TOLOSA PD-R



PD-R Rezoning Application Package

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List of Attachments

- Attachment A: Rezoning Amendment Application
- Attachment B: Authorized Agent Affidavit
- Attachment C: Property Owner Mailing Labels
- Attachment D: Neighborhood Meeting Summary
- Attachment E: Public School Student Generation Form
- Attachment F: Sketch of Legal Description
- Attachment G: Proof of Ownership
- Attachment H: Proof of Payment of Taxes
- Attachment I: PD Zoning Master Plan Drawing Set
- Attachment J: Environmental Studies
- Attachment K: Traffic Impact Analysis

SECTION 1: APPLICATION DOCUMENTS

The Rezoning Amendment Application is included as **Attachment A** to this submittal package. Also provided is the Authorized Agent Affidavit included as **Attachment B**.

SECTION 2: STATEMENT OF PROPOSED CHANGE

A. PREAPPLICATION CONFERENCE

A pre-application conference was held with City staff on 4/24/18. The proposed project was discussed in detail.

B. EXISTING CONDITIONS:

The property known as Tolosa consists of 5 parcels totaling 50.45 acres of land, and is located on the south side of SR 235 to the west of Hipp Way in the City of Alachua. The property includes tax parcels 03135-000-000, 03130-004-000, 03130-007-001, 03130-008-000 and 03130-009-000.



FIGURE 1 - Location Map

The subject property is currently undeveloped. A portion of the subject property was formerly known as Creek Side Estates (Ordinance 06-12) and is now under new ownership. The current property owner recently annexed an adjacent 0.95+/- acres that are contiguous to the project and are part of the proposed Tolosa PD-R.

A new Master Plan has been created that was designed to include the new acreage as well as redesign the previously approved project. The resulting new Tolosa PD-R design is well under the maximum allowable density and utilizes many of the existing natural features of the land to create a quality residential development project with prominent, natural, aesthetic features.

The recently annexed properties currently have an Alachua County land use designation of Rural/Agriculture and zoning of Agriculture. There is a companion request for a Future Land Use Map amendment for the recently annexed properties that would give them a City of Alachua Land Use Designation of Moderate Density Residential (MOD). The applicant recognizes that the City Commission must approve the Future Land Use Map amendment prior to approving this rezoning request. This rezoning application would rezone the entire 50.45 acres to a City designation of Planned Development – Residential (PD-R).

As shown in the following figures, the property has a current Future Land Use designation of Moderate Density Residential, which requires a minimum density of zero (0) dwelling units per acre and a maximum of four (4) dwelling units per acre.



FIGURE 2: EXISTING FUTURE LAND USE MAP

Alachua County GIS



FIGURE 3: EXISTING ZONING MAP

Alachua County GIS

LOCATION	EXISTING USE	LAND USE	ZONING
North	Rural County Land/Single Family Units	Rural Agriculture (Alachua County)	Agriculture (Alachua County)
South	Rural County Land/Single Family Units	Rural Agriculture/ Residential Moderate Density	Agriculture/RSF 3
East	Rural County Land/Single Family Units	Agriculture/Rural Agriculture (Alachua County)	Agriculture (Alachua County)
West	Undeveloped Industrial/Single Family Units	Industrial/Residential Moderate Density	ILW/RSF 3

C. PROPOSED CHANGE:

The applicant requests approval of a Site Specific Amendment to the Official Zoning Atlas to change 49.50 acres from City of Alachua Planned Unit Development (PUD) and 0.95 acres with an Alachua County designation of Agriculture (A) to a City of Alachua designation of Planned Development – Residential (PD-R.)

The proposed project will consist of 120 Single Family Detached Units, 40 Single Family Attached Units, 20,000 square feet of non-residential use, and open space on 50.45 acres which meets the minimum lot area for a PD-R pursuant to Sec. 3.6.3(A)(1) of the Land Development Regulations (LDR). The project density complies with the maximum density 4 dwelling units per acre which would permit a maximum of 202 dwelling units on 50.45 acres. Open space areas will include recreation as well as stormwater retention areas.

D. PROPOSED MASTER PLAN:

Proposed Uses

The PD Zoning Master Plan, included as **Attachment I**, identifies the location of the land uses proposed for the Tolosa PD-R. Those uses include 120 Single Family Detached Units, 40 Single Family Attached Units, 20,000 SF of non-residential uses, and community facilities. The residential units are intended to be market rate housing and provide an alternative to the current housing supply in the City of Alachua.

AREA	PROPOSED USE	LAND AREA (AC)	LAND AREA %	MAX ALLOWABLE DENSITY
Α	SF DETATCHED RESIDENTIAL	18.03 AC	35.8%	120 UNITS
В	SF ATTACHED RESIDENTIAL/NON RESIDENTIAL	3.75 AC	7.4%	40 UNITS & 20,000 SF
С	COMMON AREA	14.39 AC	28.5%	2,000 SF
D	WETLAND + WETLAND BUFFER	5.80 AC	11.5%	
E	ROADWAY RIGHTS OF WAYS	8.48 AC	16.8%	
TOTALS		50.45 AC	100.0%	

NOTES:

1) Alleys are allowable in Single Family Residential Attached land use area

- 2) Allowable uses within the non-residential land use area shall be:
 - a. Recreational use
 - b. Day-care facility
 - c. Professional office
 - d. Sit down restaurant (excluding drive-throughs)
 - e. Religious institutions
 - f. Community Buildings/Clubhouse
 - g. Park structures, Gazebos, Picnic Pavilions

The following lot and building dimensions shall apply:

SECTION	MIN LOT SIZE	MIN LOT WIDTH	MIN LOT DEPTH	MAX HEIGHT
Residential (SF Detached)	4,500 sf	50 feet	75 feet	35 feet
Residential (SF Attached)	800 sf	20 feet	40 feet	40 feet

NOTE:

1) Minimum lot sizes may not apply to Development Area B if developed as an overall site plan without platted lots

The following yard dimensions (setbacks) shall apply:

SECTION	FRONT YARD	SIDE YARD (interior)	SIDE YARD (street)	REAR YARD (no alley)	REAR YARD (alley garage)
Residential (SF Detached)	10 feet	5 feet	10 feet	10 feet	17 feet
Residential (SF Attached)	20 feet	0 feet	0 feet	0 feet	N/A

E. DEVELOPMENT STANDARDS

Development standards may be modified in ways consistent with the general intent and purpose for the PD-R District. The applicant is requesting the following modifications to development standards:

- Development Area D may be provided with a single pedestrian crossing provided it does not impact the natural wetland function. The proposed future pedestrian crossing will be permitted separately through all appropriate agencies including Alachua County and the City of Alachua.
- 2) Rights-of-way/street standards: Generally, the goals and objectives of the Tolosa PD-R are to provide roadway/street networks that promote safety and reduced speeds throughout the residential neighborhood. Traffic calming measures shall be provided at mid-blocks where streets are longer than 600 feet. Such measures may include, but not be limited to, speed humps, speed cushions, speed tables, bulbouts, raised pedestrian crossings, and changes in the surface material or texture. The approximate location of proposed pedestrian traffic calming devices are shown on PD Zoning Master Plan
 - a. Minimum roadway pavement width equals 20 feet; Maximum roadway pavement width equals 24 feet (except at entrances where 36 feet is allowable).
 - b. Minimum right-of-way width equals 50 feet; Maximum right-of-way width equals 60 feet (except at entrances where 80 feet is allowable).
 - c. Alleys are optional in Single Family Residential Detached. Minimum alley pavement width equals 12 feet; Minimum alley right-of-way/common area width equals 22 feet. Alleys do not contain sidewalks.
 - d. Minimum street centerline radius equals 50 feet.
 - e. Minimum curb return radius equals 20 feet (measured at back of curb).
 - f. Sidewalks are required on both sides of the street where fronting residential lots. Sidewalks are optional on street sides with no lot frontages. All streets are required to have sidewalks on at least 1 side of the street.
 - g. A neighborhood pedestrian pathway/trail (neighborhood trail) shall be provided throughout the PD-R as depicted on the PD Master Plan.
 - h. The neighborhood trail shall be a minimum of 8 feet width.
 - i. The neighborhood trail may be constructed of impervious hard surface, pavement, stone, crushed concrete, recycled asphalt or pervious natural or mulch materials.
 - j. Sidewalks shall be placed a minimum of 7 feet off back of curb to allow for street tree plantings.

- k. Minimum sidewalk width equals 5 feet.
- I. On street parallel parking is allowed on all streets within the neighborhood

F. DEVELOPMENT PHASING PLAN

- 1) This PD-R shall be valid for 10 years from the date of final zoning approval.
- 2) A minimum of 30 residential lots shall be platted in Development Area A prior to approval of non-residential uses in Development Area B.
- 3) The development may be served by a single roadway connection to Hipp Way or to NW 158th Ave. until half of the proposed lots are developed. At that point, a 2nd primary roadway connection to either Hipp Way or NW 158th Ave. shall be provided.
- 4) In the event a future roadway connection to SR 235 is created and connects to the PD-R property, the future SR 235 roadway connection may replace one of the proposed roadway connections to either Hipp Way or NW 158th Ave.

G. CONVERSION SCHEDULE

It is anticipated that the only conversion possible will be to change the single-family attached units to other types of allowable uses.

SECTION 3: AERIAL MAP

MAP



2018 Aerial Alachua County GIS Database

SECTION 4: CONCURRENCY IMPACT ANALYSIS

This Concurrency Impact Analysis considers the impact on public facilities including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations, for the overall 50.45 acre PD-R property.

The Concurrency Impact Analysis follows.

A. Potable Water - City of Alachua Municipal System

SYSTEM CATEGORY	GALLONS PER DAY
Current Permitted Capacity	2,300,000
Less Actual Flows	1,236,000
Less Reserved Capacity	52,485
Total (Actual Flow plus Reserved)	1,288,485
Available Capacity (Permitted - Total Flow)	1,011,515
Projected Potable Water Demand from	47,900
Project	
Residual Capacity ¹	963,615

Usage Calculations by proposed uses within the development

- SF Detached: $(275 \text{ gpd} / \text{unit})^2 = 160 * 275 = 44,000 \text{ gpd}$
- Office: $(15 \text{ gpd} / 100 \text{ sf})^3 = 15 * 20,000/100) = 3,000 \text{ gpd}$
- Daycare: (10 gpd/student & 15 gpd/employee)³ = (10 * 75) + (15 * 10) = 900 gpd

Sources:

- 1. City of Alachua May 2018 Development Monitoring Report
- 2. City of Alachua Comprehensive Plan CFNGAR
- 3. F.Á.C. Ch. 64E-6

<u>Result</u>: Adequate potable water capacity exists for the proposed project

B. Sanitary Sewer

SYSTEM CATEGORY	GALLONS PER DAY
Treatment Plant Current Permitted Capacity	1,500,000
Less Actual Treatment Plant Flows	687,000
Less Reserved Capacity	48,457
Available Capacity (Permitted - Actual - Reserve)	764,543
Projected Sanitary Sewer Demand from	43,900
Project	
Residual Capacity ¹	720,643

Usage Calculations by proposed uses within the development

• Residential: (250 gpd / unit)² = 160 * 250 = 40,000 gpd

• Office: $(15 \text{ gpd} / 100 \text{ sf})^3 = 15 * 20,000/100) = 3,000 \text{ gpd}$

• Daycare: (10 gpd/student + 15 gpd/employee) = (10 * 75) + (15 * 10) = 900 gpd Sources:

1. City of Alachua May 2018 Development Monitoring Report

2. City of Alachua Comprehensive Plan CFNGAR

3. F.Á.C. Ch. 64E-6

Result: Adequate sanitary sewer capacity exists for the proposed project

C. Solid Waste

SYSTEM CATEGORY	LBS PER DAY	TONS/YR
Existing Demand	39,744.0	7,235.28
Reserved Capacity	4,016.77	733.06
Proposed Demand	1,750.00	333.8
Residual Capacity ¹	33,977.23	6268.42

Usage Calculations by proposed uses within the development

- Residential:160 DU * 2.58 Persons/DU² *0 .73 tons/person/yr³ = 1200 lbs/day =301 tons/yr
- Office: 20,000 SF * 6 lbs/day/1000 SF⁴ = 120 lbs/day = 21.9 tons/yr
- Daycare: 5,000 SF * 12 lbs/day/1000 SF⁴ = 60 lbs/day = 10.9 tons/yr <u>Sources</u>:
 - 1. City of Alachua May 2018 Development Monitoring Report
 - 2. 2010 US Census
 - 3. City of Alachua Comprehensive Plan CFNGAR
 - 4. Environmental Engineering: A Design Approach, Cincero and Cincero, 1996

Result: Adequate solid waste capacity exists for the proposed project.

D. Stormwater

The project shall comply with all City of Alachua stormwater design criteria and regulations, the permitting requirements of the Suwannee River Water Management District (SRWMD), the requirements of the Florida Department of Environmental Protection, and the requirements of the Alachua County Environmental Protection Department. Stormwater management facilities will be designed for the 100 year critical duration storm event and will ensure that post-development runoff levels do not exceed pre-development runoff levels. A complete stormwater management design report will be provided for each development phase.

E. Recreation

SYSTEM CATEGORY	Acreage
Existing City of Alachua Recreation Acreage	117.65
Acreage required to serve existing population	49.68
Proposed Demand	2.06
Available Recreation Acreage ¹	65.91

Usage Calculations by proposed uses within the development

• 160 DU * 2.58 Persons/DU² * 5 acres/1,000 Person³ = 2.06 Acres

Sources:

- 1. City of Alachua May 2018 Development Monitoring Report
- 2. 2010 US Census
- 3. City of Alachua Comprehensive Plan Recreation Element

Result: Adequate recreation space exists for the proposed project.

F. Transportation

A Traffic Study was performed by MPH Transportation Planning, Inc. that addresses trip generation and trip distribution on the nearby roadway corridors. **Table 1**, as provided within the MPH Study, is provided below to address the Trip Generation for the proposed development.

Land Use				_	Distri	bution	Tr	ips	Int.Cap.	New	Trips
Description	ITE	ITE Trip Rates	Unit*	Trips	In	Out	In	Out	Rate	In	Out
P1 Single Family	210	(T) = 9.44 (X)	120	1133	50%	50%	567	567	0	567	567
P2 Multi-Family	220	(T) = 7.56 (X) -40.86	40	262	50%	50%	131	131	5%	124	124
P2 Office	710	Ln(T) = 0.97 Ln (X) + 2.5	15.000	168	50%	50%	84	84	5%	80	80
P2 Day Care	565	(T) = 47.62 (X)	5.000	238	50%	50%	119	119	5%	113	113
		Daily Trips		1801	1.7	1	901	901		884	884
AM Peak Hour			-		-				-		
P1 Single Family	210	(T) = 0.74 (X)	120	89	25%	75%	22	67	0	22	67
P2 Multi-Family	220	Ln(T) = 0.95 Ln(X)-0.51	40	20	23%	77%	5	15	5%	5	15
P2 Office	710	(T)= 0.94(X) + 26.49	15.000	41	86%	14%	35	6	5%	33	5
P2 Day Care	565	(T)= 11.00 (X)	5.000	55	53%	47%	29	26	5%	28	25
	-	AM Peak Hour Trips		205		_	91	114		88	111
PM Peak Hour								· · · · ·			
P1 Single Family	210	(T) = 0.99 (X)	120	119	63%	37%	75	44	0	75	44
P2 Multi-Family	220	Ln(T) = 0.89 Ln(X)-0.02	40	26	63%	37%	16	10	5%	15	9
P2 Office	710	Ln(T) = 0.95 Ln(X)+0.36	15.000	19	16%	84%	3	16	5%	3	14
P2 Day Care	565	(T) = 11.12 (X)	5.000	56	47%	53%	26	30	5%	25	27
		PM Peak Hour Tri	DS	220			121	99	4.5	118	94

TABLE 1: Trip Generation for Tolosa PD Alachua, Florida

*Units: ksf = 1,000 square feet for office & day care land uses, dwelling units for single family & condos Source: ITE 10th Edition Trip Generation

The distribution of these project trips to SR 235, Hipp Way, and NW 133rd Terrace were also analyzed and provided within the MPH Study for the proposed Tolosa PD-R Development. **Table 2,** included with the MPH study, includes Daily Trip Distribution, AM Peak Hour Trip Distribution, and PM Peak Hour Trip Distribution for both SR 235 and Hipp Way.

Using the calculated daily Trip Generation and Trip Distribution, the impact to roadway corridors within the vicinity of the subject parcel can be calculated. **Table 3** identifies

the impact of the proposed project on the Level of Service (LOS) for SR 235 and US 441, which are the only monitored roadways with LOS tracking within ½ mile of the proposed property. **Tables 2 & 3** are included below. The results of the Level of Service Analysis for State Road 235 and US 441 indicate the roadways operate at LOS B or C currently, and after the project impacts are added.

Daily Project Trip Assignment		Enter	884	Exit	884	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	71	8%	71	142
	South of NW 158th Ave.	70%	619	70%	619	1238
Hipp Way	South of Project Drive	10%	88	10%	88	176
NW133rd Terrace	South of Project Drive	12%	106	12%	106	212
	Total	100%	884	100%	884	1768
AM Peak Pr	oject Trip Assignment	Enter	88	Exit	111	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	7	8%	9	16
	South of NW 158th Ave.	70%	61	70%	78	139
Hipp Way	South of Project Drive	10%	9	10%	11	20
NW133rd Terrace	South of Project Drive	12%	11	12%	13	24
-	Total	100%	88	100%	111	199
PM Peak Pr	oject Trip Assignment	Enter	118	Exit	94	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	9	8%	8	17
10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	South of NW 158th Ave.	70%	83	70%	66	149
Hipp Way	South of Project Drive	10%	12	10%	9	21
NW133rd Terrace	South of Project Drive	12%	14	12%	11	25
	Total	100%	118	100%	94	212

TABLE 2: Project Trip Distribution

Project Distributions are estimated from adjacent street traffic & interacting land uses Daily & Peak Hour Project Trips represent the Trip Impacts from Table 1

TABLE 5. Itodaway Level of Dervice (itev. 5/50/10)	TABLE 3:	Roadway	Level of Service	(Rev. 9/30/18)
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Roadway	Segment # & Description	Period	MSV	2017	Res'vd.	Project	V/C	LOS
SR 235	8: SR235/CR241 to US 441	Daily	14,400	10,305	0	1238	0.80	С
		PM Pk	1,290	979	0	149	0.87	D
SR 235	9: US 441 to North City Limits	Daily	14,400	7,537	29	1238	0.61	C
		PM Pk	1,290	716	2	149	0.67	С
US 441	3/4: NW 126th to SR235	Daily	45,700	18,579	1589	360	0.45	В
		PM Pk	4,110	1,765	230	41	0.50	В
US 441	5: SR 235 to North City Limits	Daily	39,000	25,926	1825	180	0.72	С
		PM Pk	3,510	2,463	216	26	0.77	С

Source: 2017 Annual Level Of Service Report from City of Alachua Planning Office

Project trips from Table 2 highest segment Daily and PM peak 2-way volume

MSV = Maximum Service Volume (capacity) at desired level of service

V/C = volume to capacity = (2017 + Res'vd + Project)/MSV

SECTION 5: COMPREHENSIVE PLAN ANALYSIS AND JUSTIFICATION

The following pages analyze how the proposed development successfully implements the Goals, Objectives and Policies in the City of Alachua's Comprehensive Plan. Those policies from each element of the Comprehensive Plan that are relevant to the proposed development have been included below, with a corresponding statement as to how the development would comply with those state policies. Comments are provided following each policy.

I. Future Land Use Element:

- Policy 1.2.a: Moderate density residential (0 to 4 dwelling units per acre): The moderate density residential land use category allows residential development at a maximum density of 4 dwelling units per acre. The following uses are allowed in the moderate density residential land use category:
 - 1. Single family, conventional dwelling units;
 - 2. Accessory dwelling units;
 - 3. Manufactured or modular homes meeting certain design criteria
 - 4. Mobile homes only within mobile home parks;
 - 5. Duplexes and quadplexes;
 - 6. Townhomes;
 - 7. Residential Planned Developments;
 - 8. Supporting community services, such as schools, houses of worship, parks, and community centers

<u>Comment:</u> The proposed density is 3.1 dwelling units per acres (160 maximum dwelling units on 50.45 acres) which is below the maximum permitted density of 4 dwelling units per acre. The development will consist of single family attached and detached dwelling units. Therefore, it is consistent with FLUE

GOAL 2: Innovative Design Standards: The City shall utilize innovative design standards to discourage urban sprawl, provide aesthetic standards, promote open space and preserve rural character.

- Objective 2.1. Planned Development (PD) Standards: In an effort to reduce the impacts of urban sprawl on the community and the region, the City of Alachua shall provide for wide array of planned development to encourage the creation of interrelated neighborhoods and districts to increase the quality of life for all residents of the City.
- Policy 2.1.a: Residential Planned Developments (PD): The City shall establish flexible development and use regulations for residential PDs for use within the residential land use categories. Those regulations shall be developed to achieve the following:

1. High quality residential development through a mixture of housing types, prices, and densities. The allowed uses within a residential PD are not subject to the permitted uses in the underlying land use category. Single-family homes, zero lot line homes, and townhomes are examples of the allowable housing types within residential PDs.

<u>Comment:</u> The proposed development consists of single family detached residential units, single-family attached dwelling units and accessory recreation uses to serve the development. The development and design standards proposed for the development within the PD Master Plan have been created with the intent of providing a high quality of design that pays homage to the nature landscape of the property by preserving linear parks with mature trees.

> 2. The opportunity to improve quality of life by placing activities necessary for daily living in close proximity to residences through the allowance of a limited amount of neighborhood commercial uses, and with special design criteria, community commercial uses, within the residential PD at appropriate densities and intensities.

<u>Comment:</u> Limited non-residential uses have been proposed for the Tolosa PD-R in use Area B in order to remain sensitive to adjacent, low intensity uses. These uses will provide non-residential uses in close proximity to the neighborhood.

3. A range of parks and open space, from playgrounds to community gardens to active recreation facilities within the neighborhood.

<u>Comment:</u> A community recreation area is proposed, centrally located within the neighborhood to provide low intensity recreational amenities for the residents.

4. Streets and public spaces that are safe, comfortable, and designed to respect pedestrians, non-vehicular and vehicular modes of transportation.

<u>Comment:</u> Sidewalks have been provided on all streets within the development, offering pedestrian connection between the residential lots and onsite recreation. The on street parking proposed also helps create a safer, slower speed street network.

Objective 2.4: Landscaping and Tree Protection Standards: The City shall adopt landscaping and tree protection standards in order to achieve the aesthetic design values of the community and preserve tree canopies, as well as specimen protected, heritage and champion trees.

- Policy 2.4.c: Tree Protection: The City shall require the preservation of heritage trees and champion trees when possible. Standards shall be set for determining the health and safety risks associated with heritage and champion trees both on individual residential lots, and existing and proposed developments.
- Policy 2.4.d: Tree Protection: The City shall establish standards for the preservation of regulated trees. Particular attention shall be given to preserving specimen and preferred species of regulated trees, where feasible.

<u>Comment:</u> All tree protection standards will be met.

- Objective 2.5: Open Space Standards: The City shall utilize open space requirements to preserve the rural character of Alachua, protect natural resources, and provide spaces for people to recreate and gather.
- <u>Comment:</u> As shown on the PD Zoning Master Plan, open space will be provided as part of the proposed development plan in accordance with Section 6.7 of Alachua's Code of Ordinances.
- Policy 2.5.a: There shall be a minimum of 10% percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.
- <u>Comment:</u> Any future proposed development plan will conform to the City's Open Space standards. The PD Zoning Master Plan provides much greater than 10% open space.
- Policy 2.5.b: Open space shall not be limited to unusable portions of project sites. A portion of open space shall be usable and functional.
- <u>Comment:</u> The proposed project includes usable and functional open space in the form of an eight (8) ft. wide neighborhood trail that meanders throughout the neighborhood. Therefore, it is consistent with FLUE Policy 2.5.b.
- Objective 3.11: Archeological Preservation: The City of Alachua shall encourage the protection of sites of archeological significance through the development review process and coordination with local, state and federal agencies.
- Policy 3.11.a: The City shall utilize data from Alachua County and the State of Florida in review of potential archaeologically sensitive areas within the City of Alachua during the development review process.

- Policy 3.11.b: Individual sites and areas of archeological significance shall be preserved, protected or acquired and, whenever possible, enhanced.
- Comments: A letter, Florida Master Site File Map and Florida Master Site File Roster from the Florida Division of Historical Resources has been provided under the appendices section that verifies the Newnansville Town Site was located near the property and has been listed on the National Register since 1974 as an archaeological site because it was the historic seat of Alachua County. An associated cemetery is not on the subject property but located in the vicinity of the property.
- Objective 5.1: Natural features: The City shall coordinate Future Land Use designations with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.
- <u>Comment:</u> The proposed project incorporates the natural features of the land as amenities in the form of open space corridors and the creek. No development will occur within the required setback of the creek and associated wetland. Therefore, it is consistent with FLUE Objective 5.1.
- Policy 5.1.d: Wetlands: The City shall utilize statewide wetland delineation methodology in accordance with Florida Administrative Code (FAC) and regulations adopted by the FDEP and the Suwannee River Water Management District.
- <u>Comment:</u> The wetland delineation performed utilized the FAC, FDEP, and SRWMD methodology. Therefore, it is consistent with FLUE Policy 5.1.d.
- Objective 5.2: Availability of facilities and services: The City shall utilize a concurrency management system to ensure that the adopted level of service standards is maintained.
- Policy 5.2.a: All new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities.
- <u>Comment:</u> The proposed development will not degrade the level of service of roadways, potable water and sanitary sewer, stormwater, solid waste, public schools and improved recreation below an acceptable level. Therefore, it is consistent with FLUE Policy 5.2.a.

- Policy 8.1.a: The area along CR 235 to the east of CR 241 and west of CR 237 is historically and environmentally sensitive. Special consideration must be given to this area to preserve its historic and environmentally sensitive characteristics. Future land uses within this area may also take into account long term preservation objectives, such as creation of the San Felasco Conservation Corridor.
- <u>Comment</u>: The creek and wetland on the subject property will be protected from encroachment of development in compliance with the Land Development Regulations. Additionally, while the site is located near a historical cemetery and is the site of the old Newnansville Town Site, there are no historic resources located on the subject property as evidenced by the letter received on April 10, 2018 from Florida Department of State Division of Historic Resources. The site is not located near the San Felasco Conservation Corridor.
- GOAL 9: Water and Wastewater Service: The City will ensure that new development within the corporate limits, where potable water and wastewater service are available, as defined in Policy 1.2.a and Policy4.2.a. of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the Comprehensive Plan, shall connect to the City of Alachua's potable water and wastewater system.
- Policy 9.2: Any new residential subdivision within the corporate limits, where potable water service is available, as defined in Policy 4.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, regardless of size, that is within either a Residential or Agriculture Future Land Use Map Designation shall connect to the City of Alachua's potable water system. Any new residential subdivision within the corporate limits, where wastewater service is available, as defined in Policy 1.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, regardless of size, that is within a Residential Future Land Use Map Designation shall connect to the City of Alachua's wastewater system.
- <u>Comment:</u> The proposed development will connect to the City's potable water and wastewater system. Required locations will be determined during the site review process. Therefore, it is consistent with FLUE Policy 9.2.

II. Transportation Element:

- Policy 1.4.a: The City shall require any development which must obtain site plan or subdivision approval to provide additional right-of-way width for bicycle and pedestrian ways along all proposed collector and arterial streets.
- <u>Comment:</u> There are no new collectors or arterial roadways planned as part of this amendment. SR 235, which is classified as a Major Collector has ample right-of-way for bicycle and pedestrian facilities. Therefore it is consistent with Transportation Policy 1.4.a.
- Objective 1.4: Bicycle and Pedestrian Standards: The City shall work to develop a network of bicycle and pedestrian facilities which connect all areas of the City.
- Policy 1.4.c: The City shall require pedestrian paths within subdivisions and within new developments to be connected to paths outside the development.
- <u>Comment</u>: The proposed Master Plan indicates pedestrian paths within the proposed subdivision that connect to paths outside of the development.
- Policy 1.5.c: To the extent feasible, the City shall require new developments which are compatible with adjacent existing development to interconnect with one another through one of the following methods:
 - 1. Through the extension of a public street from one project to another;
 - 2. Through the extension of a sidewalk from one project to another;

3. Through the extension of a multi-purpose trail from one project to another.

Comment: This Planned Development contains two roadway connections that connect to adjacent properties and a multi-use trail that connects to adjacent properties.

III. Housing Element

- GOAL 1: To facilitate the provision of safe, sanitary, healthy and affordable, quality housing for all present and future City residents, while preserving and enhancing the community's physical and social fabric, and cultural diversity, and while protecting the interests of special needs groups, and very low and low, and moderate-income households.
- Objective 1.1: Provision of Safe, Affordable, Quality Housing: The City shall facilitate the provision of safe, sanitary, healthy and affordable, quality housing, to accommodate all present and future residents at all income and age

levels, including those with special needs, through a variety of housing types, preferably within mixed-income neighborhoods.

- Policy 1.1.a: The City shall encourage development of a variety of housing types including conventional single-family homes, accessory dwelling units, multi-family units, group homes, assisted living facilities, foster care facilities, mobile homes and manufactured housing, and shall ensure that appropriate land use designations and zoning districts exist to accommodate each type.
- <u>Comment:</u> The Tolosa development will consist of up to 120 single-family detached dwelling units and up to 40 single-family attached dwelling units that will enhance the property values within this area, serve nearby employment centers and offer quality housing to existing and future Alachua residents.

IV. Community Facilities and Natural Groundwater Recharge Element:

- GOAL 1: Wastewater Plan for and provide adequate, high quality and economical wastewater service while protecting the environment, especially groundwater resources.
- Objective 1.2: Wastewater service will be made available to new development in a manner to promote compact urban growth, promoting development where wastewater service is available, and discouraging urban sprawl. For purposes of this objective, new development does not included remodeling of existing developments or additions of less than 33% to existing developments.
- <u>Comment:</u> The proposed development will connect to the City's wastewater facilities. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Objective 1.2.
- Policy 1.2.a: The City shall establish a Community Wastewater Service Area, which includes all areas where wastewater service is available. Wastewater service shall be deemed available if:
 - A gravity water system exists within 100 ft of the property line of any residential subdivision lot or single family residence and wastewater service can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.
 - 2. A gravity wastewater system exists with 500 ft of the property line of any residential subdivision consisting of 5 units or less and the gravity

wastewater system can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

3. A gravity wastewater system, wastewater pumping station, or force main exists within ¼ mile of the property line of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

<u>Comment:</u> The proposed development will connect to the City's wastewater facilities. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Policy 1.2.a.

- Policy 3.1.b: The City shall require the construction of roads within new plats or replats to be arranged so that the grades of the streets shall conform as closely as possible to the original topography to prevent the interruption of natural drainage flows, including sheet flow and flow to isolated wetland systems.
- GOAL 3: Stormwater: Develop and maintain a stormwater management system that minimizes flooding, protects, preserves and enhances desirable water quality conditions, and, where possible, preserves and utilizes existing natural features.
- Objective 3.1: Ensure provision of drainage and stormwater retention through level of service standards and design requirements to minimize flooding and to protect and improve water quality.
- Objective 3.3: The City shall implement design guidelines for stormwater management facilities to promote dual use, protect natural features, and provide aesthetically pleasing facilities.
- Objective 3.4: The City shall promote practices that minimize erosion, sedimentation and stormwater runoff.
- Objective 3.5: The City shall work with the Suwannee River Water Management District and the FDEP criteria for karst stormwater management system design.
- Comment: Onsite stormwater management facilities for proposed development will be designed and constructed in accordance with the City of

Alachua, Suwannee River Water Management District stormwater requirements, as well as those of other applicable agencies.

- Objective 4.1: Achieve and maintain acceptable levels of service for potable water quantity and quality.
- Policy 4.1.b: The City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:

1. A water main exists within 100 ft of any residential subdivision lot or single family residence water service can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

2. A water main exists within 500 ft of any residential subdivision consisting of 5 units or less and water service can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

3. A water main exists within ¼ mile of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

<u>Comment:</u> The proposed development will connect to the City's potable water facilities. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Policy 4.1.b.

Policy 4.2.a: New urban development will only occur within areas where potable water services are available concurrent with development. For purposes of this policy, new development does not include remodeling of existing developments or additions of less than 33% to existing developments.

<u>Comment:</u> The proposed development will connect to the City's potable water facilities. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Policy 4.2.a.

Policy 4.2.b: The City will continue to require necessary on-site water system improvements to be completed at the expense of the property owner.

- <u>Comment:</u> The proposed development will connect to the City's potable water facilities. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Policy 4.2.b.
- Policy 5.2.b: The City shall require demonstration from engineering results that post development recharge volumes will equal predevelopment recharge volumes to the Floridan aquifer.
- Comment: The stormwater management design calculations for the future development will document the stormwater system design for predevelopment flow vs. post-development flow.
- Policy 5.2.c: Applicants for new development, expansions, or redevelopment shall employ one or more of the following techniques to address potential groundwater quality and quantity impacts:
 - 1. Construction and maintenance of shallow, landscaped retention basins
 - 2. Decreasing the amount of stormwater runoff through the use of pervious surfaces or increased open space
 - 3. Development of a stormwater pollution prevention plan
 - 4. Development of a sinkhole remediation plan
 - 5. Development of a groundwater monitoring plan
- Comment: The proposed future development will implement one or more of the techniques required by Community Facilities and Natural Groundwater Recharge Element Policy 5.2.c
- V. Conservation and Open Space Element:
- GOAL 1: To conserve, protect, manage and restore the natural and environmental resources of the City by emphasizing stewardship and understanding that environmental issues transcend political and geographical boundaries.
- Objective 1.2: Native Communities and Ecosystems: The City shall preserve and protect native communities and ecosystems, particularly those considered endangered or threatened.
- Policy 1.2.a: The City shall ensure that land use designations, development practices and regulations protect native communities and ecosystems, and environmentally sensitive lands.
- Policy 1.2.j: The City shall require all new development to be oriented in a fashion that reduces habitat fragmentation and preserves the largest possible contiguous area of undisturbed habitat, to the extent practicable.

- Policy 1.2.k: The City shall establish criteria for the removal of vegetation that is neither threatened nor endangered, distinguishing between native, non-invasive exotics, and invasive exotics.
- Policy 1.2.I: The City shall protect regulated, heritage, and champion trees. The City may continue to participate in the Florida Champion Tree Program. Additionally, the City will require tree removal permits to protect regulated, heritage, and champion trees from accidental removal and other development related disturbances.
- <u>Comment:</u> The developer will work with the City staff to determine the suitability and feasibility for preservation of any existing trees on the property through the development review process.
- Objective 1.3: Listed Species: The City shall protect species listed by State and Federal agencies as endangered, threatened or of special concern, and their habitats.
- Policy 1.3.d: The City shall require prior to development approval, an inventory of listed species for all new developments in areas identified as known habitat for listed species. The inventory shall include detailed information regarding type, quantity, location and habitat requirements for any listed species identified. De minimus threshold for properties required to complete the inventory shall be established in the City's Land Development Regulations.
- Comment: An environmental assessment of the property to include an inventory of listed species will be provided for any future development proposed.
- Objective 1.10: Wetlands: The City shall protect and preserve wetland values and functions from adverse, human caused, physical and hydrologic disturbances.
- Policy 1.10.g: The City shall require natural vegetative buffers around wetlands to protect the fragile ecosystems they sustain. Buffers, measured from the outer edge of the wetland, shall be created as established in the following table.

Resource Addressed	Required Buffer (feet)
Wetlands less than or equal to 0.5 acre that do not support federally and/or state regulated vertebrate wetland/aquatic dependent animal species.	50' average 35' minimum
Wetlands greater than 0.5 acre that do not support the animal species described above.	75' average 50' minimum
Areas where the animal species described above have been documented within 300 feet of a wetland.	100' average 75' minimum

<u>Comment:</u> The proposed Master Plan indicates the wetland buffer, which has been designed in accordance with the above Table. Therefore, it is consistent with Community Facilities and Natural Groundwater Recharge Element Policy 1.10.g.

OBJECTIVE 1.12: Water Resources

The City shall protect and conserve the quantity and quality of water resources, not only for the benefit of residents of the City, but for all in North Florida who depend on the Floridan Aquifer for drinking water, and for the benefit of all connected springs, streams, and rivers which may be impacted by the City's land use and development practices.

<u>Comment:</u> The proposed development does not include surface waters.

Policy 1.12.d: The City shall require the following buffers for development along surface water bodies. Buffers shall be measured from the outer edge of the water body, and created as established in the following table.

Resource Addressed	Required Buffer (feet)
Surface waters less than or equal to 0.5 acre that do not support federally and/or state regulated vertebrate wetland/aquatic dependent animal species.	50' average 35' minimum
Surface waters greater than 0.5 acre that do not support the animal species described above.	75' average 50' minimum
Areas where the animal species described above have been documented within 300 feet of a surface water	100' average 75' minimum

<u>Comment:</u> The proposed development does not include surface waters.

SECTION 6: ANALYSIS OF COMPLIANCE WITH STANDARDS FOR SITE SPECIFIC AMENDMENTS TO THE OFFICIAL ZONING ATLAS

a. Consistent with Comprehensive Plan

The proposed amendment is consistent with and furthers the goals, objectives and policies of the Comprehensive Plan. See the separate Comprehensive Plan Consistency section of this report.

b. Consistent with Ordinances

The proposed amendment is not in conflict with any portion of the Land Development Regulations or any of the City Code of Ordinances.

c. Logical Development Pattern

The proposed amendment will result in a logical and orderly development pattern. The PD-R Master Plan depicts the layout of the internal streets within the proposed PD-R. The layout is established to create logical street patterns and reasonable lot sizes in accordance with City of Alachua regulations. Special attention was paid to existing mature tree canopy stands and significant tree species for creating natural open spaces with tree lined vistas for environmental, aesthetic, and passive recreational appeal. The street and lot layouts were planned with stormwater management needs in mind to allow for natural flows of stormwater to proposed stormwater management facilities at natural places. A neighborhood trail running throughout the development provides walkability and pedestrian connections throughout. The overall layout is logical and creates orderly lot configurations and inviting open spaces for the residents.

d. Pre-Mature Development

The proposed amendment will not create premature development. The market for single family housing in Alachua is very robust. In the City of Alachua's 2016 Growth Trends Report, the population of Alachua currently could be estimated at approximately 10,670. The projected growth in the population by 2025 is estimated to be approximately 12,950, which is an increase of approximately 2,290 persons. Per the 2010 US Census Bureau the average American home is approximately 2.58 persons, meaning in the next 7 years the City of Alachua could have an expected need of approximately 888 homes. Tolosa will help fill this need with market rate housing.

e. Incompatible with Adjacent Lands

The uses permitted by the proposed Planned Development are not incompatible with existing land uses of adjacent lands and/or the uses permitted by the zoning district classifications of adjacent lands. The primary residential developments adjacent to the Tolosa PD-R are to the south, southwest and west. These areas are single-family residential neighborhoods that are similar to the Tolosa single-family neighborhood of Development Area A with similar homes and lot sizes expected. Large common open spaces are provided along the south and west boundaries of the development which provide additional open space between the new Tolosa residential lots. To the east, Tolosa is bounded by Hipp Way and mostly undeveloped agriculturally zoned property in Alachua County. To the east and north of the northeast guadrant of Tolosa there are a total of 11 lots that vary in size from 0.16 acre to 1.6 acres. There are several houses adjacent to the property that range in size from 924 SF to 1824 SF. The houses within Tolosa will be similar or larger than the adjacent home sites. Since the Tolosa lot sizes are expected to be less than several of the adjacent lots to the east, a 25' wide common open space is provided on the PD Master Plan between the Tolosa Development Parcel A-9 and the adjacent offsite parcels to the east. All of the adjacent property to the west of Development Parcel B-1 in the northwest section of Tolosa is zoned Light Industrial. The proposed Residential and non-residential uses within B-1 are less intense than the offsite zoned property and should not provide a compatibility issue.

f. Adverse Effect on Local Character

The proposed amendment will not adversely affect the character of the general area where it is proposed to be located by creating excessive traffic, density and/or intensities of use, building height and bulk, noise, lights, or other physical effects or nuisances. The proposed development intensity is 160 units on 50.45 acres of land which equals 3.2 units per acre. This is less than the allowable density of 4 units per acre. A Traffic Study is provided to document transportation impacts, and improvements to SR 235 and Hipp Way will be provided at both project entrances to offset their impact. Noise and lights or other physical effects or nuisances should not be an issue with a primarily residential development. The residential development conforms to City of Alachua design criteria for building height. Common Open Space areas are provided adjacent to the Tolosa development areas which also provide additional buffers to neighboring properties.

g. Not Deviate from Pattern of Development

The uses permitted by the proposed amendment will not deviate from the development pattern of the area where the proposed amendment is located. The subject property is adjacent to single family residential subdivisions.

h. Encourage Sprawl

The proposed amendment will not encourage urban sprawl by leap-frogging development.

i. Spot Zoning

The proposed amendment will not result in the creation of an isolated zoning district unrelated to adjacent and surrounding zoning districts.

j. Public Facilities

The proposed amendment will not result in development in a location where there are no plans by the City or other governmental entities to provide public facilities to serve the development (roads, potable water, wastewater, parks, stormwater management, and solid waste). These services are available to serve the property. See the Public Facilities Maps provided as part of the PD Drawing Set for more information on utilities serving the Tolosa PD.

k. No Adverse Effect on the Environment

The proposed amendment would not result in significantly adverse impacts on the natural environment, including but not limited to water, air, noise, stormwater management, wildlife, vegetation and wetlands.

SECTION 7: PROPERTY OWNER LABELS

See Attachment C for Property Owner Labels.

SECTION 8: NEIGHBORHOOD MEETING SUMMARY

NEIGHBORHOOD MEETING

A neighborhood meeting was held on 5/29/18 at 6:00 PM. Nine (9) people attended the meeting. A copy of the Neighborhood Meeting Summary is included in **Attachment D**.

SECTION 9: PUBLIC SCHOOL STUDENT GENERATION FORM

The Future Land Use Map Designation is for Moderate Density Residential (MOD) which includes residential uses; therefore a Public School Student Generation Form is attached. See **Attachment E**.

SECTION 10: LEGAL DESCRIPTION WITH TAX PARCEL NUMBERS

LEGAL DESCRIPTION

That part of the Southwest 1/4 and Southeast 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida, comprised of lands described in O.R.B. 4427, Pg. 373 and O.R.B. 4564, Pg. 460 and O.R.B. 4564, Pg. 462, as recorded in the Public Records of Alachua County, Florida, and being more particularly described as follows:

Commence at the Southeast corner of the Southeast 1/4 of the Southwest 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida, said Southeast 1/4 corner being also the POINT OF BEGINNING; thence South 89 degrees 12 minutes 14 seconds West along the South line of said Southeast 1/4 of the Southwest 1/4 for 1496.73 feet to the Southwest corner of said Southeast 1/4 of the Southwest 1/4; thence North 00 degrees 06 minutes 04 seconds West along the West line of said Southeast 1/4 of the Southwest 1/4 for 1343.16 feet the the Northwest corner of said Southeast 1/4 of the Southwest 1/4; thence continue North 00

degrees 06 minutes 04 seconds West, along said West line for 65.44 feet to a point on the South right of way line of State Road number 235 (100 foot Wide Right-of-Way); thence North 89

degrees 25 minutes 36 seconds East, along said Right-of-Way for 621.33 feet to the Northeast corner of the "Cain" parcel, as per description recorded in Official Records Book 2015, Page 694 of said Public Records; thence South 00 degrees 21 minutes 14 seconds West along the East line of said "Cain" parcel for 67.55 feet to the Southeast corner of said "Cain" parcel and an

intersection with the North line of the Southeast 1/4 of the Southwest 1/4; thence North 89

degrees 37 minutes 50 seconds East along said North line for 834.19 feet to an intersection with the West line of Block 1, Range 3 of NEWNANSVILLE SUBDIVISION (unrecorded); thence South

00 degree 24 minutes 49 seconds West along said West line and along the West Rightof-Way line of Wilson Street (50 foot wide Right-of-Way) for 481.50 feet to the Northwest corner of Block 1, Range 4 of said NEWNANSVILLE SUBDIVISION; thence South 89 degrees 17 minutes 50 seconds East along the North line of said Block 1, Range 4 and along the South Right-of-Way line of said Wilson Street for 399.77 feet to the Northeast corner of said block 1, Range 4 and an

intersection with the West Right-of-Way line of Magnolia Street (50 foot wide Right-of-Way); thence South 00 degrees 21 minutes 08 seconds West along said West Right-of-Way line and along the East line of said Block 1, Range 4 for 250.06 feet to an intersection with the monumented Westerly Right-of-Way line of Hipp Way (apparent 50 foot wide Right-of-Way); thence South 40 degrees 35 minutes 29 seconds West along said monumented Westerly Right-of-Way line for 180.87 feet; thence South 25 degrees 25 minutes 52 seconds West along said monumented Westerly Right-of-Way line for 12.29 feet to an intersection with the South line of said Block 1, Range 4 and an intersection with the North Right-of-Way line of an unnamed street (50 foot wide Right-of-Way); thence North 89 degrees 17 minutes 50 seconds West along said South line and along said North Right-of-Way line for 278.15 feet to the Southwest corner

of said Block 1, Range 4; thence South 00 degrees 24 minutes 49 seconds West along the the West Right-of-Way line of said unnamed street for 50.00 feet to the Northwest corner of Block

1, Range 5 of said Newnansville Subdivision; thence South 89 degree 17 minutes 50 seconds East along the North line of said Block 1, Range 5 and along the South Rightof-Way line of said

unnamed street for 254.87 feet to an intersection with said monumented Westerly Right-of-Way line; thence South 25 degrees 25 minutes 52 seconds West along said Westerly monumented Right-of-Way line for 439.95 feet to an intersection with the South line of the Southeast 1/4 of said Section 11; thence North 89 degrees 21 minutes 00 seconds West along said South line for 15.48 feet to said POINT OF BEGINNING

See Attachment F for the Sketch of Legal Description.

SECTION 11: PROOF OF OWNERSHIP

Copies of the property deeds are provided as proof of ownership. See Attachment G.

SECTION 12: PROOF OF PAYMENT OF TAXES

Copies of tax payments are included. See Attachment H.

SECTION 13: APPLICATION FEE

A copy of the \$5,250.00 check for this rezoning application fee is provided as check no. 104 from Aldevco, LLC.

SECTION 14: PD Zoning Master Plan

A copy of the PD Zoning Master Plan Drawing Set is included as Attachment I.

SECTION 15: Environmental Considerations

The Tolosa PD-R is designed to be compatible with the existing environmental conditions and features of the property. Prior to planning and developing the layout for

the development, an environmental consultant, Verde Environmental was retained to evaluate the existing creek on the property. The existing creek was determined to be the most significant environmental feature on the property. The remaining part of the property was primarily comprised of planted pine stands and other select specimen hardwood trees. In accordance with agricultural BMP's and the City of Alachua's approval, the planted pines were harvested from the property. Verde Environmental delineated the creek wetland in accordance with SRWMD requirements in advance of the pine harvesting and the wetland and associated 75 ft. wetland buffer were staked out in the field to provide limits for the harvesting and to avoid any negative impacts.

Additional information regarding the environmental aspects of the property is provided within the Environmental Assessment and Listed Species Survey, also prepared by Verde Environmental and included as **Attachment J** to this report.

ATTACHMENT A:

REZONING AMENDMENT APPLICATION



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B.

C.

D.

FOR PLANNING USE ONLY	
Case #:	
Application Fee: \$	
Filing Date:	
Acceptance Date:	
Review Type: P&Z CC	

HE	GOOD	LIFE	COMMUNITY	

Specific Amendment to the Official Site Zoning Atlas Amendment (Rezoning) Application

Reference City of Alachua Land Development Regulations Article 2.4.2

PROJECT A. Project Name: Tolosa Planned Development - Residential (PD-R) 1. Address of Subject Property: 13200 Block of State Road 235 2. Parcel ID Number(s): 03135-000-000, 03130-004-000, 03130-008-000, 03130-009-000, 03130-007-001 3. Existing Use of Property: Undeveloped 4. Future Land Use Map Designation : MOD (City) and Agriculture (Alachua County) 5. Existing Zoning Designation: PUD (City) and Agriculture (Alachua County) 6. Proposed Zoning Designation: Planned Development - Residential (PD-R) 7. Acreage: 50.45 +/-8. APPLICANT 1. Applicant's Status Owner (title holder) Agent Name of Applicant(s) or Contact Person(s): A. J. "Jay" Brown, Jr., P.E. Title: President 2. Company (if applicable): JBrown Professional Group Mailing address: 3530 NW 43rd Street City: Gainesville State: Florida ZIP: 32606 1 352-375-0833 e-mail: jay.brown@jbprogroup.com Telephone: () 352-375-8999 FAX: (If the applicant is agent for the property owner*: 3. Name of Owner (title holder): Bentley Timber LLC Mailing Address: 16860 Silver Oak Circle State: Florida ZIP: 33445 City: Delray Beach * Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner. ADDITIONAL INFORMATION 1. Is there any additional contact for sale of, or options to purchase, the subject property? □ Yes No No If yes, list names of all parties involved: If yes, is the contract/option contingent or absolute? Contingent □ Absolute **ATTACHMENTS** Statement of proposed change, including a map showing the proposed zoning change and zoning designations 1.

- on surrounding properties
 - 2. A current aerial map or plat of the property. (may be obtained from the Alachua County Property Appraiser.)
 - Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, 3. transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
 - Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, 4 Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)

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- 5. Analysis of compliance with the Standards for Site Specific Amendments to the Official Zoning Atlas, as defined in Section 2.4.2 of the Land Development Regulations (LDRs), and listed below:
 - Consistent with Comprehensive Plan The proposed amendment is consistent with and furthers the goals, objectives, and policies of the Comprehensive Plan.
 - Consistent with Ordinances
 The proposed amendment is not in conflict with any portion of these LDRs or any of the City Code of Ordinances.
 - iii. Logical Development Pattern The proposed amendment would result in a logical and orderly development pattern.
 - iv. Pre-Mature Development
 The proposed amendment will not create premature development in undeveloped or rural areas.
 - Incompatible with Adjacent Lands
 The uses permitted by the proposed amendment are not incompatible with existing land uses of
 adjacent lands and/or the uses permitted by the zone district classifications of adjacent lands.
 - vi. Adverse Effect on Local Character The proposed amendment will not adversely effect the character of the general area where it is proposed to be located by creating excessive traffic, density and/or intensities of use, building height and bulk, noise, lights, or other physical effects or nuisances.

vii. Not Deviate from Pattern of Development

The uses permitted by the proposed amendment will not deviate from the development pattern (both established and as proposed by surrounding zone districts) of the area where the proposed amendment is located.

viii. Encourage Sprawl

The proposed amendment will not encourage urban sprawl, either by resulting in strip or ribbon commercial development, leap-frog development or low density single dimensional development.

ix. Spot Zoning

The proposed amendment will not result in the creation of an isolated zone district unrelated to adjacent and surrounding zone districts (spot zoning).

x. Public Facilities

The proposed amendment will not result in development in a location where there are no plans by the City or other governmental entities to provide public facilities to serve the development (roads, potable water, wastewater, parks, storm water management, and solid wastes), and there are no assurances by the private sector that public facilities are planned and will be available to adequately accommodate development.

xi. No Adverse Effect on the Environment

The proposed amendment would not result in significantly adverse impacts on the natural environment, including but not limited to water, air, noise, storm water management, wildlife, vegetation, wetlands, and the natural functioning of the environment.

- 6. Three (3) sets of labels for all property owners within 400 feet of the subject property boundaries even if property within 400 feet falls outside of City limits. (Obtain from the Alachua County Property Appraiser).
- 7. Neighborhood Meeting Materials, including:
 - i. Copy of the required published notice (advertisement) must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
 - ii. Copy of written notice (letter) sent to all property owners within 400 feet, and mailing labels or list of those who received written notice
 - iii. Written summary of meeting must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
- 8. For applications requesting a zoning which permits residential uses, Public School Student Generation Form.
- 9. Legal description with tax parcel number.

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- 10. Proof of ownership.
- 11. Proof of payment of taxes.
- 12. Fee. Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

<u>All 12 attachments are required for a complete application.</u> A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant Signature of Co-applicant A.J. "Jay" Brown, Jr., P.E. Typed or printed name and title of applicant Typed or printed name of co-applicant State of Florida County of Alachua , 2018, by A. J. "Jay" Brown Jr. day of May The foregoing application is acknowledged before me this ³¹ who is/are personally known to me, or who has/have produced as identification. Signature of Notary Public, State of Florida LAURIE L. THOMAS Notary Public - State of Florida Commission # FF 961502 My Comm. Expires Apr 1, 2020 Bonded through National Notary Assn.
ATTACHMENT B:

AUTHORIZED AGENT AFFIDAVIT



THE GOOD LIFE COMMUNITY

Authorized Agent Affidavit

A. PROPERTY INFORMATION

Address of Subject Property: 13400 Block of W. State Rd. 235 Parcel ID Number(s): 03130-7-), 03130-4-0, 03130-8-0, 03130-9-0, 03135-0-0 Acreage: 50.45

B. PERSON PROVIDING AGENT AUTHORIZATION Name: David A. Fisher Title: Manager Company (if applicable): Bentley Timber, LLC Mailing Address: 16860 Silver Oak Circle City: Delray Beach State: FL ZIP: 33445 Telephone: (305) 785-1955 FAX: N/A e-mail: davidafisher@outlook.com

C. AUTHORIZED AGENT

Name: Anthony J. Brown Jr. (Ja	ay)	Title President		
Company (if applicable): JBrow	n Professional Group			
Mailing address: 3530 NW 43rd	l St			
City: Gainesville	State: FL	ZIP: 32606		
Telephone: (352) 375-8999	FAX: (352) 375-0833	e-mail: jay.brown@jbprogroup.com		

D. REQUESTED ACTION:

Land Use Change Requests, Rezoning requests, Development Plan applications, Subdivision and Plat applications, and other related permit applications.

I hereby certify that I am the property owner of record, or I have received authorization from the property owner of record to file an application for a development permit related to the property identified above. I authorize the agent listed above to act on my behalf for purposes of this application.

Signature of Applicant Signature of Co-applicant David A. Fisher, Manager Typed or printed name and title of applicant Typed or printed name of co-applicant State of Florida Palm County of Up day of April The foregoing application is acknowledged before me this who is/are personally known to me, or who has/have produced

as identification.

RUTH ANN EURY

My comm. expires June 5,

Notary Public, State of Florida Signature of Notary Public. Commission# FF 1002 of Alachua + Planning and Community Development Department PO Box 9 + Alachua, FL 32616 + (386) 418-6121 Revised 9/30/2014

_ 2010 by David A Fisher

Drivan License

17

ATTACHMENT C:

PROPERTY OWNER LABELS

03233-001-000 BURNS, DAVID 13301 NW 158TH AVE ALACHUA, FL 32615

03233-043-000 MCCLAIN, NATHANIEL JR PO BOX 645 ALACHUA, FL 32616

03130-009-000 BENTLEY TIMBER LLC 16860 SILVER OAK CIRCLE DELRAY BEACH, FL 33445

03130-013-000 HESTER J E & SONDRA PO BOX 943 ALACHUA, FL 32616-0943

03130-009-001 TAMBURINO, DOMINIC & RELO... 10101 SW 222ND ST MIAMI, FL 33190-1566

03131-083-000 UNDERWOOD, WILLIAM N & SU... PO BOX 138 LA CROSSE, FL 32658

03141-000-000 TOOMEY KERRY D & MARTHA ... 12921 W STATE RD 235 ALACHUA, FL 32615

03233-003-001 JONES & PELHAM W/H PO BOX 2286 ALACHUA, FL 32616

03215-000-000 KITE, OLLIE HEIRS % EUNYTA J SIMMONS 3216 NW 56TH PL GAINESVILLE, FL 32653

03130-001-000 LEMNAH, EULA W HEIRS 13220 W STATE ROAD 235 ALACHUA, FL 32615-6156 03234-015-000 FAITH HOPE & CHARITY INC PO BOX 327 ALACHUA, FL 32616-0327

03218-020-004 DOUGLASS HOLDINGS LLC PO BOX 143053 Gainesville, FL 32614

03149-003-000 HEITZMAN FRANK BENJAMIN 15855 HIPP WAY ALACHUA, FL 32615

03233-034-000 COLLINS, MAMIE LEE LIFE EST... 13208 NW 157TH AVE ALACHUA, FL 32616-0345

03131-080-000 DIXON LULA M 13609 NW 158TH PL ALACHUA, FL 32615

03233-003-000 YOUNG MOZELLE 13301 NW 158TH AVE ALACHUA, FL 32615

03216-010-002 LEJA CONSTRUCTION INC 3845 NW 37TH PL GAINESVILLE, FL 32606

03233-032-000 COLLINS MAMIE L LIFE ESTATE 13208 NW 157TH AVE ALACHUA, FL 32615-8243

03234-005-000 FAITH HOPE & CHARITY DEV, C... PO BOX 327 ALACHUA, FL 32616-0327

03131-043-000 RUSHING JOHNNY SR HEIRS PO BOX 1354 ALACHUA, FL 32616-1354 03154-002-001 CAIN, WALLACE R PO BOX 100 ALACHUA, FL 32616

03218-020-000 SWICK REALTY INC & OLD TOW... % SHERRY S SWICK 15004 NW BURNETTES LAKE B... Alachua, FL 32615

03129-001-000 KOLOMYIKO IVAN & GALINA 14317 NW 142ND AVE ALACHUA, FL 32615

03215-001-000 GRANT NUBARICK E 13433 NW 158TH AVE ALACHUA, FL 32615

03130-005-000 LEMNAH & LEMNAH 13220 W STATE RD 235 ALACHUA, FL 32615

03234-000-000 REED VALENTINE LLC 321 YACHT CLUB DR FT WALTON BEACH, FL 32547

03130-004-000 BENTLEY TIMBER LLC 16860 SILVER OAK CIRCLE DELRAY BEACH, FL 33445

03233-028-000 BRIGGS & FLAGG & FLAGG III & PO BOX 746 ALACHUA, FL 32616

03234-023-002 BOOKER HATTIE PO BOX 954 ALACHUA, FL 32616-0954

03233-008-001 REYNOLDS JACKIE & CAROLYN PO BOX 1218 ALACHUA, FL 32616-1218 03131-042-000 CAPOBIANCO CARL 13518 NW 158TH PL ALACHUA, FL 32615

03131-001-000 HEVIA, ROBERTO & YVETTE 5322 WINDMILL PKWY EVANS, GA 30809-6648

03135-000-000 BENTLEY TIMBER LLC 16860 SILVER OAK CIRCLE DELRAY BEACH, FL 33445

03214-000-000 SRI JAJANNATH CHAITANYA, SA... PO BOX 246 Alachua, FL 32616

03218-020-003 DOUGLASS HOLDINGS LLC PO BOX 143053 Gainesville, FL 32614

03131-045-000 GARRISON BERNICE PO BOX 75 ALACHUA, FL 32616-0075

03130-003-000 NCWT LLC 14260 W NEWBERRY RD #200 Newberry, FL 32669

03234-005-001 WALKER HENRIETTA HEIRS PO BOX 1001 ALACHUA, FL 32616-1001

03149-000-000 HEITZMAN JON F LIFE ESTATE 16117 HIPP WAY ALACHUA, FL 32615

03233-024-000 FLAGG BEATRICE M PO BOX 326 ALACHUA, FL 32616-0326 03131-086-000 LEWIS, DIANE R PO BOX 1421 ALACHUA, FL 32616-1421

03218-020-026 OCASIO & VILLAFANE W/H 15705 NW 136TH TER ALACHUA, FL 32615

03233-041-000 MCCLAIN NATHANIEL JR PO BOX 645 ALACHUA, FL 32616

03131-082-000 WALLS, WILLIE J 281 E 143RD ST APT 11A BRONX, NY 10451-6265

03141-001-000 TOOMEY KERRY D & MARTHA ... 12921 W STATE RD 235 ALACHUA, FL 32615

03215-001-001 LOGAN CHRISTIE A PO BOX 186 ALACHUA, FL 32615-0186

03233-002-000 JONES & PELHAM W/H PO BOX 2286 ALACHUA, FL 32616

03130-013-001 LEMNAH, WAUNITA 13220 W STATE ROAD 235 ALACHUA, FL 32615-6156

03216-010-007 CRUZ JACOB EDWIN 15133 NW 128TH ST ALACHUA, FL 32615

03233-012-000 ANDERSON WILLIE HEIRS PO BOX 898 ALACHUA, FL 32616-0898 03233-019-000 MCCRAY, JOHN & MARGARITE 49 LAKE SHORE BLVD PORT WENTWORTH, GA 31407

03149-004-000 HEITZMAN, JOSEPH PAUL 16013 HIPP WAY ALACHUA, FL 32615

03218-020-005 DOUGLASS HOLDINGS LLC PO BOX 143053 Gainesville, FL 32614

03130-000-000 LVS RENTALS LLC 4606 NW 166TH AVE GAINESVILLE, FL 32653

03130-007-001 BENTLEY TIMBER LLC 16860 SILVER OAK CIRCLE DELRAY BEACH, FL 33445

03233-042-000 WHITE, WILMER III 8612 BRIXTON CT JACKSONVILLE, FL 32244

03234-010-000 MITCHELL ALBERT PO BOX 2342 ALACHUA, FL 32616-2342

03234-014-000 FAITH HOPE AND CHARITY INC PO BOX 327 ALACHUA, FL 32616-0327

03233-036-000 COLLINS, MAMIE F LIFE ESTAT... 13208 NW 157TH AVE ALACHUA, FL 32615

03133-000-000 SCHOOL BD OF ALACHUA CTY 620 E UNIV AVE MEBANE MIDD... GAINESVILLE, FL 32601 03234-023-000 BOOKER HATTIE PO BOX 954 ALACHUA, FL 32616-0954

03233-011-000 QUINCEY, J S TRUSTEE 18 NW 33RD CT GAINESVILLE, FL 32607

03233-014-000 JAMES, LEON JEROME HEIRS 2600 SW 7TH ST FORT LAUDERDALE, FL 33312-...

03129-010-000 FRAZIER RAYLAN LIFE ESTATE NELLIE HUNT PO BOX 52 ALACHUA, FL 32616-0052

03149-001-000 HEITZMAN, THAD S HEIRS 15311 NW 140TH ST ALACHUA, FL 32615

03130-011-000 RODRIGUEZ FERNANDO & NAN... 13310 W STATE RD 235 ALACHUA, FL 32615

03130-007-000 DORITY WINSTON L & ANGELA 13508 W STATE ROAD 235 ALACHUA, FL 32615-6157

03130-013-002 STOKES-JONES PEGGY 7204 NW 200TH TER ALACHUA, FL 32615

03233-027-000 FLAGG, HENRY JR & BEATRICE PO BOX 326 ALACHUA, FL 32616-0326

03130-010-000 DASA & PATEL 12503 W STATE ROAD 235 ALACHUA, FL 32615 03234-013-000 FAITH HOPE & CHARITY DELIV... PO BOX 327 ALACHUA, FL 32616

03131-089-000 JENKINS, SHELISIA V PO BOX 1071 ALACHUA, FL 32616

03131-084-000 SHARPER & TUBBS PO BOX 351 ALACHUA, FL 32616-0351

03204-000-000 JOHN C HIPP CONST EQUIP C... PO BOX 1000 ALACHUA, FL 32616-1000

03133-001-001 CAIN, WALLACE R PO BOX 100 ALACHUA, FL 32615

03218-020-001 DOUGLASS HOLDINGS LLC PO BOX 143053 Gainesville, FL 32614

03131-044-000 JOINER TONIA Q PO BOX 1536 ALACHUA, FL 32616

03218-020-002 DOUGLASS HOLDINGS LLC PO BOX 143053 Gainesville, FL 32614

03131-087-000 DIXON, WILLETTE PO BOX 2435 ALACHUA, FL 32616

03131-085-000 RUSHING WILLIE & RUTHIE MA... PO BOX 985 Alachua, FL 32616 03131-081-000 UNDERWOOD, WILLIAM N & SU... PO BOX 138 LA CROSSE, FL 32658

03154-002-000 HART & WASHINGTON HEIRS PO BOX 874 ALACHUA, FL 32616

03216-010-008 LOGAN CHRISTIE A PO BOX 186 ALACHUA, FL 32615-0186

03133-002-001 CAIN, WALLACE R PO BOX 100 ALACHUA, FL 32615

03233-010-000 ANDERSON GLENN Z PO BOX 898 ALACHUA, FL 32615

03130-006-000 HARRIS MONICA KAY 13232 W STATE RD 235 ALACHUA, FL 32615-6156

03133-002-000 CAIN, WALLACE R PO BOX 100 ALACHUA, FL 32615

03217-000-000 LOGAN CHRISTIE A PO BOX 186 ALACHUA, FL 32615-0186

03233-008-000 MOSLEY, CASSIE GENERAL DELIVERY FORT WHITE, FL 32038-9999

03130-008-000 BENTLEY TIMBER LLC 16860 SILVER OAK CIRCLE DELRAY BEACH, FL 33445 03215-002-000 LOGAN CHRISTIE A PO BOX 186 ALACHUA, FL 32615-0186

03233-005-001 JONES & PELHAM W/H PO BOX 2286 ALACHUA, FL 32616

03130-008-002 SHETH VISVAMBHAR PO BOX 2668 ALACHUA, FL 32616

03131-088-000 BENNETT JEROME 13612 NW 158TH AVE Alachua, FL 32615

03154-000-000 TOOMEY KERRY D & MARTHA ... 12921 WEST STATE RD 235 ALACHUA, FL 32615

03233-045-000 ANDERSON & WILLIAMS PO BOX 187 HIGH SPRINGS, FL 32655

03154-001-000 HART & STRICKLAND PO BOX 874 ALACHUA, FL 32616-0874

03216-010-001 LEJA CONSTRUCTION INC 3845 NW 37TH PL GAINESVILLE, FL 32606

03218-020-027 CARROLL, ANDREW II 13608 NW 157TH PL ALACHUA, FL 32615

03131-046-000 COLLINS MARTHA ANN HEIRS PO BOX 75 ALACHUA, FL 32616 03129-010-002 PHILPOT, IRA JUDSON 25323 N COUNTY RD UNIT 1491 ALACHUA, FL 32615

03129-010-001 PHILPOT, IRA JUDSON 25323 N COUNTY RD UNIT 1491 ALACHUA, FL 32615

03233-017-000 FILER, MAMIE L 13208 NW 157TH AVE ALACHUA, FL 32615

03234-023-001 BOOKER & HUNTER PO BOX 954 ALACHUA, FL 32616

03130-012-000 LEMNAH, WAUNITA 13220 W STATE ROAD 235 ALACHUA, FL 32615-6156

03149-007-000 MARTIN & MCNEILL 15311 NW 140TH ST ALACHUA, FL 32615 Antoinette Endelicato 5562 NW 93rd Ave Gainesville FL 32653

Richard Gorman 5716 NW 93rd Ave Alachua, FL 32653

TCMOA President 1000 Turkey Creek Alachua, FL 32615

Jeannette Hinsdale PO Box 1156 Alachua, FL 32616

Tamara Robbins PO Box 2317 Alachua, FL 32616 Dan Rhine 288 Turkey Creek Alachua, FL 32615

Peggy Arnold 410 Turkey Creek Alachua, FL 32615

Linda Dixon, AICP Assistant Director Planning PO Box 115050 Gainesville, FL 32611

Lynn Coullias 7406 NW 126th Ave Alachua, FL 32615

Michele L. Lieberman Interim County Manager 12 SE 1st St Gainesville, FL 32601 Tom Gorman 9210 NW 59th St Alachua, FL 32653

David Forest 23 Turkey Creek Alachua, FL 32615

FL Dept of Environmental Protection Craig Parenteau 4801 Camp Ranch Road Gainesville, FL 32641

Lynda Coon 7216 NW 126 Ave Alachua, FL 32615

ATTACHMENT D:

NEIGHBORHOOD MEETING MATERIALS



Neighborhood Workshop Summary For Tolosa PD

The neighborhood meeting for the Tolosa PD project was held on Tuesday May 29, 2018 at the Alachua Branch Library at 14813 NW 140th Street. The meeting was noticed in the Alachua Today and mailers were sent out to the required property owners in advance of the workshop in accordance with City of Alachua regulations and requirements. Jay Brown of JBrown Professional Group Inc. conducted the workshop, and Robert Morgado of JBrown Professional Group Inc. attended as well.

The meeting began at 6:00 PM and Mr. Brown presented the zoning master plan and the current proposed layout for the project. There were nine (9) members of the public in attendance, including Chuck Grandgent, Jackie Reynolds, Kerry and Susie Toomey, John and Judy Heintz, Mary L. Martin, Joe Philpot and Bishop Tate. Luis Diaz and Ken O'Rorke from Aldevco, LLC were also in attendance. Mr. Brown indicated the project was going through the City approval process for review. Mr. Brown also explained the elements that went into the design of the project, including existing tree lines, access points, the creek, and stormwater management. Comments provided from the neighbors are listed below:

- Mr. Tate showed concern regarding flooding on the south side of the development and wanted to make sure the project would not adversely impact surrounding properties. Mr. Brown explained that the site will not worsen the current drainage conditions and that drainage is and will be a priority going forward.
- 2. Mr. Tate showed concern as to high traffic speeds on SR-235 causing dangerous conditions turning onto the site. Mr. Brown explained that the current plan is to add a deceleration entrance in the form of a right turn lane into the project.
- 3. Mr. Toomey inquired as to the price range of units in the development. Mr. Diaz explained that although numbers have not been set, it would be fair to assume a range of \$200,000-250,000.
- 4. Mr. Philpot inquired as to the square footage of the units. Mr. Diaz explained that unit size would vary and that a fair approximation would be 1,200-1,600 square feet per unit.
- 5. Mr. Toomey inquired about the possibility of vacating several streets on the northwest corner of the property. Mr. Brown explained that vacating streets is a possibility which would have to be coordinated with the City and the County.

The neighborhood meeting was completed at approximately 7:00 pm.

The following items are attached to further document the Neighborhood Meeting.

- 1) Meeting sign-in sheet
- 2) PD Zoning Master Plan and Site Layout presented at the meeting
- 3) Copy of Newspaper Advertisement Sheet
- 4) Copy of Alachua Today Public Notice Affidavit
- 5) Copy of Mailed Public Notice





TABLE 1 PROPOSED USES AND DENSITIES

SED USE	LAND AREA (AC)	LAND AREA PERCENT	MAXIMUM ALLOWABLE DENSITY
FAMILY RESIDENTIAL	18.38	36.4	120 UNITS
MILY ATTACHED NON-RESIDENTIAL	3.40	6.7	40 UNITS/20,000 SF
I AREA	14.13	28.0	2,000 SF
AND + BUFFER	5.54	11.0	0 SF
Y RIGHTS WAY	9.00	17.8	0 SF
	50.45	100.0	

NOTES: 1) PROPOSED USES MAY BE ADJUSTED DURING THE BUILDOUT OF THE PD AND SHALL COMFORM TO THE ALLOWABLE USE TABLE. 2) ALL USE A REAS MAY BE ADJUSTED DURING THE PHASED BUILDOUT OF THE PD BY UP TO 10.0%

TABLE 2 ALLOWABLE USES

ALLOWABLE	LISES

SINGLE FAMILY DETACHED RESIDENTIAL
SINGLE FAMILY DETACHED RESIDENTIAL SINGLE FAMILY ATTACHED RESIDENTIAL DAYCARE RELIGIOUS USES RESTAURANT WITHOUT A DRIVE-THRU COMMUNITY BUILDINGS/CLUBHOUSE FARMERS MARKET PROFESSIONAL OFFICE RECORATIONAL USES
UTULTY SYSTEMS STORW-WATER MANAGEMENT SYSTEMS PEDESTRIAN TRAILS-PERVIOUS & IMPERVIOUS RECREATIONAL FACILITIES COMMONS BUILDING/CLUBHOUSE PARK STRUCTURES, GAZEBOS, PICNIC PAVILIONS
SINGLE ROADWAY CROSSING SINGLE PEDESTRIAN CROSSING PERVIOUS TRAILS

NOTES: 1) STORWATER MANAGEMENT FACILITES AND UTILITY SYSTEMS ARE ALLOWED IN ALL USE AREAS. 2) UTILITY CROSSINGS THROUGH USE AREA D SHALL BE MINIMIZED AS MUCH AS POSSIBLE AND SHALL BE PROVIDED WITH CASINGS THROUGH THE WETLAND LIMITS TO MINIMIZE LONG TERM MAINTENANCE REQUIREMENTS.

TABLE 3 LOT & SETBACK REQUIREMENTS

IM LOT	MINIMUM LOT DEPTH	MINIMUM FRONT YARD SETBACK	MINIMUM REAR YARD SETBACK	MINIMUM SIDE INTERIOR SETBACK	MINIMUM SIDE STREET SETBACK	MINIMUM REAR SETBACK FOR LOT W/ REAR ALLEY
0'	75'	10'	10'	5'	10'	17'
o'	40'	0'	0'	0'	0'	٥,
o'	100'	20'	20'	20'	20'	N/A

THE 'UNNAMED STREET' LOCATED AT THE PROPOSED ROADWAY CONNECTION TO HIPP WAY, IS PROPOSED TO BE VACATED AND, IF VACATED, WOULD BECOME CITY R/W.

PD ZONING MASTER PLAN

PROJECT:

SHEET NO:

C1.0

TOLOSA PD

Century, High Springs had become an important railroad center. around the festival. Robert Mullins, who owns the animals in the zoo and



PUBLIC NOTICE

A Neighborhood Meeting will be held to discuss a Re-Zoning Application in the City of Alachua for a new Planned Development to be known as Tolosa. The subject property is located at the 13400 block of W. State Road 235. The property is comprised of Alachua County Tax Parcel No.'s 03135-000-000, 03130-004-000, 03130-007-001, 03130-008-000, and 03130-009-000, and is 50.45 acres in size. The entire property is planned to be zoned PD-R (Planned Development-Residential) with primarily residential uses at a maximum density of 4 units per acre. Certain non-residential uses may be allowed in the property fronting SR 235. This is not a public hearing. The purpose of the workshop is to inform neighboring property owners about the nature of the project, and to seek public input and comments. The workshop will be held on Tuesday May 29, 2018 at 6:00 PM in the Alachua Branch of the Alachua County Library District at 14913 NW 140th Street, Alachua, FL 32615.

Contact Person: Jay Brown, P.E. @ JBrown Professional Group Inc. (352) 375-8999

(Published: Alachua County Today - May 10, 2018)

times. A group of historical reenactors called the "Not So Young Guns" presented a shootout between a sheriff and an outlaw gang. Prior to the performance, the group gave a short lecture about gun safety and how to treat a firearm. They pointed out that they were using black powder blanks, but even just the powder could be dangerous. They demonstrated by firing a blank round at a coke answered que the audience.

Pioneer 1 community e ages and then several contest vendors and th business com contests award for first, seco place. One co best pioneer a local busi were three con vendors – be fine art and





ALACHUA COUNTY TODAY

Published Weekly

Alachua, Alachua County, FLORIDA

STATE OF FLORIDA

COUNTY OF ALACHUA:

Before the undersigned authority personally appeared **ROBERT BOUKARI**, who on oath says that he (she) is the Manager of *Alachua County Today*, a weekly newspaper published at Alachua in Alachua County, Florida; that the attached copy of advertisement, being **NEIGHBORHOOD MEETING**, was published in said newspaper in the issues of **May 10, 2018**.

Affiant further says that *Alachua County Today* is a newspaper published at Alachua, in said Alachua County, Florida, and that the said newspaper has heretofore been continuously published in said Alachua County, Florida, each week and has been entered as periodicals matter at the post office in Alachua, in said Alachua County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he (she) has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this **10th day of May**, **2018** by **Robert Boukari**, who is personally known to me.

(Signature of Affiant)

(Signature of Notary Public)



H, BRYAN BOUKARI MY COMMISSION # FF 220770 EXPIRES: May 26, 2019 Bendret Run Suffert Notary Services

You are cordially invited to attend a

Neighborhood Meeting for the Tolosa PD-R

A Neighborhood Meeting will be held to discuss a Re-Zoning Application in the City of Alachua for a new Planned Development to be known as Tolosa. The subject property is located at the 13400 block of W. State Road 235. The property is comprised of Alachua County Tax Parcel No.'s 03135-000-000, 03130-004-000, 03130-007-001, 03130-008-000, and 03130-009-000, and is 50.45 acres in size. The entire property is planned to be zoned PD-R (Planned Development-Residential) with primarily residential uses at a maximum density of 4 units per acre. Certain non-residential uses may be allowed in the property fronting SR 235. This is not a public hearing. The purpose of the workshop is to inform neighboring property owners about the nature of the project, and to seek public input and comments.

The workshop will be held on Tuesday May 29, 2018 at 6:00 PM in the Alachua Branch of the Alachua County Library District at 14913 NW 140th Street, Alachua, FL 32615.

Contact Person: Jay Brown, P.E. @ JBrown Professional Group Inc. (352) 375-8999



ATTACHMENT E:

PUBLIC SCHOOL STUDENT GENERATION FORM



THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY	
Case #:	
Application Fee: \$	
Filing Date:	
Acceptance Date:	
Review Type: Admin	

Public School Student Generation Form for Residential Development in the City of Alachua

A	PPLICANT
1.	Applicant's Status (check one):
	Owner (title holder) Agent
2	Name of Applicant(s) or Contact Person(s): A.J. "Jay" Brown, Jr. P.E. Title: President
	Company (if applicable): JBrown Professional Group Inc.
	Mailing address: 3530 NW 43rd Street
	City: Gainesville State: Florida ZIP: 32606
	Telephone: 352-375-8999 X102 FAX: 352-375-0833 e-mail: jay.brown@jbprogroup.com
3	. If the applicant is agent for the property owner*:
	Name of Owner (title holder): Bentley Timber LLC
	Mailing Address: 16860 Silver Oak Circle
	City: Delray Beach State: Florida ZIP: 33445
	* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.
PI	ROJECT
1.	Project Name: Tolosa Planned Development - Residential (PD-R)
2.	Address of Subject Property: 13200 Block of State Road 235
3.	Parcel ID Number(s): 03130-007-001, 03130-004-000, 03130-008-000, 03130-009-000, 03135-000-00
4.	Section 11 Township 8 Range 18 Grant Acreage: 50.45 +/- acres
5.	Existing Use of Property: Vacant
6.	Future Land Use Map Designation: Rural/Agricultural & Moderate Density Residential (MOD)
7.	Zoning Designation: Agriculture (A) & PUD
8.	Development Data (check all that apply):
	Single Family Residential Number of Units 160
	Multi-Family Residential Number of Units 40
	Exempt (see exempt developments on page 2)
9.	Review Type:
	Preliminary Development Order Final Development Order
	Comprehensive Plan Amendment Preliminary Plat
	Large Scale Final Plat
	Small Scale State Plan
	□ Site Specific Amendment to the Official Zoning Atlas (Rezoning)
	Revised Planned Development (PD-R)
10	. School Concurrency Service Areas (SCSA): Based on the project location, identify the corresponding SCSA for ea school type. Maps of the SCSAs can be obtained from the Alachua County Growth Management Department Map Galle by clicking on the "Public Schools" tab: http://growth-management alachuacounty us/gis_services/map_gallen//

Elementary: Alachua Elementary School

Middle: Mebane Middle School

High: Santa Fe High School

City of Alachua + Planning and Community Development Department PO Box 9 + Alachua, FL 32616 + (386) 418-6121 **Explanation of Student Generation Calculation:** Student Generation is calculated based on the type of residential development and the type of schools. The number of students stations (by school type – Elementary, Middle and High School) used for calculating the school concurrency impacts is equal to the number of dwelling units by housing type multiplied by the student generation multiplier (for housing type & school type) established by the School Board. <u>Calculations are rounded to the nearest whole number</u>. Student Generation for each school type is calculated individually, in order to correctly assess the impact on the School Concurrency Service Area (SCSA) for each school type (Elementary, Middle and High School).

# of Elementary School Student Stations	=	# of housing units	x	Elementary school student generation multiplier
# of Middle School Student Stations	=	# of housing units	x	Middle school student generation multiplier
# of High School Student Stations	=	# of housing units	х	High school student generation multiplier

Student Generation Calculations: Single Family Residential Development

Elementary School	160	units	x	0.15	Elementary School Multiplier*	24	Student Stations**
Middle School	160	units	x	0.07	Middle School Multiplier*	11	Student Stations**
High School	160	units	x	0.09	High School Multiplier*	14	Student Stations**
Student Generation	n Calculat	ions: Mult	i-Fa	mily Resid	dential Development		
Elementary School	40	units	x	.08	Elementary School Multiplier*	3	Student Stations**
Middle School	40	units	х	.03	Middle School Multiplier*	1	Student Stations**
High School	40	units	x	03	High School Multiplier*	1	Student Stations**

* Student generation multipliers may be obtained from SBAC at:

http://www.sbac.edu/pages/ACPS/Departments Programs/DepartmentsAF/D thru F/FacilitiesMainConstr/Local Certification Packe ts/City of Alachua

** Round to the nearest whole number

EXEMPT DEVELOPMENTS (check all that apply):

- Existing legal lots eligible for a building permit.
- Development that includes residential uses that has received final development plan approval prior to the effective date for public school concurrency, or has received development plan approval prior to June 24, 2008, provided the development approval has not expired.
- Amendments to final development orders for residential development approved prior to the effective date of public school concurrency, and which do not increase the number of students generated by the development.
- Age-restricted developments that prohibit permanent occupancy by persons of school age, provided this condition is satisfied in accordance with the standards of the Public Schools Facilities Element or the ILA.
- Group quarters that do not generate public school students, as described in the ILA.

A completeness review of the application will be conducted within 5 business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

A. J. "Jay" Brown, Jr., P.E.

Typed or printed name and title of applicant

Typed or printed name of co-applicant

Signature of Co-applicant

State of Florida

County of Alachua

The foregoing application is acknowledged before me this 31st day of May

2018 by A. J. Brown Jr.

who is/are personally known to me, or who has/have produced

as identification.

Signature of Notary Public, State of

LAURIE L. THOMAS Notary Public - State of Florida Commission # FF 961502 My Comm. Expires Apr 1, 2020

Bonded through Nation Starage Asia hua + Planning and Community Development Department



Certification



THE GOOD LIFE COMMUNITY

This application for a determination of adequacy of public schools to accommodate the public school students generated by the proposed development has been reviewed for compliance with the school concurrency management program and in accordance with the ILA. The following determinations have been made:

□ Approved based upon the following findings:

Capacity Available in Adjacent SCSA

Elementary SCSA:	Capacity Required:			
Capacity Available	Available Capacity:			
Capacity Available in 3 years	Available Capacity:			
Capacity Available in Adjacent SCSA	Available Capacity:			
Middle SCSA:	Capacity Required:			
Capacity Available	Available Capacity:			
Capacity Available in 3 years	Available Capacity:			
Capacity Available in Adjacent SCSA	Available Capacity:			
High SCSA:	Capacity Required:			
Capacity Available	Available Capacity:			
Capacity Available in 3 years	Available Capacity:			

Denied for reasons stated:

Local Government Certification
 Approved by:
 Date:

School Board Staff Certification

Vicki McGrath, Director, Community Planning School Board of Alachua County 352-955-7400 x 1423

Available Capacity:

Date:

ATTACHMENT F:

SKETCH OF LEGAL DESCRIPTION

SYMBOL LEGEND



BOUNDARY LINE ----- TAX PARCEL LINE WETLAND SETBACK LINE **RIGHT-OF-WAY LINE** 4"x4" FOUND CONCRETE MONUMENT 5/8" CAPPED IRON ROD FOUND 5/8" CAPPED IRON ROD SET **RAILROAD SPIKE FOUND** WETLAND FLAG ASPHALT PAVEMENT WETLANDS

ABBREVIATIONS

(D) = DEED(M) = MEASURED IRC = IRON ROD-CAPPED CMON = CONCRETE MONUMENT DIST. = DISTANCE ID = IDENTIFICATION NTS = NOT TO SCALE O.R.B. = OFFICIAL RECORD BOOK P.B. = PLAT BOOK PG. = PAGE P.O.B. = POINT OF BEGINNING P.O.C. = POINT OF COMMENCEMENT PRM = PERMANENT REFERENCE MONUMENT R/W = RIGHT OF WAY

LEGAL DESCRIPTION-(BY THIS FIRM)

That part of the Southwest 1/4 and Southeast 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida, comprised of lands described in O.R.B. 4427, Pg. 373 and O.R.B. 4564, Pg. 460 and O.R.B. 4564, Pg. 462, as recorded in the Public Records of Alachua County, Florida, and being more particularly described as follows:

Commence at the Southeast corner of the Southeast 1/4 of the Southwest 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida, said Southeast 1/4 corner being also the POINT OF BEGINNING; thence South 89 degrees 12 minutes 14 seconds West along the South line of said Southeast 1/4 of the Southwest 1/4 for 1496.73 feet to the Southwest corner of said Southeast 1/4 of the Southwest 1/4; thence North 00 degrees 06 minutes 04 seconds West along the West line of said Southeast 1/4 of the Southwest 1/4 for 1343.16 feet the the Northwest corner of said Southeast 1/4 of the Southwest 1/4; thence continue North 00 degrees 06 minutes 04 seconds West, along said West line for 65.44 feet to a point on the South right of way line of State Road number 235 (100 foot Wide Right-of-Way); thence North 89 degrees 25 minutes 36 seconds East, along said Right-of-Way for 621.33 feet to the Northeast corner of the "Cain" parcel, as per description recorded in Official Records Book 2015, Page 694 of said Public Records; thence South 00 degrees 21 minutes 14 seconds West along the East line of said "Cain" parcel for 67.55 feet to the Southeast corner of said "Cain" parcel and an intersection with the North line of the Southeast 1/4 of the Southwest 1/4; thence North 89 degrees 37 minutes 50 seconds East along said North line for 834.19 feet to an intersection with the West line of Block 1, Range 3 of NEWNANSVILLE SUBDIVISION (unrecorded); thence South 00 degree 24 minutes 49 seconds West along said West line and along the West Right-of-Way line of Wilson Street (50 foot wide Right-of-Way) for 481.50 feet to the Northwest corner of Block 1, Range 4 of said NEWNANSVILLE SUBDIVISION; thence South 89 degrees 17 minutes 50 seconds East along the North line of said Block 1, Range 4 and along the South Right-of-Way line of said Wilson Street for 399.77 feet to the Northeast corner of said block 1, Range 4 and an intersection with the West Right-of-Way line of Magnolia Street (50 foot wide Right-of-Way); thence South 00 degrees 21 minutes 08 seconds West along said West Right-of-Way line and along the East line of said Block 1, Range 4 for 250.06 feet to an intersection with the monumented Westerly Right-of-Way line of Hipp Way (apparent 50 foot wide Right-of-Way); thence South 40 degrees 35 minutes 29 seconds West along said monumented Westerly Right-of-Way line for 180.87 feet; thence South 25 degrees 25 minutes 52 seconds West along said monumented Westerly Right-of-Way line for 12.29 feet to an intersection with the South line of said Block 1, Range 4 and an intersection with the North Right-of-Way line of an unnamed street (50 foot wide Right-of-Way); thence North 89 degrees 17 minutes 50 seconds West along said South line and along said North Right-of-Way line for 278.15 feet to the Southwest corner of said Block 1, Range 4; thence South 00 degrees 24 minutes 49 seconds West along the the West Right-of-Way line of said unnamed street for 50.00 feet to the Northwest corner of Block 1, Range 5 of said Newnansville Subdivision; thence South 89 degree 17 minutes 50 seconds East along the North line of said Block 1, Range 5 and along the South Right-of-Way line of said unnamed street for 254.87 feet to an intersection with said monumented Westerly Right-of-Way line; thence South 25 degrees 25 minutes 52 seconds West along said Westerly monumented Right-of-Way line for 439.95 feet to an intersection with the South line of the Southeast 1/4 of said Section 11; thence North 89 degrees 21 minutes 00 seconds West along said South line for 15.48 feet to said POINT OF BEGINNING

Together with that part of said Block 1, Range 4 lying Easterly of the monumented Easterly Right-of-Way line of said Hipp Way.



ATTACHMENT G:

PROOF OF OWNERSHIP

RECORDED IN OFFICIAL RECORDS INSTRUMENT # 3096741 2 PG(S) December 18, 2017 11:52:35 AM Book 4564 Page 462 J.K.'JESS' IRBY Clerk Of Court ALACHUA COUNTY, Florida

Doc Stamp-Deed: \$28.0 \$28.00

This Document Prepared By and Return to: Darryl J. Tompkins, Esquire Darryl J. Tompkins, P.A. 14420 NW 151st Blvd. P.O. Box 519 Alachua, FL 32616

Parcel ID Number: 03130-007-000 (portion of)

Warranty Deed

This Indenture, Made this 15th day of December , 2017 A.D., Between Winston L. Dority and Angela Dority, husband and wife of the County of Alachua , State of Florida , grantors, and Bentley Timber, LLC, a Florida limited liability company

whose address is: 16860 Silver Oak Circle, Delray Beach, FL 33445

of the County of
WitnessethPalm BeachState of Florida, grantee.Witnesseththat the GRANTORS, for and in consideration of the sum ofState of Florida, grantee.

and other good and valuable consideration to GRANTORS in hand paid by GRANTEE, the receipt whereof is hereby acknowledged, have granted, bargained and sold to the said GRANTEE and GRANTEE'S heirs, successors and assigns forever, the following described land, situate, lying and being in the County of **Alachua** State of **Florida** to wit:

See Exhibit "A" attached hereto.

SUBJECT TO THE FOLLOWING:

- A. Zoning restrictions, prohibitions and other requirements imposed by governmental authority;
- B. Restrictions and matters appearing on the plat and/or in the public records of Alachua County, Florida; provided, however, the reference herein shall not be deemed to reimpose same;
- C. Taxes for the year 2018 and subsequent years.

and the grantors do hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

In Witness Whereof, the grantors have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered in our presence:

Printed Mame: Darryl J. Tompkins Witness

Printed Name: Sandra E. Howe Witness

STATE OF FLORIDA COUNTY OF ALACHUA

(Seal) Winston L. Dority

P.O. Address: 13508 W. State Road 235, Alachua

LN O (Seal) Angela (Dority

P.O. Address: 13508 W. State Road 235, Alachua, FL 32615

The foregoing instrument was acknowledged before me this 15th day of December , 2017 by Winston L. Dority and Angela Dority, husband and wife

who are personally known to me or who have produced their Flori	da driver's license as identification
Notary Public State of Stores	Der Calloure
Sandra E. Howe	Printed Name: Sandra E. Howe
Expires 11/15/2021	Notary Public
«·······»	My Commission Expires: 11/15/21

EXHIBIT "A"

That portion of the following described lands lying Southerly of State Road 235:

Parcel One: The NE (1/4) of the SW (1/4) of Section 11, Township 8 South, Range 18 East: Commence at the SW corner of said parcel and run Easterly along the Southern boundary thereof 217.89 feet, thence North parallel to the West boundary to the North line of said parcel, thence Westerly along the North boundary 223.36 feet to the NW corner of said parcel, thence South along the West boundary to the Point of Beginning.

LESS AND EXCEPT those lands conveyed to Clarence H. Johnson in Official Records Book 413, Page 317, of the Public Records of Alachua County, Florida.

03130-004-000, 03130-008-000, 03135-000-000 Proof of Ownership



This Instrument Prepared by: Nancy Reiland GULLETT TITLE, INC. 401 Saint Johns Avenue Palatka, Florida 32177-4724

Property Appraisers Parcel Identification (Folio) Numbers: 03135,000,000 & 03130-004-000 & 03130-008-000

RECORDED IN OFFICIAL RECORDS

INSTRUMENT# 2990798

5/2/2016 4:06 PM BOOK 4427 PAGE 373 J. K. IRBY Clerk of the Court, Alachua County, Florida ERECORDED Receipt # 710795 Doc Stamp-Mort: \$0.00 Doc Stamp-Deed: \$1,286.60 Intang. Tax: \$0.00

PG(S)

Florida Documentary Stamps in the amount of **\$1,286.60** have been paid hereon. SPACE ABOVE THIS LINE FOR RECORDING DATA

THIS LIMITED WARRANTY DEED, made and executed the 29th day of April, 2016 by REO FUNDING SOLUTIONS V, LLC, a Georgia limited liability company, having its principal place of business at 3424 Peachtree Rd NE Ste 1775, Atlanta, GA 30326, hereinafter called the Grantor, to BENTLEY TIMBER LLC, a Florida limited liability company, whose post office address is: 16860 Silver Oak Circle, Delray Beach, FL 33445, hereinafter called the Grantee:

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH: Grantor, for and in consideration of the sum of TEN AND 00/100'S (\$10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, does grant, bargain, sell, alien, remise, release, convey and confirms to Grantee, its heirs, and assigns forever, the following described land, situate, lying and being in Alachua County, State of Florida, to wit:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

TOGETHER, with all the tenements, hereditaments, and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND Grantor covenants with Grantee that it is lawfully seized of the property in fee simple, that is has good right and lawful authority to sell and convey the property; that the premises are free from all encumbrances made by Grantor, and Grantor does bind Grantor and Grantor's heirs, successors, and assigns to warrant and forever defend the title to the property to the Grantee above named and Grantee's heirs, successors, and assigns, against every person lawfully claiming the property, or any part thereof, by, through, or under the Grantor, but not otherwise; and that the land is free of all encumbrances except taxes for the year 2016 and those instruments, liens and encumbrances appearing of record as well as all zoning and governmental ordinances and regulations applying to the real property.

IN WITNESS WHEREOF, Grantor has set his/her hand and seal the day and year first above written.

Signed, sealed and delivered in the presence of:

um Witness #1 Signature Witness #1 Printed Name

Witness #2 Signature MANC WHITS

Witness #2 Printed Name

REO FUNDING SOLUTIONS V, LLC, a Georgia limited liability company

- BY: CASTLELAKE III GP, L.P., a Delaware limited liability partnership
- **ITS: Managing Member**

~ A

By: Judd Gilats NAME: Vice President TITLE:

STATE OF MINNESOTA COUNTY OF HENNEPIN

The foregoing instrument was acknowledged	before me this 70 day of April, 2016, by as of CASTLELAKE
III GP, U.P. as Managing Member of REO FUN	IDING SOLUTIONS V, LLC, a Georgia limited liability
company. He/she is personally known to me or	r has producedas
identification.	Manual 10 and bet
SEAL HANNAH MARIE PATZER Notary Public - Notarial Seal	(Hanney I power of
My Commission Expires January 31, 2020	Printed Notary Signature
1/31/2020	

EXHIBIT "A"

LEGAL DESCRIPTION

That part of the Southwest 1/4 and Southeast 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida, being more particularly described as follows:

Commence at the Southeast corner of the Southeast 1/4 of the Southwest 1/4 of Section 11, Township 8 South, Range 18 East, Alachua County, Florida; thence South 89 degrees 12 minutes 14 seconds West along the South line of said Southeast 1/4 of the Southwest 1/4 for 1496.73 feet to the Southwest corner of said Southeast 1/4 of the Southwest 1/4; thence North 00 degrees 06 minutes 04 seconds West along the West line of said Southeast 1/4 of the Southwest 1/4 for 1343.16 feet to the Northwest corner of said Southeast 1/4 of the Southwest 1/4; thence North 89 degrees 37 minutes 50 seconds East along the North line of said Southeast 1/4 of the Southwest 1/4 for 174.89 feet to an intersection with the West line of the "W.R. Cain" seconds parcel as per description recorded in Official Records Book 413, Page 317, of the Public Records of said Alachua County; thence North 00 degrees 08 minutes 59 seconds West along said West line for 53.00 feet to the Northwest corner of said "W.R. Cain" parcel; thence North 89 degrees 37 minutes 50 seconds East along the North line of said "W.R. Cain" parcel for 43.00 feet to and intersection with the Westerly line of the "Wallace R. Cain" parcel as per description recorded in Official Records Book 1178, Page 167 of said Public Records; thence North 00 degrees 00 minutes 57 seconds East along said Westerly line for 13.11 feet to the Northwest corner of said "Wallace R. Cain" parcel and an intersection with the South Right-of-Way line of State Road number 235 (100 foot Wide Right-of-Way); thence North 89 degrees 25 minutes 36 seconds East along said South Right-of-Way line and along the North line of said "Wallace R. Cain" parcel for 195.86 feet to the Northeast corner of said "Wallace R. Cain" parcel; thence South 00 degrees 00 minutes 57 seconds West along the East line of said "Wallace R. Cain" parcel for 66.81 feet to the Southeast corner of said "Wallace R. Cain" parcel and an intersection with said North line of the Southeast 1/4 of the Southwest 1/4; thence North 89 degrees 37 minutes 50 seconds East along said North line for 22.01 feet to the Southwest corner of the "Cain" parcel as per description recorded in Official Records Book 2015, Page 694 of said Public Records; thence North 00 degrees 21 minutes 14 seconds East along the West line of said "Cain" parcel for 66.89 feet to the Northwest corner of said "Cain" parcel and an intersection with said South Right-of-Way line; thence North 89 degrees 25 minutes 36 seconds East along said South Right-of-Way line and along the North line of said "Cain" parcel for 185.47 feet to the Northeast corner of said "Cain" parcel; thence South 00 degrees 21 minutes 14 seconds West along the East line of said "Cain" parcel for 67.55 feet to the Southeast corner of said "Cain" parcel and an intersection with said North line of the Southeast 1/4 of the Southwest 1/4; thence North 89 degrees 37 minutes 50 seconds East along said North line for 834.19 feet to an intersection with the West line of Block 1, Range 3 of NEWNANSVILLE SUBDIVISION (unrecorded); thence South 00 degrees 24 minutes 49 seconds West along said West line and along the West Right-of-Way line of Wilson Street (50 foot wide Right-of-Way) for 481.50 feet to the Northwest corner of Block 1, Range 4 of said NEWNANSVILLE SUBDIVISION; thence South 89 degrees 17 minutes 50 seconds East along the North line of said Block 1, Range 4 and along the South Right-of-Way line of said Wilson Street for 399.77 feet to the Northeast corner of said Block 1, Range 4 and an intersection with the West Right-of-Way line of Magnolia Street (50 foot wide Right-of-Way); thence South 00 degrees 21 minutes 08 seconds West along said West Right-of-Way line and along the East line of said Block 1, Range 4

for 250.06 feet to an intersection with the monumented Westerly Right-of-Way line of Hipp Way (apparent 50 foot wide Right-of-Way); thence South 40 degrees 35 minutes 29 seconds West along said monumented Westerly Right-of-Way line for 180.87 feet; thence South 25 degrees 25 minutes 52 seconds West along said monumented Westerly Rightof-Way line for 12.29 feet to an intersection with the South line of said Block 1, Range 4 and an intersection with the North Right-of-Way line of an unnamed street (50 foot wide Right-of-Way); thence North 89 degrees 17 minutes 50 seconds West along said South line and along said North Right-of-Way line for 278.15 feet to the Southwest corner of said Block 1, Range 4; thence South 00 degrees 24 minutes 49 seconds West along the West Right-of-Way line of said unnamed street for 50.00 feet to the Northwest corner of Block 1, Range 5 of said Newnansville Subdivision; thence South 89 degrees 17 minutes 50 seconds East along the North line of said Block 1, Range 5 and along the South Rightof-Way line of said unnamed street for 254.87 feet to an intersection with said monumented Westerly Right-of-Way line; thence South 25 degrees 25 minutes 52 seconds West along said Westerly monumented Right-of-Way line for 439.95 feet to an intersection with the South line of the Southeast 1/4 of said Section 11; thence North 89 degrees 21 minutes 00 seconds West along said South line for 15.48 feet to said POINT OF BEGINNING.

TOGETHER WITH that part of said Block 1, Range 4 lying Easterly of the monumented Easterly Right-of-Way line of said Hipp Way.

This Document Prepared By and Return to: Darryl J. Tompkins, Esquire Darryl J. Tompkins, P.A. 14420 NW 151st Blvd. P.O. Box 519 Alachua, FL 32616

Parcel ID Number: 03130-009-000





Special Warranty Deed

This Indenture, Made this 24rday of February, 2017 A.D., Between

Robert F. Crane, Jr. and John D. Zuidema, Jr., Individually and as Successor Co-Trustees of that certain Testamentary Trust under the Will of Robert F. Crane, deceased, for benefit of Stewart Crane and Stewart R. Crane and William E. Cellon, Jr., Individually and as Successor Co-Trustees of that certain Testamentary Trust under the Will of Robert F. Crane, deceased, for benefit of Robert F. Crane, Jr.

of the County of Alachua, State of Florida, grantor, and

Bentley Timber, LLC, a Florida limited liability company whose address is: 16860 Silver Oak Circle, Delray Beach, FL 33445 of the County of Palm Beach, State of Florida, grantee.

Witnesseth that the GRANTOR, for and in consideration of the sum of

------ DOLLARS (\$10)------ DOLLARS (\$10)------ DOLLARS, and other good and valuable consideration to GRANTOR in hand paid by GRANTEE, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said GRANTEE and GRANTEE'S heirs, successors and assigns forever, the following described land, situate, lying and being in the County of Alachua State of Florida to wit:

SEE EXHIBIT "A" ATTACHED HERETO

SUBJECT TO THE FOLLOWING:

- A. Zoning restrictions, prohibitions and other requirements imposed by governmental authority; and
- B. Restrictions and matters appearing on the plat and/or in the public records of Alachua County, Florida; provided, however, the reference herein shall not be deemed to reimpose same; and
- C. Taxes for the year 2017 and subsequent years.

Neither the Successor Trustee(s) named herein, nor the spouse(s) thereof or anyone for whose support they are responsible reside on or adjacent to the property herein described and is not therefore their homestead property.

Together with all tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenant with said grantee that grantor is lawfully seized of said land in fee simple; that grantor has good right and lawful authority to sell and convey said land; that grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all person claiming by, through or under grantor.

Co-Trustee

In Witness Whereof, the grantor has hereunto set its hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Printed Name: Darryl J. Tompkins

Printed Name: Sandra E. Howe

STATE OF FLORIDA COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me this 22nd day of February, 2017, by Robert F. Crane, Jr., Individually and as Successor Co-Trustee of the Testamentary Trust Under the Will of Robert F. Crane, deceased, for the benefit of Stewart Crane, on behalf of the Florida Trust, who is personally known to me or who has produced his Florida driver's license as identification.

Robert F. Crane, Jr., Individually and as Successor

Printed Name: Sandra E. Howe Notary Public My Commission Expires: 11/15/2017



Printed Name: Darryl J. Tompkins

John & Zucham 6

John D. Zuidema, Jr., Individually and as Successor Co-Trustee

Printed Name: Sandra E. Howe

STATE OF FLORIDA COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me this 22nd day of February, 2017, by John D. Zuidema, Jr., Individually and as Successor Co-Trustee of the Testamentary Trust Under the Will of Robert F. Crane, deceased, for the benefit of Stewart Crane, on behalf of the Florida Trust, who is personally known to me or who has produced his Florida driver's license as identification.



Printed Name: Sandra E. Howe Notary Public My Commission Expires: 11/15/2017

Printed Name: 100 Huckabee IV ß

Stewart R. Crane, Individually and as Successor Co-Trustee

Printed Rame Name

STATE OF NORTH CAROLINA

The foregoing instrument was acknowledged before me this 24 day of February, 2017, by Stewart R. Crane, Individually and as Successor Co-Trustee of the Testamentary Trust Under the Will of Robert F. Crane, deceased, for the benefit of Robert F. Crane, Jr., on behalf of the Florida Trust, who is personally known to me or who has produced his ________as identification.



Printed Name: Cynth. AS.

Notary Public My Commission Expires: 12/9/21

6M PRINS Printed Name

E. Certand

William E. Cellon, Jr., Individually and as Successor Co-Trustee

How Printed Name: Soundra'E

STATE OF FLORIDA COUNTY OF <u>ALACHL'A</u>

The foregoing instrument was acknowledged before me this 23^{-4} day of February, 2017, by William E. Cellon, Jr., Individually and as Successor Co-Trustee of the Testamentary Trust Under the Will of Robert F. Crane, deceased, for the benefit of Robert F. Crane, Jr., on behalf of the Florida Trust, who is personally known to me or who has produced his Florida driver's license as identification.



Printed Name: Southdra F

Notary Public My Commission Expires: <u>11 / 15 / 2017</u>

EXHIBIT "A"

THAT PORTION OF THE FOLLOWING DESCRIBED LANDS LYING SOUTH OF STATE ROAD NO. 235:

A TRACT OF LAND SITUATED IN THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE AFOREMENTIONED NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, FOR A POINT OF REFERENCE AND RUN N. 89 DEG.34'45" E., ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4 OF THE SOUTHWEST 1/4. A DISTANCE OF 435.78 FEET TO THE SOUTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND RECORDED IN OFFICIAL RECORDS BOOK 948, AT PAGE 498 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND THE TRUE POINT OF BEGINNING; THENCE RUN N. 00 DEG.18'31" E., A DISTANCE OF 1340.20 FEET TO THE NORTHWEST CORNER OF SAID PARCEL OF LAND. SAID CORNER LOCATED ON THE NORTH LINE OF THE AFOREMENTIONED NORTHEAST 1/4 OF THE SOUTHWEST 1/4 AND BEING 446.72 FEET EAST OF THE NORTHWEST CORNER OF SAID NORTHEAST 1/4 OF THE SOUTHWEST 1/4: THENCE RUN S. 89 DEG.56'56" E. ALONG SAID NORTH LINE, A DISTANCE OF 195.05 FEET; THENCE RUN S. 00 DEG.09'33" E., A DISTANCE OF 1271.00 FEET TO THE SOUTH RIGHT OF WAY LINE OF COUNTY ROAD NO. 235 (100 FOOT RIGHT OF WAY); THENCE RUN S. 00 DEG.09'33" E., A DISTANCE OF 67.43 FEET TO THE AFOREMENTIONED SOUTH LINE OF SAID NORTHEAST 1/4 OF THE SOUTHWEST 1/4; THENCE RUN S. 89 DEG.34'45" W., ALONG SAID SOUTH LINE, A DISTANCE OF 185.46 FEET TO THE TRUE POINT OF BEGINNING. LESS THE RIGHT OF WAY FOR COUNTY ROAD NO. 235 (100 FOOT RIGHT OF WAY).

RECORDED IN OFFICIAL RECORDS INSTRUMENT # 3096740 2 PG(S) December 18, 2017 11:52:35 AM Book 4564 Page 460 J.K.'JESS' IRBY Clerk Of Court ALACHUA COUNTY, Florida



This Document Prepared By and Return to: Darryl J. Tompkins, Esquire Darryl J. Tompkins, P.A. 14420 NW 151st Blvd. P.O. Box 519 Alachua, FL 32616

Parcel ID Number:

Quitclaim Deed

This Quitclai Ernest F.	im Deed, N Dority,	lade this 15th a married n	day of E nan	ecember	, 2017	A.D., Between	
of the County of Bentley I	Alachua 'imber, L	LC, a Floric	, la limite	State of E ed liability	'lorida y company	, grantor,	and
whose address is:	16860 Si	lver Oak Ci	rcle, De	lray Beach,	FL 33445		
of the County of	Palm Bea	ch	,	State of E	'lorida	, grantee.	
Witnesseth	that the GRANT	OR, for and in consideration	ion of the sum of				
and other goo granted, bargain lying and being	od and valuable ned and quitclaim g in the County of	consideration to GRA consideration to GRA ed to the said GRANTE Alachua	DOLLLARS NTOR in hand E and GRANTEE	paid by GRANTEE, S'S heirs, successors ar State of E	the receipt where d assigns forever, th 'lorida	of is hereby acknowledged, e following described land, sit to wit:	ARS, has tuate,

See Exhibit "A" attached hereto.

SUBJECT TO THE FOLLOWING:

- Zoning restrictions, prohibitions and other requirements imposed Α. by governmental authority;
- Restrictions and matters appearing on the plat and/or in the в. public records of Alachua County, Florida; provided, however, the reference herein shall not be deemed to reimpose same;
- С. Taxes for the year 2018 and subsequent years.

The land described herein is not the homestead of the grantor(s), and neither the grantor(s) nor the grantor(s) spouse, nor anyone for whose support the grantor(s) is responsible, resides on or adjacent to said land.

To Have and to Hold the same together with all and singular the appurtenances thereunto belonging or in anywise appertaining, and all the estate, right, title, interest, lien, equity and claim whatsoever of grantor, either in law or equity, for the use, benefit and profit of the said grantee forever.

In Witness Whereof, the grantor has hereunto set his hand and seal the day and year first above written

Signed, sealed and delivered in our presence:

Printed Name ; Darryl J. Tompkins Witness

The foregoing instrument was acknowledged before me this

Ernest F. Dority, a married man

Printed Name: Sandra E. Howe Witness

STATE OF FLORIDA COUNTY OF ALACHUA

(Seal) Érnest F. Dority

December

,2017

by

P.O. Address: 13510 NE 136th Place, Waldo, FL 32694

who is personally known to me or who has produced his **Florida** driver's license as identification Notary Public State of Florida 10 Sandra E. Howe My Commission GG 126635 Expires 11/15/2021 Printed Name: Sandra E. Howe Notary Public My Commission Expires: 11/15/21

15th

day of

EXHIBIT "A"

That portion of the property described in Official Records Book 948, Page 504 of the Public Records of Alachua County, Florida and described below lying Southerly of State Road 235:

PARCEL ONE: The NE 1/4 of the SW 1/4 of Section 11, Township 8 South, Range 18 East; Commence 217.89 feet East of the SW corner of said parcel and run Easterly along the Southern boundary thereof 217.89 feet, thence North parallel to the West boundary to the North line of said parcel, thence Westerly along the North boundary 223.36 feet, thence South along the West boundary to the Point of Beginning, all lying and being in Alachua County, Florida.
ATTACHMENT H:

PROOF OF PAYMENT OF TAXES



2017 Roll Details — Real Estat	e Account At L	Jnassigned	d Locatior	n RE		Print this page
eal Estate Account #03130 004 000		Parc	el details	Latest bill	Full bill history	
2017	2016	2015	2014		2002	
PAID	PAID	PAID	PAID		PAID	
apply for the 2018 Installment Paymen	t Plan					
		Get Bills by E	Email			
	PAI	D 2017-11-08	6125.38			
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ATTACHMENT I:

PD ZONING MASTER PLAN DRAWING SET

ATTACHMENT J:

ENVIRONMENTAL STUDIES

TOLOSA PD

Environmental Assessment and Listed Species Survey

Alachua County Parcel Number: 03135-000-000

December 2018 - revision

Prepared for: J Brown Professional Group



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APPENDICES

Appendix A: FNAI Biodiversity Matrix Query

PROJECT OVERVIEW

Verde Environmental Co. (Verde) was retained by J. Brown Professional Group to complete an environmental assessment and listed species survey of the Tolosa PD property (Alachua County Parcel No. 03135-000-000). The parcel is an undeveloped 50.45-acre (more or less) tract of land located along State Road 235 in the City of Alachua, Alachua County, Florida. This assessment documents the natural communities and the presence of, or potential for, listed wildlife or plant species within the Tolosa PD property in fulfillment of the City of Alachua's land development ordinances, Specifically Sub Part B, Sections 2.4.3, 3.6.2, 3.6.3, and 6.9. Listed species include wildlife and plant species listed as Endangered, Threatened, or Species of Special Concern listed in rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C., and in 50 Code of Federal Regulations 17.12. The condition of onsite habitat and potential wildlife use was evaluated by conducting field site visits and reviewing pertinent databases maintained by the Florida Natural Areas Inventory (FNAI), Alachua County, the Suwannee River Water Management District (SRWMD), and the Florida Fish and Wildlife Conservation Commission (FWC) for land cover, listed species habitat, anticipated wildlife utilization and documented occurrences of rare species or community types on or adjacent to the property.

PROJECT LOCATION

The Tolosa PD property is located immediately south of State Road 235 (SR 235), approximately one mile north-northeast of the intersection of SR 235 and US Highway 441 in Alachua, Florida (Figure 1). The subject parcel is more specifically located between SR 236 to the north, 158th Street to the south, a powerline easement (including a portion of the Northwest 135th Terrace Right-of-Way) to the west, and Hipp Way to the east. The surrounding landscape consists almost entirely of residential land uses. The Tolosa PD property is currently managed for timber production.

METHODOLOGY

A Verde scientist visited the site on October 17, 2017, January 31, 2018 and July 2, 2018. During these site visits, the property was thoroughly traversed on foot. The condition of onsite habitats, existing community structure, and direct or indirect observations (i.e., scat, tracks, burrows, nests, etc.) of listed species and the extent of potential habitats were recorded. Verde scientists evaluated onsite vegetative communities in accordance with the Florida Land Use, Cover, and Forms Classification System (FLUCFCS, FDOT 1999). A site specific Florida Natural Area Inventory (FNAI) Biodiversity Matrix Query was obtained for the property and adjacent areas (Appendix A). The results of the query were reviewed to determine the potential for listed species on and around the Tolosa PD property.

RESULTS AND DISCUSSION

Landscape and Hydrology

The Tolosa PD property primarily slopes down from east to west with elevations ranging from approximately 145 to 90 ft-NAVD. The high point of the site is located near the eastern boundary. From here, the topography slopes down to the south, east, and northeast (Figure 2). An unnamed ephemeral creek bisects the northwest corner of the property. This creek originates offsite to the north and flows onto the property via a culvert located under SR 235. The creek then flows west-southwest toward an offsite wetland located on the adjacent parcel to the west. The lower lying

areas within and adjacent to the creek support a hardwood swamp community. Except for runoff from SR 235 and creek flow through the associated culvert, onsite hydrologic conditions are largely associated with direct rainfall. There are no Special Flood Hazard Areas mapped within the Tolosa PD property.

Soils

The Natural Resources Conservation Service (NRCS) has mapped eleven soil types within the subject parcel (Figure 3). All onsite soils are characterized as sand or fine sand. The soil drainage classes range from well drained (Arredondo, Fort Meade, Kendrick, and Gainesville) to very poorly drained (Pomona). Very little to no change in habitat type was observed between soil types, although the creek and associated wetlands were mostly associated with the Pomona fine sand.

Land Use and Natural Communities

Verde scientists classified/verified three different land cover types within the Tolosa PD property (Figure 4). These three land cover classifications include upland conifer forest (4100), upland hardwood conifer mixed (4340), and stream and lake swamp/bottomland (6150). Adjacent offsite land use/cover also includes various residential land uses (FLUCFCS 1110, 1130, and 1230) in addition to the three types found onsite. The habitats observed onsite are common within the landscape surrounding the property, and their condition and species composition is as expected for forested habitats near residential land uses. Each onsite community is discussed in more detail below.

Upland Conifer Forest (FLUCFCS 4100)

This habitat occupies areas of higher elevation within the center and east portions of the Tolosa PD property and represents more than half of the entire project area. Historically, this habitat was managed as improved pasture, but active management ceased in the mid-1990s and a forest community began to naturally establish itself. Prior to recent tree harvesting work, this community was characterized by a closed canopy and relatively open understory. The canopy was dominated by loblolly pine (*Pinus taeda*). Co-dominant canopy species included laurel oak (Quercus laurifolia), live oak (Quercus virginiana), pignut hickory (Carya glabra), sweetgum (Liquidambar styraciflua), black cherry (Prunus serotina), and camphor tree (Cinnamomum *camphora*). The sparsely vegetated understory and groundcover strata were dominated by common persimmon (Diospyros virginiana), green briar (Smilax sp.), woods grass (Oplismenus setarius), sedges (Carex sp.), wood sorrel (Oxalis corniculata), beggar tick (Bidens alba), coral ardisia (Ardisia crenata), goldenrod (Solidago sp.), American beauty berry (Callicarpa americana), blackberry (Rubus sp.), grapevine (Vitis sp.), and various canopy tree saplings and seedlings. Most of the canopy trees were harvested after the October 2017 site visit and before January 31, 2018. A scattering of canopy trees remains, but the area is now dominated by moderately dense understory and groundcover strata comprised of tree saplings, American beauty berry, green briar, blackberry, goldenrod, Florida betony (Stachys floridana), beggar tick, coral ardisia, sedges, wood sorrel, and grapevine.

The upland conifer forest provides fair value to local wildlife. Although the forest was not intensively managed compared to a typical pine plantation, the age/size structure of the canopy trees was similar to an even-aged plantation and the forest generally lacked large canopy trees preferred for nesting. The sparse understory and groundcover strata provided minimal cover and foraging value, although there was a fair amount of mast for browsing wildlife. While the habitat

does now provide additional cover and forage value following the recent harvest, it still lacks large canopy trees.

Upland Hardwood Forest (FLUCFCS 4340)

The upland hardwood forest is found at slightly lower elevations around the property's perimeter. Like the conifer forest community described above, this habitat is also characterized by a closed canopy and relatively open understory. The canopy is dominated by a mixture of laurel oak, live oak, hickory, black cherry, sweetgum, southern magnolia (*Magnolia grandiflora*), chinaberry (*Melia azedarach*), and camphor tree. The understory and groundcover is dominated by coral ardisia, Florida betony, green briar, common persimmon, wood sorrel, woods grass, partridge berry (*Mitchella repens*), American pokeweed (*Phytolacca americana*), American beauty berry, and various tree saplings. The upland hardwood forest provides fair or moderate value to local wildlife. The canopy does include a mix of larger trees suitable for nesting, but the understory and groundcover strata provide minimal cover and foraging value do to an increased abundance of non-native and invasive species.

Stream and Lake Swamp/Bottomland (FLUCFCS 6150)

This habitat is a narrow feature associated with the ephemeral creek that bisects the northwest corner of the property. The upper half of the creek consists of a sinuous channel with steep banks and a narrow riparian wetland habitat along the creek's edge. The creek and wetland widen as one moves downstream eventually developing multiple flow channels within a broader bottomland forest near the western property boundary. This creek and wetland habitat is dominated by sweetgum, sugarberry (*Celtis laevigates*), red maple (*Acer rubrum*), southern magnolia, laurel oak, pignut hickory, Carolina ash (*Fraxinus caroliniana*), Chinaberry, coral ardisia, trumpet creeper (Campsis radicans), Walter's viburnum (*Viburnum obovatum*), green briar, woods grass, wood sorrel, smooth beggar tick (*Bidens laevis*), maiden fern (*Thelypteris* sp.), American pokeweed, sedges, and goldenrod. The upper reaches of the stream and bottomland habitat provide similar habitat value as the upland hardwood forest discussed above. The lower third of this wetland (after the habitat widens) provides higher nesting, foraging, and cover value sufficient for most local wildlife species do to an increase in small openings in the canopy capable of supporting a denser groundcover stratum. However, even here, the value is less than optimal due to an abundance of invasive species.

Wildlife Utilization

Verde scientists observed (directly or indirect evidence of) white tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), pileated woodpecker (*Dryocopus pileatus*), eastern gray squirrel (*Sciurus carolinensis*), and nine-banded armadillo (*Dasypus novemcinctus*) during site visits to the property. Provided the property's location and condition of onsite habitats, there is potential for Virginia opossum (*Didelphis virginiana*), turkey (*Meleagris gallopavo*), cottonmouth (*Agkistrodon piscivorus*), black racer (*Coluber constrictor*), and various other woodpeckers, songbirds, small mammals, reptiles, and amphibians to also utilize the site.

Listed Plant Species and Their Habitats

No listed plant species or their preferred habitats were observed on site. The site-specific FNAI Biodiversity Matrix Query identified five State-listed plant species as potentially occurring in the area. These include the incised groove-bur (*Agrimonia incisa*), many-flowered grass-pink (*Calopogon multiflorus*), Florida spiny-pod (*Matelea floridana*), Florida mountain-mint

(*Pycnanthemum floridanum*), and silver buckthorn (*Sideroxylon alachuense*), all of which are listed as either Endangered or Threatened in the State of Florida. Species are returned as "potentially occurring" if the queried area is located within the known range of the species but no individuals have been documented on the property or within the local landscape. Although the Tolosa PD property is located within the accepted range of these five listed plant species, it is unlikely that they would be found onsite due to a lack of suitable habitat and current and past land management practices. The habitat requirements of these five species are discussed in more detail below.

Incised Groove-Bur (Threatened: State)

This species is primarily observed in fire-maintained pine-oak forests. Periodic fires within these habitats maintain a moderately open canopy with small forest openings dominated by a dense groundcover stratum of forbs and grasses. Occasionally, these forest openings can develop because of natural canopy tree mortality or windfall if a suitable seedbank exists (i.e. as long as the seed bank includes forb and graminoid species, rather than consisting primarily of tree and vine species). It is unlikely that incised groove-bur would be found onsite due to lack of habitat and absence of periodic fires.

Many-Flowered Grass-Pink (Threatened: State)

The Tolosa PD property does not provide suitable habitat for the many-flowered grass-pink. This species is most often found within flatwoods habitats (both mesic and wet flatwoods) in association with longleaf pine (*Pinus palustris*), saw palmetto (*Serenoa repens*), three-awn-grass (*Aristida* sp.), and various other forb and graminoid species. Flatwoods habitats are typically characterized as a pyrogenic community with an open canopy, sparse understory and dense groundcover stratum. This habitat type is lacking on the Tolosa PD property and the upland conifer forest described above is not suitable habitat for the many-flowered grass-pink.

Florida Spiny-Pod (Endangered: State)

This species can potentially be found within a variety of habitats ranging from mesic hammock to dry hardwood or mixed hardwood-conifer forests, often in association with recently formed canopy openings. However, it is unlikely that the Florida spiny-pod would be found onsite. The Florida spiny-pod would not be found within improved pasture, which much of the site was managed as prior to the 1990s, thus the species would not be expected to be found in the existing seed bank, Furthermore, the forest communities that have developed following the cessation of ranching is too young to have developed into an uneven age forest that would provide a mix of canopy trees and scattered forest openings.

<u>Florida Mountain-Mint (Threatened: State)</u>

The Florida mountain-mint is primarily found in wet flatwoods, openings in wetland forests, or edges along swamps. The species is also occasionally association within floodplains or stream banks, where openings in the canopy support a dense groundcover stratum. Potential habitat for this species does exist in the lower third of the onsite wetland (FLUCFCS 6150), where the ephemeral creek and associated wetland widens. However, it is unlikely that the Florida mountain-mint would be found on the Tolosa PD property due to the increased prevalence of invasive plant species. The wetland canopy openings observed in the field supported a groundcover stratum dominated by coral ardisia.

<u>Silver Buckthorn (Endangered: State)</u>

The Tolosa PD property does not provide suitable habitat for the silver buckthorn. This species is found within calcareous upland forests, most often around limestone sinks or shell middens. No sink holes were observed on the Tolosa PD property.

Listed Wildlife Species and Their Habitats

No listed animal species were observed during this environmental assessment. The FNAI Biodiversity Matrix Query returned one listed species, The Eastern indigo snake (*Drymarchon couperi*), as likely occurring within the area (i.e. the snake has been documented near, but not on the property or adjacent parcels). The matrix query also identified the Florida burrowing owl (*Athene cunicularia floridana*), short-tailed snake (*Lampropeltis extenuata*), gopher tortoise (*Gopherus polyphemus*), Florida pine snake (*Pituophis melanoleucus mugitus*), Florida sandhill crane (*Grus canadensis pratensis*), gopher frog (*Rana capito*), Florida mouse (*Podomys floridanus*), and Sherman's fox squirrel (*Sciurus niger shermani*) as species that could potentially be found in the area.

These species returned by the FNAI Biodiversity Matrix Query would not likely utilize the property to any significant extent due to current property management, the property's proximity to residential land uses, and general lack of preferred habitat. The habitat requirements of each species, and their potential to be found onsite, is discussed in more detail below.

Eastern Indigo Snake (Threatened: Federal and State)

There is little potential for indigo snakes to occupy this site due to the lack of suitable habitat on the property. Although the species commonly feeds in wetlands during summer months, indigo snakes require burrows within sandy, upland habitats for overwintering. Indigo snakes are most often observed as commensal species with gopher tortoises, utilizing tortoise burrows during winter months. The lack of tortoise burrows on the property decreases the likelihood of indigo snakes utilizing the property's habitats.

Florida Burrowing Owl (Species of Special Concern: State)

Utilization of the property by burrowing owls is unlikely due to the lack of high, well drained, sparsely vegetated sandy habitat such as dry prairie and sandhill. Burrowing owls are also often found in ruderal habitats (e.g. pastures, airports, vacant fields, and road right-of-ways) provided the area has a sparsely vegetated canopy or the canopy is entirely absent. The forested upland habitats found onsite are not conducive to supporting burrowing owl populations.

<u>Short-Tailed Snake (Threatened: State)</u>

The short-tailed snake prefers dry sandhill, xeric hammock, sand pine scrub or other similar sandy habitats with a relatively open or absent canopy. This type of habitat is not found on the Tolosa PD property; thus, it is unlikely that short-tailed snakes would be found onsite.

Gopher Tortoise (Threatened: State)

No gopher tortoises were observed during the site visit and it is unlikely that tortoises would utilize any portion of the property. Tortoises prefer dry, well drained habitats dominated by herbaceous vegetation and a sparse canopy or shrub stratum. Although the recently harvested upland forests currently lack a closed canopy, there is minimal tortoise habitat adjacent to the Tolosa PD property and it is unlikely that tortoises would migrate onsite.

Florida Sandhill Crane (Threatened: State)

The Tolosa PD property does not provide suitable habitat for the Florida sandhill crane. This species nests and forages within wet prairies, shallow freshwater marshes, wet pasturelands or other open wetland habitat, often foraging within the transitional zones between deep marshes and adjacent dry prairies and pastures. The Florida sandhill crane avoids forested habitats and would not be found onsite.

Gopher Frog (Species of Special Concern: State)

There is little potential for gopher frogs to occupy the site due to the lack of their preferred habitat, dry sandhill and scrub. Furthermore, like the indigo snake, gopher frogs are frequently observed as commensal species with gopher tortoises, utilizing tortoise burrows as shelter during the day. The lack of tortoise burrows on the property further decreases the likely hood of gopher frogs inhabiting the property's uplands.

Florida Mouse (Species of Special Concern: State)

The Florida mouse has been primarily or exclusively documented in fire-maintained xeric habitats over deep, well-drained, sandy soils. The presence of this species is unlikely due to the lack of these habitats onsite.

Florida Pine Snake (Species of Special Concern: State)

Much like the short-tailed snake discussed above, the Florida pine snake prefers dry sandhill, xeric hammock, or sand pine scrub with a relatively open or absent canopy. This type of habitat is not found on the Tolosa PD property; thus, it is unlikely that the Florida pine snake would utilize the upland habitats onsite.

Sherman's Fox Squirrel (Species of Special Concern: State)

The Sherman's fox squirrel prefers mature, fire maintained longleaf pine-turkey oak sandhills and/or flatwoods. The species is also commonly observed along the edges of mature forests bordering open pastures. It is unlikely that fox squirrels will reside on the property due to the lack of a mature forest community and appropriate fire regime or other adjacent, open habitats.

CONCLUSION AND CONSIDERATIONS

In general, the land cover types and plant communities found onsite do not provide suitable habitat for protected flora and fauna, nor do they provide exceptional habitat for local wildlife. Furthermore, none of the property is mapped as a special flood hazard zone or a high natural groundwater recharge area. The only environmentally sensitive land or feature found on the Tolosa PD property is the ephemeral creek and associated wetlands (Figure 4: FLUCFCS 6150).

The development plans dated November 2018 avoid impacts to the creek and wetland feature. No construction is proposed within the wetland and the associated 75-foot upland buffer. The plans do show a pedestrian trail (labeled on the drawing(s) as "Proposed 8' Neighborhood Trail"). This pedestrian trail does traverse a minor portion of the 75-foot upland buffer, but at no point does it come any closer than 60 feet from the wetland boundary. Trails of this nature, whether created

using pervious or impervious material, have no or de minimus effect on natural communities and associated wildlife habitat. As such, they are most often exempt from permitting or allowed under general permits designed to fast tract the permitting process, provided certain design guidelines are followed. In the future, this trail system may be modified to include a pedestrian crossing over the wetland, connecting the development areas north and south of the creek. The location and design of this future crossing, if built, will be selected as to minimize any impact to the wetland habitat and to maintain a de minimus effect on wetland hydrology, vegetation and wildlife utilization.

FIGURES

TOLOSA PD

Environmental Assessment and Listed Species Survey

Alachua County Parcel Number: 03135-000-000

December 2018 - revision









APPENDIX A

FNAI BIODIVERSITY MATRIX QUERY RESULTS

TOLOSA PD

Environmental Assessment and Listed Species Survey

Alachua County Parcel Number: 03135-000-000

December 2018 - revision



NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 24844



Matrix Unit ID: 24844

0 Documented Elements Found

0 Documented-Historic Elements Found

2 Likely Elements Found				
Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<u>Drymarchon couperi</u> Eastern Indigo Snake	G3	S3	LT	FT
Upland hardwood forest	G5	S3	Ν	Ν

Matrix Unit ID: 24844

20 Potential Elements for Matrix Unit 24844				
Scientific and Common Names	Global	State	Federal	State
	Rank	Rank	Status	Listing

http://data.labins.org/mapping/FNAI_BioMatrix/GridSearch.cfm?sel_id=24844&extent=545160.82160000,643674.82420000,546770.16660000,643674... 1/2

7/5/2018		FNAI Biodiversity Matrix				
	<i>Agrimonia incisa</i> Incised Groove-bur	G3	S2	Ν	Т	
	<u>Asplenium heteroresiliens</u> Wagner's Spleenwort	GNA	S1	Ν	Ν	
	<u>Asplenium plenum</u> Ruffled Spleenwort	G1Q	S1	Ν	Ν	
	<u>Asplenium x curtissii</u> Curtiss' Spleenwort	GNA	S1	Ν	Ν	
	<u>Athene cunicularia floridana</u> Florida Burrowing Owl	G4T3	S3	Ν	SSC	
	<u>Calopogon multiflorus</u> Many-flowered Grass-pink	G2G3	S2S3	Ν	т	
	<u>Gopherus polyphemus</u> Gopher Tortoise	G3	S3	С	ST	
	<u>Grus canadensis pratensis</u> Florida Sandhill Crane	G5T2T3	S2S3	Ν	ST	
	<u>Lampropeltis extenuata</u> Short-tailed Snake	G3	S3	Ν	ST	
	<u>Lithobates capito</u> Gopher Frog	G3	S3	Ν	SSC	
	<i>Matelea floridana</i> Florida Spiny-pod	G2	S2	Ν	E	
	<u>Myotis austroriparius</u> Southeastern Bat	G3G4	S3	Ν	Ν	
	<u>Neofiber alleni</u> Round-tailed Muskrat	G3	S3	Ν	Ν	
	<i>Peucaea aestivalis</i> Bachman's Sparrow	G3	S3	Ν	Ν	
	<u>Pituophis melanoleucus mugitus</u> Florida Pine Snake	G4T3	S3	Ν	SSC	
	<u>Podomys floridanus</u> Florida Mouse	G3	S3	Ν	SSC	
	<i>Pycnanthemum floridanum</i> Florida Mountain-mint	G3	S3	Ν	Т	
	<u>Sciurus niger shermani</u> Sherman's Fox Squirrel	G5T3	S3	Ν	SSC	
	<u>Sideroxylon alachuense</u> Silver Buckthorn	G1	S1	Ν	E	
	<u>Ursus americanus floridanus</u> Florida Black Bear	G5T2	S2	N	N	

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.



Gainesville 1723 SW 78th Terrace Gainesville, FL 32607 (352) 317 1579 - justin@verdeenv.com

October 18, 2017

Jay Brown 3530 NW 43rd St. Gainesville, FL 32606 Jay.Brown@JBProGroup.com

Re: Wetland delineation Alachua Creed PUD, Alachua, FL Alachua County, Parcel No.: 03135-000-000 Verde Environmental -- Proj. No. 17-031

Dear Jay,

Verde Environmental Co. (Verde) visited the above referenced property on October 17, 2017 to identify and delineate any wetland habitat. The property was traversed on foot, and potential wetland habitat was assessed in accordance with the methods outlined in the *Florida Unified Wetland Delineation Methodology* (Chapter 62–340, F.A.C.) and the *Army Corps of Engineers Wetland Delineation Manual* (1987). The results of this assessment are discussed below.

The site contains approximately 1.57 acres of wetland habitat (see enclosed Wetlands map). The wetland-upland boundary was marked in the field using numbered segments of pink flagging tape. The location of each wetland flag was recorded using a handheld GPS.

The wetland habitat includes an ephemeral stream and is most consistent with the FLUCCS Mixed Wetland Hardwoods. Dominant wetland vegetation included: sweetgum (*Liquidambar styraciflua*), sugarberry (*Celtis laevigates*), red maple (*Acer rubrum*), southern magnolia (*Magnolia grandiflora*), laurel oak (*Quercus laurifolia*), pignut hickory (*Carya glabra*), Carolina ash (*Fraxinus caroliniana*), Chinaberry (*Melia azedarach*), coral ardisia (*Ardisia crenata*), trumpet creeper (*Campsis radicans*), green brier (*Smilax* sp.), woods grass (*Oplismenus setarius*), wood sorrel (*Oxalis* sp.), smooth beggartick (*Bidens laevis*), maiden fern (*Thelypteris* sp.), American pokeweed (*Phytolacca americana*), sedges (*Carex* spp.), and goldenrod (*Solidago* sp.). Wetland soils were characterized by the hydric soil Sandy Redox and hydrologic indicators included secondary flow channels, sediment deposition, rafted debris, and fluted roots.

The uplands were dominated by laurel oak, live oak (*Quercus virginiana*), common persimmon (*Diospyros virginiana*), sweetgum, pignut hickory, loblolly pine (*Pinus taeda*), camphor tree (*Cinnamomum camphora*), southern magnolia, black cherry (*Prunus serotina*), American beautyberry (*Callicarpa americana*), coral ardisia, green brier, and Florida betony (*Stachys floridana*). No hydric soils or indicators of wetland hydrology were observed within the uplands.

Once you are ready to proceed with development, you may need to have a professional surveyor create a property boundary survey that includes the location of our wetland line. This survey, along with a detailed development plan, can then be submitted as part of any application for a construction

Jay Brown October 18, 2017 Page 2 of 2

and/or wetland permit from Alachua County. Furthermore, you will also be required to obtain an Environmental Resource Permit (ERP) from the Florida Department of Environmental Protection (FDEP) prior to impacting the wetland habitat. The ERP and County construction permit will describe the extent of wetland impact, the volume of fill material to be used, and the amount of wetland mitigation provided to offset the loss of wetland habitat.

Thank you for this opportunity to provide professional consulting services. Please call me at 352-317-1579 if you have any questions or wish to discuss this project further.

Sincerely,

- the

Justin Fleischman CEO, Verde Environmental

Enclosure: Wetlands Map



ATTACHMENT K:

Traffic Impact Analysis & Comment Response Memo

Telephone (850) 510-6461 mphemmen@comcast.net



December 22, 2018

Kathy Winburn, AICP City of Alachua Planning Director Jay Brown, P.E., JBrown Professional Group

Sent electronically via email

Re: Response to Traffic Study Comment Tolosa PD in the City of Alachua [MPH 18-02]

MPH is providing the following response to the City of Alachua traffic study comment from the last project revision to the Tolosa Planned Development (PD) within the City of Alachua.

City of Alachua Comment:

Proposed traffic study report provides traffic information for build out, but not for first 1/2 of single family detached homes using Hipp Way. Please provide analysis or information for 60 single family detached homes using Hipp Way and if any intersection improvements may be needed at intersection of Hipp Way and SR 235 or Hipp Way and NW 133rd Terrace.

MPH Response:

At buildout Hipp Way will be a secondary project access connection for the residential portion of the project as required by code. However, it may be the first driveway connection to the external roadway network until the NW 133rd Terrace Extension can be completed into the project site. If that is the case then approximately 60 homes may be required to use Hipp Way as the only point of ingress/egress until the remainder of homes are built and the NW 133rd Terrace extension is completed.

Hipp Way has virtually NO trips using it today as recorded by field observation. There are less than 10 existing residential units on the entire length of the road. Hipp Way will be improved along the portion of the project parcel up to and beyond the proposed new roadway connection. All project trips will most likely utilize this connection to head south, east, or west from the project site. As stated in the previous response memo to City of Alachua Comments dated July 3, 2018 (extract below): There are no interacting land uses (retail, employment or educational) on SR 235 to the north of the project that would attract or interact with the residential trips produced from this development. The design of the internal roadway network draws traffic to the central roadway which is a direct extension of NW 133rd Terrace into the project. As illustrated in Figure 2 of the traffic study, the estimated trip impacts to/from the residential component are only 17 a.m. & 14 p.m. (peak hour peak direction) trips using the Hipp Way connection.

The latest site plan provides for 107 single family dwelling units (sfdu) south of the creek. These 107 homes would generate 107 peak hour trips at a maximum for any hour of the day. The project's Phase 2 is the multi-family and commercial component north of the creek. The two separate phases will have no internal connection as a bridge is not allowed across the creek. Therefore, all project trips on Hipp Way and NW 133rd Terrace are a result of the 107 sfdu development in the southern half of the project, referenced as Phase 1 in the study. All 107 trips whether entering or exiting the project will impact the Hipp Way/NW 133rd Terrace intersection. That project trip distribution means no improvements are required at Hipp Way and SR 235.

The Hipp Way intersection at NW 133rd Terrace is under all-stop control. A typical all-stop intersection can accommodate over 1,200 vehicles approaching the intersection in the peak hour and maintain a level of service (LOS) "D" with an average vehicle delay of 25 seconds per vehicle. A detailed printout from the Highway Capacity Software (HCS) analysis of an All-way (4-way) stop controlled intersection with 1,200 vehicles approaching the intersection is attached. In layman's terms this vehicle delay is insignificant and compares to half that of a vehicle on a minor road approaching a signalized intersection such as SR 235 at US 441. Since the entire project will only have 107 homes and there are less than 12 homes on Hipp Way and only another 25 on NW 133rd Terrace north of Hipp Way, it would be impossible to generate 600 peak hour trips. The other two approaches are also under the 300 trip threshold as this area is comprised of entirely residential units with other roadway options available.

Extracted from response memo to City of Alachua dated July 3, 2018.

1. Hipp Way and SR 235 intersection impacts:

Virtually no traffic uses this intersection as observed and recorded by MPH traffic technicians during the field data collection period. Turn movement counts were provided in the report appendix to support this fact. Tolosa PD is primarily a residential development with a small day care and professional office component located on land adjacent to SR 235 at the primary entrance to the PD. Transportation modeling assigns trips based on land use interactions. Residential trip interactions are to places of employment, education, retail or recreation. None of these land use designations are located northeast of the project on SR 235. Therefore, the trip distribution for this project is weighted heavily to the south and southeast (City of Alachua and Gainesville for employment, elementary and middle schools within walking distance of the project and Santa Fe high school on US 441 northwest). All retail shopping and recreation are located along the US 441 corridor to the south or north. Therefore it is unlikely that any project traffic will impact the SR 235/Hipp Way intersection as reported in the signed and sealed traffic study.

If further consultation or modification to any of the items is required, please call me at (850) 510-6461 anytime during normal business hours to discuss.

Respectfully submitted,

Mike Hemmen

Mike Hemmen, AICP MPH Transportation Planning, Inc.

Copies distributed electronically to:

Kathy Winburn, AICPkwinburn@cityofalachua.comJay Brown, P.E.jay.brown@jbprogroup.com

Attachment: HCS Stop controlled intersection analysis for 1,200 vehicles in the peak hour.

		ALL-WA	AY STOP C					
General Information				Site Inform	ation			
Applyet	M Hom	mon				Hipp W	av at NW 133rd	Terr
	MPH Transportation			Jurisdiction			Alachua	
Date Performed	12/23/2	018		Analysis Year		2019		
Analysis Time Period	Peak H	lour						
Project ID <i>Tolosa PD</i>								
East/West Street: Hipp Way				North/South Str	eet: NW 133rd To	errace		
Volume Adjustments a	nd Site Chara	acteristics		*				
Approach			Eastbound		_ _	We	stbound	
	10	0	100	100	100		100	R 100
	10		100	100	100		100	100
							the less state of the less sta	
Approacn Movement		<u> </u>		R		Sou		R
Volume (veh/h)	10	0	100	100	100		100	100
%Thrus Left Lane		<u> </u>						
-	East	bound	We	stbound	North	bound	Sout	hbound
	11	12	11	12	11	12	11	12
Configuration								
		ł						
Flow Pate (veh/h)	222	ł	0.90	-	0.30	ļ	232	ł
	333	ł	333		0		0	<u> </u>
No Lanco	0	1	0	1		I	0	1
No. Laries		1		1		1		1
Geofficity Group		1		1	25			1
Saturation Headway A	l diustmont W/	orkehoot		0.	20			
			0.2	T		<u> </u>		1
	0.3	<u> </u>	0.3		0.3		0.3	
Prop. Right-Turns	0.3	 	0.3		0.3	ļ	0.3	_
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		-0.1		-0.1		-0.1	
Departure Headway an	d Service Tin	ne						
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.30		0.30		0.30		0.30	
hd, final value (s)	7.41		7.41		7.41		7.41	
x, final value	0.69		0.69		0.69		0.69	
Move-up time, m (s)	2	.0		2.0	2.	0	2	.0
Service Time, t _s (s)	5.4		5.4		5.4		5.4	
Capacity and Level of	Service							
	East	bound	We	stbound	North	bound	Sout	hbound
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	442		442		442		442	
Delay (s/veh)	25.02		25.02		25.02		25.02	
LOS	D		D		D		D	
Approach: Delay (s/veh)	2	5.02	2:	5.02	25.	02	25	.02
LOS		D		D)		D
Intersection Delay (s/veh)	1		8	25	5.02		п	
Intersection LOS	1				D			

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REVISED TRAFFIC IMPACT ANALYSIS

for

Tolosa PD-R

Alachua, Florida

November 2, 2018

prepared for:

CITY OF ALACHUA PLANNING & PUBLIC WORKS DEPARTMENT

submitted on behalf of:

JBrown Professional Group Inc.

with assistance from:

MPH Transportation Planning, Inc.

Signature of QA/QC Engineer:

Signature of Preparer: <u>Michael Hemmen</u> Michael Hemmen, AICP Certificate # 012190

Angela Garland, P.E., P.T.O.E. FLA License # 55387 Pennoni Dated:

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EXECUTIVE SUMMARY

Results of the Traffic Impact Analysis (TIA) conducted for the **Tolosa PD** residential subdivision provides the following conclusions: actual <u>net</u> trip assessment for the proposed planned development is **1,768 daily external trips, 199 a.m. peak hour trips** and **212 p.m. peak hour trips**. Project traffic distribution is now split as no internal roadway connection is permitted to cross the creek bed separating the single family component from the development north of the creek. This traffic study follows the methodology approved by the City of Alachua Planning & Public Works Departments as well as FDOT-D2 Permitting. A study methodology memo was submitted to City, County and FDOT staff prior to initiating any analysis. A copy of that correspondence is included in the report appendix.

The project site is now comprised of two independent parcels without an internal roadway connection. The southern portion (P1) is designed with two access roads, one connecting to NW 133rd Terrace on the South side of the project and the other to Hipp Way, an Alachua County facility, on the East side of the project. The northern portion (P2) will have one driveway connection to SR 235.

Data analysis consisted of a review of historical traffic volumes on area roads provided by FDOT and field data collection of a.m. & p.m. peak period turn movement counts conducted at four intersections specified by City staff and FDOT. This data was analyzed using Highway Capacity Software (HCS) to determine if any modifications to roadway geometry would be required to maintain safe operating conditions on the adjacent roadway network when project traffic estimates were added to existing traffic.

Results of the intersection, turn lane and level of service analysis indicate no modifications to SR 235 at the signal controlled intersection with US 441 are required from project traffic impacts. A right turn lane on SR 235 into the project site is recommended for safety considerations even though it is not required by right turn lane warrants. Hipp Way does not require modifications at either terminus but will be improved at the project entrance drive when that phase of the project moves forward to construction.

INTRODUCTION

MPH Transportation Planning Inc. is working with JBrown Professional Group, Inc., the project civil engineer to provide a Traffic Impact Analysis for a proposed residential planned development (PD) southeast of SR 235 within the City limits of Alachua, Florida. This project is a planned development that proposes 120 single family dwelling units (P1), with 40 attached townhomes, and 20,000 square feet of non-residential development, modeled as a small 15,000 square foot office complex along with a 5,000 square foot day care facility as Phase 2 (P2).

A traffic study methodology was discussed with City of Alachua staff and a formal methodology memo was submitted to establish the parameters for the study. City Land Development Regulations (LDRs) provide for traffic study guidelines that outline the procedures required to satisfy local ordinances and comprehensive plan policies, requirements for the project and acceptable trip generation, distribution and analysis procedures. This requirement is to provide information for a determination that Level of Service (LOS) is not adversely impacted for the adjacent roadway as well as the project driveways and nearest signalized intersection with the addition of project traffic.

Figure 1 - Project Location Map provides location information with existing roadway and traffic data. The project fronts SR 235 east of CR 241. Project access will be provided via three roadway connections; one on the north to SR 235, one on the east to Hipp Way, and one on the south to NW 133rd Terrace. Driveway connection permits will require approval by FDOT-D2 for SR 235 and Alachua County Public Works for Hipp Way.

This study contains an assessment of the proposed development utilizing trip rates from ITE Trip Generation Manual 10th Edition to determine daily, a.m. and p.m. peak hour project traffic. Project trip distributions are estimated based on site-specific data derived from traffic count data on the adjacent roadways and the location of interacting land uses. The trip distribution was modified with the new restrictions placed on the internal roadway not crossing the wetland area. Utilizing this information, an assignment of the project trips onto the local area roadway network are made for a minimum of one mile in each direction from the project.


MPH 18-02 10/2/18

Tolosa PD – Alachua, FL Project Location with Existing Traffic Data

Figure 1 Page 5

EXISTING CONDITIONS

SR 235 is a rural major collector in the FDOT roadway inventory system. It is a paved two-lane facility with posted speeds that increase from 30 mph north of US 441 to 55 mph east of the project. The posted speed at the location of the project entrance opposite NW 134th Drive is 45 mph. There are no bike lanes or sidewalks on either side of SR 235 in the area of the project. The immediate area is populated primarily with residential neighborhoods to the west and south. Alachua Elementary School is located southwest of the project parcel and Mebane Middle School is located north of SR 235 and west of the proposed project entrance on SR 235. Transit service is not provided along this corridor. Hipp Way is a 2-lane undivided Alachua County facility with a 30 mph posted speed and a rural typical section in the area of the project. It is only 0.6 mile long and currently only has a half dozen homes located on the entire length. There are no sidewalks or bike lanes on this facility.

Figure 1 displays the average daily traffic and PM peak hour directional volumes on the adjacent roadways extracted from the 2017 FDOT database. Average Annual Daily Traffic (AADT) on SR 235 is 8,000 north of US 441 and drops to 4,600 east of the CR 241 cut-off. Hipp Way has few trips on it daily. The four hours of intersection traffic observed (7-9 a.m. & 4-6 p.m.) resulted in only 138 total trips on Hipp Way during the 4 peak hours of the day. Historical traffic count data indicates that daily traffic volumes on SR 235 in this area have remained fairly constant in the 4,000 to 4,5000 range over the last 15 years. The immediate roadway network, as depicted in Figure 1, consists of SR 235 to the north and west, Hipp Way to the east, and US 441 to the south. Peak hour intersection turn movement data from the traffic counts collected May 2018 are also displayed on Figure 1. Alachua City staff had requested this data be collected for a safety and turn lane analysis on SR 235 and for evaluation of operating conditions at the SR 235/US 441 intersection. Copies of this project correspondence and summary traffic count data are provided in the appendix. There are no new roadway construction projects in the 5-year work program in this area of Alachua County.

TRIP GENERATION

The Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition was used to provide trip estimates for the single land use component of this project. Tolosa PD is planned for 120 single family homes, 40 townhomes and 20,000 square feet of non-residential space to be constructed within the project limits. This is a maximum build scenario. It is unlikely that the final constructed project will reach these maximums. Trip information for the proposed development is summarized in *Table 1 - Project Trip Generation* below for the project site.

Land Use					Distril	bution	Trips		Int.Cap.	New	Trips
Description	ITE	ITE Trip Rates	Unit*	Trips	In	Out	In	Out	Rate	In	Out
P1 Single Family	210	(T) = 9.44 (X)	120	1133	50%	50%	567	567	0	567	567
P2 Multi-Family	220	(T) = 7.56 (X) -40.86	40	262	50%	50%	131	131	5%	124	124
P2 Office	710	Ln(T) = 0.97 Ln (X) + 2.5	15.000	168	50%	50%	84	84	5%	80	80
P2 Day Care	565	(T) = 47.62 (X)	238	50%	50%	119	119	5%	113	113	
		Daily Trips		1801			901	901		884	884
AM Peak Hour											
P1 Single Family	210	(T) = 0.74 (X)	120	89	25%	75%	22	67	0	22	67
P2 Multi-Family	220	Ln(T) = 0.95 Ln(X)-0.51	40	20	23%	77%	5	15	5%	5	15
P2 Office	710	(T)= 0.94(X) + 26.49	15.000	41	86%	14%	35	6	5%	33	5
P2 Day Care	565	(T)= 11.00 (X)	5.000	55	53%	47%	29	26	5%	28	25
		AM Peak Hour Trips	205			91	114		88	111	
PM Peak Hour											
P1 Single Family	210	(T) = 0.99 (X)	120	119	63%	37%	75	44	0	75	44
P2 Multi-Family	220	Ln(T) = 0.89 Ln(X)-0.02	40	26	63%	37%	16	10	5%	15	9
P2 Office	710	Ln(T) = 0.95 Ln(X)+0.36	15.000	19	16%	84%	3	16	5%	3	14
P2 Day Care	565	(T) = 11.12 (X)	56	47%	53%	26	30	5%	25	27	
		PM Peak Hour Tr	rips	220			121	99		118	94

TABLE 1: Trip Generation for Tolosa PD Alachua, Florida

*Units: ksf = 1,000 square feet for office & day care land uses, dwelling units for single family & condos Source: *ITE 10th Edition Trip Generation*

The restriction from Alachua County not allowing the creek bed to be crossed has resulted in the loss of internal roadway connection between the single family component and the commercial and multi-family proposed development north of the creek bed. Therefore, no internal capture is applicable to the 120 single family dwelling units.

TRIP DISTRIBUTION

The distribution of project trips on the roadway has been changed from the original study with the restriction of the single family homes not having direct access to SR 235. The primary SFDU will be a northern extension of NW 133rd Terrace into the project parcel. The predominantly residential PD will interact with educational, retail and employment centers in Alachua and nearby Gainesville. There are several major distribution centers located just south of the city along SR 235/CR 241 which are the major employment centers for the Alachua area. There will be significant interaction to/from this direction. Trip generation estimates from *Table 1* are factored by these distribution criteria to develop trip impact estimates for adjacent roadway segments and the project driveways for peak hour analyses. Results of these calculations are displayed in *Figure 2 - Project Trip Assignment* and in *Table 2 - Project Trip Distribution* below.

Daily Proje	ct Trip Assignment	Enter	884	Exit	884	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	71	8%	71	142
	South of NW 158th Ave.	70%	619	70%	619	1238
Hipp Way	South of Project Drive	10%	88	10%	88	176
NW133rd Terrace	South of Project Drive	12%	106	12%	106	212
	Total	100%	884	100%	884	1768
AM Peak Pro	ject Trip Assignment	Enter	88	Exit	111	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	7	8%	9	16
	South of NW 158th Ave.	70%	61	70%	78	139
Hipp Way	South of Project Drive	10%	9	10%	11	20
NW133rd Terrace	South of Project Drive	12%	11	12%	13	24
	Total	100%	88	100%	111	199
PM Peak Pro	ject Trip Assignment	Enter	118	Exit	94	2-Way
Roadway	Segment	%	Trips	%	Trips	Total
SR 235	North of Project Drive	8%	9	8%	8	17
	South of NW 158th Ave.	70%	83	70%	66	149
Hipp Way	South of Project Drive	10%	12	10%	9	21
NW133rd Terrace	12%	14	12%	11	25	
	Total	100%	118	100%	94	212

TABLE 2:	Project 7	Trip Dis	stribution
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Project Distributions are estimated from adjacent street traffic & interacting land uses

Daily & Peak Hour Project Trips represent the Trip Impacts from Table 1

Peak-hour trip impacts provide driveway detail for final site plan review.

Daily trip impacts are used in City of Alachua level of service (LOS) analysis.



LEVEL OF SERVICE (LOS) ANALYSIS

The project trip assignment in Figure 2 is consistent with the requirements established in the Transportation Study methodology memo. FDOT & the City of Alachua maintain a daily trip threshold for planning purposes and a peak hour LOS analysis for operational reviews that use peak hour bi-directional traffic volumes. The minimum impact area for concurrency review is all roadway segments within ½-mile in each direction from the project driveways and any roadway segment where project trip impacts are 5% of that roadways Maximum Service Volume (MSV). Only the two (2) roadway segments of SR 235 (City's #8 and #9) within the Table provided by the City of Alachua meet those criteria. The data for those two segments of SR 235 are provided in Table 3 below.

Roadway	Segment # & Description	Period	MSV	2017	Res'vd.	Project	V/C	LOS
SR 235	8: SR235/CR241 to US 441	Daily	14,400	10,305	0	1238	0.80	С
		PM Pk	1,290	979	0	149	0.87	D
SR 235	9: US 441 to North City Limits	Daily	14,400	7,537	29	1238	0.61	С
		PM Pk	1,290	716	2	149	0.67	С
US 441	3/4: NW 126th to SR235	Daily	45,700	18,579	1589	360	0.45	В
		PM Pk	4,110	1,765	230	41	0.50	В
US 441	5: SR 235 to North City Limits	Daily	39,000	25,926	1825	180	0.72	С
		PM Pk	3,510	2,463	216	26	0.77	С

 TABLE 3:
 Roadway Level of Service (Rev. 9/30/18)

Source: 2017 Annual Level Of Service Report from City of Alachua Planning Office Project trips from Table 2 highest segment Daily and PM peak 2-way volume MSV = Maximum Service Volume (capacity) at desired level of service V/C = volume to capacity = (2017 + Res'vd + Project)/MSV

Table 3 – Roadway Level of Service provides the necessary information to determine if project trip impacts will adversely affect roadway level of service. The critical element of the table is the LOS threshold volume, also known as the Maximum Service Volume (MSV). It is established by comprehensive plan requirements. Factors affecting this evaluation are: existing traffic, trip reservations from approved development, and the proposed project trip impacts. If the total of all three volumes <u>exceeds</u> the MSV value, then the project would not be able to secure approval without providing mitigation. As of the date of this report, based on the latest available information all roads will continue to operate within required Level of Service criteria with the addition of project traffic.

INTERSECTION ANALYSIS

Table 4 - Intersection Impacts

Traffic Signal Controlled Intersections

Approach		S)		SR 235								
AM Peak	E	Eastbound			Westbound			Northbound			Southbound		
Movement	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Totals
2018	97	924	106	125	394	46	108	112	54	128	156	26	2276
Project	9					19		34		20	42	10	134
AM Total	106	924	106	125	394	65	108	146	54	148	198	36	2410
PM Peak													
2018	140	456	100	150	1141	96	142	159	55	45	143	70	2697
Project	12					23		42		18	38	9	142
PM Total	152	456	100	150	1141	119	142	201	55	63	181	79	2839

Stop Sign Controlled Intersections

									-				
Approach			SR	235			CR 241						
AM Peak	E	astbound	d	v	Vestboun	d	No	rthbound	t	S	outhbour	nd	
Movement	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Totals
2018	169	187			191	18				16		251	832
Project		54			35	5				6			100
AM Total	169	241	0	0	226	23	0	0	0	22	0	251	932
PM Peak								-					
2018	227	205			179	24				5		112	752
Project		35			40	5				4			84
PM Total	227	240	0	0	219	29	0	0	0	9	0	112	836
Approach	SR 235						Hipp Way						
AM Peak	E	astbound	d	v	Westbound			rthbound	t	S	outhbour	nd	
Movement	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Totals
2018		198	2	25	232		1		31				489
Project		10			6								16
AM Total	0	208	2	25	238	0	1		31	0		0	505
PM Peak													
2018		198	1	6	190		3		20				418
Project		9			4								13
PM Total	0	207	1	6	194	0	3		20	0		0	431
Approach		9	SR 20 (US441)			NW	133	rd Terr	ace		
AM Peak	E	astbound	, t	v	Vestboun	d	No	rthbound	ł	S	outhbour	nd	
Movement	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Totals
2018	47	1186			519	20				34		42	1848
Project	4	20			19	5				15		14	77
AM Total	51	1206	0	0	538	25	0		0	49		56	1925
PM Peak													
2018	44	524			1348	44				14		30	2004
Project	13	18			23	19				10		9	92
PM Total	57	542	0	0	1371	63	0		0	24		39	2096

Notes:

2018 traffic volumes from Figure 1, Project traffic from Figure 2.

The data in Table 4 was used as input to Highway Capacity Software (HCS) to determine operating level of service. Project traffic impacts were added to base 2018 traffic to determine if any degradation in operational service resulted from the addition of project traffic. The results of the HCS analysis are provided in Table 5 below.

Traffi	С		SR 20 -	US 44	1		SR	235				
Signa	al	EB		WB		١	۱B	SB		Inters		
Contr	ol	LOS	LOS Delay LOS Delay		Delay	LOS	Delay	LOS Delay		LOS	Delay	Delta
2018	AM	С	24.3	С	21.0	С	34.1	D	35.2	С	26.1	
Existing	PM	D	35.8	D	36.3	D	40.2	D	39.6	D	37.0	
2020	AM	С	24.2	С	21.0	D	39.9	D	45.6	С	28.8	2.7
w/project	PM	D	42.7	D	39.9	D	51.6	D	50.8	D	43.5	6.5

Table 5 -	- Intersection	Level of	Service	(LOS)
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Stop)		SR	235		CR 241				
Sigr	า	E	EB	V	VB	1	۱B		βB	
Contr	ol	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	
2018	AM	А	8.1					В	11.8	
Existing	PM	А	8.3					В	10.4	
2020	AM	А	8.2					В	12.8	
w/project	PM	А	8.5					В	11.5	
Stop)		SR	235			Hipp	Way		
Sigr	<u>ו</u>	E	B	V	VB	١	NB	SB		
Contr	ol	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	
2018	AM			А	7.8	А	9.7			
Existing	PM			А	7.7	Α	9.7			
2020	AM			А	7.8	А	9.7		-	
w/project	PM			А	7.7	А	9.8			
Stop)		SR 20 (US 441)	Ν	W 133r	d Terra	се	
Sigr	า	E	EB	V	VB	١	۱B	5	SB	
Contr	ol	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	
2018	AM	А	8.9	-				С	16.2	
Existing	PM	В	14.5					С	24.7	
2020	AM	А	9.0					С	16.1	
w/project	PM	В	15.4					D	31.4	

Delay expressed in AVERAGE seconds per vehicle.

The US441/SR35 traffic signal runs independently with variable signal cycles that range from 60 to 120 seconds depending on the SR 235 or left turn approach demand. Field observation indicated that most of the time the stopped queue was accommodated within the next phase for each movement. The exception to that was northbound SR 235 which had a residual queue for about a half-hour in the morning when several semi-trucks were Tolosa PD_TIA_R1 12 stopped at the approach. The northbound SR 235 approach to US 441 has a moderate uphill slope that takes loaded semi-trucks a considerable amount of time to complete the maneuver through the intersection from a stopped condition. Passenger vehicles are often restricted from completing turning maneuvers onto US 441 due to the slow progression of semi-trucks through the intersection. This anomaly was only observed in the morning peak period as minimal truck traffic was observed during the evening peak period. Signal timing modifications can be made during the peak demand to improve the SR 235 NB approach without degrading LOS at the intersection. The addition of project traffic at this intersection does not alter the LOS results from the existing traffic demand. It can easily be absorbed into the existing traffic stream with minor modification to the existing timing patterns and minimal increase in intersection delay.

Right and left turn lane analyses were conducted using the traffic volumes on SR 235 adjacent to the location of the proposed project entrance. The procedures established in <u>NCHRP Report 457</u>: Evaluating Intersection Improvements were used to determine if either a left or right turn lane should be added at the project roadway connection to SR 235. Detailed printouts of both scenarios are provided in the report appendix.

LEFT TURN LANE ANALYSIS

As indicated in *Figure 2 – Peak Hour Project Traffic* turning left into the project at either entrance is less than a dozen vehicles during any peak period. This is considerably less than existing turns at Hipp Way which provides access to Alachua Elementary School for families living on/off SR 235 to the north. Also, there is virtually no vehicle conflicts on Hipp Way with the minimal traffic that uses that facility. A left turn lane analysis was conducted on SR 235 at the proposed project entrance to illustrate there is no need to add one on SR 235 at the project entrance. The detailed printouts from this analysis included in the appendix support the conclusion that a left turn lane is not warranted.

RIGHT TURN LANE ANALYSIS

A right turn lane analysis was conducted for the project entrance on SR 235. Existing AM and PM peak period traffic was used with the estimated project traffic turning into the site from SR 235. As indicated in the printouts in the appendix, a right turn lane is not warranted based on the estimated volumes and a 45 MPH posted speed. However, if the speed is increased to 50 MPH then a right turn lane <u>is</u> warranted. There is also safety considerations to address the roadway geometry approaching the proposed project entrance. SR 235 makes a 90 degree right turn from a north/south alignment to an east/west direction as it diverges from CR 241 just a ¼-mile to the west of the project. Based on the concern over potential sight issues and the increasing speed as the road transitions to a 55 MPH posted speed just ¼-mile to the east of the project driveway, a right turn lane is recommended at this location. A 240 to 290 foot right turn lane inclusive of taper should be constructed approaching the project entrance on SR 235 per FDOT Design Standard index 301.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data and analysis provided throughout this report the following conclusions and recommendations are provided:

- 1. Trip generation for the proposed Tolosa PD is 1,768 net daily trips. Peak hour traffic is estimated at 199 a.m. and 212 p.m. external trips.
- 2. Trip distribution utilizes SR 235 for the majority of traffic. Some morning traffic is associated with the two schools located within a ¹/₂-mile of the project site.
- 3. The majority of project traffic heads toward employment centers in Gainesville or to the regional distribution centers southwest of Alachua via SR 235 and CR 241 to the south of the City in the morning and returns from that direction in the evening. No modifications to existing turn lanes at the US441/SR235 intersection are required with the addition of project traffic.
- 4. No degradation to level of service (roadway or intersection) results from the addition of project traffic.
- 5. No left turn lanes are required on SR 235 or Hipp Way with the minimal project traffic associated with destinations northeast of the project.
- 6. Right turn lane analysis indicated that project traffic was just below the threshold that required installation of a right turn lane. However, increased speeds above the 45 MPH posted speed and sight obstructions from roadway horizontal curvature results in a safety recommendation to construct a right turn lane at the project entrance on SR 235. The right turn lane should meet the FDOT Design Standard Index 301 requirements unless environmental or right-of-way issues would require a reduction to the prescribed length.

APPENDIX: Correspondence and Traffic Count Documentation

Appendix A. Correspondence

Re: Fwd: Changes to Tolosa PD Traffic Study

To Adam Hall <ad_hall@cityofalachua.org> Copy Kathy Winburn <kwinburn@cityofalachua.org> • jay brown <jay.brown@jbprogroup.com> • llalwani llalwani@alachuacounty.us>

Adam,

The site plan has been revised as required by City of Alachua Code to have two points of ingress/egress for the 120 single family dwelling units (sfdu). The new primary connection will be a northern extension of NW 133rd Terrace into the project parcel. All of the 120 SFDU trips will use this roadway and the Hipp Way connection. The trips will then either turn right on NW 158th Ave. to SR 235 and impact the US 441/SR235 signalized intersection or continue south on NW 133rd to US 441. The revised traffic study will illustrate this new trip distribution.

Agree that the internal capture reduction cannot apply to the SFDU component as it will have no direct connection to the office or daycare project components. This change will also be included in the revised traffic study.

Please let me know if this addresses all your comments adequately and if there is anything else we need to include in the revised traffic study.

Thanks,

Mike Hemmen, AICP MPH Transportation Planning, Inc. 1725 Riverbirch Hollow Tallahassee, FL 32308 850.510.6461 <u>mphemmen@comcast.net</u>

On September 24, 2018 at 2:15 PM Adam Hall <u>ad hall@cityofalachua.org</u> wrote:

Mike,

The previously submitted traffic analysis appeared to assume that most trips would be entering/exiting the development at SR235, with a smaller portion accessing development from Hipp Way. If the 120 dwelling units will only access from Hipp Way I believe that the trip distribution will need to be revised (Figure 2, Page 9 of report); it appears to currently show 20 PM trips and 171 daily trips at the Hipp Way ingress/egress point, which doesn't align with ITE rates for code 210. Also, with no internal connection, the internal capture trip reduction of 5% may no longer be applicable to the single family residential area.

If you wish to discuss, please feel free to contact me. Thank you,

--

Adam Hall, AICP | Planner | Office of Planning and Community Development City of Alachua | <u>ahall@cityofalachua.com</u> | Phone: 386.418.6121 | Direct: 386.418.6125

From: <u>Kathy Winburn</u> To: <u>Justin Tabor</u> Cc: <u>Adam Hall</u> Sent: Thursday, September 20, 2018 2:49:18 PM Subject: FW: Changes to Tolosa PD Traffic Study

FYI

From: Mike Hemmen [mailto:<u>mphemmen@comcast.net]</u>
Sent: Thursday, September 20, 2018 12:45 PM
To: <u>kwinburn@cityofalachua.org</u>; <u>llalwani@alachuacounty.us</u>
Cc: A. J. 'Jay' Brown, Jr., PE
Subject: Changes to Tolosa PD Traffic Study

Kathy/Lalit,

Jay Brown has requested that I revise the Tolosa PD traffic study trip distribution. This is in response to the County not allowing a simple crossing of the wetland designation within the project parcel (it is unlikely the developers will approve the added expense of a bridge). The development program components remain the same. However, without the internal connection to SR 235, the 120 dwelling units planned south of the creek will only have access to Hipp Way & NW 133rd Terrace at NW 158th Avenue. The US 441 intersection impacts should remain the same as the overall

distribution is unchanged, only the initial points of ingress and egress for the 120 single family dwelling component is altered.

If there is anything else you will require beyond this simple modification please let me know as soon as possible so I may keep the project on schedule.

Thank You,

Mike Hemmen, AICP MPH Transportation Planning, Inc. 1725 Riverbirch Hollow Tallahassee, FL 32308 850.510.6461 <u>mphemmen@comcast.net</u> Telephone (850) 510-6461 mphemmen@comcast.net



May 9, 2018

Kathy Winburn, AICP City of Alachua Planning Director Adam Doyle, P.E., FDOT Gainesville Permits Tony Falotico, P.E., FDOT-D2 Traffic Operations Angela Garland, P.E., P.T.O.E. Pennoni Engineering

Sent electronically via email

Re: Transportation Study Methodology for Tolosa PD in the City of Alachua [MPH 18-02]

MPH is providing transportation support services to J. Brown Professional Group. MPH is submitting this traffic methodology memo for the proposed Tolosa Planned Development (PD) within the City of Alachua. The project site is located south of SR 235 and west of Hipp Way. The following study methodology outlines the process required to address traffic operations and safety concerns and the request for information to be provided by the City of Alachua and FDOT staff to complete these tasks. Your approval of this methodology is a required step in this process.

Traffic Impact Study Methodology:

MPH Transportation Planning will provide the following information in a brief Traffic Impact Study (TIS). This brief letter report will include the necessary tables and graphics to accurately depict the transportation impacts associated with the proposed residential subdivision and small commercial planned development. The proposed project site will consist of 120 single family dwelling units, a 40 unit multi-family apartment complex and 20,000 square feet of commercial development. The commercial component is anticipated to consist of 15,000 square feet of professional office space and a 5,000 square foot day care center for the residents and neighbors of the Tolosa PD.

Project traffic estimates will be calculated based on trip rates for the four (4) separate land uses from the ITE 9th Edition Trip Generation. Daily, AM and PM peak hour project traffic estimates will be provided for the proposed development. Gross trip estimates will be reduced by a minor 5% internal capture accounting for the interactions of the day care facility with the residential and office components. Total peak hour estimates are utilized in turn lane and intersection traffic operations analysis.

SR 235 is a 2-lane undivided FDOT roadway with a posted speed of 45 MPH in the area of the project. Hipp Way is an Alachua County roadway with a 30 mph posted speed and a 2-lane rural typical section. The project will have one driveway on SR 235 and one on Hipp Way.

Filed data collection will consist of midweek AM & PM peak hour turn movement counts at the SR 235/US 441 signalized intersection and at NW 133rd Terrace and US 441. Hipp Way transitions into NW 133rd Terrace before connecting to US 441. Trip distribution will be estimated based on prevailing adjacent traffic streams and the location of interacting land uses. Highway Capacity Software (HCS) will be utilized for intersection analysis of existing and existing plus project traffic. The final report will undergo QA/QC and be signed and sealed by a Florida Registered P.E.

<u>City of Alachua staff should provide</u>: Existing traffic data from their most recent level of service assessment for SR 235, NW 133rd Street, and Hipp Way if it is inventoried. The current AM/PM peak hour traffic signal timings for the SR 235 at US 441 intersection should be included for the HCS analysis.

Please provide any comments on the proposed study methodology then initial your approval of this methodology below and return a copy for our project files or send a response email with your approval

and/or comments to be included in the report appendix. We would like to schedule the data collection for next week if that is acceptable.

If further consultation or modification to any of the items is required, please call me at (850) 510-6461 anytime during normal business hours to discuss.

Respectfully submitted,

Mike Hemmen

Mike Hemmen, AICP MPH Transportation Planning, Inc.

Copies distributed electronically to:

Kathy Winburn, AICPkwinburn@cityofalachua.comMike New, P.E.mnew@cityofalachua.comTony Falotico, P.E.tony.falotico@dot.state.fl.usAdam Doyle, P.E.adam.doyle@dot.state.fl.usJay Brown, P.E.jay.brown@jbprogroup.comAngela Garland, P.E., P.T. O.E.agarland@pennoni.com

Kathy Winburn

To Mike Hemmen, Tony Falotico

▶ 🕲 2 attachments View Download

Good Morning,

The following are comments from the City of Alachua Planning & Community Development Department regarding the proposed Tolosa Development Traffic Study Methodology letter:

- For purposes of evaluating the maximum potential impact which could be generated by the development, potential non-residential land uses should consider other land uses with greater trip generation rates, such as neighborhood commercial uses (i.e., limited retail, dry cleaners, coffee shop / specialty eating establishments, and other similar uses), unless the PD will propose to specifically limit non-residential development to offices and daycare uses.
- Movement counts should also be performed at the following intersections: SR 235 / CR 241 (NW 140th St.); SR 235 / Hipp Way.
- No trip count data is available from the City of Alachua for NW 133rd Terrace or Hipp Way. Existing trips, reserved capacity, and available capacity for roadway segments monitored for concurrency are provided in City of Alachua Development Monitoring Reports. The latest version (May 2018) is attached. Per the City's LDRs, if a project generates more than 1,000 trips AADT then affected roadway segments include those on which the development impacts are five percent or more of the MSV of that roadway.
- Given the project's proximity to Mebane Middle School and the connection that will be made with the neighborhoods to the south, a crosswalk study may be helpful in determining if a pedestrian crossing and extension of sidewalk to the middle school are needed.
- Please note that Mike New is no longer the City's Public Services Director. The City's current Public Services Director is Rodolpho Valladares P.E., ro_valladares@cityofalachua.org.

Should you have any questions please feel free to contact me at (386) 418-6100 x. 105. Thank you, Kathy Winburn, AICP Planning & Community Development Director

City of Alachua (386) 418-6100 x. 105

From: Mike Hemmen [mailto:<u>mphemmen@comcast.net</u>] Sent: Thursday, May 10, 2018 11:48 PM To: <u>kwinburn@cityofalachua.org</u>; <u>mnew@cityofalachua.com</u>; Tony Falotico; <u>adam.doyle@dot.state.fl.us</u>; Angela Garland; A. J. 'Jay' Brown, Jr., PE Subject: Tolosa PD Traffic study methodology memo Please find the attached traffic study methodology memo for the Tolosa PD on SR 235. Please review and send email approval with any edits or comments. We would like approval to conduct the traffic data collection next week while schools are in normal session.

Thanks for your help in moving this project forward.

Mike Hemmen, AICP MPH Transportation Planning, Inc. 1725 Riverbirch Hollow Tallahassee, FL 32308 850.510.6461 <u>mphemmen@comcast.net</u>

Adam Doyle

To Mike Hemmen, kwinburn@cityofalachua.com

▶ 🗞 2 attachments View Download

Mike,

Here are a few comments regarding the methodology:

- First off, I would normally recommend a pre-app prior to conducting any study so that the Department is familiar enough with the project to clearly set study parameters.
- I would like to know exactly where the site is located—shown on a map.
- Access Management standards should be addressed in their study.
- I am ok with them counting next week—with the understanding that if our pre-app reveals any unknown concerns, additional counts may be necessary.

Jay...Can you please forward us a concept drawing? When do you want to have a pre-app meeting?

Adam E. Doyle, P.E. Permits Manager - Gainesville Operations 5301 NE 39th Avenue Gainesville FL, 32609 adam.doyle@dot.state.fl.us (352) 381-4308



From: Mike Hemmen [mailto:<u>mphemmen@comcast.net]</u> Sent: Thursday, May 10, 2018 11:48 PM To: <u>kwinburn@cityofalachua.com</u>; <u>mnew@cityofalachua.com</u>; Falotico, Tony <<u>Tony.Falotico@dot.state.fl.us</u>>; Doyle, Adam <<u>Adam.Doyle@dot.state.fl.us</u>>; Angela Garland <<u>agarland@pennoni.com</u>>; A. J. 'Jay' Brown, Jr., PE <<u>jay.brown@jbprogroup.com</u>> Subject: Tolosa PD Traffic study methodology memo

Please find the attached traffic study methodology memo for the Tolosa PD on SR 235. Please review and send email approval with any edits or comments. We would like approval to conduct the traffic data collection next week while schools are in normal session.

Thanks for your help in moving this project forward.

Mike Hemmen, AICP MPH Transportation Planning, Inc. 1725 Riverbirch Hollow Tallahassee, FL 32308 850.510.6461 mphemmen@comcast.net ۲_×

5/11/2018 11:02 AM



ADAM BOUKARI City Manager PLANNING & COMMUNITY DEVELOPMENT DIRECTOR KATHY WINBURN, AICP

June 7, 2018

Also sent by electronic mail to <u>jay.brown@jbprogroup.com</u>

Mr. A.J. "Jay" Brown, Jr., P.E. President JBrown Professional Group, Inc. 3530 NW 43rd Street Gainesville, FL 32606

RE: Completeness Review and Conditional Application Acceptance: Tolosa – Site Specific Amendment to the Official Zoning Atlas (Rezoning) Application

Dear Mr. Brown:

On May 31, 2018, the City of Alachua received your application for the Tolosa Site Specific Amendment to the Official Zoning Atlas (Rezoning), which proposes to amend the Zoning Designation from Agriculture (an Alachua County designation) and Planned Unit Development (PUD) (expired) to Planned Development Residential (PD-R) on a ± 50.45 acre subject property, comprised of Tax Parcel Numbers 031350-000-000, 03130-004-000, 03130-009-000, 03130-007-001, and 03130-008-000.

According to Section 2.2.6 of the Land Development Regulations (LDRs), upon receipt of an application, a completeness review shall be conducted to determine that the application contains all the necessary information and materials, is in proper form and of sufficient detail, and is accompanied by the appropriate fee. The Planning Department has reviewed the aforementioned application for completeness, and finds the application to be complete, conditional upon submission of certain materials as further described below. Please address the following deficiencies no later than **5:00 PM on Thursday, June 14, 2018**.

In accordance with Section 2.2.6(B) of the LDRs, if the applicant fails to respond to the identified deficiencies within forty-five (45) calendar days, the application shall be considered withdrawn.

The comments below are based solely on a preliminary review of your application for completeness. Detailed comments will be provided at a Development Review Team (DRT) Meeting, which will be scheduled under separate cover.

In order to provide a complete application, you must address the following:

1. **Rezoning Amendment Application Attachment #3:** Concurrency Impact Analysis.

Action Needed to Address Deficiency: Submit revised Concurrency Impact Analysis. Per Section 2.4.14 (H)(2)(b), affected roadway segments for proposed developments generating greater than 1,000 daily trips include those segments on which the development's impacts are 5% of MSV or more. Additionally, segments within ½ mile of the proposed development or to the nearest major intersection, whichever is greater are considered affected roadway segments. Segments 3/4, 5 and 8 (US Highway 441 from NW 126th to SR 235, US Highway

441 from SR 235 to North City Limits line and SR 235 from 235/241 intersection to US Highway 441) and additional segments may need to be analyzed for concurrency impacts.

- Rezoning Amendment Application Attachment #6: Mailing Labels. <u>Action Needed to Address Deficiency:</u> Submit three (3) sets of mailing labels of all properties within 400 feet of the subject property AND of those persons and organizations registered with the City to receive notice of development applications (available at <u>http://www.cityofalachua.com/index.php/planning-and-zoning/53-city-departments/</u> <u>planning-a-community-development/503-applications-attachments-a-agreements</u>).
- 3. **Rezoning Amendment Application Attachment #7:** Neighborhood Meeting Materials <u>Action Needed to Address Deficiency:</u> Submit list of those who received mailed notice for neighborhood meeting or copy of mailing labels.

Please note, as part of the DRT review process, a more detailed environmental assessment may be needed given the proposed potential impacts to wetland areas and the property's ranking in the FNAI potential natural areas database.

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,

CIAN

Adam Hall, AICP Planner

c: Kathy Winburn, AICP, Planning & Community Development Director *(by electronic mail)* Justin Tabor, AICP, Principal Planner *(by electronic mail)* Project File

Response to #1 Above:

No segment of US 441 is within 1/2 mile of the projects proposed entrances, nor do project impacts approach 5% of either daily or peak hour MSV (capacity) on any segment of US 441. Only the two segments of SR 235; north and south of Us 441 meet the criteria. both segments are analyzed with project trip impacts in the level of service analysis section of the traffic report.

A. J. 'Jay' Brown, Jr., PE

To Adam Doyle, Mike Hemmen

▶ 🕲 3 attachments View Download

Sure Adam, Here is our Preliminary Zoning Master Plan. It is a work in progress. We are in the early stages of this project and just getting started with the zoning. We want to get ahead of the curve with our transportation planning. I am happy to have a Pre-App if you want to let us know when your group would be available. Jay

A. J. "Jay" Brown, Jr., P.E. President



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"Our services now include surveying. Please contact us for all of your surveying needs!"

From: Doyle, Adam [mailto:<u>Adam.Doyle@dot.state.fl.us</u>] Sent: Friday, May 11, 2018 11:05 AM To: Mike Hemmen; <u>kwinburn@cityofalachua.com</u>; Falotico, Tony; Angela Garland; A. J. 'Jay' Brown, Jr., PE Cc: Cavin, Tom; Scanlan, Steven; Emmons, Robert Subject: RE: Tolosa PD Traffic study methodology memo

Mike,

Here are a few comments regarding the methodology:

- First off, I would normally recommend a pre-app prior to conducting any study so that the Department is familiar enough with the project to clearly set study parameters.
- I would like to know exactly where the site is located—shown on a map.
- Access Management standards should be addressed in their study.
- I am ok with them counting next week—with the understanding that if our pre-app reveals any unknown concerns, additional counts may be necessary.

Jay...Can you please forward us a concept drawing? When do you want to have a pre-app meeting?

Adam E. Doyle, P.E. Permits Manager - Gainesville Operations 5301 NE 39th Avenue Gainesville FL, 32609 adam.doyle@dot.state.fl.us r,

5/11/2018 11:26 AM



From: Mike Hemmen [mailto:<u>mphemmen@comcast.net]</u> Sent: Thursday, May 10, 2018 11:48 PM To: <u>kwinburn@cityofalachua.com</u>; mnew@cityofalachua.com; Falotico, Tony <<u>Tony.Falotico@dot.state.fl.us</u>>; Doyle, Adam <<u>Adam.Doyle@dot.state.fl.us</u>>; Angela Garland <<u>agarland@pennoni.com</u>>; A. J. 'Jay' Brown, Jr., PE <<u>jay.brown@jbprogroup.com</u>> Subject: Tolosa PD Traffic study methodology memo

Please find the attached traffic study methodology memo for the Tolosa PD on SR 235. Please review and send email approval with any edits or comments. We would like approval to conduct the traffic data collection next week while schools are in normal session.

Thanks for your help in moving this project forward.

Mike Hemmen, AICP MPH Transportation Planning, Inc. 1725 Riverbirch Hollow Tallahassee, FL 32308 850.510.6461 <u>mphemmen@comcast.net</u> Appendix B: Traffic Data

Project No. MPH18-02 TOLOSA PD SR 235 at CR 241

File Name	: 235241
Site Code	: 00235241
Start Date	: 5/15/2018
Page No	: 1

 				Groups F	rinted- Vehic	les			J	
		From North			From South			From West		
Start Time	Rt	Th	App. Total	Th	Lt	App. Total	Rt	Lt	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0	••	
07:00	3	38	41	29	35	64	44	1	45	150
07:15	6	50	56	41	38	79	67	5	72	207
07:30	8	52	60	52	64	116	80	5	85	261
07:45	1	51	52	65	32	97	60	5	65	214
 Total	18	191	209	187	169	356	251	16	267	832
08:00	1	48	49	31	11	42	41	1	42	133
08:15	3	54	57	27	6	33	27	1	28	118
08:30	1	48	49	21	10	31	27	0	27	107
08:45	0	38	38	21	15	36	23	1	24	98
Total	5	188	193	100	42	142	118	3	121	456
16:00	1	37	38	50	30	80	19	2	21	139
16:15	0	49	49	52	19	71	24	0	24	144
16:30	2	50	52	51	29	80	20	0	20	152
 16:45	7	45	52	36	53	89	23	1	24	165
Total	10	181	191	189	131	320	86	3	89	600
17:00	4	42	46	53	48	101	37	2	39	186
17:15	8	47	55	59	48	107	24	1	25	187
17:30	5	45	50	57	78	135	28	1	29	214
 17:45	2	37	39	51	46	97	18	1	19	155
Total	19	171	190	220	220	440	107	5	112	742
Grand Total	52	731	783	696	562	1258	562	27	589	2630
Apprch %	6.6	93.4		55.3	44.7		95.4	4.6		
Total %	2.0	27.8	29.8	26.5	21.4	47.8	21.4	1.0	22.4	

		From North			From South			From West		
Start Time	Rt	Th	App. Total	Th	Lt	App. Total	Rt	Lt	App. Total	Int. Total
Peak Hour From 07:00 t	to 11:45 - Pea	ak 1 of 1								
Intersection	07:00									
Volume	18	191	209	187	169	356	251	16	267	832
Percent	8.6	91.4		52.5	47.5		94.0	6.0		
07:30 Volume	8	52	60	52	64	116	80	5	85	261
Peak Factor										0.797
High Int.	07:30			07:30			07:30			
Volume	8	52	60	52	64	116	80	5	85	
Peak Factor			0.871			0.767			0.785	
Peak Hour From 07:00 t	to 11:45 - Pea	ak 1 of 1								
By Approach	07:30			07:00			07:00			
Volume	13	205	218	187	169	356	251	16	267	
Percent	6.0	94.0		52.5	47.5		94.0	6.0		
High Int.	07:30			07:30			07:30			
Volume	8	52	60	52	64	116	80	5	85	
Peak Factor			0.908			0.767			0.785	
Peak Hour From 12:00 t	to 17:45 - Pea	ak 1 of 1								
Intersection	16:45									
Volume	24	179	203	205	227	432	112	5	117	752
Percent	11.8	88.2		47.5	52.5		95.7	4.3		
17:30 Volume	5	45	50	57	78	135	28	1	29	214
Peak Factor										0.879
High Int.	17:15			17:30			17:00			
Volume	8	47	55	57	78	135	37	2	39	
Peak Factor			0.923			0.800			0.750	

Project No. MPH18-02 TOLOSA PD SR 235 at CR 241

 File Name
 : 235241

 Site Code
 : 00235241

 Start Date
 : 5/15/2018

 Page No
 : 2

		From North			From South			From West		
Start Time	Rt	Th	App. Total	Th	Lt	App. Total	Rt	Lt	App. Total	Int. Total
Peak Hour From 12:00 t	o 17:45 - Pea	ak 1 of 1								
By Approach	16:30			17:00			16:45			
Volume	21	184	205	220	220	440	112	5	117	
Percent	10.2	89.8		50.0	50.0		95.7	4.3		
High Int.	17:15			17:30			17:00			
Volume	8	47	55	57	78	135	37	2	39	
Peak Factor			0.932			0.815			0.750	

Project No. MPH18-02 TOLOSA PD SR 235 at Hipp Way

: 235HIPP
: 00000000
: 5/16/2018
: 1

				Groups P	rinted- Vehic	les			0	
		SR235			HIPP			SR235		
		From North			From East			From South	ו	
Start Time	Th	Lt	App. Total	Rt	Lt	App. Total	Rt	Th	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
07:00	30	5	35	3	1	4	0	24	24	63
07:15	48	9	57	5	0	5	1	44	45	107
07:30	60	1	61	7	1	8	1	51	52	121
07:45	55	7	62	16	0	16	0	64	64	142
Total	193	22	215	31	2	33	2	183	185	433
08:00	69	8	77	3	0	3	0	39	39	119
08:15	53	4	57	1	0	1	0	26	26	84
08:30	43	6	49	0	0	0	0	24	24	73
08:45	41	6	47	1	0	1	0	25	25	73
Total	206	24	230	5	0	5	0	114	114	349
									1	
16:00	30	1	31	8	1	9	0	36	36	76
16:15	40	2	42	3	0	3	0	40	40	85
16:30	32	3	35	1	1	2	0	52	52	89
16:45	54	1	55	5	1	6	1	51	52	113
lotal	156	7	163	17	3	20	1	179	180	363
17:00	53	2	55	5	1	6	0	47	47	108
17:15	32	0	32	4	0	4	0	57	57	93
17:30	51	3	54	6	1	7	0	43	43	104
17:45	33	1	34	1	0	1	0	51	51	86
Total	169	6	175	16	2	18	0	198	198	391
Grand Total	724	59	783	69	7	76	3	674	677	1536
Apprch %	92.5	7.5		90.8	9.2		0.4	99.6		
Total %	47.1	3.8	51.0	4.5	0.5	4.9	0.2	43.9	44.1	
	1	6D00 <i>E</i>			מסוו			SD005	1	
		Erom North			From East			Erom South		
					TUITEAS				1	

		011200						011200		
		From North			From East			From South		
Start Time	Th	Lt	App. Total	Rt	Lt	App. Total	Rt	Th	App. Total	Int. Total
Peak Hour From 07:00	to 11:45 - Pe	ak 1 of 1					•	·		
Intersection	07:15									
Volume	232	25	257	31	1	32	2	198	200	489
Percent	90.3	9.7		96.9	3.1		1.0	99.0		
07:45 Volume	55	7	62	16	0	16	0	64	64	142
Peak Factor										0.861
High Int.	08:00			07:45			07:45			
Volume	69	8	77	16	0	16	0	64	64	
Peak Factor			0.834			0.500			0.781	
Peak Hour From 07:00	to 11:45 - Pe	ak 1 of 1								
By Approach	07:15			07:00	-		07:15			
Volume	232	25	257	31	2	33	2	198	200	
Percent	90.3	9.7		93.9	6.1		1.0	99.0		
High Int.	08:00			07:45			07:45			
Volume	69	8	77	16	0	16	0	64	64	
Peak Factor			0.834			0.516			0.781	
Peak Hour From 12:00	to 17:45 Do	ak 1 of 1								
Intersection	16.45 - F 6			I			I			
Volume	10.45	6	106	20	3	23	1	108	100	/18
Porcont	190	2 1	190	97.0	12.0	25	0.5	190	199	410
	90.9	3.1	55	67.0	13.0	e	0.5	99.5	50	110
10.45 VOlume	54	I	55	5	I	0		51	52	0.025
Peak Factor	16.15			17:20			17.15			0.925
	10.43	1	55	17.30	1	7	17.15	57	57	
Volume Deals Faster	54	I	0.001	0	I	0.001	0	57	0 072	
Peak Factor			0.891			0.821			0.873	

Project No. MPH18-02 TOLOSA PD SR 235 at Hipp Way

 File Name
 : 235HIPP

 Site Code
 : 00000000

 Start Date
 : 5/16/2018

 Page No
 : 2

		SR235			HIPP			SR235		
		From North			From East			From South		
Start Time	Th	Lt	App. Total	Rt	Lt	App. Total	Rt	Th	App. Total	Int. Total
Peak Hour From 12:00 t	o 17:45 - Pea	k 1 of 1								
By Approach	16:45			16:45			16:30			
Volume	190	6	196	20	3	23	1	207	208	
Percent	96.9	3.1		87.0	13.0		0.5	99.5		
High Int.	16:45			17:30			17:15			
Volume	54	1	55	6	1	7	0	57	57	
Peak Factor			0.891			0.821			0.912	

Project No. MPH18-02 TOLOSA PD US 441 at SR 235

File Name	: 235441
Site Code	: 00000000
Start Date	: 5/17/2018
Page No	:1

							G	roups F	Printed	 Vehicl 	es - Bu	ises &	Trucks								
			SR23	5				US44	1				SR23	5				US44	1		
		F	rom No	orth			F	rom Ea	ast			Fi	rom So	uth			F	rom W	est		
Start Time	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Int.
Eactor	1.0	10	10		TOLAI	1.0	10	10		TOLAI	10	10	10		TOLAI	1.0	1.0	10	1.0	TOLAI	TOLAI
07:00	1.0	26	26	1.0	54	1.0	62	20	1.0	03	1.0	20	1.0	1.0	54	26	213	1.0	1.0	263	161
07:00	2	20 41	20	0	72	20	02 04	20	1	146	10	23	23	0	57	20	210	20	0	203	578
07:10	a	47	23	1	90	18	110	48	0	185	12	36	26	5	79	10	210	27	0	256	610
07:45	q	39	34	0	82	6	116	25	Ő	147	9	33	28	0	70	20	251	34	0	305	604
Total	21	153	122	2	298	53	391	124	3	571	37	122	95	6	260	98	923	105	1	1127	2256
rotar	- ·	100		-	200	00	001		Ũ	0/1	01		00	Ũ	200	00	020	100			2200
08:00	5	29	32	0	66	1	65	21	0	87	17	19	31	1	68	34	214	15	0	263	484
08:15	12	28	23	2	65	2	126	23	1	152	13	20	25	2	60	31	197	10	0	238	515
08:30	7	33	14	1	55	3	99	19	0	121	11	18	28	3	60	28	209	10	2	249	485
08:45	9	31	17	0	57	4	82	9	2	97	8	18	20	4	50	31	151	13	0	195	399
Total	33	121	86	3	243	10	372	72	3	457	49	75	104	10	238	124	771	48	2	945	1883
			_																_	(- -)	
16:00	9	28	7	6	50	18	205	17	1	241	7	28	29	2	66	17	118	34	7	176	533
16:15	14	36	13	4	67	15	206	24	1	246	13	36	31	0	80	19	127	25	2	173	566
16:30	12	43	10	1	66	12	210	25	2	249	3	28	34	0	65	18	105	18	1	142	522
16:45	11	34	4	2	51	18	287			335	6	26		0	70	14	116	31	0	161	617
Iotai	46	141	34	13	234	63	908	95	5	1071	29	118	132	2	281	68	466	108	10	652	2238
17.00	13	32	12	5	62	23	272	43	2	340	18	48	35	З	104	22	136	26	1	185	691
17:15	13	41	13	Ő	67	14	301	36	0	351	12	45	40	Ő	97	16	116	40	3	175	690
17:30	16	36	12	1	65	32	266	32	Ő	330	10	37	35	1	83	32	104	43	3	182	660
17:45	18	34	8	4	64	23	302	39	Ő	364	7	29	32	4	72	20	100	31	3	154	654
					0.50		114			1005											
lotal	60	143	45	10	258	92	1	150	2	1385	47	159	142	8	356	90	456	140	10	696	2695
					I						1									I	
Grand	400		007	~~~	4000	040	281		40		100	474	470	~~~	4405	000	261	404	~~~	0.400	0070
Total	160	558	287	28	1033	218	2	441	13	3484	162	474	473	26	1135	380	6	401	23	3420	9072
Apprch %	15.5	54.0	27.8	2.7		6.3	80.7	12.7	0.4		14.3	41.8	41.7	2.3		11.1	76.5	11.7	0.7		
Total %	1.8	6.2	3.2	0.3	11.4	2.4	31.0	4.9	0.1	38.4	1.8	5.2	5.2	0.3	12.5	4.2	28.8	4.4	0.3	37.7	
																				1	

			SR235	5			US441						SR23	5				US44	1		
		F	rom No	orth			F	rom Ea	ast			Fr	om So	outh			F	rom W	est		
Start Time	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Int. Total
Peak Hour F	rom 07	:00 to	11:45 -	· Peak	1 of 1																
Intersectio n	07:15																				
Volume	25	156	128	1	310	45	394	125	1	565	48	112	108	6	274	106	924	97	0	1127	2276
Percent	8.1	50.3	41.3	0.3		8.0	69.7	22.1	0.2		17.5	40.9	39.4	2.2		9.4	82.0	8.6	0.0		
07:30 Volume Peak	9	47	33	1	90	18	119	48	0	185	12	36	26	5	79	19	210	27	0	256	610 0.933
Factor																					
High Int.	07:30					07:30					07:30					07:45					
Volume	9	47	33	1	90	18	119	48	0	185	12	36	26	5	79	20	251	34	0	305	
Peak Factor					0.861					0.764					0.867					0.924	

Project No. MPH18-02 TOLOSA PD US 441 at SR 235

File Name : 235441 Site Code : 00000000 Start Date : 5/17/2018 Page No : 2

		F	SR235	5 orth			F	US441 rom Ea	l ast			F	SR23	5 uth			F	US441 rom We	est		
Start Time	Rt	Th	Lt	RT	App. Total	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT	App. Total	Rt	Th	Lt	RT OR	App. Total	Int. Total
Peak Hour F	rom 07	:00 to	11:45 -	Peak	1 of 1	· · · · ·		I										l		ı	
By Approach	07:15					07:00					07:30					07:00					
Volume Percent	25 8.1	156 50.3	128 41.3	1 0.3	310	53 9.3	391 68.5	124 21.7	3 0.5	571	51 18.4	108 39.0	110 39.7	8 2.9	277	98 8.7	923 81.9	105 9.3	1 0.1	1127	
High Int. Volume	07:30 9	47	33	1	90	07:30 18	119	48	0	185	07:30 12	36	26	5	79	07:45 20	251	34	0	305	
Peak Factor					0.861					0.772					0.877					0.924	
Peak Hour F	rom 12	:00 to	17:45 -	Peak	1 of 1	I					1					I					
Intersectio n	17:00																				
Volume	60	143	45	10	258	92	114 1	150	2	1385	47	159	142	8	356	90	456	140	10	696	2695
Percent	23.3	55.4	17.4	3.9		6.6	82.4	10.8	0.1		13.2	44.7	39.9	2.2		12.9	65.5	20.1	1.4		
Volume	13	32	12	5	62	23	272	43	2	340	18	48	35	3	104	22	136	26	1	185	691 0 975
Factor High Int.	17:15					17:45					17:00					17:00					0.070
Volume	13	41	13	0	67	23	302	39	0	364	18	48	35	3	104	22	136	26	1	185	
Peak Factor					0.963					0.951					0.856					0.941	
Peak Hour F	rom 12	:00 to	17:45 -	Peak	1 of 1	1										I					
By Approach	17:00					17:00					17:00					16:45					
Volume	60	143	45	10	258	92	114 1	150	2	1385	47	159	142	8	356	84	472	140	7	703	
Percent High Int.	23.3 17:15	55.4	17.4	3.9		6.6 17:45	82.4	10.8	0.1		13.2 17:00	44.7	39.9	2.2		11.9 17:00	67.1	19.9	1.0		
Volume	13	41	13	0	67	23	302	39	0	364	18	48	35	3	104	22	136	26	1	185	
Peak Factor					0.963					0.951					0.856					0.950	

Project No. MPH18-02 TOLOSA PD US 441 at SR 235

File Name	: 235441
Site Code	: 00000000
Start Date	: 5/17/2018
Page No	: 1

								Gro	ups Pi	rinted- E	uses &	& Truck	(S								
			SR235	5				US441	1				SR23	5				US44	1		
		Fr	om No	rth			F	rom Ea	ast			Fi	rom So	uth			F	rom W	est		
Start Time	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Rt	Th	Lt	RT	App.	Int.
Fastar	1.0	10	10		Total	1.0	10	10		Total	10	1.0	10		rotai	1.0	10	10		Total	Total
Factor	1.0	1.0	1.0	1.0	6	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	10	1.0	1.0	1.0	1.0		24
07:00	1	4	0	1	10	0	3	2	0	5		0 11	0	1	10	1	2	1	0	3	24
07.15	1	10	0	0	10	1	5	1	0	0		5	0	1	13	1	6	0	0	0	20
07.30	1	5	1	0	0	1	5	2	0	9		5	0	1	0	1	0	2	0	9	20
	2		1	1	20	1	10	- 4		20	2		- 2	- 0	26	2	10	<u> </u>		20	121
TOLAI	2	24	1	1	20	I	19	9	0	29	3	29	2	2	30	3	19	0	0	20	121
08:00	0	2	0	0	2	0	3	5	0	8	2	7	1	0	10	1	6	4	0	11	31
08:15	3	8	1	1	13	0	7	7	0	14	5	3	2	0	10	0	5	1	0	6	43
08:30	0	11	0	0	11	1	3	4	0	8	5	6	2	0	13	1	14	1	0	16	48
08:45	0	5	1	0	6	0	8	3	0	11	2	3	0	2	7	1	10	0	0	11	35
Total	3	26	2	1	32	1	21	19	0	41	14	19	5	2	40	3	35	6	0	44	157
16:00	0	4	0	0	4	0	5	2	1	8	0	1	0	0	1	1	4	1	0	6	19
16:15	0	5	1	0	6	0	2	2	0	4	1	2	2	0	5	1	1	0	0	2	17
16:30	0	4	0	0	4	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	9
16:45	1		0	0	8	0	2		0	4	1			0	4	0	5	0	0	5	21
lotal	1	20	1	0	22	0	11	6	1	18	2	1	4	0	13	2	10	1	0	13	66
17:00	0	4	0	0	4	0	2	0	0	2	1	3	1	0	5	1	3	1	0	5	16
17:15	0	5	0	0	5	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	9
17:30	2	2	0	0	4	1	0	0	0	1	1	4	0	0	5	0	3	1	0	4	14
17:45	0	5	0	0	5	0	4	0	0	4	1	1	0	0	2	0	0	1	0	1	12
Total	2	16	0	0	18	1	7	0	0	8	4	9	1	0	14	1	7	3	0	11	51
Grand Total	8	86	4	2	100	3	58	34	1	96	23	64	12	4	103	9	71	16	0	96	395
Apprch %	8.0	86.0	4.0	2.0		3.1	60.4	35.4	1.0		22.3	62.1	11.7	3.9		94	74.0	16.7	0.0		
Total %	2.0	21.8	1.0	0.5	25.3	0.8	14.7	8.6	0.3	24.3	5.8	16.2	3.0	1.0	26.1	2.3	18.0	4.1	0.0	24.3	

		Fr	SR238 om No	5 orth			F	US44 From Ea	1 ast			Fr	SR23 om So	5 uth			F	US44 rom W	1 est		
Start Time	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Rt	Th	Lt	RT OR	App. Total	Int. Total
Peak Hour F	rom 07	:00 to	11:45 -	Peak	1 of 1																
Intersectio n	08:00																				
Volume	3	26	2	1	32	1	21	19	0	41	14	19	5	2	40	3	35	6	0	44	157
Percent	9.4	81.3	6.3	3.1		2.4	51.2	46.3	0.0		35.0	47.5	12.5	5.0		6.8	79.5	13.6	0.0		
08:30 Volume	0	11	0	0	11	1	3	4	0	8	5	6	2	0	13	1	14	1	0	16	48
Peak Factor																					0.818
High Int.	08:15					08:15					08:30					08:30					
Volume	3	8	1	1	13	0	7	7	0	14	5	6	2	0	13	1	14	1	0	16	
Peak Factor					0.615					0.732					0.769					0.688	
Peak Hour F	rom 07	:00 to	11:45 -	Peak	1 of 1																

By Approach	07:45					08:00					07:45					08:00				
Volume	3	26	2	1	32	1	21	19	0	41	12	21	7	0	40	3	35	6	0	44
Percent	9.4	81.3	6.3	3.1		2.4	51.2	46.3	0.0		30.0	52.5	17.5	0.0		6.8	79.5	13.6	0.0	
High Int.	08:15					08:15					08:30					08:30				
Volume	3	8	1	1	13	0	7	7	0	14	5	6	2	0	13	1	14	1	0	16
Peak Factor					0.615					0.732					0.769					0.688

Project No. MPH18-02 TOLOSA PD US 441 at SR 235

File Name : 235441 Site Code : 00000000 Start Date : 5/17/2018 Page No : 2

	SR235 From North				US441 Erom East				SR235 Erom South				US441 Erom West								
Start Time	Rt	Th		RT	App.	Rt	 Th		RT	App.	Rt	 Th	UIII SU	RT	App.	Rt	Th		RT	App.	Int.
Peak Hour F	rom 12		17:45 -	OR	Total				OR	Total				OR	Total				OR	Total	Total
Intersectio	16:00	.00 10	17.45	i can	1011																
n	10.00			-								_				-			-		
Volume	1 45	20 90 9	1 45	0	22		11 61 1	6 33 3	1 56	18	2 154	7 53 8	4 30.8	0	13	2 154	10 76 9	1 77	0	13	66
16:45	4.5		ч.5 О	0.0	0	0.0	01.1	00.0	0.0	4	10.4	00.0	0.00	0.0	4	10.4	70.5 F	1.1	0.0	_	04
Volume	I	1	0	0	8	0	2	Z	0	4	1	I	2	0	4	0	5	0	0	э	21
Peak Eactor																					0.786
High Int.	16:45					16:00					16:15					16:00					
Volume	1	7	0	0	8	0	5	2	1	8	1	2	2	0	5	1	4	1	0	6	
Peak					0.688					0.563					0.650					0.542	
T actor																				I	
Peak Hour F	rom 12	:00 to	17:45 -	Peak	1 of 1						1										
By Approach	16:00					16:00					16:15					16:45					
Volume	1	20	1	0	22	0	11	6	1	18	3	9	5	0	17	1	12	2	0	15	
Percent	4.5	90.9	4.5	0.0		0.0	61.1	33.3	5.6		17.6	52.9	29.4	0.0		6.7	80.0	13.3	0.0		
Volume	10.45	7	0	0	8	0	5	2	1	8	10.15	2	2	0	5	0.45	5	0	0	5	
Peak Factor					0.688					0.563					0.850					0.750	

Project No. MPH18-02 TOLOSA PD US 441 at NW 133rd Terrace

File Name	: 441HIPP
Site Code	: 00000000
Start Date	: 5/16/2018
Page No	: 1

			Group	os Printed- V	ehicles - Buse	es & Trucks	-			
		NW 133rd Ter	-		US441			US441		
		From North			From East			From West		
Start Time	Rt	Lt	App. Total	Rt	Th	App. Total	Th	Lt	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
07:00	12	8	20	2	112	114	273	2	275	409
07:15	12	9	21	5	126	131	291	9	300	452
07:30	15	15	30	4	125	129	302	15	317	476
07:45	8	6	14	7	134	141	329	18	347	502
Total	47	38	85	18	497	515	1195	44	1239	1839
08:00	7	4	11	4	134	138	264	5	269	418
08:15	13	11	24	3	129	132	231	5	236	392
08:30	7	9	16	3	100	103	203	2	205	324
08:45	7	5	12	1	100	101	202	4	206	319
Total	34	29	63	11	463	474	900	16	916	1453
16 [.] 00	7	4	11	6	236	242	121	18	139	392
16:15	6	3	9	5	253	258	131	10	142	409
16:30	5	4	g	8	284	200	129	6	135	436
16:45	9 9	4	13	10	282	202	134	12	146	400
Total	27	15	42	29	1055	1084	515	47	562	1688
17:00	6	7	13	13	343	356	135	13	148	517
17:15	5	1	6	7	343	350	122	10	132	488
17:30	10	2	12	14	380	394	133	9	142	548
17:45		5	13	10	268	278	101	7	108	399
Total	29	15	44	44	1334	1378	491	39	530	1952
Grand Total	137	97	234	102	3349	3451	3101	146	3247	6932
Apprch %	58.5	41.5	201	3.0	97.0	0101	95.5	4.5	0211	0002
Total %	2.0	1.4	3.4	1.5	48.3	49.8	44.7	2.1	46.8	
		NW 133rd Ter	-		US441			US441		
		From North			From East			From West		
Start Time	Rt	Lt	App. Total	Rt	Th	App. Total	Th	Lt	App. Total	Int. Total
Peak Hour From 07:00 t	o 11:45 - Pea	ak 1 of 1								
Intersection	07:15								1	
Volume	42	34	76	20	519	539	1186	47	1233	1848
Percent	55.3	44.7		3.7	96.3		96.2	3.8		
07:45 Volume	8	6	14	7	134	141	329	18	347	502
Peak Factor									• • •	0.920
High Int.	07:30			07:45			07:45			
Volume	15	15	30	7	134	141	329	18	347	
Peak Factor	10		0.633		101	0.956	020	10	0.888	
_	= =									
Peak Hour From 07:00 t	to 11:45 - Pea	ak 1 of 1		07.20			07.00		1	
By Approach	07:00	~~	07	07:30	500	E 4 0	07:00		1000	
volume	4/	38	85		522	540	1195	44	1239	
Percent	55.3	44.7		3.3	96.7		96.4	3.6		
High Int.	07:30	4 -		07:45	101		07:45	10	o 4-	
Volume Peak Factor	15	15	30 0.708	7	134	141 0.957	329	18	347 0.893	

Peak Hour From 12:00 to 17:45 - Peak 1 of 1 Intersection 16:45 1392 2004 Volume 30 14 44 44 1348 524 44 568 68.2 31.8 3.2 96.8 92.3 7.7 Percent 17:30 Volume 10 2 12 14 380 394 133 9 142 548 0.914 Peak Factor High Int. 16:45 17:30 17:00 9 13 380 394 Volume 4 14 135 13 148 0.846 0.883 0.959 Peak Factor

Project No. MPH18-02 TOLOSA PD US 441 at NW 133rd Terrace

File Name	: 441HIPP
Site Code	: 00000000
Start Date	: 5/16/2018
Page No	: 2

		NW 133rd Te	er		US441			US441		
		From North			From East			From West		
Start Time	Rt	Lt	App. Total	Rt	Th	App. Total	Th	Lt	App. Total	Int. Total
Peak Hour From 12:00 t	o 17:45 - Pea	ak 1 of 1								
By Approach	16:15			16:45			16:15			
Volume	26	18	44	44	1348	1392	529	42	571	
Percent	59.1	40.9		3.2	96.8		92.6	7.4		
High Int.	16:45			17:30			17:00			
Volume	9	4	13	14	380	394	135	13	148	
Peak Factor			0.846			0.883			0.965	

Project No. MPH18-02 TOLOSA PD US 441 at NW 133rd Terrace

File Name	: 441HIPP
Site Code	: 00000000
Start Date	: 5/16/2018
Page No	: 1

			(Groups Printe	ed- Buses & T	rucks	-		go no .	•
		NW 133rd Ter			US441 From Fast			US441 From West		
Start Time	Rt		Ann Total	Rt	Th	Ann Total	Th		Ann Total	Int Total
Factor	10	1.0	App. Total	10	1.0	App. Total	1.0	1.0	App. Total	int. Total
07:00	1	0	1	0		8	12	0	12	21
07:15	0	0	O	0	4	4	12	0 0	12	16
07:30	0	0	0	0	5	5	5	0	5	10
07:00	0	0	0	1	12	13	10	1	11	24
Total	1	0	1	1	20	30	30	1	40	71
Total		0	1		20	00	00	I		71
08:00	0	0	0	0	17	17	7	0	7	24
08:15	1	1	2	0	18	18	11	0	11	31
08:30	0	0	0	1	13	14	13	0	13	27
08:45	0	0	0	0	14	14	10	0	10	24
Total	1	1	2	1	62	63	41	0	41	106
16:00	0	0	0	0	7	7	5	0	5	12
10.15	0	0	0	0	11	11	3	0	3	14
16:30	0	0	0	0	8	8	4	0	4	12
16:45	0	0	0	0	6	6	2	0	2	8
lotal	0	0	0	0	32	32	14	0	14	46
17:00	0	0	0	0	3	3	1	1	2	5
17:15	0	0	0	0	4	4	4	1	5	9
17:30	Ő	0 0	0 0	0	3	3	2	0 0	2	5
17:45	0	0	0	0	1	1	3	0 0	3	4
Total	0	0	0	0	11	11	10	2	12	23
o 17.41					101					0.40
Grand Total	2	1	3	2	134	136	104	3	107	246
Apprcn %	66.7	33.3	4.0	1.5	98.5	0	97.2	2.8	40.5	
lotal %	0.8	0.4	1.2	0.8	54.5	55.3	42.3	1.2	43.5	
		NW 133rd Ter			US441			US441		
		From North			From East			From West		
Start Time	Rt	Lt	App. Total	Rt	Th	App. Total	Th	Lt	App. Total	Int. Total
Peak Hour From 07:00 1	to 11:45 - Pe	ak 1 of 1						·		
Intersection	07:45									
Volume	1	1	2	2	60	62	41	1	42	106
Percent	50.0	50.0		3.2	96.8		97.6	2.4		
08:15 Volume	1	1	2	0	18	18	11	0	11	31
Peak Factor										0.855
High Int.	08:15			08:15			08:30			
Volume	1	1	2	0	18	18	13	0	13	
Peak Factor			0.250			0.861			0.808	
Deek Llour From 07:00 d										
Peak Hour From 07:001	0 11:45 - Pe			00.00			07.45		1	
By Approach	07:30	4	2	08:00	60	60	07:45	4	40	
Volume	50.0	50.0	2		62	63	41	1	42	
Percent	50.0	50.0		1.6	98.4		97.6	2.4		
	00.45			00.45						
High Int.	08:15	4	0	08:15	40	40	08:30	0	40	
High Int. Volume	08:15 1	1	2	08:15 0	18	18	08:30	0	13	
High Int. Volume Peak Factor	08:15 1	1	2 0.250	08:15 0	18	18 0.875	08:30 13	0	13 0.808	
High Int. Volume Peak Factor Peak Hour From 12:00 f	08:15 1 to 17:45 - Pe	1 ak 1 of 1	2 0.250	08:15 0	18	18 0.875	08:30	0	13 0.808	
High Int. Volume Peak Factor Peak Hour From 12:00 f Intersection	08:15 1 to 17:45 - Pe 16:00	1 ak 1 of 1	2 0.250	08:15 0	18	18 0.875	08:30 13	0	13 0.808	
Peak Hour From 12:00 f Intersection Volume	08:15 1 to 17:45 - Pe 16:00 0	1 ak 1 of 1 0	2 0.250 0	08:15 0	18 32	18 0.875 32	13	0	13 0.808 14	46
Peak Hour From 12:00 to Notume Peak Factor Peak Hour From 12:00 to Intersection Volume Percent	08:15 1 to 17:45 - Pe 16:00 0 0.0	1 ak 1 of 1 0 0.0	2 0.250 0	08:15 0 0 0.0	18 32 100.0	18 0.875 32	08:30 13 14 100.0	0 0 0.0	13 0.808 14	46
Peak Hour From 12:00 f Peak Hour From 12:00 f Intersection Volume Percent 16:15 Volume	08:15 1 to 17:45 - Pe 16:00 0 0.0 0	1 ak 1 of 1 0 0.0 0	2 0.250 0 0	08:15 0 0 0.0 0	18 32 100.0 11	18 0.875 32 11	08:30 13 14 100.0 3	0 0.0 0	13 0.808 14 3	46 14
High Int. Volume Peak Factor Peak Hour From 12:00 f Intersection Volume Percent 16:15 Volume Peak Factor	08:15 1 to 17:45 - Pe 16:00 0 0.0 0	1 eak 1 of 1 0 0.0 0	2 0.250 0 0	08:15 0 0.0 0.0 0	18 32 100.0 11	18 0.875 32 11	13 13 14 100.0 3	0 0.0 0	13 0.808 14 3	46 14 0.821
High Int. Volume Peak Factor Peak Hour From 12:00 f Intersection Volume Percent 16:15 Volume Peak Factor High Int.	08:15 1 to 17:45 - Pe 16:00 0 0.0 0	1 ak 1 of 1 0 0.0 0	2 0.250 0 0	08:15 0 0.0 0 16:15	18 32 100.0 11	18 0.875 32 11	08:30 13 14 100.0 3 16:00	0 0.0 0	13 0.808 14 3	46 14 0.821
High Int. Volume Peak Factor Peak Hour From 12:00 f Intersection Volume Percent 16:15 Volume Peak Factor High Int. Volume	08:15 1 to 17:45 - Pe 16:00 0 0.0 0 0	1 ak 1 of 1 0 0.0 0	2 0.250 0 0 0	08:15 0 0.0 0 16:15 0	18 32 100.0 11 11	18 0.875 32 11	08:30 13 14 100.0 3 16:00 5	0 0.0 0	13 0.808 14 3 5	46 14 0.821
MPH Transportation Planning Tallahassee, Florida 850-510-6461

Project No. MPH18-02 TOLOSA PD US 441 at NW 133rd Terrace

File Name	: 441HIPP
Site Code	: 00000000
Start Date	: 5/16/2018
Page No	: 2

		NW 133rd Te	er		US441			US441		
		From North			From East			From West		
Start Time	Rt	Lt	App. Total	Rt	Th	App. Total	Th	Lt	App. Total	Int. Total
Peak Hour From 12:00 t	o 17:45 - Pe	ak 1 of 1								
By Approach	12:00			16:00			16:00			
Volume	0	0	0	0	32	32	14	0	14	
Percent	-	-		0.0	100.0		100.0	0.0		
High Int.	-			16:15			16:00			
Volume	-	-	-	0	11	11	5	0	5	
Peak Factor			-			0.727			0.700	

Florida Department of Transportation Transportation Statistics Office 2016 Historical AADT Report

County: 26 - ALACHUA

Year	AADT	Dire	ection 1	Diı	rection 2	*K Factor	D Factor	T Factor
2016	4500 C	E	0	W	0	9.50	53.60	11.10
2015	3700 C	E	0	W	0	9.50	57.00	9.10
2014	3700 C	Е		W		9.50	57.40	9.30
2013	3900 C	Е	0	W	0	9.50	57.80	8.60
2012	3900 C	Е	0	W	0	9.50	58.40	9.10
2011	3800 C	Е	0	W	0	9.50	58.80	8.10
2010	3500 C	Е	0	W	0	10.13	59.87	9.80
2009	4200 C	Е	0	W	0	10.04	57.81	7.20
2008	3800 C	Е	0	W	0	10.17	57.73	12.10
2007	4900 C	Ε	0	W	0	10.22	58.44	9.70
2006	4300 C	Е	0	W	0	9.98	59.05	13.20
2005	4700 C	Е		W	4700	10.10	58.20	14.90
2004	5100 C	Е		W		10.20	62.30	17.70
2003	4500 C	Е		W		10.20	59.50	13.60
2002	3700 C	Е		W		10.00	56.10	10.60
2001	3900 C	Е		W		10.50	61.30	11.40

AADT Flags: C = Computed; E = Manual Estimate; F = First Year Estimate S = Second Year Estimate; T = Third Year Estimate; R = Fourth Year Estimate V = Fifth Year Estimate; 6 = Sixth Year Estimate; X = Unknown *K Factor: Starting with Year 2011 is StandardK, Prior years are K30 values

Site: 0239 - SR 235 .1 MI. S. OF NW 134TH DR.

Appendix C: HCS Analysis Documentation

				SI	IORT I	REPOF	RL						
General Info	General InformationInalystM.HemmenInalystMPH Transportation Planning					Site Ir	formati	on					
Analyst Agency or Co	M.Hemmen MPH Transp	oortation F	Planning			Interse Area T Jurisdi	ction ype ction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	AM Peak Ho	bur				Analys	sis Year	2018	Existing				
Volume and	Timing Input												
			EB Ттн	RT		WB Гтн	RT		NB T TH	RT		SB Гтн	RT
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		97	924	106	125	394	46	108	112	54	128	156	26
% Heavy Veh	icles	5	5	5	10	5	5	5	25	5	5	14	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	Α	A	A	A	A	A	A	A	A	Α	Α	A
Startup Lost 7	īme	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of E	Effective Greer	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival Type		3	3		3	3		3	3		3	3	
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume000Lane Width12.012.0				0	0	0	0 0 0 0 0			0	0	0	
Lane Width	Ped/Bike/RTOR volume000Lane Width12.012.0Parking/Grade/ParkingN0N				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	arking/Grade/ParkingN0Narking/HourImage: Constraint of the second				Ν	0	Ν	N	0	N	N	0	N
Parking/Hour	Hour 0 0				ļ		ļ		_	ļ	ļ	ļ	<u> </u>
Bus Stops/Ho	Bus Stops/Hour 0 0				0	0		0	0		0	0	
Minimum Ped	estrian Time		3.2			3.2		- 4	3.2		07	3.2	
Phasing	EXCLETE G = 5.1	G = 47.1	n G	- 03 =	G =	4	G = 6.7	eπ 1 (RS Perm G = 21.7	I G:	= 07	G =	8
Timing	Y = 5	Y = 6	Y =	-	Y =		Y = 4	· · · · ·	Y = 5	Y =	=	Y =	
Duration of Ar	nalysis (hrs) =	0.25						(Cycle Ler	ngth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	termir	ation	r			1		
			EB	ı —	ļ	WB	1		NB		 	SB	
Adjusted Flow	/ Rate	108	1145		139	489		120	184		142	202	
Lane Group C	Capacity	421	1438	ļ	177	1437		267	298		280	322	
v/c Ratio		0.26	0.80		0.79	0.34		0.45	0.62	<u> </u>	0.51	0.63	
Green Ratio		0.58	0.47		0.58	0.47	ļ	0.33	0.22		0.33	0.22	
Uniform Delay	yd ₁	9.8	22.4		15.1	16.7		25.0	35.4		27.9	35.5	
Delay Factor k 9.8 22.4				0.33	0.11		0.11	0.20		0.12	0.21		
Delay racio 0.77 0.54 Incremental Delay d2 0.3 3.2				20.4	0.1		1.2	3.8		1.5	3.9		
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 10.2 25.6					35.6	16.8		26.2	39.2		29.4	39.3	
Lane Group LOS B C					D	В		С	D		С	D	
Approach Delay24.3						21.0			34.1		35.2		
Approach LO	S		С			С		С			D		
Intersection D	elay		26.1				Intersec	ction LOS C					

HCS+TM Version 5.21

Generated: 6/9/2018 10:52 AM

				SI	IORT I	REPOF	RL						
General Infor	rmation					Site Ir	formati	on					
Analyst Agency or Co	M.Hemmen MPH Transp ed 6/8/2018	ortation F	Planning			Interse Area T Jurisdi	ection ype ction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	AM Peak Ho	our				Analys	sis Year	2020	Existing	+ Projec	ct		
Volume and	Timing Input	Ϋ́			1			ĩ			·		
			EB Tu	D T		WB T TH	D T		NB TH	D T		SB TTH	D T
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		105	924	106	125	394	62	108	146	54	148	198	36
% Heavy Veh	icles	5	5	5	10	5	5	5	25	5	5	14	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	A	A	A	Α	Α	Α	A	A	A	A	Α	A
Startup Lost T	ime	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of Effective Green 2.0 2.0				2.0	2.0		2.0	2.0		2.0	2.0		
Extension of Effective Green2.02.0Arrival Type33Unit Extension3.03.0				3	3		3	3		3	3		
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume000Lane Width12.012.0				0	0	0	0	0	0	0	0	0	0
Lane Width	Ped/Bike/RTOR volume000Lane Width12.012.0Parking/Grade/ParkingN0N				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	arking/Grade/Parking N 0 N arking/Hour				Ν	0	Ν	N	0	Ν	N	0	N
Parking/Hour	ing/Hour 0 0				ļ				ļ			<u> </u>	
Bus Stops/Ho	Bus Stops/Hour 0 0				0	0	ļ	0	0	ļ	0	0	
Minimum Ped	estrian Lime		3.2			3.2		<u> </u>	3.2		07	3.2	
Phasing	Excl. Left $G = 5.1$	EW Pern G = 47 1	n G	03	G = G =				$\frac{\text{NS Perm}}{3 = 21.7}$		07	<u> </u>	8
Timing	Y = 5	$\frac{O}{Y} = 6$	Y =		Y =		Y = 4	, , ,	Y = 5	Y =	:	Y =	
Duration of Ar	nalysis (hrs) = ().25							Cycle Ler	igth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	termir	ation						
			EB	i		WB		ļ	NB			SB	
Adjusted Flow	/ Rate	117	1145		139	507		120	222		164	260	
Lane Group C	Capacity	412	1438		177	1430		225	298		252	322	
v/c Ratio		0.28	0.80		0.79	0.35		0.53	0.74		0.65	0.81	
Green Ratio		0.58	0.47		0.58	0.47		0.33	0.22		0.33	0.22	
Uniform Delay	y d ₁	9.9	22.4		15.1	16.8		25.5	36.6		30.7	37.2	
Delay Factor k 0.11 0.34					0.33	0.11		0.14	0.30		0.23	0.35	
Incremental Delay d_2 0.43.2					20.4	0.2		2.5	9.8		5.8	14.1	
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 10.3 25.6					35.6	16.9		27.9	46.4		36.5	51.3	
Lane Group LOS B C					D	В		С	D		D	D	
Approach Delay24.2						21.0			39.9			45.6	
Approach LOS	S		С			С		D				D	
Intersection D	elay		28.8				Intersec	tion LO	S			С	

HCS+TM Version 5.21

Generated: 6/9/2018 11:02 AM

				SI	IORT I	REPOF	RL						
General Info	rmation					Site In	formation	on					
Analyst Agency or Co	M.Hemmen MPH Transp	oortation F	Planning			Interse Area T Jurisdi	ection ype ction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	AM Peak Ho	bur				Analys	sis Year	2020	Existing	+ Proje	ct		
Volume and	Timing Input				1			Ĩ			ï	-	
			EB I ти	рт		WB	рт		NB T TH	рт		SB Iтц	Грт
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		106	924	106	125	394	65	108	146	54	148	198	36
% Heavy Veh	icles	5	5	5	10	5	5	5	25	5	5	14	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	Α	A	A	А	А	Α	A	A	A	A	A	A
Startup Lost T	īme	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of E	Effective Greer	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival Type		3	3		3	3		3	3		3	3	
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume000Lane Width12.012.0				0	0	0	0 0 0 0			0	0	0	
Lane Width	Ped/Bike/RTOR volume000ane Width12.012.0Parking/Grade/ParkingN0N				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	arking/Grade/ParkingN0Narking/HourImage: Constraint of the second				Ν	0	Ν	N	0	N	N	0	N
Parking/Hour	r 0 0					ļ	ļ			ļ			
Bus Stops/Ho	us Stops/Hour 0 0				0	0		0	0		0	0	
Minimum Ped	estrian Time		3.2			3.2		<u> </u>	3.2		07	3.2	
Phasing	G = 5.1	G = 47.1	n G	=	 G =	4	G = 6.7	en 1 (G = 21.7	I G:	=	 G =	8
Timing	Y = 5	Y = 6	Y =	=	Y =		Y = 4		Y = 5	Y =	=	Y =	
Duration of Ar	nalysis (hrs) =	0.25						(Cycle Ler	igth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	termin	ation				<u> </u>		
			EB		ļ	WB	r				 	SB	
Adjusted Flow	/ Rate	118	1145		139	510		120	222		164	260	
Lane Group C	Capacity	411	1438		177	1429		225	298		252	322	
v/c Ratio		0.29	0.80		0.79	0.36		0.53	0.74		0.65	0.81	
Green Ratio		0.58	0.47		0.58	0.47		0.33	0.22		0.33	0.22	
Uniform Delay	y d ₁	10.0	22.4		15.1	16.8		25.5	36.6		30.7	37.2	
Delay Factor k 0.11 0.34					0.33	0.11		0.14	0.30		0.23	0.35	
Delay 1 delay R 0.77 0.57 Incremental Delay d2 0.4 3.2					20.4	0.2		2.5	9.8		5.8	14.1	
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 10.4 25.6					35.6	17.0		27.9	46.4		36.5	51.3	
Lane Group LOSBC					D	В		С	D		D	D	
Approach Delay24.2						21.0			39.9			45.6	
Approach LO	S		С			С			D		D		
Intersection D	elay		28.8				Intersec	tion LO	S			С	

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Generated: 10/1/2018 3:42 PM

				SI	IORT	REPOF	RT						
General Info	rmation					Site Ir	formati	on					
Analyst Agency or Co	M.Hemmen MPH Transp	oortation P	Planning			Interse Area T Jurisdi	ection ype iction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	ed 6/8/2018 PM Peak Ho	our				Analys	sis Year	2018	Existing				
Volume and	Timing Input				1			Ŷ					
			ЕВ тн	RT		WB TH	RT		NB T TH	RT		SB Гтн	RT
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		140	456	100	150	1141	96	142	159	55	45	143	70
% Heavy Veh	icles	5	5	5	5	5	5	5	5	5	5	5	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	Α	A	A	A	Α	A	A	A	A	A	Α	A
Startup Lost 7	īme	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of E	Effective Green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival Type		3	3		3	3		3	3		3	3	
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume00Lane Width12.012.0				0	0	0	0	0 0 0 0			0	0	0
Lane Width	Ped/Bike/RTOR Volume000Lane Width12.012.0Parking/Grade/ParkingN0N				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	arking/Grade/Parking N 0 N arking/Hour				Ν	0	N	N	0	N	N	0	N
Parking/Hour	ur 0 0						ļ			ļ		ļ	
Bus Stops/Ho	us Stops/Hour 0 0				0	0	ļ	0	0		0	0	
Minimum Ped	estrian Time		3.2			04 Excl. L			3.2		07	3.2	
Phasing	EXCLETE G = 5.1	G = 47.1	n G	- 03 =	G =	4	G = 6.7	eπ 1 (RS Perm G = 21.7	I G:	= 07	G =	8
Timing	Y = 5	Y = 6	Y =	:	Y =		Y = 4	· · · · ·	Y = 5	Y =	=	Y =	
Duration of Ar	nalysis (hrs) = (0.25						(Cycle Ler	ngth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	etermin	ation	r			1		
		<u> </u>	EB	1	ļ	WB		ļ	NB	1	ļ	SB	
Adjusted Flow	/ Rate	156	618		167	1375	ļ	158	238		50	237	
Lane Group C	Capacity	151	1421		361	1444		242	340		241	336	
v/c Ratio		1.03	0.43		0.46	0.95		0.65	0.70		0.21	0.71	
Green Ratio		0.58	0.47		0.58	0.47		0.33	0.22		0.33	0.22	
Uniform Delay	yd ₁	24.6	17.6	ļ	10.7	25.4		30.7	36.1	ļ	24.1	36.2	
Delay Factor k 0.50 0.11				0.11	0.46		0.23	0.27		0.11	0.27		
Incremental Delay d ₂ 82.3 0.2				0.9	13.9		6.2	6.3		0.4	6.6		
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 106.8 17.8					11.6	39.3		36.9	42.4		24.5	42.8	
Lane Group LOS F B					В	D		D	D		С	D	
Approach Del	Approach Delay 35.8					36.3			40.2			39.6	
Approach LO	S		D			D			D			D	
Intersection D	elay		37.0				Intersec	ction LOS D					

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				SI	HORT	REPOF	RT						
General Info	rmation					Site In	formation	on					
Analyst Agency or Co	M.Hemmen MPH Transp	oortation F	Planning			Interse Area T Jurisdi	ection ype ction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	PM Peak Ho	our				Analys	sis Year	2020	Existing	+ Projec	ct		
Volume and	Timing Input				1			Ŷ					
			EB Гтн	RT		WB Ттн	RT		NB TH	RT		SB Ттн	RT
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		151	456	100	150	1141	118	142	201	55	63	178	79
% Heavy Veh	icles	5	5	5	5	5	5	5	5	5	5	5	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	A	A	A	A	А	Α	A	A	A	Α	Α	A
Startup Lost 7	īme	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of E	Effective Green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival Type		3	3		3	3		3	3		3	3	
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume00Lane Width12.012.0				0	0	0	0	0	0	0	0	0	0
Lane Width	Lane Width12.012.0Parking/Grade/ParkingN0				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	rking/Grade/Parking N 0 N rking/Hour				Ν	0	N	N	0	N	N	0	N
Parking/Hour						ļ	ļ		<u> </u>	ļ	 	ļ	
Bus Stops/Ho	us Stops/Hour 0 0				0	0		0	0		0	0	
Minimum Ped	estrian Time		3.2			3.2		-# [3.2		07	3.2	
Phasing	EXCLETE G = 5.1	G = 47.1	n G	- 03 =	G =	4	G = 6.7	eπ 1	RS Perm G = 21.7	I Gi	=	G =	8
Timing	Y = 5	Y = 6	Y =	:	Y =		Y = 4	· · · · · · · · · · · · · · · · · · ·	Y = 5	Y =	=	Y =	
Duration of Ar	nalysis (hrs) = (0.25							Cycle Ler	ngth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	termin	ation	r					
			EB	1	ļ	WB	r		NB		 	SB	
Adjusted Flow	/ Rate	168	618		167	1399		158	284		70	286	
Lane Group C	Capacity	151	1421		361	1440		207	342		209	337	
v/c Ratio		1.11	0.43		0.46	0.97		0.76	0.83	<u> </u>	0.33	0.85	
Green Ratio		0.58	0.47		0.58	0.47		0.33	0.22		0.33	0.22	
Uniform Delay	yd ₁	24.8	17.6		10.7	25.8		32.5	37.4		24.8	37.6	
Delay Factor k 0.50 0.11				0.11	0.48		0.32	0.37		0.11	0.38		
Incremental Delay d_2 106.6 0.2				0.9	17.3		15.4	15.7		1.0	18.1		
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 131.4 17.8					11.6	43.1		47.9	53.1		25.8	55.7	
Lane Group LOS F B					В	D		D	D		С	E	
Approach Del	Approach Delay 42.1					39.8			51.2		49.8		
Approach LO	S		D			D			D			D	
Intersection D	elay		43.1				Intersec	tion LO	S			D	

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Generated: 6/9/2018 11:10 AM

				SI	IORT I	REPOF	RL						
General Info	rmation					Site In	formati	on					
Analyst Agency or Co Date Perform	M.Hemmen MPH Transp ed 9/30/2018	oortation P	Planning			Interse Area T Jurisdi	ection ype ction	US 4 CBD FDO	41/SR 23 or Simila T	85 r			
Time Period	PM Peak Ho	bur				Analys	sis Year	2020	Existing	+ Projec	ct		
Volume and	Timing Input				r						1		
			EB TH	RT			RT			RT		SB TH	I RT
Number of La	nes	1	2	0	1	2	0	1	1	0	1	1	0
Lane Group		L	TR		L	TR		L	TR		L	TR	
Volume (vph)		152	456	100	150	1141	119	142	201	55	63	181	79
% Heavy Veh	icles	5	5	5	5	5	5	5	5	5	5	5	5
PHF		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Pretimed/Actu	uated (P/A)	A	A	A	A	А	Α	A	A	A	A	Α	A
Startup Lost 7	īme	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of E	Effective Green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival Type		3	3		3	3		3	3		3	3	
Unit Extension3.03.0Ped/Bike/RTOR Volume00					3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume000Lane Width12.012.0				0	0	0	0	0	0	0	0	0	0
Lane Width	Lane Width12.012.0Parking/Grade/ParkingN0				12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade	king/Grade/ParkingN0Nking/HourIIII				Ν	0	N	N	0	N	N	0	N
Parking/Hour							ļ			 			<u> </u>
Bus Stops/Ho	s Stops/Hour 0 0				0	0		0	0		0	0	┨────┤
Minimum Ped		EW/ Dorn	3.2	02		3.2	Evol J	<u></u>	J.Z		07	3.2	
	G = 5.1	G = 47.1	G =	=	G =	4	G = 6.2	1 (G = 21.7	G	=	G =	0
Timing	Y = 5	Y = 6	Y =		Y =		Y = 4	Ň	Y = 5	Y =	=	Y =	
Duration of Ar	nalysis (hrs) = (0.25						(Cycle Ler	igth C =	100.0		
Lane Grou	p Capacity,	Control	Delay	, and L	OS De	termin	ation	1			1		
			EB	i	ļ	WB	1			i	ļ	SB	
Adjusted Flow	/ Rate	169	618		167	1400		158	284		70	289	
Lane Group C	Capacity	151	1421		361	1440		205	342		209	337	
v/c Ratio		1.12	0.43		0.46	0.97		0.77	0.83	<u> </u>	0.33	0.86	
Green Ratio		0.58	0.47		0.58	0.47		0.33	0.22		0.33	0.22	
Uniform Delay	yd ₁	24.8	17.6	ļ	10.7	25.8		32.6	37.4	ļ	24.8	37.7	
Delay Factor	k	0.50	0.11		0.11	0.48		0.32	0.37		0.11	0.39	
Incremental Delay d ₂ 108.8 0.2				0.9	17.5		16.4	15.7		1.0	19.2		
PF Factor 1.000 1.000					1.000	1.000		1.000	1.000		1.000	1.000	
Control Delay 133.6 17.8					11.6	43.3	ļ	48.9	53.1		25.8	56.9	
Lane Group LOS F B					В	D		D	D		С	Е	
Approach Del	Approach Delay42.7					39.9			51.6		50.8		
Approach LO	S		D			D			D		D		
Intersection D	elay		43.5			Intersec			ction LOS D				

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Generated: 10/1/2018 3:47 PM

	τv	VO-WAY STOP	CONTRO	OL SU	MM	ARY			
General Information			Site Ir	nforma	atio	n			
Analyst	M.Hemme	ən	Interse	ction			US 441 at	NW 133rd	Ter.
Agency/Co.	MPH Trar	nsportatin Planning	Jurisdi	ction			FDOT/Ala	chua	
Date Performed			Analys	is Year			2018 Exis	ting	
Analysis Time Period	AM Peak	Hour							
Project Description Tole	osa PD								
East/West Street: US 44	1		North/S	outh St	reet:	NW 133r	d Terrace		
Intersection Orientation:	East-West		Study F	Period (h	nrs):	0.25			
Vehicle Volumes and	d Adjustmen	ts							
Major Street		Eastbound	1				Westbour	nd	
Movement	1	2	3			4	5		6
	L	1400	R			L	510		R
Volume (ven/n) Dook Hour Footor, DHE	47	1186	0.00			0.00	519		20
Hourly Flow Rate HFR	0.90	0.90	0.90			0.90	0.90).90
(veh/h)	52	1317	0			0	576		22
Percent Heavy Vehicles	2					0			
Median Type			2	Raised	d curl	b			
RT Channelized			0						0
Lanes	1	2	0			0	2		0
Configuration	L	Т					Т		TR
Upstream Signal		0					0		
Minor Street		Northbound					Southbou	nd	
Movement	7	8	9			10	11		12
	L	T	R			L	<u>Т</u>		R
Volume (veh/h)						34			42
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90	(0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0			37	0		46
Percent Heavy Vehicles	0	0	0			2	0		2
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0	T T		0	0		0
Configuration							LR		
Delay, Queue Length, ar	nd Level of Serv	vice							
Approach	Eastbound	Westbound		Northbo	bund		S	outhbound	
Movement	1	4	7	8		9	10	11	12
Lane Configuration	L							LR	
v (veh/h)	52							83	
C (m) (veh/h)	975	i i		ĺ			ĺ	405	
v/c	0.05							0.20	
95% queue lenath	0.17	├ ────┼						0.76	
Control Delay (s/veh)	89	<u>├</u>						16.2	
	Δ	<u>├</u> ────┼						<u>, 0,2</u>	
Approach Dolay (alyah)		├ ─────┤						16.2	
Approach LOS		<u></u> ↓						- 10.Z	
Approach LOS								U U	

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	TV	VO-WAY STOP	CONTRO	OL SUN	IMARY			
General Information			Site Ir	nformat	tion			
Analyst	M.Hemme	en	Interse	ction		US 441 at	NW 133rd	Ter.
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction		FDOT/Ala	chua	
Date Performed	5/28/2018	}	Analys	is Year		2018 Exis	ting	
Analysis Time Period	PM Peak	Hour						
Project Description Tole	osa PD							
East/West Street: US 44	1		North/S	outh Stre	eet: NW 133	Brd Terrace		
Intersection Orientation:	East-West		Study F	Period (hr	rs): 0.25			
Vehicle Volumes and	d Adjustment	ts						
Major Street		Eastbound				Westbou	nd	
Movement	1	2	3		4	5		6
			R		L			R
Volume (ven/h)	44	524	0.00		0.00	1348		44
Heak-HOUL Factor, PHF	0.90	0.90	0.90		0.90	0.90).90
(veh/h)	48	582	0		0	1497		48
Percent Heavy Vehicles	2				0			
Median Type				Raised of	curb			
RT Channelized			0					0
Lanes	1	2	0		0	2		0
Configuration	L	Т				Т		TR
Upstream Signal		0				0		
Minor Street		Northbound				Southbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)					14			30
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	().90
Hourly Flow Rate, HFR (veh/h)	0	0	0		15	0		33
Percent Heavy Vehicles	0	0	0		2	0		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, ar	d Level of Serv	ice						
Approach	Eastbound	Westbound		Northbou	ind	S	outhbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	48						48	
C (m) (veh/h)	426						230	
v/c	0.11	-					0.21	
95% queue lenath	0.38	├─── ├					0.77	
Control Delay (s/veh)	14.5	├				1	247	
	R	├					<u> </u>	
Approach Delay (s/yeh)		<u>├</u>					247	L
Approach LOS		├					<u></u>	
Approach LOS							U	

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	ти	VO-WAY STOP	CONTRO	OL SUM	MARY			
General Information			Site Ir	nformati	on			
Analyst	M.Hemme	en	Interse	ction		US 441 at	NW 133rd	Ter.
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction		FDOT/Ala	chua	
Date Performed	6/11/2018		Analys	is Year		2020 Exis	ting + Proje	ct
Analysis Time Period	AM Peak	Hour						
Project Description Tole	osa PD							
East/West Street: US 44	1		North/S	outh Stree	et: NW 133r	d Terrace		
Intersection Orientation:	East-West		Study F	Period (hrs	s): 0.25			
Vehicle Volumes and	d Adjustment	ts						
Major Street		Eastbound				Westbour	nd	
Movement	1	2	3		4	5		6
		1000	R		L			R
Volume (ven/n)	51	1206	0.00		0.00	535		24
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90).90
(veh/h)	56	1340	0		0	594		26
Percent Heavy Vehicles	2				0			
Median Type			Raised curb					
RT Channelized			0					0
Lanes	1	2	0		0	2		0
Configuration	L	Т				T		TR
Upstream Signal		0				0		
Minor Street		Northbound				Southbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)					39			47
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90	().90
Hourly Flow Rate, HFR (veh/h)	0	0	0		43	0		52
Percent Heavy Vehicles	0	0	0		2	0		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		0	0		0
Configuration						LR		
Delay, Queue Length, ar	nd Level of Serv	ice						
Approach	Eastbound	Westbound		Northbour	nd	S	outhbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	56						95	
C (m) (veh/h)	956						446	
v/c	0.06						0.21	
95% queue lenath	0.19						0.80	
Control Delay (s/veh)	9.0	├					15.2	
	A	├			+	1	С.	
Approach Delay (s/veh)		├ <u></u> ├		1	1		15.2	
Approach LOS		<u>├──</u>					C	
							0	

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Site Information Analyst M.Hemmon MPH Transportatin Planning 10ate Performed US 441 at NW 133rd Ter. PDOT/Alachua Date Performed 9/30/2018 Analysis Tea 2020 Existing + Project Analysis Time Period MP Peak Hour Intersection US 441 at NW 133rd Ter. 2020 Existing + Project Project Description Totosa PD REVISED North/South Street: NU 133rd Terrace Intersection Orientation: East/West Street: Study Period (tra): 0.25 Vehicle Volumes and Adjustments Major Street Vestbound 6 Volume (veh/h) 51 1206 S38 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 Vehine (veh/h) 51 1206 S38 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Vehing Type Raised curb T R 0 - - Vehing Type Raised curb 0 0 0 0 0 Lange Street <t< th=""><th></th><th>τv</th><th>VO-WAY STOP</th><th>CONTRO</th><th>DL SU</th><th>ЛММ</th><th>ARY</th><th></th><th></th><th></th></t<>		τv	VO-WAY STOP	CONTRO	DL SU	ЛММ	ARY				
Analyst M.Hemmen Intersection US 441 at NW 133rd Ter. Jurisdiction EDOT/Alachua Agency/Co. M/H Transportatin Planning Date Periormed 9/30/2018 Analysis Year 2020 Existing + Project Analysis Time Period AM Peak Hour Project Description Totas PR EVISED East/West Street: Study Period (hrs): 0.25 Velicle Volumes and Adjustments Morement 1 2 3 4 5 6 Velicle Volumes and Adjustments Westbound Westbound Westbound Westbound Worement 1 2 3 4 5 6 Velicle Volume score, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Velich Volumit 51 1206 588 25 - - 0 - <t< th=""><th>General Information</th><th></th><th></th><th>Site Ir</th><th>nform</th><th>atio</th><th>n</th><th></th><th></th><th></th></t<>	General Information			Site Ir	nform	atio	n				
Agency/Co. MPH Transportatin Planning V30/2016 Unisdiction FD0/TA/lachua Date Performed 9/20/2016 Analysis Time Period Analysis Time Period Analysis Year 2020 Existing + Project Analysis Time Period AM Peak Hour Images Year 2020 Existing + Project Project Description Totosa PD REVISED EastWest Street North/South Street: North/	Analyst	M.Hemme	ən	Interse	ction			US 441 at	NW 133rd	Ter.	
Date Performed 9/30/2018 Analysis Time Period 2020 Existing + Project Analysis Time Period AM Peak Hour Image: Street Study Period (hrs): 0.25 Project Description Tolosa PD REVISED Study Period (hrs): 0.25 Vehicle Volumes and Adjustments Westbound Westbound Movement 1 2 3 4 5 6 Moyerment L T R L T R 0.25 Vehicle Volume (weh/h) 51 1206 538 25 5 Vehicle Signer 0.90 0.90 0.90 0.90 0.90 0.90 Vehi/h) 56 1340 0 0 597 27 Parcent Heavy Vehicles 2 0 R Channelized 0 0 0 2 0 0 Configuration L T R L T R <td< td=""><td>Agency/Co.</td><td>MPH Trar</td><td>nsportatin Planning</td><td>Jurisdi</td><td>ction</td><td></td><td></td><td>FDOT/Ala</td><td>chua</td><td></td></td<>	Agency/Co.	MPH Trar	nsportatin Planning	Jurisdi	ction			FDOT/Ala	chua		
Analysis Time Period Image Pack Hour Image Pack Hour Project Description Tolosa PD REVISED EastWest Usdy Period (trs): 0.25 Vehicle Volumes and Adjustments Eastbound Westbound Movement 1 2 3 4 5 6 Movement 1 2 3 4 5 6 Movement 1 2 3 4 5 6 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Houry Flow Rate, HFR 56 1340 0 0 597 27 Parcent Heavy Vehicles 2 - 0 - - Changradin 0 0 0 20 0 0 0 Lanes 1 2 0 0 2 0 0 Lanes 1 2 0 0 1 12 0 Upsteem Signal 0	Date Performed	9/30/2018	}	Analys	is Year			2020 Exis	ting + Proje	ct	
Project Description Tolosa PD REVISED East/West Street: US 441 North/South Street: NW 133rd Terrace Intersection Orientation: East-West Study Period (hrs): 0.25 Vehicle Volumes and Adjustments Major Street L T R L T R L T R Volume (veh/h) 51 1206 Street 538 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90	Analysis Time Period	AM Peak	Hour								
East/West Street: W/V 1397 Torrace Intersection Orientation: East-West Study Period (hrs): 0.25 Vehicle Volumes and Adjustments Westbound Westbound Movement 1 2 3 4 5 6 Volume (veh/h) 51 1206 - 538 25 Peak-Hour Factor, PHF 0.90	Project Description Tole	osa PD REVISEI	D								
Intersection Orientation: East-West Study Period (hrs): 0.25 Vehicle Volumes and Adjustments Eastbound Westbound Movement 1 2 3 4 5 6 Volume (veh/h) 51 1206	East/West Street: US 44	1		North/S	outh S	treet:	NW 133rd	d Terrace			
Weincle Volumes and Adjustments Eastbound Westbound Major Street L T R L T R Volume (veh/n) 51 1200 - 538 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Houry Flow Rate, HFR 56 1340 0 0 597 27 Veh/n) 56 1340 0 0 Median Type Raised curb 0 Chanelized 0 0 2 0 0 2 0 Distrest Signal 0 0 0 0 0 <	Intersection Orientation:	East-West		Study F	Period (hrs):	0.25				
Major Street Eastbound Westbound Movement 1 2 3 4 5 6 Volume (veh/h) 5.1 1206 538 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 0.90 Heart Street 0 0 0 597 27 Vely thicks 2 0	Vehicle Volumes an	d Adjustmen	ts								
Movement 1 2 3 4 5 6 Volume (veh/h) 51 1206 T R L T R Volume (veh/h) 51 1206 538 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 Percent Heavy Vehicles 2 - 0 - Wedian Type R 6 0 0 27 0 Stress 1 2 0 0 - </td <td>Major Street</td> <td></td> <td>Eastbound</td> <td>1</td> <td></td> <td></td> <td></td> <td>Westbou</td> <td>nd</td> <td></td>	Major Street		Eastbound	1				Westbou	nd		
Volume (veh/h) L I R L I R Volume (veh/h) 51 1206 538 25 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 Hourly Flow Rate, HFR 56 1340 0 0 597 27 Percent Heavy Vehicles 2 0 Median Type 0 RT Channelized 0 0 0 2 0 Lanes 1 2 0 0 2 0 Onfiguration L T T T T R Upstream Signal 0 0 111 12 12 1 R Volume (veh/h) L T R L T R Volume (veh/h) 0 0 0.90 0.90 0.90 0.90 Volume (veh/h) 0 <td>Movement</td> <td>1</td> <td>2</td> <td>3</td> <td></td> <td></td> <td>4</td> <td>5</td> <td></td> <td>6</td>	Movement	1	2	3			4	5		6	
Volume (ven/n) 51 1206 538 25 Peak-Hour Factor, PHF 0.90 0.			1000	R R			L	500		R	
Peak-Hour Factor, PHF 0.90 27 27 Percent Heavy Vehicles 2 0 -	Volume (ven/n)	51	1206	0.00			0.00	538		25	
Induity How Rate, HFR 56 1340 0 0 597 27 Percent Heavy Vehicles 2 0 <td>Peak-Hour Factor, PHF</td> <td>0.90</td> <td>0.90</td> <td>0.90</td> <td></td> <td></td> <td>0.90</td> <td>0.90</td> <td></td> <td>0.90</td>	Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		0.90	
Percent Heavy Vehicles 2 0 Median Type $Raised curb$ $Raised curb$ 0 0 0 RT Channelized 0 0 0 0 0 0 Lanes 1 2 0 0 2 0 Configuration L T T TR 0 0 Minor Street Northbound Southbound Southbound Movement 1 12 Valume (veh/h) L T R L T R Percent Heavy Vehicles 0 0.90 0.90 0.90 0.90 Heavy Vehicles 0 0 0 56 2 <td>(veh/h)</td> <td>56</td> <td>1340</td> <td>0</td> <td></td> <td></td> <td>0</td> <td>597</td> <td></td> <td>27</td>	(veh/h)	56	1340	0			0	597		27	
Median TypeRaised curbRT Channelized000Lanes1200ConfigurationLTTUpstream Signal000Winor StreetNorthboundSouthboundMovement78910LTRLTRVolume (veh/h)00.900.900.900.900.90Hourly Flow Rate, HFR veh/h)00054062Percent Grade (%)002020Storage0000000Storage000000Channelized00000Channelized00000Channelized0000Channelized0000Channelized000Channelized00Channelized00Channelized0Output flow Rate, HFR (veh/h)910114789101112114781213141478159101611171418919101911147 <t< td=""><td>Percent Heavy Vehicles</td><td>2</td><td></td><td></td><td></td><td></td><td>0</td><td></td><td></td><td></td></t<>	Percent Heavy Vehicles	2					0				
RT Channelized 0	Median Type				Raise	d cur	b				
Lanes 1 2 0 0 2 0 Configuration L T T TR Upstream Signal 0 0 0 0 Minor Street Northbound Southbound 0 11 12 Movement 7 8 9 10 11 12 Volume (veh/h) L T R L T R Volume (veh/h) 0 0.90 0.90 0.90 0.90 0.90 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Outly Flow Rate, HFR (wh/h) 0 0 0 54 0 62 Percent Grade (%) 0 0 2 0 2 2 Percent Grade (%) 0 0 0 0 0 0 Storage 0 0 0 0 0 0 0 Configuration 1 4	RT Channelized			0				0			
ConfigurationLTTTRUpstream Signal0000Minor StreetNorthboundSouthboundMovement78910LTRLTRVolume (veh/h)LTRLTRVolume (veh/h)0.900.900.900.900.900.90Hourly Flow Rate, HFR veh/h)00054062Percent Heavy Vehicles000202Percent Grade (%)000000Flared ApproachNN0000Storage0000000Configuration0000000Delay, Queue Length, and Level of Service14789101112ane ConfigurationL14789101112ane ConfigurationL14789101112ane ConfigurationL14789101112ane ConfigurationL14789101112ane ConfigurationL1111111111ane ConfigurationL11111<	Lanes	1	2	0			0	2		0	
Upstream Signal00SouthboundMinor StreetNorthboundSouthboundMovement789101112LTRLTRVolume (veh/h)-4956Peak-Hour Factor, PHF0.900.900.900.900.90Heavy Vehicles00054062Percent Heavy Vehicles000202Percent Grade (%)000002Percent Grade (%)000000Storage000000RT Channelized00000anes000000Delay, Queue Length, and Level of ServiceImage: Second Secon	Configuration	L	Т					Т		TR	
Minor StreetNorthboundSouthboundMovement789101112LTRLTRValume (veh/h)4956Peak-Hour Factor, PHF0.900.900.900.90Hourly Flow Rate, HFR (veh/h)00054062Percent Heavy Vehicles000202Percent Grade (%)000202Percent Grade (%)000000Storage000000RT Channelized000000anes000000Delay, Queue Length, and Level of ServiceILRILRApproach147891011Approach147891011Approach56ILRILRILROutput (wh/h)561161161162 (veh/h)560.261161042 (ch/h)9631.041041042 (ch/h)9.01.041041042 (othor (blog)9.01.6.1104104	Upstream Signal		0					0			
Movement 7 8 9 10 11 12 L T R L T R L T R Volume (veh/h) - 49 56 56 56 56 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Hourly Flow Rate, HFR (veh/h) 0 0 0 54 0 62 Percent Heavy Vehicles 0 0 0 2 0 2 Percent Grade (%) 0 0 0 0 2 0 2 Parced Grade (%) 0 0 0 0 0 2 0 2 Storage 0	Minor Street		Northbound					Southbou	nd		
LTRLTRVolume (veh/h)4956Peak-Hour Factor, PHF0.900.900.900.900.90Hourly Flow Rate, HFR (veh/h)00054062Percent Heavy Vehicles000202Percent Grade (%)0202Percent Grade (%)-00002Percent Grade (%)-0-02Flared ApproachN-0-0Storage000000anes000000ConfigurationPelay, Queue Length, and Level of ServiceApproach1478910Vovement1478910147891011ane ConfigurationLLR(veh/h)56116-(m) (veh/h)95300.2620% queue length0.1916.1	Movement	7	8	9			10	11 ·		12	
Volume (veh/h)4956Peak-Hour Factor, PHF0.900.900.900.900.90Hourly Flow Rate, HFR (veh/h)00054062Percent Heavy Vehicles000202Percent Grade (%)000202Percent Grade (%)000202Percent Grade (%)000202Percent Grade (%)000002Parce ApproachNNNNNStorage000000anes000000ConfigurationNLRLRVenthoundNDelay, Queue Length, and Level of ServiceNSouthboundNMovement147891011ane ConfigurationLILRII(veh/h)56II116I(m) (veh/h)953II00.26I3% queue length0.19I1.04I16.1I		L	T	R			<u> </u>			R	
Peak-Hour Factor, PHF 0.90	Volume (veh/h)						49			56	
Houry Flow Rate, HFR 0 0 54 0 62 Percent Heavy Vehicles 0 0 0 2 0 2 Percent Grade (%) 0 0 0 2 0 2 Percent Grade (%) 0 0 0 0 0 2 Flared Approach N N 0 0 0 0 0 Storage 0	Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		0.90	
Percent Heavy Vehicles000202Percent Grade (%) 0 0 0 0 0 0 Flared Approach N N N N N Storage 0 0 0 0 0 RT Channelized 0 0 0 0 0 Lanes 0 0 0 0 0 Configuration V V LR V Delay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundSouthboundVovement 1 4 7 8 9 10 11 12 _ane Configuration L V LR V LR V $V(veh/h)$ 56 V V 116 V 0.26 0.06 V V V V V V V 0.06 V V V V V V 0.06 V V V V V V 0.010 0.19 V V V V V 0.010 V V V V V V 0.010 V V V V V V 0.010 V V V V V V V 0.010 V V V V V V V V 0.010 V V V	Hourly Flow Rate, HFR (veh/h)	0	0	0		54		0		62	
Percent Grade (%) 0 0 Flared Approach N N Storage 0 0 Storage 0 0 RT Channelized 0 0 Lanes 0 0 0 0 0 Configuration 0 0 Delay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundSouthboundVovement1 4 1 4 7 8 9 10 11 12 LR 2 ane Configuration L L LR (veh/h) 56 116 2 (m) (veh/h) 953 441 $1/c$ 0.06 0.26 2% queue length 0.19 1.04 2 ontrol Delay (s/veh) 9.0 16.1	Percent Heavy Vehicles	0	0	0			2	0		2	
Flared ApproachNNStorage000RT Channelized000Lanes0000Configuration0000Delay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundVovement1478910Lane ConfigurationL1112Jane ConfigurationL116116(veh/h)5610104(veh/h)9531104Job Queue Length0.1911.04	Percent Grade (%)		0					0			
Storage000RT Channelized0000Lanes00000Configuration0000Delay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundSouthboundMovement14789101112_ane ConfigurationLII101112_ane ConfigurationLIIII6116116(veh/h)56II0.26102 (m) (veh/h)953II1.0410425% queue length0.19I1.0416.1	Flared Approach		N					N			
RT Channelized000Lanes00000ConfigurationImage: configurationImage: configurationImage: configurationImage: configurationDelay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundSouthboundMovement14789101112ane ConfigurationImage: c	Storage		0					0			
Lanes0000000ConfigurationImage: configurationImage: configuration	RT Channelized			0						0	
ConfigurationLRDelay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundMovement14789101112Lane ConfigurationLIII12III12/ (veh/h)56IIIII116IIIC (m) (veh/h)953IIII0.26IIII35% queue length0.19IIII1.04IIIIControl Delay (s/veh)9.0IIII16.1	Lanes	0	0	0	ĺ		0	0		0	
Delay, Queue Length, and Level of ServiceApproachEastboundWestboundNorthboundSouthboundMovement14789101112Lane ConfigurationLLR/ (veh/h)56116C (m) (veh/h)9530.26//c0.061.0425% queue length0.1916.1	Configuration							LR			
Approach Eastbound Westbound Northbound Southbound Movement 1 4 7 8 9 10 11 12 Lane Configuration L LR v (veh/h) 56 116 C (m) (veh/h) 953 441 //c 0.06 0.26 95% queue length 0.19 1.04 Control Delay (s/veh) 9.0 16.1	Delay, Queue Length, ar	nd Level of Serv	vice								
Movement 1 4 7 8 9 10 11 12 Lane Configuration L LR LR	Approach	Eastbound	Westbound		Northbo	ound		S	Southbound		
Lane Configuration L Image: Left of the state of the	Movement	1	4	7	8		9	10	11	12	
v (veh/h) 56 116 C (m) (veh/h) 953 441 //c 0.06 0.26 95% queue length 0.19 1.04 Control Delay (s/veh) 9.0 16.1	Lane Configuration	L							LR		
C (m) (veh/h) 953 441 v/c 0.06 0.26 95% queue length 0.19 1.04 Control Delay (s/veh) 9.0 16.1	v (veh/h)	56							116		
v/c 0.06 0.26 95% queue length 0.19 1.04 Control Delay (s/veh) 9.0 16.1	C (m) (veh/h)	953							441		
95% queue length 0.19 1.04 Control Delay (s/veh) 9.0 16.1	v/c	0.06						í	0.26		
Control Delay (s/veh) 9.0 16.1	95% queue length	0.19							1.04		
	Control Delay (s/veh)	9.0	1		ĺ		16.1				
	LOS	A	i i				С				
Approach Delay (s/veh) 16.1	Approach Delay (s/veh)			16.1			16.1	•			
Approach LOS C	Approach LOS								С		

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	ти	VO-WAY STOP	CONTRO		MMARY				
General Information			Site Ir	nforma	tion				
Analyst	M.Hemme	en	Interse	ction		US 441 at	NW 133rd	Ter.	
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction		FDOT/Ala	chua		
Date Performed	6/11/2018		Analys	is Year		2020 Exis	ting + Proje	ct	
Analysis Time Period	PM Peak	Hour							
Project Description Tole	osa PD								
East/West Street: US 44	1		North/S	outh Str	eet: NW 1	33rd Terrace			
Intersection Orientation:	East-West		Study F	Period (h	rs): 0.25				
Vehicle Volumes and	d Adjustment	ts							
Major Street		Eastbound				Westbou	nd		
Movement	1	2	3		4	5		6	
	L	I	R		L	1070		R	
Volume (ven/h)	49	542	0.00		0.00	1370		50	
Heak-HOUL Factor, PHF	0.90	0.90	0.90		0.90	0.90).90	
(veh/h)	54	602	0		0	1522		55	
Percent Heavy Vehicles	2				0				
Median Type				Raised	curb				
RT Channelized			0					0	
Lanes	1	2	0		0	2		0	
Configuration	L	Т				Т		TR	
Upstream Signal		0				0			
Minor Street		Northbound				Southbou	nd		
Movement	7	8	9		10	11		12	
	L	Т	R		L	Т		R	
Volume (veh/h)					19			34	
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90 0.90		().90	
Hourly Flow Rate, HFR (veh/h)	0	0	0		21	0		37	
Percent Heavy Vehicles	0	0	0		2	0		2	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0					0	
Lanes	0	0	0		0	0		0	
Configuration						LR			
Delay, Queue Length, ar	d Level of Serv	ice							
Approach	Eastbound	Westbound		Northbou	und	S	outhbound		
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	L						LR		
v (veh/h)	54						58		
C (m) (veh/h)	414						211		
v/c	0.13						0.27		
95% queue length	0.45						1.08		
Control Delay (s/yeh)	15.0	├					28 1		
	ло.0 Б	┝────┤					20. 4		
LUU Annraach Dalau (akuali)	D	├					L		
Approach Delay (s/ven)							2ŏ.4		
Approach LOS							D		

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	TV	VO-WAY STOP	CONTRO	OL SUI	MMARY						
General Information			Site Ir	nforma	tion						
Analyst	M.Hemme	en	Interse	ction			US 441 at	NW 133rd	Ter.		
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction			FDOT/Ala	chua			
Date Performed	9/30/2018	}	Analys	is Year			2020 Exis	ting + Proje	ct		
Analysis Time Period	PM Peak	Hour									
Project Description Tole	osa PD REVISEL	0									
East/West Street: US 44	1		North/S	outh Str	eet: NW	133rc	l Terrace				
Intersection Orientation:	East-West		Study F	Period (h	rs): 0.25						
Vehicle Volumes and	d Adjustment	ts						_			
Major Street		Eastbound					Westbour	nd			
Movement	1	2	3		4		5		6		
Valuma (vah/h)	L	<u> </u>	R		L		1271		R 62		
Volume (ven/n) Deak Hour Factor, DHE	0.00	0.00	0.00		0.00		0.00				
Hourly Flow Rate HFR	0.30	0.30	0.30		0.30		0.30				
(veh/h)	63	602	0		0		1523		70		
Percent Heavy Vehicles	2				0						
Median Type				Raised	curb						
RT Channelized			0						0		
Lanes	1	2	0		0		2		0		
Configuration	L	Т					Т		TR		
Upstream Signal		0					0				
Minor Street		Northbound	1			Southbou	nd				
Movement	7	8	9		10		11		11		12
	L	Т	R		L	T			R		
Volume (veh/h)					24				39		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90		0.90	().90		
Hourly Flow Rate, HFR (veh/h)	0	0	0		26		0		43		
Percent Heavy Vehicles	0	0	0		2		0		2		
Percent Grade (%)		0					0				
Flared Approach		N					Ν				
Storage		0					0				
RT Channelized			0						0		
Lanes	0	0	0		0		0		0		
Configuration							LR				
Delay, Queue Length, ar	nd Level of Serv	ice									
Approach	Eastbound	Westbound		Northbo	und		S	outhbound			
Movement	1	4	7	8	9)	10	11	12		
Lane Configuration	L							LR			
v (veh/h)	63			ĺ				69			
C (m) (veh/h)	408							204			
v/c	0.15							0.34			
95% queue length	0.54							1.41			
Control Delay (s/veh)	15.4	<u> </u>						31.4			
	, o	<u> </u>									
Approach Dolay (alyah)		├				21 /					
Approach LOS		┟────┤						51.4 D			
Approach LOS								D			

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	TV	VO-WAY STOP	CONTRO	DL SUI	MMA	ARY				
General Information			Site Ir	nforma	ation]				
Analyst	M.Hemme	en	Interse	ction			SR 235 at	CR 241		
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction			FDOT/Ala	сһиа Сог	inty	
Date Performed	5/28/2018	}	Analys	is Year			2018 Exis	ting		
Analysis Time Period	AM Peak	Hour								
Project Description Tole	osa PD									
East/West Street: SR 23	5		North/S	outh Str	reet:	CR 241				
Intersection Orientation:	East-West		Study F	Period (h	nrs):	0.25				
Vehicle Volumes and	d Adjustment	ts								
Major Street		Eastbound	1				Westbou	nd		
Movement	1	2	3			4	5		6	
	L	407	<u> </u>			L			<u>R</u>	
Volume (ven/n)	169	187	0.00			0.00	191		18	
Peak-Hour Factor, PHF	0.90	0.90	0.90		().90	0.90		0.90	
(veh/h)	187	207	0			0	212		20	
Percent Heavy Vehicles	0					0		ĺ		
Median Type				Undivi	ided					
RT Channelized			0						0	
Lanes	1	1	0	ĺ		0	1		1	
Configuration	L	Т					Т		R	
Upstream Signal		0					0			
Minor Street		Northbound					Southbou	nd		
Movement	7	8	9			10	11		12	
	L	Т	R			L	Т	T		
Volume (veh/h)			ļ			16			251	
Peak-Hour Factor, PHF	0.90	0.90	0.90		(0.90	0.90		0.90	
Hourly Flow Rate, HFR (veh/h)	0	0	0			17	0		278	
Percent Heavy Vehicles	0	0	0			0	0		0	
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0						0	
Lanes	0	0	0			1	0		1	
Configuration						L			R	
Delay, Queue Length, ar	nd Level of Serv	ice								
Approach	Eastbound	Westbound		Northbo	und		S	outhbour	d	
Movement	1	4	7	8		9	10	11	12	
Lane Configuration	L						L		R	
v (veh/h)	187						17		278	ł
C (m) (veh/h)	1348				i		310		833	;
v/c	0.14				—†		0.05		0.33	3
95% queue lenath	0.48						0.17		1.47	7
Control Delay (s/veh)	81	├ ────					17.3		11.5	5
	Δ	<u> </u>							R	
Approach Delay (s/yoh)		├								
Approach LOS		├─────┤					ļ	P		
Approach LOS								D		

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	TV	VO-WAY STOP	CONTRO	DL SU	MM	ARY			
General Information			Site Ir	nforma	atior	า			
Analyst	M.Hemme	en	Interse	ction			SR 235 at	CR 241	
Agency/Co.	MPH Tran	sportatin Planning	Jurisdi	ction			FDOT/Ala	chua Cou	nty
Date Performed	5/28/2018	}	Analys	is Year			2018 Exis	ting	
Analysis Time Period	PM Peak	Hour							
Project Description Tole	osa PD								
East/West Street: SR 23	5		North/S	outh Sti	reet:	CR 241			
Intersection Orientation:	East-West		Study F	Period (h	nrs):	0.25			
Vehicle Volumes and	d Adjustment	ts							
Major Street		Eastbound					Westbou	nd	
Movement	1	2	3			4	5		6
	L	T	R			L	T		R
Volume (veh/h)	227	205				0.00	1/9		24
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		0.90
(veh/h)	252	227	0			0	198		26
Percent Heavy Vehicles	5					0			
Median Type				Undiv	ided				
RT Channelized			0						0
Lanes	1	1	0			0	1		1
Configuration	L	Т					Т		R
Upstream Signal		0					0		
Minor Street		Northbound				Southbou	nd		
Movement	7	8	9			10	11		12
	L	Т	R			L	Т	T R	
Volume (veh/h)						5	11		112
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90 C		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0			5	0		124
Percent Heavy Vehicles	0	0	0			0	0		5
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0	T			ĺ		0
Lanes	0	0	0			1	0		1
Configuration						L			R
Delay, Queue Length, ar	nd Level of Serv	ice	R	-				н. 	
Approach	Eastbound	Westbound		Northbo	ound		S	outhboun	d
Movement	1	4	7	8		9	10	11	12
Lane Configuration	L						L		R
v (veh/h)	252						5		124
C (m) (veh/h)	1327	i i					243		836
v/c	0.19						0.02		0.15
95% queue length	0.70						0.06		0.52
Control Delay (s/veh)	83	<u> </u>					20.1		10.1
	0.0	├					20.1		- 10.1 D
LUU Approach Deley (chuch)	А.	<u>├</u>					D		
Approach Delay (s/ven)								10.4	
Approach LOS								В	

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	ти	VO-WAY STOP	CONTRO	DL SUI	MMA	ARY			
General Information			Site Ir	nforma	ition				
Analyst	M.Hemme	en	Interse	ction			SR 235 at	CR 241	
Agency/Co.	MPH Tran	nsportatin Planning	Jurisdi	ction			FDOT/Ala	chua Coui	nty
Date Performed	6/11/2018	}	Analys	is Year			2020 Exis	ting + Proj	ect
Analysis Time Period	AM Peak	Hour							
Project Description Tole	osa PD								
East/West Street: SR 23	5		North/S	outh Str	reet:	CR 241			
Intersection Orientation:	East-West		Study F	Period (h	irs):	0.25			
Vehicle Volumes and	d Adjustment	ts							
Major Street		Eastbound					Westbou	nd	
Movement	1	2	3			4	5		6
	L 100	0.45	<u>к</u>			L			R
Volume (ven/n) Doak Hour Eactor, DHE	109	243	0.00			00	203		20
Hourly Flow Rate HFR	0.90	0.90	0.90		ι).90	0.90		0.90
(veh/h)	187	272	0			0	292		31
Percent Heavy Vehicles	0					0			
Median Type				Undivi	ided				
RT Channelized			0						0
Lanes	1	1	0			0	1		0
Configuration	L	Т							TR
Upstream Signal		0					0		
Minor Street		Northbound					Southbou	nd	
Movement	7	8	9			10	11		12
	L	Т	R			L	T		R
Volume (veh/h)			ļ			24			251
Peak-Hour Factor, PHF	0.90	0.90	0.90		0).90	0.90 0.		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0			26	0		278
Percent Heavy Vehicles	0	0	0			0	0		0
Percent Grade (%)		0					0		
Flared Approach		N					N		
Storage		0					0		
RT Channelized			0						0
Lanes	0	0	0			1	0		1
Configuration						L			R
Delay, Queue Length, ar	nd Level of Serv	ice							
Approach	Eastbound	Westbound		Northbo	und		S	outhbound	1
Movement	1	4	7	8		9	10	11	12
Lane Configuration	L						L		R
v (veh/h)	187						26		278
C (m) (veh/h)	1248						246		737
v/c	0.15						0.11		0.38
95% aueue lenath	0.53						0.35		1.76
Control Delay (s/veh)	8.4	├──── ├					21.4		12.8
	<u> </u>	├					<u> </u>		B
Approach Delay (s/yeb)		<u>├──</u>							
$\frac{1}{2} \frac{1}{2} \frac{1}$		<u>├</u> ──── <u>├</u>							
Approach LOS								D	

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	τv	VO-WAY STOP	CONTRO	DL SU	JMM	ARY				
General Information			Site Ir	nform	atio	n				
Analyst	M.Hemme	ən	Interse	ction			SR 235 at	CR 24	1	
Agency/Co.	MPH Trar	nsportatin Planning	Jurisdi	ction			FDOT/Ala	chua Co	ount	у
Date Performed	9/30/2018	}	Analys	is Year	•		2020 Exis	ting + P	roje	ct
Analysis Time Period	AM Peak	Hour								
Project Description Tole	osa PD REVISEI	D								
East/West Street: SR 23	5		North/S	outh S	treet:	CR 241				
Intersection Orientation:	East-West		Study F	Period ((hrs):	0.25				
Vehicle Volumes an	d Adjustmen	ts								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
		T	R			L	T			R
Volume (veh/h)	169	241	0.00			0.00	226			23
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		().90
(veh/h)	187	267	0			0	251			25
Percent Heavy Vehicles	0					0				
Median Type				Undi	vided					
RT Channelized			0							0
Lanes	1	1	0			0	1			0
Configuration	L	Т								TR
Upstream Signal		0					0			
Minor Street		Northbound					Southbou	nd		
Movement	7	8	9			10	11 12		12	
	L	Т	R			L	Т			R
Volume (veh/h)						22				251
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		().90
Hourly Flow Rate, HFR (veh/h)	0	0	0			24	0			278
Percent Heavy Vehicles	0	0	0			0	0			0
Percent Grade (%)		0					0			
Flared Approach	1	N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			1	0			1
Configuration						L	1			R
Delay, Queue Length, ar	nd Level of Serv	ice	P				•			
Approach	Eastbound	Westbound		Northb	ound		S	Southbo	und	
Movement	1	4	7	8		9	10	11		12
Lane Configuration	L						L			R
v (veh/h)	187	i i					24			278
C (m) (veh/h)	1299	()					265			780
v/c	0.14						0.09			0.36
95% queue length	0.50						0.30			1.62
Control Delay (s/yoh)	9.00	├					10.0			12.1
	0.2	<u>├</u> ───┤					19.9			12.1 D
	A	├							В	
Approach Delay (s/veh)							ļ	12.8		
Approach LOS								В		

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	TV	VO-WAY STOP	CONTRO	OL SUN	MARY			
General Information			Site Ir	nforma	tion			
Analyst	M.Hemme	en	Interse	ction		SR 235 ai	t CR 241	
Agency/Co.	MPH Tran	sportatin Planning	Jurisdi	ction		FDOT/Ala	ichua Coun	ty
Date Performed	6/11/2018	}	Analys	is Year		2020 Exis	ting + Proje	ect
Analysis Time Period	PM Peak	Hour						
Project Description Tole	osa PD							
East/West Street: SR 23	5		North/S	outh Str	eet: CR 2	41		
Intersection Orientation:	East-West		Study F	Period (h	rs): 0.25			
Vehicle Volumes and	d Adjustment	ts						
Major Street		Eastbound	î.			Westbou	nd	
Movement	1	2	3		4	5		6
	L	T	R		L	T		R
Volume (veh/h)	227	280	0.00		0.00	241		34
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
(veh/h)	252	311	0		0	267		37
Percent Heavy Vehicles	5				0			
Median Type				Undivi	ded			
RT Channelized			0					0
Lanes	1	1	0		0	1		0
Configuration	L	Т						TR
Upstream Signal		0				0		
Minor Street		Northbound				Southbou	Ind	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)			ļ		17			112
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR (veh/h)	0	0	0		18	0		124
Percent Heavy Vehicles	0	0	0		0	0		5
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	0		1	0		1
Configuration					L			R
Delay, Queue Length, ar	nd Level of Serv	ice						
Approach	Eastbound	Westbound		Northbou	und	5	Southbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	252					18		124
C (m) (veh/h)	1240	i i				189	1	746
v/c	0.20					0.10	1	0.17
95% queue lenath	0.76					0.31	İ	0.59
Control Delav (s/veh)	8.6					26.0	1	10.8
108	A	<u> </u>				O		B
Approach Delay (s/veh)		<u>├──</u>				12 7		
$\Delta nnroach I \cap S$							R	
							D	

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	ТМ	O-WAY STOP	CONTRO	DL SU	MM	ARY				
General Information			Site Ir	nform	atio	n				
Analyst	M.Hemme	n	Interse	ction			SR 235 at	CR 241		
Agency/Co.	MPH Tran	sportatin Planning	Jurisdi	ction			FDOT/Ala	chua Co	unt	/
Date Performed	9/30/2018		Analys	is Year			2020 Exis	ting + Pı	ojec	ct
Analysis Time Period	PM Peak I	Hour								
Project Description Tolosa	PD REVISED)								
East/West Street: SR 235			North/S	outh St	treet:	CR 241				
Intersection Orientation: Ea	st-West		Study F	Period (hrs):	0.25				
Vehicle Volumes and A	djustment	S								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
	L	0.40	<u>к</u>				210			<u>R</u>
Volume (ven/n)	227	240	0.00			0.00	219		(29
Hourly Flow Rate HFR	0.90	0.90	0.90			0.90	0.90			.90
(veh/h)	252	266	0			0	243			32
Percent Heavy Vehicles	5					0				
Median Type				Undiv	/ided					
RT Channelized			0				0			0
Lanes	1	1	0			0	1			0
Configuration	L	Т								TR
Upstream Signal		0					0			
Minor Street		Northbound	2				Southbou	Southbound		
Movement	7	8	9			10 11		11		12
	L	Т	R			L	T			R
Volume (veh/h)						9			1	112
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		C	.90
Hourly Flow Rate, HFR (veh/h)	0	0	0			10	0			124
Percent Heavy Vehicles	0	0	0			0	0			5
Percent Grade (%)		0		Î			0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			1	0			1
Configuration						L				R
Delay, Queue Length, and L	evel of Serv	ice								
Approach E	Eastbound	Westbound		Northbo	ound		S	Southbou	nd	
Movement	1	4	7	8		9	10	11		12
Lane Configuration	L						L			R
v (veh/h)	252						10			124
C (m) (veh/h)	1271						209			772
v/c	0.20						0.05			0.16
95% queue length	0.74	ĺ					0.15			0.57
Control Delay (s/veh)	8.5			ĺ			23.1			10.6
LOS	A						В			
Approach Delav (s/veh)				1				11.5		
Approach I OS								В		

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	TW	O-WAY STOP	CONTRO	DL SU	JMM	ARY				
General Information			Site Ir	nform	atio	n				
Analyst	M.Hemme	n	Interse	ction			SR 235 ai	t Hipp V	Vay	
Agency/Co.	MPH Tran	sportation Planning	Jurisdi	ction			FDOT-D2	/Alachu	ia Co	ounty
Date Performed	5/28/2018		Analys	is Year			2018 Exis	ting		
Analysis Time Period	AM Peak									
Project Description Told	osa PD									
East/West Street: SR 23	5		North/S	outh S	treet:	Hipp Wa	V			
Intersection Orientation:	East-West		Study F	Period (hrs):	0.25				
Vehicle Volumes and	d Adjustment	S								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
	L	T (an	<u>R</u>					-+		R
Volume (veh/h)	0.00	198	2			25	232			00
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		(0.90
(veh/h)	0	220	2			27	257			0
Percent Heavy Vehicles	0			Î		5		ĺ		
Median Type				Undiv	vided					
RT Channelized			0							0
Lanes	0	1	0			0	1			0
Configuration			TR			LT				
Upstream Signal		0					0			
Minor Street		Northbound			Southbou	ind				
Movement	7	8	9		10		11			12
	L	Т	R			L	T			R
Volume (veh/h)	1		31							
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		().90
Hourly Flow Rate, HFR (veh/h)	1	0	34		0 0				0	
Percent Heavy Vehicles	0	0	0			0	0			0
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			0	0			0
Configuration		LR						ĺ		
Delay, Queue Length, an	d Level of Servi	се								
Approach	Eastbound	Westbound		Northbo	ound		5	Southbo	ound	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		LT		LR						
v (veh/h)		27		35						
C (m) (veh/h)		1329		809	9					
v/c		0.02		0.04	4					
95% queue length		0.06		0.14	4					
Control Delay (s/veh)		7.8		9.7	,		İ 👘	i		
LOS		A		A			1	İ		
Approach Delay (s/veh)				9.7	7		İ			
Approach LOS				Α						

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	TW	O-WAY STOP	CONTRO	DL SU	ЛММ	ARY				
General Information			Site Ir	nform	atio	n				
Analyst	M.Hemme	n	Interse	ction			SR 235 at	t Hipp V	Nay	
Agency/Co.	MPH Tran	sportation Planning	Jurisdie	ction			FDOT-D2	/Alachi	ia Co	ounty
Date Performed	5/28/2018		Analys	is Year			2018 Exis	ting		
Analysis Time Period	PM Peak									
Project Description Tolo	sa PD									
East/West Street: SR 235	5		North/S	outh S	treet:	Hipp Way	/			
Intersection Orientation:	East-West		Study F	Period (hrs):	0.25				
Vehicle Volumes and	l Adjustment	S								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
	L	T (nn	R				T (00	\rightarrow		R
Volume (veh/h)	0.00	198	1			6	190			0.00
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		l).90
(veh/h)	0	220	1			6	211			0
Percent Heavy Vehicles	0					5				
Median Type				Undi	vided					
RT Channelized			0							0
Lanes	0	1	0			0	1			0
Configuration			TR			LT				
Upstream Signal		0					0			
Minor Street		Northbound			Southbou	ind				
Movement	7	8	9			10	11		12	
	L	Т	R			L	Т			R
Volume (veh/h)	3		20							
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90	$ \rightarrow $	().90
Hourly Flow Rate, HFR (veh/h)	3	0	22		0 0				0	
Percent Heavy Vehicles	0	0	0			0	0			0
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			0	0			0
Configuration		LR								
Delay, Queue Length, an	d Level of Servi	се								
Approach	Eastbound	Westbound		Northb	ound		S	Southbo	ound	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		LT		LR)					
v (veh/h)		6		25						
C (m) (veh/h)		1331		784	4					
v/c	î	0.00		0.0	3		[
95% queue length		0.01		0.1	0					
Control Delay (s/veh)		7.7		9.7	,		1	i		
LOS	i	A		A			i			
Approach Delay (s/veh)				9.7	7		1	<u>, </u>		
Approach LOS	1			Α			Î			

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	TW	O-WAY STOP	CONTRO	OL SU	MM	ARY				
General Information			Site Ir	nform	atio	n				
Analyst	M.Hemme	n	Interse	ction			SR 235 ai	t Hipp V	Vav	
Agency/Co.	MPH Tran	sportation Planning	Jurisdi	ction			FDOT-D2	/Alachu	a Co	ounty
Date Performed	5/28/2018		Analys	is Year			2020 Exis	ting + F	Proje	ct
Analysis Time Period	AM Peak									
Project Description Tole	osa PD									
East/West Street: SR 23	5		North/S	outh St	treet:	: Hipp Waj	/			
Intersection Orientation:	East-West		Study F	Period (hrs):	0.25				
Vehicle Volumes and	d Adjustment	S								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
		T	<u>R</u>							R
Volume (veh/h)	0.00	208	2			25	238			
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		L).90
(veh/h)	0	231	2			27	264			0
Percent Heavy Vehicles	0					5				
Median Type				Undi	/ided	1				
RT Channelized			0							0
Lanes	0	1	0			0	1			0
Configuration			TR			LT				
Upstream Signal		0					0			
Minor Street		Northbound			Southbou	Ind				
Movement	7	8	9			10	11			12
	L	Т	R			L	Т			R
Volume (veh/h)	1		31							
Peak-Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90		(0.90
Hourly Flow Rate, HFR (veh/h)	1	0	34		0		0			0
Percent Heavy Vehicles	0	0	0			0	0			0
Percent Grade (%)		0					0	•		
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			0	0			0
Configuration		LR								
Delay, Queue Length, ar	d Level of Servi	се								
Approach	Eastbound	Westbound		Northbo	ound		5	Southbo	und	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		LT		LR						
v (veh/h)		27		35						
C (m) (veh/h)		1317		797	7			1		
v/c		0.02		0.04	4	i	1	i		
95% queue lenath		0.06		0.14	4		1	 		
Control Delay (s/veh)		78		97						
		Δ		Δ						
LOU Approach Doloy (c/ych)										
Approach LOC				9.7						
Approach LOS				A						

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	TW	O-WAY STOP	CONTRO	DL SU	ММ	ARY				
General Information			Site Information							
Analyst	M.Hemme	n	Interse	ction			SR 235 at	t Hipp V	Vav	
Agency/Co.	MPH Tran	sportation Planning	Jurisdi	ction			FDOT-D2	/Alachu	ia Co	ounty
Date Performed	5/28/2018		Analys	is Year			2020 Exis	ting + F	Proje	ct
Analysis Time Period	PM Peak									
Project Description Tole	osa PD									
East/West Street: SR 23	5		North/S	outh S	treet:	: Hipp Way	/			
Intersection Orientation:	East-West		Study F	Period (hrs):	0.25				
Vehicle Volumes and	d Adjustment	S								
Major Street		Eastbound					Westbou	nd		
Movement	1	2	3			4	5			6
Valuma (vah/h)		207	R 1			L 6	201	<u> </u>		R
Peak-Hour Factor PHF	0.00	207	I			0 00	201			
Hourly Flow Rate HFR	0.30	0.30	0.30			0.30	0.30			
(veh/h)	0	230	1	1 6		223			0	
Percent Heavy Vehicles	0					5				
Median Type				Undi	/ided					
RT Channelized			0	0					0	
Lanes	0	1	0		0		1			0
Configuration			TR		LT					
Upstream Signal		0					0			
Minor Street		Northbound			Southbound					
Movement	7	8	9		10		11		12	
	L	Т	R			L	Т			R
Volume (veh/h)	3		20							
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90		0.90		(0.90
Hourly Flow Rate, HFR (veh/h)	3	0	22			0	0			0
Percent Heavy Vehicles	0	0	0			0	0		0	
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	0	0			0	0			0
Configuration		LR								
Delay, Queue Length, ar	d Level of Servi	ce								
Approach	Eastbound	Westbound		Northbo	ound		South		hbound	
Movement	1	4	7	8		9	10	11		12
Lane Configuration		LT		LR						
v (veh/h)		6		25						
C (m) (veh/h)		1319		771	1					
v/c		0.00		0.03	3					
95% queue length		0.01		0.10)					
Control Delay (s/veh)	ĺ	7.7		9.8	}		1	[
LOS	ĺ	A		A						
Approach Delay (s/veh)				9.8	}					
Approach LOS				A						

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Appendix D: Turn Lane Analysis Documentation

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

				Advanc	ing Volu	ume (V _A)), veh/h			
			Ū	0 100	200	300	400	500	600	700
			0		1	I	Í.	I	I	
Left-turn treatment NOT warranted.		ő	100	warranted.						
Guidance for determining the need for a major-road left-turn ba	ay:	sin	200	treatment not						
Limiting advancing volume (V _A), veh/h:	697	1 6	000		լ 🤺					
Variable	Value	<u> </u>	300							
OUTPUT		L L L	400						\rightarrow	
) 	500							
Opposing volume (V_0) , veh/h:	269	∣ °	600							
Advancing volume (V _A), veh/h:	241		600					warran	ted.	
Percent of left-turns in advancing volume (V _A), %:	3%	<u>ب</u> ا	700					Left-tur	n treatment	
85 th percentile speed, mph:	45	L H	800							
Variable	Value	1								

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

700

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

INPUT

Variable	Value									
85 th percentile speed, mph:	45	Ę	800							
Percent of left-turns in advancing volume (V _A), %:	6%	e	700						Left-tu	rn treatment
Advancing volume (V _A), veh/h:	204	, ' '	600						warran	ted.
Opposing volume (V _O), veh/h:	296	້	000							
		e	500							
OUTPUT		μ	400							
Variable	Value	<u> 0</u>	300							
Limiting advancing volume (V _A), veh/h:	486	- б	000		L 4					
Guidance for determining the need for a major-road left-turn ba	ay:	sin	200	trea	t-turn atment not					
Left-turn treatment NOT warranted.		ő	100	war	ranted.					
			0		1	1		L	1	
		Ŭ		0	100	200	300	400	500	600
						Advanc	ing Volu	ume (V _A)), veh/h	

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT			_
Roadway geometry:	2-lane ro	adw ay 🚽	Í
Variable	Value	َ ء [
Major-road speed, mph:	45	heh /	
Major-road volume (one direction), veh/h:	269	ž	
Right-turn volume, veh/h:	66	ue l	
OUTPUT			Irn Volu
Variable	Value]	
Limiting right-turn volume, veh/h:	134] t	

Add right - turn bay Rig Major-Road Volume (one direction), veh/h

OUTPUT	
Variable	Value
Limiting right-turn volume, veh/h:	134
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

2-lane roadw ay 🚽					
Value					
45					
296					
86					

Do NOT add right-turn bay.

Guidance for determining the need for a major-road

right-turn bay for a 2-lane roadway:



Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT			
Roadway geometry:	2-lane roadw ay 🚽		
Variable	Value	140	Add right - turn bay
Major-road speed, mph:	50	120	
Major-road volume (one direction), veh/h:	296	>	
Right-turn volume, veh/h:	86		
		80 08	
OUTPUT		ε 60	
Variable	Value	1 40	
Limiting right-turn volume, veh/h:	46		
Guidance for determining the need for a major	r-road		
right-turn bay for a 2-lane roadway:			
Add right-turn bay.		200 400 600 800	1000 1200 1400 1600
		Major-Road Volume (one	e direction), veh/h