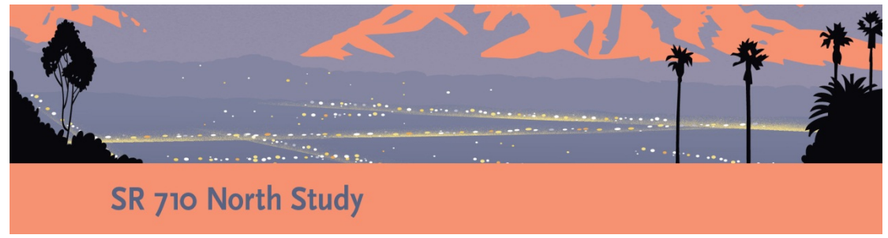

Noise Abatement Decision Report

Vol. II – Figures

State Route 710 North Study

County of Los Angeles

07-LA-710 (SR 710)

E.A. 187900

EFIS 0700000191

September 2014

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

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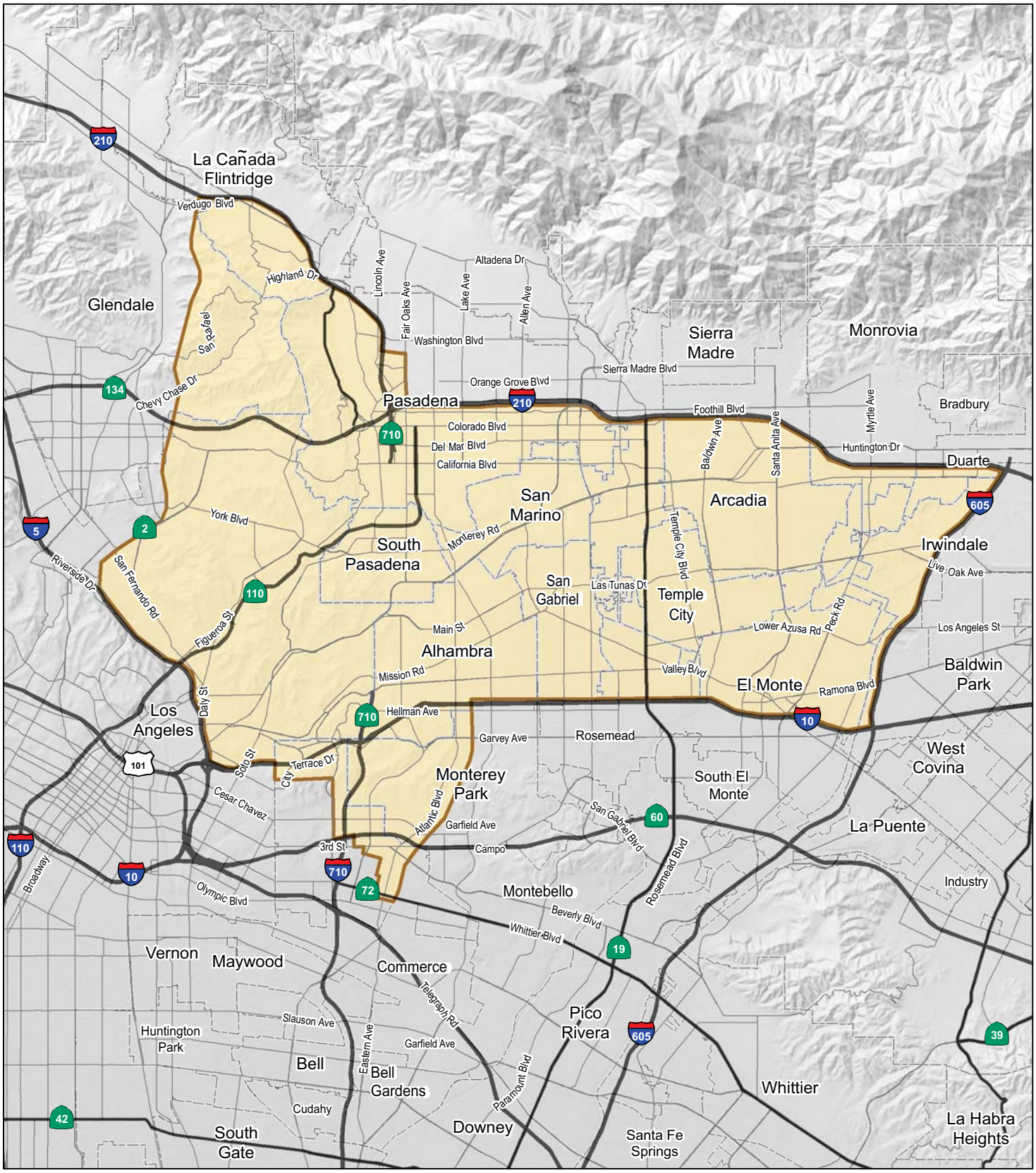

LEGEND

SR 710 North Study Area

FIGURE 1-1

N

0 1.25 2.5
MILES

SOURCE: ESRI (2008); LSA (2013)

I:\CHM1105\G\P&N\Project Location.cdr (10/27/14)

SR 710 North Study
Project Location

07-LA-710 (SR 710)
EA 187900
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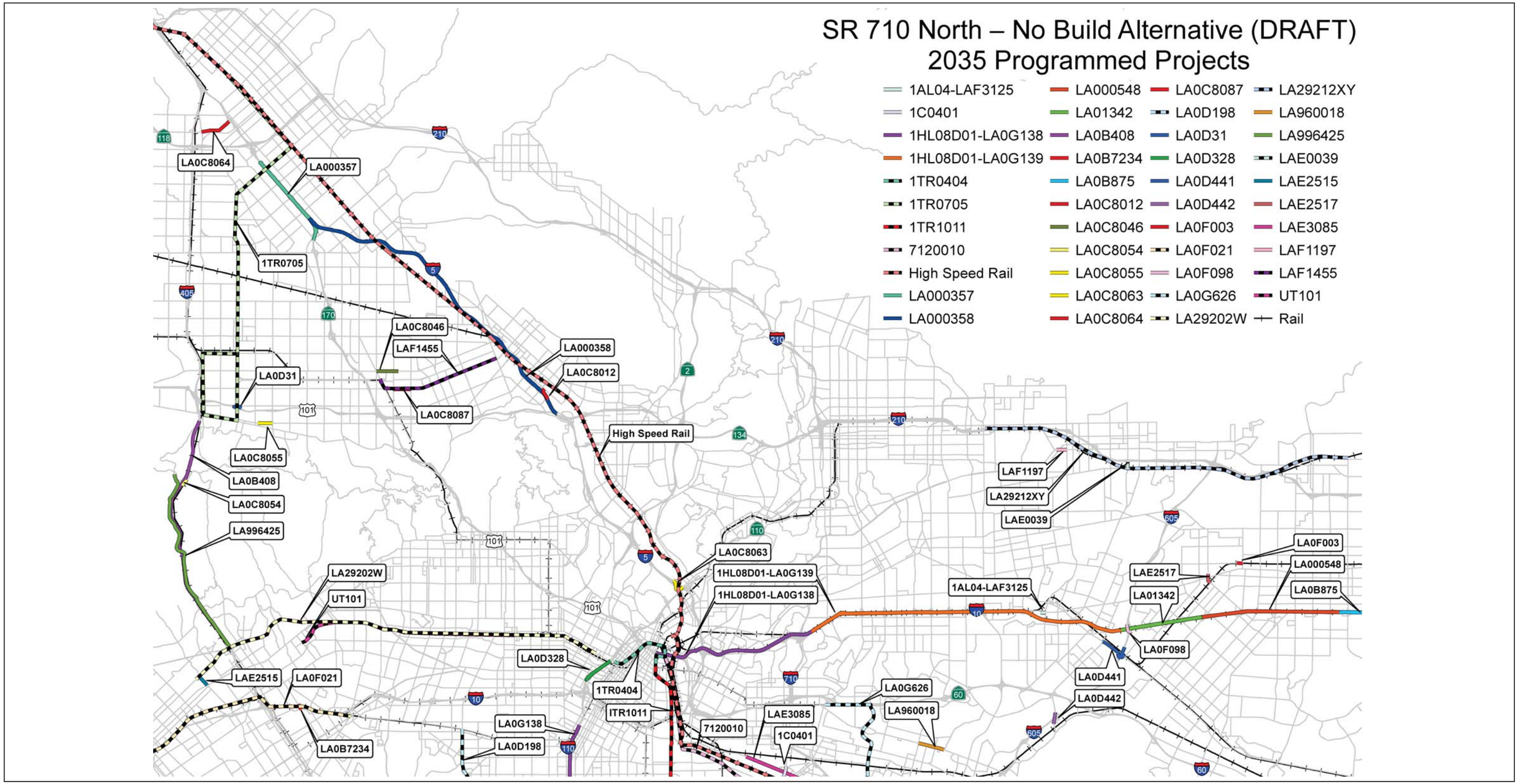

FIGURE 1-2

NOT TO SCALE

SOURCE: CH2M HILL (2013)

I:\CHM1105\G\No Build Alt.cdr (10/27/14)

SR 710 North Study

No Build Alternative

07-LA-710 (SR 710)
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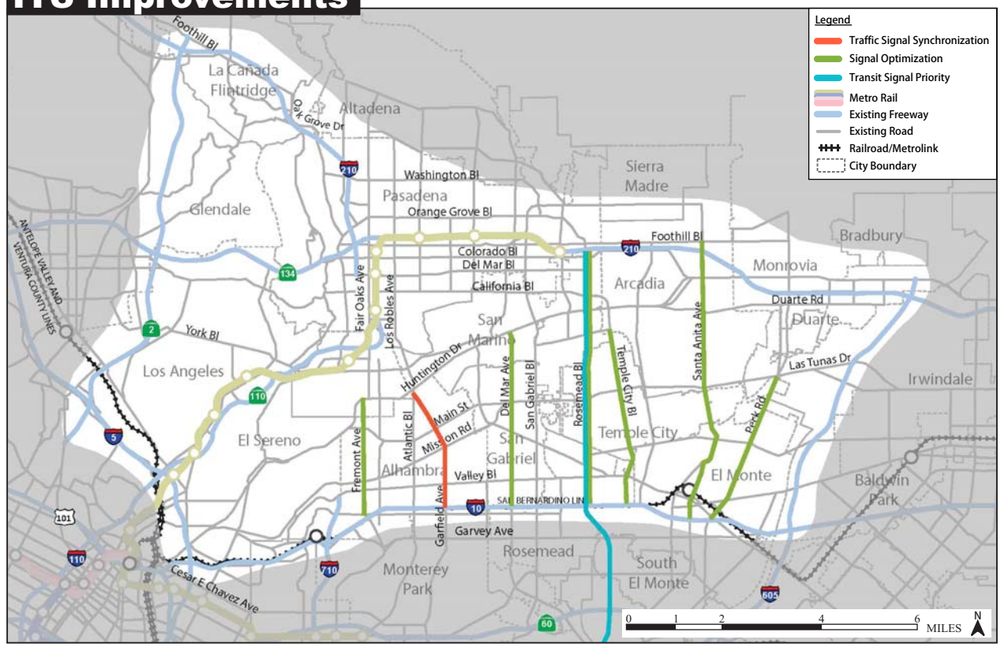
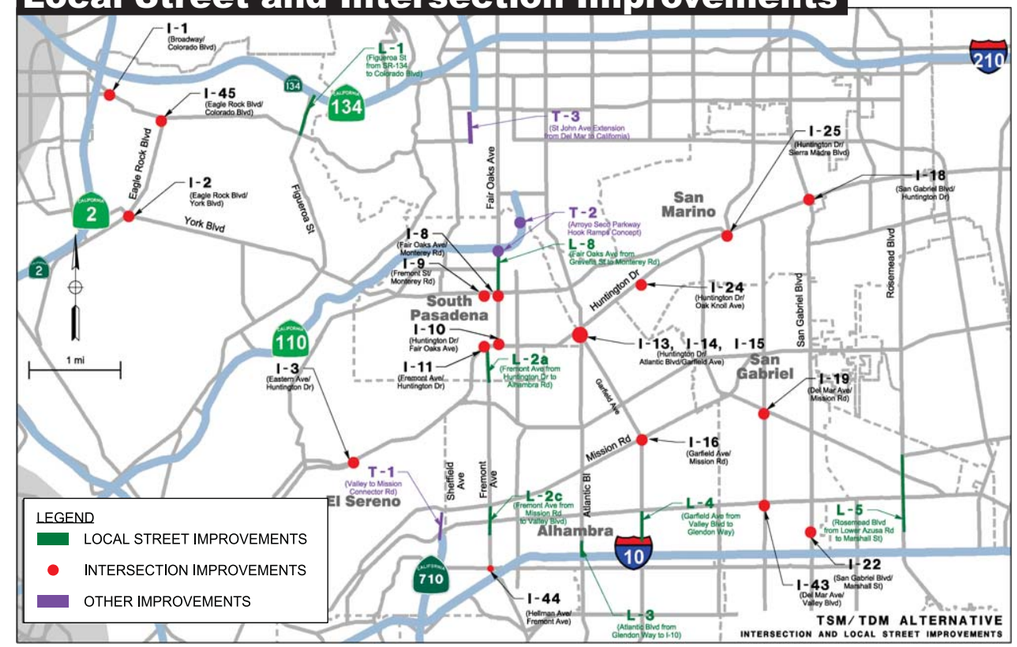
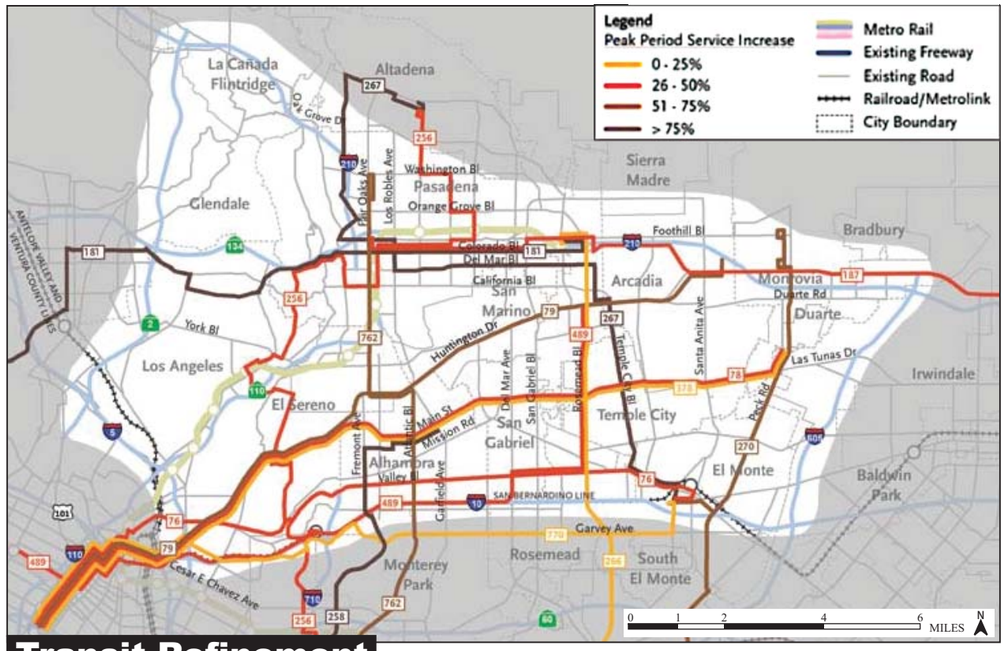
EFIS 0700000191







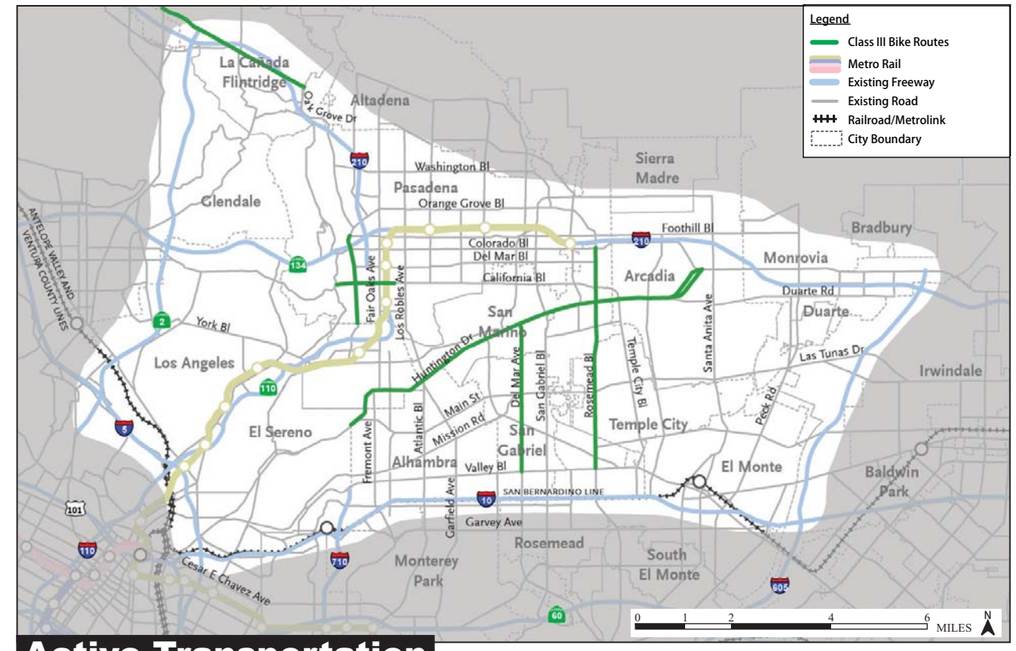


FIGURE 1-3

SR 710 North Study

TSM/TDM Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: CH2M HILL (2013)
I:\CHM1105\G\TSM_TDM Alt.cdr (10/27/14)

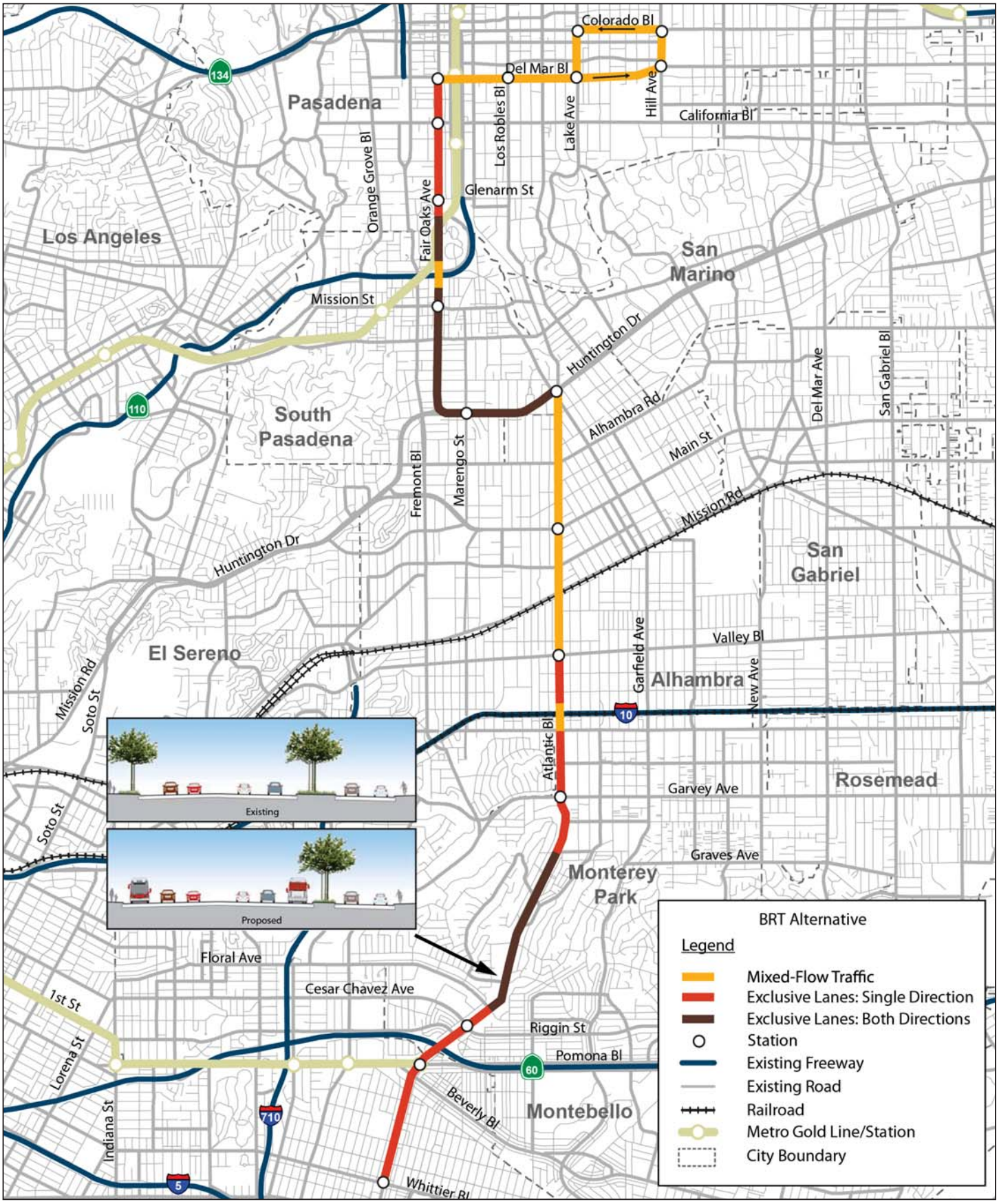


FIGURE 1-4

N

0 .5 1.0
MILES

SOURCE: CH2M HILL (2013)

I:\CHM1105\G\BRT Alternative.cdr (10/27/14)

SR 710 North Study

BRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

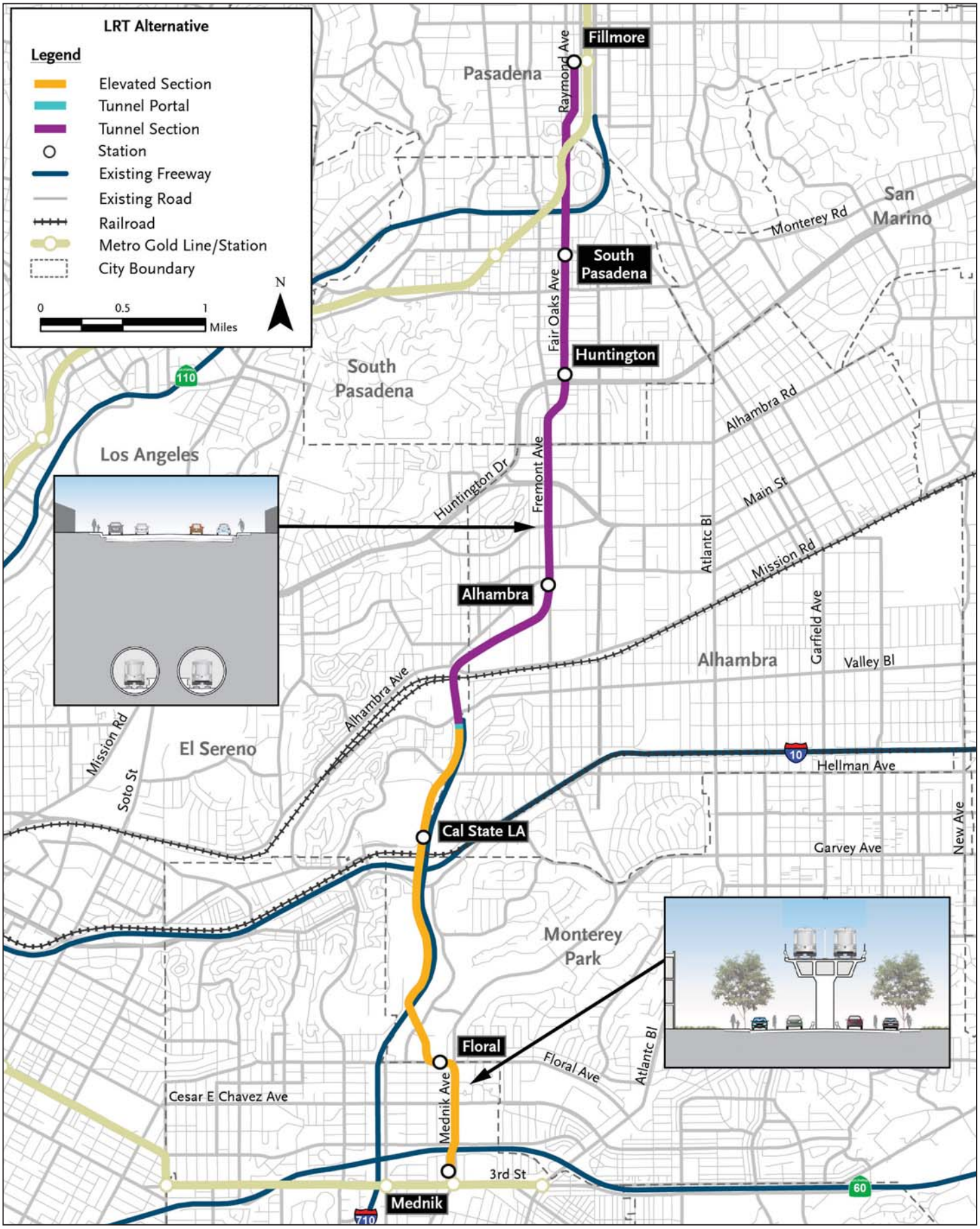


FIGURE 1-5

SR 710 North Study

LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

N

0 .5 1
MILES

SOURCE: AECOM (2013)

I:\CHM1105\G\LRT Alternative.cdr (10/27/14)

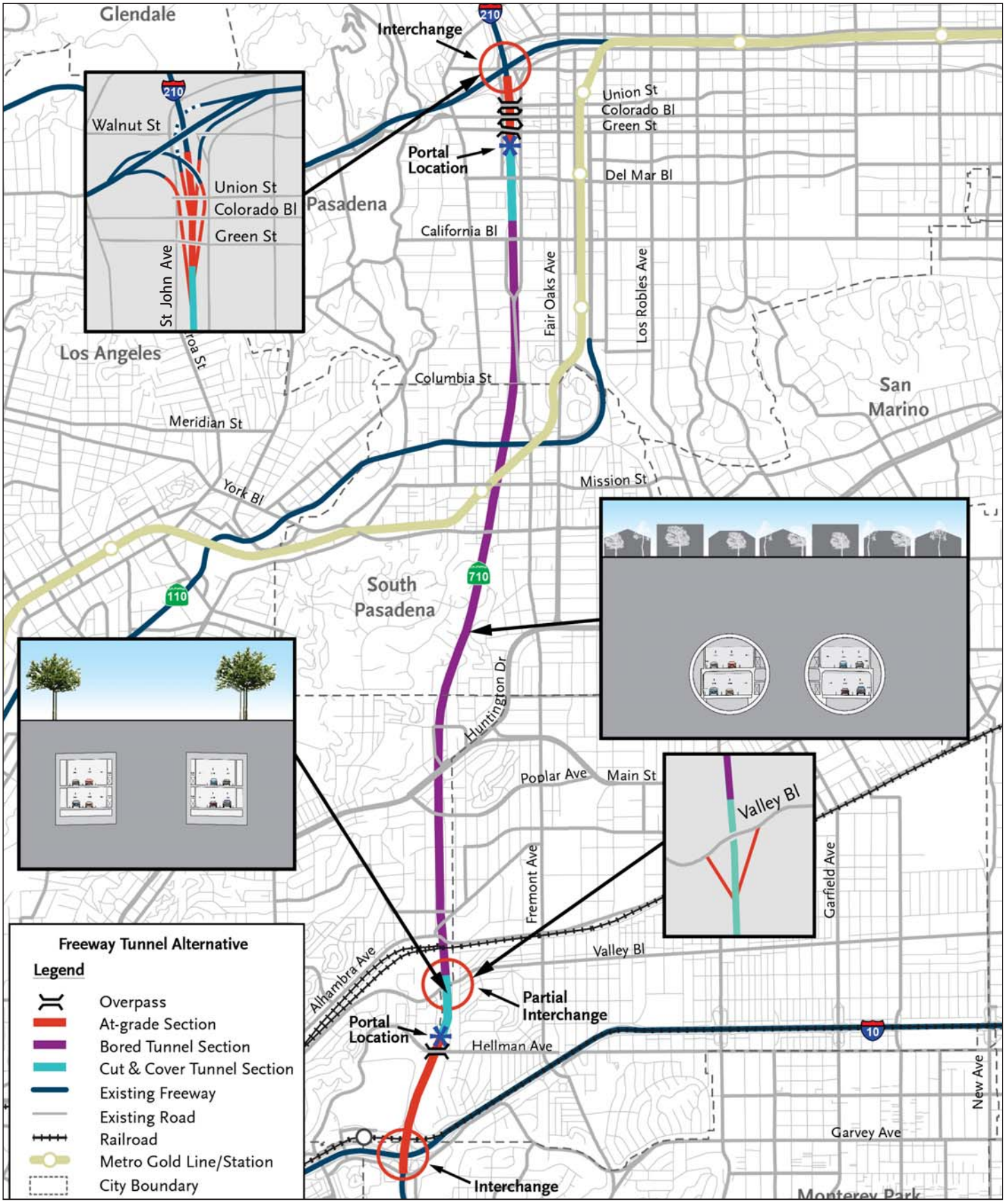


FIGURE 1-6

N

0 .38 .75
MILES

SOURCE: CH2M HILL (2013)

SR 710 North Study
Freeway Tunnel Alternative
Single and Dual Bore
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

I:\CHM1105\G\Freeway Tunnel Alt Single&Dual Bore.cdr (10/27/14)

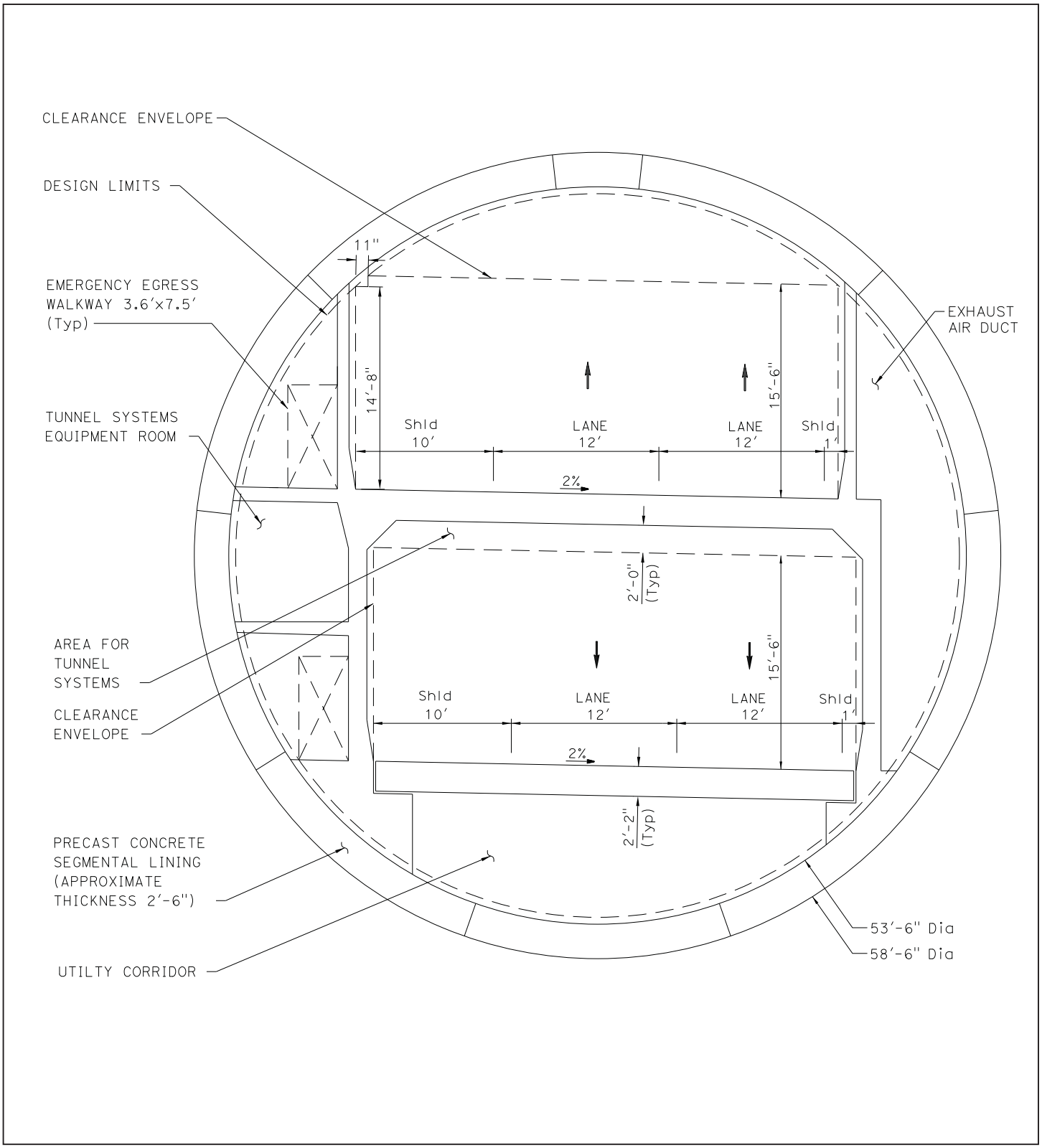
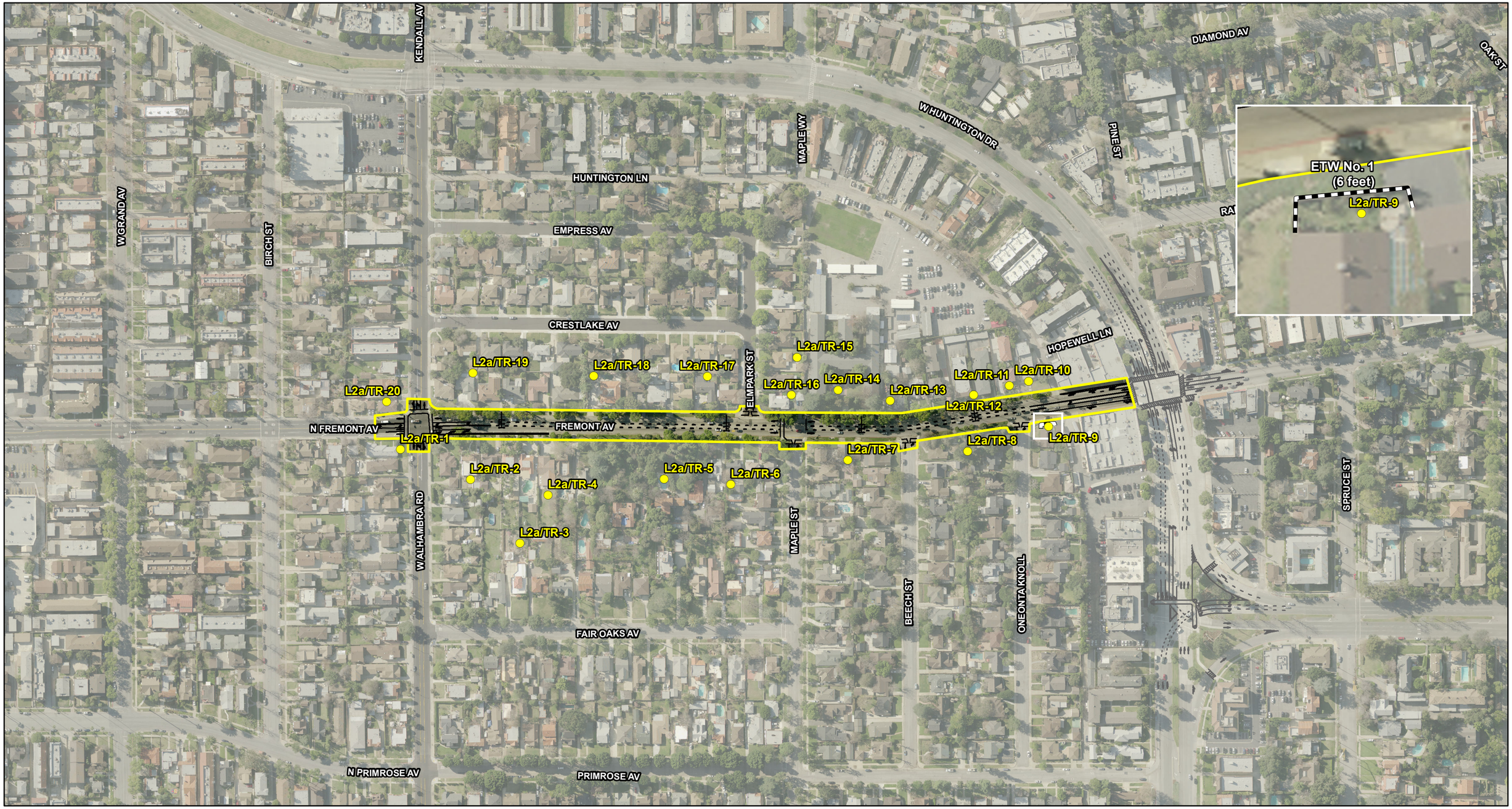


FIGURE 1-7

SR 710 North Study
Freeway Tunnel Alternative
Single Bore Cross Section
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: CH2M HILL (2014)

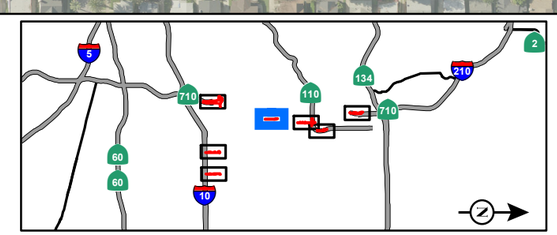
I:\CHM1105\G\Single Bore Cross Section.cdr (10/27/14)



LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET



SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_TSMTDM_ProposedBarriers.mxd (10/28/2014)

FIGURE 2-1
Page 1 of 9

SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-2a

07-LA-710 (SR 710)
EA 187900
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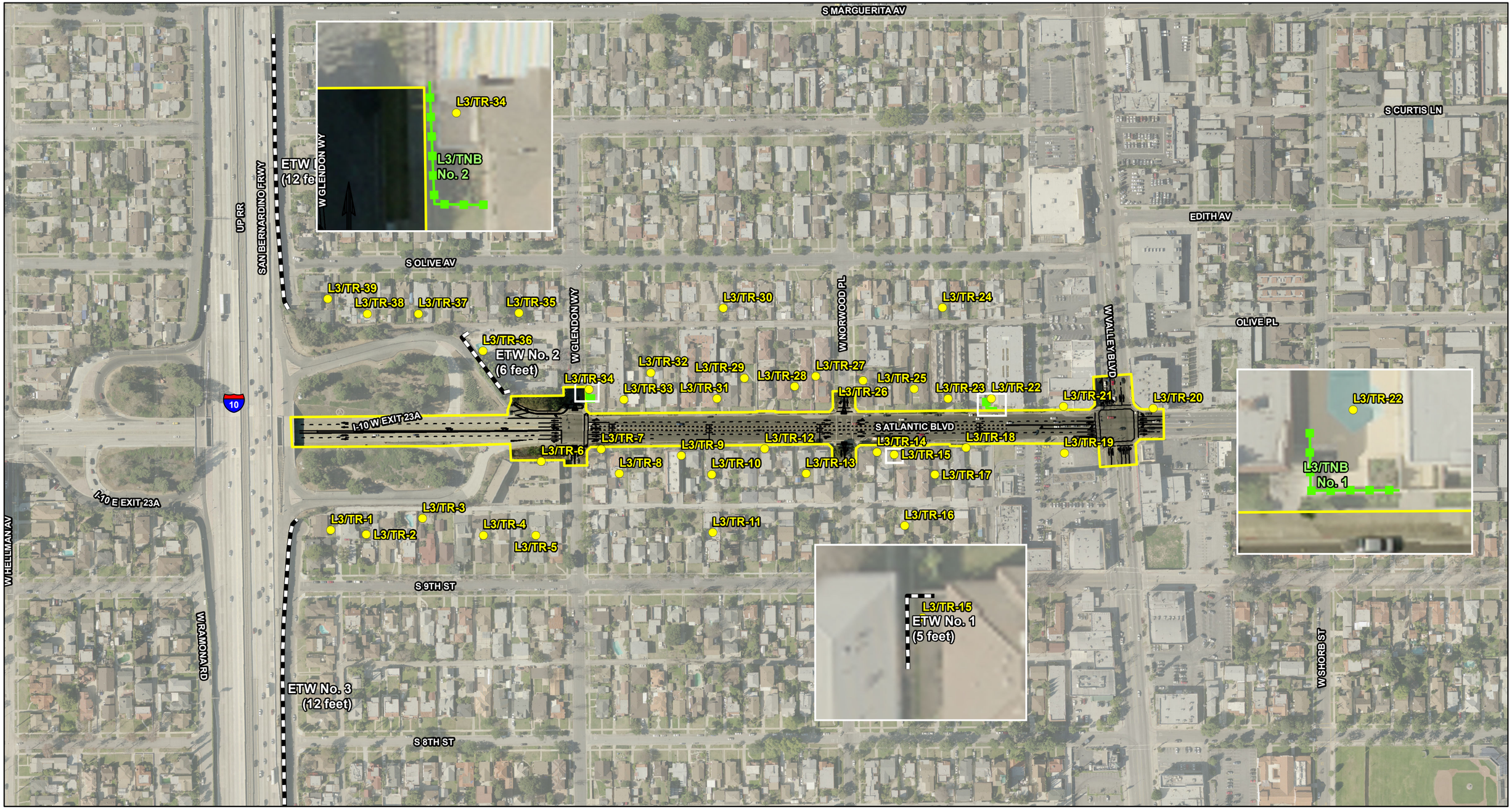

LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

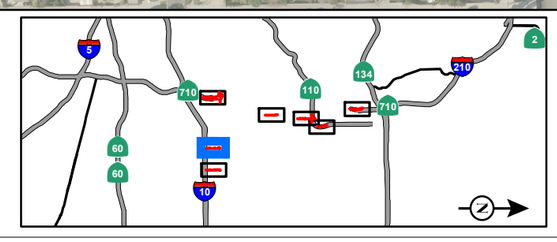

FIGURE 2-1
Page 2 of 9

SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-3

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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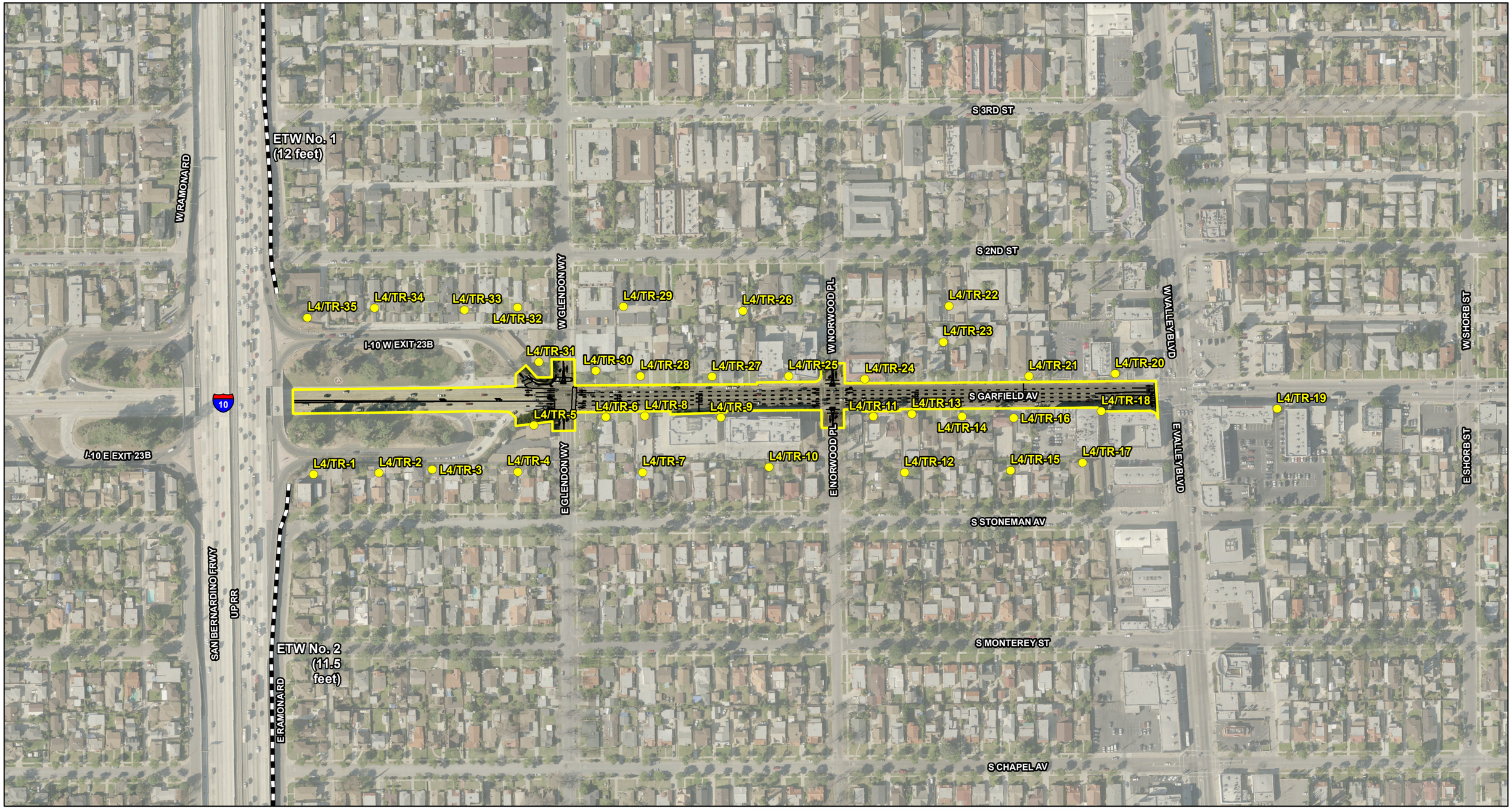
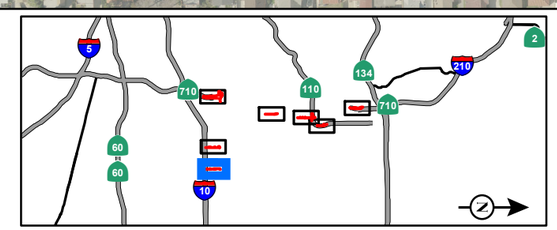


LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET



SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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FIGURE 2-1
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SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-4

07-LA-710 (SR 710)
EA 187900
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LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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FIGURE 2-1
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SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-5

07-LA-710 (SR 710)
EA 187900
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LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

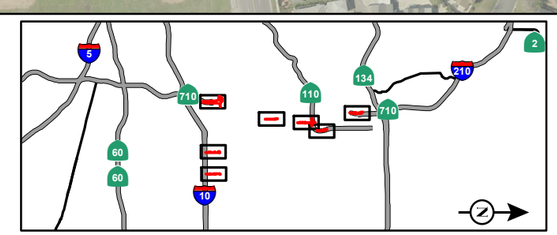

FIGURE 2-1
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SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-5

07-LA-710 (SR 710)
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EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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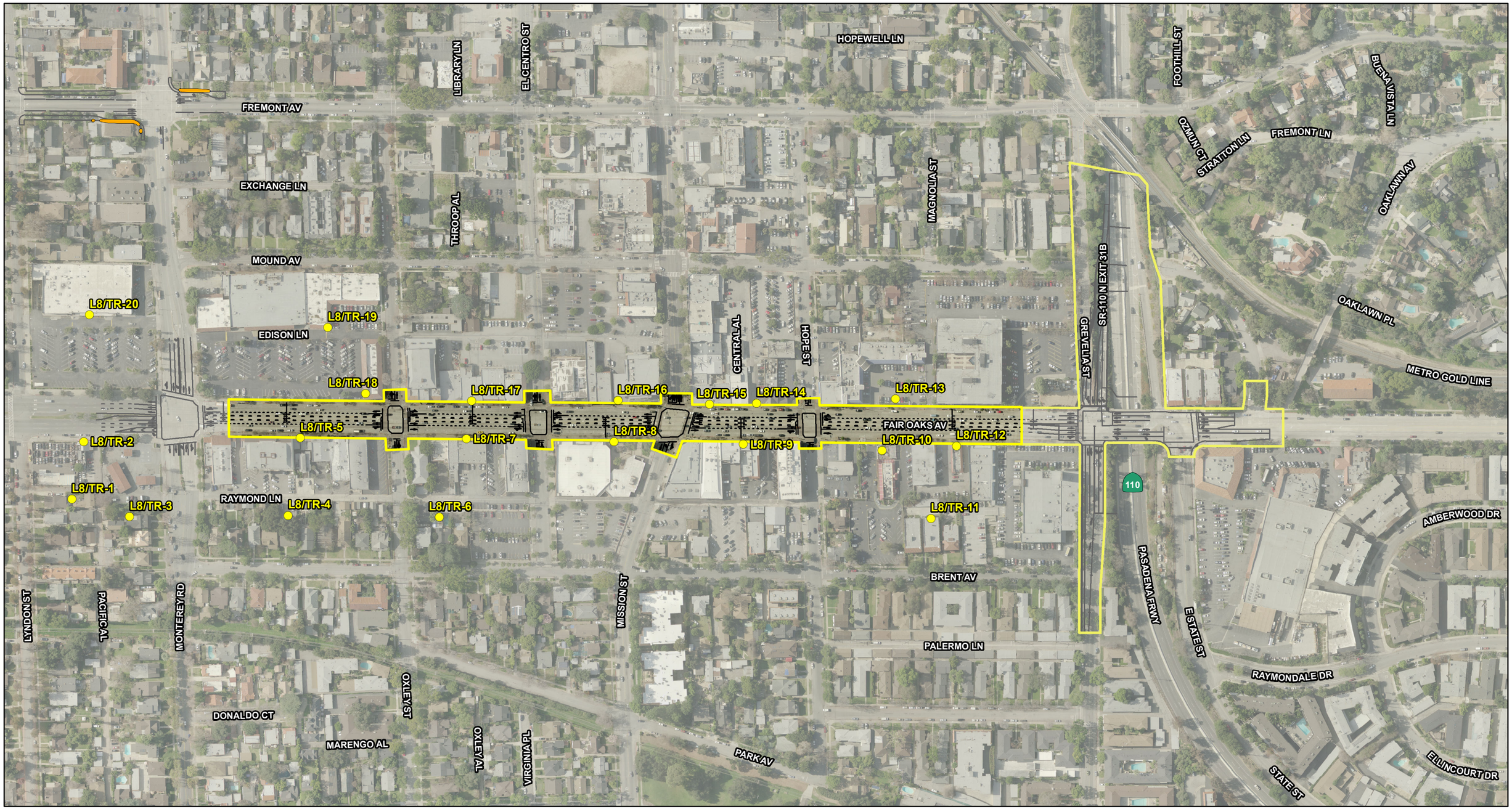

LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

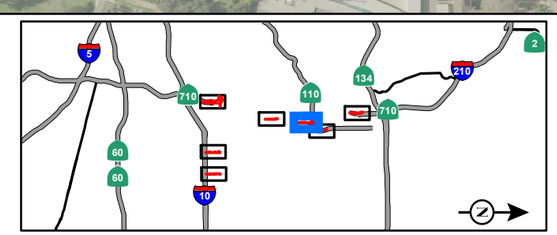

FIGURE 2-1
Page 6 of 9

SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – L-8/T-2

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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FIGURE 2-1
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SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – T-1

07-LA-710 (SR 710)
EA 187900
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BRENT AV
PALERMO LN
PARK AV
STRATFORD AV
STRATFORD LN
MILAN AV
MILL RD
LAS FLORES DR
GREVELIA ST
CLARK PL
FOOTHILL ST
AMBERWOOD DR
RAYMONDALE DR
ELLINCOURT DR
MOCKINGBIRD LN
CEDARCREST AV
RAYMOND HILL RD
E STATE ST
STATE ST
PASADENA FRWY
GARFIELD AV
HARDISON PL
HARDISON AL
S MARENGO AV
MARGUERITA LN
S EUCLID AV
ALLENDALE RD
WALLIS ST
E GLENARM ST
OHIO ST
METRO GOLD LINE
BROADWAY
S ARROYO PKWY
S RAYMOND AV
SR-110 S EXIT 31B
110
T2/TR-1
T2/TR-2
T2/TR-3
T2/TR-4
T2/TR-5
T2/TR-6
T2/TR-7
T2/TR-8
T2/TR-9
T2/TR-10
T2/TR-11
T2/TR-12
T2/TR-13
T2/TR-14
T2/TR-15
T2/TNB No. 1
T2/TNB No. 2

LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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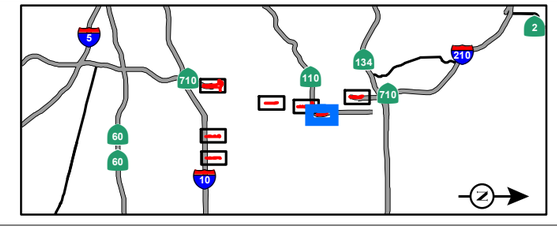

FIGURE 2-1
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SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – T-2

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

S ORANGE GROVE BLVD
CONGRESS PL
W CALIFORNIA BLVD
PALMETTO DR
W BELLEVUE DR
WAVERLY DR
W DEL MAR BLVD
GORDON TER
SAINT JOHN AV
HAVENDALE DR
LONG BEACH FRWY
S PASADENA AV
HERR AL
DREXEL PL
MAY AL
PEACH PL
ORANGE PL
GERTRUDE CT
W VALLEY ST
CENTRAL CT
W DAYTON ST
S DE LACEY AV

ETW No. 5 (8 feet)
ETW No. 4 (4 feet)
ETW No. 3 (4 - 4.5 feet)
ETW No. 2 (3 feet)
ETW No. 1 (3 feet)

T3/TR-1
T3/TR-2
T3/TR-3
T3/TR-4
T3/TR-5
T3/TR-6
T3/TR-7
T3/TR-8
T3/TR-9
T3/TR-10
T3/TR-11
T3/TR-12
T3/TR-13
T3/TR-14
T3/TR-15
T3/TR-16
T3/TR-17
T3/TR-18

LEGEND

- TSM/TDM Alternative
- TSM/TDM Roadway Geometrics
- Proposed Right-of-Way
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); AECOM (2013); CH2M Hill (2014)

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FIGURE 2-1
Page 9 of 9

SR 710 North Study

Modeled Noise Barriers for the TSM/TDM Alternative – T-3

07-LA-710 (SR 710)
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LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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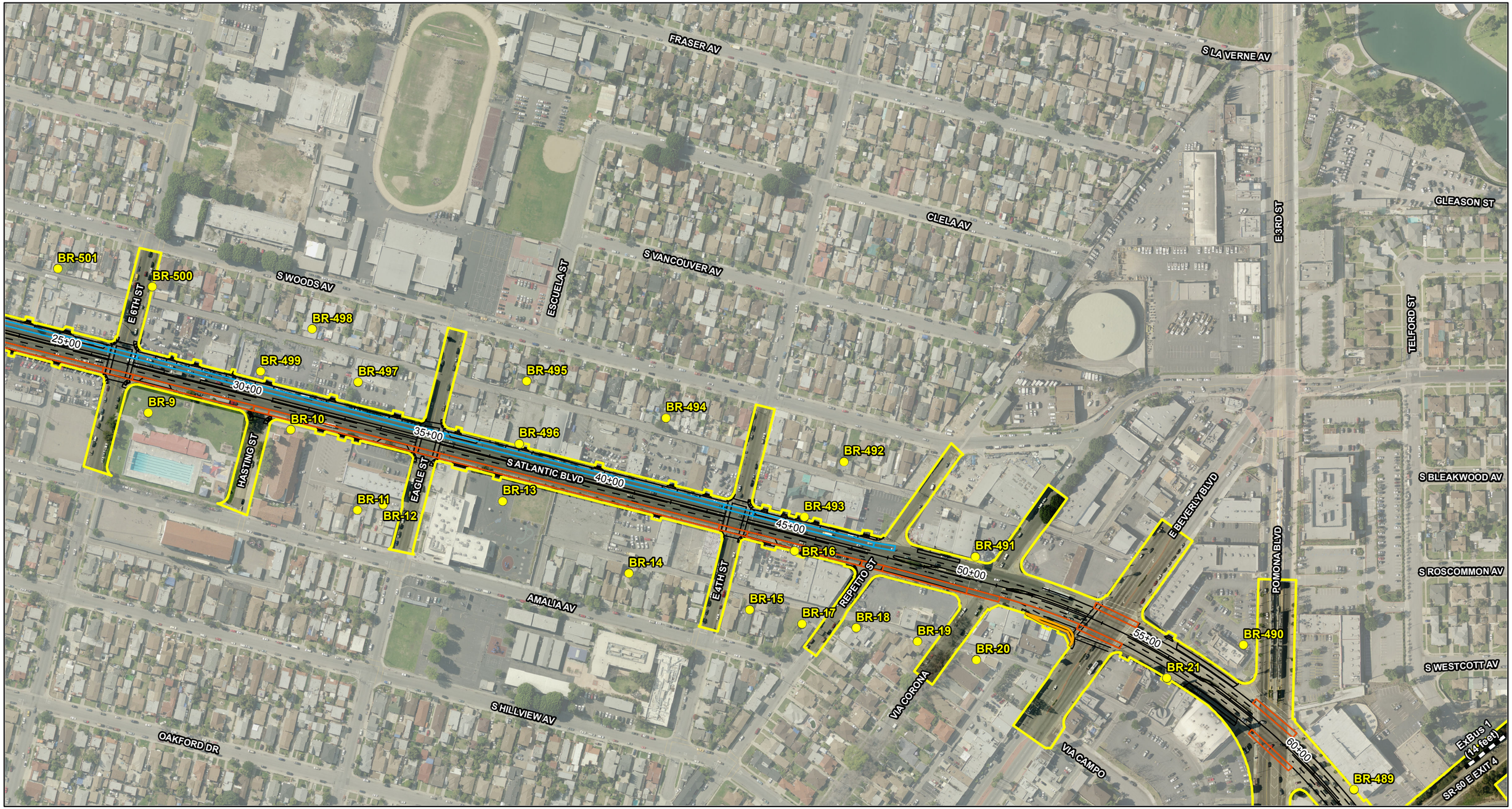
FIGURE 2-2
Page 1 of 18

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

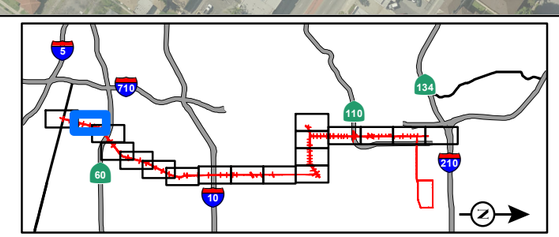


FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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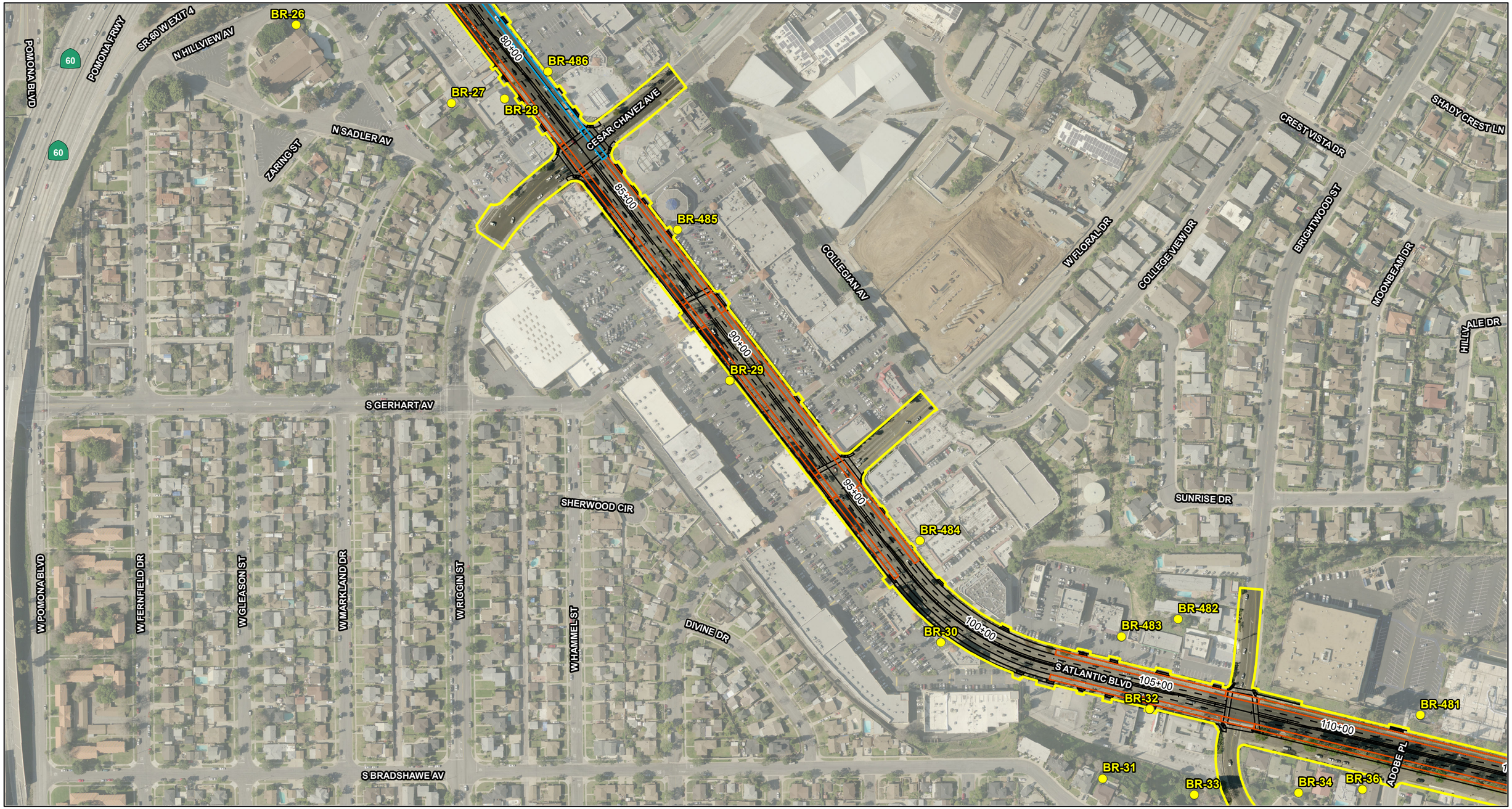
FIGURE 2-2
Page 3 of 18

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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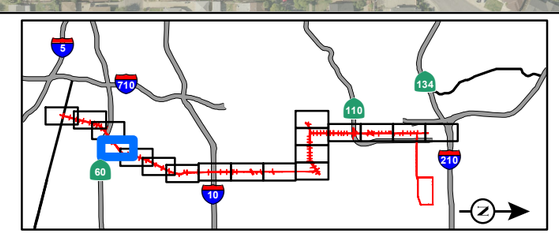

FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

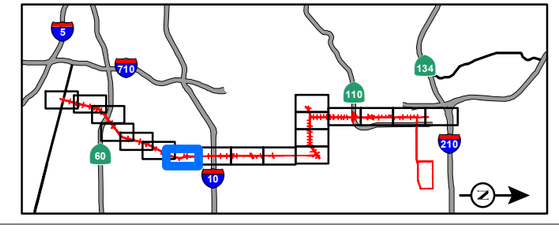

FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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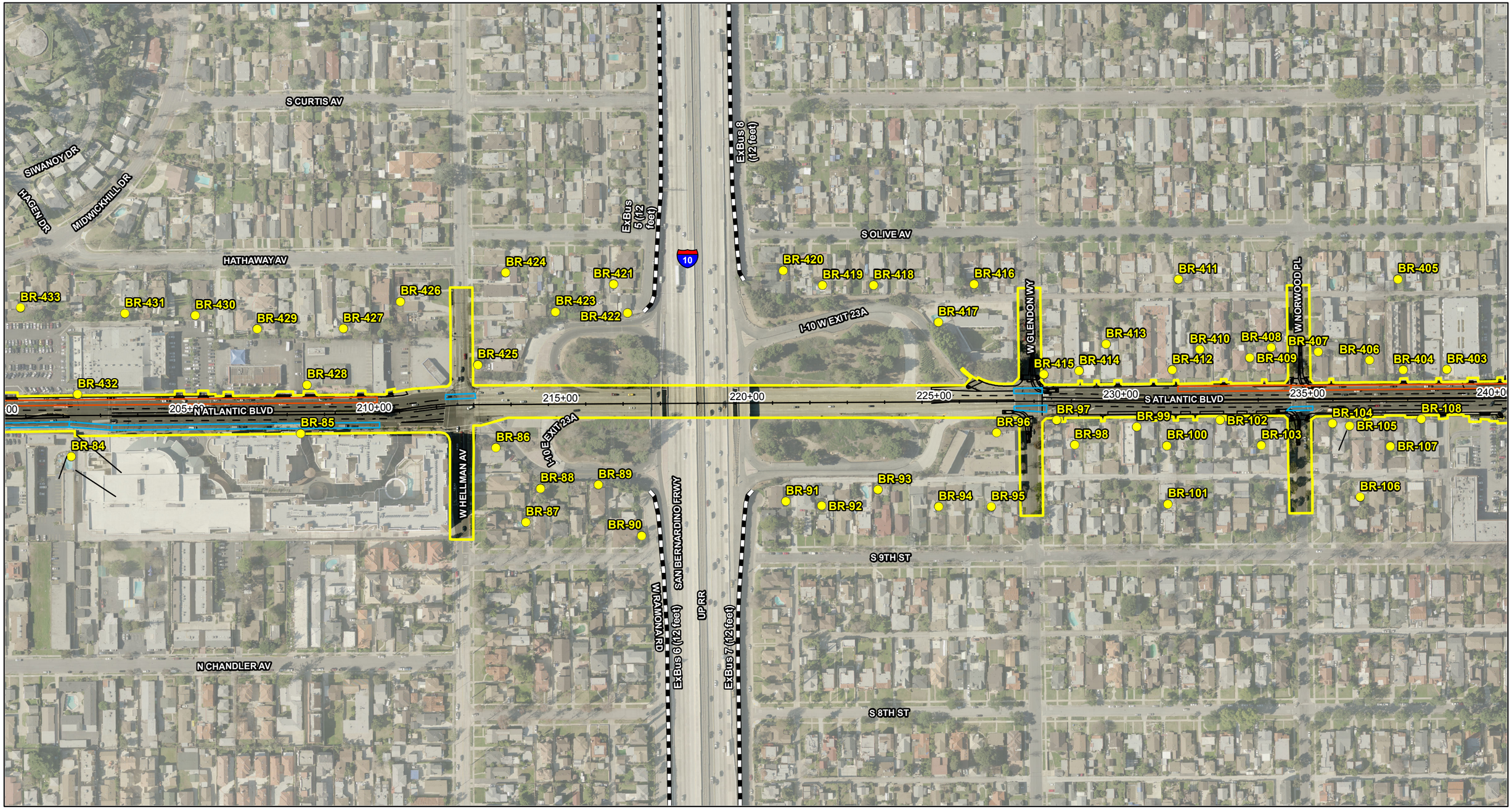

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

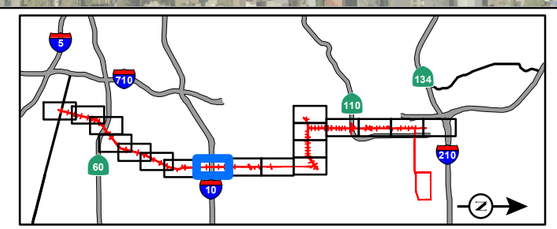

FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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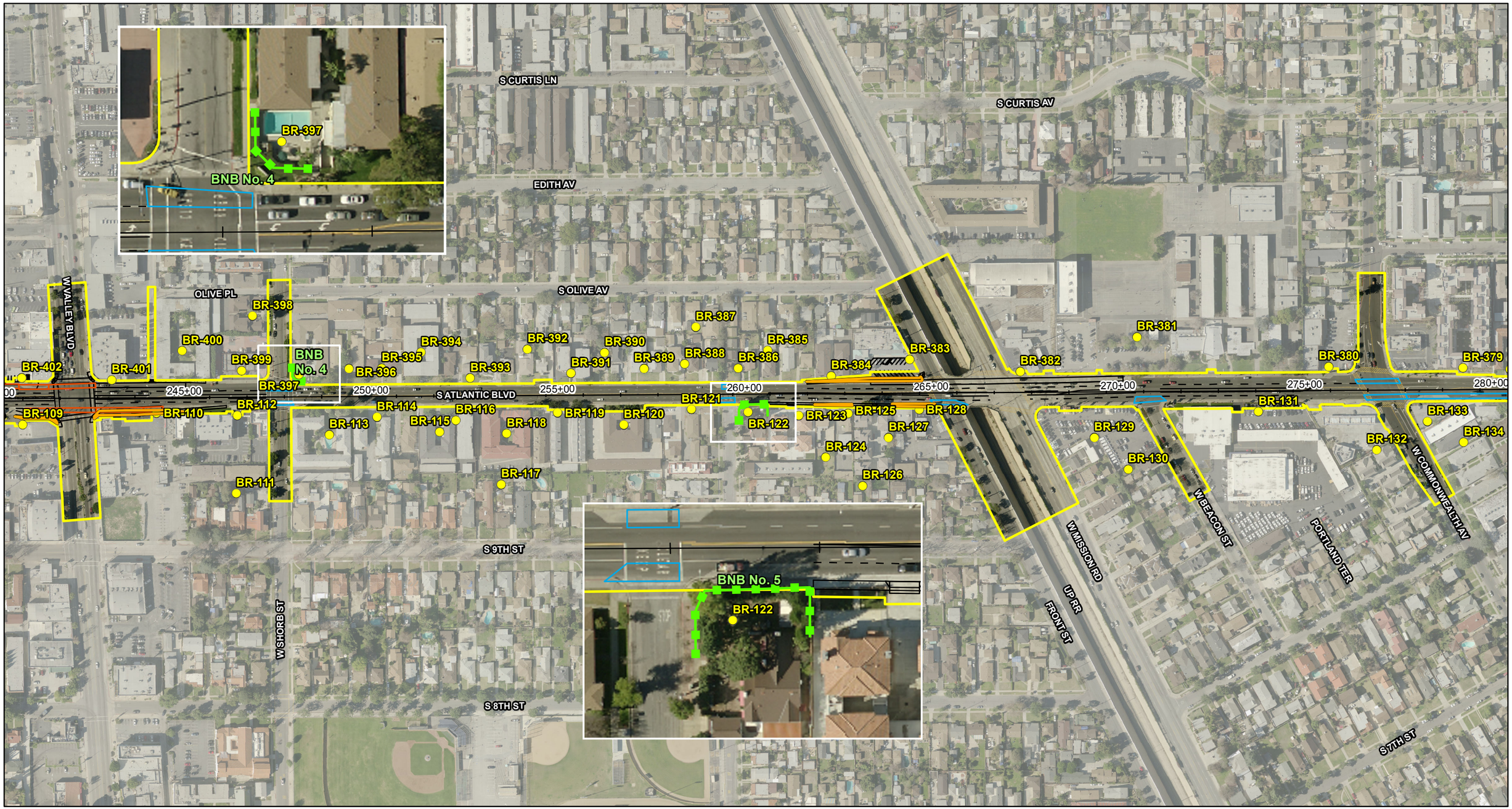

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

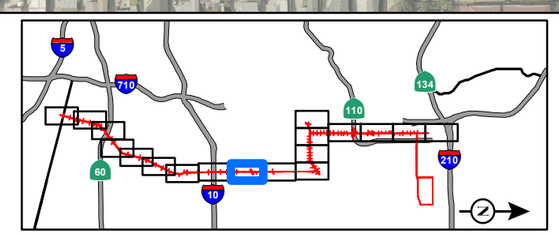

FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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S CURTIS AV
N CURTIS AV
S OLIVE AV
N OLIVE AV
SAINT CHARLES TER
W WOODWARD AV
W ALHAMBRA RD
S ATLANTIC BLVD
N ATLANTIC BLVD
W MAIN ST
WASHINGTON ST
HOWARD ST
IRVING ST
N 5TH ST
N 4TH ST
N 3RD ST
N 2ND ST
N 1ST ST
W GRAND AV
W COMMONWEALTH AV
S 6TH ST
S 5TH ST
S 4TH ST

BR-348 BR-349 BR-350 BR-351 BR-352 BR-353 BR-354 BR-355 BR-356 BR-357 BR-358 BR-359 BR-360 BR-361 BR-362 BR-363 BR-364 BR-365 BR-366 BR-367 BR-368 BR-369 BR-370 BR-371 BR-372 BR-373 BR-374 BR-375 BR-376 BR-377 BR-378 BR-135 BR-136 BR-137 BR-138 BR-139 BR-140 BR-141 BR-142 BR-143 BR-144 BR-145 BR-146 BR-147 BR-148 BR-149 BR-150 BR-151 BR-152 BR-153 BR-154 BR-155 BR-156 BR-157 BR-158 BR-159

0 295+00 290+00 295+00 300+00 305+00 310+00 315+00 320+00

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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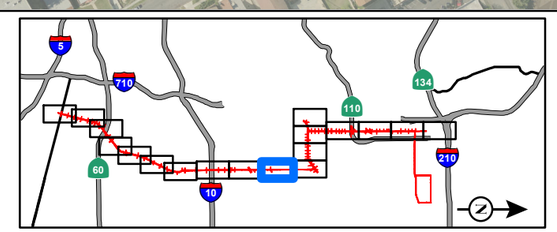

FIGURE 2-2

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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FIGURE 2-2
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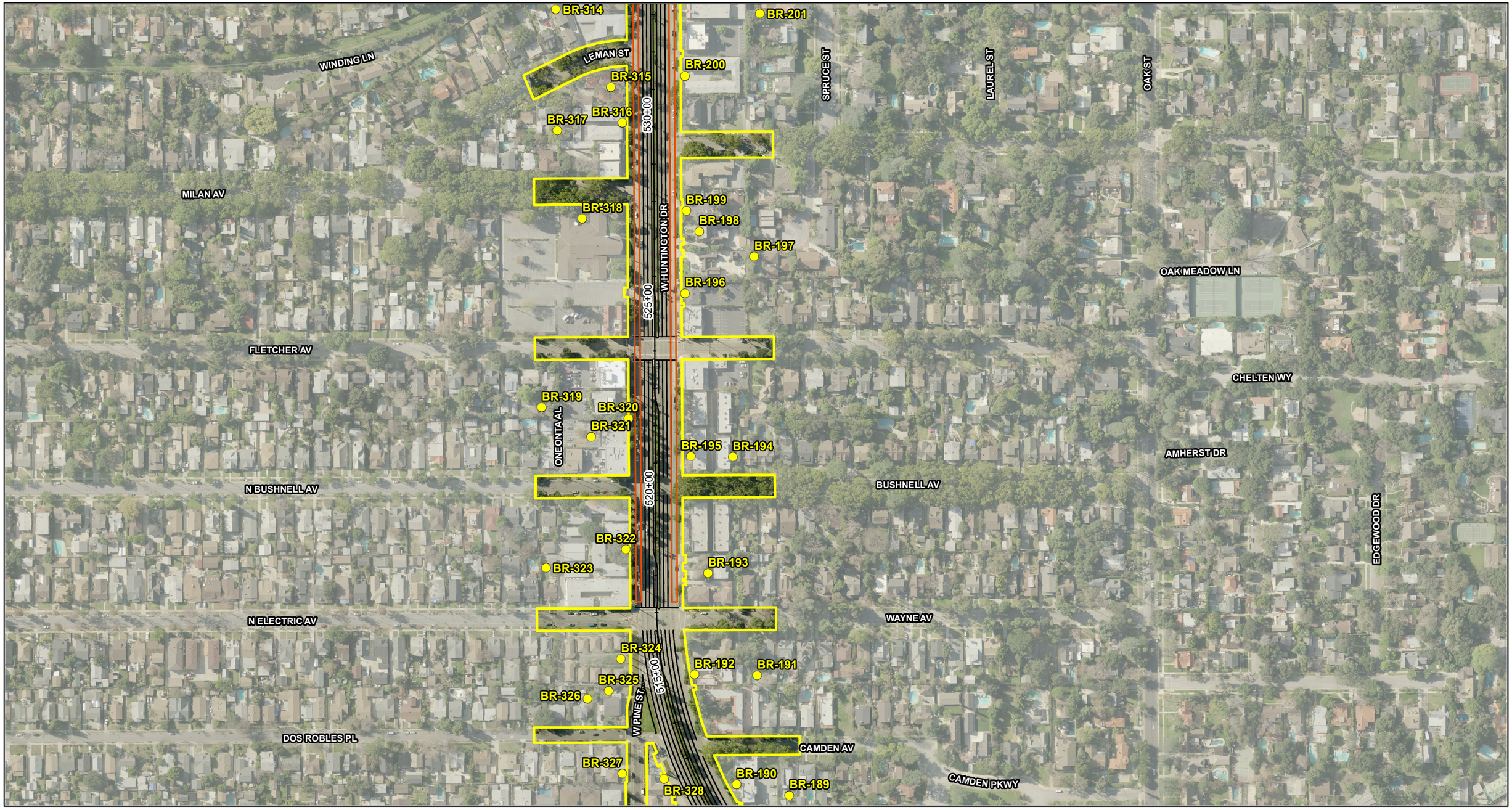
SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

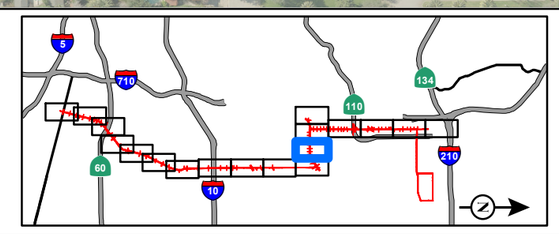


FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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FREMONT AV
MAPLE ST
BEECH ST
ONEONTA KNOLL
FAIR OAKS AV
PRIMROSE AV
LA FRANCE AV
ONEONTAAL
MARENGO AV
WINDING LN
W HUNTINGTON DR
SPRUCE ST
LAUREL ST
OAK ST
ROLLIN ST
BANK ST
STRATFORD AV
605+00
610+00
615+00
620+00
545+00
640+00
535+00
BR-302
BR-299
BR-295
BR-292
BR-290
BR-300
BR-297
BR-298
BR-301
BR-303
BR-294
BR-296
BR-293
BR-288
BR-287
BR-291
BR-289
BR-286
BR-304
BR-305
BR-212
BR-211
BR-210
BR-214
BR-215
BR-218
BR-219
BR-220
BR-217
BR-213
BR-216
BR-221
BR-306
BR-209
BR-208
BR-207
BR-307
BR-308
BR-206
BR-309
BR-310
BR-205
BR-204
BR-203
BR-311
BR-312
BR-202
BR-313
BR-314

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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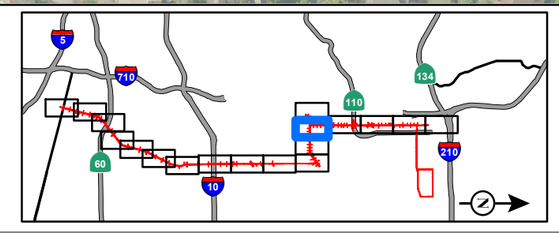


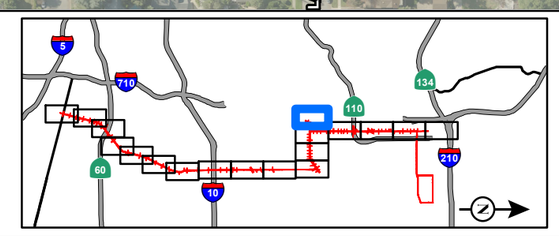
FIGURE 2-2

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET



SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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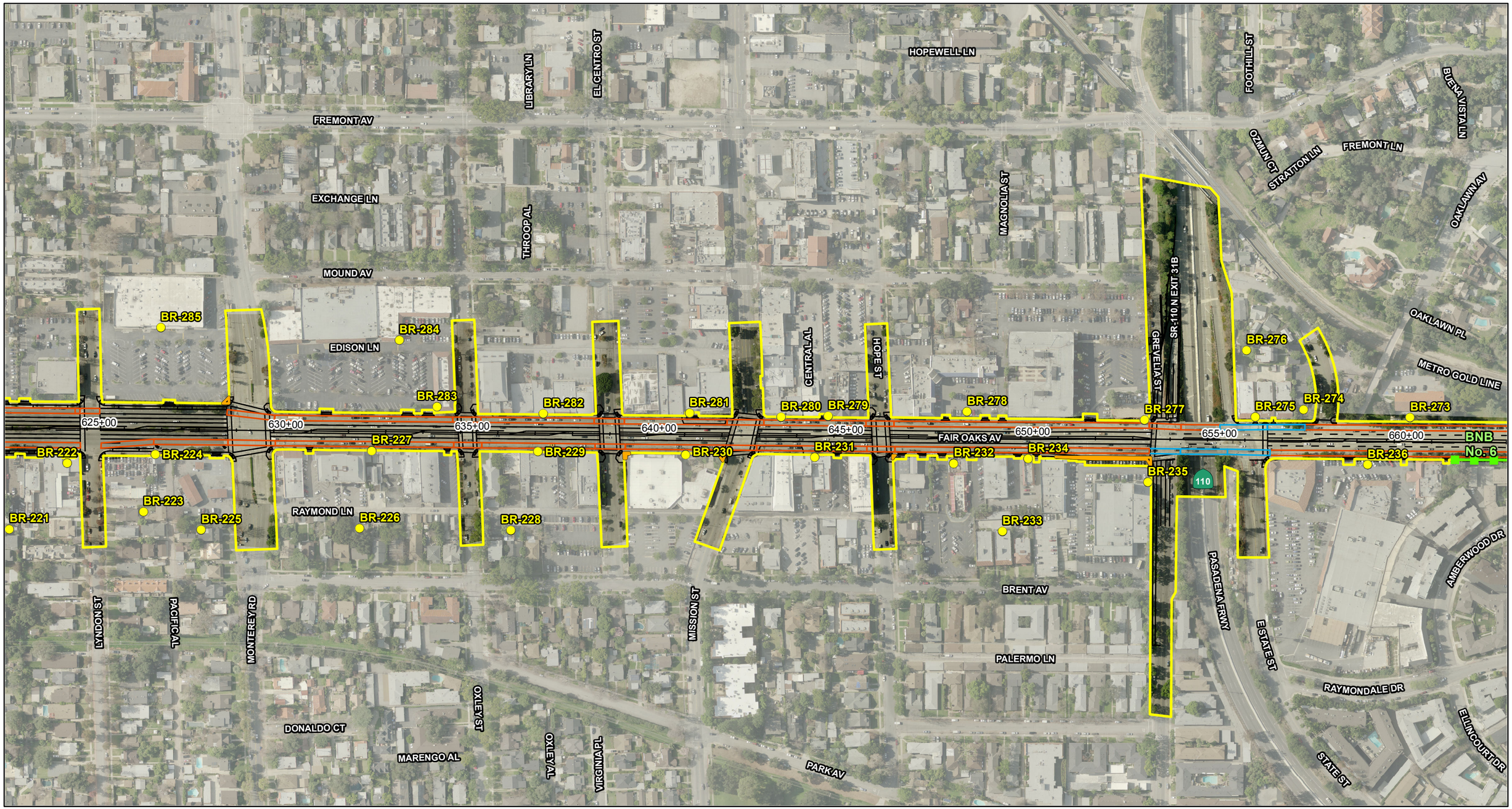
FIGURE 2-2
Page 14 of 18

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

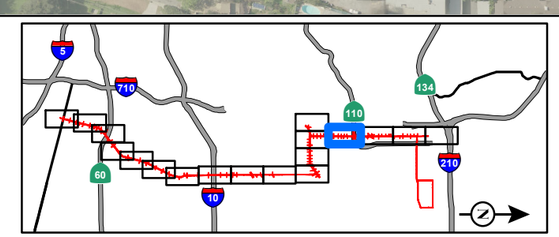


FIGURE 2-2
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SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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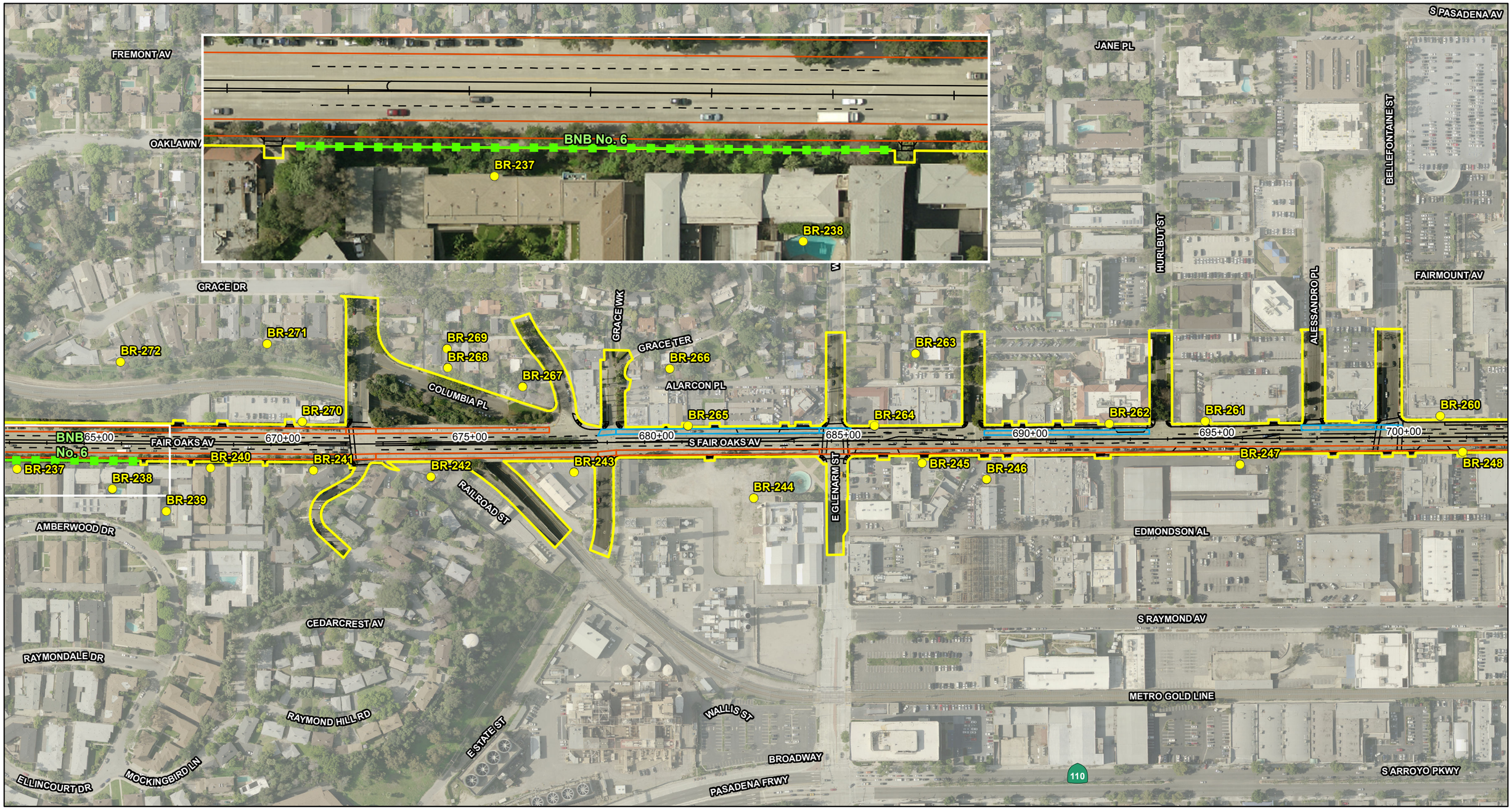
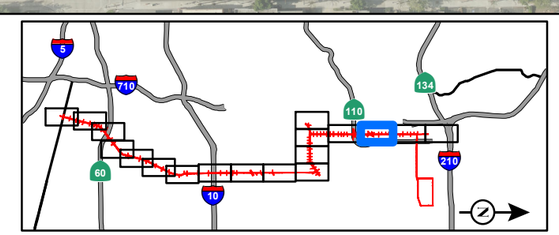


LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET



SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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FIGURE 2-2

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

S PASADENA AV
DREXEL PL
FAIRMOUNT AV
CONCORDIA CT
HERR AL
PALMETTO DR
W BELLEVUE DR
MAY AL
WAVERLY DR
GERTRUDE CT
W VALLEY ST
S DE LACEY AV
CENTRAL CT
BAKER AL
PEACH PL
ORANGE PL
W DEL MAR BLVD
CONGRESS ST
W CALIFORNIA BLVD
TENHAEFF AL
S FAIR OAKS AV
E CALIFORNIA BLVD
E BELLEVUE DR
EDMONDSON AL
E DEL MAR BLVD
FILLMORE ST
PICO ST
S RAYMOND AV
METRO GOLD LINE
S ARROYO PKWY
110

705+00
710+00
715+00
720+00
725+00
730+00
735+00
740+00
805+00

BR-249
BR-250
BR-251
BR-252
BR-253
BR-254
BR-255
BR-256
BR-257
BR-258
BR-259

End of Dedicated Bus Lanes

LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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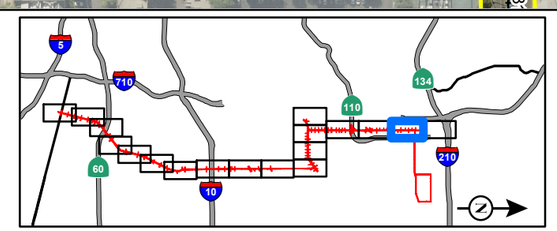
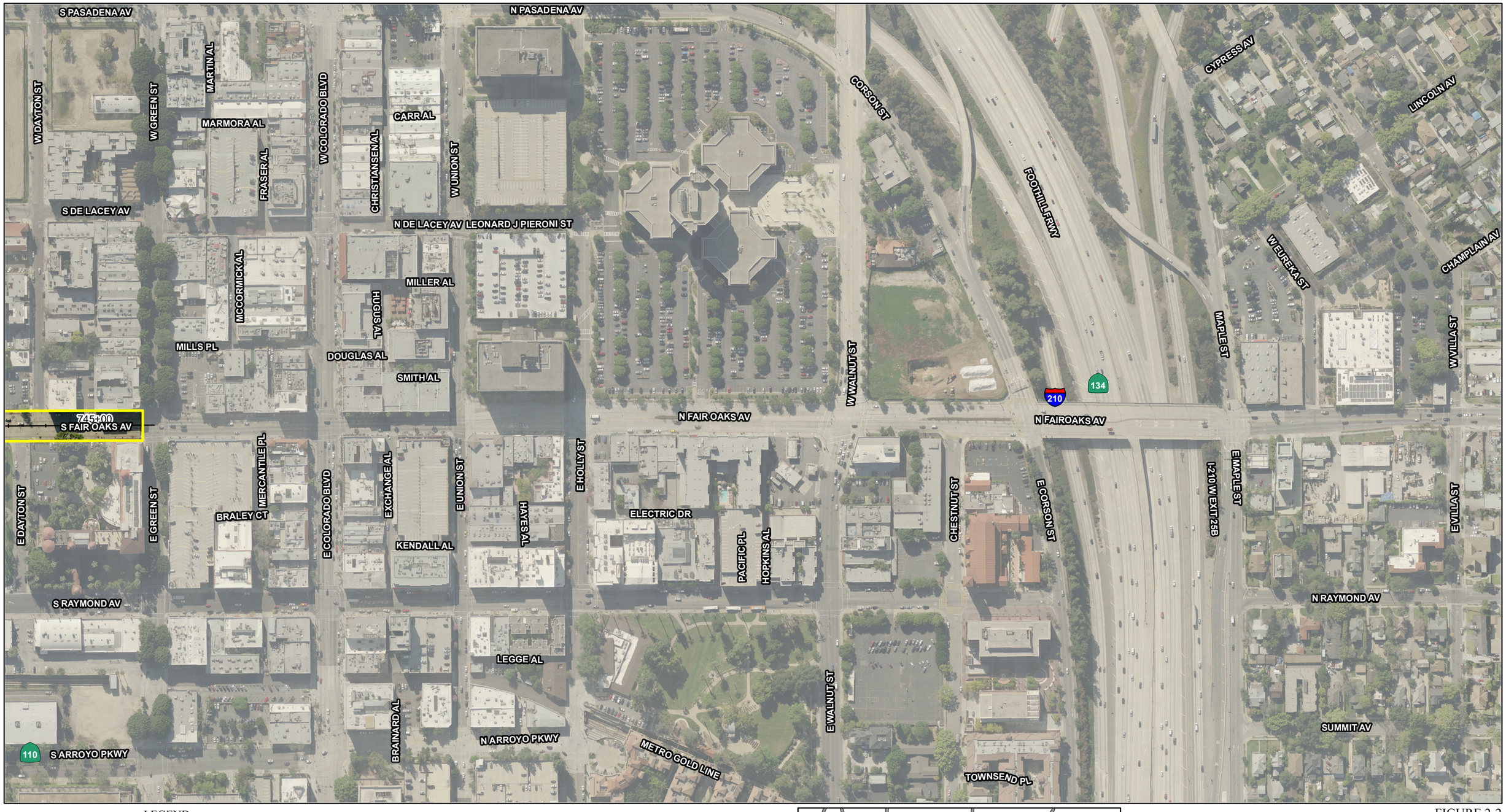


FIGURE 2-2

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- BRT Roadway Geometrics
- Dedicated Bus Lane
- Shared Lane
- Proposed Right-of-Way
- BRT Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

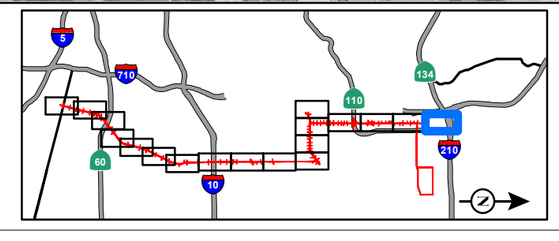


FIGURE 2-2
Page 18 of 18

SR 710 North Study
Modeled Noise Barriers for the BRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2013)

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LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

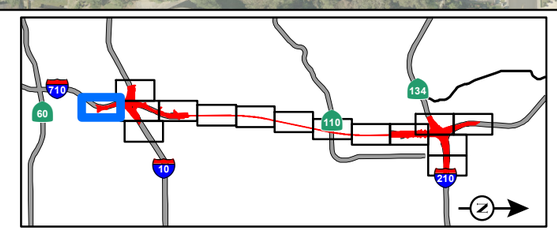


FIGURE 2-3
Sheet 1 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_FWYTunnel_ProposedBarriers_SingleBore.mxd (10/28/2014)

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

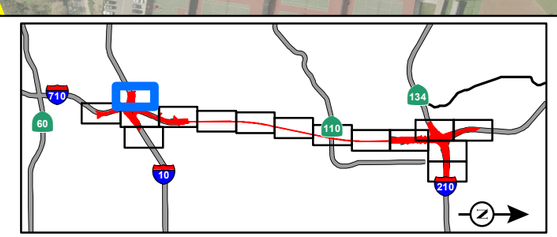


FIGURE 2-3
Sheet 2 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_FWYTunnel_ProposedBarriers_SingleBore.mxd (10/28/2014)

CENTRE PLAZA DR
CIRCLE DR
I-710 S EXIT 22B
I-710 N EXIT 22
I-710 S EXIT 22A
LONG BEACH FRWY
CORPORATE CENTER DR
I-10 E EXIT 21
I-10 W EXIT 21
W RAMONA BLVD
FTNB No. 4
Wall Break
FTNB No. 3A
EFTW No. 4 (5.5 - 6 feet)
FTNB No. 3B
BALZAC ST
CAPETOWN AV
JULEP PL
CHARNWOOD AV
JURICH PL
WESTMONT DR
WINTHROP DR
WESTBORO AV
WARWICK RD
DANZIG PL
VISCOUNT ST
W HELLMAN AV
SAN BERNARDINO FRWY
UP RR
W RAMONA RD
LADERA ST
W VERDE VISTA DR
FR-5
FR-6
FR-7
FR-8
FR-9
FR-10
FR-11
FR-12
FR-13
FR-14
FR-15
FR-16
FR-17
FR-18
FR-19
FR-20
FR-21
FR-22
FR-53
FR-54
FR-55

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

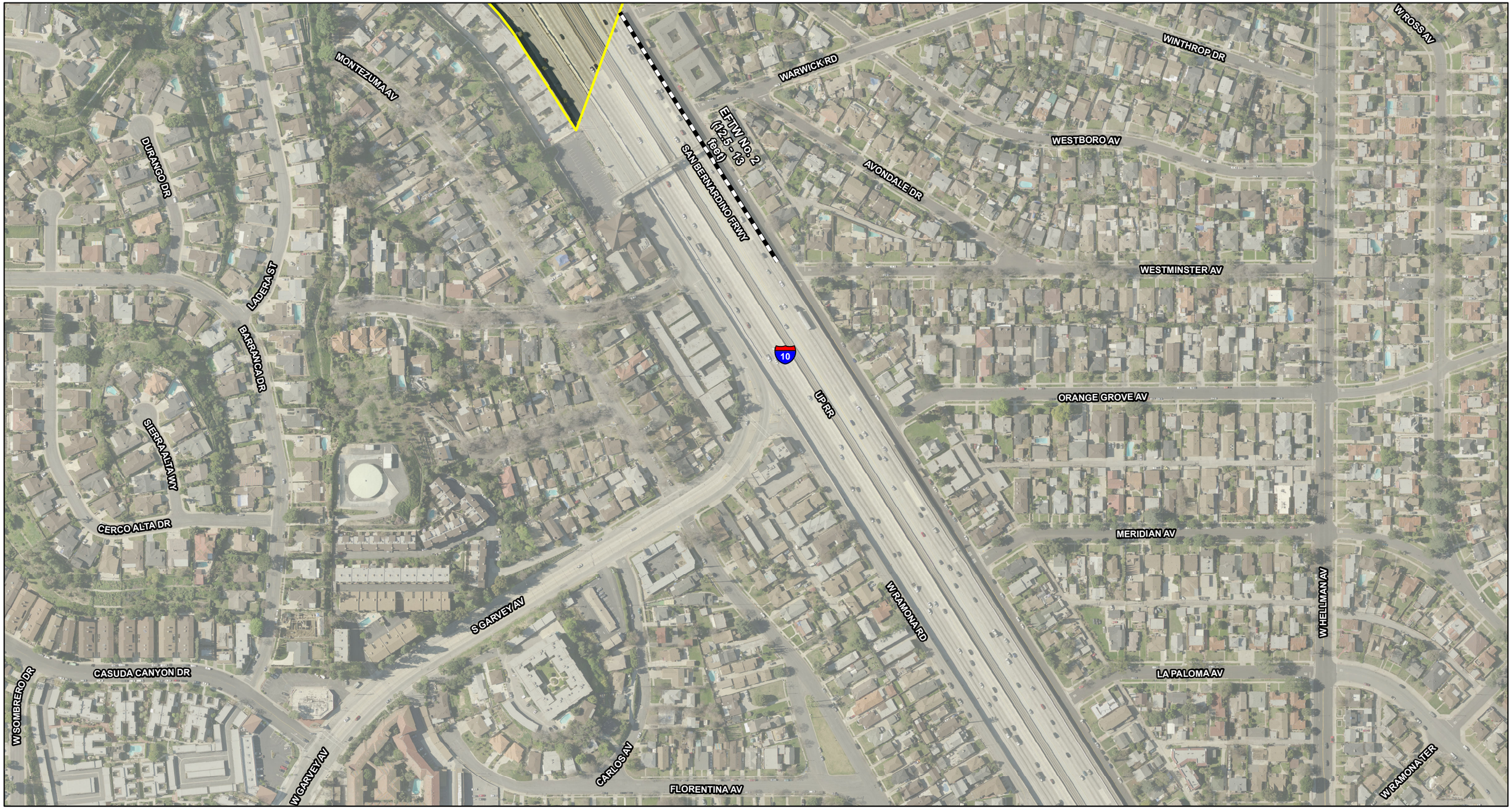
SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_FWYTunnel_ProposedBarriers_SingleBore.mxd (10/28/2014)

FIGURE 2-3
Sheet 3 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

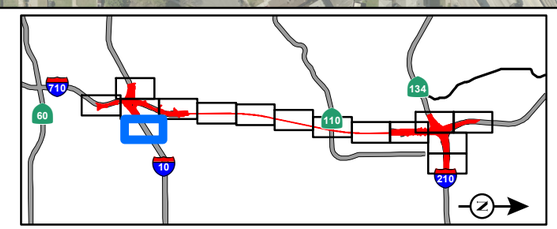


FIGURE 2-3
Sheet 4 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_FWYTunnel_ProposedBarriers_SingleBore.mxd (10/28/2014)

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

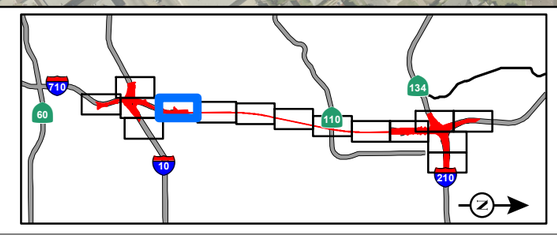


FIGURE 2-3
Sheet 5 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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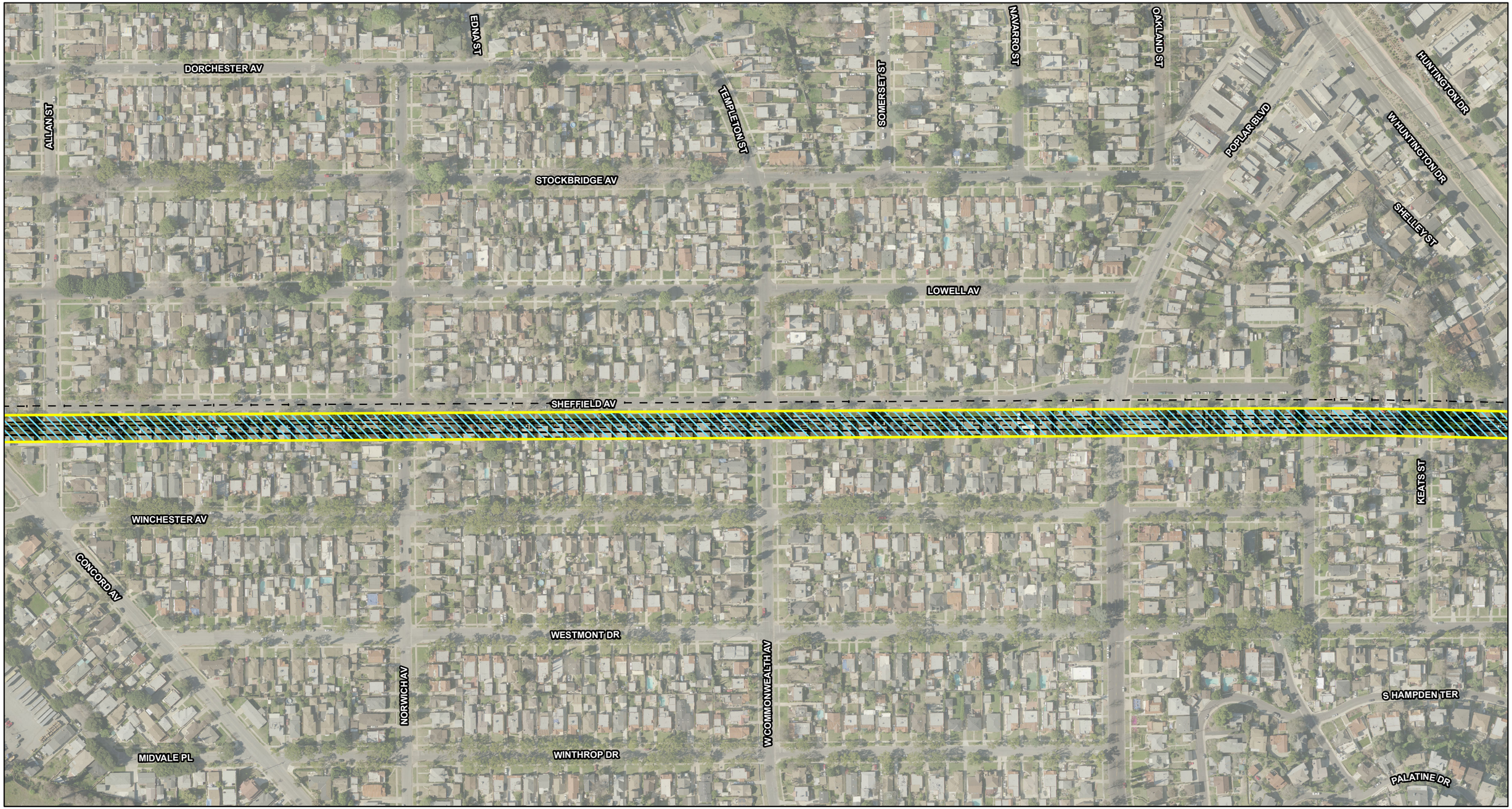

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

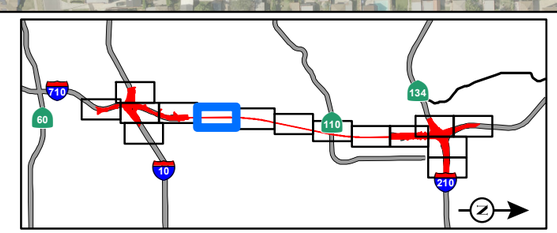

FIGURE 2-3
Sheet 6 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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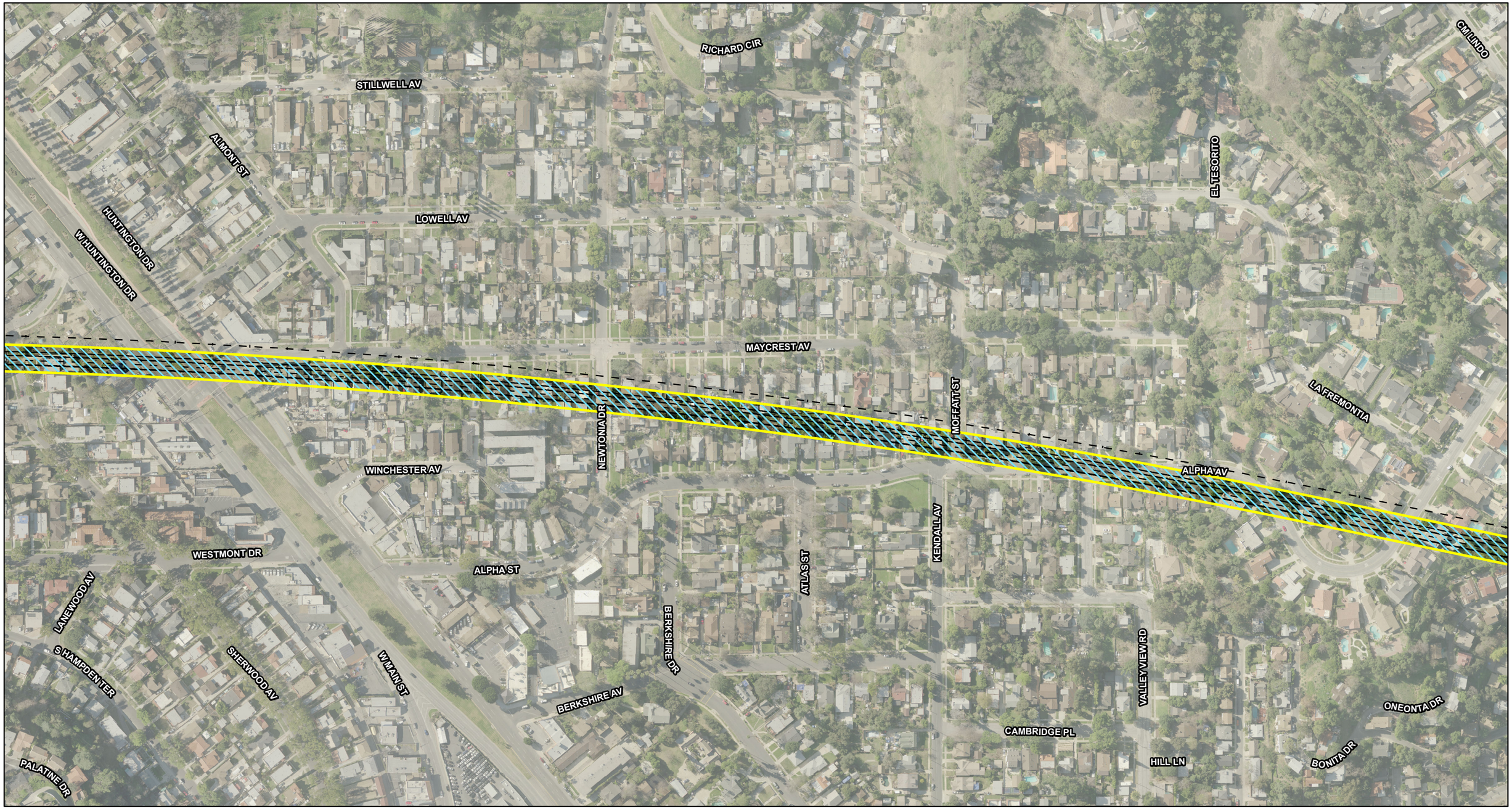

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

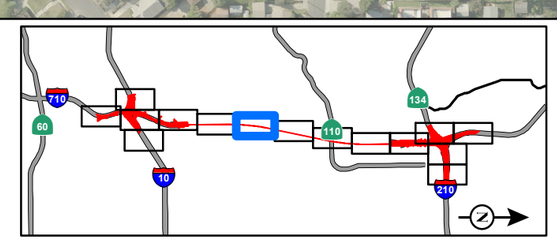

FIGURE 2-3
Sheet 7 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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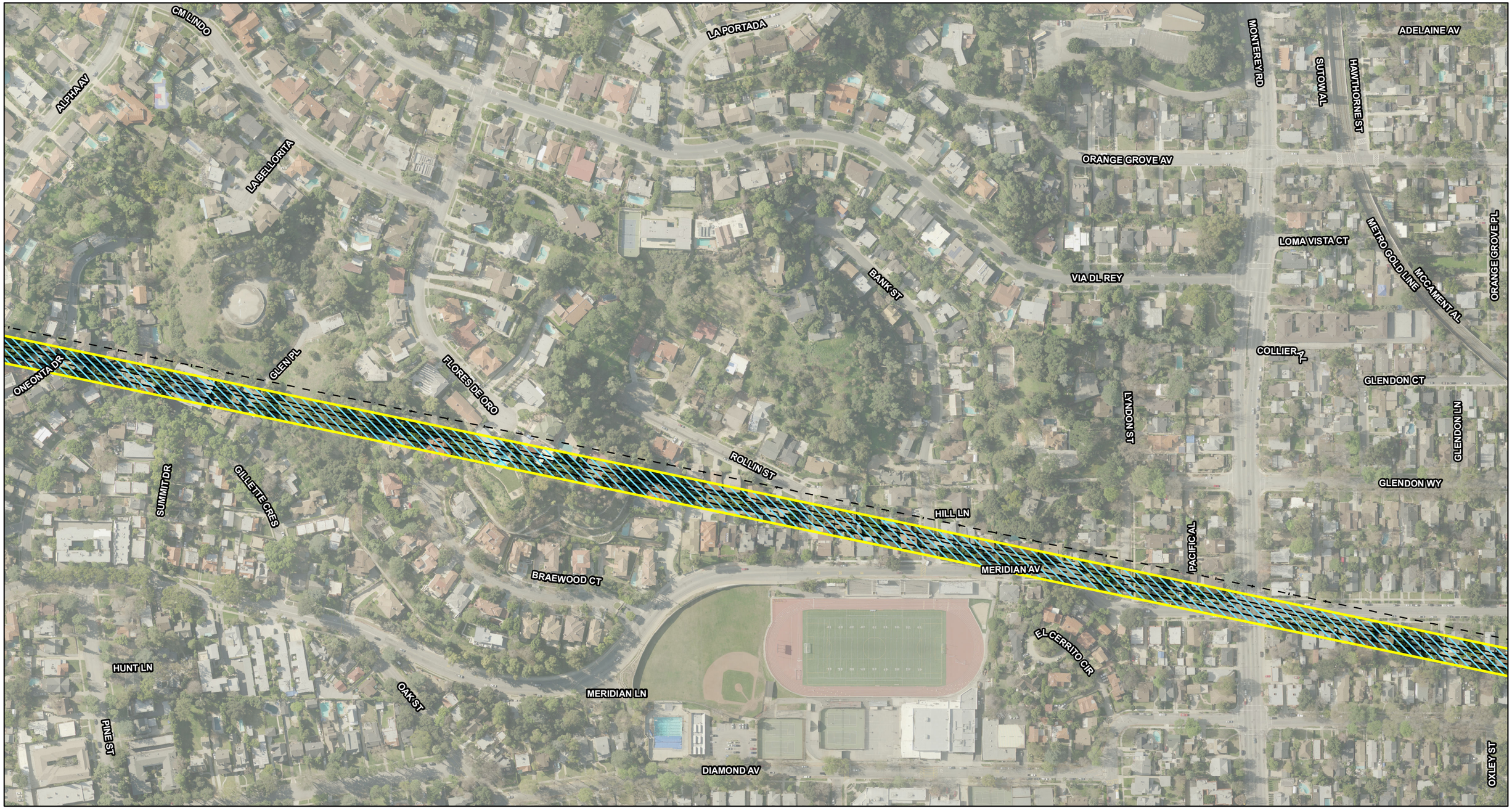

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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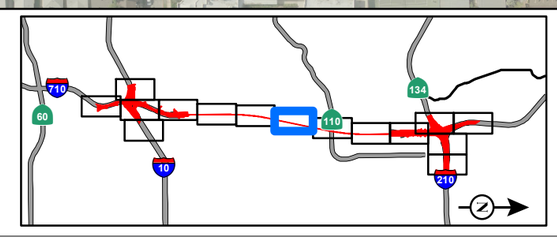

FIGURE 2-3
Sheet 8 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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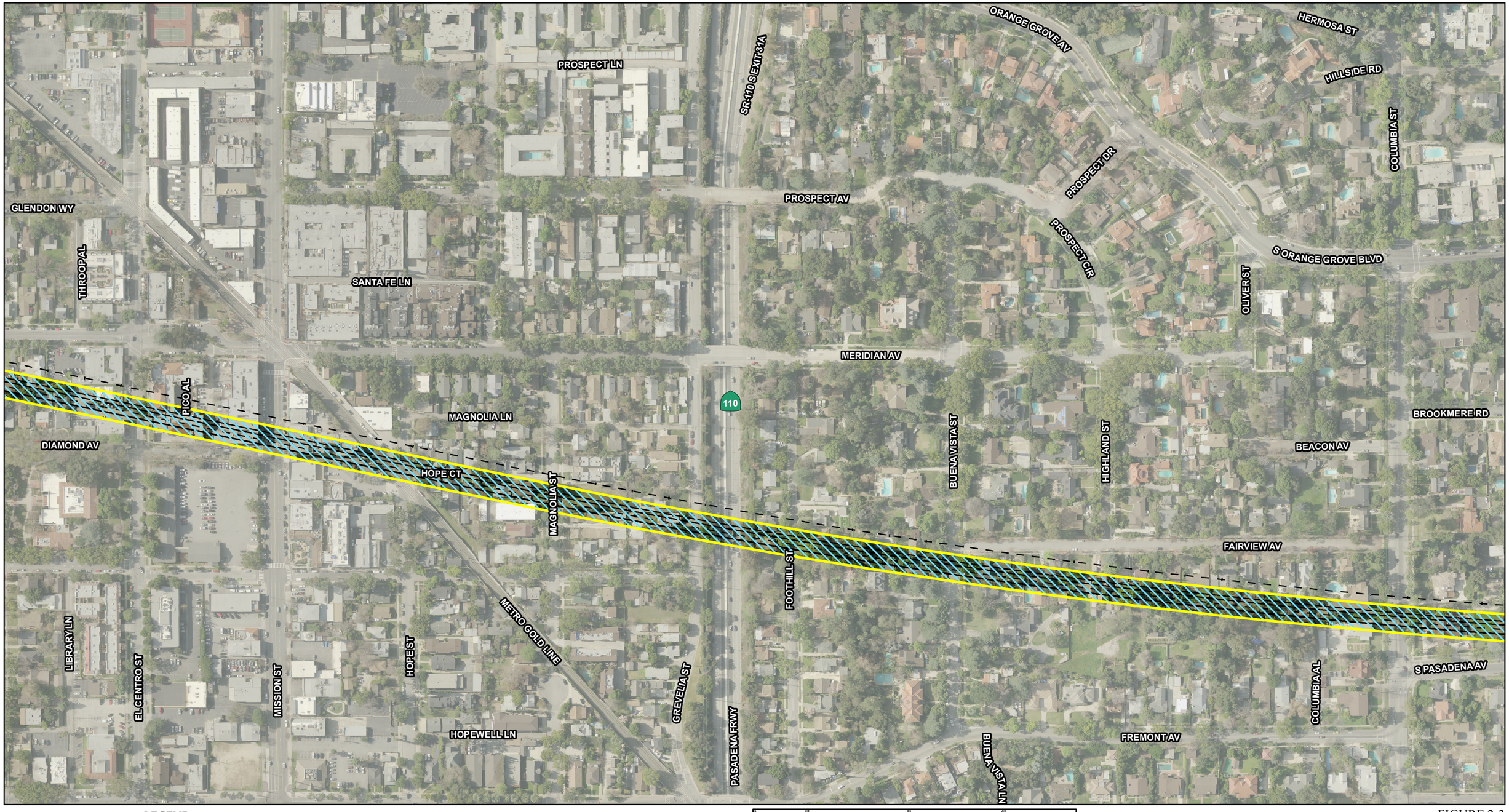

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

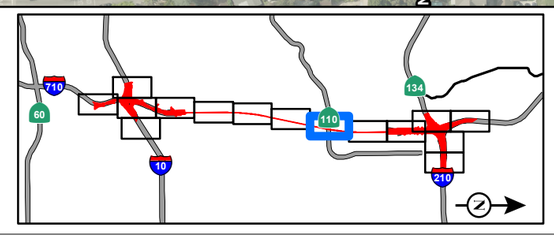

FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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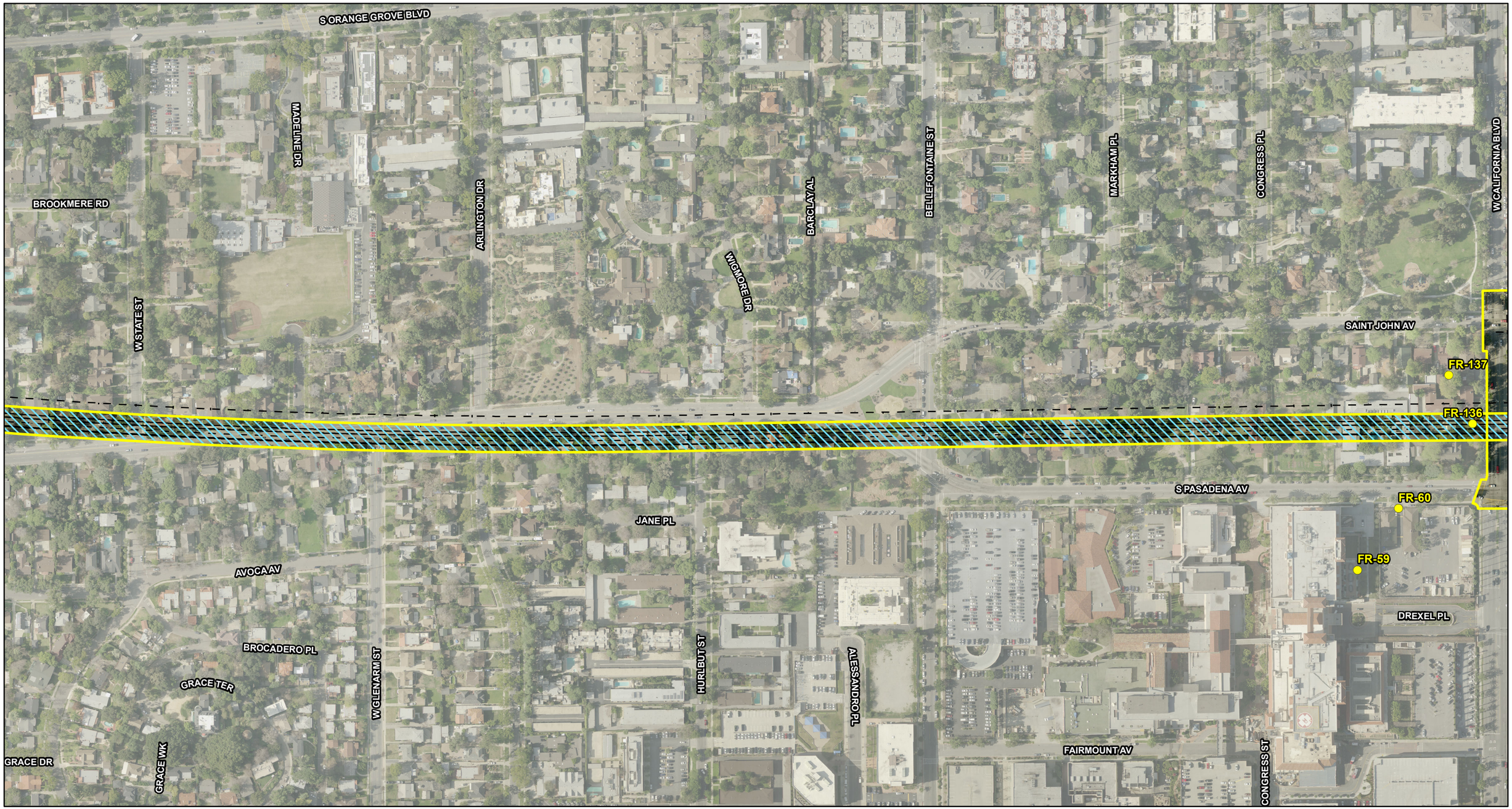

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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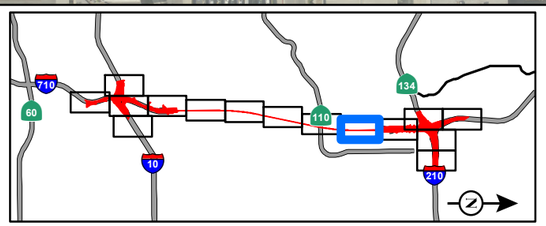

FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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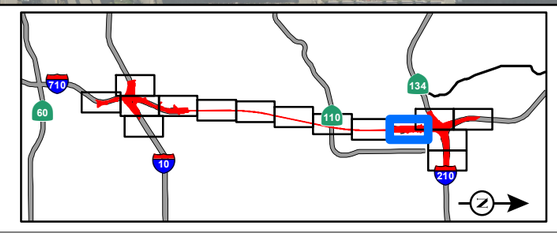

FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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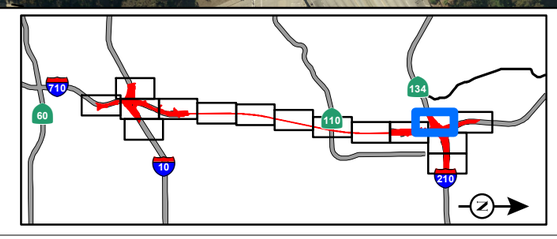

FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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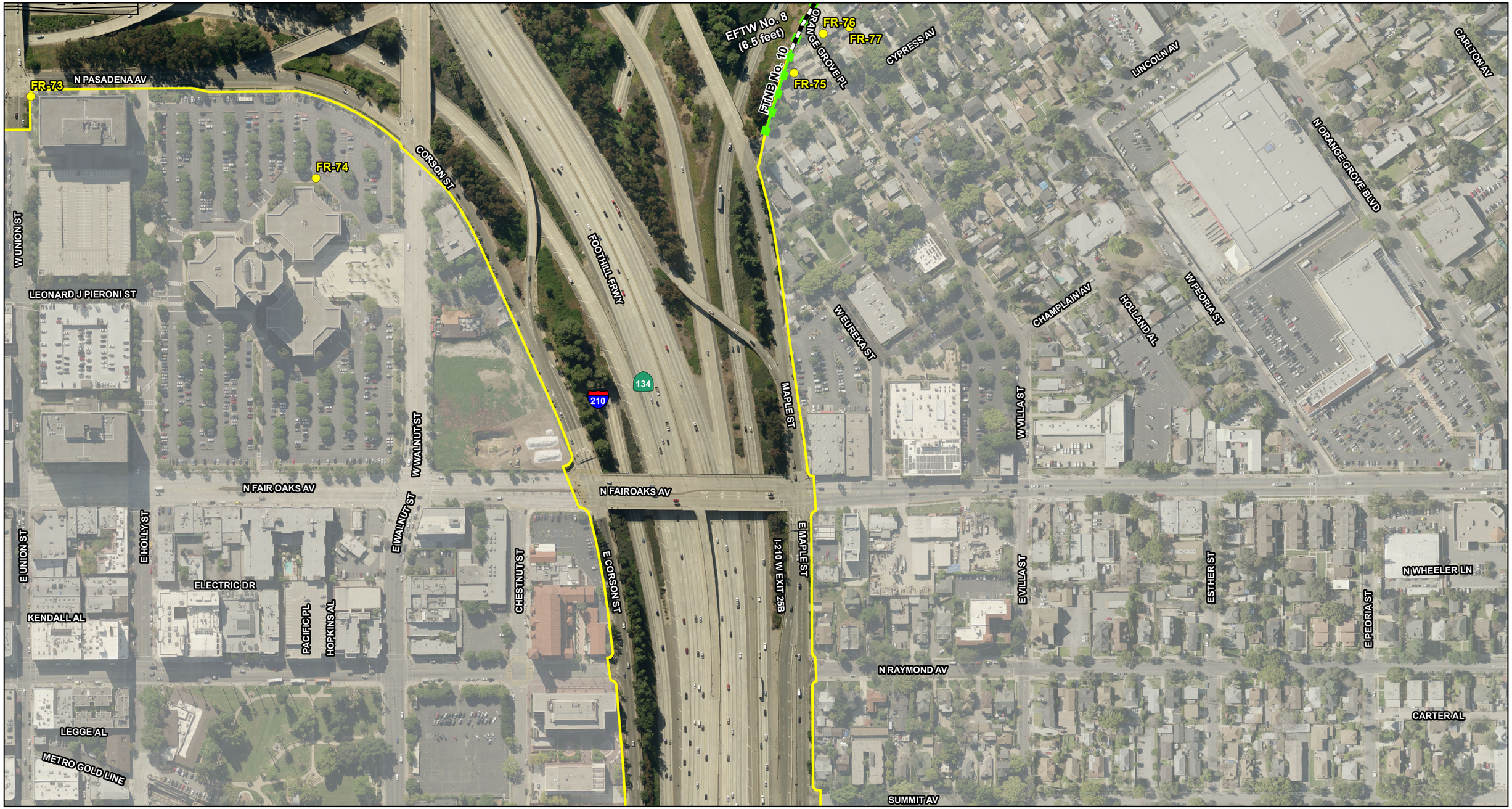

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

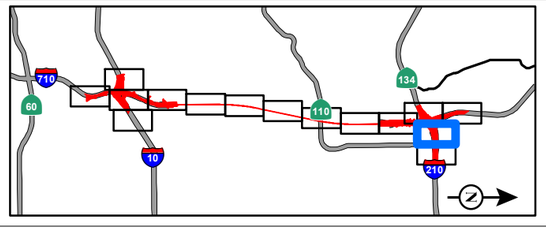

FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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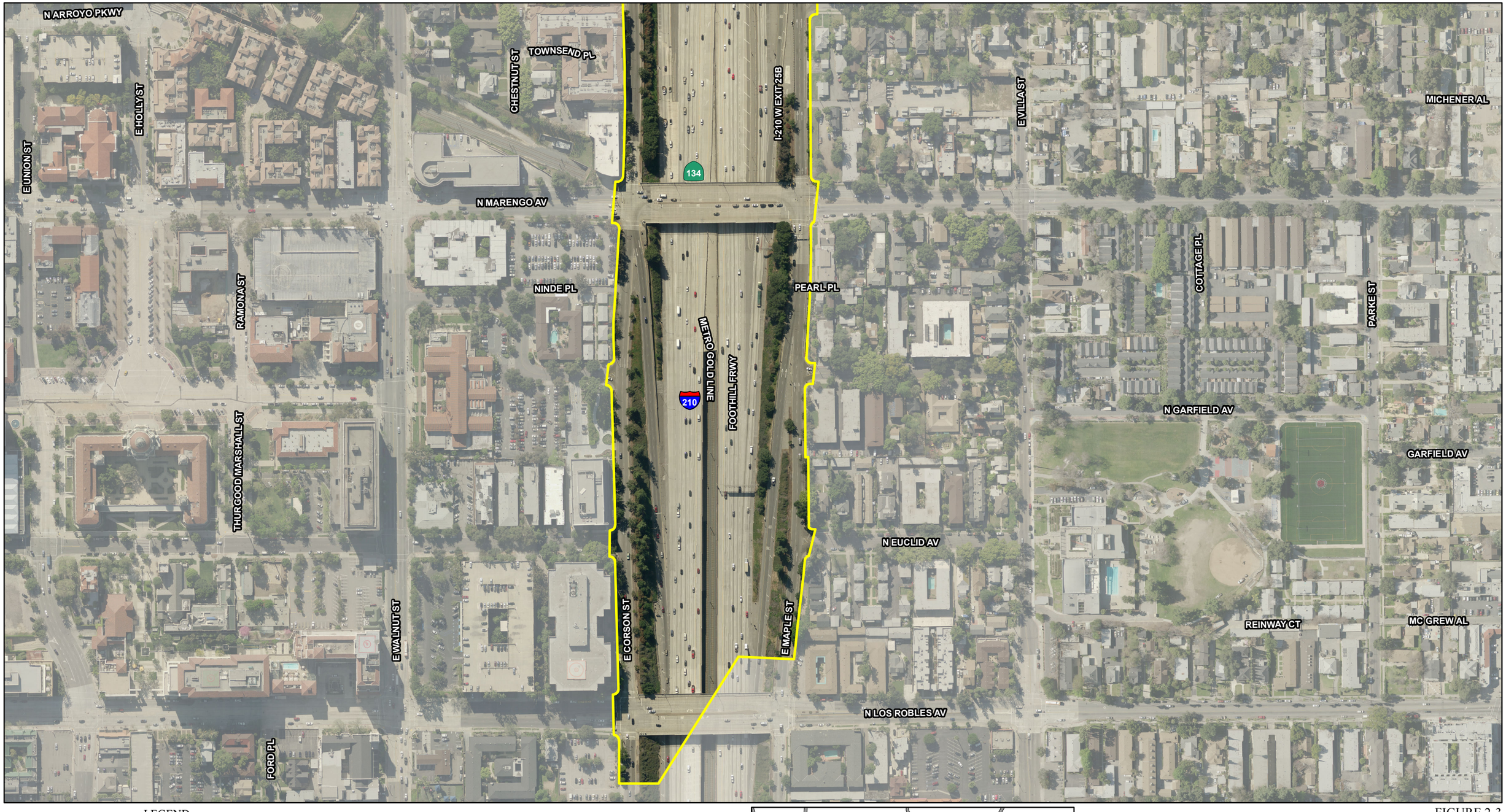

LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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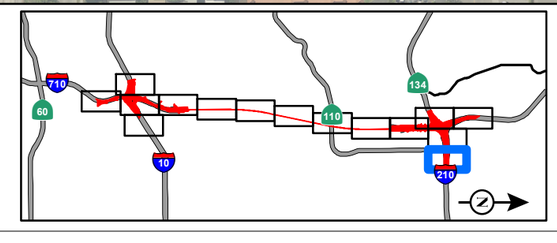
FEET



SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-3
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
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LEGEND

- Freeway Tunnel Single Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Single Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-3
Sheet 15 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Single Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
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LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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FEET

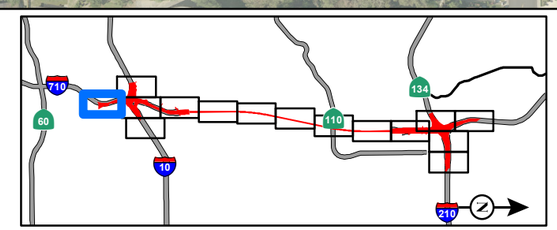

FIGURE 2-4
Sheet 1 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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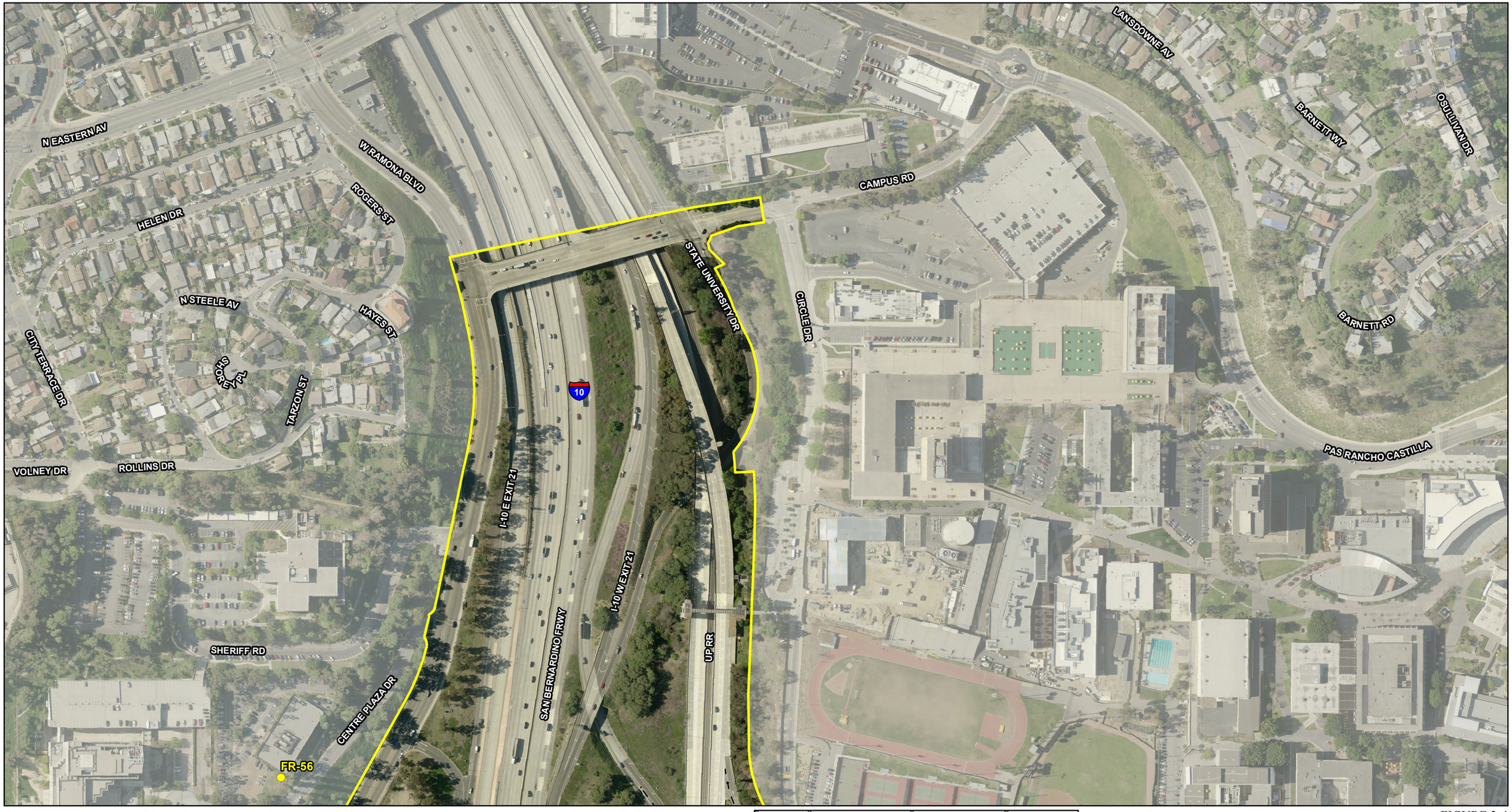

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

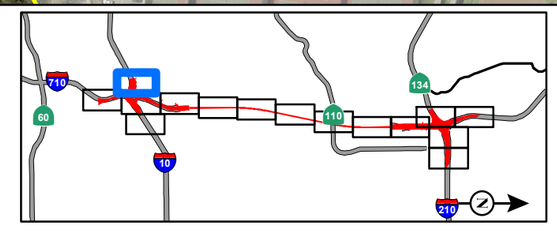

FIGURE 2-4
Sheet 2 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

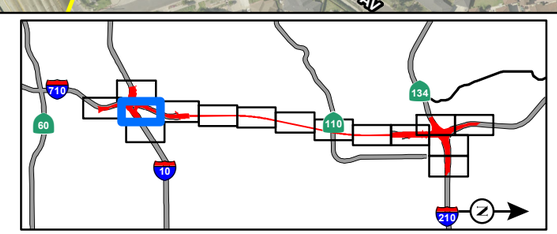

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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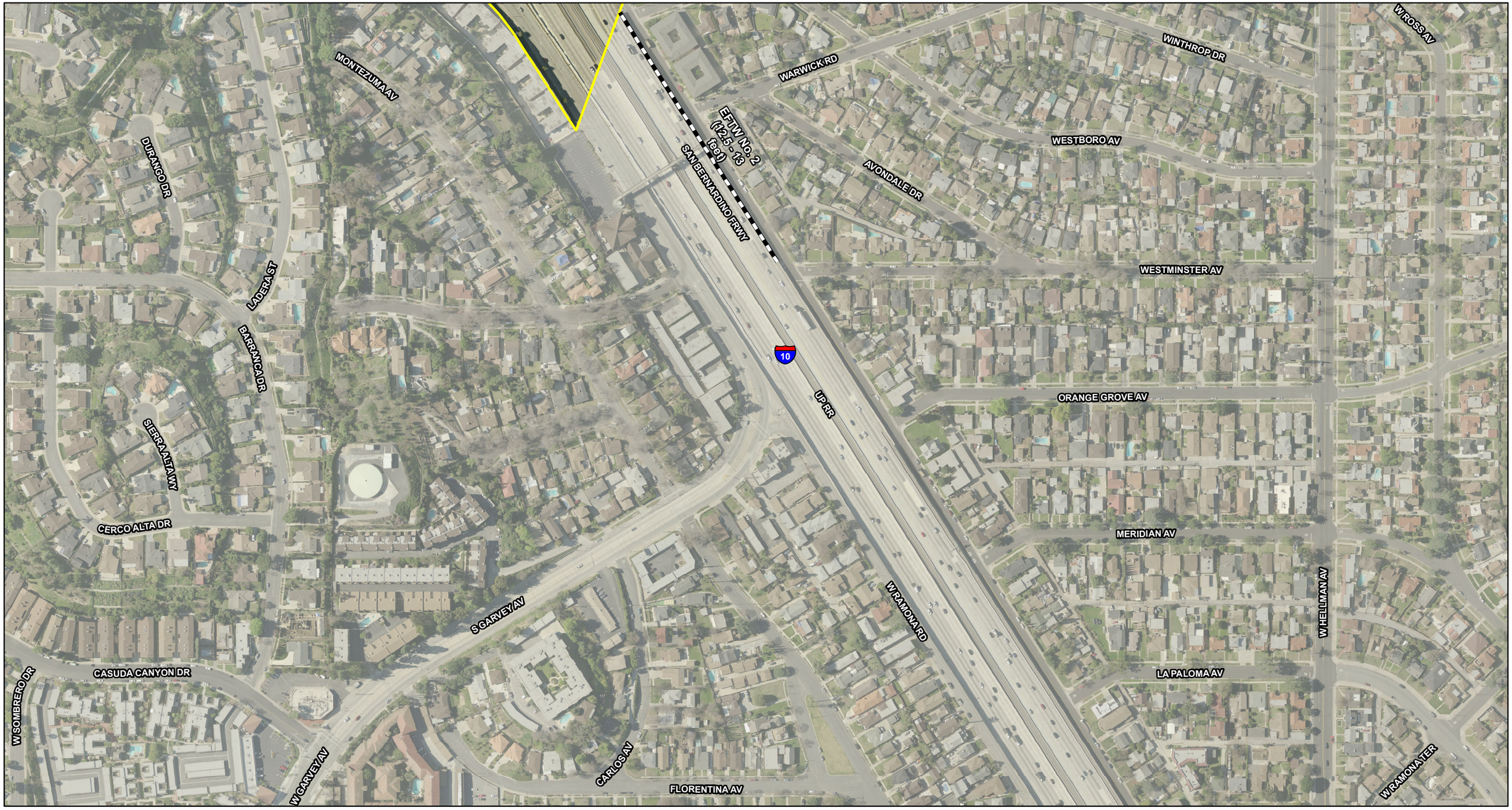

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

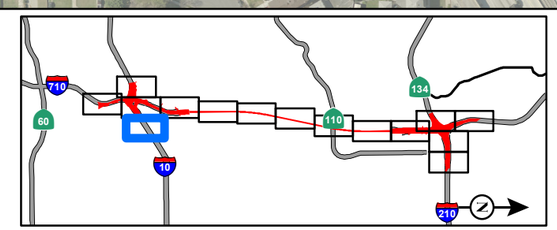

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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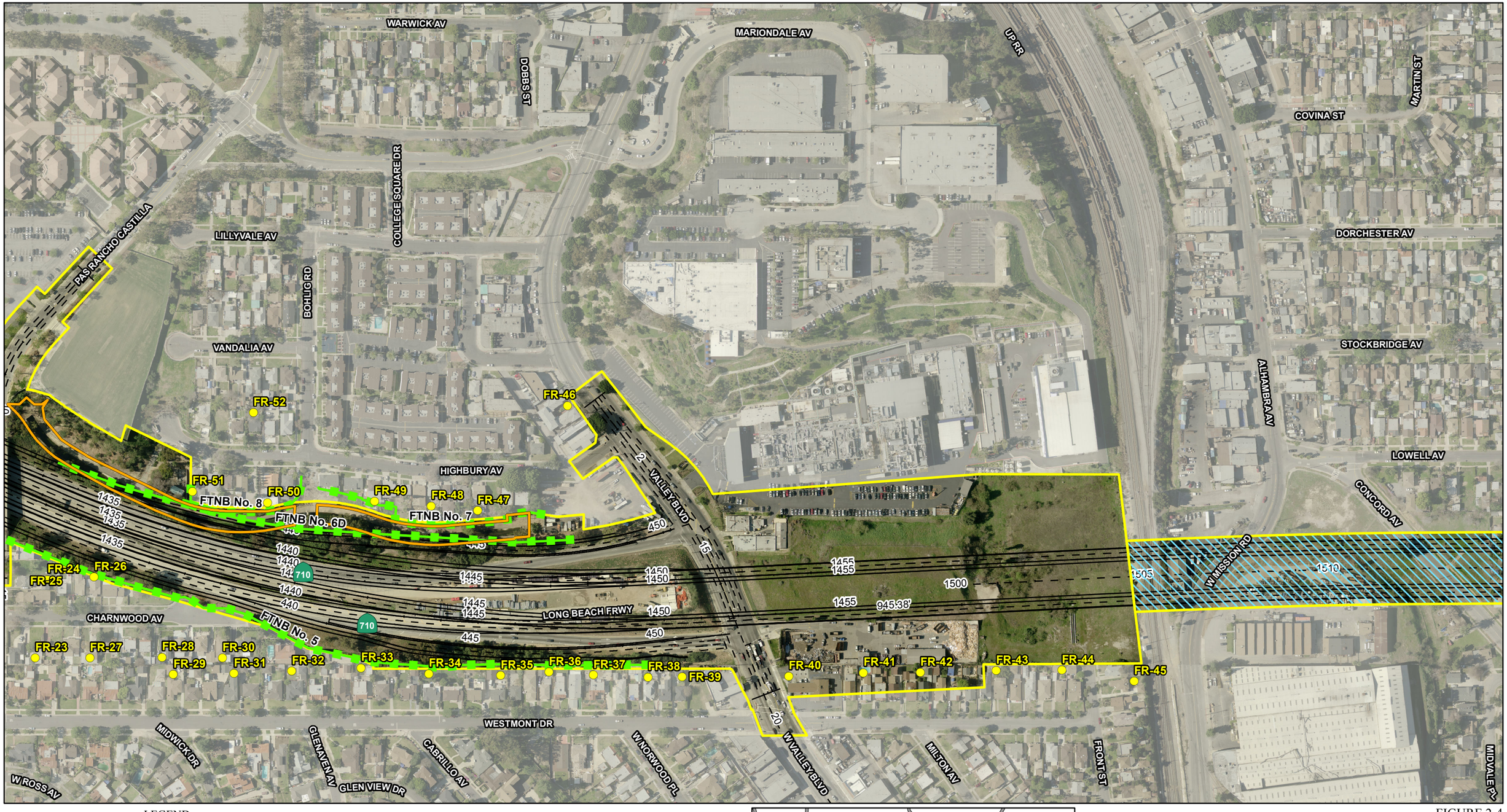

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

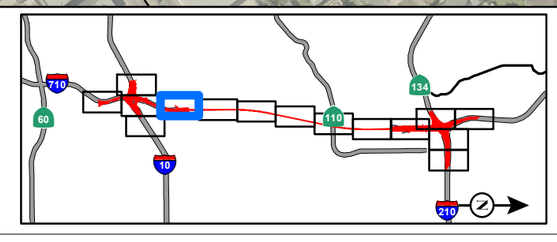

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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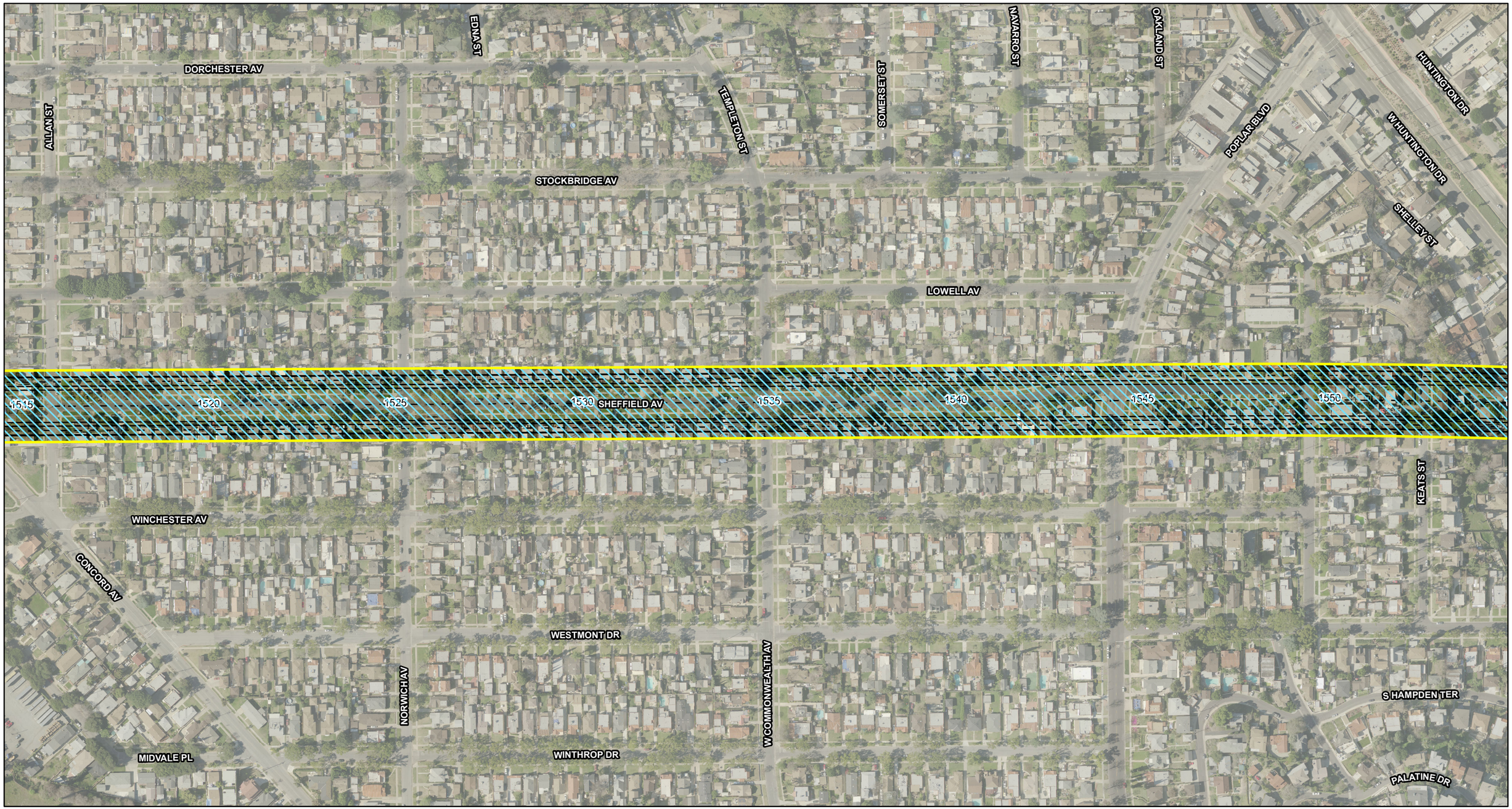

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

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FEET

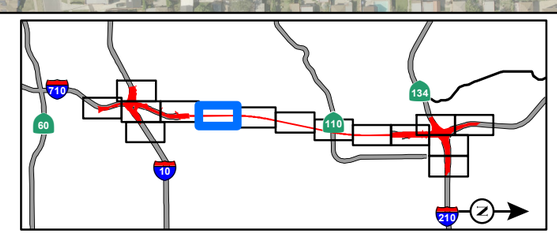

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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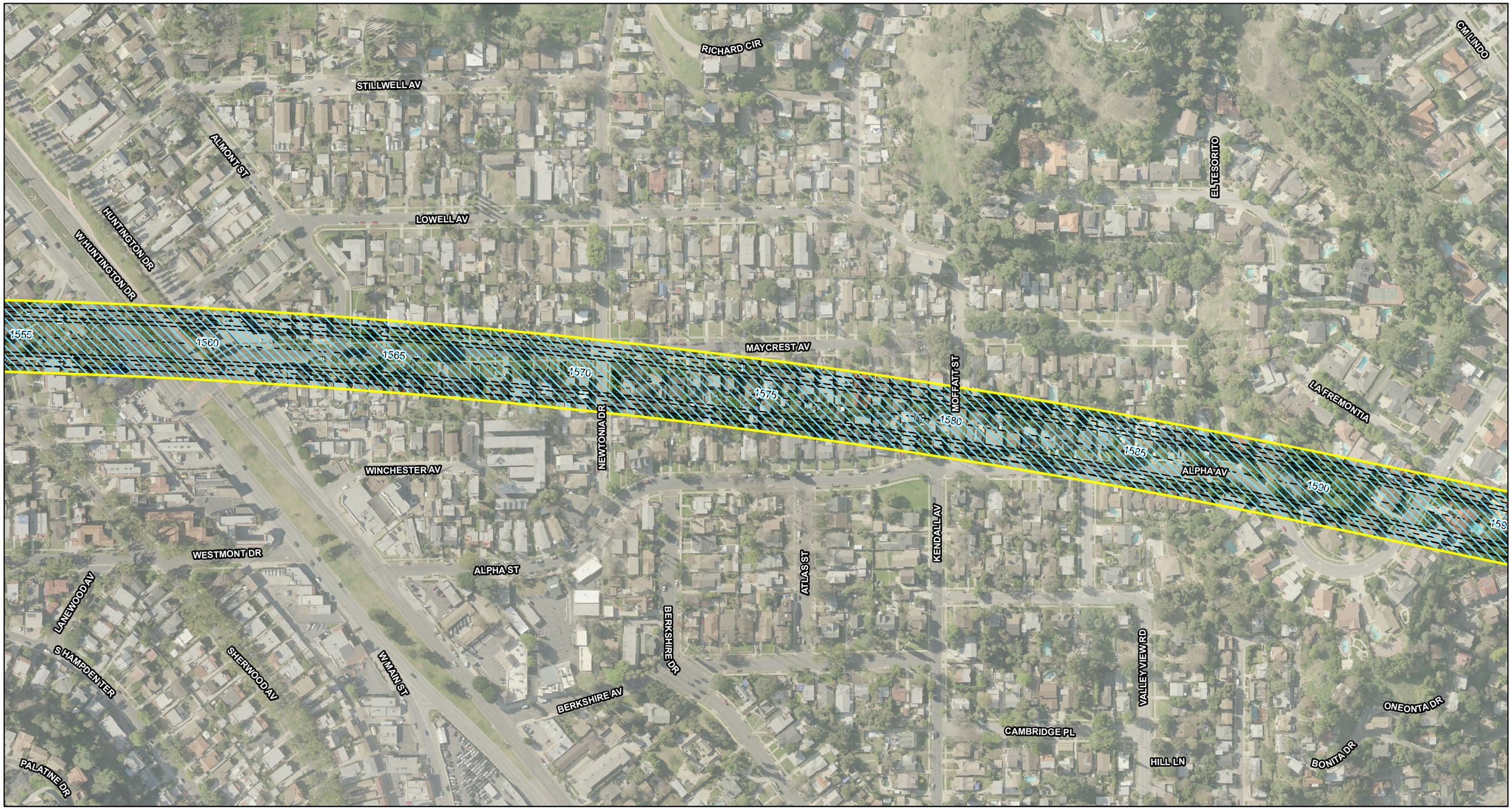

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
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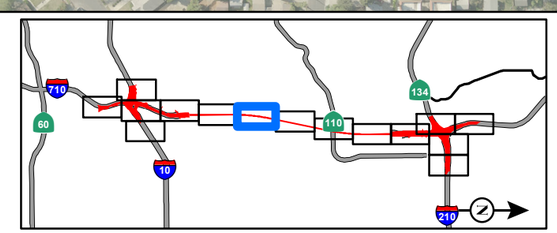

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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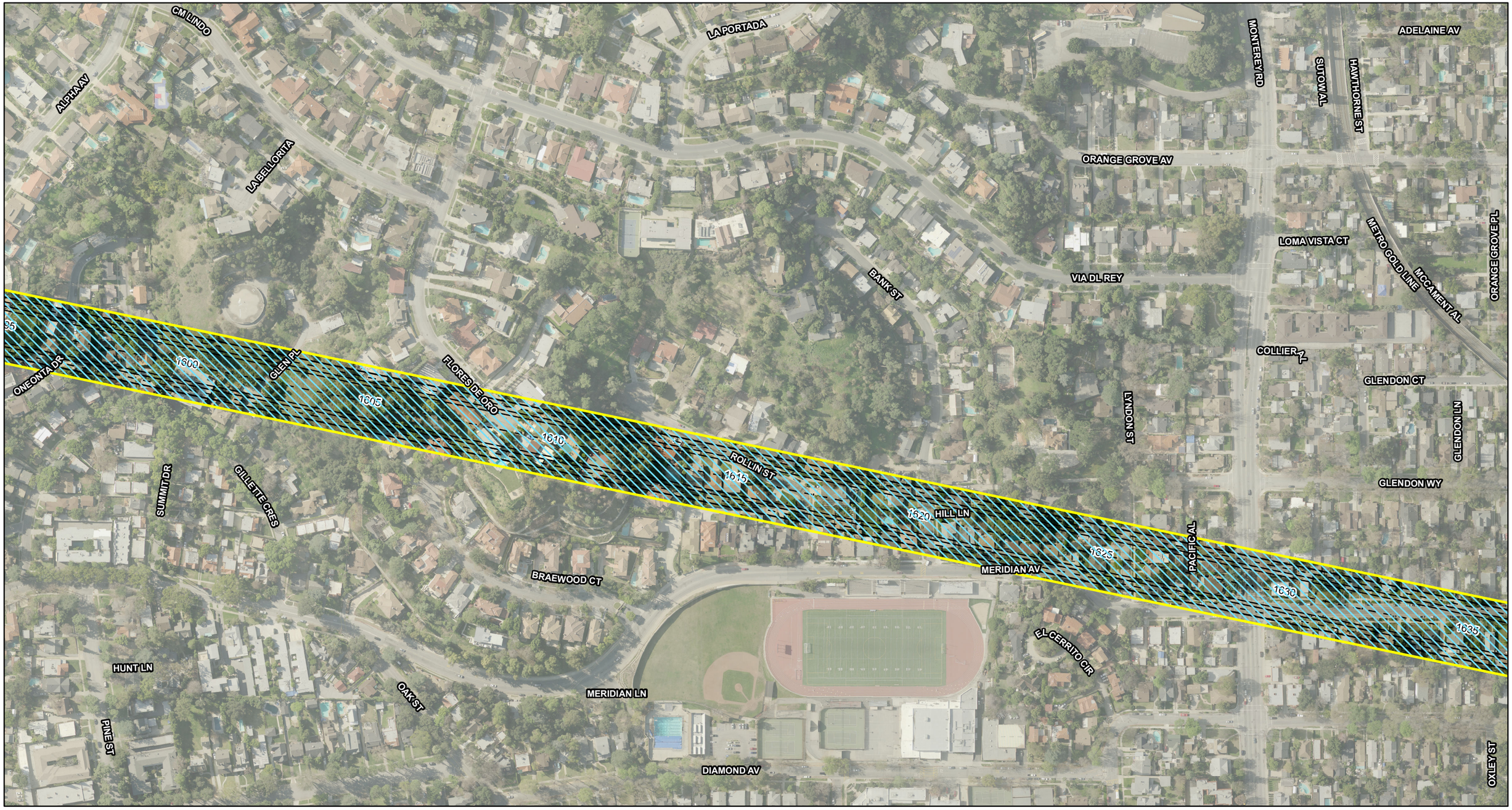

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
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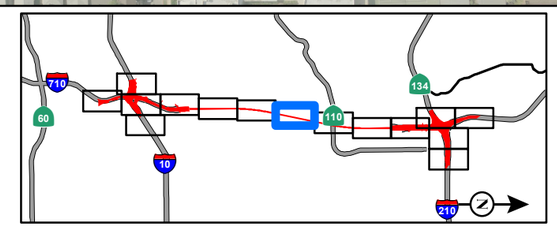

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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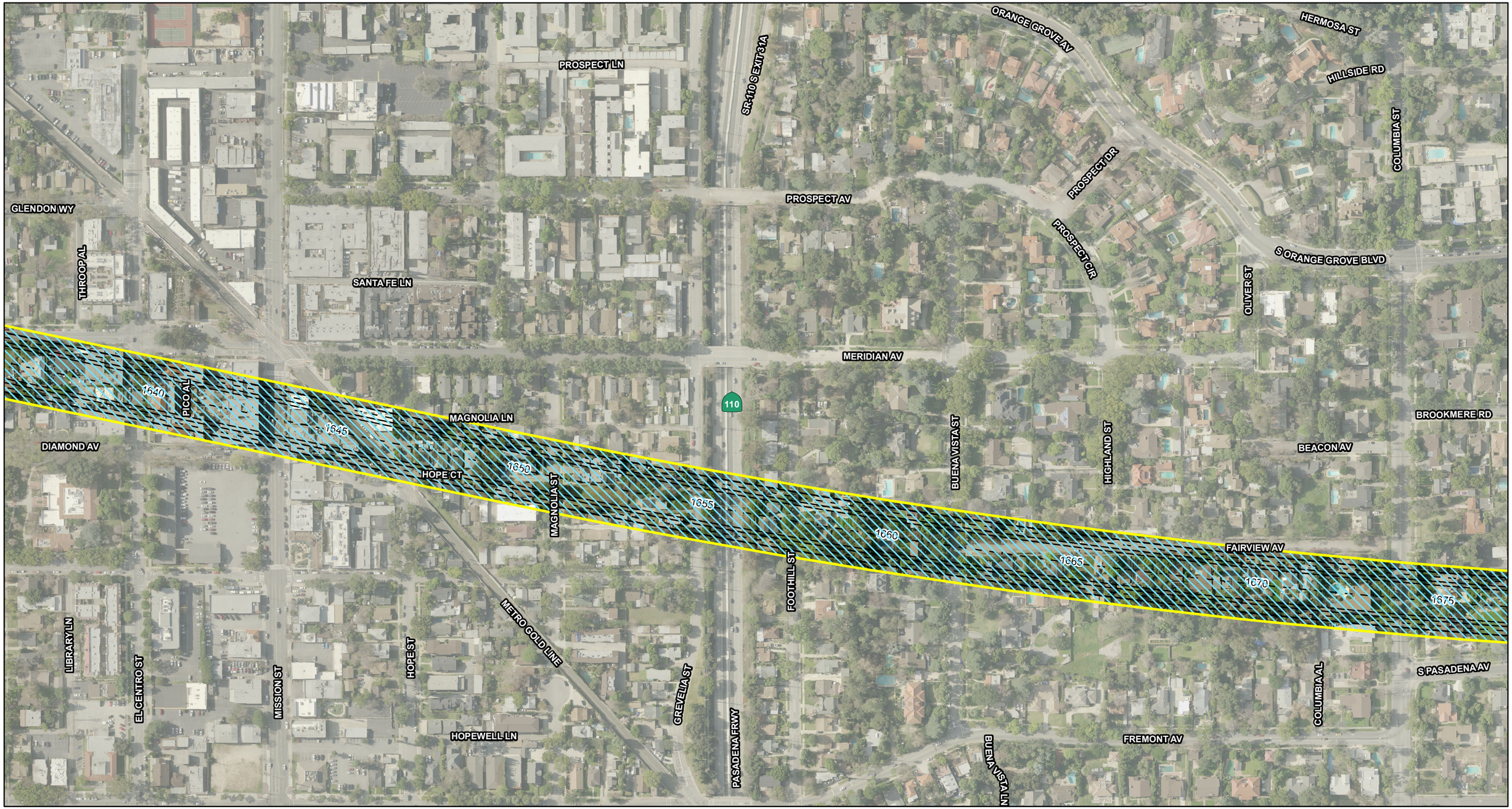

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
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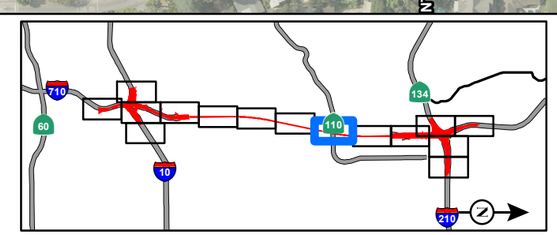

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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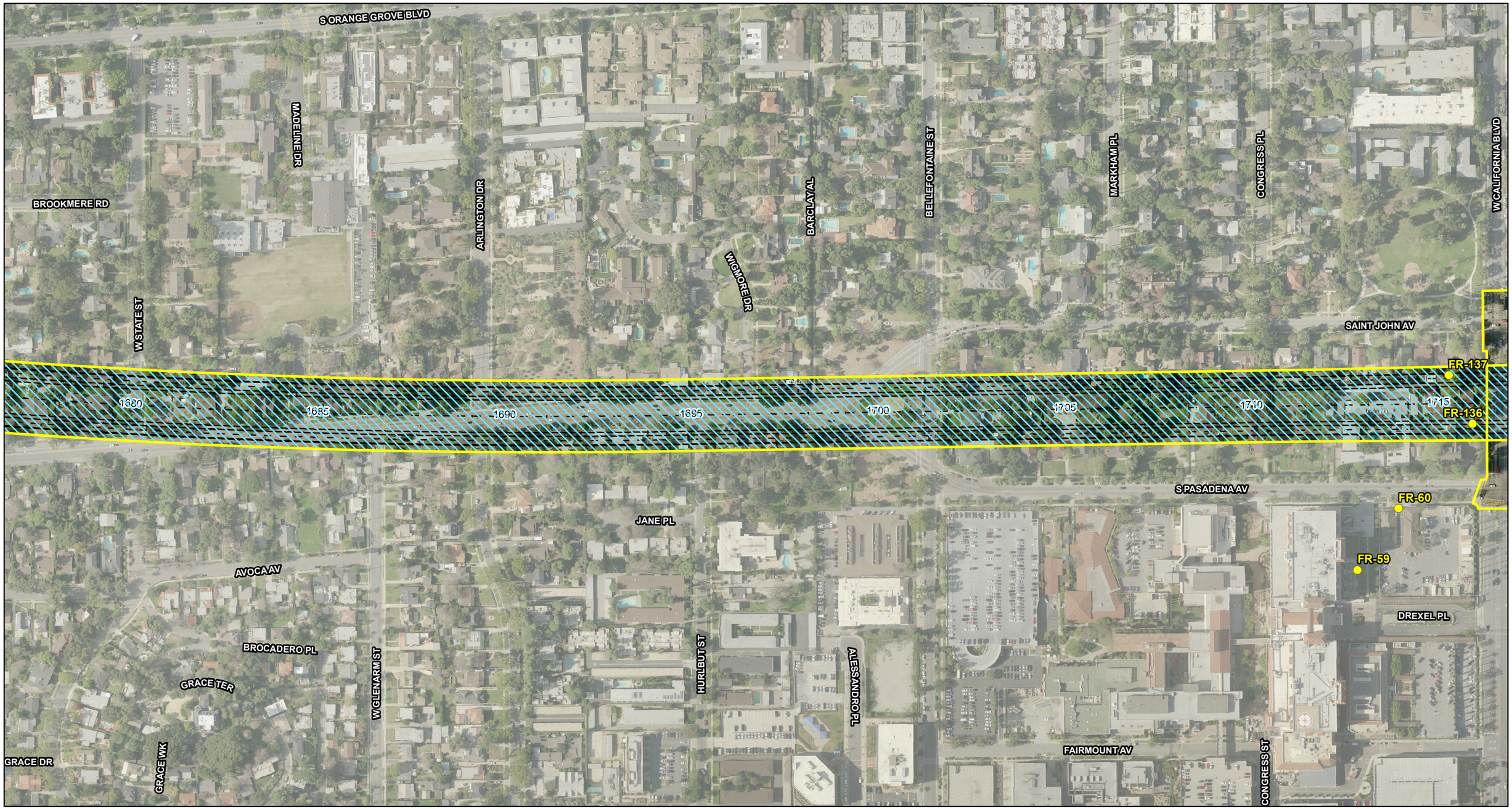

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

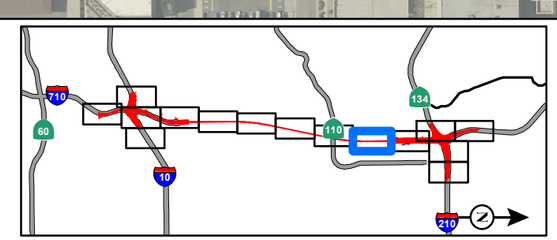

FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-4
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SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

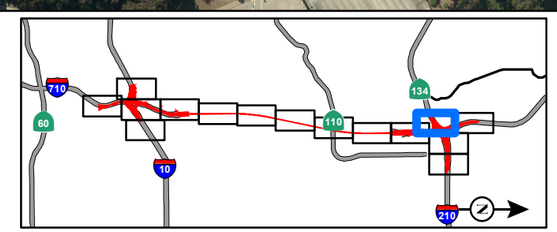

FIGURE 2-4
Sheet 12 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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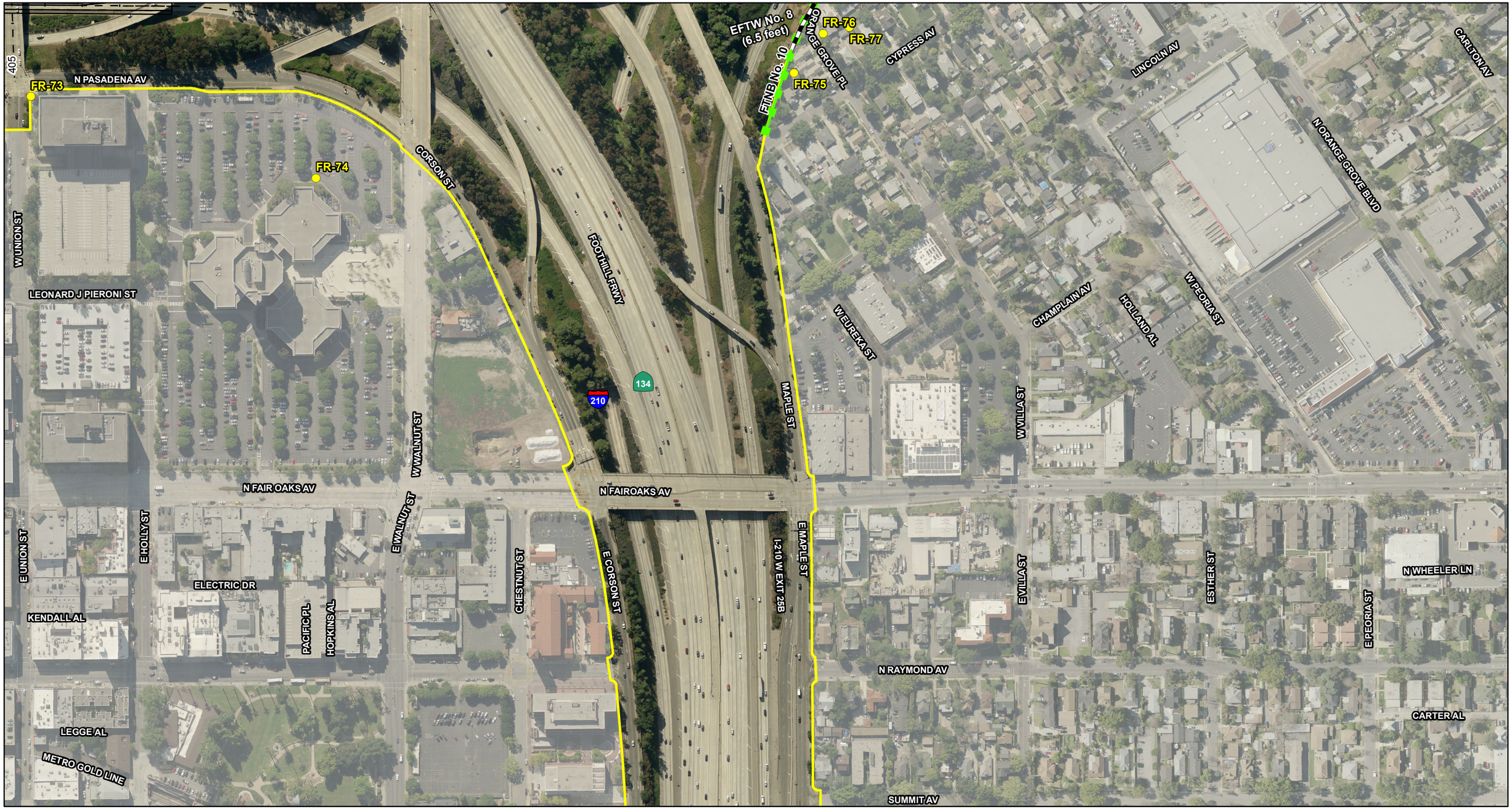

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

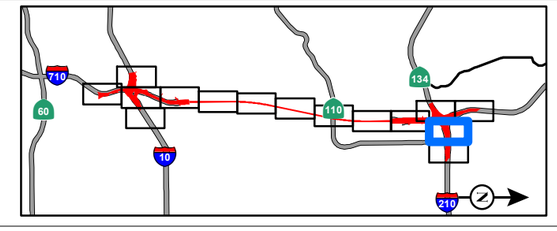

FIGURE 2-4
Sheet 13 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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N ARROYO PKWY
E UNION ST
E HOLLY ST
CHESTNUT ST
TOWNSEND PL
I-210 W EXIT 25B
E VILLA ST
MICHENER AL
134
N MARENGO AV
NINDE PL
PEARL PL
RAMONA ST
METRO GOLD LINE
FOOTHILL FRWY
COTTAGE PL
PARKE ST
210
N GARFIELD AV
GARFIELD AV
THURGOOD MARSHALL ST
N EUCLID AV
E WALNUT ST
E CORSON ST
E MAPLE ST
REINWAY CT
MC CREW AL
N LOS ROBLES AV
FORD PL

LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

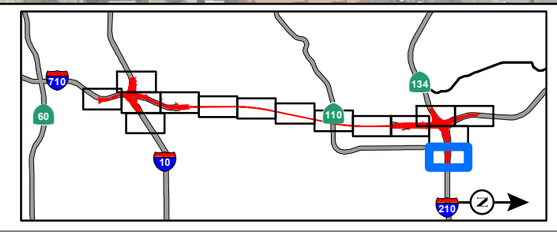

FIGURE 2-4
Sheet 14 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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LEGEND

- Freeway Tunnel Dual Bore Geometrics
- Proposed Right-of-Way
- Tunnel Segment
- Dual Bore Freeway Tunnel Alternative
- Existing Walls
- Modeled Noise Barriers
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-4
Sheet 15 of 15

SR 710 North Study
Modeled Noise Barriers for the Freeway Alternative - Dual Bore Barrier Design

07-LA-710 (SR 710)
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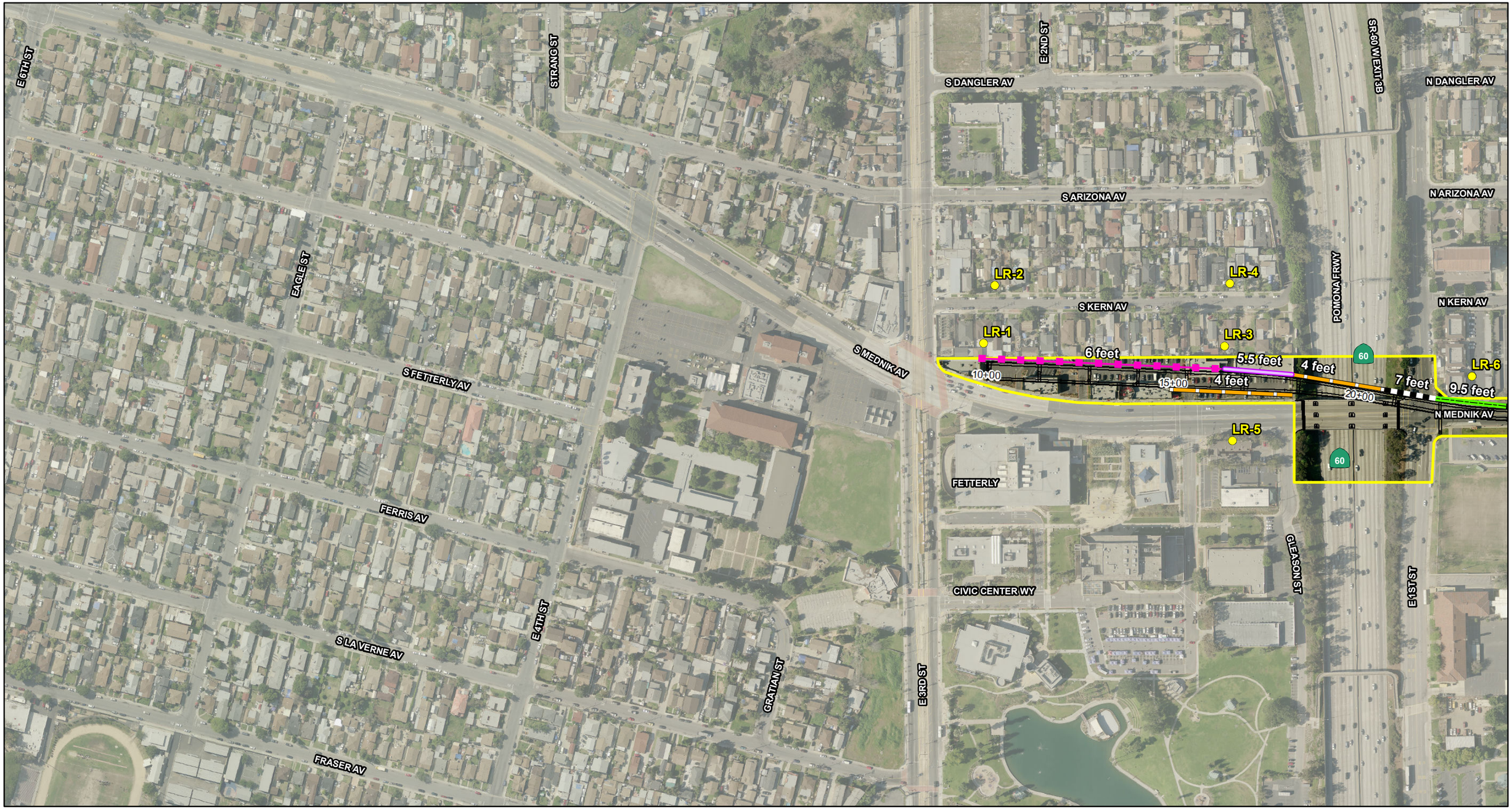

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

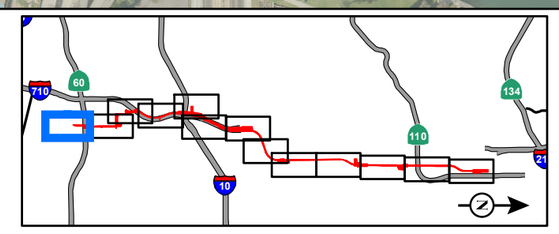

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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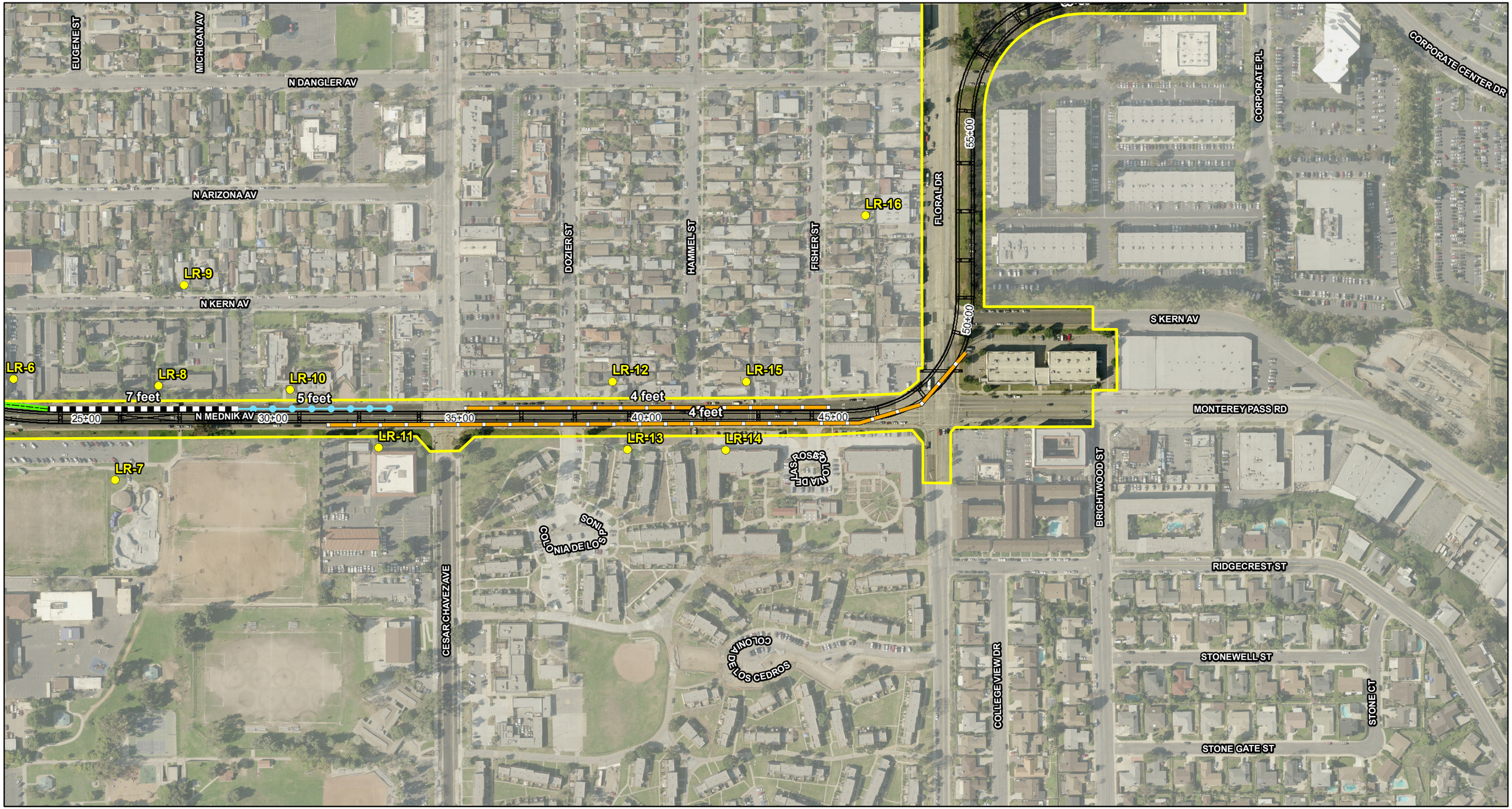

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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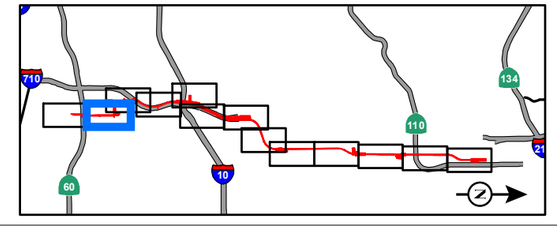

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

I-710 S EXIT 20C
N FORD BLVD
SHERIFF RD
LONG BEACH FRWY
MCBRIDE AV
710
N MCDONNELL AV
HAMMEL ST
FISHER ST
FLORAL DR
CORPORATE PL
CORPORATE CENTER DR
DAVIDSON DR
N DANGLER AV
LR-16
55+00
60+00
65+00
70+00
75+00
80+00
85+00
90+00

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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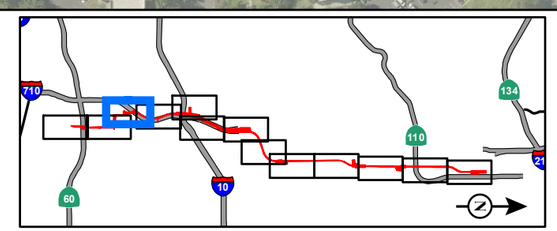

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

MCBRIDE AV
SHERIFF RD
W RAMONA BLVD
CENTRE PLAZA DR
80+00
85+00
90+00
95+00
100+00
105+00
110+00
115+00
LONG BEACH FRWY
I-710 N EXIT 22
I-710 N EXIT 21
710
I-10 E EXIT 21
CASUDA CANYON DR
CORPORATE CENTER DR
LR-17
S CALIENTE ST

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

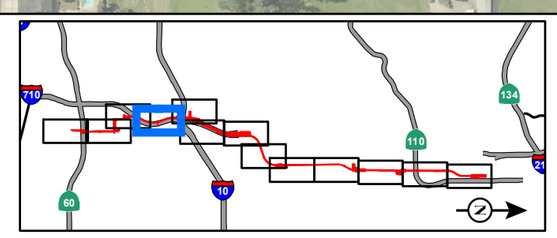

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)
I:\CHM1105\GIS\MXD\NADR\NoiseMonitoring_LRT_ProposedBarriers.mxd (10/28/2014)

CAMPUS RD
STATE UNIVERSITY DR
N STEELE AV
ROGERS ST
HAYES ST
SHORE PL
TARZON ST
ROLLINS DR
BARNETT RD
OSULLIVAN DR
CAVANAGH RD
TULLER RD
LANSDOWNE AV
PAS RANCHO CASTILLA
I-10 W EXIT 21
I-10 E EXIT 21
10
SHERIFF RD
UP RR
W RAMONA BLVD
CENTRE PLAZA DR
SAN BERNARDINO FRWY
115+00
120+00
125+00
130+00
135+00
140+00
CIRCLE DR
I-710 S EXIT 22B
I-710 S EXIT 22A
I-710 N EXIT 22
LONG BEACH FRWY
710
LR-29
LR-28

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
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- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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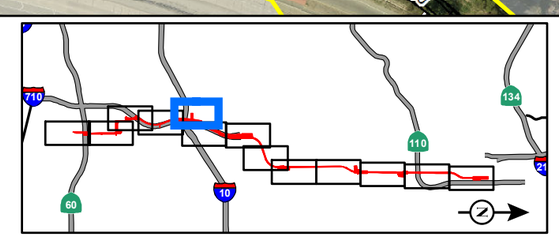

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
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- Modeled Noise Barriers: 6 feet
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- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
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LEGEND

- LRT Geometrics
- LRT Alternative
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- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

W VALLEY BLVD
W SHORB ST
FRONT ST
W MISSION RD
UP RR
GRAND VIEW DR
W NORWOOD PL
200+00
205+00
210+00
215+00
220+00
225+00
230+00
WESTMINISTER AV
S MERIDIAN AV
S FREMONT AV
NORWICH AV
WESTBORO AV
W COMMONWEALTH AV
WESTMINSTER AV
CONCORD AV
S ORANGE GROVE AV
MIMOSA ST
ORANGE ST

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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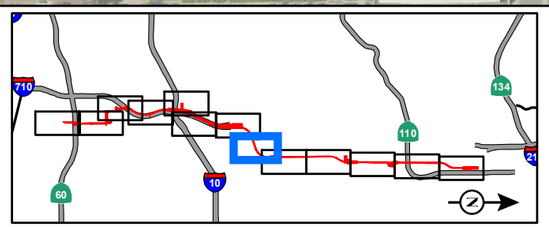

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

S MERIDIAN AV
MIMOSA ST
CONCORD AV
LA PALOMA AV
220+00
225+00
230+00
235+00
240+00
S FREMONT AV
245+00
250+00
255+00
ELM ST
CYPRESS AV
ORANGE ST
W COMMONWEALTH AV
S PRIMROSE AV
DATE AV
W MAIN ST
LEMON ST
POPLAR BLVD

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

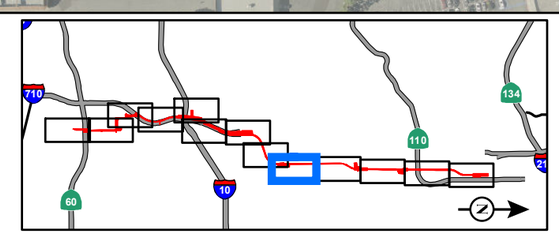

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative
07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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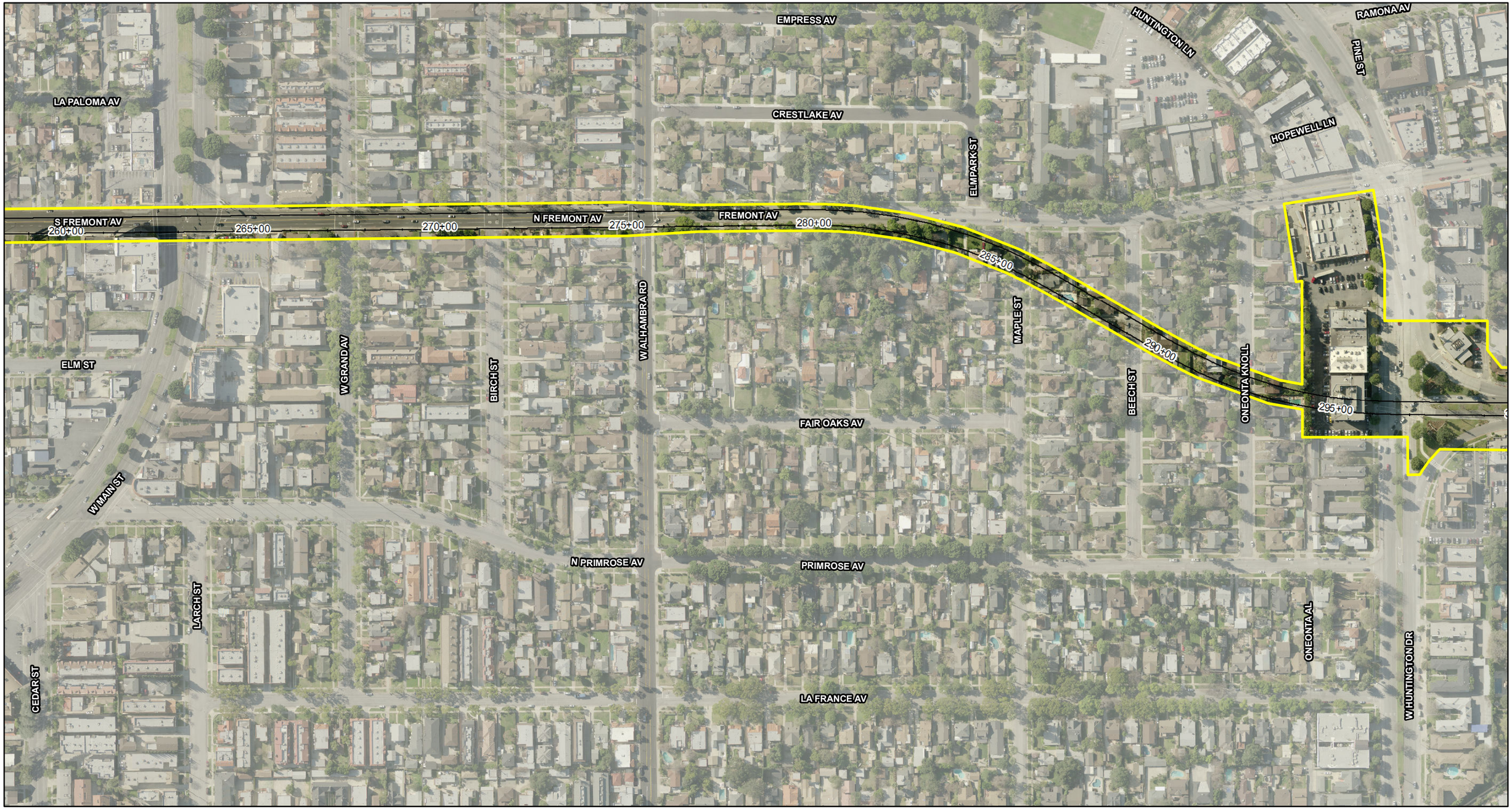

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

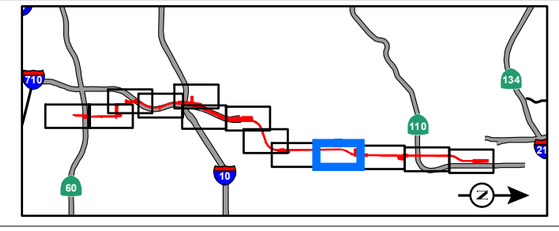

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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FREMONT AV
EXCHANGE LN
THROOP AL
EL CENTRO ST
MOUND AV
EDISON LN
300+00
305+00
310+00
315+00
320+00
325+00
FAIR OAKS AV
330+00
335+00
RAYMOND LN
BRENT AV
SPRUCE ST
LAUREL ST
OAK ST
ROLLIN ST
BANK ST
LYNDON ST
PACIFIC AL
MONTEREY RD
MISSION ST
PARK AV
OXLEY ST
DONALDO CT
MARENGO AL
OXLEY AL
VIRGINIA PL
MARENGO AV

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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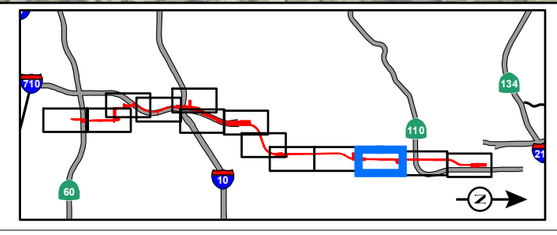

FIGURE 2-5
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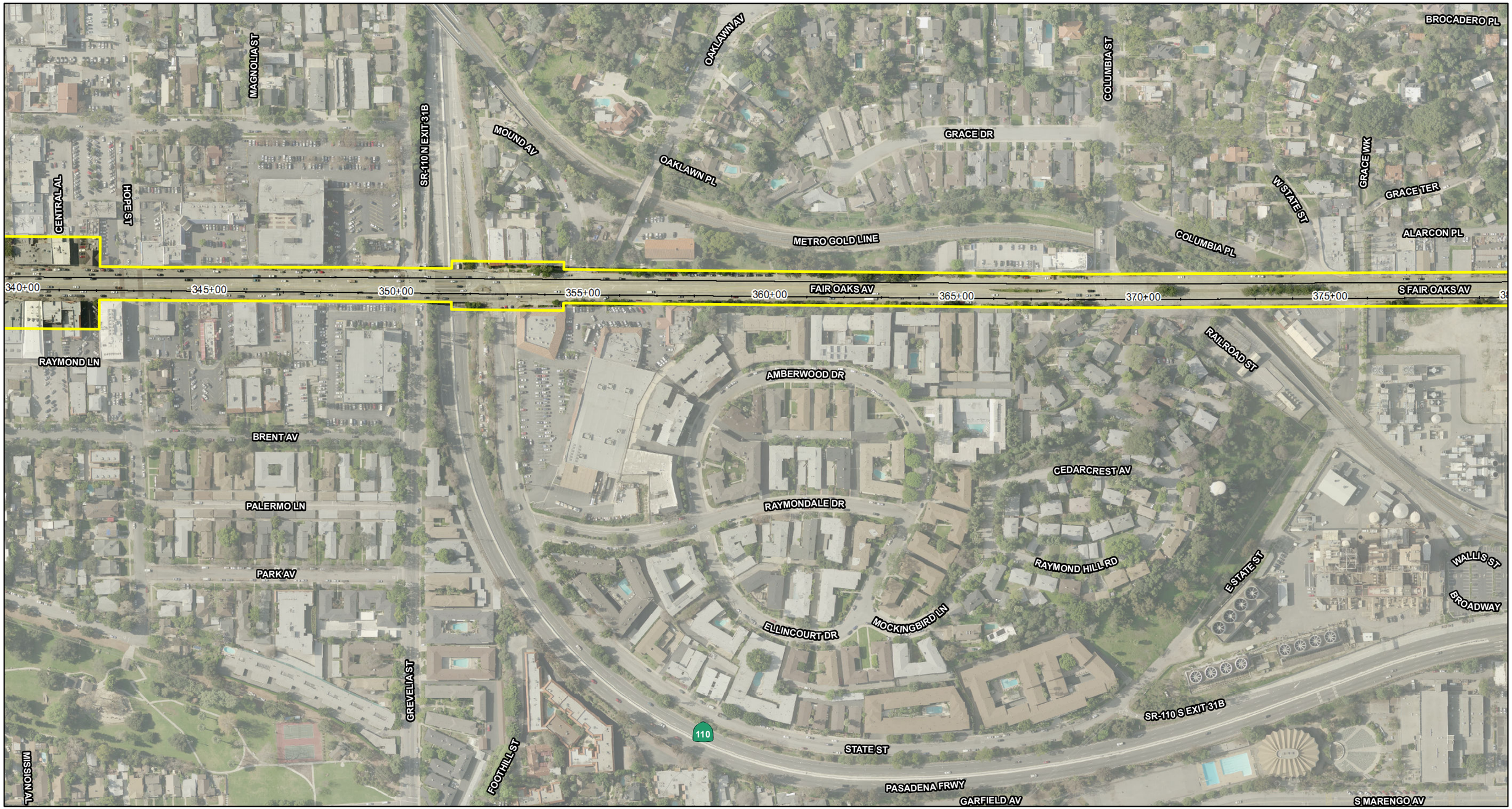
SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191



LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

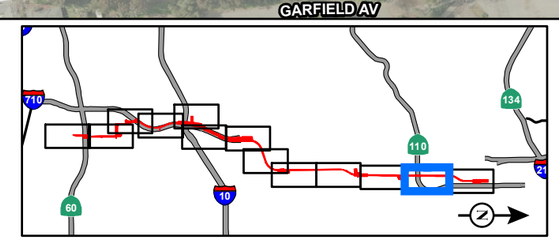


FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative
07-LA-710 (SR 710)
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EFIS 0700000191

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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BROCADERO PL
W GLENARM ST
ARLINGTON DR
HURLBUT ST
ALESSANDRO PL
BELLEFONTAINE ST
FAIRMOUNT AV
CONGRESS ST
CONCORDIA CT
W CALIFORNIA BLVD
PALMETTO DR
TENHAEFF AL
ALARCON PL
S FAIR OAKS AV
E CALIFORNIA BLVD
380+00
385+00
390+00
EDMONDSON AL
FILLMORE ST
PICO ST
S RAYMOND AV
395+00
400+00
405+00
410+00
415+00
METRO GOLD LINE
BROADWAY
PASADENA FRWY
110
S ARROYO PKWY
WEBSTER AL
PICHER AL
E GLENARM ST
S MARENGO AV
OHIO ST
ALPINE ST
PLEASANT ST

LEGEND

- LRT Geometrics
- LRT Alternative
- Modeled Noise Barriers: 4 feet
- Modeled Noise Barriers: 5 feet
- Modeled Noise Barriers: 5.5 feet
- Modeled Noise Barriers: 6 feet
- Modeled Noise Barriers: 7 feet
- Modeled Noise Barriers: 9.5 feet
- Modeled Receptor Locations

0 125 250
FEET

SOURCE: Thomas Brothers (2011); LARIAC (12/2010); CH2M Hill (2014)

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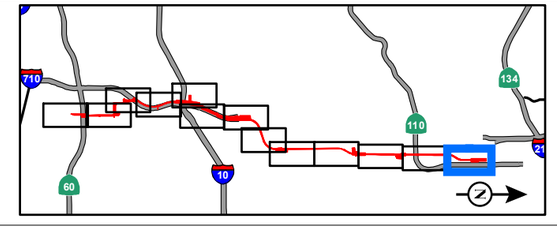

FIGURE 2-5
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SR 710 North Study
Modeled Noise Barriers for the LRT Alternative

07-LA-710 (SR 710)
EA 187900
EFIS 0700000191