

# Quiet Zone along FEC Corridor

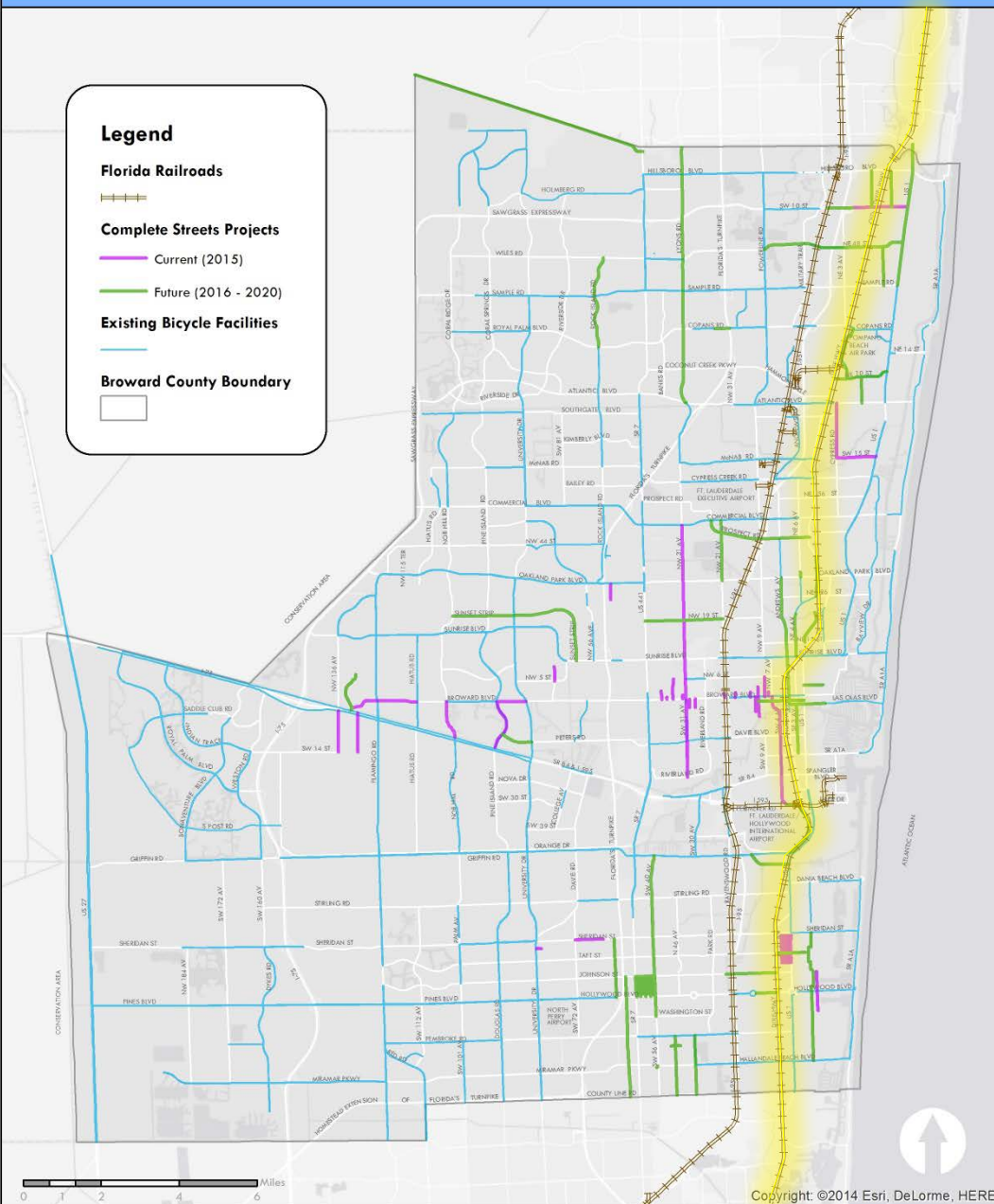
Paul Calvaresi

Regional Transportation Planner

[Calvaresip@browardmpo.org](mailto:Calvaresip@browardmpo.org)

# About the Quiet Zone

- Throughout all of Broward County on the FEC Tracks
  - Deerfield Beach
  - Pompano Beach
  - Fort Lauderdale
  - Oakland Park
  - Wilton Manors
  - Dania Beach
  - Hollywood
  - Hallandale Beach
- \$4.2M worth of safety and pedestrian improvements
- Worked with municipalities



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# Timeline

August 2013	First Meeting with FRA.
November 2013	First workshop with municipalities along the FEC corridor. FDOT presented their initial Quiet Zone diagnostics.
March 2014	FEC Corridor Workshop with elected officials along the FEC corridor. The elected officials were informed of the Quiet Zone Process.
April 2014	Applied for a <a href="#">Transportation Investment Generating Economic Recovery (TIGER)</a> Grant application for \$22 million worth of improvements spread over the two counties.
July 2014	Second workshop with municipalities along the FEC corridor. Discussed various Quiet Zone funding and construction options.
August 2014	FRA Quiet Zone Calculator Workshop. Rail expert from FRA presented the different options for creating a Quiet Zone which include installing SSMs on every crossing or targeting the crossings with the highest calculated risk.
September 2014	Finalized Quiet Zone Process. After working with the 8 municipalities, Broward County, FDOT, FRA and AAF, the Broward MPO resolved to target the intersections with the highest risk.
April 2015	AAF to begin construction.
May 2015	Hired TY Lin International as project consultant.
October 2015	Distribute materials to municipalities.
March 2016	Submit Notice of Intent to Federal Railroad Administration
2017	Submit Notice of Establishment Quiet Zone established.

# ALL ABOARD FLORIDA/ “BRIGHTLINE”



- All Aboard Florida entered the field in 2012
- Spending \$60M of private money to add 2<sup>nd</sup> track and enhance safety at grade crossings:
  - Flasher lights aimed at each approaching travel lane
  - Main gates covering each travel lane in the direction of travel, perpendicular to the roadway in accordance with the MUTCD to provide maximum visibility to drivers
  - Bells
  - Pedestrian gates where defined sidewalks exist through the crossing, or coverage of the sidewalk by the main gates
  - Equipment located 4'9" from the roadway edge and 15' from the track centerline, where feasible
  - Predictors to establish a more consistent time elapsed from crossing activation to train arrival
  - Power-off indicators and event recorders
  - Roadway signage and pavement markings as appropriate according to the MUTCD

# The desire for Quiet Zones

- Broward Municipalities considered creating quiet zones
  - Hire design firm
  - Pay for easement from RR
  - Pay for RR engineer to review plans
  - Hire construction firm
  - Pay fees to RR for flagging, etc
- Individual cities approached MPO for assistance
- MPO decided to act as central clearing house
- MPO is funding incremental cost to achieve a Quiet Zone. AAF is designing and constructing

# What is a Quiet Zone?

- A **Quiet Zone** is governed under the Train Horn Rule (49 CFR Part 222), locomotive engineers must begin to sound train horns at least 15 seconds, and no more than 20 seconds, in advance of all public grade crossings.
- Effectively the one safety feature (train horn) is supplemented by one or more other safety features.
- Safety is equivalent, or better, and **quality of life** near train tracks increases.



# Elements of a Quiet Zone

- Supplemental Safety Measures (SSM)
  - Four Quadrant Gate System
  - Gates with Medians
  - Gates with Channelization
  - One Way Street with Gate(s)
  - Close (permanently) Railroad Crossing
  - Close (temporarily) Railroad Crossing
- Connectivity is not an element
  - Does not have to connect to local ROW
  - Easier to tie ped features to existing, safe crossing



# Designing the Quiet Zone

- Use the FRA Quiet Zone Calculator
- Targeted High Risk Intersections
  - Risk index greater than 100,000.
  - Applied medians where the geometry allowed.
  - Applied 4 quadrant gates.
- Pedestrian connectivity was not a factor but the improvements nonetheless improve pedestrian safety and access!

Update and Verify Crossing Information CONTINUE

Zone: **TEST ZONE 1**  
Pre-Rule Quiet Zone? No

521072S COLUMBUS ST  
521073Y WASHINGTON ST  
521076U \*NO NAME  
**521077B MCMASTER ST**  
521078H SEYMOUR ST  
521079P STATE ST  
521080J PERRINE ST  
521081R NORTH ST  
521082X \*MUTTON HILL RD.  
521083E ST-5  
521084L \*MILLERS ROAD  
521085T DEPOT-MUNSON RD  
521087G BAKER ROAD  
521088N COTTAGE ST

**521077B MCMASTER ST**  
  
Present warn device: Crossbucks Crossbucks  
Number of highway vehicles per day: 001082 1082  
Number of trains per day: 1 1  
Number of trains per day during daylight : 0 0  
Number of main tracks: 1 1  
Highways paved: Yes Yes  
Maximum timetable speed mph: 10 10  
Number of highway lanes: 2 2  
Number of years accident data: 5 5  
Number of accidents in accident data years: 0 0  
  
UPDATE  
Note: Updating Crossing information on the Quiet Zone Calculator **DOES NOT** update the crossing inventory. Be sure that an updated inventory form is also submitted.

\* = Not Public At Grade Crossing

☐ To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING DELETE CROSSING



Municipality	Street	Risk Index BEFORE SSM	SSM	Risk Index AFTER SSM	Change
Deerfield Beach	S.E.4TH ST.	146,258	Quad Gates	26,326	-119,932
Deerfield Beach	S.W.15TH ST.	160,078	Quad Gates	28,814	-131,264
Deerfield Beach	SAMPLE RD	<div> <div>Summary</div> <div> <div>Proposed Quiet Zone:</div> <div>Broward County</div> <div>Preexisting SSM</div> </div> <div> <div>Type:</div> <div>New 24-hour QZ</div> </div> <div> <div>Scenario:</div> <div>Broward Co_44716</div> </div> <div> <div>Estimated Total Cost:</div> <div>\$1,865,000.00</div> </div> <div> <div>Nationwide Significant Risk Threshold:</div> <div>14347 .00</div> </div> <div> <div>Risk Index with Horns:</div> <div>92095.56</div> </div> <div> <div>Quiet Zone Risk Index:</div> <div>73210.75</div> </div> <div> <div>Select</div> </div> </div>		67,359	-306,860
Pompano Beach	Atlantic Blvd / NW 3			23,946	-109,090
Oakland Park	N.E. 38TH ST.			34,691	-158,038
Oakland Park	OAKLAND PARK BLVD			22,343	-101,785
Wilton Manors	N.E. 26TH ST.			42,432	-169,729
Fort Lauderdale	N.E. 3RD AVE			37,077	-168,910
Fort Lauderdale	N.ANDREWS AVE			58,746	-267,623
Fort Lauderdale	N.W. 6TH ST.			29,715	-135,371
Fort Lauderdale	N.W. 4TH ST.			11,053	-45,673
Fort Lauderdale	N.W. 2ND ST.			0	-58,406
Fort Lauderdale	S.W. 2ND ST.			26,130	-119,040
Fort Lauderdale	S.W. 9TH ST.			11,396	-45,587
Fort Lauderdale	S.W. 12TH ST.			43,370	-173,481
Fort Lauderdale	S.W. 15TH ST.	62,086	Medians	12,417	-49,669
Dania Beach	S.W. 2ND ST.	113,577	Quad Gates	20,443	-93,133
Hollywood	HOLLYWOOD BLVD	114,467	Quad Gates	20,604	-93,863
Hallandale Beach	HALLANDALE BLVD	115,681	Quad Gates	20,822	-94,859

# Adding Pedestrian Access

- AAF made the offer to add pedestrian features including sidewalks and safety equipment.
- MPO had extra funding, so extended the offer to cities
  - MPO acted as the intermediary between AAF and cities
  - 6 cities responded
  - Mostly for economic development purposes where more ped crossing is expected as a result of future development.
- Advantageous because we are only funding design and construction.

# Pedestrian Improvements

NE 3 <sup>rd</sup> St	Hallandale Beach	North and South	2 PED GATES, RELOCATE 1 GATES
SE 3 <sup>rd</sup> St	Hallandale Beach	North and South	2 PED GATES, RELOCATE 1 GATES
Hallandale Beach Blvd	Hallandale Beach	Reconstruction of existing	SWKS ONLY
Pembroke Rd	Hallandale Beach	Reconstruction of existing	SWKS ONLY
NE 17 <sup>th</sup>	Ft Lauderdale	North and South	2 PED GATES, RELOCATE 2 GATES
SW 5 <sup>th</sup>	Ft Lauderdale	North and South	2 PED GATES, RELOCATE 2 GATES
SW 6 <sup>th</sup>	Ft Lauderdale	North and South	2 PED GATES, RELOCATE 2 GATES
SW 7 <sup>th</sup>	Ft Lauderdale	North and South	2 PED GATES, RELOCATE 2 GATES
SW 9 <sup>th</sup>	Ft Lauderdale	North and South	2 PED GATES
Floranada Road	Oakland Park	North	1 PED GATES
24 <sup>th</sup> Street	Wilton Manors	North and South	2 PED GATES, RELOCATE 1 GATES
Old Griffin Road	Dania Beach	South Side	1 Ped Gate
Taft Street	Hollywood	South Side	SWKS ONLY
Johnson Street	Hollywood	North and South	Relocate Ped Gates
Tyler Street	Hollywood	North and South	SWKS ONLY
Hollywood Blvd	Hollywood	Reconstruction of existing	Relocate Ped Gates
Monroe Street	Hollywood	North and South	Relocate Ped Gates
Washington Street	Hollywood	North and South	Relocate Ped Gates

# Quiet Zone Application

- **Lead City – City of Hollywood**
  - Joined by – Deerfield Beach, Pompano Beach, Oakland Park, Wilton Manors, Fort Lauderdale, Dania Beach, Hallandale Beach, Broward County
- Sample resolutions will be provided to staff
- Working with FRA and our consultant, TY Lin, to ensure all of the proper paperwork is filed.