

James Road Traffic Calming

Brevard County Traffic Engineering





Background

Stipulated Settlement Agreement (SSA)

- The requirements outlined in Section 7 of the SSA:

(7) James Road classification shall be modified and Barrera will pay for construction of traffic calming devices along James Road. Input from property owners along James Road will be solicited by the County regarding the location and placement of traffic calming devices. All traffic calming devices along James Road shall be constructed and completed following land clearing but prior to any further construction or site work being completed.

- SSA does not require a Public Hearing. It does require input from James Rd property owners.
- The construction of traffic calming devices satisfies the requirements outlined in the SSA.
- The reason for this requirement was to better ensure the health, safety, and welfare of the public due to the additional traffic from the development and in relation to the existing large canal on the north side of James Road.

IN THE CIRCUIT COURT OF THE EIGHTEENTH JUDICIAL
CIRCUIT IN AND FOR BREVARD COUNTY, FLORIDA

BREVARD COUNTY, Florida,
a Political Subdivision of the
State of Florida,
Petitioner,

Case No: 05-2005-018141-XXXX-XX

vs.

CITY OF COCOA, Florida,
a Municipal Corporation,
Respondent,

FILED JAN -9 A 10:29
CLERK OF COURT
BREVARD COUNTY, FL.

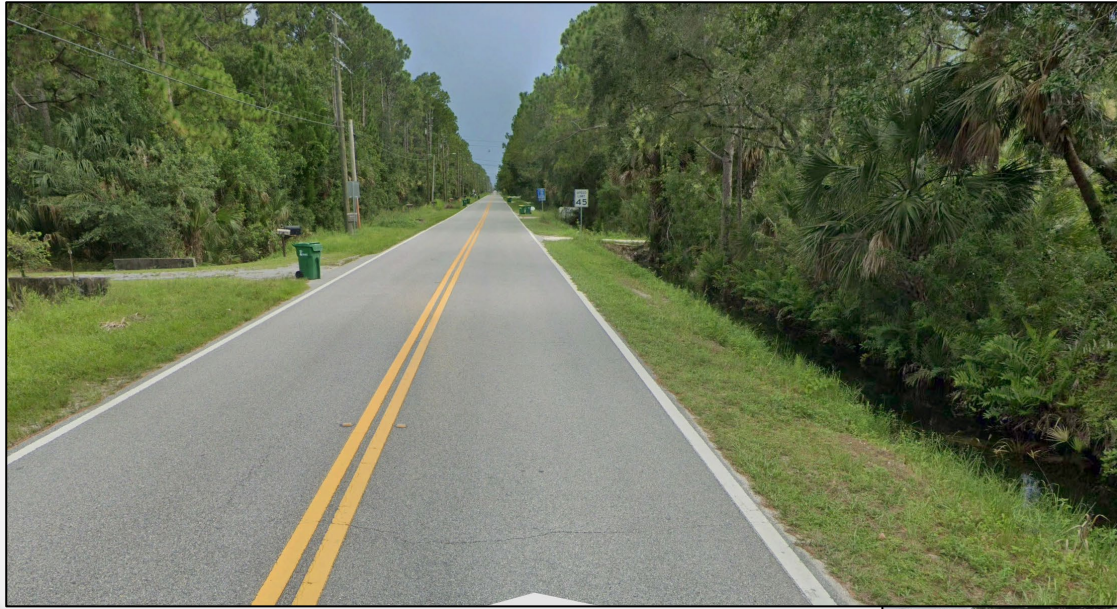
STIPULATED SETTLEMENT AGREEMENT

This Stipulated Settlement Agreement ("Settlement" or "Agreement") is made and entered into this 11th day of December, 2007 by and among (i) Brevard County, Florida, a political subdivision of the State of Florida (hereinafter the "County"), (ii) the City of Cocoa, Florida, a municipal corporation, (hereinafter the "City"), (iii) Florida Space Needle, LLC (hereinafter "FSN") and Barrera Shores, LLC, formerly known as Hagen-Nicholson Properties, LLC (hereinafter "Barrera"). Collectively all parties will be referred to herein as the "Parties".

James Road (35 mph)

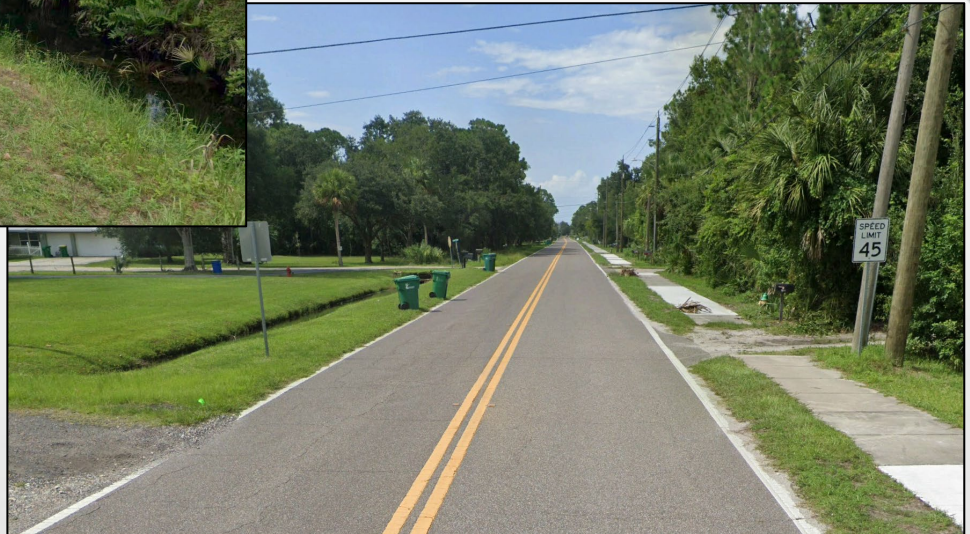


- Two-lane local road with 11-ft travel lanes (some areas 10-ft)
- Edge of canal is 5 ft from edge of pavement (avg distance)
- Utility poles are approximately 5 ft from edge of travel lane



Cox Road
(45 mph)

Friday Road
(45 mph)





Rayburn Road
(30 mph)



Rector Road
(30 mph)

- 3 speed humps on each road 1200-1500 feet apart
- Originally installed in 1993 before County policy or standard criteria were established

Traffic Studies



Traffic Impact Study (TIS)

- **Purpose:** To determine development's impact on roadway networks and intersections and evaluate methods to address/mitigate, as necessary.
- **Study Area and Peak Traffic Volume:**
 - (7) Intersections: AM and PM peak hours
 - (5) Roadway segments: PM peak hour (highest stress)
- **Conclusions:**
 - No traffic volume/capacity concerns on County roadway segments
 - Recommended traffic signal timing improvements at SR 524 & I-95 NB Ramp and SR 524 & Friday Rd

Silvestri Property
Cocoa, Florida

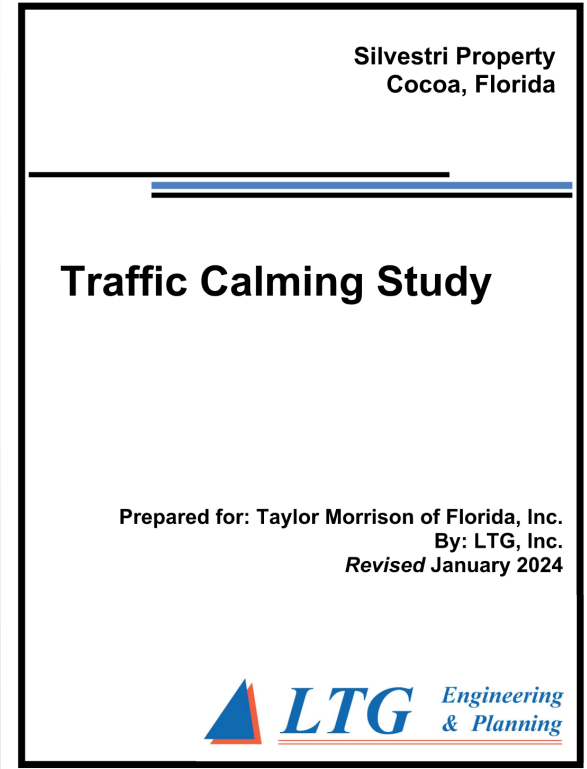
Traffic Impact Study

Prepared for: Taylor Morrison
By: LTG, Inc.
Revised June 2023



Traffic Calming Study

- **Purpose:** To determine traffic calming measures suitable for James Road, in accordance with the Stipulated Settlement Agreement
- **Recommended measures:**
 - Speed tables with guardrails
 - Textured pavement at James Road & Friday Rd and James Road & Cox Road
 - *Reduced (standardize) travel lane width from 10-11 feet to 10 feet
 - Vibratory edgeline markings
- **Subsequent discussion:** Addition of two segments of guard rail



*Required for separation from guardrails if speed tables are pursued

Public Involvement Meeting

NOTIFICATION

March 13, 2024

Subject: Project Update
James Road Traffic Calming Plans
City of Cocoa, Brevard County

Dear Property Owner:

Taylor Morrison has acquired land located at the northwest quadrant of James Road and Friday Road in the City of Cocoa (which is within Brevard County) known as the Windward Preserve Property (the PROJECT). As required by the 2007 Stipulated Settlement Agreement between Brevard County and the City of Cocoa, there will be an informational meeting held on Wednesday, March 27, 2024 to provide an opportunity for attendees to learn more about the James Road traffic calming plans associated with the PROJECT and to submit questions in writing as well as provide written comments.

The Traffic Calming Plans include installation of speed tables and rumble strips. Since the PROJECT is approved already, the presentation will only focus on the James Road Traffic Calming Plans.

LOCATION DETAILS

The public meeting will be held at the Dr. Joe Lee Smith Recreation Center (415 Stone St, Cocoa, FL 32922)

DATE/TIME

The public meeting will be held on a Wednesday, March 27, 2024 with doors open at 6:00 p.m. and a presentation to start at 6:30 p.m.

For additional information regarding this PROJECT contact:

Josh Black, Consultant Project Coordinator
LTG, Inc.
1049 Eber Boulevard, Suite 104
Melbourne, FL 32904
P: 321-493-4679 / Direct: 321-473-6810
Jblack@ltg-inc.us / www.ltg-inc.us

Original Draft Notice

NOTIFICATION



Submit questions now by scanning code and sign up for project updates or send email
WindwardPreserve@TaylorMorrison.onmicrosoft.com

Subject: Project Update
Windward Preserve Project
City of Cocoa, Brevard County

Dear Property Owner:

Taylor Morrison has acquired land located at the northwest quadrant of James Road and Friday Road in the City of Cocoa (which is within Brevard County) known as the Windward Preserve Property (the PROJECT). There will be an informational meeting held on Thursday, July 25th to provide an opportunity for attendees to learn more about the PROJECT and to submit questions in writing as well as provide written comments.

DATE/TIME

The public meeting will be held on a Thursday, July 25th with doors open at 6:00 p.m. and a presentation to start at 6:30 p.m. with a Q&A session and then conclude at 7:35 p.m.

LOCATION DETAILS

The public meeting will be held at the Space Coast Convention Center (301 Tucker Ln, Cocoa, FL 32926) – see map below:

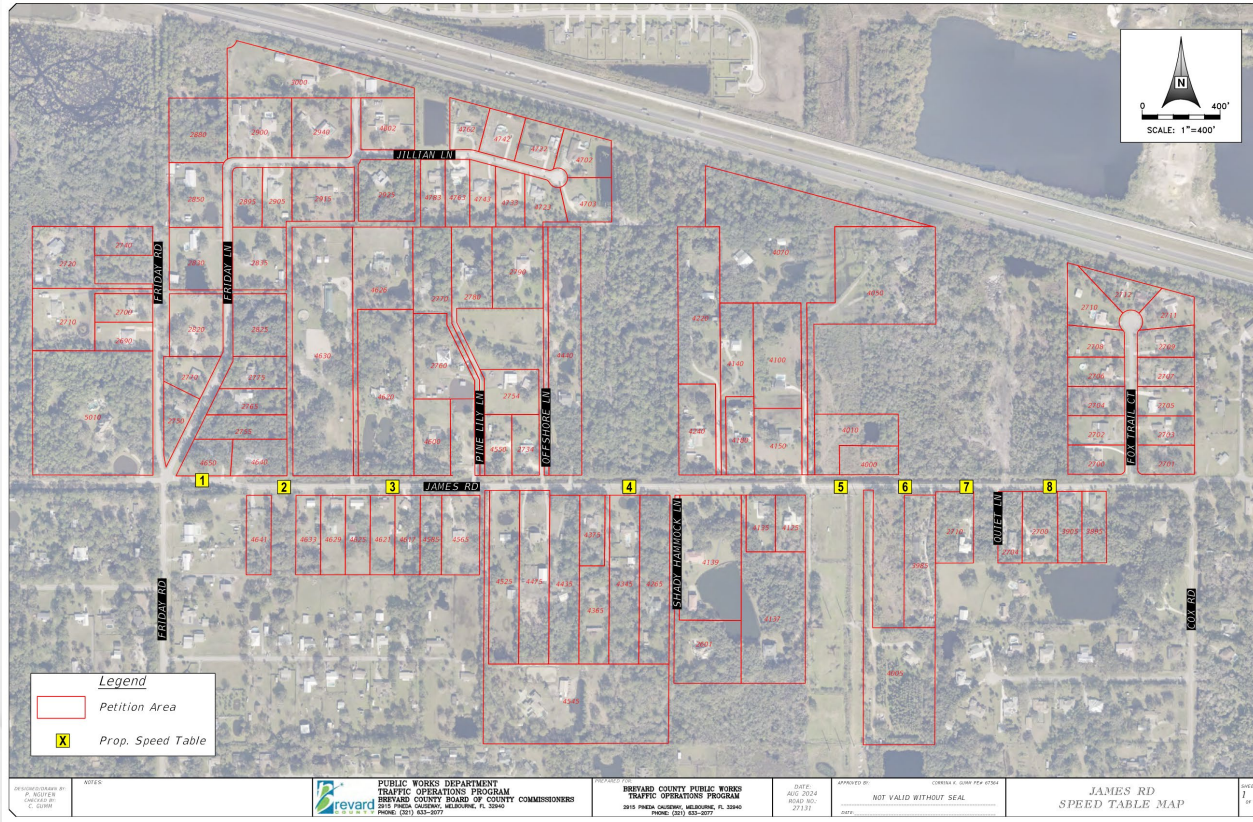


Should you require special accommodations or need additional information please contact:

Josh Black, Consultant Project Coordinator, LTG, Inc.
1049 Eber Boulevard, Suite 104 / Melbourne, FL 32904 / Direct: 321-473-6810 / Jblack@ltg-inc.us

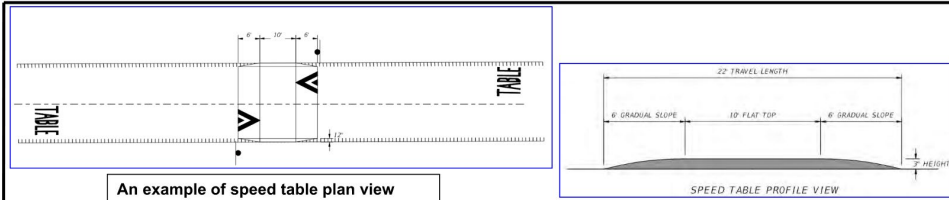
Final Notice

Traffic Calming Survey



- Speed table locations will not interfere with driveways
- Sent to property owners' mailing addresses

Traffic Calming Survey Packet Info



A speed table is a flat-topped, elongated speed hump designed to slow vehicles on a roadway. It has a height of 3 inches and are often used in residential areas to improve safety.

James Road Traffic Calming Study	NTS	Speed Table		
		Project No.: 5799.18	Figure: 1	

Textured Pavement at Intersections is a roadway surface treatment that can help reduce vehicle speeds by creating a sensory change for drivers, causing drivers to be more aware of their surroundings and improve safety at intersections.

James Road Traffic Calming Study	NTS	Textured Pavement at Intersections (Stamped Colored Asphalt)	
		Project No.: 5799.18 Figure: 2	

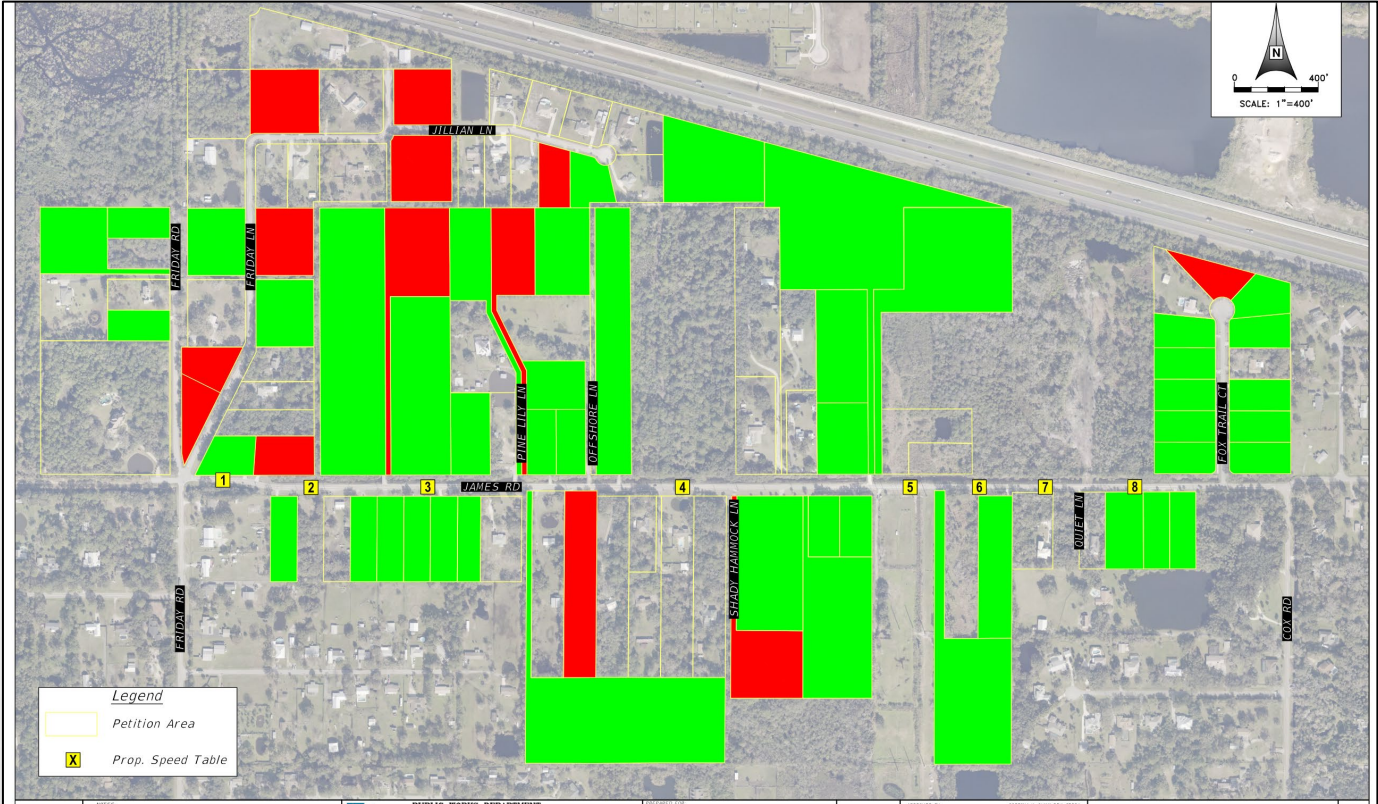
EXISTING CONDITION - 11 ft lane width to edge of pavement:

PROPOSED CONDITION - 10 ft lane width with Vibratory Edge Line and with 1 ft paved shoulder: (The 22-ft paved width of James Road remains unchanged. Only striping has been modified.)

A Vibratory Edge Line, also known as a rumble strip, is a raised or grooved pattern that provides tactile and auditory feedback to the driver when a vehicle's tires cross over them. They are used to alert drivers when they are drifting out of their lane to prevent accidents caused by vehicles running off the road. Examples shown below:

James Road Traffic Calming Study	NTS	Reduced Travel Lane with Vibratory Edge Line	
		Project No.: 5799.18 Figure: 3	

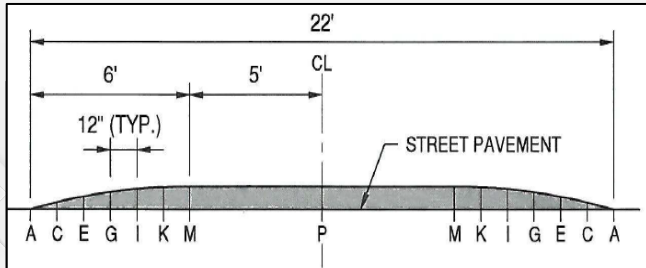
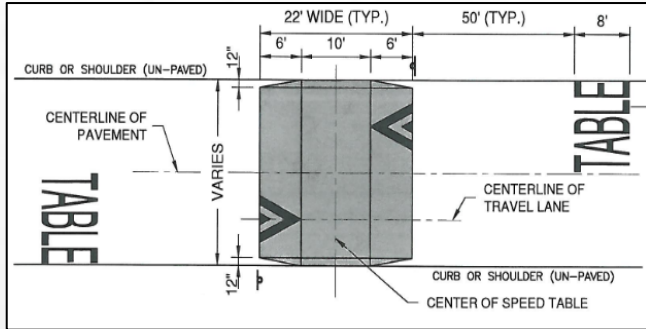
Traffic Calming Survey Results – Speed Tables





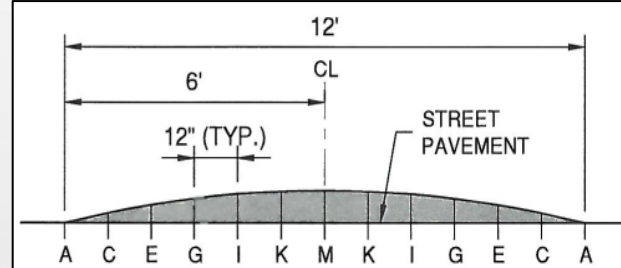
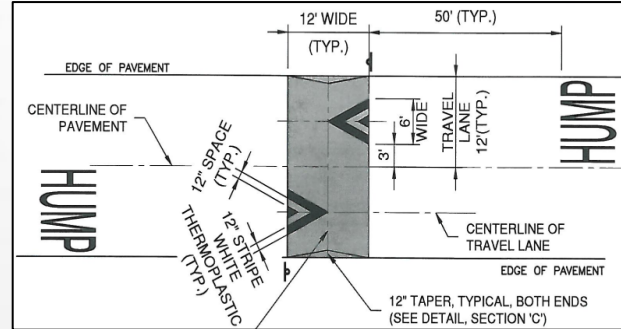
Traffic Calming Measures

Speed Tables vs Speed Humps



SPEED TABLE THICKNESS TABLE

DESIGN SPEED	CENTER HEIGHT	A	C	E	G	I	K	M	P
25 MPH	3.5" TALL TABLE	0.0	1.1	2.0	2.7	3.2	3.4	3.5	3.5
30 MPH	3" TALL TABLE	0.0	0.9	1.7	2.3	2.7	2.9	3.0	3.0



SPEED HUMP THICKNESS TABLE

DESIGN SPEED	A	C	E	G	I	K	M
20 MPH	0.0	0.9	1.7	2.3	2.7	2.9	3.0

Speed Humps/Tables typical spacing:

- 300 to 500 ft
- May be adjusted due to existing conditions

James Rd ranges from 315 to 557ft with two exceptions at 1000 ft and 1200 ft due to existing driveways

Engineering Calcs

Speed Humps at 20mph

- Passenger Veh: 5.3s
- Fire Trucks: 11.6s

Speed Tables at 30 mph

- Passenger Veh: 2.9s
- Fire Trucks: 4.2s

Speed Tables



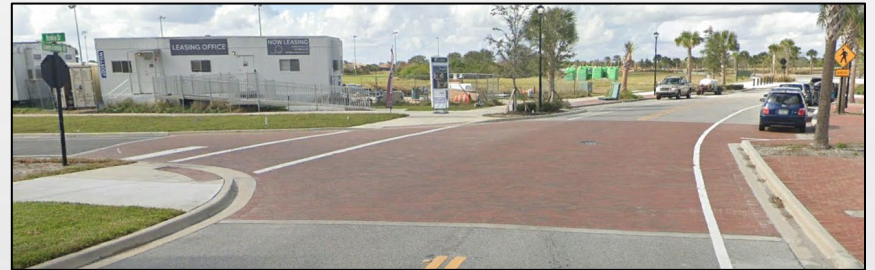
Washington Street, Cocoa
(4- speed tables range from 2 1/2" to 3 1/2" height)
20 mph posted speed)



Peachtree Street, Cocoa
(6" raised crosswalk, 15 mph design speed)

Textured Pavement at Intersections

- Drivers become more aware of surroundings due to sensory change
- Typically stamped asphalt surface treatment
- Should be used in conjunction with other measures for greatest effectiveness
- **Examples:** Peachtree Street & Fiske Boulevard (top), Town Center Avenue & Rodina Drive in Viera (bottom)



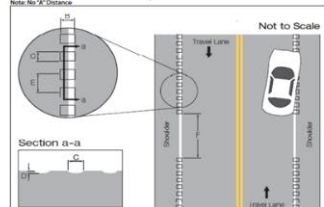
Reduced (Standardized 10') Travel Lane Width with Vibratory Edgeline

PROPOSED CONDITION - 10 ft lane width with Vibratory Edge Line and with 1 ft paved shoulder: (The 22-ft paved width of James Road remains unchanged. Only striping has been modified.)



A Vibratory Edge Line, also known as a rumble strip, is a raised or grooved pattern that provides tactile and auditory feedback to the driver when a vehicle's tires cross over them. They are used to alert drivers when they are drifting out of their lane to prevent accidents caused by vehicles running off the road. Examples shown below:

Edgeline Rumble Stripes



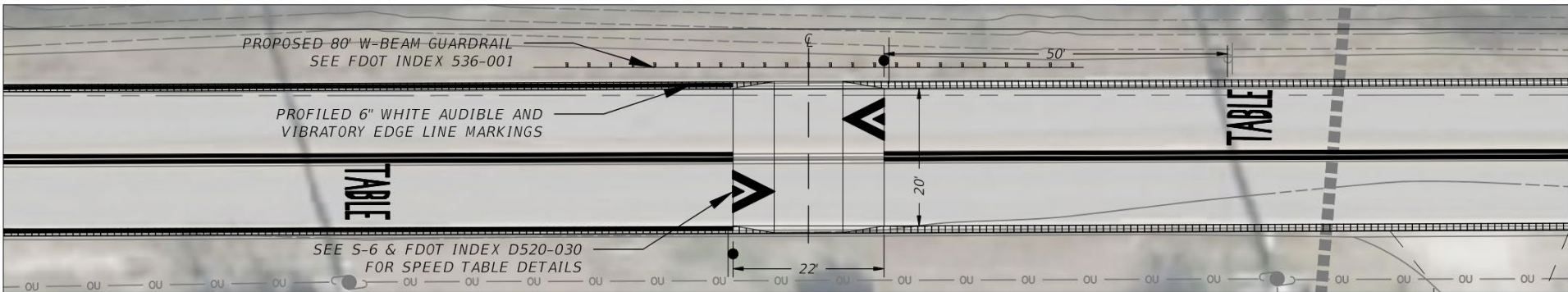
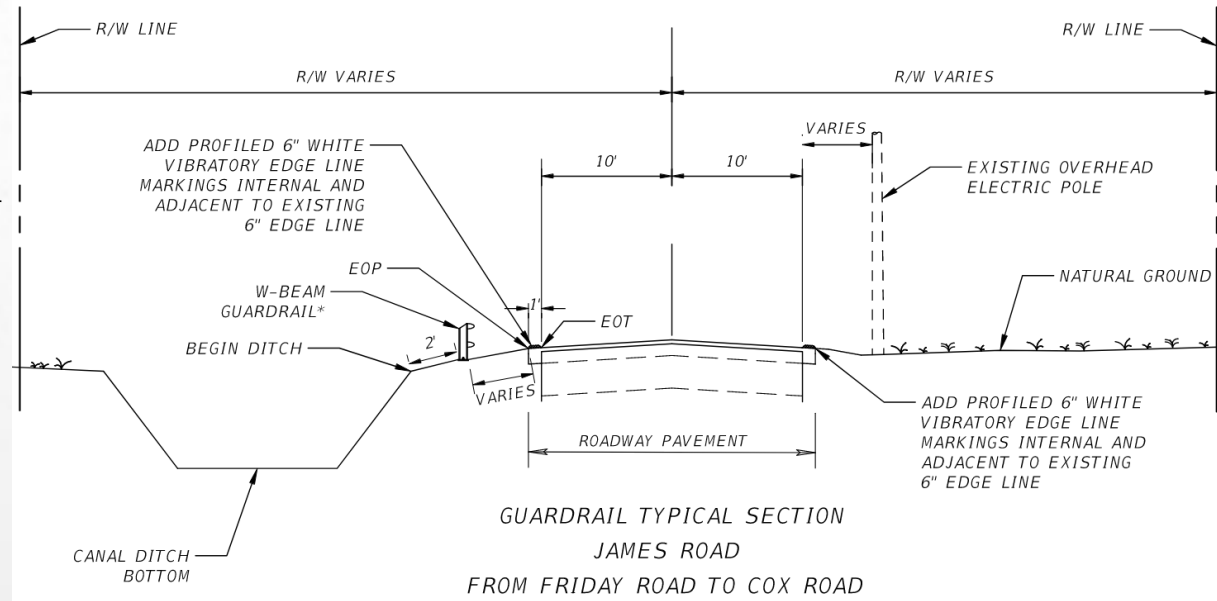
Reduced (Standardized 10') Travel Lane Width with Vibratory Edgeline



- Pavement width doesn't change
- Creates additional layer of safety
- Required in order create sufficient separation for guardrails if speed tables pursued

Speed Table Cross-Section

James Road



Frequently Asked Questions

1. Did the survey meet the requirements of AO-72 and BCC-91?
AO-72 and BCC-91 involve the residential request of speed humps. Traffic calming on James Road applies speed tables and was initiated because of the Stipulated Settlement Agreement.
2. Were the survey packages sent to the property addresses or the property owners?
The property owners.
3. How do you account for the modified trip distribution provided in the TIA?
**The trip distribution was modeled using the *Central Florida Regional Planning Model (CFRPM)*, officially adopted by FDOT District 5. Models require engineering judgement to modify and better represent real -world traffic conditions, which was concurred by the Consultant's Engineer of Record. The initial distribution identified a 75% split for Friday Road and 25% for James Road. The volumes were adjusted to 70% on Friday Road and 30% on James Road. At that time, the TIA did not evaluate the distribution of traffic with speed tables on James Road, since that has not been approved. This estimate allowed staff to understand potential impacts to Cox Road and the intersection at SR 524.
Even if 100% of the traffic was distributed to Friday Road, the roadway still operates under its established capacity.**
4. Was Friday Road evaluated for traffic calming measures?
**Yes, both staff evaluation and the Traffic Calming Study found it infeasible to develop traffic calming measures on Friday Road.
Additionally, only James Road was considered in the Stipulated Settlement Agreement.**