



BROWARD COUNTY Tiered Quiet Zone Analysis Map



Legend

- Potential Crossing Improvement Location (All Proposed Projects)
- Existing Active Rail Lines
- Soundwall
- Hogpen

Existing Rail Crossings

Number of Households within a Quarter Mile

- 10 - 200
- 200 - 400
- 400 - 600
- 600 - 800
- 800 - 1000

Quarter Mile Analysis Zone

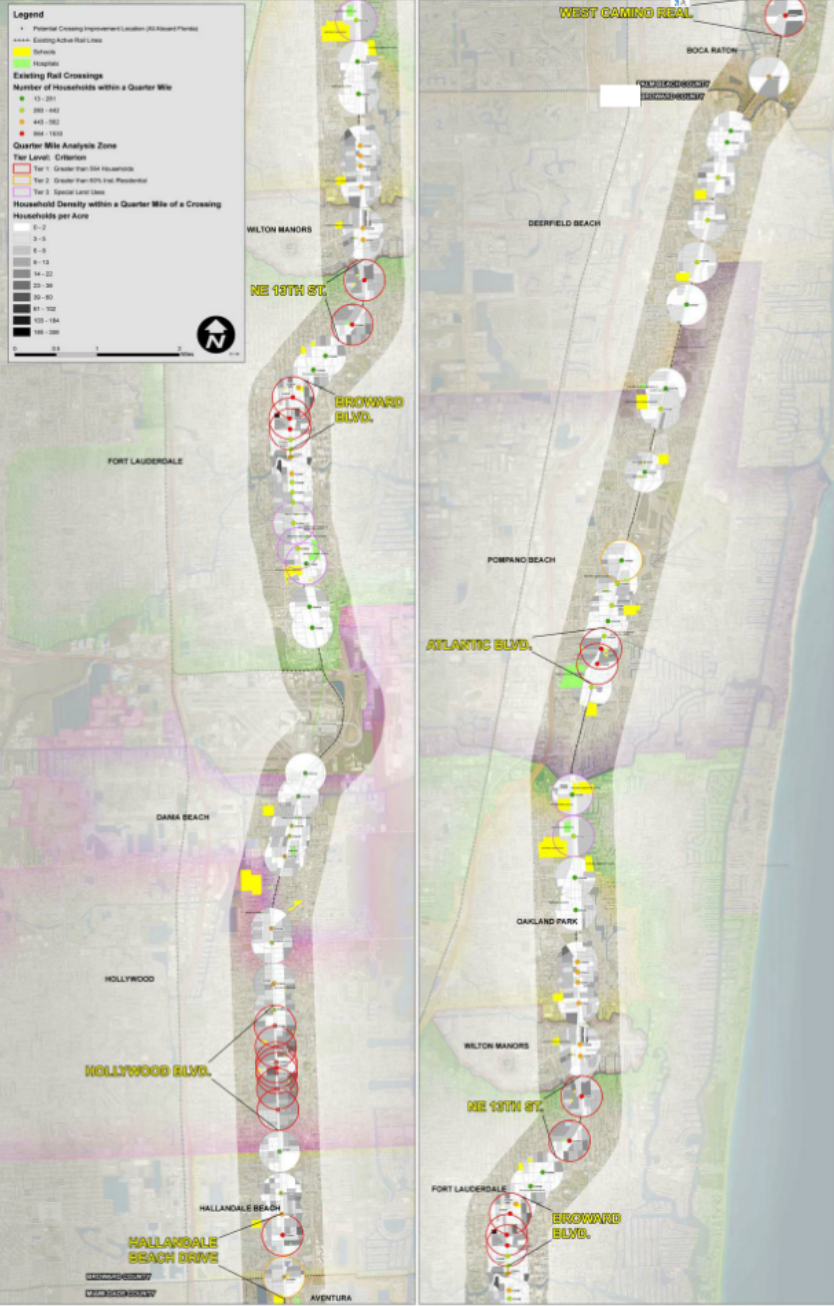
Tier Level: Criterion

- Tier 1: Greater than 100 Households
- Tier 2: Greater than 200 Households
- Tier 3: Special Land Uses

Household Density within a Quarter Mile of a Crossing

Households per Acre

- 0 - 2
- 3 - 5
- 6 - 9
- 10 - 12
- 13 - 15
- 16 - 18
- 19 - 21
- 22 - 24
- 25 - 27
- 28 - 30
- 31 - 33
- 34 - 36
- 37 - 39
- 40 - 42
- 43 - 45
- 46 - 48
- 49 - 51
- 52 - 54
- 55 - 57
- 58 - 60
- 61 - 63
- 64 - 66
- 67 - 69
- 70 - 72
- 73 - 75
- 76 - 78
- 79 - 81
- 82 - 84
- 85 - 87
- 88 - 90
- 91 - 93
- 94 - 96
- 97 - 99
- 100 - 102
- 103 - 105
- 106 - 108
- 109 - 111
- 112 - 114
- 115 - 117
- 118 - 120
- 121 - 123
- 124 - 126
- 127 - 129
- 130 - 132
- 133 - 135
- 136 - 138
- 139 - 141
- 142 - 144
- 145 - 147
- 148 - 150
- 151 - 153
- 154 - 156
- 157 - 159
- 160 - 162
- 163 - 165
- 166 - 168
- 169 - 171
- 172 - 174
- 175 - 177
- 178 - 180
- 181 - 183
- 184 - 186
- 187 - 189
- 190 - 192
- 193 - 195
- 196 - 198
- 199 - 201
- 202 - 204
- 205 - 207
- 208 - 210
- 211 - 213
- 214 - 216
- 217 - 219
- 220 - 222
- 223 - 225
- 226 - 228
- 229 - 231
- 232 - 234
- 235 - 237
- 238 - 240
- 241 - 243
- 244 - 246
- 247 - 249
- 250 - 252
- 253 - 255
- 256 - 258
- 259 - 261
- 262 - 264
- 265 - 267
- 268 - 270
- 271 - 273
- 274 - 276
- 277 - 279
- 280 - 282
- 283 - 285
- 286 - 288
- 289 - 291
- 292 - 294
- 295 - 297
- 298 - 300



Tri-Rail Coastal Link (TRCL) & All Aboard Florida (AAF)

Tri-Rail Coastal Link – Commuter Rail Service

- **Commuter Passenger Rail**
- 25+ round-trip trains per day
- **Commuters and local travelers**
- **Miami to Jupiter**
- **85 miles with potential for Phased Implementation**
- **Integrated with Tri-Rail**
- **Station spacing at 2-5 miles**
- **Funding programmed for Project Development phase only**



All Aboard Florida – Intercity Passenger Rail Service

- **Intercity Passenger Rail**
- 16 round-trip trains per day
- **Tourists and regional travelers**
- **240 miles from Miami to Orlando**
- **3 Stations in Tri-County area**
- **Privately funded**



Funding programmed for Project
Development phase only

FLORIDA EAST COAST (FEC) CORRIDOR WORKSHOP

Quiet Zones Update

USE OF LOCOMOTIVE HORNS & QUIET ZONES

Federal Railroad Administration (FRA) Final rule:
This final rule requires that locomotive horns be sounded for 25 seconds at every public crossing at grade, except at crossings where the horns are not required to be sounded. Quiet Zones are authorized by the FRA as an alternative to the use of horns.



WHAT IS A QUIET ZONE ?

A quiet zone is a section of a rail line at least one-half mile in length that contains one or more public crossings at which locomotive horns are not routinely sounded.

* The FRA will still sound at the discretion of the Locomotive Engineer.



QUIET ZONE ANALYSIS

Difference between safety improvements and improvements needed for Quiet Zone designation.
FRA will sound horns at grade crossings.
Improvements are those necessary to meet federal and state regulations based primarily on the operating speeds with the assumption that horns will continue to be sounded. Quiet Zone designation requires supplemental safety measures to offset the increased risk of not sounding the horn horn.

Options:
There is an opportunity to review new agreement for maintenance of the crossing that all can participate in rather than individual and different agreements that only for one and a crossing. This can be pursued with the Railroad (PRC).

CURRENT CROSSING IMPROVEMENTS



All public crossings must have gates, lights, constant warning time, and proper CUE indicators.
AAR has agreed to pay for the cost of these improvements.

NEW QUIET ZONE IMPROVEMENTS

There are only two types of supplementary safety measures (SSMs):

1. A Quiet Zone



2. Signal System



NEW QUIET ZONE IMPROVEMENTS (Cont'd)

1. One Way Road



2. Stop Sign
Only permitted between 1/4 mile and 1/2 mile. Must be offset 7' from the road. There will sound the horn.

3. Reduced Crossing
This device is only crossing where it is needed.

FINANCIAL GUIDANCE

Local Government entities will make the ultimate decision to pursue quiet zones and how to implement the improvements available in the report FDOT has developed for Duval County.

Should a local government wish to implement a quiet zone, FDOT will not provide any financial assistance, but will accept the technical expenses and maintenance costs due to the quiet zone improvement.

The estimated safety improvement costs are as shown on the Duval County's primary spreadsheet. The funding source is to be determined. FDOT will not provide any financial assistance, but will accept the technical expenses and maintenance costs due to the quiet zone improvement.

Funding for Safety Improvements of Duval County, Inc. to be determined in the process of the Railroad (PRC) and local government agreement covering the quiet zone.

WHERE WILL QUIET ZONES BE LOCATED

Where are quiet zones proposed warranted?

FDOT has identified potential areas where quiet zones may be warranted. FDOT will conduct the project benefit to safety of the railroad. FDOT has performed field diagnostics in collaboration with Al. Quiet Zones (AQZ) in all public at grade crossings in Duval County along the FEC corridor.



Hospitals

Existing Rail Crossings

Number of Households within a Quarter Mile

USE OF LOCOMOTIVE HORNS & QUIET ZONES

Federal Railroad Administration (FRA) Final rule:

This final rule requires that locomotive horns be sounded (at least 15 seconds and no more than 20 seconds) as a warning to highway users at public highway-rail crossings (grade crossings). However Quiet Zones are authorized by the feds and as such are Federal Quiet Zones.

Created in 2011

Authority – 49 CFR 222 and 229.

Funding – Locally Funded.



WHAT IS A QUIET ZONE ?

A quiet zone is a section of a rail line at least one-half mile in length that contains one or more public crossings at which locomotive horns are not routinely sounded.

* The horn will still sound at the discretion of the Locomotive Engineer.



QUIET ZONE ANALYSIS

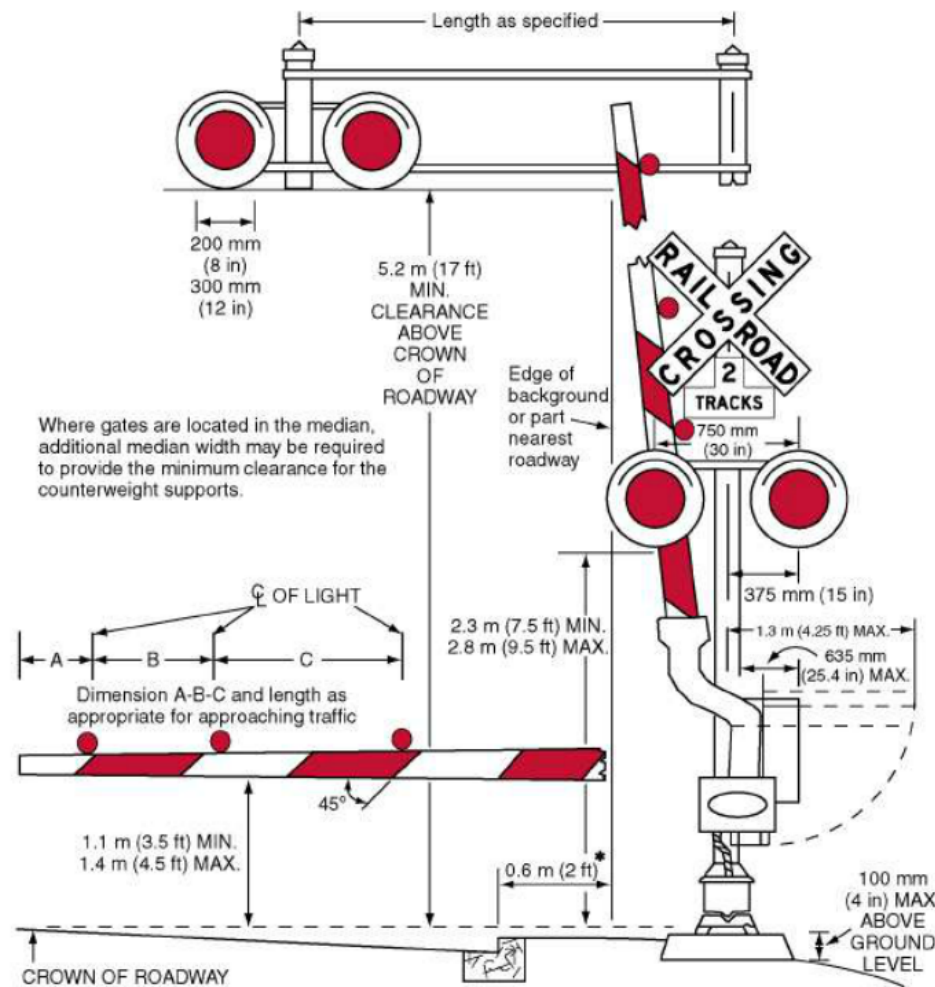
- Difference between safety improvements and improvements needed for Quiet Zone designation.

Proposed All Aboard Florida grade crossing improvements are those necessary to meet federal and state regulations based primarily on train operating speeds with the assumption that train horns will continue to be sounded. Quiet Zone designation requires supplemental safety measures to offset the increased risk of not sounding the train horn.

- Opportunities.

There is an opportunity to create one agreement for maintenance of the crossing that all cities can participate in rather than individual and different agreements that vary by city and crossing. This can be pursued with the Railroad (FEC).

CURRENT CROSSING IMPROVEMENTS



* For locating this reference line at other than curb section installation, see Section 8D.01.

All public crossings must have gates, lights, Constant Warning Time, and Power Out Indicator.

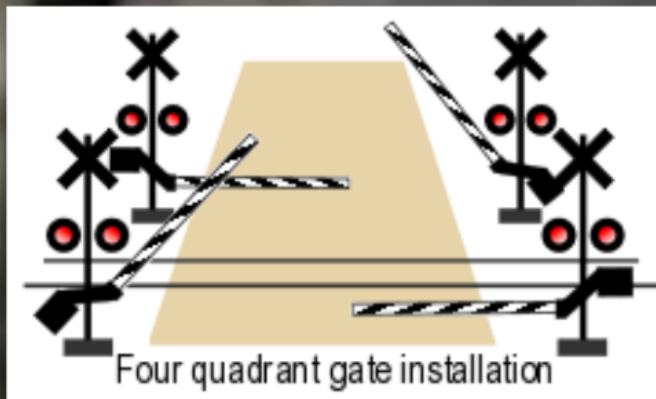
AAF has agreed to pay for the cost of these improvements.

NEW QUIET ZONES IMPROVEMENTS

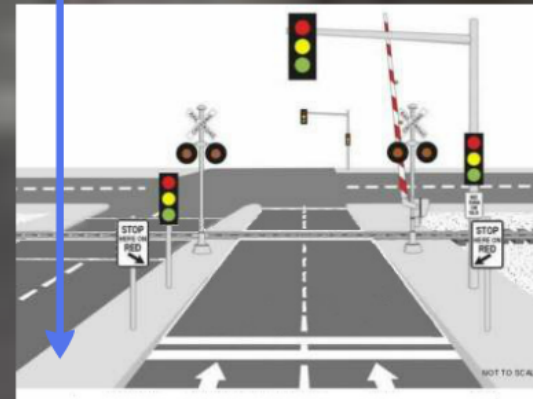
There are only five types of supplementary safety measurements (SSM).

Channelization and Median Barriers.

1. 4 Quadrant Gates.

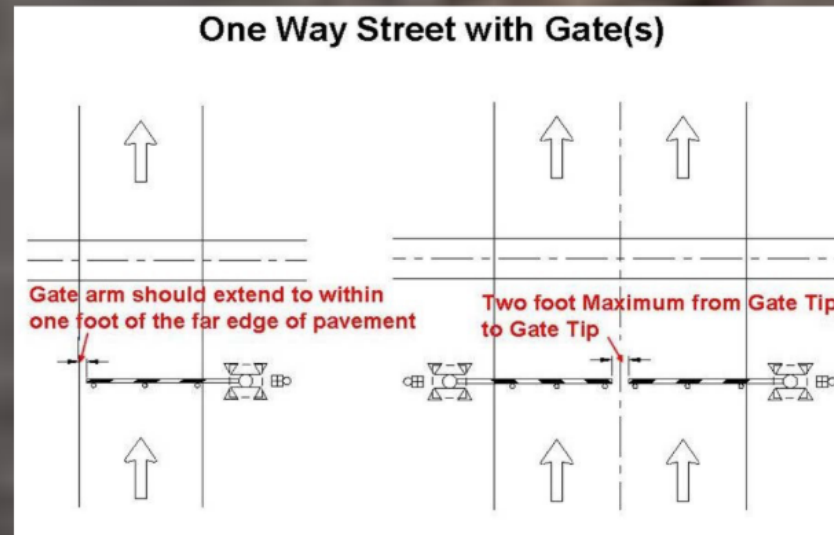


2. Raised Median



NEW QUIET ZONES IMPROVEMENTS (continued)

3. One Way Roads.



4. Temporary Closure.

Only permitted between 10 p.m. and 7 a.m. Must be enforced 7 days per week. (Horns will sound during the day).

5. Permanent Closure.

This means one less crossing where a horn is sounded.

FINANCIAL GUIDANCE

- Local Government entities will make the ultimate decision to pursue quiet zones and how to implement the recommendations available in the report FDOT has developed for Broward County.
- Should a local government wish to implement a quiet zone improvement on a state owned facility that crosses the FEC corridor, FDOT will not provide any State capital funding, but will accept the increase in operations and maintenance costs due to the quiet zone improvement.
- The estimated safety improvement costs are as shown on the Broward County summary spreadsheet. The funding source is to be determined. Federal and private sources will have to be investigated
- Funding for future maintenance of the crossing, has to be determined in the provision of the Railroad (FEC) and Municipality agreement covering the upgrades.

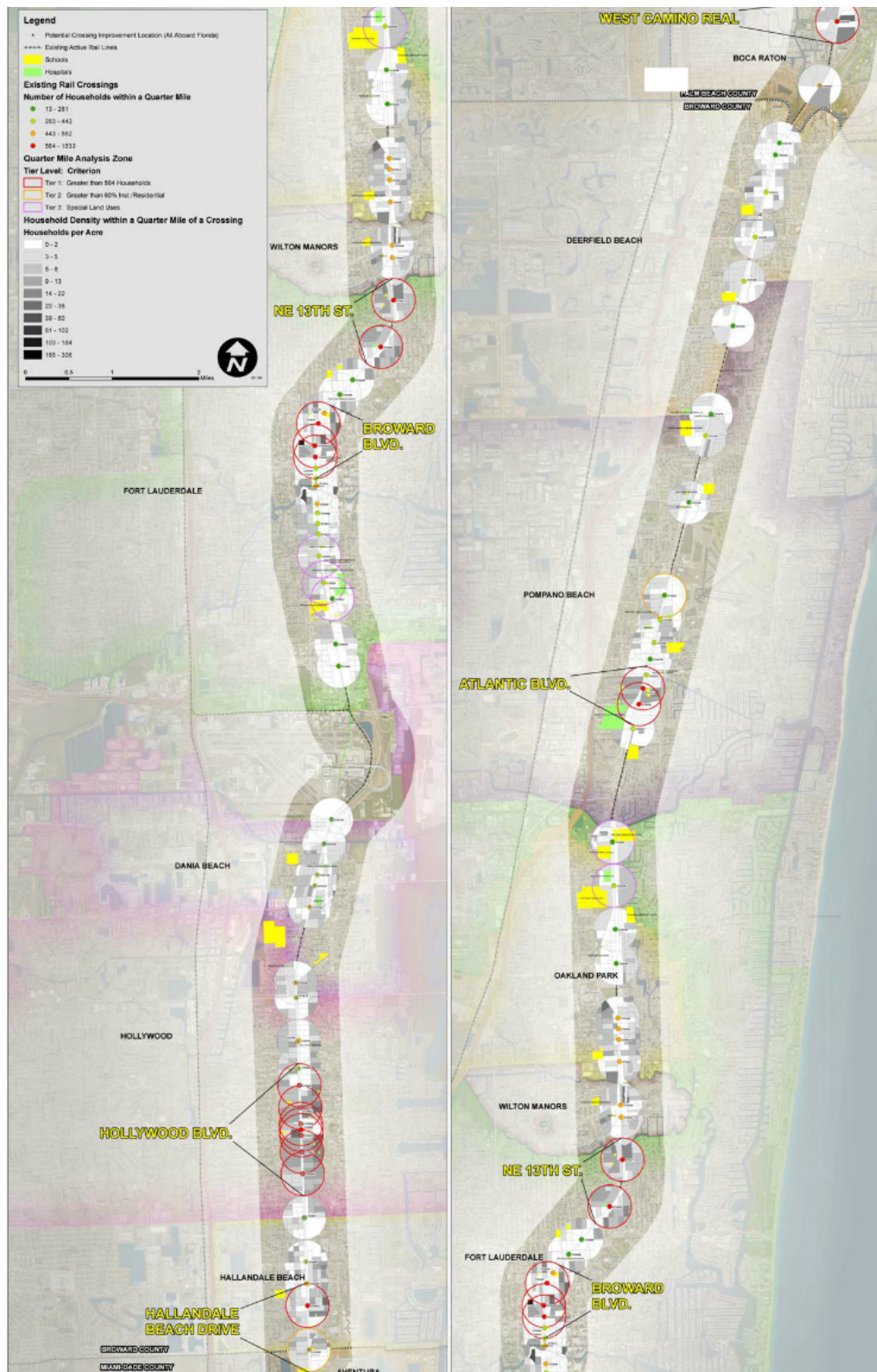
WHERE WILL QUIET ZONES BE LOCATED

Where are quiet zones proposed warranted?

FDOT has identified sensitive areas where population, density and land use indicate the greatest benefit to quality of life. Additionally, FDOT has performed field diagnostics in collaboration with All Aboard Florida (AAF) at all public at grade crossings in Broward County along the FEC corridor.



Need Guidance?



Legend

- Potential Crossing Improvement Location (All Aboard Florida)
- ++++ Existing Active Rail Lines
- Schools
- Hospitals

Existing Rail Crossings

Number of Households within a Quarter Mile

- 13 - 281
- 283 - 442
- 443 - 562
- 564 - 1533

Quarter Mile Analysis Zone

Tier Level: Criterion

- Tier 1: Greater than 564 Households
- Tier 2: Greater than 60% Inst./Residential
- Tier 3: Special Land Uses

Household Density within a Quarter Mile of a Crossing

Households per Acre

- 0 - 2
- 3 - 5
- 6 - 8
- 9 - 13
- 14 - 22
- 23 - 38
- 39 - 60
- 61 - 102
- 103 - 184
- 185 - 306

0 0.5 1 2 Miles



WILTON MANORS

NE 13TH ST.

BROWARD
BLVD



HOLLYWOOD BLVD.

HALLANDALE BEACH

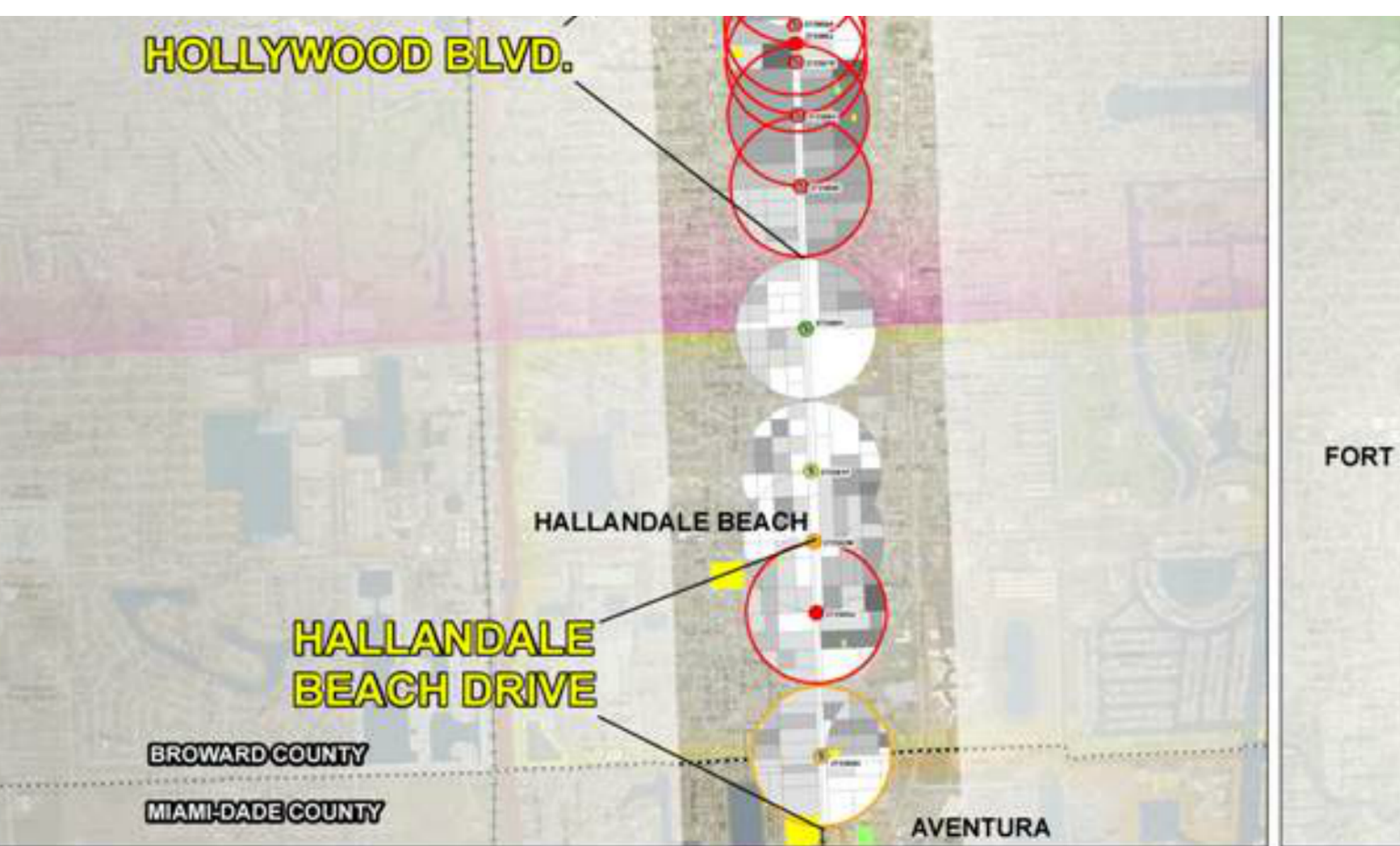
**HALLANDALE
BEACH DRIVE**

BROWARD COUNTY

MIAMI-DADE COUNTY

AVENTURA

FORT



HOLLYWOOD

HOLLYWOOD BLVD.

HALLANDALE BEACH

CH

D.

HALLANDALE BEACH

LE
VE



AVENTURA

OAKLAND PARK

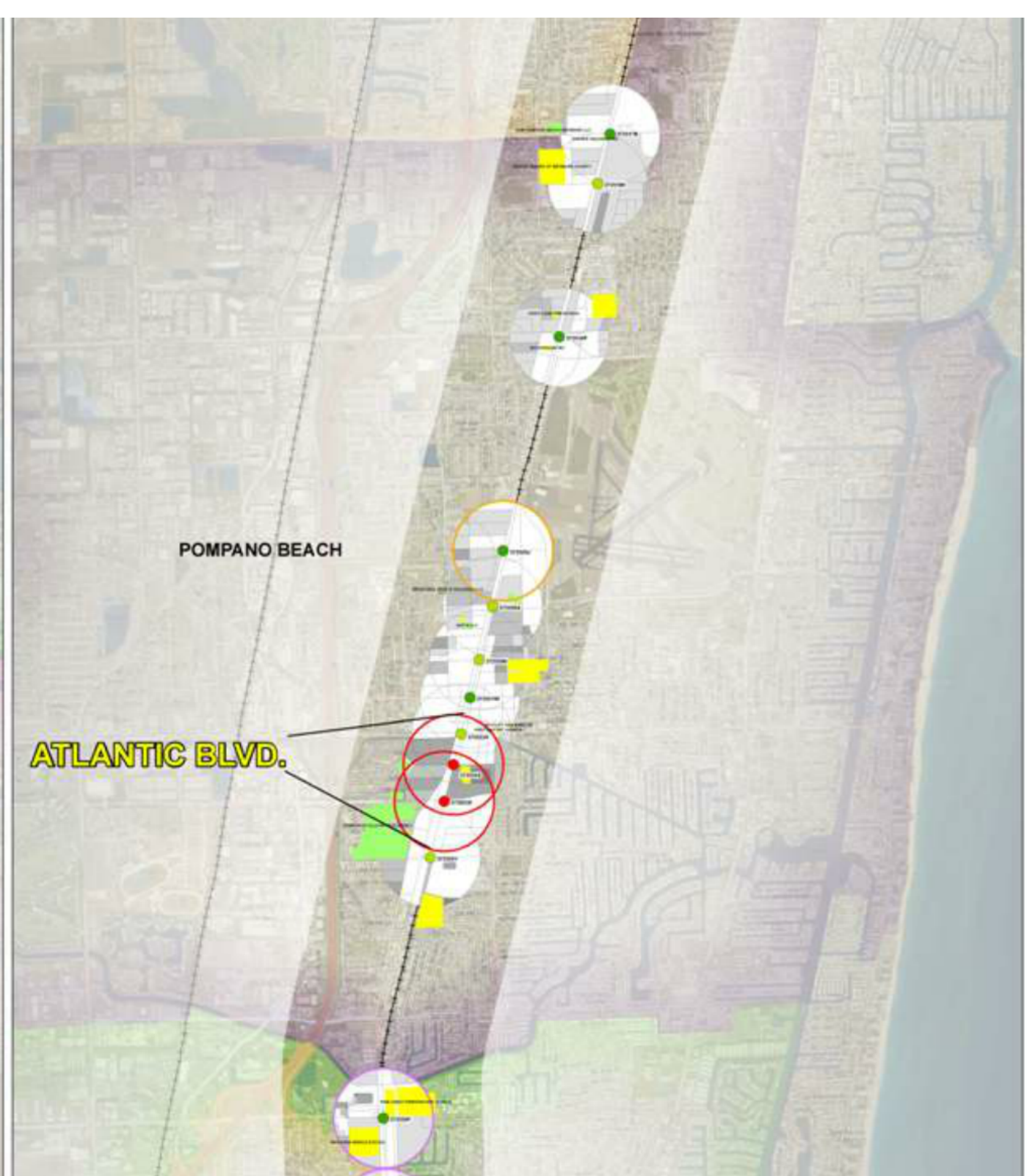
WILTON MANORS

NE 13TH ST.

FORT LAUDERDALE

BROWARD
BLVD.





QUIET ZONES COUNTY SUMMARY

BROWARD COUNTY

Template Number	Jurisdiction	From/To	Delineation	Crossings	Proposed QZ Crossing \$*	Other QZ Crossing \$*
1	Deerfield Beach (Non-Quiet Zones)	NE 2 nd Street to SW 15 th St.	M.P. 326.81 - M.P. 328.48 M.P. 329.00 – M.P. 330.05	6**		1,225,000
2	Pompano Beach (Quiet Zone)	SR 814/W. Atlantic Blvd. to SW 3 rd St.	M.P. 333.14- M.P. 333.51	3	800,000	
2	Pompano Beach (Non Quiet Zone)	NE 48 th St. SR 834 Sample Road to NE 3 rd St. And SW 6 th St.	M.P. 328.48 – M.P. 329.0 M.P. 330.05 – M.P. 332.97 And M.P. 333.51 - M.P. 333.79	1 7** 1		250,000 1,175,000 200,000
3	Ft. Lauderdale (Quiet Zone)	NE 17 th Ct. to SW 2 nd St.	M.P. 338.80- M.P. 341..16	10	2,050,000	
3	Ft. Lauderdale (Non Quiet Zone)	NE 62 nd St. to NE 56 th St. And River Walk to SW 24 th St.	M.P. 335.13.00–M.P. 335.63 And M.P. 341.23 - M.P. 343.09	2 10		500,000 1,550,000
4	Oakland Park (Non Quiet Zone)	SR 870/E. Commercial Blvd. to Oakland Park Blvd.	M.P. 336.14- M.P. 337.67	6		1,300,000
5	Wilton Manors (Non Quiet Zone)	NE 26 th St. to NE 24 th St.	M.P. 338.16 – M.P. 338.30	2		400,000
6	Dania Beach (Non Quiet Zone)	Griffen Rd. to Sheridan St.	M. P. 345.38 – M.P. 347.13	7		1,500,000
7	Hollywood (Quiet Zone)	Garfield St. to Washington St.	M.P. 348.07 – M.P. 349.29	8	1,500,000	
7	Hollywood (Non Quiet Zone)	Taft St.	M.P. 347.75 to 348.07	1		200,000
8	Hallandale Beach (Quiet Zone)	SR 824/Pembroke Road to NE 215 th St.	M.P. 349.80 to M.P. 351.32	5	1,050,000	
Total				26 Proposed QZ Crossings 41 Potential QZ Crossings	5,400,000	8,300,000

BROWARD COUNTY ed Quiet Zone Analysis Map



WEST CAMINO REAL

ANY QUESTIONS?



BOCA RATON

PALM BEACH COUNTY
BROWARD COUNTY