

CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

DRAFT

Merced to Fresno Section
Draft EIR-EIS

Volume III:

Section B – Alignment Plans

UPRR/SR 99 Alternative with Ave 21 Wye

August 2011



CALIFORNIA
High-Speed Rail Authority



U.S. Department of Transportation
Federal Railroad Administration



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| SHT NO. | DWG NO. | DRAWING TITLE LINE 3 | DRAWING TITLE LINE 4 | DRAWING TITLE LINE 5 | DRAWING TITLE LINE 6 |
|---------|--------------------------------|-------------------------|-------------------------|-----------------------------|-------------------------|
| T2260-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 105+00 TO STA 125+00 | |
| T2261-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 125+00 TO STA 180+00 | |
| T2262-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 180+00 TO STA 235+00 | |
| T2263-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 235+00 TO STA 290+00 | |
| T2264-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 290+00 TO STA 345+00 | |
| T2265-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 345+00 TO STA 400+00 | |
| T2266-A | UPRR/SR 99 WYE - SB CONNECTION | AVENUE 21 | PLAN AND PROFILE | STA 400+00 TO STA 416+33.89 | |

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DESIGNED BY
A. SHIELDS
DRAWN BY
T. WALTZ
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 ALIGNMENT
AVENUE 21
INDEX OF DRAWINGS
SHEET 1 OF 2

CONTRACT NO.
HSR06-007
DRAWING NO.
T0010-A
SCALE
NONE
SHEET NO.
OF ###

ABBREVIATIONS

ALIGNMENT

| | |
|-------------------|---------------------------------------|
| <u>HORIZONTAL</u> | |
| BC | BEGINNING OF CURVE |
| CS | CURVE TO SPIRAL |
| EC | END OF CURVE |
| PC | POINT OF CURVE |
| PCC | POINT OF COMPOUND CIRCULAR CURVES |
| PCS | POINT OF CURVE TO SPIRAL |
| PF | POINT OF FROG |
| PI | POINT OF INTERSECTION OF TWO TANGENTS |
| PITO | POINT OF INTERSECTION OF TURNOUT |
| POC | POINT ON CURVE |
| POS | POINT ON SPIRAL |
| POT | POINT ON TANGENT |
| PRC | POINT OF REVERSE CURVES |
| PS | POINT OF SWITCH |
| PSC | POINT OF SPIRAL TO CURVE |
| PT | POINT OF TANGENCY |
| R | RADIUS OF CURVATURE IN FEET |
| SC | SPIRAL TO CURVE |
| SPO | POINT OF ORIGIN OF COMPOUND SPIRAL |
| SS | POINT OF SPIRAL TO SPIRAL |
| ST | SPIRAL TO TANGENT |
| TS | TANGENT TO SPIRAL |
| V | DESIGN VELOCITY IN MILES PER HOUR |

| | |
|-----------------|--|
| <u>VERTICAL</u> | |
| PVC | POINT OF VERTICAL CURVE (BEGINNING OF CURVE) |
| PVI | POINT OF VERTICAL INTERSECTION (OF TANGENTS) |
| PVT | POINT OF VERTICAL TANGENCY (ENDING OF CURVE) |
| VC | VERTICAL CURVE |

MISCELLANEOUS

| | |
|----------|--------------------------|
| BEG | BEGIN |
| BLVD | BOULEVARD |
| CL | CENTER LINE |
| CL | CENTERLINE, CLASS |
| CLR | CLEAR |
| COL | COLUMN |
| DWG | DRAWING |
| EQ | EQUATION |
| EXIST(E) | EXISTING |
| IN | INCH |
| LT | LEFT |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| N | NORTH |
| NB | NORTH BOUND |
| NTS | NOT TO SCALE |
| OG | ORIGINAL GROUND |
| O/H OH | OVER HEAD |
| PG&E | PACIFIC GAS & ELECTRIC |
| PGL | PROFILE GRADE LINE |
| RR | RAILROAD |
| RD | ROAD |
| R/W ROW | RIGHT OF WAY |
| RT | RIGHT |
| SS | SANITARY SEWER |
| SHT | SHEET |
| ST | STREET |
| STD | STANDARD |
| SD | STORM DRAIN |
| STRUCT | STRUCTURE |
| T | TELEPHONE |
| | (OH) OVERHEAD LINE |
| | (UG) UNDERGROUND LINE |
| TOR | TOP OF RAIL |
| TK | TRACK |
| TO | TURNOUT |
| TYP | TYPICAL |
| TBD | TO BE DETERMINED |
| TF | TELECOMMUNICATIONS FIBER |
| | OPTIC |
| V VERT | VERTICAL |
| W | WATER, WEST |

SYMBOLS

| | |
|--|------------------------------------|
| | MATCH LINE |
| | HST TRACK |
| | PROPOSED HST RIGHT-OF-WAY |
| | FREIGHT/PASSENGER TRACK - EXISTING |
| | EXISTING RIGHT-OF-WAY |
| | EXISTING BRIDGE FEATURES |
| | RETAINING WALLS |
| | ORIGINAL GROUND |
| | GAS LINE (16") |
| | COMMUNICATION LINE |
| | WATER LINE |
| | FIBER OPTIC LINE |
| | ELECTRICAL LINE |
| | ELECTRICAL TOWER |
| | SEWER LINE |
| | STORM DRAIN LINE |
| | FUEL LINE |
| | TELEPHONE LINE |
| | PETROLEUM LINE (12") |
| | OVERHEAD |
| | NORTH ARROW |
| | PVI |
| | POTENTIAL NOISE BARRIER |

NOTES:

- EXISTING ROADS TO BE GRADE SEPARATED OVER THE HIGH SPEED TRAIN (HST) RIGHT OF WAY ARE INDICATED IN THE ALIGNMENT PROFILE. ALL OTHER ROADS CROSSING THE PROPOSED HST TRACKS WILL BE CLOSED OR RELOCATED. SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION.
- SEE STRUCTURE PLANS FOR LIMITS AND DETAILS OF VIADUCTS, STREAM CROSSINGS, RETAINING WALLS AND OTHER HST STRUCTURES.
- SEE ROADWAY PLANS FOR ROADWAY RELOCATIONS, GRADE SEPARATIONS, AND MODIFICATIONS TO STATE HIGHWAY FACILITIES.
- UTILITIES INDICATED ON THE PLANS ARE FOR REFERENCE ONLY. SEE "UTILITIES CONFLICT MEMO" FOR ADDITIONAL INFORMATION AND PROPOSED RELOCATION CONCEPTS.
- ROAD/LOCAL ACCESS DELINEATED FOR FURTHER EVALUATION. ADDITIONAL STUDIES WILL BE CONDUCTED DURING PRELIMINARY ENGINEERING PHASE (30% DESIGN) TO SUBSTANTIATE ITS INCLUSION OR EXCLUSION FROM THE PROPOSED IMPROVEMENTS.

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|---------------------------|
| DESIGNED BY B. CHAN |
| DRAWN BY S. LEONG |
| CHECKED BY V. CHIO |
| IN CHARGE J. VALSECCHI |
| DATE 07/20/2011 |

**RECORD SET
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CONSTRUCTION**

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811

CH2M HILL



**CALIFORNIA
HIGH-SPEED RAIL AUTHORITY**

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

GENERAL

ABBREVIATIONS, SYMBOLS AND NOTES

| |
|---------------------------|
| CONTRACT NO. HSR06-007 |
| DRAWING NO. T0100-A |
| SCALE NO SCALE |
| SHEET NO. ### OF ### |

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MATCH LINE
SEE T0102-A

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
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SUBMITTAL**

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 ALIGNMENT
AVENUE 21
KEY MAP
SHEET 1 OF 3

CONTRACT NO.
HSR06-007
DRAWING NO.
T0101-A
SCALE
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SHEET NO.
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

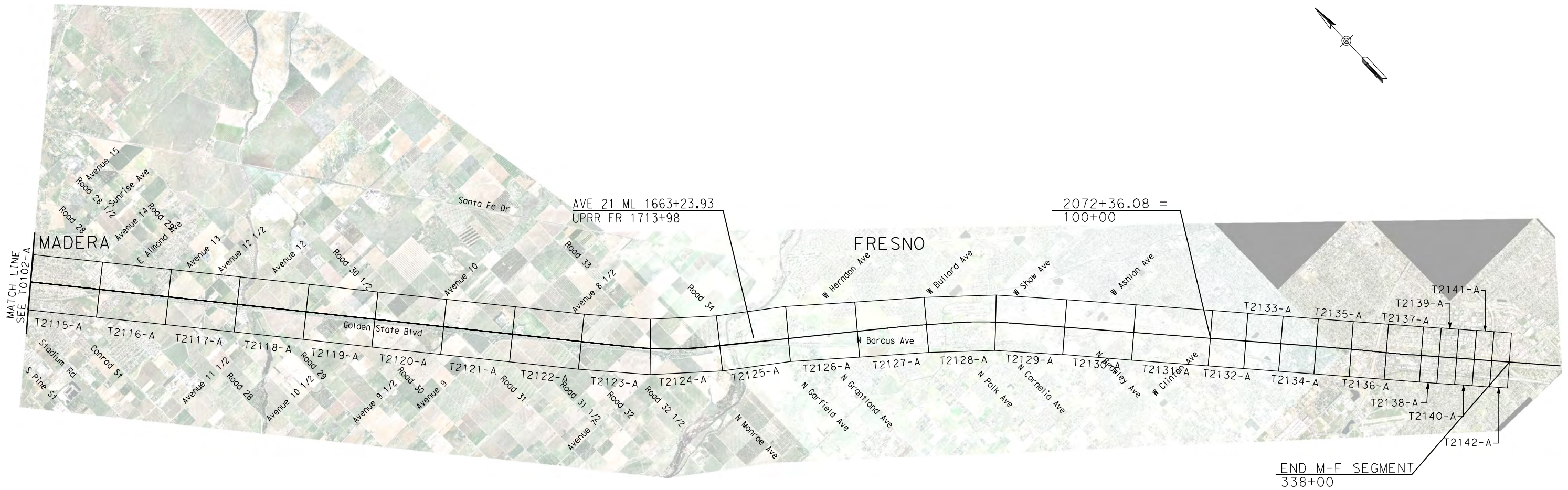
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 ALIGNMENT
AVENUE 21
KEY MAP
SHEET 2 OF 3

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 ALIGNMENT
AVENUE 21
KEY MAP
SHEET 3 OF 3

CONTRACT NO.
HSR06-007
DRAWING NO.
T0103-A
SCALE
NO SCALE
SHEET NO.
OF

TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | | |
|---------|----------|------------|------------|-------------|------------|-------------|-------------|-----------|--------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|--|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE | |
| | TANGENT | POB | 5367+74.09 | 1858039.02 | 6512080.45 | | 10097.07 | | | | | | | S 89°46'01" E | | | |
| | TANGENT | TS | 5468+71.16 | 1857997.95 | 6522177.45 | | | | | | | | | | | | |
| SR-1-SB | CLOTHOID | TS | 5468+71.16 | 1857997.95 | 6522177.45 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5479+71.18 | 1857993.48 | 6523277.46 | | 1650.00 | 1°03'02" | 824.99 | 2.52 | | | | | S 89°46'01" E | S 88°43'00" E | |
| | CLOTHOID | SC | 5485+21.16 | 1857981.16 | 6523827.34 | | | | | | | | | | | | |
| | ARC | SC | 5485+21.16 | 1857981.16 | 6523827.34 | | | | | | | | | | | | |
| | ARC | PI | 5543+57.72 | 1857850.43 | 6529662.42 | 45000.00 | 11608.30 | 14°46'49" | | | 250 | 4.00 | 1.56 | | S 88°43'00" E | S 73°56'11" E | |
| | ARC | CC | | 1812992.45 | 6522819.41 | | | | | | | | | | | | |
| | ARC | CS | 5601+29.47 | 1856235.43 | 6535271.09 | | | | | | | | | | | | |
| | CLOTHOID | CS | 5601+29.47 | 1856235.43 | 6535271.09 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5606+79.48 | 1856083.24 | 6535799.63 | | 1650.00 | 1°03'02" | 824.99 | 2.52 | | | | | S 73°56'11" E | S 72°53'10" E | |
| | CLOTHOID | ST | 5617+79.47 | 1855759.53 | 6536850.94 | | | | | | | | | | | | |
| | TANGENT | ST | 5617+79.47 | 1855759.53 | 6536850.94 | | 3900.12 | | | | | | | S 72°53'10" E | | | |
| | TANGENT | TS | 5656+79.58 | 1854611.83 | 6540578.37 | | | | | | | | | | | | |
| SR-2-SB | CLOTHOID | TS | 5656+79.58 | 1854611.83 | 6540578.37 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5667+79.60 | 1854288.12 | 6541629.68 | | 1650.00 | 1°03'00" | 824.99 | 2.52 | | | | | S 72°53'10" E | S 73°56'10" E | |
| | CLOTHOID | SC | 5673+29.58 | 1854135.93 | 6542158.22 | | | | | | | | | | | | |
| | ARC | SC | 5673+29.58 | 1854135.93 | 6542158.22 | | | | | | | | | | | | |
| | ARC | PI | 5732+61.69 | 1852494.45 | 6547858.7 | 45016.50 | 11796.24 | 15°00'50" | | | 250 | 4.00 | 1.55 | | S 73°56'10" E | S 88°57'00" E | |
| | ARC | CC | | 1897394.68 | 6554614.76 | | | | | | | | | | | | |
| | ARC | CS | 5791+25.83 | 1852385.74 | 6553789.81 | | | | | | | | | | | | |
| | CLOTHOID | CS | 5791+25.83 | 1852385.74 | 6553789.81 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5796+75.84 | 1852375.66 | 6554339.73 | | 1650.00 | 1°03'00" | 824.99 | 2.52 | | | | | S 88°57'00" E | S 90°00'00" E | |
| | CLOTHOID | ST | 5807+75.83 | 1852375.66 | 6554339.75 | | | | | | | | | | | | |
| | TANGENT | ST | 5807+75.83 | 1852375.66 | 6554339.75 | | 28794.12 | | | | | | | S 90°00'00" E | | | |
| | TANGENT | TS | 6095+69.95 | 1852375.66 | 6584233.87 | | | | | | | | | | | | |
| SR-3-SB | CLOTHOID | TS | 6095+69.95 | 1852375.66 | 6584233.87 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6106+69.97 | 1852375.66 | 6585333.89 | | 1650.00 | 1°03'02" | 824.99 | 2.52 | | | | | S 90°00'00" E | S 88°56'58" E | |
| | CLOTHOID | SC | 6112+19.95 | 1852365.58 | 6585883.81 | | | | | | | | | | | | |
| | ARC | SC | 6112+19.95 | 1852365.58 | 6585883.81 | | | | | | | | | | | | |
| | ARC | PI | 6204+28.65 | 1852196.76 | 6595090.97 | 45000.00 | 18166.59 | 23°07'50" | | | 250 | 4.00 | 1.56 | | S 88°56'58" E | S 65°49'09" E | |
| | ARC | CC | | 1807373.14 | 6585058.86 | | | | | | | | | | | | |
| | ARC | CS | 6293+86.54 | 1848424.71 | 6603491.68 | | | | | | | | | | | | |
| | CLOTHOID | CS | 6293+86.54 | 1848424.71 | 6603491.68 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6299+36.56 | 1848199.41 | 6603993.44 | | 1650.00 | 1°03'02" | 824.99 | 2.52 | | | | | S 65°49'09" E | S 64°46'07" E | |
| | CLOTHOID | ST | 6310+36.54 | 1847730.5 | 6604988.51 | | | | | | | | | | | | |
| | TANGENT | ST | 6310+36.54 | 1847730.5 | 6604988.51 | | 1353.50 | | | | | | | S 64°46'07" E | | | |
| | TANGENT | TS | 6323+90.04 | 1847153.54 | 6606212.88 | | | | | | | | | | | | |

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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SAN JOSE TO MERCED SEGMENT**

SAN JOAQUIN VALLEY CROSSING SUBSECTION
HENRY MILLER ROAD TO AVENUE 24/SR152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7401A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|---------|----------|------------|------------|-------------|------------|-------------|-------------|-----------|--------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| SR-4-SB | CLOTHOID | TS | 6323+90.04 | 1847153.54 | 6606212.88 | | | | | | | | | | | |
| | CLOTHOID | SPI | 6334+90.06 | 1846684.64 | 6607207.95 | | 1650.00 | 1°03'00" | 824.99 | 2.52 | | | | | S 64°46'07" E | S 65°49'08" E |
| | CLOTHOID | SC | 6340+40.04 | 1846459.33 | 6607709.7 | | | | | | | | | | | |
| | ARC | SC | 6340+40.04 | 1846459.33 | 6607709.7 | | | | | | | | | | | |
| | ARC | PI | 6434+27.70 | 1842613.92 | 6616273.64 | 45016.50 | 18510.04 | 23°33'33" | | | 250 | 4.00 | 1.55 | | S 65°49'08" E | S 89°22'40" E |
| | ARC | CC | | 1887525.83 | 6626149.55 | | | | | | | | | | | |
| | ARC | CS | 6525+50.08 | 1842511.99 | 6625660.74 | | | | | | | | | | | |
| | CLOTHOID | CS | 6525+50.08 | 1842511.99 | 6625660.74 | | | | | | | | | | | |
| | CLOTHOID | SPI | 6531+00.10 | 1842506.01 | 6626210.73 | | 1650.00 | 1°03'00" | 824.99 | 2.52 | | | | | S 89°22'40" E | N 89°34'20" E |
| | CLOTHOID | ST | 6542+00.08 | 1842514.23 | 6627310.72 | | | | | | | | | | | |

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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7402A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - NORTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | | |
|---------|----------|------------|------------|-------------|------------|-------------|-------------|-----------|--------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|--|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE | |
| | TANGENT | POB | 5367+74.09 | 1858055.52 | 6512080.52 | | 10096.92 | | | | | | | S 89°46'01" E | | | |
| | TANGENT | TS | 5468+71.01 | 1858014.45 | 6522177.36 | | | | | | | | | | | | |
| SR-1-NB | CLOTHOID | TS | 5468+71.01 | 1858014.45 | 6522177.36 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5479+71.23 | 1858009.98 | 6523277.57 | | 1650.30 | 1°03'01" | 825.14 | 2.52 | | | | | S 89°46'01" E | S 88°43'00" E | |
| | CLOTHOID | SC | 5485+21.31 | 1857997.66 | 6523827.55 | | | | | | | | | | | | |
| | ARC | SC | 5485+21.31 | 1857997.66 | 6523827.55 | | | | | | | | | | | | |
| | ARC | PI | 5543+60.16 | 1857866.9 | 6529664.94 | 45016.50 | 11612.86 | 14°46'50" | | | 250 | 4.00 | 1.55 | | S 88°43'00" E | S 73°56'10" E | |
| | ARC | CC | | 1812992.45 | 6522819.41 | | | | | | | | | | | | |
| | ARC | CS | 5601+34.18 | 1856251.25 | 6535275.8 | | | | | | | | | | | | |
| | CLOTHOID | CS | 5601+34.18 | 1856251.25 | 6535275.8 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5606+84.30 | 1856099.02 | 6535804.44 | | 1650.30 | 1°03'01" | 825.14 | 2.52 | | | | | S 73°56'10" E | S 72°53'10" E | |
| | CLOTHOID | ST | 5617+84.48 | 1855775.26 | 6536855.94 | | | | | | | | | | | | |
| | TANGENT | ST | 5617+84.48 | 1855775.26 | 6536855.94 | | 3900.12 | | | | | | | S 72°53'10" E | | | |
| | TANGENT | TS | 5656+84.59 | 1854627.56 | 6540583.37 | | | | | | | | | | | | |
| SR-2-NB | CLOTHOID | TS | 5656+84.59 | 1854627.56 | 6540583.37 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5667+84.41 | 1854303.91 | 6541634.49 | | 1649.70 | 1°03'01" | 824.84 | 2.52 | | | | | S 72°53'10" E | S 73°56'10" E | |
| | CLOTHOID | SC | 5673+34.29 | 1854151.74 | 6542162.93 | | | | | | | | | | | | |
| | ARC | SC | 5673+34.29 | 1854151.74 | 6542162.93 | | | | | | | | | | | | |
| | ARC | PI | 5732+64.07 | 1852510.93 | 6547861.18 | 45000.00 | 11791.62 | 15°00'49" | | | 250 | 4.00 | 1.56 | | S 73°56'10" E | S 88°56'59" E | |
| | ARC | CC | | 1897394.68 | 6554614.76 | | | | | | | | | | | | |
| | ARC | CS | 5791+25.91 | 1852402.24 | 6553789.96 | | | | | | | | | | | | |
| | CLOTHOID | CS | 5791+25.91 | 1852402.24 | 6553789.96 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 5796+75.83 | 1852392.16 | 6554339.78 | | 1649.70 | 1°03'01" | 824.84 | 2.52 | | | | | S 88°56'59" E | S 90°00'00" E | |
| | CLOTHOID | ST | 5807+75.61 | 1852392.16 | 6555439.6 | | | | | | | | | | | | |
| | TANGENT | ST | 5807+75.61 | 1852392.16 | 6555439.6 | | 28794.12 | | | | | | | S 90°00'00" E | | | |
| | TANGENT | TS | 6095+69.73 | 1852392.16 | 6584233.72 | | | | | | | | | | | | |
| SR-3-NB | CLOTHOID | TS | 6095+69.73 | 1852392.16 | 6584233.72 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6106+69.95 | 1852392.16 | 6585333.94 | | 1650.30 | 1°03'01" | 825.14 | 2.52 | | | | | S 90°00'00" E | S 88°56'59" E | |
| | CLOTHOID | SC | 6112+20.03 | 1852382.08 | 6585883.96 | | | | | | | | | | | | |
| | ARC | SC | 6112+20.03 | 1852382.08 | 6585883.96 | | | | | | | | | | | | |
| | ARC | PI | 6204+32.27 | 1852213.23 | 6595094.66 | 45016.50 | 18173.56 | 23°07'51" | | | 250 | 4.00 | 1.55 | | S 88°56'59" E | S 65°49'08" E | |
| | ARC | CC | | 1807373.14 | 6585058.86 | | | | | | | | | | | | |
| | ARC | CS | 6293+93.59 | 1848439.7 | 6603498.58 | | | | | | | | | | | | |
| | CLOTHOID | CS | 6293+93.59 | 1848439.7 | 6603498.58 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6299+43.71 | 1848214.36 | 6604000.42 | | 1650.30 | 1°03'01" | 825.14 | 2.52 | | | | | S 65°49'08" E | S 64°46'07" E | |
| | CLOTHOID | ST | 6310+43.89 | 1847745.37 | 6604995.68 | | | | | | | | | | | | |
| | TANGENT | ST | 6310+43.89 | 1847745.37 | 6604995.68 | | 1353.50 | | | | | | | S 64°46'07" E | | | |
| | TANGENT | TS | 6323+97.39 | 1847168.41 | 6606220.04 | | | | | | | | | | | | |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7403A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - NORTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|---------|----------|------------|------------|-------------|------------|-------------|-------------|-----------|--------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| SR-4-NB | CLOTHOID | TS | 6323+97.39 | 1847168.41 | 6606220.04 | | | | | | | | | | | |
| | CLOTHOID | SPI | 6334+97.21 | 1846699.58 | 6607214.94 | | 1649.70 | 1°03'01" | 824.84 | 2.52 | | | | | S 64°46'07" E | S 65°49'08" E |
| | CLOTHOID | SC | 6340+47.09 | 1846474.32 | 6607716.6 | | | | | | | | | | | |
| | ARC | SC | 6340+47.09 | 1846474.32 | 6607716.6 | | | | | | | | | | | |
| | ARC | PI | 6434+31.15 | 1842630.41 | 6616277.26 | 45000.00 | 18502.95 | 23°33'31" | | | 250 | 4.00 | 1.56 | | S 65°49'08" E | S 89°22'40" E |
| | ARC | CC | | 1887525.83 | 6626149.55 | | | | | | | | | | | |
| | ARC | CS | 6525+50.04 | 1842528.49 | 6625660.77 | | | | | | | | | | | |
| | CLOTHOID | CS | 6525+50.04 | 1842528.49 | 6625660.77 | | | | | | | | | | | |
| | CLOTHOID | SPI | 6530+99.96 | 1842522.51 | 6626210.65 | | 1649.70 | 1°03'01" | 824.84 | 2.52 | | | | | S 89°22'40" E | N 89°34'20" E |
| | CLOTHOID | ST | 6541+99.74 | 1842530.73 | 6627310.44 | | | | | | | | | | | |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK GEOMETRY DATA

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ7404A

SCALE
NO SCALE

SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - SOUTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | |
|----------|----------|--------------|--------------|-------------|------------|-------------|-------------|----------|------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE |
| | TANGENT | ST | A 6085+46.45 | 1842427.27 | 6581100.50 | | 16,264.68 | | | | | | | S 89°45'06" E | | |
| | TANGENT | TS | A 6248+11.13 | 1842356.80 | 6597365.02 | | | | | | | | | | | |
| V21-8 | CLOTHOID | TS | A 6248+11.13 | 1842356.80 | 6597365.02 | | | 0°06'46" | | | | | | | S 89°45'06" E | |
| | CLOTHOID | SPI | A 6252+57.79 | 1842354.87 | 6597811.69 | | 670.00 | | 335 | 0.11 | | | | | | S 89°51'53" E |
| | CLOTHOID | SC | A 6254+81.13 | 1842354.34 | 6598035.02 | | | | | | | | | | | |
| | ARC | SC | A 6254+81.13 | 1842354.34 | 6598035.02 | | | 0°14'53" | | | | | | | | S 89°51'53" E |
| | ARC | PI | A 6258+49.28 | 1842353.47 | 6598403.17 | 170,000.00 | 736.31 | | | | 250 | 1.00 | 0.47 | | | N 89°53'14" E |
| | ARC | CC | | 2012353.87 | 6598436.51 | | | | | | | | | | | |
| | ARC | CS | A 6262+17.43 | 1842354.20 | 6598771.32 | | | | | | | | | | | |
| | CLOTHOID | CS | A 6262+17.43 | 1842354.20 | 6598771.32 | | | 0°06'46" | | | | | | | | N 89°53'14" E |
| | CLOTHOID | SPI | A 6264+40.77 | 1842354.64 | 6598994.66 | | 670.00 | | 335 | 0.11 | | | | | | N 89°46'27" E |
| CLOTHOID | ST | A 6268+87.43 | 1842356.40 | 6599441.32 | | | | | | | | | | | | |
| | TANGENT | ST | A 6268+87.43 | 1842356.40 | 6599441.32 | | 12,106.35 | | | | | | | | N 89°46'27" E | |
| | TANGENT | TS | A 6389+93.79 | 1842404.10 | 6611547.58 | | | | | | | | | | | |
| V21-9 | CLOTHOID | TS | A 6389+93.79 | 1842404.10 | 6611547.58 | | | 0°02'53" | | | | | | | | N 89°46'27" E |
| | CLOTHOID | SPI | A 6394+40.45 | 1842405.86 | 6611994.24 | | 670.00 | | 335 | 0.05 | | | | | | N 89°43'35" E |
| | CLOTHOID | SC | A 6396+63.79 | 1842406.92 | 6612217.57 | | | | | | | | | | | |
| | ARC | SC | A 6396+63.79 | 1842406.92 | 6612217.57 | | | 0°07'59" | | | | | | | | N 89°43'35" E |
| | ARC | PI | A 6401+27.95 | 1842409.14 | 6612681.73 | 400,000.00 | 928.33 | | | | 250 | 0.50 | 0.13 | | | N 89°35'36" E |
| | ARC | CC | | 2242402.36 | 6610306.54 | | | | | | | | | | | |
| | ARC | CS | A 6405+92.12 | 1842412.43 | 6613145.89 | | | | | | | | | | | N 89°35'36" E |
| | CLOTHOID | CS | A 6405+92.12 | 1842412.43 | 6613145.89 | | | 0°02'53" | 335 | | | | | | | N 89°32'43" E |
| | CLOTHOID | SPI | A 6408+15.45 | 1842414.02 | 6613369.22 | | 670.00 | | | 0.05 | | | | | | |
| CLOTHOID | ST | A 6412+62.12 | 1842417.56 | 6613815.87 | | | | | | | | | | | | |
| | TANGENT | ST | A 6412+62.12 | 1842417.56 | 6613815.87 | | 6,891.32 | | | | | | | | N 89°32'43" E | |
| | TANGENT | TS | A 6481+53.44 | 1842472.25 | 6620706.97 | | | | | | | | | | | |
| V21-10 | | | | | | | | 0°04'36" | | | | | | | N 89°32'43" E | |
| | CLOTHOID | TS | A 6481+53.44 | 1842472.25 | 6620706.97 | | | | 335 | | | | | | | |
| | CLOTHOID | SPI | A 6486+00.11 | 1842475.80 | 6621153.63 | | 670.00 | | | 0.07 | | | | | | N 89°37'19" E |
| | CLOTHOID | SC | A 6488+23.44 | 1842477.27 | 6621376.96 | | | | | | | | | | | N 89°37'19" E |
| | ARC | SC | A 6488+23.44 | 1842477.27 | 6621376.96 | 250,000.00 | | | | | | | | | | |
| | ARC | PI | A 6488+29.38 | 1842477.31 | 6621382.90 | | 11.89 | | | | 250 | 0.25 | 0.25 | | | N 89°37'29" E |
| | ARC | CC | | 1592482.71 | 6623025.93 | | | | | | | | | | | |
| | ARC | CS | A 6488+35.33 | 1842477.35 | 6621388.84 | | | | | | | | | | | N 89°37'29" E |
| | CLOTHOID | CS | A 6488+35.33 | 1842477.35 | 6621388.84 | | | | 335 | | | | | | | |
| CLOTHOID | SPI | A 6490+58.66 | 1842478.81 | 6621612.17 | | 670.00 | | | 0.07 | | | | | | N 89°42'06" E | |
| CLOTHOID | ST | A 6495+05.33 | 1842481.14 | 6622058.83 | | | | | | | | | | | | |
| | TANGENT | ST | A 6495+05.33 | 1842481.14 | 6622058.83 | | 1,126.57 | | | | | | | | N 89°42'06" E | |
| | TANGENT | POE | A 6506+31.89 | 1842487.01 | 6623185.38 | | | | | | | | | | | |

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DESIGNED BY
A. GURA
 DRAWN BY
J. PAZ
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE
 AVENUE 21
 TRACK GEOMETRY DATA

CONTRACT NO.
 HSR08-05
 DRAWING NO.
 TJ7903
 SCALE
 NO SCALE
 SHEET NO.

TRACK ALIGNMENT DATA SUMMARY TABLE - NORTHBOUND TRACK

| CURVE | ELEMENT | POINT TYPE | STATION | COORDINATES | | RADIUS (FT) | LENGTH (FT) | DELTA, Δ | K | P | DESIGN SPEED (MPH) | ACTUAL SUPERELEVATION (EA)(IN) | UNBALANCED SUPERELEVATION (EA)(IN) | WCB (0°00'00") (TANGENT) | WCB (0°00'00") | | |
|--------|----------|------------|------------|-------------|------------|-------------|-------------|----------|--------|------|--------------------|--------------------------------|------------------------------------|--------------------------|----------------|---------------|---------------|
| | | | | NORTHING | EASTING | | | | | | | | | | START ANGLE | END ANGLE | |
| | TANGENT | ST | 6073+74.12 | 1842443.77 | 6581100.58 | | 16,264.69 | | | | | | | S 89°45'06" E | | | |
| | TANGENT | TS | 6236+38.81 | 1842373.30 | 6597365.11 | | | | | | | | | | | | |
| V21-8 | CLOTHOID | TS | 6236+38.81 | 1842373.30 | 6597365.11 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6240+85.45 | 1842371.37 | 6597811.75 | | 669.97 | 0°06'46" | 334.98 | 0.11 | | | | | S 89°45'06" E | S 89°51'53" E | |
| | CLOTHOID | SC | 6243+08.78 | 1842370.84 | 6598035.07 | | | | | | | | | | | | |
| | ARC | SC | 6243+08.78 | 1842370.84 | 6598035.07 | | | | | | | | | | | | |
| | ARC | PI | 6246+76.88 | 1842369.97 | 6598403.17 | 169,983.50 | 736.20 | 0°14'53" | | | 250 | 1.00 | 0.47 | | S 89°51'53" E | N 89°53'14" E | |
| | ARC | CC | | 2012353.87 | 6598436.51 | | | | | | | | | | | | |
| | ARC | CS | 6250+44.98 | 1842370.70 | 6598771.28 | | | | | | | | | | | | |
| | CLOTHOID | CS | 6250+44.98 | 1842370.70 | 6598771.28 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6252+68.30 | 1842371.14 | 6598994.60 | | 669.97 | 0°06'46" | 334.98 | 0.11 | | | | | | N 89°53'14" E | N 89°46'27" E |
| | CLOTHOID | ST | 6257+14.95 | 1842372.90 | 6599441.24 | | | | | | | | | | | | |
| | TANGENT | ST | 6257+14.95 | 1842372.90 | 6599441.24 | | 12,106.38 | | | | | | | | N 89°46'27" E | | |
| | TANGENT | TS | 6378+21.32 | 1842420.60 | 6611547.52 | | | | | | | | | | | | |
| V21-9 | CLOTHOID | TS | 6378+21.32 | 1842420.60 | 6611547.52 | | | | | | | | | | | | |
| | CLOTHOID | SPI | 6382+67.98 | 1842422.36 | 6611994.17 | | 669.99 | 0°02'53" | 334.99 | 0.05 | | | | | N 89°46'27" E | N 89°43'35" E | |
| | CLOTHOID | SC | 6384+91.31 | 1842423.42 | 6612217.50 | | | | | | | | | | | | |
| | ARC | SC | 6384+91.31 | 1842423.42 | 6612217.50 | | | | | | | | | | | | |
| | ARC | PI | 6389+55.45 | 1842425.64 | 6612681.64 | 399,983.50 | 928.28 | 0°07'59" | | | 250 | 0.50 | 0.13 | | N 89°43'35" E | N 89°35'36" E | |
| | ARC | CC | | 2242402.36 | 6610306.54 | | | | | | | | | | | | |
| | ARC | CS | 6394+19.59 | 1842428.93 | 6613145.76 | | | | | | | | | | | | |
| | CLOTHOID | CS | 6394+19.59 | 1842428.93 | 6613145.76 | | | 0°02'53" | | | | | | | | N 89°35'36" E | N 89°32'43" E |
| | CLOTHOID | SPI | 6396+42.92 | 1842430.52 | 6613369.09 | | 669.99 | | 334.99 | 0.05 | | | | | | | |
| | CLOTHOID | ST | 6400+89.57 | 1842434.06 | 6613815.73 | | | | | | | | | | | | |
| | TANGENT | ST | 6400+89.57 | 1842434.06 | 6613815.73 | | 6,550.38 | | | | | | | | N 89°32'43" E | | |
| | TANGENT | TS | 6466+39.96 | 1842486.05 | 6620365.91 | | | | | | | | | | | | |
| V21-10 | CLOTHOID | TS | 6466+39.96 | 1842486.05 | 6620365.91 | | | 0°02'18" | | | | | | | N 89°32'43" E | | |
| | CLOTHOID | SPI | 6470+86.63 | 1842489.59 | 6620812.57 | | 670.01 | | 335.01 | 0.04 | | | | | | N 89°37'19" E | |
| | CLOTHOID | SC | 6473+09.97 | 1842491.21 | 6621035.90 | | | | | | | | | | | | |
| | ARC | SC | 6473+09.97 | 1842491.21 | 6621035.90 | | | 0°04'46" | | | | | | | | N 89°37'19" E | |
| | ARC | PI | 6476+56.87 | 1842493.74 | 6621382.79 | 500,016.50 | 693.81 | | | | 250 | 0.25 | 0.25 | | | N 89°37'29" E | |
| | ARC | CC | | 1342487.91 | 6624668.96 | | | | | | | | | | | | |
| | ARC | CS | 6480+03.77 | 1842495.77 | 6621729.69 | | | | | | | | | | | | |
| | CLOTHOID | CS | 6480+03.77 | 1842495.77 | 6621729.69 | | | 0°02'18" | | | | | | | | N 89°37'29" E | |
| | CLOTHOID | SPI | 6482+27.11 | 1842497.09 | 6621953.02 | | 670.01 | | 335.01 | 0.04 | | | | | | | N 89°42'06" E |
| | CLOTHOID | ST | 6486+73.79 | 1842499.41 | 6622399.69 | | | | | | | | | | | | |
| | TANGENT | ST | 6486+73.79 | 1842499.41 | 6622399.69 | | 785.62 | | | | | | | | | N 89°42'06" E | |
| | TANGENT | POE | 6494+59.40 | 1842503.51 | 6623185.30 | | | | | | | | | | | | |

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DESIGNED BY
A. GURA
 DRAWN BY
J. PAZ
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE
 AVENUE 21
 TRACK GEOMETRY DATA

CONTRACT NO.
 HSR08-05
 DRAWING NO.
 TJ7906
 SCALE
 NO SCALE
 SHEET NO.

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MAIN LINE AVE 21 SB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR201 | 250 | 34483.5 | 4.25 | 3.00 | 1770 | 460+58.45 | 753+37.60 | T2103-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MAIN LINE SB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR202 | 250 | 43000 | 4.00 | 1.81 | 1200 | 994+31.92 | 1039+69.06 | T2113-A |
| UPRR203 | 250 | 28000 | 6.00 | 2.93 | 2000 | 1549+79.74 | 1629+23.78 | T2123-A |
| UPRR206 | 250 | 42995.5 | 3.25 | 2.56 | 1199.87 | 1702+48.14 | 1736+38.82 | T2126-A |
| UPRR207 | 250 | 43000 | 3.25 | 2.56 | 1200 | 1852+76.45 | 1927+63.38 | T2129-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MERCED CONNECTION SB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR109 | 150 | 32000 | | | 220 | 4586+53.68 | 4598+41.91 | T2200-A |
| UPRR110 | 150 | 23992.86 | 1.25 | 2.50 | 220 | 4598+41.91 | 4608+20.86 | T2200-A |
| UPRR111 | 250 | 28016.5 | 6.00 | 2.93 | 2000 | 4907+26.62 | 4956+59.33 | T2205-A |
| UPRR112 | 250 | 28000 | 6.00 | 2.93 | 2000 | 5050+05.89 | 5108+56.20 | T2208-A |
| UPRR113 | 250 | 28000 | 6.00 | 2.93 | 2000 | 5124+54.02 | 5174+08.99 | T2209-A |
| UPRR114 | 250 | 28016.5 | 6.00 | 2.93 | 2000 | 5232+60.88 | 5291+48.79 | T2211-A |
| UPRR115 | 150 | 10000 | 6.00 | 3.00 | 1200 | 5981+82.99 | 6030+04.80 | T2225-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR WYE-SB CONNECTION AVE 21

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR118 | 150 | 32000 | | | 220 | 105+00 | 115+14.35 | T2260-A |
| UPRR119 | 150 | 24000.00 | 1.25 | 2.50 | 220 | 115+14.35 | 123+63.11 | T2260-A |
| UPRR120 | 140 | 8815.0 | 6.00 | 2.89 | 1200 | 159+29.36 | 366+54.03 | T2261-A |
| UPRR121 | 150 | 32000 | 3.19 | 2.81 | 220 | 406+82.55 | 416+33.89 | T2266-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MAIN LINE AVE 21 NB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR101 | 250 | 34500 | 4.25 | 3.00 | 1770 | 144+45.26 | 554+79.66 | T2303-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MAIN LINE NB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR102 | 250 | 43016.5 | 4.00 | 1.81 | 1200 | 995+50.80 | 1039+89.46 | T2113-A |
| UPRR103 | 250 | 27983.50 | 6.00 | 2.93 | 2000 | 1529+24.47 | 1651+63.77 | T2123-A |
| UPRR106 | 250 | 43013 | 3.25 | 2.56 | 1200 | 1714+43.54 | 1736+35.77 | T2125-A |
| UPRR107 | 250 | 43016.5 | 3.25 | 2.56 | 1200 | 1864+73.63 | 1915+62.74 | T2229-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR MERCED CONNECTION NB

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR109 | 150 | 32000 | | | 220 | 4586+53.68 | 4598+41.91 | T2200-A |
| UPRR110 | 150 | 23992.86 | 1.25 | 2.50 | 220 | 4598+41.91 | 4608+20.86 | T2123-A |
| UPRR211 | 250 | 28000 | 6.00 | 2.93 | 2000 | 4623+49.83 | 4656+64.10 | T2205-A |
| UPRR212 | 250 | 28016.5 | 6.00 | 2.93 | 2000 | 4681+01.16 | 4714+15.43 | T2208-A |
| UPRR213 | 250 | 28016.5 | 6.00 | 2.93 | 2000 | 5124+54.94 | 5174+11.64 | T2209-A |
| UPRR214 | 250 | 28000 | 6.00 | 2.93 | 2000 | 5232+63.53 | 5291+49.15 | T2211-A |
| UPRR215 | 150 | 10016.5 | 6.00 | 3.00 | 1200 | 5971+67.56 | 6040+06.61 | T2225-A |

TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - UPRR WYE - NB CONNECTION AVE 21

| CURVE | DESIGN SPEED (V) (MPH) | RADIUS (R) (FT) | ACTUAL SUPERELEVATION (Ea) (IN) | UNBALANCED SUPERELEVATION (Eu) (IN) | SPIRAL LENGTH (Ls) (FT) | BEGIN STATION | END STATION | BEGIN DRAWING |
|---------|------------------------|-----------------|---------------------------------|-------------------------------------|-------------------------|---------------|-------------|---------------|
| UPRR218 | 150 | 32000 | | | 220 | 505+00 | 517+72.80 | T2250-A |
| UPRR219 | 150 | 24020.25 | 1.25 | 2.50 | 220 | 517+72.80 | 527+52.23 | T2150-A |
| UPRR220 | 140 | 9000 | 6.00 | 2.71 | 1200 | 586+22.35 | 799+74.69 | T2251-A |
| UPRR221 | 150 | 24020.25 | 1.25 | 2.50 | 220 | 825+26.57 | 835+29.26 | T2155-A |
| UPRR222 | 150 | 32000 | 3.19 | 2.81 | 220 | 835+29.26 | 846+93.43 | T2256-A |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
T. WALTZ
CHECKED BY
A. SHIELDS
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 ALIGNMENT
AVENUE 21
TRACK GEOMETRY DATA
SHEET 1 OF 1

CONTRACT NO.
HSR06-007
DRAWING NO.
T0151-A
SCALE
NO SCALE
SHEET NO.
OF

GENERAL NOTES:

1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
3. SEE STRUCTURES, VIADUCT AND TUNNEL PLANS FOR DETAILED CROSS SECTIONS OF STRUCTURES.
4. BALLASTED OR UNBALLASTED TRACK STRUCTURE TO BE DETERMINED.

**SECTION A-A
TANGENT**

STATION 5367+74.09 TO 5468+71.16

SUPERELEVATED

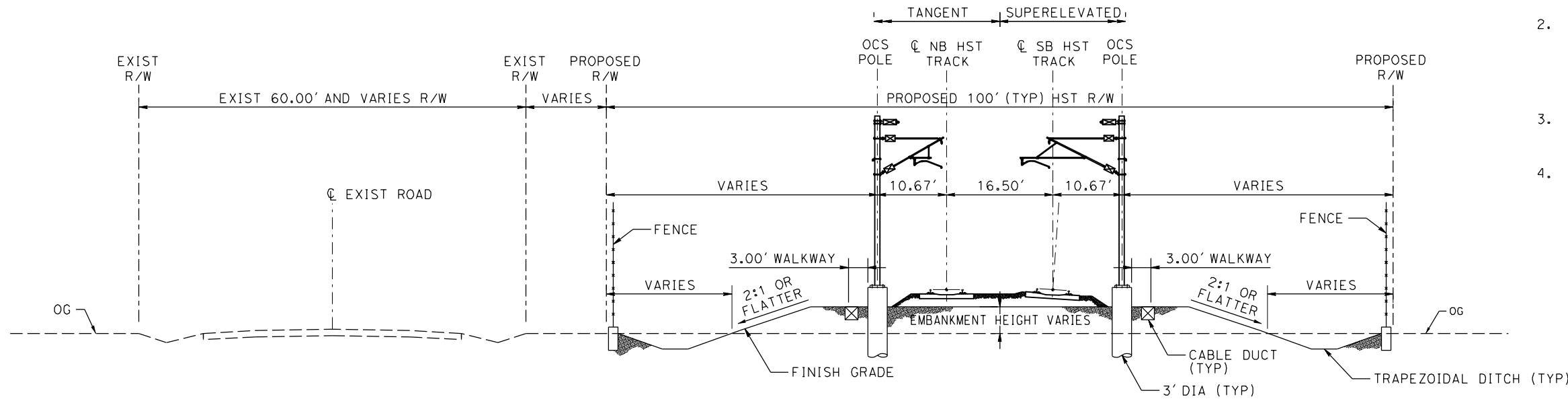
STATION 5468+71.16 TO 5494+50.00

**SECTION B-B
TANGENT**

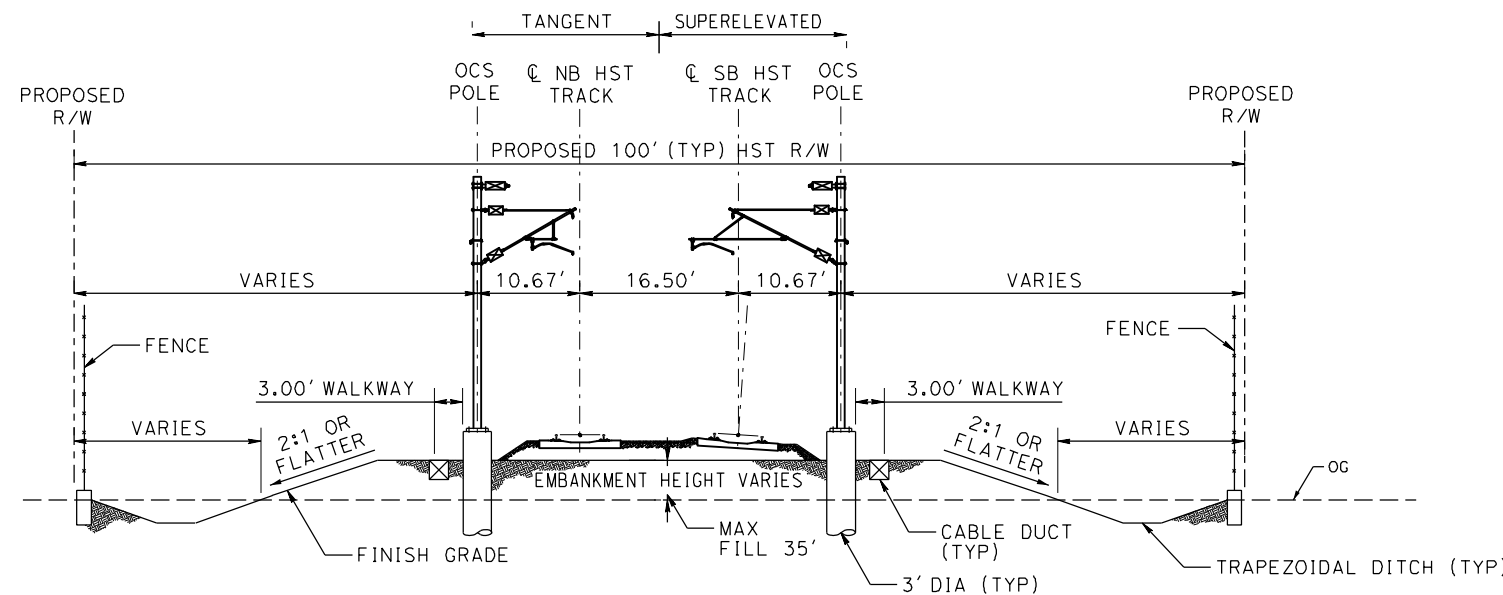
STATION 5944+30.06 TO 6095+69.95
STATION 6310+36.54 TO 6323+90.04

SUPERELEVATED

STATION 5494+50.00 TO 5582+51.76
STATION 6095+69.95 TO 6147+15.51
STATION 6277+56.72 TO 6310+30.54
STATION 6323+90.04 TO 6542+00.08



**SECTION A-A
TRACK ON EMBANKMENT WITH ADJACENT ROAD**



**SECTION B-B
TRACK ON EMBANKMENT WITH ADJACENT ROAD**

NOTE:
POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS



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| | | | | | |

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TYPICAL SECTION

CONTRACT NO.
HSR08-05

DRAWING NO.
TJ3401A

SCALE
1"=10'

SHEET NO.

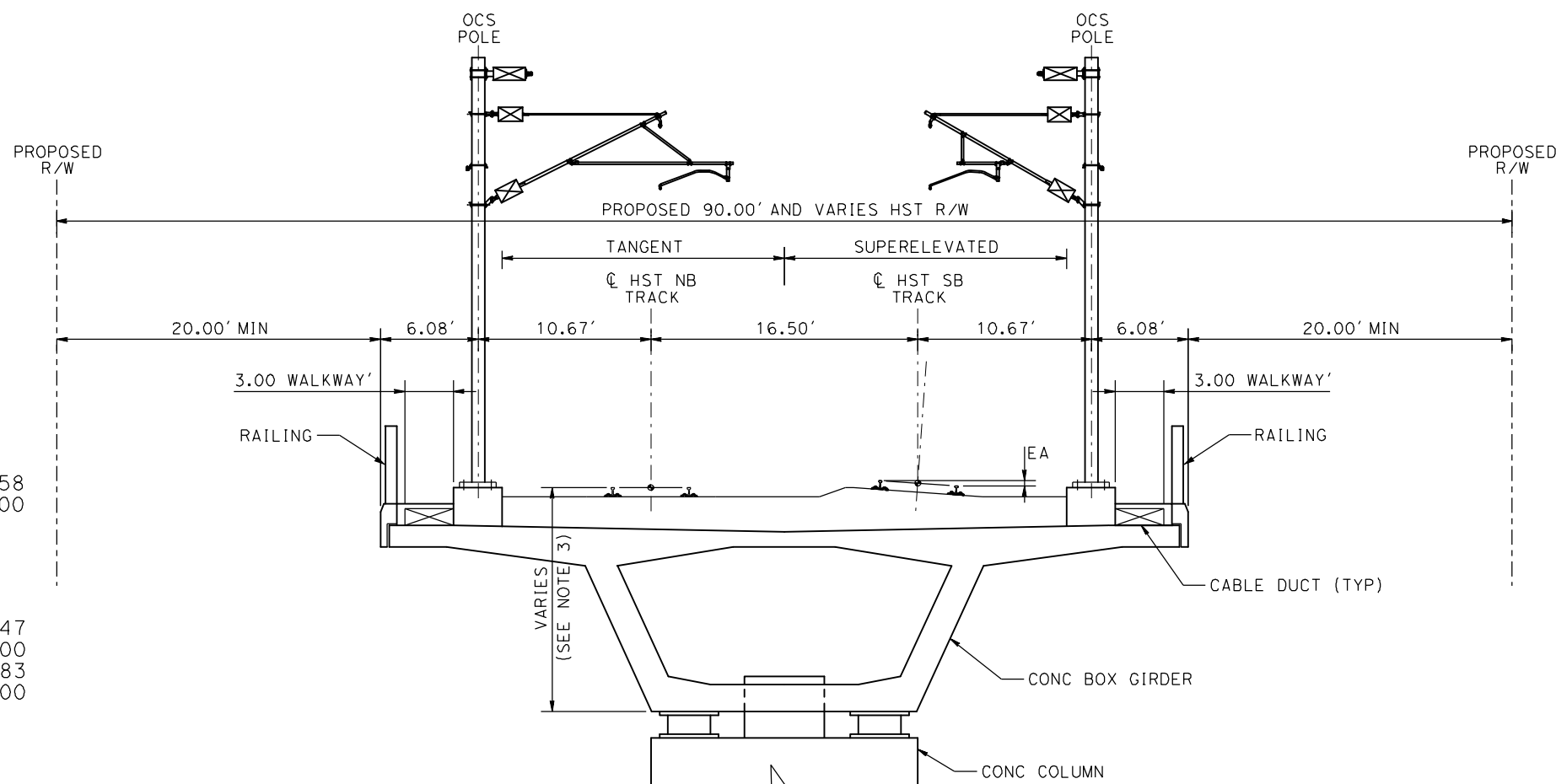
NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS

SECTION A-A
 TANGENT

STATION 5617+79.47 TO 5656+79.58
 STATION 5807+75.83 TO 5906+50.00

SUPERELEVATED

STATION 5617+00.00 TO 5617+79.47
 STATION 5656+79.58 TO 5703+50.00
 STATION 5764+00.00 TO 5807+75.83
 STATION 6178+00.00 TO 6248+00.00



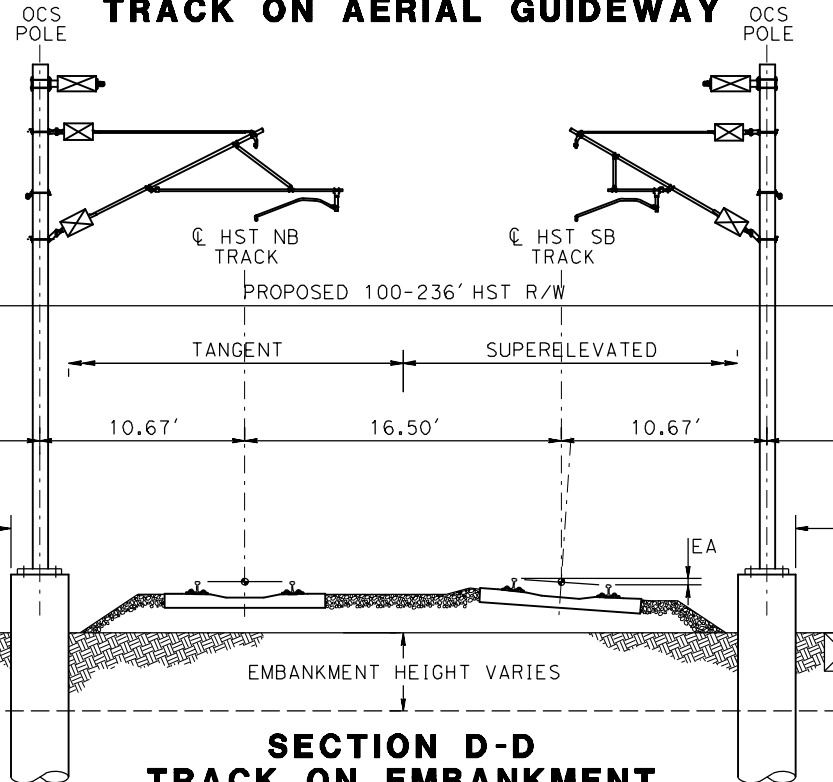
SECTION B-B
 TANGENT

STATION 5906+50.00 TO 5944+30.06

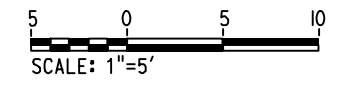
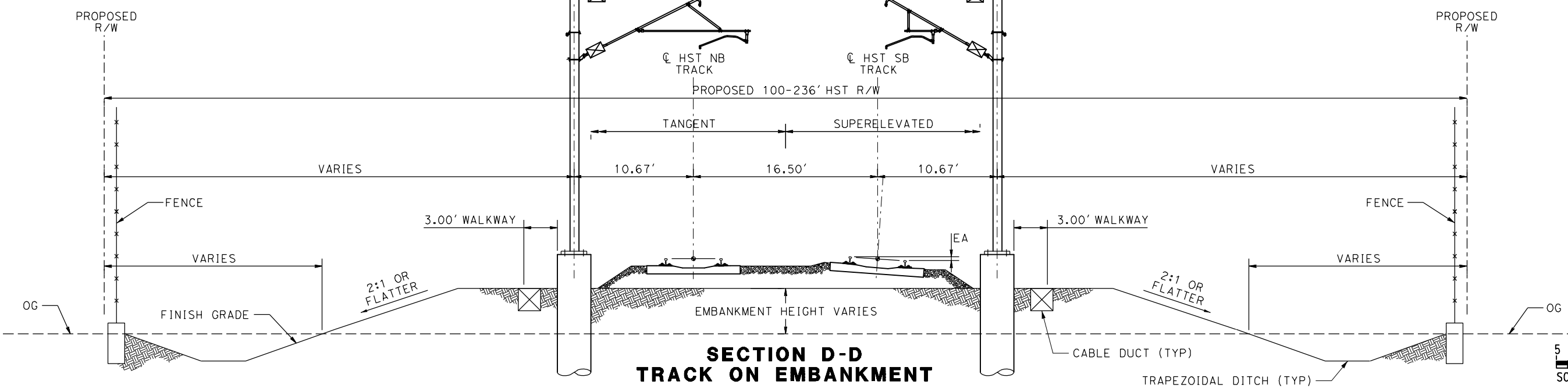
SUPERELEVATED

STATION 5582+51.76 TO 5617+00.00
 STATION 5703+50.00 TO 5764+00.00
 STATION 6147+15.51 TO 6178+00.00
 STATION 6248+00.00 TO 6277+56.72

SECTION C-C
 TRACK ON AERIAL GUIDEWAY



SECTION D-D
 TRACK ON EMBANKMENT



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| | | | | | |

DESIGNED BY
P. JACOBY
 DRAWN BY
ALBERT S.
 CHECKED BY
RESHMA C.
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY

NOT FOR
CONSTRUCTION

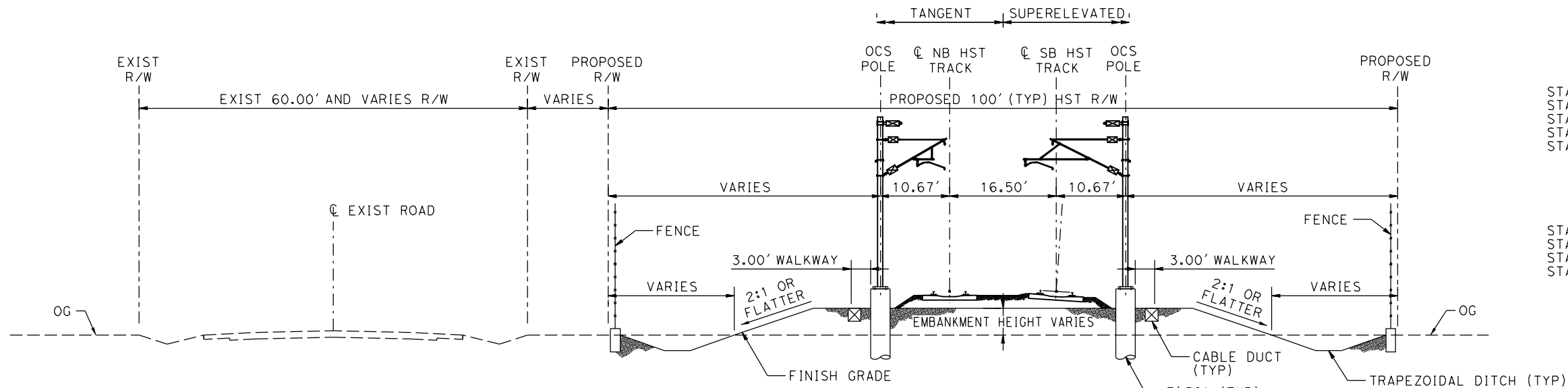


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE
 AVENUE 24/SR152/AVENUE 21
 TYPICAL SECTION

CONTRACT NO.
HSR08-05
 DRAWING NO.
TJ3402A
 SCALE
1"=5'
 SHEET NO.

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS



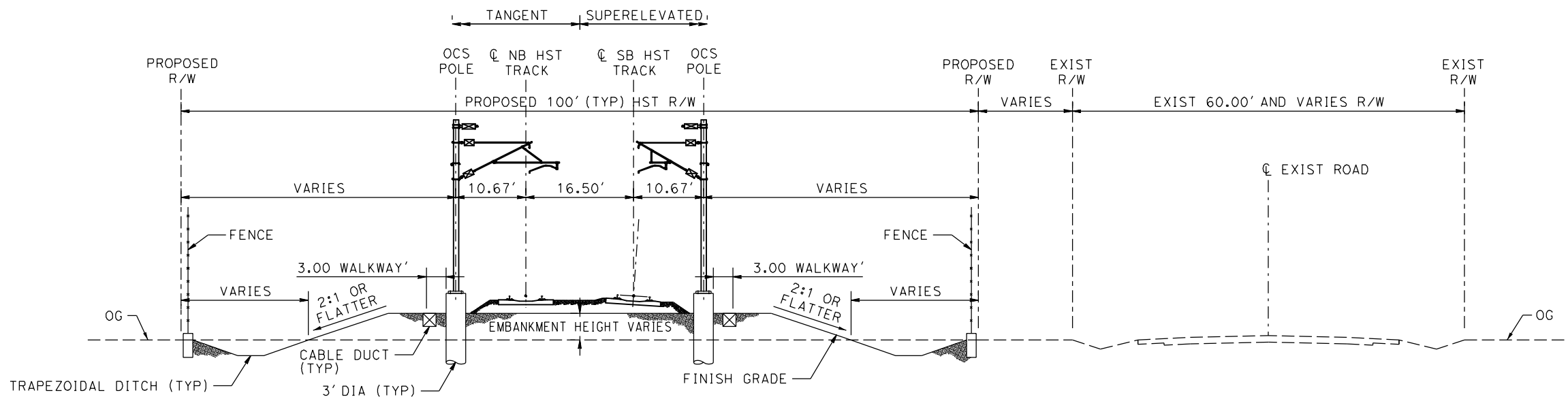
**SECTION C-C
TRACK ON EMBANKMENT WITH ADJACENT ROAD**

**SECTION C
TANGENT**

STATION A 4695+35.55 TO A 4697+25.00
 STATION A 4782+00.00 TO A 4821+82.78
 STATION A 4842+01.13 TO A 4956+10.00
 STATION A 5038+90.00 TO A 5254+31.95
 STATION A 5289+21.13 TO A 5367+74.09

SUPERELEVATED

STATION A 4663+00.00 TO A 4695+35.55
 STATION A 4821+82.78 TO A 4842+01.13
 STATION A 5254+31.95 TO A 5289+21.13
 STATION A 5367+74.09 TO A 5400+00.00



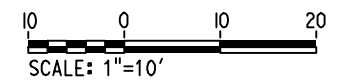
**SECTION D-D
TRACK ON EMBANKMENT WITH ADJACENT ROAD**

**SECTION D
TANGENT**

STATION A 5953+15.11 TO A 6065+36.88
 STATION A 6085+46.45 TO A 6097+25.00
 STATION A 6163+75.00 TO A 6248+11.13
 STATION A 6268+87.43 TO A 6389+93.79
 STATION A 6412+62.12 TO A 6748+12.50
 STATION A 6498+46.27 TO A 6506+31.89

SUPERELEVATED

STATION A 4639+00.00 TO A 4663+00.00
 STATION A 5900+95.00 TO A 5953+15.11
 STATION A 6065+36.88 TO A 6085+46.45
 STATION A 6248+11.13 TO A 6268+87.43
 STATION A 6389+93.79 TO A 6412+62.12
 STATION A 6748+12.50 TO A 6498+46.27

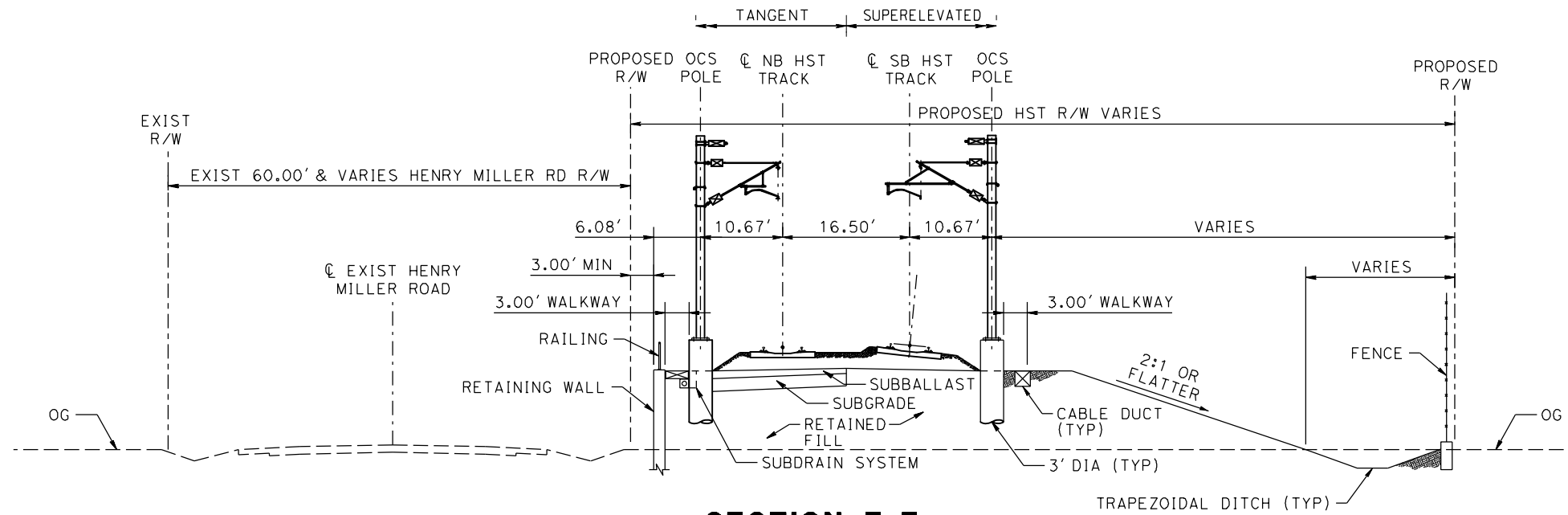


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|--------------------------------|---|--|--|--|--------------------------|
| DESIGNED BY A. GURA | 15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY NOT FOR CONSTRUCTION | | | CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO UPRR/SR 99 MAIN LINE AVENUE 21 TYPICAL SECTIONS SHEET 2 OF 3 | CONTRACT NO. HSR08-05 |
| DRAWN BY S. HICKS | | | | | DRAWING NO. TJ3902 |
| CHECKED BY S. GOOLLA | | | | | SCALE 1"=10' |
| IN CHARGE D. WEMMER | | | | | SHEET NO. |
| DATE 4/15/2011 | | | | | |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
| | 4/15/11 | | | | DRAFT 15% SUBMITTAL |

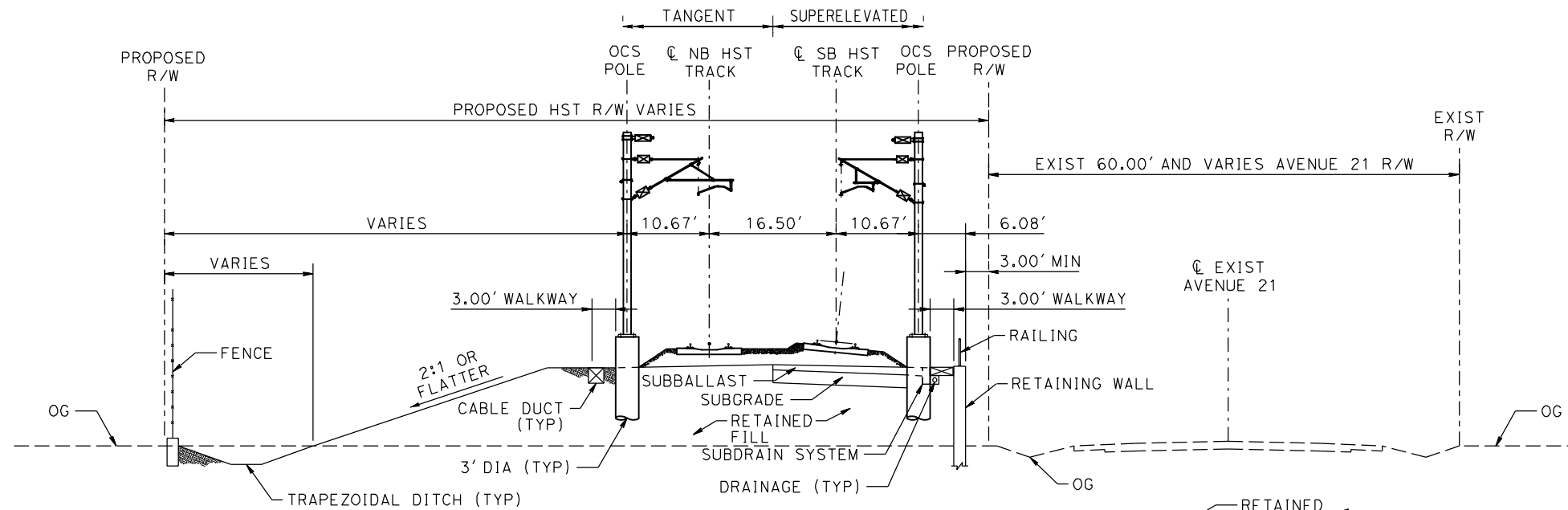
NOTE: POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS



**SECTION E-E
TYPICAL SECTION WITH RETAINED FILL ON LEFT**

TANGENT
STATION A 4697+25 TO A 4723+88
STATION A 4767+88 TO A 4782+00

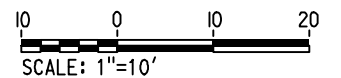
SUPERELEVATED
N/A



**SECTION E-E
TYPICAL SECTION WITH RETAINED FILL ON RIGHT**

TANGENT
STATION A 6097+25 TO A 6116+75
STATION A 6142+00 TO A 6163+75

SUPERELEVATED
N/A



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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. GURA
DRAWN BY
A. GURA
CHECKED BY
S. GOOLLA
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 21
TYPICAL SECTIONS
SHEET 3 OF 3

CONTRACT NO.
HSR08-05
DRAWING NO.
TJ3903
SCALE
1" = 10'
SHEET NO.

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| ALTERNATIVE HYBRID AVENUE 24 | | | | |
|------------------------------|------------------------------|-------------|---------|------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION | |
| HYBRID 24 | 892+90 | 926+80 | AG2 | |
| | 926+80 | 1020+00 | WYE1 | |
| | 1020+00 | 1185+00 | AG2 | |
| | 1185+00 | 1230+00 | WYE1 | |
| | 1230+00 | 1360+00 | AG2 | |
| | 1360+00 | 1375+00 | RF2 | |
| | 1375+00 | 1435+00 | EL1 | |
| | 1435+00 | 1443+00 | RF2 | |
| | 1443+00 | 2681+00 | AG2 | |
| | 2681+00 | 2695+00 | RF2 | |
| | 2695+00 | 2731+50 | EL1 | |
| | 2731+50 | 2740+55 | EL5 | |
| | HYBRID-FR | 1713+98 | 1737+00 | EL6 |
| | | 1737+00 | 1764+78 | EL7 |
| 1764+78 | | 1767+00 | EL8 | |
| 1767+00 | | 1788+84 | RF3 | |
| 1788+84 | | 1843+35 | AG6 | |
| 1843+35 | | 1893+95 | RF3 | |
| 1893+95 | | 1958+00 | AG6 | |
| 1958+00 | | 2072+36 | AG7 | |
| UPRR/SR 99 WCDO/HYBRID MC SB | 5061+66 | 5015+00 | WYE1 | |
| | 5015+00 | 5235+00 | AG4 | |
| | 5235+00 | 5285+00 | WYE 1 | |
| | 5288+00 | 5556+91 | AG2 | |
| UPRR/SR 99 WCDO/HYBRID MC NB | 5058+80 | 5110+00 | WYE1 | |
| | 5110+00 | 5121+00 | EL2 | |
| | 5121+00 | 5127+00 | RF2 | |
| | 5127+00 | 5235+00 | AG4 | |
| | 5235+00 | 5285+00 | WYE1 | |
| | 5285+00 | 5597+00 | AG2 | |
| UPRR/SR 99-21MC | 5556+98 | 5910+00 | AG1 | |
| | 5910+00 | 5916+50 | TR2 | |
| | 5916+50 | 5917+60 | CC1 | |
| | 5917+60 | 5925+00 | TR2 | |
| | 5925+00 | 5977+70 | AG1 | |
| | 5977+70 | 5989+20 | TR2 | |
| | 5989+20 | 5990+20 | CC1 | |
| | 5990+20 | 6003+00 | TR2 | |
| | 6003+00 | 6022+00 | AG1 | |
| | 6022+00 | 6040+60 | TR2 | |
| | 6040+60 | 6042+90 | CC1 | |
| | 6042+90 | 6052+50 | TR1 | |
| | 6052+50 | 6066+20 | AG5 | |
| | UPRR/SR 99 WCDO/HYBRID WC NB | 148+82 | 205+00 | WYE1 |
| 205+00 | | 211+00 | EL2 | |
| 211+00 | | 219+00 | RF2 | |
| 219+00 | | 313+50 | AG4 | |
| 313+50 | | 320+00 | RF2 | |
| 320+00 | | 330+00 | EL2 | |
| 330+00 | | 382+25 | WYE1 | |
| 382+25 | | 382+25 | WYE1 | |
| UPRR/SR 99 WCDO/HYBRID WC SB | 524+67 | 570+00 | WYE1 | |
| | 570+00 | 695+00 | AG4 | |
| | 695+00 | 738+88 | WYE1 | |
| | 738+88 | 738+88 | WYE1 | |

| ALTERNATIVE HYBRID AVENUE 21 | | | | |
|------------------------------|--------------------|-------------|---------|------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION | |
| HYBRID 21 | 892+90 | 330+00 | AG2 | |
| | 330+00 | 430+00 | WYE1 | |
| | 430+00 | 565+00 | AG2 | |
| | 565+00 | 580+00 | RF2 | |
| | 580+00 | 630+00 | EL1 | |
| | 630+00 | 640+00 | RF2 | |
| | 640+00 | 680+00 | WYE1 | |
| | 680+00 | 868+87= | AG2 | |
| | 868+87= | 2681+00 | AG2 | |
| | 2681+00 | 2695+00 | RF2 | |
| | 2695+00 | 2731+50 | EL1 | |
| | 2731+50 | 2740+55 | EL5 | |
| | HYBRID-FR | 1713+98 | 1737+00 | EL6 |
| | | 1737+00 | 1764+78 | EL7 |
| 1764+78 | | 1767+00 | EL8 | |
| 1767+00 | | 1788+84 | RF3 | |
| 1788+84 | | 1843+35 | AG6 | |
| 1843+35 | | 1893+95 | RF3 | |
| 1893+95 | | 1958+00 | AG6 | |
| 1958+00 | | 2072+36 | AG7 | |
| HYBRID MC SB - 21 | 200+20 | 250+00 | WYE1 | |
| | 250+00 | 290+00 | EL2 | |
| | 290+00 | 377+99 | EL1 | |
| | 377+99 | 377+99 | EL1 | |
| HYBRID MC NB - 21 | 500+00 | 550+00 | WYE1 | |
| | 550+00 | 590+00 | EL2 | |
| | 590+00 | 677+40 | EL1 | |
| | 677+40 | 677+40 | EL1 | |
| UPRR/SR 99-21MC | 4907+27 | 4975+00 | EL1 | |
| | 4975+00 | 5045+00 | WYE2 | |
| | 5045+00 | 5385+00 | EL1 | |
| | 5385+00 | 5425+00 | RF2 | |
| | 5425+00 | 5910+00 | AG1 | |
| | 5910+00 | 5915+50 | TR2 | |
| | 5915+50 | 5916+60 | CC1 | |
| | 5916+60 | 5924+00 | TR2 | |
| | 5924+00 | 5977+70 | AG1 | |
| | 5977+70 | 5989+30 | TR2 | |
| UPRR/SR 99-21WC NB | 505+00 | 610+00 | WYE1 | |
| | 610+00 | 619+50 | EL2 | |
| | 619+50 | 628+35 | RF1 | |
| | 628+35 | 714+80 | AG4 | |
| | 714+80 | 724+20 | RF1 | |
| | 724+20 | 780+00 | EL2 | |
| | 780+00 | 846+94 | WYE2 | |
| | 846+94 | 846+94 | WYE2 | |
| | UPRR/SR 99-21WC SB | 105+00 | 180+00 | WYE1 |
| | | 180+00 | 298+80 | AG4 |
| | | 298+80 | 313+21 | RF1 |
| | | 313+21 | 340+00 | EL2 |
| | | 340+00 | 397+52 | WYE2 |
| | | 397+52 | 397+52 | WYE2 |

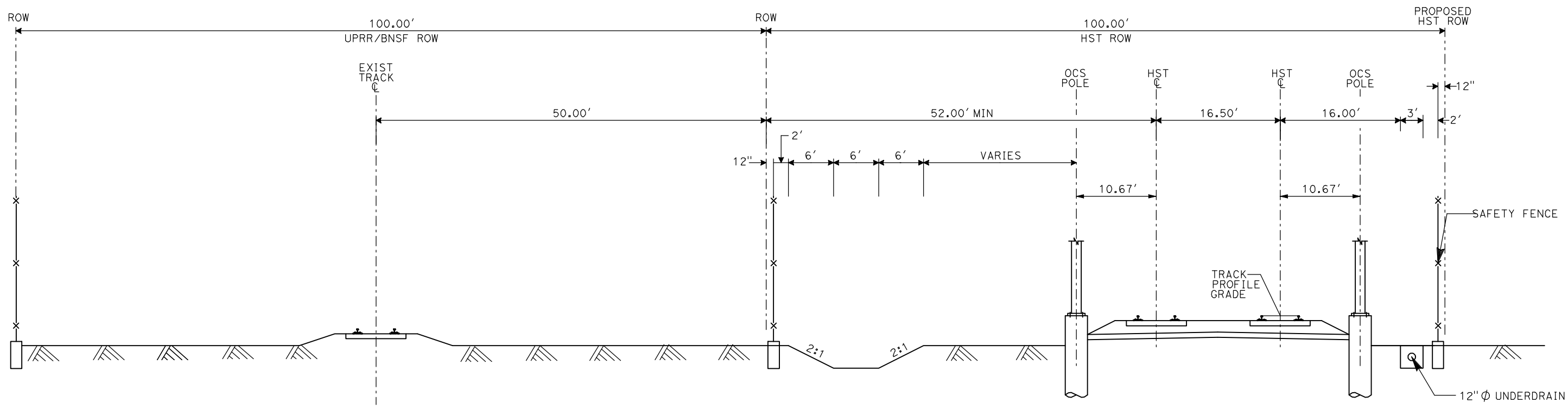
| ALTERNATIVE BNSF AVENUE 21 | | | |
|----------------------------|---------------|-------------|---------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION |
| BNSF-21ML | 267+41 | 562+00 | AG2 |
| | 562+00 | 582+61 | RF2 |
| | 582+61 | 634+76 | EL1 |
| | 634+76 | 665+80 | RF2 |
| | 665+80 | 859+40 | AG2 |
| | 859+40 | 881+05 | RF2 |
| | 881+05 | 925+00 | EL1 |
| | 925+00 | 985+00 | WYE1 |
| | 985+00 | 1042+75 | EL1 |
| | 1042+75 | 1060+00 | RF2 |
| | 1060+00 | 1305+00 | AG1 |
| | 1305+00 | 1685+00 | AG2 |
| | 1685+00 | 1696+00 | RF2 |
| | 1696+00 | 1731+50 | EL1 |
| BNSF-FR | 1713+98 | 1737+00 | EL6 |
| | 1737+00 | 1764+78 | EL7 |
| | 1764+78 | 1767+00 | EL8 |
| | 1767+00 | 1788+84 | RF3 |
| | 1788+84 | 1843+35 | AG6 |
| | 1843+35 | 1893+95 | RF3 |
| | 1893+95 | 1958+00 | AG6 |
| | 1958+00 | 2072+36 | AG7 |
| BNSF-21WC NB | 105+85 | 205+00 | WYE2 |
| | 205+00 | 220+66 | EL2 |
| | 220+66 | 230+00 | RF1 |
| | 230+00 | 357+00 | AG4 |
| | 357+00 | 371+02 | RF1 |
| | 371+02 | 383+00 | EL2 |
| BNSF-21WC SB | 383+00 | 474+09 | WYE1 |
| | 474+09 | 474+09 | WYE1 |
| | 500+00 | 550+00 | WYE2 |
| | 550+00 | 720+00 | AG4 |
| BNSF-MC | 4302+03 | 4345+02 | EL2 |
| | 4345+02 | 4351+00 | RF1 |
| | 4351+00 | 4405+00 | WYE1 |
| | 4405+00 | 5296+45 | AG1 |
| | 5296+45 | 5266+88 | RF2 |
| | 5266+88 | 5352+88 | EL3 |
| | 5352+88 | 5371+50 | RF2 |
| | 5371+50 | 5850+85 | AG1 |
| | 5850+85 | 5866+57 | RF2 |
| | 5866+57 | 5960+00 | EL1 |
| | 5960+00 | 5967+00 | RF2 |
| | 5967+00 | 5977+70 | AG1 |
| | 5977+70 | 5989+20 | TR2 |
| | 5989+20 | 5990+20 | CC1 |
| 5990+20 | 6003+00 | TR2 | |
| BNSF-24ML | 892+90 | 1185+00 | AG2 |
| | 1185+00 | 1235+00 | WYE1 |
| | 1235+00 | 1332+20 | AG2 |
| | 1332+20 | 1350+84 | RF2 |
| | 1350+84 | 1430+00 | WYE2 |
| | 1430+00 | 1431+49 | EL1 |
| | 1431+49 | 1451+90 | RF2 |
| | 1451+90 | 1864+25 | AG2 |
| BNSF-24WC NB | 1864+25 | 1881+05 | RF2 |
| | 1881+05 | 1890+17 | EL1 |
| | 1890+17 | 1890+17 | EL1 |
| | 104+65 | 195+00 | WYE2 |
| | 195+00 | 220+66 | EL2 |
| | 220+66 | 227+55 | RF1 |
| | 227+55 | 400+70 | AG4 |
| | 400+70 | 438+00 | RF1 |
| BNSF-24WC SB | 438+00 | 450+00 | EL2 |
| | 450+00 | 477+55 | WYE1 |
| | 477+55 | 508+20 | RF1 |
| | 508+20 | 576+13 | AG4 |
| | 576+13 | 576+13 | AG4 |
| | 576+13 | 576+13 | AG4 |

| ALTERNATIVE BNSF AVENUE 24 | | | |
|----------------------------|---------------|-------------|---------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION |
| BNSF-24ML | 892+90 | 1185+00 | AG2 |
| | 1185+00 | 1235+00 | WYE1 |
| | 1235+00 | 1332+20 | AG2 |
| | 1332+20 | 1350+84 | RF2 |
| | 1350+84 | 1430+00 | WYE2 |
| | 1430+00 | 1431+49 | EL1 |
| | 1431+49 | 1451+90 | RF2 |
| | 1451+90 | 1864+25 | AG2 |
| | 1864+25 | 1881+05 | RF2 |
| | 1881+05 | 1890+17 | EL1 |
| | 1890+17 | 1890+17 | EL1 |
| | 104+65 | 195+00 | WYE2 |
| | 195+00 | 220+66 | EL2 |
| | 220+66 | 227+55 | RF1 |
| BNSF-24WC SB | 227+55 | 400+70 | AG4 |
| | 400+70 | 438+00 | RF1 |
| | 438+00 | 450+00 | EL2 |
| | 450+00 | 477+55 | WYE1 |
| | 477+55 | 508+20 | RF1 |
| | 508+20 | 576+13 | AG4 |

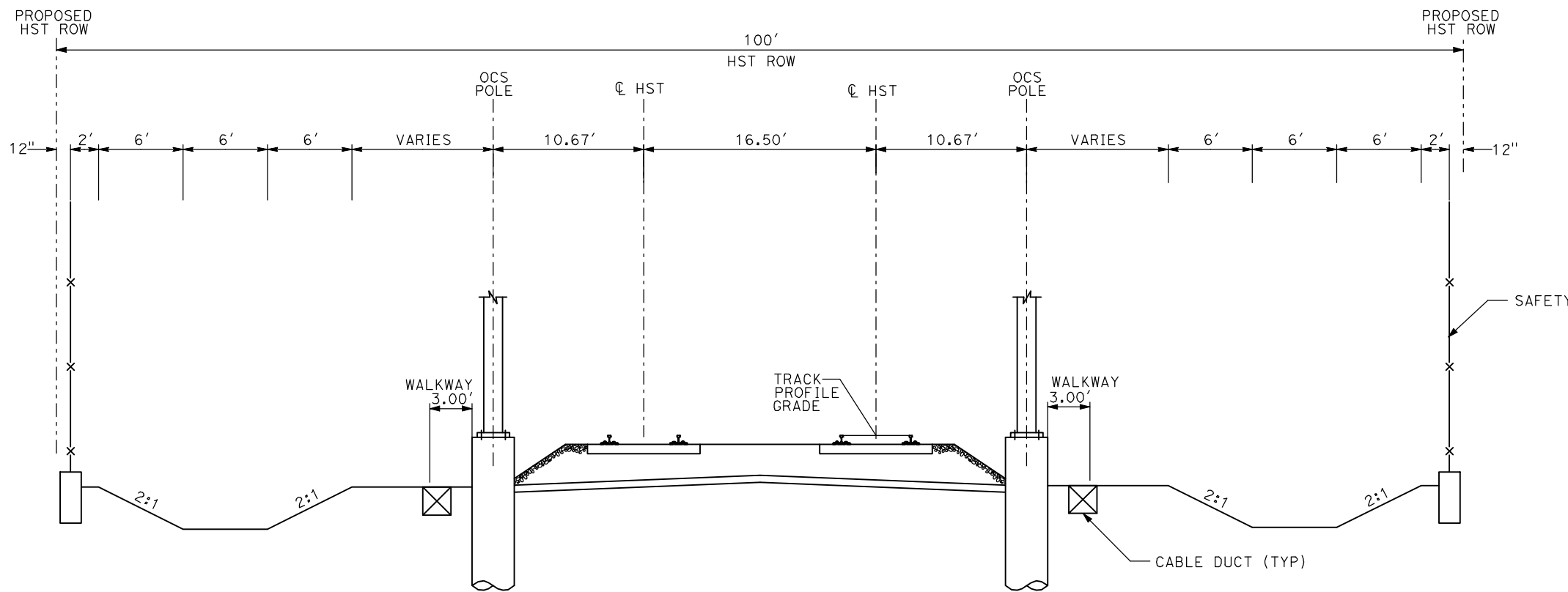
| ALTERNATIVE UPRR/SR 99 AVENUE 21 | | | |
|----------------------------------|---------------|-------------|---------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION |
| UPRR/SR 99-21ML | 270+60 | 604+70 | AG2 |
| | 604+70 | 626+28 | RF2 |
| | 626+28 | 715+00 | EL1 |
| | 715+00 | 805+00 | WYE1 |
| | 805+00 | 1294+33 | EL1 |
| | 1294+33 | 1305+00 | RF2 |
| | 1305+00 | 1570+00 | AG1 |
| | 1570+00 | 1593+20 | TR2 |
| | 1593+20 | 1594+10 | CC1 |
| | 1594+10 | 1610+00 | TR2 |
| | 1610+00 | 1615+00 | AG1 |
| | 1615+00 | 1622+00 | RF2 |
| | 1622+00 | 1635+00 | EL1 |
| | 1635+00 | 1633+24 | EL5 |
| UPRR/SR 99-FR | 1713+98 | 1737+00 | EL6 |
| | 1737+00 | 1764+78 | EL7 |
| | 1764+78 | 1767+00 | EL8 |
| | 1767+00 | 1788+84 | RF3 |
| | 1788+84 | 1843+35 | AG6 |
| | 1843+35 | 1893+95 | RF3 |
| | 1893+95 | 1958+00 | AG6 |
| | 1958+00 | 2072+36 | AG7 |
| UPRR/SR 99-21WC NB | 505+00 | 610+00 | WYE1 |
| | 610+00 | 619+50 | EL2 |
| | 619+50 | 628+35 | RF1 |
| | 628+35 | 714+80 | AG4 |
| | 714+80 | 724+20 | RF1 |
| | 724+20 | 780+00 | EL2 |
| | 780+00 | 846+94 | WYE2 |
| | 846+94 | 846+94 | WYE2 |
| UPRR/SR 99-21WC SB | 105+00 | 180+00 | WYE1 |
| | 180+00 | 298+80 | AG4 |
| | 298+80 | 313+21 | RF1 |
| | 313+21 | 340+00 | EL2 |
| | 340+00 | 397+52 | WYE2 |
| | 397+52 | 397+52 | WYE2 |
| UPRR/SR 99-21MC | 4586+50 | 4670+00 | WYE1 |
| | 4670+00 | 4796+00 | AG1 |
| | 4796+00 | 4810+00 | RF2 |
| | 4810+00 | 4975+00 | EL1 |
| | 4975+00 | 5045+00 | WYE2 |
| | 5045+00 | 5385+00 | EL1 |
| | 5385+00 | 5425+00 | RF2 |
| | 5425+00 | 5910+00 | AG1 |
| | 5910+00 | 5915+50 | TR2 |
| | 5915+50 | 5916+60 | CC1 |
| | 5916+60 | 5924+00 | TR2 |
| | 5924+00 | 5977+70 | AG1 |
| | 5977+70 | 5989+30 | TR2 |
| | 5989+30 | 5990+40 | CC1 |

| ALTERNATIVE UPRR/SR 99 AVENUE 24 | | | |
|----------------------------------|---------------|-------------|---------|
| ALIGNMENT | BEGIN STATION | END STATION | SECTION |
| UPRR/SR 99-24ML | 917+20 | 965+00 | AG2 |
| | 965+00 | 1030+00 | WYE1 |
| | 1030+00 | 1330+00 | AG2 |
| | 1330+00 | 1380+00 | RF2 |
| | 1380+00 | 1515+00 | EL1 |
| | 1515+00 | 1590+00 | EL5 |
| | 1590+00 | 1590+00 | EL5 |
| | 1590+00 | 1590+00 | EL5 |
| UPRR/SR 99-24WC NB | 105+00 | 205+00 | WYE1 |
| | 205+00 | 220+00 | EL2 |
| | 220+00 | 227+00 | RF1 |
| | 227+00 | 349+90 | AG4 |
| | 349+90 | 494+12 | AG2 |
| | 494+12 | 521+00 | AG4 |
| | 521+00 | 527+00 | RF1 |
| | 527+00 | 555+00 | EL2 |
| UPRR/SR 99-24WC SB | 555+00 | 626+90 | WYE1 |
| | 626+90 | 626+90 | WYE1 |
| | 705+00 | 775+00 | WYE1 |
| | 775+00 | 921+72 | AG4 |
| | 921+72 | 1062+85 | AG2 |
| | 1062+85 | 1130+00 | AG4 |
| UPRR/SR 99-24MC | 1130+00 | 1191+24 | WYE 1 |
| | 1191+24 | 1191+24 | WYE 1 |
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AG1- DOUBLE TRACK AT GRADE ADJACENT TO UPRR/BNSF



AG2 - DOUBLE TRACK AT GRADE

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

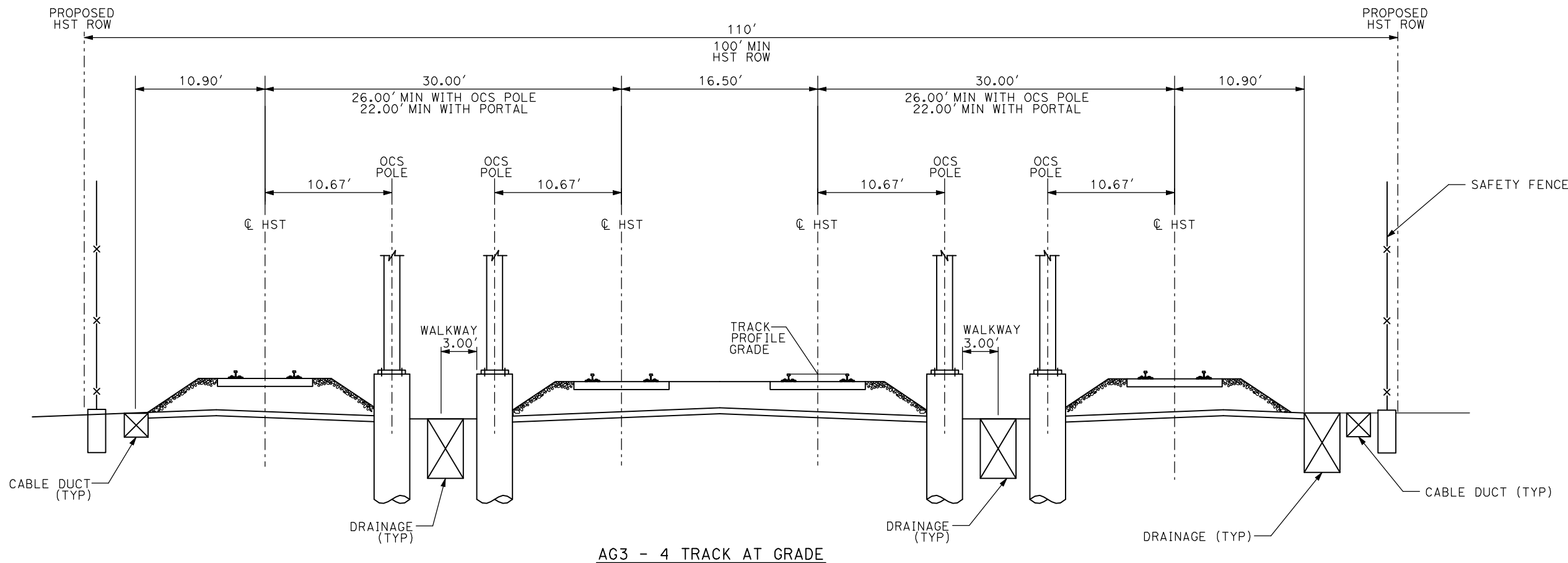
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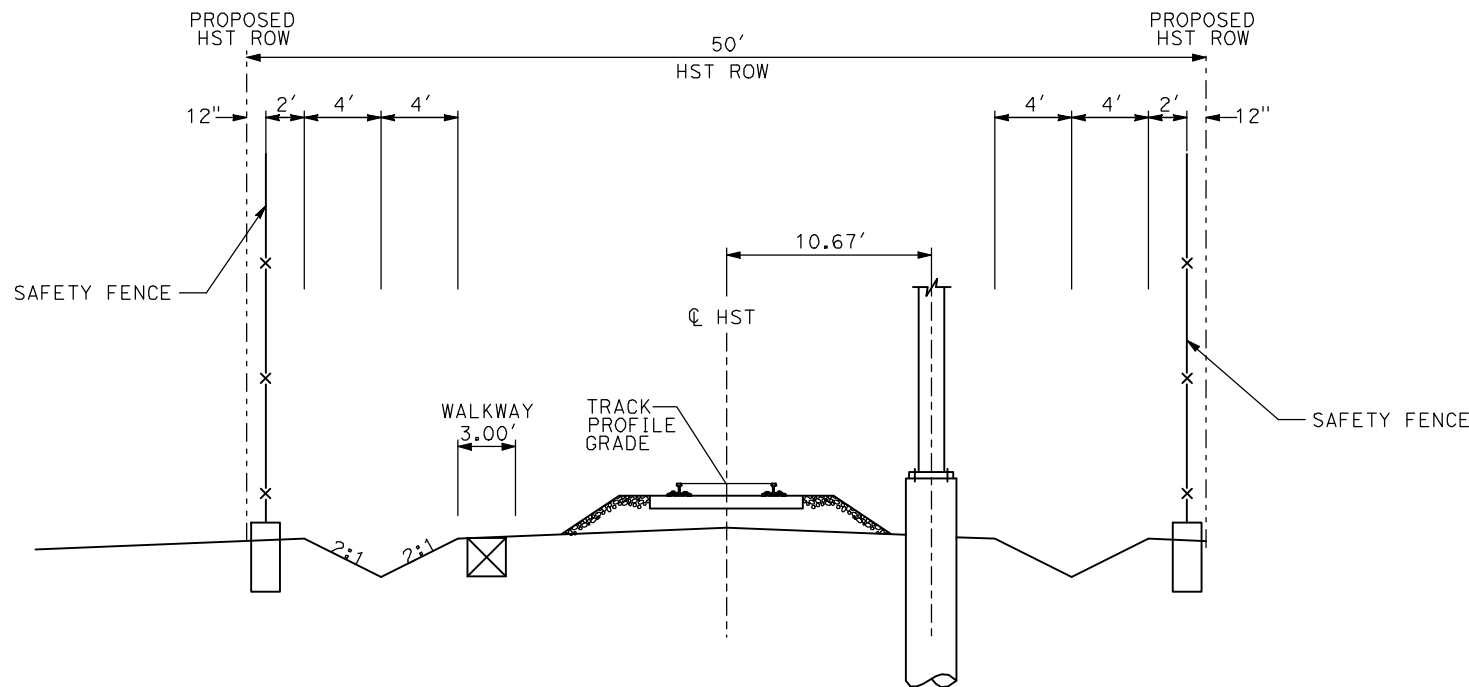
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTIONS
SHEET 1 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3001-A
SCALE
NO SCALE
SHEET NO.
OF ###



AG3 - 4 TRACK AT GRADE



AG4 - SINGLE TRACK AT GRADE

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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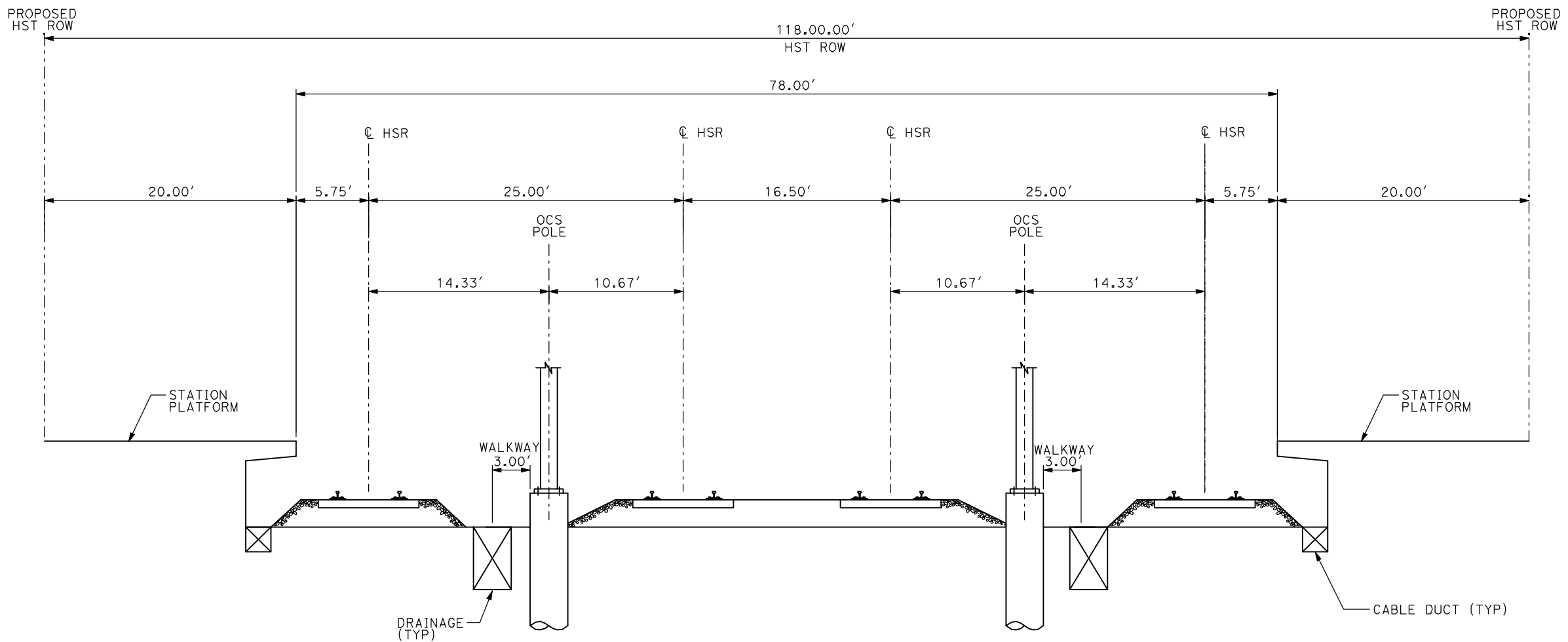
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTIONS
SHEET 2 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3002-A
SCALE
NO SCALE
SHEET NO.
OF ###



AG5 - 4 TRACK AT GRADE MERCED STATION

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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IN CHARGE
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07/20/2011

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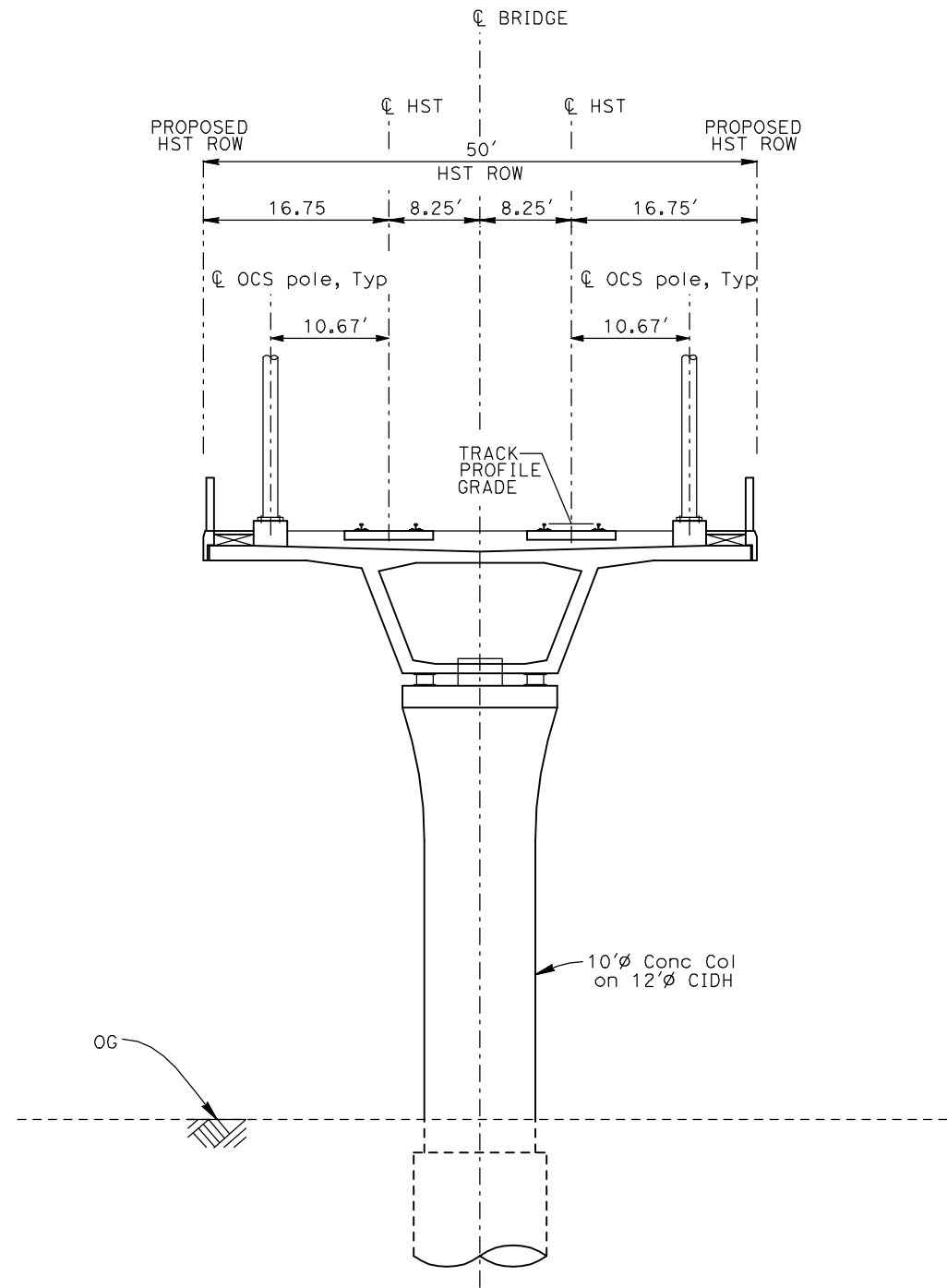
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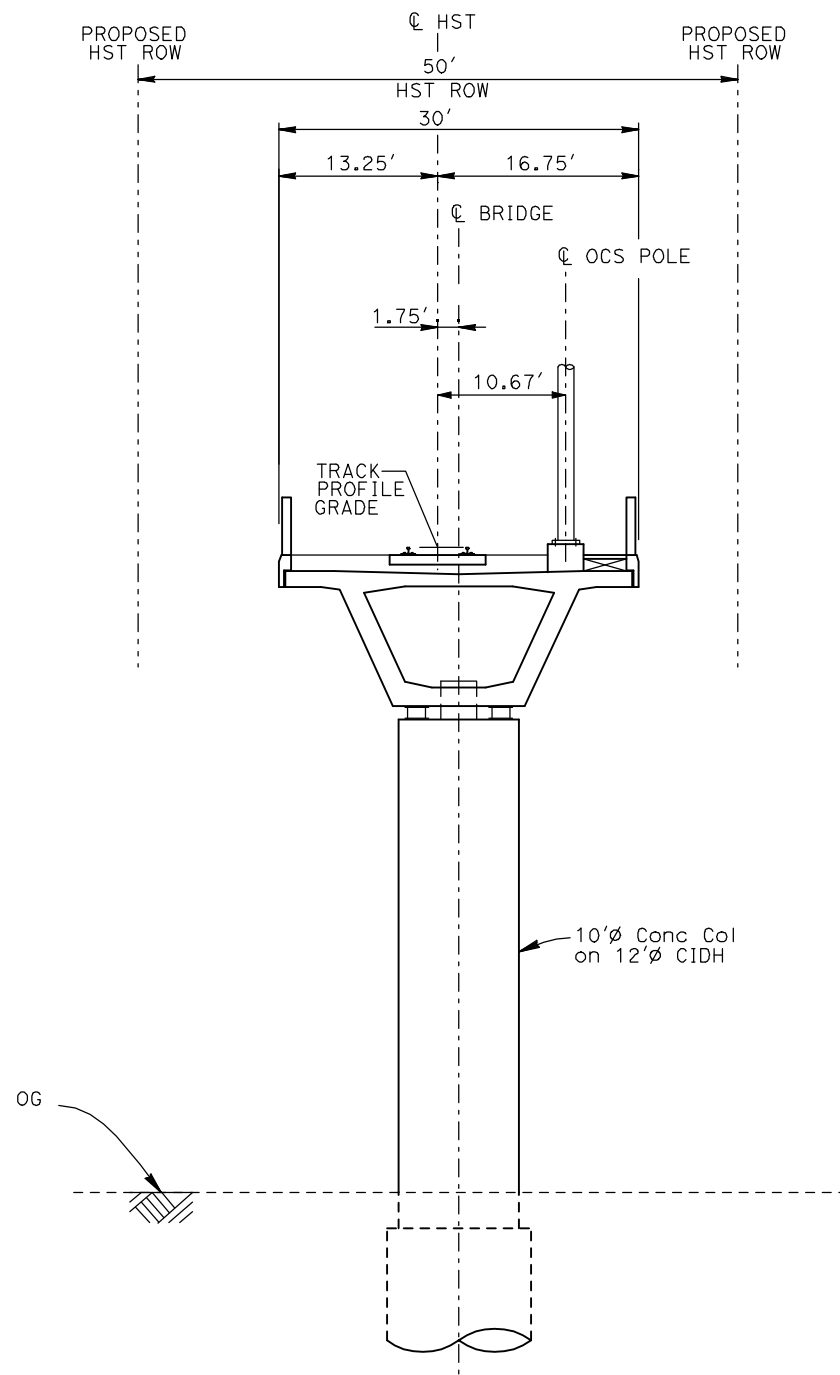
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
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TYPICAL SECTIONS
SHEET 3 OF 17

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T3003-A |
| SCALE | NO SCALE |
| SHEET NO. | OF ### |



EL1 - DOUBLE TRACK ELEVATED



EL2 - SINGLE TRACK ELEVATED

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. BACK-TO-BACK CANTILEVERS ON A SINGLE POLE MAY BE PERMITTED AT PASSENGER STATIONS.
 3. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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A. BOONE
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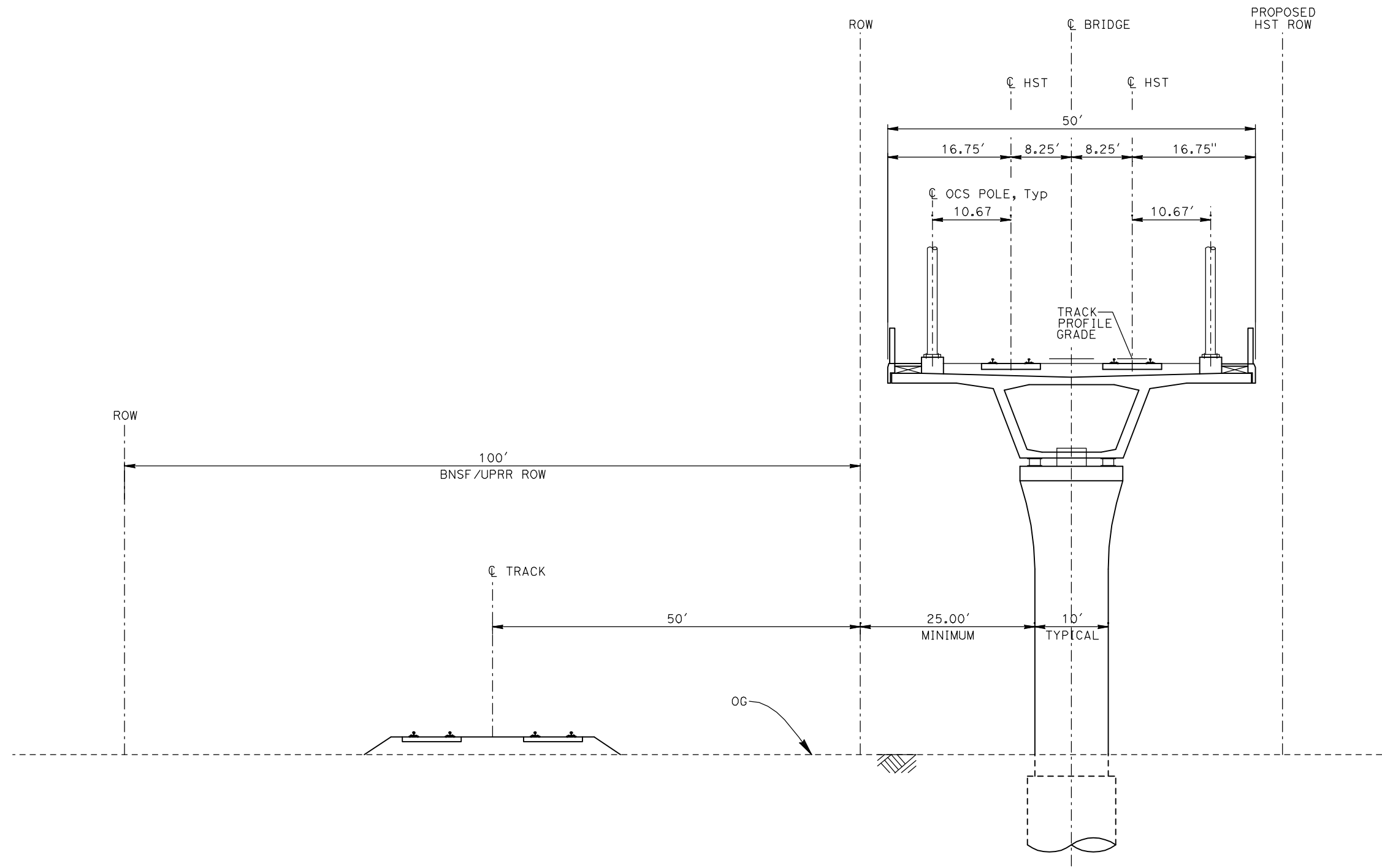


CALIFORNIA HIGH-SPEED TRAIN PROJECT
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TYPICAL SECTIONS
SHEET 4 OF 17

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T3004-A |
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EL3 - DOUBLE TRACK ELEVATED ADJACENT TO UPRR/BNSF

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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A. BOONE
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SUBMITTAL**

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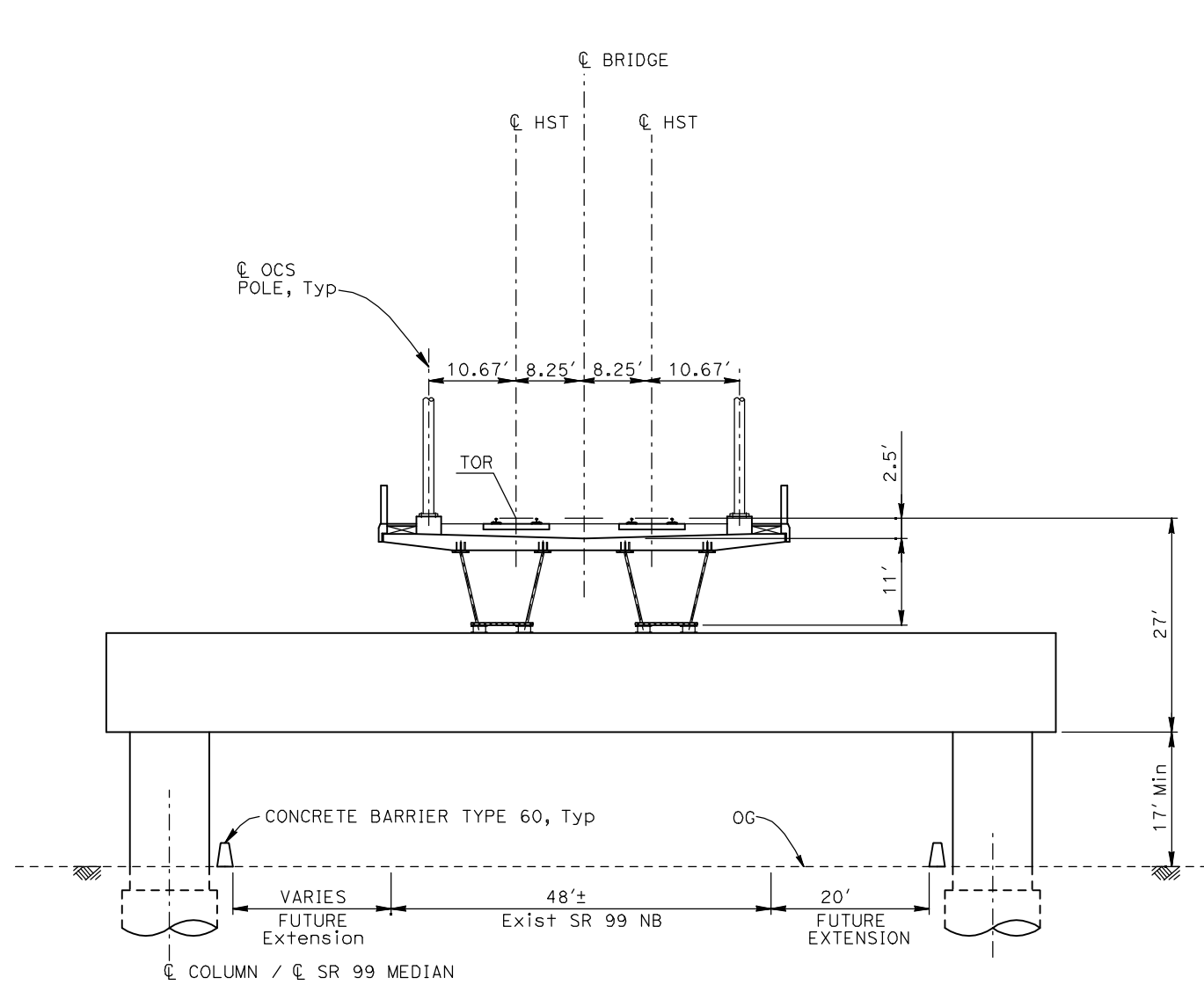


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
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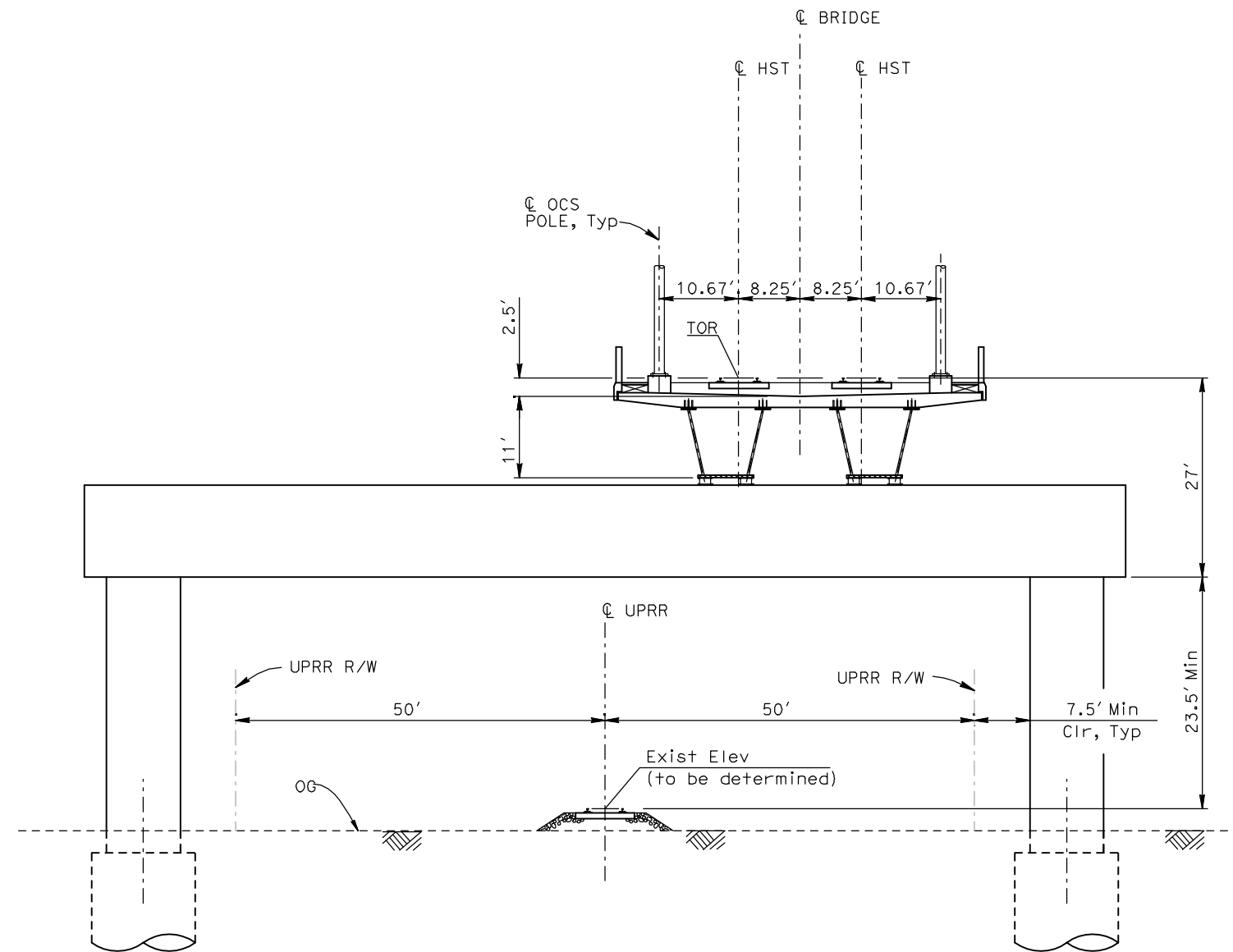
TYPICAL SECTIONS
SHEET 5 OF 17

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| CONTRACT NO. HSR06-007 |
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EL4 - DOUBLE TRACK ELEVATED CROSSING SR99



EL5 - DOUBLE TRACK ELEVATED CROSSING UPRR/BNSF

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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07/20/2011

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15% DESIGN
SUBMITTAL**

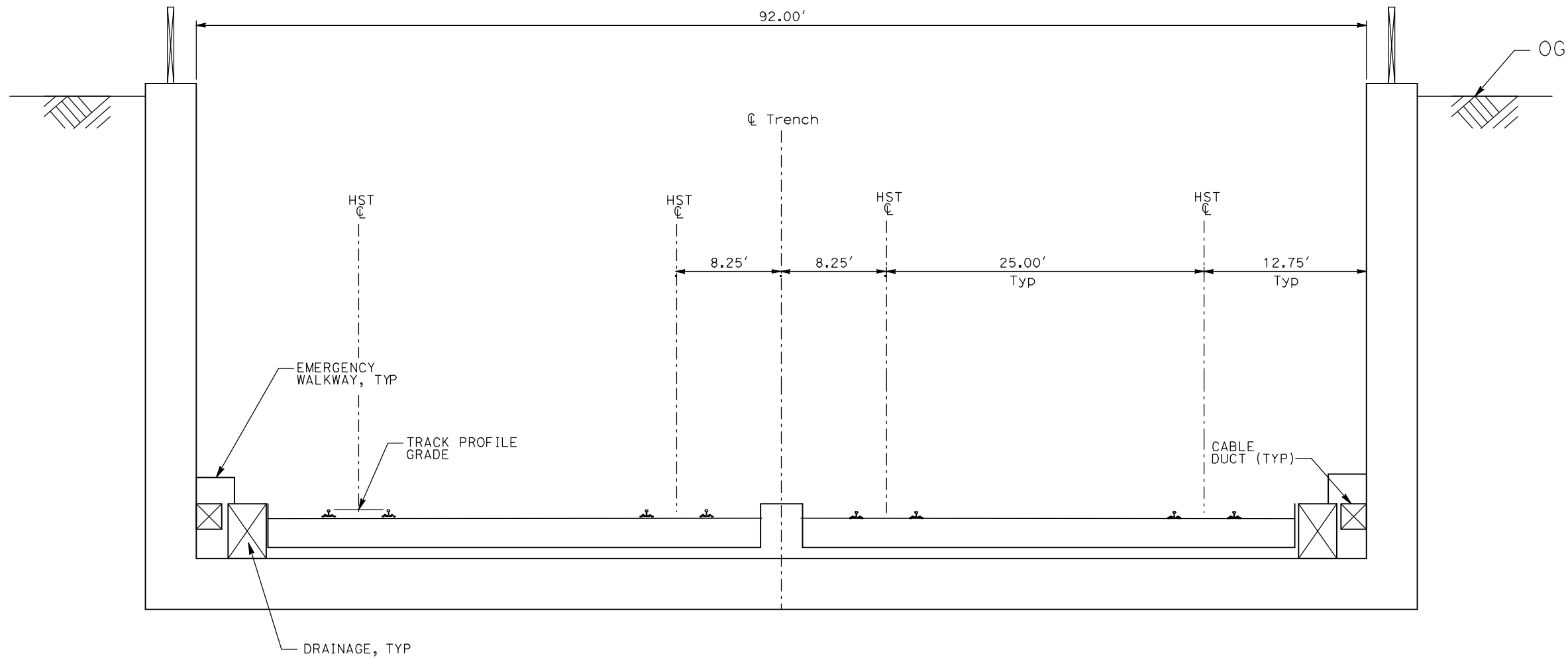
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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 6 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3006-A
SCALE
NO SCALE
SHEET NO.
OF ###



TR1 - 4 TRACK TRENCH STATION APPROACH

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
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C. VALADAO
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A. BOONE
IN CHARGE
A. BOONE
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07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

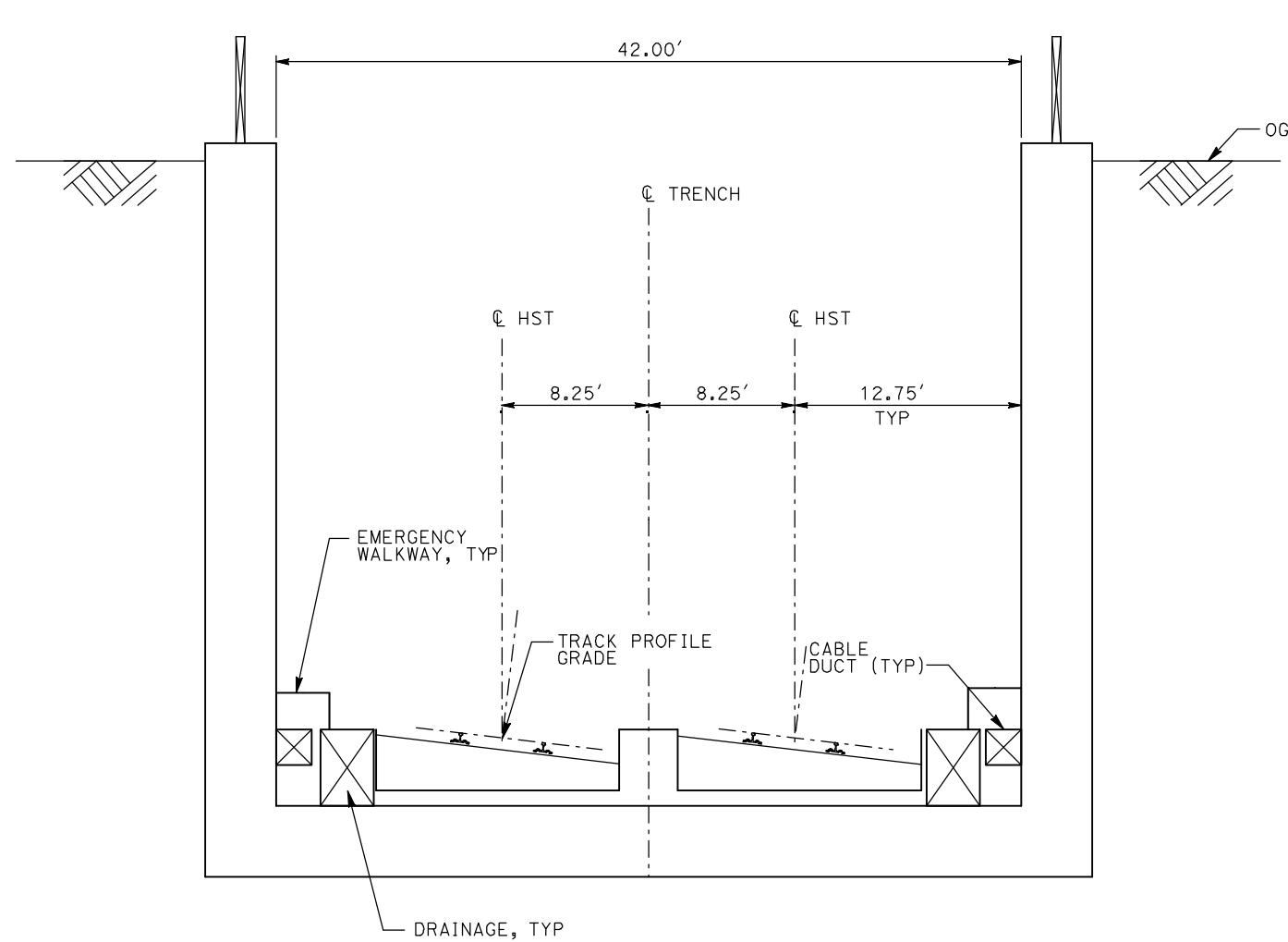


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

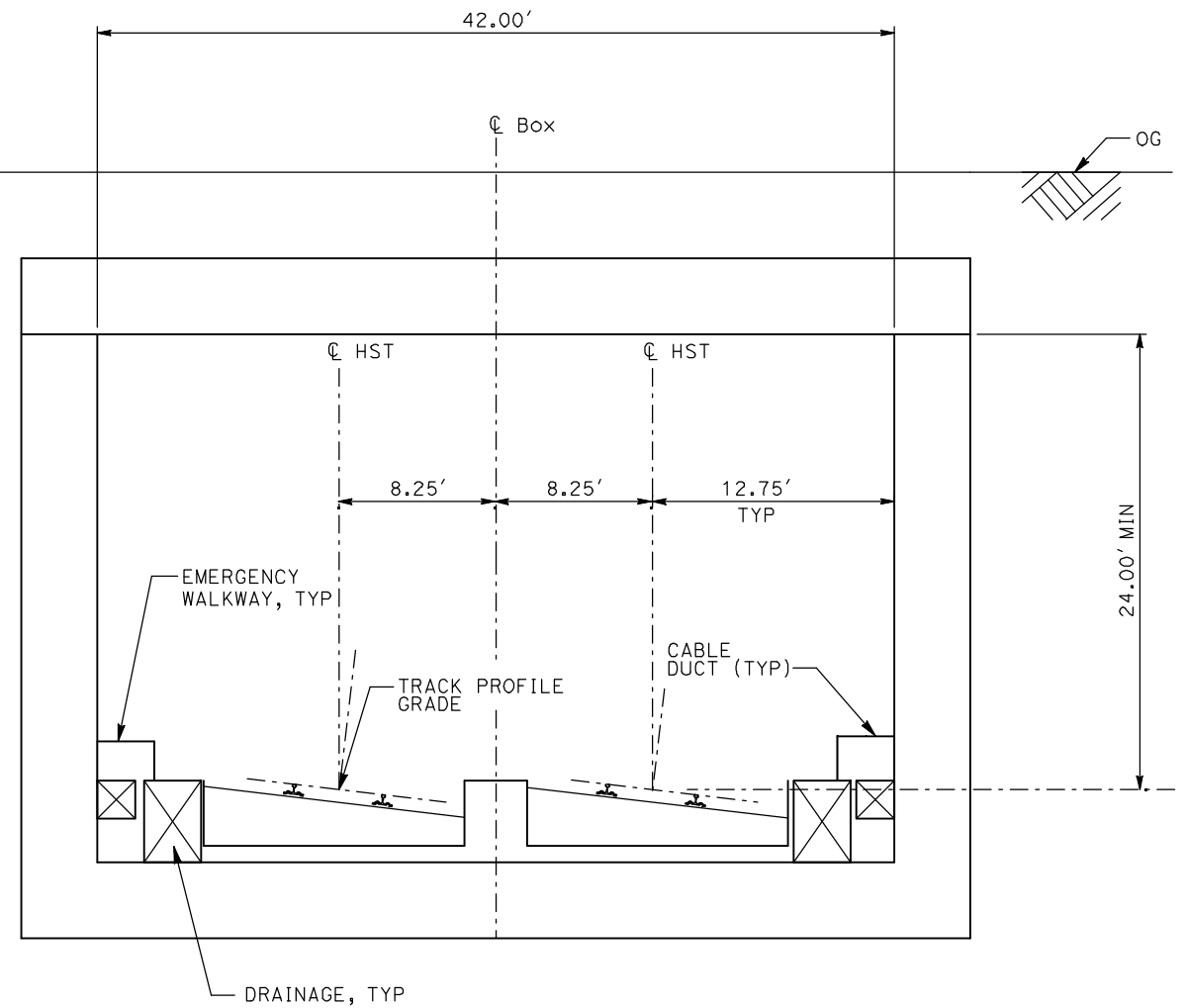
TYPICAL SECTIONS
SHEET 7 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3007-A
SCALE
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TR2 - 2 TRACK TRENCH



CC1 - 2 TRACK CUT AND COVER CLOSED BOX

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

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IN CHARGE
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**RECORD SET
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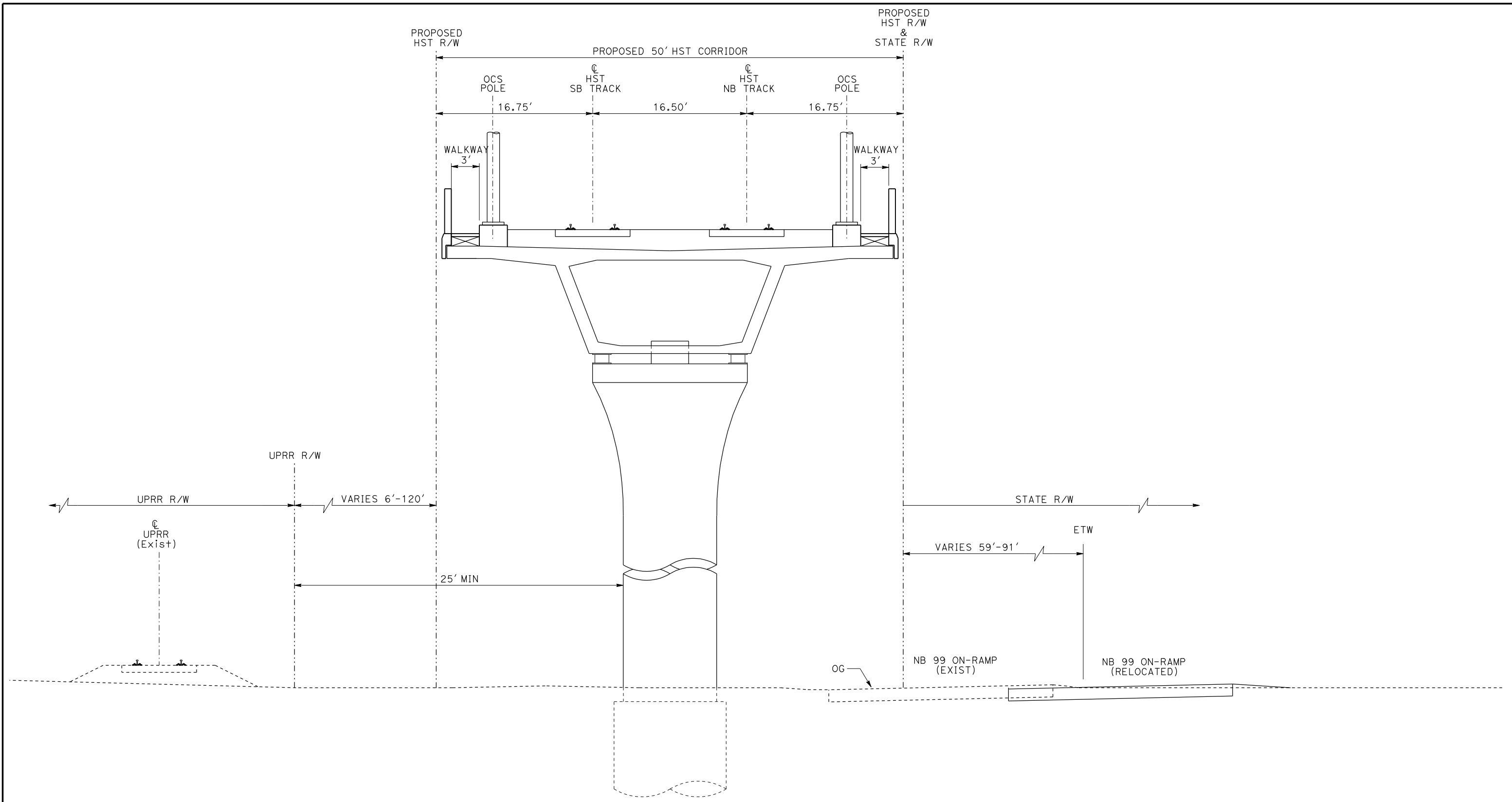
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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 8 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3008-A
SCALE
NO SCALE
SHEET NO.
OF ###



EL6 - DOUBLE TRACK ELEVATED ADJACENT TO UPRR

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
 L. PROCTOR
 DRAWN BY
 S. LEONG
 CHECKED BY
 V. CHIO
 IN CHARGE
 J. VALSECCHI
 DATE
 JULY 2011

RECORD SET
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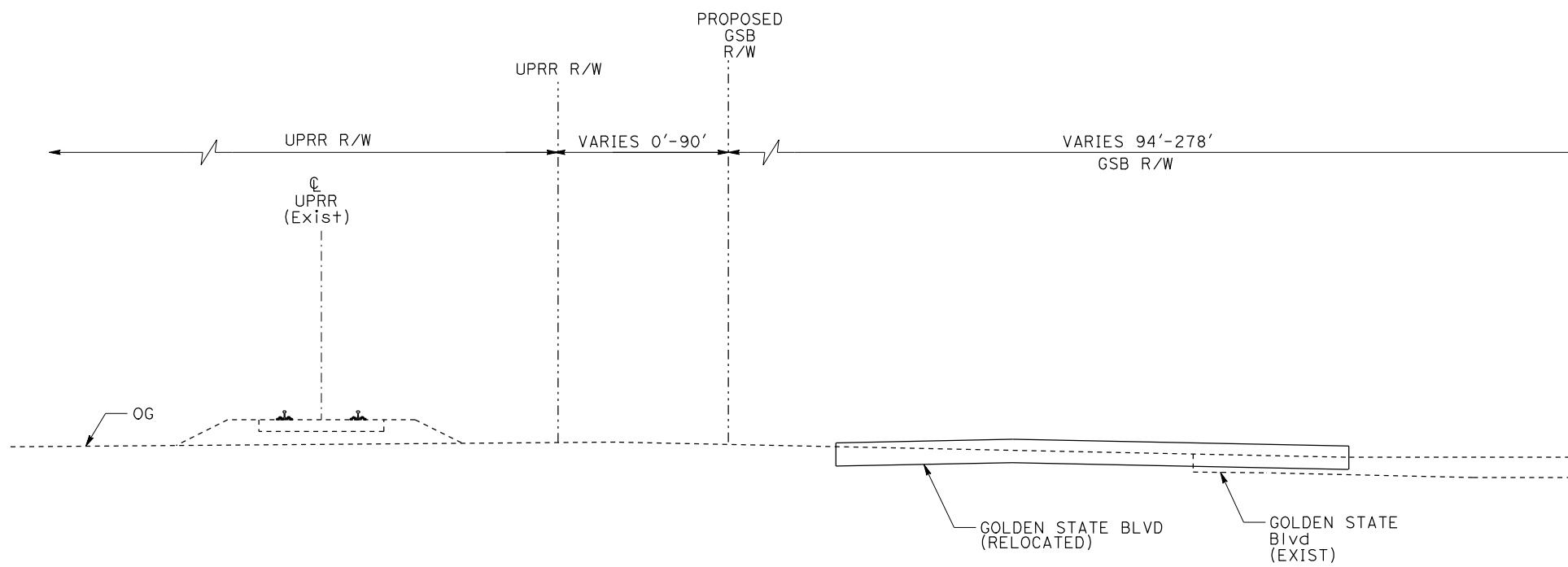
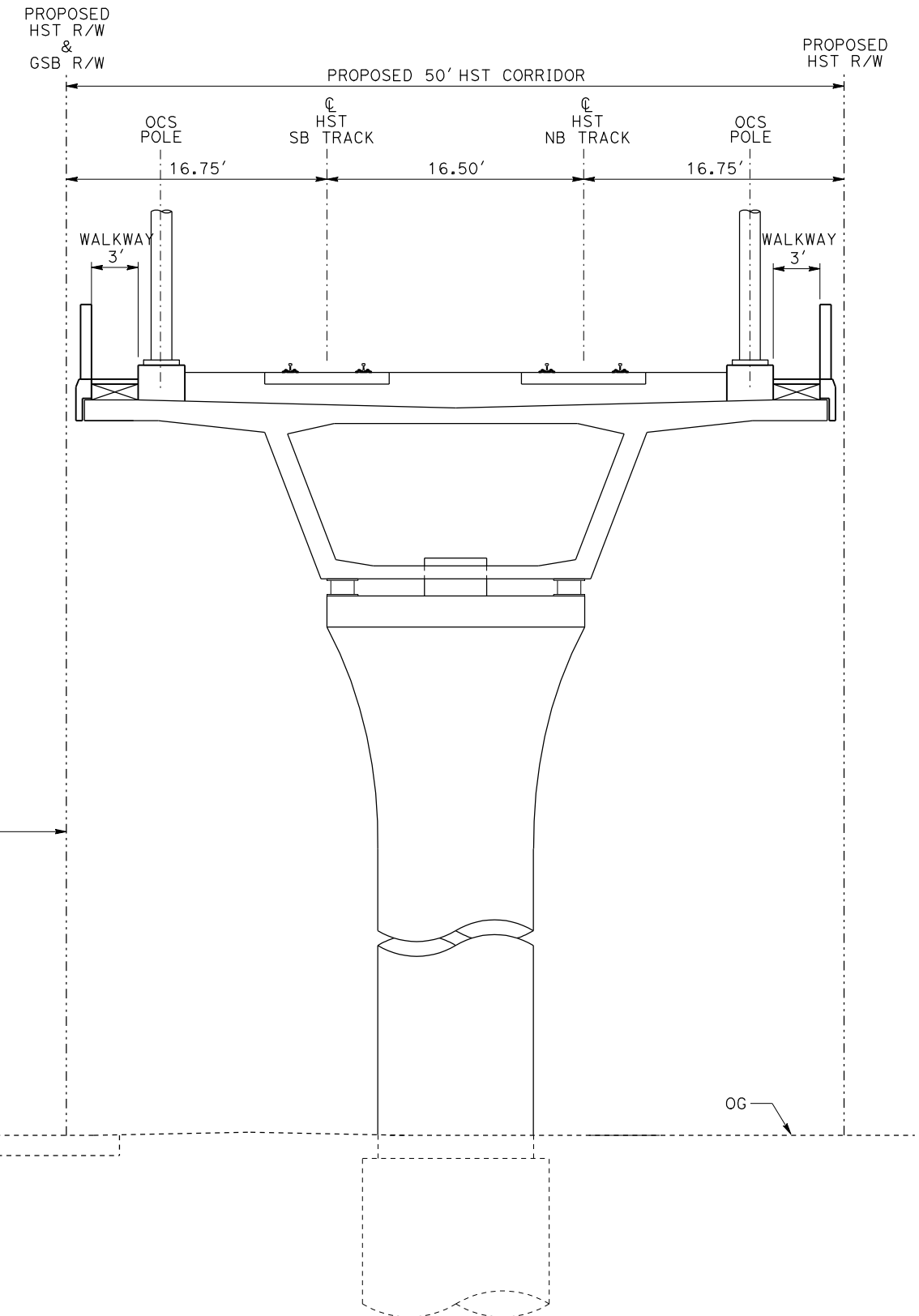
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTIONS
 SHEET 9 OF 17

CONTRACT NO.
 HSR06-007
 DRAWING NO.
 T3009-A
 SCALE
 NO SCALE
 SHEET NO.



EL7 - DOUBLE TRACK ELEVATED ADJACENT TO GOLDEN STATE BOULEVARD

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
L. PROCTOR
 DRAWN BY
S. LEONG
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

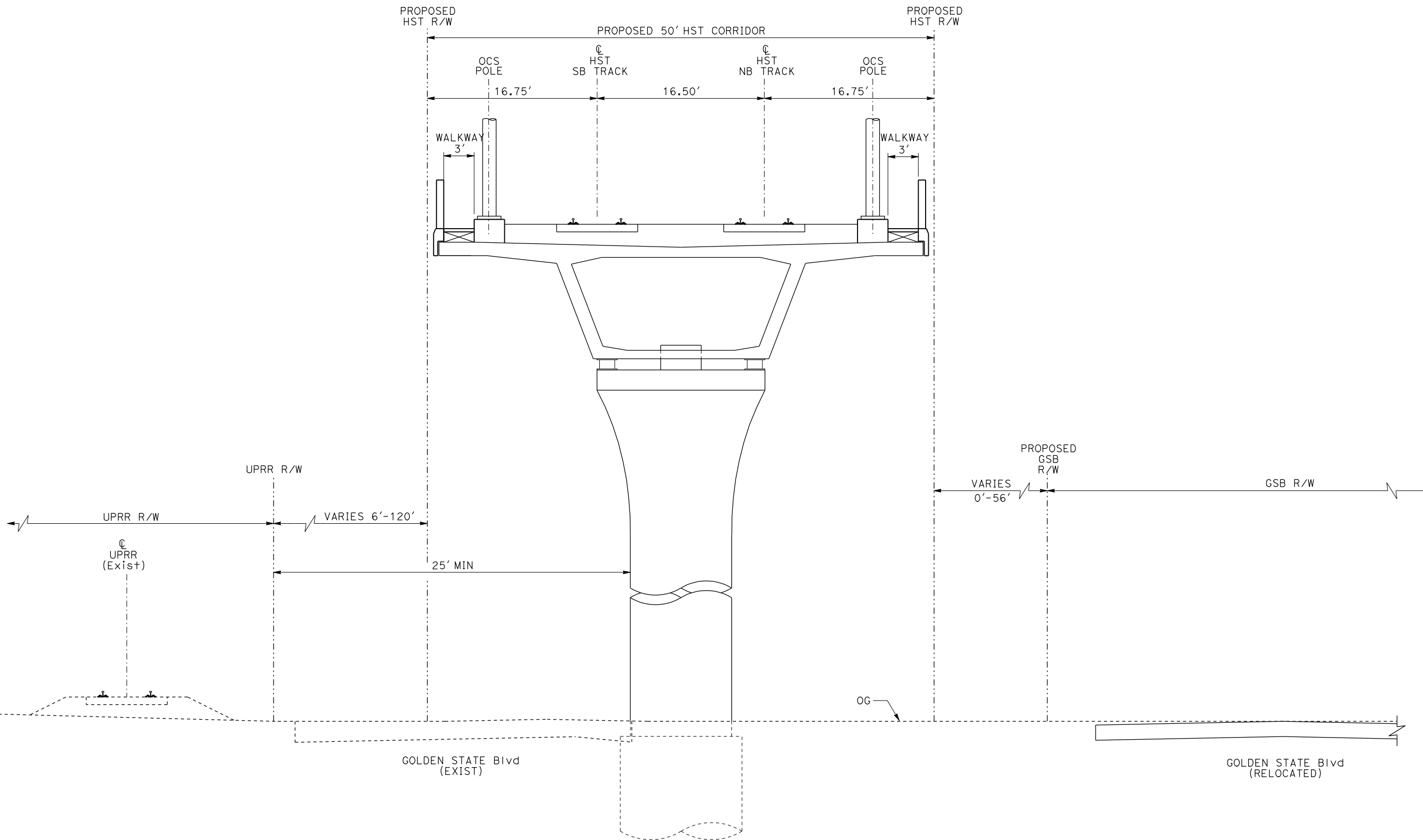


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

 TYPICAL SECTIONS
 SHEET 10 OF 17

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| CONTRACT NO. HSR06-007 |
| DRAWING NO. T3010-A |
| SCALE NO SCALE |
| SHEET NO. |

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 12:44



EL8 - DOUBLE TRACK ELEVATED BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
L. PROCTOR
 DRAWN BY
S. LEONG
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

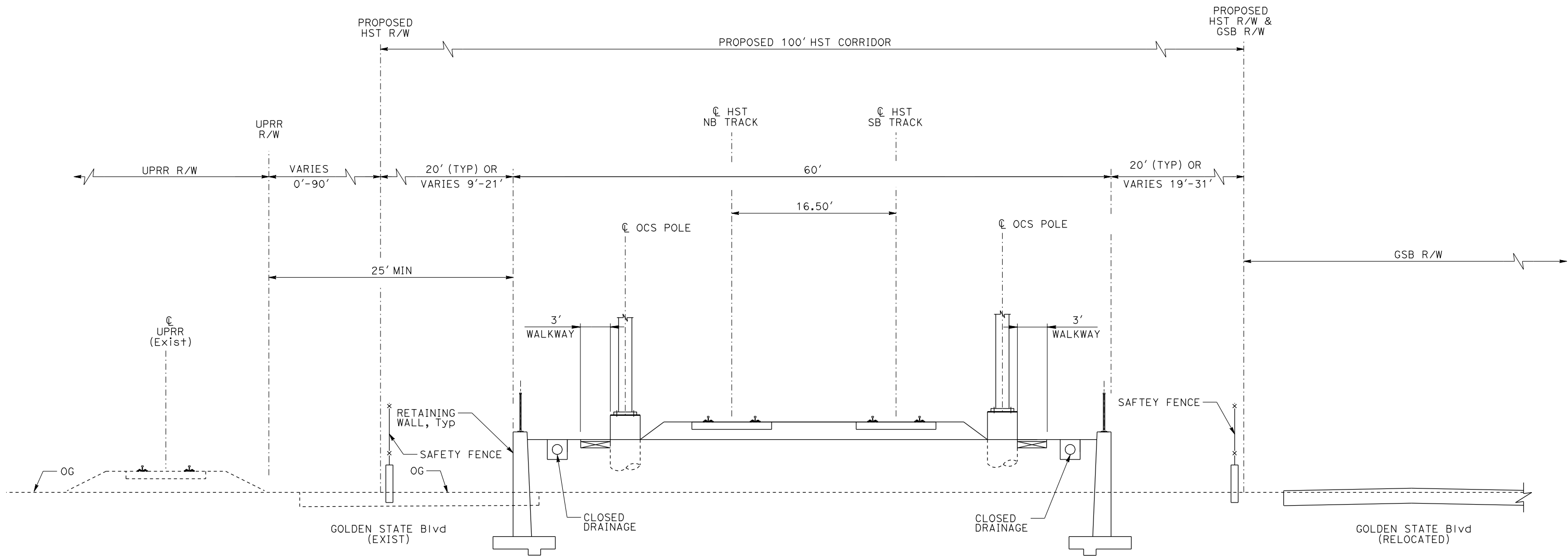


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

 TYPICAL SECTIONS
 SHEET 11 OF 17

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T3011-A |
| SCALE | NO SCALE |
| SHEET NO. | |

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 12:45



RF3 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:
 POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
 FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
 ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
L. PROCTOR
 DRAWN BY
S. LEONG
 CHECKED BY
V. CHIO
 IN CHARGE
J. VALSECCHI
 DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

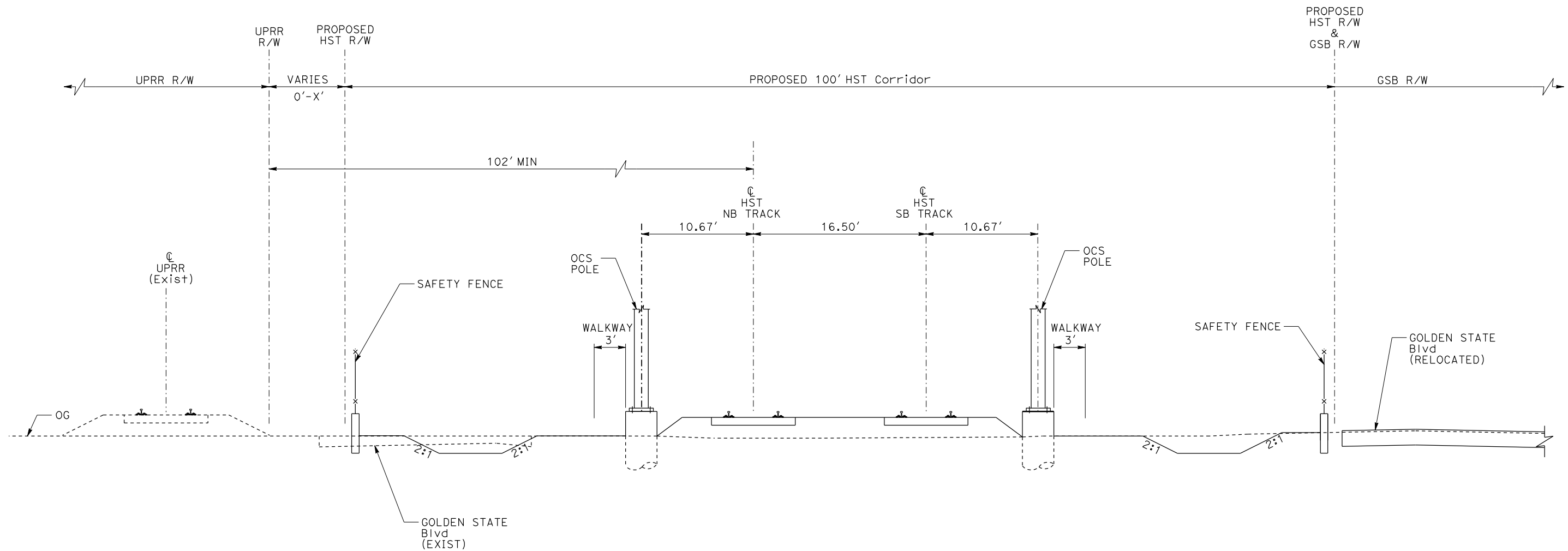


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

 TYPICAL SECTION
 SHEET 12 OF 17

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T3012-A |
| SCALE | NO SCALE |
| SHEET NO. | |

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 12:47



AG6 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE
ALIGNMENT PLAN AND PROFILE SHEETS.

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DESIGNED BY
L. PROCTOR
DRAWN BY
S. LEONG
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

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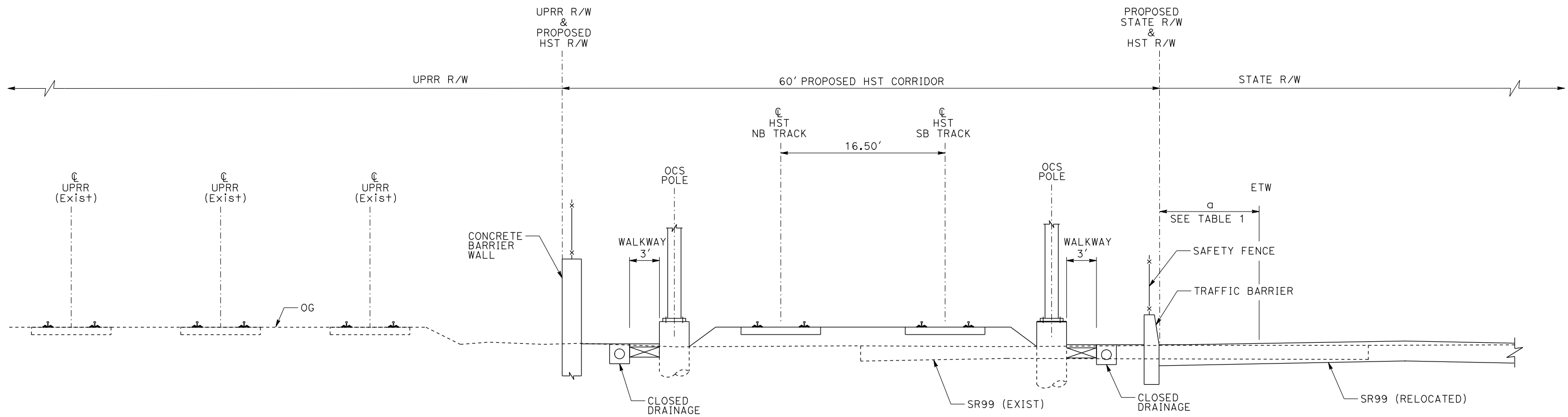
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTION
SHEET 13 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3013-A
SCALE
NO SCALE
SHEET NO.

TABLE 1

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|----------------|--------------------|
| $a > 30'$ | NO TRAFFIC BARRIER |
| $4' < a < 30'$ | TRAFFIC BARRIER |



AG7 - DOUBLE TRACK BETWEEN UPRR AND STATE ROUTE 99

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
L. PROCTOR
DRAWN BY
S. LEONG
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



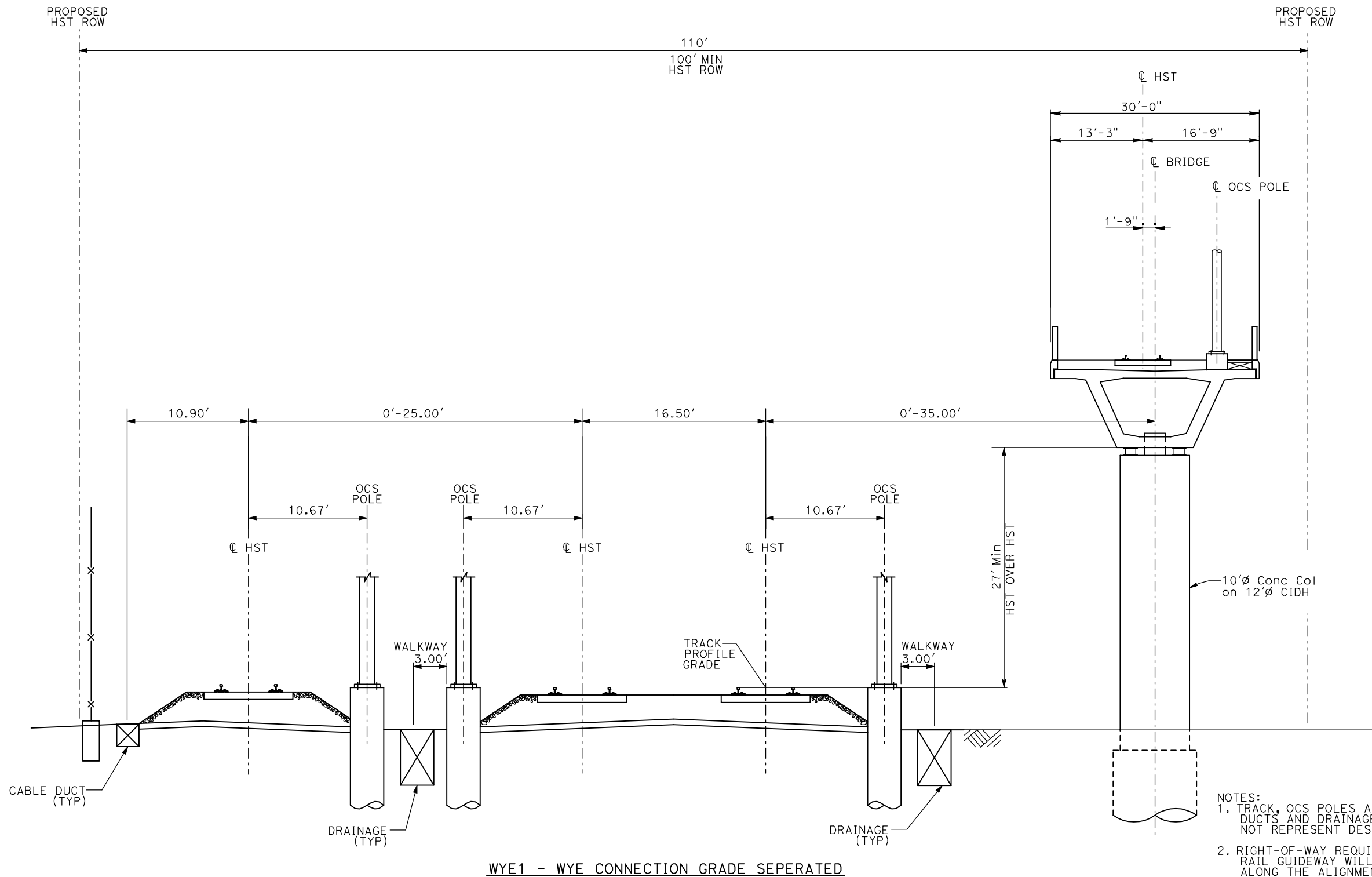
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

TYPICAL SECTION
SHEET 14 OF 17

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T3014-A |
| SCALE | NO SCALE |
| SHEET NO. | |

DATE PLOTTED => 21-JUL-2011
TIME PLOTTED => 12:56

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- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

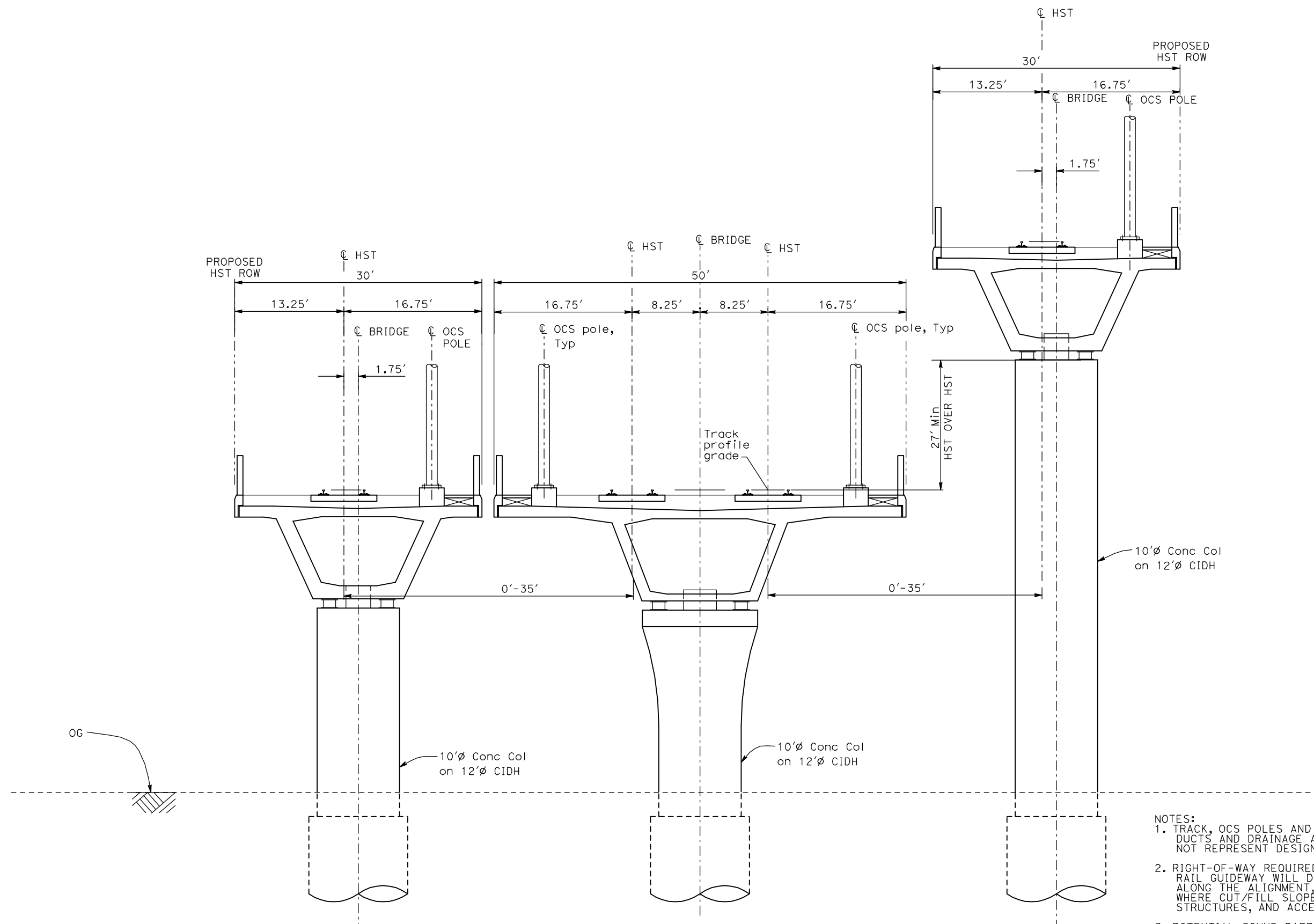


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 15 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3015-A
SCALE
NO SCALE
SHEET NO.
OF ###

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WYE2 - WYE CONNECTION GRADE SEPERATED

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

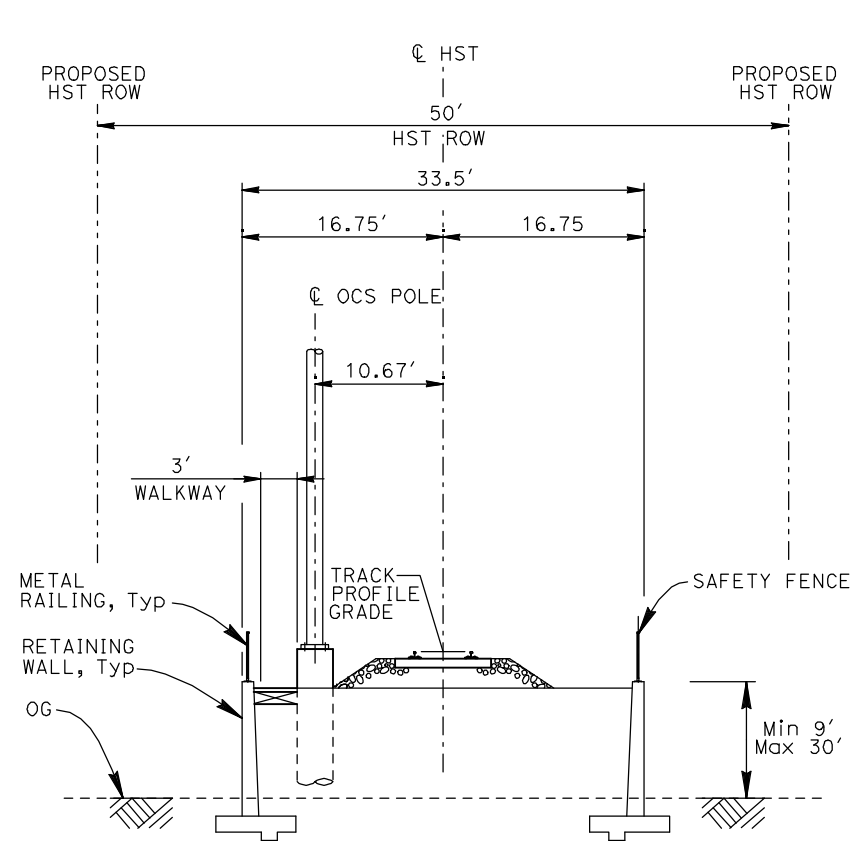


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

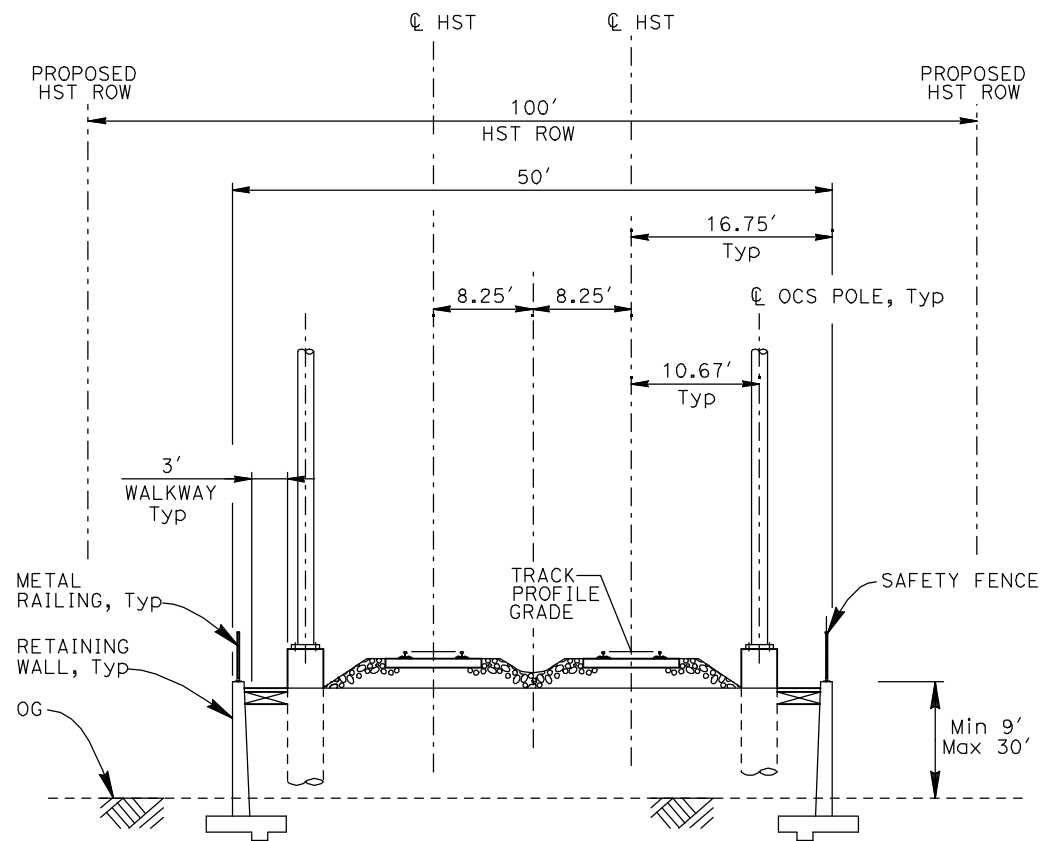
TYPICAL SECTIONS
SHEET 16 OF 17

CONTRACT NO.
HSR06-007
DRAWING NO.
T3016-A
SCALE
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SHEET NO.
OF ###

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RF1 - SINGLE TRACK RETAINED FILL



RF2 - DOUBLE TRACK RETAINED FILL

- NOTES:**
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
 2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
C. VALADAO
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

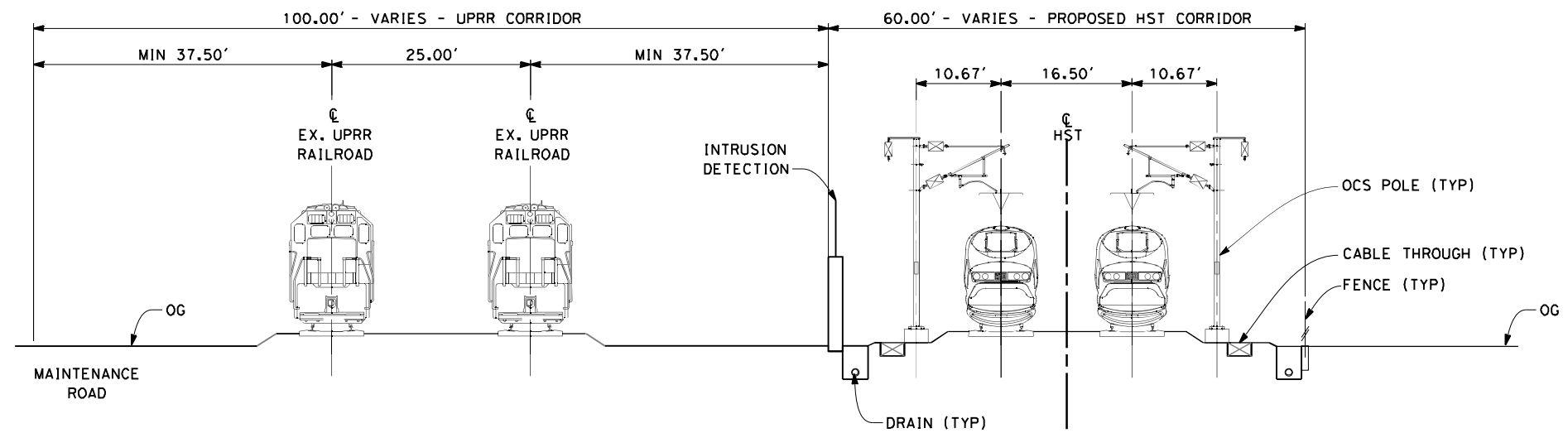


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

TYPICAL SECTIONS
SHEET 17 OF 17

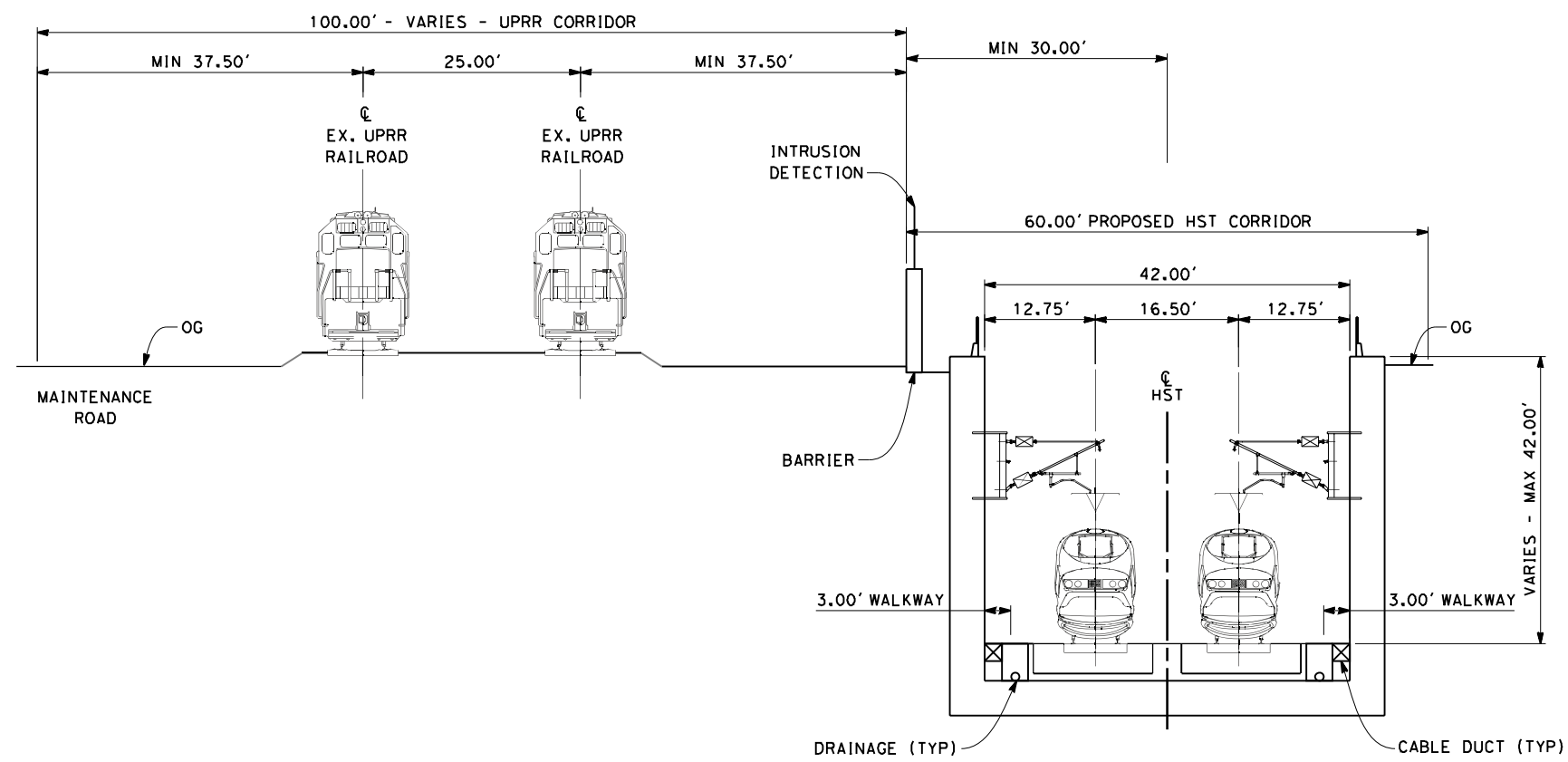
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DRAWING NO.
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SCALE
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SECTION 1

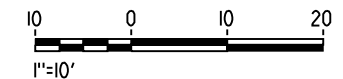
TWIN TRACK AT GRADE 60FT ROW ADJACENT TO UPRR
 STA 100+00 THROUGH STA 182+00



SECTION 2

TWIN TRACK IN TRENCH
 STA 196+00 THROUGH STA 260+00

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



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DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 05/13/11

**RECORD SET 15%
 DESIGN SUBMISSION**

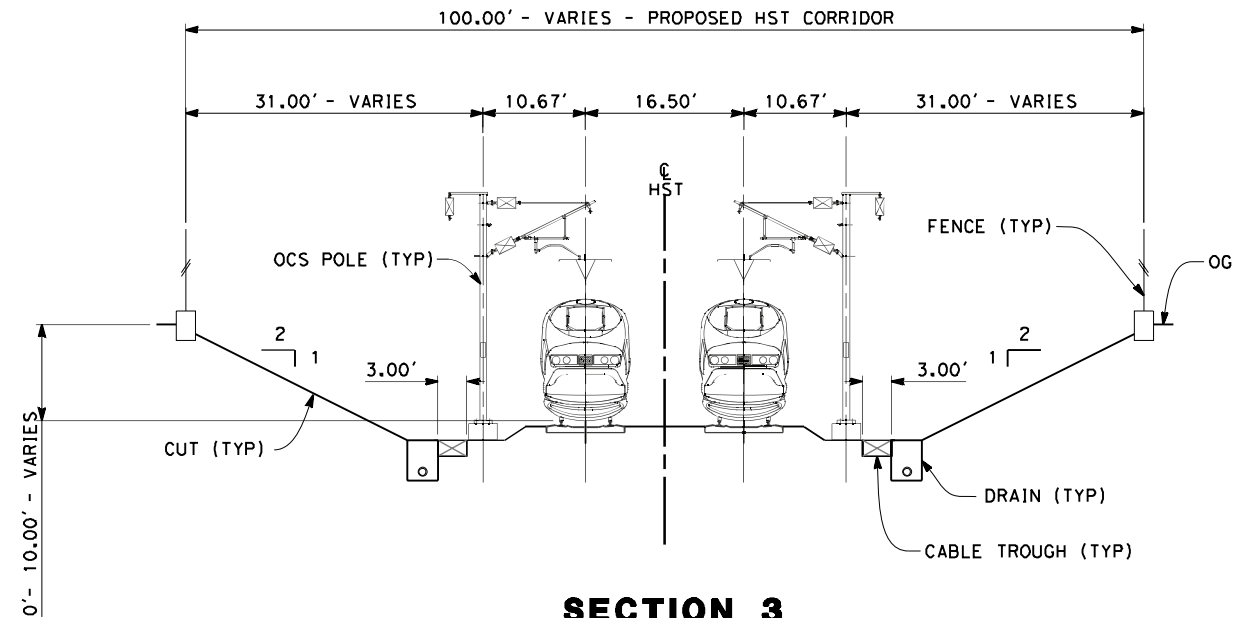
**NOT FOR
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
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 ALIGNMENT F1
 CROSS SECTIONS

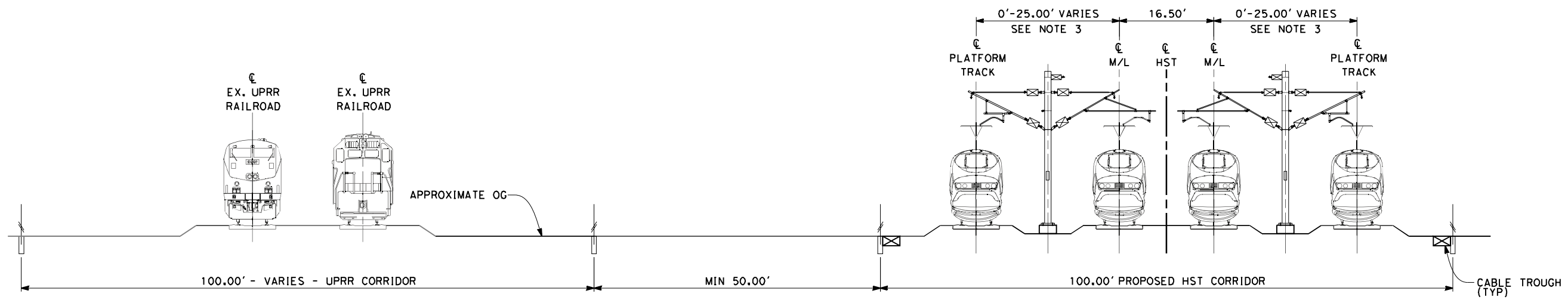
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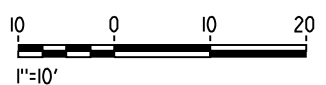


SECTION 3
 TWIN TRACK IN OPEN CUT
 STA 260+00 THROUGH STA 264+25
 STA 260+00 THROUGH STA 270+74 (KERN OPTION)

- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE
 2. SUPERELEVATION IS NOT SHOWN THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 3. DISTANCE BETWEEN TRACKS VARIES FROM 0-25.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



SECTION 4
 4 TRACK AT GRADE STATION APPROACH
 STA 264+25 THROUGH STA 285+84
 STA 286+84 THROUGH STA 287+20
 STA 301+30 THROUGH STA 302+00
 STA 320+25 THROUGH STA 324+25
 STA 270+74 THROUGH STA 285+84 (KERN OPTION)
 STA 286+84 THROUGH STA 293+70 (KERN OPTION)
 STA 307+80 THROUGH STA 308+50 (KERN OPTION)
 STA 326+75 THROUGH STA 334+00 (KERN OPTION)



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DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

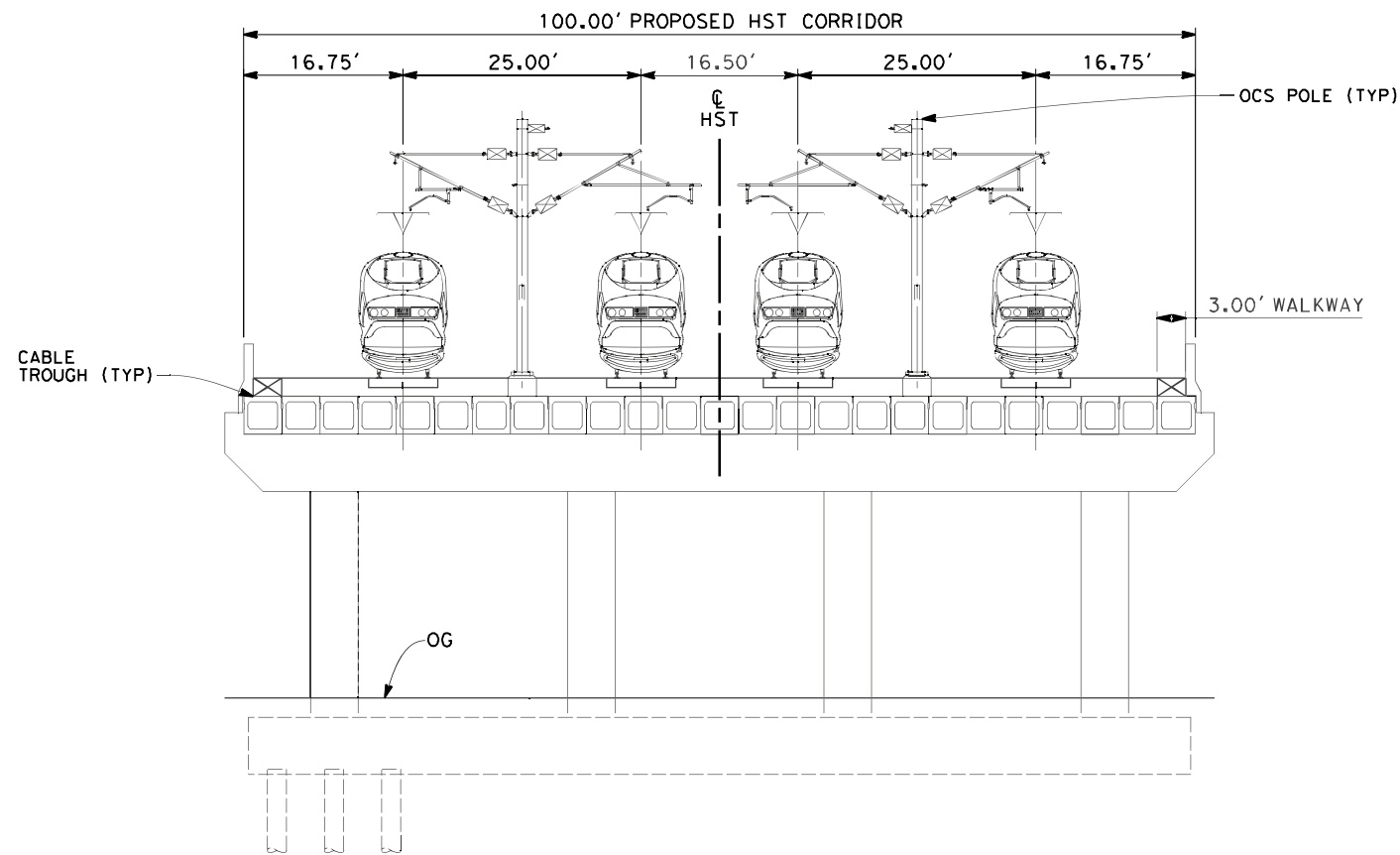
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
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 ALIGNMENT F1
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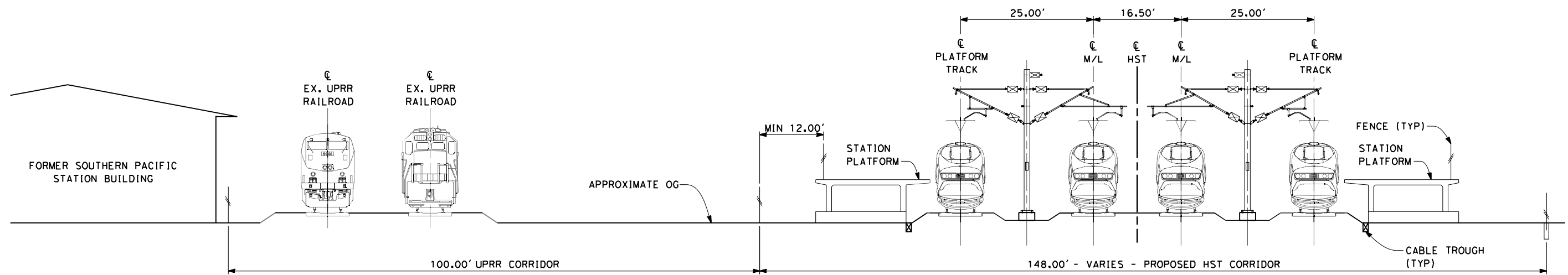
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SECTION 5

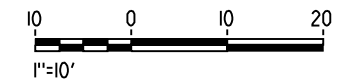
TWIN TRACK - BOX GIRDER BRIDGE
 STA 285+84 THROUGH STA 286+84



SECTION 6

4 TRACK AT GRADE PLATFORMS
 STA 287+20 THROUGH STA 301+30
 STA 293+70 THROUGH STA 307+80 (KERN OPTION)

- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



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DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

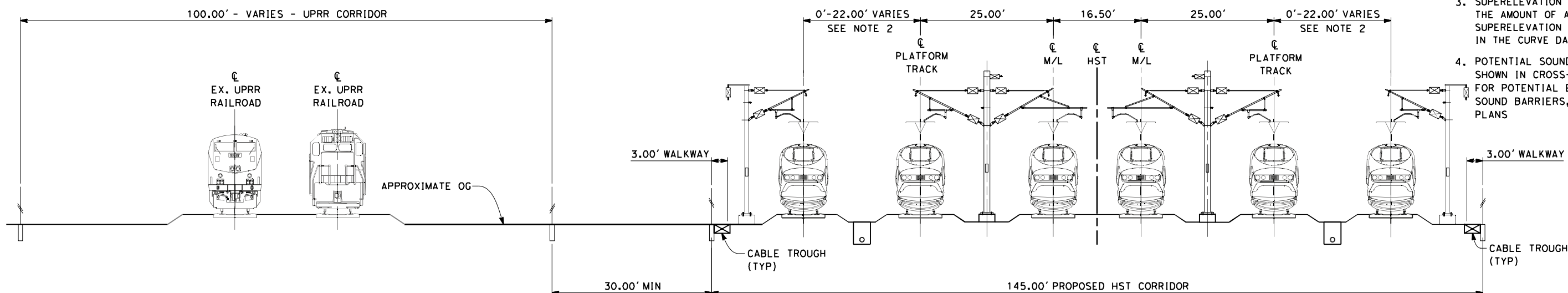
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
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 ALIGNMENT F1
 CROSS SECTIONS

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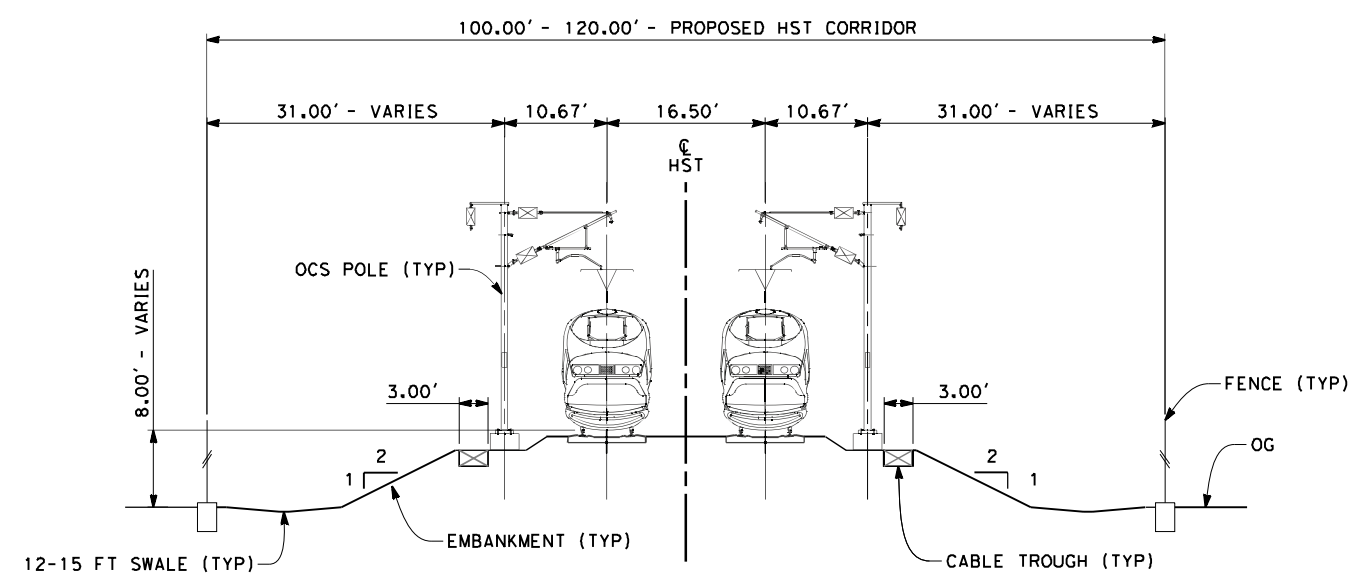
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- NOTES:**
1. TRACKFORM SHOWN IS INDICATIVE
 2. DISTANCE BETWEEN TRACKS VARIES FROM 0-22.00' THROUGH TURNOUTS AND REVERSE TO PARALLEL.
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS

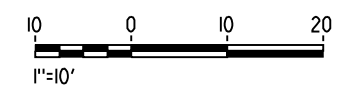
SECTION 7

6 TRACK AT GRADE INCLUDING STORAGE TRACKS
 STA 302+00 THROUGH STA 320+25
 STA 308+50 THROUGH STA 326+75 (KERN OPTION)



SECTION 8

TWIN TRACK AT GRADE 100FT ROW
 STA 324+25 THROUGH STA 338+50



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DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

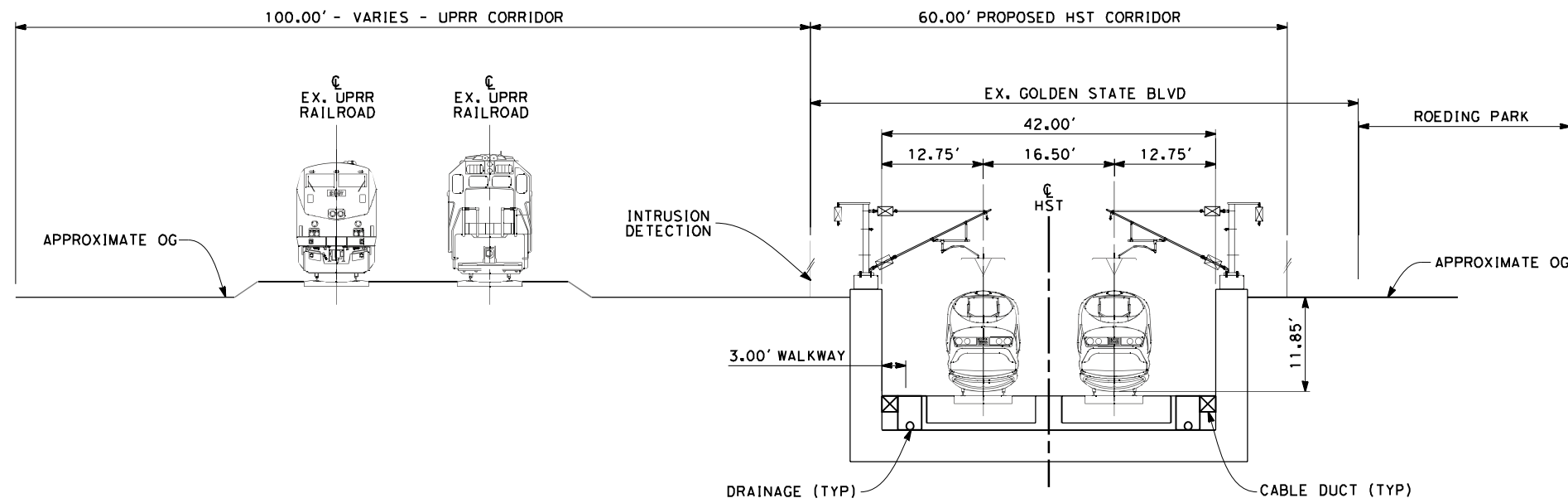
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
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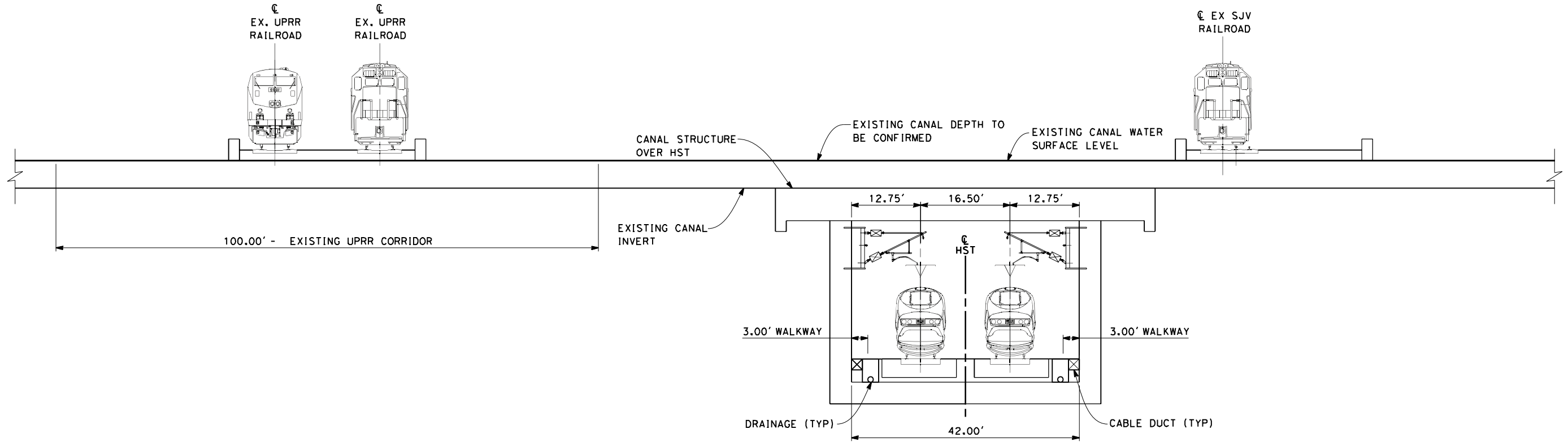
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SECTION 13

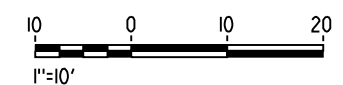
TWIN TRACK IN TRENCH ADJACENT TO UPRR AND ROEDING PARK STA 195+00



SECTION 14

TWIN TRACK IN TRENCH UNDER CANAL STA 228+30

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
K. SEYMOUR
 DRAWN BY
E. CAQUIAS
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

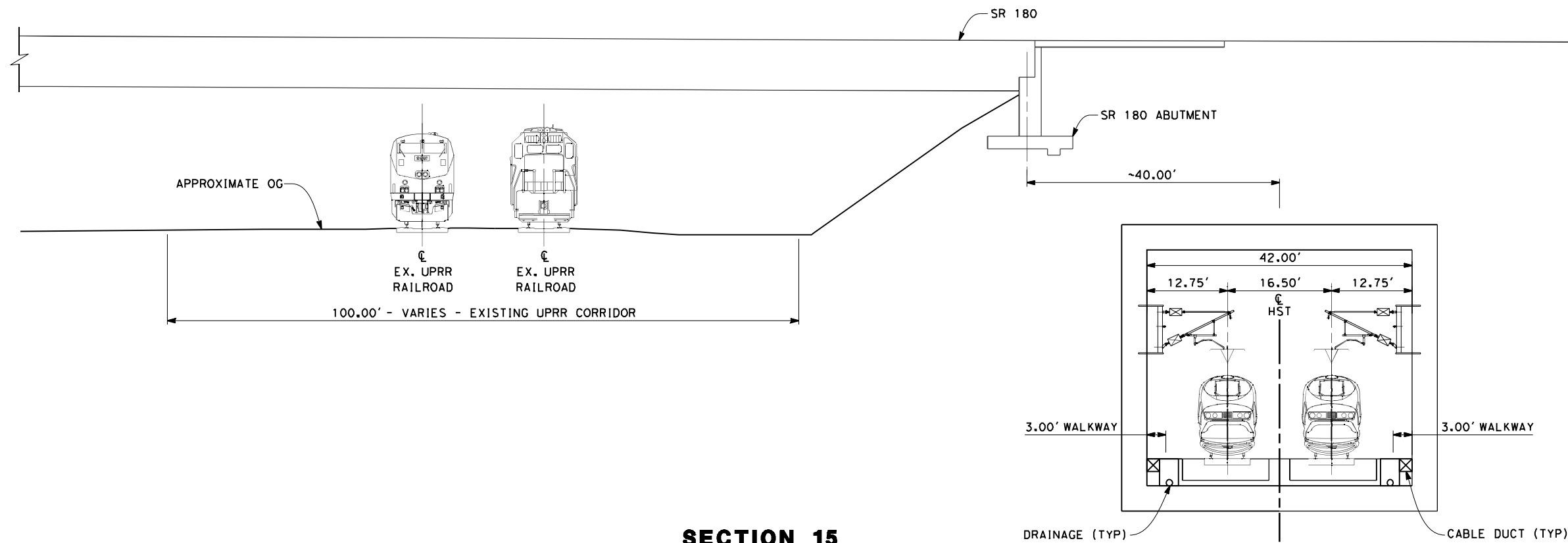
**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T3022-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

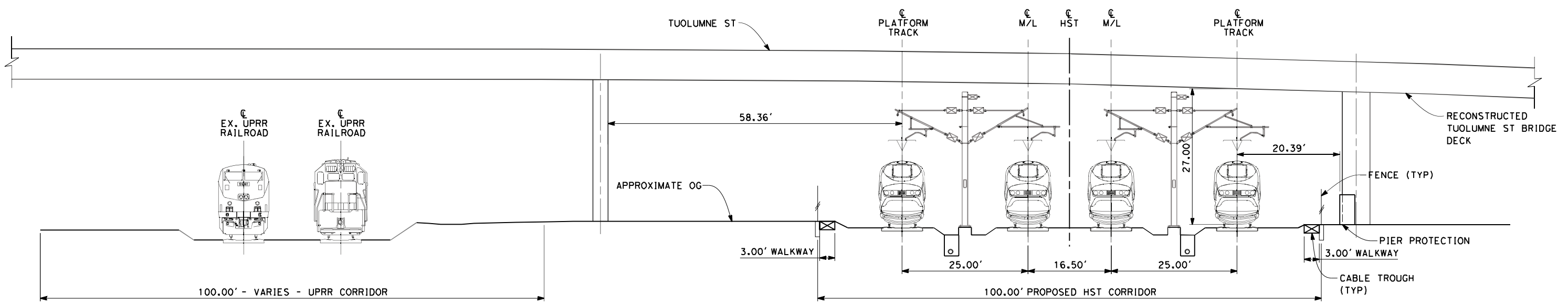
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 frank.palermo



SECTION 15

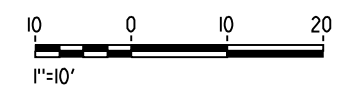
TWIN TRACK IN BOX ADJACENT TO SR-180 ABUTMENT
STA 232+00

- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 4. FOR SECTION 16 OCS POLES TO BE SPACED BEFORE & AFTER BRIDGE. POSITIONS ARE INDICATIVE
 5. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS



SECTION 16

4 TRACK AT GRADE STATION APPROACH UNDER TUOLUMNE ST
STA 276+50
STA 276+50 (KERN OPTION)



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
K. SEYMOUR
 DRAWN BY
E. CAQUIAS
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

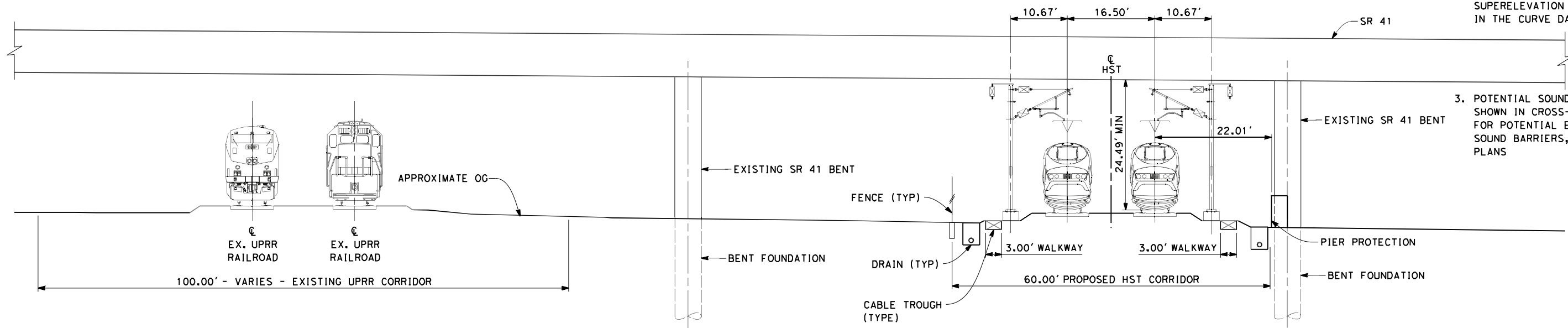
**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

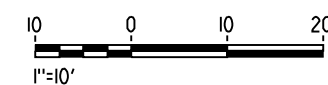
CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T3023-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

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- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS

SECTION 17
 TWIN TRACK UNDER SR-41
 STA 333+00
 STA 333+00 (KERN OPTION)



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

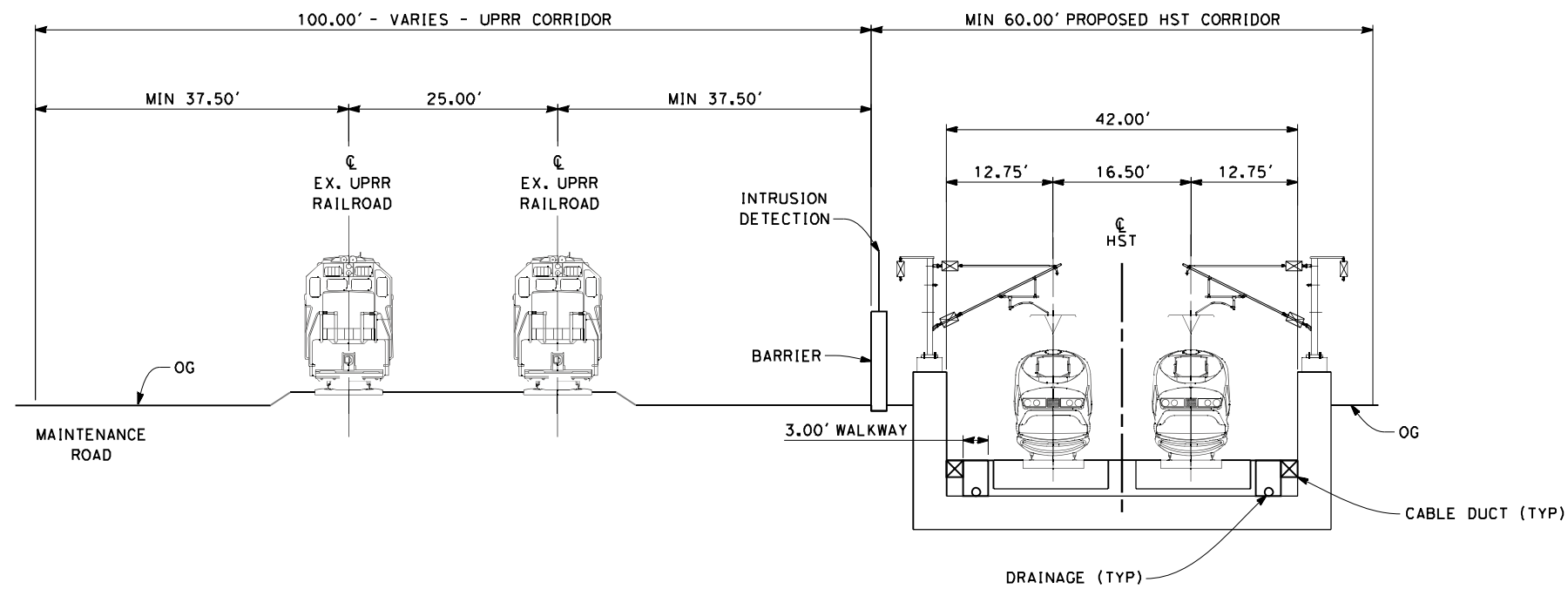
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T3024-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

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- NOTES:
1. TRACKFORM SHOWN IS INDICATIVE
 2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
 3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS-SECTION(S). FOR POTENTIAL EXTENTS OF SOUND BARRIERS, SEE ALIGNMENT PLANS.

SECTION 19
 TWIN TRACK IN TRENCH
 STA 182+00 THROUGH STA 196+00



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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| | | | | | |
| | | | | | |
| | | | | | |

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 E. CAQUIAS
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

**NOT FOR
 CONSTRUCTION**



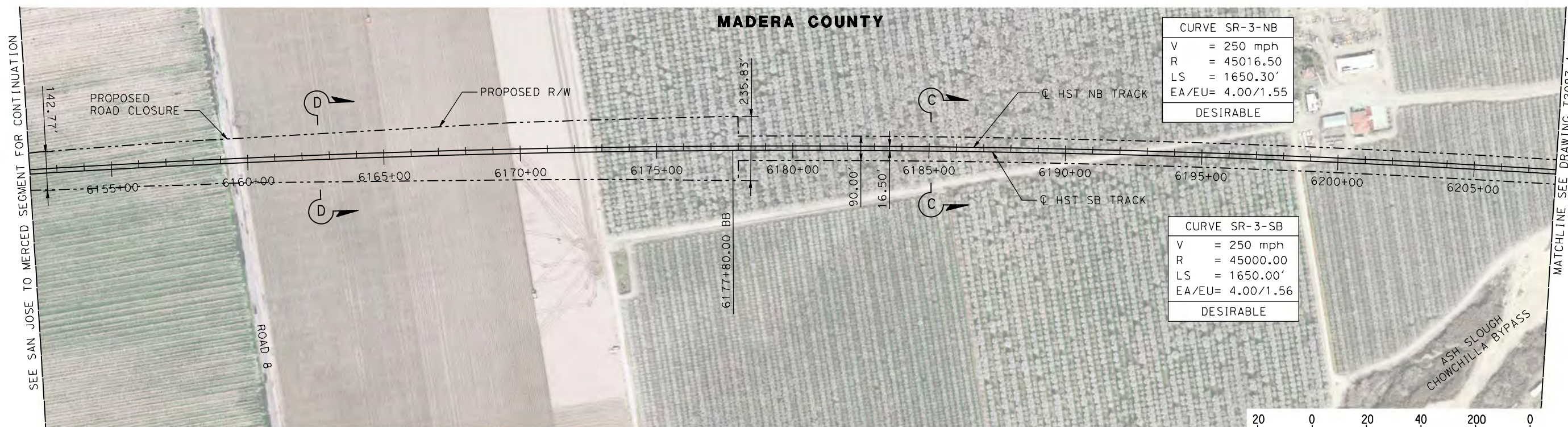
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 FRESNO SUBSECTION
 ALIGNMENT F1
 CROSS SECTIONS

CONTRACT NO.
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 DRAWING NO.
 T3025-A
 SCALE
 AS SHOWN
 SHEET NO.
 XX OF XX

MADERA COUNTY

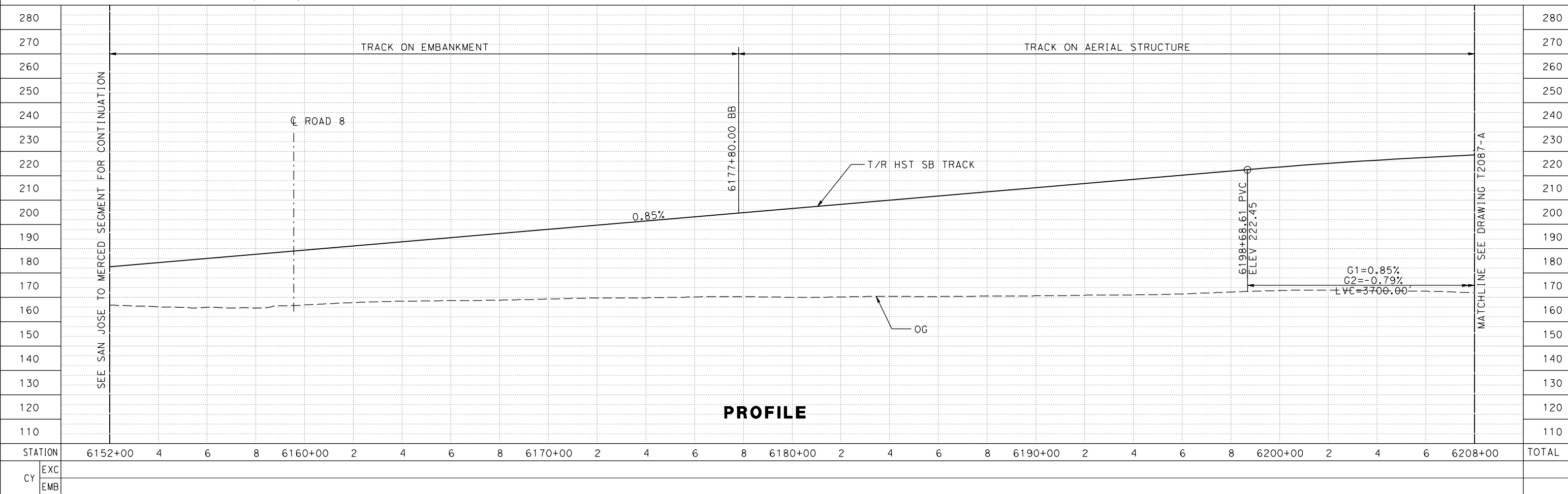
| CURVE SR-3-NB | |
|---------------|-------------|
| V | = 250 mph |
| R | = 45016.50 |
| LS | = 1650.30' |
| EA/EU | = 4.00/1.55 |
| DESIRABLE | |

| CURVE SR-3-SB | |
|---------------|-------------|
| V | = 250 mph |
| R | = 45000.00 |
| LS | = 1650.00' |
| EA/EU | = 4.00/1.56 |
| DESIRABLE | |



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

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|---------|---------|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---------|-------|
| STATION | 6152+00 | 4 | 6 | 8 | 6160+00 | 2 | 4 | 6 | 8 | 6170+00 | 2 | 4 | 6 | 8 | 6180+00 | 2 | 4 | 6 | 8 | 6190+00 | 2 | 4 | 6 | 8 | 6200+00 | 2 | 4 | 6 | 6208+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6152+00 TO STA 6208+00

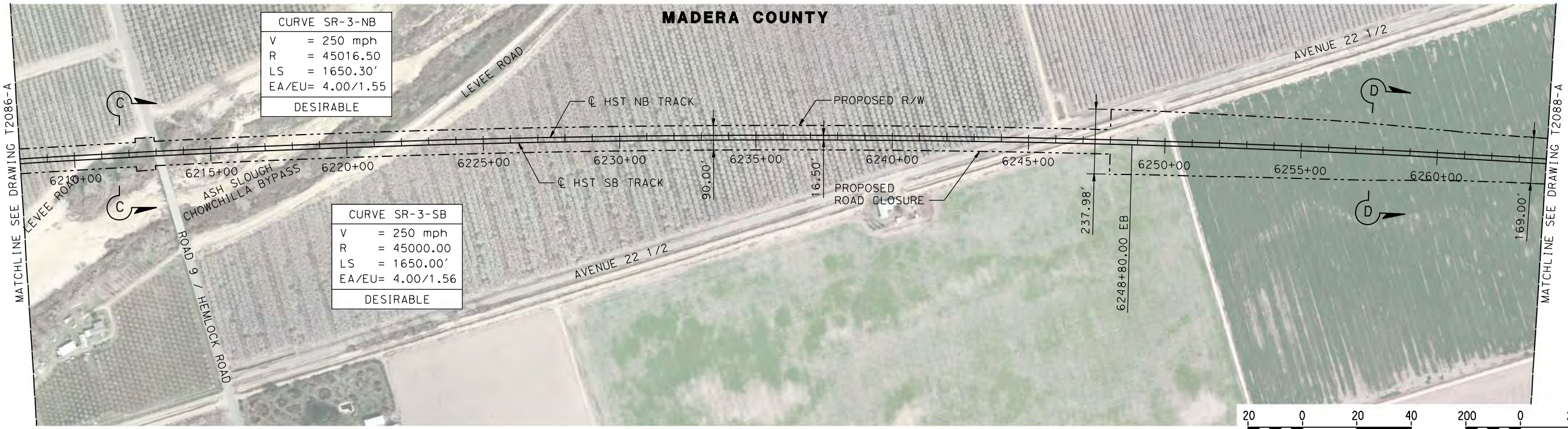
CONTRACT NO.
HSR08-05

DRAWING NO.
T2086-A

SCALE
AS SHOWN

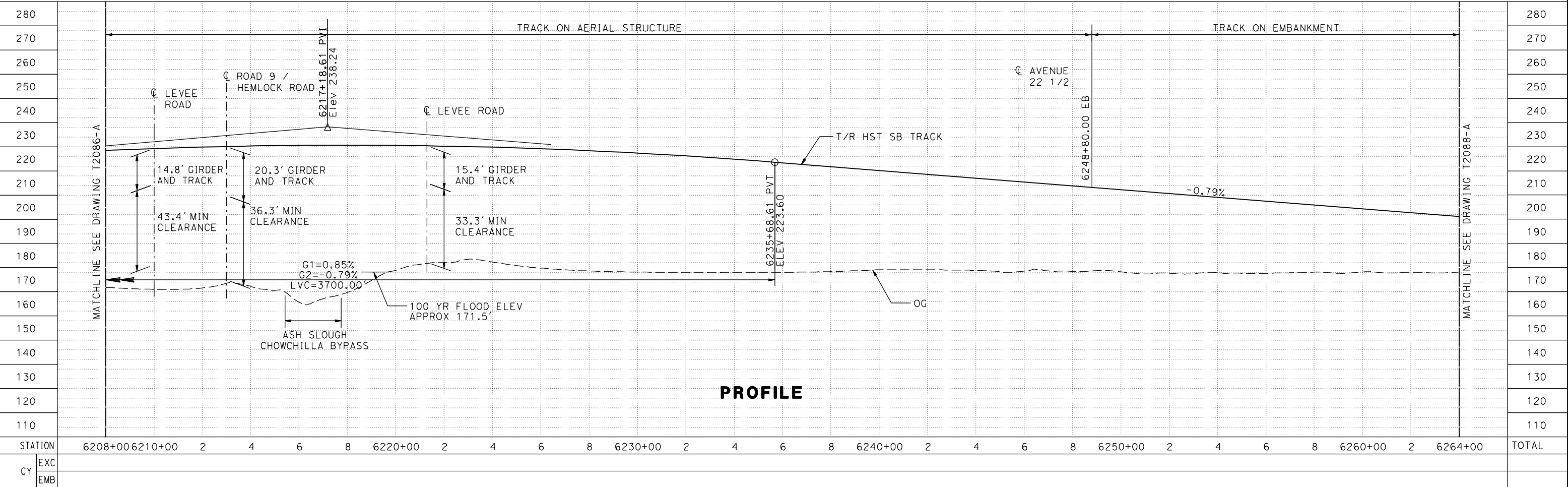
SHEET NO.

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NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---------|-------|
| STATION | 6208+00 | 6210+00 | 2 | 4 | 6 | 8 | 6220+00 | 2 | 4 | 6 | 8 | 6230+00 | 2 | 4 | 6 | 8 | 6240+00 | 2 | 4 | 6 | 8 | 6250+00 | 2 | 4 | 6 | 8 | 6260+00 | 2 | 6264+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
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FOR INTERNAL
USE ONLY**

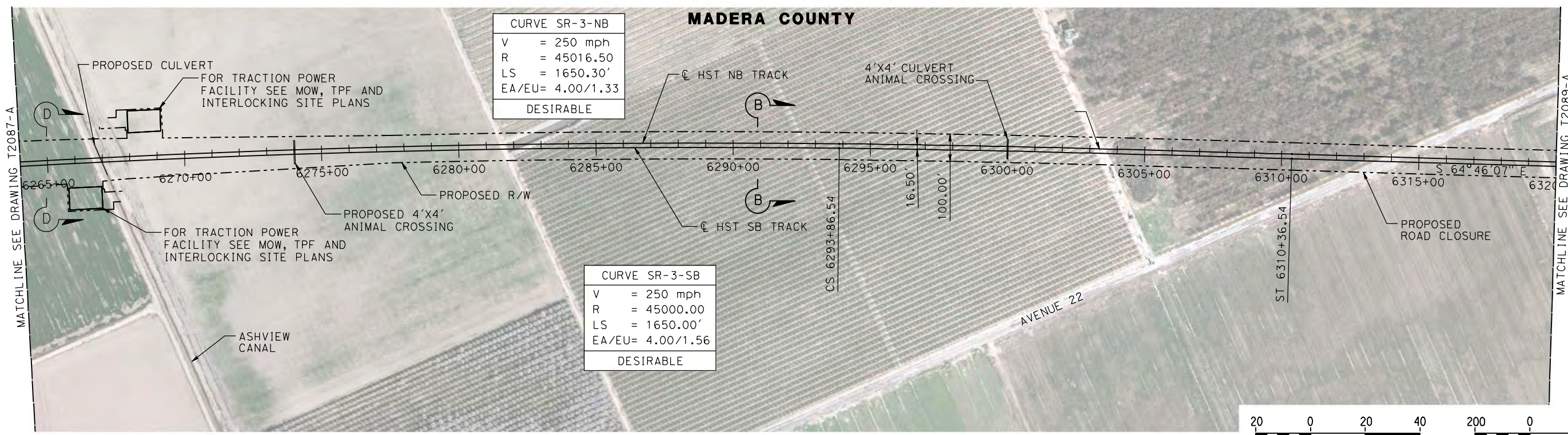
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6208+00 TO STA 6264+00

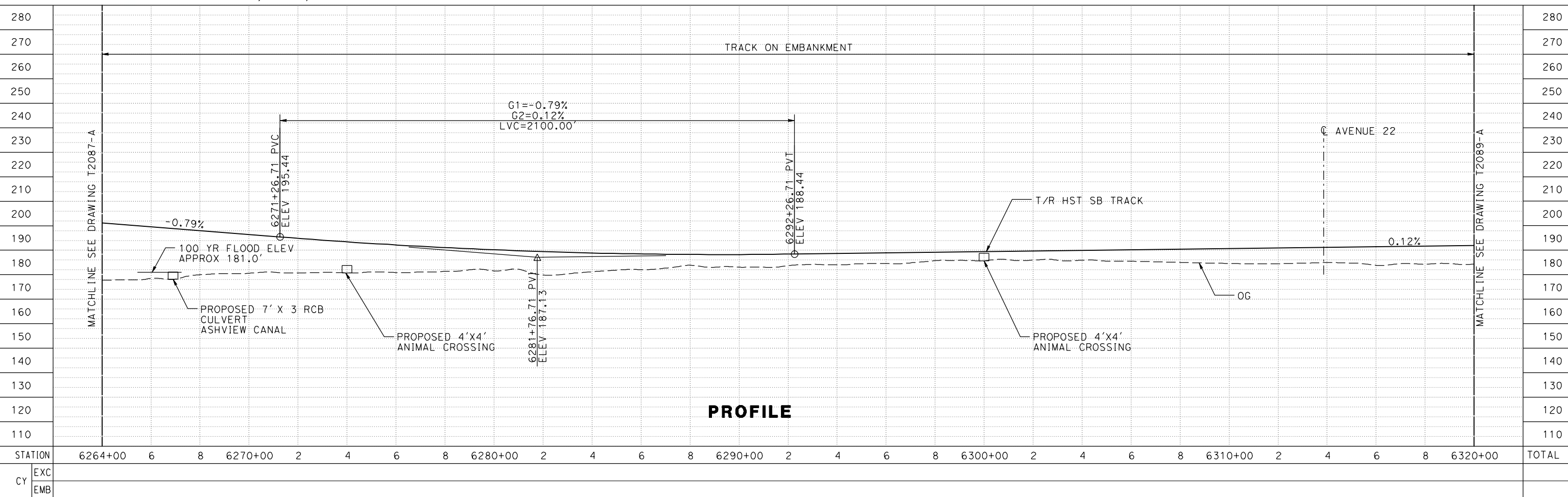
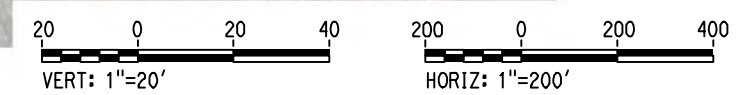
CONTRACT NO.
HSR08-05
DRAWING NO.
T2087-A
SCALE
AS SHOWN
SHEET NO.

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NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

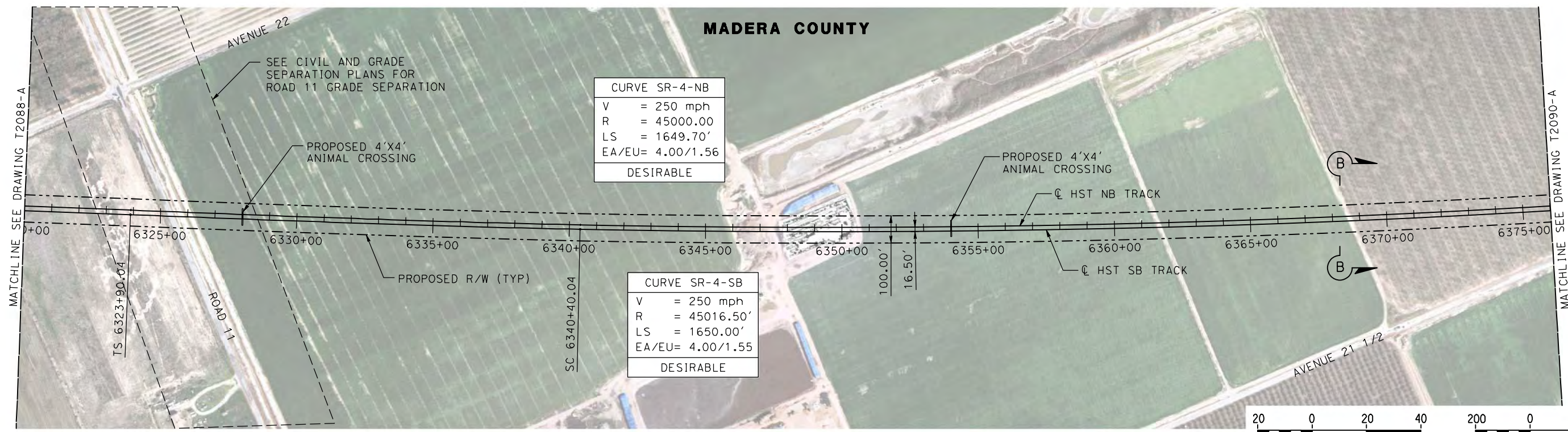
UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6264+00 TO STA 6320+00

CONTRACT NO.
HSR08-05

DRAWING NO.
T2088-A

SCALE
AS SHOWN

SHEET NO.

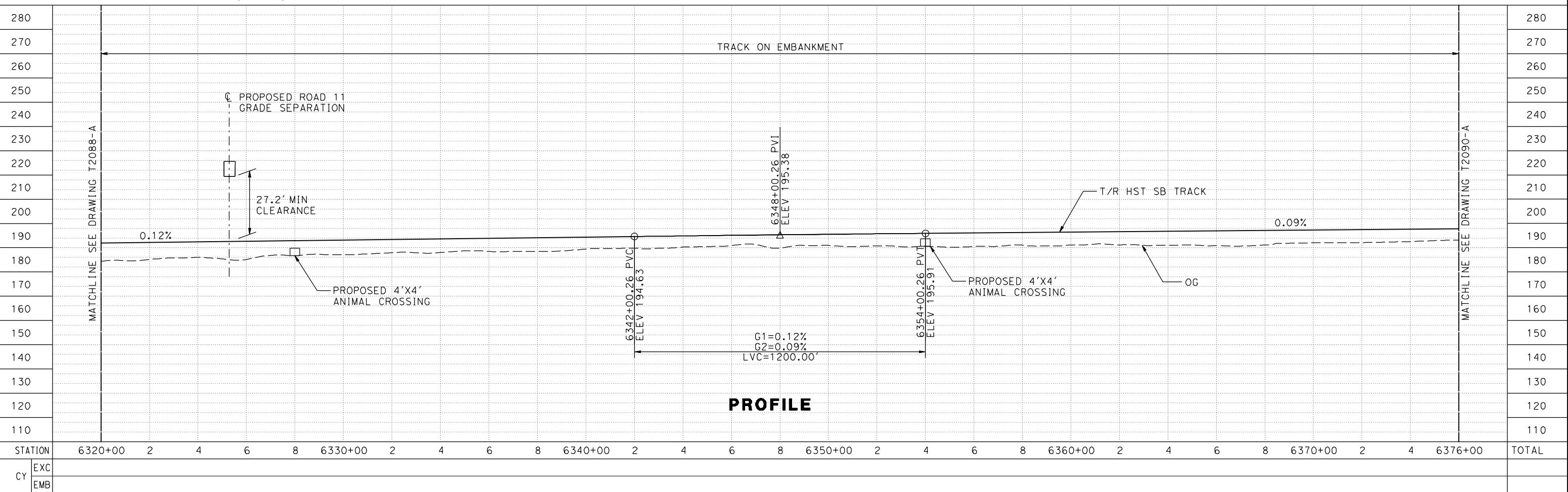


| CURVE SR-4-NB | |
|---------------|-------------|
| V | = 250 mph |
| R | = 45000.00 |
| LS | = 1649.70' |
| EA/EU | = 4.00/1.56 |
| DESIRABLE | |

| CURVE SR-4-SB | |
|---------------|-------------|
| V | = 250 mph |
| R | = 45016.50' |
| LS | = 1650.00' |
| EA/EU | = 4.00/1.55 |
| DESIRABLE | |

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

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|---------|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---------|-------|
| STATION | 6320+00 | 2 | 4 | 6 | 8 | 6330+00 | 2 | 4 | 6 | 8 | 6340+00 | 2 | 4 | 6 | 8 | 6350+00 | 2 | 4 | 6 | 8 | 6360+00 | 2 | 4 | 6 | 8 | 6370+00 | 2 | 4 | 6376+00 | TOTAL |
| CY | EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

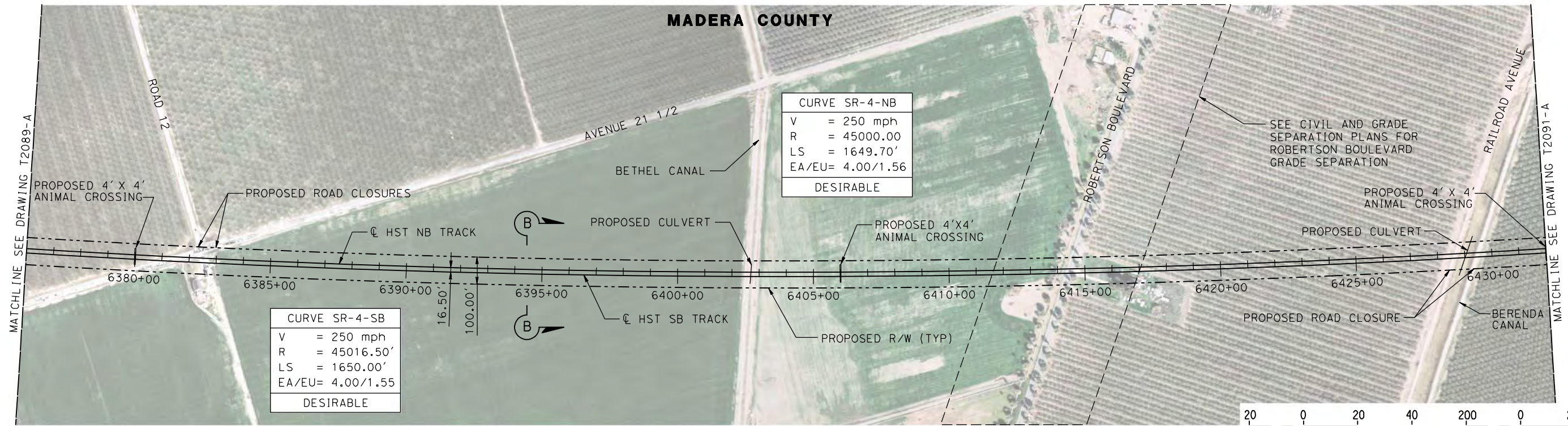
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6320+00 TO STA 6376+00

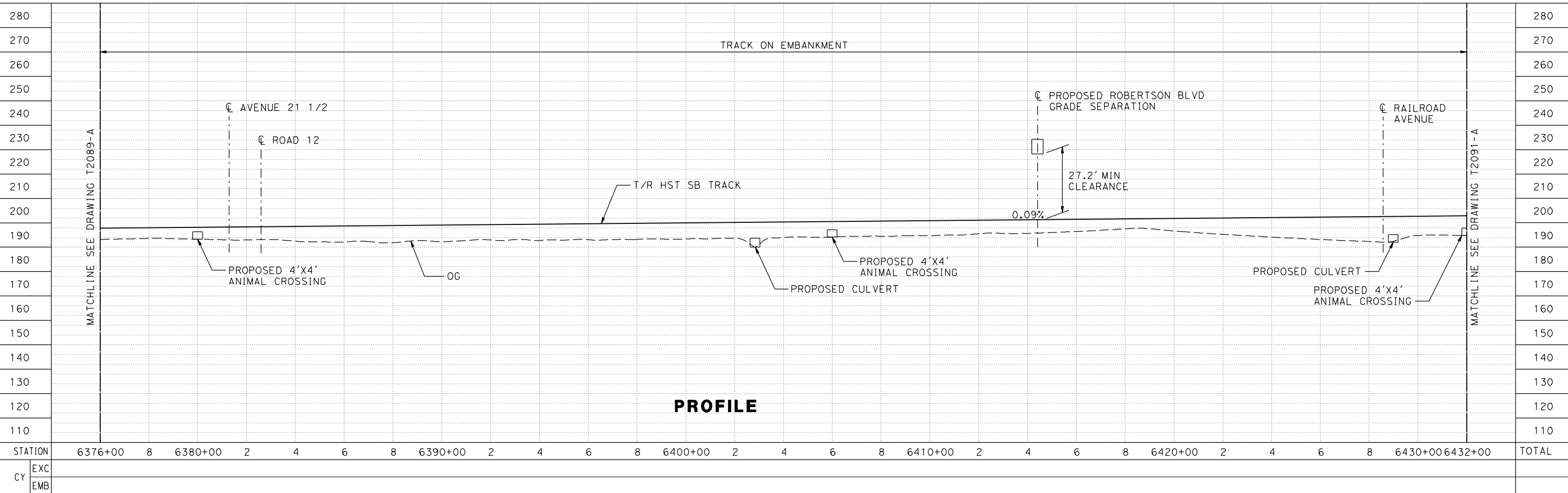
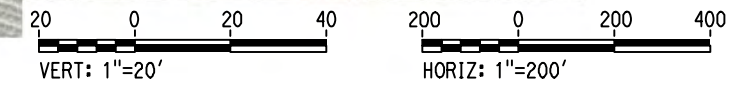
CONTRACT NO.
HSR08-05
DRAWING NO.
T2089-A
SCALE
AS SHOWN
SHEET NO.

MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

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|---------|---------|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---------|-------|
| STATION | 6376+00 | 8 | 6380+00 | 2 | 4 | 6 | 8 | 6390+00 | 2 | 4 | 6 | 8 | 6400+00 | 2 | 4 | 6 | 8 | 6410+00 | 2 | 4 | 6 | 8 | 6420+00 | 2 | 4 | 6 | 8 | 6430+00 | 6432+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

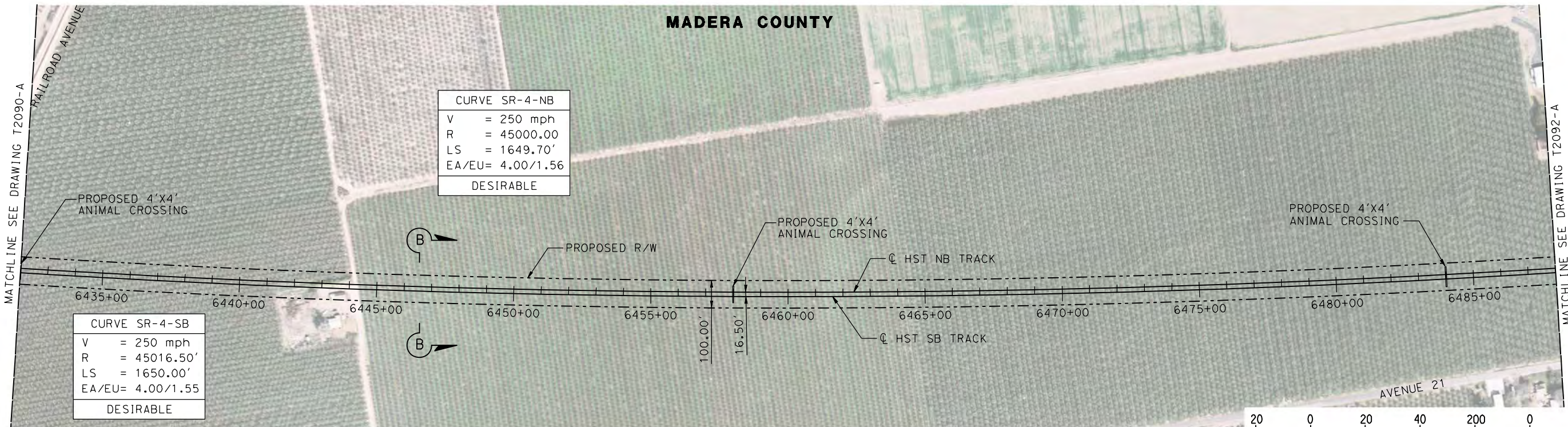
**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
STA 6376+00 TO STA 6432+00

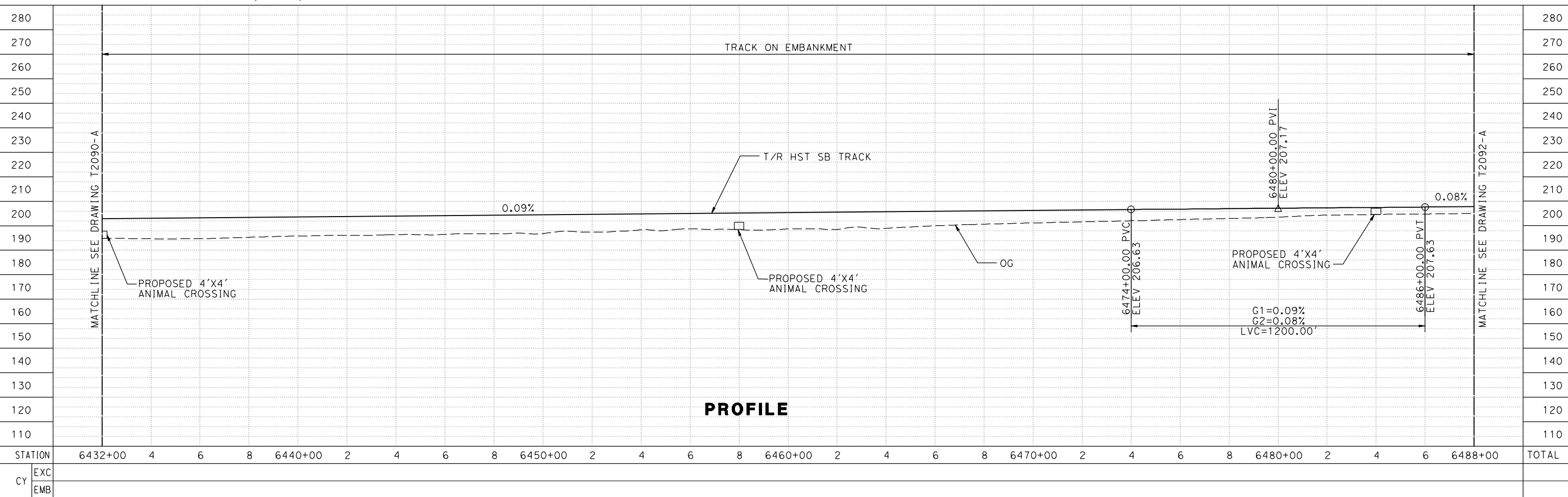
CONTRACT NO.
HSR08-05
DRAWING NO.
T2090-A
SCALE
AS SHOWN
SHEET NO.

MADERA COUNTY



PLAN

NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
 TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
P. JACOBY

DRAWN BY
ALBERT S.

CHECKED BY
RESHMA C.

IN CHARGE
D. WEMMER

DATE
4/15/2011

**15X DRAFT
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 FOR INTERNAL
 USE ONLY**

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE
 AVENUE 24/SR152/AVENUE 21
 TRACK PLAN AND PROFILE
 STA 6432+00 TO STA 6488+00

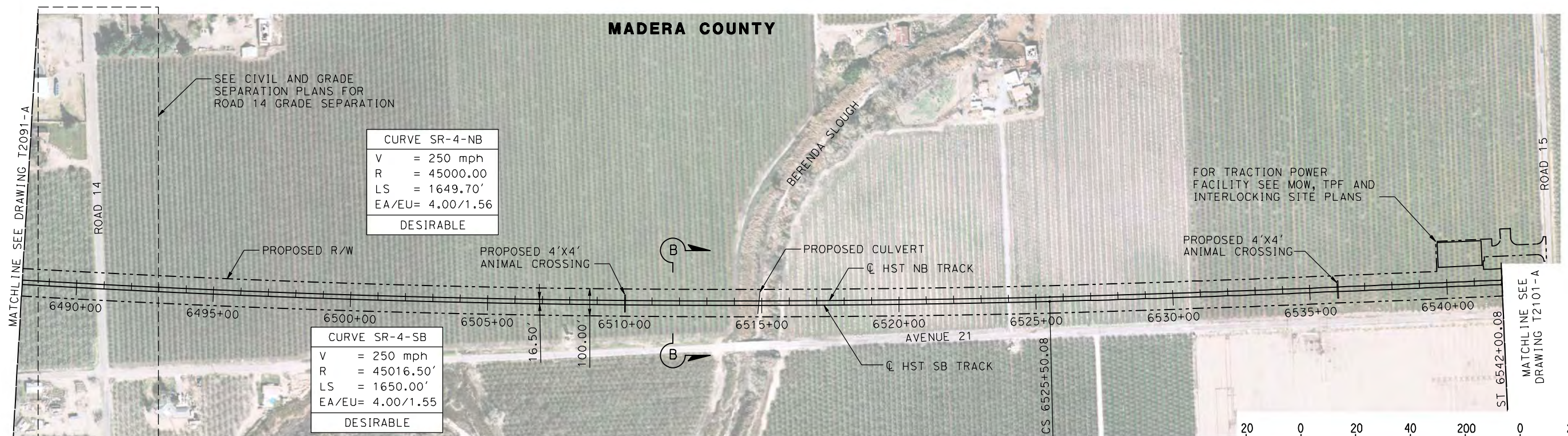
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HSR08-05

DRAWING NO.
T2091-A

SCALE
AS SHOWN

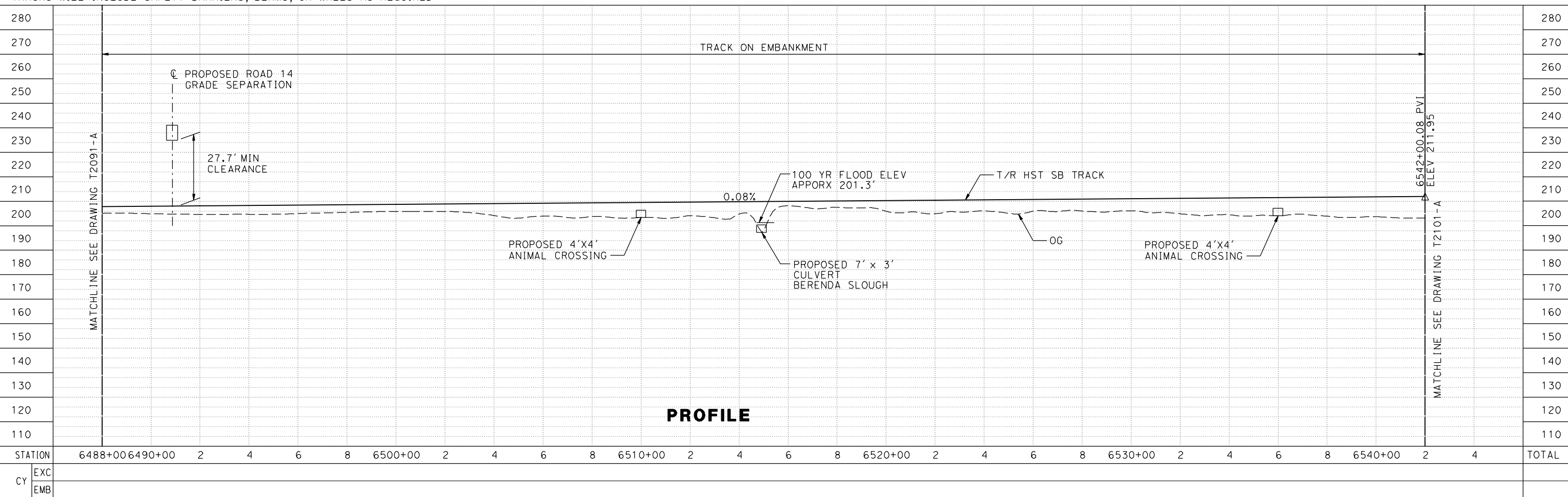
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PLAN

NOTE: TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

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|---------|---------|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|-------|
| STATION | 6488+00 | 6490+00 | 2 | 4 | 6 | 8 | 6500+00 | 2 | 4 | 6 | 8 | 6510+00 | 2 | 4 | 6 | 8 | 6520+00 | 2 | 4 | 6 | 8 | 6530+00 | 2 | 4 | 6 | 8 | 6540+00 | 2 | 4 | TOTAL |
| CY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DESIGNED BY
P. JACOBY
DRAWN BY
ALBERT S.
CHECKED BY
RESHMA C.
IN CHARGE
D. WEMMER
DATE
4/15/2011

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 24/SR152/AVENUE 21
TRACK PLAN AND PROFILE
6488+00 TO STA 6542+00

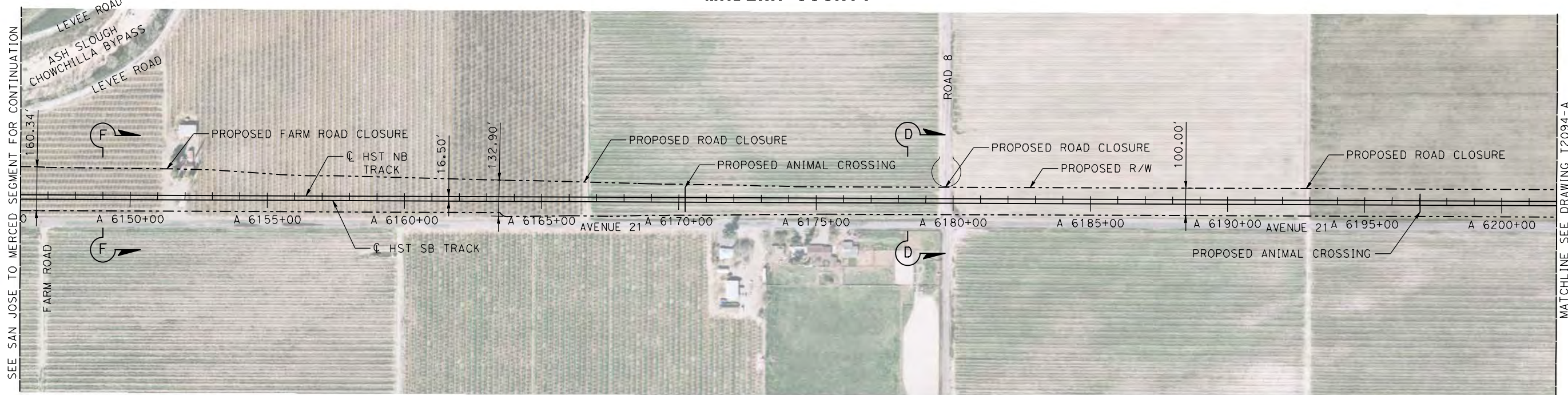
CONTRACT NO.
HSR08-05

DRAWING NO.
T2092-A

SCALE
AS SHOWN

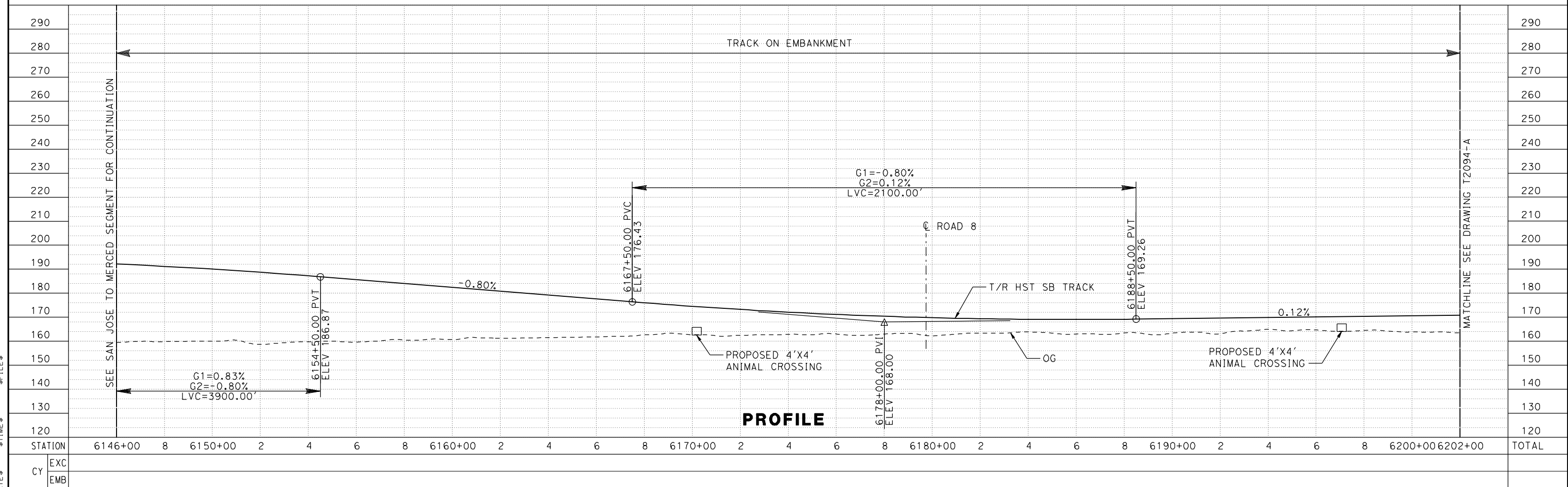
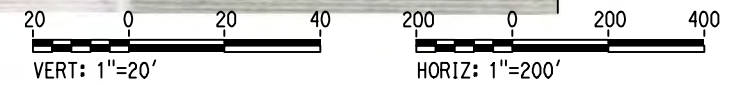
SHEET NO.

MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

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|---------|---------|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---------|-------|
| STATION | 6146+00 | 8 | 6150+00 | 2 | 4 | 6 | 8 | 6160+00 | 2 | 4 | 6 | 8 | 6170+00 | 2 | 4 | 6 | 8 | 6180+00 | 2 | 4 | 6 | 8 | 6190+00 | 2 | 4 | 6 | 8 | 6200+00 | 6202+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|-----------|
| DESIGNED BY | A. GURA |
| DRAWN BY | A. GURA |
| CHECKED BY | S. GOOLLA |
| IN CHARGE | D. WEMMER |
| DATE | 4/15/2011 |

**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6146+00 TO STA A 6202+00

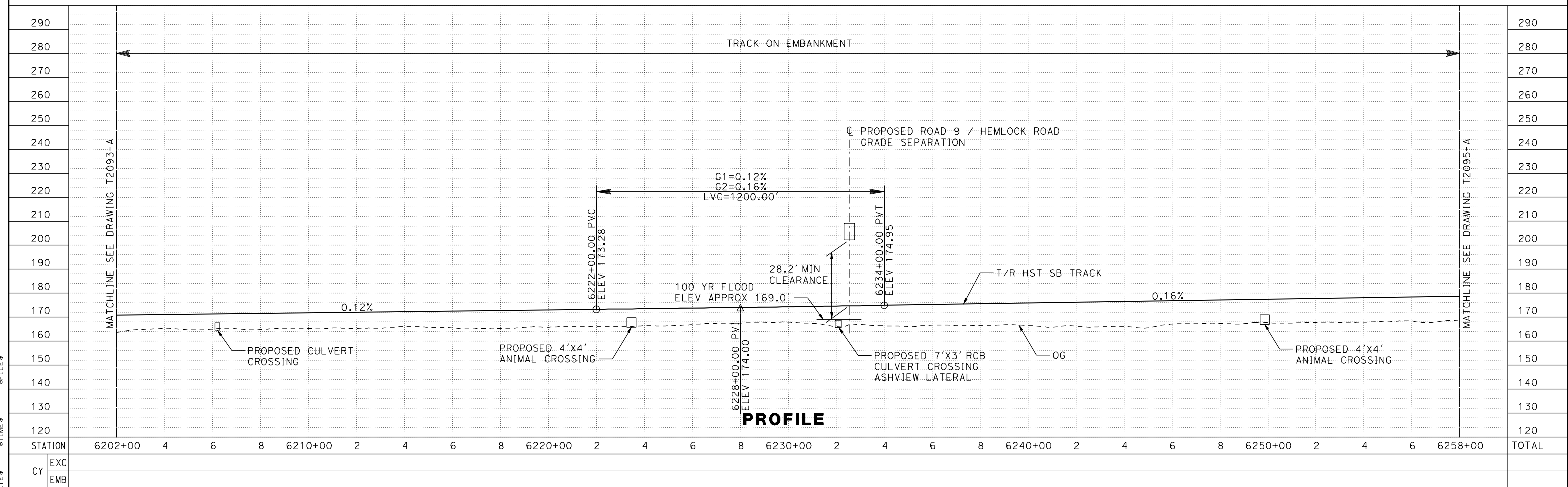
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| CONTRACT NO. | HSR08-05 |
| DRAWING NO. | T2093-A |
| SCALE | AS SHOWN |
| SHEET NO. | |

MADERA COUNTY



NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



| | |
|-------------|-----------|
| DESIGNED BY | A. GURA |
| DRAWN BY | A. GURA |
| CHECKED BY | S. GOOLLA |
| IN CHARGE | D. WEMMER |
| DATE | 4/15/2011 |

15% DRAFT SUBMITTAL FOR INTERNAL USE ONLY

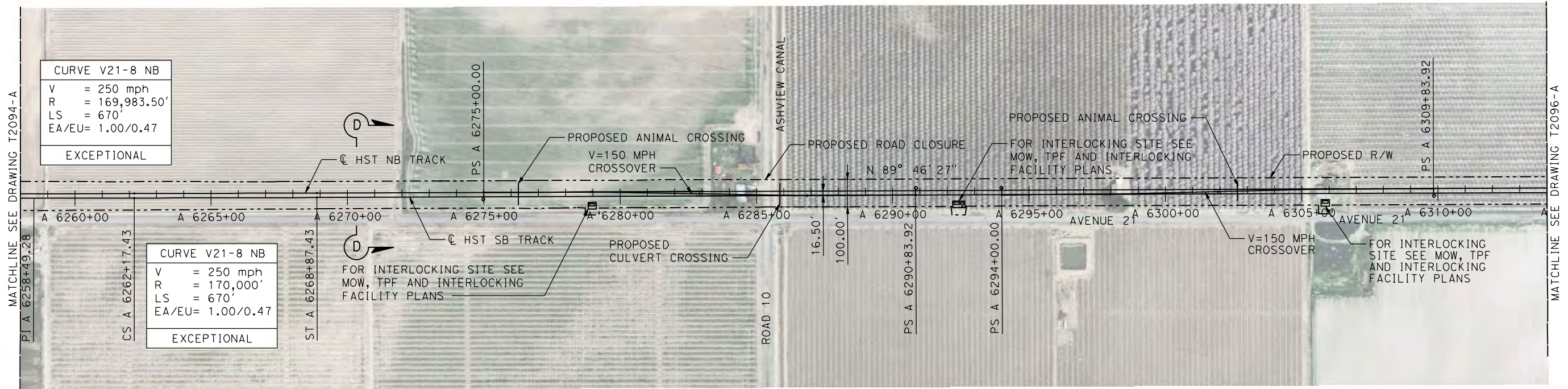
NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6202+00 TO STA A 6258+00

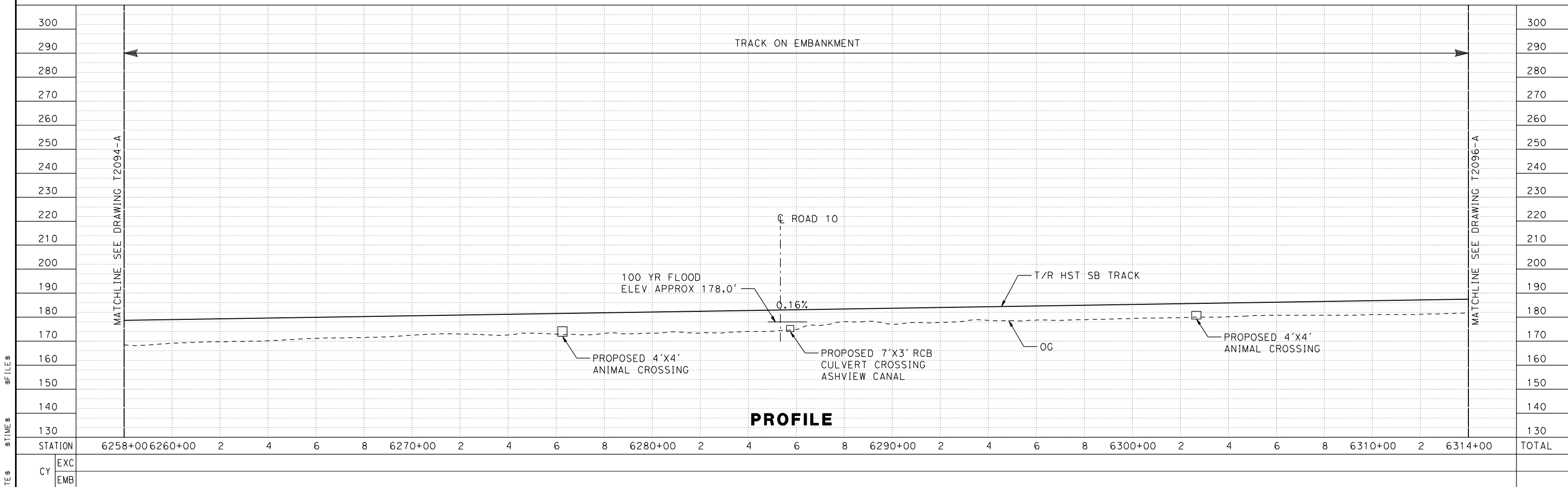
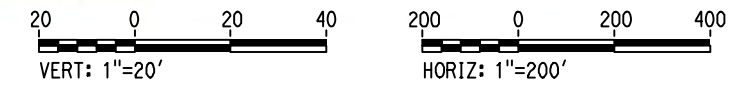
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|--------------|----------|
| CONTRACT NO. | HSR08-05 |
| DRAWING NO. | T2094-A |
| SCALE | AS SHOWN |
| SHEET NO. | |

MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
 TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. GURA
 DRAWN BY
A. GURA
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

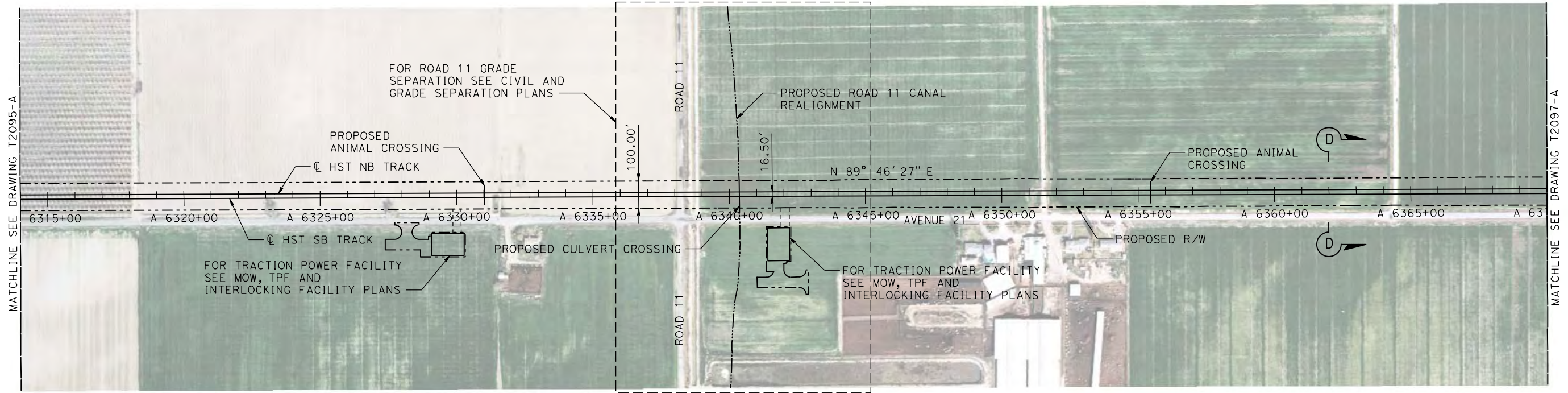
**NOT FOR
 CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE
 AVENUE 21
 TRACK PLAN AND PROFILE
 STA A 6258+00 TO STA A 6314+00

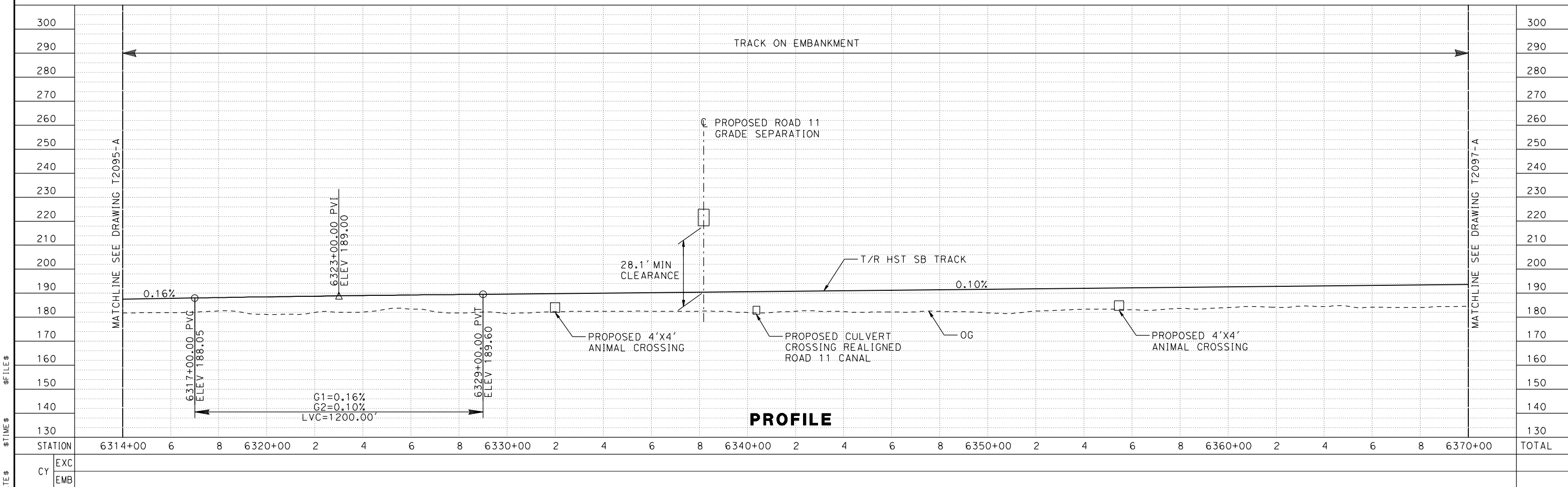
CONTRACT NO.
HSR08-05
 DRAWING NO.
T2095-A
 SCALE
AS SHOWN
 SHEET NO.

MADERA COUNTY



PLAN

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|-------|
| STATION | 6314+00 | 6 | 8 | 6320+00 | 2 | 4 | 6 | 8 | 6330+00 | 2 | 4 | 6 | 8 | 6340+00 | 2 | 4 | 6 | 8 | 6350+00 | 2 | 4 | 6 | 8 | 6360+00 | 2 | 4 | 6 | 8 | 6370+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|-----------|
| DESIGNED BY | A. GURA |
| DRAWN BY | A. GURA |
| CHECKED BY | S. GOOLLA |
| IN CHARGE | D. WEMMER |
| DATE | 4/15/2011 |

**15% DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**

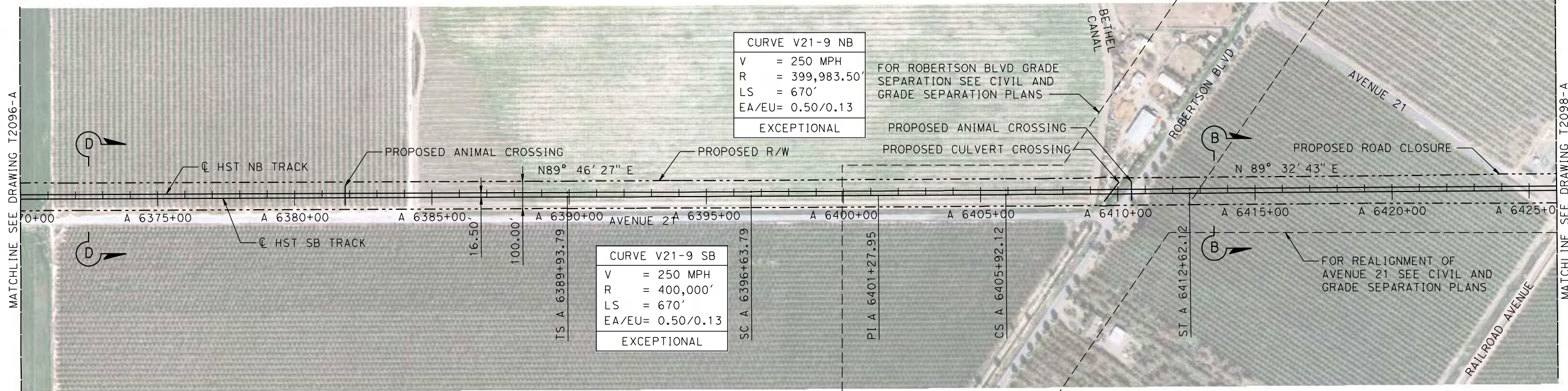


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6314+00 TO STA A 6370+00

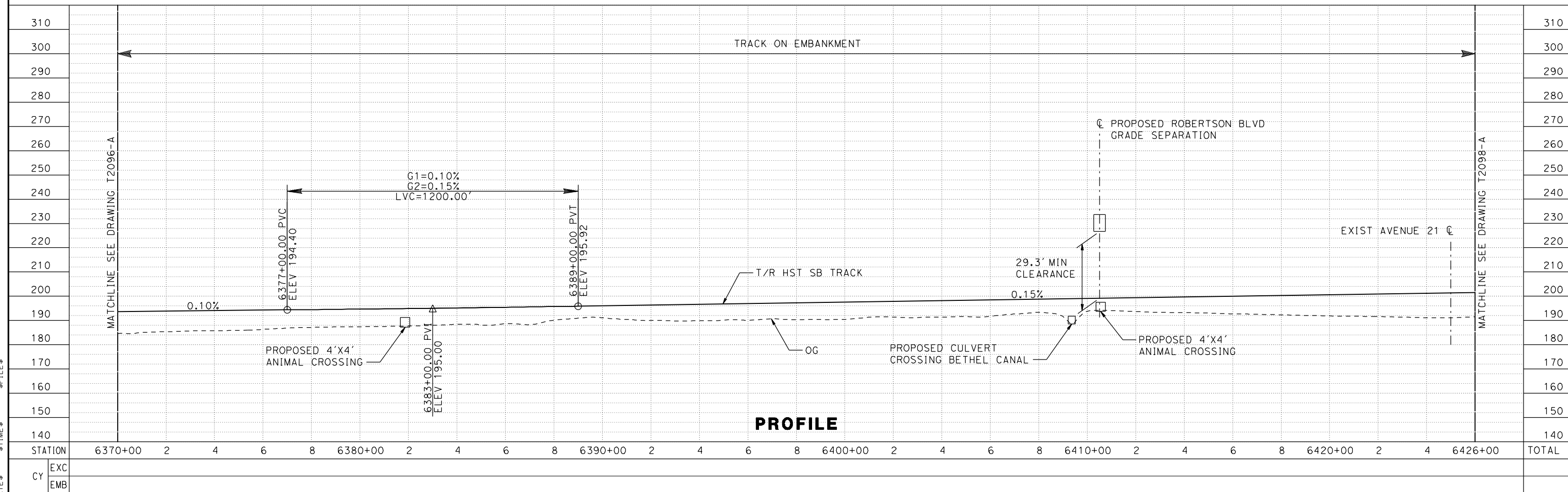
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|--------------|----------|
| CONTRACT NO. | HSR08-05 |
| DRAWING NO. | T2096-A |
| SCALE | AS SHOWN |
| SHEET NO. | |

MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. GURA
 DRAWN BY
A. GURA
 CHECKED BY
S. GOOLLA
 IN CHARGE
D. WEMMER
 DATE
4/15/2011

**15% DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

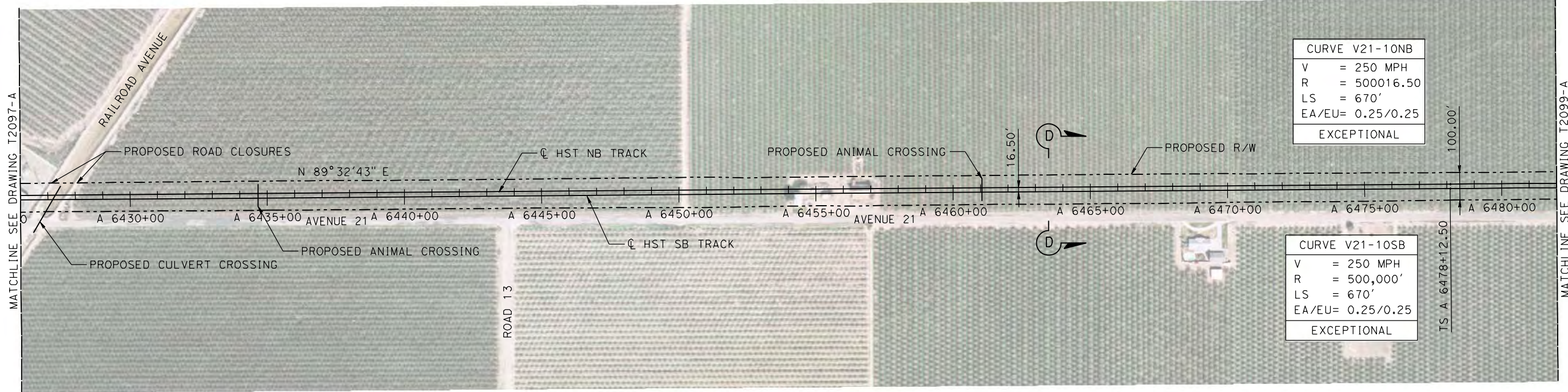
**NOT FOR
 CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 MERCED TO FRESNO**
 UPRR/SR 99 MAIN LINE
 AVENUE 21
 TRACK PLAN AND PROFILE
 STA A 6370+00 TO STA A 6426+00

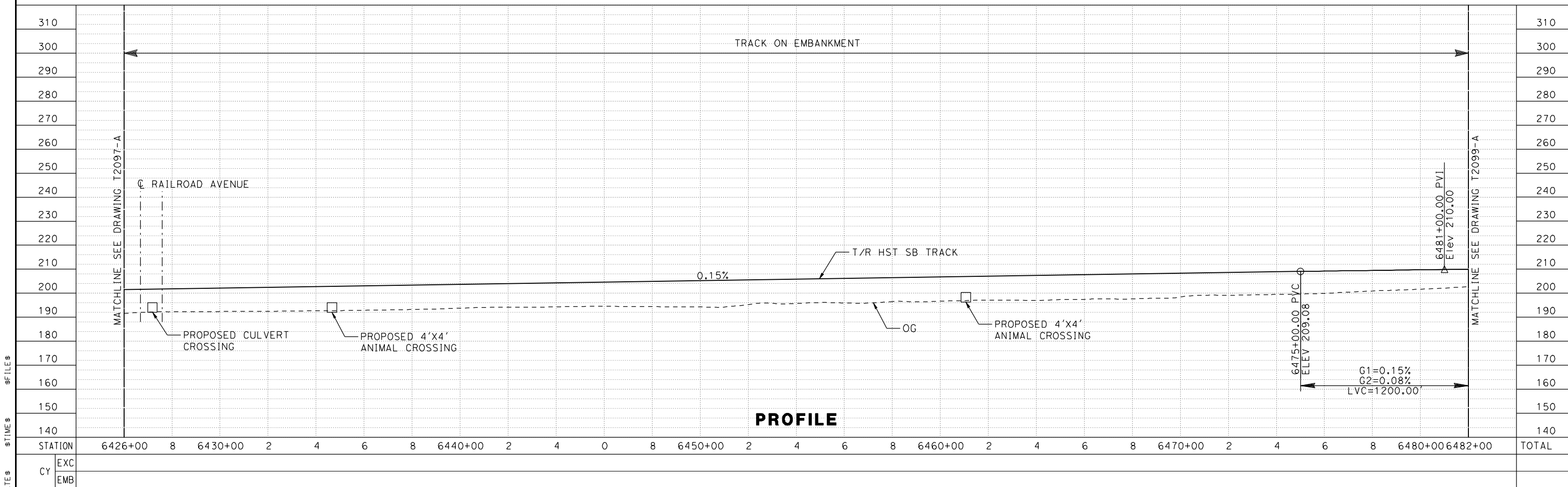
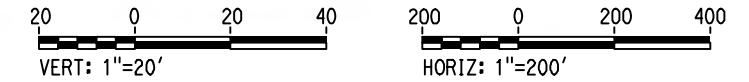
CONTRACT NO.
HSR08-05
 DRAWING NO.
T2097-A
 SCALE
AS SHOWN
 SHEET NO.

MADERA COUNTY



NOTE:
 TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
 TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED

PLAN



PROFILE

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|---------|---------|-------|
| STATION | 6426+00 | 8 | 6430+00 | 2 | 4 | 6 | 8 | 6440+00 | 2 | 4 | 0 | 8 | 6450+00 | 2 | 4 | 6 | 8 | 6470+00 | 2 | 4 | 6 | 8 | 6480+00 | 6482+00 | TOTAL |
| EXC | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|-----------|
| DESIGNED BY | A. GURA |
| DRAWN BY | A. GURA |
| CHECKED BY | S. GOOLLA |
| IN CHARGE | D. WEMMER |
| DATE | 4/15/2011 |

**15X DRAFT
 SUBMITTAL
 FOR INTERNAL
 USE ONLY**

**NOT FOR
 CONSTRUCTION**

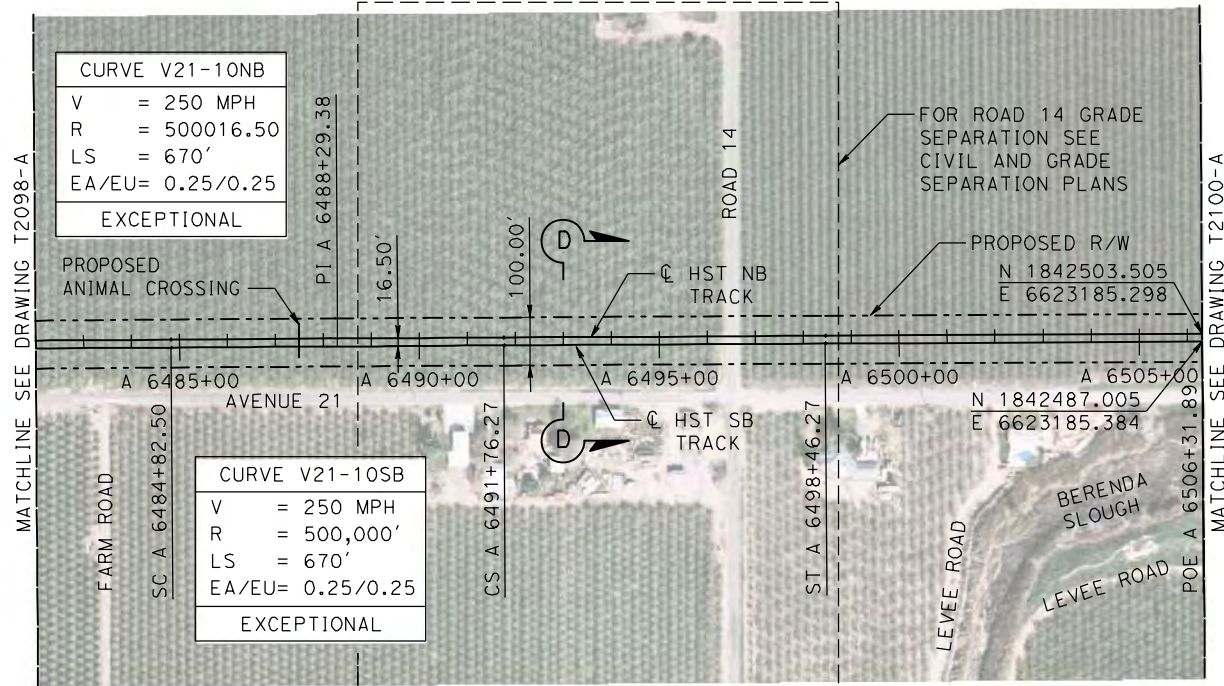


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 MERCED TO FRESNO**
 UPRR/SR 99 MAIN LINE
 AVENUE 21
 TRACK PLAN AND PROFILE
 STA A 6426+00 TO STA A 6482+00

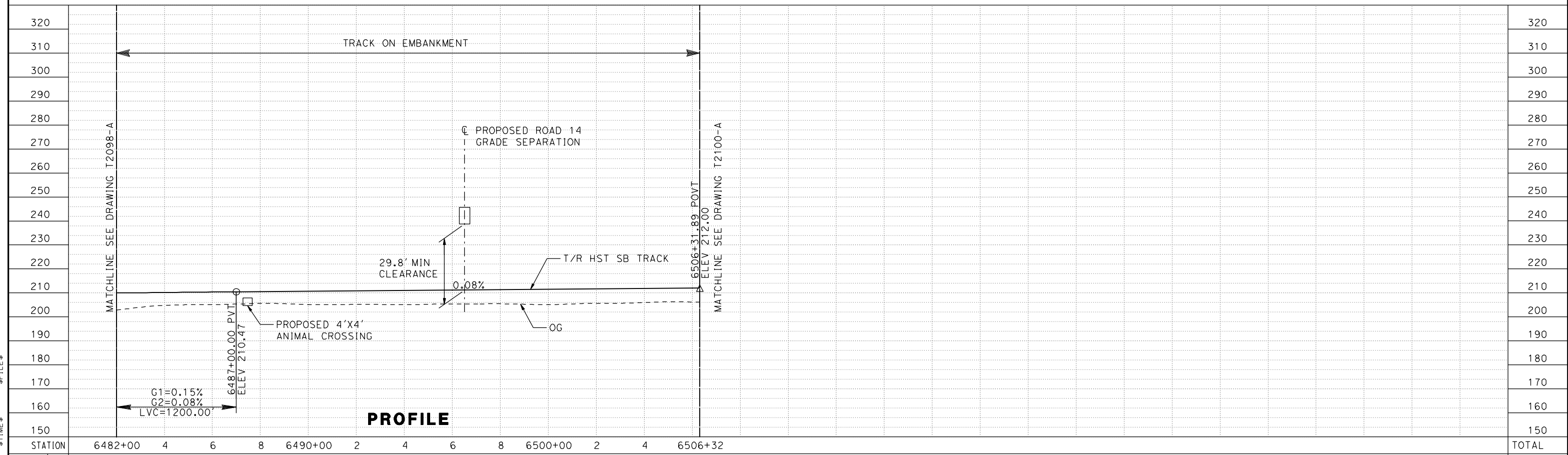
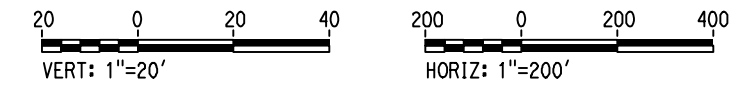
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| CONTRACT NO. | HSR08-05 |
| DRAWING NO. | T2098-A |
| SCALE | AS SHOWN |
| SHEET NO. | |

MADERA COUNTY

NOTE:
TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT
TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PLAN



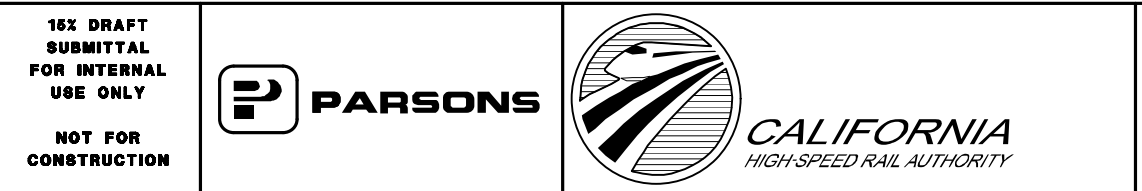
PROFILE

| | | | | | | | | | | | | | | |
|---------|---------|---|---|---|---------|---|---|---|---|---------|---|---|---------|-------|
| STATION | 6482+00 | 4 | 6 | 8 | 6490+00 | 2 | 4 | 6 | 8 | 6500+00 | 2 | 4 | 6506+32 | TOTAL |
| EXC | | | | | | | | | | | | | | |
| EMB | | | | | | | | | | | | | | |

| | |
|-------------|-----------|
| DESIGNED BY | A. GURA |
| DRAWN BY | A. GURA |
| CHECKED BY | S. GOOLLA |
| IN CHARGE | D. WEMMER |
| DATE | 4/15/2011 |

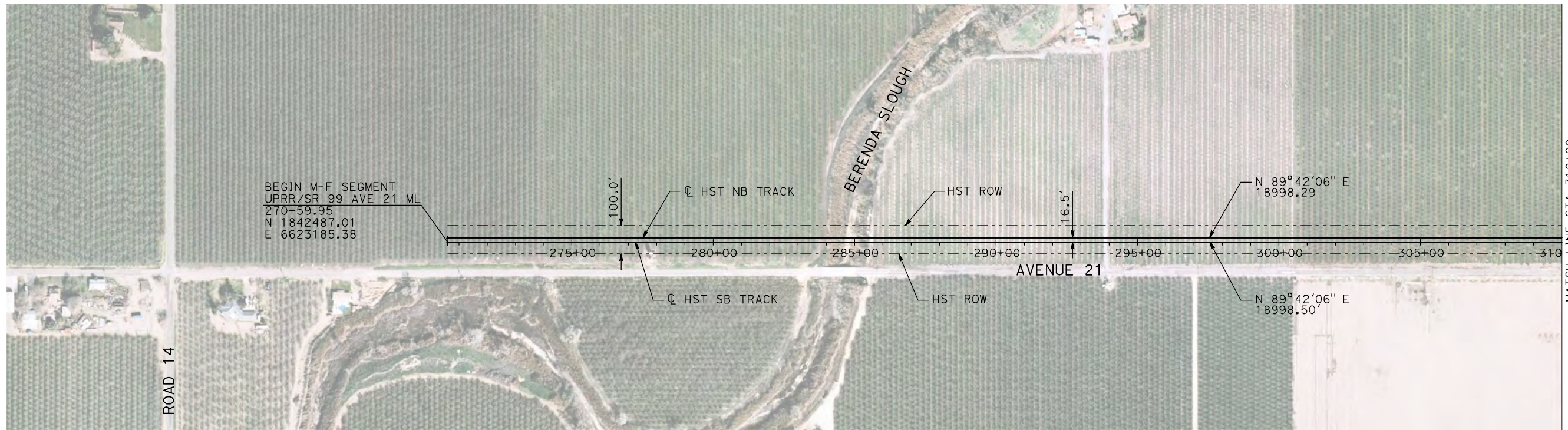
**15X DRAFT
SUBMITTAL
FOR INTERNAL
USE ONLY**

**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
TRACK PLAN AND PROFILE
STA A 6482+00 TO STA A 6506+32

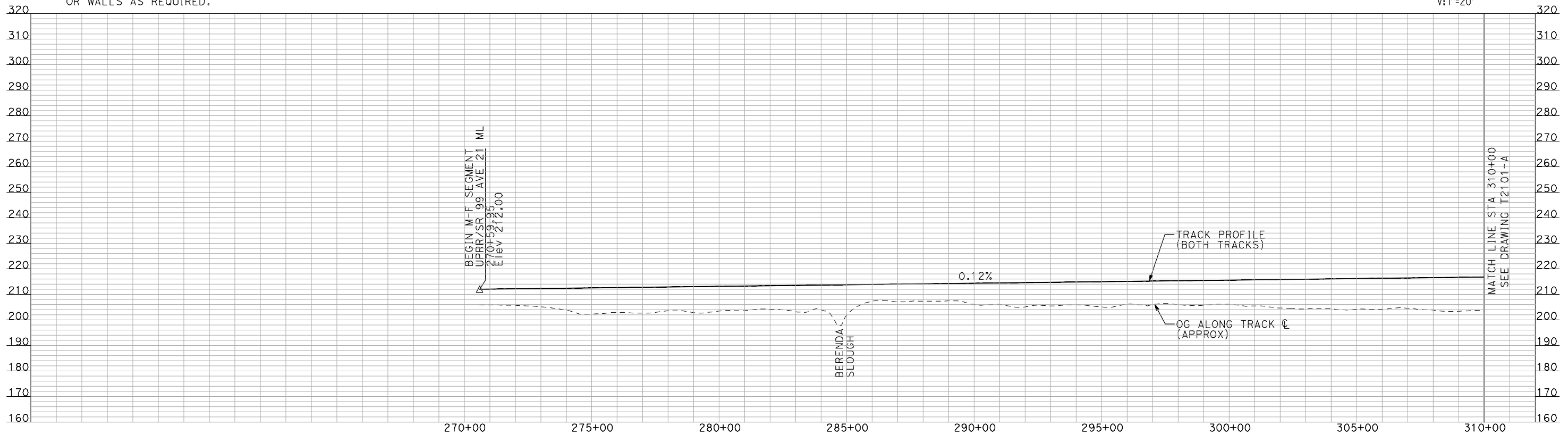
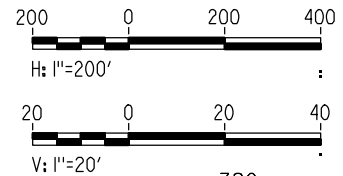
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|--------------|----------|
| CONTRACT NO. | HSR08-05 |
| DRAWING NO. | T2099-A |
| SCALE | AS SHOWN |
| SHEET NO. | |



PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

7/20/2011 2:38:02 PM i:\chsr\60022962\Task-02_merced-fresno\cadd\civil\sheet\trackwork\deir\UPRR_AVE_21\MF-T-2100-A.dgn machadoe

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

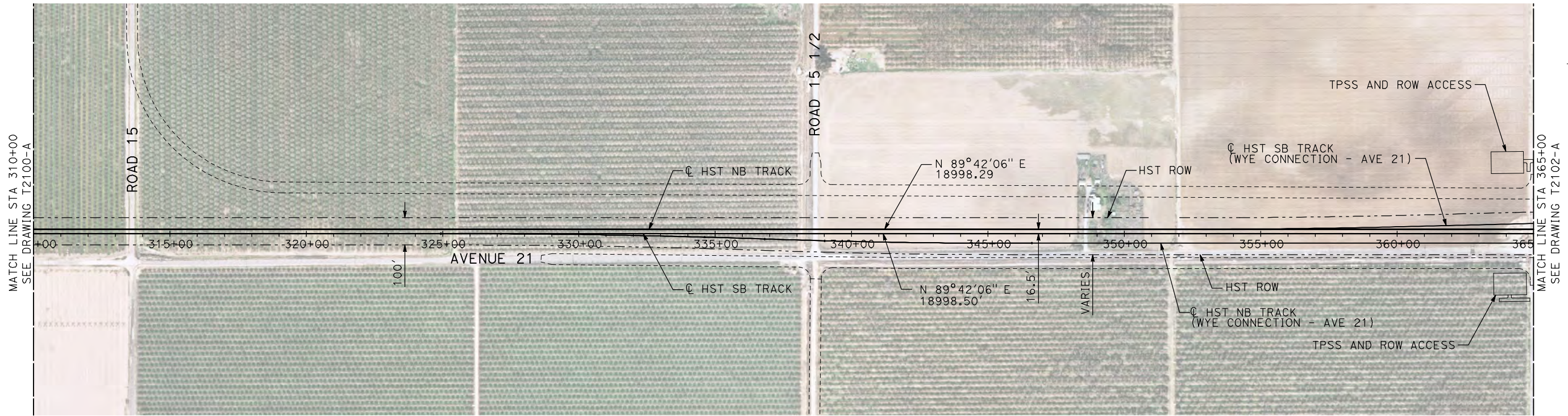
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 270+59.95 TO STA 310+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2100-A
SCALE
AS SHOWN
SHEET NO.
OF

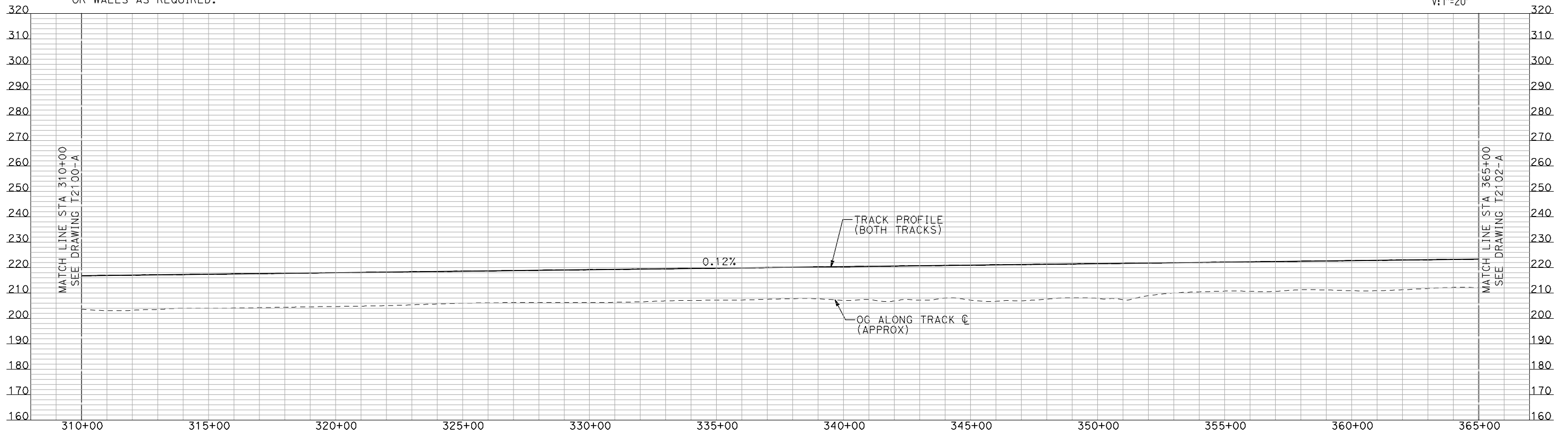
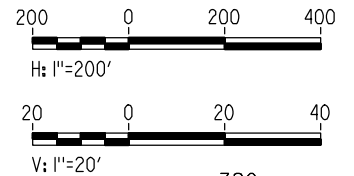
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

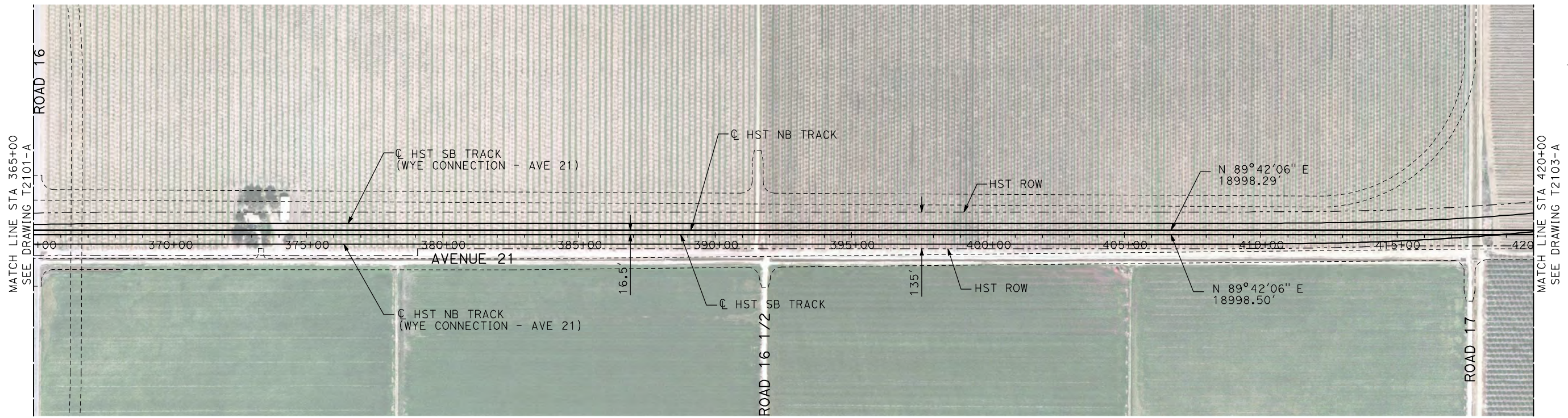
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

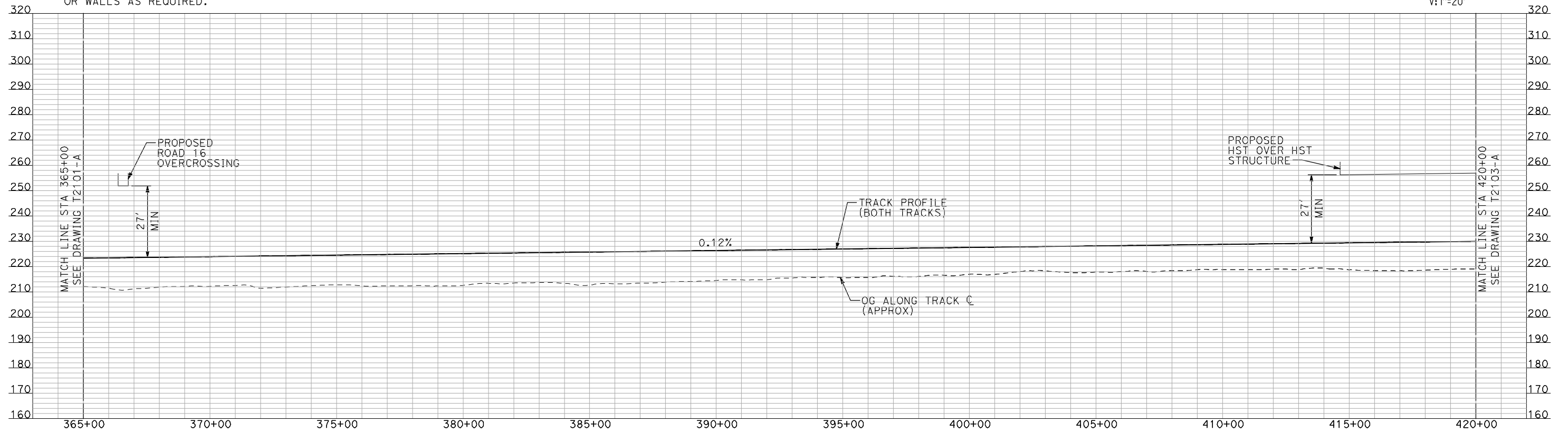
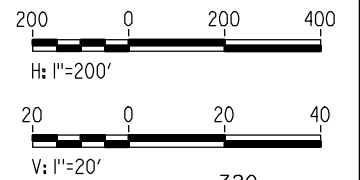
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 310+00 TO STA 365+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2101-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

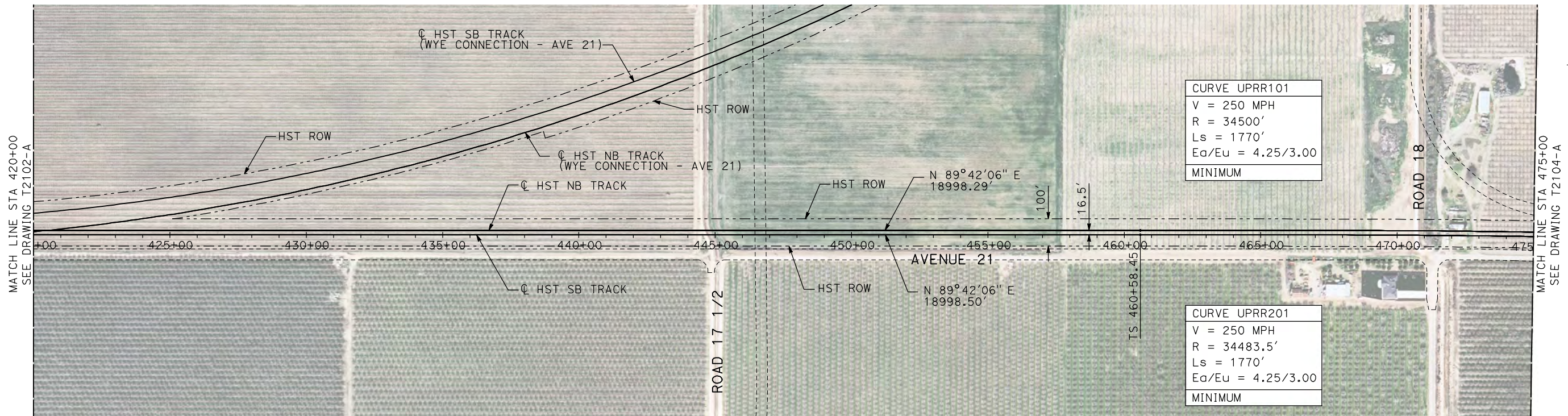
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 365+00 TO STA 420+00

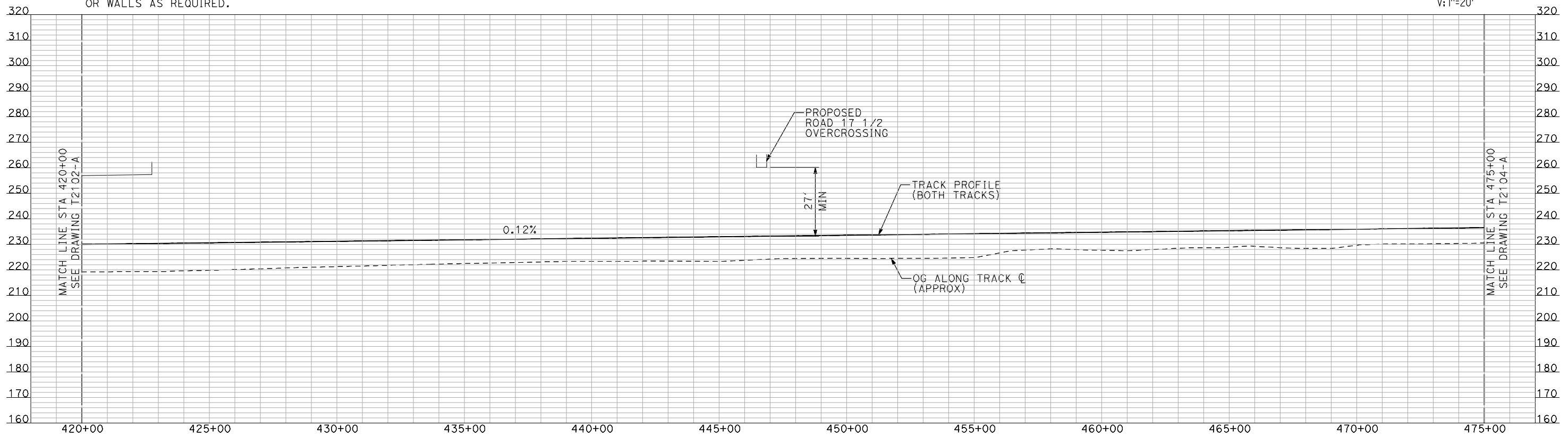
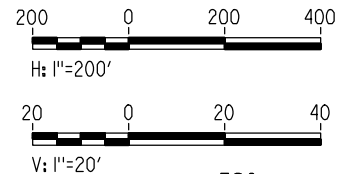
CONTRACT NO.
HSR06-007
DRAWING NO.
T2102-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

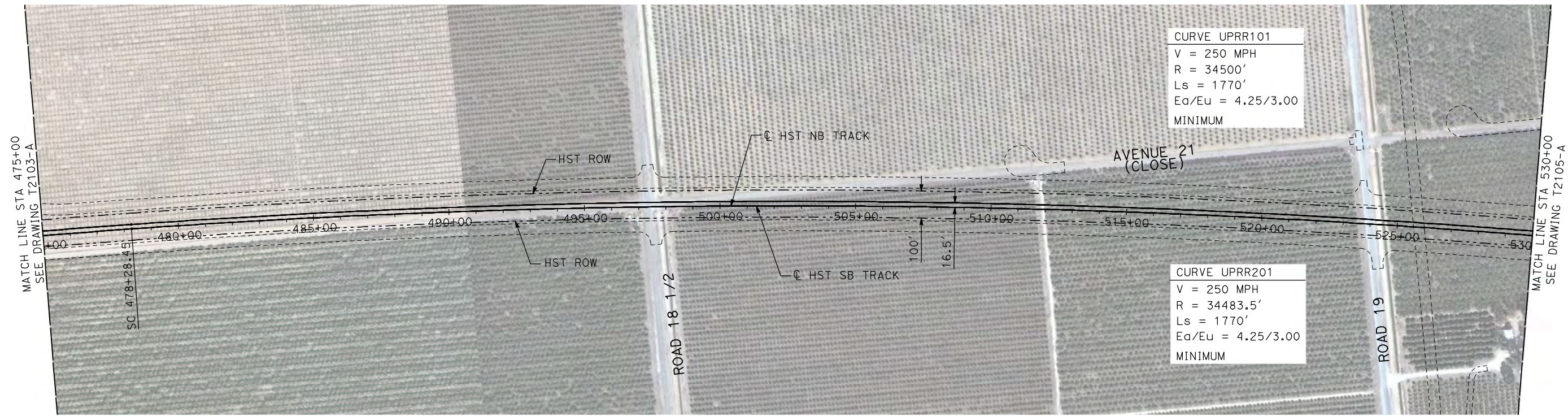
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 420+00 TO STA 475+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2103-A
SCALE
AS SHOWN
SHEET NO.
OF

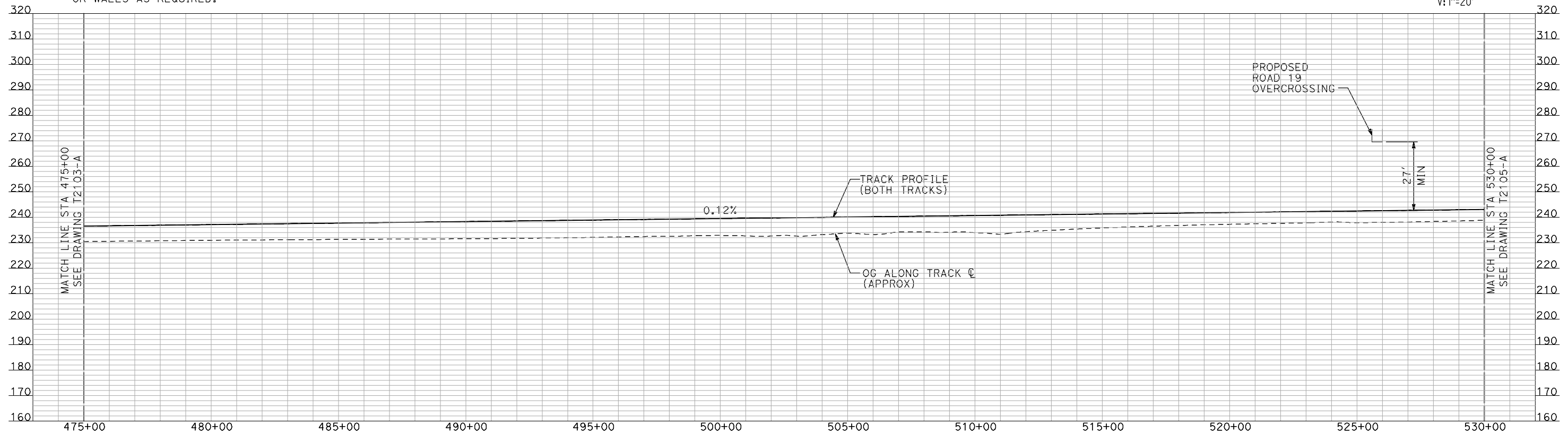
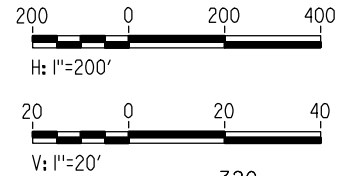
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |
| | | | | | |
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

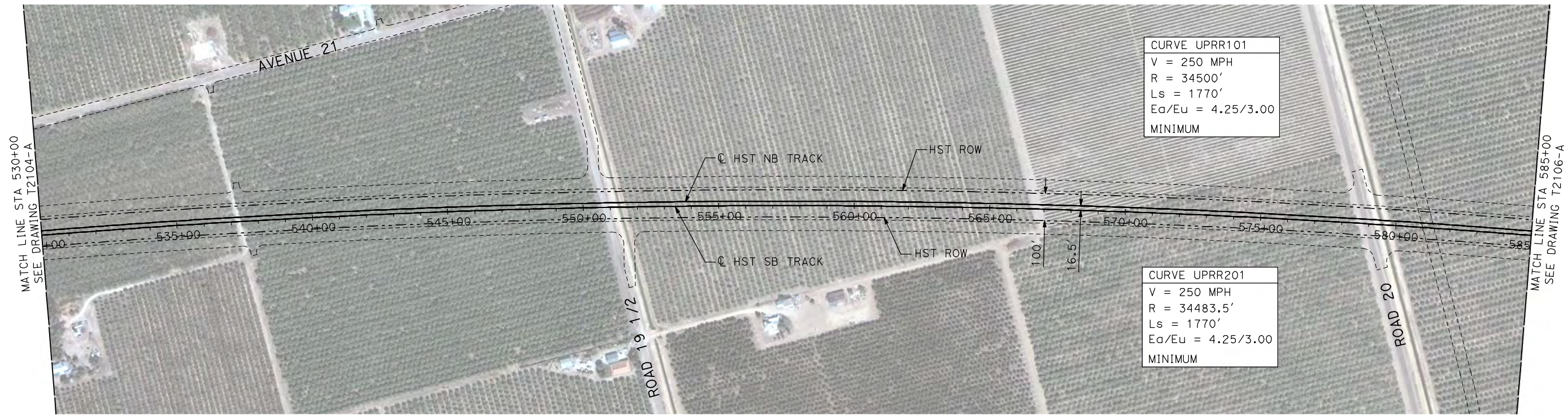
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 475+00 TO STA 530+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2104-A
SCALE
AS SHOWN
SHEET NO.
OF



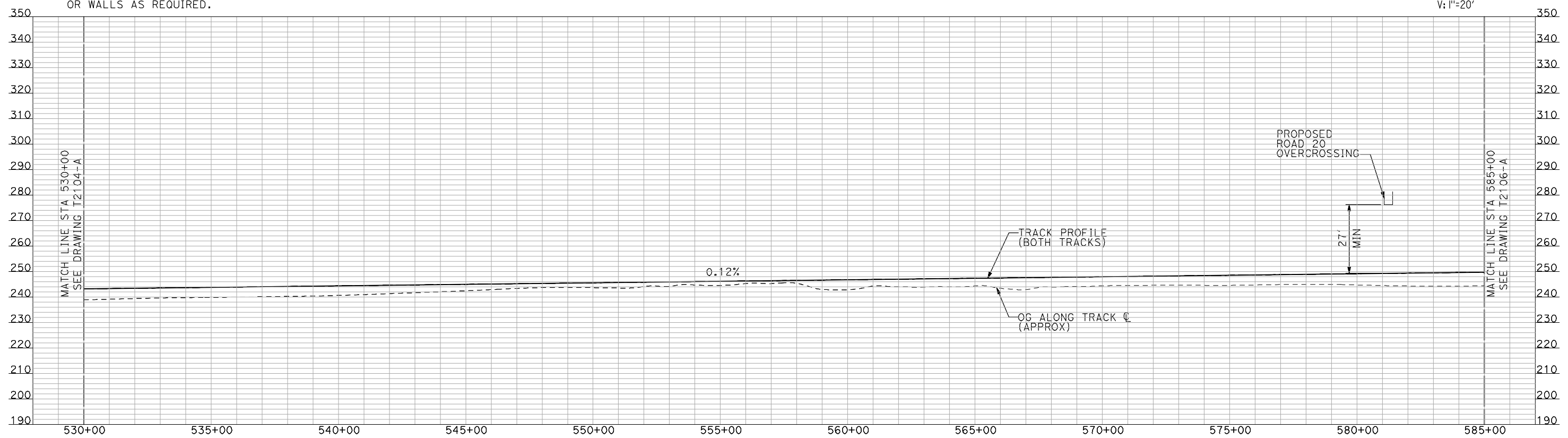
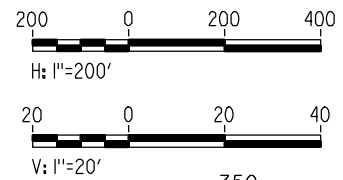
CURVE UPRR101
 V = 250 MPH
 R = 34500'
 Ls = 1770'
 Ea/Eu = 4.25/3.00
 MINIMUM

CURVE UPRR201
 V = 250 MPH
 R = 34483.5'
 Ls = 1770'
 Ea/Eu = 4.25/3.00
 MINIMUM

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| | | | | | |
|---------------------------|---|---|---|--|---------------------------|
| DESIGNED BY A. SHIELDS | RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION | <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> | CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small> | CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO UPRR/SR 99 MAIN LINE AVENUE 21 PLAN AND PROFILE STA 530+00 TO STA 585+00 | CONTRACT NO. HSR06-007 |
| DRAWN BY H. SULLIVAN | | | | | DRAWING NO. T2105-A |
| CHECKED BY A. BOONE | | | | | SCALE AS SHOWN |
| IN CHARGE A. BOONE | | | | | SHEET NO. ### OF ### |
| DATE 07/20/2011 | | | | | |

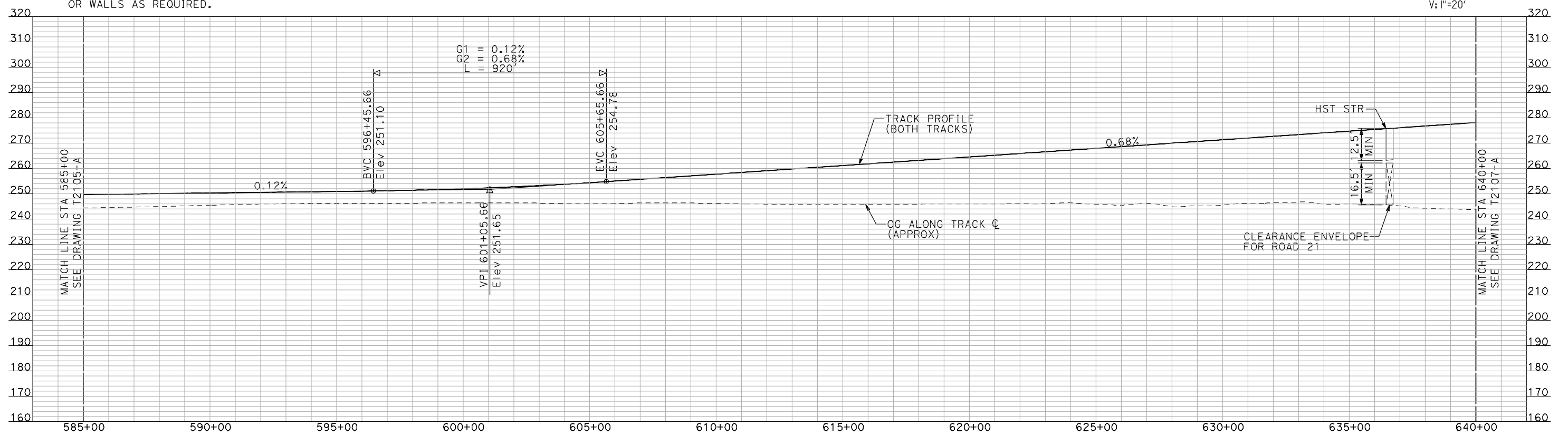
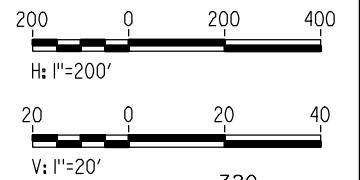
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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

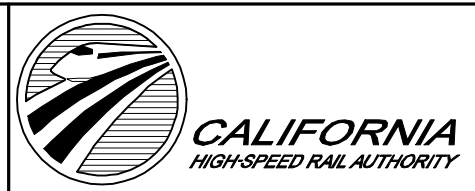
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

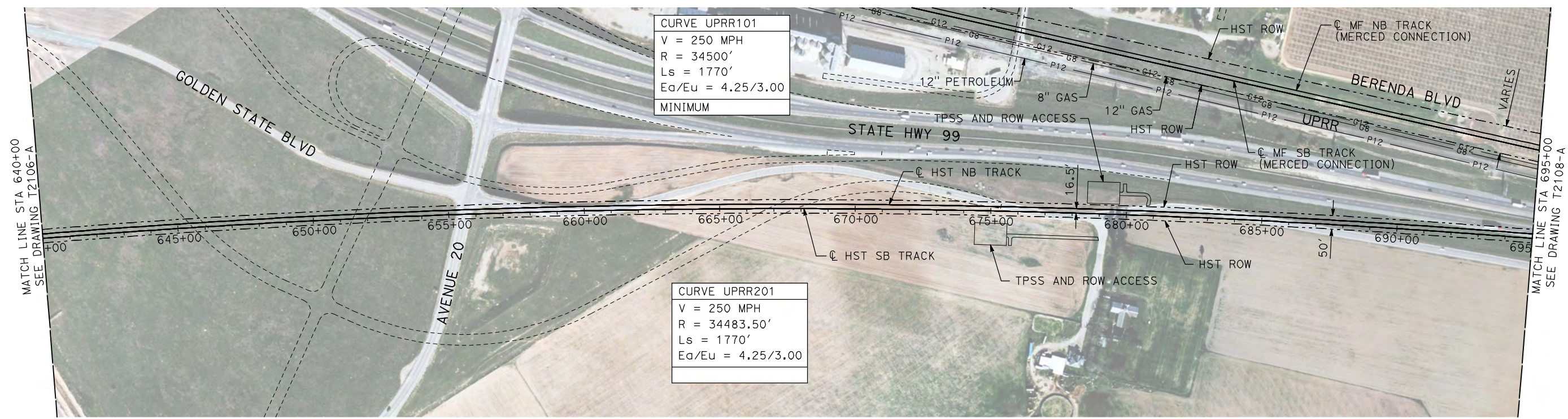
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 585+00 TO STA 640+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2106-A
SCALE
AS SHOWN
SHEET NO.
OF

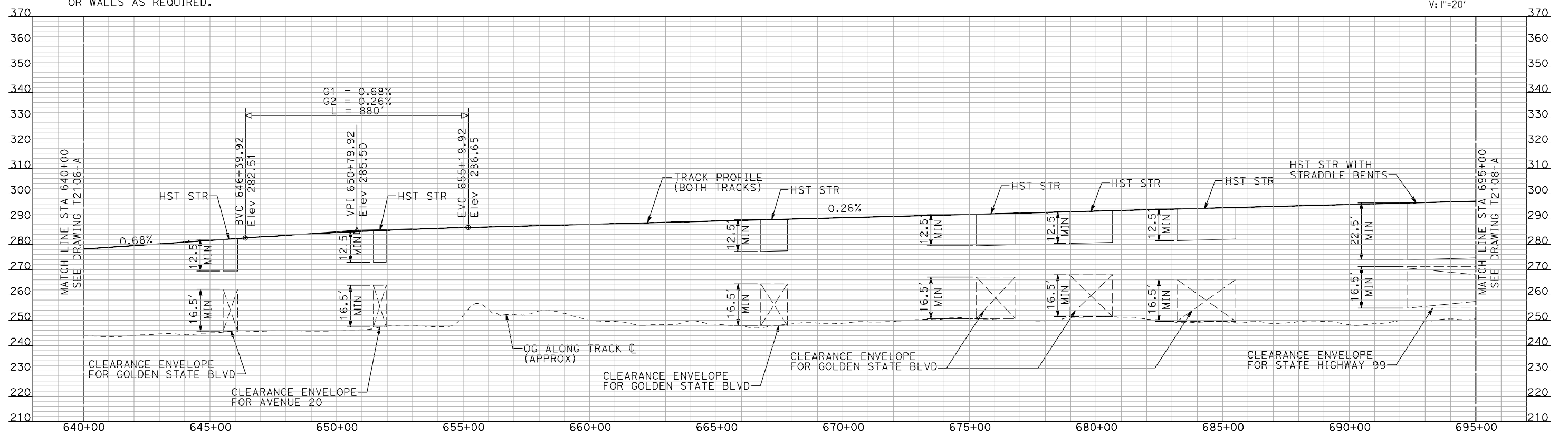
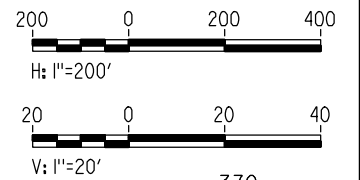
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NOTES:

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

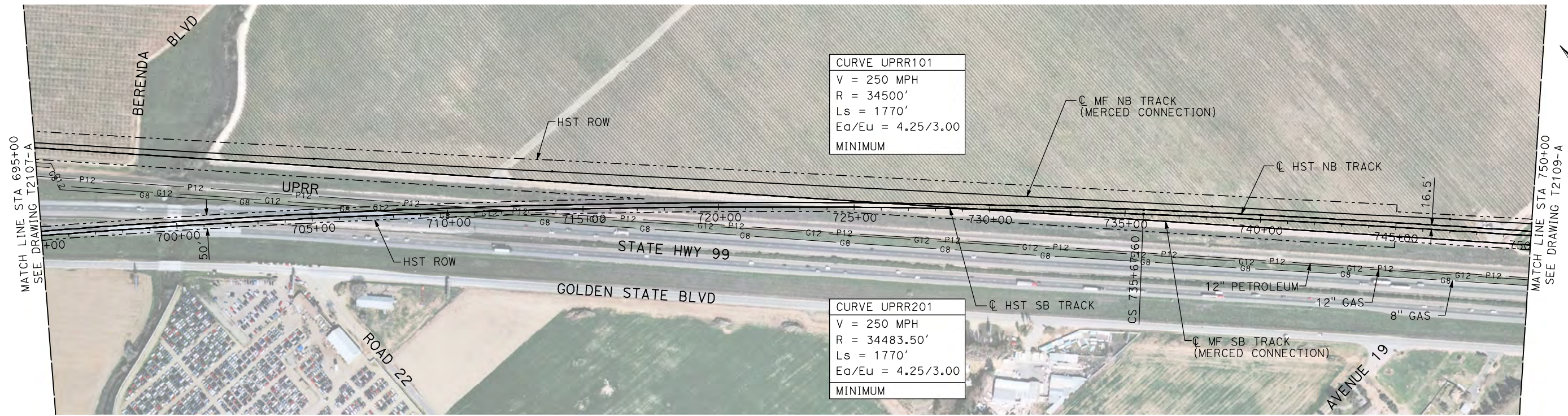
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SUBMITTAL

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 640+00 TO STA 695+00

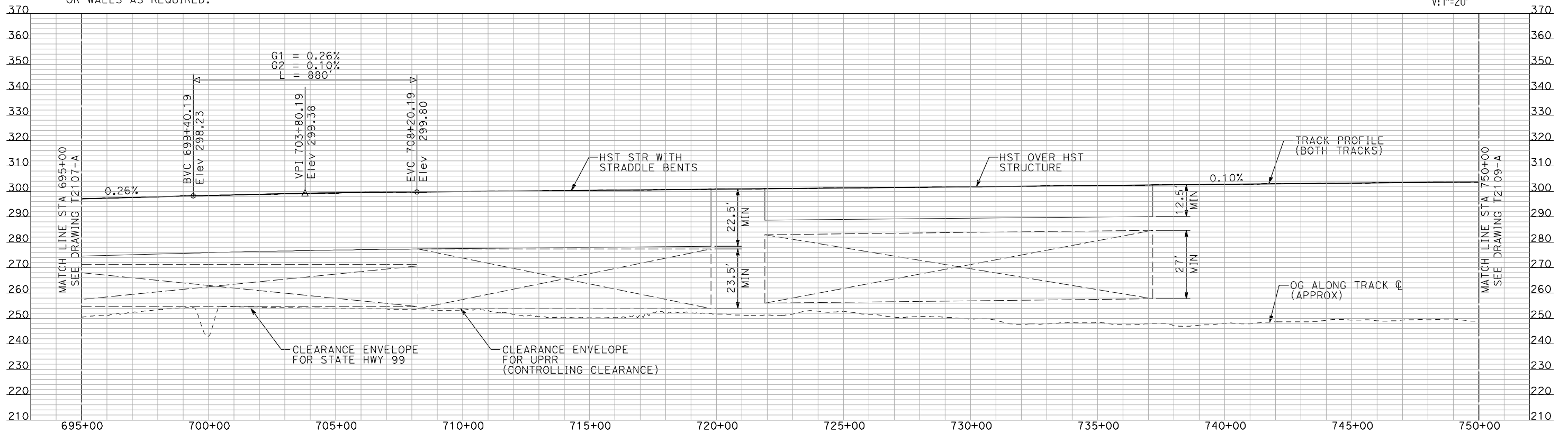
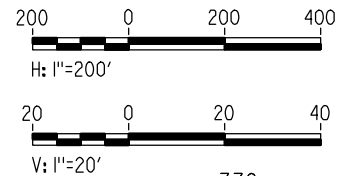
CONTRACT NO.
HSR06-007
DRAWING NO.
T2107-A
SCALE
AS SHOWN
SHEET NO.
OF



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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

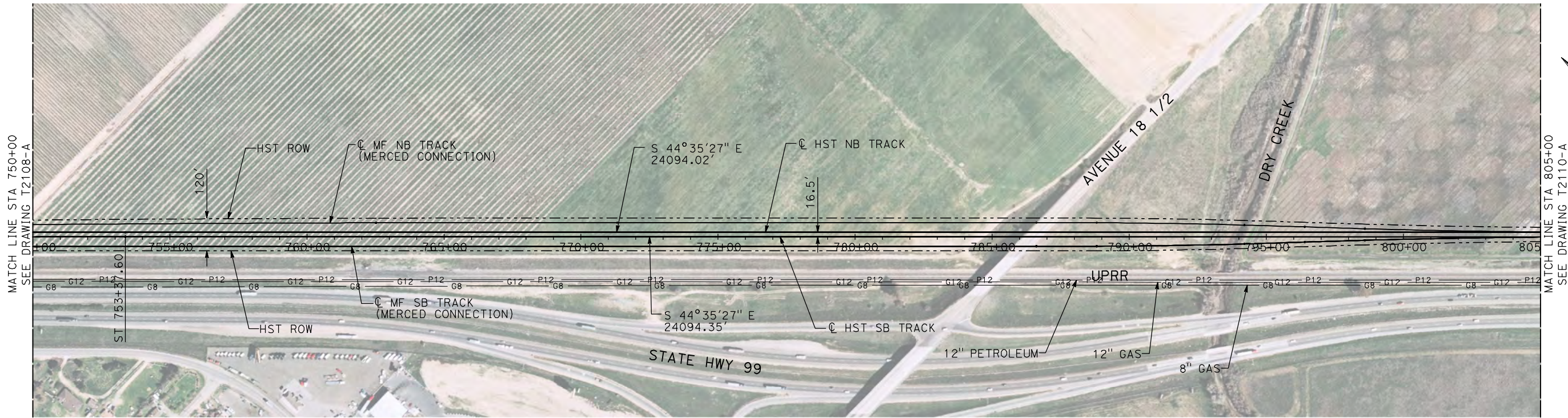
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

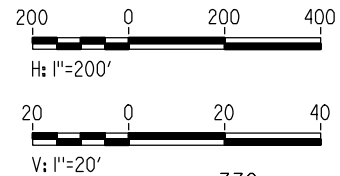


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE
AVENUE 21
PLAN AND PROFILE
STA 695+00 TO STA 750+00

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2108-A |
| SCALE | AS SHOWN |
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PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

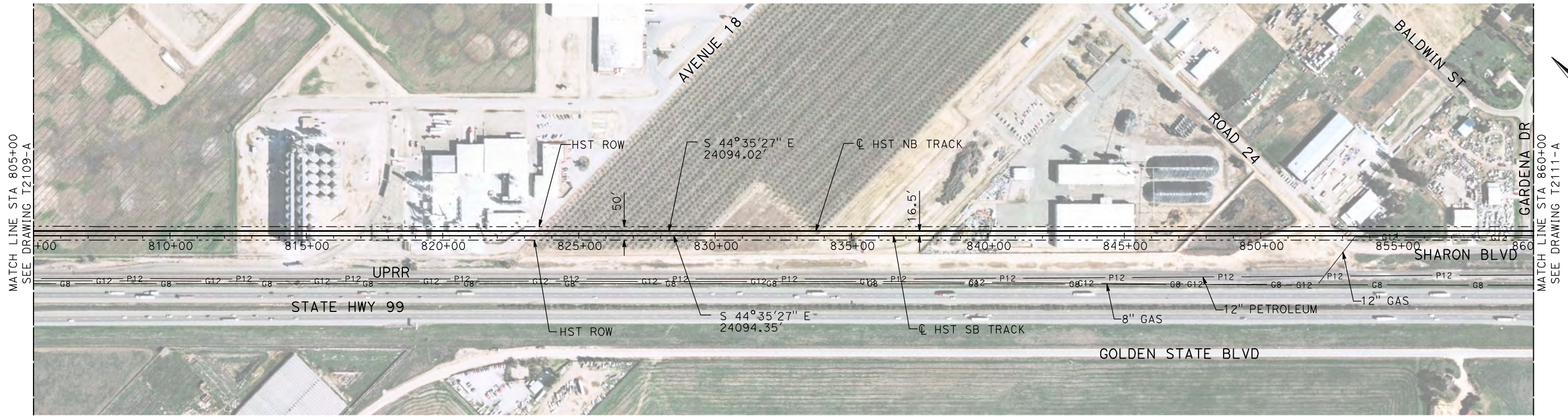
PLAN AND PROFILE
STA 750+00 TO STA 805+00

CONTRACT NO.
HSR06-007

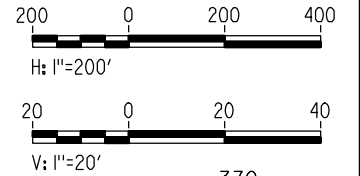
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SCALE
AS SHOWN

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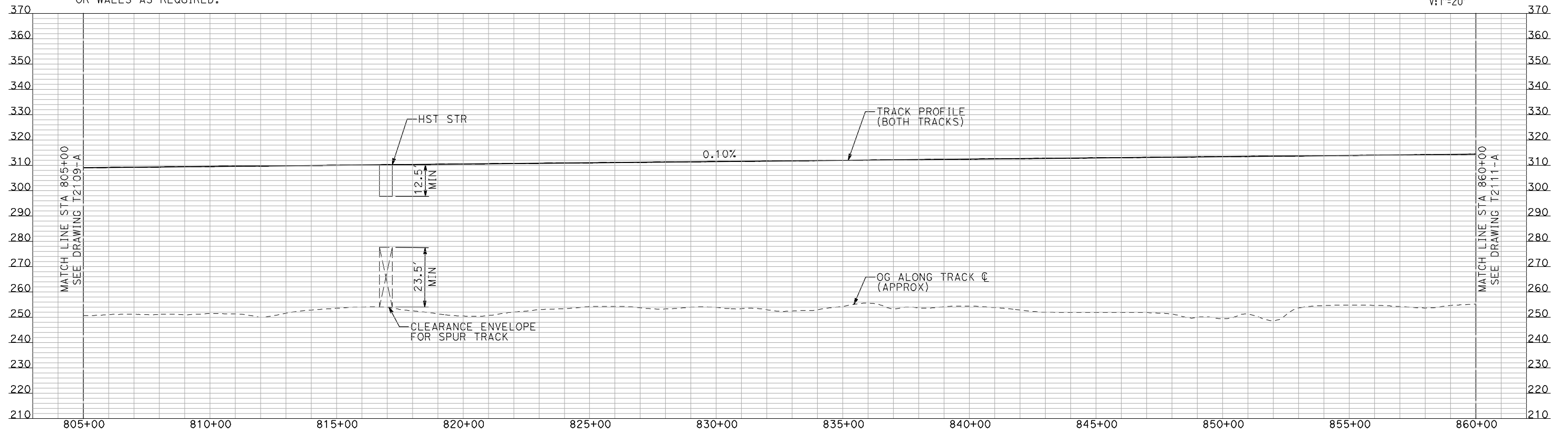


PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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15% DESIGN
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**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

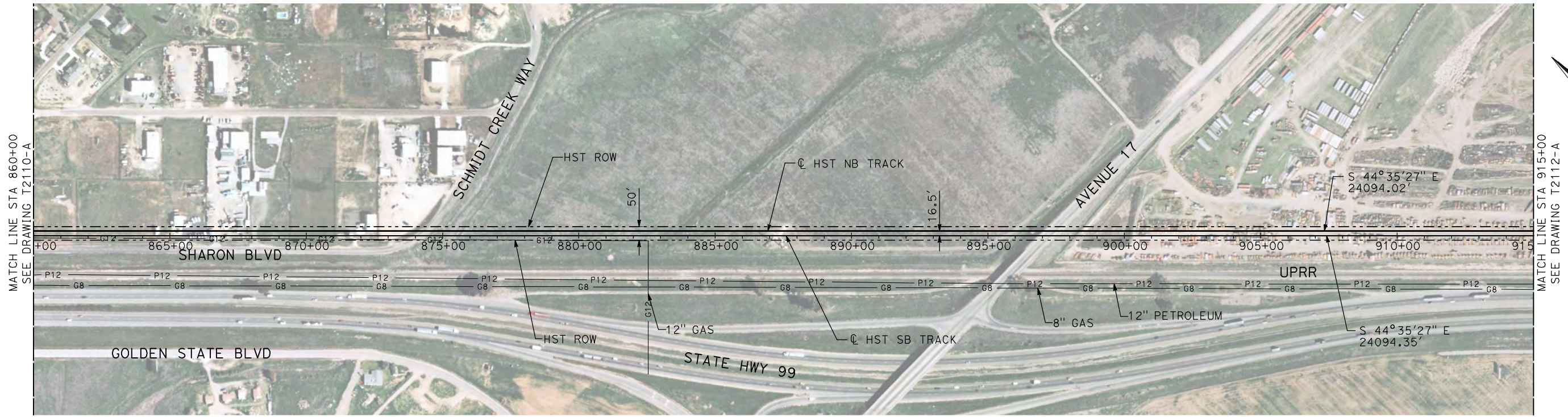
PLAN AND PROFILE
STA 805+00 TO STA 860+00

CONTRACT NO.
HSR06-007

DRAWING NO.
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SCALE
AS SHOWN

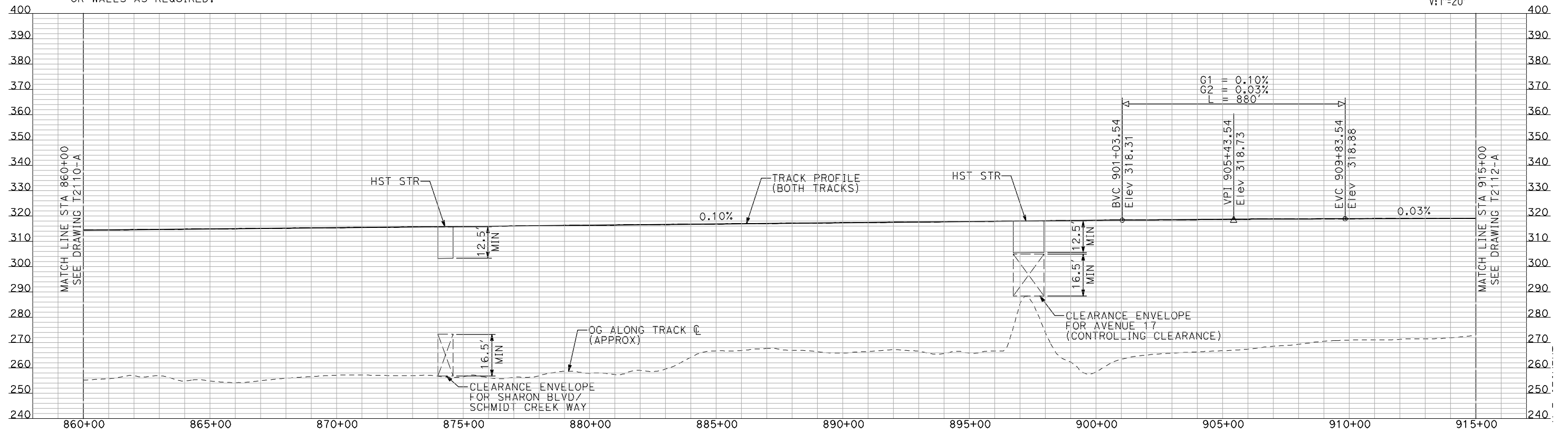
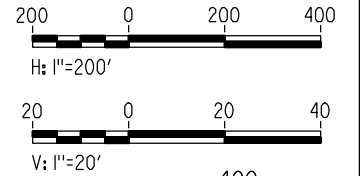
SHEET NO.
OF



PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
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H. SULLIVAN
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A. BOONE
IN CHARGE
A. BOONE
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SUBMITTAL

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 860+00 TO STA 915+00

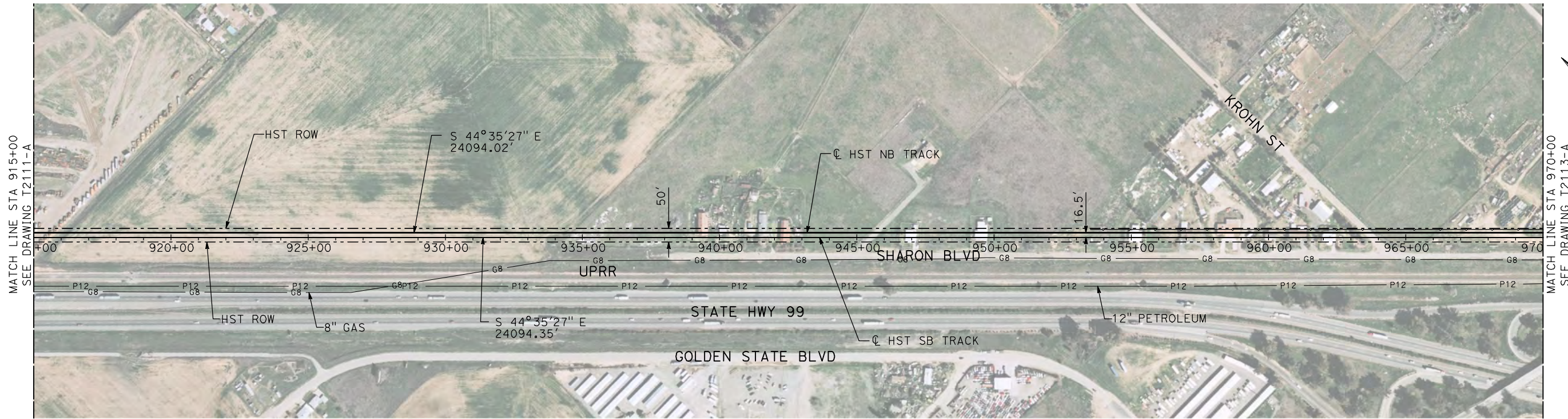
CONTRACT NO.
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DRAWING NO.
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SCALE
AS SHOWN

SHEET NO.
OF

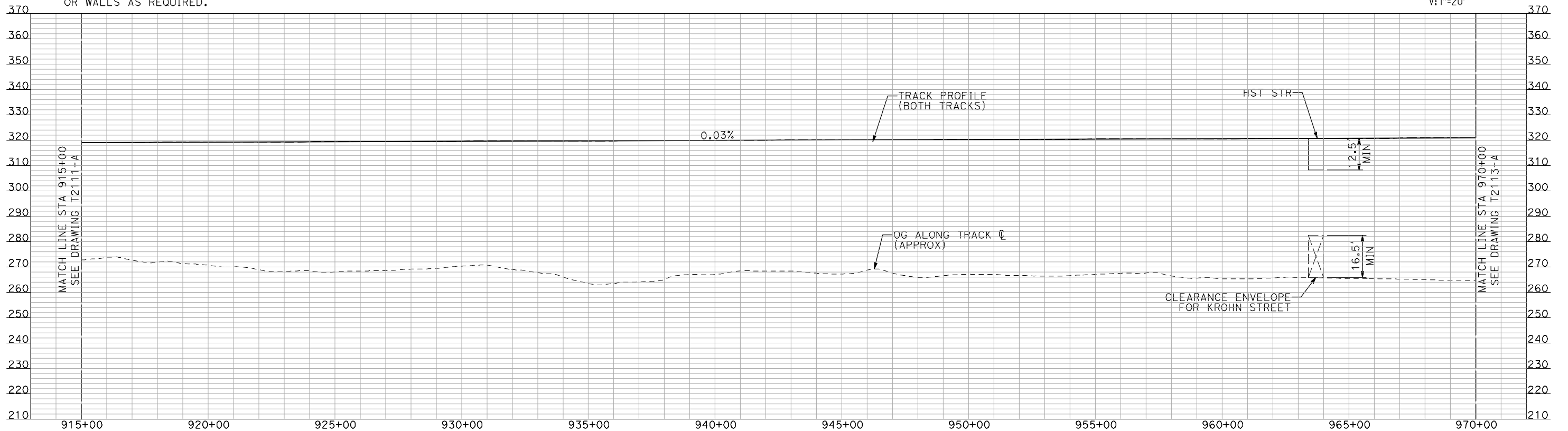
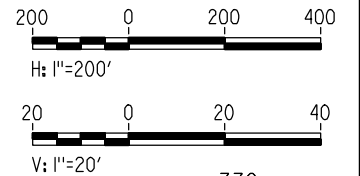
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PLAN

NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



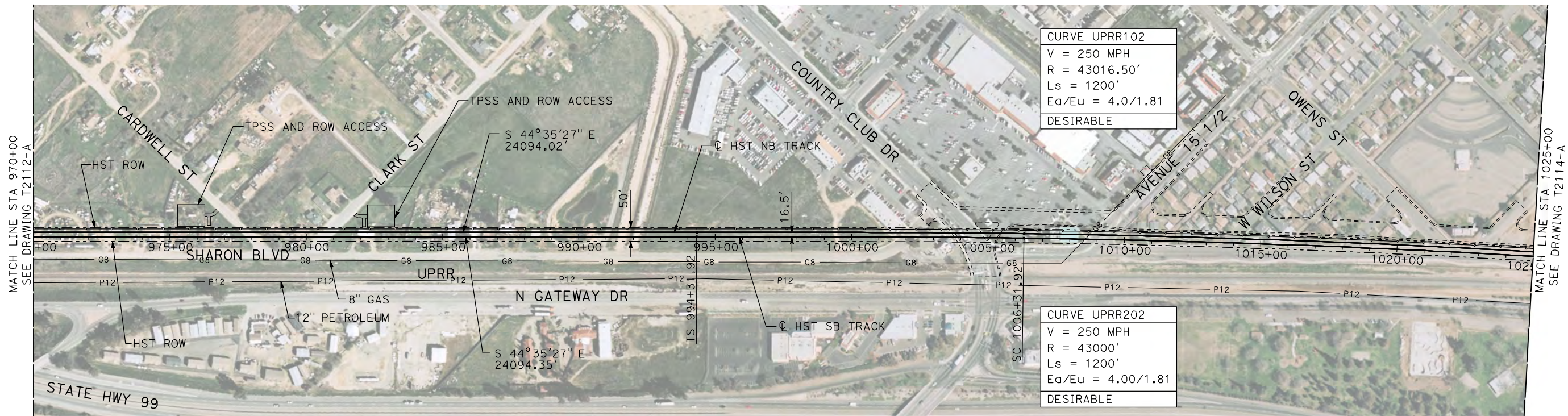
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 915+00 TO STA 970+00

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| CONTRACT NO. HSR06-007 |
| DRAWING NO. T2112-A |
| SCALE AS SHOWN |
| SHEET NO. ### OF ### |

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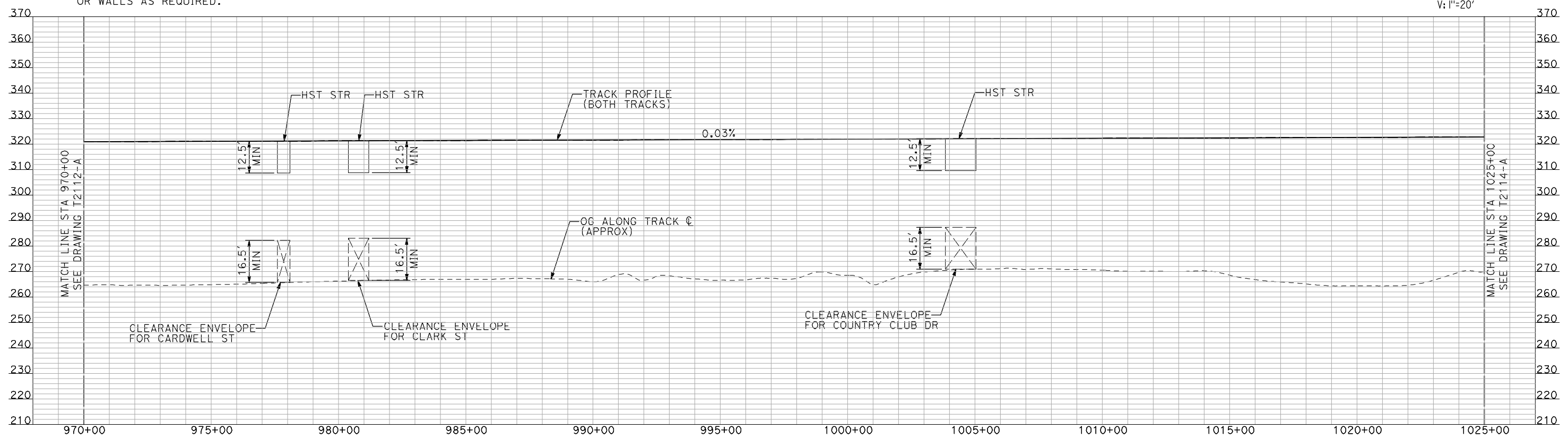
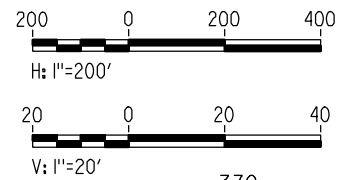
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 V = 250 MPH
 R = 43016.50'
 Ls = 1200'
 Ea/Eu = 4.0/1.81
 DESIRABLE

CURVE UPRR202
 V = 250 MPH
 R = 43000'
 Ls = 1200'
 Ea/Eu = 4.00/1.81
 DESIRABLE

NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
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H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

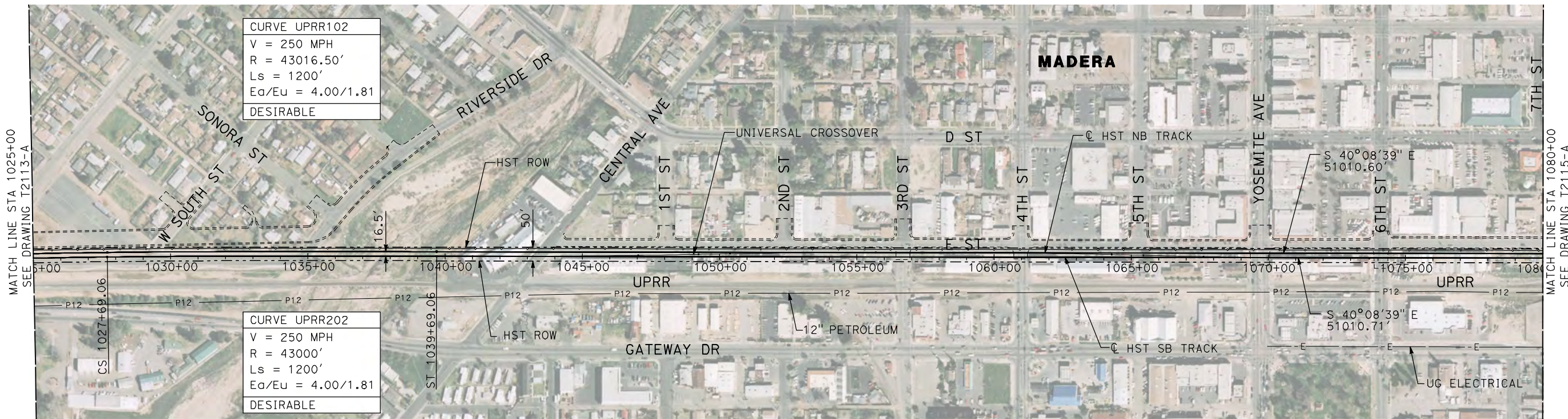


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
 STA 970+00 TO STA 1025+00

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| DRAWING NO. | T2113-A |
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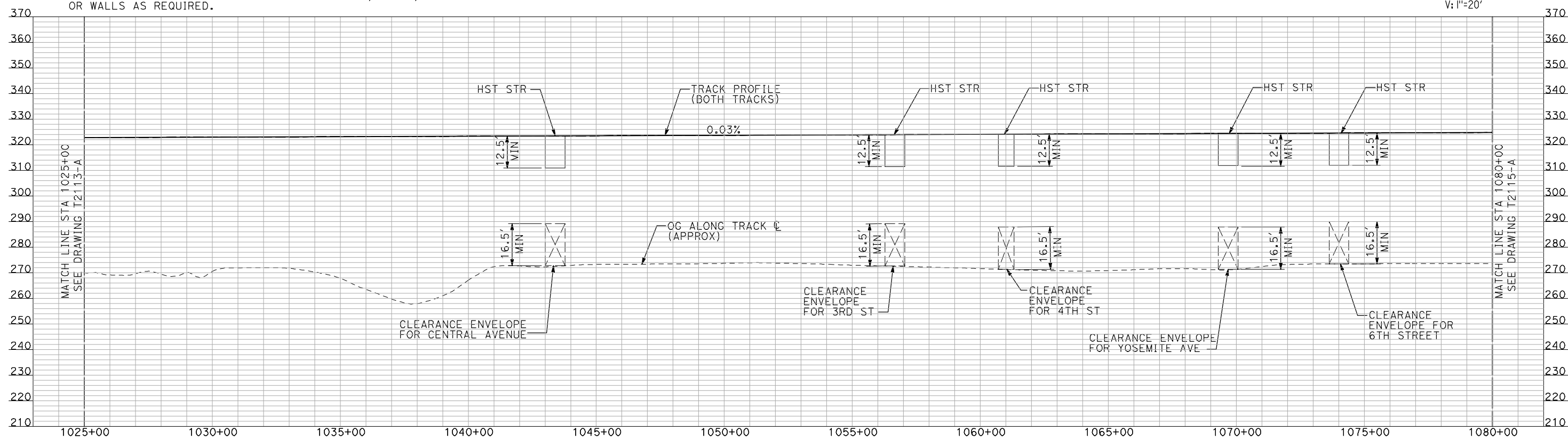
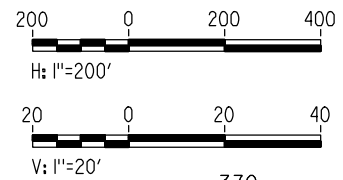
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PLAN

NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
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H. SULLIVAN
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DATE
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RECORD SET
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SUBMITTAL

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

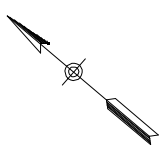
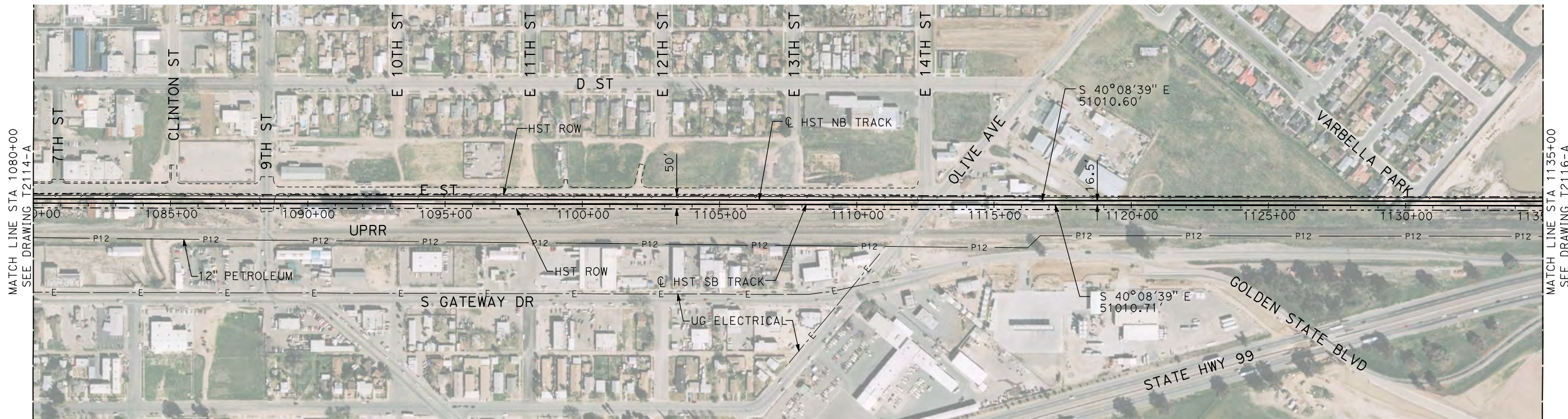
PLAN AND PROFILE
STA 1025+00 TO STA 1080+00

CONTRACT NO.
HSR06-007

DRAWING NO.
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SCALE
AS SHOWN

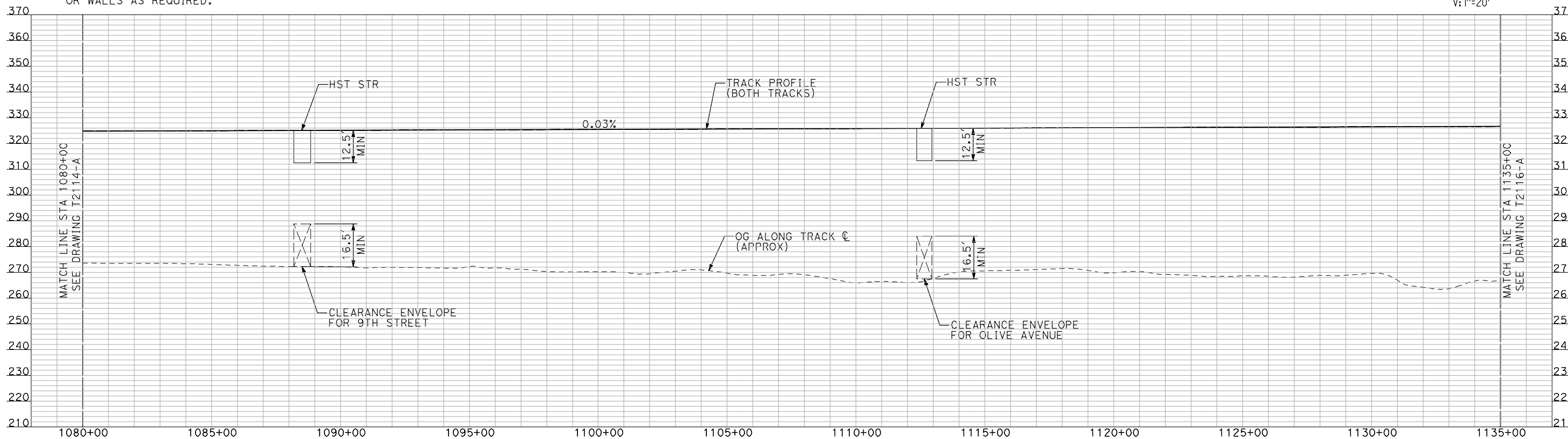
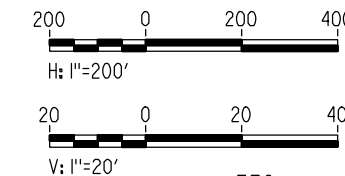
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OF



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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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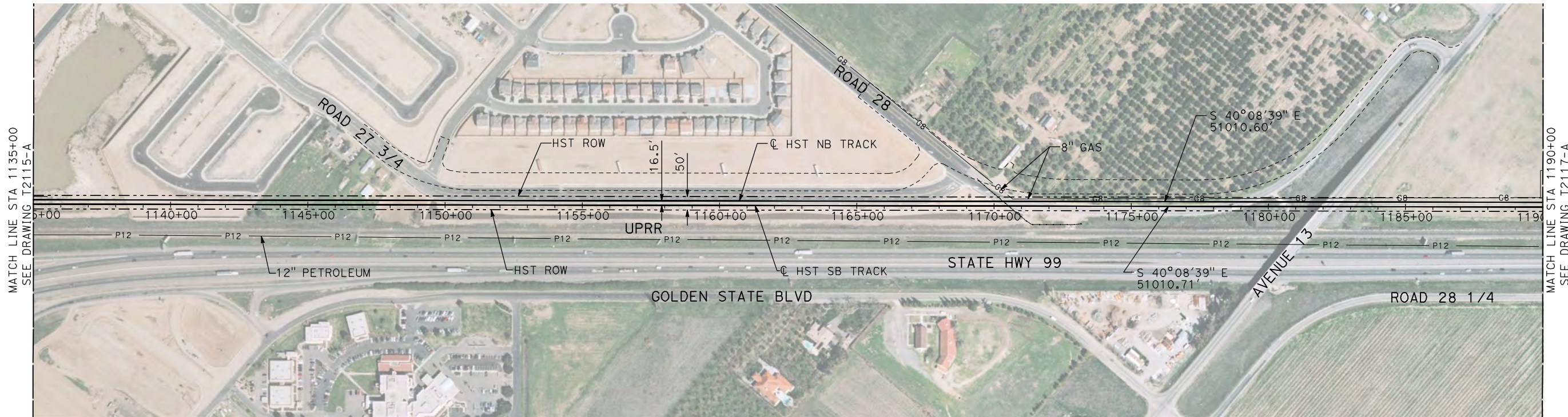


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1080+00 TO STA 1135+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2115-A
SCALE
AS SHOWN
SHEET NO.
OF

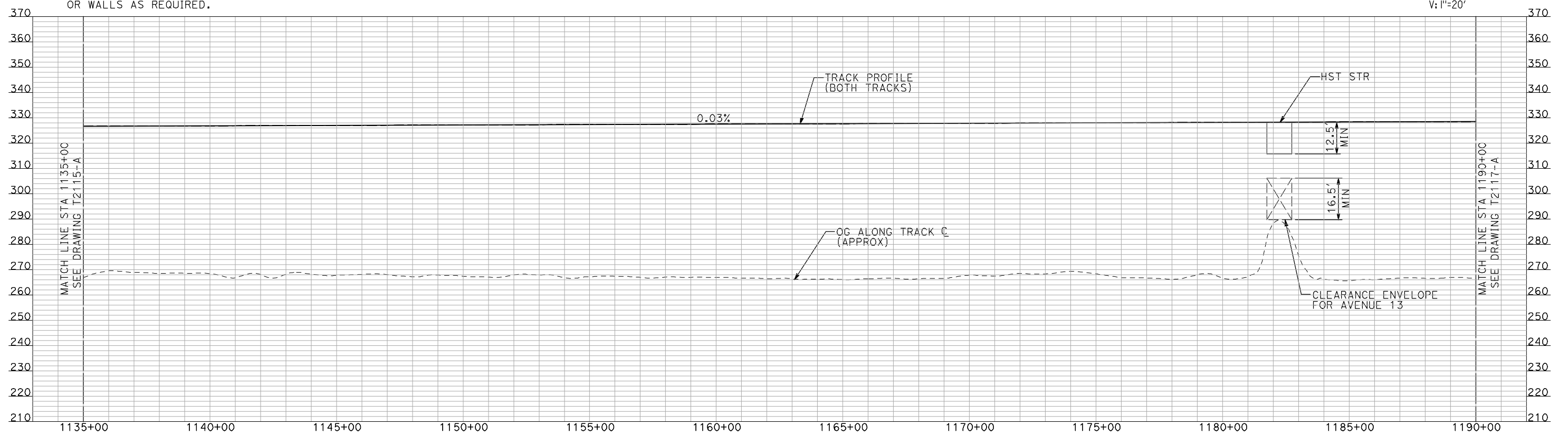
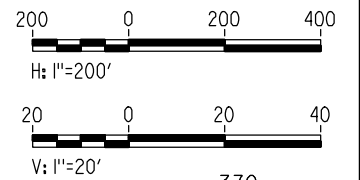
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PLAN

NOTES:

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PROFILE

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CONSTRUCTION**



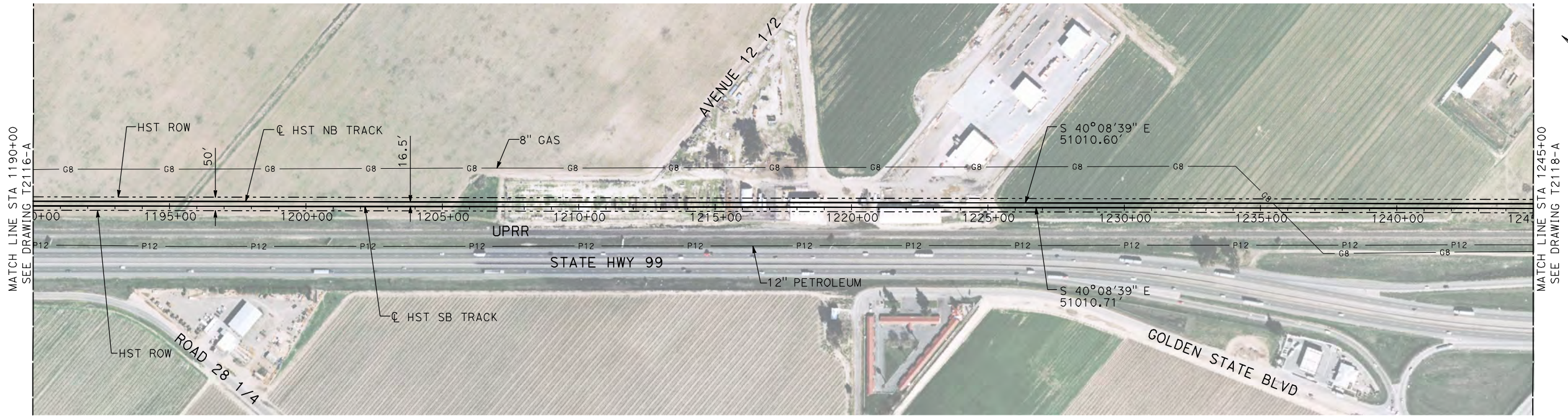
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1135+00 TO STA 1190+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2116-A
SCALE
AS SHOWN
SHEET NO.
OF

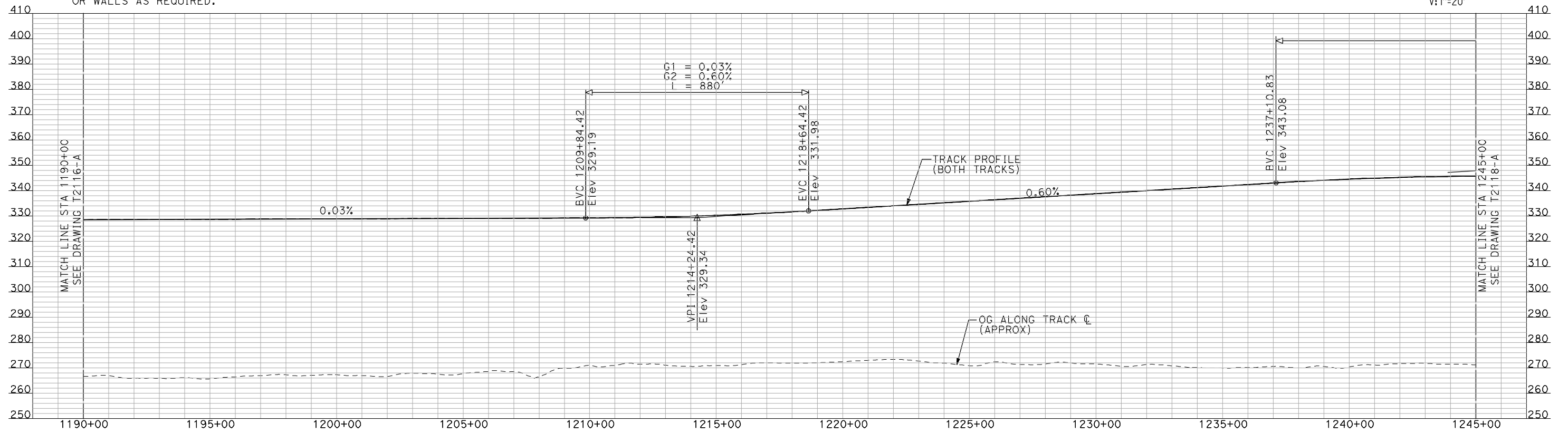
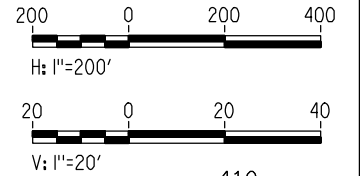
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NOTES:

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PLAN



PROFILE

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

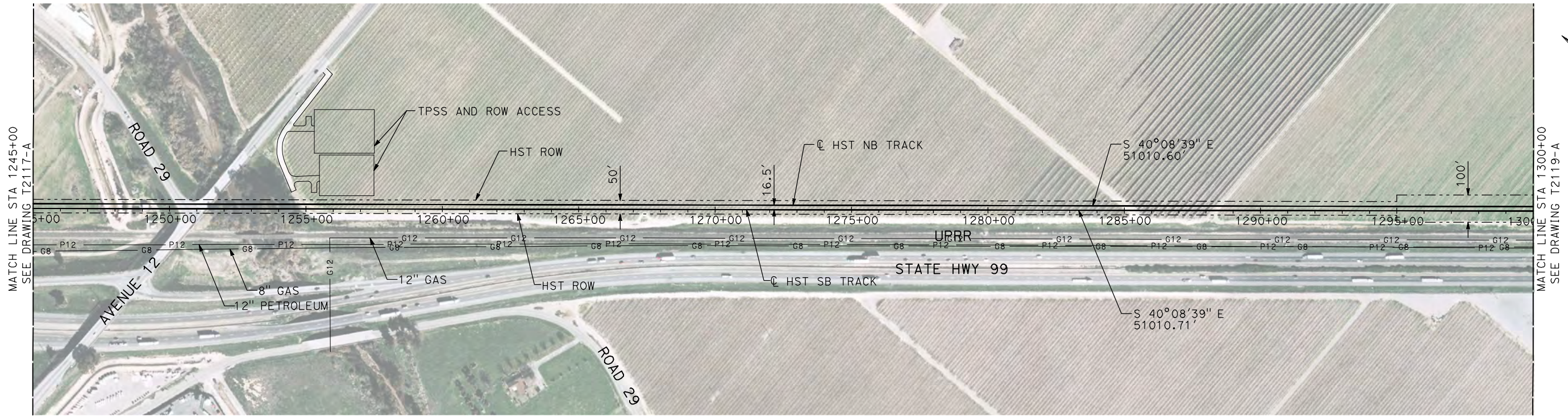
PLAN AND PROFILE
STA 1190+00 TO STA 1245+00

CONTRACT NO.
HSR06-007

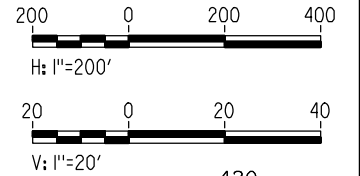
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T2117-A

SCALE
AS SHOWN

SHEET NO.
OF

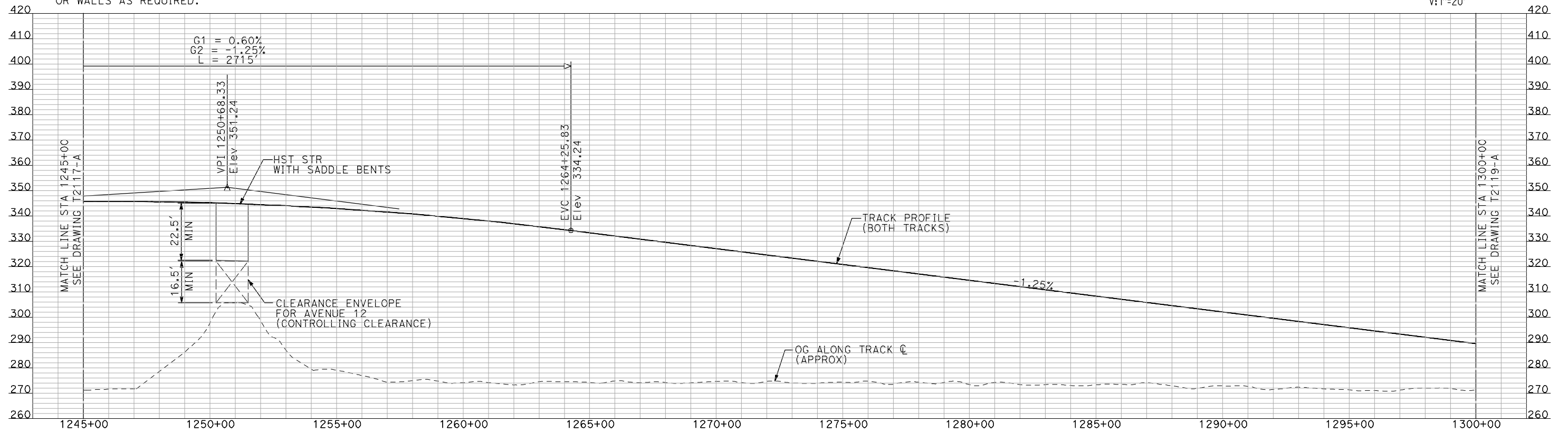


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

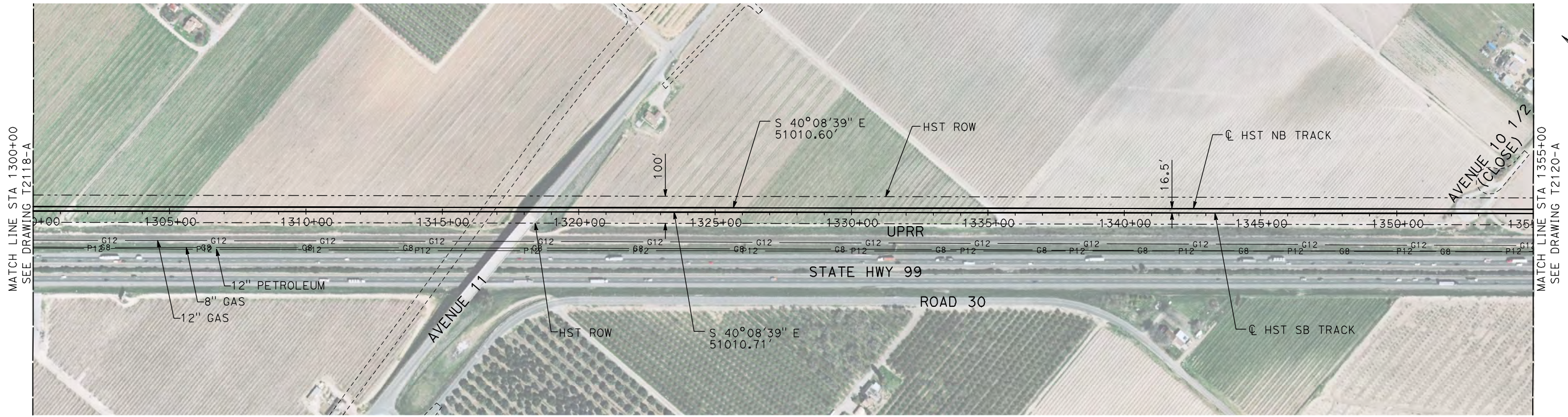
PLAN AND PROFILE
STA 1245+00 TO STA 1300+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T2118-A

SCALE
AS SHOWN

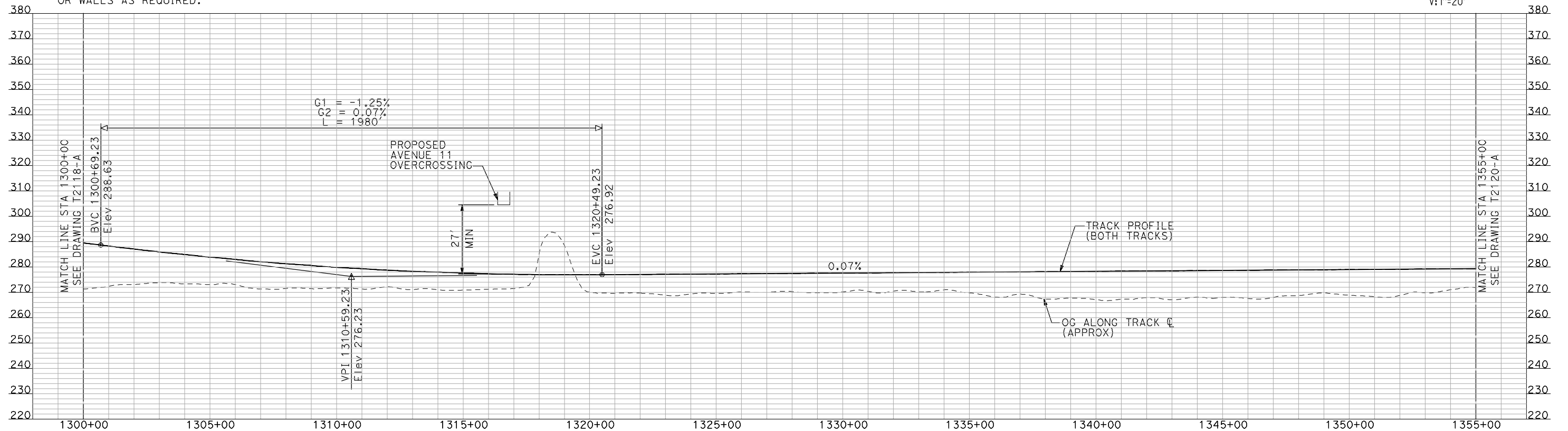
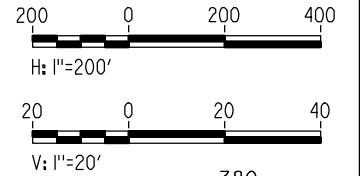
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



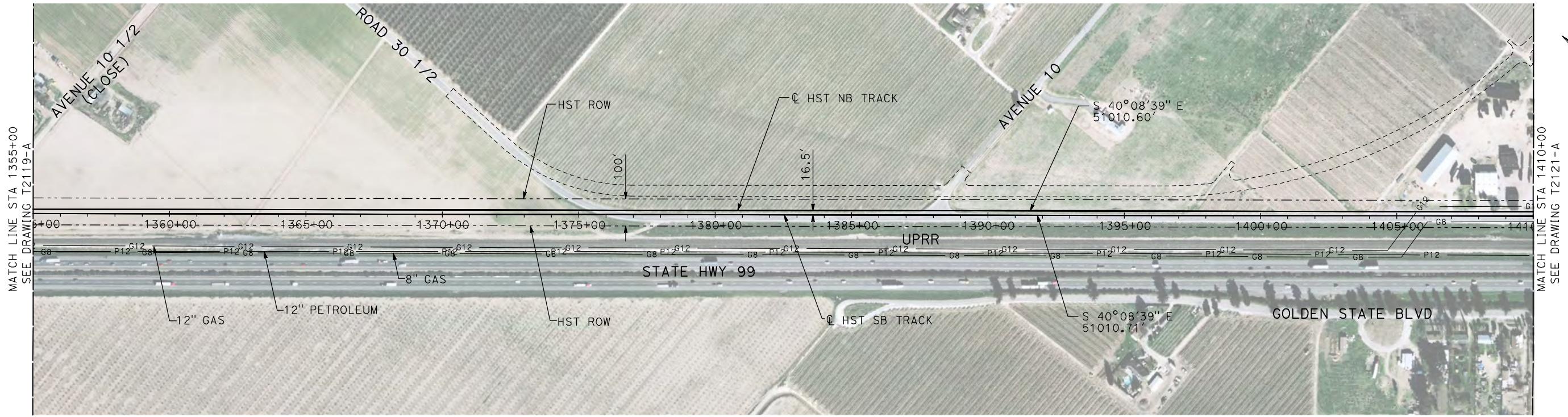
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1300+00 TO STA 1355+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2119-A
SCALE
AS SHOWN
SHEET NO.
OF

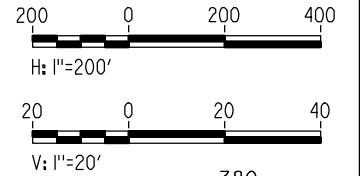
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



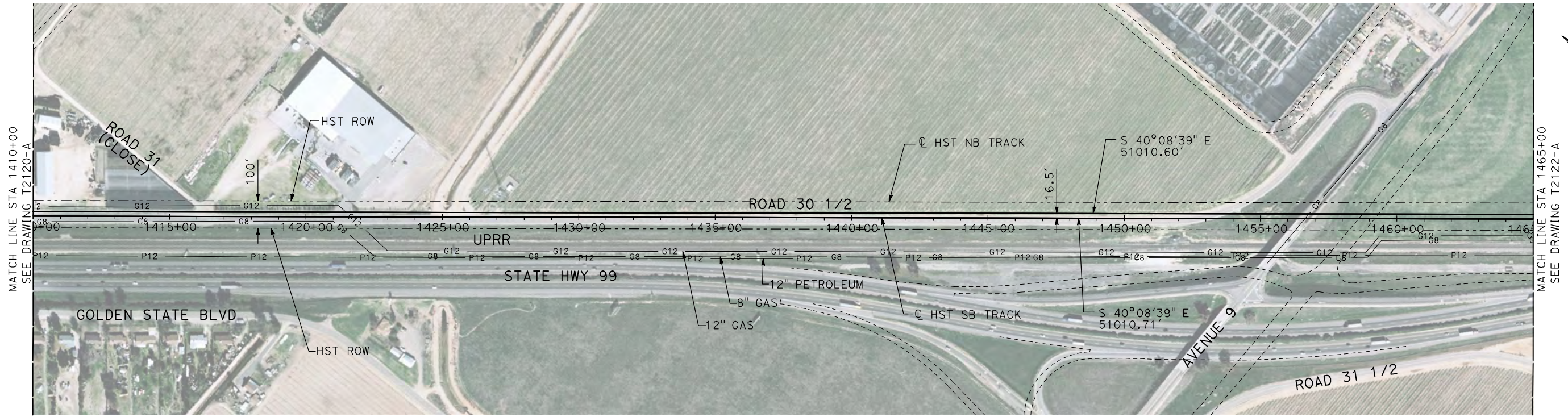
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1355+00 TO STA 1410+00

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
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OF

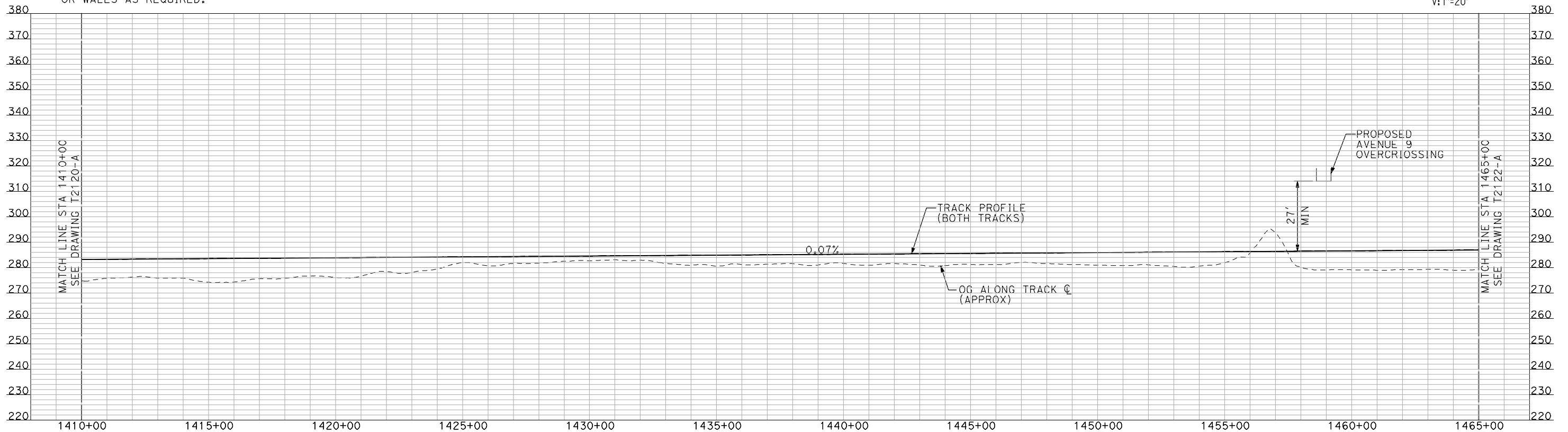
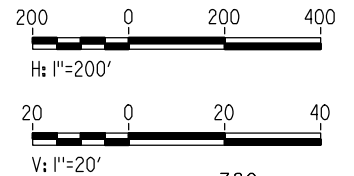
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

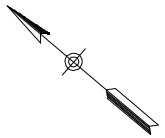
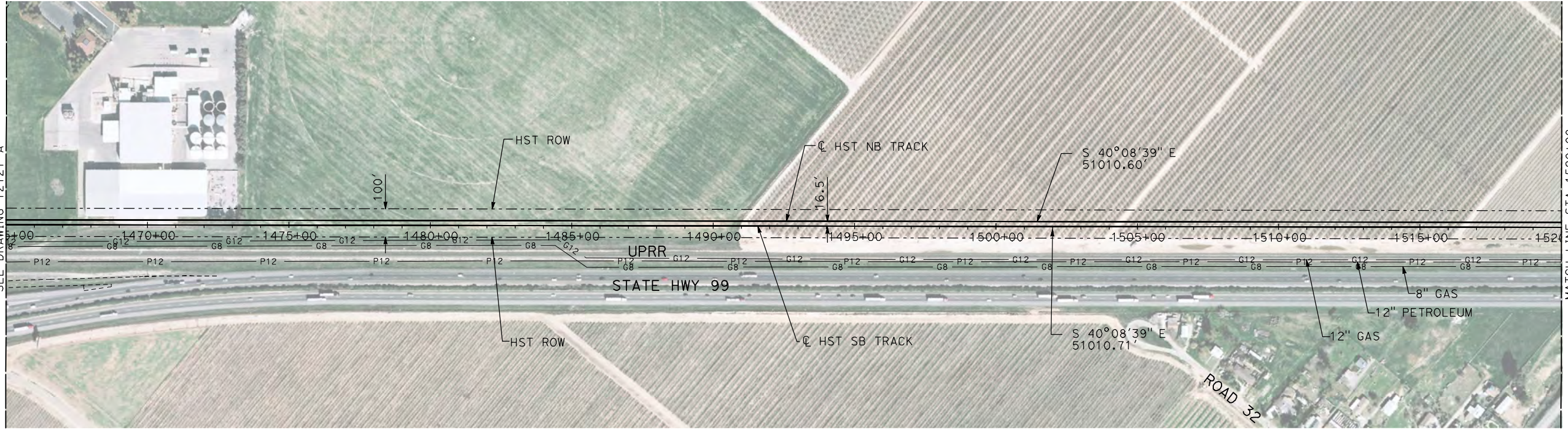


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1410+00 TO STA 1465+00

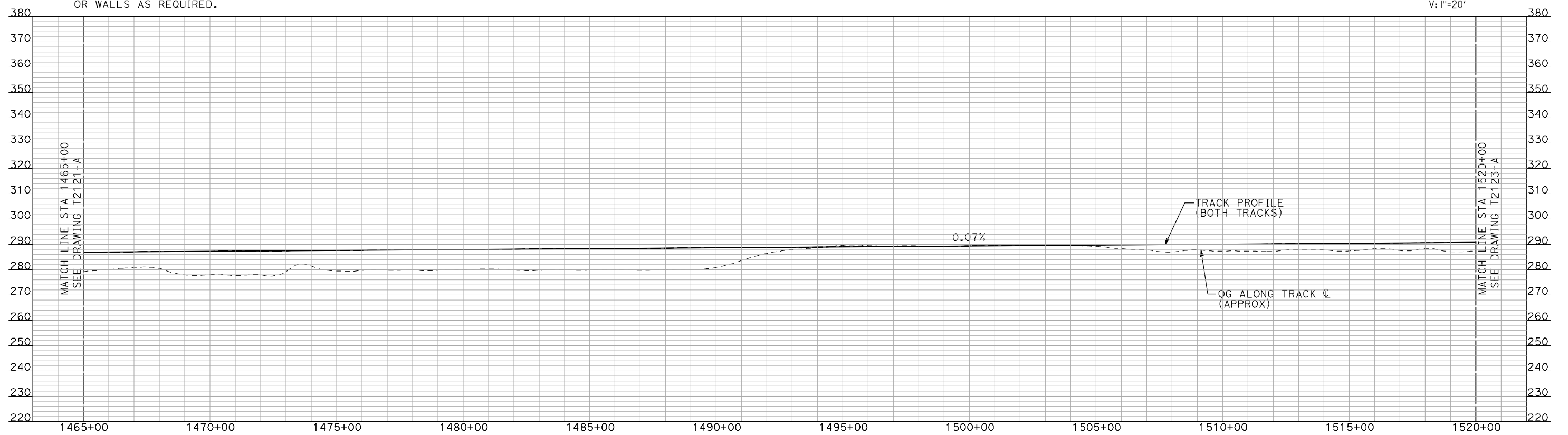
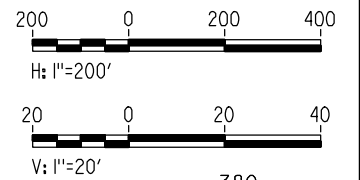
CONTRACT NO.
HSR06-007
DRAWING NO.
T2121-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



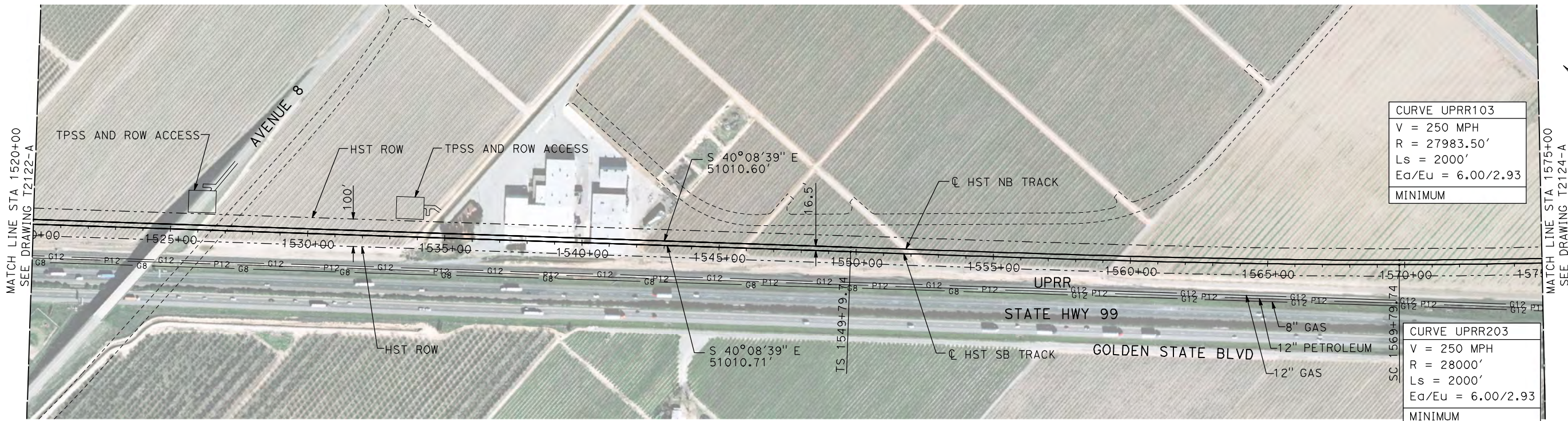
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1465+00 TO STA 1520+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2122-A
SCALE
AS SHOWN
SHEET NO.
OF

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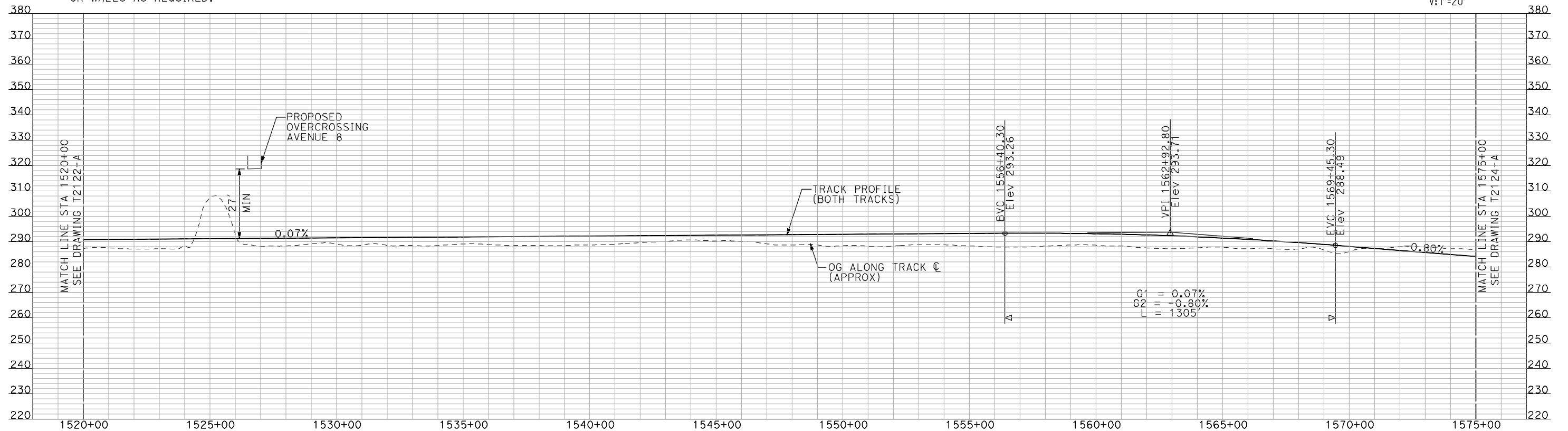
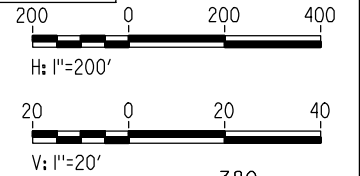
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 V = 250 MPH
 R = 27983.50'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE UPRR203
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 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

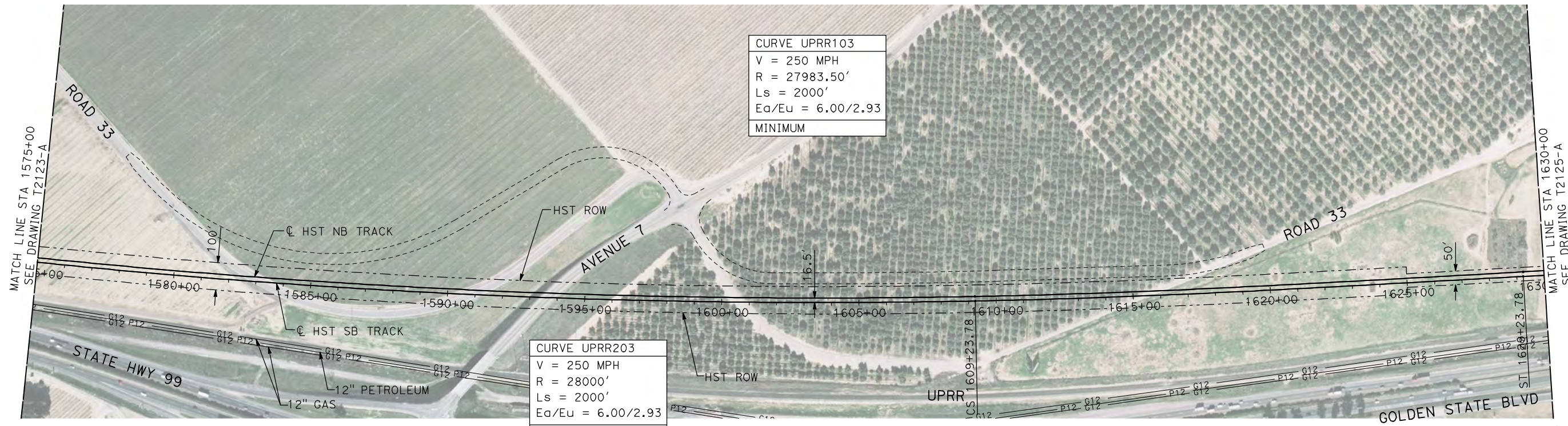


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
 STA 1520+00 TO STA 1575+00

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| DRAWING NO. | T2123-A |
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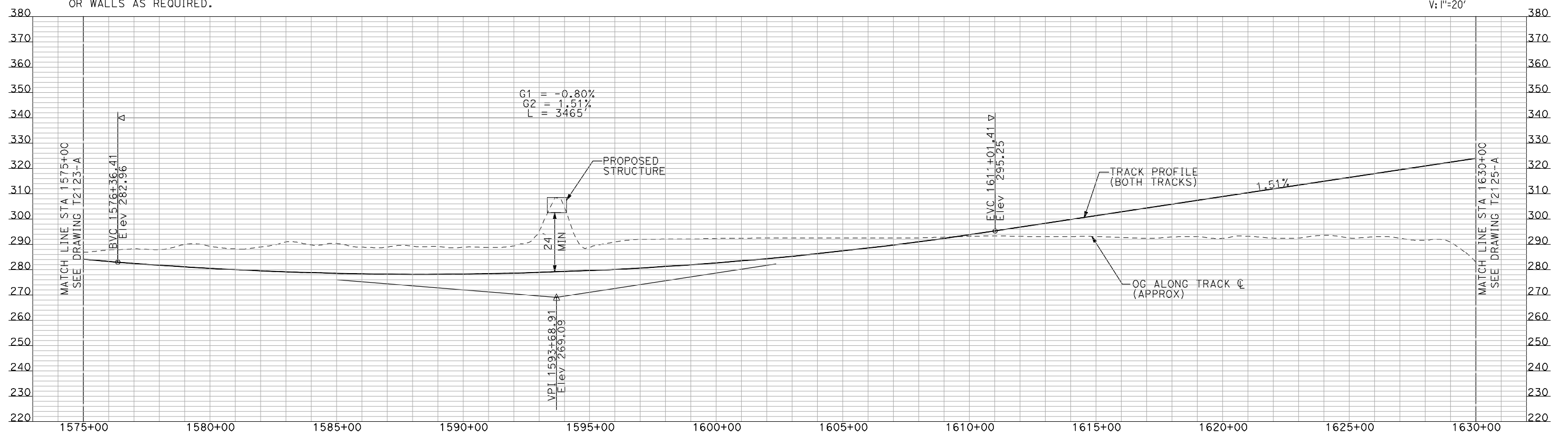
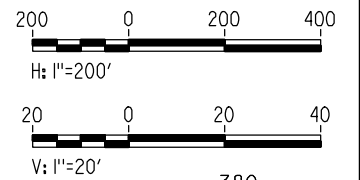
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1575+00 TO STA 1630+00

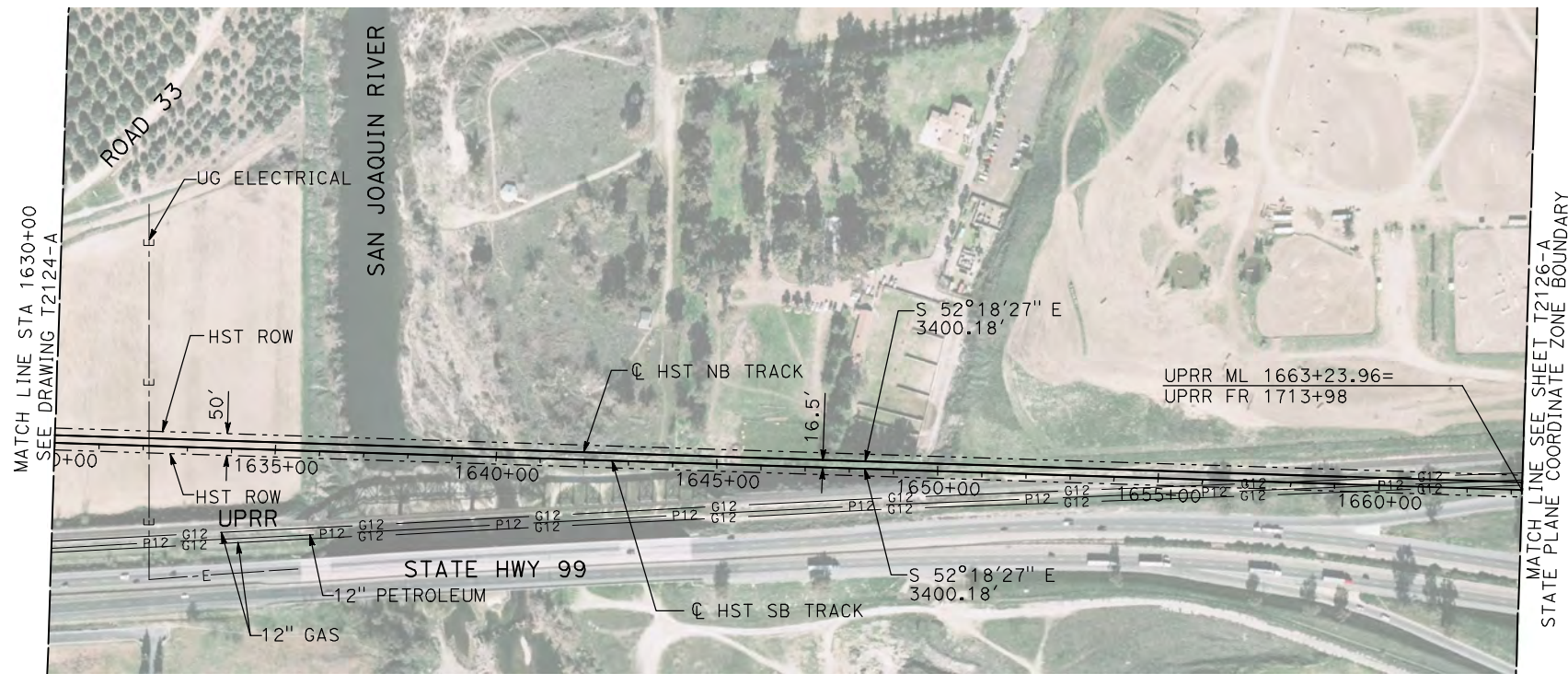
CONTRACT NO.
HSR06-007

DRAWING NO.
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SCALE
AS SHOWN

SHEET NO.
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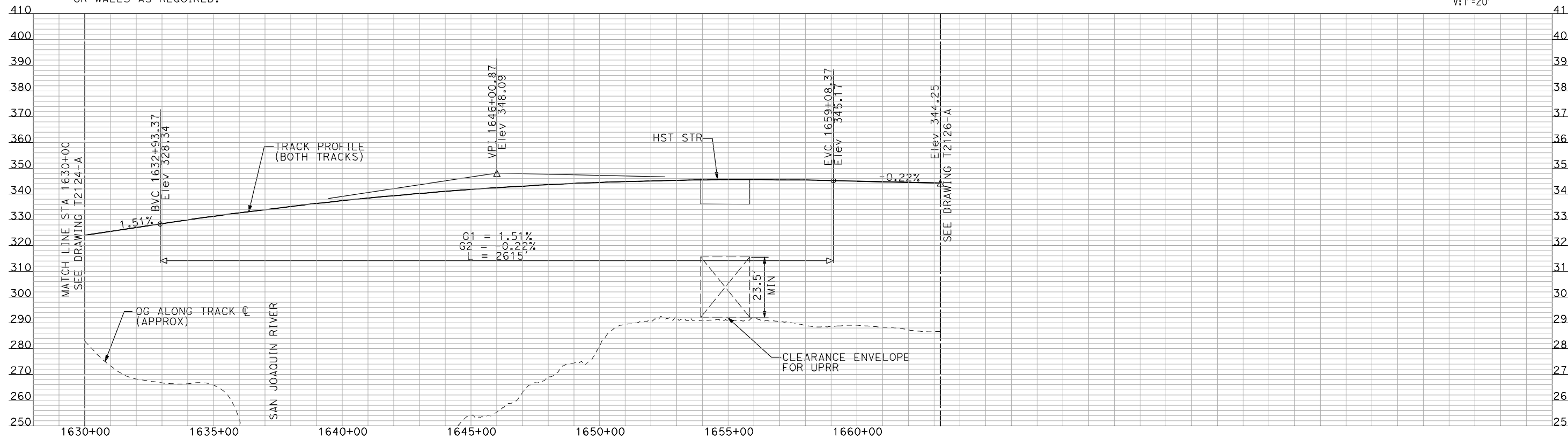
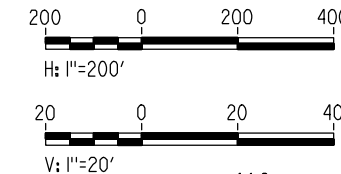
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NOTES:

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2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

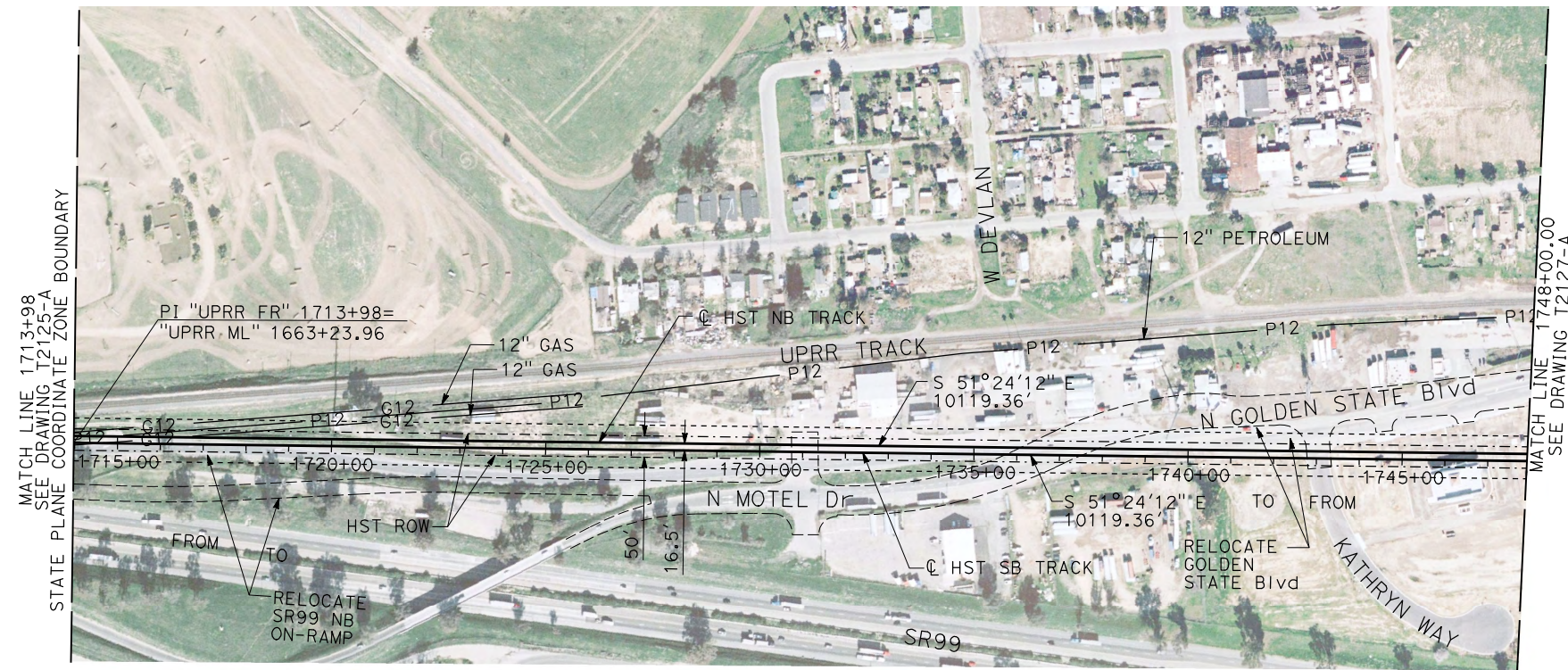
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CONSTRUCTION**



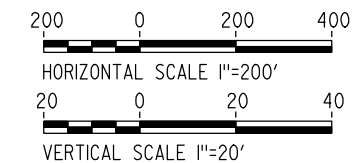
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 MAIN LINE

PLAN AND PROFILE
STA 1630+00 TO STA 1663+23.96

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
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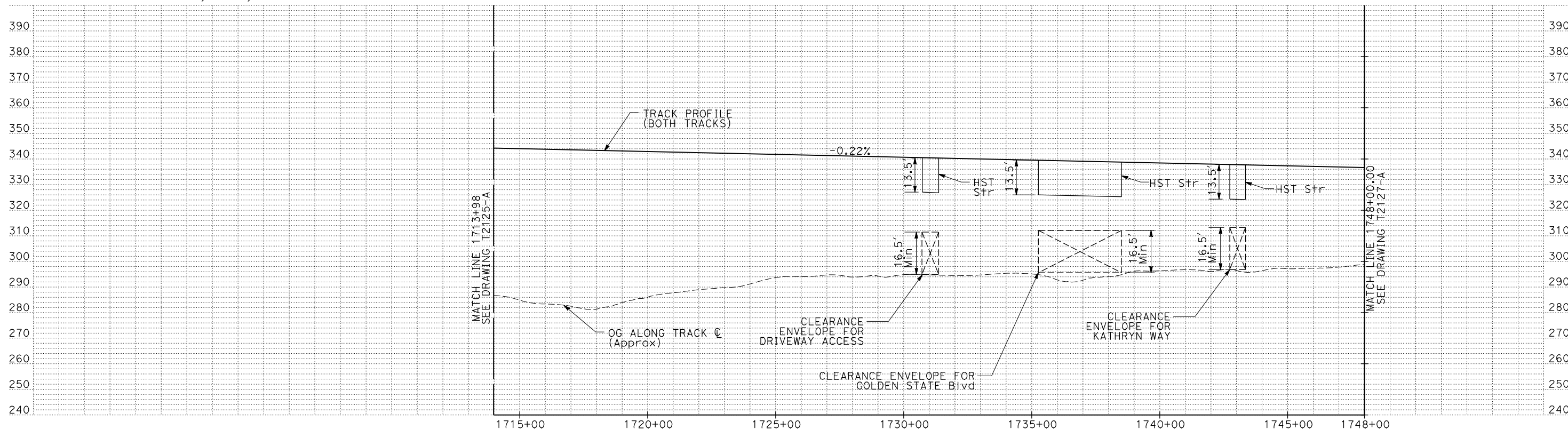


PLAN



NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



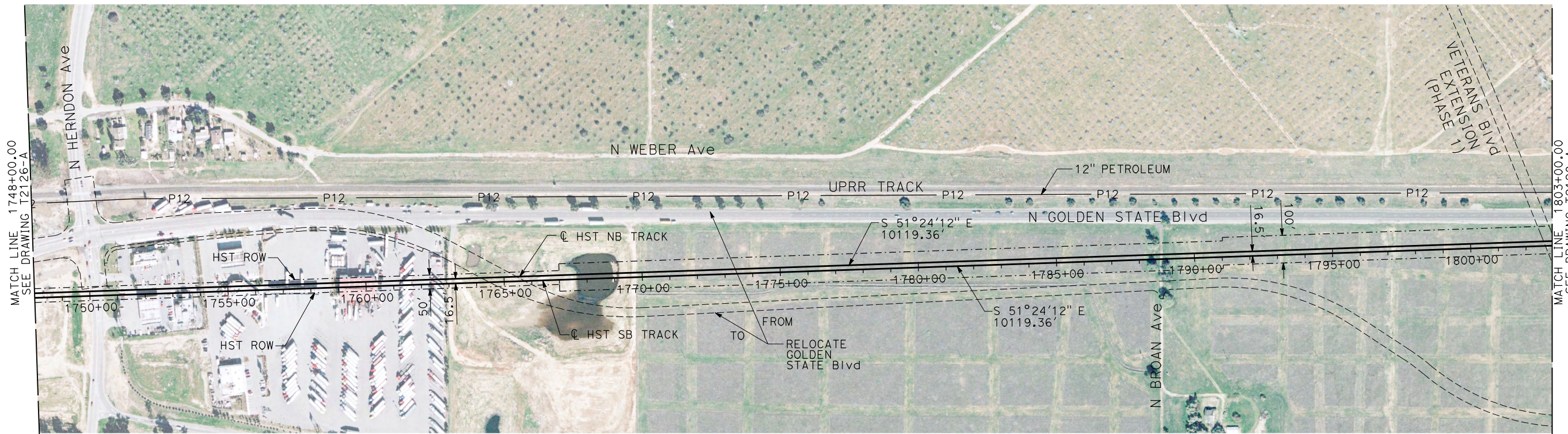
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MAIN LINE

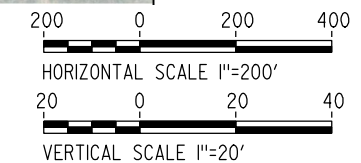
PLAN AND PROFILE
STA 1713+98 TO STA 1748+00

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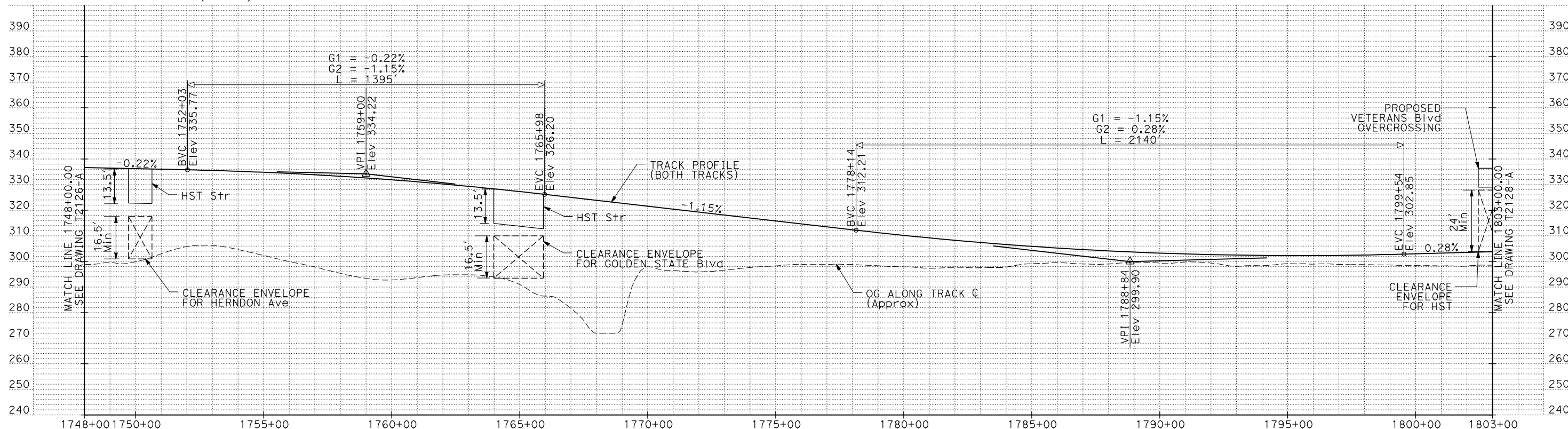
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TIME PLOTTED => 10:26



PLAN



- NOTE:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

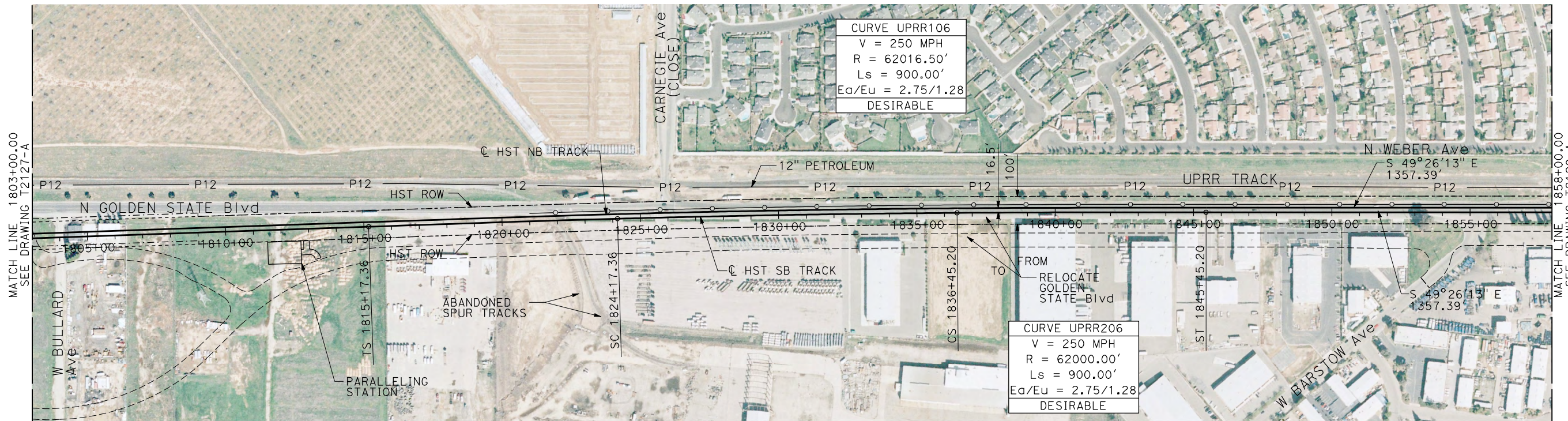


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

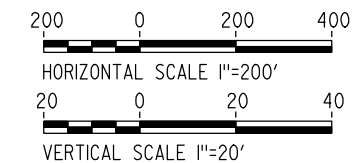
UPRR/SR99 MAIN LINE

PLAN AND PROFILE
STA 1748+00 TO STA 1803+00

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.

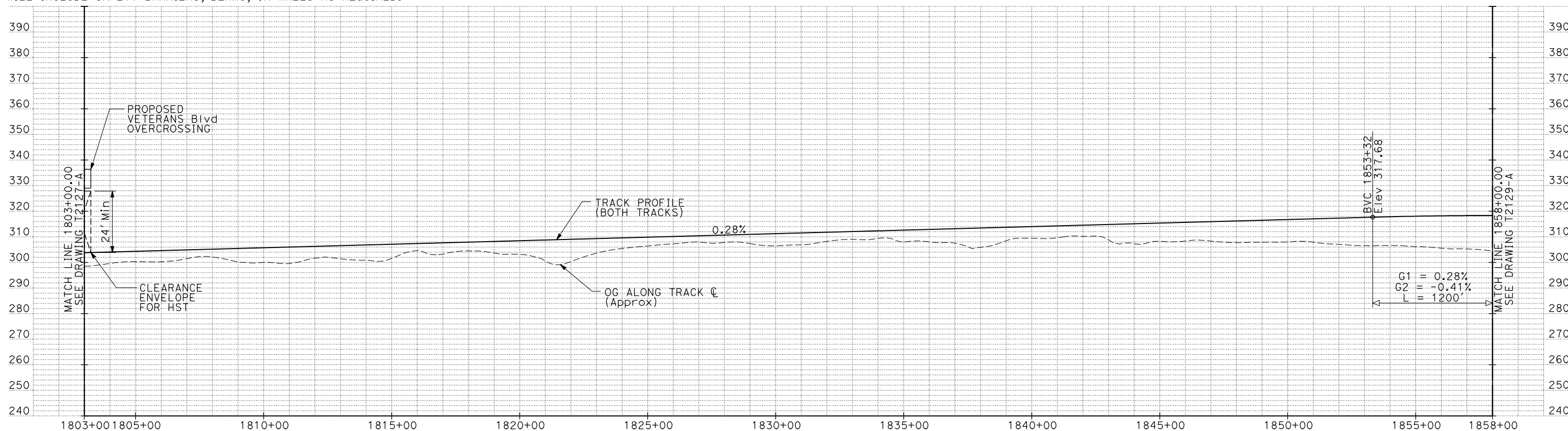


PLAN



NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
C. CHIU
DRAWN BY
M. McKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

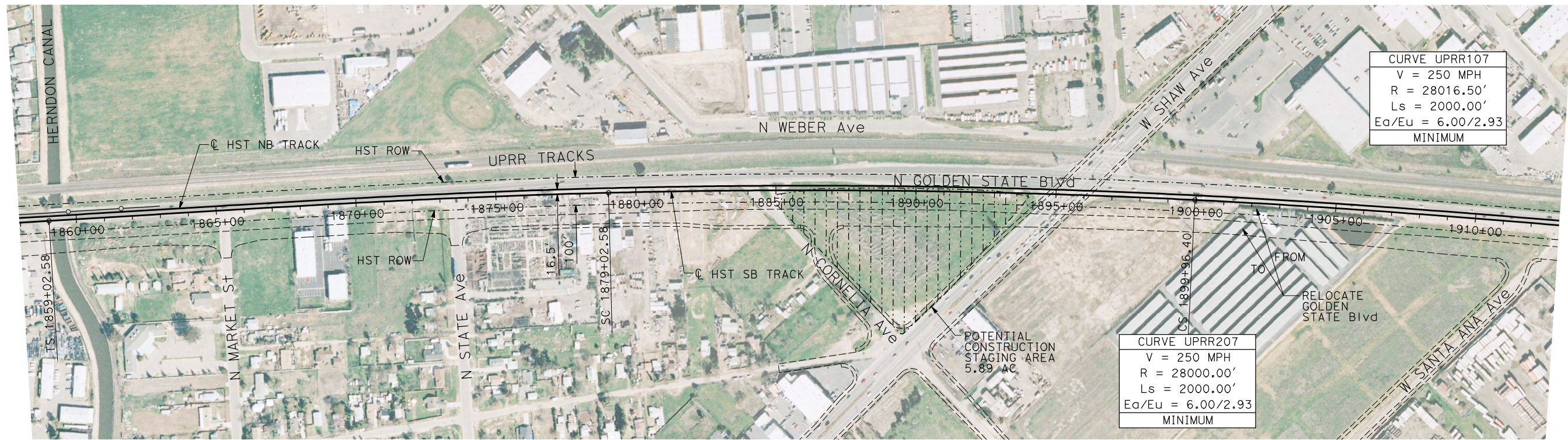
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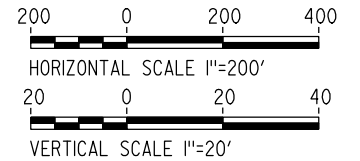
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MAIN LINE
PLAN AND PROFILE
STA 1803+00 TO STA 1858+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2128-A
SCALE
AS SHOWN
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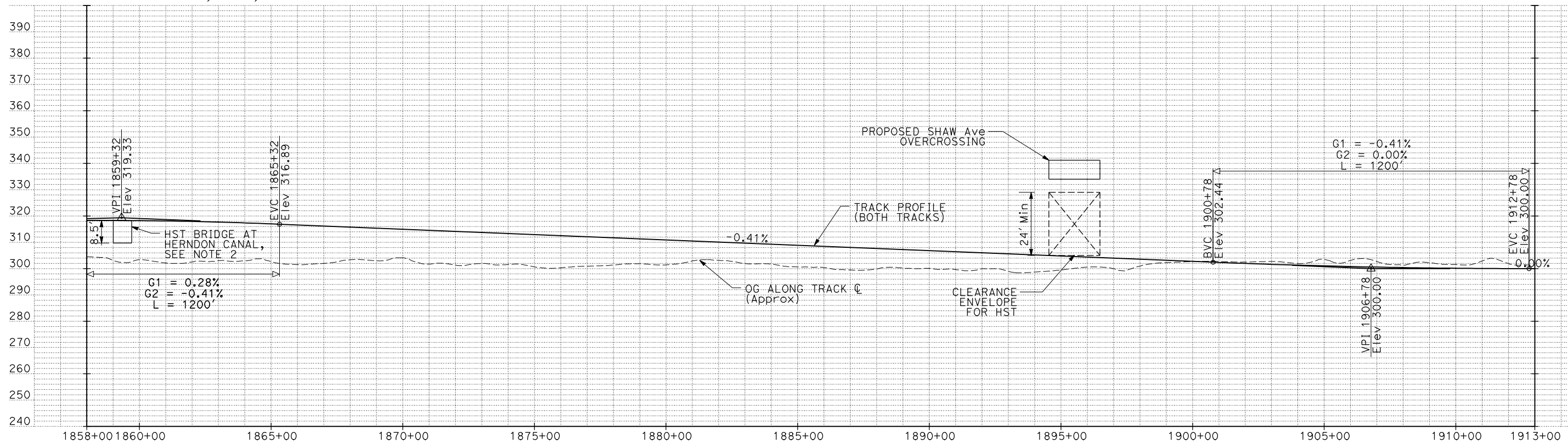


PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| DESIGNED BY | |
| DRAWN BY | |
| CHECKED BY | |
| IN CHARGE | |
| DATE | JULY 2011 |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811

CH2MHILL

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

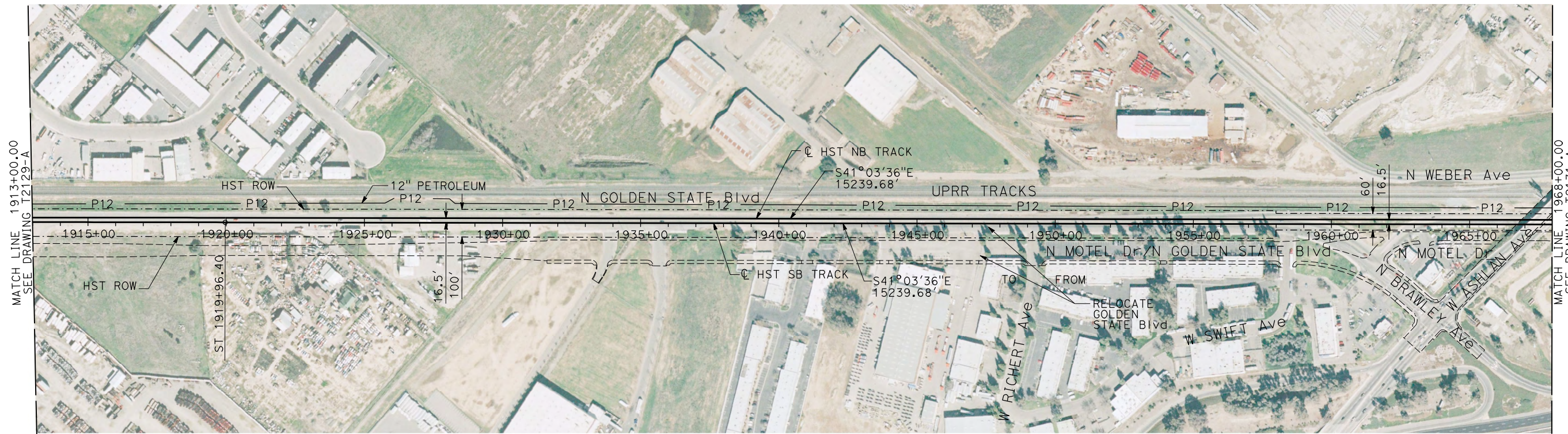
CONTRACT NO. HSR06-007

DRAWING NO.

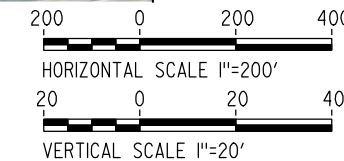
SCALE

SHEET NO.

DATE PLOTTED => 20-JUL-2011
TIME PLOTTED => 10:36

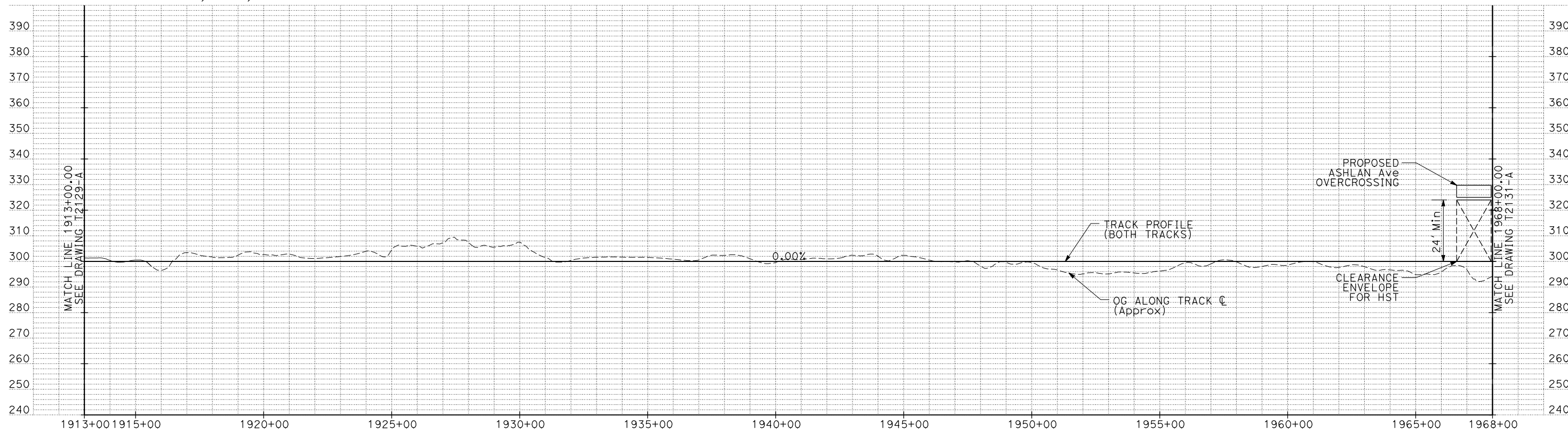


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |
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DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

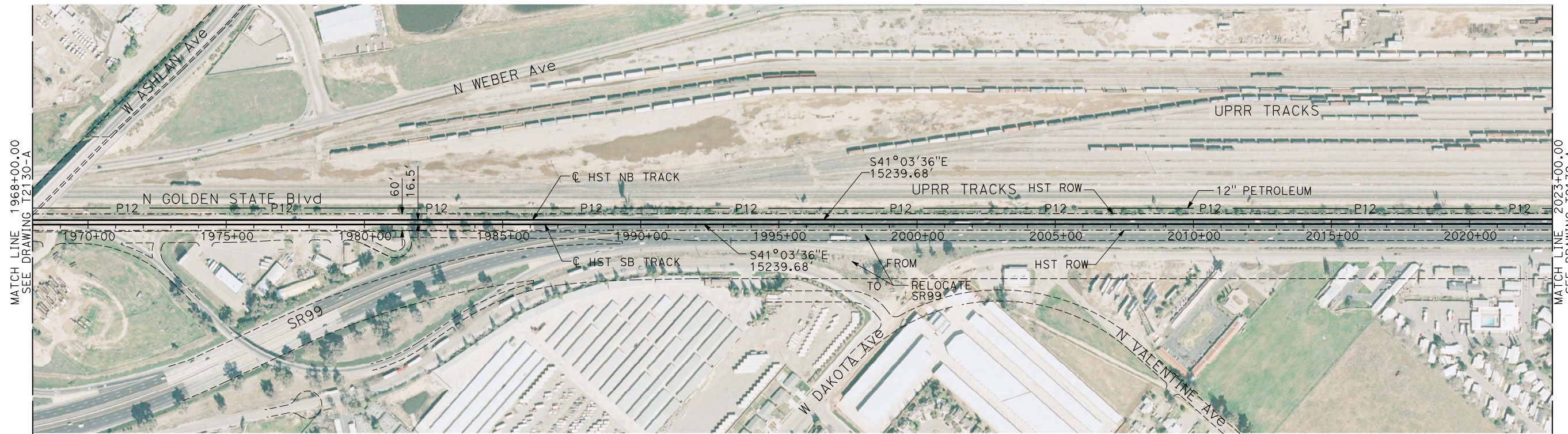


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

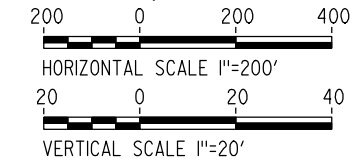
UPRR/SR99 MAIN LINE

PLAN AND PROFILE
STA 1913+00 TO STA 1968+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2130-A
SCALE
AS SHOWN
SHEET NO.

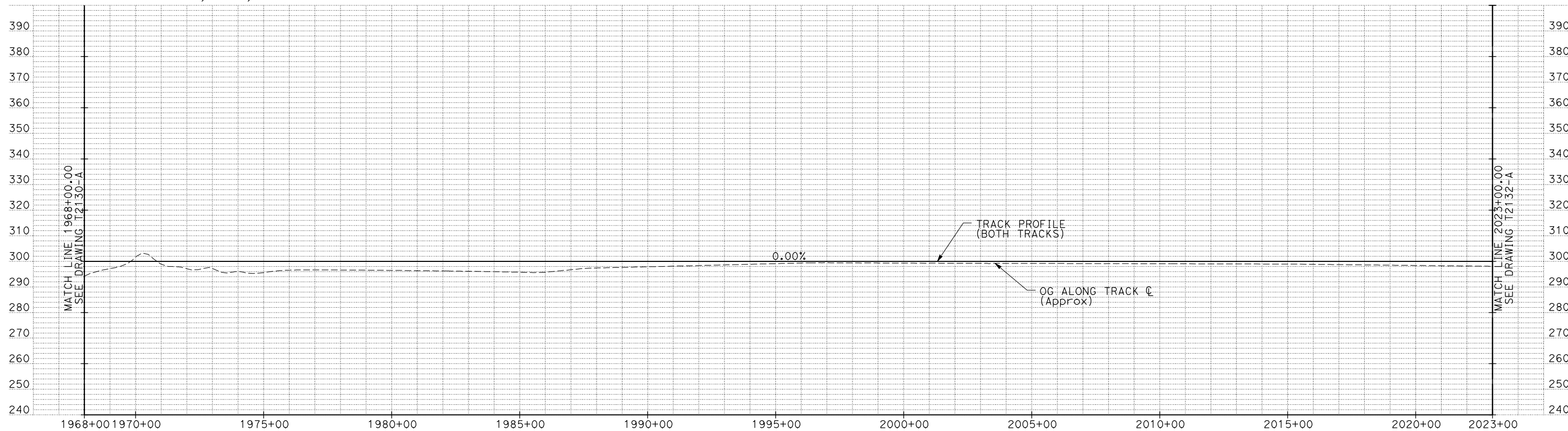


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

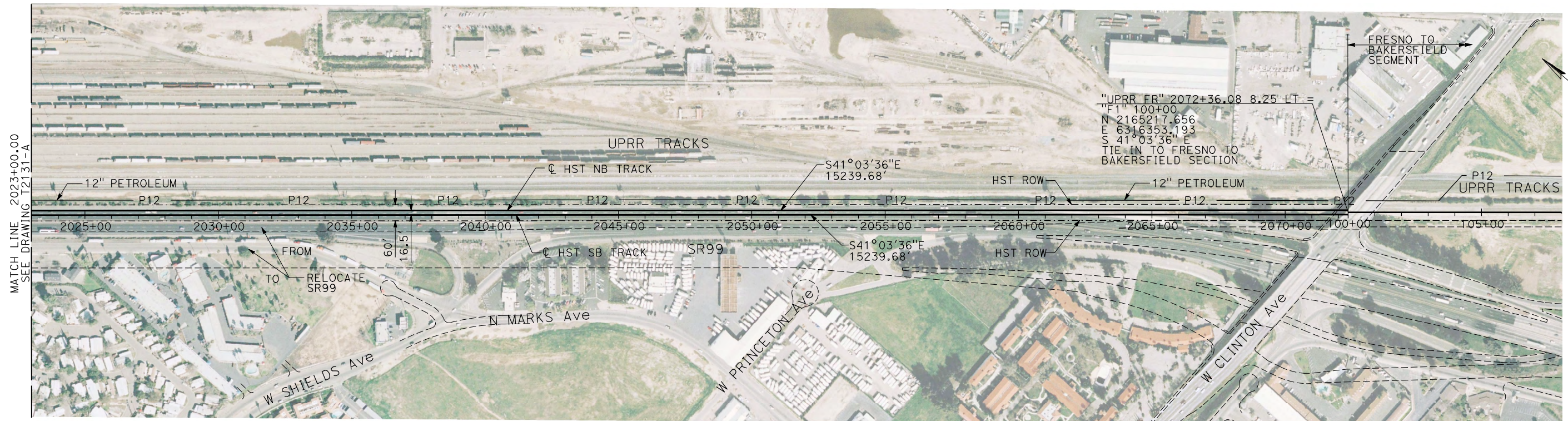


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

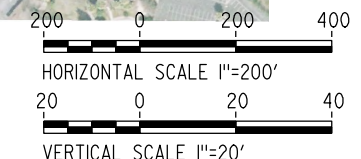
UPRR/SR99 MAIN LINE

PLAN AND PROFILE
STA 1968+00 TO STA 2023+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2131-A
SCALE
AS SHOWN
SHEET NO.

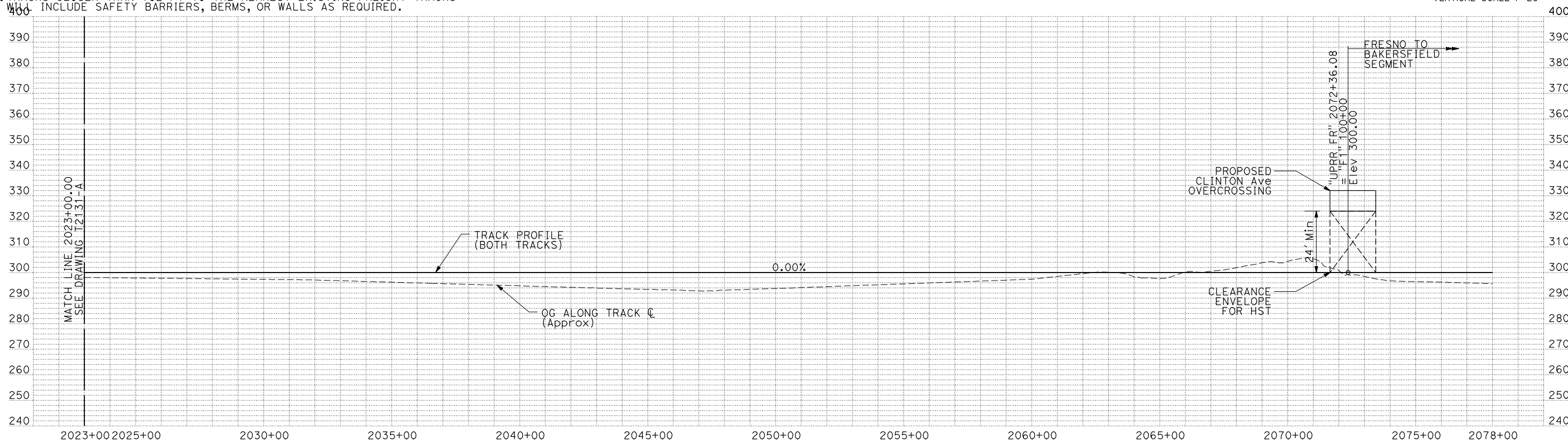


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
C. CHIU
DRAWN BY
M. MCKEON
CHECKED BY
V. CHIO
IN CHARGE
J. VALSECCHI
DATE
JULY 2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MAIN LINE

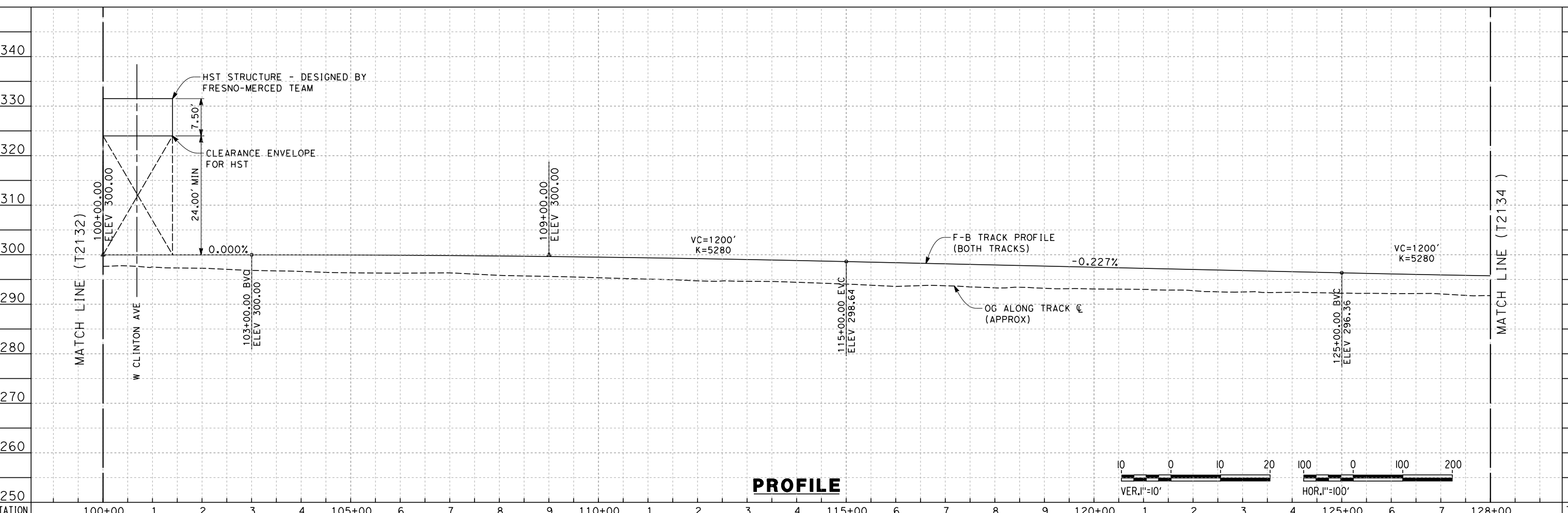
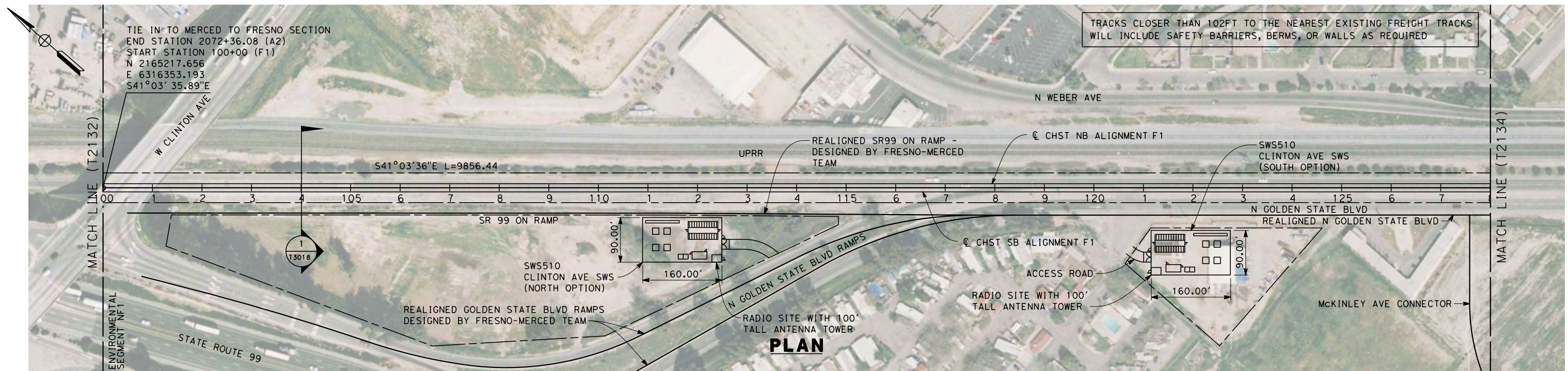
PLAN AND PROFILE
STA 2023+00 TO STA 2072+36.08

| | |
|--------------|-----------|
| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2132-A |
| SCALE | AS SHOWN |
| SHEET NO. | |

DATE PLOTTED => 20-JUL-2011
TIME PLOTTED => 10:50

USERNAME => lwebster
DGN FILE => MF-T-2132-A2-E

7/22/2011 10:26:28 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2133-A-F1.dgn



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|---------|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|--------|-------|
| STATION | 100+00 | 1 | 2 | 3 | 4 | 105+00 | 6 | 7 | 8 | 9 | 110+00 | 1 | 2 | 3 | 4 | 115+00 | 6 | 7 | 8 | 9 | 120+00 | 1 | 2 | 3 | 4 | 125+00 | 6 | 7 | 128+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|---------------------------|--|
| DESIGNED BY K. SEYMOUR | RECORD SET 15% DESIGN SUBMISSION NOT FOR CONSTRUCTION |
| DRAWN BY P. TONKIN | |
| CHECKED BY D. HUNT | |
| IN CHARGE A. LUFT | |
| DATE 06/30/11 | |

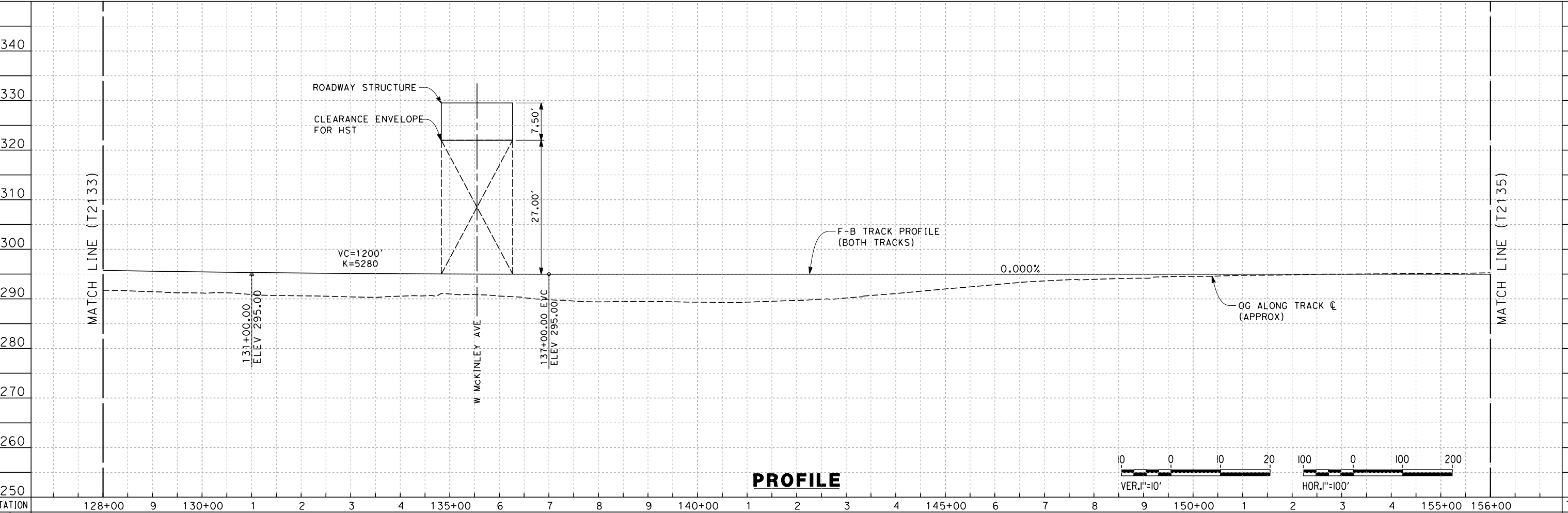
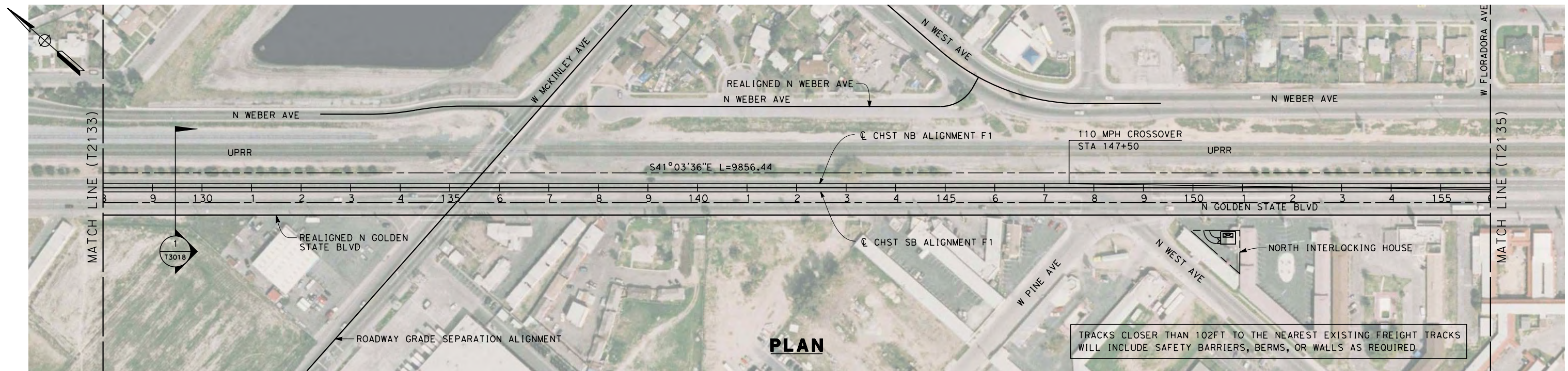
URS | HMM | ARUP
 CALIFORNIA HIGH-SPEED TRAIN



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR MAIN LINE
 PLAN AND PROFILE
 STA. 100+00 TO 128+00

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T2133-A
 SCALE
 AS SHOWN
 SHEET NO.
 ### OF ###

7/22/2011 10:26:32 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2134-A-F1.dgn



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

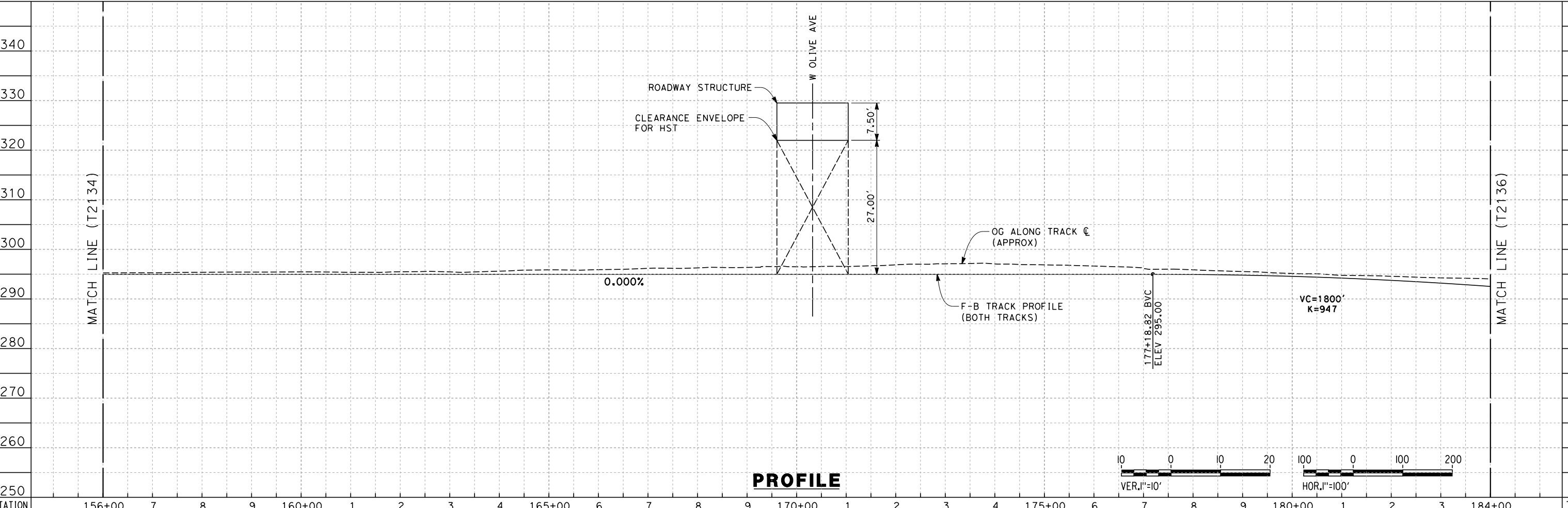
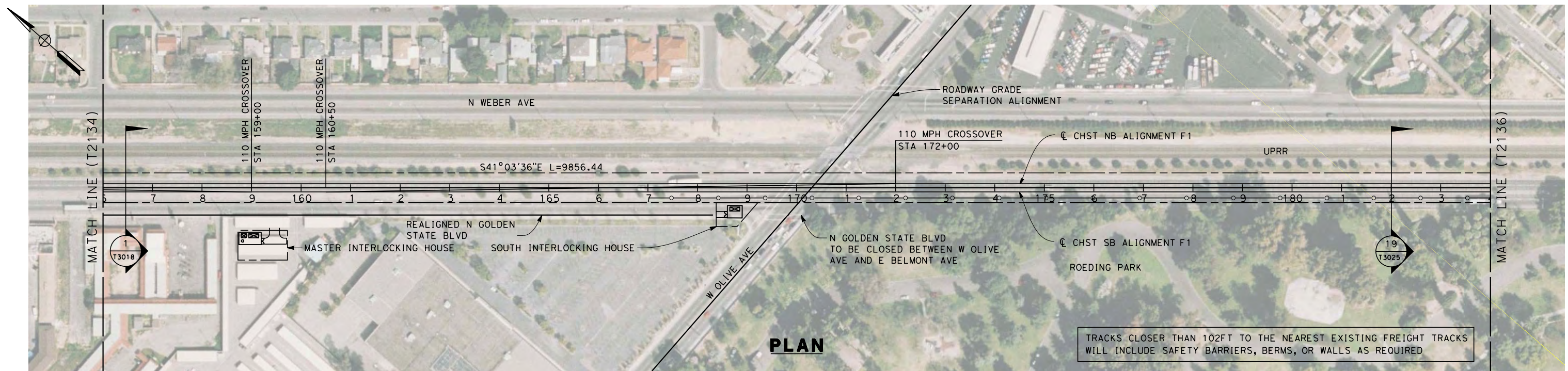


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR MAIN LINE

 PLAN AND PROFILE
 STA. 128+00 TO 156+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2134-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:26:34 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2135-A-F1.dgn



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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| | | | | | |
| | | | | | |

DESIGNED BY
K. SEYMOUR

DRAWN BY
P. TONKIN

CHECKED BY
D. HUNT

IN CHARGE
A. LUFT

DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR MAIN LINE

PLAN AND PROFILE
STA. 156+00 TO 184+00

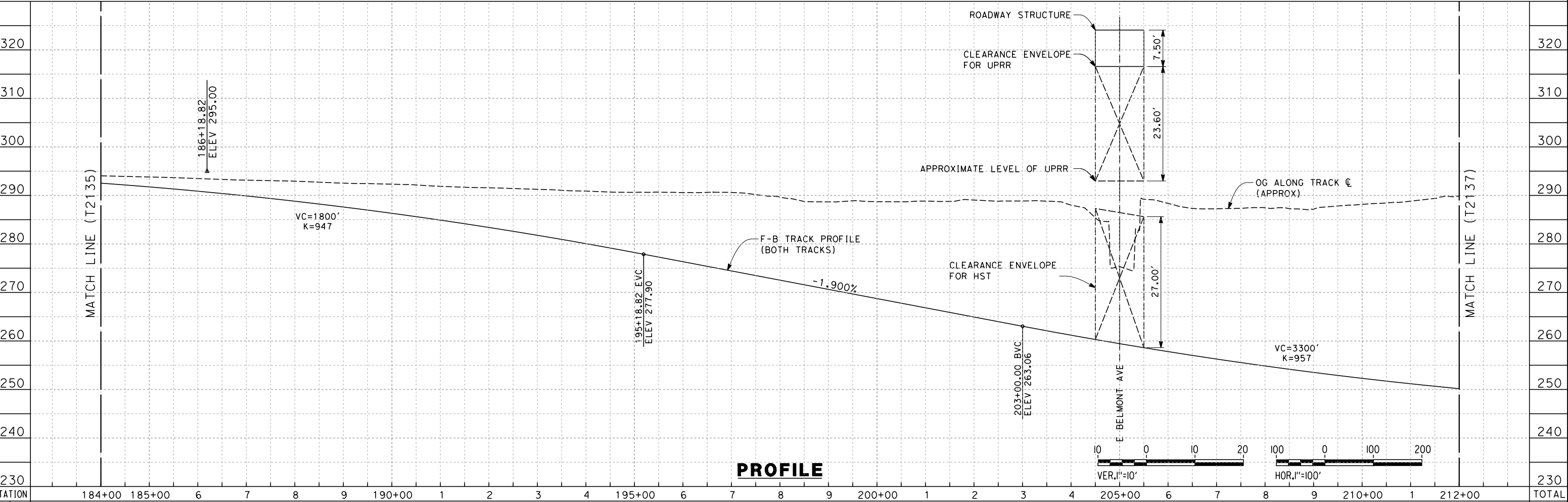
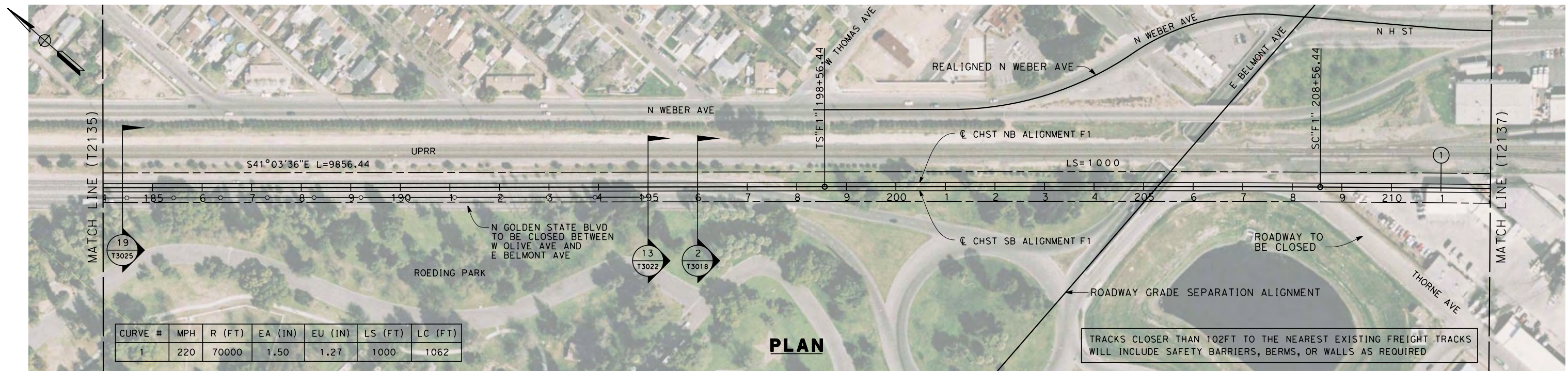
CONTRACT NO.
HSR 06-0003

DRAWING NO.
T2135-A

SCALE
AS SHOWN

SHEET NO.
OF

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|---------|--------|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|--------|-------|
| STATION | 184+00 | 185+00 | 6 | 7 | 8 | 9 | 190+00 | 1 | 2 | 3 | 4 | 195+00 | 6 | 7 | 8 | 9 | 200+00 | 1 | 2 | 3 | 4 | 205+00 | 6 | 7 | 8 | 9 | 210+00 | 1 | 212+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

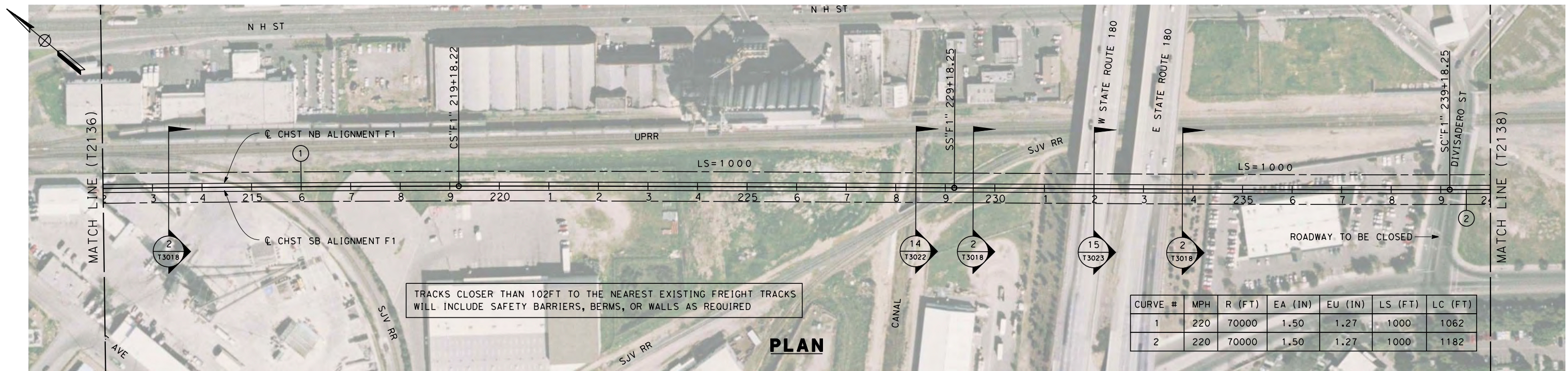


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR MAIN LINE

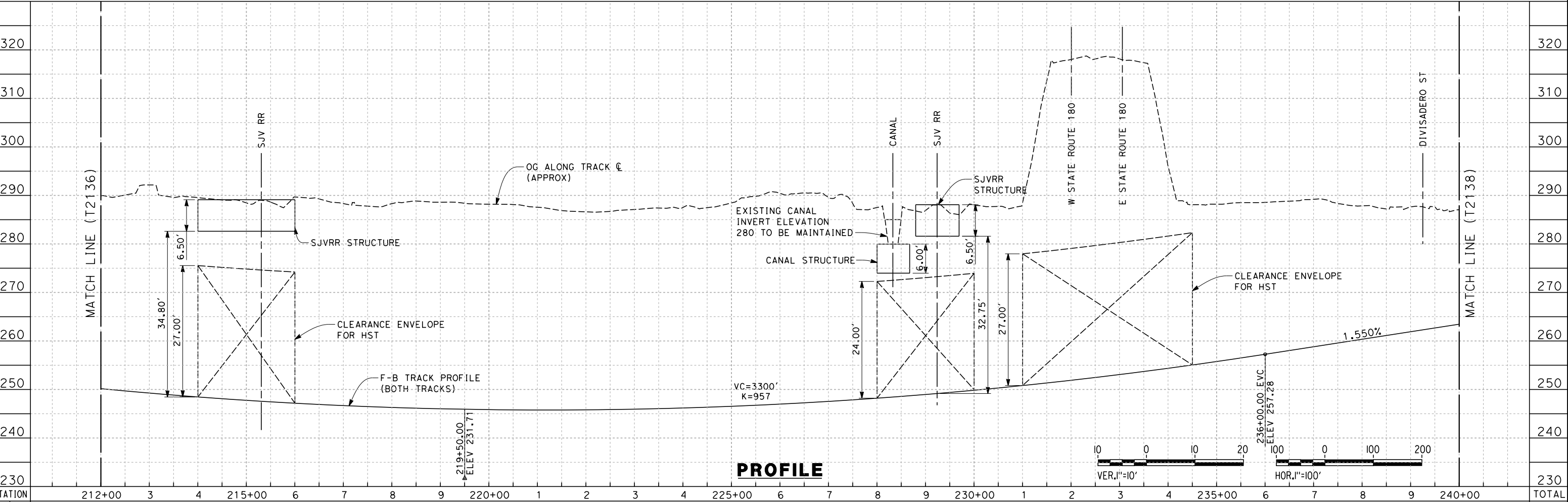
 PLAN AND PROFILE
 STA. 184+00 TO 212+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2136-A
 SCALE
AS SHOWN
 SHEET NO.
OF

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 frank.palermo



TRACKS CLOSER THAN 102FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--------|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|-------|
| STATION | 212+00 | 3 | 4 | 215+00 | 6 | 7 | 8 | 9 | 220+00 | 1 | 2 | 3 | 4 | 225+00 | 6 | 7 | 8 | 9 | 230+00 | 1 | 2 | 3 | 4 | 235+00 | 6 | 7 | 8 | 9 | 240+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

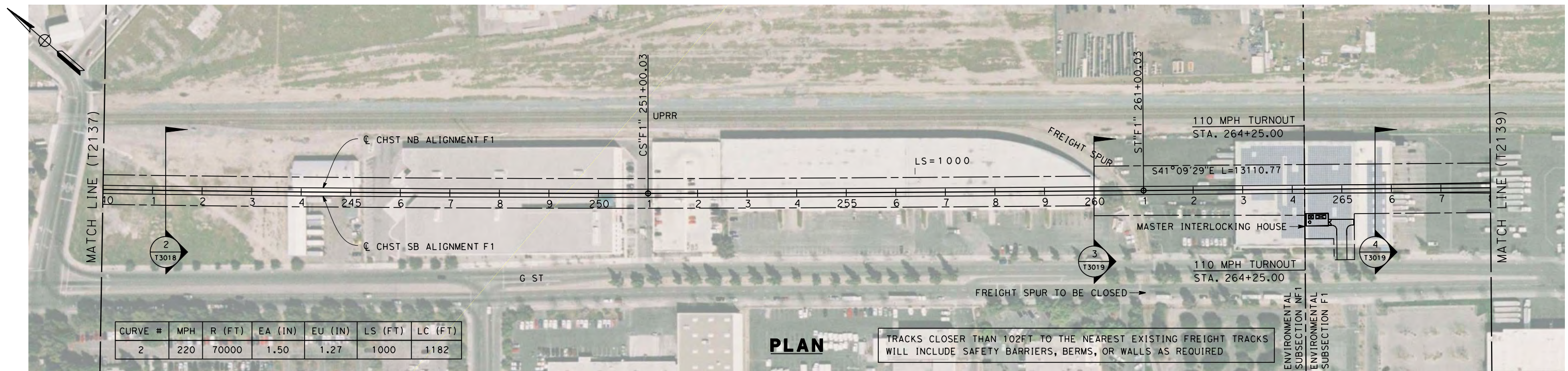


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR MAIN LINE

 PLAN AND PROFILE
 STA. 212+00 TO 240+00

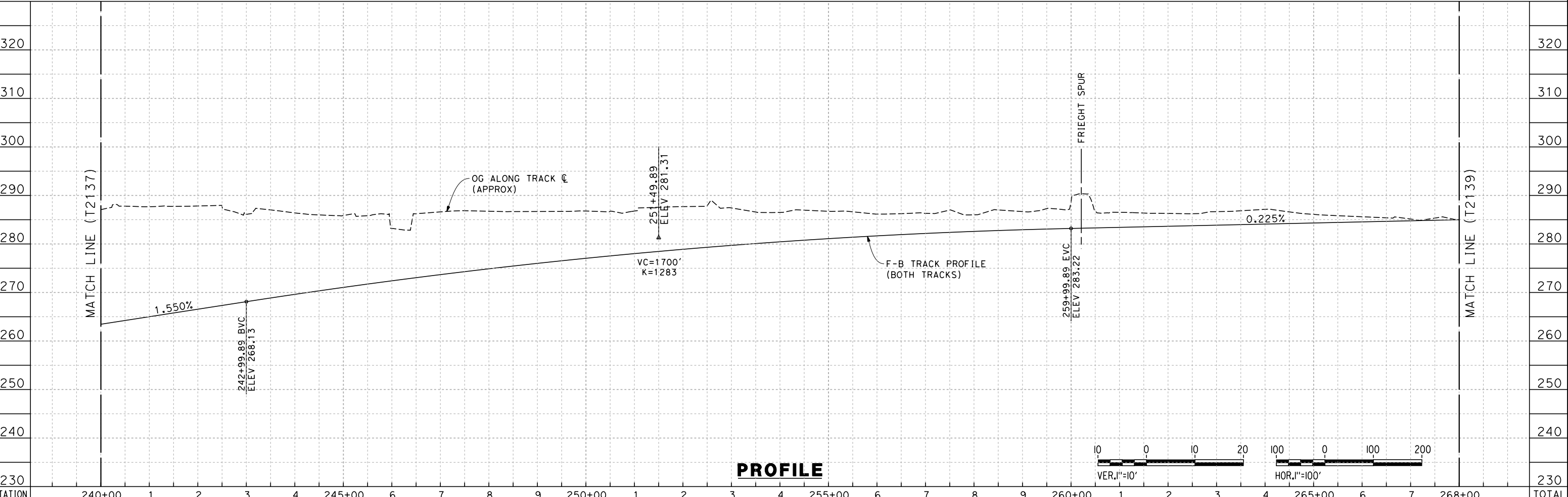
CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2137-A
 SCALE
AS SHOWN
 SHEET NO.
OF

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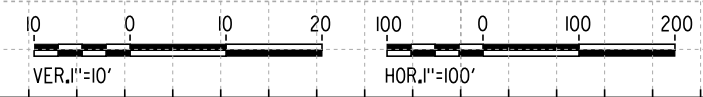


PLAN

TRACKS CLOSER THAN 102FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED



PROFILE



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|--------|-------|
| STATION | 240+00 | 1 | 2 | 3 | 4 | 245+00 | 6 | 7 | 8 | 9 | 250+00 | 1 | 2 | 3 | 4 | 255+00 | 6 | 7 | 8 | 9 | 260+00 | 1 | 2 | 3 | 4 | 265+00 | 6 | 7 | 268+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|------------|
| DESIGNED BY | K. SEYMOUR |
| DRAWN BY | P. TONKIN |
| CHECKED BY | D. HUNT |
| IN CHARGE | A. LUFT |
| DATE | 06/30/11 |

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**



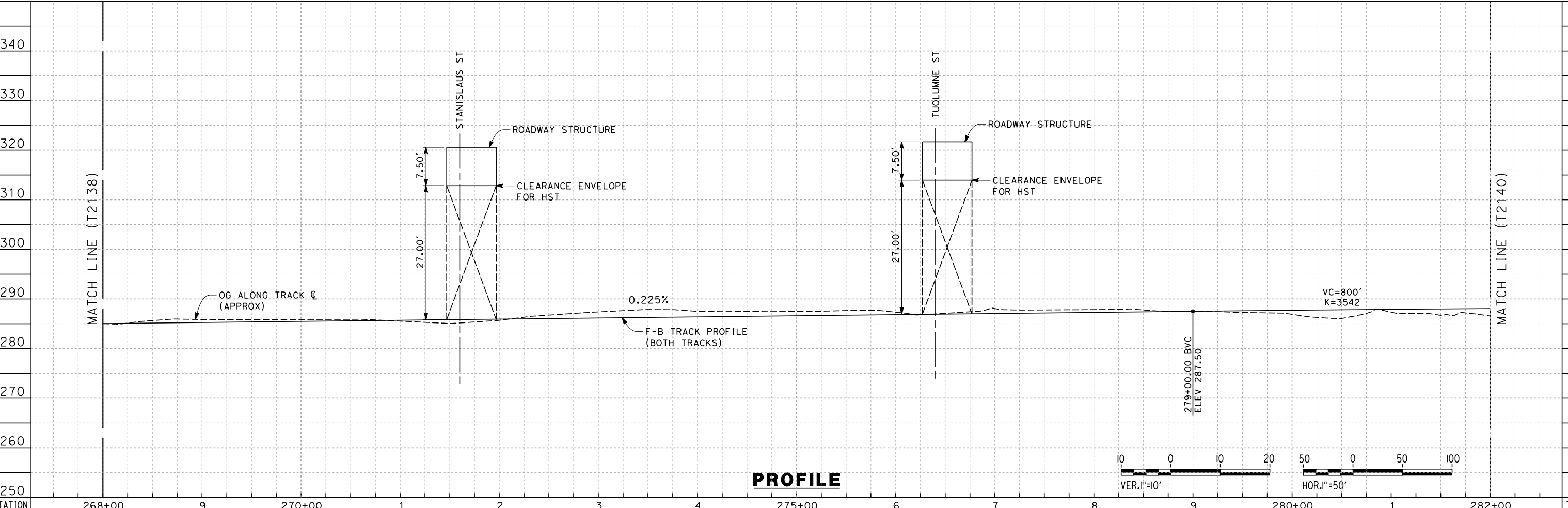
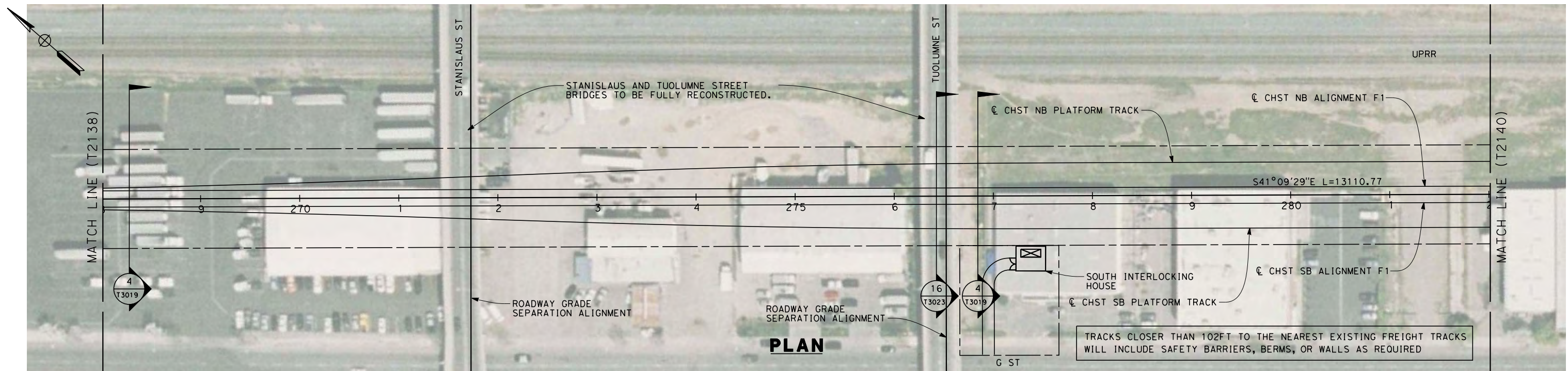
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR MAIN LINE

PLAN AND PROFILE
STA. 240+00 TO 268+00

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|--------------|-------------|
| CONTRACT NO. | HSR 06-0003 |
| DRAWING NO. | T2138-A |
| SCALE | AS SHOWN |
| SHEET NO. | ### OF ### |

7/22/2011 10:26:47 AM O:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2139-A-F1.mxd
 frank.palermo



| | | | | | | | | | | | | | | | | |
|---------|--------|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|--------|-------|
| STATION | 268+00 | 9 | 270+00 | 1 | 2 | 3 | 4 | 275+00 | 6 | 7 | 8 | 9 | 280+00 | 1 | 282+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
 K. SEYMOUR
 DRAWN BY
 P. TONKIN
 CHECKED BY
 D. HUNT
 IN CHARGE
 A. LUFT
 DATE
 06/30/11

**RECORD SET 15%
 DESIGN SUBMISSION**

**NOT FOR
 CONSTRUCTION**

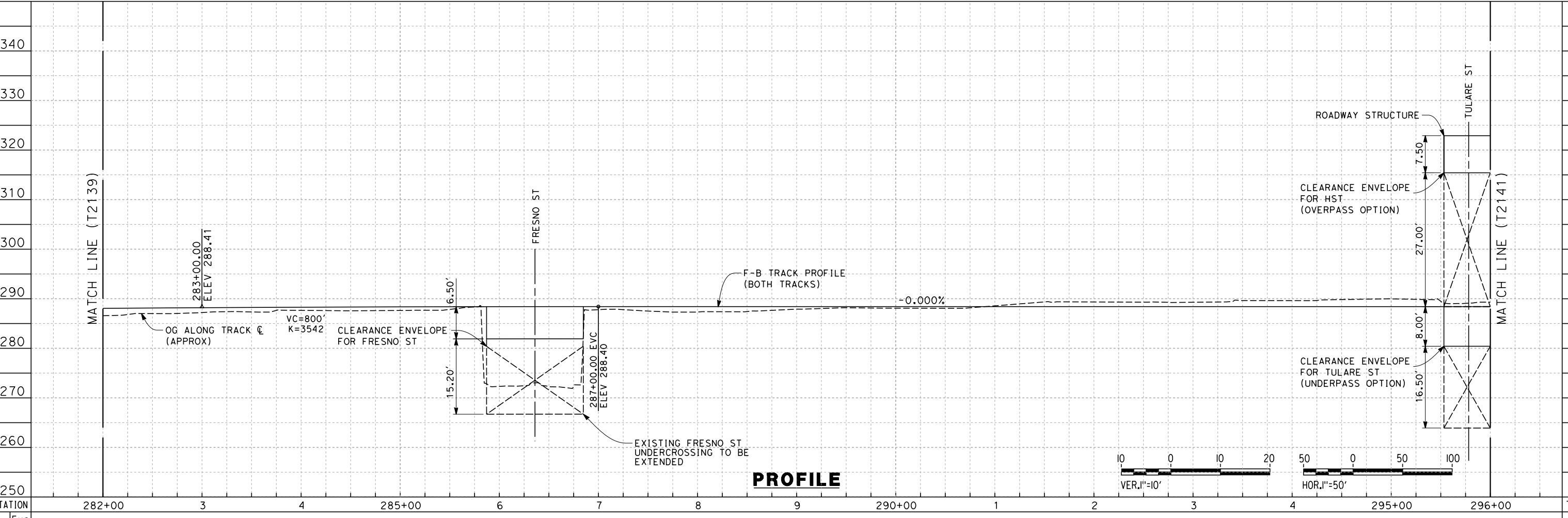
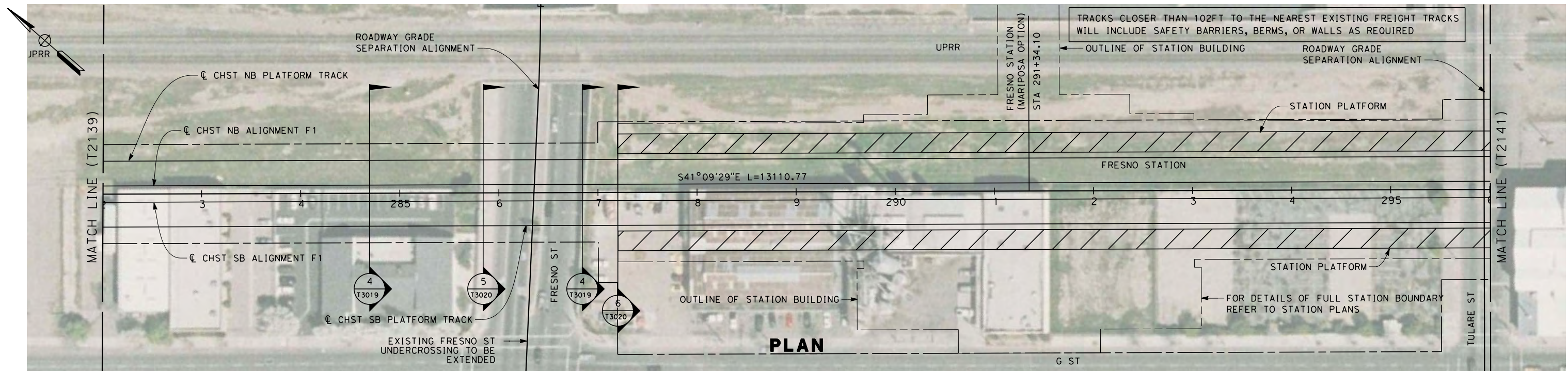


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
 MERCED TO FRESNO**
 UPRR MAIN LINE

 PLAN AND PROFILE
 STA. 268+00 TO 282+00

CONTRACT NO.
 HSR 06-0003
 DRAWING NO.
 T2139-A
 SCALE
 AS SHOWN
 SHEET NO.
 ### OF ###

7/22/2011 10:26:49 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2140-A-F1-m.dwg
 frank.palermo



| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

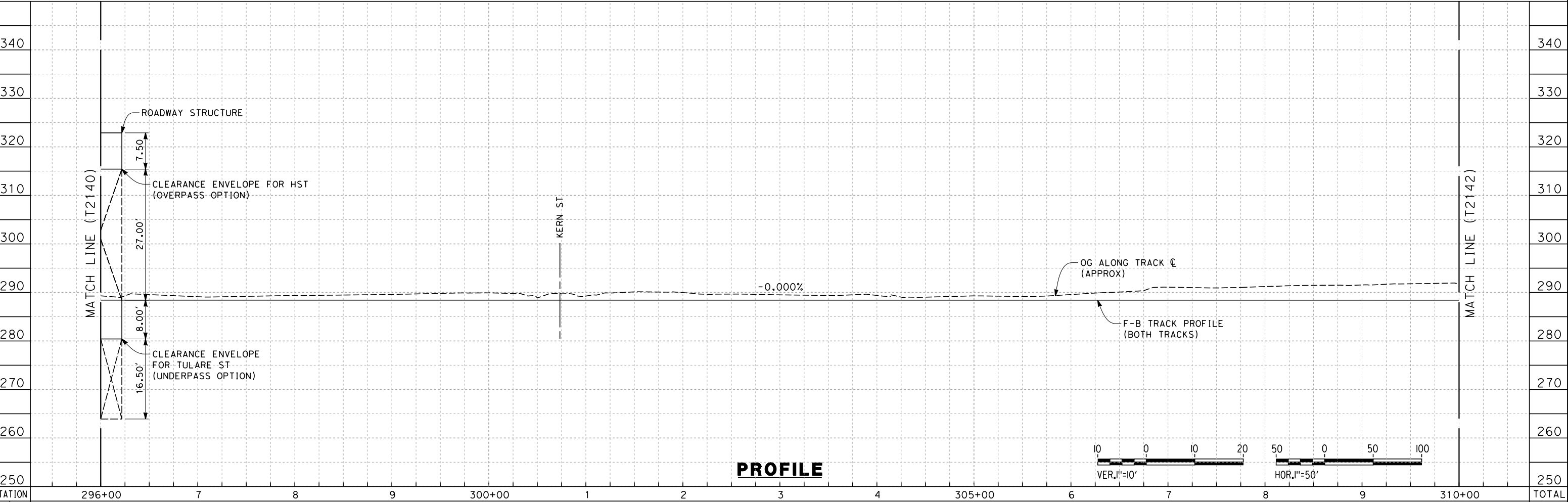
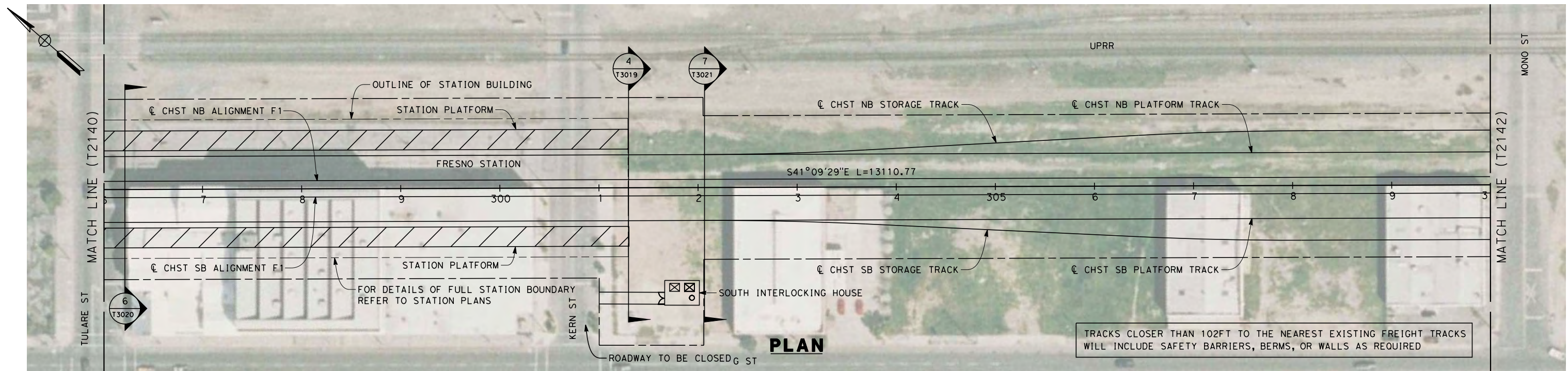
**NOT FOR
CONSTRUCTION**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR MAIN LINE
 PLAN AND PROFILE
 STA. 282+00 TO 296+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2140-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:26:52 AM 0:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2141-A-F1m.dwg



| | | | | | | | | | | | | | | | | |
|---------|--------|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|-------|
| STATION | 296+00 | 7 | 8 | 9 | 300+00 | 1 | 2 | 3 | 4 | 305+00 | 6 | 7 | 8 | 9 | 310+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
06/30/11

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

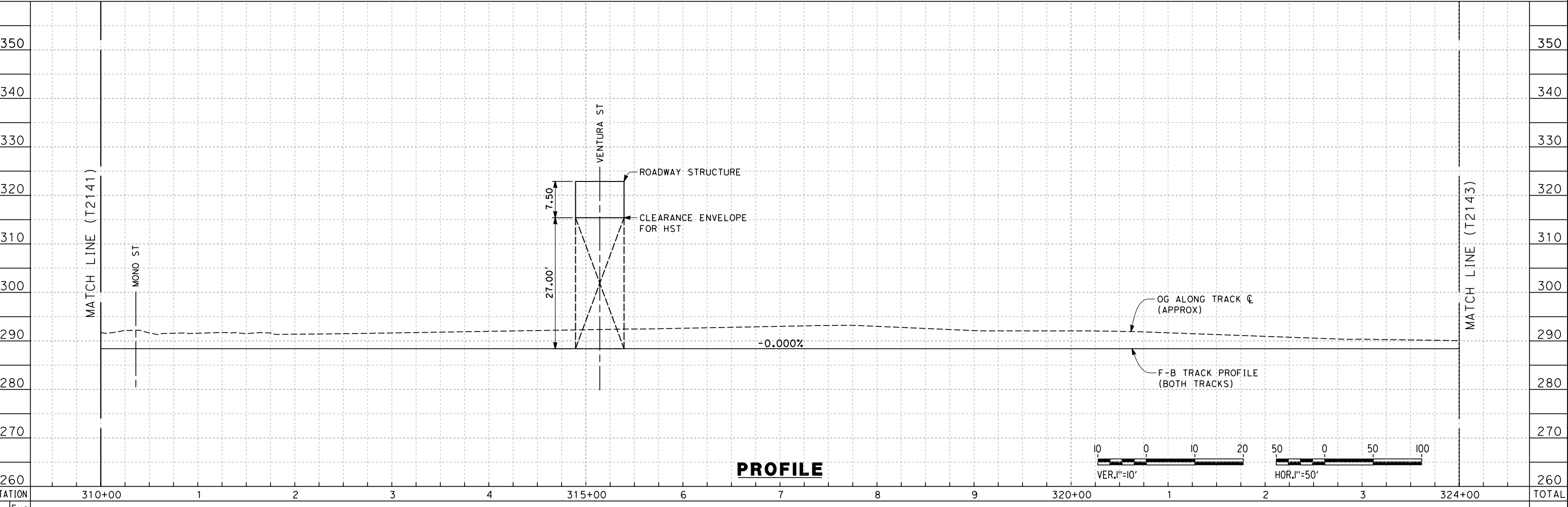
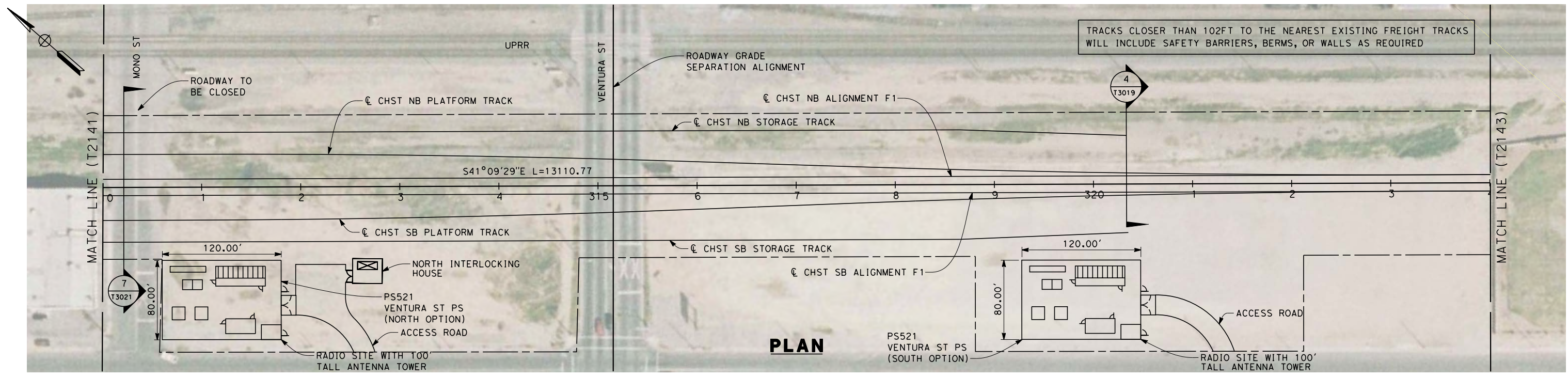


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
 UPRR MAIN LINE

 PLAN AND PROFILE
 STA. 296+00 TO 310+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2141-A
 SCALE
AS SHOWN
 SHEET NO.
OF

7/22/2011 10:26:56 AM 0:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2142-A-F1m.dwg
 frank.palermo



| | | | | | | | | | | | | | | | | |
|---------|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|--------|-------|
| STATION | 310+00 | 1 | 2 | 3 | 4 | 315+00 | 6 | 7 | 8 | 9 | 320+00 | 1 | 2 | 3 | 324+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

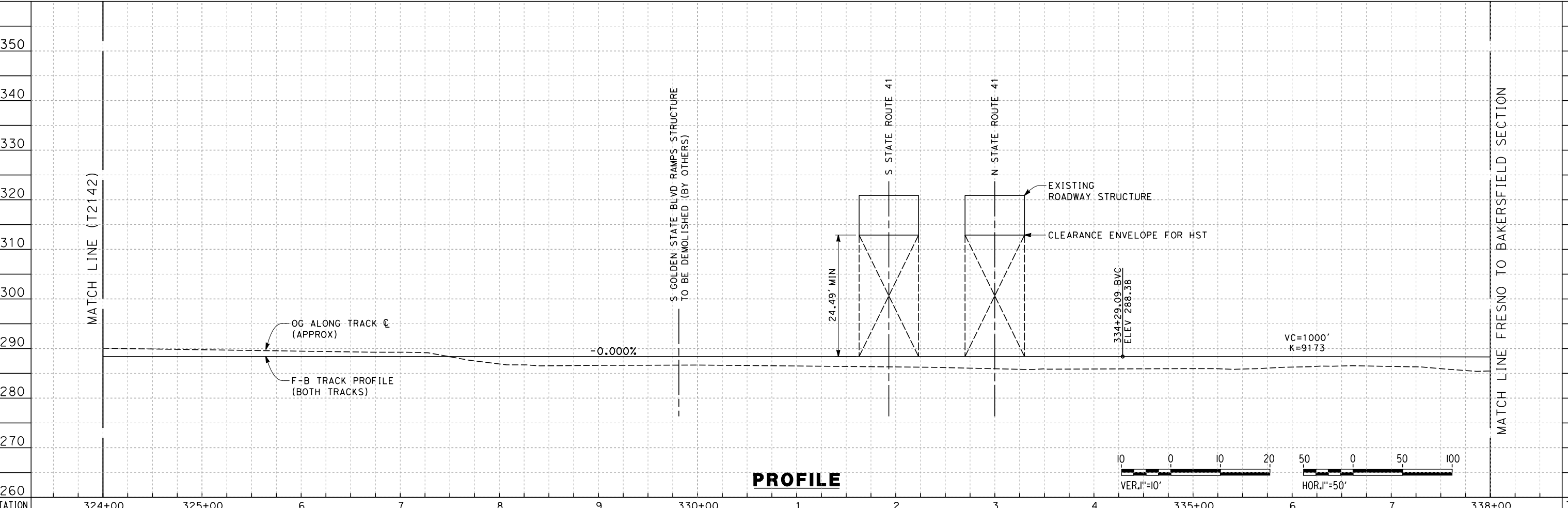
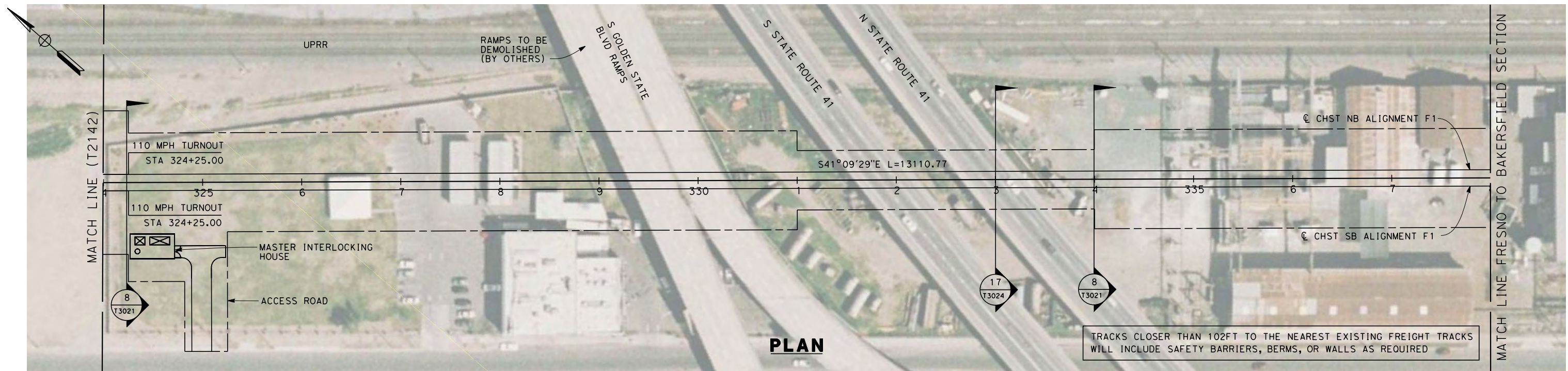
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
 UPRR MAIN LINE
 PLAN AND PROFILE
 STA. 310+00 TO 324+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2142-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX

7/22/2011 10:26:59 AM O:\1315177\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Rail\HSR 15% Design\AECOM\UPRR-SR99 Alignment - Ave 21\FB-T2143-A-F1.mxd
 frank.palermo



| | | | | | | | | | | | | | | | | |
|---------|--------|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|--------|-------|
| STATION | 324+00 | 325+00 | 6 | 7 | 8 | 9 | 330+00 | 1 | 2 | 3 | 4 | 335+00 | 6 | 7 | 338+00 | TOTAL |
| Exc | | | | | | | | | | | | | | | | |
| Emb | | | | | | | | | | | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
K. SEYMOUR
 DRAWN BY
P. TONKIN
 CHECKED BY
D. HUNT
 IN CHARGE
A. LUFT
 DATE
05/13/11

**RECORD SET 15%
DESIGN SUBMISSION**

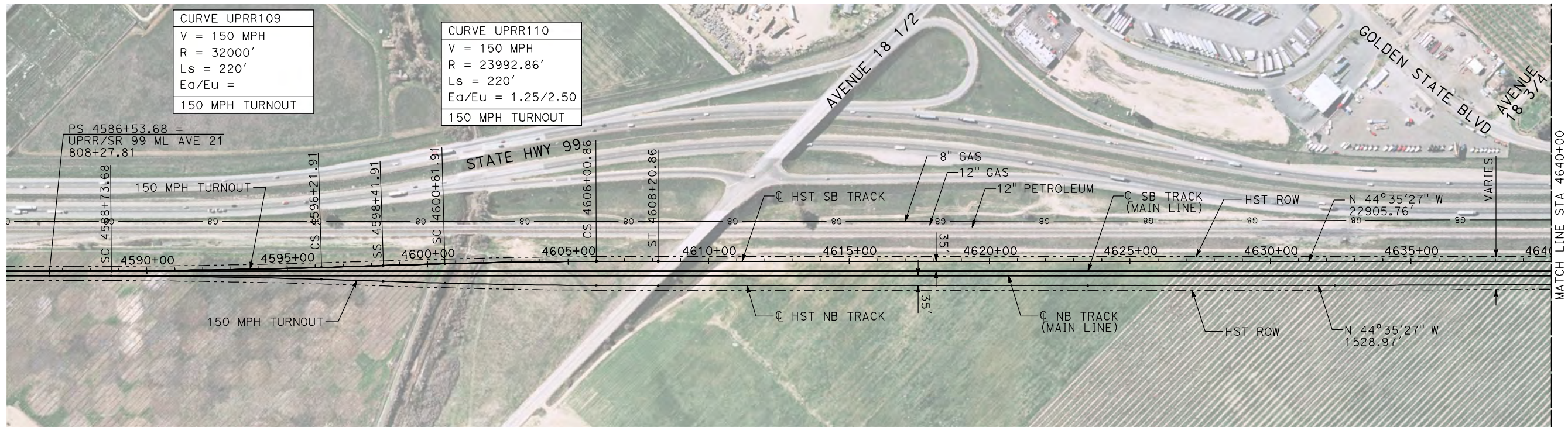
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
 UPRR MAIN LINE

 PLAN AND PROFILE
 STA. 324+00 TO 338+00

CONTRACT NO.
HSR 06-0003
 DRAWING NO.
T2143-A
 SCALE
AS SHOWN
 SHEET NO.
XX OF XX



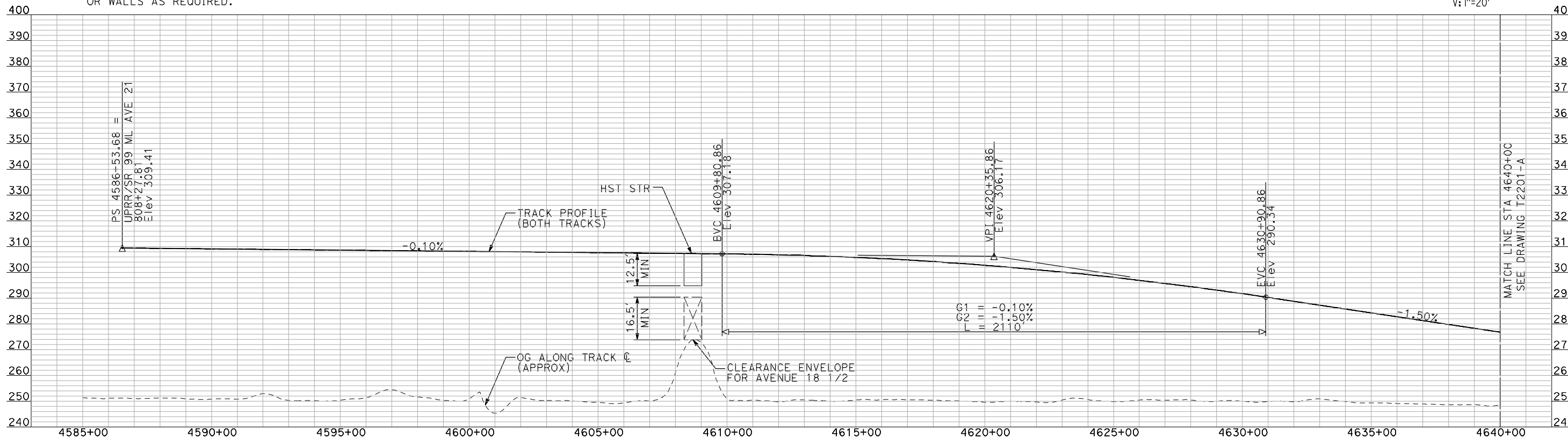
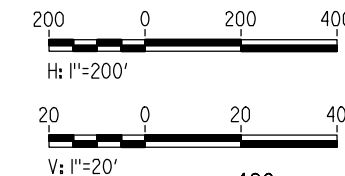
CURVE UPRR109
 V = 150 MPH
 R = 32000'
 Ls = 220'
 Ea/Eu =
 150 MPH TURNOUT

CURVE UPRR110
 V = 150 MPH
 R = 23992.86'
 Ls = 220'
 Ea/Eu = 1.25/2.50
 150 MPH TURNOUT

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MERCED CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 4586+53.68 TO STA 4640+00

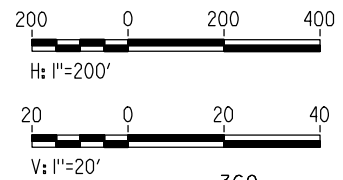
CONTRACT NO.
HSR06-007
 DRAWING NO.
T2200-A
 SCALE
AS SHOWN
 SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

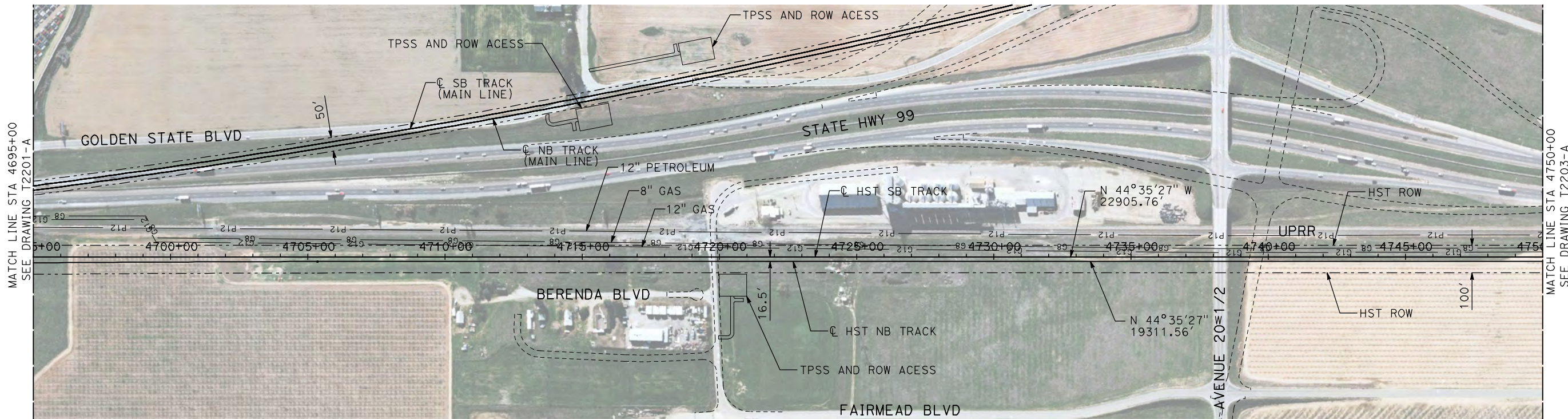


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4640+00 TO STA 4695+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2201-A
SCALE
AS SHOWN
SHEET NO.
OF

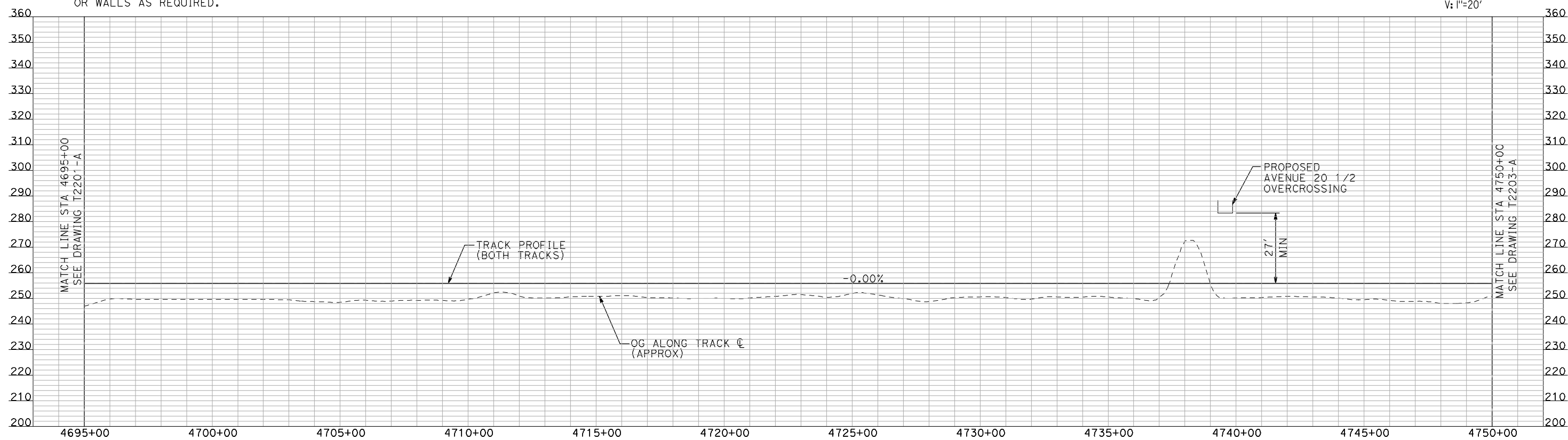
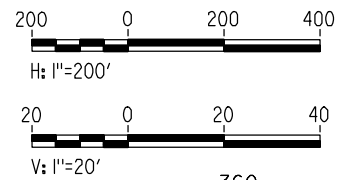
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



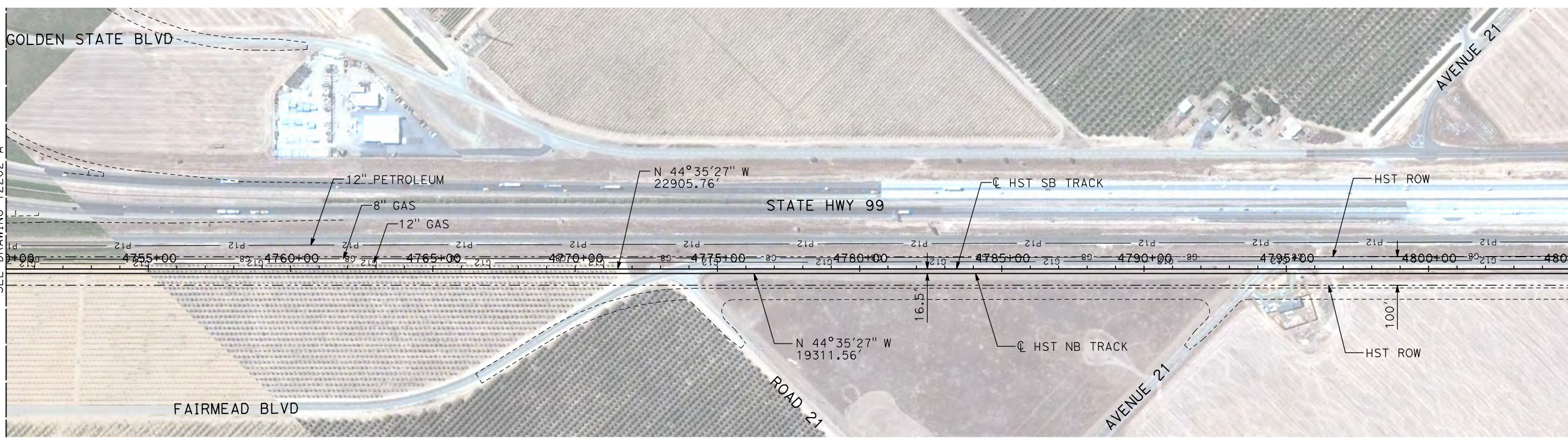
PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| | | | | | |
|---------------------------|---|---|---|--|---------------------------|
| DESIGNED BY A. SHIELDS | RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION | <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> | CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small> | CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO UPRR/SR 99 MERCED CONNECTION AVENUE 21 PLAN AND PROFILE STA 4695+00 TO STA 4750+00 | CONTRACT NO. HSR06-007 |
| DRAWN BY H. SULLIVAN | | | | | DRAWING NO. T2202-A |
| CHECKED BY A. BOONE | | | | | SCALE AS SHOWN |
| IN CHARGE A. BOONE | | | | | SHEET NO. ### OF ### |
| DATE 07/20/2011 | | | | | |

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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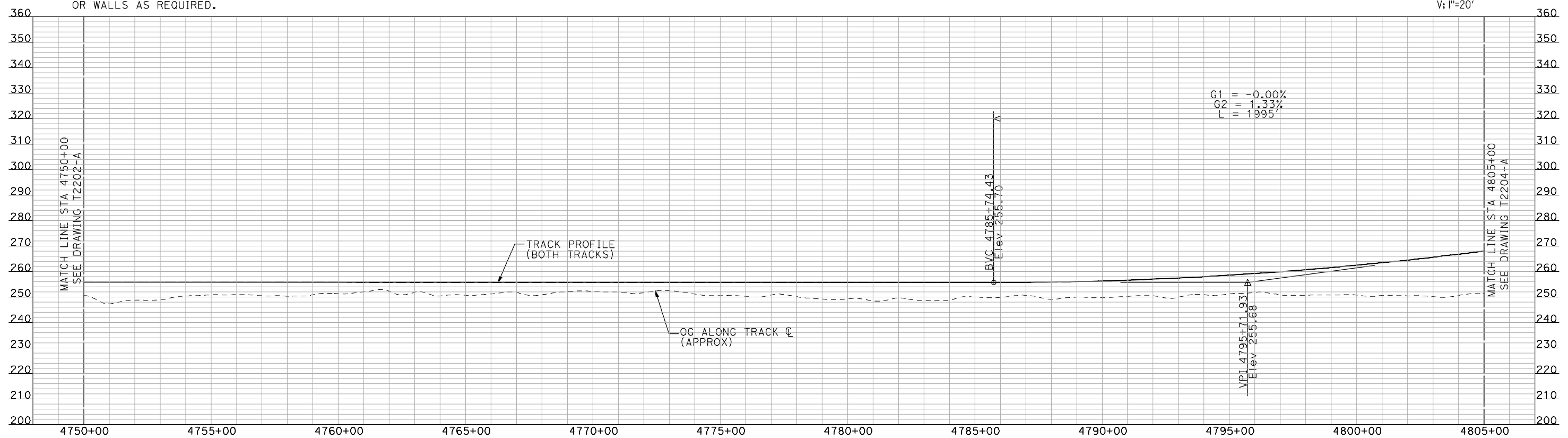
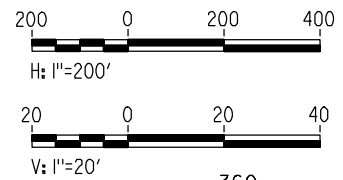
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

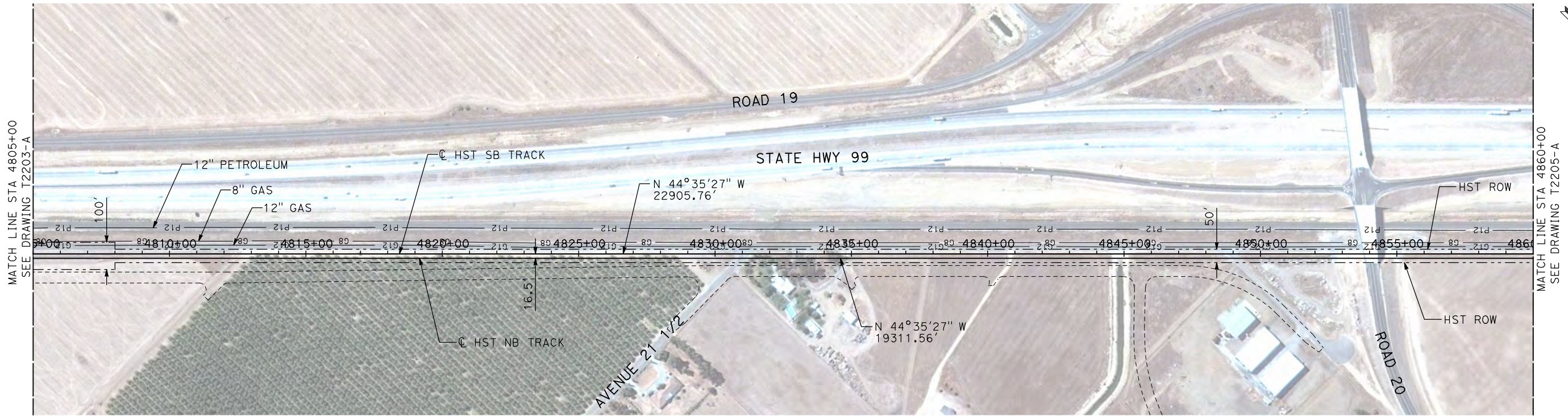
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4750+00 TO STA 4805+00

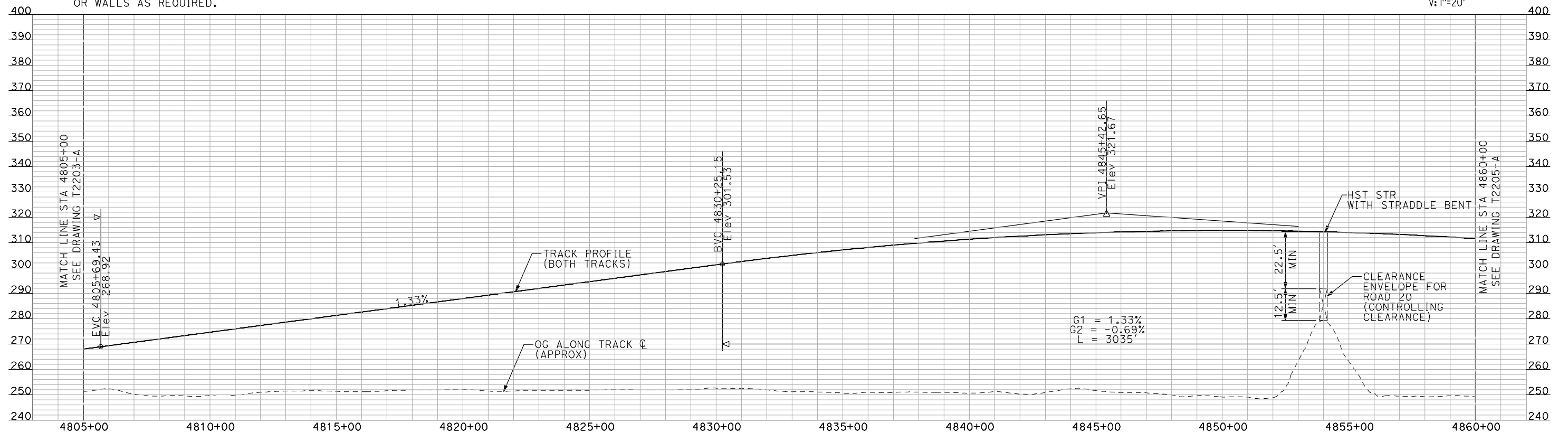
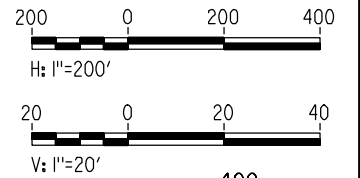
CONTRACT NO.
HSR06-007
DRAWING NO.
T2203-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

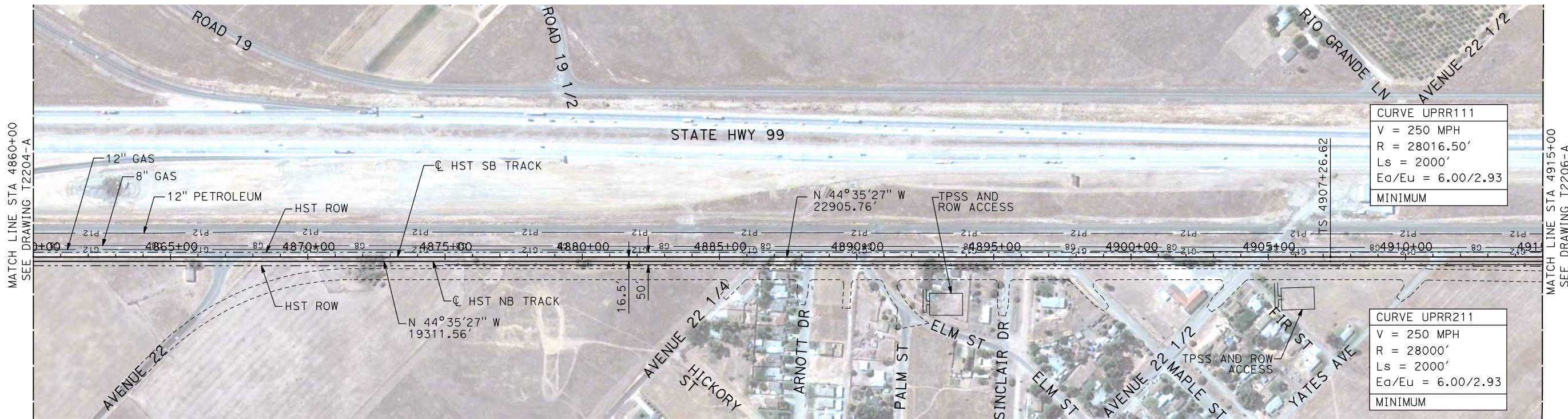
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4805+00 TO STA 4860+00

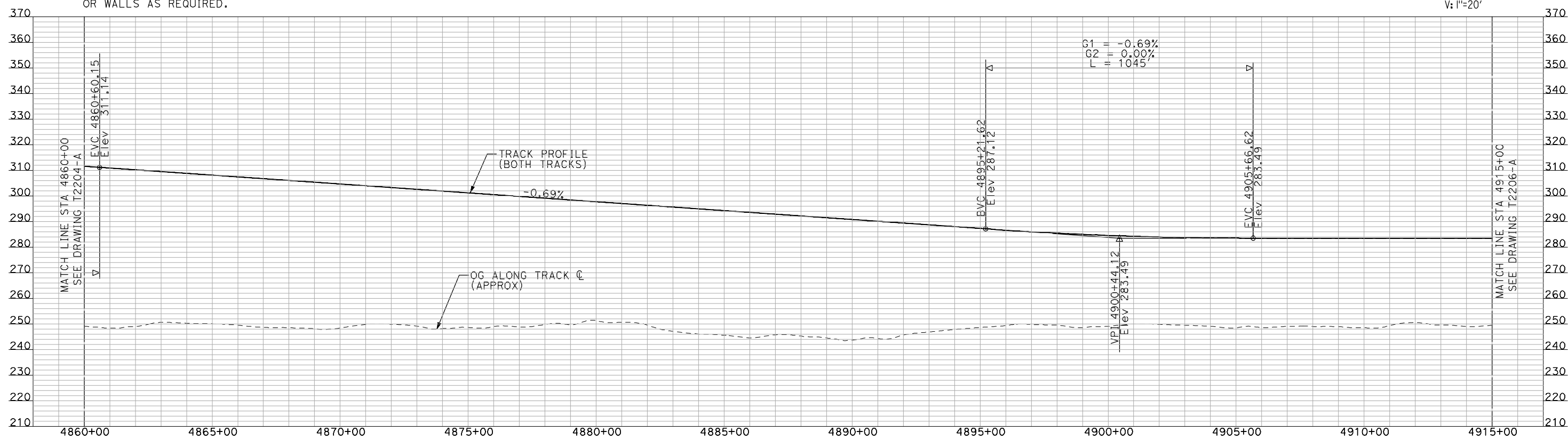
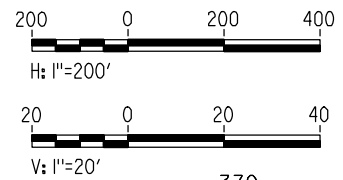
CONTRACT NO.
HSR06-007
DRAWING NO.
T2204-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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|---------------------------|---|--|--|--|--|--|---------------------------|
| DESIGNED BY A. SHIELDS | RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION | AECOM | | | CALIFORNIA HIGH-SPEED TRAIN PROJECT | | CONTRACT NO. HSR06-007 |
| DRAWN BY H. SULLIVAN | | Technical Services, Inc. | | | MERCED TO FRESNO | | DRAWING NO. T2205-A |
| CHECKED BY A. BOONE | | 2020 L Street, Suite 300 Sacramento, CA 95811 | | | UPRR/SR 99 MERCED CONNECTION | | SCALE AS SHOWN |
| IN CHARGE A. BOONE | | CH2M HILL | | | AVENUE 21 | | SHEET NO. ### OF ### |
| DATE 07/20/2011 | | | | | PLAN AND PROFILE | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

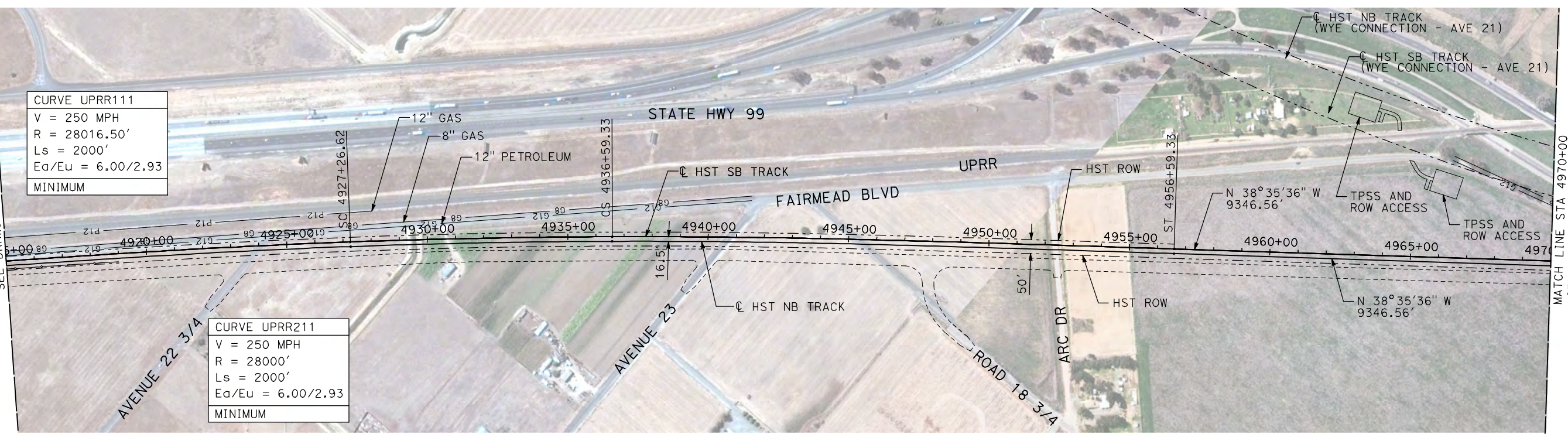
AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2M HILL

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4860+00 TO STA 4915+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2205-A
SCALE
AS SHOWN
SHEET NO.
OF

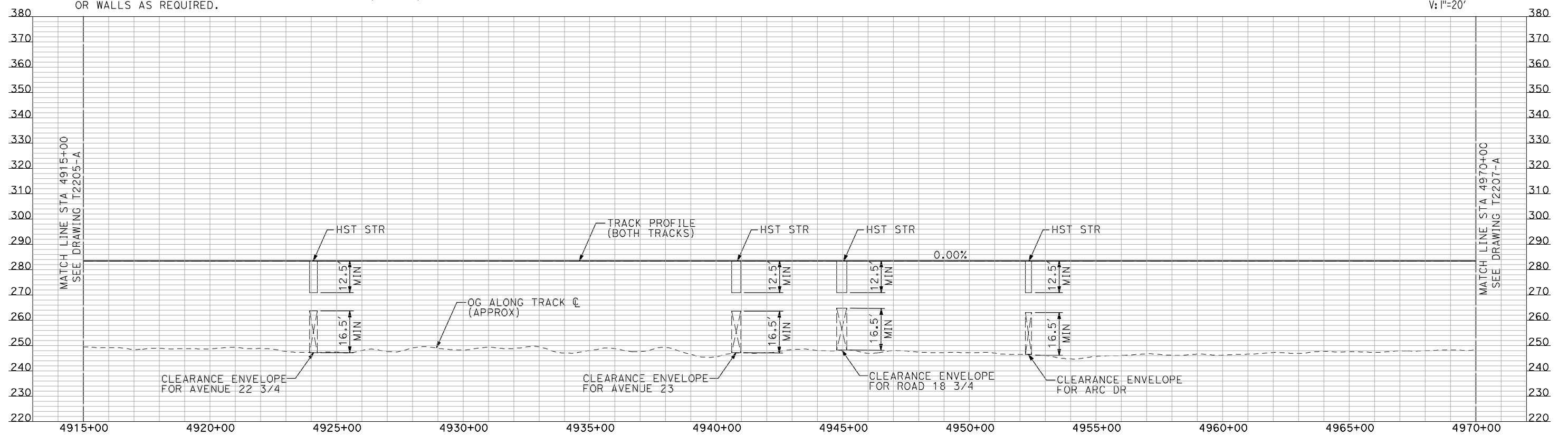
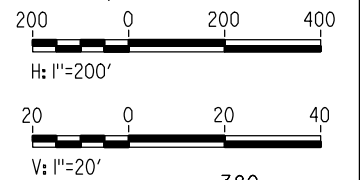
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



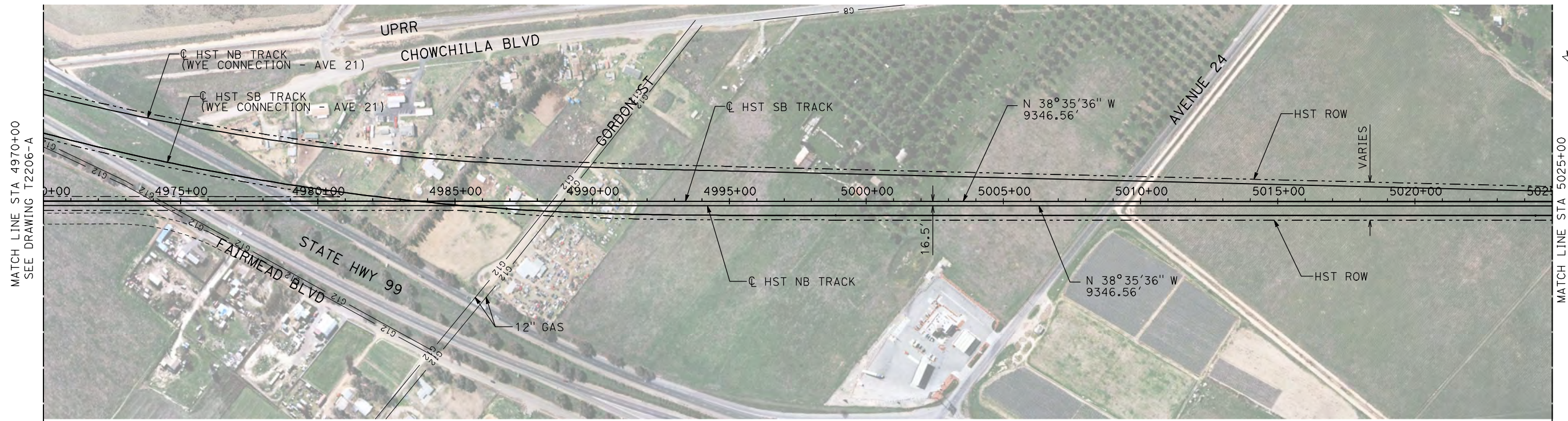
PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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|---------------------------|---|---|---|--|---------------------------|
| DESIGNED BY A. SHIELDS | RECORD SET 15% DESIGN SUBMITTAL NOT FOR CONSTRUCTION | <small>Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811</small> | CALIFORNIA <small>HIGH-SPEED RAIL AUTHORITY</small> | CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO UPRR/SR 99 MERCED CONNECTION AVENUE 21 PLAN AND PROFILE STA 4915+00 TO STA 4970+00 | CONTRACT NO. HSR06-007 |
| DRAWN BY H. SULLIVAN | | | | | DRAWING NO. T2206-A |
| CHECKED BY A. BOONE | | | | | SCALE AS SHOWN |
| IN CHARGE A. BOONE | | | | | SHEET NO. ### OF ### |
| DATE 07/20/2011 | | | | | |

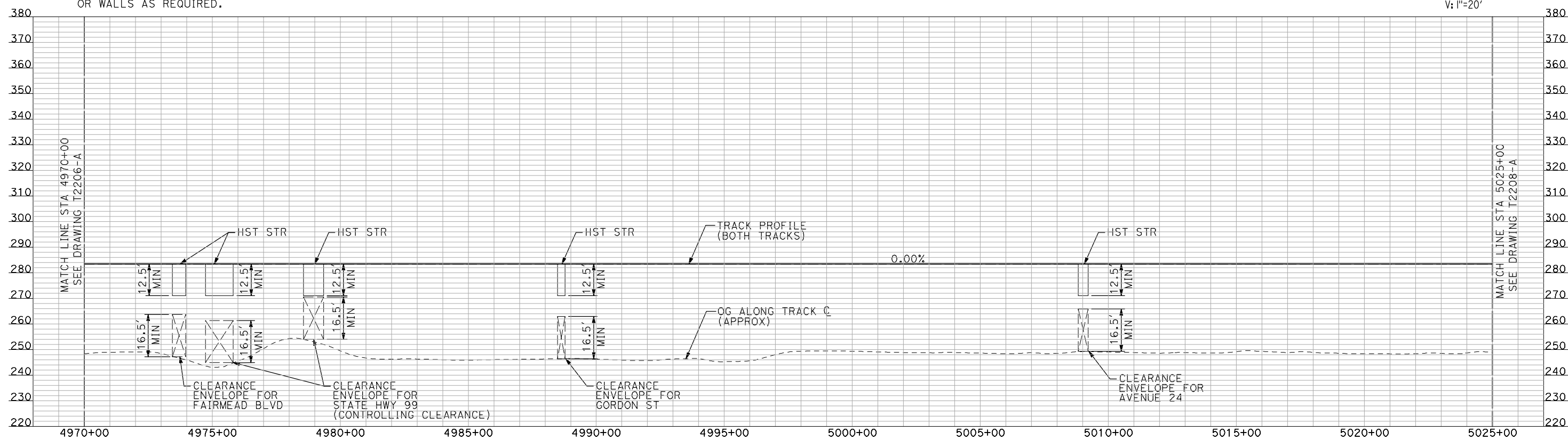
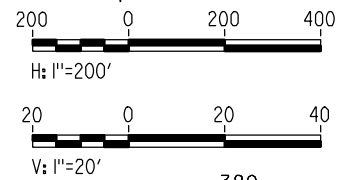
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

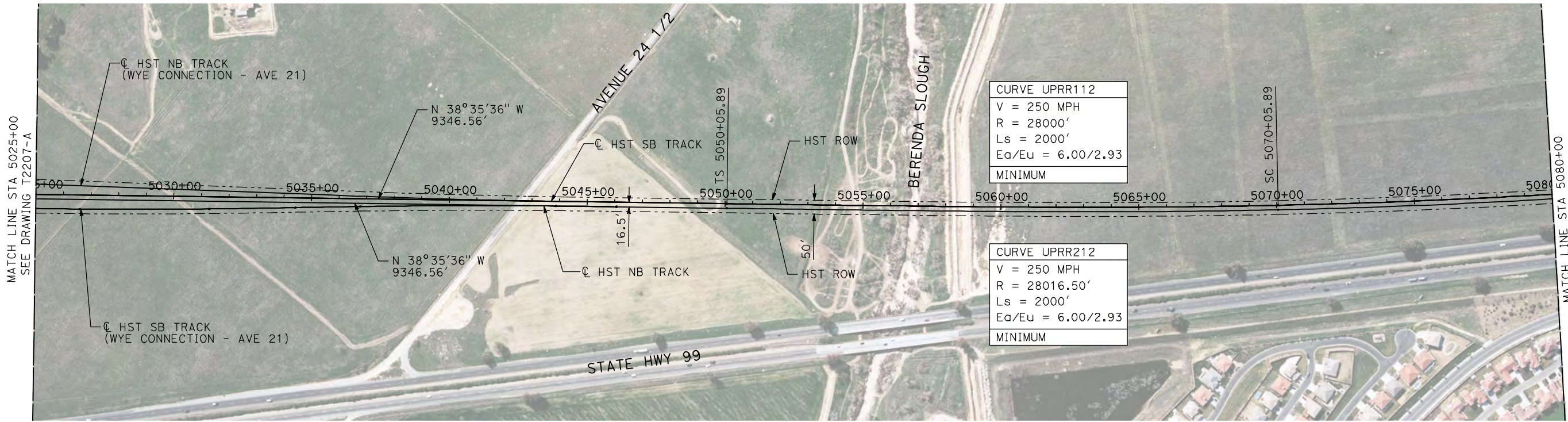
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 4970+00 TO STA 5025+00

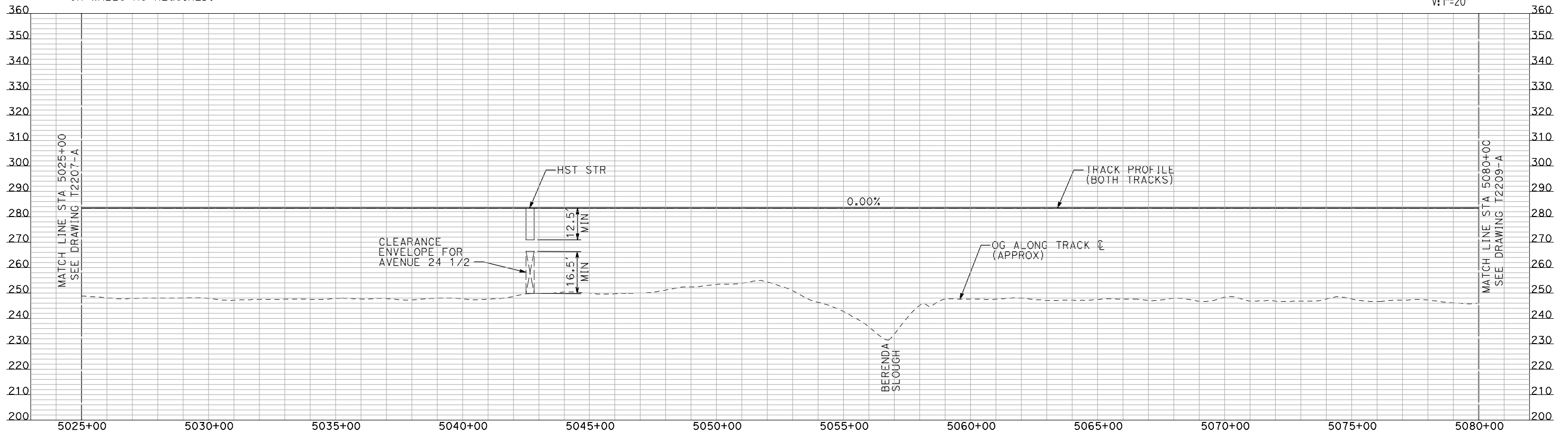
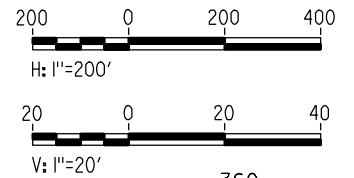
CONTRACT NO.
HSR06-007
DRAWING NO.
T2207-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

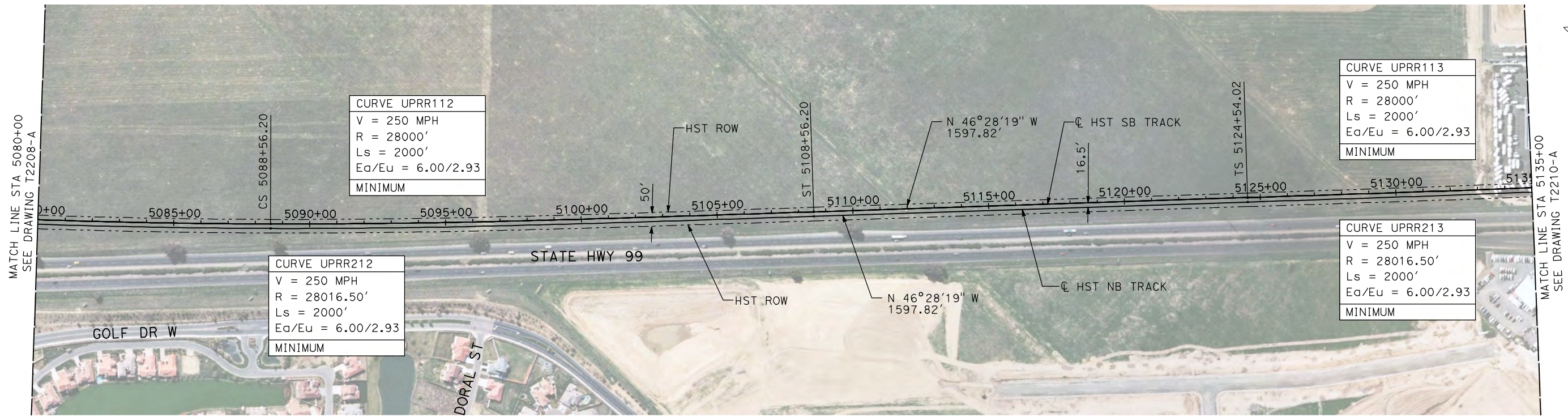


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5025+00 TO STA 5080+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2208-A
SCALE
AS SHOWN
SHEET NO.
OF

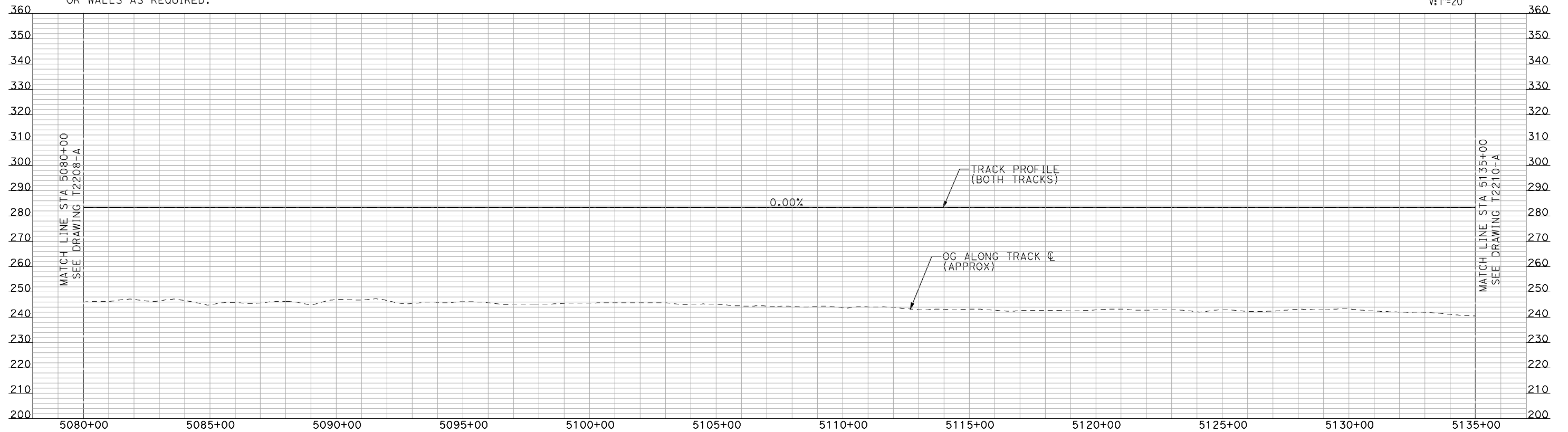
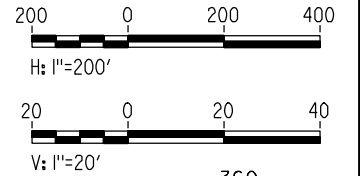
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

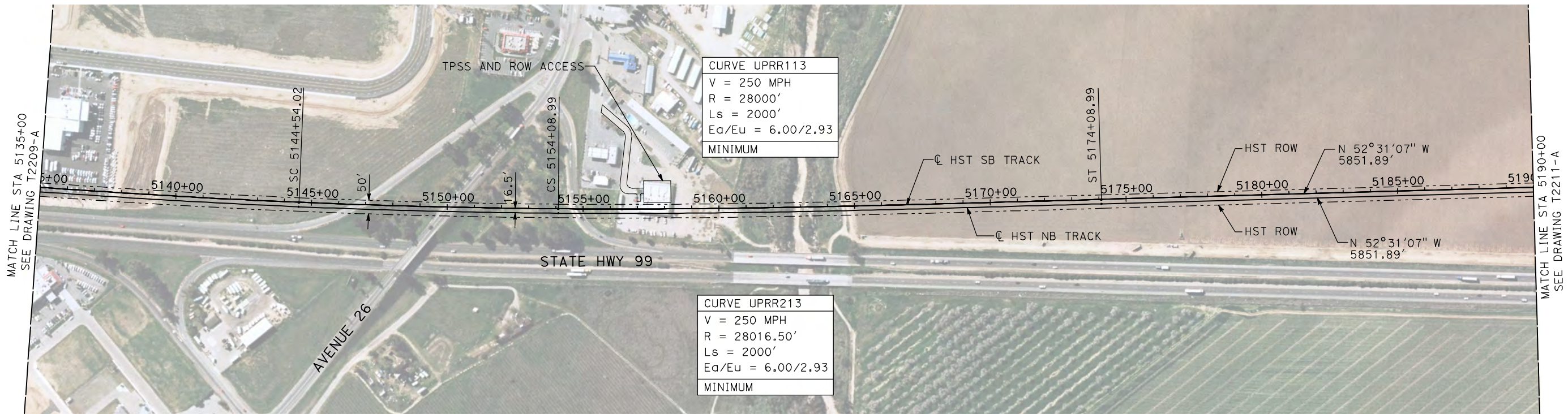
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CONSTRUCTION



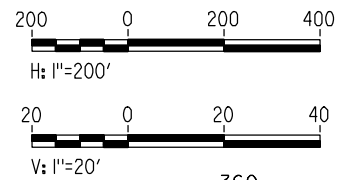
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5080+00 TO STA 5135+00

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|---------------------------|
| CONTRACT NO. HSR06-007 |
| DRAWING NO. T2209-A |
| SCALE AS SHOWN |
| SHEET NO. ### OF ### |

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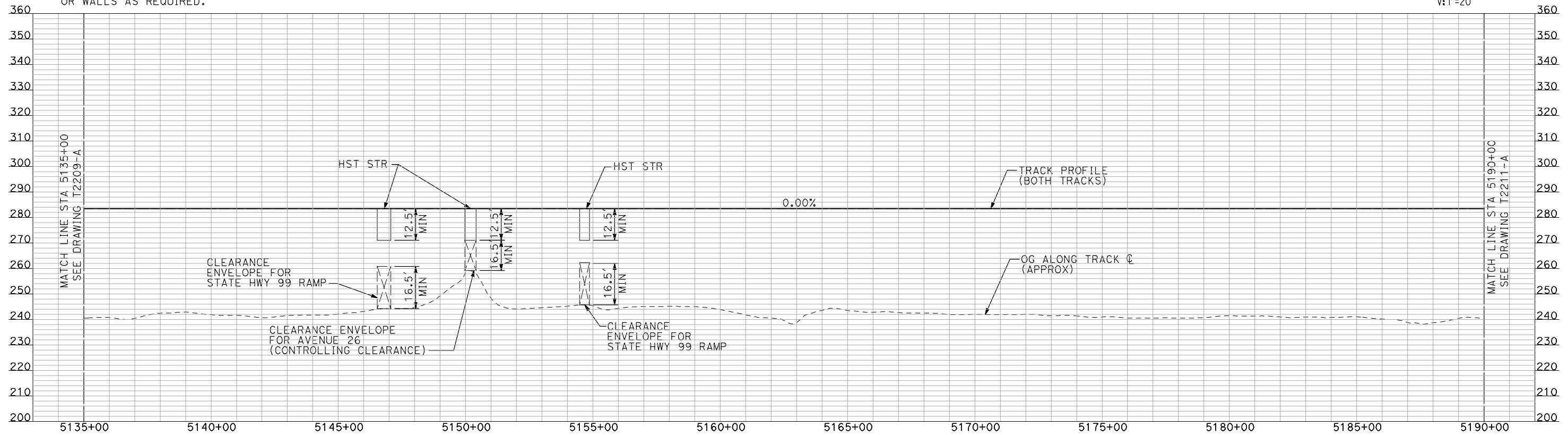


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

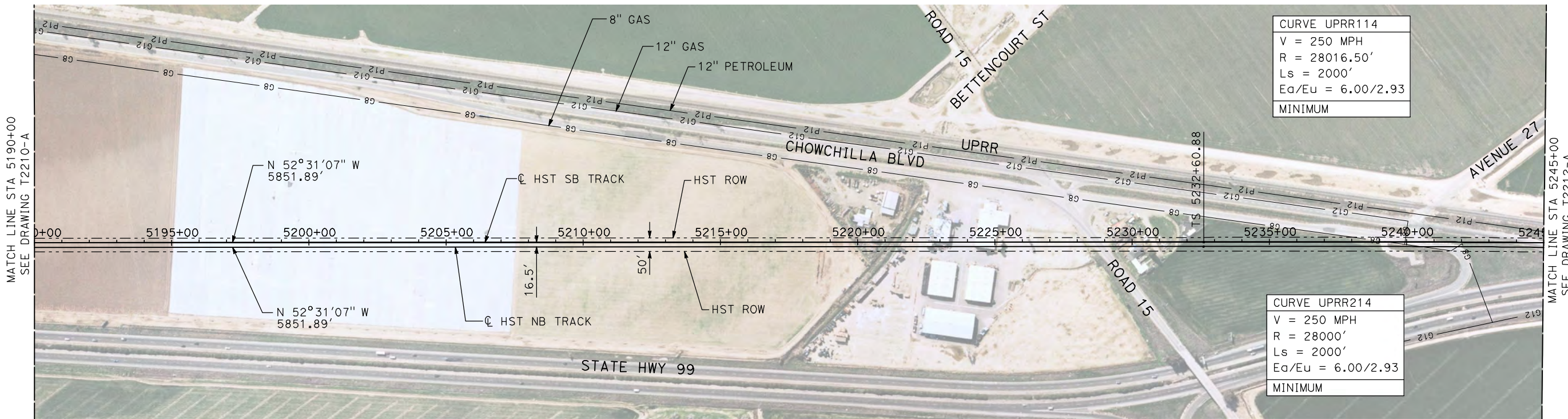
PLAN AND PROFILE
STA 5135+00 TO STA 5190+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T2210-A

SCALE
AS SHOWN

SHEET NO.
OF



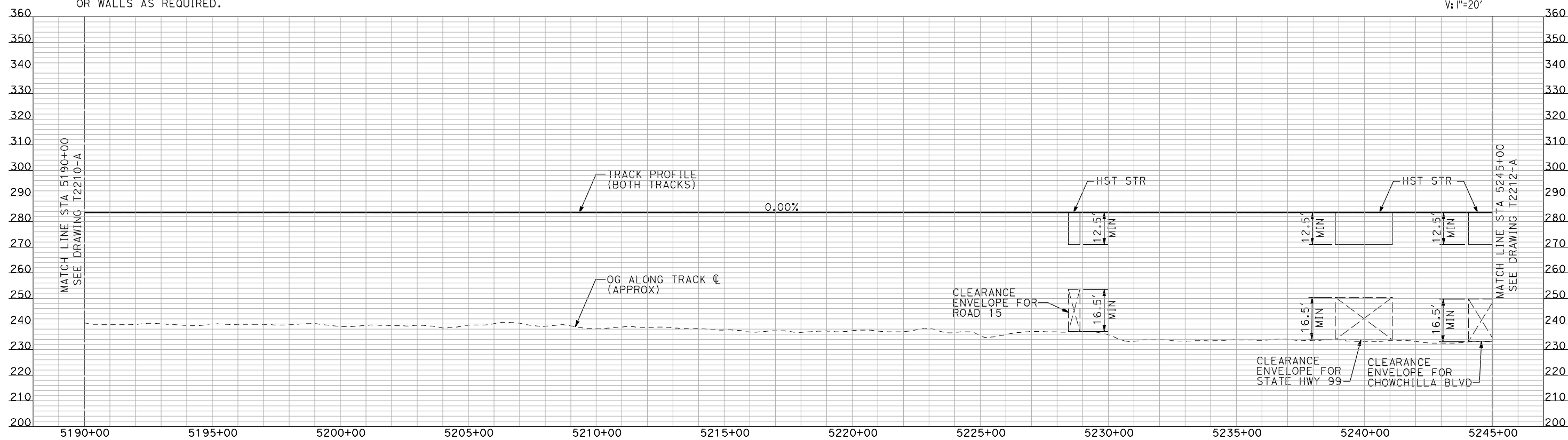
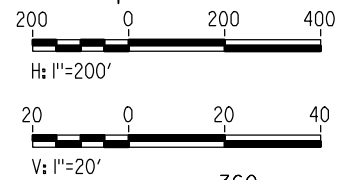
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 V = 250 MPH
 R = 28016.50'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE UPRR214
 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

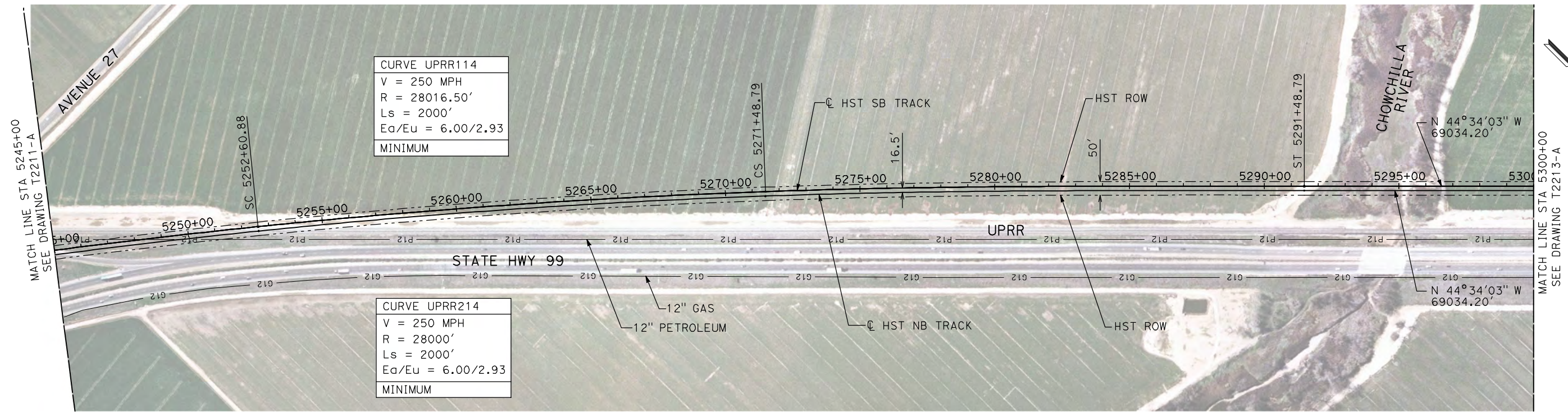
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 MERCED CONNECTION
 PLAN AND PROFILE
 STA 5190+00 TO STA 5245+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2211-A
 SCALE
AS SHOWN
 SHEET NO.
OF

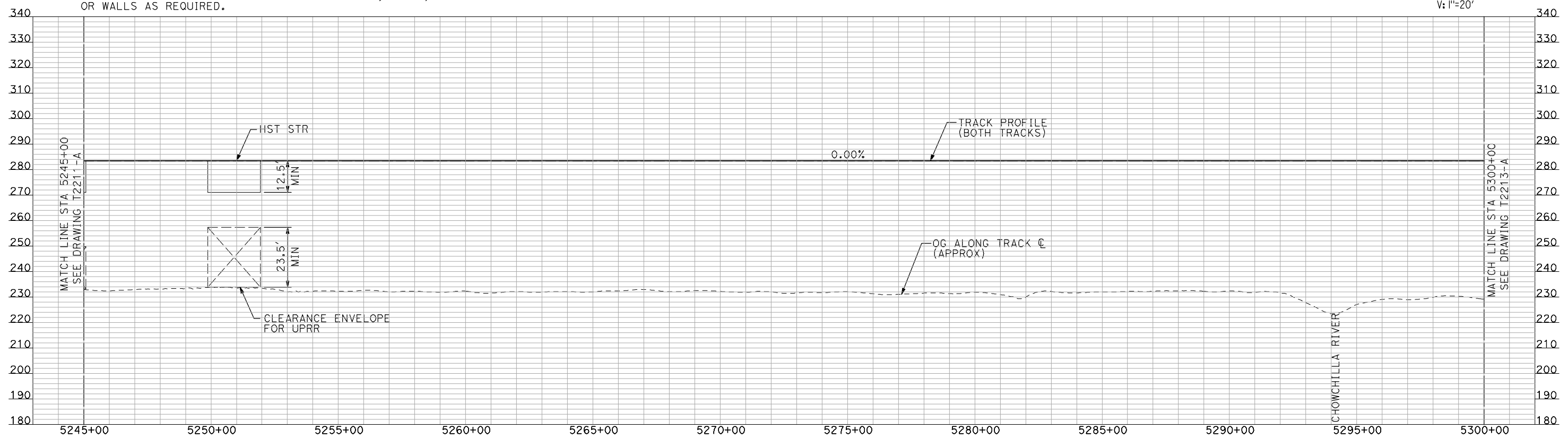
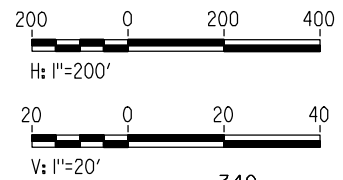
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

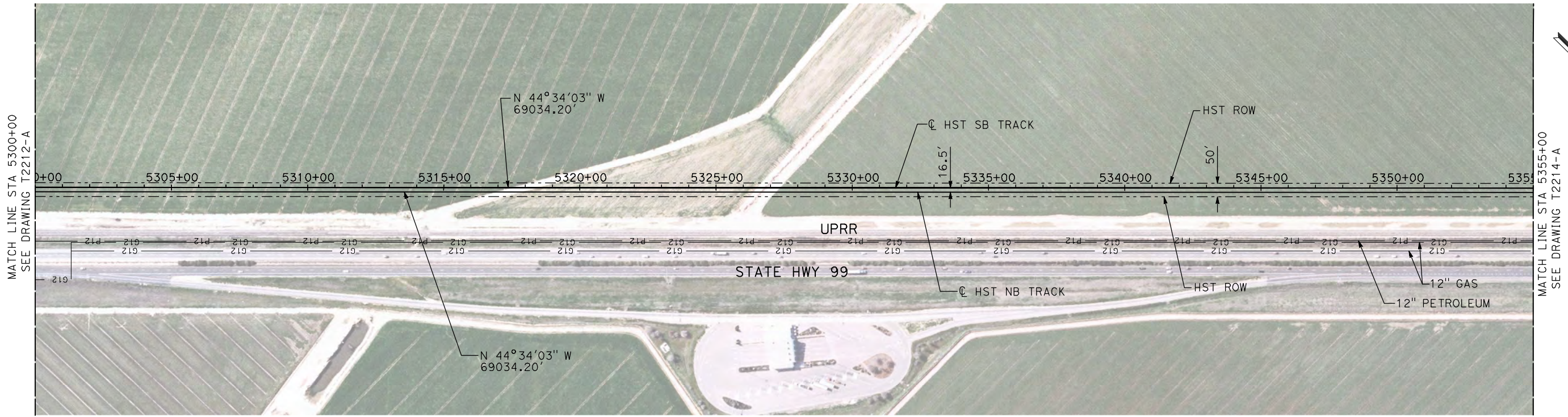
PLAN AND PROFILE
STA 5245+00 TO STA 5300+00

CONTRACT NO.
HSR06-007

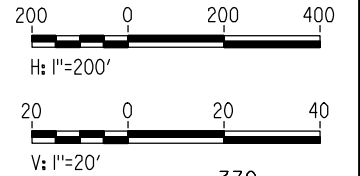
DRAWING NO.
T2212-A

SCALE
AS SHOWN

SHEET NO.
OF

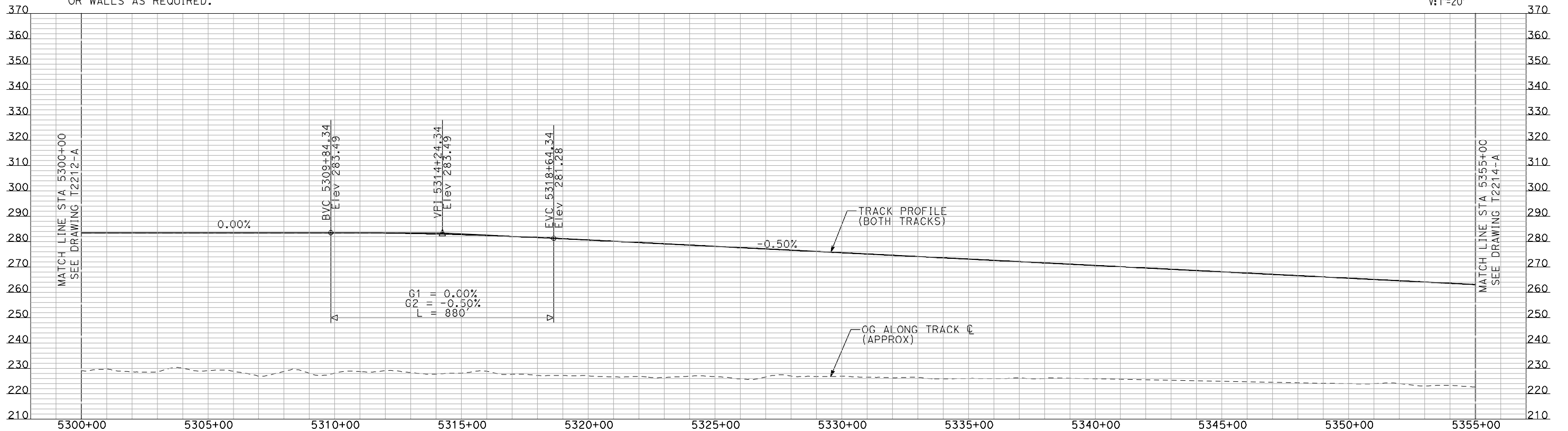


PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5300+00 TO STA 5355+00

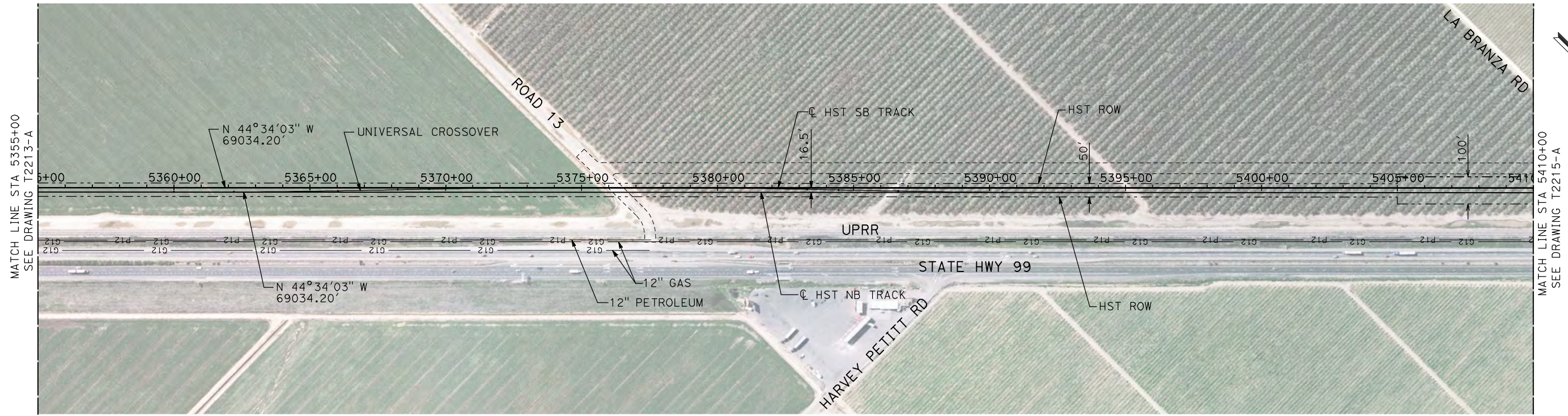
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HSR06-007

DRAWING NO.
T2213-A

SCALE
AS SHOWN

SHEET NO.
OF

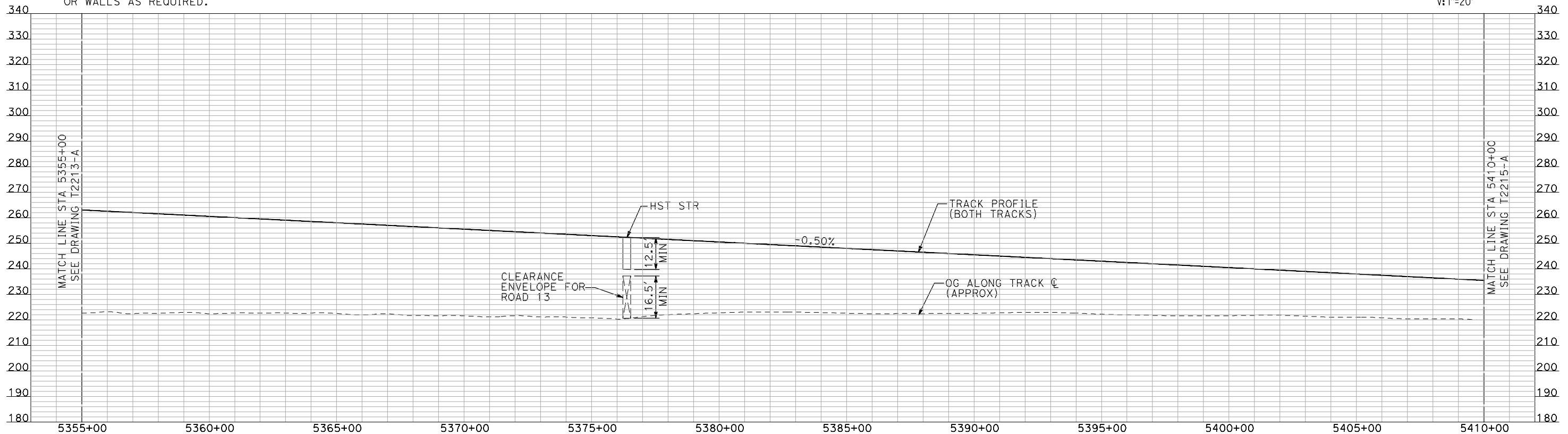
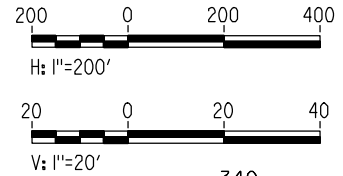
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PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| | | | | | |

DESIGNED BY
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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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SUBMITTAL**

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CONSTRUCTION**



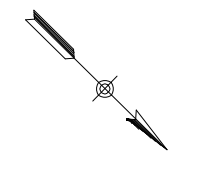
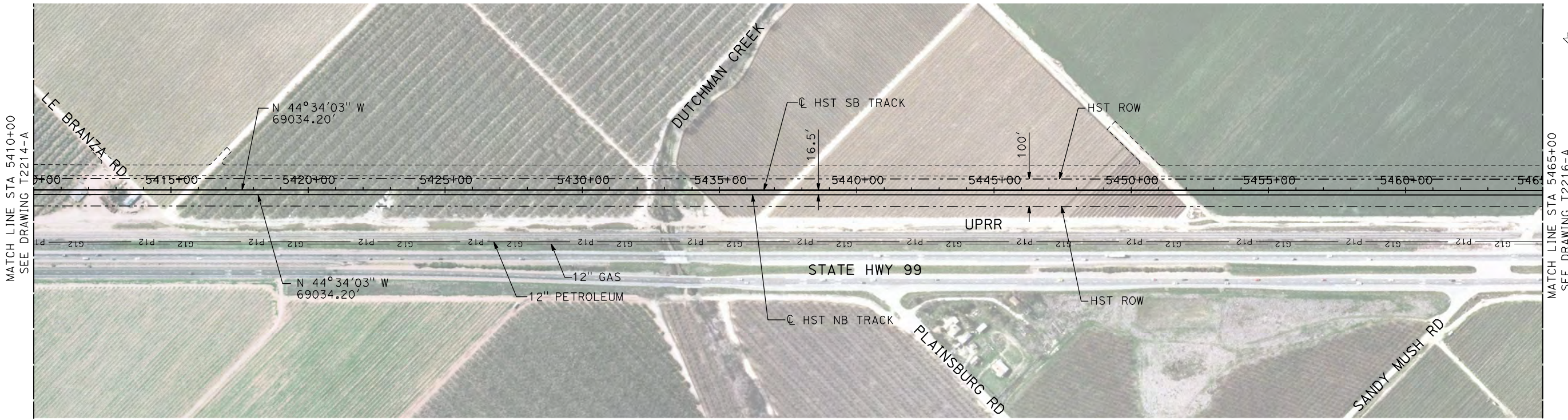
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5355+00 TO STA 5410+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2214-A
SCALE
AS SHOWN
SHEET NO.
OF

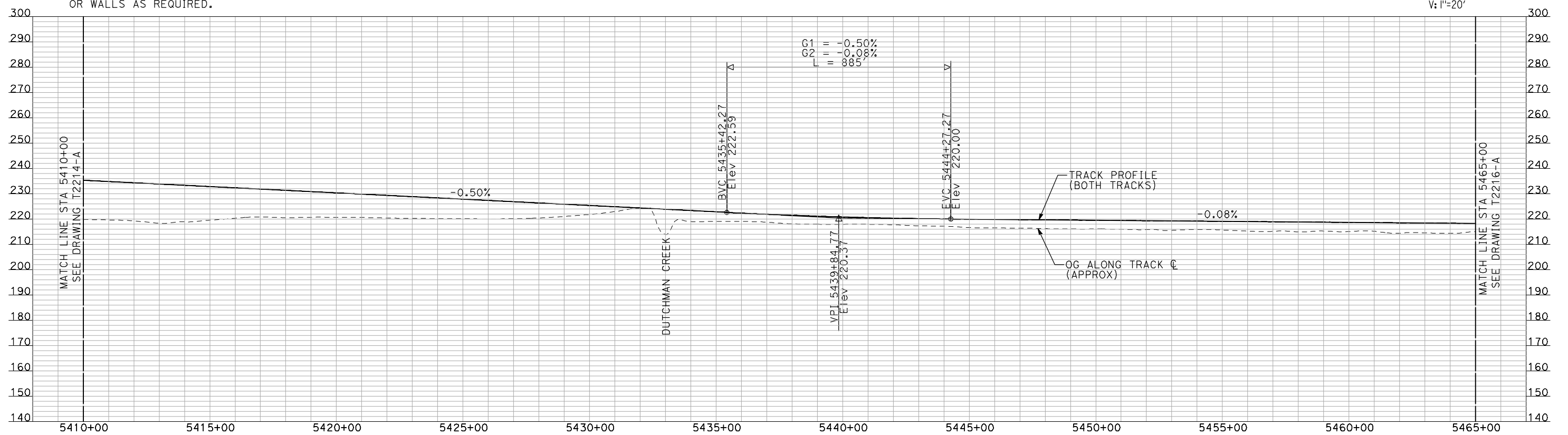
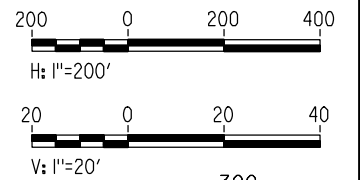
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
DATE
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SUBMITTAL

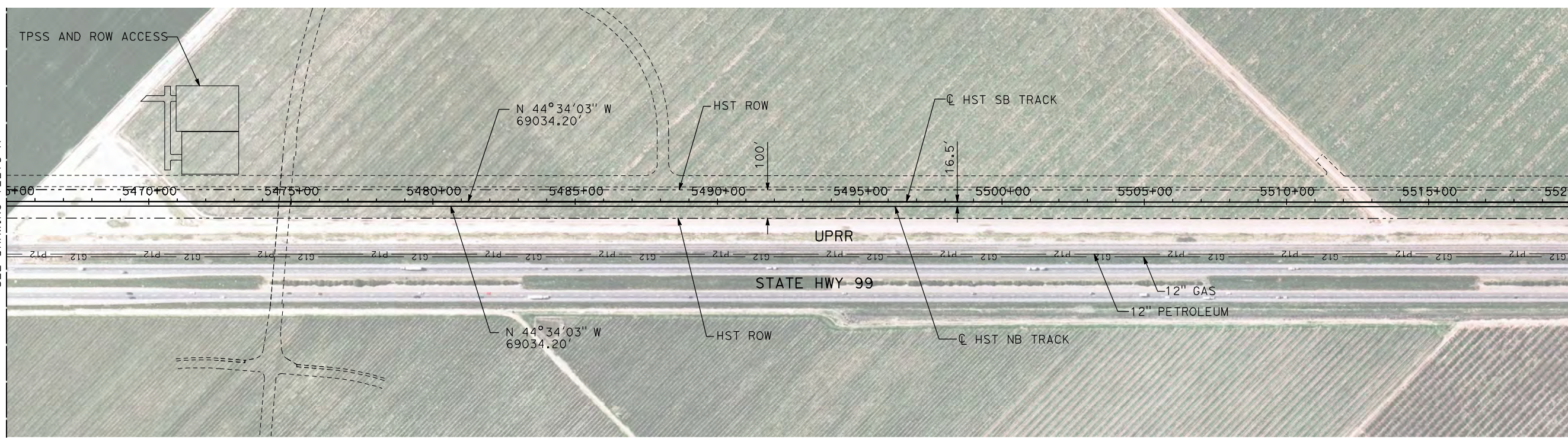
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5410+00 TO STA 5465+00

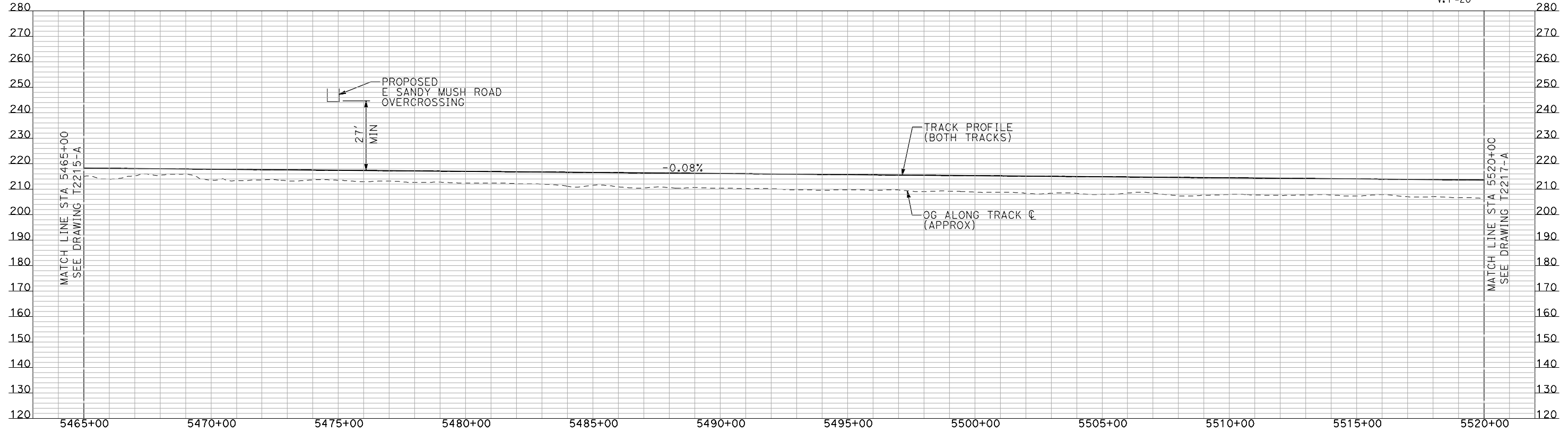
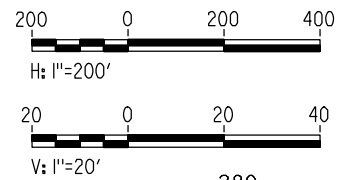
CONTRACT NO.
HSR06-007
DRAWING NO.
T2215-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

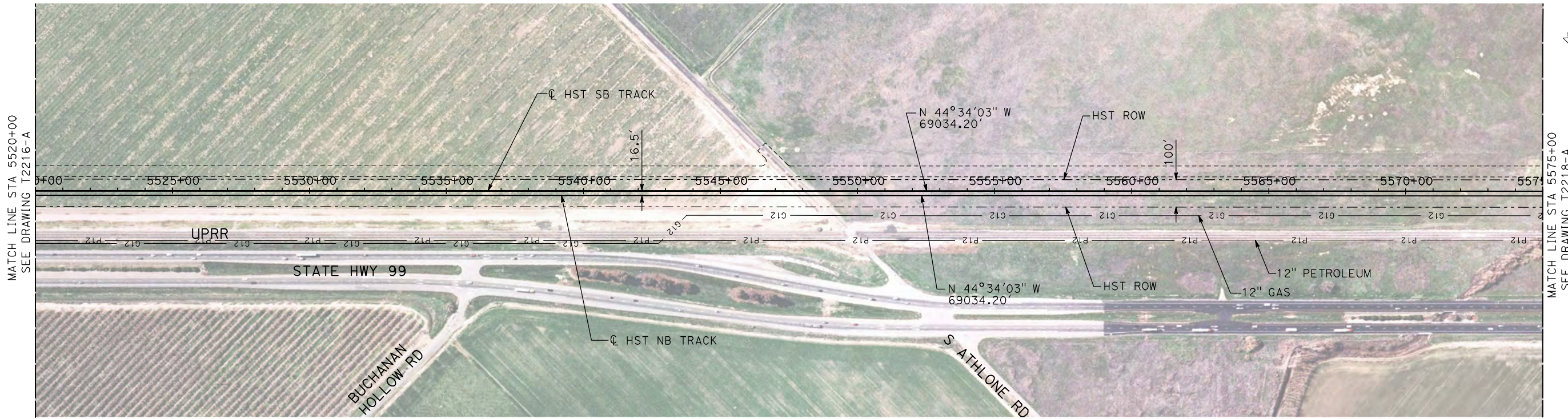


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5465+00 TO STA 5520+00

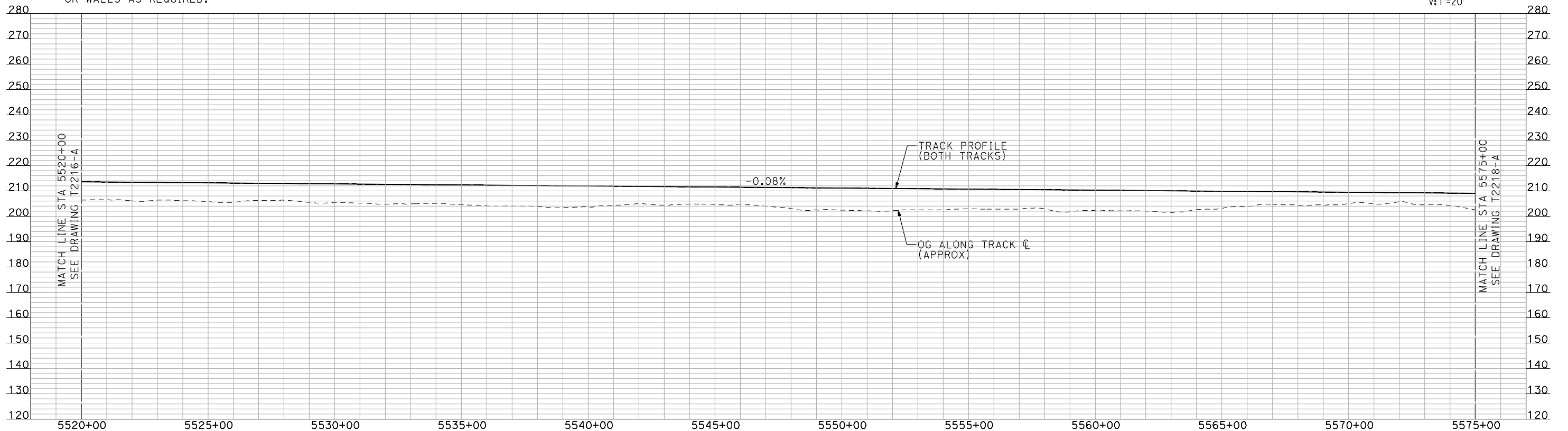
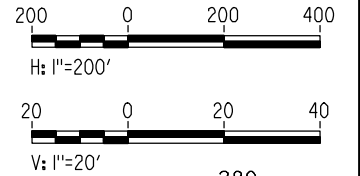
CONTRACT NO.
HSR06-007
DRAWING NO.
T2216-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
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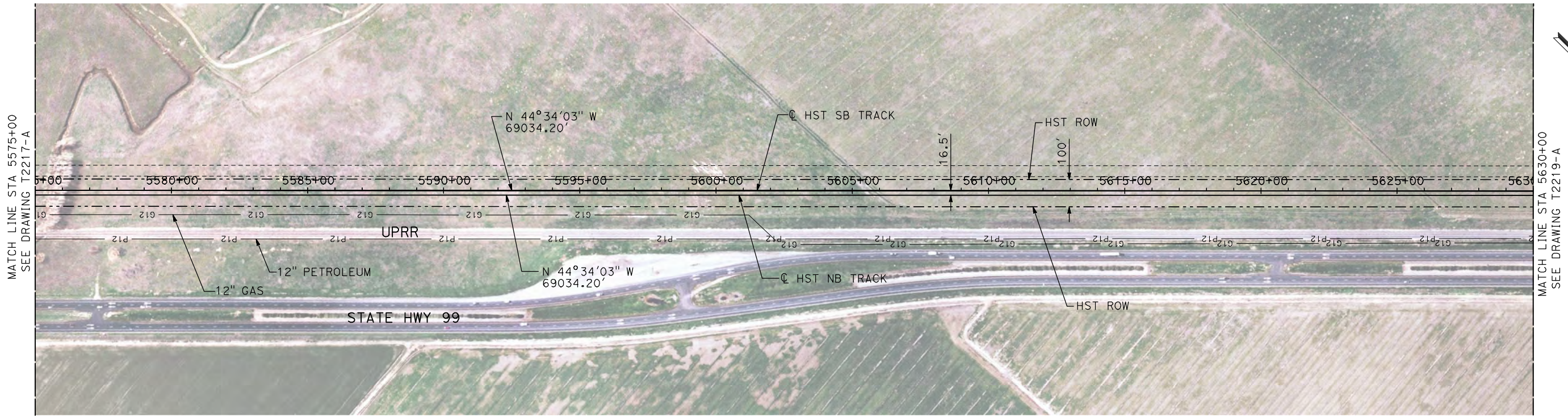
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5520+00 TO STA 5575+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2217-A
SCALE
AS SHOWN
SHEET NO.
OF

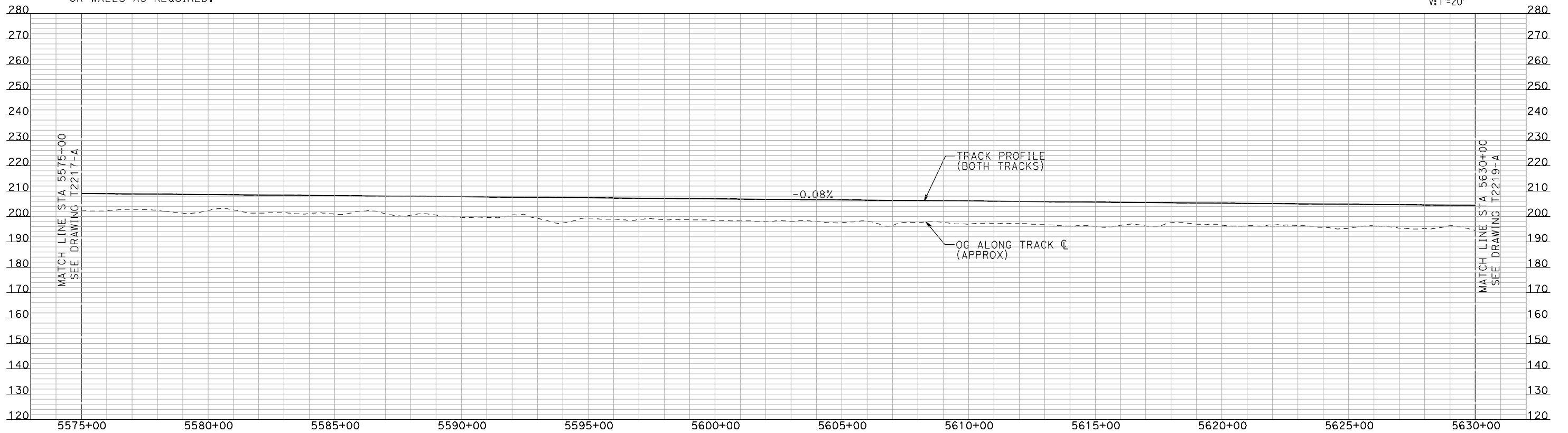
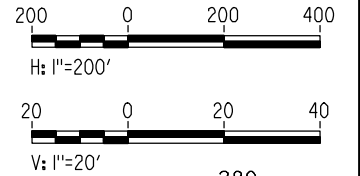
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

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CONSTRUCTION**



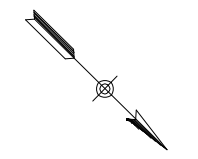
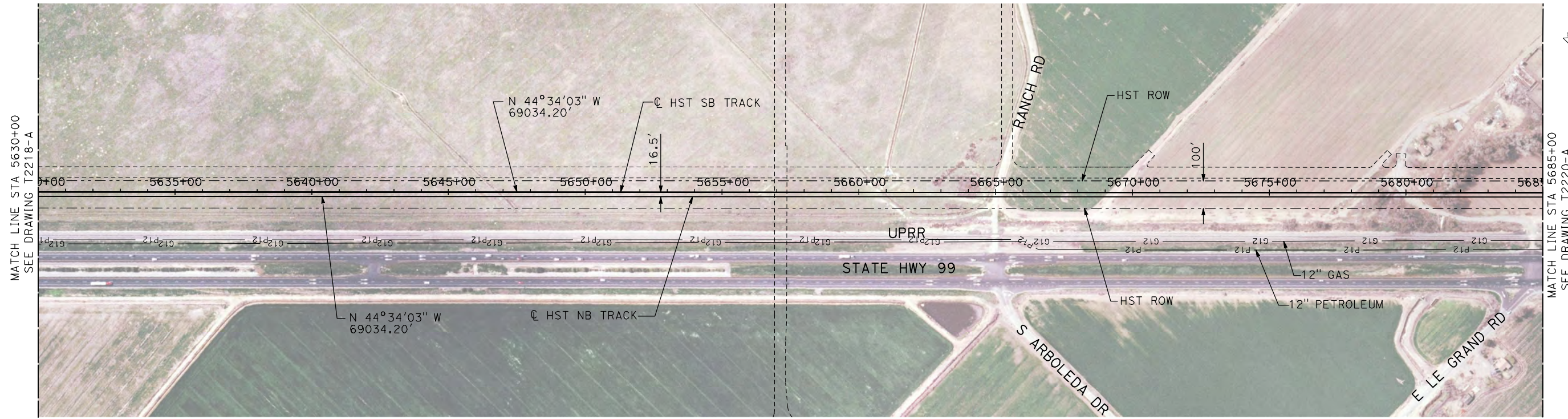
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5575+00 TO STA 5630+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2218-A
SCALE
AS SHOWN
SHEET NO.
OF

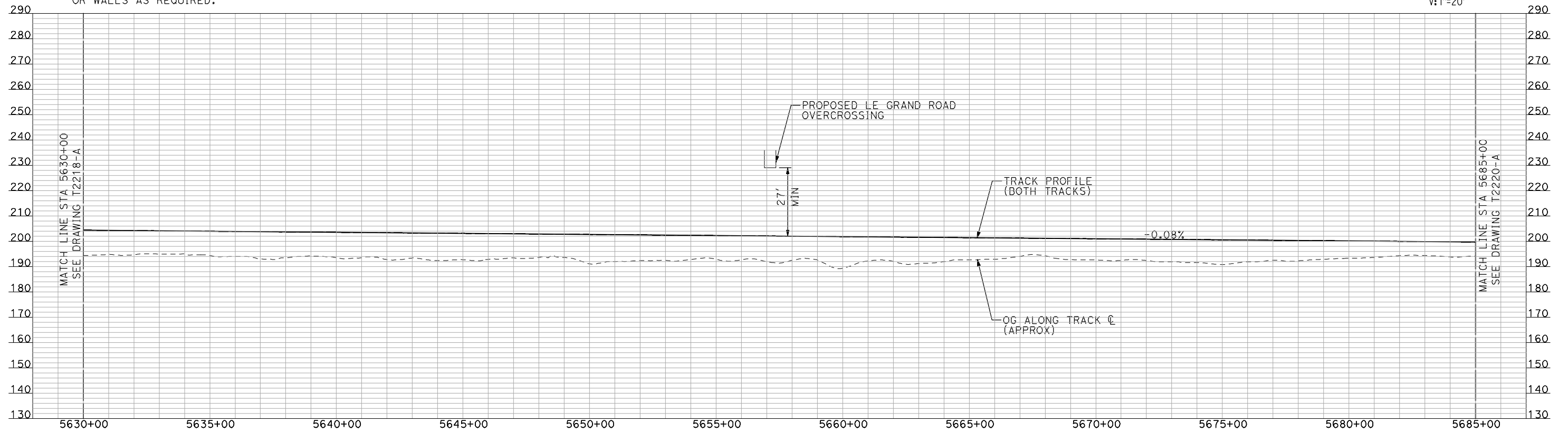
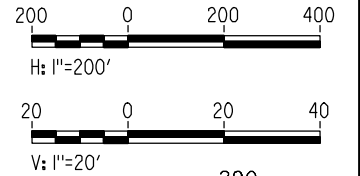
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PLAN



PROFILE

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

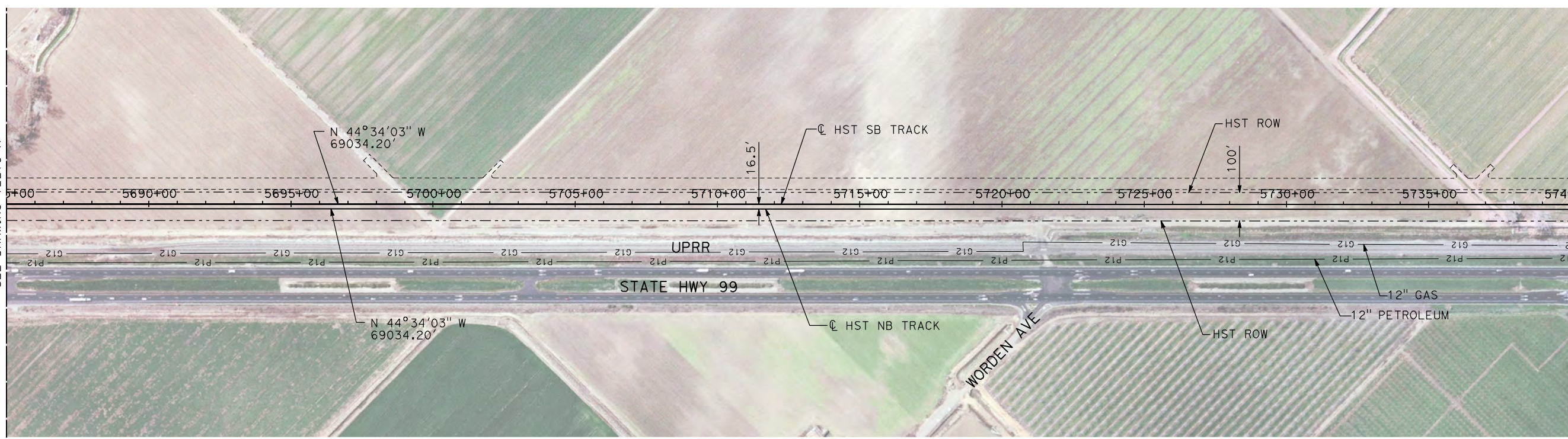
PLAN AND PROFILE
STA 5630+00 TO STA 5685+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T2219-A

SCALE
AS SHOWN

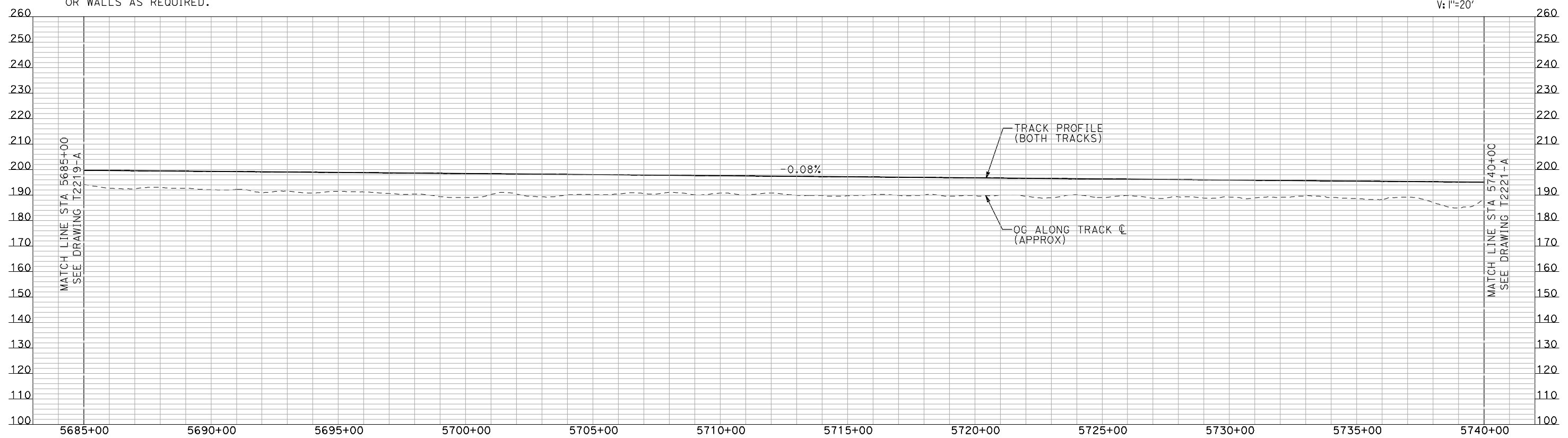
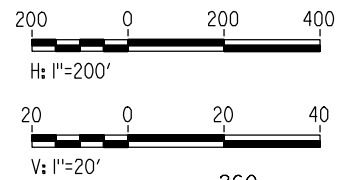
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PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DATE
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SUBMITTAL**

**NOT FOR
CONSTRUCTION**

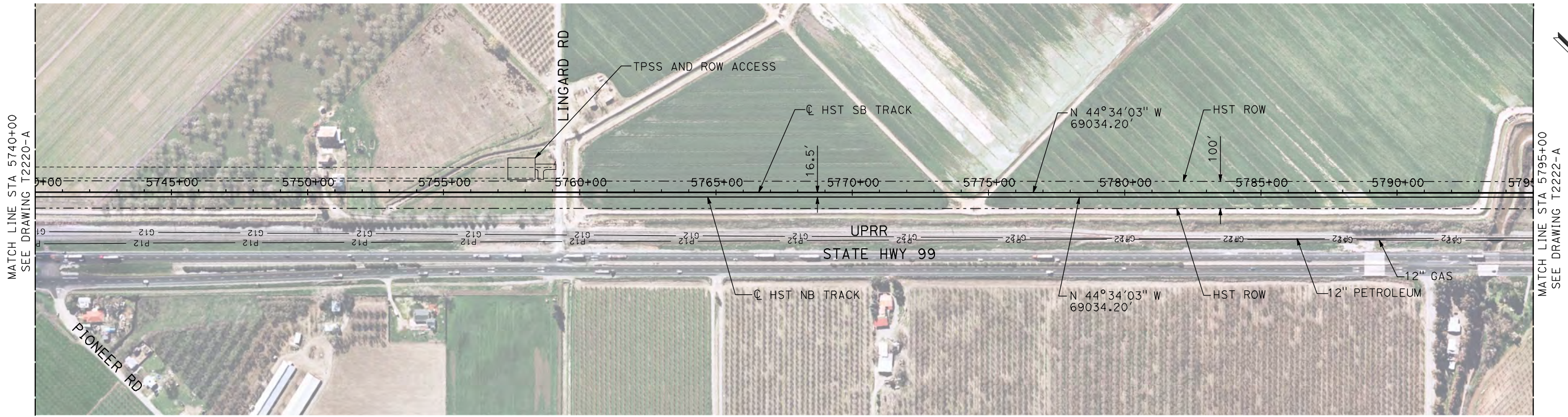


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5685+00 TO STA 5740+00

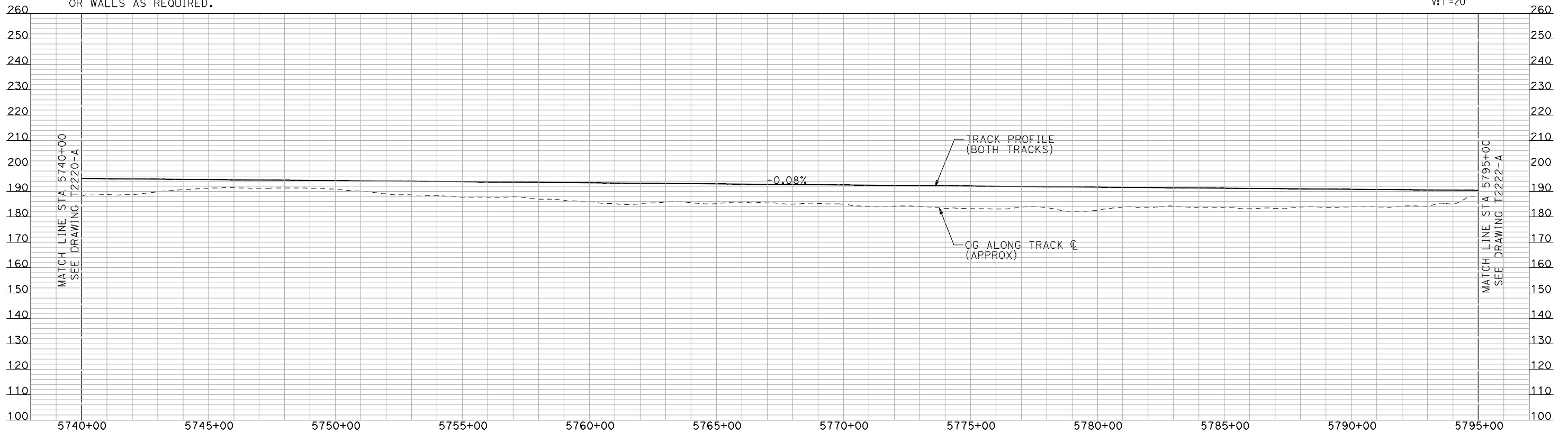
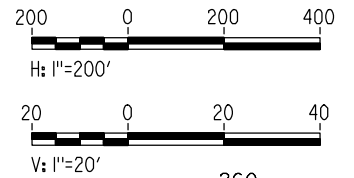
CONTRACT NO.
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DRAWING NO.
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PLAN

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PROFILE

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CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
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CONSTRUCTION**



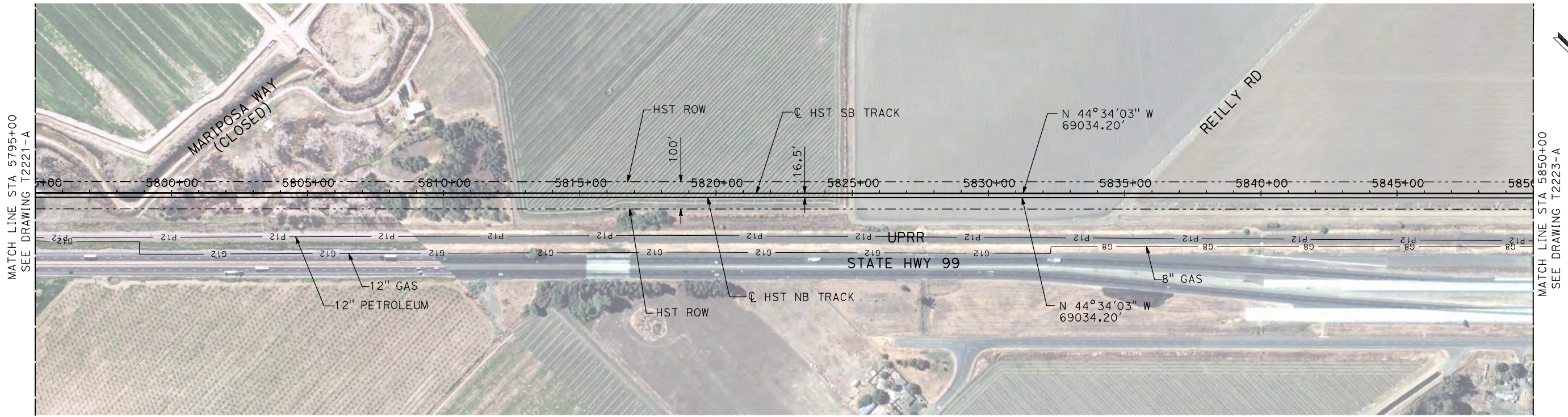
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5740+00 TO STA 5795+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2221-A
SCALE
AS SHOWN
SHEET NO.
OF

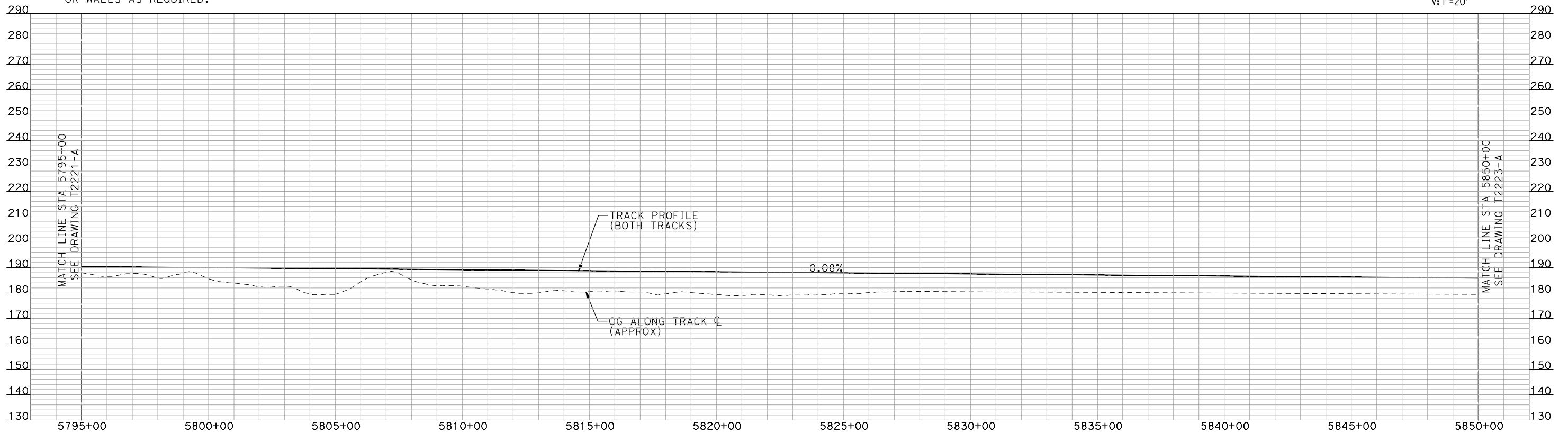
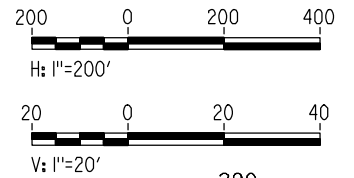
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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SUBMITTAL**

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CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5795+00 TO STA 5850+00

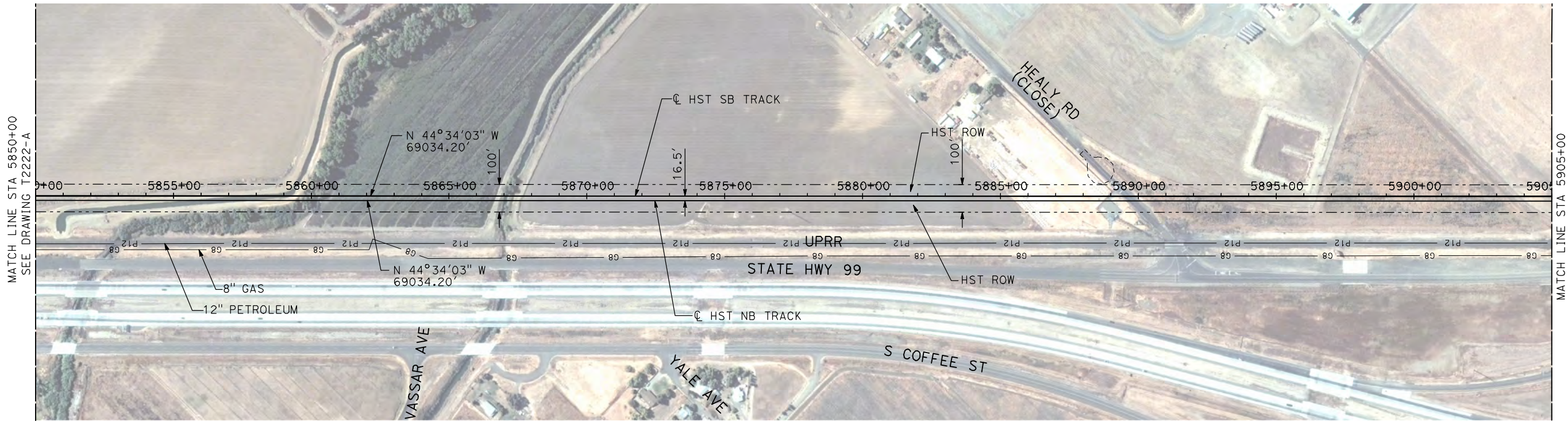
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SCALE
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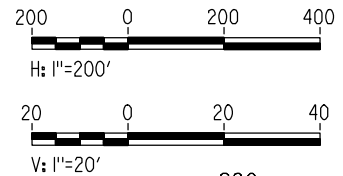
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
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H. SULLIVAN
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IN CHARGE
A. BOONE
DATE
07/20/2011

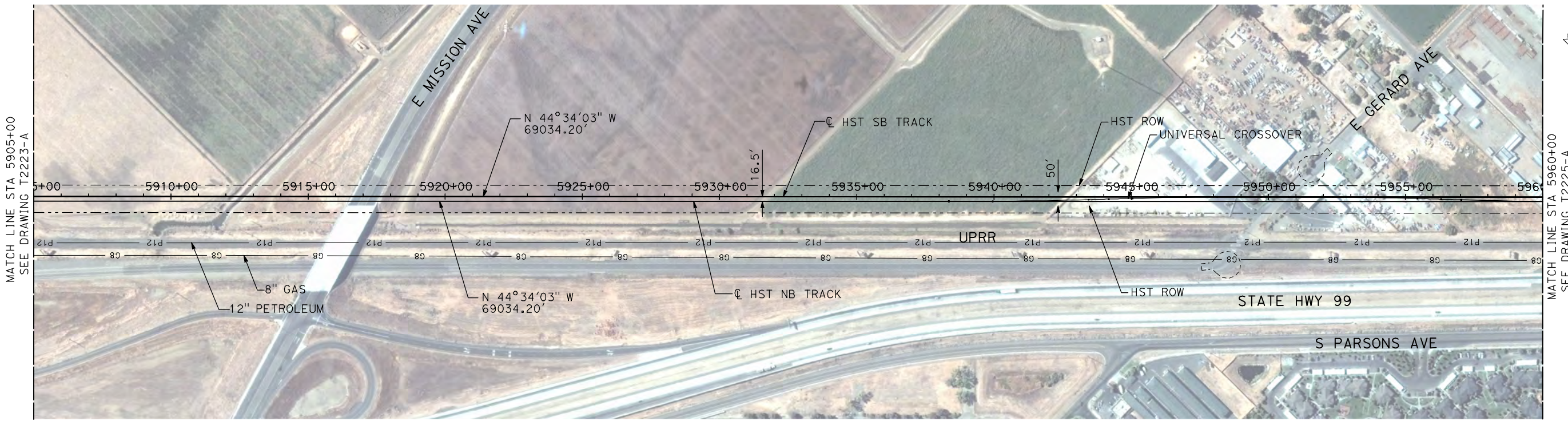
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5850+00 TO STA 5905+00

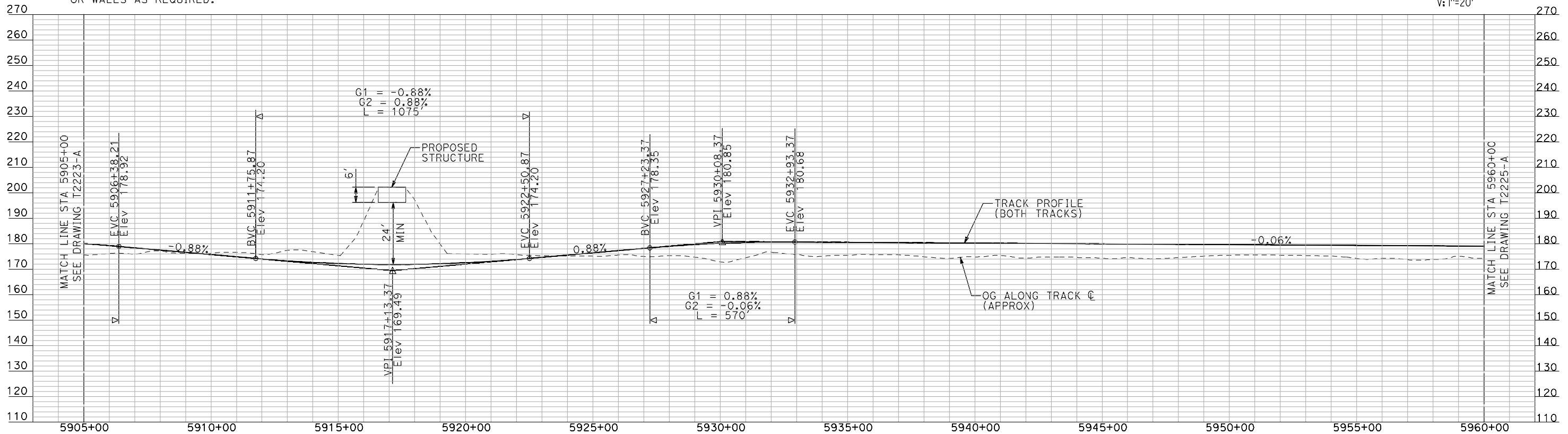
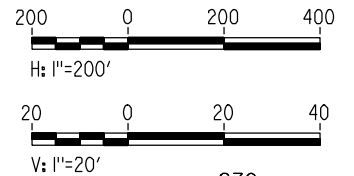
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SCALE
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5905+00 TO STA 5960+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2224-A
SCALE
AS SHOWN
SHEET NO.
OF

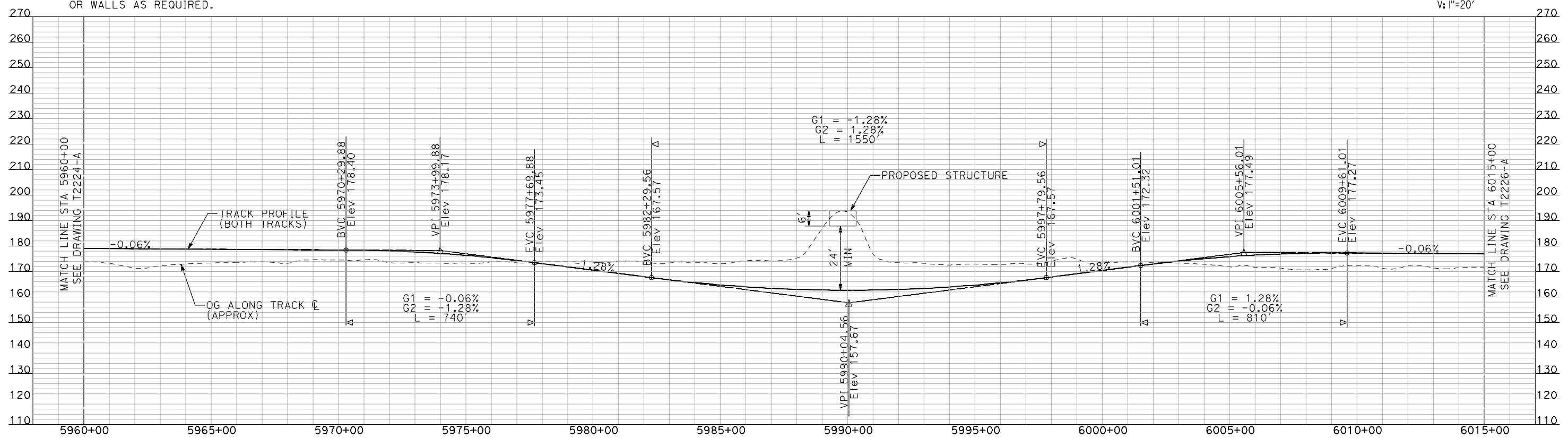
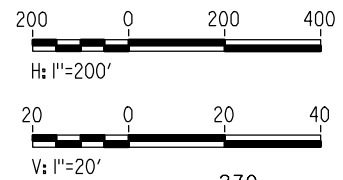
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PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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IN CHARGE
A. BOONE
DATE
07/20/2011

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SUBMITTAL

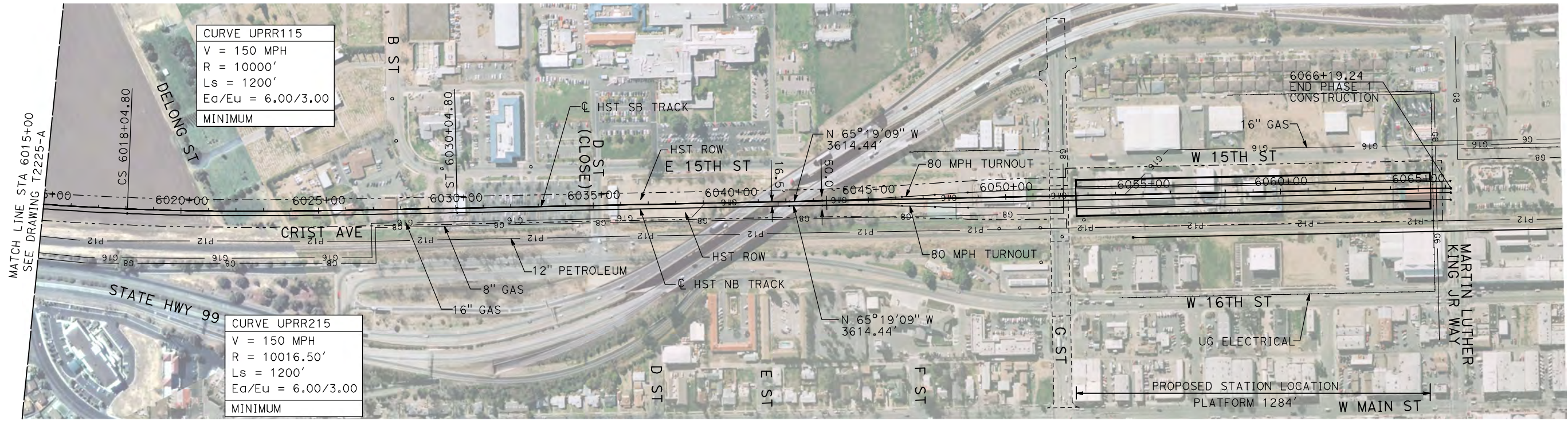
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5960+00 TO STA 6015+00

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
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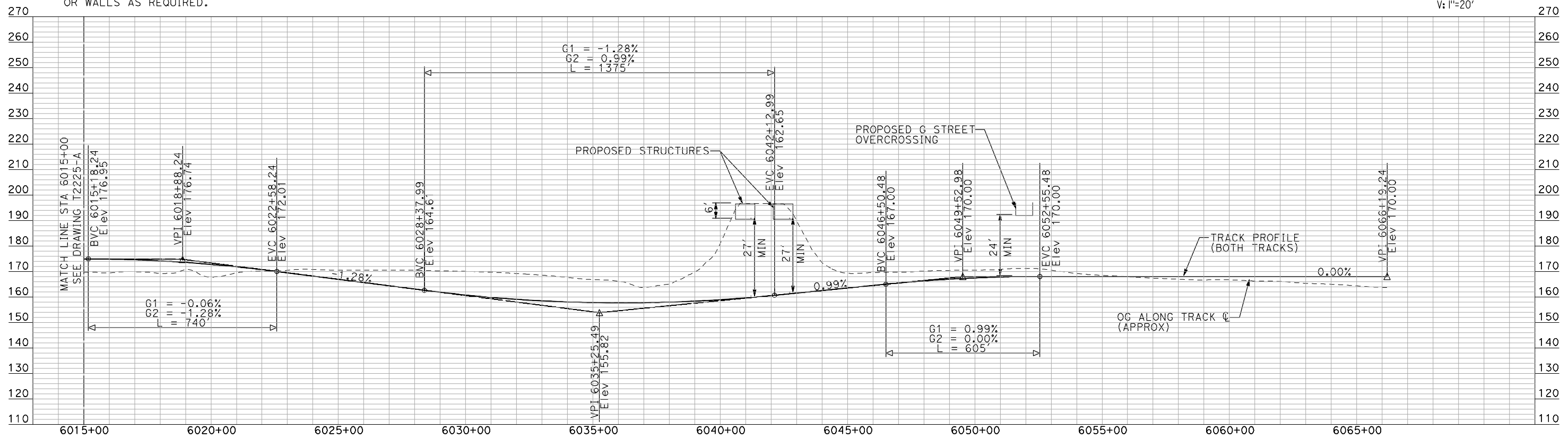
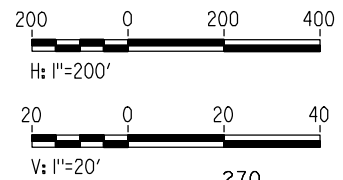
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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SUBMITTAL**

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CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

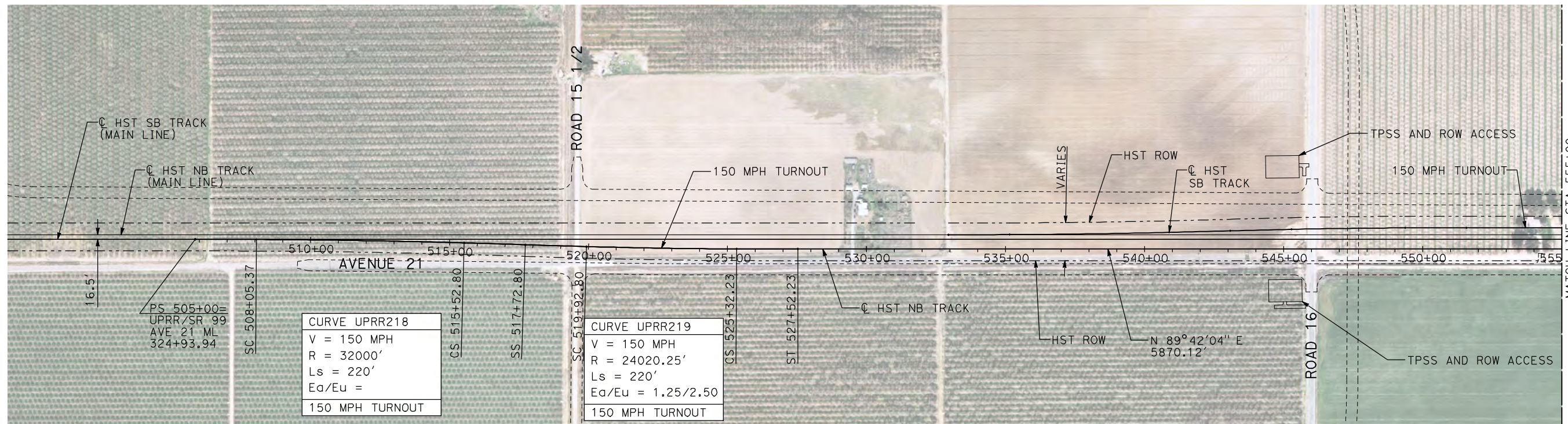
PLAN AND PROFILE
STA 6015+00 TO STA 6066+19.24

CONTRACT NO.
HSR06-007

DRAWING NO.
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SCALE
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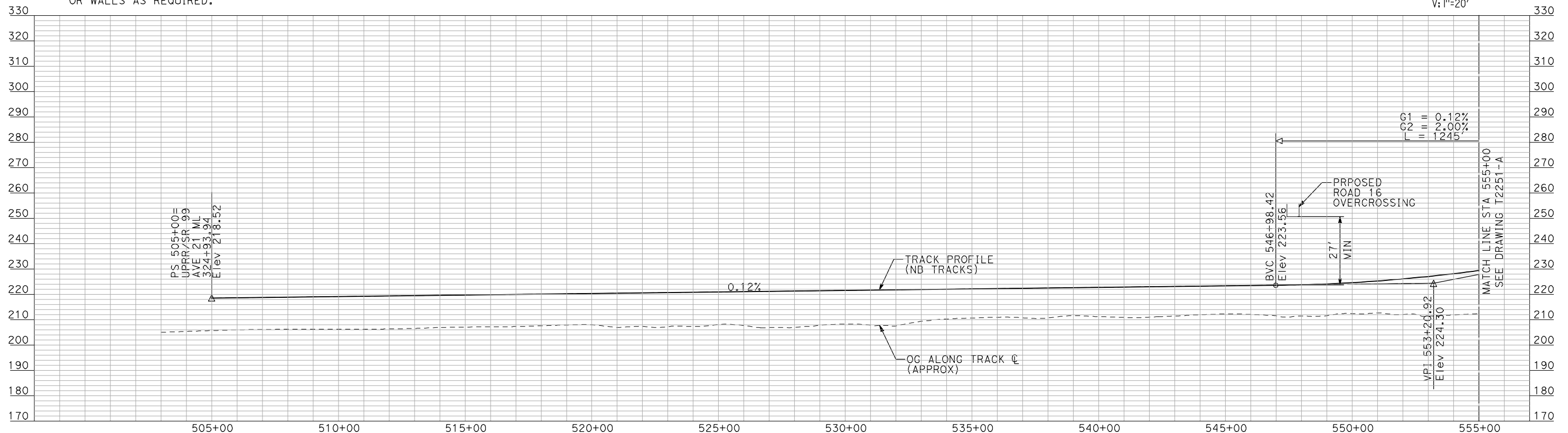
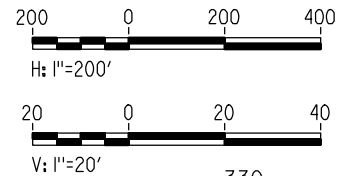
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
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A. BOONE
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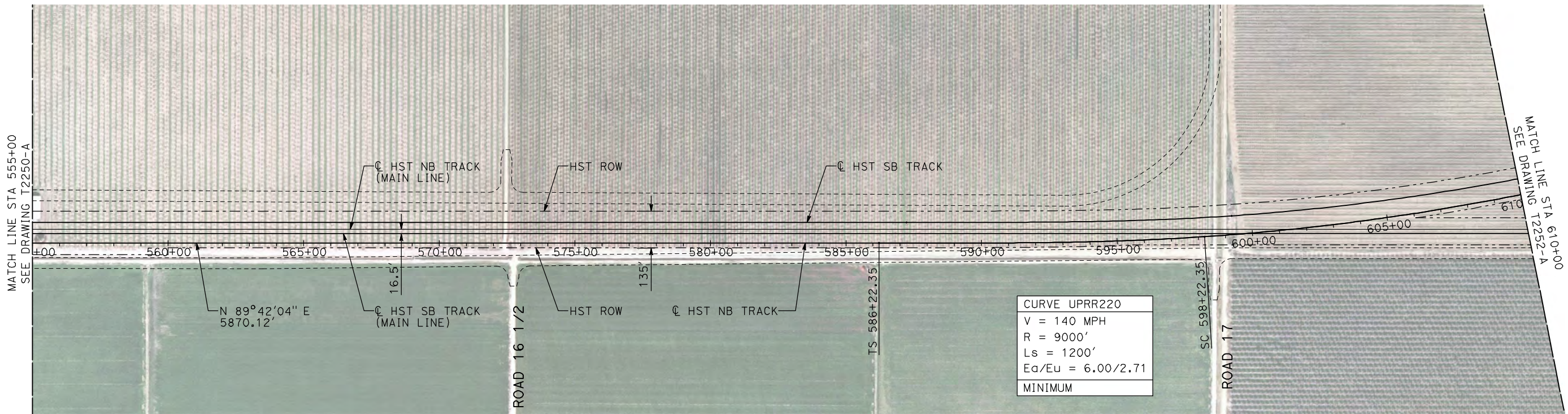
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 505+00 TO STA 555+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2250-A
 SCALE
AS SHOWN
 SHEET NO.
OF

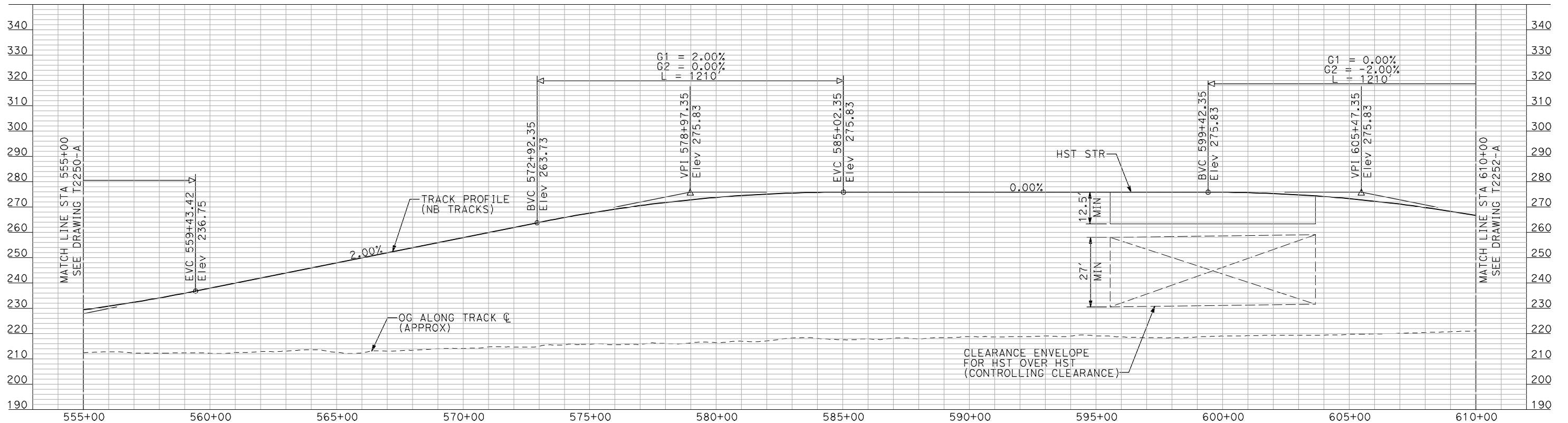
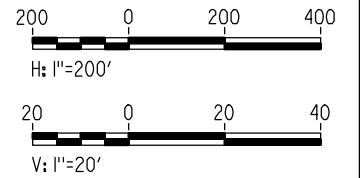
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NOTES:

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2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
DATE
07/20/2011

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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 555+00 TO STA 610+00

CONTRACT NO.
HSR06-007
DRAWING NO.
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SCALE
AS SHOWN
SHEET NO.
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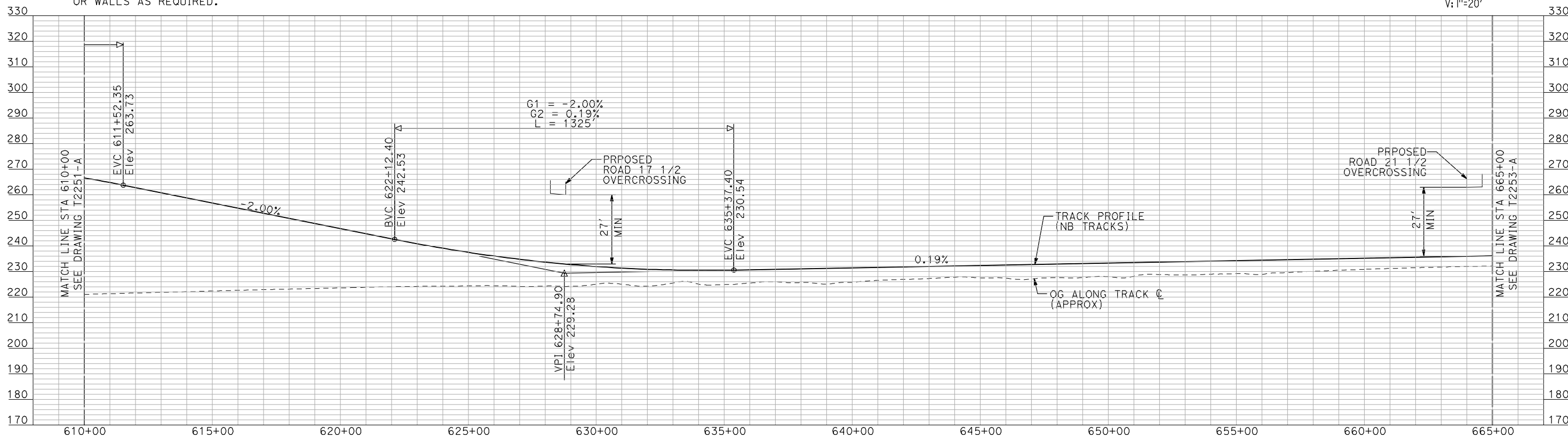
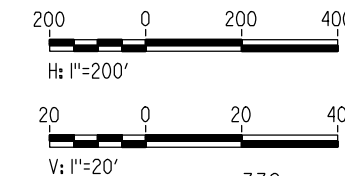
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
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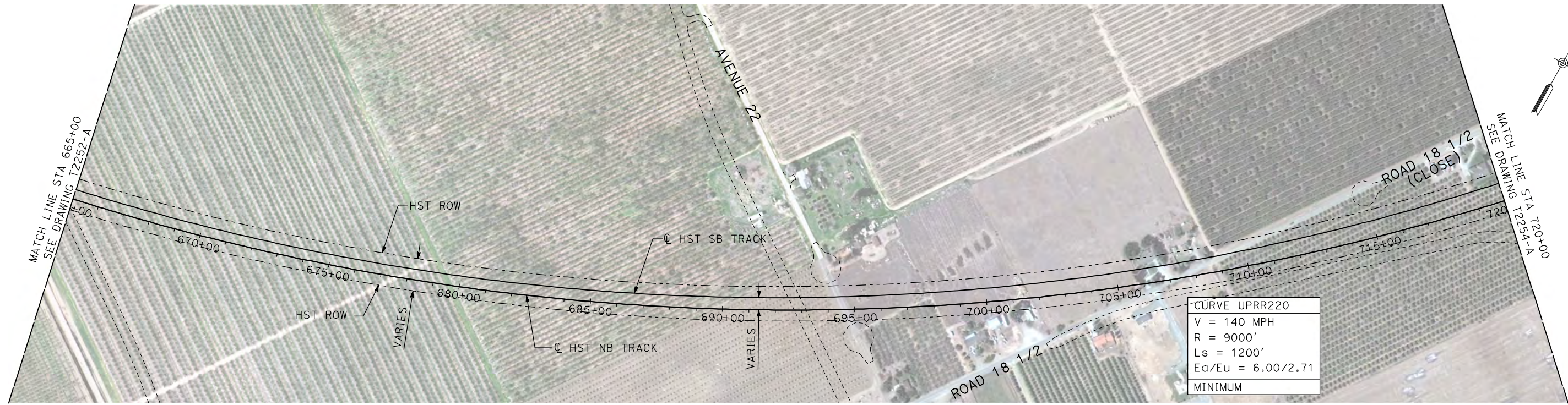
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CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 610+00 TO STA 665+00

CONTRACT NO.
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 AS SHOWN
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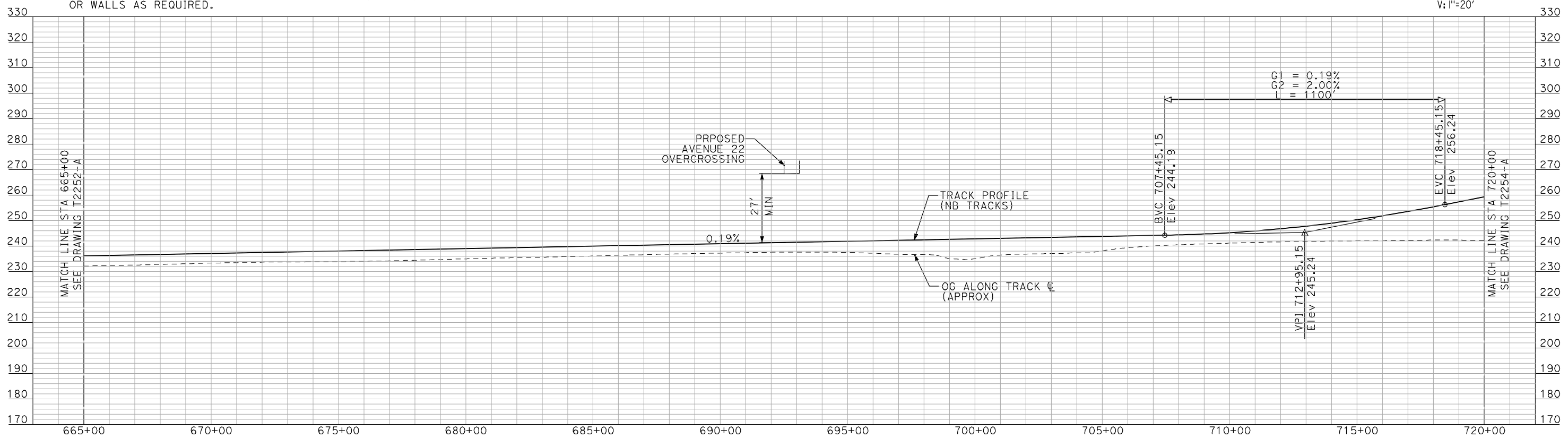
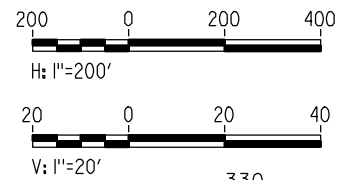
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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H. SULLIVAN
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IN CHARGE
A. BOONE
DATE
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 665+00 TO STA 720+00

CONTRACT NO.
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DRAWING NO.
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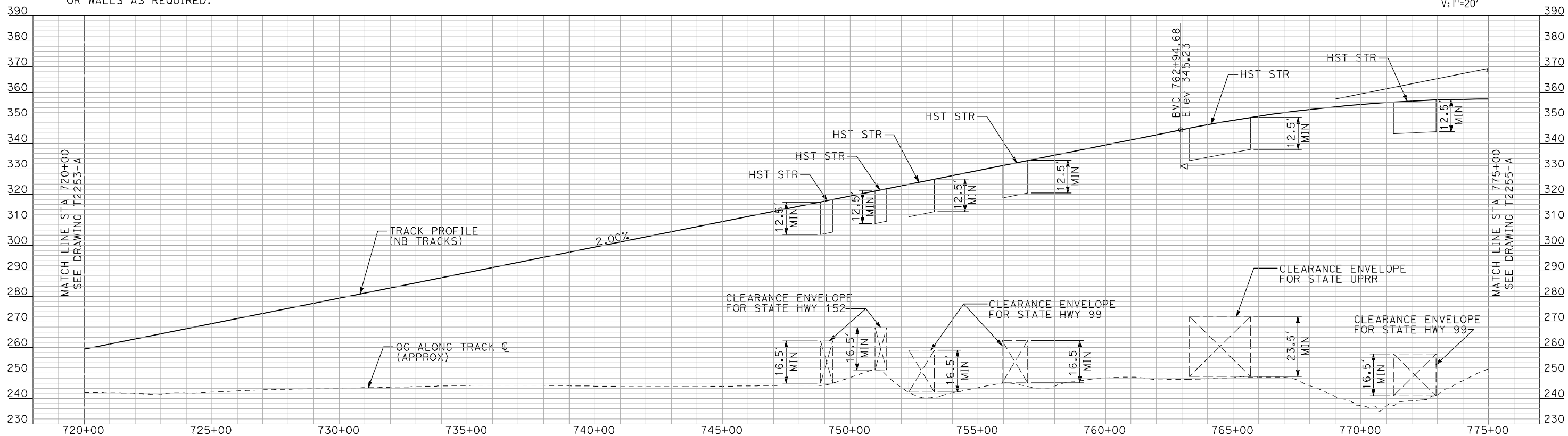
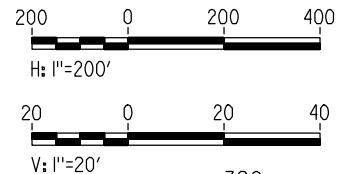
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
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DATE
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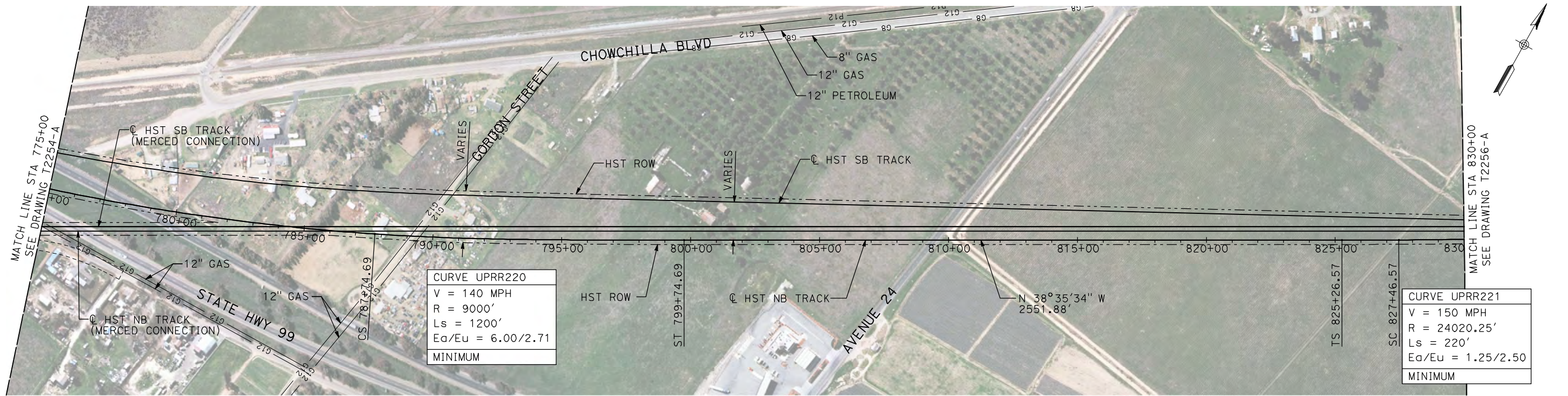
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**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 720+00 TO STA 775+00

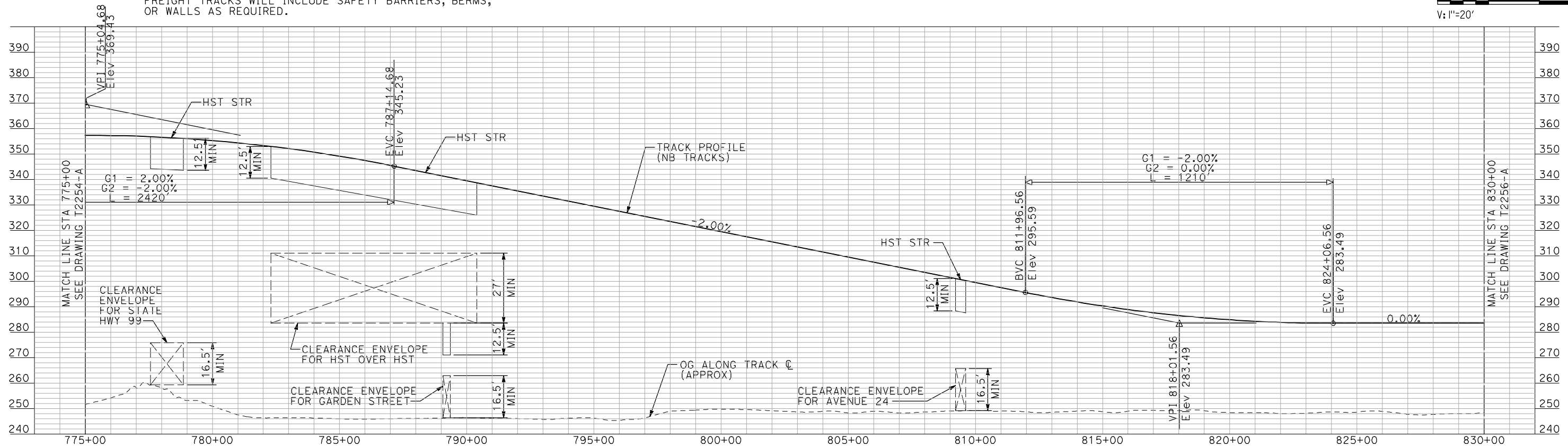
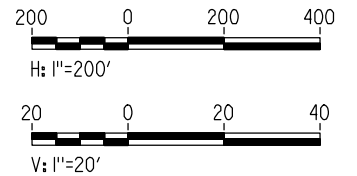
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OF



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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
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A. BOONE
DATE
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**RECORD SET
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SUBMITTAL**

**NOT FOR
CONSTRUCTION**

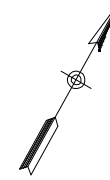
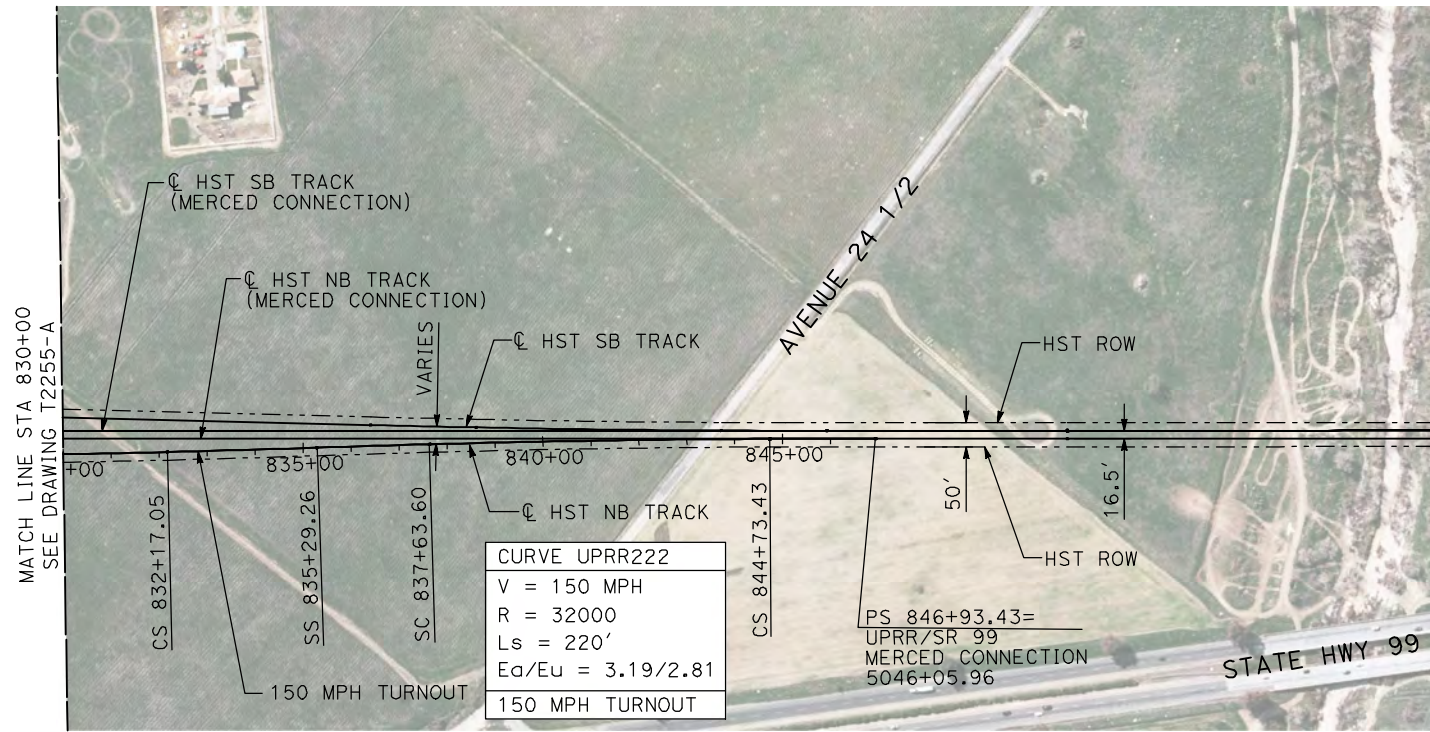


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 775+00 TO STA 830+00

CONTRACT NO.
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DRAWING NO.
T2255-A
SCALE
AS SHOWN
SHEET NO.
OF

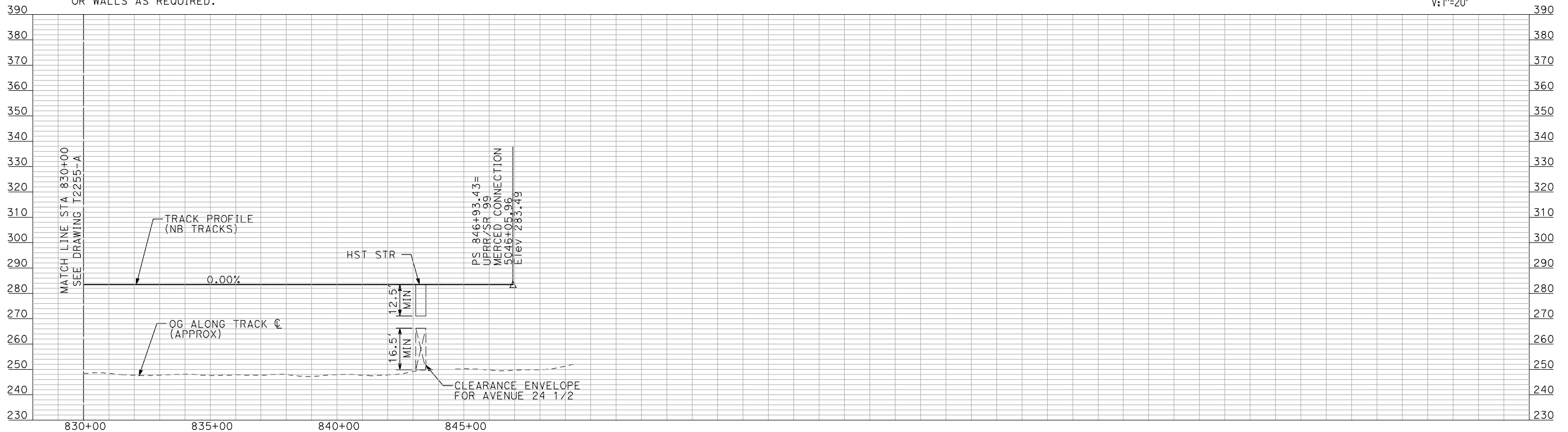
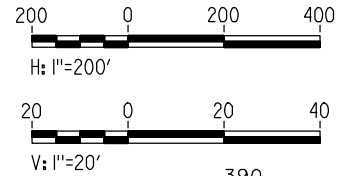
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NOT FOR
CONSTRUCTION

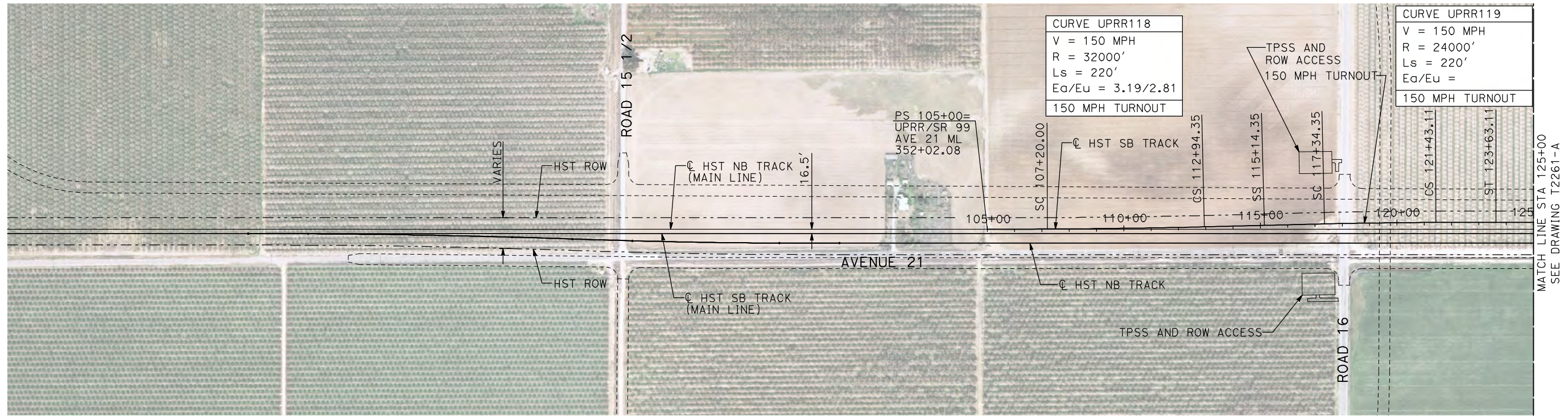


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 830+00 TO STA 846+93.43

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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2256-A |
| SCALE | AS SHOWN |
| SHEET NO. | ### OF ### |

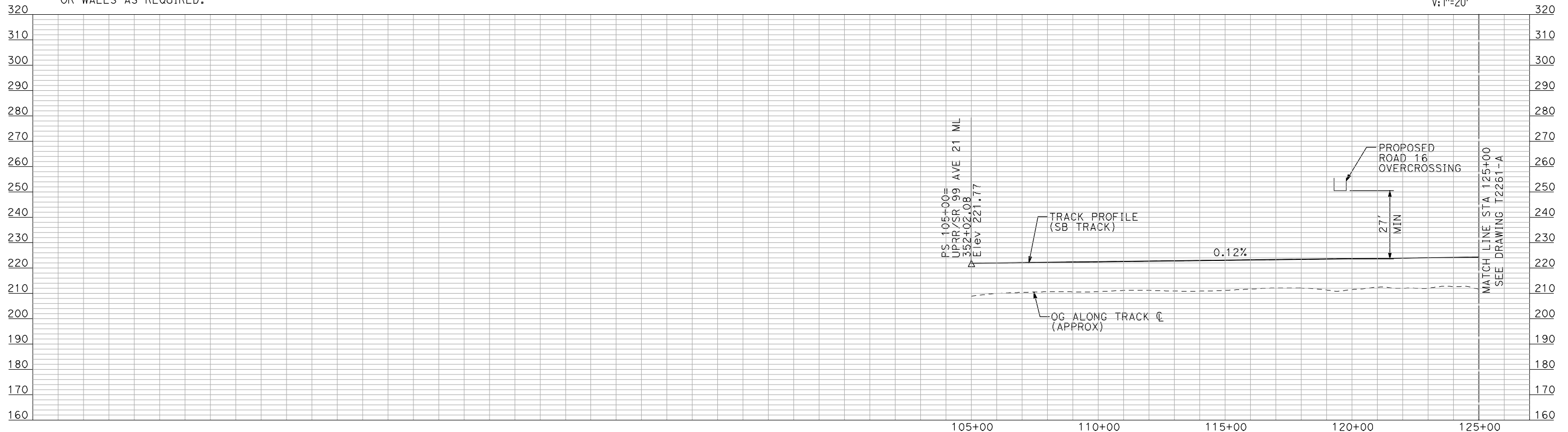
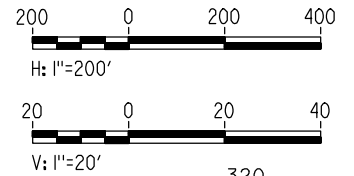
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 105+00 TO STA 125+00

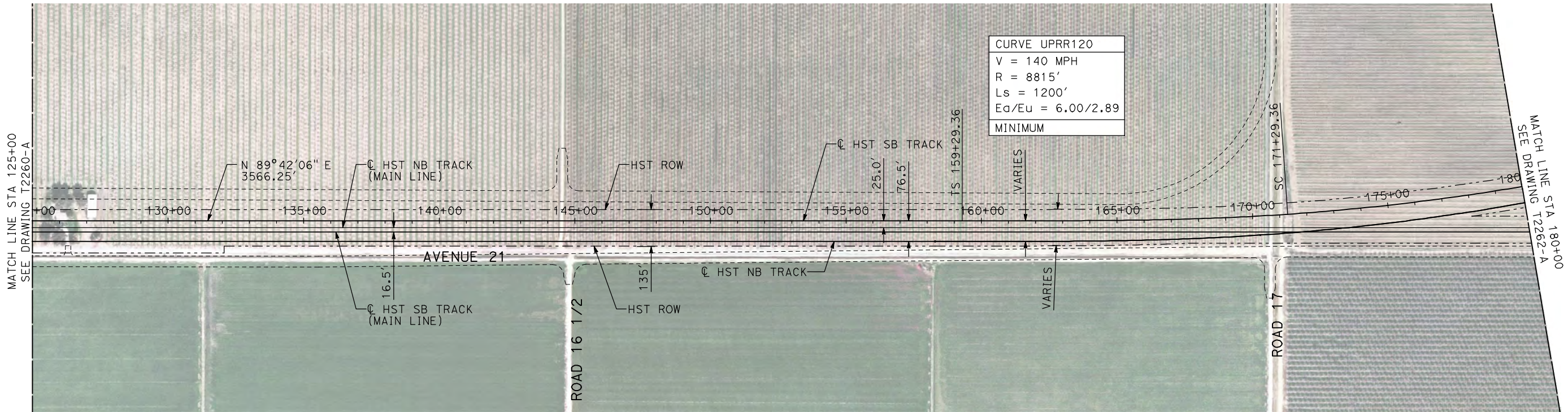
CONTRACT NO.
HSR06-007

DRAWING NO.
T2260-A

SCALE
AS SHOWN

SHEET NO.
OF

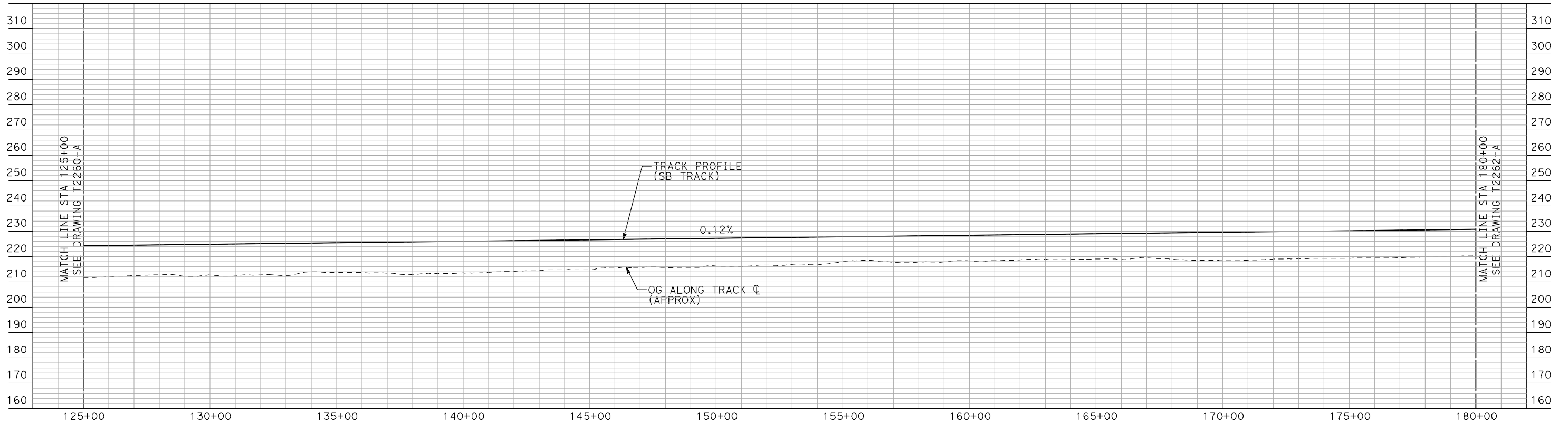
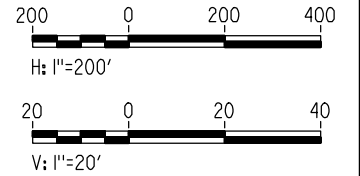
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 125+00 TO STA 180+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2261-A
SCALE
AS SHOWN
SHEET NO.
OF

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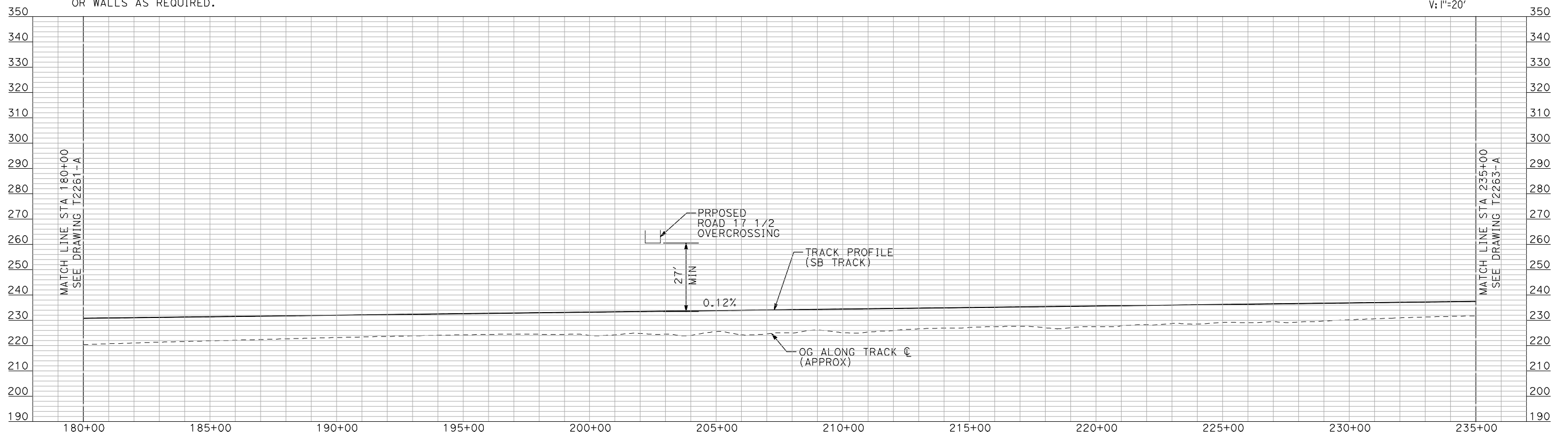
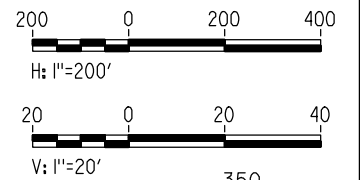


| |
|-------------------|
| CURVE UPRR120 |
| V = 140 MPH |
| R = 8815' |
| Ls = 1200' |
| Ea/Eu = 6.00/2.89 |
| MINIMUM |

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

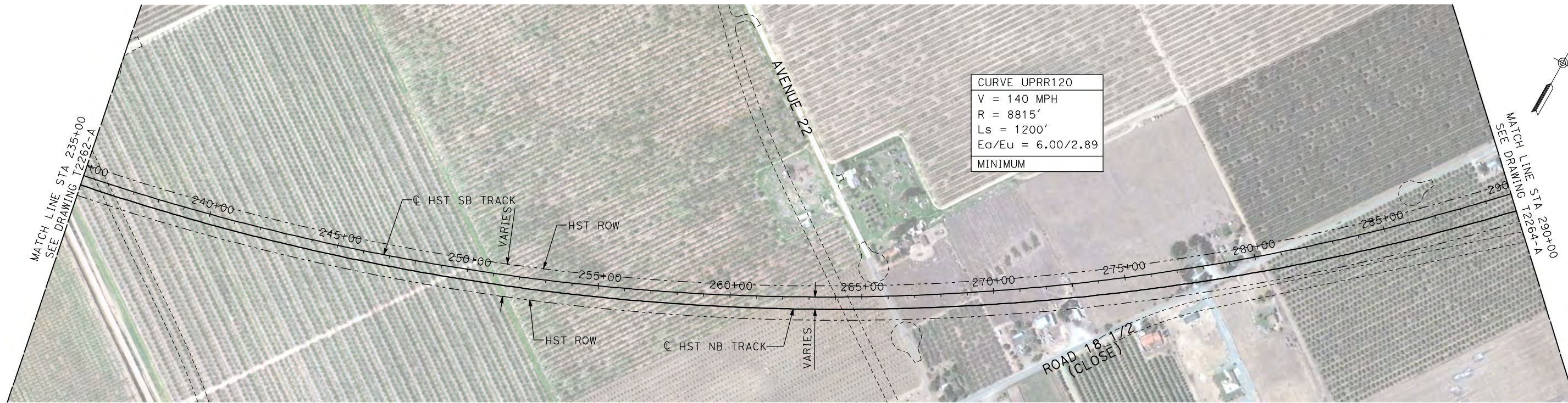
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 180+00 TO STA 235+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2262-A
SCALE
AS SHOWN
SHEET NO.
OF

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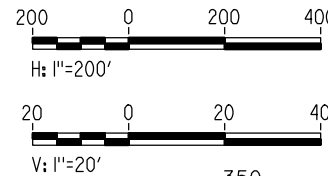


| |
|-------------------|
| CURVE UPRR120 |
| V = 140 MPH |
| R = 8815' |
| Ls = 1200' |
| Ea/Eu = 6.00/2.89 |
| MINIMUM |

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

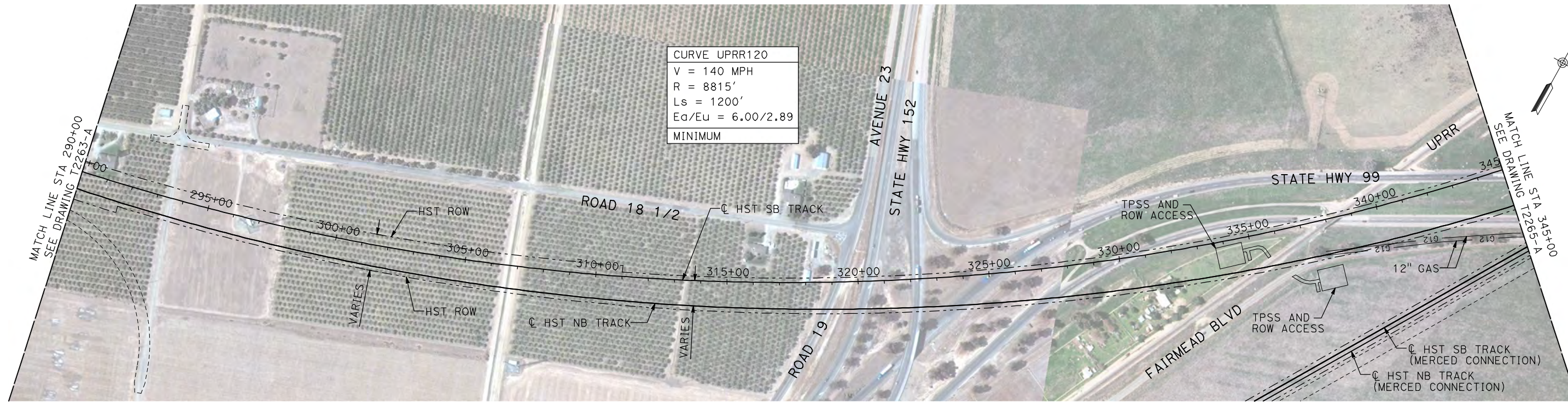


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 235+00 TO STA 290+00

| | |
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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2263-A |
| SCALE | AS SHOWN |
| SHEET NO. | ### OF ### |

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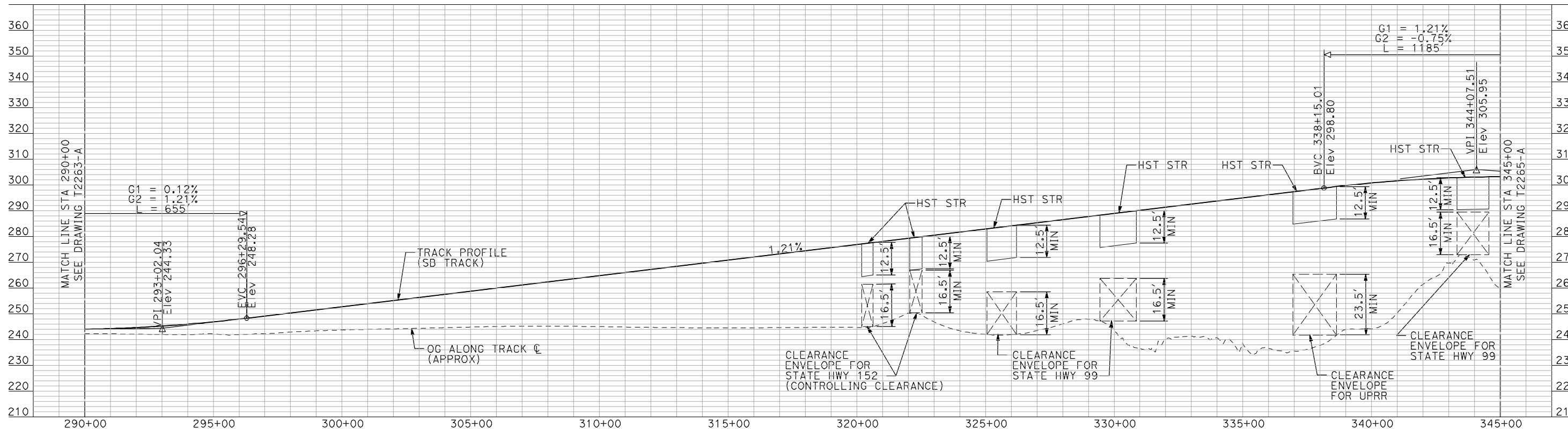
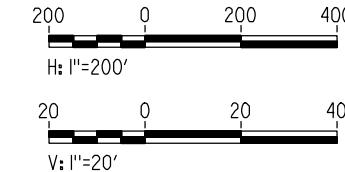


CURVE UPRR120
V = 140 MPH
R = 8815'
Ls = 1200'
Ea/Eu = 6.00/2.89
MINIMUM

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

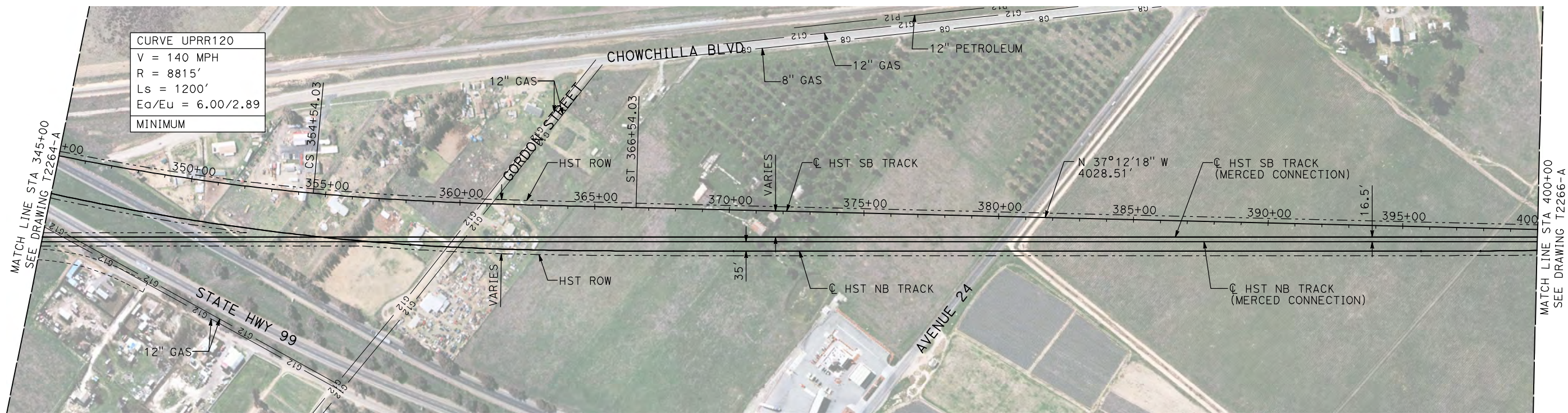
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 290+00 TO STA 345+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2264-A
SCALE
AS SHOWN
SHEET NO.
OF

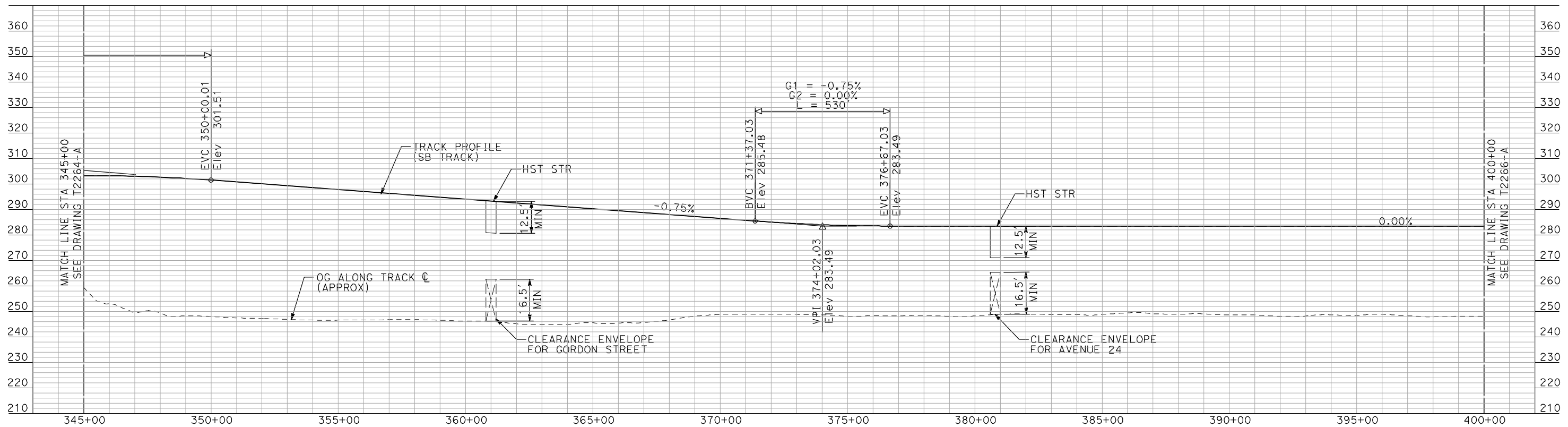
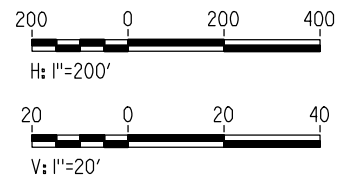


CURVE UPRR120
 V = 140 MPH
 R = 8815'
 Ls = 1200'
 Ea/Eu = 6.00/2.89
 MINIMUM

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

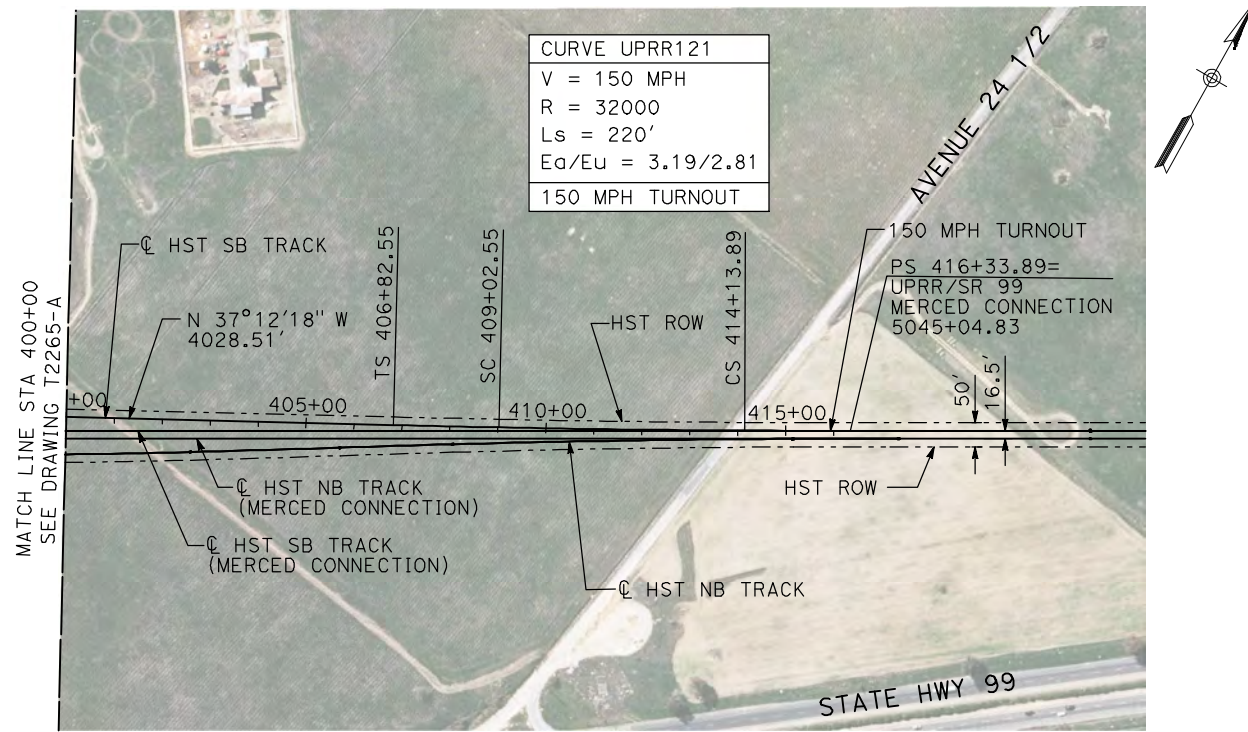
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - SB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 345+00 TO STA 400+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2265-A
 SCALE
AS SHOWN
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OF

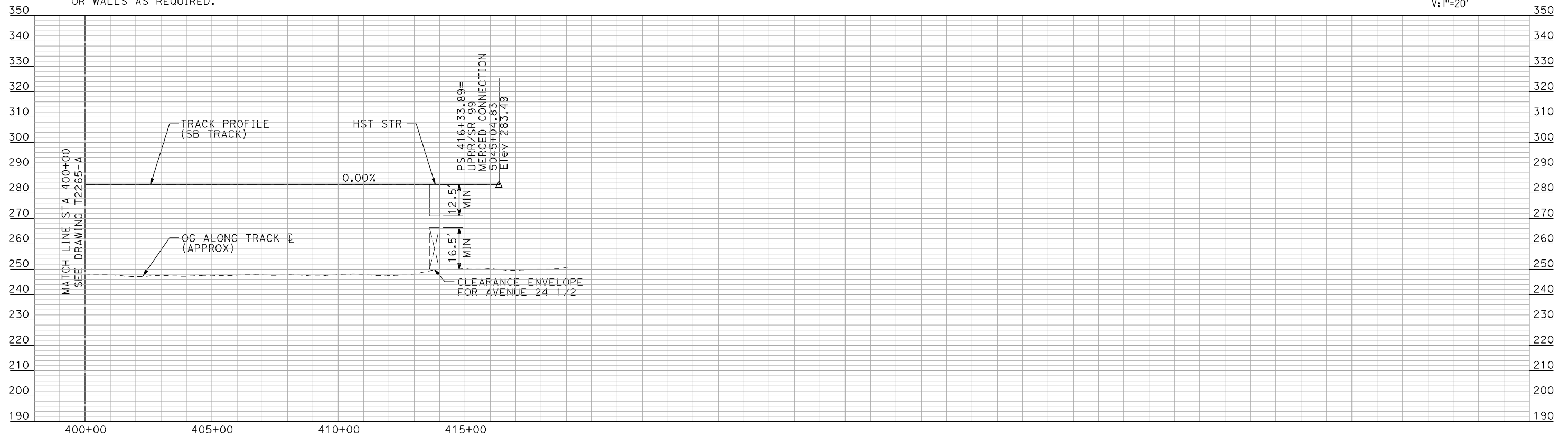
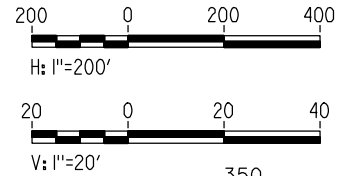
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PLAN

NOTES:

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2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

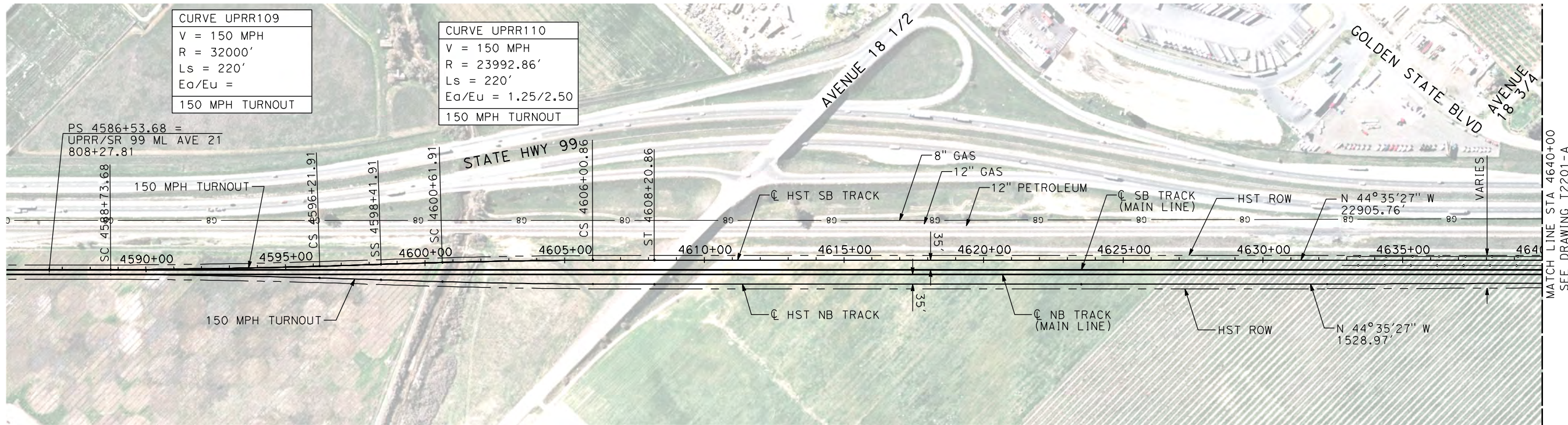
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 400+00 TO STA 416+33.89

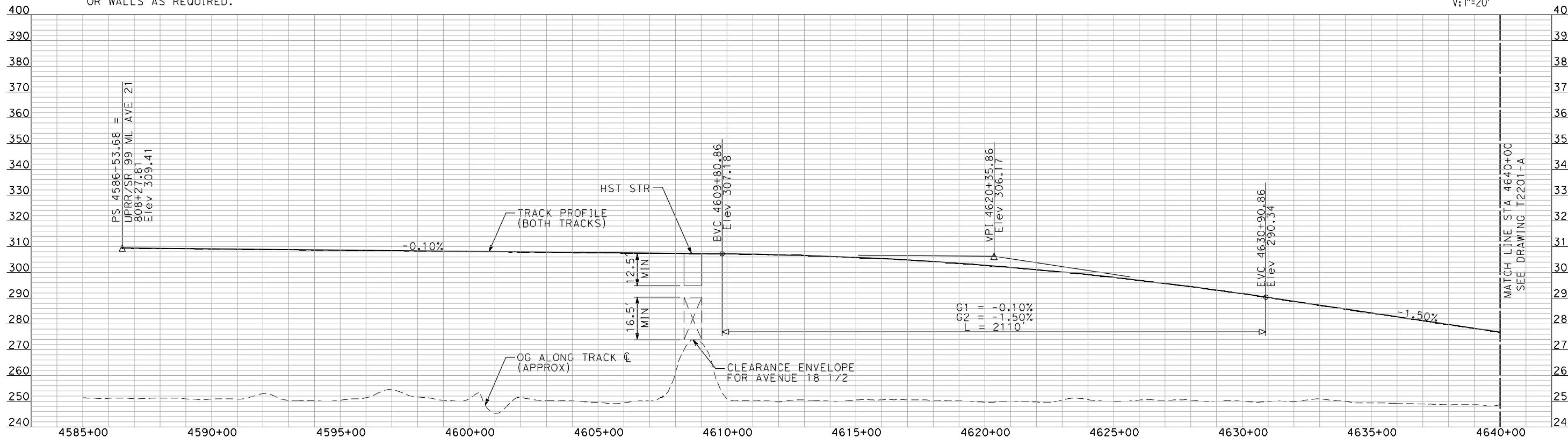
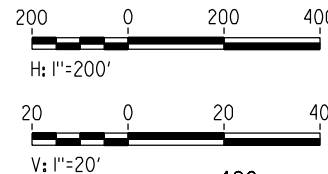
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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2266-A |
| SCALE | AS SHOWN |
| SHEET NO. | ### OF ### |



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS

DRAWN BY
H. SULLIVAN

CHECKED BY
A. BOONE

IN CHARGE
A. BOONE

DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 MERCED CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 4586+53.68 TO STA 4640+00

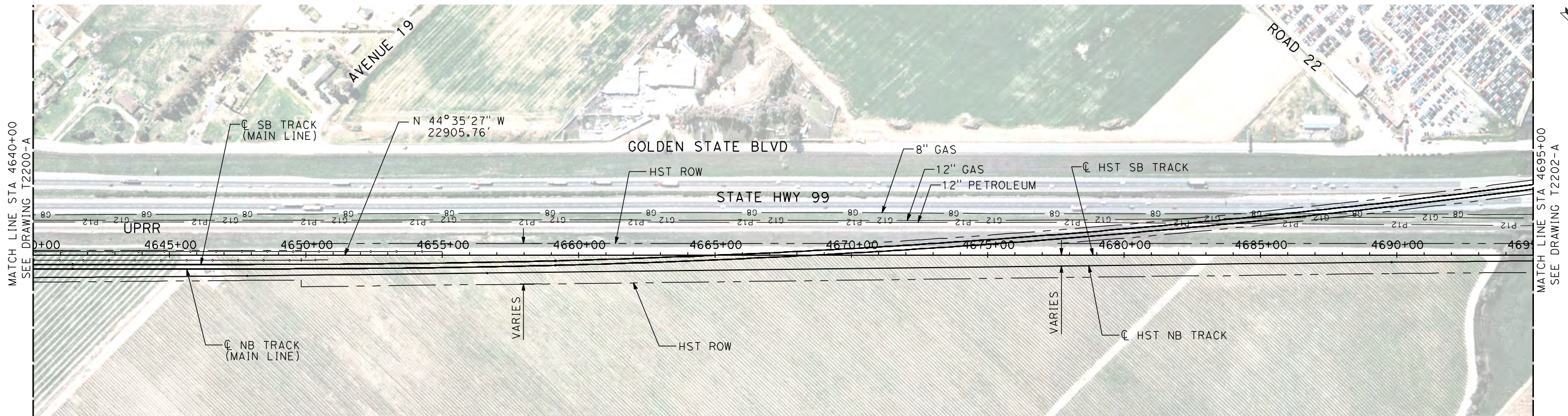
CONTRACT NO.
HSR06-007

DRAWING NO.
T2200-A

SCALE
AS SHOWN

SHEET NO.
OF

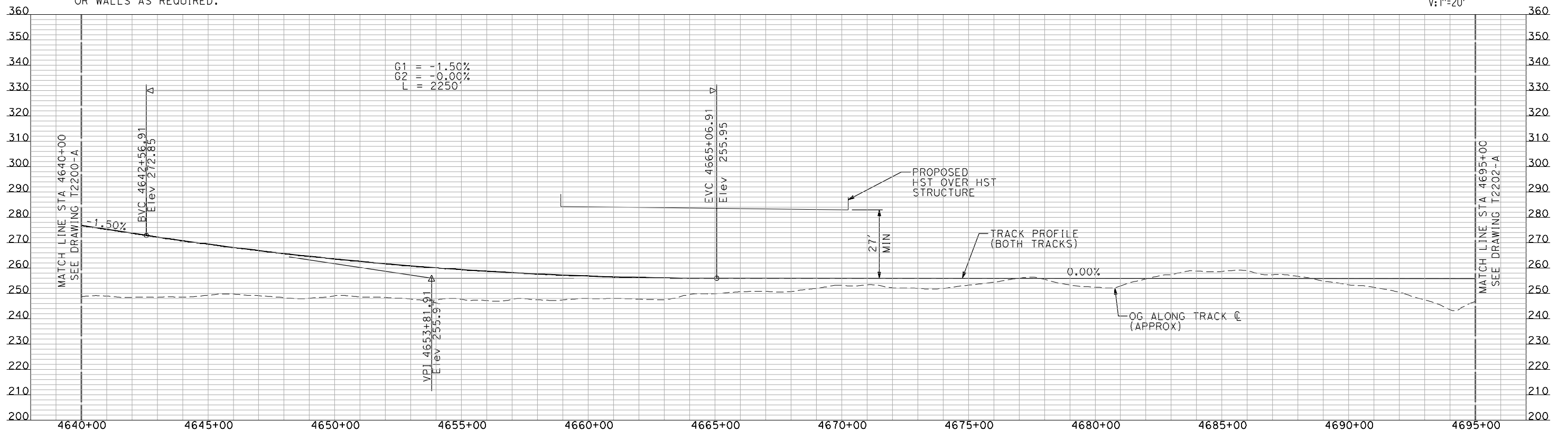
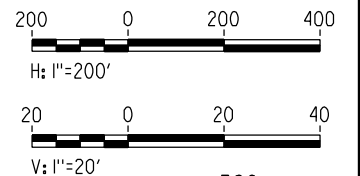
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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| | | | | | |
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

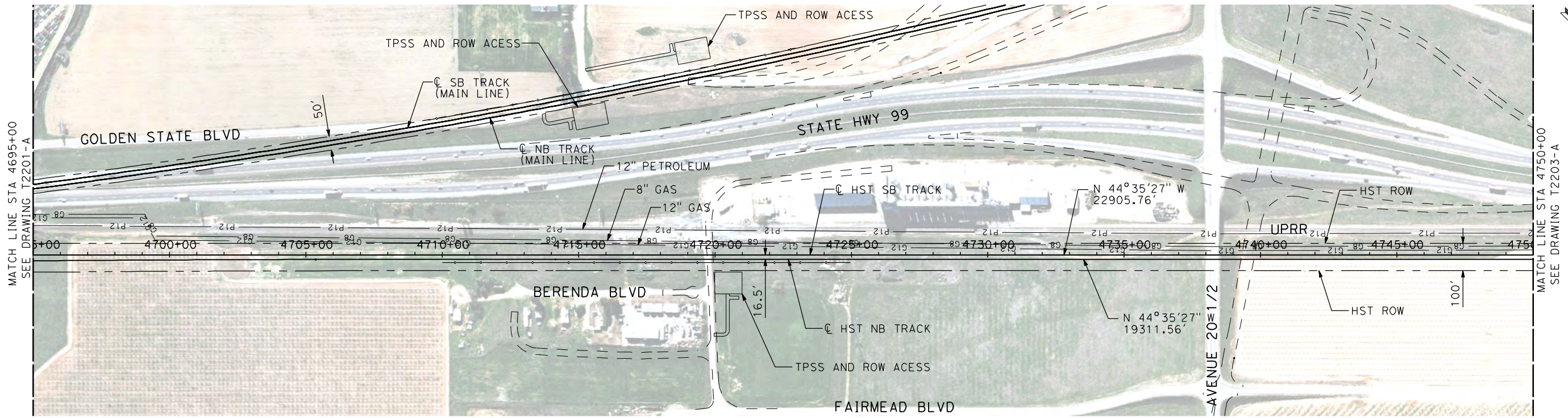


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4640+00 TO STA 4695+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2201-A
SCALE
AS SHOWN
SHEET NO.
OF

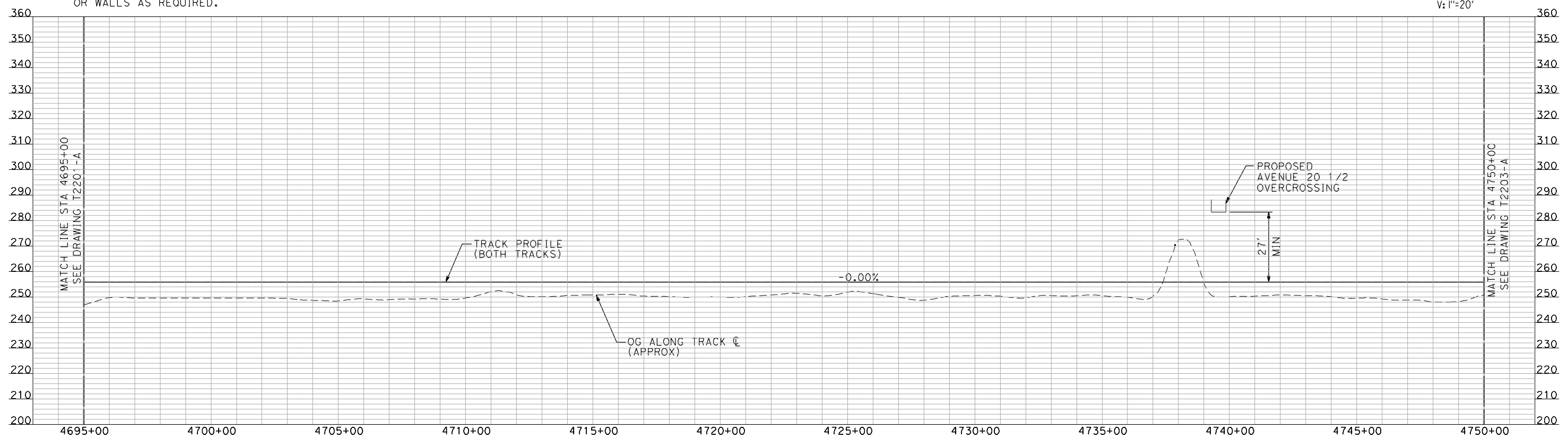
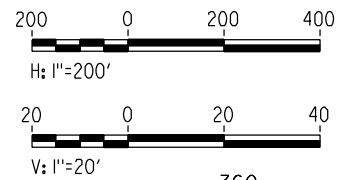
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

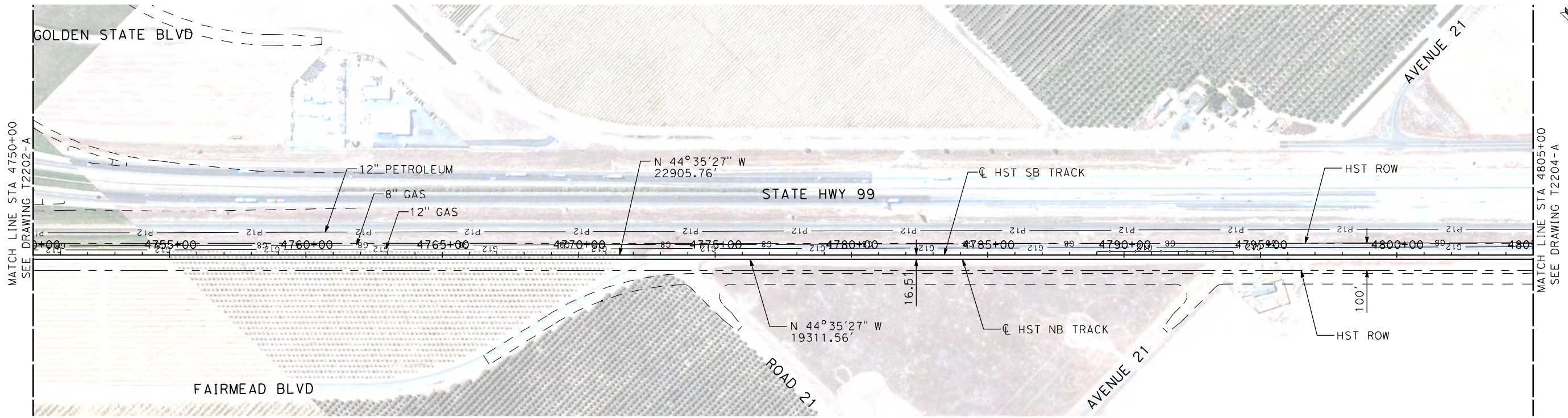
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4695+00 TO STA 4750+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2202-A
SCALE
AS SHOWN
SHEET NO.
OF

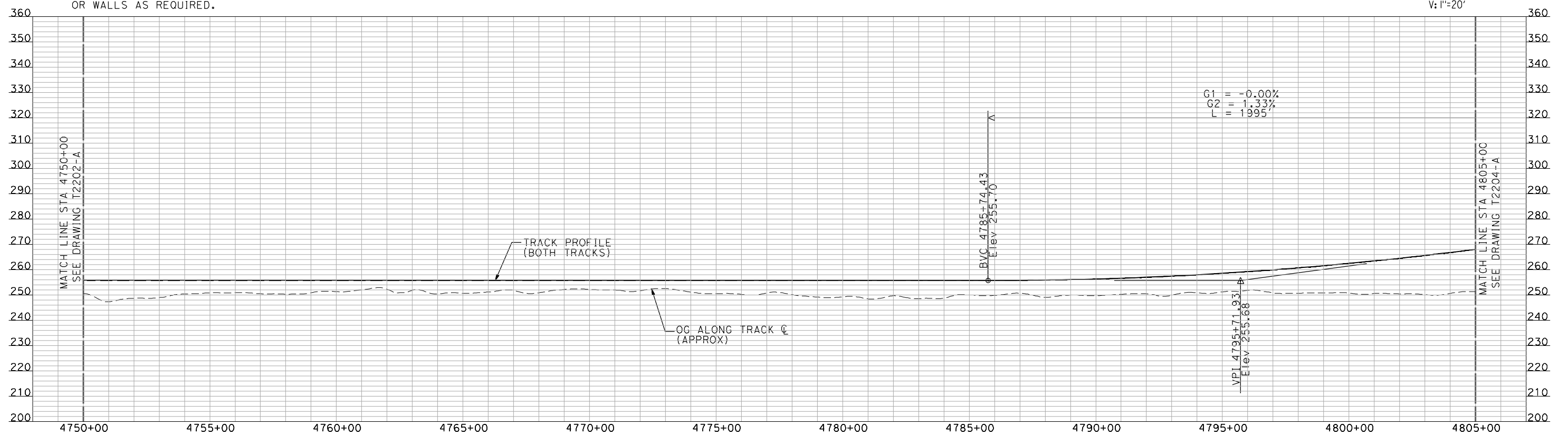
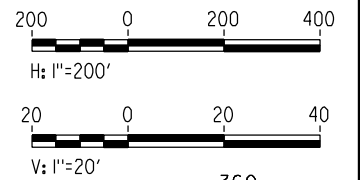
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
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H. SULLIVAN
CHECKED BY
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IN CHARGE
A. BOONE
DATE
07/20/2011

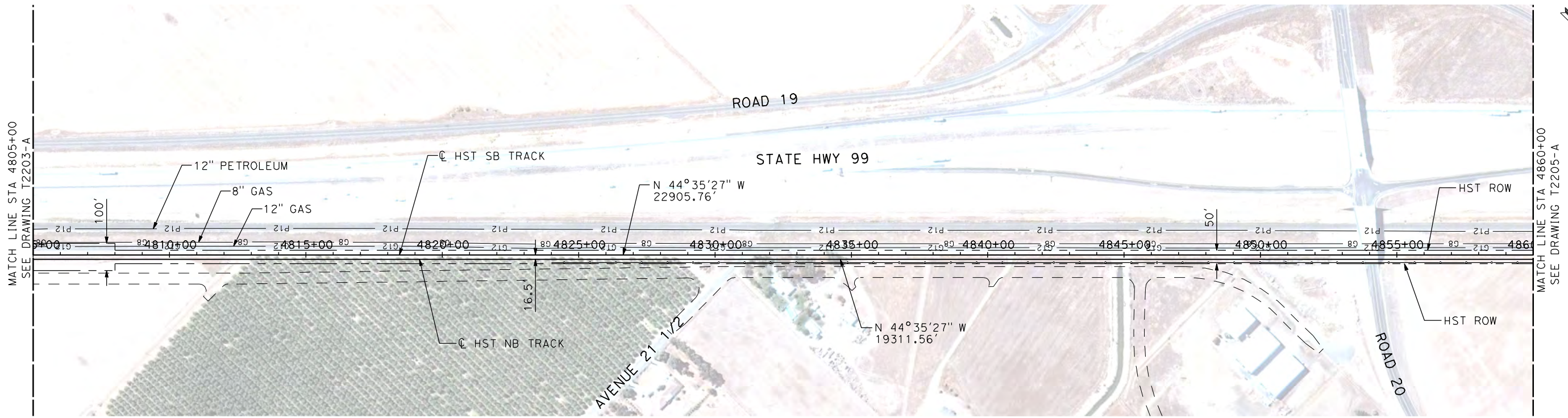
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SUBMITTAL

NOT FOR
CONSTRUCTION

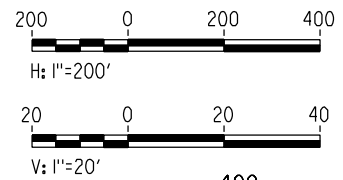


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4750+00 TO STA 4805+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2203-A
SCALE
AS SHOWN
SHEET NO.
OF

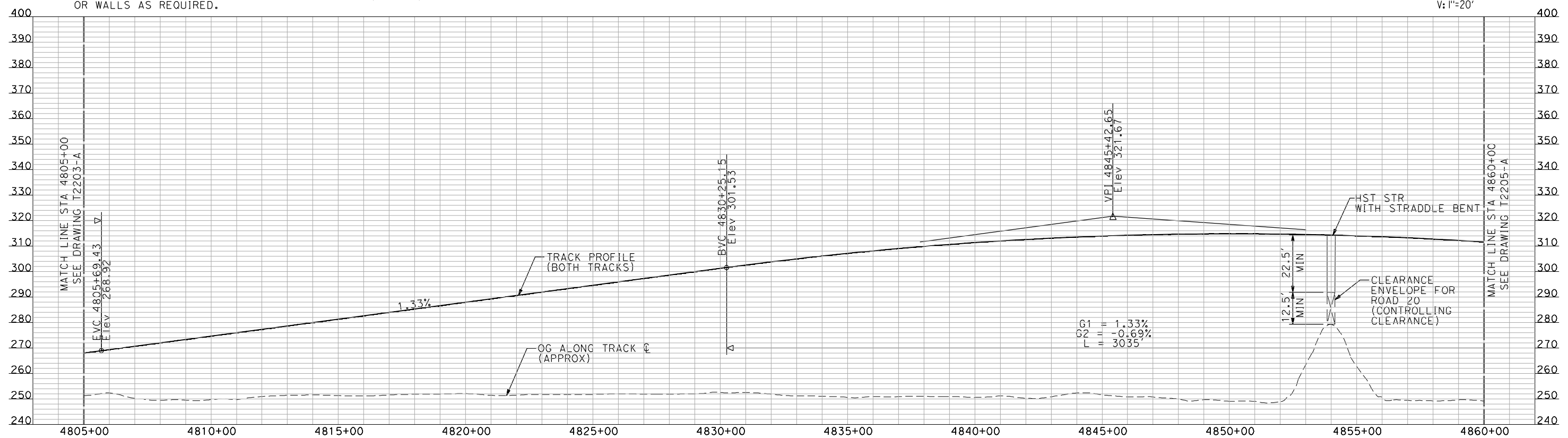


PLAN



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

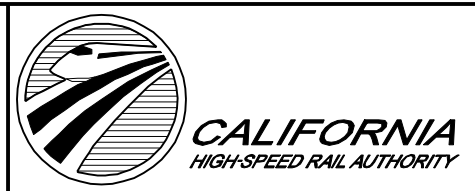
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4805+00 TO STA 4860+00

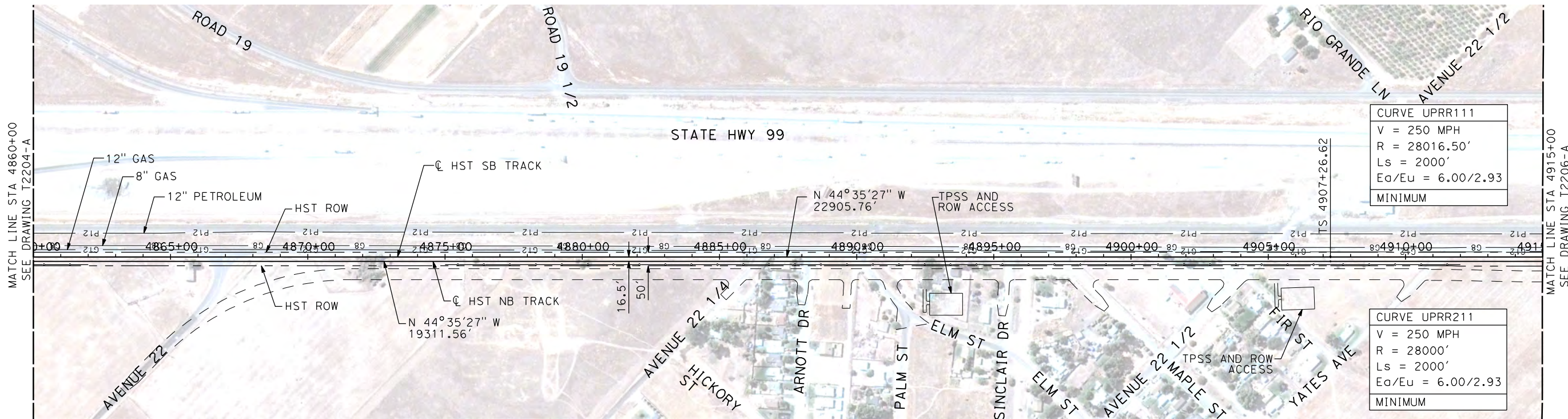
CONTRACT NO.
HSR06-007

DRAWING NO.
T2204-A

SCALE
AS SHOWN

SHEET NO.
OF

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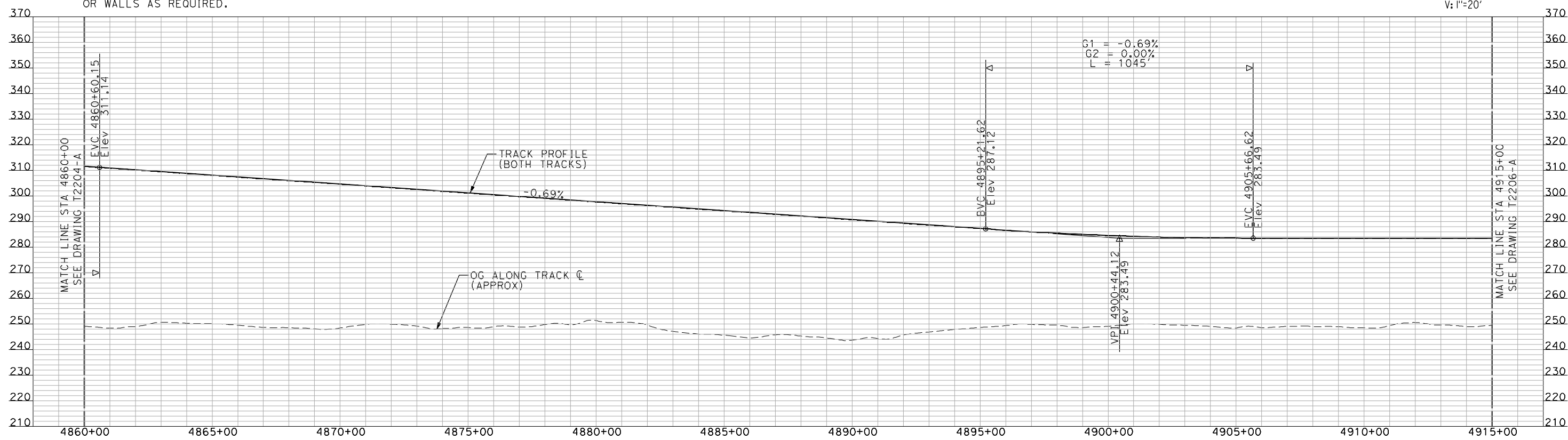
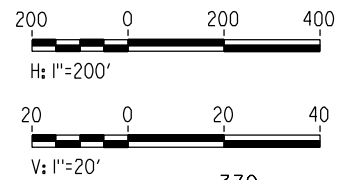
CURVE UPRR111
 V = 250 MPH
 R = 28016.50'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

CURVE UPRR211
 V = 250 MPH
 R = 28000'
 Ls = 2000'
 Ea/Eu = 6.00/2.93
 MINIMUM

NOTES:

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PLAN



G1 = -0.69%
 G2 = 0.00%
 L = 1045'

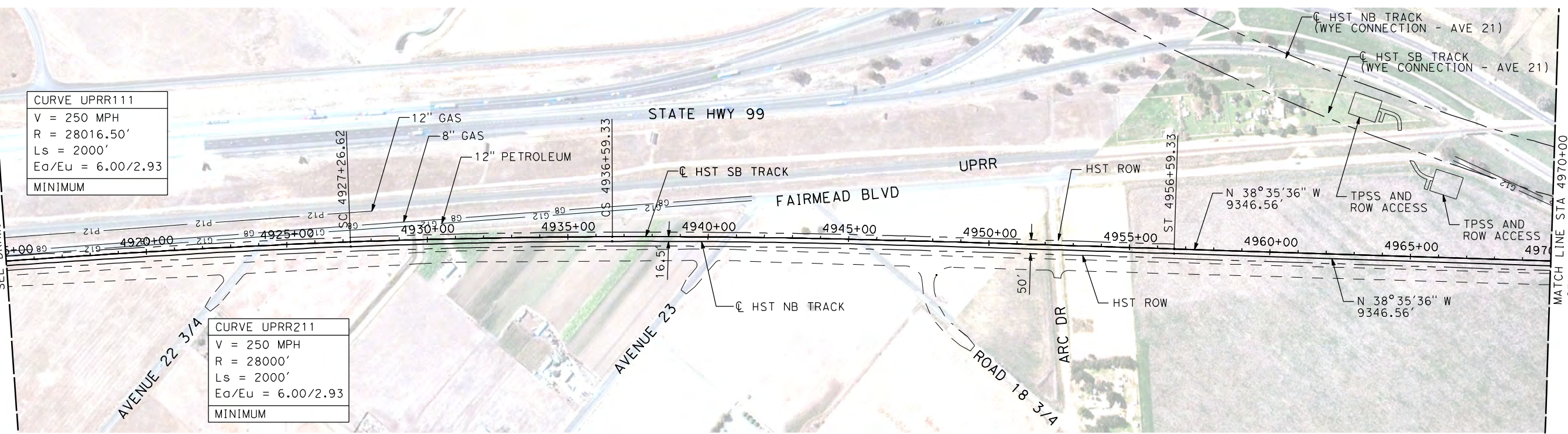
PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| | | | | | | |
|---------------------------|--|---------------------------------|--|--|---|---------------------------|
| DESIGNED BY A. SHIELDS | RECORD SET 15% DESIGN SUBMITTAL | NOT FOR CONSTRUCTION | AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811 | | CALIFORNIA HIGH-SPEED RAIL AUTHORITY | CONTRACT NO. HSR06-007 |
| DRAWN BY H. SULLIVAN | | | | | | DRAWING NO. T2205-A |
| CHECKED BY A. BOONE | | | | | | SCALE AS SHOWN |
| IN CHARGE A. BOONE | | | | | | SHEET NO. ### OF ### |
| DATE 07/20/2011 | | | | | | |

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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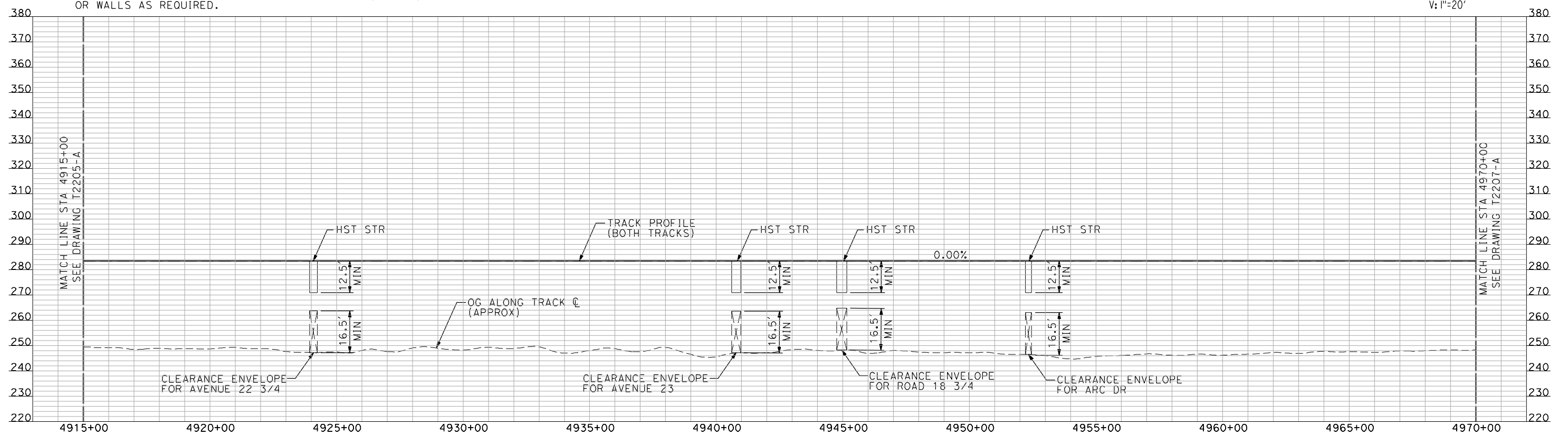
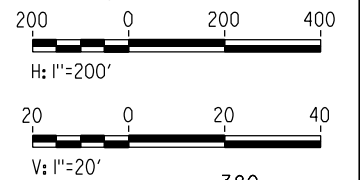
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

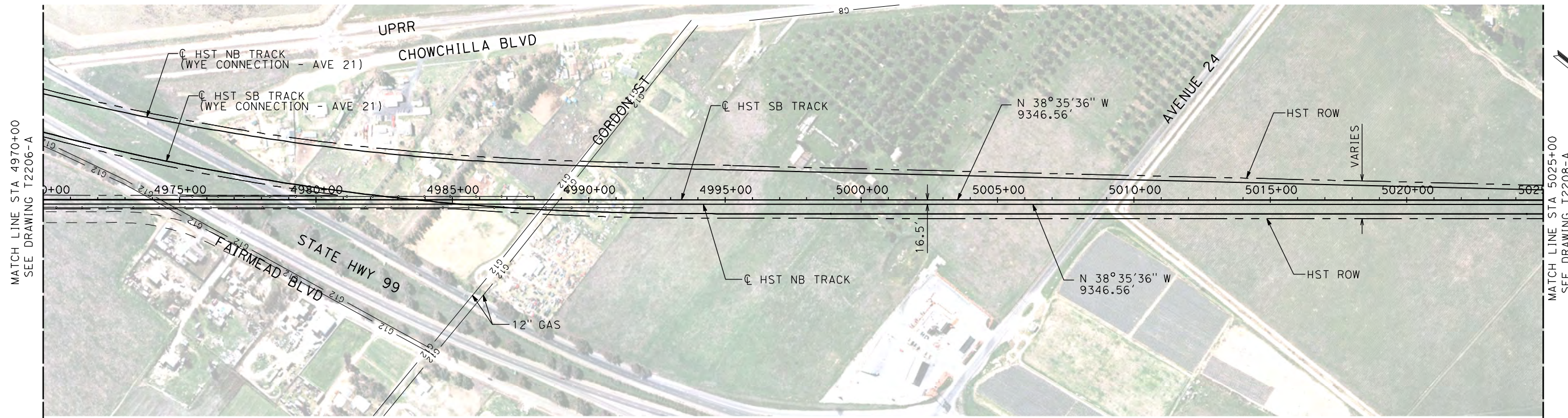
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 4915+00 TO STA 4970+00

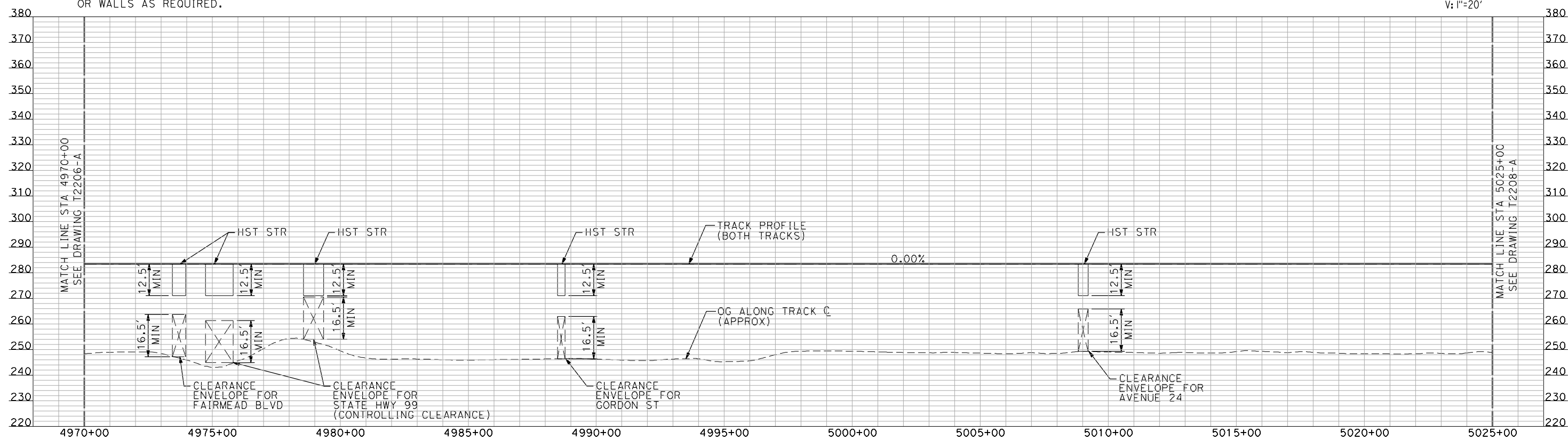
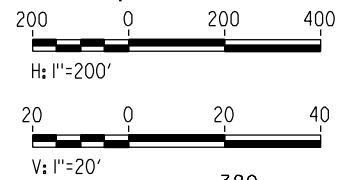
CONTRACT NO.
HSR06-007
DRAWING NO.
T2206-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



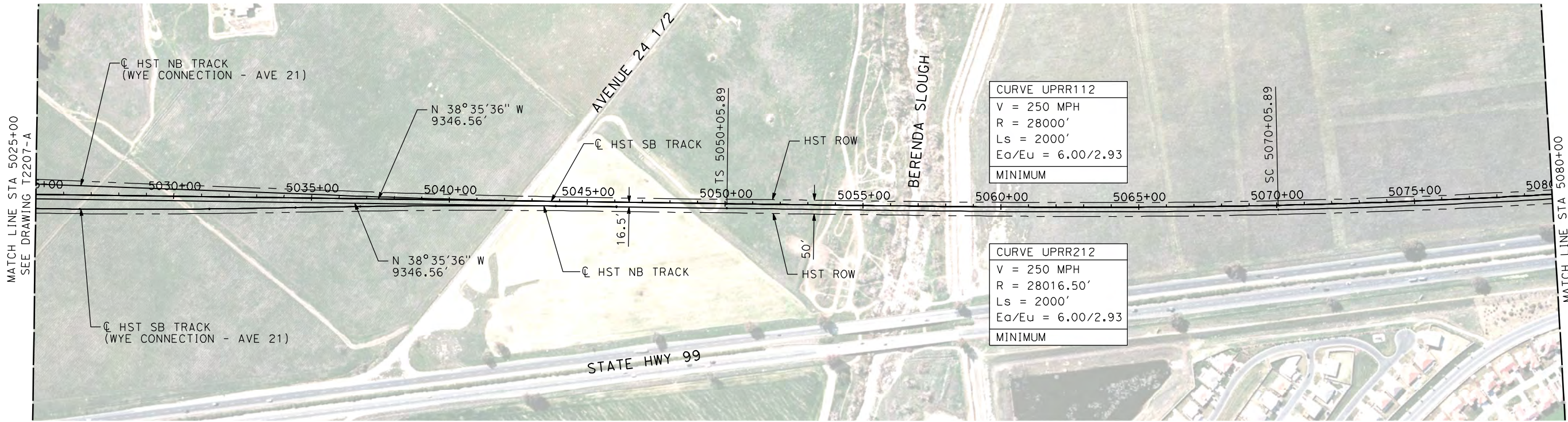
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 4970+00 TO STA 5025+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2207-A
SCALE
AS SHOWN
SHEET NO.
OF

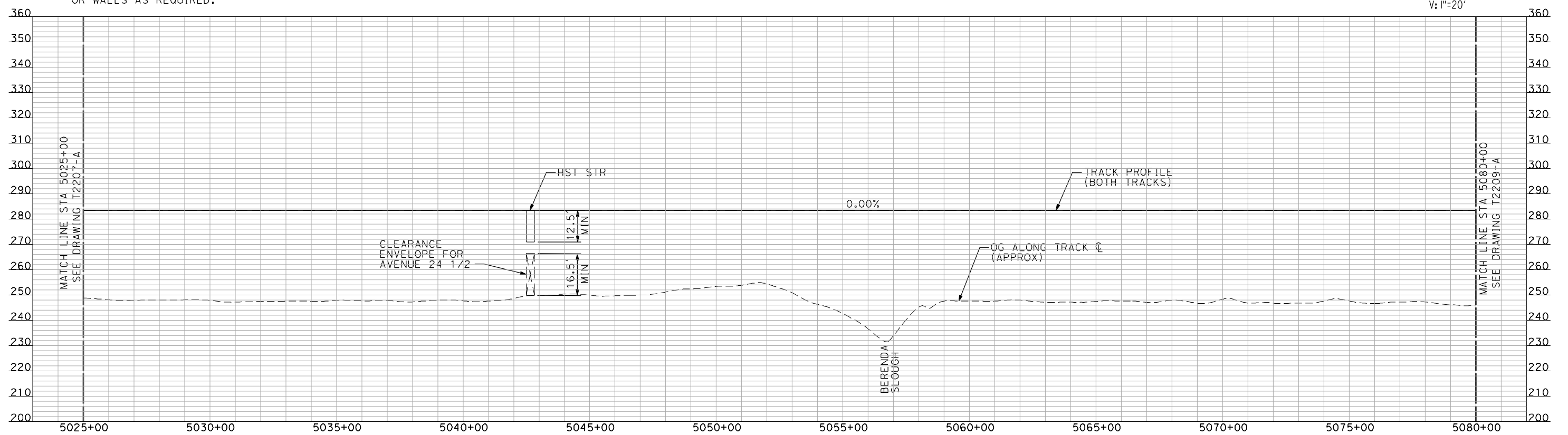
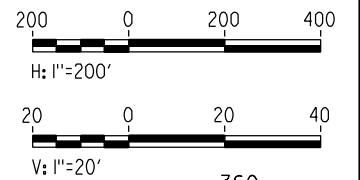
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

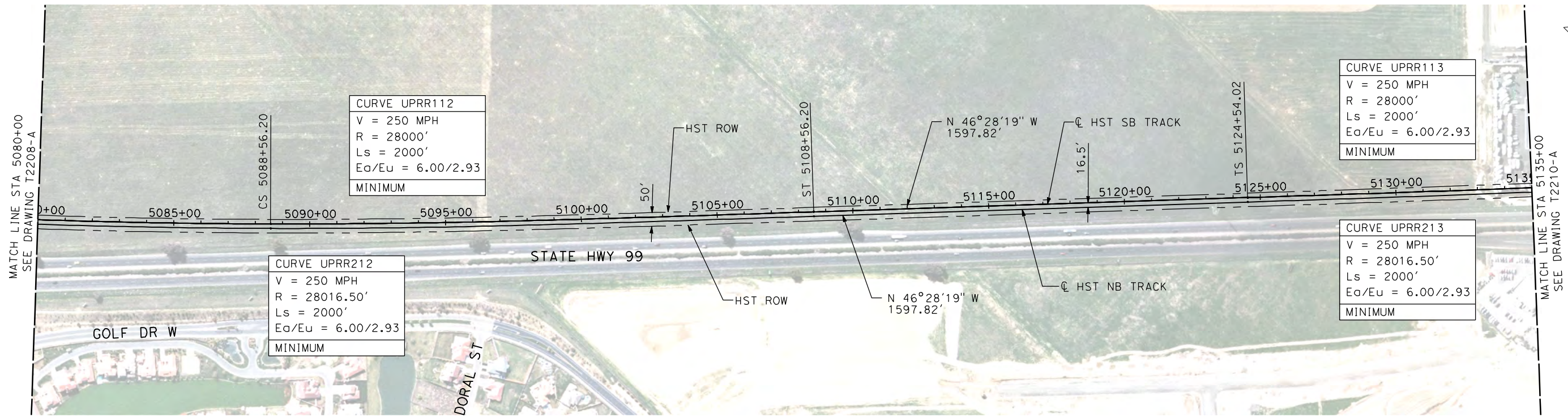


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5025+00 TO STA 5080+00

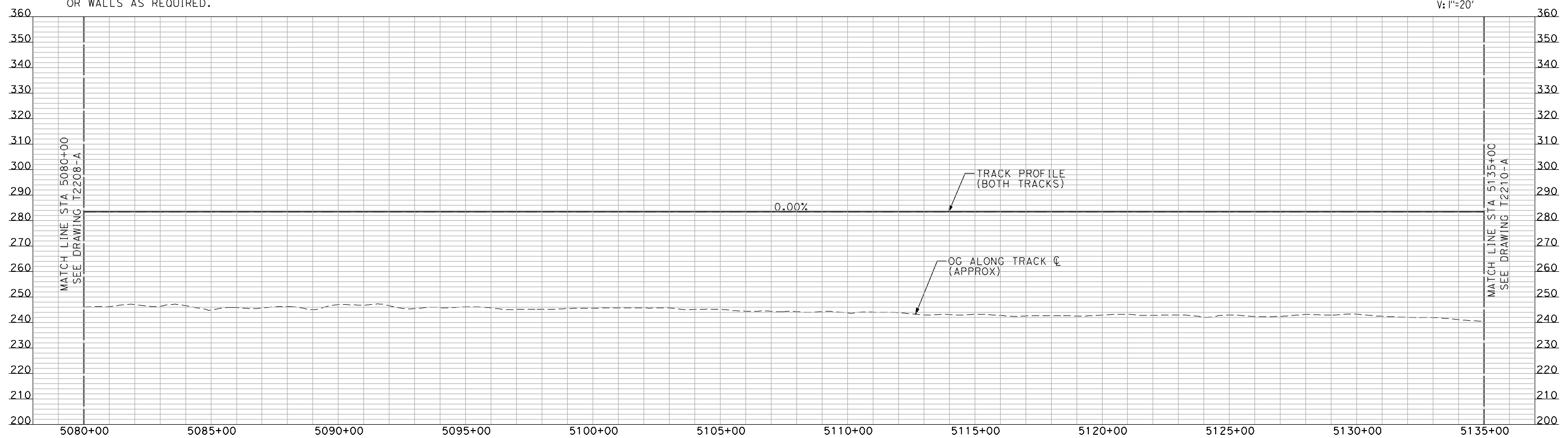
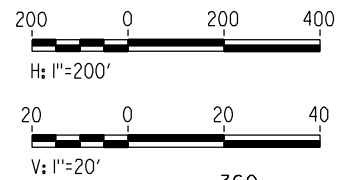
CONTRACT NO.
HSR06-007
DRAWING NO.
T2208-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

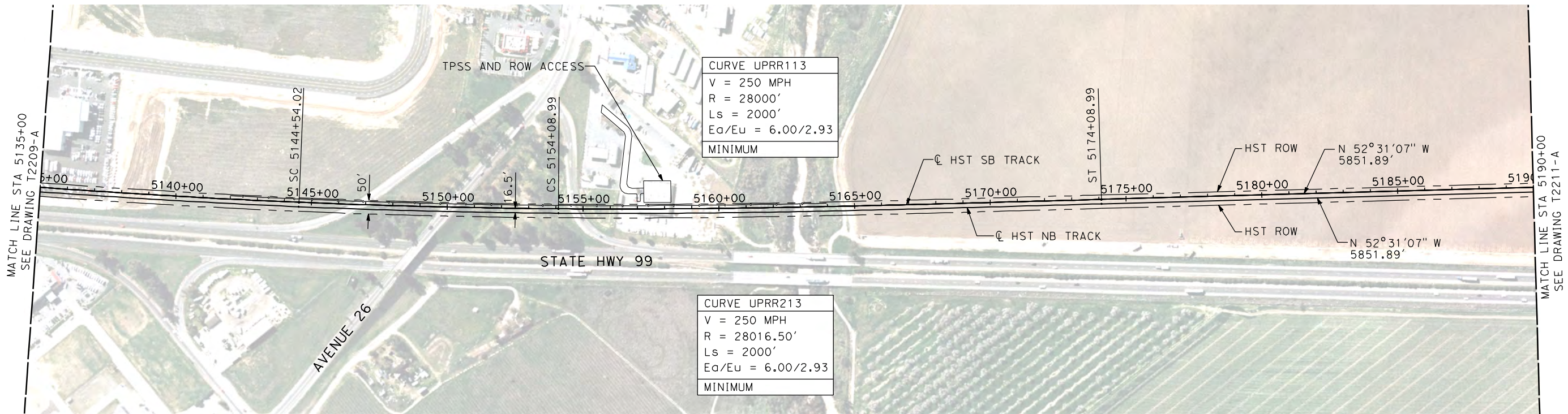
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CONSTRUCTION



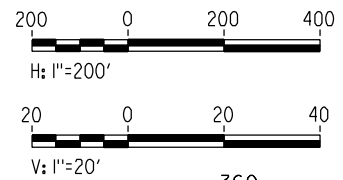
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5080+00 TO STA 5135+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2209-A
SCALE
AS SHOWN
SHEET NO.
OF

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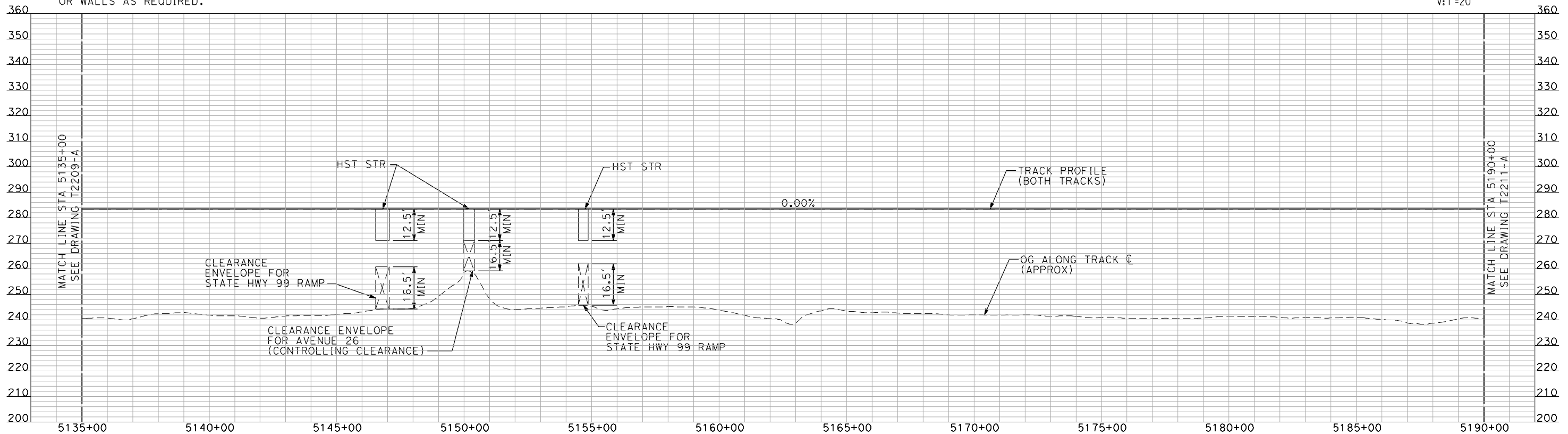


PLAN



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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



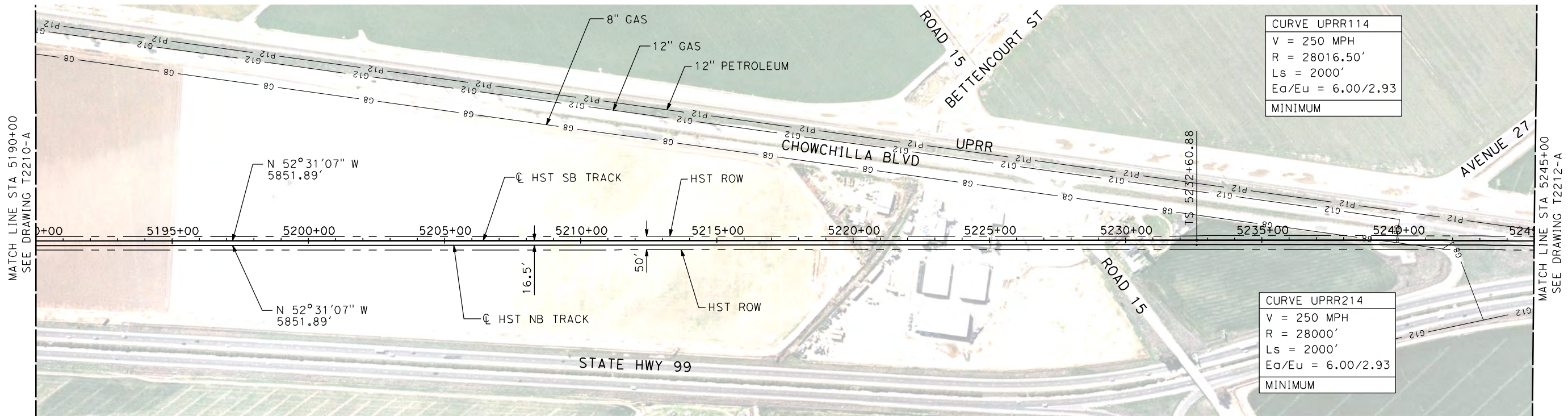
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5135+00 TO STA 5190+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2210-A
SCALE
AS SHOWN
SHEET NO.
OF

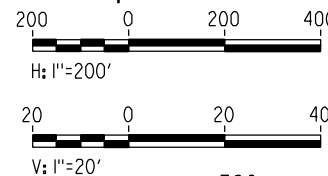
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



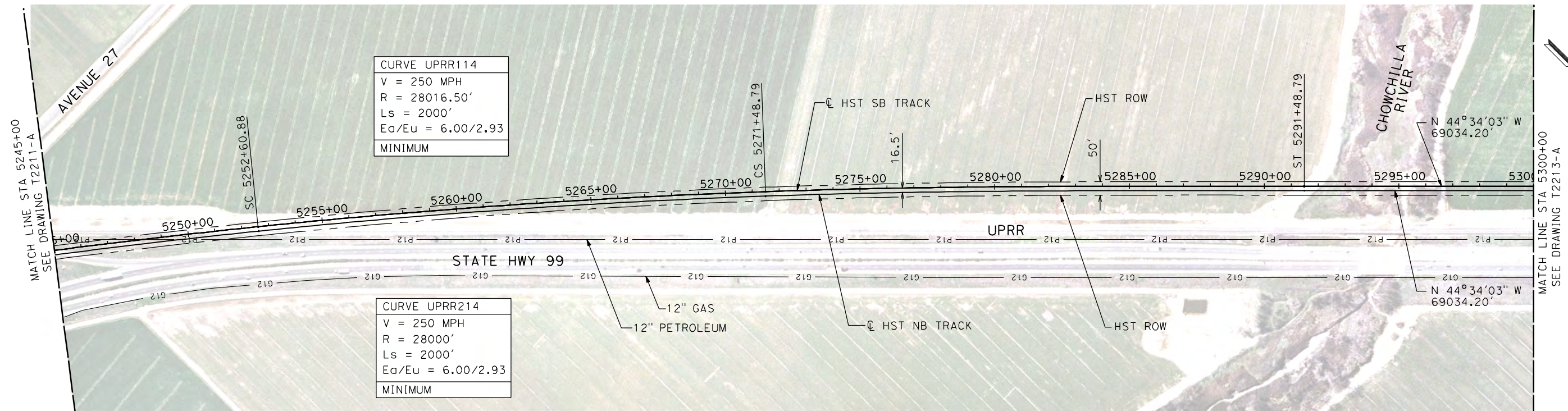
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5190+00 TO STA 5245+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2211-A
SCALE
AS SHOWN
SHEET NO.
OF

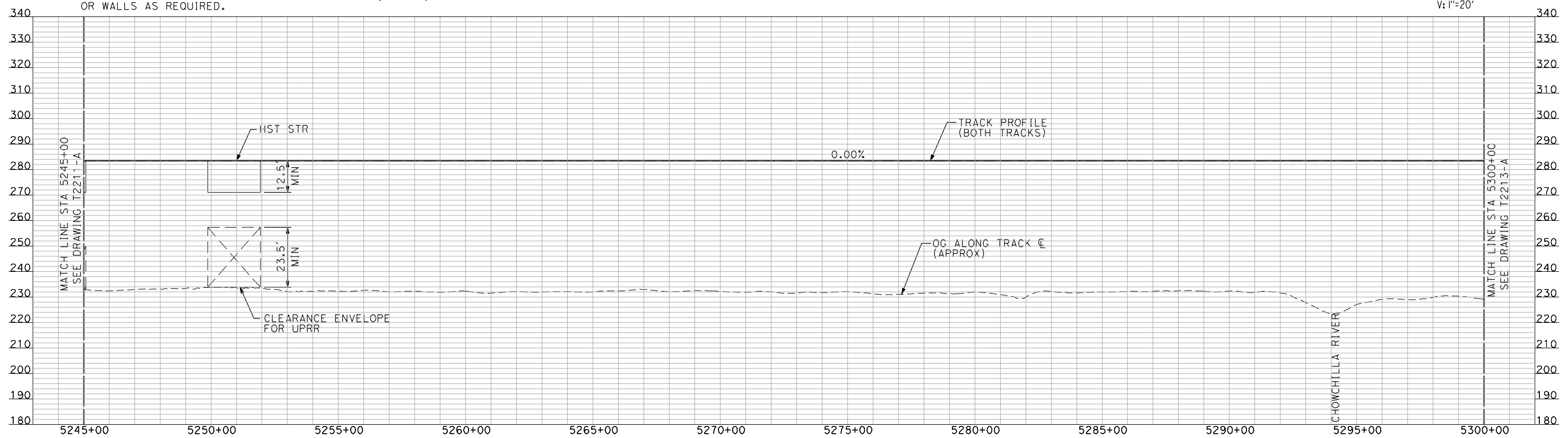
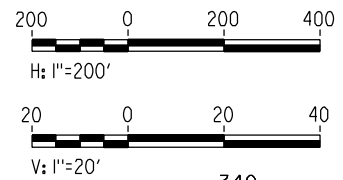
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
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DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

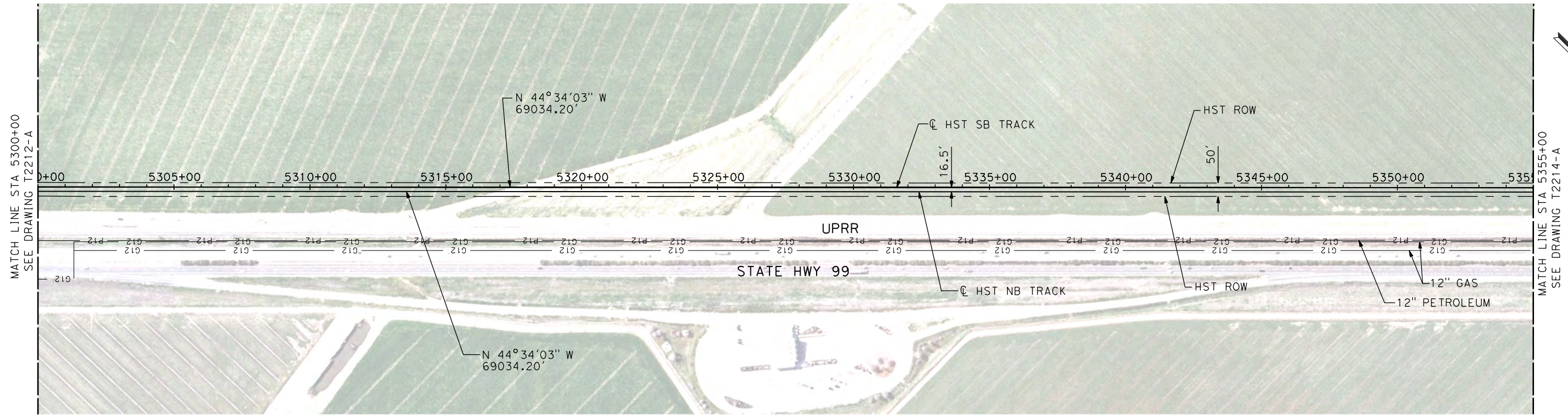
PLAN AND PROFILE
STA 5245+00 TO STA 5300+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T2212-A

SCALE
AS SHOWN

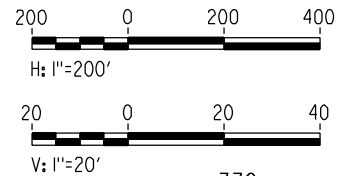
SHEET NO.
OF



PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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|-----|------|----|-----|-----|-------------|
| | | | | | |

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A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

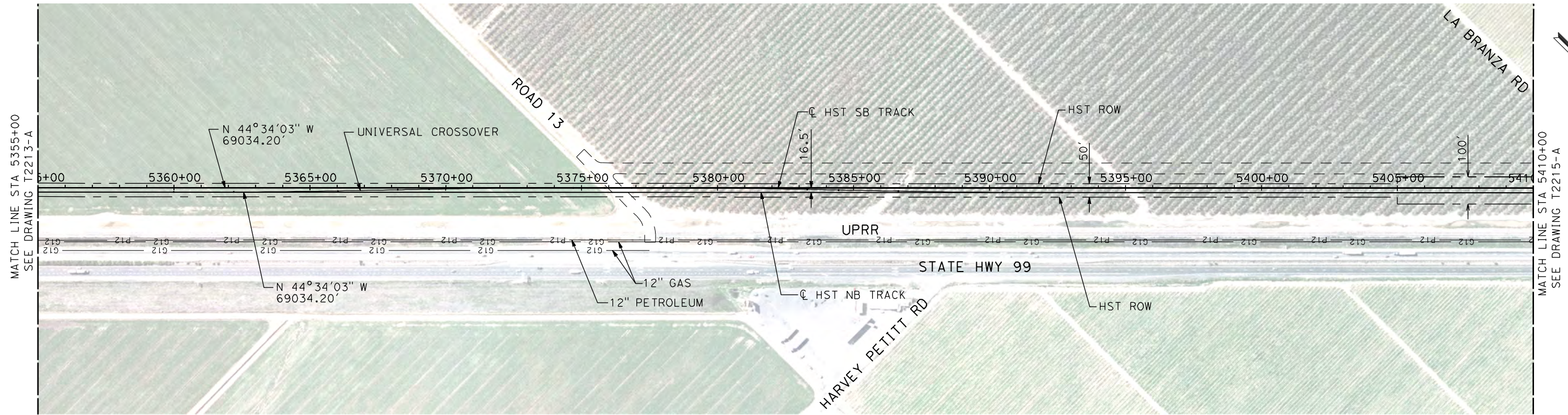


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5300+00 TO STA 5355+00

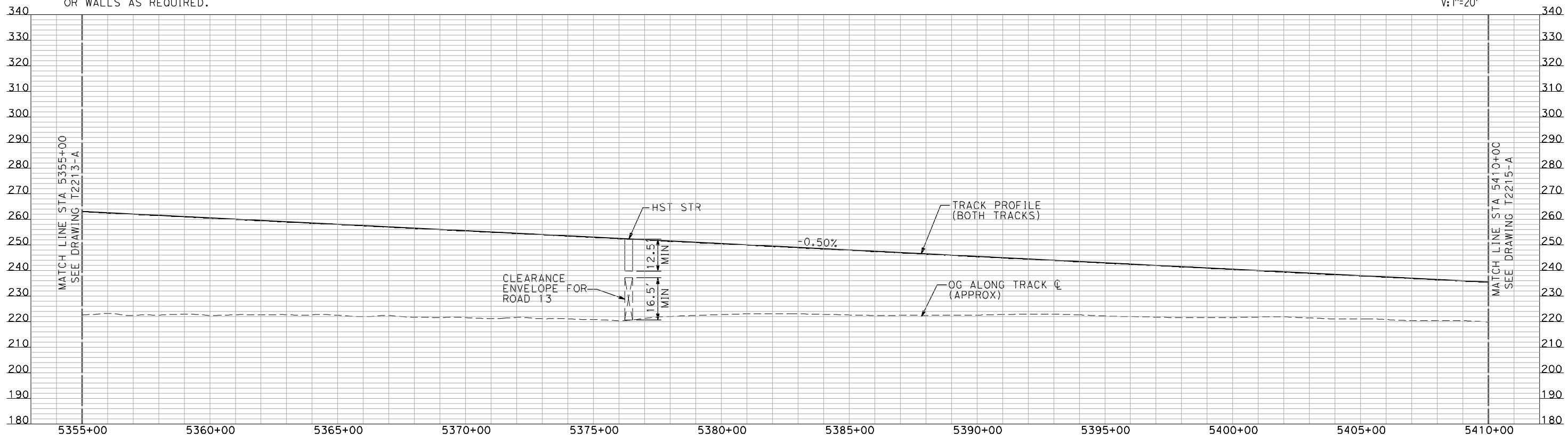
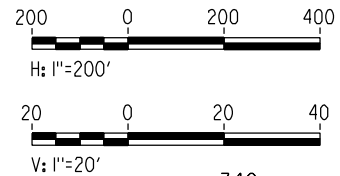
CONTRACT NO.
HSR06-007
DRAWING NO.
T2213-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

NOTES:

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PROFILE

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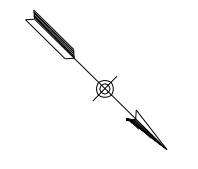
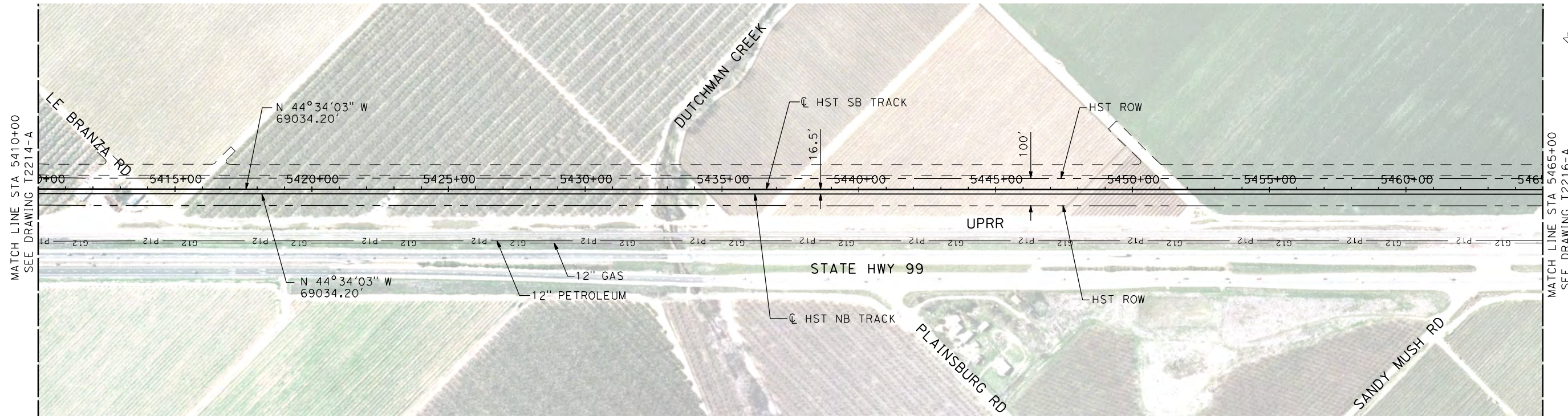
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5355+00 TO STA 5410+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2214-A
SCALE
AS SHOWN
SHEET NO.
OF

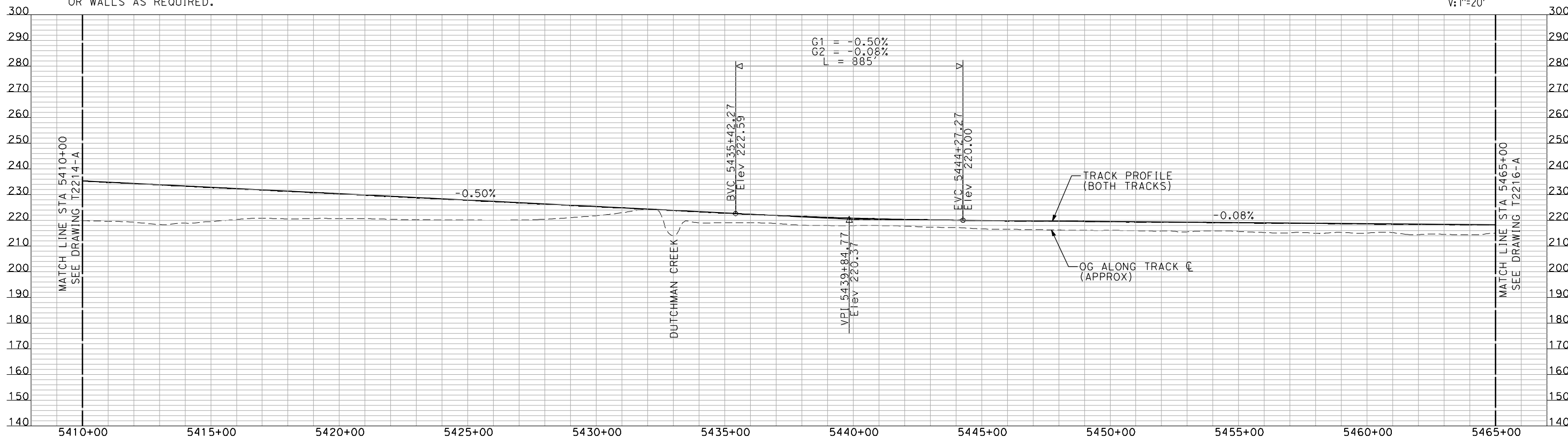
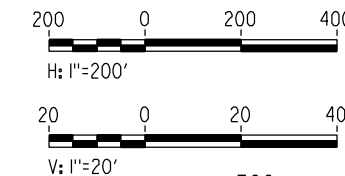
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PLAN



PROFILE

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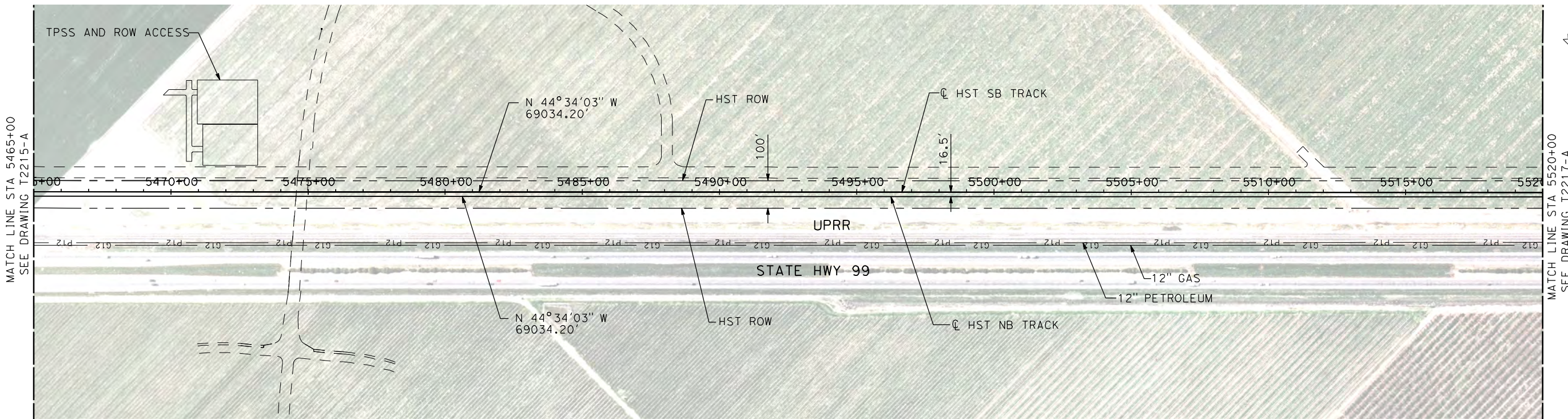
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5410+00 TO STA 5465+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2215-A
SCALE
AS SHOWN
SHEET NO.
OF

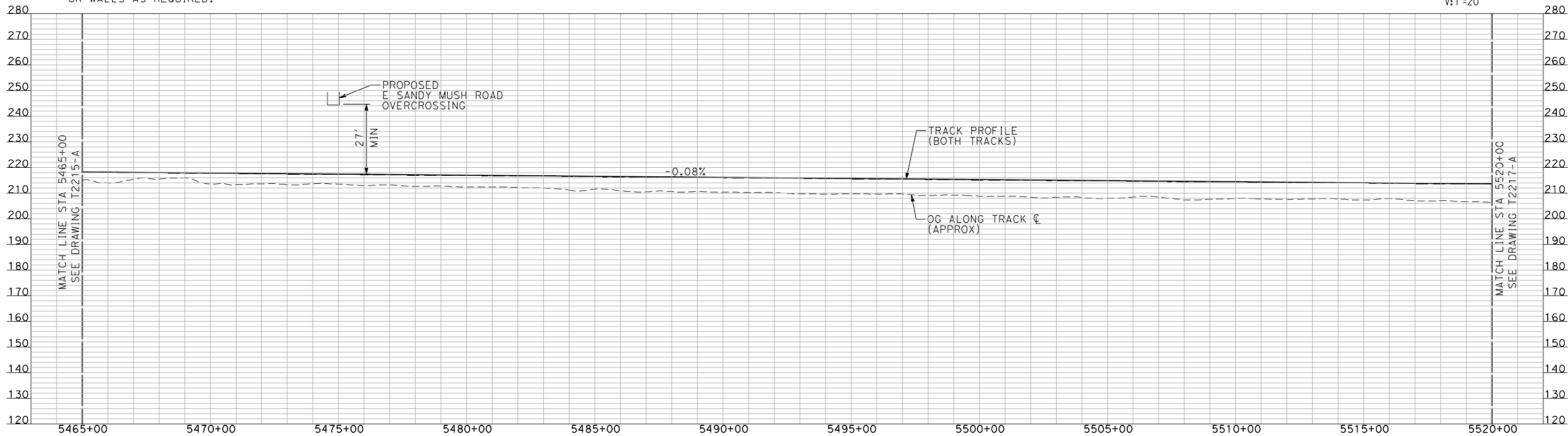
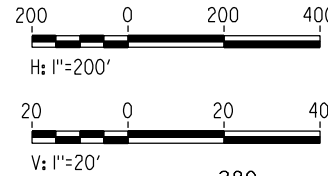
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



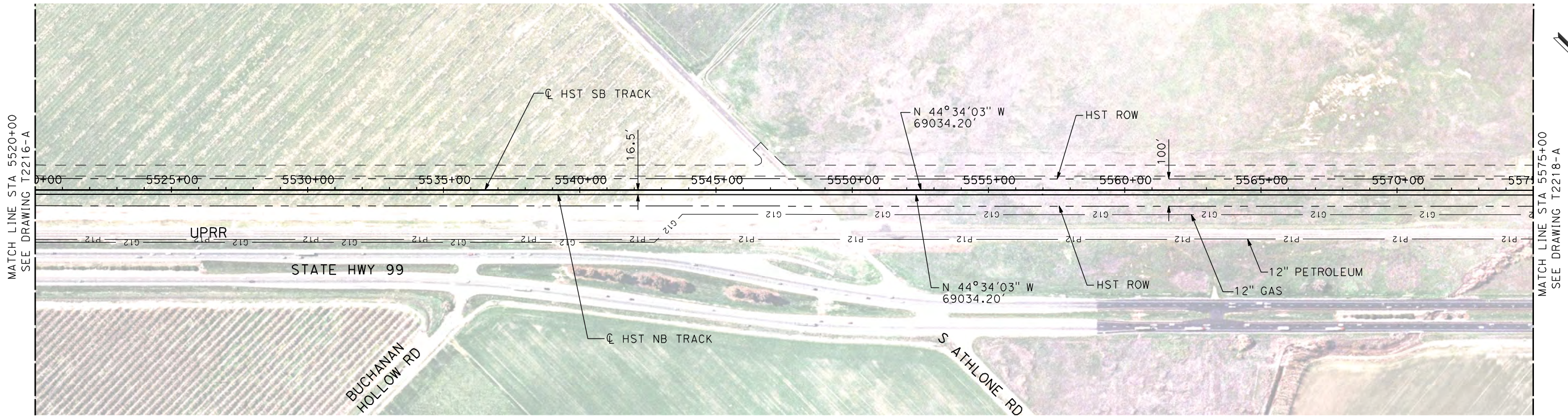
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5465+00 TO STA 5520+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2216-A
SCALE
AS SHOWN
SHEET NO.
OF

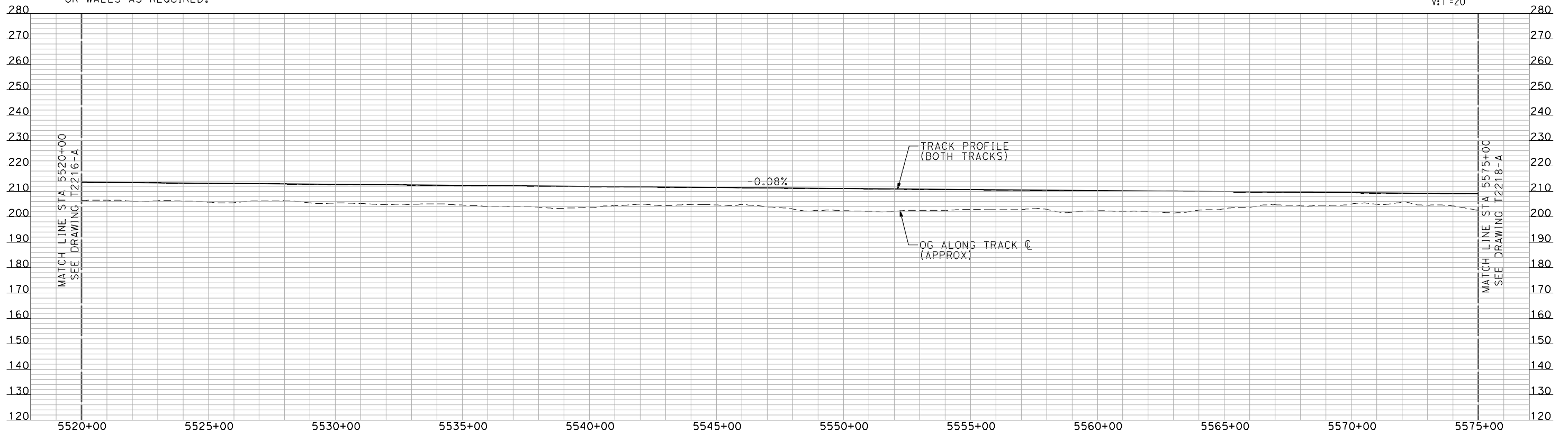
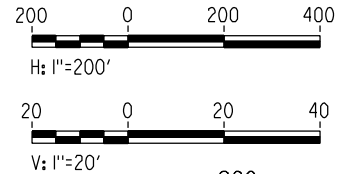
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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DESIGNED BY
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H. SULLIVAN
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A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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15% DESIGN
SUBMITTAL

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CONSTRUCTION

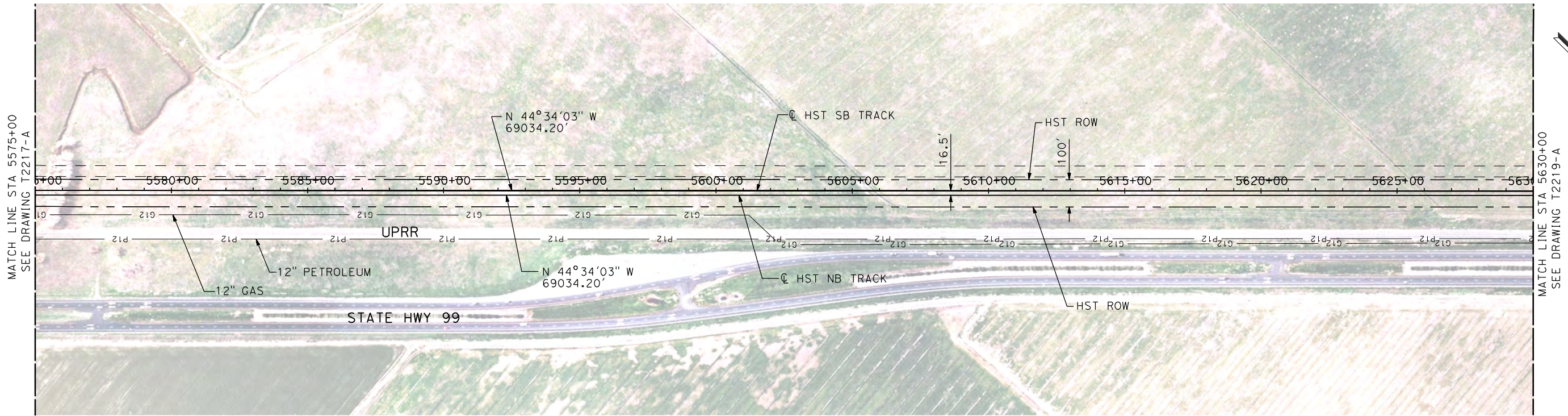


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5520+00 TO STA 5575+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2217-A
SCALE
AS SHOWN
SHEET NO.
OF

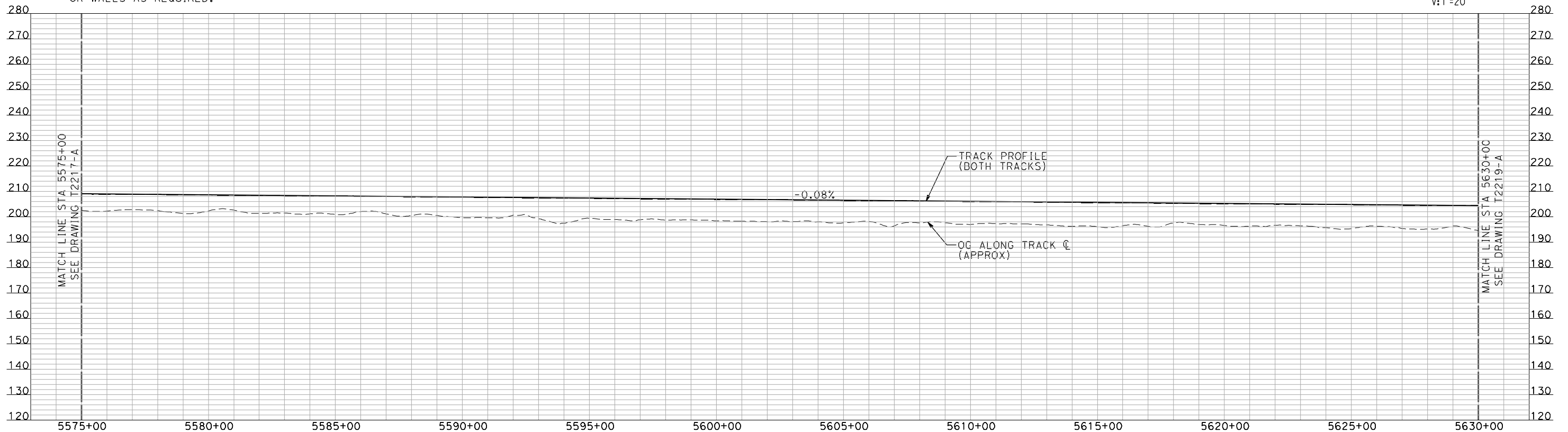
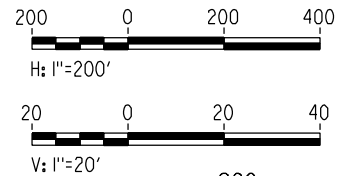
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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SUBMITTAL**

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CONSTRUCTION**

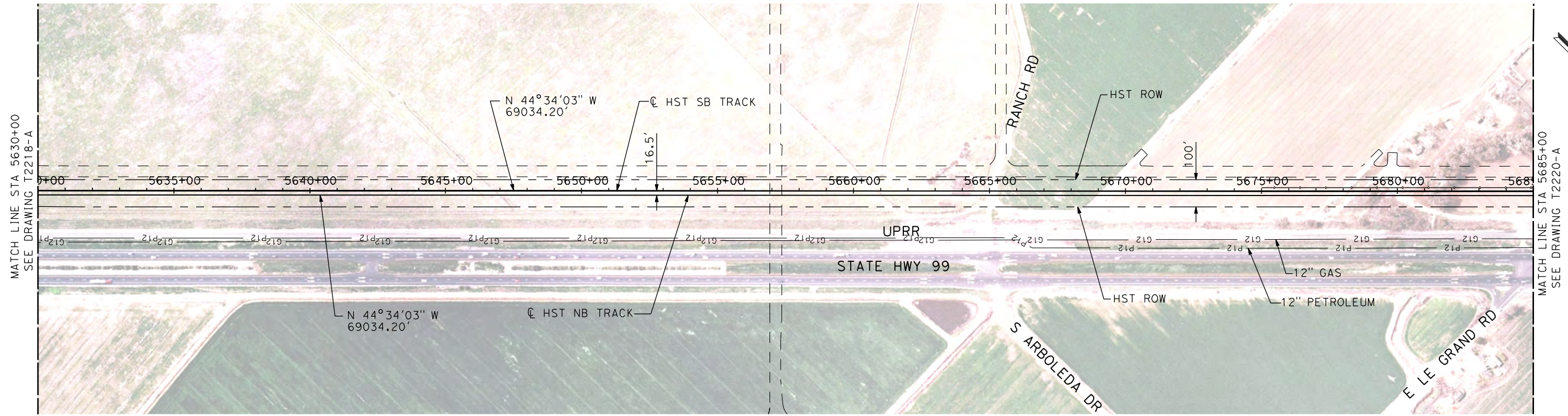


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5575+00 TO STA 5630+00

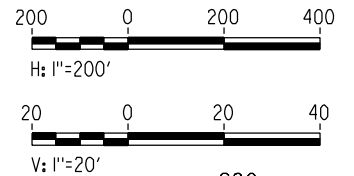
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DRAWING NO.
T2218-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

NOTES:

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. BOONE
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

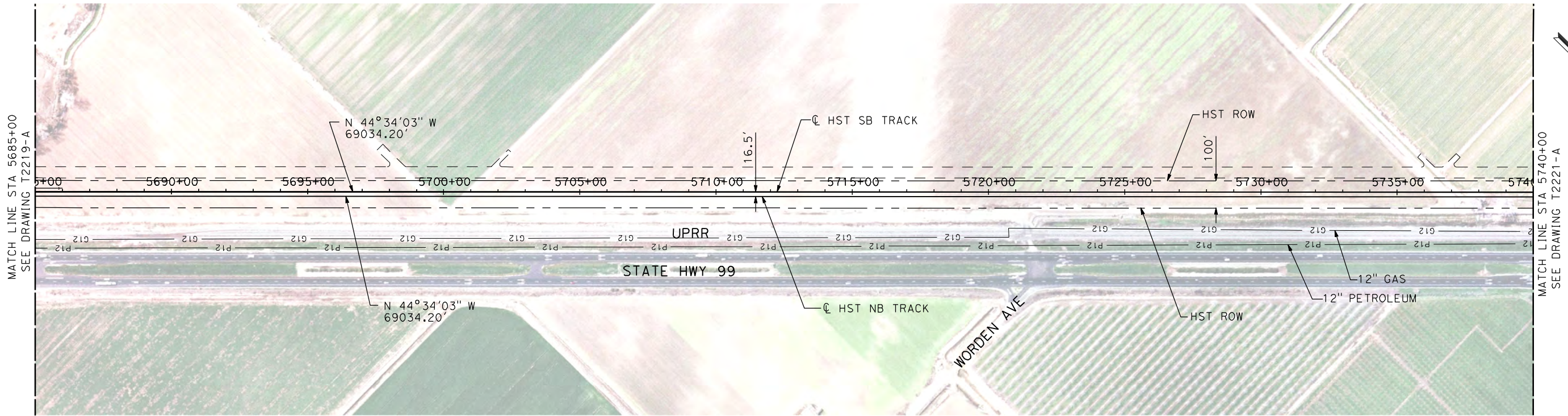
PLAN AND PROFILE
STA 5630+00 TO STA 5685+00

CONTRACT NO.
HSR06-007

DRAWING NO.
T2219-A

SCALE
AS SHOWN

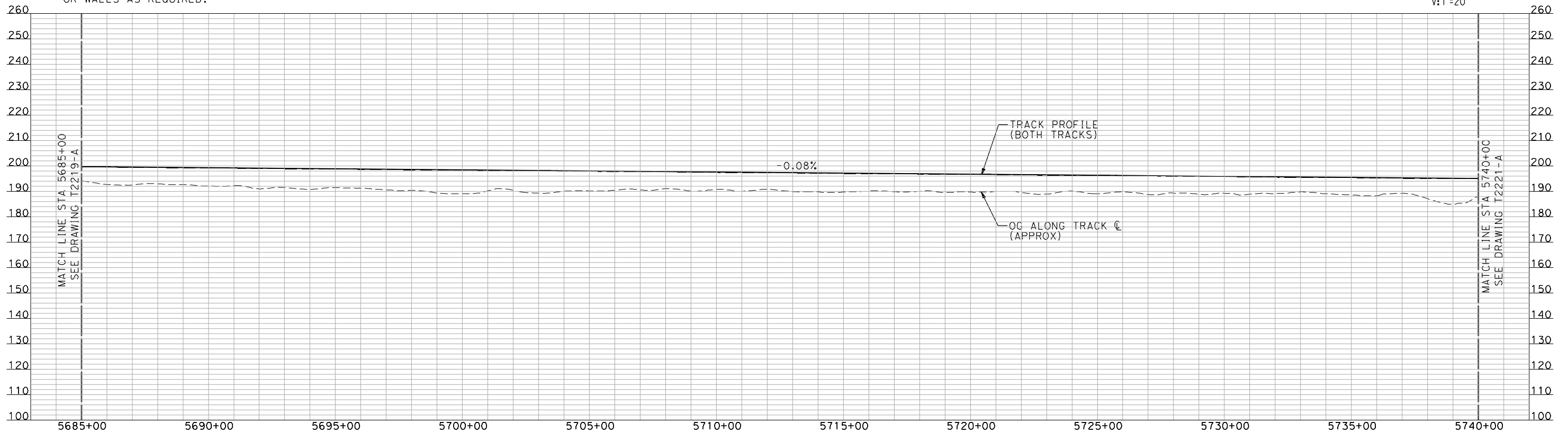
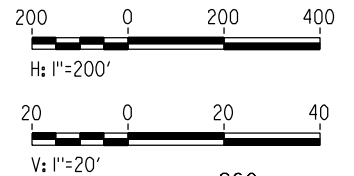
SHEET NO.
OF



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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
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SUBMITTAL**

**NOT FOR
CONSTRUCTION**

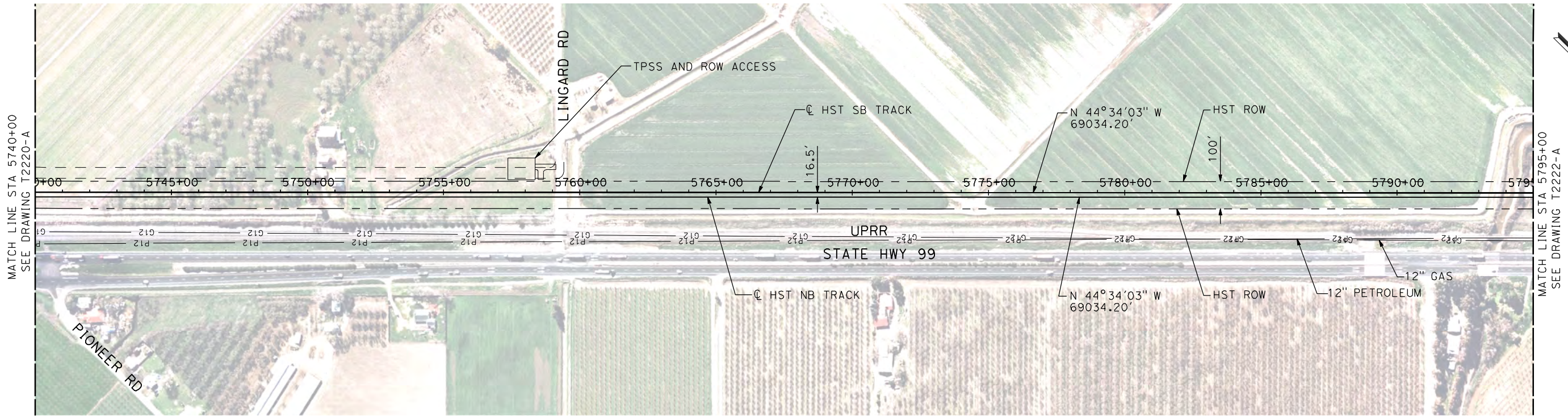


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5685+00 TO STA 5740+00

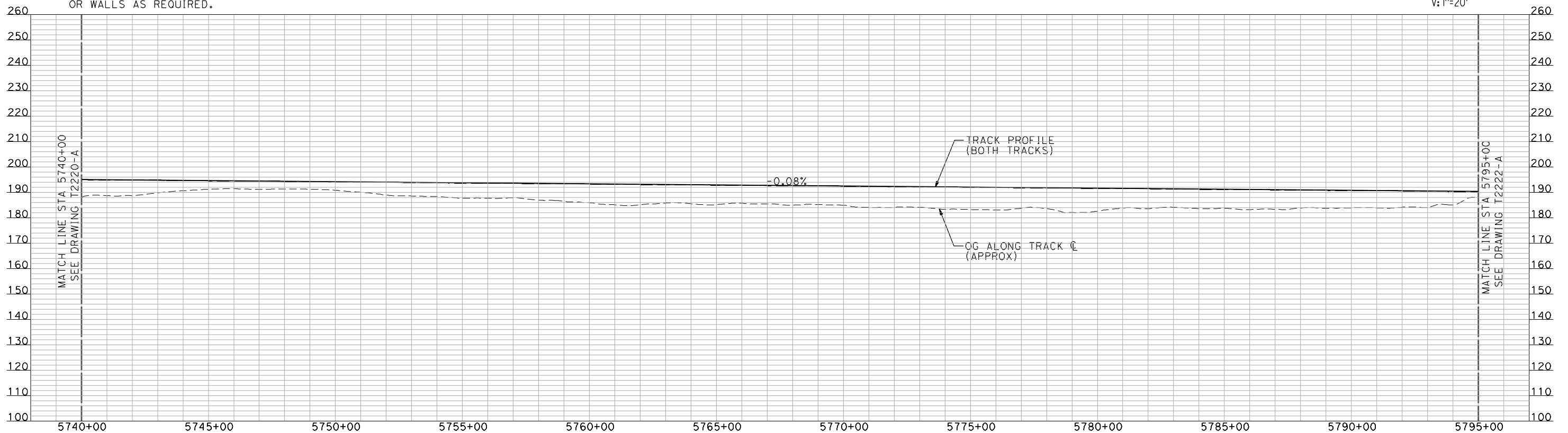
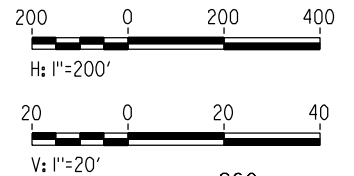
CONTRACT NO.
HSR06-007
DRAWING NO.
T2220-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY
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DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

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15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

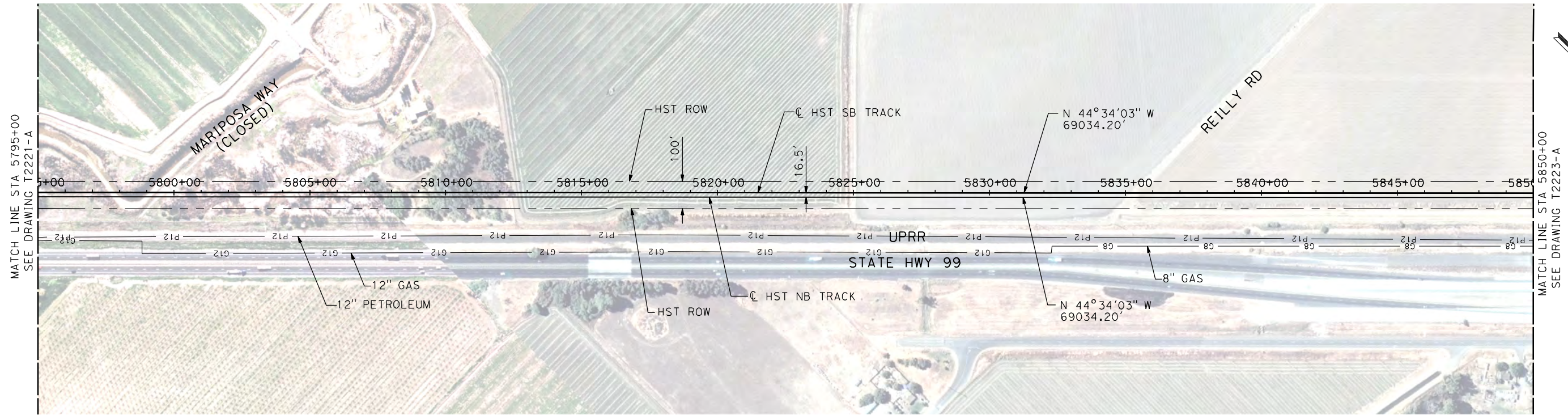
UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5740+00 TO STA 5795+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2221-A
SCALE
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OF

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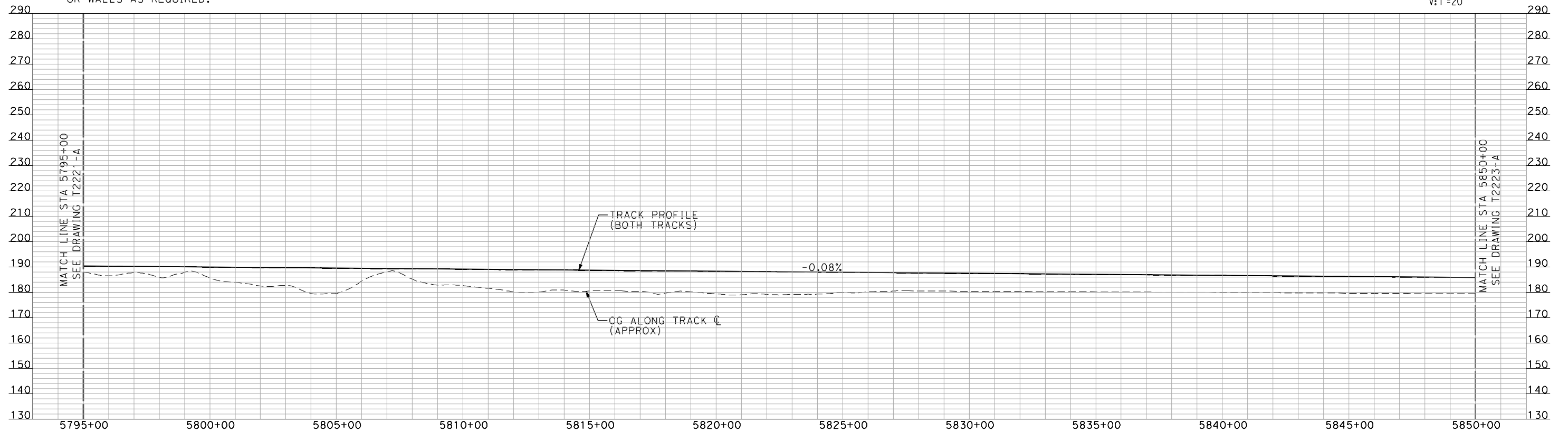
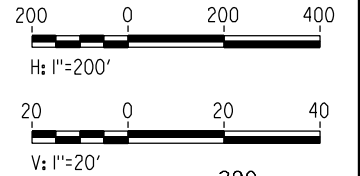
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

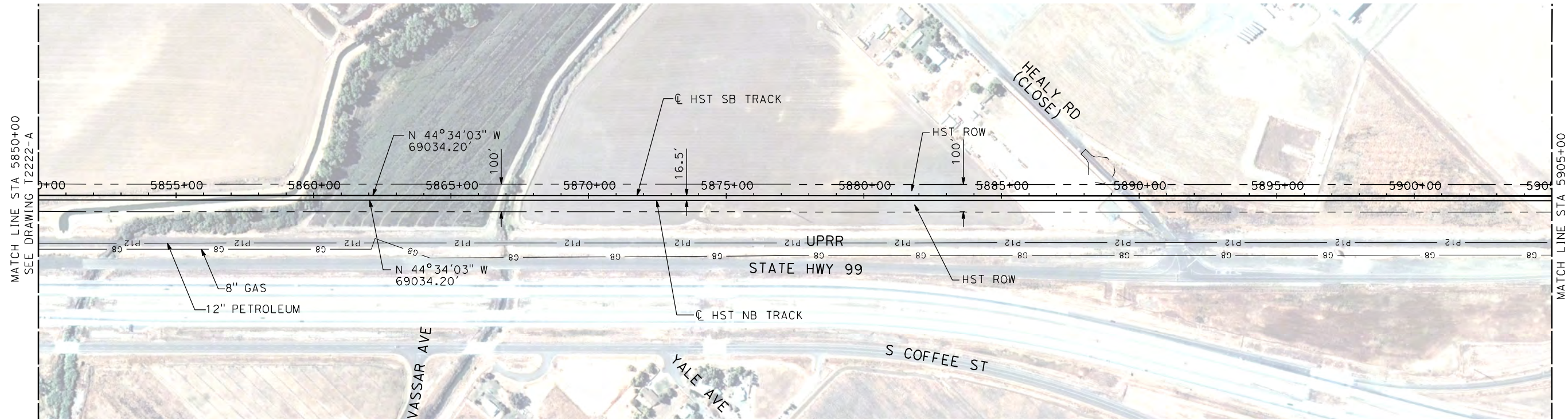


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 5795+00 TO STA 5850+00

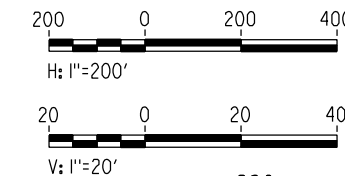
CONTRACT NO.
HSR06-007
DRAWING NO.
T2222-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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A. SHIELDS
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H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
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SUBMITTAL

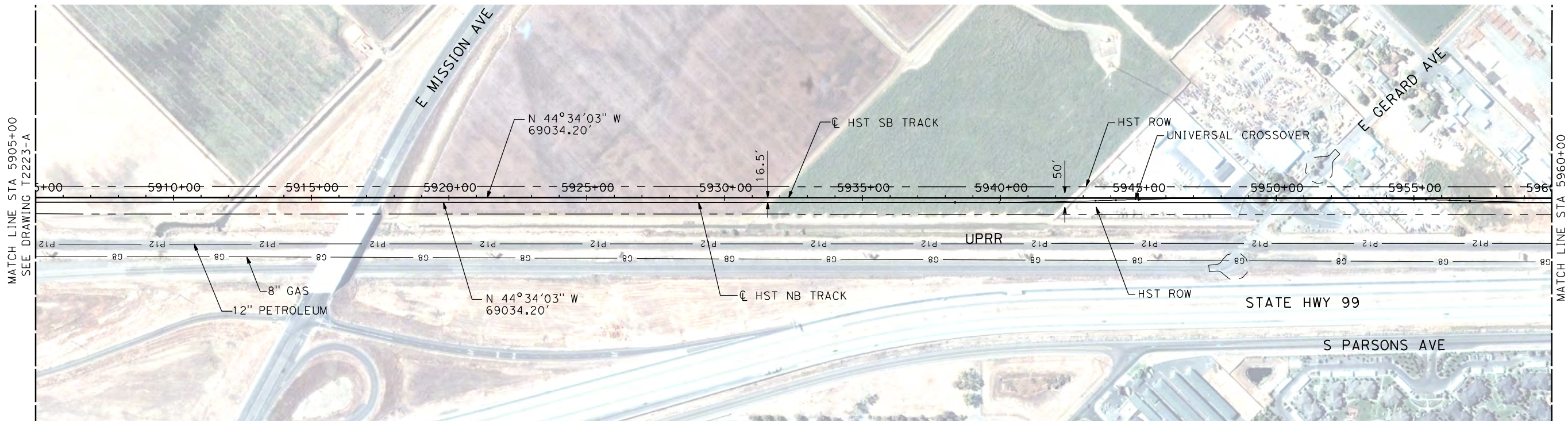
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5850+00 TO STA 5905+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2223-A
SCALE
AS SHOWN
SHEET NO.
OF

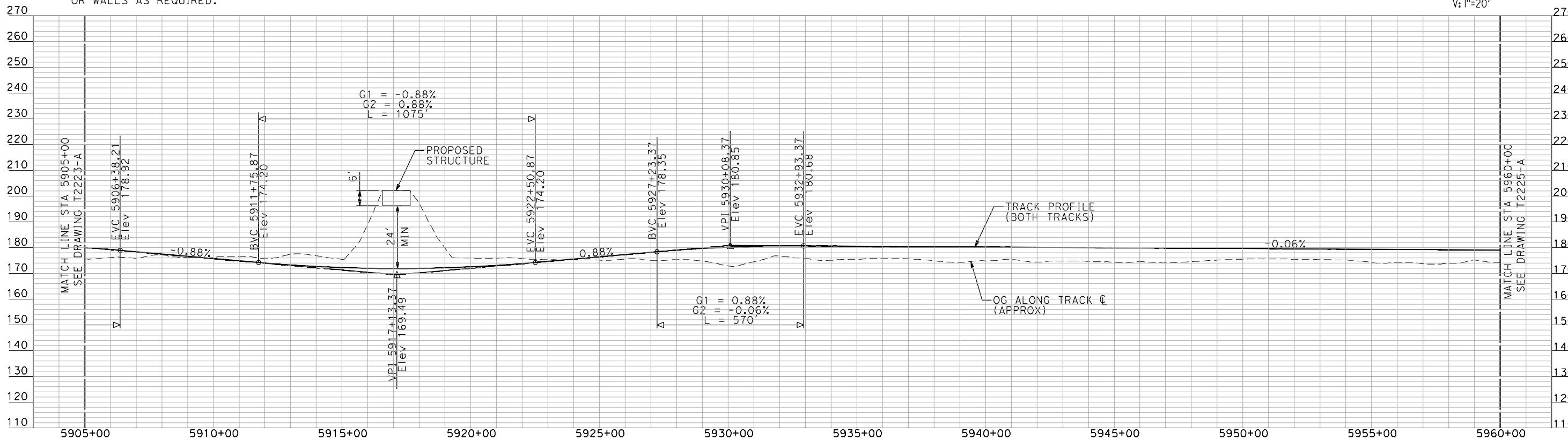
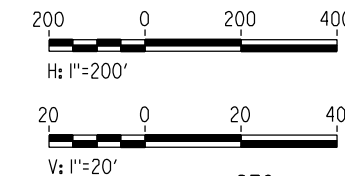
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
DATE
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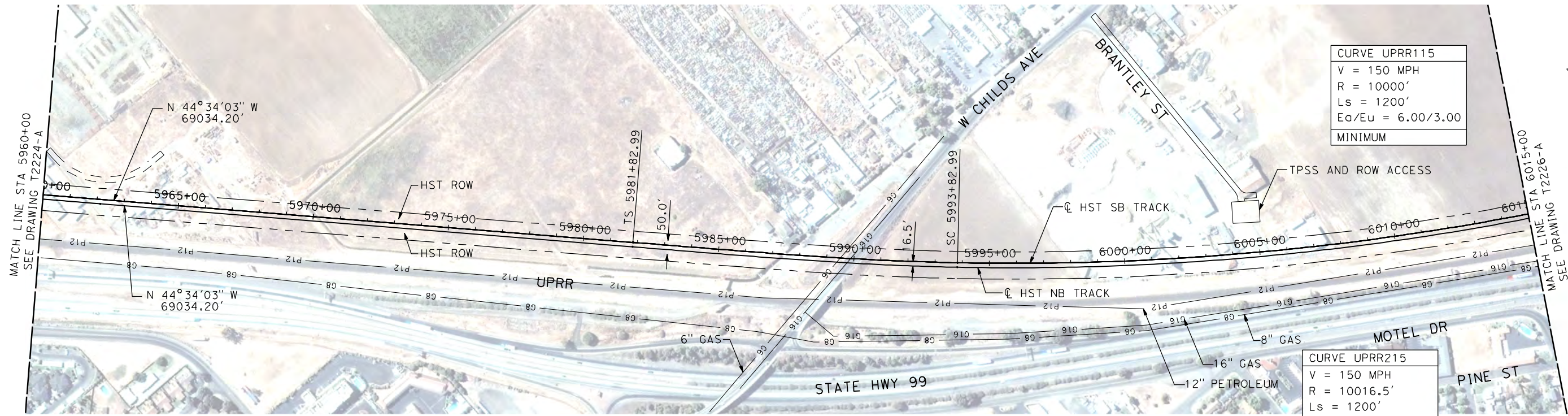
RECORD SET
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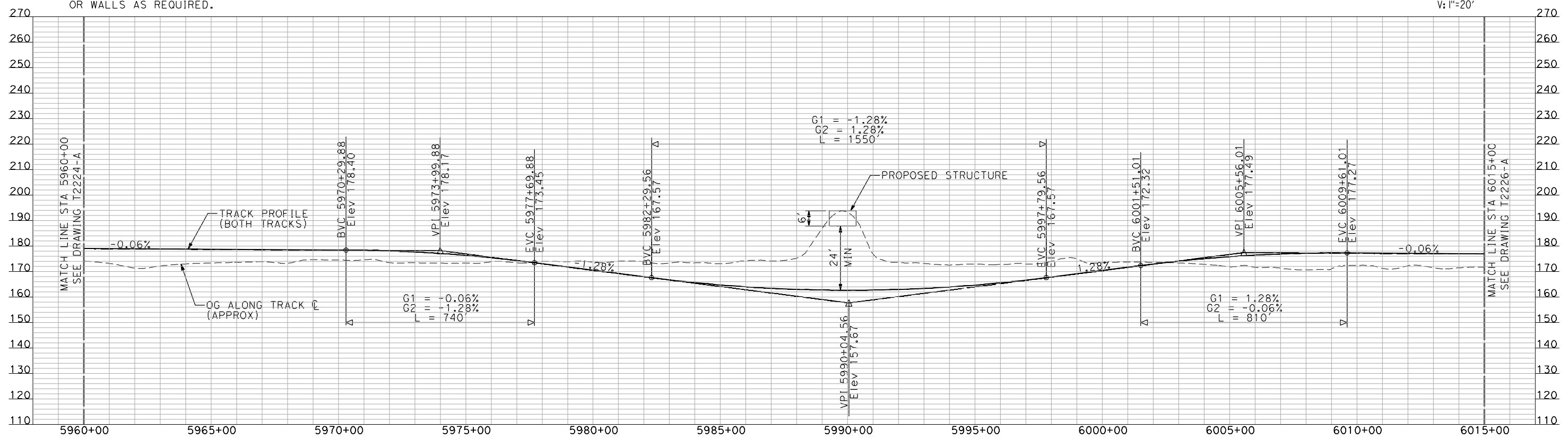
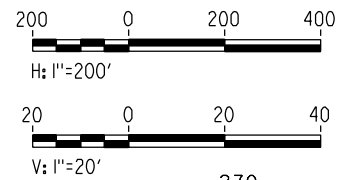
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5905+00 TO STA 5960+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2224-A
SCALE
AS SHOWN
SHEET NO.
OF



PLAN

- NOTES:
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PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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H. SULLIVAN
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A. BOONE
IN CHARGE
A. BOONE
DATE
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SUBMITTAL

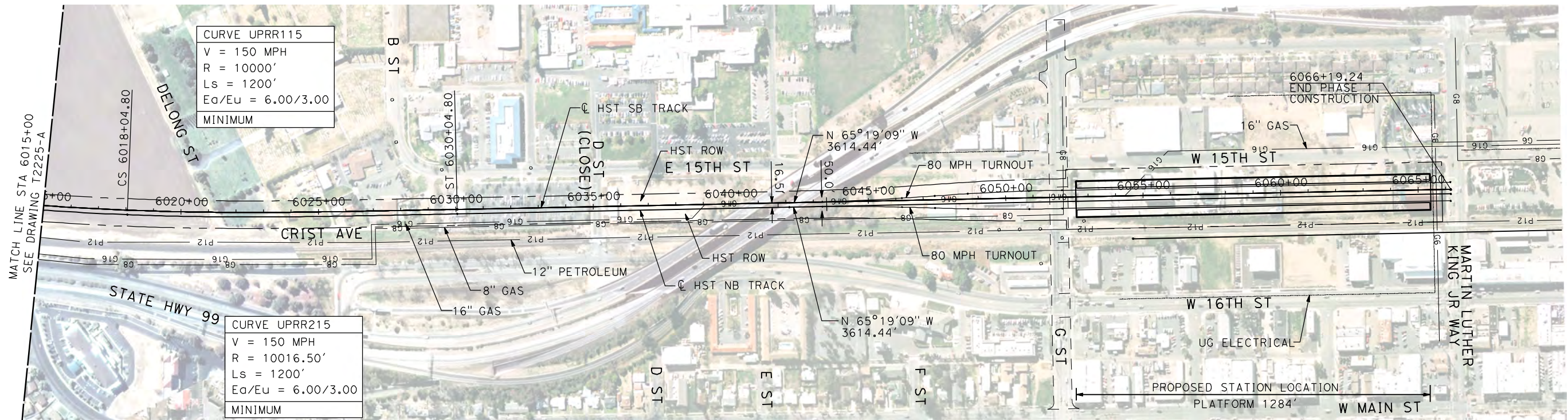
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UPRR/SR 99 MERCED CONNECTION
PLAN AND PROFILE
STA 5960+00 TO STA 6015+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2225-A
SCALE
AS SHOWN
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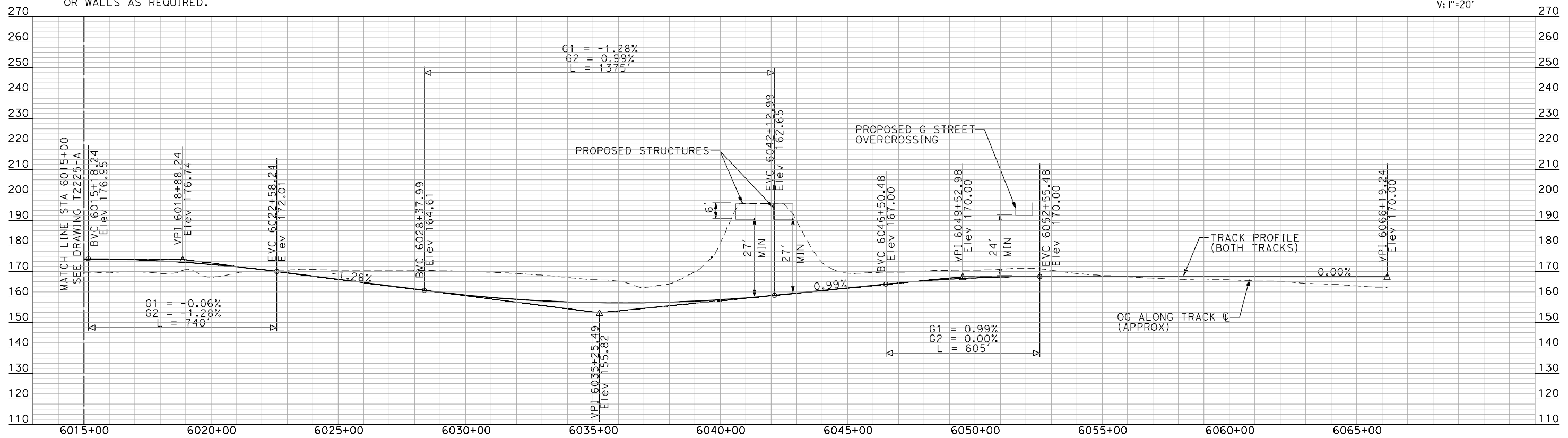
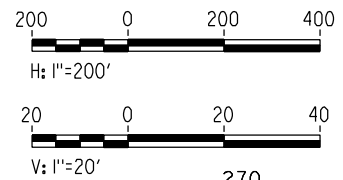
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION

PLAN AND PROFILE
STA 6015+00 TO STA 6066+19.24

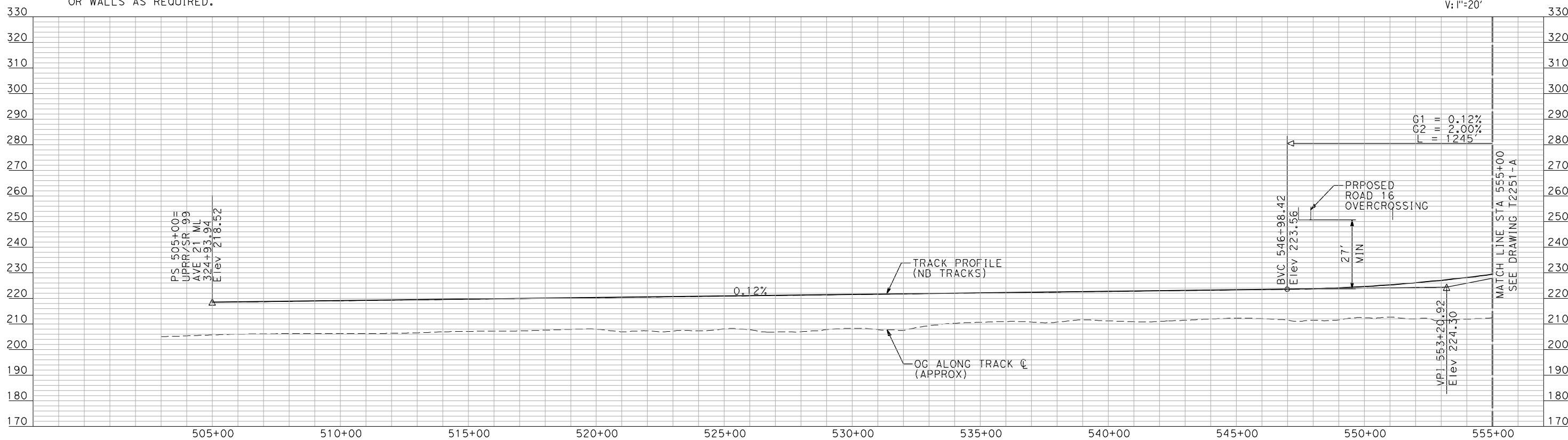
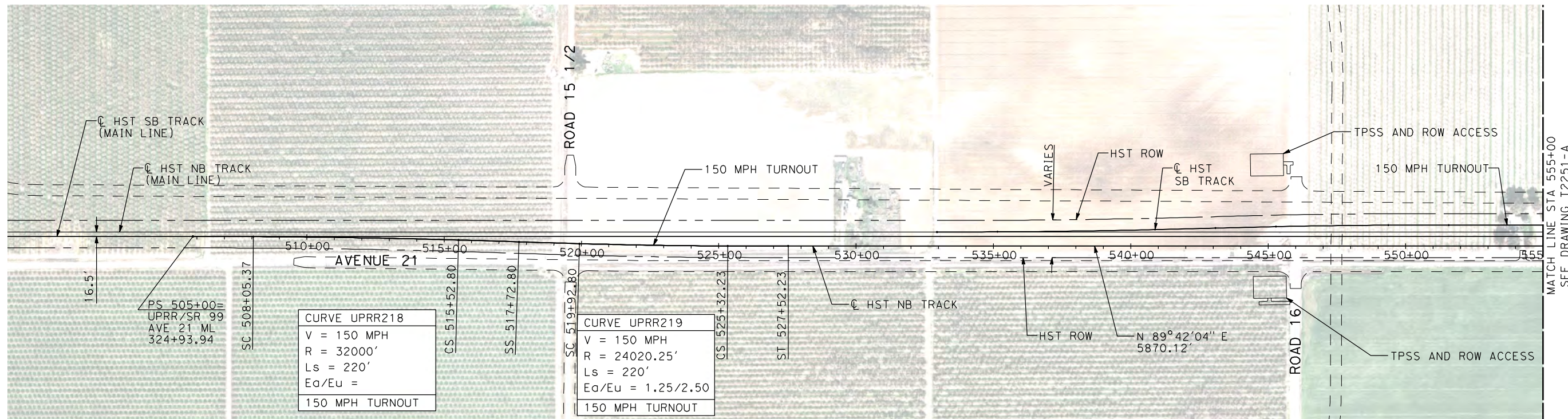
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CONSTRUCTION

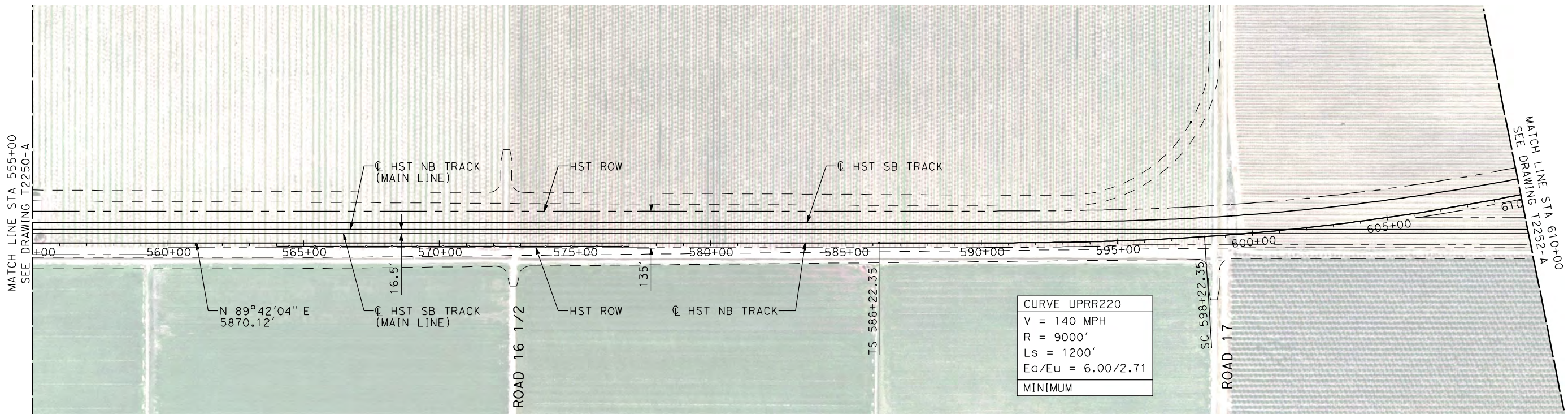


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 505+00 TO STA 555+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2250-A
 SCALE
AS SHOWN
 SHEET NO.
OF

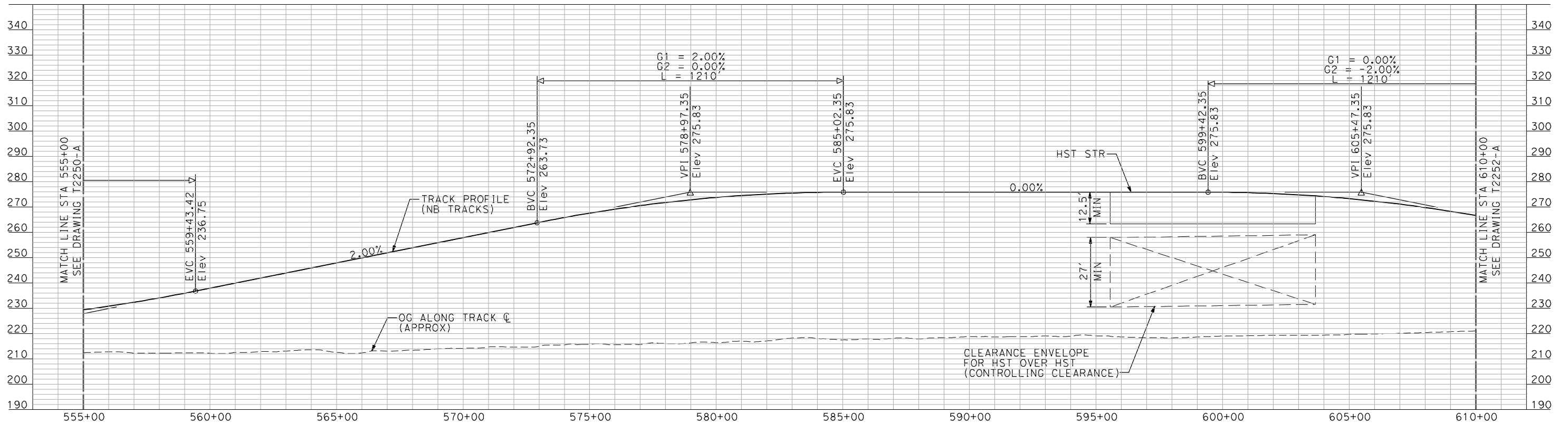
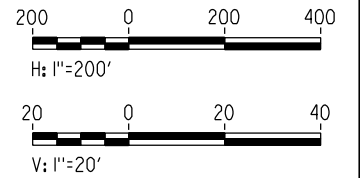
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

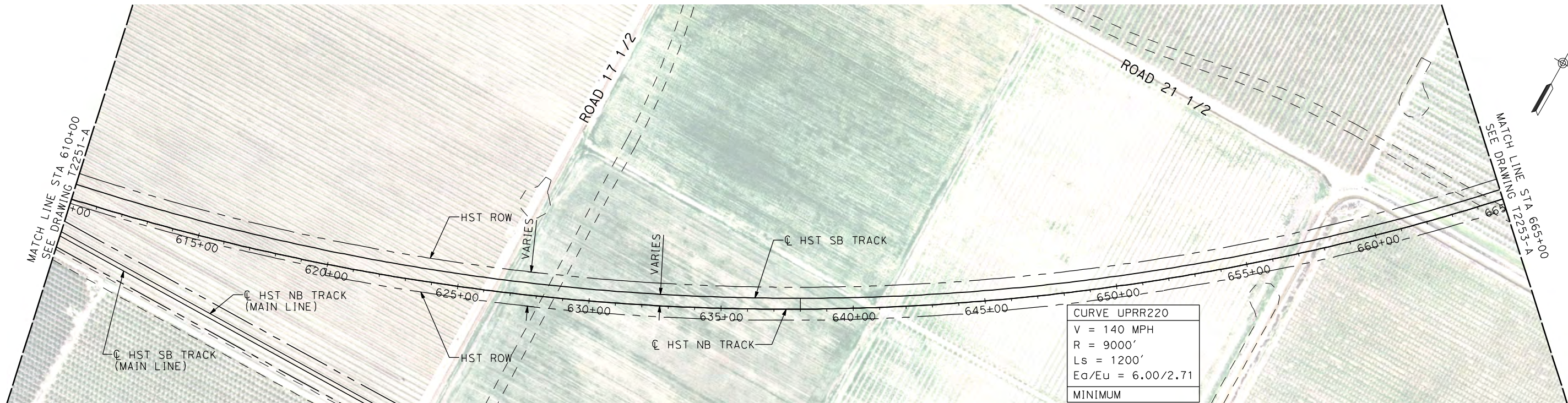
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 555+00 TO STA 610+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2251-A
SCALE
AS SHOWN
SHEET NO.
OF

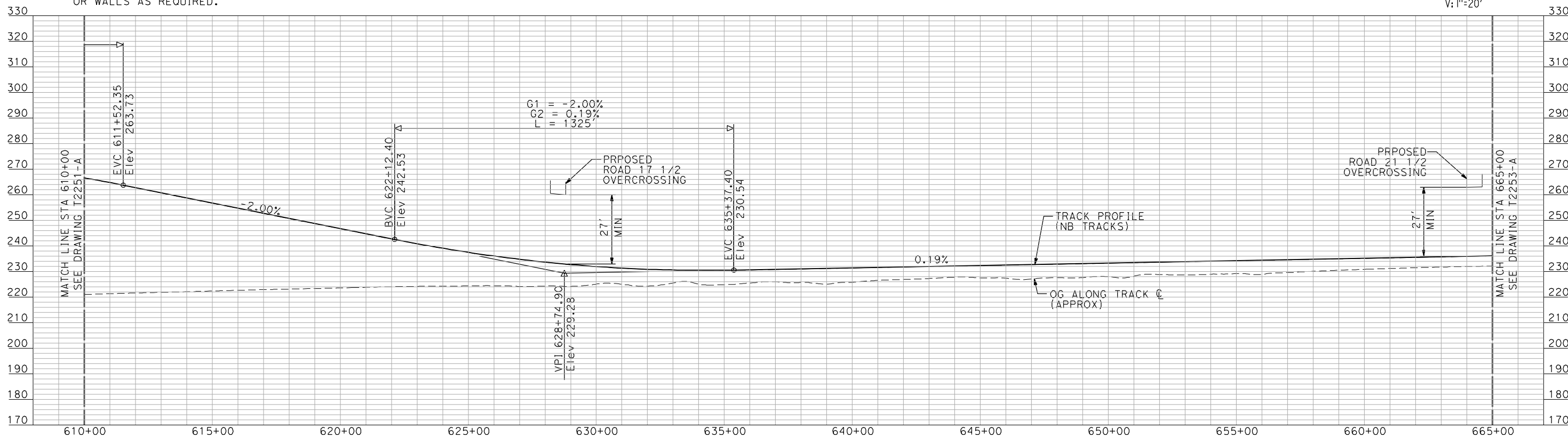
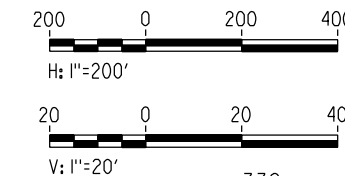
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

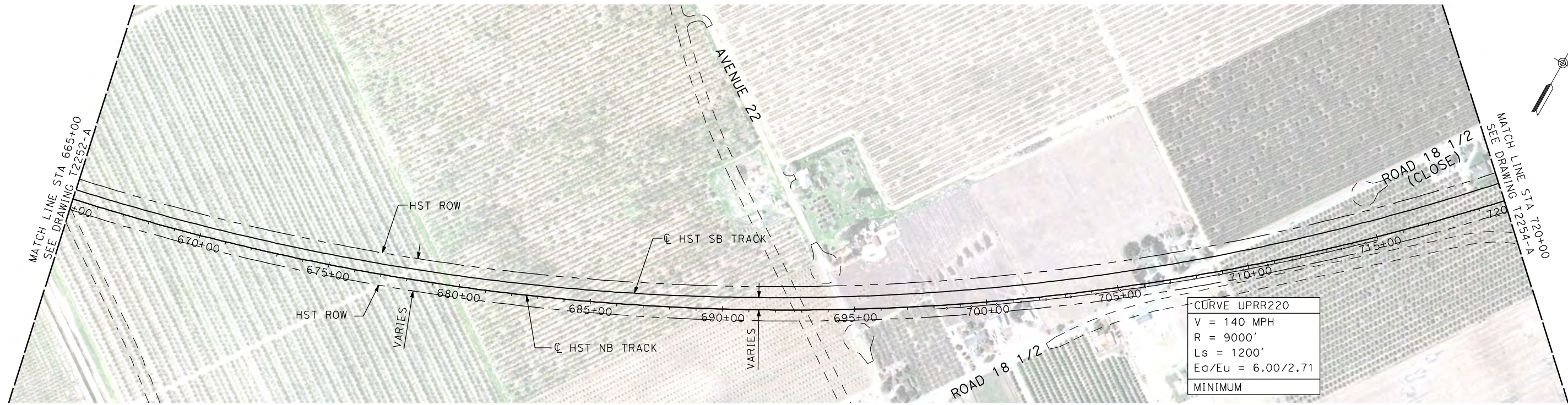
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 610+00 TO STA 665+00

CONTRACT NO.
 HSR06-007
 DRAWING NO.
 T2252-A
 SCALE
 AS SHOWN
 SHEET NO.
 ### OF ###

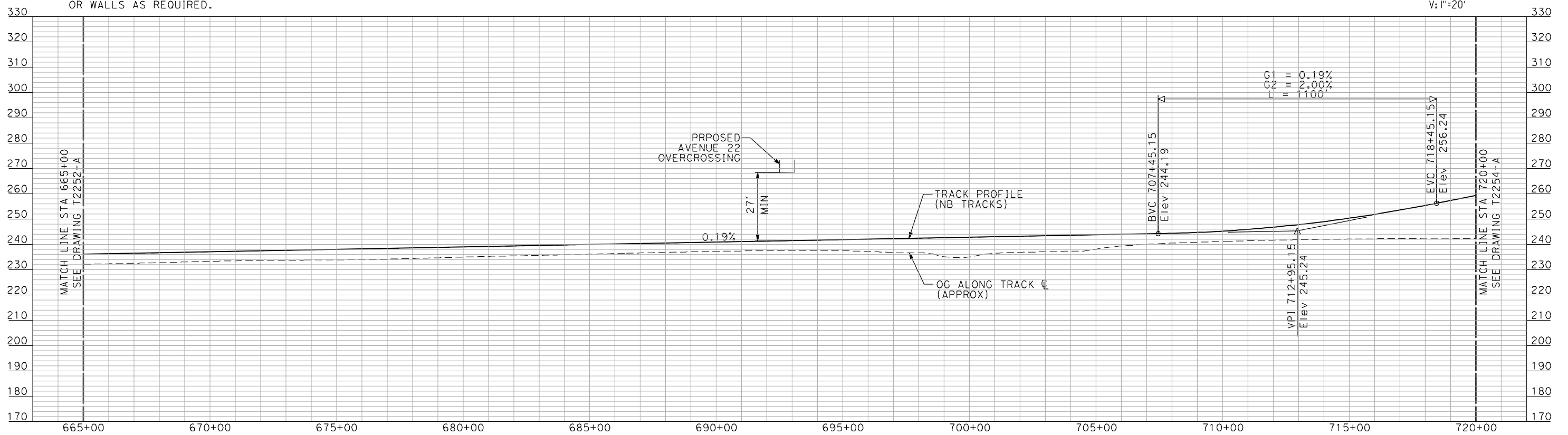
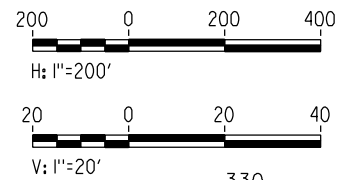
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
 DRAWN BY
H. SULLIVAN
 CHECKED BY
A. BOONE
 IN CHARGE
A. BOONE
 DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

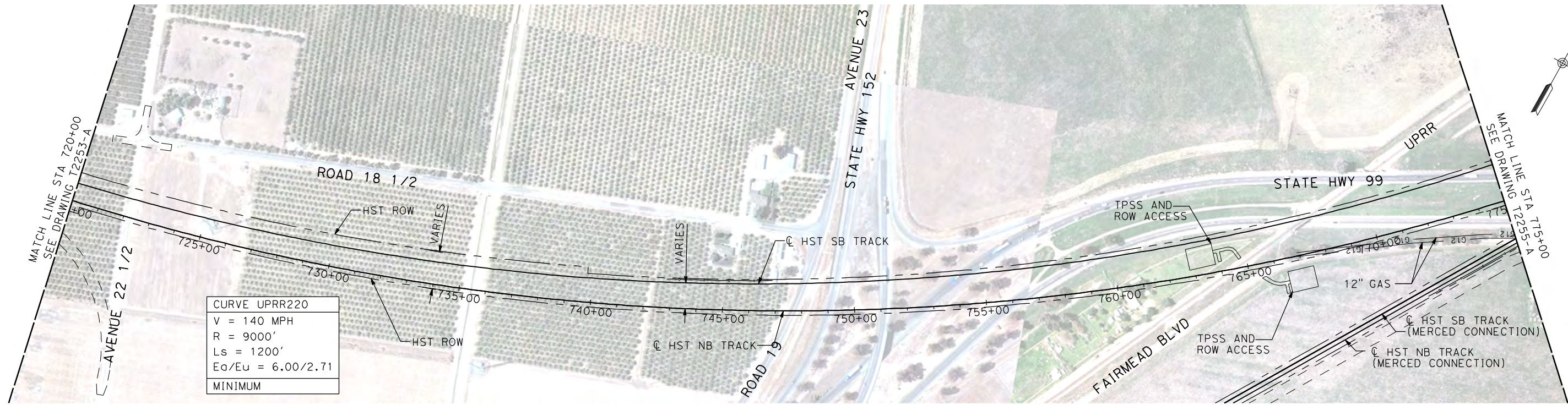


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - NB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 665+00 TO STA 720+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2253-A
 SCALE
AS SHOWN
 SHEET NO.
OF

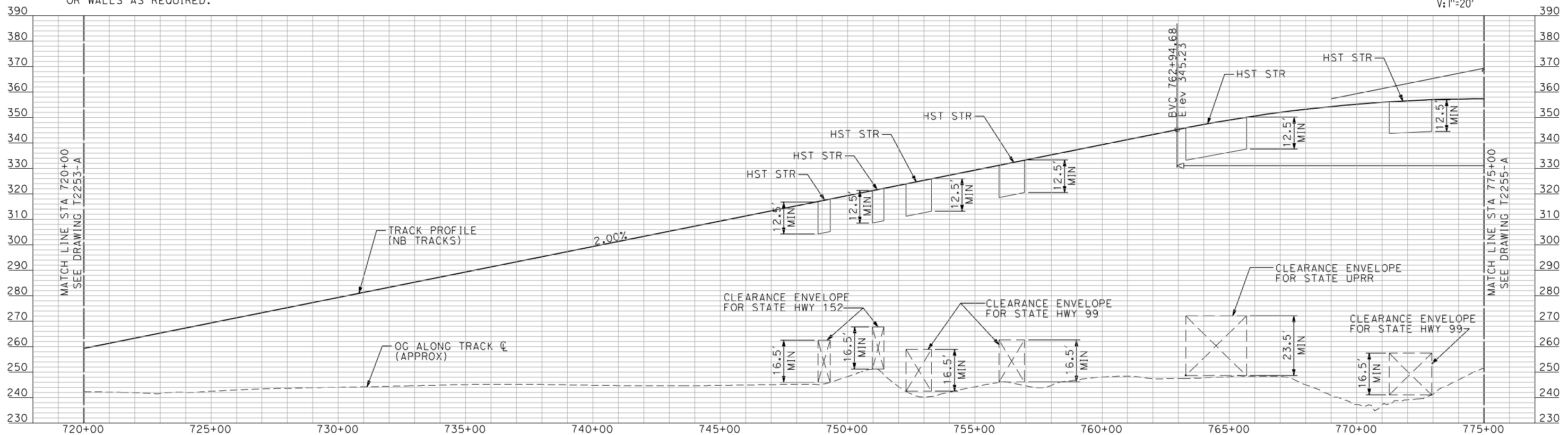
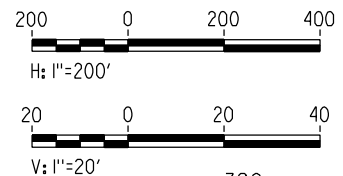
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NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

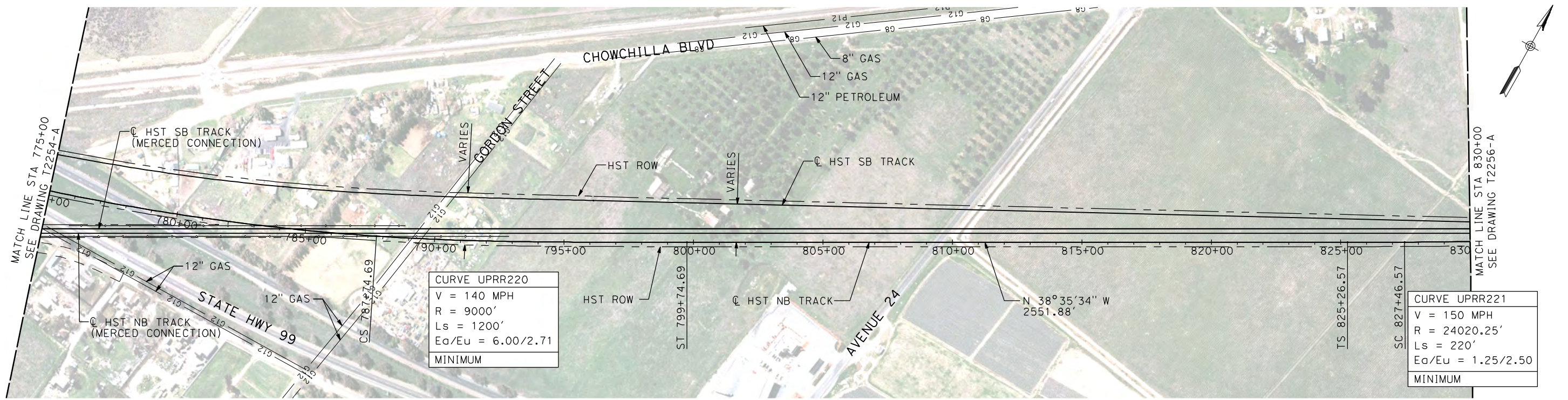
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 720+00 TO STA 775+00

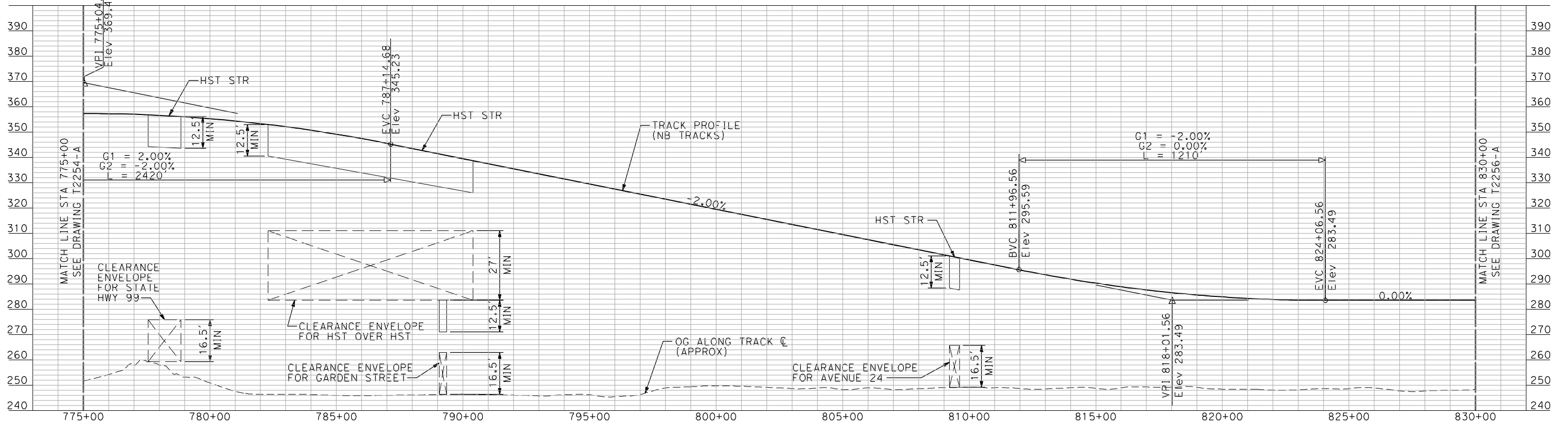
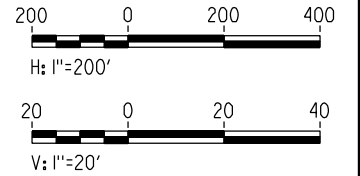
CONTRACT NO.
HSR06-007
DRAWING NO.
T2254-A
SCALE
AS SHOWN
SHEET NO.
OF



NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

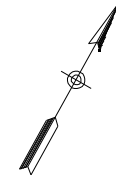
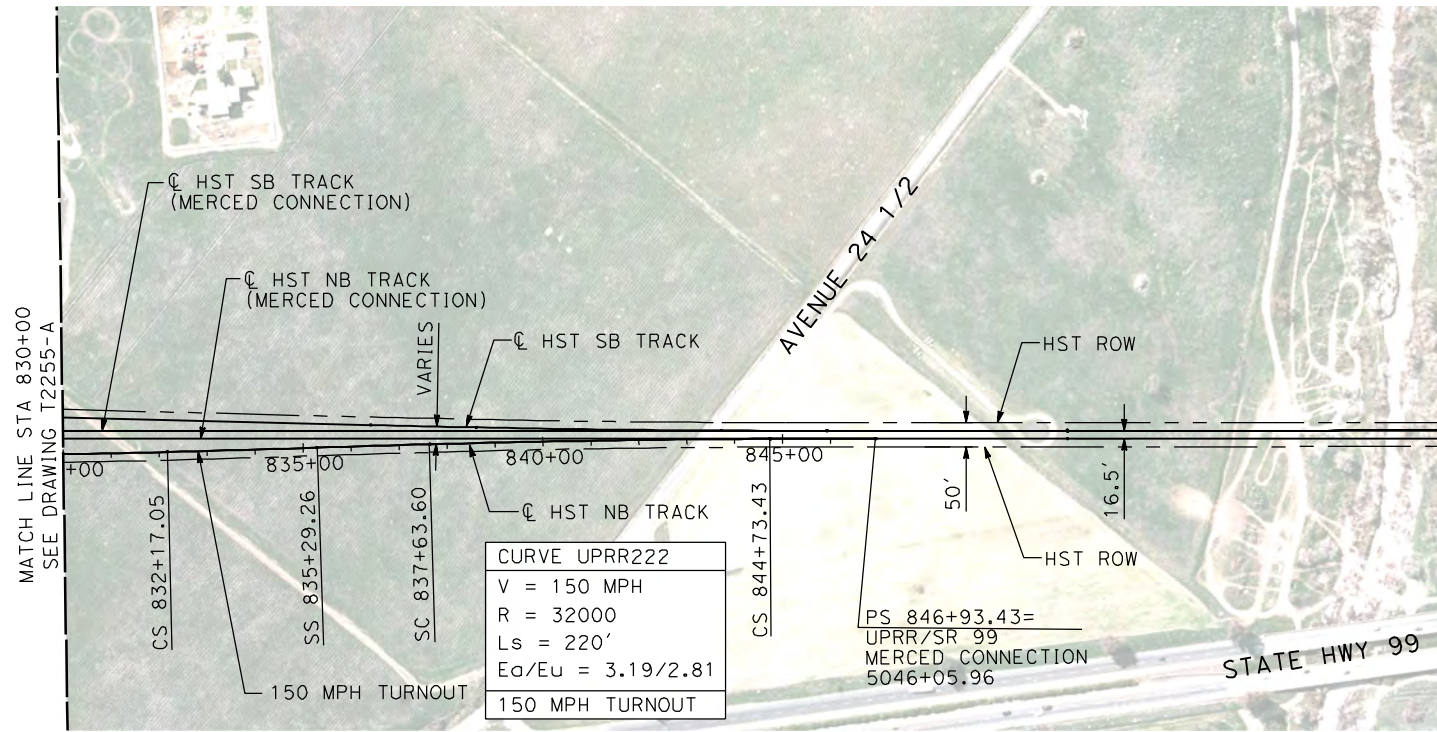


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 775+00 TO STA 830+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2255-A
SCALE
AS SHOWN
SHEET NO.
OF

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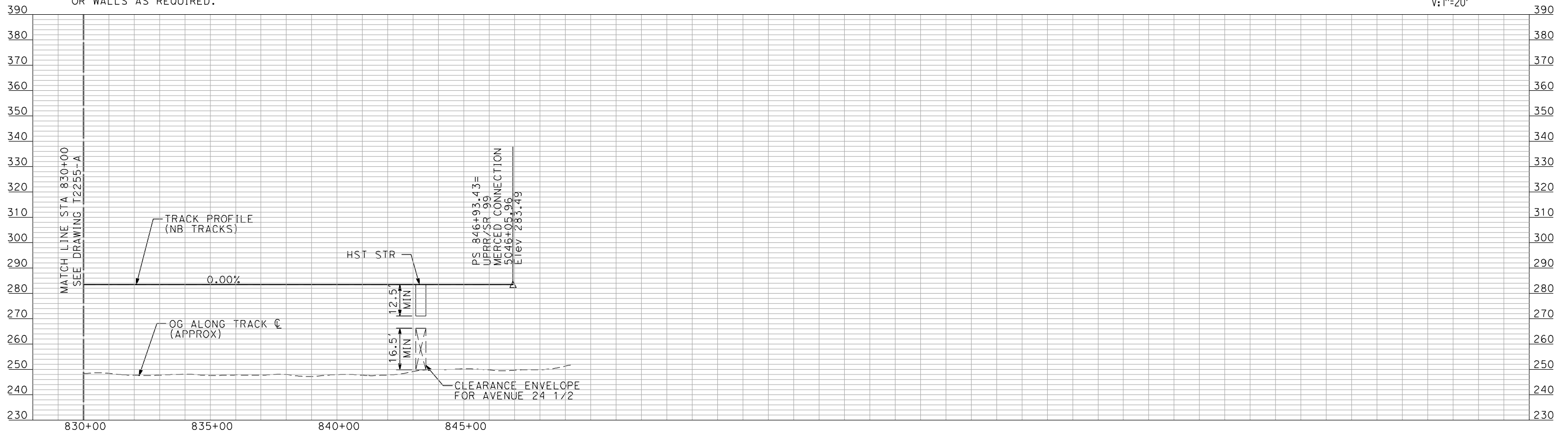
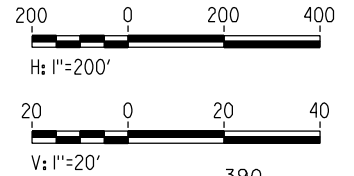
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
A. SHIELDS
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H. SULLIVAN
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A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**

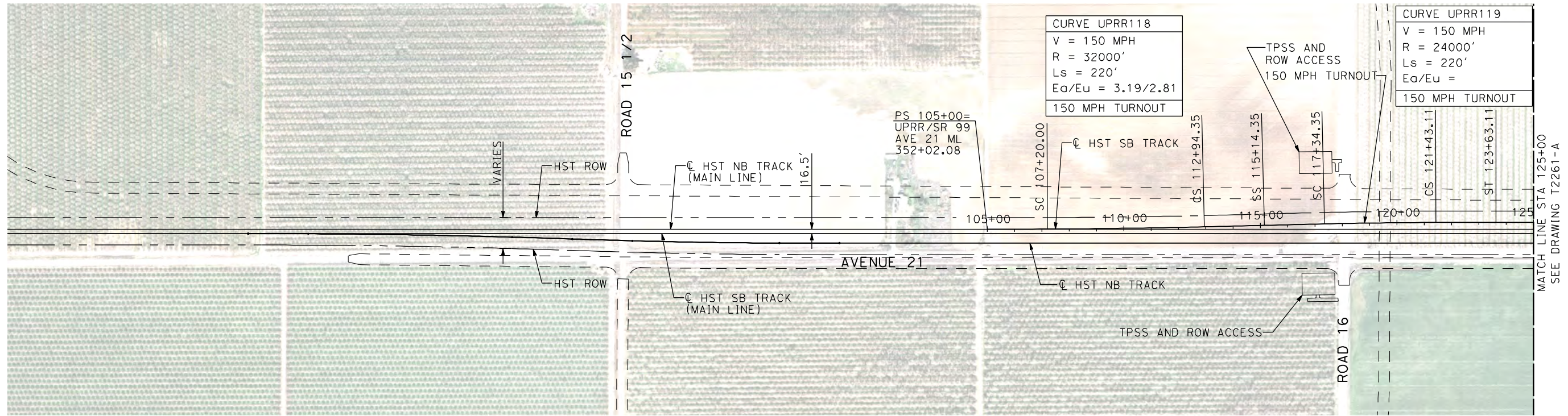


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - NB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 830+00 TO STA 846+93.43

| | |
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| CONTRACT NO. | HSR06-007 |
| DRAWING NO. | T2256-A |
| SCALE | AS SHOWN |
| SHEET NO. | ### OF ### |

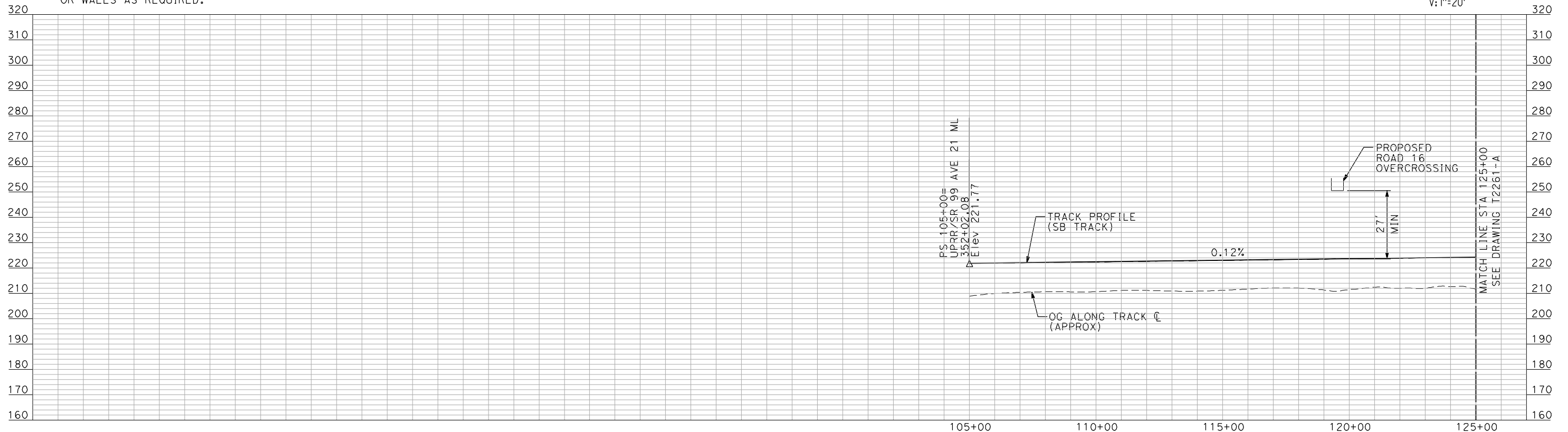
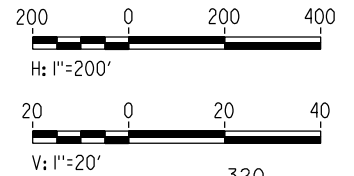
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 105+00 TO STA 125+00

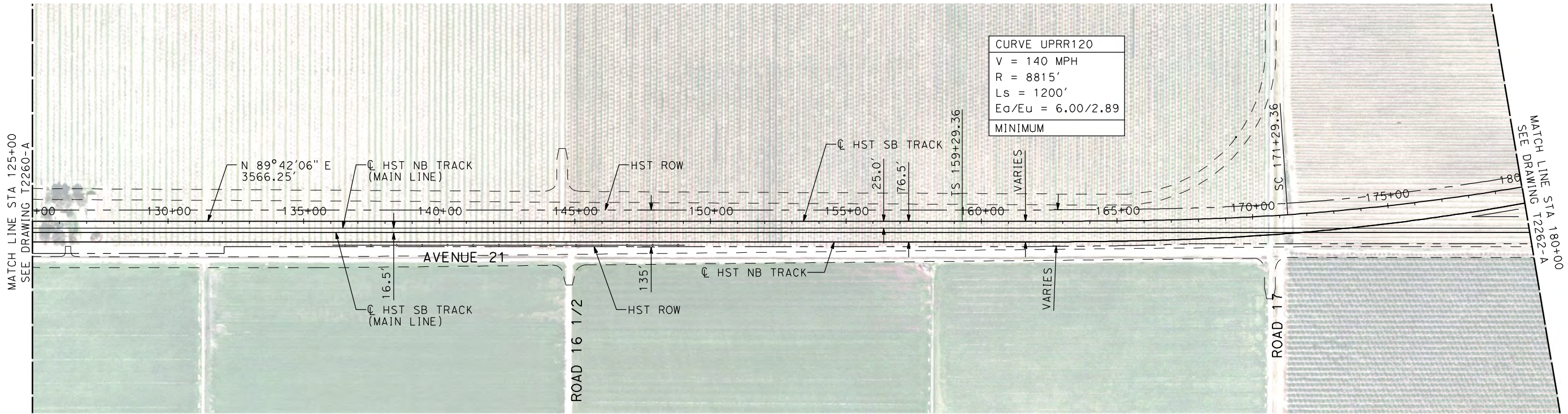
CONTRACT NO.
HSR06-007

DRAWING NO.
T2260-A

SCALE
AS SHOWN

SHEET NO.
OF

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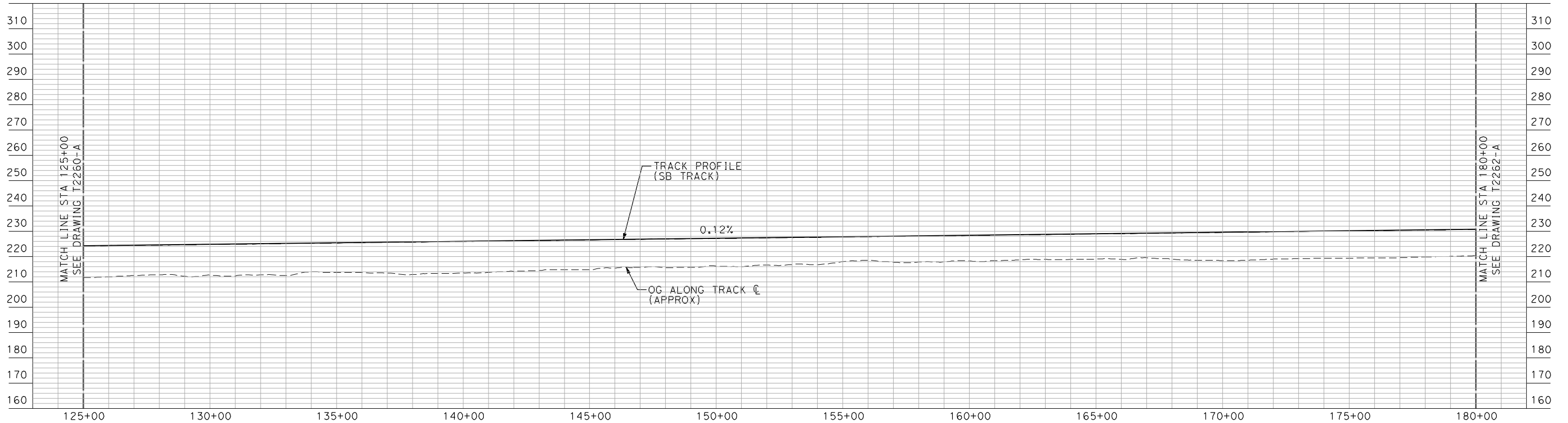
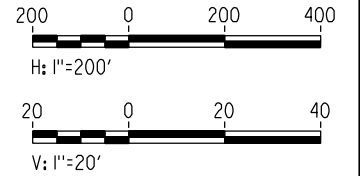


| |
|-------------------|
| CURVE UPRR120 |
| V = 140 MPH |
| R = 8815' |
| Ls = 1200' |
| Ea/Eu = 6.00/2.89 |
| MINIMUM |

NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

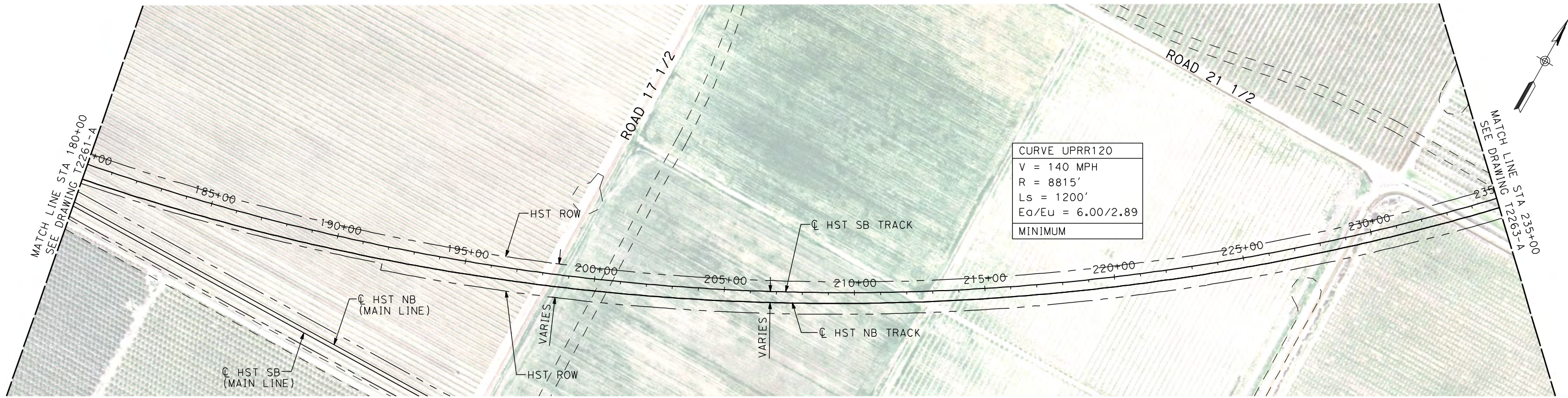
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 125+00 TO STA 180+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2261-A
SCALE
AS SHOWN
SHEET NO.
OF

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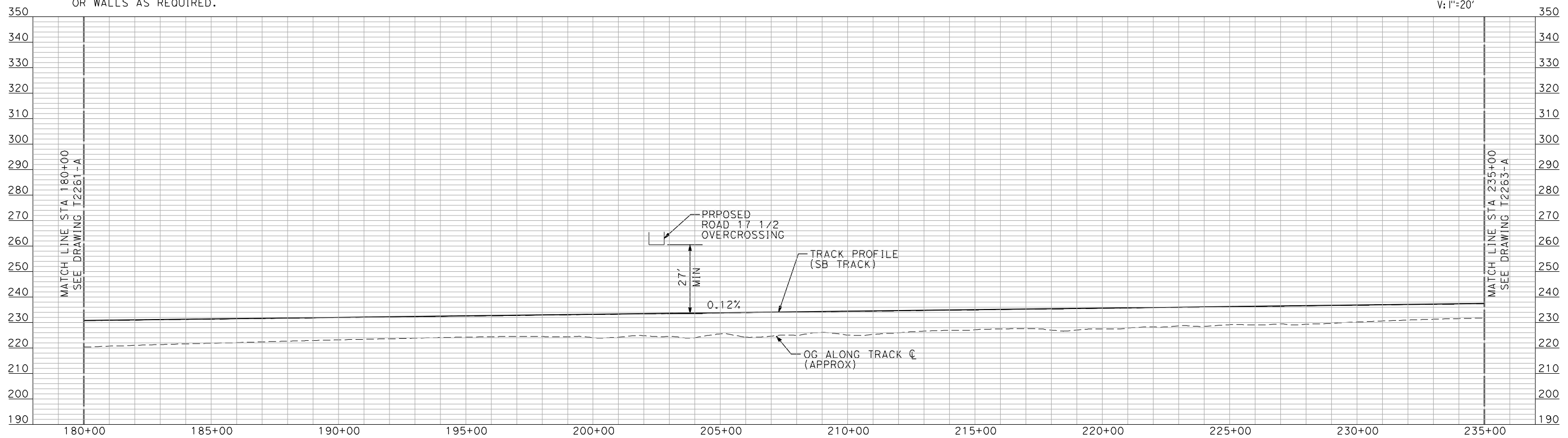
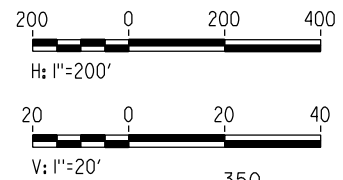


| |
|-------------------|
| CURVE UPRR120 |
| V = 140 MPH |
| R = 8815' |
| Ls = 1200' |
| Ea/Eu = 6.00/2.89 |
| MINIMUM |

NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
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H. SULLIVAN
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A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

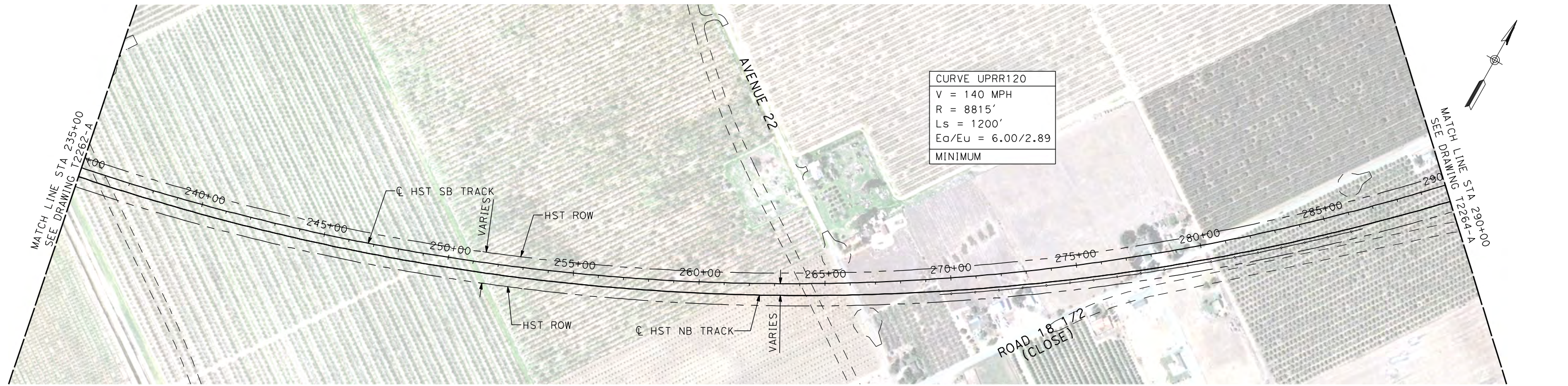


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 180+00 TO STA 235+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2262-A
SCALE
AS SHOWN
SHEET NO.
OF

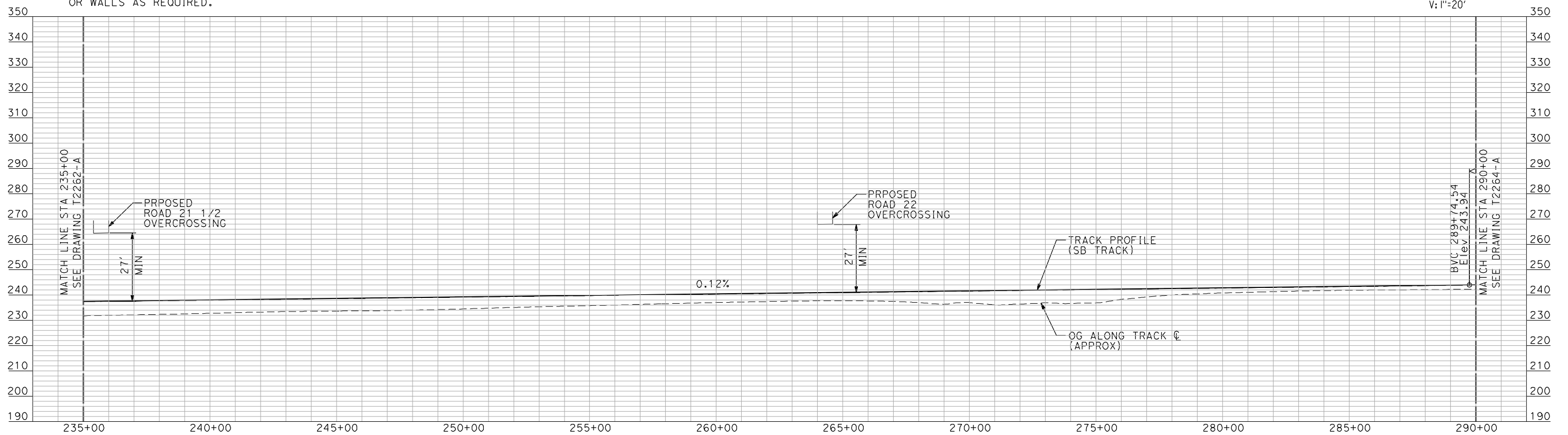
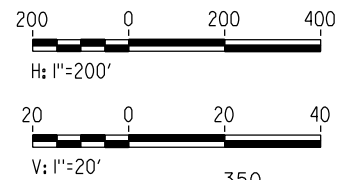
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NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

RECORD SET
15% DESIGN
SUBMITTAL

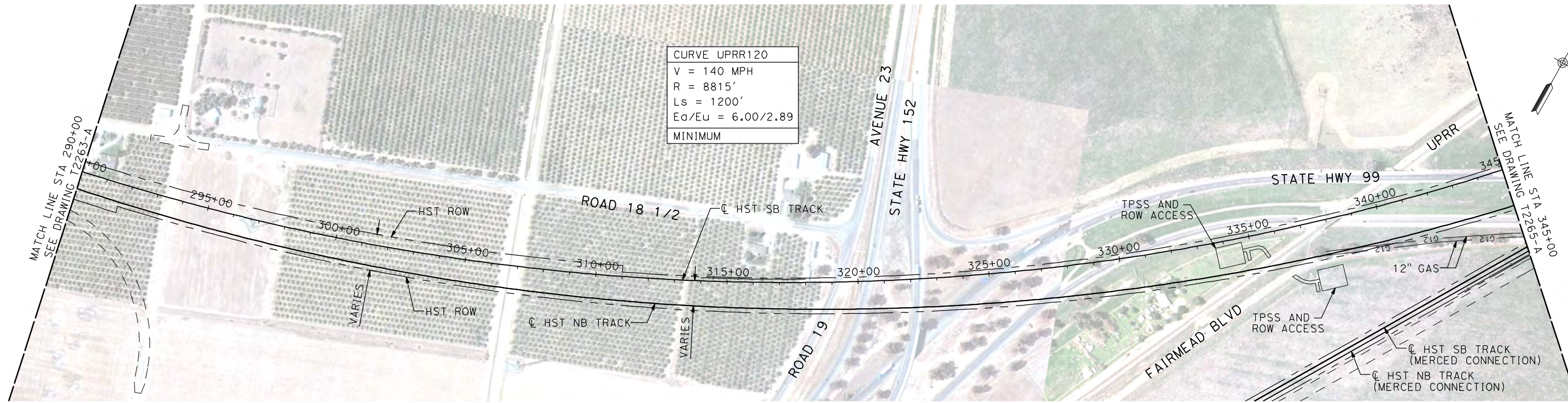
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 235+00 TO STA 290+00

CONTRACT NO.
HSR06-007
DRAWING NO.
T2263-A
SCALE
AS SHOWN
SHEET NO.
OF

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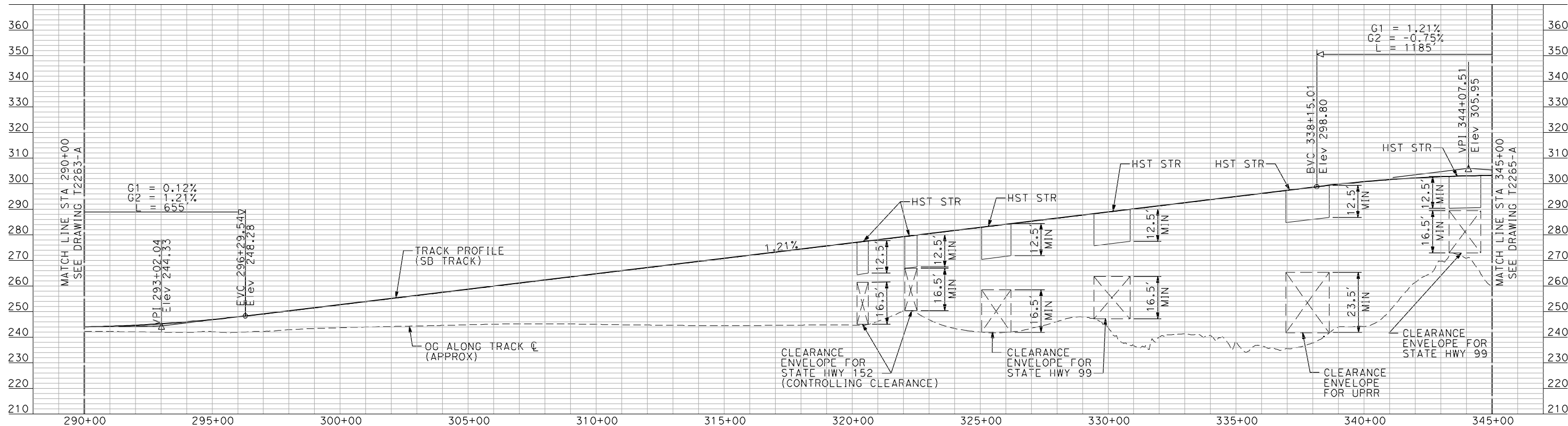
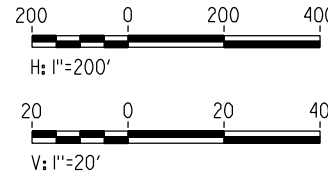


CURVE UPRR120
 V = 140 MPH
 R = 8815'
 Ls = 1200'
 Ea/Eu = 6.00/2.89
 MINIMUM

NOTES:

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PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
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H. SULLIVAN
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A. BOONE
 IN CHARGE
A. BOONE
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07/20/2011

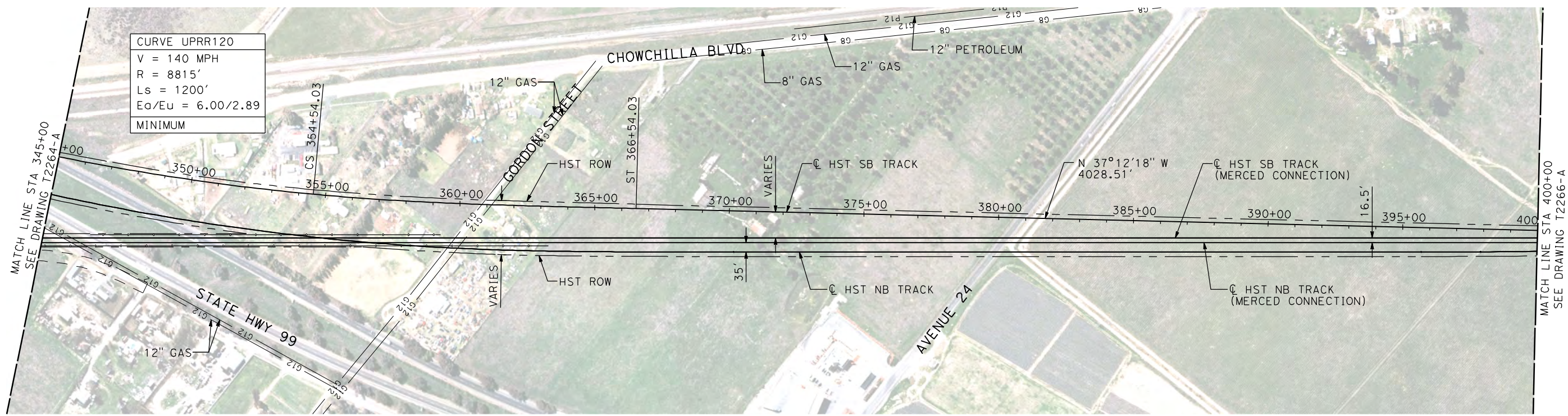
RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - SB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 290+00 TO STA 345+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2264-A
 SCALE
AS SHOWN
 SHEET NO.
OF

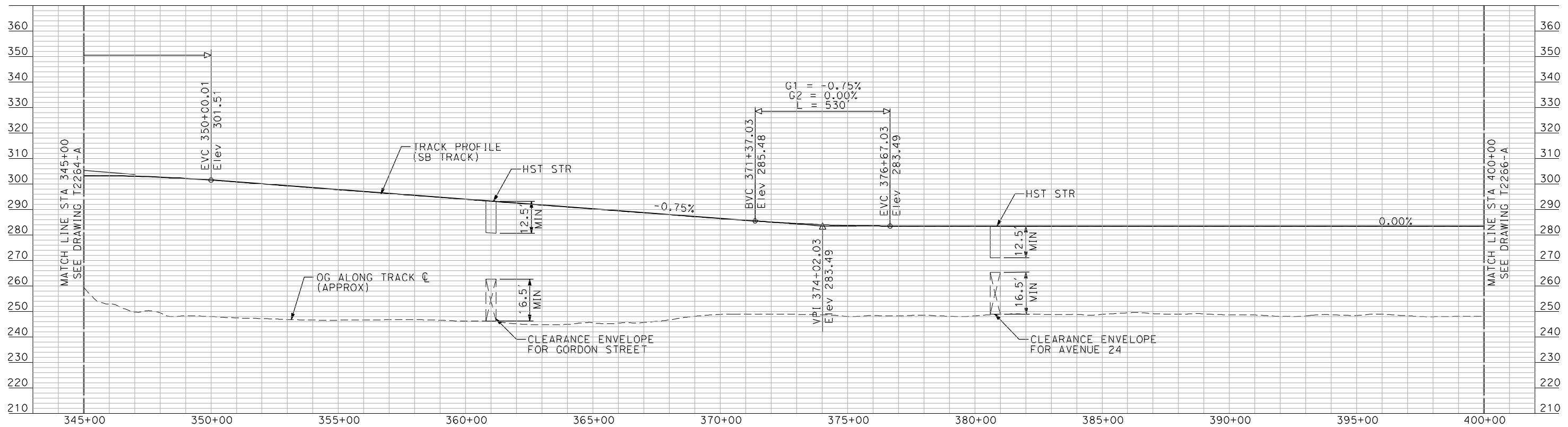
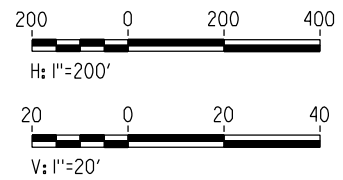


CURVE UPRR120
 V = 140 MPH
 R = 8815'
 Ls = 1200'
 Ea/Eu = 6.00/2.89
 MINIMUM

NOTES:

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PLAN



PROFILE

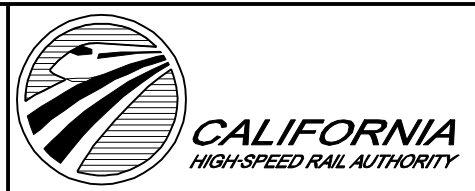
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
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DESIGNED BY
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A. BOONE
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RECORD SET
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SUBMITTAL

NOT FOR
CONSTRUCTION

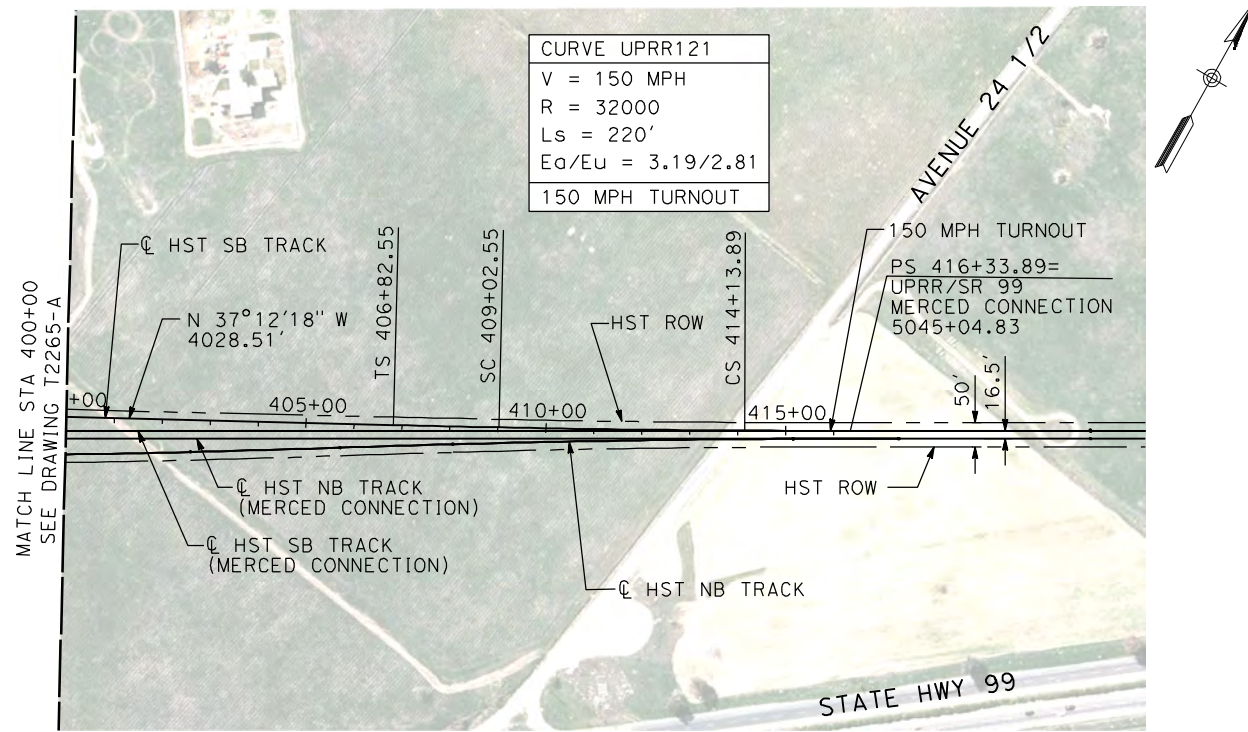


CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
 UPRR/SR 99 WYE - SB CONNECTION
 AVENUE 21
 PLAN AND PROFILE
 STA 345+00 TO STA 400+00

CONTRACT NO.
HSR06-007
 DRAWING NO.
T2265-A
 SCALE
AS SHOWN
 SHEET NO.
OF

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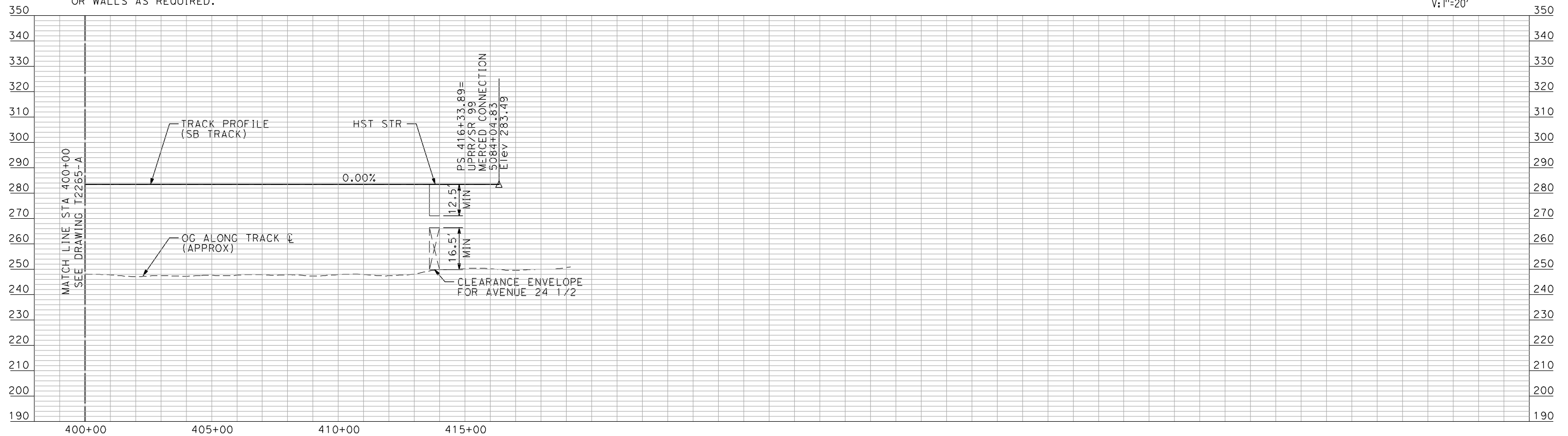
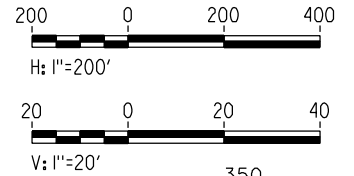
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PLAN

NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

| REV | DATE | BY | CHK | APP | DESCRIPTION |
|-----|------|----|-----|-----|-------------|
| | | | | | |

DESIGNED BY
A. SHIELDS
DRAWN BY
H. SULLIVAN
CHECKED BY
A. BOONE
IN CHARGE
A. BOONE
DATE
07/20/2011

**RECORD SET
15% DESIGN
SUBMITTAL**

**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO**

UPRR/SR 99 WYE - SB CONNECTION
AVENUE 21
PLAN AND PROFILE
STA 400+00 TO STA 416+33.89

| |
|---------------------------|
| CONTRACT NO. HSR06-007 |
| DRAWING NO. T2266-A |
| SCALE AS SHOWN |
| SHEET NO. ### OF ### |