld you be wil ıld you be will	ling to commit f	or Committee nat amount of	work? □ 1 time? □ 2	□ 3 to 5 ☑ 6 or more
(OPTIONAL) Leon County st maintaining a membership in it optional for Applicant, the follow Race: Caucasian	ts Advisory C wing Informat	committees that tion is needed to	reflects the di meet reportin	lversity of the g requiremen	e community. Although strictly its and attain those goals.
Sex: ☐ Male ☐ Fo		Age: 45	The second second	Disabled?	☐ Yes ☑ No
District 1 District 2	Dist	rict 3 🗆 D	istrict 4 🛚	District 5	

In the space below briefly describe or list the following: any previous experience on other Committees; your educational background; your skills and experience you could contribute to a Committee; any of your professional licenses and/or designations and indicate how long you have held them and whether they are effective in Leon County; any charitable or community activities in which you participate; and reasons for your choice of the Committee indicated on this Application. Please attach your resume, if one is available. I'm involved in a variety of community programs, including Bach Parley Board Member (2013-active), Tallahassee Music Guild (2013active), and Tallahassee Music Week (participant's mom, 2015), in the past, I've been involved with and volunteered with the following community programs: Tallahassee Community Chorus (2001 - 2003), Hands on Tallahassee/Falthworks (2007 - 2012), Grace Mission (2009), Leukemia and Lymphoma Society (Independently raised \$3000 and ran 26.2 miles for children in Tallahassee), and privately donated and fed weekend meals to 76 children in a Leon County school (2014). My professional background includes: GE - Sales and Marketing in Grand Rapids, MI and San Francisco, CA (1995-1999); FSU - Research Coordinator (reviewed and approved federal grants, 2000-2003); Cambridge Systematics - Senior Marketing Associate (2004 -- 2008); and Bank of America - VP/Proposal Manager (2008 -- present). I'm a MBA graduate from the University of Phoenix. My husband, Mark, is a math professor at FSU, and we have 2 children. References (you must provide at least one personal reference who is not a family member): Name: Scotty Barnhart - FSU Jazz Faculty and Director of the Telephone: 323-377-2744 Count Basie Orchestra. Address: Please contact him by phone or text. He's currently on tour. Telephone: 644-1081 Name: Sam Huckaba - FSU Dean of Arts and Sciences. Address: shuckaba@fsu.edu IMPORTANT LEGAL REQUIREMENTS FOR ADVISORY COMMITTEE MEMBERSHIP AS A MEMBER OF AN ADVISORY COMMITTEE, YOU WILL BE OBLIGATED TO FOLLOW ANY APPLICABLE LAWS REGARDING GOVERNMENT-IN-THE-SUNSHINE, CODE OF ETHICS FOR PUBLIC OFFICERS, AND PUBLIC RECORDS DISCLOSURE. THE CONSEQUENCES OF VIOLATING THESE APPLICABLE LAWS INCLUDE CRIMINAL PENALTIES, CIVIL FINES, AND THE VOIDING OF ANY COMMITTEE ACTION AND OF ANY SUBSEQUENT ACTION BY THE BOARD OF COUNTY COMMISSIONERS. IN ORDER TO BE FAMILIAR WITH THESE LAWS AND TO ASSIST YOU IN ANSWERING QUESTIONS, THE FOLLOWING YOU MUST COMPLETE THE ORIENTATION AT www.leoncountyfl.gov/bcc/committees/training.asp BEFORE YOUR APPLICATION IS DEEMED COMPLETE. Have you completed the Orientation? W Yes O No Are you willing to complete a financial disclosure form and/or a background check, if applicable? Yes Yes D No Will you be receiving any compensation that is expected to influence your vote, action, or participation on a Committee? - Yes No No if yes, from whom? Do you anticipate that you would be a stakeholder with regard to your participation on a Committee?

Yes No No Do you know of any circumstances that would result in you having to abstain from voting on a Committee due to voting No If yes, please explain. conflicts? □ Yes Do you or your employer, or your spouse or child or their employers, do business with Leon County?

Yes M No please explain. Do you have any employment or contractual relationship with Leon County that would create a continuing or frequently recurring conflict with regard to your participation on a Committee? □ Yes M No If yes, please explain. All statements and information provided in this application are true to the best of my knowledge. Signature: Susan VanHoeij Please return Application by mail: Christine Coble, Agenda Coordinator 301 South Monroe Street Tallahassee, FL 32301 by email: coblec@leoncountyfl.gov by fax: 850-606-5301 Online: http://cms.leoncountyfl.gov/servicerequest/committeeapplication.aspx

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobleC@leoncountyfl.gov Applications will be discarded if no appointment is made after two years. Name: Work Phone: 443-9649 Home Phone: 668-674 Occupation: HERC President Please check box for preferred mailing address. Tallahassee, FL. 32317 Work Address: P.O. BOX 16282 34 6 CLIFDEN DR. City/State/Zip: Tallahassee Home Address (Required to determine County residency)
3416 CLIFPEN DR. City/State/Zip: Tallahussee FL 32309 Do you live in Leon County? Yes No If yes, do you live within the City limits? Yes No For how many years have you lived in and/or owned property in Leon County? 25 years Are you currently serving on a County Advisory Committee? ☐Yes 🕅 No If Yes, on what Committee(s) are you a member? No □Yes Have you served on any previous Leon County committees? If Yes, on what Committee(s) have you served? Please indicate your area of expertise. If you have experience in more than one field, please check all that apply. ☐ Marketing ☐ Business M Heritage ☐ Practicing Artist Volunteer ☐ Tourism ☐ At-Large If you are appointed to this Committee, you are expected to attend regular meetinas. How many days per month would you be willing to commit for Committee work? □ 1 2 2 to 3 □ 4 or more And for how many months would you be willing to commit that amount of time? \Box 2 \Box 3 to 5 \swarrow 6 or more What time of day would be best for you to attend Committee meetings?

Day M Night (OPTIONAL) Leon County strives to meet its goals, and those contained in various federal and state laws, of maintaining a membership in its Advisory Committees that reflects the diversity of the community. Although strictly optional for Applicant, the following information is needed to meet reporting requirements and attain those goals. Race: ☐ Caucasian African American , Hispanic ☐ Asian ☐ Other Male A Female Sex: Disabled? ☐ Yes ☑ No District 1 District 2 District 3 District 4 District 5

educational background; your skills and experience you could contribute to a Committee; any of your profession licenses and/or designations and indicate how long you have held them and whether they are effective in Leon Courany charitable or community activities in which you participate; and reasons for your choice of the Committee indicates the committee indicate
on this Application. Please attach your resume, if one is available. See whached
References (you must provide at least one personal reference who is not a family member):
Name: Gil Ziffer Telephone: 509 - 7886
Address: 735 Beard St. Tallahassee, Fz. 32303
Name: Sarah Coakley Telephone: 459.0149
Address: 9121 Hickory Nut Hill Tallahassee, FZ 32312
CIVIL FINES, AND THE VOIDING OF ANY COMMITTEE ACTION AND OF ANY SUBSEQUENT ACTION BY THE BOA OF COUNTY COMMISSIONERS. IN ORDER TO BE FAMILIAR WITH THESE LAWS AND TO ASSIST YOU IN ANSWERI THE FOLLOWING QUESTIONS, YOU MUST COMPLETE THE ORIENTATION www.leoncountyfi.gov/bcc/committees/training.asp BEFORE YOUR APPLICATION IS DEEMED COMPLETE. Have you completed the Orientation? Are you willing to complete a financial disclosure form and/or a background check, if applicable? Yes
Will you be receiving any compensation that is expected to influence your vote, action, or participation on a Committee? □ Yes ♣️ If yes, from whom?
Do you anticipate that you would be a stakeholder with regard to your participation on a Committee? Ares Do you know of any circumstances that would result in you having to abstain from voting on a Committee due to vot conflicts? Pres Are If yes, please explain.
Do you or your employer, or your spouse or child or their employers, do business with Leon County? Yes
:
If yes, please or child of their employers, do business with Leon County? If yes, please expla Do you have any employment or contractual relationship with Leon County that would create a continuing or frequently recurring conflict with regard to your participation on a Committee?
If yes, please expla Do you have any employment or contractual relationship with Leon County that would create a continuing or frequentl recurring conflict with regard to your participation on a Committee?
yes, please expla Do you have any employment or contractual relationship with Leon County that would create a continuing or frequentl recurring conflict with regard to your participation on a Committee? Pes المولاد Yes, please explain.
If yes, please expla Do you have any employment or contractual relationship with Leon County that would create a continuing or frequentl recurring conflict with regard to your participation on a Committee? If yes, please explain. All statements and information provided in this application are true to the best of my knowledge. Signature: Babaaa Doldo Hell Please return Application by mail: Christine Coble, Agenda Coordinator 301 South Monroe Street
If yes, please expla Do you have any employment or contractual relationship with Leon County that would create a continuing or frequentl recurring conflict with regard to your participation on a Committee? Yes If yes, please explain. All statements and information provided in this application are true to the best of my knowledge. Signature: Babaaa Hold Hold Hold Hold Hold Hold Hold Hold

Barbara Goldstein

COCA APPLICATION Board Position - Volunteer

2014- Recognized by Tallahassee Democrat as "25 Women to Know"

2013 - City of Tallahassee presented proclamation recognition by Mayor John Marks for awareness of Holocaust education in community and schools as a result of HERC's efforts.

2011 – Recognized by Leon County with proclamation for recognition of Holocaust education programs in schools

2011 – Recognized by Representative Michelle Rehwinkel Vasilinda, who presented proclamation for Holocaust Remembrance and education in Florida

2009 and 2015 - Coordinated countywide photo exhibit at different locations publicized with Tallahassee Democrat and TDO online with volunteer assistance

2009 - Department of Education Commissioner's Task Force on Holocaust Education Member

2008 - Holocaust Education Resource Council: President- (volunteer position)

Manages Board of Directors for planning fundraising, membership, programming, publicity, teacher workshops, and newsletter; coordinates volunteer committees with monthly meetings; plans annual student essay and art contest; coordinates annual teacher training workshops for 100 educators with full volunteer committees.

As founding President of HERC, (for the past nine years), I am very proud and fortunate to have worked alongside a group of dedicated volunteers.

As President, I am responsible for a forward thinking group of colleagues that volunteers to transform a small community program in Leon County by building new relationships and improving education resources for schools and community.

Under my leadership, HERC has become known for bringing awareness of Holocaust education with high quality programs for the schools and community.

HERC has an outstanding record of achievement in the implementation of new education concepts, delivering innovative solutions, and facilitating the operations with a high level of quality and organization management. I serve as lead strategist on several program decisions with volunteer advisory board.

As President of HERC, I have worked closely with other local agencies such as the Leon County Public Library, LeMoyne Center for Visual Arts, Tallahassee Community College, and Florida State University Museum of Fine Arts to collaborate programs presented to the whole community for education purposes with a volunteer committee.

I have provided leadership and support for important program initiatives that will continue to grow and expand as a successful learning tool while coordinating intern responsibilities with volunteers for special project presentations about culture and heritage.

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobieC@leoncountyfl.gov Applications will be discarded if no appointment is made after two years. Name: William "Rick" Minor Date: 4/30/15 Work Phone: Home Phone: 850-445-1914 Email: RickMinor@yahoo.com Employer: City of Tallahassee Occupation: Consultant Please check box for preferred malling address. ☐ Work Address: 300 S. Adams St. City/State/Zip: Tallahassee, FL 32301 ☑ Home Address (Required to determine County residency) 407 Vinnedge Ride City/State/Zip: Tallahassee, FL 32303 Do you live in Leon County? May Yes No If yes, do you live within the City limits? May Yes No Do you own property in Leon County? \(\text{Yes} \) No If yes, is it located within the City Ilmits? \(\text{Yes} \) Yes \(\text{No} \) For how many years have you lived in and/or owned property in Leon County? __12__ years Are you currently serving on a County Advisory Committee? \(\simega\) Yes \(\overline{\sigma}\) No If Yes, on what Committee(s) are you a member? ___n/a_ Have you served on any previous Leon County committees? If Yes, on what Committee(s) have you served? __Bicycle Pedestrian Advisory Committee (2004). Please indicate your area of expertise. If you have experience in more than one field, please check all that apply. ☑ Business ☐ Heritage ☑ Marketing ☐ Practicing Artist ☑ Volunteer ☐ Tourism ☐ At-Large ☐ At-Large If you are appointed to a Committee, you are expected to attend regular meetings. How many days per month would you be willing to commit for Committee work? □ 1 □ 2 to 3 ☑ 4 or more And for how many months would you be willing to commit that amount of time?

2 2 3 to 5 6 or more What time of day would be best for you to attend Committee meetings?

Day

Night (OPTIONAL) Leon County strives to meet its goals, and those contained in various federal and state laws, of maintaining a membership in its Advisory Committees that reflects the diversity of the community. Although strictly optional for Applicant, the following information is needed to meet reporting requirements and attain those goals. ☑ Caucasian ☐ African American ☐ Hispanic ☐ Asian Race: ☐ Other ☑ Male ☐ Female Sex: Age: Disabled? ☐ Yes MNo

"People Focused, Performance Driven."

District 4

District 5

District 3 🗹

District I

District 2

well as local and statewide media. Have also collab	build contribute to a Committee; any of your professional enheld them and whether they are effective in Leon County, ite; and reasons for your choice of the Committee Indicated liable. government, and non-profit sectors. Int, coordination, and motivation of volunteers. I business leaders, associations, and elected officials as corated with COCA on local events. Music Week, Inc., which in April 2015 organized more eations throughout Tallahassee.
References (you must provide at least one personal reference	who is not a family member):
Name: Marjorie Turnbull	Telephone: _850-443-4138
Address:	
Name: Del Suggs	_Telephone:
Address: PO Box 2261, Westwood Shopping Center	r, Tallahassee, FL 32316
DISCLOSURE. THE CONSEQUENCES OF VIOLATING THE CIVIL FINES, AND THE VOIDING OF ANY COMMITTEE ACTI OF COUNTY COMMISSIONERS. IN ORDER TO BE FAMILIAR THE FOLLOWING QUESTIONS, YOU MUST www.leoncountyfl.gov/bcc/committees/training.asp BEFORE Have you completed the Orientation? Are you willing to complete a financial disclosure form and/o Will you be receiving any compensation that is expected to in	ON AND OF ANY SUBSEQUENT ACTION BY THE BOARD WITH THESE LAWS AND TO ASSIST YOU IN ANSWERING COMPLETE THE ORIENTATION PUBLICATION YOUR APPLICATION IS DEEMED COMPLETE. Yes No rabackground check, if applicable? Yes No officence your vote, action, or participation
on a Committee? ☐ Yes ☑ No If yes, from whom? Do you anticipate that you would be a stakeholder with regar Do you know of any circumstances that would result in you h conflicts? ☑ Yes ☐ No If yes, please explainPossibl Do you or your employer, or your spouse or child or their em If yes, please explainn/a_	d to your participation on a Committee? ☐ Yes ☑ No aving to abstain from voting on a Committee due to voting by certain votes related to Tallahassee Music Week.
Do you have any employment or contractual relationship with recurring conflict with regard to your participation on a Comr If yes, please explainn/a_	
All statements and information provided in this application at Signature:	e true to the best of my knowledge.
Please return Application by mall: Christine Coble, Agenda Coordinator 301 South Monroe Street Tallahassee, FL 32301 by email: coblec@leoncountyfl.gov by fax: 850-606-5301 Online: http://cms.leoncountyfl.gov/servicerequest/committeeapp	olication.aspx

Rick Minor, MPA

407 Vinnedge Ride Tallahassee, FL 32303 850-445-1914 RickMinor@post.harvard.edu www.linkedin.com/in/RickMinor

SUMMARY OF QUALIFICATIONS

- 17 Years of management experience in high-stakes environments.
- Dynamic leader who has served on the senior management teams of private sector, governmental and nonprofit entities.
- Accomplished team-builder with experience in volunteer coordination and the hiring and supervising of personnel.
- Strong relationships with Big Bend community and business leaders, associations, constituency groups, and elected officials as well as local and statewide media.
- Highly successful in resource development, managing fundraising campalgns and donor communications.
- Excellent internal and external communications skills, including strategic messaging, media relations and collaboration with stakeholders.
- Experienced spokesperson with proven ability to represent and enhance an organization's brand.
- Skilled in assessing community issues and developing policy solutions.
- Proficient in organizational budget management and other financial operations.

EDUCATION

Master in Public Administration, June 2001 Harvard Kennedy School, John F. Kennedy School of Government, Cambridge, MA

Bachelor of Science, May 1991 with Honors Major: Business Administration / Computer & Information Sciences University of Florida, Galnesville, FL

WORK EXPERIENCE HIGHLIGHTS

CHARLIE CRIST FOR GOVERNOR, Tallahassee, FL / St. Petersburg, FL Policy Director, May 2014 – November 2014

- · Developed public policy and conducted budget research for Gov. Charlie Crist's gubernatorial campaign.
- Policy development areas included budget research, Medicald expansion, climate change, and improving the quality of life for mlddle-class and low-income Floridians.

OFFICE OF THE MAYOR, CITY OF TALLAHASSEE, Tallahassee, FL. Chief of Staff, November 2010 – May 2014

- Served as the City's legislative and Intergovernmental liaison, managing the City's communication with the federal and state legislative delegations. Coordinated the City's federal and state lobbyist teams, advocating for legislation and appropriations that benefitted the City's residents.
- Managed the operations of the Office of the Mayor and supervised the Mayor's staff and budget.
- Served as the lead spokesperson on behalf of the Mayor, developing press statements, and reviewing / approving all Mayoral
 communications.
- Managed special projects such as the citywide Healthy Initiative and the 'Local Business Saturday' media campaign.

RICK MINOR FOR STATE REPRESENTATIVE, DISTRICT 9, Tallahassee, FL Legislative Candidate, July 2009 – August 2010

- Ran as a candidate for Flonda's State House District 9, which included portions of Leon and Jefferson Counties.
- Served as the lead spokesperson, held press conferences, developed press statements, and reviewed/approved all campaign communications.

PUBLIC WORKS LLC, Tallahassee, FL

Public Policy Consultant / Financial Operations Manager, June 2005 - April 2008

- Developed public policy for state governments and candidates for public office.
- · Engaged in agency performance reviews and best practices development for state governments.
- Managed the financial operations (payroll and consultant invoice processing, accounts receivable, cash flow, budget and revenue projections) of the 15-member public policy consulting firm.

BILL RICHARDSON FOR PRESIDENT, Santa Fe, NM (client of Public Works LLC)
National Policy/Research Director, February 2007 – October 2007

Developed public policy and conducted research for Governor Bill Richardson's presidential campaign.

WORK EXPERIENCE HIGHLIGHTS (continued)

TALLAHASSEE COMMUNITY COLLEGE, Tallahassee, FL
Adjunct Political Science Instructor, January 2004 – July 2004

Taught college-level courses in Political Science and the U.S. Constitution

FLORIDA DEMOCRATIC PARTY, Tallahassee, FL Director of Policy, February 2003 - August 2004

- Served as a liaison between the party and state legislators. Worked closely with senior staff of the Florida Senate and House Democratic Caucuses to present a cohesive, unified message to Florida voters.
- Coordinated policy development efforts on various Issues, such as the state budget, healthcare, taxes, education, children's and seniors' issues, and the environment.

ACCENTURE (FORMERLY ANDERSEN CONSULTING), June 1991 – July 2000 Senior Manager

- Managed e-government development project teams for Accenture's Government Market Unit. Provided project management and business consulting services to federal, state, and county government sectors.
- Primary responsibilities included strategic planning, large team management, E-Government project management, business/IT training, and product sales.
- Focused on welfare reform, child protection, transportation, utilities, and federal postal services.
- · Roles and projects included:
 - e-Goyt Development Manager, United States Postal Service Washington, DC (July 1999 July 2000)
 - Consulting Operations Manager, Enablement Services Group Northbrook, IL (Dec. 1997 Nov. 1998)
 - Project/Team Manager, Deutsche Bahn (German Railway) Frankfurt, Germany (Feb. 1997 June 1997
 - Team Manager, Dept. of Human Resources Development Fredericton, NB, Canada (April 1995 Sept. 1996)
 - o Team Leader, Texas Dept. of Protective & Regulatory Services Austin, TX (Jan. 1994 Dec. 1994)
 - Architect, Analyst, & Programmer, Florida Power Corporation St. Petersburg, FL (Mar. 1992-Jul. 1993)

NOT-FOR-PROFIT ORGANIZATIONS AND OTHER COMMUNITY INVOLVEMENT

- President/Co-Founder, Tallahassee Music Week (June 2014 present)
 - Created a nonprofit Florida corporation to launch an annual citywide music festival for promoting local talent and boosting north central Florida's arts & culture community.
 - Have partnered with the Council on Culture & Arts, the Leon County Schools Foundation & many other organizations.
- Community Catalyst, Knight Creative Communities Institute (September 2013 present)
- Chair, Clty of Tallahassee's United Way of the Big Bend Fundraising Campaign (August 2012 January 2013)
 - Raised nearly \$240,000, an all-time record for the City of Tallahassee.
- Member, Network of Entrepreneurs and Business Advocates (June 2009 present)
- Member, Leadership Tallahassee Class 26 (June 2008 present)
- Board Member / Membership Chair, Tallahassee Citizens' Police Academy Alumni Association (Jan. 2008 June 2011)
- Board Member, The Tallahassee-Leon County Shelter (December 2007 February 2009)
- Chair, Leon County Democratic Executive Committee (December 2005 June 2009)
 - Presided over Leon County's 165-member Democratic Executive Committee (DEC).
 - Served as spokesman for TV, radio, and print earned media. Responsible for all media communication.
 - Increased DEC membership by 46% and collected \$144,000 in contributions to the Leon DEC.
- Alumni Class Advisor, Class of 2001, Kennedy School Student Government (May 2001 present)

AWARDS AND CERTIFICATIONS

- Most Creative Fundraising Campaign (2013), United Way of the Big Bend
- Honoree for Contribution to Community Service (2008), C.K. Steele Scholarship Foundation
- Project Management Professional Certification (1998-2001), Project Management Institute
- Zollinger Award for Leadership (1990), Sigma Phi Epsilon Fraternity, University of Florida
- Florida Academic Scholar (1986)

REFERENCES AVAILABLE UPON REQUEST

ADVISORY COMMITTEE APPLICATION FOR APPOINTMENT TO THE COUNCIL ON CULTURE & ARTS

It is the applicant's responsibility to keep this information current. To advise the County of any changes please contact Christine Coble by telephone at 606-5300 or by e-mail at CobleC@leoncountyfl.gov Applications will be discarded if no appointment is made after two years. Date: 4-21-15 Name: Adriene Bryant Wright Work Phone: same Home Phone: 202-432-1187 Email: adriene.wright@gmail.com Employer: Occupation: Business Owner Abelita LLC Please check box for preferred mailing address. ☐ Work Address: City/State/Zip: W Home Address (Required to determine County residency) 203 Young Street City/State/Zip: Tallahassee, FL 32301 Do you live in Leon County? 13 Yes □ No If yes, do you live within the City limits? 13 Yes □ No Do you own property in Leon County? ☐ Yes ☐ No If yes, is it located within the City limits? ☐ Yes ☐ No For how many years have you lived in and/or owned property in Leon County? 12 years (not consecutive) Are you currently serving on a County Advisory Committee? Yes X No If Yes, on what Committee(s) are you a member? IX No Have you served on any previous Leon County committees? □ Yes If Yes, on what Committee(s) have you served? Please indicate your area of expertise. If you have experience in more than one field, please check all that apply. X Business ☐ Heritage X Marketing ☐ Practicing Artist X Volunteer CX Tourism At-Large ☐ At-Large If you are appointed to this Committee, you are expected to attend regular meetinas. How many days per month would you be willing to commit for Committee work? ☐ 1 ☐ 2 to 3 ☐ 4 or more And for how many months would you be willing to commit that amount of time?

2

3 to 5

6 or more (OPTIONAL) Leon County strives to meet its goals, and those contained in various federal and state laws, of maintaining a membership in its Advisory Committees that reflects the diversity of the community. Although strictly optional for Applicant, the following information is needed to meet reporting requirements and attain those goals. X African American Hispanic ☐ Caucasian ☐ Asian Other Race: ☐ Male Female Age: 58 Disabled? ☐ Yes IX No Sex: District | 🗆 District 2 District 3 District 4 [District 5

any charitable or community activities in which you particip on this Application. Please attach your resume, if one is ava		fessional County;
Among others, I have most recently served on the E affiliate of the Greater Miami Convention and Visitor I have served on numerous community boards, and Commissions including South Carolina State Univer a strong Interest in the arts and believe that the arts	rs Bureau in Miami, FL. Over the course of my was appointed to serve on State Boards and rsity. Having minored in Dance at FAMU/FSU,	career,
References (you must provide at least one personal reference	e who is not a family member);	
Name: Marjorie Turnbull	Telephone: 850-385-4184	
Address: 3935 Meandering Lane Tallahassee, FL 32	308	
Name: Spencer Ingram	Telephone: 850-877-8099	
Address: 118 Salem Ct. Tallahassee, FL 32301		
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"People Focused, Performance Driven."

Adriene B. Wright, Ph.D.

(202) 431-1187 cellular adriene,wright@gmail.com

PROFILE

Results oriented, disciplined, and experienced senior-level executive and entrepreneur with a demonstrated record of leadership in the public, non-profit, and corporate sectors. Possesses multi-disciplinary experience that includes: Leadership, fundraising, management consulting, coaching and development, budgeting and fiscal management, marketing and communications, administration, public affairs, Governance and relationship management. Often recognized for persuasive public speaking abilities, analytical skills, and diplomatic and engaging qualities.

PROFESSIONAL EXPERIENCE

ABELITA LLC, Miami and Tallahassee, FL Managing Principal/President

8/2012 - Present

Founded and managed a Diversified Services Company providing an array of business and management services to advance the client's interest and provide staff augmentation services. Other services include: Development, capacity building, program and operations evaluation and assessments, diversity and inclusion, coaching, fundraising, and planning. Clientele includes corporations, government, and higher educational institutions.

FLORIDA MEMORIAL UNIVERSITY (FMU), Miami Gardens, FL

2/2011 - 12/2013

Associate Vice President External Relations

Vice President of Institutional Advancement, Marketing and Communications

Member of the President's Cabinet and the University Administrative Council; provide leadership in developing strategic plans to bolster the FMU brand and implement strategies to increase funding to the institution. Provide effective oversight of organizational policies and procedures, including fiscal management and accountability. Provide leadership to a staff of 15 full time employees, diverse external consultants, part-time employees, and volunteer staff. Manage annual operating budget of over \$1.2 million.

- Enhanced community relations to increase philanthropic initiatives
- Increased fundraising over 25% in first year
- Elevated transparency and visibility of FMU throughout South Florida and the Bahamas

FLORIDA A&M UNIVERSITY (FAMU), Tallahassee, FL

6/2007-2/2011

Director of the Office of Development

A member of the Division of University Relations Leadership Team; led a team to implement strategic initiatives to increase funding to the university including major and planned gifts; the FAMU Business and Industry Cluster, working with corporate partners to strengthen partnerships leading to increases in charitable giving and campaigns.

- Provided campaign leadership and set new benchmark in the Tom Joyner School of the Month campaign (only participating school to reach and exceed a million dollars)
- Increased Business and Industry Council membership over 40 percent providing expanded opportunities for student recruitment and internships.

Budget and Grants Specialist

Managed budgets and expenditures of Federal and State grants awarded to the FAMU Transportation Center within the College of Engineering, Science, Technology, and Agriculture, including the Federal National Highway Traffic Safety Administration and the Florida Department of Transportation. Tracked and reported spending trends against budgeted allocations and projections. Maintained accurate financial records and spending reports. Assisted in developing proposals for new grants.

Detected and corrected anomalies in budget reports, prevented deficits to ensure compliance

ELECTRIC POWER RESEARCH INSTITUTE (EPRI), Washington, DC Electricity Innovation Institute (E2I) – EPRI Affiliate Company

2/2000-10/2005 7/2001-10/2005

Executive Director of Public Programs, Science and Technology Development General Manager (acting), Electricity Innovation Institute

Co-led the development and implementation of a multi-million dollar non-profit affiliate of EPRI. Provided leadership to a team of external consultants including: Legal, marketing, technology research, development, and branding expertise. Participated in staffing, marketing, partnership development, space allocations, budgeting, and operational plans. Served as acting General Manager in start-up phase.

- Partnered with the Alfred P. Sloan Foundation to establish a U.S. university-based, Electricity Industry Center at Carnegie Mellon University
- Utilized strong business judgment and an entrepreneurial orientation, completed start-up entity within budget and on schedule

Director of Development and Marketing

Developed strategy, established public/private partnerships and funding mechanisms to advance long-term, strategic research in plug-in hybrid electric vehicles, distributed energy resources and renewable energy. Engaged external constituents and directed Stakeholder Advisory Group comprised of: White House officials, State and Federal Regulators, and Energy Associations. Routinely presented on complex scientific research initiatives before national and international audiences such as the National Governors Association, the World Energy Council, and the World Bank.

- Championed public/private partnership between industry and U.S. Department of Energy
- · Increased brand recognition of Start-up Company within Federal and States markets

FLUOR CORPORATION (FLUOR DANIEL, INC.)

5/1993-10/1999

Director of Government Relations, Washington, DC

Advocated corporate legislative and regulatory priorities. Established effective stakeholder engagement mechanisms through coalitions and networks. Engaged with political leaders, members of Congress, community organizations, and Trade Associations to achieve passage or defense of legislative priorities.

Brookings Congressional Fellow, Brookings Institute, Washington, DC 1/1998-1/1999

Host Institutions: Fluor Corporation and the Office of Senator William Frist, M.D., R-TN

As a Loaned Executive, honed leadership skills and increased understanding of federal funding mechanisms, and global economies. Increased awareness of political realities, emerging political and socio-economic trends. Managed Science and Technology issues and provided leadership across a wide range of issues. Participated in the European Union Institute for Public Policy;

Adriene B. Wright

Critical Issues Forum (Maastricht, Netherlands and Brussels, Belgium), evaluating trends and issues in trade relations and currency.

Director of Business Development/Strategic Planning, Cincinnati, Ohio
Established strategic direction and market positioning as Global Account Manager for the Procter
& Gamble Company. Developed new markets in Latin America and supported key initiatives in
Southeast Asia including Indonesia, Philippines and China.

- Led negotiations, establishing the North America Construction Alliance Agreement with client, positioning division for over \$100 million in revenue and increased backlog
- Recognized and profiled in company's 1996 annual stockholder's report

National Director of Supplier Diversity Program, Greenville, South Carolina

Served as Corporate Advocate for small, minority and women-owned businesses. Led a geographically dispersed team across the U.S., effectively implemented strategic initiatives for supplier diversity and compliance requirements. Outreach to diverse suppliers, trade associations, government and political officials. Developed Standard Operating Procedures, managed budgets, set goals, implemented training and development initiatives for staff, and served as corporate spokesperson. Provided consultation regarding minority recruitment, employment and procurement opportunities.

- Implemented effective processes leading to new benchmarks for supplier diversity transactions
- Effective leadership resulted in the company receiving numerous awards and recognitions

EDUCATION

Florida A&M University (FAMU), Tallahassee, FL Bachelors of Science (BS), Civil Engineering Technology

Trinity Theological Seminary and College of the Bible, Newburgh, Indiana Master of Arts (MA), Biblical Studies

International Academy of Apologetics, Human Rights, and Evangelism, Strasburg, France Certificate, Apologetics and Human Rights

Covenant Bible College and Theological Seminary, Tallahassee, FL Doctor of Philosophy (PhD), Theology

GOVERNANCE

Miami Black Hospitality Initiative – Unit of the Greater Miami Visitors and Convention Bureau Providentia International Inc. – a nonprofit 501 c 3 assisting individuals in career transitions Author and Finisher Inc. – a nonprofit 501 c 3 with a mission to build better communities Heritage Trust Federal Credit Union, Charleston, South Carolina South Carolina Ethics Commission South Carolina State Board of Correction Minority Enterprise Development Week, chair – Charleston, SC Cross-Cultural, Christ-Centered, Women's Mentoring Initiative – Springfield, Virginia

Adriene B. Wright



May 21, 2015

Commissioner Mary Ann Lindley Office of the County Commission 301 S. Monroe Street, 5th Floor Tallahassee, FL 32301

Dear Commissioner Lindley,

Mr. John Lawrence currently serves as a County-appointed member of the COCA Board of Directors. His current term will conclude at the end of this fiscal year.

This letter shall confirm that John Lawrence has requested to be reappointed to a second term on the COCA Board of Directors.

We respectfully request that the County Commission reappoint Mr. Lawrence to the History/Heritage seat on the COCA Board of Directors for another four year term beginning in Fiscal Year 2016.

If you have any further questions, please don't hesitate to contact me.

Best regards,

Audra Pittman
Executive Director

andra / Hman

Leon County Board of County Commissioners

Notes for Agenda Item #12

Leon County Board of County Commissioners

Cover Sheet for Agenda #12

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: Second and Final Public Hearing on Proposed Amended and Restated

Bradfordville Chapter 163 Development Agreement

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator David McDevitt, Director, Development Support and Environmental Management
Lead Staff/ Project Team:	Ryan Culpepper, Director, Development Services

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Conduct the second and final Public Hearing and approve the proposed Amended and Restated Bradfordville Chapter 163 Development Agreement (Attachment #1).

Title: Second and Final Public Hearing on Proposed Amended and Restated Bradfordville Chapter 163 Development Agreement

June 9, 2015

Page 2

Report and Discussion

Background:

On January 21, 2014, the Board approved a Chapter 163, Florida Statutes, Development Agreement (DA), which implemented roadway infrastructure improvements in the Bradfordville area. Additionally, the DA with area property owner, Rick Kearney, provided for:

- 1) the transfer of ownership of County property to Mr. Kearney;
- 2) the relocation of the historic Bradfordville School, which serves as a community meeting area;
- 3) the ownership transfer to the County of land adjacent to the relocated school to be utilized as a County park;
- 4) the reallocation and transfer of development rights previously approved by the County from the north side of Bannerman Road to the south side of Bannerman Road;
- 5) the construction of the Beech Ridge Trail extension from Kinhega to Bannerman Road;
- 6) the construction of a roundabout on Bannerman Road; and
- 7) the widening of a segment of Bannerman Road (including right-of-way donation) to the west of the new roundabout on Bannerman Road.

To date, the installation of the roundabout on Bannerman Road has been completed, and the construction associated with the Beech Ridge Trail extension is currently underway. Additionally, the expansion of the commercial shopping area on the south side of Bannerman Road, adjacent to the existing Bannerman Crossing Shopping Center, has been permitted and is currently under construction.

Analysis:

Staff has received a request from the representative of the owner of the property encumbered by the Bradfordville area DA to amend the DA to increase the allowable office from 20,000 to 40,000 square feet, and to increase the retail commercial from 101,500 to 116,500 square feet (Attachment #2). Additionally, the request includes the addition of a signage and way finding plan to accommodate the pedestrian-oriented design of the approved site plan for the southern retail commercial component of the development (Attachment #3).

The approved site plan for the portion of the development located south of Bannerman Road includes two buildings with 10,000 square feet of office on the second floor. The initial concept plan for the project as reflected in the DA noted 20,000 square feet of office that was intended to be located adjacent to the Beech Ridge Trail extension, north of Bannerman Road. This square footage was ultimately transferred and utilized by development south of Bannerman Road. The DA amendment request would re-establish this 20,000 square feet of office use north of Bannerman Road.

Title: Second and Final Public Hearing on Proposed Amended and Restated Bradfordville Chapter 163 Development Agreement

June 9, 2015 Page 3

improvements as reflected in the current DA.

This request is consistent with the Bradfordville Sector Plan and implementing provisions of the Land Development Code (LDC). The storm water associated with the proposed office use will be accommodated in the storm water management facility (SWMF) that has been constructed for the northern component of the proposed development and the Beech Ridge Trail extension project. Additionally, the off-site traffic impacts anticipated for the additional office use will be mitigated by the proportionate share mitigation provided by the property owner in the commitment to right-of-way donation to the County and Bannerman Road capacity

The request for an additional 15,000 square feet of retail commercial entitlements will provide flexibility in final site design, including further options for the outparcels planned for the property located south of Bannerman Road. The proposal to increase the retail commercial land use at this location is consistent with the Bradfordville Sector Plan and implementing provisions of the LDC. The permitted SWMF for the portion of the development located south of Bannerman Road will accommodate the impacts associated with the requested increase in development intensity.

The approved site plan for the portion of the project located south of Bannerman Road reflects a pedestrian-oriented, village concept, which includes four buildings that define a public open area internal to the project. This approved design requires a signage and way finding solution that is not consistent with the signage regulations typical of the auto-oriented design initially intended at this location and implemented by the applicable provisions and regulatory criteria of the LDC. Therefore, the property owner is requesting the DA be amended to allow flexibility in the regulatory framework for signage and way finding design solutions applicable to the component of the development located south of Bannerman Road. The design and regulatory flexibility requested would complement the approved site plan that has entrances oriented internal to the site in order to define a public realm and to encourage people to walk, shop, linger, and enjoy the village atmosphere.

The signage and way finding solutions would be internal to the project and would not be visible from Bannerman Road, as it would be with an auto-oriented design approach. The signage-related amendment request would not impact the applicability of the Bradfordville Design Guidelines and would require review and approval of a comprehensive signage and way finding plan for the area in question by the County prior to implementation. Staff supports this request because it serves to further implement the approved pedestrian-oriented village center concept, which is consistent with the overall goals and polices of the Bradfordville Sector Plan.

In addition to the three revisions that have been requested by the property owner, staff is proposing several "clean-up" items in the DA. These include the deletion of section number 9 that outlines proposed amendments to the Bradfordville Sector Plan and implementing LDR's required to fully implement the DA. All of the revisions noted have been completed and approved by the Board. Also, several typos and formatting issues have been addressed.

Title: Second and Final Public Hearing on Proposed Amended and Restated Bradfordville Chapter 163 Development Agreement

June 9, 2015

Page 4

DSEM Citizen's User Group Recommendations

Staff provided the proposed amendments to the DA to the DSEM Citizen's User Group for review and recommendations at their April 23, 2015 meeting. The User Group had no additional comments, and recommended approval of the proposed amendments to the DA. In addition, the applicant has had preliminary discussions with area neighborhood and property owner associations, who have indicated they do not object to the proposed revisions to the Bradfordville area DA.

Public Notification

Based on the criteria established in the LDC, the consideration of a proposed amendment to a Chapter 163, DA, requires two advertised Board Public Hearings. The Public Hearing has been publicly noticed consistent with the requirements of Florida Statutes (Attachment #4).

Options:

- 1. Conduct the second and final Public Hearing and approve the proposed Amended and Restated Bradfordville Chapter 163 Development Agreement (Attachment #1).
- 2. Conduct the second and final Public Hearing and do not approve the proposed Amended and Restated Bradfordville Chapter 163 Development Agreement.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Proposed Amended and Restated Bradfordville Area Chapter 163 Development Agreement
- 2. Letter from Tom O'Steen Requesting Development Agreement Amendment
- 3. Approved Bannerman Southside Commercial Site Plan
- 4. Legal Advertisement

AMENDED AND RESTATED DEVELOPMENT AGREEMENT

THIS AGREEMENT is entered by and between Leon County, Florida ("County"), a political subdivision of the State of Florida, and Bannerman Forest, LLC, a Florida limited liability company, Bannerman Crossings V, LLC, a Florida limited liability company, Bannerman Crossings II, LLC, a Florida limited liability company, and Summit Holdings VIII, LLC, a Florida limited liability company, by and through Terra Vista Group, manager or managing member of said entities (collectively referred to as "Developer").

Recitals:

WHEREAS, Summit Holdings VIII, LLC owns that certain parcel of land, formerly owned by the Desantis Trust, described in **Exhibit A** (hereinafter the DeSantis Parcel); and,

WHEREAS, County owns those two certain parcels of land, comprising 7.5 acres, lying to the south of Bannerman Road which are described in **Exhibit B** (hereinafter "County Parcels"). Surrounding the County Parcels are lands owned by Bannerman Forest, LLC, Bannerman Crossings II, LLC and Bannerman Crossing V, LLC (hereinafter the "Bannerman Parcels") also described in **Exhibit C.** The County Parcels and the Bannerman Parcels constitute the portion of the property subject to this Agreement that lies south of Bannerman Road ("Southern Property"); and,

WHEREAS, on February 24, 1998, Leon County and Robert G. Lauder, Wilma B. Lauder, and Fred J. Petty entered into a Development Agreement ("Lauder DA"). The Lauder DA is recorded at Book 2097, Page 1839 in the Public Records of Leon County; and,

WHEREAS, subsequent to entering into the Lauder DA, the County purchased a 75 +/-acre parcel of property from Wilma B. Lauder and Fred J. Petty (hereinafter the "Lauder Parcel"). This purchase occurred on May 1, 2002. The Lauder Parcel is more particularly described in Exhibit D. The County subsequently sold the Lauder Parcel, less a 10 acre parcel that was sold to Bradfordville Baptist Church, to Richard S. Kearney (hereinafter "Kearney") on January 14, 2004, also conveying to him all rights and obligations of the Lauder DA. Kearney subsequently divided said property and conveyed said property to Bannerman Forest LLC, Bannerman Crossing II LLC, Bannerman Crossing LLC, and Leon County. These entities are the successors in interest to the Lauder DA; and,

WHEREAS, on June 19, 2002, Leon County entered into an agreement with H.L. Laird and Margaret L. Hirt, James K. Godfrey and Kristin H. Godfrey, the Arlene L. Carter Revocable Trust Agreement and the Bradfordville Hunt Club ("Godfrey-Laird Agreement") governing the DesSantis Parcel; and,

WHEREAS, the County and the Peter A. DesSantis Trust (successor in interest to the Godfrey-Laird Agreement) entered into a Traffic Mitigation Agreement and First Amendment to the Godfrey-Laird Agreement ("Traffic Mitigation Agreement") on or about July 10, 2008, recorded in OR Book 3881, Page 1760, public records of Leon County, Florida; and,

WHEREAS, on December 21, 2012, Summit Holdings VIII, LLC purchased the DesSantis Parcel from the Peter DesSantis Trust becoming the successor in interest to the Godfrey-Laird Agreement, and the Traffic Mitigation Agreement (cumulatively "the DesSantis Agreements"); and,

WHEREAS, pursuant to the DesSantis Agreements the Developer is entitled to the net number of new vehicular trips that would be created by a mixed-use development consisting of 75,000 square feet of commercial retail land use and 32 residential dwelling units, approximately 232 trips during the PM peak hour of generation; and,

WHEREAS, in consideration for the project roadway impacts generated by the development anticipated in the Godfrey-Laird Agreement, the Developer is obligated to dedicate right-of-way and drainage easements to the County between the northern boundary of the northern parcel and the northern right-of-way of Bannerman Road with the intention that a roadway be constructed within this right-of-way, which will be an extension of Beech Ridge Trail, a public road, extending from the southern right-of-way of Kinhega Drive to the northern edge of the pavement of Bannerman Road (hereafter "Beech Ridge Trail Extension"); and

WHEREAS, the County and Summit Holdings VIII, LLC entered into the First Amendment to the DesSantis Proportionate Share Mitigation Agreement and First Amendment to Settlement Agreement to extend the term of the DesSantis Proportionate Share Mitigation Agreement until July 10, 2018; and

WHEREAS, the rights and obligations to the Lauder DA and the DesSantis Agreements are held by the Developer; and,

WHEREAS, because it is the intent of the Developer and the County that this Agreement be a comprehensive agreement detailing those rights and obligations which remain outstanding in the Lauder DA and the DesSantis Agreements, all unexercised rights or unfulfilled obligations are incorporated herein. Those rights and obligations not specifically mentioned herein are deemed extinguished or satisfied; and,

WHEREAS, County is desirous of exchanging the 7.5 acre County Parcels for a +/- 17.8 acre parcel contained within the DeSantis Parcel, which shall be designated as a passive park, public road right-of-way and a regional storm water facility contained therein **Exhibit E**; and,

WHEREAS, Developer desires to participate in the exchange referenced above and desires to develop certain lands along Bannerman Road within the DeSantis parcel and also the County Parcels along with other contiguous parcels it presently owns into one (1) cumulative commercial/retail and residential center as depicted in **Exhibit F**; and,

WHEREAS, the developer wishes to utilize/allocate the DeSantis entitlements (listed above) in combination/addition to the 83,156 SF of existing retail/commercial development (Bannerman I and II) entitlements, to develop one (1) mixed-use project (see Exhibit F). The developer proposes (up to); 101,500116,500 SF of retail/commercial (anticipated to be allocated with 25,500 SF north of Bannerman Road & 76,000 SF south of Bannerman Road), 20,00040,000 SF of office (north of Bannerman Road), and a maximum of 153 single family residential units (south of Bannerman Road); and

WHEREAS, this Agreement is a Development Agreement adopted pursuant to Chapter 163, Florida Statutes, and Chapter 10, Article II, Division 5 of the Leon County Code of Laws, and the powers of Leon County as a charter county.

WHEREAS, the original Development Agreement is recorded in the Public Records of Leon County at Book 4629, Page 1605, and re-recorded in the Public Records of Leon County at Book 4794, Page 442 to replace Exhibit "F" with correct development plan, and to make all exhibits more legible.

NOW, THEREFORE, in consideration of the mutual promises and premises set forth herein, Leon County and the Developer (the "Parties") enter into this First Amendment to the Lauder Development Agreement, Second Amendment to the DeSantis Proportionate Share Traffic Mitigation Agreement, and Second Amendment to the Godfrey-Laird Settlement Agreement, as follows:

- 1. <u>Recitals.</u> The recitals set forth above are true and correct and are incorporated herein by reference as if specifically set out.
- 2. <u>Comprehensive Plan Consistency.</u> All of the properties contemplated in this agreement are within the Bradfordville Future Land Use Category of the Tallahassee / Leon County Comprehensive Plan and further implement the development patterns identified in Policy 1.7.9. The proposed uses and densities / intensities are within the development patterns thresholds and will locate commercial development within the Thomasville Road / Bannerman Road node as envisioned. The County has determined that, upon full implementation of this Agreement, the development permitted or proposed shall be consistent with the Tallahassee-Leon County Comprehensive Plan and land development regulations.

3. Property Transfer.

- a. Property Exchange. The County will transfer to Developer, via County Deed the County Parcels, with no encumbrances or title exceptions excepting for those identified in **Exhibit B-1**. Developer will transfer to the County, via Statutory Warranty Deed, the 17.8 acre parcel (Beech Ridge Trail Extension right-of-way, community center site, stormwater ponds and passive park), as described in **Exhibit E**, free and clear of encumbrances and title exceptions excepting for those identified in **Exhibit A-1**. The transfer of said properties shall occur upon completion of the construction by Developer and acceptance of dedication by the County of the Beech Ridge Trail Extension.
- b. School House Relocation. The Developer, at their expense, will relocate the Historic County School House ("School House") to an agreed-upon location on the DesSantis parcel no later than 60 days following the acceptance of Beech Ridge Trail Extension by the County. The Developer will take special precaution and care in moving the School House to maintain the structural integrity of the building. The Developer will provide the following at the new School House site: 1) installation of asphalt (or other material acceptable to the County) ingress/egress through curb return, 2) gravel parking lot with 15 parking stalls and 1 concrete handicap accessible parking space, 3) all necessary utility connections, 4) structurally designed concrete piers to set house, 5) sidewalk from the handicap accessible parking space to ingress/egress ramp 6) stabilize site and relocation of the Capital Area Flood Warning Network (CAFWN) weather monitoring equipment to the new site. The site and building will be owned and operated by Leon County as a Community Center.

4. Beech Ridge Trail Extension and Passive Park

a. To mitigate for the roadway impacts anticipated to occur as a result of the development contemplated by the Agreement, the Developer will dedicate to the County right-of-way and drainage easements between the northern boundary of the DesSantis parcel and the northern right-of-way of Bannerman Road with the intention that a roadway be constructed within this right-of-way, which will be an extension of Beech Ridge Trail, a public road, extending from the southern edge of the pavement of Kinhega Drive to the northern edge of the pavement of Bannerman Road. The dedication will include sufficient area to provide for the construction, operation and maintenance of facilities for stormwater treatment, including drainage easements, for the run-off generated by the Beech Ridge Trail Extension. The dedicated right-of-way shall be no less than sixty (60) feet in width, which may require that a governmental subdivision be approved.

- b. Funding and construction of the Beech Ridge Trail Extension shall include all design, surveying, engineering, permitting, testing, construction management or other costs associated with the construction of the Beech Ridge Trail extension and associated stormwater treatment. The design process shall include submittal of design documents to Leon County Public Works and Leon County Development Support and Environmental Management for review, comments (which comments shall be implemented by the Developer) and approval, as appropriate, at the customary points of design completion: 30%, 60%, 90%, and 100% of design completion. Leon County Public Works and Leon County Development Support and Environmental Management shall be afforded adequate time for this review, including not less than 30 days for review of final plans for final approval at 100% completion. The County must approve or reject the final plans with 60 days, exclusive of time required for the applicant to respond to a notice of application deficiency, or it shall be deemed that the County has approved the final plans as submitted.
- c. Developer will bear the costs of designing, surveying, engineering, permitting, conducting evaluations/investigations and cost of the construction of the Beech Ridge Trail Extension and associated storm water facilities.
- d. Developer has agreed to contribute to the County one-half of the cost, on a reimbursement basis, not to exceed a total contribution of \$100,000.00 for surveying, engineering, designing, and permitting a roundabout at Kinhega Drive and of the acquisition of needed right-of-way to access the roundabout and for construction of the roundabout. Of the committed funds, \$36,734.00 of the Developer's contribution remains outstanding. Attached as **Exhibit G** is the acknowledgement from the County confirming the Developer's contribution todate.
- e. The County shall be responsible for all remaining costs of permitting, design, construction, and additional right of way acquisition needed for the roundabout at Kinhega Drive and Beech Ridge Trail (that exceed the contribution by the Developer) along with the needed acquisition and cost of the necessary right-of-way or easements for the Beech Ridge Trail stormwater pond outfall. The County will acquire all necessary rights of way and/or easements in timely manner and fund construction of said roundabout commensurate with the final approval of this agreement by the County Commission. The County will, upon execution of this Agreement, in a timely manner, take all required steps to acquire the drainage easement as depicted in **Exhibit E**., attached. Should said drainage easement not have been acquired by the date which is 60 days prior to the estimated date of the acceptance of the dedication of Beech Ridge Trail Extension by the County, then the County shall initiate a "quick take" condemnation of the drainage easement.

- The County shall not withhold the permitting of the construction of Beech Ridge Trail and associated stormwater ponds due to the lack of said drainage easement.
- f. Beech Ridge Trail Extension shall be designed and constructed as a collector street, consistent with the parameters established by and in coordination with Leon County Department of Public Works, and shall include the following design elements: two eleven-foot wide travel lanes; curb and gutter along each side of the street; four-foot wide bicycle travel lanes along each side of the street; a sidewalk of no less than five feet of width to be provided along one (1) side of the street; conveyances for stormwater; a stormwater detention or retention facility in compliance with the Bradfordville Stormwater Standards and the Bradfordville Sector Plan, with adequate access thereto; a traffic signal at the intersection of Beech Ridge Trail and Bannerman Road, including associated support structures, signal box, pedestrian crossing signals, and wiring, the cost of which shall be borne by the Developer.
- g. The Developer may proceed with the construction of the Beech Ridge Trail Extension and reserves the right to design, permit, and build a temporary road terminus with its associated stormwater infrastructure. If feasible, the County will fund the Beech Ridge Trail Extension roundabout construction commensurate with Developer's issuance of an invitation to bid for the construction of the Beech Ridge Trail Extension The Developer's invitation to bid will also include the roundabout (as addendum) and to construct the roundabout via 'construction agreement' between the County and Developer.
- h. Upon the final completion of the construction of Beech Ridge Trail Extension and associated storm water facilities construction, and acceptance of that construction by Leon County Public Works, the Developer shall dedicate or convey the ownership of Beech Ridge Trail Extension right-of-way to Leon County along with all applicable drainage conveyances to the stormwater management facilities, and the said stormwater management facilities, subject to the Board of County Commissioners' acceptance. The construction and dedication of Beech Ridge Trail Extension to Leon County qualifies as significant benefits under the provisions of Section 6.2.5.3.b. of the Leon County Concurrency Management Policies and Procedures Manual, adopted on November 14, 2006.
- i. The parties agree and understand that the commitments for the construction, dedication and acceptance of Beech Ridge Trail Extension, in its entirety, shall be pre-requisites for the issuance of any certificate of occupancy for any building constructed on the DeSantis Parcel. Except, however, should the County fail to construct its portion of the road and roundabout, such failure shall not affect the Developer's right and ability to obtain building permits for development on the DeSantis Parcel and the commercial parcels on the south side of Bannerman

- Road. In such case, the northern termination of Beech Ridge Trail Extension shall be at the north property line of the DeSantis Parcel.
- j. As a condition of any development order or environmental permit, pursuant to this Agreement, the Developer shall provide a surety device for the construction of Beech Ridge Trail Extension and associated improvements as specified herein, which have not been constructed. The surety device shall:
 - (1) Be acceptable to and approved by the County Engineer and the County Attorney; and, cover 110 % of the cost of any uncompleted road, storm water management conveyance improvements, or other required infrastructure as estimated by the engineer of record and approved by the County Engineer; and,
 - (2) Be conditioned upon completion of construction and dedication of roads and storm water management conveyances as shown on the approved construction plans within 18 months, or as extended by the county engineer; and,
 - (3) Be payable solely to and for the indemnification of Leon County.
- k. The Developer shall provide a surety device, payable solely to and for the indemnification of Leon County, in the amount of 10% of the total cost of all required improvements as approved in the site and development plan to cover defects in materials and/or workmanship for two years for the Beech Ridge Trail Extension.

5. General Development Requirements

- a. Design Standards. Development shall comply with the Bradfordville Site and Building Design Standards Manual to the extent that it does not impact the original development rights granted under the DeSantis Agreements.
- b. Traffic Concurrency.
 - (1) Utilizing the latest ITE Trip Generation Manual, the Developer, in conjunction with the Leon County Department of Development Support and Environmental Management, has performed and completed the 'Traffic Concurrency Application' (dated 5/22/2013, amended 10/15/2013) which calculated and compared the aggregate sum of all existing and proposed non-residential (shopping center (184,656 SF)/office (20,000 SF)) and residential (153 units) PM peak hour trips for the entire mixed-use development against the cumulative sum of: 1) the number of trips already approved for the existing 83,156 SF retail/commercial development; and 2) what is reserved in the DesSantis

Agreements (approximately 232 trips) during the PM peak hour of generation. Any net new external PM peak hour trips for the development will be identified after deducting the previously reserved transportation concurrency trips. The calculated net external PM peak hour trips are 219 VPH and have minimal adverse effect on the surrounding roadway capacity network. To quantify, the proportionate cost by the developer to mitigate the offsite deficit presented by this proposed development is approximately \$64,451. The additional 15,000 square feet of retail use and 20,000 square feet of office use reflected in this amendment -generate 44 PM Peak Hour External Trips. The proportionate share calculation for the new impact will be deducted from the credit found in Section 5(b)(5) of this Agreement.

- (2) Signal and Turn Lane. Signal Warrant and Turn Lane Analysis (5/28/2013) was performed by Developer, at the request of Leon County Public Works Department, to ensure traffic operational safety along the Bannerman Road Corridor with respect to: 1) the proposed new intersection and signal at Beech Ridge Trail/Bannerman Road, and 2) the proposed shopping center and residential expansion west and north of the existing Bannerman Crossing development. The conclusion of this report shows that the Signal is warranted at its new location and modifications to Bannerman Road within its existing rights of way/pavement can be achieved to properly accommodate signal and new development (see 6.a below). It was determined however that a new westbound left turn lane off Bannerman Road to the future extension of Quail Common Drive south is recommended and would be beneficial to the residential development. This improvement is not immediately needed and furthermore is the second ingress/egress for the residential portion of this development and therefore could be built as part of the Bannerman Road widening project (see 6.d below for further detail). The anticipated cost of building the westbound left turn lane is approximately \$75,000 will be constructed during the widening of Bannerman Road. The traffic analysis will be updated during site plan review based on trip generation calculated from the proposed final development.
- (3) Developer Roundabout Expense: The remaining commitment due to the County for the Roundabout by the Developer is \$36,734. Said amount shall be offset against the benefits set forth in 5.b.(4), below.
- (4) Significant benefits to offset additional offsite PM peak trips, turn lanes, and roundabout (and all associated costs) as determined in 5.b.(1), (2), and (3), above:

- (a) The 40' of land (1.5 ac.) provided by Developer along south side of Bannerman Road as described in 6.e. below is valued at \$900,000.
- (b) The 20' of land (0.23 ac.) provided by Developer along north side of Bannerman Road as described in 6.c. below and the stormwater treatment and attenuation provided for same by the Developer. Is valued at \$125,000.
- (c) Relocation of Beech Ridge Trail Extension by Developer at Bannerman Road approximately 300' west of previously approved DeSantis agreement location as described in 6.a. below is valued at \$75,000.00.
- (5) Costs required by Developer as described in 5.b.(1), (2), and (3) above total approximately \$176,185 and the value provided by the developer as described in 5.b.(4) above totals approximately \$1,100,000.00 for a net value owed to the developer of \$923,815. The developer will be allocated a credit of \$923,815 to be used towards the funding of the Bannerman Road widening project, should additional concurrency mitigation is necessary. The Bannerman Road widening project may be_constructed in phases, with the first phase occurring from Beech Ridge Trail to the drainage divide located approximately 900' west of Quail Commons Drive. Additional significant benefits provided by Developer could be realized by the County in land provided by the Developer for stormwater treatment/attenuation for this initial phase of Bannerman Road widening as further discussed in Section 6.(b) and (e) below.

c. Entitlements.

- (1) As concurrency has been finalized and properly mitigated, three (3) categories of land use entitlements will be created for all future development to allocate concurrency:
 - (a) Shopping Center (commercial/retail) (101,500 116,000 square feet);
 - (b) Office (20,000 40,000 square feet);
 - (c) Residential (153 single family);
- (2) Land Use Conversion Tables. A land use conversion table is attached hereto as **Exhibit H**, utilizing the latest Traffic and Transportation Engineering methodologies, that interconnects the three (3) categories,

above, shall be utilized should future land use changes be requested by the Developer.

d. Public Transit. The Developer will coordinate with Star Metro to locate a transit stop and shelter on the Developer's parcel lying south of Bannerman Road should Star Metro determine need and have appropriate funds to implement. The costs of design, permitting, construction, and installation of such a transit stop/shelter shall be borne by Star Metro with the exception of the concrete pad for the stop/shelter, which will be borne by the Developer. All future maintenance of said stop/shelter will be determined at later date between the parties.

e. Natural Area.

- (1) The Developer will donate the undisturbed lands that remain outside the limits of Beech Ridge Trail Extension right-of-way, stormwater management ponds, Community Center, and the proposed commercial development lying on the north side of Bannerman Road to Leon County. These areas will be available for use towards natural area credit for future development north of Bannerman Road, including existing or manmade wetlands (wet ponds), and otherwise consistent with the County's GRACE program.
- (2) Open Space may be included in rezoning and/or sector plan amendments if needed to achieve Natural Area credit. To the extent that the natural area is not sufficient onsite, for off-site credit the Developer may use the County's GRACE program to provide required open space mitigation offsite. All wetlands, watercourses, and stormwater facilities that are designated as wet ponds may count towards the Natural Area requirement.

6. <u>Improvements to Bannerman Road</u>.

a. The Developer will bear the costs to redesign and permit the intersection of Beech Ridge Trail Extension and Bannerman Road so that such intersection aligns with the new proposed entrance to the development on the Southern Property presently undeveloped. The 5/28/2013 Signal Warrant and Turn Lane Analysis has demonstrated that maintaining the existing westbound left turn lane off of Bannerman Road into the existing Bannerman Crossings shopping center in conjunction with the proposed westbound left turn lane at the new traffic signal is allowed. The Developer is responsible for any and all median construction/reconstruction, signage and striping for said turning movements associated with the realignment. Once construction/reconstruction is complete and a reasonable time period has occurred allowing for vehicle traffic patterns to adjust, the County may eliminate the left turn movement at the first existing entrance and consolidate

- left turn events to the signal at Beech Ridge Trail should traffic problems not be resolved through signal timing.
- b. Pursuant to the PD&E study done by RS&H for the widening of Bannerman Road, the Developer under the direction of the County will conduct (at County expense) a stormwater analysis (for phase I as described in 5.b.(5) above) to determine if right-of-way costs can be minimized and/or eliminated by utilizing Developer land south of Bannerman Road to treat/attenuate stormwater run off from the proposed Bannerman roadway widening. Based upon those results, a detailed construction cost assessment will be conducted to determine the economic viability of proceeding with the design, permitting and construction of this initial phase of Bannerman Road widening. Should such an arrangement be determined to be desirable by the Board of County Commissioners, the Board may consider an agreement for the engineering and/or construction of the project, which may authorize the Developer (at county expense) to proceed with the design and permitting of the initial phase of Bannerman Road widening as preliminarily designed by RS&H in said PD&E study. Furthermore, the proposed county widening of Bannerman Road will not affect Developer's construction of Beech Ridge Trail Extension or its realignment with Bannerman Road. Should the County proceed with the 'First phase" widening of Bannerman Road commensurate with the Developer's construction of Beech Ridge Trail the Developer may add this work as an addendum to their construction plans via a construction agreement between the Parties.
- c. Developer will provide 20 feet of frontage along the north side of Bannerman Road from its western property line to the realigned Beech Ridge Trail Extension intersection with Bannerman Road to accommodate the future 10' multipath side walk to be designed and built by Leon County. Developer will provide the capacity/attenuation and treatment for this multi-use path consistent with Leon County standards for the Bradfordville Study Area.
- d. County will maintain full intersection allowances at Quail Common and Bannerman Road, unless future traffic patterns/safety analysis concludes differently. The required westbound left turn lane identified in 5.b.(2) above will be built by the Developer at the total expense of Developer, to be determined, should impacts be recognized prior to County commencing with their Bannerman Road widening project. Should impacts not be recognized as described above, the County will build the westbound left turn lane off Bannerman Road onto the southerly extension of Quail Common Drive as part of their Bannerman Road widening design / construction. Sufficient median is proposed in the County's Bannerman Road widening plans to accommodate this left turn lane. Developer

- is solely responsible for the design and construction of the southerly extension of Quail Common Drive.
- e. Developer will donate to the County the necessary 40 feet of frontage along the south side of Bannerman Road to accommodate the County's need for additional right-of-way to construct the future widening of Bannerman Road and potentially additional lands outside the donated 40 feet of frontage described above to accommodate the needed stormwater treatment/attenuation for the initial phase of widening of Bannerman road as described in 6.(b) above.

7. <u>Development of the DesSantis Parcel</u>

- a. The portion of the DesSantis Parcel not conveyed to the County, as set forth above and depicted in **Exhibit E**, shall retain and be entitled to +/-25,500 SF of commercial retail space and 20,000 SF of office space with the associated PM peak hour trips calculated from the new cumulative trip assessment determined in 5.b.(1) above and placed appropriately. The approximate location of the intended uses of the remaining parcel is depicted on **Exhibit F**.
- b. The Developer will be authorized to subdivide the portion of the property not conveyed to the County into a maximum of seven (7) commercial lots, with a maximum of three (3) lots west of Beech Ridge Trail, and a maximum of four (4) lots east of Beech Ridge Trail. As shown in **Exhibit F**, access to the commercial properties shall be provided by a rear access road and shall not be permitted directly off Bannerman Road. Design standards will be adopted to relate the western lots to the park via pedestrian access. Fast food drive-through operations will be limited to three of the six parcels that abut Bannerman road. In the event of contiguous fast food development the County will allow; interconnected/shared vehicular and pedestrian access, and minimal landscape medians between parking isles by utilizing cumulative and contiguous natural buffers (cleared of underbrush) along Bannerman/Beech Ridge Trail Extension road frontage to compensate for internal shortfall. A single bank of parking may be allowed on the sides of the buildings facing Bannerman Road and/or Beech Ridge Trail Extension. The commercial buildings should be designed such that the side of the building facing Bannerman Road has doors, windows, or other design elements giving the appearance of accessibility to Bannerman Road. Developer shall install a buffer along the western boundary of the DeSantis Parcel where it is contiguous to Lots 10 and 11, Block C, Killearn Lakes Unit 1. The buffer to be installed will be in compliance with a Type B buffer as set forth in Section 10-7.522 and shall be 10 feet in width, excluding the width of the buffer already in existence on the Killearn Lakes Unit 1 Plat.

8. <u>Development of Southern Property</u>

- a. Interconnectivity. All land use components shall be designed to ensure optimal pedestrian, bicycle and vehicular interconnection(s) with the other land use components of the Southern Property, including interconnectivity between the retail and single-family residential components. To ensure interconnectivity between the commercial/retail component and the single-family component, the first component to be permitted and constructed shall provide both a pedestrian and vehicular interconnection to the component boundary line, in locations which will make future continuation into the second component feasible. The second component to be permitted and constructed shall continue the pedestrian and vehicular interconnection accordingly. In addition, transit opportunities shall be maximized.
- b. Lake McBride Scenic Overlay District. All development on the parcels lying south of Bannerman Road shall comply with and implement the Lake McBride Scenic Overlay District contained in Sec. 10-6.678 the Leon County Code of Laws.
- c. Commercial/Retail. A total of PM Peak Hour trips equivalent to +/- 76,000 SF of commercial retail space will be calculated from the new cumulative trip assessment determined in 5.b.(1) above and provided to the Southern Property.

d. Single-family residential

- (1) A total of PM peak hour trips equivalent to 153 single-family detached units will be calculated from the new cumulative trip assessment. This total shall be based on the Since Family Detached (210) rate found within the ITE Trip Generation Manual. The trip assessment has been determined in paragraph 5.b.(1) above and provided on the Southern property indicated on **Exhibit F** as single family.
- (2) The Single-family component will be designed to ensure multiple access points to the other components of the Southern Property.
- (3) The residential component on the Southern Parcels contains an existing single-family residential (SFR) home. This SFR home is located in the northwestern portion of the Southern Parcels and located within a residential component not directly adjacent to the main body of residential development (refer to Figure "F"). This outlying residential component is located in the Residential Preservation zoning district. The outlying residential component shall only be entitled to further subdivision upon the inclusion of an interconnection between this residential component and the main body of residential development. The inclusion of an

interconnection may entitle the outlying residential component to the density afforded by the applicable Residential Preservation zoning district standards noted in Section 10-6.617 of the Leon County Land Development Code (LDC). It should be noted that required infrastructure, traffic concurrency, and any environmental constraints may further limit the number of lots that may be developed. Development included on this property may not exceed the 153 single-family unit allocation for the Development.

- e. Open Space/Natural Area that is indicated on Exhibit F shall serve all development on the Southern Property with the exact boundaries of this land to be designated at permitting.
- e.f. Signage and Way Finding. Based on the pedestrian-oriented, village center concept represented in the approved site plan reflected in Exhibit I, the Developer shall submit a comprehensive signage and way finding plan. The plan shall consider the appropriate signage and way finding solutions for the development in question based on building orientation, number of entrances, and pedestrian access. The total square footage of signage proposed for an individual tenant or establishment included in the plan shall not exceed the total amount provided by the County's Sign Code. The signage and way finding solutions provided in the plan shall be internal to the project in a manner that they are not visible from Bannerman Road.

9. Amendments to the Bradfordville Sector Plan, Land Development Code, and Rezoning

a. Bradfordville Sector Plan.

- (1) The County will consider an ordinance amendment to designate the entire DeSantis Parcel as Commercial Overlay Zone One (CO-1) in the Bradfordville Sector Plan and will confirm that the entitlements for this parcel are included in the allocated commercial square feet anticipated in the Bradfordville Sector Plan.
- (2) The County will consider an ordinance amendment to remove the Commercial/Mixed Use Overlay Zone Two (CMUO-2) of the Bradfordville Sector Plan from the south side of Bannerman Road and to extend the existing CO-1 Overlay to the west.

b. Amendments to the Official Zoning Map

(1) The County will consider amendments to the Official Zoning Map to rezone all land subject to this Agreement lying north of Bannerman Road to be Bradfordville Commercial-Auto Oriented District (BC-1).

- (2) The County will consider amendments to the Official Zoning Map to rezone a portion of the property subject to this Agreement lying South of Bannerman Road proposed for retail development and stormwater pond to be Bradfordville Commercial Auto Oriented District (BC 1).
- (3) The County will consider amendments to the Official Zoning Map to rezone a portion of the land subject to this Agreement lying south of Bannerman road for single-family residential development, stormwater pond and natural area to develop at a density of up to 3.5 units/acre based on gross land area.
- (4) The Developer will complete a boundary settlement, or where applicable, a subdivision of property to configure the lot boundaries to conform with the boundaries of the zoning map, as amended.

10.9. Declaration of Covenants, Conditions, and Restrictions.

- a. The County and the Developer agree to effectuate an amendment to the Amended Declaration of Covenants, Conditions and Restrictions, recorded in Official Records Book 3132, Page 782, in the Public Records of Leon County, Florida to allow construction of the development contemplated by this Agreement.
- b. The Amended Restrictive Covenants shall be amended and restated as follows:
 - (1) An amended Exhibit "A" (see attached **Exhibit D** to this Agreement) shall be provided which shall indicate the appropriate land uses pursuant to the Second Amendment.
 - (2) Article II shall be amended so as to relate only to the existing church parcel which shall be restricted to residential property with a density of one unit per ten acres or less; and a church or other religious facility shall be allowed on a portion of the residential property, provided that the church does not include a cemetery, a day school with more than 150 students or for children of kindergarten age or older, an adult congregate living facility, a nursing home, or similar activity.
 - (3) Article III shall be amended so as to relate to the existing and proposed commercial parcels and will be restricted to no greater than commercial zoning.
 - (4) Article IV will be amended to relate to proposed residential components and shall provide that any and all development on the portion of the 75.35-acre Property lying within the Lake Viewshed Overlay, as designated in Figure 12 of the Bradfordville Sector Plan, shall be consistent the applicable Leon County Land Development Regulations as set forth in

Section 4 of County Ordinance No. 00-31 adopted by the Board of County Commissioners of Leon County on July 11, 2000 (hereinafter the "Ordinance"); provided, however, that single family residential development of Lot 1 shown on Exhibit "A" shall be limited to a density of 3.5 units per 1 acre further restricted to no more than 153 single-family residential units

- c. The County agrees that it will take those steps necessary to effectuate and execute said amendment. The Parties understand that the amendment will have to be executed by Bradfordville Baptist Church and Bannerman Crossing, LLC in order for it to be effective. The County makes no representations as to the willingness of Bradfordville Baptist Church and Bannerman Crossing, LLC to executing said amendment. Such amendment is also contingent upon the modification of settlement agreements entered into by Leon County in Case Nos. 1997 CA 2689 and 2000 CA 1784 with Lake McBride Area Residents Association, Inc. and also with Killearn Lakes Home Owners Association, Inc.
- Indemnification. If this Agreement is challenged in any judicial or administrative action as being arbitrary or unreasonable, inconsistent with the Tallahassee-Leon County Comprehensive Plan, unconstitutional or otherwise invalid or unlawful for any reason, the Developer shall diligently defend such action or, at the option of the Board of County Commissioners in consultation with Developer, shall pay all the County's defense costs and fees which are reasonable and necessary. The Developer shall also be liable for and hold the County, its officers, officials and employees, harmless from any costs, fees, damages and attorney's fees, which may be assessed against the County, its officers, officials and employees, as it relates to such challenge. If the County is unable to perform any of its obligations under this Agreement due to delay caused by litigation or a final order of any court or administrative body or agency, Developer agrees it may not act under this Agreement to enforce such County obligation(s) nor shall Developer have a cause of action against the County for failure to meet such obligation. Additionally, the Developer shall have the right at any time during any such action(s) to withdraw the application for the 163 Agreement, re-zoning application, or request withdrawal of the Sector Plan Amendment.
- 12.11. <u>Description of Necessary Development Permits.</u> Failure of the agreement to address a particular permit, condition, term, or restriction shall not relieve the developer of the necessity of complying with the law governing said permitting requirements, conditions, term, or restriction.
- 13.12. Effects of Annexation. The rights and obligations of this Agreement shall remain in full force and effect in the event that the Property, or any portion thereof, is annexed into the City of Tallahassee. The burdens and benefits of this Agreement shall be binding upon and shall inure to all successors in interest to the County and Owner.

- 14.13. Term. The rights and obligations under this Agreement shall run for a period of 20 years from the date of execution hereof or until such time as build out is complete, whichever occurs first.
- 15.14. Approval and Effective Date. Approval of the development agreement shall expire unless, within 30 days after approval by the Board of County Commissioners, the agreement is fully executed by all legal owners of the land covered by this Agreement. Within 14 days after the full execution of this Agreement, the County shall record this Agreement in the public records of Leon County. This Agreement shall become effective upon recordation in the public records.
- 16.15. Applicable Law. This Agreement shall be interpreted under the laws of the state of Florida.
- 17.16. Costs and Fees. In the event of any litigation involving the terms of this Agreement or the duties or obligations of the parties, the prevailing party shall be entitled to recover its costs and expenses, including without limitation, expert fees, consulting fees and all other fees reasonably incurred, and a reasonable attorney's fee in connection therewith, whether incurred at trial or appeal.
- 18.17. Binding Effect. The rights and obligations of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and to their lawful heirs, successors, and assigns, and any future owners of the parcels that are described herein.
- 19.18. Severability. If any work, phrase, clause, section, or portion of this Agreement shall be held invalid by a court of competent jurisdiction, such portion or word shall be deemed a separate and independent provision and such holding shall not affect the validity of the remaining portions of this Agreement.
- 20.19. Complete Agreement. This Agreement contains the entire agreement of the parties hereto, and no representations, inducements, promises, or agreements, oral or otherwise, between the parties not embodied herein shall be of any force or effect. Outstanding provisions in the Lauder DA, Godfrey-Laird Agreement, and DesSantis Traffic Mitigation Agreement are incorporated herein and those rights and obligations not specifically mentioned herein are deemed extinguished or satisfied.
- 21.20. Amendments. Any amendment to this Agreement shall not be binding upon the parties hereto unless such amendment is in writing and executed by all parties hereto.

IN WITNESS WHEREOF, the Parties hereto, through their duly authorized representatives, have executed this Development Agreement.

LEON COUNTY, FLORIDA

	BY: Mary Ann Lindley, Chairman Board of County Commissioners
ATTEST:	
Bob Inzer, Clerk of the Court and Comptroller Leon County, Florida	
BY:	
Approved as to Form:	
Leon County Attorney's Office	
BY:	
Herbert W.A. Thiele, Esq. County Attorney	

Developer Signatures Follow on Next Page

Remainder of this Page is Intentionally Blank

Witnesses:	BANNERMAN FOREST, LLC,
	by: Tierra Vista Group, LLC
	Its Manager
	By:
	Claude R. Walker, its Manager
State of Florida County of Leon	
201 <u>5</u> 4 by Claude R. Walker, as M	eknowledged before me this day of, Manager of Tierra Vista Group, LLC, as Manager of Bannerman hally known to me or () produced as his identification.
	Notary Public, State of Florida
Witnesses:	BANNERMAN CROSSINGS II, LLC,
	by: T i erra Vista Group, LLC
	Its Managing Member
	Ву:
	Claude R. Walker, its Manager
State of Florida County of Leon	
201 <u>5</u> 4 by Claude R. Walker, as M	eknowledged before me this day of, Manager of Tierra Vista Group, LLC, as Managing Member of o: Is ()personally known to me or () produced as his identification.
	Notary Public, State of Florida

Witnesses:	BANNERMAN CROSSINGS V, LLC,
	by: Tierra Vista Group, LLC
	Its Managing Member
	By:
	Claude R. Walker, its Manager
State of Florida County of Leon	
201 <u>5</u> 4 by Claude R. Walker, as Bannerman Crossings V, LLC,	cknowledged before me this day of, Manager of Tierra Vista Group, LLC, as Managing Member of who: Is ()personally known to me or () produced as his identification.
	Notary Public, State of Florida
Witnesses:	SUMMIT HOLDINGS VIII, LLC,
	by: Tierra Vista Group, LLC
	Its Managing Member
	By:
	Claude R. Walker, its Manager
State of Florida County of Leon	
201 <u>5</u> 4 by Claude R. Walker, as	cknowledged before me this day of, Manager of Tierra Vista Group, LLC, as Managing Member of no: Is ()personally known to me or () produced as his identification.
	Notary Public, State of Florida

EXHIBITS

- A. DesSantis Parcel.
- B. County Parcels.
- C. Southern Parcel.
- D. Lauder Parcel.
- E. DesSantis Parcel, proposed.
- F. DesSantis Parcel and Southern Parcel, proposed development and use.
- G. County Acknowledgement.
- H. Land Use Conversion Table.
- H.I. Bannerman Crossing Southside Commercial Site Plan.
- I. Proposed Amendments to the Bradfordville Sector Plan Commercial Overlay Districts.

EXHIBIT "I"



Land Use Planning • Engineering Design • Environmental Permitting • Landscape Architecture • Surveying

April 8, 2015

Mr. David McDevitt Leon County Department of Development Support and Environmental Management 435 North Macomb Street, 2nd Floor Tallahassee, FL 32301

Re: Amendment to Bannerman Crossing 163 Agreement

Dear David:

As we discussed, the majority of the commercial development authorized by the Bannerman Crossing 163 Agreement has been designed, permitted and is under construction.

During the design process, it was determined that a transfer of the allocated office space could be allocated from the north side of Bannerman Road (where it was originally anticipated) to the second floor of two of the commercial buildings on the south side of Bannerman Road. Additionally, more accurate market demand has indicated a need for a slight increase in the previously allocated retail commercial entitlement than originally anticipated.

For these reasons, an amendment to the Bannerman Crossing 163 Agreement is sought to increase the anticipated amount of retail commercial (15,000 qsf) and office development (20,000 qsf). Also needed is a clarification of how signage for the project will meet the Bradfordville Design Guidelines.

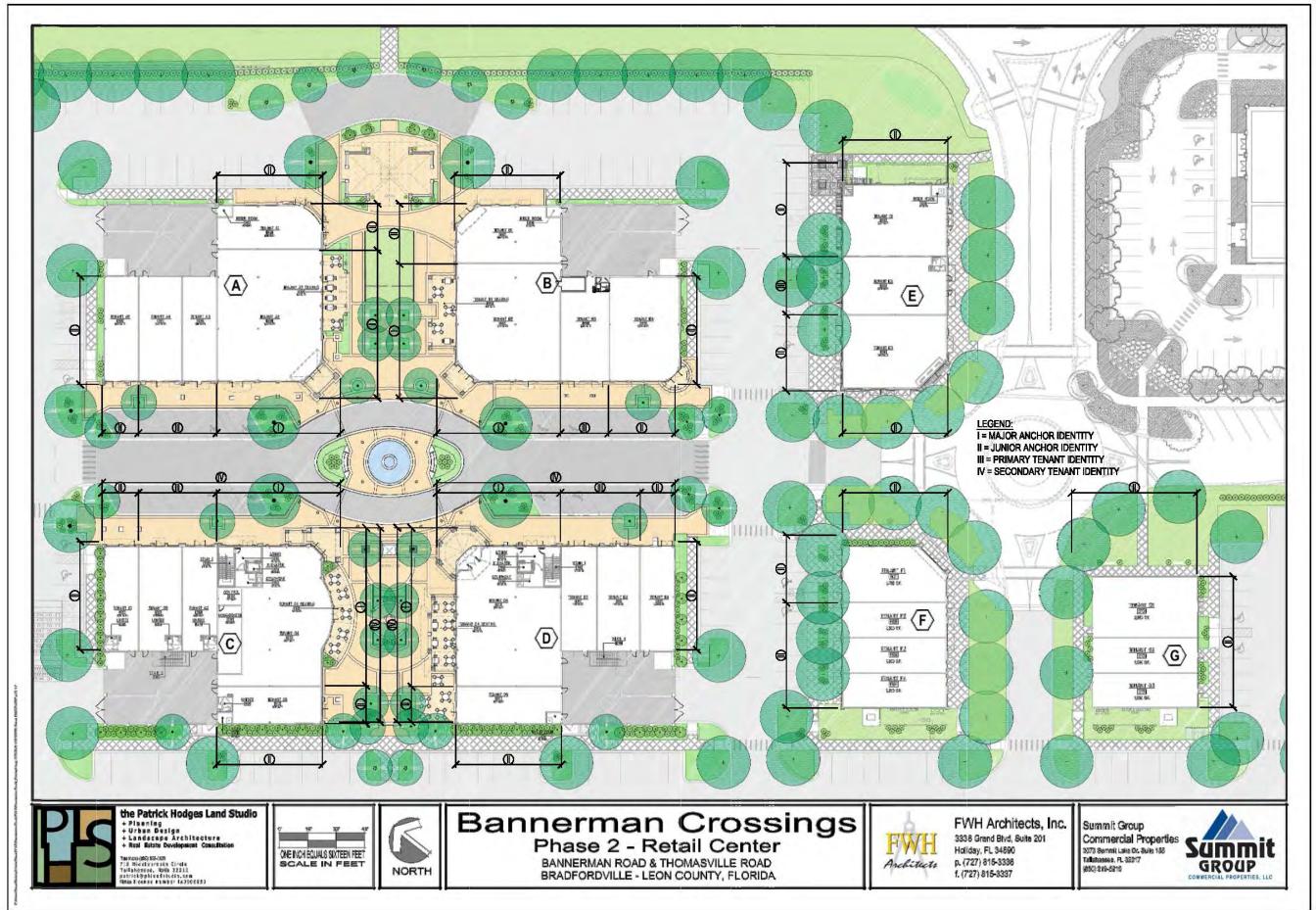
As the authorized agent for the property owner, I would request that you initiate this amendment process and strive to have the final agreement before the Leon County Commission prior to their summer recess.

We look forward to working with you again on this project.

Sincerely.

Moore Bass Consulting, Inc.

Tom O'Steen



NOTICE OF INTENT TO CONSIDER AMENDED DEVELOPMENT AGREEMENT

Notice is hereby given that the Board of County Commissioners of Leon County, Florida (the "County") will conduct a public hearing on Tuesday, June 9, 2015, at 6:00 p.m., or as soon thereafter as such matter may be heard, at the County Commission Chambers, 5th Floor, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida, to consider a proposed Amended Development Agreement for the Bannerman Crossing development. The subject property is located on both the north and south sides of Bannerman Road in Bradfordville, approximately 700 feet northwest of the intersection of Bannerman Road and Thomasville Road.

The proposed Amended Development Agreement will approve signage and wayfinding and the types of uses set forth for the development, including up to 116,500 square feet of commercial/retail and 40,000 square feet of office. The proposed Amended Development Agreement does not amend the following types of uses set forth for the development: 153 single family detached residential units, a passive park, stormwater facilities, Beech Ridge Trail extension, and Kinhega Drive roundabout. The Amended Development Agreement does not specifically approve population densities, except for population densities associated with 153 single family residential units. The Amended Development Agreement does not specifically approve building intensities or heights.

All interested parties are invited to present their comments at the public hearing at the time and place set out above. Anyone wishing to appeal the action of the Board with regard to this matter will need a record of the proceedings and should ensure that a verbatim record is made. Such record should include the testimony and evidence upon which the appeal is based, pursuant to Section 286.0105, Florida Statutes.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Jon Brown or Facilities Management, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida 32301, by written request at least 48 hours prior to the proceeding. Telephone: 606-5300 or 606-5000; 1-800-955-8771 (TTY), or 1-800-955-8770 (Voice), or 711 via Florida Relay service.

Copies of the Amended Development Agreement may be inspected at the following location during regular business hours:

Department of Development Services and Environmental Management 435 N. Macomb Street Renaissance Center, 2nd Floor Tallahassee, Florida 32301

Telephone: (850) 606-1300

Advertise: June 1, 2015

Leon County Board of County Commissioners

Notes for Agenda Item #13

Leon County Board of County Commissioners

Cover Sheet for Agenda #13

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: First of Two Public Hearings to Consider Proposed Revisions to the Leon

County Land Development Code to Amend the Rural Zoning District

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator David McDevitt, Director, Development Support and Environmental Management
Lead Staff/ Project Team:	Ryan Culpepper, Director, Development Services

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Conduct the first of two required Public Hearings to consider proposed revisions to the Leon County Land Development Code to amend the Rural Zoning District (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.

June 9, 2015

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Report and Discussion

Background:

The proposed Ordinance to amend the Rural zoning district (Sec. 10-6.612, Land Development Code) is in response to direction by the Board, as well as response to proposed amendments to the Rural Future Land Use (FLU) Category (Attachment #1). On September 23, 2014, the Board approved a Settlement Agreement as a result of litigation involving the Keep It Rural Coalition (KIRC), Thelma Crump, and Leon County concerning a proposed development within the Rural zoning district. One of the terms of the Settlement Agreement required the County to consider amendments to the Rural FLU category to determine whether commercial development was appropriate on properties designated "Rural" on the Future Land Use Map of the Comprehensive Plan. An application for a Comprehensive Plan Amendment to the Rural FLU Category was submitted by the KIRC on September 26, 2014. The amendments also address the Board's Strategic Initiative to "protect the rural character of our Rural Land Use Category," adopted by the Board on January 27, 2015. Additional amendments to the Definitions and Commercial Site Location Standards of Chapter 10 are necessary in order to fully implement the changes to the Rural zoning district.

This proposed Ordinance is essential to the following revised FY2012-2016 Strategic Initiative that the Board approved at their January 27, 2015 meeting:

• Protect the rural character of our Rural Land Use Category (2015)

This particular Strategic Initiative aligns with the Board's Strategic Priority - Quality of Life:

- Support the preservation of strong neighborhoods through appropriate community planning, land use regulations, and high quality provision of services. (Q6, 2012)
- Further create connectedness and livability through supporting human scale infrastructure and development, including: enhancing our multimodal districts. (Q7, 2012)

Analysis:

Definitions. (Sec. 10-1.101)

This section of the Leon County Land Development Code (LDC) contains the definitions of terms and phrases commonly utilized in the remaining sections of Chapter 10. This section is proposed for amendment to include three new definitions intended to assist in the implementation of amendments to the Rural zoning district. The three new definitions are as follows:

- Agritourism shall mean any agricultural related activity consistent with a bona-fide farm or ranch or in a working forest, which allows members of the general public to view or enjoy activities related to farming, ranching, historical, cultural, or harvest-your-own attractions for recreational, entertainment or educational purposes.
- *Ecotourism* shall mean tourism that focuses on the appreciation of natural areas, wildlife, or cultural and historical resources and strives to minimize ecological impact or damage. This nature-based tourism involves education and interpretation of the natural environment and is managed to be ecologically sustainable. Activities may include cycling, camping, fishing, hunting, paddling, hiking, birding, visiting scenic by-ways, agritourism, and wildlife viewing.

June 9, 2015

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• *Natural resource based activities* – shall mean activities directly dependent upon naturally occurring resources, such as minerals, forests, water, and fertile land. These activities include, but are not limited to, farming, forestry, grazing, mining, hunting, and fishing.

In developing language for the LDC to implement the proposed amendments, these activities were identified as uses that would be consistent with the intent of the Rural FLU category and implementing zoning district. Neither term is currently defined in the Comprehensive Plan, although these terms will be included with the proposed Comprehensive Plan amendment for the Rural FLU category. The inclusion of these definitions furthers the intent of the Rural zoning district to provide non-residential uses that are functionally related to and supportive of agriculture, silviculture, and other uses that rely on the naturally occurring resources on a site.

Rural Zoning District (Sec. 10-6.612)

On September 2, 2014, the Board adopted amendments (Ordinance14-14) to the LDC to revise the Rural zoning district. These revisions further limited the location of minor commercial activity within the Rural zoning district by reducing the number of intersections eligible for minor commercial development from over 200 intersections to approximately 26 intersections. Subsequently, the Settlement and Forbearance Agreement, hereinafter referred to as "Agreement," was approved by the Board on September 23, 2014 (Attachment #2). The Agreement terms required the County to remove specific land uses from the Rural zoning district, namely gas stations, fuel oil dealers, and liquefied petroleum gas dealers.

On December 9, 2014, the Board adopted Ordinance 14-17 amending the Rural zoning district to remove those referenced uses from the list of allowable land uses. The terms of the Agreement also required the County to consider an amendment to the Rural FLU category to evaluate whether commercial development was appropriate in the Rural zoning district. In addition, on January 27, 2015, the Board ratified actions taken at their December 8, 2014 Board Retreat, which included adopting a new Strategic Initiative to "protect the rural character of our Rural land use category."

An application to amend the Rural FLU category (PCT150105) has been filed and is currently under consideration. The proposed Comprehensive Plan amendment to the Rural FLU was reviewed by the Local Planning Agency at a workshop on March 30, 2015, and at a Public Hearing on April 6, 2015. The proposed Comprehensive Plan amendment received approval for transmittal at a Joint City-County Transmittal Public Hearing on April 14, 2015, and was subsequently adopted at the Joint City-County Adoption Public Hearing on May 26, 2015. The proposed Comprehensive Plan amendments to the Rural FLU will require a corresponding amendment to the Rural zoning district of the LDC.

Staff has collaborated with the representatives of KIRC to draft new language for the Rural FLU, as well as the implementing provisions in the LDC for the Rural zoning district. This new language is consistent with the intent of KIRC to "protect and enhance the rural areas" and "promote agricultural land uses, as well as preserve its natural resources." In general, the provisions specifically allow agriculture, silviculture, and natural resource-based uses while continuing to note that residential development is limited to one dwelling unit per 10 acres. The provisions specifically prohibit uses that are not functionally related to or supportive of agriculture, such as convenience stores, gas stations, and manufacturing.

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A key component of the change is allowing retail uses as part of a bona fide agricultural operation, provided the retail uses are functionally related to or supportive of the primary agriculture, silviculture, or natural resource based use. Bona fide agricultural operations will be those operations that have an agricultural exemption through the Florida Department of Agriculture. This change would potentially allow commercial uses at locations other than intersections, which have traditionally been where commercial uses in the Rural area have been located. However, some commercial activity will continue to be located at the intersection of arterial/arterial or arterial/major collector roadways.

Staff notes that the Florida Right to Farm Act preempts local governments from adopting land development standards and regulations for agricultural uses (Attachment #3). Florida Statute 823.14 states the following:

"...a local government may not adopt any ordinance, regulation, rule, or policy to prohibit, restrict, regulate or otherwise limit an activity of a bona fide farm operation on land classified as agricultural land."

The Florida Right to Farm Act specifically addresses agricultural uses/activities such as, but not limited to, farm stands as "farm operations," and exempts them from local regulation. Farm operation is defined in the Act as:

"all conditions or activities by the owner, lessee, agent, independent contractor, and supplier which occur on a farm in connection with the production of farm, honeybee, or apiculture products and includes, but is not limited to, the marketing of produce at roadside stands or farm markets..."

By exempting bona fide agricultural uses and farm operations governed by the Florida Right to Farm Act, allowable non-residential uses are proposed to be limited to the intersection of major collector/arterial or arterial/arterial designated roadways. This further limits the location of allowable non-residential uses and provides greater certainty and predictability regarding where those uses can occur in the Rural areas.

Commercial Site Location Standards (Sec. 10-6.619)

The commercial site location standards currently apply to those sites located in the Rural, Urban Fringe, Activity Center, Rural Community, Lake Protection, Residential Preservation, Lake Talquin/Urban Fringe, and Industrial zoning districts. These standards are intended to direct development towards intersections and prevent strip commercialization. This section classifies commercial development into three categories: 1) minor commercial; 2) neighborhood commercial; and, 3) regional commercial. Minor commercial, which is the least intensive commercial classification, is generally associated with the sale of convenience goods and services to the immediate residential area, while regional commercial is generally associated with major shopping centers.

Currently, within the Rural zoning district, non-residential uses generally must comply with minor commercial location standards. However, with the proposed amendments to the Rural FLU, and more specifically the Rural zoning district, the location and development standards for non-residential in the Rural area will be provided for within the Rural zoning district regulations. Therefore, references to Rural in the commercial site location standards of Sec. 10-6.619 are no longer necessary and are proposed for removal.

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DSEM Citizen's User Group Recommendations

Staff provided the proposed Ordinance to the DSEM Citizen's User Group for review and recommendations at their April 23, 2015 meeting. During this meeting, the User Group had four main questions/recommendations: 1) should equestrian uses be included as a principal use; 2) outdoor shooting ranges should be allowed; 3) should more of the Right to Farm Act (Florida Statute 823.14) be included within the Ordinance; and 4) recommended a reduction in the allowed number of recreational vehicles (RV) per acre within proposed RV parks. Ultimately, the User Group recommended approval of the proposed Ordinance, subject to addressing the comments noted.

Staff has evaluated the comments and recommendations received from the DSEM Citizen's User Group and determined that equestrian uses should be listed as an allowed use and that a reduction in the number of allowed RV sites per acre within RV parks was warranted. The Ordinance has since been revised to reflect these two recommendations. However, staff did not feel that the inclusion of additional language from the Right to Farm Act was necessary. The Ordinance refers directly to Section 823.14 of the Florida Statutes with regard to proposed bonafide agricultural activities; therefore, inclusion of additional language from the Statute would be unnecessary.

Staff completed a review of other jurisdictions to determine how they addressed the location of outdoor shooting ranges. The review revealed a lack of consistency among other jurisdictions with regard to development and locational standards for outdoor shooting ranges. Therefore, staff has not addressed the siting of outdoor shooting ranges in the proposed Ordinance, and the use will not be allowed in the Rural district if the Ordinance is adopted. This approach is recommended in order to ensure the proper siting of outdoor shooting ranges, including the development of site-specific standards to mitigate the anticipated off-site impacts to adjacent and nearby property owners. Staff will continue to review and analyze development and location standards and will provide a recommendation to the Board regarding this matter later this year.

Comprehensive Plan Consistency Determination

The Planning Department has reviewed the proposed Ordinance and has provided a memorandum indicating consistency with the Comprehensive Plan (Attachment #4).

The Planning Commission was originally scheduled to consider the proposed amendments at a Public Hearing on May 5, 2015. However, staff requested a continuance to the Planning Commission's Public Hearing on June 2, 2015 to address a number of additional concerns raised by KIRC. The Planning Commission is scheduled to consider the proposed amendments at a Public Hearing during their June 2, 2015 meeting at 6:00 p.m. Due to Board agenda deadlines, these recommendations will be provided at the Board's first Public Hearing on June 9, 2015 at 6:00 p.m.

Public Notification

The Public Hearing has been publicly noticed consistent with the requirements of Florida Statutes (Attachment #5).

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Options:

- 1. Conduct the first of two required Public Hearings to consider proposed revisions to the Leon County Land Development Code to amend the Rural Zoning District (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 2. Conduct the first of two required Public Hearings to consider proposed revisions to the Leon County Land Development Code to amend the Rural Zoning District and do not schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 3. Board direction.

Recommendation:

Option #1

Attachments:

- 1. Proposed Ordinance
- 2. Settlement and Forbearance Agreement
- 3. Florida Statute 823.14 (Florida Right to Farm Act)
- 4. Consistency Review Memorandum from the Planning Department
- 5. Notice of Public Hearing

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ORDINANCE NO. 15- _____

COUNTY ORDINANCE OF THE BOARD OF COMMISSIONERS OF LEON COUNTY, FLORIDA; AMENDING CHAPTER 10. THE LAND DEVELOPMENT CODE. OF THE CODE OF LAWS OF LEON COUNTY, FLORIDA; AMENDING SECTION 10-1.101, DEFINITIONS; AMENDING SECTION 10-6.612, RURAL ZONING DISTRICT; AMENDING SECTION 10-COMMERCIAL SITE LOCATION STANDARDS: **PROVIDING FOR** CONFLICTS: **PROVIDING** SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the intent of the Rural Zoning District is to maintain and promote agriculture, silviculture and natural resource based activities, to preserve natural systems and ecosystem functions and to protect the scenic vistas and pastoral development patterns that typify Leon County's rural areas; and

WHEREAS, the Ordinance will protect and enhance the Rural area as an amenity; and,

WHEREAS, the Ordinance allows for the development of residential and non-residential uses compatible with agricultural, silvicultural and other natural resource based activities; and,

WHEREAS, the implementing regulations for the Rural Zoning District are located in Chapter 10 of the Leon County Code of Laws; and,

WHEREAS, amendments to the applicable provisions of Chapter 10 will be required to maintain consistency with the Comprehensive Plan; and,

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA:

SECTION 1. Section 10-1.101 of Article I of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "Definitions" is hereby amended to include the following new definitions:

Sec. 10-1.101. Definitions.

* * *

Agritourism shall mean any agricultural related activity consistent with a bona-fide farm or ranch or in a working forest which allows members of the general public to view or enjoy activities related to farming, ranching, historical, cultural or harvest-your-own attractions for recreational, entertainment or educational purposes.

Ecotourism shall mean tourism that focuses on the appreciation of natural areas, wildlife or cultural and historical resources and strives to minimize ecological impact or damage. This nature-based tourism involves education and interpretation of the natural environment and is managed to be ecologically sustainable. Activities may include cycling, camping, fishing, hunting, paddling, hiking, birding, visiting scenic by-ways, agritourism, and wildlife viewing.

Natural resource-based activities shall mean activities directly dependent upon naturally occurring resources, such as minerals, forests, water, and fertile land. These activities include, but are not limited to, farming, forestry, grazing, mining, hunting and fishing.

* * *

SECTION 2. Section 10-6.612 of Article VI of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "Rural zoning district," is hereby amended to read as follows:

Sec. 10-6.612. Rural zoning district.

(a) Purpose and intent. This section applies to the rural zoning district which includes undeveloped and nonintensively developed acreage remotely located away from urbanized areas containing majority of county's present agricultural, forestry and grazing activities. Land use intensities associated with urban activity are not anticipated during the time frame of the Comprehensive Plan, due to lack of urban infrastructure and services. Very low residential density (one unit per ten acres) and small scale commercial activities designed to service basic household needs of area residents are allowed as are passive recreational land uses. Industrial and ancillary commercial land uses associated directly with the timbering and/or agribusiness are permitted. This district is intended to maintain and promote present and future agricultural and silvicultural uses and to prohibit residential sprawl into remote areas lacking basic urban infrastructure and services.

(b) Allowable uses. For the purpose of this article, the following land use types are allowable in this zoning district and are controlled by the land use development standards of this article, the Comprehensive Plan and chart of permitted uses.

- (1) Agricultural.
- (2) Minor commercial.
- (3) Low-density residential.
- (4) Passive recreation.
- (5) Active recreation.
- (6) Community services.
- (7) Light infrastructure.
- (8) Heavy infrastructure.
- (9) Post-secondary.

(c) List of permitted uses. Some of the uses on these schedules are itemized according to the Standard Industrial Code (SIC). Allowable uses, appropriate permit level and applicable development and locational standards in the rural zoning district are as follows:

P = Permitted use	R = Restricted use	S = Special exception

	Legend									
Ag	=	Agricultural	CS	=	Community services					
MC	=	Minor commercial	H	=	Light industrial					
LR	=	Low-density residency	LF	=	Light infrastructure					
PR	=	Passive recreation	HLF	=	Heavy infrastructure					
AR	=	Active recreation								

		Development and Locational Standards								
SIC Code	Name of Use	Ag	MC	LR	PR	AR	CS	H	HLF	
	RESIDENTIAL									
	Dwelling, one-family	₽		₽						
	Dwelling, two-family	₽		₽						
	Dwelling, mobile home	₽		₽						
	AGRICULTURE, FORESTRY, AND FISHING									
01	Agricultural production—Crops	₽								
0181	Ornamental nursery products	₽								
02	Agricultural production— Livestock	₽								
074	Veterinary services	₽	P							
0781	Landscape counseling and planning	R								
092	Fish hatcheries and preserves	₽								
	MINING									
144	Sand and gravel	S								
145	Clay, ceramic, and refractory minerals	S								
	MANUFACTURING									
201	Meat products	R								
202	Dairy products	R								
203	Preserved fruits and vegetables	R								
204	Grain mill products	R								
205	Bakery products	R								
206	Sugar and confectionery products	R								
21	Tobacco products	R								
24	Lumber and wood products	R								
	TRANSPORTATION AND PUBLIC UTILITIES									
401	Railroads						S		S	
43	Postal service		P							
4513	Air courier services								S	

458	Airports, flying fields and services					S
483	Radio and television broadcasting				R	
	WHOLESALE TRADE					
503	Lumber and construction materials	S				
515	Farm-product raw materials	P				
	RETAIL TRADE					
525	Hardware stores		R			
526	Retail nurseries and garden stores		R			
533	Variety stores		R			
539	Misc. general merchandise stores		R			
541	Grocery stores		R			
542	Meat and fish markets		R			
543	Fruit and vegetable markets		R			
544	Candy, nut and confectionery stores		R			
545	Dairy products stores		R			
546	Retail bakeries		R			
553	Auto and home supply stores		R			
554	Gasoline service stations		S			
	Convenience store		R			
581	Eating and drinking places		R			
591	Drugstores and proprietary stores		R			
592	Liquor stores		R			
593	Used merchandise stores		R			
5961	Catalog and mail-order houses		R			
5983	Fuel oil dealers		S			
5984	Liquefied petroleum gas dealers		S			
5992	Florists		R			
5994	News dealers and newsstands		R			
	FINANCE, INSURANCE, AND REAL ESTATE					
602	Commercial banks		S			
603	Savings institutions		S			
606	Credit unions		S			

6553	Cemeteries		P			P		
	SERVICES							
703	Camps and recreational vehicle parks				R			
7353	Heavy construction equipment rental	R						
7359	Equipment rental and leasing, nec	R						
7992	Public golf courses		P		S			
7997	Membership sports and recreation clubs				S			
821	Elementary and secondary schools					S		
822	Colleges and universities					S		
823	Libraries Less than 7500 sq. ft.		₽					
823	Libraries 7500 sq. ft. or more					S		
824	Vocational schools					S		
841	Museums and art galleries				S			
842	Botanical and zoological gardens				S			
866	Religious organizations					R		
	PUBLIC ADMINISTRATION							
922	Public order and safety					₽		
9221	Police protection					₽		
9223	Correctional institutions							S
9224	Fire protection					₽		
	RECREATION							
	Hiking and nature trails			₽				
	Picnicking			₽				
	Canoe trails			₽				
	Bicycle trails			P				
	Horseback riding trails			P				
	Tot lots				₽			
	Court sports				₽			
	Field sports				₽			
	Boat landings				₽			
	Archaeological historical sites			S			Ì	

(d) The maximum allowable gross square footage in the rural district is as follows:

COMMERCIAL LAND USE TYPE	RURAL
MINOR	
Total location Single site or quadrant	20,000 10,000
Single structure	5,000

Maximum 10,000 gross square feet, if located on a local street.

(e) Minimum development standards in the rural district are as follows:

	Low Density Residential	Commercial	Agricultural- Related Industrial	Community Services; Active Recreation; Public, Primary and Secondary Schools	Comp. Plan Policy 2.1.9. Subdivision
MINIMUM SETBA	CKS (FEET)				
Front yard					
— Building	30	30	50	30	25
— Parking	_	40	50	40	_
Corner yard					
— Building	30	20	50	30	25
— Parking	_	25	50	40	
Side yard					
— Building	20	25	50	40	15
— Parking	_	25	50	40	<u> </u>
Rear yard					
— Building	50	50	50	50	50
— Parking	_	40	50	50	50
Adjoining lower intensity use					
— Building	_	15	100	_	_
— Parking	_	15	100	_	_
Maximum percent impervious surface area	30	30	30	30	30
Maximum height at building envelope perimeter	35	35	35	35	35
Maximum height	1'/1'	1'/1'	1'/1'	1'/1'	1'/1'

per additional setback					
Total maximum height	_	4 5	4 5*	45	_
Minimum lot area (acres)	10.0	0.5	10.0	1.0	0.5
Minimum lot frontage	15	40	100	_	15

^{*} This height applies to habitable portion of an industrial structure.

(f) Development standards. All proposed development shall meet the commercial site location standards (section 10-6.619); buffer zone standards (section 10-7.522); and the parking and loading requirements (Subdivision 3 of Division 5 of Article VII).

(1) Mining activities.

- a. All mining activities as defined on the schedule of permitted uses must meet the specific development standards, as follows upon review and approval by the Board of County Commissioners following a duly noticed public hearing. This includes SIC items 144 and 145.
- b. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:
 - 1. The mining activity, all accessory uses and structures, internal roadways, and driveways onto the adjacent streets shall be set back a minimum of 100 feet from the perimeter property boundaries or 200 feet from the nearest off-site residence, residential zoning district, or subdivision intended primarily for residential land use, whichever distance is greater. This setback standard may be reduced if less of a setback is approved in writing by the adjacent property owner or owners prior to site plan approval or if the adjacent property is also used as a mining activity.
 - 2. A plan of vehicular access to and from the site demonstrating that heavy trucks and equipment will not travel on that portion of a local or minor collector street with frontage containing residential land use, or containing subdivision lots intended primarily for residential land use. For purposes of this requirement, local and minor collector streets shall be those identified in the local government Comprehensive Plan and the Tallahassee-Leon County Long Range Transportation Plan.
 - 3. A land reclamation plan shall be submitted demonstrating that upon termination of the activity the land shall be returned to a

- condition that will allow an effective reuse comparable to surrounding properties.
- 4. Fencing requirement: All areas proposed for use in open-pit mining operations and/or construction and demolition debris disposal must be secured by a fence, unless the area is determined by the county administrator or designee to be a reclaimed open-pit mine. The fence must be at least four feet in height with openings that will reject the passage of a seven-inch diameter sphere. The fence must be equipped with a gate which shall remain locked when workers or employees of the land owner or mining company are not present at the site. At every gate or access point, at least one sign must be posted which states, in at least four-inch tall letters, "Danger," "Keep Out," "No Trespassing," or similar language indicate that there may be hazardous conditions on the premises.
- (g) Restricted uses and special exception uses. If uses are restricted or are special exception uses according to the schedule of permitted uses, they will not be allowed unless they follow the general development guidelines for restricted uses as provided in this division or for special exceptions as provided in this subsection. Specific restricted uses are addressed in this division.
 - (1) Lumber and wood products.
 - a. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:
 - All buildings and outside activities associated with the use shall be set back a minimum of 200 feet from the nearest offsite residence or subdivision intended primarily for residential land uses.
 - (2) Camps and recreational vehicle parks (SIC 703).
 - a. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:
 - Sanitary facilities shall be provided.
 - 2. Not more than ten campsites per acre shall be provided.
 - Individual campsites, roadways, and accessory structures shall be located to meet the minimum building setback standards from the exterior property lines of the campground.
 - (3) Heavy construction equipment rental and equipment rental and leasing (SIC 7353 and 7359).
 - a. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:

- 1. Such equipment rental and leasing must be associated with timbering and/or agribusiness.
- 2. A plan of vehicular access to and from the site demonstrating that heavy trucks and equipment will not travel on that portion of a local or minor collector street with frontage containing residential land use, or containing subdivision lots intended primarily for residential land use. For purposes of this requirement, local and minor collector streets shall be those identified in the local government Comprehensive Plan and the Tallahassee-Leon County Long Range Transportation Plan.

(4) Retail Trade

- a. A plan and supporting narrative must be submitted pursuant to the Type B site and development plan process that demonstrates compliance as applicable with the following:
 - 1. Free-standing onsite signs shall be limited to monument-style signs and the sign base shall be consistent with the materials and design context of the primary onsite building. Signs shall be illuminated with externally mounted lighting focused on the sign in a manner that limits off-site illumination. Internally illuminated signs and pole signs are prohibited.
 - 2. Building design including any proposed accessory buildings and structures shall reflect or compliment the local vernacular architectural style. Building facade treatments and materials shall provide architectural interest through, but not limited to: the utilization of fenestration that allows for natural surveillance and gabled or parapet roof treatments. Flat roof treatments are prohibited.
 - Onsite lighting including 24-hour security lighting shall be wall mounted with illumination focused on the building in a manner that limits off-site illumination.
 - 4. Perimeter buffering and/or fencing requirements shall be based on the density of the adjacent residential uses. If the adjacent density is one residential unit per two acres or less, a Type C buffer shall be required. A wooden buffer fence may be utilized on sites where the required vegetative buffer cannot be established based on site limitations or constraints.
 - 5. The trash collection dumpster shall be assessable to waste collection vehicles, and shall be located in the side or rear setback area of the onsite principle building. The dumpster shall be screened with a material and design treatment consistent with the building façade of the principle building.

- 6. All appurtenant mechanical and electrical equipment, outside collection/drop-off/storage areas, and other accessory or ancillary structures shall be screened from public view. The screening material shall be consistent with the materials and design context of the primary onsite building.
- 7. The site design shall integrate internal and where appropriate external pedestrian circulation and interconnection including the accommodation of bike circulation were applicable.
- 8. The hours of operation shall be limited to 6:00 am to 10:00 pm.
- 9. The site shall be designed were applicable to provide a crossaccess easement to adjoining property in the commercial node. The cross access easement shall be improved to the property boundary.
- 10. Other site design treatments and considerations as may be applicable to the proposed use and shall be identified during the proposed project's application review meeting.
- 11. The applicant shall submit documentation demonstrating compliance with the trade area and customer expectation provisions outlined in Section 10-6.619(b)c.

1 Sec. 10-6.612 Rural

<u>1. L</u>	<u> District</u>	<u>Intent</u>	
The	intent	of the	E

The intent of the Rural zoning district is to maintain and promote agriculture, silviculture, and natural resource-based activities, preserve natural systems and ecosystem functions, and protect the scenic vistas and pastoral development patterns that typify Leon County's rural areas. Allowable land uses within this district include agriculture, silviculture, ecotourism based activities, very low density residential, and community and passive recreational facilities. Non-residential uses, with the exception of community and passive recreational facilities, that are not functionally related to and supportive of agriculture, silviculture and other natural resource-based activities shall be prohibited within the Rural zoning district. This district is not intended to accommodate commercial activities designed to service basic household needs of area residents. Rural commercial uses, as well as restricted uses, may be allowed in this district but shall be limited to the locational and design standards as noted herein. Due to the need to protect and preserve existing Rural lands from fragmentation and to promote infill and redevelopment within the Urban Services Area and Rural Communities, urban services are not planned or programmed for this area. Design standards and development standards for non-residential development and restricted uses, as noted herein, shall be required to prevent encroachment and fragmentation of agricultural uses as well as to ensure compatibility with adjacent uses.

2. Allowable District Location

The district may only be located within areas designated Rural on the Future Land Use Map.

PERMITTED, PROHIBITED, AND RESTRICTED USES

	PERMITTED, PROHIBITED, AND RESTRICTE	<u>D USES</u>	
			6. Rural Accessory Uses Functionally
			Related to Bona-Fide Agriculture,
			Silviculture or Natural Resource-
3. Principal Uses	4. Prohibited Uses	5. Restricted Uses	Based Activities
(1) Agricultural	(1) Manufacturing	(1) Mining	Pursuant to Section 823.14, F.S., a bona-fide
(2) <u>Silviculture</u>	(2) Extraction and bottling of mineral or springwater – wholesale	(2) Landscape counseling and	farm operation shall be exempt from local
(3) Wholesale Trade: Farm-product	(3) High Pressure well stimulation/Acid Fracturing and/or Hydraulic Fracturing	planning	regulation, ordinance, rule or policy that
<u>raw materials</u>	(4) Gas stations, fuel oil and liquefied petroleum products	(3) Airports, flying fields and services	prohibits, restricts, regulates or otherwise limits
(4) Wholesale Nursery Products	(5) <u>Convenience stores</u>	(4) <u>Camps and recreational vehicle</u>	activities of a bona-fide farm operation on land
(5) Rural commercial	(6) <u>Grocery stores</u>	<u>parks</u>	classified as agricultural land pursuant to s.
(6) <u>Community services</u>	(7) <u>General merchandise sales</u>	(5) <u>Botanical and zoological gardens</u>	<u>193.461 FS.</u>
(7) Low-density residential (single,	(8) <u>Drug stores</u>	(6) Archaeological historical sites	
two-family, or manufactured	(9) <u>Automotive repair</u>	(7) <u>Commercial kennels</u>	Pursuant to Section 823.14(3)(b), F.S., "farm
<u>home)</u>	(10) Motor vehicle racing tracks/amusement parks	(8) <u>Veterinary clinics</u>	operation" shall mean all conditions or activities
(8) Passive recreation	(11) Heavy Infrastructure (with the exception of those listed under restricted uses)	(9) Riding academies/livery or	which occur on a farm in connection with that
(9) <u>Light infrastructure</u>	(12) Active recreation (with the exception of those listed under restricted uses)	boarding stables	farm's products.
(10) <u>Cemeteries</u>	(13) Other uses which are not functionally supportive of and accessory to established agricultural, silvicultural or		
	natural resource-based activities within the Rural zoning district.		

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7. Development Sta	Development Standards										
Use Category	a. Lot area (acres)	b. Minimum lot frontage	<u>c. Front yard</u> <u>setback</u>	d. Corner yard setback	e. Side yard setback	f. Rear Yard Setback	g. Maximum percent impervious surface area	h. Maximum height at building envelope perimeter	i. Maximum height per additional setback	j. Total maximum height	
Low Density Residential	10 acres minimum	<u>15 feet</u>	<u>30 feet</u>	<u>30 feet</u>	<u>20 feet</u>	<u>50 feet</u>	<u>30</u>	<u>35 feet</u>	<u>1'/1'</u>	Not applicable	
Rural Commercial	3.0 acres	<u>40 feet</u>	50 feet building,	50 feet building,	50 feet building,	50 feet building,	<u>30</u>	<u>35 feet</u>	<u>1'/1'</u>	<u>45 feet</u>	

	minimum; 5.0		50 feet parking	50 feet parking	50 feet parking	50 feet parking				
	acres maximum*									
Community	3.0 acres	<u>40 feet</u>	50 feet building,	50 feet building,	50 feet building,	50 feet building,	<u>30</u>	35 feet	<u>1'/1'</u>	45 feet
<u>Services</u>	minimum; 5.0		50 feet parking	50 feet parking	50 feet parking	50 feet parking				
	acres maximum									
Restricted Uses;	3.0 acres	Not applicable	50 feet building,	50 feet building,	50 feet building,	50 feet building,	<u>30</u>	<u>35 feet</u>	<u>1'/1'</u>	45 feet
<u>Passive</u>	<u>minimum</u>		50 feet parking;	50 feet parking;	50 feet parking;	50 feet parking;				
Recreation			unless otherwise	unless otherwise	unless otherwise	unless otherwise				
<u>Facilities</u>			specified in	specified in	specified in	specified in				
			subsection 10	subsection 10	subsection 10	subsection 10				
Comp. Plan Policy	0.5 acres	<u>15 feet</u>	<u>25 feet</u>	<u>25 feet</u>	<u>15 feet</u>	<u>50 feet</u>	<u>30</u>	<u>35 feet</u>	<u>1'/1'</u>	Not applicable
2.1.9 Subdivision	<u>minimum</u>									

GENERAL NOTES:

- 1. <u>If central sanitary sewer is not available, residential development shall provide no less than 0.50 acre of buildable area. Nonresidential development and community service facilities are limited to a maximum of 900 gallons of wastewater flow per day. Refer to sanitary Sewer Policy 2.1.12 of the Comprehensive Plan for additional requirements.</u>
- 2. Refer to the Environmental Management Act (EMA) for information pertaining to the regulation of environmental features (preservation/conservation features), stormwater management requirements, etc.
- 3. Refer to the Concurrency Management Ordinance for information pertaining to the availability of capacity for certain public facilities (roads, schools, parks, etc.).

Footnotes:

* If subdivision is proposed to create the rural commercial parcel, then the remaining portion of the property shall meet the minimum lot size standards noted herein.

8. Development Standards for Community Service uses:

Community Service uses shall also be subject to the buffer zone standards (section 10-7.522), the parking and loading requirements (Subdivision 3 of Division 5 of Article VII) and applicable design standards outlined in subsection 11 of this section.

- (1) Single structure: 5,000 gross square feet maximum
- (2) Site area: 3 acres minimum; Maximum of 5 acres

9. Rural Commercial Intersection Location Standards:

The intersection location standard is intended to group rural commercial activities toward intersections to provide access and to prevent fragmentation of agricultural uses.

- (1) Major Function:
 - Provide sales and services functionally related to and supportive of agriculture, silviculture and natural resource-based activities.
- (2) Location:
 - On or near the intersection (access within 330 feet of the centerline of the intersection) of an arterial/arterial or arterial/major collector roadway
- (3) Site area:
 - 3.0 acres minimum with a maximum of 5.0 acres per quadrant
- (4) Allowable building square footage:
 - Maximum of 10,000 gross square feet per intersection (only 2 quadrants per intersection may be developed for rural commercial). Single structure limited to a maximum of 5,000 gross square feet

10. Development standards for restricted uses.

All proposed restricted uses shall meet the applicable provisions of Section 10-6.611 (Special Exception uses and Restricted uses); the applicable design standards noted in subsection 11 of this section; the buffer zone standards (section 10-7.522); and, the parking and loading requirements (Subdivision 3 of Division 5 of Article VII). All restricted uses shall be limited to a maximum building area of 2,000 gross square feet per acre with no more than 5,000 gross square feet of retail commercial or office space. The following restricted uses require satisfaction of additional criteria:

(1) Mining activities.

- a. All mining activities as defined on the schedule of permitted uses must meet the specific development standards, as follows upon review and approval by the Board of County Commissioners following a duly noticed public hearing. This includes NAICS items 212321 and 212324.
- b. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:
 - 1. The mining activity, all accessory uses and structures, internal roadways, and driveways onto the adjacent streets shall be set back a minimum of 100 feet from the perimeter property boundaries or 200 feet from the nearest off-site residence, residential zoning district, or subdivision intended primarily for residential land use, whichever distance is greater. This setback standard may be reduced if less of a setback is approved in writing by the adjacent property owner or owners prior to site plan approval or if the adjacent property is also used as a mining activity.
 - 2. A plan of vehicular access to and from the site demonstrating that heavy trucks and equipment will not travel on that portion of a local or minor collector street with frontage containing residential land use, zoned for residential land use, or containing subdivision lots intended primarily for residential land use. For purposes of this requirement, local and minor collector streets shall be those identified in the local government Comprehensive Plan and the Tallahassee-Leon County Long Range Transportation Plan.
 - 3. A land reclamation plan shall be submitted demonstrating that upon termination of the activity the land shall be returned to a condition that will allow an effective reuse comparable to surrounding properties.
 - 4. Fencing requirement: All areas proposed for use in open-pit mining operations and/or construction and demolition debris disposal must be secured by a fence, unless the area is determined by the county administrator or designee to be a reclaimed open-pit mine. The fence must be at least four feet in height with openings that will reject the passage of a seven-inch diameter sphere. The fence must be equipped with a gate which shall remain locked when workers or employees of the land owner or mining company are not present at the site. At every gate or access point, at least one sign must be posted which states, in at least four-inch tall letters, "Danger," "Keep Out," "No Trespassing," or similar language indicate that there may be hazardous conditions on the premises.

(2) Camps and recreational vehicle parks (NAICS 721211 and 721214).

- a. All camps and recreational vehicle parks must meet the specific development standards, as follows upon review and approval by the Board of County Commissioners following a duly noticed public hearing. A plan must be submitted demonstrating protection of adjacent properties and public interest which shall include, but not be limited to the following:
 - 1. Sanitary facilities shall be provided.
 - 2. Not more than five campsites per gross acre shall be provided.
 - 3. Individual campsites, roadways, and accessory structures shall be located to meet the minimum building setback standards from the exterior property lines of the campground.

(3) Airports, flying fields and services

a. All airports, flying fields and services must meet the specific development standards as noted in this section and as required by state or federal law, and shall require review and approval by the Board of County Commissioners following a duly noticed public hearing.

11. Site Design Criteria.

Rural commercial uses, as well as restricted uses, may be allowed in this district but shall be limited to the locational and design standards as noted herein.

- (1) A plan and supporting narrative must be submitted pursuant to the applicable site and development plan process outlined in Article VII that demonstrates compliance, as applicable, with the following:
 - a. Freestanding onsite signs shall be limited to monument-style signs and the sign base shall be consistent with the materials and design context of the primary onsite building. Signs shall be illuminated with externally mounted lighting focused on the sign in a manner that limits off-site illumination. Internally illuminated signs and pole signs are prohibited. For sites not located at intersections, onsite ground signs shall be limited to no more than 32 square feet in area and limited to no more than 10 feet in height.
 - b. <u>Building design standards including any proposed accessory buildings and structures shall reflect or compliment the local vernacular architectural style. Building facade treatments and materials shall provide architectural interest through, but not limited to: the utilization of fenestration that allows for natural surveillance and gabled or parapet roof treatments.</u>
 - c. On-site lighting including 24-hour security lighting shall be wall mounted with illumination focused on the building in a manner that limits off-site illumination, consistent with the "Dark Sky Friendly" guidelines.
 - d. All exterior lighting shall have recessed bulbs and filters which conceal the source of illumination. No wall or roof mounted flood or spot lights used as general grounds lighting are permitted. Security lighting is permitted.
 - e. Lighting at the property line (six feet above ground) adjacent to residential uses shall not exceed 0.1 footcandles.
 - f. Lighting for parking areas shall not exceed 15 feet in height as measured from average grade to the light fixture.
 - g. Perimeter buffering and/or fencing requirements shall be based on the density of the adjacent residential uses. If the adjacent residential density is 0.5 dwelling units per acre or greater, a Type C buffer shall be required. A wooden buffer fence may be utilized on sites where the required vegetative buffer cannot be established based on site limitations or constraints.

- h. The trash collection dumpster shall be accessible to waste collection vehicles, and shall be located in the side or rear setback area of the onsite principle building. The dumpster shall be screened with a material and design treatment consistent with the building façade of the principle building.
- i. All appurtenant mechanical and electrical equipment, outside collection/drop-off/storage areas, and other accessory or ancillary structures shall be screened from public view. The screening material shall be consistent with the materials and design context of the primary onsite building.
- j. The site design shall integrate internal and where appropriate external pedestrian circulation and interconnection including the accommodation of bike circulation were applicable.
- k. The hours of operation shall be limited to 6:00 am to 10:00 pm.
- I. To ensure compatibility, other site design treatments and considerations may be applicable to the proposed use and shall be identified during the proposed project's application review meeting.

SECTION 3. Section 10-6.619 of Article VI of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "Commercial site location standards," is hereby amended to read as follows:

Sec. 10-6.612. Commercial Site Location Standards.

- (a) The provisions of this section apply to the following zoning districts: Rural, Urban Fringe, Activity Center, Rural Community, Lake Protection, Residential Preservation, Lake Talquin/Urban Fringe, and Industrial. Commercial sites are determined through the use of site location standards. The intensity of the commercial use is dependent upon the land use category of the potential site and the classification of the immediate adjacent roads. Individual road classifications are depicted on map 14 of the Comprehensive Plan. The site location standard is intended to group commercial land use toward intersections to provide access and prevent strip commercialization.
- (b) Commercial classifications.
 - (1) Minor commercial.
 - a. *Major function:* Provide for sale of convenience goods and services to immediate residential area.
 - b. Location:
 - On or near the intersection (within 330 feet of the centerline of the intersection) of, local and arterial, collector and arterial, and collector and collector. Minor commercial uses are not allowed on or near the intersection of local and collector or local and arterial roadways in the Rural zoning district.
 - 2. May be located within planned unit development provided it is located and designed to meet commercial needs of the majority of the residents of the development.
 - 3. If on a local street, only one quadrant of the intersection shall be used for commercial purposes.
 - c. *Trade area:* Generally within one mile and not considered as an attractor.
 - d. Design standards:
 - 1. Compatible with adjacent uses.
 - 2. Adequate buffering, screening, landscaping and architectural treatment if integrated into neighborhood.
 - Sufficient parking; properly designed and safe internal traffic circulation.
 - (2) Neighborhood commercial.
 - a. *Major function:* Provide for the sale of convenience goods and personal services such as food, drugs, sundries and hardware items to one or more neighborhoods.
 - b. Leading tenants: Supermarket, drugstore and postal substation.
 - c. Location: At the intersection of major collector and arterial or arterial and arterial. Only one neighborhood commercial development will be allowed within one-quarter mile of the centerline of the intersection of a major collector and arterial road.
 - (3) Community commercial.
 - a. *Major function:* Same functions of neighborhood commercial but on a large scale, provide for sale of retail goods such as clothing, variety items, appliances and furniture, hardware and home improvement items.

- b. *Leading tenants:* Supermarket, drug store, minor department store, home improvement center, variety or discount center.
- c. *Location:* Within one-quarter mile of the centerline of the intersection of arterials. Prohibited on designated canopy roads.
- d. *Radius of trade area:* Five miles or 15 to 20 minutes driving time. Service distinct geographical quadrants of three or more combinations of neighborhoods within community.

(4) Regional commercial.

- a. *Major function:* Same functions of community center, provide full range and variety of shopping goods for comparative shopping such as general merchandise apparel, furniture and home furnishings.
- b. Leading tenants: One or more full time department stores.
- c. Location: Integrated into local transportation system and accessible by combination of arterials, major collectors, expressways and interstate highways. Potential on-site and off-site transportation improvements needed to provide adequate ingress and egress. Prohibited on designated canopy roads.
- d. Radius of trade area: Regional.
- e. Site area: Minimum 35 acres.
- f. Range of gross floor area: Over 200,000 up to 1,000,000 square feet.

(5) Highway commercial.

- a. *Major function:* Provide for consumer oriented retail services designed for drive-in convenience.
- b. *Leading tenants:* Fast food franchise, liquor store, automotive service (i.e. oil change), and convenience stores.
- Location: Access via a combination of arterials or major collectors or integrated into transportation network by comprehensive ingress and egress system. Parking within rear is encouraged.
- d. *Radius of trade area:* May serve immediate area but relies heavily on passerby traffic.
- e. Range of gross floor area: Up to 10,000 square feet.
- f. Design standards:
 - 1. Adequate setback.
 - 2. Aesthetic landscaping.
 - 3. Rear parking

SECTION 4. Conflicts. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict, as of the effective date of this Ordinance, except to the extent of any conflicts with the Tallahassee-Leon County Comprehensive Plan, as amended, which provisions shall prevail over any parts of this Ordinance which are inconsistent, either in whole or in part, with the Comprehensive Plan.

SECTION 5. Severability. If any section, subsection, sentence, clause, phrase or portion of this article is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions of this Ordinance.

SECTION 6. Effective date. This ordinance shall be effective according to law.

1 2	DULY PASSED AND ADOPTED BY the Florida, this day of,	e Board of County Commissioners of Leon County, 2015.
3 4		
5	LEON COUN	NTY, FLORIDA
6		,. 201.137.
7		
8	BY:	MARY ANNUADIES COLLABORAN
9 10		MARY ANN LINDLEY, CHAIRMAN BOARD OF COUNTY COMMISSIONERS
11		BOAND OF COUNTY COMMISSIONERS
12		
13	ATTEST:	
14 15	BOB INZER, CLERK OF THE COURT AND COMPTROLLER	
16	LEON COUNTY, FLORIDA	
17		
18		
19	BY:	
20 21	APPROVED AS TO FORM:	
22	LEON COUNTY ATTORNEY'S OFFICE	
23		
24	D./	
25 26	BY: HERBERT W.A. THIELE, ESQ.	
20 27	COUNTY ATTORNEY	

SETTLEMENT AND FORBEARANCE AGREEMENT

THIS SETTLEMENT AND FORBEARANCE AGREEMENT ("Agreement") is made and entered into on this <u>QQ</u> day of September 2014, by and between THELMA CRUMP, KEEP IT RURAL, INC., a Florida not-for-profit corporation, WILLIAM GLENN BROWN, and LEON COUNTY, FLORIDA ("County") (collectively "Parties").

RECITALS:

WHEREAS, on May 8, 2014, the Development Services Division of the Leon County Department of Development Support and Environmental Management issued a "Written Preliminary Decision" approving a 2,904 square foot convenience store with seven (7) fueling positions on 6.68 acres of property located approximately 330 feet north of the northeast intersection of Crump Road and Miccosukee Road in Leon County, Florida ("Commercial Project"); and

WHEREAS, the Commercial Project is approved to be located on Parcel Number: 12-04-20-018-000-0 in Leon County, Florida ("Property"), which is owned by William Glenn Brown; and

WHEREAS, on June 5, 2014, pursuant to Section 10-7.414 of the Leon County Land Development Code ("County's LDC"), Thelma Crump filed a "Petition for a *De Novo* Quasi-Judicial Hearing" ("Petition") in which Ms. Crump alleged that the proposed Commercial Project violated several requirements of the County's Comprehensive Plan and the County's LDC; and

WHEREAS, on June 12, 2014, the County transmitted Ms. Crump's Petition to the State of Florida Division of Administrative Hearings ("DOAH") for assignment of an Administrative Law Judge to conduct an evidentiary hearing in regard to the allegations set forth in Ms. Crump's Petition; and

WHEREAS, on or about June 16, 2014, the DOAH assigned an Administrative Law Judge in *Thelma Crump v. Leon County*, DOAH Case No. 14-2741 ("DOAH Proceeding"), and scheduled the Final Hearing for September 8 and 9, 2014; and

WHEREAS, on June 23, 2014, Mr. Brown intervened in the DOAH Proceeding; and

WHEREAS, on July 31, 2014, the Parties participated in a mediation conference in an attempt to amicably resolve their dispute and the DOAH Proceeding; and

WHEREAS, the Parties desire to enter into this Agreement for the purpose of resolving the DOAH Proceeding, and are motivated by a desire to avoid the costs, time, and uncertainty associated with litigation and to arrive at a fair and reasonable agreement to resolve their dispute.

Page 1 of 14

NOW, THEREFORE, in consideration of the terms and mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

- 1. Recitals. The above-referenced recitals are true and correct and are hereby incorporated into this Agreement for all purposes.
- 2. <u>Terms of Agreement</u>. In connection with the Parties' mutual execution of this Agreement and the covenants and terms herein, the Parties agree as follows:
 - A. Within sixty (60) days of the Effective Date of this Agreement, the Leon County Board of County Commissioners ("BOCC") shall consider, at a duly-noticed public meeting, whether to amend the County's LDC to prohibit gasoline service stations (SIC Code 554), fuel oil dealers (SIC Code 5983), and liquefied petroleum gas dealers (SIC 5984) on all property designated as "Rural" on the County's Future Land Use Map.
 - B. Within sixty (60) days of the Effective Date of this Agreement, the BOCC shall initiate the process for a Comprehensive Plan Amendment to evaluate whether commercial development is appropriate on any property designated as "Rural" on the County's Future Land Use Map, and shall complete such process within one (1) year of the Effective Date of this Agreement.
 - C. Within seventy (70) days of the Effective Date of this Agreement, Mr. Brown shall: (i) withdraw his application for the proposed Commercial Project; (ii) abandon the "Written Preliminary Decision" issued by the Development Services Division of the Leon County Department of Development Support and Environmental Management on May 8, 2014; and (iii) record a deed restriction for the Property restricting the use of the Property to one (1) single-family residence.
 - D. Within five (5) days after Mr. Brown fulfills all of the requirements of Paragraph 2.C above, Ms. Crump shall file a Notice of Voluntary Dismissal with Prejudice in the DOAH Proceeding.
 - E. Within ninety (90) days of the Effective Date of this Agreement, the County shall pay \$36,250.00 to Mr. Brown as reimbursement of fees and costs that Mr. Brown incurred during the permitting process for the Commercial Project and during the DOAH Proceeding.

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- F. Within ninety (90) days of the Effective Date of this Agreement, Keep It Rural, Inc., shall pay \$25,000.00 to Mr. Brown as compensation for Mr. Brown's withdrawal of his application for the proposed Commercial Project and abandonment of the "Written Preliminary Decision" issued by the Development Services Division of the Leon County Department of Development Support and Environmental Management on May 8, 2014.
- G. Within ninety (90) days of the Effective Date of this Agreement, Ms. Crump shall pay \$70,000.00 to Mr. Brown pursuant to a Purchase and Sale Agreement for Ms. Crump's purchase of the Property, in fee simple, from Mr. Brown. Such purchase is contingent upon Ms. Crump's ability to obtain financing for such purchase from a financial institution. If Ms. Crump is unable to obtain such financing, Mr. Brown shall be entitled to retain the Property subject to all of the conditions of this Agreement, including, but not limited to, the conditions set forth in Paragraph 2.C above.
- H. Mr. Brown shall retain the right to harvest the corn that is currently planted on the Property, provided such harvest occurs no later than September 30, 2014.
- Scope of Agreement. The Parties' obligations and rights under this Agreement are expressly made contingent upon the BOCC's approval of this Agreement and the BOCC's approval, within sixty (60) days of the Effective Date of this Agreement, of an amendment to the County's LDC prohibiting gasoline service stations (SIC Code 554), fuel oil dealers (SIC Code 5983), and liquefied petroleum gas dealers (SIC Code 5984) on all property designated as "Rural" on the County's Future Land Use Map. In the event the BOCC does not approve this Agreement and does not approve, within sixty (60) days of the Effective Date of this Agreement, an amendment to the County's LDC prohibiting gasoline service stations (SIC Code 554), fuel oil dealers (SIC Code 5983), and liquefied petroleum gas dealers (SIC Code 5984) on all property designated as "Rural" on the County's Future Land Use Map, this Agreement shall be null and void and the Parties shall retain all of their rights to continue with the DOAH Proceeding. All parties expressly acknowledge that this Agreement is not contingent upon the BOCC taking any action in regard to whether convenience stores should be allowed or prohibited on property designated as "Rural" on the County's Future Land Use Map.
- 4. Authority. Except as expressly set forth herein, each party represents and warrants, with respect to itself, that the execution and delivery of this Agreement has been authorized by all necessary action of each party, and that this Agreement constitutes the legal, valid, and binding agreement of each party, enforceable in accordance with its terms. It is expressly understood and agreed that this Agreement shall not become binding upon the County unless and until the BOCC approves this Agreement at a public meeting, as is required by Florida law.

- 5. Governing Law; Venue. This Agreement shall be construed, interpreted, enforced, and governed in accordance with the laws of the State of Florida. Venue for any action arising out of or related to this Agreement shall be in Leon County, Florida.
- 6. <u>Binding Effect</u>. This Agreement shall be binding upon and shall inure to the benefit of the respective successors, heirs, assigns, representatives, affiliates, officers, directors, and members of the Parties.
- 7. Non-Waiver. Failure by any party to insist upon the strict performance of any of the terms, conditions, or provisions of this Agreement shall not be deemed to be a waiver of such terms, conditions, and provisions, and such party, notwithstanding such failure, shall have the right hereafter to insist upon the strict performance of any or all such terms and conditions of this Agreement as set forth herein.

8. Mutual Releases.

Ms. Crump hereby waives and releases, acquits, satisfies, and forever discharges Mr. Brown and the County, including their commissioners, officers, directors, shareholders, and employees, and any and all subsidiaries. affiliates, legal representatives, insurance carriers, successors, and assigns thereof, from any and all claims, counterclaims, defenses, actions, causes of action, suits, controversies, agreements, promises, and demands whatsoever which Ms. Crump ever had or now has, in law or in equity, for, upon, or by reason of any matter, cause, or thing whatsoever in connection with, or in any way arising out of, any claim raised or which could have been raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release. In addition, and without waiving the generality of the foregoing, Ms. Crump covenants with and warrants to Mr. Brown and the County, including their commissioners, officers, directors, shareholders, and employees, and its successors and assigns, that there exist no claims, counterclaims, defenses, objections, offsets, or claims of offsets against Mr. Brown and the County, including their commissioners, officers, directors, shareholders, and employees, with regard to any claim raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release that are not included in and covered by this Agreement. The release set forth in this provision does not apply to any rights granted by or arising from this Agreement.

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- В. Keep It Rural, Inc., hereby waives and releases, acquits, satisfies, and forever discharges Mr. Brown and the County, including their commissioners, officers, directors, shareholders, and employees, and any and all subsidiaries, affiliates, legal representatives, insurance carriers, successors, and assigns thereof, from any and all claims, counterclaims, defenses, actions, causes of action, suits, controversies, agreements, promises, and demands whatsoever which Keep It Rural, Inc., ever had or now has, in law or in equity, for, upon, or by reason of any matter, cause, or thing whatsoever in connection with, or in any way arising out of, any claim raised or which could have been raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release. In addition, and without waiving the generality of the foregoing, Keep It Rural, Inc., covenants with and warrants to Mr. Brown and the County, including their commissioners. officers, directors, shareholders, and employees, and its successors and assigns, that there exist no claims, counterclaims, defenses, objections, offsets, or claims of offsets against Mr. Brown and the County, including their commissioners, officers, directors, shareholders, and employees, with regard to any claim raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release that are not included in and covered by this Agreement. The release set forth in this provision does not apply to any rights granted by or arising from this Agreement.
- Mr. Brown hereby waives and releases, acquits, satisfies, and forever C, discharges Ms. Crump, Keep It Rural, Inc., and the County, including their commissioners, officers, directors, shareholders, and employees, and any and all subsidiaries, affiliates, legal representatives, insurance carriers. successors, and assigns thereof, from any and all claims, counterclaims. defenses, actions, causes of action, suits, controversies, agreements. promises, and demands whatsoever which Mr. Brownever had or now has, in law or in equity, for, upon, or by reason of any matter, cause, or thing whatsoever in connection with, or in any way arising out of, any claim raised or which could have been raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release. In addition, and without waiving the generality of the foregoing, Mr. Brown covenants with and warrants to Ms. Crump, Keep It Rural, Inc., and the

Page 5 of 14

County, including their commissioners, officers, directors, shareholders, and employees, and its successors and assigns, that there exist no claims, counterclaims, defenses, objections, offsets, or claims of offsets against Ms. Crump, Keep It Rural, Inc., and the County, including their commissioners, officers, directors, shareholders, and employees, with regard to any claim raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release that are not included in and covered by this Agreement. The release set forth in this provision does not apply to any rights granted by or arising from this Agreement.

- D. The County hereby waives and releases, acquits, satisfies, and forever discharges Ms. Crump, Keep It Rural, Inc., and Mr. Brown from any and all claims, counterclaims, defenses, actions, causes of action, suits, controversies, agreements, promises, and demands whatsoever which the County ever had or now has, in law or in equity, for, upon, or by any reason of any matter, cause, or thing whatsoever in connection with, or in any way arising out of, any claim raised or which could have been raised by any party in the DOAH Proceeding as of the date of this waiver and release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release. In addition, and without waiving the generality of the foregoing, the County covenants with and warrants to Ms. Crump, Keep It Rural, Inc., and Mr. Brown that there exist no claims, counterclaims, defenses, objections, offsets, or claims of offsets against Ms. Crump, Keep It Rural, Inc., and Mr. Brown with regard to any claim raised by any party in the DOAH Proceeding as of the date of this waiverand release or related in any way to the Commercial Project, the Property, or the administrative or legal process involving the Commercial Project or the Property as of the date of this waiver and release that are not included in and covered by this Agreement. The release set forth in this provision does not apply to any rights granted by or arising from this Agreement.
- E. These releases shall become effective only upon the BOCC's approval of this Agreement and the BOCC's approval, within sixty (60) days of the Effective Date of this Agreement, of an amendment to the County's LDC prohibiting gasoline service stations (SIC Code 554), fuel oil dealers (SIC Code 5983), and liquefied petroleum gas dealers (SIC Code 5984) on all property designated as "Rural" on the County's Future Land Use Map.

Page 6 of 14

- 9. <u>Interpretation; Headings</u>. All Parties acknowledge that they participated in the negotiation and drafting of the terms of this Agreement and acknowledge that no provision shall be strictly construed against one party or the other based solely on draftsmanship. The Parties have entered into this Agreement without duress, coercion, or under undue influence of any kind, and are motivated by a desire to avoid the costs, time, and uncertainty associated with the DOAH Proceeding and to arrive at a fair and reasonable agreement with regard to the Parties' dispute. All Parties acknowledge that they have been represented by counsel in connection with the negotiation of the terms of this Agreement and that they enter into this Agreement freely and voluntarily, and only after consultation with their respective counsel. All sections and descriptive headings in this Agreement are inserted for convenience only, and shall neither affect the construction or interpretation hereof, nor add or subtract from the meaning of the contents of each section.
- 10. Entire Agreement: Amendments. This Agreement represents the entire understanding and agreement between the Parties with respect to the subject matter hereof. No representations have been made, either express or implied by the Parties, other than those expressly set forth in this Agreement. This Agreement or any part hereof may not be changed, amended, waived, discharged, or terminated except by an instrument in writing, executed by all Parties.
- 11. Enforcement; Remedies. The Parties shall have all equitable and legal remedies available under Florida law to enforce the terms and conditions of this Agreement, and the terms of this Agreement shall be specifically enforceable in court. In the event of any dispute hereunder or any action to interpret or enforce this Agreement, any provision hereof, or any matter arising herefrom, the prevailing party shall be paid by the non-prevailing party the reasonable attorneys' fees and costs incurred in enforcing its rights and remedies, whether incurred at the pre-trial, trial, or appellate levels, including any fees and costs incurred in determining the amount of awardable fees.
- 12. <u>Severability</u>. If any part of this Agreement is found invalid or unenforceable by any court of competent jurisdiction, such invalidity or unenforceability shall not affect the other parts of this Agreement if the rights and obligations of the Parties contained therein are not materially prejudiced and if the intentions of the Parties can continue to be effectuated. To that end, this Agreement is declared severable.
- 13. <u>Disclaimer of Third-Party Beneficiaries</u>. This Agreement is solely for the benefit of the Parties and no right or cause of action shall accrue by reason hereof to or for the benefit of any third party not a formal party hereto. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer upon or give any person or entity any right, remedy, or claim under or by reason of this Agreement or any provisions or conditions hereof, other than the Parties.
- 14. <u>Purpose of this Agreement; Not Establishing Precedent</u>. By entering into this Agreement, the Parties do not admit any liability whatsoever to the other, or to any other person, arising out of any claims asserted, or that could have been asserted, in the DOAH Proceeding, and expressly deny any and all such liability. The Parties acknowledge and agree that this Agreement is

not intended by any party to be construed, and shall not be construed, as an admission by Mr. Brown or the County of any liability or violation of any law, statute, ordinance, regulation, or other legal duty of any nature whatsoever. Rather, this Agreement is for the compromise of potential and disputed claims, involving both fact and law, and the Parties enter into this Agreement in a spirit of cooperation for the purpose of avoiding further litigation and in recognition of the desire for the speedy and reasonable resolution of the Parties' dispute. The acceptance of proposals for purposes of this Agreement is part of a mediated settlement affecting many factual and legal issues and is not an endorsement of, and does not establish precedent for, the use of these proposals in any other circumstances. Any party's waiver of any breach of this Agreement or forbearance from action shall not be a continuing waiver or a waiver of any other breach of this Agreement.

- 15. Attorneys' Fees: Costs. Except as set forth in Paragraph 2.E above, the Parties expressly agree to bear the fees and costs of their respective counsel, experts, and consultants in the DOAH Proceeding and in the preparation of this Agreement, and the Parties expressly waive any and all rights to pursue an award of attorneys' fees and costs in the DOAH Proceeding.
- 16. Notices. All notices and other communications required hereunder shall be in writing and shall be delivered personally, or by registered or certified mail, return receipt requested, postage prepaid, or by Federal Express, Airborne Express Mail, or other nationally recognized overnight commercial delivery service, fees prepaid for next day delivery. Such notices shall be deemed to have been received (i) upon delivery, if personally delivered; (ii) upon the earlier of actual receipt or the second day after mailing, if mailed by registered or certified United States mail, return receipt requested, postage prepaid; and (iii) upon the earlier of actual receipt or the next business day if sent by Federal Express, Airborne Express, or other nationally recognized overnight commercial delivery service, if fees are prepaid for next day delivery. The addresses for delivery of such notices shall be as follows:
 - (a) To Ms. Crump:

Theima Crump 8848 Miccosukee Road Tallahassee, Florida 32309

With a copy to:

David A. Theriaque, Esquire Theriaque & Spain 433 North Magnolia Drive Tallahassee, Florida 32308

Page 8 of 14

(b) To Keep It Rural, Inc.:

Keep It Rural, Inc. c/o Jeff Blair, Registered Agent 9143 Stargate Way Tallahassee, Florida 32309

With a copy to:

David A. Theriaque, Esquire Theriaque & Spain 433 North Magnolia Drive Tallahassee, Florida 32308

(c) To Mr. Brown:

William Glenn Brown 2802 Topaz Way Tallahassee, Florida 32309

With a copy to:

Dan R. Stengle, Esquire Dan R. Stengle, Attorney, LLC 502 North Adams Street Tallahassee, Florida 32301

(d) To Leon County:

Board of County Commissioners
Attn: Vincent S. Long, County Administrator
Leon County Courthouse
301 S. Monroe Street
Tallahassee, Florida 32301

With a copy to:

Leon County Attorney's Office Attn: Herbert W. A. Thiele, Esquire Leon County Courthouse 301 South Monroe Street Tallahassee, Florida 32301

or to such other address as any party hereto shall from time to time designate to the other party by notice in writing as herein provided.

- 17. <u>Counterparts</u>. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and need not be signed by more than one of the Parties and all of which shall constitute one and the same agreement. The Parties further agree that each party shall execute and deliver all other appropriate supplemental agreements and other instruments, and take any other action necessary to make this Agreement fully and legally effective, binding, and enforceable as between them and as against third parties.
- 18. <u>Effective Date</u>. This Agreement shall become effective upon the date of execution by the last of the Parties.

[REMAINDER OF PAGE INTENTIONALLY BLANK]

Page 10 of 14

19. <u>Waiver of Jury Trial</u>. The Parties hereby knowingly, voluntarily, and intentionally waive any right to a jury trial with respect to any claims arising in connection with this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in a manner sufficient to bind them on the day and year identified above.

Signed, sealed, and delivered before me:

WITNESSES	THELMA CRUMP
R. Chistlips Print Name: R. Phillips	Date: September 8, 2014
Time traine. N. Firms	Name: thelma crump
Milliam	Date: September 8, 2014
Print Name: George William	,
ı	
STATE OF FLORIDA	
COUNTY OF LEON	•
The foregoing instrument was ack THELMA CRUMP. Said person (check the control of	nowledged before me this Any of August 2014, by the one) is personally known to me or in produced
(Notary Seal)	Printed Name: DOYOLAY VILL Notary Public, State of FI
(Notally Scal)	Commission No. EFO44976
	My commission expires: 11 28 2019
DOROTHY IRVINE Commission # EE 044976 Expires November 28, 2014 Bonded Tay Tray Fair Insurance 600 345 7019	

Page 11 of 14

WITNESSES	KEEP IT RURAL, INC.
Print Name: VIRGINIA VICLIAMS Cha Pun Print Name: Chaistim Padersen	By: Name: JEFF BLKI Its: PRESIDENT Date: 9 8 11
STATE OF FLORIDA	
COUNTY OF LEON	
JEFF BLAIR AS PLES	nowledged before me this <u>E</u> day of August 2014, by of KEEP IT RURAL, INC., on
behalf of said entity. Said person (check	k one) □ is personally known to me or □ produced
13460-451-54-482-0	
G WV To Control	Printed Name: KATHLEW SENMINISTEN
(Notary Seal)	Notary Public, State of Figure
	Commission No. E 846092
	My commission expires: 11/2-1/2016
and the same of th	•
KATHRYN M. PENHINGTON Notary Public - State of Florida My Comm. Expires Nov 24, 2016	
Commission # EE SASDO	

WITNESSES

Print Name:

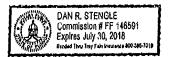
WILLIAM GLENN BROWN

STATE OF FLORIDA

COUNTY OF LEON

The foregoing instrument was acknowledged before me this day of August 2014, by WILLIAM GLENN BROWN. Said person (check one) To personally known to me or Diproduced as identification.

(Notary Seal)



Printed Name: DAN R Notary Public, State of FOR I Commission No. 146591 My commission expires: 7/3



LEON COUNTY, FLORIDA

BY:

Kristin Dozier, Chairman Board of County Commissioners

ATTEST:

Bob Inzer, Clerk of the Circuit Court

and Comptroller Leon County, Florida

BY:

Approved as to Form:

Leon County Attorney' of

BY

Herbert W.A. Thiele, Esq.

County Attorney

LEON COUNTY

Attachn	nen / #2	1-0766
Page i	5 01 15	45

	CONTRACT RO	UTING FORM	X Original	
County Contract No. 409	9		Renewal Amendment(#)
Division Contact: Laura	M. Youmans, Assisstant Cou	inty Attorney Phone	#_850-606-2500	
Department/Division: Co	unty Attorney's Office			
Contractor:Thelma Crum	ıp, Keep It Rural, Inc., Willia	am Glenn Brown		
Address			<u>ور ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ، ،</u>	
City, State, Zip				
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Renewal Periods: Number NA	A Term NA		R SEA	ī. Mi
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Contract Type:	Procurement Method:	Forms Required:	三 三	7. 13
Conservation Easement Construction	—— Bid* RFP*	Public Entity Crimes Performance Bond		C
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Deed Interlocal Agreement	Gov't Entity Other (Explain Below)	Warranty Bond Certification Regardir	່ອ ng Debarment	
Grant				
Lease Other Services	Insurance Certificates: General Liability	*Bid/RFP #	-	
Performance Agreement	Professional Liability	Awarded by:		
	Workers' Compensation Errors & Omissions	Purchasing DirectorCounty Administrator	•	
Purchase Other (Explain below)	Automobile Coverage	Board of County Comm	missioners	
		Agenda Date <u>9/23/2</u>	014 Item # 24	
Comments: Settlement and Fo	orbearance Agreement			
Routing:				
Required Initiate	Date //			
$\frac{x}{x}$	Originating Div	rision County Attorney's	Office	
	Group Director	•		
	Purchasing		r zo e e c	
	County Attorne		36.79 C. 2	
		stant County Administrator	26/14 : Dounty	
	County Admini			
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^ \$\frac{1}{2}	Clerk's Office (### ##################################	
Return completed documents			ı,	
Be sure to return and file a full	y executed agreement with th	IE FINANCE DIVISION	Office	
PUR103 Rev. 05/10			ů, L	

Select Year: 2014

The 2014 Florida Statutes

Title XLVI Chapter 823 CRIMES PUBLIC NUISANCES View Entire Chapter

823.14 Florida Right to Farm Act. -

- (1) SHORT TITLE. This section shall be known and may be cited as the "Florida Right to Farm Act."
- (2) LEGISLATIVE FINDINGS AND PURPOSE.—The Legislature finds that agricultural production is a major contributor to the economy of the state; that agricultural lands constitute unique and irreplaceable resources of statewide importance; that the continuation of agricultural activities preserves the landscape and environmental resources of the state, contributes to the increase of tourism, and furthers the economic selfsufficiency of the people of the state; and that the encouragement, development, improvement, and preservation of agriculture will result in a general benefit to the health and welfare of the people of the state. The Legislature further finds that agricultural activities conducted on farm land in urbanizing areas are potentially subject to lawsuits based on the theory of nuisance and that these suits encourage and even force the premature removal of the farm land from agricultural use. It is the purpose of this act to protect reasonable agricultural activities conducted on farm land from nuisance suits.
 - (3) DEFINITIONS.—As used in this section:
- (a) "Farm" means the land, buildings, support facilities, machinery, and other appurtenances used in the production of farm or aquaculture products.
- (b) "Farm operation" means all conditions or activities by the owner, lessee, agent, independent contractor, and supplier which occur on a farm in connection with the production of farm, honeybee, or apiculture products and includes, but is not limited to, the marketing of produce at roadside stands or farm markets; the operation of machinery and irrigation pumps; the generation of noise, odors, dust, and fumes; ground or aerial seeding and spraying; the placement and operation of an apiary; the application of chemical fertilizers, conditioners, insecticides, pesticides, and herbicides; and the employment and use of labor.
- (c) "Farm product" means any plant, as defined in s. 581.011, or animal or insect useful to humans and includes, but is not limited to, any product derived therefrom.
- (d) "Established date of operation" means the date the farm operation commenced. If the farm operation is subsequently expanded within the original boundaries of the farm land, the established date of operation of the expansion shall also be considered as the date the original farm operation commenced. If the land boundaries of the farm are subsequently expanded, the established date of operation for each expansion is deemed to be a separate and independent established date of operation. The expanded operation shall not divest the farm operation of a previous established date of operation.
 - (4) FARM OPERATION NOT TO BE OR BECOME A NUISANCE.
- (a) No farm operation which has been in operation for 1 year or more since its established date of operation and which was not a nuisance at the time of its established date of operation shall be a public or private nuisance if the farm operation conforms to generally accepted agricultural and management practices, except that the following conditions shall constitute evidence of a nuisance:
 - The presence of untreated or improperly treated human waste, garbage, offal, dead animals, Page 618 of 683

dangerous waste materials, or gases which are harmful to human or animal life.

Attachment #3

The presence of improperly built or improperly maintained septic tanks, water closets, or privies.

- 3. The keeping of diseased animals which are dangerous to human health, unless such animals are kept in accordance with a current state or federal disease control program.
- 4. The presence of unsanitary places where animals are slaughtered, which may give rise to diseases which are harmful to human or animal life.
- (b) No farm operation shall become a public or private nuisance as a result of a change in ownership, a change in the type of farm product being produced, a change in conditions in or around the locality of the farm, or a change brought about to comply with Best Management Practices adopted by local, state, or federal agencies if such farm has been in operation for 1 year or more since its established date of operation and if it was not a nuisance at the time of its established date of operation.
- (5) WHEN EXPANSION OF OPERATION NOT PERMITTED.—This act shall not be construed to permit an existing farm operation to change to a more excessive farm operation with regard to noise, odor, dust, or fumes where the existing farm operation is adjacent to an established homestead or business on March 15, 1982.
- (6) LIMITATION ON DUPLICATION OF GOVERNMENT REGULATION.—It is the intent of the Legislature to eliminate duplication of regulatory authority over farm operations as expressed in this subsection. Except as otherwise provided for in this section and s. <u>487.051(2)</u>, and notwithstanding any other provision of law, a local government may not adopt any ordinance, regulation, rule, or policy to prohibit, restrict, regulate, or otherwise limit an activity of a bona fide farm operation on land classified as agricultural land pursuant to s. <u>193.461</u>, where such activity is regulated through implemented best management practices or interim measures developed by the Department of Environmental Protection, the Department of Agriculture and Consumer Services, or water management districts and adopted under chapter 120 as part of a statewide or regional program. When an activity of a farm operation takes place within a wellfield protection area as defined in any wellfield protection ordinance adopted by a local government, and the adopted best management practice or interim measure does not specifically address wellfield protection, a local government may regulate that activity pursuant to such ordinance. This subsection does not limit the powers and duties provided for in s. <u>373.4592</u> or limit the powers and duties of any local government to address an emergency as provided for in chapter 252.

History.—s. 1, ch. 79-61; ss. 1, 2, ch. 82-24; s. 9, ch. 87-367; s. 75, ch. 93-206; s. 1279, ch. 97-102; s. 25, ch. 99-391; s. 39, ch. 2000-308; s. 13, ch. 2012-83.

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MEMORANDUM





TO: Ryan Culpepper, Development Services Director

Leon County Department of Development Support Services

and Environmental Management

THROUGH: Barry Wilcox, Division Director, Comprehensive Planning Division

Tallahassee-Leon County Planning Department

FROM: Stephen M. Hodges, Senior Planner, TLCPD

DATE: May 15, 2015

SUBJECT: Consistency Review—Ordinance Amending Chapter 10 of the Code of Laws of Leon

County, Relating to the Land Development Code Amending Section 10-1.101, Definitions; Amending Section 10-6.612, Rural Zoning District; Amending Section 10-

6.619, Commercial Site Location Standards

Summary of Proposed Ordinance

The proposed ordinance to the Leon County Land Development Code (LDC) amends the following:

- Section 10-1.101, Definitions Provides definitions for Agritourism, Ecotourism, and Natural Resource-based Activities
- Amending Section 10-6.612, Rural Zoning District Substitutes new code language for the
 existing code language in this section based on Cycle 2015-1 Proposed Comprehensive Plan
 Amendment PCT150105 (Commercial Uses in the Rural Future Land Use Category)
- Amending Section 10-6.619, Commercial Site Location Standards Eliminates reference to minor commercial uses in the Rural zoning district

Memorandum Consistency Review – Ordinance Amending Chapter 10 of the Code of Laws of Leon County, Relating to the Land Development Code Amending Section 10-1.101, Definitions; Amending Section 10-6.612, Rural Zoning District; Amending Section 10-6.619, Commercial Site Location Standards May 15, 2015
Page 2 of 4

Consistency Determination

Changes Affecting the Rural Zoning District

The proposed Cycle 2015-1 Proposed Comprehensive Plan Amendment PCT150105 (Commercial Uses in the Rural Future Land Use Category) was initially submitted by the Keep it Rural Coalition (KIRC) and approved for inclusion in the 2015-1 Cycle by the Leon County Board of County Commissioners (Board) at their December 9th, 2014 Board meeting. Per Board direction, staff utilized the proposed amendment, as submitted by KIRC, to evaluate the appropriateness of commercial uses within the Rural Future Land Use Map (FLUM) category.

The proposed changes to the Rural land use category reflect the overall intent of this category as defined by the comprehensive plan, and are consistent with the stated intent of the KIRC text amendment ("protect and enhance the rural areas as an amenity to and supportive of the County and the City of Tallahassee"). This proposed amendment was reviewed and recommended for approval by the Local Planning Agency at a public hearing on April 6, 2015. The Board reviewed and voted to transmit to the State of Florida for review this proposed amendment at a public hearing on April 14, 2015.

PCT150105 introduces three new terms that require definitions in the LDC, including Agritourism, Ecotourism, and Natural Resource-based Activities. The proposed definitions for these terms as proposed for Section 10-1.101 are consistent with the intent of PCT150105 as proposed.

The proposed code language intended to replace the existing code language in Section 10-6.612, Rural Zoning District is also consistent with the policy language in PCT150105, including:

- 1. District intent and location
- 2. Allowable uses, including principal, prohibited, and conditional uses
- Reference to Chapter 823.14 of Florida Statutes exempting bona-fide farm operation from any local regulation, ordinance, rule or policy that prohibits, restricts, regulates or otherwise limits activities of a bona-fide farm operation on land classified as agricultural land
- Development standards, including densities and intensities, locations, and total development limits per intersection, and
- 5. Additional standards and limitations

Section 10-6.619, Commercial Site Location Standards is proposed to eliminate the existing reference to minor commercial uses in the Rural zoning district. This proposed change is also consistent with PCT150105 as proposed.

Summary

Should PCT150105 be adopted by the Board, and if the Florida Department of Economic Opportunity does not issue any objections or other comments, Planning Department staff finds that the proposed ordinance would be consistent with Comprehensive Plan goals, objectives, and policies. The proposed ordinance will support and further the goals, objectives and policies of the Land Use Element, including those changes proposed in Comprehensive Plan Amendment PCT150105.

If you have any questions about the review, please contact Planning Department staff at 891-6400.

NOTICE OF ESTABLISHMENT OR CHANGE OF A LAND USE REGULATION

Notice is hereby given that the Board of County Commissioners of Leon County, Florida (the "County") will conduct a public hearing on Tuesday, June 9, 2015, at 6:00 p.m., or as soon thereafter as such matter may be heard, at the County Commission Chambers, 5th Floor, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida, to consider adoption of an ordinance entitled to wit:

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA; AMENDING CHAPTER 10, THE LAND DEVELOPMENT CODE, OF THE CODE OF LAWS OF LEON COUNTY, FLORIDA; AMENDING SECTION 10-1.101, DEFINITIONS; AMENDING SECTION 10-6.612, RURAL ZONING DISTRICT; AMENDING SECTION 10-6.619, COMMERCIAL SITE LOCATION STANDARDS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

All interested parties are invited to present their comments at the public hearing at the time and place set out above.

Anyone wishing to appeal the action of the Board with regard to this matter will need a record of the proceedings and should ensure that a verbatim record is made. Such record should include the testimony and evidence upon which the appeal is to be based, pursuant to Section 286.0105, Florida Statutes.

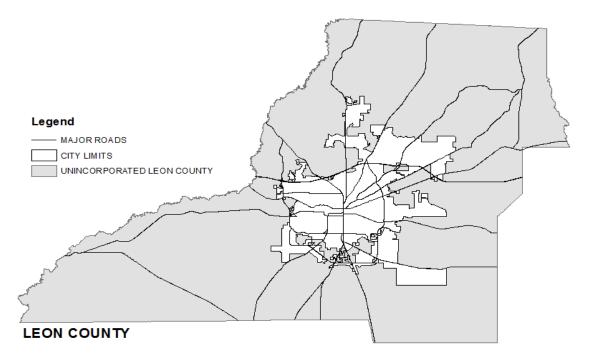
In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Jon Brown or Facilities Management, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida 32301, by written request at least 48 hours prior to the proceeding. Telephone: 850-606-5300 or 850-606-5000; 1-800-955-8771 (TTY), 1-800-955-8770 (Voice), or 711 via Florida Relay Service.

Copies of the ordinance may be inspected at the following locations during regular business hours:

Leon County Courthouse 301 S. Monroe St., 5th Floor Reception Desk Tallahassee, FL 32301

and

Leon County Clerk's Office 315 S. Calhoun Street, Room 750 Tallahassee, Florida 32301



Leon County Board of County Commissioners

Notes for Agenda Item #14

Leon County Board of County Commissioners

Cover Sheet for Agenda #14

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: First of Two Public Hearings to Consider a Proposed Ordinance Revising the

Leon County Land Development Code to Amend the Lake Protection Zoning

District

County Administrator Review and Approval:	Vincent S. Long, County Administrator	
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator David McDevitt, Director, Development Support and Environmental Management	
Lead Staff/ Project Team:	Ryan Culpepper, Director, Development Services	

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Conduct the first of two required Public Hearings to consider a proposed Ordinance revising the Leon County Land Development Code to amend the Lake Protection Zoning District (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.

Title: First of Two Public Hearings to Consider a Proposed Ordinance Revising the Leon County Land Development Code to Amend the Lake Protection Zoning District June 9, 2015

Page 2

Report and Discussion

Background:

The proposed Ordinance to amend the Lake Protection zoning district (Sec. 10-6.616, Land Development Code) is in response to direction by the Board, as well as response to proposed amendments to the Lake Protection Future Land Use (FLU) Category (Attachment #1). Revisions to the Lake Protection (LP) zoning district were initially considered by the Board during a workshop on November 19, 2013. During this workshop, the Board requested staff to consider recommendations intended to encourage sustainable development in the LP FLU category. In addition, the Board directed staff to review the existing exemption for sidewalks in LP and to bring back a draft Ordinance to address the requirements for developments that have the potential for "walkability." Additional amendments to the General Layout and Design Standards of Chapter 10 are necessary in order to fully implement the changes to the Lake Protection zoning district.

This proposed Ordinance is essential to the following revised FY2012-2016 Strategic Initiative that the Board approved at their January 27, 2015 meeting:

• Develop solutions to promote sustainable growth inside the Lake Protection Zone (2013)

This particular Strategic Initiative aligns with the Board's Strategic Priorities - Environment and Governance:

- Protect our water supply, conserve environmentally sensitive lands, safeguard the health of our natural ecosystems, and protect our water quality, including the Floridan Aquifer, from local and upstream pollution. (EN1, rev. 2013)
- Promote orderly growth which protects our environment, preserves our charm, maximizes public investment, and stimulates better and more sustainable economic returns. (EN2, 2012)
- Sustain a culture of performance, and deliver effective, efficient services that exceed expectations and demonstrate value. (G2, 2012)

Analysis:

Lake Protection (Sec. 10-6.616)

The proposed amendments to the LP zoning district correspond to the proposed amendments to the LP FLU category. The proposed Comprehensive Plan amendment to the LP FLU (PCT150104) was reviewed by the Local Planning Agency at a workshop on February 3, 2015, and at a Public Hearing on April 6, 2015. The proposed Comprehensive Plan amendment received approval for transmittal at a Joint City-County Transmittal Public Hearing on April 14, 2015, and was adopted at a Joint City-County Adoption Public Hearing on May 26, 2015; therefore, a corresponding amendment to the LP zoning district of the LDC will be required.

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The LP category has been in existence since the inception of the Comprehensive Plan in 1990. The category was created in response to concerns regarding water quality in Lake Jackson. At the time, the lake had been negatively impacted by development within its watershed, including the construction of I-10 and large-scale developments along North Monroe Street (Hwy 27). These developments contributed to the degradation of the water quality in Lake Jackson by allowing untreated stormwater to flow freely into the lake.

The LP district was designed to more effectively regulate development within the Lake Jackson basin. The LP district allows traditional residential development of one dwelling unit per two acres, while allowing a Clustered Subdivision option wherein residential development is clustered on 40 percent of the site, leaving the remaining 60 percent in a natural state. Non-residential uses (minor office and commercial) are permitted; however, those uses require a Planned Unit Development rezoning. Other more intense office and commercial uses, along with industrial uses, are prohibited.

The proposed amendment modifies Sec. 10-6.616 to be consistent with the proposed amendments to the LP FLU category. The changes proposed to the district are as follows:

- Update the formatting of the district standards;
- Clarify the density for cluster development (1 dwelling unit per 2 gross acres);
- Prohibit non-residential development (excluding existing, lawfully established uses);
- Allow stormwater facilities to be included in the 60% set-aside required under the Clustered Subdivision option (provided the facility is designed as an amenity); and
- Provide specific development standards for existing non-conforming, non-residential uses.

The format of the current zoning district regulations is relatively old and outdated. In addition, a number of uses were inherited from previous zoning codes, which may or may not be applicable in today's market. These uses are also categorized using the Standard Industrial Code (SIC), which is an outdated classification code. The proposed revisions to Sec. 10-6.616 include updating the format to be consistent with previously updated zoning districts of the LDC, specifically the Mahan Corridor zoning districts. The updated format improves readability, as well as identifies specifically prohibited uses. The use of the SIC classification has been removed in place of a more updated and generalized list of uses.

The current LP regulations note residential density for cluster developments at a net density of two units per acre on the developed portion of the property. This form of density calculation is inconsistent with other forms of clustering or conservation subdivisions in the LDC. The more common form of calculating density utilizes the entire property, or gross acreage. By utilizing the gross acreage, more dense residential development (on central water and sewer) would potentially be allowed in cluster subdivisions, furthering the intent to provide cluster subdivisions as a more attractive option. The cluster option is intended to reduce impervious surface area, provide more natural open space, and reduce the reliance on private septic systems.

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Currently, non-residential development is allowed at certain intersections within the LP zoning district, with the intent to prevent strip commercialization and provide locational certainty in non-residential development. The amendments to the LP FLU category will allow for the creation of a new zoning district, specifically intended for higher intensity and density development. This new district, Lake Protection Node (LPN), will be located at four major intersections within the LP FLU category.

As a result, new non-residential development will not be allowed in the amended LP zoning district and these uses will be directed to the LPN.

Under the current LP district standards, all infrastructure, including stormwater management facilities (SWMF), are limited to the 40% development area within cluster subdivisions. This further reduces the area available for residential development and is contrary to the district intent. The proposed revisions to the LP district would allow SWMFs to be included in the 60% natural area, provided the facilities are designed as a community amenity. In addition, these natural areas could be utilized for active and passive recreation.

Areas along North Monroe Street have been previously developed with non-residential uses, a number of which pre-date the adoption of the LP zoning district. Existing, lawfully established non-residential development that meets all water quality standards will be afforded a legal non-conforming status and will have specific development/redevelopment standards. However, it should be noted that a number of these sites are severely limited in redevelopment options as a result of the current stormwater standards. As a result, staff is working on a separate amendment to the stormwater standards for properties located in the LP district that may enable more flexibility for these existing sites. These new stormwater standards are discussed in more detail in a separate agenda item.

Lake Protection Node District (Sec. 10-6.660)

This new zoning district also is in response to the Board's Strategic Initiative to promote sustainable growth in the Lake Protection Zone, and is provided for in Comprehensive Plan amendment PCT150104. This nodal concept will establish a development pattern at primary intersections allowing for intense and compact mixed-use developments that provide the surrounding area with opportunities for office, retail, and employment opportunities, as well as encourage pedestrian mobility. There are four major intersection locations that have been identified as being eligible for LPN zoning:

- 1. Highway 27 North/Capital Circle Northwest
- 2. Fred George Road/Highway 27 North
- 3. Sessions Road/Highway 27 North
- 4. Bull Headley Road/Bannerman Road

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The extent of the nodes are more specifically illustrated in Exhibits "A", "B", "C" and "D" of Section 10-6.660 of the Ordinance. These nodes were selected as a result of the existence of non-conforming, non-residential development on site and being located at major intersections with proximity to infrastructure. These nodes would potentially allow many existing non-residential developments to attain conforming status and allow flexibility in redevelopment. By providing a more compact development, these nodes will encourage more pedestrian friendly developments, while potentially reducing vehicular trips.

The LPN district will generally allow up to eight dwelling units per acre and potentially a density bonus of up to 16 dwelling units per acre, if developed as a master plan. For developments including a vertical mixture of uses, non-residential intensity may be increased by 2,500 square feet per acre. Consistent with the LP zoning district, all development within the LPN district will be required to comply with the stormwater standards of Article IV of the LDC.

Additionally, the district will identify a list of specifically prohibited uses. These prohibited uses, such as, but not limited to, golf courses, salvage yards, and warehouses, are incompatible with the node concept and do not further the intent of the district to promote traditional, walkable development patterns.

Sidewalks (Sec. 10-7.529)

The role of sidewalks in sustainable development is critical. Walkable neighborhoods reduce vehicle trips, which cuts greenhouse gases and other emissions, and benefits residents by increasing opportunities for exercise, reducing their need to use fuel, and allowing them to spend more time near their home. Another advantage of walkable communities is that they facilitate interactions with neighbors, which in turn creates social capital and safer communities.

Several objectives and policies in the Comprehensive Plan promote pedestrian access and mobility for new development in order to reduce vehicular trips on the external street system and provide pedestrian interconnectivity between developments. These policies are located in the Land Use, Transportation and Education Elements of the Comprehensive Plan. However, the implementation of these requirements has created various issues since 2004, particularly within the LP zoning district. This is due mainly to the difficulty in implementing the provision of sidewalks in the LP areas because of the relatively low density of one dwelling unit per two acres, the presence of established neighborhoods in LP where sidewalks were never built, and the relative lack of walkable destinations near many residential areas.

In response to these issues, the County's LDC has been modified several times over the last decade to address sidewalks in LP and other zoning districts. Modifications have included adopting more precise sidewalk requirements for new developments, and establishing criteria and procedures for payment of fee in-lieu of constructing sidewalks; clarification of the sidewalk requirements for two-lot subdivisions of non-vacant residential property; and a one-time exemption for any proposed non-residential development consisting of 1,000 square feet or less.

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At their regular meeting on January 29, 2008, the Board also adopted the following exemption for new residential development in the LP zoning district: "Sidewalks shall not be required in association with new residential development within the Lake Protection zoning district." This exemption was based on the two-acre minimum residential lot size applicable in LP, as well as the Comprehensive Plan's goal of limiting total impervious area in the LP district as a primary method of protecting Lake Jackson. However, staff also stated in a status report on sidewalks provided to the Board on November 10, 2009 that the impervious surface area associated with sidewalks is negligible or at most, *de minimus* in terms of stormwater runoff impacts.

Currently, the LDC does not require the installation of sidewalks for new residential development proposed within the LP zoning district. However, the LDC does require the installation of sidewalks for new residential development in all other zoning districts within the Urban Service Area. Furthermore, additional sidewalk requirements may apply to multi-family residential, non-residential, or institutional development for sidewalks connecting the street system to the interior of the development and between adjacent buildings and uses.

In order to foster more sustainable development within the LP land use category, staff recommends that the current exemption on sidewalks in LP be modified to require sidewalks in association with new residential development within the LP zoning. More specifically, a development would be subject to the provision of sidewalks if one or more of the following criteria applies:

- 1) the development utilizes the residential cluster option; or,
- 2) the development is required to connect to a central sewer service; or,
- 3) there are existing or planned sidewalk facilities adjacent to the development site; or
- 4) the development is adjacent to a zoning district that requires sidewalks.

The proposed Ordinance will enhance the sidewalk requirements for developments that have the potential for walkability, including clustered development and areas designated as LPN, while also allowing an exemption for proposed developments that do not have this potential.

DSEM Citizen's User Group Recommendations

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Staff provided the proposed amendments to the DSEM Citizen's User Group, hereinafter referred to as "User Group," for review and recommendations at their April 23, 2015 meeting. They requested more detail regarding the location and mapping of the LPN district; however, staff has not completed the methodology for mapping the district at this time. Based upon this clarification from staff, the User Group recommended approval of the proposed Ordinance, but did have concerns regarding the implementation of the LPN district; specifically, how the district would be mapped and how density would be determined on parcels bifurcated with the LPN district.

Staff has since revised the Ordinance to include exhibits illustrating the extent of the Lake Protection Node at each of the four intersections. In addition, density of bifurcated parcels will be determined based on the acreage of the portion of a parcel within the LPN, as illustrated in the referenced exhibits.

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Comprehensive Plan Consistency Determination

The Planning Department has reviewed the proposed Ordinance and has provided a memorandum finding that the proposed Ordinance is consistent with the Comprehensive Plan (Attachment #2).

The Planning Commission was originally scheduled to consider the proposed amendments at a Public Hearing on May 5, 2015. However, staff requested a continuance to the Planning Commission's Public Hearing on June 2, 2015 at 6:00 p.m. to address a number of additional concerns raised by the Friends of Lake Jackson. Due to Board agenda deadlines, the recommendation from the Planning Commission will be provided at the Board's first Public Hearing.

Public Notification

The Public Hearing has been publicly noticed, consistent with the requirements of Florida Statutes (Attachment #3).

Options:

- 1. Conduct the first of two required Public Hearings to consider a proposed Ordinance revising the Leon County Land Development Code to amend the Lake Protection Zoning District (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 2. Conduct the first of two required Public Hearings to consider a proposed Ordinance revising the Leon County Land Development Code to amend the Lake Protection Zoning District and do not schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 3. Board direction.

Recommendation:

Option #1.

Attachments:

- 1. Proposed Ordinance
- 2. Consistency Memorandum from the Planning Department dated May 15, 2015
- 3. Public Notice

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ORDINANCE NO. 15-

ORDINANCE OF THE OF AN **BOARD** COMMISSIONERS OF LEON COUNTY, FLORIDA; AMENDING CHAPTER 10, THE LAND DEVELOPMENT CODE, OF THE CODE OF LAWS OF LEON COUNTY, FLORIDA; AMENDING SECTION 10-6.616, LAKE PROTECTION ZONING DISTRICT; ADDING A NEW SECTION 10-6.660, ENTITLED "LAKE PROTECTION NODE DISTRICT"; ZONING **SECTION** 10-7.529, **GENERAL REQUIREMENTS** SIDEWALKS WITH NEW DEVELOPMENT, FEE IN-LIEU OF SIDEWALK CONSTRUCTION; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN **EFFECTIVE DATE.**

WHEREAS, the intent of the Lake Protection Zoning District is to ensure that environmentally sound and sustainable development occurs within the Lake Jackson drainage basin with minimal impacts to water quality; and,

WHEREAS, the Board is desirous to ensure the continued protection of the water quality in the Lake Jackson drainage basin; and,

WHEREAS, the Ordinance will create a new zoning district intended to allow compact, mixed-use and multi-modal neighborhood centers; and,

WHEREAS, the Ordinance will clarify and improve the clustering option which is intended to encourage more sustainable residential development; and,

WHEREAS, the implementing regulations for the Lake Protection Zoning District are located in Chapter 10 of the Leon County Code of Laws; and,

WHEREAS, amendments to the applicable provisions of Chapter 10 will be required to maintain consistency with the Comprehensive Plan; and,

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA:

SECTION 1. Section 10-6.616 of Article VI of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "Lake Protection Zoning District," is hereby amended to read as follows:

Sec. 10-6.616 Lake Protection.

- (a) Purpose and intent. The purpose and intent of the lake protection district is for activities in the area immediately adjacent to and affecting Lake Jackson while protecting that water body and ecosystem. This district's location is based on the lake basin boundary so adjusted to include contributing watersheds but to exclude existing, more intensely developed areas south of Interstate 10. This district allows residential uses to a maximum density of one unit per two acres. An option to cluster residential uses is allowed on 40 percent of the site at a net density of two units per acre on the developed portion of the property. The remaining 60 percent of the property must remain in natural open space in perpetuity. This cluster option is intended to leave large areas of land undisturbed within the critically impacted area and be designed to minimize non-point pollution from the site. Minor office and minor commercial uses may be approved through review by the PUD process. Approval of the PUD by the board of county commissioners shall be based upon findings that the proposed use is consistent with the purpose and intent stated herein and the proposed development will comply with the provisions of subsection 10-4.323(b)(3). All other commercial, office, and industrial uses are prohibited. Urban services are intended for this category inside the urban service area. Existing nonresidential uses within this district that meet all water quality standards set forth in the comprehensive plan and the environmental regulations of the county will be considered permitted, lawfully established conforming uses.
- (b) Allowable uses. For the purpose of this article, the following land use types are allowable in this zoning district and are controlled by the land use development standards of this article, the Comprehensive Plan and schedules of permitted uses.

- 1 (1) Minor commercial, planned unit development approval required and runoff retained on-site required.
 - (2) Minor office, planned unit development approval required and runoff retained on-site required.
- 5 (3) Low-density residential, runoff retained on-site required.
 - (4) Passive recreation, runoff retained on-site required.
 - (5) Active recreation, runoff retained on-site required.
 - (6) Community services.
 - (c) List of permitted uses. Some of the uses on these schedules are itemized according to the Standard Industrial Code (SIC). Allowable uses, appropriate permit level and applicable development and locational standards in the lake protection district are as follows:

P = Permitted use R = Restricted use S = Special exception

	Legend								
Ag	=	Agricultural	LR	=	Low-density residential				
MO	=	Minor office	AR	=	Active recreation				
MC	=	Minor commercial	CS	=	Community services				

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		Development and Locational Standards				al	
SIC Code	Name of Use	Ag	MO*	MC*	LR	AR	CS
	RESIDENTIAL						
	Dwelling, one-family				₽		
	Dwelling, two-family				₽		
	Dwelling, townhouse				R		
	Dwelling, mobile home				₽		
	Mobile home park				S		
	AGRICULTURE, FORESTRY, AND FISHING						
01	Agricultural production—Crops	R					
02	Agricultural production Livestock	R					
092	Fish hatcheries and preserves	S					
		-				<u> </u>	<u> </u>

	TRANSPORTATION AND PUBLIC UTILITIES					
43	Postal service					S
	RETAIL TRADE					
581	Eating and drinking places		S			
591	Drugstores and proprietary stores		S			
592	Liquor stores		S			
5992	Florists		S			
5993	Tobacco stores and stands		S			
5994	News dealers and newsstands		S			
	FINANCE, INSURANCE, AND REAL ESTATE					
602	Commercial banks	S				
603	Savings institutions	S				
606	Credit unions	S				
611	Federal and federal sponsored credit	S				
614	Personal credit institutions	S				
616	Mortgage bankers and brokers	S				
62	Security and commodity brokers	S				
64	Insurance agents, brokers, and service	S				
65	Real estate	S				
654	Title abstract offices	S				
	SERVICES					
703	Camps and recreational vehicle parks				R	
721	Laundry, cleaning, and garment services		S			
7215	Coin-operated laundries and cleaning		S			1
723	Beauty shops	8			1	1

724	Barber shops	S				
725	Shoe repair and shoeshine parlors	\$				
7311	Advertising agencies	\$				
732	Credit reporting and collection	\$				
7361	Employment agencies	\$				
737	Computer and data processing services	S				
784	Video tape rental		S			
7997	Membership sports and recreation clubs	\$			S	
801	Offices and clinics of medical doctors	S				
802	Offices and clinics of dentists	\$				
804	Offices of other health practitioners	S				
807	Medical and dental laboratories S					
808	Home health care services	S				
81	Legal services	S				
821	Elementary and secondary schools					S
823	Libraries Less than 7500 sq. ft.	Ş	S			
823	Libraries—7500 sq. ft. or more					S
835	Day care services	Ş				
836	Residential care	Ş				
841	Museums and art galleries				Ş	
842	Botanical and zoological gardens				S	
864	Civic and social associations					S
866	Religious organizations					\$
871	Engineering and architectural services	Ş				
872	Accounting, auditing, and bookkeeping	Ş				
873	Research and testing services	Ş				
874	Management and public relations	Ş				

PUBLIC ADMINISTRATION						
Executive, legislative and general						S
Public order and safety						S
Police protection						S
Fire protection						S
RECREATION						
Hiking and nature trails					₽	
Picnicking					P	
Canoe trails					P	
Bicycle trails					₽	
Horseback riding trails					₽	
Tot lots					₽	
Court sports					R	
Field sports					R	
Boat landings					₽	
Archaeological historical sites					S	
	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Picnicking Canoe trails Bicycle trails Horseback riding trails Tot lots Court sports Field sports Boat landings	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Picnicking Canoe trails Bicycle trails Horseback riding trails Tot lots Court sports Field sports Boat landings	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Picnicking Canoe trails Bicycle trails Horseback riding trails Tot lots Court sports Field sports Boat landings	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Pienicking Canoe trails Bicycle trails Horseback riding trails Tot lots Court sports Field sports Boat landings	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Picnicking Cance trails Bicycle trails Horseback riding trails Tot lots Court sports Field sports Boat landings	Executive, legislative and general Public order and safety Police protection Fire protection RECREATION Hiking and nature trails Picnicking Canoe trails Bicycle trails P Horseback riding trails P Court sports Recreation P Recreation Recreation P Recreation Recreation Recreation P Recreation Recreation P Recreation Rec

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* Minimum criteria for approval shall require a finding that the proposed uses would be consistent with the district intent; would not be likely to create significant detrimental environmental impacts; nor be likely to interfere with any lawfully established uses.

5 (d) The maximum allowable floor area in the lake protection district is as follows:

COMMERCIAL LAND USE TYPE	LAKE PROTECTION
MINOR	
Total location	40,000
Single site or quadrant	20,000
Single structure	20,000

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7 (e) The minimum development standards in the lake protection district are as follows:

	Low De Reside	-	Commercial Office		Community Services; Active Recreation; Public, Primary and Secondary Schools
	Noncluster	Cluster*	Noncluster	Cluster*	
MINIMUM SETBACKS (FEET)					
Front yard					
Building	25	25*	30	25*	30
Parking	_	_	40	40*	40
Corner yard					
Building	25	25*	30	25*	30
Parking	_	_	40	40*	40
Side yard					
Building	15	15*	40	20*	40
Parking	_	<u> </u>	40	20*	40
Rear yard					
Building	25	25*	50	30*	50
Parking	_	<u> </u>	40	10*	40
Adjoining lower intensity zoning district					
Building	_	_	50	50*	_
Parking	_	_	50	50*	_
Maximum % impervious surface area	30	25**	40	25**	40
Maximum height at building envelope perimeter	_	35	35	35	35
Maximum additional height/additional zoning setback	1'/1'	_	1'/1'	1'/1'	1'/1'

Maximum total height	35	35	45	45	4 5***
Minimum lot frontage	15	15	40	40	_
Minimum lot area	2.0	****	2.0	1.0	_

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- 2 * This number applies to the perimeter setback only.
- 3 ** Maximum percent impervious area of developable portion of site.
- 4 *** This height applies to habitable portion of a structure.
- 5 **** If central sanitary sewer is not available, lot sizes shall be at a minimum one-half 6 acre of contiguous buildable area.
 - (f) Development standards. All proposed development shall meet the commercial site location standards (section 10-6.619); buffer zone standards (section 10-7.522); and the parking and loading requirements (Subdivision 3 of Division 5 of Article VII).
 - (g) Specific restrictions. If uses are restricted according to the schedule of permitted uses, they are not allowed unless they follow the general development guidelines for restricted uses as provided in this division. Specific restricted uses are addressed below.
 - (1) Nonresidential uses allowed only upon approval of a site and development plan by the Board of County Commissioners.
 - (h) Vested developments. Any development meeting the requirements of Footnote 1 of the Lake Protection Future Land Use Category in the 2010 Tallahassee Leon County Comprehensive Plan shall be vested as provided therein.

1 Sec. 10-6.616 Lake Protection.

1. District Intent

The purpose and intent of the Lake Protection (LP) zoning district is to allow for the regulation and, where appropriate, limitation of development and redevelopment of land within the Lake Jackson Basin in a manner that improves water quality within the Lake. The bounds of the category include the Lake Jackson Basin and contributing watersheds and limited to the Urban Service Area. Intensely developed properties and areas south of Interstate 10 (I-10) have been excluded from the boundary.

The LP zoning district shall permit single-family residential development at one (1) dwelling unit per two (2) gross acres. A Clustered Subdivision option is available that allows two (2) dwelling units per gross acre, consistent with environmental and infrastructure constraints. The Clustered Subdivision option allows an increased number of residential units if developed on 40 percent of the property, provided central water and sewer are available and leaving the remaining 60 percent of the property as contiguous, undisturbed open space in perpetuity. The Cluster Subdivision option is intended to leave large areas of natural open space within the watershed and minimize pollution.

Community services, light infrastructure and passive recreational facilities, including boat ramps, consistent with the applicable provisions of section 10-6.806, may be approved by the Board of County Commissioners through review by the existing Type "C" process. Approval by the Board of County Commissioners shall be based upon findings that the proposed use is consistent with the purpose and intent stated herein and the proposed development will comply with the provisions of Section 10-4.323(b), as well as all current stormwater regulations.

Other nonresidential uses are not permitted within the LP zoning district. However, lawfully established, nonresidential uses within this district that meet all current water quality and stormwater management standards set forth in the Comprehensive Plan and the environmental regulations of the County will be considered permitted, conforming uses. These sites shall be regulated by the allowable uses provided in Section 10-6.660, Lake Protection Node, subject to additional limitations noted herein.

Urban services are intended for this district. The density of permitted development may depend upon the availability of such services.

2. Allowable District Location

The district may only be located within areas designated Lake Protection on the Future Land Use Map.

PERMITTED, PROHIBITED AND RESTRICTED USES								
3. Principal Uses	4. Prohibited Uses	5. Restricted Uses						
(1) Single-family detached dwellings. (2) Community services in accordance with section 10-6.806 of these regulations. (3) Passive recreational facilities and boat ramps. (4) Light Infrastructure	 (1) Commercial, retail, office, and industrial activities (2) Active Recreation, except for boat ramps (3) Golf Courses (4) Manufactured and/or Mobile Home Parks (5) High schools and post-secondary schools are prohibited (6) Heavy infrastructure (7) Other uses which, in the opinion of the County Administrator or designee, are of a similar nature to those prohibited uses in this district. 	 Single-family attached dwellings shall be allowed in a Clustered Subdivision. Mobile Homes and Standard Design Manufactured Homes may be replaced or may be located within subdivisions platted explicitly for manufactured housing. Campgrounds and recreational vehicle parks* *Campgrounds and recreational vehicle parks shall address the provisions of Section 10-6.611, unless otherwise provided for in this section. 						

	DEVELOPMENT STANDARDS								
6. Minimum Lot or S	ite Size			7. Minimu	m Building Setbacks	8. Maximum Building Restrictions			
Use Category	a. Lot or Site Area	b. Lot Width	c. Lot Depth	a. Front	<u>Corner Lot</u>			a. Building Size (excluding gross building floor area used for parking)	b. Building Height (excluding stories used for parking)
Conventional Residential									
Single-Family Detached Dwellings	<u>2 acres</u>	<u>80 feet</u>	<u>100 feet</u>	35 feet	15 feet on each side; or any combination of setbacks that equals at least 30 feet, provided that no such setback shall be less than 10 feet	25 feet	25 feet	<u>Not applicable</u>	<u>3 stories</u>
Clustered Subdivision									
Single-Family Detached Dwellings	5,000 square feet	<u>40 feet</u>	<u>100 feet</u>	15 feet; 10 feet w/ alley- loaded garage	7.5 feet on each side; or any combination of setbacks that equals at least 15 feet, provided that no such setback shall be less than 5 feet	<u>15 feet</u>	15 feet; 10 feet w/ alley- loaded garage	<u>Not applicable</u>	<u>3 stories</u>
Single-Family Attached Dwellings	3,750 square feet end unit; 2,400 square feet interior lot	37.5 feet end unit; 25 feet interior lot	<u>80 feet</u>	15 feet; 10 feet w/ alley- loaded garage	<u>Not applicable</u>	<u>15 feet</u>	15 feet; 10 feet w/ alley- loaded garage	maximum length: 8 units	<u>3 stories</u>
Existing Non-residential,	Non-conforming Uses								
Lawfully Established Non-Residential Use; refer to additional standards noted in subsection 10	<u>N/A</u>	<u>60 feet</u>	<u>100 feet</u>	<u>25 feet</u>	7.5 feet on each side; or any combination of setbacks that equals at least 15 feet, provided that no such setback shall be less than 5 feet	<u>15 feet</u>	<u>25 feet</u>	10,000 square feet of gross building floor area per acre	<u>3 stories</u>

GENERAL NOTES:

- 1. <u>If central sanitary sewer is not available, residential lots shall contain a minimum of 0.50 acres of contiguous buildable area. Nonresidential development and community facilities are limited to a maximum of 900 gallons of wastewater flow per day. Refer to sanitary Sewer Policy 2.1.12 of the Comprehensive Plan for additional requirements.</u>
- 2. Residential lots in Clustered Subdivisions less than 60 feet in width shall be alley-loaded.
- 3. Refer to the Environmental Management Act (EMA) for information pertaining to the regulation of environmental features (preservation/conservation features), stormwater management requirements, etc.
- 4. Refer to the Concurrency Management Ordinance for information pertaining to the availability of capacity for certain public facilities (roads, schools, parks, etc.).

9. Clustered Subdivision.

1. Density and Layout.

The maximum gross density allowed for new residential development in the LP district is one (1) dwelling unit per two (2) gross acres. As an alternative to large-lot developments, a Clustered Subdivision shall be permitted within the Lake Protection zoning district. Clustered Subdivisions shall:

- (a) contain a minimum of 60% open space as a reserve area, comprised of such things as Special Development Zones, preservation and conservation features, undeveloped uplands, passive recreation areas, and stormwater facilities designed as a community amenity;
- (b) Be developed at a maximum density of two (2) dwelling units per gross acre;
- (c) Be served by central water and sewer systems

2. Reserve area.

The acreage of the reserve area shall comprise no less than 60 percent of the total parcel; shall be permanently preserved though the creation of a perpetual easement; shall be continuous and contiguous with other portions of the site; shall be contiguous with or proximal to existing or planned public or private greenspace to the greatest extent practicable, and shall be of sufficient size and buffered to ensure the protection of all critical on-site resources that are to be preserved and to accommodate authorized uses.

- (a) All preservation areas, Special Development Zones, conservation areas, archaeological sites and view-shed areas within designated protection zones for canopy roads shall be incorporated into the reserve area even if total acreage exceeds the minimum requirement of 60 percent of the total parcel; other open space areas shall be incorporated into the reserve area to the greatest extent practicable.
- (b) The reserve area shall adjoin any existing or planned adjacent areas of open space, or natural areas that would be potential sites for inclusion as part of a future area of protected open space as depicted in the Greenways Master Plan. In those instances where a Clustered Subdivision will be located adjacent to another existing or planned Clustered Subdivision, each Clustered Subdivision shall be designed so that reserve areas of each are adjacent.
- (c) Reserve area land shall be reserved permanently by easement for natural open space, passive recreation uses (e.g., greenbelts, trails, picnic areas or open fields), stormwater facilities, or other environmental conservation purposes.
- (d) Stormwater management facilities which are otherwise permissible are allowed in the reserve area provided that the facilities are located outside of preservation areas, canopy road protection zones, naturally forested areas, Special Development Zones, and meet either of the applicable following two standards:
 - 1. Wet retention ponds shall have side slopes of 6:1 or flatter with appropriate wetland tree and aquatic plants species that visually integrates the stormwater facility into the overall reserve area.
 - 2. All other retention ponds shall have side slopes of flatter than 4:1 or with appropriate tree and plant species that visually integrates the stormwater facility into the overall reserve area. All such facilities shall be designed as community amenities, with trails, observation decks, or platforms where appropriate,
- (e) All applicants for a Clustered Subdivision shall submit a management plan describing how the reserve area land will be maintained in perpetuity, including provision of a dedicated source of funds approved by the local government, to finance the timely and consistent execution of the plan.

3. <u>Development area.</u>

The development area shall be the area not set aside as reserve area and shall comprise no more than 40% of the total parcel. The development area shall be located on the least environmentally sensitive or otherwise significant portions of the total Clustered Subdivision parcel; be contiguous to the greatest extent practicable; and allow maximum open space to be easily maintained in the reserve area.

Design of the development area shall follow the procedural steps set forth below.

- (a) Delineate areas of the site to be reserved due to their significant features and value to the area's continued natural character in accordance with subsection 2 above;
- (b) Determine the number of allowable lots desired;

- (c) Locate potential development sites on the area of the tract not delineated as reserve area, with due consideration for topography, soil suitability for construction, and efficient service by public or central water and sewerage systems;
- (d) Align streets to serve residential sites, with due consideration for topography and connections to existing, planned or potential streets in adjacent areas, and align pedestrian trails if planned; and
- (e) Delineate boundaries of individual residential lots where lot sizes and shapes, block sizes and street networks and alignments shall be designed in accordance with accepted planning practices to produce a rational and economical system without undue clearing or grading. The lot arrangement, design and orientation shall be such that all lots will provide satisfactory building sites that are properly related to topography and the character of surrounding development, encourage a range of housing types and sizes, and provide safe and convenient vehicular access to public streets.
- (f) Specific development and locational standards shall be subject to the minimum standards of the underlying land use category and base zoning district and shall be established at the time of development plan submittal.

10. Existing Nonconforming Non-residential Uses.

Existing non-residential uses within the Lake Protection land use category that meet all water quality and stormwater standards for their respective use, as specified within the land development regulations, will be considered permitted uses.

11. Sidewalks.

Sidewalks shall be provided in the LP district consistent with the provisions of Sec. 10-7.529. For Clustered Subdivisions, all required sidewalks shall connect to existing and proposed sidewalks to the maximum extent possible. Multi-use trails designed for non-motorized vehicles and pedestrians are also encouraged in the LP district to promote connectivity and to reduce automobile dependency.

12. Stormwater Management.

Refer to Sec. 10-4.301 for water quality treatment and volume control standards associated with development. Whenever possible, Low Impact Development (LID) techniques, as outlined in Section 10-4.308, such as rain gardens and bio-retention swales are encouraged to allow stormwater infiltration to occur as close to the source as possible. A decentralized stormwater management design which disperses stormwater facilities across the site rather than to a centralized treatment facility is encouraged.

SECTION 2. A new Section 10-6.660 of Article VI of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "Lake Protection Node Zoning District," is hereby created to read as follows:

Sec. 10-6.660. Lake Protection Node Zoning District.

1. District Intent

The Lake Protection Node (LPN) zoning district is intended to:

- 1. Accommodate compact mixed-use development at designated major intersections to provide retail, service and recreation opportunities to nearby residents;
- 2. Provide a development pattern that is transit supportive, based on a high degree of interconnected streets, and a compact layout of uses that addresses streets and sidewalks;
- 3. Create a development pattern that maximizes infrastructure and minimizes environmental impact by concentrating non-residential uses around major intersections;
- 4. Protect community health and safety by minimizing automobile dependency and reducing vehicle miles traveled through design supporting a variety of travel modes;
- 5. Create a community where travel by foot and bicycle is safe, convenient, and comfortable;
- 6. Minimize stormwater runoff by limiting surface area devoted to parking and requiring strict volume control stormwater facilities; and,
- 7. Facilitate compatibility with nearby neighborhoods through buffers, transitioning building mass and scale, and through careful site design.

The LPN District shall permit residential, non-residential, and mixed-use development (including, but not limited to, office and commercial uses) utilizing urban services. Non-residential development allowed within this district is limited to office, retail, services, and community facilities. The LPN district also allows certain community and recreational facilities related to residential uses. Urban services are intended for this district inside the urban service area. The density or intensity of permitted development may depend upon the availability of such services. Existing nonresidential uses within this district that meet all water quality and stormwater treatment standards set forth in the Comprehensive Plan and the environmental regulations of the County will be considered permitted, lawfully established conforming uses.

2. Allowable District Location

- a. The district may only be located within areas designated Lake

 Protection on the Future Land Use Map; and,
- b. The Lake Protection Node zoning district shall be permitted only within ¼ mile of the center of the following intersections and as specifically illustrated in Exhibits A, B, C and D of this section:
 - (1) Highway 27 North and Sessions Road
 - (2) Highway 27 North and Fred George Road
 - (3) <u>Highway 27 North and Capital Circle NW/Old Bainbridge</u>
 Road
 - (4) Bannerman Road and Bull Headley Road, and
- Within the areas described in (b), the location of the district may be further limited to facilitate compatibility with existing residential areas in the Lake Protection Future Land Use category or to minimize potential adverse environmental impacts on Lake Jackson and its tributaries and other environmental features; and,
- d. Shall be located in areas served by central sewer and central water.

	PERMITTED, PROHIBITED, AND RESTRICTED USES									
3. P	rincipal Uses	4. Prohibited Uses		5. Re	estricted Uses	6.	6. Accessory Uses			
(1)	Active and Passive Recreation Facilities	(1)	Campgrounds and recreational vehicle parks, except where	(1)	Small appliance repair.	(1)	Any use or structure on			
(2)	Automotive Retail, Service, and Repair, including Car		legally established and in existence prior to 01-01-2010		a. All repair activity shall occur within an enclosed structure;		the same lot with, and of			
	<u>Wash</u>	(2)	Gas stations, fuel/oil dealers and liquefied petroleum	(2)	Pet Day Care.		<u>a nature customarily</u>			
(3)	Banks and Other Financial Institutions		<u>products</u>		a. Shall be an accessory use to a veterinary clinic or pet store.		<u>incidental and</u>			
(4)	Community facilities related to the permitted principal	(3)	Golf Courses		b. Outside boarding and unsupervised outside activity are prohibited.		subordinate to, the			
	uses, including libraries, religious facilities, police/fire	(4)	Heavy Equipment Rental	(3)	Shared stormwater management facilities.		principal use or structure,			
	stations, and elementary, middle, high, and vocational	(5)	Manufactured Home Parks		a. Shall be designed as an amenity		as determined by the			
	schools.	(6)	<u>Outdoor storage</u>		b. Safety fences shall be planted with vegetation equal to the fence		County Administrator or			
(5)	Government Offices and Services	(7)	Residential – Mobile Homes and Standard Design		height at plant maturity.		<u>designee.</u>			
(6)	<u>Live-Work Units</u>		Manufactured Homes		c. Shall meet the requirements of Section 10-4.301 of the LDC.	(2)	<u>Light infrastructure</u>			
(7)	Lodging	(8)	Scrap Material storage or processing				and/or utility services and			
(8)	Medical and Dental Offices, Services, Laboratories, and	(9)	Towing, wrecking, and recovery				facilities necessary to			
	Clinics	(10	Warehouses and Self-Storage				serve permitted uses, as			
(9)	Nursing Homes and Other Residential Care Facilities	(11) Welding and machine shops				<u>determined by the</u>			
(10)	Daycare Centers	(12) <u>Wholesale Trade</u>				County Administrator or			
(11)	<u>Office</u>	(13	<u>Dry Cleaners</u>				designee.			

(1	2) <u>Residential – Any Unit Type</u>	(14) Other uses, which in the opinion of the County	i	
(1	3) Restaurants, without Drive-in Facilities	Administrator or designee are of a similar and compatible	İ	
(1	4) <u>Retail</u>	nature to those uses described in this district.	İ	
(1	5) Studios for Photography, Music, Art, Dance, and Voice		İ	
(1	6) <u>Retail Commercial</u>		İ	

	DEVELOPMENT STANDARDS									
	7. Density, Intensity and Building Restrictions			8. Lot or Site Area Restrictions			9. Building Setbacks			
<u>Use Category</u>	a. Allowable Densities (dwelling units/ acre)	b. Allowable Intensities (square feet/ acre)	c. Maximum Building Height	<u>a. Minimum</u> <u>Lot Area</u> SINGL	<u>b. Lot Width</u> .E USE DEVELOPN	<u>c. Minimum</u> <u>Lot Depth</u> MENT	<u>a. Front</u>	<u>b. Side Interior</u>	<u>c. Side</u> <u>Corner</u>	<u>d. Rear</u>
Single-Family Detached and Attached Residential	Min: 4 Max:8	<u>None</u>	<u>35 feet</u>	<u>None</u>	<u>None</u>	<u>None</u>	Min: 10 feet Max: 15 feet	Min: 0 feet Max: 10 feet Adjoins existing single family subdivisions: 25 feet min.	Min: 10 feet Max: 15 feet	Min: 20 feet Adjoins existing single family subdivisions 40 feet min.
Multi-Family Residential	Min: 4 Max:8	<u>None</u>	<u>35 feet</u>	<u>None</u>	<u>None</u>	<u>None</u>	Min: 5 feet Max: 15 feet	Min: 10 feet Max: 15 feet Adjoins RP Future Land Use Category: 40 feet min.	Min: 10 feet Max: 15 feet	Min: 20 feet Adjoins existing single family subdivisions: 40 feet min.
Non-Residential and Community Facilities	N/A	10,000 sf/ac, Vertical mixture of uses may receive a bonus of 2,500 sf/ac for a total of 12,500 sq ft/ac	4 stories	N/A	N/A	N/A	Min: 5 feet Max: 15 feet	Min: Zero [abutting buildings] or 10 feet Max: 15 feet Adjoins existing single family subdivisions:	Min: Zero Max: 15 feet	Min: 20 feet Adjoins existing single family subdivisions: 40 feet min.

								40 feet min.		
				MIXI	ED-USE DEVELOPI	<u>MENT</u>				
Mixed-Use Development	Min: 4 Max:8	10,000 sf/ac Vertical mixture of uses may receive a bonus of 2,500 sf/ac for a total of 12,500 sq ft/ac	4 stories	N/A	<u>N/A</u>	N/A	Min: 5 feet Max: 15 feet	Min: Zero [abutting buildings]or 10 feet Max: 15 feet Adjoins existing single family subdivisions: 40 feet min.	Min: 10 feet Max: 15 feet	Min: 20 feet Adjoins existing single family subdivisions: 40 feet min.

10. Building Size St	10. Building Size Standards							
<u>Use Category</u>	a. Maximum Building Size	b. Maximum building floor area per structure						
Single-Family Detached and Attached Residential	<u>N/A</u>	N/A						
Multi-Family Residential	<u>15,000 sq. ft.</u>	N/A						
Non-Residential and Community Facilities	Standard: 10,000 sq ft.	Standard: 14,000 sq ft.						
Mixed-Use Development	<u>Standard: 10,000 sq ft.</u>	Standard: 30,000 sq ft.						

11. Mixed Use Incentive qualifications.

<u>Developments incorporating a vertical mixture of residential and non-residential uses within a single development application or those which retrofit an existing development to include a vertical mixture of residential and non-residential uses, qualify for additional density and intensity provided for mixed-use development, pursuant to the following criteria:</u>

- a. At the completion of all development phases, no less than 20% of the gross floor area within the development is devoted to either residential use or non-residential use;
- b. The development consists of a mixture of uses within a single building or within multiple adjacent buildings, wherein the different uses are located no further than 200 feet apart; and,
- c. The development application must provide a common plan for the development of all included parcels, including shared infrastructure.

12. Access Management:

- a. Direct access to an arterial roadway or major collector shall be limited and provided via public right-of-way.
- b. There shall be no more than one public right-of-way connection to an arterial roadway and to each adjacent collector street per each nodal quadrant; until such time as a street system is created to provide access to all parcels adjoining the adjacent arterial roadway or the adjacent collector street, individual properties may obtain access, if needed, on a temporary basis.
- c. Applicants for development shall enter an agreement to cooperate in any future project to consolidate access points or to share access with abutting properties as opportunities arise.

13. Blocks, Frontage, & Sidewalks.

Street design and layout shall support an interconnected street network and pattern of a scale conducive to pedestrian and bicycle use.

- a. **Block Length:** Long side: 600 feet maximum, except where divided by a mid-block pedestrian crossing or alley, in which case, maximum block length may be 850 feet. Short side: Distance may vary between 200 and 400 feet to accommodate environmental and physiographic limitations.
- b. Mid-block Pedestrian Crossings: A publicly accessible pedestrian crossing shall be provided for blocks with a length greater than 600 feet on one or more sides.
- c. Sidewalk width and placement: Frontage sidewalks shall be a minimum of eight feet in width. All other sidewalks shall be no less than five feet in width.
- d. Pedestrian weather protection: Where practical, non-residential and mixed-use buildings shall provide weather protection arcade, awning, etc. along the frontage sidewalk extending at least three feet.
- e. <u>Alternative Surface Material:</u> Use of distinctive paving texture, type, and color for transitions between neighborhoods and within pedestrian areas is encouraged. Interconnections between neighborhoods should also be distinguished through the use of vertical architectural elements, such as archways, gateways, or bollards.

14. Street Trees.

All development or redevelopment shall incorporate street trees within the right-of-way, preferably between the back of curb and sidewalk.

- a. <u>Street trees shall be planted between 20-30 feet on center, except when a greater distance may be required to avoid conflict with visibility, street lamps, utilities, or safety issues would be compromised with the required location.</u>
- b. A minimum planting strip of six (6) feet shall be provided between the back of curb and sidewalk, except where on-street parking is provided and tree wells or planters are more appropriate.
- c. Tree selection and location shall be approved by the local utility provider and shall be no higher than 20 feet at maturity when located beneath power lines.

15. Parking.

- a. Location: Parking shall not be located between the building façade and the right-of-way, and shall be located on-street, internal to the block, or to the rear of structures. Where site constraints necessitate, up to 25% of required parking may be permitted to the side of buildings.
- b. On-street parking: All streets created or expanded in association with development in this district shall be designed to accommodate on-street parking.
- c. **Quantity:** On-site parking shall be limited to a range of 40% to 70% of the general parking standard set forth in Section 10-7.545, Schedule 6-2. On-street parking, provided on adjacent rights-of-way within the LPN zoning district without crossing an arterial or collector street may be counted towards meeting the parking requirement. Shared parking may also count toward the requirement.
- d. Size: Individual off-street surface parking lots shall not exceed 0.75 acre.

16. Building Position.

- a. Orientation: The principal building entryway shall be oriented to the street, other than an arterial roadway, and be designed to provide direct pedestrian access from that street. Where buildings are equidistant to two or more streets, the principal entryway may be located on either street. Buildings may be oriented toward the arterial roadway so long as there is a parallel street located between the arterial roadway and the building.
- b. **Encroachments:** Porches, balconies, patios, pedestrian weather protection features and other like architectural features may encroach into 50% of the front setbacks. Seating within the required yard setbacks shall be allowed. Encroachments permanent and temporary shall not result in a constrained pedestrian passageway of less than five feet in width.

a. Building Façade Length.

Non-residential and mixed-use building façades along any public street frontage shall not exceed 100 feet, unless vertical structural elements and functional entrance doors divide that façade no less than every 50 feet.

b. Transparency.

Adjacent to streets, sidewalks, and publicly accessible parking areas, non-residential and mixed-use buildings shall provide a minimum façade transparency of 50% at pedestrian level – between 2 and 8 feet above finished grade – and residential buildings shall provide a minimum façade transparency of 25% at pedestrian level.

c. Building materials.

- i. The following materials are prohibited: corrugated metal, standing seam, or v-crimp metal sheeting exterior walls or wall coverings.
- ii. The use of vinyl siding may not comprise more than 20% of any exterior wall plane.

d. Roof types:

- i. All roof types are allowed. The use of gable roofs, cross gable roofs, and dormers are encouraged for buildings of two stories or less.
- ii. Flat roofs shall provide horizontal articulation with a building cap at the top of the building base and/or incorporate the use of parapets.

22. Buffering, fencing, and screening.

- a. **Buffer Zone Standards:** Buffering is not required between uses in the LPN zoning district. Where development abuts existing single-family subdivisions, the landscape buffer standards of Section 10-7.522 shall apply.
- b. Fencing: Chain link fencing visible from public right-of-way or property is prohibited, unless screened by vegetation that covers completely at plant maturity.
- c. Screening of service connections and facilities: Outdoor service areas loading docks, trash collection, outdoor storage, mechanical equipment shall be mitigated by the use of screening material consistent with the materials and design treatments of the primary facade of the primary building and/or evergreen landscape plant material.
 - i. Landscape plans shall provide sight lines for natural surveillance between 3 and 8 feet above grade.
 - ii. The service areas shall not be within 50 feet of any adjoining residential property.
 - iii. The service areas shall be screened with vegetation and fences/ masonry walls that are of sufficient height (min. 6') and opacity (min. 50%) to screen from nearby streets and residential areas. Fences or masonry walls shall be constructed with materials that are incorporated in the design of the principal building.
 - iv. Above-ground utility boxes visible from the street shall be screened with landscaping on at least two sides, thereby preserving access for the utility provider.
- d. Off-street parking—Landscaping: A minimum 10-feet wide landscaping strip shall line the perimeter of surface parking lots, and shall be landscaped with one canopy tree per 20 linear feet of frontage and a continuous row of shrubbery not to exceed three feet at maturity.
- e. Required Landscaping—Alternative Compliance Methods. Development is encouraged to utilize the site design alternatives set out in Section 10-4.346 and 10-4.350.

23. Lighting:

a. Intensity limits. Lighting levels at the property line as measured at 6 feet above ground level shall not exceed 0.5 foot-candles. The foot-candle average in on-site parking lots should not exceed 2.0 foot-candles. The recommended maximum uniformity ratio (average: minimum light level) is 4:1.

b. Light fixture types and location:

- i. "Shoebox" and "Cobrahead" lights are prohibited.
- ii. All light fixtures shall be full cut-off type fixtures and direct light internal to the site.
- iii. Individual light poles and wall mounted light fixtures shall be no taller than 20 feet above grade. Wall mounted light fixtures shall be placed no closer than every 25 feet along the façade. Lighted bollards are encouraged along pedestrian routes.

24. Signage.

All signs shall comply with the County sign code and requirements set out in this section; where conflicts occur, the most restrictive standard applies.

- a. **Prohibited Signs:** Roof signs, billboard signs, pole signs, signs that rotate or are in motion, including animated signs, are not allowed in this district.
- b. One free-standing monument ground sign of no greater than 80 square feet display area per side, with no more than two sides, may be provided for each tenant. Properties shall be entitled to one ground sign per 500 feet of frontage.
- c. Maximum height of monument signs shall not exceed six feet above grade for single tenant structures and shall not exceed 15 feet above grade for multiple tenant structures.
- d. Monument ground signs shall incorporate the same exterior materials as the principal structure, and should utilize exterior finish of metal, wood, or masonry materials.
- e. Two on-site directional signs, not to exceed 4 square feet each, shall be allowed per tenant. Such signs are intended for navigational purposes and shall be free of logos, advertisements, badges, or slogans.

f. Sign Illumination:

- i. Prohibited lighting: Flashing, rotating, pulsing, search, laser, or lights moving in any manner.
- ii. Ground sign lighting: Ground signs are encouraged to be illuminated with an opaque field and letters of a lighter tone to control glare.
- iii. Wall sign lighting: Wall mounted signs shall be internally illuminated or externally illuminated with full cut off-type light fixtures directed downward.

25. Stormwater Management Facilities.

- a. Refer to Sec. 10-4.301 for water quality treatment and volume control standards associated with development.
- b. Whenever possible, Low Impact Development (LID) techniques such as rain gardens and bio-retention swales are encouraged to allow stormwater infiltration to occur as close to the source as possible. A decentralized stormwater management design which disperses stormwater facilities across the site rather than to a centralized treatment facility is encouraged.
- c. <u>Landscape vegetation shall be incorporated around the perimeter of the stormwater facility, which at maturity will visually conceal required fencing.</u>
- d. <u>Landscape plants should be native.</u> A minimum of four different species of trees and shrubs shall be utilized. Stormwater management facilities shall incorporate appropriate tree and plant species that take into account the soil, hydrologic, and other site and facility conditions. Existing vegetation should be incorporated into the facility design where possible.
- e. Existing non-residential uses within the Lake Protection land use category that meet all water quality and stormwater management standards for their respective use, as specified within the land development regulations, will be considered permitted uses.

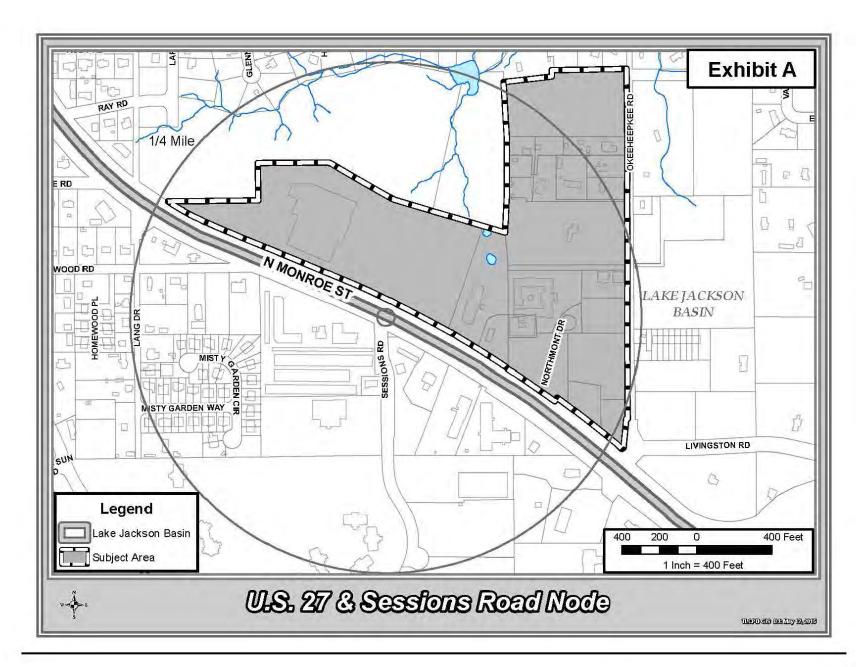
26. Sidewalks.

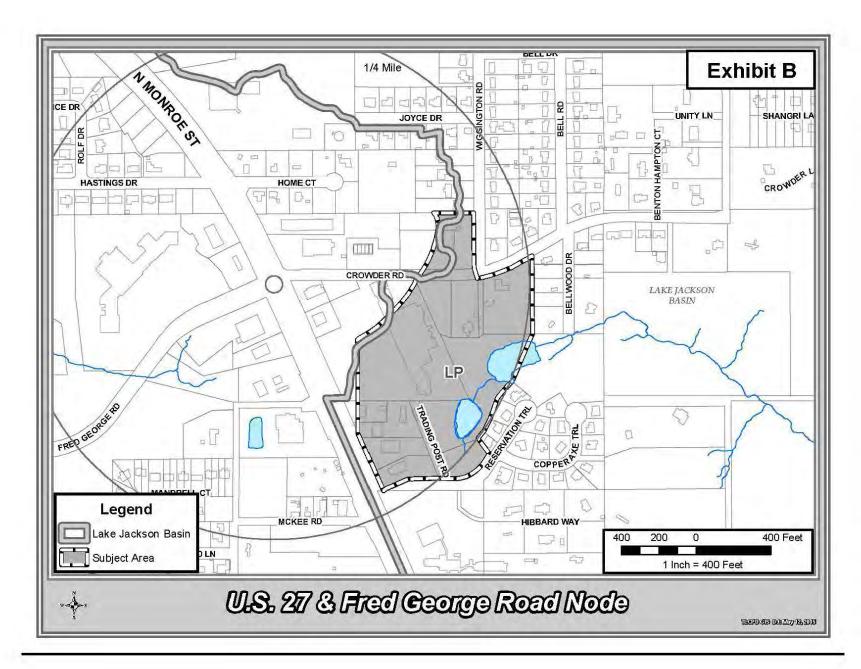
Sidewalks shall be provided in the LPN district consistent with the provisions of Sec. 10-7.529. For clustered subdivision, all required sidewalks shall connect to existing and proposed sidewalks to the maximum extent possible. Multi-use trails designed for non-motorized vehicles and pedestrians are also encouraged in the LPN district to promote connectivity and to reduce automobile dependency.

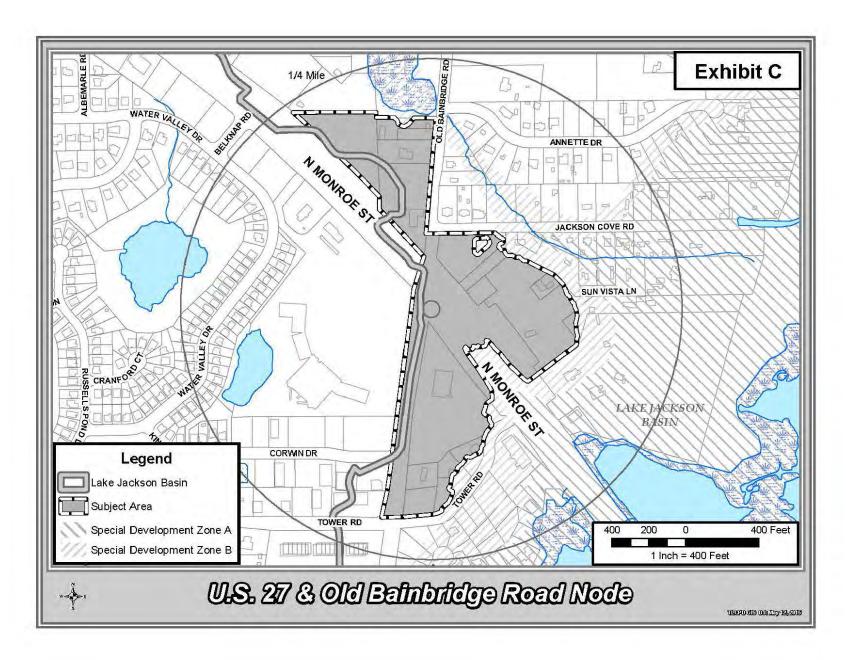
GENERAL NOTES:

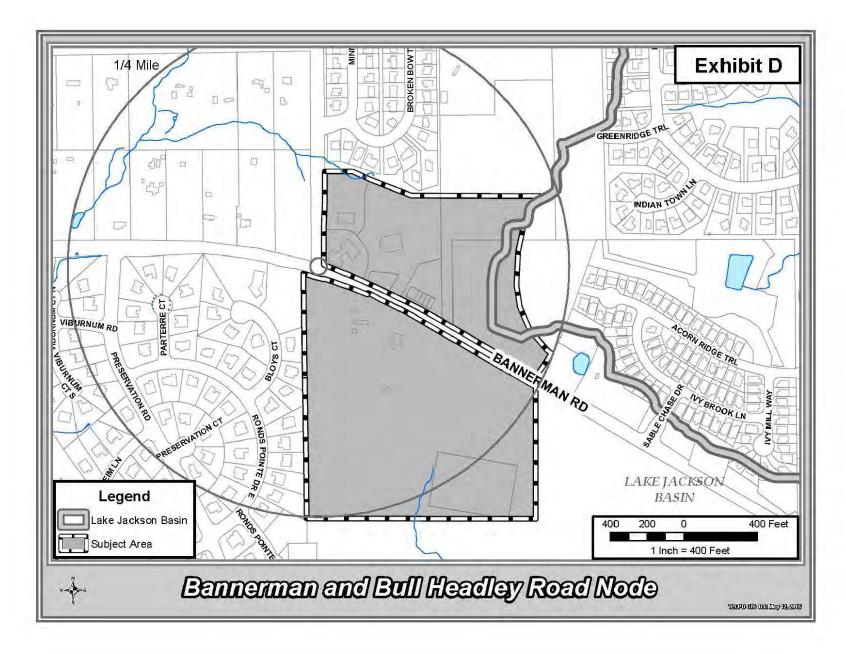
- 1. Central sanitary sewer and water are required within LPN.
- 2. Refer to the Environmental Management Act (EMA) for information pertaining to the regulation of environmental features (preservation/conservation features), stormwater management requirements, etc.
- 3. Refer to the Concurrency Management Ordinance for information pertaining to the availability of capacity for certain public facilities (roads, schools, parks, etc.).

4. Development standards. All proposed development shall meet the commercial site location standards (section 10-6.619); buffer zone standards (section 10-7.522); and the parking and loading requirements (Subdivision 3 of Division 5 of Article VII).









SECTION 3. Section 10-7.529 of Article VII of Chapter 10 of the Code of Laws of Leon County, Florida, entitled "General requirements for sidewalks with new development; fee in-lieu of sidewalk construction," is hereby amended to read as follows:

Sec. 10-7.529. General requirements for sidewalks with new development; fee in-lieu of sidewalk construction.

- (1) Purpose and intent. Within the urban services area, new development shall be designed and constructed to facilitate pedestrian mobility in and between residential developments; between residential development and nearby businesses, recreational opportunities, and community facilities; and, to connect places of business to one another and to residential developments.
- (2) Objective. New development shall be designed to implement a pedestrian mobility system that facilitates access to residential development, business establishments, community facilities and other nonresidential land uses, and, provides safe and convenient linkage between developments and between the public and private street system.
- (3) Specific requirements for sidewalks.
 - (a) Along adjacent streets and rights-of-way. Within the urban services area, all new development, as well as reconstruction, expansion, and extension, as defined in article VI, division 3, shall provide sidewalks along all public and private streets adjoining the development. However, no sidewalks shall be required if the expansion, reconstruction, or renovation is less than 1,000 square feet. Said exemption shall only be available once per subject property, and shall be expressly conditioned upon the fee simple title holder's (and any lien holder) execution of a document providing for sidewalk easement if and when the sidewalk is ultimately constructed by a third-party or a governmental entity. The sidewalk shall be located as follows: when sufficient right-of-way exists, the sidewalk shall be located within the public right-of-way; when sufficient right-of-way does not exist, the sidewalk shall be located at an alternative location parallel to the right-of-way or elsewhere on the development property, if approved by the county engineer. For those developments where sidewalks cannot be located within the public right-of-way, the developer must provide and record in the public records of Leon County, Florida, all easements necessary to guarantee public access to the sidewalk.
 - (b) Linking pedestrian on-site destinations and adjacent rights-of-way. Within the urban services area, nonresidential and multifamily residential development shall provide safe and efficient sidewalk linkages between building entrances and parking areas, adjacent portions of the development, and adjacent rights-of-way. At least one accessible route in accordance with the Florida Accessibility Code shall connect buildings to parking areas and adjacent rights-of-way.
 - (c) Linking adjacent development. In addition to the requirements of paragraph (2), within the urban services area, both commercial and office development shall provide internal sidewalk interconnection between adjacent commercial and office development. This requirement does not apply to the following development proposals: (i) where the building entrance is located within 30 feet of a sidewalk along an adjacent right-of-way serving both developments, (ii) where the length of the common property boundary of the two adjacent developments is less than 50 feet, (iii) where construction or use of the sidewalk would have an adverse impact upon a preservation area, as defined in article VI, or (iv) where a sidewalk would create a safety hazard.
 - (d) Along new streets. Within the urban services area, sidewalks shall be constructed on both sides of all new arterial and collector streets. Sidewalks shall be

 constructed on at least one side of all other new streets within residential and nonresidential subdivisions.

- (e) Design and construction standard. Sidewalks shall be installed and constructed in accordance with the requirements and specifications of the county engineer.
- (f) Exemptions. Sidewalks shall not be required in association with new residential development within the Lake Protection zoning district provided that: (i) the development does not utilize the cluster option described in Sec. 10-6.616, or (ii) the development is not connected to a central sewer service, or (iii) there are no existing or planned sidewalk facilities adjacent to the development site, or (iv) the development is not adjacent to a zoning district that requires sidewalks.
- (4) Fee in-lieu of sidewalk construction authorized. In those instances where the development review committee determines, pursuant to the satisfaction of applicable criteria set out herein, that the construction of a sidewalk required by section 10-7.502(b)(2) is inappropriate or unnecessary, the applicant for the development or subdivision shall be required to pay, into the applicable sidewalk area trust fund, a fee in-lieu of providing the sidewalk.
- (5) Fee in-lieu of sidewalk construction process and criteria for approval. In order to approve payment of a fee-in-lieu of sidewalk construction, the developer shall submit a formal request with sufficient documentation to the development review committee, which shall approve the request if it finds that one or more of the following criteria have been met:
 - (a) The location of the sidewalk would likely create a significant safety hazard; or
 - (b) Construction or subsequent use of the sidewalk would have an adverse impact upon a preservation area, as defined in article X; or
 - (c) Construction of the sidewalk has already been scheduled by its inclusion in the approved transportation improvement plan, the approved capital budget, a state- or federally-funded project, or a development agreement executed pursuant to F.S. § 163.3221; or
 - (d) The construction of sidewalks is not warranted at the time of development due the presence of safety hazard or environmental limitations off-site that would likely preclude the extension of sidewalks to the affected development site; or
 - (e) The affected development site lies within a subdivision recorded prior to August 1, 2006, that does not presently have sidewalks; or
 - (f) The construction of a sidewalk from the interior of the site connecting to the public sidewalk system along and parallel to street frontage, when the site is located within a the M-1, I, or PUD zoning district and principal use is proposed to be industrial or warehousing, and such sidewalk would not be warranted at the time of development due to projected low pedestrian accessibility demand.
- (6) Payment of fee in-lieu. In those instances where the entity with authority to approve a proposed development or subdivision authorizes payment of a fee in-lieu of sidewalk construction, the following provisions shall apply:
 - (a) The developer shall pay a fee in-lieu to the sidewalk area trust fund account, applicable based upon project location, prior to receiving final approval for the development;

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- (b) The fee shall be adopted by resolution of the Board of County Commissioners.
- (7) Appropriation of fees paid in-lieu of sidewalk construction. To facilitate the equitable and efficient expenditure of fee revenues for the exclusive purpose of improvements to the pedestrian mobility system within the area of affected development projects, there are hereby established the following Leon County Sidewalk Trust Fund Areas:

Trust fund area 1: That portion of county commission district 1, not including that area within the corporate limits of any municipality, located within the urban services area, as of July 31, 2004;

Trust fund area 2: That portion of county commission district 2, not including that area within the corporate limits of any municipality, located within the urban services area, as of July 31, 2004;

Trust fund area 3: That portion of county commission district 3, not including that area within the corporate limits of any municipality, located within the urban services area, as of July 31, 2004;

Trust fund area 4: That portion of county commission district 4, not including that area within the corporate limits of any municipality, located within the urban services area, as of July 31, 2004; and,

Trust fund area 5: That portion of county commission district 5, not including that area within the corporate limits of any municipality, located within the urban services area, as of July 31, 2004.

Fees collected pursuant to this section shall be held in an account for that trust fund area in which the affected development project is located; shall be expended only for the purpose of improvements to the pedestrian mobility system within that trust fund area; and, may not be combined with the assets of any other trust fund area account, except when used for improvements to the pedestrian mobility system facilities extending into two or more trust fund areas, in which case only those assets necessary for the improvements may be combined. Any fees paid in-lieu of sidewalk construction associated with an individual development project not expended within a period of seven years from the date of collection shall be refunded to the payer.

(8) Interpretation. The directors of the departments of development support and environmental management and public works or their designees shall be authorized to administer and provide interpretations regarding the implementation and administration of this section

(Ord. No. 07-20, § 2, 7-10-07; Ord. No. 08-03, § 20, 1-29-08; Ord. No. 10-06, § 1, 3-23-10; Ord. No. 13-06, § 15, 3-12-13)

SECTION 4. Conflicts. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict, as of the effective date of this Ordinance, except to the extent of any conflicts with the Tallahassee-Leon County Comprehensive Plan, as amended, which provisions shall prevail over any parts of this Ordinance which are inconsistent, either in whole or in part, with the Comprehensive Plan.

SECTION 5. Severability. If any section, subsection, sentence, clause, phrase or portion of this article is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions of this Ordinance.

SECTION 6. Effective date. This ordinance shall be effective according to law.

1 2 3	DULY PASSED AND ADOPTED BY the	e Board of County Commissioners of Leon County
4	Florida, this day of,	
5		
5 6 7 8 9	LEON COUN	NTY, FLORIDA
10 11	BY:	MARY ANN LINDLEY, CHAIRMAN
12 13		BOARD OF COUNTY COMMISSIONERS
14 15 16 17 18 19	ATTEST: BOB INZER, CLERK OF THE COURT AND COMPTROLLER LEON COUNTY, FLORIDA	
20 21	BY:	
22 23 24 25	APPROVED AS TO FORM: LEON COUNTY ATTORNEY'S OFFICE	
26 27 28 29 30 31	BY: HERBERT W.A. THIELE, ESQ. COUNTY ATTORNEY	



MEMORANDUM





TO: Ryan Culpepper, Development Services Director

Leon County Department of Development Support Services

and Environmental Management

THROUGH: Barry Wilcox, Division Director, Comprehensive Planning Division

Tallahassee-Leon County Planning Department

FROM: Stephen M. Hodges, Senior Planner, TLCPD

DATE: May 15, 2015

SUBJECT: Consistency Review—Ordinance Amending Chapter 10 of the Code of Laws of Leon

County, Relating to the Land Development Code Amending Section 10-6.616, Lake Protection Zoning District; Adding a New Section 10-6.660, Entitled "Lake Protection Node Zoning District"; Amending Section 10-7.529, General Requirements for

Sidewalks with New Development, Fee In-Lieu of Sidewalk Construction.

Summary of Proposed Ordinance

The proposed ordinance to the Leon County Land Development Code (LDC) amends the following:

- 1. Amending Section 10-6.616, Lake Protection Zoning District Substitutes new code language for the existing code language in this section based on Cycle 2015-1 Proposed Comprehensive Plan Amendment PCT150104 (Sustainable Development in Lake Protection)
- 2. Adding a New Section 10-6.660, Entitled "Lake Protection Node Zoning District" Creates a new section based on Cycle 2015-1 Proposed Comprehensive Plan Amendment PCT150104 (Sustainable Development in Lake Protection)
- 3. Amending Section 10-7.529, General Requirements for Sidewalks with New Development, Fee In-Lieu of Sidewalk Construction. Modifies existing exemption for sidewalks in association with new residential development within the Lake Protection zoning district.

Consistency Determination

Changes Affecting the Lake Protection Zoning District

The Lake Jackson Sustainable Development Project was developed based on direction from the Board of County Commissioners in the form of a strategic initiative to "develop solutions to promote sustainable growth inside the Lake Protection Zone." A set of proposed policy changes developed by the Planning Department was presented to the Board at a workshop on November 19, 2013. The proposed PCT150104 (Sustainable Development in Lake Protection) text amendment is intended to implement the direction provided by the Board to the Planning Department.

The proposed code language in Section 10-6.616, Lake Protection Zoning District is intended to substitute the existing code language in this section based on Cycle 2015-1 Proposed Comprehensive Plan Amendment PCT150104 (Sustainable Development in Lake Protection). The proposed code language is consistent with PCT150104, including:

- 1. District intent and location
- 2. Allowable uses, including principal, prohibited, and conditional uses
- 3. Development standards, including densities and intensities, locations, and cluster development option standards, including conservation and development areas, and
- 4. Stormwater management requirements

A new section of the LDC, 10-6.660, "Lake Protection Node Zoning District," is proposed based on Cycle 2015-1 Proposed Comprehensive Plan Amendment PCT150104 (Sustainable Development in Lake Protection). The proposed code language is consistent with PCT150104, including:

- 1. District intent and location
- 2. Principal, prohibited, and conditional uses
- 3. Development standards, including densities and intensities, locations, and treatment of non-conforming properties, and
- 4. Stormwater management requirements

The proposed changes to the existing Section 10-7.529, General Requirements for Sidewalks with New Development, Fee In-Lieu of Sidewalk Construction, modify the existing exemption for sidewalks in association with new residential development within the Lake Protection zoning district. These modifications are consistent with the direction provided by the Board to the Planning Department regarding the Lake Jackson Sustainable Development Project, as well as the following Mobility Element policies:

Policy 1.1.8: [M] (Effective 12/15/11)

Development projects shall contribute to providing a safe, convenient, comfortable and aesthetically pleasing transportation environment that promotes walking, cycling, and transit use.

Policy 1.2.3: [M] (Effective 12/15/11)

Establish and maintain a safe and effective system of bicycle lanes, sidewalks, and shared-use paths in conjunction with existing and planned roadways and the Greenways Master Plan. Where design criteria allow and safe operation will occur, separate bicycle and pedestrian traffic from vehicular traffic. Provide adequate and secure bicycle parking facilities at major destinations.

Policy 1.4.3: [M] (Effective 12/15/11)

Within the Urban Service Area, require private developers to include bikeways and pathways or sidewalks within proposed developments and connecting to surrounding land uses.

Summary

Should PCT150104 be adopted by the Board, and if the Florida Department of Economic Opportunity does not issue any objections or other comments, Planning Department staff finds that the proposed ordinance would be consistent with Comprehensive Plan goals, objectives, and policies. The proposed ordinance will support and further the goals, objectives and policies of the Land Use Element, including those changes proposed in Comprehensive Plan Amendment PCT150104.

If you have any questions about the review, please contact Planning Department staff at 891-6400.

NOTICE OF ESTABLISHMENT OR CHANGE OF A LAND USE REGULATION

Notice is hereby given that the Board of County Commissioners of Leon County, Florida (the "County") will conduct a public hearing on Tuesday, June 9, 2015, at 6:00 p.m., or as soon thereafter as such matter may be heard, at the County Commission Chambers, 5th Floor, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida, to consider adoption of an ordinance entitled to wit:

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA; AMENDING CHAPTER 10, THE LAND DEVELOPMENT CODE, OF THE CODE OF LAWS OF LEON COUNTY, FLORIDA; AMENDING SECTION 10-6.616, LAKE PROTECTION ZONING DISTRICT; ADDING A NEW SECTION 10-6.660, ENTITLED "LAKE PROTECTION NODE ZONING DISTRICT"; AMENDING SECTION 10-7.529, GENERAL REQUIREMENTS FOR SIDEWALKS WITH NEW DEVELOPMENT, FEE INLIEU OF SIDEWALK CONSTRUCTION; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

All interested parties are invited to present their comments at the public hearing at the time and place set out above.

Anyone wishing to appeal the action of the Board with regard to this matter will need a record of the proceedings and should ensure that a verbatim record is made. Such record should include the testimony and evidence upon which the appeal is to be based, pursuant to Section 286.0105, Florida Statutes.

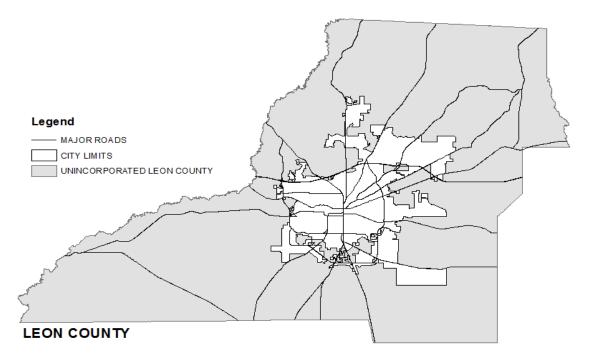
In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Jon Brown or Facilities Management, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida 32301, by written request at least 48 hours prior to the proceeding. Telephone: 850-606-5300 or 850-606-5000; 1-800-955-8771 (TTY), 1-800-955-8770 (Voice), or 711 via Florida Relay Service.

Copies of the ordinance may be inspected at the following locations during regular business hours:

Leon County Courthouse 301 S. Monroe St., 5th Floor Reception Desk Tallahassee, FL 32301

and

Leon County Clerk's Office 315 S. Calhoun Street, Room 750 Tallahassee, Florida 32301



Leon County Board of County Commissioners

Notes for Agenda Item #15

Leon County Board of County Commissioners

Cover Sheet for Agenda #15

June 9, 2015

To: Honorable Chairman and Members of the Board

From: Vincent S. Long, County Administrator

Title: First of Two Public Hearings on a Proposed Ordinance to Amend the

Stormwater Standard for the Lake Jackson Basin

County Administrator Review and Approval:	Vincent S. Long, County Administrator
Department/ Division Review:	Alan Rosenzweig, Deputy County Administrator David McDevitt, Director, Development Support and Environmental Management
Lead Staff/ Project Team:	John Kraynak, Director, Environmental Services Division

Fiscal Impact:

This item has no fiscal impact to the County.

Staff Recommendation:

Option #1: Conduct the first of two Public Hearings to consider a proposed Ordinance to amend the stormwater standard for the Lake Jackson Basin (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.

June 9, 2015

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Report and Discussion

Background:

The Lake Protection Future Land Use category has been in the Comprehensive Plan since the Plan's inception in 1990, and was created in response to concerns regarding water quality in Lake Jackson. It is important to note that Lake Jackson has been designated both an Outstanding Florida Waterway and Aquatic Preserve by the Florida Department of Environmental Protection (FDEP).

At the time the Comprehensive Plan was being written, the Lake had been recently impacted by development within its watershed, including the construction of Interstate 10 and the large-scale commercial developments along North Monroe Street (U.S. Highway 27). This development degraded the water quality of Lake Jackson by allowing large quantities of untreated stormwater containing organic sediment and undesirable nutrients to flow freely into the Lake.

In response to the Lake Protection initiative in the Comprehensive Plan, the Land Development Regulations (LDRs) were amended in the Environmental Management Act (EMA) to adopt Special Development Zones (SDZs) around Lake Jackson and to adopt a new stormwater standard for non-single family residential uses. Subsequently, the Lake Jackson 50-year stormwater retention standard was adopted on January 28, 1992.

At their regular meeting on January 29, 2013, the Leon County Board of County Commissioners ratified actions taken at the December 10, 2012 Annual Retreat. These actions included establishing a new Strategic Initiative regarding promoting sustainable growth inside the Lake Protection Zone.

This proposed Ordinance is essential to the following revised FY2012-2016 Strategic Initiative that the Board approved at their January 27, 2015 meeting:

- Implement strategies that protect the environment and promote orderly growth, including:
 - o Develop solutions to promote sustainable growth inside the Lake Protection Zone. (2013)

This particular Strategic Initiative aligns with the Board's Strategic Priorities - Quality of Life and Governance:

- Protect our water supply, conserve environmentally sensitive lands, safeguard the health of our natural ecosystems, and protect our water quality, including the Floridan Aquifer, from local and upstream pollution. (EN1)
- Promote orderly growth which protects our environment, preserves our charm, maximizes public investment, and stimulates better and more sustainable economic returns. (EN2)
- Sustain a culture of performance, and deliver effective, efficient services that exceed expectations and demonstrate value. (G2)

June 9, 2015

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Analysis:

With the guidance of these Strategic Priorities, staff from the Planning Department, Development Support and Environmental Management (DSEM), and Public Works developed recommendations intended to implement this Strategic Initiative. At a workshop held on November 19, 2013, the Board directed staff to move forward with these recommendations as part of the Lake Jackson Sustainable Development Project. A joint workshop with both City and County Commissions was conducted on March 10, 2015, that culminated in the proposed Text Amendment included as Attachment #2. This Amendment was approved by both City and County Commissions for transmittal on April 14, 2015, and was adopted by both Commissions at a public hearing on May 26, 2015.

Currently, there are two stormwater treatment standards for development within the Lake Jackson Basin:

- 1) single family residential, which must meet the base Minimum Countywide Environmental Standard which would typically treat the first 1.125 inches of runoff (there are four options to this minimum standard, but the 1.125 is the option most commonly used); and,
- 2) non-single family residential uses, which must retain post-development stormwater onsite for all storm events up to and including the 50-year, 24-hour duration storm.

The 50-year standard is retention-based and requires a significantly larger volume to be retained on site. A comparison of these two standards is shown in Attachment #3 for a one-acre site. The 50-year standard for commercial (non-single family residential) provides more than six times the volume compared to the base minimum standard for single family residential. More importantly, the base minimum standard for single family residential allows the volume to be discharged through a sand filter, which is inefficient at removing nitrogen and phosphorous compared to a retention standard, as shown in Attachment #4.

The stormwater treatment standard proposed for the Lake Jackson Basin is based on volume control. Volume control in the LDR refers to a volume of stormwater runoff in excess of the pre-development runoff volume generated by a particular storm event (usually the 100-year, 24-hour event) that is retained onsite. In general, as a development increases its impervious area, there is a corresponding increase in the volume of stormwater that is allowed to discharge downstream from the detention stormwater ponds. However, a volume control based pond would retain this corresponding increase on site.

Volume control is not a new concept for stormwater management; both City and County codes require volume control for all closed basins. Closed basins are naturally depressed or artificially closed off portions of the earth's surface for which there is no natural and normal outlet for runoff other than percolation, evaporation, or discharge into a karst feature. Volume control is required to prevent the floodplain at the bottom of the closed basin from increasing its flood elevation. If you subtract the City of Tallahassee and the Apalachicola National Forest from the land area of Leon County, the closed basin areas encompass approximately 30% of the remaining land area within the County. Consequently, volume control regulations apply to 30% of the land regulated by Leon County.

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As previously mentioned, detention with filtration does not provide the pollutant removal necessary to protect our lakes. The best form of stormwater treatment is retention, which is utilized in volume control type ponds. It is the best option because the pollutants are kept in the pond and either percolated in the ground or re-used for irrigation purposes. The Bradfordville Stormwater Study showed that to produce no new loading downstream, retention of 4-inches over the impervious area was needed, and retention was required as the primary method to achieve this goal. The size of the volume control type retention pond would exceed this Bradfordville standard as shown in Attachment #3.

Research on comparisons of treatment efficiencies for stormwater management systems show retention (also referred to as "dry retention") is the best treatment option for achieving maximum pollutant removal efficiencies (Attachment #4). A volume control based pond for both residential at 20% impervious and commercial at 50% impervious would exceed the pollutant load efficiencies for the largest dry retention pond (1.25-inch). This option would provide excellent water quality treatment and protect Lake Jackson.

The proposed Ordinance was drafted to implement the stormwater treatment requirement in the proposed Comprehensive Plan Text Amendment #PCT150104. The stormwater portion of this Amendment was highlighted in yellow for easy recognition. The proposed Ordinance will amend the Minimum Countywide Environmental Standards; therefore, the City will be amending their Environmental Management Ordinance for stormwater treatment standards inside the Lake Jackson Basin to be consistent with both the Minimum Countywide Environmental Standards and the Comprehensive Plan.

The proposed Ordinance was presented to the Science Advisory Committee (SAC) on May 1, 2015. The SAC was in full support of the proposed changes to the stormwater standards. In addition, the Planning Commission found that the Ordinance was consistent with the Tallahassee-Leon County Comprehensive Plan Text Amendment #PT150104 at a Public Hearing on May 5, 2015. The Comprehensive Plan Amendment was adopted by both the City and County Commissions on May 26, 2015.

The Public Hearing has been publicly noticed consistent with the requirements of Florida Statutes (Attachment #5).

Options:

- 1. Conduct the first of two Public Hearings to consider a proposed Ordinance to amend the stormwater standard for the Lake Jackson Basin (Attachment #1), and schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 2. Conduct the first of two Public Hearings to consider a proposed Ordinance to amend the stormwater standard for the Lake Jackson Basin (Attachment #1), and do not schedule the second and final Public Hearing for July 7, 2015 at 6:00 p.m.
- 3. Board direction.

Recommendation:

Option #1.

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Attachments:

- 1. Proposed Ordinance Amendment
- 2. Proposed Comprehensive Plan Amendment
- 3. Stormwater Pond Treatment Volumes
- 4. Comparison of Treatment Efficiencies for Stormwater Management Systems
- 5. Legal Ad

1	ORDINANCE NO. 15
2	
3	AN ORDINANCE OF THE BOARD OF COUNTY
4	COMMISSIONERS OF LEON COUNTY, FLORIDA, AMENDING
5	CHAPTER 10 OF THE CODE OF LAWS OF LEON COUNTY,
6	FLORIDA, RELATING TO THE LAND DEVELOPMENT CODE;
7	AMENDING SECTION 10-4.301. WATER QUALITY
8	TREATMENT STANDARDS; PROVIDING FOR CONFLICTS;
9	PROVIDING FOR SEVERABILITY; AND PROVIDING AN
LO	EFFECTIVE DATE.
l1	
 L2	BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEON
12 13	COUNTY, FLORIDA, that:
	COUNTY, FLORIDA, mat.
L4	
L5	SECTION 1. Section 10-4.301 of the Code of Laws of Leon County, Florida, is hereby
L6	amended to read as follows:
L7	
L8	10-4.301 Water Quality Treatment Standards
L9	(1) State Stormwater Treatment Requirement Adoption. Water quality treatment shall be
20	provided as a part of all development activity which requires a stormwater application under this
21	article. Treated stormwater shall meet the applicable water quality standards set forth in F.A.C.
22	chs. 62-4, 62-302, 62-520, 62-522, 62-550 and 62-346, and in this division. Design and
23	performance standards set forth in such F.A.C. chapters are hereby adopted and incorporated in
24	this article by reference. However, design and performance standards more stringent than those
25	specified therein are also required in this section.
26	(2) Stormwater treatment. The following are minimum acceptable methods for
27	stormwater treatment, provided that the discharges meet state water quality criterion. More
28	stringent treatment methods may be required by the county administrator or designee if
29	discharges fail to meet state water quality standards. The drainage area for determining
30	treatment volumes shall include all areas draining to the facility (on-site and off-site).
31	(i) Wet detention. Wet detention treatment volume shall be, at a minimum,
32	the runoff from the first three inches of rainfall, or as an option for sites
33	with drainage areas less than 100 acres, the first 1 1/2 inches of runoff.
34	One-half of the treatment volume must be discharged in 60 hours.
35	Subsequently, the remaining one-half of the treatment volume must be
36	discharged in 60 hours or more.
37	(ii) <i>Off-line retention</i> . Off-line retention treatment volume shall be provided
88	equal to 50 percent of the runoff from the first 3.0 inches of rainfall, or as

1	an option for sites with drainage areas less than 100 acres, the first 3/4
2	inch of runoff. The full treatment volume shall again be available within
3	72 hours following a storm event, with appropriate on-site soils tests
4	submitted to verify the infiltration rate.
5	(iii) On-line retention. For on-line retention or detention with filtration,
6	treatment volume shall be equal to 75 percent of the runoff from the first
7	3.0 inches of rainfall, or as an option for sites with drainage areas less than
8	100 acres, the first 1.125 inches of runoff. For the filtration option, only
9	systems that are capable of recovering the treatment volume within 36
10	hours shall be allowed.
11	(iv) Swales. Swale treatment volume shall be percolation of 80 percent of
12	runoff from a three-year, one-hour (2.6 inches) storm event. Calculations
13	demonstrating percolation of this volume within the swale within 72 hours
14 15	shall be submitted with the permit application. (v) If site constraints require another method of water quality treatment, such
16	other method may be approved by the county administrator or designee if
17	such method provides a level of treatment equivalent to off-line retention
18	as specified in subsection (ii).
19	(3) Closed basins and standards.
13	(5) Crosed outsing and standards.
20	(a) Closed basins meeting the following criteria shall be regulated in
21	accordance with this subsection:
22	(i) Any closed basin which has been identified and mapped as a
23	regulated closed basin by the Board of County Commissioners; or
24	(ii) Any closed basin for which it can be shown by hydrologic analysis
25	that cumulative increases in runoff volume from potential development patterns
	will cause a significant adverse impact on the frequency, duration, or extent of
26	
27	flooding.
28	(b) Volume control required. Runoff volumes within regulated closed basins
29	in excess of the pre-development runoff volume shall be retained for all storm
30	events up to a 100-year, 24-hour duration storm, except that if multiple
31	development sites are located within the closed basin, the excess volume may be
32	discharged from individual sites to an approved regional detention or retention
33	facility located within the closed basin as may be allowed under other subsections
34	of this section and pursuant to section 10-4.305. Recovery of the retention volume
35	shall comply with one of the following:
36	Option (1): On the basis of a subsurface geotechnical analysis demonstrate the
37	functionality of the retention facility through a continuous hydrologic simulation.
38	The analysis shall clearly demonstrate that the increase in runoff volume above
39	the predevelopment condition is retained within the on-site stormwater facility.
	·
40	Additionally, the rate of discharge shall not exceed predevelopment rates for all

duration and return frequencies up to and including the 25-year critical duration 1 2 storm. The continuous hydrologic simulation can be accomplished by developing a stage/storage/infiltration relationship based on the proposed retention facility 3 configuration and reported design infiltration rate. This relationship can be used to 4 5 model the retention facility over an extended period of rainfall. 6 Option (2): One-half the required pond volume shall be recovered within seven 7 days, and the full volume shall be recovered within 30 days. 8 (4) Additional stormwater retention standards for the Lake Jackson Drainage Basin. 9 Non-single family residential uses which are approved for development (as specified in the comprehensive plan) subsequent to March 15, 1992, shall retain post-development stormwater 10 on-site for all storm events up to and including the 50-year 24-hour duration storm. Runoff 11 12 volumes in excess of the pre-development runoff volume shall be retained for all storm events up to a 100-year, 24-hour duration storm, except that if multiple development sites are located 13 within the basin, the excess volume may be discharged from individual sites to an approved 14 regional retention facility located within the basin. For redevelopment, pre-development runoff 15 volume calculations shall be based on a natural condition. The retained volume shall be 16 17 recovered in accordance with subsection (3)(b) above. 18 (5) Stormwater treatment standards within the Bradfordville Study Area. Stormwater 19 runoff from new development in the Bradfordville Study Area shall meet the standards set forth in this section in addition to other standards within Article IV. 20 Stormwater runoff shall be treated to one of the following standards below: 21 (a) Systems utilizing on-line dry retention only. A volume of runoff 22 (i) calculated as four inches times the total impervious area that will be 23 24 situated on the site shall be retained on the site or in an approved master 25 stormwater facility. This calculation can exclude the wetted area of the pond/stormwater facility. This volume of runoff shall be collected from 26 the entire developed portion of the site and directed to on-line dry 27 retention storage. Retention can occur in cisterns, ponds, shallow swales, 28 landscaped areas, or natural areas. 29 (ii) Systems utilizing a combination of off-line dry retention and detention: 30 Off-line retention shall be provided with a treatment volume 31 a. 32 calculated as two and one-half inches times the total impervious area on the site. 33 b. Detention portion of system--In addition to the dry retention 34

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volume, one of the following detention options shall also be

1				provided	l:
2 3 4				C	Ory detention systems will provide a treatment volume calculated as two inches times the total impervious area on the site, or
5 6 7				e	Wet detention system with a permanent pool volume equivalent to two and nine-tenths inches times the empervious area onsite.
8 9			c.		culation of the above volumes can exclude the wetted area ormwater facility.
10 11			d.		From the entire developed portion of the site shall be in sequence to each of the above facilities.
12	(b)	Draw	down re	quiremen	ts:
13 14		(i)		-	retention (Subsection (5)(a)(i) above), the entire treatment cover within 72 hours.
15 16		(ii)		•	retention (Subsection (5)(a)(ii)a. above), the entire ne must recover within 24 hours.
17 18 19 20 21		(iii)	volum includ drawd	e must rede underdrown. The	on systems (Subsection (5)(a)(ii)b.1.above), the treatment cover within 72 hours. Dry detention systems will not ains but will utilize an orifice or V-notch weir for bottom of the drawdown device will be a minimum of six e pond bottom.
22 23 24		(iv)	the we	eir crest w	on systems (Subsection (5)(a)(ii)b.2. above), the bottom of ill be a minimum of 12 inches above the normal water high groundwater table elevation).
25 26 27 28		(v)	must i	ecover wi uous anal	ne method of volume recovery, the entire retention volume of thin the time frame established above unless an approved sysis, using Tallahassee Airport rainfall data from January mber 31, 1998, demonstrates that the total volume retained
29 30 31 32			equal (5)(a)	to that retain (i) based o	nwater system over the 40-year period is greater than or ained by a dry retention system as set forth in subsection on the above described recovery times. For systems bination of retention and detention, this analysis shall only
33 34			be use	d for the	retention portion of the system. The detention portion of a system will still be required in full pursuant to

Subsection (5)(a)(ii)b. 1 2 (c) For calculating the treatment volume required for pervious pavements and 3 graveled areas, initially such surfaces shall be assumed to be 100 percent impervious, then deductions in the required treatment volume for such areas can 4 be taken that is equivalent to: 5 6 (i) The porosity of the pavement material times the thickness of the paving material times a safety factor of five-tenths. 7 (ii) If, and only if, the soils immediately underlying the pavement for a depth 8 9 of 18 inches have a permeability of three inches per hour or greater, as demonstrated by onsite percolation tests, then a further deduction can be 10 taken equivalent to the porosity of the soil strata times four inches times a 11 safety factor of five-tenths. 12 The above deductions will be allowed provided that the applicant 13 specifically commits, in his Stormwater Operating Permit, to regularly 14 sweep/vacuum the area covered with pervious pavement and to verify the 15 pavement's percolation capacity when the operating permit is renewed. 16 (d) Groundwater table: 17 (i) Where volume recovery is to be by percolation, groundwater mounding 18 calculations to demonstrate recovery of the retention volume pursuant to 19 the requirements set forth in subsection (b) above shall be required unless 20 the applicant conclusively demonstrates by other engineering methods that 21 22 pond recovery will not be adversely affected by an elevated groundwater table. If the bottoms of all retention areas intended to percolate stormwater 23 are shown by soil borings to be less than three feet above the historical 24 wet-season high water table, a mounding analysis shall be required. 25 (ii) For dry detention systems, the bottom elevation of the detention basin 26 shall be a minimum of one foot above the historical seasonal high 27 groundwater table. 28 29 (e) Where volume recovery is to be by irrigation, the rate of land application shall not exceed one and one-half inches per week unless the applicant can conclusively 30 demonstrate that the on-site soil conditions and vegetation warrant a higher 31 application rate. Under no circumstances shall irrigation water be allowed to 32 discharge from the irrigation-site. 33 The requirements in this section shall not preclude the applicant from voluntarily 34 (f) 35 choosing to design and construct the on-line dry retention facility as an off-line

1		facilit	īy.	
2	(g)	Facili	ty desi	gn standards.
3 4 5 6 7		(i)	to flo	ity configuration: All on-line facilities shall have a flow-path-length ow-path-width ratio of 2:1 or greater. The inlets and outlets shall be on site ends of the facility. If this is not possible, the effective flow h shall be increased by adding diversion barriers within the facility as ssary to provide this minimum flow length.
8 9 10 11 12		(ii)	suffice the b secur facili	ntion ponds/areas shall have 4H:1V maximum side slopes on a cient length of the perimeter to allow adequate maintenance access to ottom of the facility. If any of the side slopes are steeper than this, a rity fence shall be placed completely around the perimeter of the ty and located exterior to the maintenance access ways. The fence not be required if the pond depth is less than 18 inches.
14 15 16		(iii)		detention ponds shall have 6H:1V maximum side slopes to two feet w the normal water level, then a maximum side slope of 2H:1V to the om.
17 18		(iv)		ntion facilities shall have flat bottoms in order to maximize the ce area for percolation.
19		(v)	Main	atenance access requirements:
20 21 22 23 24 25 26			a.	For every facility, the owner or developer shall provide, at a minimum, a 15 feet wide clear and stable access to the facility from the nearest "public" right-of-way or road. Such access shall be evidenced by a recorded reservation or grant of an easement, which shall run with the land. If the facility is to be dedicated to a local government, then such access shall be evidenced by the grant of an easement, which shall run with the land, to the benefit of the local government.
28 29 30 31 32 33 34			b.	For retention facilities with an overall depth greater than 18 inches, provide, at a minimum, a 20 foot wide clear, level and stable access around a sufficient portion of the perimeter of the facility, that is inside of any fences and external to the top-of-bank of the facility, to allow adequate maintenance from dry land. For retention facilities with an overall depth of 18 inches or less, provided the facility has side slopes of four horizontal to one vertical (or less) on at least one side of the facility, the applicant

1 2 3 4			can provide the above access on the sloped side of the facility only Any access required by the provisions of this subsection shall be evidenced by a recorded reservation or grant of an easement, which shall run with the land, to the benefit of the county.
5		c.	The minimum inside radiuses of all access ways shall be 20 feet.
6 7		d.	Adequate access for both personnel and mechanized equipment shall be provided to all inlet and outlet structures.
8 9 10 11 12 13 14 15		e.	If Leon County is proposed to be the maintenance entity for any stormwater management facility permitted under this section, either by dedication, or by reservation of an easement, or by any other process, the applicant shall submit the engineering design for the facility directly to the Leon County Department of Public Works for its review and approval as to the adequacy of maintenance access to the facilities. An environmental permit shall not be issued until the applicant demonstrates, in writing, the approval of the department of public works.
17	(vi)	Skimm	ner/trash rack requirements:
18 19 20		a.	Trash/leaf traps with easy maintenance access shall be provided at key inlets and all outlets from a facility unless the applicant can conclusively demonstrate that it is not possible.
2122		b.	All outlet structures shall have an oil skimmer that extends above and below any outlet structure opening.
23	(vii)	Energy	dissipation requirements:
24 25 26		a.	Energy dissipation devices sufficient to prevent erosion and resuspension of loose sediments shall be placed on all inlets to retention facilities.
27 28 29		b.	Energy dissipation devices sufficient to prevent downstream channel erosion shall be placed at the outlets of all retention facilities.
30 31 32 33	(viii)	shall be	zation of stormwater treatment facilities: All berms and side slopes e stabilized with pinned sod. Pond bottoms can be seeded and ed. Restabilization by the contractor or owner shall be necessary uch time that the sod is fully rooted and otherwise well established.
34	(ix)	Rate co	ontrol as required in Subsection 10-4.302 can be provided within

1 2 3 4 5 6 7	any of the above water quality treatment facilities provided that the water quality treatment as required within this section is fully satisfied prior to any overflow/discharge from the facility. (h) Nothing in this section shall affect the redevelopment standards for the incorporated area of the Bradfordville Study Area, which shall remain subject to the requirements of Chapter 5, Environmental Management, of the Tallahassee Land Development Code, as it may be amended from time to time.
8 9 10 11 12 13 14 15 16	(6) Retention for all post-development runoff. No newly concentrated or increased concentration of stormwater flow, including discharge from detention and retention facilities, shall be discharged off-site before or after treatment as required by subsection (2), unless such discharge is into an adequate conveyance, watercourse, wetland or waterbody of sufficient capacity at the time of discharge to sustain the effects of, and to convey such discharges, without detriment to the continued natural function of the resource and in accordance with the requirements of this division. Design of stormwater management systems should not allow changes in rate or course in a manner substantially different from pre-development conditions. If there is no adequate conveyance, floodplain or easement available, full retention of the stormwater for all events up to and including the 100-year, 24-hour duration storm is required.
18 19 20	(7) Treatment for direct discharge to active karst features. Runoff to be discharged to active karst features shall be treated to comply with F.A.C. 62-520.420 prior to discharge. ***
21	
22 23 24 25 26 27 28 29	SECTION 2. Conflicts. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict, as of the effective date of this Ordinance, except to the extent of any conflicts with the Tallahassee-Leon County Comprehensive Plan, as amended, which provisions shall prevail over any parts of this Ordinance which are inconsistent, either in whole or in part, with the Comprehensive Plan. SECTION 3. Severability. If any section, subsection, sentence, clause, phrase or portion of this article is for any reason held invalid or unconstitutional by any court of competent jurisdiction,
30 31 32	such portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions of this Ordinance.
33	SECTION 4. Effective date. This ordinance shall be effective according to law.
34 35 36 37	DULY PASSED AND ADOPTED BY the Board of County Commissioners of Leon County, Florida, this day of, 2015.
38 39	LEON COUNTY, FLORIDA

1	
2	BY:
3	MARY ANN LINDLEY, CHAIRMAN
4	BOARD OF COUNTY COMMISSIONERS
5	
6	ATTEST:
7	BOB INZER, LEON COUNTY CLERK OF THE COURT AND COMPTROLLER
8	LEON COUNTY, FLORIDA
9	
10	
11	BY:
12	
13	APPROVED AS TO FORM:
14	LEON COUNTY ATTORNEY'S OFFICE
15	
16	
17	BY:
18	HERBERT W.A. THIELE, ESQ.
19	COUNTY ATTORNEY

Policy 2.2.18: [L]

LAKE PROTECTION (Rev. Effective 12/22/95; Revision Effective 7/26/06; Renumbered 3/14/07)

<u>Intent</u>

Lake Jackson, designated both an Outstanding Florida Water (OFW) and Aquatic Preserve, is one of the most unique waterways in Florida. Historically, the lake has suffered from water quality issues associated with rapid urbanization and large-scale roadway projects. Lake Jackson's water quality has improved since adoption of the Comprehensive Plan, due in large part to the adoption of stringent stormwater treatment standards and the implementation of capital projects; however, nutrient levels in the Lake remain elevated and the Lake continues to be designated "Impaired" by the Florida Department of Environmental Protection.

The intent of the Lake Protection category is to ensure that development within the Lake Jackson basin occurs in a sustainable and environmentally sound manner with minimal impact to water quality. The Lake Protection category is the basis for regulation and, where appropriate, limitation of development and redevelopment of land within the Lake Jackson Basin. The bounds of this category are to be the Lake Jackson basin boundary adjusted to include contributing watersheds but excluding existing, more intensely developed areas south of Interstate 10 and areas outside the Urban Service Area.

Allowable Uses, Densities, and Intensities

Residential

The Lake Protection category shall allow for single family residential uses at a base density of one (1) dwelling unit per two (2) gross acres. To encourage compact and efficient development, two density bonus options are available for properties within the category:

- 1. A residential density of up to two (2) dwelling units per gross acre may be permitted within developments designed as a Clustered Subdivision.
- 2. A residential density of up to eight (8) dwelling units per gross acre may be permitted within the Lake Protection Node (LPN) zoning district.

4/9/2015

¹ (Leon County) Any development affecting real property located in whole or in part within the Lake Protection Future Land Use Map category west of US 27 North for which an initial Planned Unit Development Concept or Final Development Plan was approved before January 1, 2005 shall be vested for all uses, intensities and densities set forth in the PUD Concept Plan Ordinance. Said PUD shall be entitled to rely on the closed basin exemption previously set forth in this section if the Commission determined prior to January 1, 2005 that the PUD met the requirements for such closed basin exceptions and that such determination has not been overturned by a court of competent jurisdiction at the time vested rights are sought under this provision. If a court of competent jurisdiction invalidates such a PUD due to reasons unrelated to whether the property met the requirements for the closed basin exception, any new or modified PUD application relating to the same real property shall be vested for the uses, intensities and densities of the previously approved PUD. All development within said certified closed basins approved pursuant to this provision shall be approved through the PUD amendment process, except that in unincorporated Leon County a one-into-two residential lot split exemption shall be processed according to the established County procedures instead of the PUD process.

Mixed-use & Non-residential

Non-residential and mixed-use development (including, but not limited to, office and commercial uses) within the Lake Protection category may only be permitted within areas designated with the Lake Protection Node (LPN) zoning district. Within this district, single use, non-residential development shall be allowed at a maximum intensity of 10,000 square feet (s.f.) per acre. Projects containing a vertical mixture of uses, including any combination of office, commercial and residential uses, may receive a bonus of 2,500 s.f. per acre, for a total of 12,500 s.f. per acre.

Community and Recreational Facilities

Community facilities and recreational uses, including, but not limited to, schools, parks, police and fire stations, and religious facilities, shall be permitted within the Lake Protection (LP) and Lake Protection Node (LPN) zoning districts. These uses shall be allowed at a maximum intensity of 10,000 square feet (s.f.) per acre.

Special Conditions

The following special conditions shall apply to the Lake Protection Future Land Use category:

- 1. The Lake Protection Node zoning district shall only be permitted at the following intersections:
 - Highway 27 North and Sessions Road
 - Highway 27 North and Capital Circle NW/Old Bainbridge Road
 - Highway 27 North and Fred George Road
 - Bannerman Road and Bull Headley Road

The exact extent of these Nodes shall be specified in the City of Tallahassee and Leon County land development regulations, but generally shall not extend beyond ¼ mile from the respective intersection and shall not include areas within a Special Development Zone (SDZ) or existing single-family subdivisions.

- 2. <u>As an alternative to large-lot developments, Clustered Subdivisions shall be permitted</u> within the Lake Protection zoning district. Clustered Subdivisions shall:
 - Contain a minimum of 60% contiguous open space preserved in perpetuity and comprised of such things as preservation and conservation features, Special Development Zones, undeveloped uplands, passive recreation areas, and storm water facilities designed as a community amenity;
 - Be developed at a maximum density of two (2) dwelling units per gross acre;
 and,
 - Be served by central water and sewer systems.
- 3. A volume control based stormwater treatment standard shall be required for all development and redevelopment within the Lake Protection land use category. This standard shall ensure that runoff volumes in excess of the pre-development runoff

volume shall be retained for all storm events up to a 100-year, 24-hour duration storm.

To encourage redevelopment in the Lake Protection category, a partial credit may be applied toward existing impervious surface on previously developed sites.

- 4. Additional development standards deemed necessary to protect Lake Jackson from further degradation and/or improve existing water quality may be included in the land development code.
- 5. Existing, lawfully established, non-residential uses within the Lake Protection land use category that are compatible with surrounding uses and meet all water quality standards for the Lake Jackson Basin shall be considered permitted uses.

This is a protection category that is specific to the well documented scientific concerns regarding the degradation and continuing pollution of Lake Jackson. The category is based on the lake basin boundary adjusted to include contributing watersheds but to exclude existing, more intensely developed areas south of Interstate 10. Consistent with the purpose of this category, Lake Protection densities and intensities shall be applied to undeveloped areas within the Lake Jackson drainage basin when such properties are developed. The Lake Protection category allows residential uses of one unit per two acres1. An option to develop at a density of one unit per gross acre is available within the City as long as the resultant development clusters the units on 25% of the property and maintains the remaining 75% in natural open space. In the unincorporated portions of the Lake Protection category clustering is allowed on 40% of the site at a net density of two (2) units per acre on the developed portion of the property. The remaining 60% of the property must remain in natural open space. The cluster options are intended to preserve green space within this land use category and be designed to minimize non point pollution from the site. Cluster of residential development in areas designated for Lake Protection land use shall be permitted only on those portions of parcels not located within the Lake Jackson Special Development Zone and lying below one hundred ten (110) feet NGVD, and for higher elevations not determined to be severely limited by environmental constraints. Such constraints may be determined by on site environmental analysis, building or soil limitation ratings in the Leon County Soil Survey, or other natural resource inventory determined appropriate by the local government. Industrial, office and commercial uses are prohibited in the Lake Protection category within the city limits. In the unincorporated areas of the Lake Protection category, minor office and minor commercial uses may be approved through the PUD process only if development retains its resultant stormwater on site. All industrial, commercial and office uses other than minor are prohibited in the unincorporated areas of the Lake Protection category as well. Urban services are intended for this category inside the Urban Service Area.

Additional requirements based on scientific studies and deemed necessary to protect the lake from further degradation, as well as improve existing water quality, will be included in the land development code. Existing non residential uses within the Lake Protection land use category

that meet all water quality standards required in the comprehensive plan by the time frames required in the plan, will be considered permitted uses.

Within the Lake Protection Category, stormwater for non-single family and non-vested uses shall be retained on site.



Stormwater Pond Treatment Volumes

	*Pond Volumes for a One Acre Site (inches over the site/total cubic feet)				
Ordinance Provision Met	Assume Residential at 20% Impervious	Assume Commercial At 50% Impervious			
**FDEP - 0.5" (State Min. Standard)	0.50" / 1,815cf	0.50" / 1,815cf			
**FDEP -0.75" (Outstanding Florida Water Standard)	0.75" / 2,723cf	0.75" / 2,723cf			
**Lake Protection - 1.125" (Base Min. Countywide Standard)	1.125" / 4,084cf	N/A			
Bradfordville - 4" Over Impervious Standard	0.80" / 2,904cf	2.00" / 7,260cf			
Volume Control -Pre/Post retention through the 100-year, 24 hour storm	1.72" / 6,278cf	3.01" / 10,922cf			
Lake Jackson 50-year Post-development Retention Standard	N/A	7.39" / 26,826cf			

^{*}All of the values above are for stormwater facilities serving a 1.0-acre site developed with a post-developed pervious area CN of 66 – which has been constructed on an undeveloped site with an original CN of 60. **Calculated as inches over the 1.0-acre drainage area – recovery by filtration is allowable.

POLLUTANT REMOVAL EFFICIENCIES FOR TYPICAL STORMWATER MANAGEMENT SYSTEMS IN FLORIDA

Presented at the Fourth Biennial Stormwater Research Conference Clearwater, FL

October 18-20, 1995

Sponsored By:

The Southwest Florida Water Management District

Prepared By:

Environmental Research & Design, Inc.

3419 Trentwood Blvd., Suite 102 Orlando, FL 32812

Harvey H. Harper, Ph.D., P.E.

Comparison of Treatment Efficiencies for Stormwater Management Systems

A comparison of treatment efficiencies for typical stormwater management systems used in the State of Florida is given in Table 8 based on information obtained in the literature review. In cases where a range of removal efficiencies are presented in technical reports related to a particular stormwater management technique, the mid-point of the range is given in Table 8 for comparison purposes.

The Florida State Water Policy, outlined in Chapter 17-40 of the Florida Administrative Code, establishes a goal of 80% annual reduction of stormwater pollutant loadings by stormwater management systems. Of the stormwater management systems listed in Table 8, only dry retention systems, with 0.5-inch of runoff retained, meet the State Water Policy goal of 80% reduction in annual pollutant loadings to the system. Off-line retention/detention facilities meet the 80% reduction goal for total phosphorus, TSS, BOD and total zinc, but provide only a 60-75% annual pollutant reduction for total nitrogen, copper and lead. Wet detention systems can meet the 80% reduction goal for TSS only, with removal efficiencies from 40-50% for total nitrogen, total phosphorus and BOD. Dry detention with filtration systems meet the 80% reduction goal for total lead only and provide virtually no pollutant removal for total nitrogen, total phosphorus and BOD. Based on the available literature, dry detention with filtration systems were found to exhibit a high degree of variability in estimated removal efficiencies. The actual removal efficiencies achieved by dry detention with filtration systems are a function of the relationship between the underdrain system and the seasonal high groundwater table.

TABLE 8

COMPARISON OF TREATMENT EFFICIENCIES
FOR TYPICAL STORMWATER MANAGEMENT
SYSTEMS USED IN FLORIDA

	ESTIMATED REMOVAL EFFICIENCIES (%)							
TYPE OF SYSTEM	TOTAL N	TOTAL P	TSS	BOD	TOTAL Cu	TOTAL Pb	TOTAL Zn	
Dry Retention								
a. 0.25-inch retention	-60	-60	-60	-60	-60	-60	-60	
b. 0.50-inch retention	-80	-80	-80	-80	-80	-80	-80	
c. 0.75-inch retention	-90	-90	-90	-90	-90	-90	-90	
d. 1.00-inch retention	-95	-95	-95	-95	-95	-95	-95	
e. 1.25-inch retention	-98	-98	-98	-98	-98	-98	-98	
Off-Line Retention/Detention	-60	-85	-90	-80	-65	-75	-85	
Wet Retention	-40	-50	-85	-40	-25	-50	-70	
Wet Detention	-25	-65	-85	-55	-60	-75	-85	
Wet Detention with Filtration	-25	-60	-98	-99	-35	-70	-90	
Dry Detention	-15	-25	-70	-40	-35	-60	-70	
Dry Detention with Filtration	0	0	-75	0	-65	-90	-25	
Alum Treatment	-50	-90	-90	-75	-80	-90	-80	

NOTICE OF ESTABLISHMENT OR CHANGE OF A LAND USE REGULATION

Notice is hereby given that the Board of County Commissioners of Leon County, Florida (the "County") will conduct a public hearing on Tuesday, June 9, 2015, at 6:00 p.m., or as soon thereafter as such matter may be heard, at the County Commission Chambers, 5th Floor, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida, to consider adoption of an ordinance entitled to wit:

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF LEON COUNTY, FLORIDA, AMENDING CHAPTER 10 OF THE CODE OF LAWS OF LEON COUNTY, FLORIDA, RELATING TO THE LAND DEVELOPMENT CODE; AMENDING SECTION 10-4.301, WATER QUALITY TREATMENT STANDARDS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

All interested parties are invited to present their comments at the public hearing at the time and place set out above.

Anyone wishing to appeal the action of the Board with regard to this matter will need a record of the proceedings and should ensure that a verbatim record is made. Such record should include the testimony and evidence upon which the appeal is to be based, pursuant to Section 286.0105, Florida Statutes.

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Jon Brown or Facilities Management, Leon County Courthouse, 301 South Monroe Street, Tallahassee, Florida 32301, by written request at least 48 hours prior to the proceeding. Telephone: 850-606-5300 or 850-606-5000; 1-800-955-8771 (TTY), 1-800-955-8770 (Voice), or 711 via Florida Relay Service.

Copies of the ordinance may be inspected at the following locations during regular business hours:

Leon County Courthouse 301 S. Monroe St., 5th Floor Reception Desk Tallahassee, FL 32301

and

Leon County Clerk's Office 315 S. Calhoun Street, Room 750 Tallahassee, Florida 32301

