**TEXAS DEPARTMENT OF TRANSPORTATION®**
DALLAS DISTRICT
JAMES K. SELMAN, P.E., DISTRICT ENGINEER

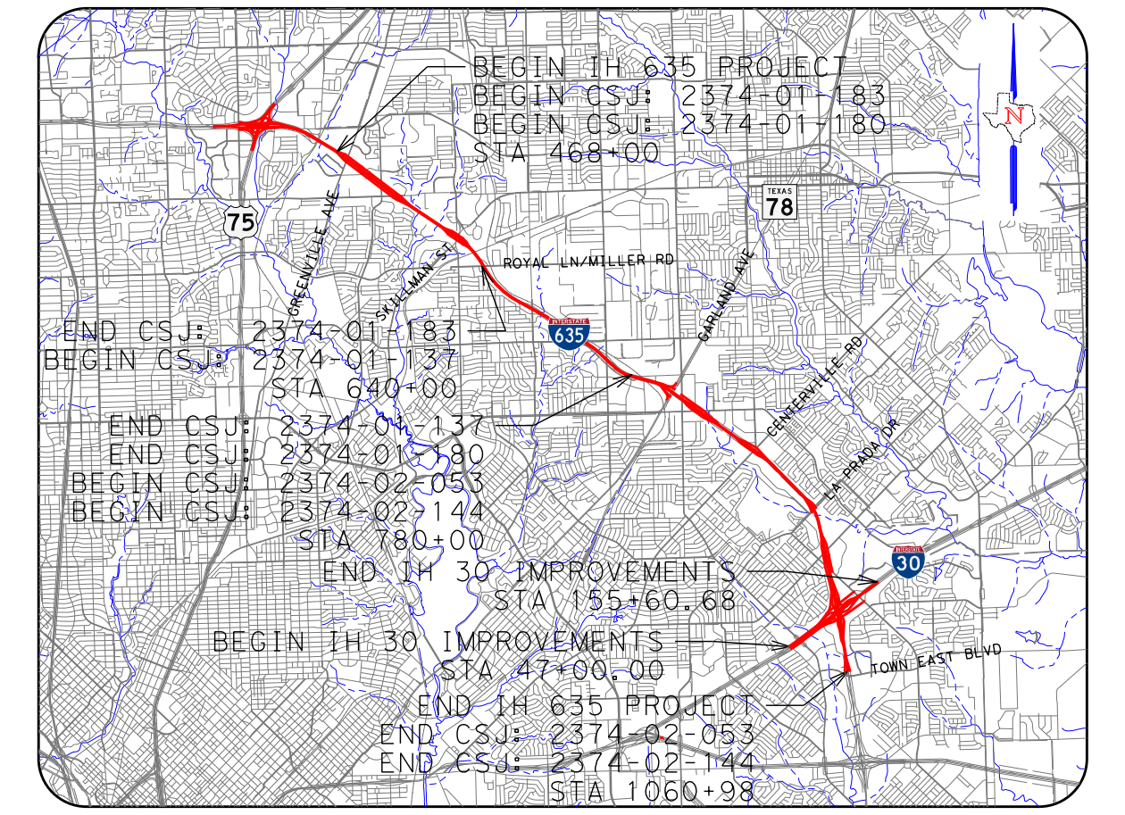
# DESIGN SCHEMATIC
# IH 635 LBJ EAST PROJECT - ULTIMATE DESIGN
FROM EAST OF US 75 TO SOUTH OF IH 30
DALLAS COUNTY, TEXAS
CSJ LIMITS:
2374-01-183: EAST OF US 75 TO MILLER ROAD
2374-01-137: MILLER ROAD TO WEST OF THE KCS RR
2374-02-053: WEST OF THE KCS RR TO IH 30
2374-01-180 & 2374-02-144: CONSTRUCT NOISE WALLS

MAY 2018
ROLL 4 OF 24

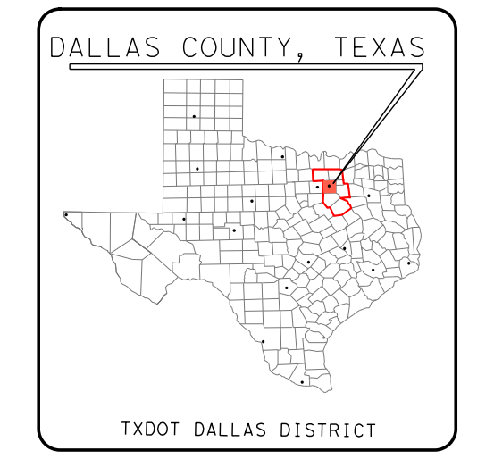
| | IH 635 | | IH 30 |
|---|---|---|---|
| LIMITS: | E. OF US 75 TO S. OF IH 30 | | W. OF GUS THOMASSON RD TO E. OF GALLOWAY AVE |
| LENGTH: | 11.2 MILES | | 2.1 MILES |
| FUNCTIONAL CLASS: | URBAN INTERSTATE | | URBAN INTERSTATE |
| AVERAGE DAILY TRAFFIC: | 2374-01-183 | 263,250 (2022) | 353,550 (2042) |
| | 2374-01-137 | 224,200 (2022) | 301,850 (2042) |
| | 2374-02-053 | 236,950 (2022) | 318,600 (2042) |
| SCHEMATIC ROLLS: | ROLLS 1 - 8* | | ROLLS 9 - 10* |

| DESIGN SPEED | |
|---|---|
| MAIN LANES: | 60 MPH |
| MANAGED LANES: | 60 MPH |
| DIRECT CONNECTORS: | 40 MPH |
| RAMPS: | 40 MPH |
| FRONTAGE ROADS/BYPASSES: | 40 MPH |
| FRONTAGE ROAD CONNECTORS: | 30 MPH |
| LOCAL STREETS: | 40 MPH |
| TURNAROUNDS: | 15 MPH |
| SHARED USE PATHS: | 18 MPH |

* FRONTAGE ROAD, CROSS STREET, DIRECT CONNECTOR, AND RAMP PROFILES FOUND ON ROLLS 11 THROUGH 24.



LOCATION MAP
N.T.S.



TEXAS COUNTY MAP
N.T.S.

0 10 20 30 40
VERTICAL SCALE:

0 100 200 300 400
HORIZONTAL SCALE:

THESE DOCUMENTS ARE NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

| NAME | P.E. NO. | DATE |
|---|---|---|
| MATTHEW G. CRAIG | 69910 | 05-25-2018 |
| CHAD R. GARDINER | 93793 | 05-25-2018 |
| MARIA F. GUERRA | 121650 | 05-25-2018 |

HALFF ASSOCIATES, INC.
TBPE FIRM #F-312

DATE APPROVED: JULY 21, 2017

HALFF
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200
FAX (214) 739-0095

## LEGEND:

| | |
|---|---|
| — — — | EXISTING ROW |
| —‖‖— | EXISTING ACCESS DENIAL |
| - - - - | EXISTING EASEMENT |
| —— | EXISTING PROPERTY LIMITS |
| ═ ═ | EXISTING STORM SEWER |
| —— | EXISTING 100 YR FLOODPLAIN LIMITS |
| —— | EXISTING PLANIMETRIC FEATURES |
| - - - - | EXISTING TOPOGRAPHIC CONTOURS (5-FT INTERVALS) |
| - - - - | EXISTING TELEPHONE / CABLE / FIBER LINE |
| -·-·- | EXISTING WATER LINE |
| - - - - | EXISTING ELECTRIC LINE |
| - - - - | EXISTING SANITARY SEWER LINE |
| -·-·- | EXISTING GAS / PETROLEUM LINE |
| —·—·— | PROPOSED CENTERLINE/BASELINE |
| — — — | PROPOSED ROW |
| — — — | CONSTRUCTION ACCESS THROUGH LICENSE AGREEMENT |
| — — — | PROPOSED DRAINAGE EASEMENT |
| — — — | TEMPORARY CONSTRUCTION EASEMENT |
| —‖‖— | PROPOSED ACCESS DENIAL |
| —— | PROPOSED EDGE OF PAVEMENT |
| —— | PROPOSED TRAFFIC BARRIER |
| —— | PROPOSED BRIDGE ABUTMENT |
| - - - - | PROPOSED BRIDGE BENT |
| —— | PROPOSED RETAINING WALL |
| ····· | PROPOSED PRELIMINARY NOISE WALL |
| ═ ═ | PROPOSED CULVERT |
| → | DIRECTION OF TRAVEL |
| ▬ | EXISTING ROADWAY TO REMAIN |
| ▬ | EXISTING BRIDGE TO REMAIN |
| ▬ | PROPOSED BRIDGE |
| 🟨 | PROPOSED MAIN LANES |
| ▬ | PROPOSED MANAGED LANES |
| ▬ | PROPOSED RAMP |
| 🟩 | PROPOSED FRONTAGE ROAD |
| 🟪 | PROPOSED CROSS STREET |
| ▬ | PROPOSED SIDEWALK |
| ⌂ | PERPENDICULAR CURB RAMP |
| ⊏⊐ | PARALLEL CURB RAMP |
| ▯ | DIRECTIONAL CURB RAMP |
| 🟧 | POTENTIAL DISPLACEMENTS |
| ☒ | PAVEMENT / BRIDGE TO BE REMOVED |
| 100 | PARCEL ID |

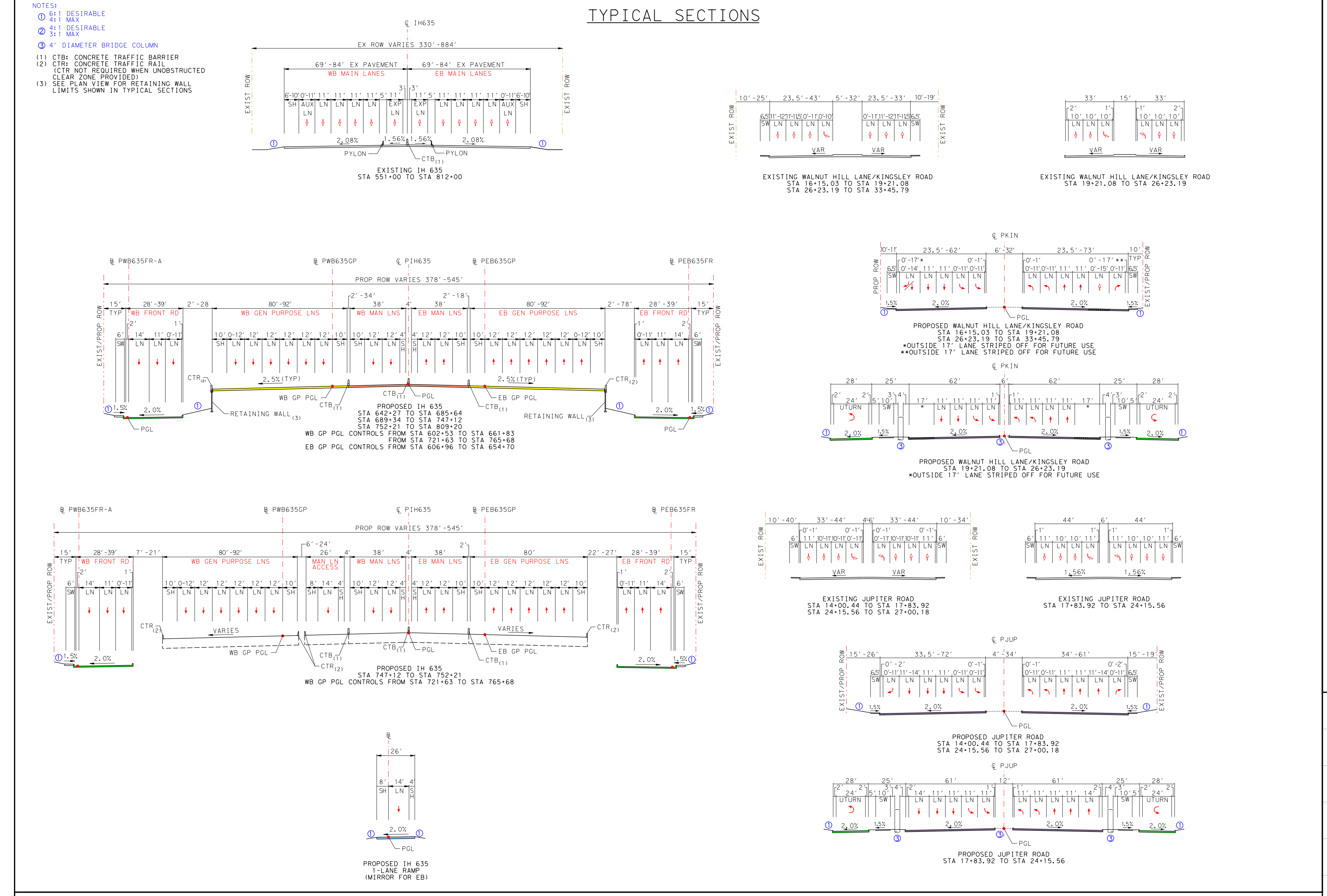
## GENERAL NOTES:

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED ON AERIAL SURVEYS DATED JANUARY 21, 2013 AND RECORD PLANS.
2. TRAFFIC VOLUMES AND METHODOLOGY APPROVED BY TP&P ON OCTOBER 12, 2016.
3. MEDIAN OPENINGS WERE DETERMINED IN COORDINATION WITH LOCAL GOVERNMENT. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH THE LOCAL GOVERNMENTS.
4. SIDEWALK INTERSECTION ADA RAMP LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING PS&E DEVELOPMENT.
5. DRIVEWAY LOCATIONS ARE PRELIMINARY. FRONTAGE ROAD DRIVEWAY RETURN RADII ARE R=15' MINIMUM OR R=25' DESIRABLE UNLESS NOTED OTHERWISE ON EACH SCHEMATIC ROLL. FINAL DRIVEWAY DESIGN TO BE DETERMINED DURING PS&E DEVELOPMENT.
6. ACCESS DENIAL LIMITS ARE DETERMINED BY PROVIDING SAFETY TO THE TRAVELING PUBLIC, MAINTAINING LEVEL OF SERVICE ON THE FRONTAGE ROADS, AND MAINTAINING SAFE ACCESS TO ADJACENT PROPERTY OWNERS. ACCESS DENIAL LIMITS MAY BE ADJUSTED BY PROVIDING TRAFFIC IMPACT ANALYSIS (TIA) BY THE ADJACENT PROPERTY OWNERS AND AVOIDING LANDLOCK ISSUES AS LONG AS THE SAFETY TO THE TRAVELING PUBLIC IS NOT COMPROMISED.
7. EXISTING PAVEMENT/BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
8. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
11. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAPS 48113C0345J AND 48113C0485J (2014).
12. EXISTING CULVERT LOCATIONS, SIZE, AND ELEVATIONS OBTAINED FROM RECORD DOCUMENTS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
13. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
14. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS COUNTY APPRAISAL DISTRICT (JUNE 2016).
15. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE. ACTUAL DAMAGES TO THE BUILDING AND PROPERTY TO BE DETERMINED DURING THE ROW ACQUISITION PROCESS.
16. ALL SUPERELEVATION RATES WERE CALCULATED BASED ON USING A MAXIMUM SUPERELEVATION RATE OF 6%. SEE CHAPTER 2, SECTION 4 OF THE TXDOT ROADWAY DESIGN MANUAL FOR REFERENCE.
17. LOW SPEED ROADWAYS HAVE A NC OF +/-2% AND HIGH SPEED MAIN LANES HAVE A NC OF +/-2.5% UNLESS NOTED OTHERWISE ON EACH ROLL IN THE SUPERELEVATION TABLES.
18. MINOR CROSS STREET CORNER RADII ARE R=25' UNLESS NOTED OTHERWISE ON EACH SCHEMATIC ROLL.
19. MAJOR CROSS STREET CORNER RADII ARE R=50' UNLESS NOTED OTHERWISE ON EACH SCHEMATIC ROLL.
20. U-TURNS WERE DESIGNED TO ACCOMMODATE A WB-67 DESIGN VEHICLE. CORNER RADII VARY PER INTERSECTION DUE TO THE DIFFERENCES IN SKEW.
21. TRAVEL LANE WIDTHS SHOWN IN THE TYPICAL SECTIONS THAT ARE LESS THAN 10' WIDE ARE DUE TO TRANSITIONS TO/FROM EXISTING PAVEMENT AND NOT DUE TO A DESIGN DEFICIENCY.
22. FOR RAILROAD DETAILS, SEE KCS RAILROAD AND DART RAIL PRELIMINARY EXHIBIT A.

## TYPICAL SECTIONS

NOTES:
① 6:1 DESIRABLE
4:1 MAX
② 4:1 DESIRABLE
3:1 MAX
③ 4' DIAMETER BRIDGE COLUMN

(1) CTB: CONCRETE TRAFFIC BARRIER
(2) CTR: CONCRETE TRAFFIC RAIL (CTR NOT REQUIRED WHEN UNOBSTRUCTED CLEAR ZONE PROVIDED)
(3) SEE PLAN VIEW FOR RETAINING WALL LIMITS SHOWN IN TYPICAL SECTIONS



EXISTING IH 635
STA 551+00 TO STA 812+00

EXISTING WALNUT HILL LANE/KINGSLEY ROAD
STA 16+15.03 TO STA 19+21.08
STA 26+23.19 TO STA 33+45.79

EXISTING WALNUT HILL LANE/KINGSLEY ROAD
STA 19+21.08 TO STA 26+23.19

PROPOSED IH 635
STA 642+27 TO STA 685+64
STA 689+34 TO STA 747+12
STA 752+21 TO STA 809+20
WB GP PGL CONTROLS FROM STA 602+53 TO STA 661+83
FROM STA 721+63 TO STA 765+68
EB GP PGL CONTROLS FROM STA 606+96 TO STA 654+70

PROPOSED WALNUT HILL LANE/KINGSLEY ROAD
STA 16+15.03 TO STA 19+21.08
STA 26+23.19 TO STA 33+45.79
*OUTSIDE 17' LANE STRIPED OFF FOR FUTURE USE
**OUTSIDE 17' LANE STRIPED OFF FOR FUTURE USE

PROPOSED WALNUT HILL LANE/KINGSLEY ROAD
STA 19+21.08 TO STA 26+23.19
*OUTSIDE 17' LANE STRIPED OFF FOR FUTURE USE

PROPOSED IH 635
STA 747+12 TO STA 752+21
WB GP PGL CONTROLS FROM STA 721+63 TO STA 765+68

EXISTING JUPITER ROAD
STA 14+00.44 TO STA 17+83.92
STA 24+15.56 TO STA 27+00.18

EXISTING JUPITER ROAD
STA 17+83.92 TO STA 24+15.56

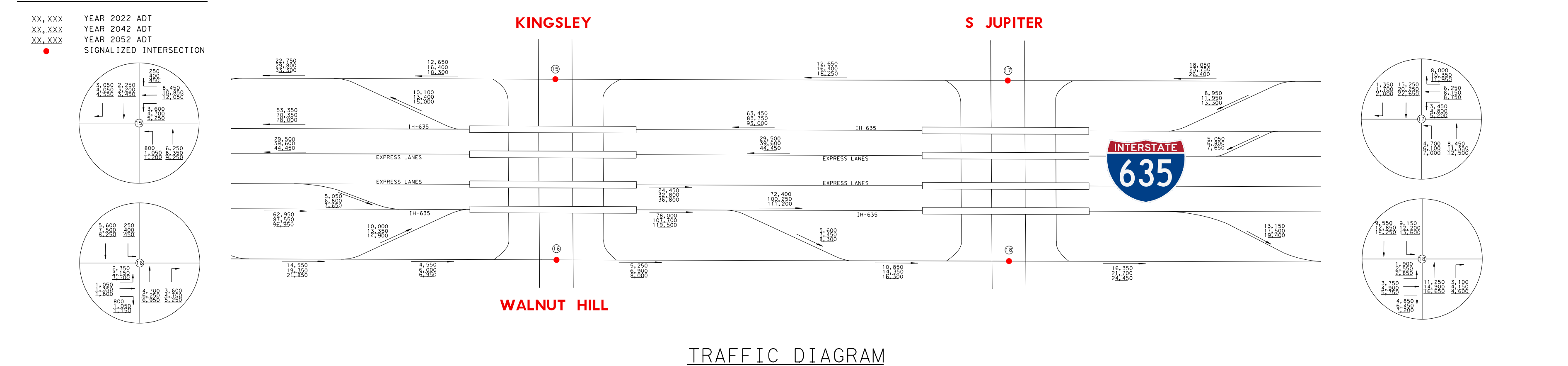
PROPOSED IH 635
1-LANE RAMP
(MIRROR FOR EB)

PROPOSED JUPITER ROAD
STA 14+00.44 TO STA 17+83.92
STA 24+15.56 TO STA 27+00.18

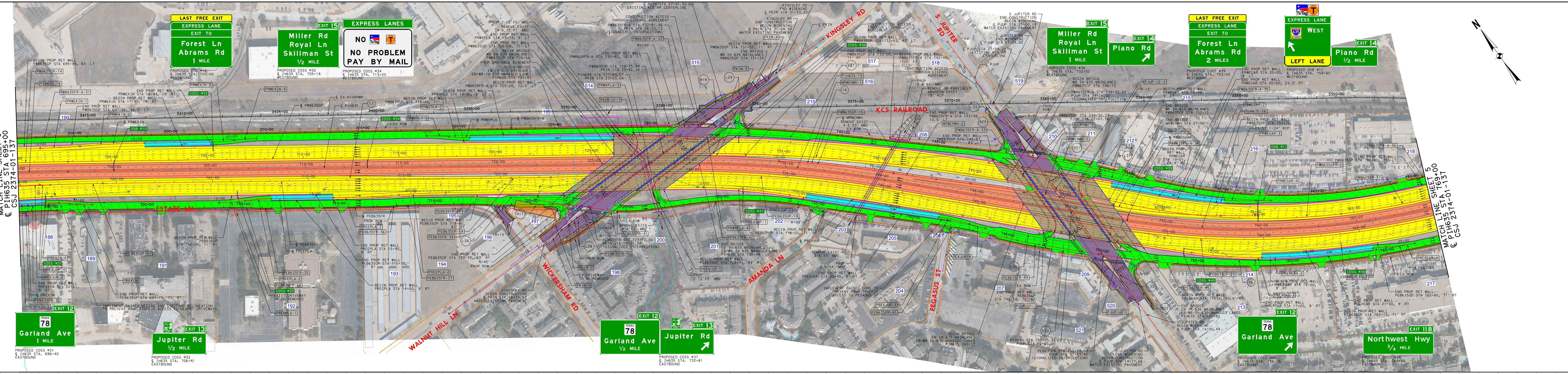
PROPOSED JUPITER ROAD
STA 17+83.92 TO STA 24+15.56

## TRAFFIC LEGEND:

| | |
|---|---|
| XX,XXX | YEAR 2022 ADT |
| XX,XXX | YEAR 2042 ADT |
| XX,XXX | YEAR 2052 ADT |
| ● | SIGNALIZED INTERSECTION |

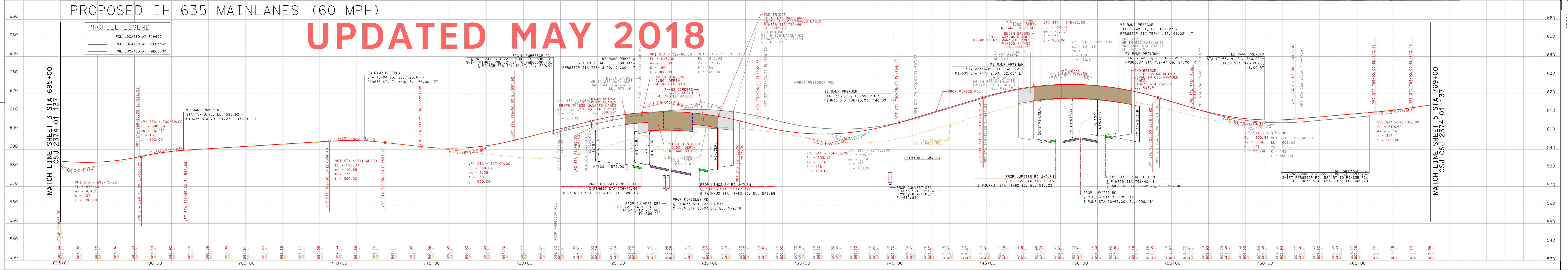


TRAFFIC DIAGRAM



## PROPOSED IH 635 MAINLANES (60 MPH)

# UPDATED MAY 2018



## HORIZONTAL ALIGNMENT DATA

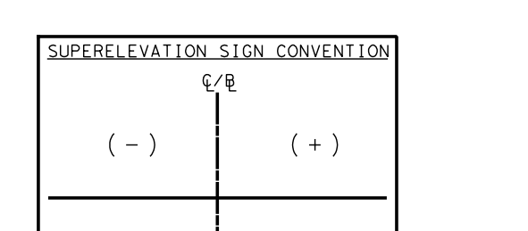
ROLL 4

| BASELINE | CURVE | P.I. STA | DELTA | RADIUS (FT) | TANGENT LENGTH (FT) | CURVE LENGTH (FT) | CHORD BEARING | CHORD LENGTH (FT) | P.C. STA | P.T. STA | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MREXJUP (60 MPH) | MREXJUP-3 | 29+69.11 | 4° 18' 24.19" (RT) | 9000.00 | 338.41 | 676.50 | S 57° 27' 12.87" E | 676.34 | 26+30.70 | 33+07.20 | S 59° 36' 24.96" E | S 55° 18' 0.77" E |
| | MREXJUP-4 | 33+33.65 | 0° 15' 08.42" (LT) | 12014.00 | 26.46 | 52.91 | S 55° 25' 34.98" E | 52.91 | 33+07.20 | 33+60.11 | S 55° 18' 00.77" E | S 55° 33' 09.20" E |
| MRWENWH (60 MPH) | MRWENWH-1 | 13+00.61 | 5° 33' 05.94" (RT) | 6200.00 | 300.61 | 600.75 | S 48° 39' 57.40" E | 600.51 | 10+00.00 | 16+00.75 | S 51° 26' 30.37" E | S 45° 53' 24.43" E |
| | MRWENWH-2 | 17+12.85 | 1° 25' 38.19" (LT) | 9000.00 | 112.10 | 224.20 | S 46° 36' 13.53" E | 224.19 | 16+00.75 | 18+24.94 | S 45° 53' 24.43" E | S 47° 19' 02.63" E |
| | MRWENWH-3 | 22+40.18 | 2° 13' 24.28" (RT) | 12000.00 | 232.86 | 465.67 | S 46° 12' 20.49" E | 465.64 | 20+07.32 | 24+72.99 | S 47° 19' 02.63" E | S 45° 05' 38.35" E |
| | MRWENWH-4 | 30+41.82 | 9° 07' 58.20" (LT) | 3500.00 | 279.54 | 557.89 | S 49° 39' 37.45" E | 557.30 | 27+62.28 | 33+20.18 | S 45° 05' 38.35" E | S 54° 13' 36.55" E |
| PEB635FR (40 MPH) | PEB635FR-33 | 693+83.42 | 4° 09' 43.38" (RT) | 4100.00 | 148.98 | 297.83 | S 57° 36' 36.72" E | 297.76 | 692+34.44 | 695+32.27 | S 59° 41' 28.41" E | S 55° 31' 45.03" E |
| | PEB635FR-34 | 704+90.81 | 3° 04' 43.60" (RT) | 2000.00 | 53.75 | 107.47 | S 53° 59' 23.23" E | 107.46 | 704+37.06 | 705+44.53 | S 55° 31' 45.03" E | S 52° 27' 01.43" E |
| | PEB635FR-35 | 705+96.25 | 2° 57' 44.73" (LT) | 2000.00 | 51.72 | 103.41 | S 53° 55' 53.80" E | 103.40 | 705+44.53 | 706+47.94 | S 52° 27' 01.43" E | S 55° 24' 46.17" E |
| | PEB635FR-36 | 712+41.39 | 3° 28' 16.78" (LT) | 2000.00 | 60.60 | 121.17 | S 57° 08' 54.56" E | 121.15 | 711+80.78 | 713+01.95 | S 55° 24' 46.17" E | S 58° 53' 02.95" E |
| | PEB635FR-37 | 713+60.52 | 3° 21' 17.92" (RT) | 2000.00 | 58.57 | 117.11 | S 57° 12' 23.99" E | 117.09 | 713+01.95 | 714+19.06 | S 58° 53' 02.95" E | S 55° 31' 45.03" E |
| | PEB635FR-38 | 717+07.13 | 3° 41' 36.52" (RT) | 2000.00 | 64.49 | 128.93 | S 53° 40' 56.77" E | 128.90 | 716+42.65 | 717+71.57 | S 55° 31' 45.03" E | S 51° 50' 08.51" E |
| | PEB635FR-39 | 718+34.03 | 3° 34' 37.66" (LT) | 2000.00 | 62.45 | 124.87 | S 53° 37' 27.34" E | 124.85 | 717+71.57 | 718+96.44 | S 51° 50' 08.51" E | S 55° 24' 46.17" E |
| | PEB635FR-40 | 722+13.02 | 11° 19' 09.44" (RT) | 1000.00 | 99.10 | 197.56 | S 49° 45' 11.45" E | 197.24 | 721+13.92 | 723+11.48 | S 55° 24' 46.17" E | S 44° 05' 36.73" E |
| | PEB635FR-41 | 724+74.06 | 18° 28' 05.84" (LT) | 1000.00 | 162.58 | 322.33 | S 53° 19' 39.64" E | 320.94 | 723+11.48 | 726+33.81 | S 44° 05' 36.73" E | S 62° 33' 42.56" E |
| | PEB635FR-42 | 731+17.60 | 16° 09' 28.75" (RT) | 2000.00 | 283.89 | 564.02 | S 54° 28' 58.18" E | 562.15 | 728+33.70 | 733+97.72 | S 62° 33' 42.56" E | S 46° 24' 13.81" E |
| | PEB635FR-43 | 742+46.60 | 4° 16' 22.29" (RT) | 2000.00 | 74.61 | 149.15 | S 44° 16' 02.66" E | 149.12 | 741+71.99 | 743+21.14 | S 46° 24' 13.81" E | S 42° 07' 51.52" E |
| | PEB635FR-44 | 746+14.04 | 3° 16' 00.00" (LT) | 2000.00 | 57.03 | 114.03 | S 43° 45' 51.52" E | 114.01 | 745+57.01 | 746+71.04 | S 42° 07' 51.52" E | S 45° 23' 51.52" E |
| | PEB635FR-45 | 763+37.27 | 32° 55' 56.94" (LT) | 4570.00 | 1350.77 | 2626.75 | S 61° 51' 49.99" E | 2590.74 | 749+86.50 | 776+13.25 | S 45° 23' 51.52" E | S 78° 19' 48.46" E |
| PEB635GP (60 MPH) | PEB635GP-17 | 695+98.74 | 4° 11' 54.74" (RT) | 9000.00 | 329.90 | 659.50 | S 57° 30' 43.54" E | 659.36 | 692+68.84 | 699+28.35 | S 59° 36' 40.91" E | S 55° 24' 46.17" E |
| | PEB635GP-18 | 721+58.92 | 0° 59' 16.42" (LT) | 12000.00 | 103.45 | 206.90 | S 55° 54' 24.38" E | 206.90 | 720+55.47 | 722+62.37 | S 55° 24' 46.17" E | S 56° 24' 02.59" E |
| | PEB635GP-19(2) | 734+01.48 | 11° 18' 24.24" (RT) | 6048.00 | 598.70 | 1193.51 | S 50° 44' 50.47" E | 1191.58 | 728+02.78 | 739+96.29 | S 56° 24' 02.59" E | S 45° 05' 38.35" E |
| | PEB635GP-20(2) | 765+30.61 | 34° 46' 36.36" (LT) | 4252.00 | 1331.55 | 2580.83 | S 62° 28' 56.53" E | 2541.40 | 751+99.06 | 777+79.89 | S 45° 05' 38.35" E | S 79° 52' 14.71" E |
| PIH635 (60 MPH) | PIH635-14 | 693+22.12 | 4° 11' 38.80" (RT) | 12,000.00 | 439.40 | 878.41 | S 57° 30' 35.57" E | 878.22 | 688+82.72 | 697+61.13 | S 59° 36' 24.96" E | S 55° 24' 46.17" E |
| | PIH635-15(1) | 734+70.14 | 10° 19' 7.82" (RT) | 6100.00 | 550.79 | 1098.60 | S 50° 15' 12.26" E | 1097.11 | 729+19.35 | 740+17.94 | S 55° 24' 46.17" E | S 45° 05' 38.35" E |
| | PIH635-16(1) | 765+35.97 | 34° 46' 36.36" (LT) | 4200.00 | 1315.27 | 2549.27 | S 62° 28' 56.53" E | 2510.32 | 752+20.71 | 777+69.98 | S 45° 05' 38.35" E | S 79° 52' 14.71" E |
| PJUP(4) (40 MPH) | -- | 10+00.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | N 0°49'13.50" W |
| | -- | 31+59.39 | -- | -- | -- | -- | -- | -- | -- | -- | N 0°49'13.50" W | -- |
| PJUP-U1 (15 MPH) | PJUP-U1-1 | 10+78.60 | 94° 14' 3.33" (LT) | 73.00 | 78.60 | 120.06 | N 46° 17' 48.17" E | 106.98 | 10+00.00 | 11+20.06 | S 86° 35' 10.17" E | N 0° 49' 13.5" W |
| | PJUP-U1-2 | 14+56.51 | 25° 03' 52.1" (LT) | 326.00 | 72.46 | 142.61 | N 13° 21' 9.55" W | 141.48 | 13+84.05 | 15+26.66 | N 0° 49' 13.5" W | N 25° 53' 5.6" W |
| PJUP-U2 (15 MPH) | PJUP-U2-1 | 10+71.81 | 24° 50' 41.08" (RT) | 326.00 | 71.81 | 141.36 | N 13° 14' 34.04" W | 140.26 | 10+00.00 | 11+41.36 | N 25° 39' 54.58" W | N 0° 49' 13.5" W |
| | PJUP-U2-2 | 14+74.23 | 93° 33' 44.9" (RT) | 78.00 | 83.01 | 127.37 | N 45° 57' 38.95" E | 113.68 | 13+91.22 | 15+18.59 | N 0° 49' 13.5" W | S 87° 15' 28.6" E |
| PKIN (40 MPH) | PKIN-1 | 16+77.50 | 6° 02' 4.68" (LT) | 1000.00 | 52.71 | 105.32 | N 86° 04' 24.06" E | 105.28 | 16+24.79 | 17+30.11 | N 89° 05' 26.4" E | N 83° 03' 21.72" E |
| | PKIN-2 | 17+81.56 | 5° 53' 26.28" (RT) | 1000.00 | 51.45 | 102.81 | N 86° 00' 4.86" E | 102.77 | 17+30.11 | 18+32.92 | N 83° 03' 21.72" E | N 88° 56' 48" E |
| | PKIN-3 | 29+47.99 | 6° 29' 30.27" (RT) | 1000.00 | 56.71 | 113.30 | S 87° 48' 26.86" E | 113.24 | 28+91.27 | 30+04.58 | N 88° 56' 48" E | S 84° 33' 41.73" E |
| | PKIN-4 | 30+61.43 | 6° 30' 27.52" (LT) | 1000.00 | 56.85 | 113.58 | S 87° 48' 55.49" E | 113.52 | 30+04.58 | 31+18.16 | S 84° 33' 41.73" E | N 88° 55' 50.75" E |
| PKIN-U1 (15 MPH) | PKIN-U1-1 | 14+67.64 | 100° 54' 26.31" (LT) | 78.00 | 94.47 | 137.37 | N 38° 29' 34.85" E | 120.29 | 13+73.18 | 15+10.55 | N 88° 56' 48.00" E | N 11° 57' 38.30" W |
| PKIN-U2 (15 MPH) | PKIN-U2-1 | 11+06.77 | 107° 42' 7.51" (RT) | 78.00 | 106.77 | 146.62 | N 35° 05' 44.25" E | 125.97 | 10+00.00 | 11+46.62 | N 18° 45' 19.51" W | N 88° 56' 48" E |
| PREEPLA (40 MPH) | PREEPLA-1 | 10+67.40 | 7° 20' 42.64" (LT) | 1050.00 | 67.40 | 134.61 | S 59° 12' 6.35" E | 134.52 | 10+00.00 | 11+34.61 | S 55° 31' 45.03" E | S 62° 52' 27.67" E |
| | PREEPLA-2 | 12+03.07 | 7° 27' 41.51" (RT) | 1050.00 | 68.47 | 136.74 | S 59° 08' 36.92" E | 136.64 | 11+34.61 | 12+71.35 | S 62° 52' 27.67" E | S 55° 24' 46.17" E |
| | PREEPLA-3 | 17+66.16 | 3° 42' 11.28" (LT) | 5300.00 | 171.33 | 342.55 | S 57° 15' 51.81" E | 342.49 | 15+94.83 | 19+37.38 | S 55° 24' 46.17" E | S 59° 06' 57.45" E |
| | PREEPLA-4 | 20+60.22 | 3° 42' 11.28" (RT) | 3800.00 | 122.84 | 245.60 | S 57° 15' 51.81" E | 245.56 | 19+37.38 | 21+82.98 | S 59° 06' 57.45" E | S 55° 24' 46.17" E |
| PREXGAR (40 MPH) | PREXGAR-1 | 15+72.72 | 9° 58' 55.53" (LT) | 2100.00 | 183.40 | 365.86 | S 50° 44' 2.26" E | 365.40 | 13+89.32 | 17+55.19 | S 45° 44' 34.49" E | S 55° 43' 30.02" E |
| | PREXGAR-2(1) | 19+86.36 | 6° 05' 22.5" (LT) | 4346.00 | 231.17 | 461.91 | S 58° 46' 11.27" E | 461.69 | 17+55.19 | 22+17.09 | S 55° 43' 30.02" E | S 61° 48' 52.52" E |
| | PREXGAR-3 | 23+72.41 | 3° 46' 7.84" (RT) | 1050.00 | 34.55 | 69.07 | S 59° 55' 48.6" E | 69.06 | 23+37.86 | 24+06.93 | S 61° 48' 52.52" E | S 58° 02' 44.68" E |
| | PREXGAR-4 | 24+81.98 | 8° 10' 35.08" (LT) | 1050.00 | 75.05 | 149.84 | S 62° 08' 2.22" E | 149.71 | 24+06.93 | 25+56.77 | S 58° 02' 44.68" E | S 66° 13' 19.76" E |
| PREXJUP (40 MPH) | PREXJUP-1 | 12+25.90 | 8° 36' 45.51" (RT) | 3000.00 | 225.90 | 450.96 | S 49° 40' 20.98" E | 450.53 | 10+00.00 | 14+50.96 | S 53° 58' 43.74" E | S 45° 21' 58.22" E |
| | PREXJUP-2 | 14+93.89 | 0° 55' 41.91" (LT) | 5300.00 | 42.94 | 85.87 | S 45° 49' 49.18" E | 85.87 | 14+50.96 | 15+36.83 | S 45° 21' 58.22" E | S 46° 17' 40.13" E |
| | PREXJUP-3 | 23+17.61 | 8° 54' 42.25" (RT) | 1050.00 | 81.82 | 163.32 | S 41° 50' 19.01" E | 163.15 | 22+35.79 | 23+99.10 | S 46° 17' 40.13" E | S 37° 22' 57.89" E |
| | PREXJUP-4 | 24+42.63 | 4° 44' 53.63" (LT) | 1050.00 | 43.53 | 87.02 | S 39° 45' 24.7" E | 86.99 | 23+99.10 | 24+86.12 | S 37° 22' 57.89" E | S 42° 07' 51.52" E |
| PREXKIN (40 MPH) | PREXKIN-3 | 22+19.20 | 3° 09' 31.58" (RT) | 3800.00 | 104.78 | 209.50 | S 58° 01' 55.12" E | 209.47 | 21+14.43 | 23+23.92 | S 59° 36' 40.91" E | S 56° 27' 9.33" E |
| | PREXKIN-4 | 23+90.11 | 7° 12' 49.24" (RT) | 1050.00 | 66.19 | 132.20 | S 52° 50' 44.71" E | 132.11 | 23+23.92 | 24+56.12 | S 56° 27' 9.33" E | S 49° 14' 20.09" E |
| | PREXKIN-5 | 25+13.82 | 6° 17' 24.94" (LT) | 1050.00 | 57.70 | 115.28 | S 52° 23' 2.56" E | 115.22 | 24+56.12 | 25+71.40 | S 49° 14' 20.09" E | S 55° 31' 45.03" E |
| PRWEGAR (40 MPH) | PRWEGAR-1 | 16+92.27 | 0° 56' 27.31" (RT) | 5300.00 | 43.52 | 87.04 | S 44° 56' 44.48" E | 87.04 | 16+48.75 | 17+35.79 | S 45° 24' 58.13" E | S 44° 28' 30.82" E |
| | PRWEGAR-2 | 20+01.68 | 4° 09' 24.04" (LT) | 3800.00 | 137.90 | 275.68 | S 46° 33' 12.84" E | 275.62 | 18+63.78 | 21+39.46 | S 44° 28' 30.82" E | S 48° 37' 54.86" E |
| | PRWEGAR-3 | 23+25.55 | 9° 02' 09.76" (LT) | 1050.00 | 82.97 | 165.59 | S 53° 08' 59.74" E | 165.42 | 22+42.58 | 24+08.17 | S 48° 37' 54.86" E | S 57° 40' 04.61" E |
| | PRWEGAR-4 | 24+46.25 | 4° 09' 12.45" (RT) | 1050.00 | 38.07 | 76.12 | S 55° 35' 28.39" E | 76.10 | 24+08.17 | 24+84.29 | S 57° 40' 04.61" E | S 53° 30' 52.17" E |
| PRWEKIN (40 MPH) | PRWEKIN-1 | 11+04.01 | 3° 08' 8.88" (LT) | 3800.00 | 104.01 | 207.97 | S 57° 39' 26.31" E | 207.95 | 10+00.00 | 12+07.97 | S 56° 05' 21.88" E | S 59° 13' 30.75" E |
| | PRWEKIN-2 | 13+75.89 | 3° 37' 45.44" (RT) | 5300.00 | 167.92 | 335.72 | S 57° 24' 38.03" E | 335.66 | 12+07.97 | 15+43.69 | S 59° 13' 30.75" E | S 55° 35' 45.32" E |
| | PRWEKIN-3 | 19+52.51 | 6° 24' 45.03" (LT) | 1050.00 | 58.82 | 117.52 | S 58° 48' 7.83" E | 117.45 | 18+93.69 | 20+11.21 | S 55° 35' 45.32" E | S 62° 00' 30.35" E |
| | PRWEKIN-4 | 20+69.71 | 6° 22' 43.05" (RT) | 1050.00 | 58.51 | 116.89 | S 58° 49' 8.82" E | 116.83 | 20+11.21 | 21+28.10 | S 62° 00' 30.35" E | S 55° 37' 47.3" E |
| PRWXPLA (40 MPH) | PRWXPLA-1 | 10+58.58 | 6° 23' 12.99" (RT) | 1050.00 | 58.58 | 117.05 | S 52° 26' 10.8" E | 116.99 | 10+00.00 | 11+17.05 | S 55° 37' 47.3" E | S 49° 14' 34.3" E |
| | PRWXPLA-2 | 11+71.38 | 5° 55' 25.98" (LT) | 1050.00 | 54.33 | 108.56 | S 52° 12' 17.29" E | 108.51 | 11+17.05 | 12+25.61 | S 49° 14' 34.3" E | S 55° 10' 0.28" E |
| | PRWXPLA-3 | 21+65.31 | 4° 08' 24.14" (RT) | 5300.00 | 191.57 | 382.96 | S 53° 05' 48.21" E | 382.88 | 19+73.74 | 23+56.70 | S 55° 10' 0.28" E | S 51° 01' 36.14" E |
| | PRWXPLA-4 | 24+51.95 | 2° 52' 17.26" (LT) | 3800.00 | 95.24 | 190.44 | S 52° 27' 44.77" E | 190.42 | 23+56.70 | 25+47.15 | S 51° 01' 36.14" E | S 53° 53' 53.4" E |
| PWB635FR-A (40 MPH) | PWB635FR-A-31 | 695+40.76 | 3° 58' 37.67" (RT) | 15,000.00 | 520.81 | 1041.21 | S 57° 37' 06.13" E | 1041.00 | 690+19.94 | 700+61.15 | S 59° 36' 24.96" E | S 55° 37' 47.30" E |
| | PWB635FR-A-32 | 734+63.94 | 6° 52' 02.04" (RT) | 8,500.00 | 510.00 | 1018.77 | S 52° 11' 46.28" E | 1018.16 | 729+53.94 | 739+72.72 | S 55° 37' 47.30" E | S 48° 45' 45.26" E |
| | PWB635FR-A-33 | 750+74.13 | 6° 52' 10.66" (RT) | 5,100.00 | 306.11 | 611.48 | S 45° 19' 39.93" E | 611.11 | 747+68.02 | 753+79.50 | S 48° 45' 45.26" E | S 41° 53' 34.60" E |
| | PWB635FR-A-34 | 755+66.39 | 2 ° 17' 43.32" (LT) | 2,000.00 | 40.07 | 80.12 | S 43 ° 02' 26.26" E | 80.12 | 755+26.32 | 756+06.44 | S 41 ° 53' 34.60" E | S 44 ° 11' 17.92" E |
| | PWB635FR-A-35 | 763+64.35 | 22 ° 46' 13.37" (LT) | 2,800.00 | 563.83 | 1112.77 | S 55 ° 34' 24.61" E | 1105.46 | 758+00.53 | 769+13.30 | S 44 ° 11' 17.92" E | S 66 ° 57' 31.29" E |
| | PWB635FR-A-36 | 774+82.84 | 14 ° 21' 21.78" (LT) | 3,530.00 | 444.57 | 884.48 | S 74 ° 08' 12.18" E | 882.17 | 770+38.27 | 779+22.75 | S 66 ° 57' 31.29" E | S 81 ° 18' 53.08" E |
| PWB635GP (60 MPH) | PWB635GP-14 | 693+33.75 | 4° 11' 38.80" (RT) | 12,052.00 | 441.3065 | 882.2189 | S 57° 30' 35.57" E | 882.0219 | 688+92.45 | 697+74.66 | S 59° 36' 24.96" E | S 55° 24' 46.17" E |
| | PWB635GP-15 | 739+53.83 | 12° 24' 18.82" (RT) | 9,300.00 | 1,010.73 | 2,013.56 | S 49° 12' 36.76" E | 2,009.63 | 729+43.10 | 749+56.66 | S 55° 24' 46.17" E | S 43° 00' 27.35" E |
| | PWB635GP-16 | 758+89.27 | 18° 31' 08.35" (LT) | 3,400.00 | 554.3035 | 1,098.94 | S 52° 16' 01.53" E | 1,094.16 | 753+34.97 | 764+33.91 | S 43° 00' 27.35" E | S 61° 31' 35.70" E |
| | PWB635GP-17 | 771+03.67 | 18° 20' 39.01" (LT) | 4,148.00 | 669.7556 | 1,328.05 | S 70° 41' 55.21" E | 1,322.38 | 764+33.91 | 777+61.96 | S 61° 31' 35.70" E | S 79° 52' 14.71" E |

NOTE:
(1) HORIZONTAL CURVE REQUIRES SUPERELEVATION. PGL AND AXIS OF ROTATION LOCATED AT THE RESPECTIVE CENTERLINE/BASELINE. SEE SUPERELEVATION TABLE.
(2) EB GP HORIZONTAL CURVE REQUIRES SUPERELEVATION. PGL AND AXIS OF ROTATION LOCATED AT THE PIH635 CENTERLINE. SEE SUPERELEVATION TABLE.
(3) WB GP HORIZONTAL CURVE REQUIRES SUPERELEVATION. PGL AND AXIS OF ROTATION LOCATED AT THE PIH635 CENTERLINE. SEE SUPERELEVATION TABLE.
(4) FOR BASELINES WITHOUT CURVES, BEGINNING AND ENDING STATION IS PROVIDED. BASELINE TANGENT SHOWN IN BACK AND AHEAD TANGENT COLUMN.

## SUPERELEVATION

| BASELINE | BEGIN TRANSITION | | END TRANSITION | |
|---|---|---|---|---|
| | STA | e | STA | e |
| PWB635GP (60 MPH) | 721+63.00 | 2.50% | 730+82.00 | -2.50% |
| | 746+67.00 | -2.50% | 758+27.00 | 4.00% |
| | 764+00.00 | 4.00% | 764+67.00 | 3.50% |
| PIH635 (EB) (60 MPH) | 728+95.00 | -2.50% | 729+23.00 | -2.60% |
| | 740+15.00 | -2.60% | 740+40.00 | -2.50% |
| | 741+75.00 | -2.50% | 756+69.00 | 3.50% |
| PIH635 (WB) (60 MPH) | 726+47.00 | 2.50% | 729+87.00 | -2.60% |
| | 739+25.00 | -2.60% | 743+90.00 | 2.50% |
| | 751+67.00 | 2.50% | 752+34.00 | 3.50% |
| PRWEKIN (40 MPH) | 15+44.00 | 2.50% | 15+57.00 | 2.00% |
| PREEPLA (40 MPH) | 15+81.00 | -2.00% | 15+94.00 | -2.50% |
| PRWXPLA (40 MPH) | 19+25.00 | 2.00% | 19+73.00 | 0.02% |
| PREXJUP (40 MPH) | 15+38.00 | -2.60% | 15+53.00 | -2.00% |
| MRWENWH (60 MPH) | 27+07.00 | 2.50% | 27+62.00 | 0.75% |
| PRWEGAR (40 MPH) | 16+49.00 | 1.20% | 16+69.00 | 2.00% |
| PREXGAR (40 MPH) | 17+56.00 | 3.50% | 17+93.00 | 2.00% |
| | 21+98.00 | 2.00% | 22+95.00 | -2.00% |



## *FRONTAGE ROAD, CROSS STREET & TURNAROUND CROSS SLOPE TRANSITIONS FOR INTERSECTION GRADING

| BASELINE | BEGIN TRANSITION | | END TRANSITION | |
|---|---|---|---|---|
| | STA | e | STA | e |
| PEB635FR (PKIN) | 722+31.00 | -2.00% | 722+67.00 | -1.15% |
| | 724+38.00 | -1.15% | 724+66.00 | -2.00% |
| PWB635FR (PKIN) | 730+40.00 | 2.00% | 731+54.00 | -1.50% |
| | 734+25.00 | -1.50% | 735+71.00 | 2.00% |
| PEB635FR (PJUP) | 748+44.00 | -2.00% | 748+70.00 | -1.50% |
| | 750+53.00 | -1.50% | 750+85.00 | -2.00% |
| PWB635FR (PJUP) | 748+77.00 | 2.00% | 749+26.00 | 0.50% |
| | 750+53.00 | 0.50% | 751+27.00 | 2.20% |
| | 752+00.00 | 2.20% | 752+09.00 | 2.00% |
| PKIN (LT) | 16+63.00 | 2.00% | 19+42.00 | -2.00% |
| | 24+97.00 | -2.00% | 27+80.00 | 2.00% |
| PJUP (LT) | 17+90.00 | 2.00% | 18+62.00 | 1.00% |
| | 19+45.00 | 1.00% | 20+17.00 | 2.00% |
| | 23+50.00 | 2.00% | 23+76.00 | 1.65% |
| | 24+76.00 | 1.65% | 25+02.00 | 2.00% |
| PJUP (RT) | 14+98.00 | -2.00% | 17+50.00 | 1.50% |
| | 21+69.00 | 1.50% | 24+21.00 | -2.00% |
| PKIN-U1 | 10+08.00 | -2.00% | 11+32.00 | 2.00% |
| | 13+81.00 | 2.00% | 15+05.00 | -2.00% |
| PKIN-U2 | 10+07.00 | 2.00% | 11+31.00 | -2.00% |
| | 15+08.00 | -2.00% | 15+24.00 | -1.50% |
| PJUP-U1 | 10+07.00 | -2.00% | 11+31.00 | 2.00% |
| | 13+87.00 | 2.00% | 15+11.00 | -2.00% |
| PJUP-U2 | 10+16.00 | 2.00% | 11+40.00 | -2.00% |
| | 13+88.00 | -2.00% | 15+12.00 | 2.00% |

* NOTE: FINAL DETAILS FOR INTERSECTION GRADING TO BE DEVELOPED DURING PS&E. CROSS SLOPE TRANSITIONS SHOWN ABOVE ARE PRELIMINARY AND WERE DEVELOPED TO ASSIST WITH CALCULATION OF VERTICAL CLEARANCES AND U-TURN PROFILES.

## PROPERTY OWNERS

| ID # | SITE ADDRESS | OWNER | OCCUPANT |
|---|---|---|---|
| 188 | 10841 ESTATE LN | SERVICE KING PAINT & BODY | SERVICE KING |
| 189 | 10921 ESTATE LN | SHRI VISHNU CORPORATION | MOTEL 6 |
| 190 | 99999 NO NAME ST | KANSAS CITY SOUTHERN RR | RAILROAD CORRIDOR |
| 191 | 10925 ESTATE LN | 10925 ESTATE LN LP | LYNDON PLAZA CORPORATE PARK |
| 192 | 10805 WALNUT HILL LN | HIGHLAND OAKS CHURCH | HIGHLAND OAKS CHURCH OF CHRIST |
| 193 | 10949 WALNUT HILL LN | WALNUT HILL ATTIC II LLC THE | THE ATTIC MINI WAREHOUSE |
| 194 | 11035 WALNUT HILL LN | WALNUT HILL ATTIC III LLC THE | VACANT |
| 195 | 11011 ESTATE LN | WALNUT HILL ATTIC III LLC THE | VACANT |
| 196 | 11085 WALNUT HILL LN | DIVERSIFIED STORAGE FUND | PUBLIC STORAGE |
| 197 | 11111 WALNUT HILL LN | WALNUT HILL ESTATE REALTY LLC | WALNUT HILL ESTATE SC |
| 198 | 11100 WALNUT HILL LN | SEDONA RIDGE PROPERTY LLC | SILVERADO SPRINGS |
| 199 | 99999 NO NAME ST | KANSAS CITY SOUTHERN RR | RAILROAD CORRIDOR |
| 200 | 11110 LBJ FWY | SEDONA RIDGE PROPERTY LLC | VACANT |
| 201 | 11363 AMANDA LN | VVDT LLC | VILLA VISTA |
| 202 | 11383 AMANDA LN | UH STORAGE DE LTD PS | UHAUL MINI SELF STORAGE |
| 203 | 11306 LBJ FWY | VERTICAL REALITY LLC | LBJ CROSSING PHASE II |
| 204 | 11325 PEGASUS ST | BADMUS TEXAS PROPERTIES | 11325 PEGASUS ST |
| 205 | 11312 LBJ FWY | LBJ CROSSING LTD | L B J CROSSING SC |
| 206 | 11325 PEGASUS ST | VERTICAL REALITY LLC | LAND ONLY |
| 207 | 11350 LBJ FWY | ESHNAM HOSPITALITY INC | RADISSON HOTEL |
| 208 | 3702 W KINGSLEY RD | DLS STORAGE PARTNERS LTD | LAND ONLY |
| 209 | 13015 JUPITER RD | 13015 JUPITER & LBJ LP | RETAIL STRIP W/ CHEVRON |
| 210 | 11405 LBJ FWY | SPANO ROBERT P & MARLENE M REV LIV TR THE | SHELL/7-11 |
| 211 | 11413 LBJ FWY | DOBSON BOBBY W | GREAT WESTERN FURNITURE |
| 212 | 11421 LBJ FWY | KUVM INVESTMENTS INC | SUPER 8 MOTEL |
| 213 | 11438 LBJ FWY | BROWN BROTHERS INVESTMENTS LP | GATEWAY BUICK GMC |
| 214 | 11900 LBJ FWY | BROWN BROTHERS INVESTMENTS LP | VACANT |
| 215 | | KANSAS CITY SOUTHERN RR | RAILROAD CORRIDOR |
| 216 | 11611 LBJ FWY | JUPITER CHEVROLET PPTIES | JUPITER CHEVROLET |
| 217 | 11550 LBJ FWY | FCA REALTY LLC | DALLAS DODGE CHRYSLER JEEP |
| 218 | 11675 LBJ FWY | CAR SON MAS GAR LP | MASSEY CADILLAC |
| 514A | 10100 PLANO RD | TEXAS UTILITIES ELEC CO | EASEMENT |
| 514B | 11200 KINGSLEY RD | TEXAS UTILITIES ELEC CO | LAND ONLY |
| 515 | 11200 KINGSLEY RD | PRAMUKHRAJ ENTERPRISE LLC | VACANT |
| 516 | 3700 W KINGSLEY RD | BLACKSTONE MINERALS | UTILITY ROW |
| 517 | 3536 W KINGSLEY RD | JUPITER PARTNERS LTD | KINGSLEY INN & SUITES |
| 518 | 3231 S JUPITER RD | AMERI PROPERTIES INC | LAND ONLY |
| 519 | 3220 S JUPITER RD | LINCOLN JAMES A | ENTERPRISE COMMERCIAL TRUCKS |
| 520 | 13001 JUPITER RD | GABBAY DAVID | VACANT |
| 521 | 12993 JUPITER RD | FOUNTAINS OF JUPITER LTD | THE FOUNTAINS OF JUPITER |

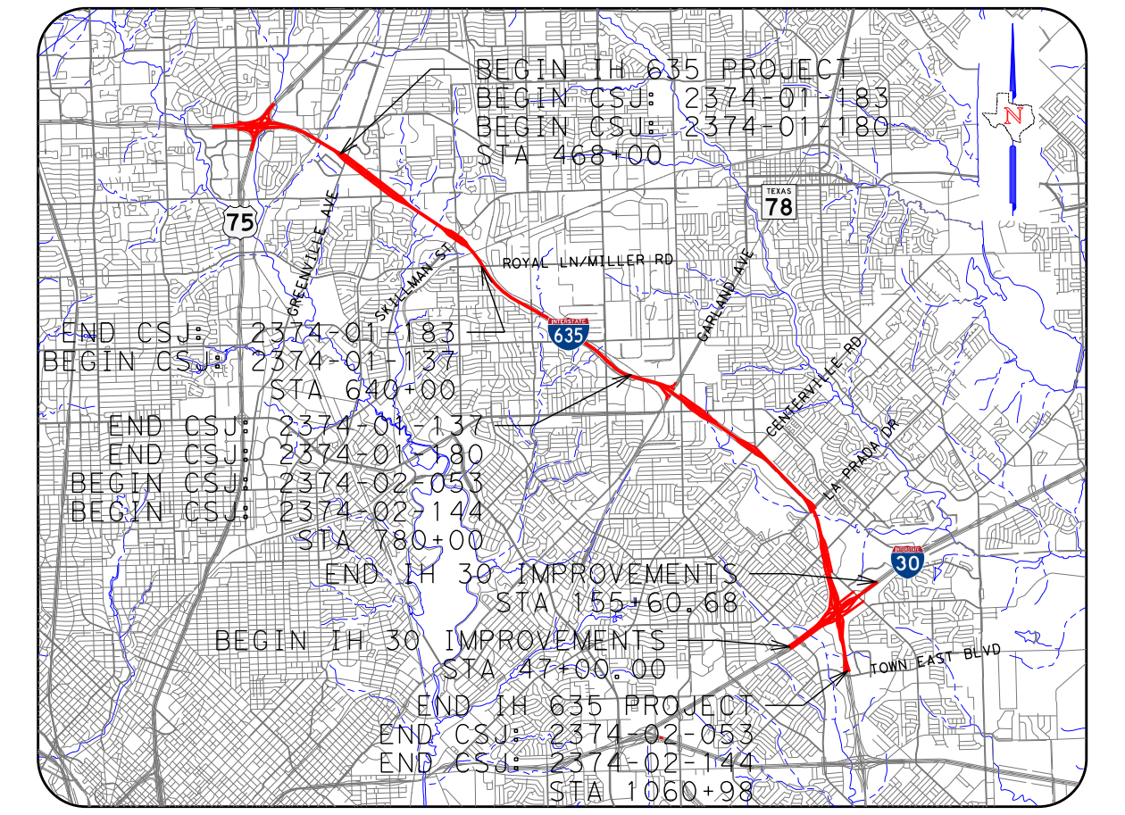
## PROPOSED TAPERS

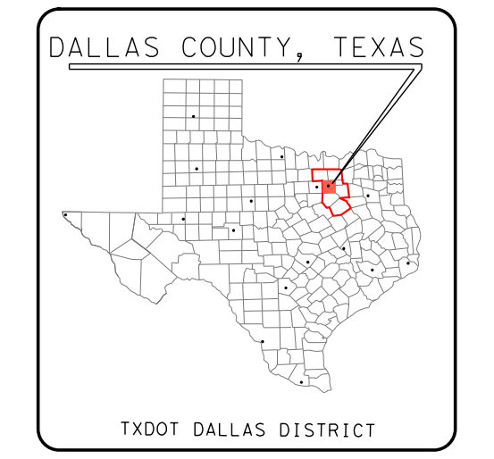
| LOCATION | TYPE | BASELINE | BEGIN | END | TAPER RATE |
|---|---|---|---|---|---|
| 13 | AUX LANE MERGE | PEB635GP | 711+55.47, 12.00' LT | 717+55.47, 0.00' | 50:1 |
| 14 | RAMP MERGE | PIH635 | 734+62.12, 30.00' LT | 740+59.51, 41.98' LT | 50:1 |
| 15 | FRONTAGE ROAD MERGE | PEB635FR | 755+59.62, 36.00' LT | 758+91.55, 25.00' LT | 27:1 |

## TURN BAY LENGTHS

| LEFT TURN BAY LENGTHS | | | | |
|---|---|---|---|---|
| TURN LANE | TAPER LENGTH | DECEL LENGTH | STORAGE LENGTH | TOTAL LENGTH |
| L26 | 50' | 160' | 230' | 390' |
| L27 | 50' | 160' | 378' | 538' |
| L28 | 100' | 160' | 136' | 296' |
| L29 | 100' | 160' | 370' | 530' |
| L30 | 50' | 160' | 284' | 444' |
| L31 | 50' | 160' | 399' | 559' |
| L32 | 65' | 160' | 451' | 611' |
| L33 | 50' | 160' | 363' | 523' |
| RIGHT TURN BAY LENGTHS | | | | |
| R17 | 50' | 160' | 98' | 258' |
| R18 | 50' | 160' | 136' | 296' |
| R19 | 50' | 160' | 170' | 330' |
| R20 | 50' | 160' | 338' | 498' |
| R21 | 50' | 160' | 325' | 485' |
| R22 | 50' | 160' | 73' | 233' |
| R23 | 50' | 160' | 57' | 217' |

TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
JAMES K. SELMAN, P.E., DISTRICT ENGINEER
DESIGN SCHEMATIC
IH 635 LBJ EAST PROJECT - ULTIMATE DESIGN
FROM EAST OF US 75 TO SOUTH OF IH 30
DALLAS COUNTY, TEXAS
CSJ LIMITS:
2374-01-183: EAST OF US 75 TO MILLER ROAD
2374-01-137: MILLER ROAD TO WEST OF THE KCS RR
2374-02-053: WEST OF THE KCS RR TO IH 30
2374-01-180 & 2374-02-144: CONSTRUCT NOISE WALLS
MAY 2018
ROLL 4 OF 24





LOCATION MAP
TEXAS COUNTY MAP
DATE APPROVED: JULY 21, 2017
HALFF
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