CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

DRAFT

Merced to Fresno Section
Draft EIR-EIS

Volume III:
Section K – Roadway and Grade Separation Plans

Hybrid Alternative with Ave 24 Wye

August 2011

CALIFORNIA High-Speed Rail Authority

U.S. Department of Transportation
Federal Railroad Administration

LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
				GENERAL		
		B5190-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 1 OF 5
		B5191-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 2 OF 5
		B5192-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 3 OF 5
		B5193-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 4 OF 5
		B5194-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 5 OF 5
		B5195-B	HYBRID	GENERAL	ABBREVIATIONS, SYMBOLS AND NOTES	SHEET 1 OF 1
		B5200-B	HYBRID		INDEX MAP	SHEET 1 OF 2
		B5201-B	HYBRID		INDEX MAP	SHEET 2 OF 2
		CB5200-B	BNSF MAINLINE/WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	KEY MAP	SHEET 1 OF 1
		CB5201-B	BNSF MAINLINE/WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	KEY MAP	SHEET 1 OF 1
		CB5202-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	KEY MAP	SHEET 1 OF 1
		CB5203-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	KEY MAP	SHEET 1 OF 1
		CB5204-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPRATION - AVENUE 26 ALT 1	KEY MAP	SHEET 1 OF 1
		CB5205-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	KEY MAP	SHEET 1 OF 1
		CB5206-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	KEYMAP	SHEET 1 OF 1
		CT5190-B	HYBRID	GRADE SEPARATIONS	TYPICAL CROSS SECTIONS	SHEET 1 OF 1
		CT5191-B	HYBRID		GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN	SHEET 1 OF 1
				LAYOUT		
1		CT0001-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	LAYOUT	SHEET 1 OF 3
1		CT0002-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	LAYOUT	SHEET 2 OF 3
1		CT0003-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	LAYOUT	SHEET 3 OF 3
2		CT0004-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	LAYOUT	SHEET 1 OF 3
2		CT0005-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	LAYOUT	SHEET 2 OF 3
2		CT0006-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	LAYOUT	SHEET 3 OF 3
3		CT0007-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	LAYOUT	SHEET 1 OF 3
3		CT0008-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	LAYOUT	SHEET 2 OF 3
3		CT0009-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	LAYOUT	SHEET 3 OF 3
4		CT0010-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	LAYOUT	SHEET 1 OF 3
4		CT0011-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	LAYOUT	SHEET 2 OF 3
4		CT0012-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	LAYOUT	SHEET 3 OF 3
5		CT0013-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	LAYOUT	SHEET 1 OF 4
5		CT0014-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	LAYOUT	SHEET 2 OF 4
5		CT0015-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	LAYOUT	SHEET 3 OF 4
5		CT0016-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	LAYOUT	SHEET 4 OF 4
6		CT0017-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	LAYOUT	SHEET 1 OF 3
6		CT0018-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	LAYOUT	SHEET 2 OF 3
6		CT0019-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	LAYOUT	SHEET 3 OF 3
7		CT0020-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	LAYOUT	SHEET 1 OF 4
7		CT0021-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	LAYOUT	SHEET 2 OF 4
7		CT0022-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	LAYOUT	SHEET 3 OF 4
8		CT0023-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	LAYOUT	SHEET 1 OF 3
8		CT0024-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	LAYOUT	SHEET 2 OF 3
8		CT0025-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	LAYOUT	SHEET 3 OF 3
9		CT0026-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	LAYOUT	SHEET 1 OF 3
9		CT0027-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	LAYOUT	SHEET 2 OF 3
9		CT0028-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	LAYOUT	SHEET 3 OF 3
10		CT0029-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	LAYOUT	SHEET 1 OF 3
10		CT0030-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	LAYOUT	SHEET 2 OF 3
10		CT0031-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	LAYOUT	SHEET 3 OF 3
11		CT0032-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	LAYOUT	SHEET 1 OF 3
11		CT0033-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	LAYOUT	SHEET 2 OF 3
11		CT0034-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	LAYOUT	SHEET 3 OF 3
32		CT0113-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	LAYOUT	SHEET 1 OF 3
32		CT0114-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	LAYOUT	SHEET 2 OF 3
32		CT0115-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	LAYOUT	SHEET 3 OF 3
33		CT0116-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	LAYOUT	SHEET 1 OF 3
33		CT0117-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	LAYOUT	SHEET 2 OF 3
33		CT0118-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	LAYOUT	SHEET 3 OF 3
34		CT0119-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	LAYOUT	SHEET 1 OF 3
34		CT0120-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	LAYOUT	SHEET 2 OF 3
35		CT0121-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	LAYOUT	SHEET 3 OF 3
35		CT0122-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	LAYOUT	SHEET 1 OF 3
35		CT0123-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	LAYOUT	SHEET 2 OF 3
35		CT0124-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	LAYOUT	SHEET 3 OF 3
36		CT0125-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	LAYOUT	SHEET 1 OF 3
36		CT0126-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	LAYOUT	SHEET 2 OF 3
36		CT0127-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	LAYOUT	SHEET 3 OF 3
37		CT0128-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	LAYOUT	SHEET 1 OF 3
37		CT0129-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	LAYOUT	SHEET 2 OF 3
37		CT0130-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	LAYOUT	SHEET 3 OF 3
38		CT0131-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	LAYOUT	SHEET 1 OF 3
38		CT0132-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	LAYOUT	SHEET 2 OF 3
38		CT0133-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	LAYOUT	SHEET 3 OF 3
42		CT0143-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	LAYOUT	SHEET 1 OF 3

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 1 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. B5190-B
SCALE NONE
SHEET NO. ### OF ###

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LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
42		CT0144-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	LAYOUT	SHEET 2 OF 3
42		CT0145-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	LAYOUT	SHEET 3 OF 3
65		CT0146-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	LAYOUT	SHEET 1 OF 3
65		CT0147-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	LAYOUT	SHEET 2 OF 3
65		CT0148-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	LAYOUT	SHEET 3 OF 3
64		CT0149-A	BNSF MERCED CONNECTION - (HYBRID)	GRADE SEPARATION - G STREET	LAYOUT	SHEET 1 OF 1
41		CT5200-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	LAYOUT	SHEET 1 OF 3
41		CT5201-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	LAYOUT	SHEET 2 OF 3
41		CT5202-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	LAYOUT	SHEET 3 OF 3
40		CT5203-B	BNSF MAINLINE/ MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	LAYOUT	SHEET 1 OF 5
40		CT5204-B	BNSF MAINLINE/ MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	LAYOUT	SHEET 2 OF 5
40		CT5205-B	BNSF MAINLINE/ MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	LAYOUT	SHEET 3 OF 5
40		CT5206-B	BNSF MAINLINE/ MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	LAYOUT	SHEET 4 OF 5
40		CT5207-B	BNSF MAINLINE/ MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	LAYOUT	SHEET 5 OF 5
27		CT5210-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 1 OF 14
27		CT5211-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 2 OF 14
27		CT5212-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 3 OF 14
27		CT5213-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 4 OF 14
27		CT5214-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 5 OF 14
27		CT5215-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 6 OF 14
27		CT5216-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 7 OF 14
27		CT5217-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 8 OF 14
27		CT5218-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 9 OF 14
27		CT5219-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 10 OF 14
27		CT5220-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 11 OF 14
27		CT5221-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 12 OF 14
27		CT5222-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 13 OF 14
27		CT5223-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	LAYOUT	SHEET 14 OF 14
26		CT5227-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 1 OF 10
26		CT5228-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 2 OF 10
26		CT5229-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 3 OF 10
26		CT5230-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 4 OF 10
26		CT5231-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 5 OF 10
26		CT5232-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 6 OF 10
26		CT5233-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 7 OF 10
26		CT5234-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 8 OF 10
26		CT5235-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 9 OF 10
26		CT5236-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	LAYOUT	SHEET 10 OF 10
25		CT5238-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	LAYOUT	SHEET 1 OF 3
25		CT5239-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	LAYOUT	SHEET 2 OF 3
25		CT5240-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	LAYOUT	SHEET 3 OF 3
26		CT5246-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	LAYOUT	SHEET 1 OF 3
26		CT5247-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	LAYOUT	SHEET 2 OF 3
26		CT5248-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	LAYOUT	SHEET 3 OF 3
41		CT5249-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	LAYOUT	SHEET 1 OF 3
41		CT5250-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	LAYOUT	SHEET 2 OF 3
41		CT5251-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	LAYOUT	SHEET 3 OF 3
				PROFILE		
		CT5900-B	UPRR/SR99 - (HYBRID)	GRADE SEPARATION	SUPERELEVATION TEMPLATE	SHEET 1 OF 4
		CT5901-B	UPRR/SR99 - (HYBRID)	GRADE SEPARATION	SUPERELEVATION TEMPLATE	SHEET 2 OF 4
		CT5902-B	UPRR/SR99 - (HYBRID)	GRADE SEPARATION	SUPERELEVATION TEMPLATE	SHEET 3 OF 4
		CT5903-B	UPRR/SR99 - (HYBRID)	GRADE SEPARATION	SUPERELEVATION TEMPLATE	SHEET 4 OF 4
1		CT1000-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	PROFILE	SHEET 1 OF 3
1		CT1001-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	PROFILE	SHEET 2 OF 3
1		CT1002-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 9	PROFILE	SHEET 3 OF 3
2		CT1003-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	PROFILE	SHEET 1 OF 3
2		CT1004-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	PROFILE	SHEET 2 OF 3
2		CT1005-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 10	PROFILE	SHEET 3 OF 3
3		CT1006-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	PROFILE	SHEET 1 OF 3
3		CT1007-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	PROFILE	SHEET 2 OF 3
3		CT1008-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 11	PROFILE	SHEET 3 OF 3
4		CT1009-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	PROFILE	SHEET 1 OF 3
4		CT1010-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	PROFILE	SHEET 2 OF 3
4		CT1011-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 12	PROFILE	SHEET 3 OF 3
5		CT1012-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	PROFILE	SHEET 1 OF 3
5		CT1013-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	PROFILE	SHEET 2 OF 3
5		CT1014-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 13	PROFILE	SHEET 3 OF 3
6		CT1015-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	PROFILE	SHEET 1 OF 3
6		CT1016-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	PROFILE	SHEET 2 OF 3
6		CT1017-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15	PROFILE	SHEET 3 OF 3
7		CT1018-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	PROFILE	SHEET 1 OF 3
7		CT1019-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	PROFILE	SHEET 2 OF 3
7		CT1020-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 15 1/2	PROFILE	SHEET 3 OF 3
8		CT1021-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	PROFILE	SHEET 1 OF 3
8		CT1022-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	PROFILE	SHEET 2 OF 3
8		CT1023-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - RAYMOND RD	PROFILE	SHEET 3 OF 3

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY C. DELOS REYES
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 2 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. B5191-B
SCALE NONE
SHEET NO. ### OF ###

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LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
9		CT1024-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	PROFILE	SHEET 1 OF 3
9		CT1025-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	PROFILE	SHEET 2 OF 3
9		CT1026-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 17	PROFILE	SHEET 3 OF 3
10		CT1027-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	PROFILE	SHEET 1 OF 3
10		CT1028-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	PROFILE	SHEET 2 OF 3
10		CT1029-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 27	PROFILE	SHEET 3 OF 3
11		CT1030-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	PROFILE	SHEET 1 OF 3
11		CT1031-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	PROFILE	SHEET 2 OF 3
11		CT1032-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 26	PROFILE	SHEET 3 OF 3
32		CT1113-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	PROFILE	SHEET 1 OF 3
32		CT1114-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	PROFILE	SHEET 2 OF 3
32		CT1115-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20	PROFILE	SHEET 3 OF 3
33		CT1116-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	PROFILE	SHEET 1 OF 3
33		CT1117-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	PROFILE	SHEET 2 OF 3
33		CT1118-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 20 1/2	PROFILE	SHEET 3 OF 3
34		CT1119-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	PROFILE	SHEET 1 OF 3
34		CT1120-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	PROFILE	SHEET 2 OF 3
34		CT1121-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 24	PROFILE	SHEET 3 OF 3
35		CT1122-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	PROFILE	SHEET 1 OF 3
35		CT1123-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	PROFILE	SHEET 2 OF 3
35		CT1124-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 22	PROFILE	SHEET 3 OF 3
36		CT1125-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	PROFILE	SHEET 1 OF 3
36		CT1126-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	PROFILE	SHEET 2 OF 3
36		CT1127-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 23 1/2	PROFILE	SHEET 3 OF 3
37		CT1128-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	PROFILE	SHEET 1 OF 3
37		CT1129-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	PROFILE	SHEET 2 OF 3
37		CT1130-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 16	PROFILE	SHEET 3 OF 3
38		CT1131-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	PROFILE	SHEET 1 OF 3
38		CT1132-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	PROFILE	SHEET 2 OF 3
38		CT1133-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 15	PROFILE	SHEET 3 OF 3
42		CT1143-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	PROFILE	SHEET 1 OF 3
42		CT1144-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	PROFILE	SHEET 2 OF 3
42		CT1145-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - ROAD 9	PROFILE	SHEET 3 OF 3
65		CT1146-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	PROFILE	SHEET 1 OF 3
65		CT1147-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	PROFILE	SHEET 2 OF 3
65		CT1148-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 7	PROFILE	SHEET 3 OF 3
64		CT1149-A	BNSF MERCED CONNECTION - (HYBRID)	GRADE SEPARATION - G ST	PROFILE	SHEET 1 OF 1
41		CT6200-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	PROFILE	SHEET 1 OF 3
41		CT6201-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	PROFILE	SHEET 2 OF 3
41		CT6202-B	BNSF MAINLINE/WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALT 1	PROFILE	SHEET 3 OF 3
40		CT6203-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	PROFILE	SHEET 1 OF 5
40		CT6204-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	PROFILE	SHEET 2 OF 5
40		CT6205-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	PROFILE	SHEET 3 OF 5
40		CT6206-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	PROFILE	SHEET 4 OF 5
40		CT6207-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROAD 13	PROFILE	SHEET 5 OF 5
27		CT6210-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 1 OF 14
27		CT6211-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 2 OF 14
27		CT6212-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 3 OF 14
27		CT6213-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 4 OF 14
27		CT6214-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 5 OF 14
27		CT6215-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 6 OF 14
27		CT6216-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 7 OF 14
27		CT6217-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 8 OF 14
27		CT6218-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 9 OF 14
27		CT6219-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 10 OF 14
27		CT6220-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 11 OF 14
27		CT6221-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 12 OF 14
27		CT6222-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 13 OF 14
27		CT6223-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 25	PROFILE	SHEET 14 OF 14
26		CT6226-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 1 OF 10
26		CT6227-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 2 OF 10
26		CT6228-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 3 OF 10
26		CT6229-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 4 OF 10
26		CT6230-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 5 OF 10
26		CT6231-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 6 OF 10
26		CT6232-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 7 OF 10
26		CT6233-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 8 OF 10
26		CT6234-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 9 OF 10
26		CT6235-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	GRADE SEPARATION - AVENUE 26 ALT 1	PROFILE	SHEET 10 OF 10

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

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GENERAL
INDEX OF DRAWINGS
SHEET 3 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. B5192-B
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SHEET NO. ### OF ###

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LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
25		CT6236-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	PROFILE	SHEET 1 OF 3
25		CT6237-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	PROFILE	SHEET 2 OF 3
25		CT6238-B	UPRR/SR99 MERCED DO - (HYBRID)	GRADE SEPARATION - CROSS ROAD	PROFILE	SHEET 3 OF 3
26		CT6244-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	PROFILE	SHEET 1 OF 3
26		CT6245-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	PROFILE	SHEET 2 OF 3
26		CT6246-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	UNDERPASS - AVENUE 26 ALT 2	PROFILE	SHEET 3 OF 3
41		CT6247-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	PROFILE	SHEET 1 OF 3
41		CT6248-B	BNSF MAINLINE/ WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	PROFILE	SHEET 2 OF 3
41		CT6249-B	BNSF MAINLINE/WYE DO - (HYBRID)	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	PROFILE	SHEET 3 OF 3
		T-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TITLE	
		X-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-2	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-3	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-4	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-5	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-6	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-7	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-8	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-9	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-10	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-11	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-12	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-13	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-14	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-15	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-16	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-17	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		X-18	GOLDEN STATE BOULEVARD RE-ALIGNMENT		TYPICAL SECTION	
		K-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		KEYMAP	
		L-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"NB" 75+73 TO "NB" 100+00
		L-2	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 100+00 TO "GSB" 111+50
		L-3	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 111+50 TO "GSB" 138+50
		L-4	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 138+50 TO "GSB" 163+50
		L-5	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 163+50 TO "GSB" 191+00
		L-6	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 191+00 TO "GSB" 216+00
		L-7	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 216+00 TO "GSB" 241+00
		L-8	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 241+00 TO "GSB" 264+00
		L-9	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 264+00 TO "GSB" 289+00
		L-10	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 289+00 TO "GSB" 314+00
		L-11	GOLDEN STATE BOULEVARD RE-ALIGNMENT		LAYOUT	"GSB" 314+00 TO "GSB" 338+77
		L-12	VETERANS BOULEVARD		LAYOUT	"V" 105+00 TO "V" 122+35
		L-13	BULLARD AVENUE		LAYOUT	"BU" 100+00 TO "BU" 132+72
		L-14	SHAW AVENUE RE-ALIGNMENT		LAYOUT	"S" 50+00 TO "S" 66+00
		L-15	SHAW AVENUE RE-ALIGNMENT		LAYOUT	"S" 66+00 TO "S" 80+81
		L-16	CORNELIA AVENUE RE-ALIGNMENT		LAYOUT	"C" 10+00 TO "C" 26+00
		L-17	SANTA ANA AVENUE RE-ALIGNMENT		LAYOUT	"C" 26+00 TO "C" 46+23
		SE-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		SUPERELEVATION DIAGRAM	
		SE-2	GOLDEN STATE BOULEVARD RE-ALIGNMENT		SUPERELEVATION DIAGRAM	
		BR-1	GOLDEN STATE BOULEVARD RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-2	GOLDEN STATE BOULEVARD RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-3	GOLDEN STATE BOULEVARD RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-4	GOLDEN STATE BOULEVARD RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-5	GOLDEN STATE BOULEVARD RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		CT9550-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	W McKINLEY AVE
		CT9551-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	N GOLDEN STATE BLVD
		CT9552-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	W OLIVE AVE
		CT9553-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	BELMONT AVE
		CT9554-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	STANISLAUS ST AND TUOLUMNE ST
		CT9555-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	FRESNO ST
		CT9556-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	TULARE ST (OVERHEAD)
		CT9557-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	TULARE ST (UNDERPASS)
		CT9558-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEPARATION LAYOUT	VENTURA ST
		CT9559-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	W McKINLEY AVE
		CT9560-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	McKINLEY AVE CONNECTOR
		CT9561-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N WEBER AVE
		CT9562-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N WEST AVE
		CT9563-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N GOLDEN STATE BLVD
		CT9564-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N GOLDEN STATE BLVD
		CT9565-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	W OLIVE AVE
		CT9566-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	BELMONT AVE
		CT9567-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N WESLEY AVE
		CT9568-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	N H ST
		CT9569-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	STANISLAUS ST

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 4 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. B5193-B
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SHEET NO. ### OF ###

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LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
		CT9570-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	TUOLUMNE ST
		CT9571-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	FRESNO ST
		CT9572-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	H ST (FRESNO ST)
		CT9573-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	G ST (FRESNO ST)
		CT9574-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	TULARE ST (OVERHEAD)
		CT9575-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	TULARE ST (UNDERPASS)
		CT9576-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	G ST (TULARE ST UNDERPASS)
		CT9577-A	FRESNO SUBSECTION	ALIGNMENT F1	GRADE SEP PROFILE & SUPERELEVATION DIAGRAM	VENTURA ST
		CR9578-A	FRESNO SUBSECTION	ALIGNMENT F1	ROADWAY LAYOUT	N THORNE AVE
		CR9579-A	FRESNO SUBSECTION	ALIGNMENT F1	ROADWAY PROFILE & SUPERELEVATION DIAGRAM	N THORNE AVE
		CT9580-A	FRESNO SUBSECTION	ALIGNMENT F1	ROADWAY / GRADE SEPARATION	TYPICAL CROSS SECTIONS
		CT9581-A	FRESNO SUBSECTION	ALIGNMENT F1	ROADWAY / GRADE SEPARATION	TYPICAL CROSS SECTIONS
		CT9582-A	FRESNO SUBSECTION	ALIGNMENT F1	ROADWAY / GRADE SEPARATION	TYPICAL CROSS SECTIONS

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
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INDEX OF DRAWINGS
SHEET 5 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. B5194-B
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ABBREVIATIONS

ALIGNMENT

HORIZONTAL

BC	BEGINNING OF CURVE
EC	END OF CURVE
PC	POINT OF CURVE
PCC	POINT OF COMPOUNT CURVES
PI	POINT OF INTERSECTION OF TWO TANGENTS
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PT	POINT OF TANGENCY
R	RADIUS OF CURVATURE IN FEET
V, DS	DESIGN VELOCITY IN MILES PER HOUR

VERTICAL

BVC	BEGIN OF VERTICAL CURVE
EVC	END OF VERTICAL CURVE
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

ALT	ALTERNATIVE
AVE	AVENUE
BB	BEGIN BRIDGE
BEG	BEGIN
BLVD	BOULEVARD
℄	CENTER LINE
CL	CENTERLINE, CLASS
CLR	CLEAR
COL	COLUMN
DWG	DRAWING
EB	END BRIDGE
ELEV	ELEVATION
EQ	EQUATION
ES	EDGE OF SIDEWALK
ETW	EDGE OF TRAVELED WAY
EXIST(E)	EXISTING
FL	FLOW LINE
HORIZ	HORIZONTAL
HP	HINGE POINT
HST	HIGH SPEED TRAIN
HWY	HIGHWAY
IC	INTERCHANGE
IN	INCH
L	LENGTH
LT	LEFT
MBGR	METAL BEAM GUARD RAIL
ML	MAINLINE
MPH	MILES PER HOUR
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NB	NORTH BOUND
No, NO	NUMBER
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
O/H OH	OVERHEAD
PG&E	PACIFIC GAS & ELECTRIC
PGL, FG	PROFILE GRADE LINE
RET	RETAINING
RR	RAILROAD
RD	ROAD
R/W	RIGHT OF WAY
RT	RIGHT
SB	SOUTH BOUND
SHLD	SHOULDER
SR	STATE ROUTE
SHT	SHEET
SS	SANITARY SEWER
SSD	STOPPING SIGHT DISTANCE
ST	STREET
STA	STATION
STD	STANDARD
SD	STORM DRAIN
STRUCT, STR	STRUCTURE
T	TANGENT
TEL	TELEPHONE
	(OH) OVERHEAD LINE
	(UG) UNDERGROUND LINE
TOR	TOP OF RAIL
TK	TRACK
TYP	TYPICAL
TBD	TO BE DETERMINED
TF	TELECOMMUNICATIONS FIBER OPTIC
UPRR	UNION PACIFIC RAILROAD
VAR	VARIES
V VERT	VERTICAL
W	WATER, WEST

SYMBOLS

	MATCH LINE
	HST TRACK
	PROPOSED HST RIGHT-OF-WAY
	FREIGHT/PASSENGER TRACK - EXISTING
	EXISTING RIGHT-OF-WAY OR EXISTING BRIDGE FEATURES
	RETAINING WALLS
	ORIGINAL GROUND
G16	GAS LINE (16")
TC	COMMUNICATION LINE
W	WATER LINE
FO	FIBER OPTIC LINE
E	ELECTRICAL LINE
	ELECTRICAL TOWER
S	SEWER LINE
SD	STORM DRAIN LINE
O	FUEL LINE
TC	TELEPHONE LINE
P12	PETROLEUM LINE (12")
(OH)	OVERHEAD
	NORTH ARRROW
	PVI
	MBGR
	DIRECTION OF TRAVEL
250	PROPOSED CONTOUR

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
GENERAL
ABBREVIATIONS, SYMBOLS AND NOTES
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. B5194-B
SCALE NO SCALE
SHEET NO. ### OF ###

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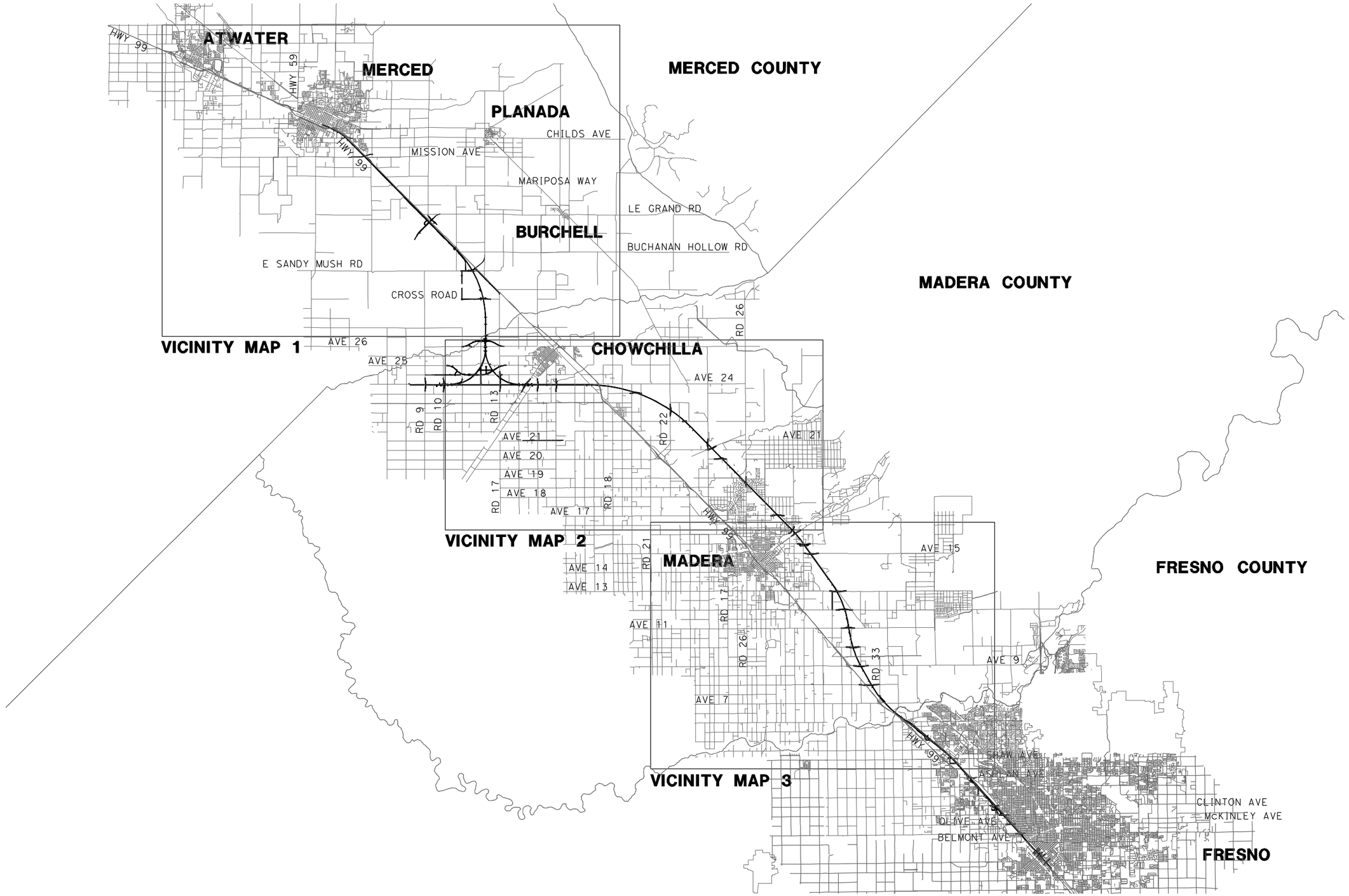

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

INDEX MAP
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B5200-B
SCALE NO SCALE
SHEET NO. ### OF ###

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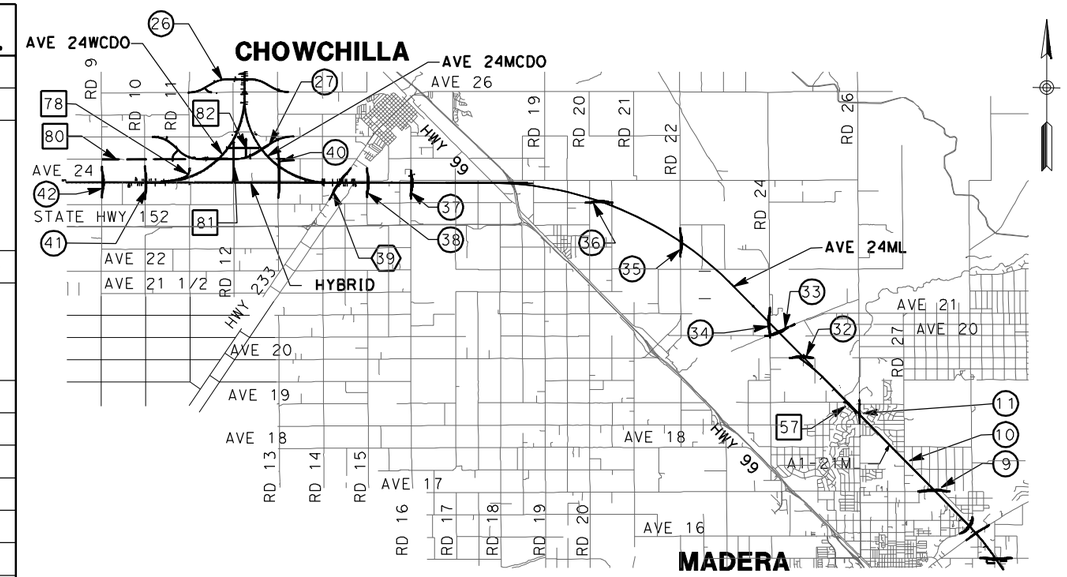
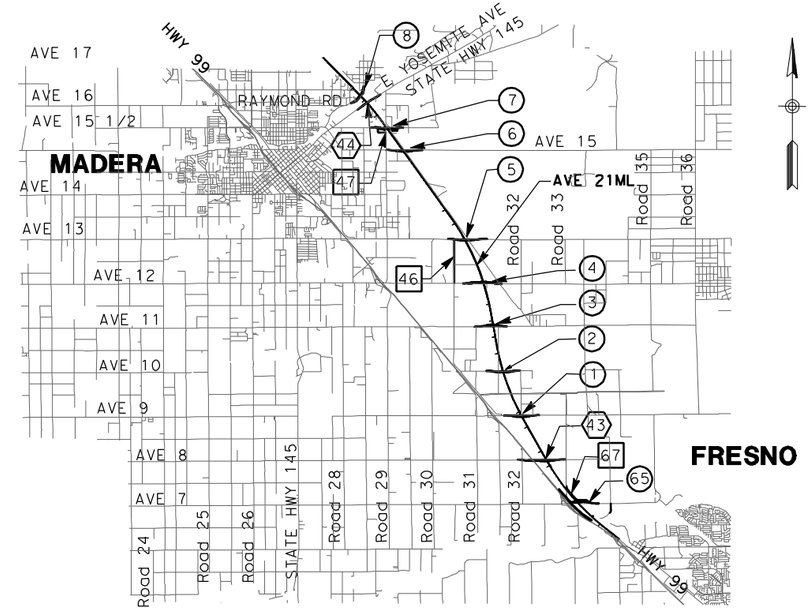
ayeled

LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
1	GRADE SEPARATION - AVENUE 9	CT0001-A - CT0003-A	ST1001
2	GRADE SEPARATION - AVENUE 10	CT0004-A - CT0006-A	ST1002
3	GRADE SEPARATION - AVENUE 11	CT0007-A - CT0009-A	ST1003
4	GRADE SEPARATION - AVENUE 12	CT0010-A - CT0012-A	ST1004
5	GRADE SEPARATION - AVENUE 13	CT0013-A - CT0016-A	ST1005
6	GRADE SEPARATION - AVENUE 15	CT0017-A - CT0019-A	ST1006
7	GRADE SEPARATION - AVENUE 15 1/2	CT0020-A - CT0022-A	ST1007
8	GRADE SEPARATION - RAYMOND RD	CT0023-A - CT0025-A	ST1008
9	GRADE SEPARATION - AVENUE 17	CT0026-A - CT0028-A	ST1009
10	GRADE SEPARATION - ROAD 27	CT0029-A - CT0031-A	
11	GRADE SEPARATION - ROAD 26	CT0032-A - CT0034-A	
19	GRADE SEPARATION - LE GRAND INTERCHANGE	CT7208-B - CT7214-B	ST1114
25	GRADE SEPARATION - CROSS ROAD	CT5238-B - CT5240-B	ST1136
26	GRADE SEPARATION - AVENUE 26 ALT 1	CT5227-B - CT5236-B	ST1135
	UNDERPASS - AVENUE 26 ALT 2	CT5246-B - CT5248-B	
27	GRADE SEPARATION - AVENUE 25	CT5209-B - CT5225-B	ST1133 - ST1134
32	GRADE SEPARATION - AVENUE 20	CT0113-A - CT0115-A	ST1035
33	GRADE SEPARATION - AVENUE 20 1/2	CT0116-A - CT0118-A	ST1036 - ST1037
34	GRADE SEPARATION - ROAD 24	CT0119-A - CT0121-A	ST1038 - ST1039
35	GRADE SEPARATION - ROAD 22	CT0122-A - CT0124-A	ST1040
35.	SANDY MUSH RD INTERCHANGE	CT7204-B - CT7207-B	ST1142
36	GRADE SEPARATION - AVENUE 23 1/2	CT0125-A - CT0127-A	ST1041

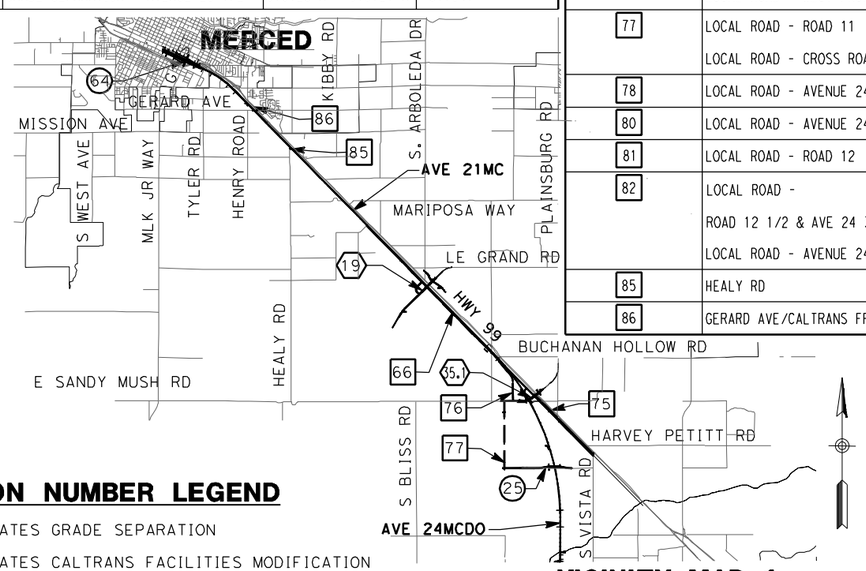
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
37	GRADE SEPARATION - ROAD 16	CT0128-A - CT0130-A	ST1042
38	GRADE SEPARATION - ROAD 15	CT0131-A - CT0133-A	ST1043
39	GRADE SEPARATION - ROBERTSON BLVD (SR233) ALT 1	CT7200-B - CT7203-B	ST1150
	UNDERPASS - ROBERTSON BLVD (SR233) ALT 2	CT7215-B - CT7217-B	
40	GRADE SEPARATION - ROAD 13	CT5203-B - CT5208-B	ST1121 & ST1139
41	GRADE SEPARATION - ROAD 10 ALT 1	CT5200-B - CT5202-B	ST1160
	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	CT5249-B - CT5251-B	ST1160
42	GRADE SEPARATION - ROAD 9	CT0143-A - CT0145-A	ST1120
64	GRADE SEPARATION - G STREET	CT0149-A	ST1180
65	GRADE SEPARATION - AVENUE 7	CT0146-A - CT0148-A	
43	CALTRANS - AVENUE 8	CT2000-A - CT2002-A	ST1000
44	CALTRANS - SR 145	CT2003-A - CT2005-A	
46	LOCAL ROAD - ROAD 30 1/2	CR4000-A	
47	LOCAL ROAD - ROAD 29	CR4001-A	
57	LOCAL ROAD - HANOVER DR	CR4012-A	
66	PROPOSED WEST FRONTAGE ROAD	CR9204-B - CR9207-B	
67	LOCAL ROAD - ROAD 33	CR4018-A	
75	LOCAL ROAD - WEST FRONTAGE ROAD	CR9200-B - CR9201-B	
76	LOCAL ROAD - SANDY MUSH ROAD	CR9210-B	
	LOCAL ROAD - WEST FRONTAGE ROAD	CR9202-B - CR9203-B	
77	LOCAL ROAD - ROAD 11	CR9208-B - CR9209-B	
	LOCAL ROAD - CROSS ROAD	CR9211-B	
78	LOCAL ROAD - AVENUE 24	CR9217-B - CR9218-B	
80	LOCAL ROAD - AVENUE 24 1/2	CR9212-B - CR9213-B	
81	LOCAL ROAD - ROAD 12	CR9214-B	
82	LOCAL ROAD - ROAD 12 1/2 & AVE 24 3/4	CR9215-B	
	LOCAL ROAD - AVENUE 24 3/4	CR9216-B	
85	HEALY RD	CR9219-B	
86	GERARD AVE/CALTRANS FRONTAGE RD	CR9220-B	



VICINITY MAP 2



VICINITY MAP 3



VICINITY MAP 1

LOCATION NUMBER LEGEND

(X) - INDICATES GRADE SEPARATION

⟨X⟩ - INDICATES CALTRANS FACILITIES MODIFICATION

[X] - INDICATES LOCAL ROAD RELOCATION

FOR ROADWAY STRUCTURES SEE STRUCTURAL INDEX MAPS

9000 0 9000 18000
GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY T. WALTZ
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

INDEX MAP
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B5201-B
SCALE NO SCALE
SHEET NO. ### OF ###

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5202-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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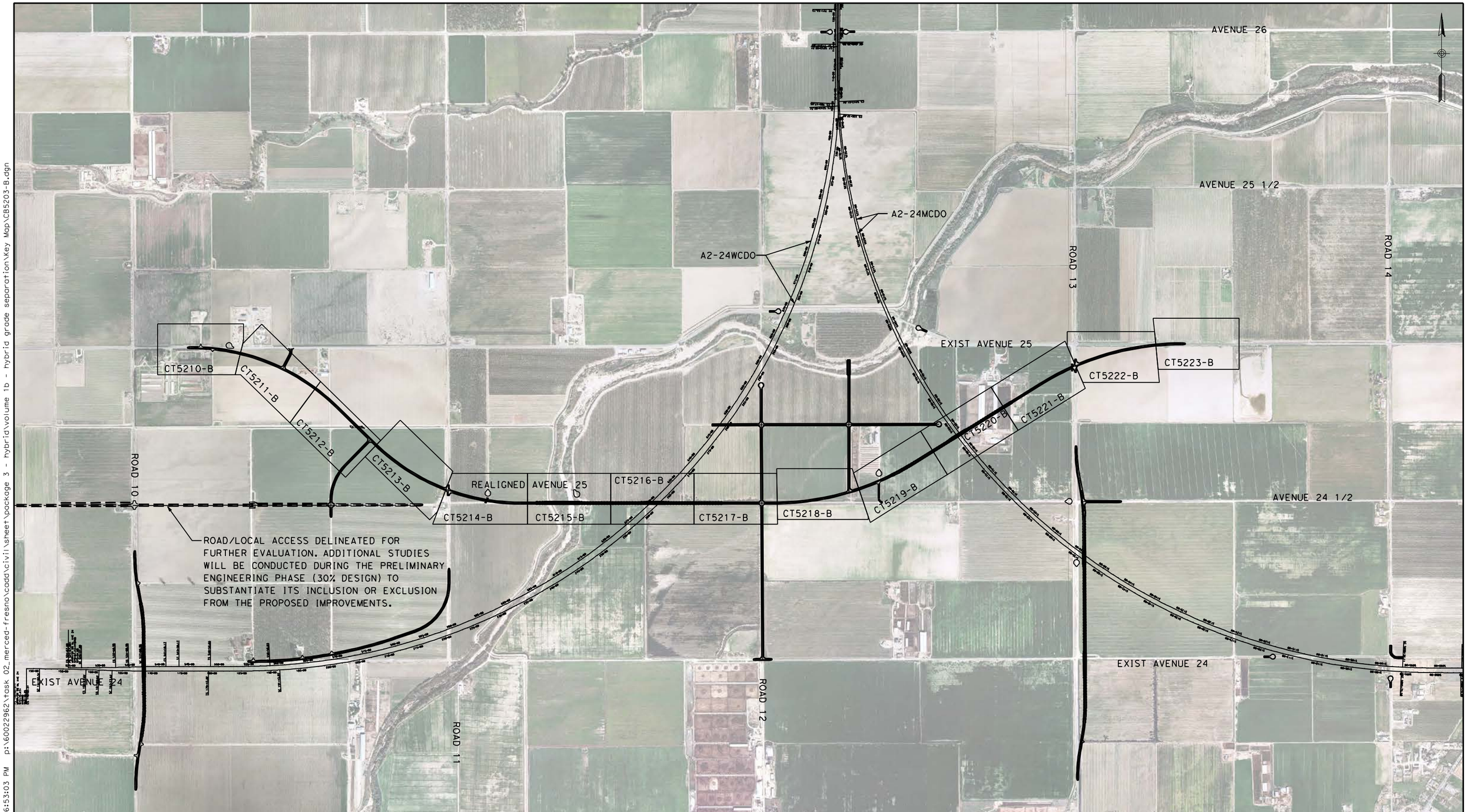

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5203-B
SCALE NO SCALE
SHEET NO. ### OF ###

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CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5204-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5205-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB5206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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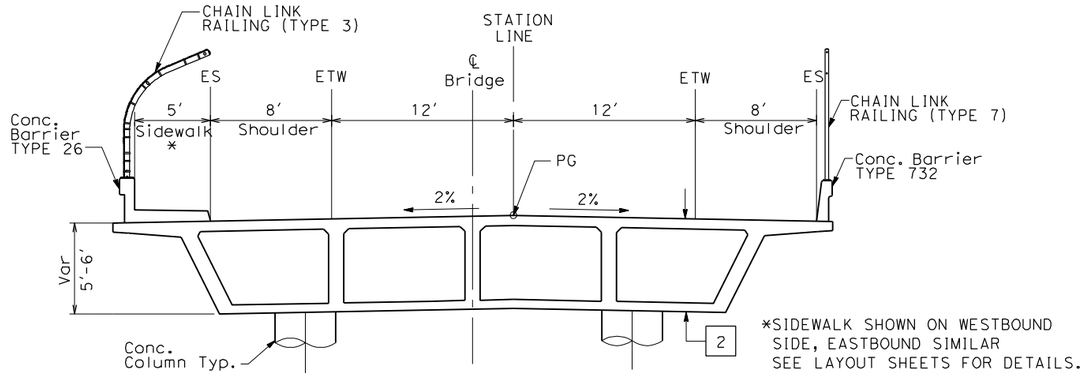
NOTES:

1. DIMENSIONS OF EXISTING PAVEMENT WIDTHS ARE BASED ON MEASUREMENTS MADE IN THE FIELD AND ARE APPROXIMATE.
2. PAVEMENT SECTIONS ARE TO BE DETERMINED. GEOTECHNICAL INVESTIGATIONS WILL BE CONDUCTED IN A SUBSEQUENT PHASE TO DETERMINE STRUCTURAL SECTIONS FOR EACH CROSSING.
3. SPACING OF BENCHES ON PROPOSED FILL SECTIONS ARE TO BE DETERMINED.
4. RIGHT-OF-WAY (R/W) WIDTH IS FOR INFORMATION ONLY. EXACT WIDTH TO BE DETERMINED IN COORDINATION WITH AFFECTED AGENCY.



*SIDEWALK SHOWN ON WESTBOUND SIDE, EASTBOUND SIMILAR SEE LAYOUT SHEETS FOR DETAILS.

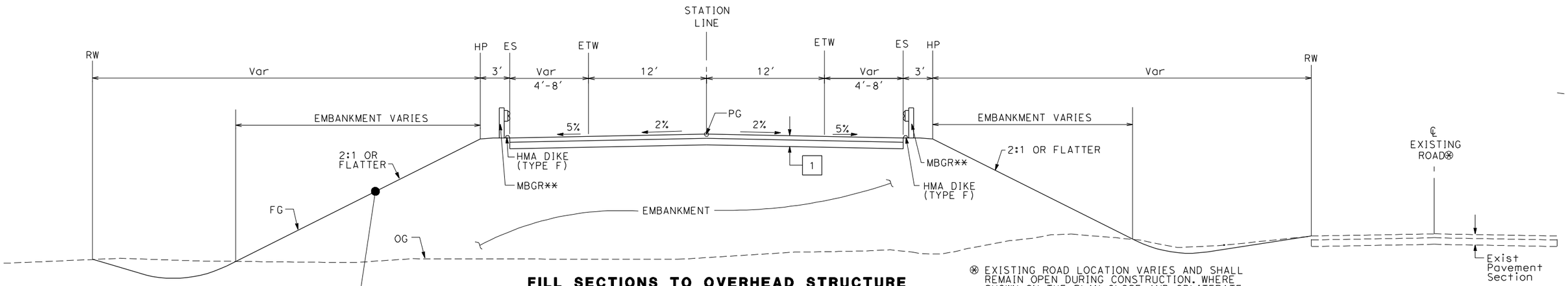
OVERHEAD STRUCTURE

SEE STRUCTURAL PLANS

STRUCTURAL SECTIONS:

1 — HMA TYPE A
AB CLASS 2

2 — CAST IN PLACE / PRESTRESSED BOX GIRDER (6' STRUCTURE DEPTH)

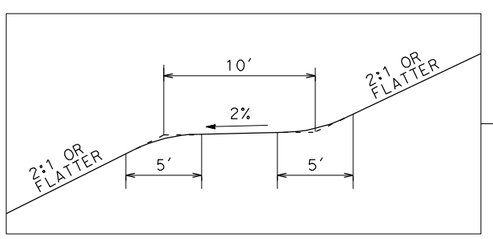


FILL SECTIONS TO OVERHEAD STRUCTURE

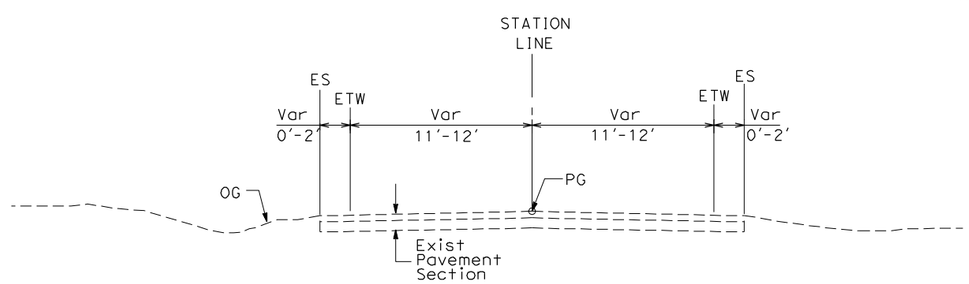
WEST SIDE SHOWN (EAST SIDE SIMILAR)

⊗ EXISTING ROAD LOCATION VARIES AND SHALL REMAIN OPEN DURING CONSTRUCTION. WHERE SHOWN ON THE PLAN CLOSE AND OBLITERATE EXISTING ROADWAY SUBSEQUENT TO CONSTRUCTION OF THE REALIGNED ROADWAY.

** EXACT LIMITS OF MBGR PER AGENCY REQUIREMENTS.



BENCHING DETAIL



EXISTING LOCAL ROAD

WEST SIDE SHOWN (EAST SIDE SIMILAR)
SEE LAYOUT SHEETS FOR ACTUAL ROADWAY WIDTHS AT EACH CROSSING

TYPICAL CROSS SECTIONS ON THIS SHEET APPLY TO THE FOLLOWING ROADWAYS FOR THE HYBRID ALIGNMENT:

NO.	STREET NAME		
1	AVENUE 9	13	AVENUE 26
2	AVENUE 10	14	RAYMOND RD
3	AVENUE 11	15	CROSS RD
4	AVENUE 12	16	ROAD 10
5	AVENUE 13	17	ROAD 13
6	AVENUE 15	18	ROAD 15
7	AVENUE 15.5	19	ROAD 16
8	AVENUE 17	20	ROAD 22
9	AVENUE 20	21	ROAD 24
10	AVENUE 20.5	22	ROAD 26
11	AVENUE 23.5	23	ROAD 27
12	AVENUE 25		

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DRAWN BY K. OAKS
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
GRADE SEPARATIONS
TYPICAL CROSS SECTIONS
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CT5190-B
SCALE NTS
SHEET NO. ### OF ###

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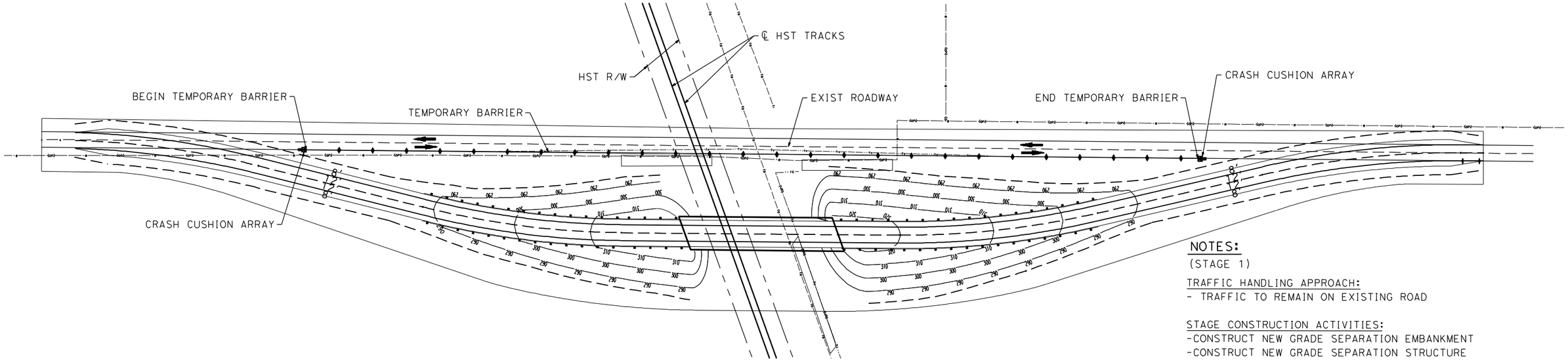
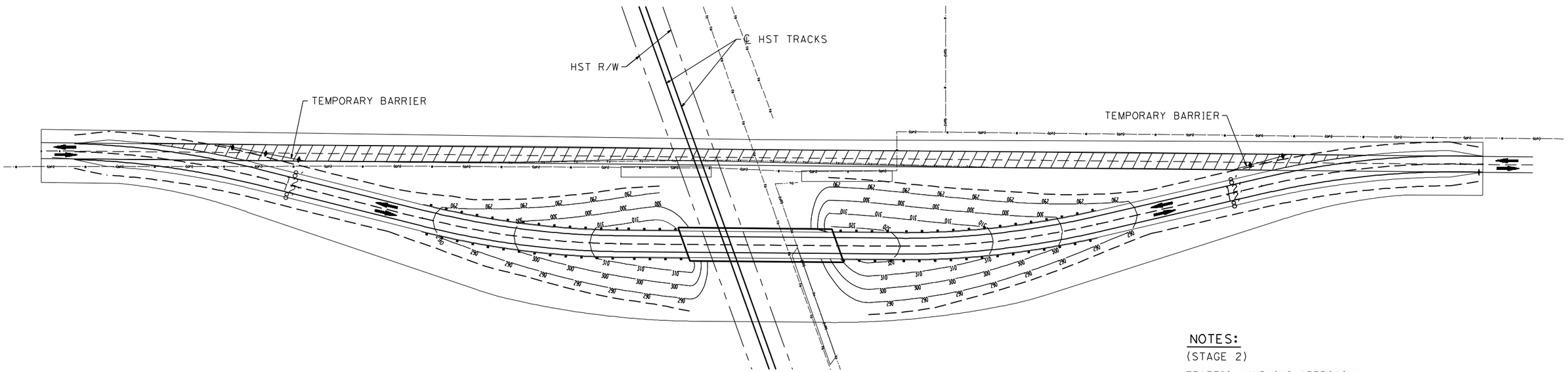


STAGE CONSTRUCTION (STAGE 1)

NOTES:
(STAGE 1)

TRAFFIC HANDLING APPROACH:
- TRAFFIC TO REMAIN ON EXISTING ROAD

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT NEW GRADE SEPARATION EMBANKMENT
-CONSTRUCT NEW GRADE SEPARATION STRUCTURE
-CONSTRUCT DRAINAGE FACILITY



STAGE CONSTRUCTION (STAGE 2)

NOTES:
(STAGE 2)

TRAFFIC HANDLING APPROACH:
- SHIFT TRAFFIC TO NEW GRADE SEPARATION FACILITY

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT REALIGNED ROAD CONFORMS
-COMPLETE DRAINAGE FACILITIES
-REMOVE SURFACE AND BASE OF EXIST ROAD

LEGEND:

- CRASH CUSHION ARRAY (TYPE U11)
- TEMPORARY BARRIER (TYPE K)
- DIRECTION OF TRAVEL
- REMOVE BASE AND SURFACING (EXIST ROAD)

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CT5191-B
SCALE NO SCALE
SHEET NO. ### OF ###

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ayeled

CURVE DATA

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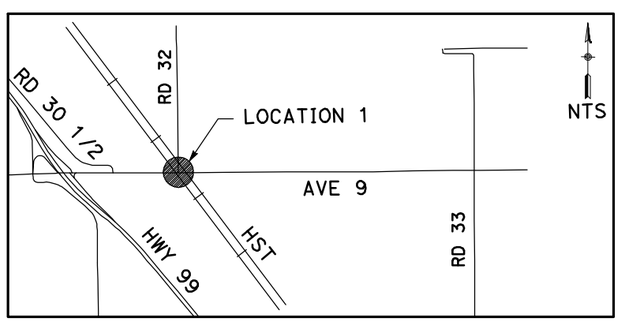

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1000-A THROUGH CT1002-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0001-A
SCALE AS SHOWN
SHEET NO. OF ###

5/1/2011 1:32:22 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0001-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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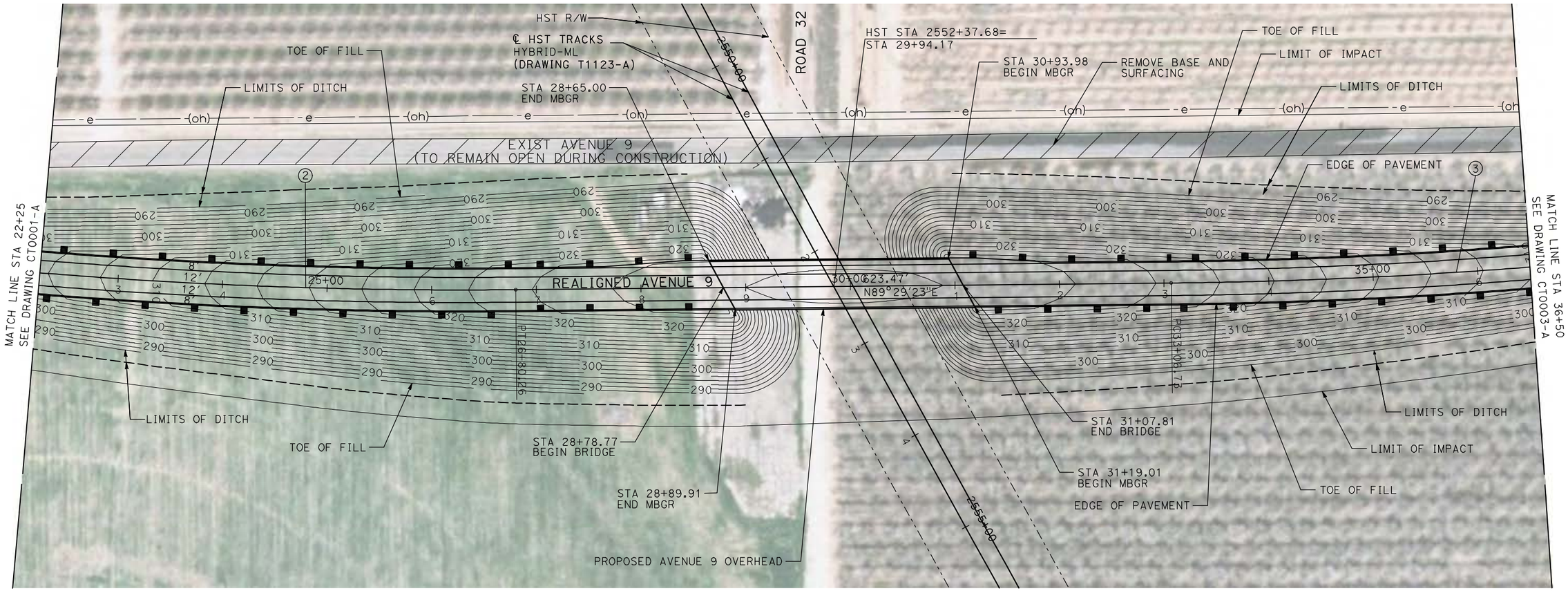
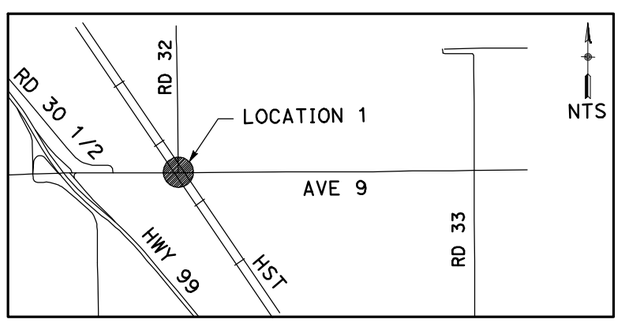
3	5000.00'	6°52'32"	300.36'	600.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1000-A THROUGH CT1002-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0002-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:32:29 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0002-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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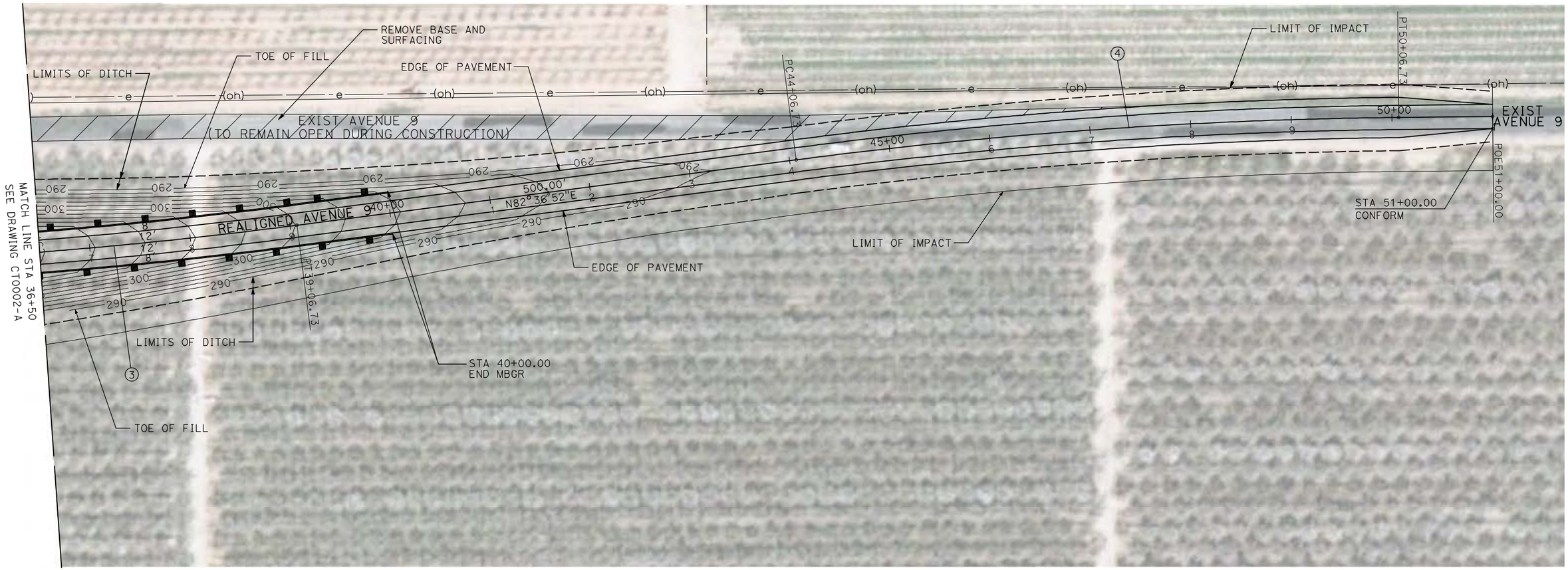
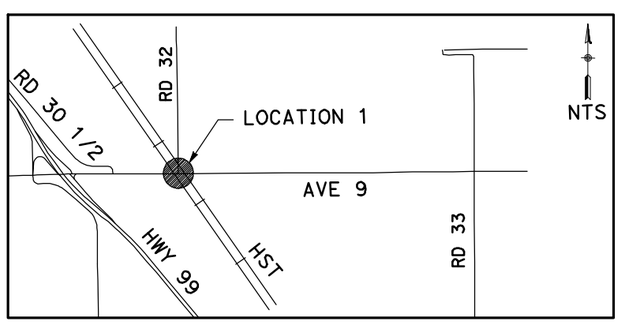
4	5000.00'	6°52'32"	300.36'	600.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1000-A THROUGH CT1002-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0003-A
SCALE AS SHOWN
SHEET NO. OF ###

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CURVE DATA

NO.	R	Δ	T	L	V
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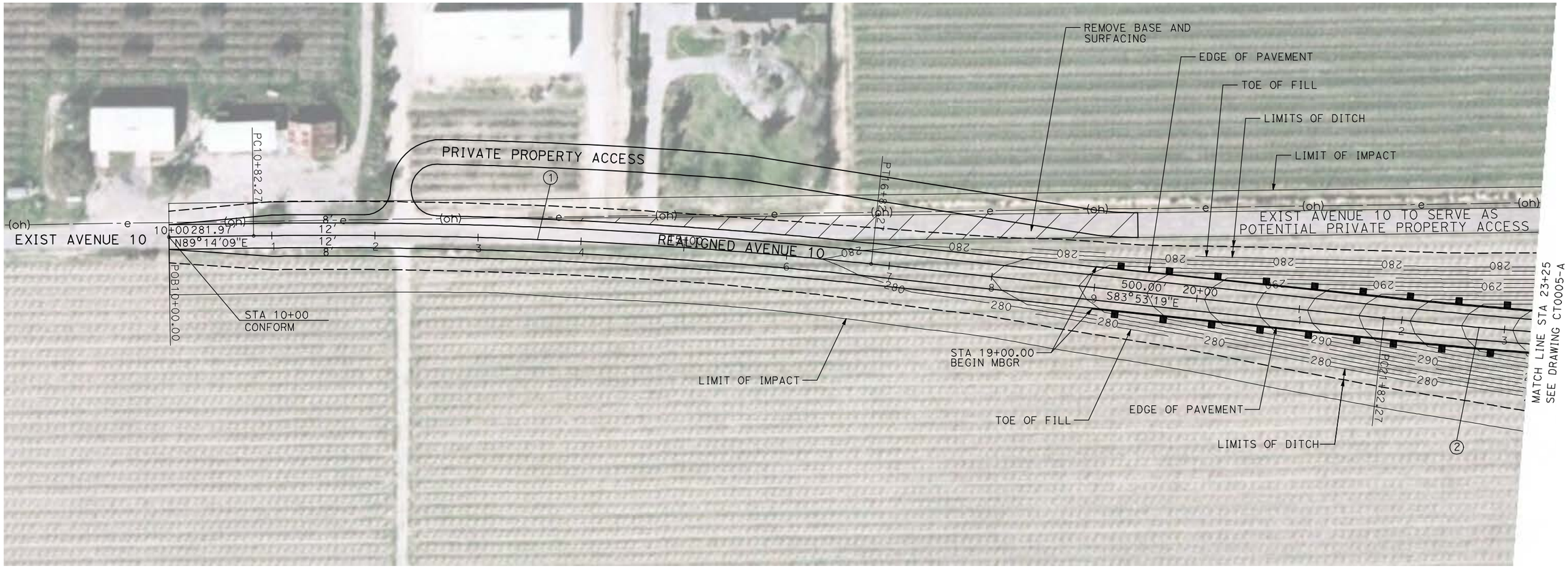
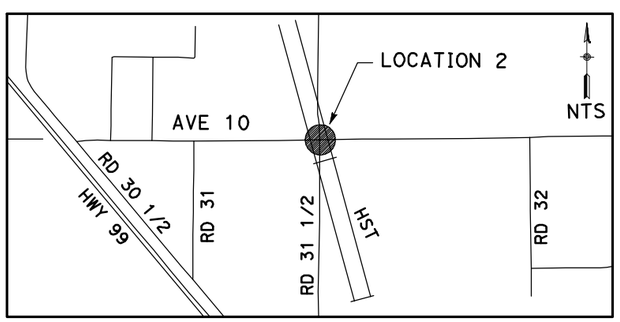
2	5000.00'	6°52'32"	300.36'	600.00'	45 MPH





NOTE:

1. FOR PROFILES, SEE DRAWINGS CT1003-A THROUGH CT1005-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0004-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:32:45 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0004-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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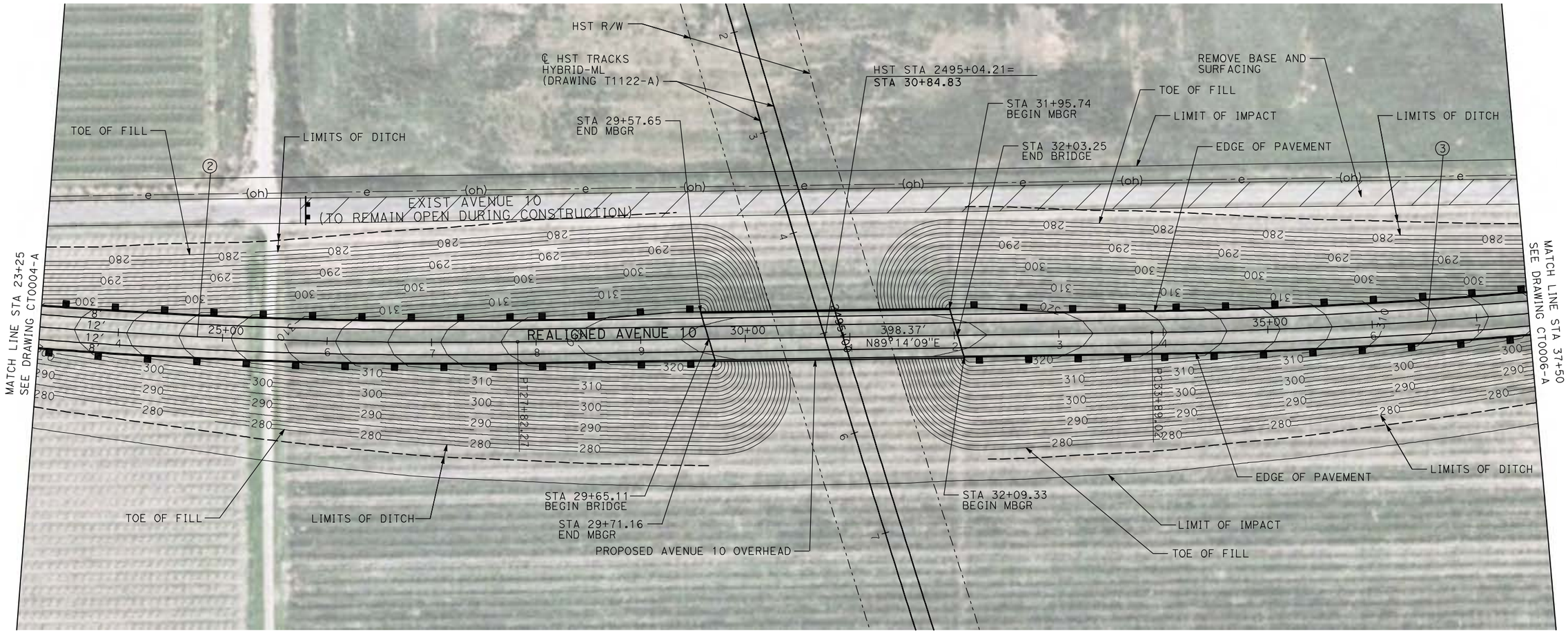
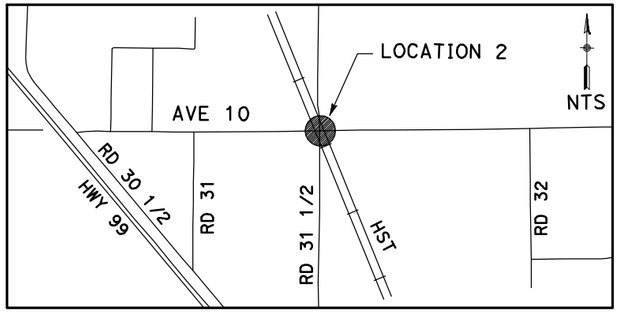
3	5000.00'	6°52'32"	300.36'	600.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1003-A THROUGH CT1005-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0005-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:32:53 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0005-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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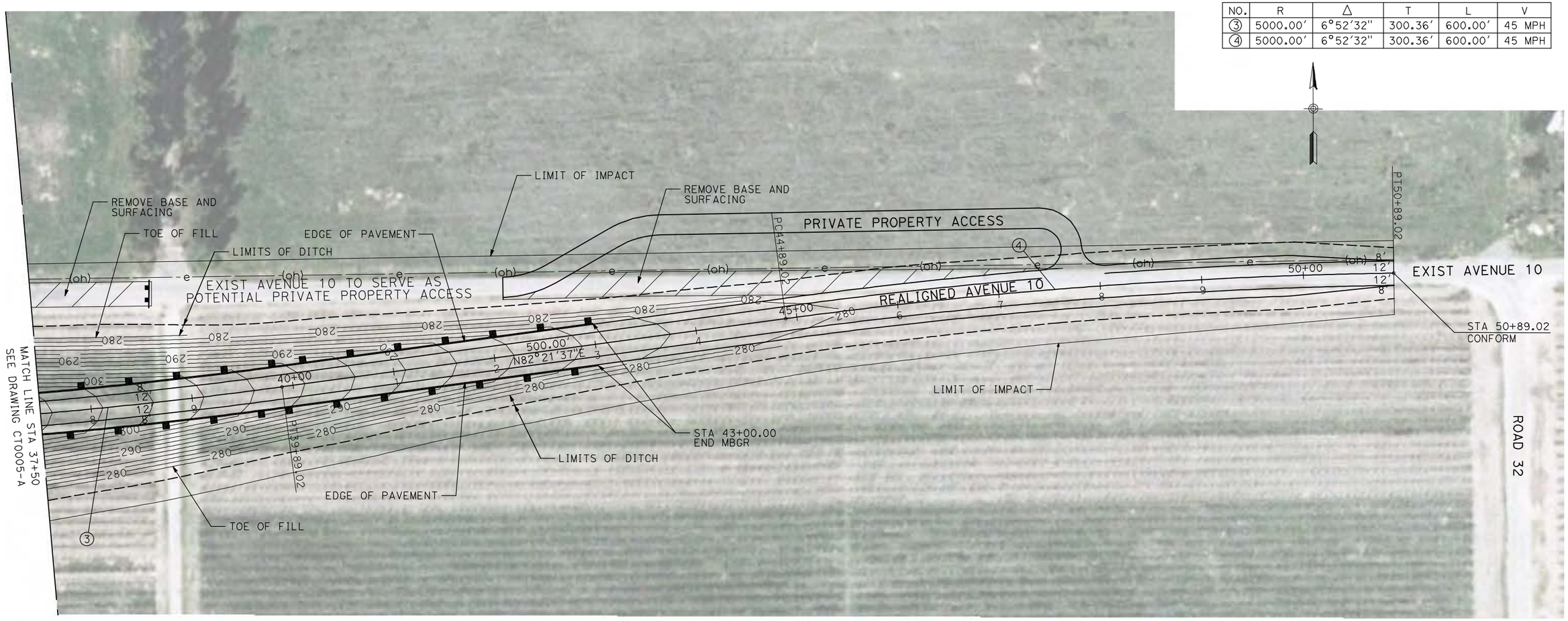
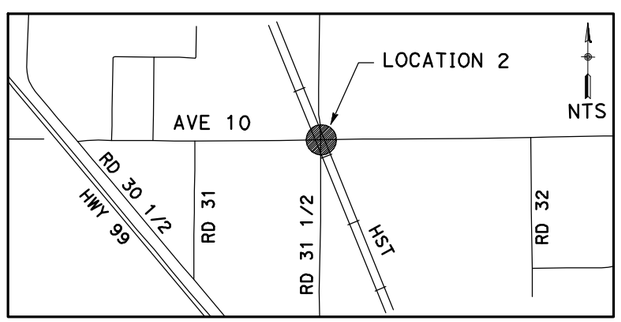
4	5000.00'	6°52'32"	300.36'	600.00'	45 MPH



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1003-A THROUGH CT1005-A.



50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0006-A
SCALE AS SHOWN
SHEET NO. OF ###

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CURVE DATA

NO.	R	Δ	T	L	V
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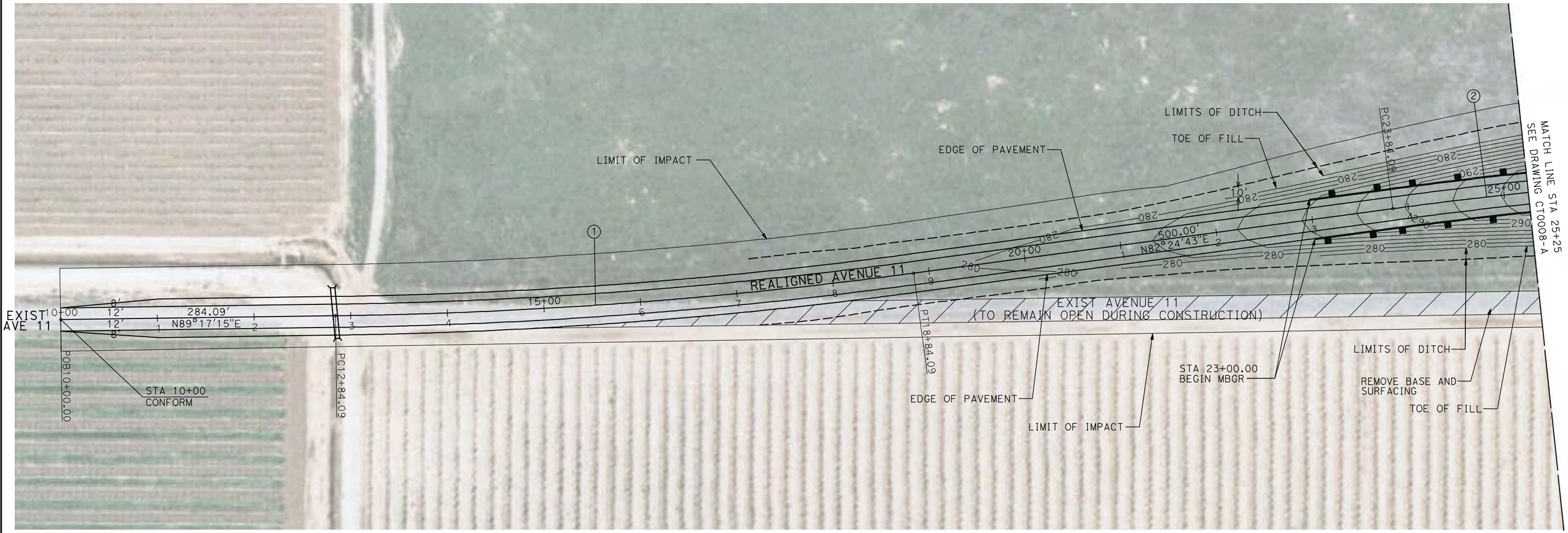
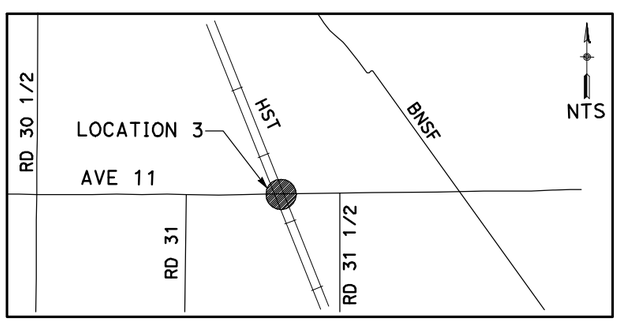
2	5000.00′	6°52′32″	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1006-A THROUGH CT1008-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0007-A
SCALE AS SHOWN
SHEET NO. OF ###

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CURVE DATA

NO.	R	Δ	T	L	V
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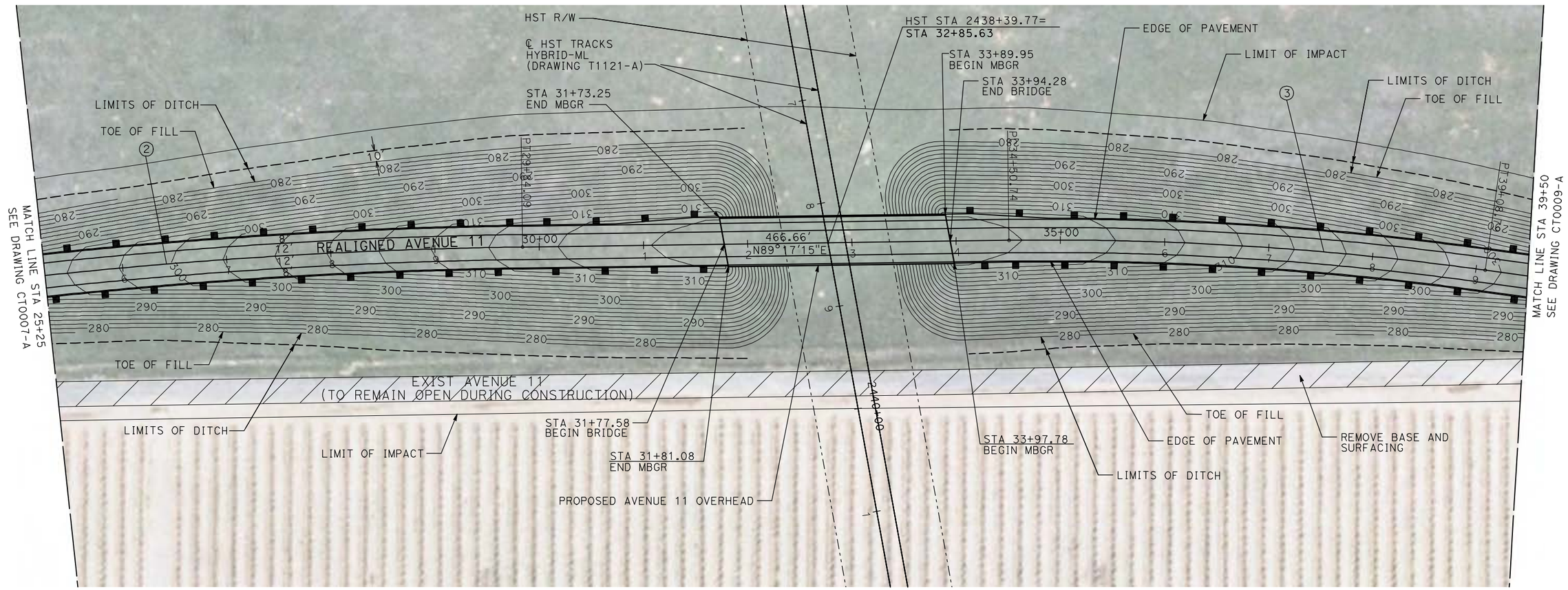
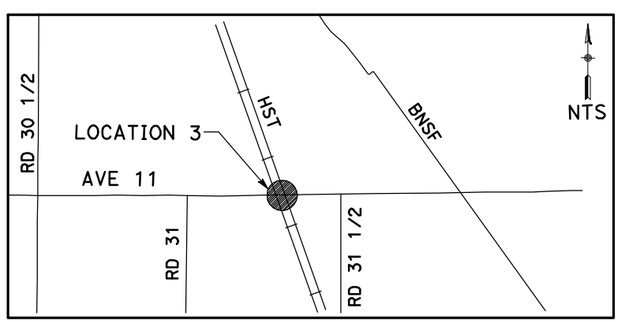
3	3000.00′	8°44′53"	229.47′	458.05′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1006-A THROUGH CT1008-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0008-A
SCALE AS SHOWN
SHEET NO. OF ###

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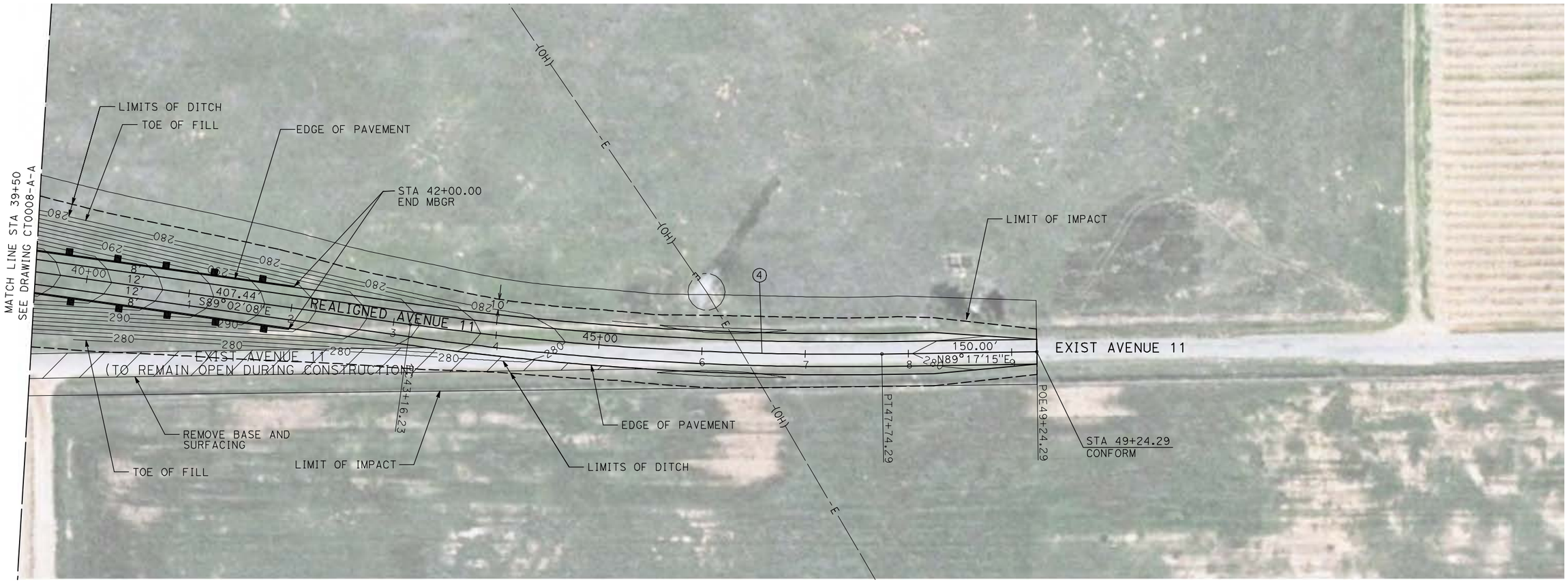
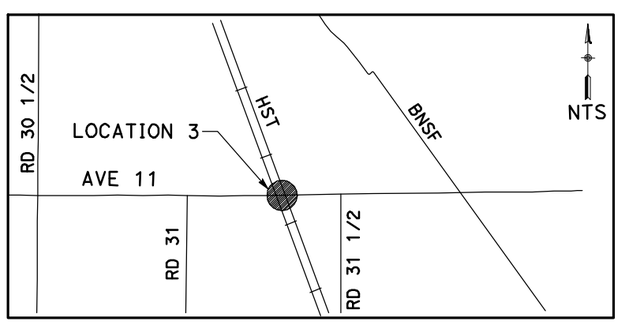
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
4	3000.00'	8°44'53"	229.47'	458.05'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1006-A THROUGH CT1008-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0009-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:33:26 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0009-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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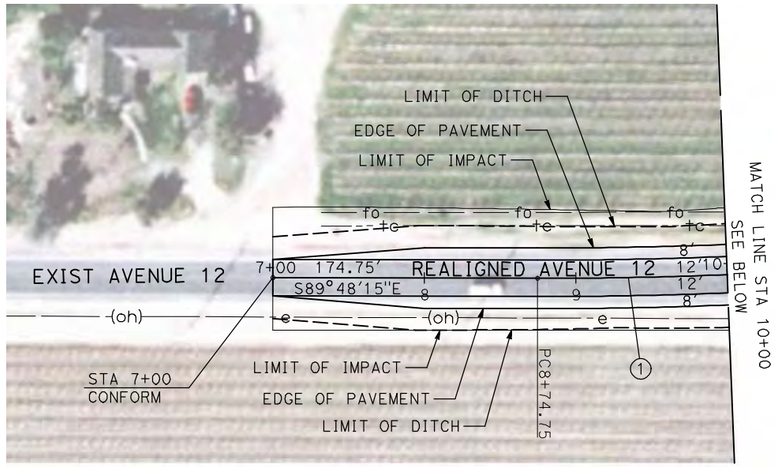
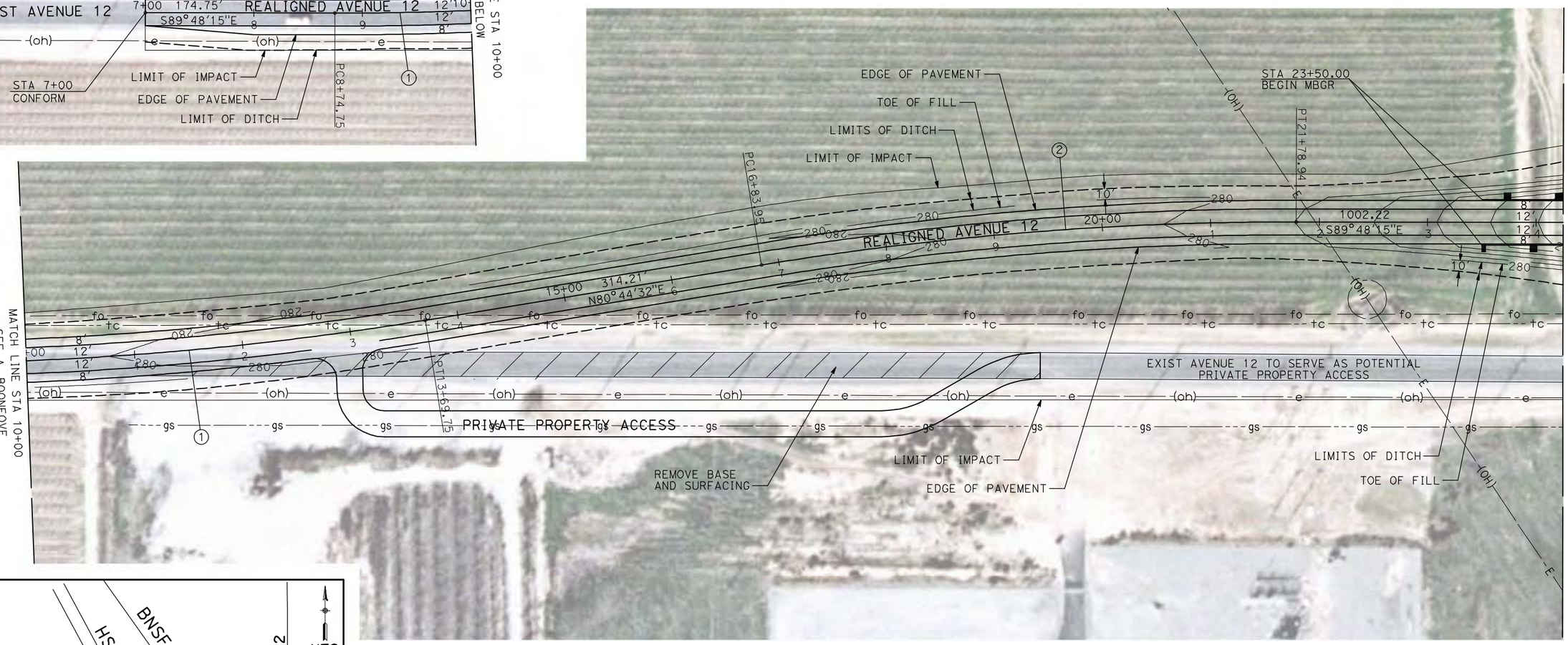
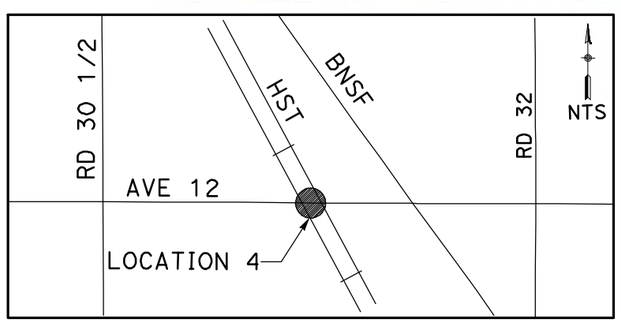
2	3000.00′	9°27′13"	248.06′	494.99′	45 MPH







NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1009-A THROUGH CT1011-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0010-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:33:34 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0010-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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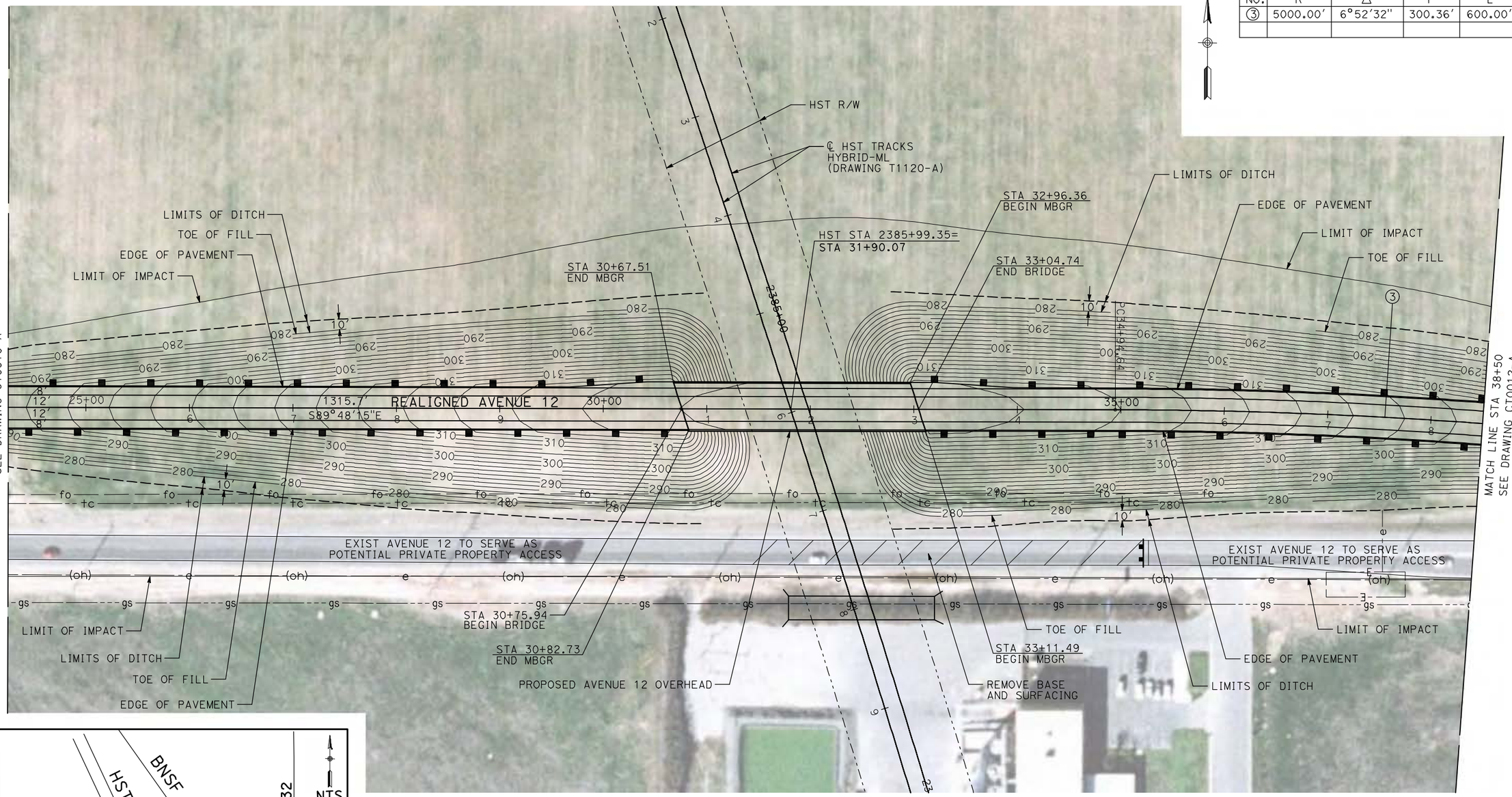
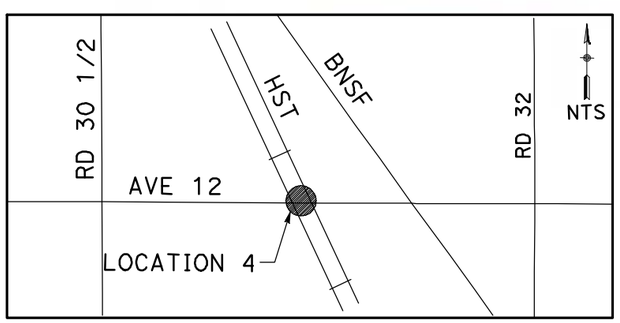




NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1009-A THROUGH CT1011-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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

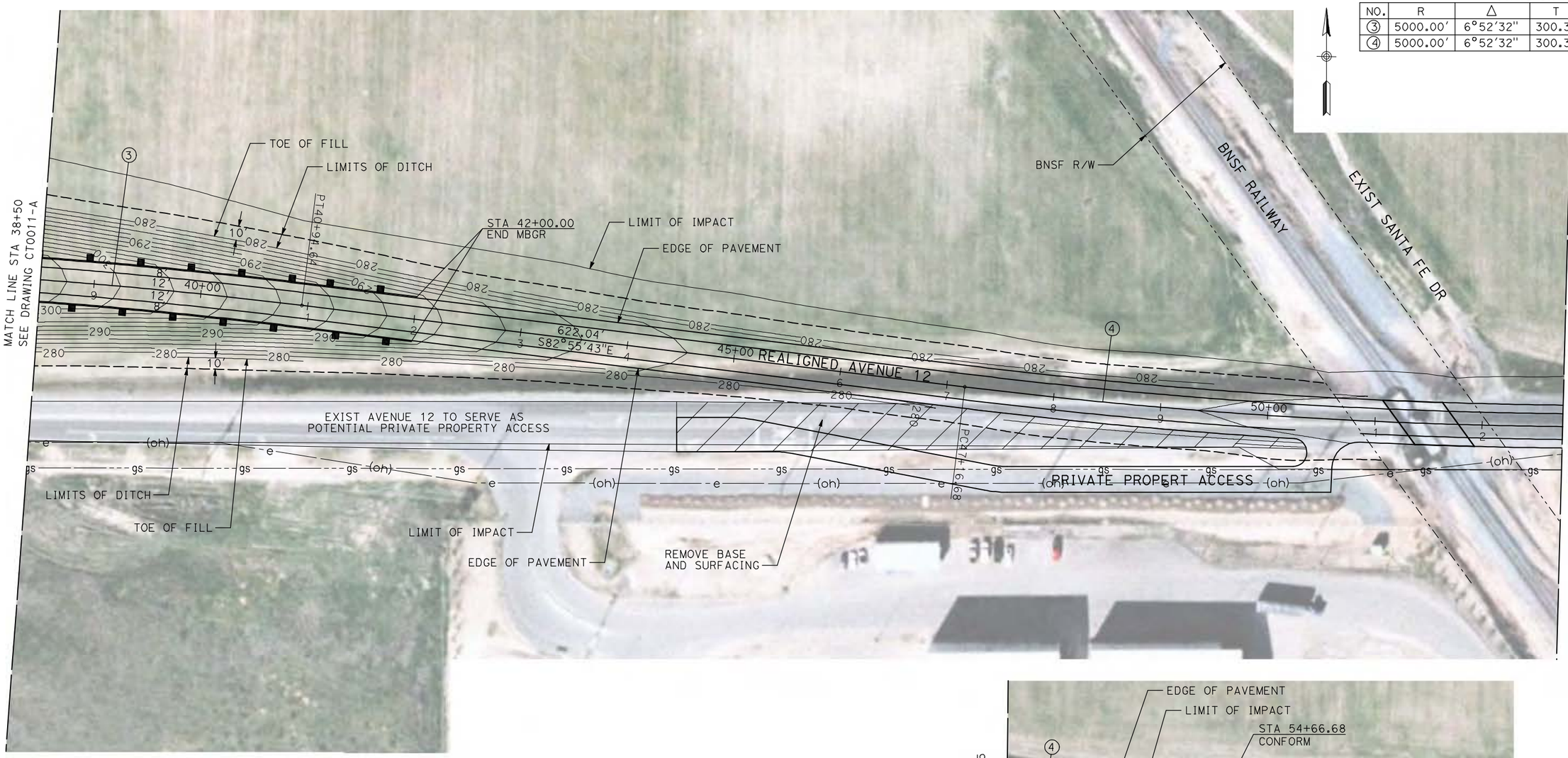
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
LAYOUT
SHEET 2 OF 3

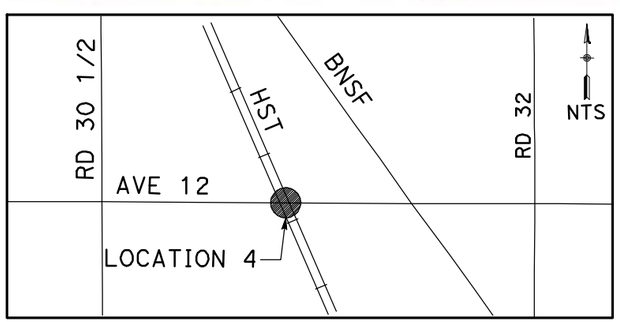
CONTRACT NO. HST06-007
DRAWING NO. CT0011-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:33:42 PM i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0011-A.dgn

CURVE DATA

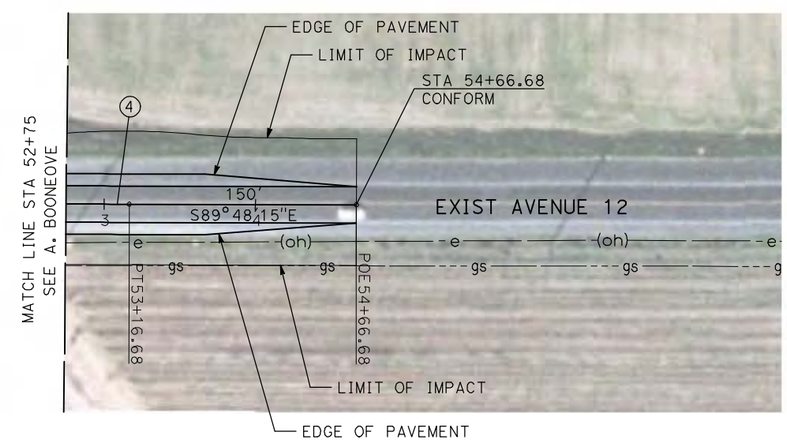
NO.	R	Δ	T	L	V
3	5000.00′	6°52′32"	300.36′	600.00′	45 MPH
4	5000.00′	6°52′32"	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1009-A THROUGH CT1011-A.



50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0012-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:33:52 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0012-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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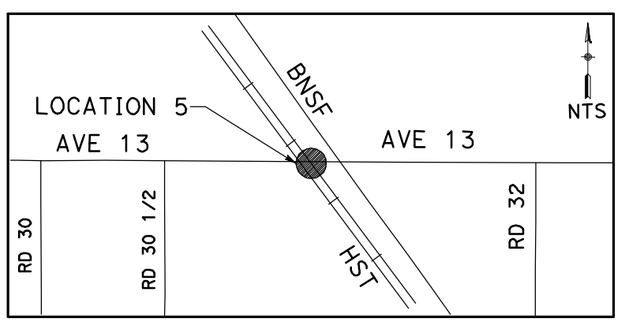
2	5000.00′	6°52′32"	300.36′	600.00′	45 MPH



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1012-A THROUGH CT1014-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
LAYOUT
SHEET 1 OF 4

CONTRACT NO. HST06-007
DRAWING NO. CT0013-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:33:59 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0013-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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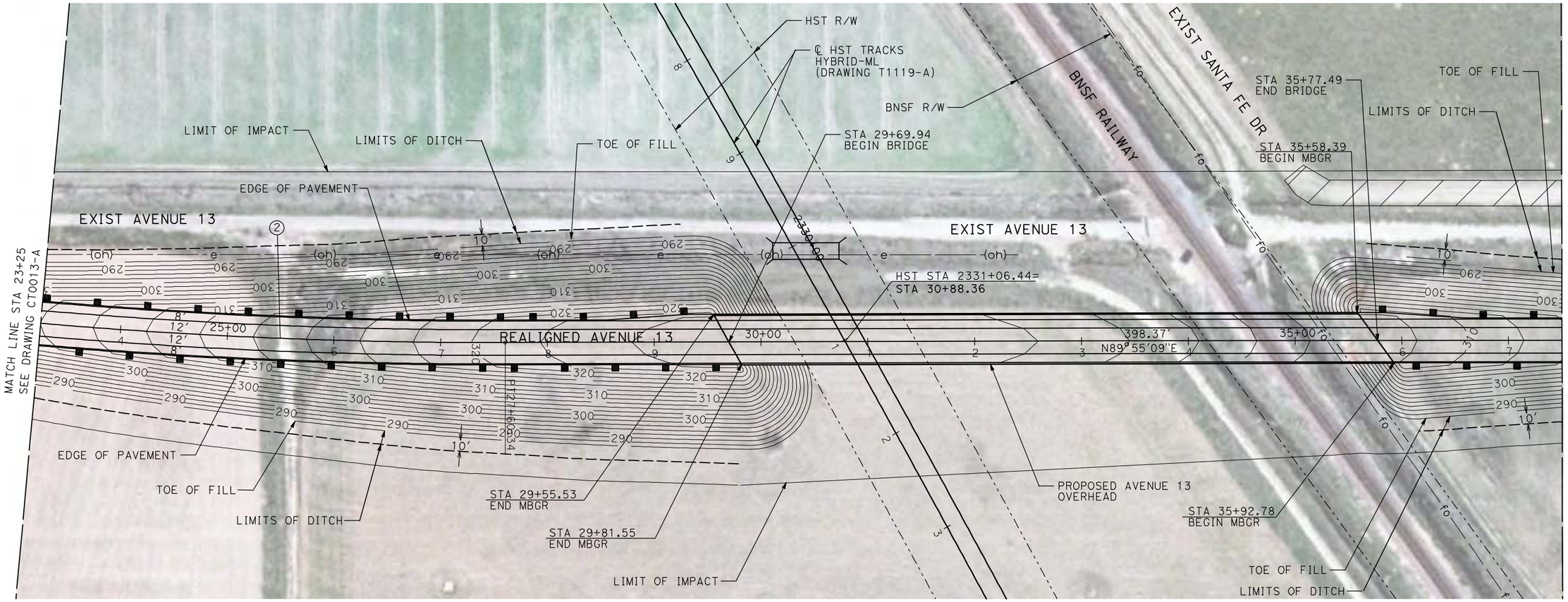
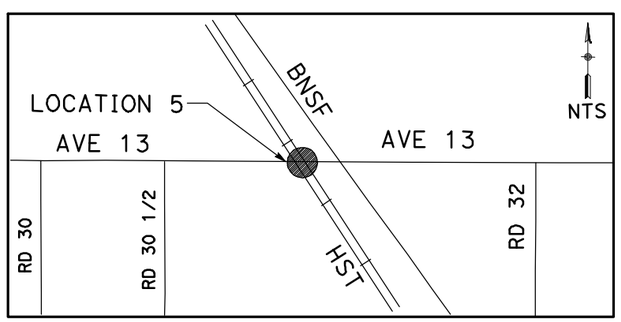
3	5000.00′	6°52′32"	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1012-A THROUGH CT1014-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
LAYOUT
SHEET 2 OF 4

CONTRACT NO. HST06-007
DRAWING NO. CT0014-A
SCALE AS SHOWN
SHEET NO. OF ###

5/1/2011 1:34:07 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0014-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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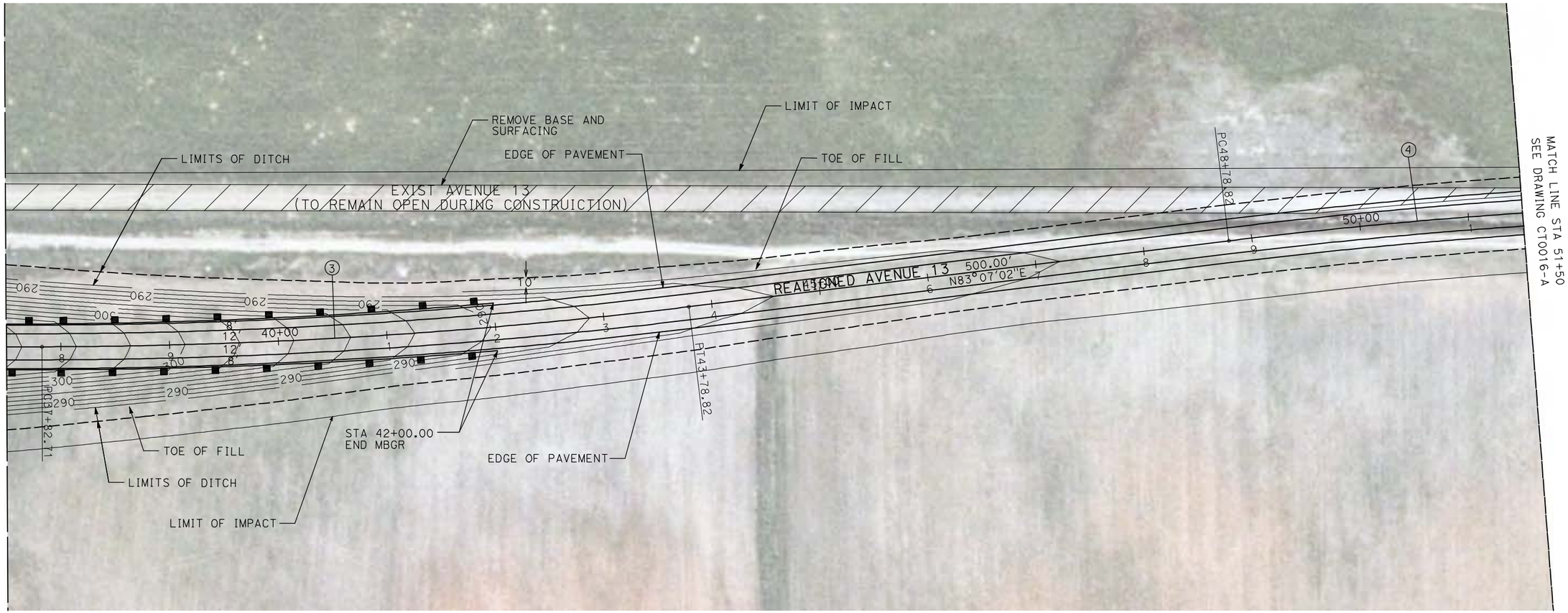
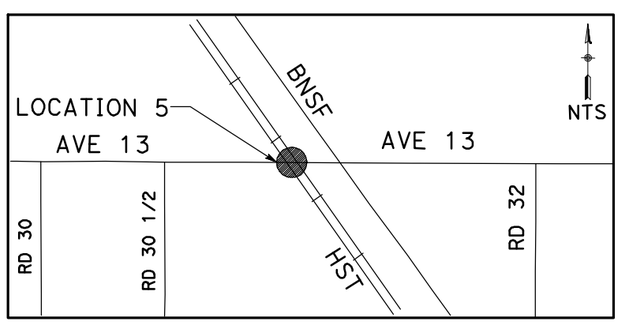
4	5000.00'	6°52'32"	300.36'	600.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1012-A THROUGH CT1014-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
LAYOUT
SHEET 3 OF 4

CONTRACT NO. HST06-007
DRAWING NO. CT0015-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:34:15 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0015-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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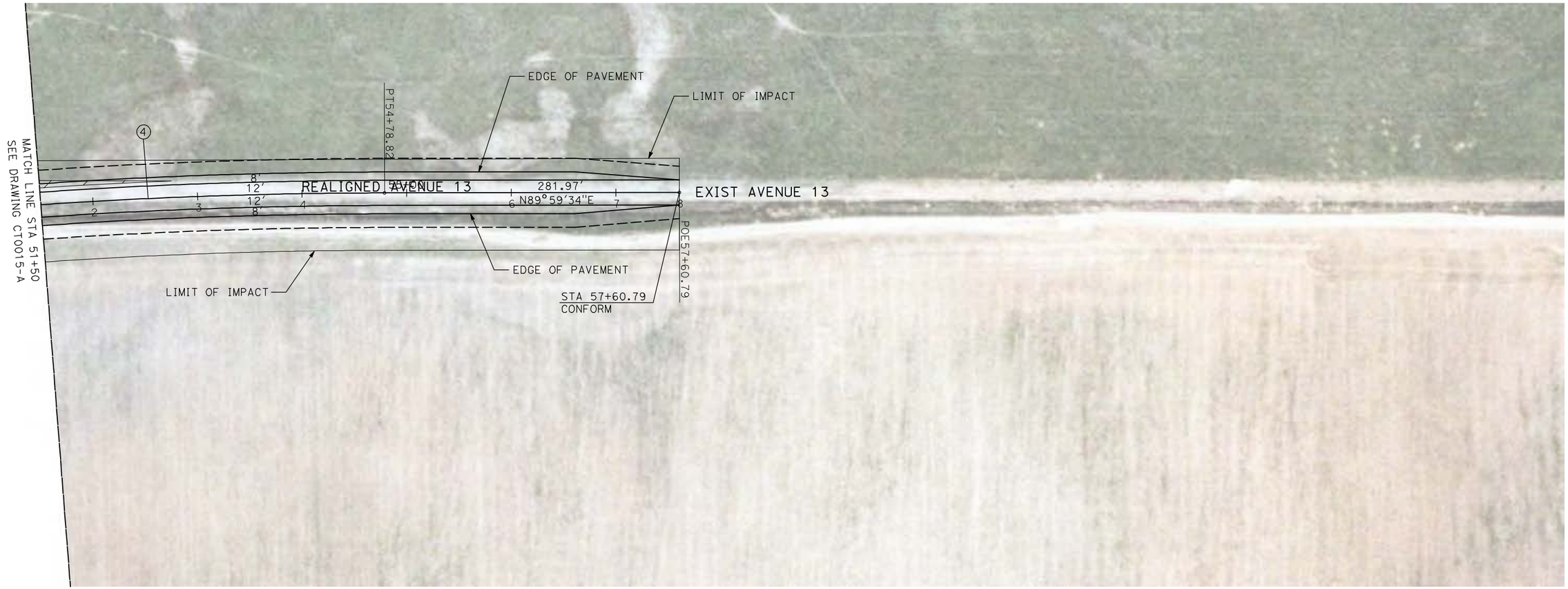

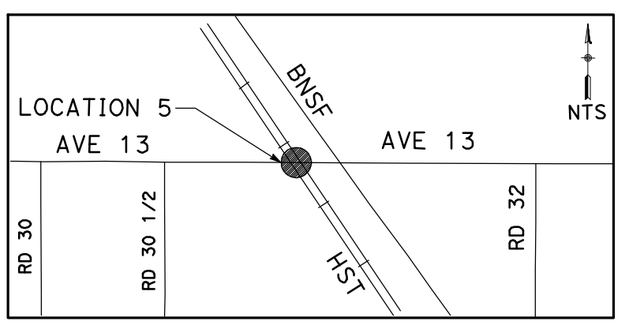

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1012-A THROUGH CT1014-A.

50 0 50 100
1″=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
LAYOUT
SHEET 4 OF 4

CONTRACT NO. HST06-007
DRAWING NO. CT0016-A
SCALE AS SHOWN
SHEET NO. OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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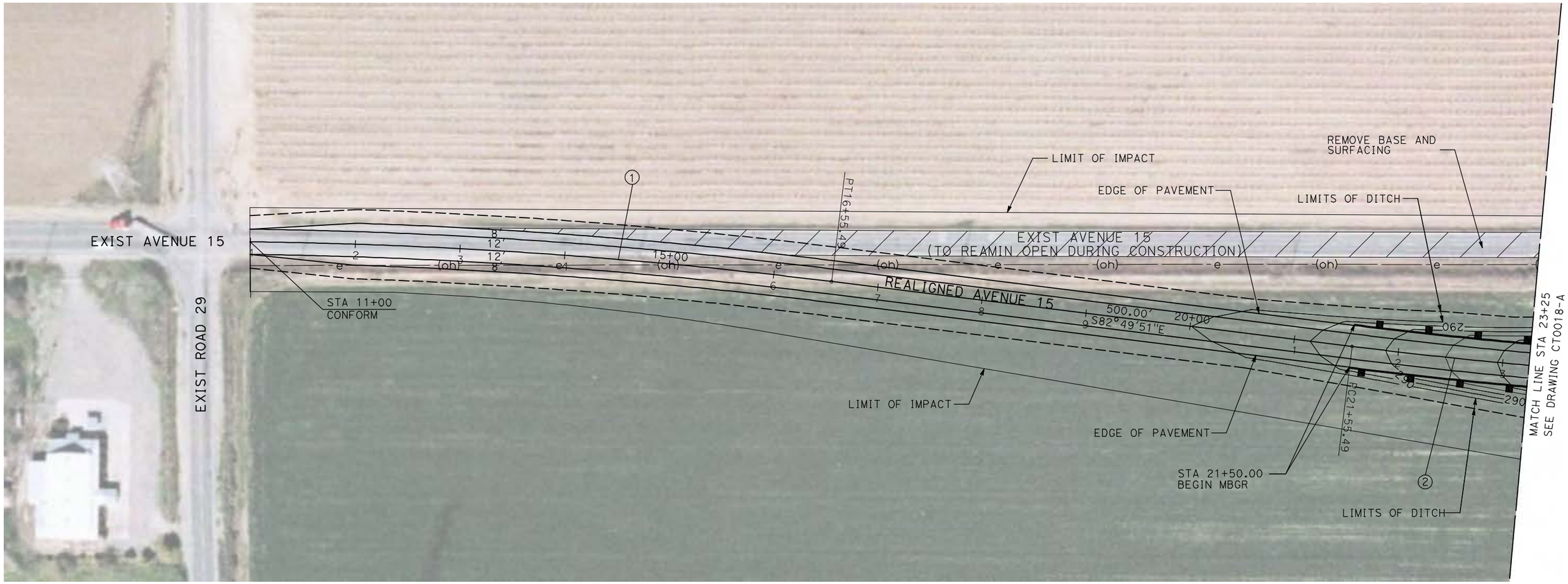
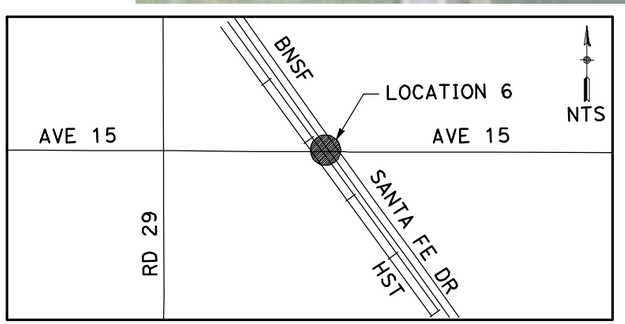
2	5000.00′	6°52′32"	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1015-A THROUGH CT1017-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0017-A
SCALE AS SHOWN
SHEET NO. OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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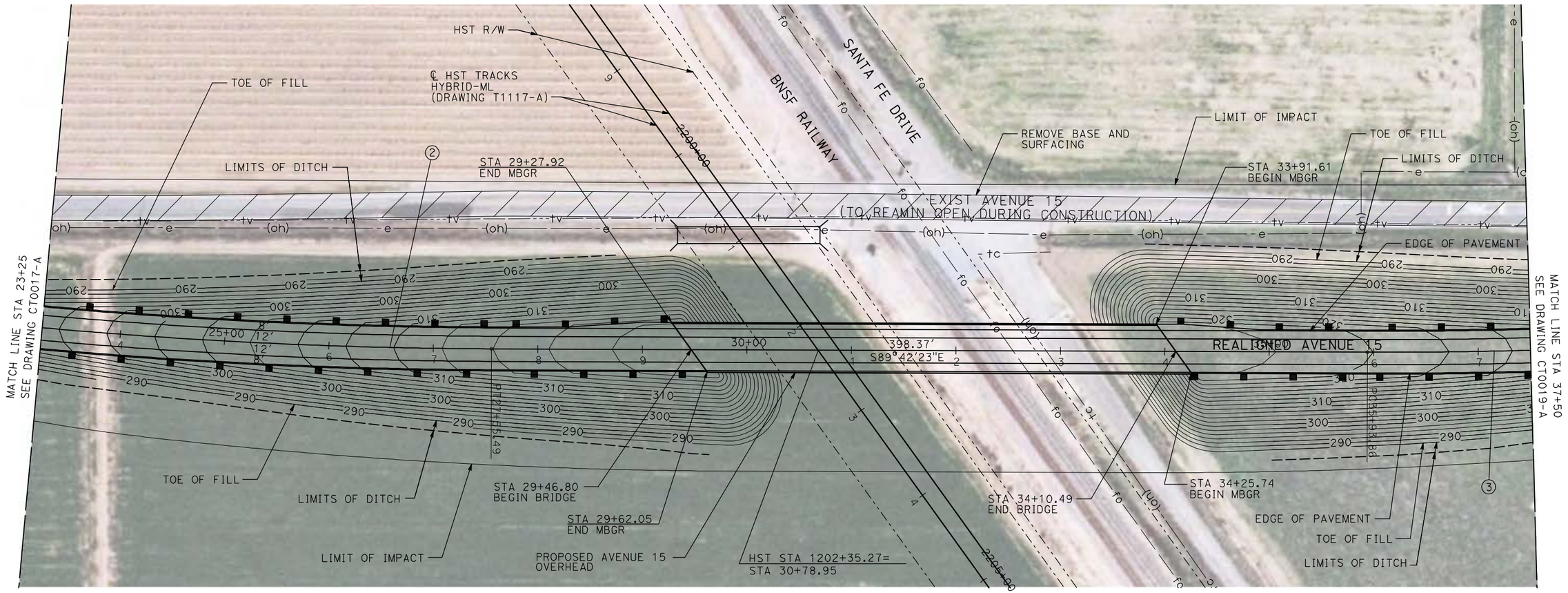
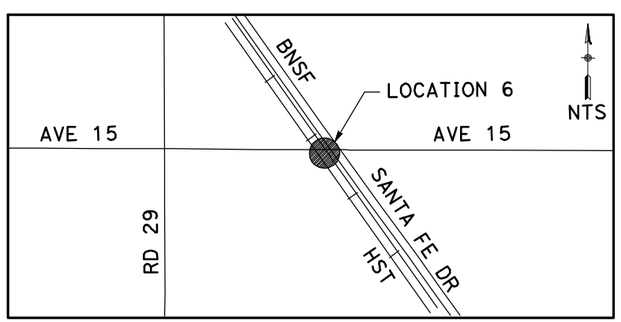
3	5000.00′	6°52′32"	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1015-A THROUGH CT1017-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0018-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:34:34 PM I:\cnsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0018-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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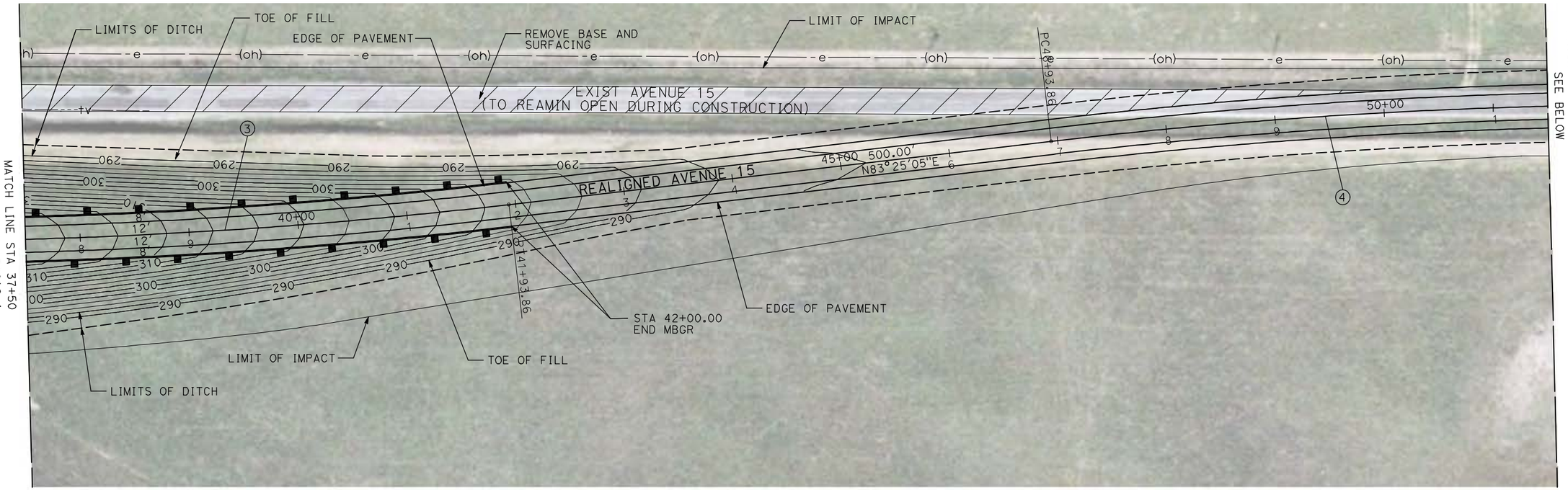
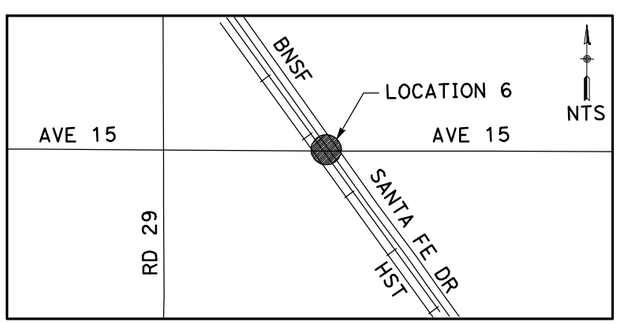
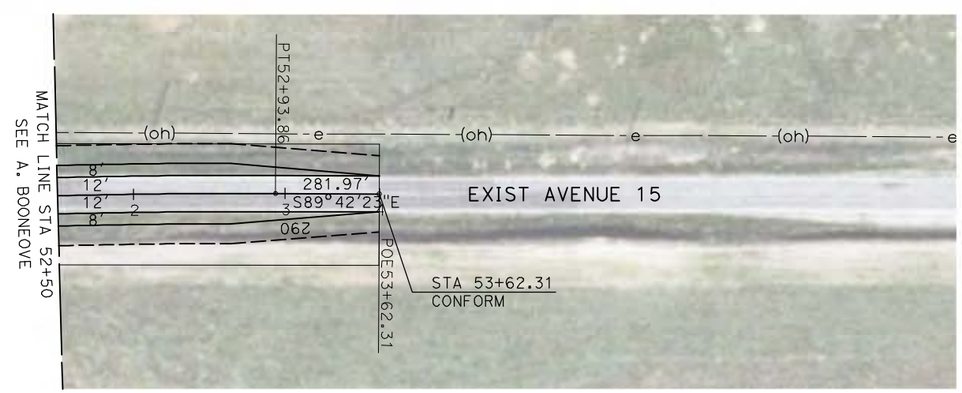
4	5000.00′	6°52′32"	300.36′	600.00′	45 MPH



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1015-A THROUGH CT1017-A.





50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0019-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:34:42 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0019-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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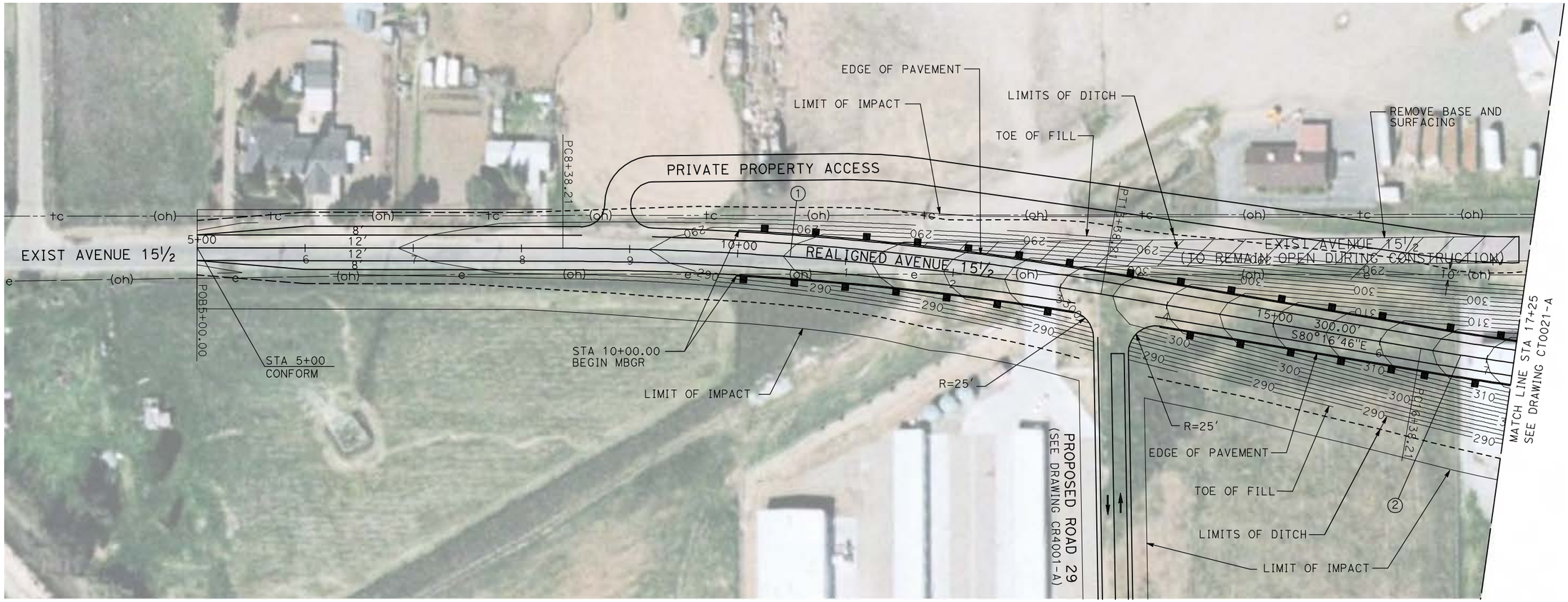
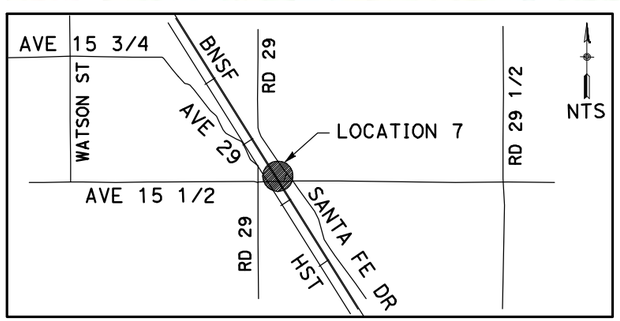
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1018-A THROUGH CT1020-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

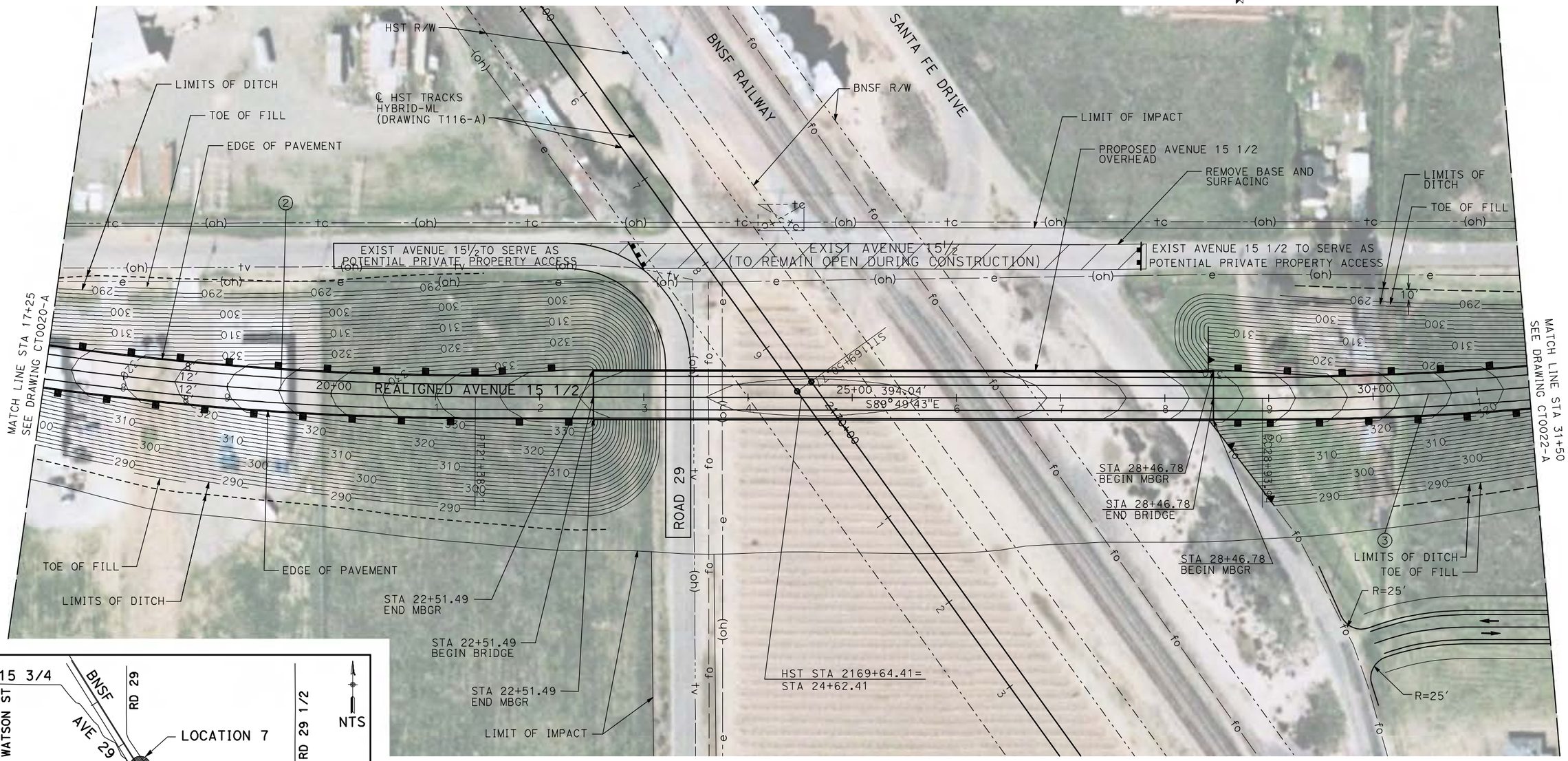
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
LAYOUT
SHEET 1 OF 3

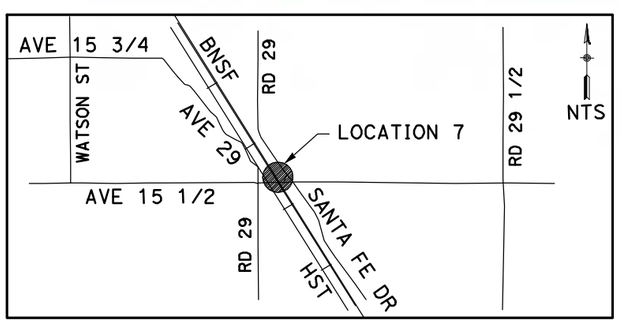
CONTRACT NO. HST06-007
DRAWING NO. CT0020-A
SCALE AS SHOWN
SHEET NO. OF ###

5/1/2011 1:34:49 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0020-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
②	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
③	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1018-A THROUGH CT1020-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0021-A
SCALE AS SHOWN
SHEET NO. OF ###

i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0021-A.dgn 5/1/2011 1:34:56 PM GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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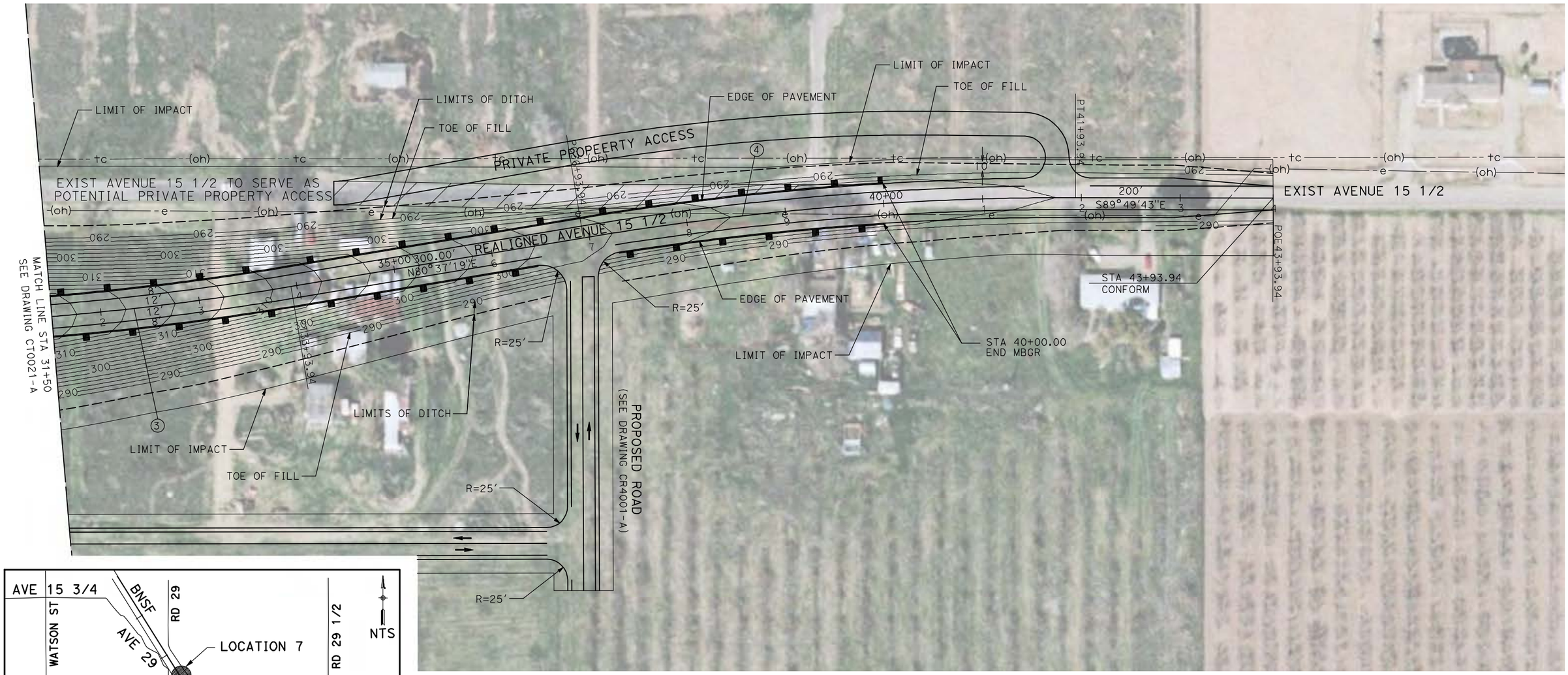
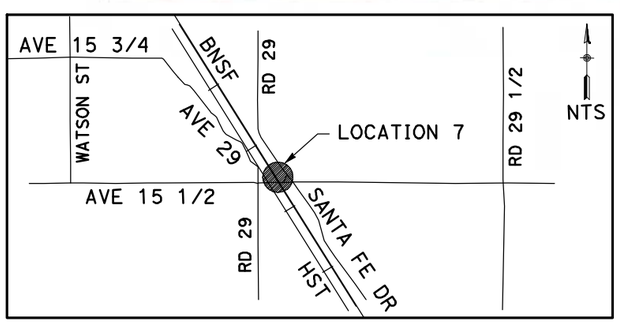
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1018-A THROUGH CT1020-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0022-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:35:05 PM i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0022-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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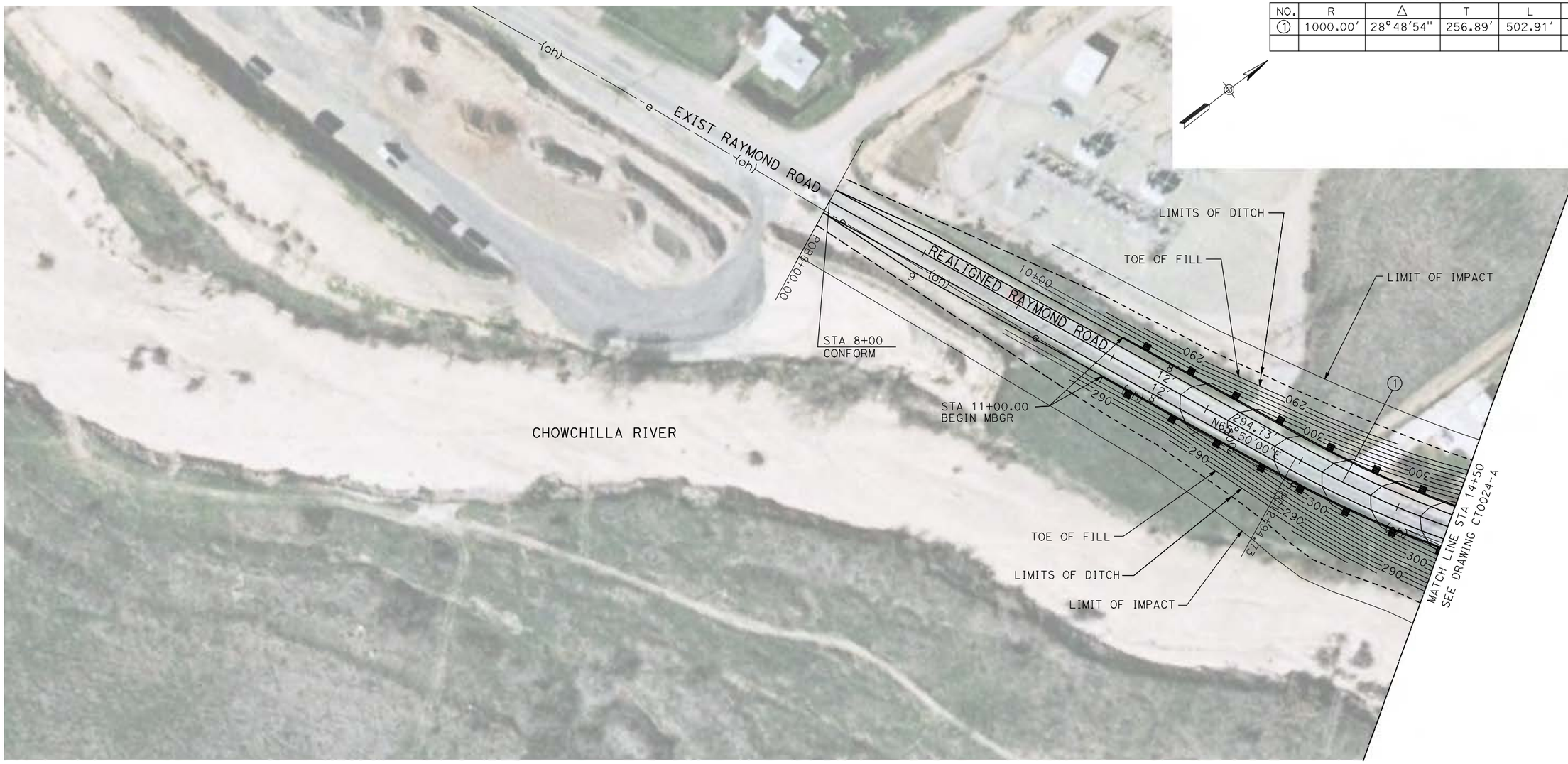

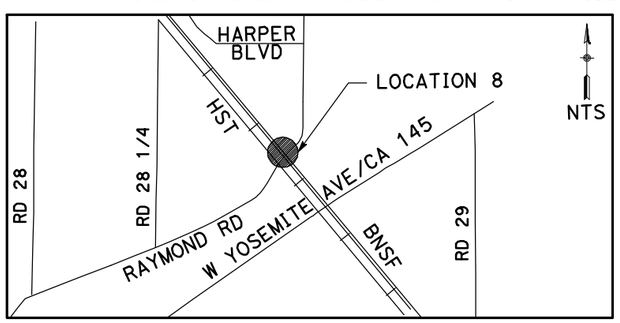

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1021-A THROUGH CT1023-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND ROAD
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0023-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:35:12 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0023-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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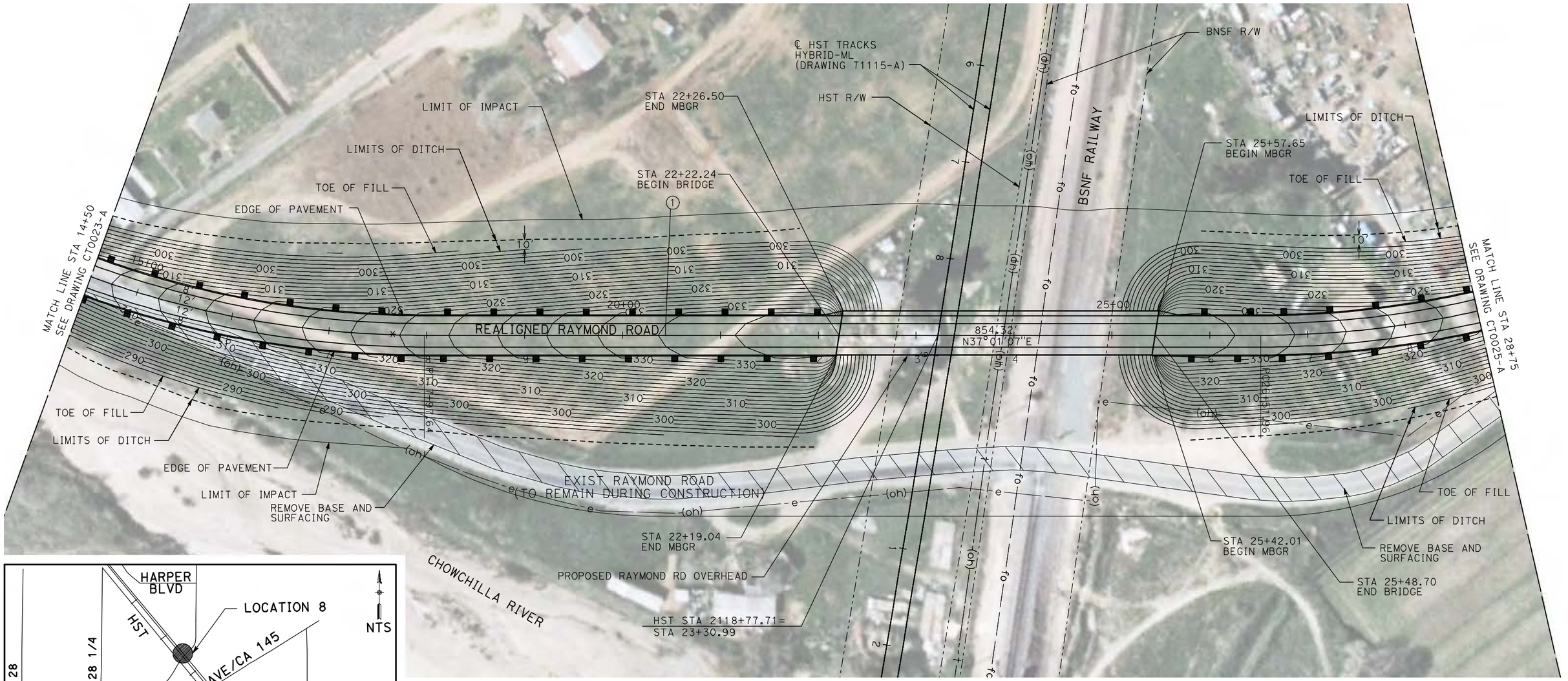


NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1021-A THROUGH CT1023-A.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

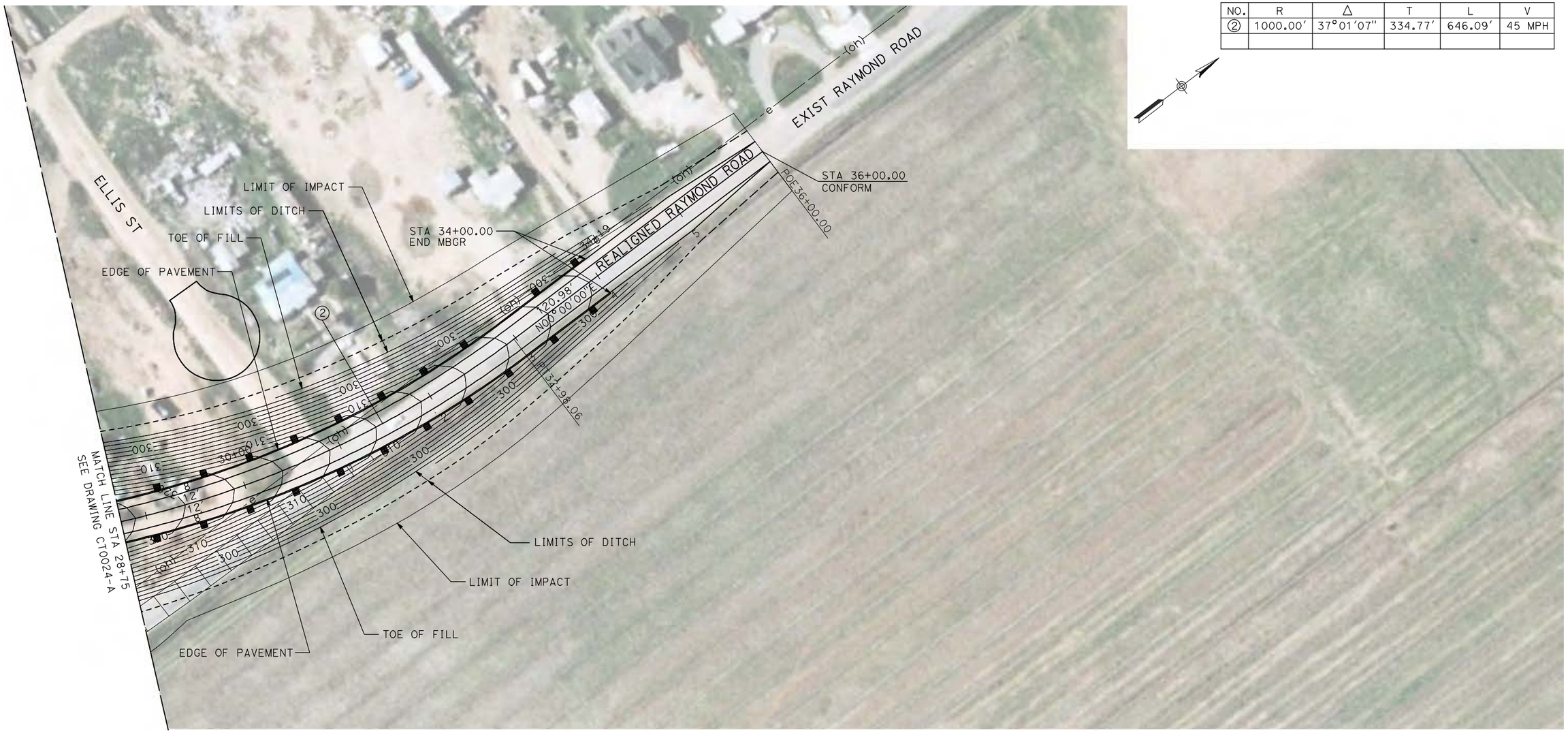
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND ROAD
LAYOUT
SHEET 2 OF 3

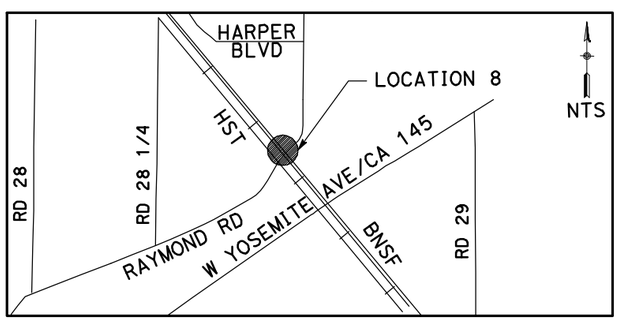
CONTRACT NO. HST06-007
DRAWING NO. CT0024-A
SCALE AS SHOWN
SHEET NO. OF ###

5/1/2011 1:35:18 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0024-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
2	1000.00'	37°01'07"	334.77'	646.09'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1021-A THROUGH CT1023-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND ROAD
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0025-A
SCALE AS SHOWN
SHEET NO. OF ###

5/1/2011 1:35:27 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0025-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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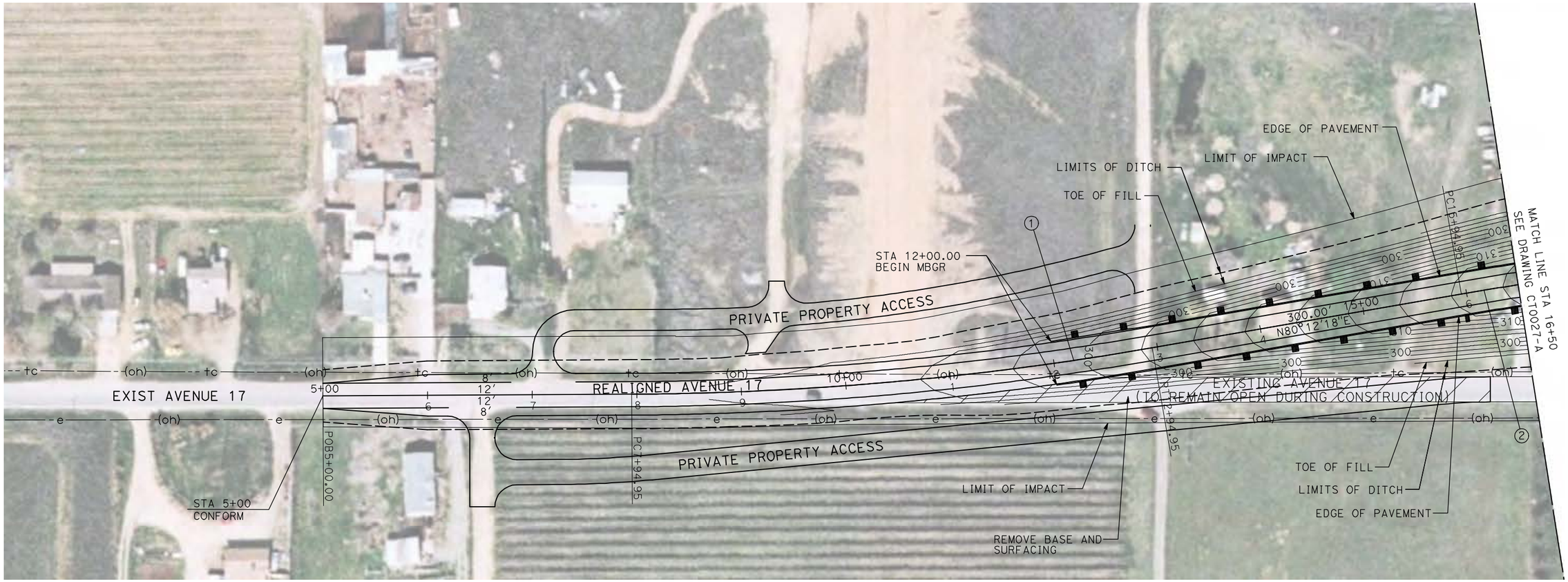

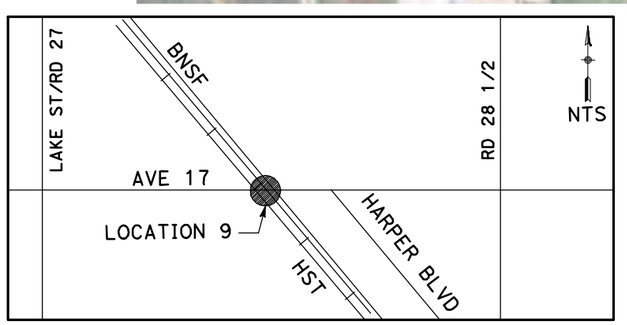

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1024-A THROUGH CT1026-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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SUBMITTAL

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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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0026-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:35:34 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0026-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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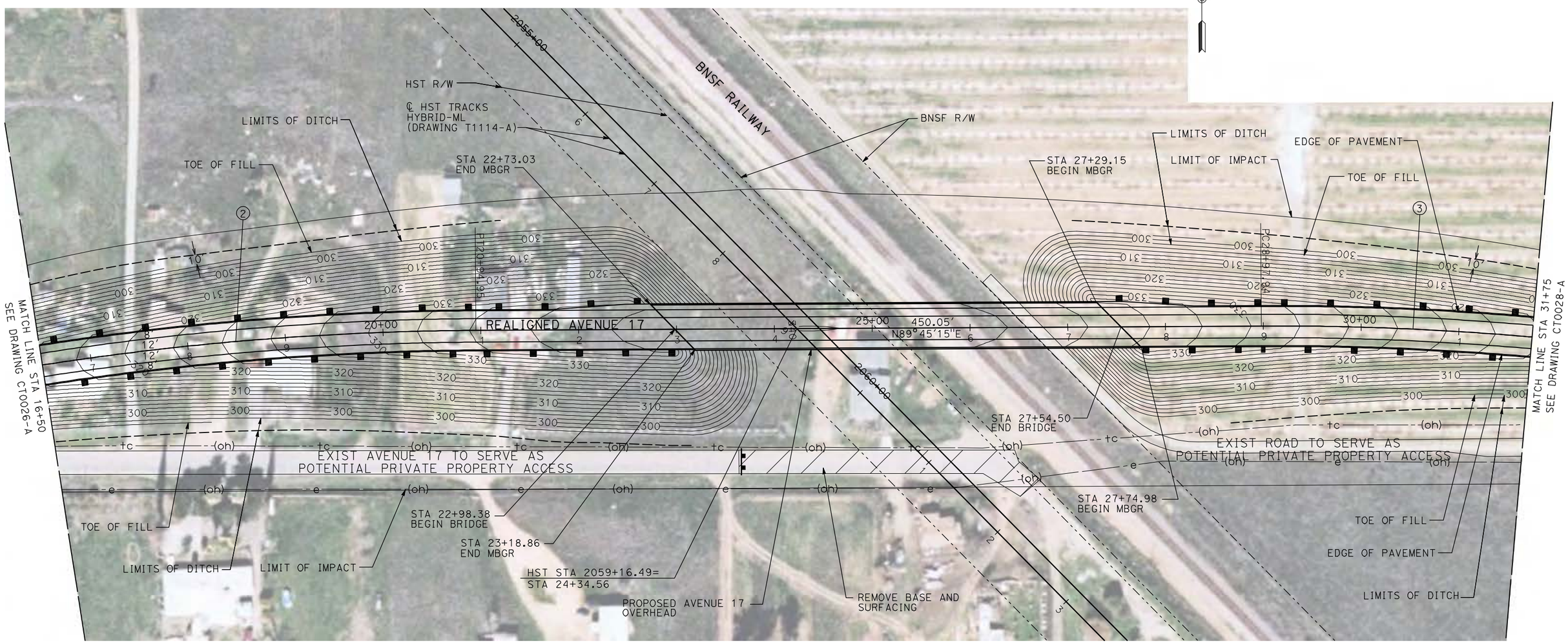
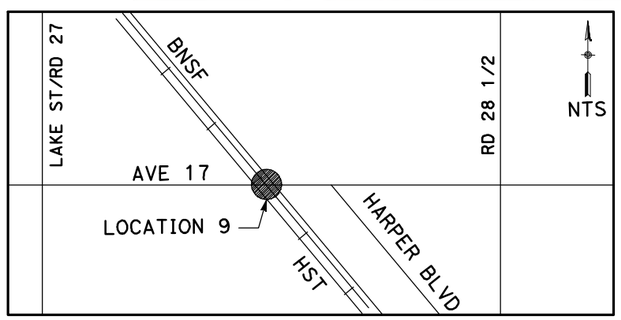
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1024-A THROUGH CT1026-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0027-A
SCALE AS SHOWN
SHEET NO. OF ###

i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0027-A.dgn 5/1/2011 1:35:41 PM GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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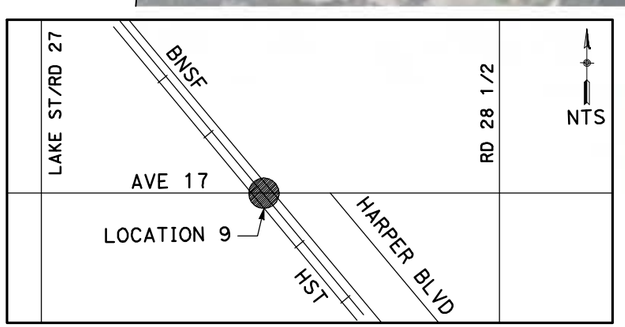
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1024-A THROUGH CT1026-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0028-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:35:49 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0028-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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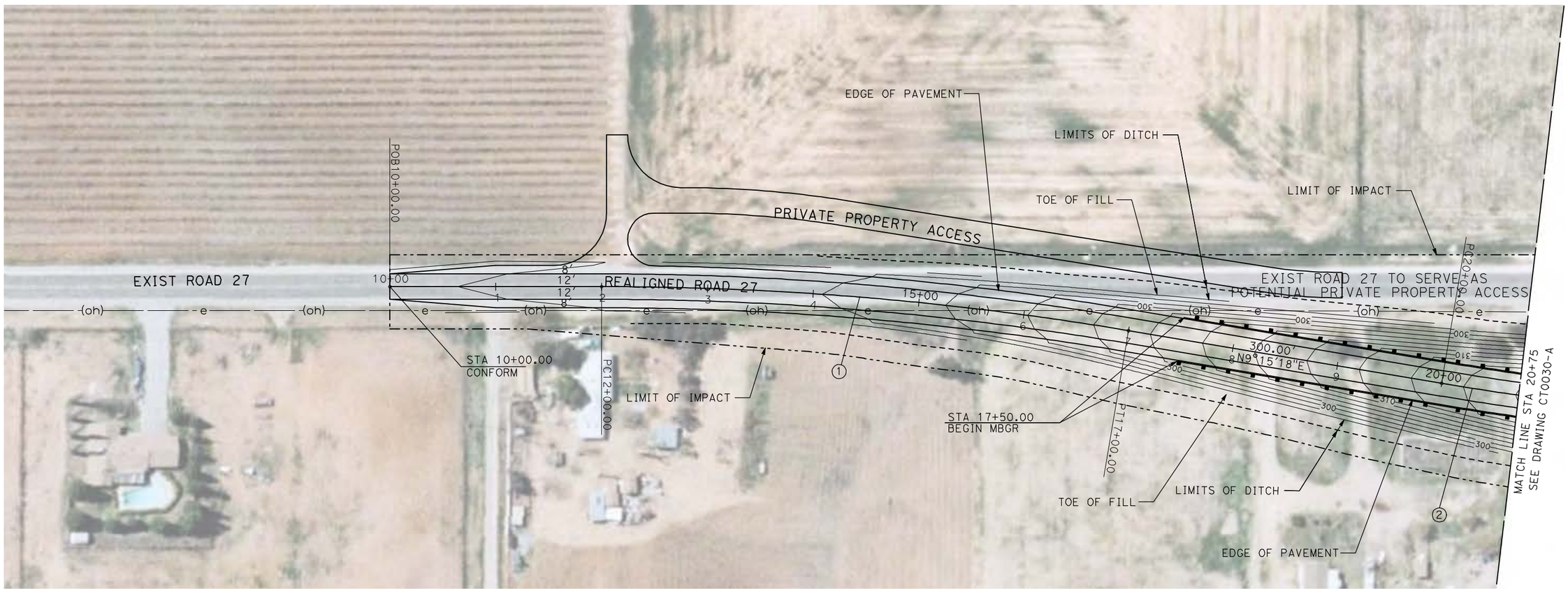
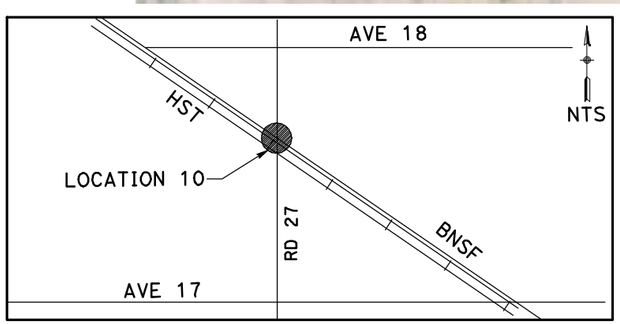
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1029-A THROUGH CT1031-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 27
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0029-A
SCALE AS SHOWN
SHEET NO. ### OF ###

5/1/2011 1:45:59 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0029-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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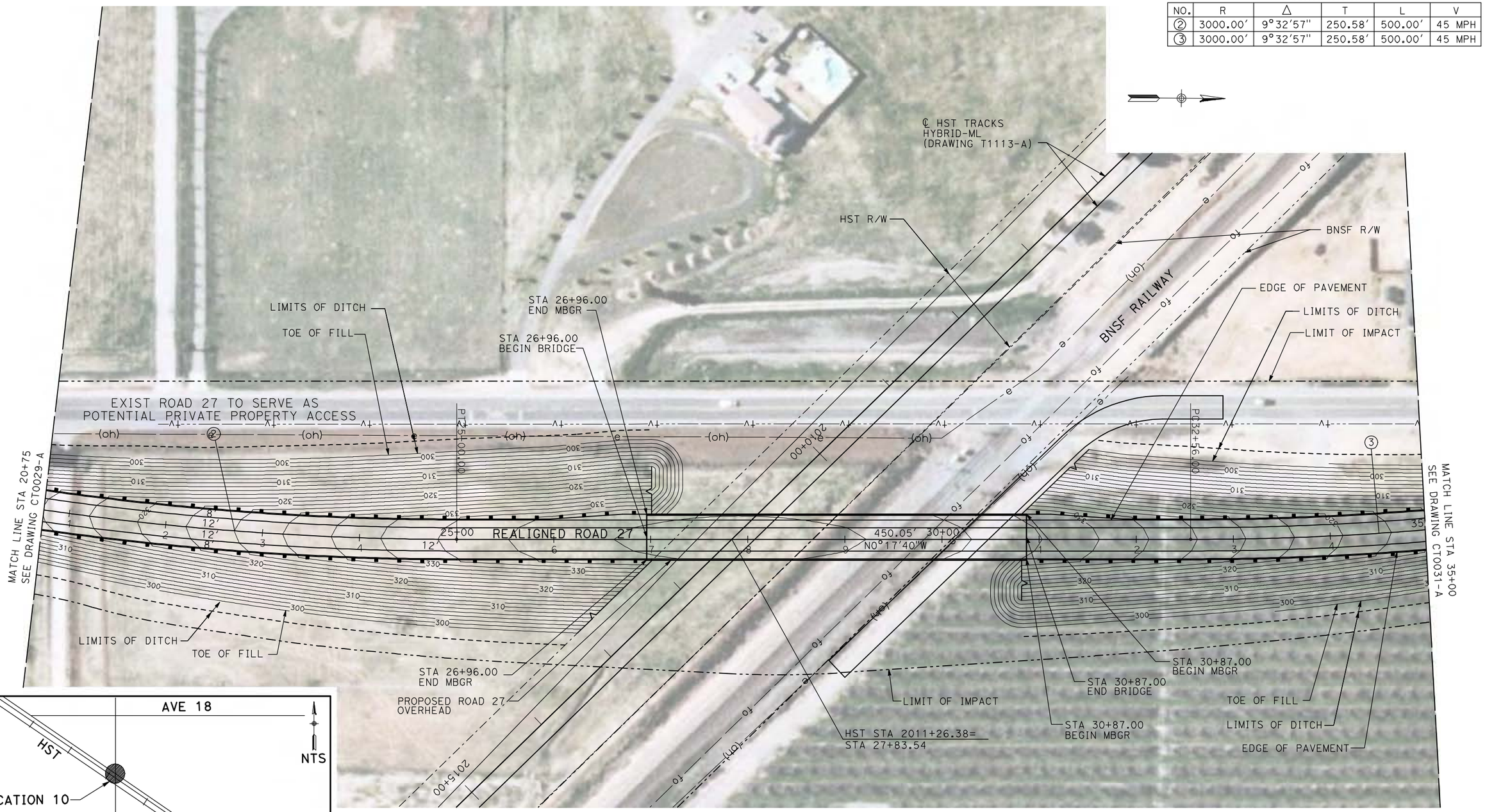

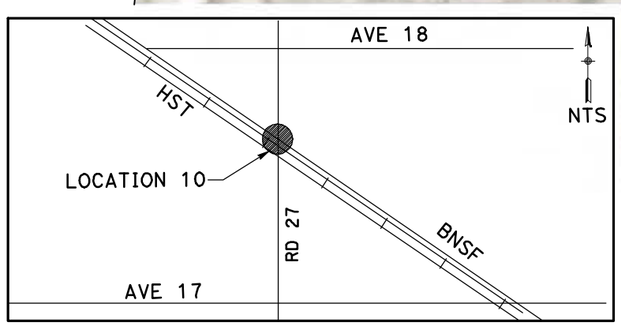

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1029-A THROUGH CT1031-A.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 27
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0030-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:46:07 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0030-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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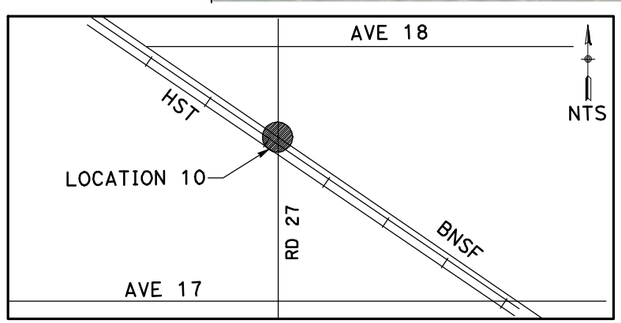

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1029-A THROUGH CT1031-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 27
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0031-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:46:16 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0031-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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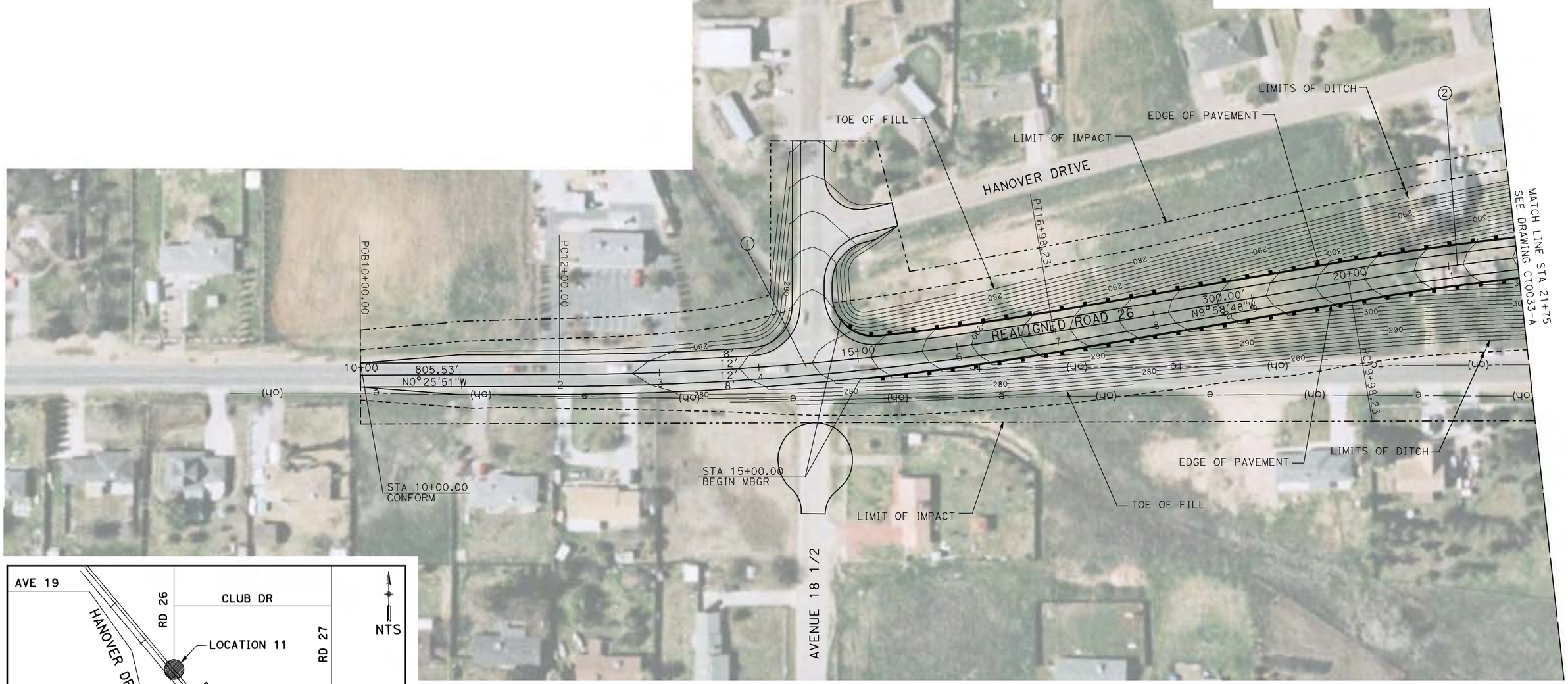

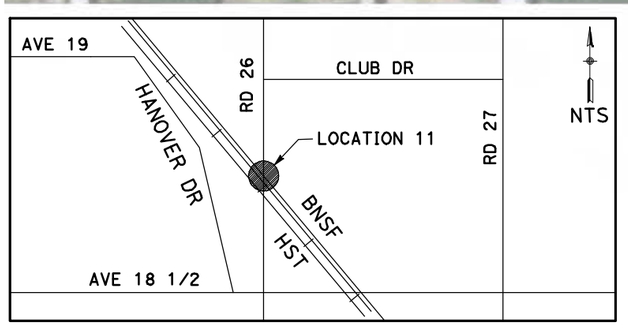

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1032-A THROUGH CT1034-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 26
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0032-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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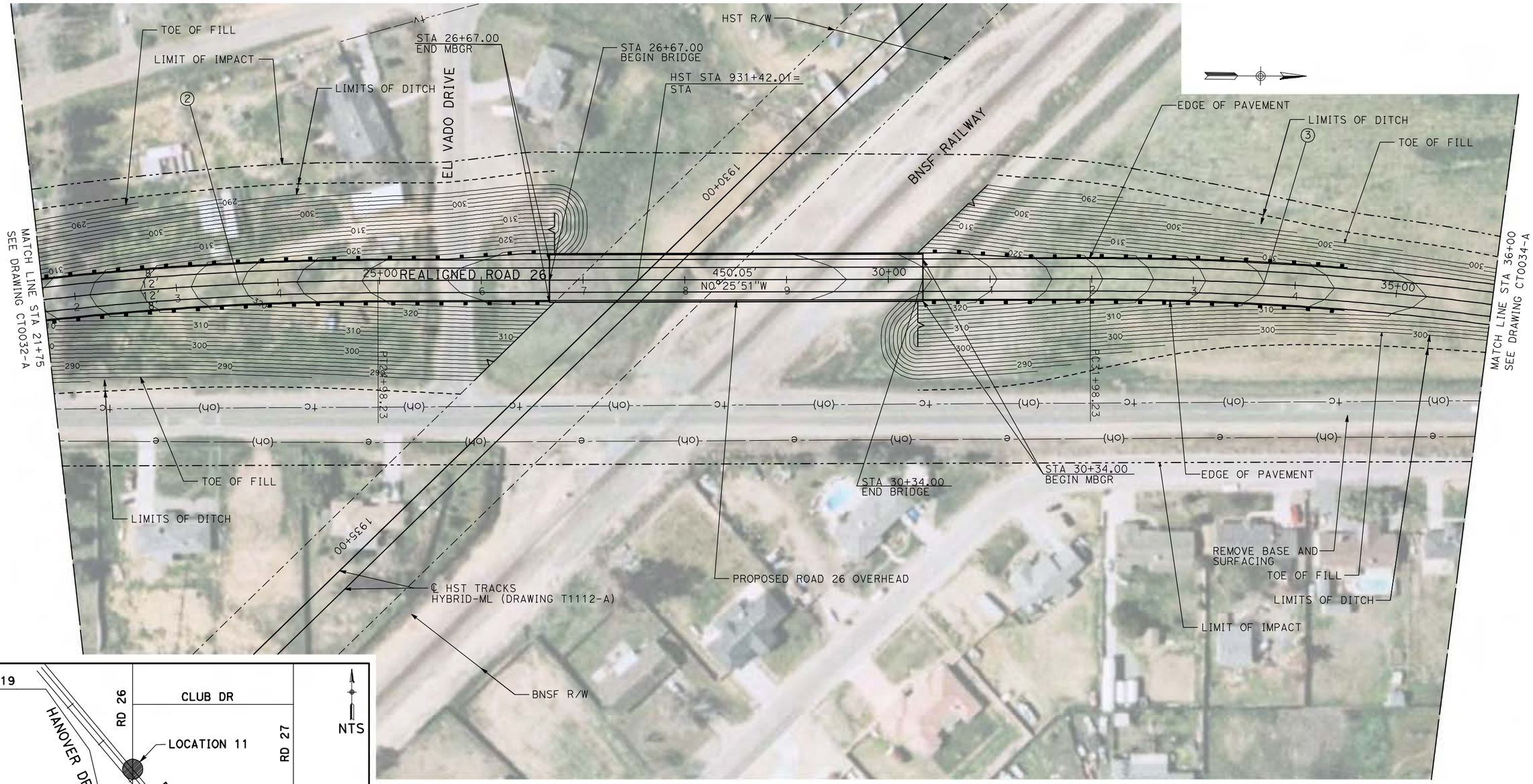

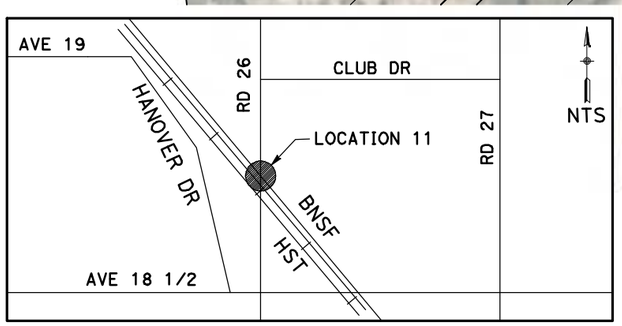

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1032-A THROUGH CT1034-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 26
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0033-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:46:31 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0033-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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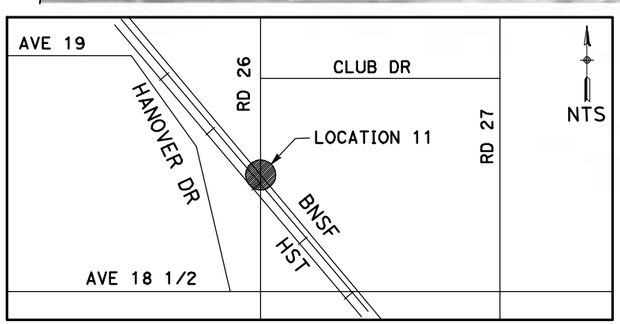

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1032-A THROUGH CT1034-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - HYBRID
GRADE SEPARATION - ROAD 26
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0034-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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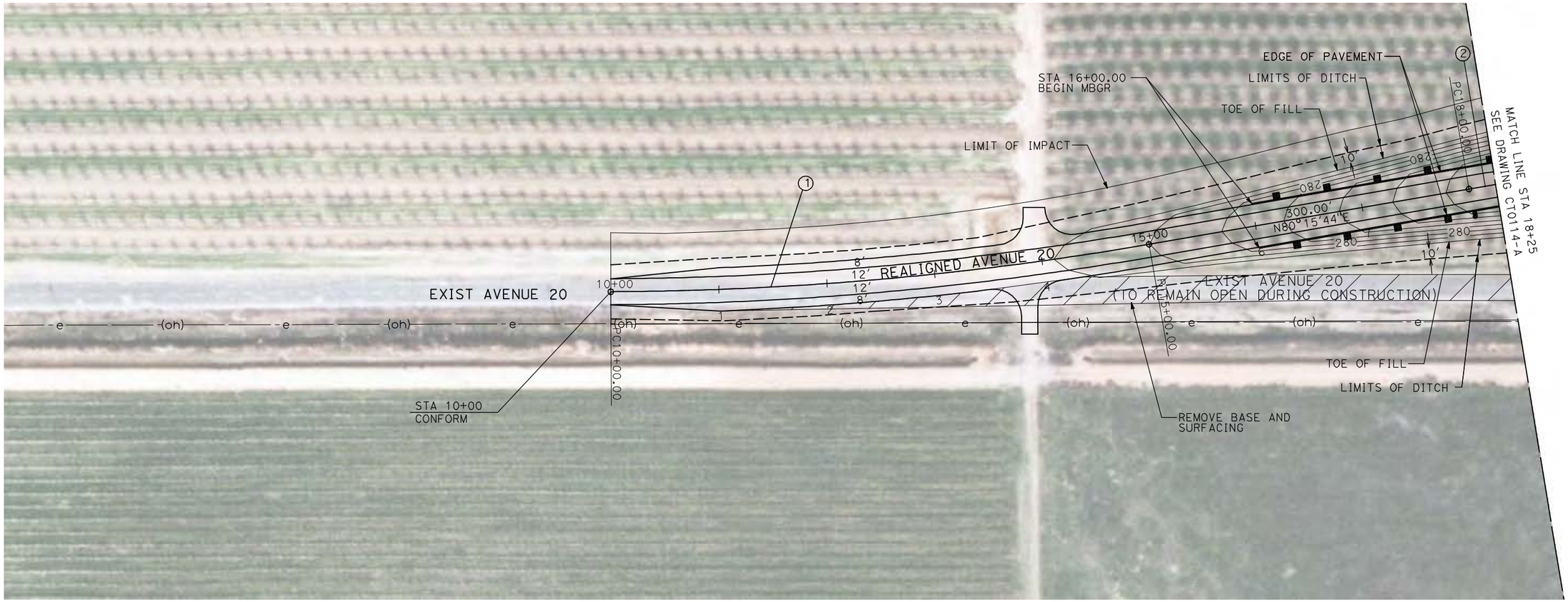
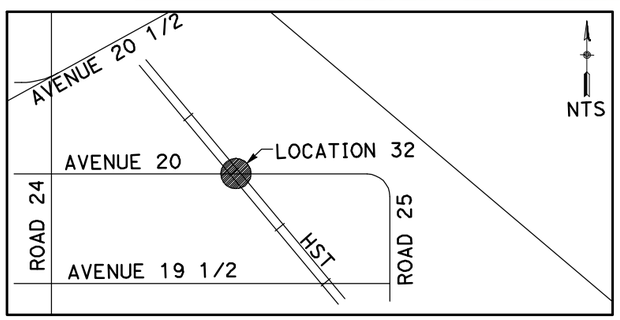
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1113-A THROUGH CT1115-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0113-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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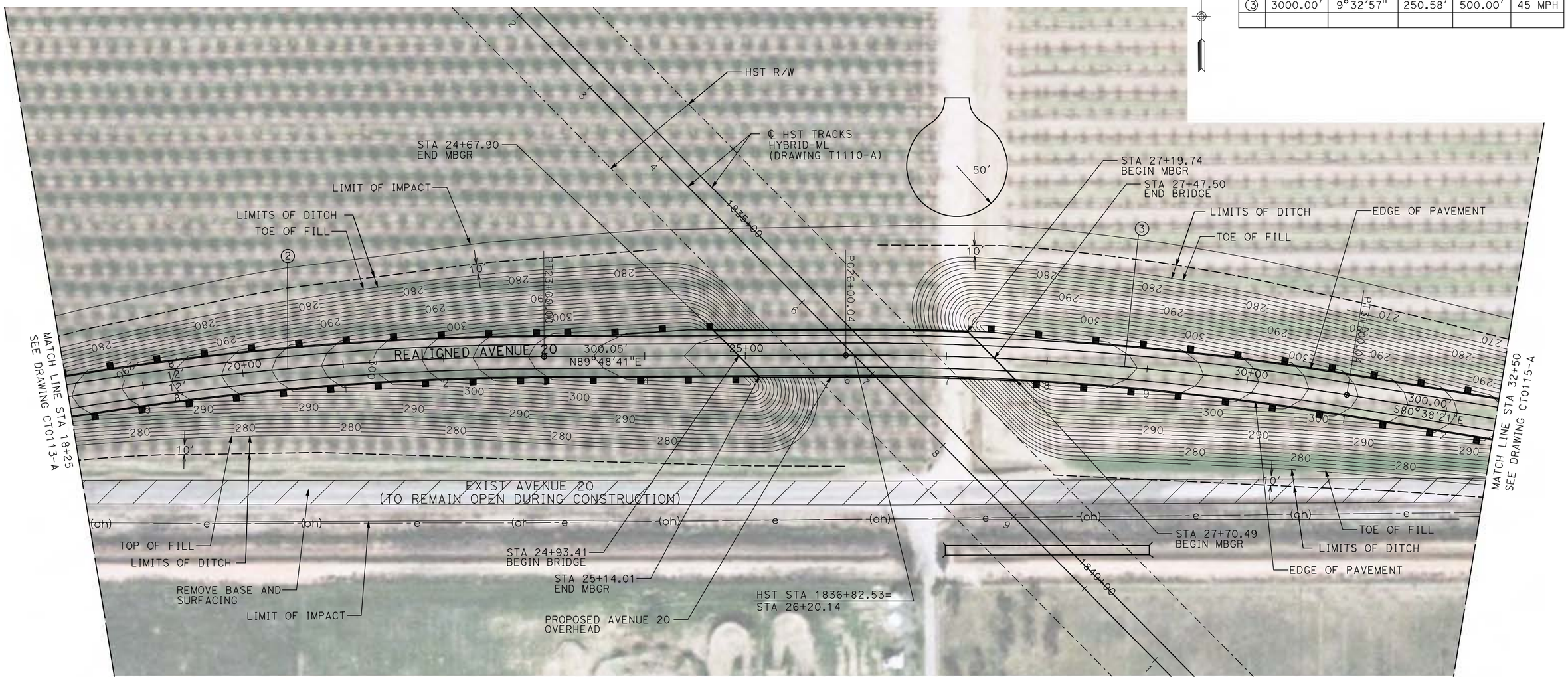

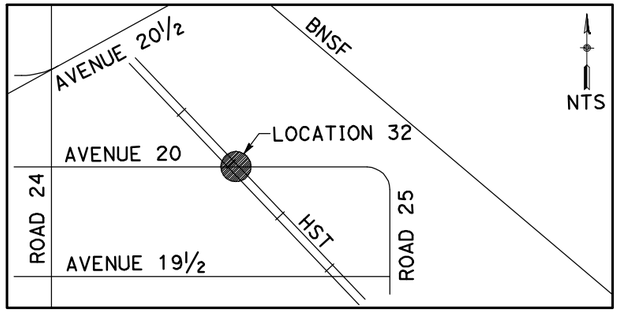

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1113-A THROUGH CT1115-A.

50 0 50 100
1″=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Technical Services, Inc.
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0114-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:07 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0114-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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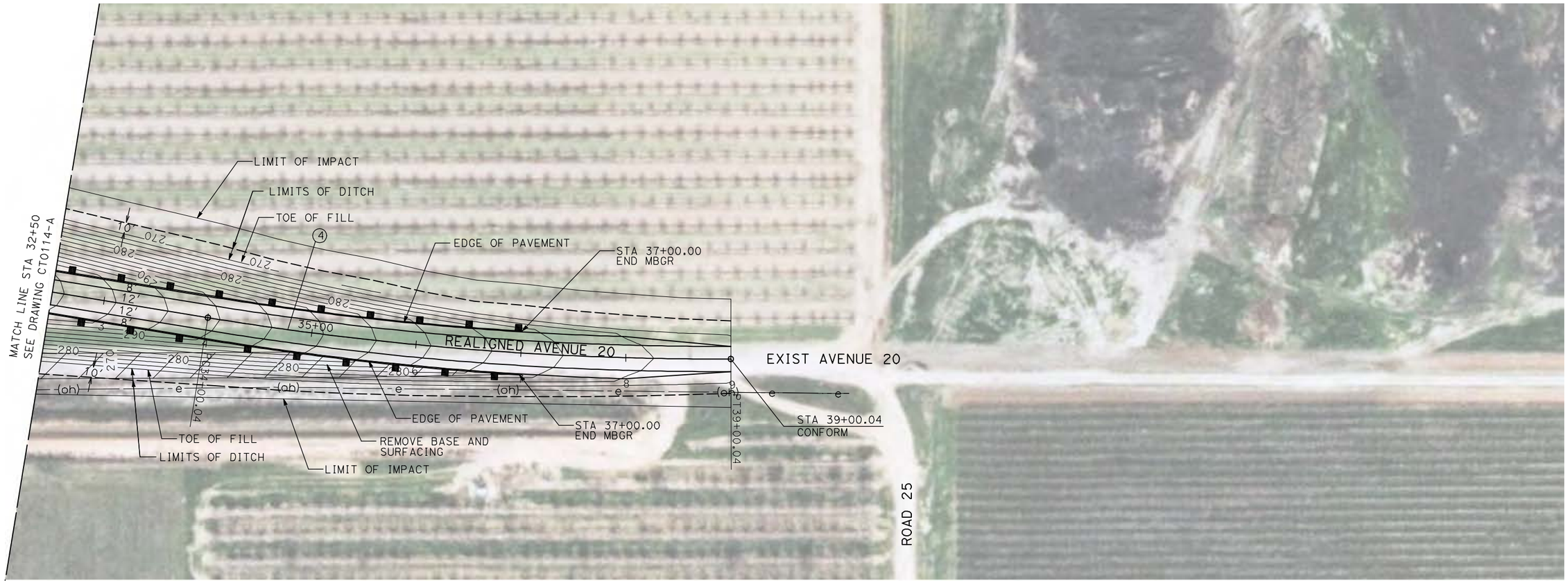

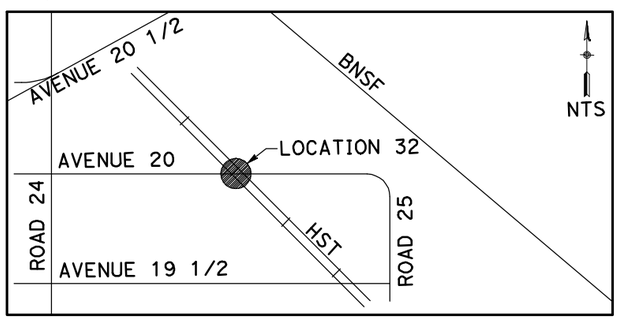

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1113-A THROUGH CT1115-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

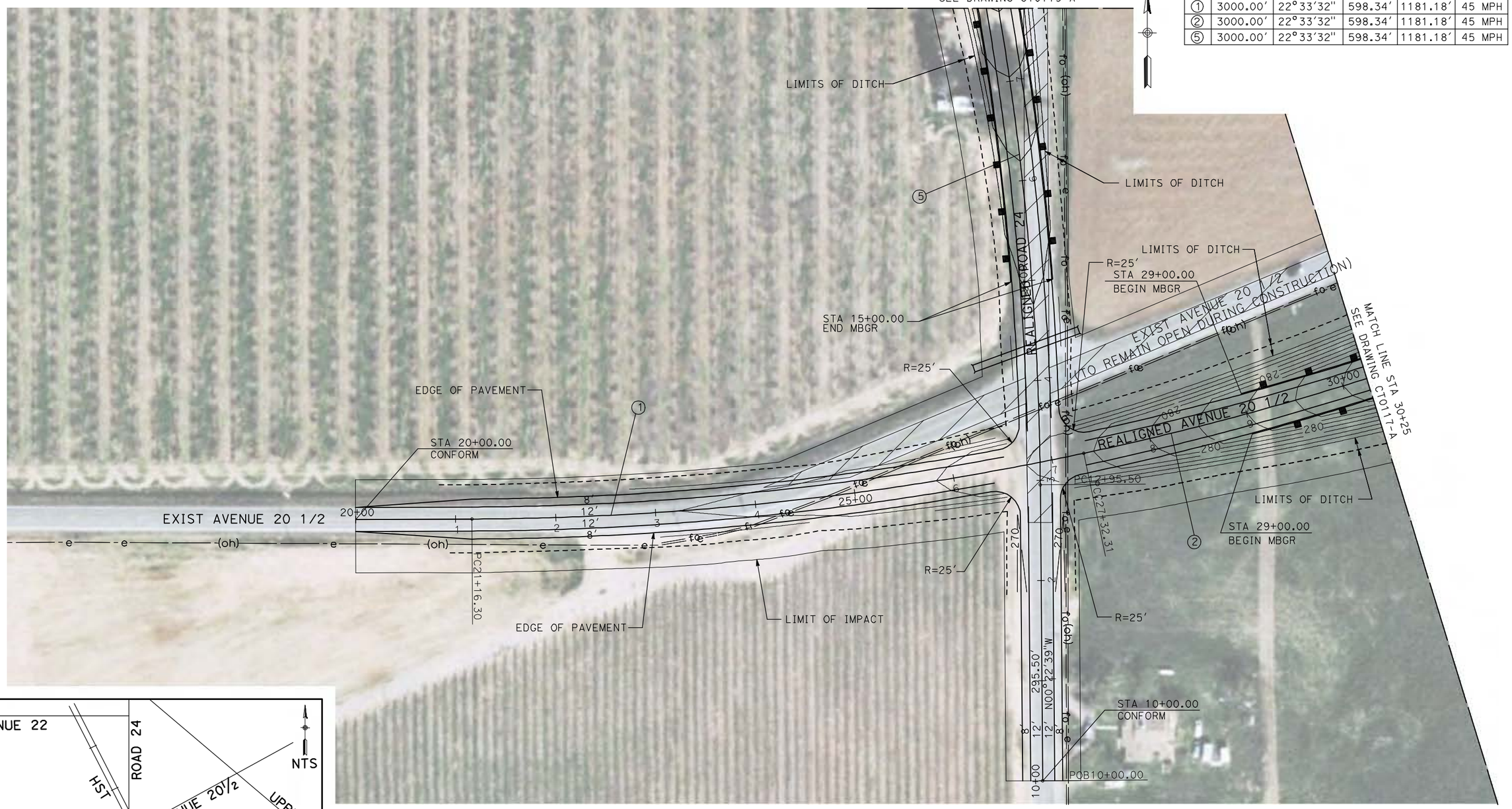
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
LAYOUT
SHEET 3 OF 3

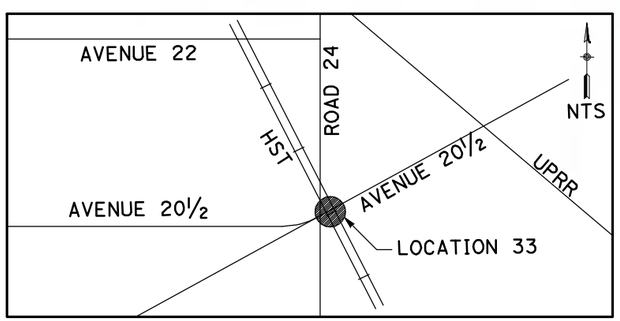
CONTRACT NO. HST06-007
DRAWING NO. CT0115-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:13 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0115-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
1	3000.00′	22°33′32″	598.34′	1181.18′	45 MPH
2	3000.00′	22°33′32″	598.34′	1181.18′	45 MPH
5	3000.00′	22°33′32″	598.34′	1181.18′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1116-A THROUGH CT1118-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

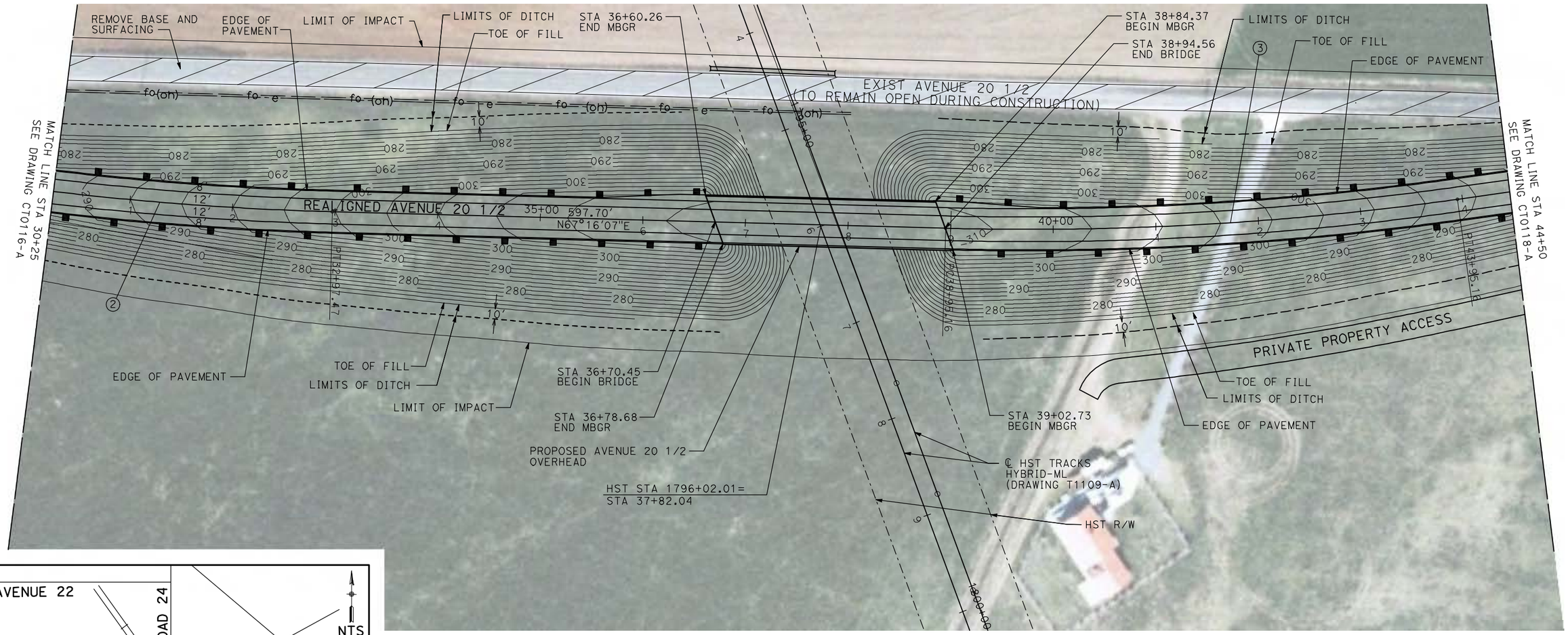
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
LAYOUT
SHEET 1 OF 3

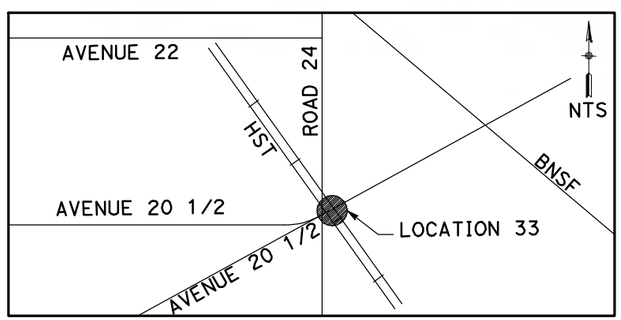
CONTRACT NO. HST06-007
DRAWING NO. CT0116-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:19 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0116-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
2	3000.00′	22°33′32″	598.34′	1181.18′	45 MPH
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
5	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1116-A THROUGH CT1118-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0117-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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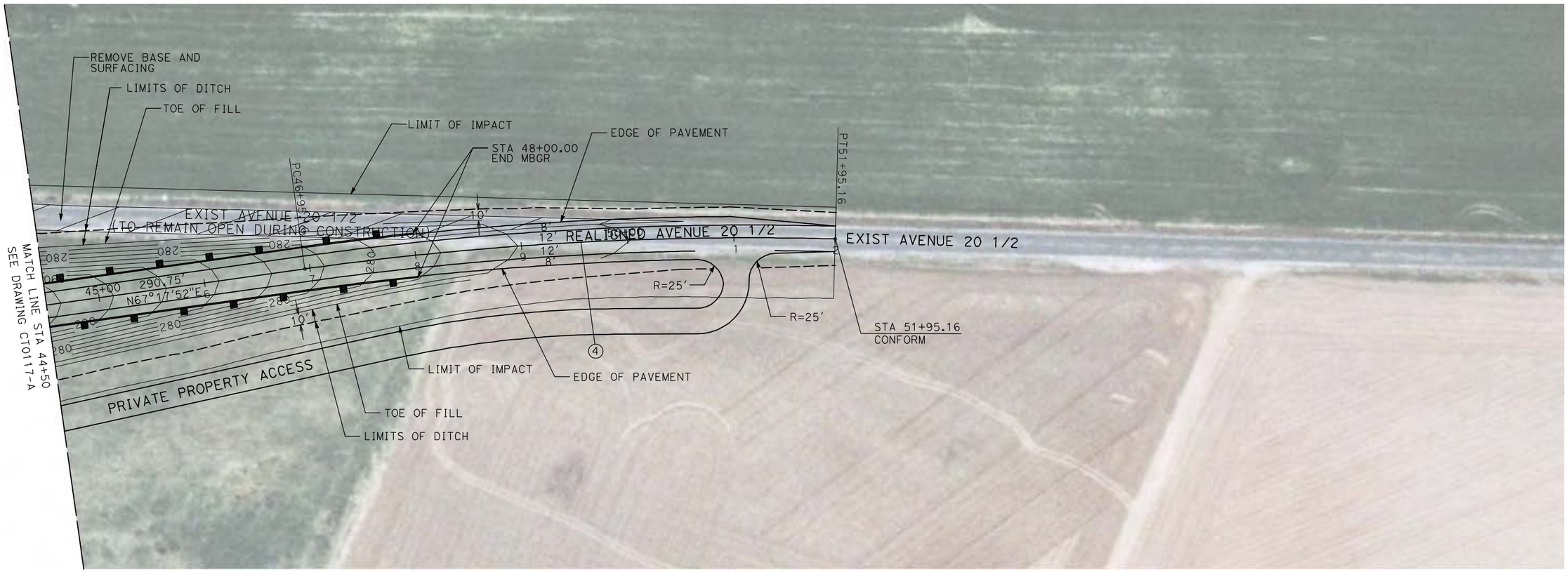
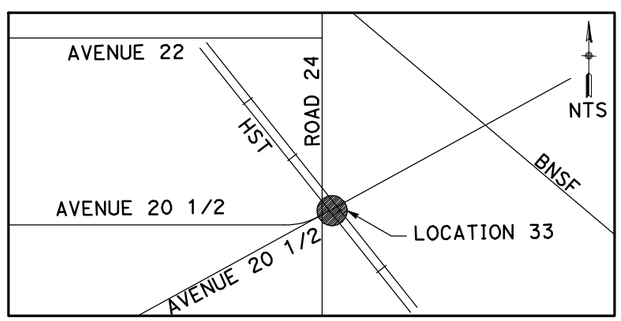
CURVE DATA

NO.	R	Δ	T	L	V
4	3000.00′	22°33′32″	598.34′	1181.18′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1116-A THROUGH CT1118-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0118-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:35 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0118-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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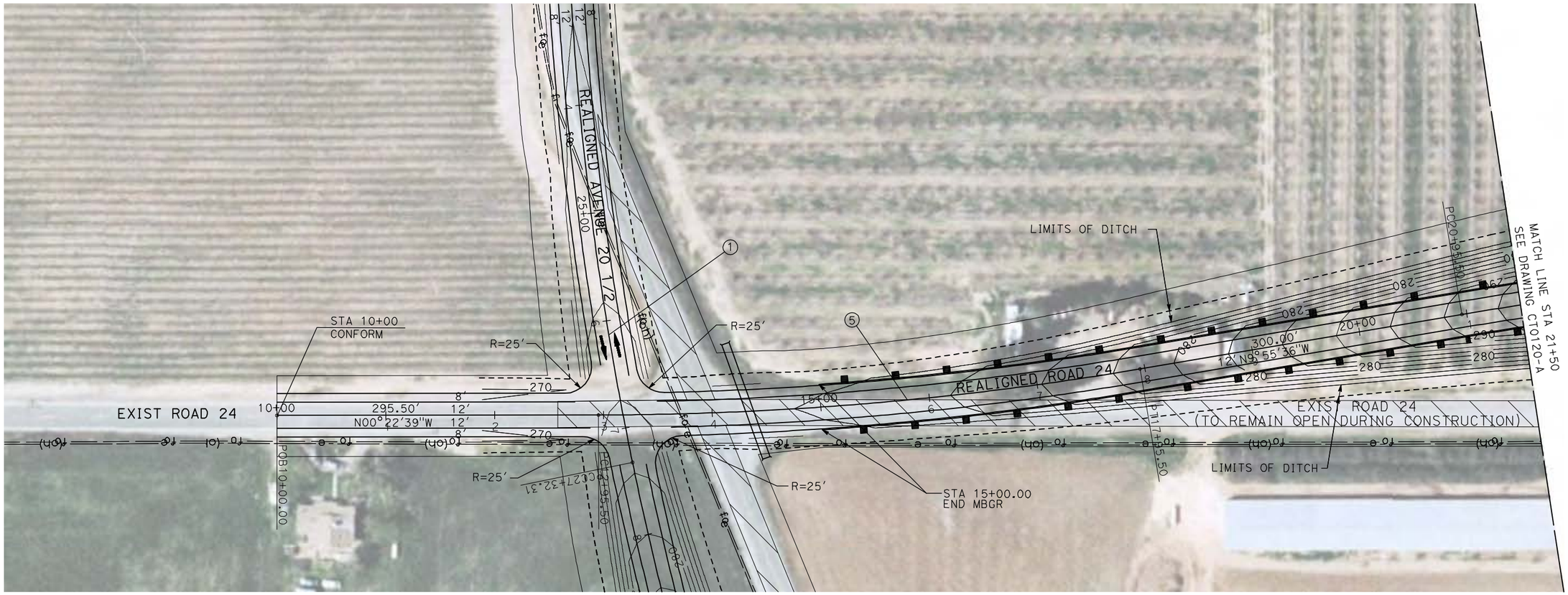
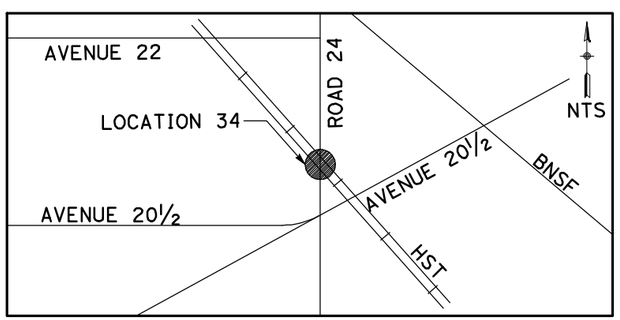
5	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1119-A THROUGH CT1121-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0119-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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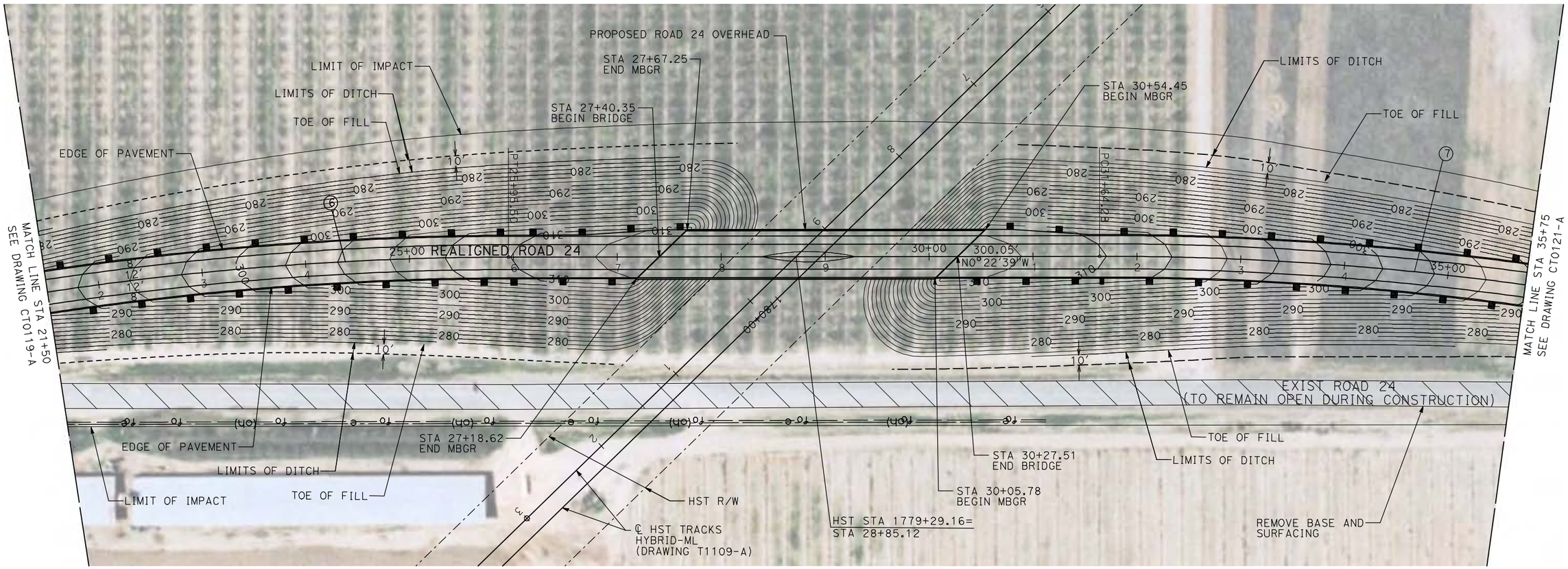
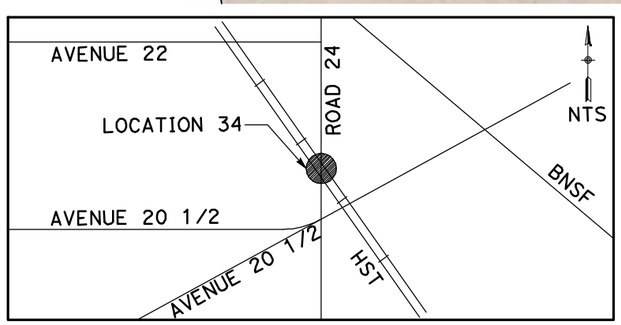
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
6	3000.00'	9°32'57"	250.58'	500.00'	45 MPH
7	3000.00'	9°32'57"	250.58'	500.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1119-A THROUGH CT1121-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

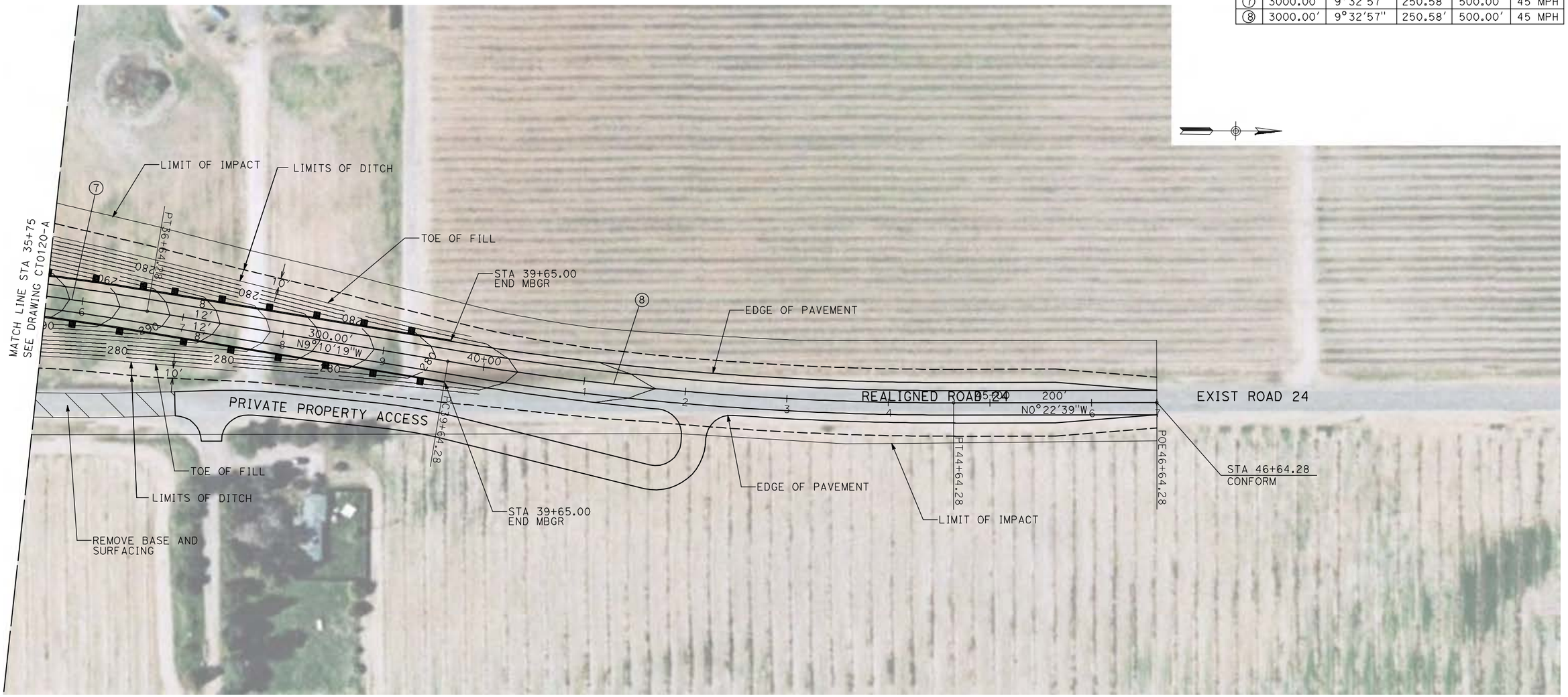
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
LAYOUT
SHEET 2 OF 3

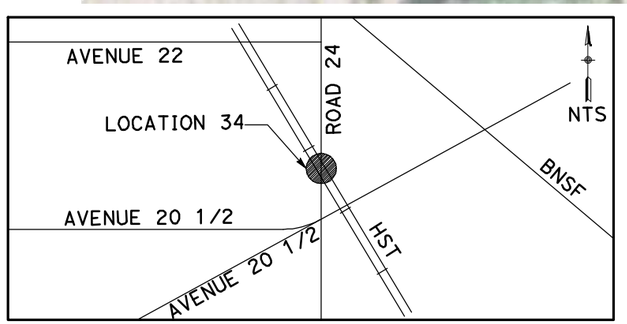
CONTRACT NO. HST06-007
DRAWING NO. CT0120-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:48 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0120-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
7	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
8	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1119-A THROUGH CT1121-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0121-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:39:58 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0121-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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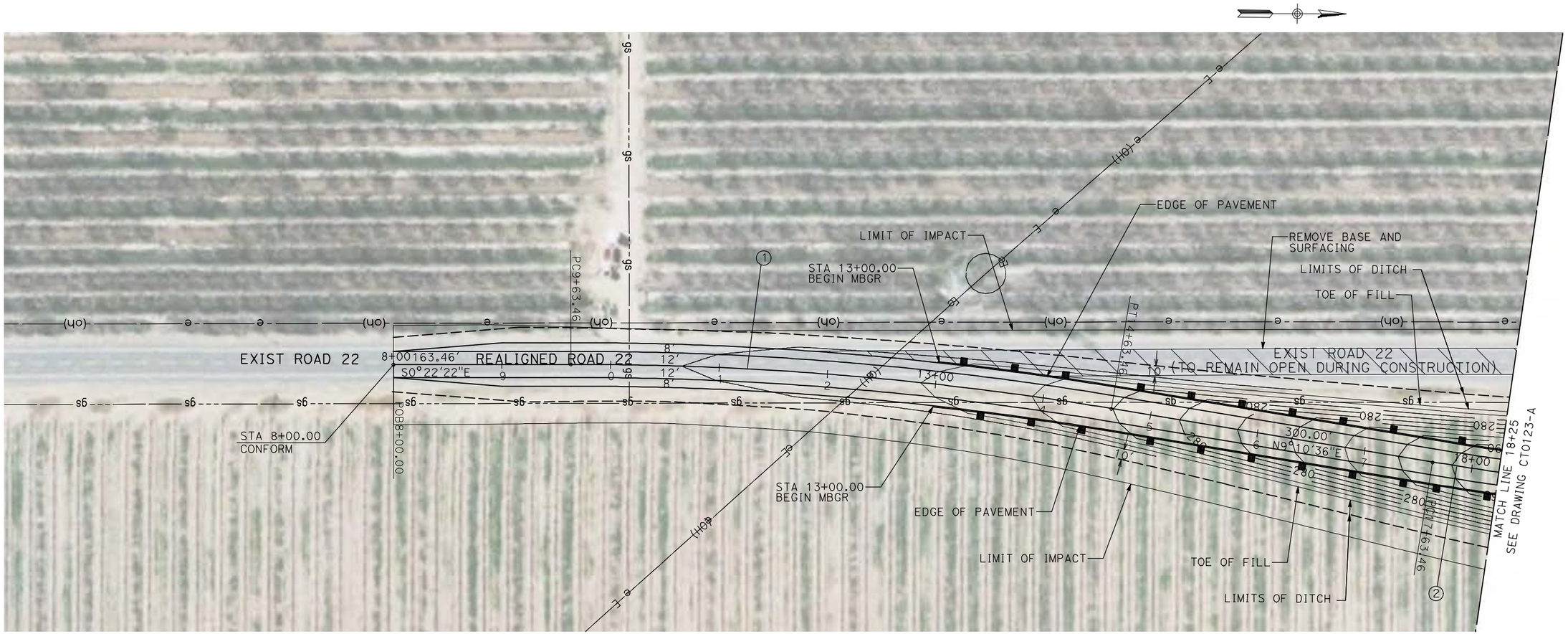
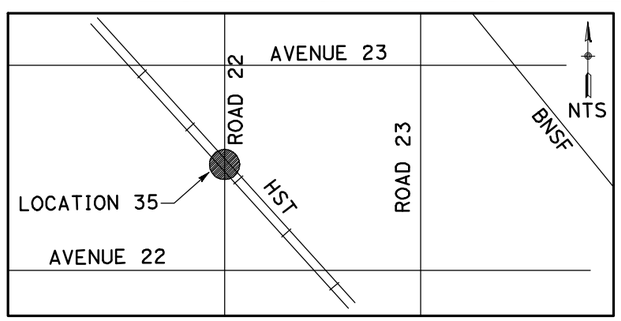
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1122-A THROUGH CT1124-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 22
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0122-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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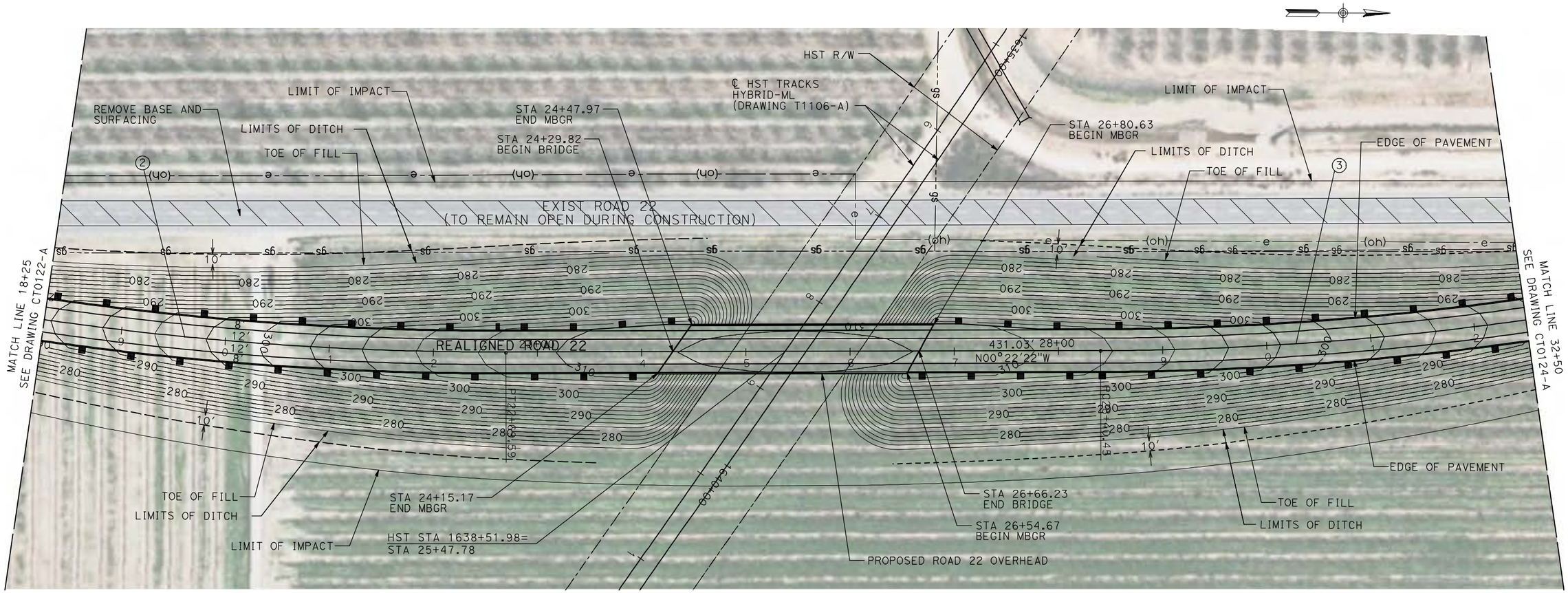
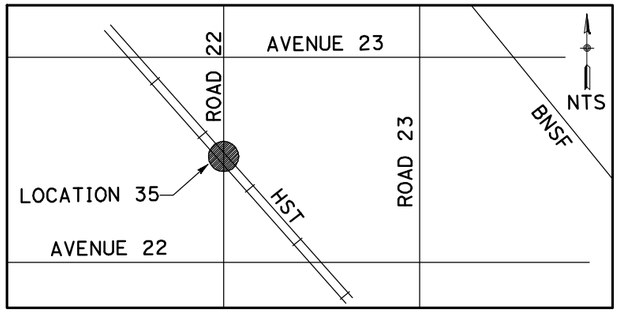
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1122-A THROUGH CT1124-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 22
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0123-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:40:11 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0123-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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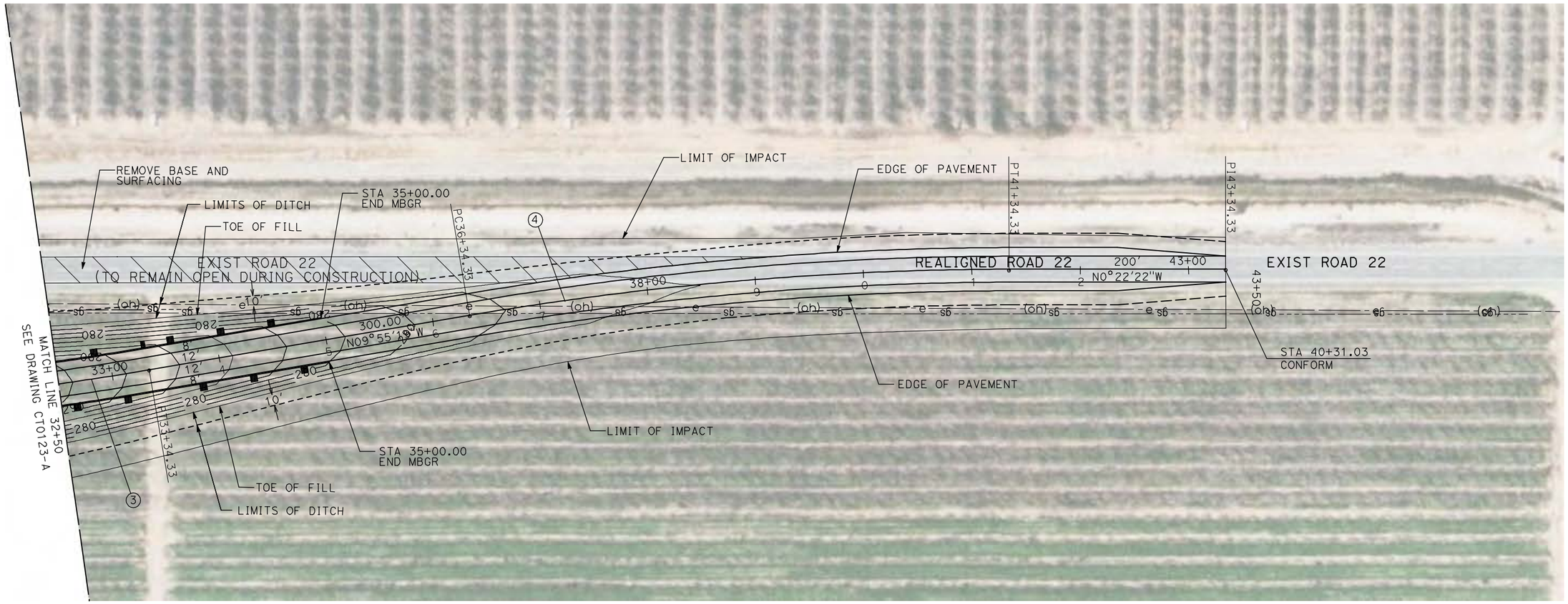
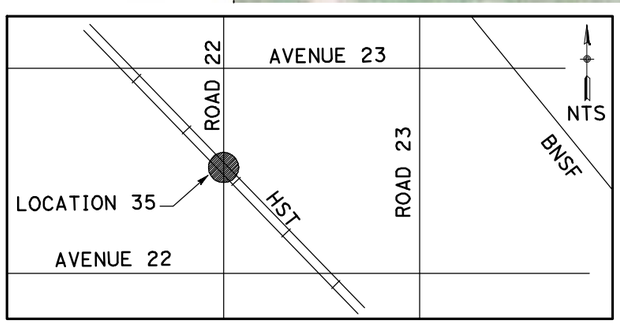
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1122-A THROUGH CT1124-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 22
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0124-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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CURVE DATA

NO.	R	Δ	T	L	V
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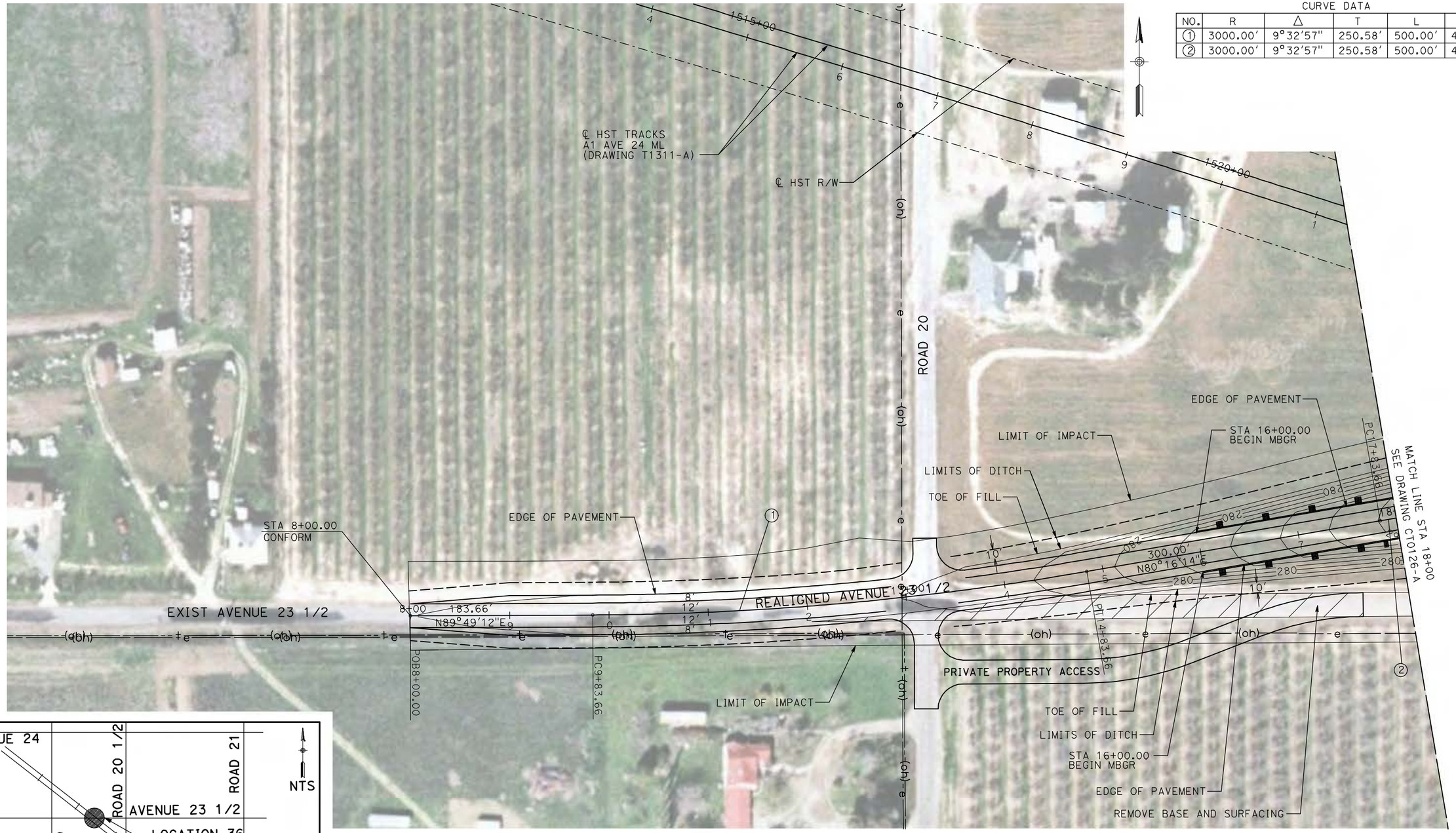
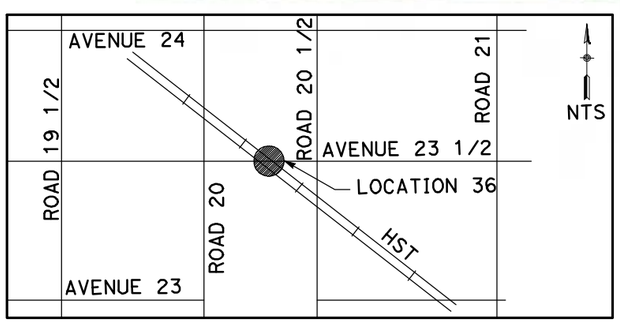
2	3000.00'	9°32'57"	250.58'	500.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1125-A THROUGH CT1127-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0125-A
SCALE AS SHOWN
SHEET NO. ### OF ###

5/1/2011 1:40:28 PM i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0125-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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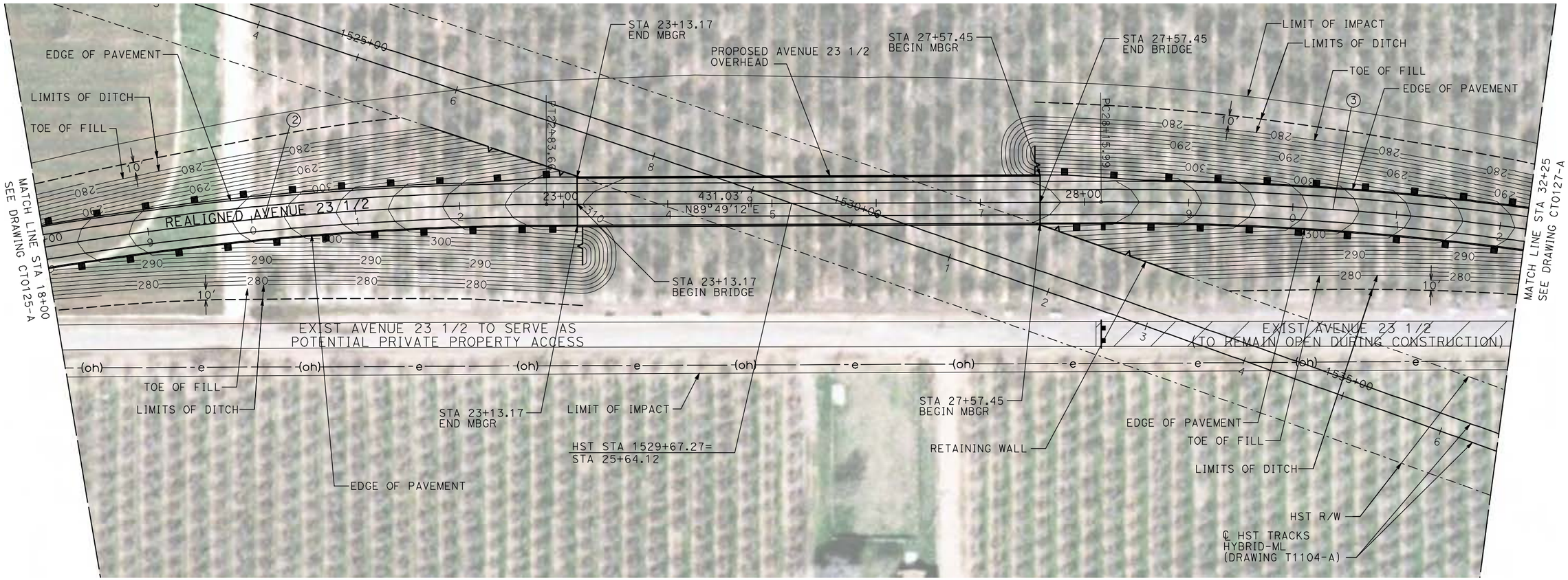
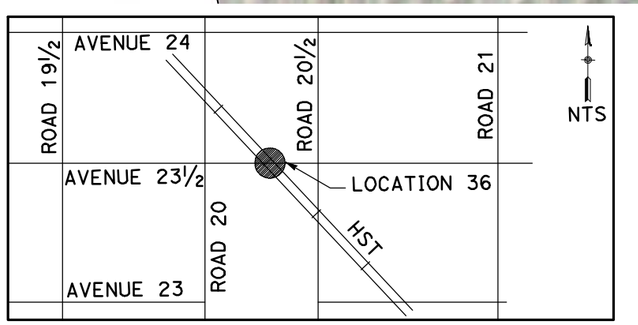
3	3000.00'	9°32'57"	250.58'	500.00'	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1125-A THROUGH CT1127-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0126-A
SCALE AS SHOWN
SHEET NO. ### OF ###

i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0126-A.dgn 5/1/2011 1:40:35 PM GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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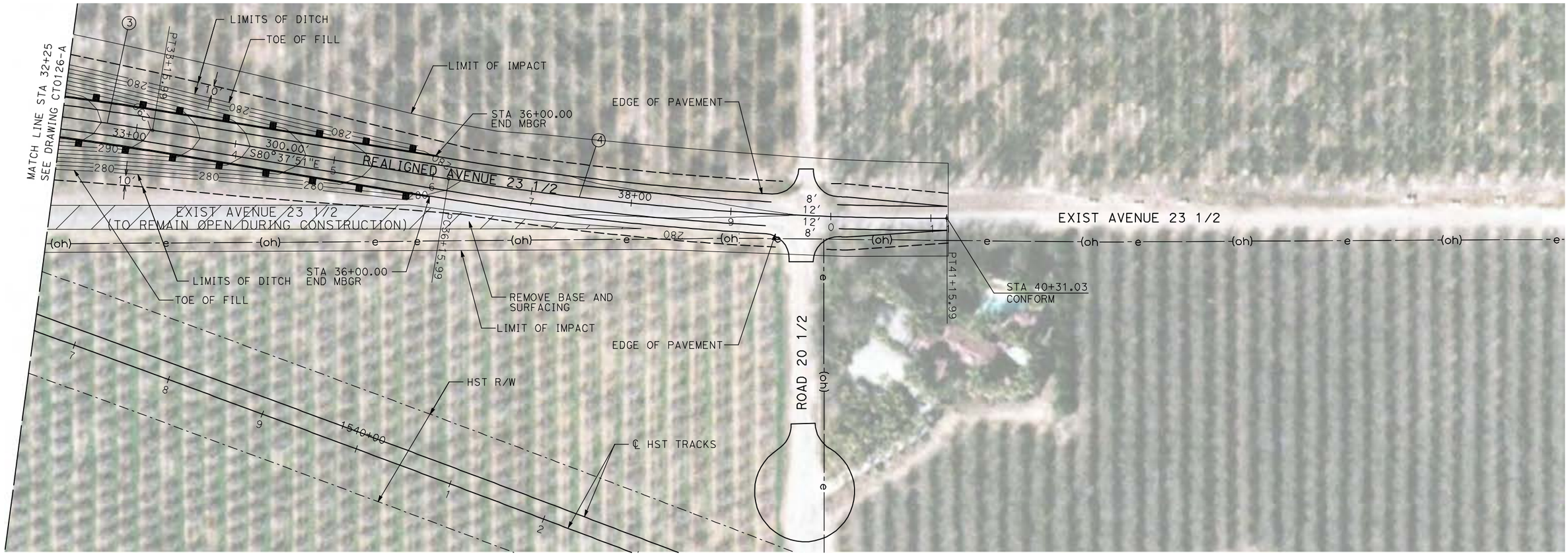
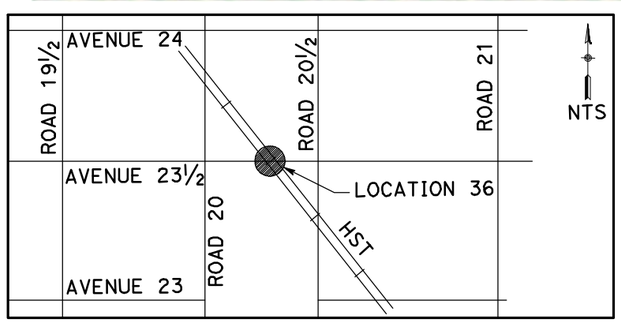
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1125-A THROUGH CT1127-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0127-A
SCALE AS SHOWN
SHEET NO. ### OF ###

5/1/2011 1:40:42 PM I:\cnsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0127-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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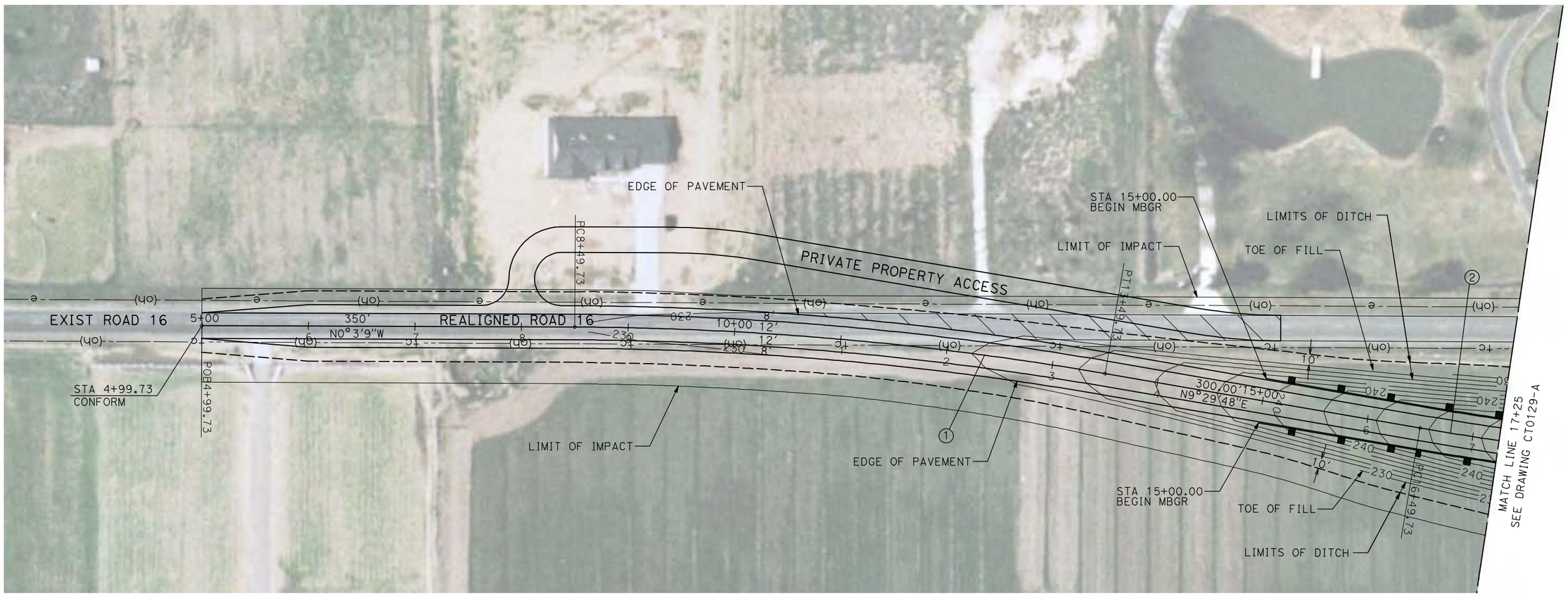
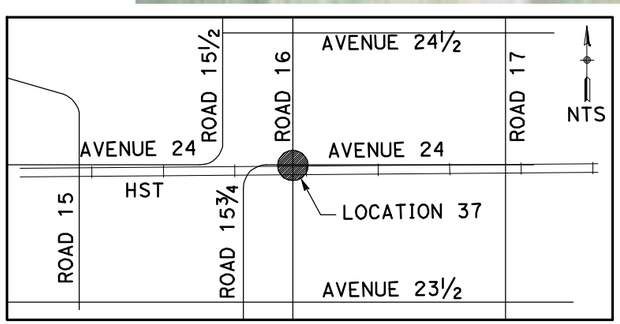
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1128-A THROUGH CT1130-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

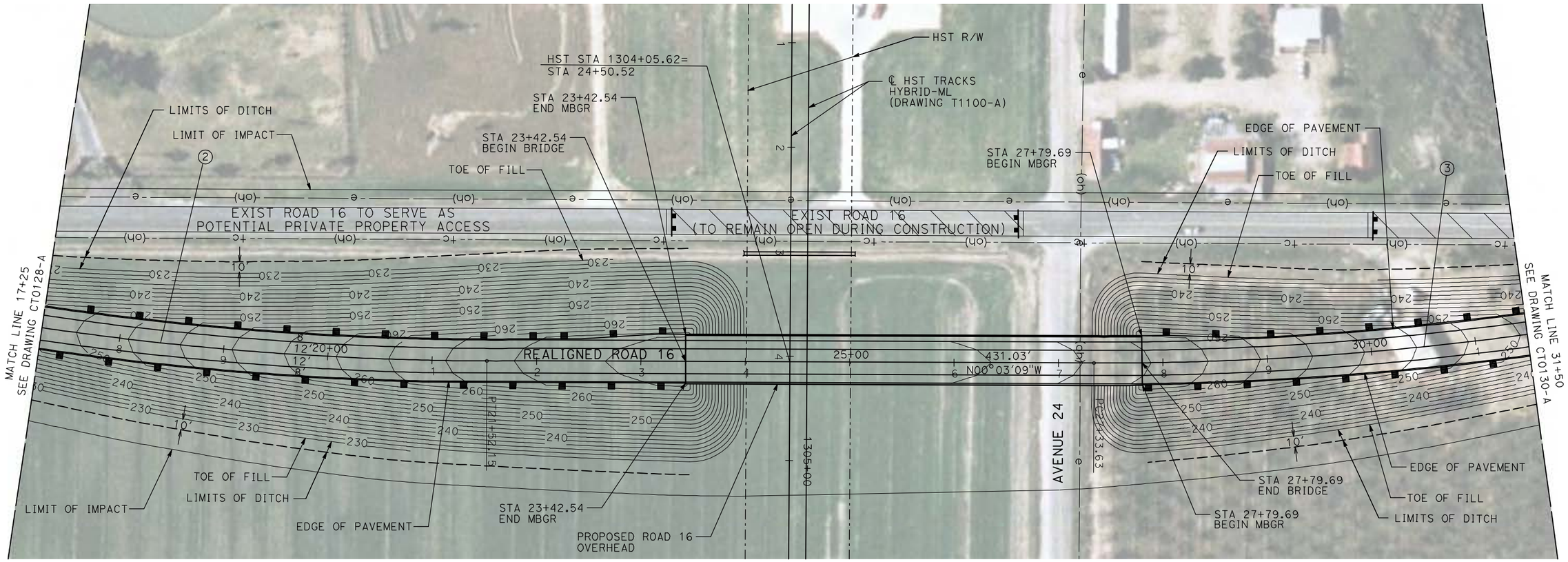
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
LAYOUT
SHEET 1 OF 3

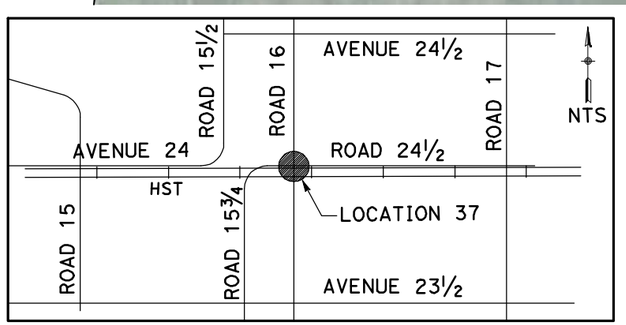
CONTRACT NO. HST06-007
DRAWING NO. CT0128-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:40:48 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0128-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1128-A THROUGH CT1130-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0129-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:40:55 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0129-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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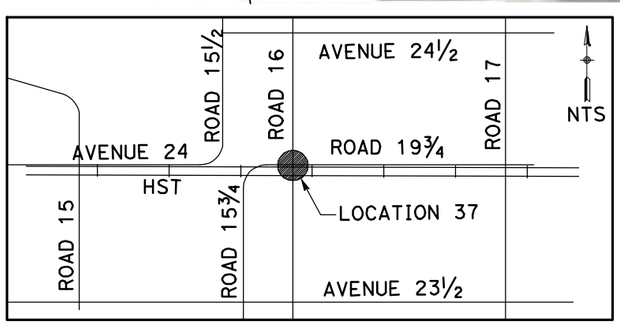

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1128-A THROUGH CT1130-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0130-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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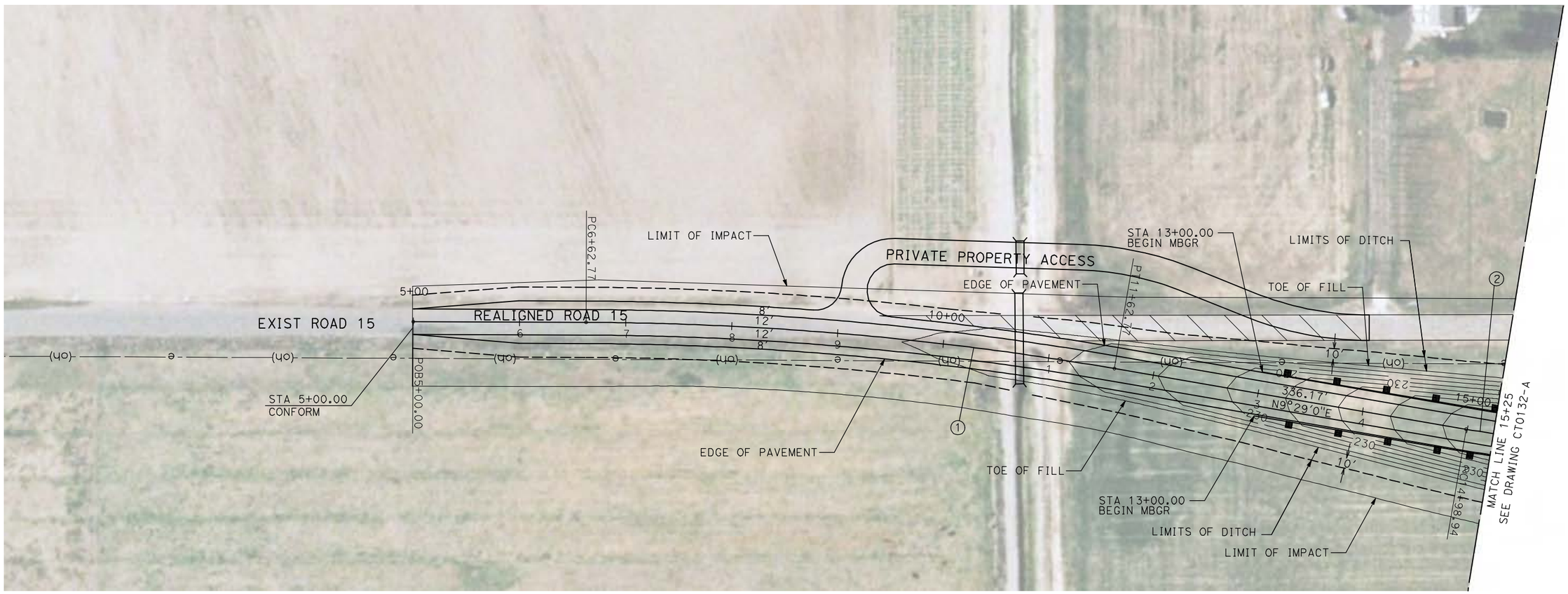
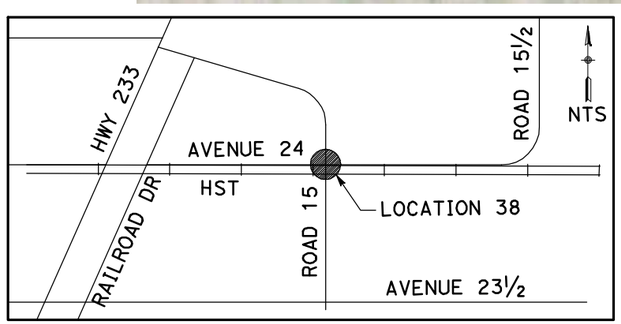
CURVE DATA

NO.	R	Δ	T	L	V
1	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1131-A THROUGH CT1133-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0131-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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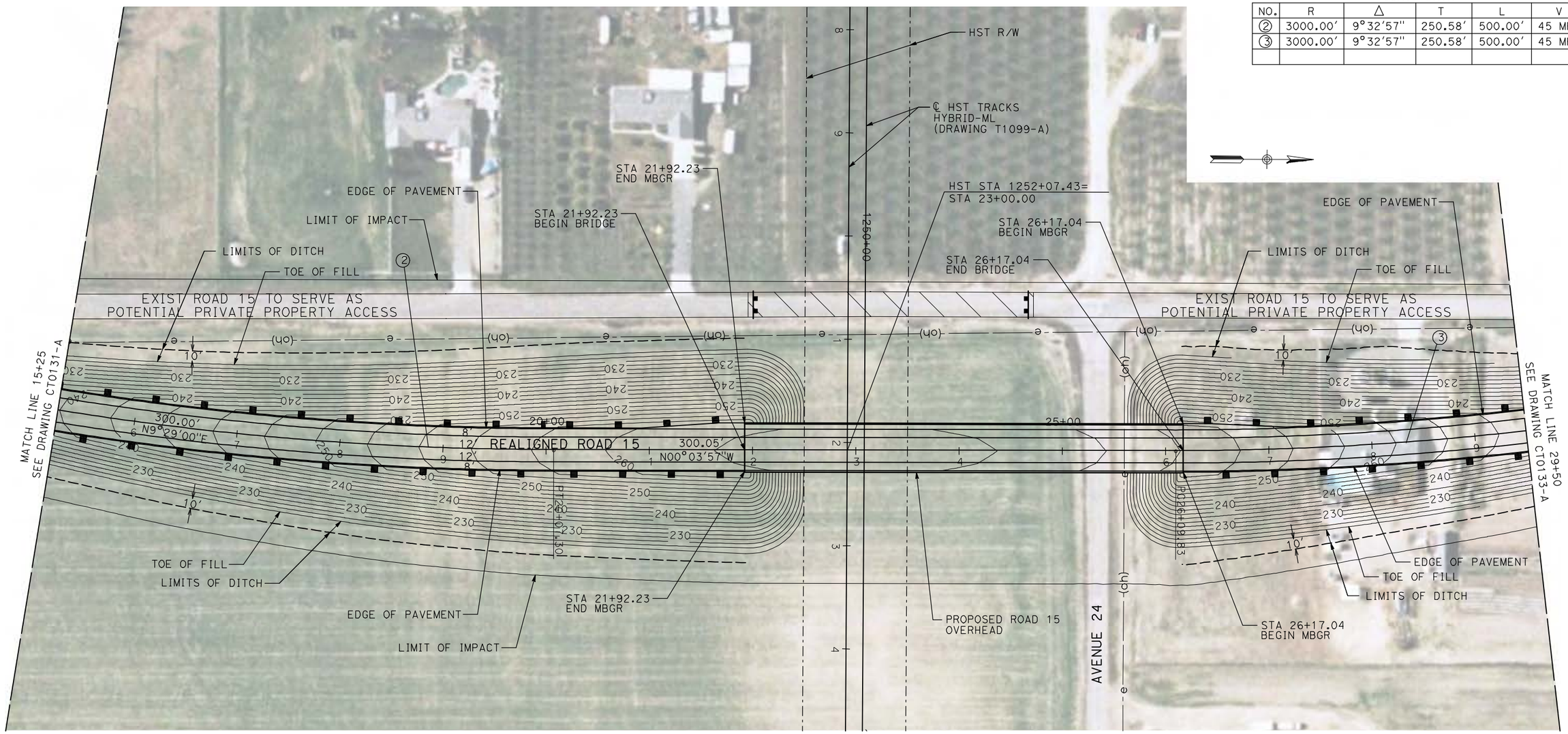
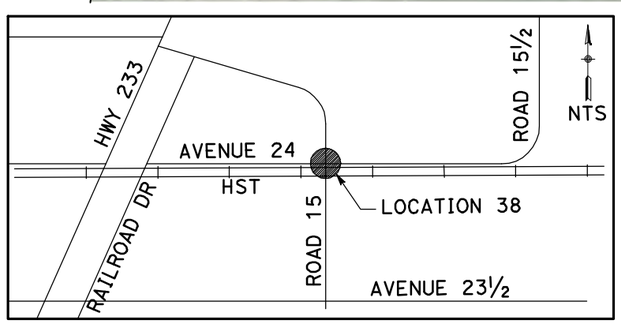
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1131-A THROUGH CT1133-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0132-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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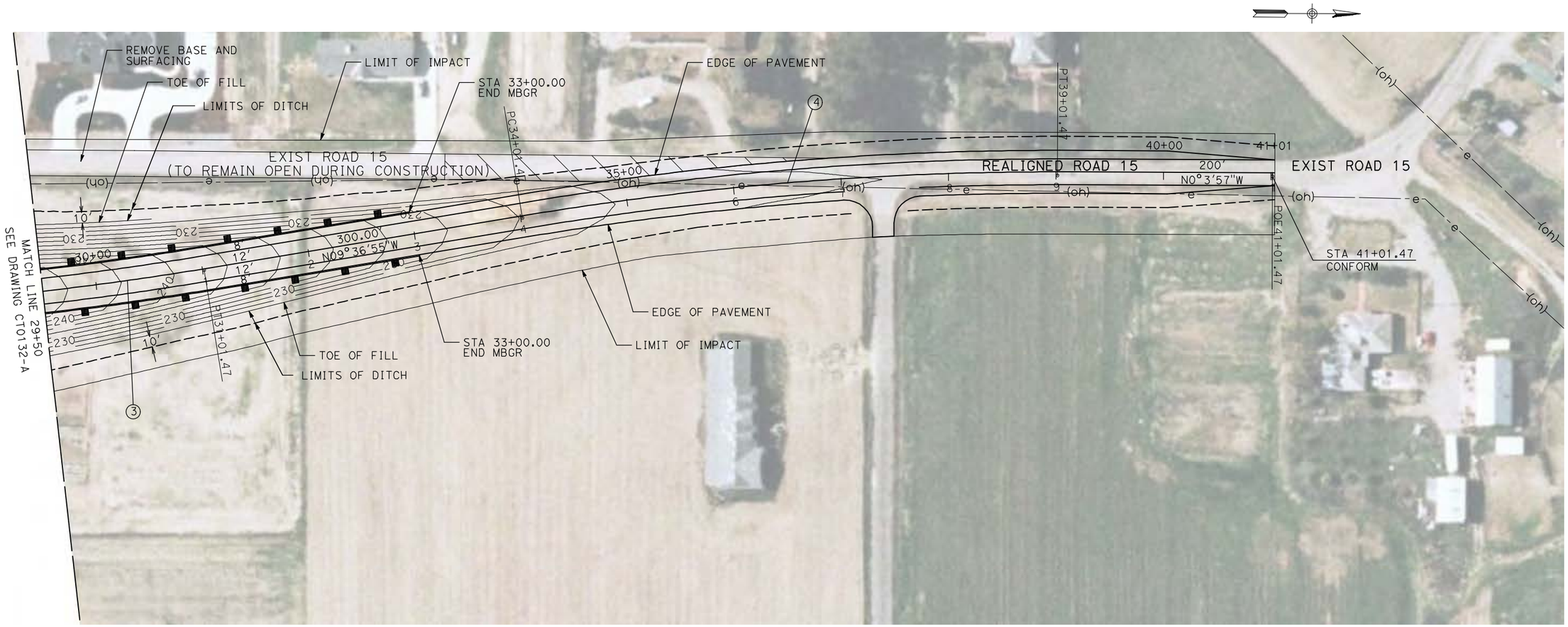
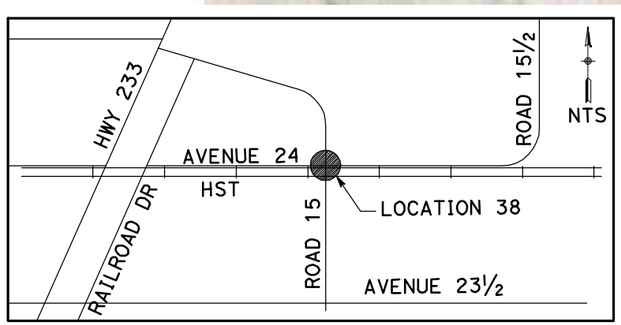
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1131-A THROUGH CT1133-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0133-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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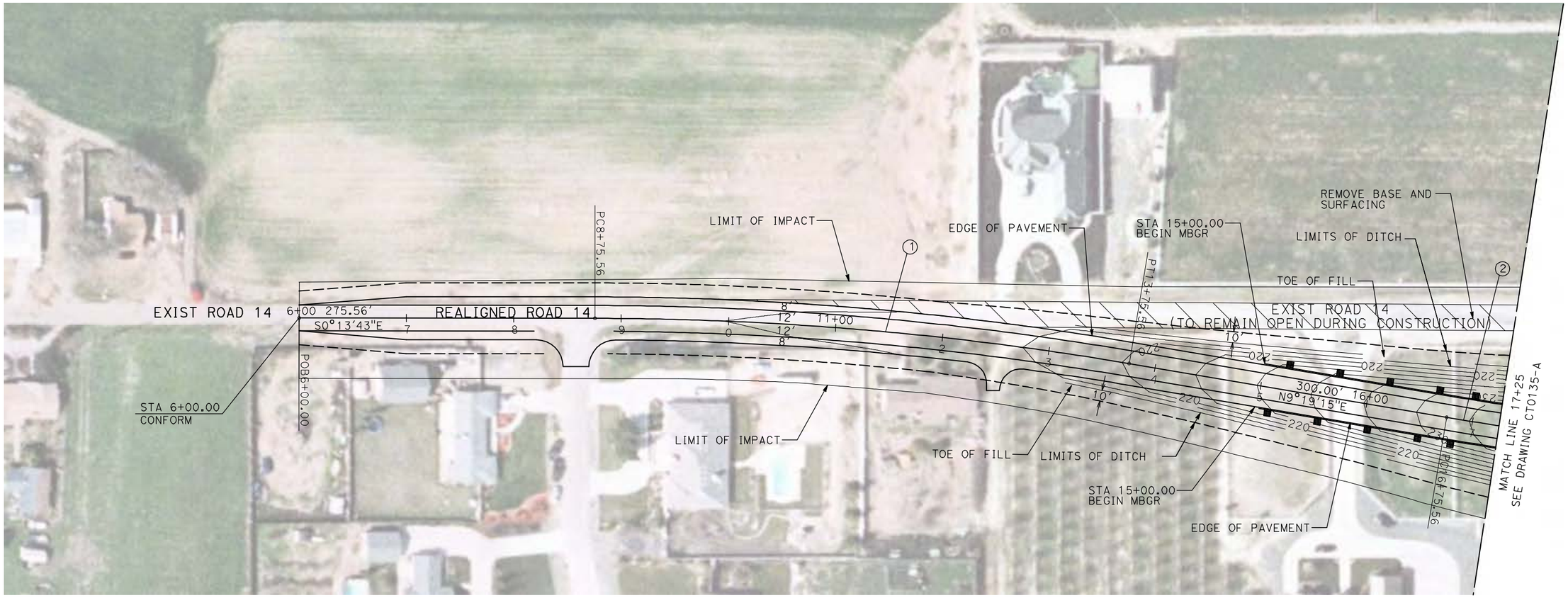
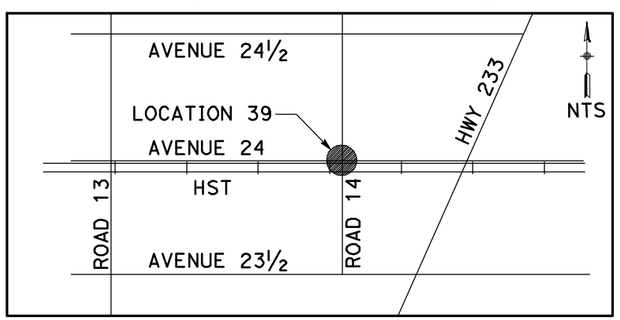
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1134-A THROUGH CT1136-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 14
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0134-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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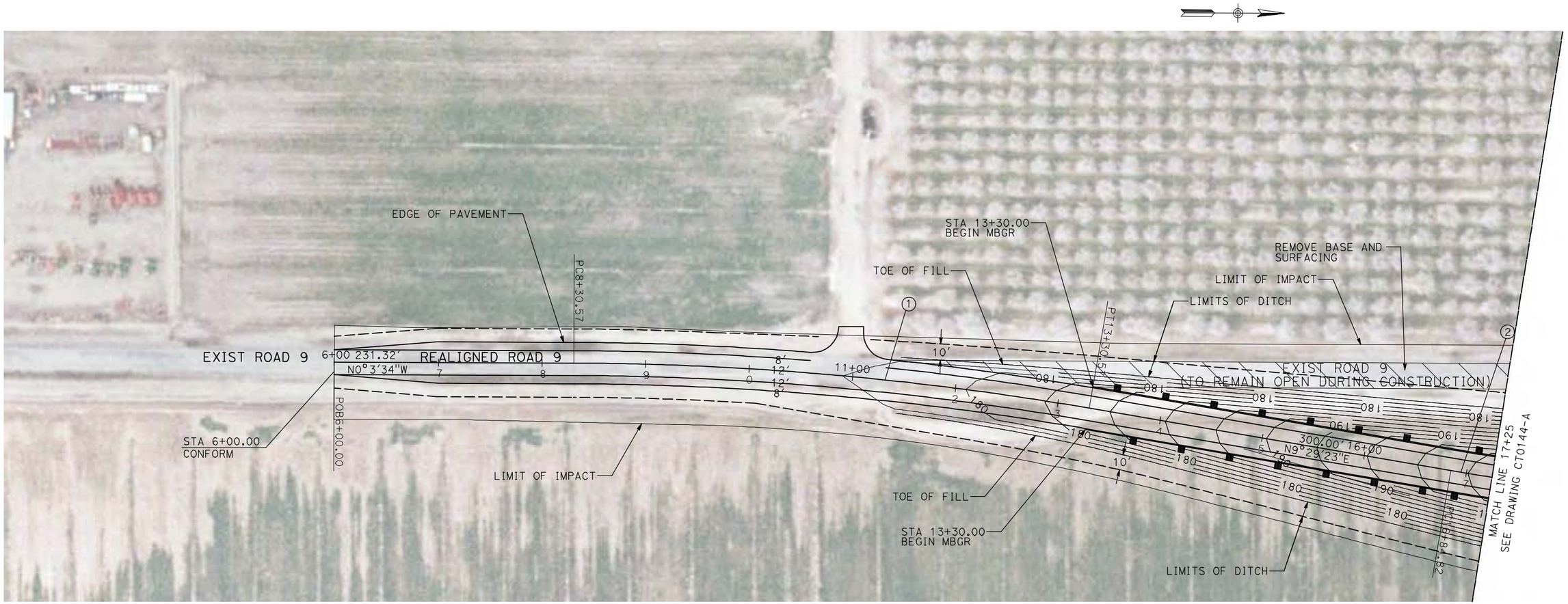
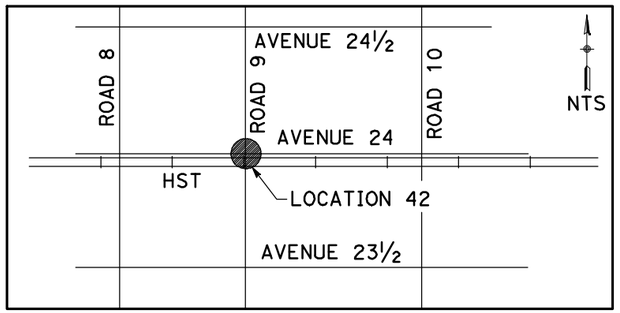
2	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1143-A THROUGH CT1145-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0143-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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CURVE DATA

NO.	R	Δ	T	L	V
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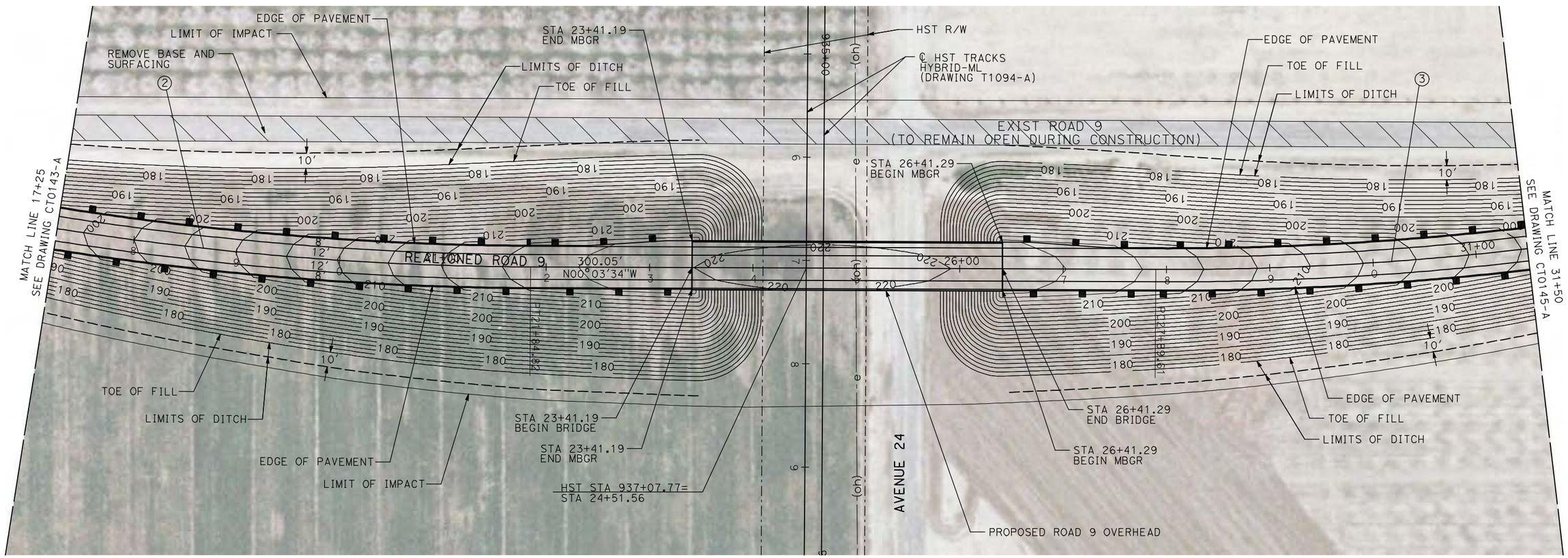
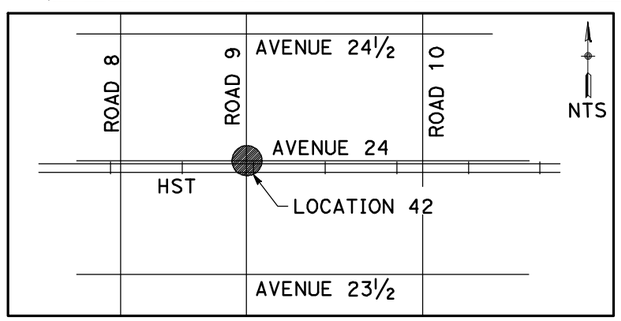
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1143-A THROUGH CT1145-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

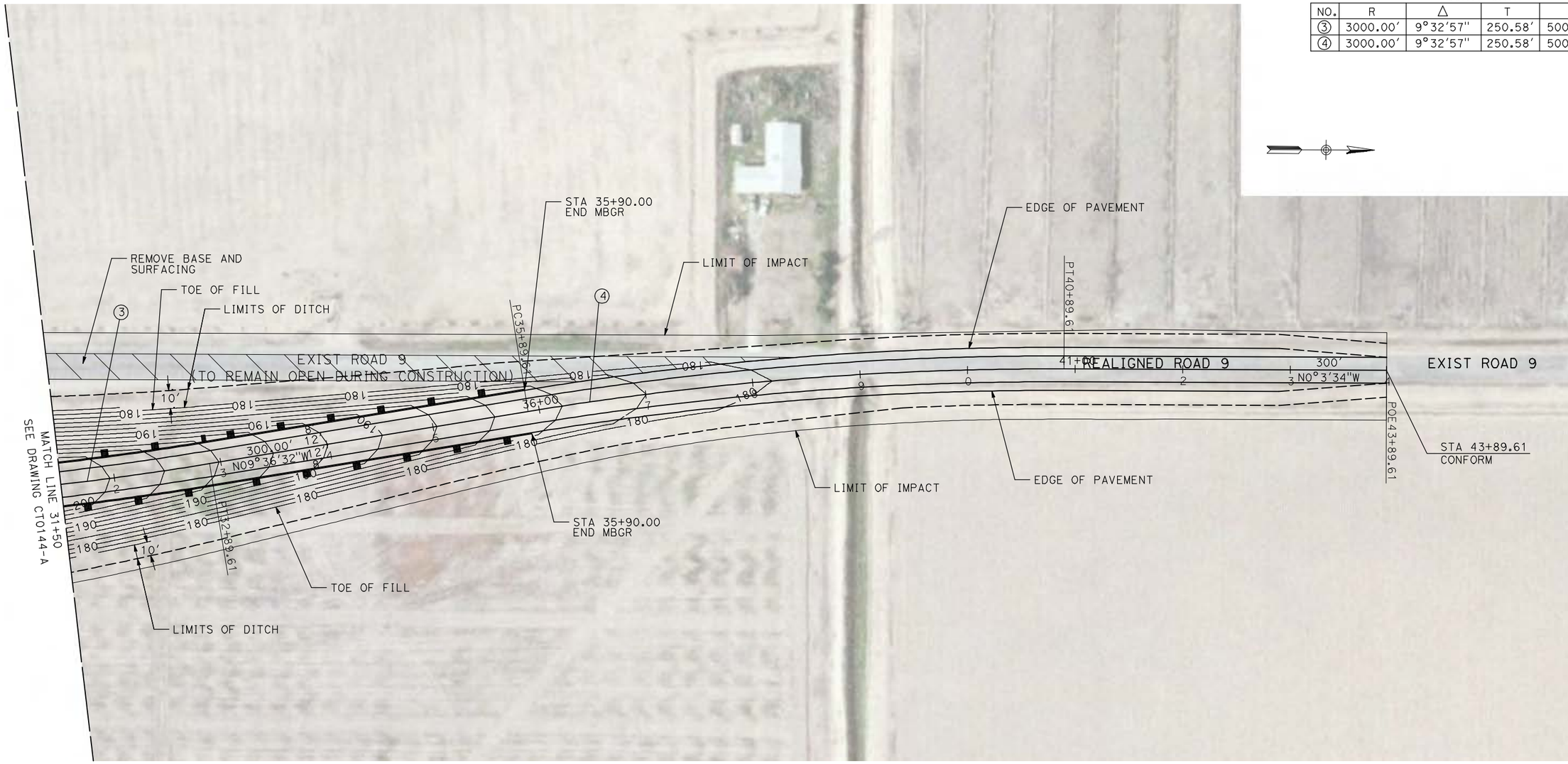
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
LAYOUT
SHEET 2 OF 3

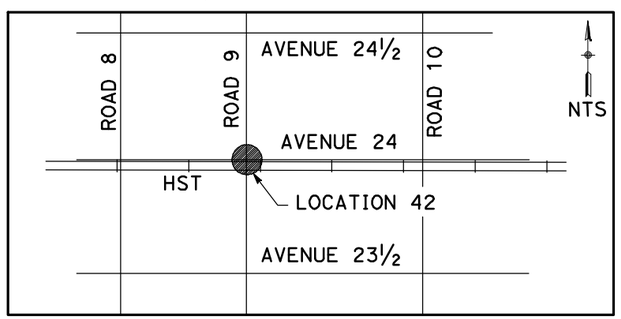
CONTRACT NO. HST06-007
DRAWING NO. CT0144-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:41:44 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\hybrid\Volume 1 - Hybrid Grade Separation\Layout\MF-CT-0144-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
3	3000.00′	9°32′57″	250.58′	500.00′	45 MPH
4	3000.00′	9°32′57″	250.58′	500.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1143-A THROUGH CT1145-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0145-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
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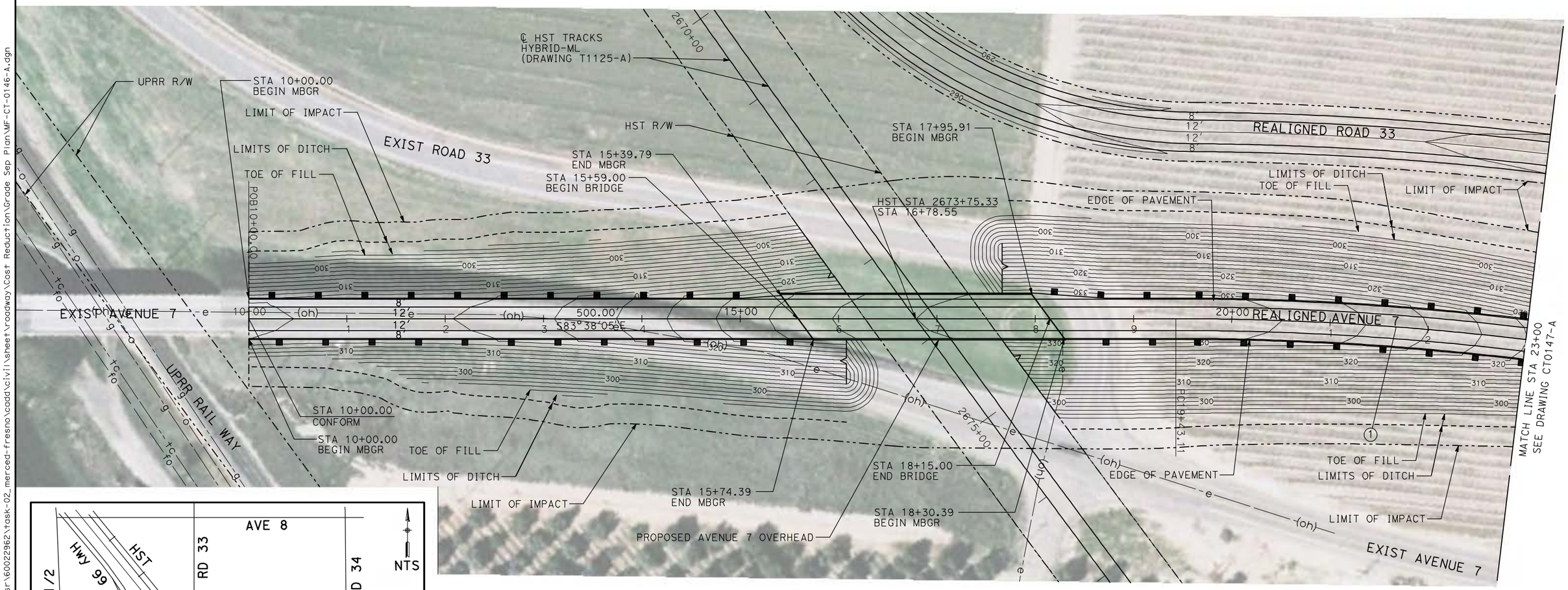
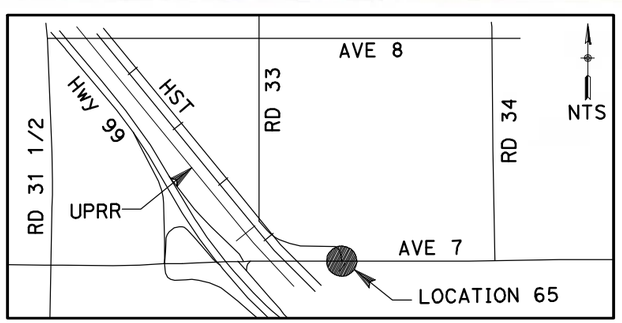




NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1146-A THROUGH CT1148-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

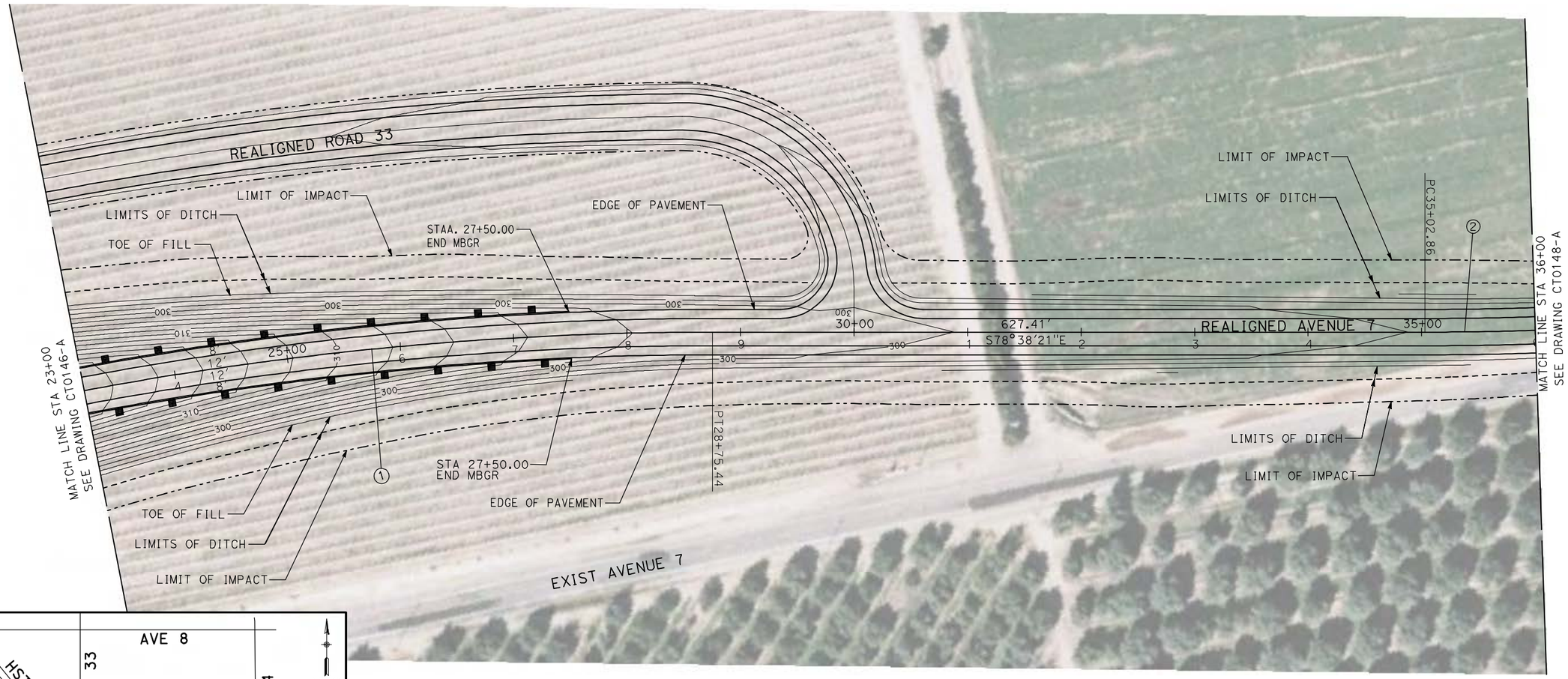
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
LAYOUT
SHEET 1 OF 3

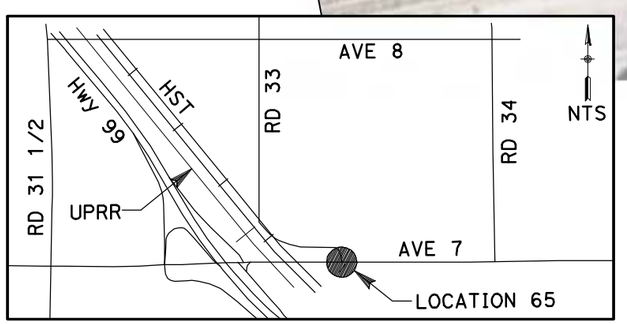
CONTRACT NO. HST06-007
DRAWING NO. CT0146-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:46:47 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0146-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
1	5000.00′	6°52′32"	300.36′	600.00′	45 MPH
2	3000.00′	12°10′29"	319.93′	637.46′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1146-A THROUGH CT1148-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

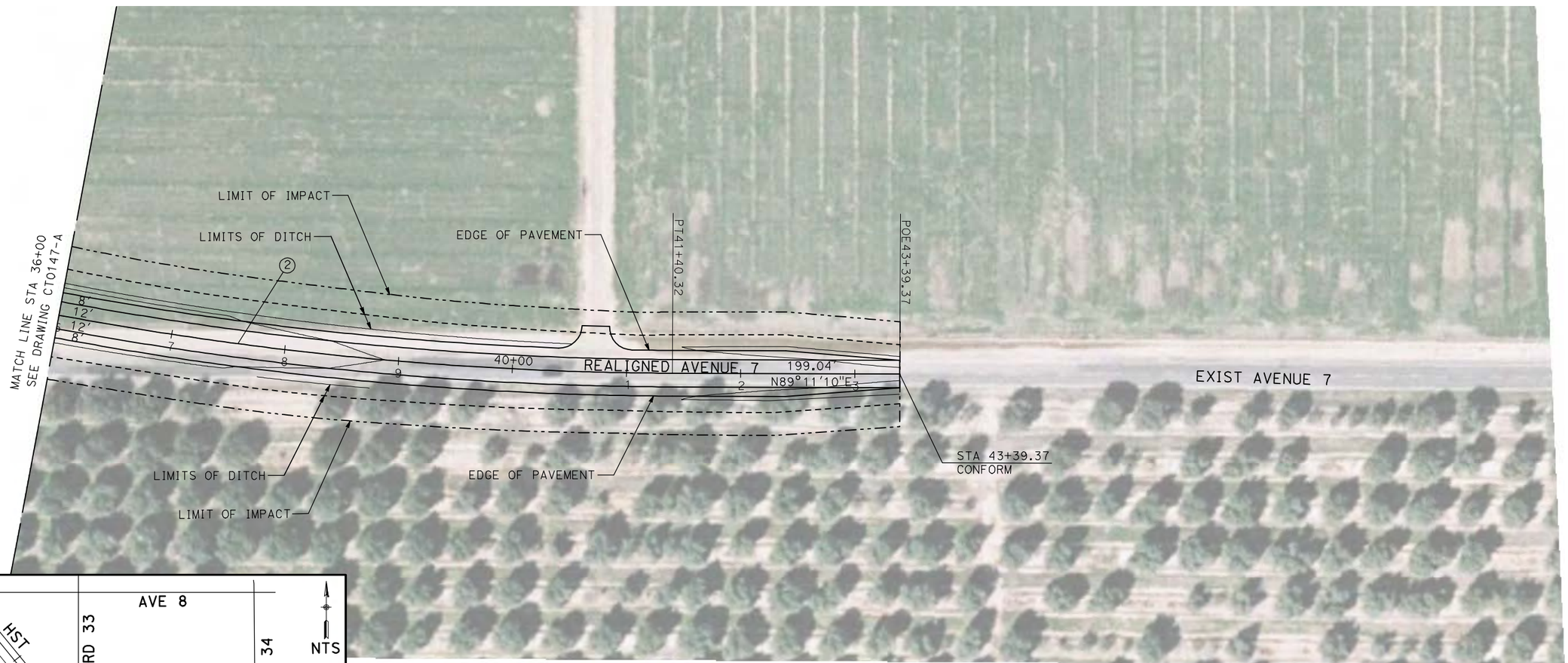
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
LAYOUT
SHEET 2 OF 3

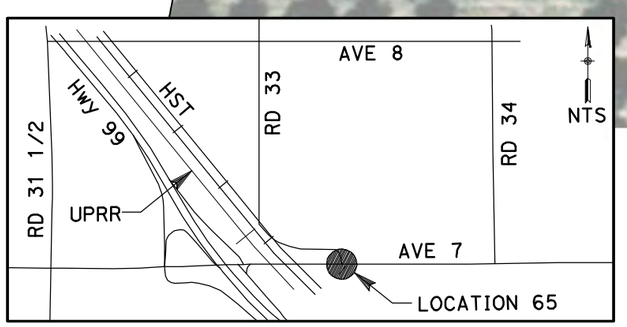
CONTRACT NO. HST06-007
DRAWING NO. CT0147-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:46:57 PM i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0147-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
②	5000.00′	6°52′32″	300.36′	600.00′	45 MPH





NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT1146-A THROUGH CT1148-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

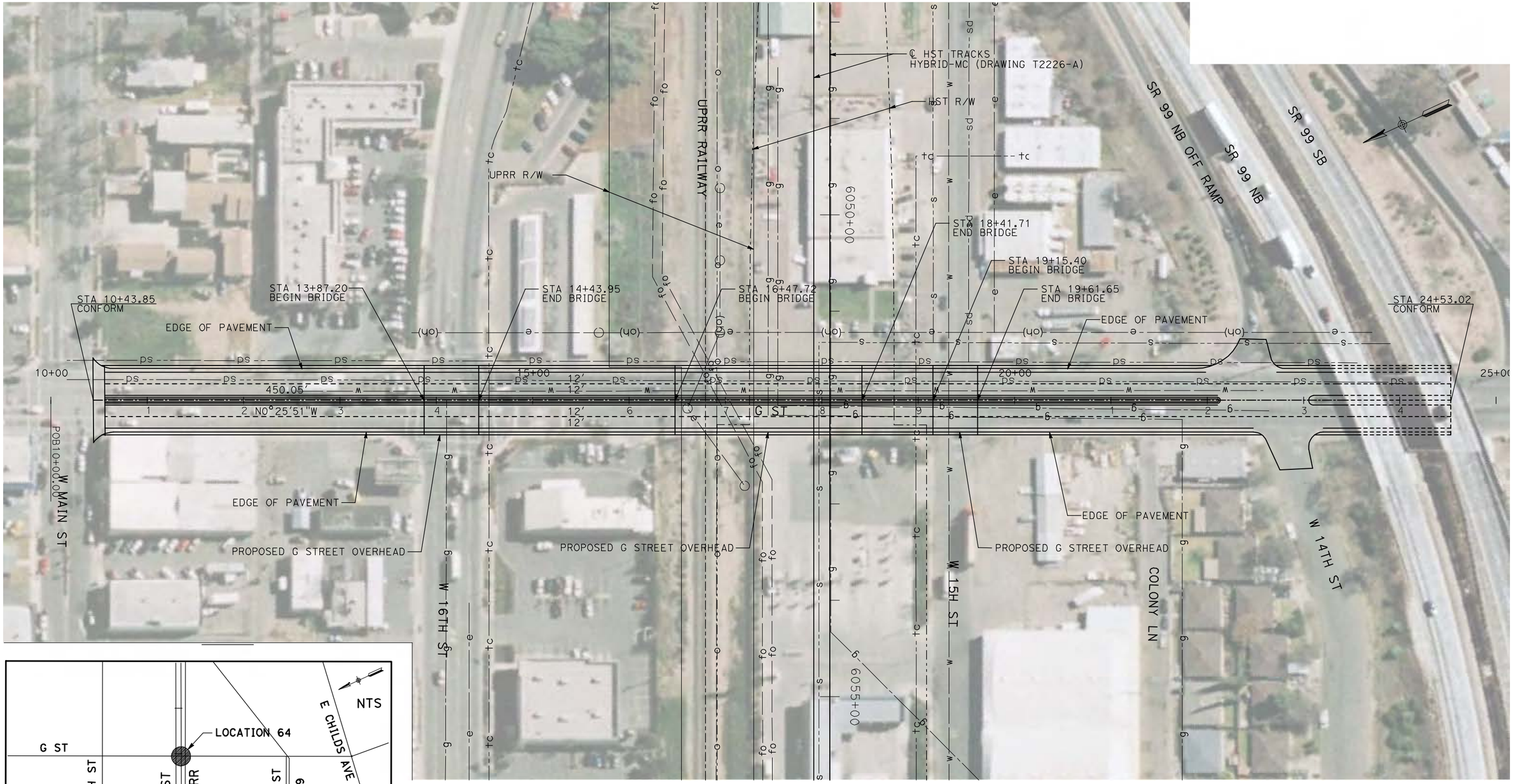
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HST06-007
DRAWING NO. CT0148-A
SCALE AS SHOWN
SHEET NO. OF ###

GibsonR1 5/1/2011 1:47:04 PM i:\chsr\6002962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-0148-A.dgn



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWING CT1149-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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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

BNSF MERCED CONNECTOR - HYBRID
GRADE SEPARATION - G STREET
LAYOUT
SHEET 1 OF 1

CONTRACT NO. HST06-007
DRAWING NO. CT0149-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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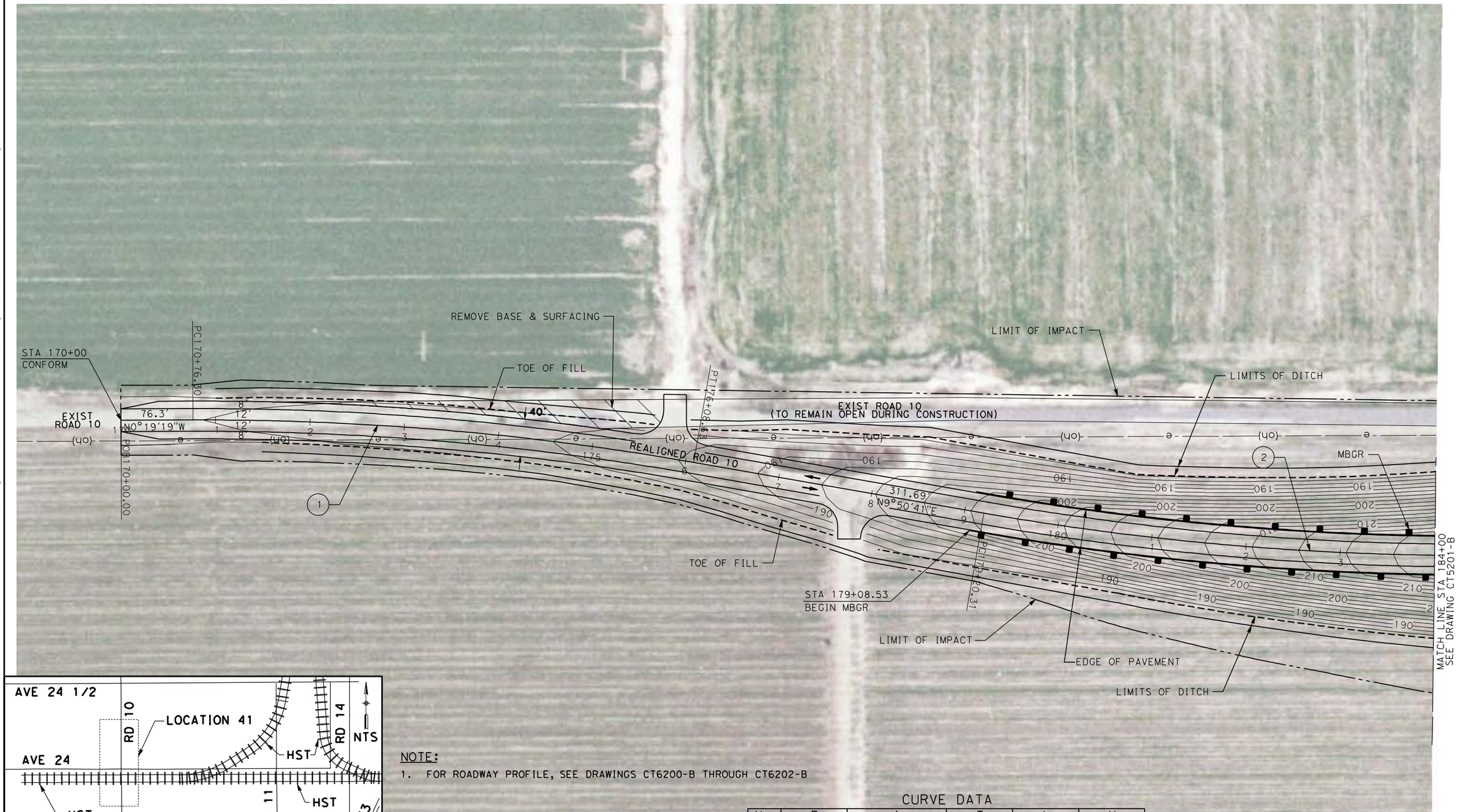

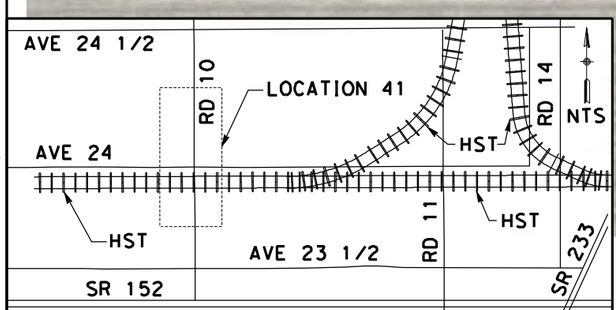

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6200-B THROUGH CT6202-B

CURVE DATA

No.	R	Δ	T	L	V
1	3000.00	79°50'0"	266.86	532.33	45 MPH
2	3000.00	79°40'17"	271.14	540.81	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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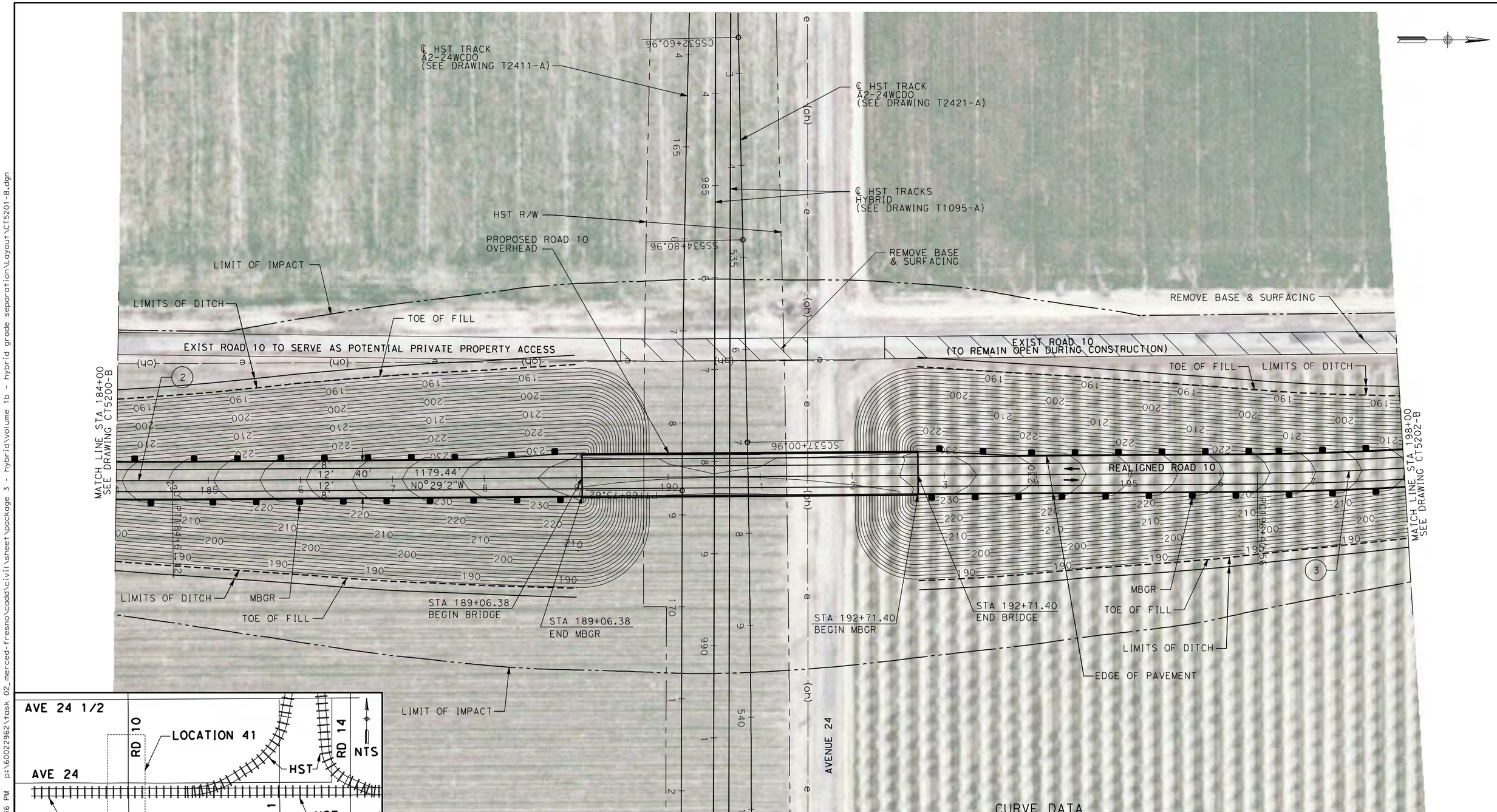

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6200-B THROUGH CT6202-B

CURVE DATA

No.	R	Δ	T	L	V
(2)	3000.00	79°40'17"	271.14	540.81	45 MPH
(3)	3000.00	79°52'52"	265.60	529.82	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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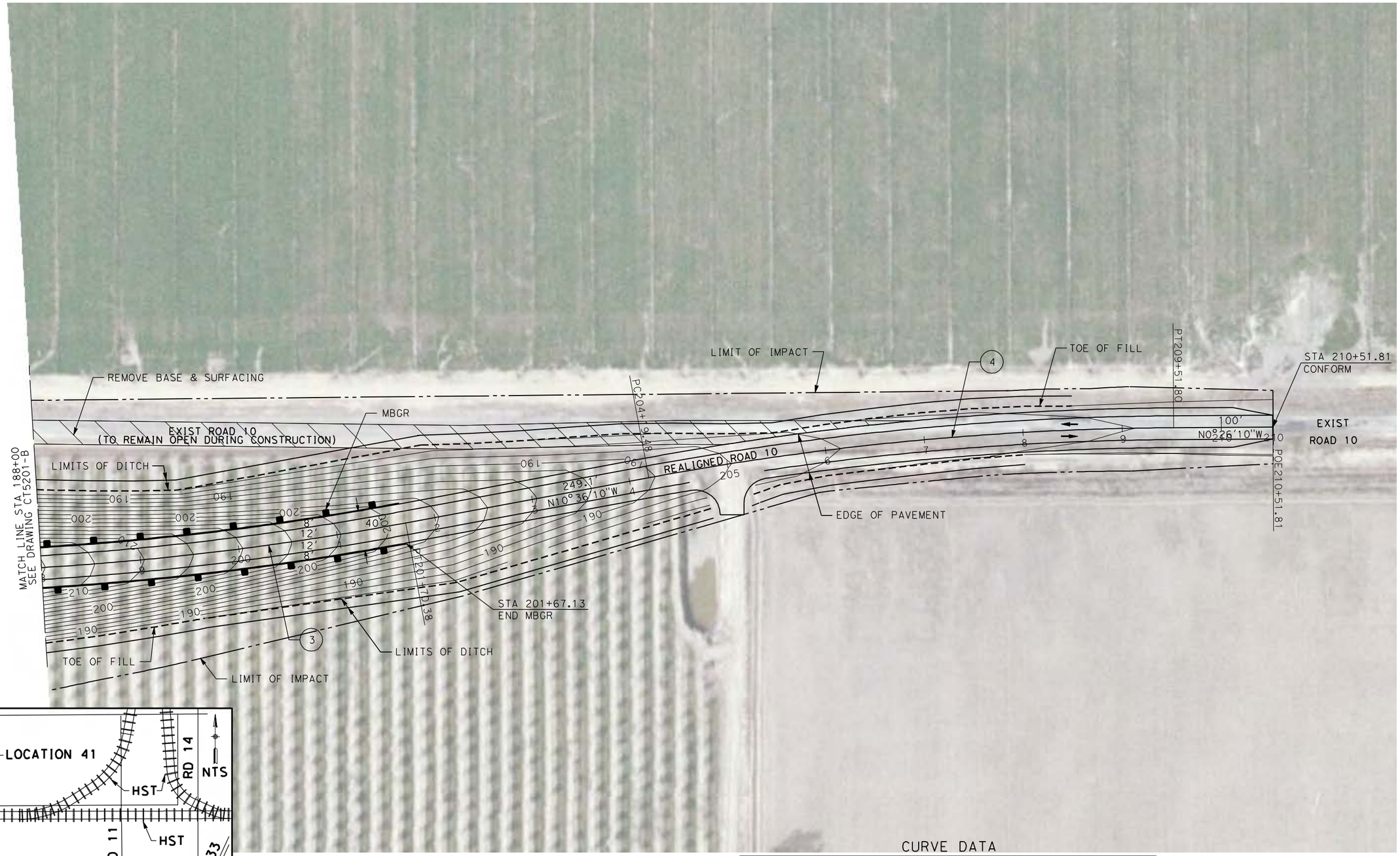

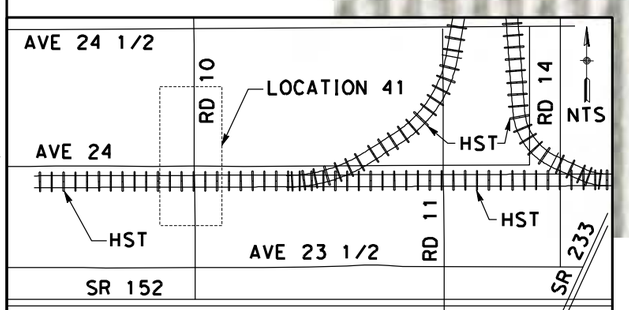

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6200-B THROUGH CT6202-B

CURVE DATA

No.	R	Δ	T	L	V
3	3000.00	79°52'52"	265.60	529.82	45 MPH
4	3000.00	79°50'0"	266.86	532.33	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5202-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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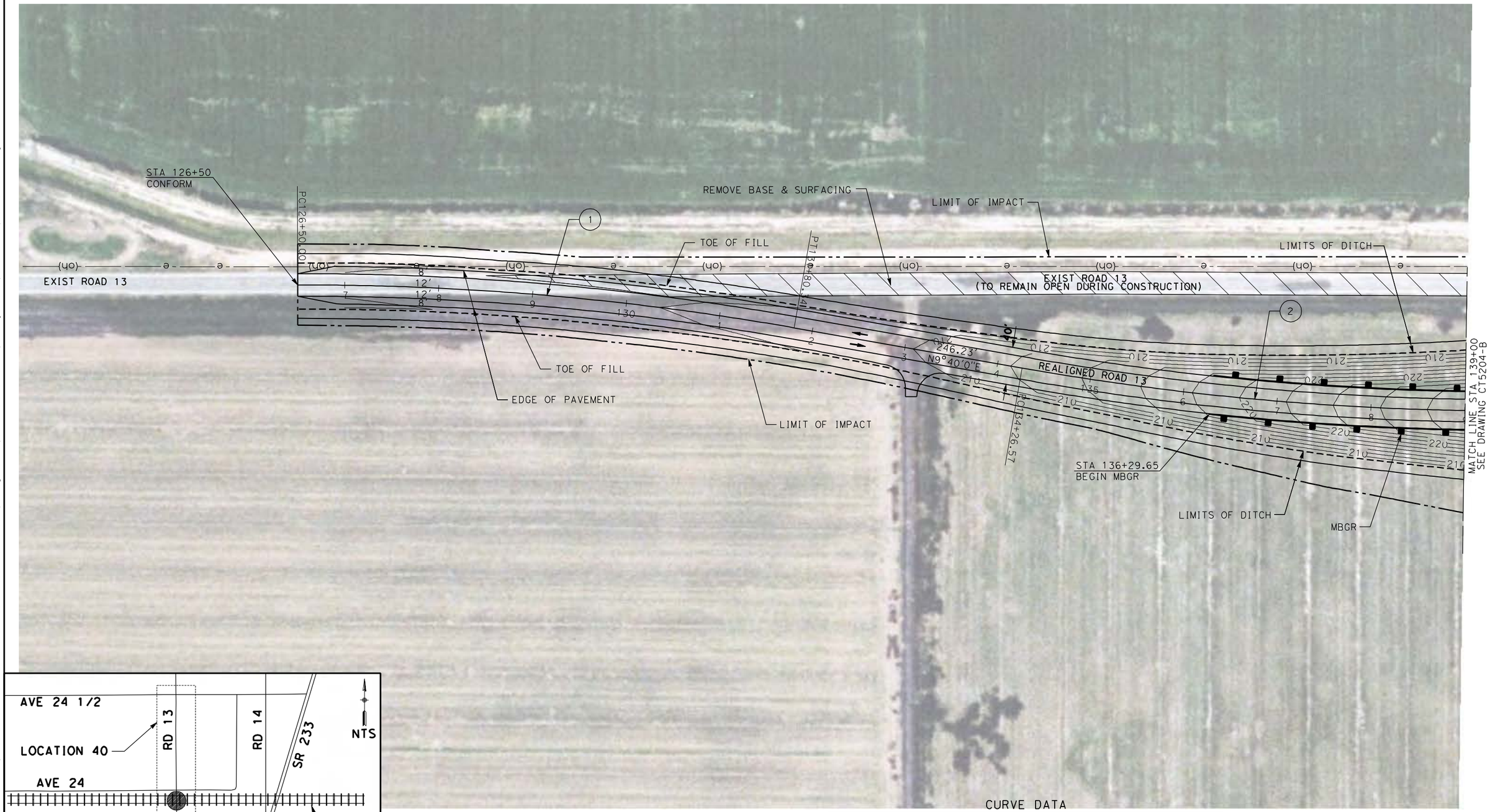

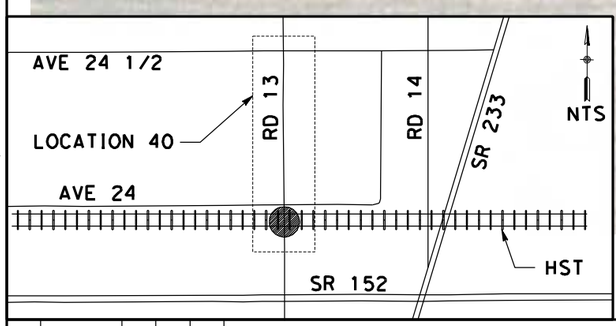

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6203-B THROUGH CT6207-B

CURVE DATA

No.	R	Δ	T	L	V
1	3000.00	10°07'43"	265.86	530.34	45 MPH
2	3000.00	10°00'07"	262.52	532.71	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
LAYOUT
SHEET 1 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT5203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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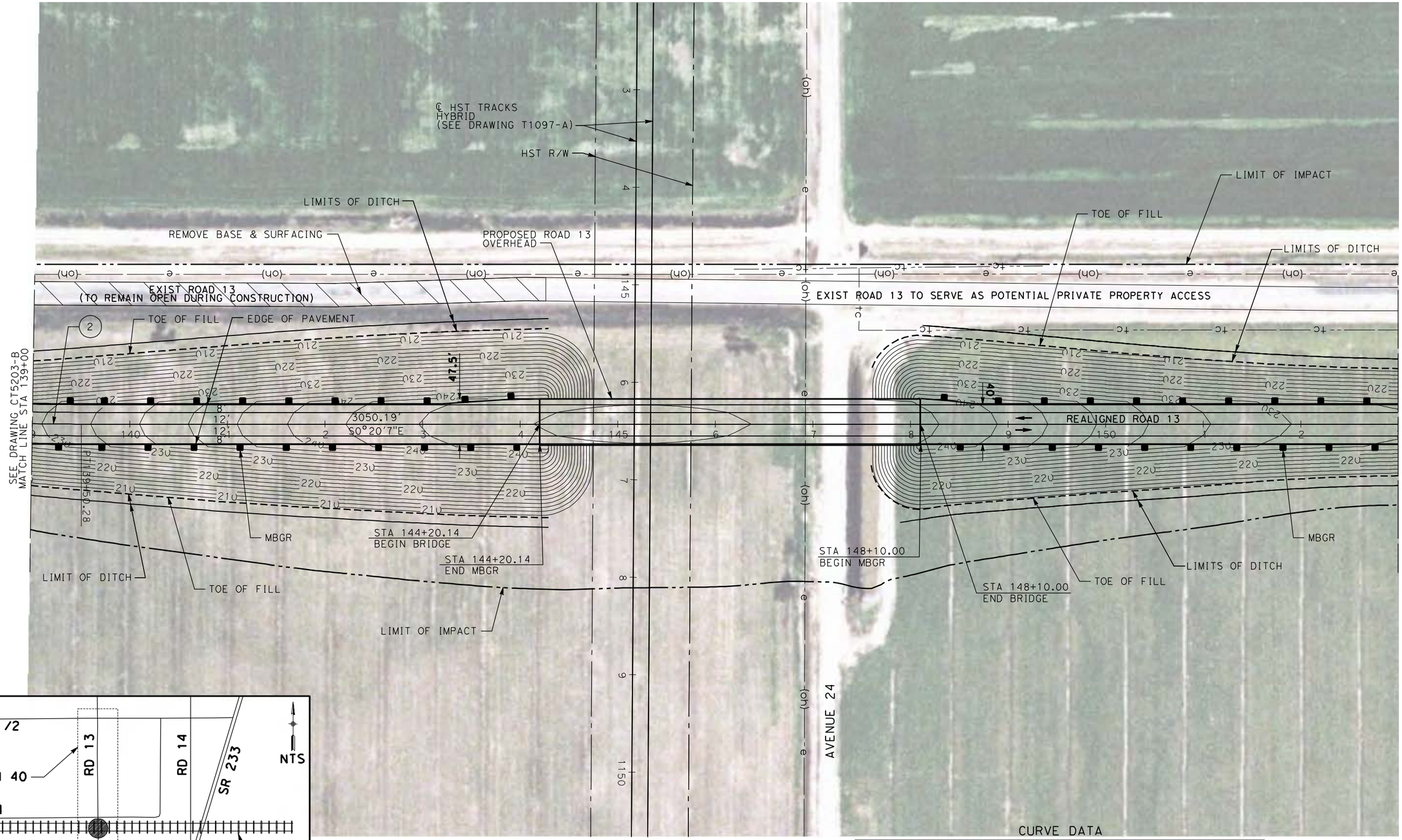

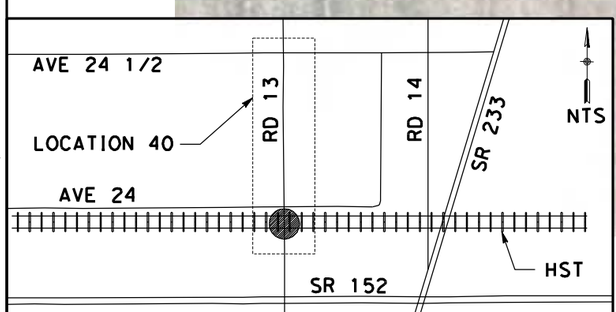

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6203-B THROUGH CT6207-B

CURVE DATA

No.	R	Δ	T	L	V
2	3000.00	10°00'07"	262.52	532.71	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
LAYOUT
SHEET 2 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT5204-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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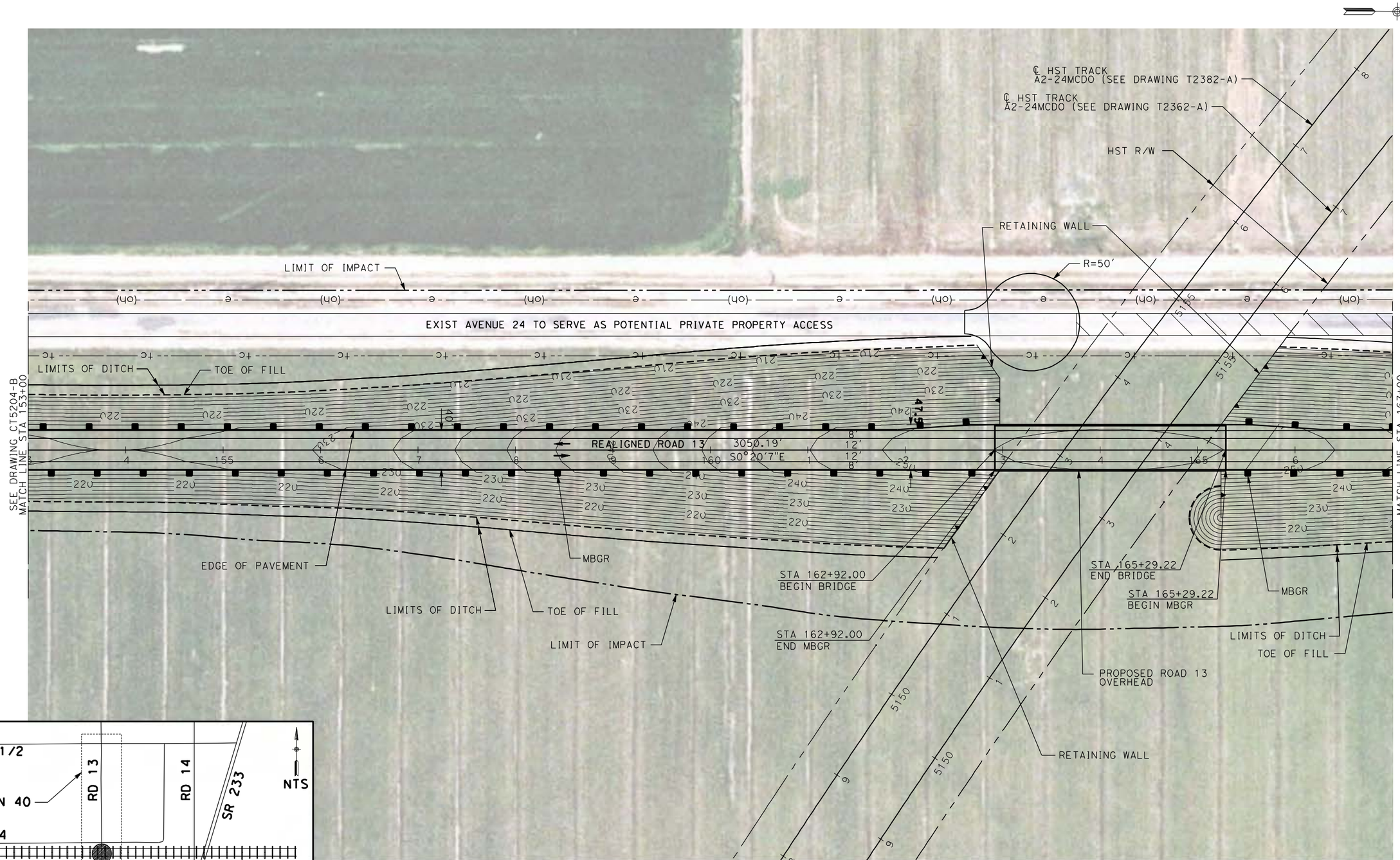

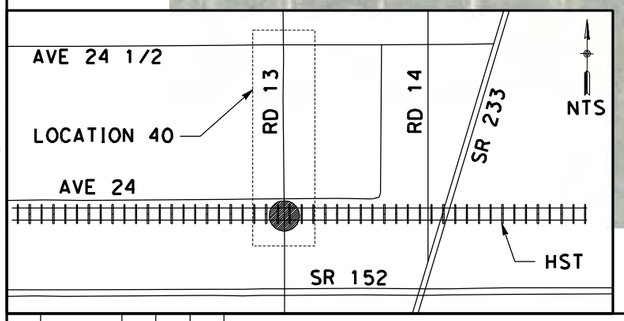

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6203-B THROUGH CT6207-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
LAYOUT
SHEET 3 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT5205-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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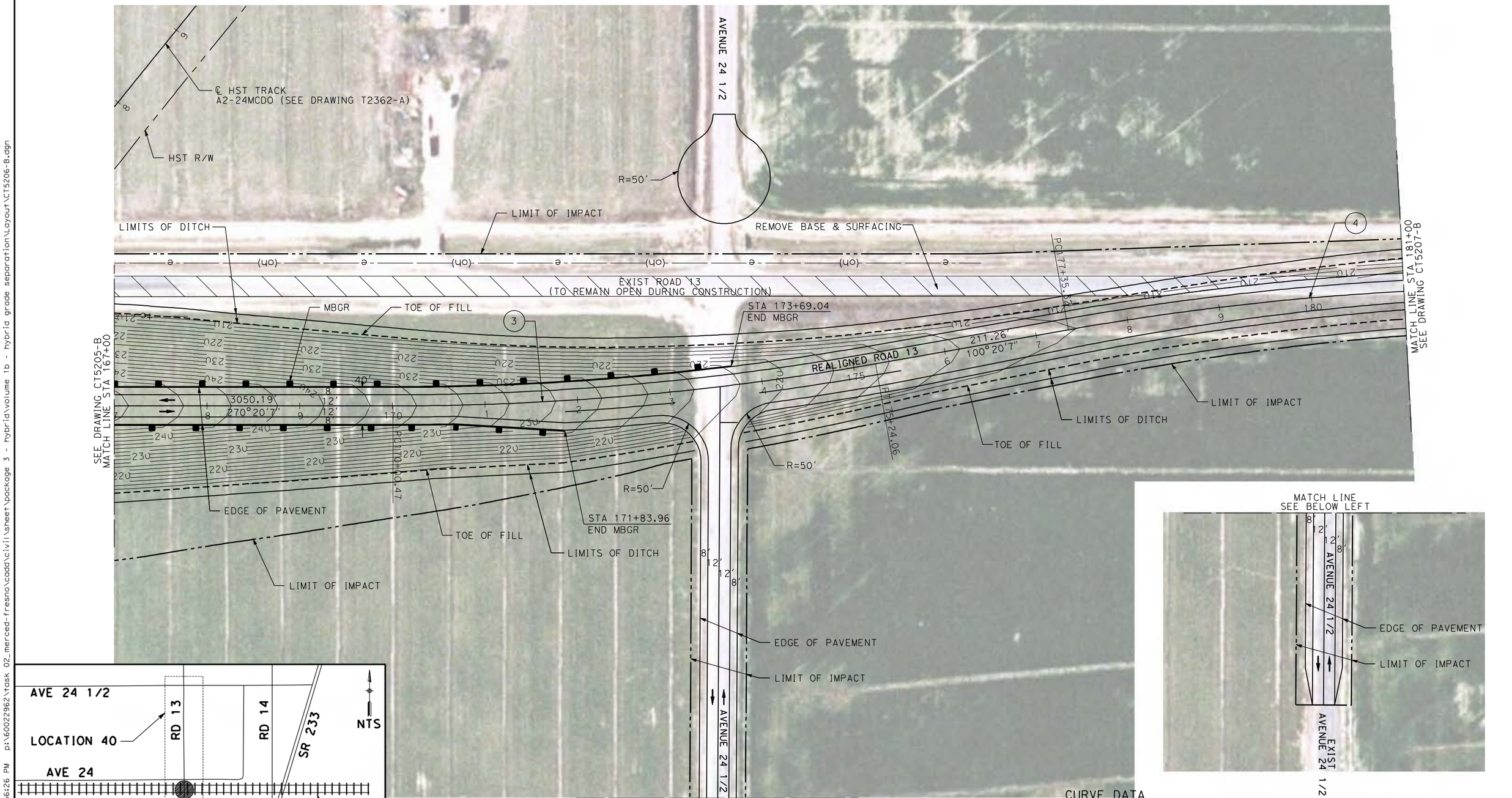

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6203-B THROUGH CT6207-B

CURVE DATA

No.	R	Δ	T	L	V
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4	3000.00	10°01'26"	263.09	524.84	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
LAYOUT
SHEET 4 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT5206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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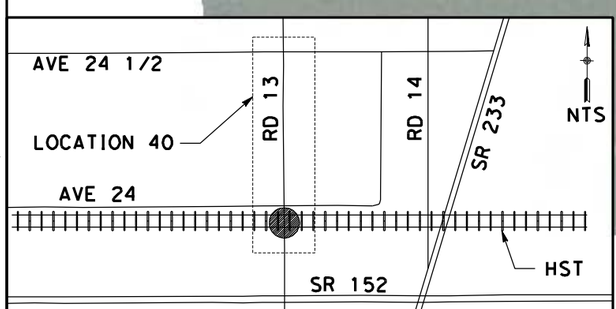

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6203-B THROUGH CT6207-B

CURVE DATA

No.	R	Δ	T	L	V
4	3000.00	10°01'26"	263.09	524.84	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
LAYOUT
SHEET 5 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT5207-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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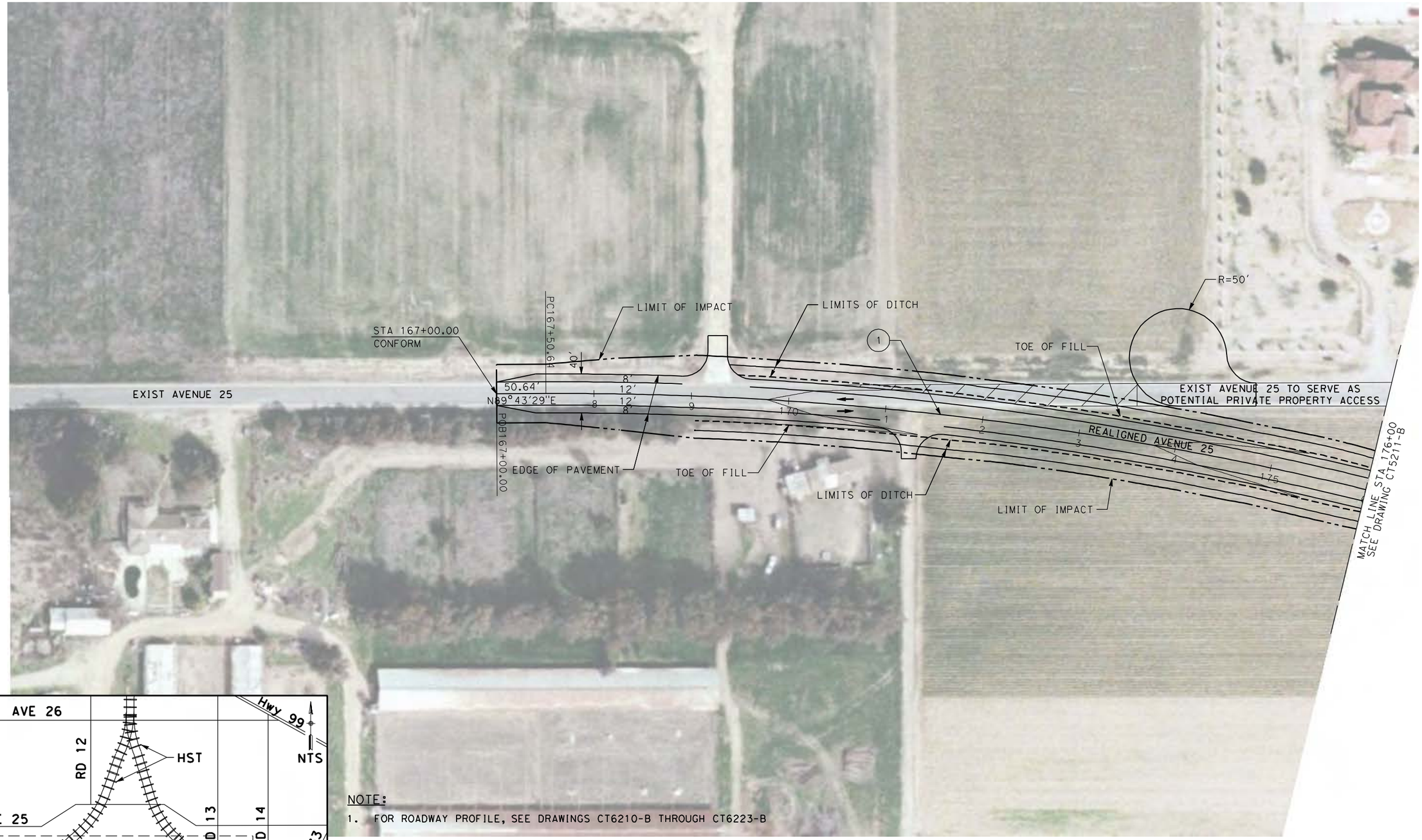

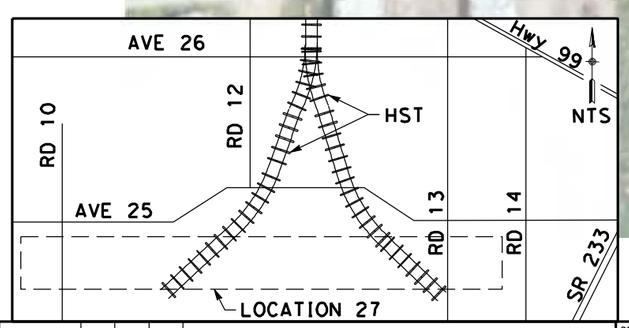

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
1	3500.00	44°36'04"	1435.49	2724.52	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 1 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5210-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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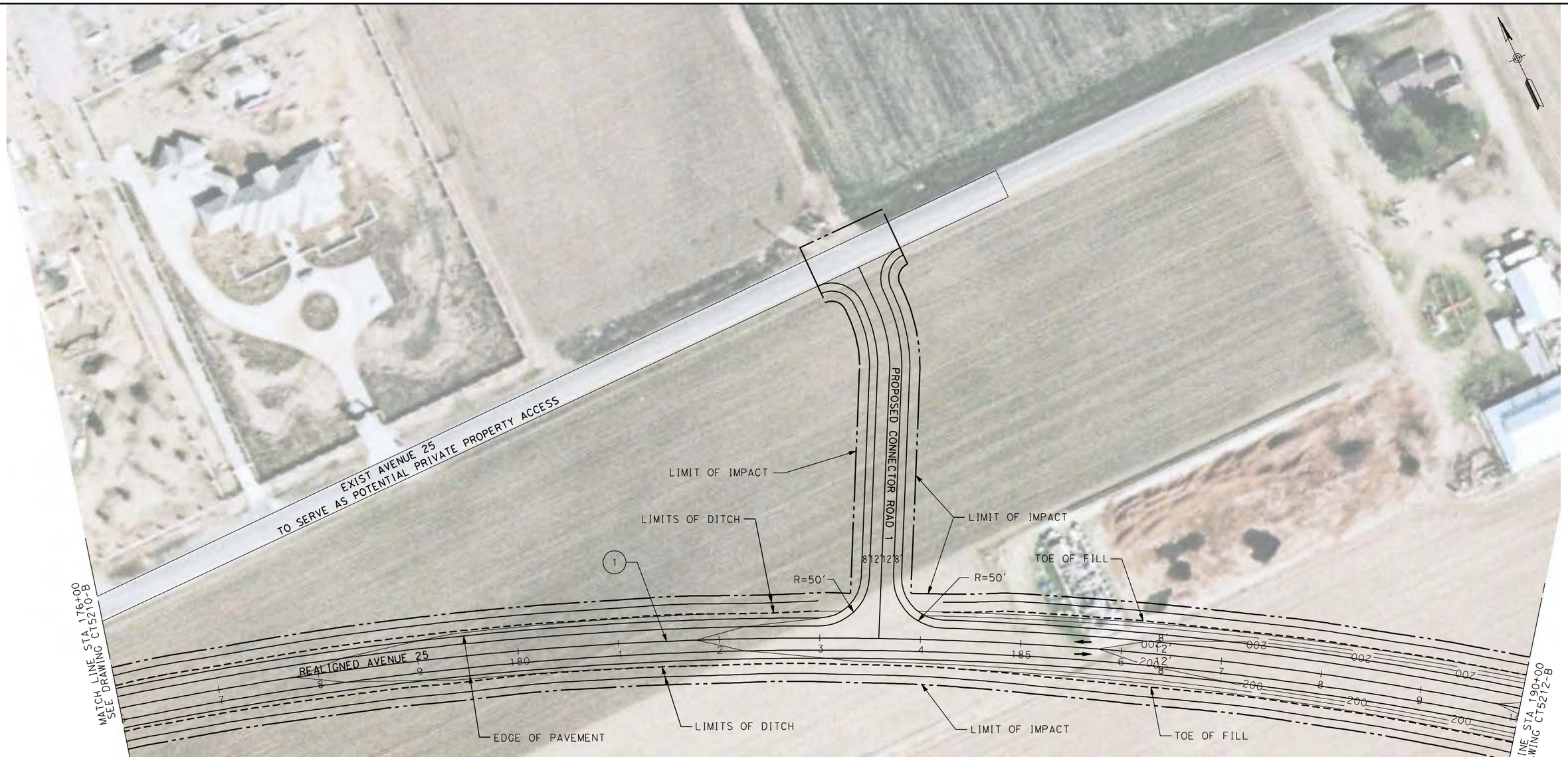

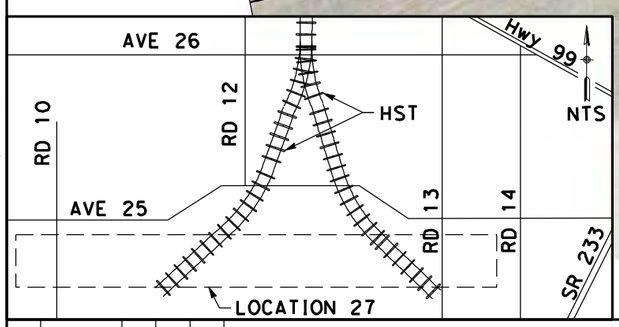

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
1	3500.00	44°36'04"	1435.49	2724.52	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 2 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5211-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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CURVE DATA

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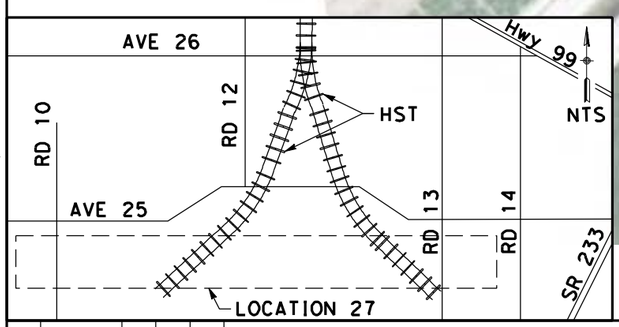

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 3 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5212-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 6:57:03 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 1b - hybrid grade separation\Layout\CT5212-B.dgn

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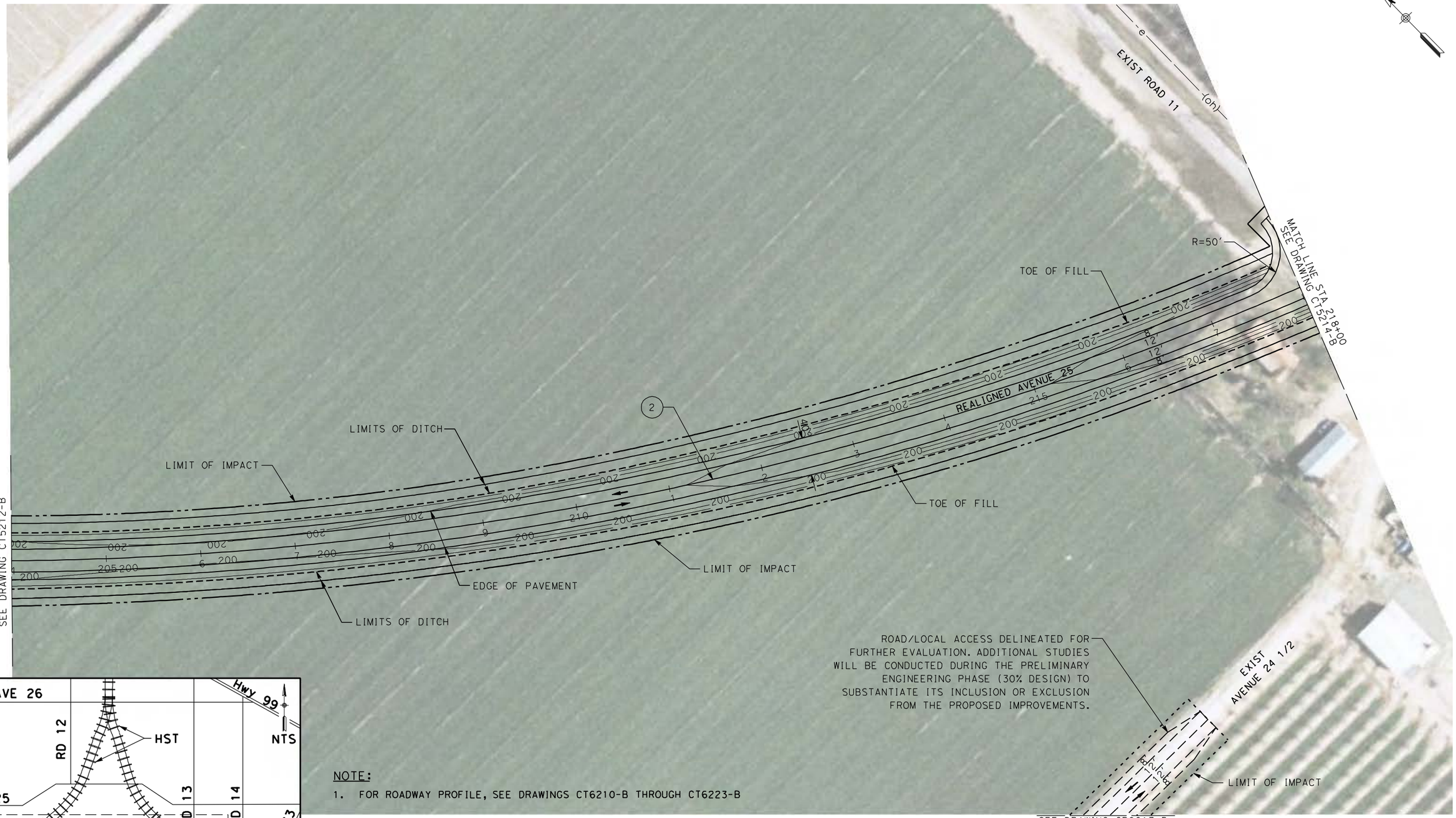

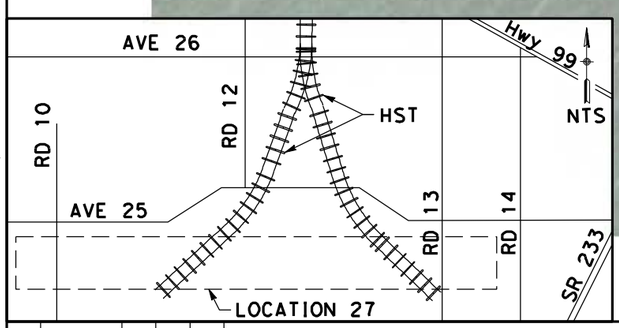

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
2	3500.00	44°19'33"	1425.68	2707.71	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 4 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5213-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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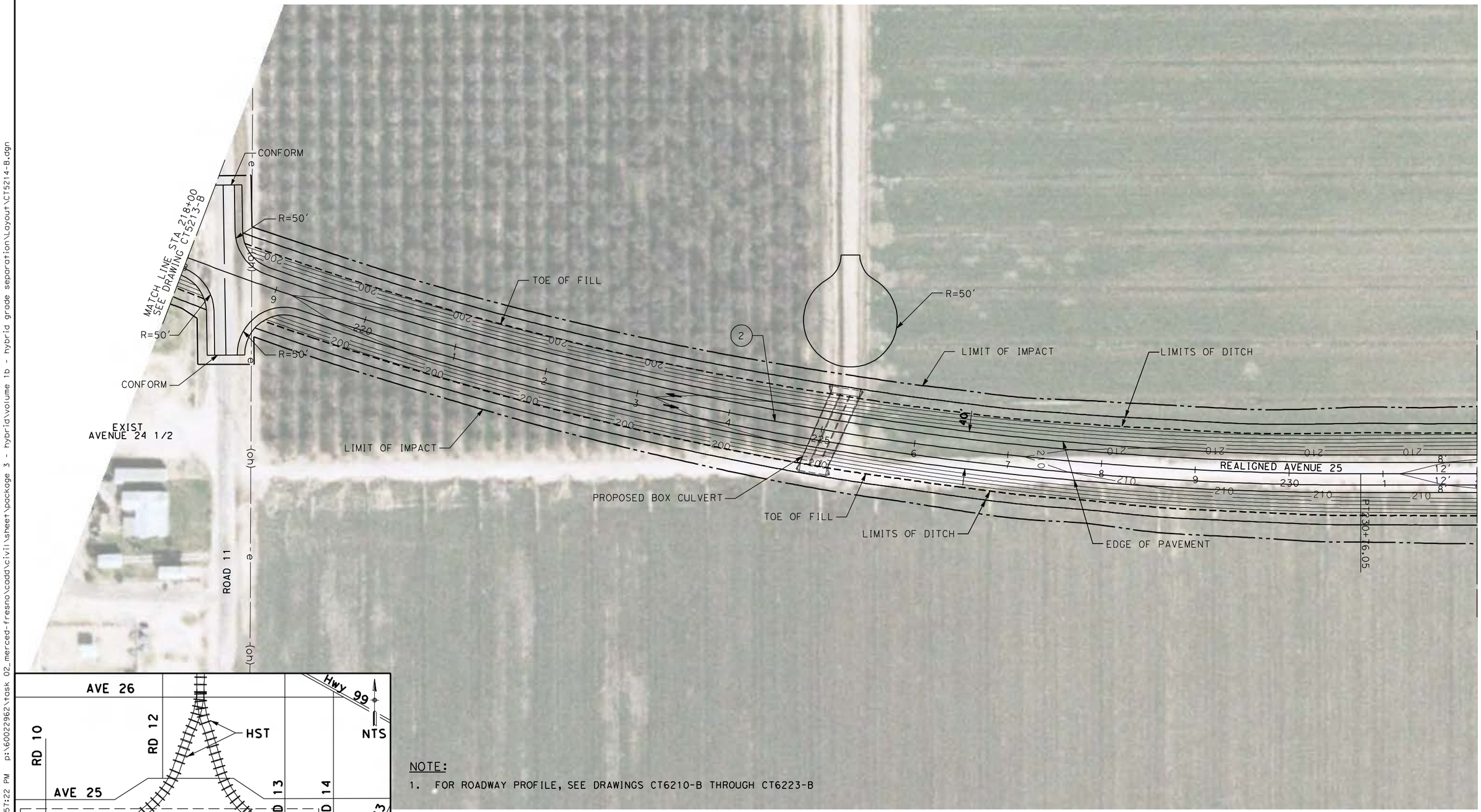

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
2	3500.00	44°19'33"	1425.68	2707.71	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 5 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5214-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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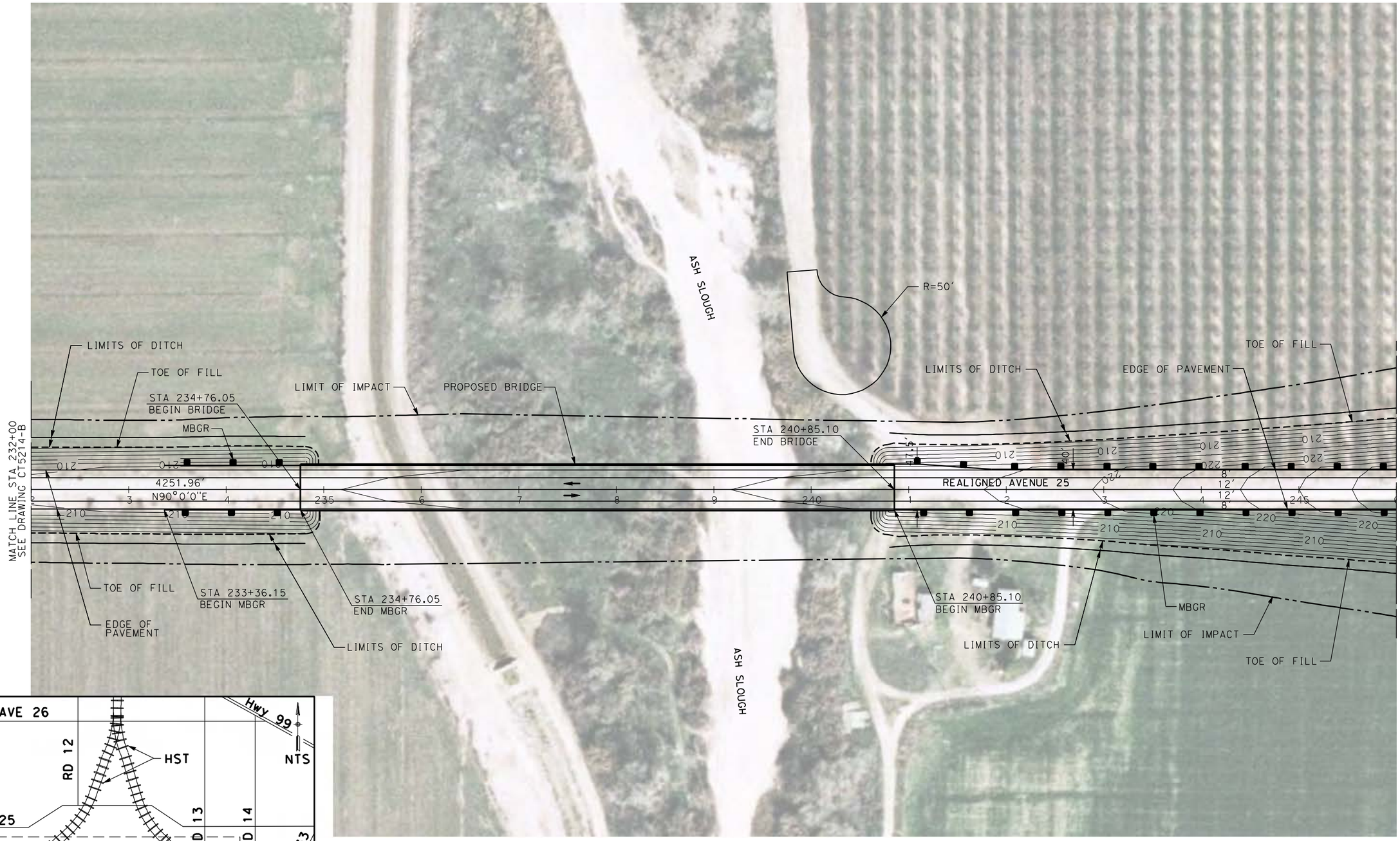

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811

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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 6 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5215-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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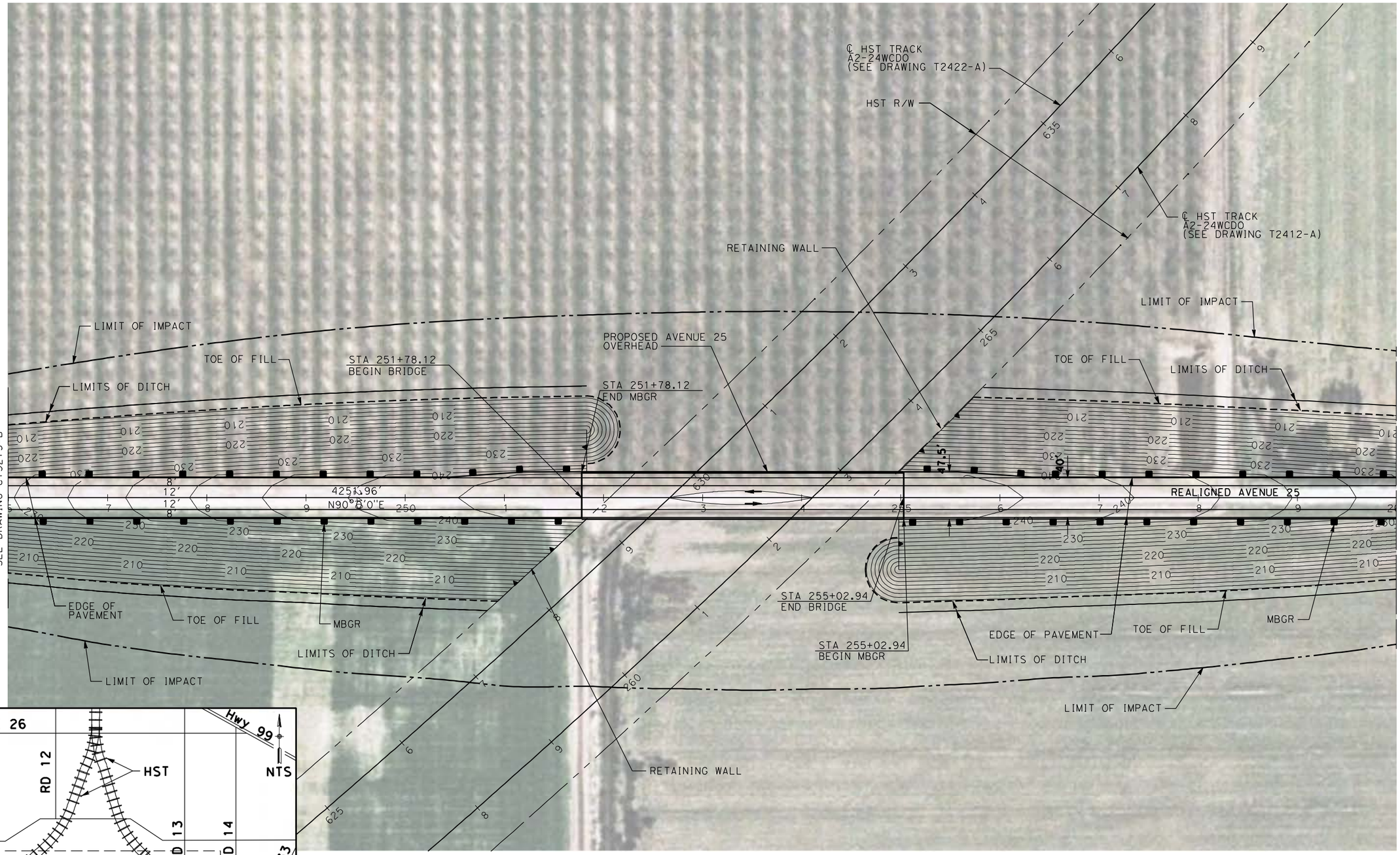

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 7 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5216-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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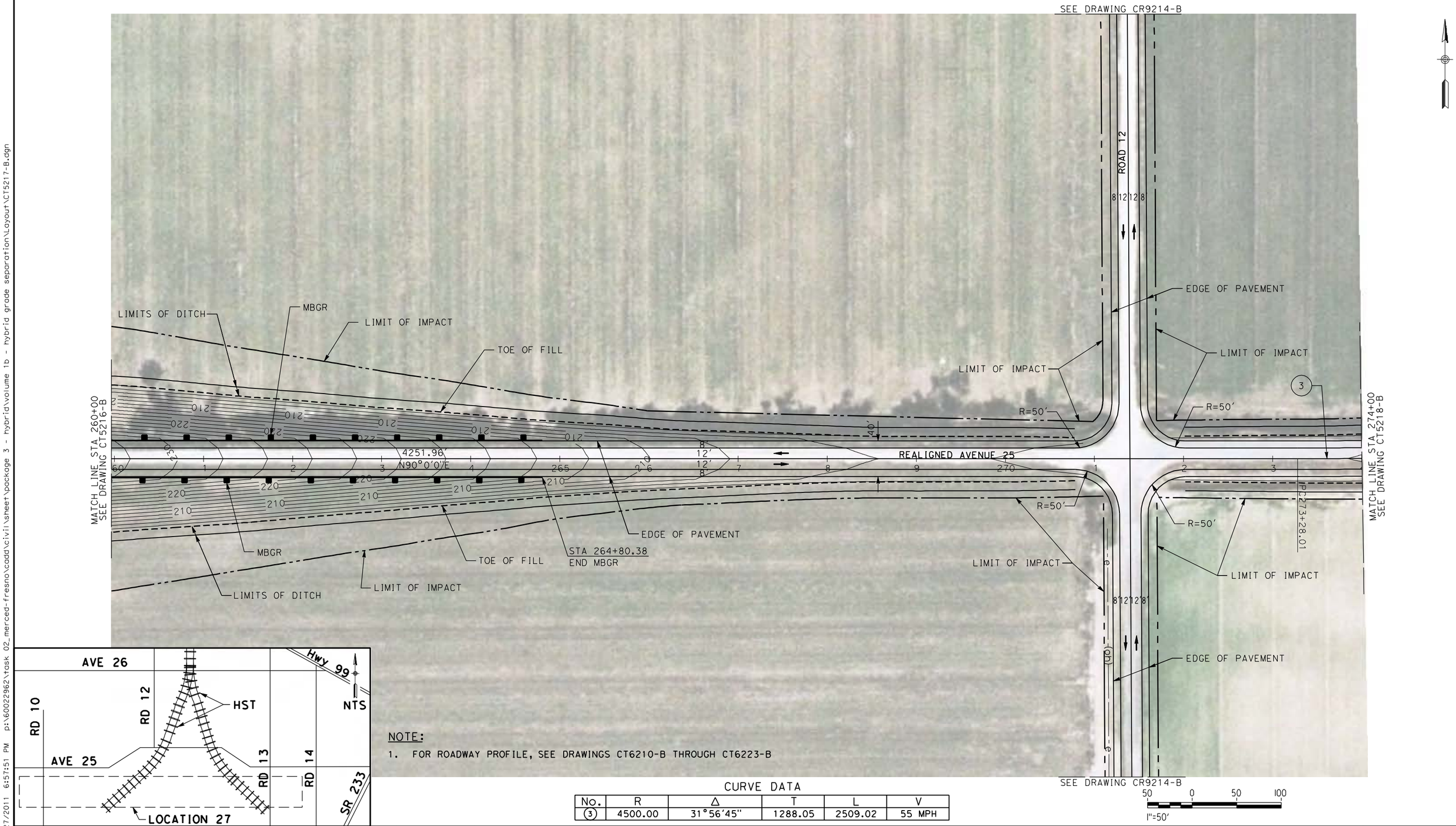

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
3	4500.00	31°56'45"	1288.05	2509.02	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 8 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5217-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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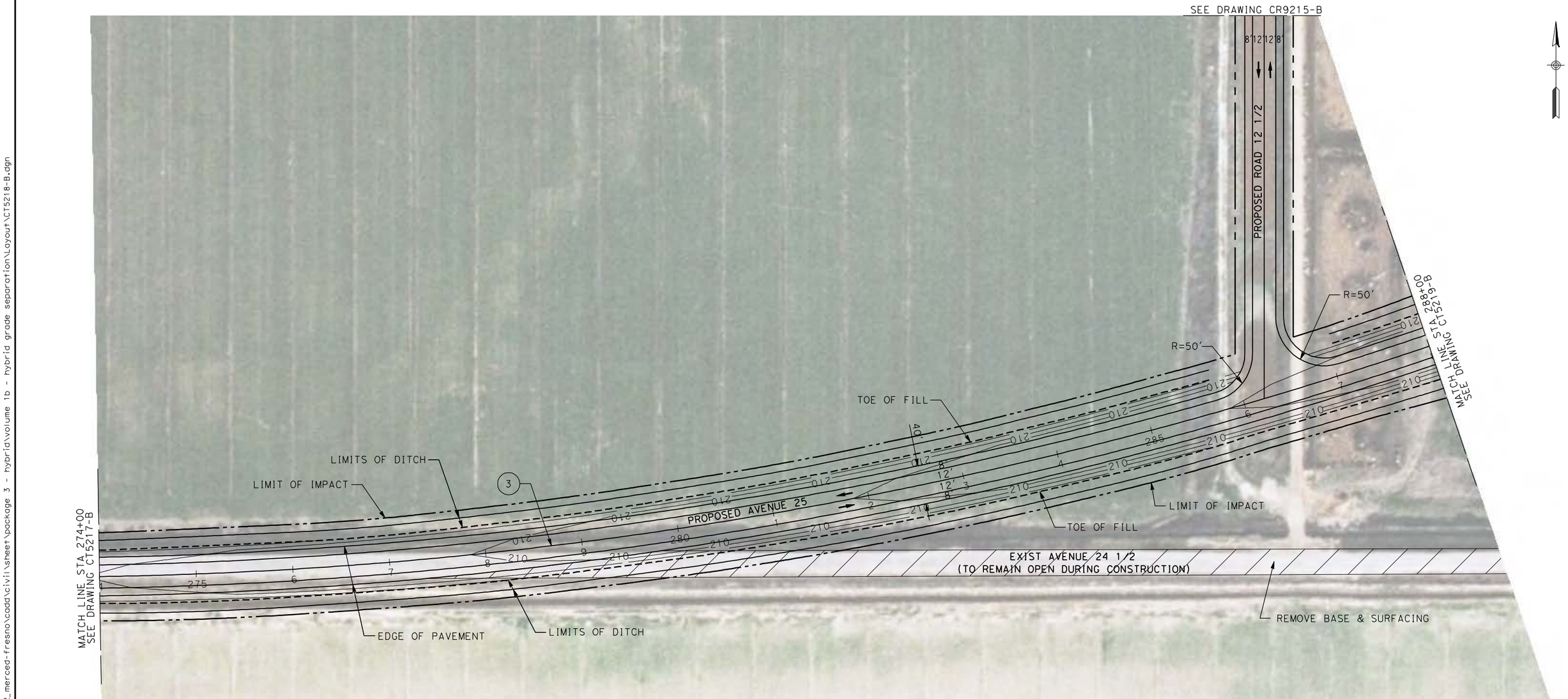

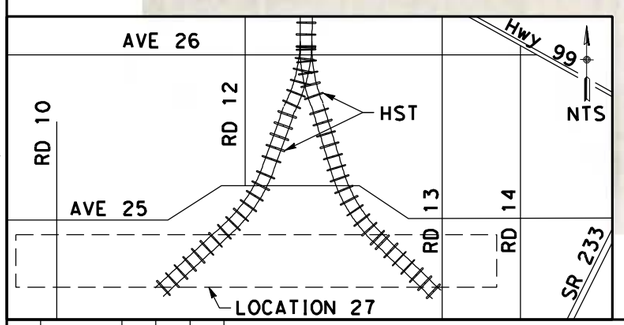

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
3	4500.00	31°56'45"	1288.05	2509.02	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 9 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5218-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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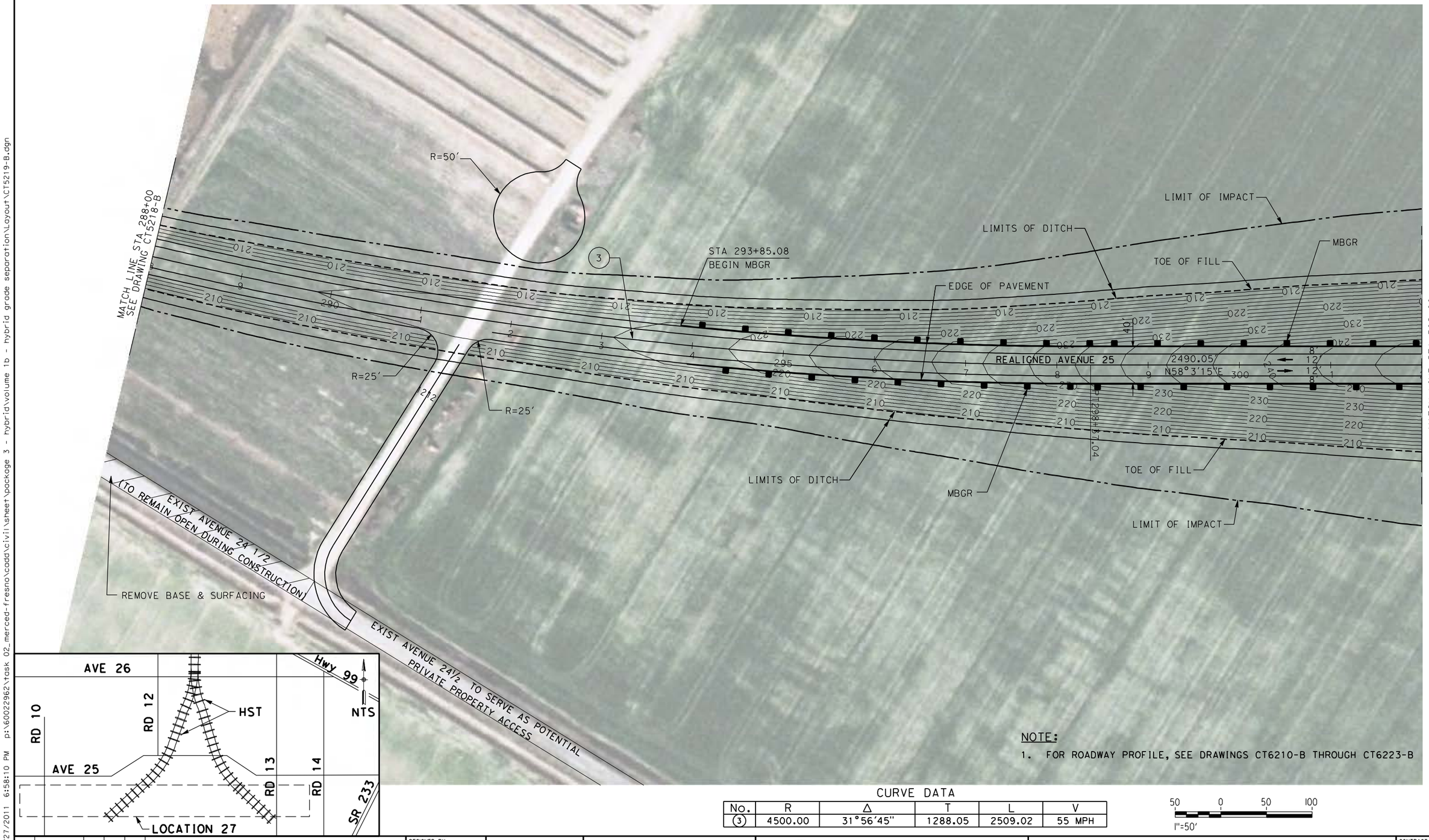

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
3	4500.00	31°56'45"	1288.05	2509.02	55 MPH

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 10 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5219-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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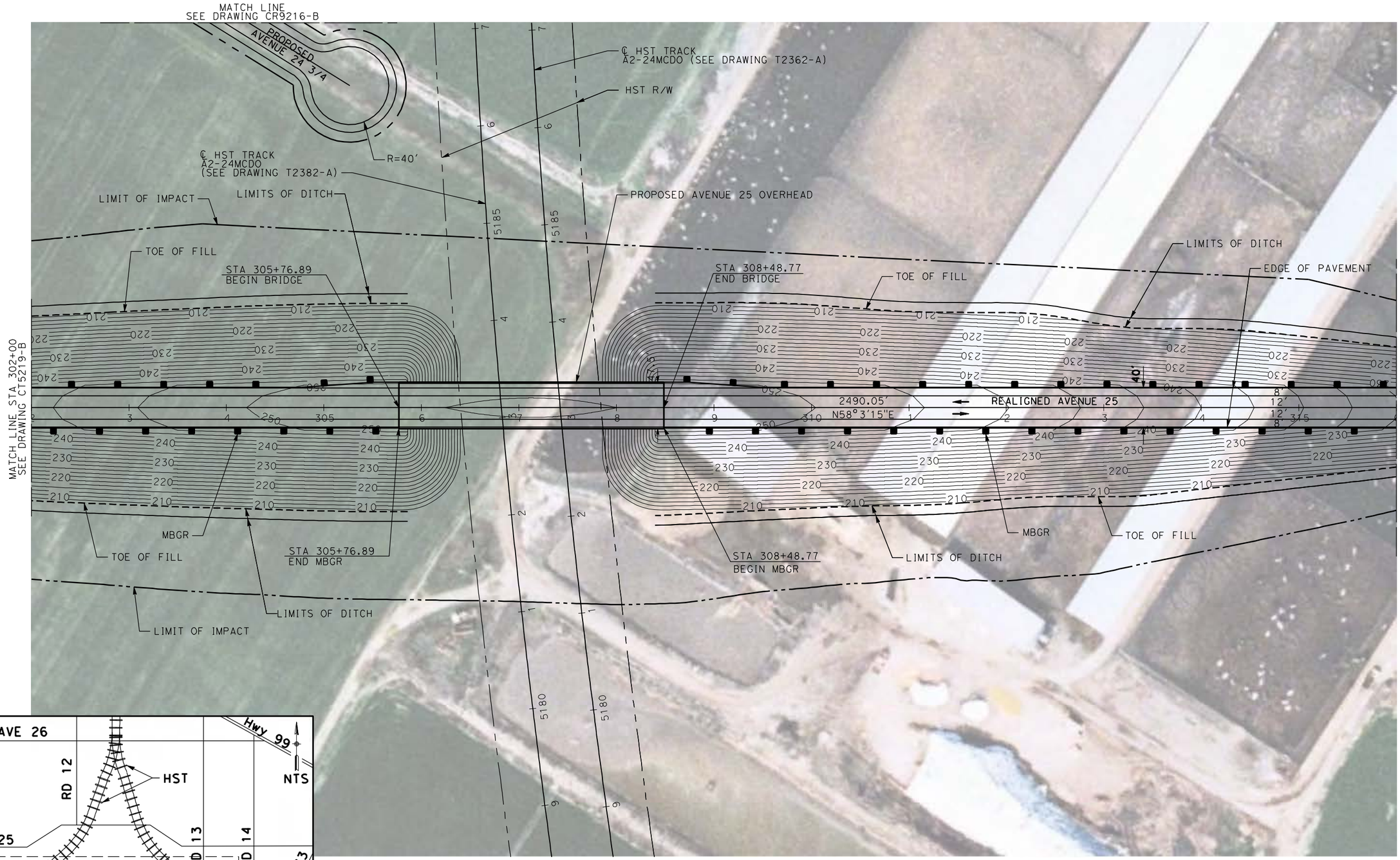

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 11 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5220-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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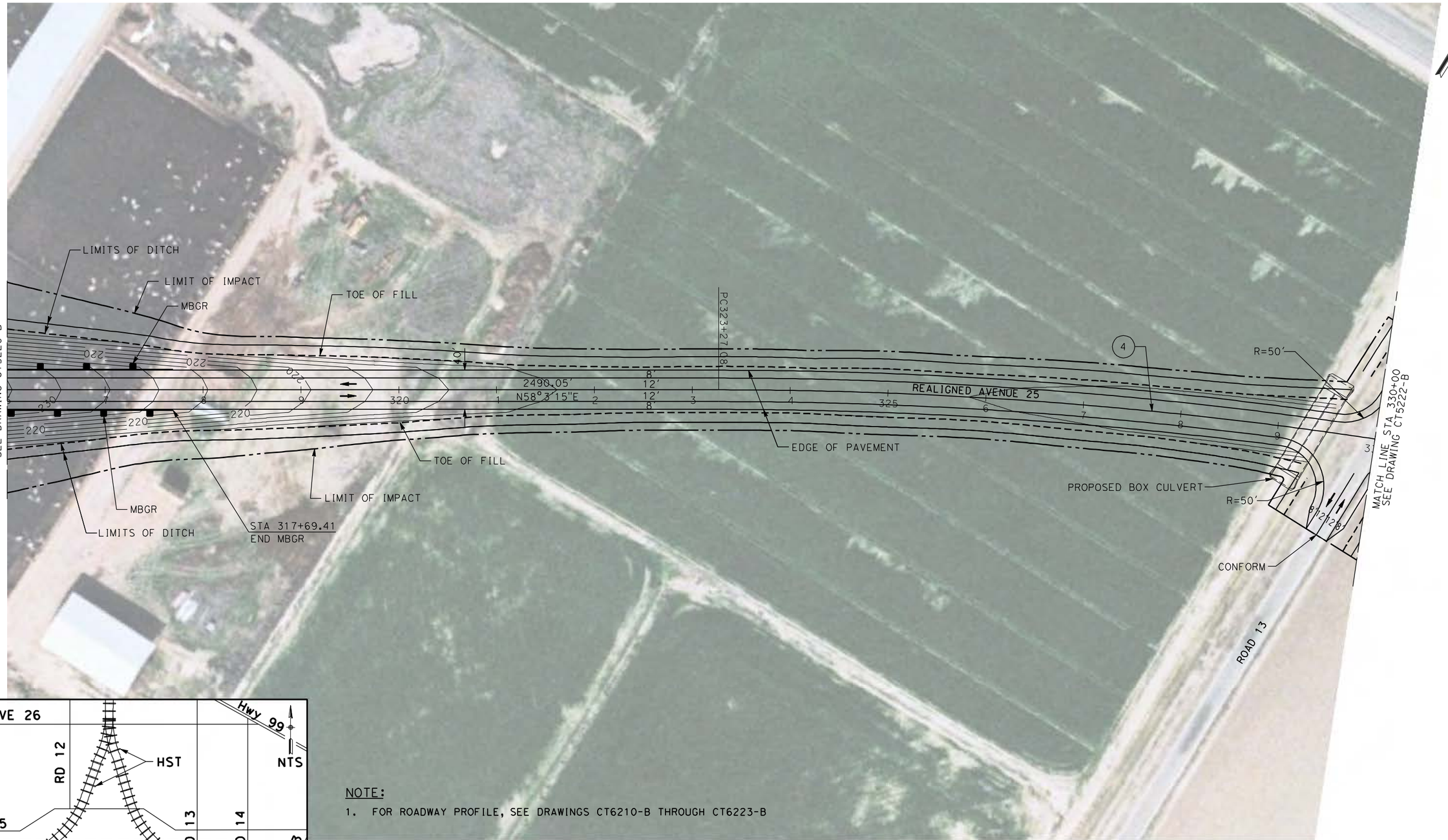

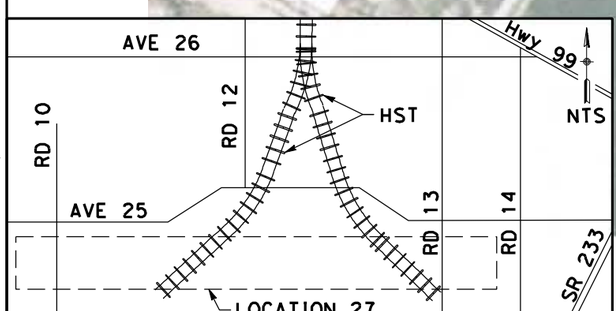

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
4	4500.00	31°56'45"	1288.05	2509.02	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 12 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5221-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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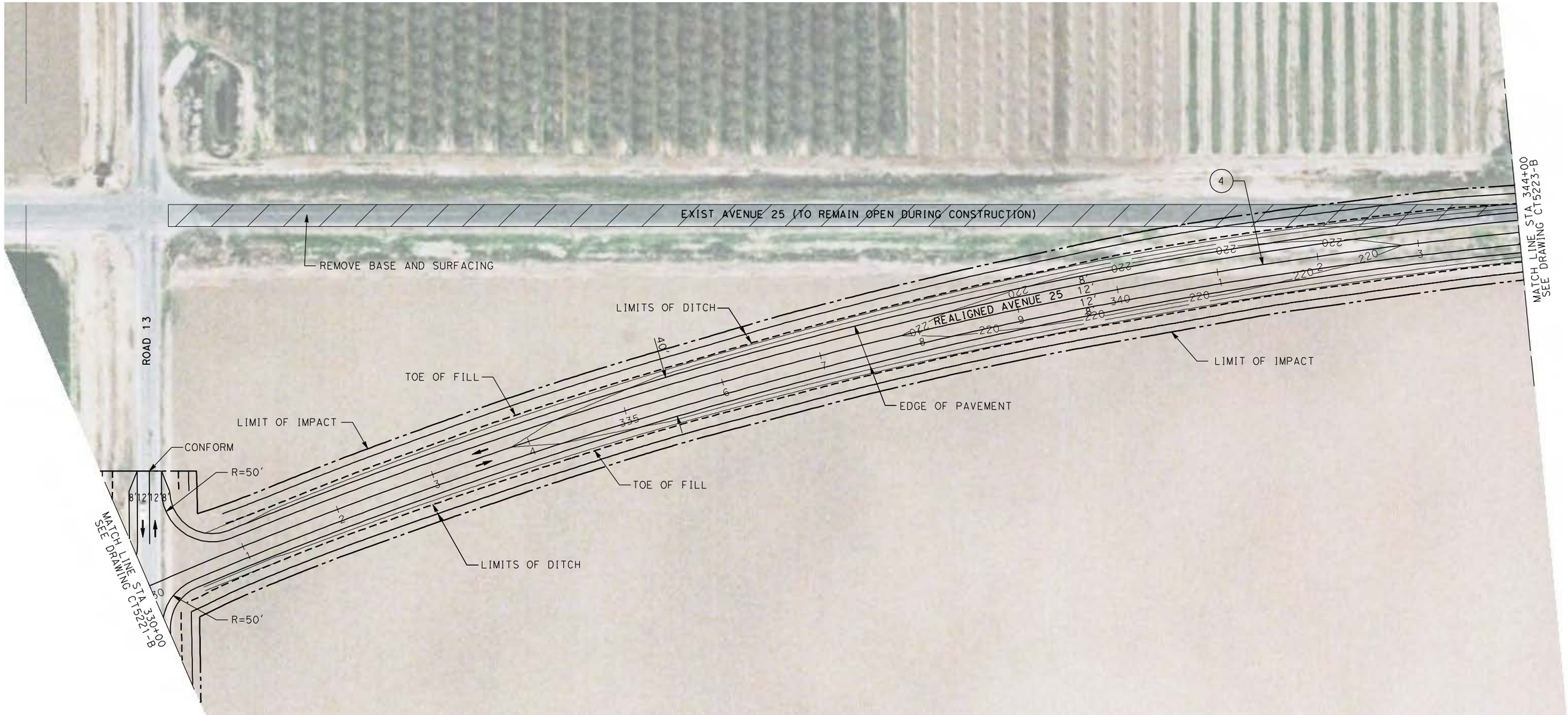

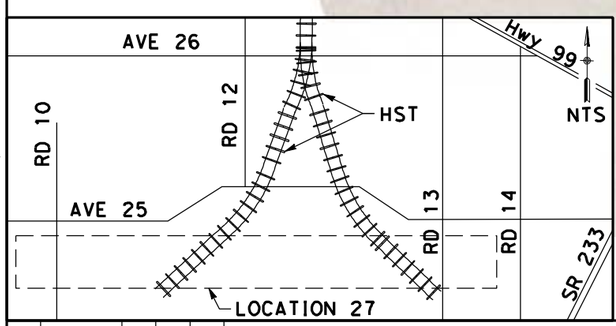

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
4	4500.00	31°56'45"	1288.05	2509.02	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 13 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5222-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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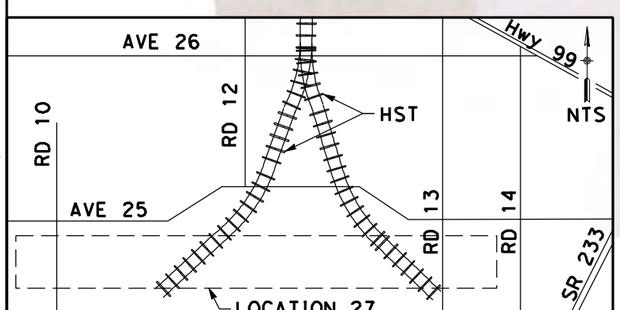

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6210-B THROUGH CT6223-B

CURVE DATA

No.	R	Δ	T	L	V
4	4500.00	31°56'45"	1288.05	2509.02	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
LAYOUT
SHEET 14 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT5223-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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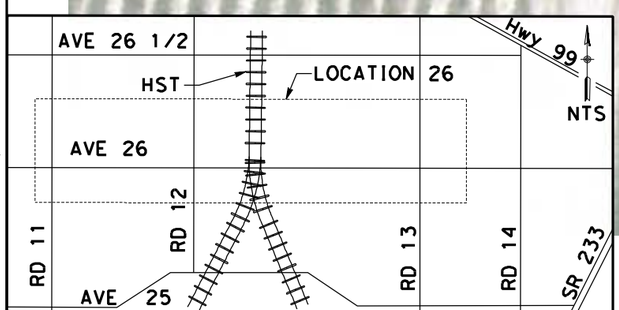

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

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50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 1 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5227-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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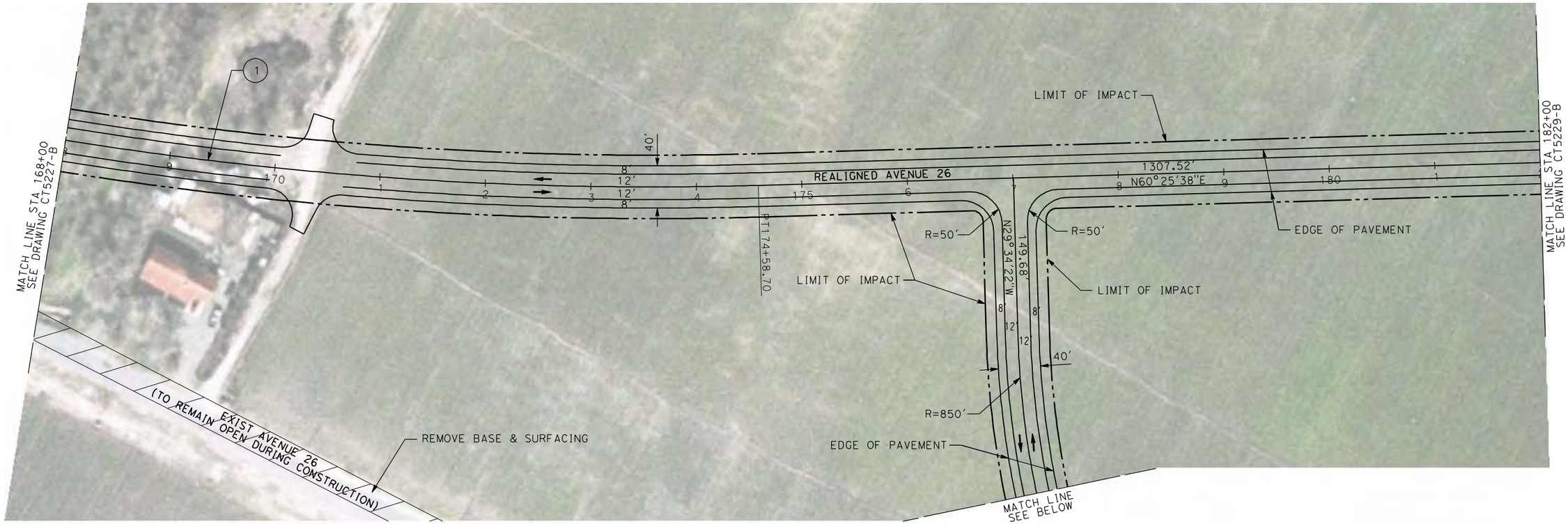

CURVE DATA

No.	R	Δ	T	L	V
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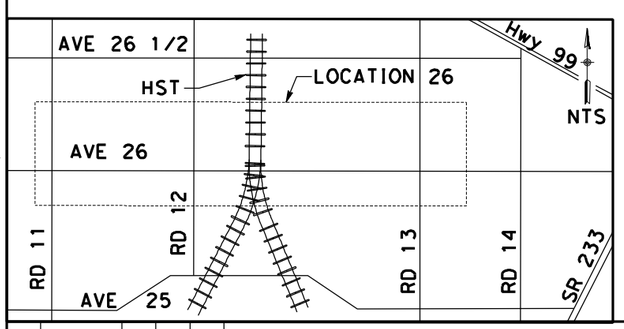
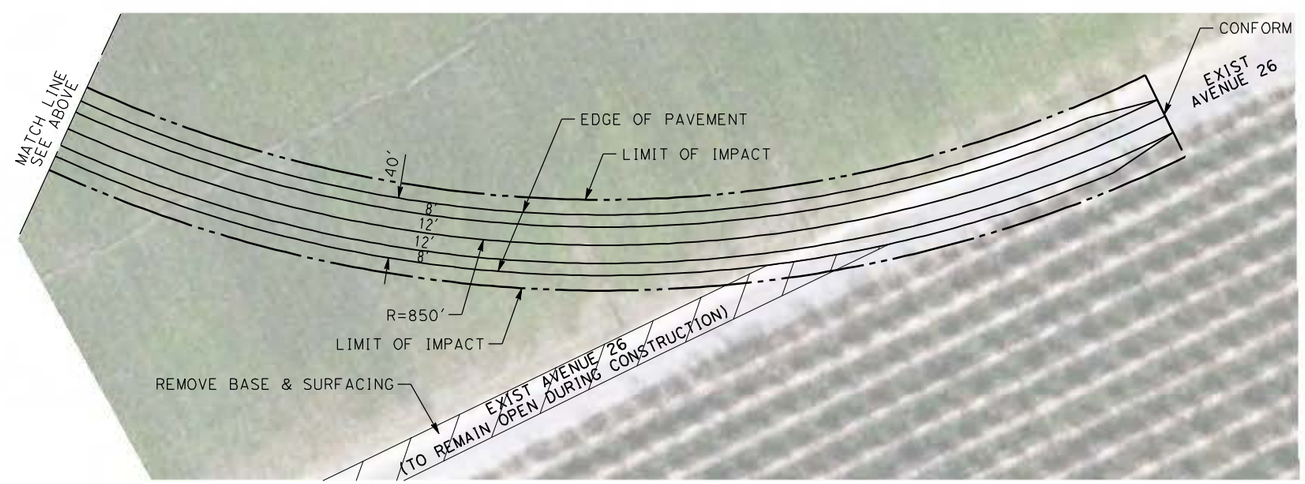
NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B





50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 2 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5228-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 6:59:09 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 1b - hybrid grade separation\Layout\CT5228-B.dgn
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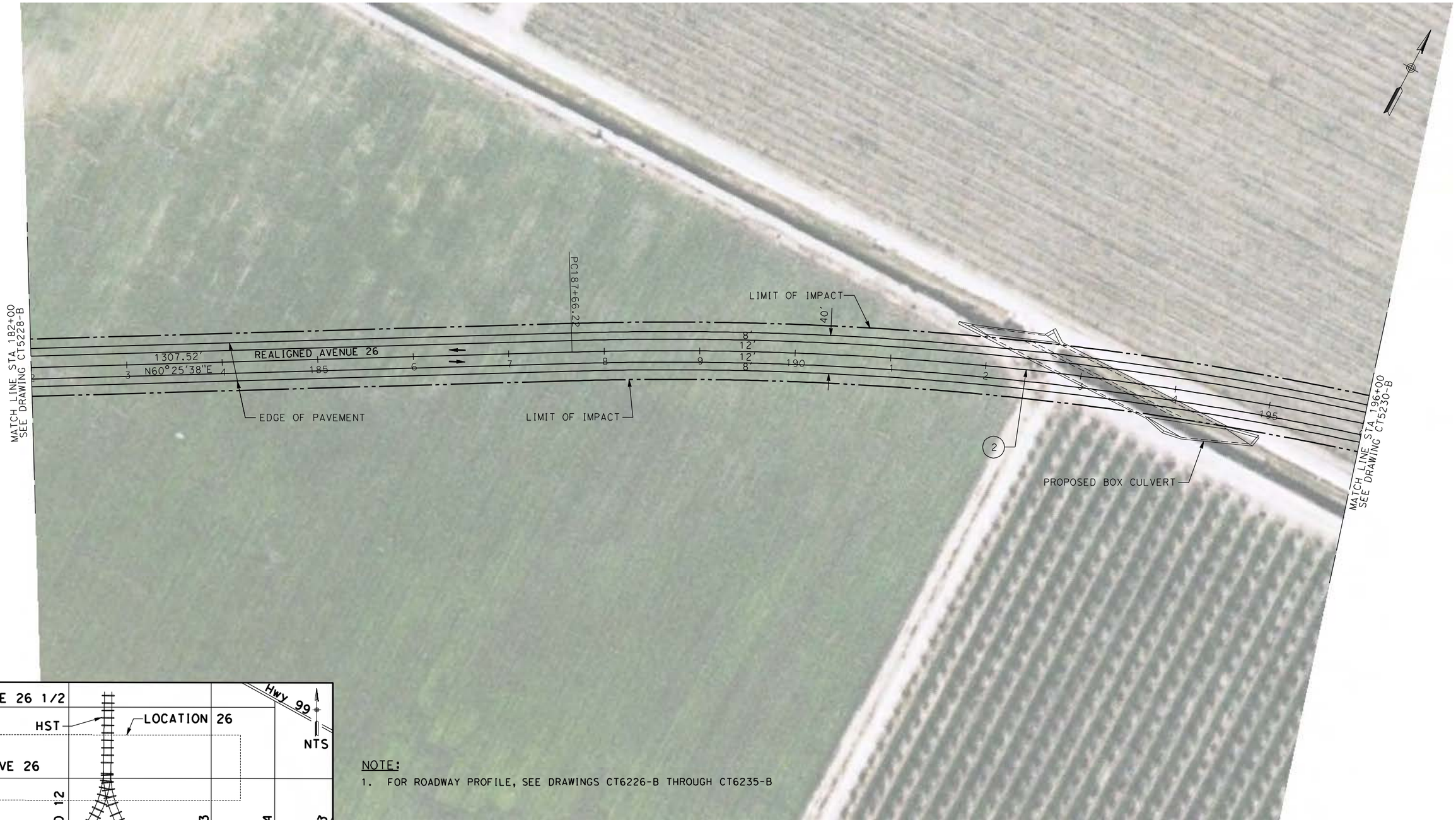

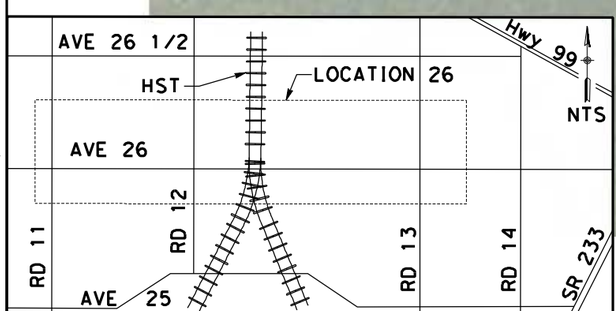

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
2	3500.00	60°25'38"	923.85	1806.50	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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Technical Services, Inc.
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 3 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5229-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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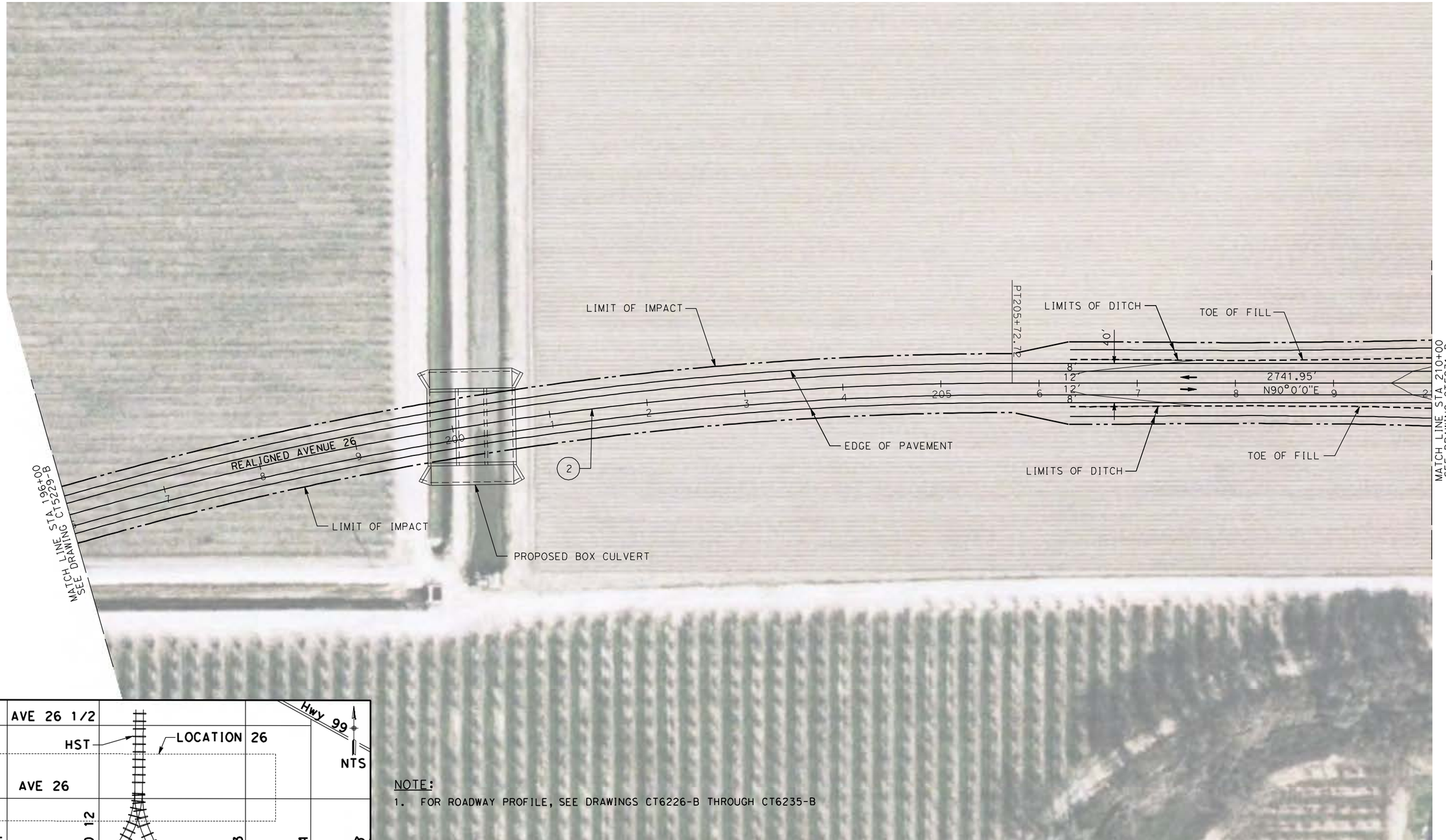

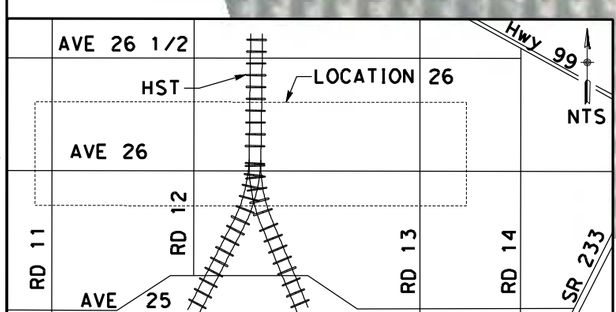

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
2	3500.00	60°25'38"	923.85	1806.50	45 MPH

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 4 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5230-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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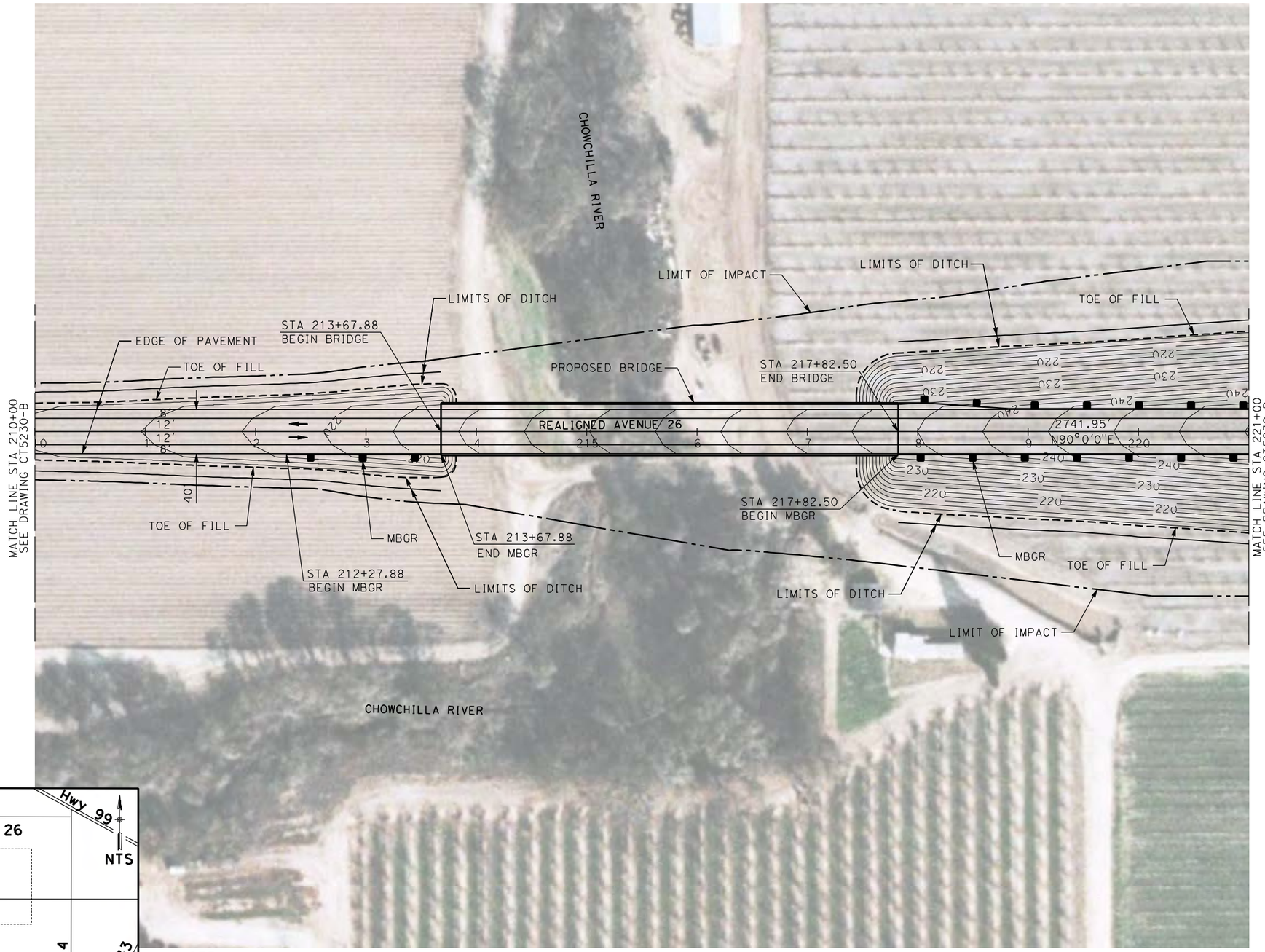

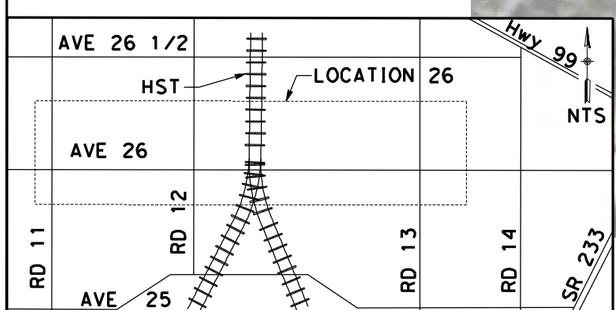

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 5 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5231-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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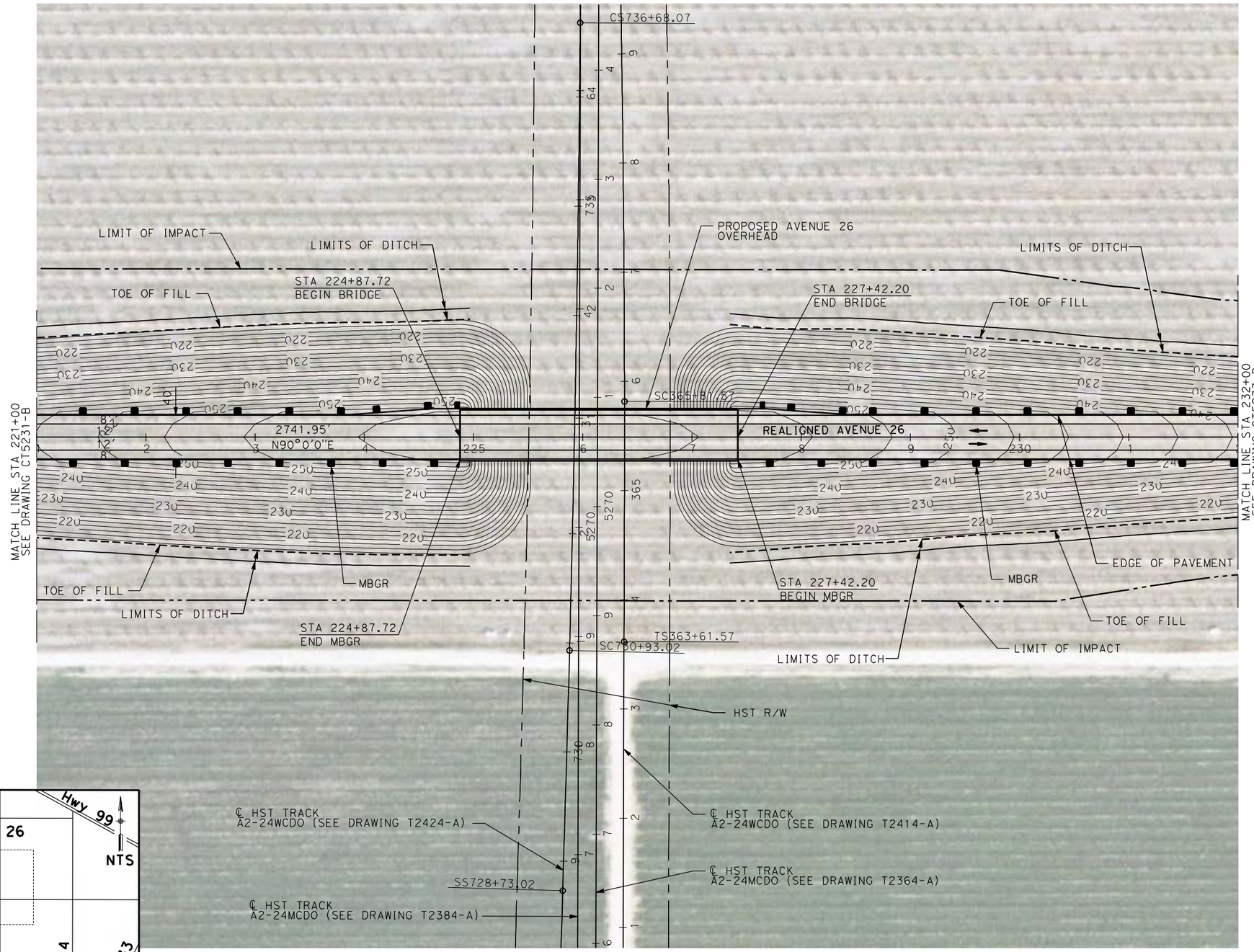

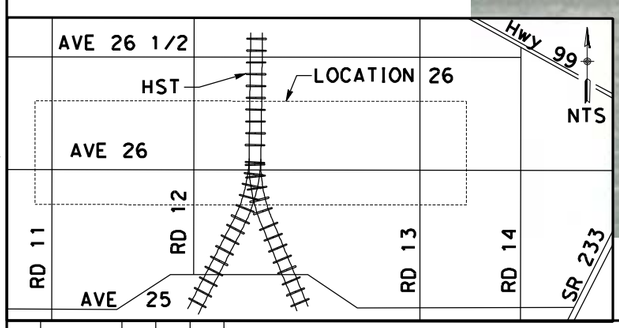

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 6 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5232-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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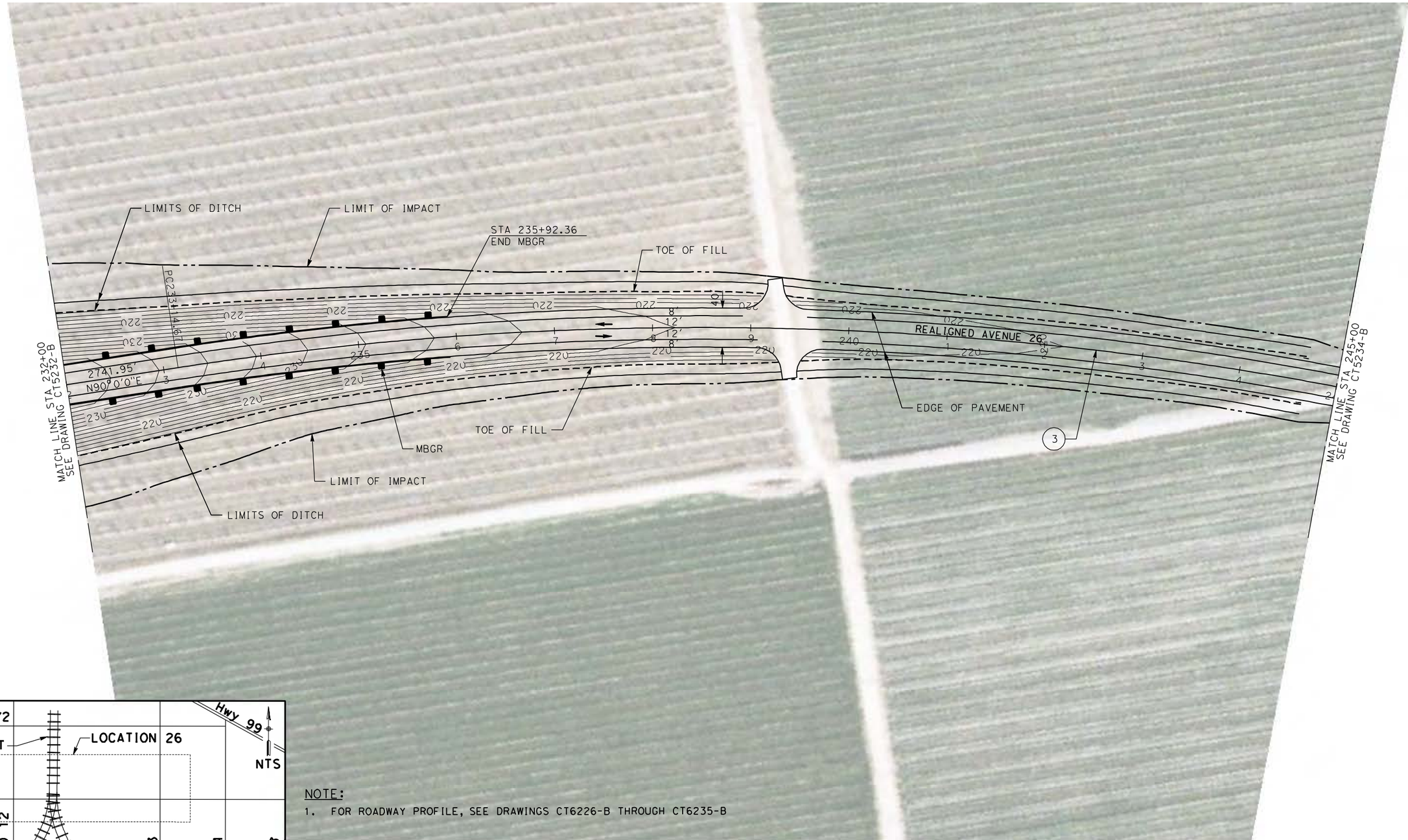

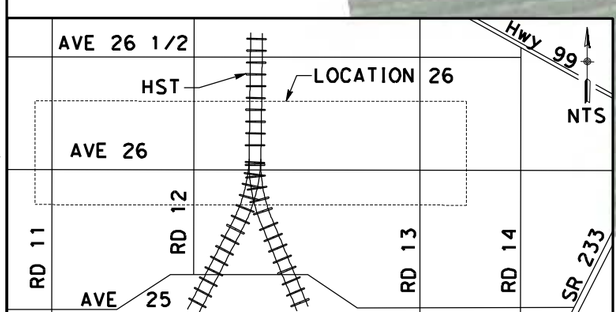

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
3	3500.00	60°25'38"	923.85	1806.50	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 7 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5233-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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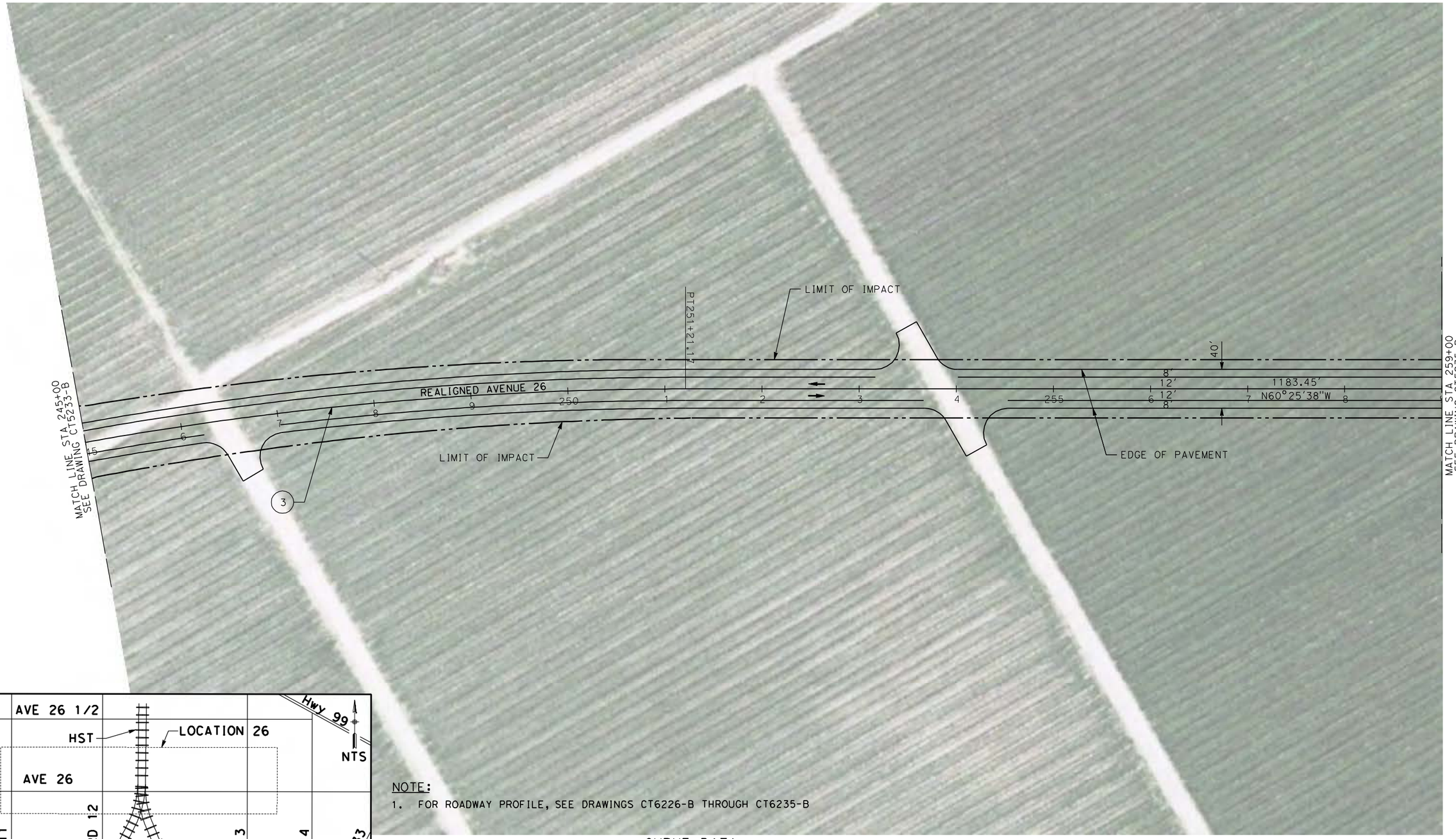

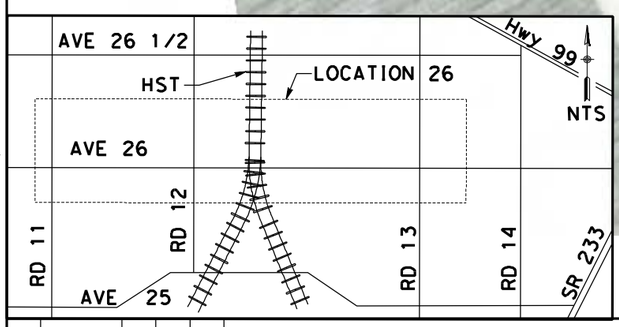

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
3	3500.00	60°25'38"	923.85	1806.50	45 MPH

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 8 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5234-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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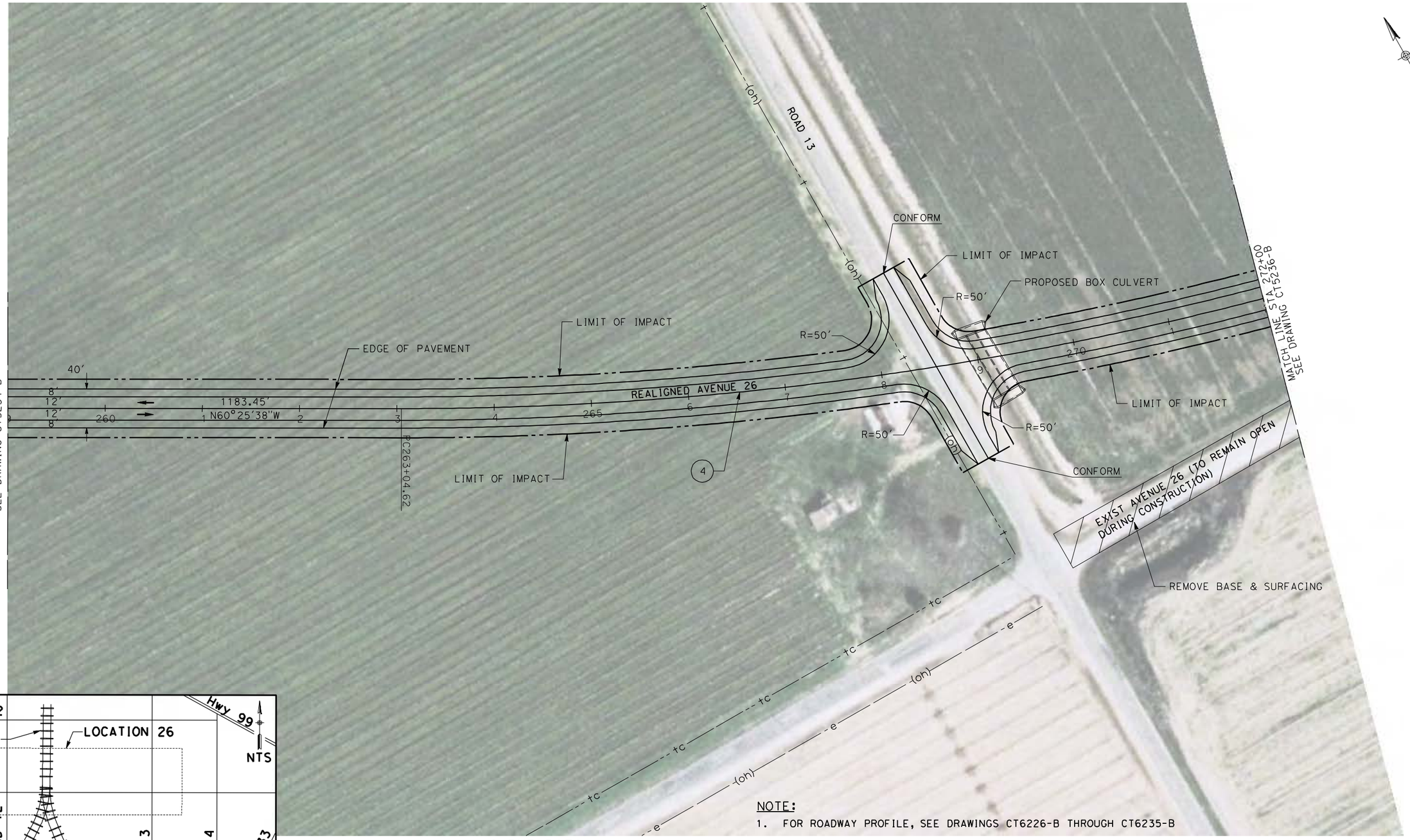

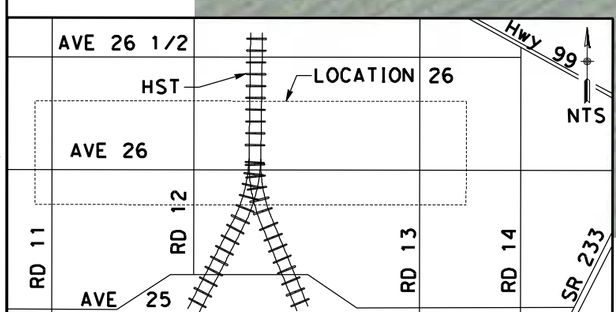

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
4	3500.00	60°15'36"	929.32	1816.72	45 MPH

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 9 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5235-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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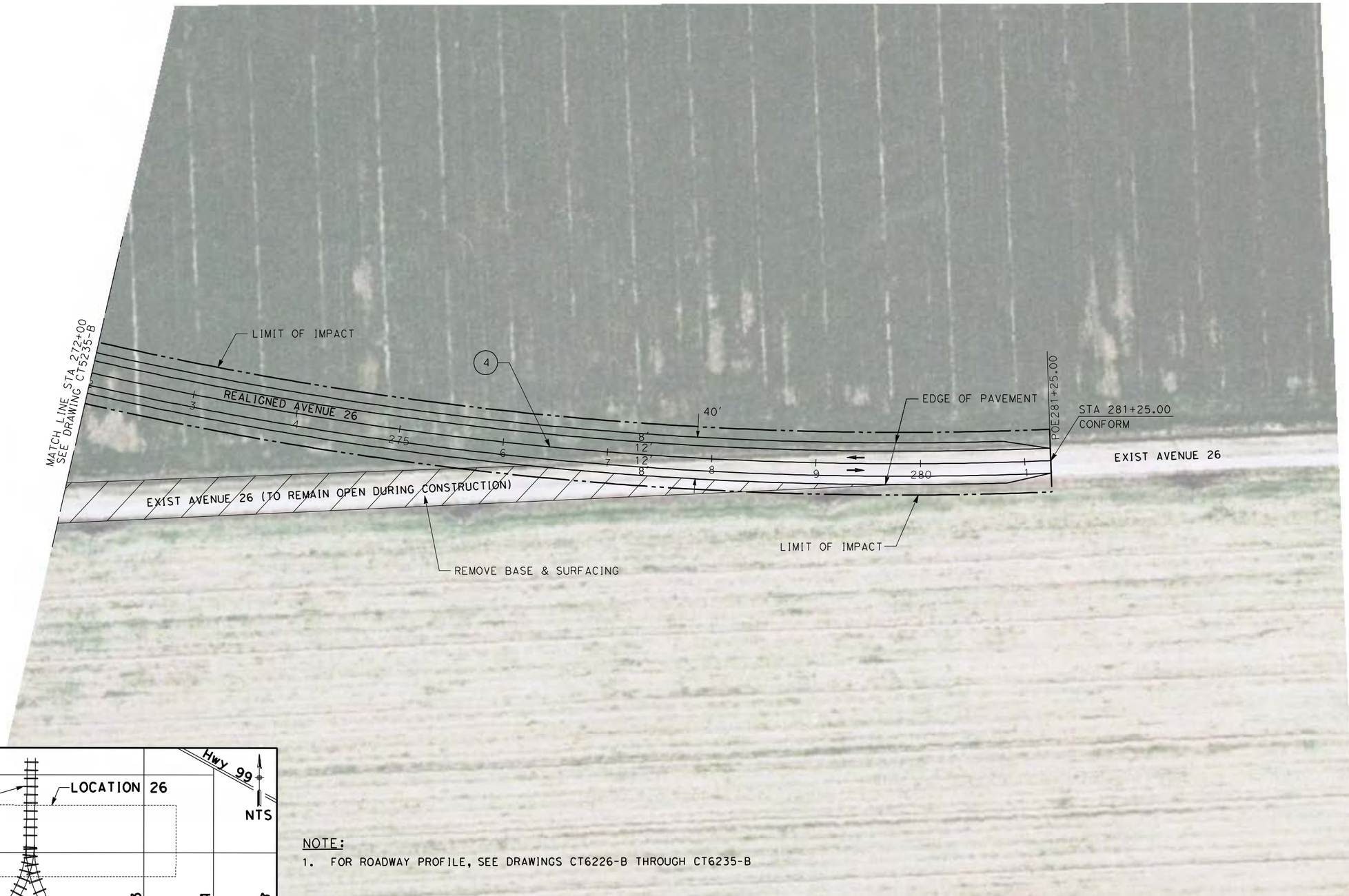

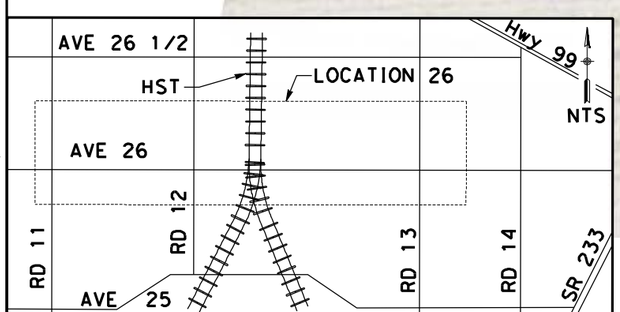

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6226-B THROUGH CT6235-B

CURVE DATA

No.	R	Δ	T	L	V
4	3500.00	60°15'36"	929.32	1816.72	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
LAYOUT
SHEET 10 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT5236-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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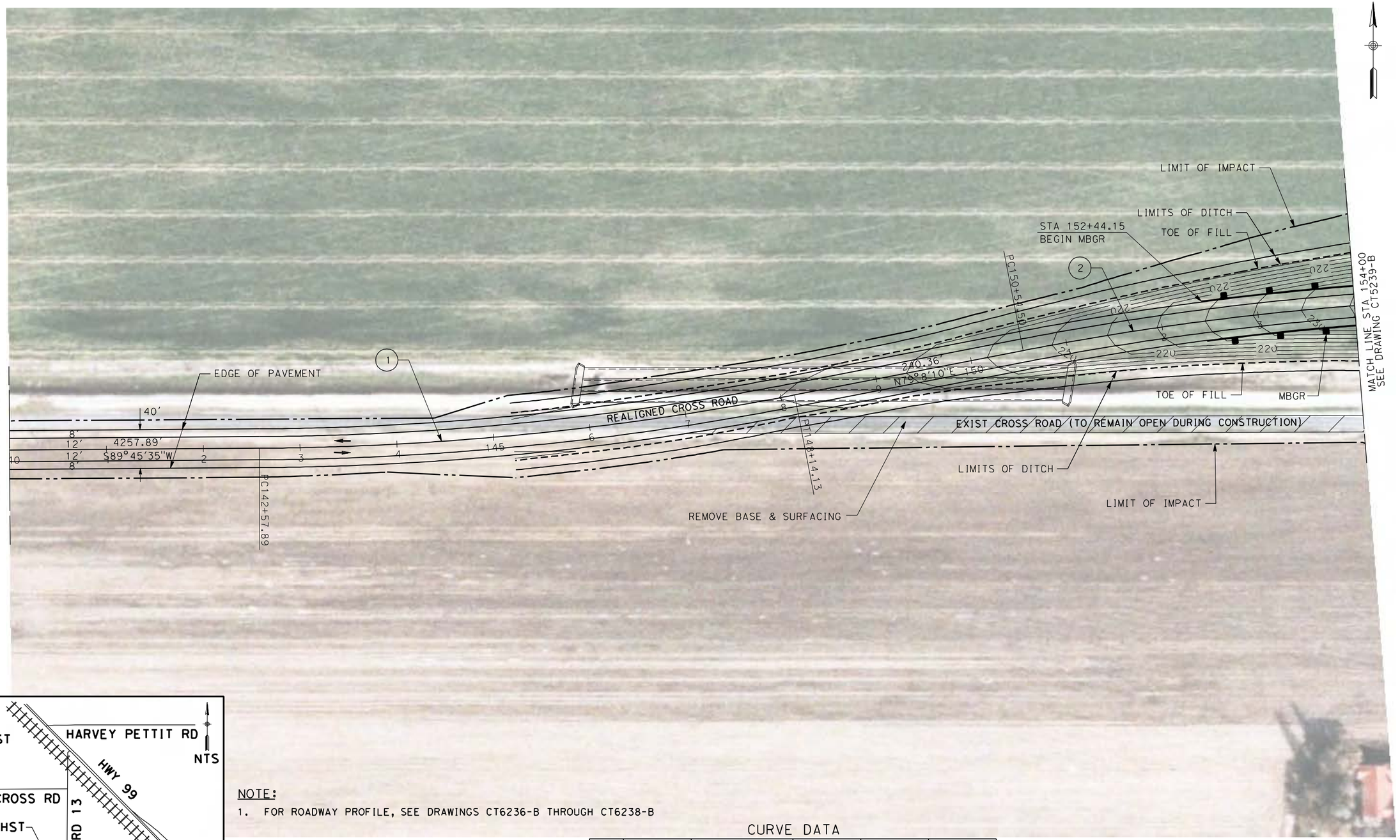

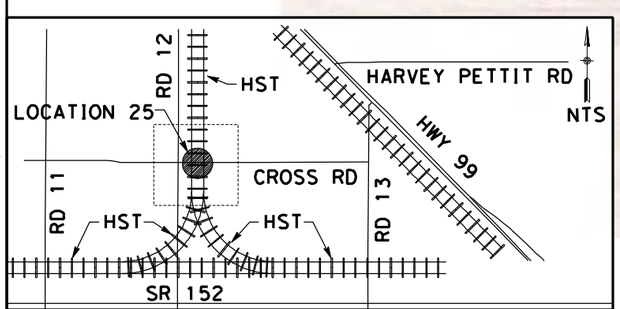

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6236-B THROUGH CT6238-B

CURVE DATA

No.	R	Δ	T	L	V
1	3000.00	79°22'35"	278.92	556.25	45 MPH
2	3000.00	79°0'0"	288.87	575.96	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5238-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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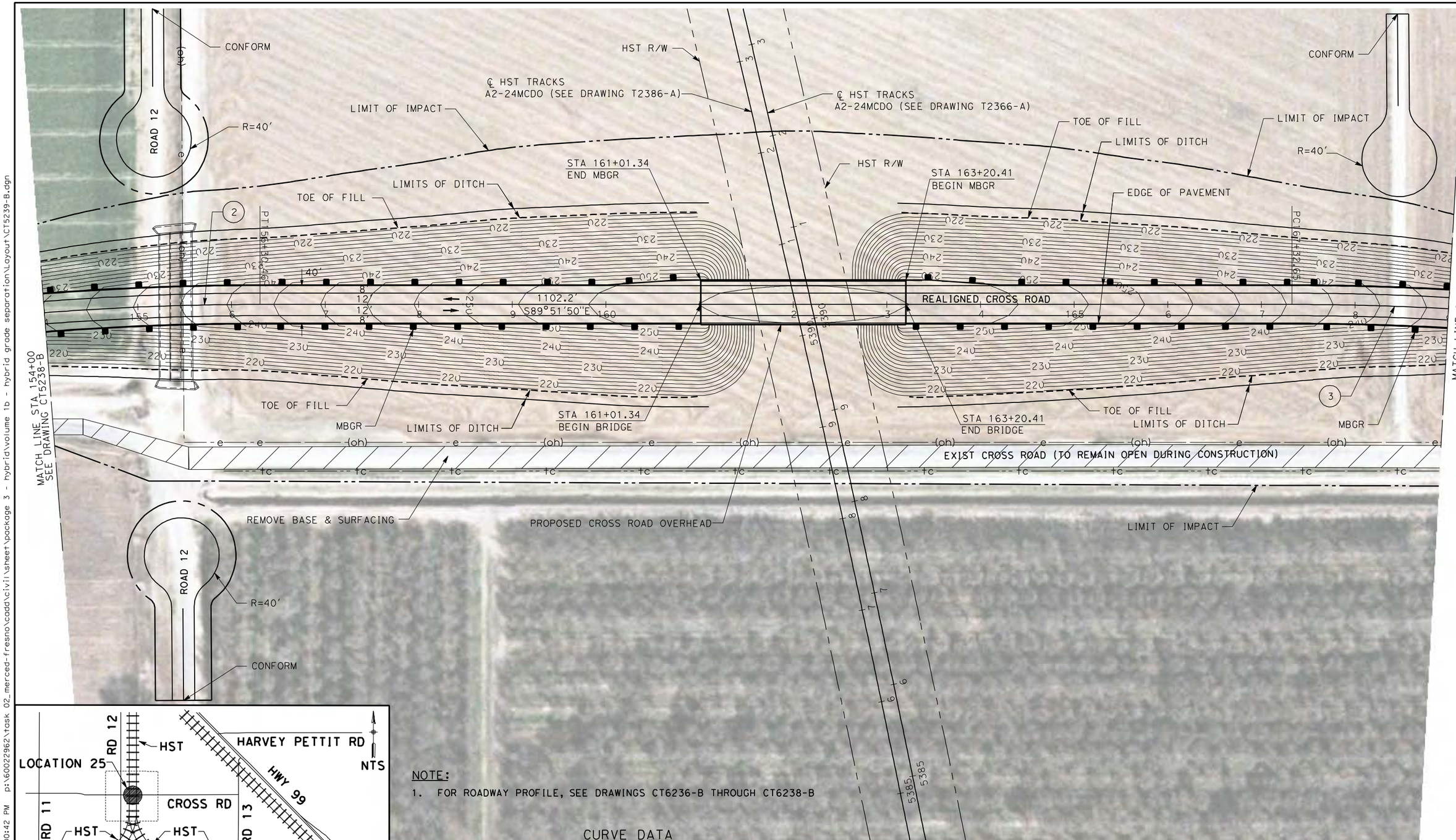

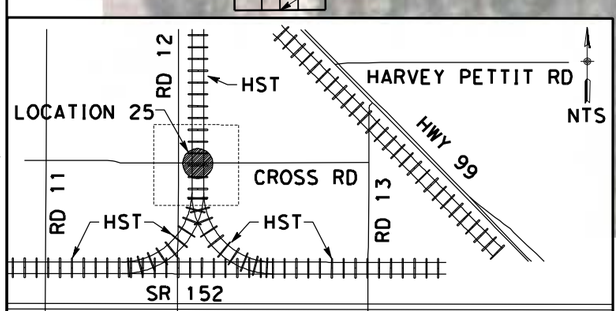

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6236-B THROUGH CT6238-B

CURVE DATA

No.	R	Δ	T	L	V
2	3000.00	79°0'0"	288.87	575.96	45 MPH
3	3000.00	79°0'17"	288.74	575.71	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5239-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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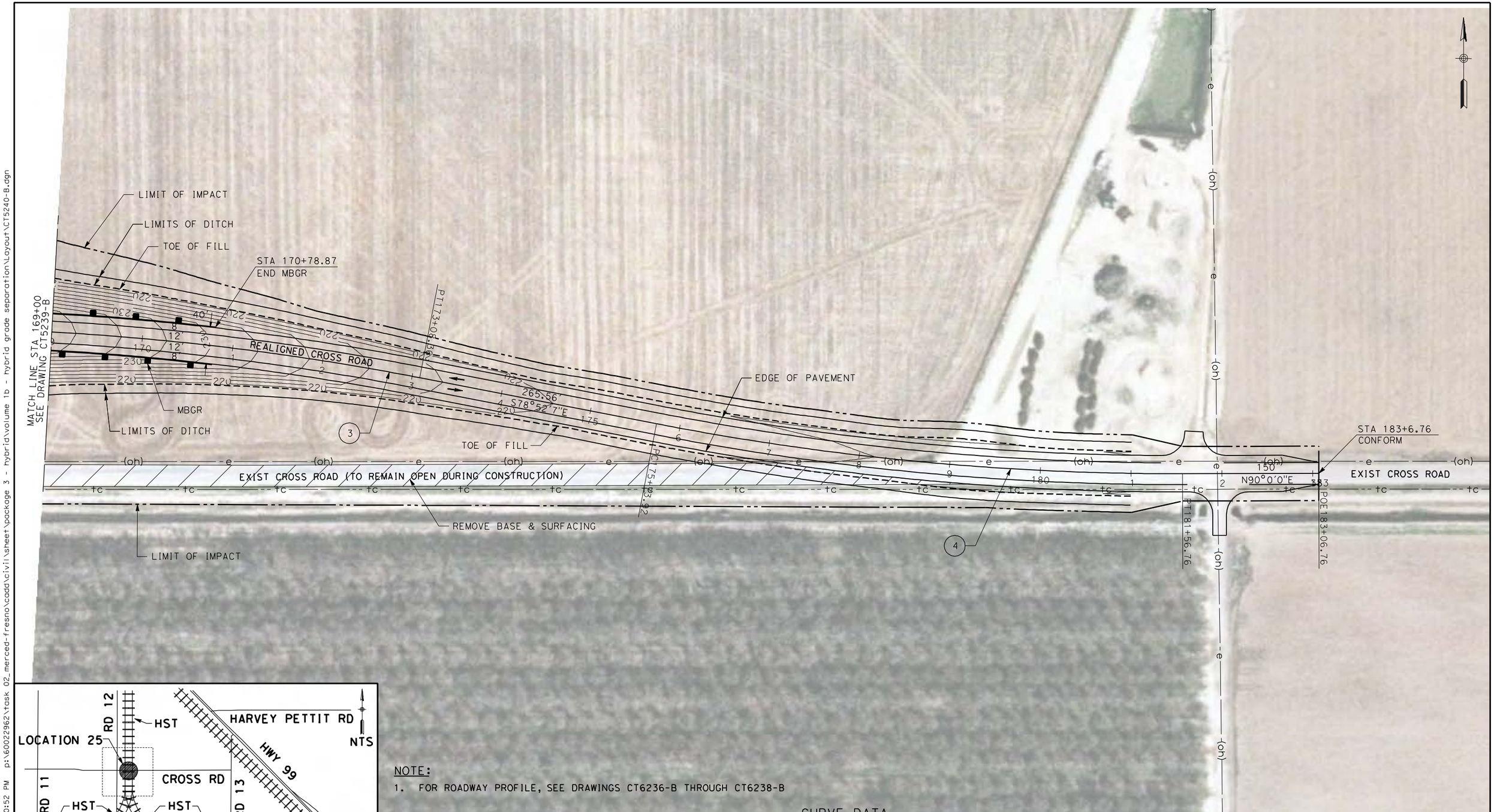

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6236-B THROUGH CT6238-B

CURVE DATA

No.	R	Δ	T	L	V
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4	3000.00	78°52'7"	292.34	582.84	45 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5240-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6244-B THROUGH CT6246-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5246-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:01:02 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 1b - hybrid grade separation\Layout\CT5246-B.dgn
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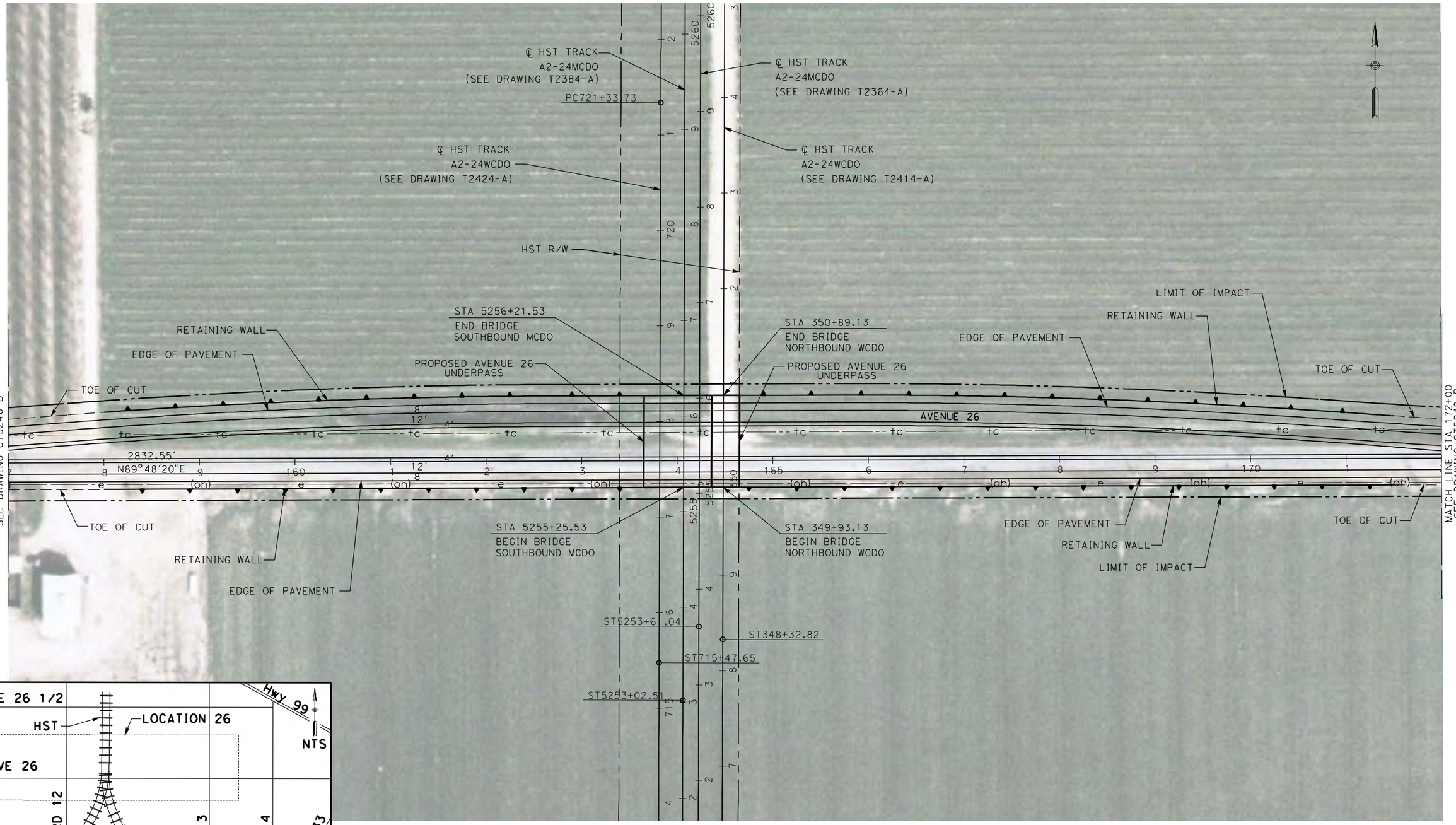

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6244-B THROUGH CT6246-B

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5247-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:01:10 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 1b - hybrid grade separation\Layout\CT5247-B.dgn
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NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6244-B THROUGH CT6246-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5248-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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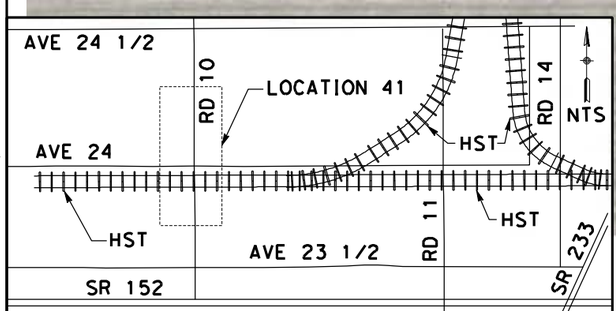

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6247-B THROUGH CT6249-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5249-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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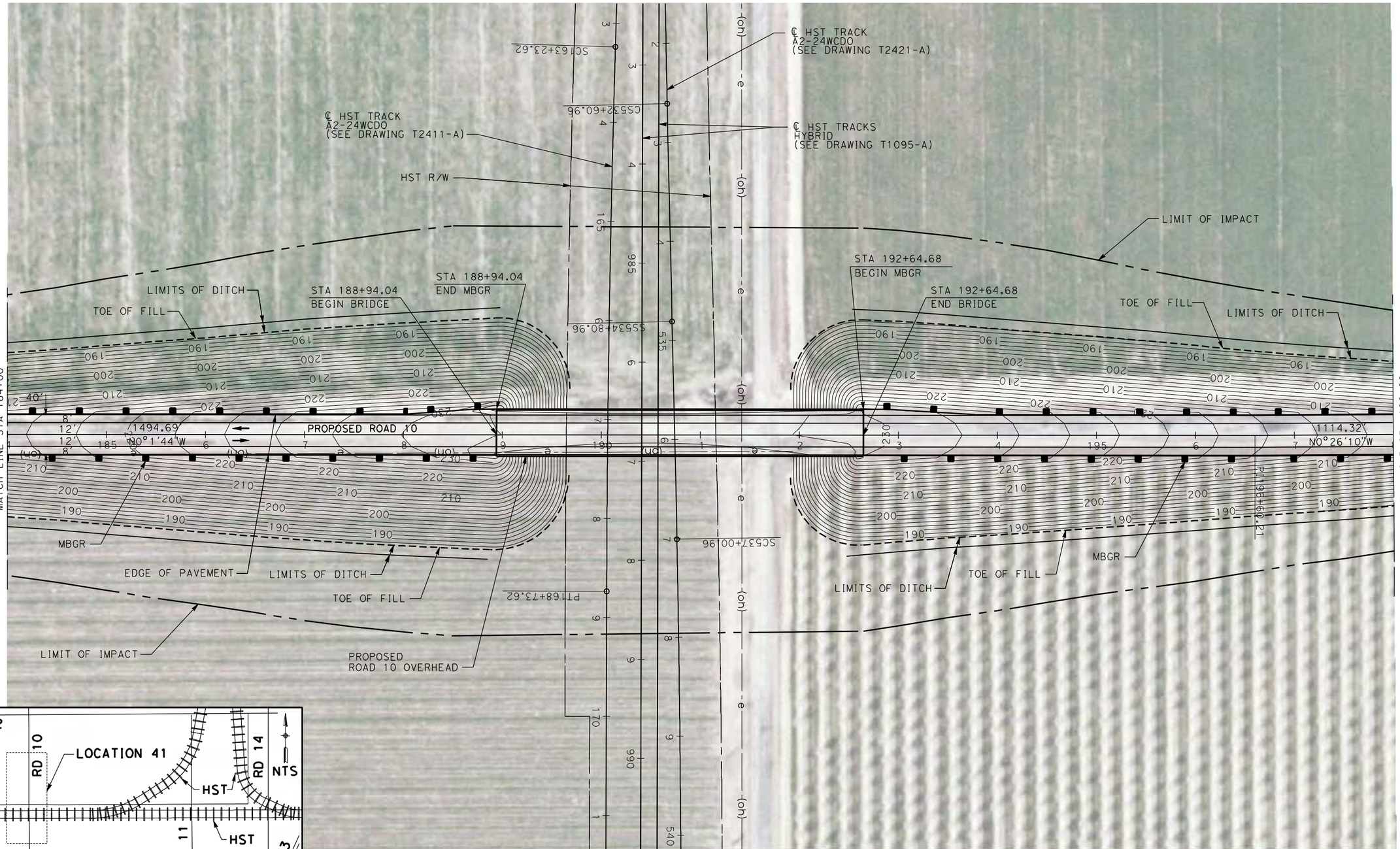

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6247-B THROUGH CT6249-B

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5250-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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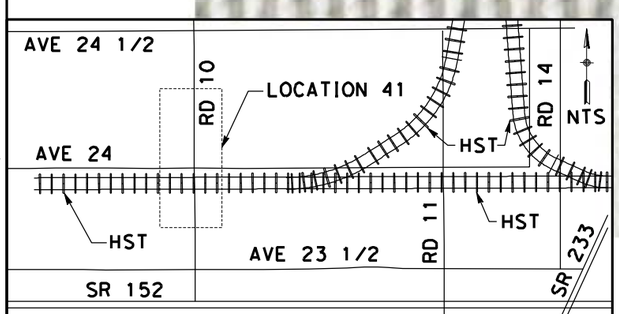

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT6247-B THROUGH CT6249-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT5251-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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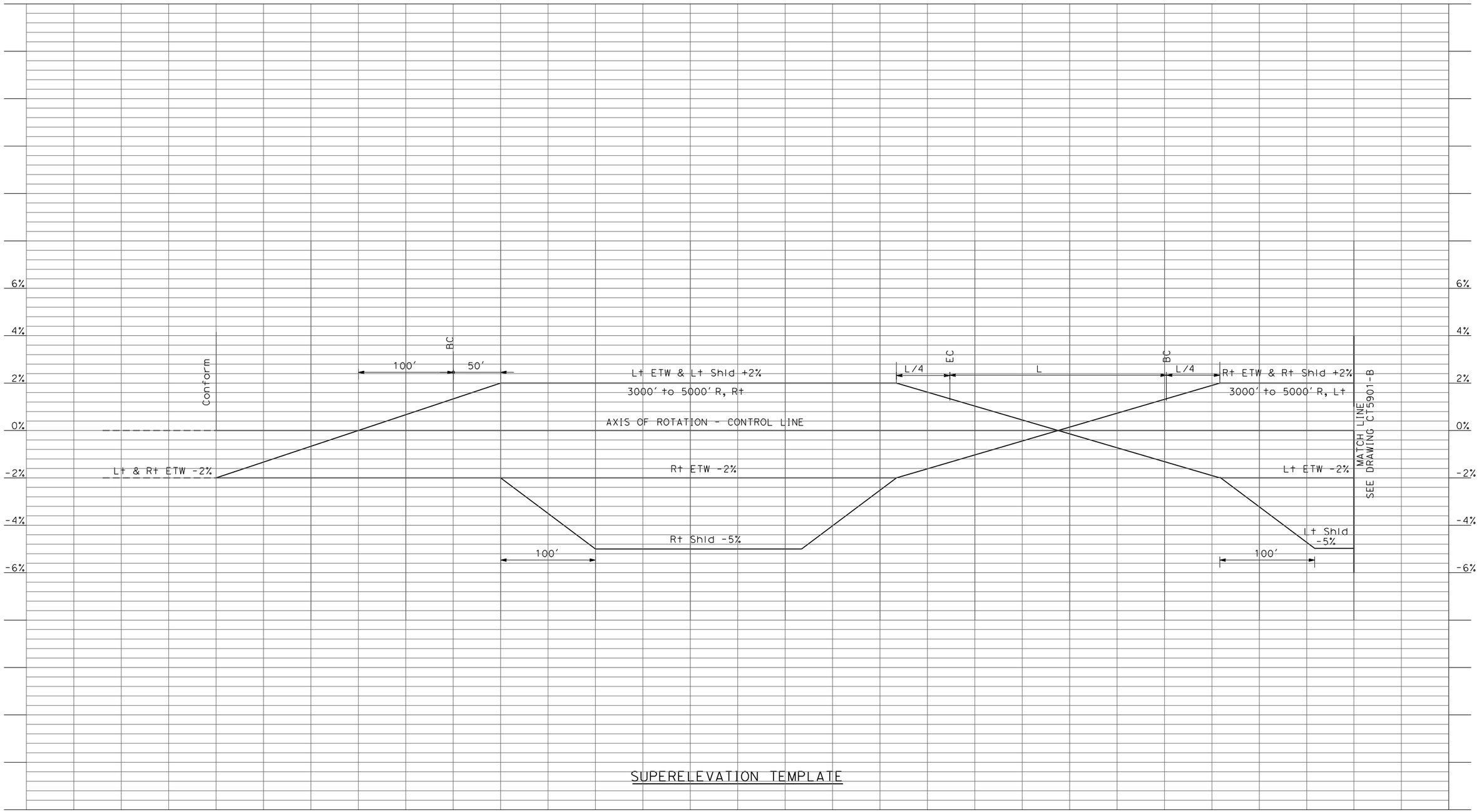

SUPERELEVATION TEMPLATE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 - (HYBRID)
GRADE SEPARATION
SUPERELEVATION TEMPLATE
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT5900-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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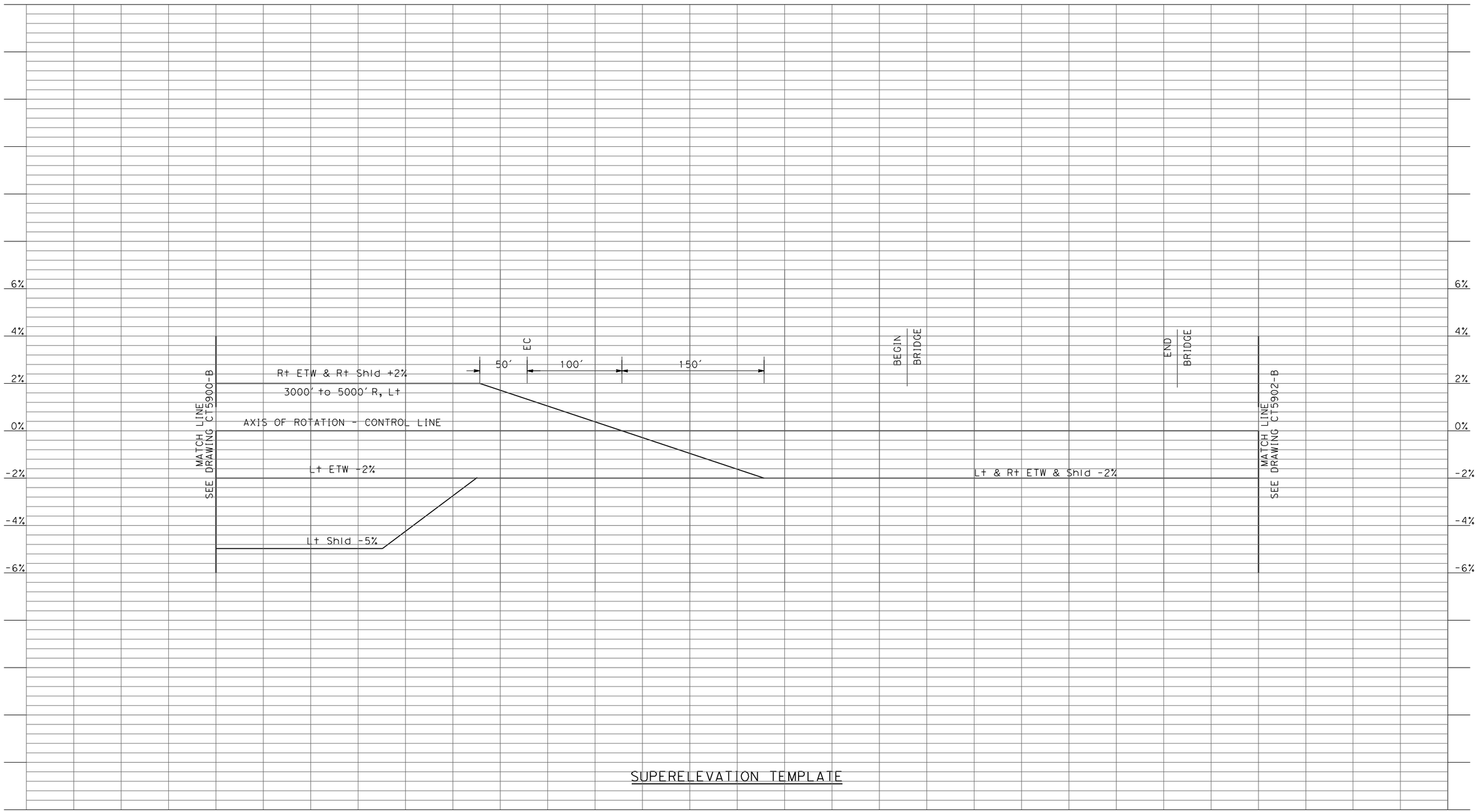

SUPERELEVATION TEMPLATE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 - (HYBRID)
GRADE SEPARATION
SUPERELEVATION TEMPLATE
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT5901-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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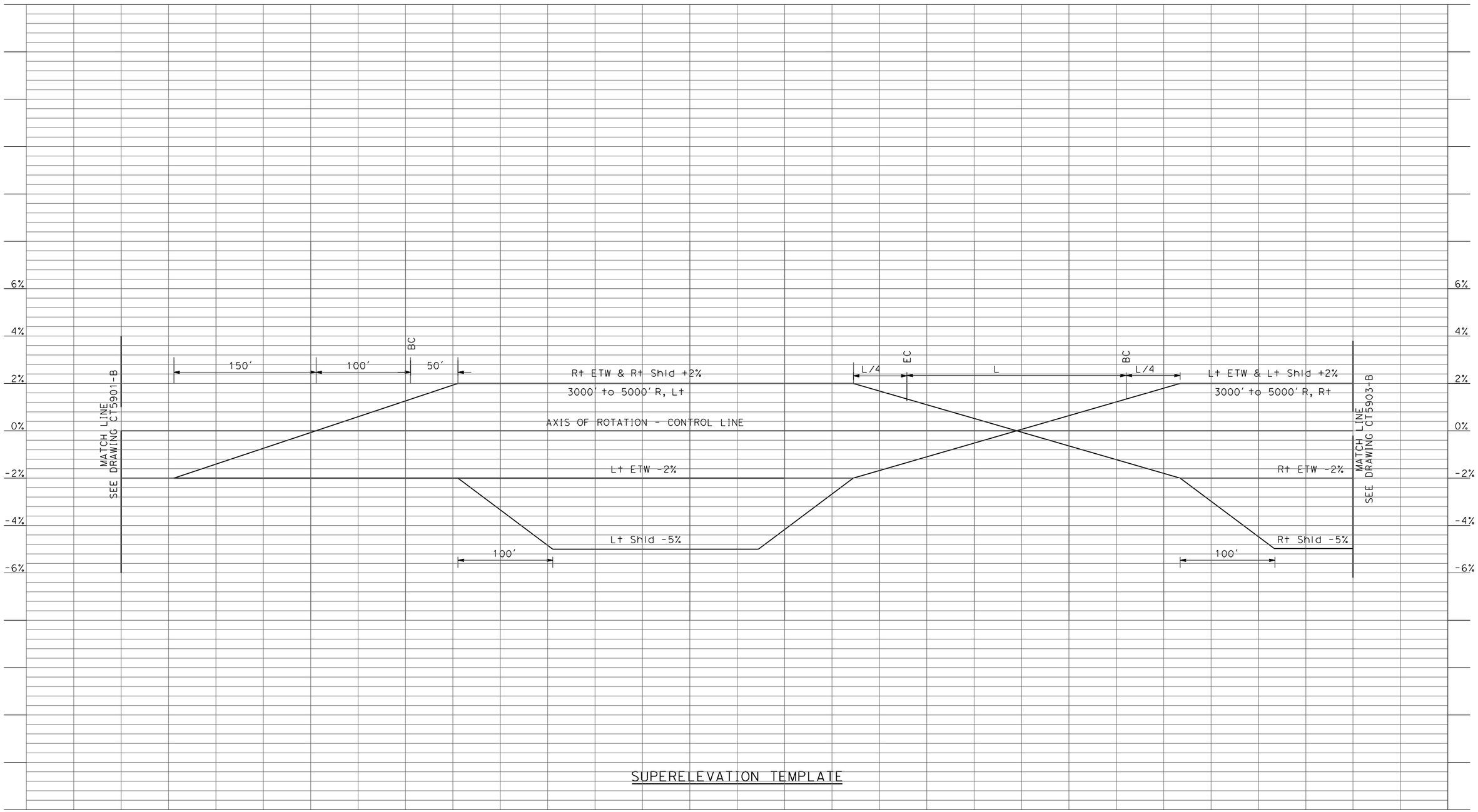

SUPERELEVATION TEMPLATE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 - (HYBRID)
GRADE SEPARATION
SUPERELEVATION TEMPLATE
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT5902-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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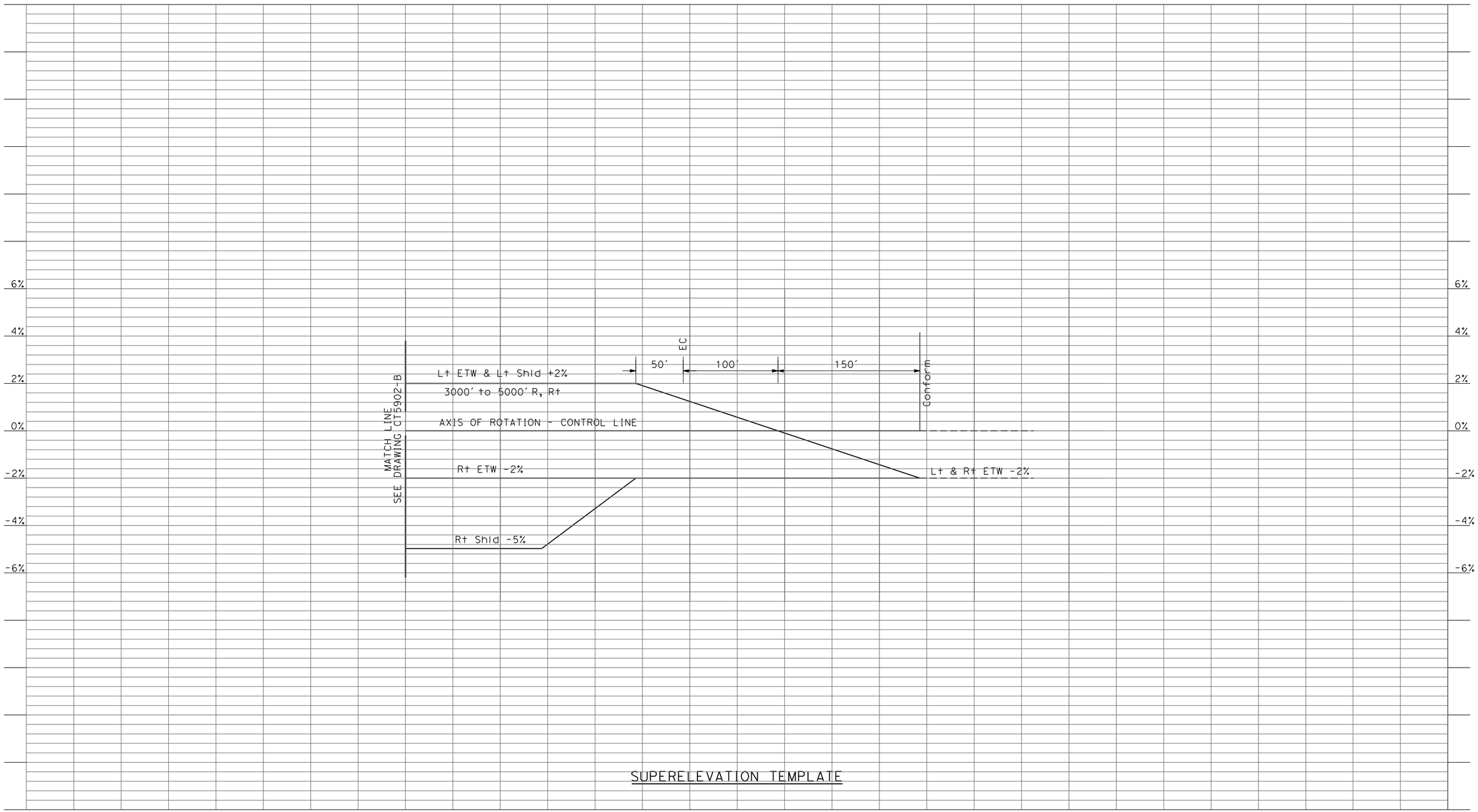

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
DRAWN BY A. TRINH
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DATE 04/29/2011

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MERCED TO FRESNO
UPRR/SR99 - (HYBRID)
GRADE SEPARATION
SUPERELEVATION TEMPLATE
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT5903-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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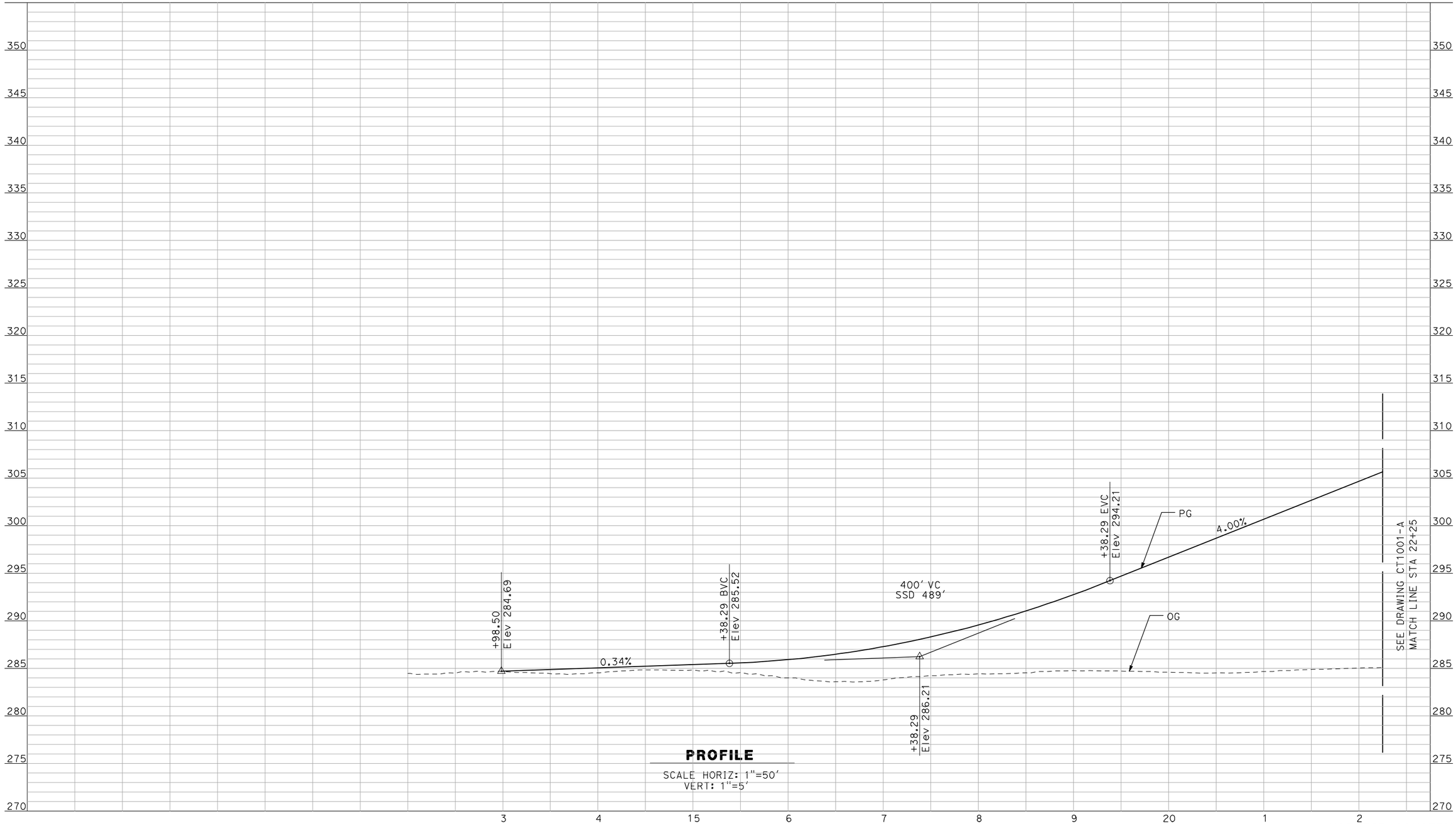

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1000-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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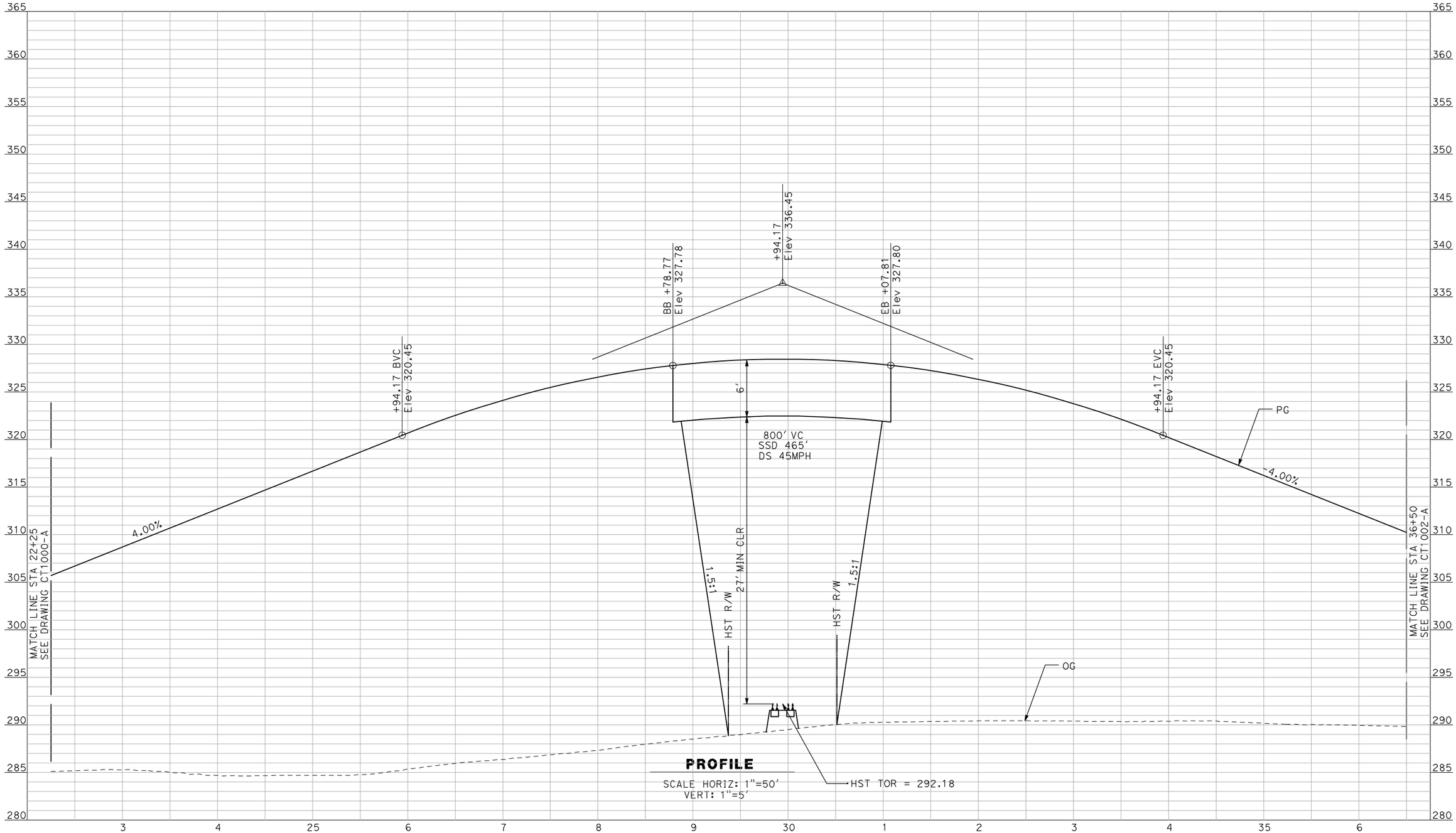

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1001-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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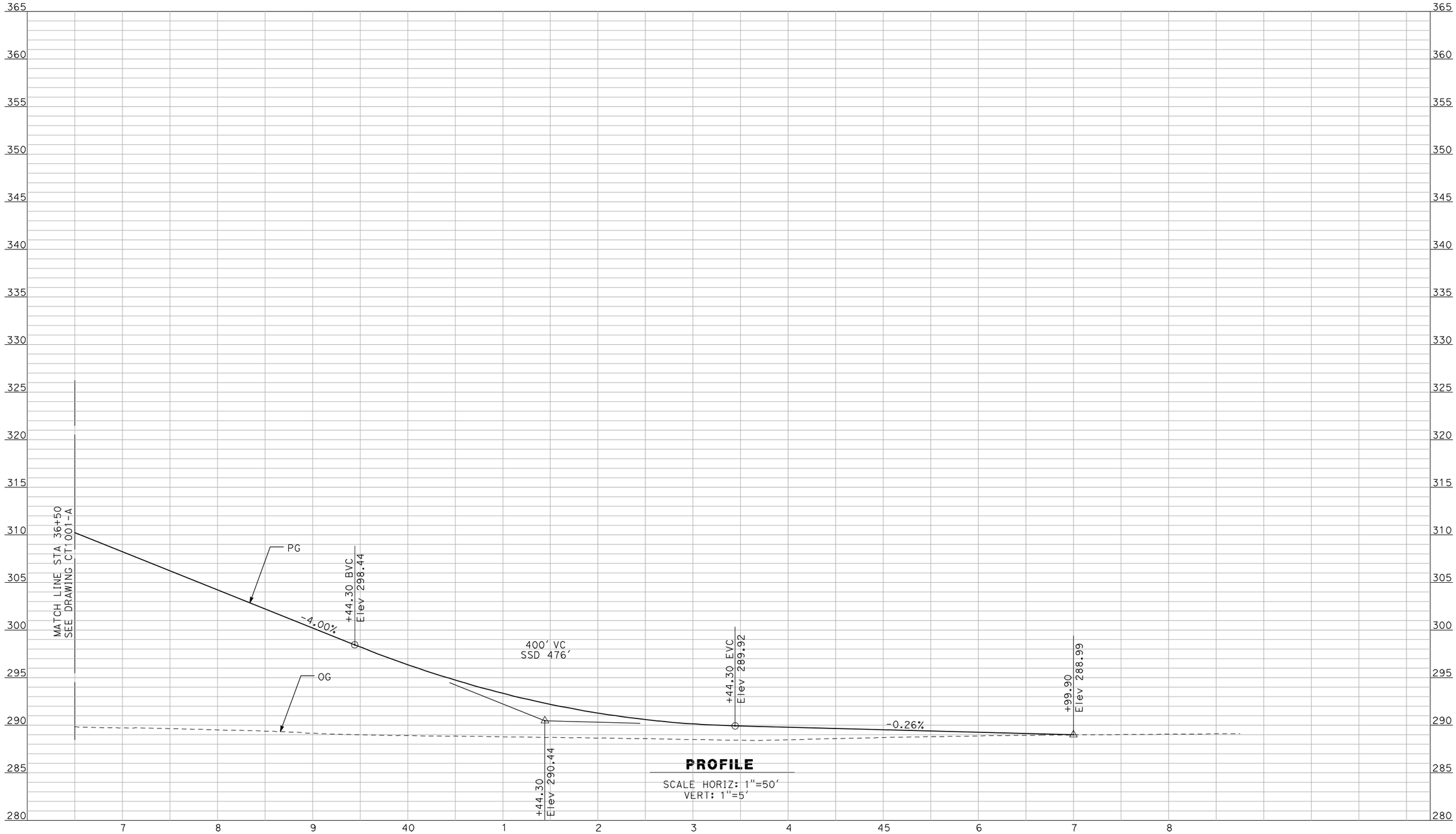

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 9
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1002-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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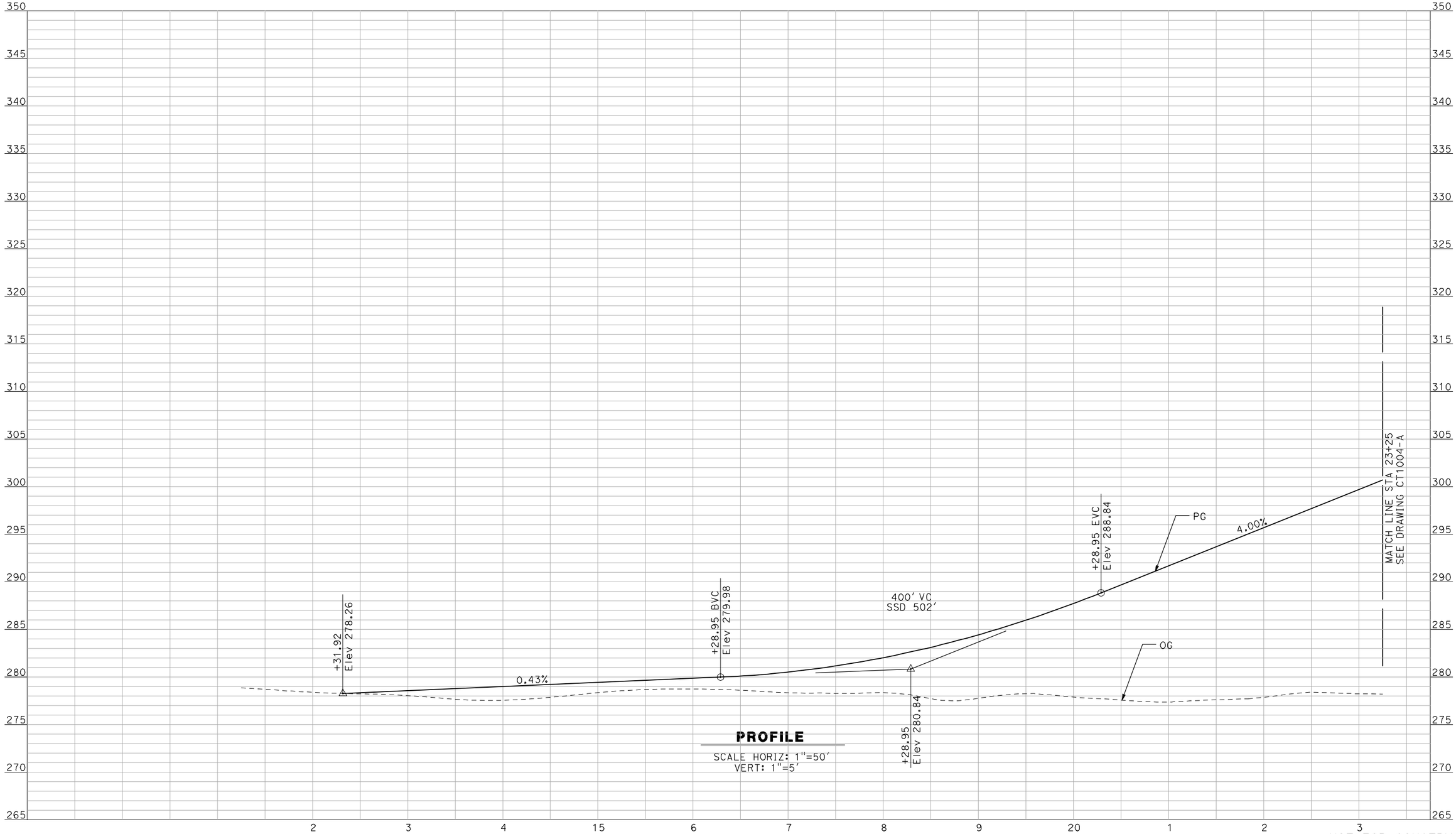

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1003-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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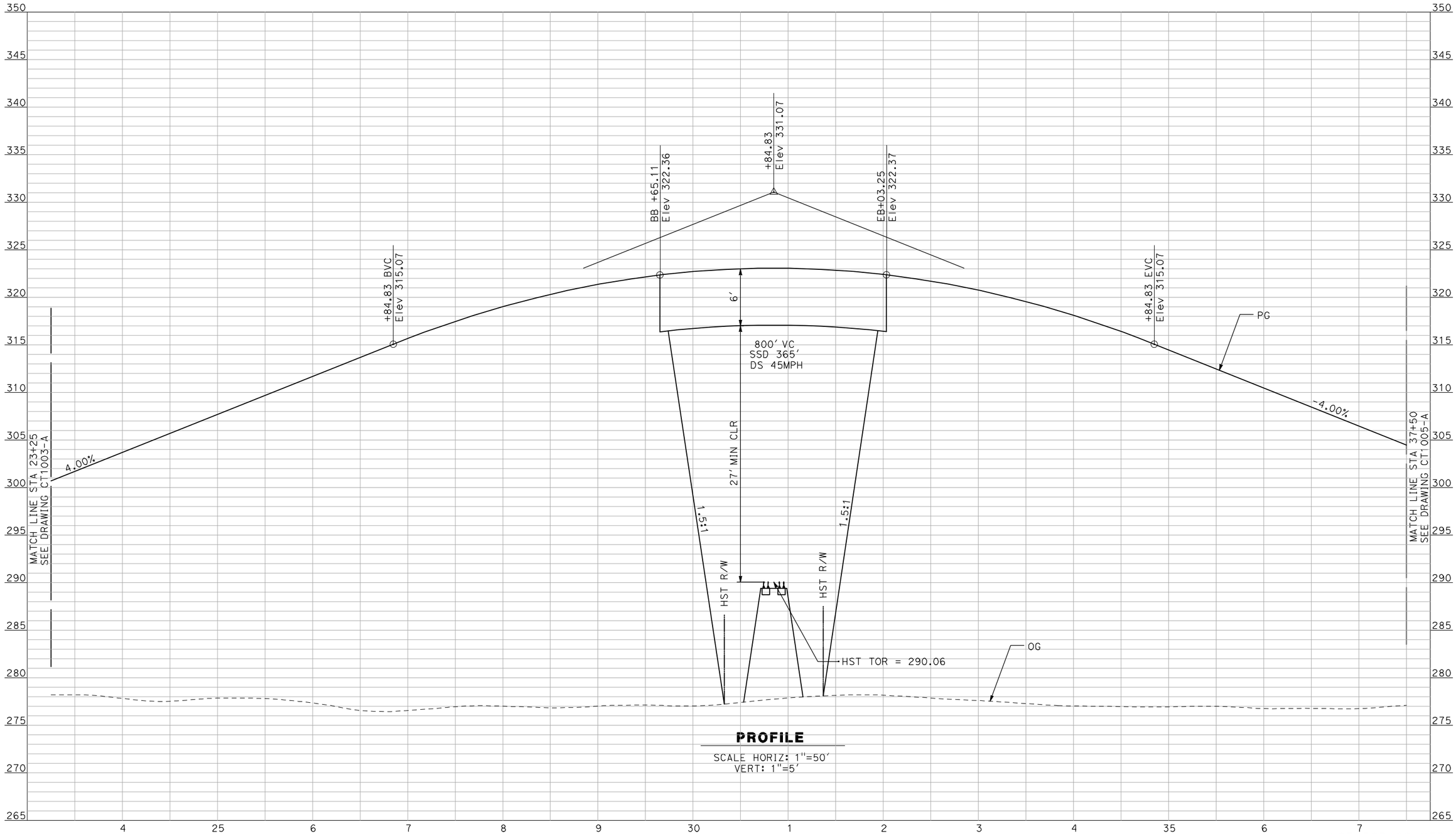

PROFILE

SCALE HORIZ: 1"=50'
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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1004-A
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SHEET NO. ### OF ###

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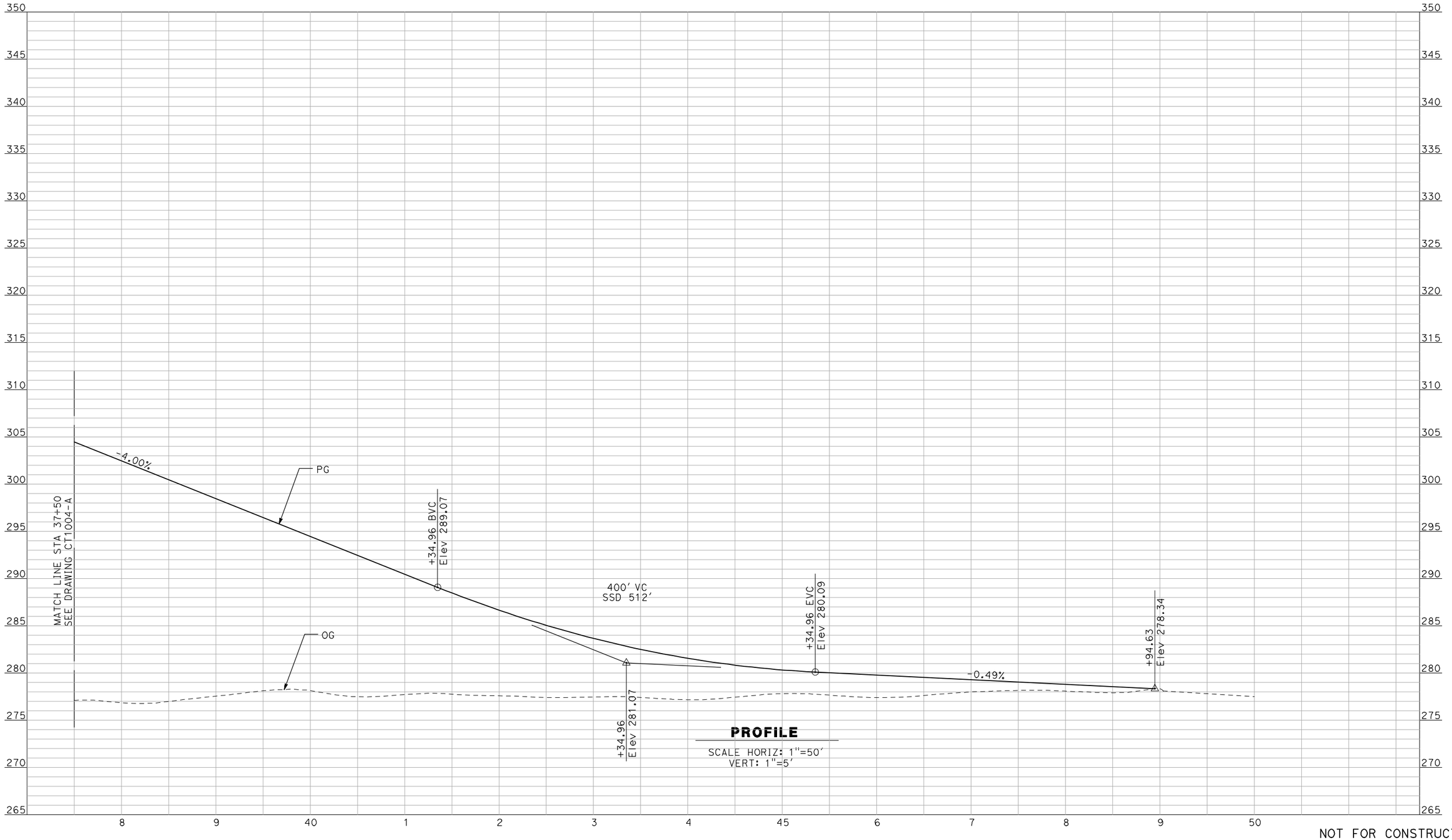

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 10
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1005-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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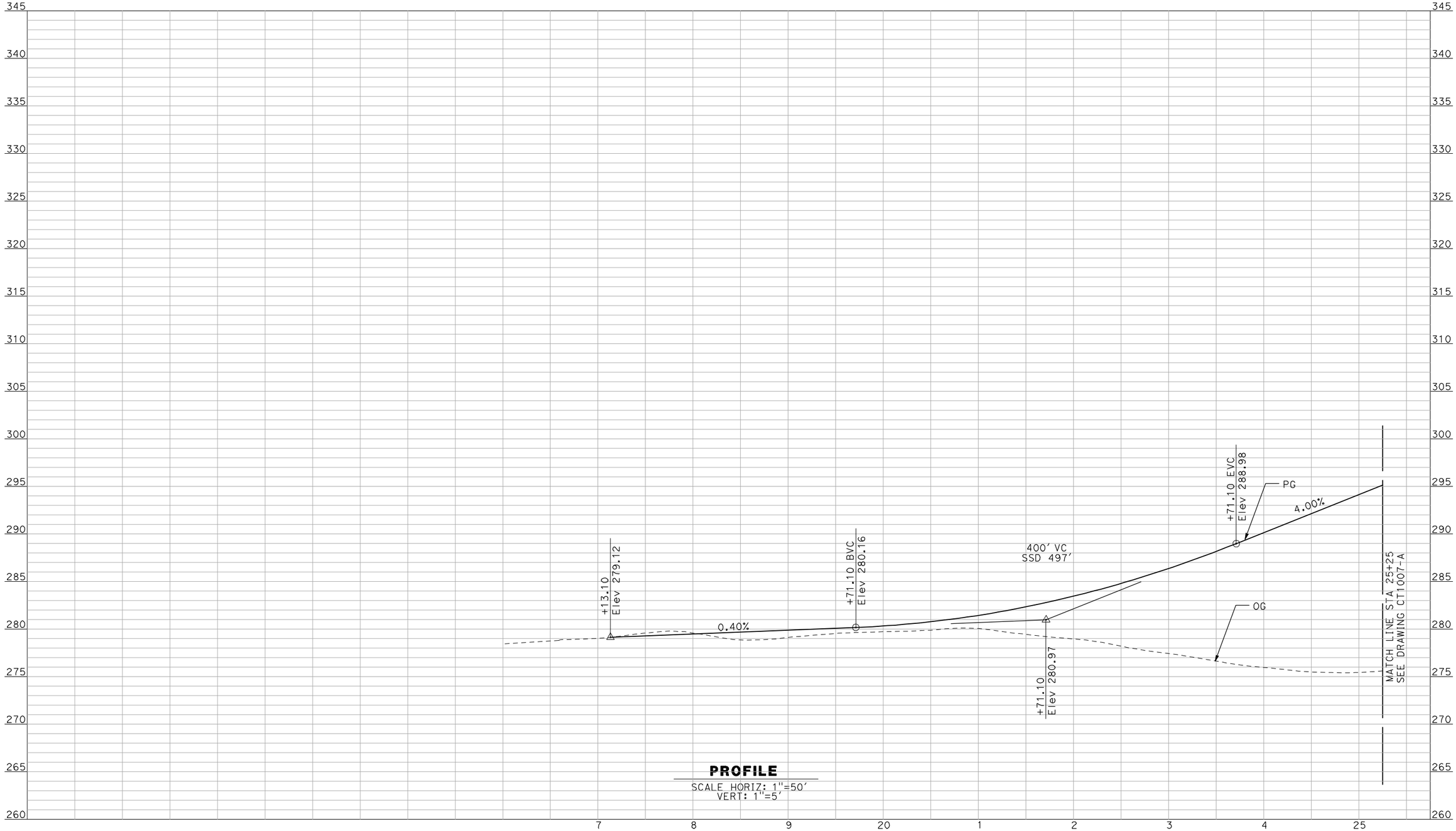

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1006-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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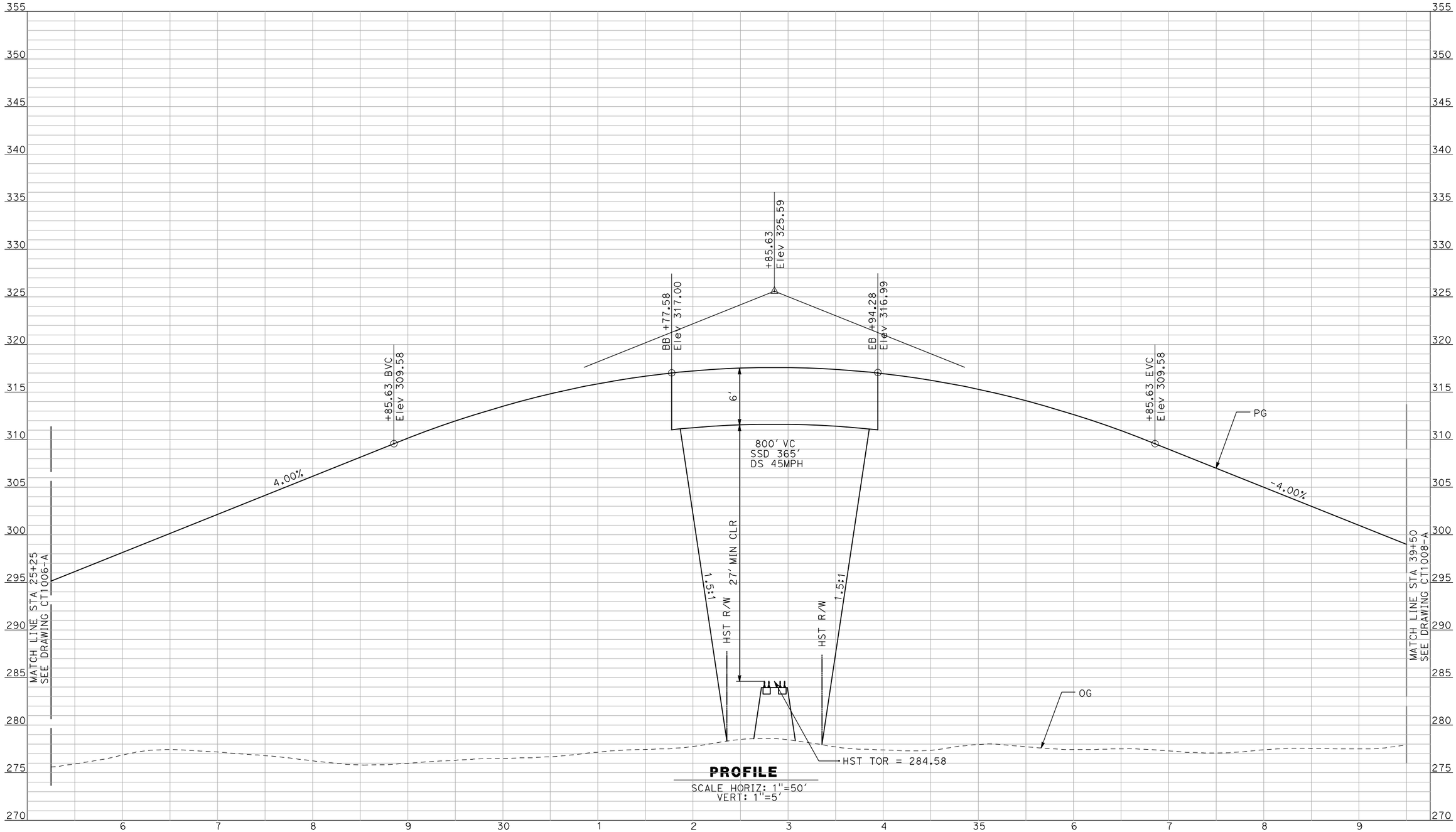

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1007-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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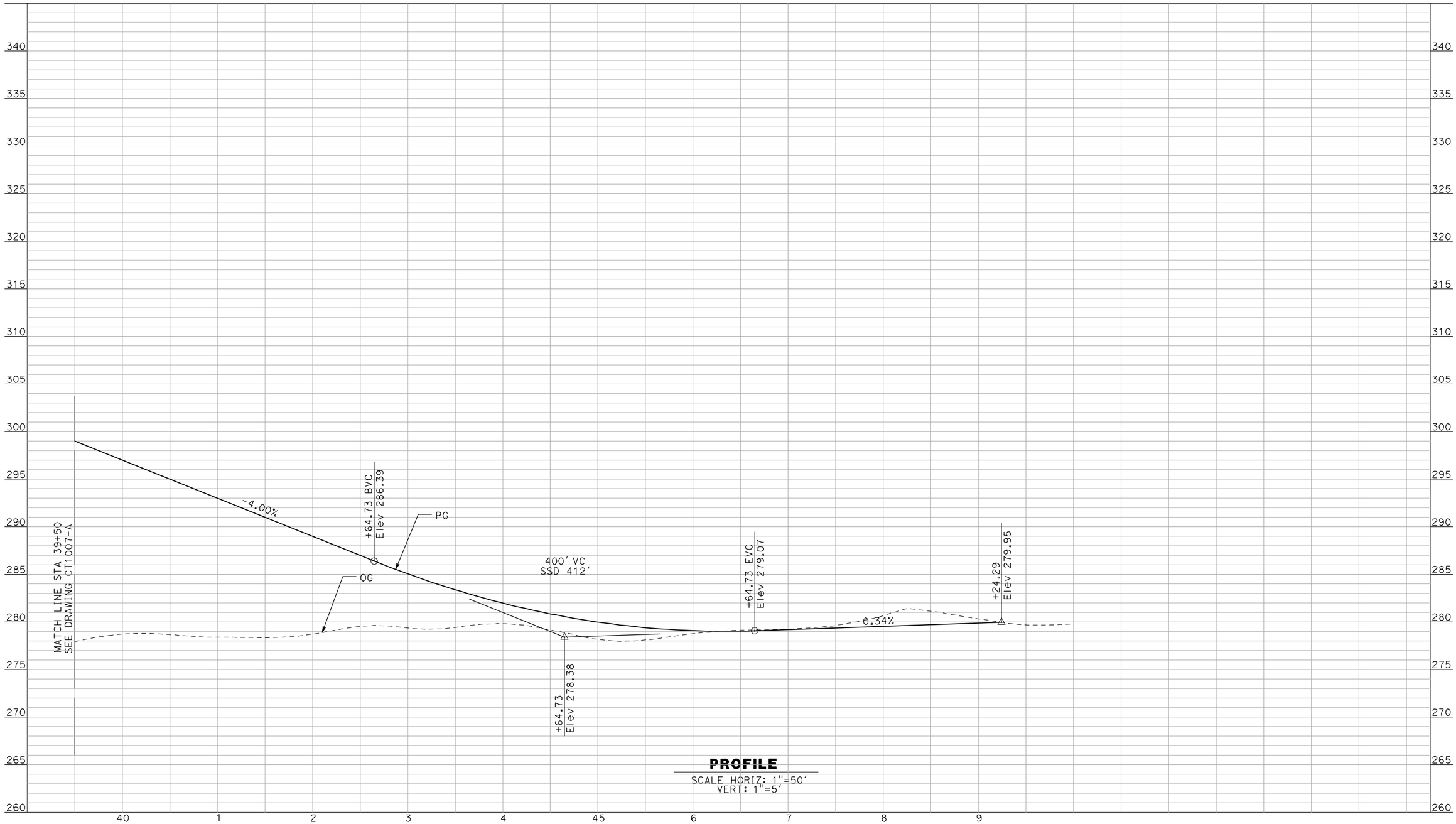

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 11
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1008-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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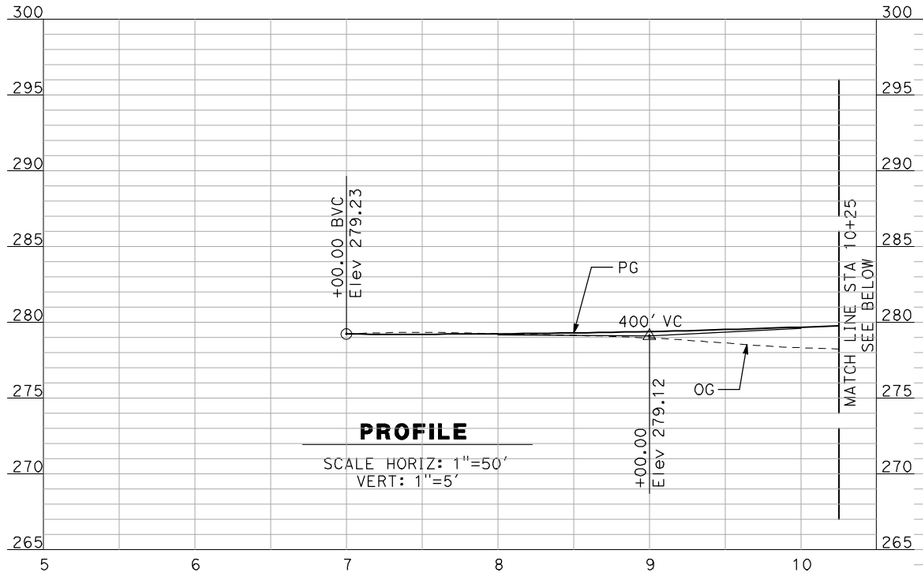

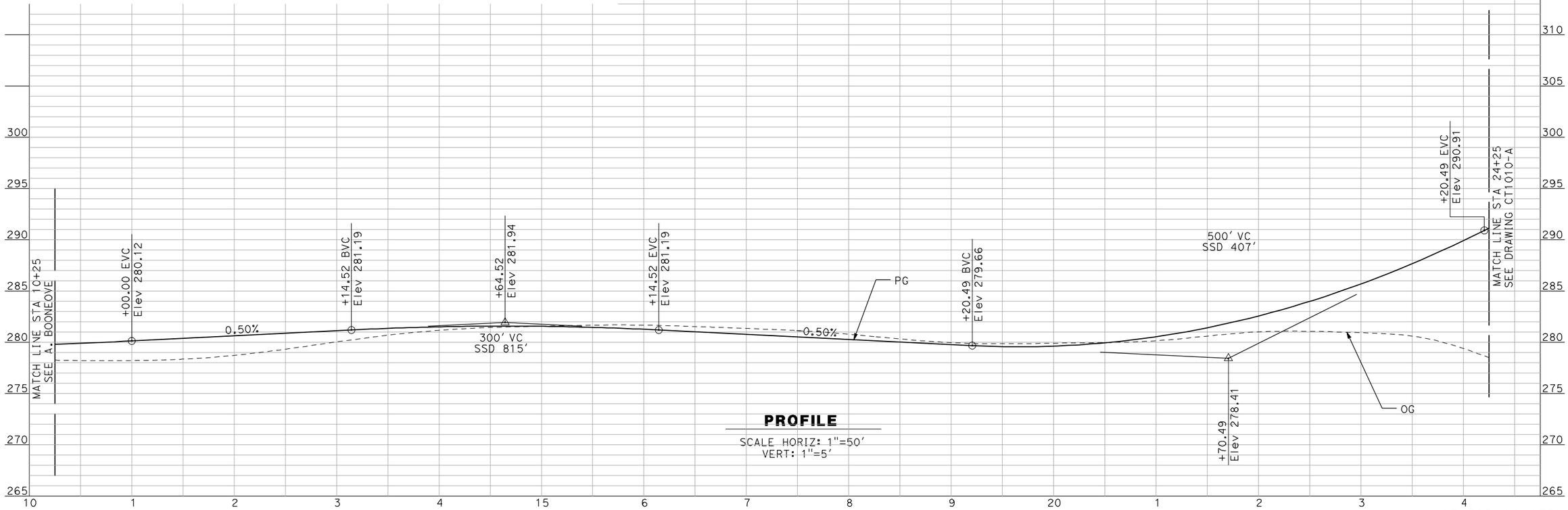

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1009-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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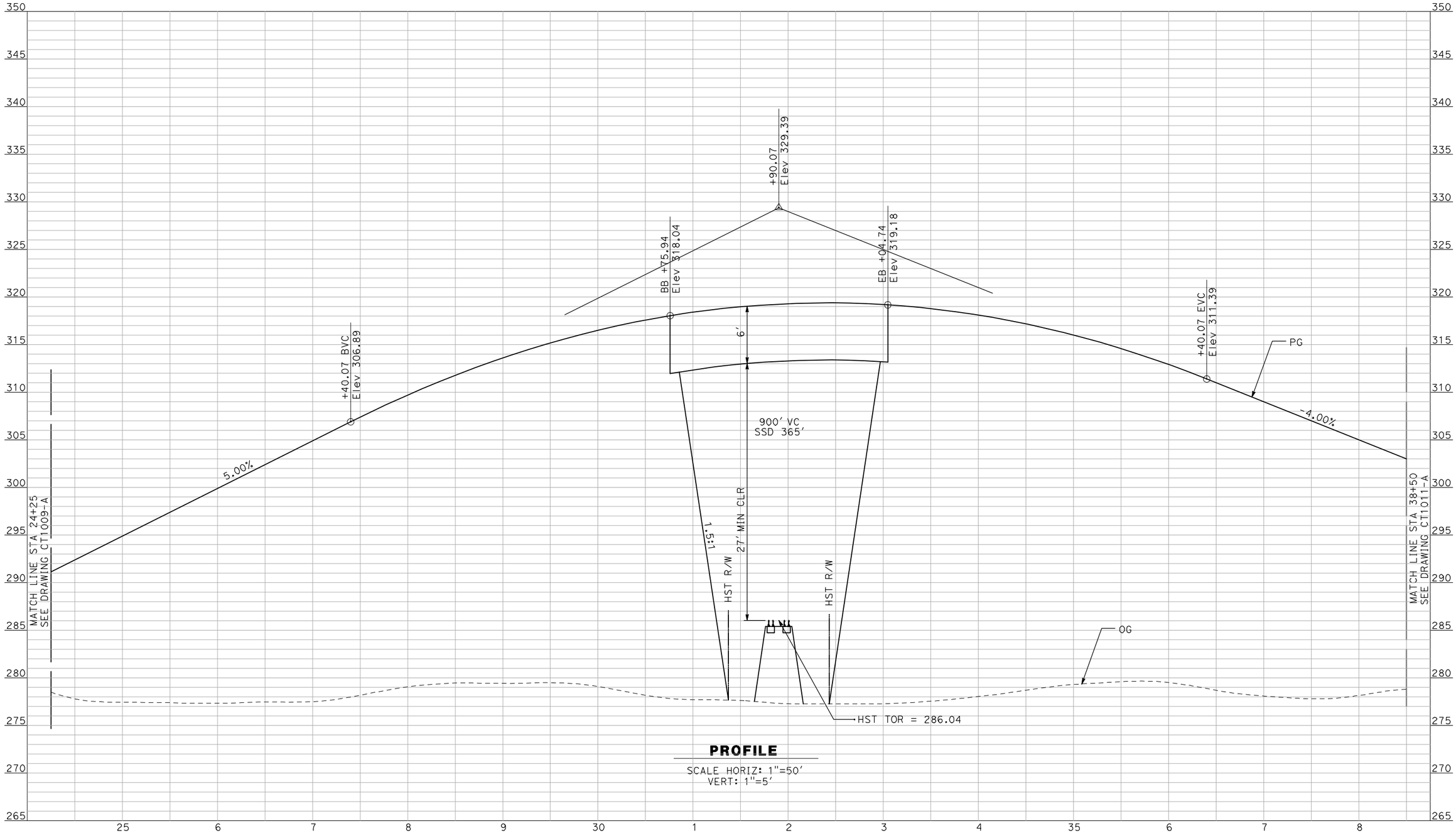

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1010-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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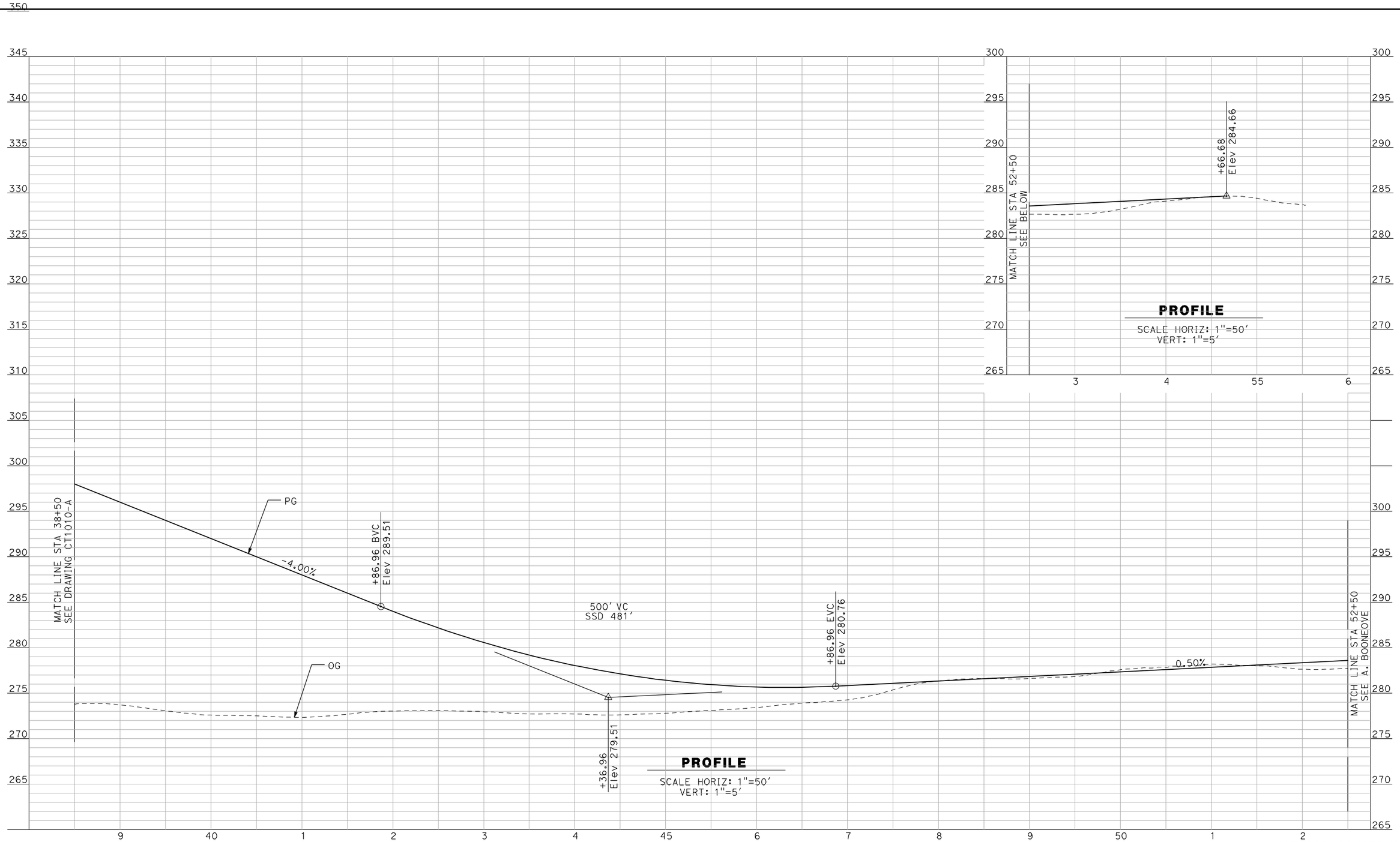

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REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 12
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1011-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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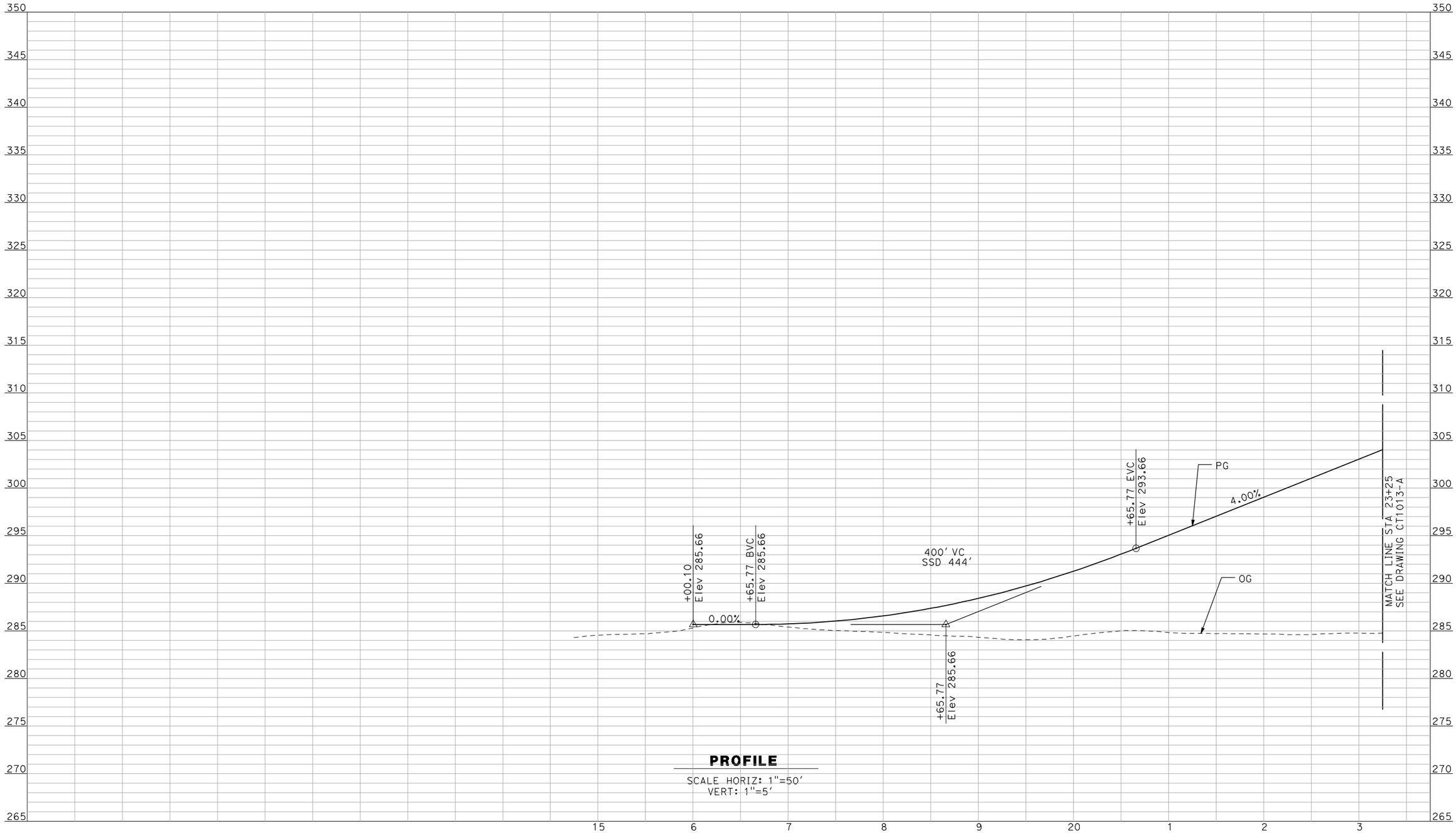

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1012-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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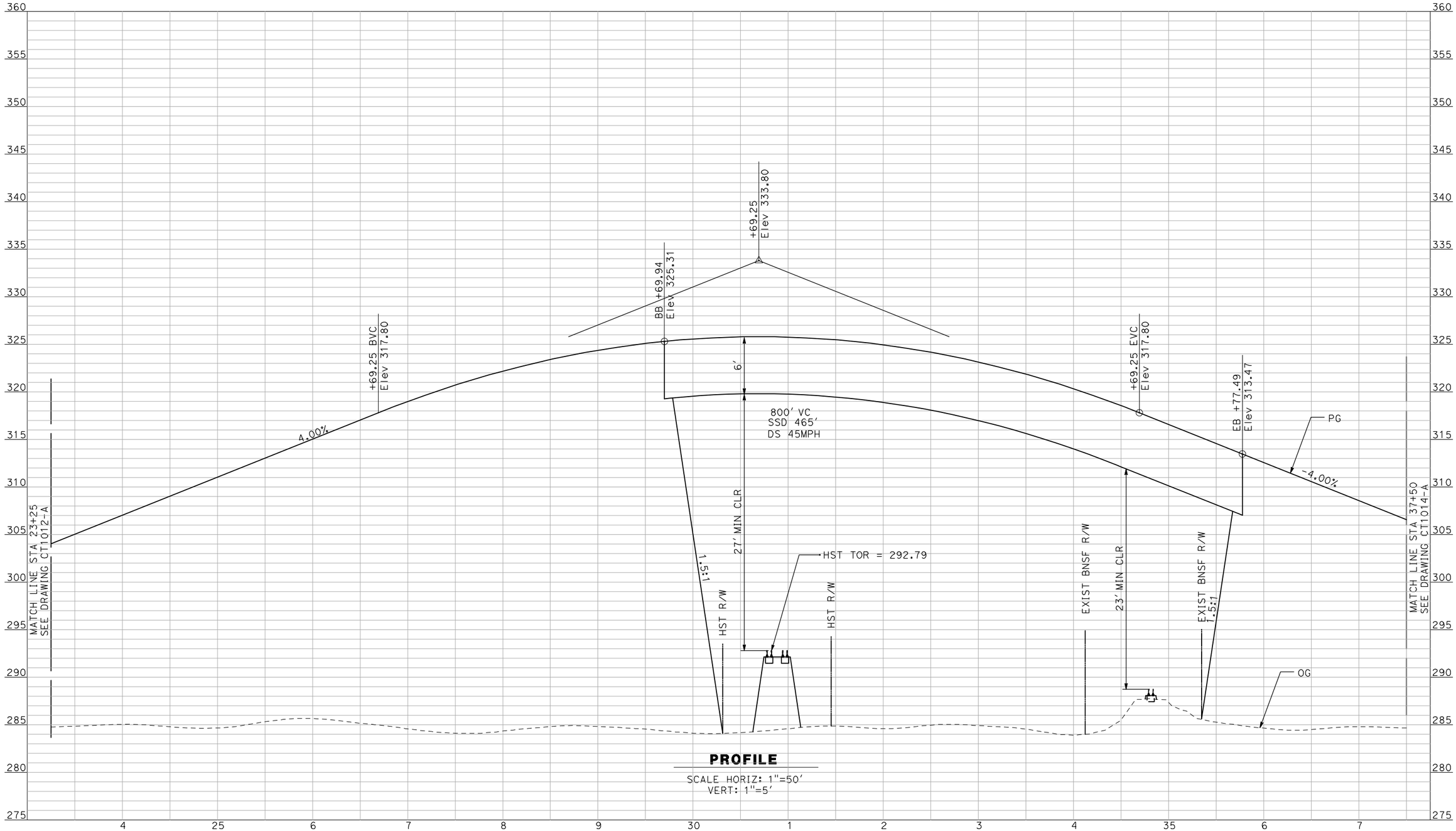

PROFILE

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VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1013-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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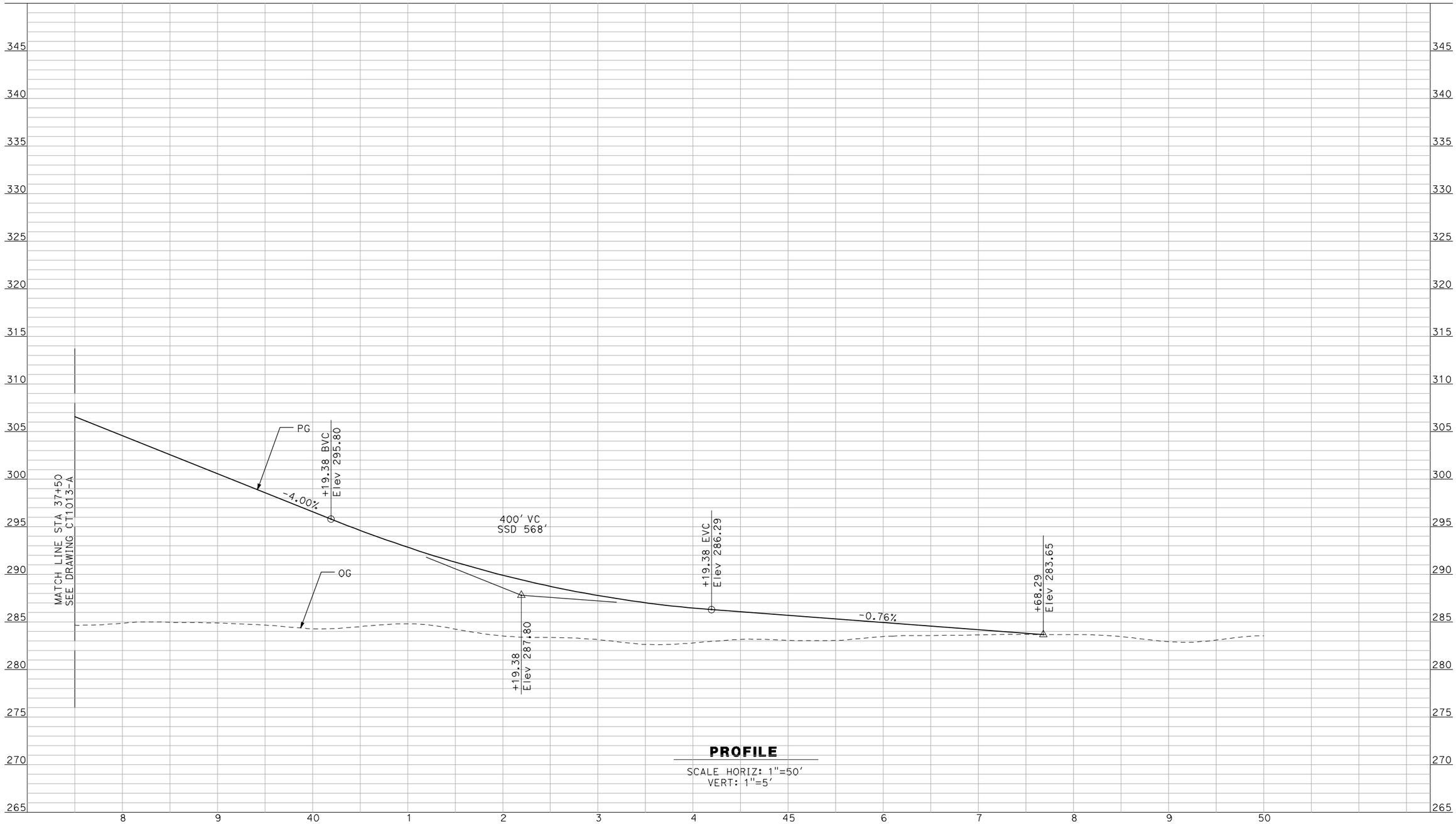

PROFILE

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VERT: 1"=5'

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 13
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1014-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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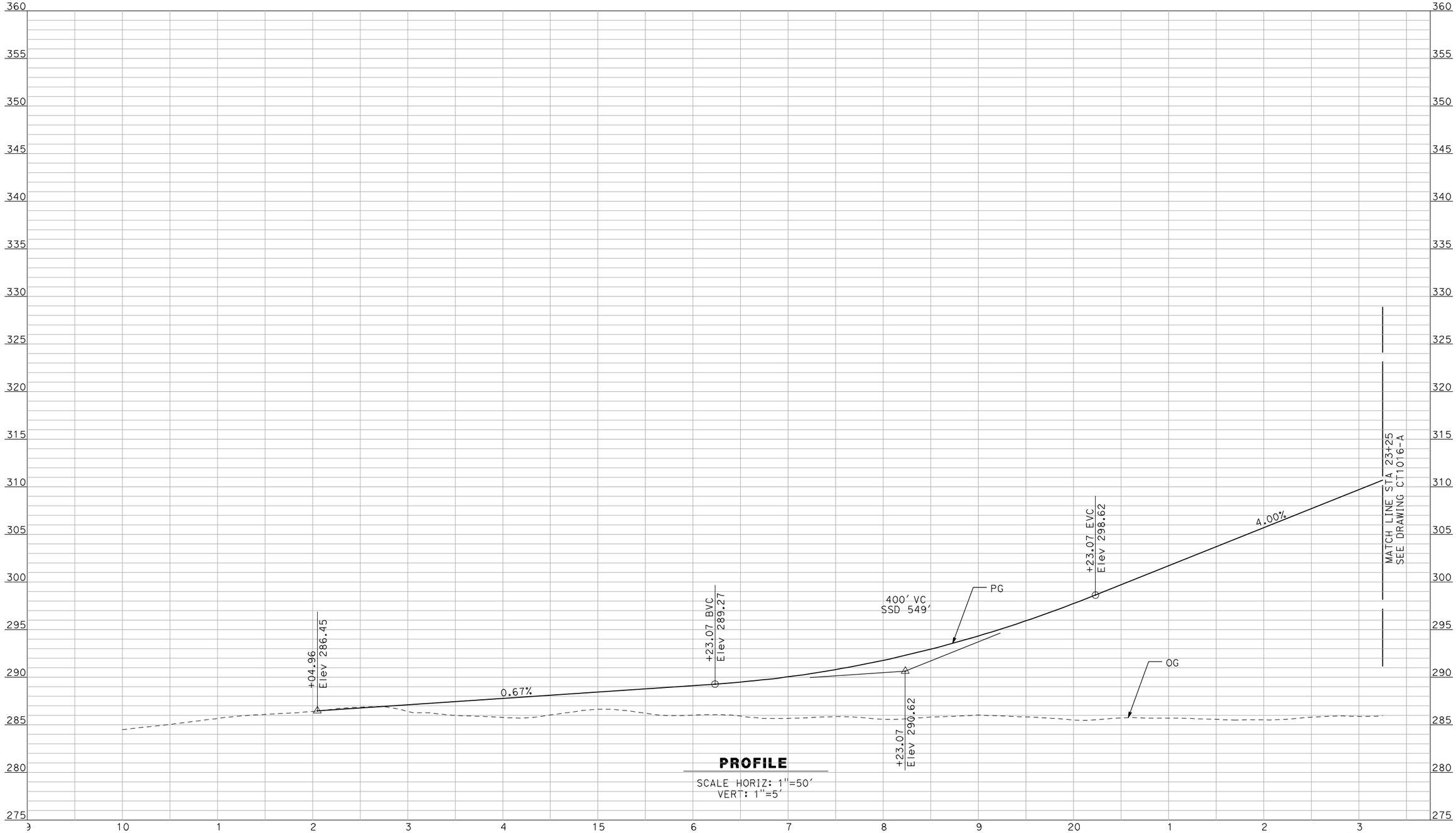

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1015-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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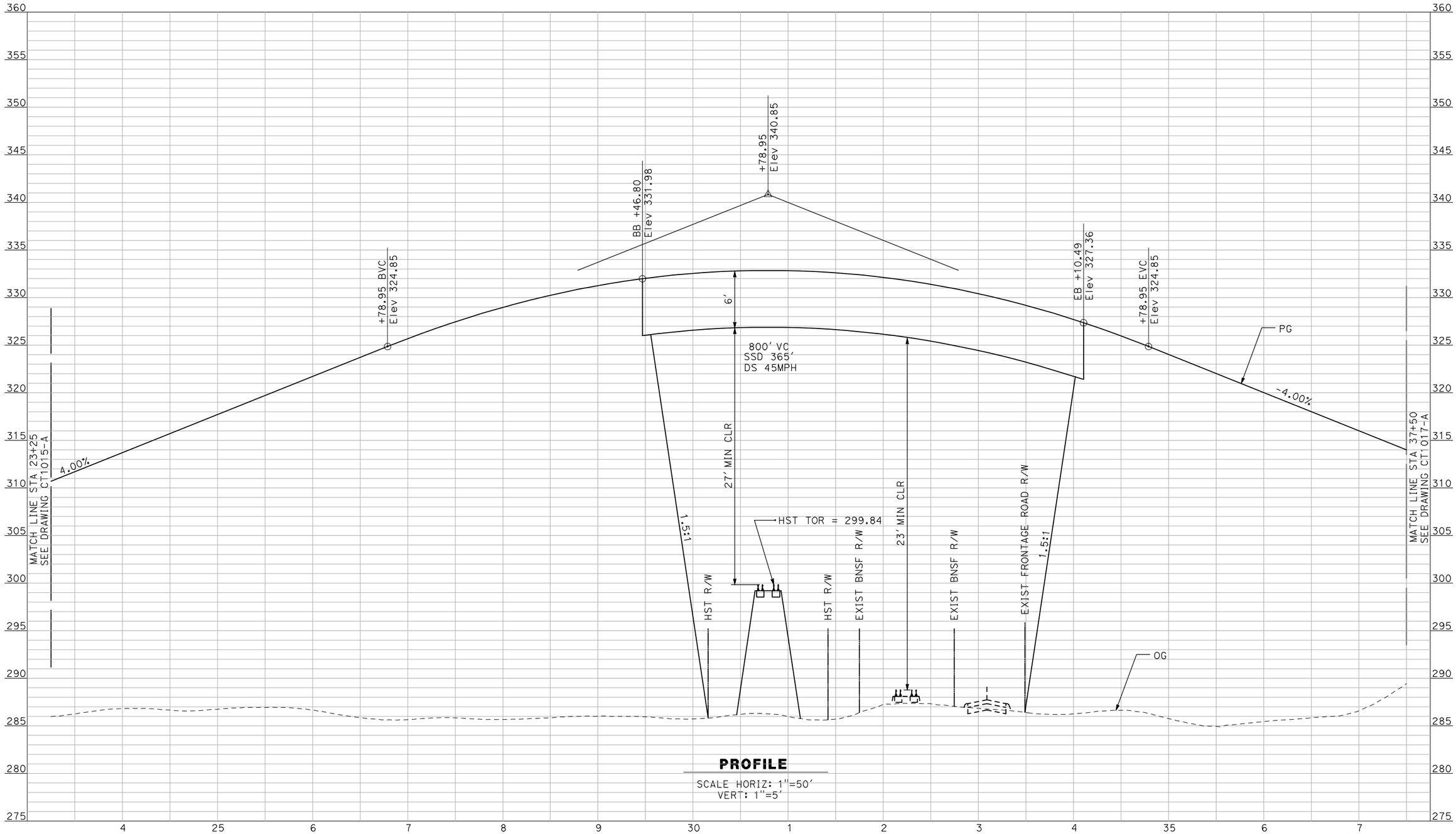

PROFILE

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1016-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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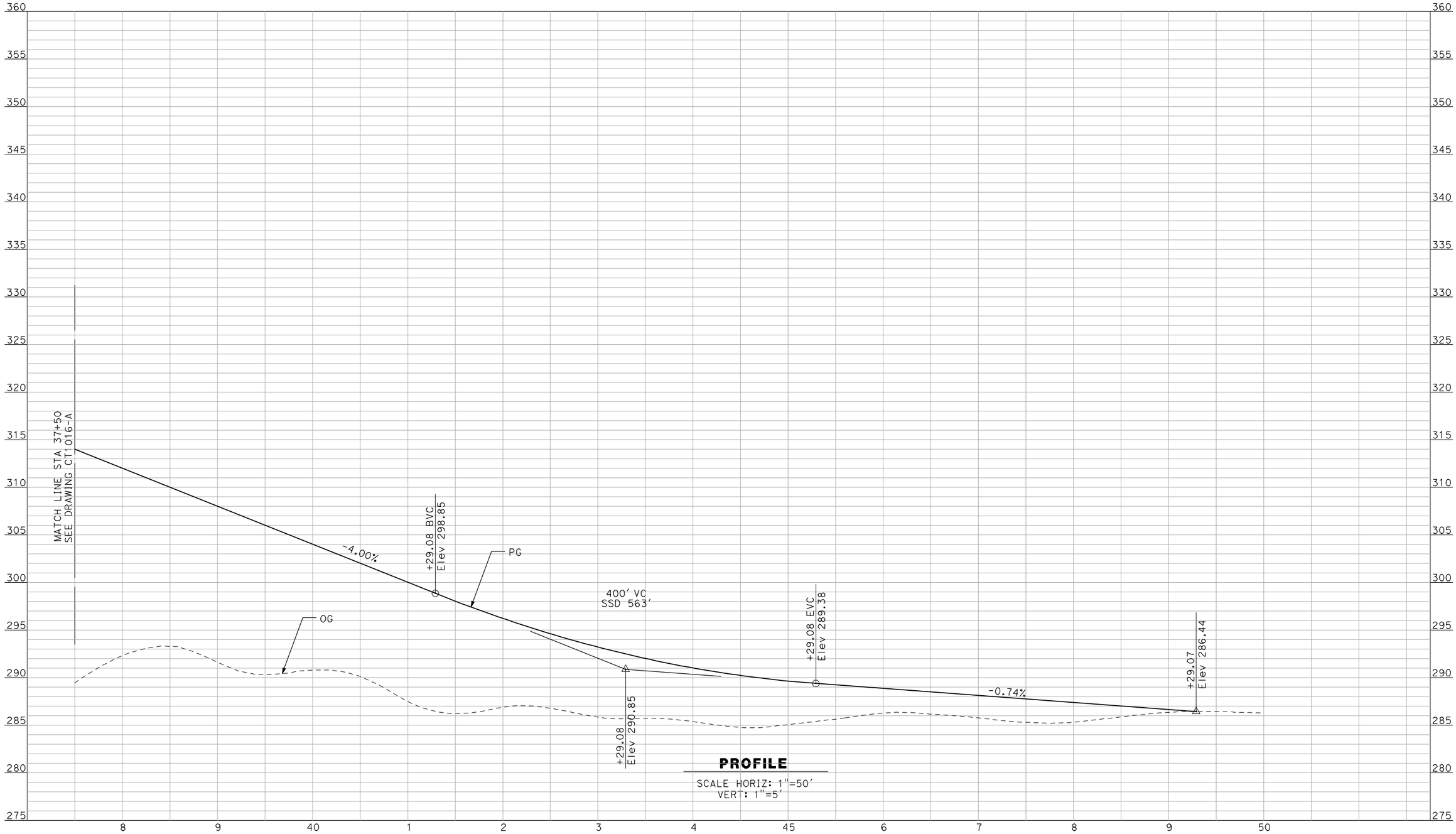

PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1017-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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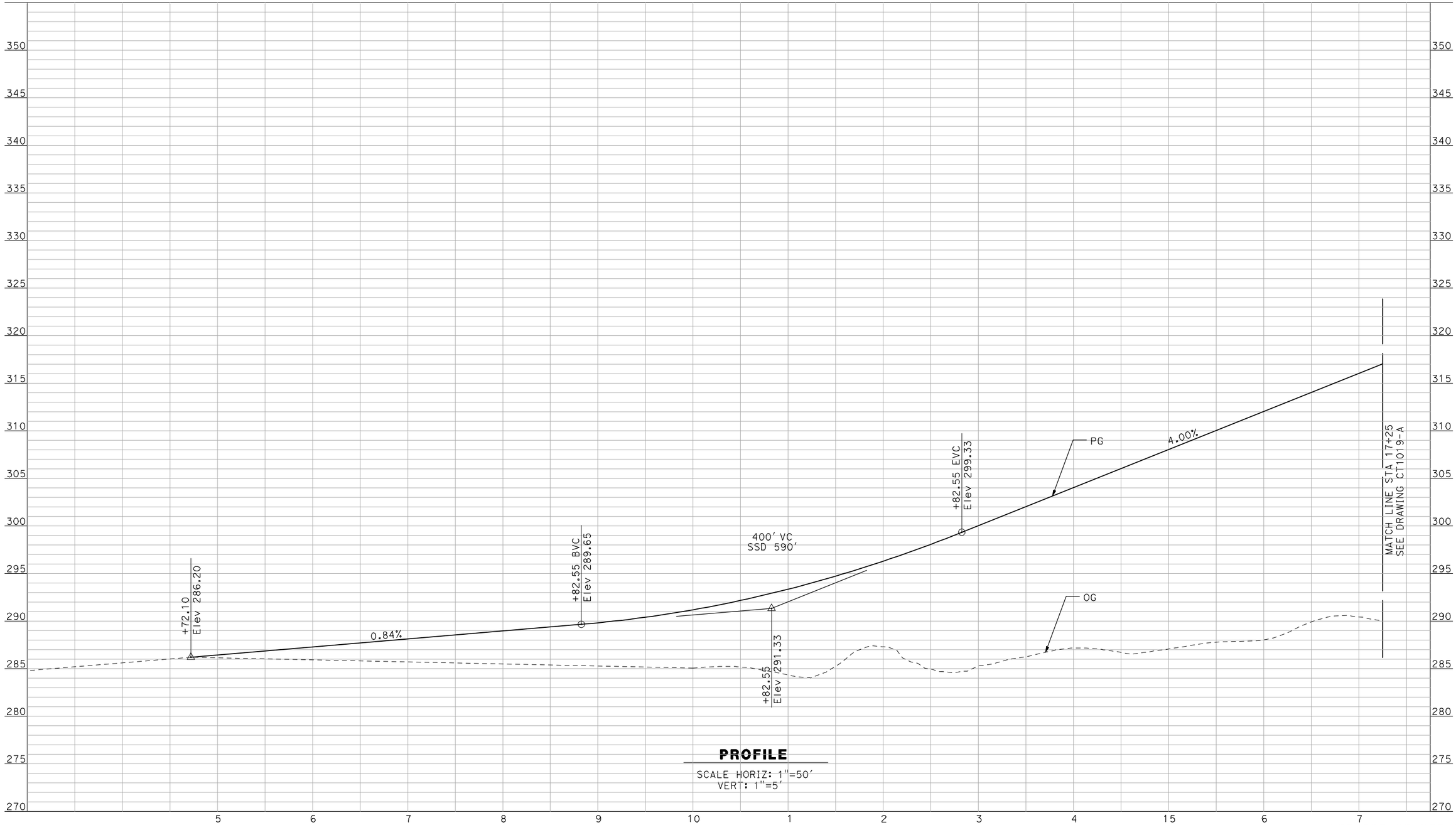

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1018-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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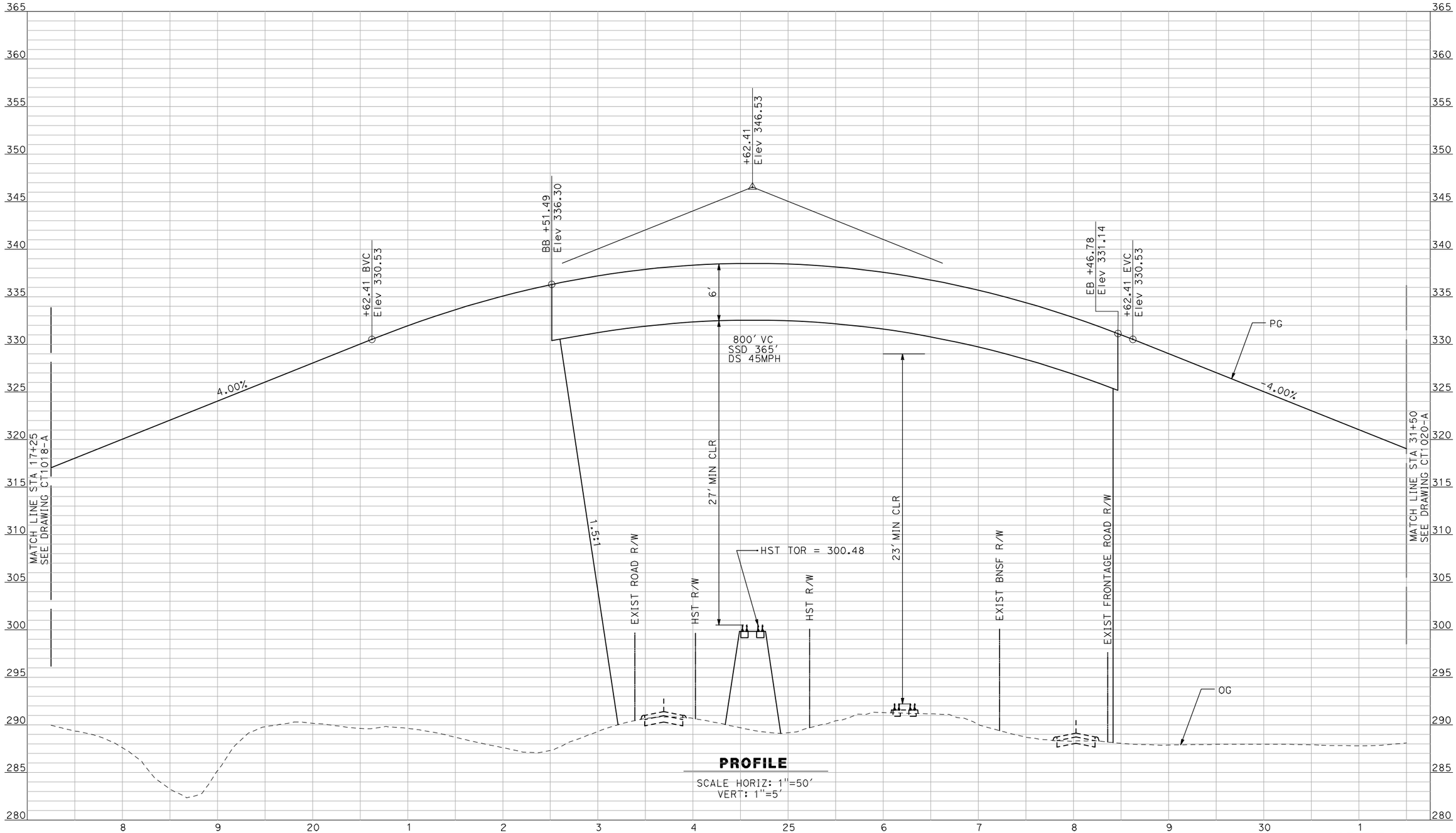

PROFILE

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1019-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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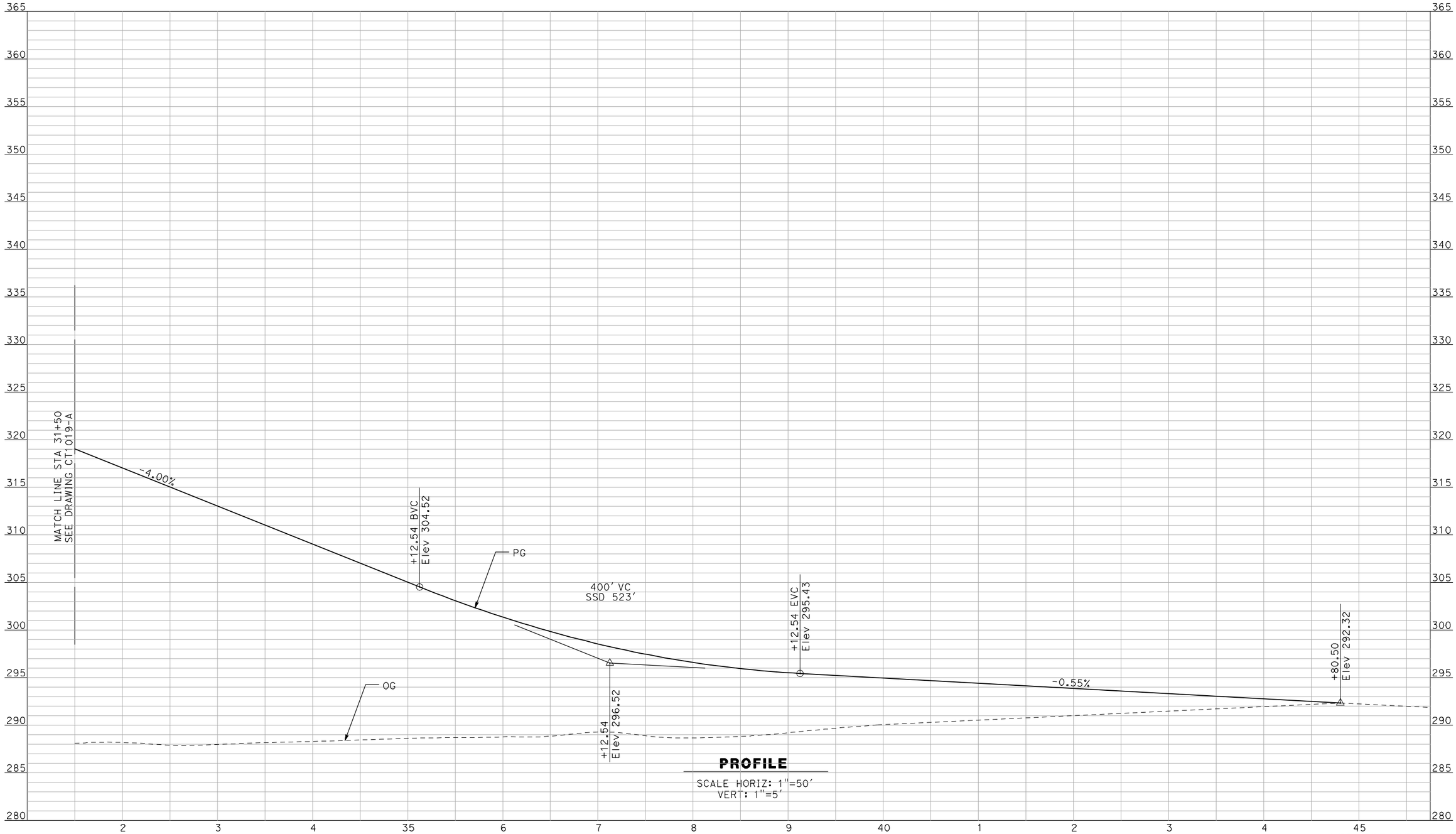

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 15 1/2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1020-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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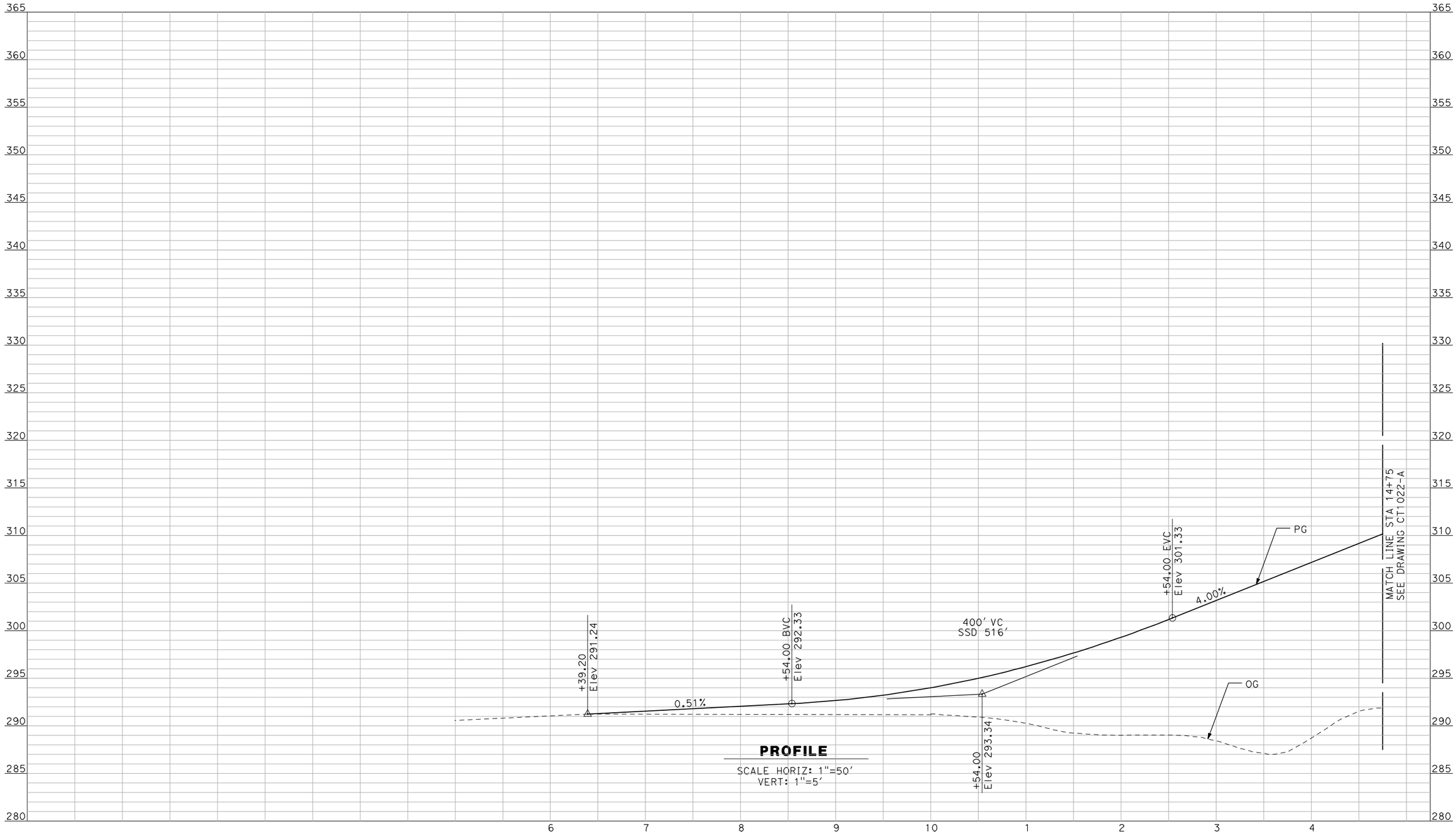

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND RD
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1021-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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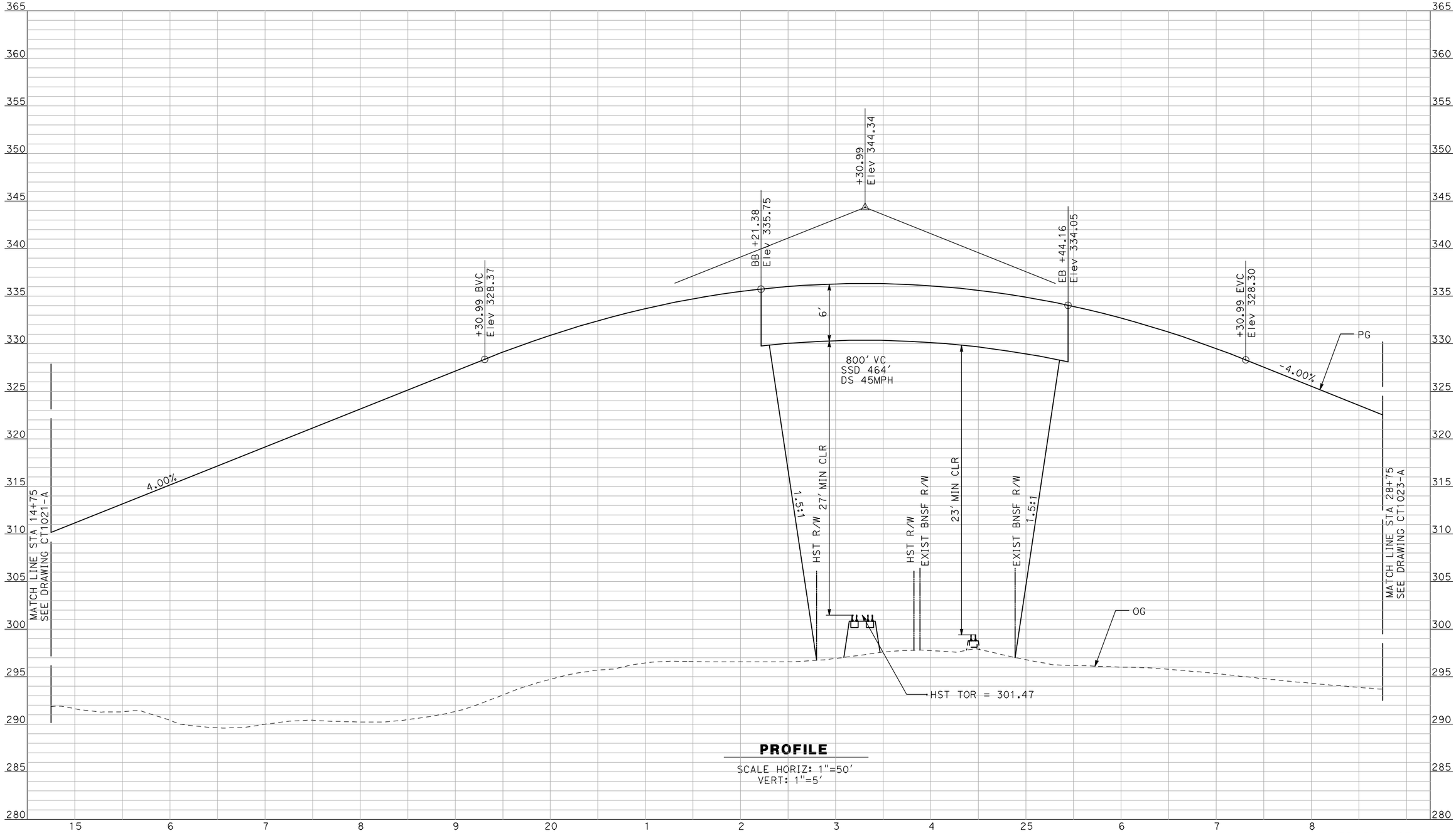

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND RD
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1022-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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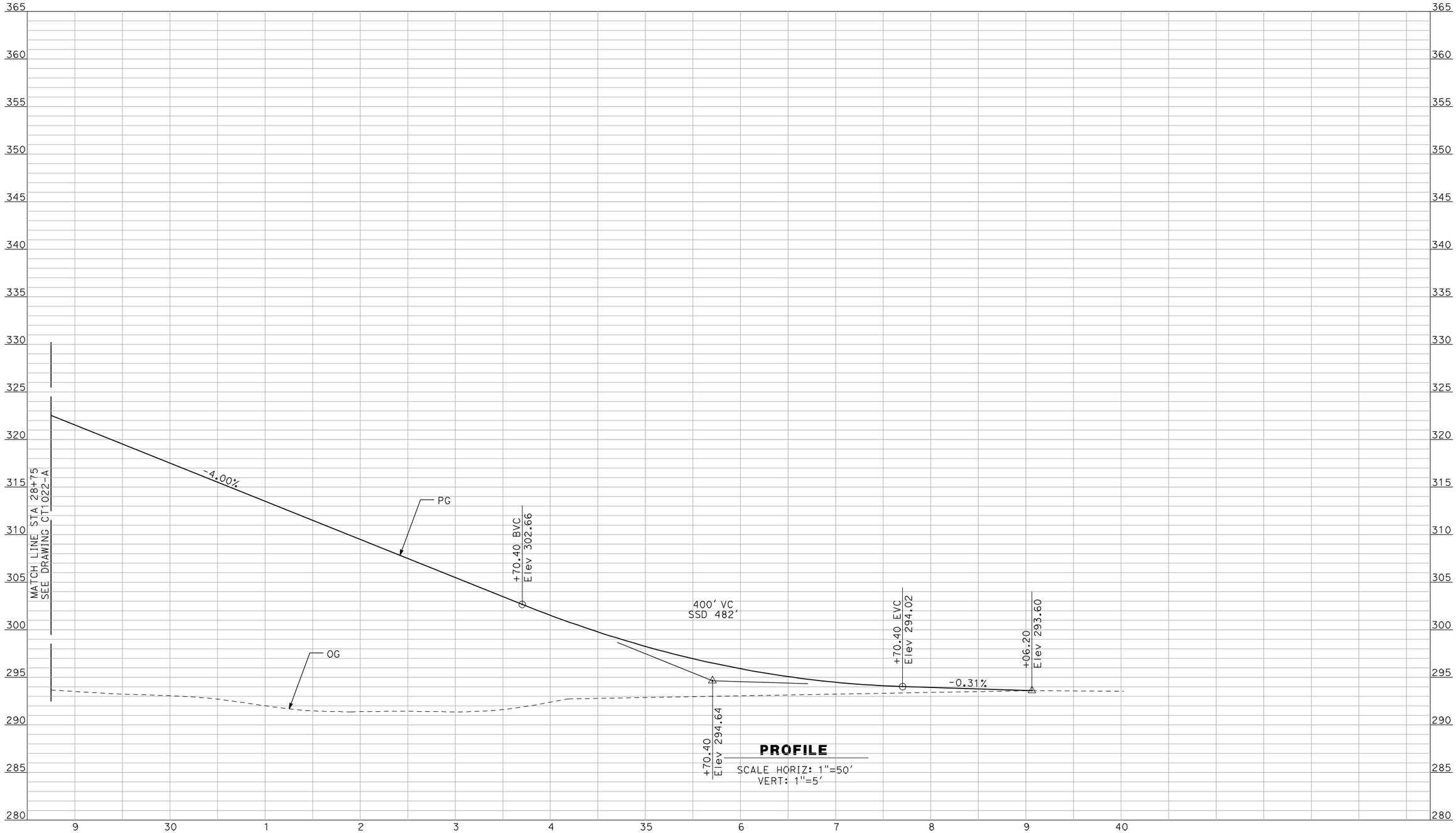

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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - RAYMOND RD
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1023-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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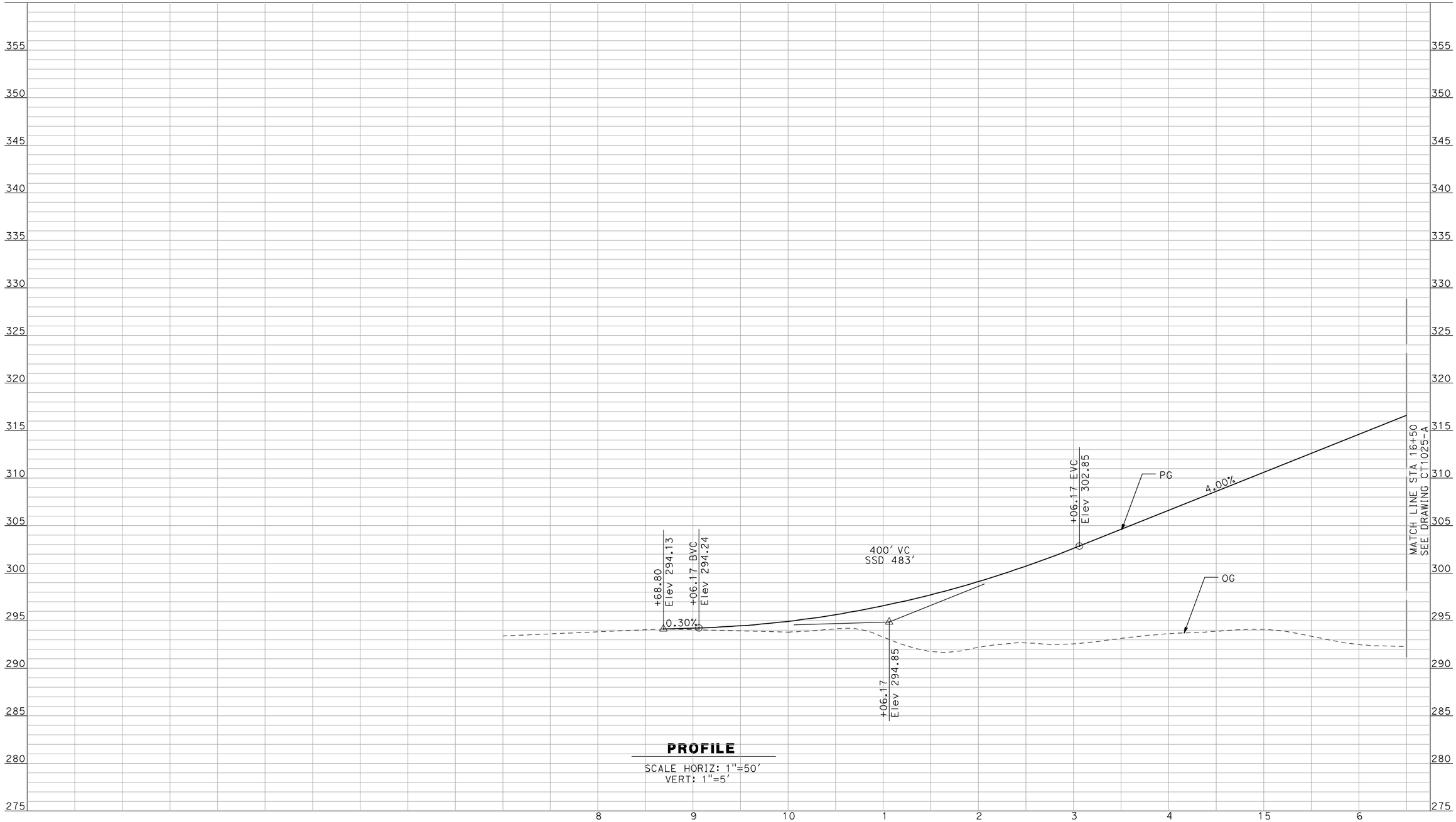

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1024-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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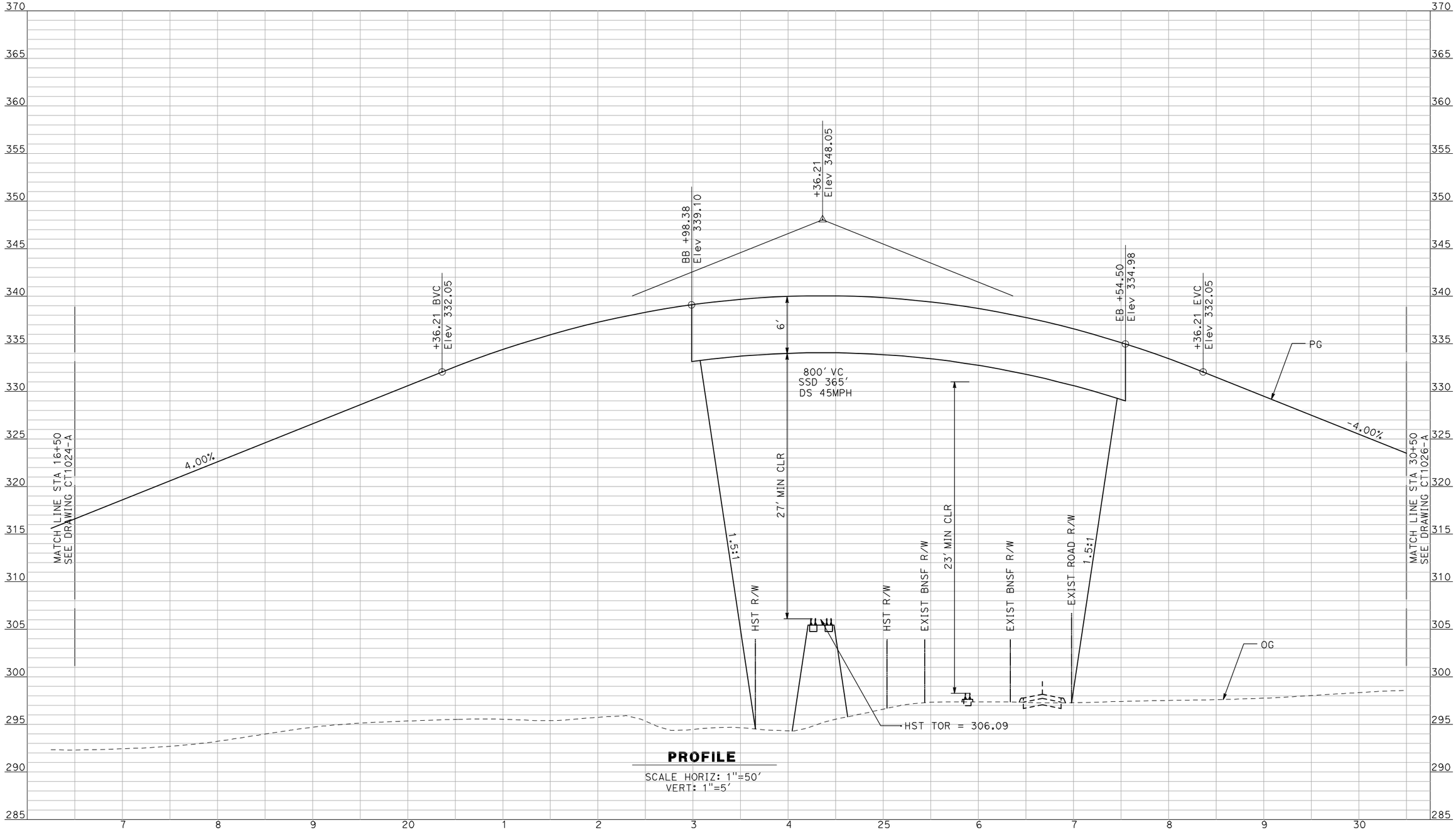

PROFILE

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VERT: 1"=5'

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1025-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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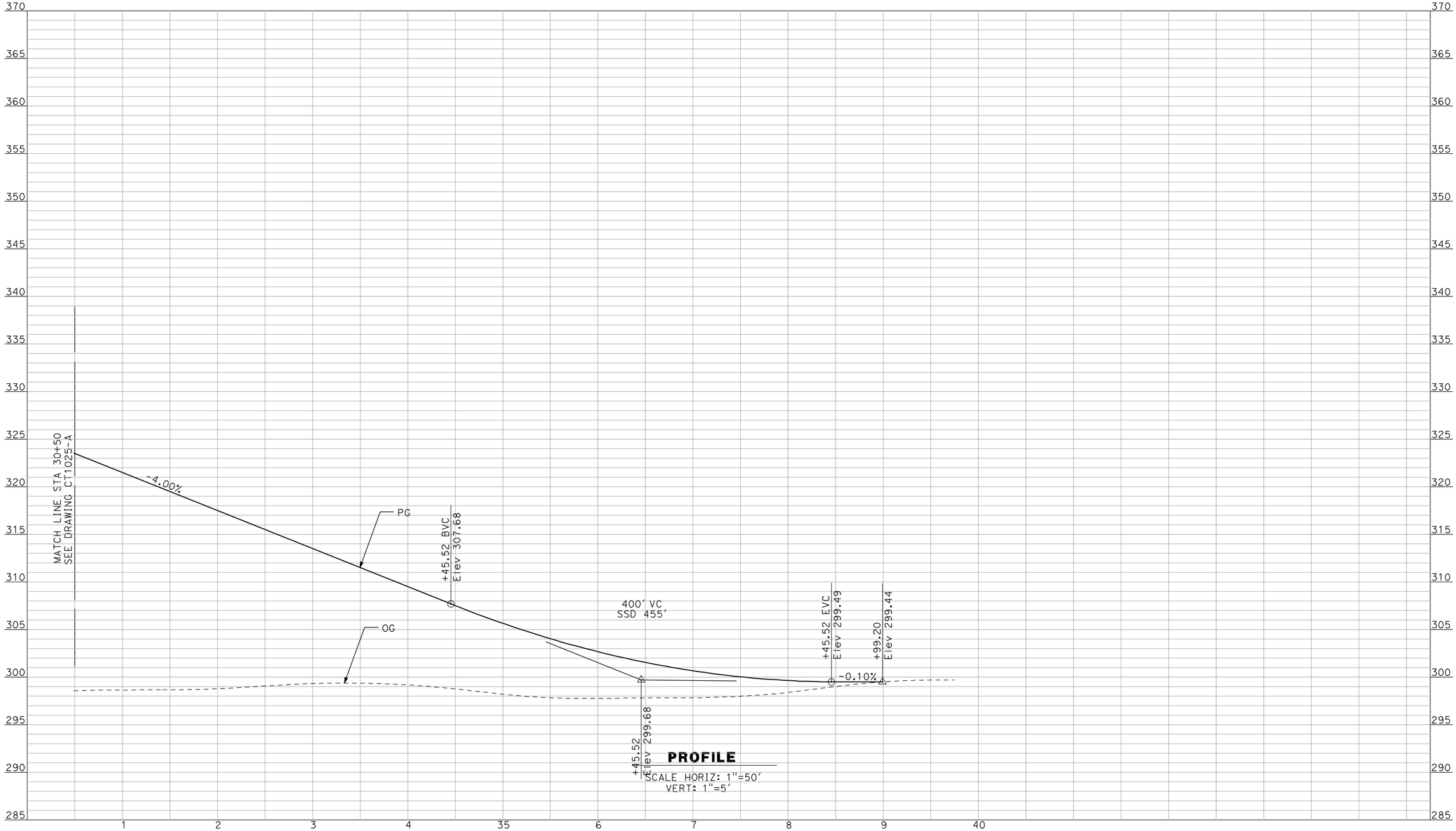

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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 17
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1026-T
SCALE AS SHOWN
SHEET NO. ### OF ###

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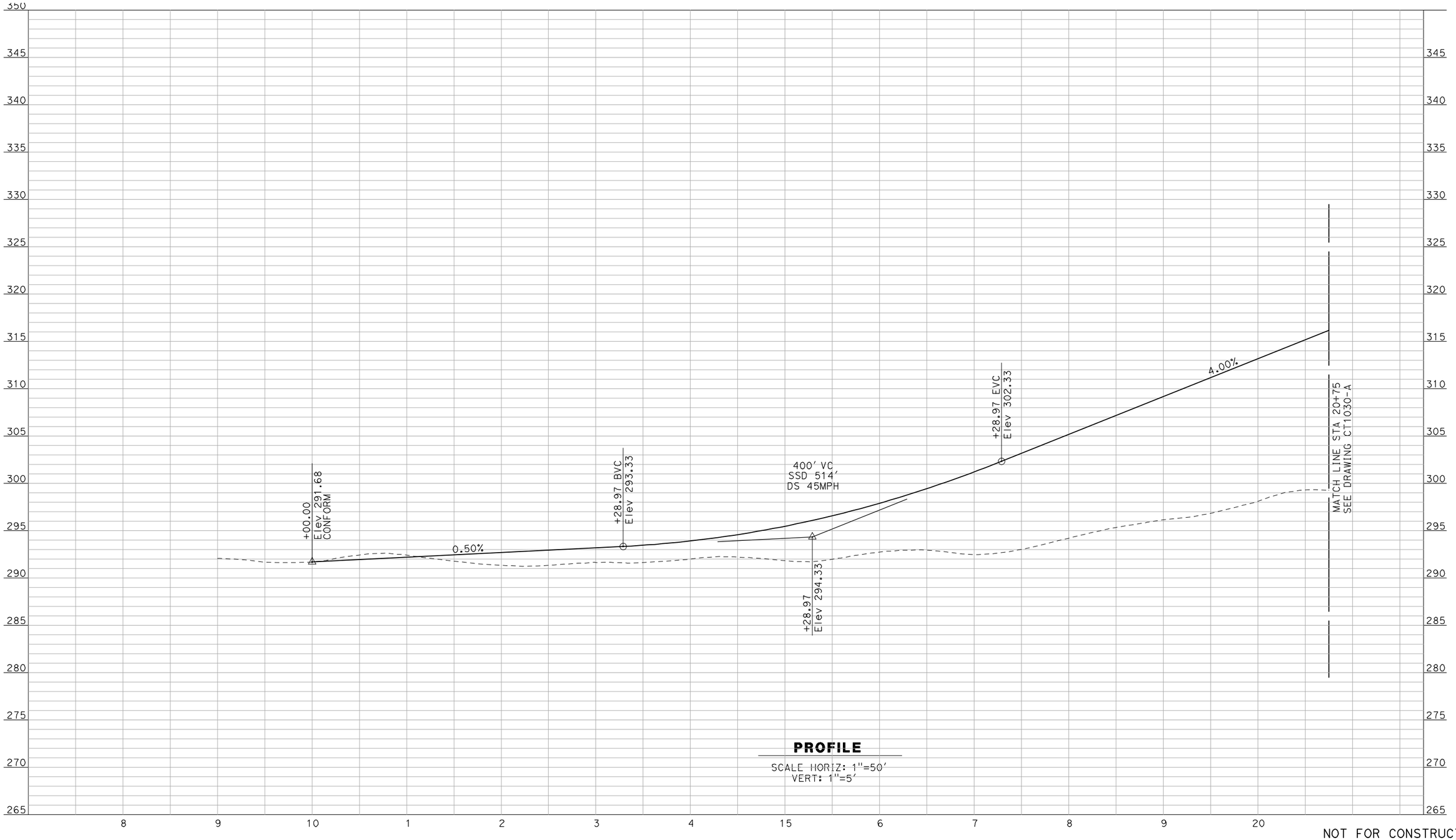

PROFILE

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VERT: 1"=5'

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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 27
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1029-A
SCALE AS SHOWN
SHEET NO. OF ###

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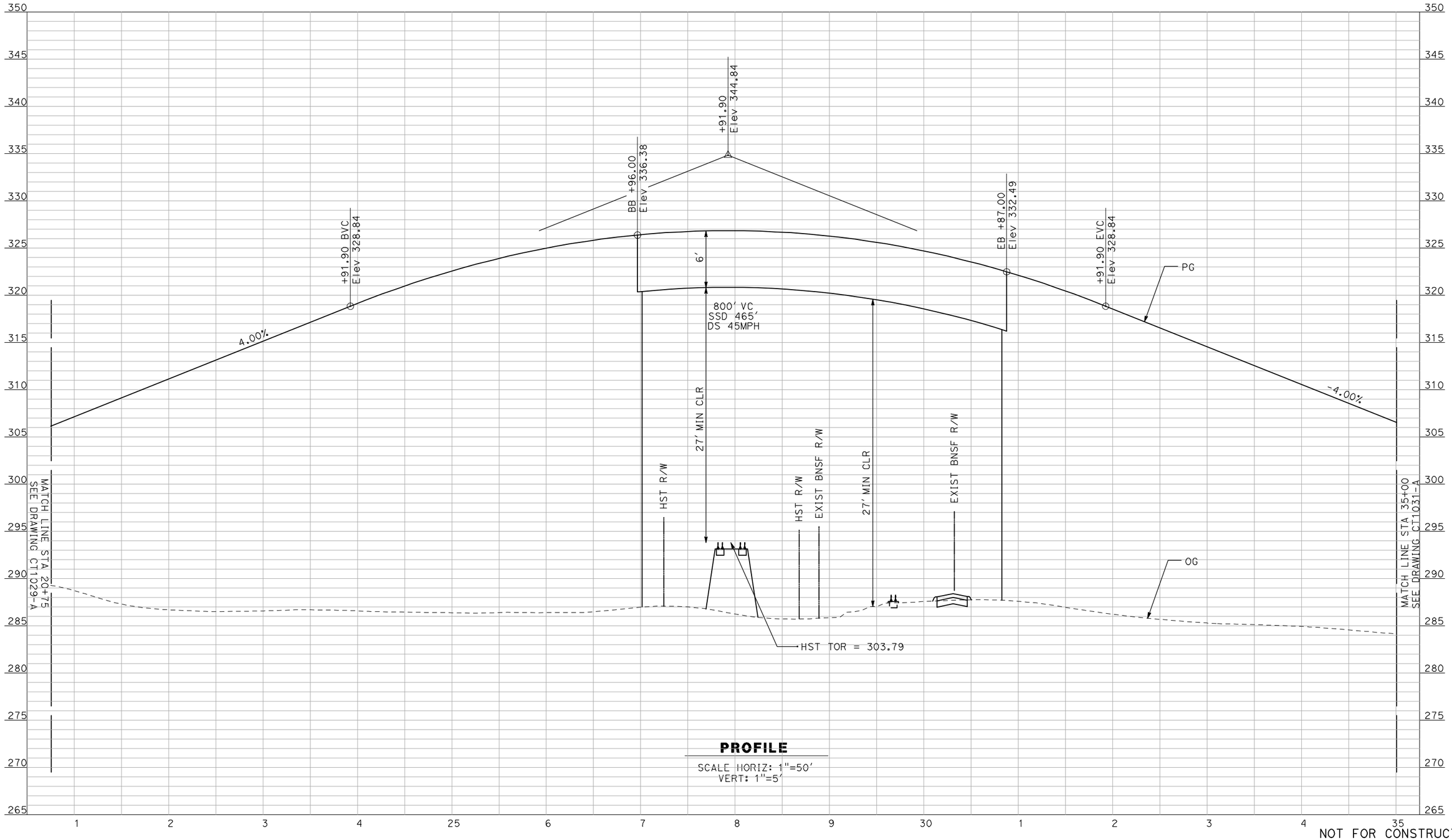

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 27
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1030-A
SCALE AS SHOWN
SHEET NO. OF ###

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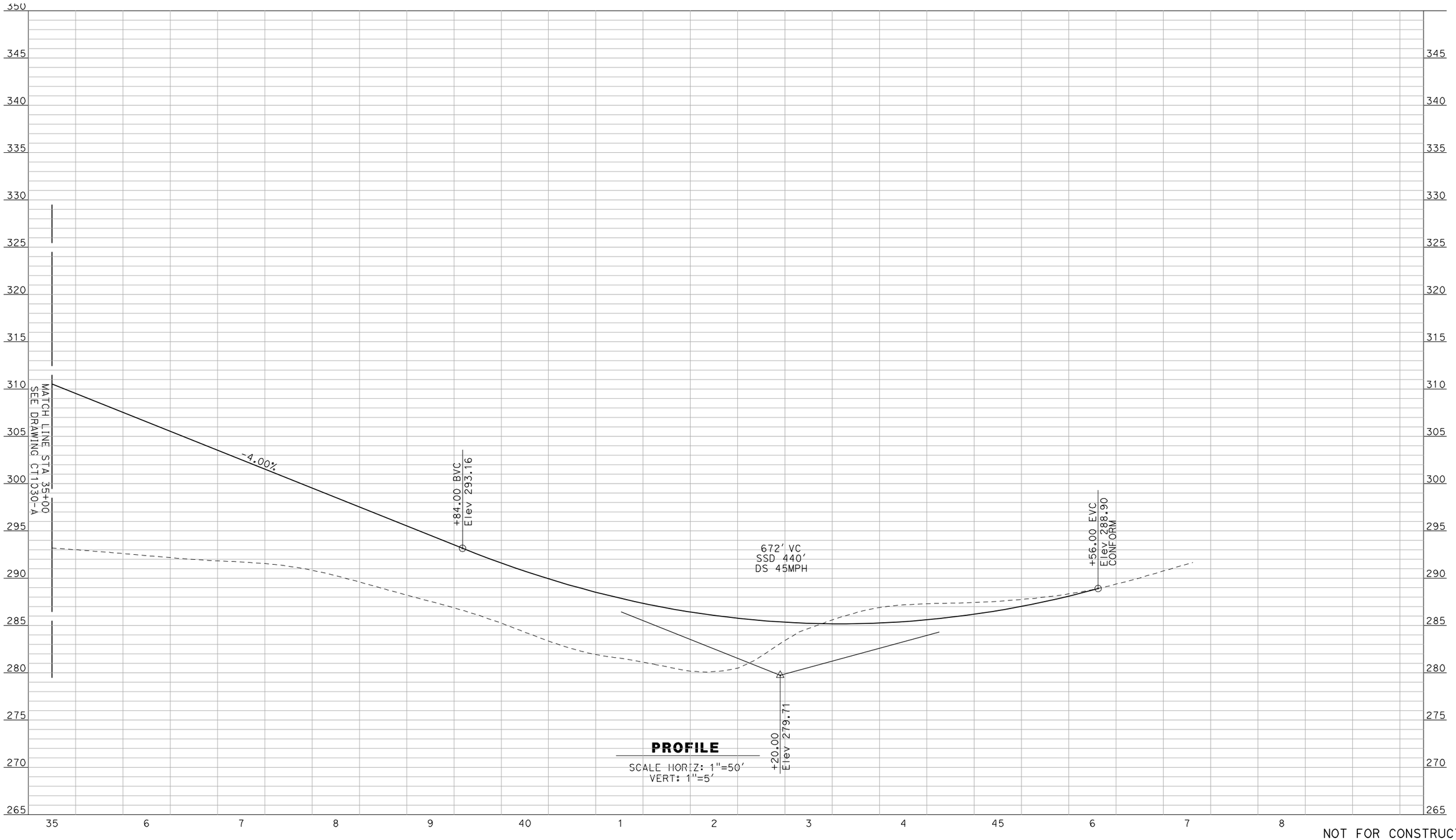

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MERCED TO FRESNO

BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 27
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1031-A
SCALE AS SHOWN
SHEET NO. OF ###

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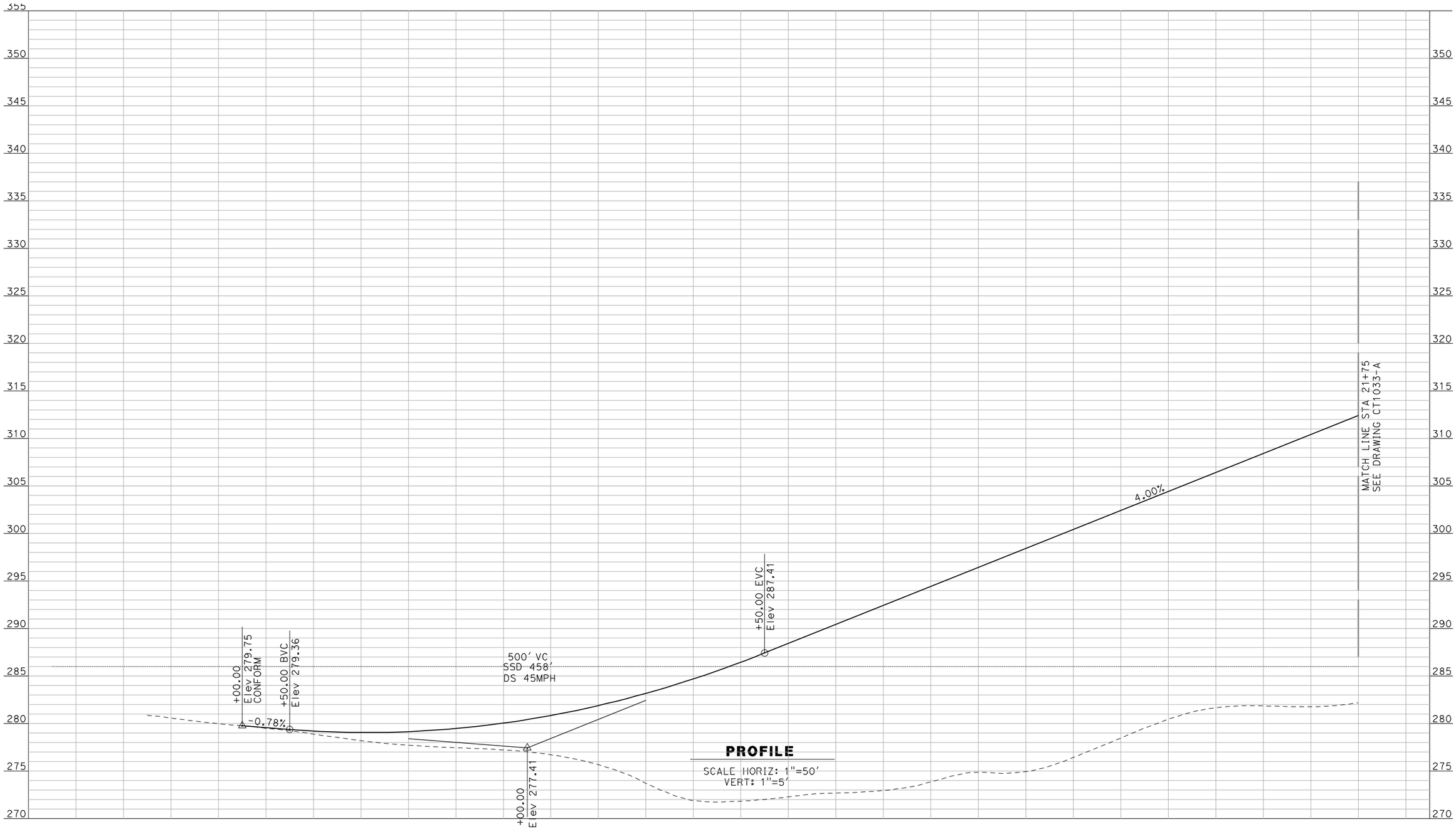

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MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 26
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1032-A
SCALE AS SHOWN
SHEET NO. OF ###

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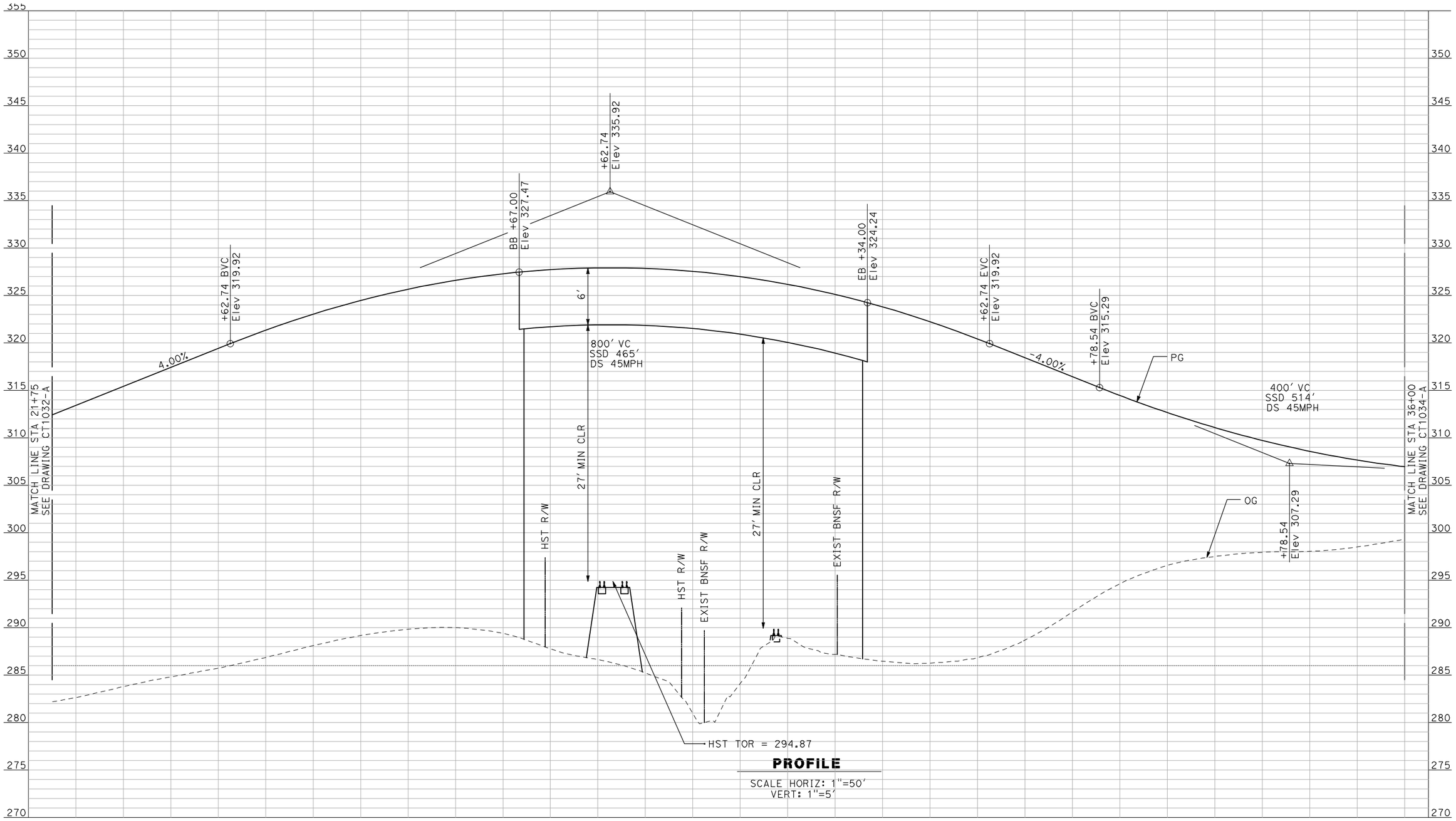

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MERCED TO FRESNO

BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 26
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1033-A
SCALE AS SHOWN
SHEET NO. OF ###

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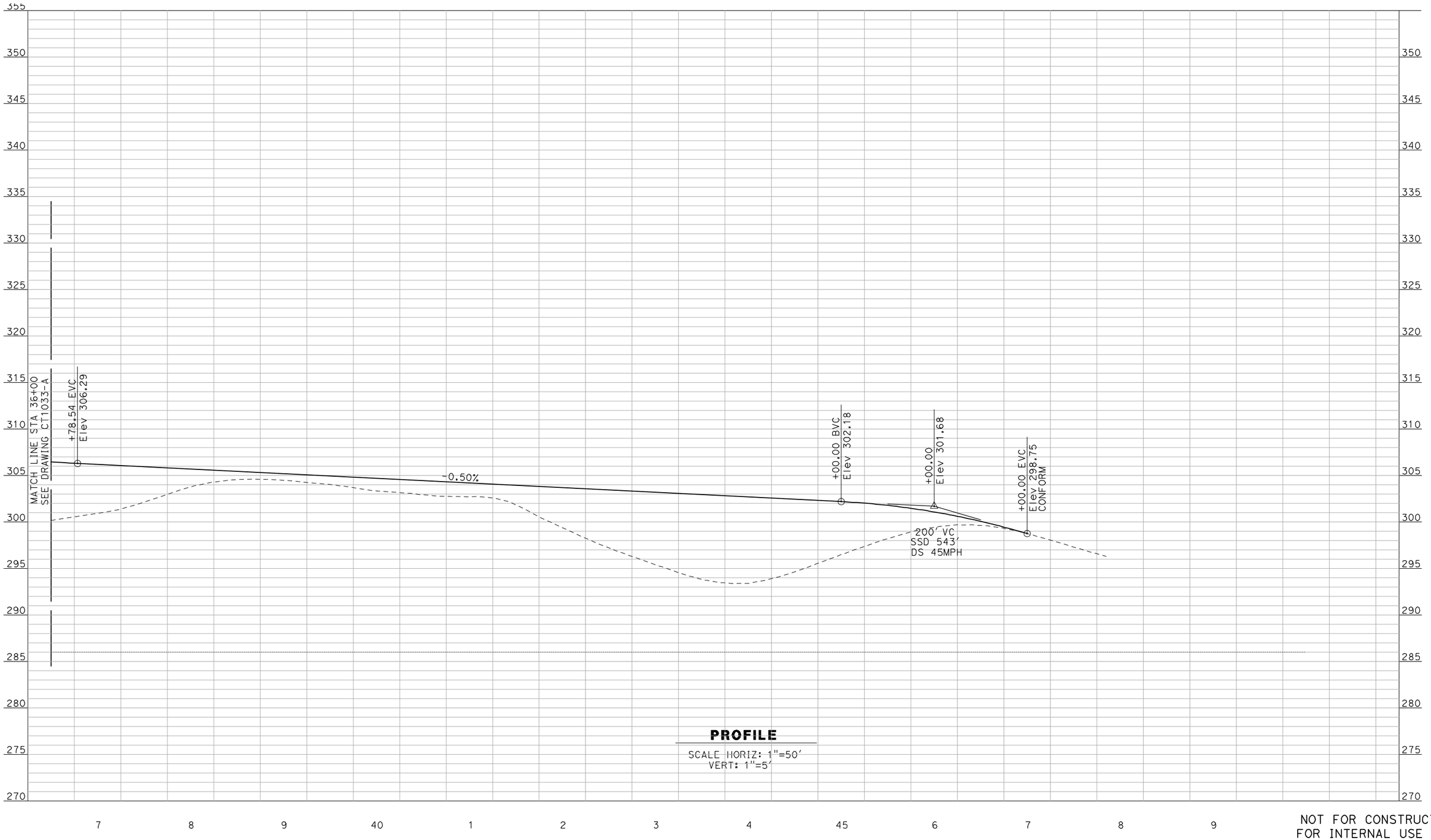

PROFILE

SCALE HORIZ: 1"=50'
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MERCED TO FRESNO

BNSF MAINLINE - HYBRID
GRADE SEPARATION - ROAD 26
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1034-A
SCALE AS SHOWN
SHEET NO. OF ###

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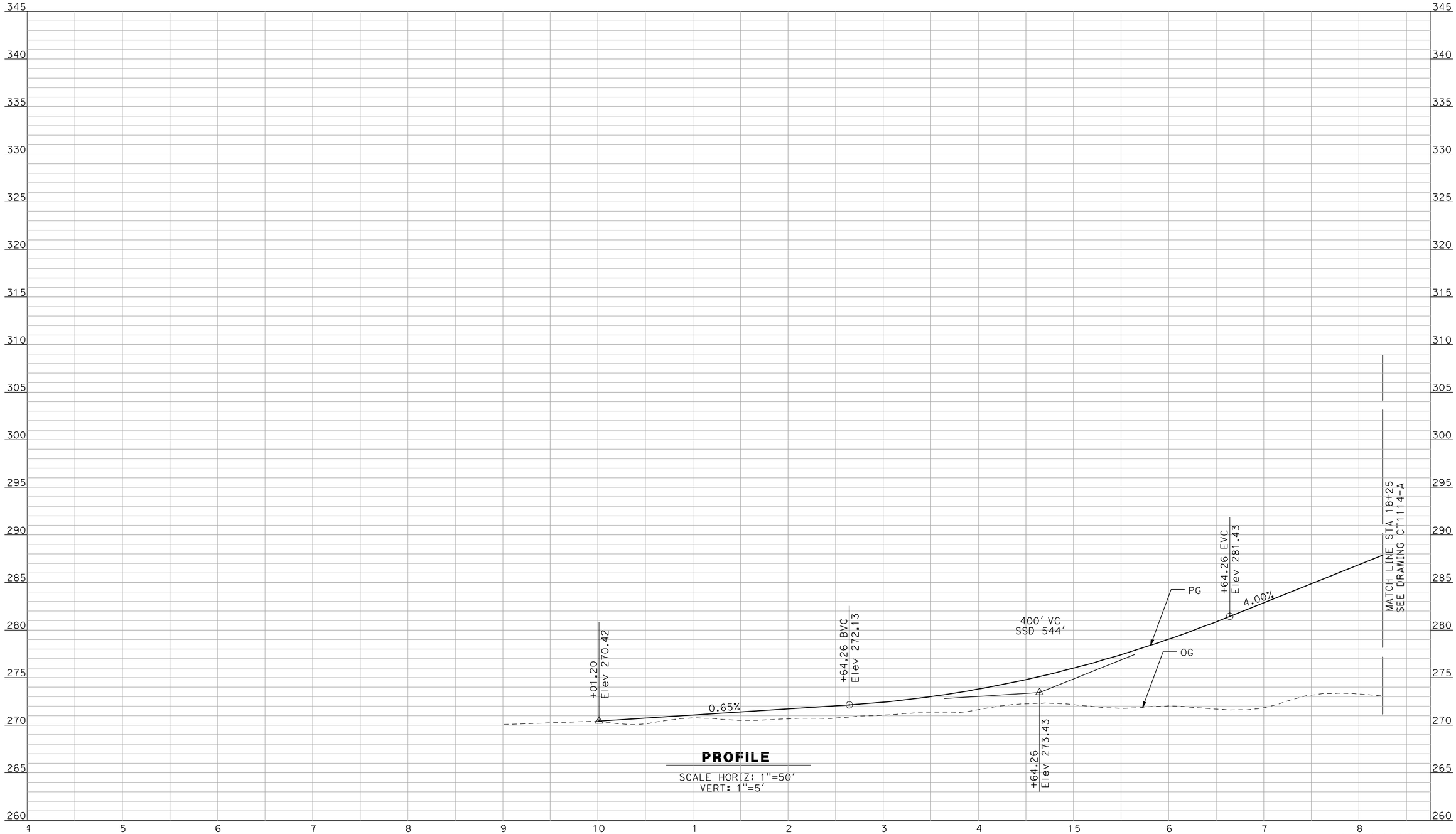

PROFILE

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BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1113-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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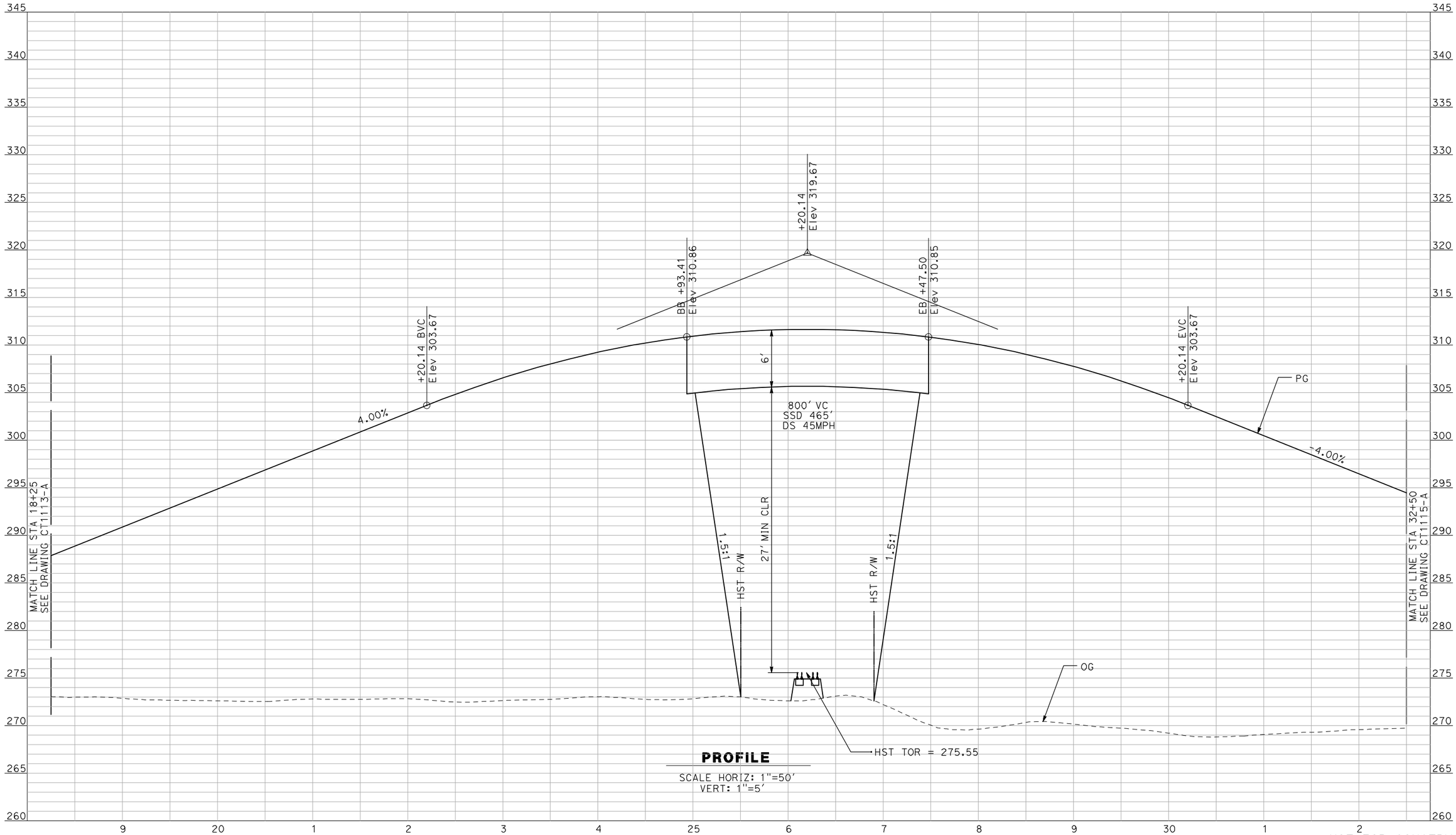

PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1114-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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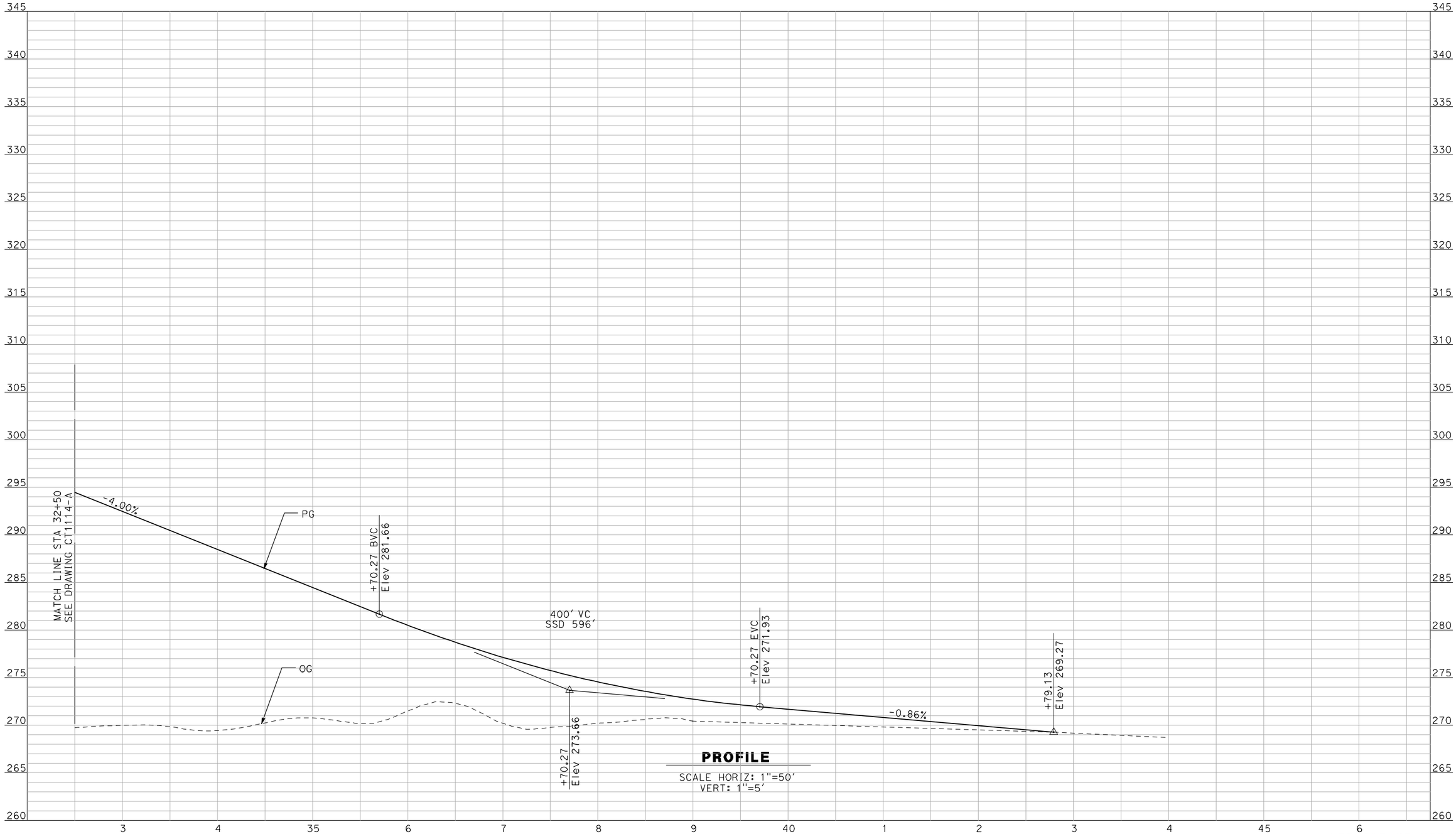

PROFILE

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BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1115-A
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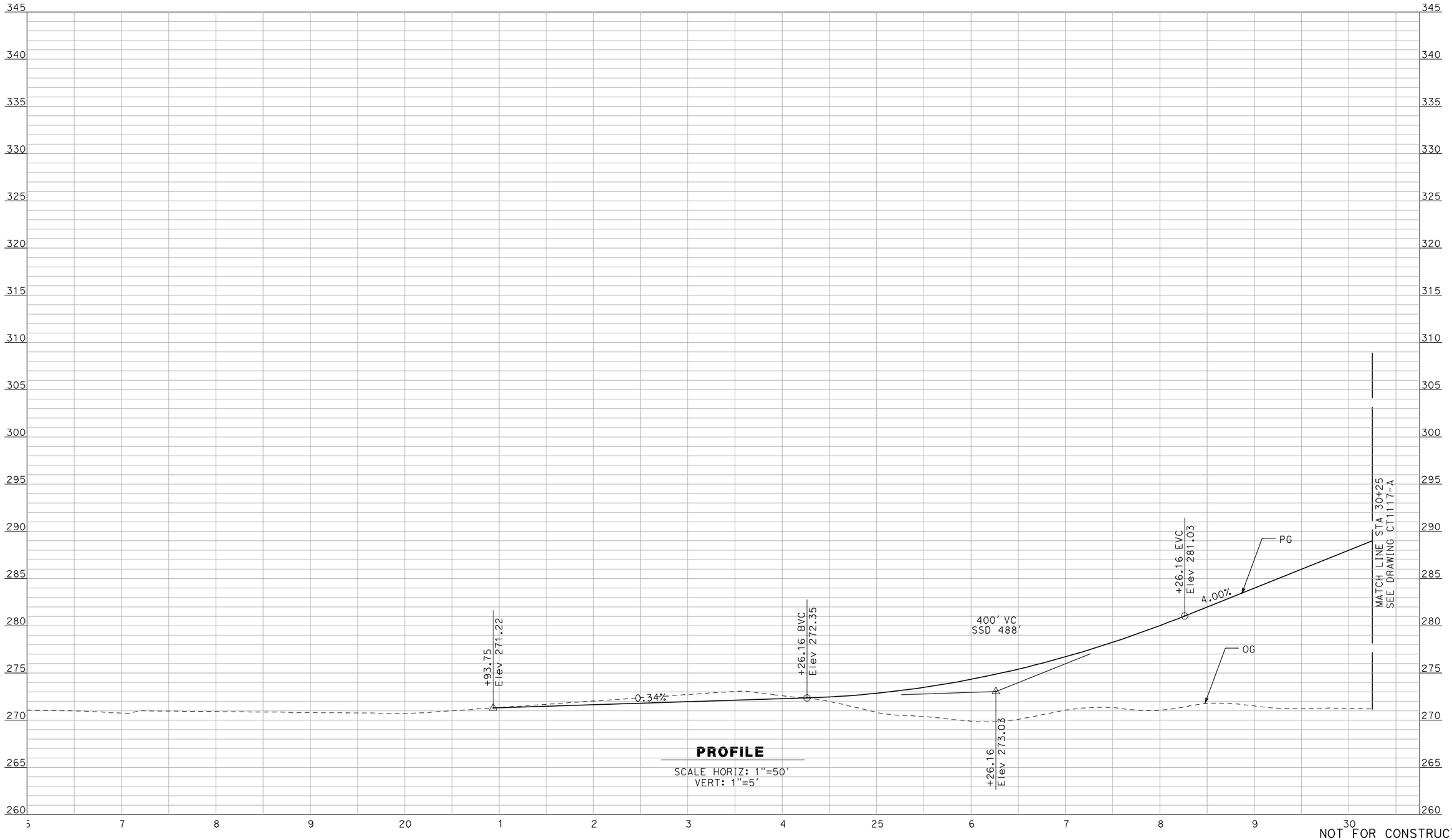

PROFILE

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BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1116-A
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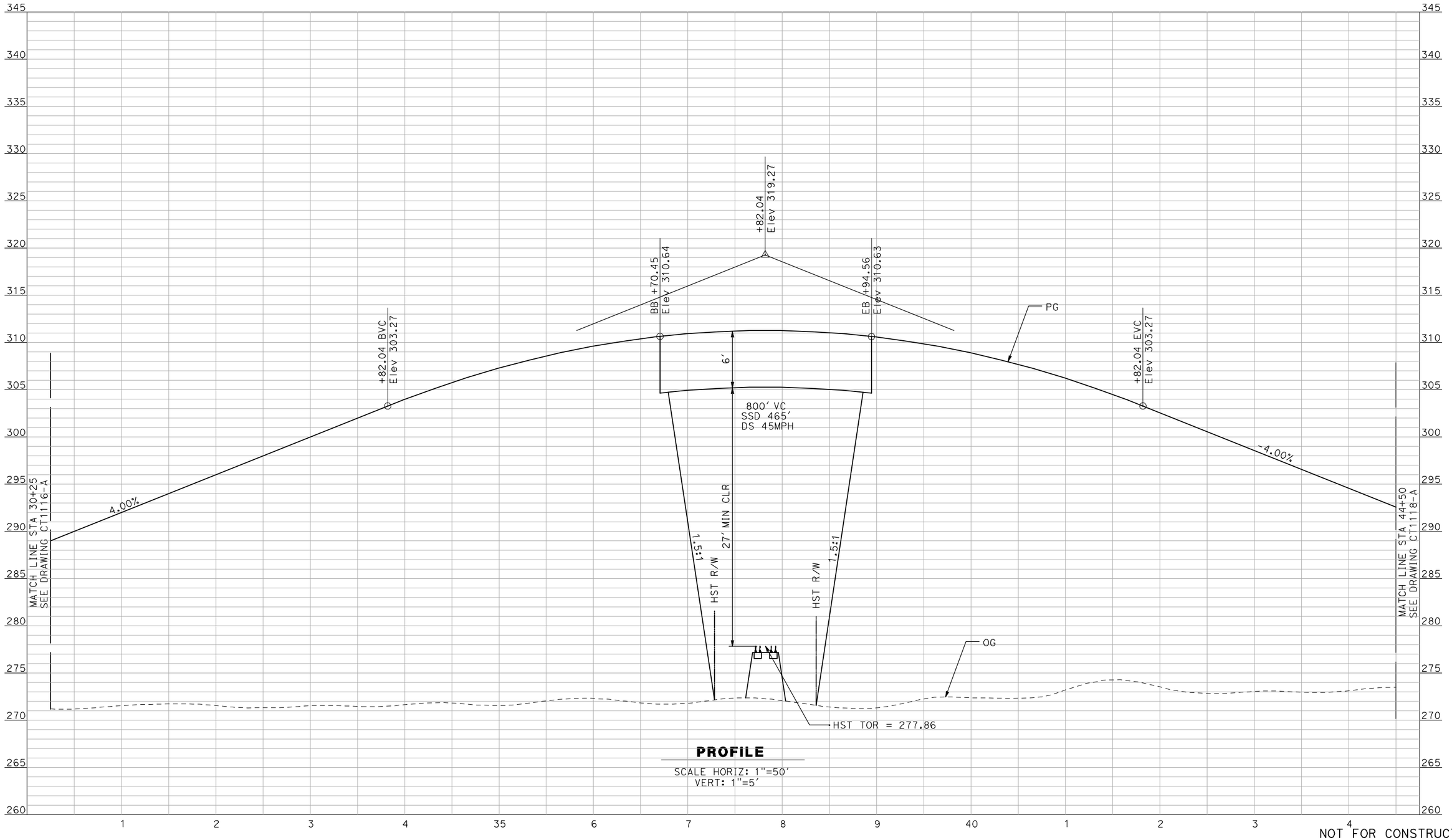

PROFILE

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1117-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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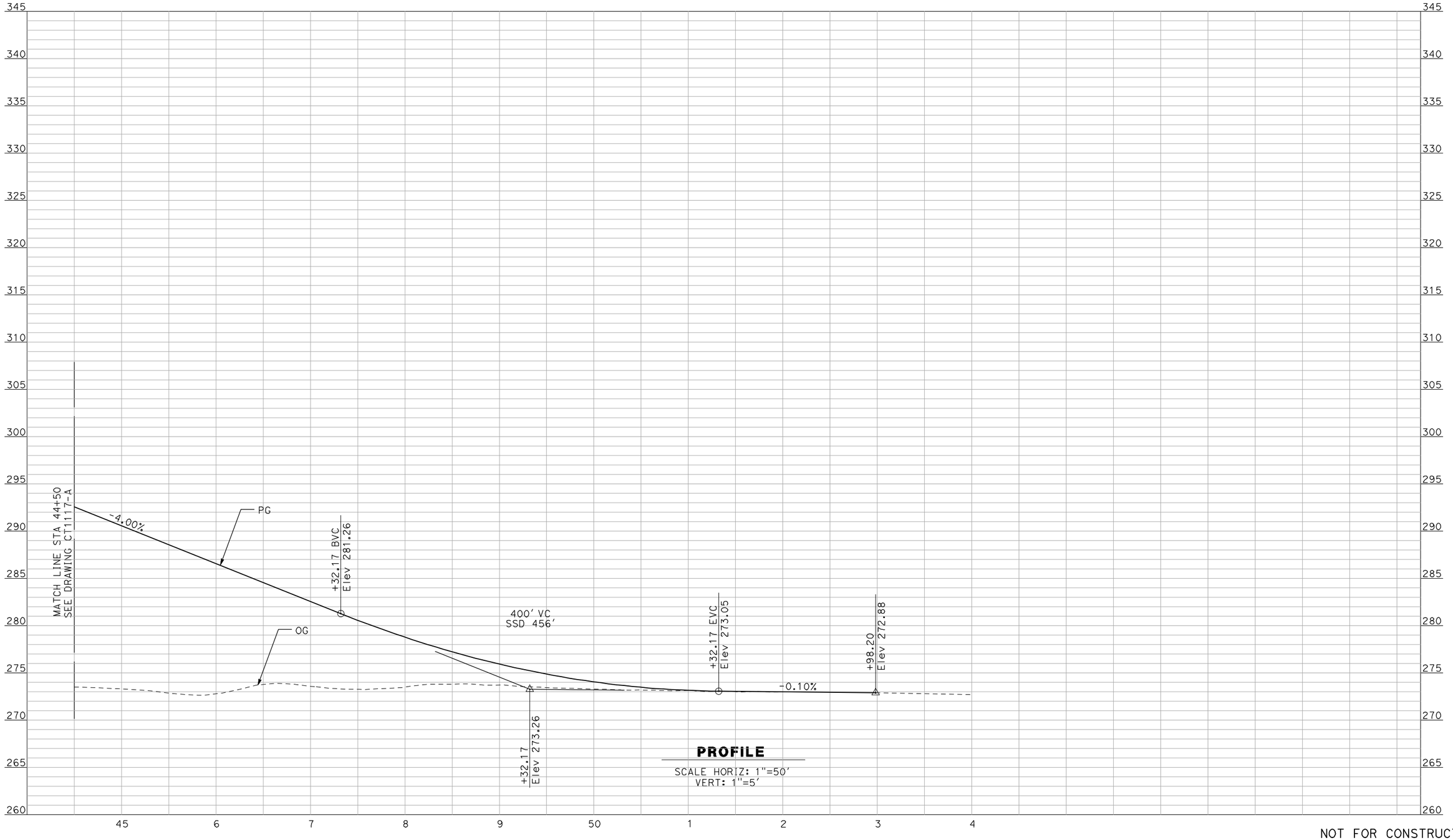

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 20 1/2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1118-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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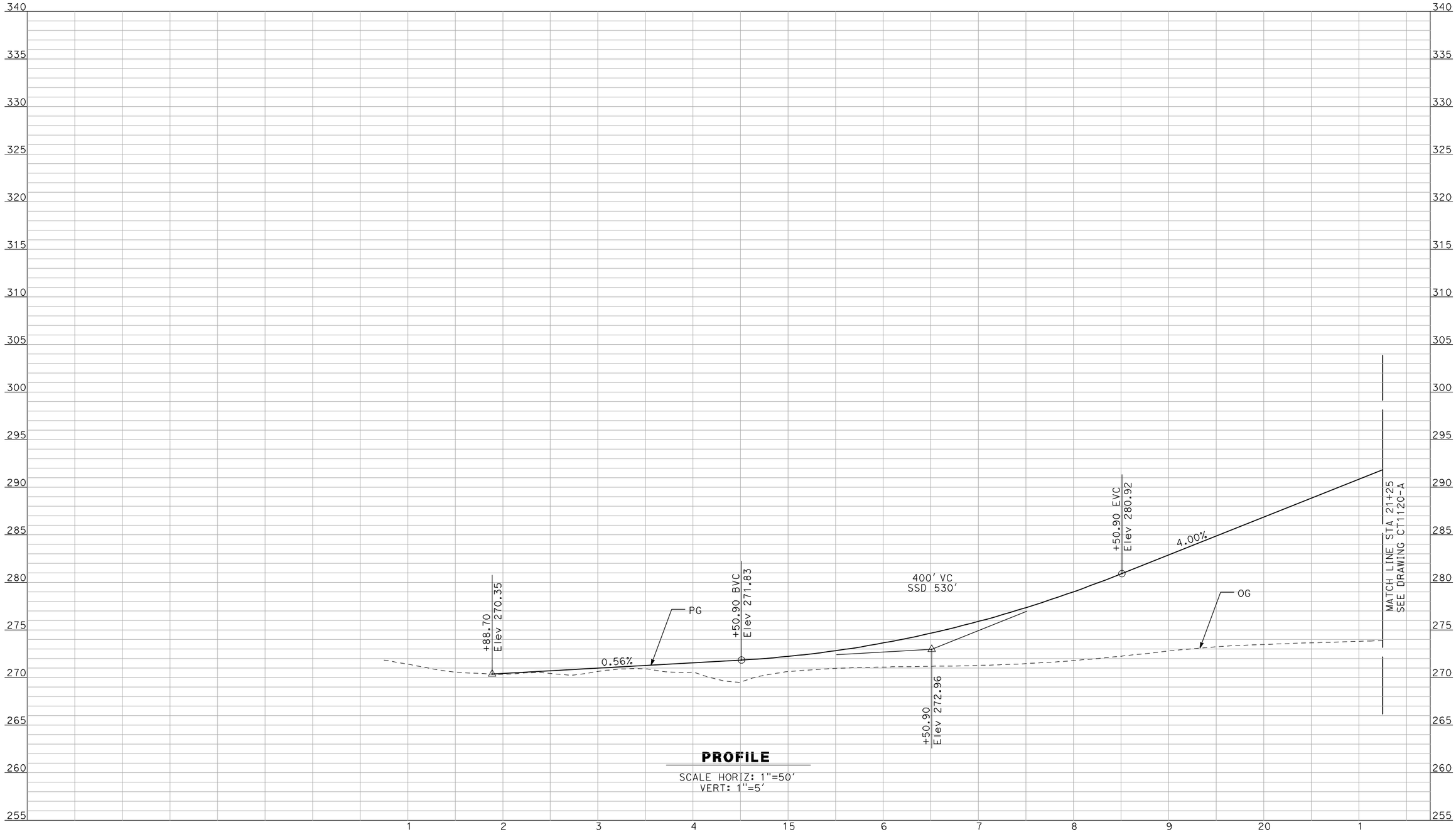

PROFILE

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1119-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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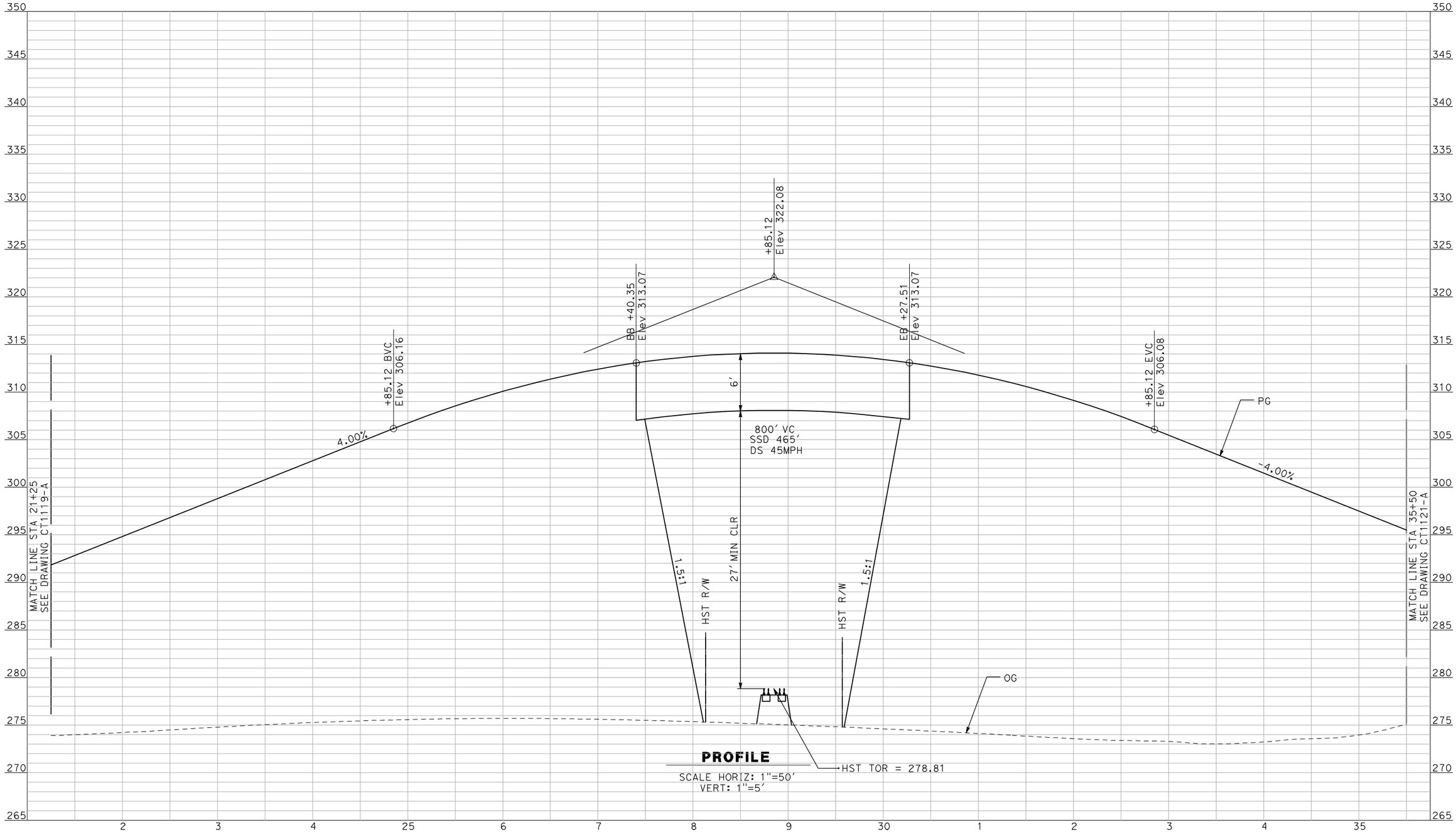

PROFILE

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1120-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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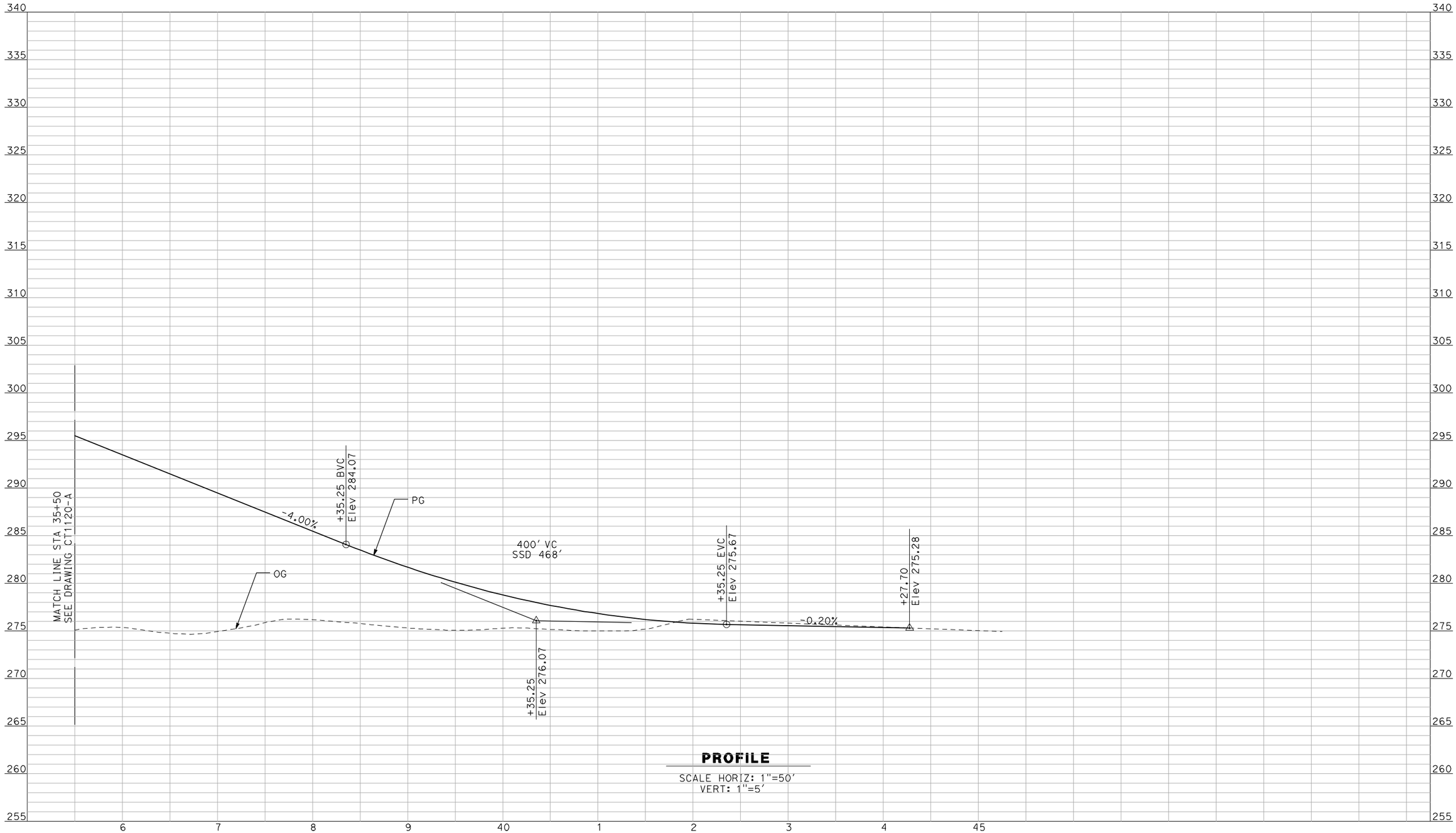

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 24
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1121-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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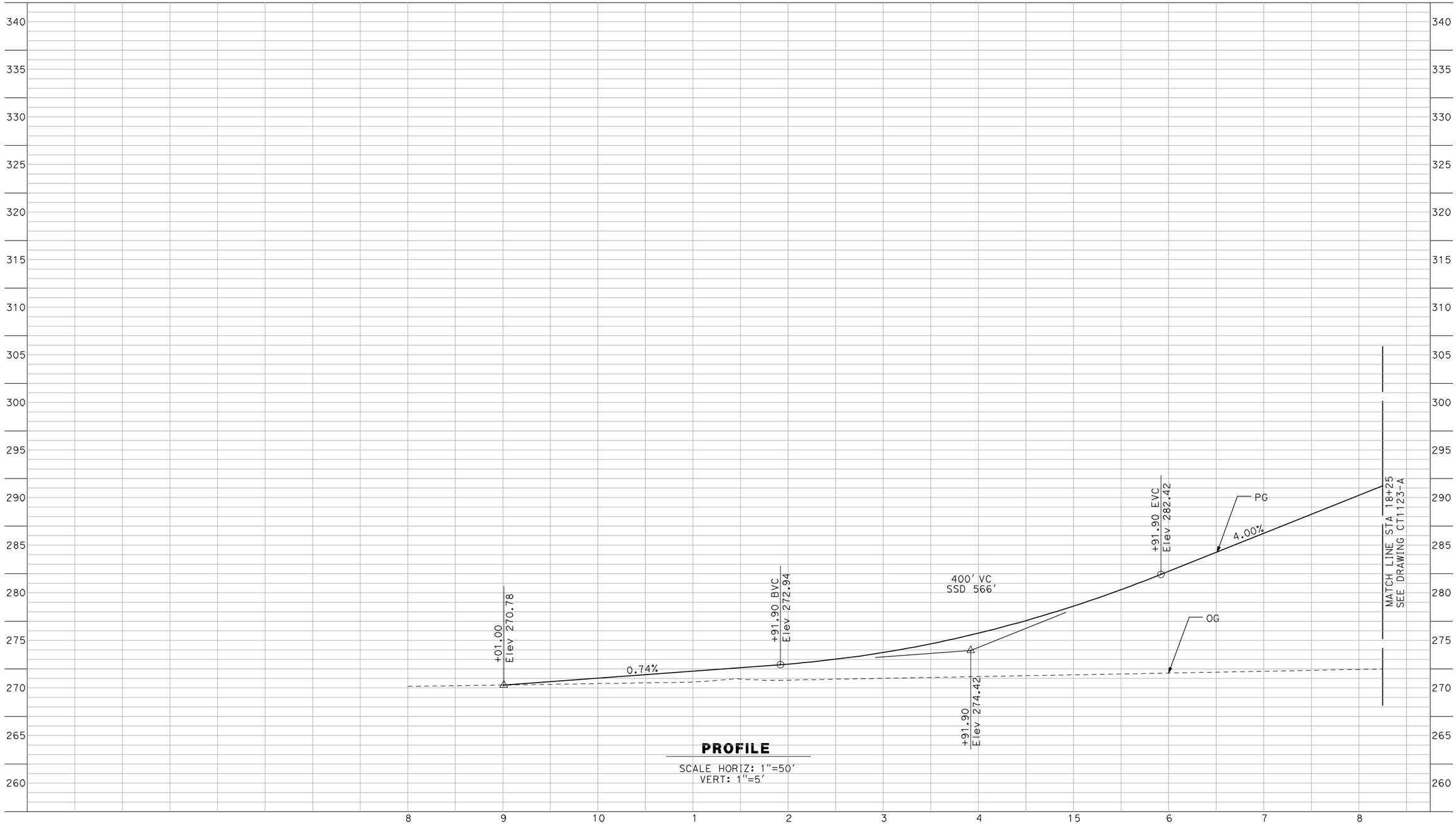

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MERCED TO FRESNO

BNSF MAIN LINE - AVE 24 WYE
GRADE SEPARATION - ROAD 22
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
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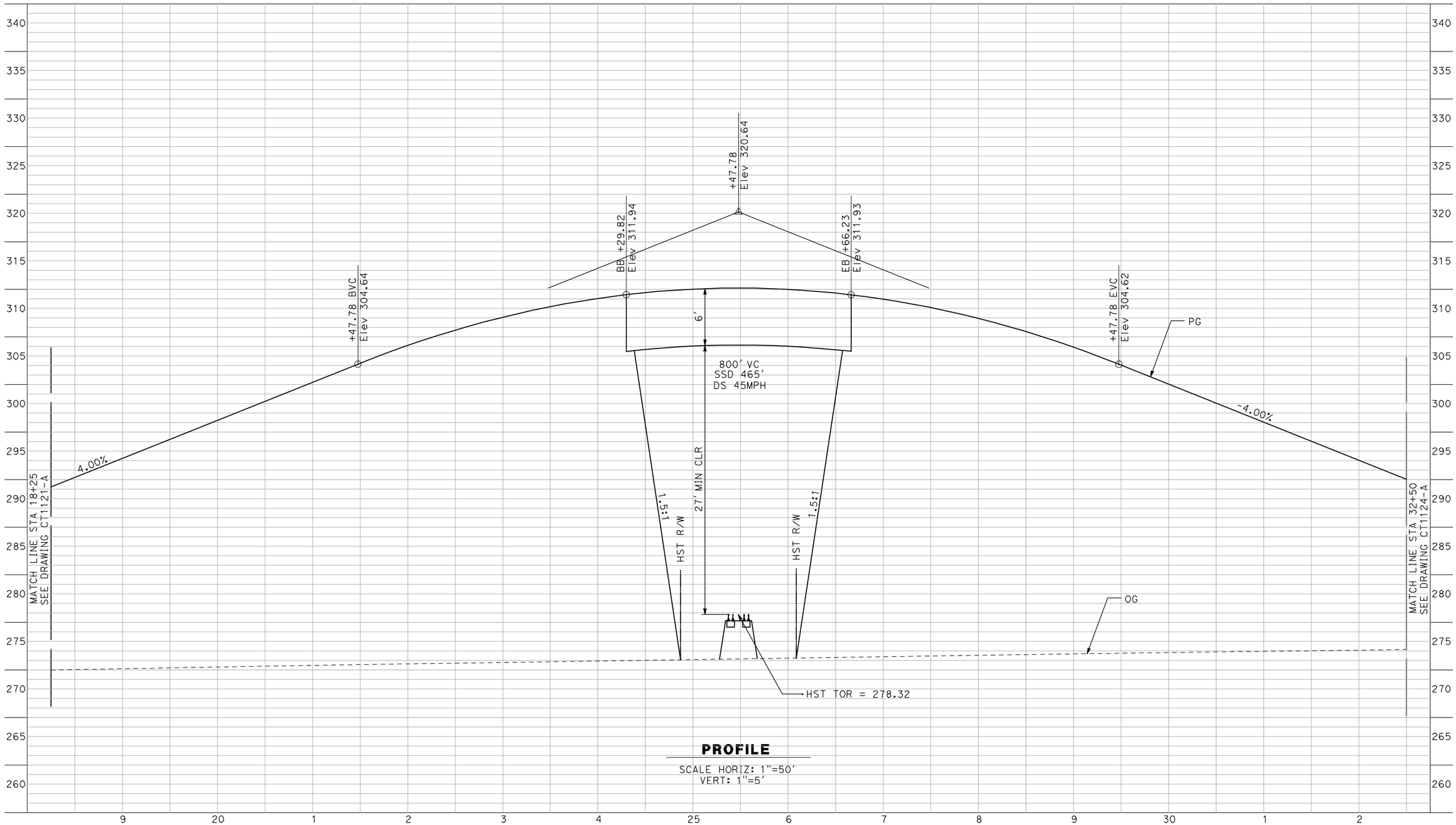

PROFILE

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 22
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1123-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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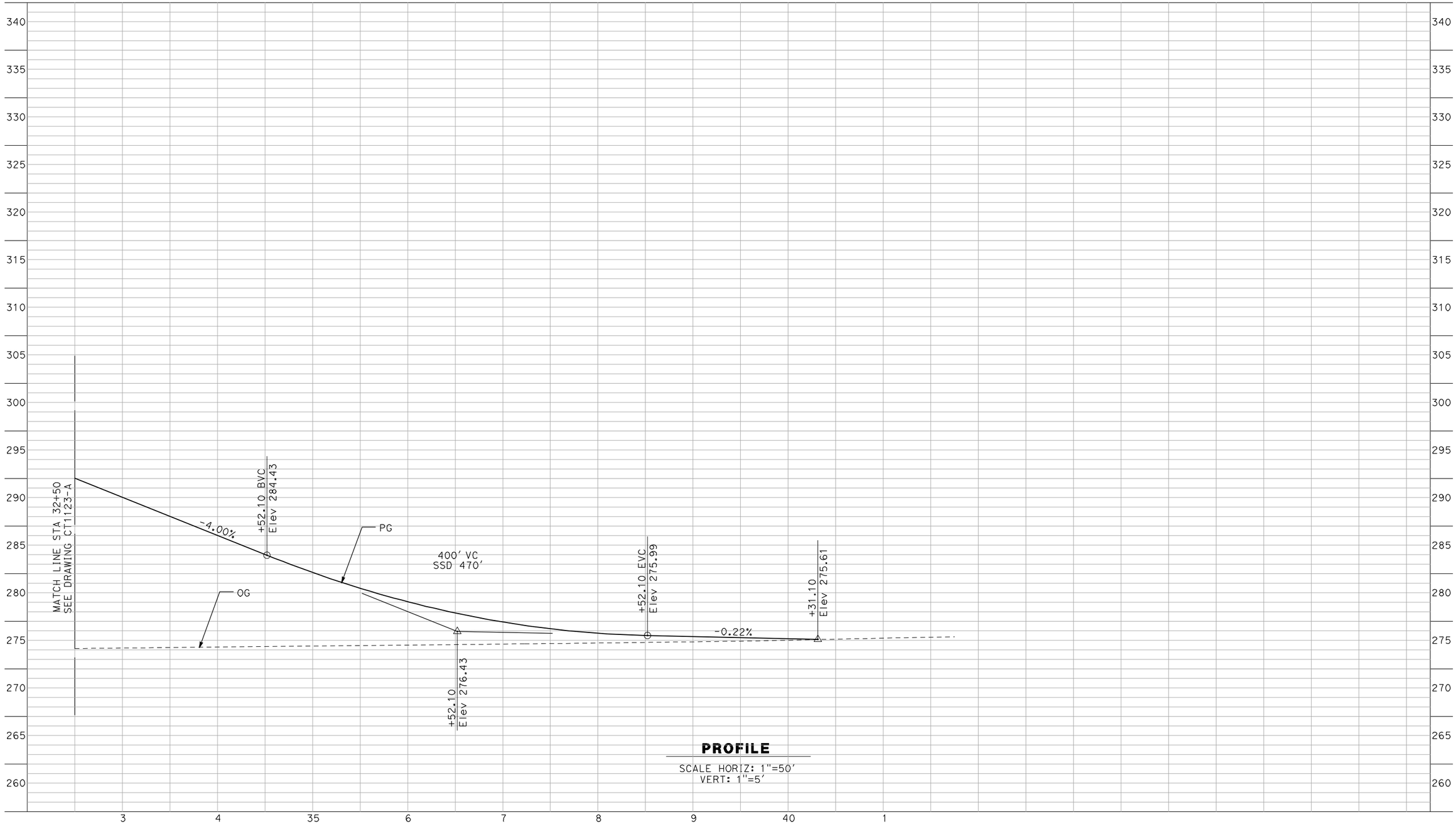

PROFILE

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 22
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1124-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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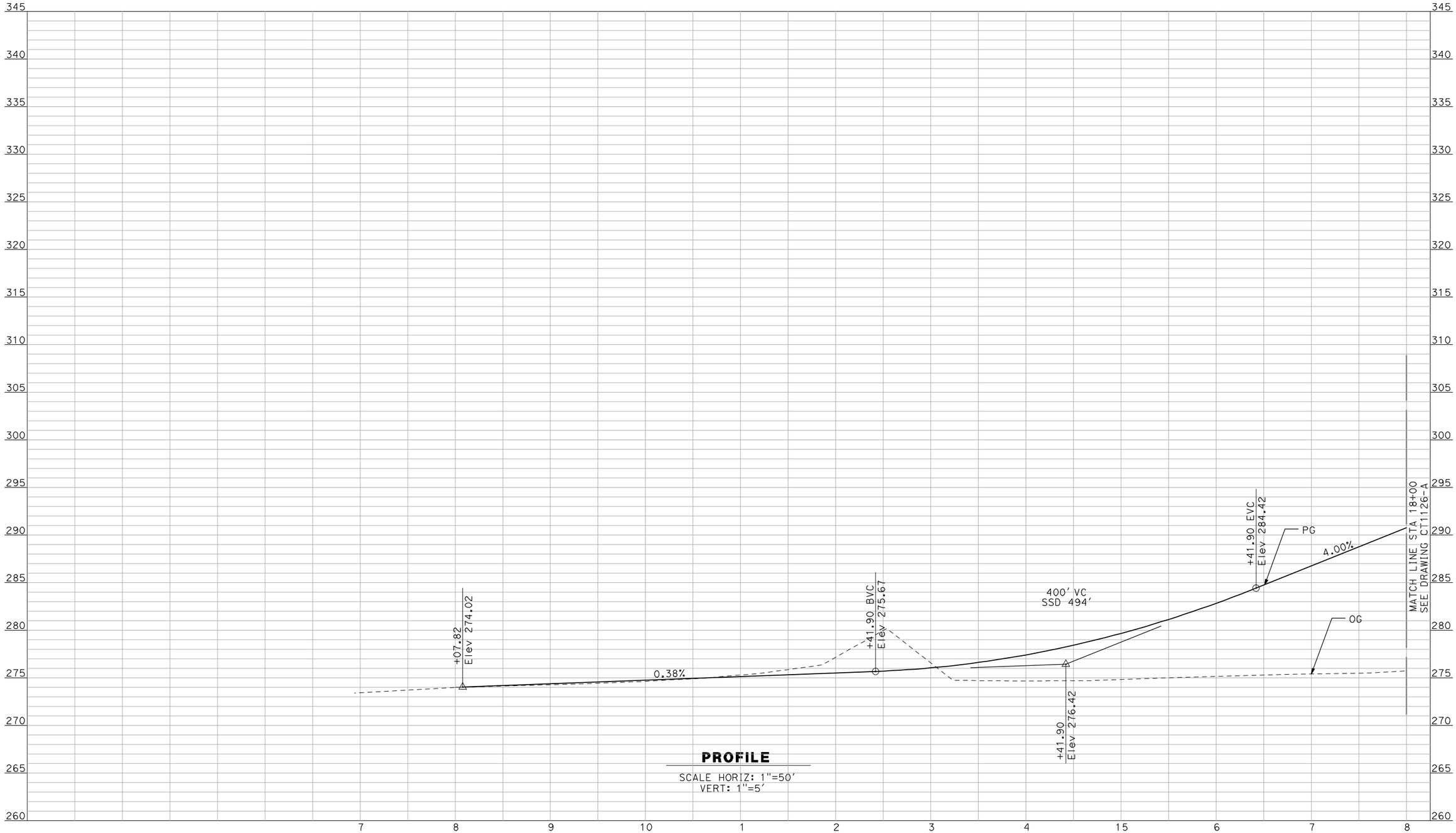

PROFILE

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VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1125-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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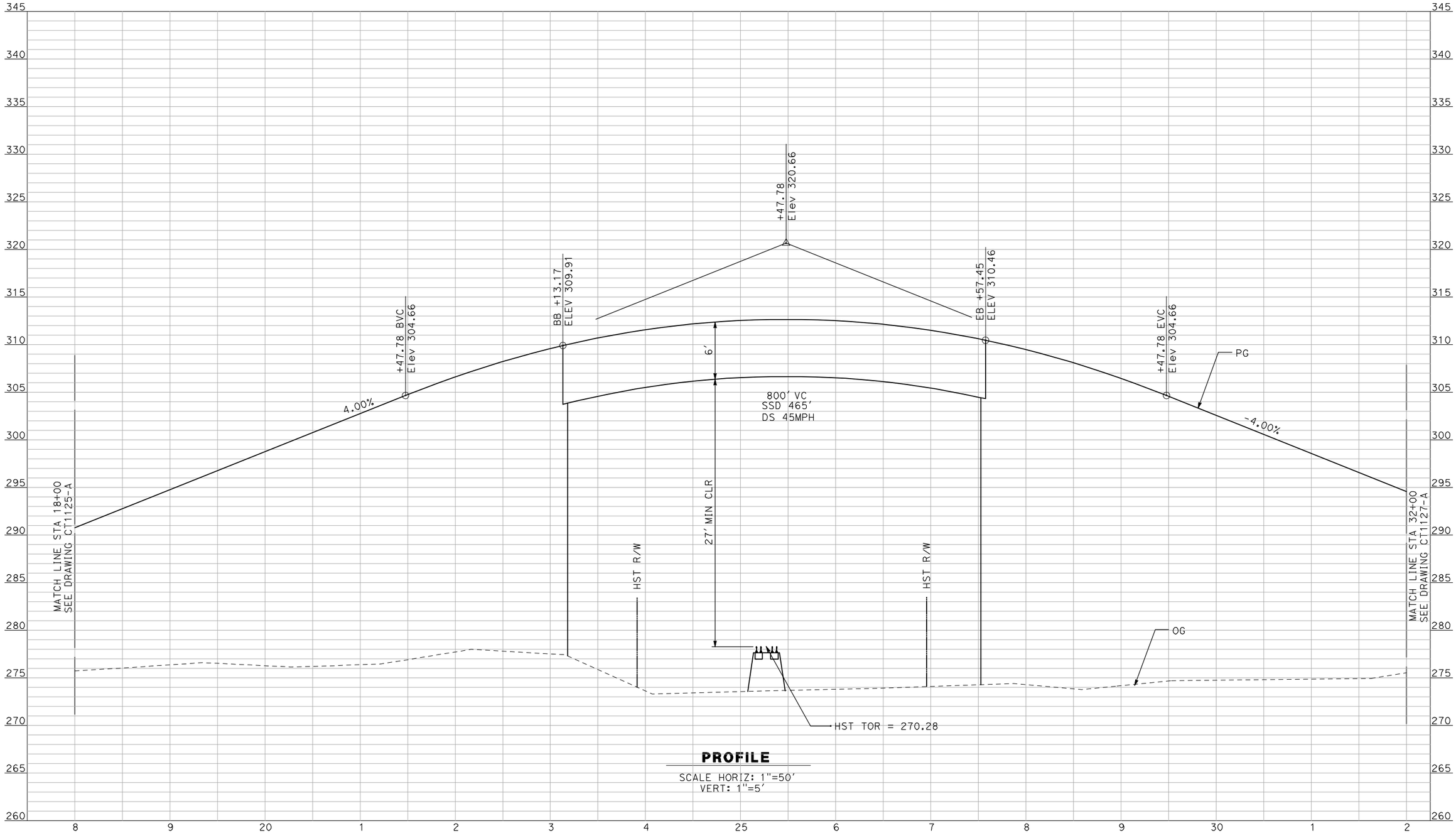

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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DESIGNED BY R. GIBSON
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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1126-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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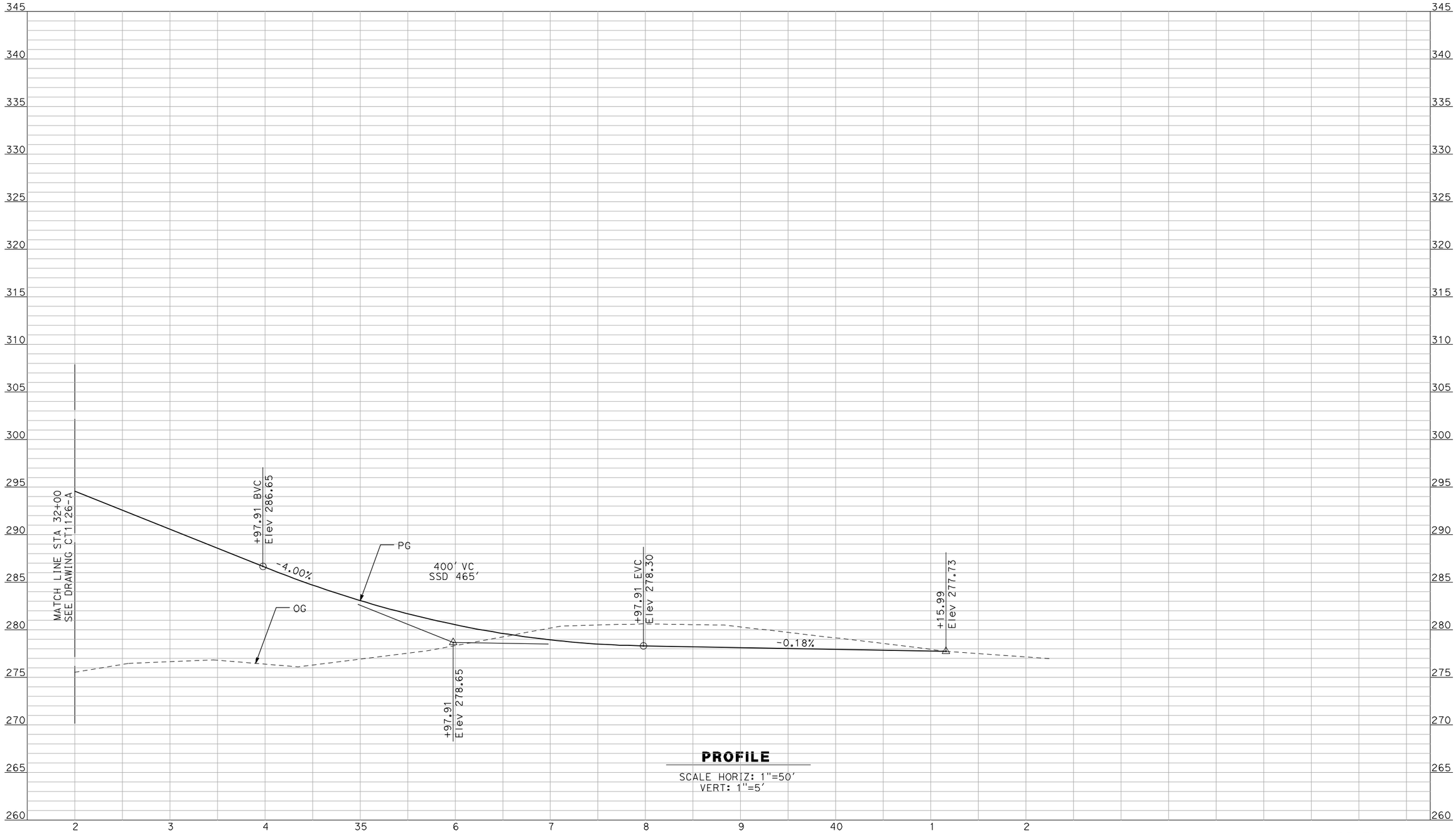

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - AVENUE 23 1/2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1127-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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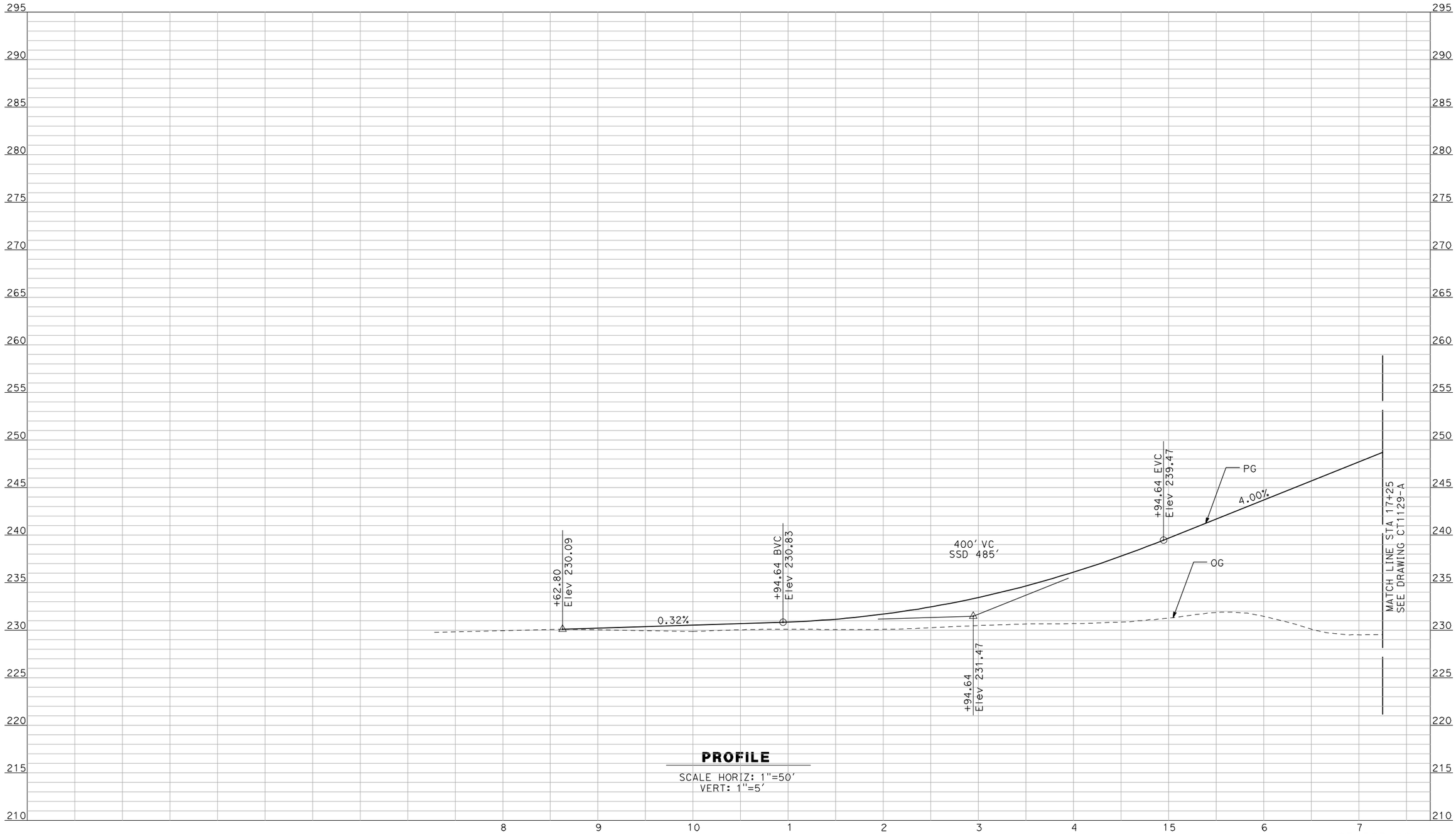

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1128-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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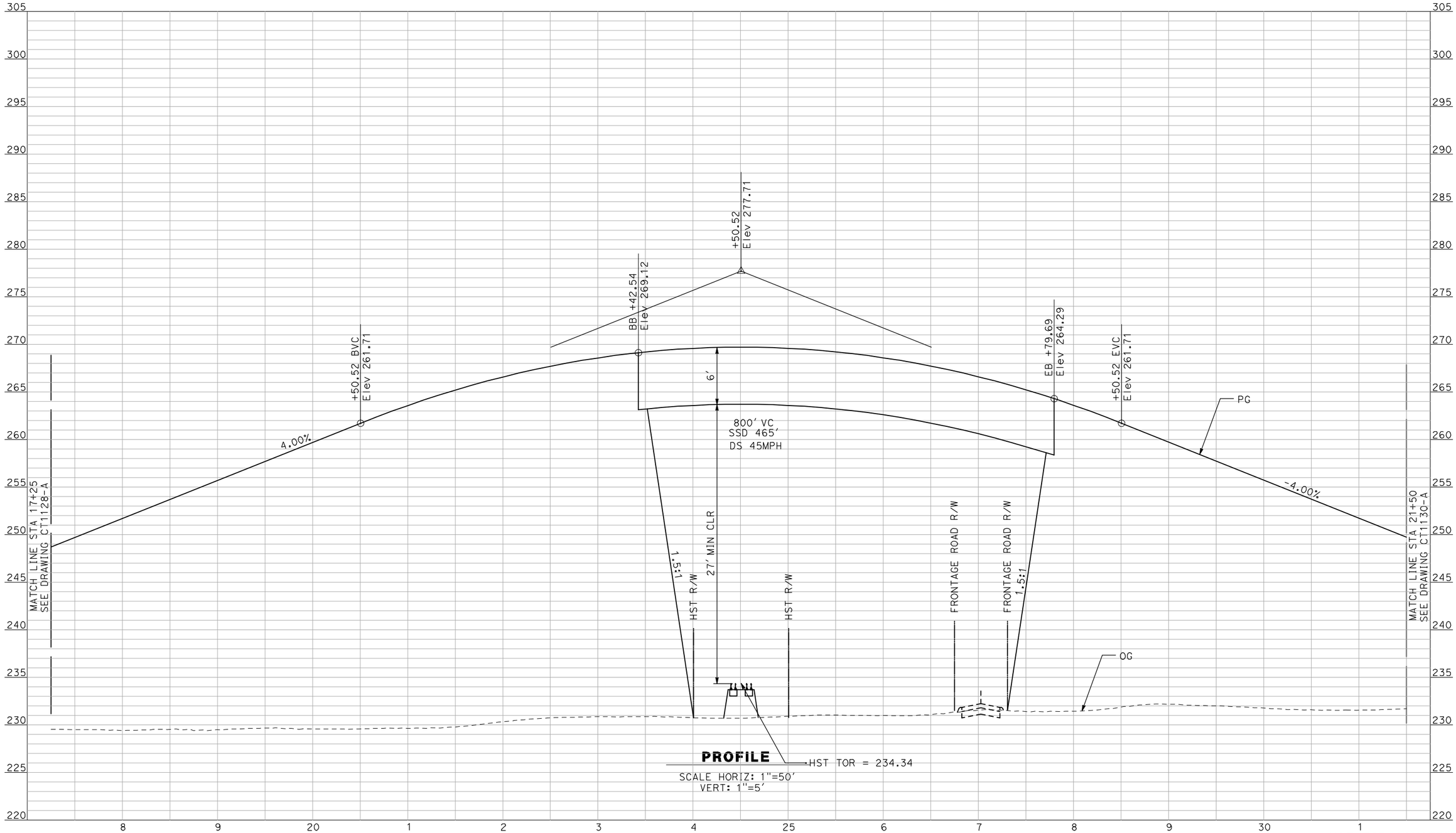

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1129-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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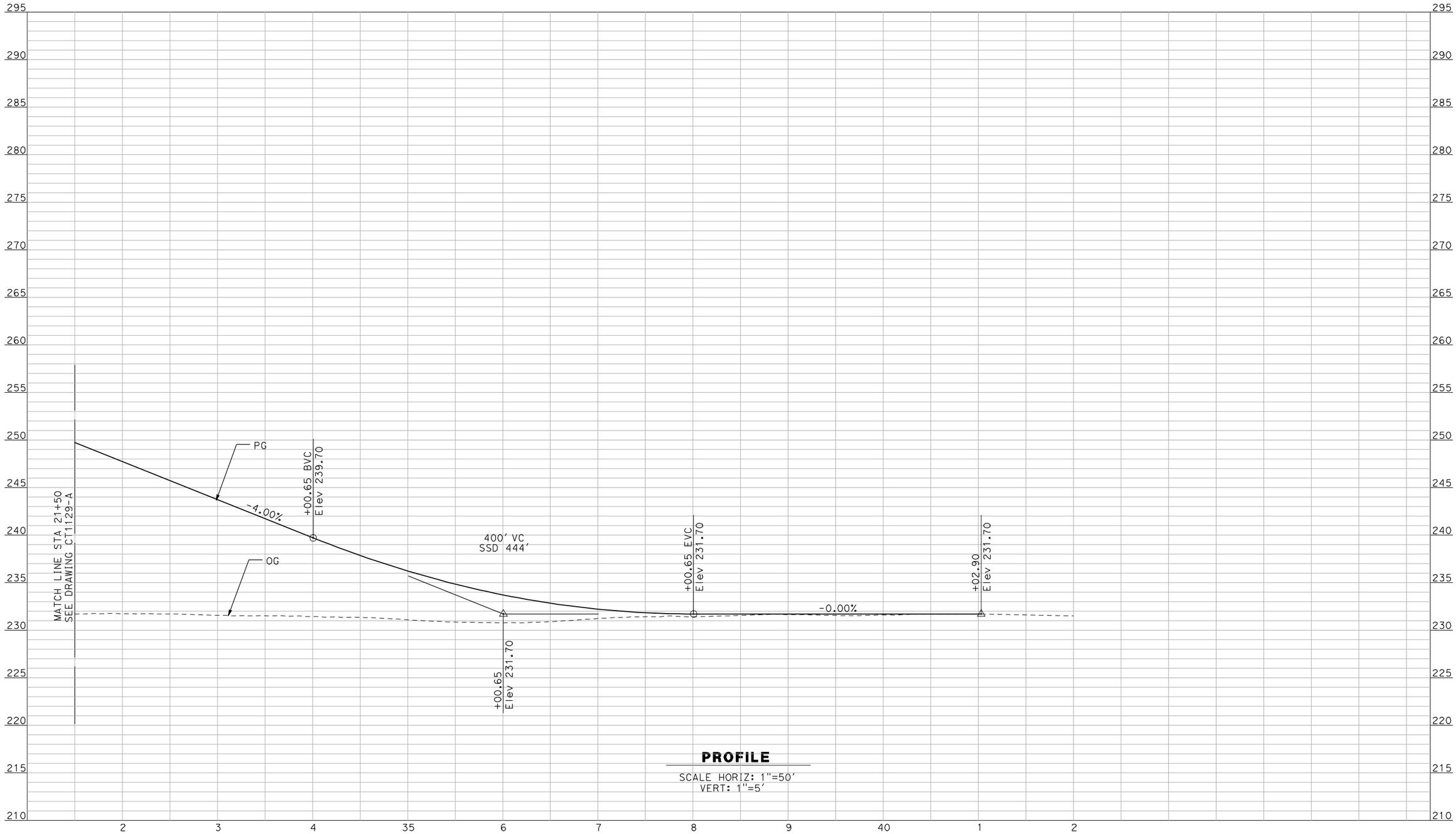

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 16
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1130-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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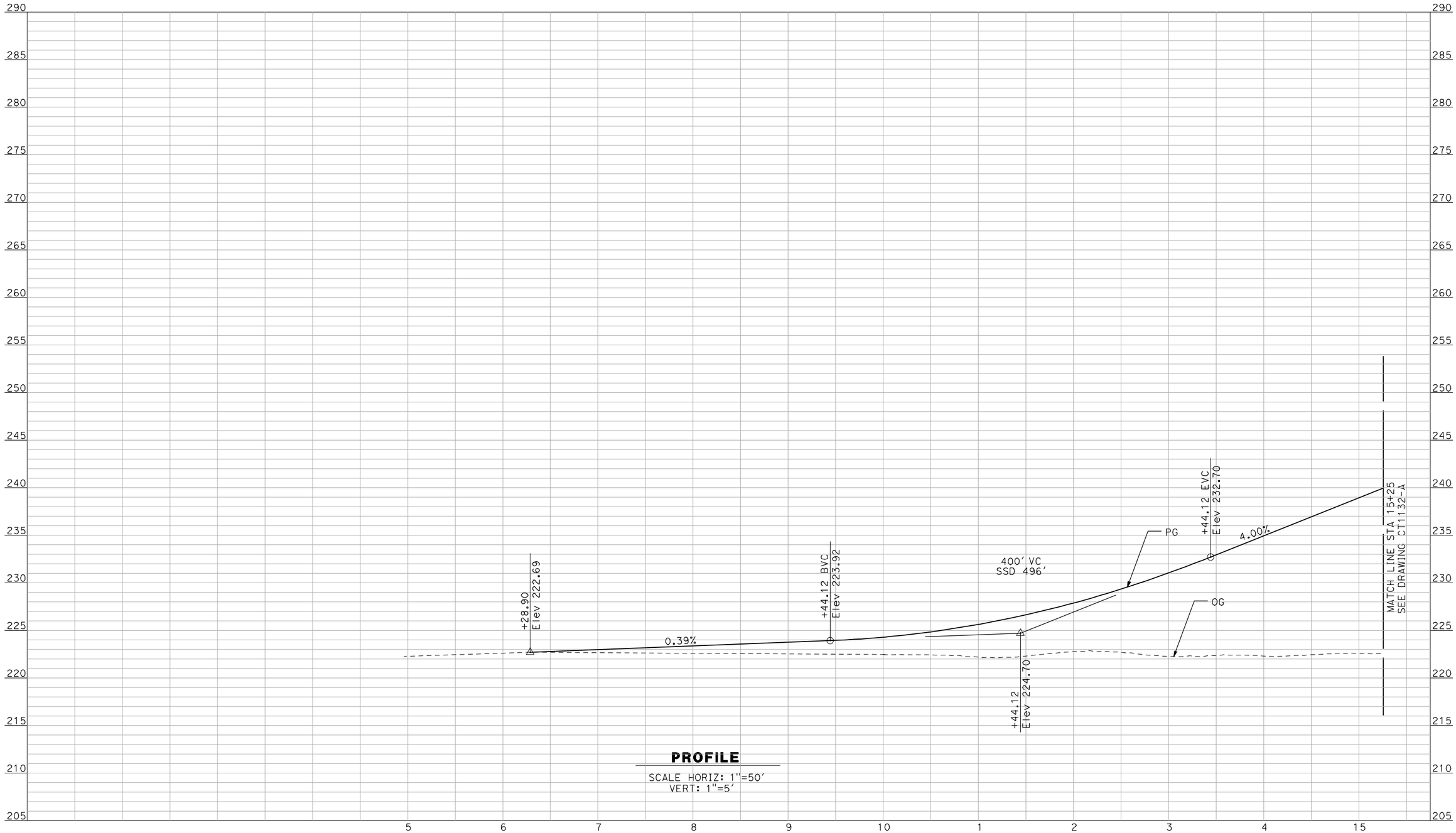

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1131-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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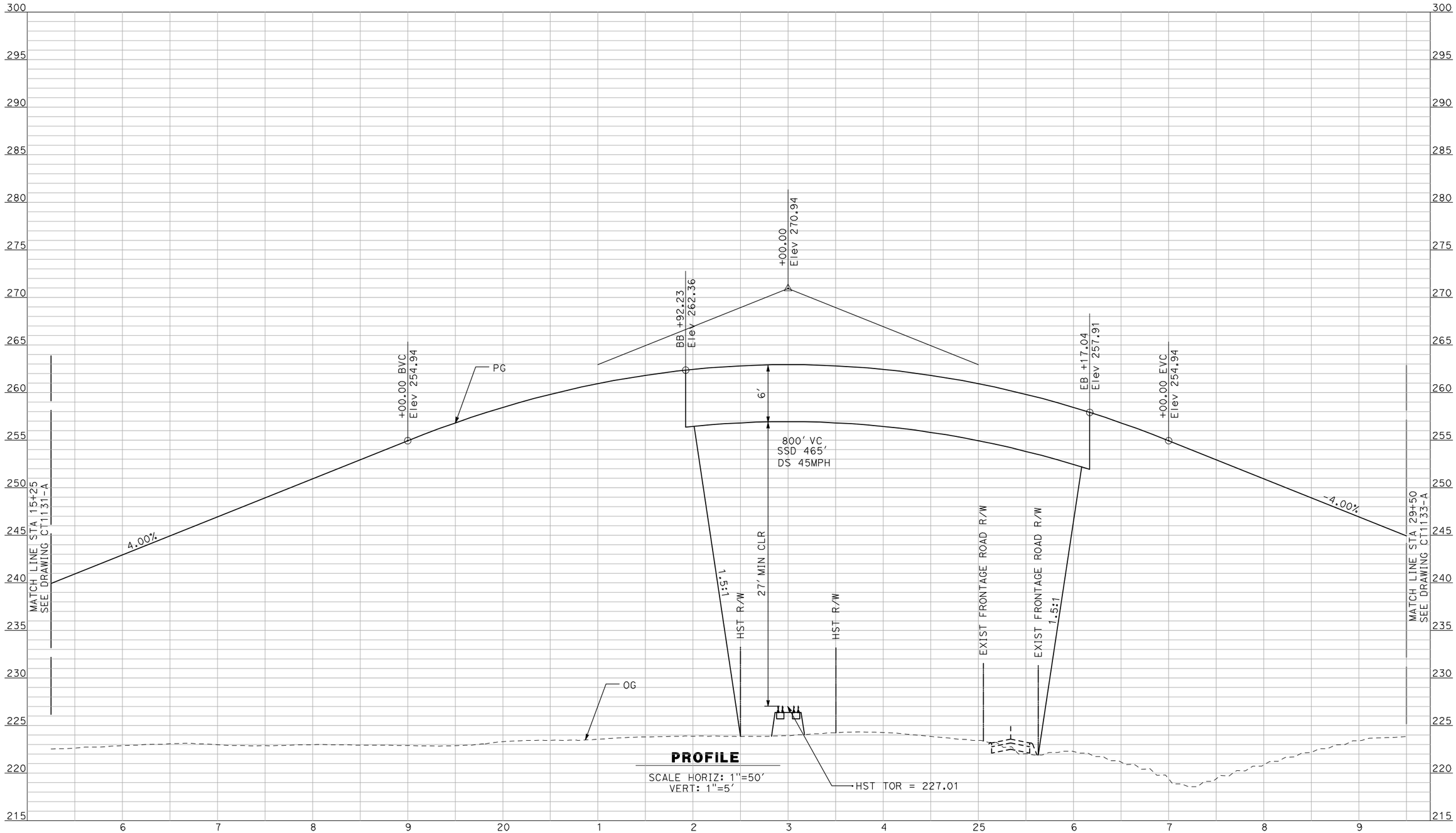

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1132-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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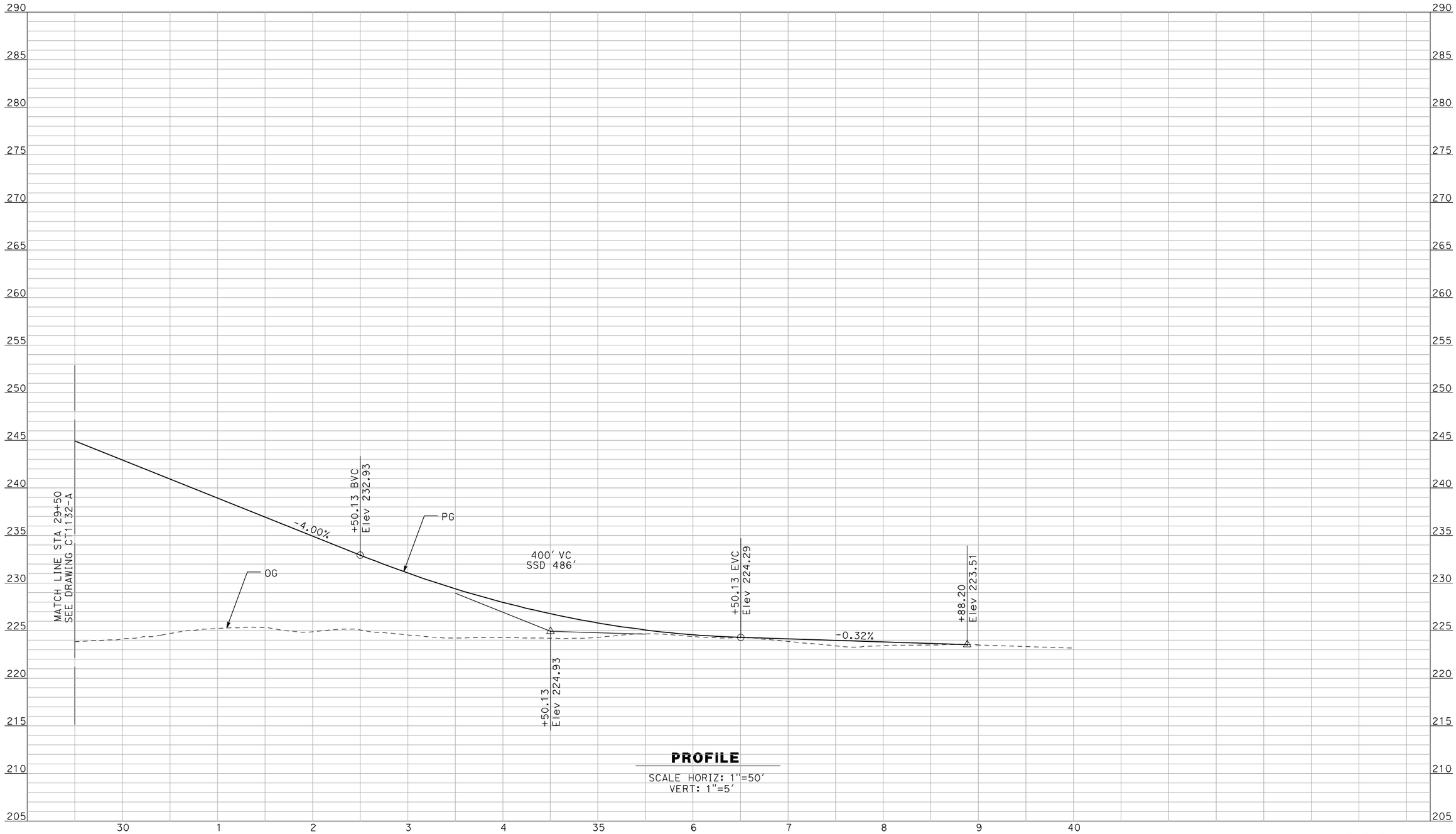

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 15
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1133-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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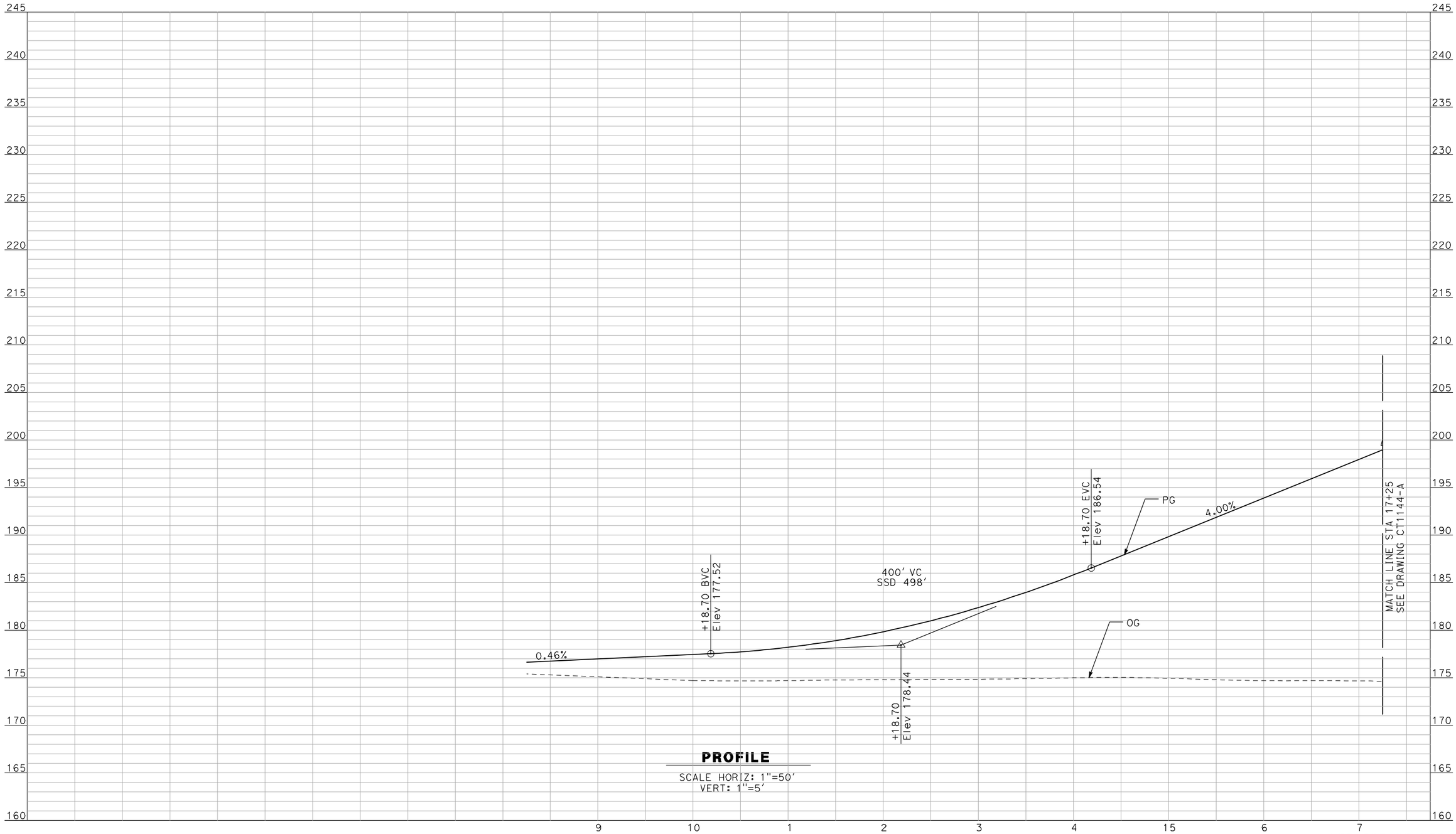

PROFILE

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VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1143-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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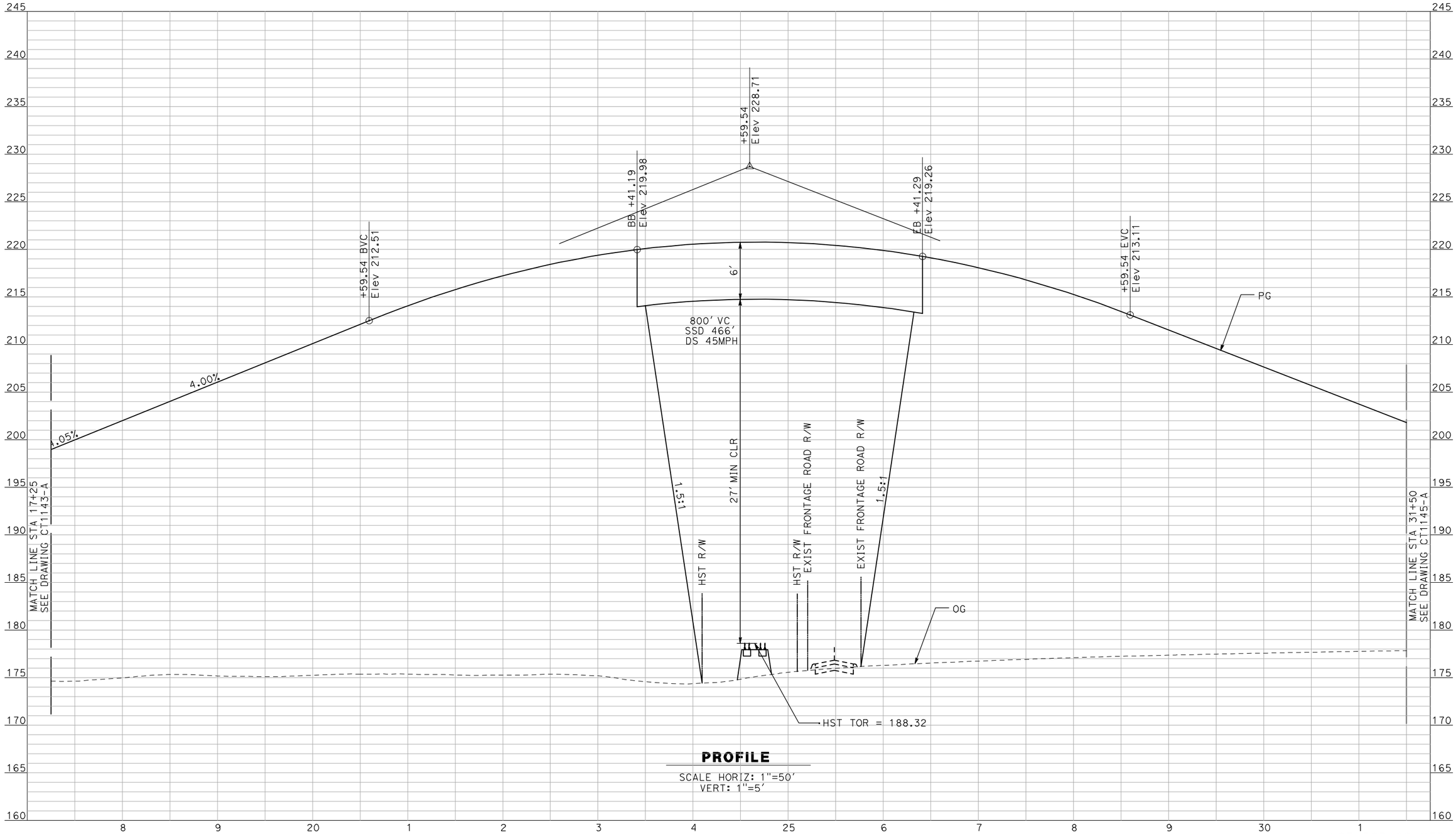

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1144-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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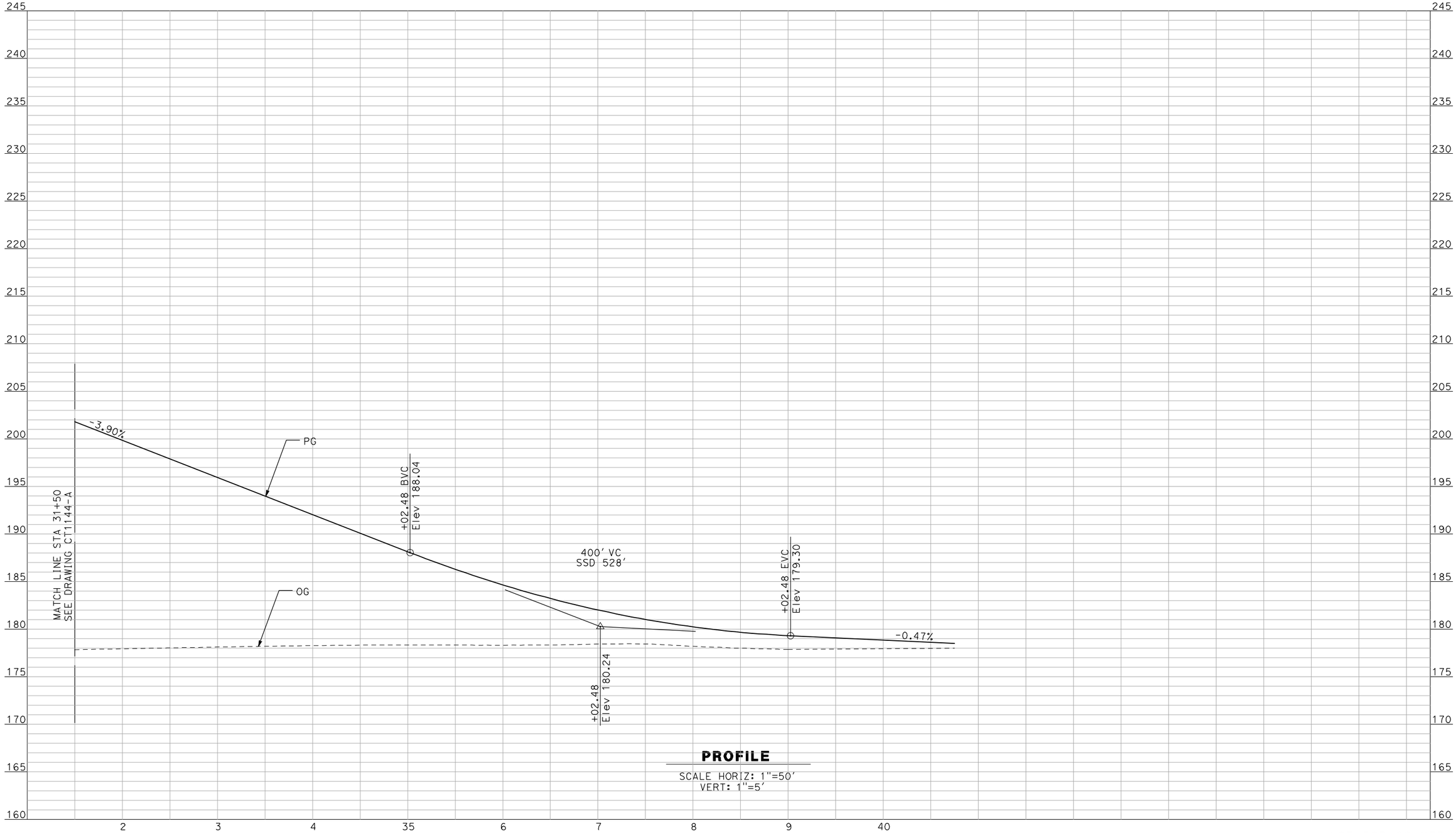

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAIN LINE - (HYBRID)
GRADE SEPARATION - ROAD 9
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1145-A
SCALE AS SHOWN
SHEET NO. OF ###

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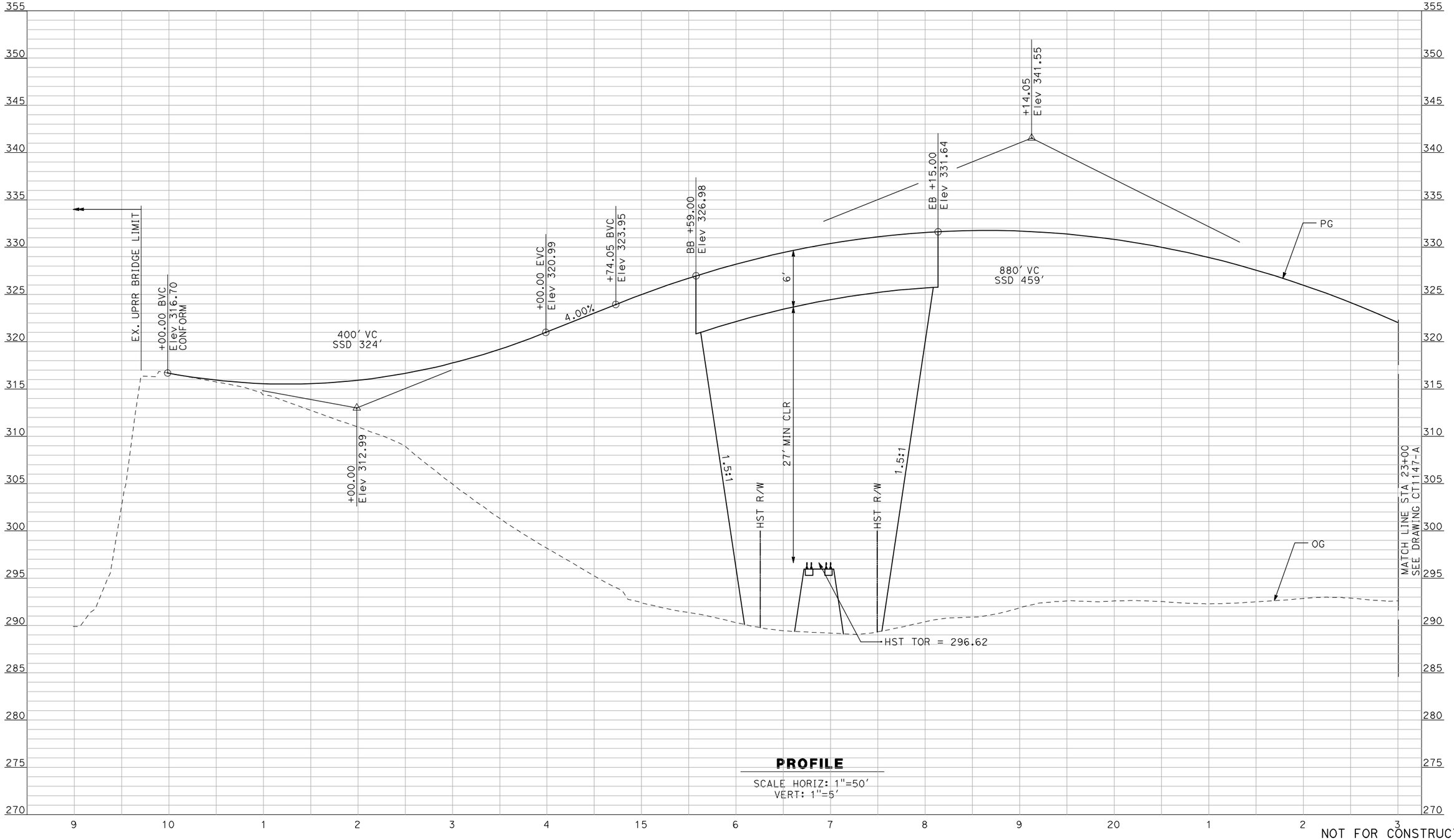

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1146-A
SCALE AS SHOWN
SHEET NO. OF ###

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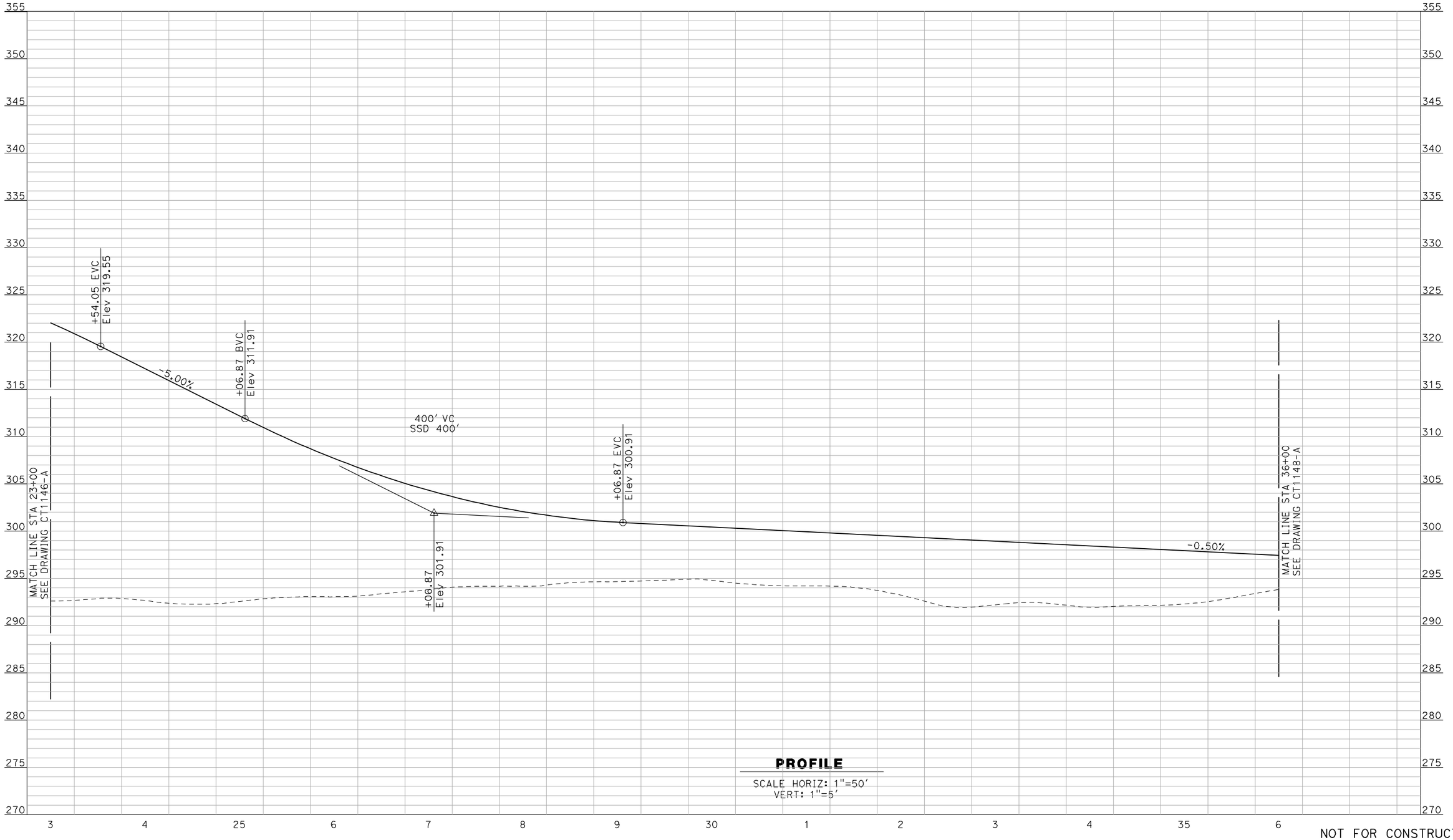

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1147-A
SCALE AS SHOWN
SHEET NO. OF ###

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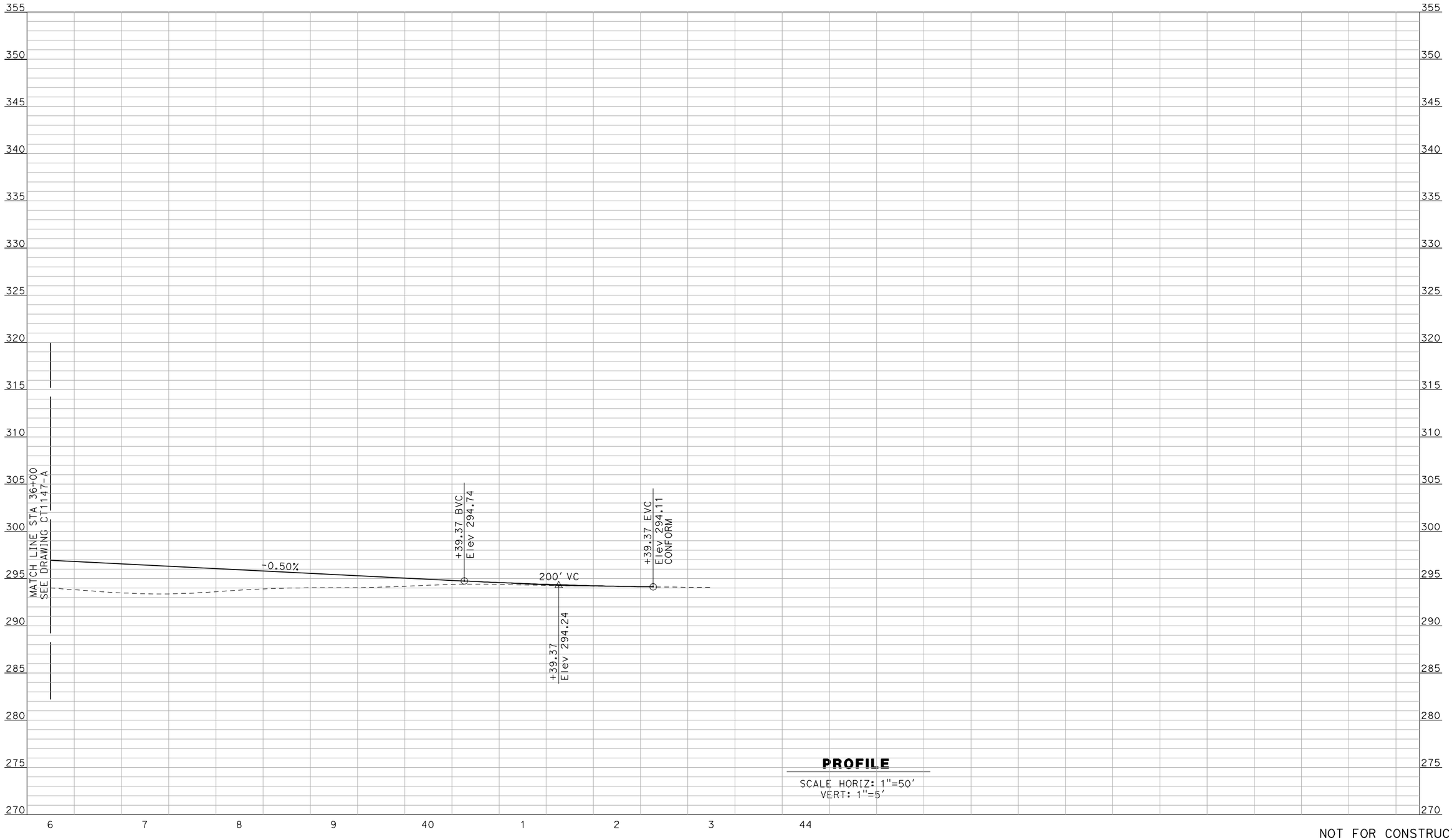

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 7
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT1148-A
SCALE AS SHOWN
SHEET NO. OF ###

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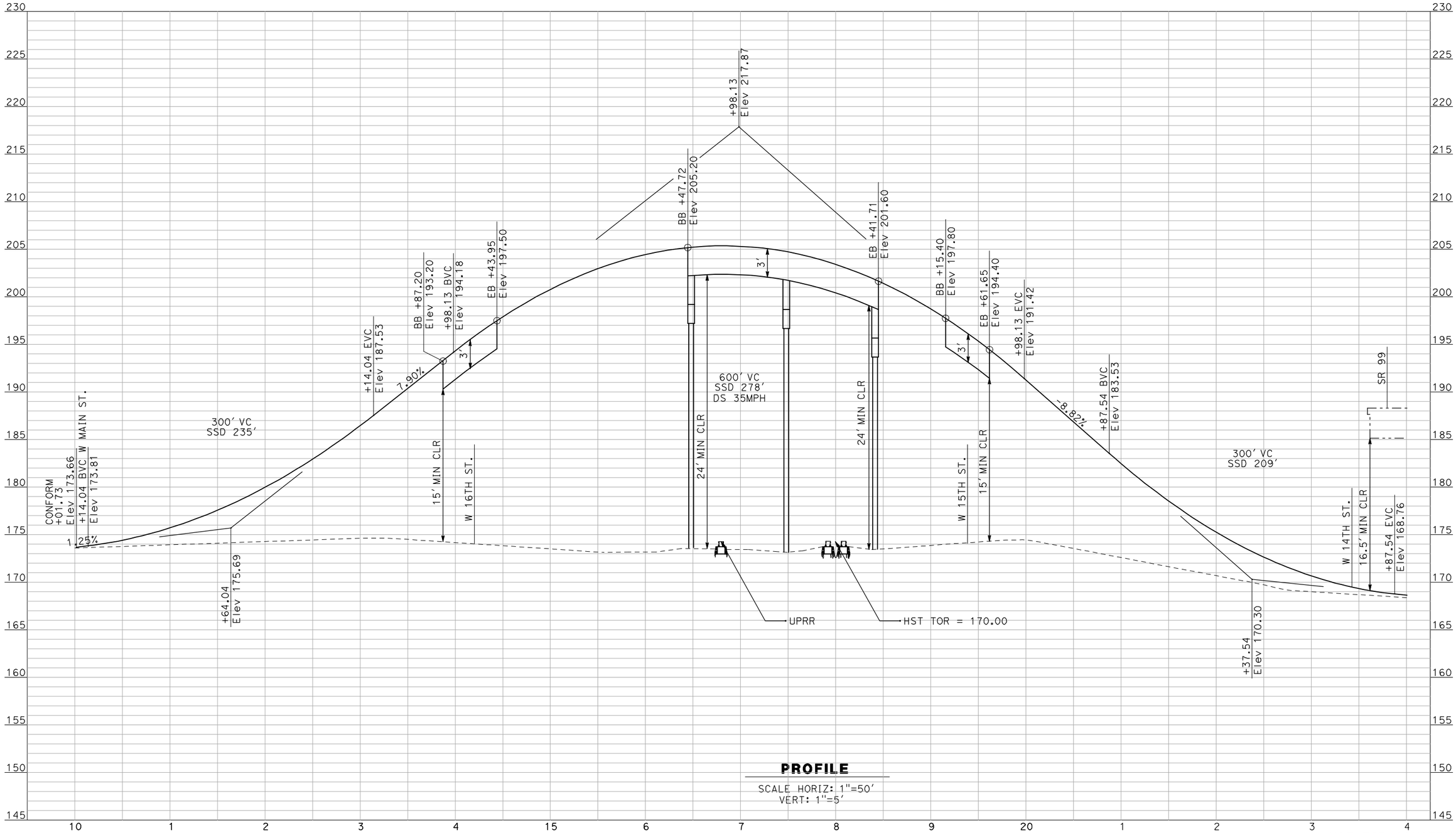

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION - HYBRID
GRADE SEPARATION - G Street
PROFILE
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CT1149-A
SCALE AS SHOWN
SHEET NO. OF ###

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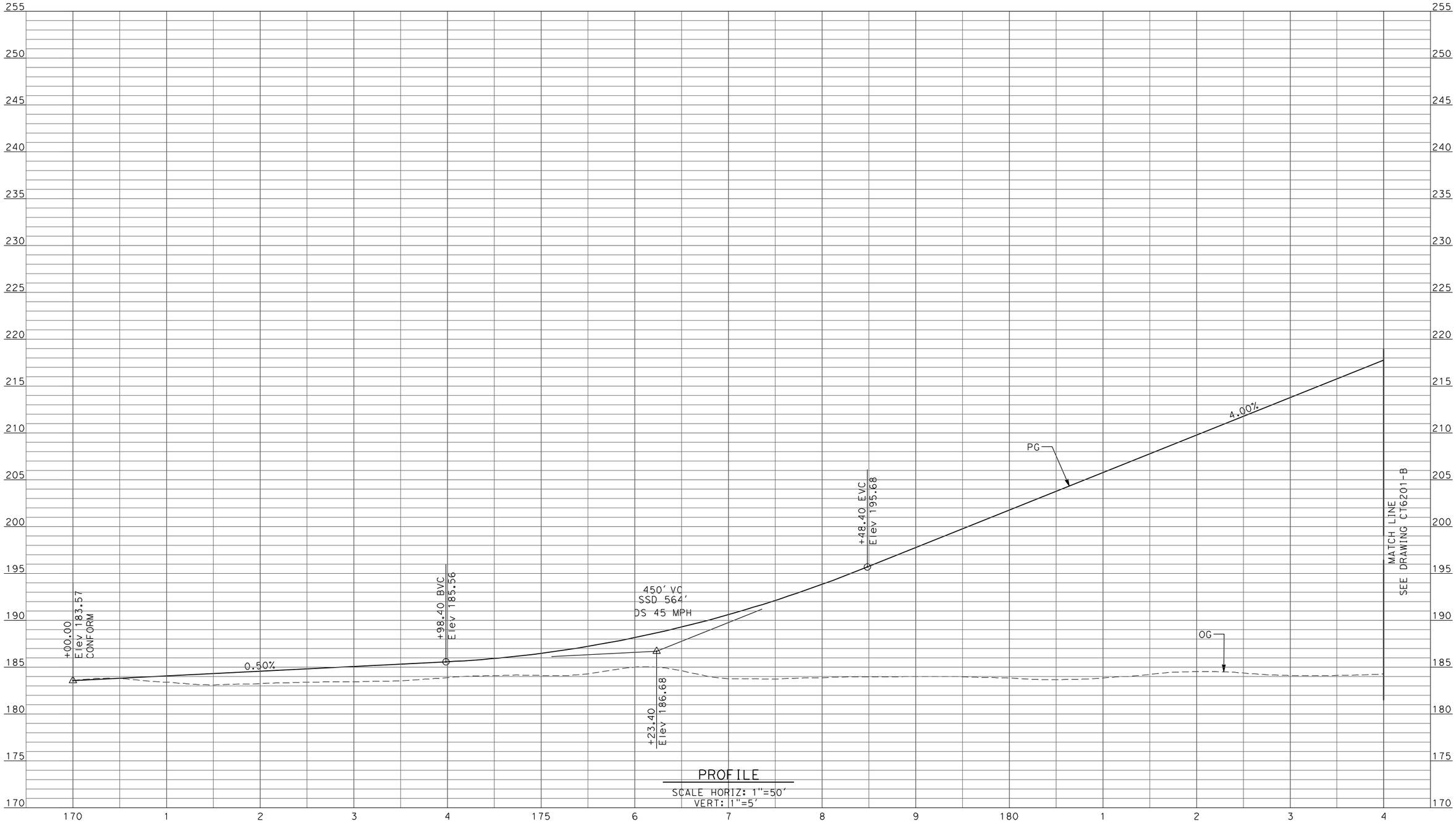

PROFILE

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VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6200-B
SCALE AS SHOWN
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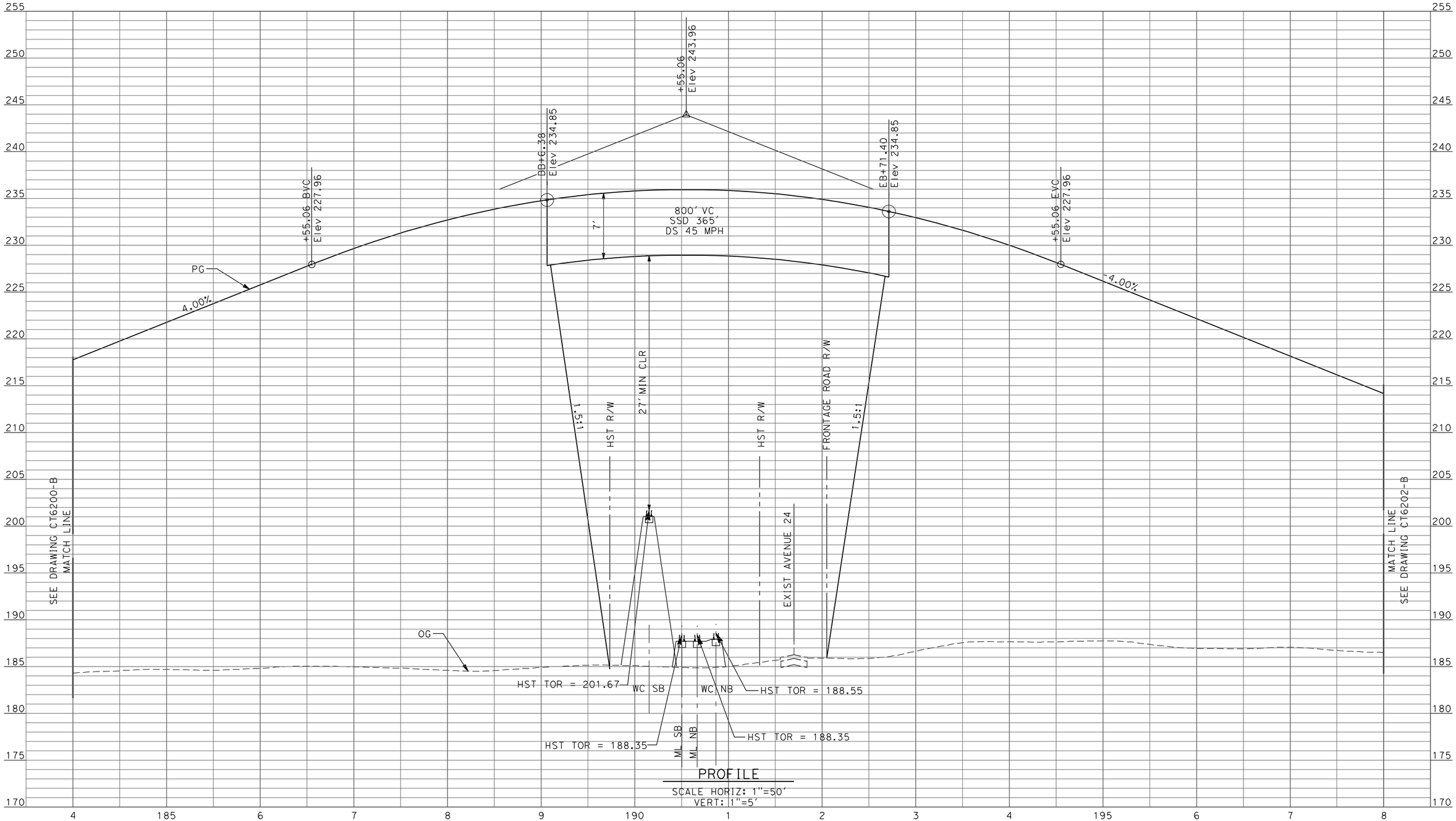

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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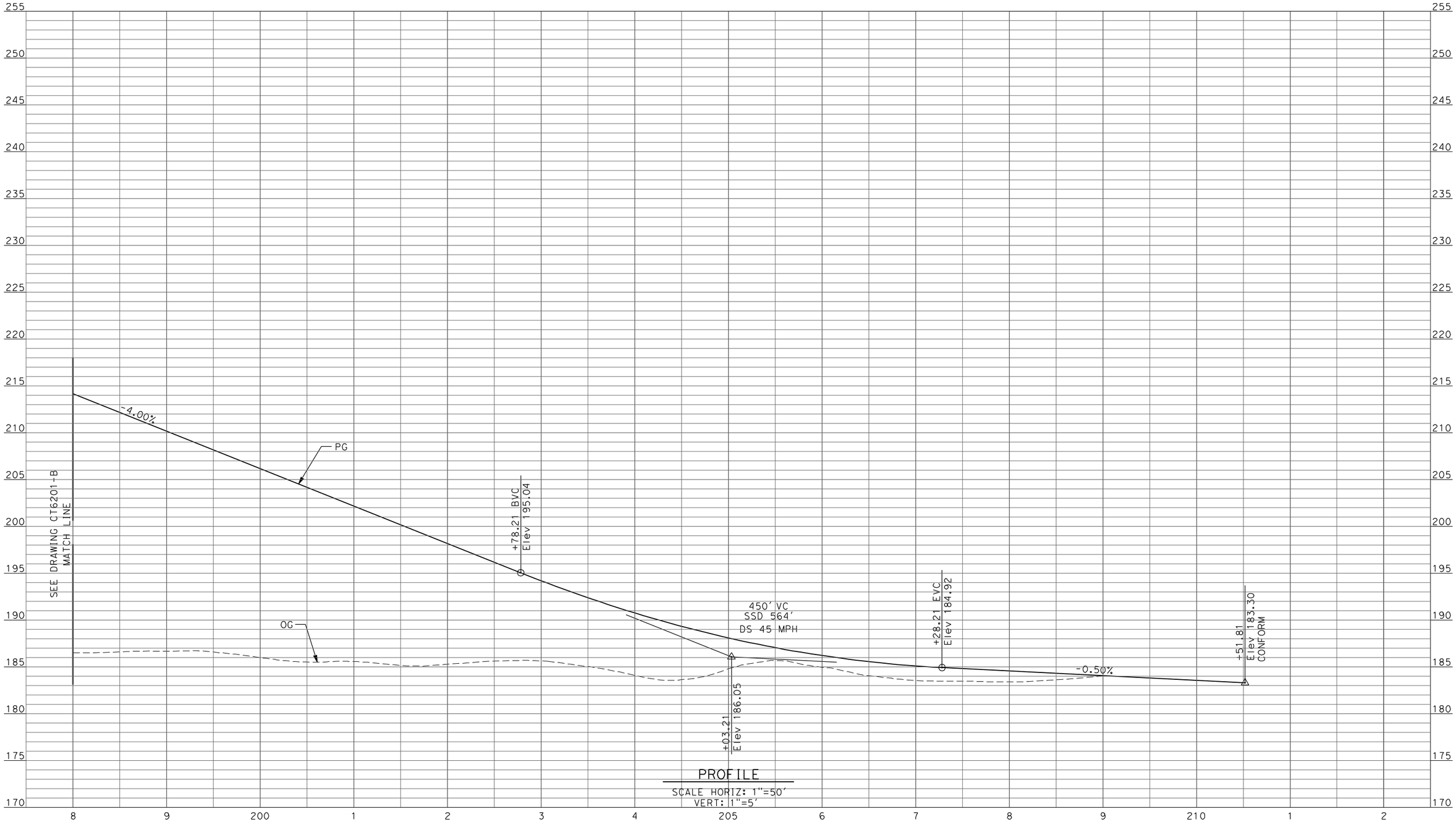

PROFILE

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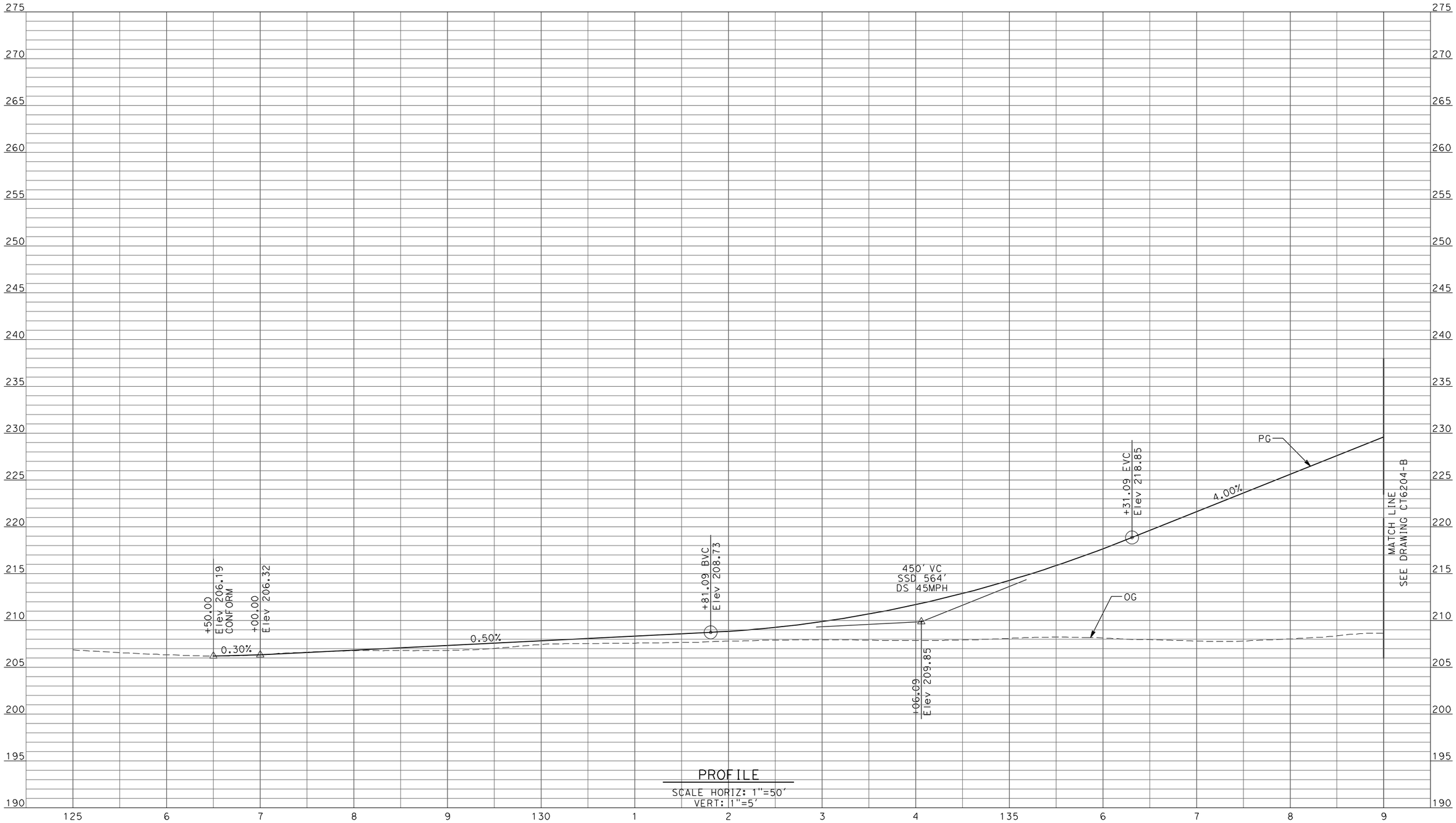
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALT 1
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6202-B
SCALE AS SHOWN
SHEET NO. ### OF ###



PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
PROFILE
SHEET 1 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT6203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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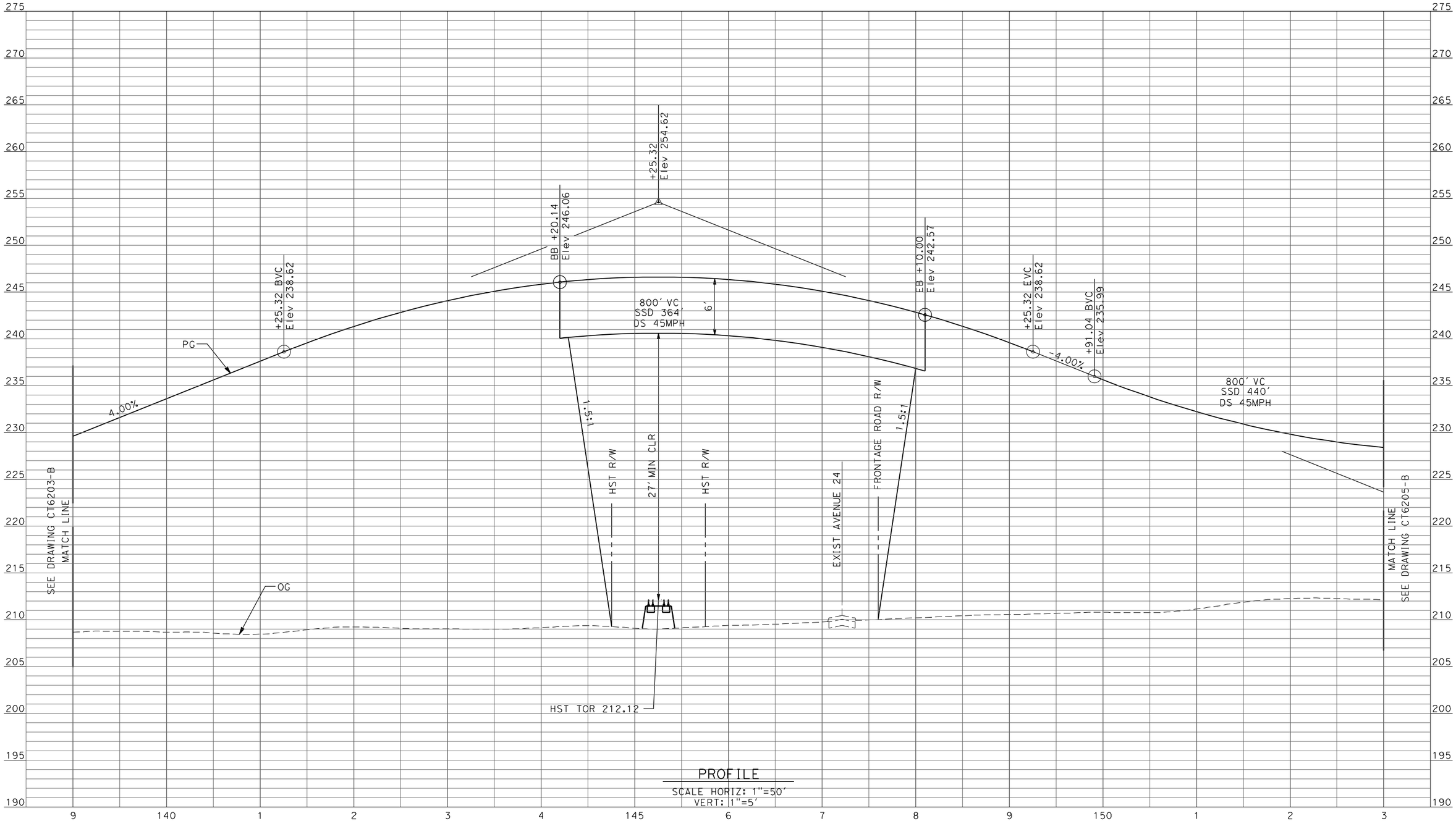

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
PROFILE
SHEET 2 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT6204-B
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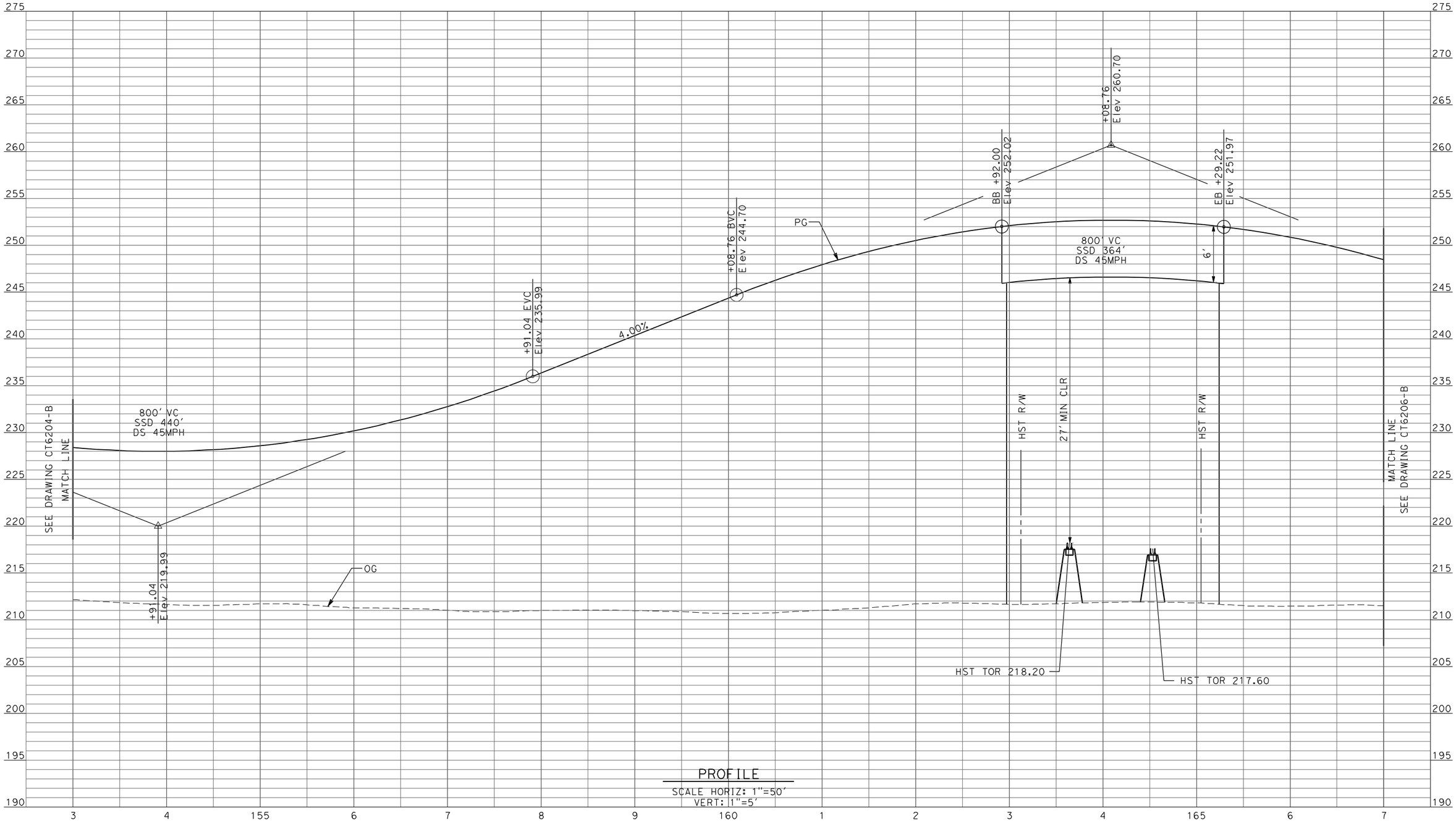

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
PROFILE
SHEET 3 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT6205-B
SCALE AS SHOWN
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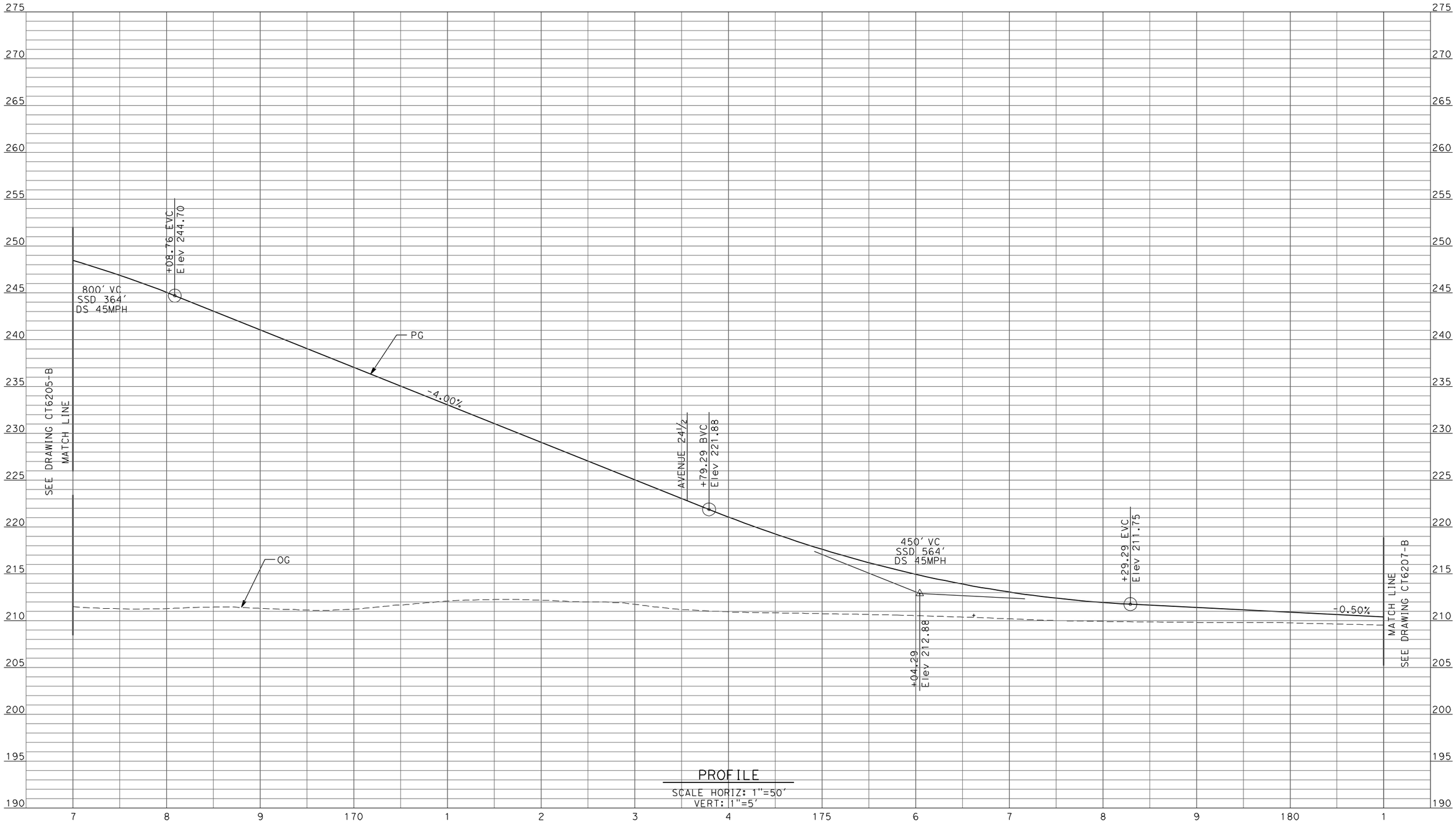

PROFILE

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VERT: 1"=5'

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GRADE SEPARATION - ROAD 13
PROFILE
SHEET 4 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT6206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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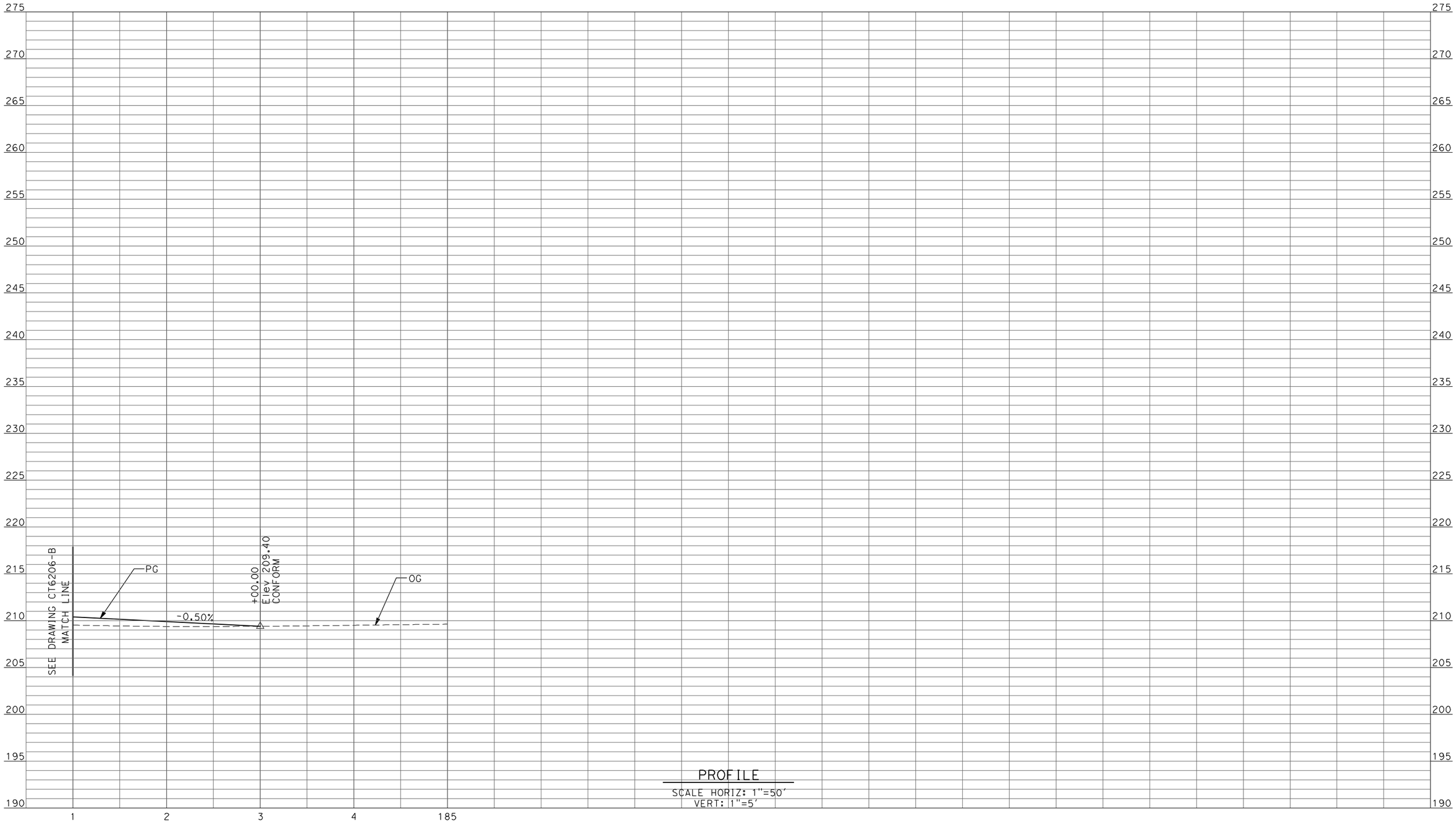

PROFILE

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VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROAD 13
PROFILE
SHEET 5 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT6207-B
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SHEET NO. ### OF ###

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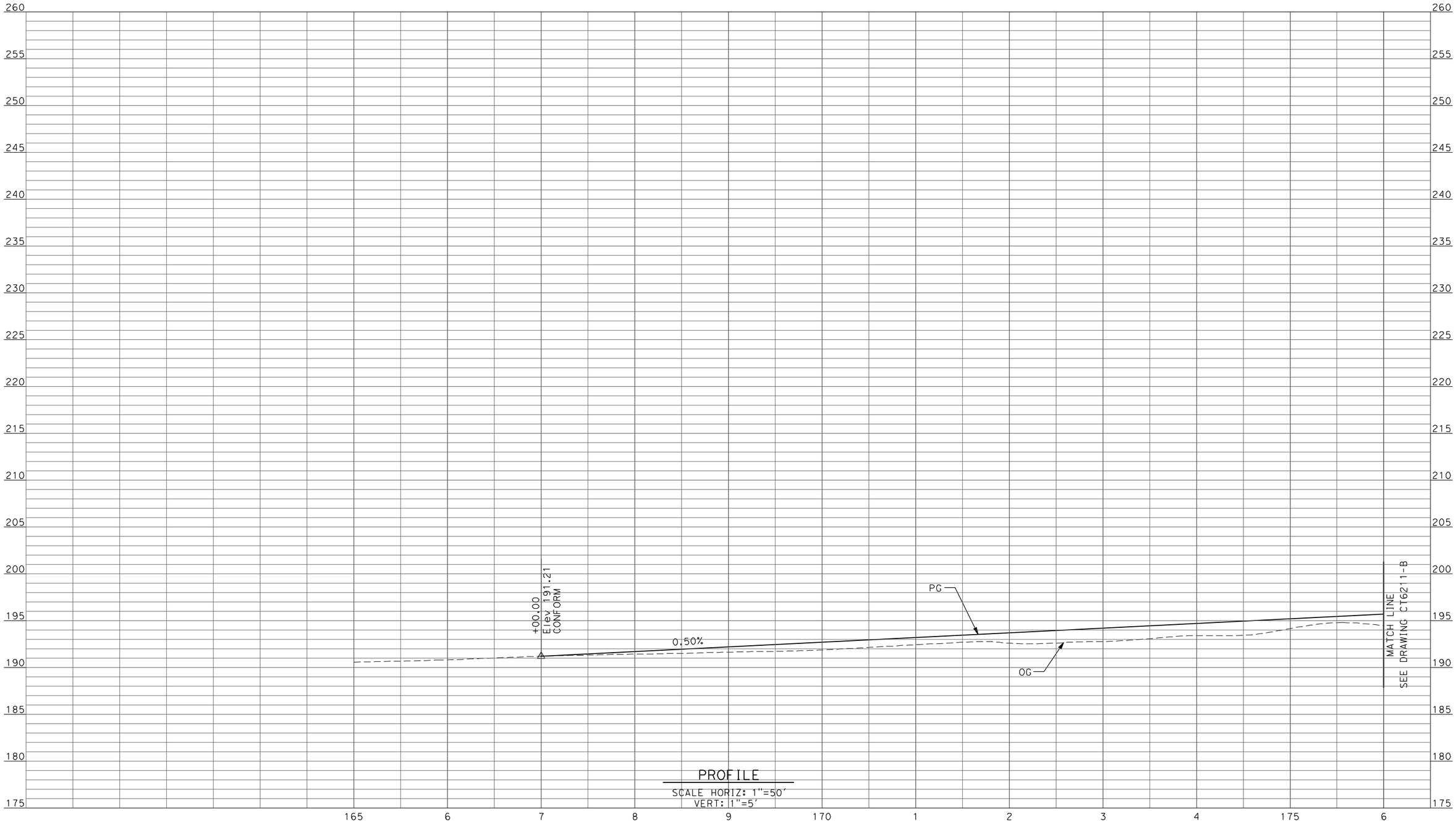

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 1 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6210-B
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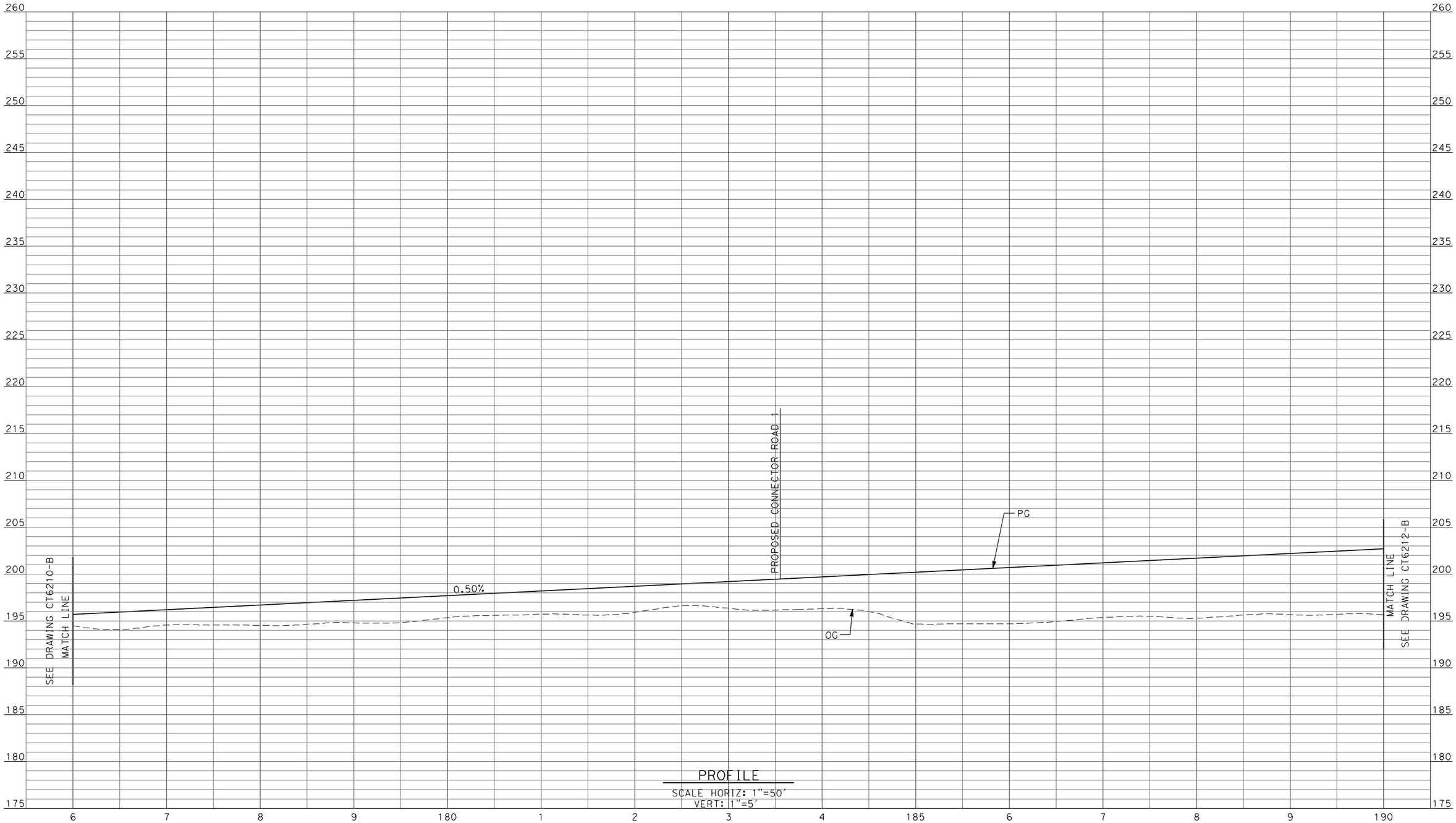

PROFILE

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VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 2 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6211-B
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SHEET NO. ### OF ###

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PROFILE

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VERT: 1"=5'

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 3 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6212-B
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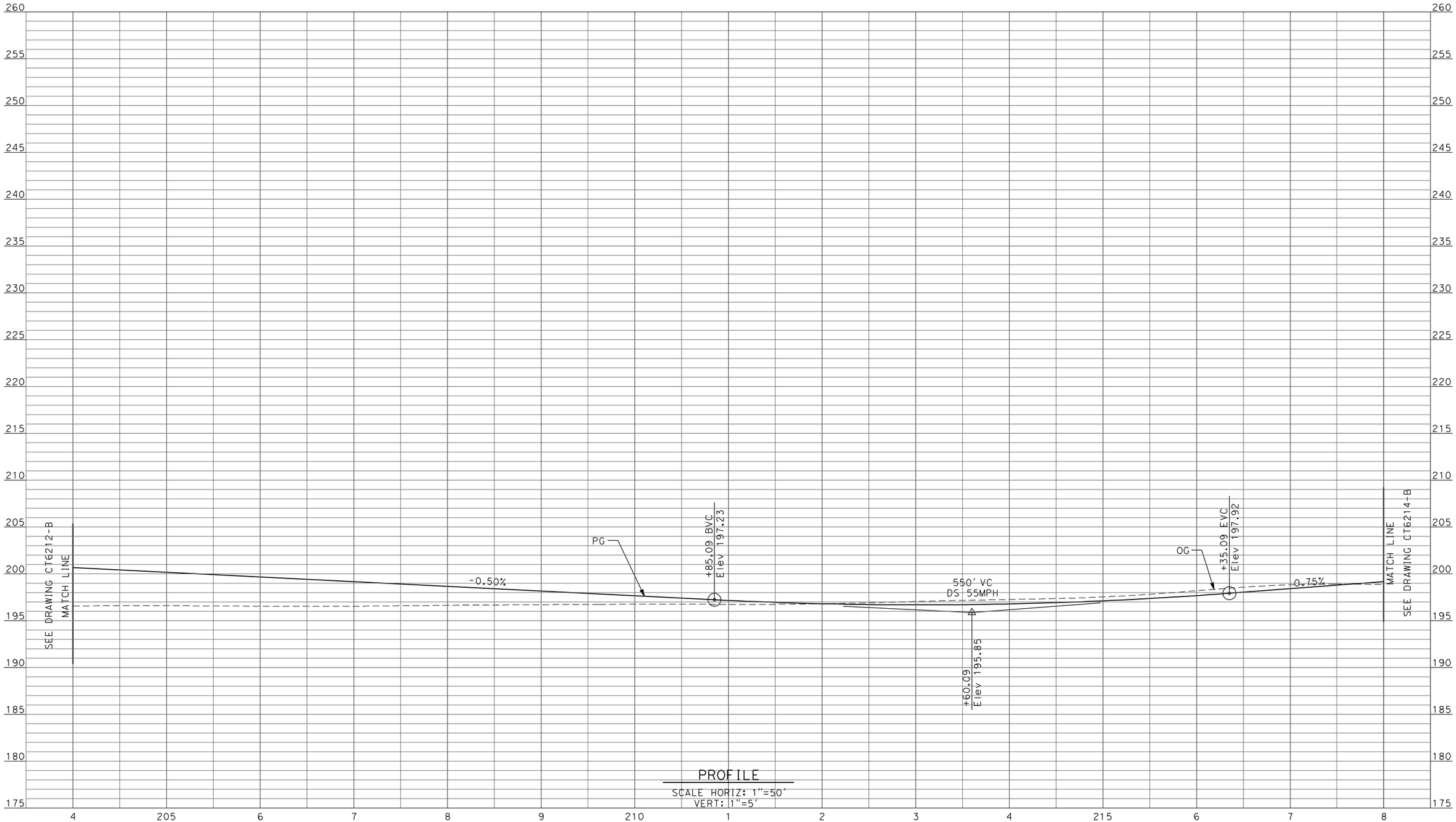

PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 4 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6213-B
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SHEET NO. ### OF ###

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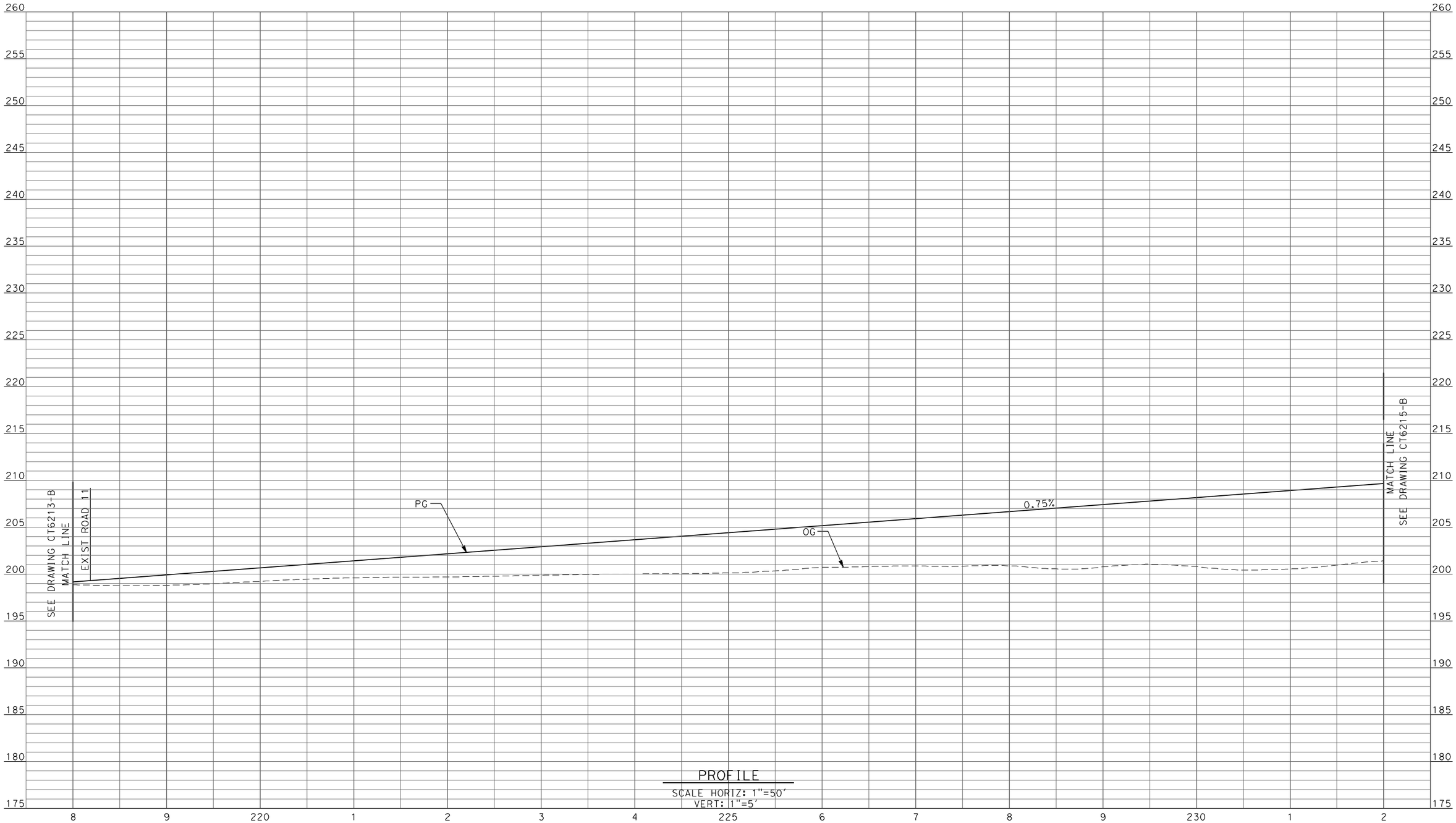

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 5 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6214-B
SCALE AS SHOWN
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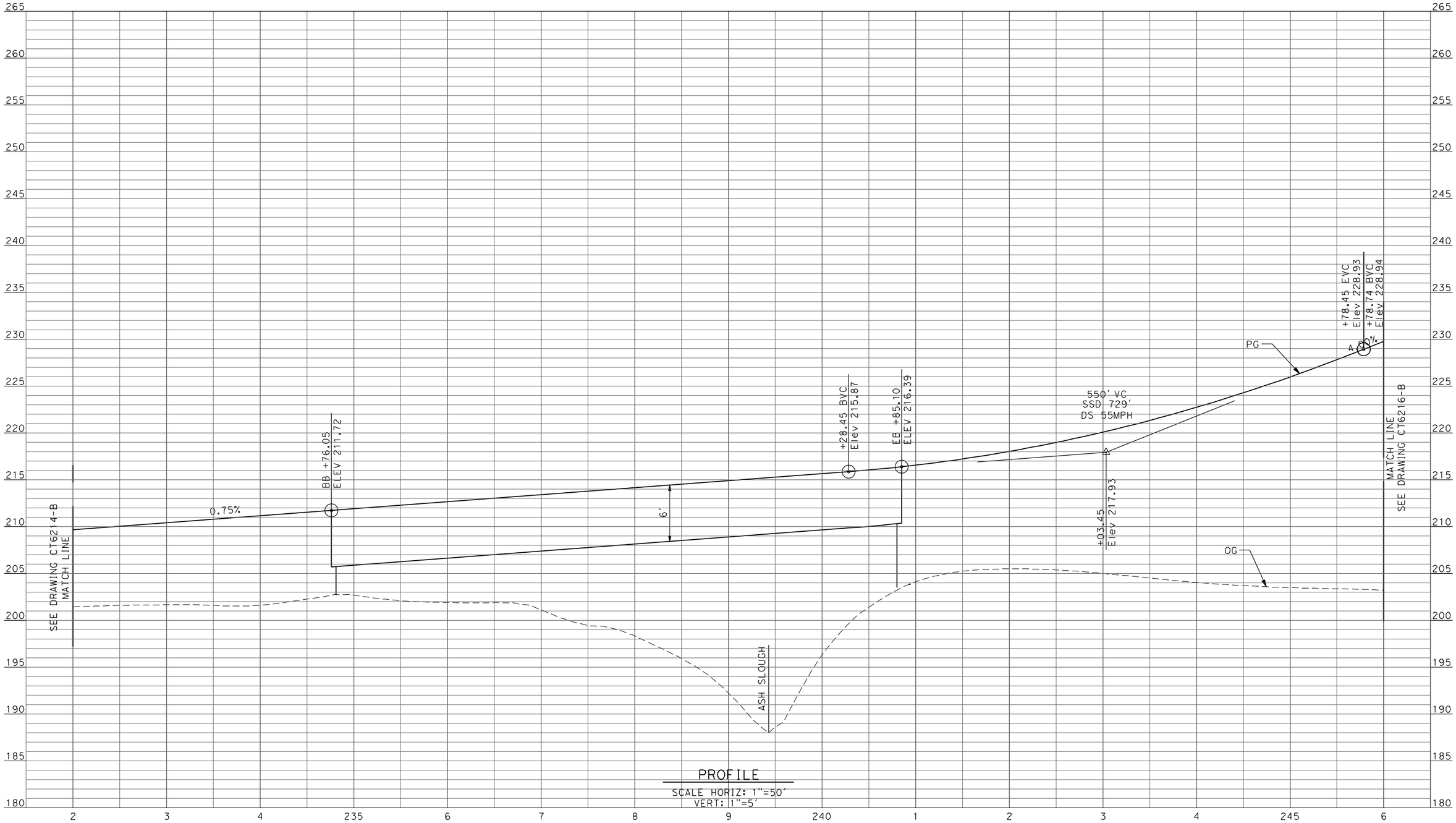

PROFILE

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VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 6 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6215-B
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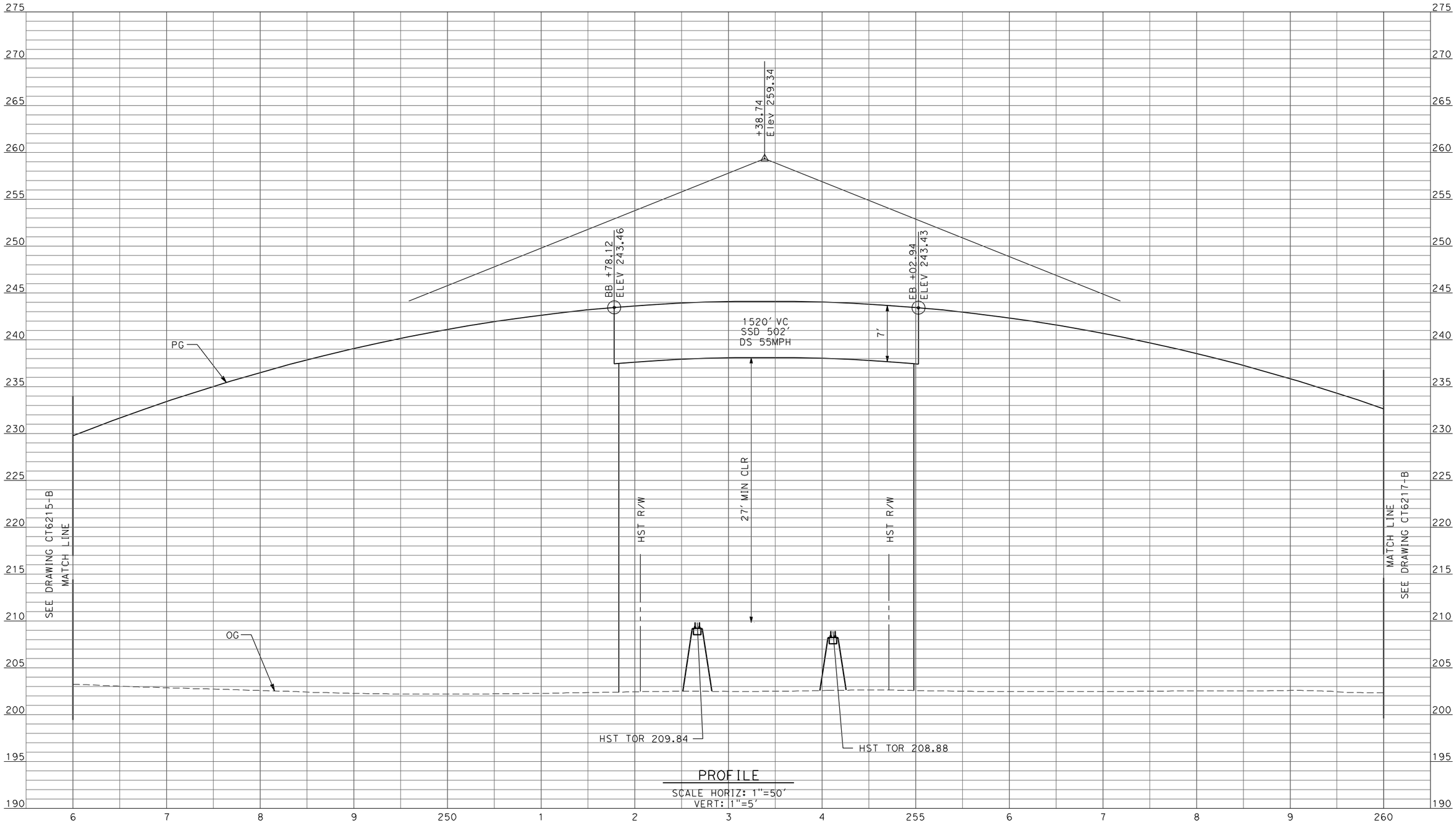

PROFILE

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MERCED TO FRESNO

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 7 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6216-B
SCALE AS SHOWN
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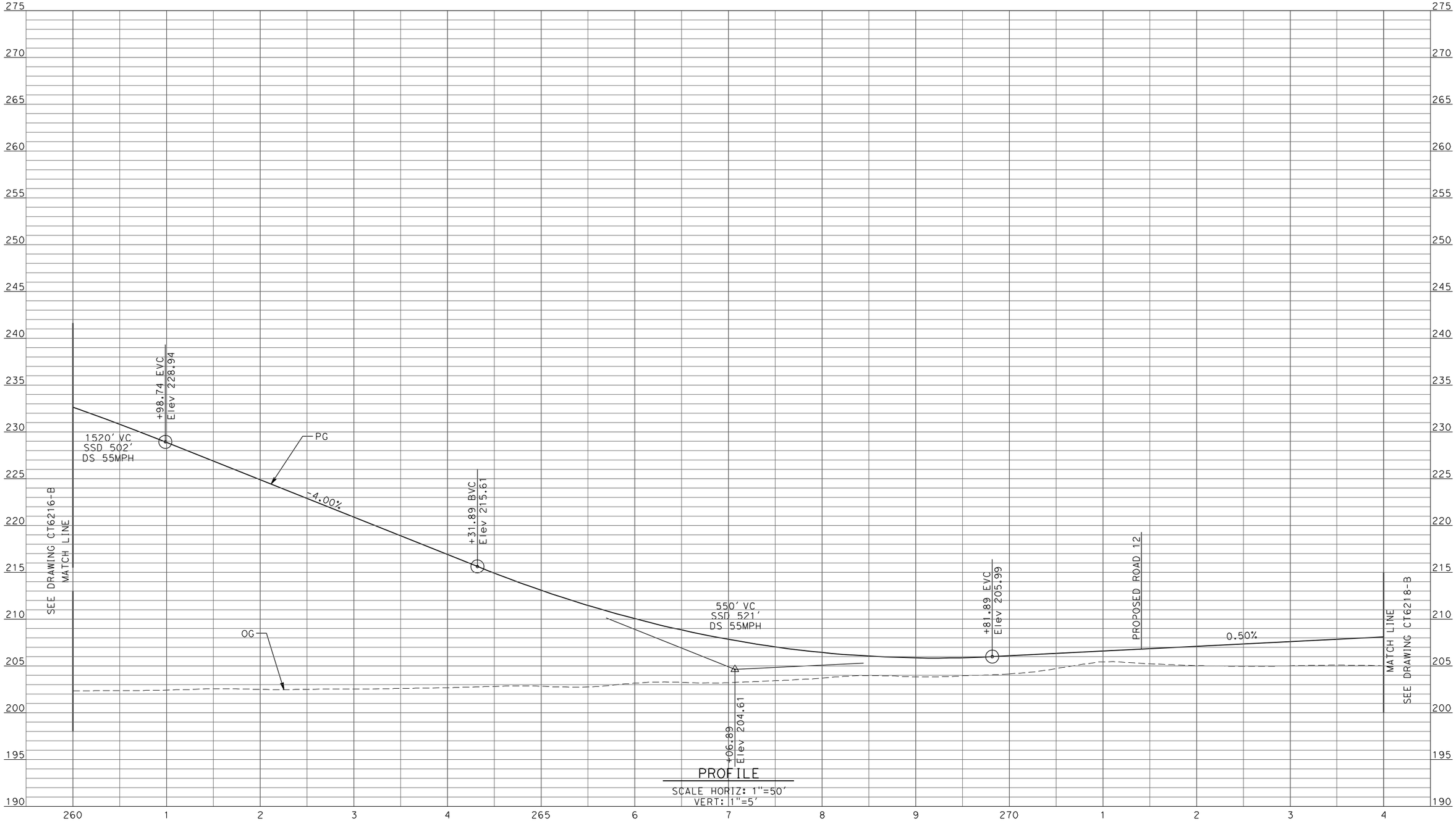

PROFILE

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 8 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6217-B
SCALE AS SHOWN
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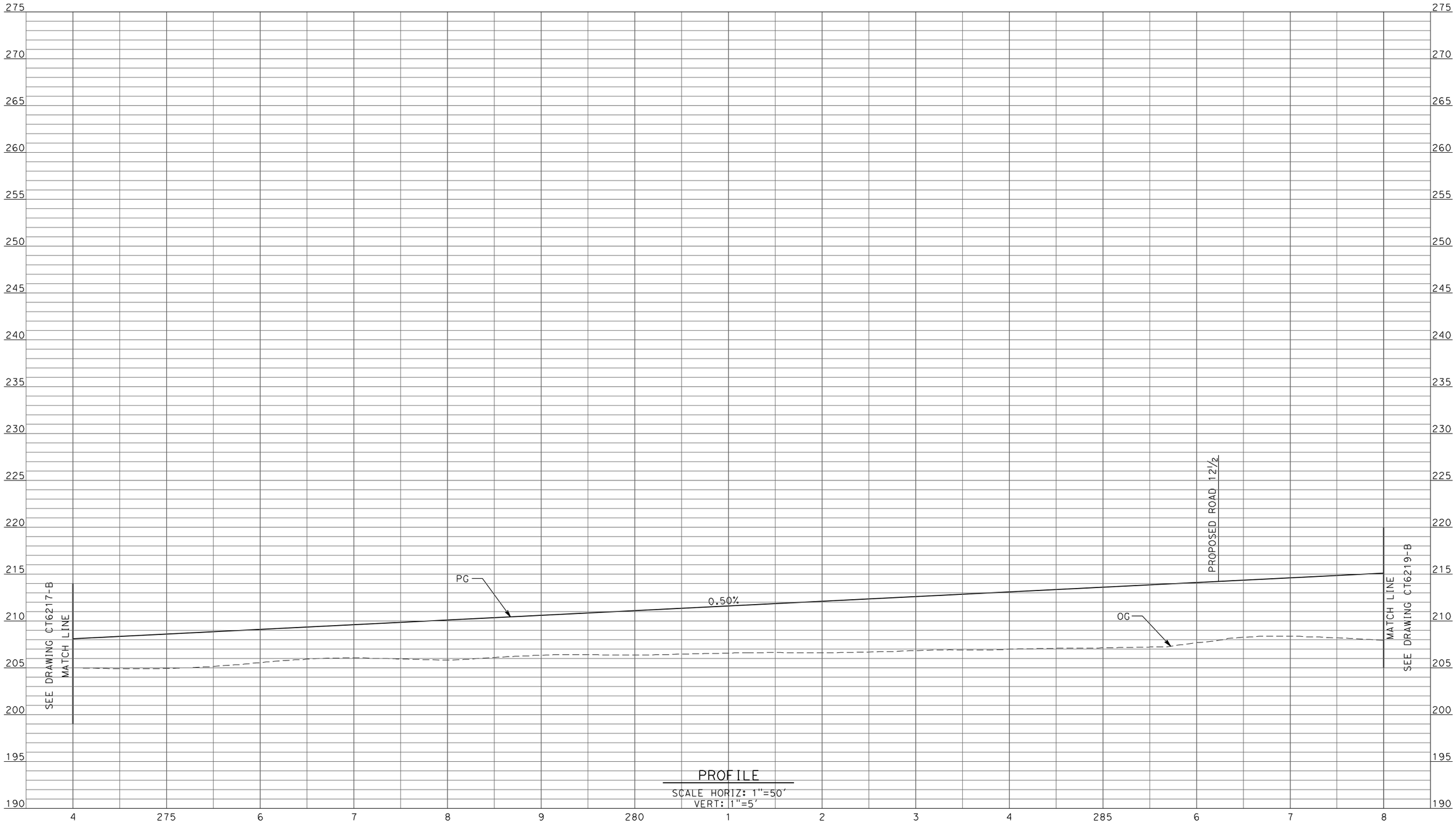

PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 9 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6218-B
SCALE AS SHOWN
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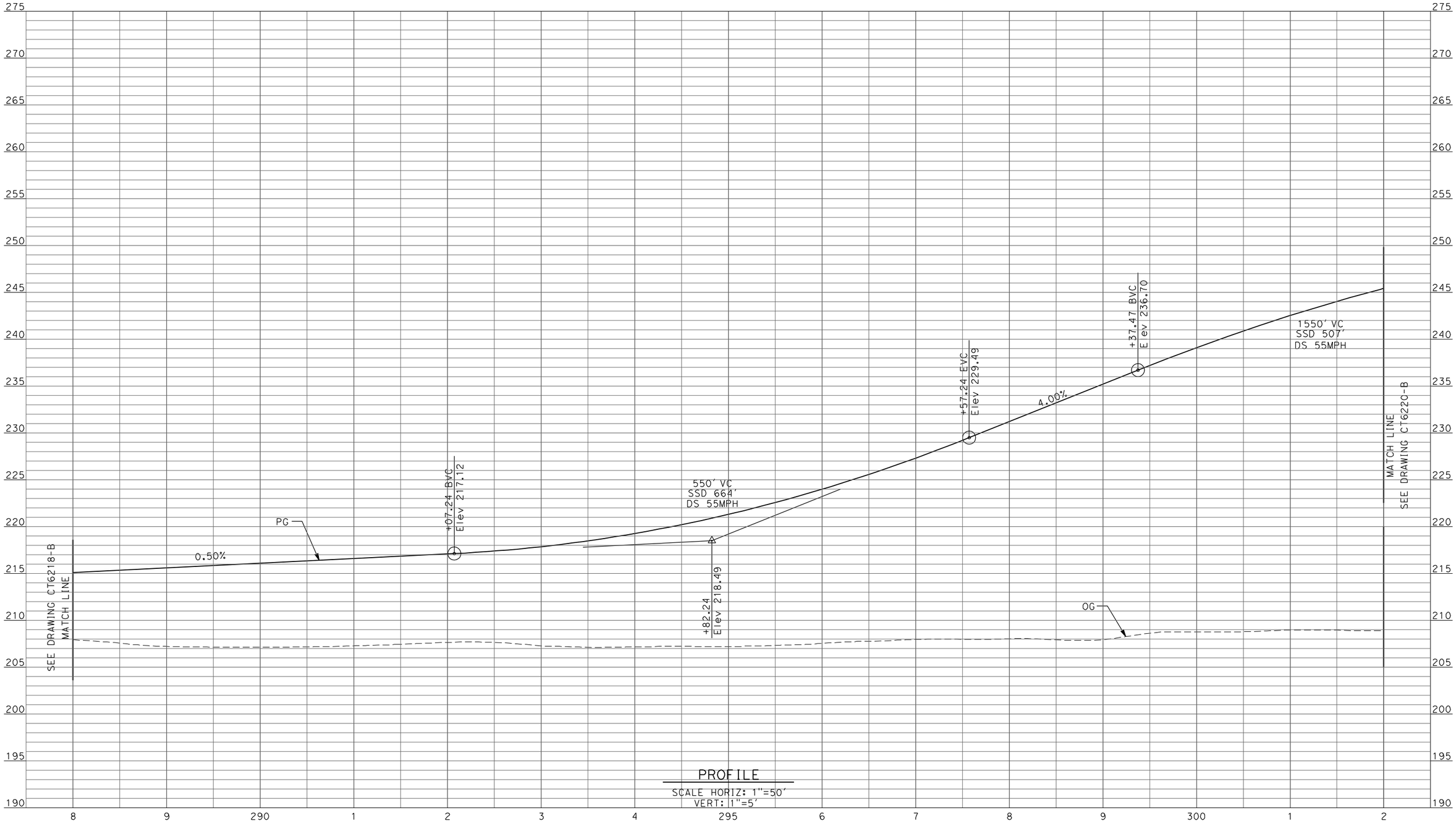

PROFILE

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 10 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6219-B
SCALE AS SHOWN
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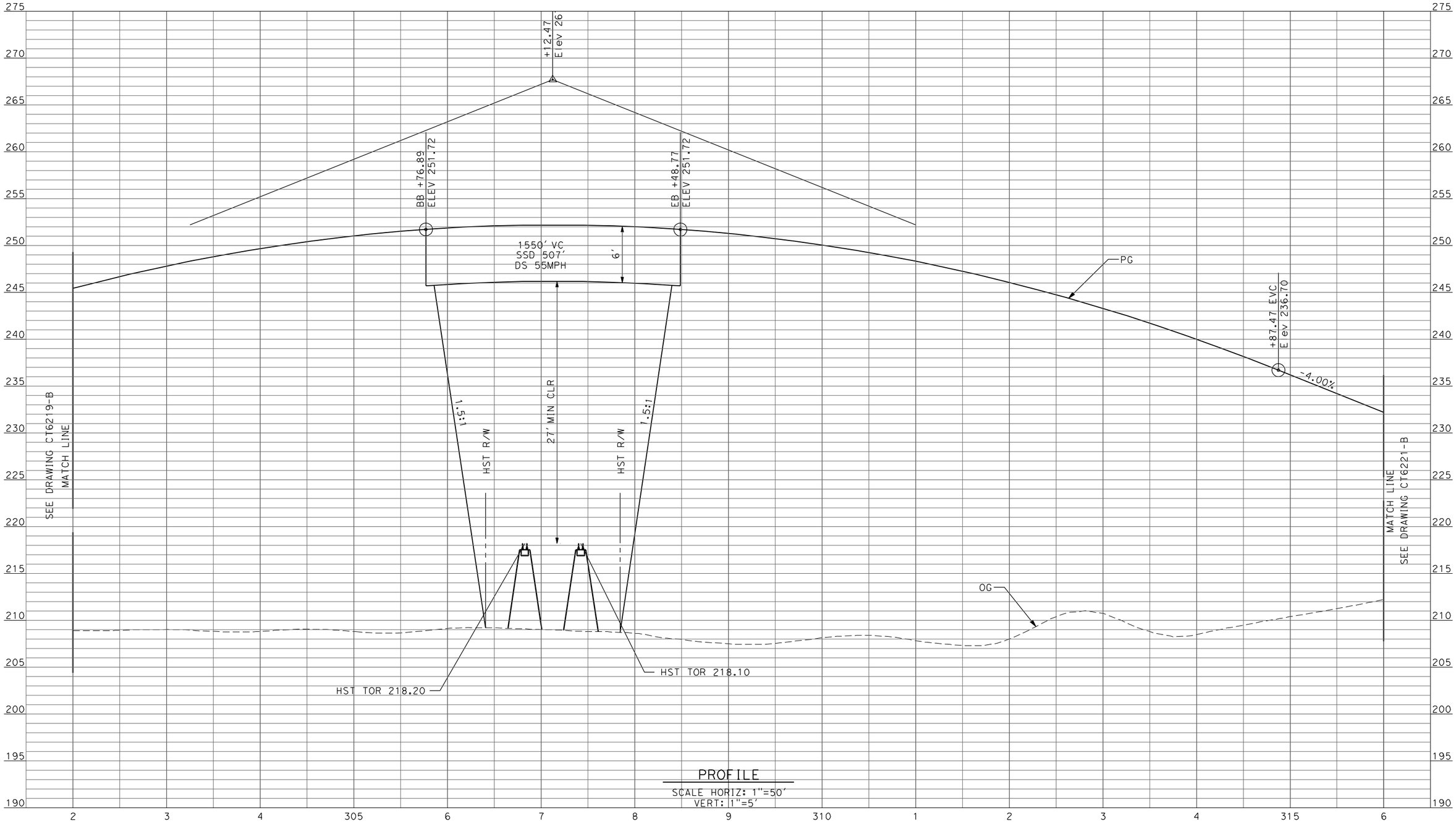

PROFILE

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GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 11 OF 14

CONTRACT NO. HSR06-007
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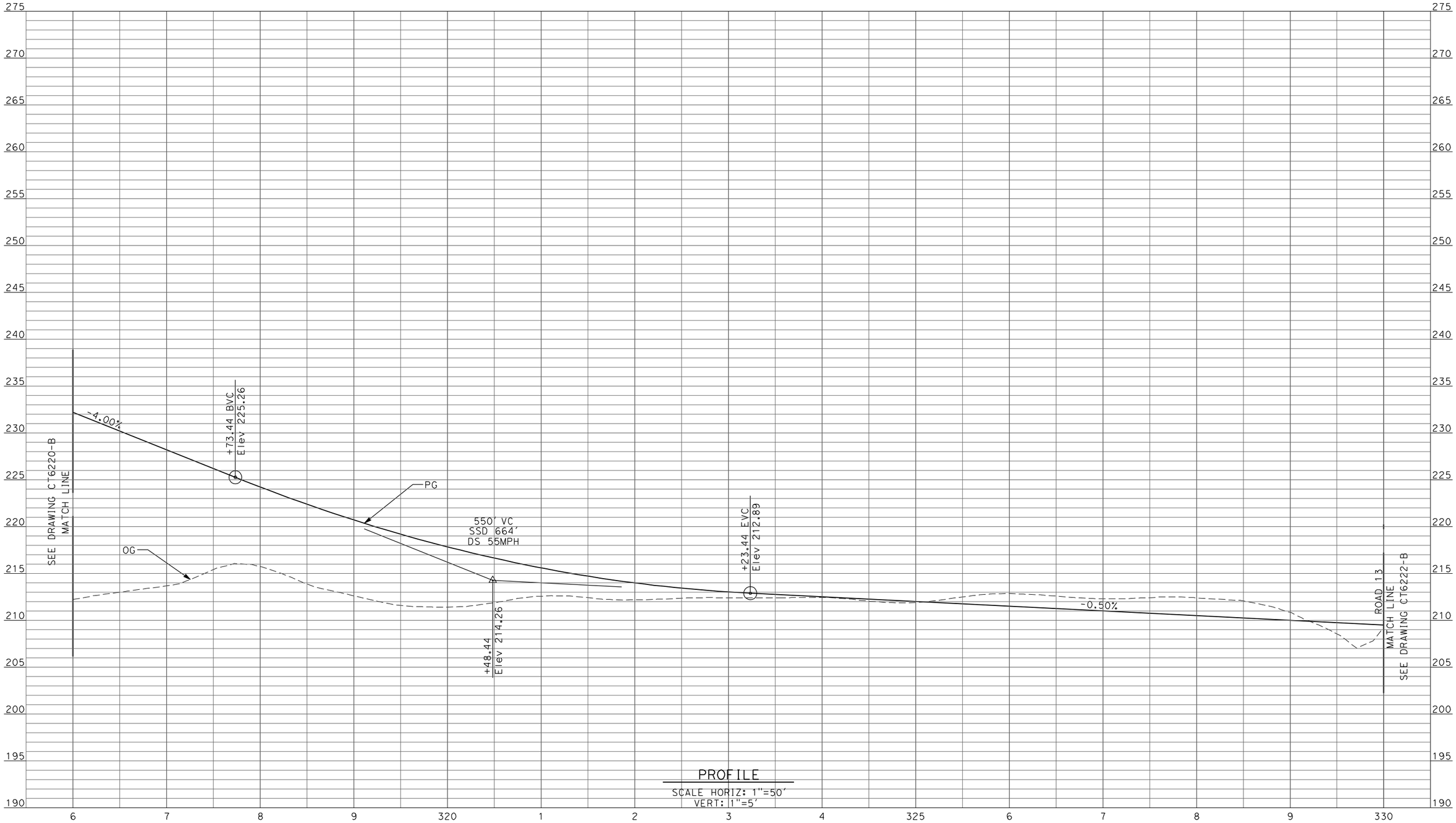

PROFILE

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 12 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6221-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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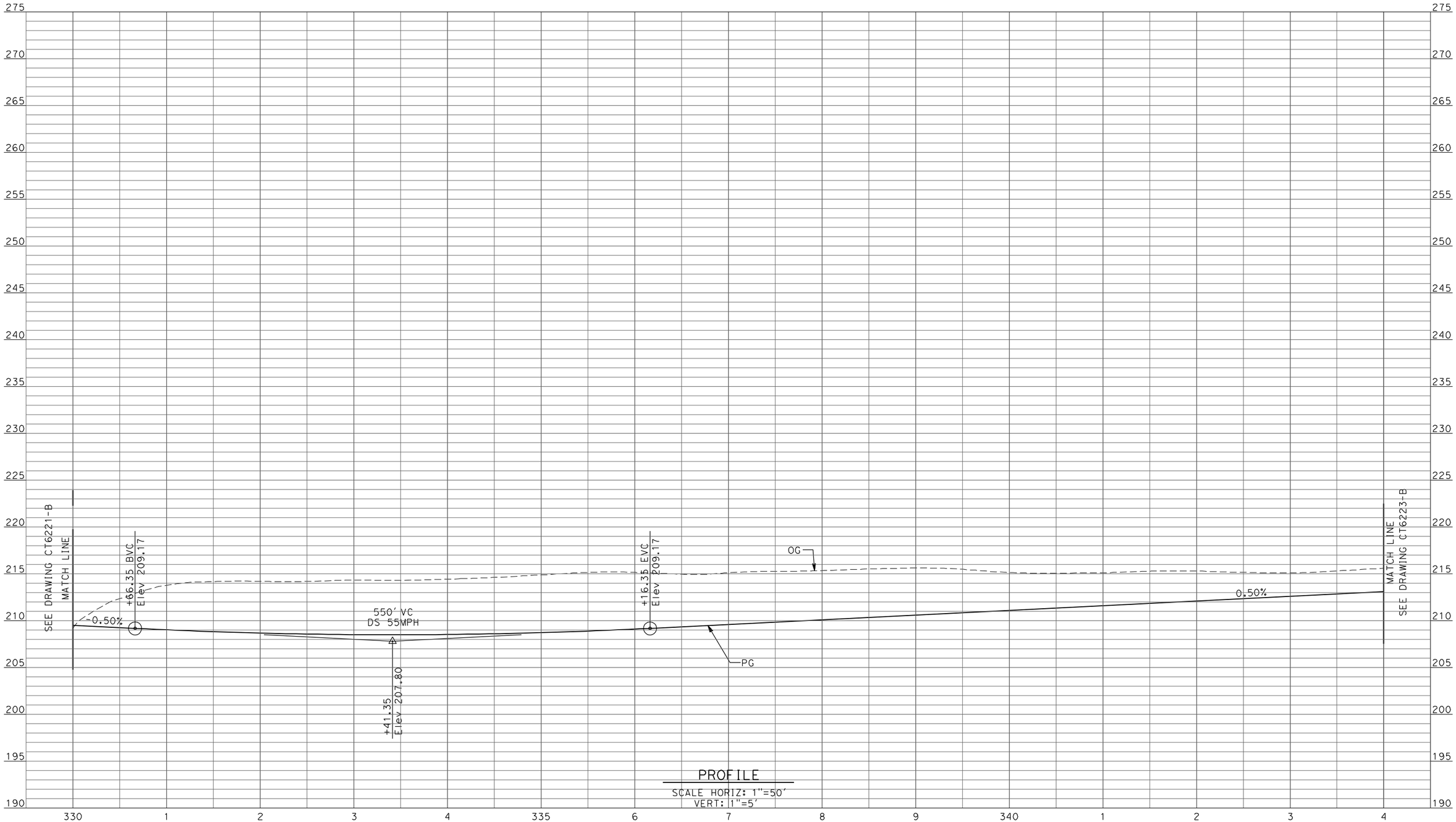

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 13 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6222-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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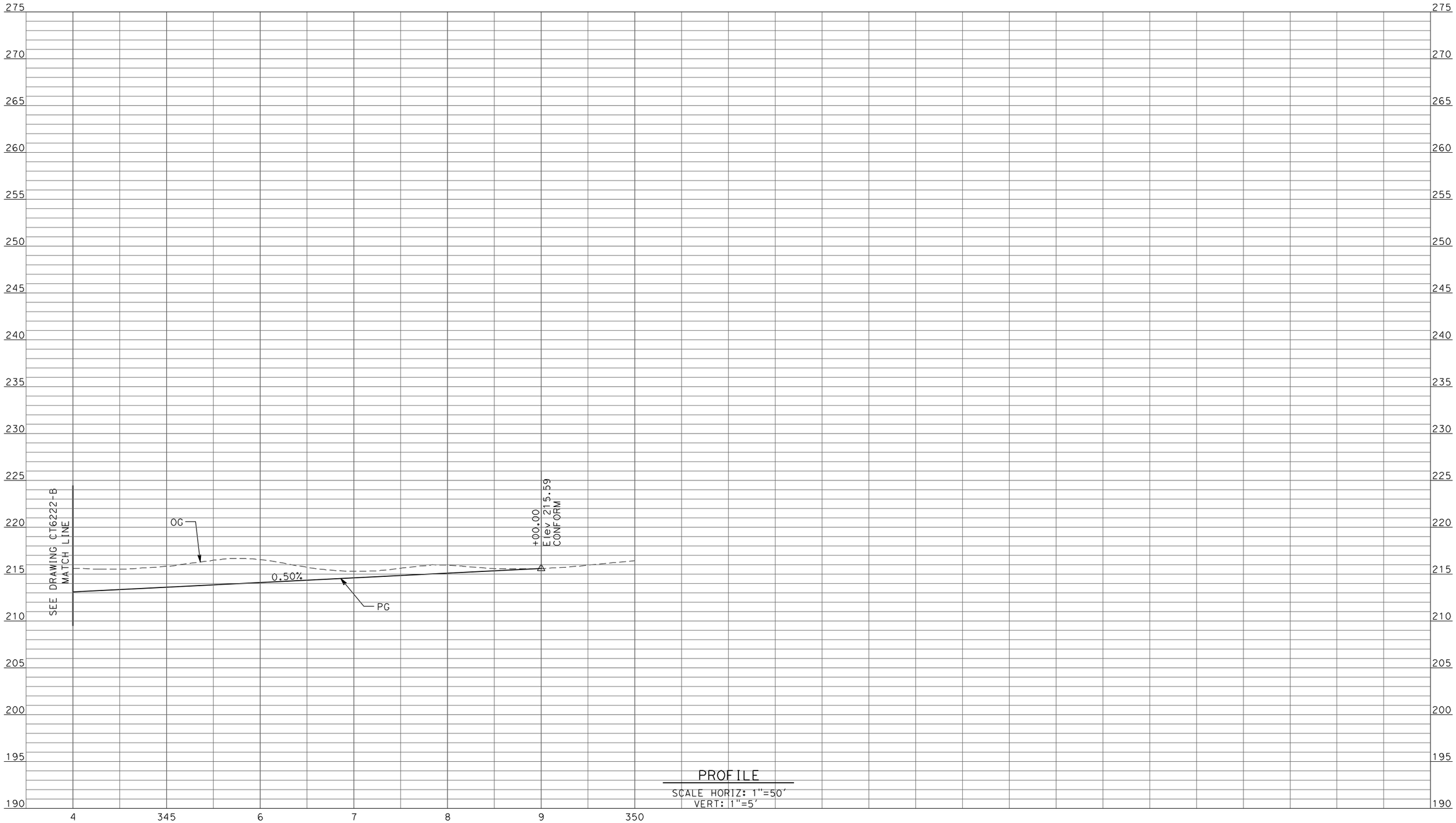

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 25
PROFILE
SHEET 14 OF 14

CONTRACT NO. HSR06-007
DRAWING NO. CT6223-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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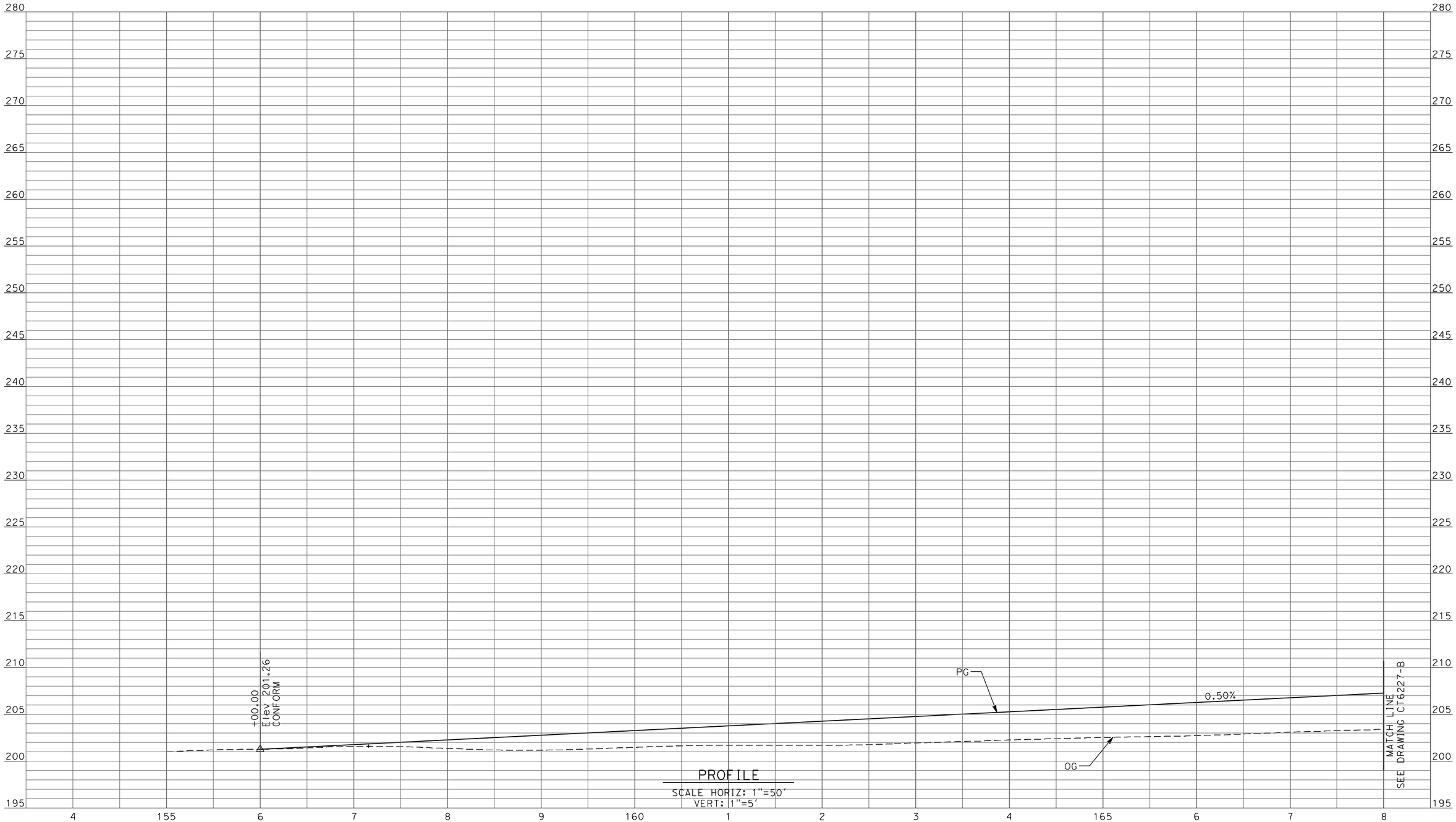

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION -AVENUE 26 ALT 1
PROFILE
SHEET 1 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6226-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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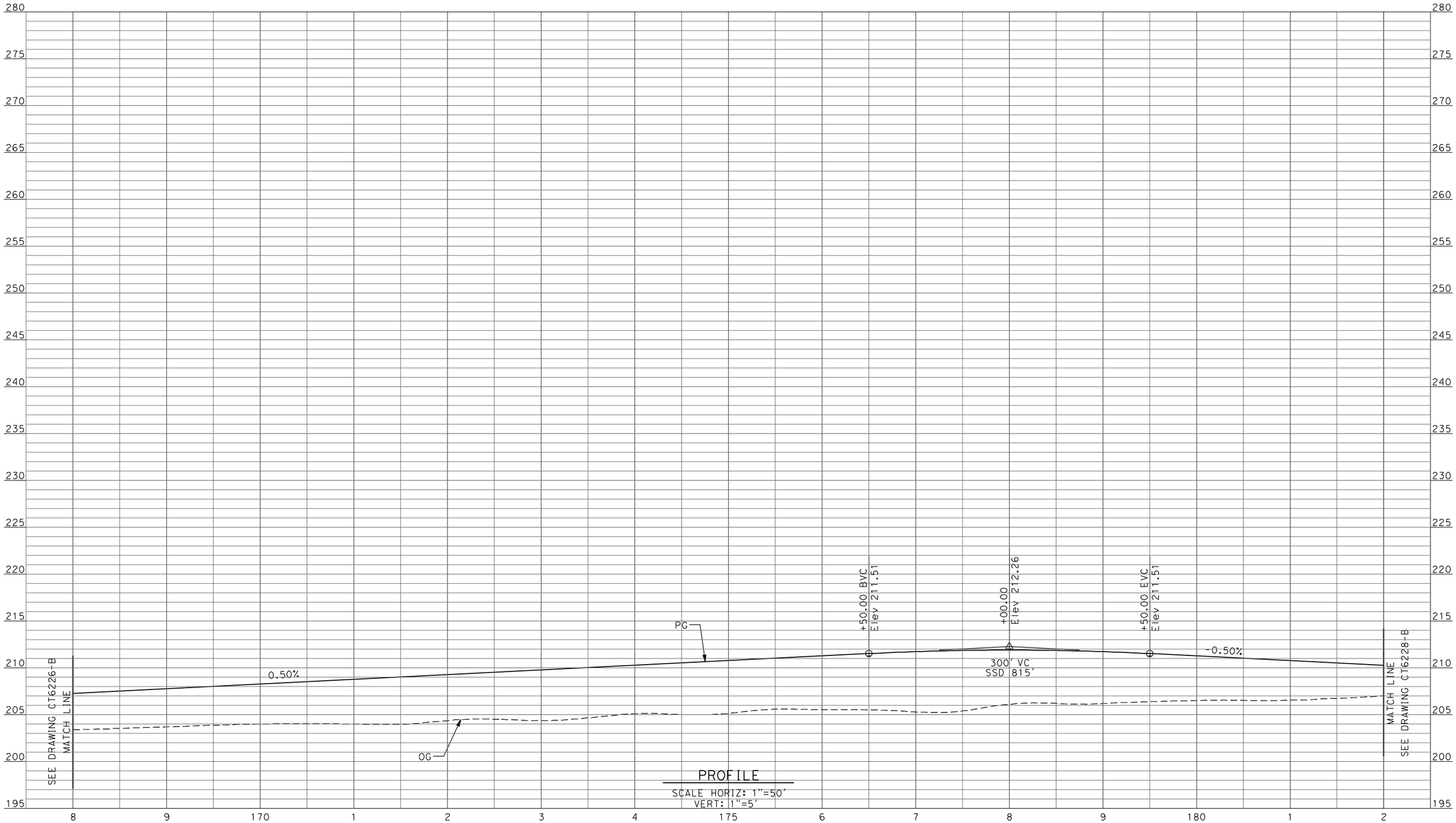

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 2 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6227-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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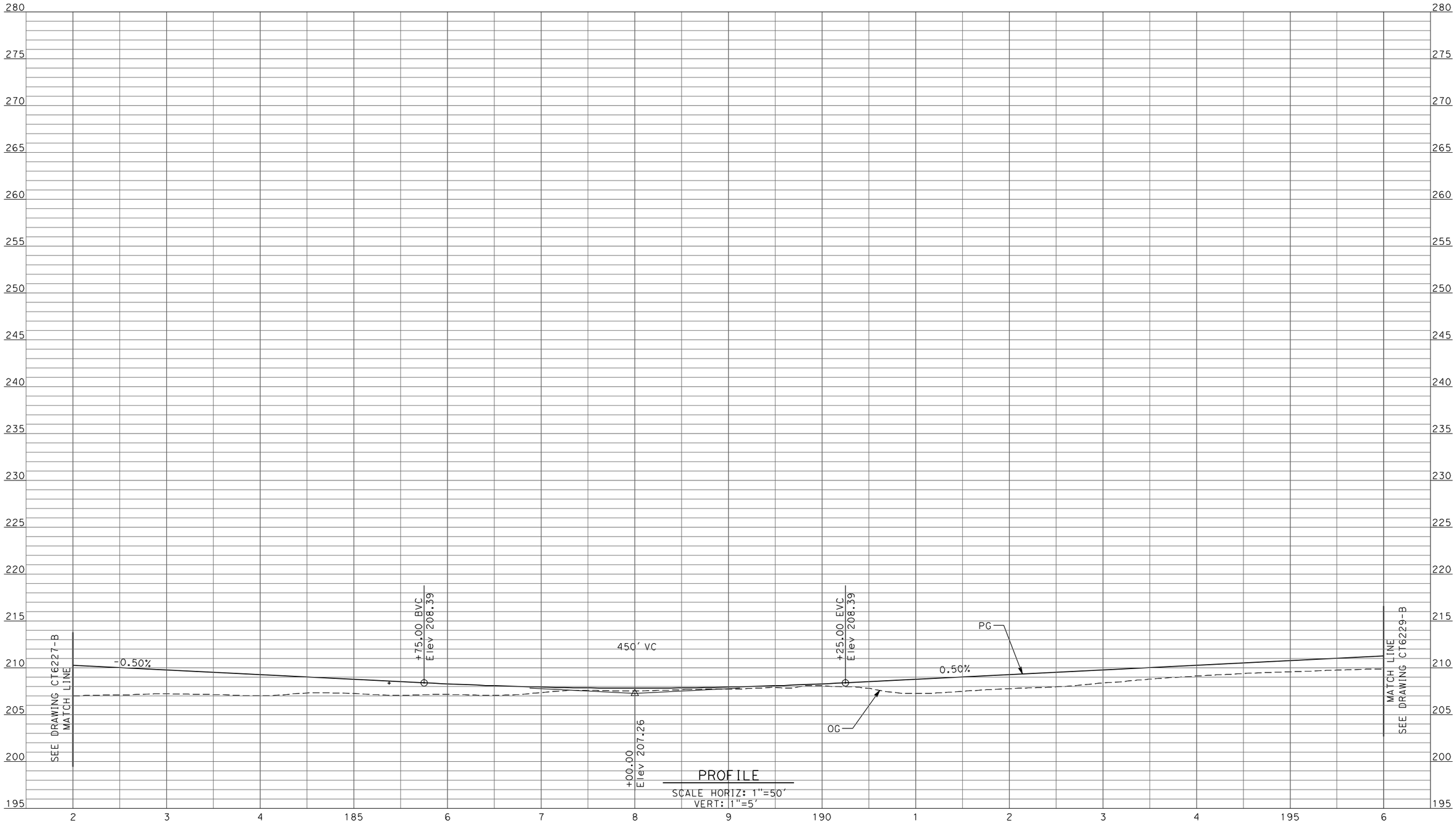

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 3 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6228-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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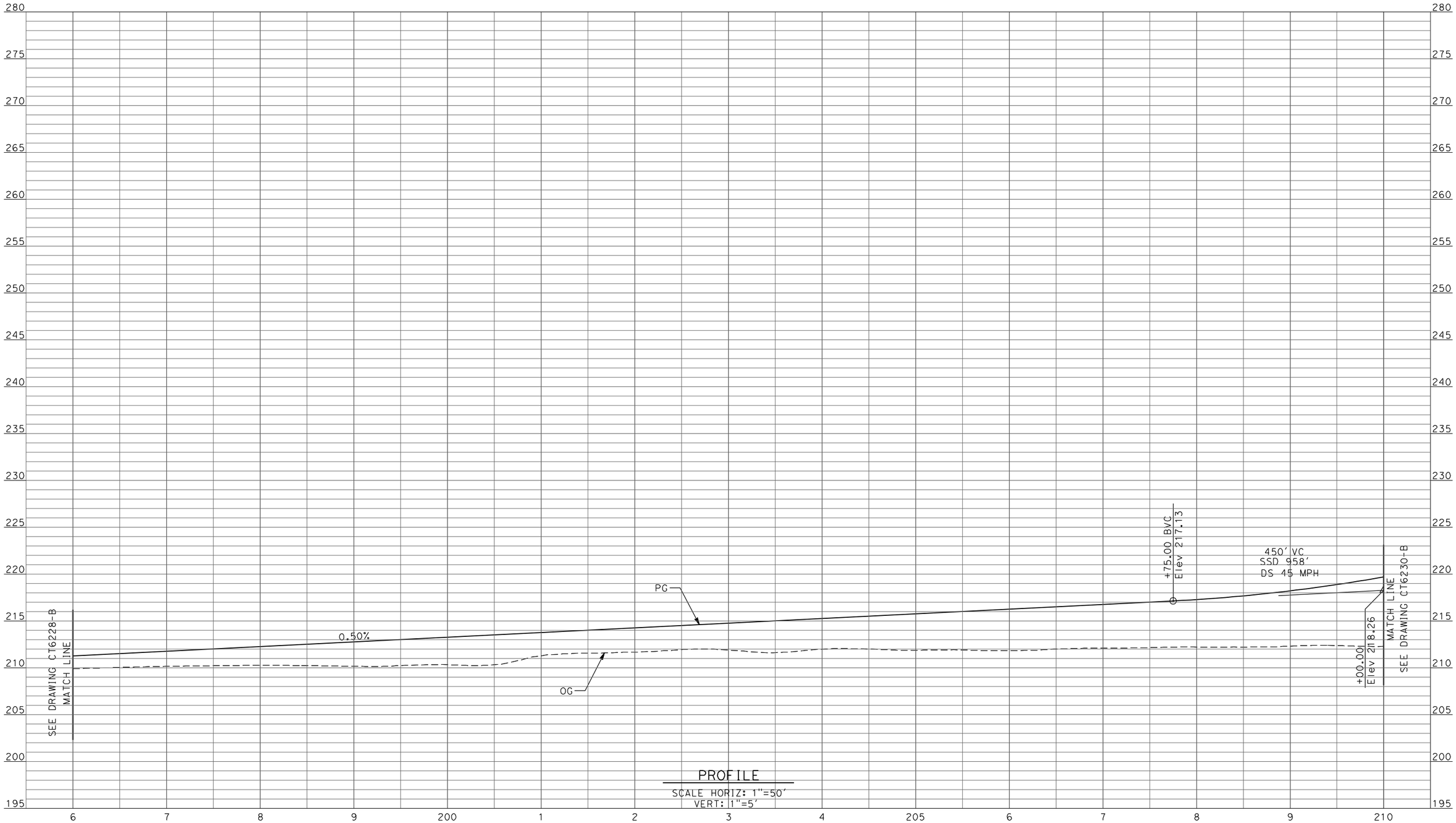

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 4 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6229-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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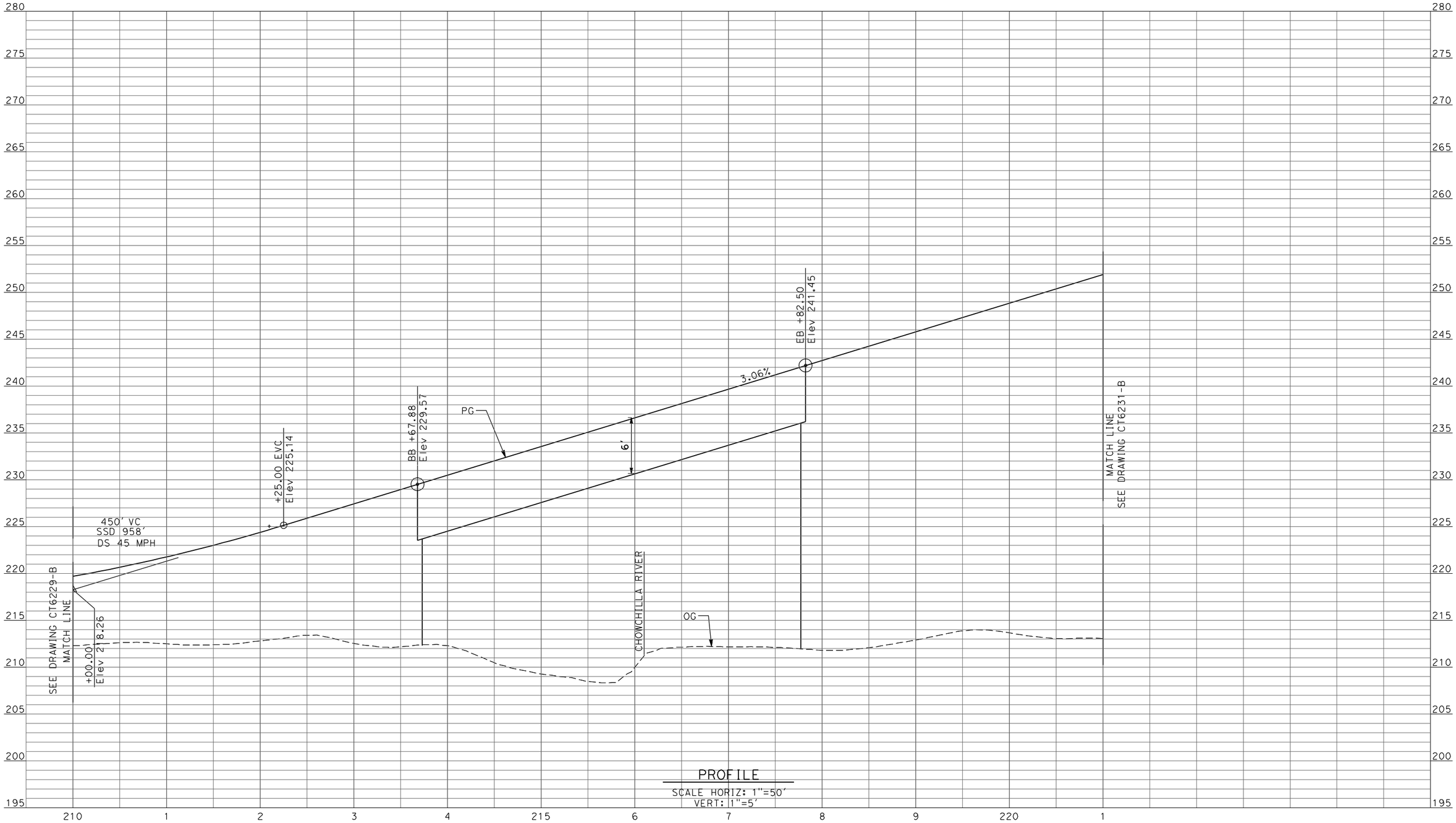

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 5 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6230-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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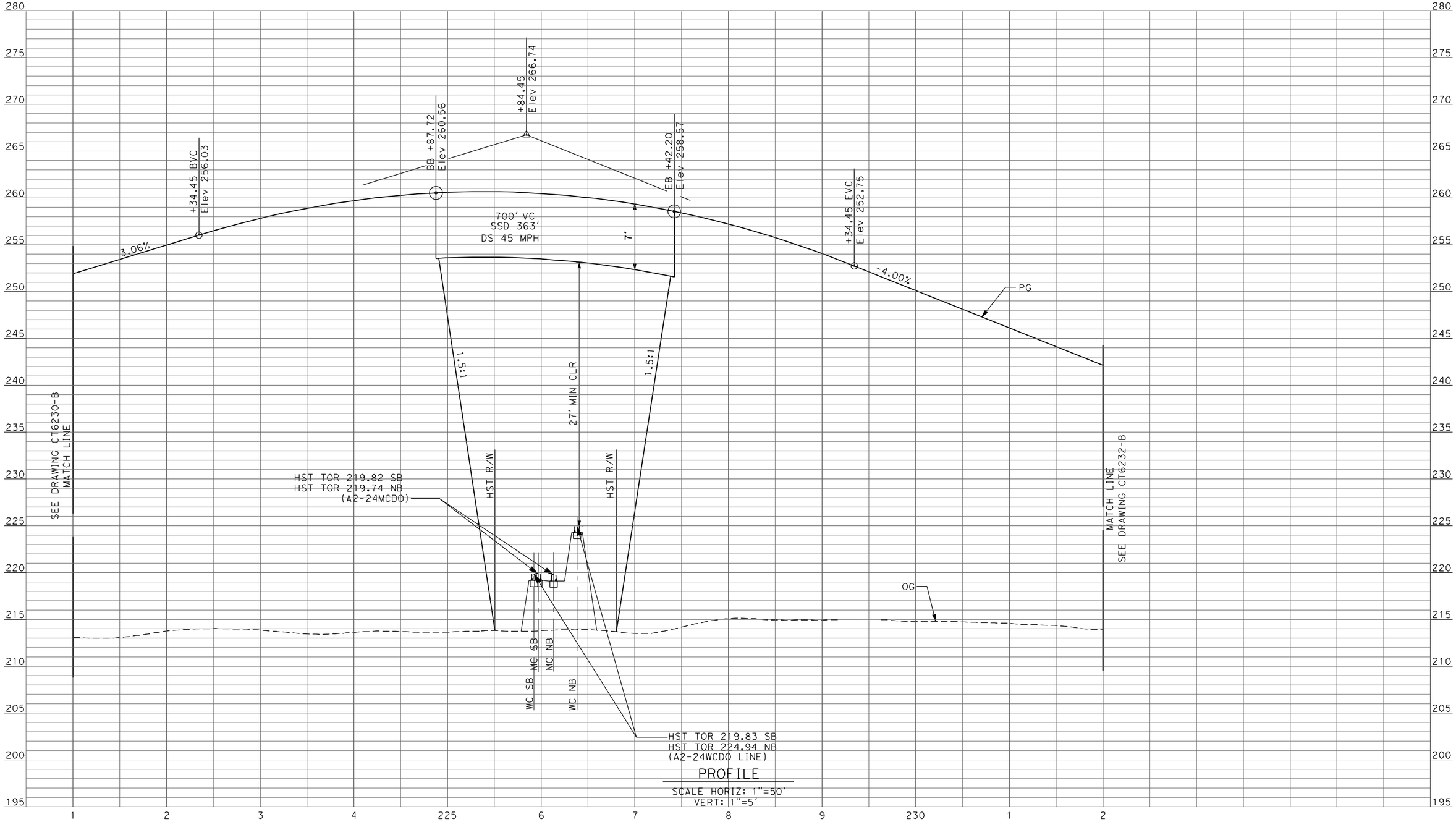

PROFILE

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VERT: 1"=5'

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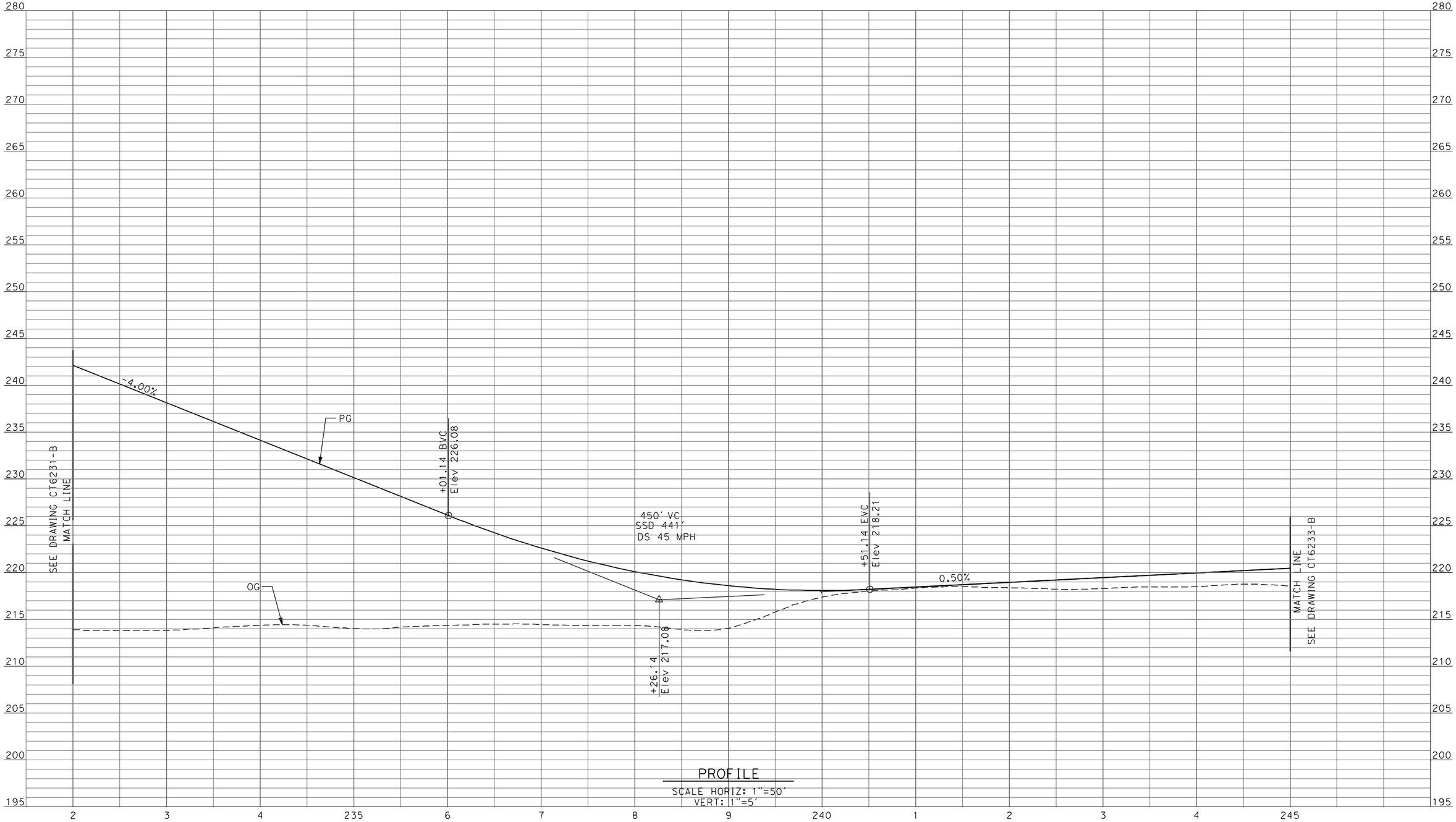
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 6 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6231-B
SCALE AS SHOWN
SHEET NO. ### OF ###



PROFILE

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VERT: 1"=5'

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 7 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6232-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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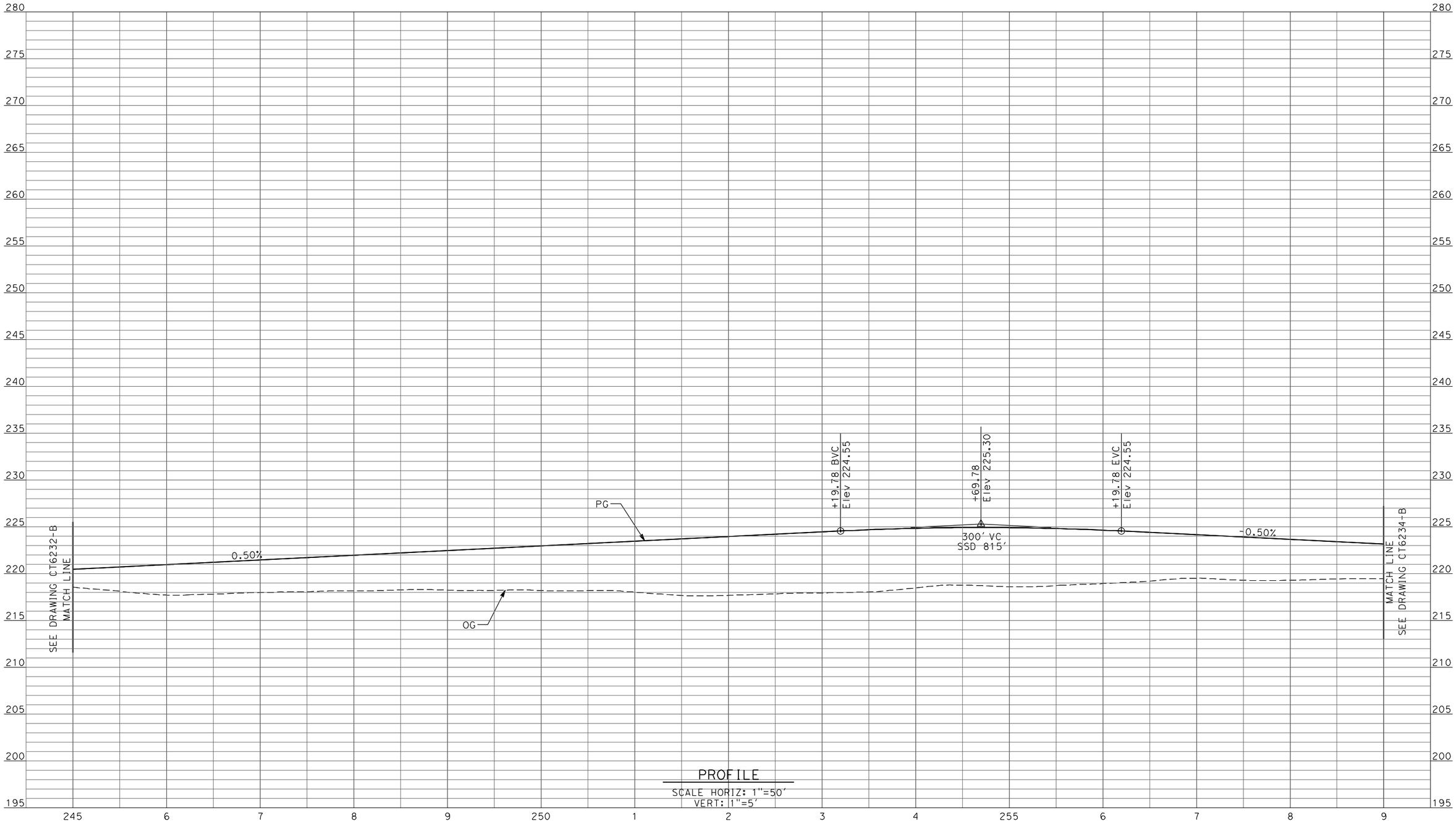

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 8 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6233-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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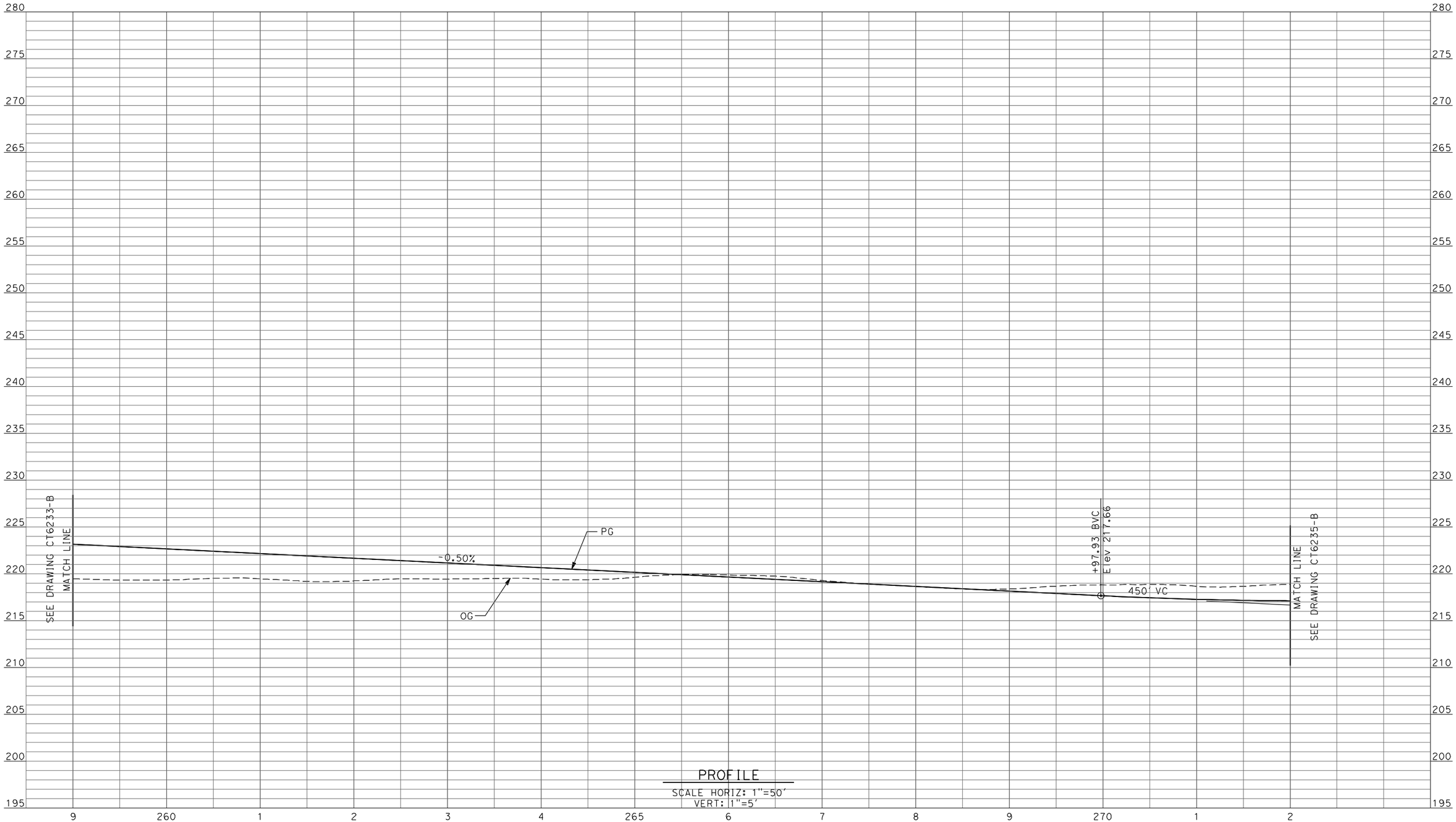

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 9 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6234-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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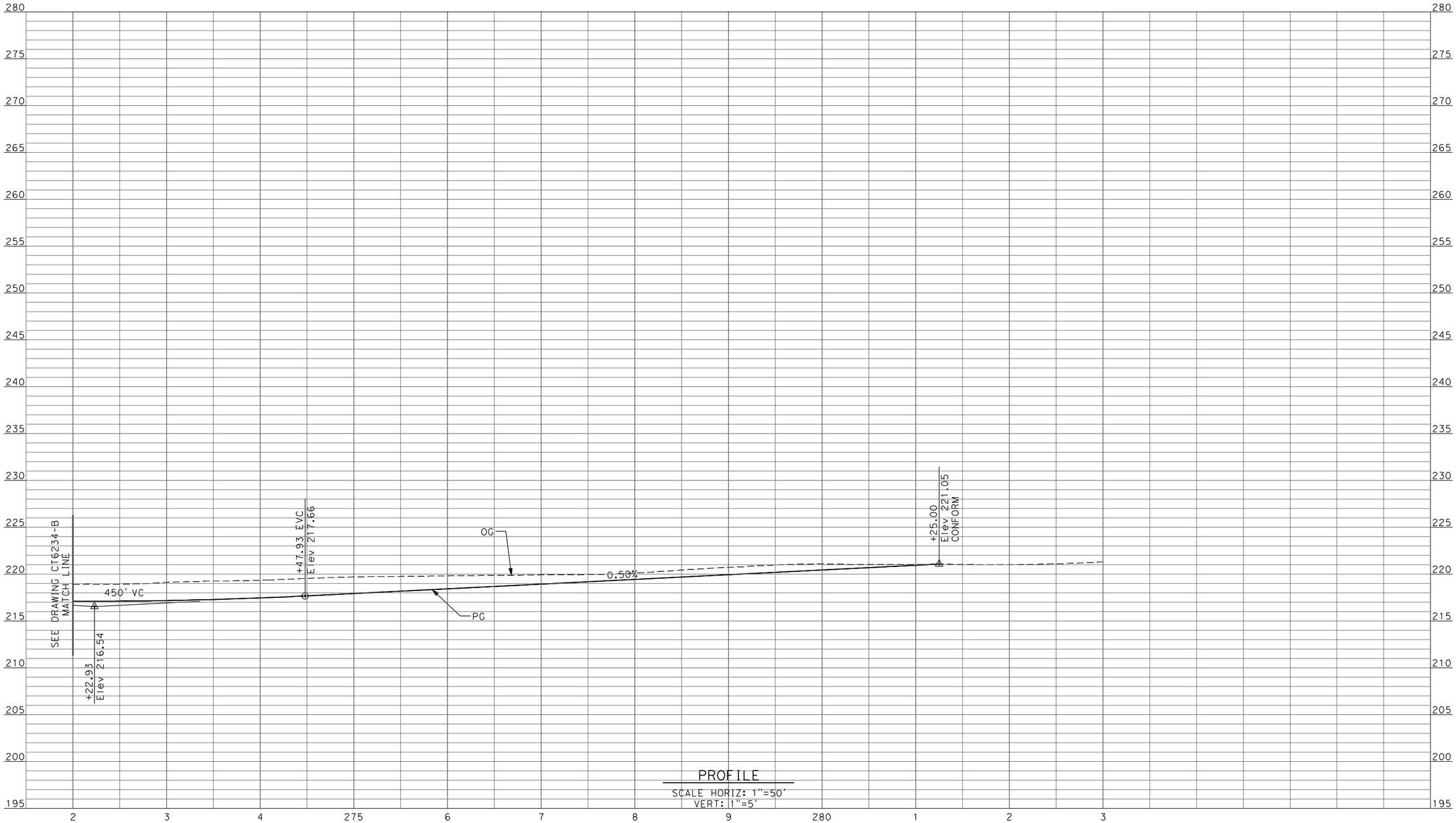

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
GRADE SEPARATION - AVENUE 26 ALT 1
PROFILE
SHEET 10 OF 10

CONTRACT NO. HSR06-007
DRAWING NO. CT6235-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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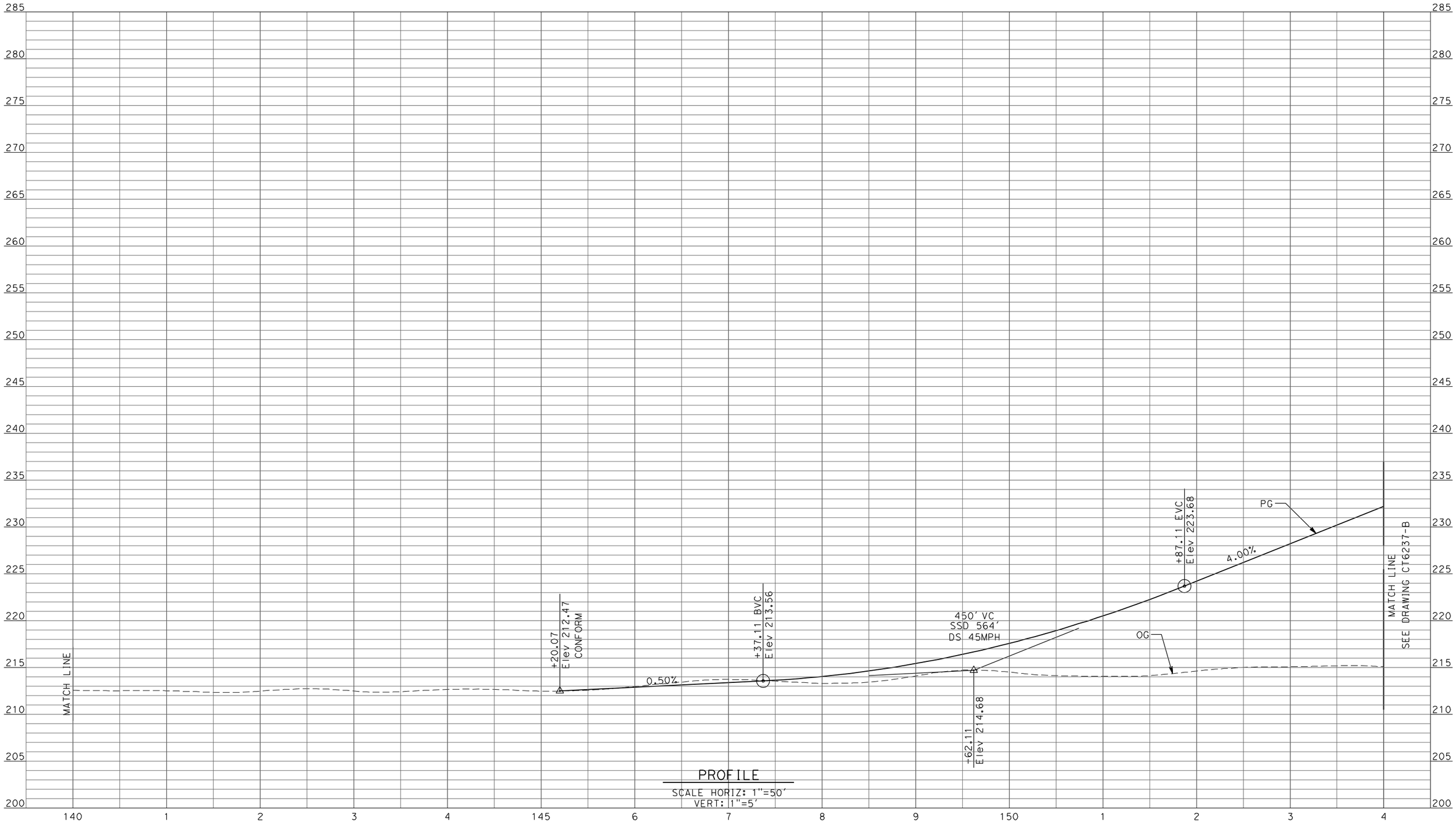

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6236-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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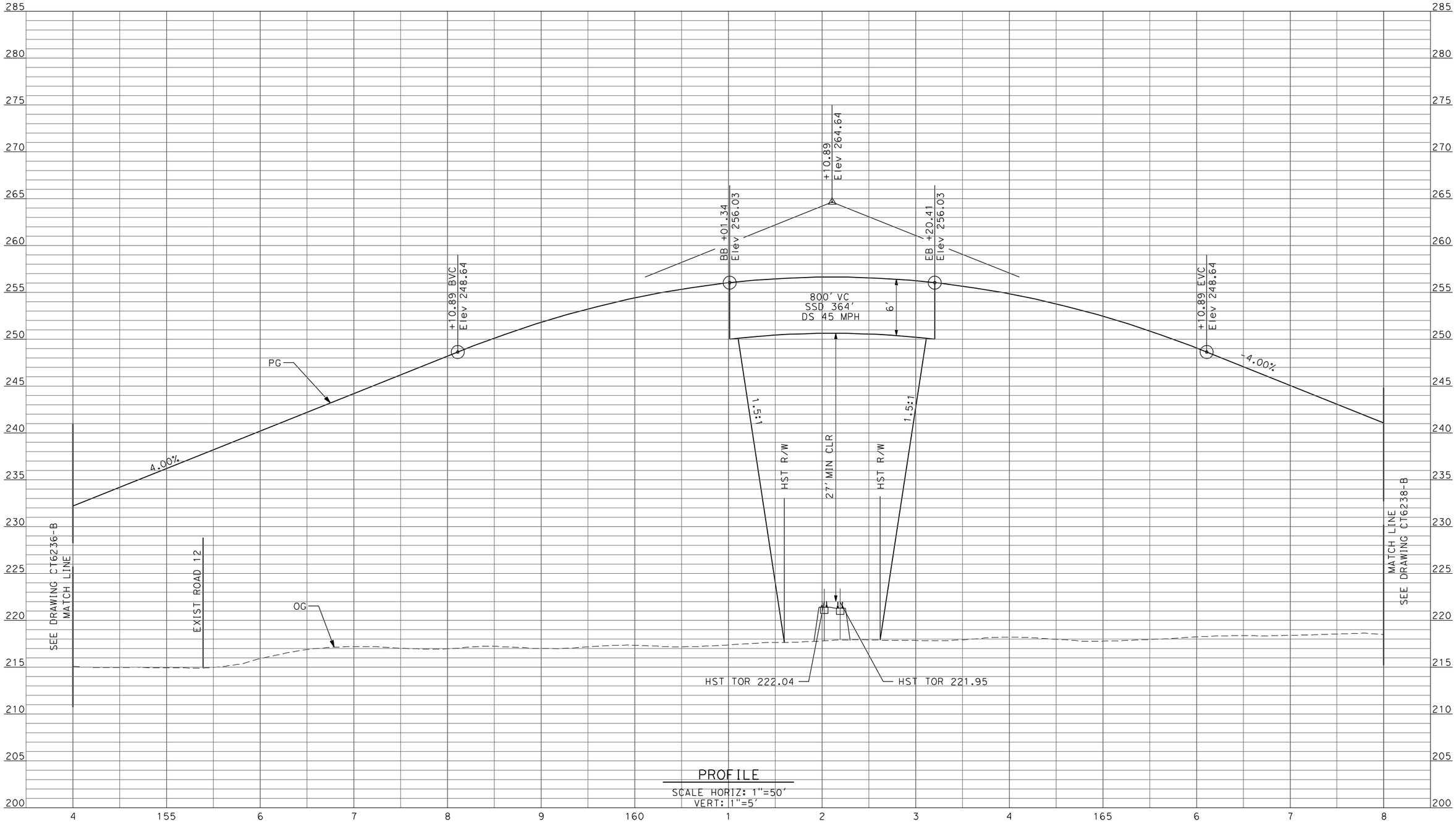

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6237-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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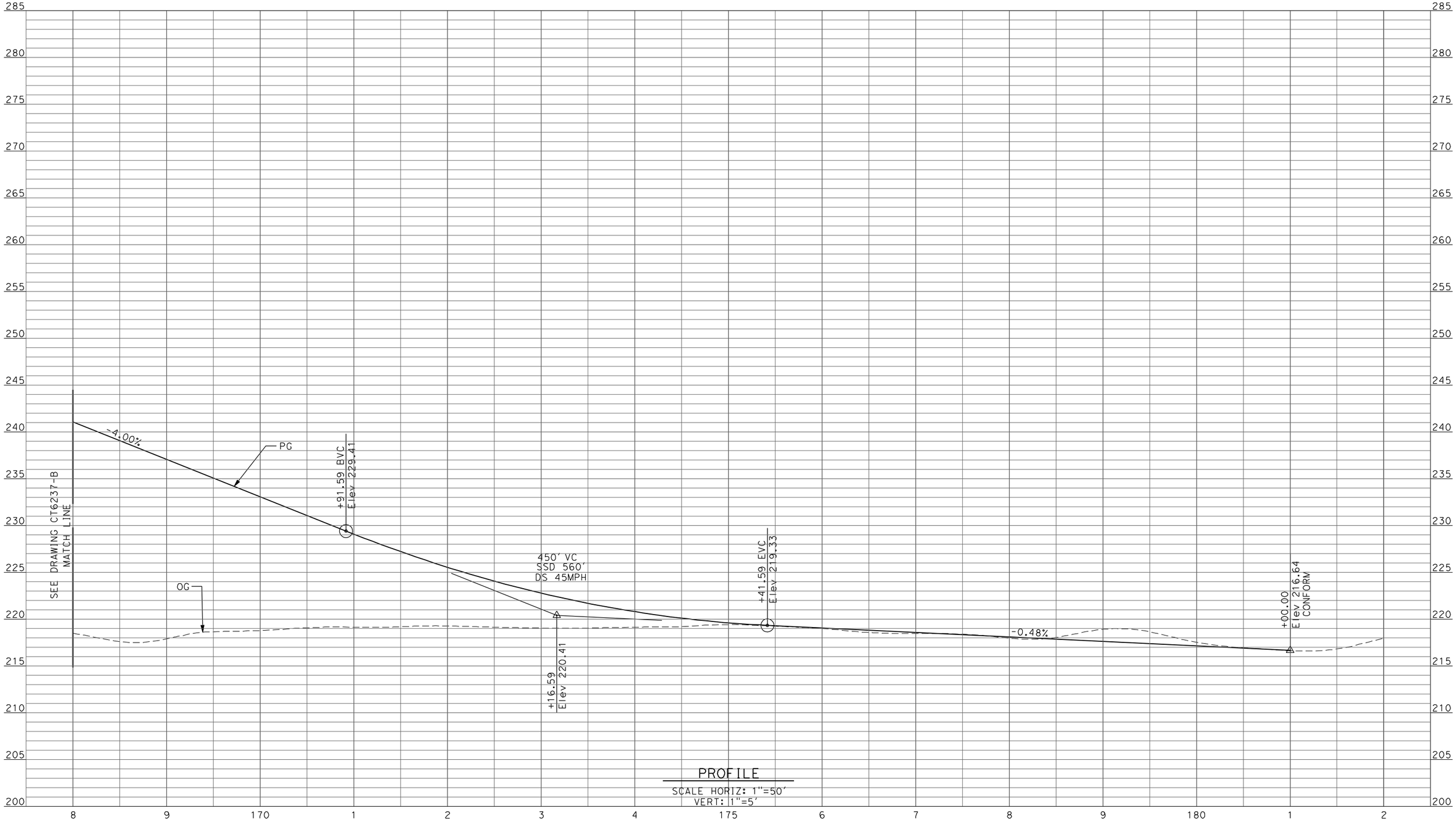

PROFILE

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REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
GRADE SEPARATION - CROSS ROAD
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6238-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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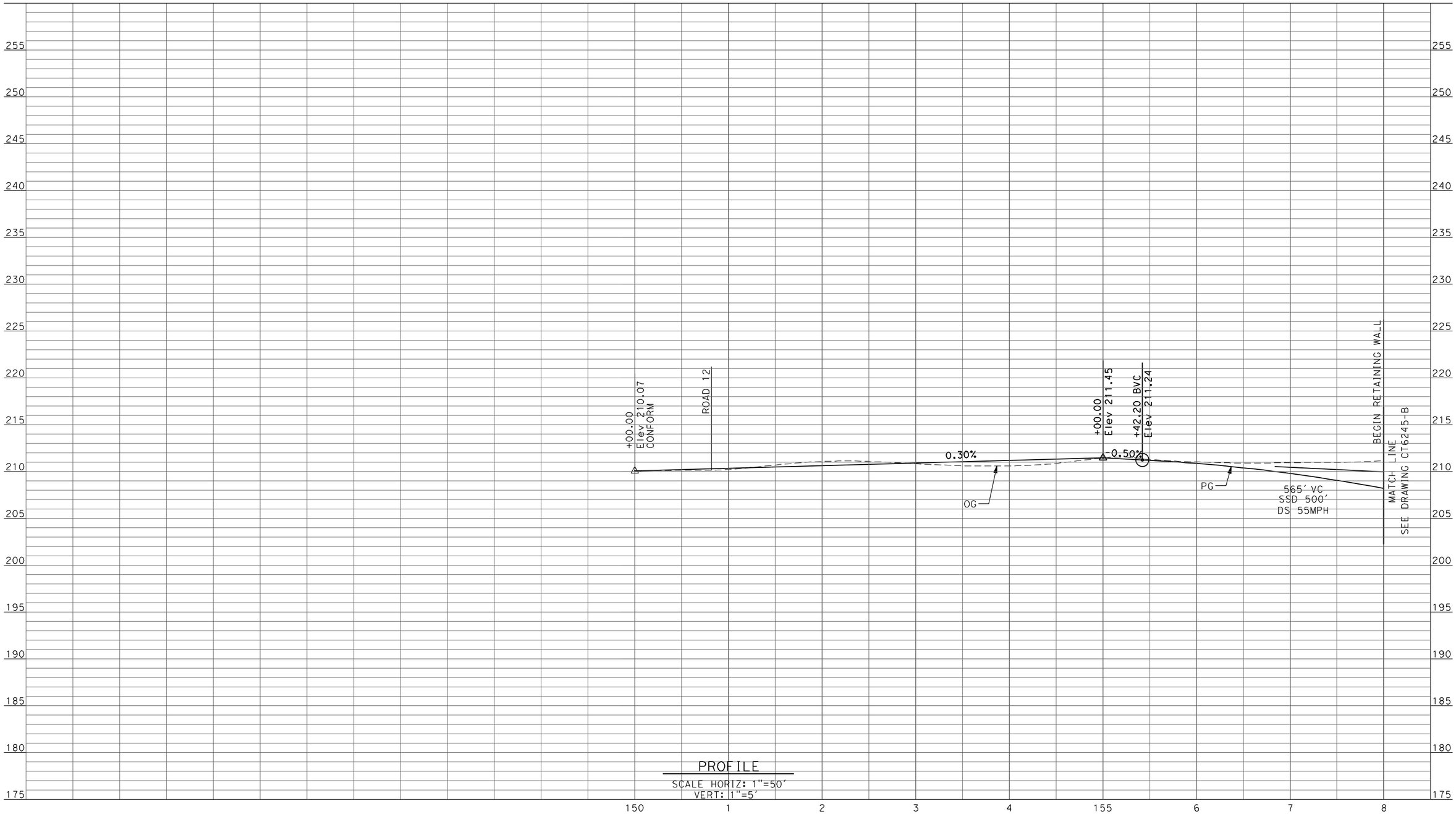

PROFILE

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VERT: 1"=5'

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6244-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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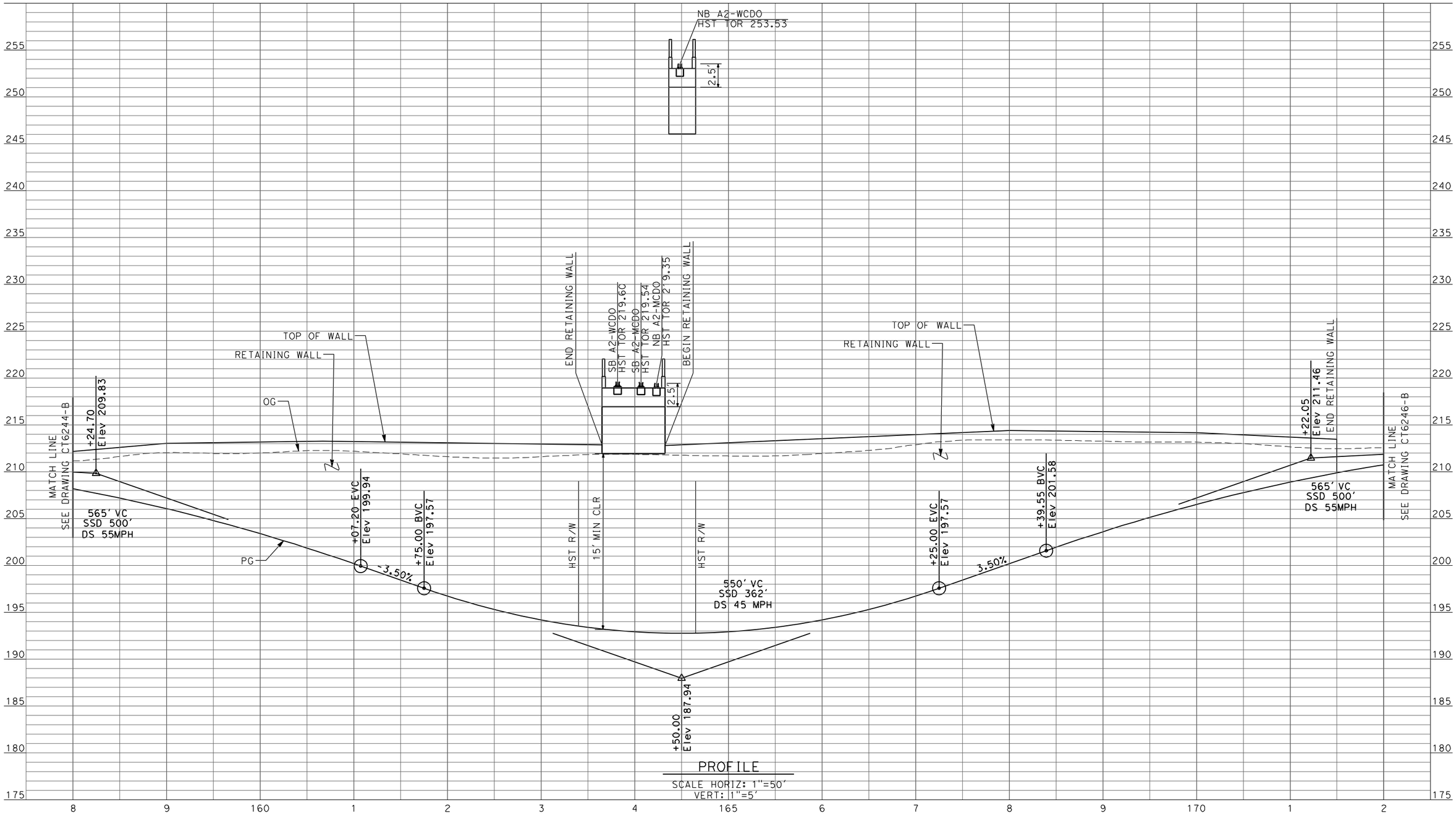

PROFILE

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VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6245-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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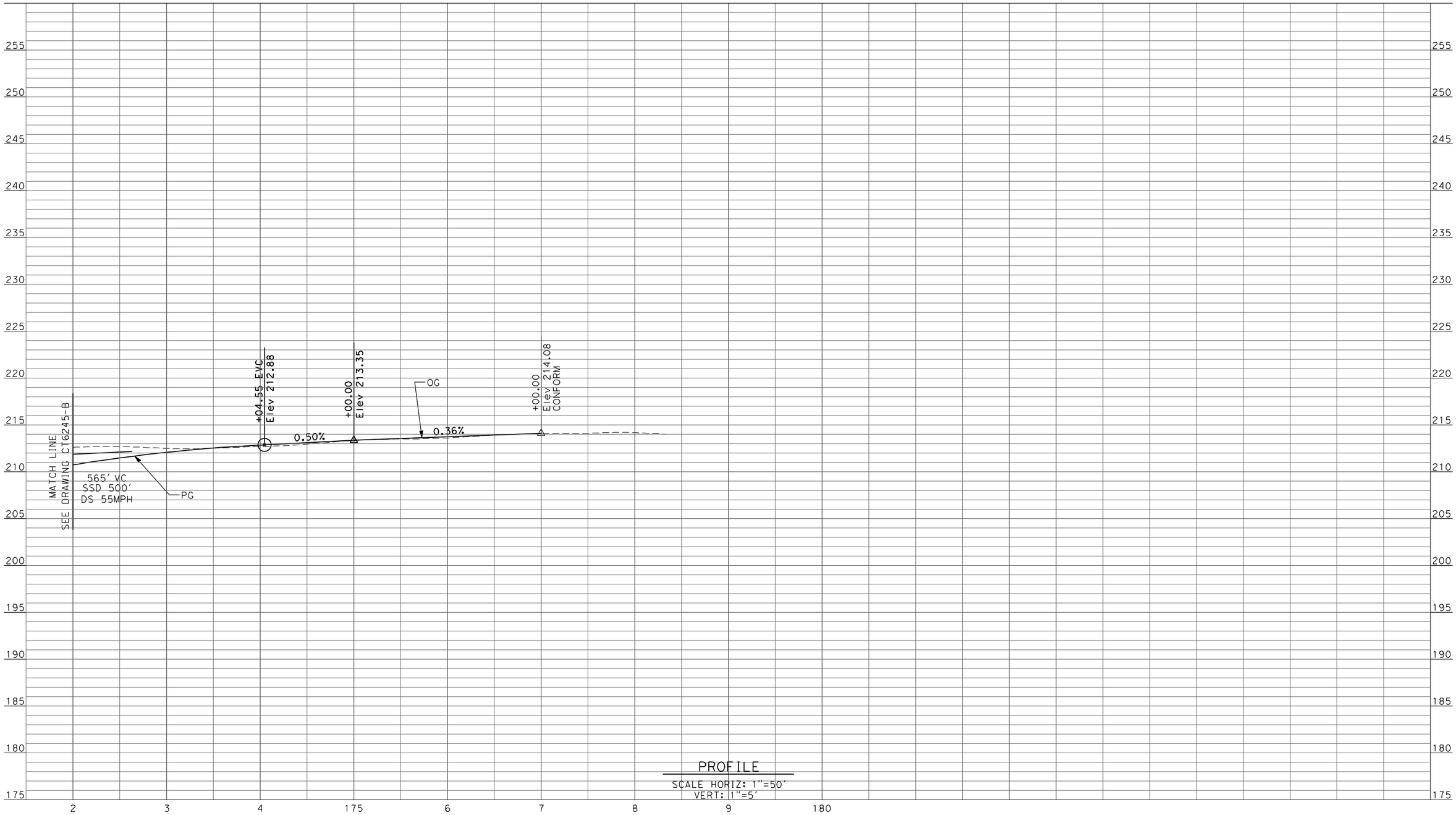

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

UPRR/SR99 WYE/MERCED DO - (HYBRID)
UNDERPASS - AVENUE 26 ALT 2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6246-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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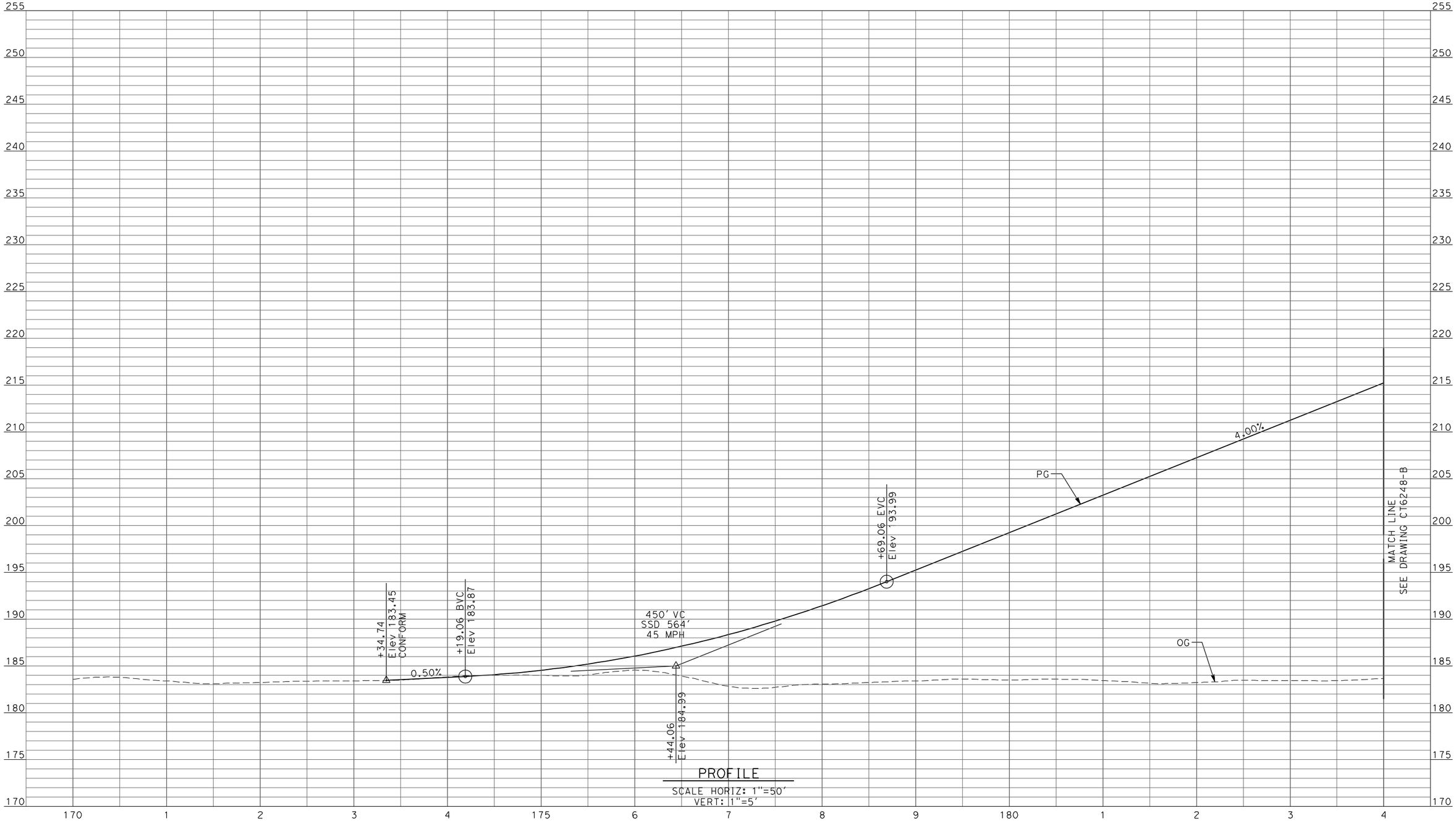

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6247-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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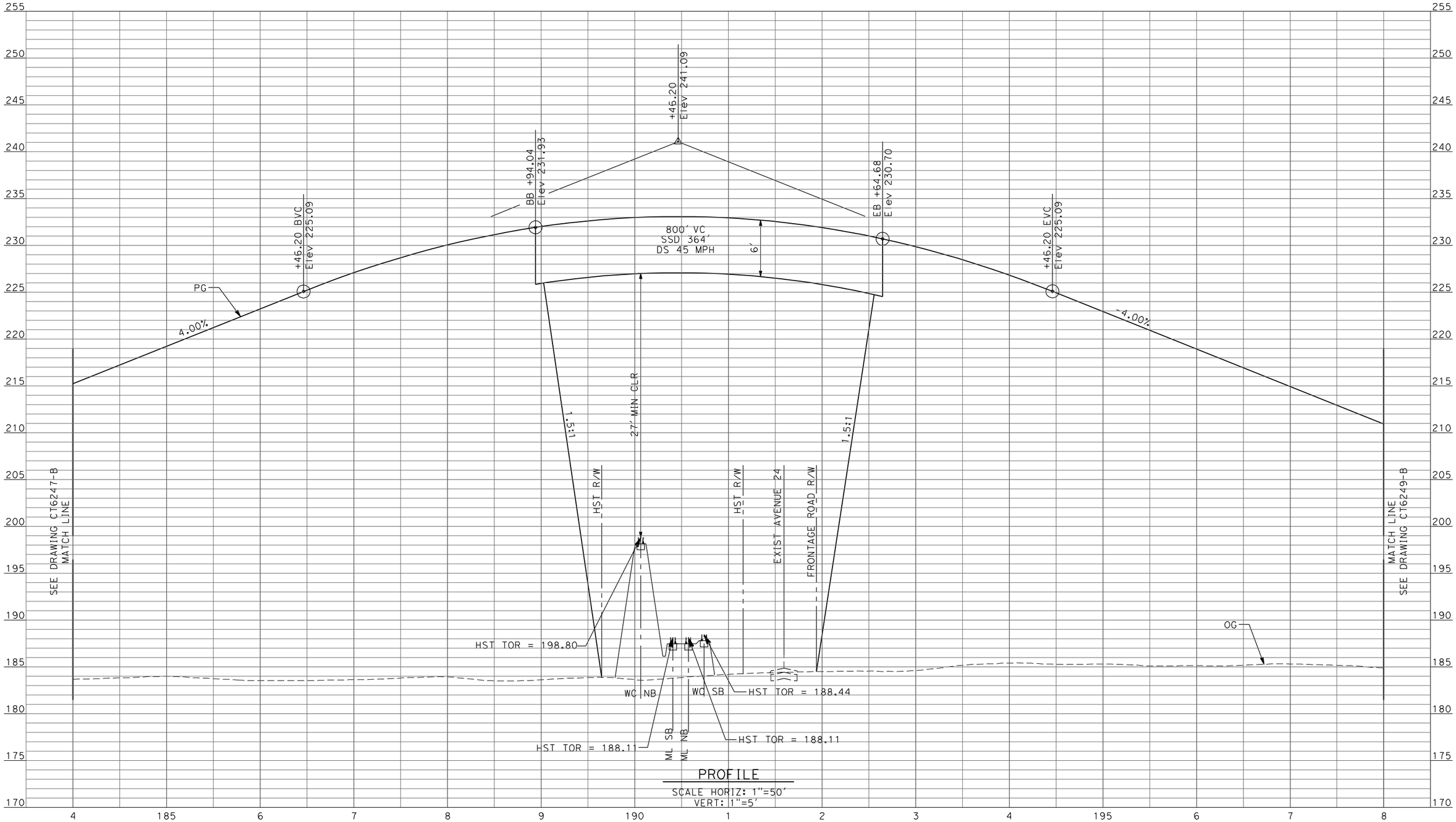

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6248-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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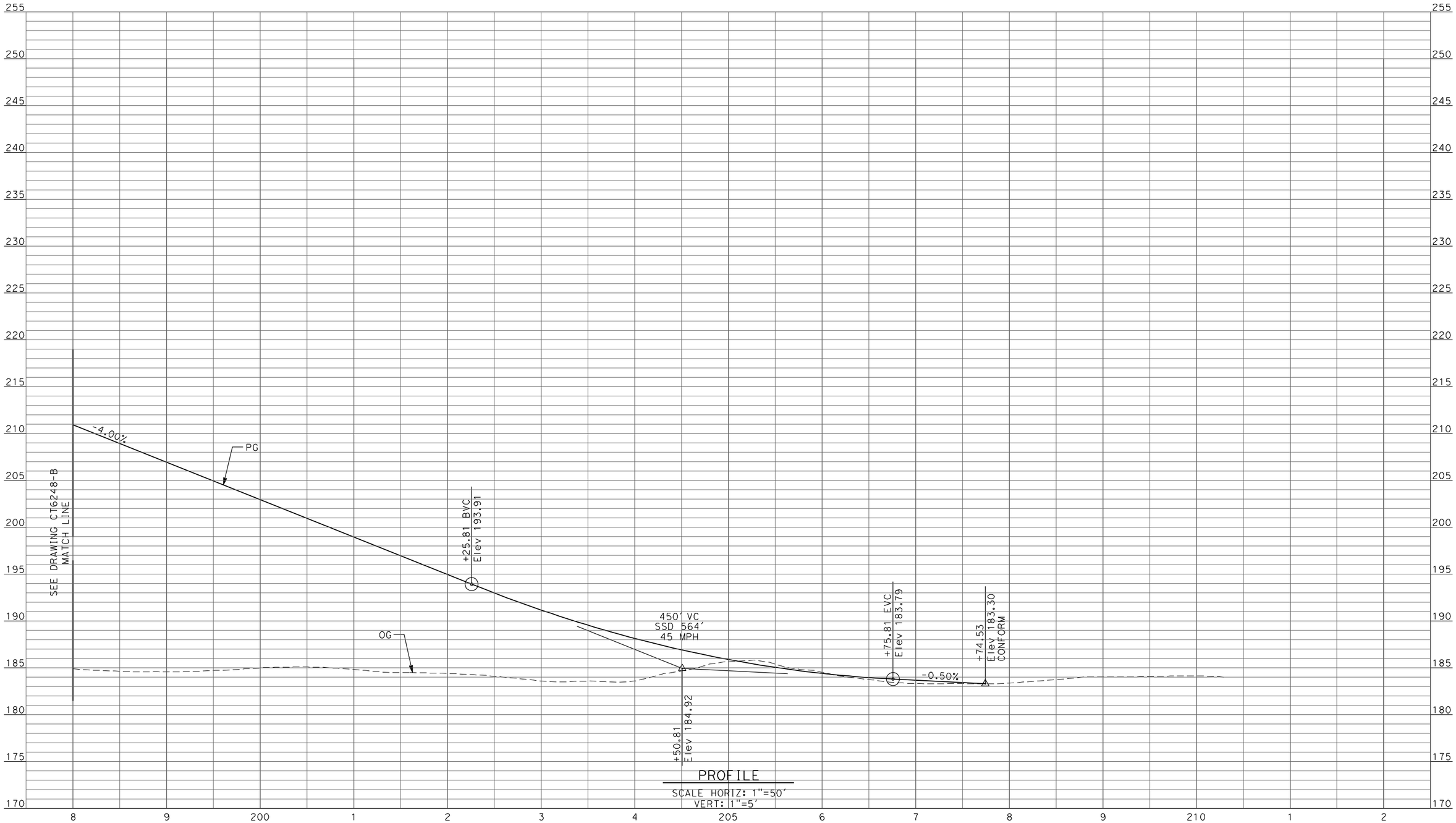

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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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

BNSF MAINLINE/WYE DO - (HYBRID)
GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT6249-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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ayeled

SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	SHEET TITLE LINE 5	SHEET TITLE LINE 6
		ROADWAY BRIDGE STRUCTURE PLAN			
		HYBRID ALTERNATIVE/AVENUE 24			
			GENERAL		
	SB1301	HYBRID ALTERNATIVE	AVENUE 24	INDEX OF DRAWINGS	SHEET 1 OF 1
	SB1302	HYBRID ALTERNATIVE	AVENUE 24	STRUCTURE INDEX MAP	SHEET 1 OF 1
			OVERHEAD BRIDGES		
	ST1001	BNSF MAIN LINE	AVENUE 21	AVENUE 9 OVERHEAD	PLANNING STUDY
	ST1002	BNSF MAIN LINE	AVENUE 21	AVENUE 10 OVERHEAD	PLANNING STUDY
	ST1003	BNSF MAIN LINE	AVENUE 21	AVENUE 11 OVERHEAD	PLANNING STUDY
	ST1004	BNSF MAIN LINE	AVENUE 21	AVENUE 12 OVERHEAD	PLANNING STUDY
	ST1005	BNSF MAIN LINE	AVENUE 21	AVENUE 13 OVERHEAD	PLANNING STUDY
	ST1006	BNSF MAIN LINE	AVENUE 21	AVENUE 15 OVERHEAD	PLANNING STUDY
	ST1007	BNSF MAIN LINE	AVENUE 21	AVENUE 15½ OVERHEAD	PLANNING STUDY
	ST1008	BNSF MAIN LINE	AVENUE 21	RAYMOND ROAD OVERHEAD	PLANNING STUDY
	ST1009	BNSF MAIN LINE	AVENUE 21	AVENUE 17 OVERHEAD	PLANNING STUDY
	ST1010	BNSF MAIN LINE - HYBRID	AVENUE 21	ROAD 27 OVERHEAD	PLANNING STUDY
	ST1011	BNSF MAIN LINE - HYBRID	AVENUE 21	ROAD 26 OVERHEAD	PLANNING STUDY
	ST1035	BNSF MAIN LINE	AVENUE 24	AVENUE 20 OVERHEAD	PLANNING STUDY
	ST1036	BNSF MAIN LINE	AVENUE 24	AVENUE 20½ OVERHEAD	PLANNING STUDY
	ST1037	BNSF MAIN LINE	AVENUE 24	AVENUE 20½ OVERHEAD	PLANNING STUDY
	ST1038	BNSF MAIN LINE	AVENUE 24	ROAD 24 OVERHEAD	PLANNING STUDY
	ST1039	BNSF MAIN LINE	AVENUE 24	ROAD 24 OVERHEAD	PLANNING STUDY
	ST1040	BNSF MAIN LINE	AVENUE 24	ROAD 22 OVERHEAD	PLANNING STUDY
	ST1041	BNSF MAIN LINE	AVENUE 24	AVENUE 23½ OVERHEAD	PLANNING STUDY
	ST1042	BNSF MAIN LINE	AVENUE 24	ROAD 16 OVERHEAD	PLANNING STUDY
	ST1043	BNSF MAIN LINE	AVENUE 24	ROAD 15 OVERHEAD	PLANNING STUDY
	ST1047	BNSF MAIN LINE	AVENUE 24	ROAD 9 OVERHEAD	PLANNING STUDY
	ST1160	HYBRID MAIN LINE/WYE CONNECTION	AVENUE 24	ROAD 10 OVERHEAD	PLANNING STUDY
	ST1121	BNSF MAIN LINE - HYBRID	AVENUE 24	ROAD 13 OVERHEAD	PLANNING STUDY-SHEET 1 OF 2
	ST1161	UPRR/SR 99 MERCED CONNECTION - HYBRID	AVENUE 24	ROAD 13 OVERHEAD	PLANNING STUDY-SHEET 2 OF 2
	ST1133	UPRR/SR 99 MERCED CONNECTION	AVENUE 24	AVENUE 25 OVERHEAD	PLANNING STUDY-SHEET 1 OF 2
	ST1134	UPRR/SR 99 WYE CONNECTION	AVENUE 24	AVENUE 25 OVERHEAD	PLANNING STUDY-SHEET 2 OF 2
	ST1135	UPRR/SR 99 WYE & MERCED CONNECTIONS	AVENUE 24	AVENUE 26 OVERHEAD	PLANNING STUDY
	ST1136	UPRR/SR 99 MERCED CONNECTION	AVENUE 24	CROSS ROAD OVERHEAD	PLANNING STUDY
	ST1139	UPRR/SR 99 MERCED DO - HYBRID & WYE CONNECTION	AVENUE 24	SANDY MUSH ROAD OVERHEAD	PLANNING STUDY
	ST1180	UPRR/SR 99 MERCED CONNECTION	AVENUE 21	G STREET OVERHEAD	PLANNING STUDY
	ST1070	BNSF MAIN LINE	AVENUE 21	AVENUE 7 OVERHEAD	PLANNING STUDY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. Lee
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. Boone
DATE 04/29/2011

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

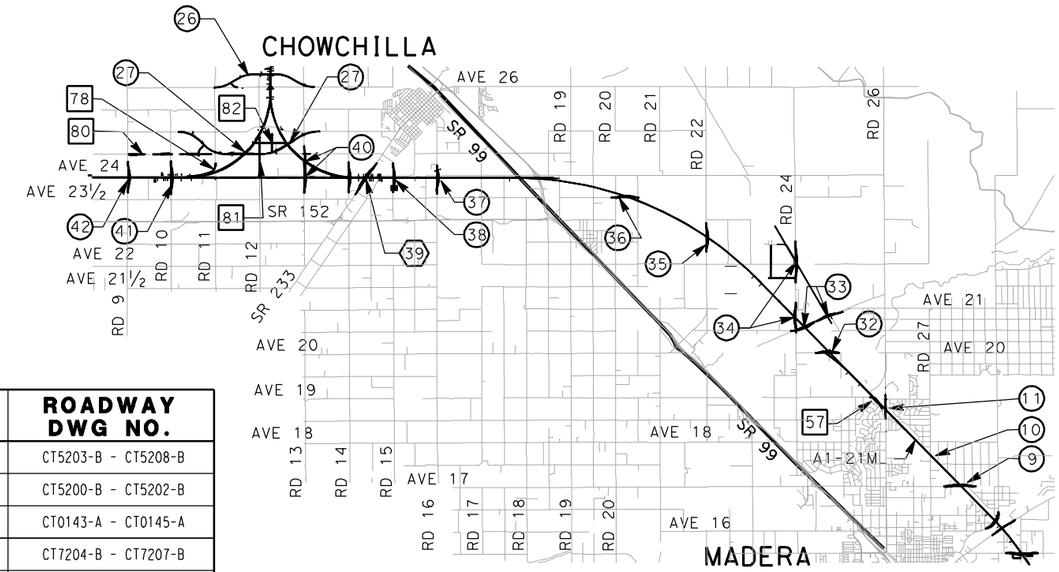
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID ALTERNATIVE
AVENUE 24
INDEX OF DRAWINGS
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. SB1301
SCALE No scale
SHEET NO. OF

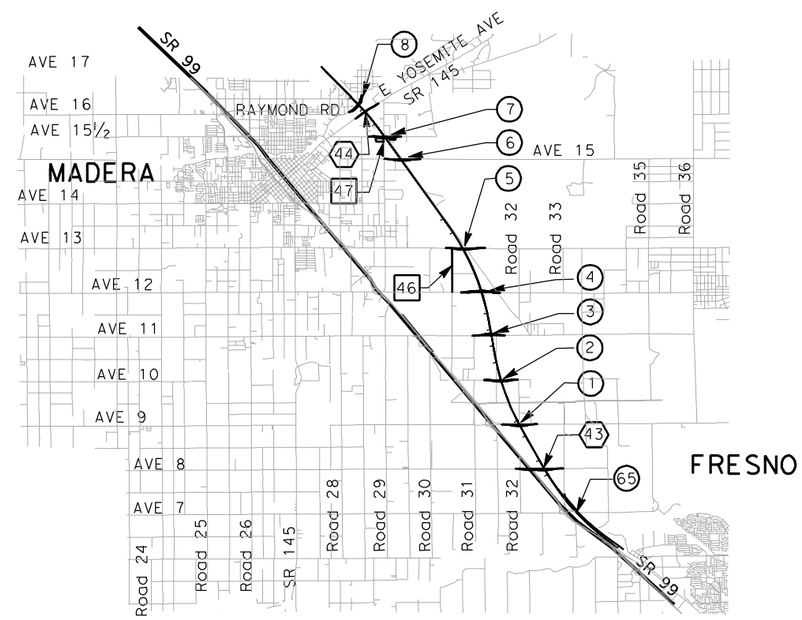
cisnerose 5/1/2011 5:39:36 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\Hybrid non-caltrans\MF-SB-1301.dgn

LOCATION NO.	SHEET TITLE	STRUCTURE DWG NO.	ROADWAY DWG NO.
1	AVENUE 9 OVERHEAD	ST1001	CT0001-A - CT0003-A
2	AVENUE 10 OVERHEAD	ST1002	CT0004-A - CT0006-A
3	AVENUE 11 OVERHEAD	ST1003	CT0007-A - CT0009-A
4	AVENUE 12 OVERHEAD	ST1004	CT0010-A - CT0012-A
5	AVENUE 13 OVERHEAD	ST1005	CT0013-A - CT0016-A
6	AVENUE 15 OVERHEAD	ST1006	CT0017-A - CT0019-A
7	AVENUE 15½ OVERHEAD	ST1007	CT0020-A - CT0022-A
8	RAYMOND ROAD OVERHEAD	ST1008	CT0023-A - CT0025-A
9	AVENUE 17 OVERHEAD	ST1009	CT0026-A - CT0028-A
10	ROAD 27 OVERHEAD	ST1010	CT0029-A - CT0031-A
11	ROAD 26 OVERHEAD	ST1011	CT0032-A - CT0034-A
25	CROSS ROAD OVERHEAD	ST1136	CT5238-B - CT5240-B
26	AVENUE 26 OVERHEAD	ST1135	CT5227-B - CT5236-B
27	AVENUE 25 OVERHEAD	ST1133 & ST1134	CT5209-B - CT5225-B
32	AVENUE 20 OVERHEAD	ST1035	CT0113-A - CT0115-A
33	AVENUE 20½ OVERHEAD	ST1036 & ST1037	CT0116-A - CT0118-A
34	ROAD 24 OVERHEAD	ST1038 & ST1039	CT0119-A - CT0121-A
35	ROAD 22 OVERHEAD	ST1040	CT0122-A - CT0124-A
36	AVENUE 23½ OVERHEAD	ST1041	CT0125-A - CT0127-A
37	ROAD 16 OVERHEAD	ST1042	CT0128-A - CT0130-A
38	ROAD 15 OVERHEAD	ST1043	CT0131-A - CT0133-A

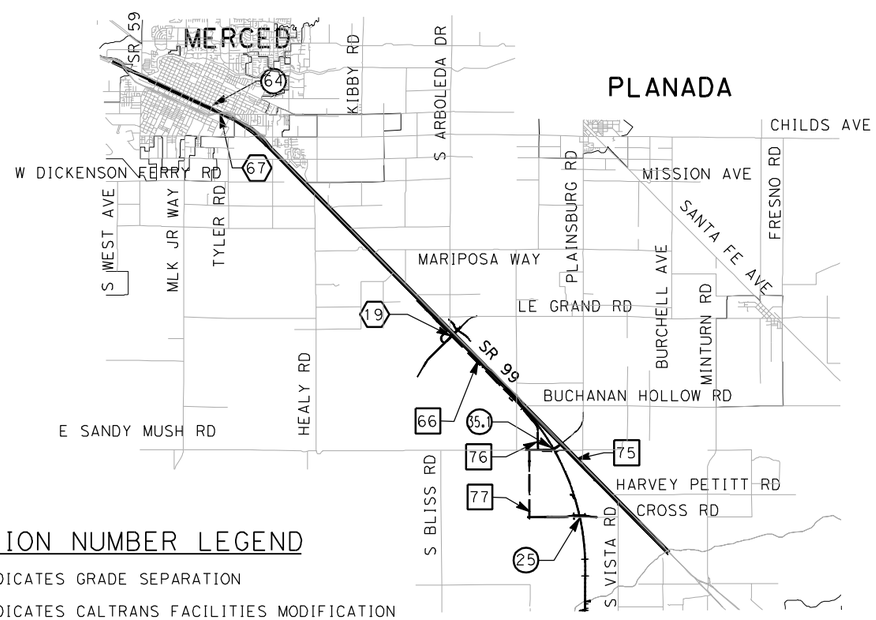
LOCATION NO.	SHEET TITLE	STRUCTURE DWG NO.	ROADWAY DWG NO.
40	ROAD 13 OVERHEAD	ST1121 & ST1161	CT5203-B - CT5208-B
41	ROAD 10 OVERHEAD	ST1160	CT5200-B - CT5202-B
42	ROAD 9 OVERHEAD	ST1047	CT0143-A - CT0145-A
35.1	SANDY MUSH ROAD OVERHEAD	ST1139	CT7204-B - CT7207-B
64	G STREET OVERHEAD	ST1180	CT0149-A
65	AVENUE 7 OVERHEAD	ST1070	



VICINITY MAP 2



VICINITY MAP 3



VICINITY MAP 1

LOCATION NUMBER LEGEND

(X) - INDICATES GRADE SEPARATION

⟨X⟩ - INDICATES CALTRANS FACILITIES MODIFICATION

[X] - INDICATES LOCAL ROAD RELOCATION

9000 0 9000 18000

GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. Lee
DRAWN BY E. CISNEROS
CHECKED BY J. ZANDIAN
IN CHARGE A. Boone
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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

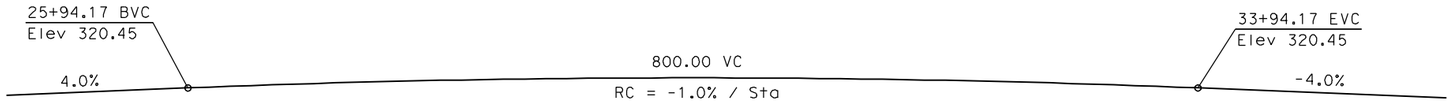
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

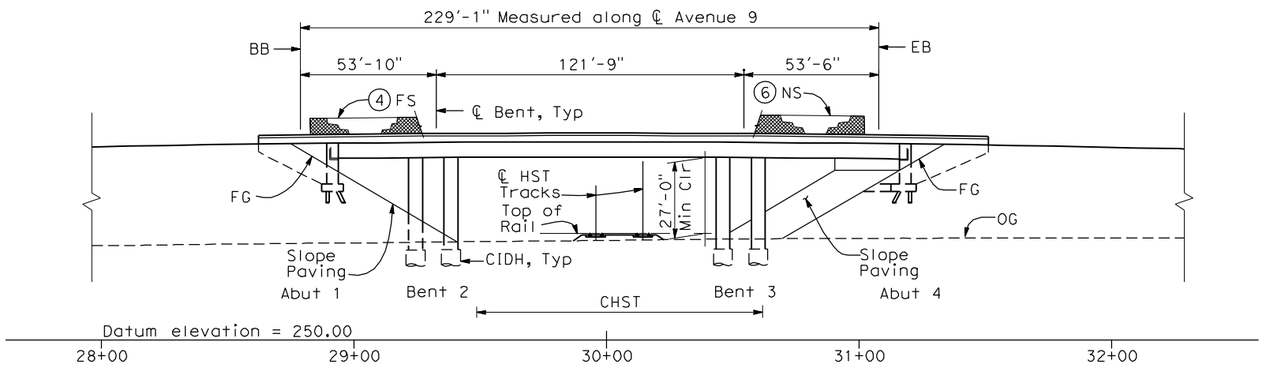
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID ALTERNATIVE
AVENUE 24
STRUCTURE INDEX MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. SB1302
SCALE As shown
SHEET NO. OF

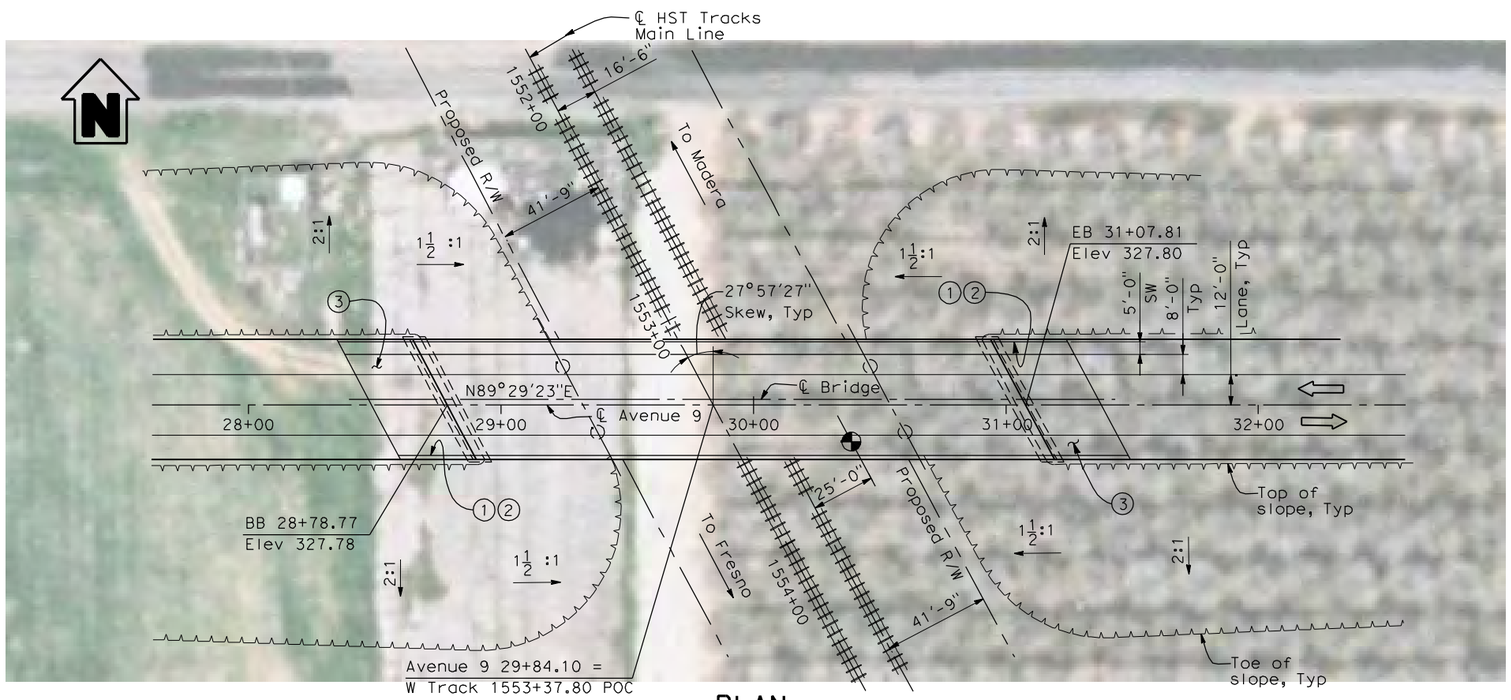
cisnerose 5/1/2011 5:40:49 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\Hybrid non-Caltrans\SB1302.dgn



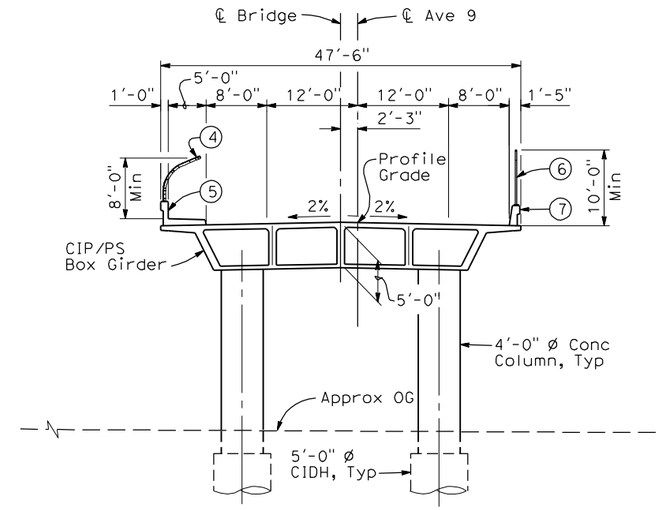
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



PLAN
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 9 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 9 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	229'-1"
WIDTH	=	47'-6"
AREA	=	10,880 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 1

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE
AVENUE 21
AVENUE 9 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1001
SCALE As shown
SHEET NO. OF

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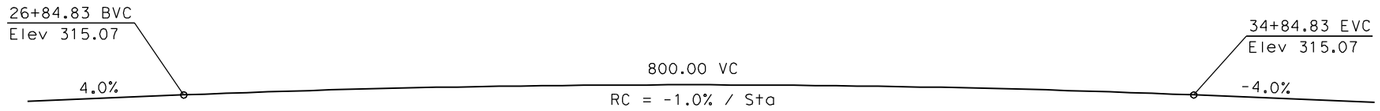
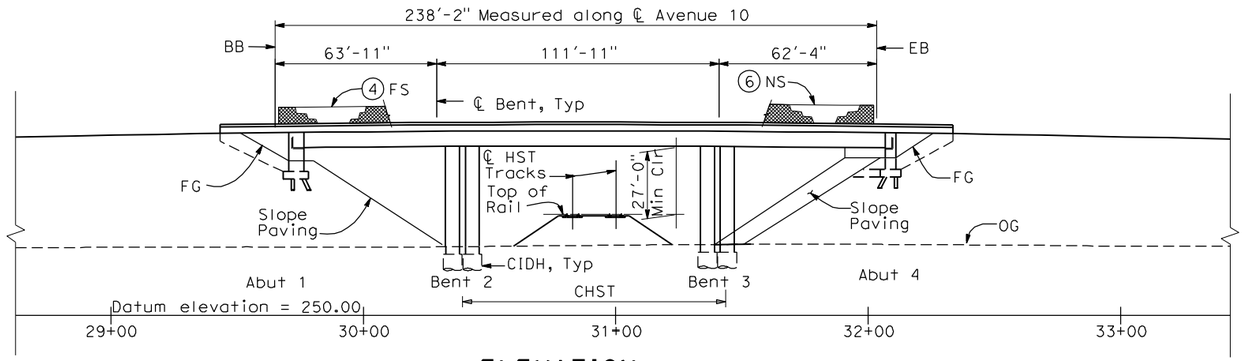


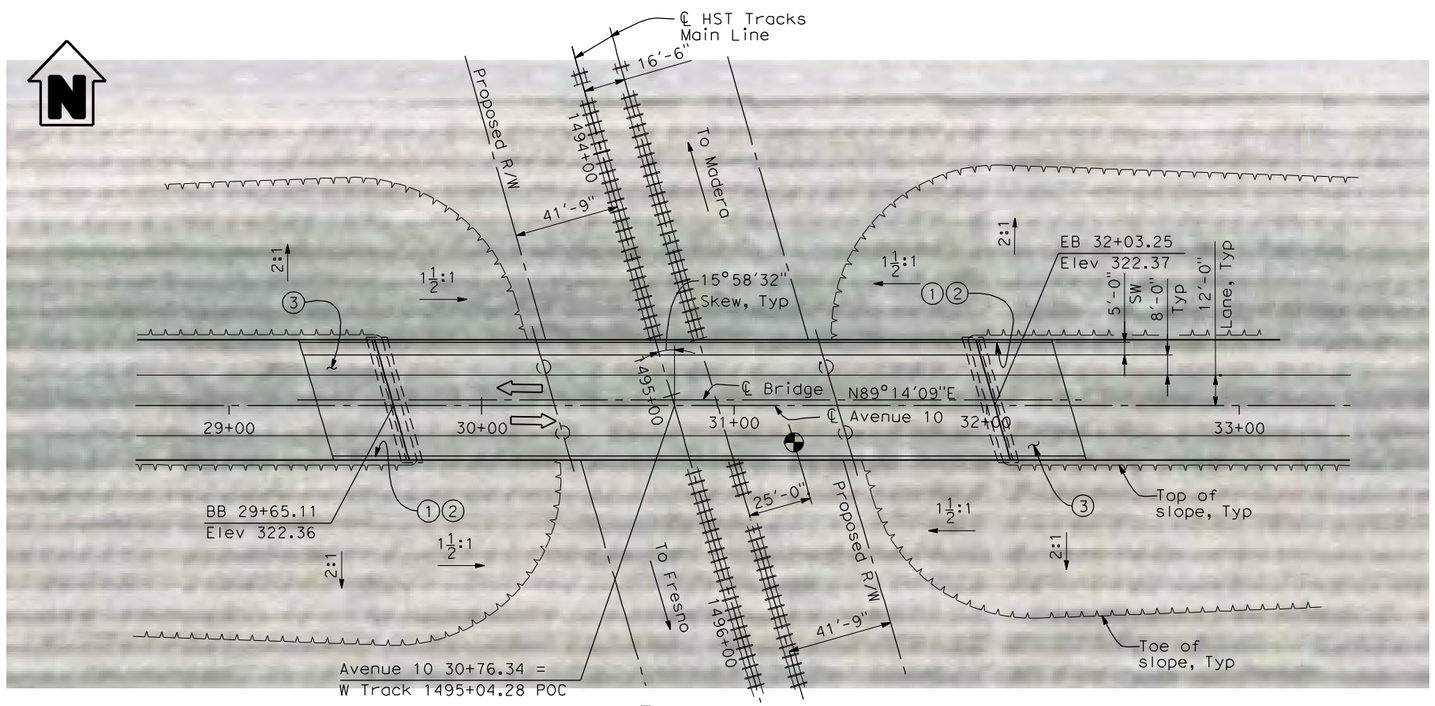
PROFILE GRADE

NTS



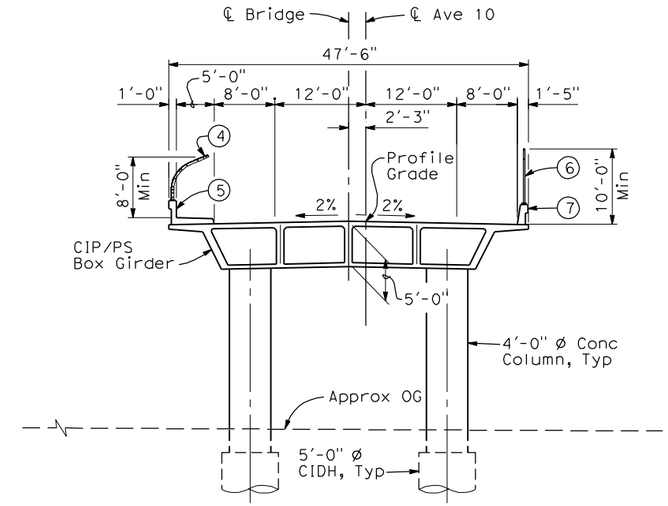
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 10 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 10 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	238'-2"
WIDTH	=	47'-6"
AREA	=	11,312 ft²
COST/ ▢FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 2

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE
AVENUE 21
AVENUE 10 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1002
SCALE As shown
SHEET NO. OF

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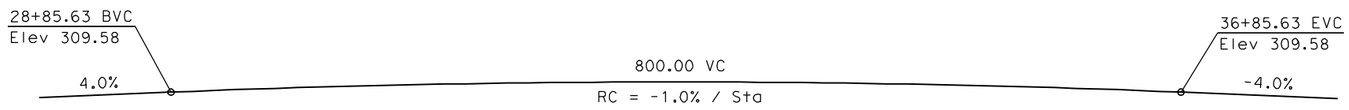
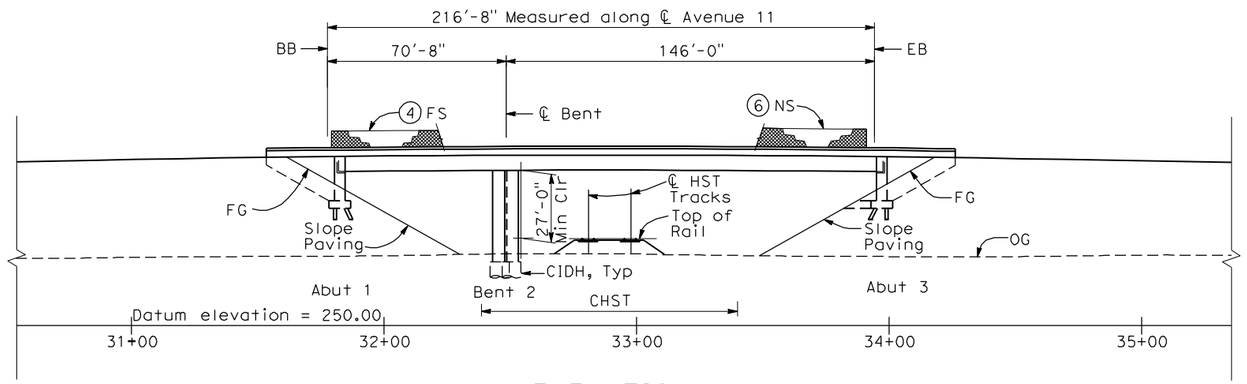


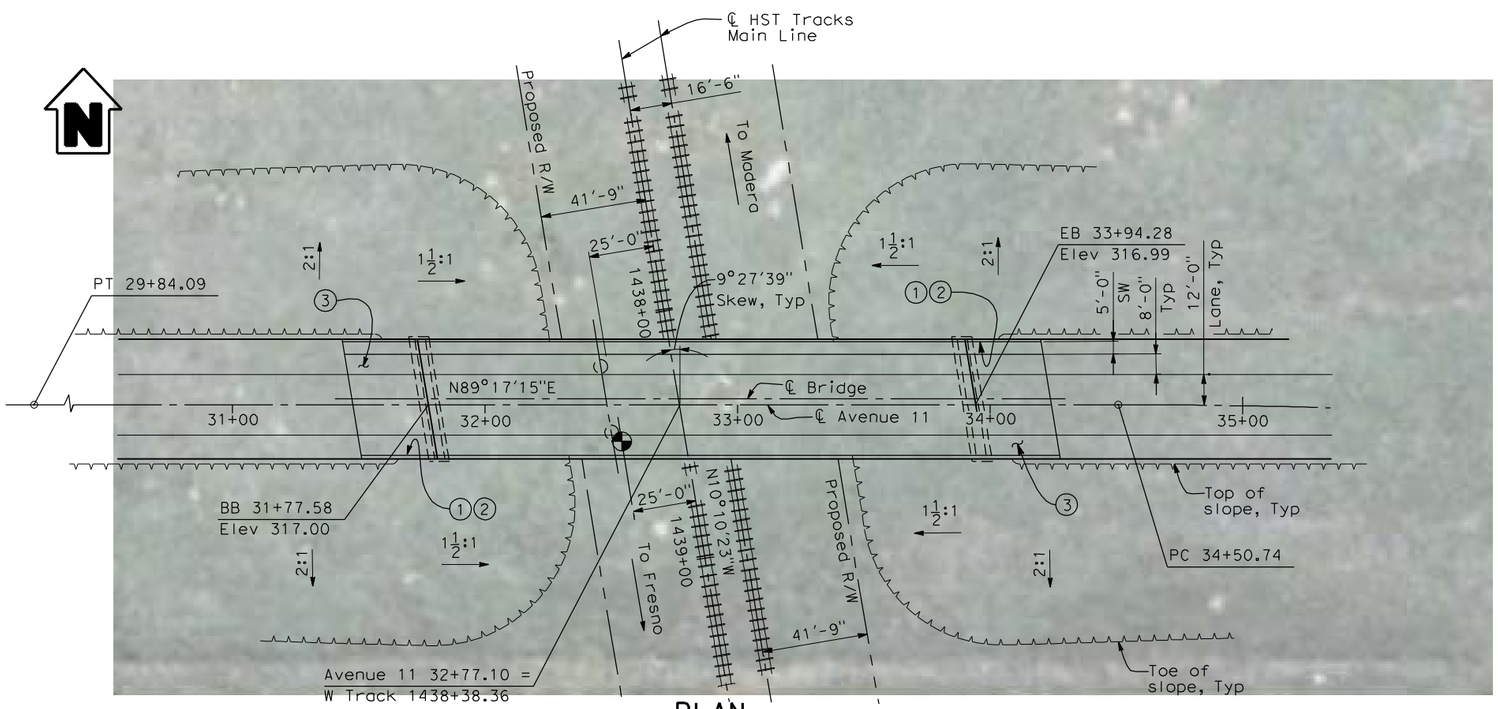
PROFILE GRADE

NTS



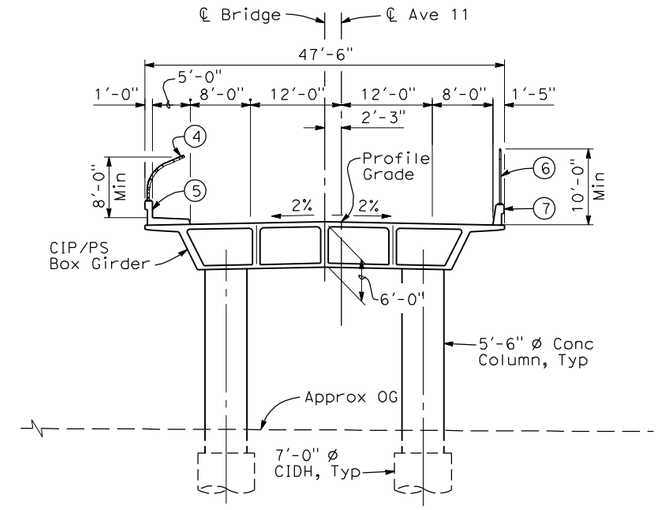
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 11 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 11 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	216'-8"
WIDTH	=	47'-6"
AREA	=	10,294 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 3

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

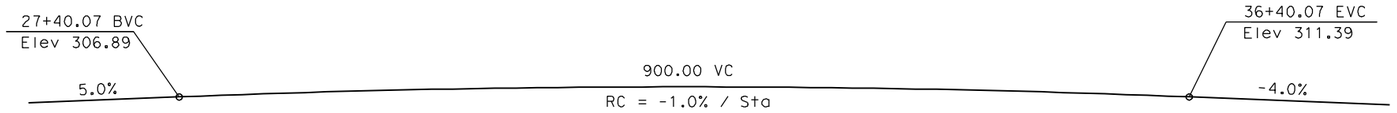
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

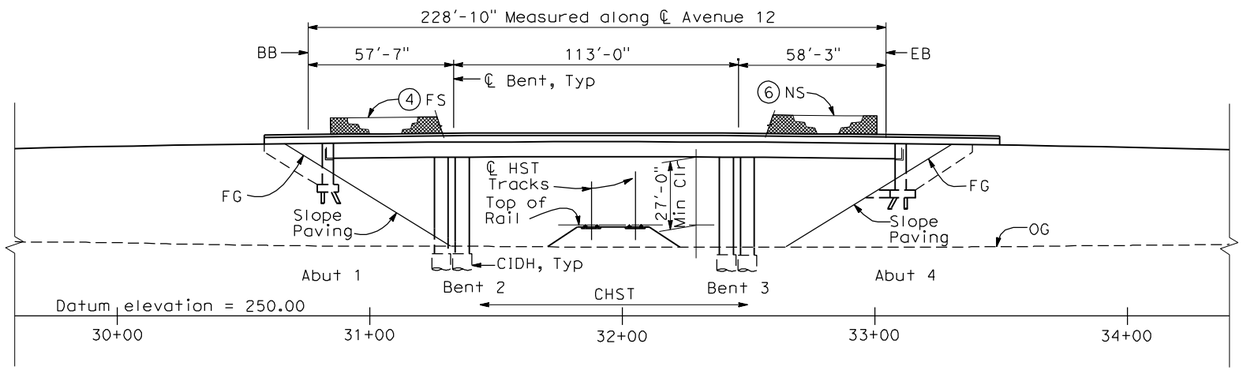
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 11 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1003
SCALE As shown
SHEET NO. OF

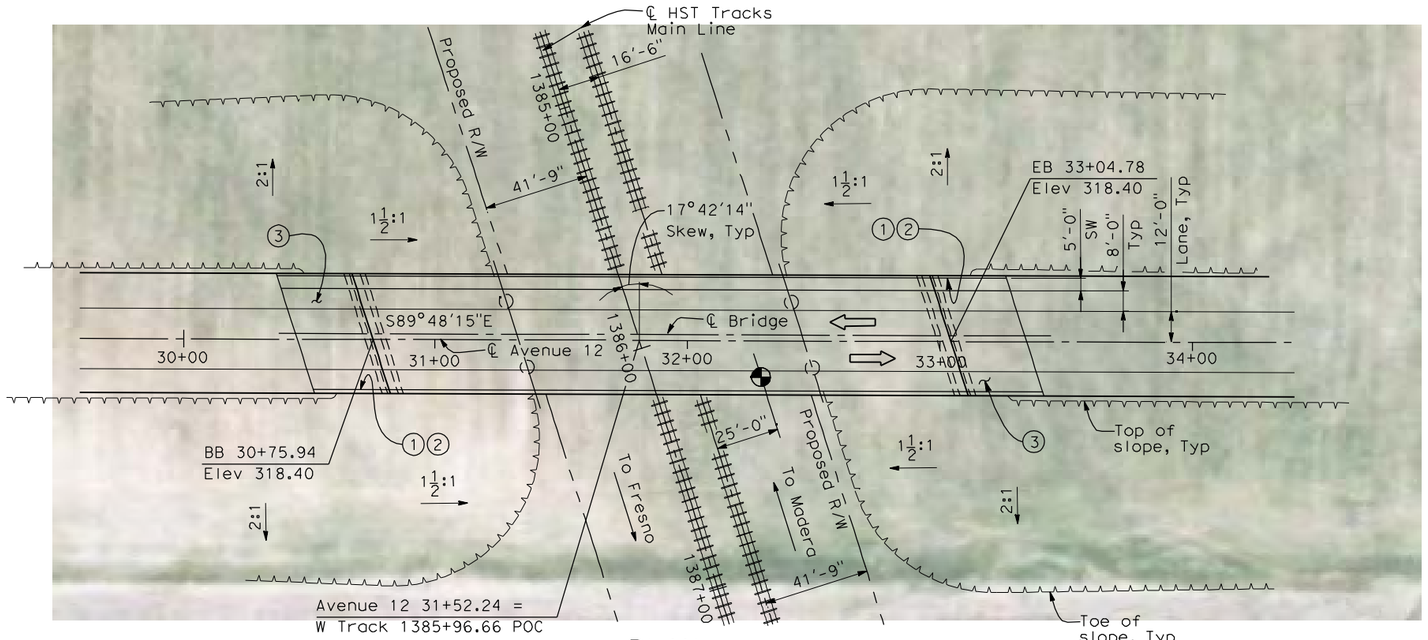
cisnerose 4/30/2011 5:18:37 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 11.dgn



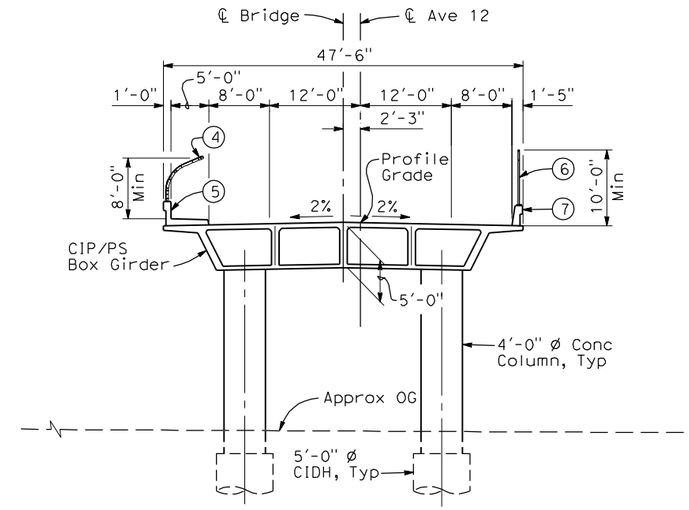
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



PLAN
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 12 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 12 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	228'-10"
WIDTH	=	47'-6"
AREA	=	10,870 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 4

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

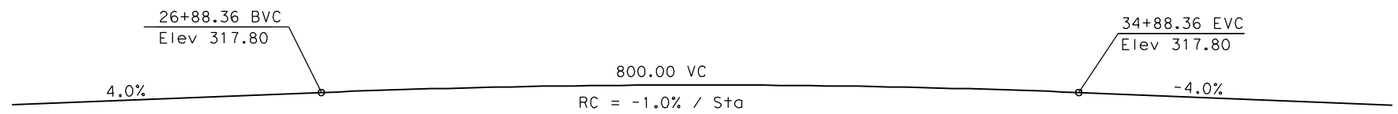
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 12 OVERHEAD
PLANNING STUDY

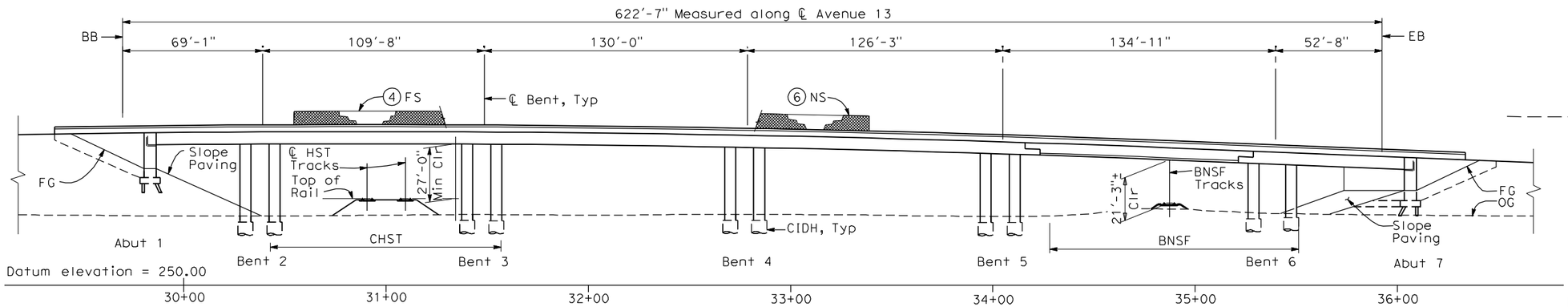
CONTRACT NO. HSR06-007
DRAWING NO. ST1004
SCALE As shown
SHEET NO. OF

cisnerose 4/30/2011 5:28:19 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 12.dgn

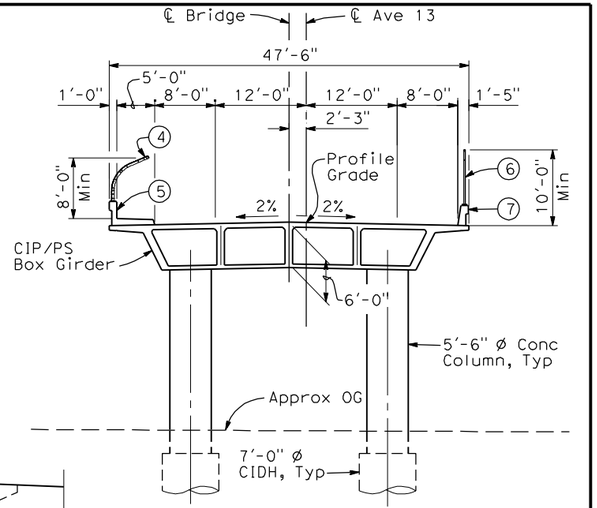


PROFILE GRADE
NTS

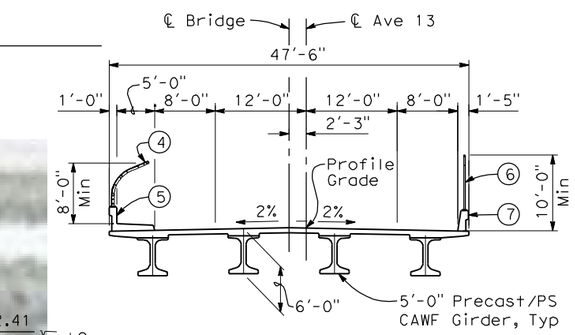
DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	622'-7"
WIDTH	=	47'-6"
AREA	=	28,860 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	



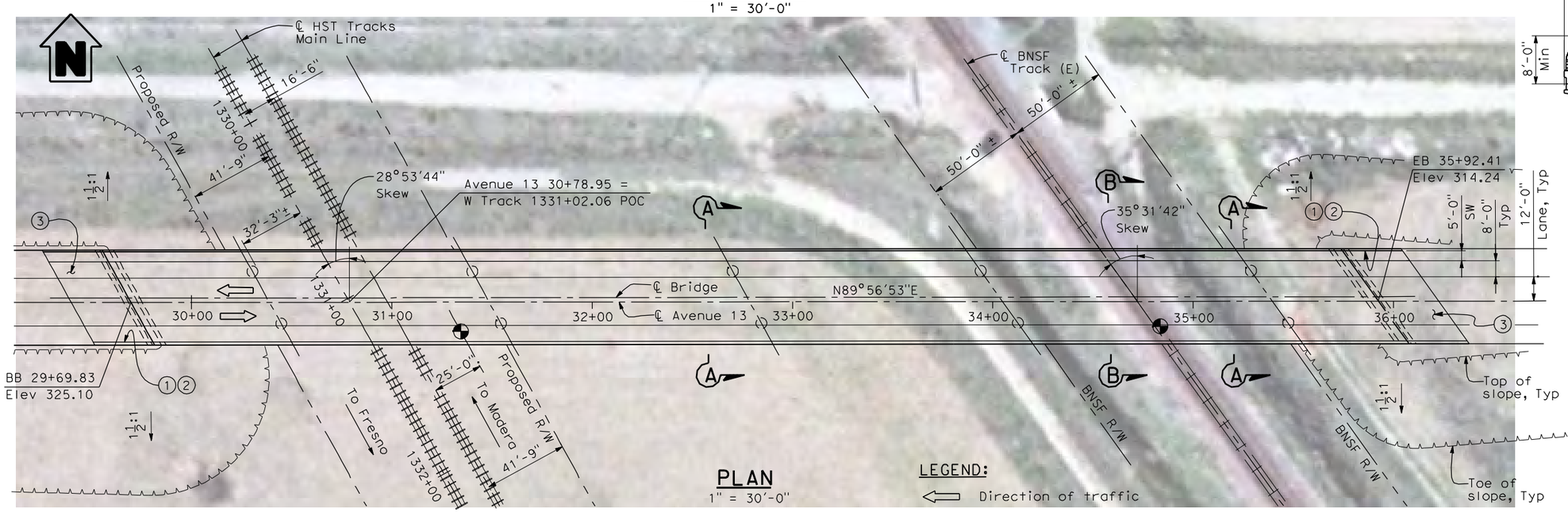
ELEVATION
1" = 30'-0"



SECTION A-A
1"=10'-0"



SECTION B-B
1"=10'-0"



PLAN
1" = 30'-0"

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance

Pt = Petroleum

UG = Underground

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 13 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 13 to be determined.
9. Existing underground and overhead utilities to be determined.

LOCATION 5

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

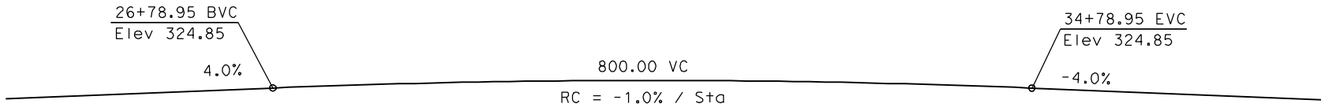
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 13 OVERHEAD
PLANNING STUDY

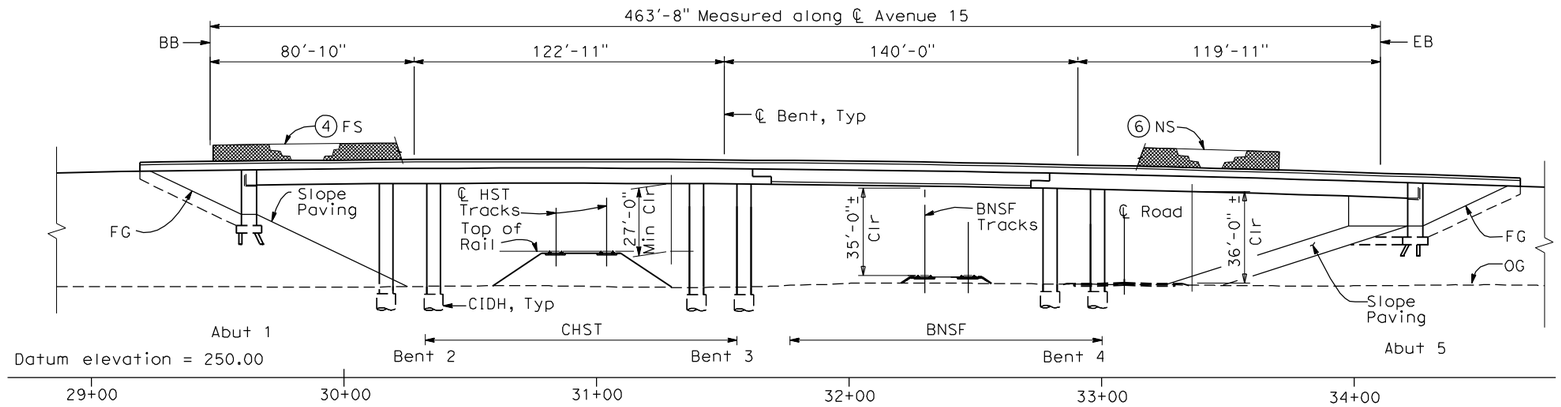
CONTRACT NO. HSR06-007
DRAWING NO. ST1005
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 4:41:01 PM I:\CHSR\60029962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 13.dgn

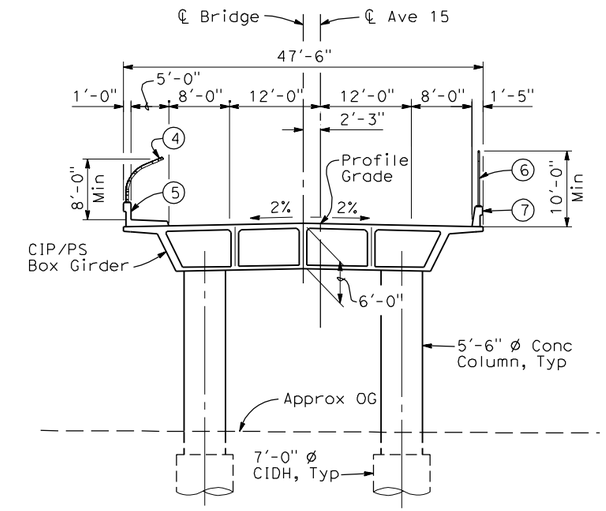


PROFILE GRADE
NTS

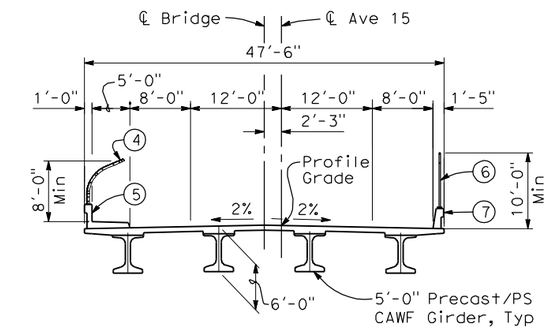
DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	463'-8"
WIDTH	=	47'-6"
AREA	=	22,026 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	



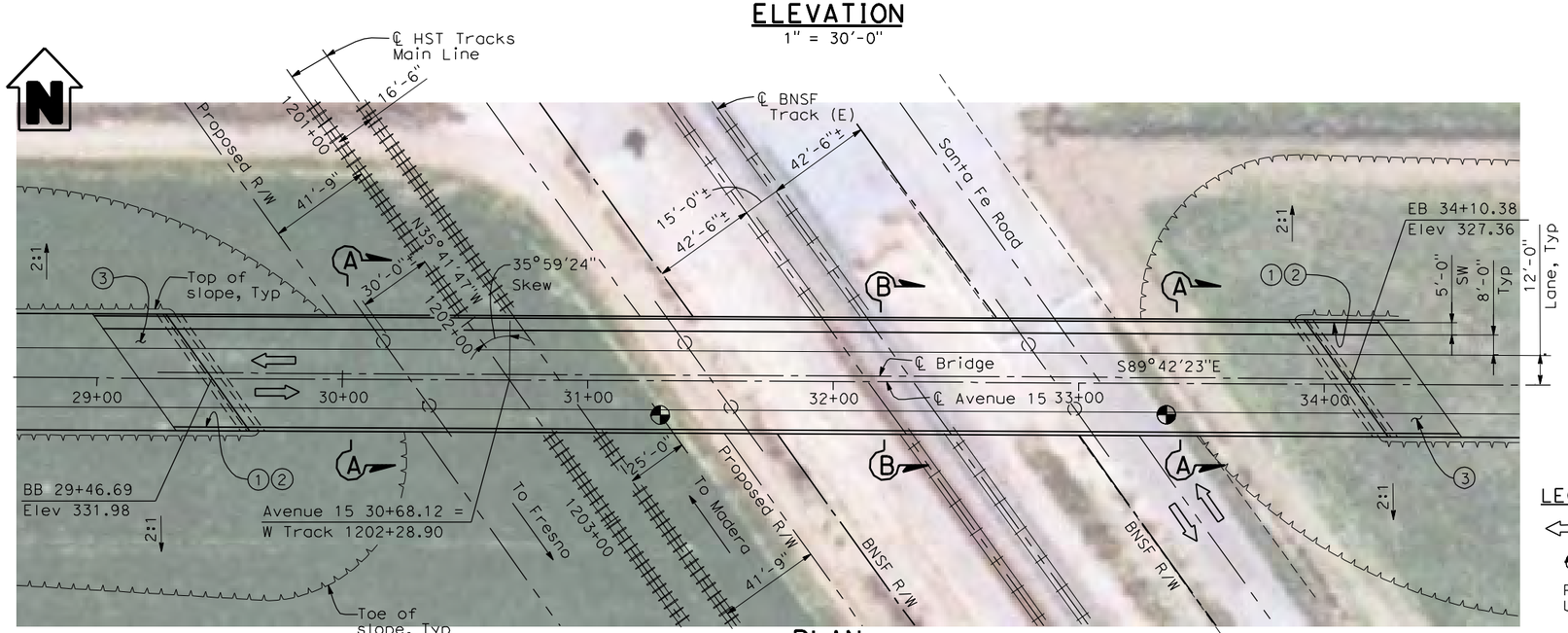
ELEVATION
1" = 30'-0"



SECTION A-A
1"=10'-0"



SECTION B-B
1"=10'-0"



PLAN
1" = 30'-0"

LEGEND:
- Direction of traffic
- Point of minimum vertical clearance
- Pt = Petroleum
- UG = Underground

NOTES:
1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 15 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 15 to be determined.
9. Existing underground and overhead utilities to be determined.

LOCATION 6

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

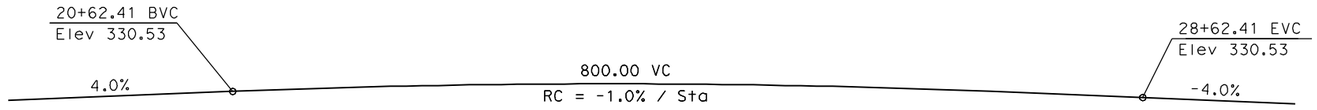
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 15 OVERHEAD
PLANNING STUDY

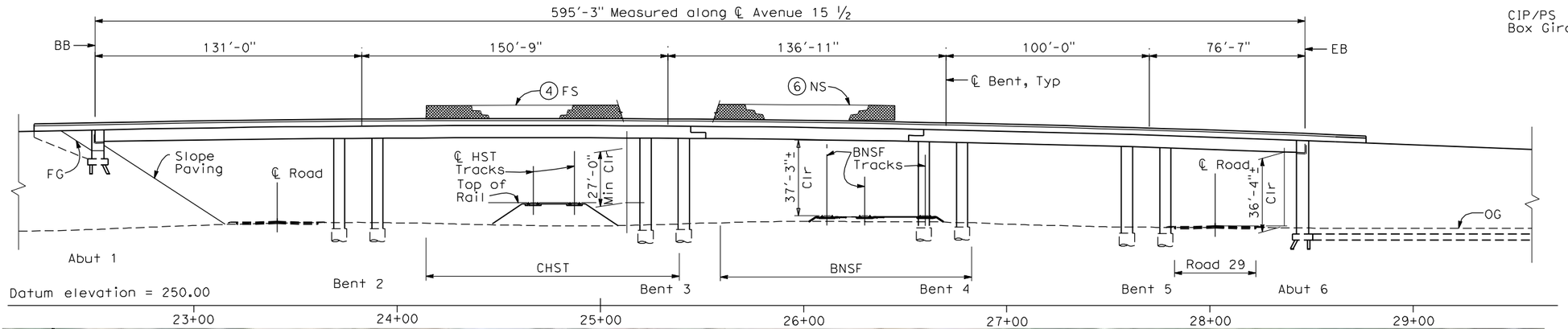
CONTRACT NO. HSR06-007
DRAWING NO. ST1006
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 4:42:18 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 15.dgn

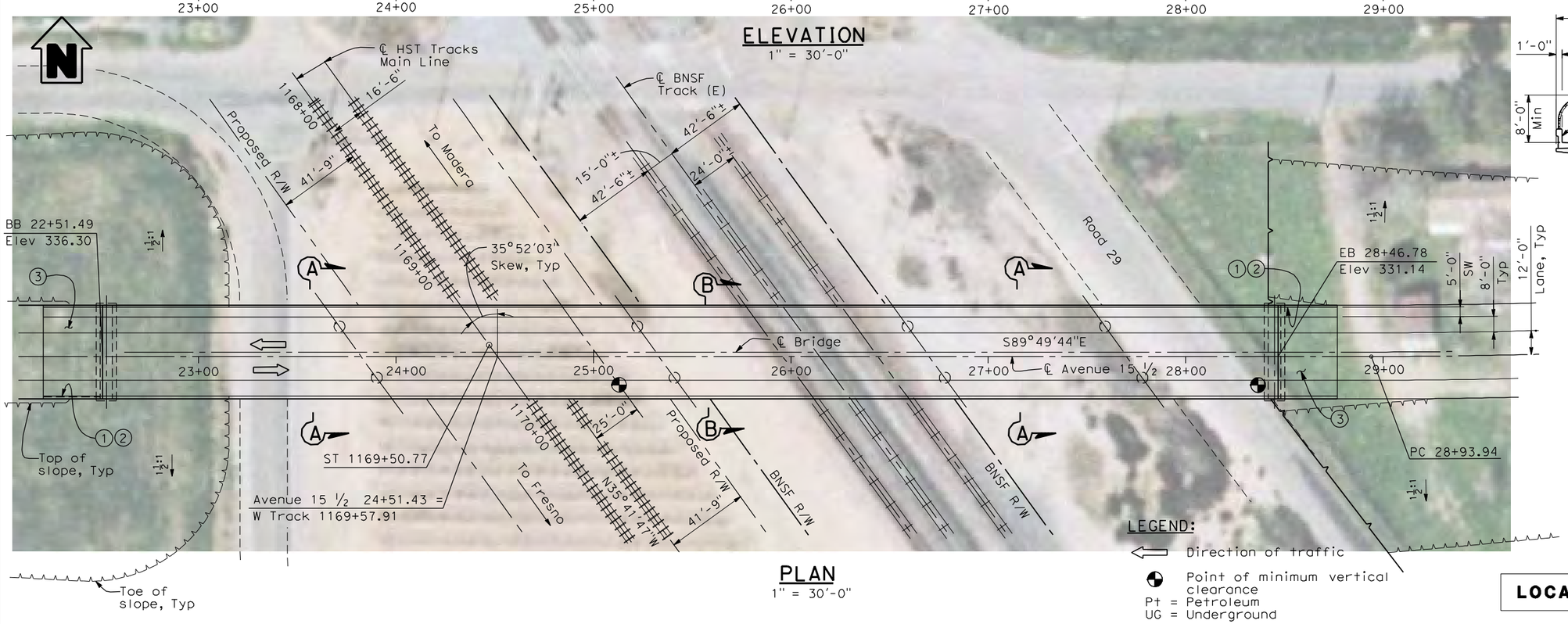
DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	595'-3"
WIDTH	=	47'-6"
AREA	=	28,280 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	



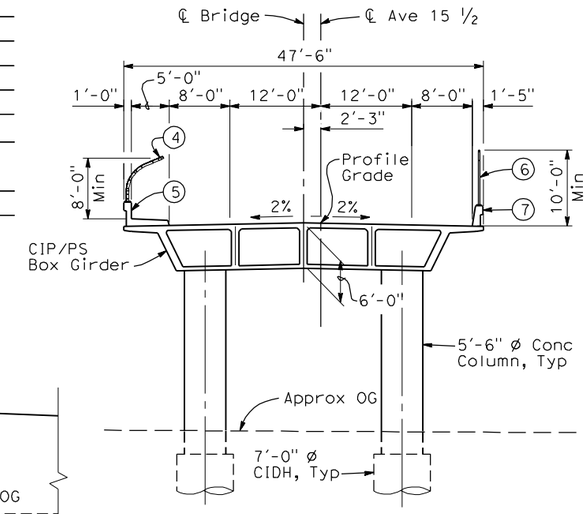
PROFILE GRADE
NTS



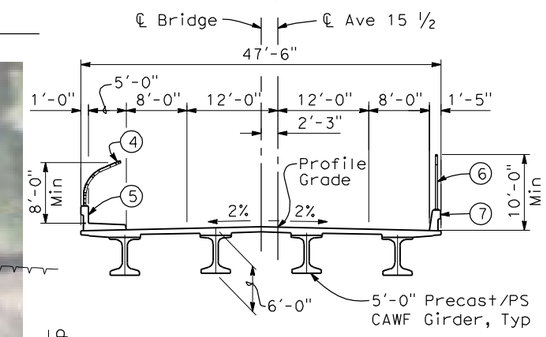
ELEVATION
1" = 30'-0"



PLAN
1" = 30'-0"



SECTION A-A
1"=10'-0"



SECTION B-B
1"=10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 15 ½ OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 15 ½ to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

Pt = Petroleum

UG = Underground

LOCATION 7

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

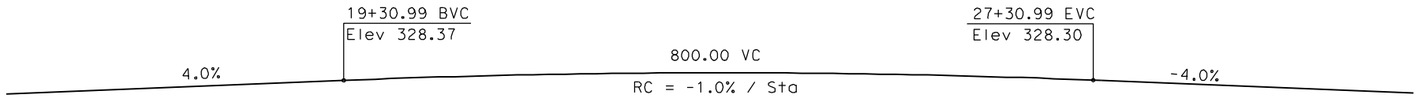
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 15½ OVERHEAD
PLANNING STUDY

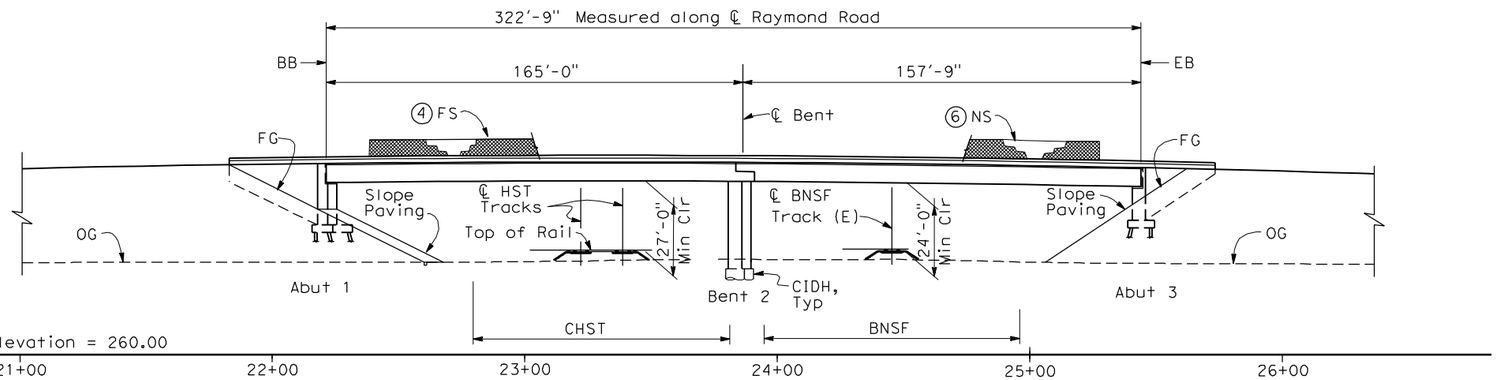
CONTRACT NO. HSR06-007
DRAWING NO. ST1007
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 4:45:39 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 15.5.dgn



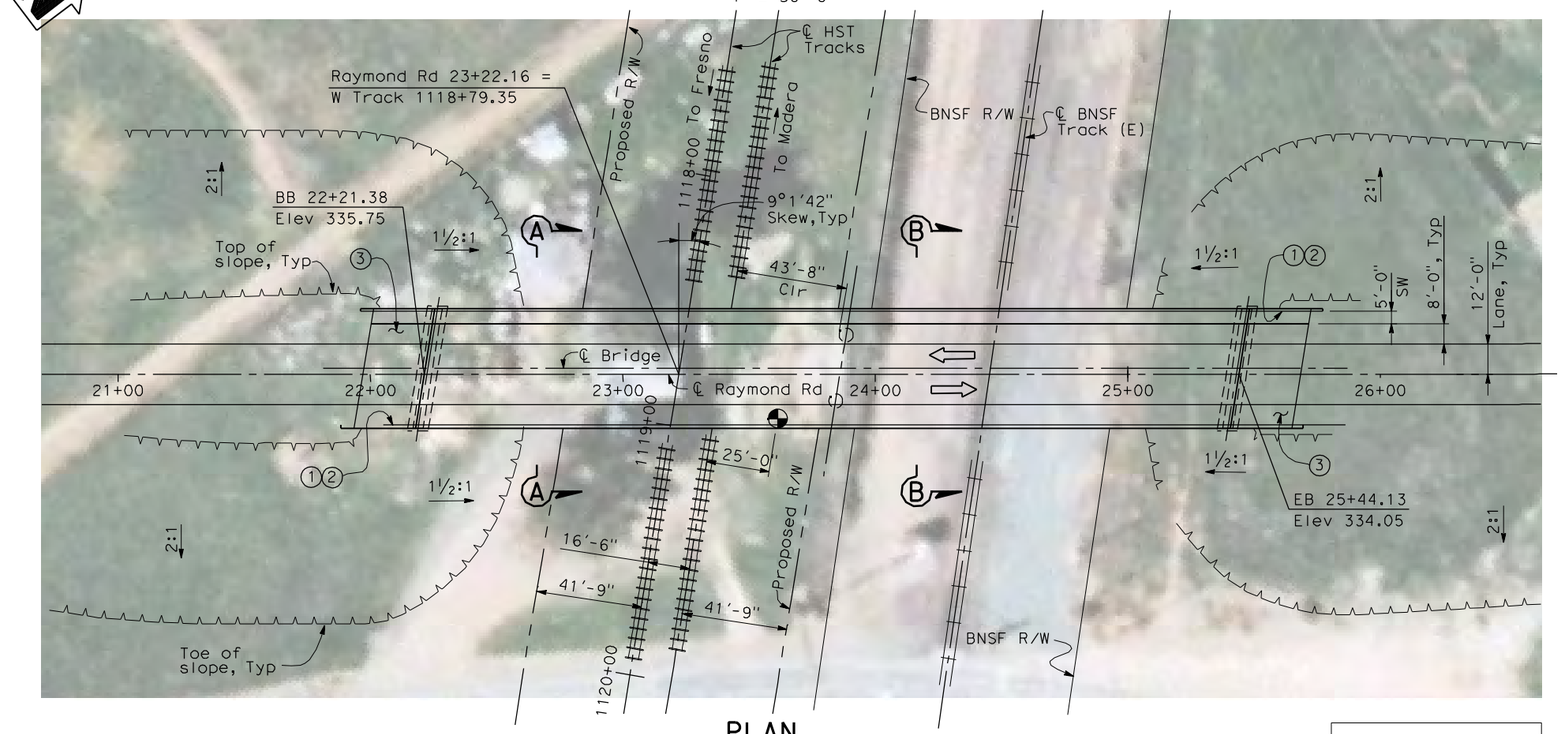
PROFILE GRADE

NTS



ELEVATION

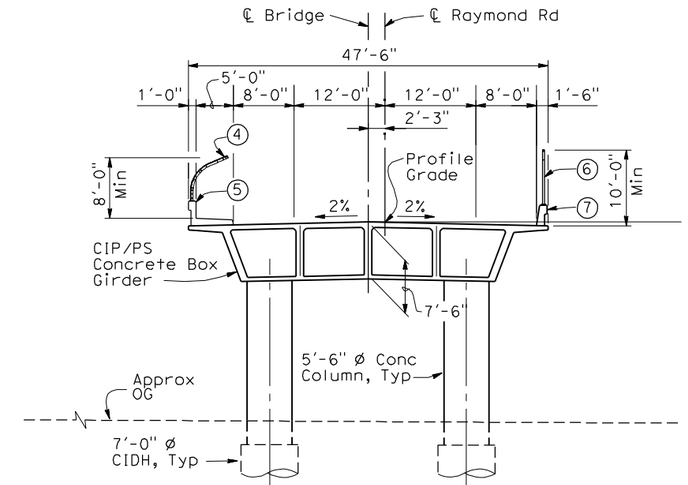
1" = 30'-0"



PLAN

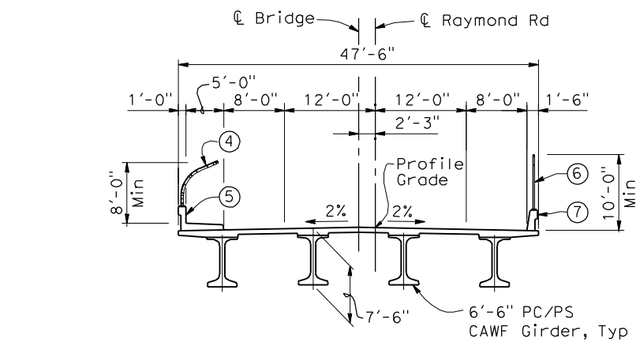
1" = 30'-0"

LOCATION 8



SECTION A-A

1" = 10'-0"



SECTION B-B

1" = 10'-0"

NOTES:

1. Paint "Bridge No. xx-xx"
2. Paint "Raymond Road OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.
9. Location and elevation of existing BNSF track to be determined.

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	7'-6"
LENGTH	=	322'-9"
WIDTH	=	47'-6"
AREA	=	15,330 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY J. TANG
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

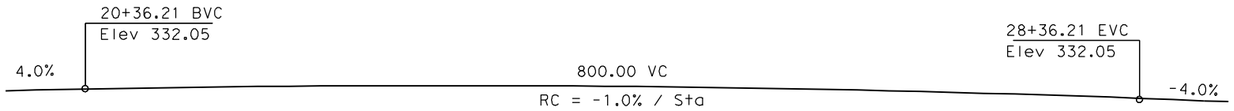
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
RAYMOND ROAD OVERHEAD
PLANNING STUDY

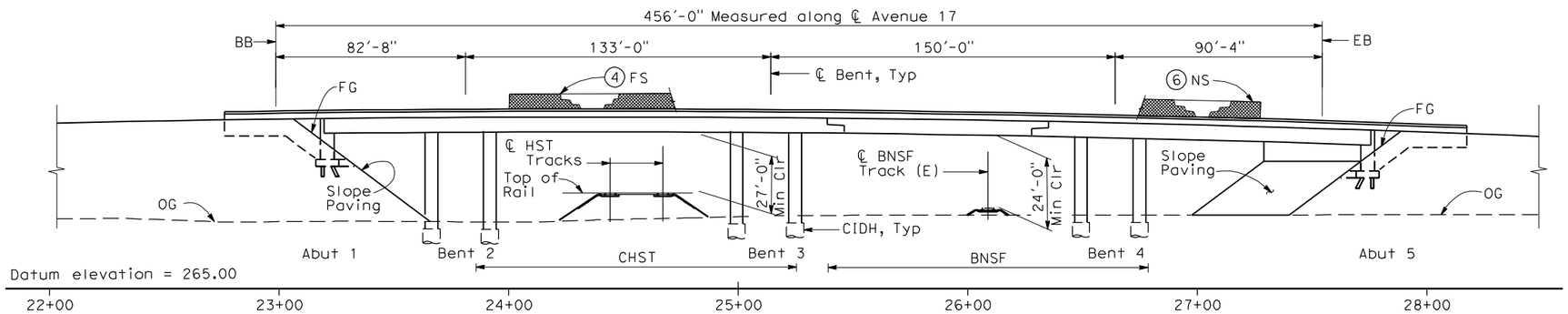
CONTRACT NO. HSR06-007
DRAWING NO. ST1008
SCALE AS SHOWN
SHEET NO. OF

cisnerose 4/30/2011 4:12:54 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructureFrom Oakland\W-MF-ST1008.dgn

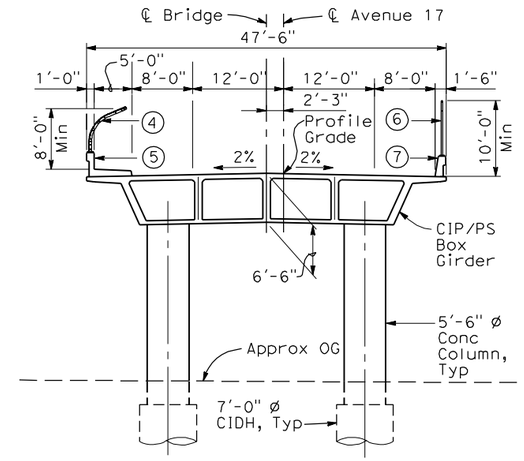


PROFILE GRADE
NTS

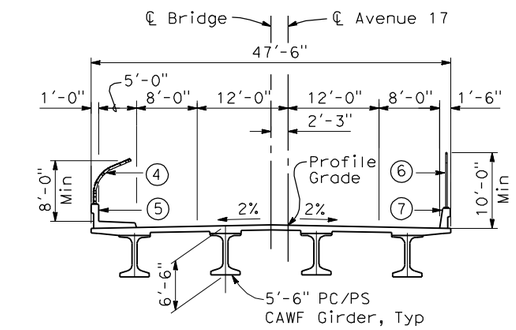
DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-6"
LENGTH	=	456'-0"
WIDTH	=	47'-6"
AREA	=	21,660 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	



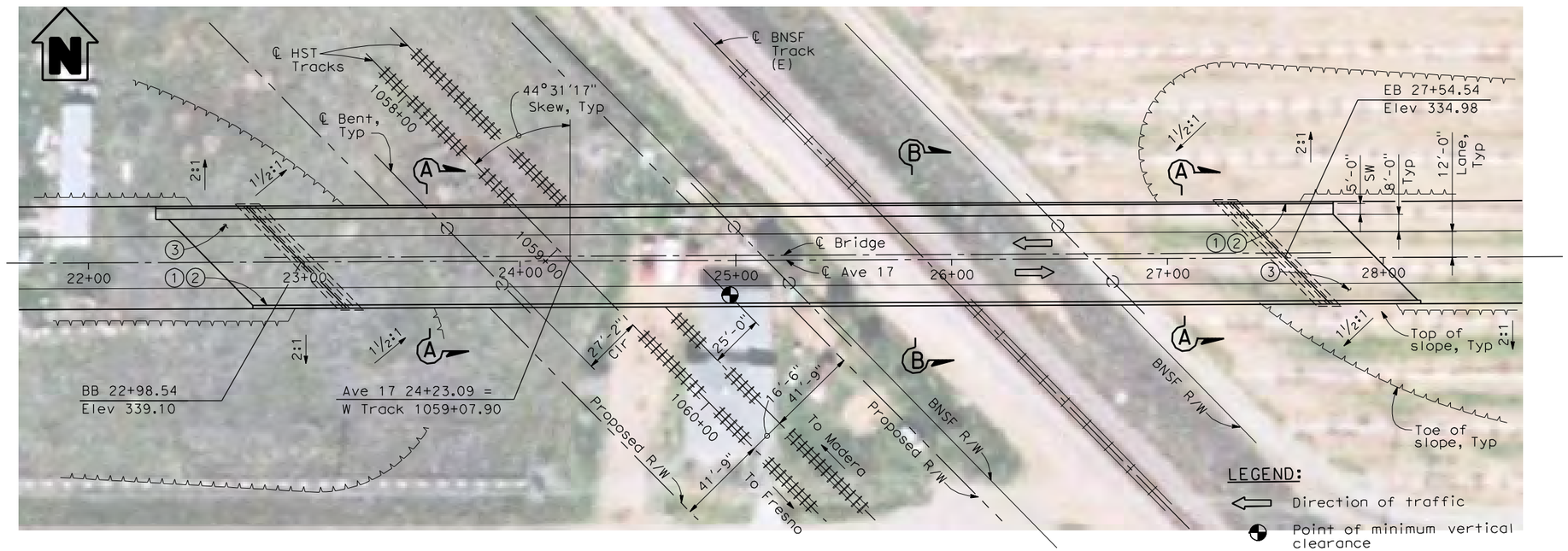
ELEVATION
1" = 30'-0"



SECTION A-A
1"=10'-0"



SECTION B-B
1"=10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 17 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 17 and BNSF track to be determined.
9. Existing underground and overhead utilities to be determined.

LOCATION 9

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY J. HODELL
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

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

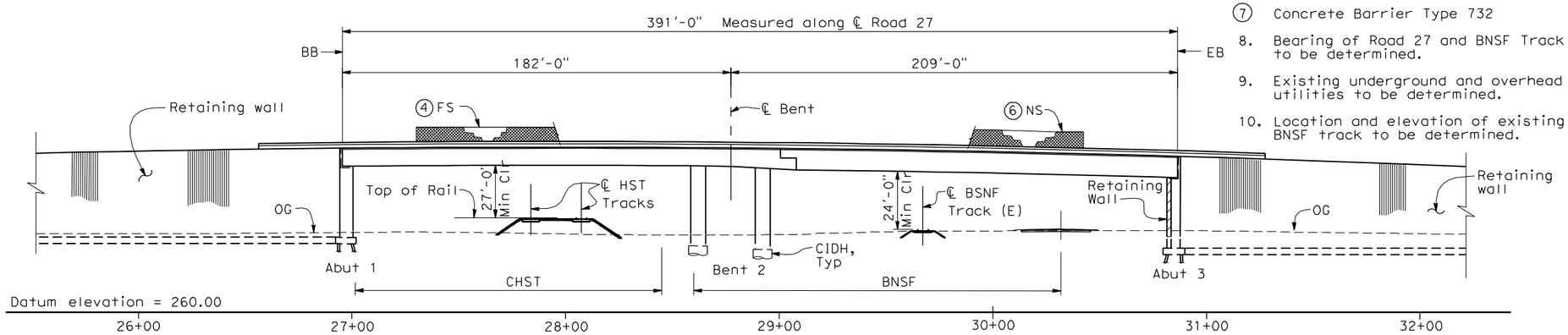
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 17 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1009
SCALE AS SHOWN
SHEET NO. OF

cisnerose 4/29/2011 5:51:57 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A11\15% cost reduction submittal\GradeStructure\From Oakland\W-MF-ST1009.dgn

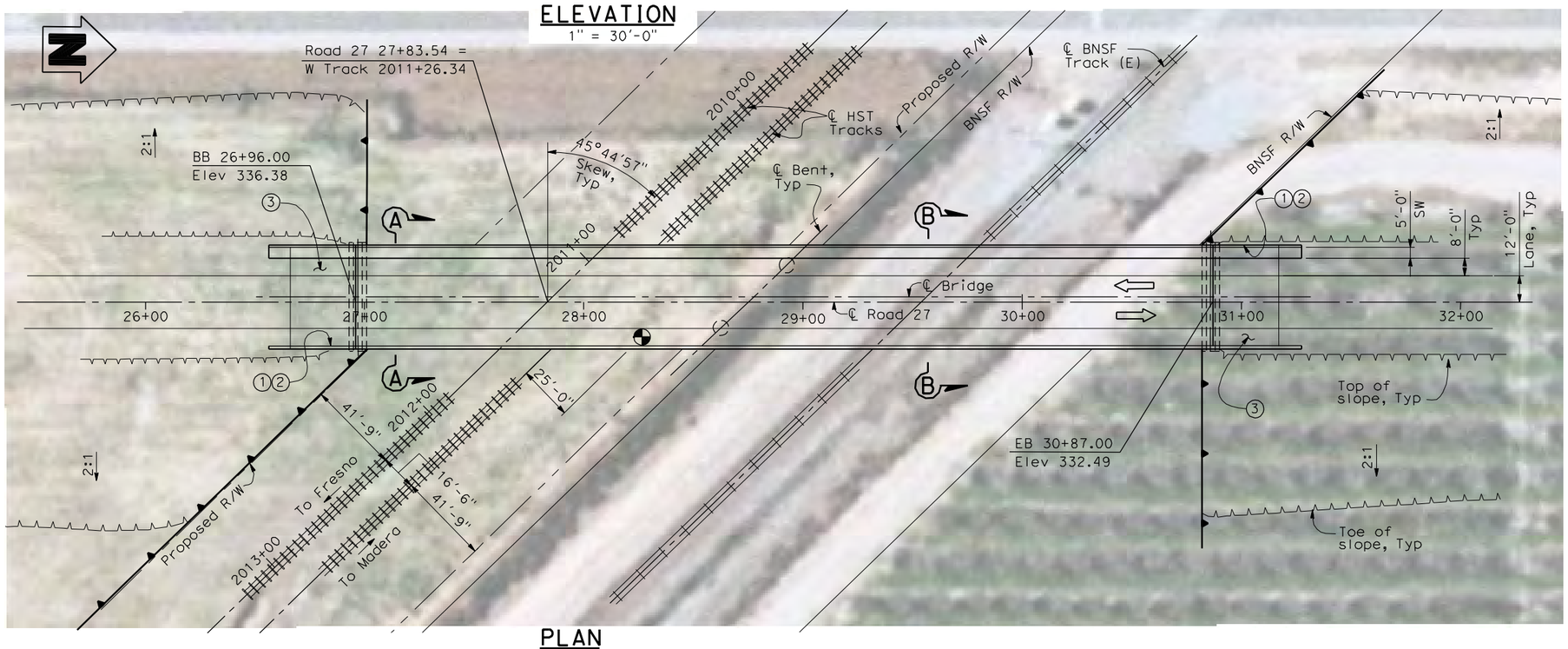
PROFILE GRADE

NTS



ELEVATION

1" = 30'-0"

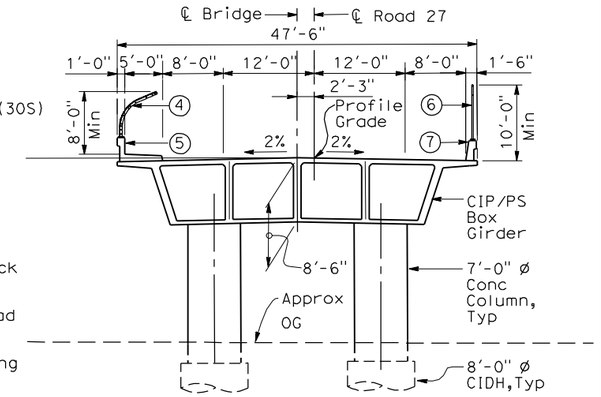


PLAN

1" = 30'-0"

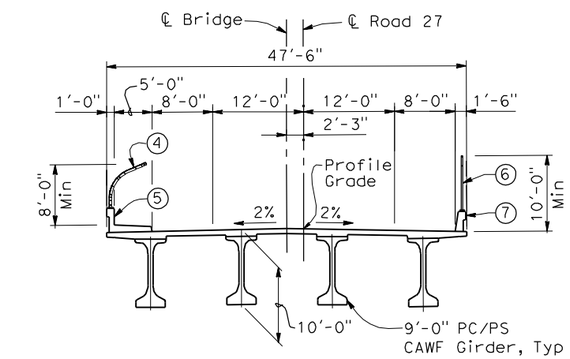
NOTES:

1. Paint "Bridge No. xx-xx"
2. Paint "Road 27 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Road 27 and BNSF Track to be determined.
9. Existing underground and overhead utilities to be determined.
10. Location and elevation of existing BNSF track to be determined.



SECTION A-A

1" = 10'-0"



SECTION B-B

1" = 10'-0"

LEGEND:

- Direction of traffic
- Point of minimum vertical clearance
- Retaining wall

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	8'-6" - 10'-0"
LENGTH	=	391'-0"
WIDTH	=	47'-6"
AREA	=	18,570 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 10

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY J. TANG
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

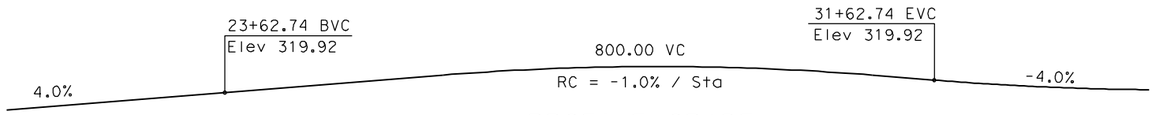
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
AVENUE 21
ROAD 27 OVERHEAD
PLANNING STUDY

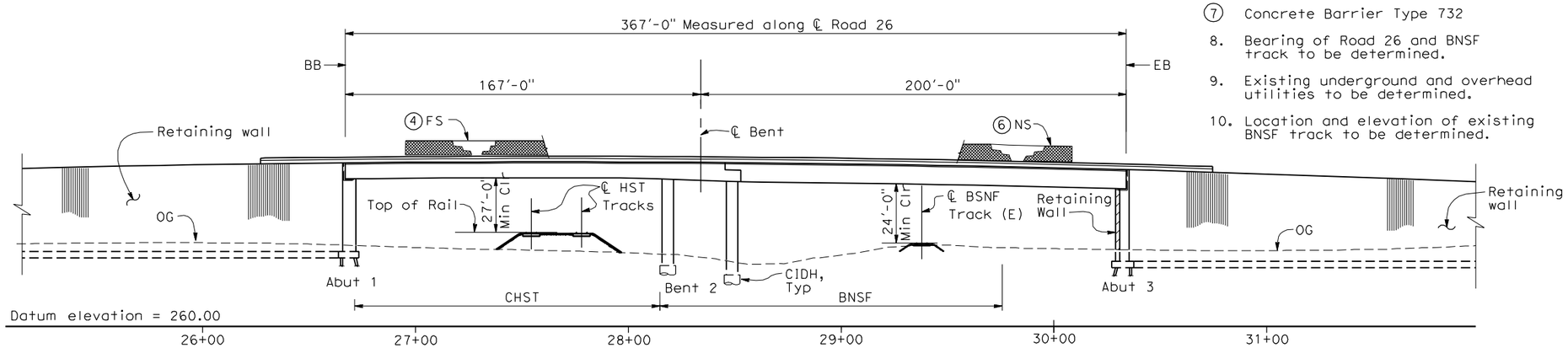
CONTRACT NO. HSR06-007
DRAWING NO. ST1010
SCALE AS SHOWN
SHEET NO. OF

I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\From Oakland\W-MF-ST1010.dgn 4:13:28 PM 4/30/2011 cisnerose



PROFILE GRADE

NTS

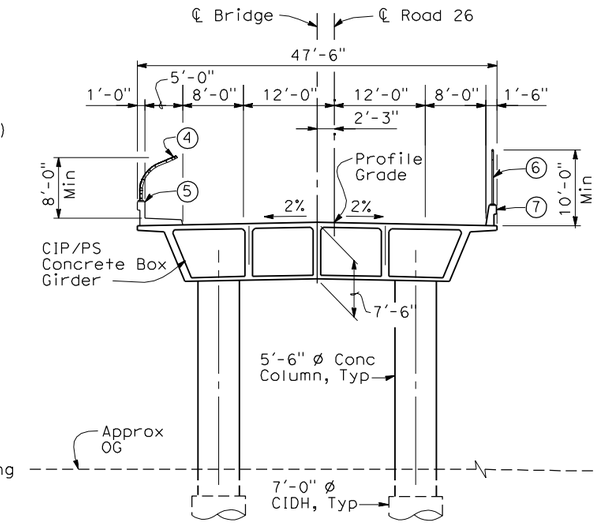


ELEVATION

1" = 30'-0"

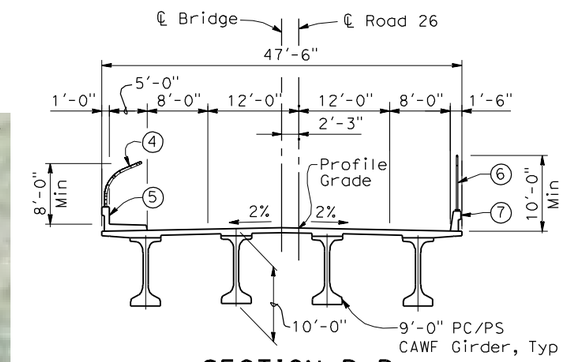
NOTES:

1. Paint "Bridge No. xx-xx"
2. Paint "Road 26 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Road 26 and BNSF track to be determined.
9. Existing underground and overhead utilities to be determined.
10. Location and elevation of existing BNSF track to be determined.



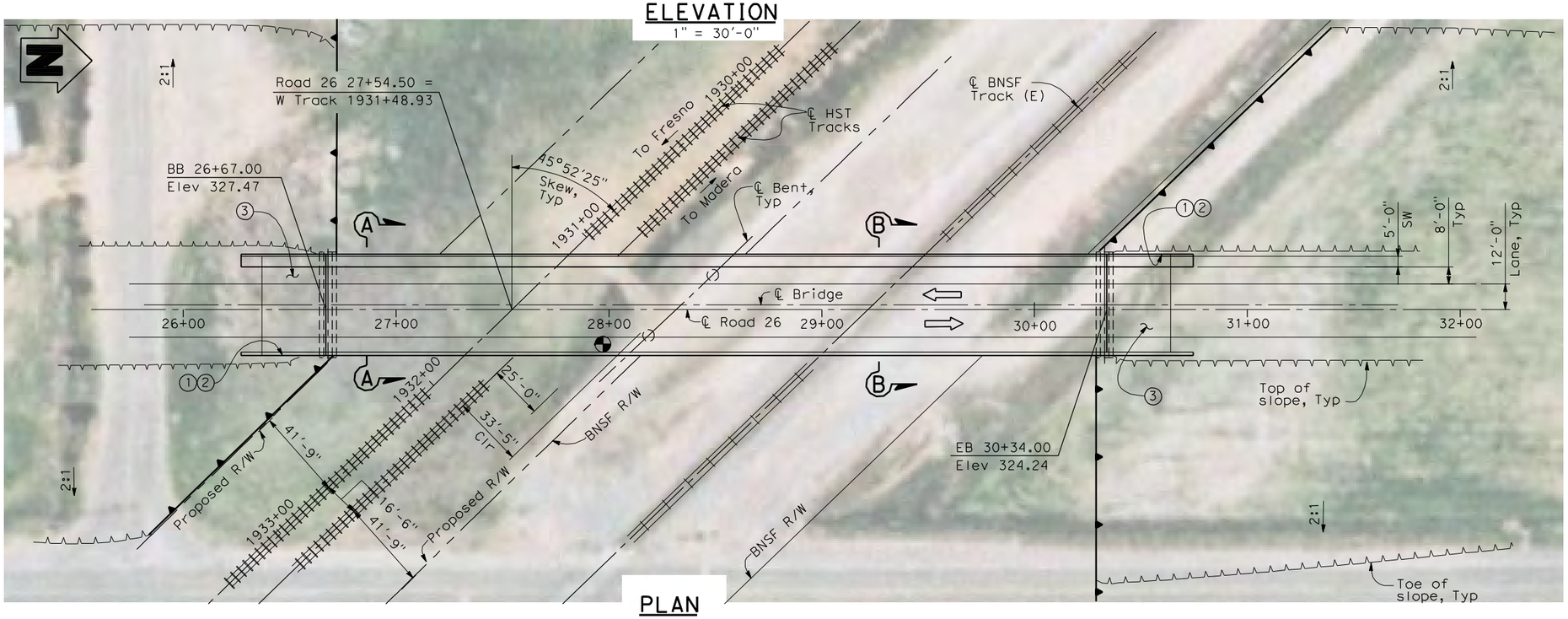
SECTION A-A

1" = 10'-0"



SECTION B-B

1" = 10'-0"



PLAN

1" = 30'-0"

LEGEND:

- Direction of traffic
- Point of minimum vertical clearance
- Retaining wall

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	7'-6" - 10'-0"
LENGTH	=	367'-0"
WIDTH	=	47'-6"
AREA	=	17,430 ft^2
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 11

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY J. TANG
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

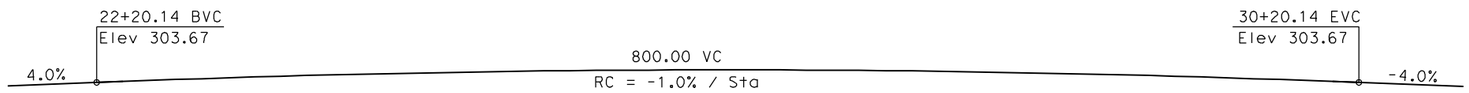
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
AVENUE 21
ROAD 26 OVERHEAD
PLANNING STUDY

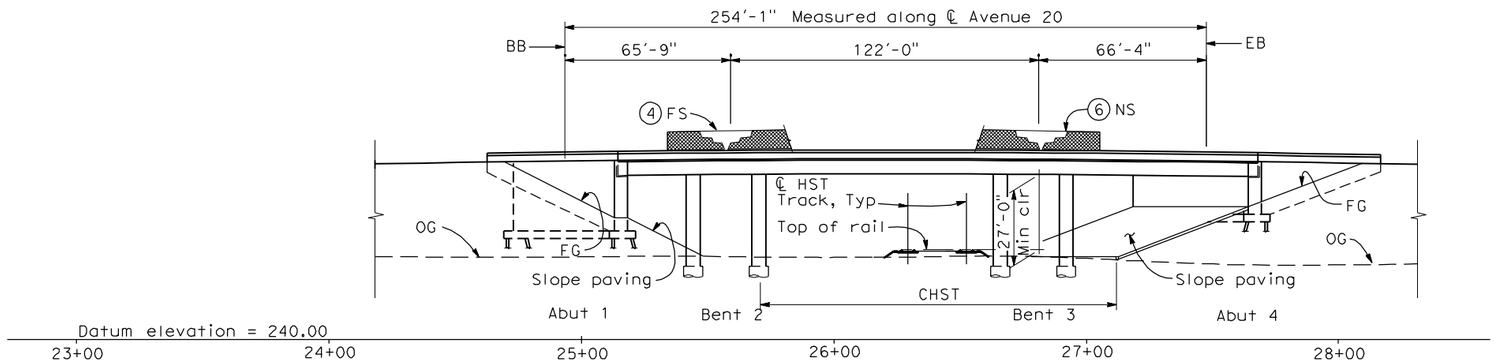
CONTRACT NO. HSR06-007
DRAWING NO. ST1011
SCALE AS SHOWN
SHEET NO. OF

cisnerose 4/30/2011 4:13:59 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructureFrom Oakland\W-MF-ST1011.dgn



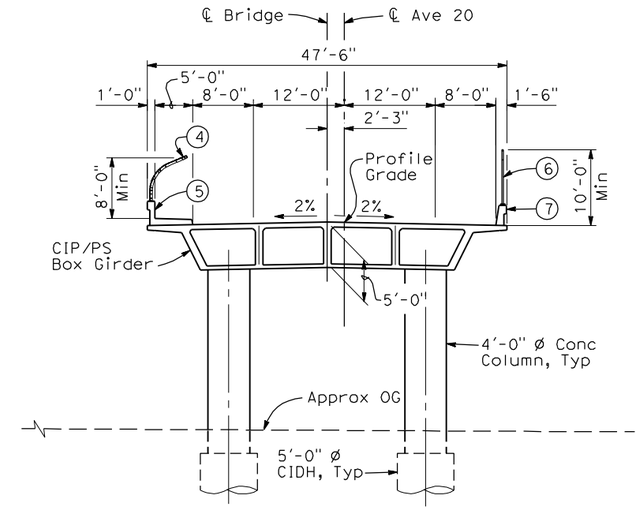
PROFILE GRADE

NTS



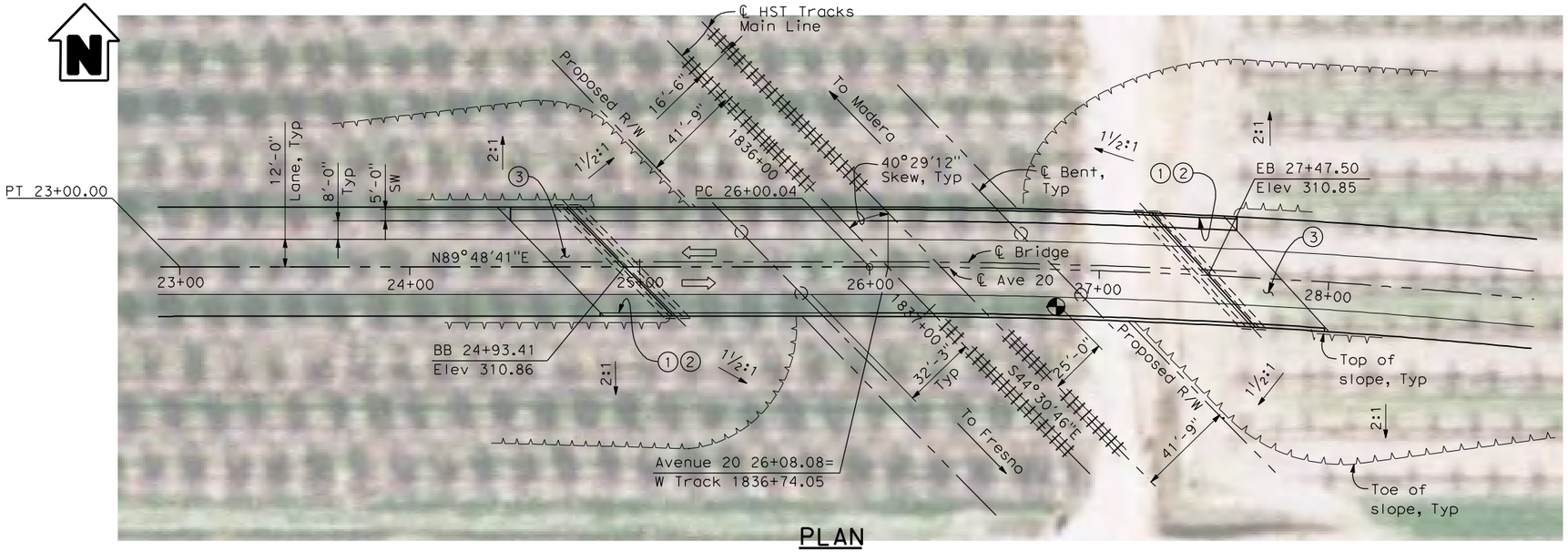
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1"=10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 20 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

Pt = Petroleum
UG = Underground

Date of Estimate		
Bridge Removal	=	
Structure Depth	=	5'-0"
Length	=	254'-1"
Width	=	47'-6"
Area	=	12,068 ft²
Cost/ □ft including 10% Mobilization & 25% Contingency	=	
Total Cost	=	

LOCATION 32

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E.CISNEROS
CHECKED BY K. LEE
IN CHARGE A. Boone
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

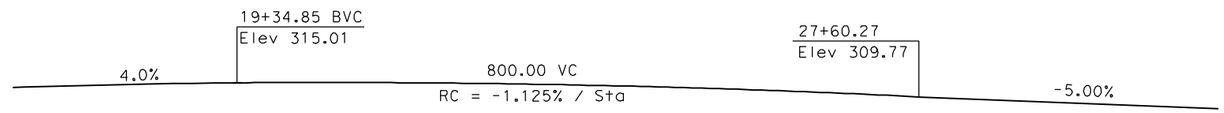
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
AVENUE 20 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1035
SCALE As shown
SHEET NO. OF

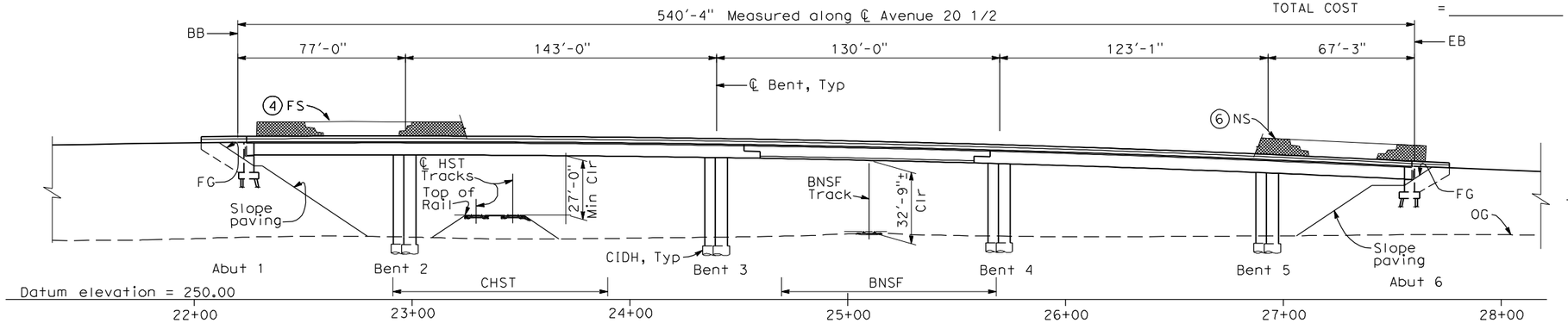
cisnerose 4/28/2011 6:06:12 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-ML-ST-OH_Ave 20.dgn

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	540'-4"
WIDTH	=	47'-6"
AREA	=	25,670 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	



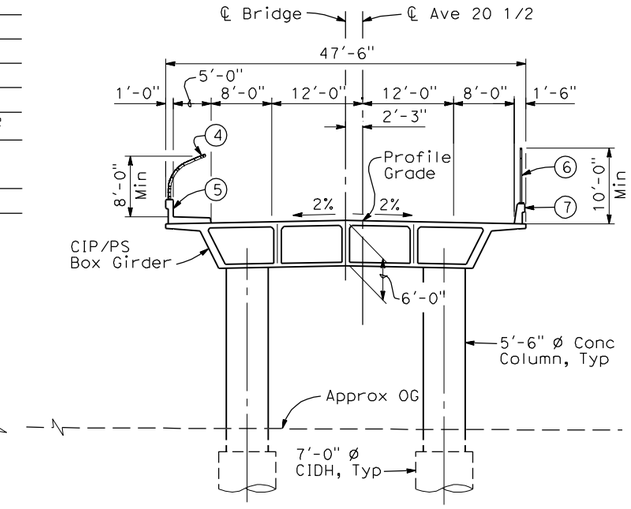
PROFILE GRADE

NTS



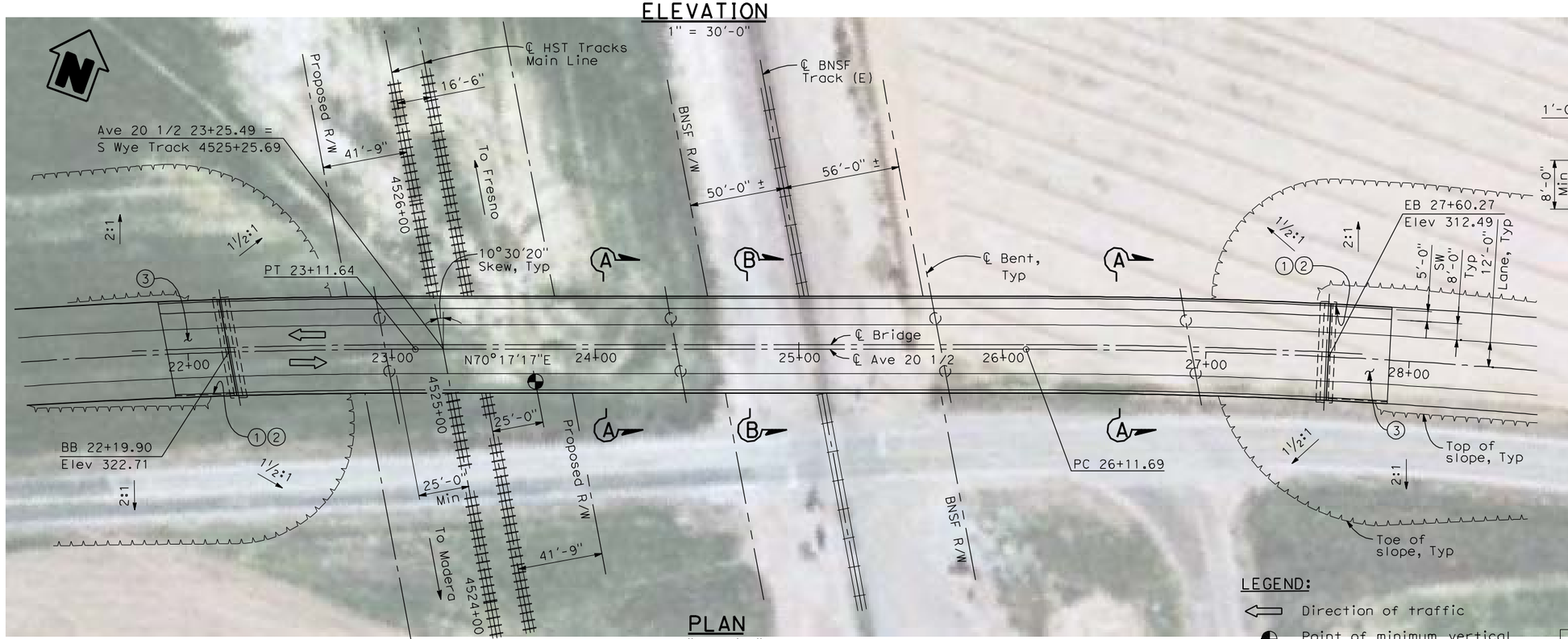
ELEVATION

1" = 30'-0"



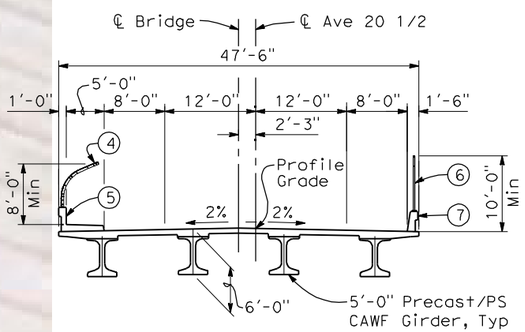
SECTION A-A

1" = 10'-0"



PLAN

1" = 30'-0"



SECTION B-B

1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 20 1/2 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LOCATION 33

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

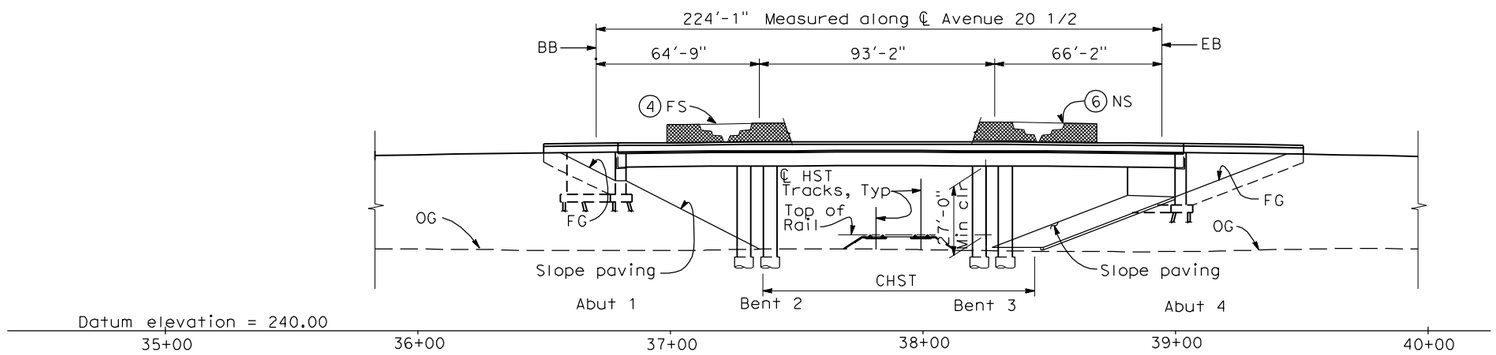
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
AVENUE 20 1/2 OVERHEAD
PLANNING STUDY

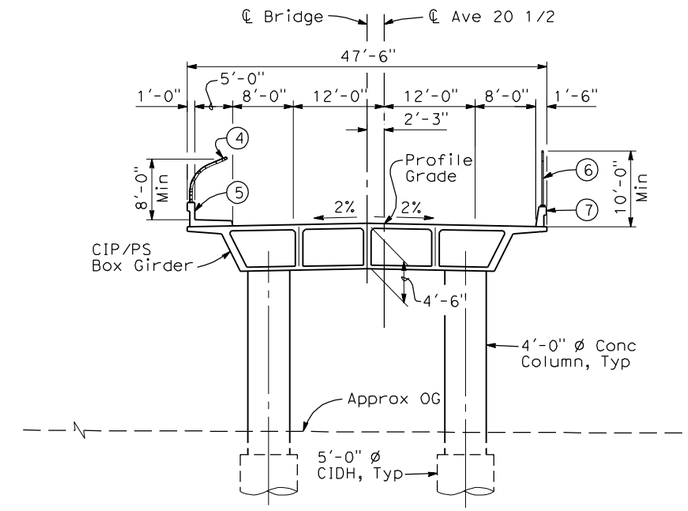
CONTRACT NO. HSR06-007
DRAWING NO. ST1036
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 6:15:05 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-ML-ST-OH_Ave 20.5.dgn

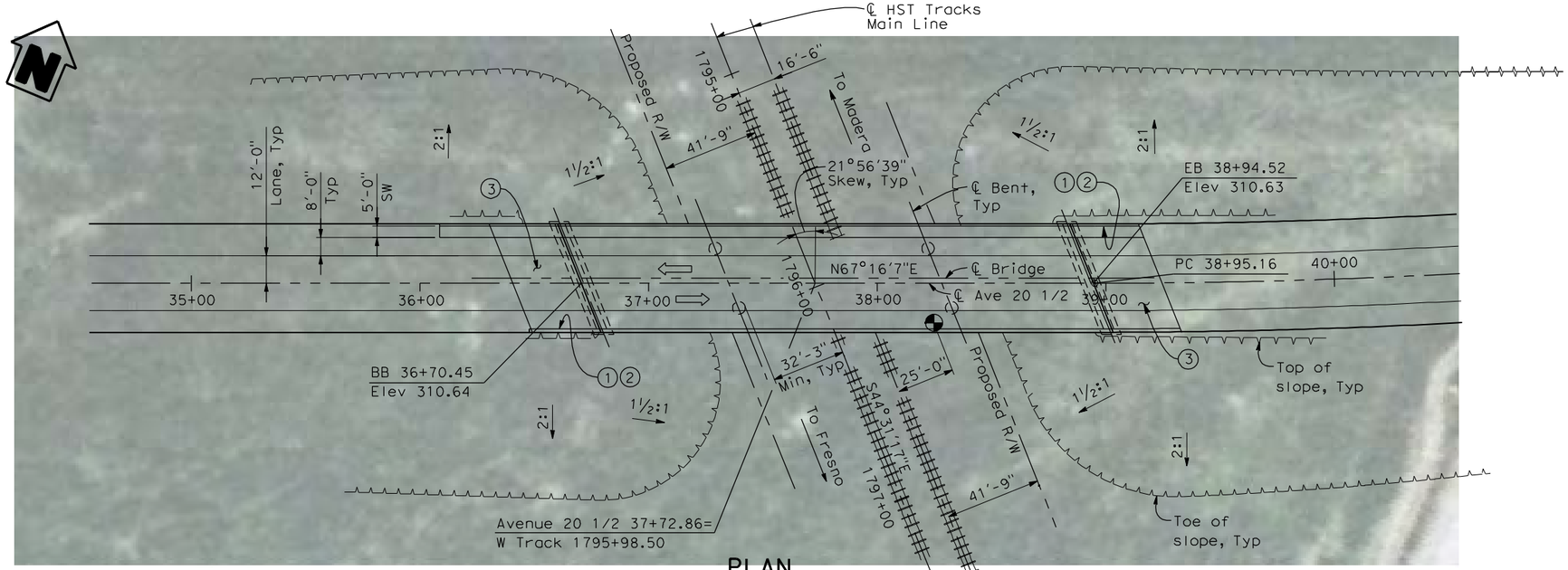
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1"=10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Ave 20 1/2 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

Direction of traffic

Point of minimum vertical clearance

Pt = Petroleum
UG = Underground

Date of Estimate		
Bridge Removal	=	
Structure Depth	=	4'-6"
Length	=	224'-1"
Width	=	47'-6"
Area	=	10,643 ft²
Cost/ □ft including 10% Mobilization & 25% Contingency	=	
Total Cost	=	

LOCATION 33

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

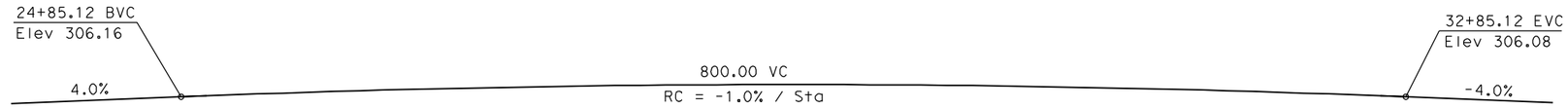
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

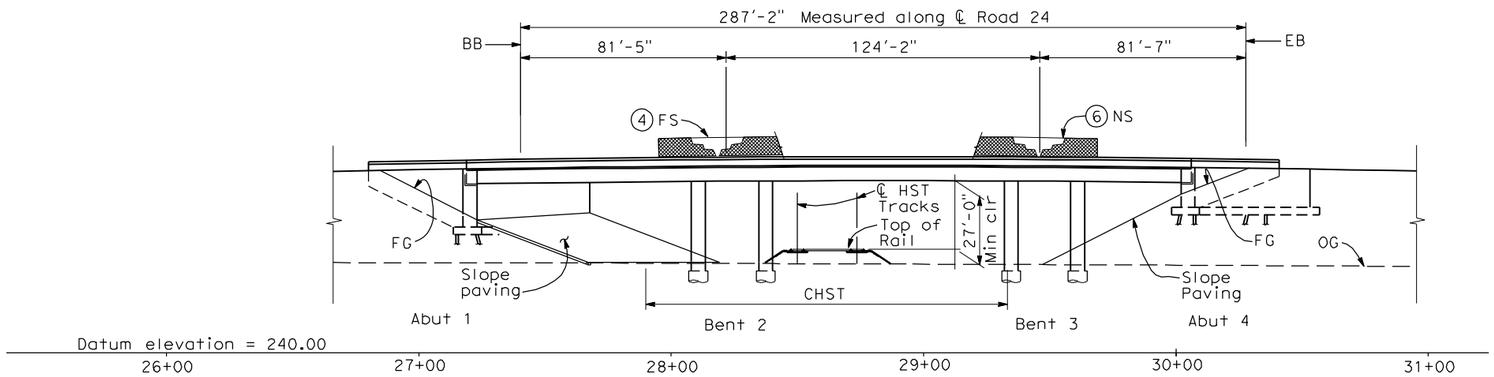
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
AVENUE 20 1/2 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1037
SCALE As shown
SHEET NO. OF

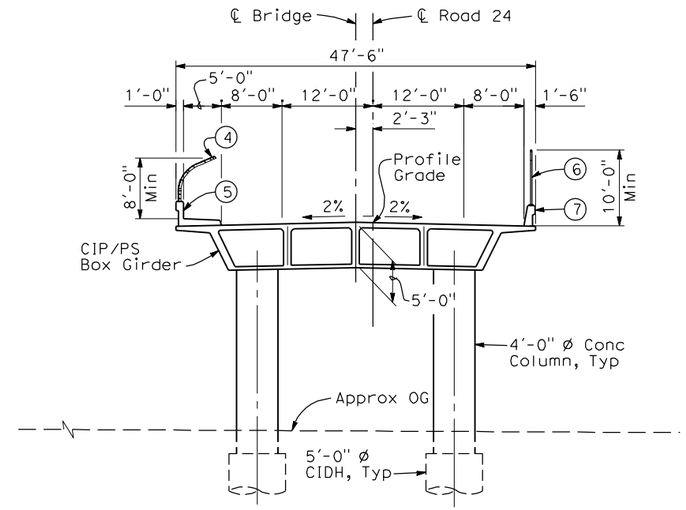
cisnerose 4/28/2011 6:08:20 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A11\15% cost reduction submittal\GradeStructure\A1-24ML\W-ML-ST-OH_Ave 20.5b.dgn



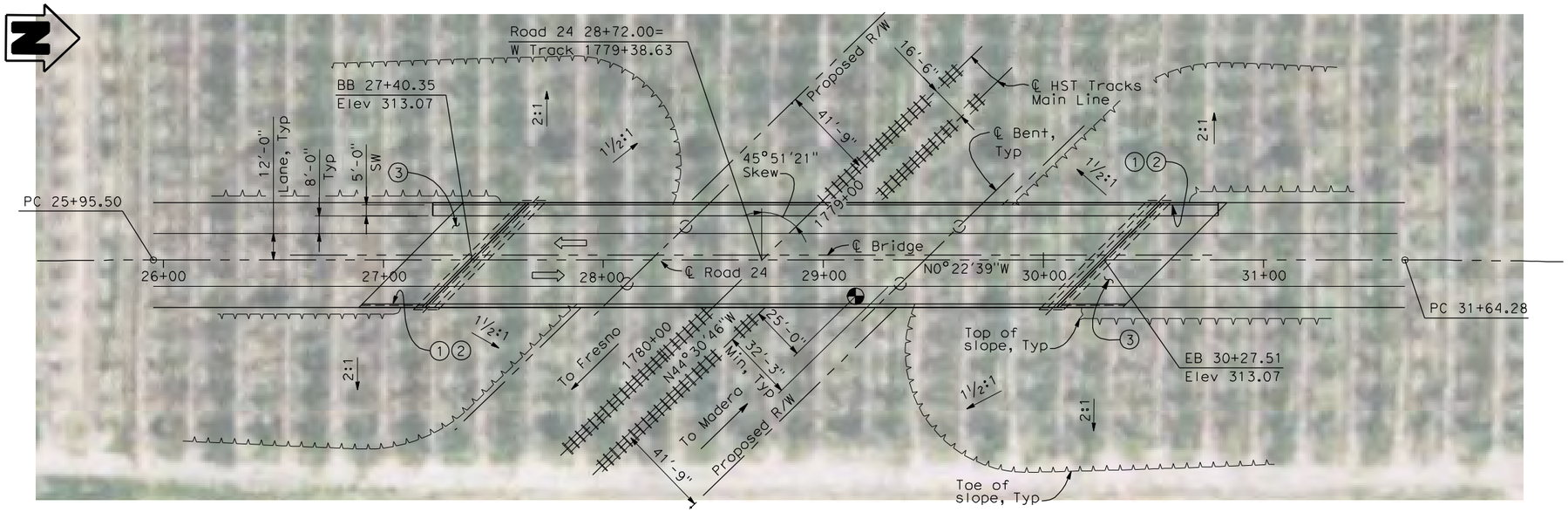
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1"=10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 24 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance
Pt = Petroleum
UG = Underground

Date of Estimate		
Bridge Removal	=	
Structure Depth	=	5'-0"
Length	=	258'-2"
Width	=	47'-6"
Area	=	12,261 ft²
Cost/ □ft including 10% Mobilization & 25% Contingency	=	
Total Cost	=	

LOCATION 34

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. Boone
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

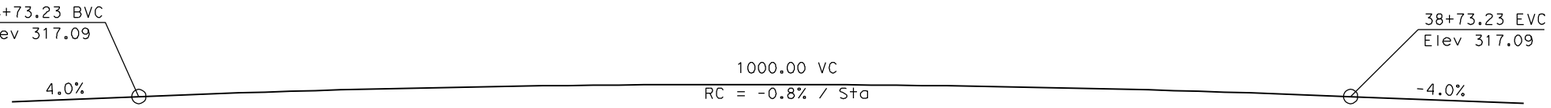
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

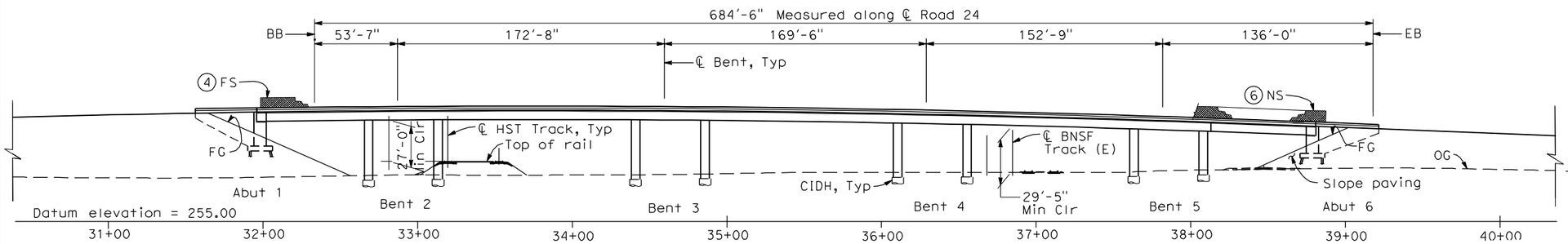
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
ROAD 24 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1038
SCALE As shown
SHEET NO. OF

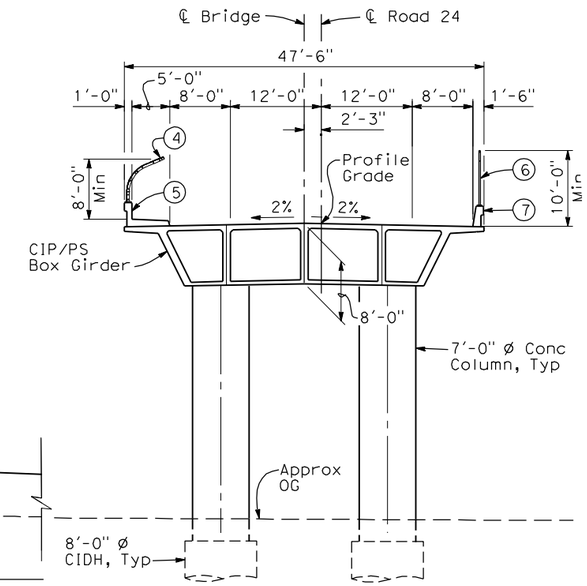
cisnerose 4/28/2011 6:18:28 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-ML-ST-OH_Rd 24.dgn



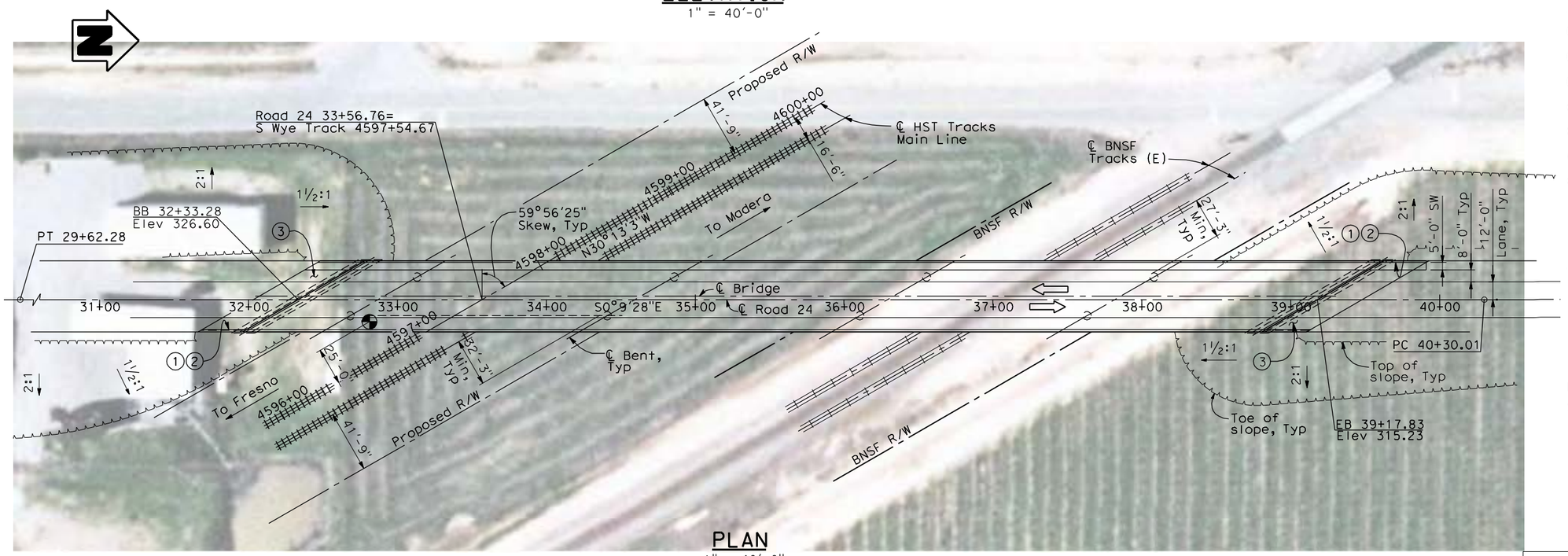
PROFILE GRADE
NTS



ELEVATION
1" = 40'-0"



TYPICAL SECTION
1" = 10'-0"



PLAN
1" = 40'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 24 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	8'-0"
LENGTH	=	684'-6"
WIDTH	=	47'-6"
AREA	=	32,510 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 34

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE
AVENUE 24
ROAD 24 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1039
SCALE As shown
SHEET NO. OF

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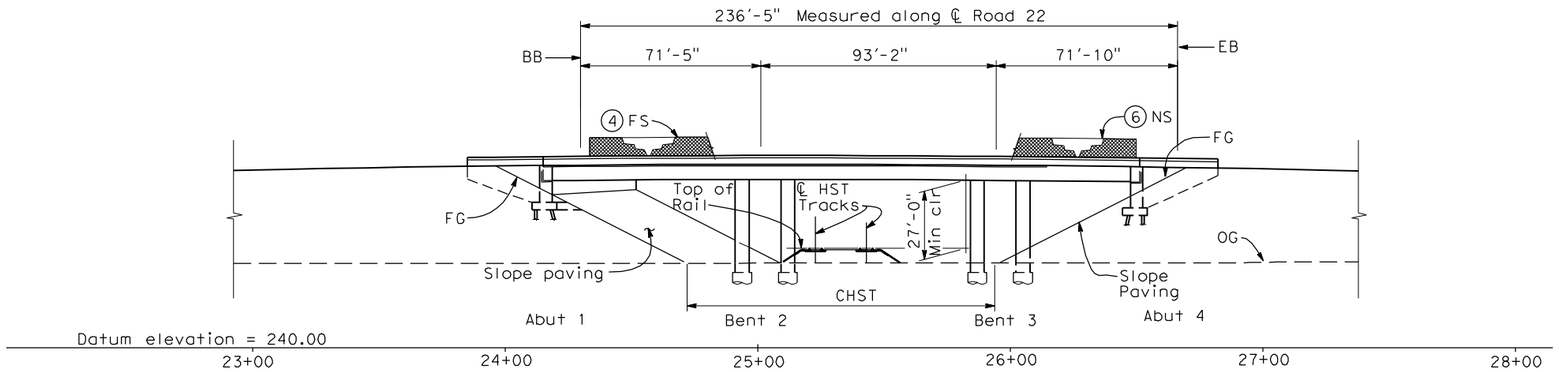
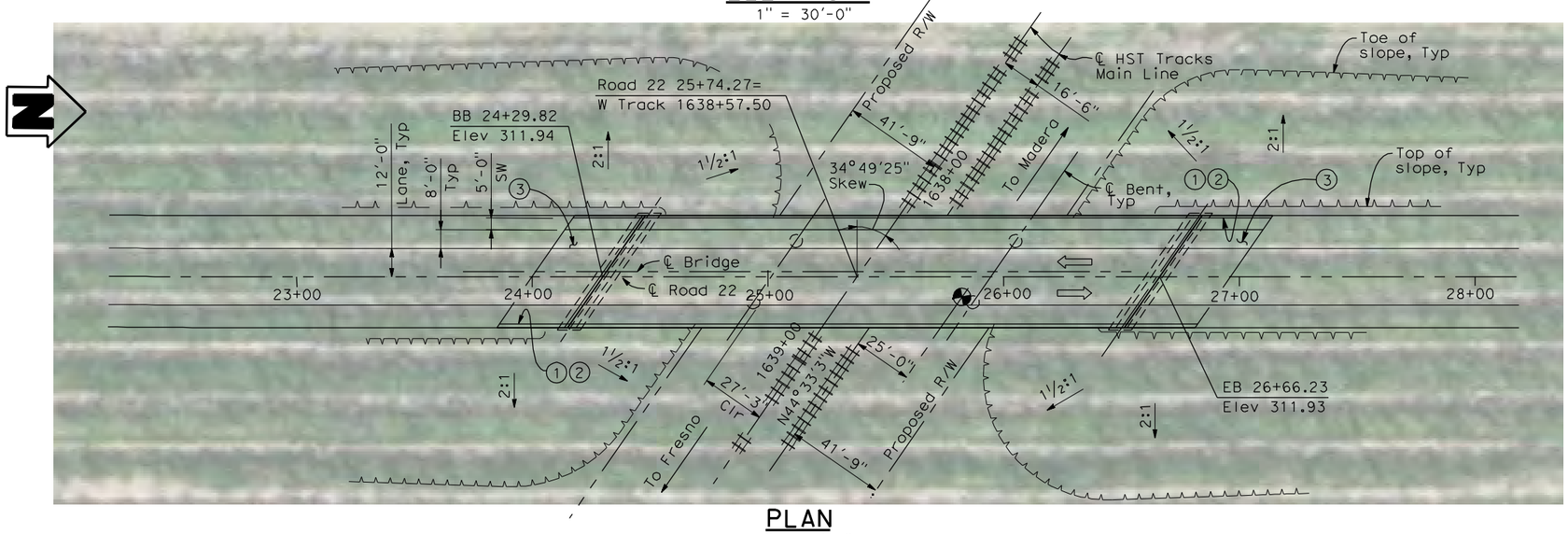
PROFILE GRADE

NTS



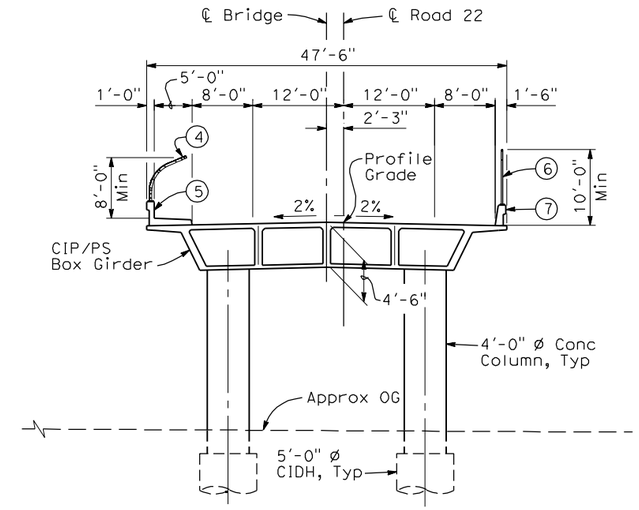
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1"=10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 22 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance

Pt = Petroleum

UG = Underground

Date of Estimate		
Bridge Removal	=	
Structure Depth	=	4'-6"
Length	=	236'-5"
Width	=	47'-6"
Area	=	11,230 ft²
Cost/ □ft including 10% Mobilization & 25% Contingency	=	
Total Cost	=	

LOCATION 35

30 0 30 60

1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. Boone
DATE 04/29/2011

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

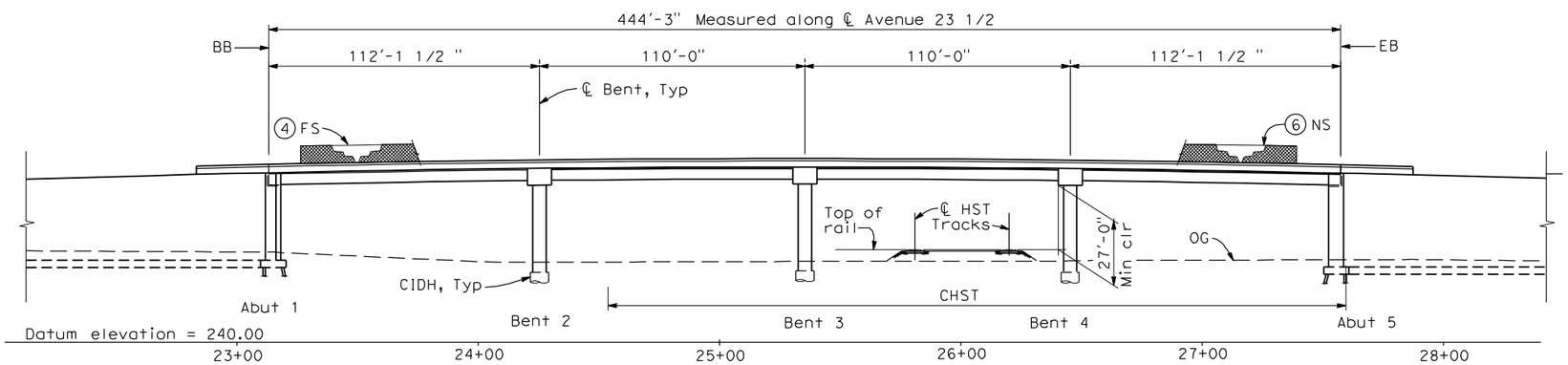
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
ROAD 22 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1040
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 6:26:53 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-ML-ST-OH_Rd 22.dgn

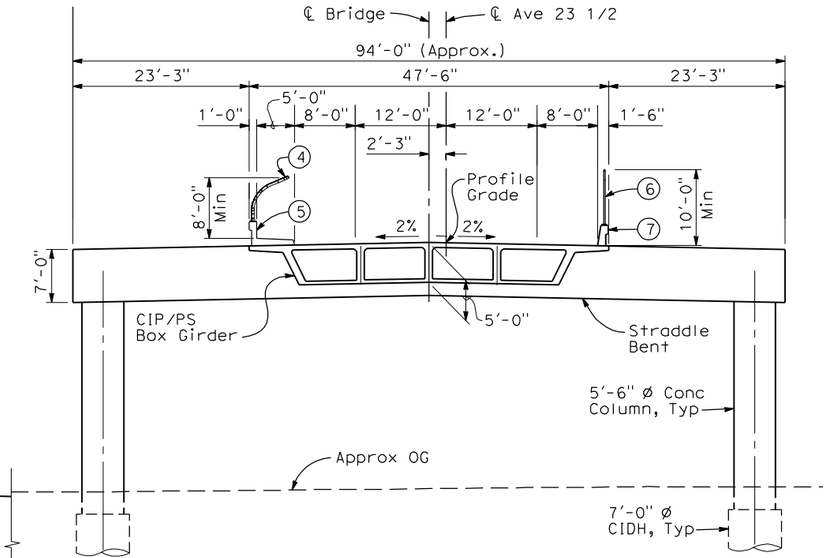
PROFILE GRADE

NTS



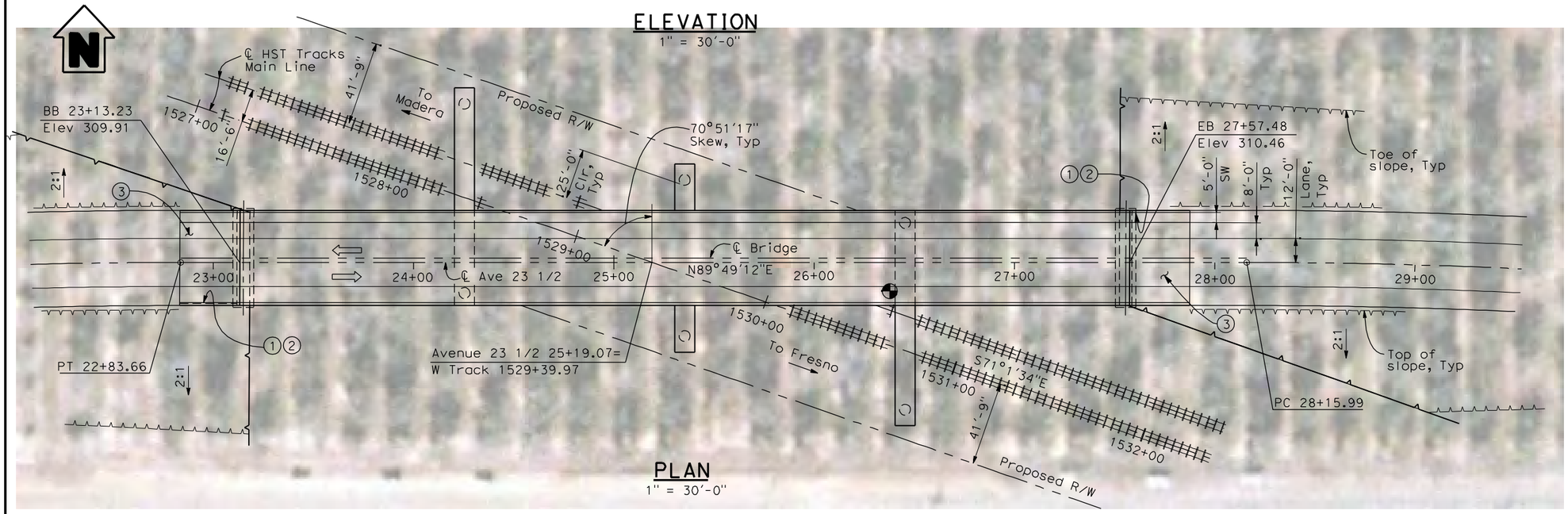
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1"=10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Ave 23 1/2 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

Direction of traffic

Point of minimum vertical clearance

Pt = Petroleum
UG = Underground

Date of Estimate		
Bridge Removal	=	
Structure Depth	=	5'-0"
Length	=	444'-3"
Width	=	47'-6"
Area	=	21,100 ft^2
Cost/ □ft including 10% Mobilization & 25% Contingency	=	
Total Cost	=	

LOCATION 36

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. Boone
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

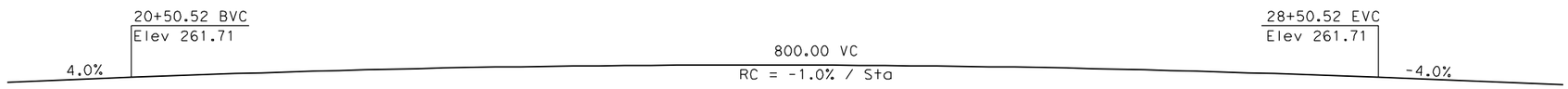
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

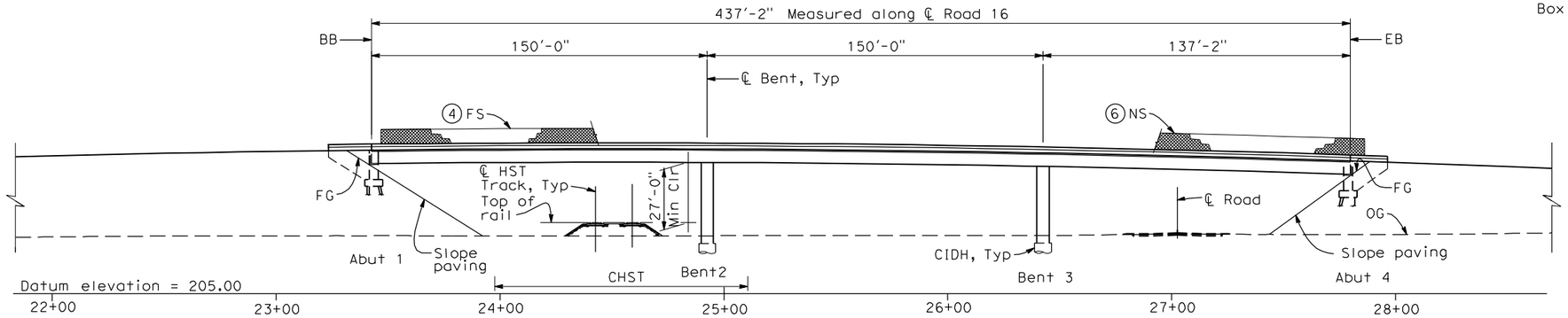
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
AVENUE 23 1/2 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1041
SCALE As shown
SHEET NO. OF

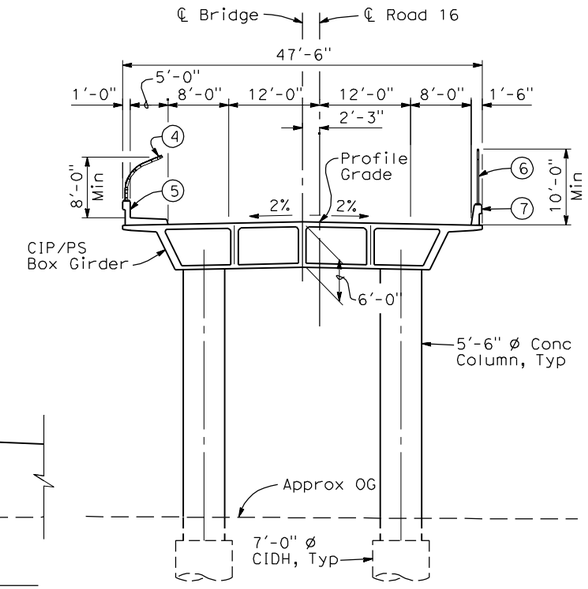
I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML_W-ML-ST-OH_Ave 23.5.dgn 4/28/2011 6:28:27 PM cisnerose



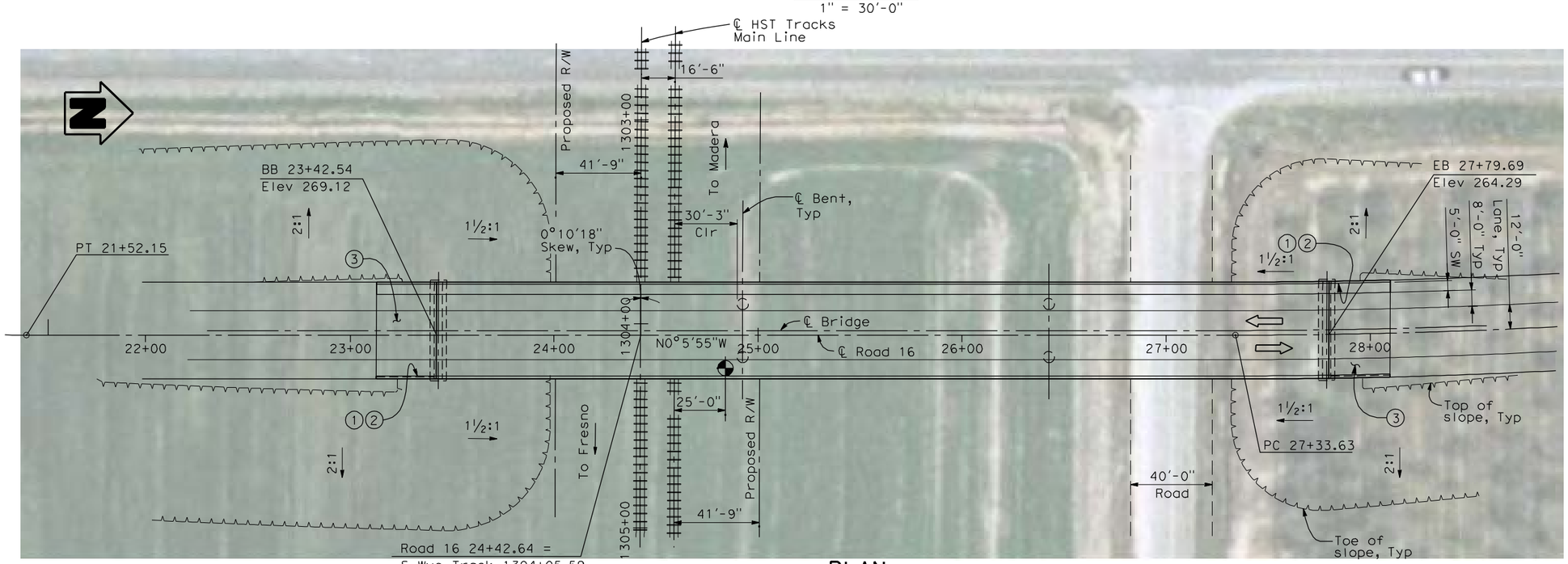
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 16 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	437'-2"
WIDTH	=	47'-6"
AREA	=	20,770 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 37

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

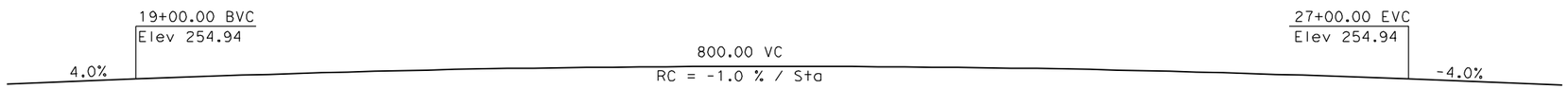
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

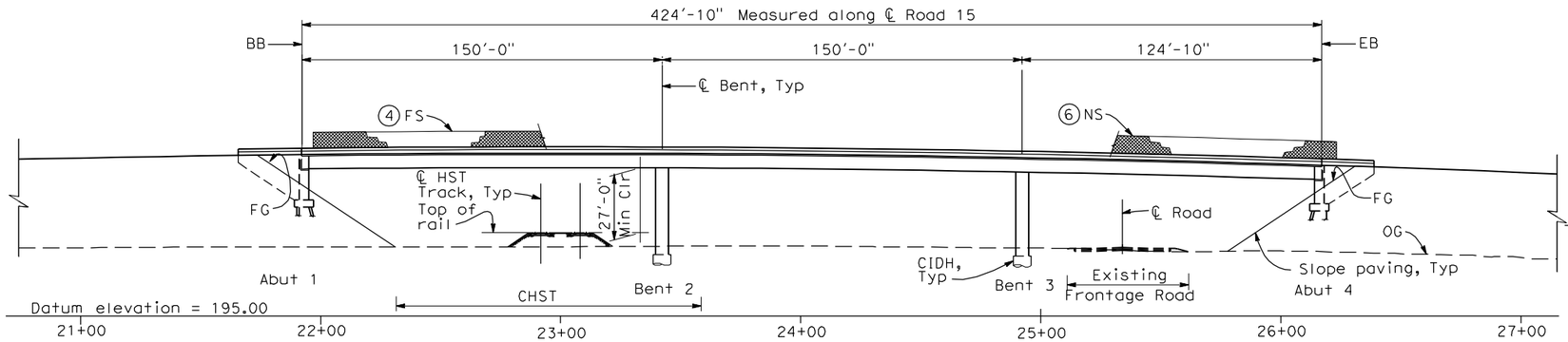
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
ROAD 16 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1042
SCALE As shown
SHEET NO. OF

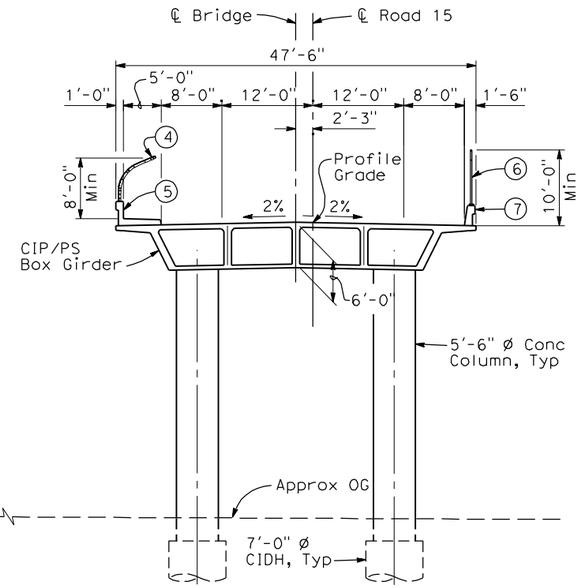
cisnerose 4/29/2011 2:59:36 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-MF-ST-OH_Rd 16.dgn



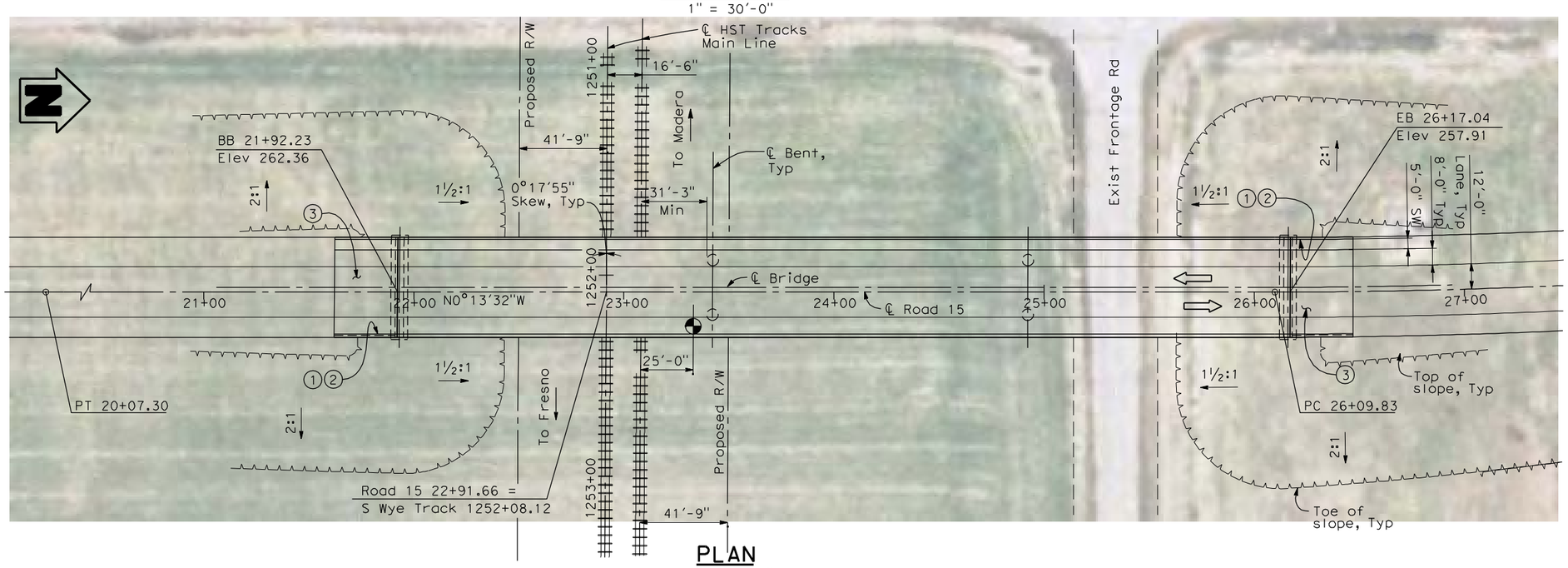
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 15 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	424'-10"
WIDTH	=	47'-6"
AREA	=	20,180 ft^2
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 38

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

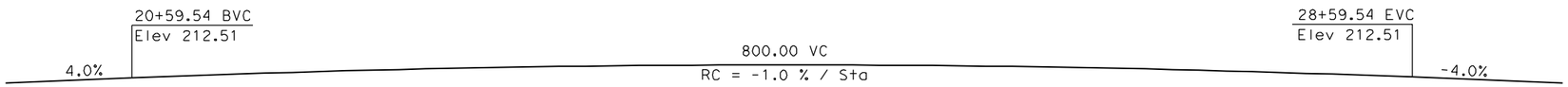
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
ROAD 15 OVERHEAD
PLANNING STUDY

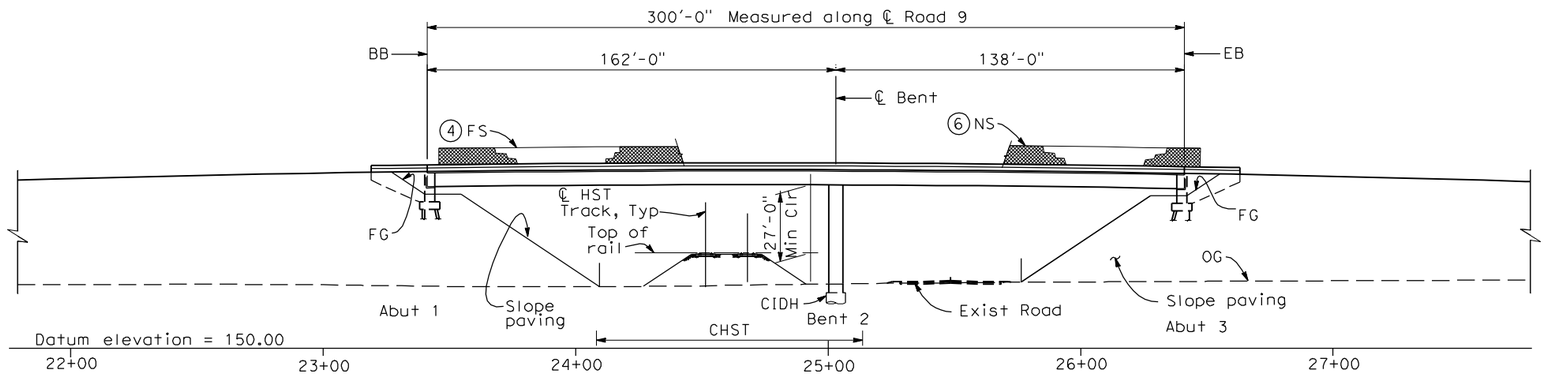
CONTRACT NO. HSR06-007
DRAWING NO. ST1043
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 3:13:07 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-WF-ST-OH_Rd 15.dgn



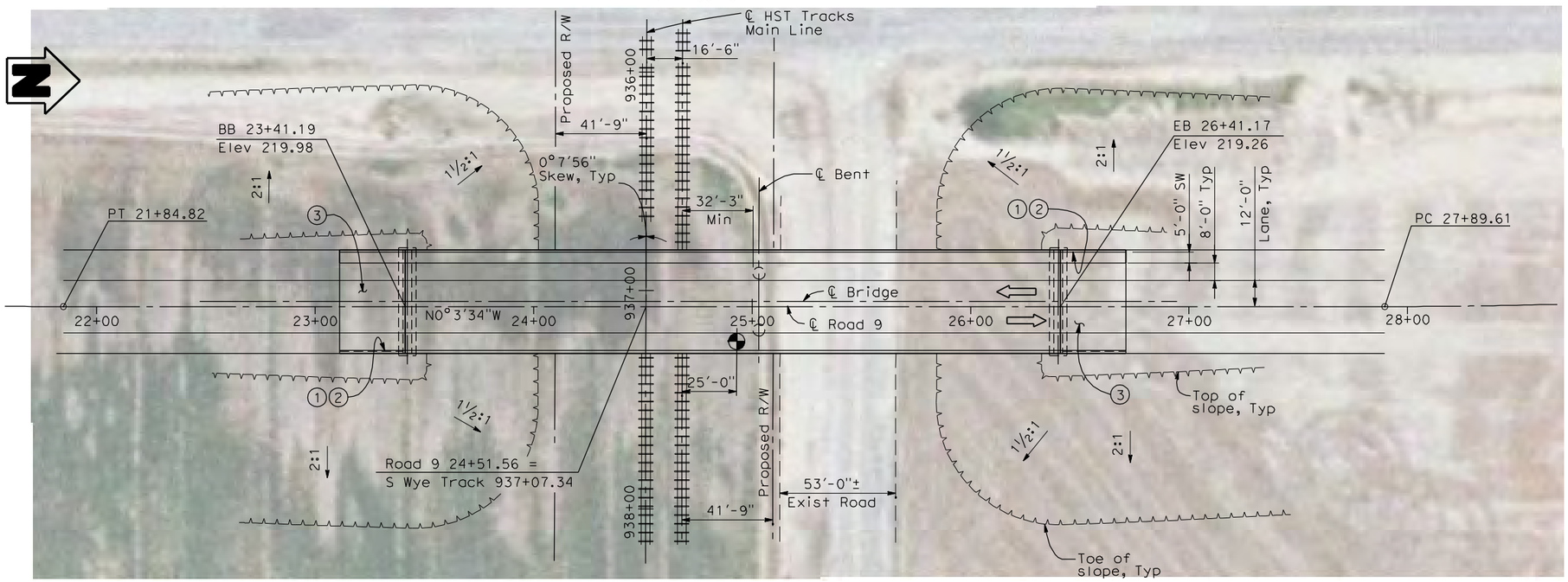
PROFILE GRADE

NTS



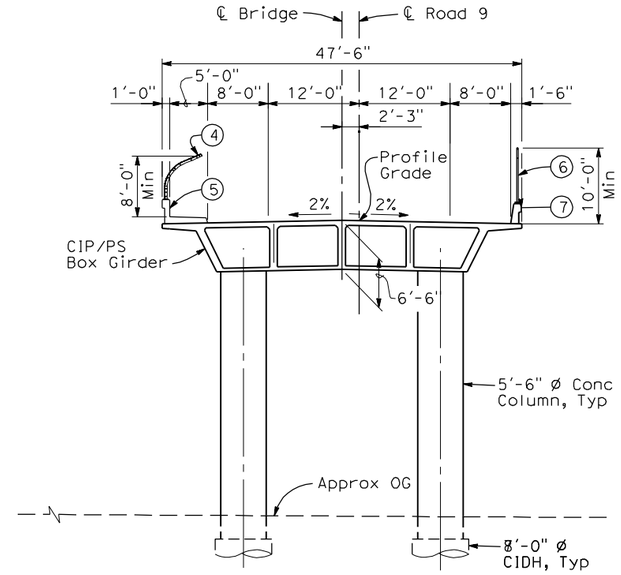
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 9 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-6"
LENGTH	=	300'-0"
WIDTH	=	47'-6"
AREA	=	14,250 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 42

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY K. LEE
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

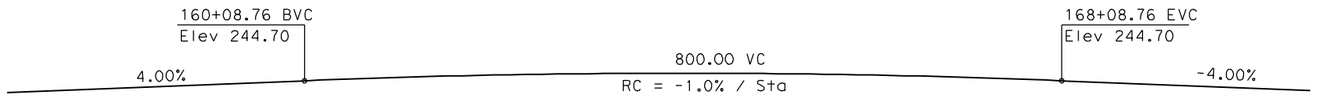
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 24
ROAD 9 OVERHEAD
PLANNING STUDY

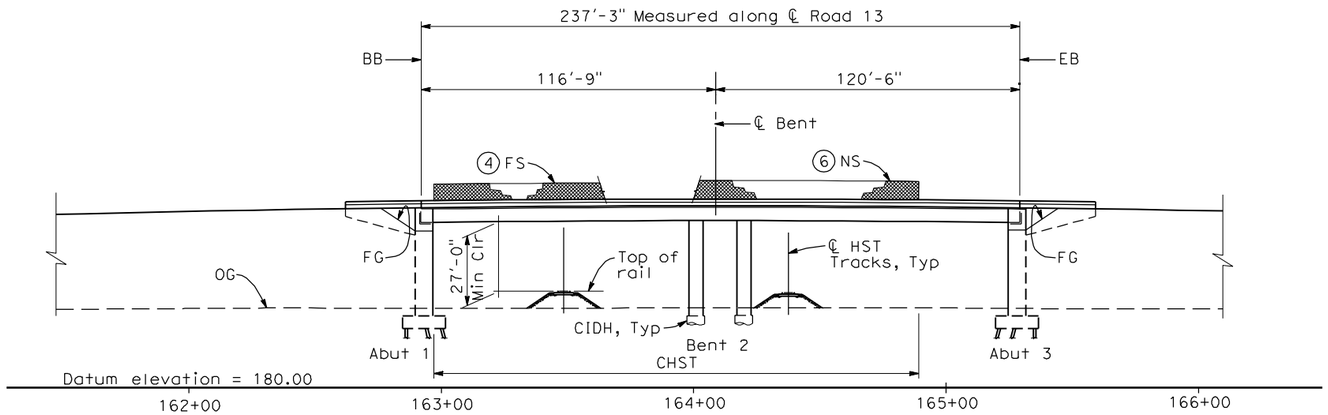
CONTRACT NO. HSR06-007
DRAWING NO. ST1047
SCALE As shown
SHEET NO. OF

cisnerose 4/28/2011 6:42:55 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-24ML\W-MF-ST-OH_Rd 9.dgn



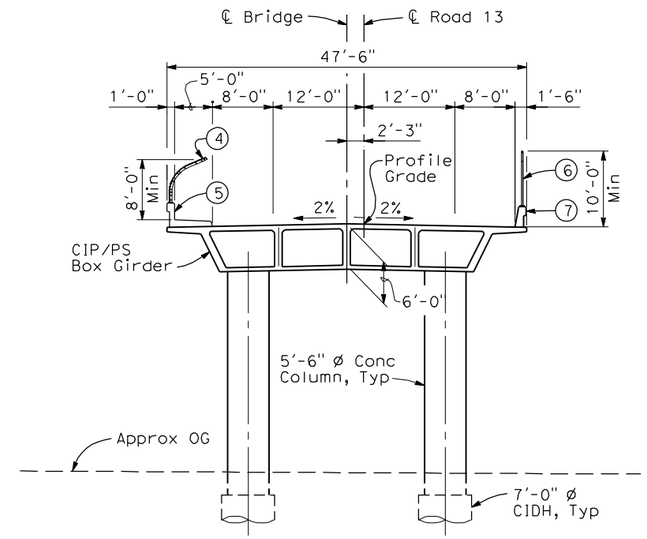
PROFILE GRADE

NTS



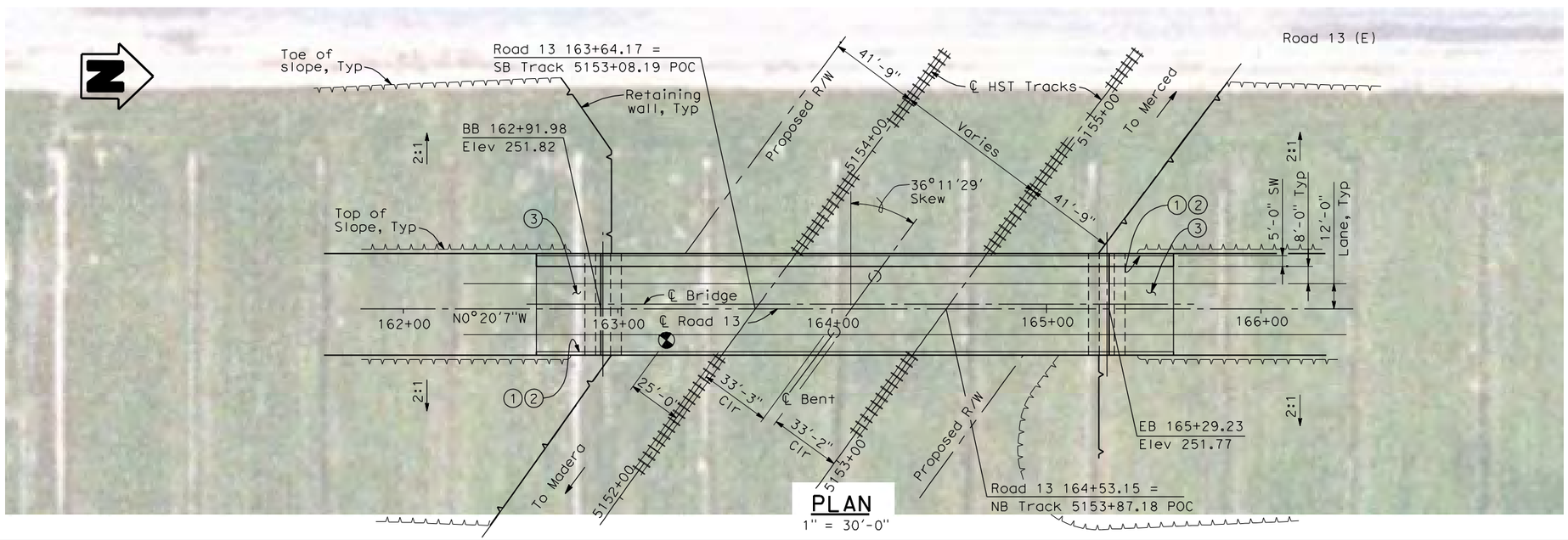
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. WW-XX"
2. Paint "Road 13 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	237'-3"
WIDTH	=	47'-6"
AREA	=	11,300 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 40

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

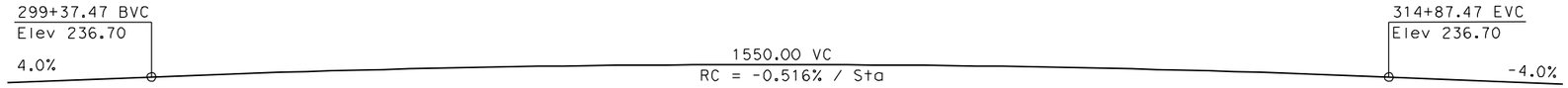
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION - HYBRID
AVENUE 24
ROAD 13 OVERHEAD
PLANNING STUDY - SHEET 2 OF 2

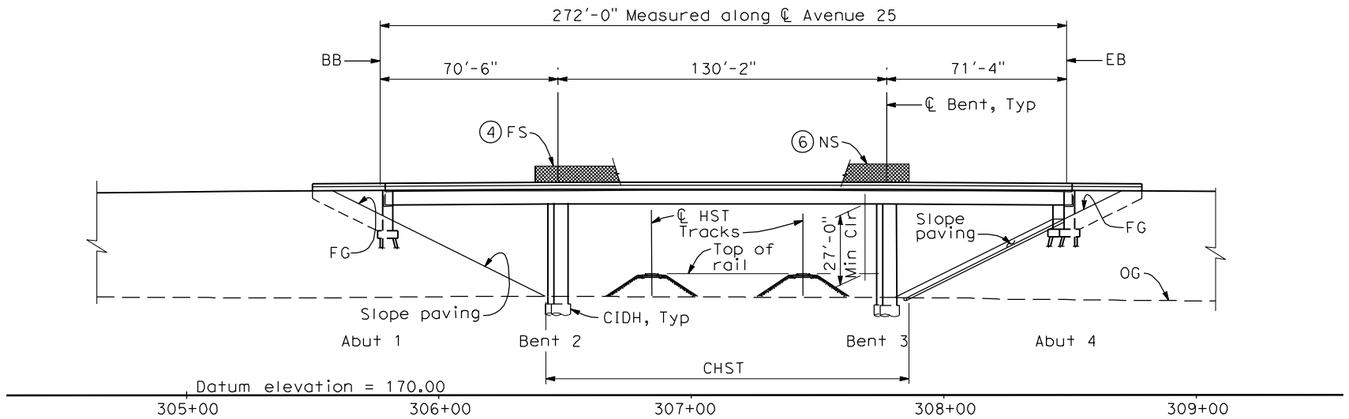
CONTRACT NO. HSR06-007
DRAWING NO. ST1161
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:46:23 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_Road 13ML_MCDO_HY-Loc 40.dgn



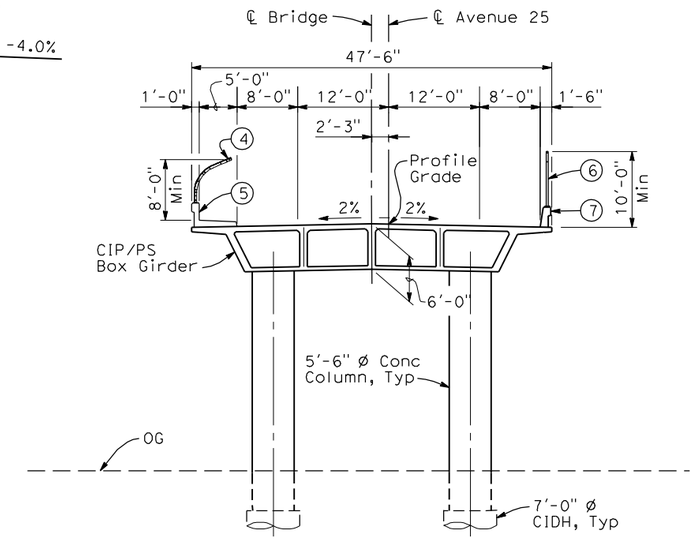
PROFILE GRADE

NTS



ELEVATION

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"

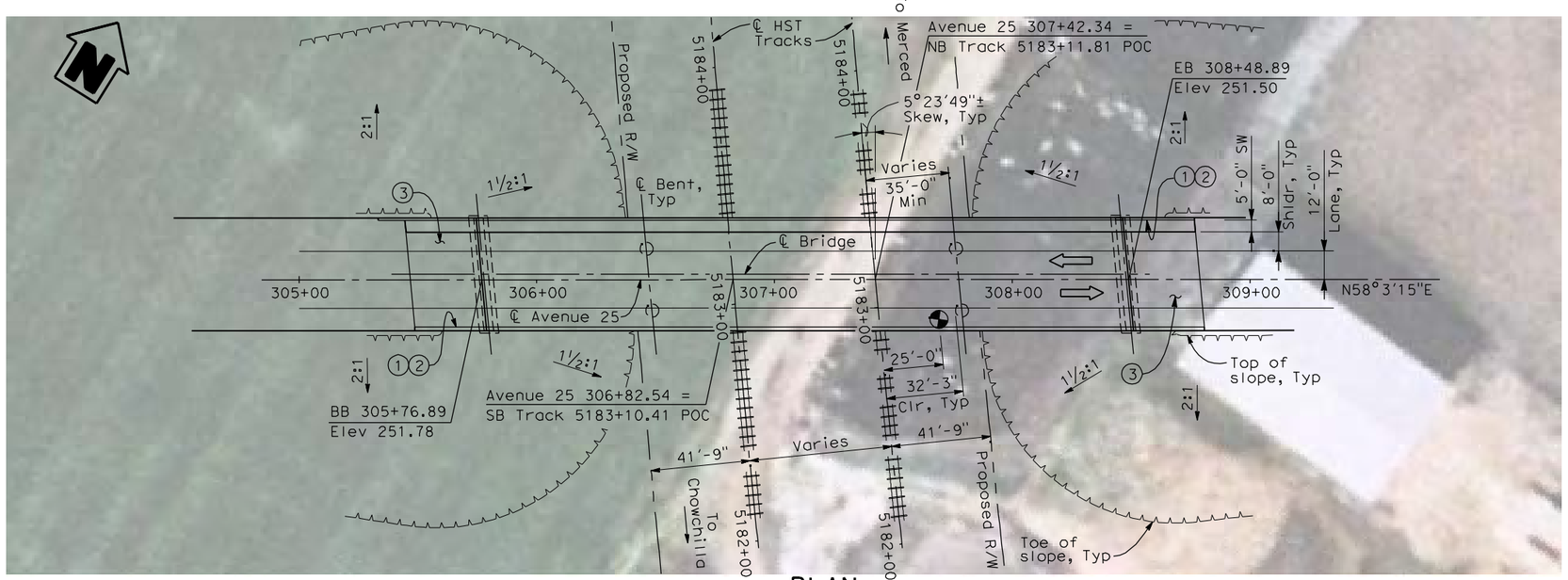
NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 25 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance



PLAN

1" = 30'-0"

DATE OF ESTIMATE	
BRIDGE REMOVAL =	
STRUCTURE DEPTH =	6'-0"
LENGTH =	272'-0"
WIDTH =	47'-6"
AREA =	12,900 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY =	
TOTAL COST =	

LOCATION 27

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

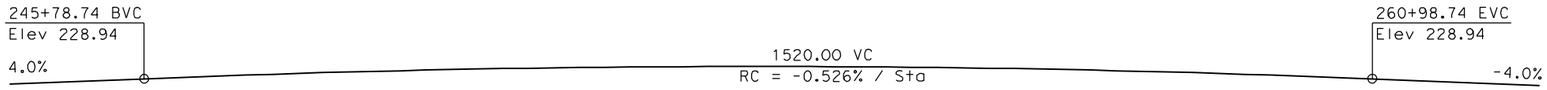
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 24
AVENUE 25 OVERHEAD
PLANNING STUDY - SHEET 1 OF 2

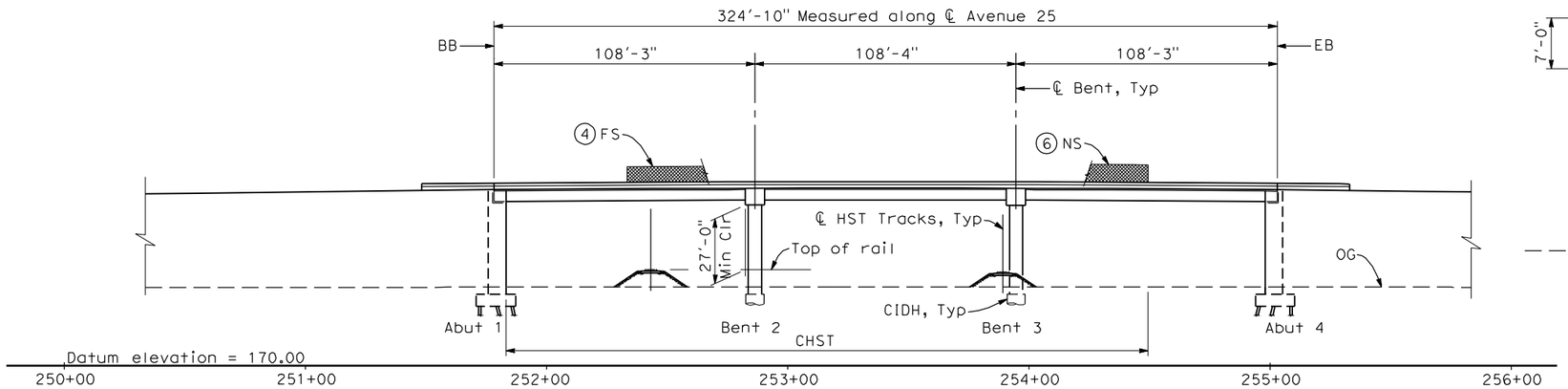
CONTRACT NO. HSR06-007
DRAWING NO. ST1133
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:50:10 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\MF-ST-OH_Ave 25MC-Loc 27.dgn



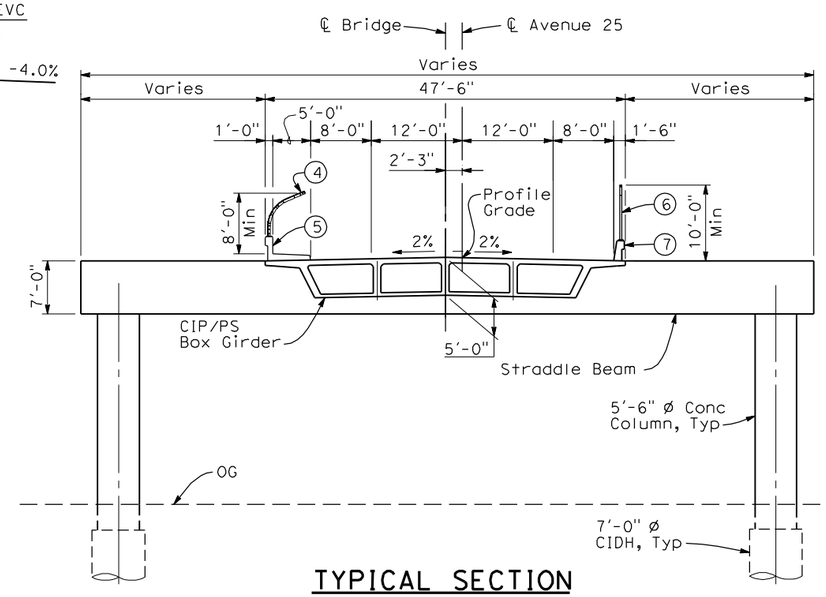
PROFILE GRADE

NTS



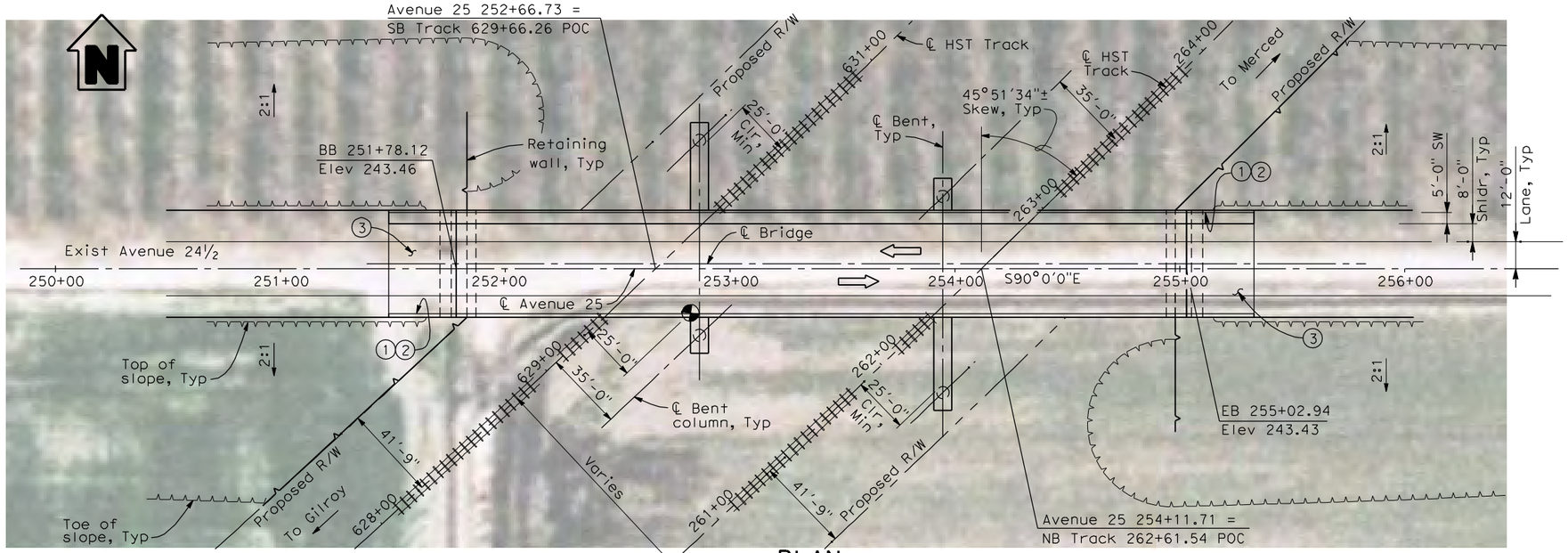
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1"=10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 25 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	324'-10"
WIDTH	=	47'-6"
AREA	=	15,450 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 27

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY H. WANG
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

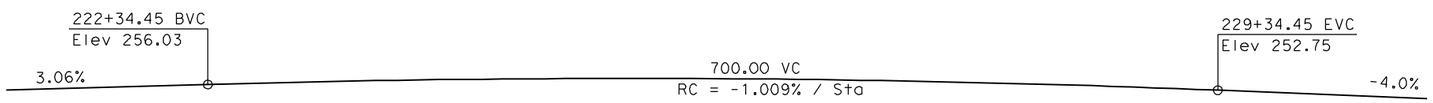
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

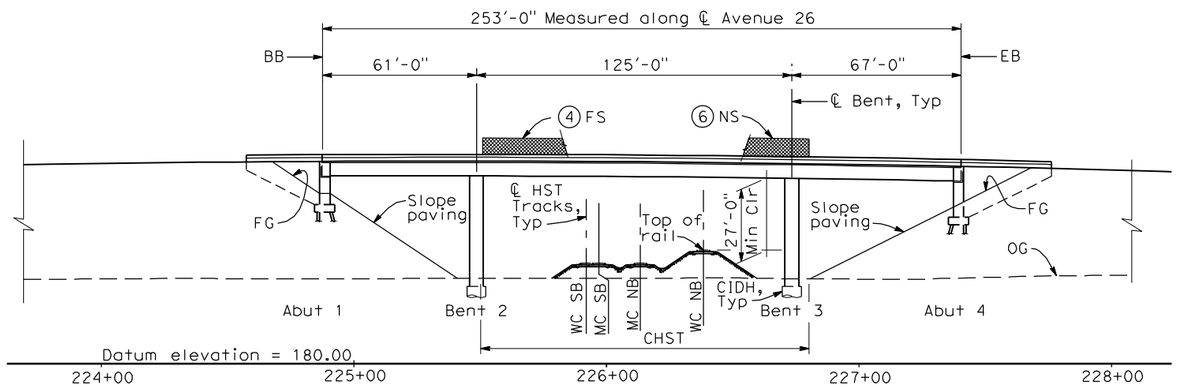
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE CONNECTION
AVENUE 24
AVENUE 25 OVERHEAD
PLANNING STUDY - SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. ST1134
SCALE As shown
SHEET NO. OF

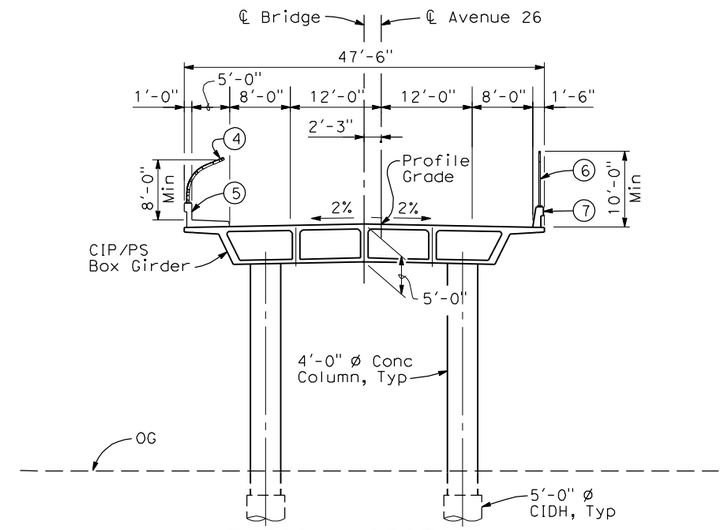
cisnerose 4/29/2011 10:51:01 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\WF-ST-OH_Ave 25Wye-Loc 27.dgn



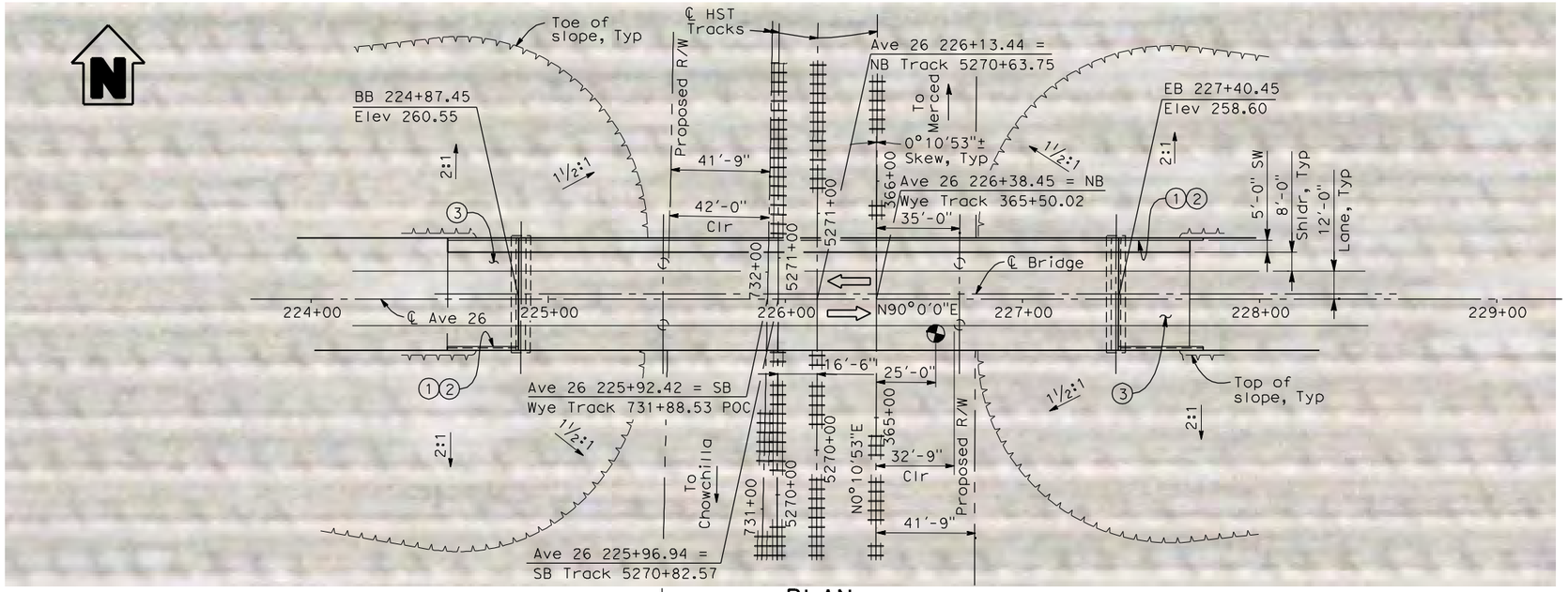
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 26 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND/ABBREVIATIONS:

⇦ Direction of traffic

Point of minimum vertical clearance

MC = Merced Connection

WC = Wye Connection

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	253'-0"
WIDTH	=	47'-6"
AREA	=	12,000 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 26

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

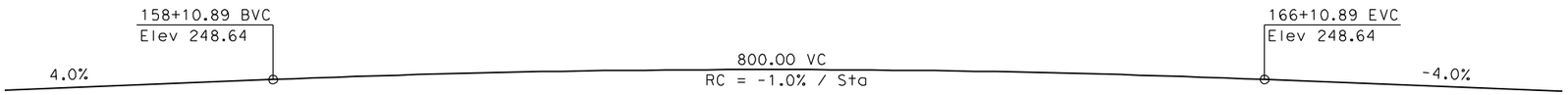
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

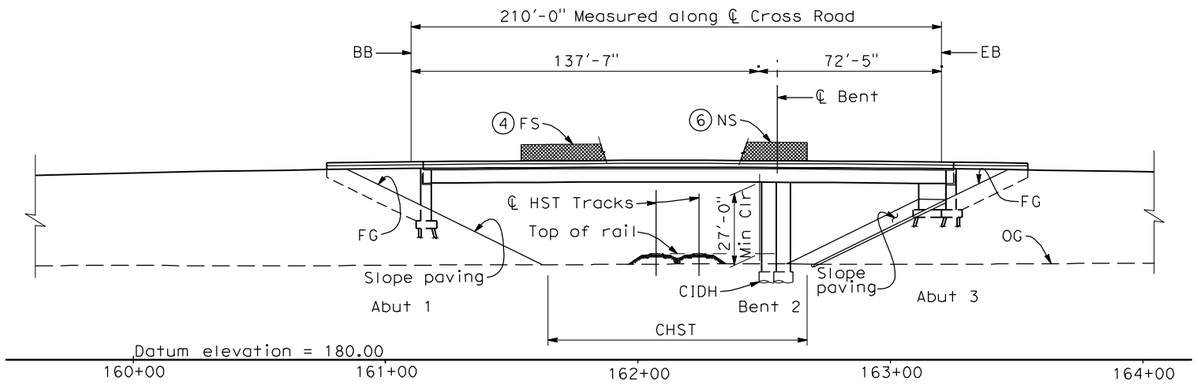
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 WYE & MERCED CONNECTIONS
AVENUE 24
AVENUE 26 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1135
SCALE As shown
SHEET NO. OF

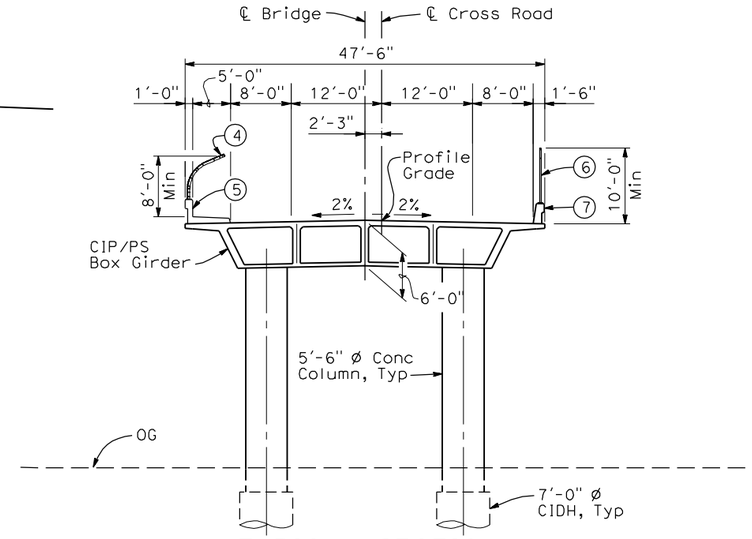
cisnerose 4/29/2011 10:51:49 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\WM-MF-ST-OH_Ave 26WC&MC-Loc 26.dgn



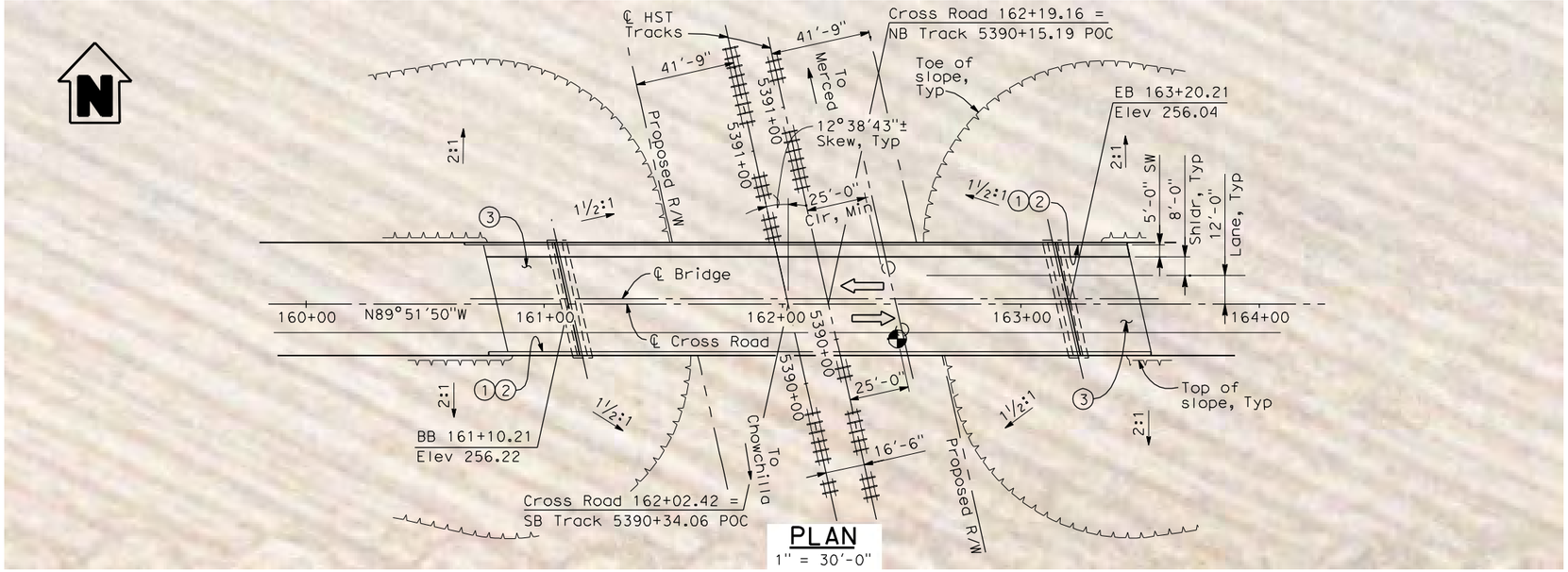
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"



PLAN
1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Cross Road OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

⊕ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	210'-0"
WIDTH	=	47'-6"
AREA	=	9,975 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 25

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

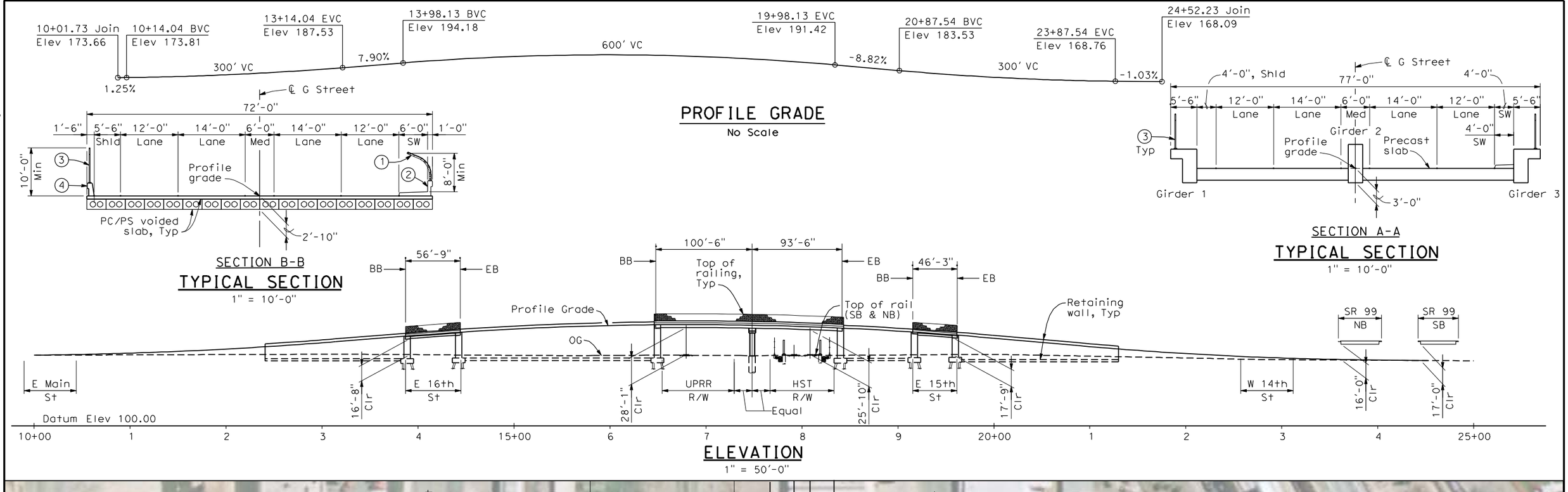
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 24
CROSS ROAD OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1136
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:52:28 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_Cross RoadMC-Loc 25.dgn



PRELIMINARY
NOT FOR CONSTRUCTION

LOCATION 64

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

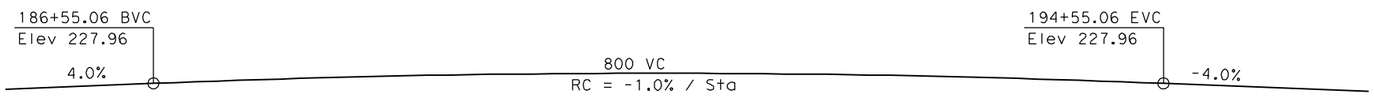
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

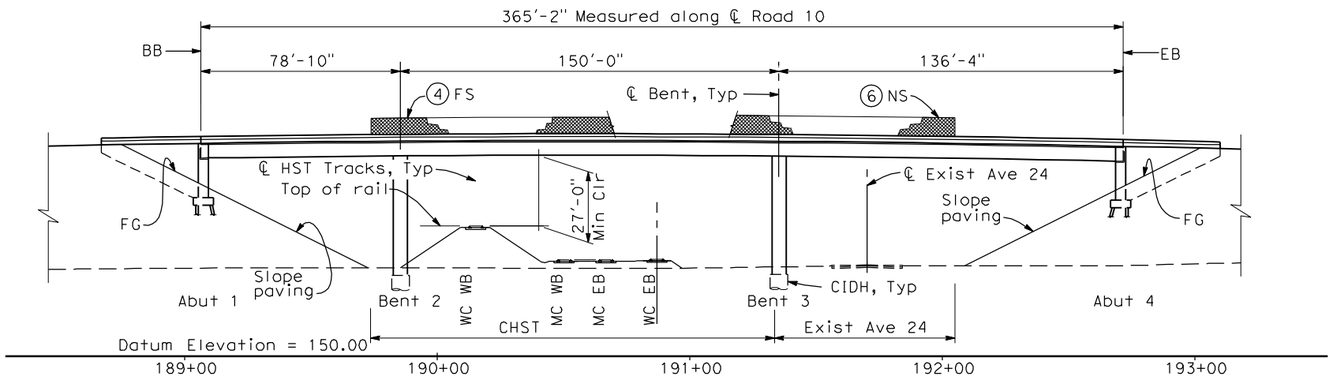
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
G STREET OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1180
SCALE As shown
SHEET NO. OF

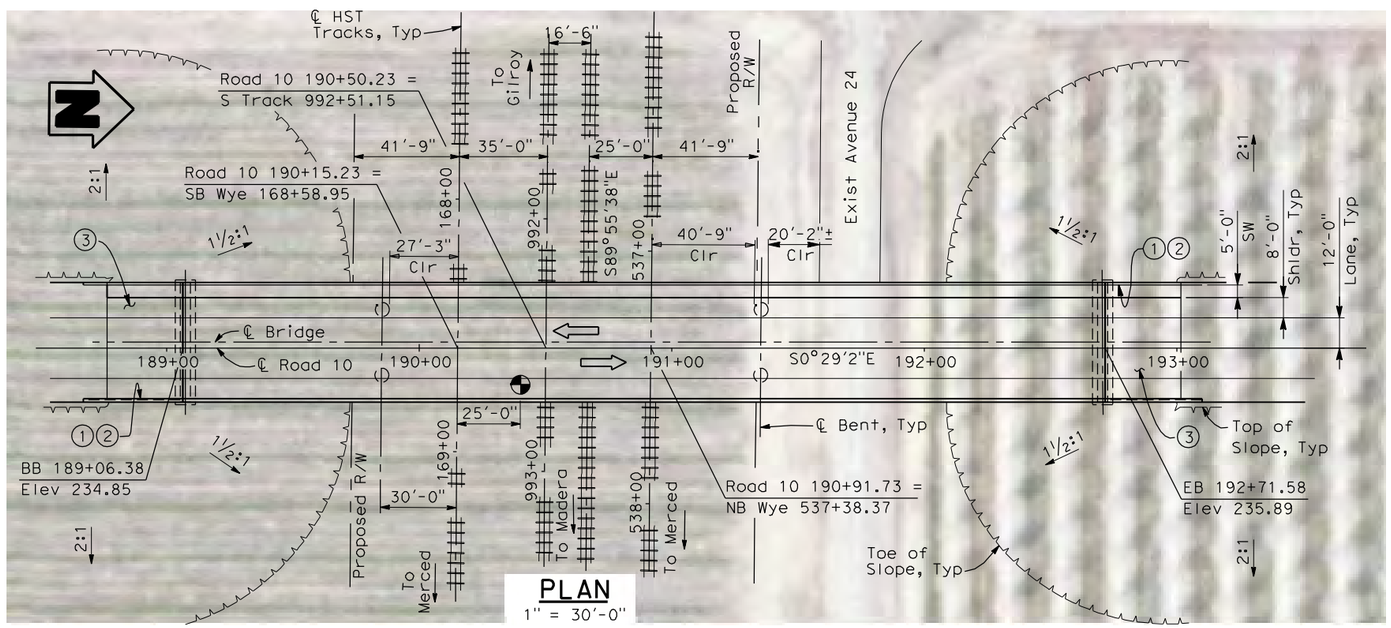
I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\WM-MF-ST-OH_G Street-Loc64.dgn 5:54:26 PM 5/1/2011 cisnerose



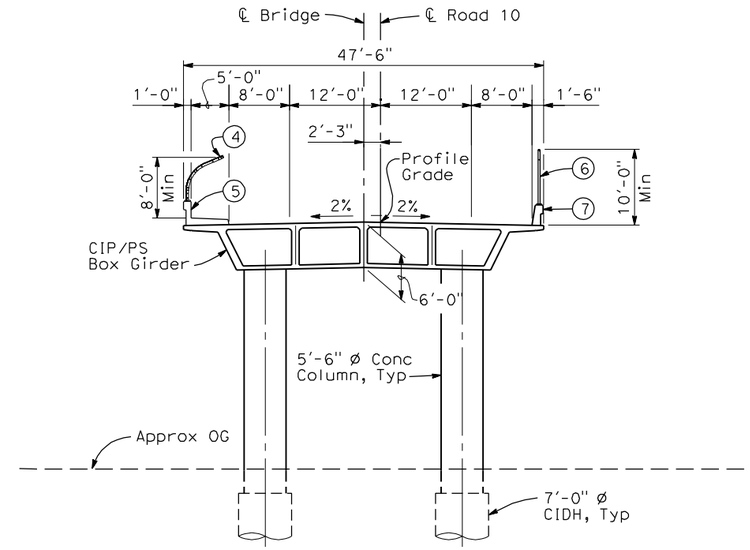
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



PLAN
1" = 30'-0"



TYPICAL SECTION
1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 10 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND/ABBREVIATIONS:

Direction of traffic

Point of minimum vertical clearance

MC = Merced Connection
WC = Wye Connection

DATE OF ESTIMATE	=	
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	365'-2"
WIDTH	=	47'-6"
AREA	=	17,347 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 41

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY P. ARIGO
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

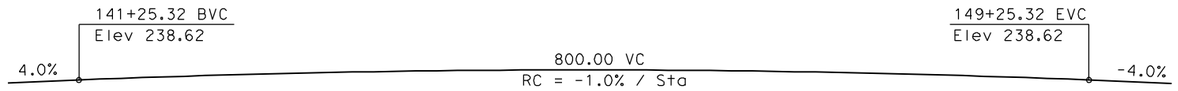
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID MAIN LINE/WYE CONNECTION
AVENUE 24
ROAD 10 OVERHEAD
PLANNING STUDY

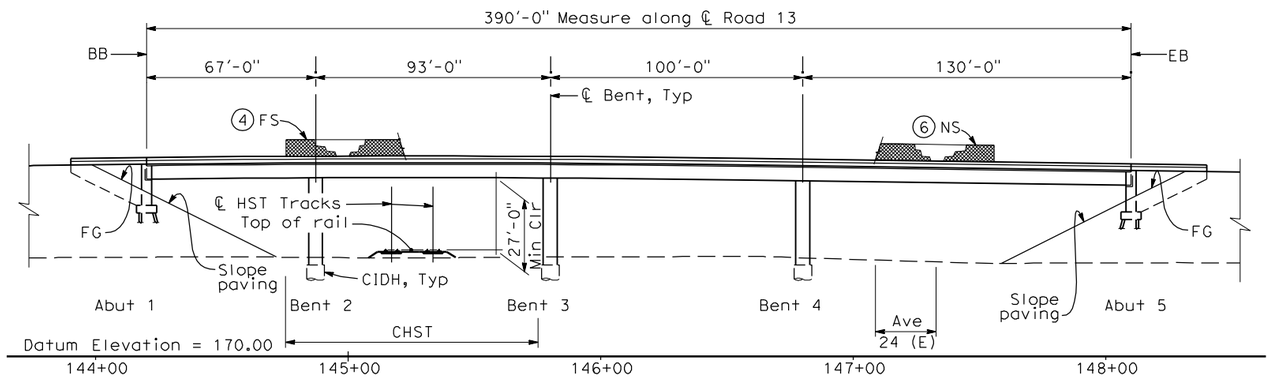
CONTRACT NO. HSR06-007
DRAWING NO. ST1160
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:41:29 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\WF-ST-OH_Road 10_HY-Loc 41.dgn



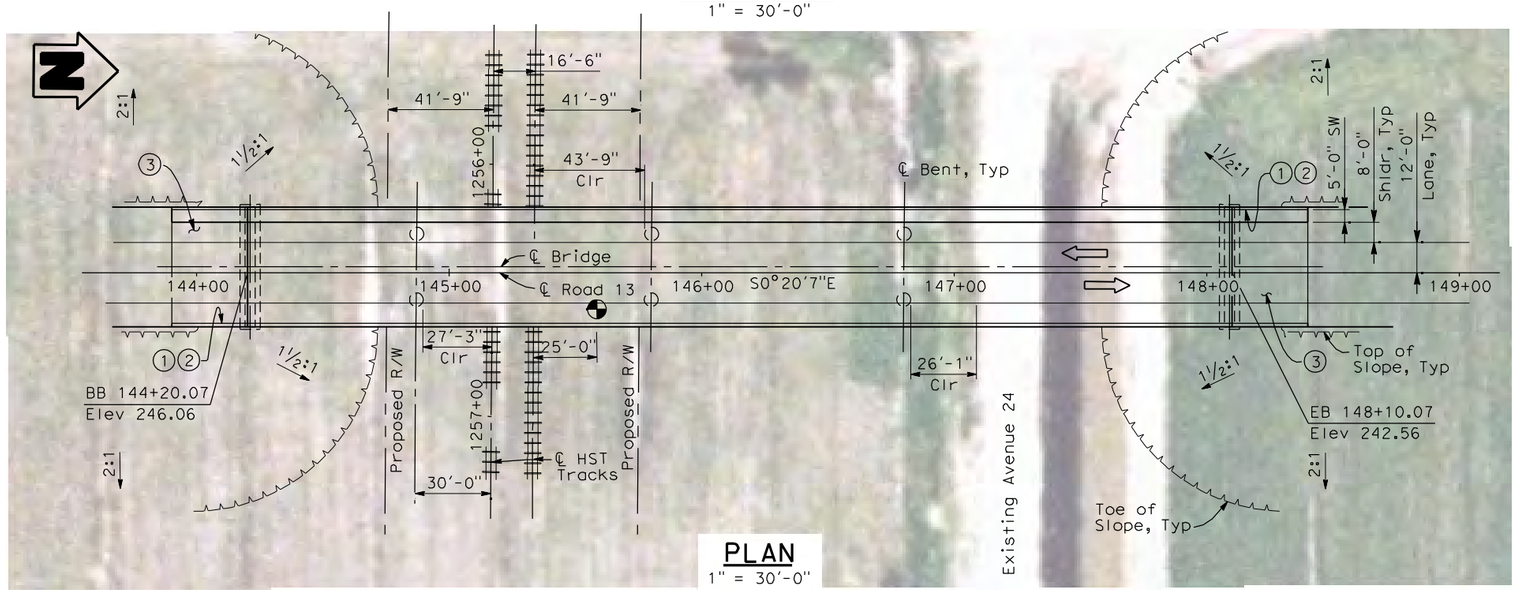
PROFILE GRADE

NTS



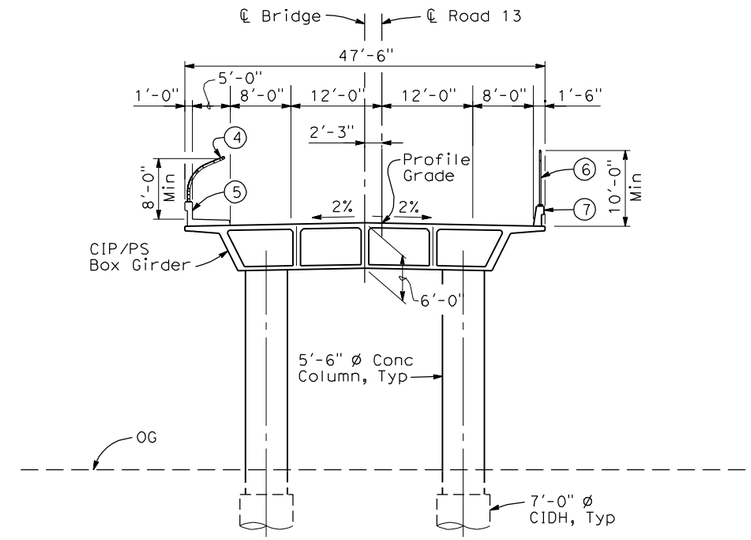
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Road 13 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	390'-0"
WIDTH	=	47'-6"
AREA	=	18,600 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 40

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY P. ARIGO
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

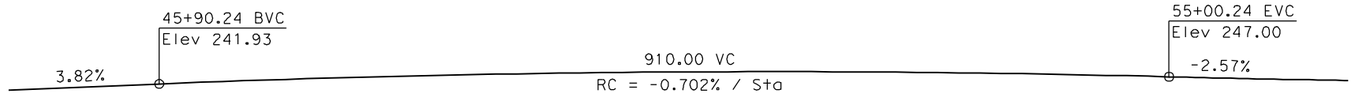
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
AVENUE 24
ROAD 13 OVERHEAD
PLANNING STUDY - SHEET 1 OF 2

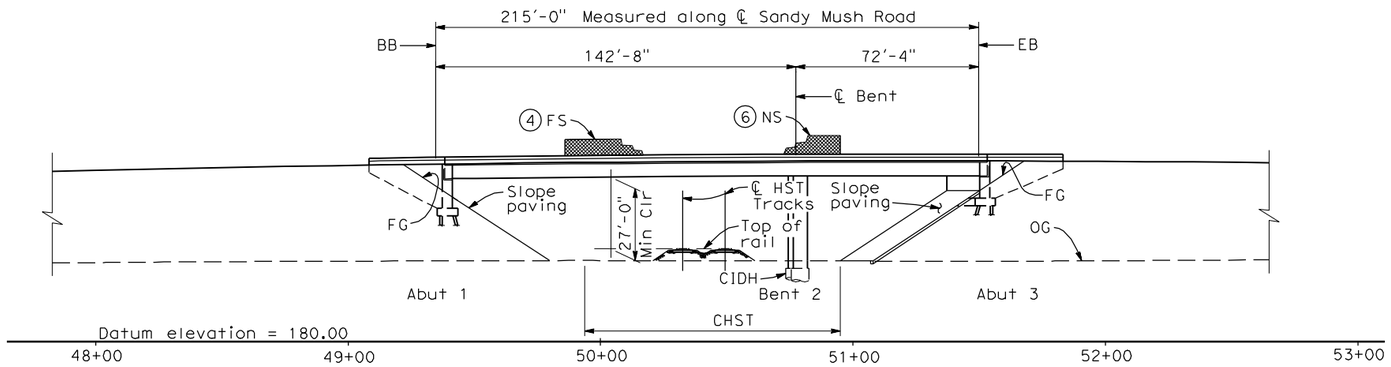
CONTRACT NO. HSR06-007
DRAWING NO. ST1121
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:42:46 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_Road 13ML_HY-Loc 40.dgn



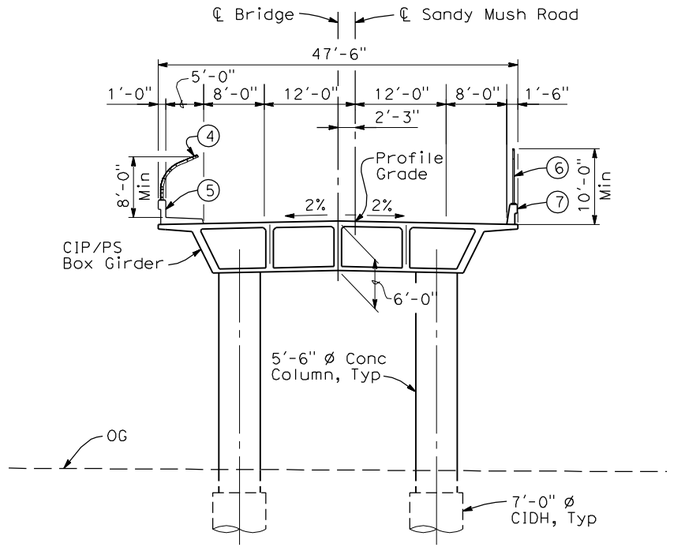
PROFILE GRADE

NTS



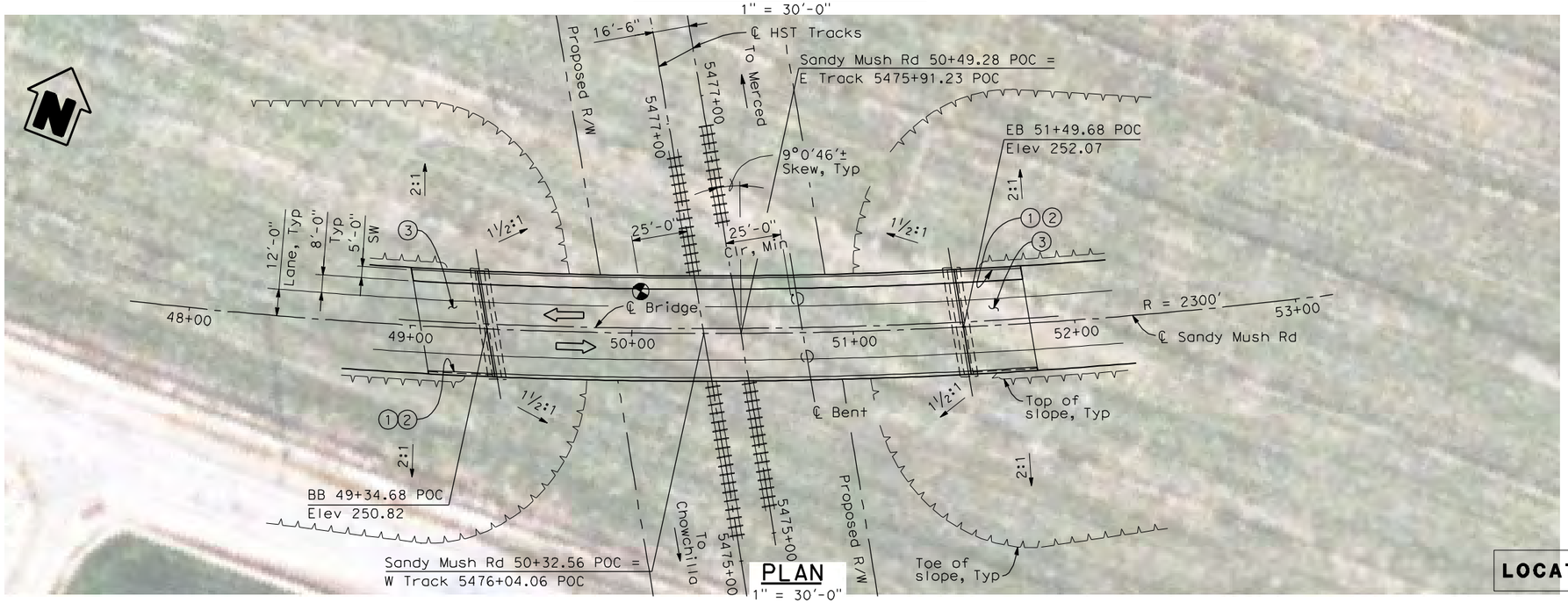
DEVELOPED ELEVATION

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. WX-ZZ"
2. Paint "Sandy Mush Road OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	215'-0"
WIDTH	=	47'-6"
AREA	=	10,200 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATIONS 35 & 35.1

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

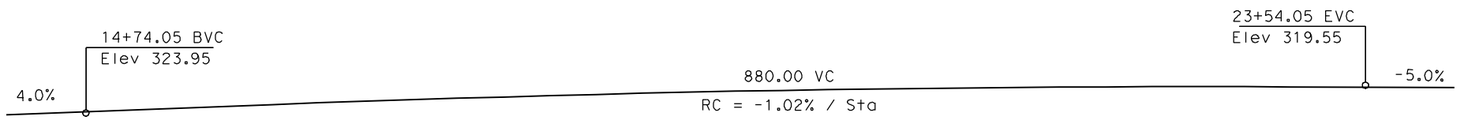
AECOM Technical Services, Inc.
2020 L Street, Suite 300 Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO
UPRR/SR 99 MERCED DO - HYBRID & WYE CONNECTION
AVENUE 24
SANDY MUSH ROAD OVERHEAD
PLANNING STUDY

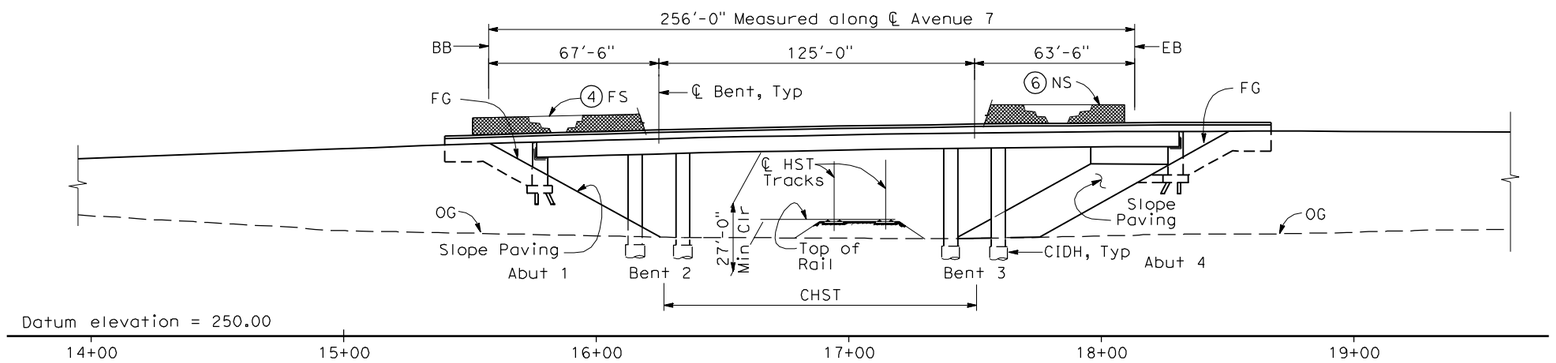
CONTRACT NO. HSR06-007
DRAWING NO. ST1139
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:54:25 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_Sandy Mush24WC_HY-Loc35&35.1.dgn



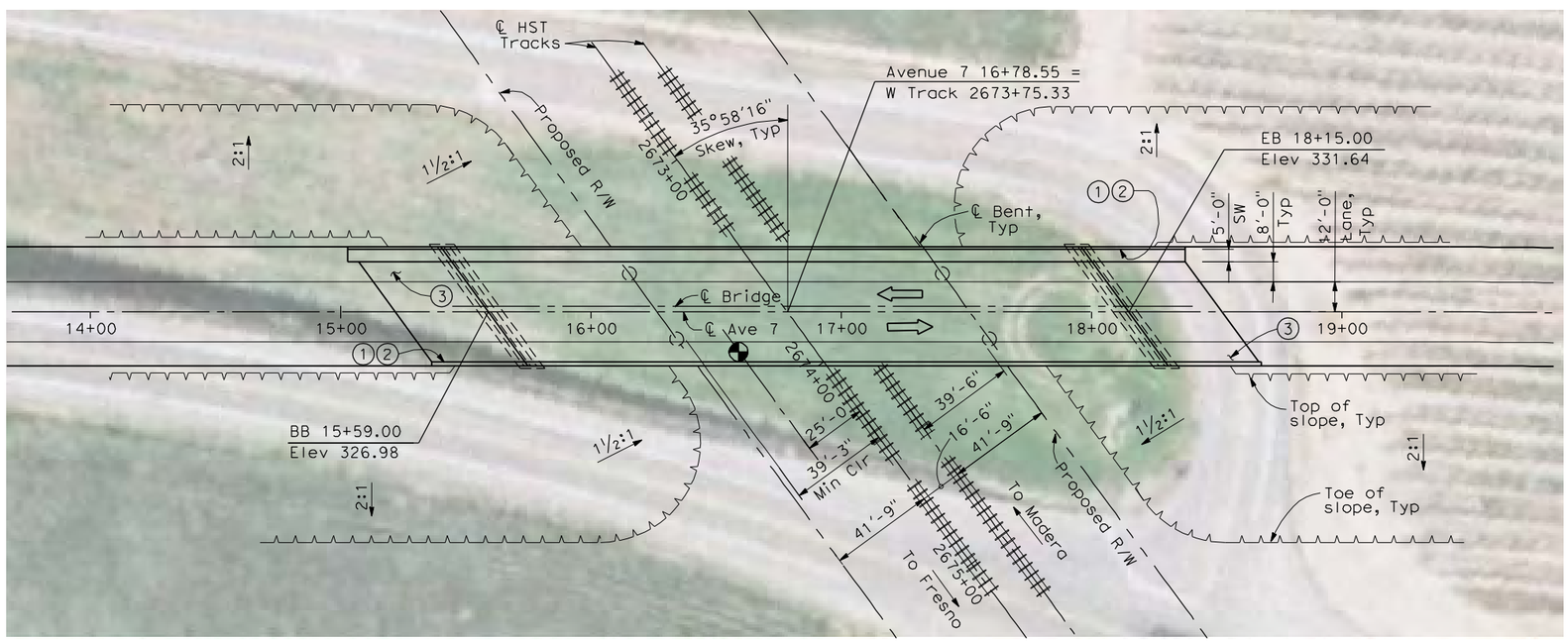
PROFILE GRADE

NTS



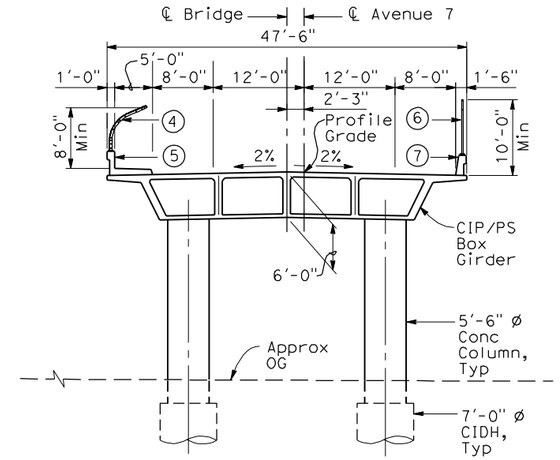
ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"



TYPICAL SECTION

1"=10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 7 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 7 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	256'-0"
WIDTH	=	47'-6"
AREA	=	12,160 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 65

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY J. HODELL
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE
AVENUE 21
AVENUE 7 OVERHEAD
PLANNING STUDY

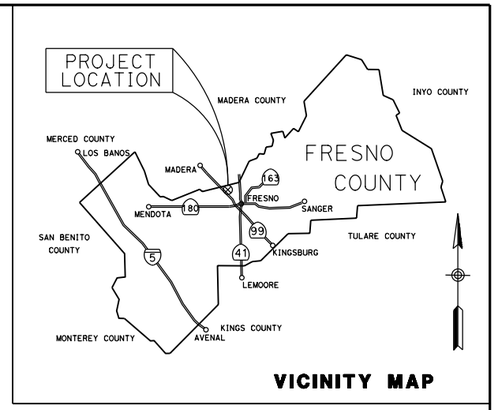
CONTRACT NO. HSR06-007
DRAWING NO. ST1070
SCALE AS SHOWN
SHEET NO. OF

cisnerose 4/30/2011 4:29:54 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructureFrom Oakland\W-MF-ST1070.dgn

CALIFORNIA HIGH SPEED RAIL AUTHORITY

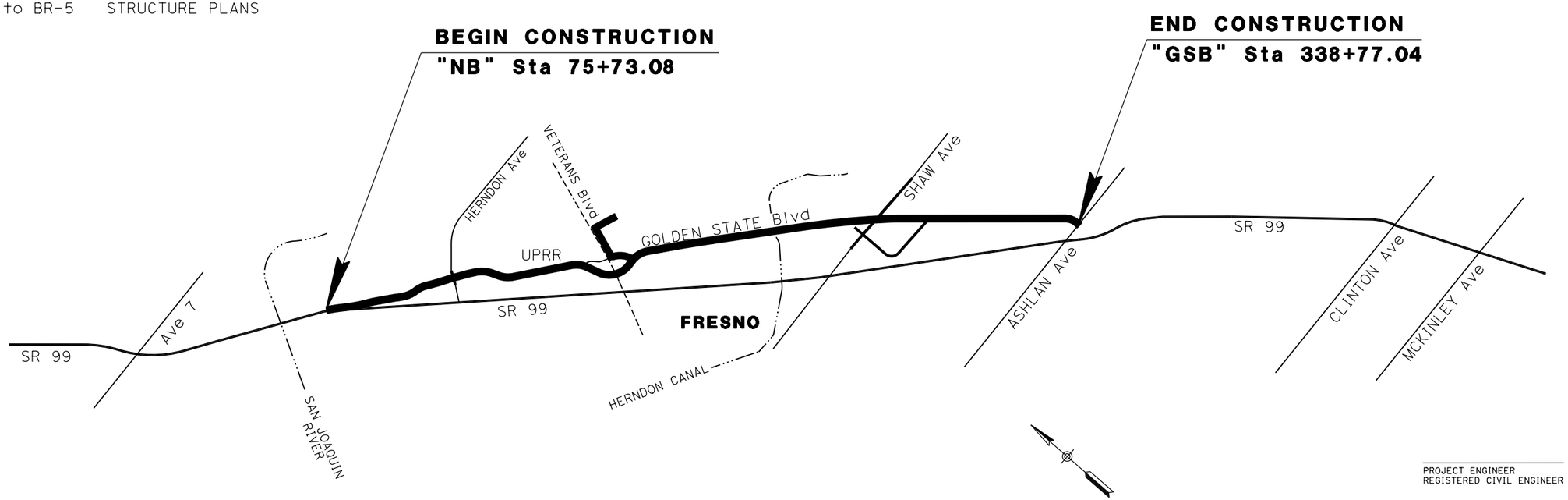
CITY OF FRESNO
DEPARTMENT OF PUBLIC WORKS
CONSTRUCTION PLANS FOR

GOLDEN STATE BOULEVARD



INDEX OF PLANS

T-1	TITLE SHEET
X-1 TO X-18	TYPICAL CROSS SECTIONS
K-1	KEYMAP
L-1 TO L-17	LAYOUT AND PROFILE
SE-1 TO SE-2	SUPERELEVATION
BR-1 to BR-5	STRUCTURE PLANS



PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

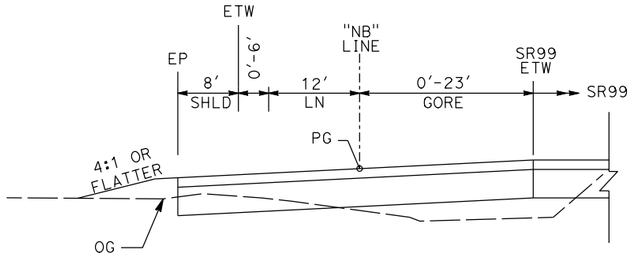
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TITLE

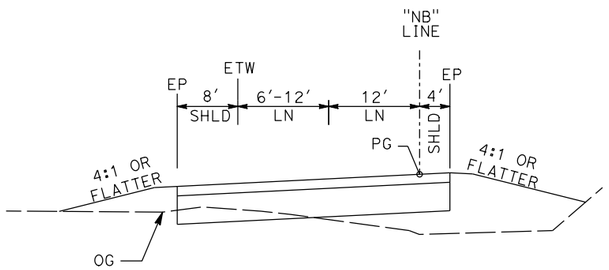
CONTRACT NO. HSR06-007
DRAWING NO. T-1
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011

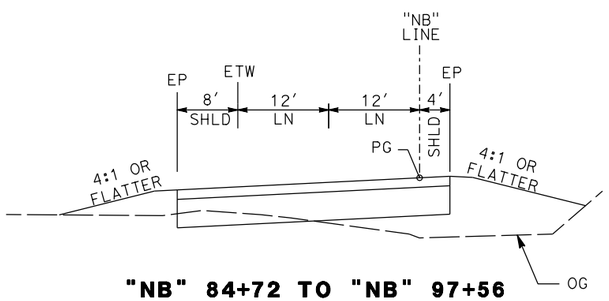
USERNAME => lros



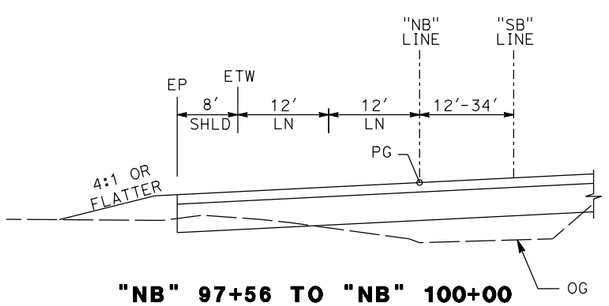
"NB" 75+73 TO "NB" 82+17



"NB" 82+17 TO "NB" 84+72

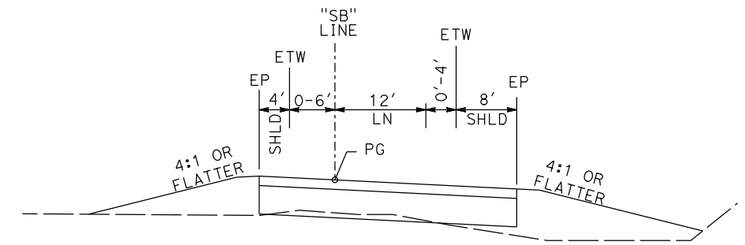


"NB" 84+72 TO "NB" 97+56

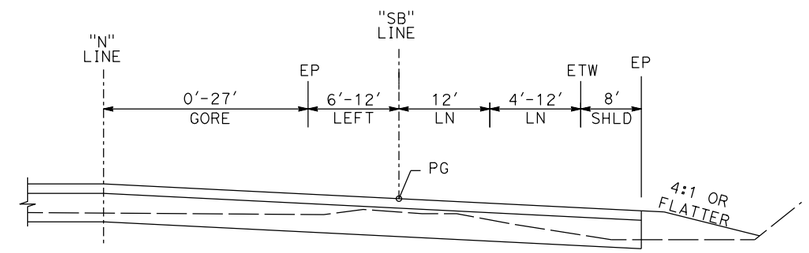


"NB" 97+56 TO "NB" 100+00

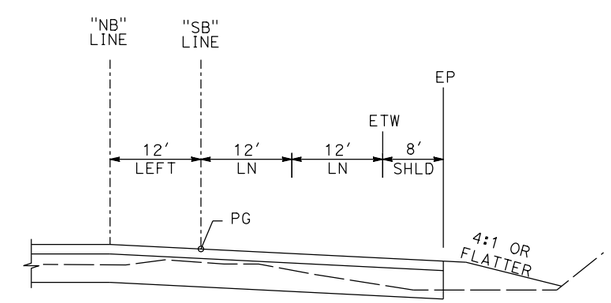
NORTHBOUND ONRAMP



"SB" 95+47 TO "SB" 97+61



"SB" 97+61 TO "SB" 99+51



"SB" 99+51 TO "SB" 100+00

SOUTHBOUND OFFRAMP

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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

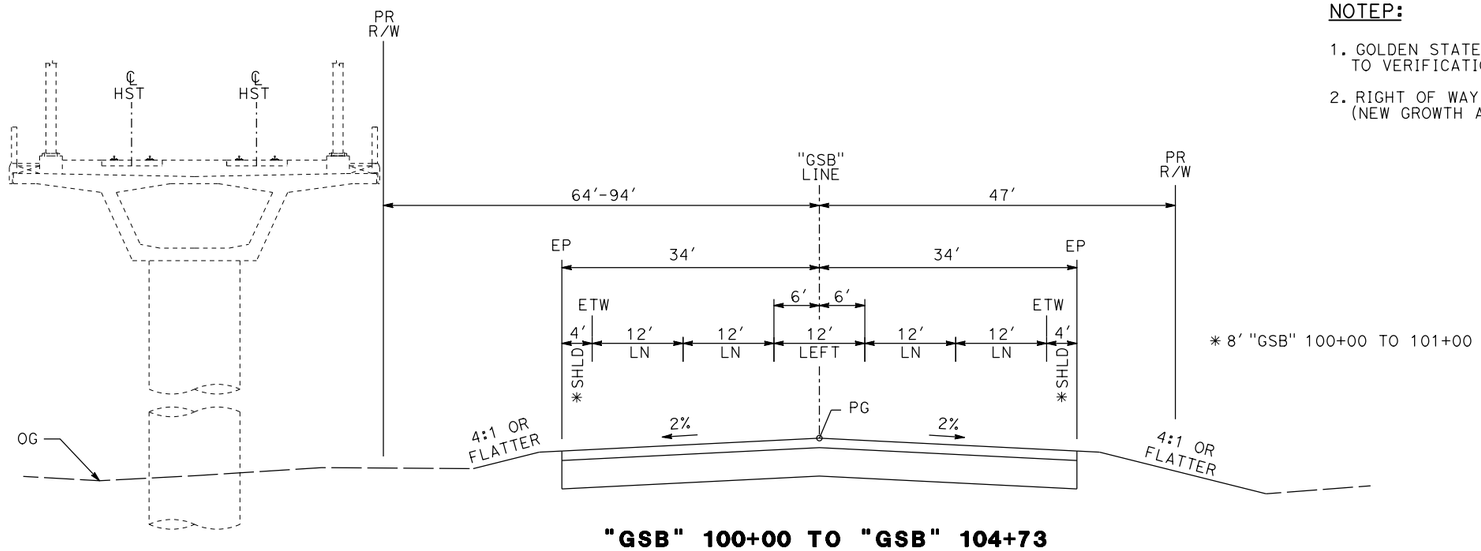
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-1**
SCALE
SHEET NO.

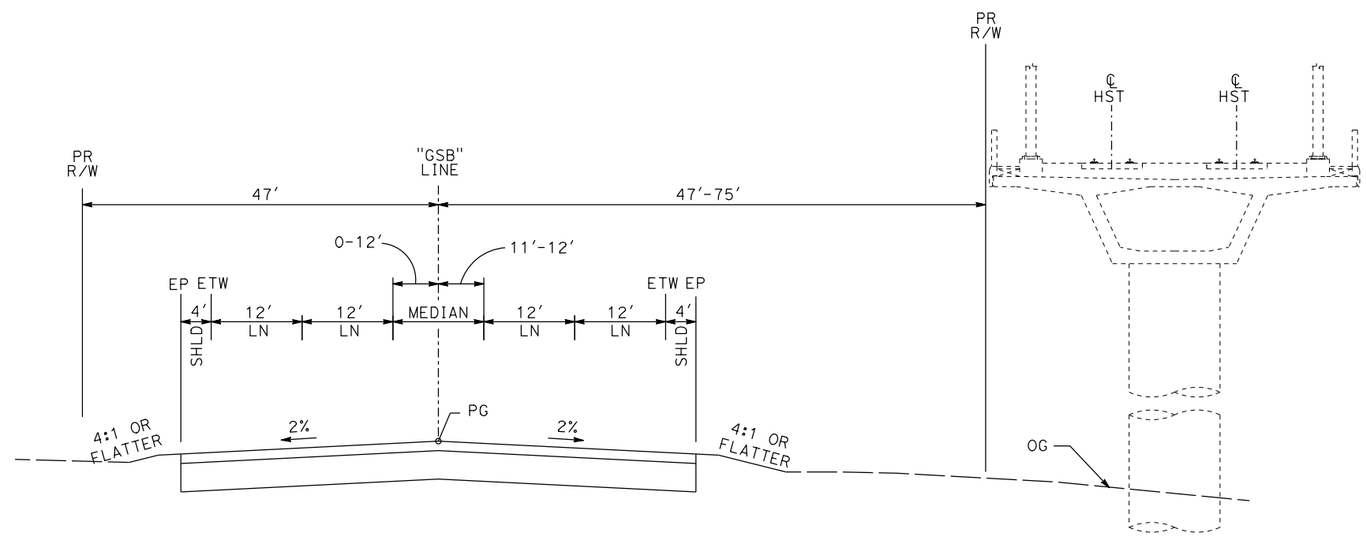
DATE PLOTTED => 27-APR-2011
USERNAME => lros

NOTEP:

1. GOLDEN STATE BLVD ULTIMATE STREET WIDTH/CLASSIFICATION SUBJECT TO VERIFICATION.
2. RIGHT OF WAY WIDTH BASED ON CITY OF FRESNO UNDIVIDED COLLECTORS (NEW GROWTH AREA) TYPICAL STREET CROSS-SECTION.



"GSB" 100+00 TO "GSB" 104+73



"GSB" 104+73 TO "GSB" 110+65

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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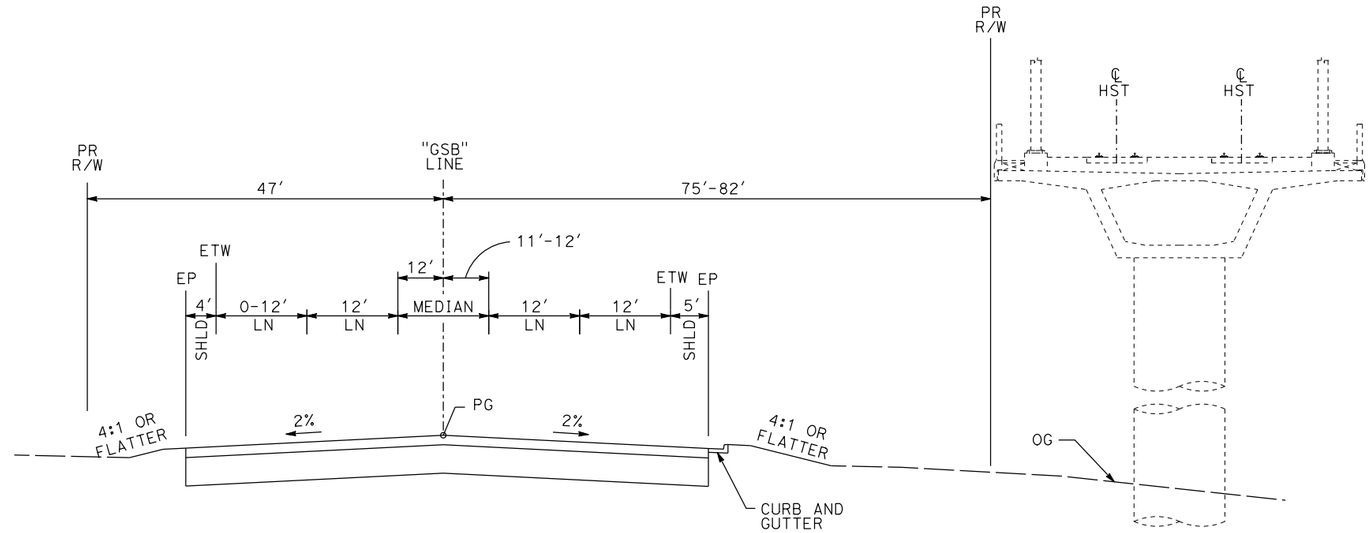
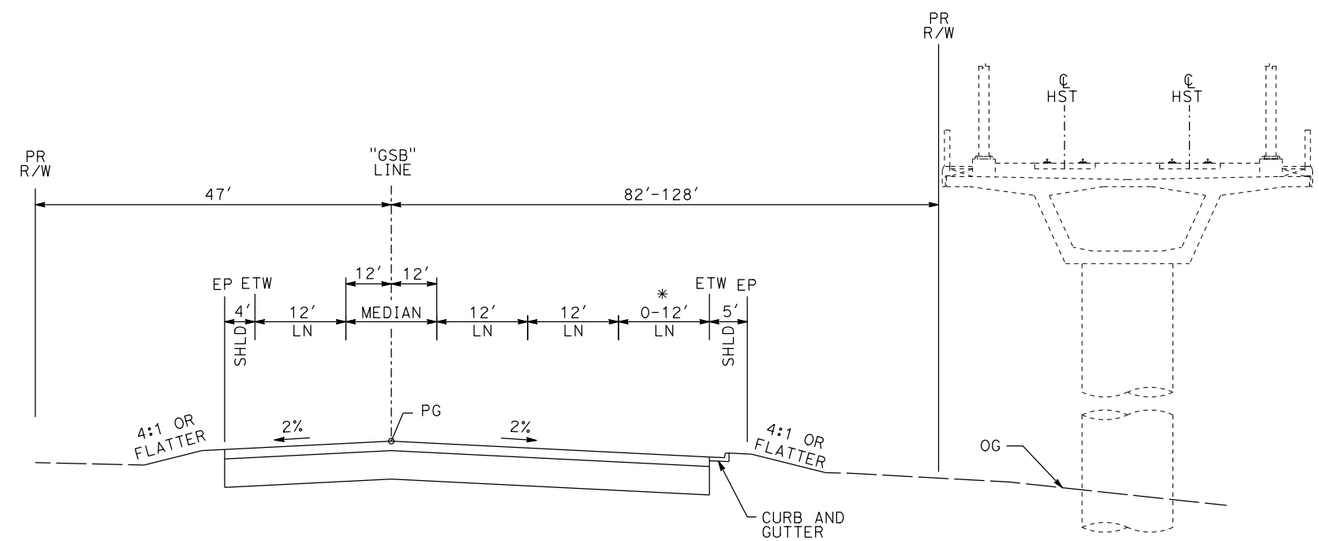
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. X-2
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros



"GSB" 110+65 TO "GSB" 111+96



"GSB" 111+96 TO "GSB" 116+57

* 114+59 TO 116+57

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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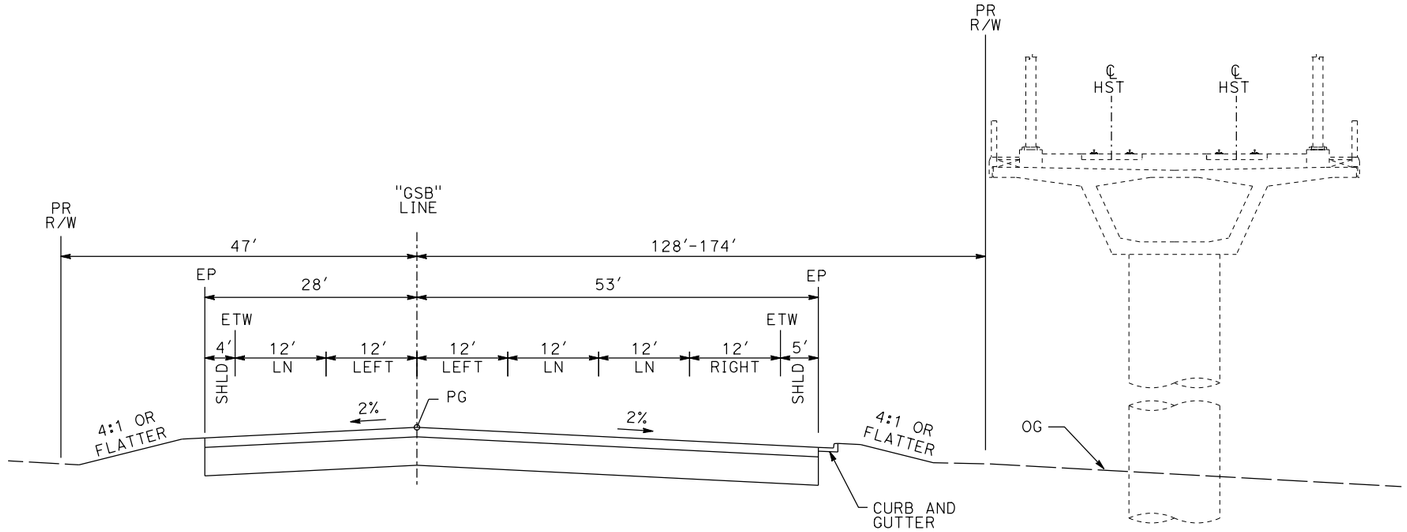
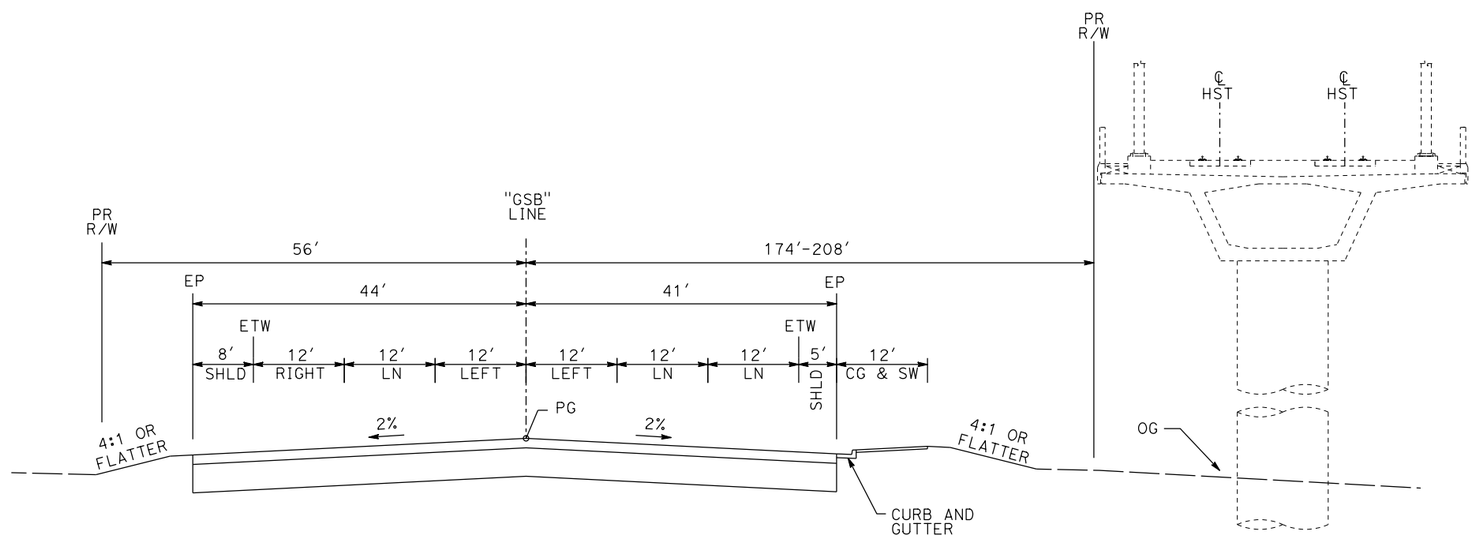
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-3**
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros



"GSB" 116+57 TO "GSB" 120+50



"GSB" 120+50 TO "GSB" 124+47

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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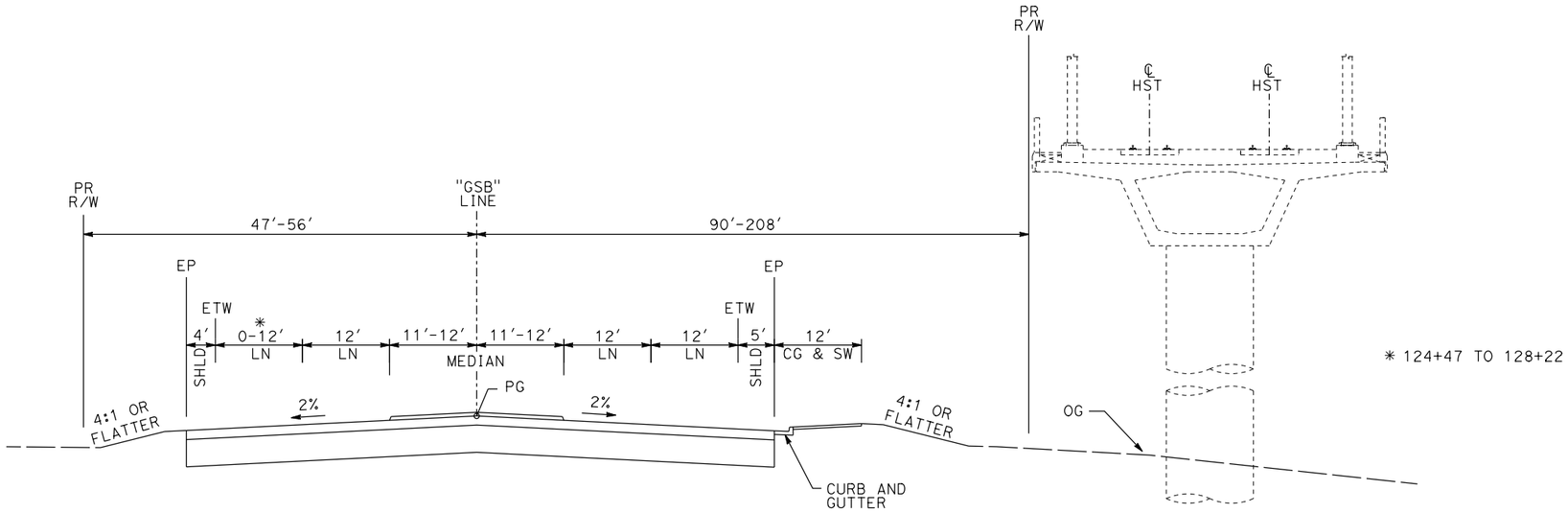
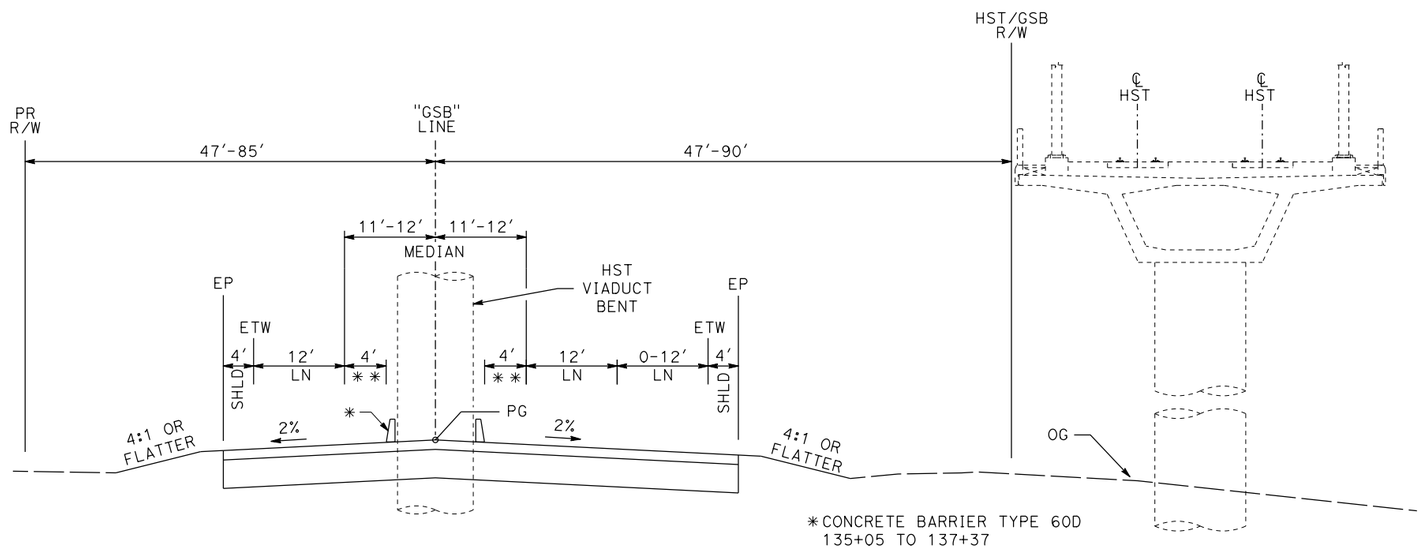
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-4**
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros



"GSB" 124+47 TO "GSB" 134+16



"GSB" 134+16 TO "GSB" 141+36

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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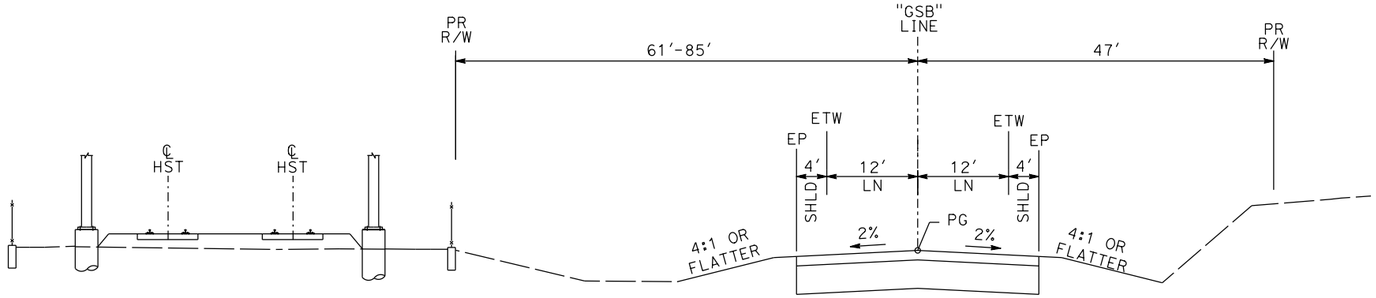
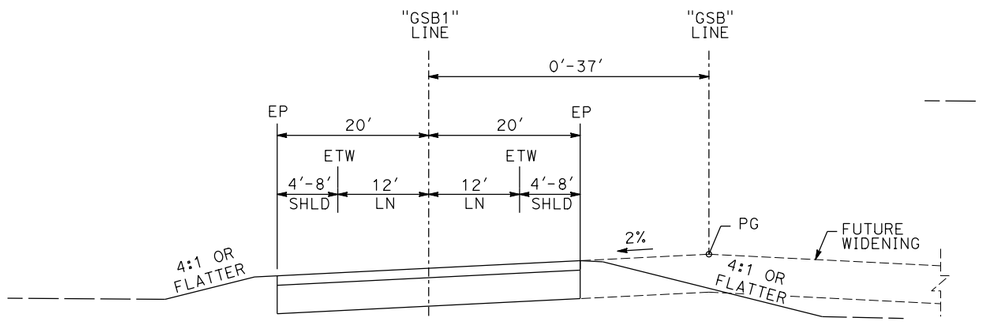
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-5**
SCALE
SHEET NO.

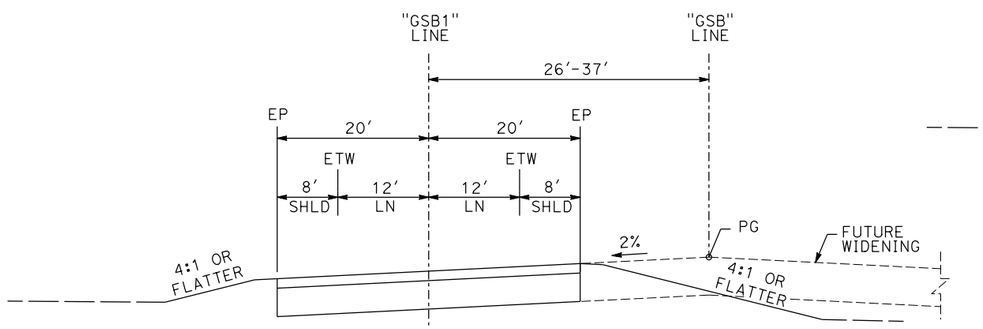
DATE PLOTTED => 27-APR-2011
USERNAME => lros



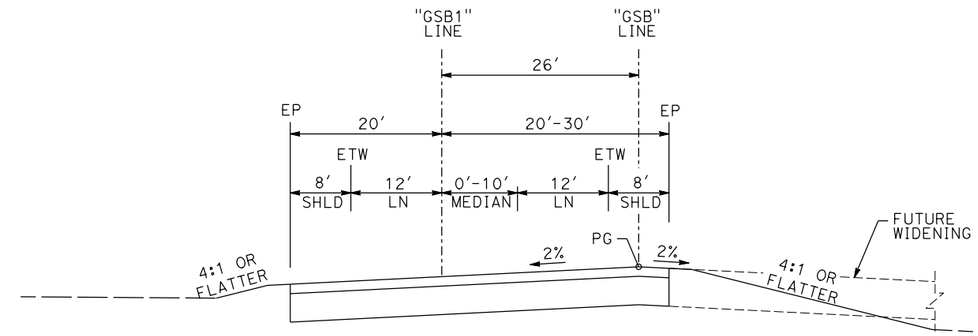
"GSB" 141+36 TO "GSB" 161+45



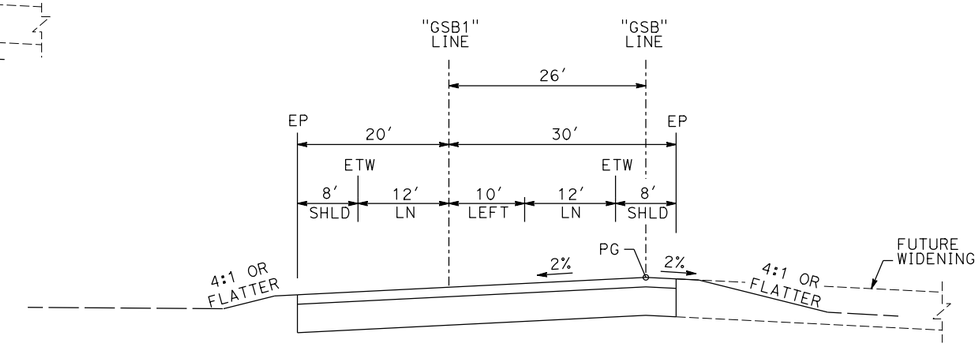
"GSB" 161+45 TO "GSB" 167+38



"GSB" 167+38 TO "GSB" 176+62



"GSB" 176+62 TO "GSB" 182+26



"GSB" 182+26 TO "GSB" 184+25

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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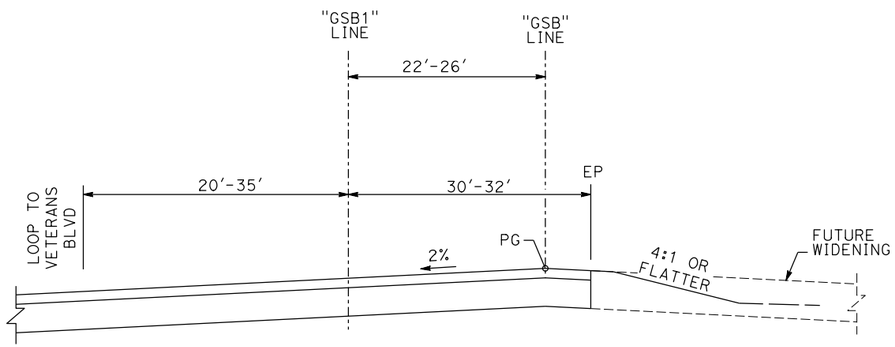
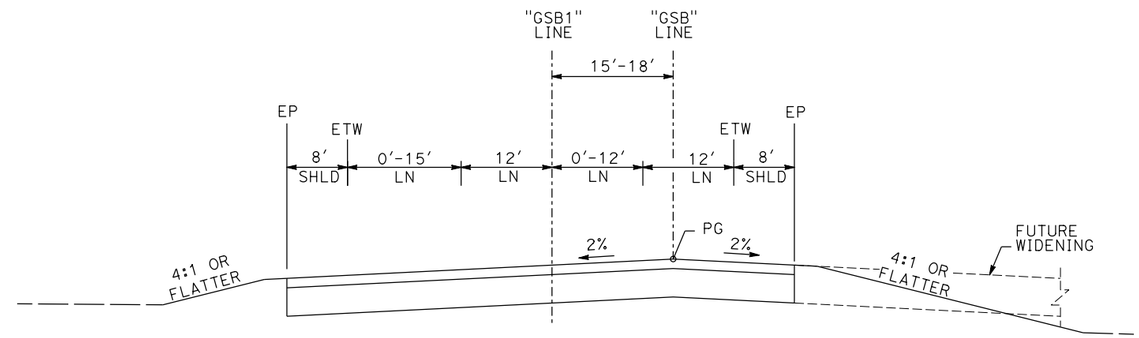
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. X-6
SCALE
SHEET NO.

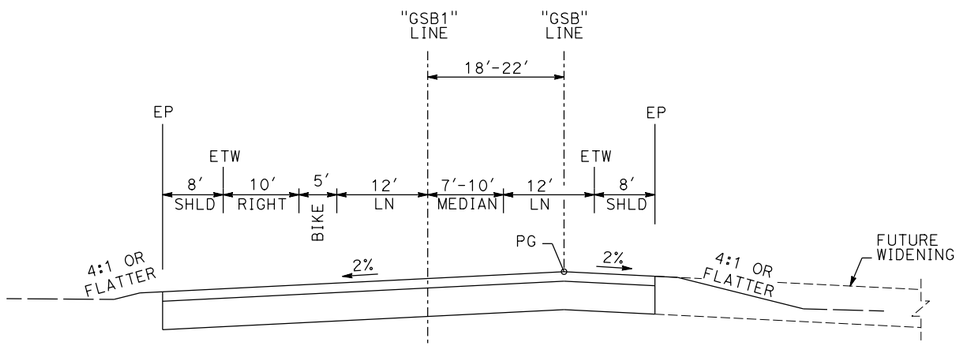
DATE PLOTTED => 28-APR-2011
USERNAME => lros



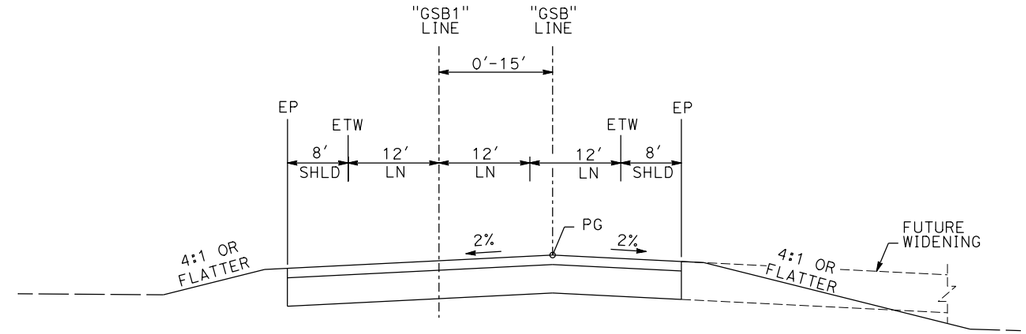
"GSB" 184+25 TO "GSB" 185+41



"GSB" 186+42 TO "GSB" 187+23



"GSB" 185+41 TO "GSB" 186+42



"GSB" 187+23 TO "GSB" 190+86

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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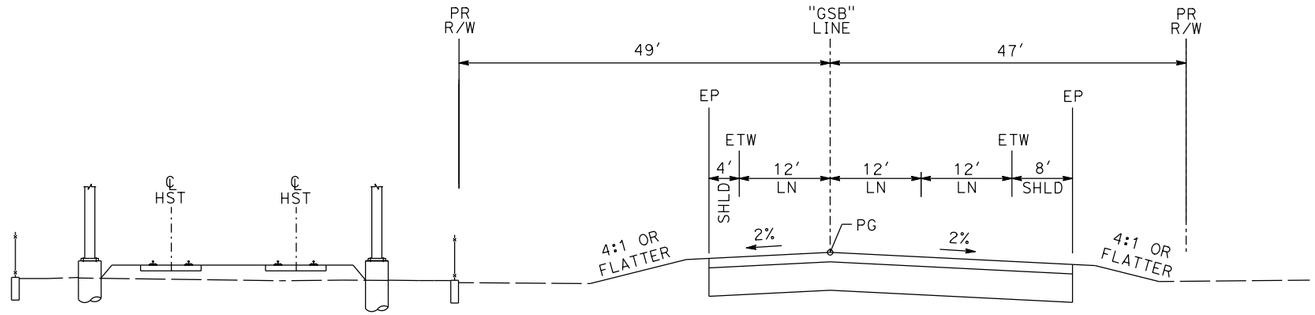
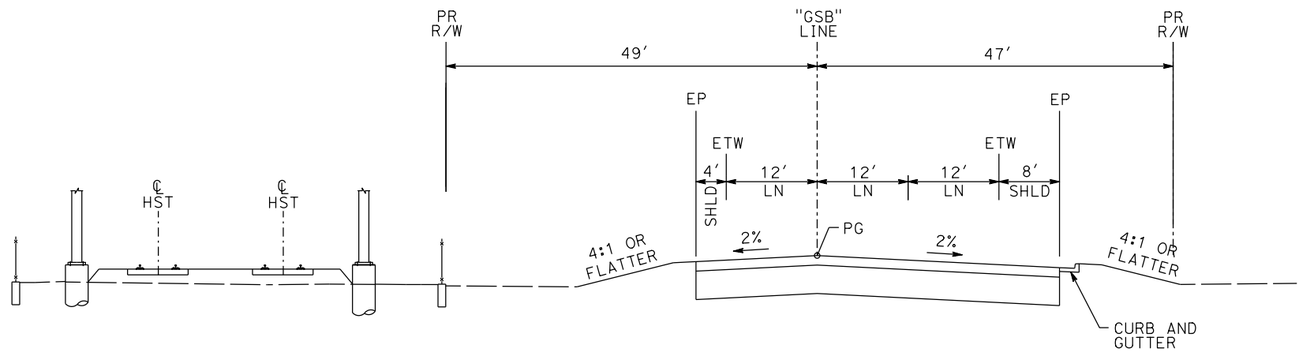
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-7**
SCALE
SHEET NO.

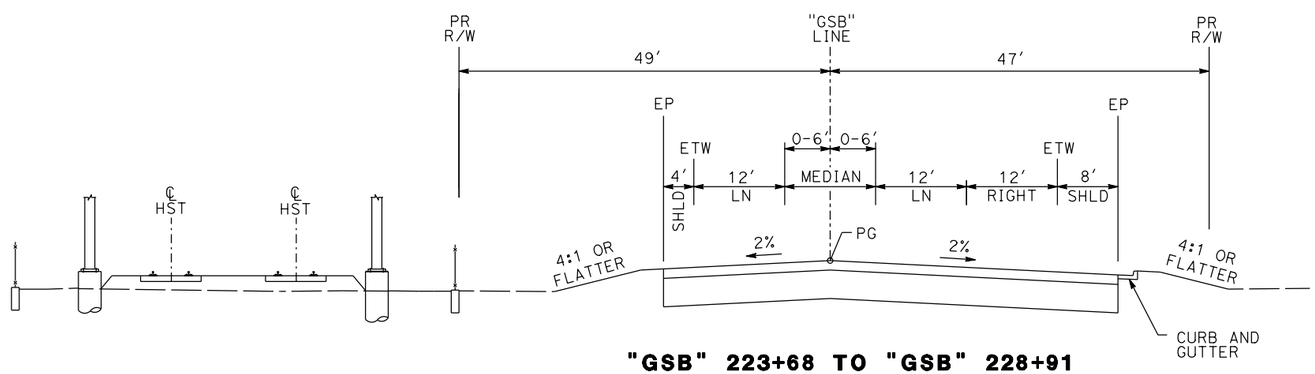
DATE PLOTTED => 28-APR-2011
USERNAME => lros



"GSB" 190+86 TO "GSB" 197+48



"GSB" 197+48 TO "GSB" 223+68



"GSB" 223+68 TO "GSB" 228+91

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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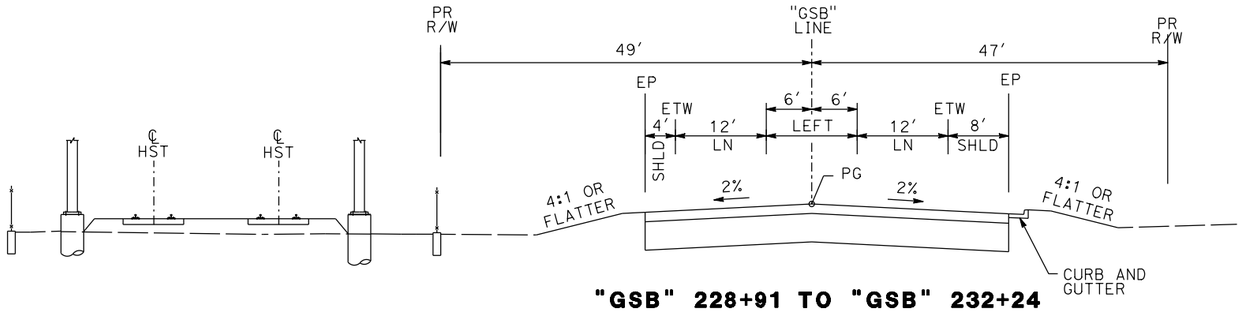
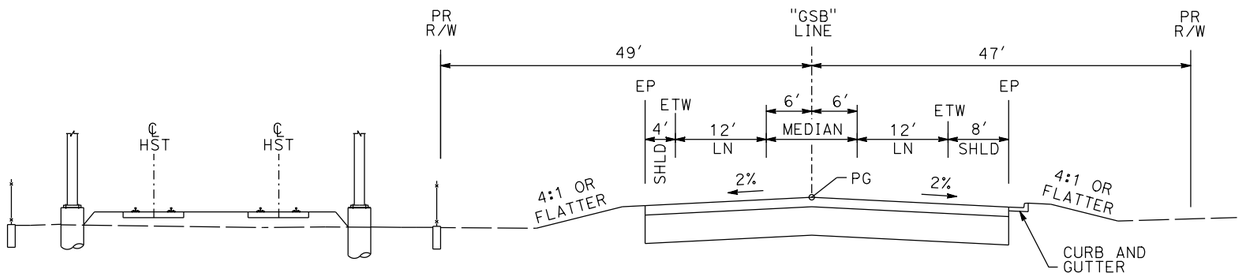
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-8**
SCALE
SHEET NO.

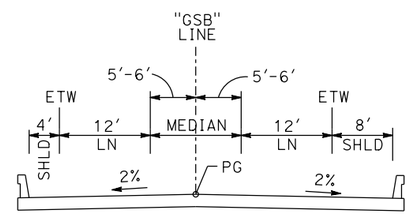
DATE PLOTTED => 28-APR-2011
USERNAME => lros



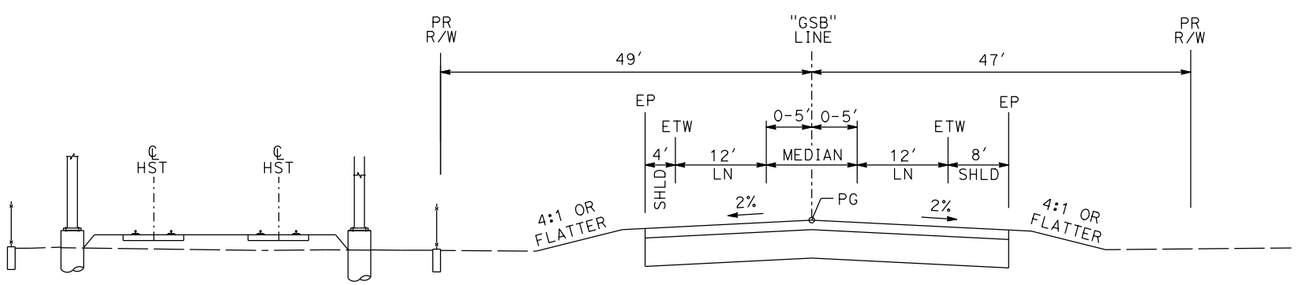
"GSB" 228+91 TO "GSB" 232+24



"GSB" 232+24 TO "GSB" 233+47



"GSB" 233+47 TO "GSB" 234+09



"GSB" 234+09 TO "GSB" 236+37

GOLDEN STATE BOULEVARD

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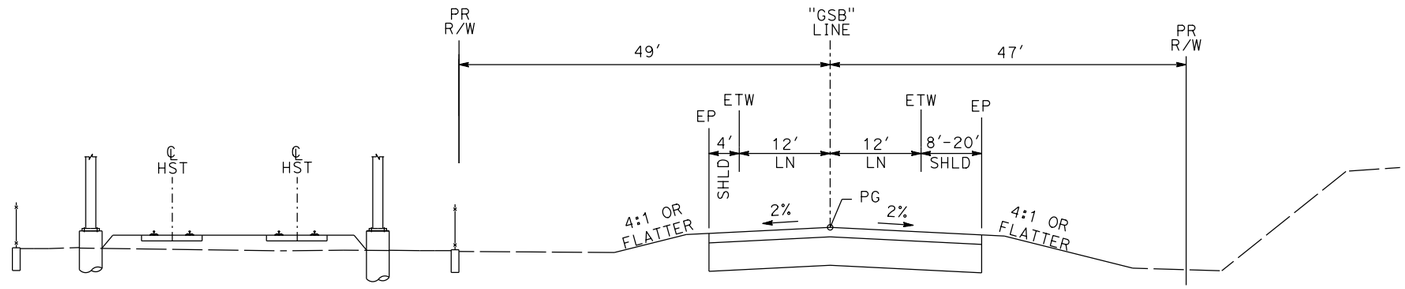
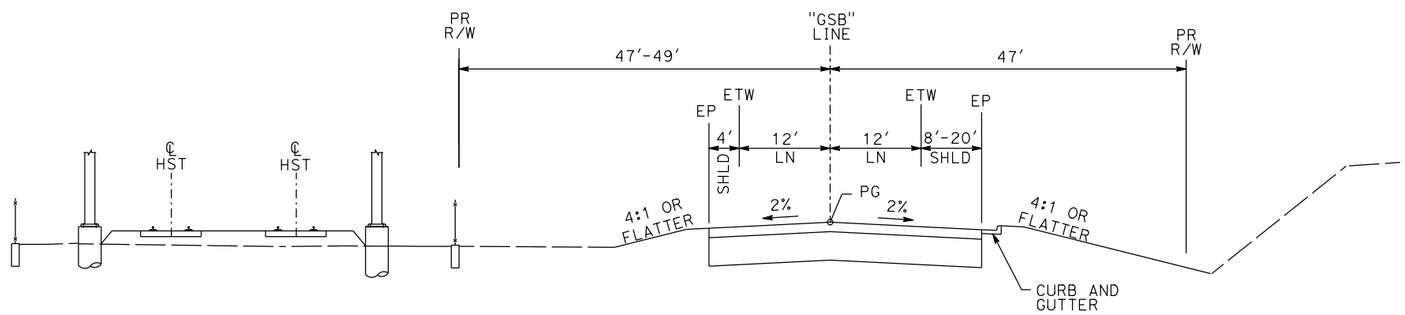
CONTRACT NO. HSR06-007
DRAWING NO. **X-9**
SCALE
SHEET NO.

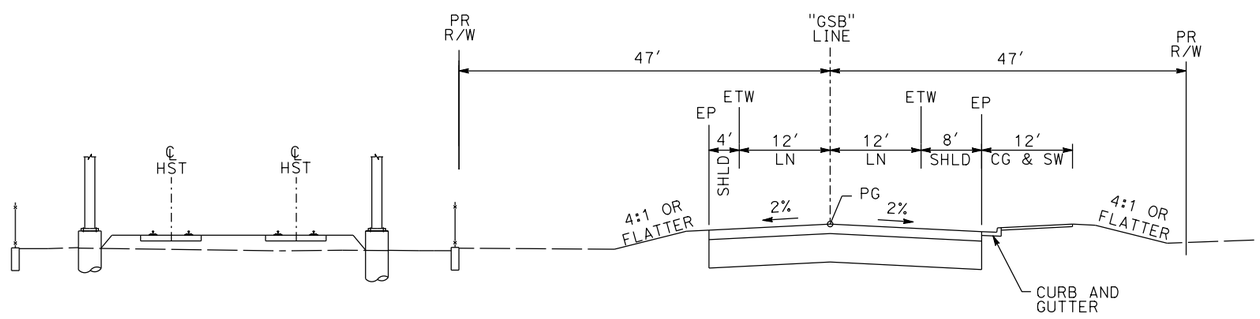
DATE PLOTTED => 28-APR-2011
USERNAME => lros



"GSB" 236+37 TO "GSB" 239+13



"GSB" 239+13 TO "GSB" 249+22



"GSB" 249+22 TO "GSB" 254+26

GOLDEN STATE BOULEVARD

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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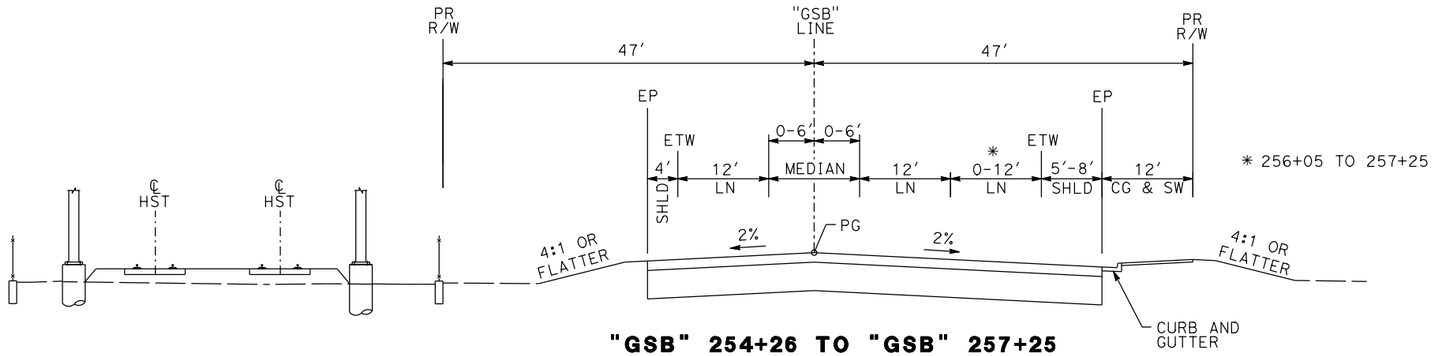
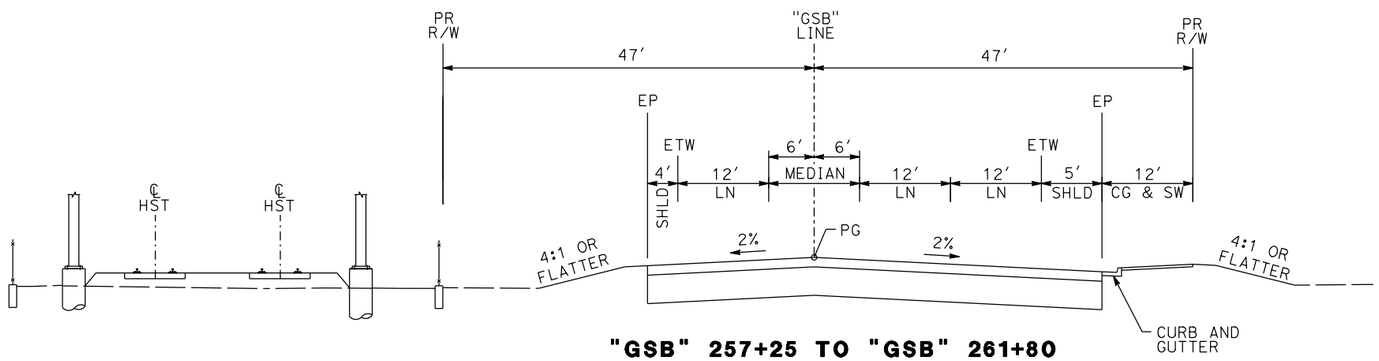
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-10**
SCALE
SHEET NO.

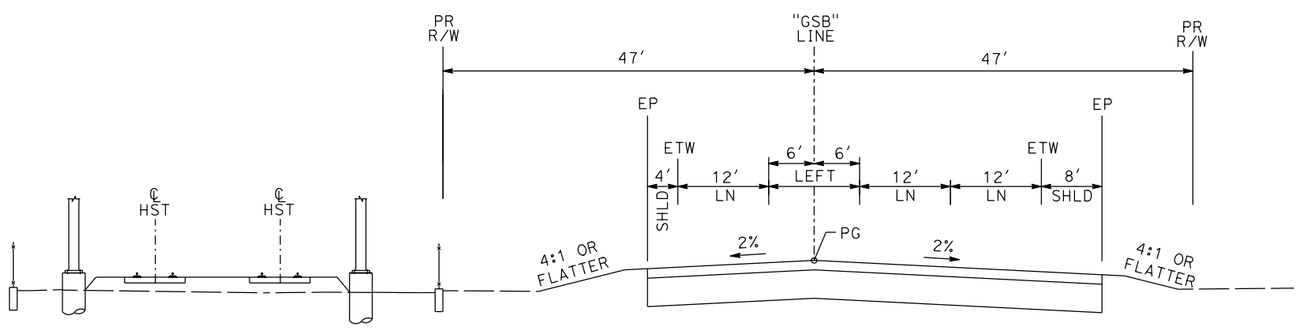
DATE PLOTTED => 28-APR-2011
USERNAME => lros



"GSB" 254+26 TO "GSB" 257+25



"GSB" 257+25 TO "GSB" 261+80



"GSB" 261+80 TO "GSB" 264+30

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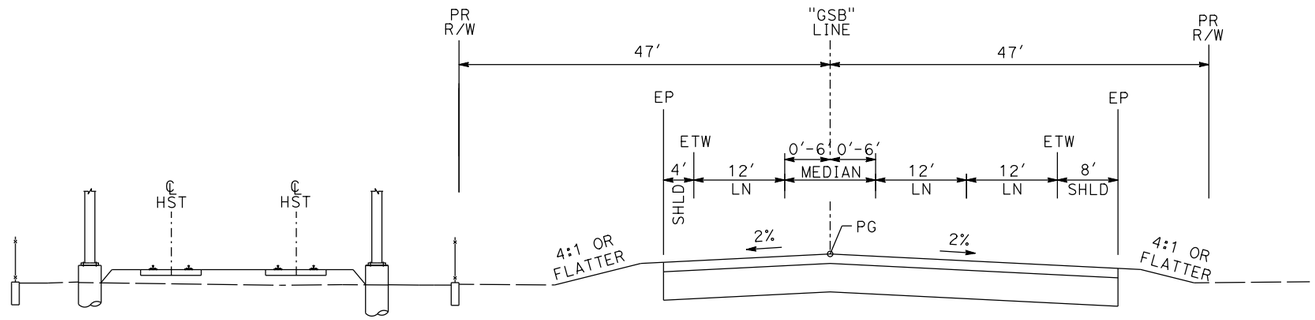
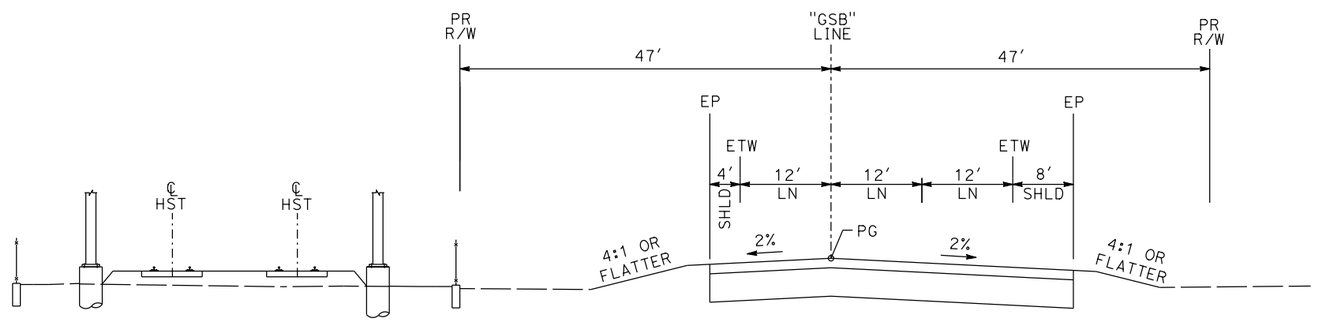
CONTRACT NO. HSR06-007
DRAWING NO. **X-11**
SCALE
SHEET NO.

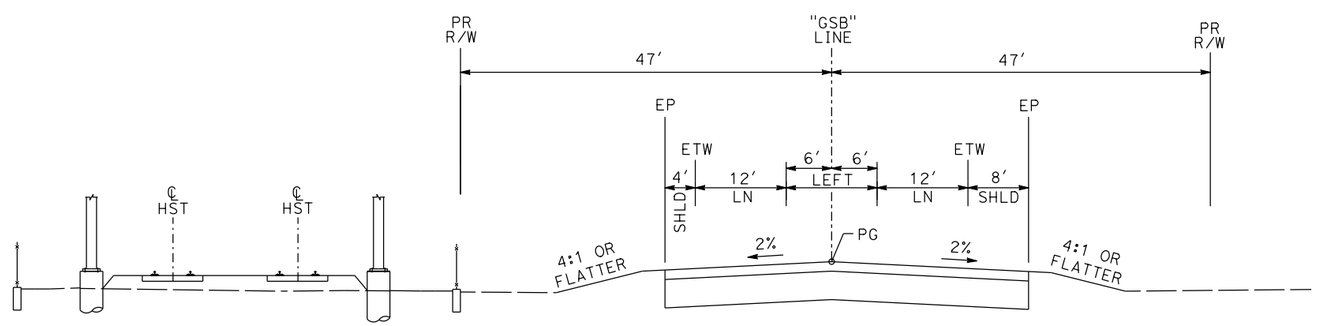
DATE PLOTTED => 28-APR-2011
USERNAME => lros



"GSB" 264+30 TO "GSB" 268+49
"GSB" 280+18 TO "GSB" 286+76



"GSB" 268+49 TO "GSB" 280+18



"GSB" 286+76 TO "GSB" 289+26

GOLDEN STATE BOULEVARD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

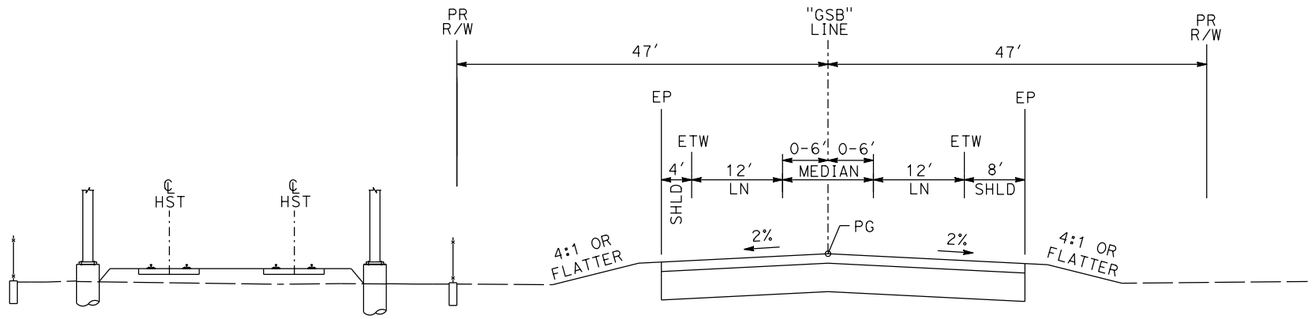
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

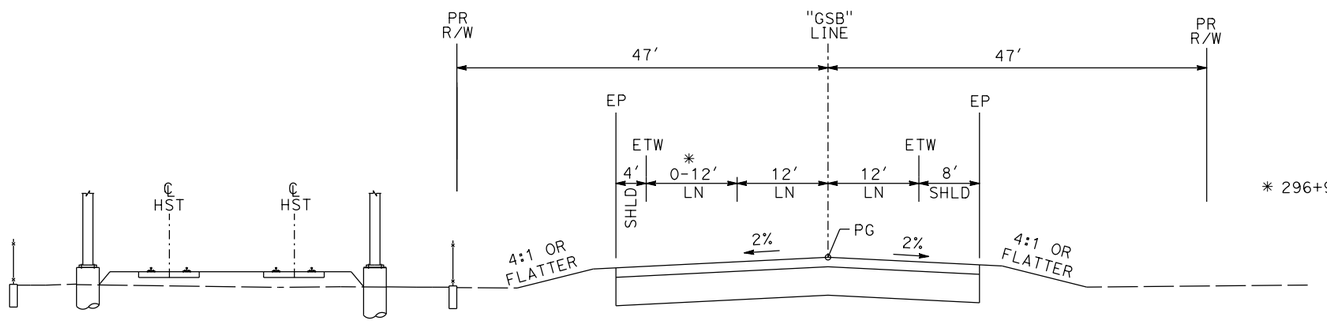
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-12**
SCALE
SHEET NO.

DATE PLOTTED => 28-APR-2011
USERNAME => lros

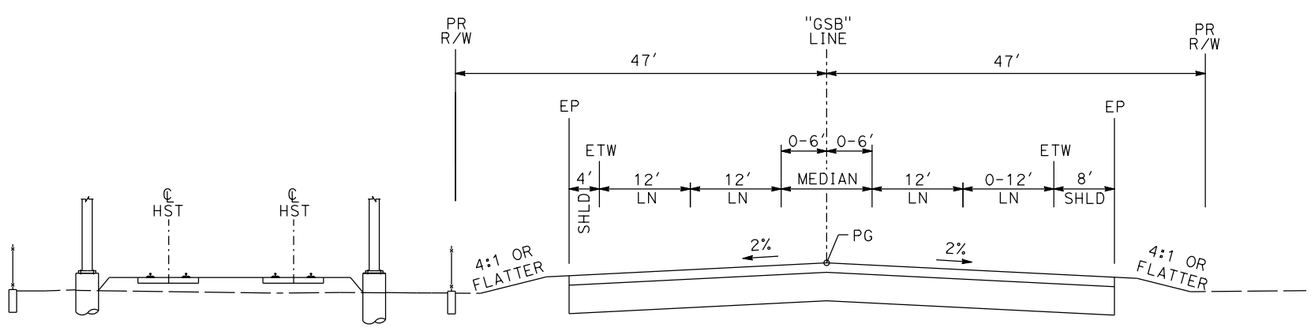


"GSB" 289+26 TO "GSB" 293+46



* 296+92 TO 302+92

"GSB" 293+46 TO "GSB" 302+92



"GSB" 302+92 TO "GSB" 305+92

GOLDEN STATE BOULEVARD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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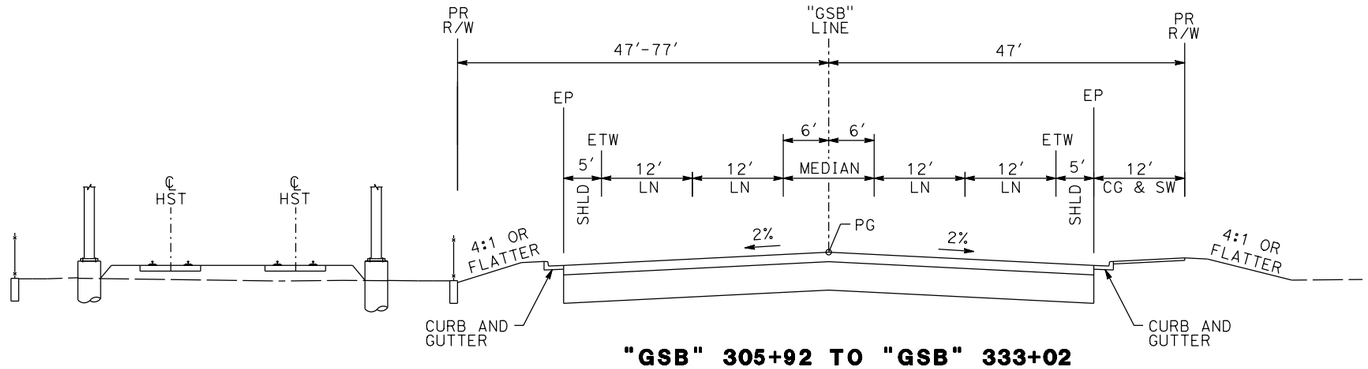
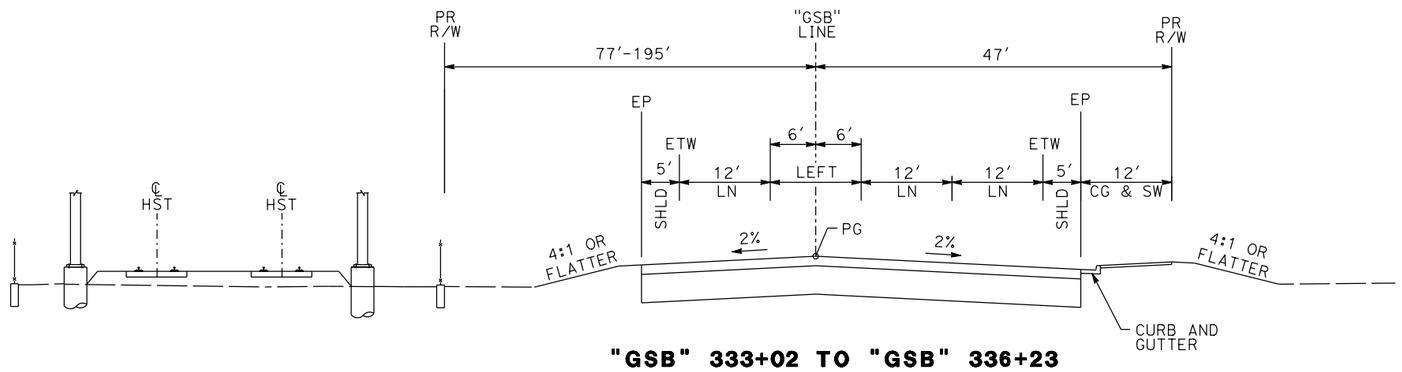
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. X-13
SCALE
SHEET NO.

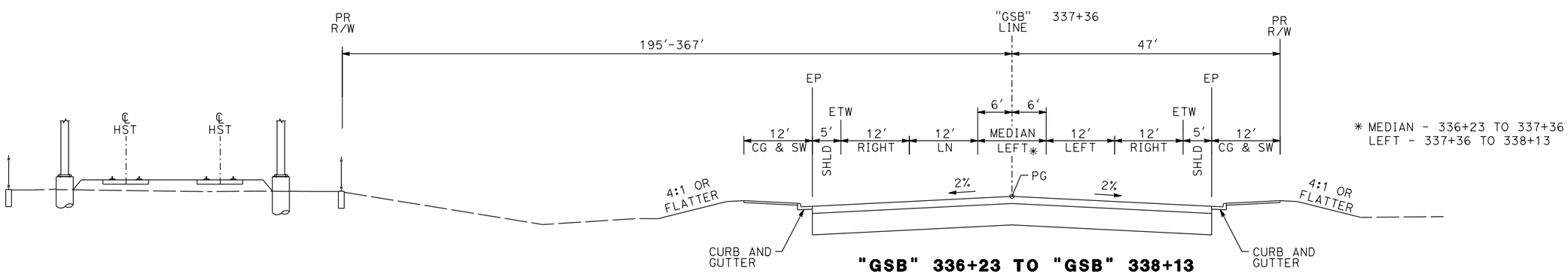
DATE PLOTTED => 28-APR-2011
USERNAME => lros



"GSB" 305+92 TO "GSB" 333+02



"GSB" 333+02 TO "GSB" 336+23



* MEDIAN - 336+23 TO 337+36
LEFT - 337+36 TO 338+13

"GSB" 336+23 TO "GSB" 338+13

GOLDEN STATE BOULEVARD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
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IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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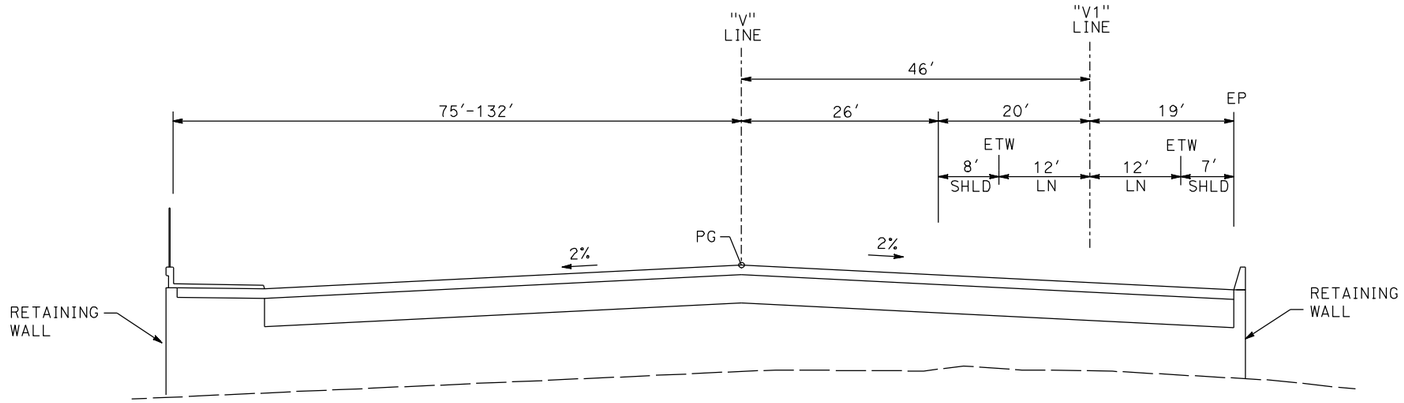
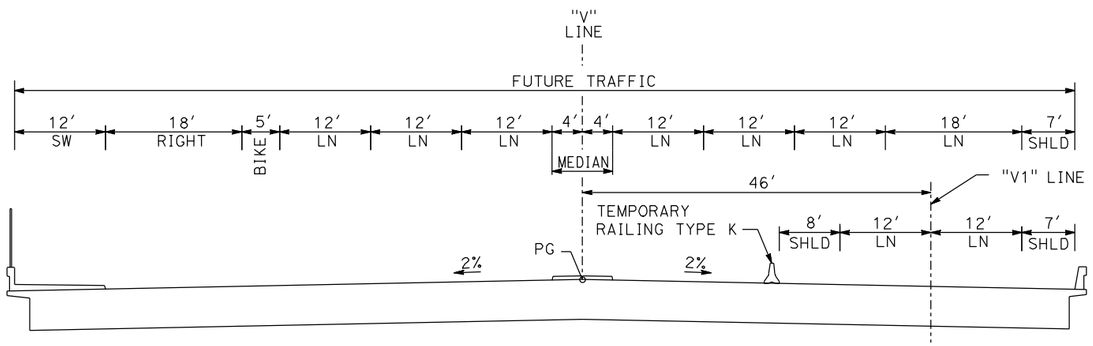
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-14**
SCALE
SHEET NO.

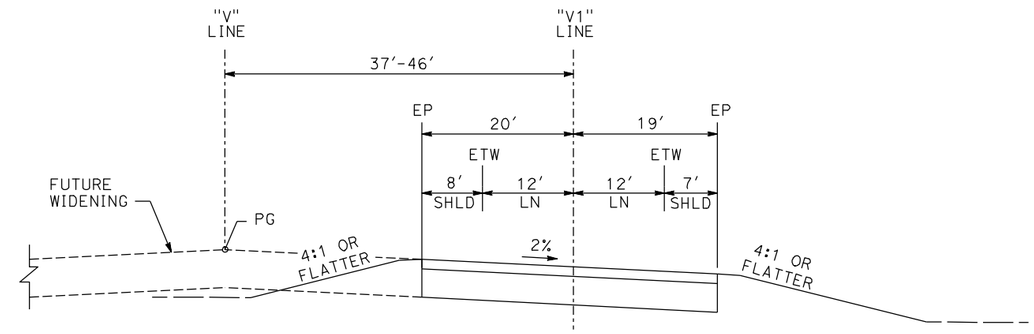
DATE PLOTTED => 28-APR-2011
USERNAME => lros



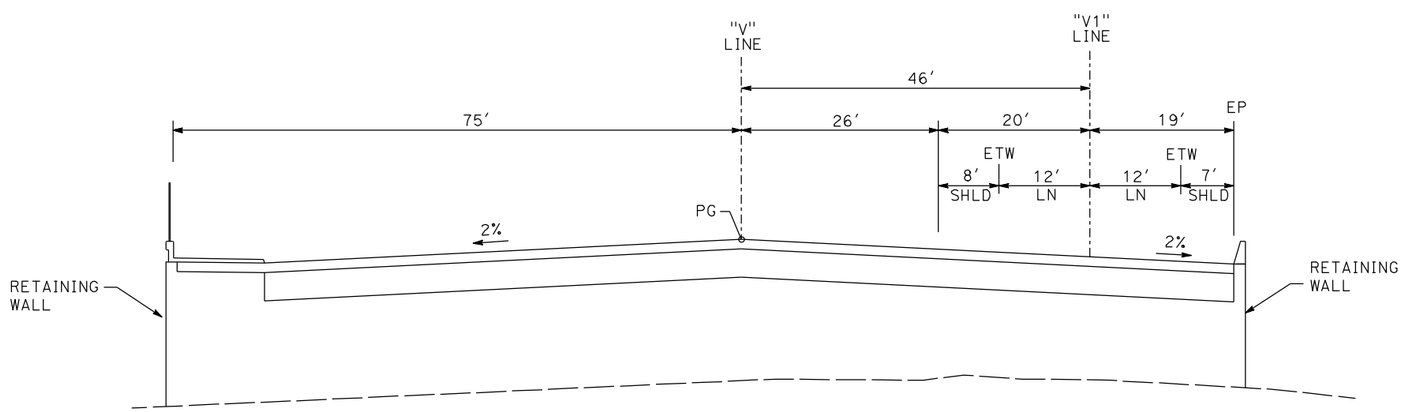
"V" 105+00 TO "V" 105+63



"V" 105+63 TO "V" 109+79



"V" 110+32 TO "V" 122+35



"V" 109+79 TO "V" 110+32

VETERANS BLVD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
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DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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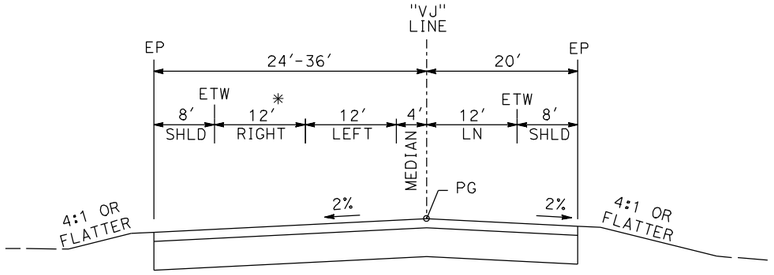
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

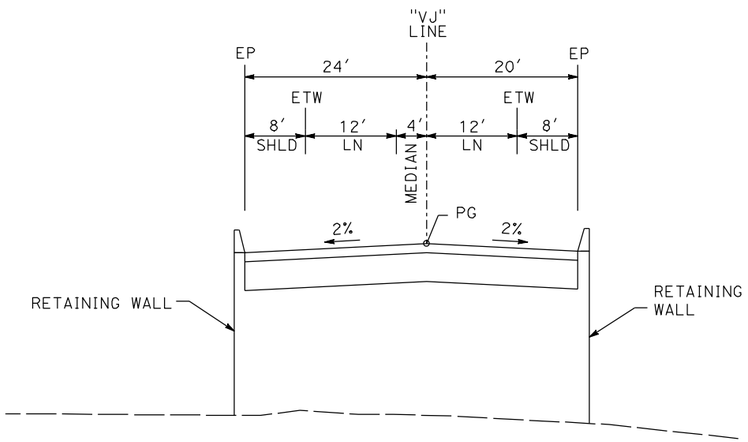
CONTRACT NO. HSR06-007
DRAWING NO. **X-15**
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros

* 0'-12' - FROM 12+61 TO 13+21

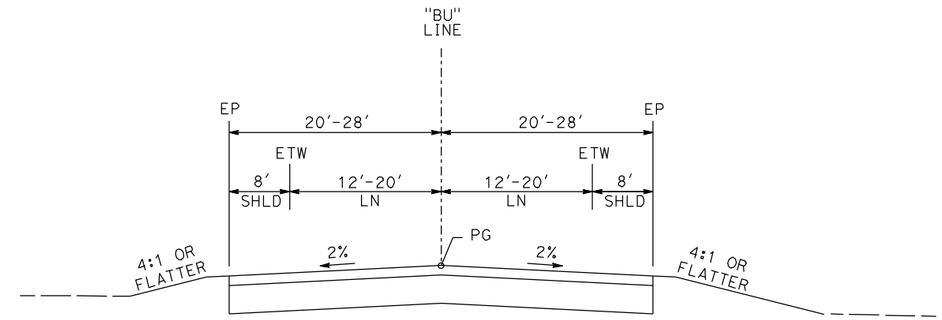


"VJ" 10+44 TO "VJ" 13+21

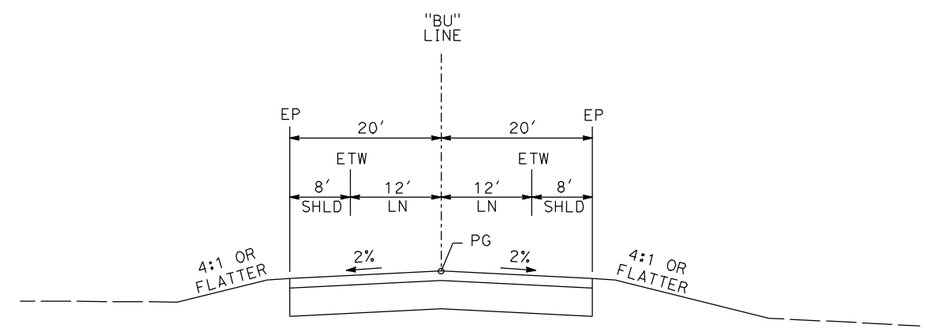


"VJ" 13+21 TO "VJ" 18+37

LOOP - VETERANS BLVD



"BU" 110+00 TO "BU" 113+67



"BU" 113+67 TO "BU" 132+26

BULLARD AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
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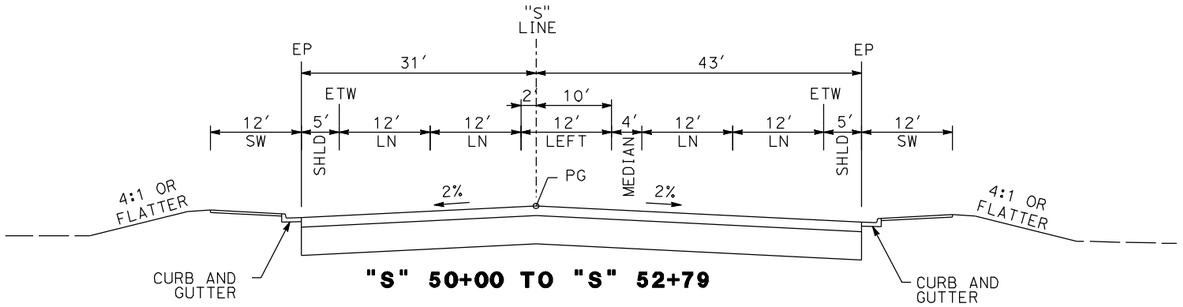
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

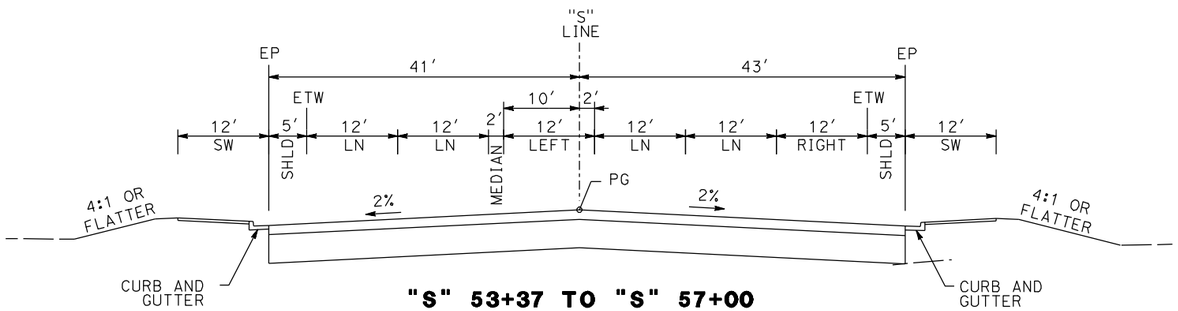
CONTRACT NO. HSR06-007
DRAWING NO. **X-16**
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011

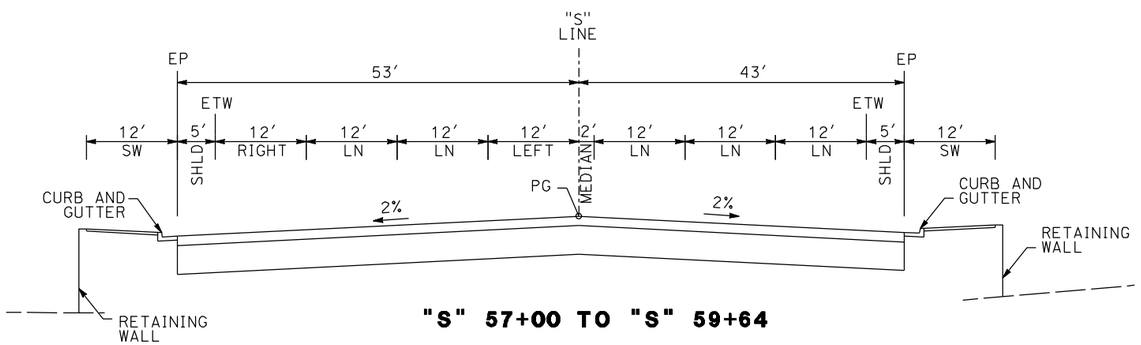
USERNAME => lros



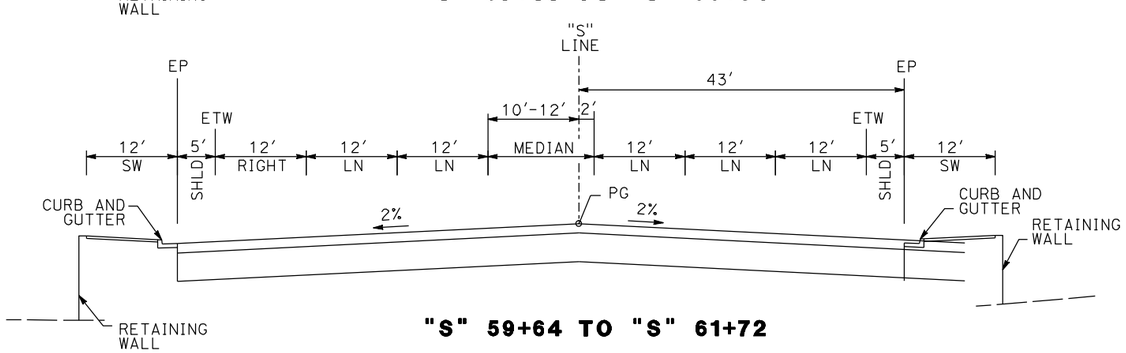
"S" 50+00 TO "S" 52+79



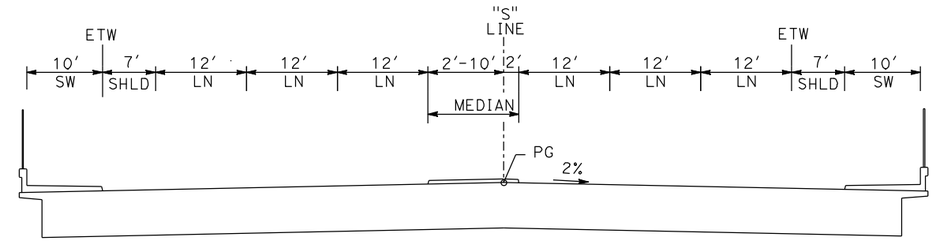
"S" 53+37 TO "S" 57+00



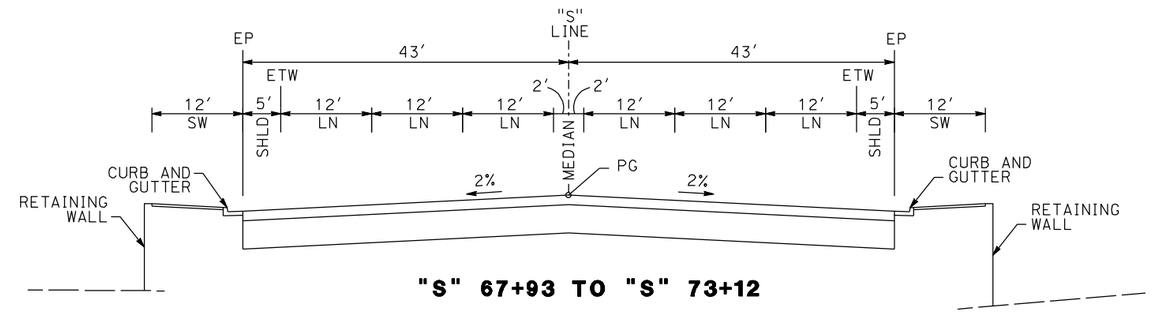
"S" 57+00 TO "S" 59+64



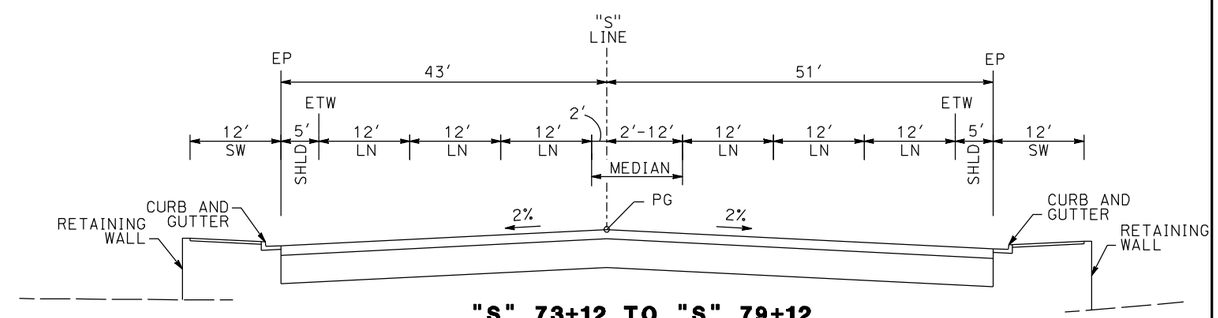
"S" 59+64 TO "S" 61+72



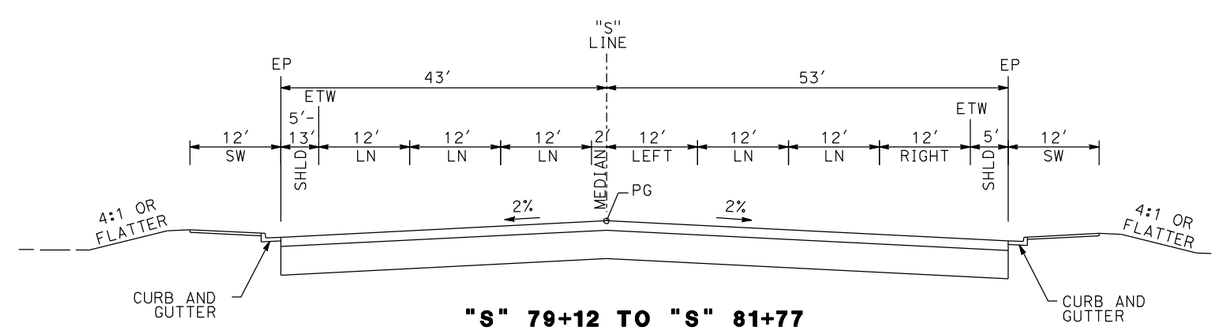
"S" 61+72 TO "S" 67+93



"S" 67+93 TO "S" 73+12



"S" 73+12 TO "S" 79+12



"S" 79+12 TO "S" 81+77

SHAW AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

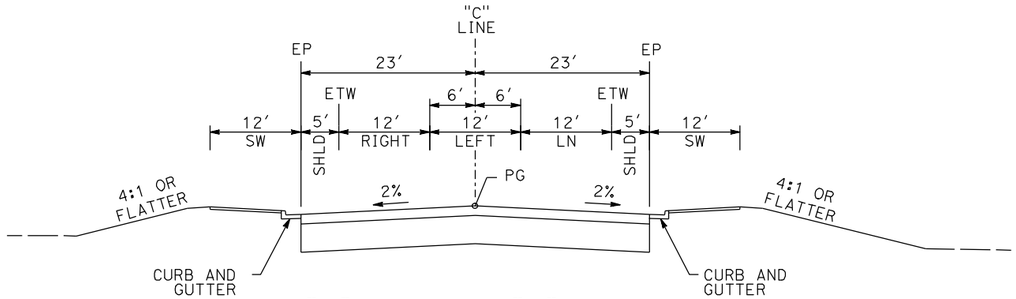
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

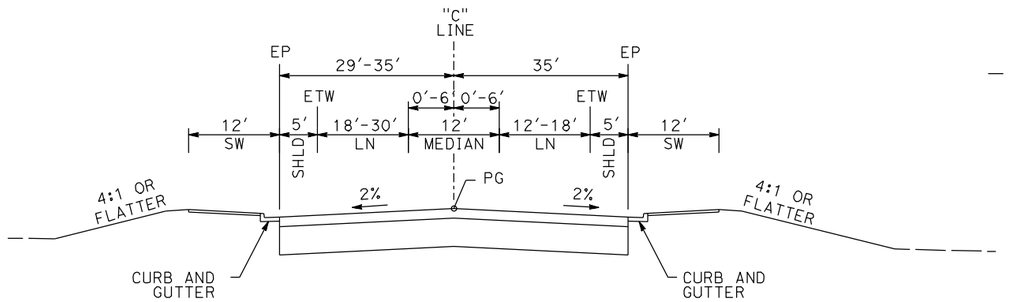
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-17**
SCALE
SHEET NO.

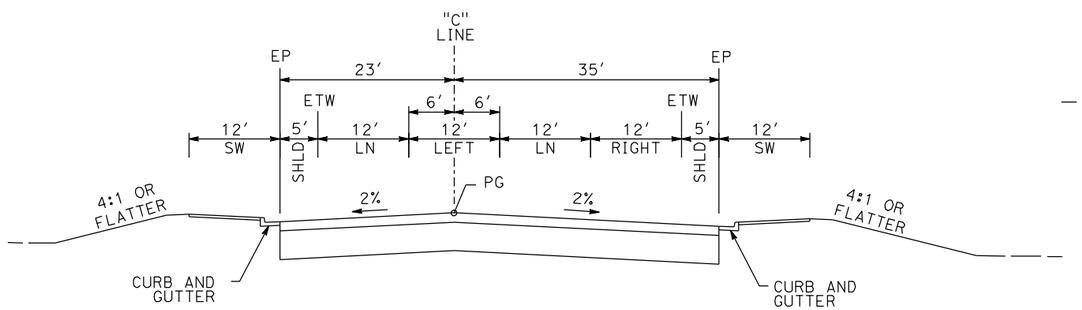
DATE PLOTTED => 27-APR-2011
USERNAME => lros



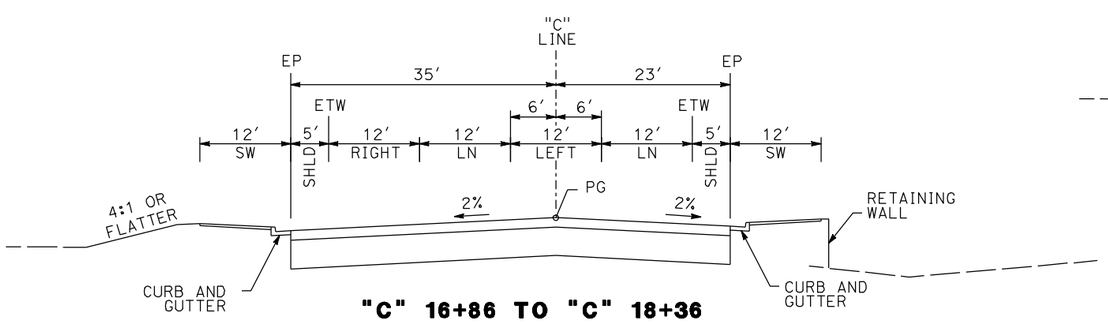
"C" 10+89 TO "C" 12+25



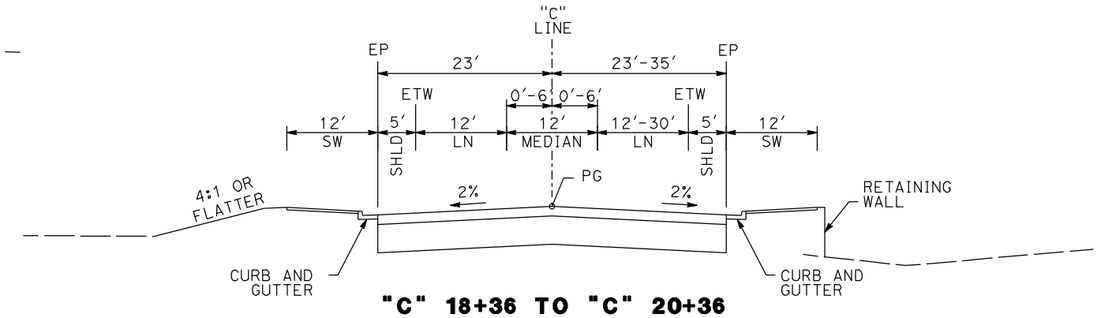
"C" 12+25 TO "C" 13+88



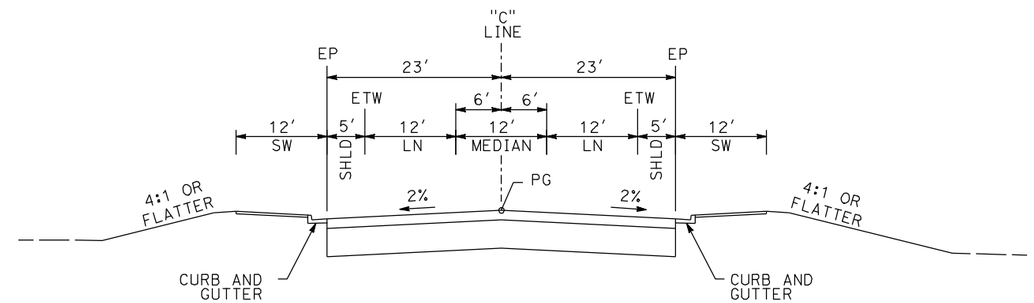
"C" 13+88 TO "C" 14+99



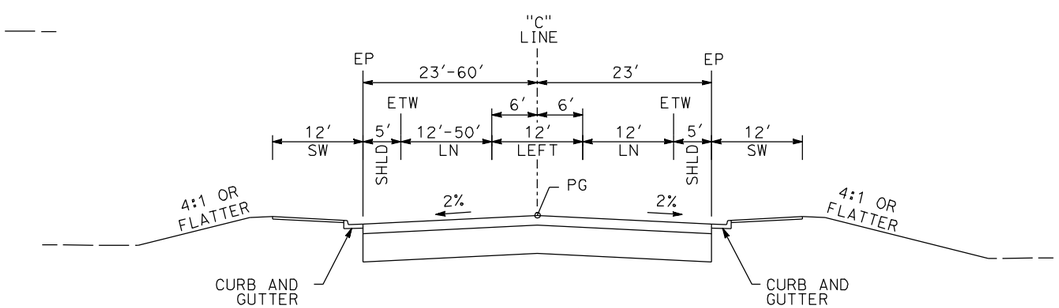
"C" 16+86 TO "C" 18+36



"C" 18+36 TO "C" 20+36



"C" 20+36 TO "C" 44+35



"C" 44+35 TO "C" 45+70

CORNELIA AVE & SANTA ANA AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
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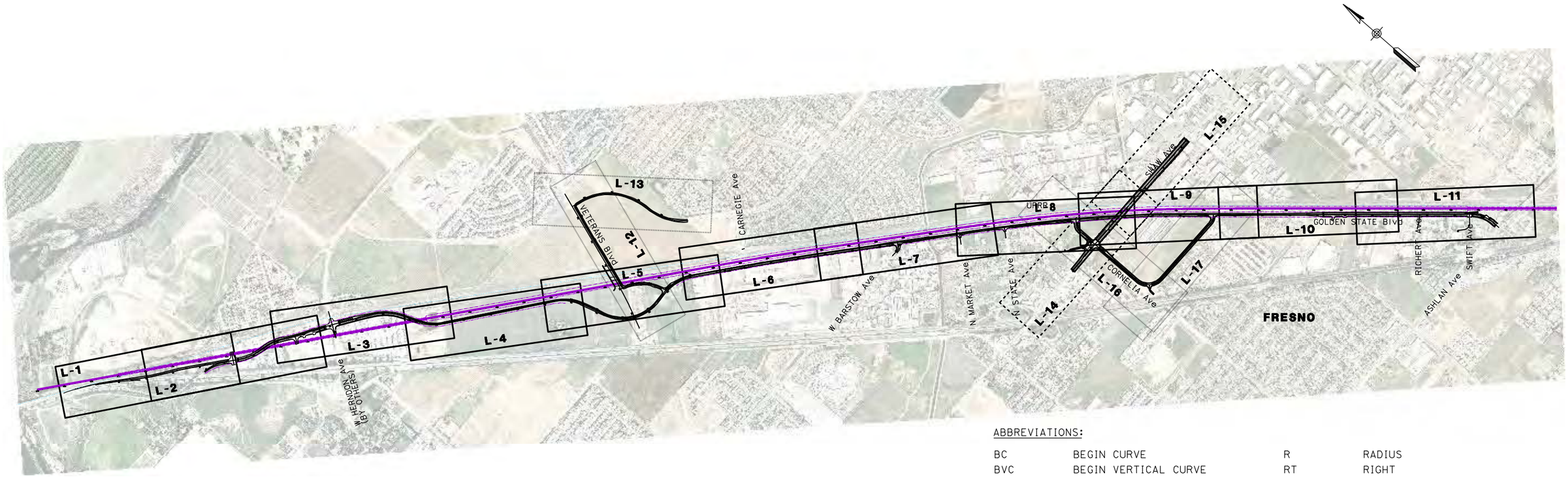
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
TYPICAL SECTION

CONTRACT NO. HSR06-007
DRAWING NO. **X-18**
SCALE
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros



ABBREVIATIONS:

BC	BEGIN CURVE	R	RADIUS
BVC	BEGIN VERTICAL CURVE	RT	RIGHT
CG	CURB AND GUTTER	R/W	RIGHT OF WAY
CL	CENTERLINE	SB	SOUTHBOUND
EC	END CURVE	SHLD	SHOULDER
ELEV	ELEVATION	SW	SIDEWALK
EP	EDGE OF PAVEMENT	T	TANGENT
ES	EDGE OF SHOULDER	UPRR	UNION PACIFIC RAILROAD
ETW	EDGE OF TRAVELLED WAY	VAR	VARIES
EVC	END VERTICAL CURVE		
GSB	GOLDEN STATE BLVD		
HST	HIGH SPEED TRAIN		
L	LENGTH		
LN	LANE		
LT	LEFT		
NB	NORTHBOUND		
OG	ORIGINAL GROUND		
PCC	POINT OF COMPOUND CURVE		
PI	POINT OF INTERSECTION		
POB	POINT OF BEGINNING		
POC	POINT ON CURVE		
POE	POINT OF END		
POT	POINT ON TANGENT		
PG	PROFILE GRADE		
PR	PROPOSED		
PRC	POINT OF REVERSE CURVE		
PVI	POINT OF VERTICAL INTERSECTION		
PRVC	POINT OF REVERSE VERTICAL CURVE		

LEGEND:

- EXIST / PROPOSED RIGHT OF WAY
- HIGH SPEED TRAIN TRACK CENTERLINES
- PETROLEUM GAS LINE
- RETAINING WALL

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

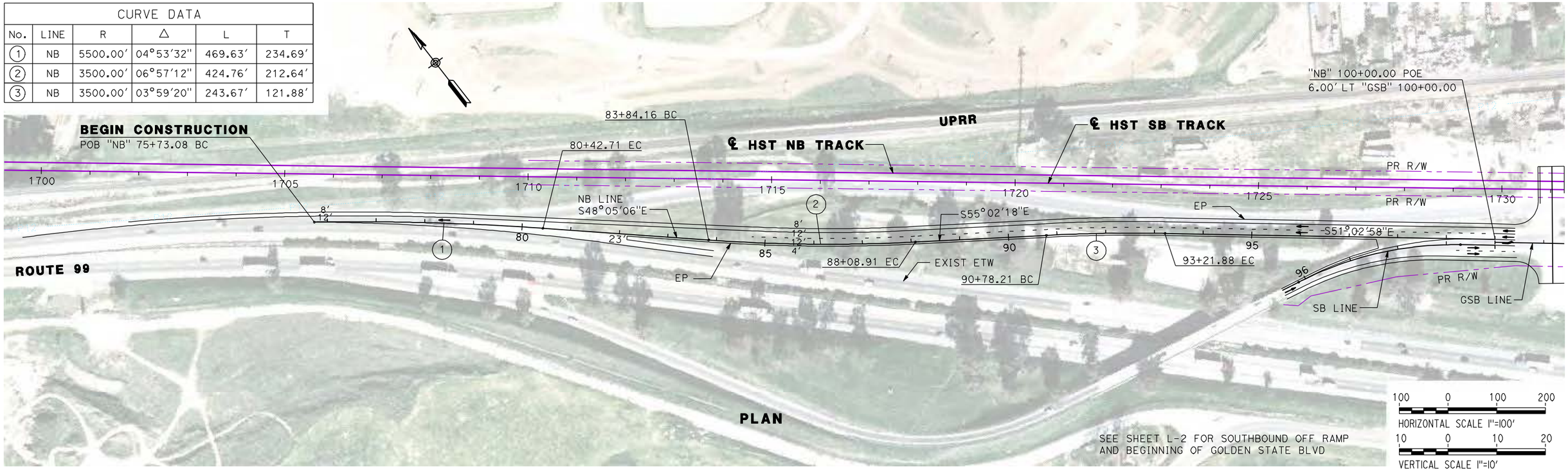
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
KEYMAP

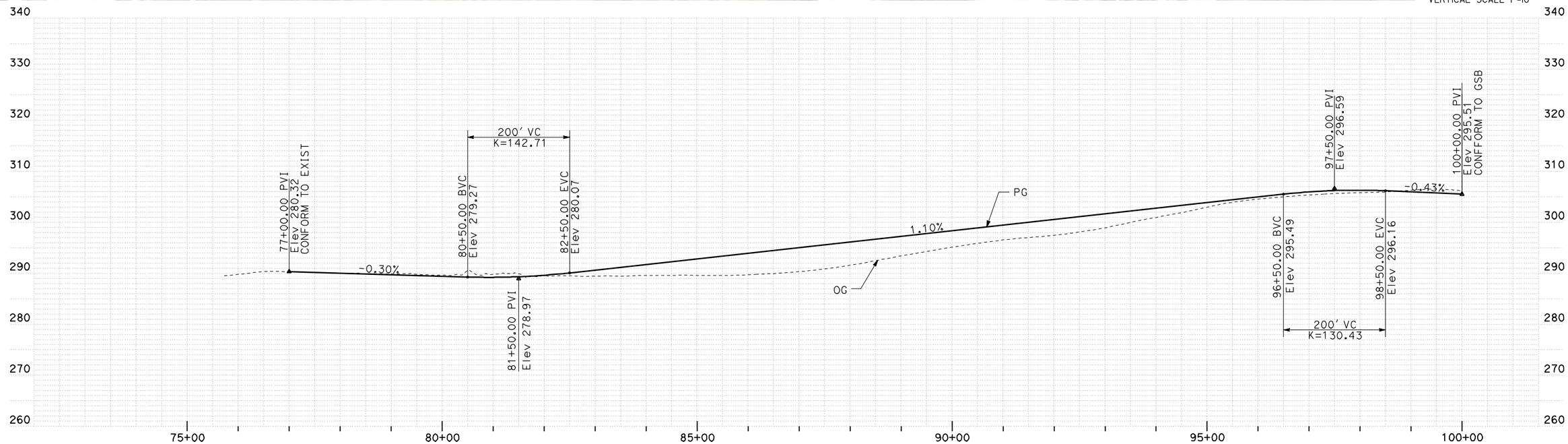
CONTRACT NO. HSR06-007
DRAWING NO. K-1
SCALE NTS
SHEET NO.

DATE PLOTTED => 26-APR-2011

USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
1	NB	5500.00′	04°53′32"	469.63′	234.69′
2	NB	3500.00′	06°57′12"	424.76′	212.64′
3	NB	3500.00′	03°59′20"	243.67′	121.88′





PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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Sacramento, CA 95811
CH2MHILL

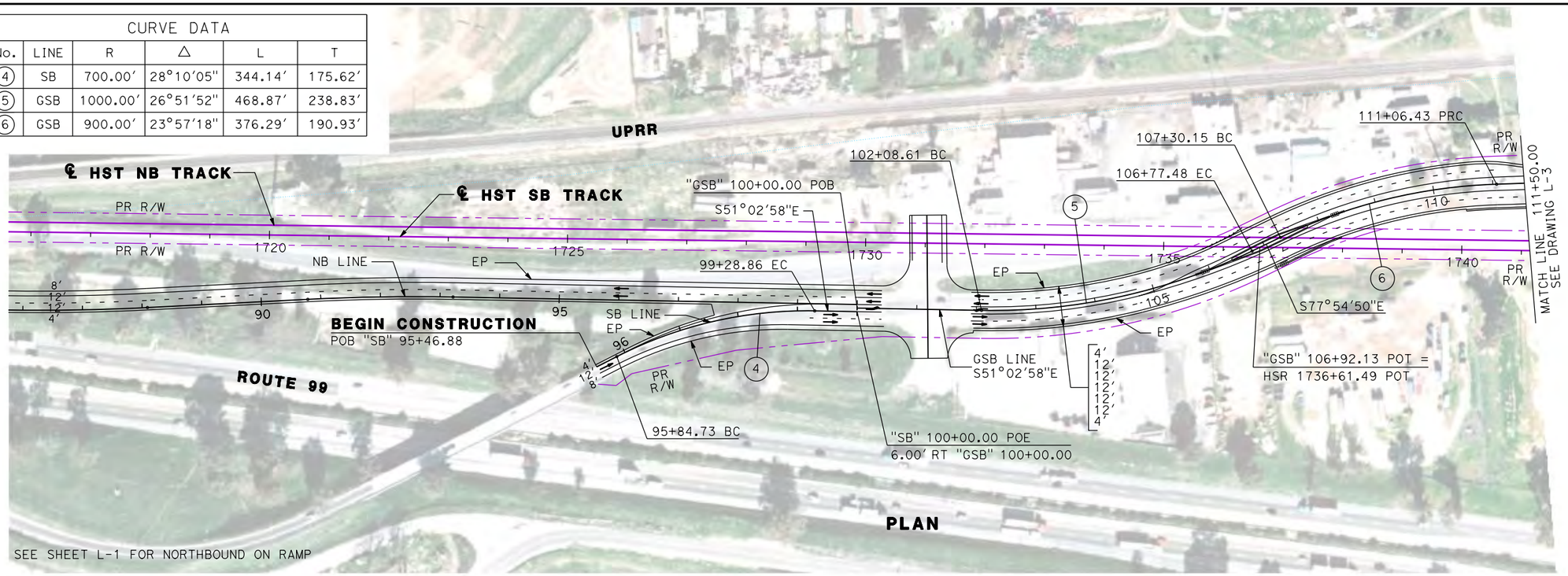
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"NB" 75+73 TO "NB" 100+00

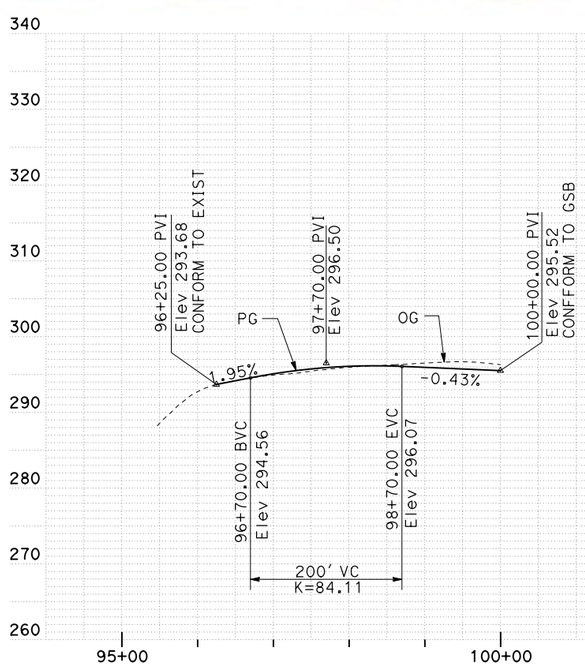
CONTRACT NO. HSR06-007
DRAWING NO. L-1
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

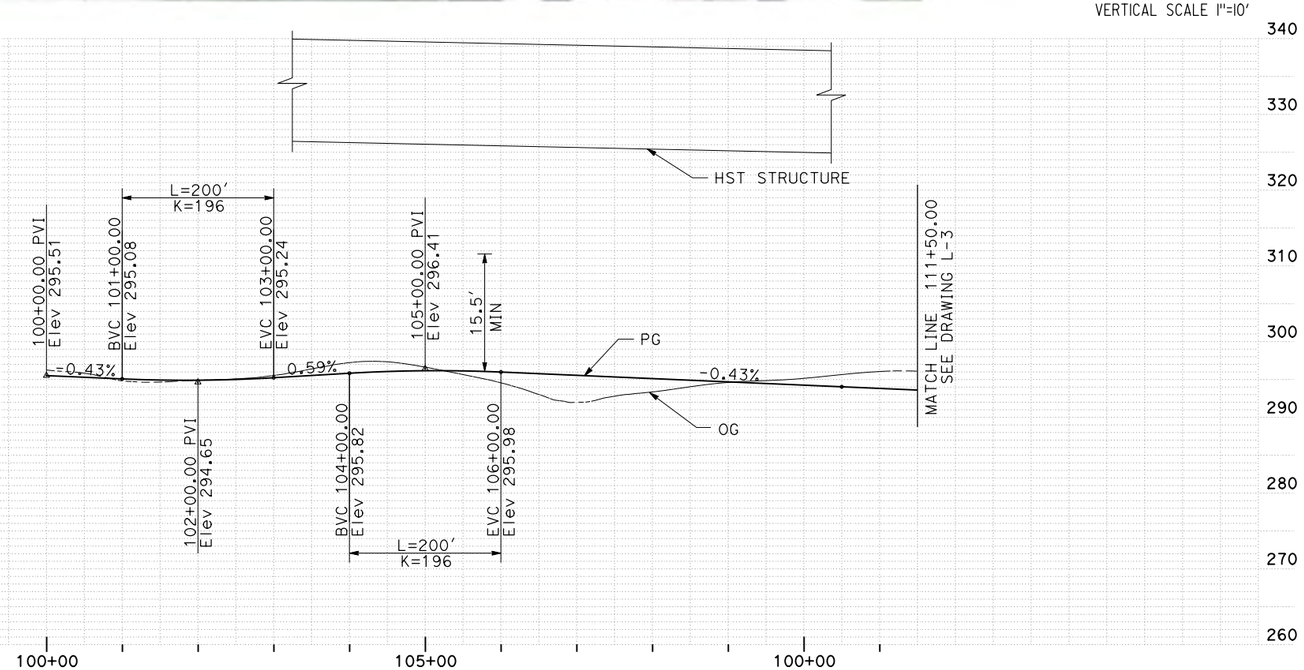
CURVE DATA					
No.	LINE	R	Δ	L	T
4	SB	700.00′	28°10′05"	344.14′	175.62′
5	GSB	1000.00′	26°51′52"	468.87′	238.83′
6	GSB	900.00′	23°57′18"	376.29′	190.93′



100 0 100 200
HORIZONTAL SCALE 1"=100′
10 0 10 20
VERTICAL SCALE 1"=10′



SB LINE PROFILE



GSB LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

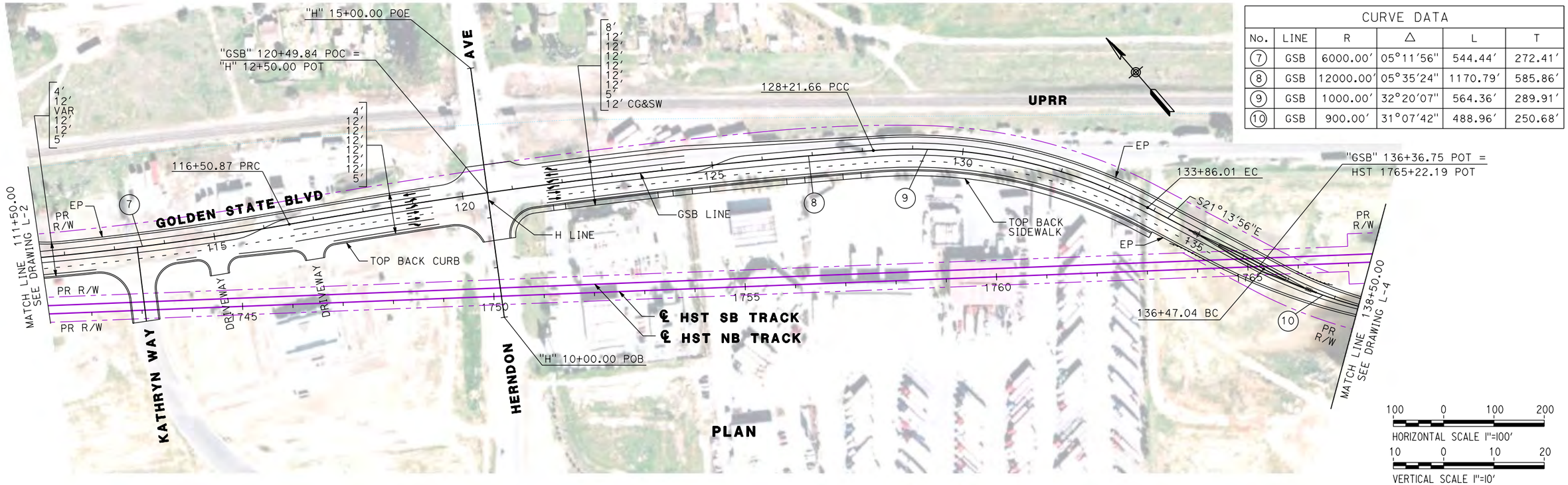
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

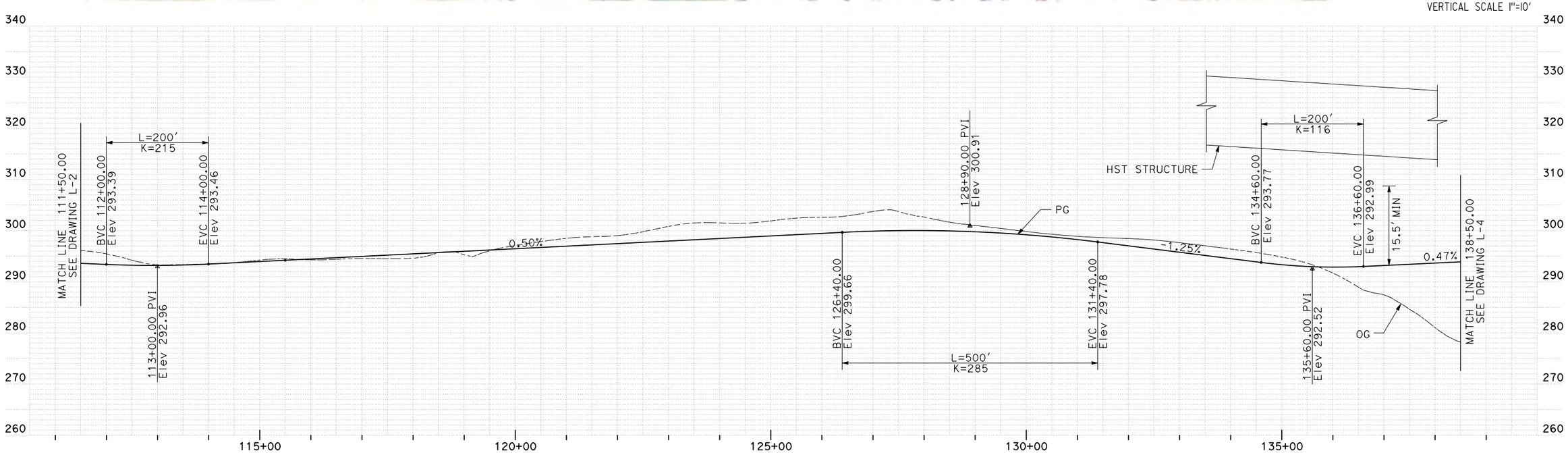
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 100+00 TO "GSB" 111+50

CONTRACT NO. HSR06-007
DRAWING NO. L-2
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
7	GSB	6000.00′	05°11′56"	544.44′	272.41′
8	GSB	12000.00′	05°35′24"	1170.79′	585.86′
9	GSB	1000.00′	32°20′07"	564.36′	289.91′
10	GSB	900.00′	31°07′42"	488.96′	250.68′





PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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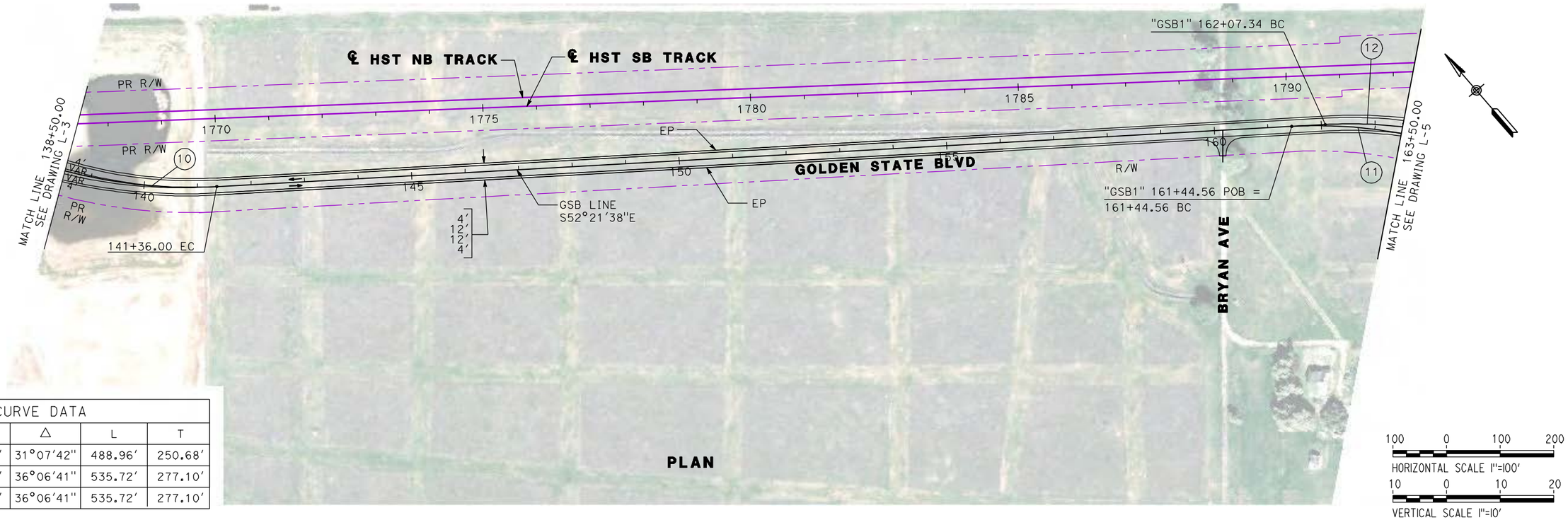
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

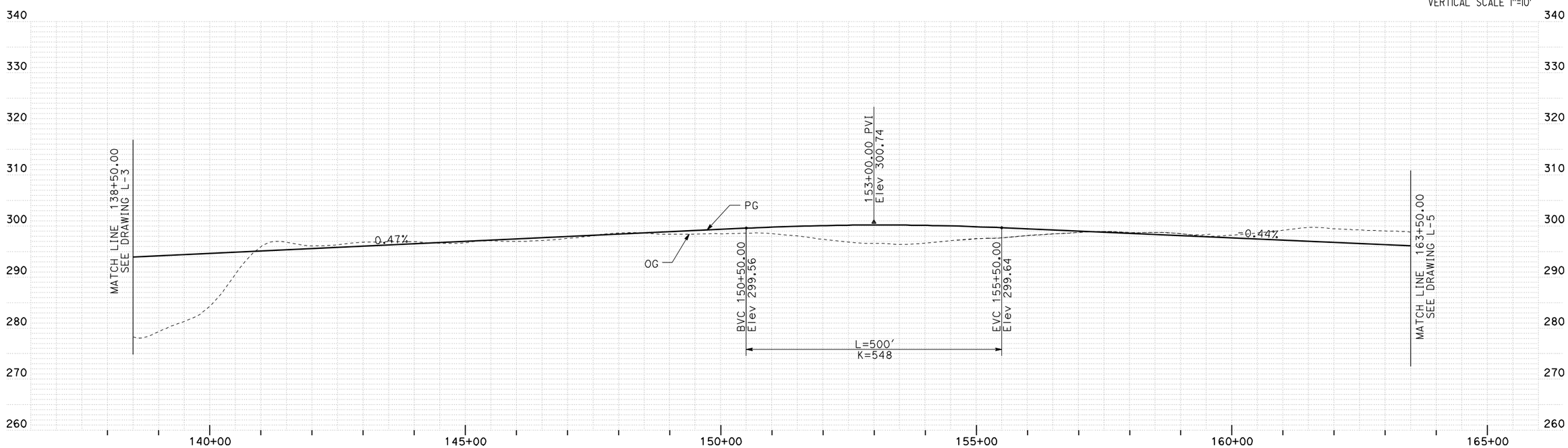
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 111+50 TO "GSB" 138+50

CONTRACT NO. HSR06-007
DRAWING NO. **L-3**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros



CURVE DATA					
No.	LINE	R	Δ	L	T
10	GSB	900.00'	31°07'42"	488.96'	250.68'
11	GSB	850.00'	36°06'41"	535.72'	277.10'
12	GSB1	850.00'	36°06'41"	535.72'	277.10'



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

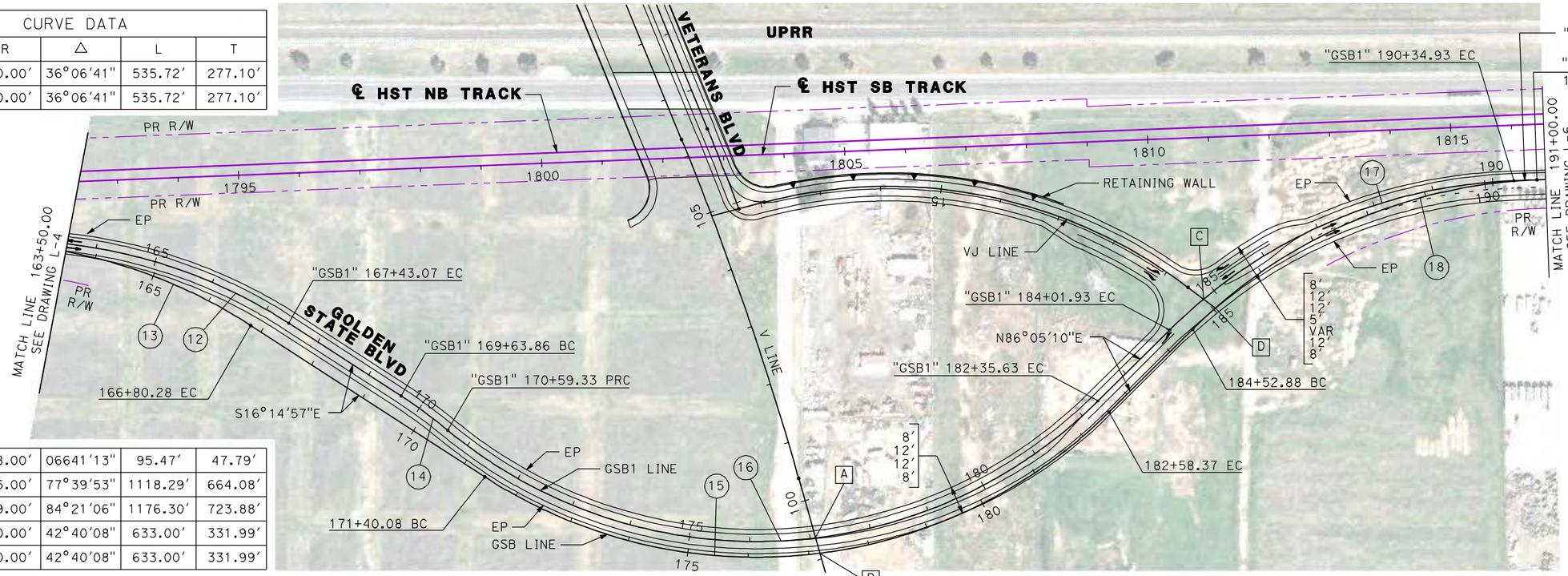
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 138+50 TO "GSB" 163+50

CONTRACT NO. HSR06-007
DRAWING NO. L-4
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
12	GSB1	850.00′	36°06′41"	535.72′	277.10′
13	GSB	850.00′	36°06′41"	535.72′	277.10′
14	GSB1	818.00′	06641′13"	95.47′	47.79′
15	GSB	825.00′	77°39′53"	1118.29′	664.08′
16	GSB1	799.00′	84°21′06"	1176.30′	723.88′
17	GSB1	850.00′	42°40′08"	633.00′	331.99′
18	GSB	850.00′	42°40′08"	633.00′	331.99′



A "GSB1" 177+08.63 POC = "V" 99+36.15 POT

B "GSB" 177+18.28 POC = "V" 99+09.84 POT

C "GSB1" 184+77.58 POC = "VJ" 10+24.39 POT

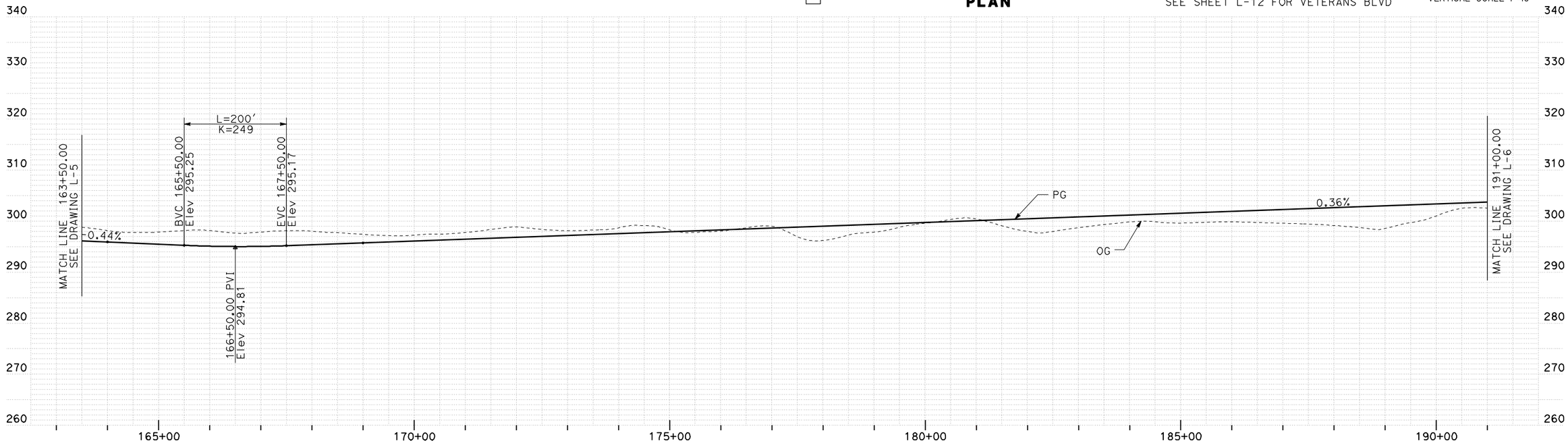
D "GSB" 185+03.65 POC = "VJ" 10+00.00 POT

100 0 100 200
HORIZONTAL SCALE 1"=100′

10 0 10 20
VERTICAL SCALE 1"=10′

PLAN

SEE SHEET L-12 FOR VETERANS BLVD



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

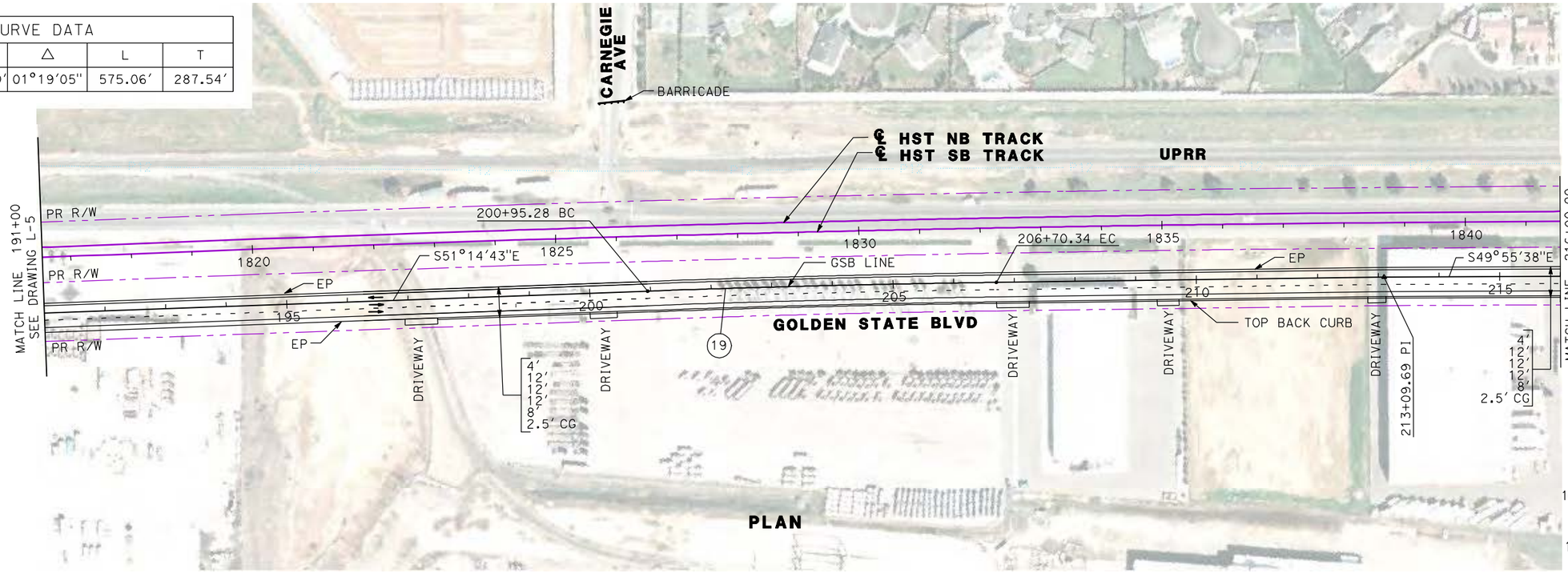
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 163+50 TO "GSB" 191+00

CONTRACT NO. HSR06-007
DRAWING NO. **L-5**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

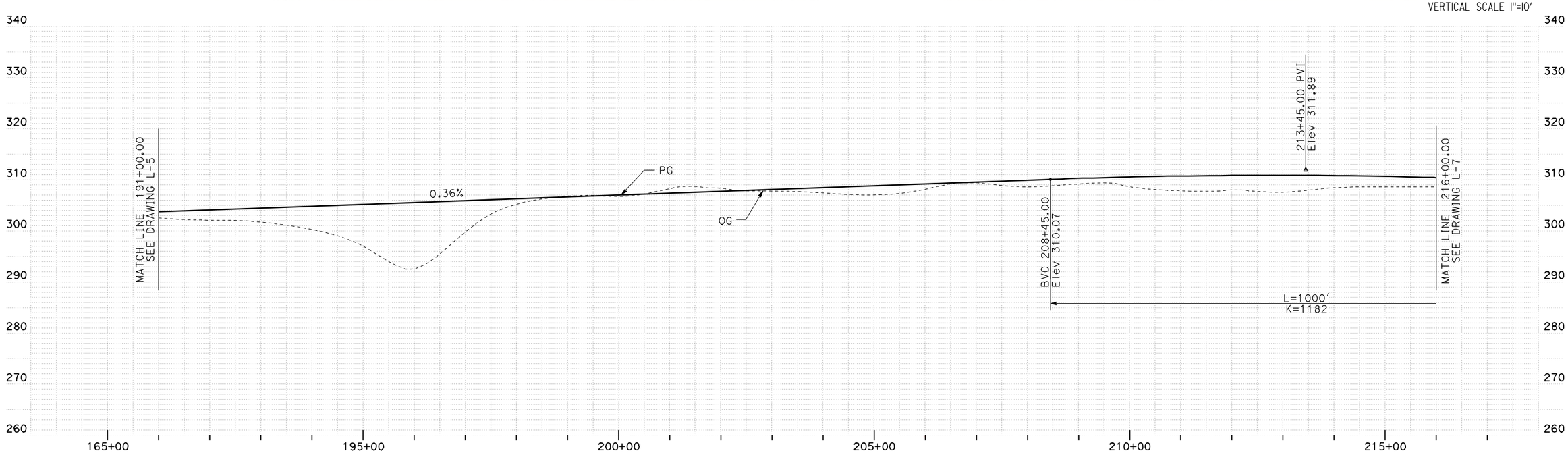
CURVE DATA					
No.	LINE	R	Δ	L	T
19	GSB	25000.00′	01°19′05″	575.06′	287.54′



PLAN

HORIZONTAL SCALE 1"=100′

VERTICAL SCALE 1"=10′



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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CH2MHILL

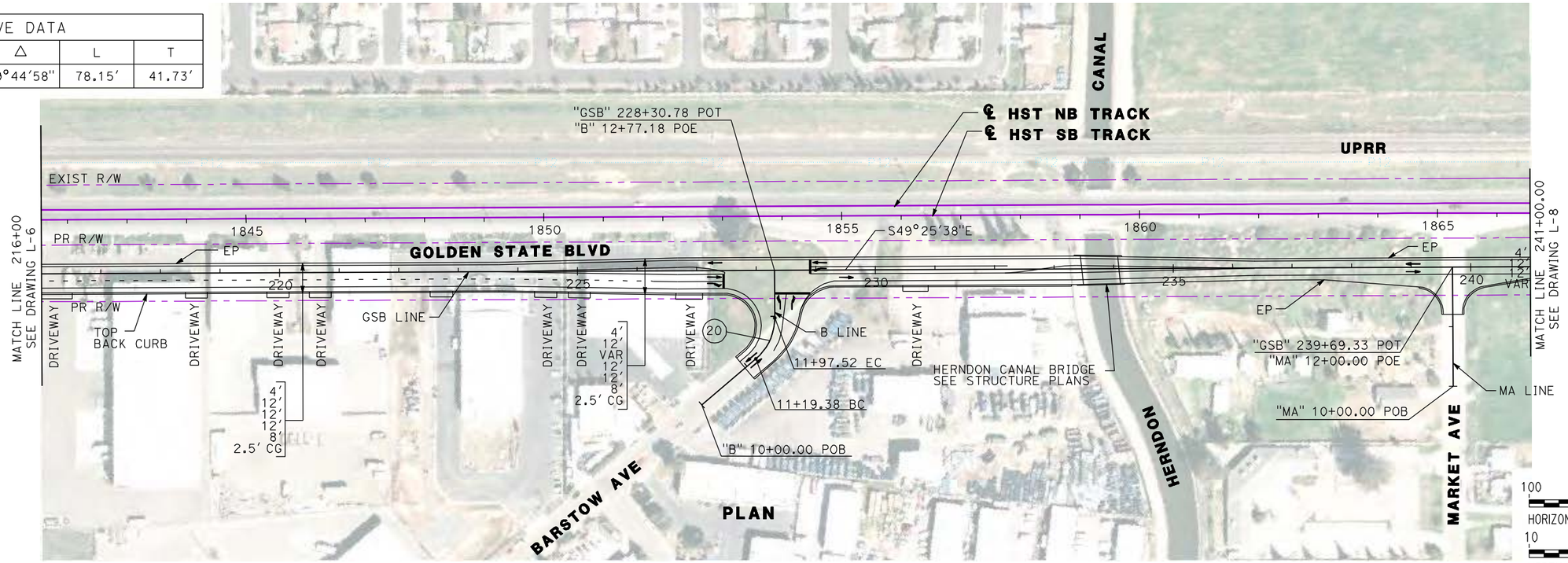
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

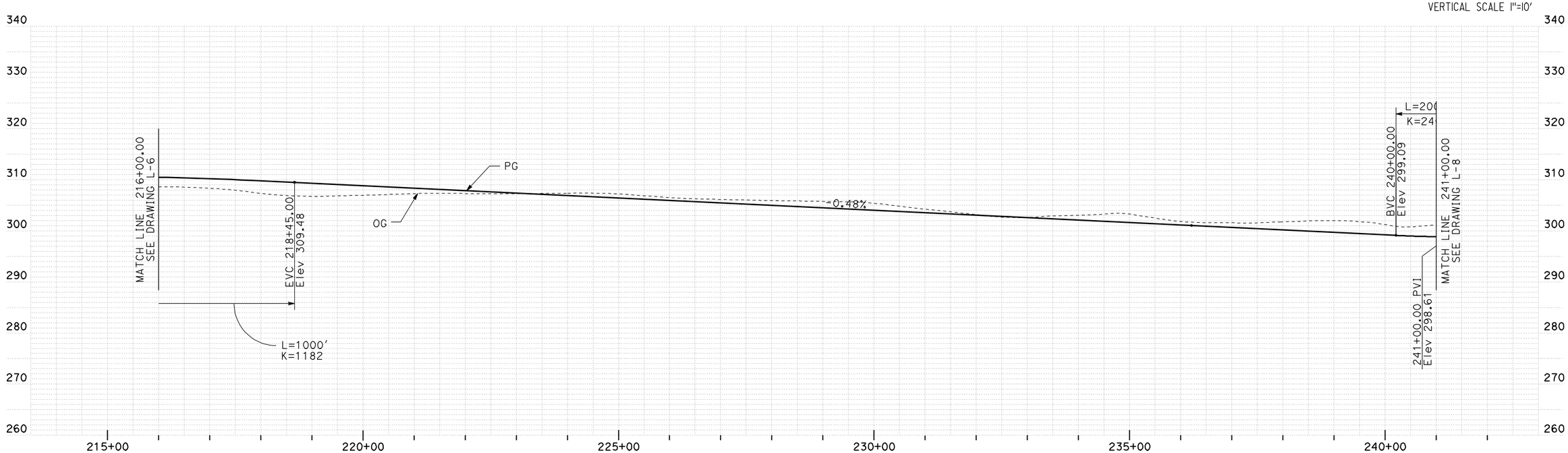
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 191+00 TO "GSB" 216+00

CONTRACT NO. HSR06-007
DRAWING NO. L-6
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
20	B	90.00′	49°44′58″	78.15′	41.73′





PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
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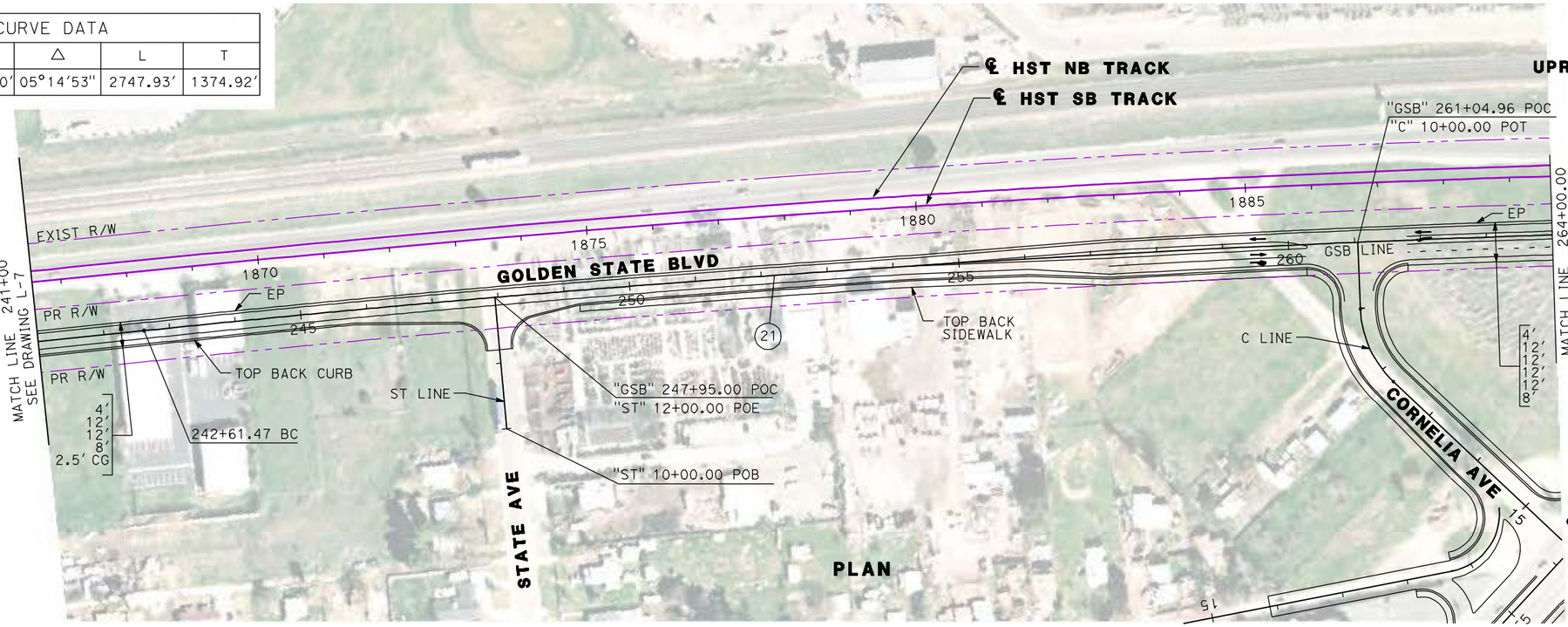
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 216+00 TO "GSB" 241+00

CONTRACT NO. HSR06-007
DRAWING NO. **L-7**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

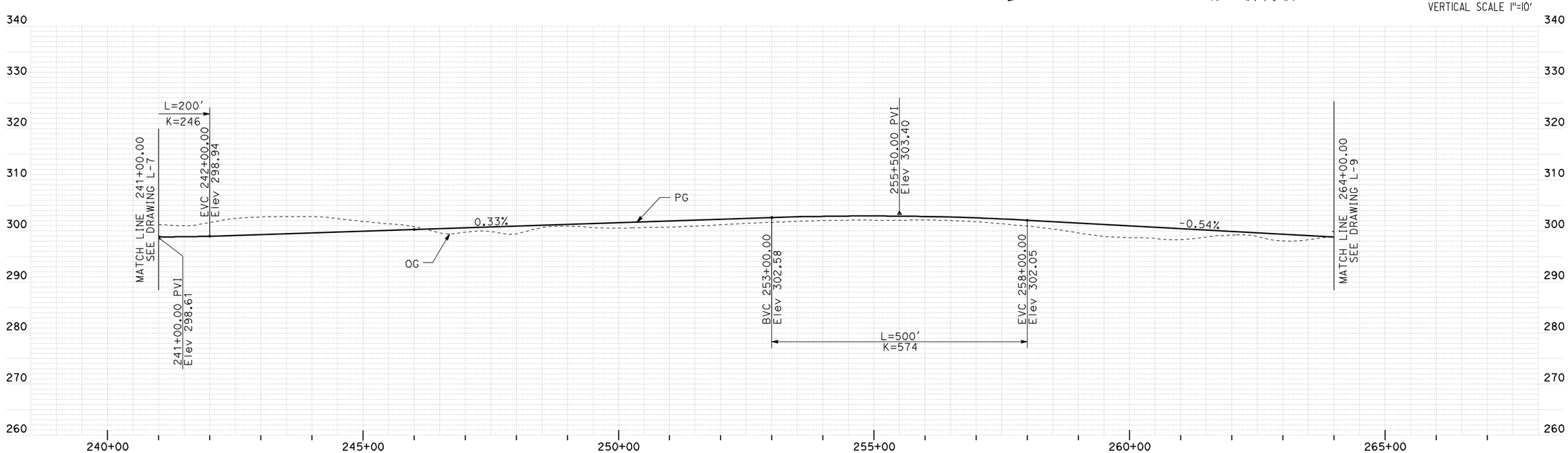
CURVE DATA					
No.	LINE	R	Δ	L	T
21	GSB	30000.00'	05°14'53"	2747.93'	1374.92'



SEE SHEETS L-14 AND L-15 FOR SHAW AVE

SEE SHEETS L-16 AND L-17 FOR CORNELIA AND SANTA ANA AVE

100 0 100 200
HORIZONTAL SCALE 1"=100'
10 0 10 20
VERTICAL SCALE 1"=10'



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

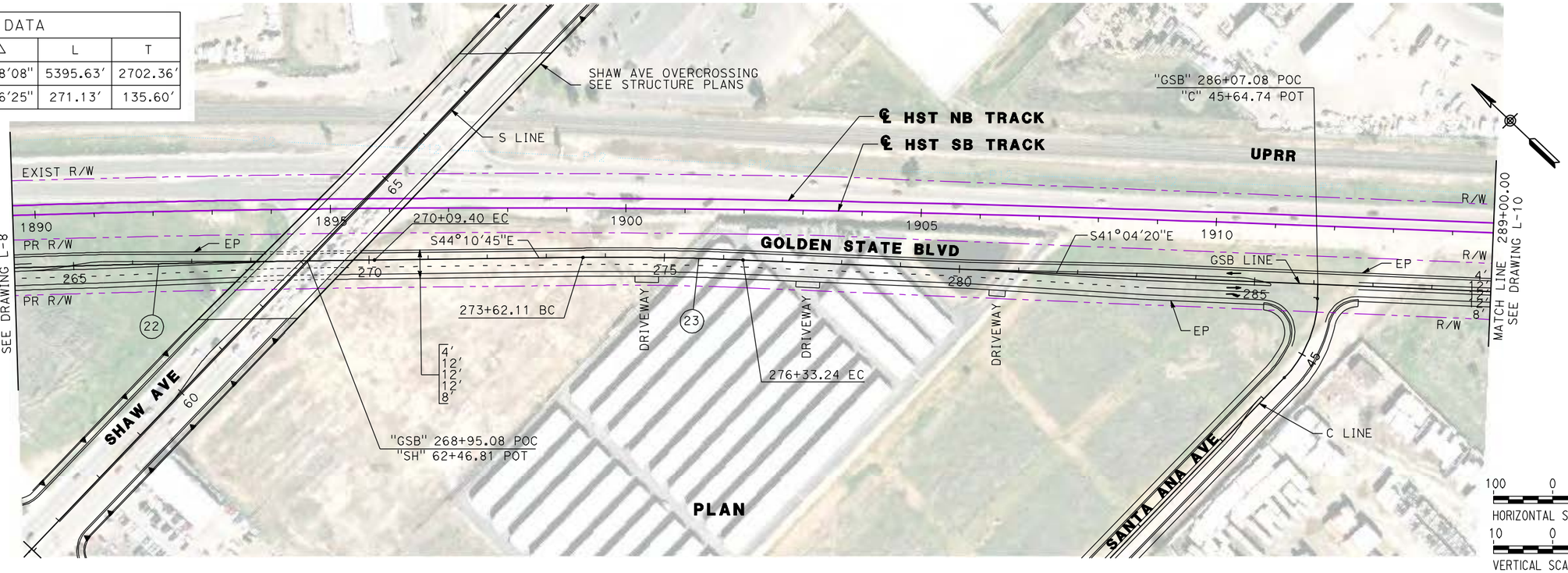
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 241+00 TO "GSB" 264+00

CONTRACT NO. HSR06-007
DRAWING NO. L-8
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
22	GSB	38000.00′	08°08′08″	5395.63′	2702.36′
23	GSB	5000.00′	03°06′25″	271.13′	135.60′

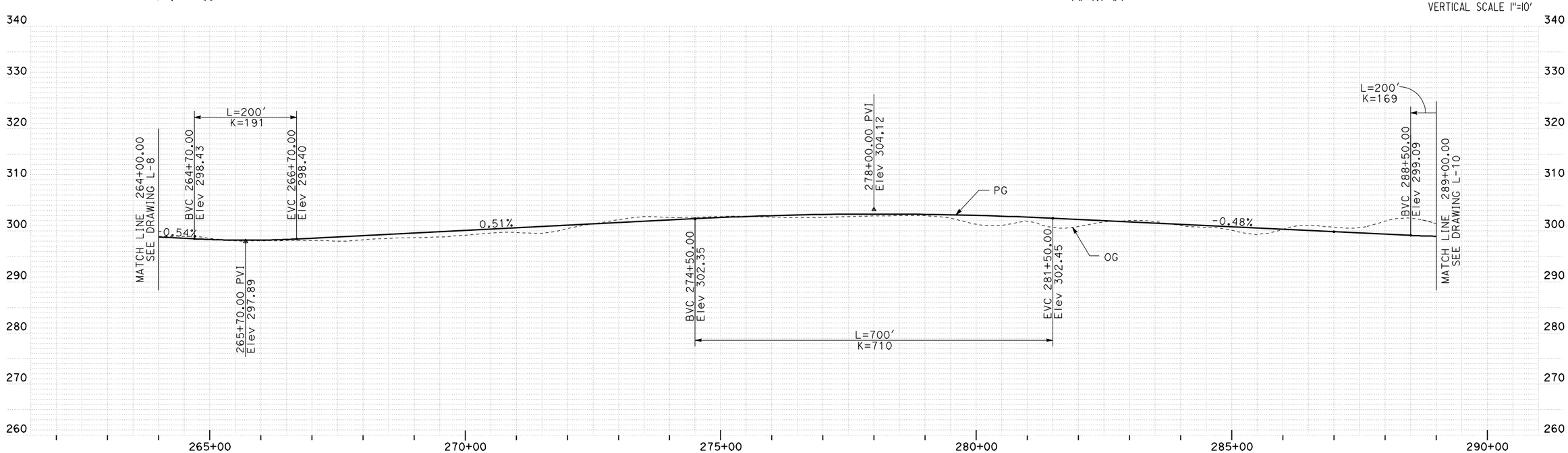


SEE SHEETS L-14 AND L-15 FOR SHAW AVE

SEE SHEETS L-16 AND L-17 FOR CORNELIA AND SANTA ANA AVE

HORIZONTAL SCALE 1"=100′

VERTICAL SCALE 1"=10′



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

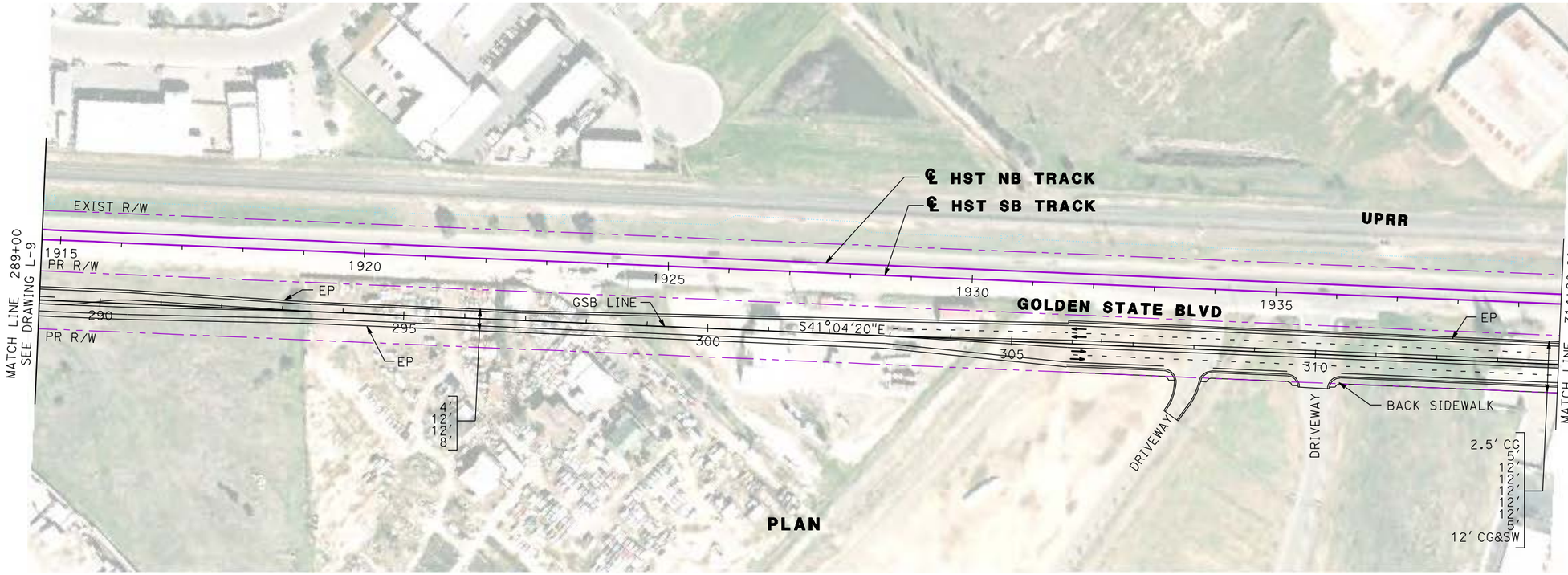
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 264+00 TO "GSB" 289+00

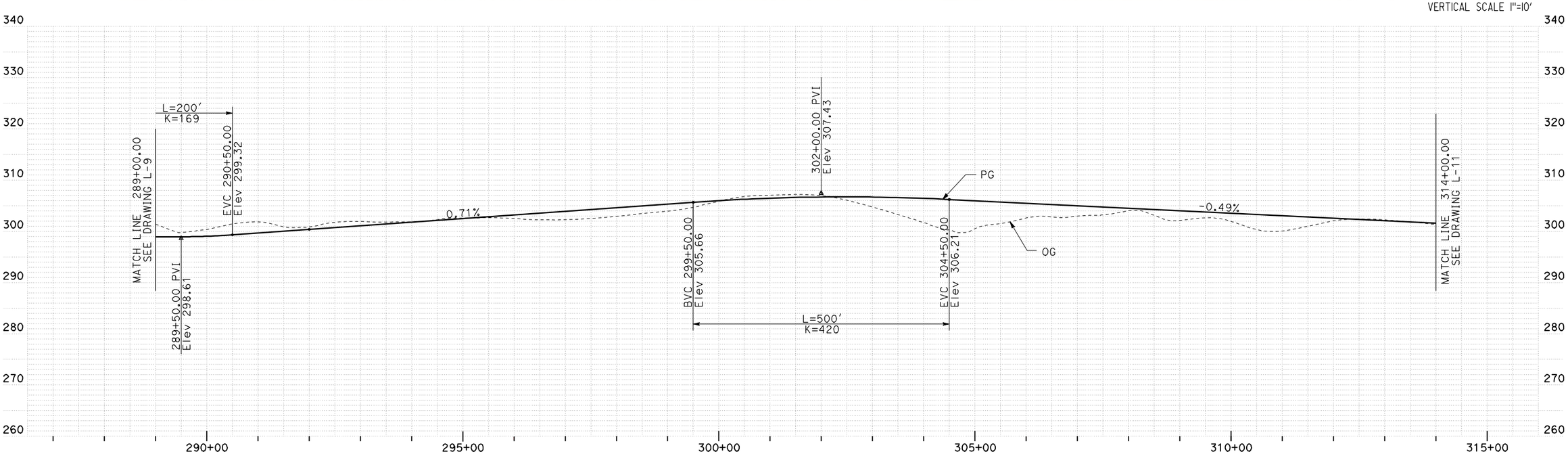
CONTRACT NO. HSR06-007
DRAWING NO. L-9
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

USERNAME => lros



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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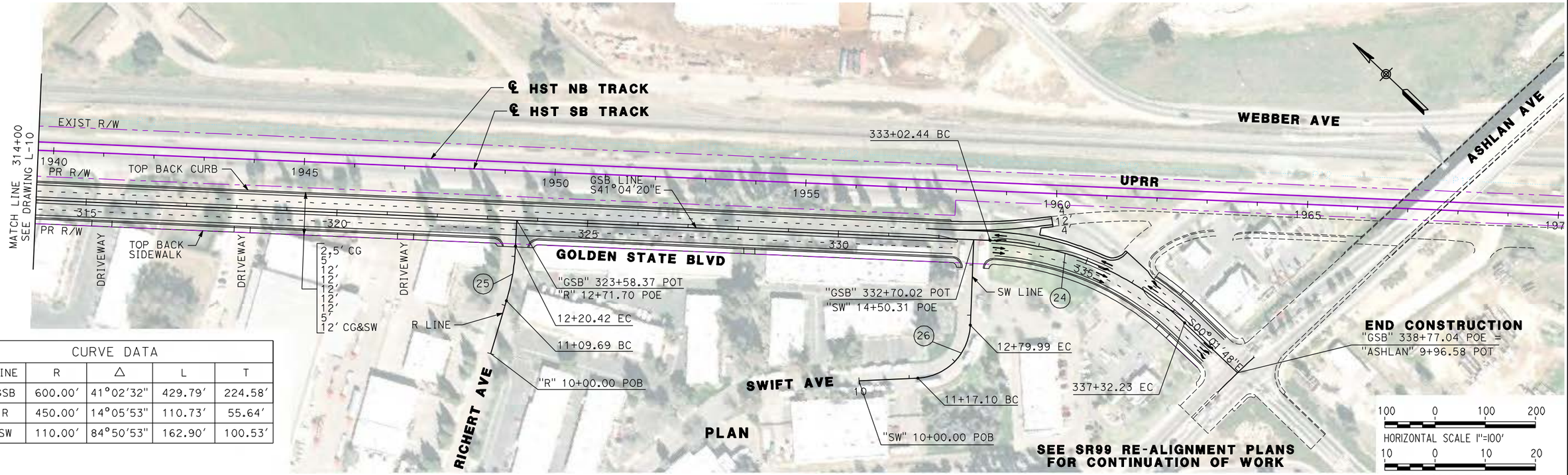
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

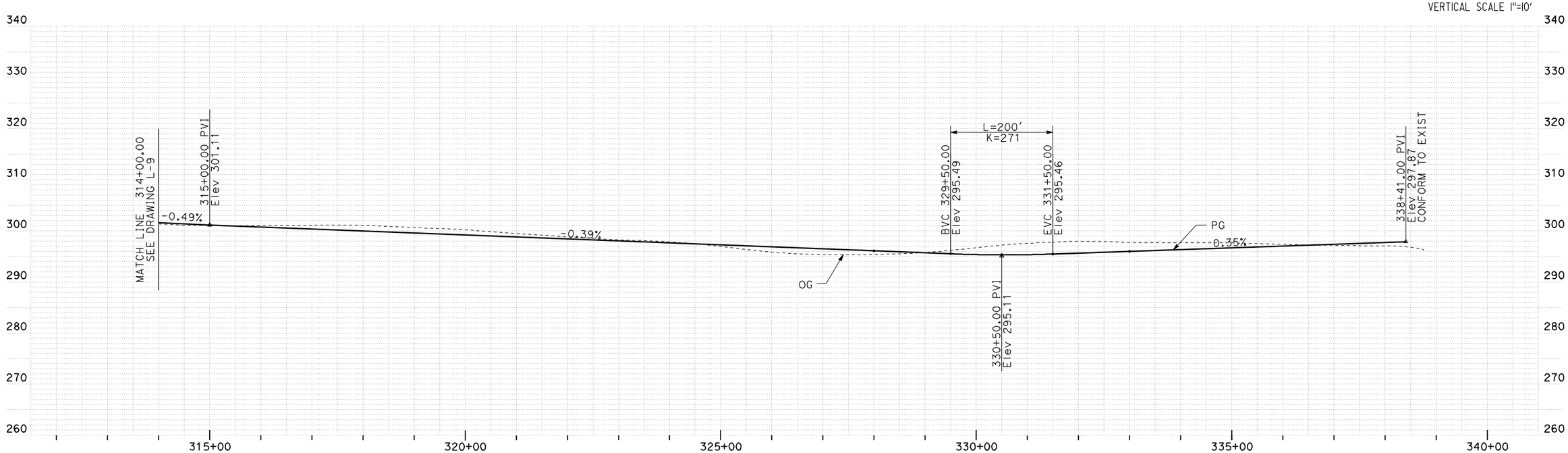
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
LAYOUT
"GSB" 289+00 TO "GSB" 314+00

CONTRACT NO. HSR06-007
DRAWING NO. L-10
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros



CURVE DATA					
No.	LINE	R	Δ	L	T
24	GSB	600.00'	41°02'32"	429.79'	224.58'
25	R	450.00'	14°05'53"	110.73'	55.64'
26	SW	110.00'	84°50'53"	162.90'	100.53'



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

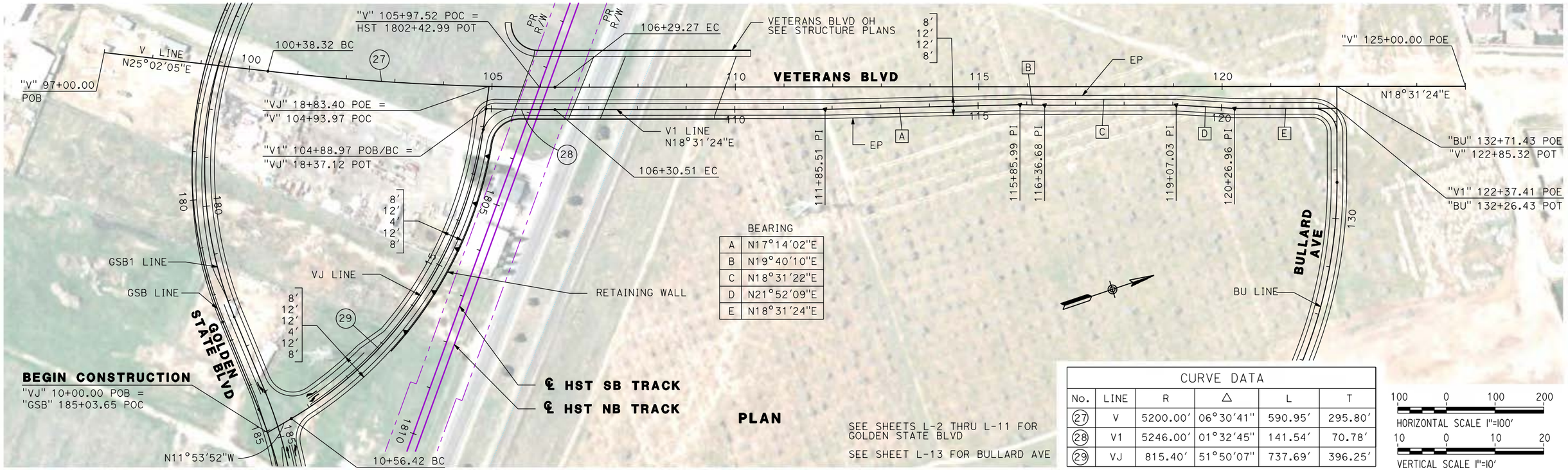
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT LAYOUT
"GSB" 314+00 TO "GSB" 338+77

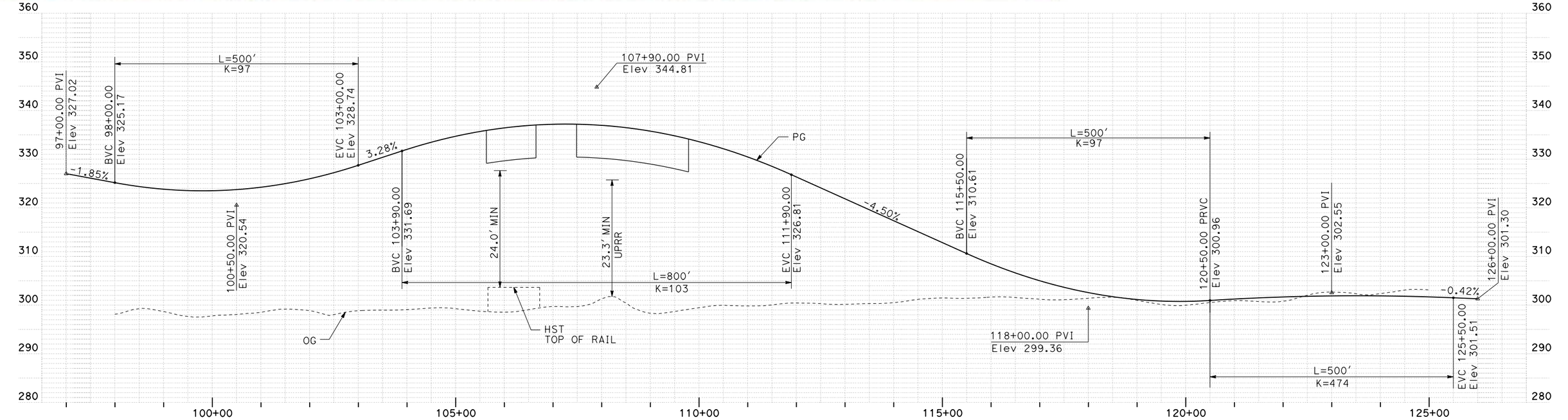
CONTRACT NO. HSR06-007
DRAWING NO. L-11
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros



BEARING	
A	N17°14′02"E
B	N19°40′10"E
C	N18°31′22"E
D	N21°52′09"E
E	N18°31′24"E

CURVE DATA					
No.	LINE	R	Δ	L	T
27	V	5200.00′	06°30′41"	590.95′	295.80′
28	V1	5246.00′	01°32′45"	141.54′	70.78′
29	VJ	815.40′	51°50′07"	737.69′	396.25′



SEE SHEET L-13 FOR VJ PROFILE

V LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

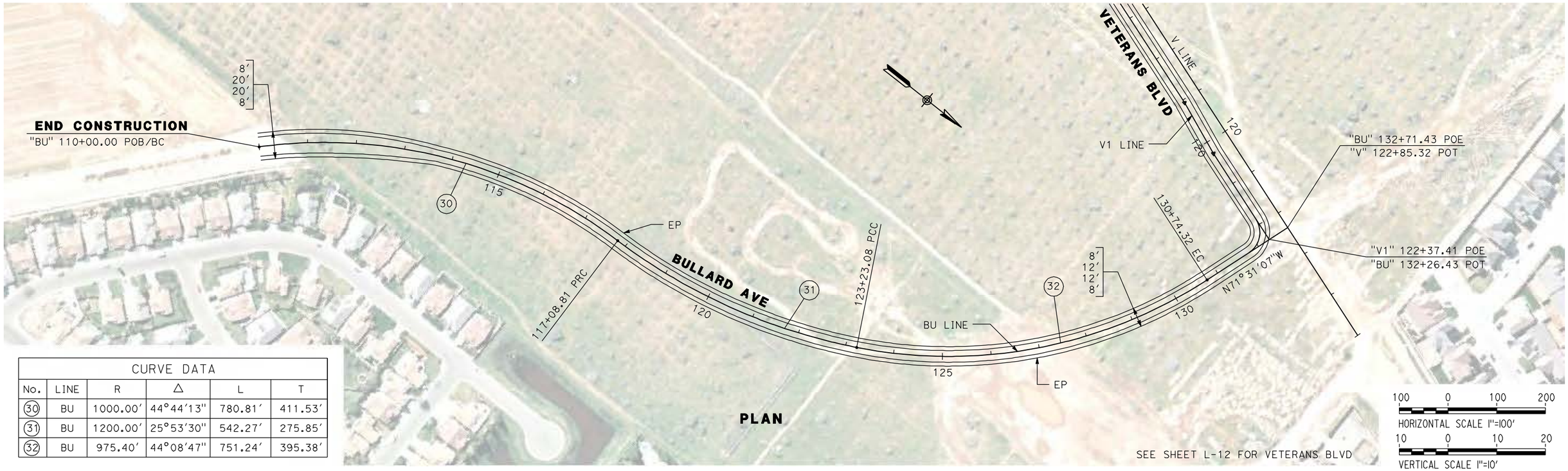
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

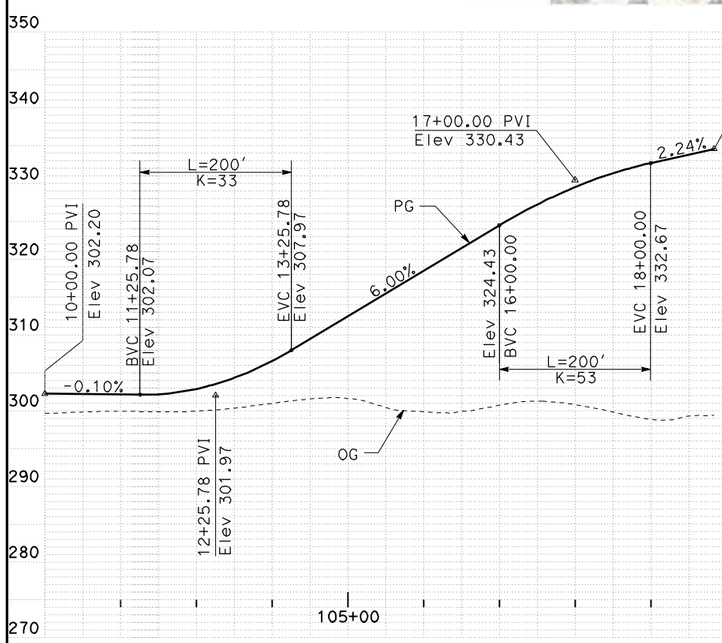
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
VETERANS BOULEVARD
LAYOUT
"V" 105+00 TO "V" 122+35

CONTRACT NO. HSR06-007
DRAWING NO. L-12
SCALE AS SHOWN
SHEET NO.

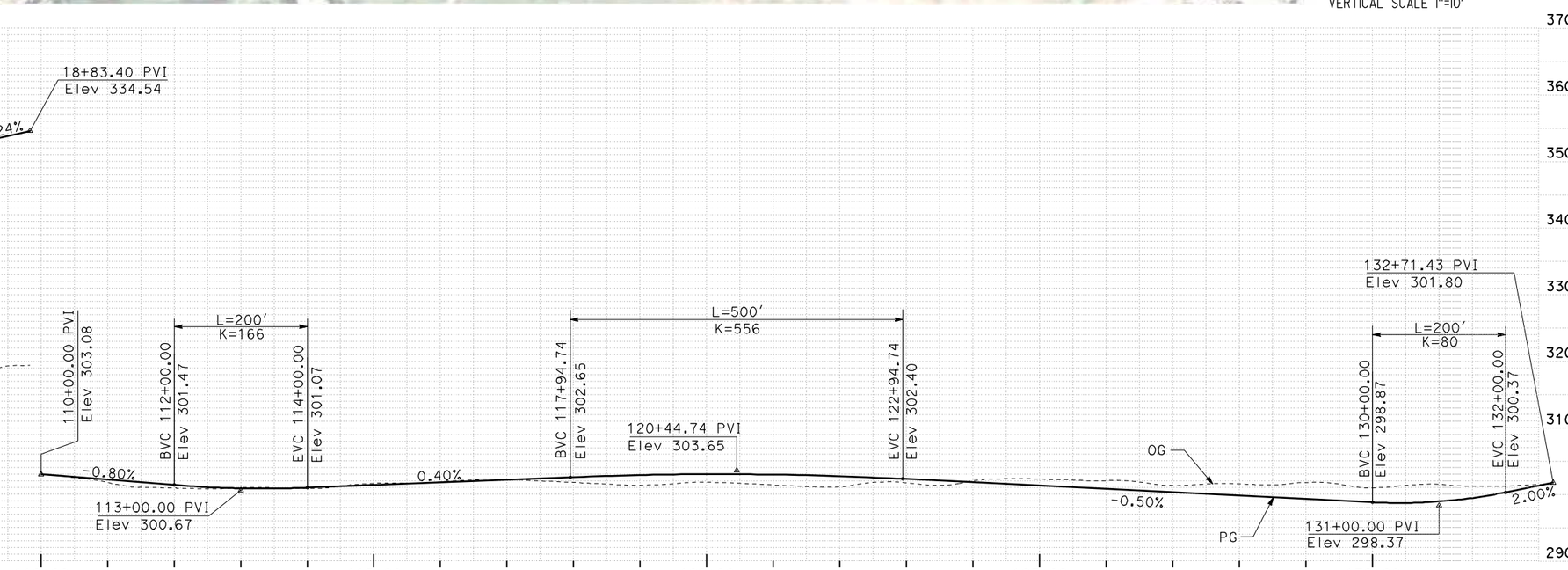
DATE PLOTTED => 26-APR-2011
USERNAME => lros



CURVE DATA					
No.	LINE	R	Δ	L	T
30	BU	1000.00′	44°44′13″	780.81′	411.53′
31	BU	1200.00′	25°53′30″	542.27′	275.85′
32	BU	975.40′	44°08′47″	751.24′	395.38′



VJ PROFILE



BU PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

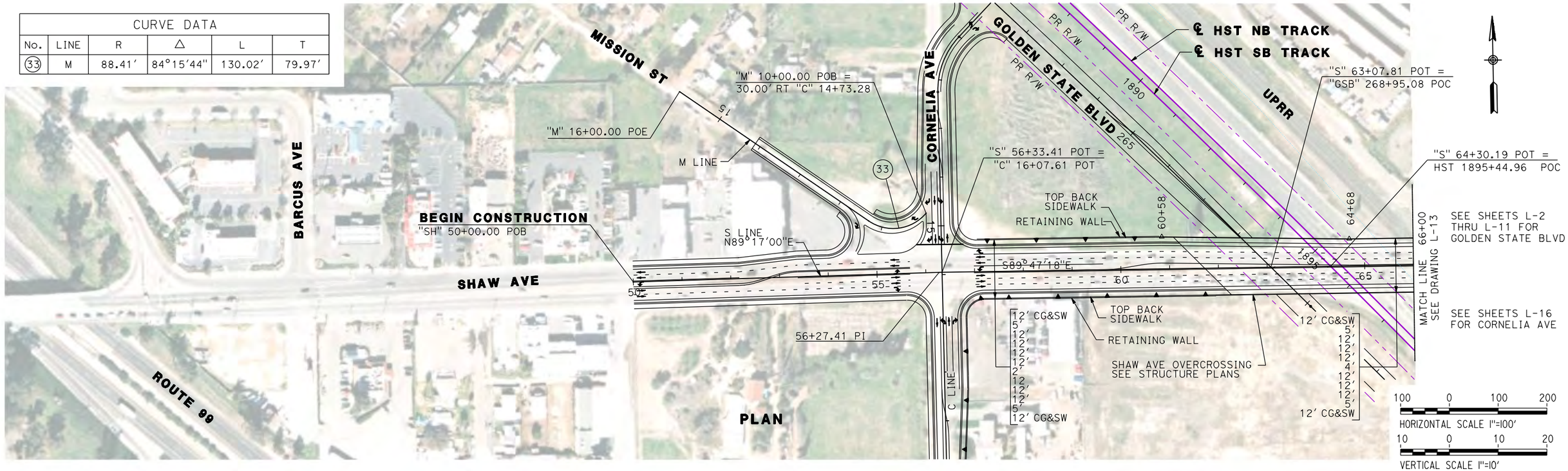
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

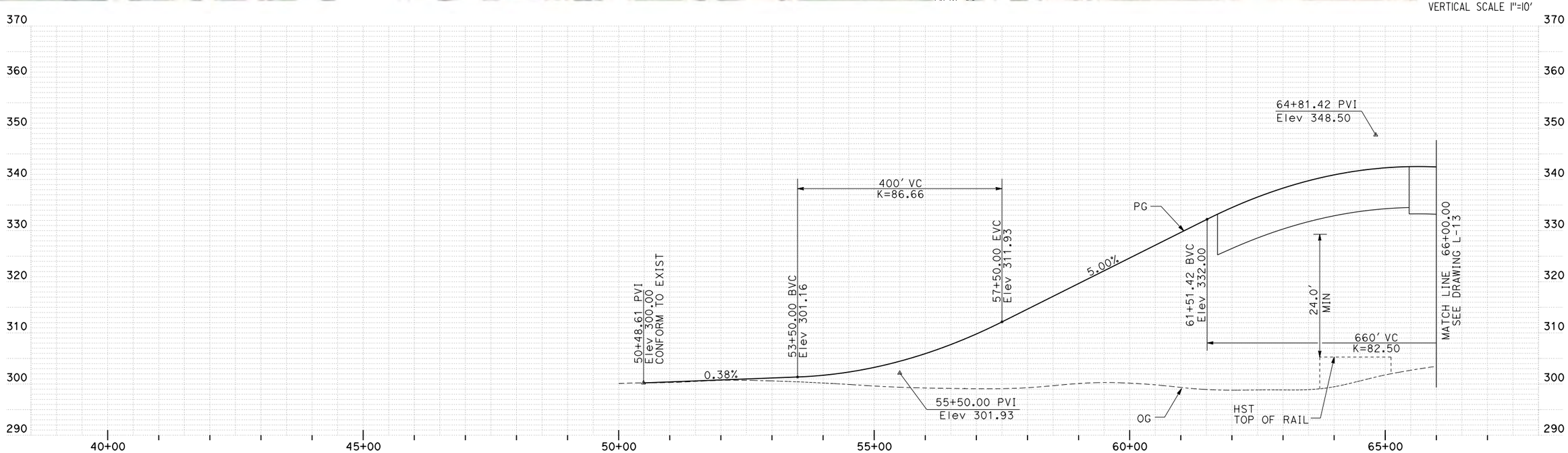
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BULLARD AVENUE
LAYOUT
"BU" 100+00 TO "BU" 132+72

CONTRACT NO. HSR06-007
DRAWING NO. L-13
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

CURVE DATA					
No.	LINE	R	Δ	L	T
33	M	88.41′	84°15′44"	130.02′	79.97′





PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

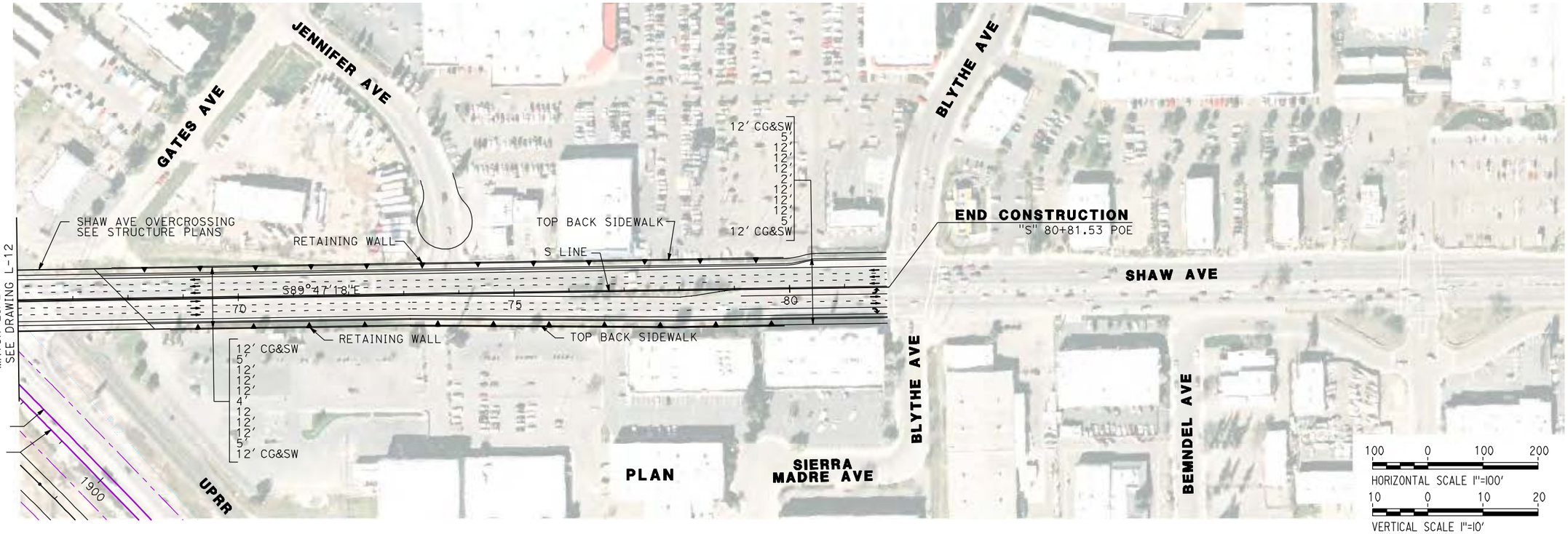
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

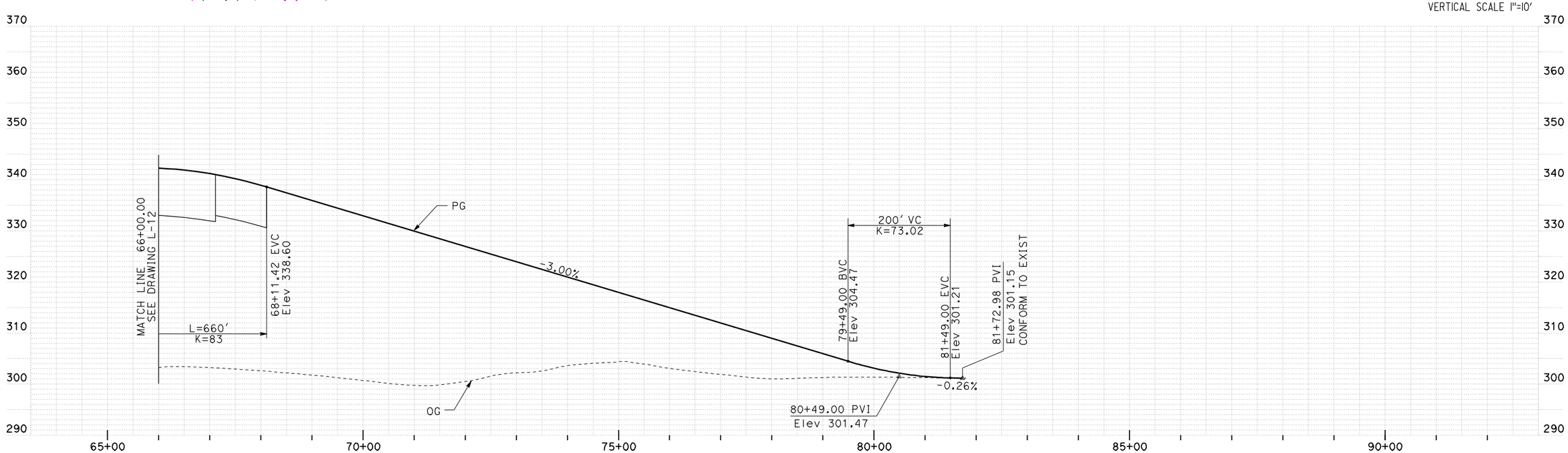
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
SHAW AVENUE RE-ALIGNMENT
LAYOUT
"S" 50+00 TO "S" 66+00

CONTRACT NO. HSR06-007
DRAWING NO. **L-14**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

SEE SHEETS L-2 THRU L-11 FOR GOLDEN STATE BLVD





PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

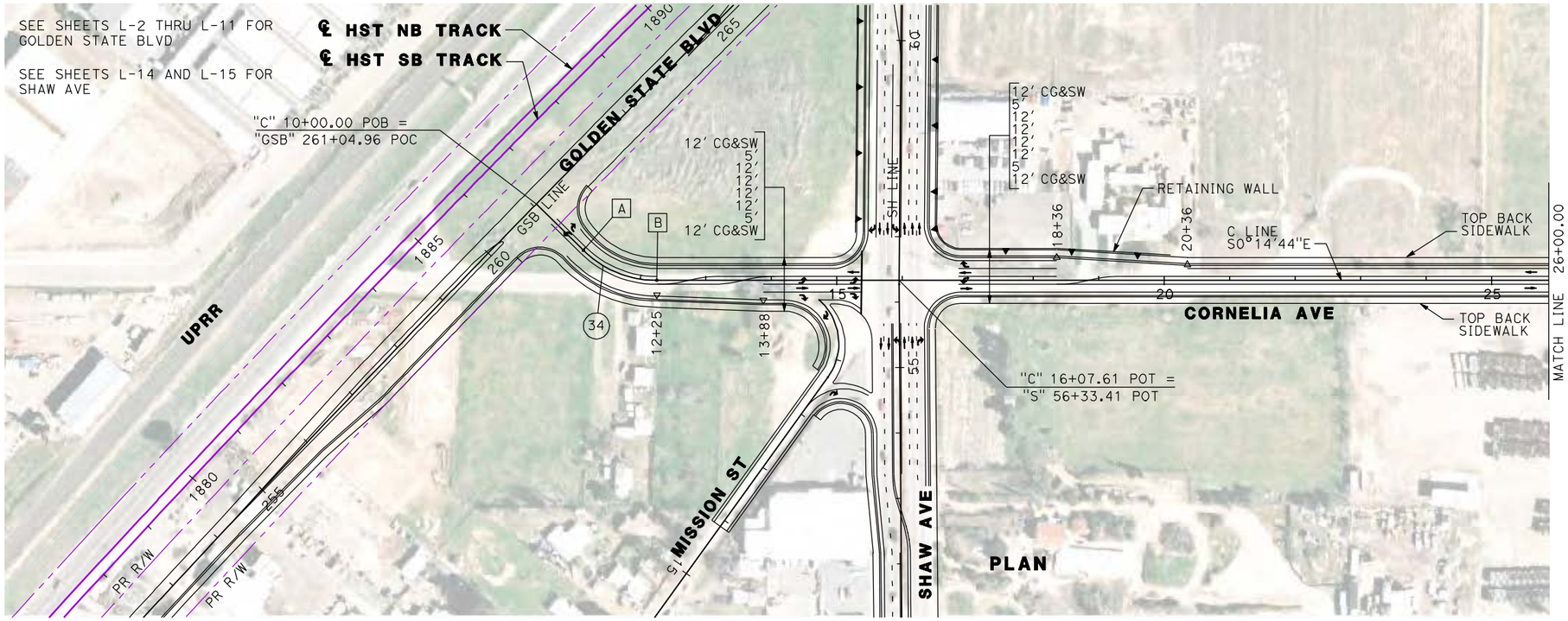
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
SHAW AVENUE RE-ALIGNMENT
LAYOUT
"S" 66+00 TO "S" 80+81

CONTRACT NO. HSR06-007
DRAWING NO. **L-15**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros

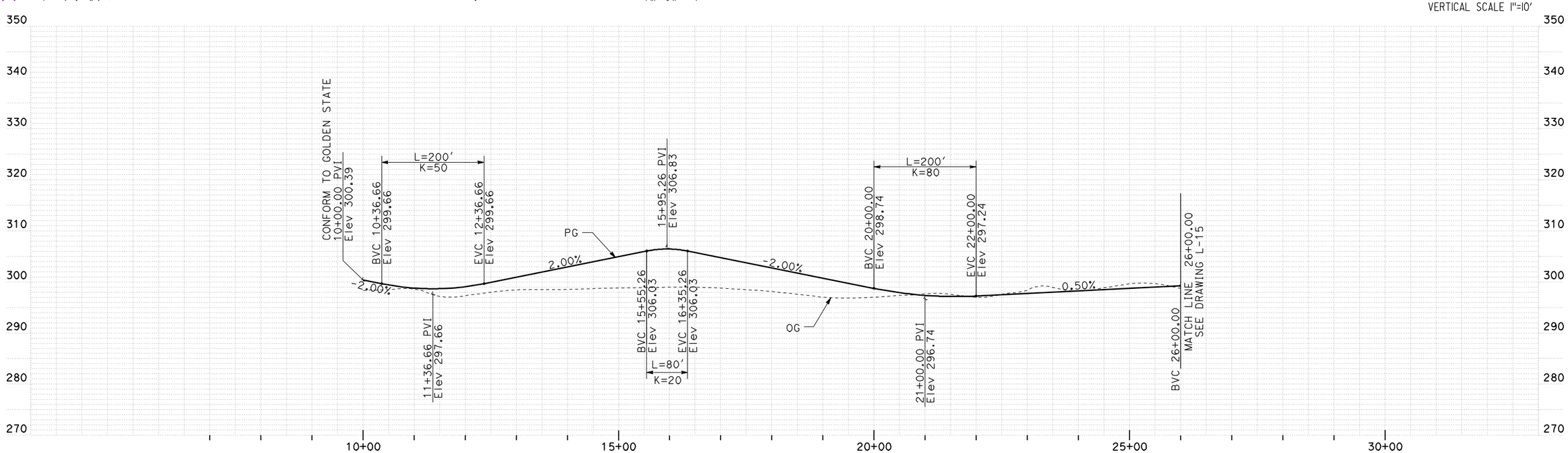


CURVE DATA					
No.	LINE	R	Δ	L	T
34	C	160.00'	44°29'15"	124.23'	65.44'

A 11+00.95 BC

B 12+25.19 EC

100 0 100 200
HORIZONTAL SCALE 1"=100'
10 0 10 20
VERTICAL SCALE 1"=10'



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

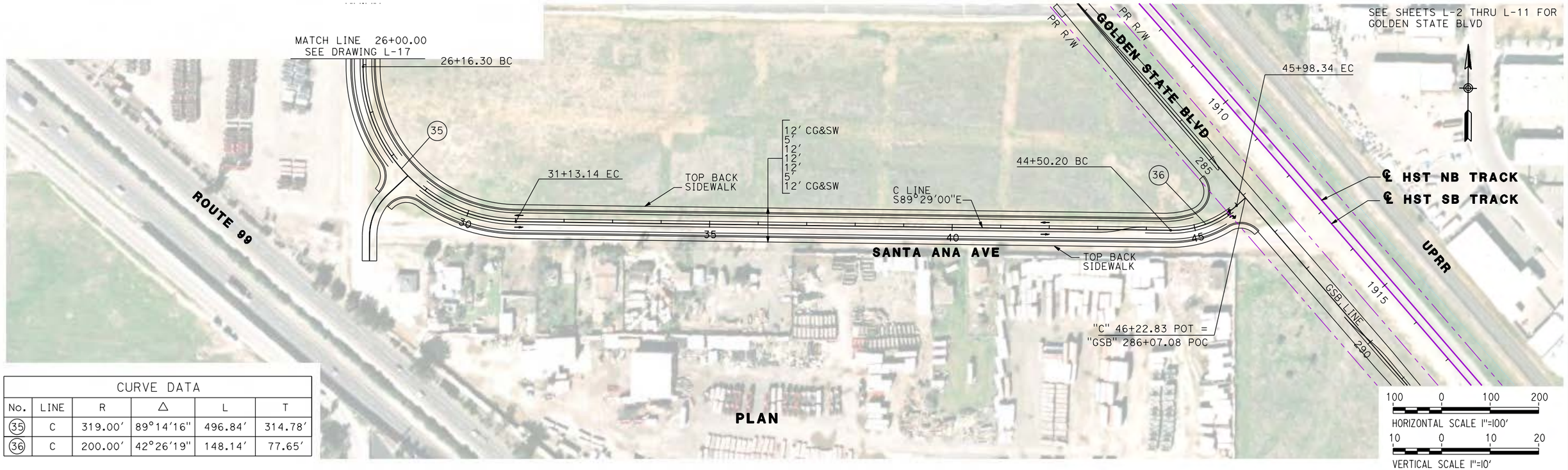
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

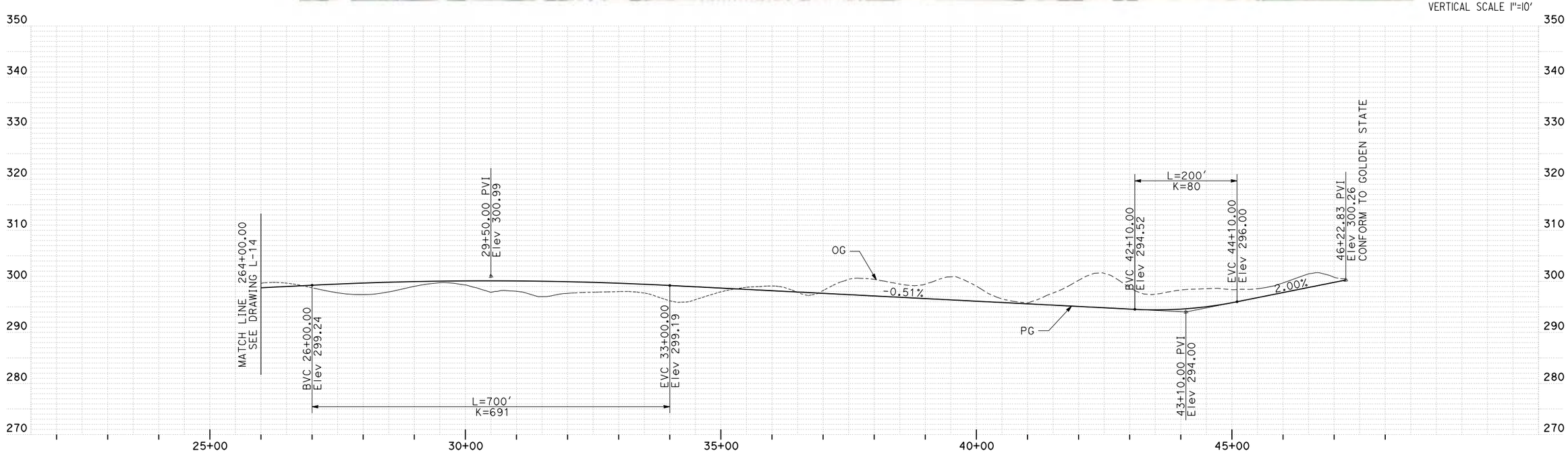
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
CORNELIA AVENUE RE-ALIGNMENT
LAYOUT
"C" 10+00 TO "C" 26+00

CONTRACT NO. HSR06-007
DRAWING NO. L-16
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 27-APR-2011
USERNAME => lros



CURVE DATA					
No.	LINE	R	Δ	L	T
35	C	319.00'	89°14'16"	496.84'	314.78'
36	C	200.00'	42°26'19"	148.14'	77.65'



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

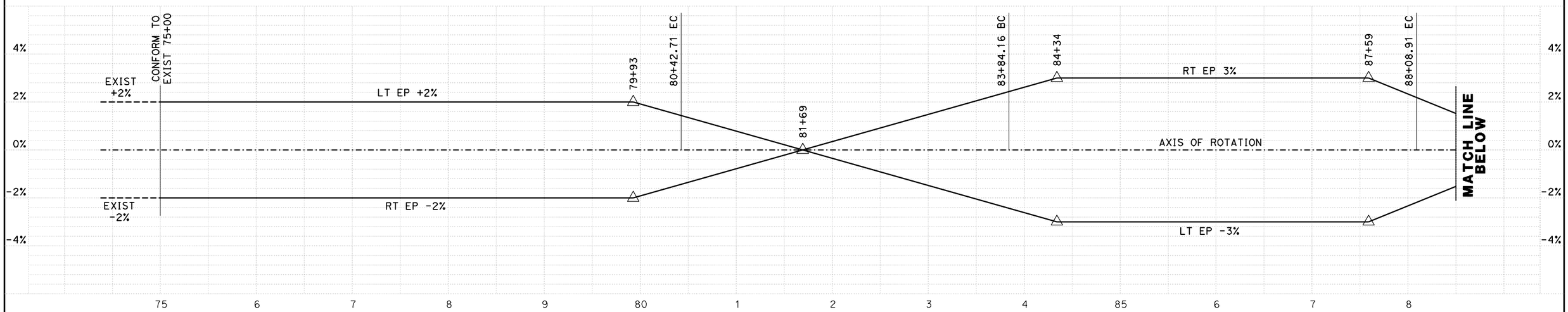
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

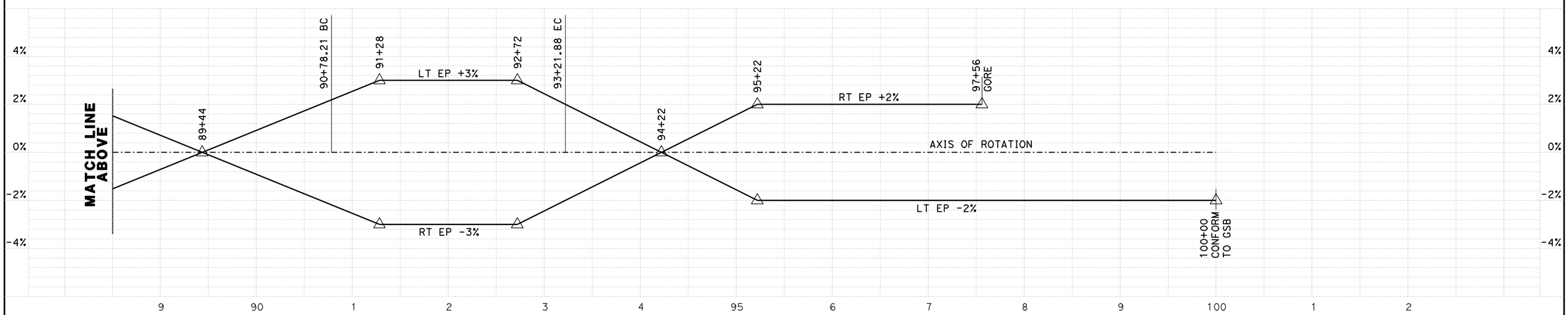
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
SANTA ANA AVENUE RE-ALIGNMENT
LAYOUT
"C" 26+00 TO "C" 46+23

CONTRACT NO. HSR06-007
DRAWING NO. **L-17**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => lros





NB LINE

SUPERELEVATION DIAGRAM

NO SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

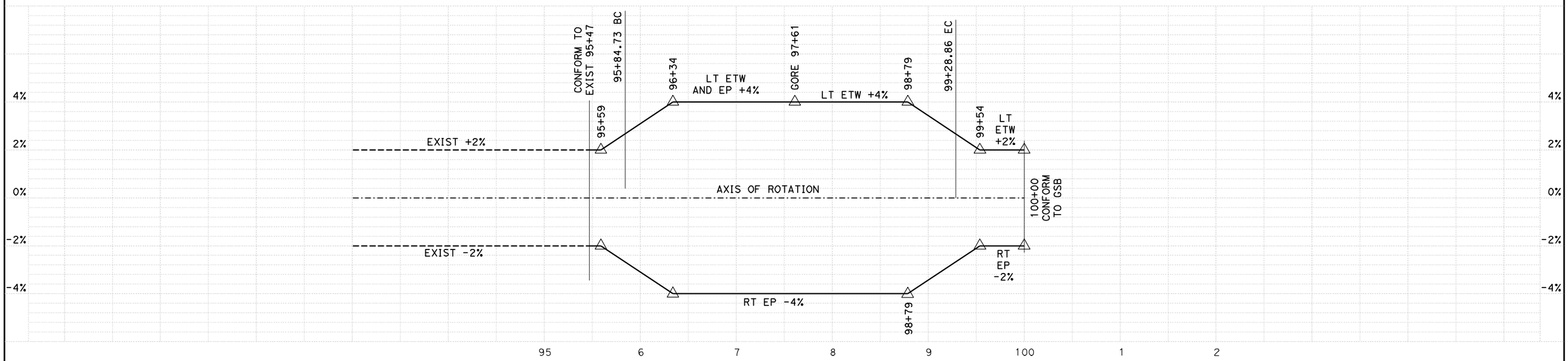
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
SUPERELEVATION DIAGRAM

CONTRACT NO. HSR06-007
DRAWING NO. **SE-1**
SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011

USERNAME => lros



SB LINE

SUPERELEVATION DIAGRAM

NO SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY B. CHAN
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

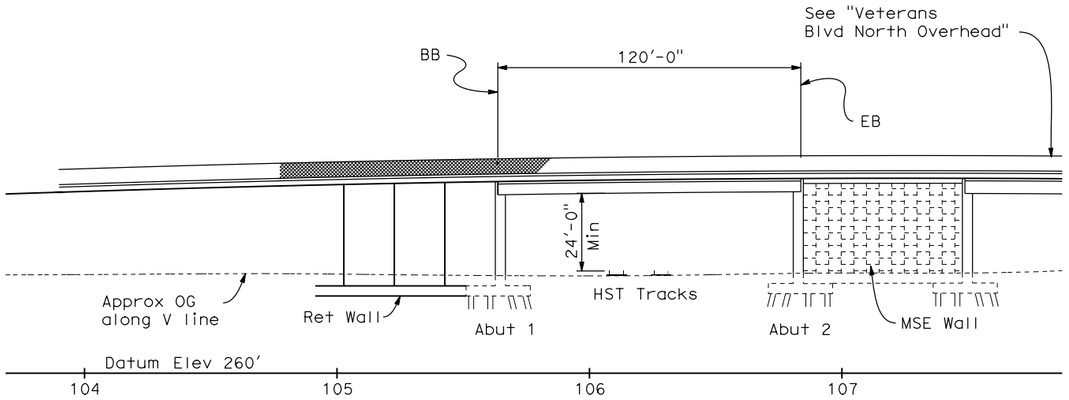
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
SUPERELEVATION DIAGRAM

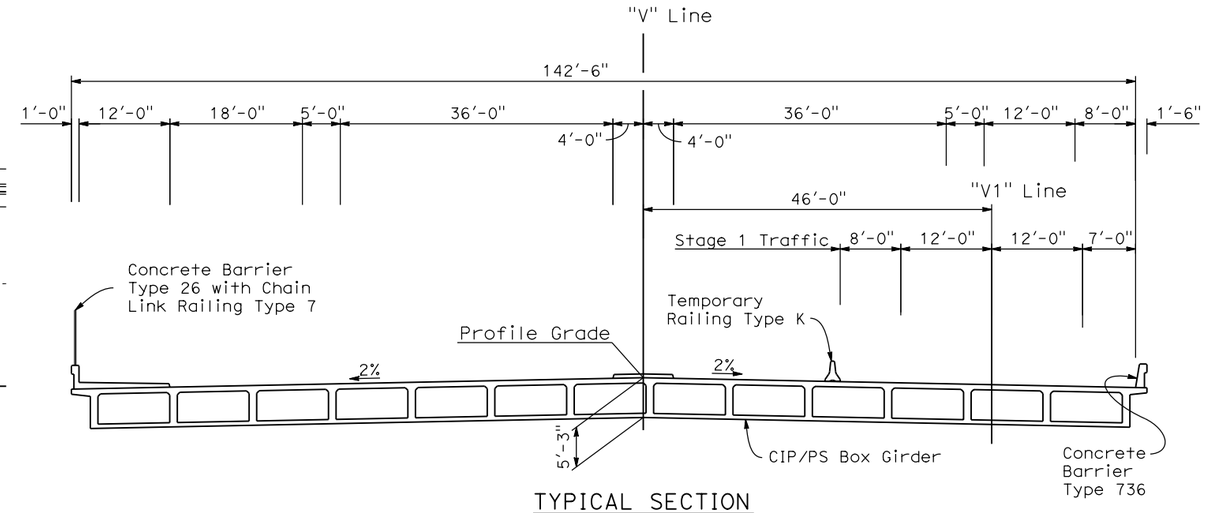
CONTRACT NO. HSR06-007
DRAWING NO. **SE-2**
SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011

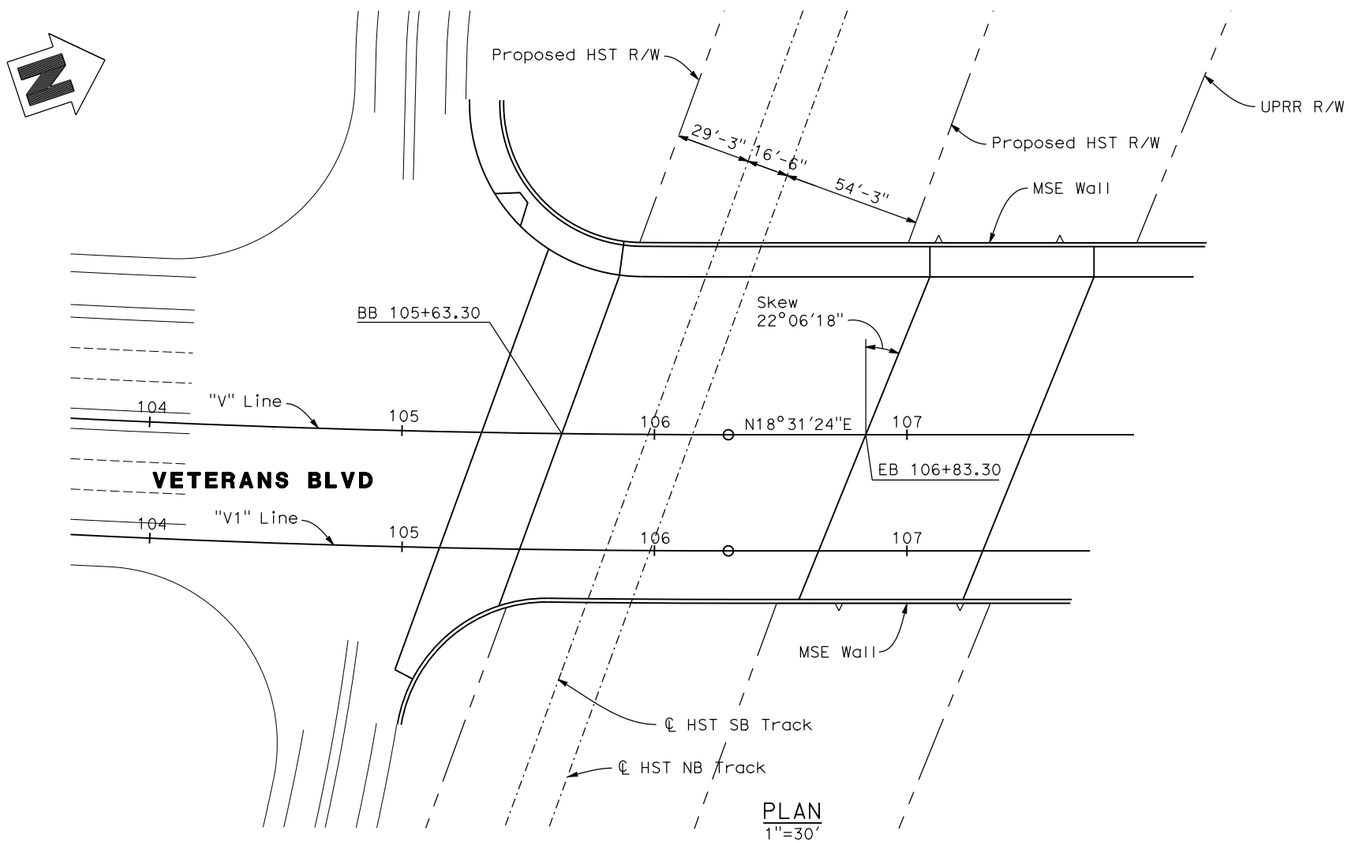
USERNAME => lros



ELEVATION
1"=30'



TYPICAL SECTION
1"=10'



PLAN
1"=30'

DATE OF ESTIMATE	= 04-13-2011
BRIDGE REMOVAL	= -
STRUCTURE DEPTH	= 5'-3"
LENGTH	= 120'-0"
WIDTH	= 142'-6"
AREA	= 17,100 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 175/ft^2
TOTAL COST	= \$ 2,993,000

VETERANS BLVD. SOUTH OVERHEAD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

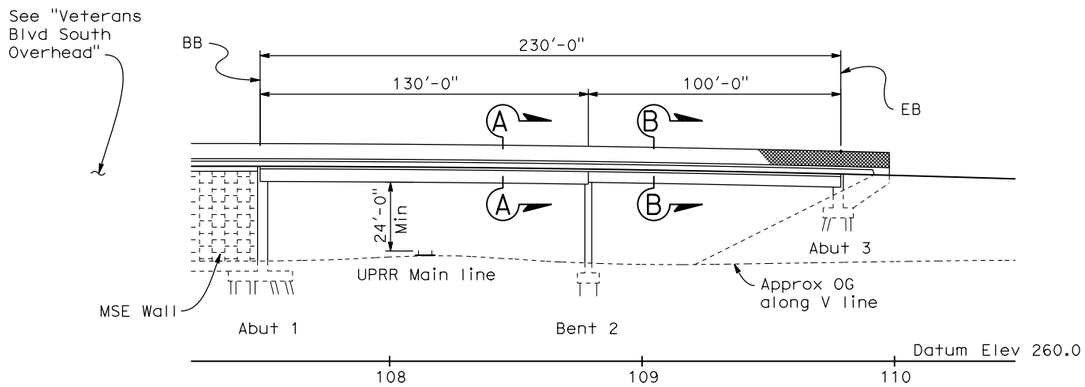
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

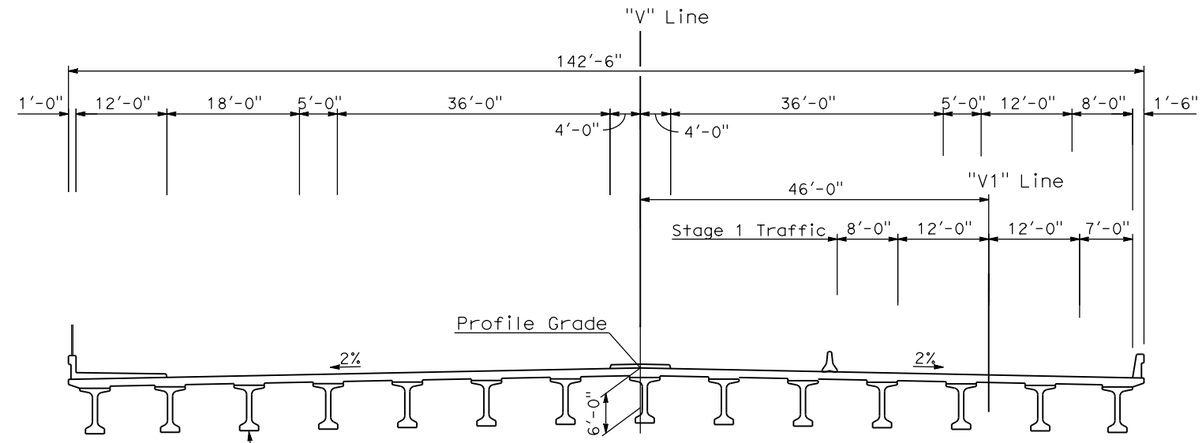
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-1**
SCALE AS SHOWN
SHEET NO.

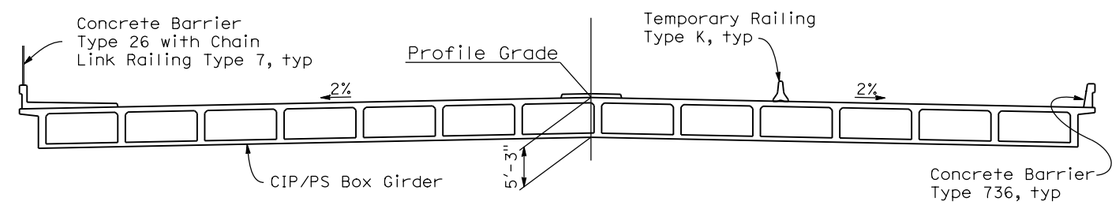
DATE PLOTTED => 29-APR-2011
USERNAME =>



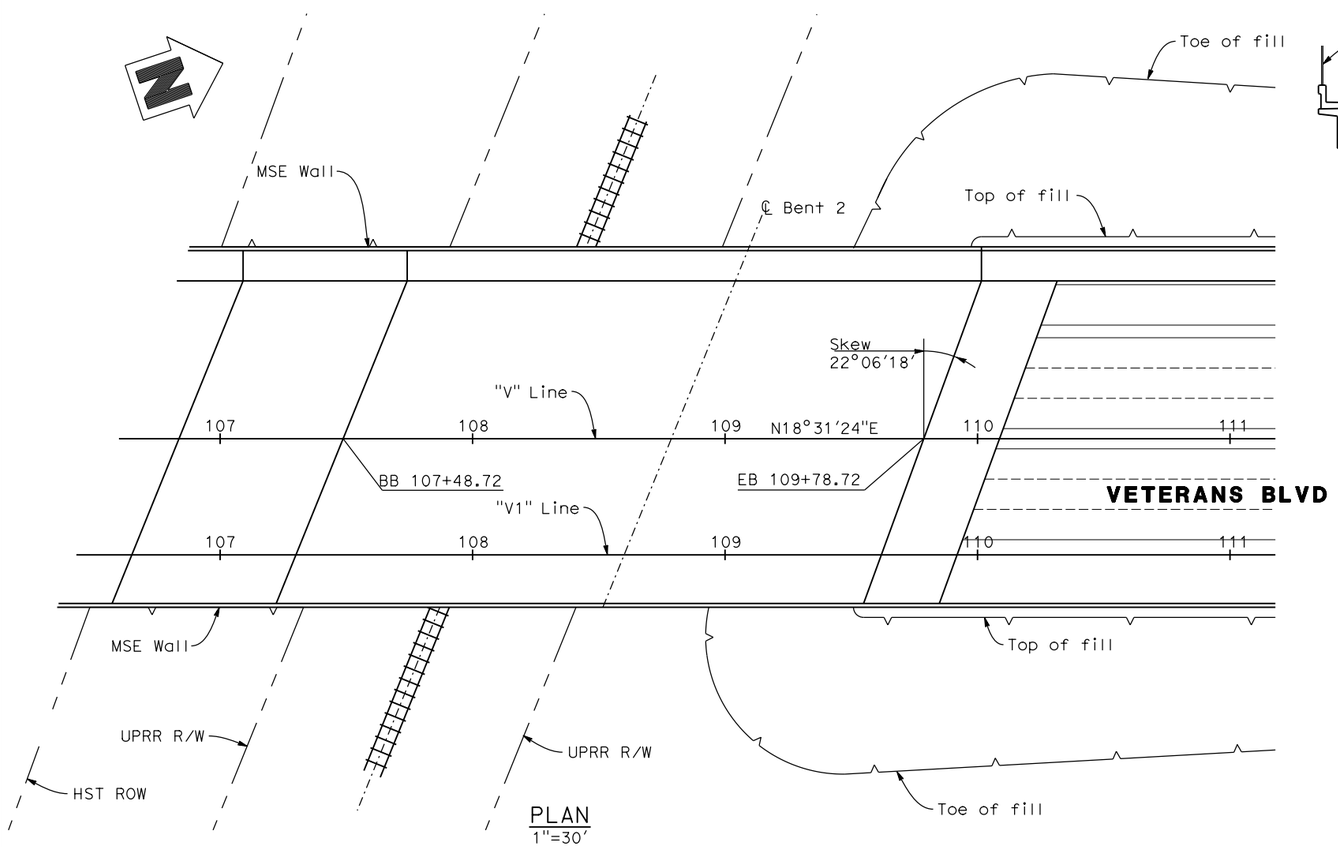
ELEVATION
1"=30'



SECTION A-A
1"=10'



SECTION B-B
1"=10'



PLAN
1"=30'

DATE OF ESTIMATE	=	04-13-2011
BRIDGE REMOVAL	=	-
STRUCTURE DEPTH	=	5'-3" TO 6'-0"
LENGTH	=	230'-0"
WIDTH	=	142'-6"
AREA	=	32,775 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 175/ft^2
TOTAL COST	=	\$ 5,736,000

VETERANS BLVD. NORTH OVERHEAD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

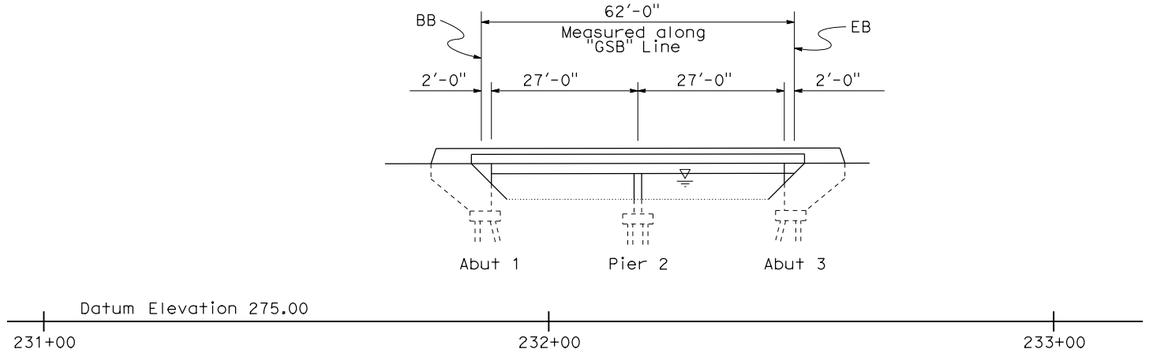
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

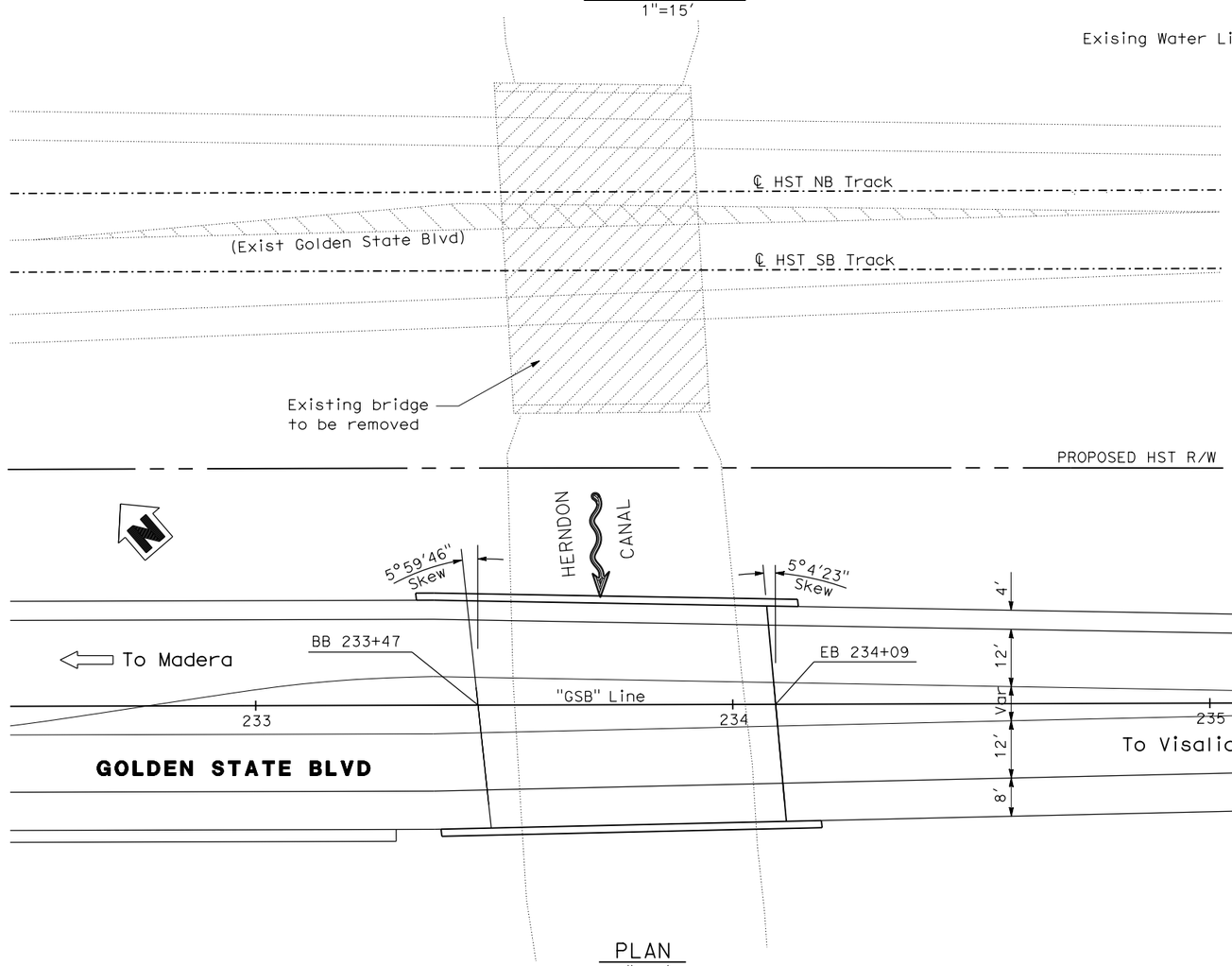
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. BR-2
SCALE AS SHOWN
SHEET NO.

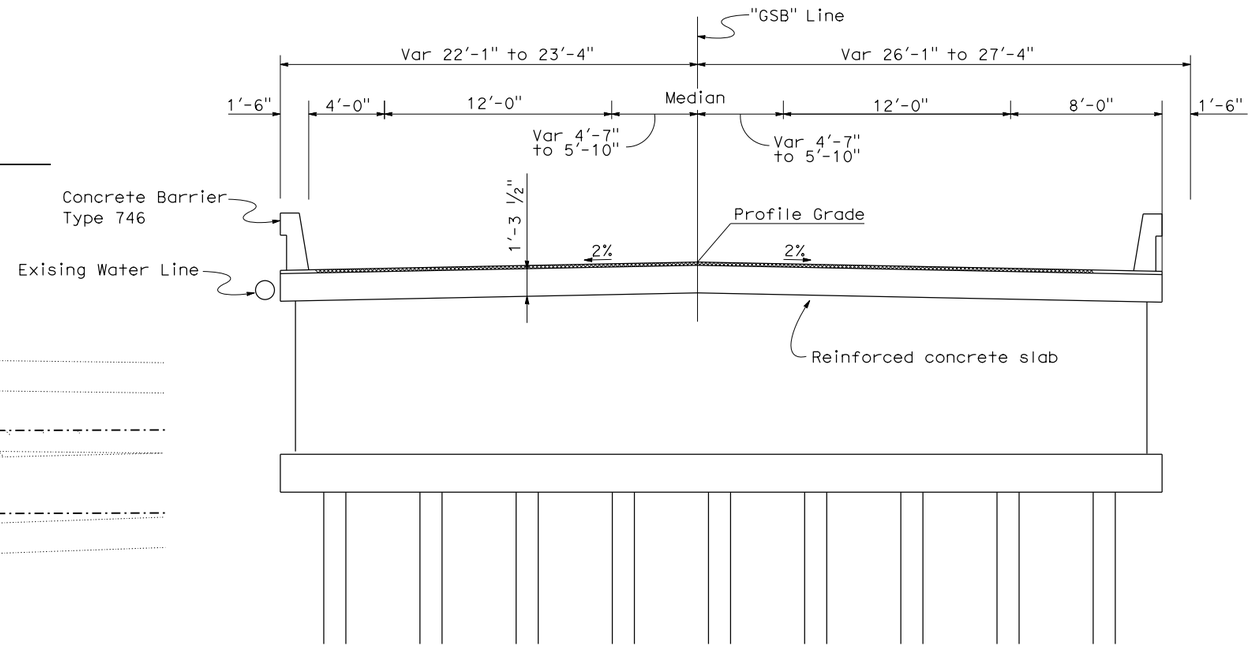
DATE PLOTTED => 28-APR-2011



ELEVATION
1"=15'



PLAN
1"=15'



TYPICAL SECTION
1/4"=1'-0"

DATE OF ESTIMATE		03-09-2011
BRIDGE REMOVAL	=	$ 50,000
STRUCTURE DEPTH	=	1'-3 1/2"
LENGTH	=	62'-0"
WIDTH	=	49'-5"
AREA	=	3064 Sq. Ft.
COST/ □__ INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	$ 150
TOTAL COST	=	$ 510,000

HERNDON CANAL BRIDGE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

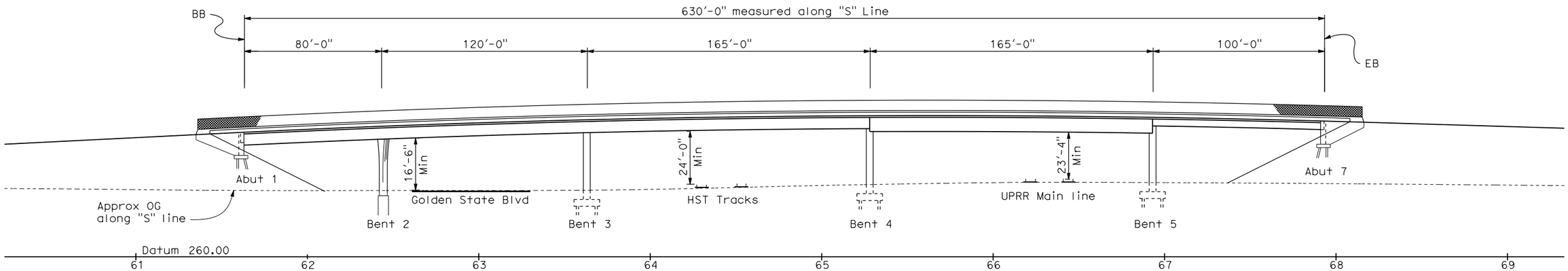
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
ADVANCE PLANNING STUDY

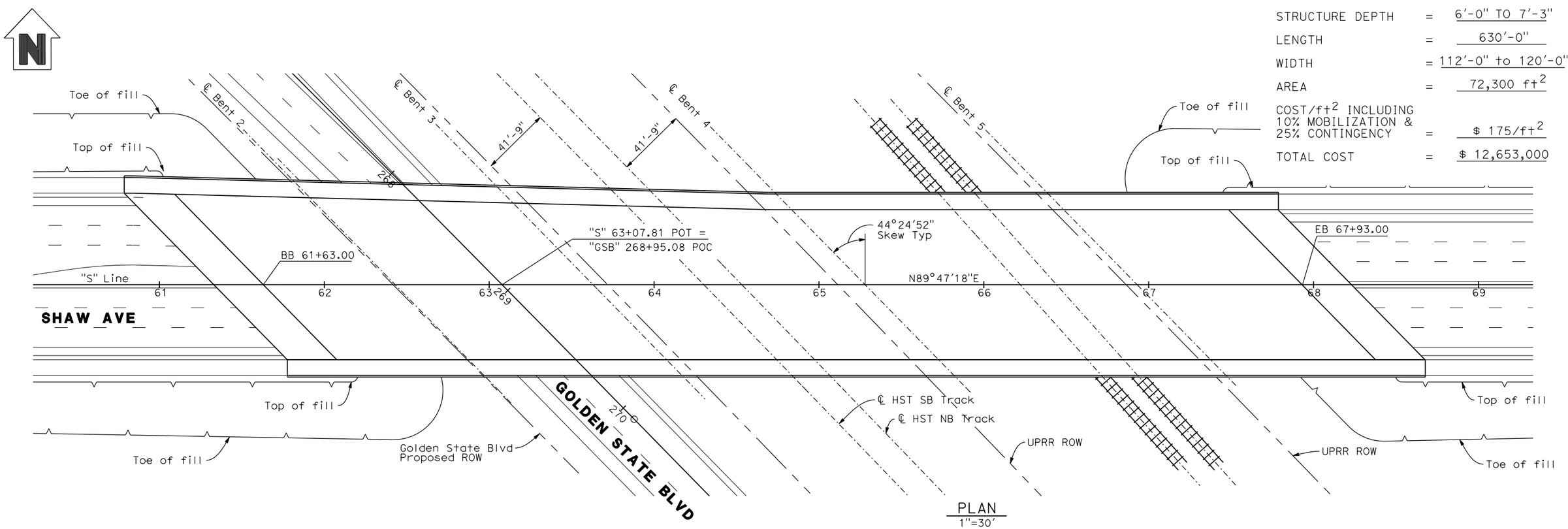
CONTRACT NO. HSR006-007
DRAWING NO. BR-3
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011



ELEVATION
1"=30'

DATE OF ESTIMATE	=	04-13-2011
BRIDGE REMOVAL	=	-
STRUCTURE DEPTH	=	6'-0" TO 7'-3"
LENGTH	=	630'-0"
WIDTH	=	112'-0" to 120'-0"
AREA	=	72,300 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	\$ 175/ft^2
TOTAL COST	=	\$ 12,653,000



PLAN
1"=30'

SHAW AVE OVERCROSSING

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

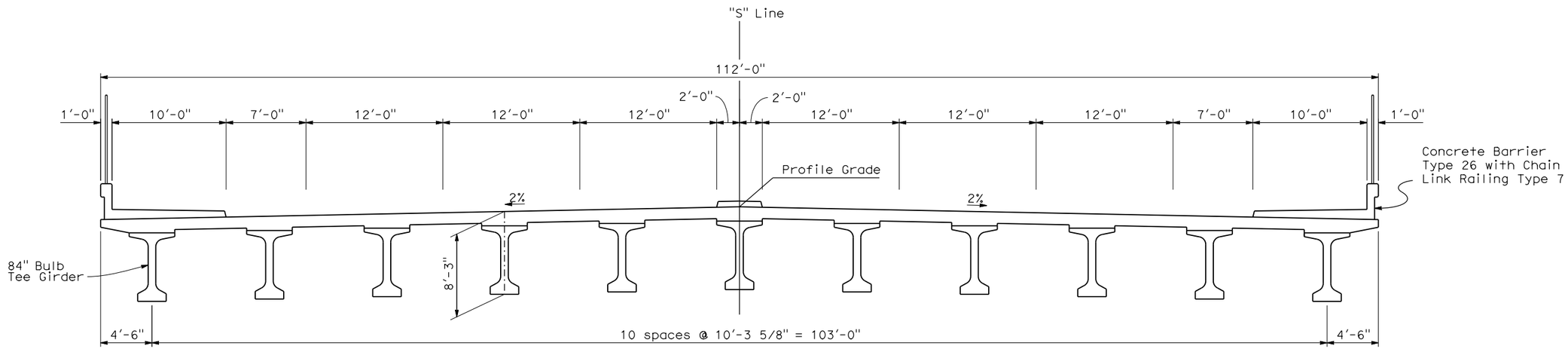
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

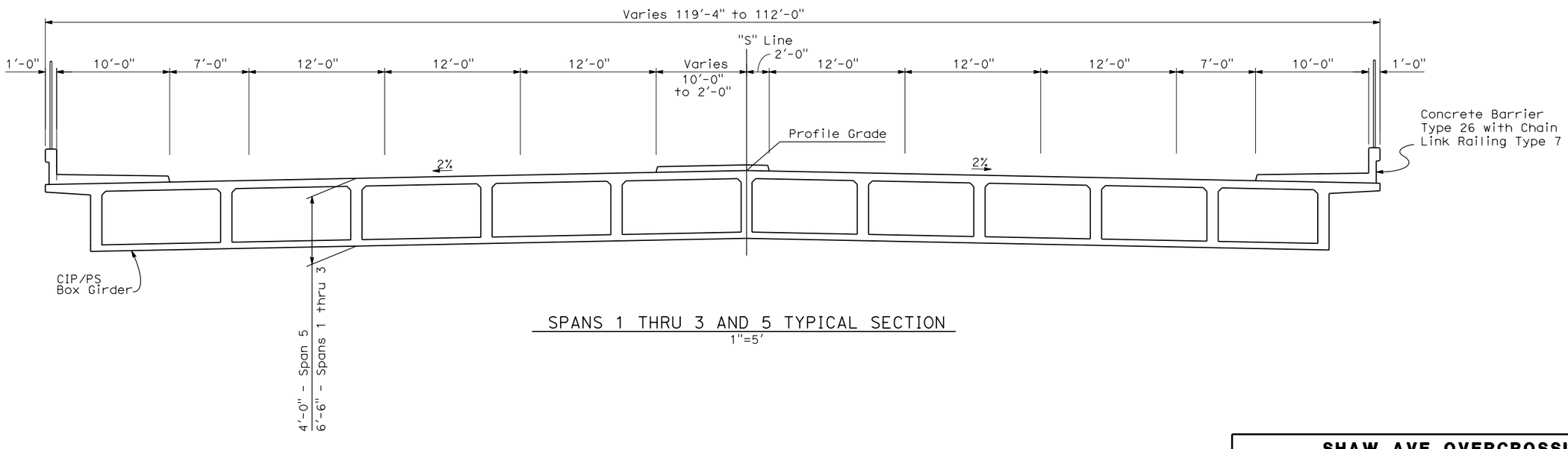
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-4**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011



SPAN 4 TYPICAL SECTION
1"=5'



SPANS 1 THRU 3 AND 5 TYPICAL SECTION
1"=5'

SHAW AVE OVERCROSSING

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

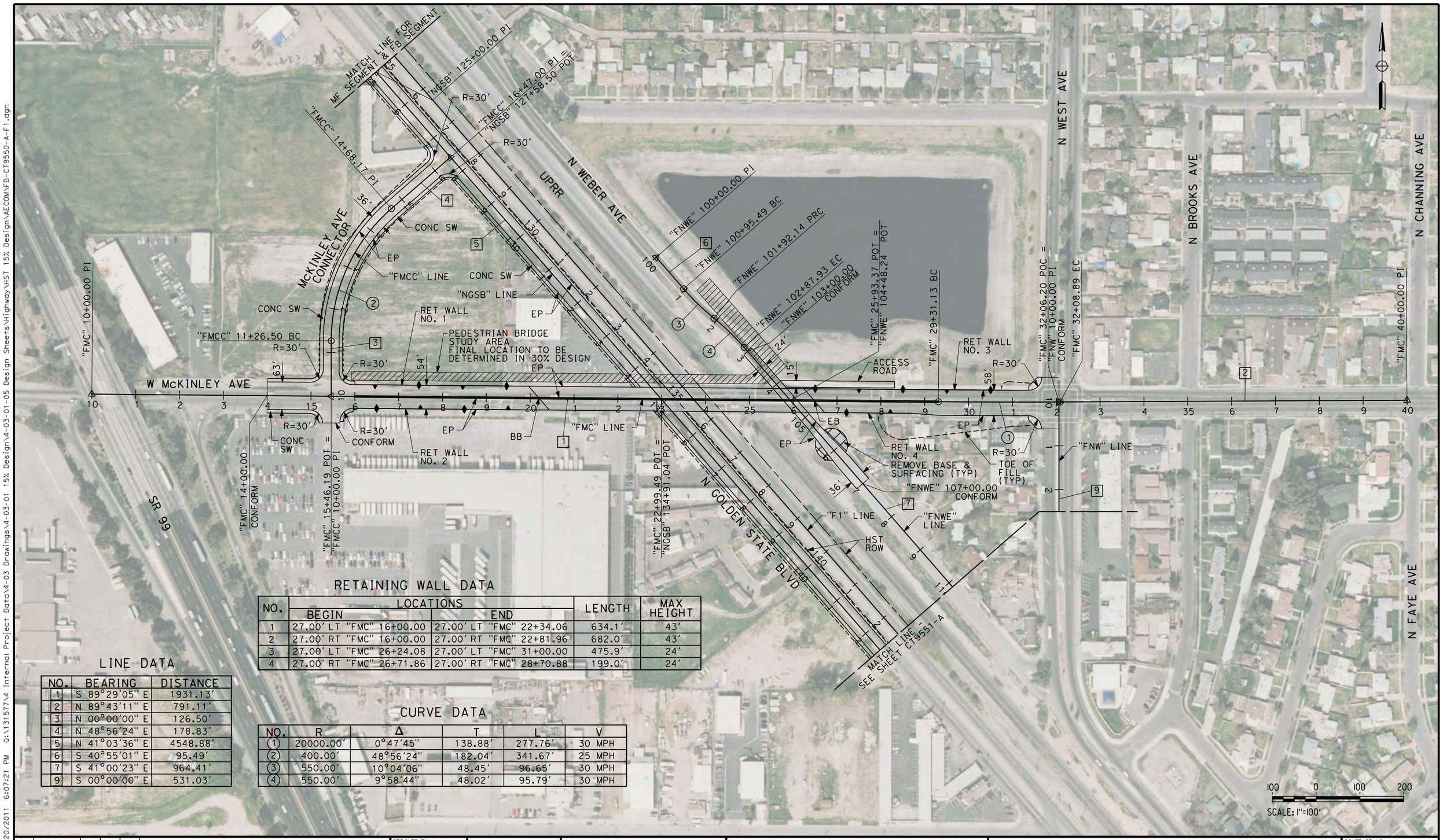
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
GOLDEN STATE BOULEVARD RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-5**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	27.00' LT "FMC" 16+00.00	27.00' LT "FMC" 22+34.06	634.1'	43'
2	27.00' RT "FMC" 16+00.00	27.00' RT "FMC" 22+81.96	682.0'	43'
3	27.00' LT "FMC" 26+24.08	27.00' LT "FMC" 31+00.00	475.9'	24'
4	27.00' RT "FMC" 26+71.86	27.00' RT "FMC" 28+70.88	199.0'	24'

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°29'05" E	1931.13'
2	N 89°43'11" E	791.11'
3	N 00°00'00" E	126.50'
4	N 48°56'24" E	178.83'
5	N 41°03'36" E	4548.88'
6	S 40°55'01" E	95.49'
7	S 41°00'23" E	964.41'
9	S 00°00'00" E	531.03'

CURVE DATA

NO.	R	Δ	T	L	V
1	20000.00'	0°47'45"	138.88'	277.76'	30 MPH
2	400.00'	48°56'24"	182.04'	341.67'	25 MPH
3	550.00'	10°04'06"	48.45'	96.65'	30 MPH
4	550.00'	9°58'44"	48.02'	95.79'	30 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

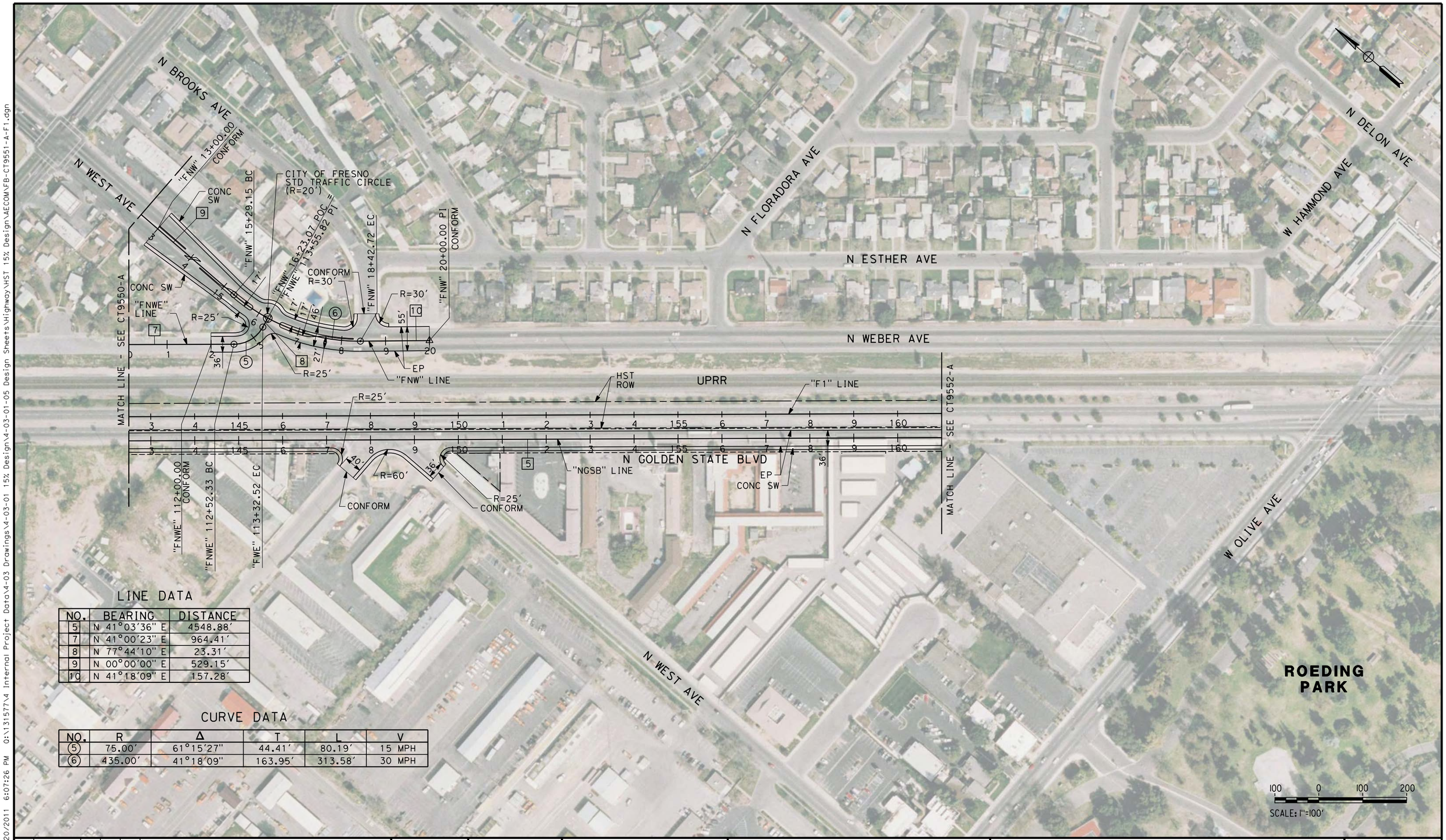
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
W McKINLEY AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9550-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:07:21 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9550-A-F1.dgn



LINE DATA

NO.	BEARING	DISTANCE
5	N 41°03'36" E	4548.88'
7	N 41°00'23" E	964.41'
8	N 77°44'10" E	23.31'
9	N 00°00'00" E	529.15'
10	N 41°18'09" E	157.28'

CURVE DATA

NO.	R	Δ	T	L	V
5	75.00'	61°15'27"	44.41'	80.19'	15 MPH
6	435.00'	41°18'09"	163.95'	313.58'	30 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

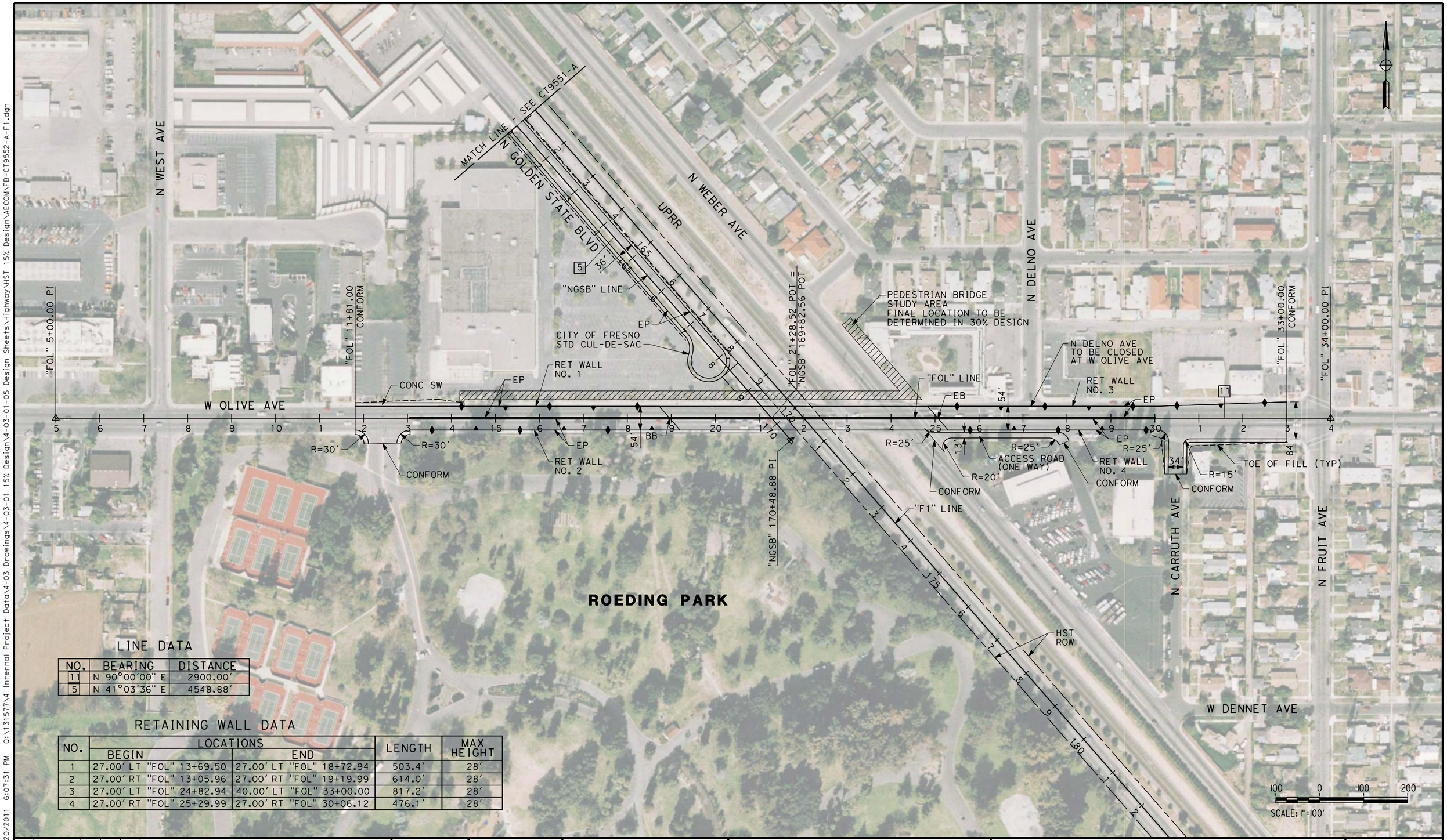
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
N GOLDEN STATE BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9551-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:07:26 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9551-A-F1.dgn



LINE DATA

NO.	BEARING	DISTANCE
11	N 90°00'00" E	2900.00'
5	N 41°03'36" E	4548.88'

RETAINING WALL DATA

NO.	LOCATIONS		LENGTH	MAX HEIGHT
	BEGIN	END		
1	27.00' LT "FOL" 13+69.50	27.00' LT "FOL" 18+72.94	503.4'	28'
2	27.00' RT "FOL" 13+05.96	27.00' RT "FOL" 19+19.99	614.0'	28'
3	27.00' LT "FOL" 24+82.94	40.00' LT "FOL" 33+00.00	817.2'	28'
4	27.00' RT "FOL" 25+29.99	27.00' RT "FOL" 30+06.12	476.1'	28'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
W OLIVE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9552-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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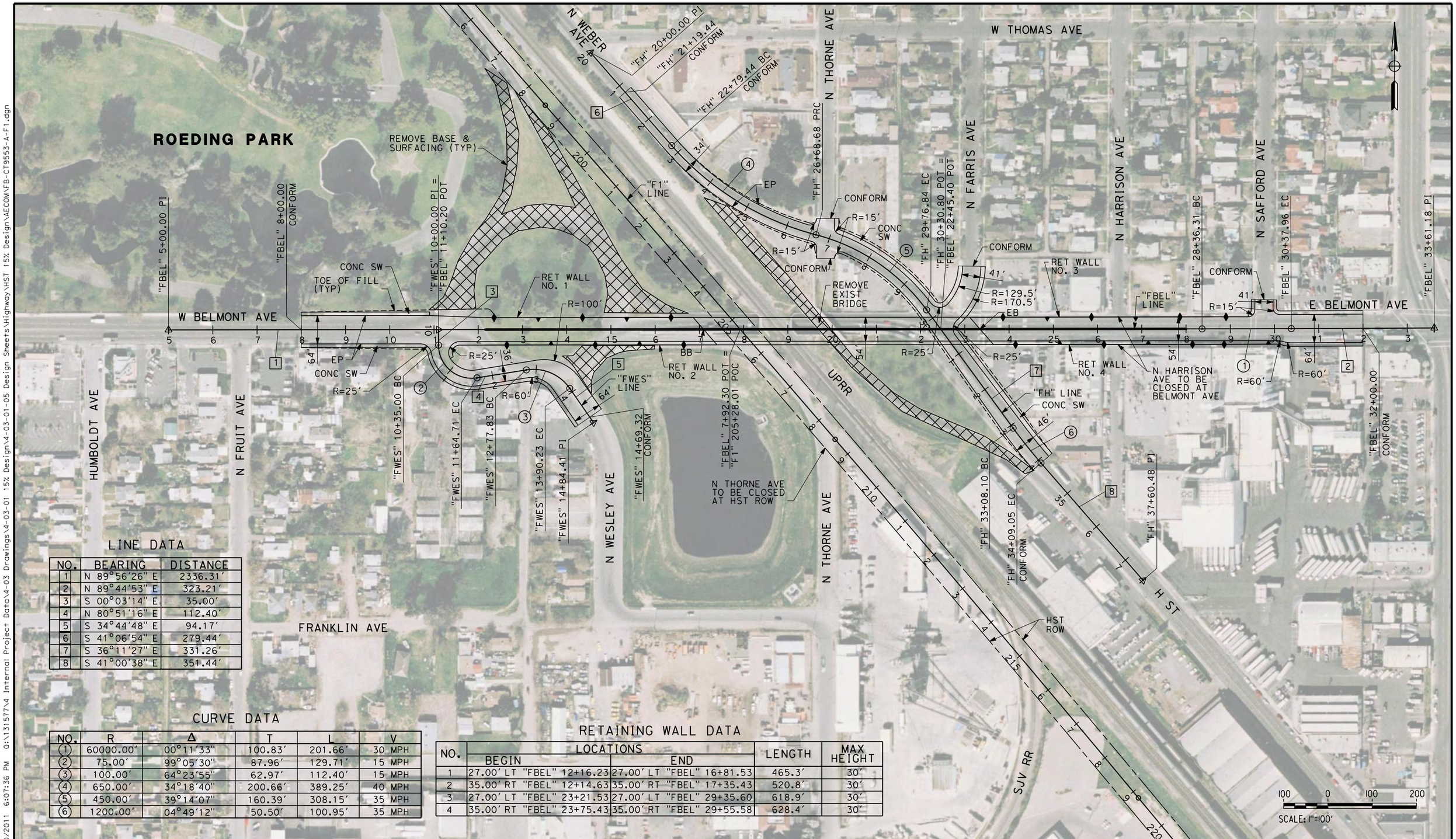


LINE DATA

NO.	BEARING	DISTANCE
1	N 89°56'26" E	2336.31'
2	N 89°44'53" E	323.21'
3	S 00°03'14" E	35.00'
4	N 80°51'16" E	112.40'
5	S 34°44'48" E	94.17'
6	S 41°06'54" E	279.44'
7	S 36°11'27" E	331.26'
8	S 41°00'38" E	351.44'

CURVE DATA

NO.	R	Δ	T	L	V
1	60000.00'	00°11'33"	100.83'	201.66'	30 MPH
2	75.00'	99°05'30"	87.96'	129.71'	15 MPH
3	100.00'	64°23'55"	62.97'	112.40'	15 MPH
4	650.00'	34°18'40"	200.66'	389.25'	40 MPH
5	450.00'	39°14'07"	160.39'	308.15'	35 MPH
6	1200.00'	04°49'12"	50.50'	100.95'	35 MPH

RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	27.00' LT "FBEL" 12+16.23	27.00' LT "FBEL" 16+81.53	465.3'	30'
2	35.00' RT "FBEL" 12+14.63	35.00' RT "FBEL" 17+35.43	520.8'	30'
3	27.00' LT "FBEL" 23+21.53	27.00' LT "FBEL" 29+35.60	618.9'	30'
4	35.00' RT "FBEL" 23+75.43	35.00' RT "FBEL" 29+55.58	628.4'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

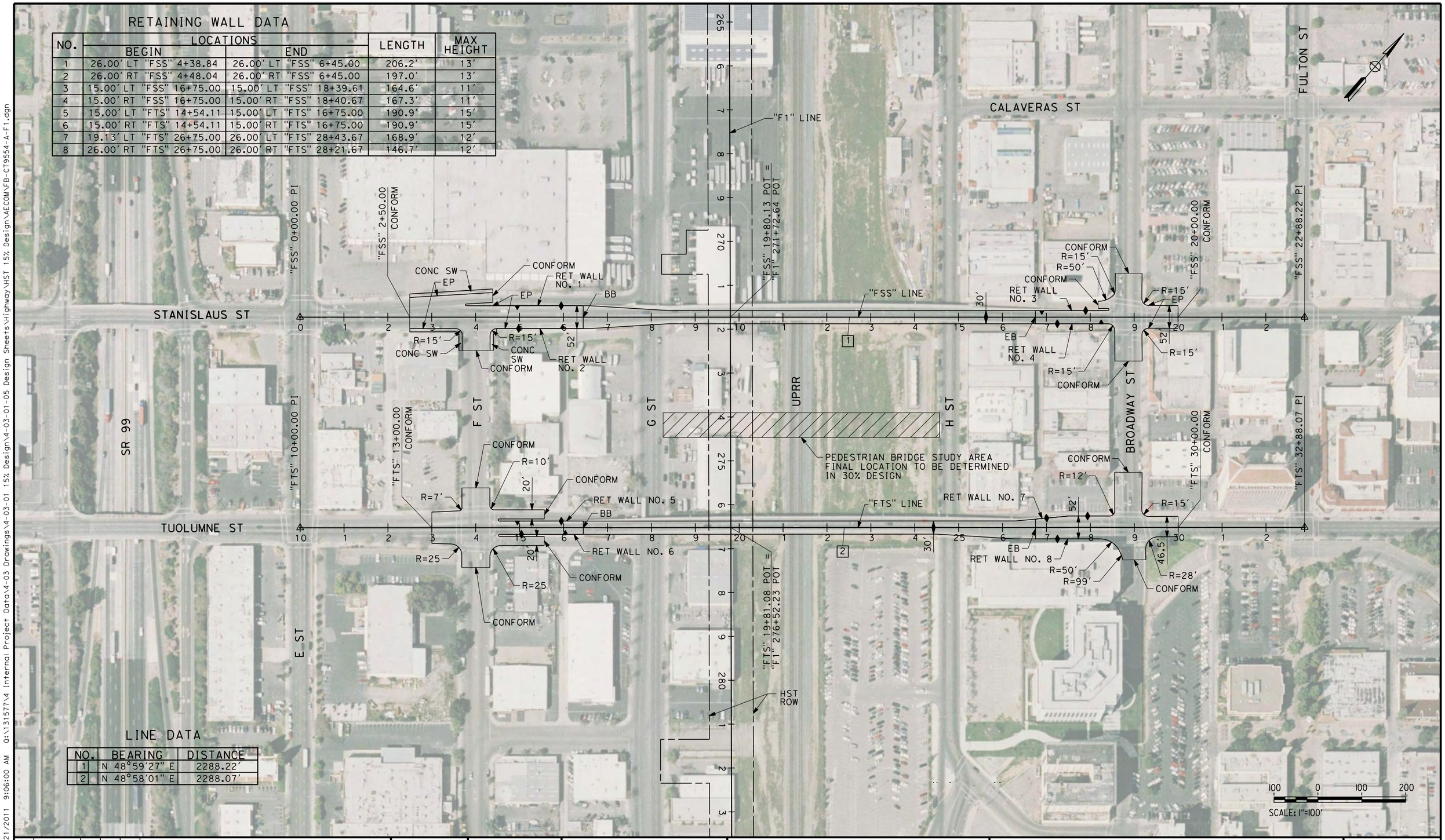
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
BELMONT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9553-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:07:36 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9553-A-F1.dgn

RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	26.00' LT "FSS" 4+38.84	26.00' LT "FSS" 6+45.00	206.2'	13'
2	26.00' RT "FSS" 4+48.04	26.00' RT "FSS" 6+45.00	197.0'	13'
3	15.00' LT "FSS" 16+75.00	15.00' LT "FSS" 18+39.61	164.6'	11'
4	15.00' RT "FSS" 16+75.00	15.00' RT "FSS" 18+40.67	167.3'	11'
5	15.00' LT "FTS" 14+54.11	15.00' LT "FTS" 16+75.00	190.9'	15'
6	15.00' RT "FTS" 14+54.11	15.00' RT "FTS" 16+75.00	190.9'	15'
7	19.13' LT "FTS" 26+75.00	26.00' LT "FTS" 28+43.67	168.9'	12'
8	26.00' RT "FTS" 26+75.00	26.00' RT "FTS" 28+21.67	146.7'	12'



LINE DATA

NO.	BEARING	DISTANCE
1	N 48°59'27" E	2288.22'
2	N 48°58'01" E	2288.07'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
STANISLAUS ST AND TUOLUMNE ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9554-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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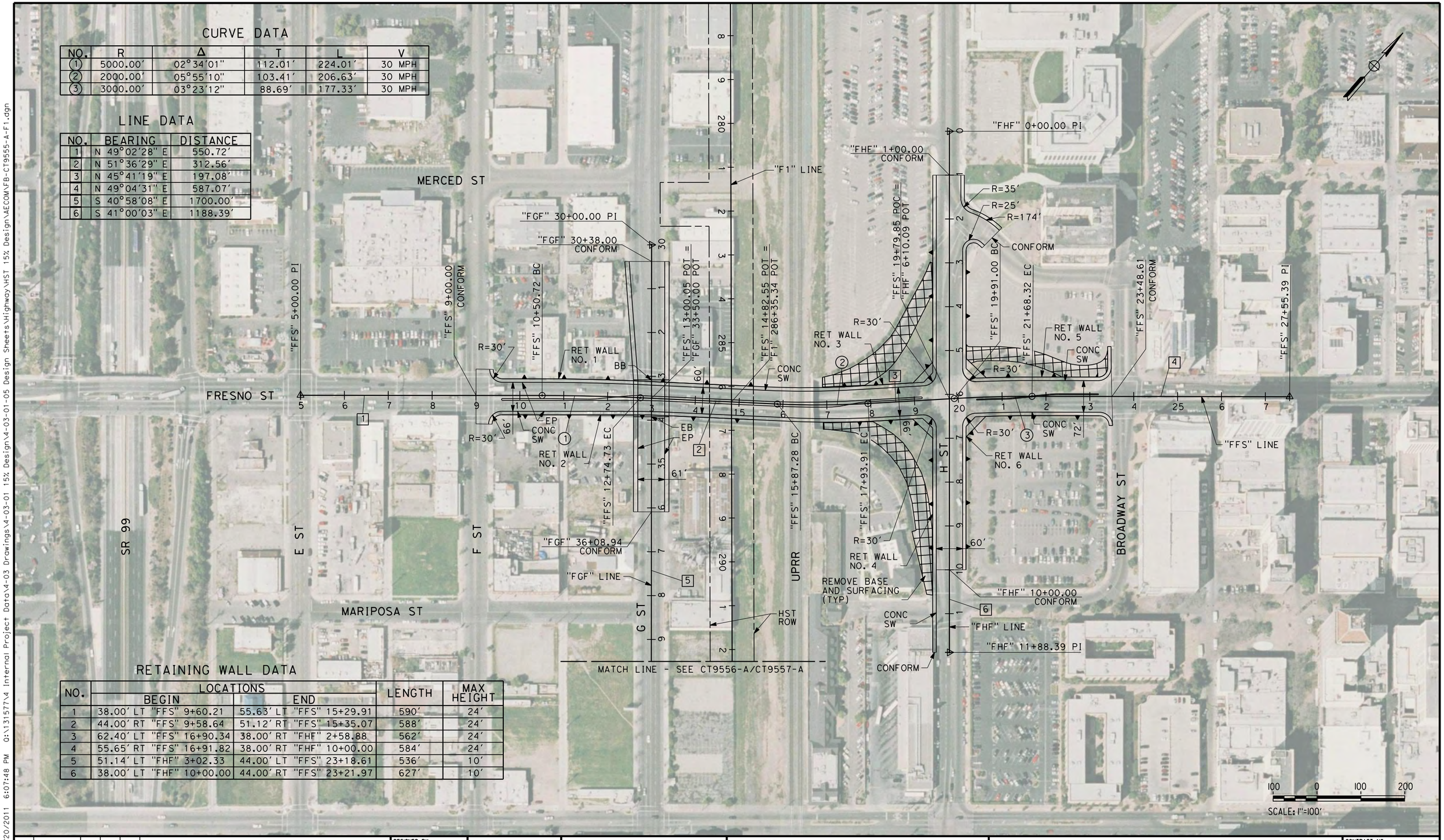
CURVE DATA

NO.	R	Δ	T	L	V
1	5000.00′	02°34′01"	112.01′	224.01′	30 MPH
2	2000.00′	05°55′10"	103.41′	206.63′	30 MPH
3	3000.00′	03°23′12"	88.69′	177.33′	30 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	N 49°02′28" E	550.72′
2	N 51°36′29" E	312.56′
3	N 45°41′19" E	197.08′
4	N 49°04′31" E	587.07′
5	S 40°58′08" E	1700.00′
6	S 41°00′03" E	1188.39′



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	38.00′ LT "FFS" 9+60.21	55.63′ LT "FFS" 15+29.91	590′	24′
2	44.00′ RT "FFS" 9+58.64	51.12′ RT "FFS" 15+35.07	588′	24′
3	62.40′ LT "FFS" 16+90.34	38.00′ RT "FHF" 2+58.88	562′	24′
4	55.65′ RT "FFS" 16+91.82	38.00′ RT "FHF" 10+00.00	584′	24′
5	51.14′ LT "FHF" 3+02.33	44.00′ LT "FFS" 23+18.61	536′	10′
6	38.00′ LT "FHF" 10+00.00	44.00′ RT "FFS" 23+21.97	627′	10′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 06/30/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
FRESNO ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9555-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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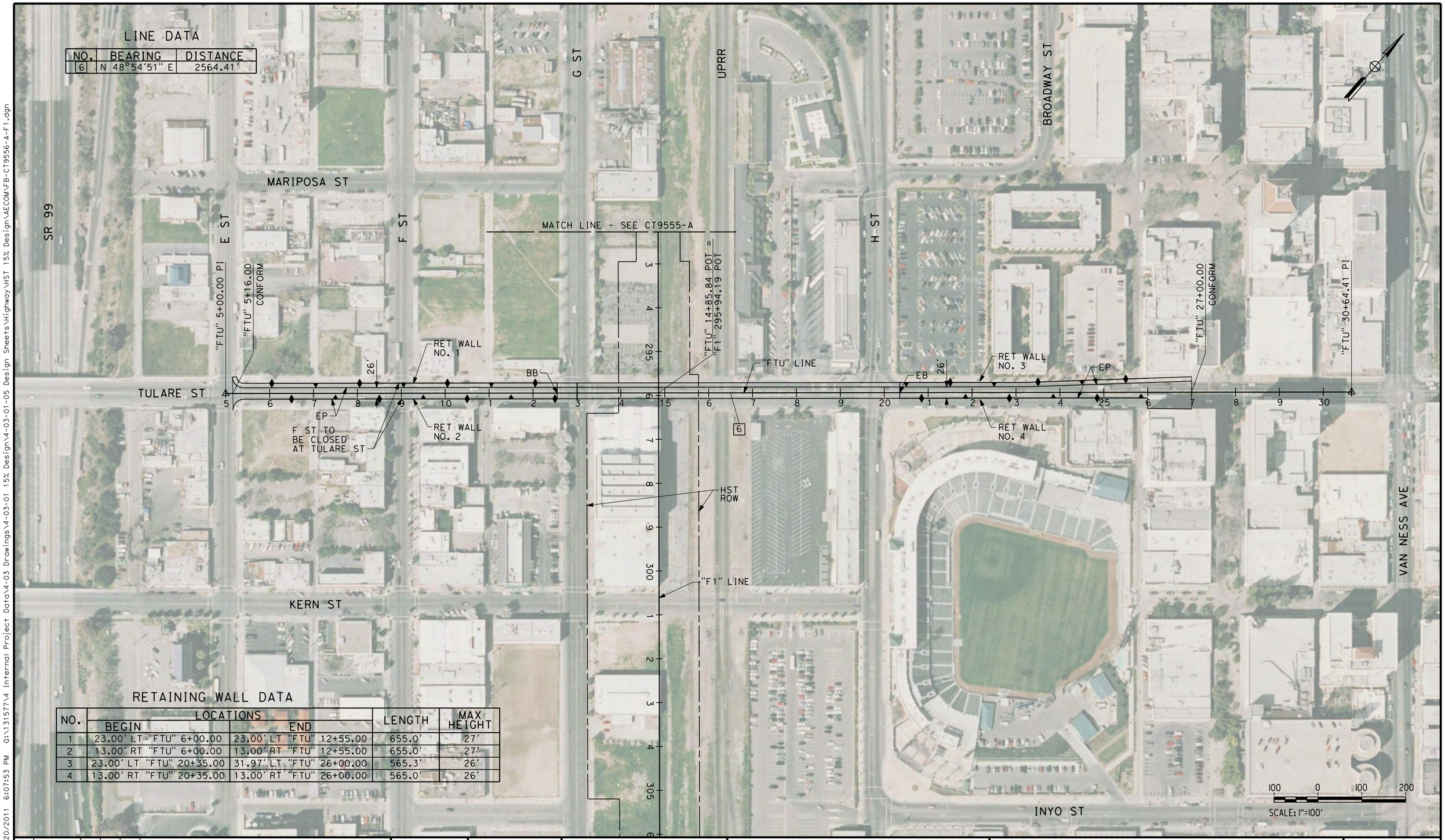

LINE DATA

NO.	BEARING	DISTANCE
6	N 48°54'51" E	2564.41'

RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	23.00' LT "FTU" 6+00.00	23.00' LT "FTU" 12+55.00	655.0'	27'
2	13.00' RT "FTU" 6+00.00	13.00' RT "FTU" 12+55.00	655.0'	27'
3	23.00' LT "FTU" 20+35.00	31.97' LT "FTU" 26+00.00	565.3'	26'
4	13.00' RT "FTU" 20+35.00	13.00' RT "FTU" 26+00.00	565.0'	26'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
TULARE ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9556-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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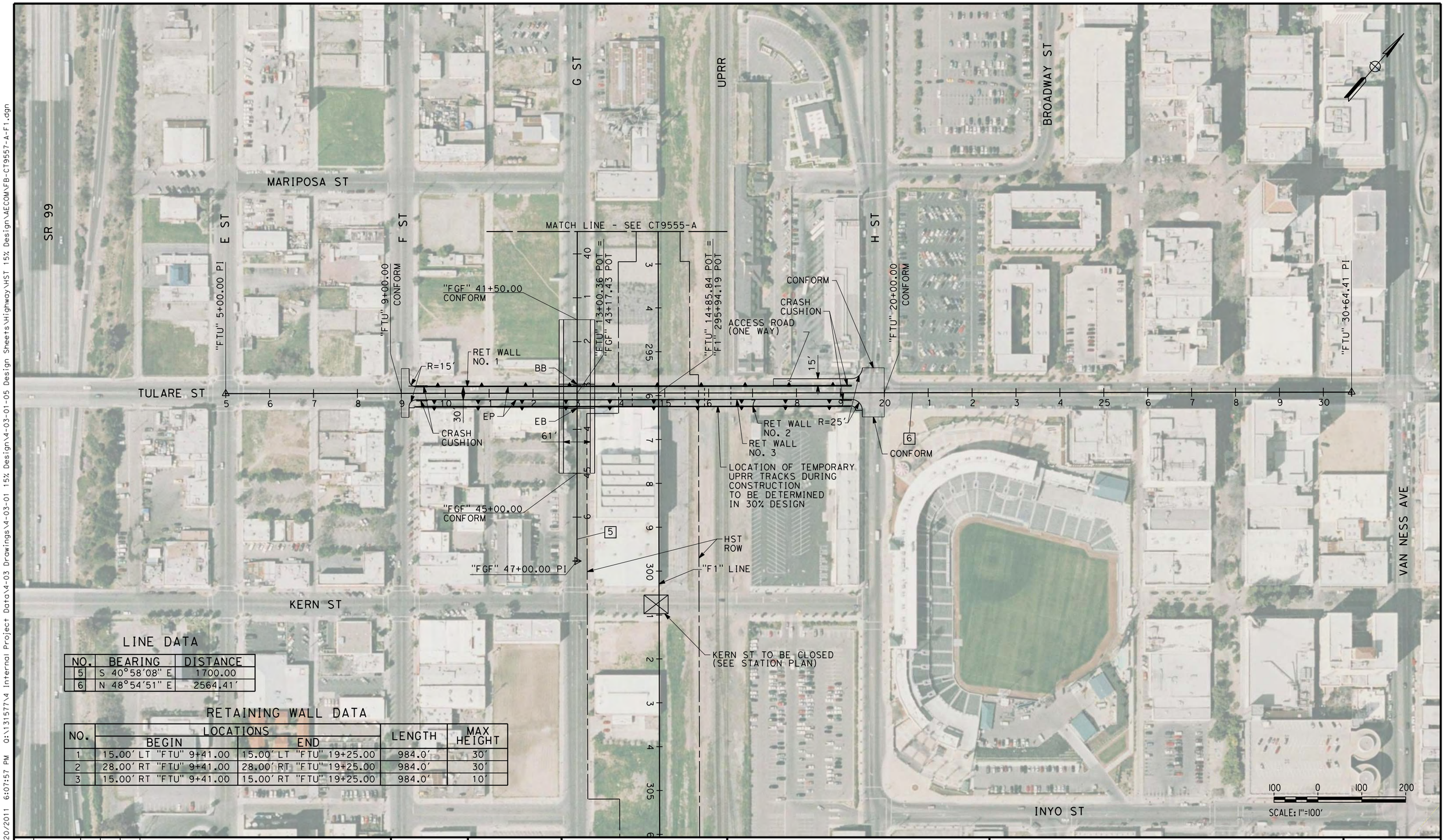

LINE DATA

NO.	BEARING	DISTANCE
5	S 40°58'08" E	1700.00
6	N 48°54'51" E	2564.41'

RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	15.00' LT "FTU" 9+41.00	15.00' LT "FTU" 19+25.00	984.0'	30'
2	28.00' RT "FTU" 9+41.00	28.00' RT "FTU" 19+25.00	984.0'	30'
3	15.00' RT "FTU" 9+41.00	15.00' RT "FTU" 19+25.00	984.0'	10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
TULARE ST (UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9557-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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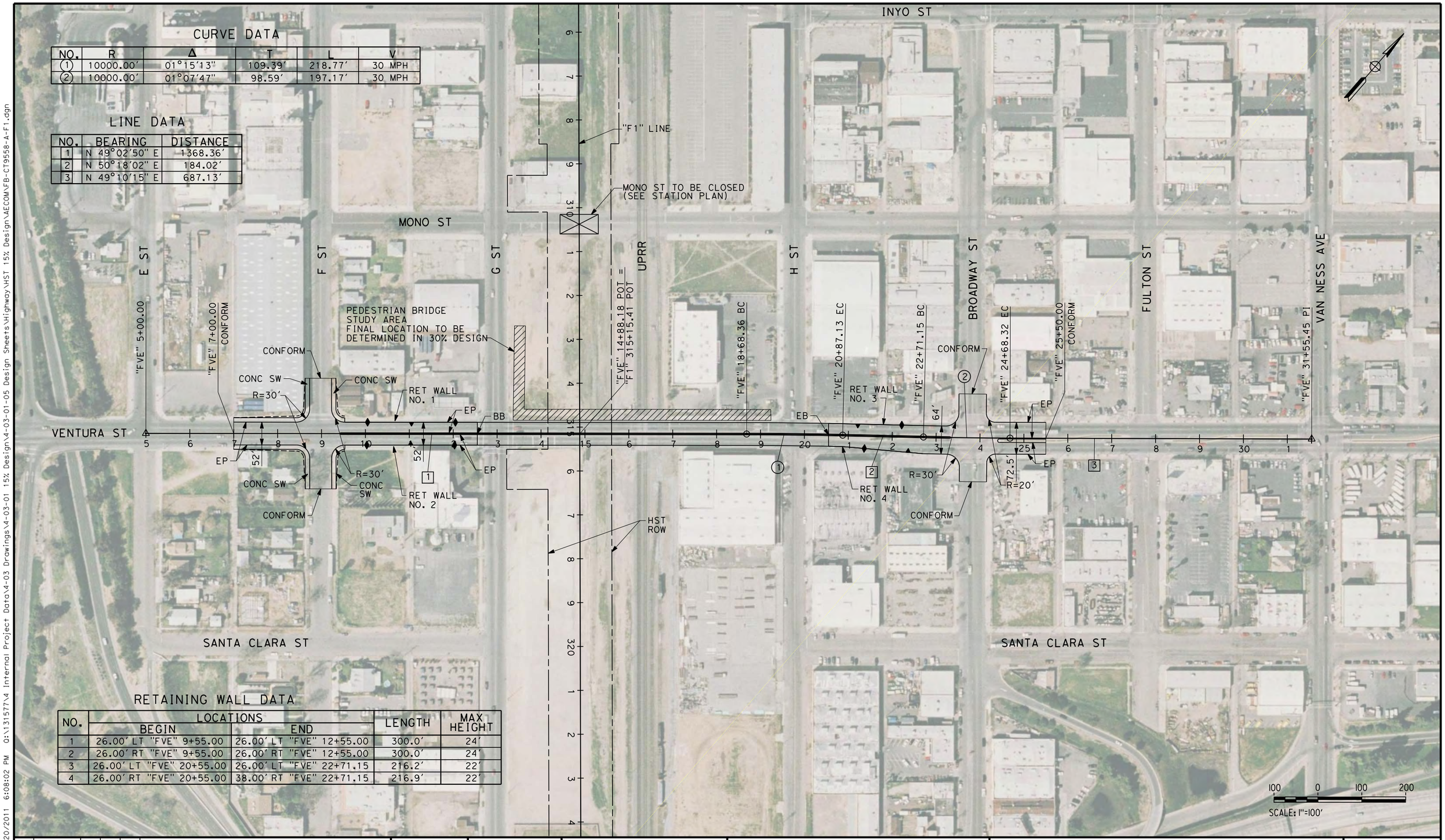


CURVE DATA

NO.	R	Δ	T	L	V
1	10000.00'	01°15'13"	109.39'	218.77'	30 MPH
2	10000.00'	01°07'47"	98.59'	197.17'	30 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	N 49°02'50" E	1368.36'
2	N 50°18'02" E	184.02'
3	N 49°10'15" E	687.13'

RETAINING WALL DATA

NO.	LOCATIONS		LENGTH	MAX HEIGHT
	BEGIN	END		
1	26.00' LT "FVE" 9+55.00	26.00' LT "FVE" 12+55.00	300.0'	24'
2	26.00' RT "FVE" 9+55.00	26.00' RT "FVE" 12+55.00	300.0'	24'
3	26.00' LT "FVE" 20+55.00	26.00' LT "FVE" 22+71.15	216.2'	22'
4	26.00' RT "FVE" 20+55.00	38.00' RT "FVE" 22+71.15	216.9'	22'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

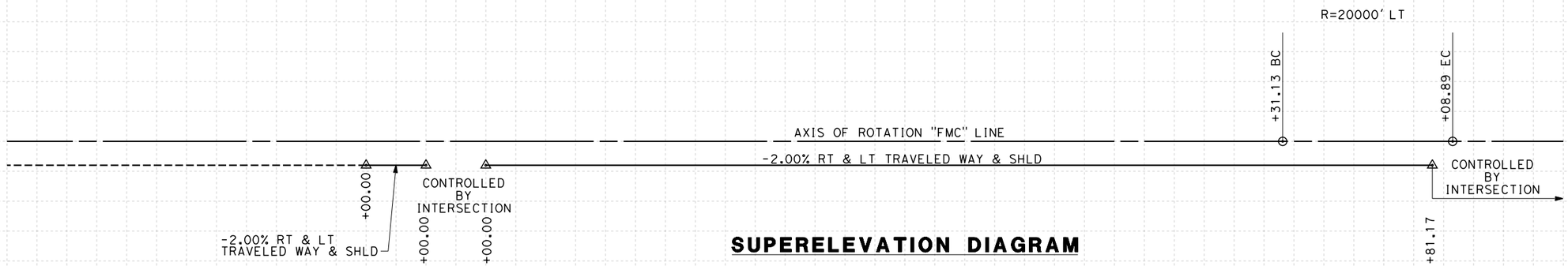
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
VENTURA ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9558-A
SCALE AS SHOWN
SHEET NO. ### OF ###

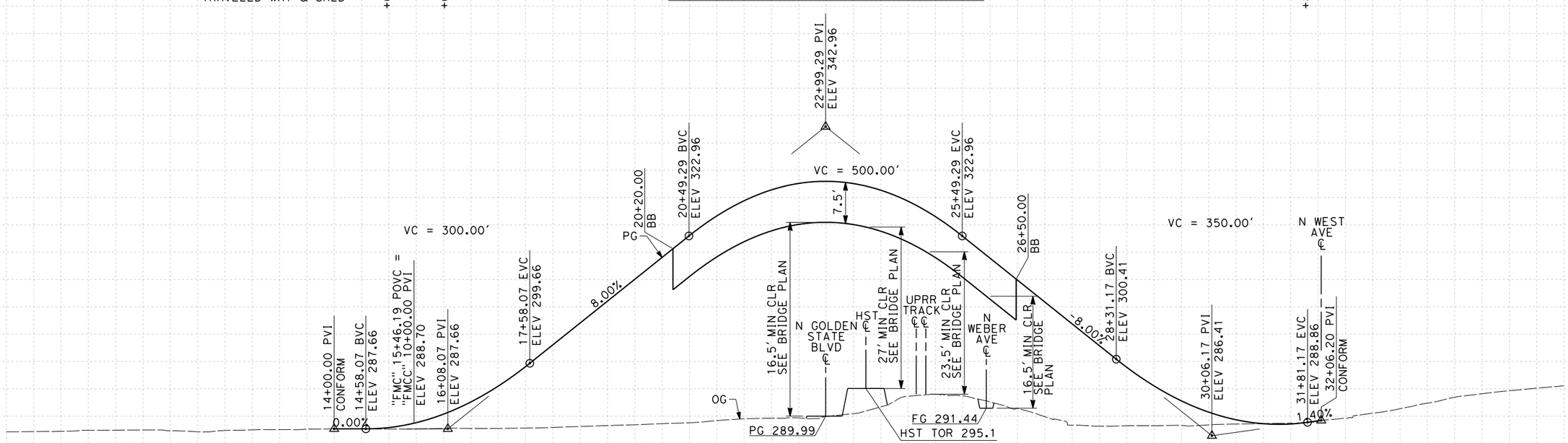
eron.sudhausen 7/20/2011 6:08:02 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01 15% Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9558-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FMC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

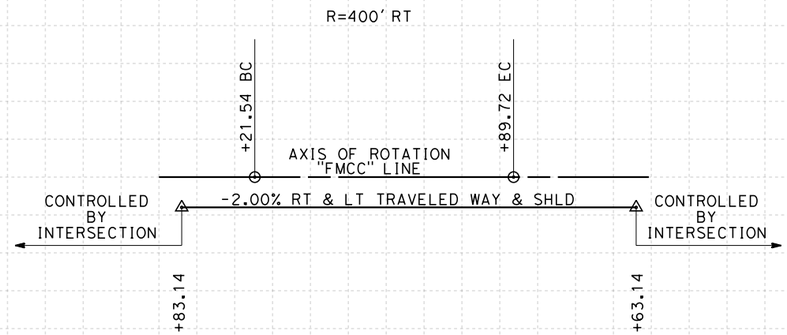
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
W McKINLEY AVE

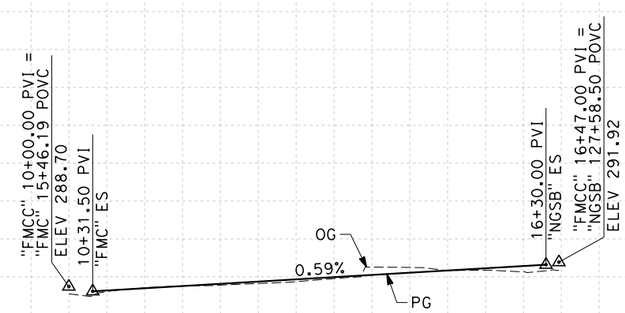
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9559-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:06 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9559-A-F1.dgn
esign\4-03-01-05 Design

NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT 1001 FOR LAYOUT



SUPERELEVATION DIAGRAM



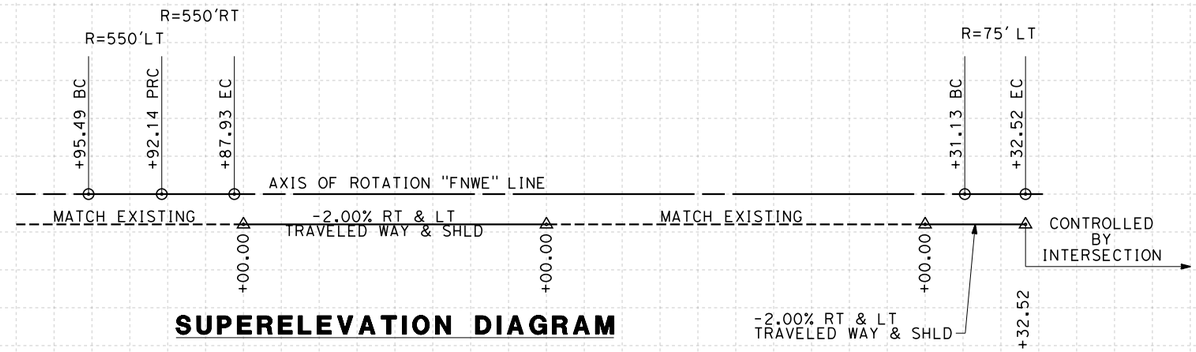
PROFILE

"FMCC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

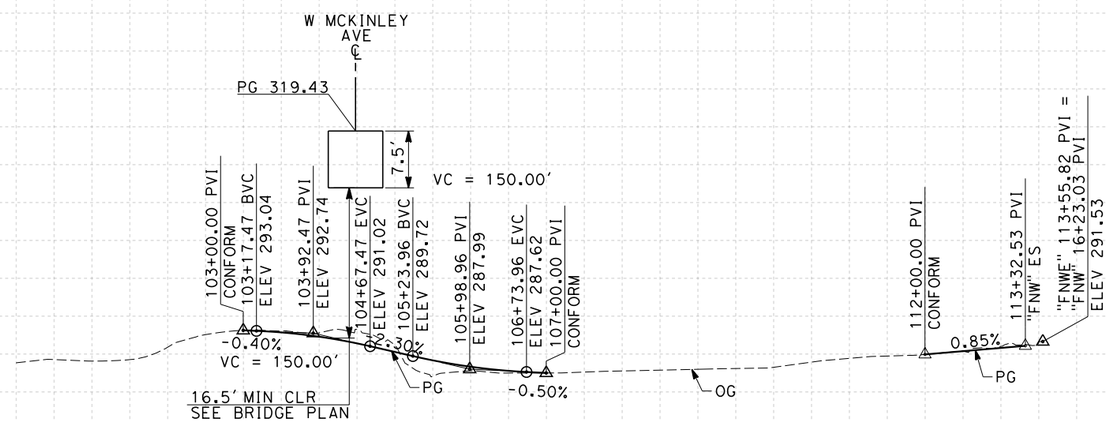
| STATION | | |

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 25 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO SHEET CT1001 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FNWE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		100	1	2	3	4	105	6	7	8	9	110	1	2	3	4	TOTAL
CY	Exc																
	Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

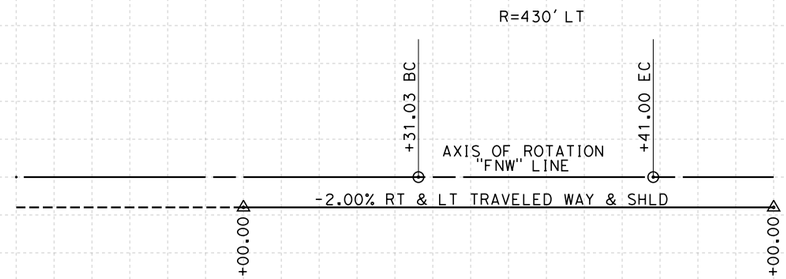
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N WEBER AVE

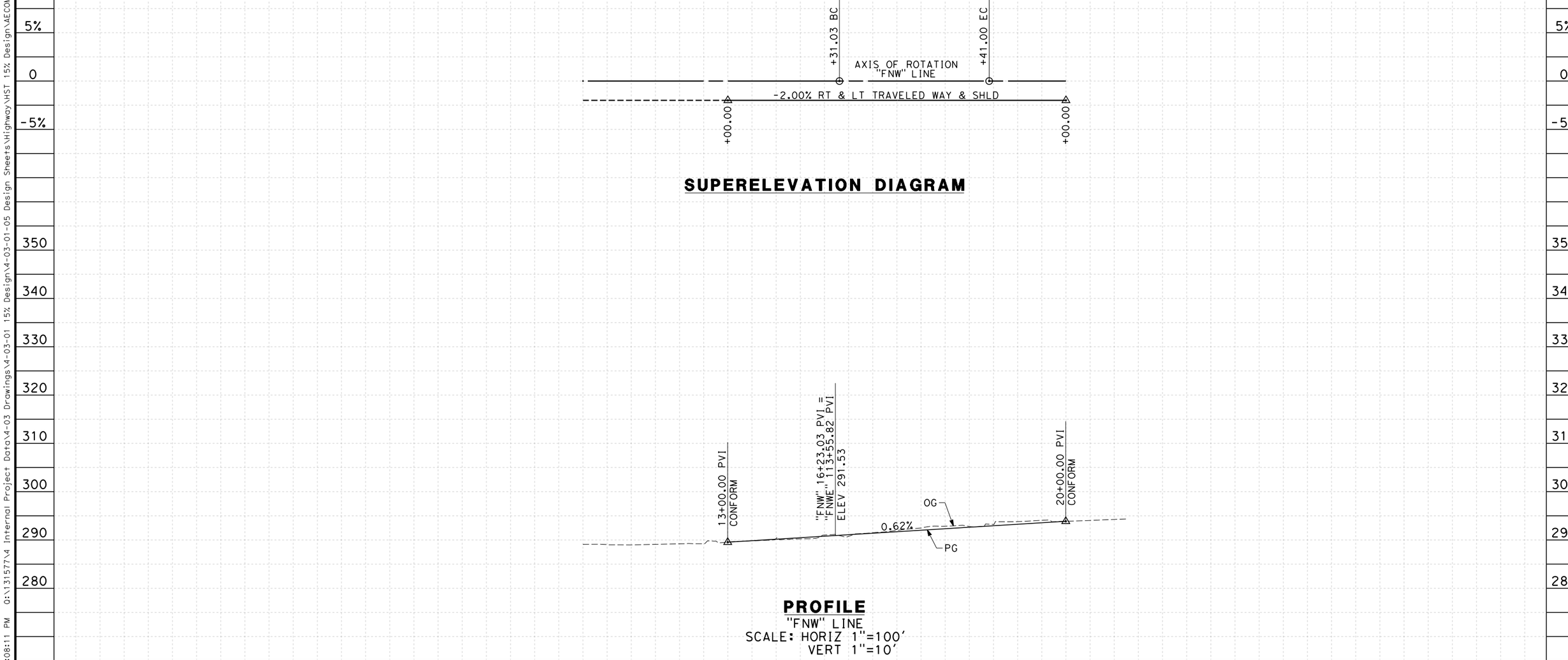
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9561-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:09 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9561-A-F1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH AT TRAFFIC CIRCLE
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1001 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FNW" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

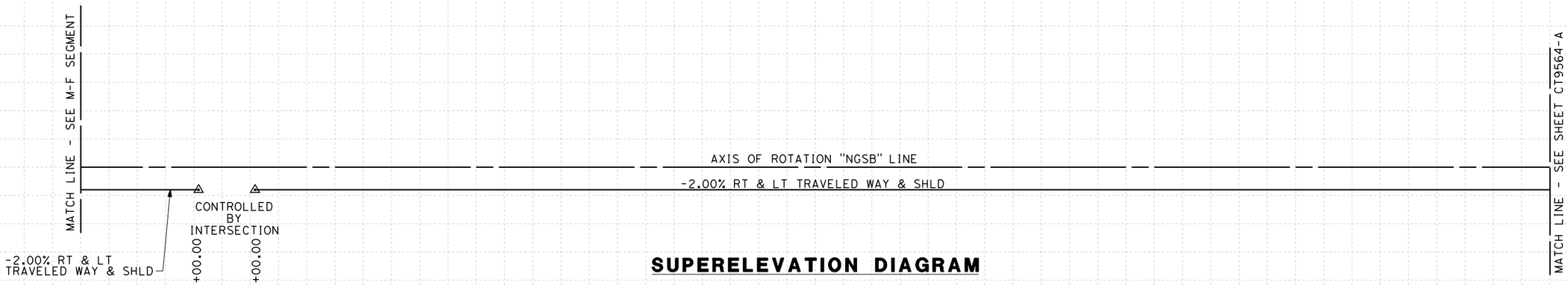
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N WEST AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9562-A
SCALE AS SHOWN
SHEET NO. ### OF ###

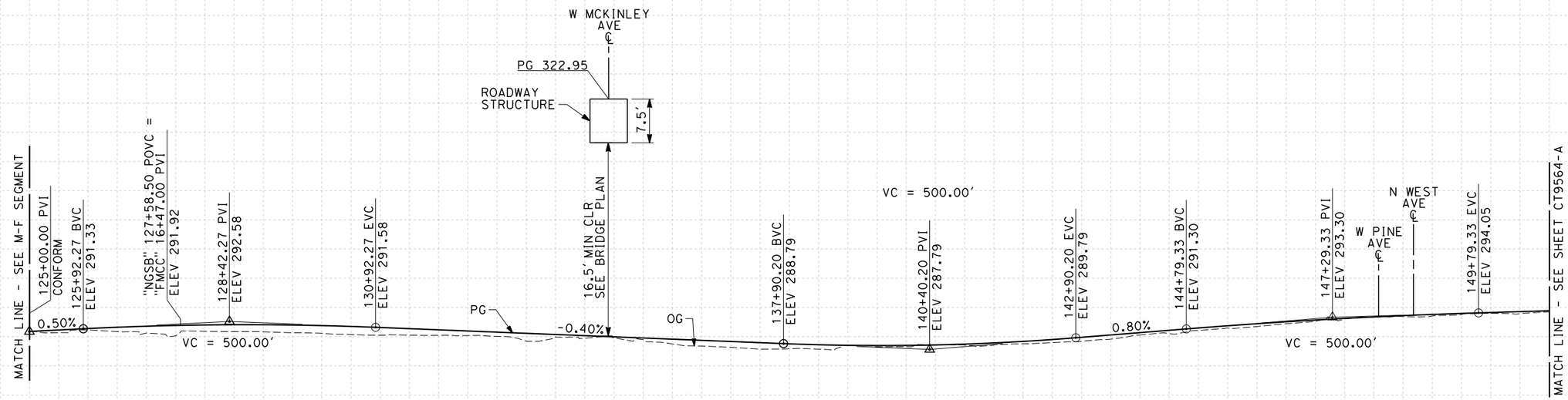
eron.sudhausen 7/20/2011 6:08:11 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9562-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE.
2. VERTICAL DESIGN SPEED = 50 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO SHEET CT1001, CT1005, AND CT1007 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"NGSB" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		125	6	7	8	9	130	1	2	3	4	135	6	7	8	9	140	1	2	3	4	145	6	7	8	9	150	1	TOTAL
CY	Exc																												
	Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

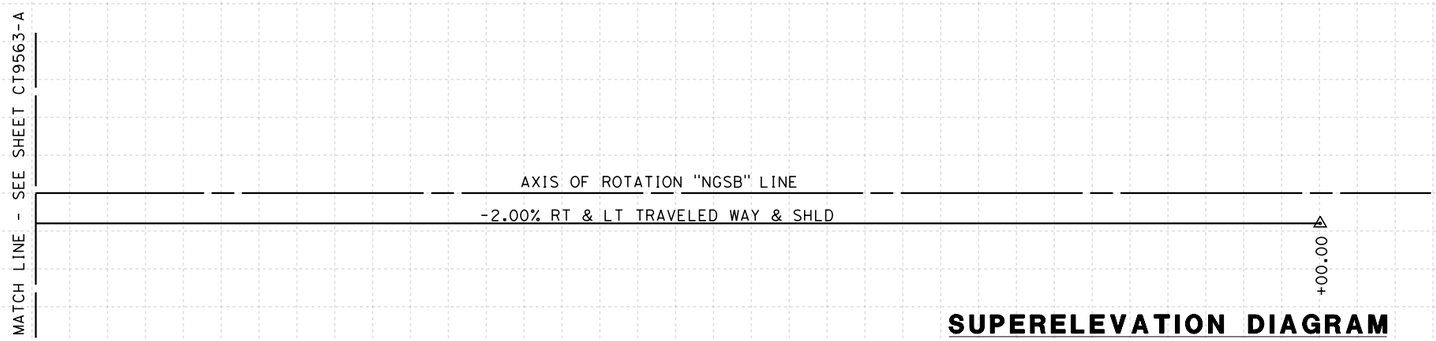
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

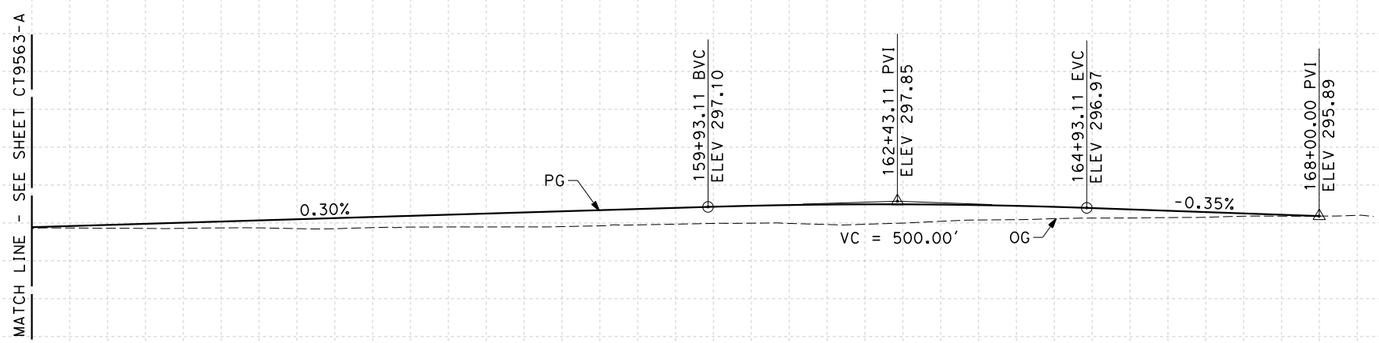
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N GOLDEN STATE BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9563-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:13 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9563-A-F1.dgn



SUPERELEVATION DIAGRAM



PROFILE

"NGSB" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	1	2	3	4	155	6	7	8	9	160	1	2	3	4	165	6	7	8	9	170	1	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

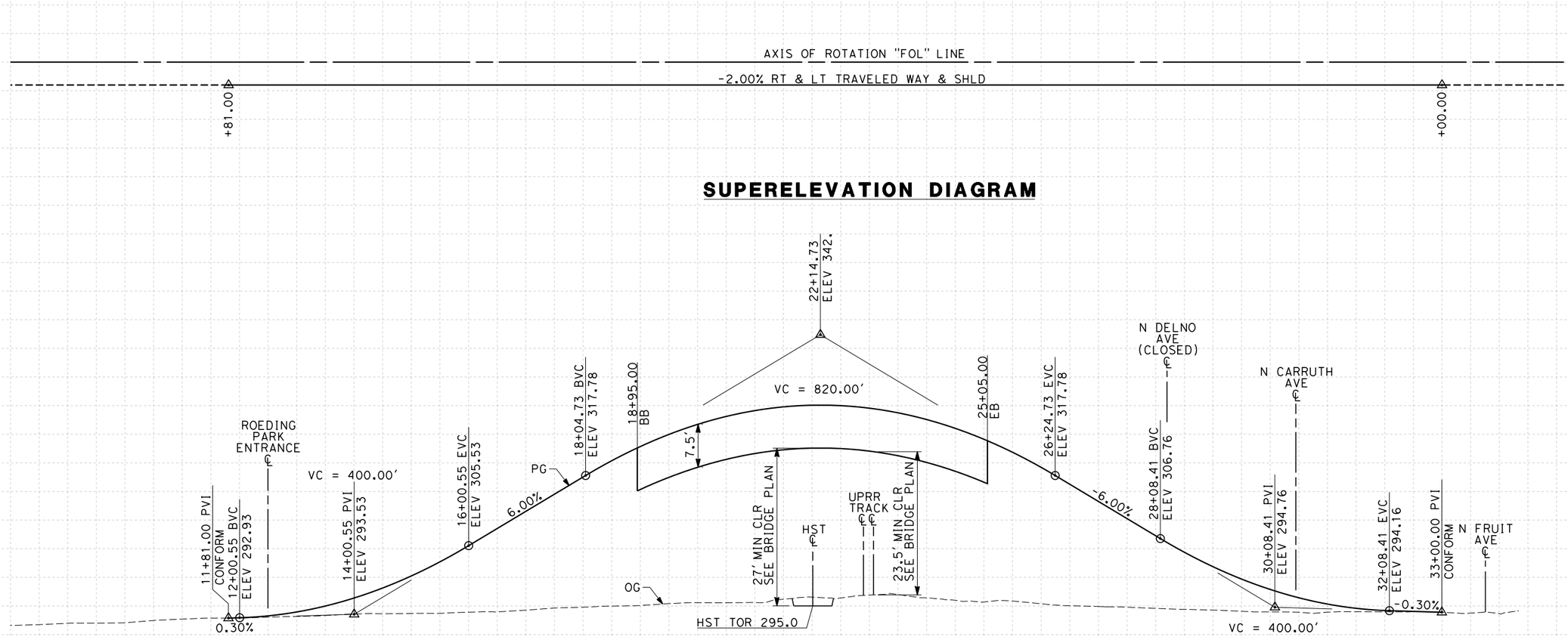
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N GOLDEN STATE BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9564-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:15 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9564-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 40 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FOL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	TOTAL
CY	Exc																														
	Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

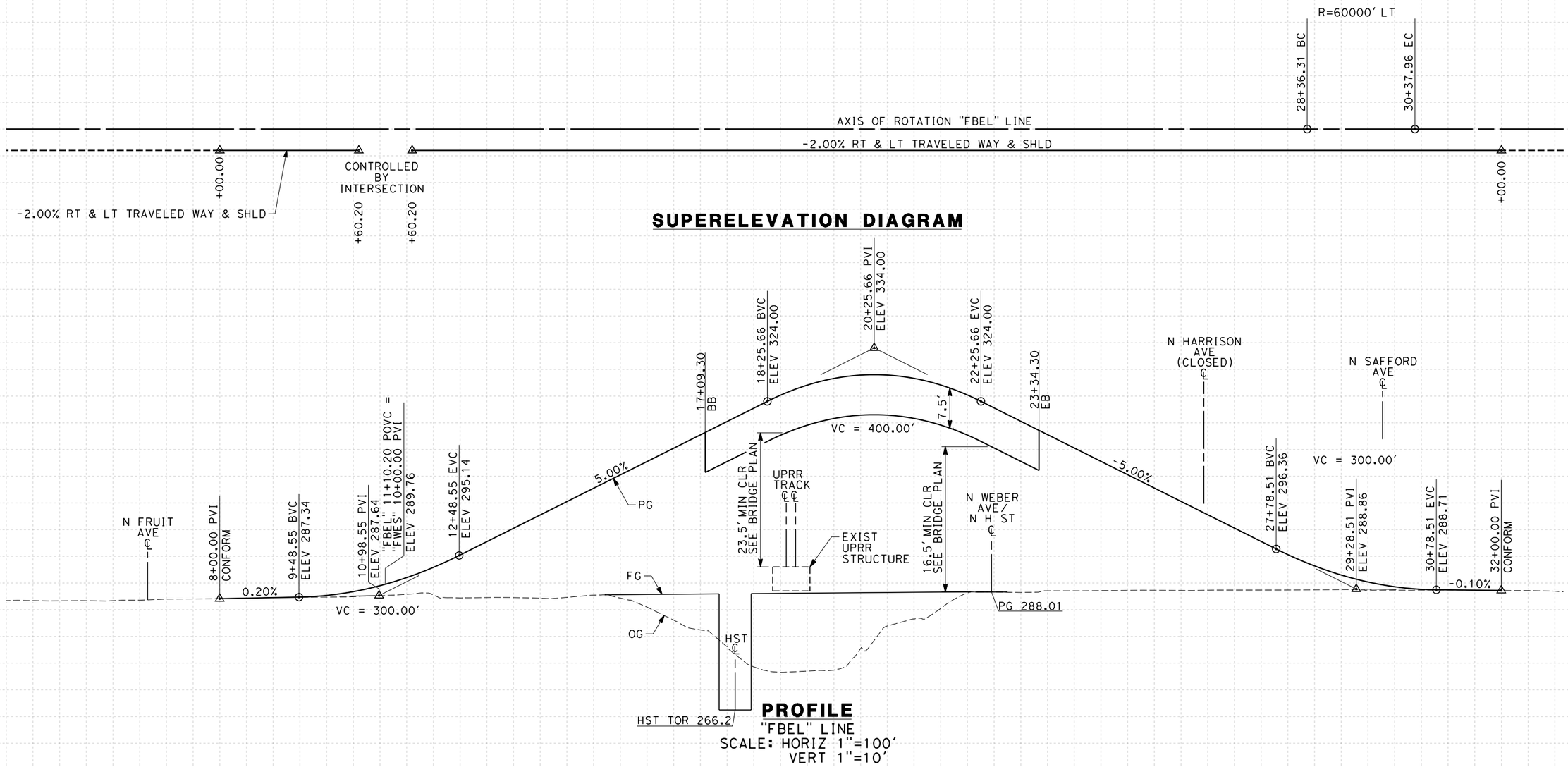
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
W OLIVE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9565-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:17 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9565-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

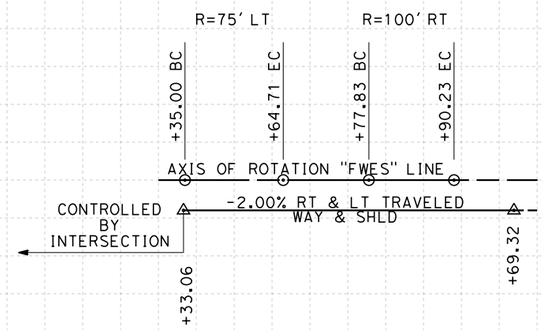
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
BELMONT AVE

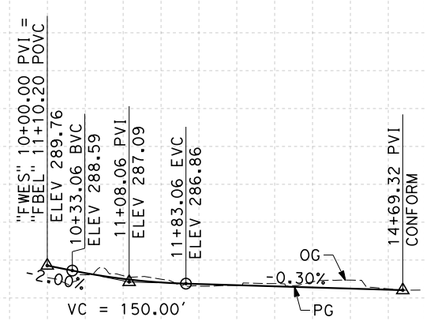
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9566-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:18 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9566-A-F1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1008 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FWES" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	TOTAL
CY	Exc							
	Emb							

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

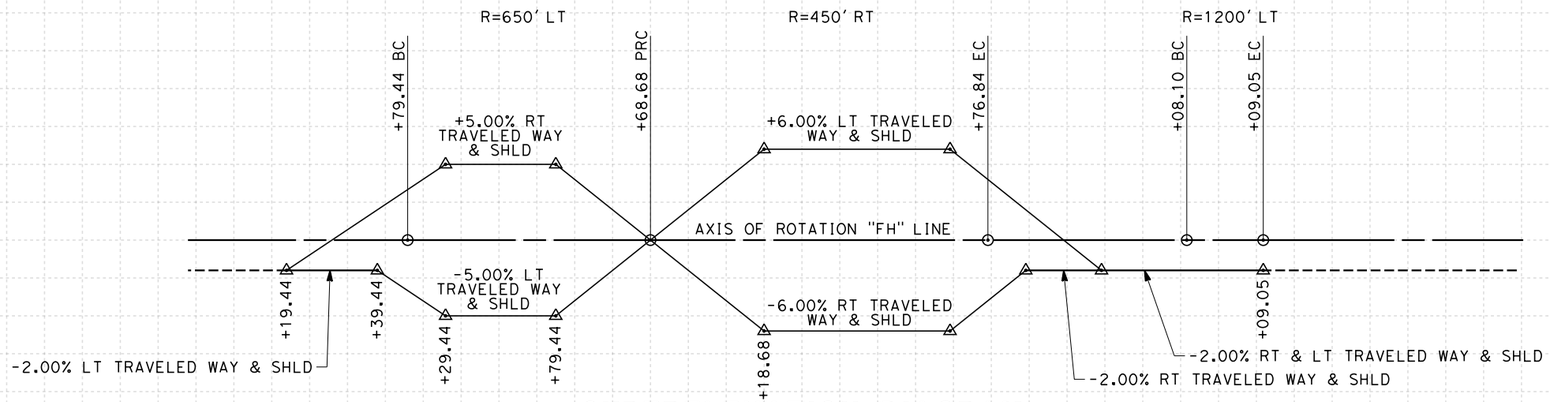
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N WESLEY AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9567-A
SCALE AS SHOWN
SHEET NO. ### OF ###

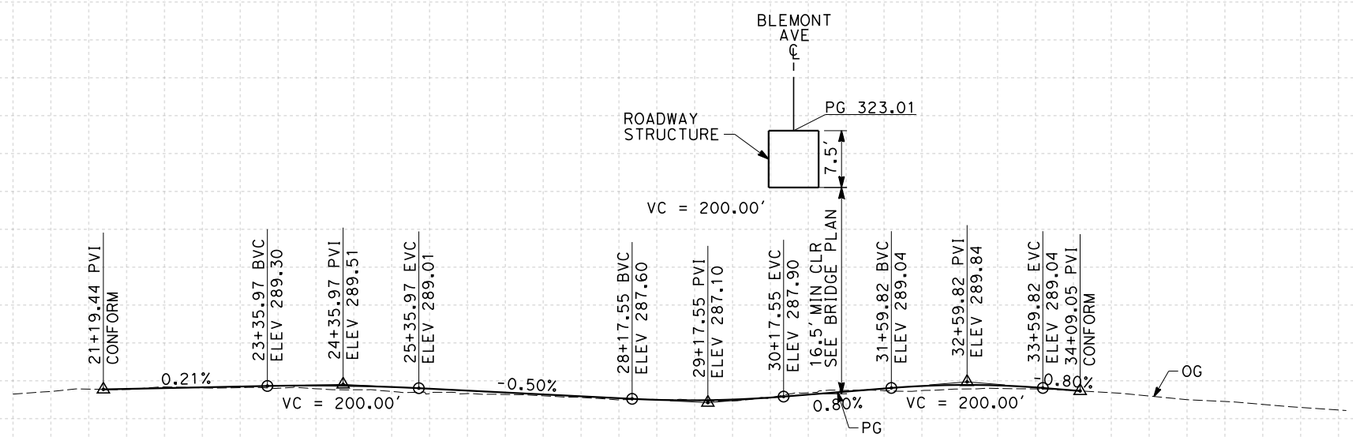
eron.sudhausen 7/20/2011 6:08:20 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9567-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 35 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO SHEET CT1008 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FH" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	TOTAL
CY Exc																				
CY Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

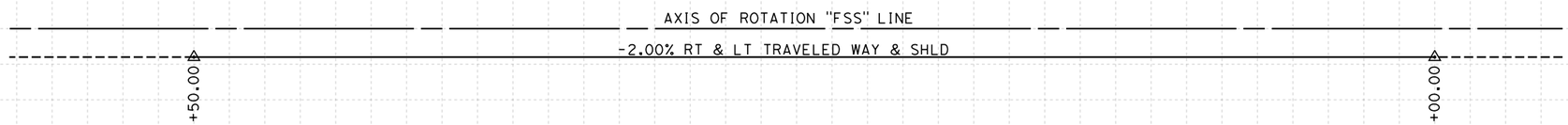
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
N H ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9568-A
SCALE AS SHOWN
SHEET NO. ### OF ###

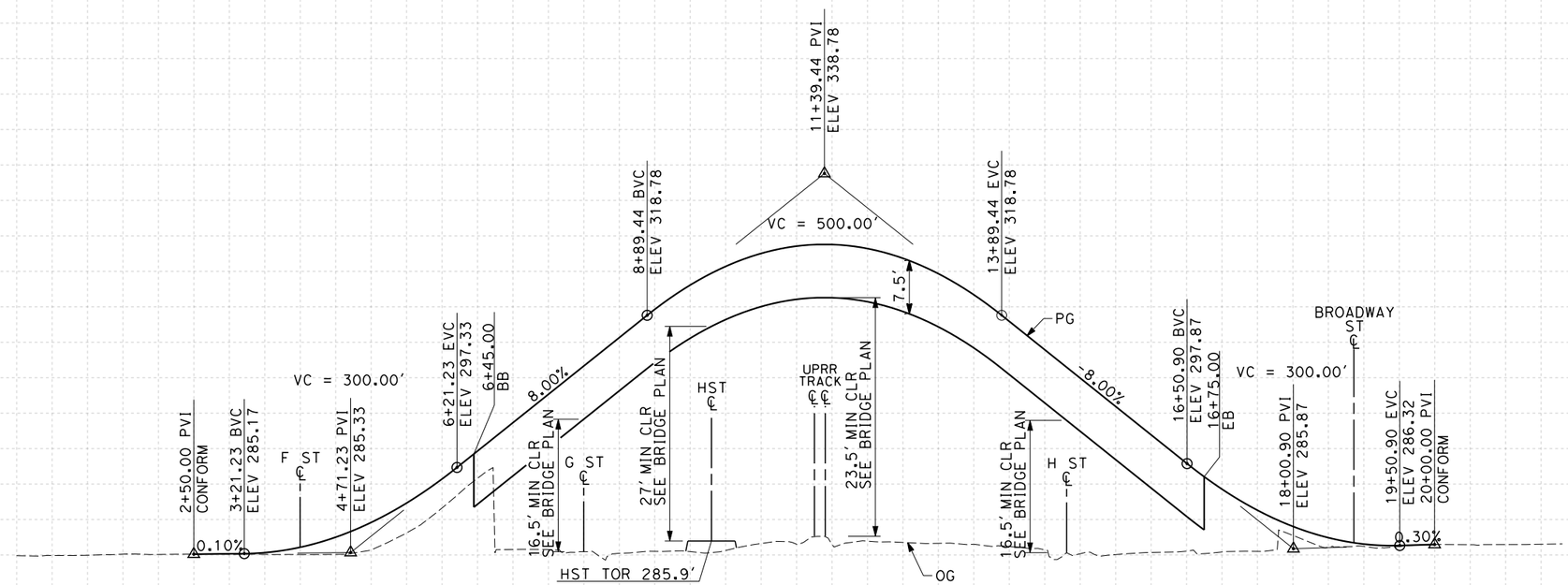
eron.sudhausen 7/20/2011 6:08:22 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9568-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARNACE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FSS" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	0	1	2	3	4	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

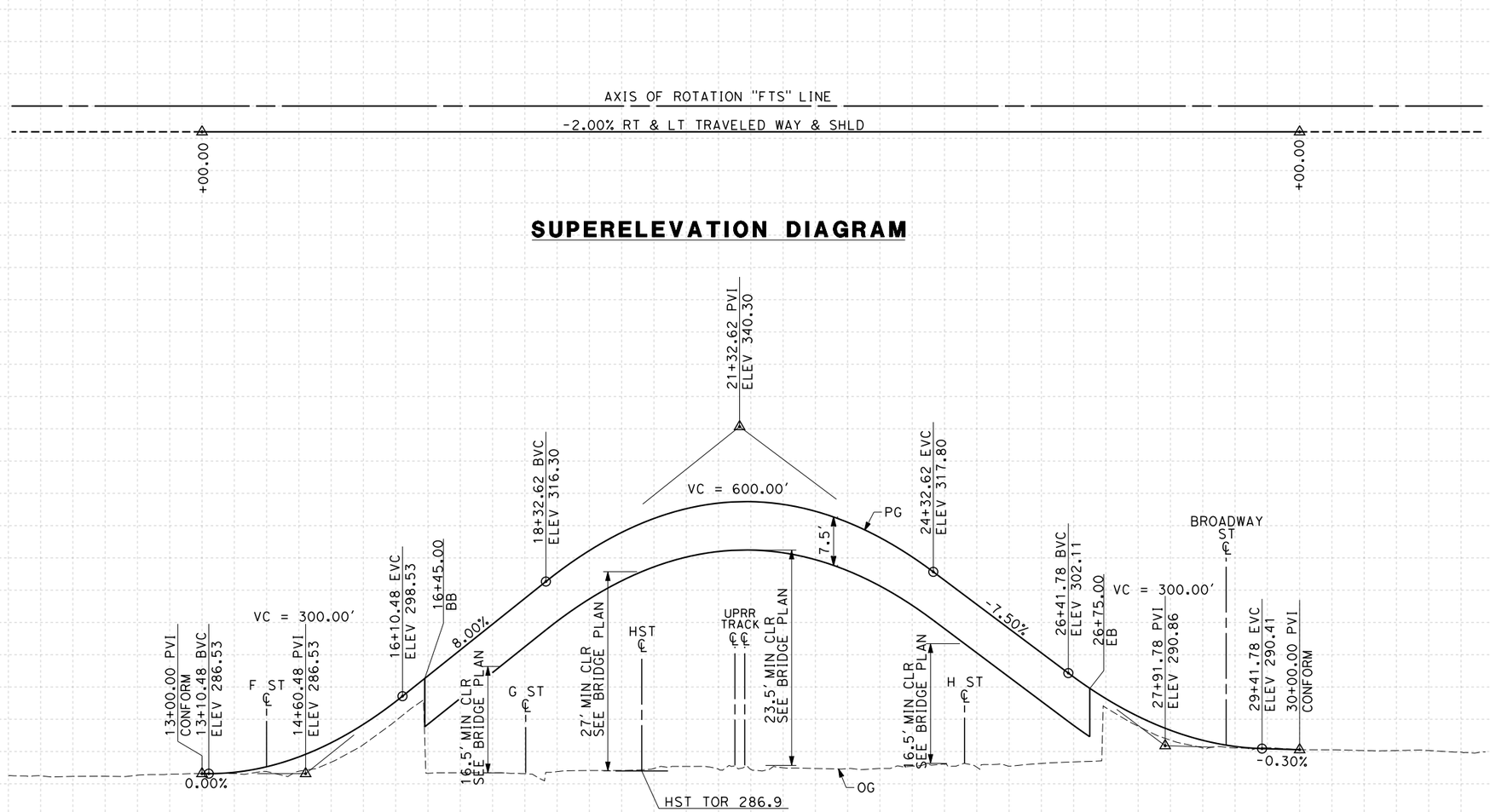
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STANISLAUS ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9569-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:24 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9569-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

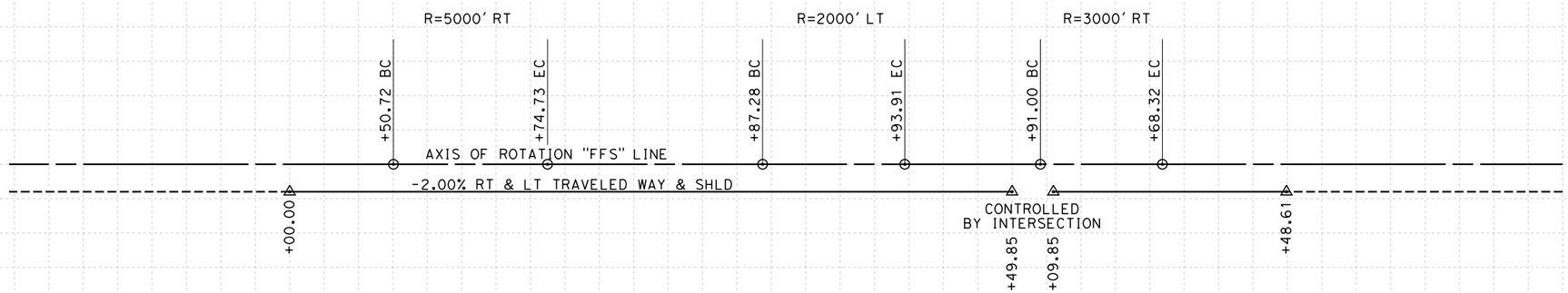
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
TUOLUMNE ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9570-A
SCALE AS SHOWN
SHEET NO. ### OF ###

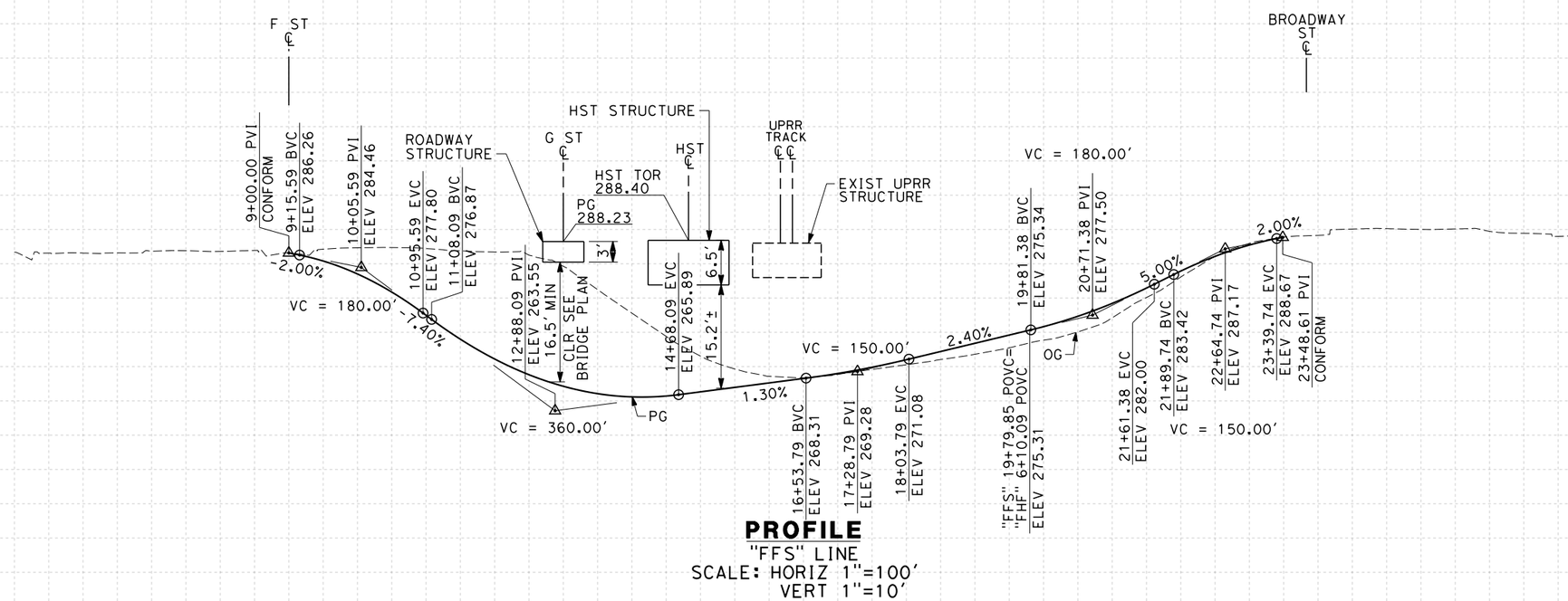
eron.sudhausen 7/20/2011 6:08:26 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9570-A-F1.dgn

NOTES:

1. VERTICAL CLEARANCE FOR FRESNO STREET UNDERPASS TO MATCH EXISTING CONDITION
2. VERTICAL DESIGN SPEED = 30 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FFS" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 06/30/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

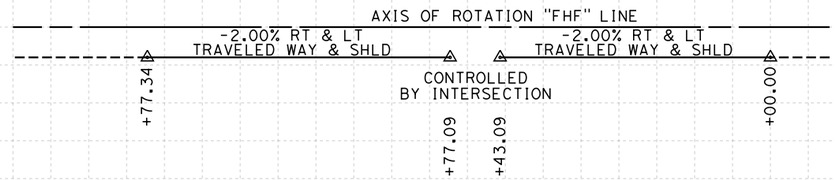
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
FRESNO ST

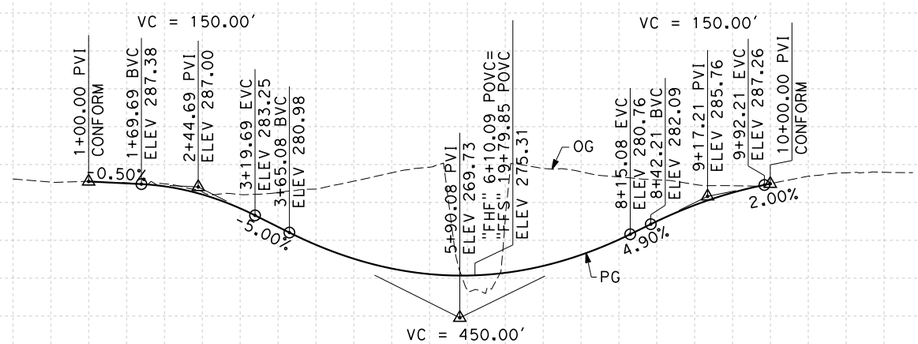
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9571-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:27 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9571-A-F1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 40 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1013 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FHF" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		0	1	2	3	4	5	6	7	8	9	10	1	2	3	TOTAL
CY	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 06/30/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
H ST (FRESNO ST)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9572-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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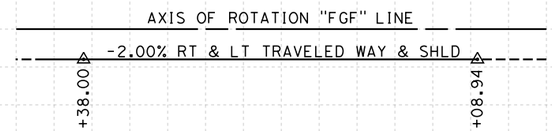
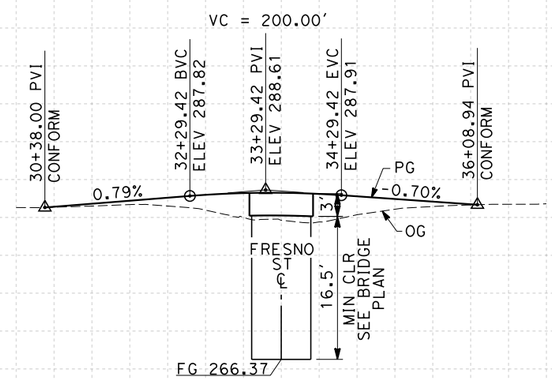
NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 40 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO SHEET CT1013 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FGF" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		30	1	2	3	4	35	6	7	8	TOTAL
CY	Exc										
	Emb										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

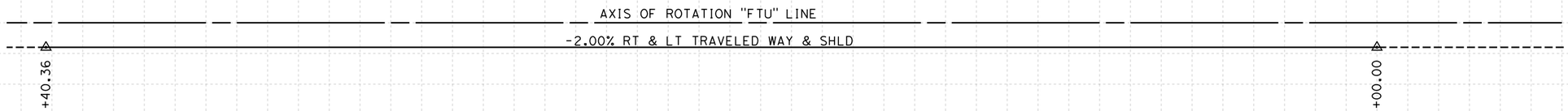
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
G ST (FRESNO ST)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9573-A
SCALE AS SHOWN
SHEET NO. ### OF ###

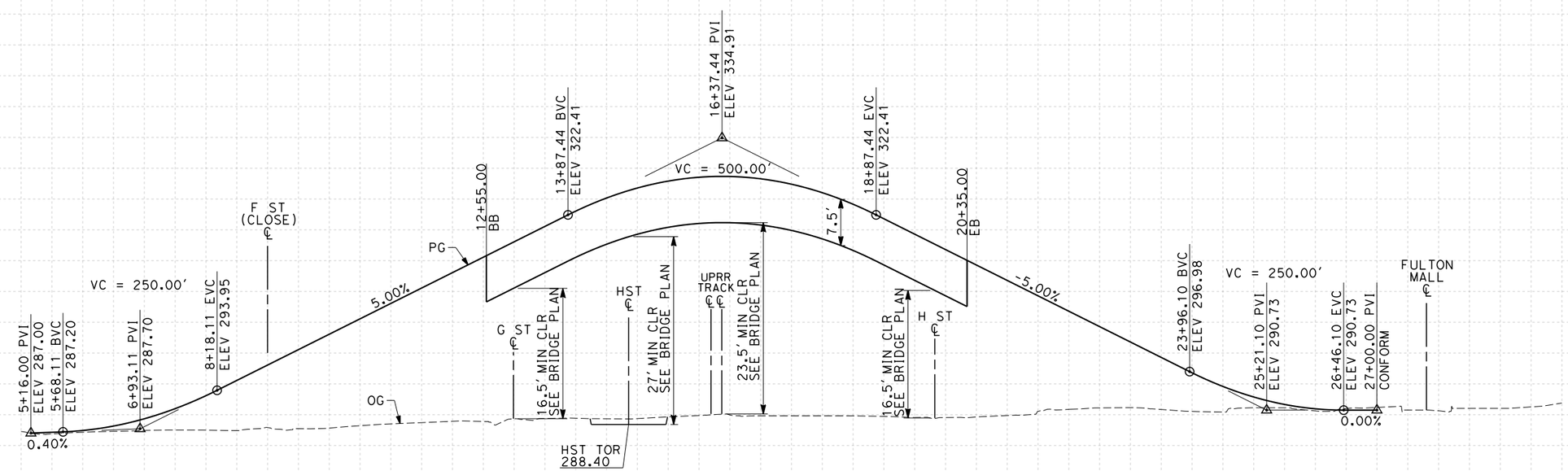
eron.sudhausen 7/20/2011 6:08:31 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9573-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FTU" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

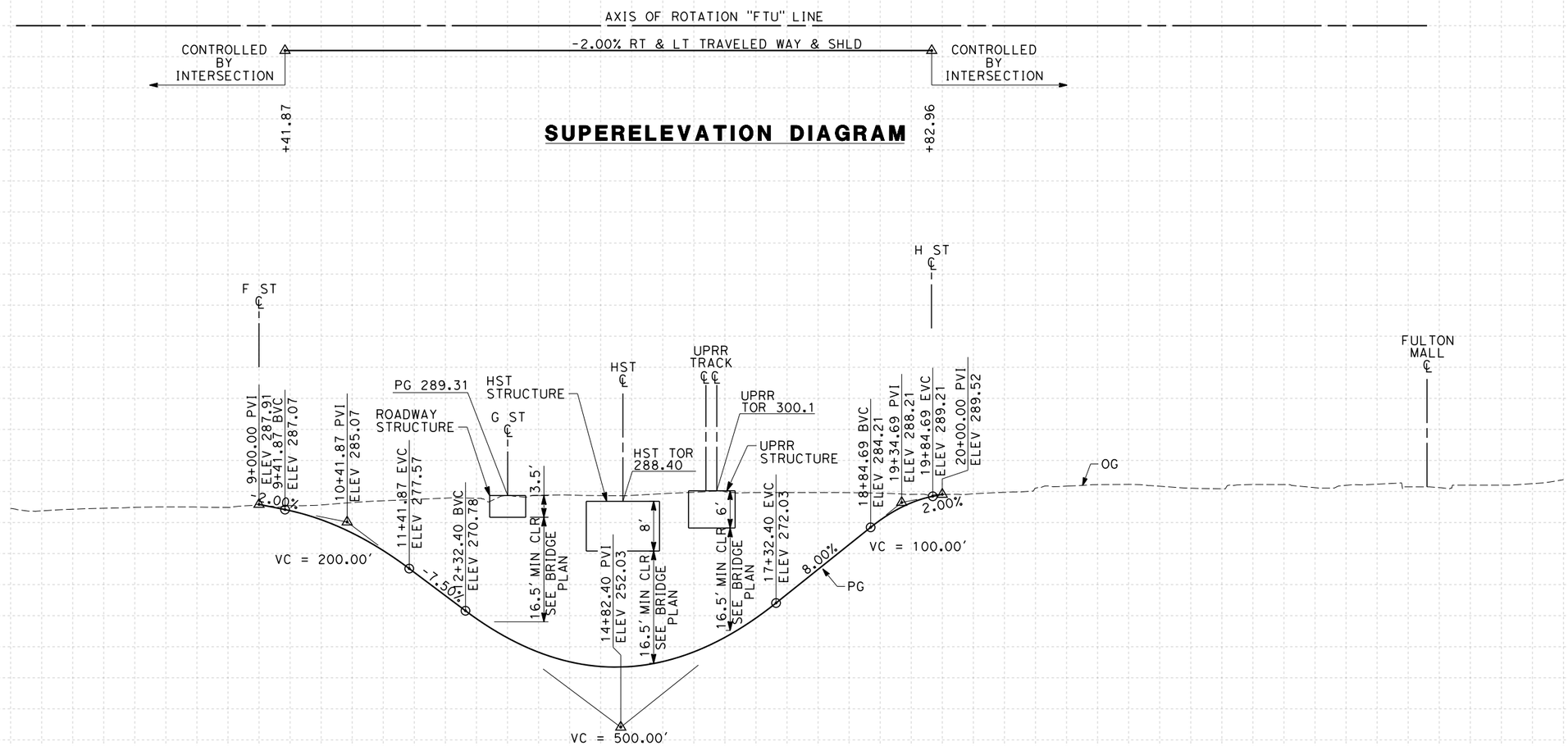
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
TULARE ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9574-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:32 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9574-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 25 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FTU" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL
CY	Exc																									
	Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

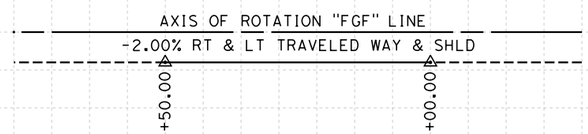
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
TULARE ST (UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9575-A
SCALE AS SHOWN
SHEET NO. ### OF ###

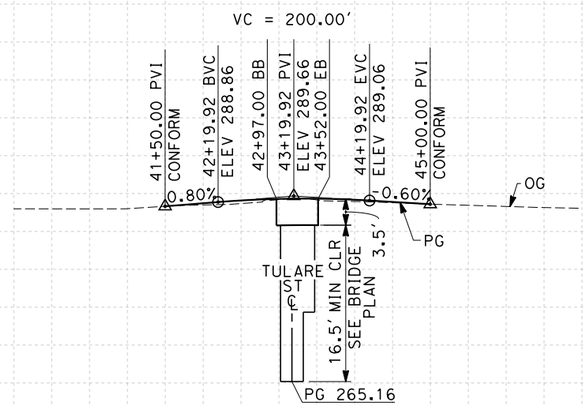
eron.sudhausen 7/20/2011 6:08:34 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9575-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 40 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO SHEET CT1017 FOR LAYOUT



SUPERELEVATION DIAGRAM



PROFILE

"FGF" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	40	1	2	3	4	45	6	7	TOTAL
CY Exc									
CY Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

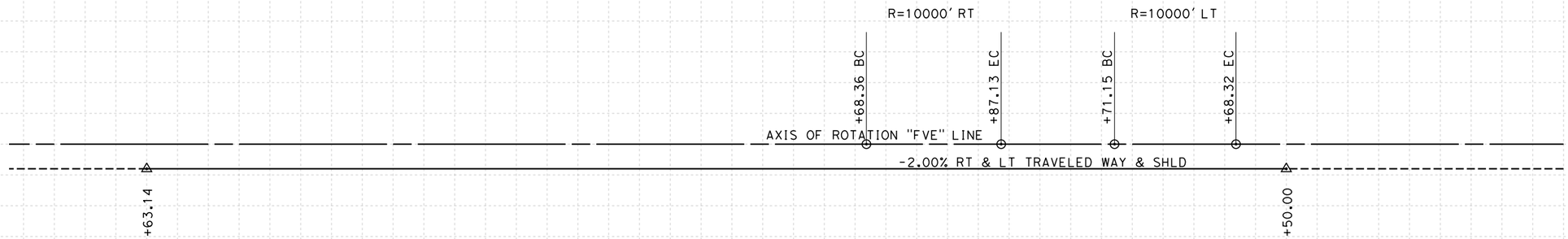
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
G ST (TULARE ST UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9576-A
SCALE AS SHOWN
SHEET NO. ### OF ###

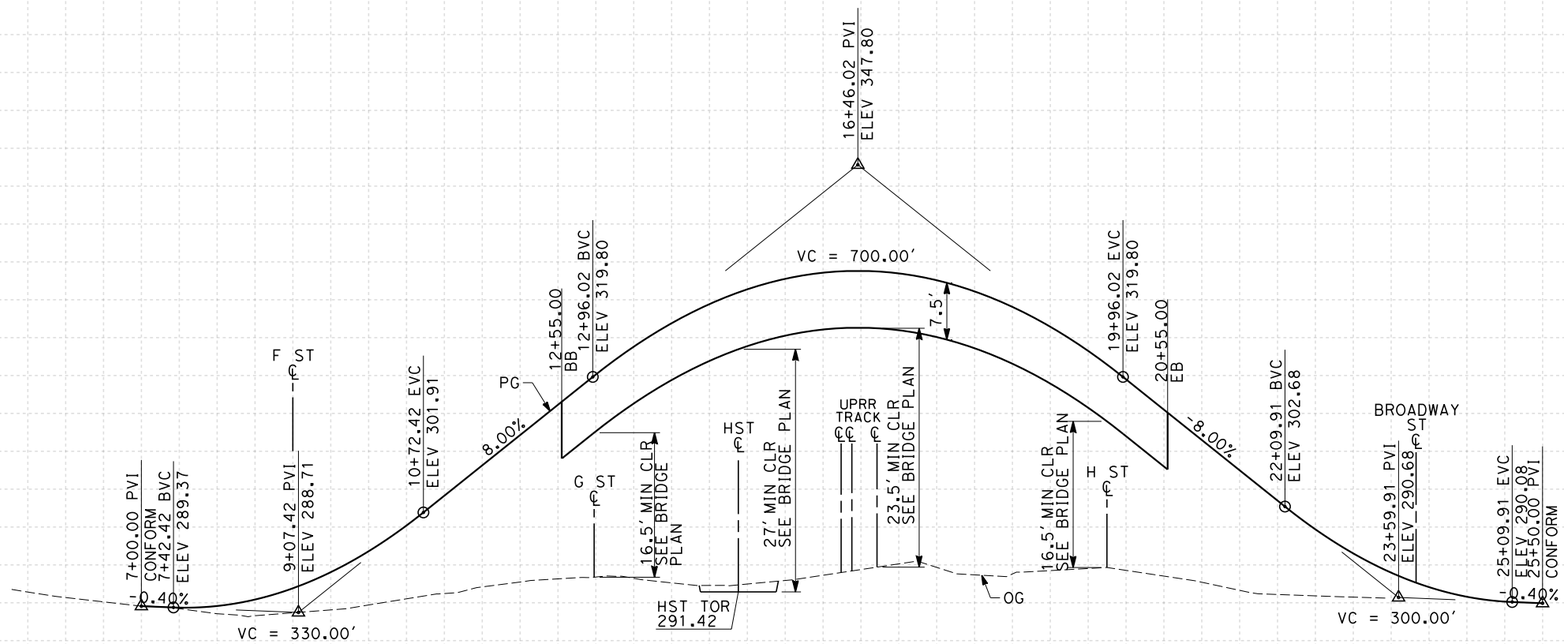
eron.sudhausen 7/20/2011 6:08:35 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9576-A-F1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER UPRR IS 23.5' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FVE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
VENTURA ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9577-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:37 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9577-A-F1.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

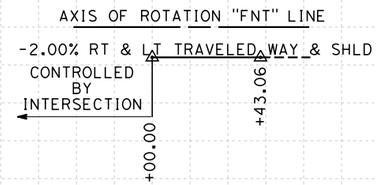
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY LAYOUT
N THORNE AVE

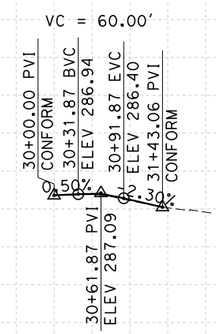
CONTRACT NO. HSR 06-0003
DRAWING NO. CR9578-A
SCALE AS SHOWN
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:44 PM Q:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design Sheets\Highway\HST 15% Design\AECOM\FB-CR9578-A-F1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 15 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"FNT" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	30	1	2	3	6	7	8	9	TOTAL
CY Exc									
CY Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY PROFILE & SUPERELEVATION DIAGRAM
N THORNE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR9579-A
SCALE AS SHOWN
SHEET NO. ### OF ###

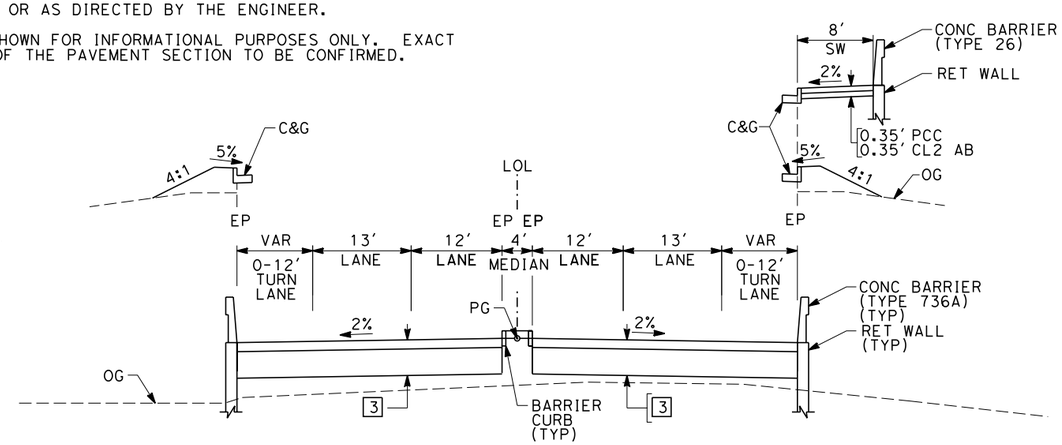
eron.sudhausen 7/20/2011 6:08:47 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CR9579-A-F1.dgn

NOTES:

1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSION AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.

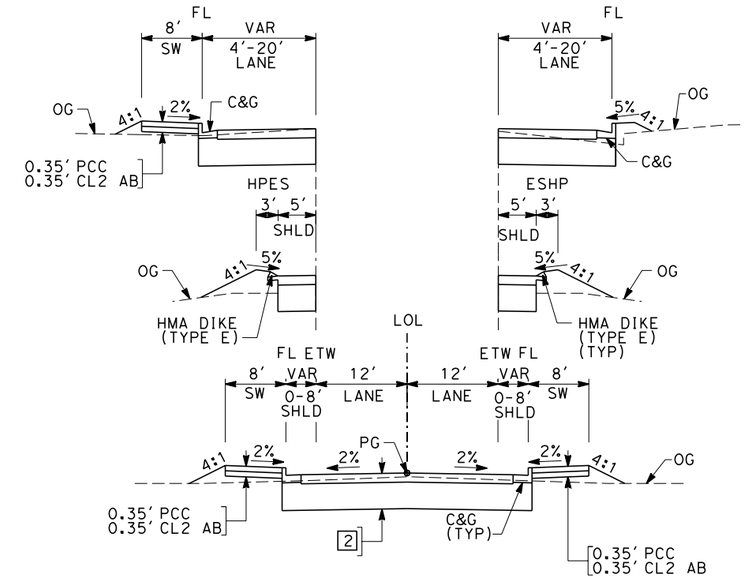
STRUCTURAL SECTIONS
TYPICAL ROADWAY

1 — 0.65' HMA (TYPE A) / 1.75' CL2 AB
2 — 0.35' HMA (TYPE A) / 1.00' CL2 AB
3 — 0.40' HMA (TYPE A) / 1.50' CL2 AB
4 — 0.55' HMA (TYPE A) / 1.50' CL2 AB



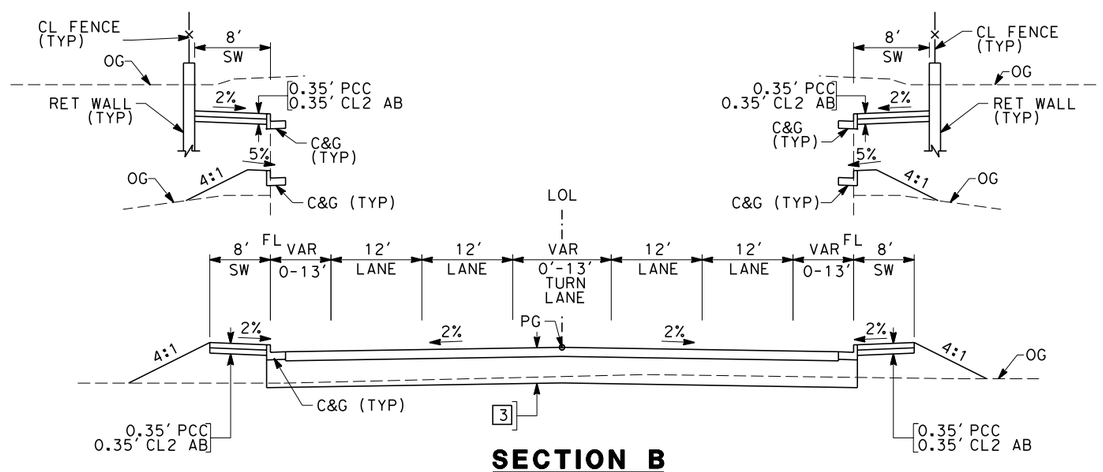
SECTION A

"FMC"	16+00.00 TO 22+60.00	"FBEL"	23+34.30 TO 29+55.58
"FMC"	26+50.00 TO 29+31.13	"FVE"	9+55.00 TO 12+55.00
"FOL"	13+05.96 TO 19+19.99	"FVE"	20+55.00 TO 22+71.15
"FOL"	24+82.94 TO 30+06.12	"FCH"	16+85.51 TO 21+20.00
"FBEL"	12+14.63 TO 17+09.30	"FCH"	29+45.00 TO 35+45.11



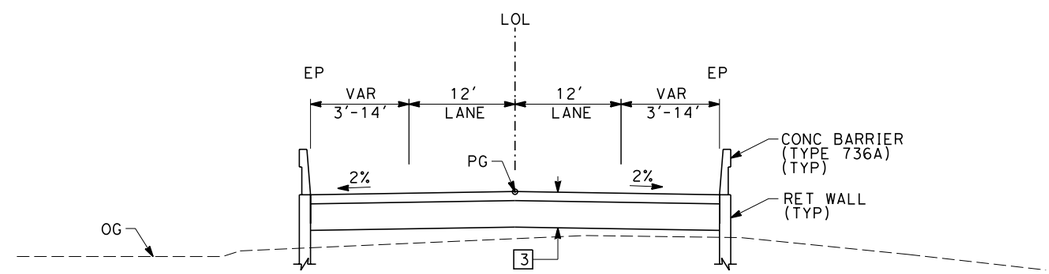
SECTION C

"FMCC"	10+00.00 TO 16+47.00	"FSL"	11+36.79 TO 17+27.26
"FNWE"	103+00.00 TO 107+00.00	"FSE"	1+00.00 TO 14+12.10
"FNWE"	112+00.00 TO 113+55.54	"FNT"	30+00.00 TO 31+46.01
"NGSB"	125+00.00 TO 167+12.45	"FGC"	0+50.00 TO 4+49.83
"FWES"	10+00.00 TO 14+69.32		



SECTION B

"FMC"	14+00.00 TO 16+00.00	"FTS"	13+00.00 TO 14+54.11
"FMC"	29+31.13 TO 32+08.89	"FTS"	28+43.67 TO 30+00.00
"FOL"	11+81.00 TO 13+05.96	"FVE"	7+00.00 TO 9+55.00
"FOL"	30+06.12 TO 33+00.00	"FVE"	22+71.15 TO 25+50.00
"FBEL"	8+00.00 TO 12+14.63	"FCH"	14+00.00 TO 16+85.51
"FBEL"	29+55.58 TO 32+00.00	"FCH"	35+45.11 TO 37+00.00
"FSS"	2+50.00 TO 4+38.84	"FGF"	30+38.00 TO 33+08.00
"FSS"	18+40.67 TO 20+00.00	"FGF"	33+92.00 TO 36+08.94
"FHF"	1+77.34 TO 10+00.00	"FGF"	41+50.00 TO 45+00.00



SECTION D

"FSS"	4+38.84 TO 6+45.00		
"FSS"	16+75.00 TO 18+40.67		
"FTS"	14+54.11 TO 16+75.00		
"FTS"	26+75.00 TO 28+43.67		

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 06/30/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

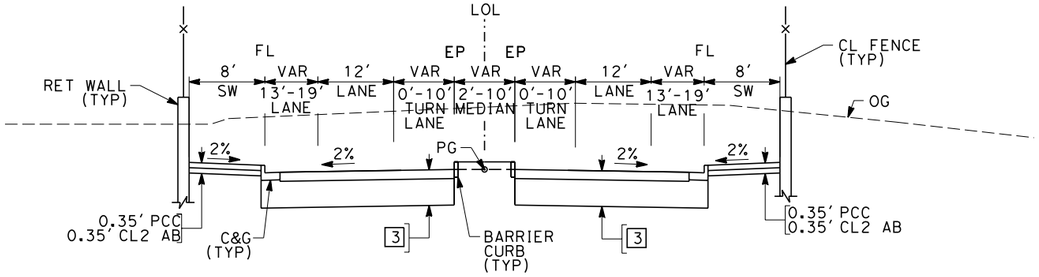
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

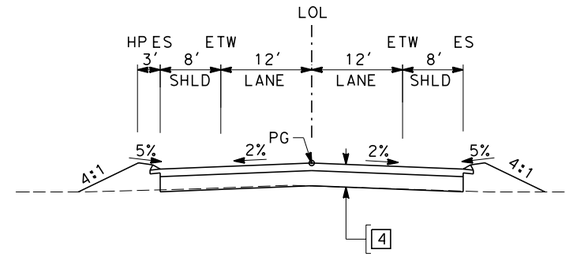
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9580-A
SCALE NO SCALE
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:51 PM G:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9580-A-F1.dgn



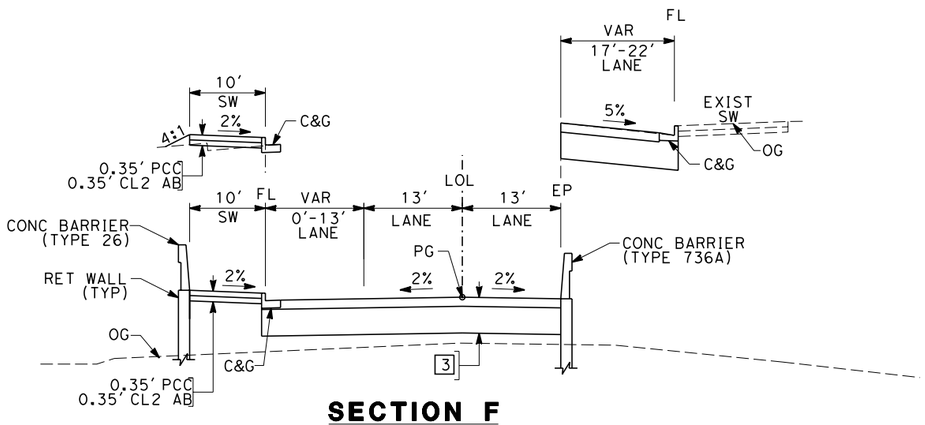
SECTION E

"FFS" 9+00.00 TO 23+48.61



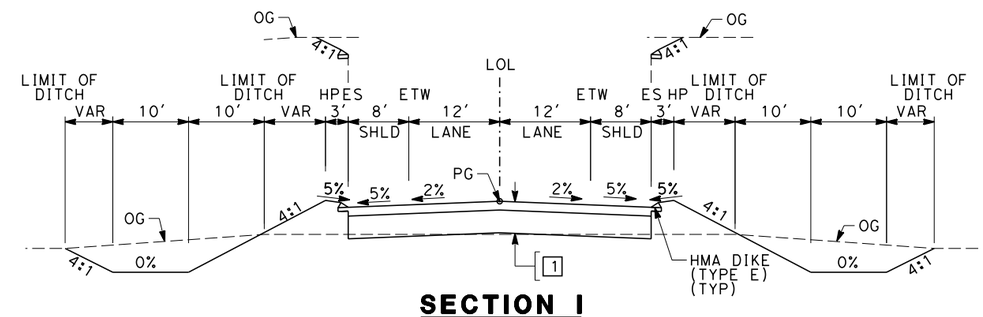
SECTION H

"FCE" 21+00.00 TO 24+00.00



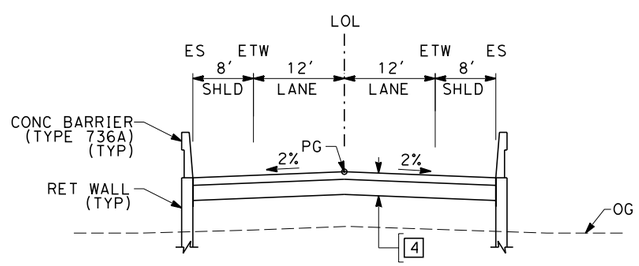
SECTION F

"FTU" 5+16.00 TO 12+55.43 (OVERHEAD OPTION)
"FTU" 20+34.30 TO 27+00.00 (OVERHEAD OPTION)



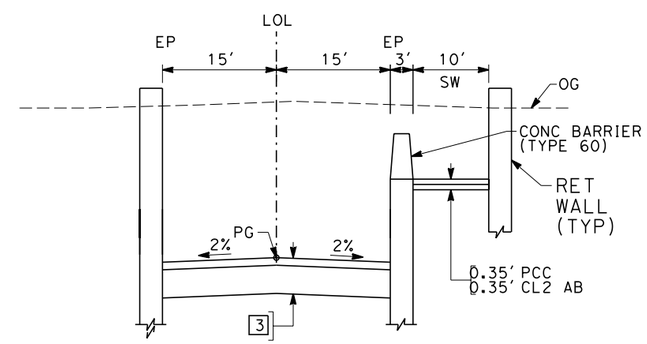
SECTION I

"FAM" 12+50.00 TO 24+63.00
"FAM" 28+13.00 TO 39+91.28



SECTION G

"FCE" 24+00.00 TO 32+60.00
"FCE" 37+80.00 TO 46+00.00



SECTION J

"FTU" 9+00.00 TO 20+00.00 (UNDERPASS OPTION)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 06/30/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

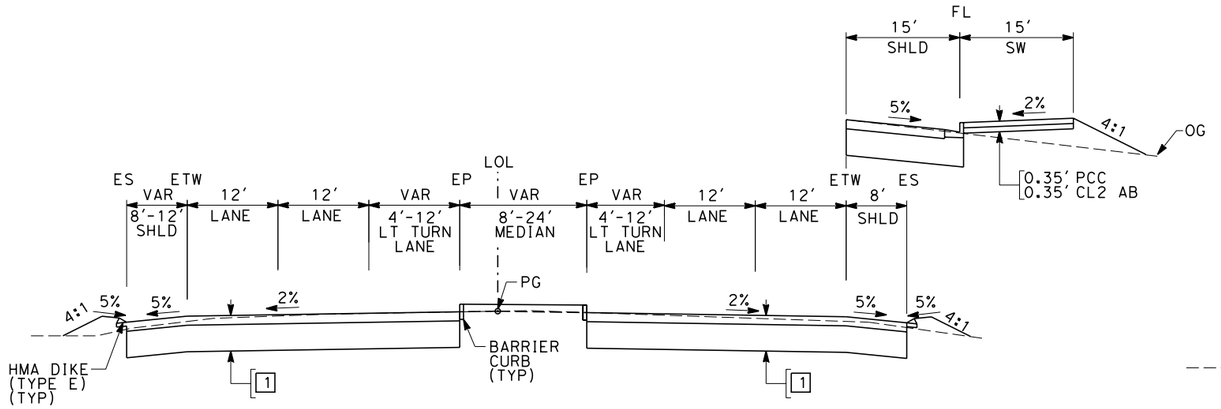
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

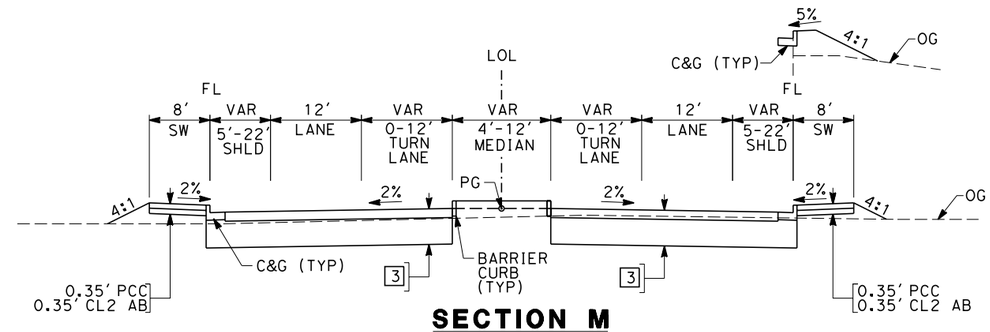
CONTRACT NO. HSR 06-0003
DRAWING NO. CT9581-A
SCALE NO SCALE
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:53 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9581-A-F1.dgn



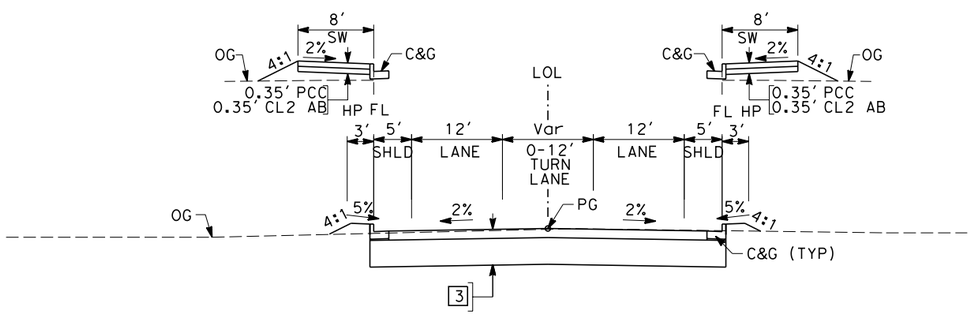
SECTION K

"SGSB" 2+00.00 TO 6+00.00



SECTION M

"FNW" 13+00.00 TO 18+25.72



SECTION L

"FH" 21+19.44 TO 34+09.05
"FNW" 18+25.72 TO 20+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE A. LUFT
DATE 05/13/11

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT9582-A
SCALE NO SCALE
SHEET NO. ### OF ###

eron.sudhausen 7/20/2011 6:08:54 PM O:\131577\4 Internal Project Data\4-03 Drawings\4-03-01 15% Design\4-03-01-05 Design Sheets\Highway\HST 15% Design\AECOM\FB-CT9582-A-F1.dgn

LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
				GENERAL		
		B7190-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 1 OF 3
		B7191-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 2 OF 3
		B7192-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 3 OF 3
		B7193-B	HYBRID	GENERAL	ABBREVIATIONS, SYMBOLS AND NOTES	SHEET 1 OF 1
		B7200-B	HYBRID		INDEX MAP	SHEET 1 OF 2
		B7201-B	HYBRID		INDEX MAP	SHEET 2 OF 2
		CB7200-B	UPRR/SR99 MAINLINE DO/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	KEY MAP	SHEET 1 OF 1
		CB7201-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD - INTERCHANGE	KEY MAP	SHEET 1 OF 1
		CB7202-B	UPRR/SR99 MERCED - (HYBRID)	LE GRAND RD - INTERCHANGE	KEY MAP	SHEET 1 OF 1
		CB7203-B	UPRR/SR99 MAINLINE DO/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	KEY MAP	SHEET 1 OF 1
		CT7190-B	HYBRID	HIGHWAY	TYPICAL CROSS SECTIONS	SHEET 1 OF 2
		CT7191-B	HYBRID	HIGHWAY	TYPICAL CROSS SECTIONS	SHEET 2 OF 2
		CT7192-B	HYBRID		GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN	SHEET 1 OF 1
				LAYOUT		
43		CT2000-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	LAYOUT	SHEET 1 OF 4
43		CT2001-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	LAYOUT	SHEET 2 OF 4
43		CT2002-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	LAYOUT	SHEET 3 OF 4
43		CT2003-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	LAYOUT	SHEET 4 OF 4
44		CT2004-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	LAYOUT	SHEET 1 OF 3
44		CT2005-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	LAYOUT	SHEET 2 OF 3
44		CT2006-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	LAYOUT	SHEET 3 OF 3
39		CT7200-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	LAYOUT	SHEET 1 OF 4
39		CT7201-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	LAYOUT	SHEET 2 OF 4
39		CT7202-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	LAYOUT	SHEET 3 OF 4
39		CT7203-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	LAYOUT	SHEET 4 OF 4
35.1		CT7204-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	LAYOUT	SHEET 1 OF 4
35.1		CT7205-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	LAYOUT	SHEET 2 OF 4
35.1		CT7206-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	LAYOUT	SHEET 3 OF 4
35.1		CT7207-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	LAYOUT	SHEET 4 OF 4
19		CT7208-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	LAYOUT	SHEET 1 OF 5
19		CT7209-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	LAYOUT	SHEET 2 OF 5
19		CT7210-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	LAYOUT	SHEET 3 OF 5
19		CT7211-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	LAYOUT	SHEET 4 OF 5
19		CT7212-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	LAYOUT	SHEET 5 OF 5
19		CT7213-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP	LAYOUT	SHEET 1 OF 2
19		CT7214-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP	LAYOUT	SHEET 2 OF 2
39		CT7215-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	LAYOUT	SHEET 1 OF 3
39		CT7216-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	LAYOUT	SHEET 2 OF 3
39		CT7217-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	LAYOUT	SHEET 3 OF 3
				PROFILE		
43		CT3000-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	PROFILE	SHEET 1 OF 4
43		CT3001-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	PROFILE	SHEET 2 OF 4
43		CT3002-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	PROFILE	SHEET 3 OF 4
43		CT3003-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - AVENUE 8	PROFILE	SHEET 4 OF 4
44		CT3004-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	PROFILE	SHEET 1 OF 3
44		CT3005-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	PROFILE	SHEET 2 OF 3
44		CT3006-A	BNSF MAIN LINE - (HYBRID)	GRADE SEPARATION - SR 145	PROFILE	SHEET 3 OF 3
39		CT8200-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	PROFILE	SHEET 1 OF 4
39		CT8201-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	PROFILE	SHEET 2 OF 4
39		CT8202-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	PROFILE	SHEET 3 OF 4
39		CT8203-B	BNSF MAINLINE/MERCED DO - (HYBRID)	GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1	PROFILE	SHEET 4 OF 4
35.1		CT8204-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	PROFILE	SHEET 1 OF 4
35.1		CT8205-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	PROFILE	SHEET 2 OF 4
35.1		CT8206-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	PROFILE	SHEET 3 OF 4
35.1		CT8207-B	UPRR/SR99 MERCED DO - (HYBRID)	SANDY MUSH RD INTERCHANGE	PROFILE	SHEET 4 OF 4
19		CT8208-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	PROFILE	SHEET 1 OF 5
19		CT8209-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	PROFILE	SHEET 2 OF 5
19		CT8210-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	PROFILE	SHEET 3 OF 5
19		CT8211-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	PROFILE	SHEET 4 OF 5
19		CT8212-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION - LE GRAND RD INTERCHANGE	PROFILE	SHEET 5 OF 5
19		CT8213-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP	PROFILE	SHEET 1 OF 4
19		CT8214-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP	PROFILE	SHEET 2 OF 4
19		CT8215-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP	PROFILE	SHEET 3 OF 4
19		CT8216-B	UPRR/SR99 MERCED - (HYBRID)	GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP	PROFILE	SHEET 4 OF 4
39		CT8217-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	PROFILE	SHEET 1 OF 3
39		CT8218-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	PROFILE	SHEET 2 OF 3
39		CT8219-B	BNSF MAINLINE/MERCED DO - (HYBRID)	UNDERPASS - ROBERTSON BLVD (SR 233) ALT 2	PROFILE	SHEET 3 OF 3
		T-1	ROUTE 99 RE-ALIGNMENT		TITLE	
		X-1	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-2	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-3	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-4	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-5	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. B7190-B
SCALE NONE
SHEET NO. ### OF ###

7/22/2011 12:04:57 PM P:\60022962\Task 02_Merced-Fresno\cadd\Civil\Sheet\Package 3 - Hybrid\Volume 2B - Hybrid Caltrans Facilites\Index Of Drawings\B7190-B.dgn
ReyesC1

LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
		X-6	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-7	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-8	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-9	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-10	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-11	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-12	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-13	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-14	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		X-15	ROUTE 99 RE-ALIGNMENT		TYPICAL CROSS SECTIONS	
		K-1	ROUTE 99 RE-ALIGNMENT		KEY MAP	
		L-1	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-2	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-3	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-4	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-5	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-6	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-7	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-8	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-9	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-10	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-11	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-12	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-13	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-14	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-15	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-16	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		L-17	ROUTE 99 RE-ALIGNMENT		LAYOUT	
		P-1	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-2	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-3	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-4	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-5	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-6	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-7	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-8	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-9	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-10	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-11	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-12	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-13	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-14	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-15	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-16	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-17	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-18	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-19	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-20	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-21	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-22	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-23	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-24	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-25	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-26	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		P-27	ROUTE 99 RE-ALIGNMENT		PROFILE AND SUPERELEVATION	
		SC-1	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-2	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-3	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-4	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-5	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-6	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-7	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-8	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-9	ROUTE 99 RE-ALIGNMENT		STAGE 1 CONSTRUCTION	
		SC-10	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-11	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-12	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-13	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-14	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-15	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-16	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-17	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	
		SC-18	ROUTE 99 RE-ALIGNMENT		STAGE 2 CONSTRUCTION	

REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. B7191-B
SCALE NONE
SHEET NO. ### OF ###

ReyesC1 7/22/2011 12:05:04 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 2b - hybrid caltrans facilites\index of drawings\B7191-B.dgn

LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
		BR-1	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-2	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-3	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-4	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-5	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	
		BR-6	ROUTE 99 RE-ALIGNMENT		ADVANCE PLANNING STUDY	

REV	DATE	BY	CHK	APP	DESCRIPTION

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HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. B7192-B
SCALE NONE
SHEET NO. ### OF ###

7/22/2011 12:09:22 PM P:\60022962\Task 02_Merced-Fresno\cadd\Civil\Sheet\Package 3 - Hybrid\Volume 2B - Hybrid Caltrans Facilites\Index Of Drawings\B7192-B.dgn
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ABBREVIATIONS

ALIGNMENT

HORIZONTAL

BC	BEGINNING OF CURVE
EC	END OF CURVE
PC	POINT OF CURVE
PCC	POINT OF COMPOUNT CURVES
PI	POINT OF INTERSECTION OF TWO TANGENTS
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PT	POINT OF TANGENCY
R	RADIUS OF CURVATURE IN FEET
V, DS	DESIGN VELOCITY IN MILES PER HOUR

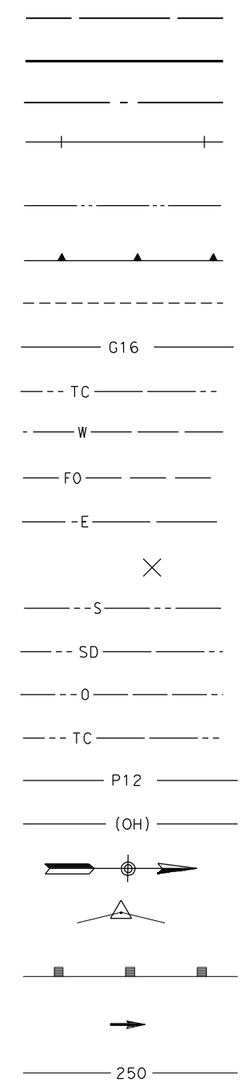
VERTICAL

BVC	BEGIN OF VERTICAL CURVE
EVC	END OF VERTICAL CURVE
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

ALT	ALTERNATIVE
AVE	AVENUE
BB	BEGIN BRIDGE
BEG	BEGIN
BLVD	BOULEVARD
℄	CENTER LINE
CL	CENTERLINE, CLASS
CLR	CLEAR
COL	COLUMN
DWG	DRAWING
EB	END BRIDGE
ELEV	ELEVATION
EQ	EQUATION
ES	EDGE OF SIDEWALK
ETW	EDGE OF TRAVELED WAY
EXIST(E)	EXISTING
FL	FLOW LINE
HORIZ	HORIZONTAL
HP	HINGE POINT
HST	HIGH SPEED TRAIN
HWY	HIGHWAY
IC	INTERCHANGE
IN	INCH
L	LENGTH
LT	LEFT
MBGR	METAL BEAM GUARD RAIL
ML	MAINLINE
MPH	MILES PER HOUR
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NB	NORTH BOUND
No, NO	NUMBER
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
O/H OH	OVERHEAD
PG&E	PACIFIC GAS & ELECTRIC
PGL, FG	PROFILE GRADE LINE
RET	RETAINING
RR	RAILROAD
RD	ROAD
R/W	RIGHT OF WAY
RT	RIGHT
SB	SOUTH BOUND
SHLD	SHOULDER
SR	STATE ROUTE
SHT	SHEET
SS	SANITARY SEWER
SSD	STOPPING SIGHT DISTANCE
ST	STREET
STA	STATION
STD	STANDARD
SD	STORM DRAIN
STRUCT, STR	STRUCTURE
T	TANGENT
TEL	TELEPHONE
	(OH) OVERHEAD LINE
	(UG) UNDERGROUND LINE
TOR	TOP OF RAIL
TK	TRACK
TYP	TYPICAL
TBD	TO BE DETERMINED
TF	TELECOMMUNICATIONS FIBER OPTIC
UPRR	UNION PACIFIC RAILROAD
VAR	VARIES
V VERT	VERTICAL
W	WATER, WEST

SYMBOLS



	MATCH LINE
	HST TRACK
	PROPOSED HST RIGHT-OF-WAY
	FREIGHT/PASSENGER TRACK - EXISTING
	EXISTING RIGHT-OF-WAY OR EXISTING BRIDGE FEATURES
	RETAINING WALLS
	ORIGINAL GROUND
G16	GAS LINE (16")
TC	COMMUNICATION LINE
W	WATER LINE
FO	FIBER OPTIC LINE
E	ELECTRICAL LINE
	ELECTRICAL TOWER
S	SEWER LINE
SD	STORM DRAIN LINE
O	FUEL LINE
TC	TELEPHONE LINE
P12	PETROLEUM LINE (12")
(OH)	OVERHEAD
	NORTH ARRROW
	PVI
	MBGR
	DIRECTION OF TRAVEL
250	PROPOSED CONTOUR

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
GENERAL
ABBREVIATIONS, SYMBOLS AND NOTES
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. B7191-B
SCALE NO SCALE
SHEET NO. ### OF ###

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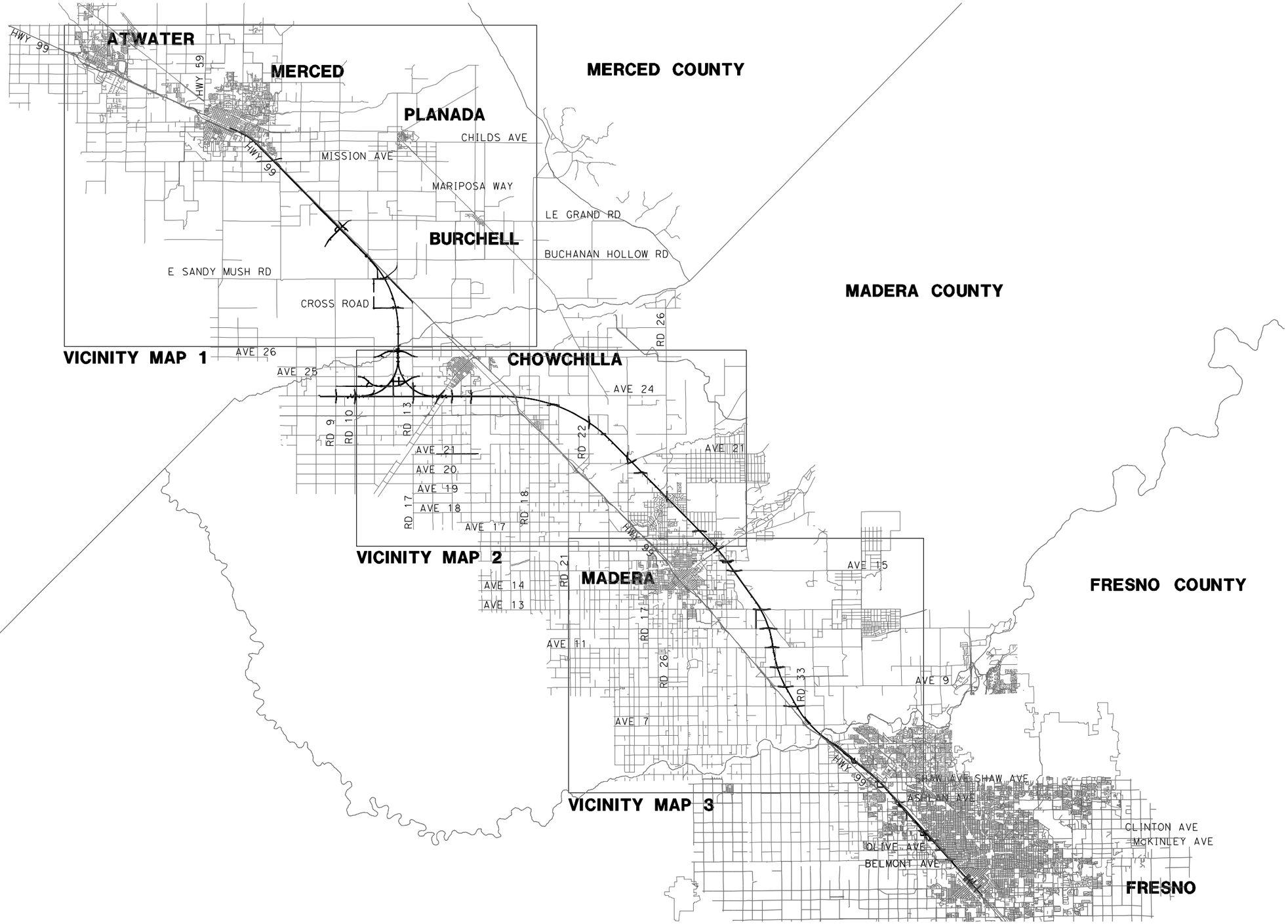

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DESIGNED BY D. AYELE
DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

INDEX MAP
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B7200-B
SCALE NO SCALE
SHEET NO. ### OF ###

7/22/2011 12:28:59 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\Package 3 - Hybrid\Volume 2B - Hybrid Caltrans Facilites\Index Map\B7200-B.dgn
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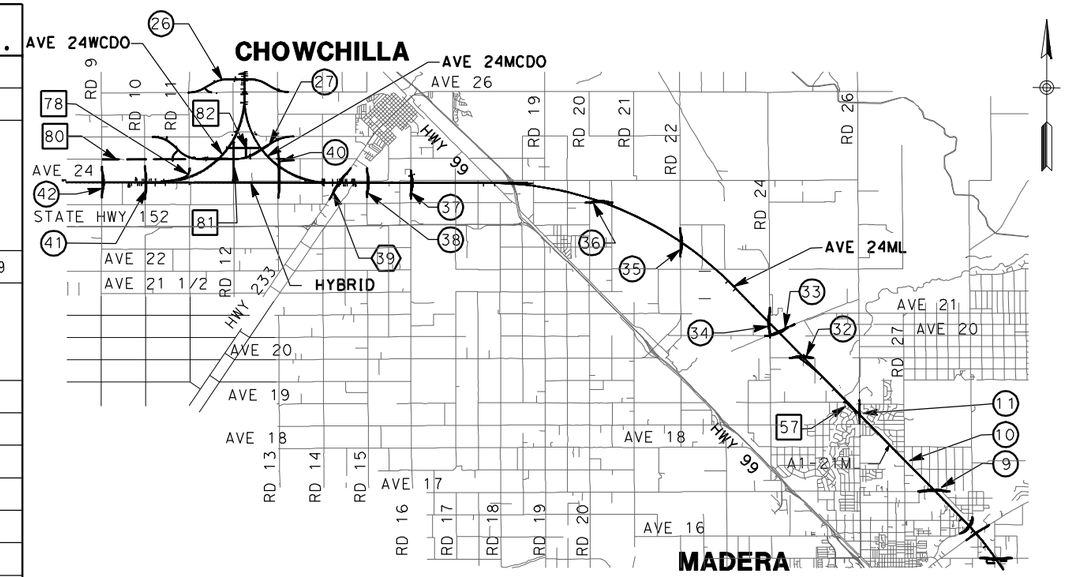
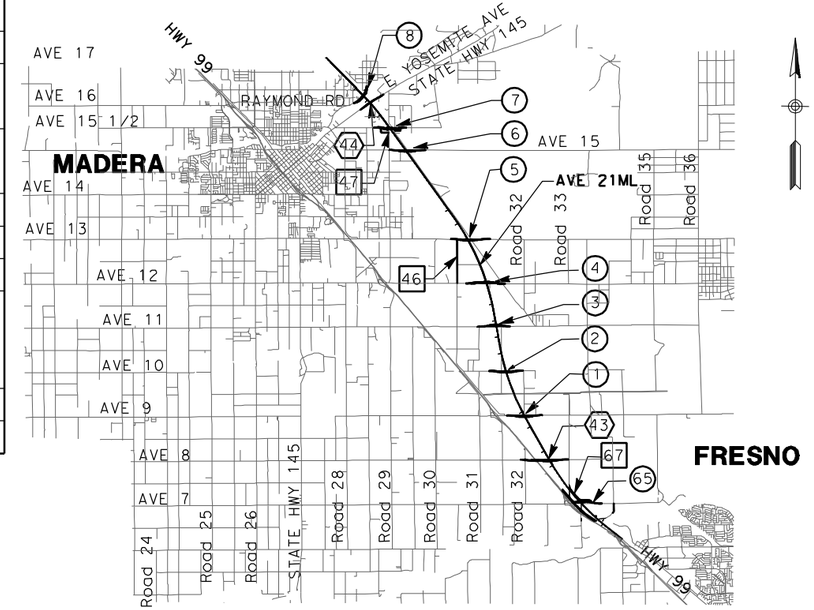
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
1	GRADE SEPARATION - AVENUE 9	CT0001-A - CT0003-A	ST1001
2	GRADE SEPARATION - AVENUE 10	CT0004-A - CT0006-A	ST1002
3	GRADE SEPARATION - AVENUE 11	CT0007-A - CT0009-A	ST1003
4	GRADE SEPARATION - AVENUE 12	CT0010-A - CT0012-A	ST1004
5	GRADE SEPARATION - AVENUE 13	CT0013-A - CT0016-A	ST1005
6	GRADE SEPARATION - AVENUE 15	CT0017-A - CT0019-A	ST1006
7	GRADE SEPARATION - AVENUE 15 1/2	CT0020-A - CT0022-A	ST1007
8	GRADE SEPARATION - RAYMOND RD	CT0023-A - CT0025-A	ST1008
9	GRADE SEPARATION - AVENUE 17	CT0026-A - CT0028-A	ST1009
10	GRADE SEPARATION - ROAD 27	CT0029-A - CT0031-A	
11	GRADE SEPARATION - ROAD 26	CT0032-A - CT0034-A	
19	GRADE SEPARATION - LE GRAND INTERCHANGE	CT7208-B - CT7214-B	ST1114
25	GRADE SEPARATION - CROSS ROAD	CT5238-B - CT5240-B	ST1136
26	GRADE SEPARATION - AVENUE 26 ALT 1	CT5227-B - CT5236-B	ST1135
	UNDERPASS - AVENUE 26 ALT 2	CT5246-B - CT5248-B	
27	GRADE SEPARATION - AVENUE 25	CT5209-B - CT5225-B	ST1133 - ST1134
32	GRADE SEPARATION - AVENUE 20	CT0113-A - CT0115-A	ST1035
33	GRADE SEPARATION - AVENUE 20 1/2	CT0116-A - CT0118-A	ST1036 - ST1037
34	GRADE SEPARATION - ROAD 24	CT0119-A - CT0121-A	ST1038 - ST1039
35	GRADE SEPARATION - ROAD 22	CT0122-A - CT0124-A	ST1040
35.1	SANDY MUSH RD INTERCHANGE	CT7204-B - CT7207-B	ST1142
36	GRADE SEPARATION - AVENUE 23 1/2	CT0125-A - CT0127-A	ST1041

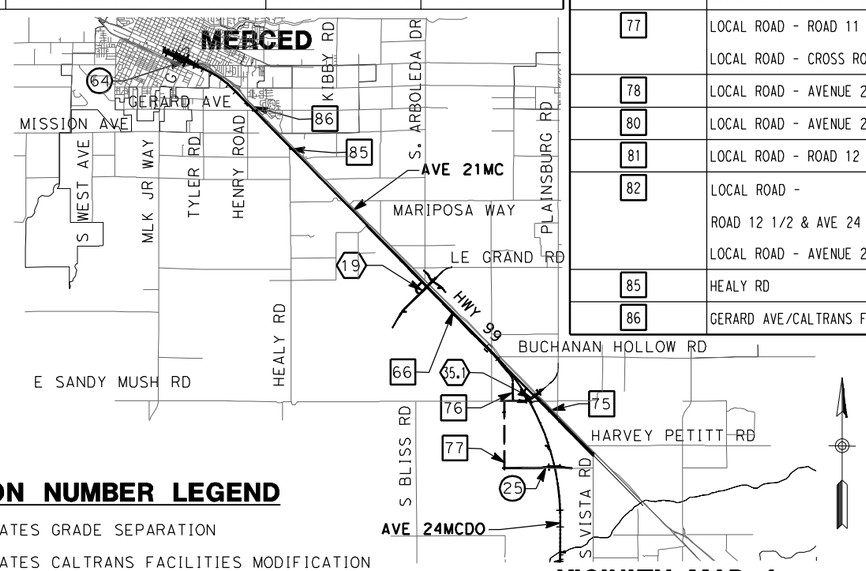
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
37	GRADE SEPARATION - ROAD 16	CT0128-A - CT0130-A	ST1042
38	GRADE SEPARATION - ROAD 15	CT0131-A - CT0133-A	ST1043
39	GRADE SEPARATION - ROBERTSON BLVD (SR233) ALT 1	CT7200-B - CT7203-B	ST1150
	UNDERPASS - ROBERTSON BLVD (SR233) ALT 2	CT7215-B - CT7217-B	
40	GRADE SEPARATION - ROAD 13	CT5203-B - CT5208-B	ST1121 & ST1139
41	GRADE SEPARATION - ROAD 10 ALT 1	CT5200-B - CT5202-B	ST1160
	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	CT5249-B - CT5251-B	ST1160
42	GRADE SEPARATION - ROAD 9	CT0143-A - CT0145-A	ST1120
64	GRADE SEPARATION - G STREET	CT0149-A	ST1180
65	GRADE SEPARATION - AVENUE 7	CT0146-A - CT0148-A	
43	CALTRANS - AVENUE 8	CT2000-A - CT2002-A	ST1000
44	CALTRANS - SR 145	CT2003-A - CT2005-A	
46	LOCAL ROAD - ROAD 30 1/2	CR4000-A	
47	LOCAL ROAD - ROAD 29	CR4001-A	
57	LOCAL ROAD - HANOVER DR	CR4012-A	
66	PROPOSED WEST FRONTAGE ROAD	CR9204-B - CR9207-B	
67	LOCAL ROAD - ROAD 33	CR4018-A	
75	LOCAL ROAD - WEST FRONTAGE ROAD	CR9200-B - CR9201-B	
76	LOCAL ROAD - SANDY MUSH ROAD	CR9210-B	
	LOCAL ROAD - WEST FRONTAGE ROAD	CR9202-B - CR9203-B	
77	LOCAL ROAD - ROAD 11	CR9208-B - CR9209-B	
	LOCAL ROAD - CROSS ROAD	CR9211-B	
78	LOCAL ROAD - AVENUE 24	CR9217-B - CR9218-B	
80	LOCAL ROAD - AVENUE 24 1/2	CR9212-B - CR9213-B	
81	LOCAL ROAD - ROAD 12	CR9214-B	
82	LOCAL ROAD - ROAD 12 1/2 & AVE 24 3/4	CR9215-B	
	LOCAL ROAD - AVENUE 24 3/4	CR9216-B	
85	HEALY RD	CR9219-B	
86	GERARD AVE/CALTRANS FRONTAGE RD	CR9220-B	



VICINITY MAP 2



VICINITY MAP 3



VICINITY MAP 1

LOCATION NUMBER LEGEND

(X) - INDICATES GRADE SEPARATION

⟨X⟩ - INDICATES CALTRANS FACILITIES MODIFICATION

[X] - INDICATES LOCAL ROAD RELOCATION

FOR ROADWAY STRUCTURES SEE STRUCTURAL INDEX MAPS

9000 0 9000 18000
GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY T. WALTZ
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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
HYBRID

INDEX MAP
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B7201-B
SCALE NO SCALE
SHEET NO. ### OF ###

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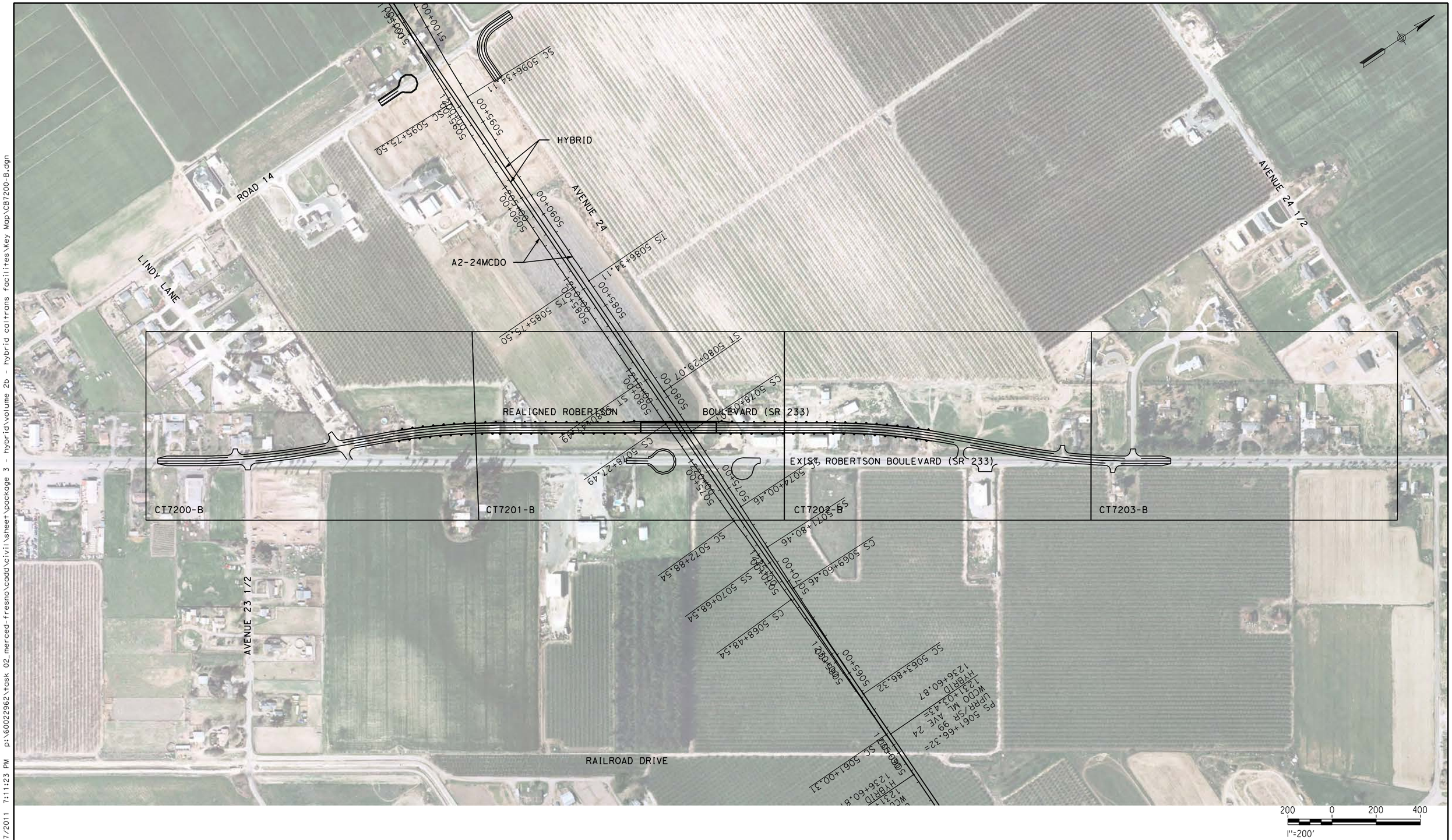

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MAINLINE DO/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB7200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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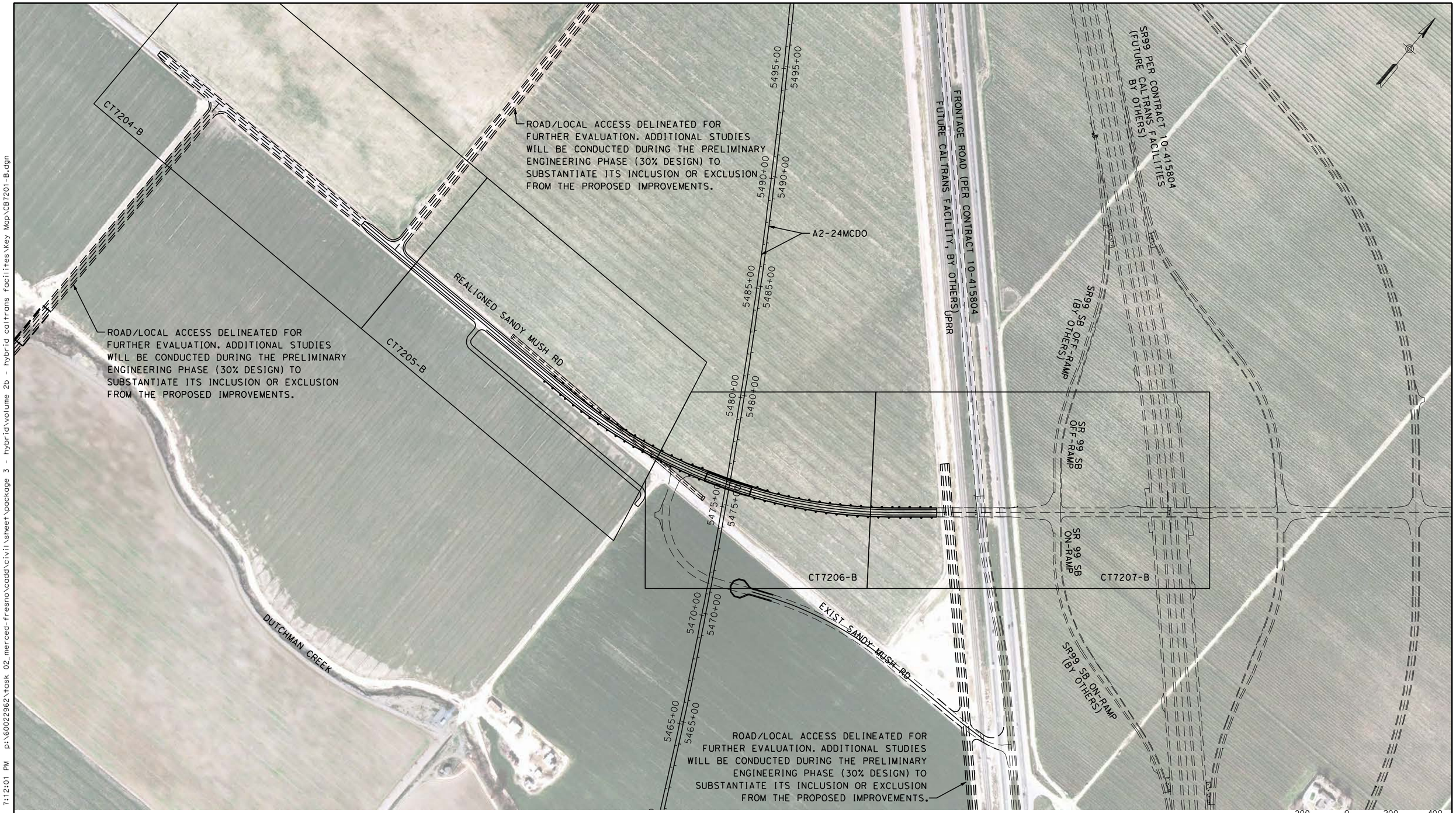

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD - INTERCHANGE
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB7201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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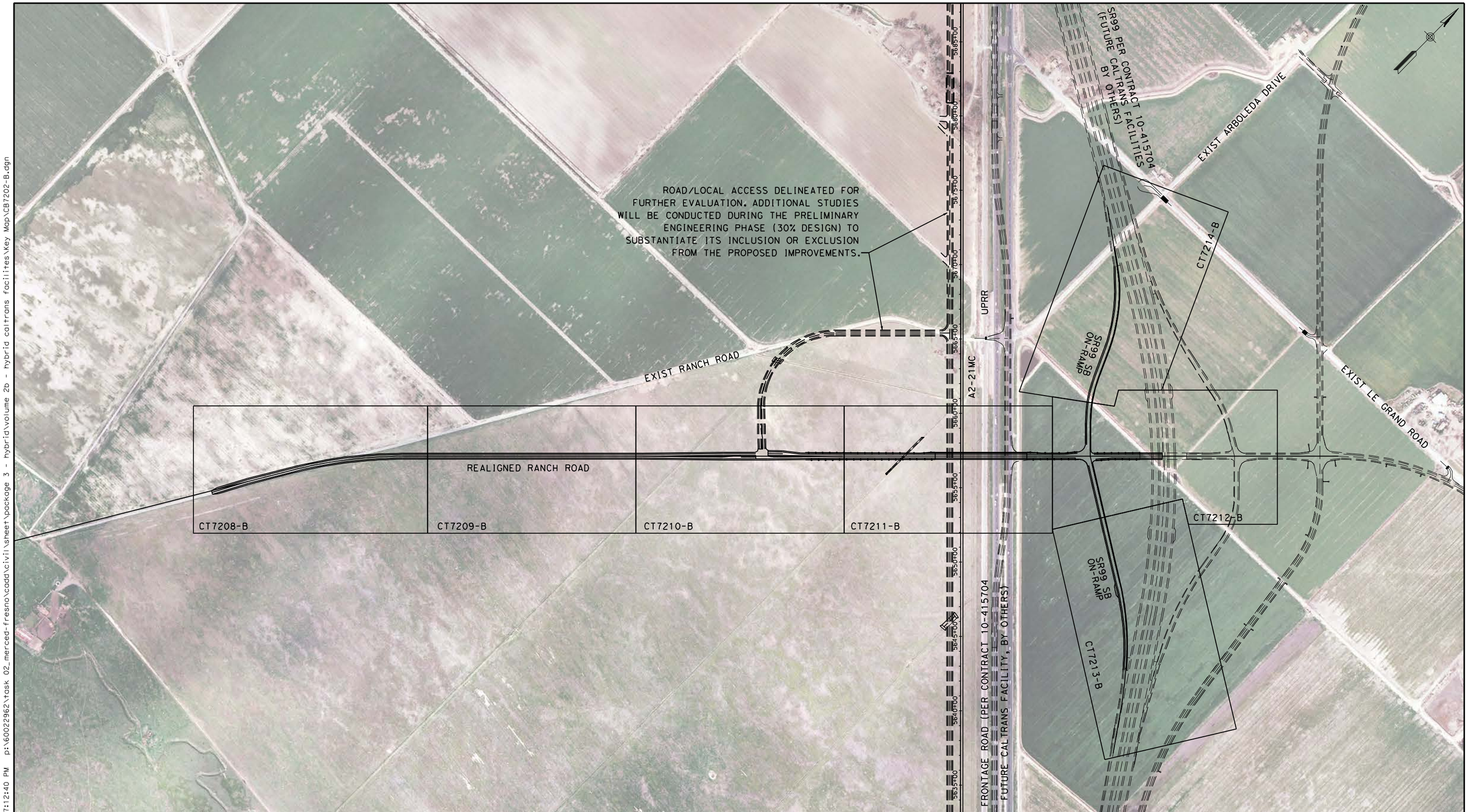

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
LE GRAND RD - INTERCHANGE
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB7202-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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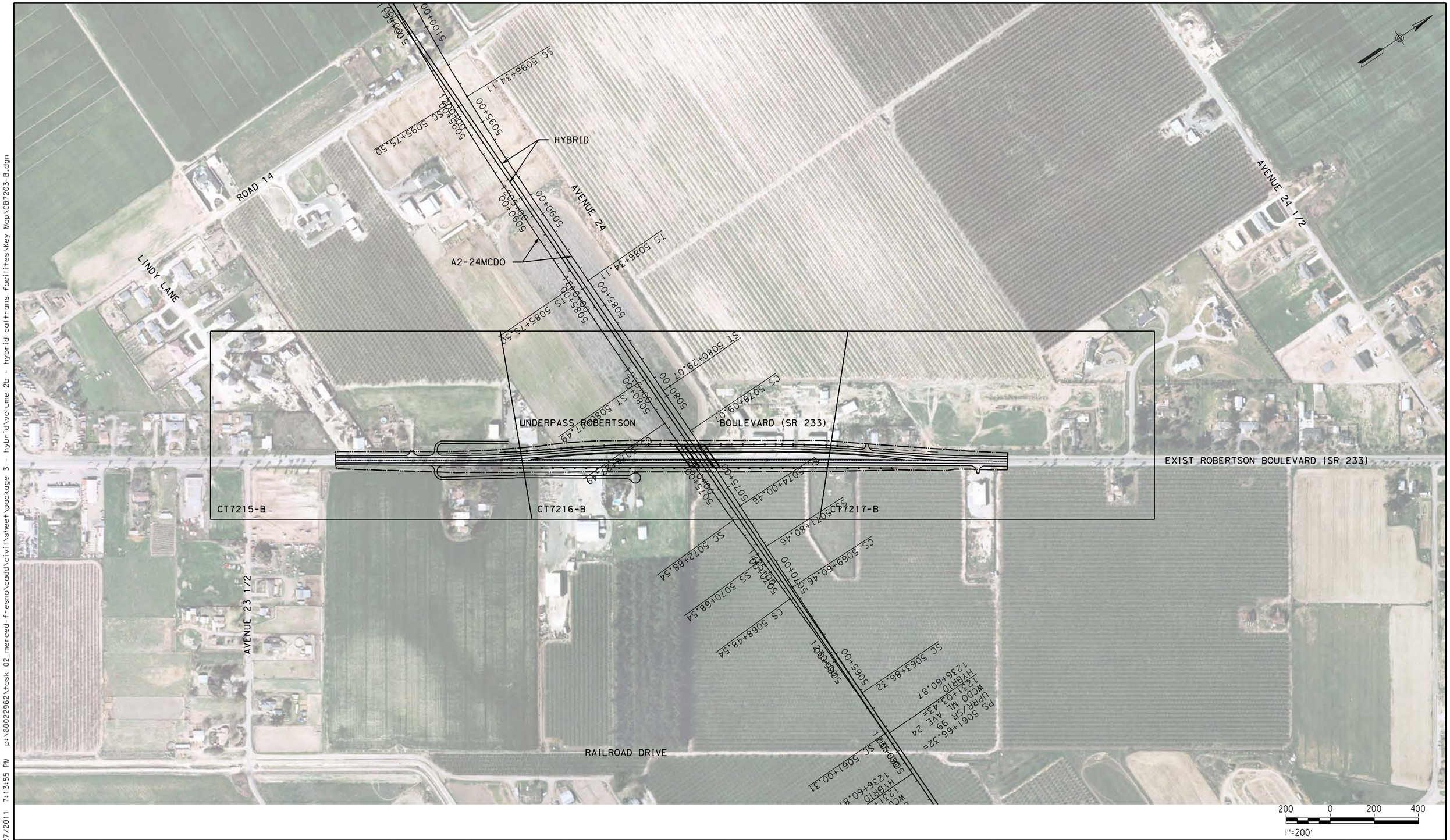

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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Sacramento, CA 95811

CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MAINLINE DO/MERCED DO - (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
KEY MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CB7203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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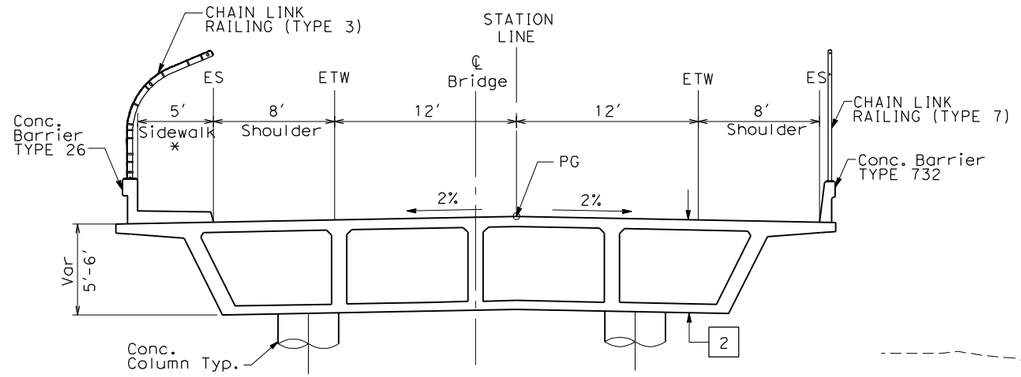
oyeled

NOTES:

1. DIMENSIONS OF EXISTING PAVEMENT WIDTHS ARE BASED ON MEASUREMENTS MADE IN THE FIELD AND ARE APPROXIMATE.
2. PAVEMENT SECTIONS ARE TO BE DETERMINED. GEOTECHNICAL INVESTIGATIONS WILL BE CONDUCTED IN A SUBSEQUENT PHASE TO DETERMINE STRUCTURAL SECTIONS FOR EACH CROSSING.
3. SPACING OF BENCHES ON PROPOSED FILL SECTIONS ARE TO BE DETERMINED.
4. RIGHT-OF-WAY (R/W) WIDTH IS FOR INFORMATION ONLY. EXACT WIDTH TO BE DETERMINED IN COORDINATION WITH AFFECTED AGENCY.

*SIDEWALK SHOWN ON WESTBOUND SIDE, EASTBOUND SIMILAR SEE LAYOUT SHEETS FOR DETAILS.



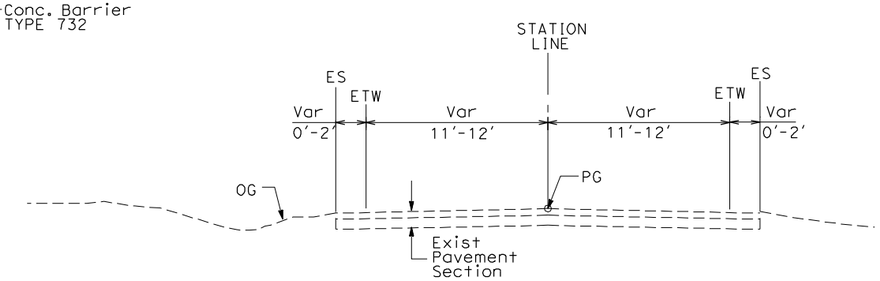
OVERHEAD STRUCTURE

SEE STRUCTURAL PLANS

STRUCTURAL SECTIONS:

1 — HMA TYPE A / AB CLASS 2

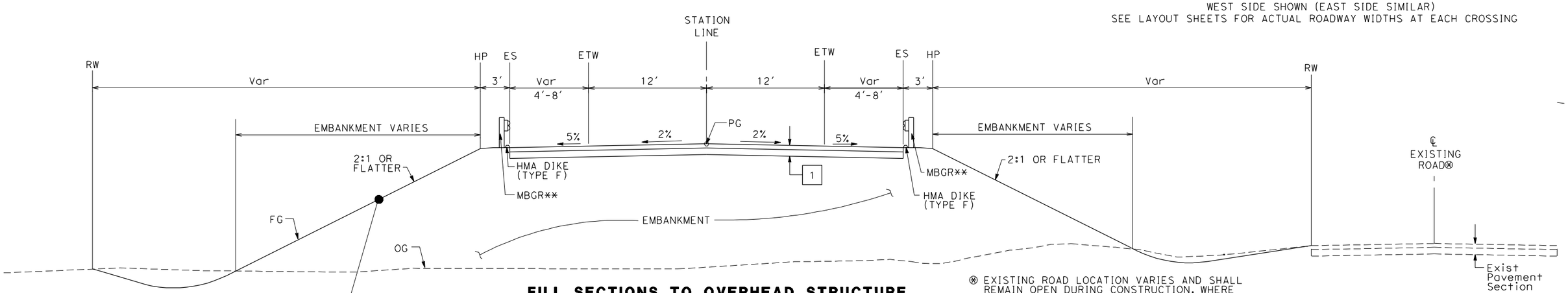
2 — CAST IN PLACE / PRESTRESSED BOX GIRDER (6' STRUCTURE DEPTH)



EXISTING LOCAL ROAD

WEST SIDE SHOWN (EAST SIDE SIMILAR)

SEE LAYOUT SHEETS FOR ACTUAL ROADWAY WIDTHS AT EACH CROSSING

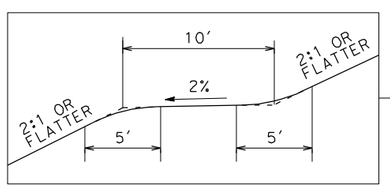


FILL SECTIONS TO OVERHEAD STRUCTURE

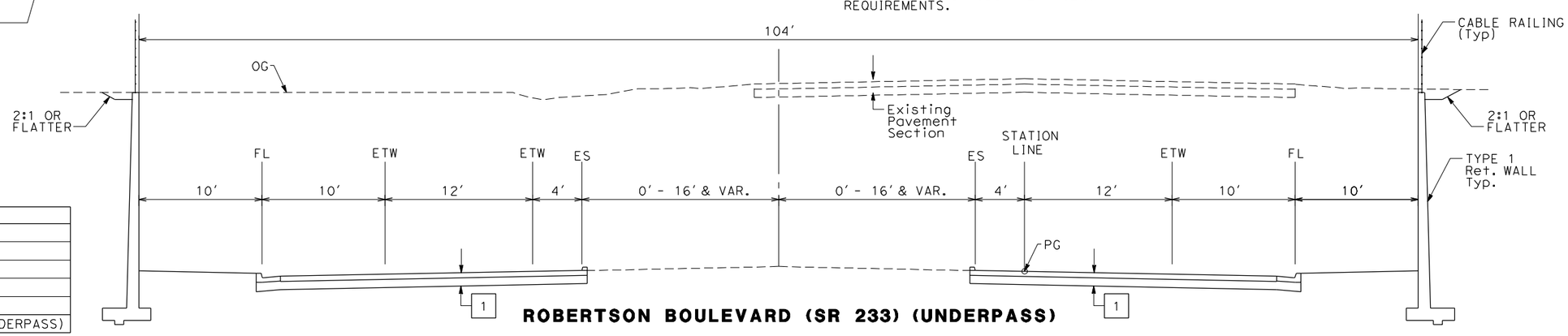
WEST SIDE SHOWN (EAST SIDE SIMILAR)

⊗ EXISTING ROAD LOCATION VARIES AND SHALL REMAIN OPEN DURING CONSTRUCTION. WHERE SHOWN ON THE PLAN CLOSE AND OBLITERATE EXISTING ROADWAY SUBSEQUENT TO CONSTRUCTION OF THE REALIGNED ROADWAY.

** EXACT LIMITS OF MBGR PER AGENCY REQUIREMENTS.



BENCHING DETAIL



ROBERTSON BOULEVARD (SR 233) (UNDERPASS)

TYPICAL CROSS SECTIONS ON THIS SHEET APPLY TO THE FOLLOWING ROADWAYS FOR ALIGNMENT A2, AVE 24 WYE OPTION & WEST CHOWCHILLA OPTION:

NO.	STREET NAME
1	SR233 (ROBERTSON BOULEVARD)
2	LE GRAND
3	E. SANDY MUSH ROAD
4	AVENUE 11
5	AVENUE 8
6	SR 233 (ROBERTSON BOULEVARD UNDERPASS)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. OAKS
DRAWN BY K. OAKS
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
HYBRID
HIGHWAY
TYPICAL CROSS SECTIONS
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CT7190-B
SCALE NTS
SHEET NO. ### OF ###

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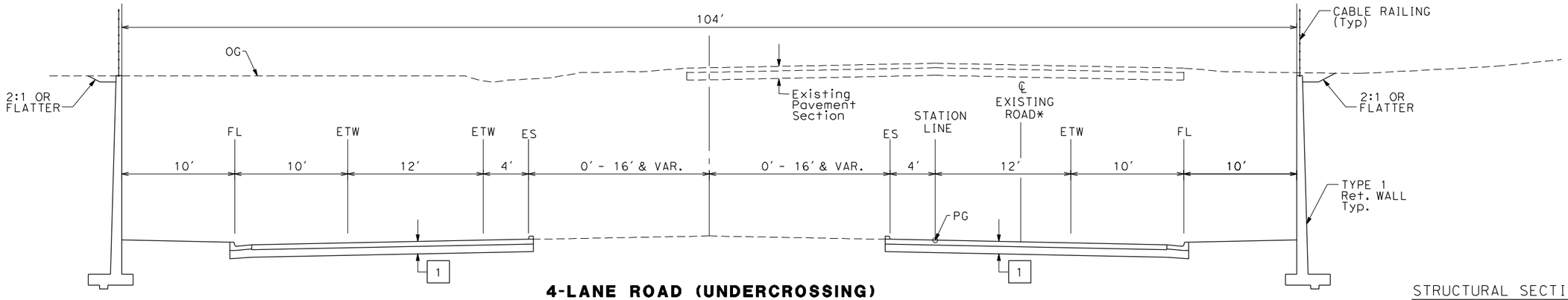
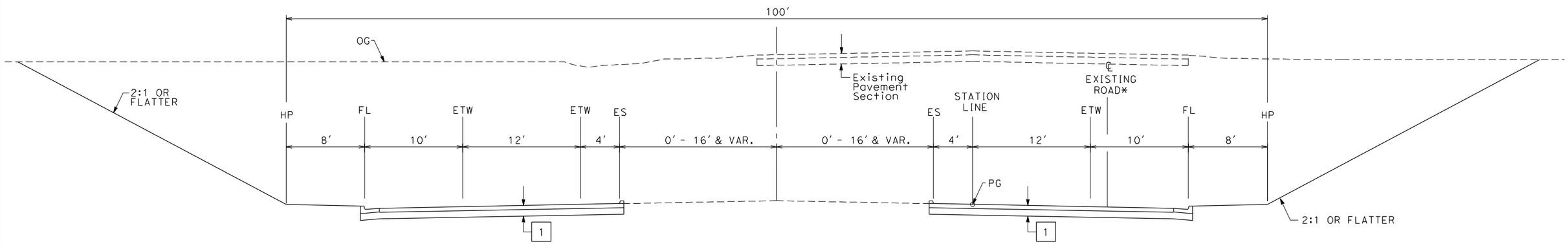


4-LANE ROAD (UNDERCROSSING)

SEE STRUCTURAL PLANS

STRUCTURAL SECTIONS:

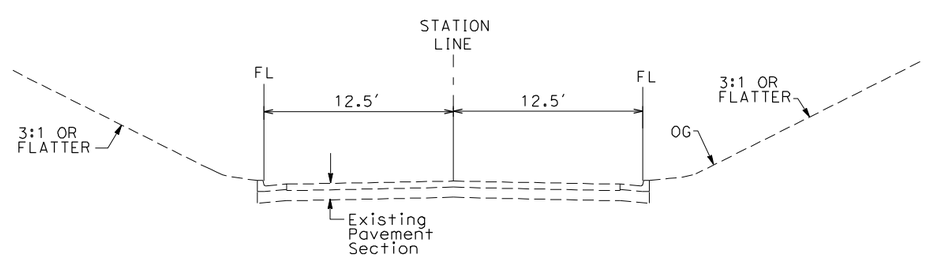
1 — HMA TYPE A
AB CLASS 2



4-LANE ROAD*

WEST SIDE SHOWN (EAST SIDE SIMILAR)

* EXISTING ROAD LOCATION VARIES. CONSTRUCTION SHALL BE STAGED TO KEEP ROAD OPEN DURING CONSTRUCTION.



EXISTING 2-LANE ROAD

EAST SIDE SHOWN (WEST SIDE SIMILAR)

TYPICAL CROSS SECTIONS ON THIS SHEET APPLY TO THE FOLLOWING ROADWAYS FOR ALIGNMENT A1:

NO.	STREET NAME
1	W. Yosemite Ave. (SR 145)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. OAKS
DRAWN BY K. OAKS
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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NOT FOR CONSTRUCTION

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
HIGHWAY
TYPICAL CROSS SECTIONS
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CT7191-B
SCALE NTS
SHEET NO. ### OF ###

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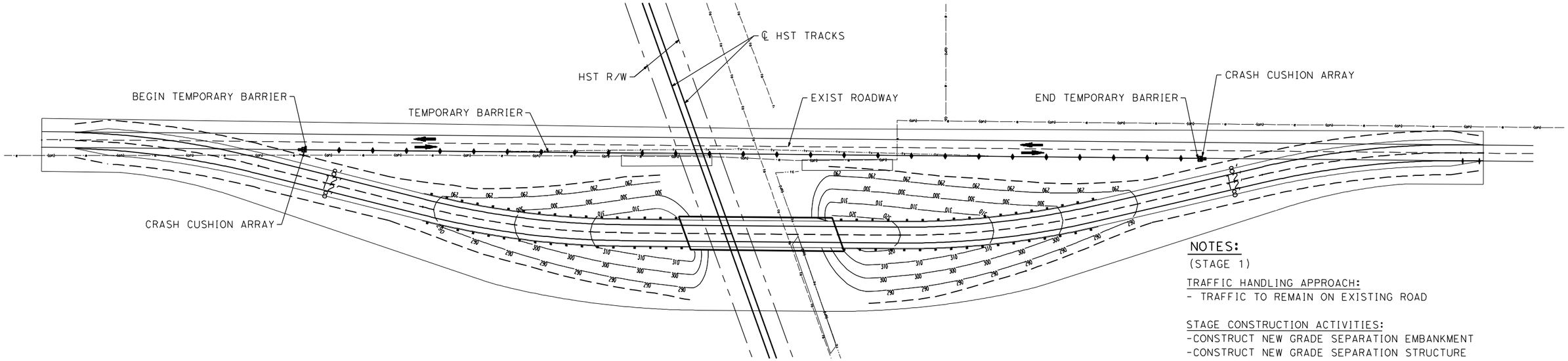
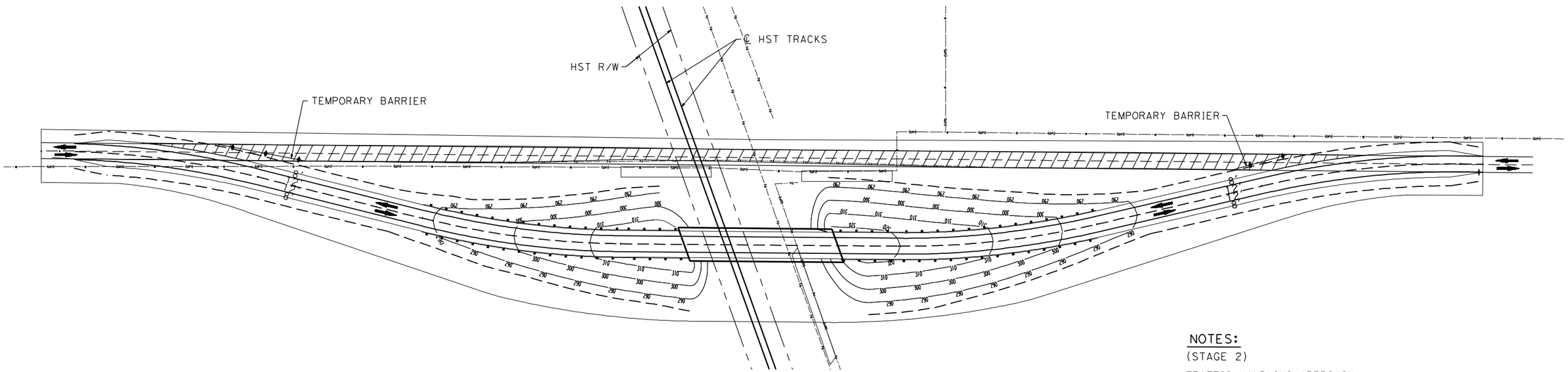


STAGE CONSTRUCTION (STAGE 1)

NOTES:
(STAGE 1)

TRAFFIC HANDLING APPROACH:
- TRAFFIC TO REMAIN ON EXISTING ROAD

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT NEW GRADE SEPARATION EMBANKMENT
-CONSTRUCT NEW GRADE SEPARATION STRUCTURE
-CONSTRUCT DRAINAGE FACILITY



STAGE CONSTRUCTION (STAGE 2)

NOTES:
(STAGE 2)

TRAFFIC HANDLING APPROACH:
- SHIFT TRAFFIC TO NEW GRADE SEPARATION FACILITY

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT REALIGNED ROAD CONFORMS
-COMPLETE DRAINAGE FACILITIES
-REMOVE SURFACE AND BASE OF EXIST ROAD

LEGEND

- CRASH CUSHION ARRAY (TYPE U11)
- TEMPORARY BARRIER (TYPE K)
- DIRECTION OF TRAVEL
- REMOVE BASE AND SURFACING (EXIST ROAD)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY S. WONG
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CT7192-B
SCALE NO SCALE
SHEET NO. ### OF ###

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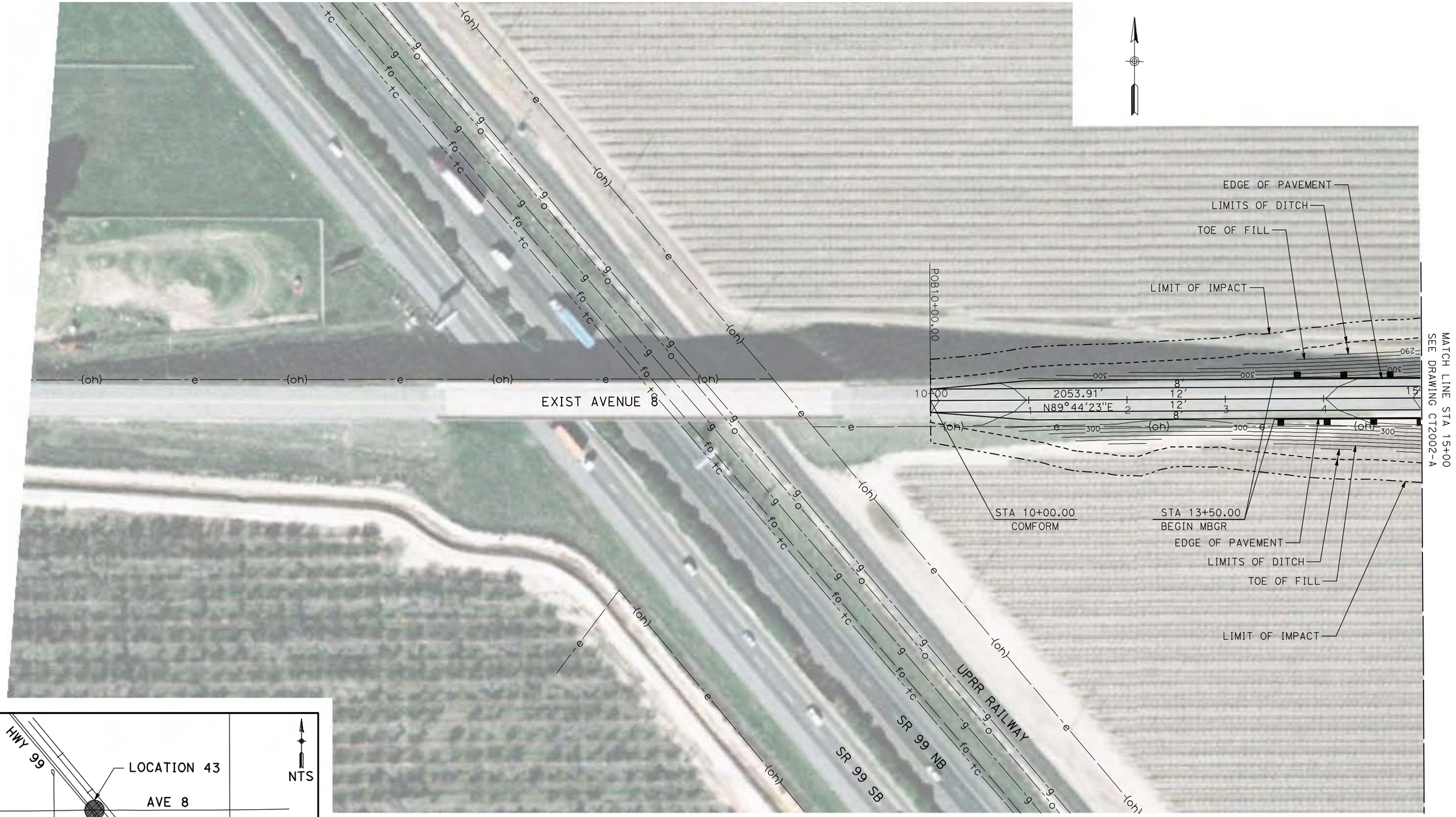

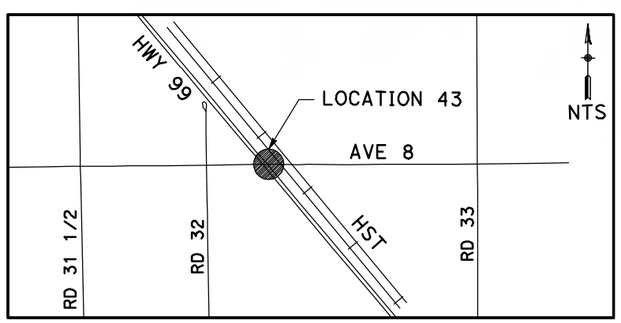

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3001-A THROUGH CT3003-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 8
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT2001-A
SCALE AS SHOWN
SHEET NO. OF ###

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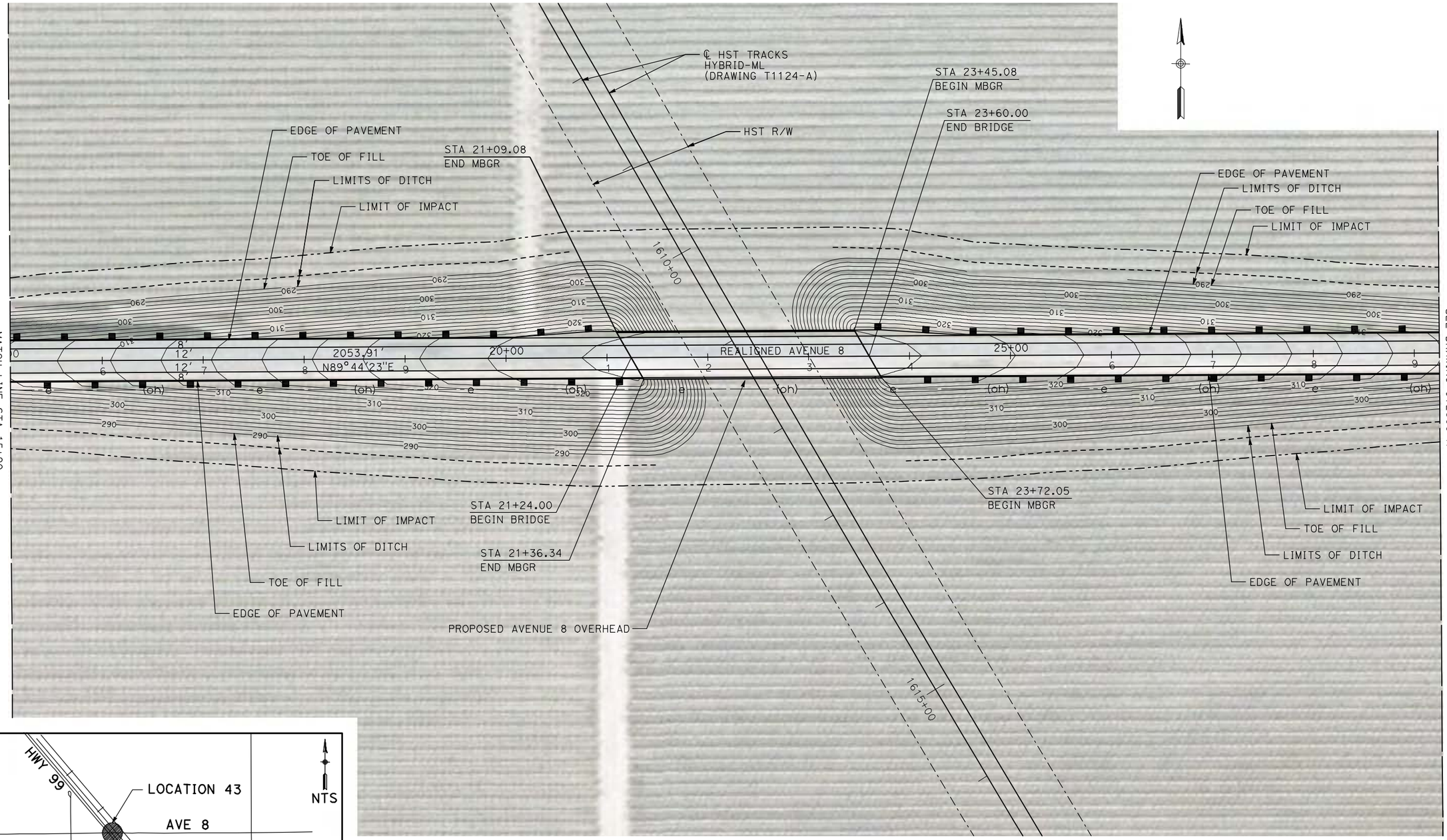

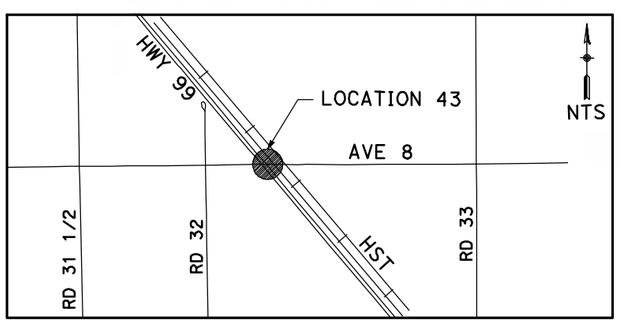

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3001-A THROUGH CT3003-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 8
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT2002-A
SCALE AS SHOWN
SHEET NO. OF ###

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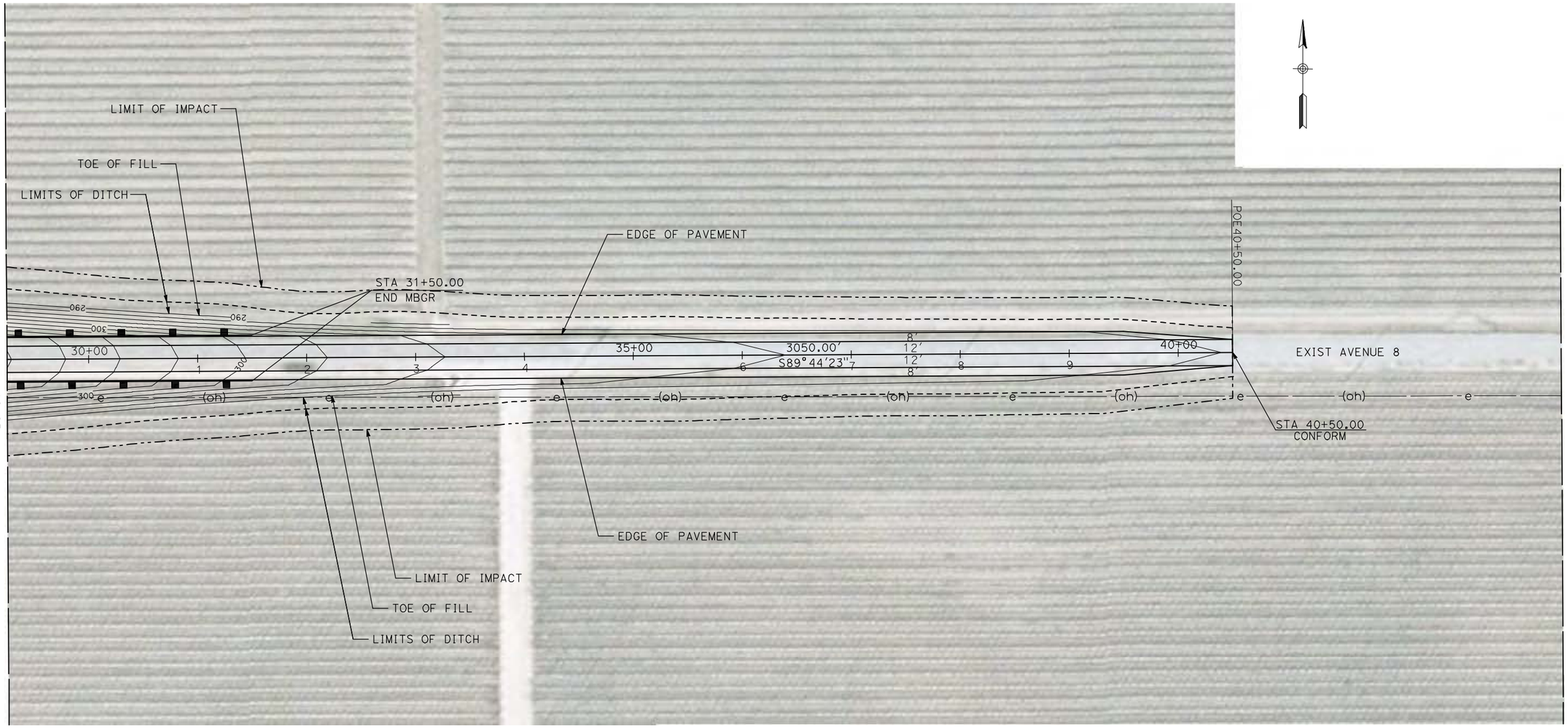

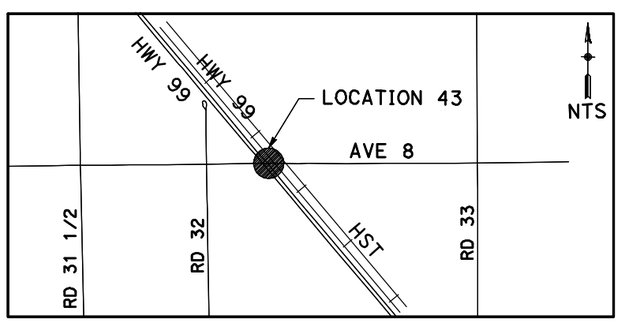

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3001-A THROUGH CT3003-A.

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

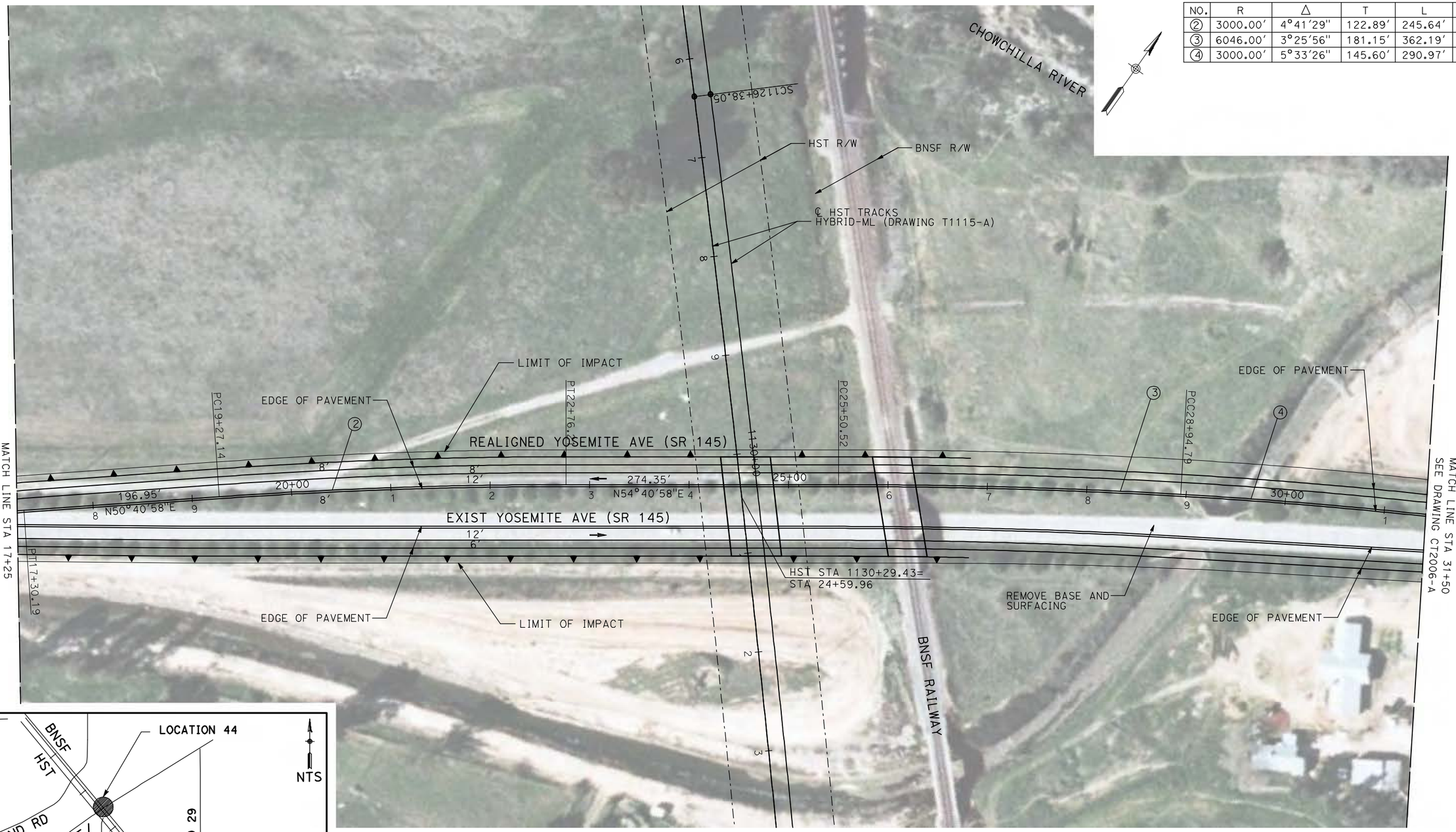
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
GRADE SEPARATION - AVENUE 8
LAYOUT
SHEET 3 OF 3

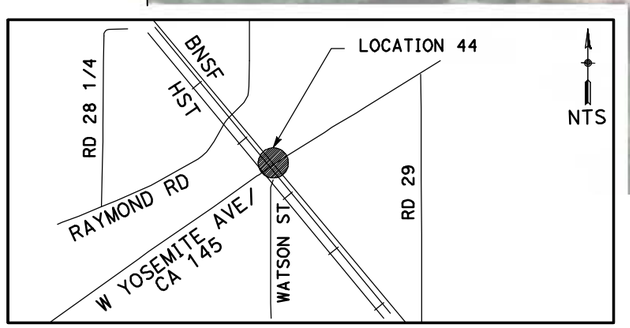
CONTRACT NO. HSR06-007
DRAWING NO. CT2003-A
SCALE AS SHOWN
SHEET NO. ### OF ###

5/1/2011 1:50:47 PM I:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-2003-A.dgn
GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
2	3000.00′	4°41′29"	122.89′	245.64′	55 MPH
3	6046.00′	3°25′56"	181.15′	362.19′	55 MPH
4	3000.00′	5°33′26"	145.60′	290.97′	55 MPH





50 0 50 100
1"=50′

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3004-A THROUGH CT3006-A.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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
BNSF MAIN LINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT2005-A
SCALE AS SHOWN
SHEET NO. ### OF ###

GibsonR1 5/1/2011 1:51:02 PM i:\chsr\60022962\task-02_merced-fresno\cadd\civil\sheet\roadway\Cost Reduction\Grade Sep Plan\MF-CT-2005-A.dgn

CURVE DATA

NO.	R	Δ	T	L	V
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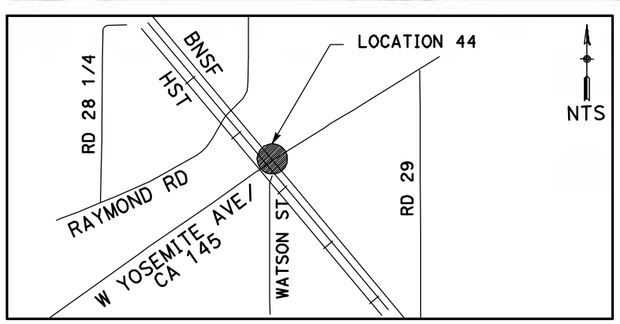

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3004-A THROUGH CT3006-A.

50 0 50 100
1"=50′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT2004-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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GibsonR1

CURVE DATA

NO.	R	Δ	T	L	V
4	3000.00′	5°33′26″	145.60′	290.97′	55 MPH
5	3000.00′	5°43′37″	150.06′	299.86′	55 MPH

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT3004-A THROUGH CT3006-A.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT2006-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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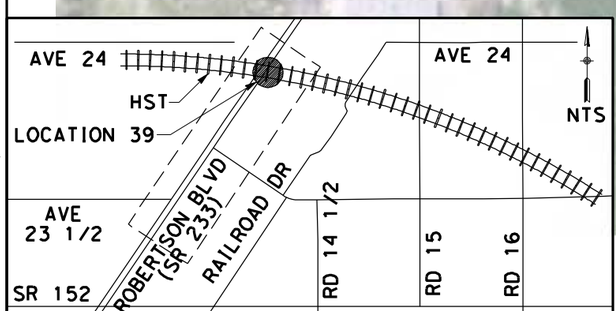

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8200-B THROUGH CT8203-B

CURVE DATA

No.	R	Δ	T	L	V
1	3000.00	10°10'00"	266.86	532.33	55 MPH
2	3000.00	10°10'00"	266.86	532.33	55 MPH

50 0 50 100

1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

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Sacramento, CA 95811
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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
LAYOUT
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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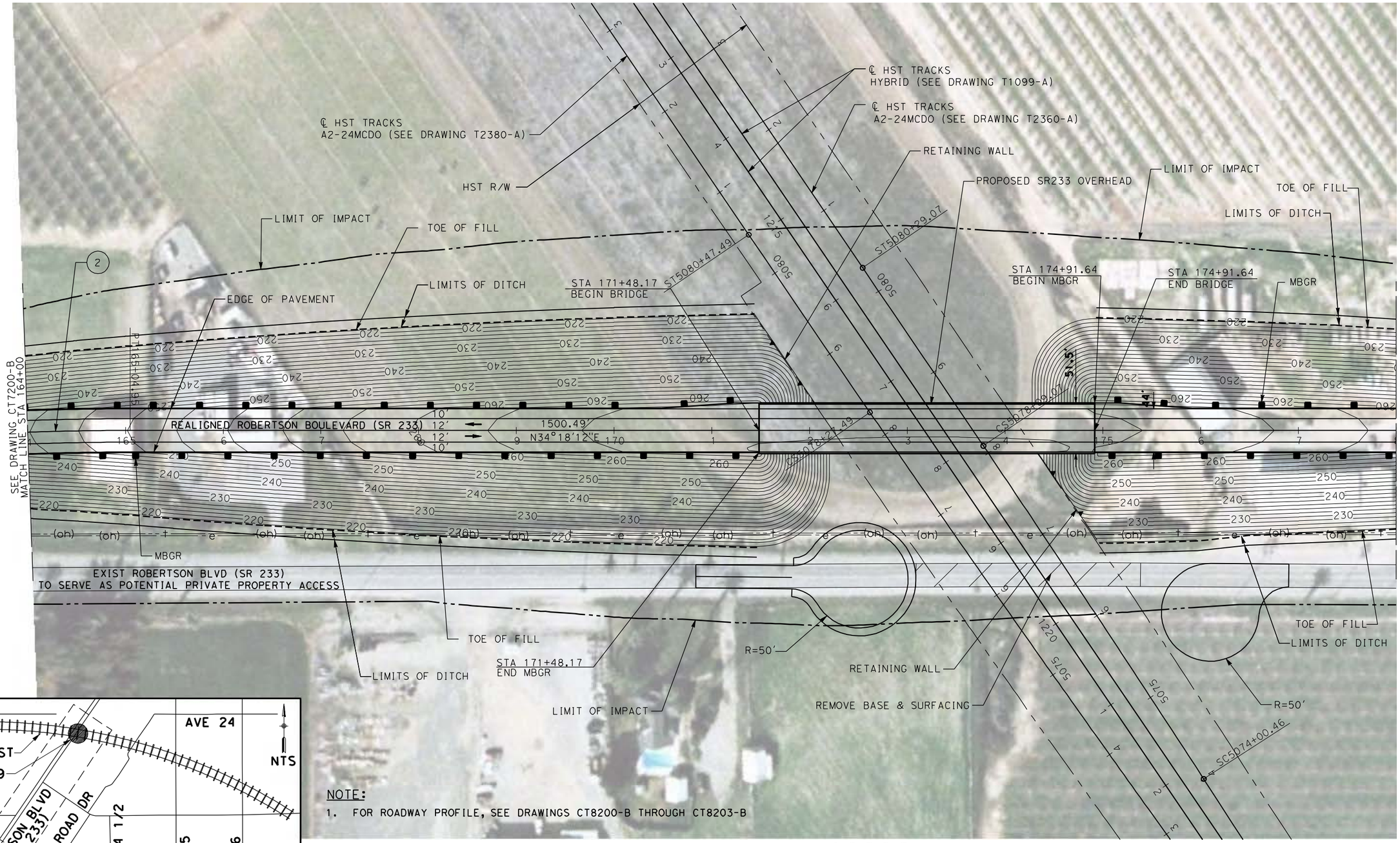

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8200-B THROUGH CT8203-B

CURVE DATA

No.	R	Δ	T	L	V
2	3000.00	10°10'00"	266.86	532.33	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
LAYOUT
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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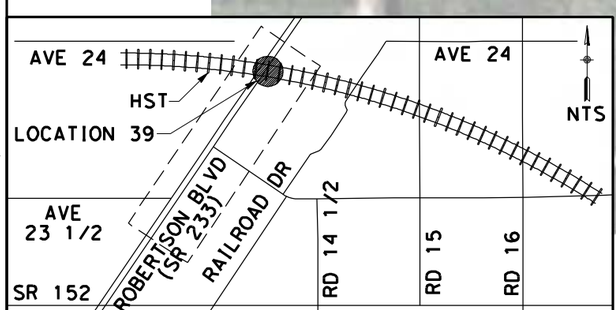
p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 2b - hybrid caltrans facilities\Layout\CT7202-B.dgn 4/27/2011 7:14:44 PM
oyeled



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8200-B THROUGH CT8203-B

CURVE DATA

No.	R	Δ	T	L	V
3	3000.00	10°10'00"	266.86	532.33	55 MPH
4	3000.00	10°10'00"	266.86	532.33	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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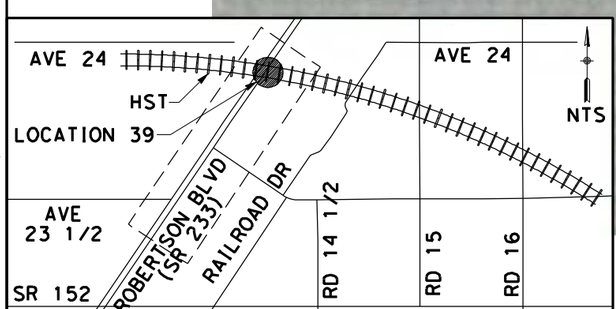
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
LAYOUT
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7202-B
SCALE AS SHOWN
SHEET NO. ### OF ###



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8200-B THROUGH CT8203-B

CURVE DATA

No.	R	Δ	T	L	V
4	3000.00	10°10'00"	266.86	532.33	55 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
LAYOUT
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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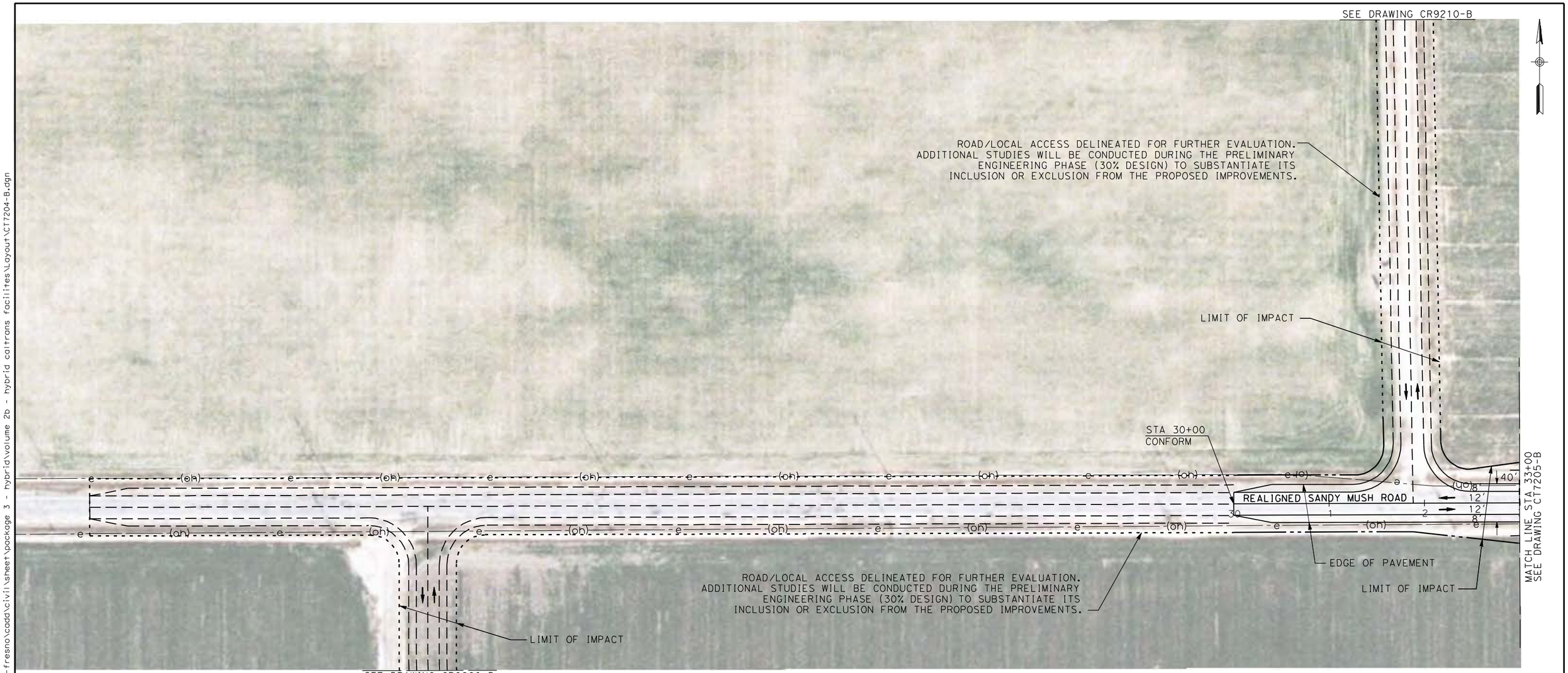

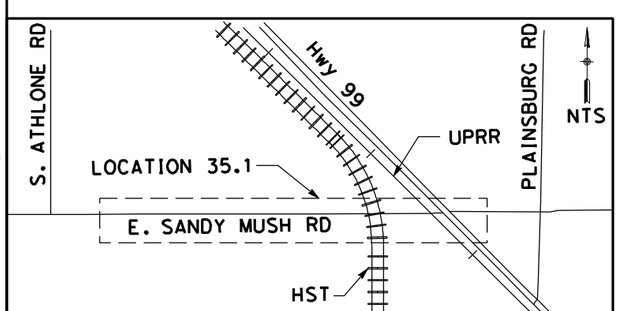

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8204-B THROUGH CT8207-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
LAYOUT
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7204-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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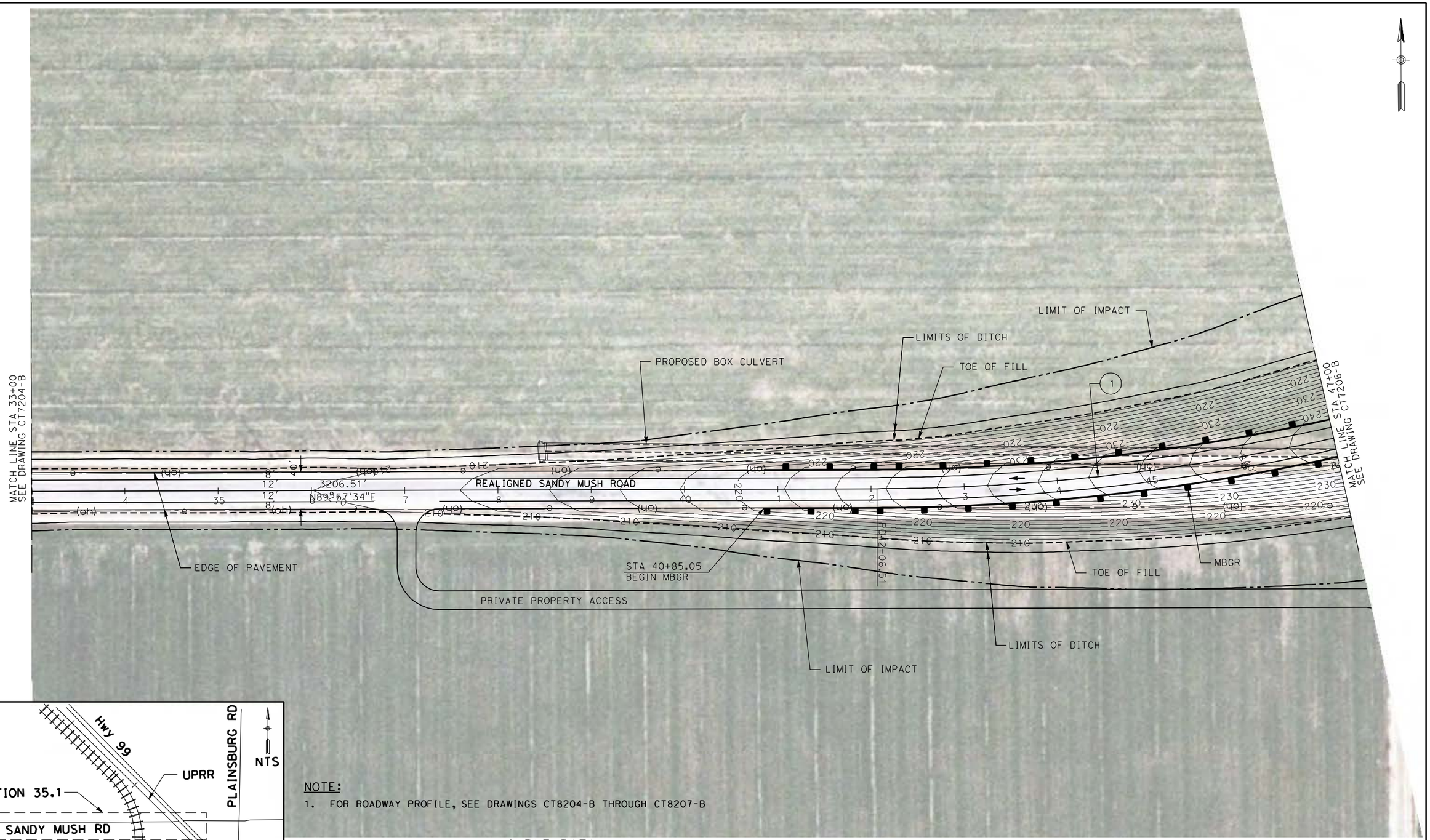

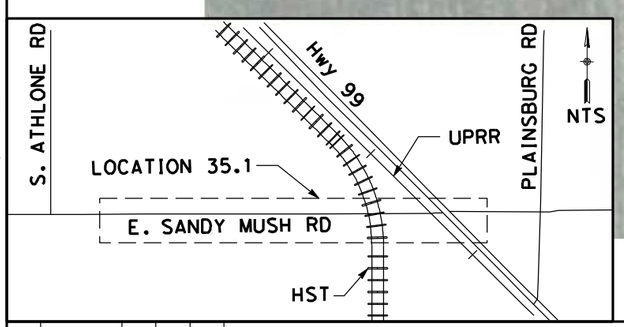

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8204-B THROUGH CT8207-B

CURVE DATA

No.	R	Δ	T	L	V
1	2300.00	50°8'26"	833.94	1600.06	50 MPH

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
LAYOUT
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7205-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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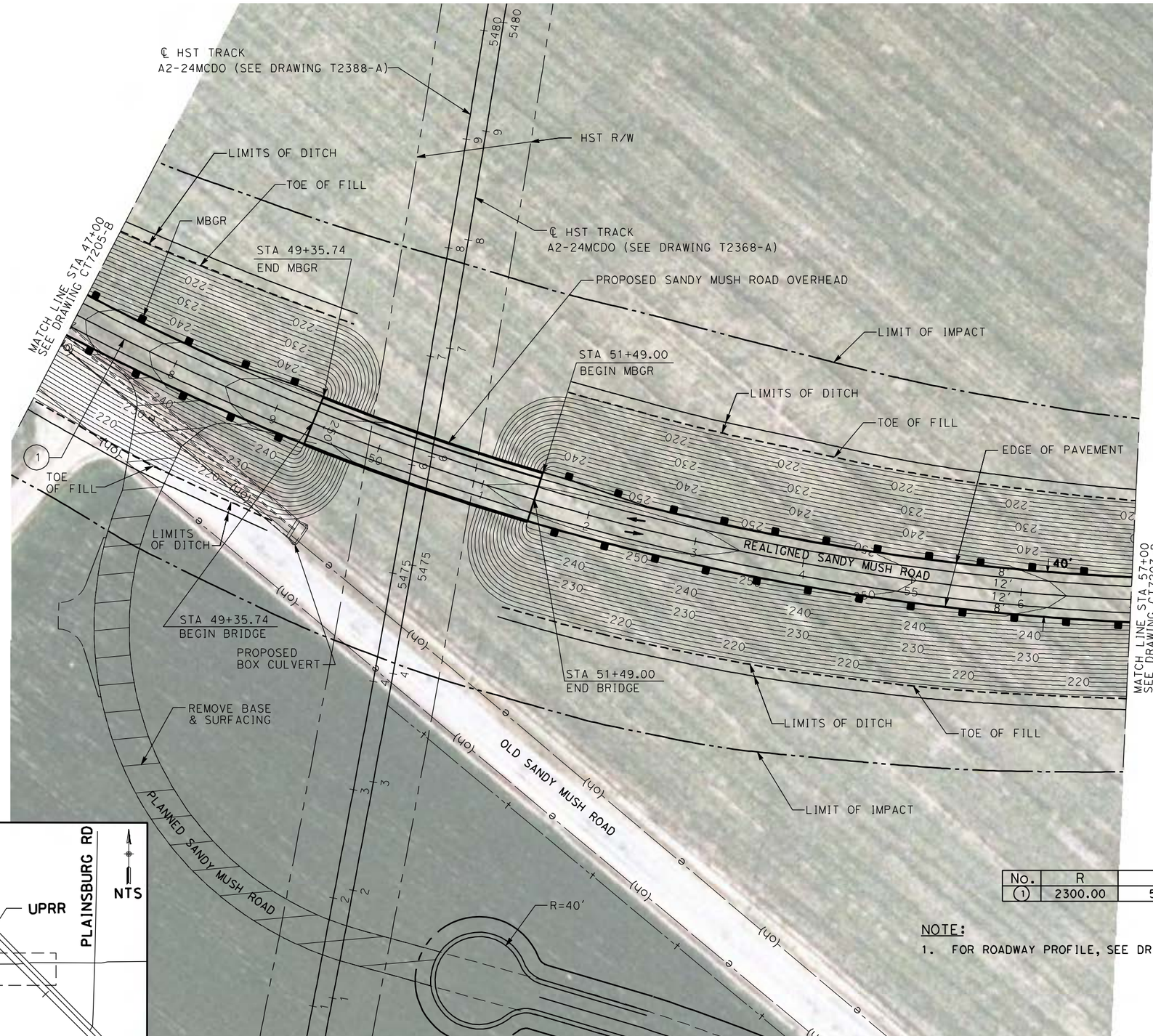

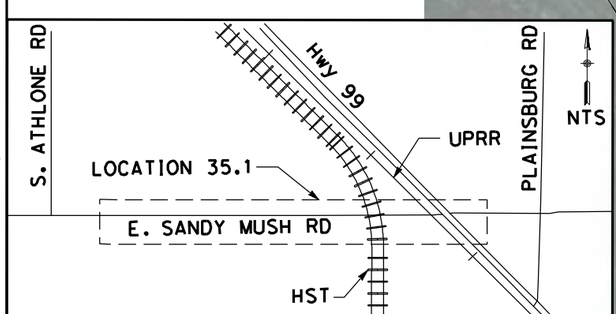

CURVE DATA

No.	R	Δ	T	L	V
1	2300.00	50°8'26"	833.94	1600.06	50 MPH

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8204-B THROUGH CT8207-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
SUBMITTAL

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
LAYOUT
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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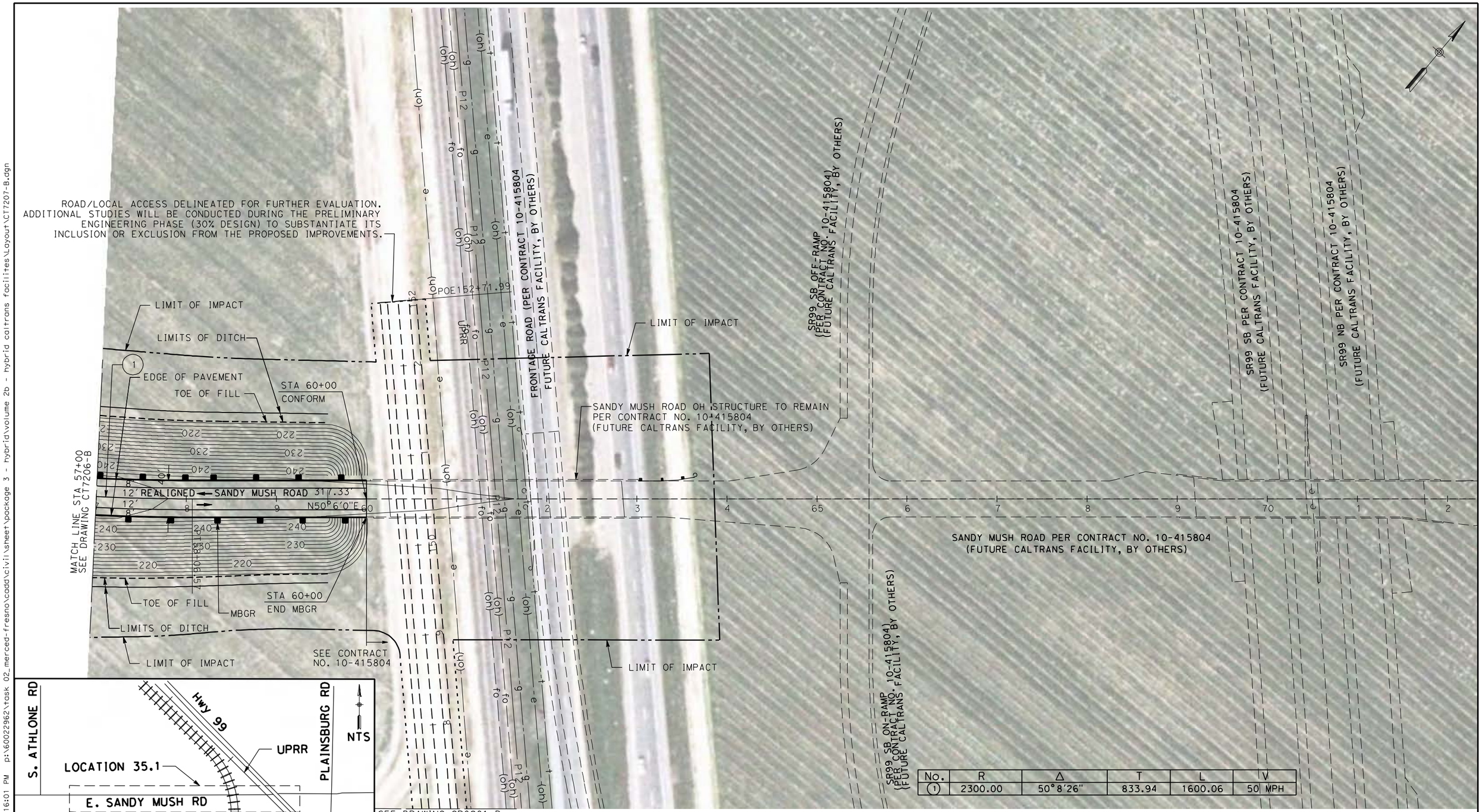

No.	R	Δ	T	L	V
1	2300.00	50°8'26"	833.94	1600.06	50 MPH

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8204-B THROUGH CT8207-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
LAYOUT
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT7207-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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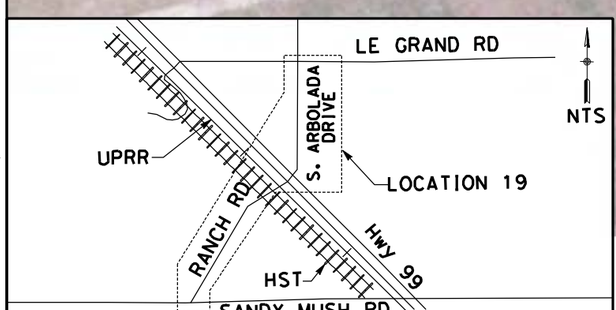

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8208-B THROUGH CT8212-B

CURVE DATA

No.	R	Δ	T	L
1	3000.00	14°17'14"	375.99	748.07

50 0 50 100
1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
LAYOUT
SHEET 1 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT7208-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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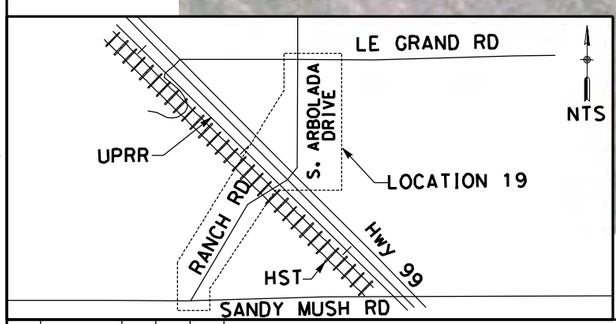

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8208-B THROUGH CT8212-B

50 0 50 100

1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN
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Sacramento, CA 95811

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
LAYOUT
SHEET 2 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT7209-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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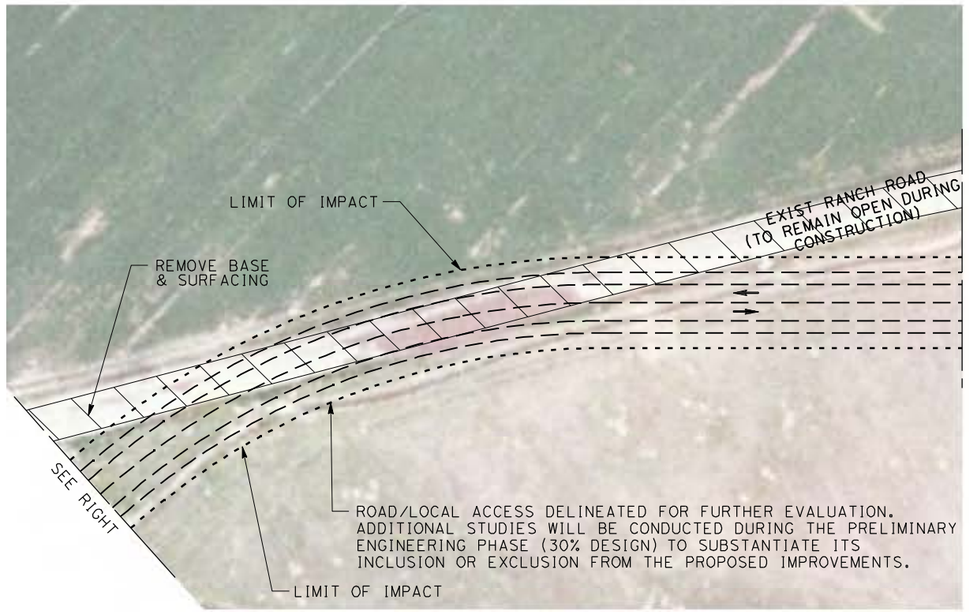

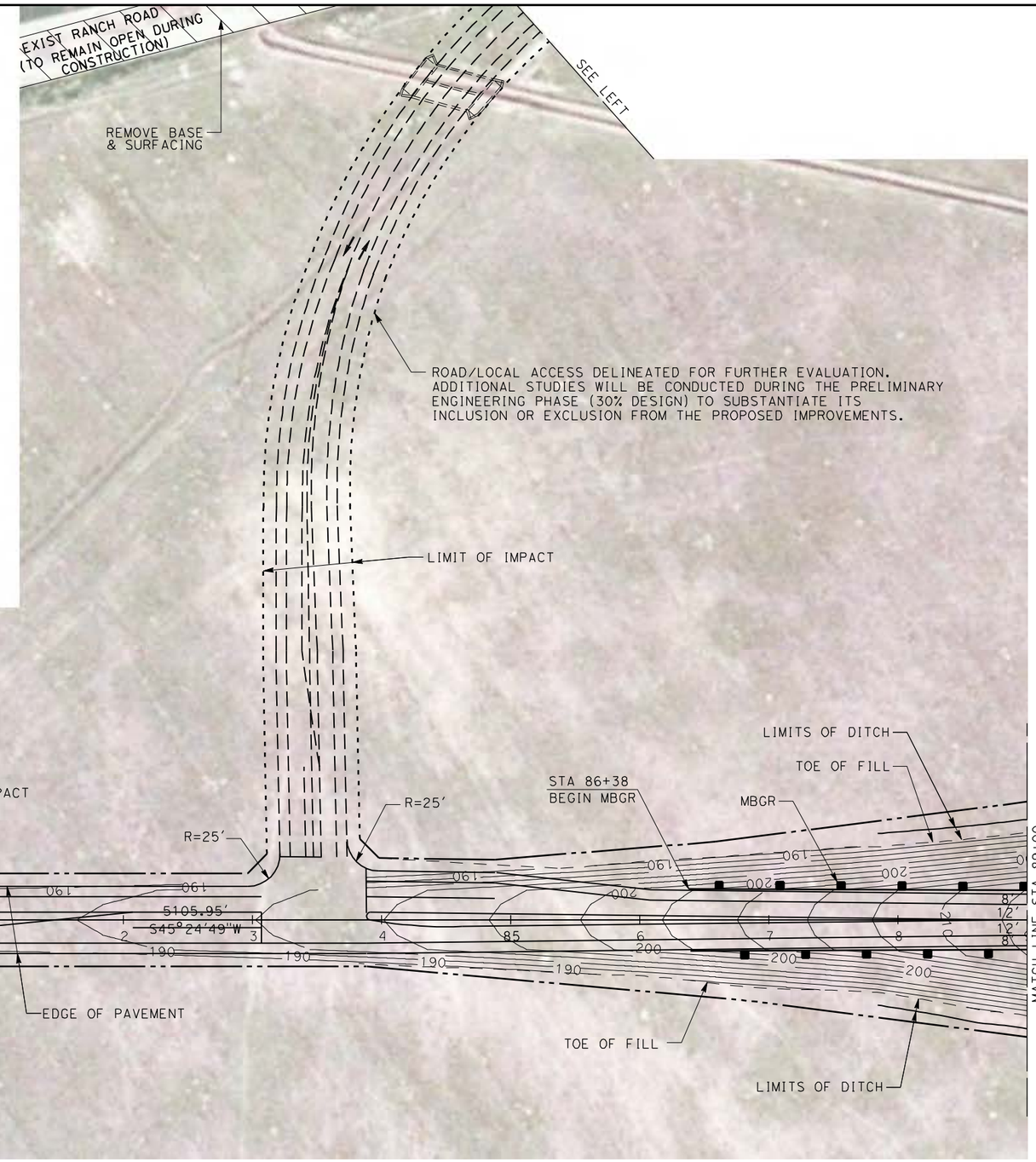

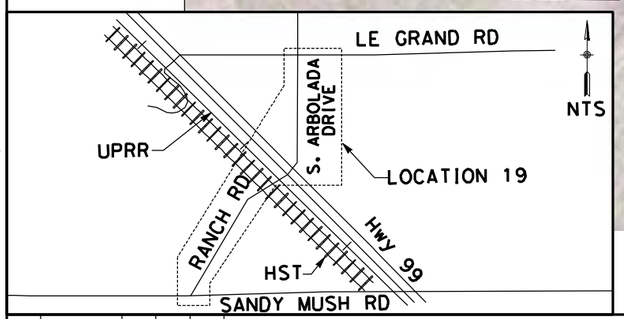

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8127-B THROUGH CT8131-B

50 0 50 100

1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811

CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
LAYOUT
SHEET 3 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT7210-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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ayelea

SEE DRAWING CR9205-B

HST R/W

UPRR R/W

LIMITS OF DITCH

TOE OF FILL

LIMIT OF IMPACT

℄ HST TRACKS
A2-21MC (SEE DRAWING T2219-A)

STA 95+13.54
BEGIN BRIDGE

MBGR

EDGE OF PAVEMENT

MATCH LINE STA 89+00
SEE DRAWING CT7210-B

REALIGNED RANCH ROAD

5105.95'
S45°24'49"W

STA 95+13.54
END MBGR

LIMIT OF IMPACT

PROPOSED BOX CULVERT

TOE OF FILL

LIMITS OF DITCH

ROAD/LOCAL ACCESS DELINEATED FOR FURTHER EVALUATION.
ADDITIONAL STUDIES WILL BE CONDUCTED DURING THE PRELIMINARY
ENGINEERING PHASE (30% DESIGN) TO SUBSTANTIATE ITS
INCLUSION OR EXCLUSION FROM THE PROPOSED IMPROVEMENTS.

UPRR

FRONTAGE ROAD PER
CONTRACT 10-415704
(FUTURE CALTRANS
FACILITY, BY OTHERS)

LIMIT OF IMPACT

REMOVE CURB RETURN FROM CONTRACT
NO. 10-415704

TOE OF FILL

MBGR

STA 101+28.21
BEGIN MBGR

REALIGNED LE GRAND ROAD

STA 101+28.21
END BRIDGE

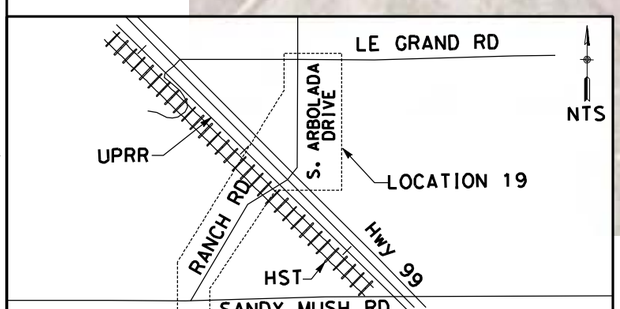
TOE OF FILL

LIMIT OF IMPACT

PROPOSED LE GRAND ROAD OVERHEAD

MATCH LINE STA 103+00
SEE DRAWING CT7212-B

SEE DRAWING CR9205-B



NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8208-B THROUGH CT8212-B

50 0 50 100
1"=50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
LAYOUT
SHEET 4 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT7211-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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oyeled

CURVE DATA

No.	R	Δ	T	L
3	850.00	20°27'07"	153.34	303.41

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8208-B THROUGH CT8212-B

50 0 50 100

1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
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IN CHARGE A. BOONE
DATE 04/29/2011

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Sacramento, CA 95811

CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
LAYOUT
SHEET 5 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT7212-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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ayeled

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8213-B THROUGH CT8216-B

CURVE DATA

No.	R	Δ	T	L
1	3000.00	5°31'37"	144.81	289.39
2	850.00	17°23'25"	290.57	576.68

50 0 50 100

1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY C. DELOS REYES
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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP
LAYOUT
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CT7213-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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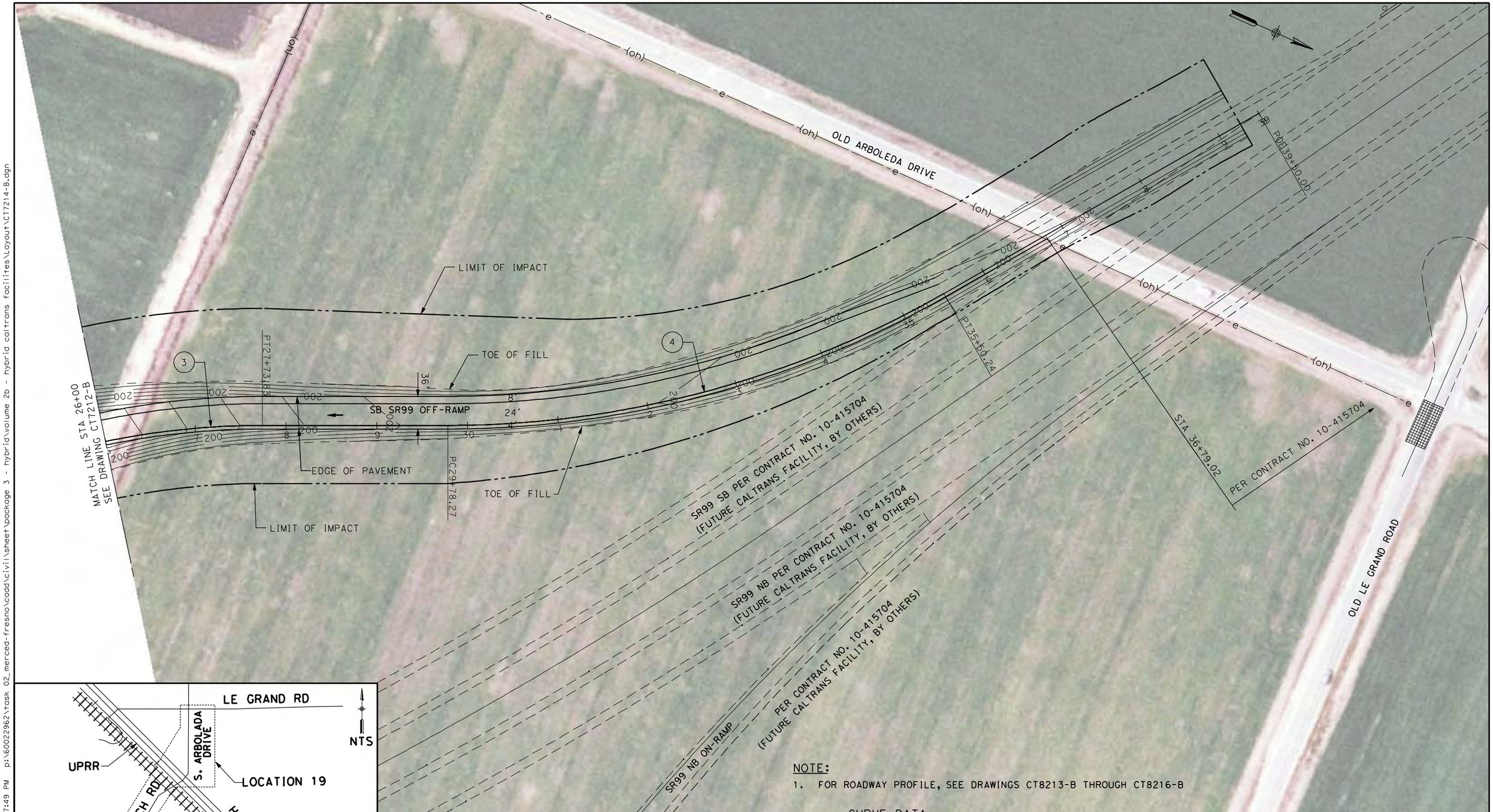

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8213-B THROUGH CT8216-B

CURVE DATA

No.	R	Δ	T	L
3	850.00	20°27'07"	153.34	303.41
4	1100.00	29°47'31"	292.61	571.97

50 0 50 100

1" = 50'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP
LAYOUT
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CT7214-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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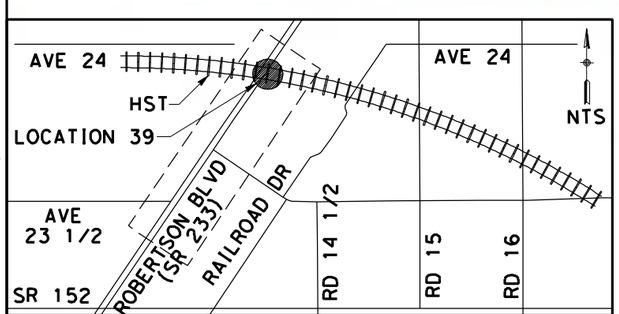

NOTE:
1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8217-B THROUGH CT8219-B

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE / MERCED DO (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
LAYOUT
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT7215-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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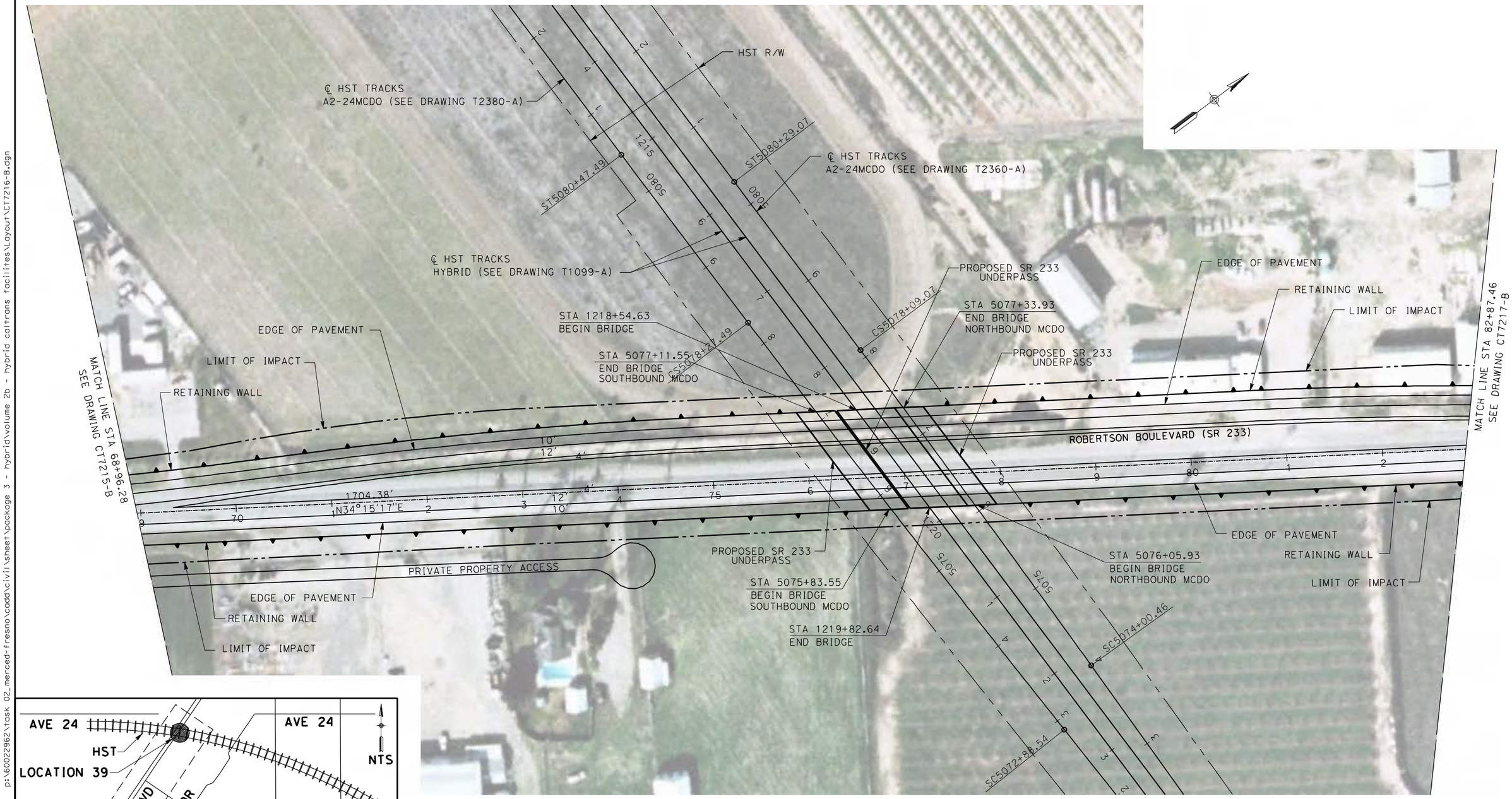

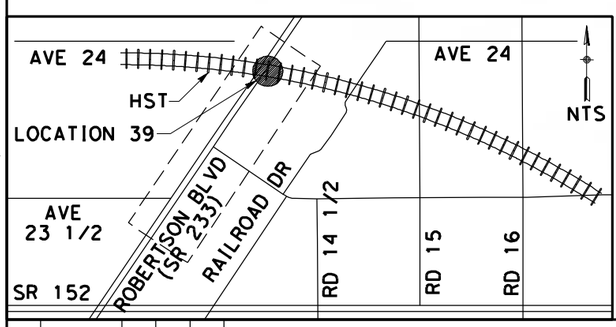

50 0 50 100
1"=50'

NOTE:

1. FOR ROADWAY PROFILE, SEE DRAWINGS CT8217-B THROUGH CT8219-B

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE / MERCED DO (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
LAYOUT
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT7216-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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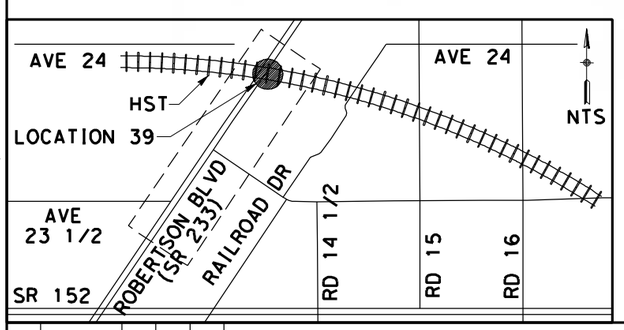

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE / MERCED DO (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
LAYOUT
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT7217-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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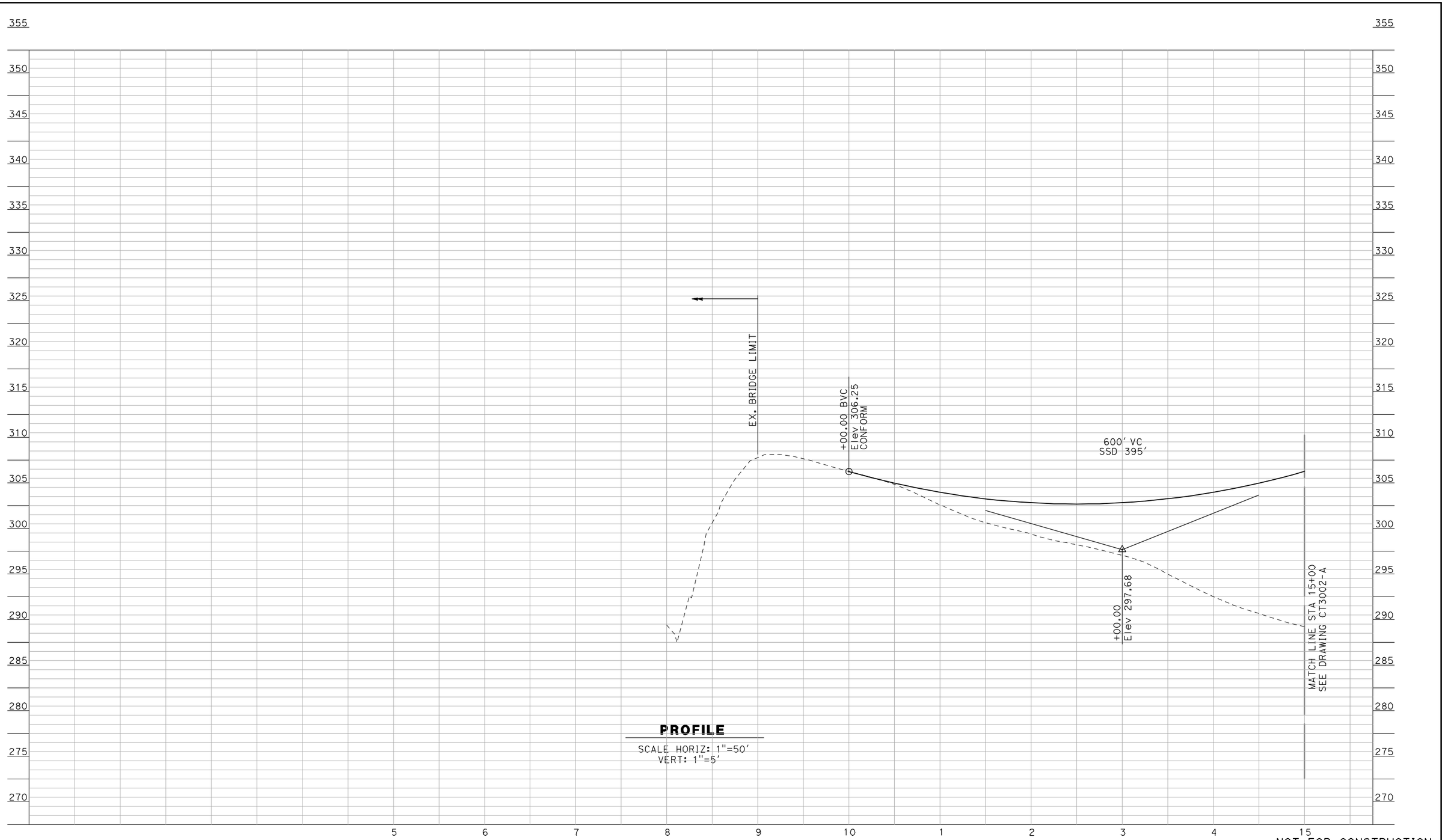

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

NOT FOR CONSTRUCTION
FOR INTERNAL USE ONLY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 8
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3001-A
SCALE AS SHOWN
SHEET NO. OF ###

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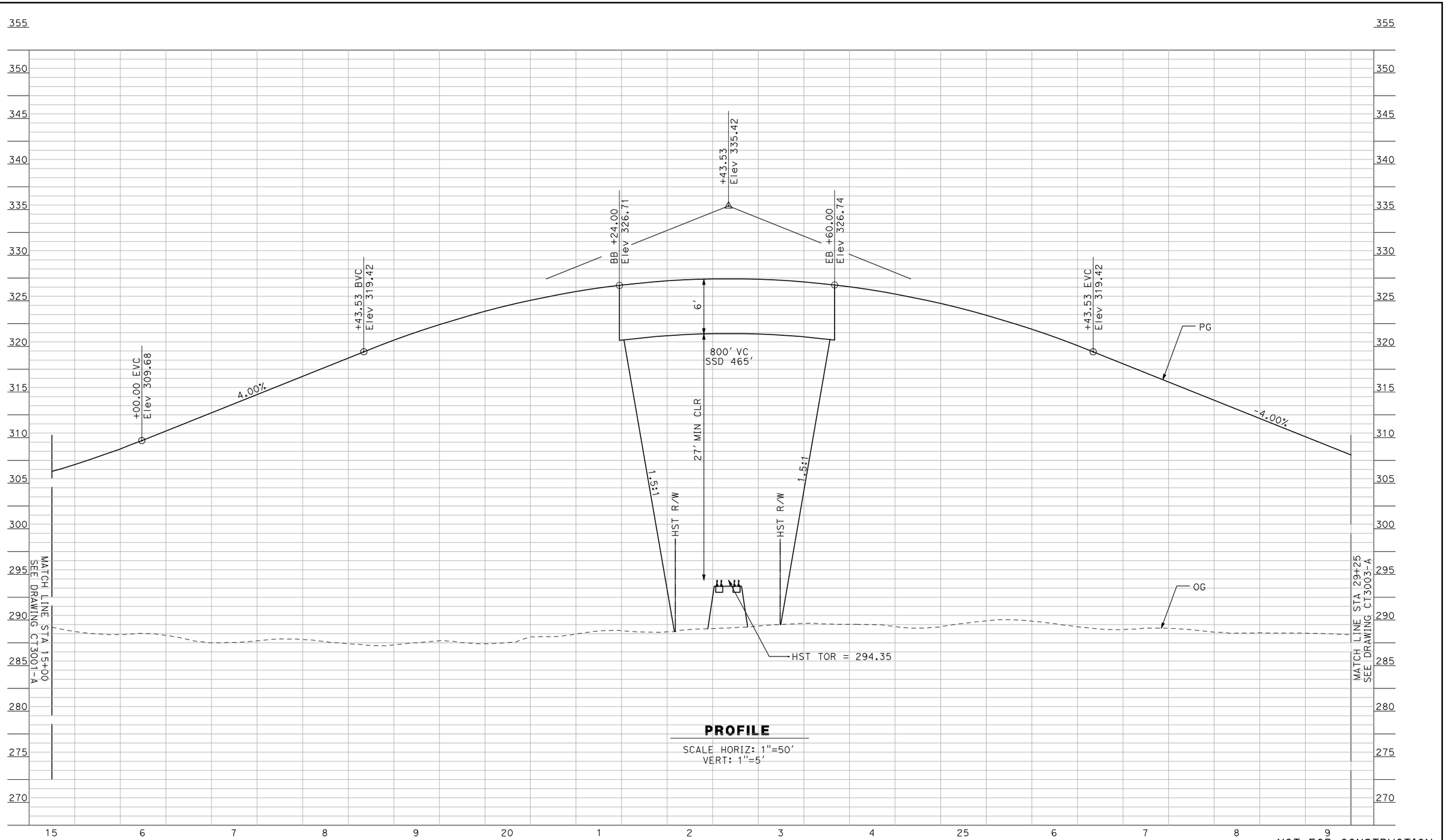

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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Sacramento, CA 95811
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 8
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3002-A
SCALE AS SHOWN
SHEET NO. OF ###

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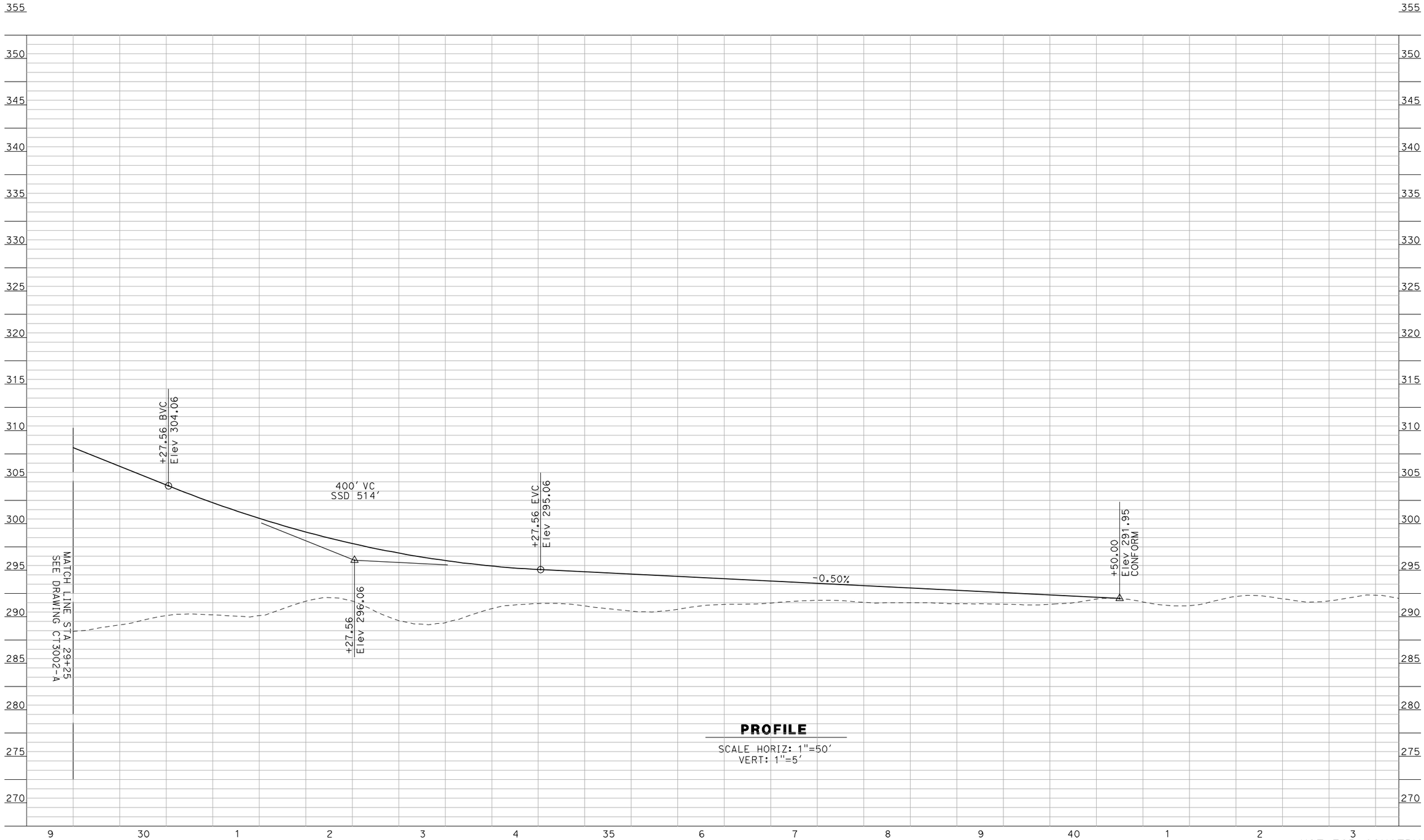

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE - HYBRID
GRADE SEPARATION - AVENUE 8
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3003-A
SCALE AS SHOWN
SHEET NO. OF ###

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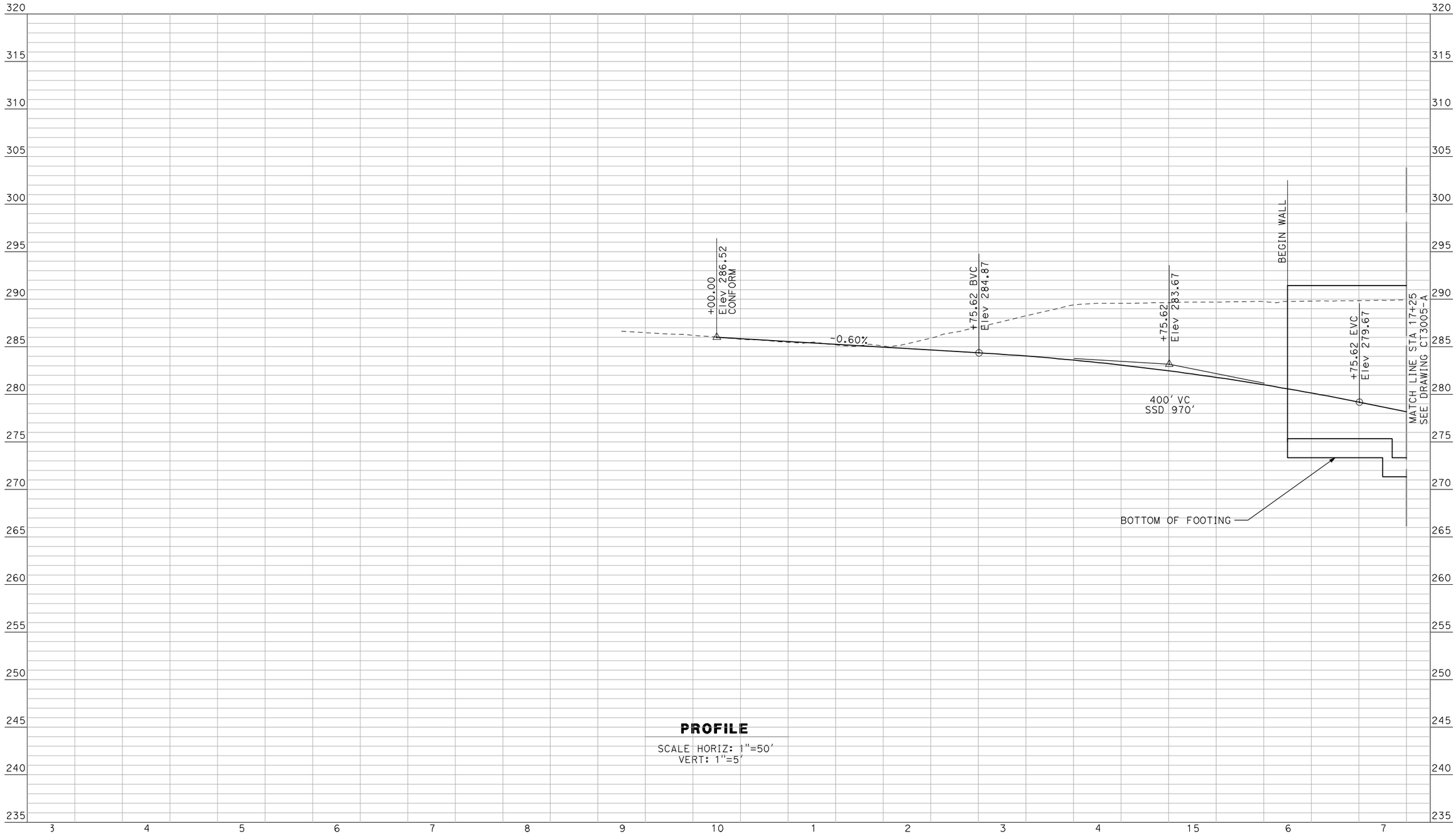

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3004-A
SCALE AS SHOWN
SHEET NO. OF ###

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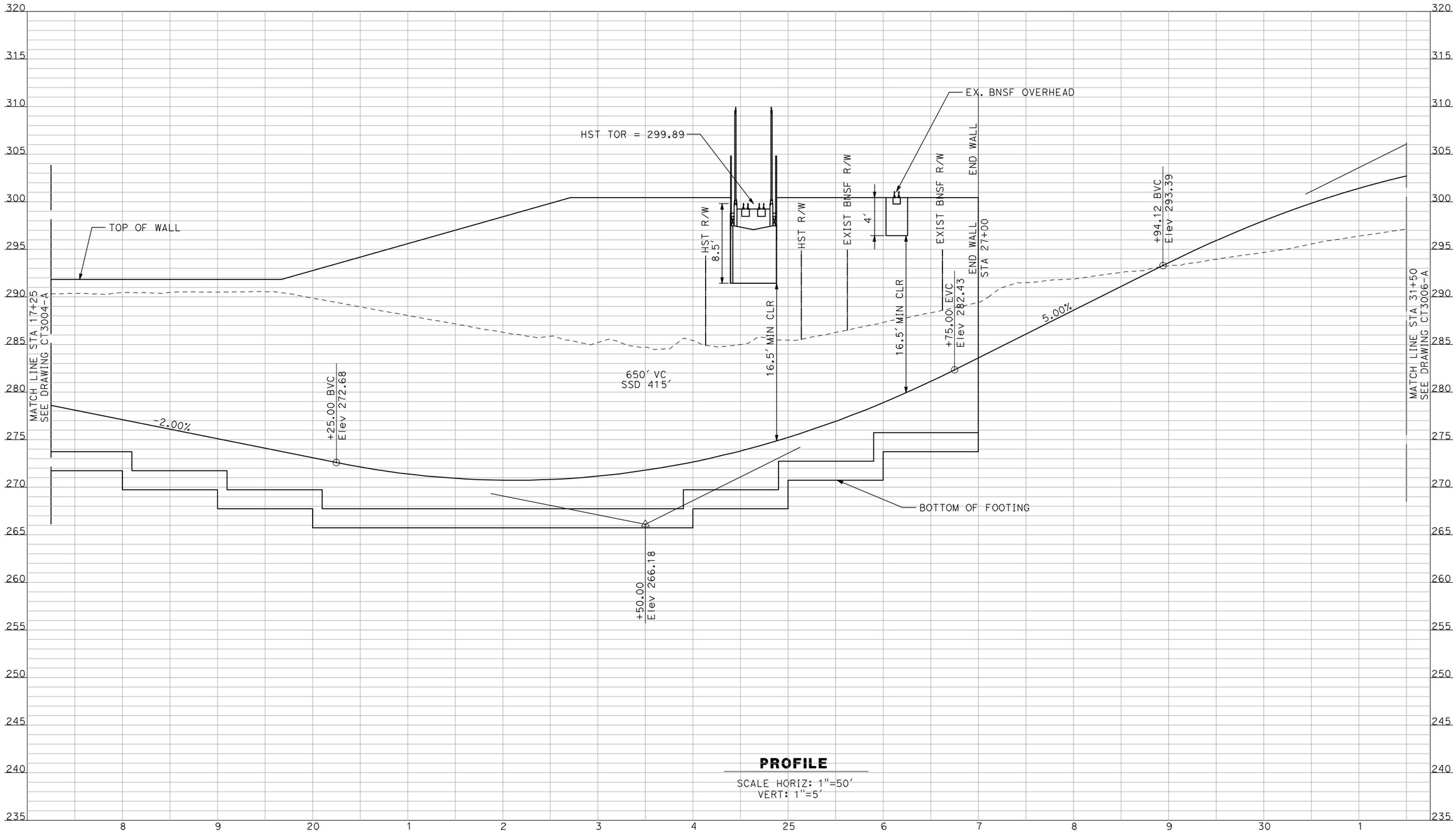

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

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FOR INTERNAL USE ONLY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3005-A
SCALE AS SHOWN
SHEET NO. OF ###

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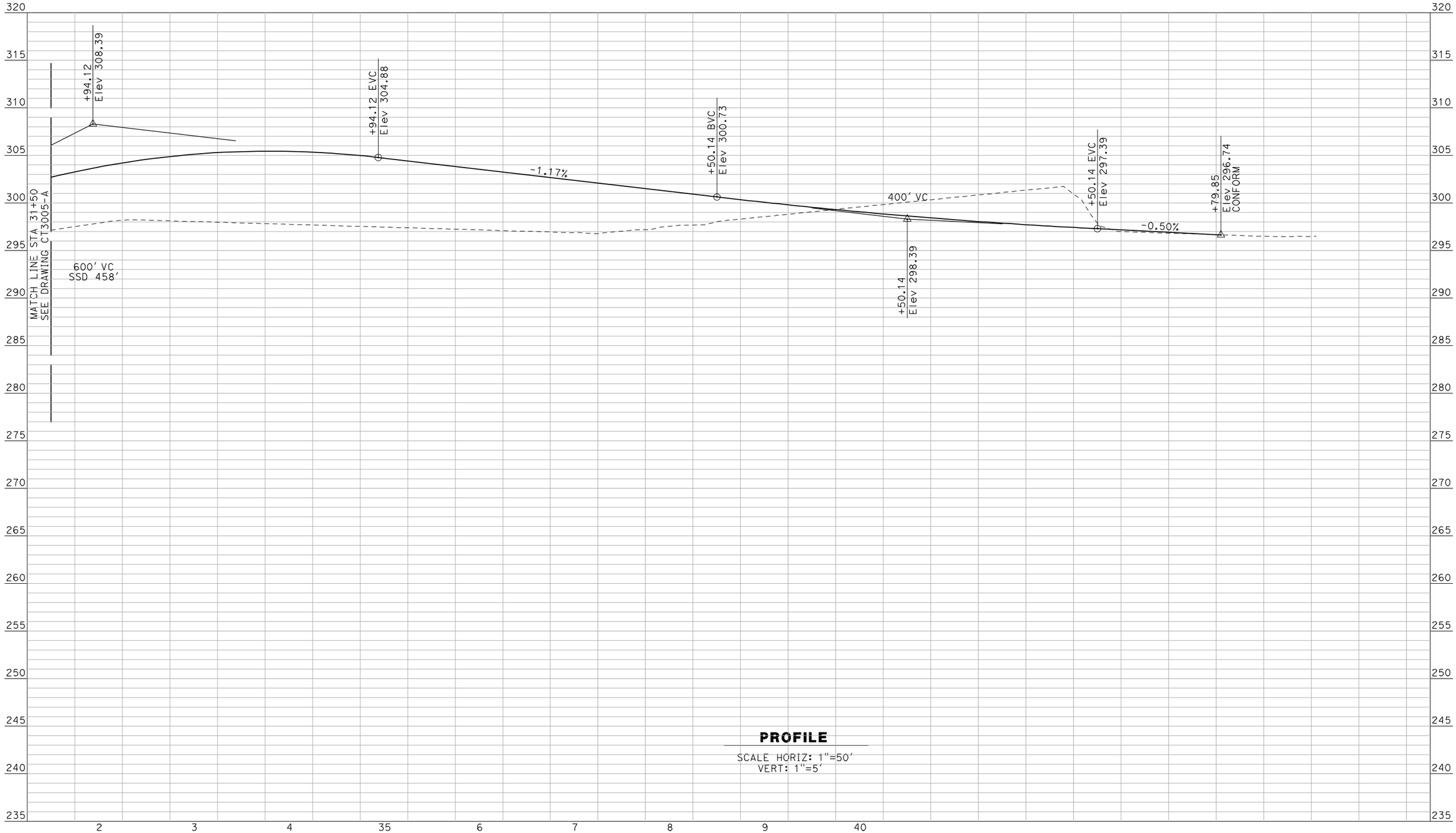

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

NOT FOR CONSTRUCTION
FOR INTERNAL USE ONLY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY F. DEMARCO
CHECKED BY J. ZANDIAN
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE - HYBRID
UNDERPASS - YOSEMITE AVE (SR 145)
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT3006-A
SCALE AS SHOWN
SHEET NO. OF ###

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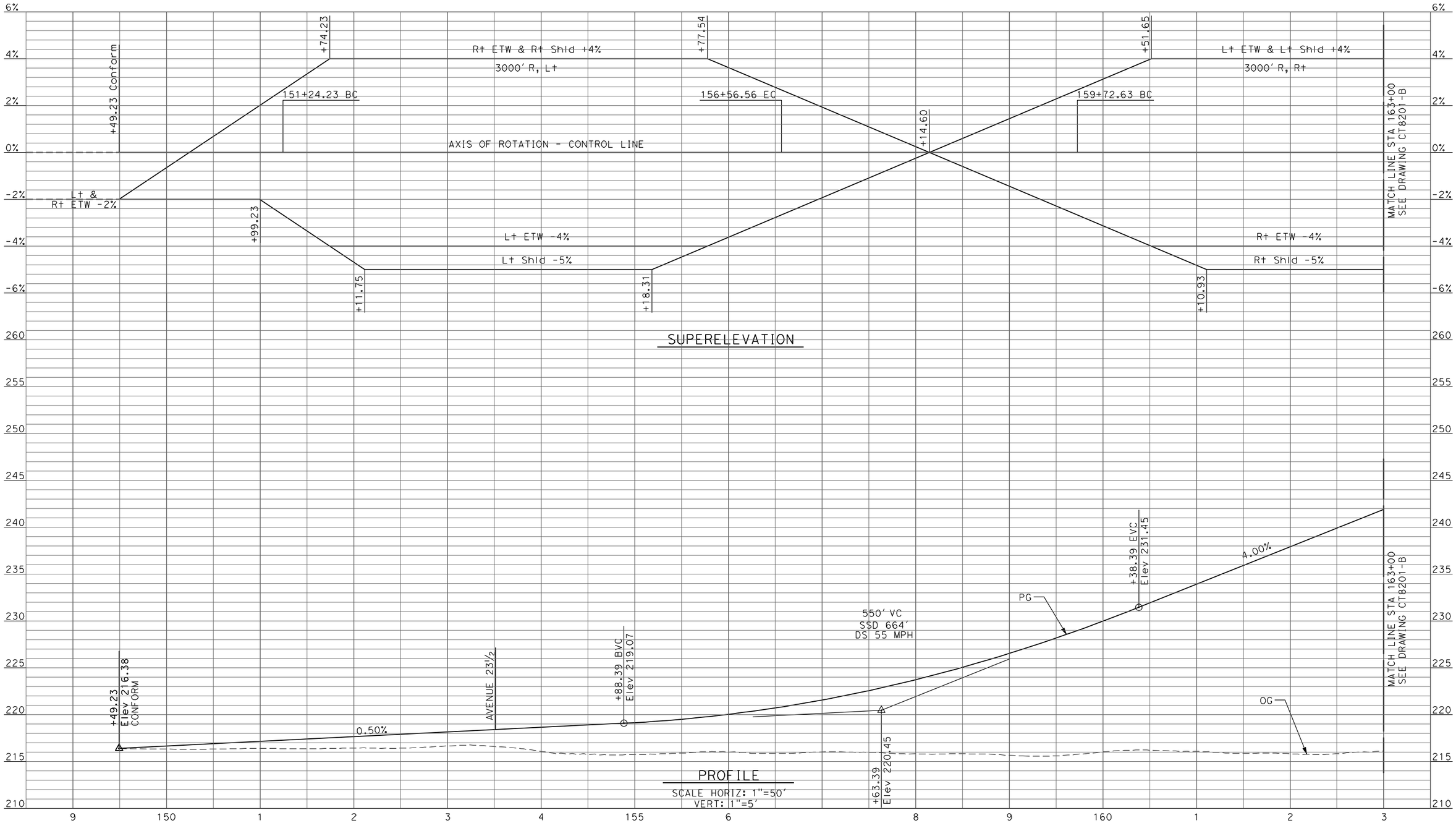

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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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

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
PROFILE
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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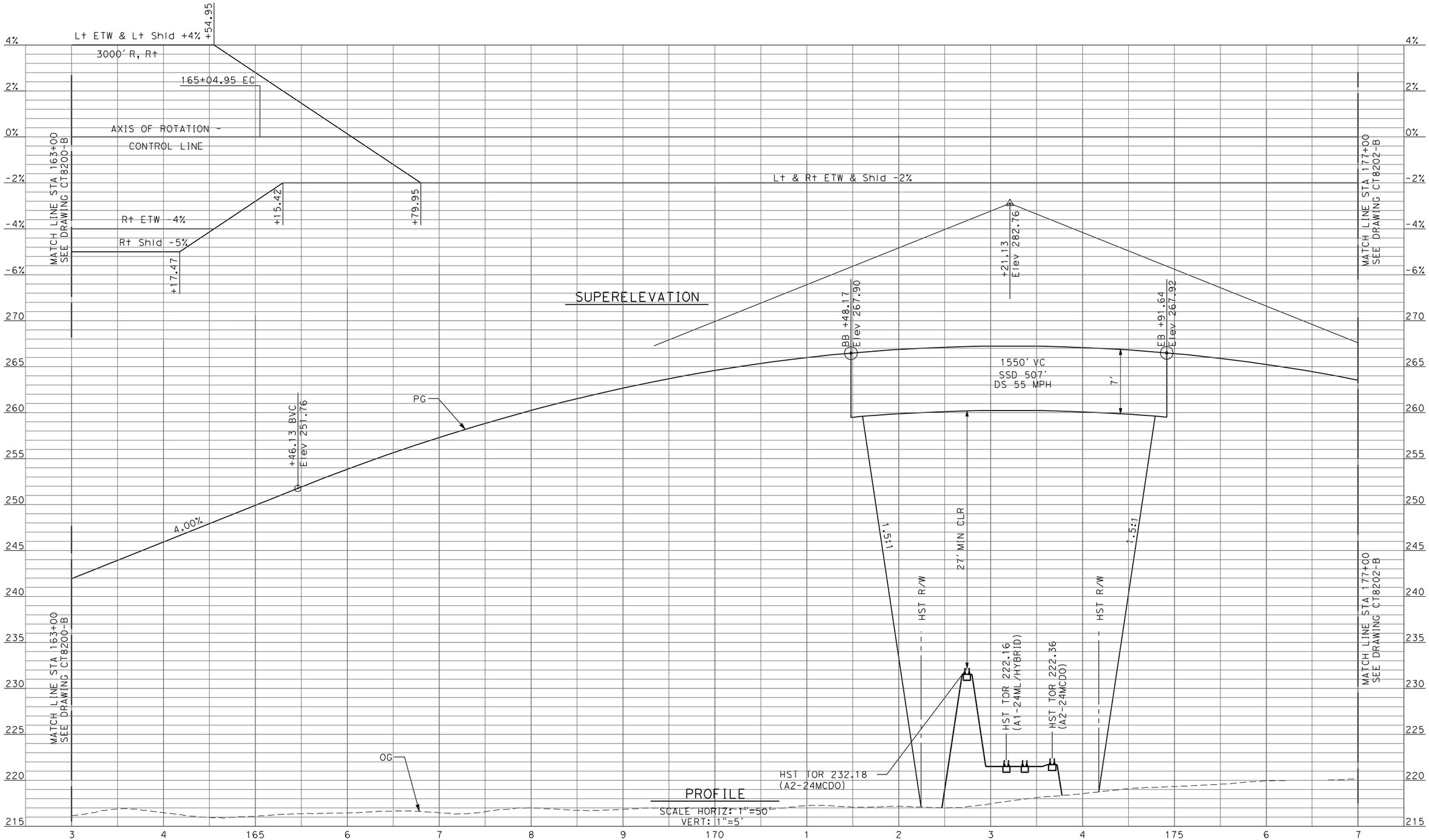

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
PROFILE
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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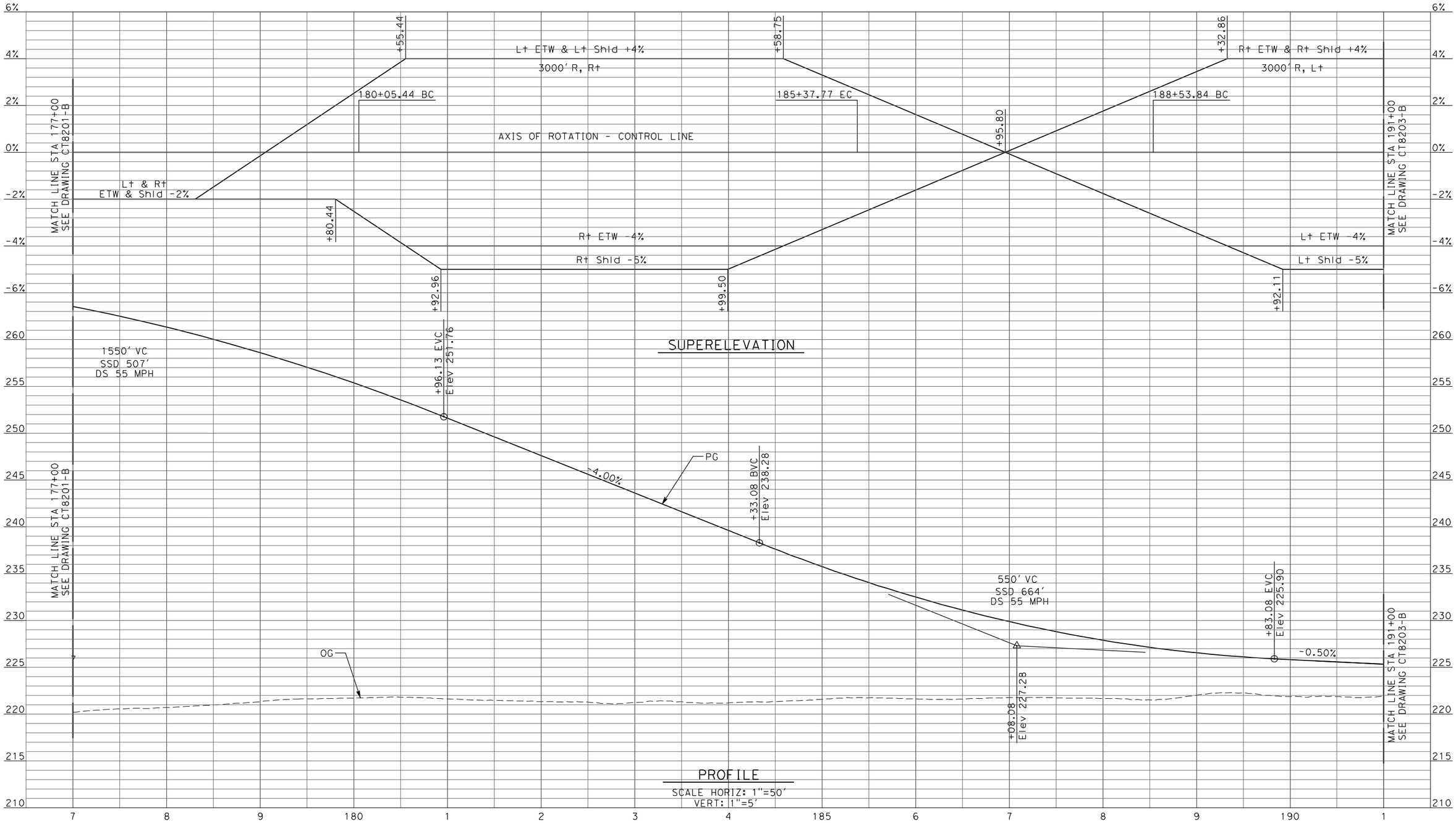

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
PROFILE
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8202-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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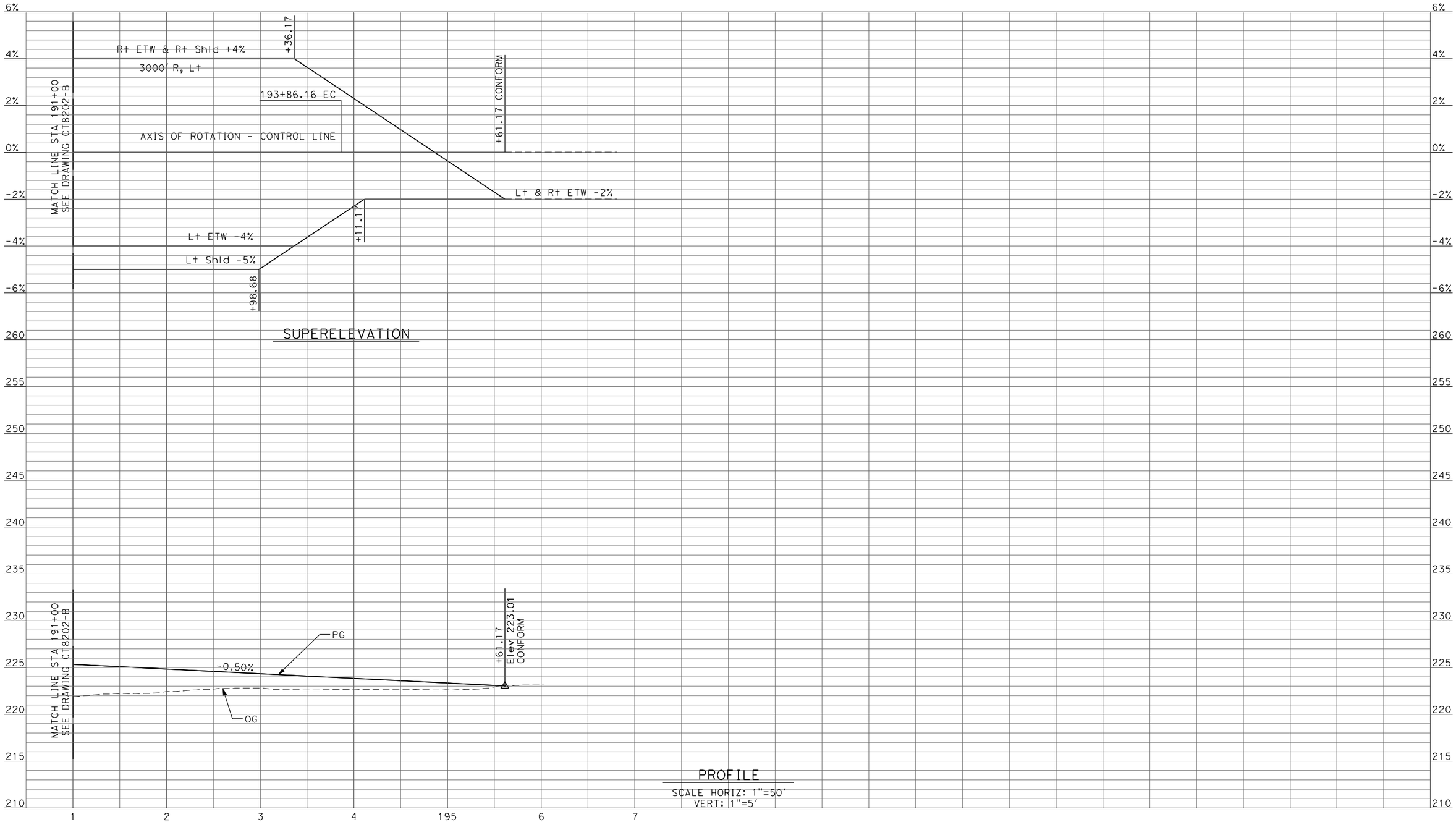

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
GRADE SEPARATION - ROBERTSON BLVD (SR 233) ALT 1
PROFILE
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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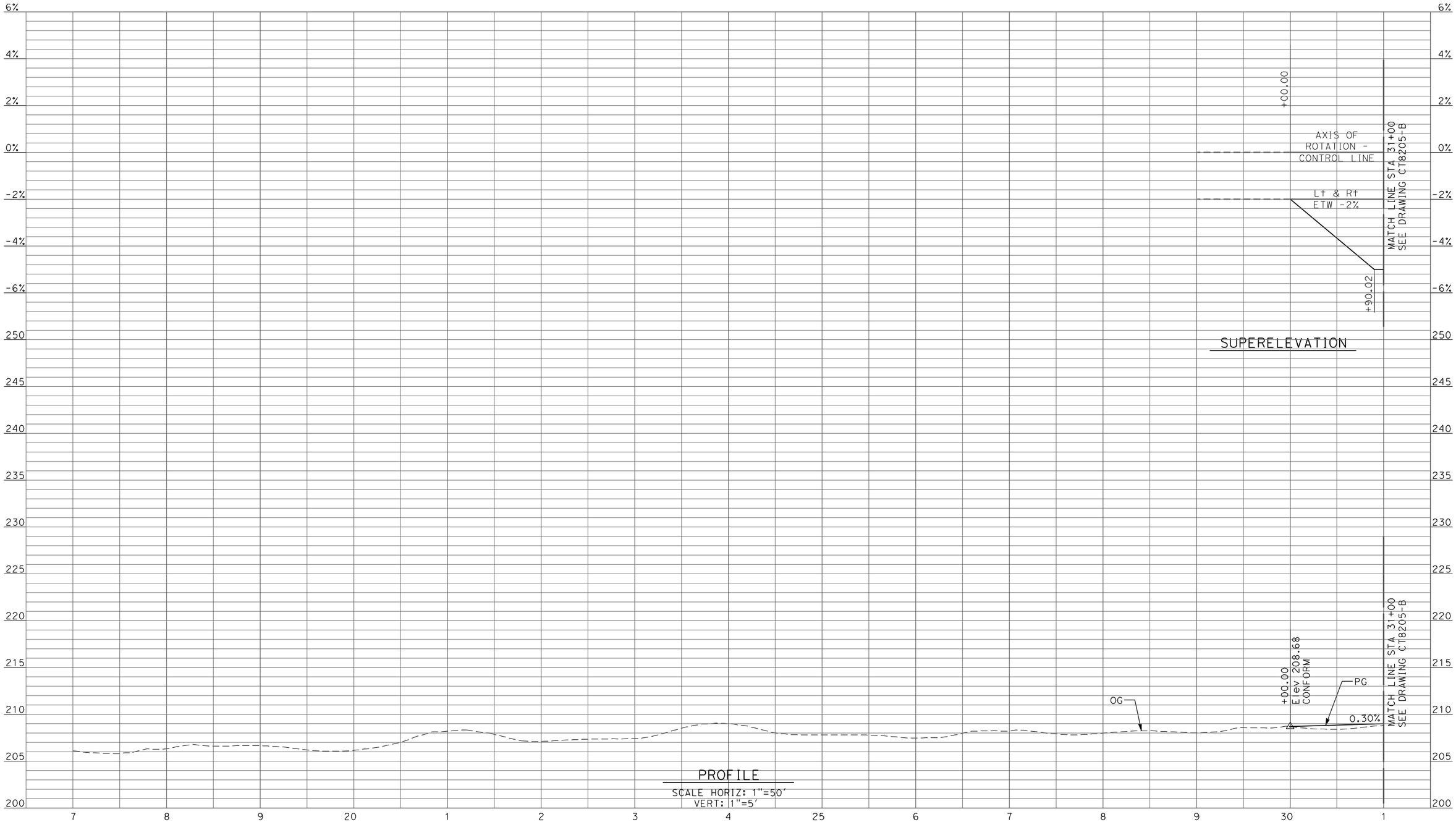

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
PROFILE
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8204-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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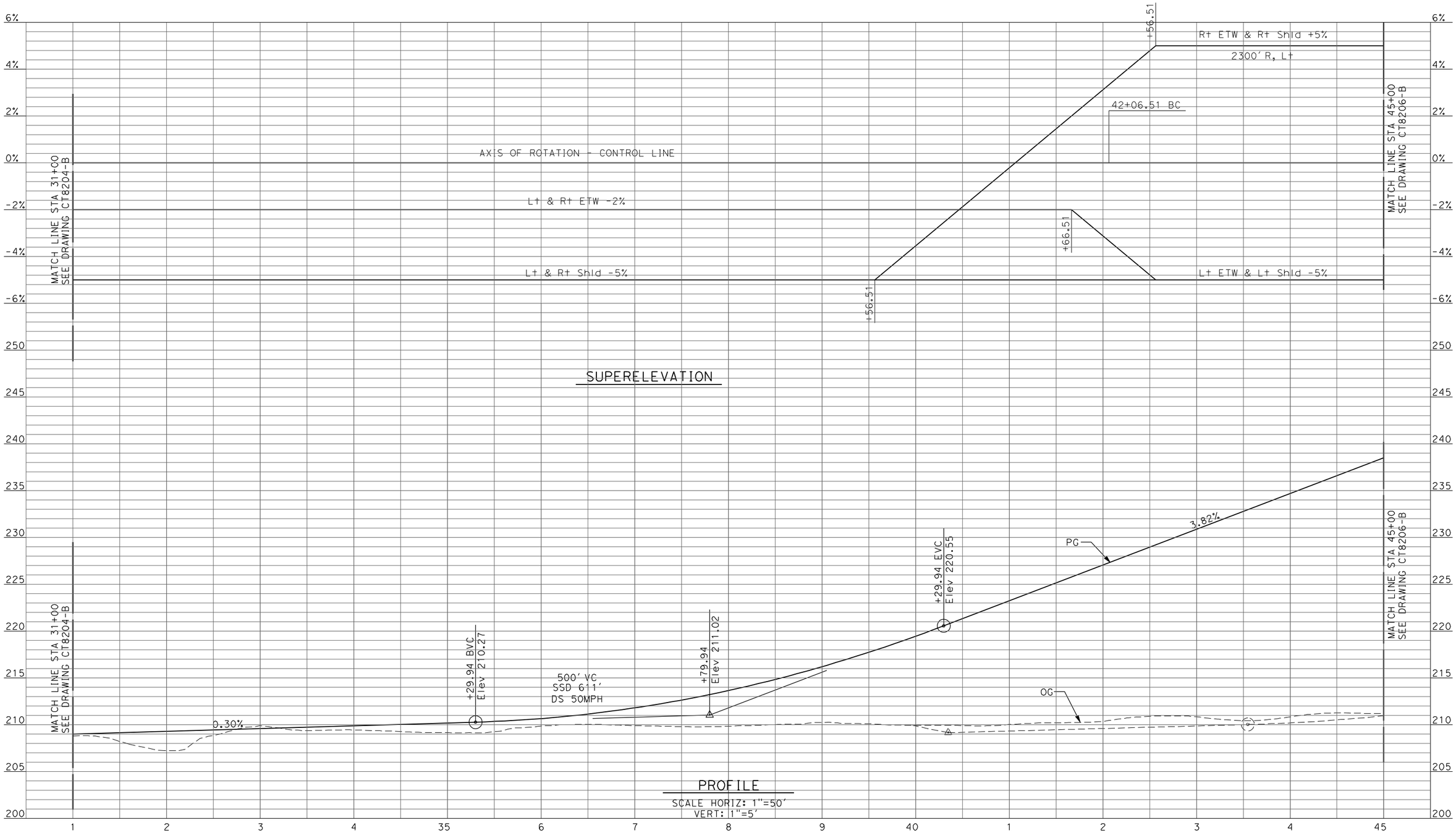

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
PROFILE
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8205-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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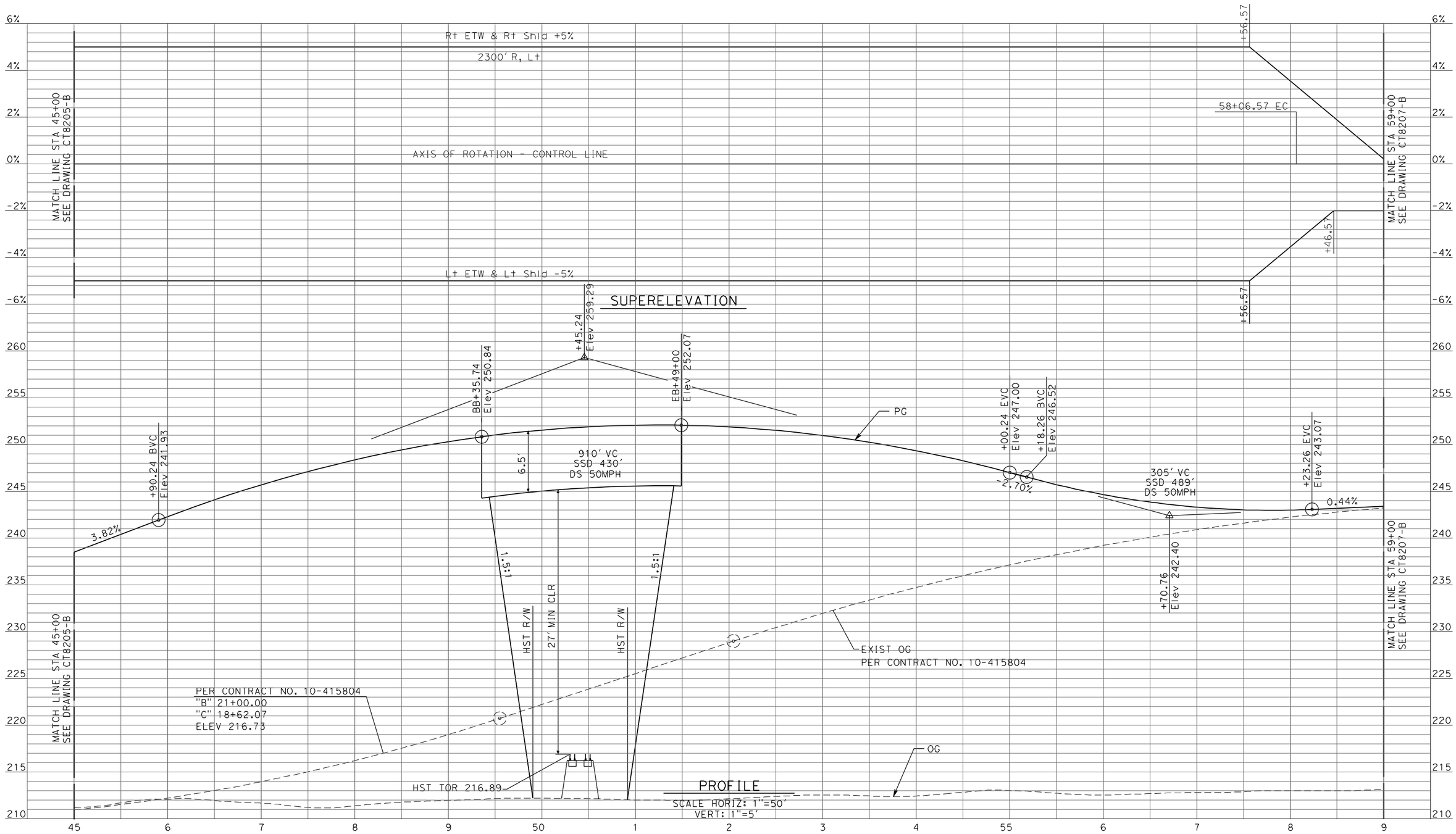

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
PROFILE
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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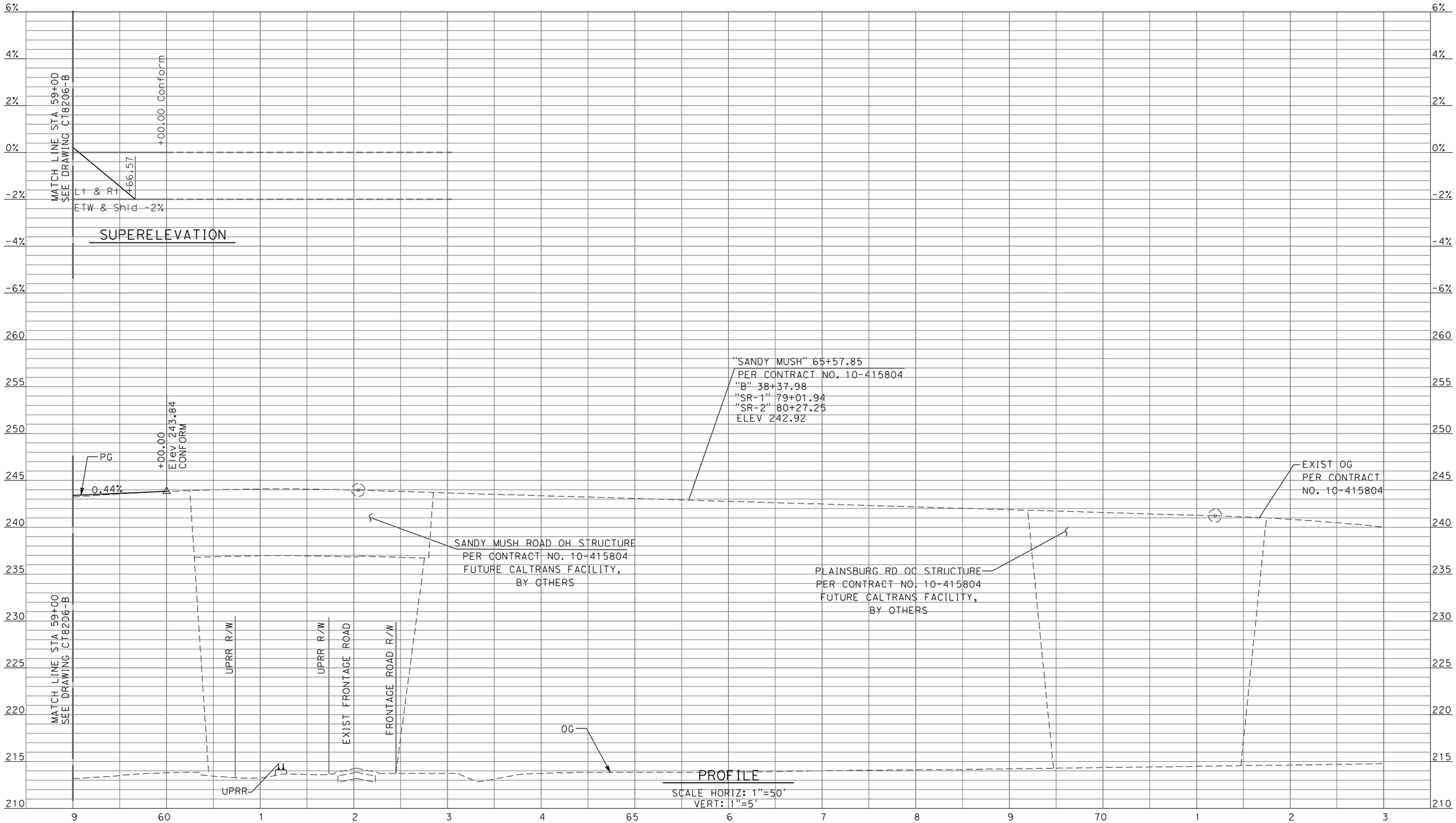

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
SANDY MUSH RD INTERCHANGE
PROFILE
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8207-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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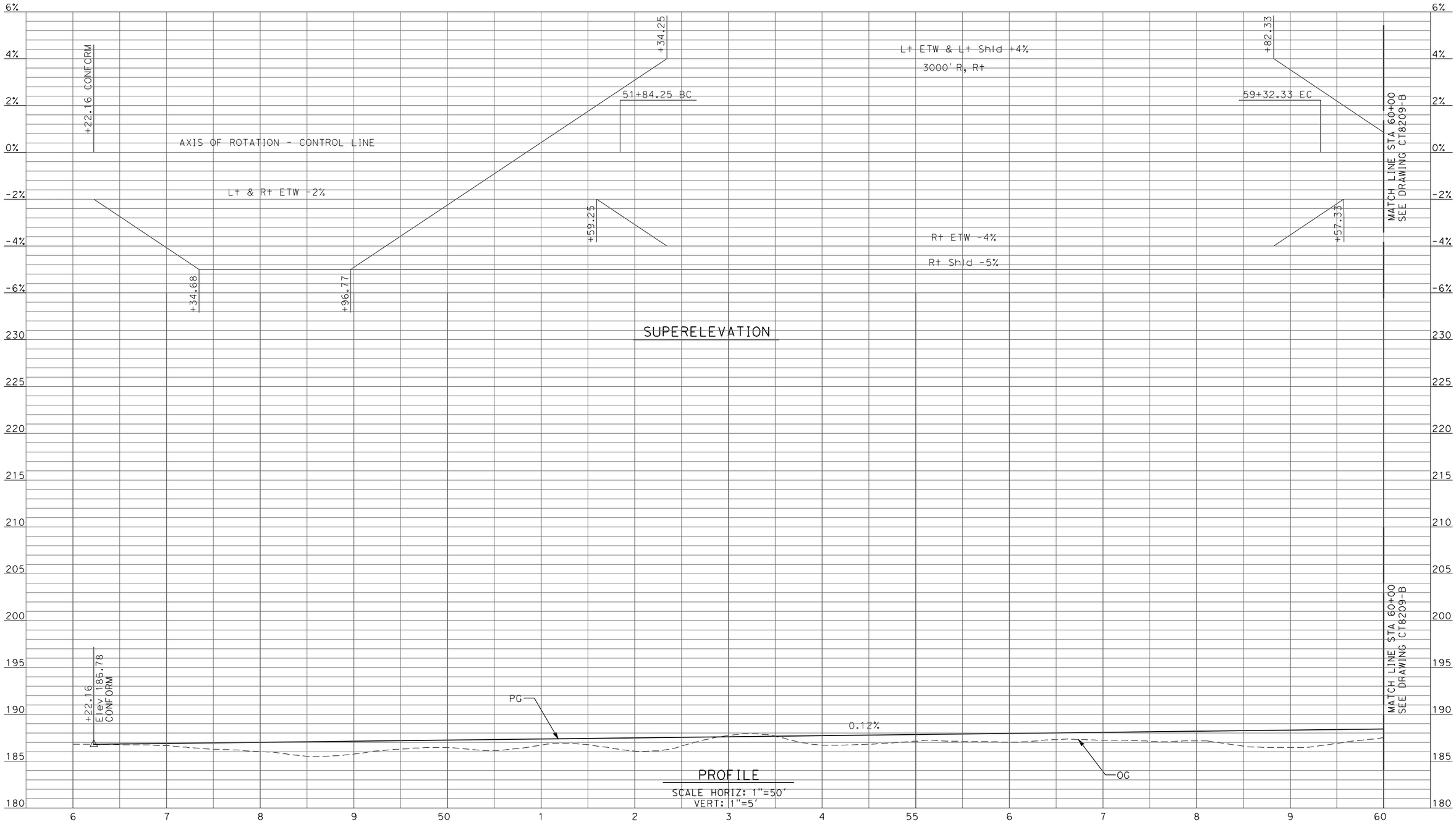

REV	DATE	BY	CHK	APP	DESCRIPTION

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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
PROFILE
SHEET 1 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT8208-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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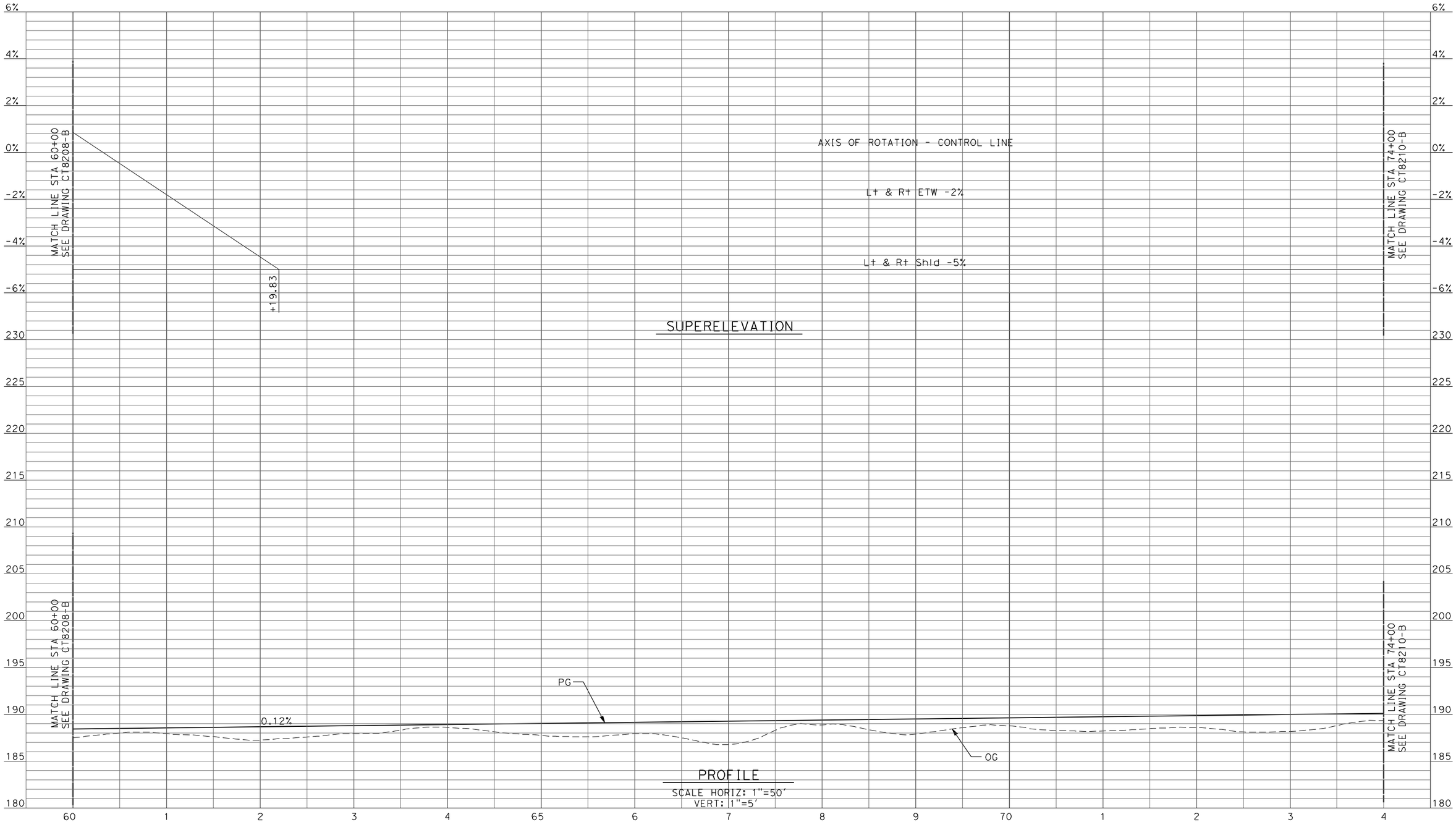

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
PROFILE
SHEET 2 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT8209-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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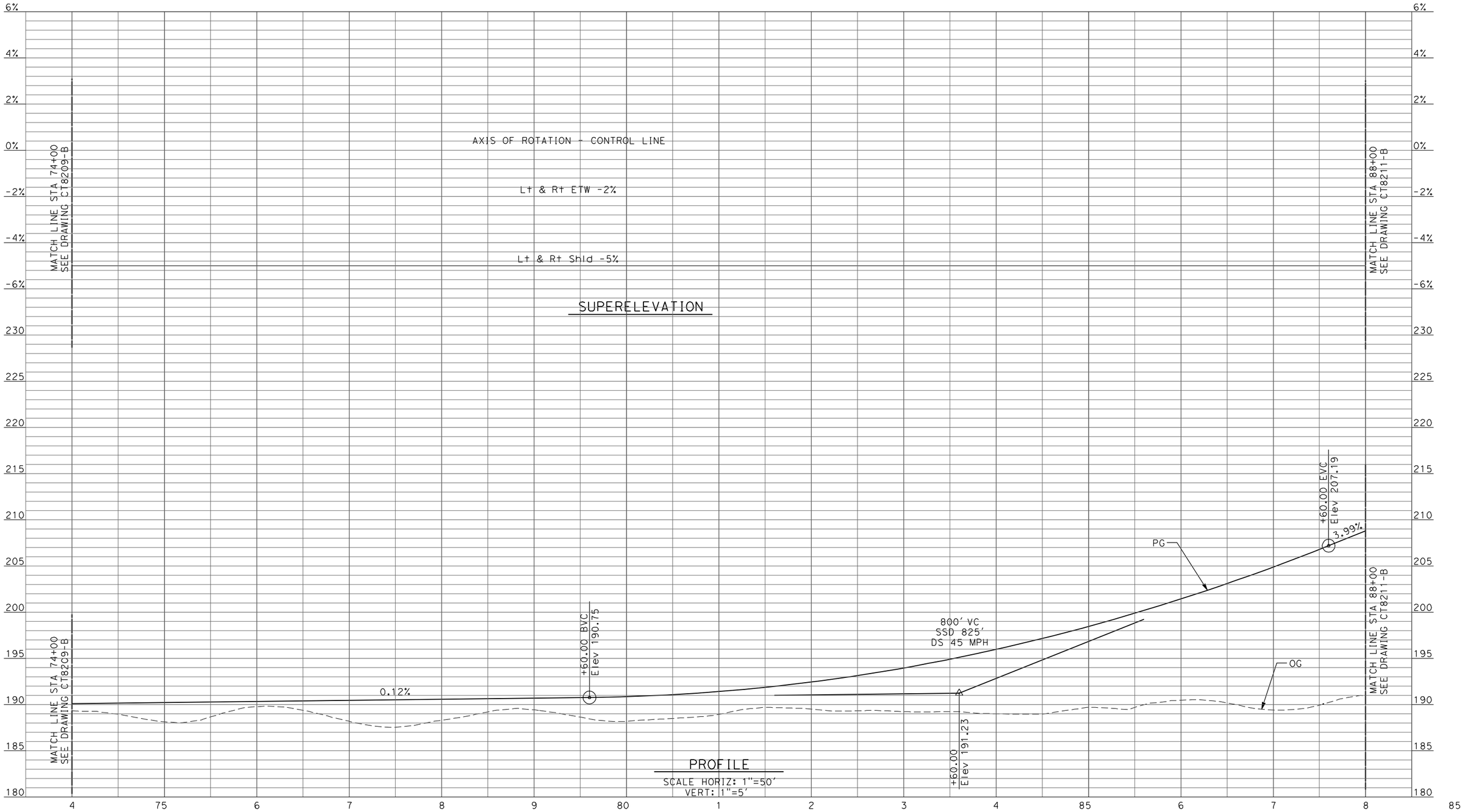

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
PROFILE
SHEET 3 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT8210-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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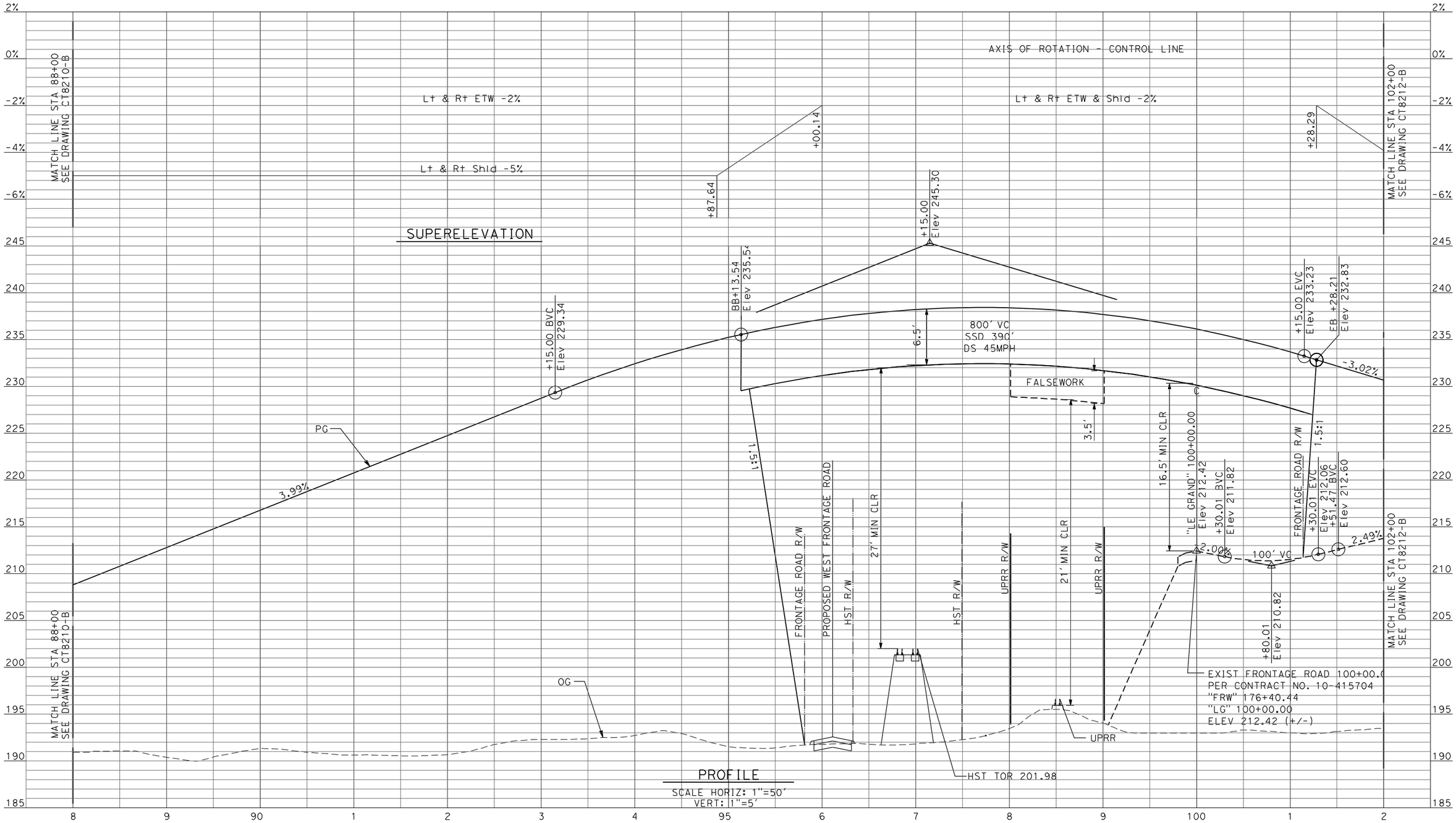

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
PROFILE
SHEET 4 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT8211-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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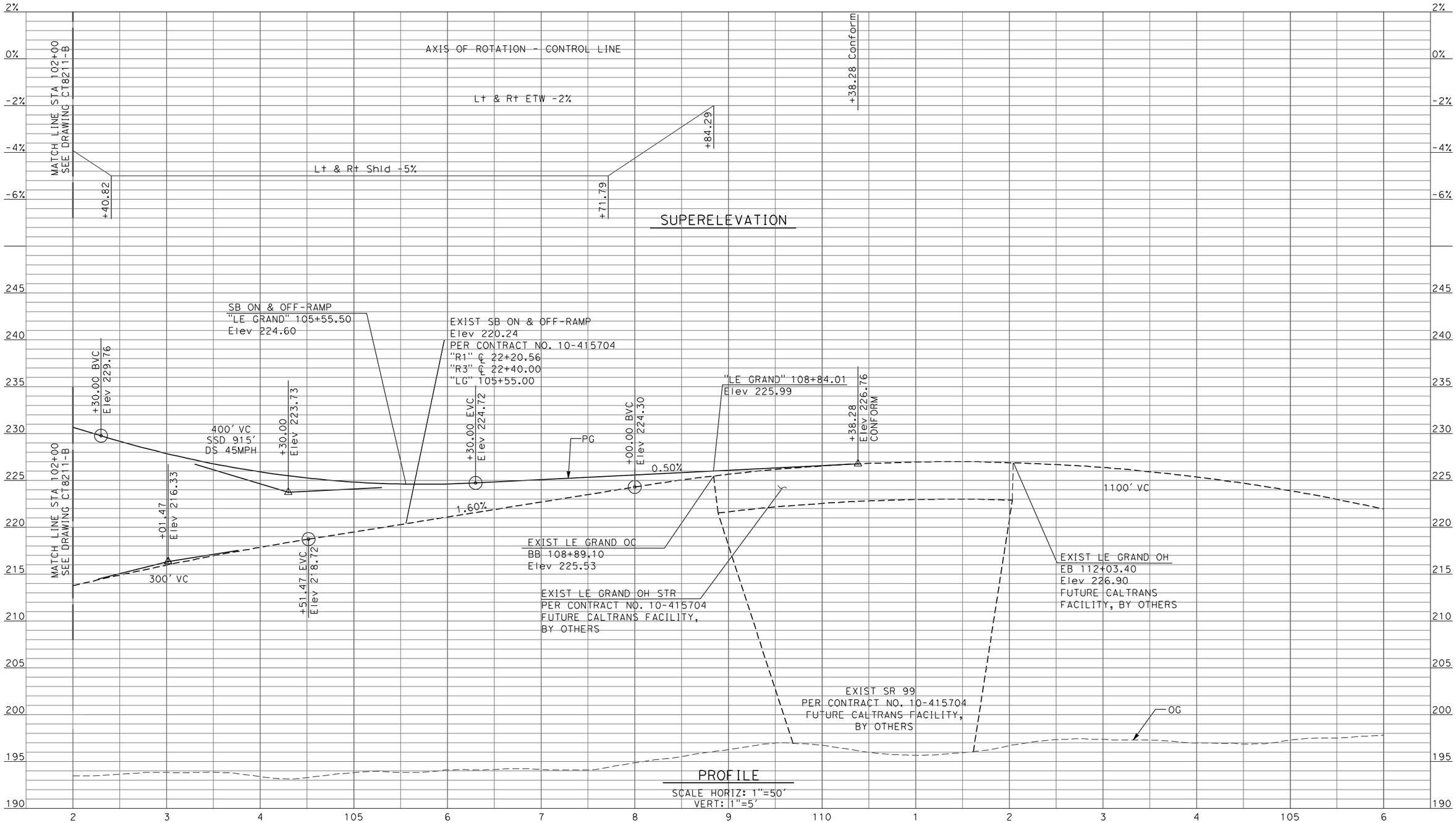

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION - LE GRAND RD INTERCHANGE
PROFILE
SHEET 5 OF 5

CONTRACT NO. HSR06-007
DRAWING NO. CT8212-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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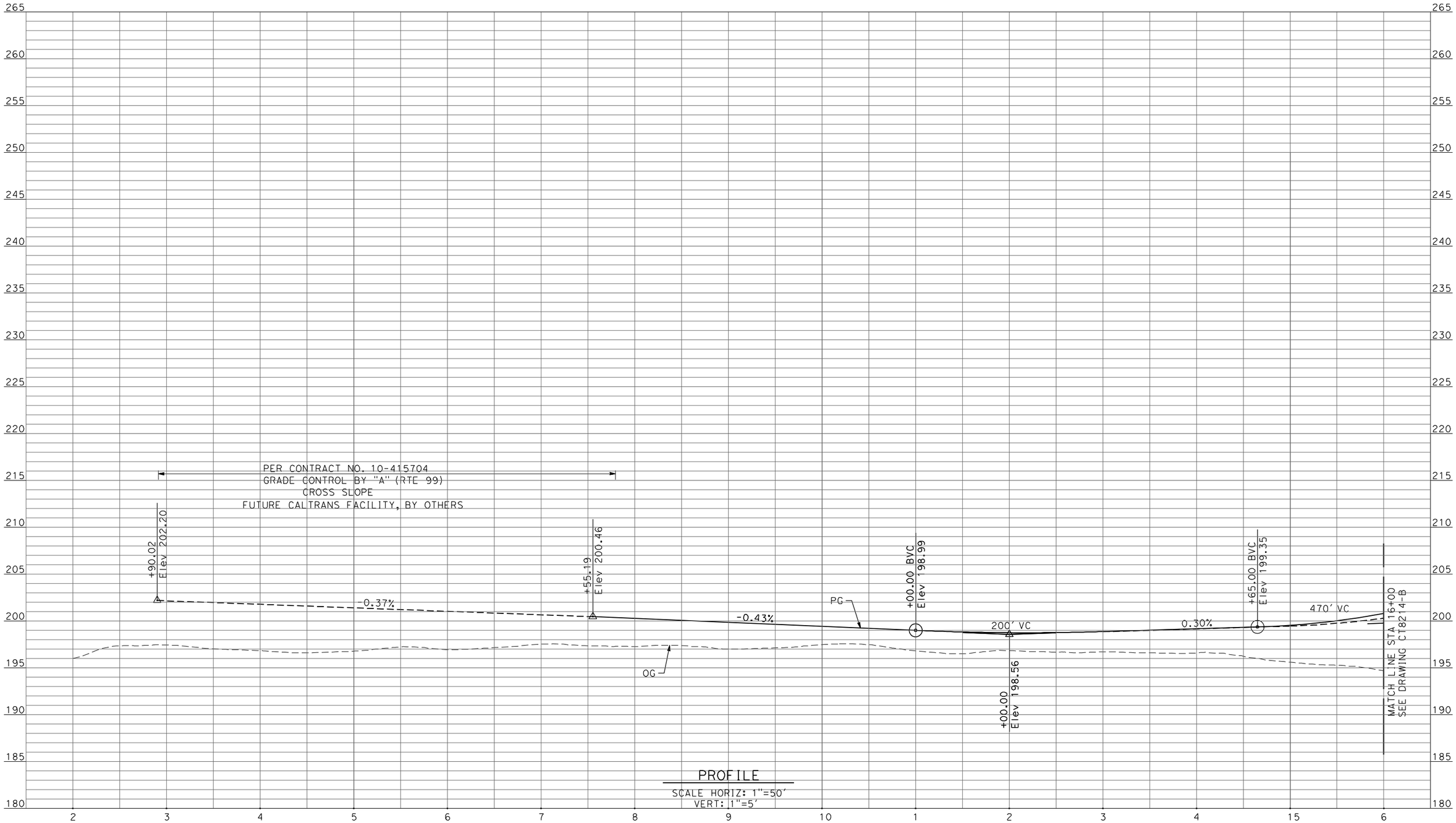

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP
PROFILE
SHEET 1 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8213-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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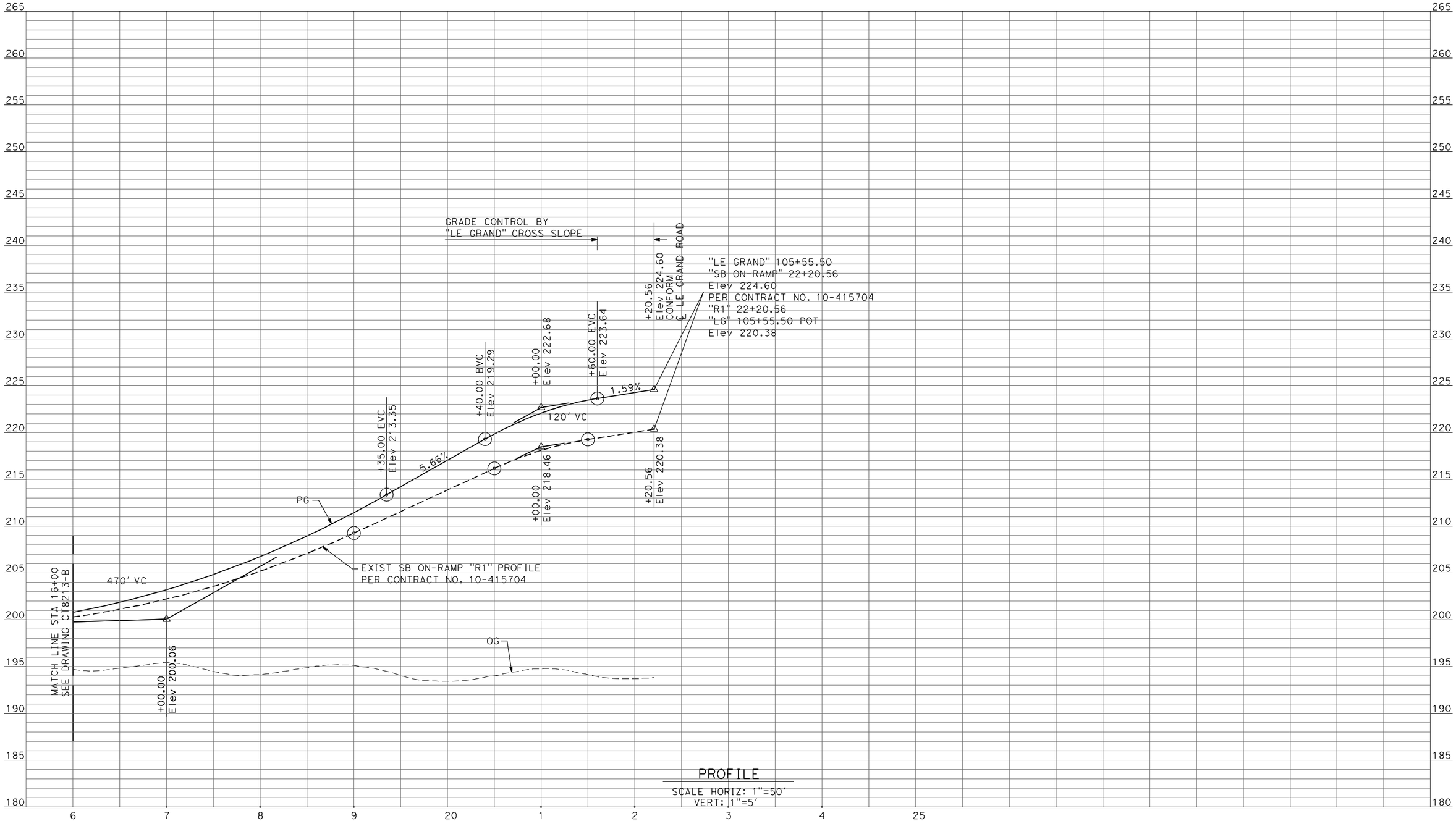

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
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DATE 04/29/2011

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB ON-RAMP
PROFILE
SHEET 2 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8214-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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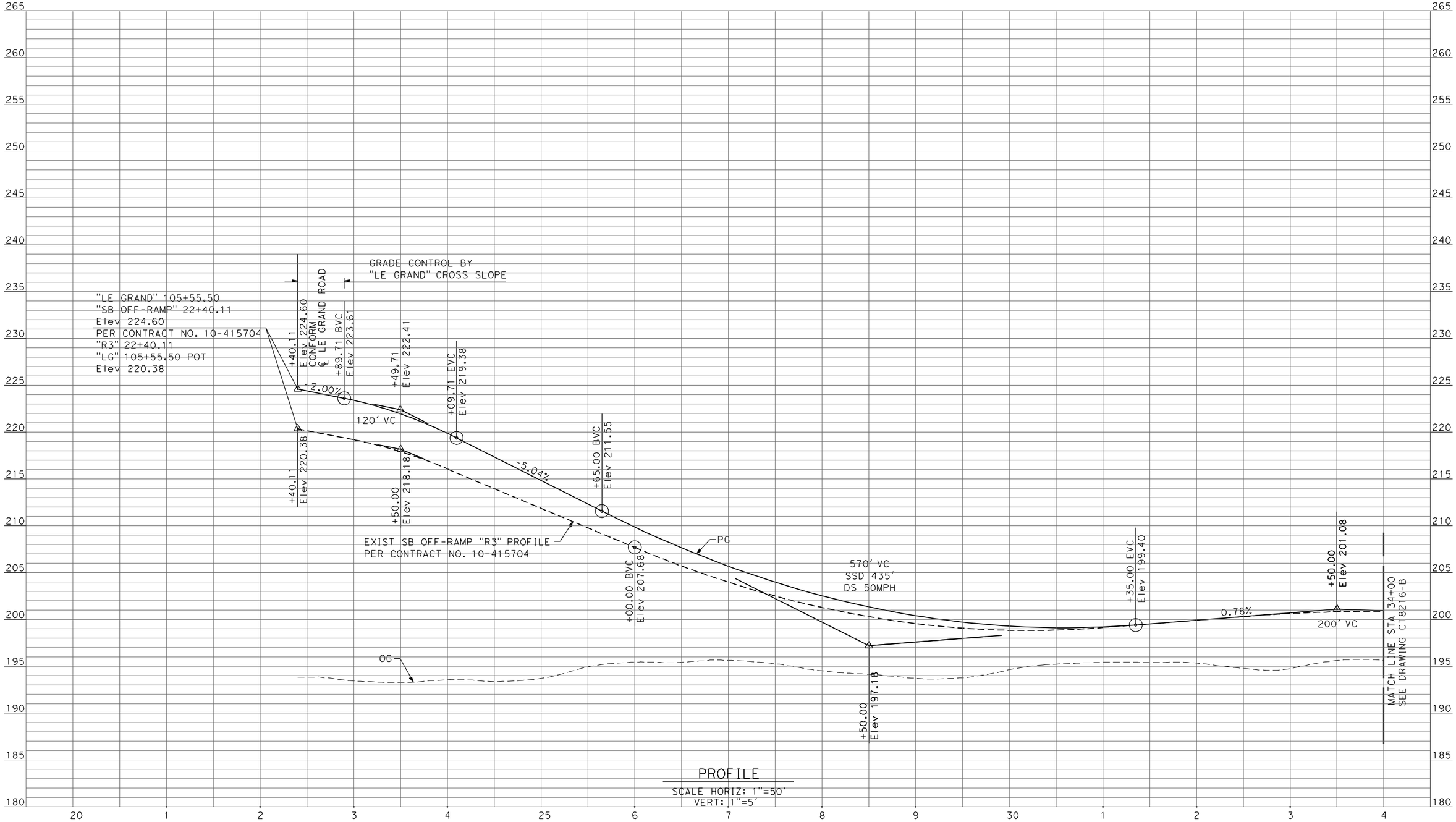

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP
PROFILE
SHEET 3 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8215-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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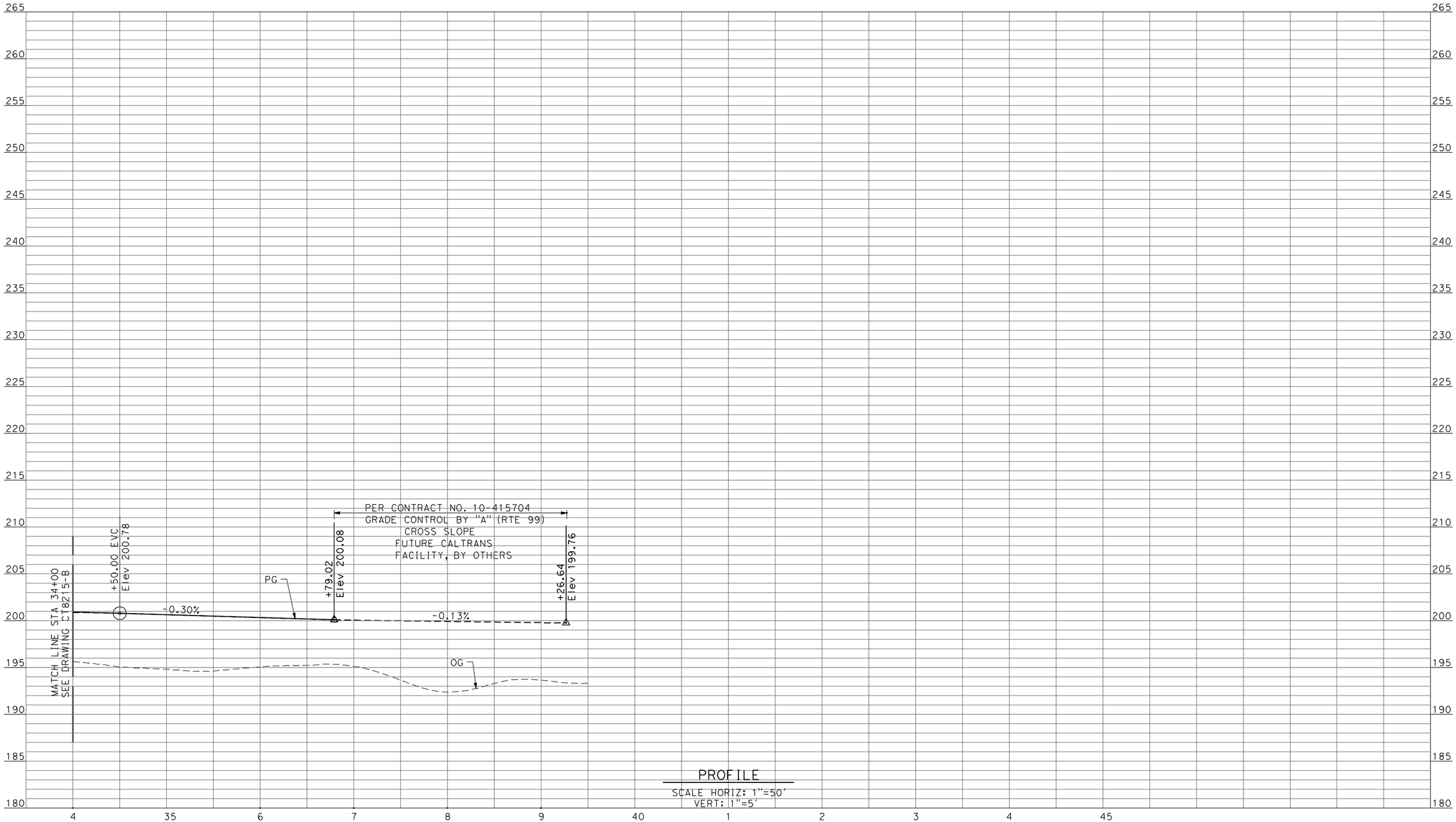

PROFILE

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VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GRADE SEPARATION-LE GRAND RD IC SR99 SB OFF-RAMP
PROFILE
SHEET 4 OF 4

CONTRACT NO. HSR06-007
DRAWING NO. CT8216-B
SCALE AS SHOWN
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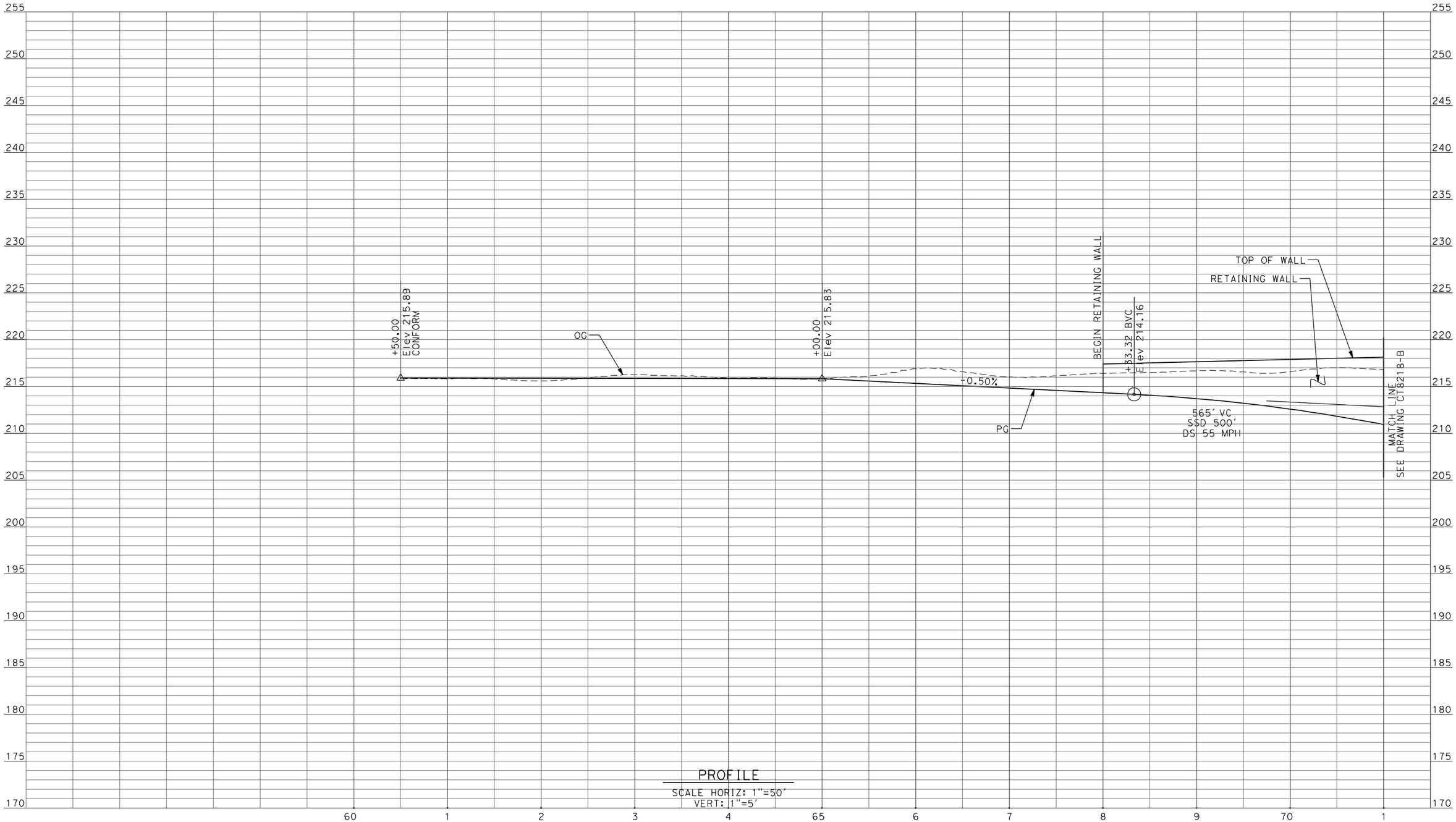

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
PROFILE
SHEET 1 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT8217-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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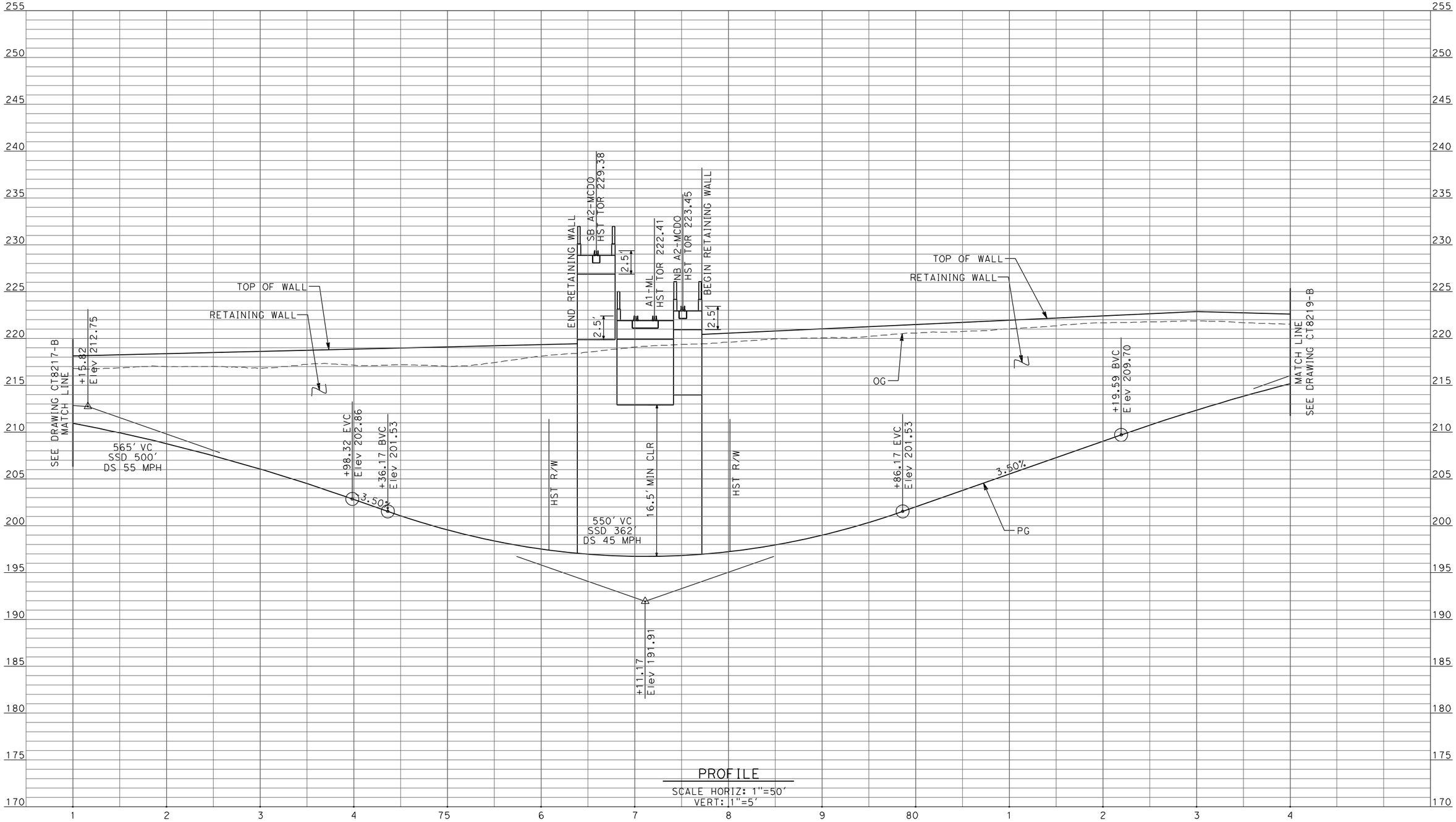

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
PROFILE
SHEET 2 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT8218-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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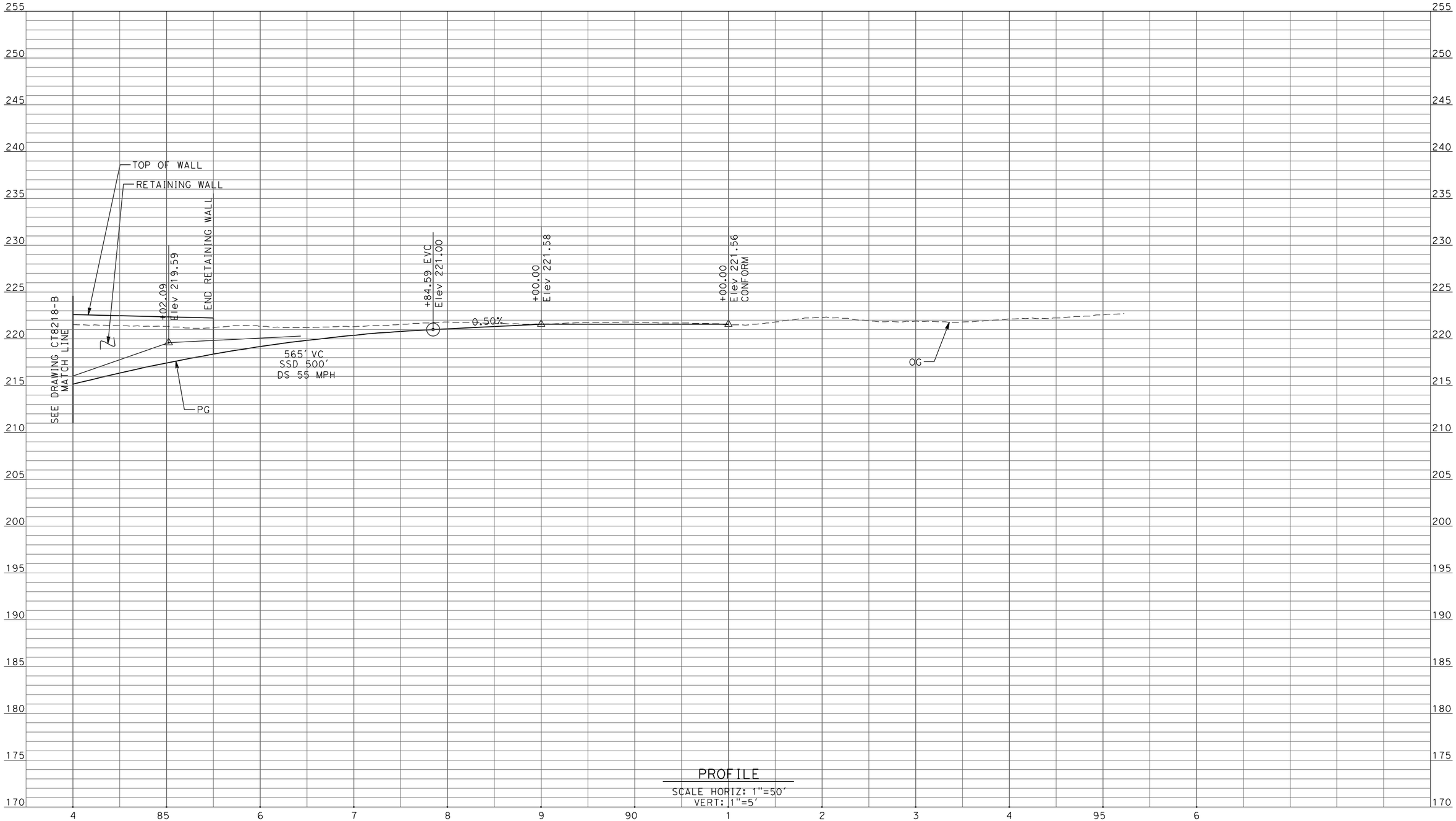

PROFILE

SCALE HORIZ: 1"=50'
VERT: 1"=5'

REV	DATE	BY	CHK	APP	DESCRIPTION

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MERCED TO FRESNO

BNSF MAINLINE/MERCED DO - (HYBRID)
UNDERPASS - ROBERTSON BOULEVARD (SR 233) ALT 2
PROFILE
SHEET 3 OF 3

CONTRACT NO. HSR06-007
DRAWING NO. CT8219-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	SHEET TITLE LINE 5	SHEET TITLE LINE 6
		ROADWAY BRIDGE STRUCTURE PLAN			
		HYBRID ALTERNATIVE/AVENUE 24			
			GENERAL		
	SB1311	HYBRID ALTERNATIVE	AVENUE 24	INDEX OF DRAWINGS	SHEET 1 OF 1
	SB1312	HYBRID ALTERNATIVE	AVENUE 24	STRUCTURE INDEX MAP	SHEET 1 OF 1
			OVERHEAD BRIDGES		
	ST1000	BNSF MAIN LINE	AVENUE 21	AVENUE 8 OVERHEAD	PLANNING STUDY
	ST1150	BNSF MAIN LINE/HYBRID	AVENUE 24	SR 233 OVERHEAD	PLANNING STUDY
	ST1114	UPRR/SR 99 MERCED CONNECTION	AVENUE 21	LE GRAND ROAD OVERHEAD	PLANNING STUDY
	ST1181	UPRR/SR 99 MERCED CONNECTION	AVENUE 21	SR 99 SOUTHBOUND OVERHEAD	PLANNING STUDY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. Lee
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. Boone
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID ALTERNATIVE
AVENUE 24
INDEX OF DRAWINGS
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. SB1311
SCALE No scale
SHEET NO. OF

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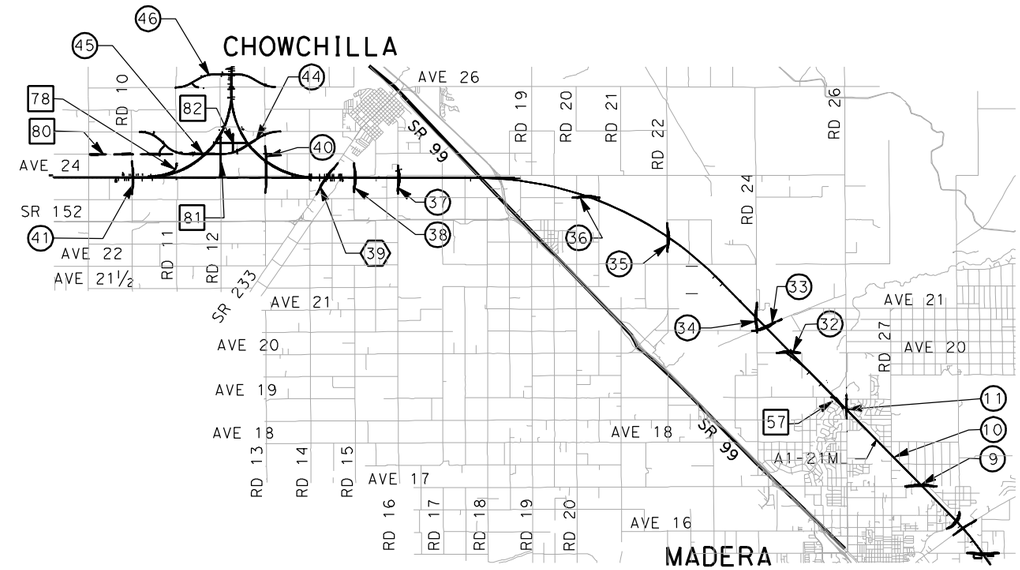
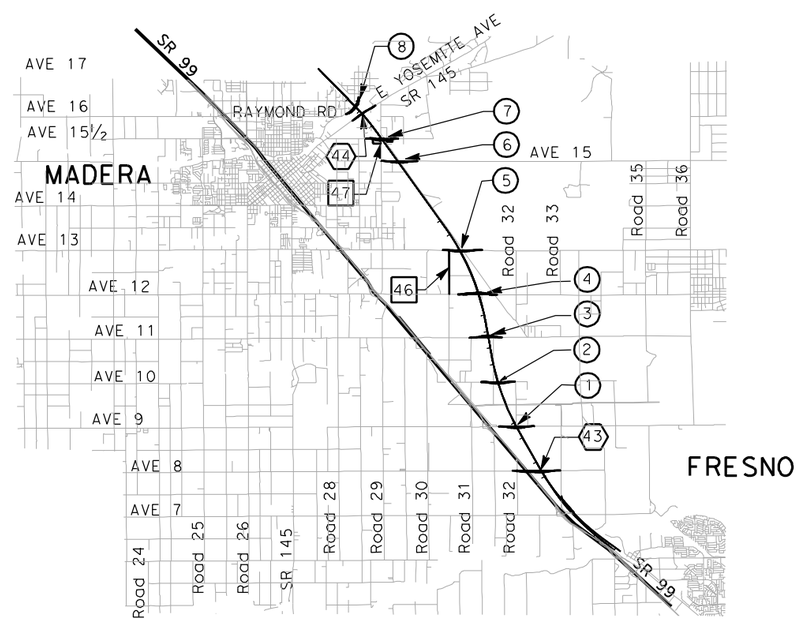
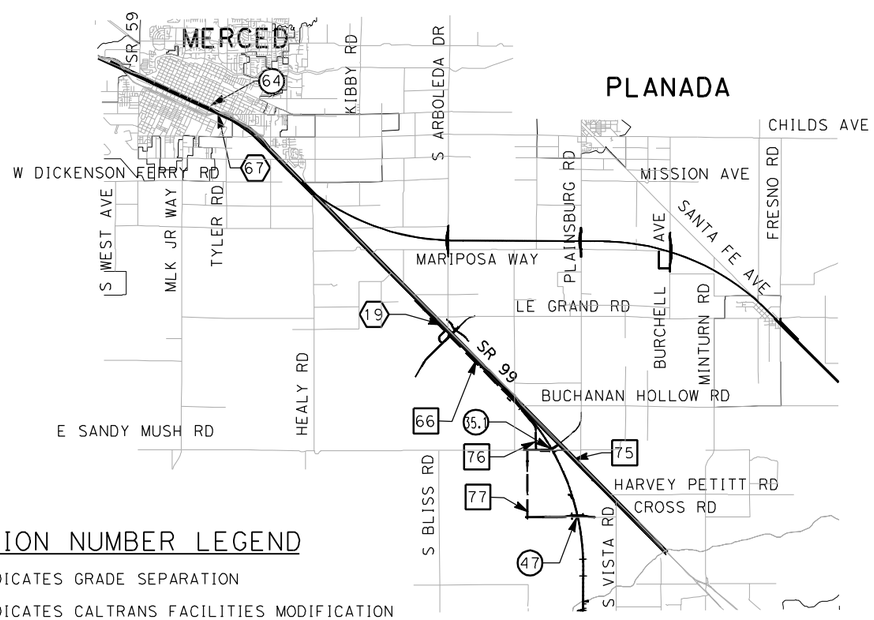
LOCATION NO.	SHEET TITLE	STRUCTURE DWG NO.	ROADWAY DWG NO.
43	AVENUE 8 OVERHEAD	ST1000	CT2000-A - CT2002-A
39	SR 233 OVERHEAD	ST1150	CT7200-B - CT7203-B
19	LE GRAND ROAD OVERHEAD	ST1114	CT7208-B - CT7214-B
67	SR 99 SOUTHBOUND OVERHEAD	ST1181	



VICINITY MAP 2



VICINITY MAP 3



VICINITY MAP 1

LOCATION NUMBER LEGEND

(X) - INDICATES GRADE SEPARATION

⟨X⟩ - INDICATES CALTRANS FACILITIES MODIFICATION

[X] - INDICATES LOCAL ROAD RELOCATION

9000 0 9000 18000

GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. Lee
DRAWN BY E. CISNEROS
CHECKED BY J. ZANDIAN
IN CHARGE A. Boone
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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

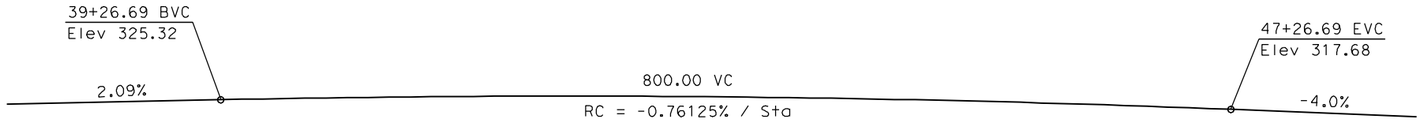
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

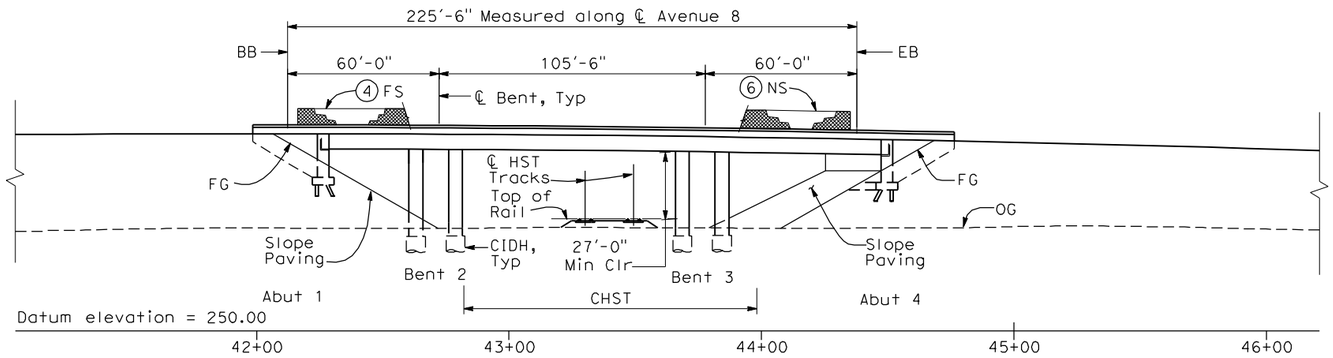
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID ALTERNATIVE
AVENUE 24
STRUCTURE INDEX MAP
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. SB1312
SCALE As shown
SHEET NO. OF

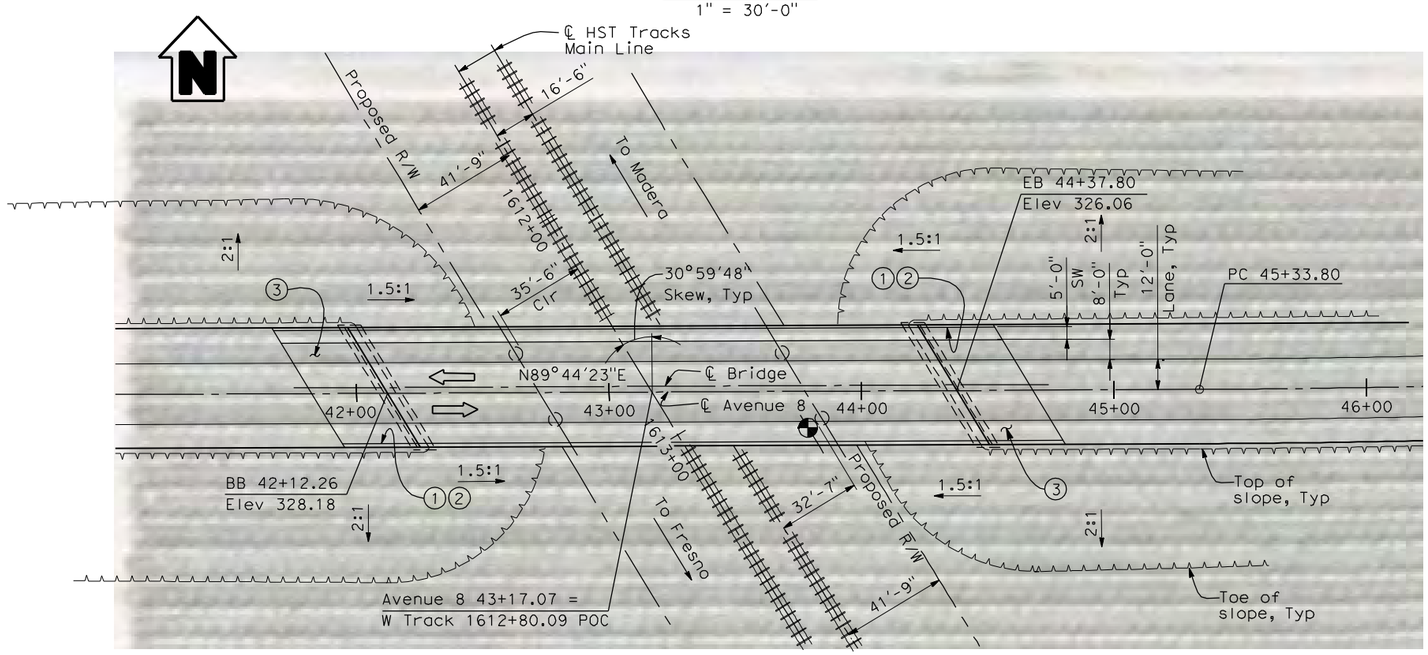
cisnerose 5/1/2011 5:38:04 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\Hybrid Caltrans\SB1312.dgn



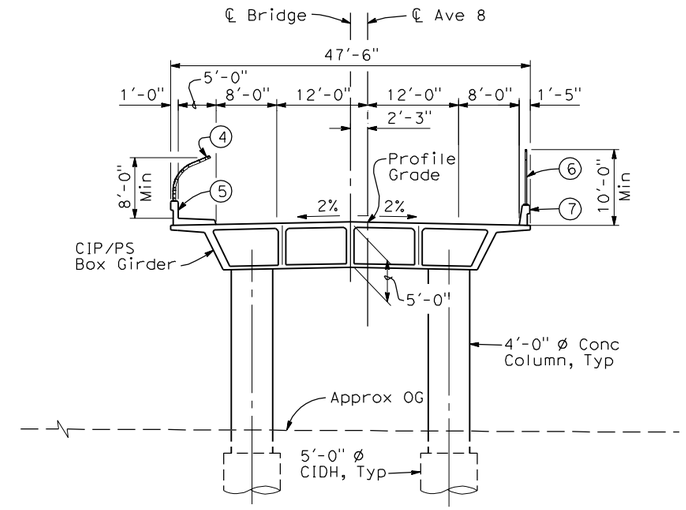
PROFILE GRADE
NTS



ELEVATION
1" = 30'-0"



PLAN
1" = 30'-0"



TYPICAL SECTION
1"=10'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "Avenue 8 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Bearing of Avenue 8 to be determined.
9. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

◐ Point of minimum vertical clearance

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	5'-0"
LENGTH	=	225'-6"
WIDTH	=	47'-6"
AREA	=	10,713 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 43

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY E. CISNEROS
CHECKED BY J. RENTERIA
IN CHARGE A. BOONE
DATE 04/29/2011

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

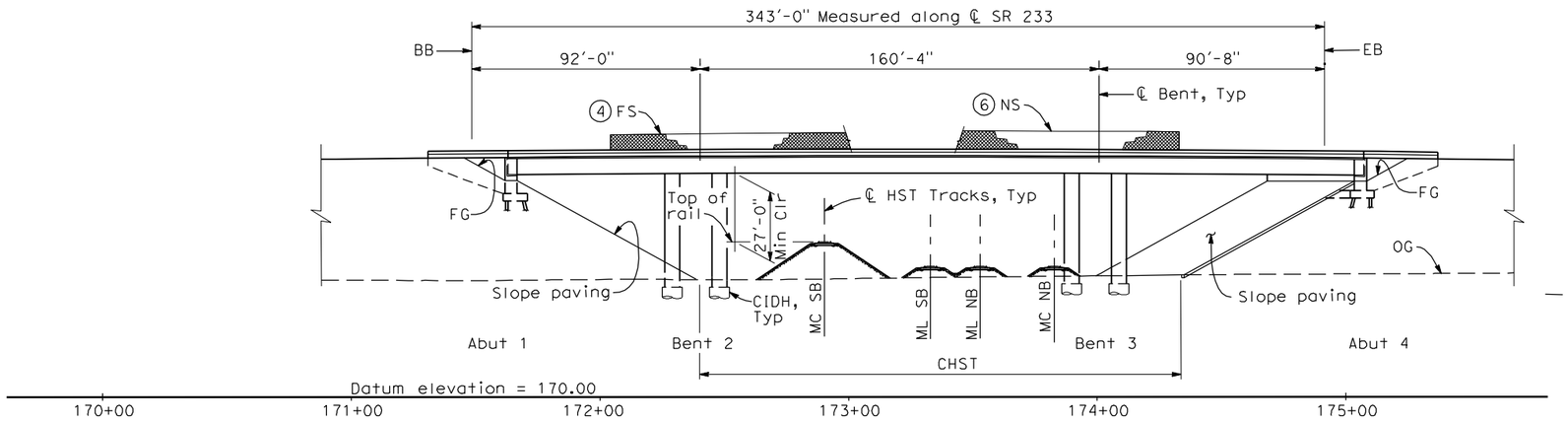
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE
AVENUE 21
AVENUE 8 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1000
SCALE As shown
SHEET NO. OF

cisnerose 4/30/2011 4:55:36 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A1\15% cost reduction submittal\GradeStructure\A1-21ML2\W-ML-ST-OH_Ave 8.dgn

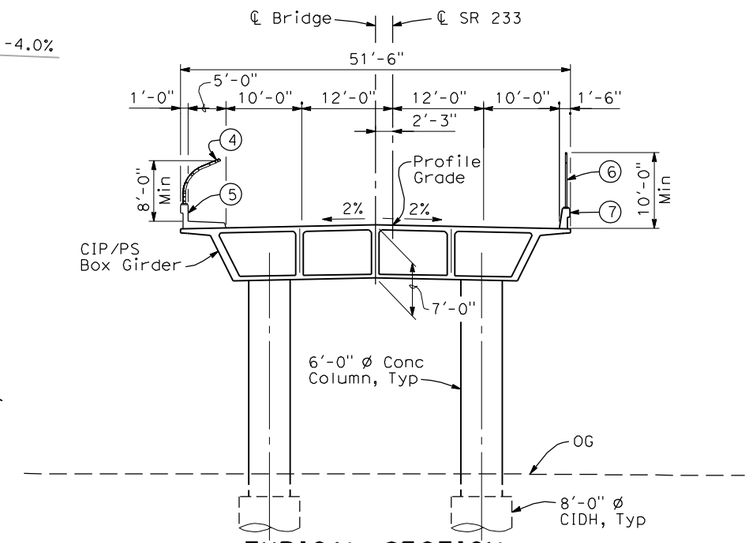
PROFILE GRADE

NTS



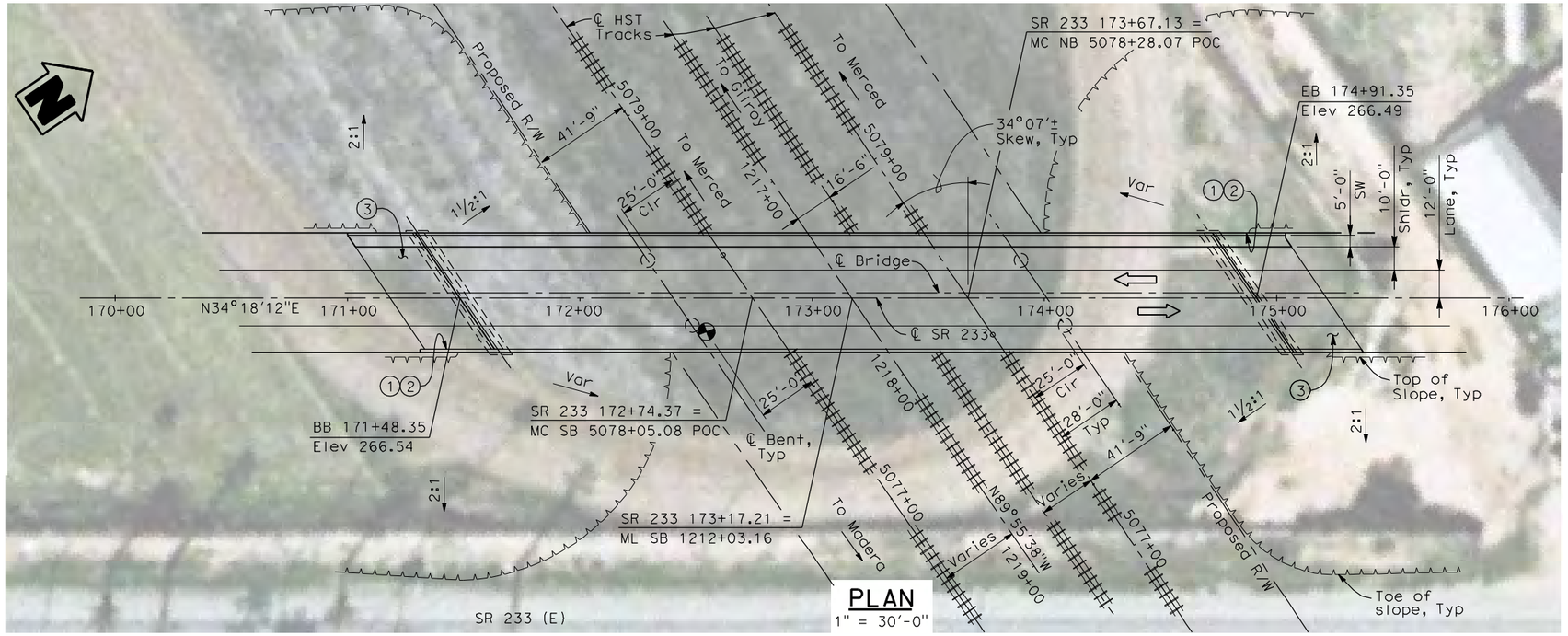
ELEVATION

1" = 30'-0"



TYPICAL SECTION

1" = 10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. XX-XX"
2. Paint "SR 233 OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. Existing underground and overhead utilities to be determined.

LEGEND/ABBREVIATIONS:

⇦ Direction of traffic

Point of minimum vertical clearance

MC = Merced Connection
ML = Main Line

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	7'-0"
LENGTH	=	343'-0"
WIDTH	=	51'-6"
AREA	=	17,700 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 39

30 0 30 60
1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

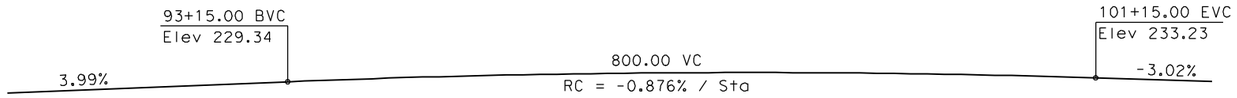
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE/HYBRID
AVENUE 24
SR 233 OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1150
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:08:57 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_SR 233ML_Hybrid_Ave24-Loc 39.dgn

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	614'-0"
WIDTH	=	47'-6"
AREA	=	29,200 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

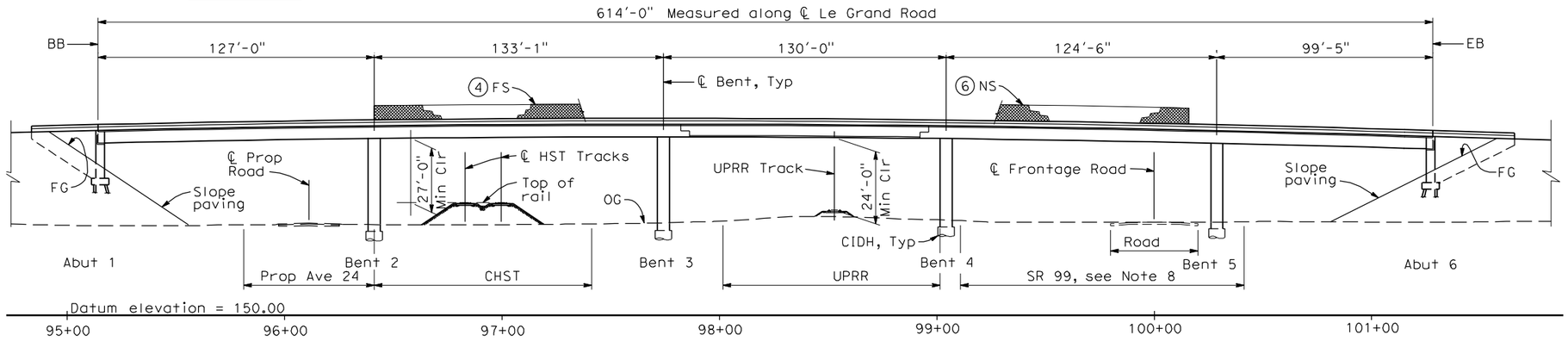


PROFILE GRADE

NTS

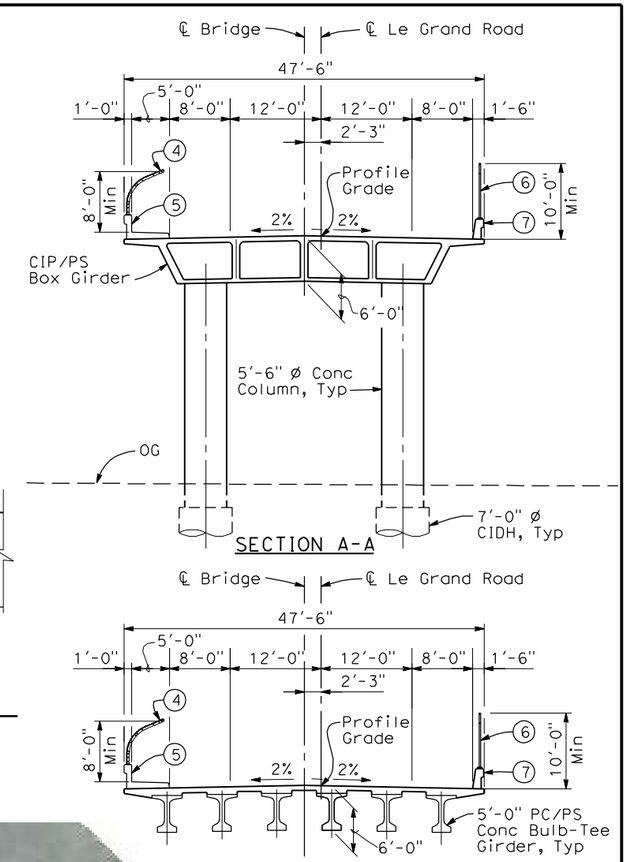
LEGEND/ABBREVIATIONS:

- ⇦ Direction of traffic
- ◐ Point of minimum vertical clearance
- Pt = Petroleum
- UG = Underground
- FO = Fiber Optic



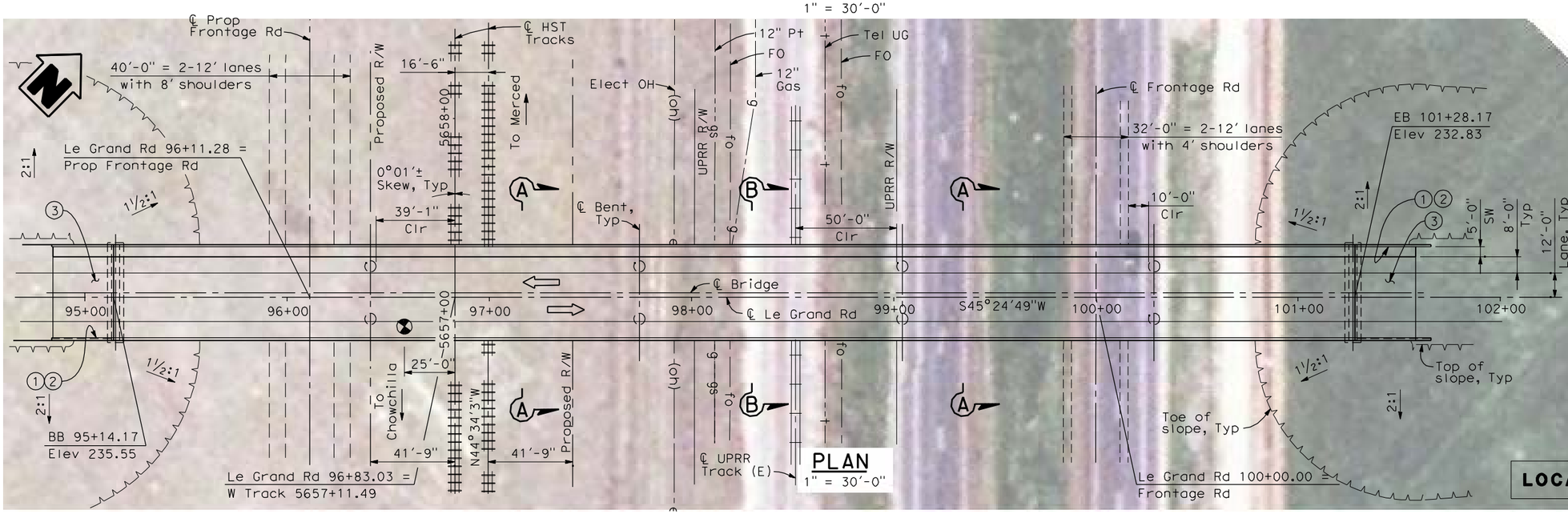
ELEVATION

1" = 30'-0"



TYPICAL SECTIONS

1" = 10'-0"



PLAN

1" = 30'-0"

NOTES:

1. Paint "Bridge No. WX-YY"
2. Paint "Le Grand Road OH"
3. Structure Approach Slab Type N (30S)
4. Chain Link Railing Type 3
5. Concrete Barrier Type 26 (Mod)
6. Chain Link Railing Type 7 (Mod)
7. Concrete Barrier Type 732
8. SR 99 will be relocated prior to or concurrent with this construction.
9. Bearing of Le Grand Road and UPRR track to be verified.
10. Existing underground and overhead utilities to be determined.
11. Location and elevation of existing UPRR track to be determined.

LOCATION 19

30 0 30 60

1"=30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY T. BARNARD
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

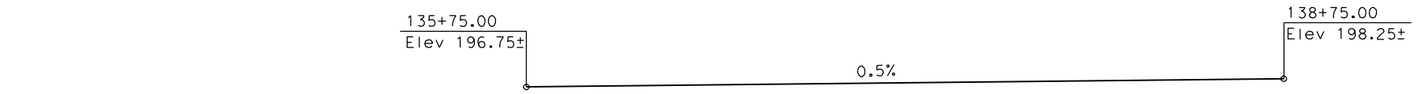
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
LE GRAND ROAD OVERHEAD
PLANNING STUDY

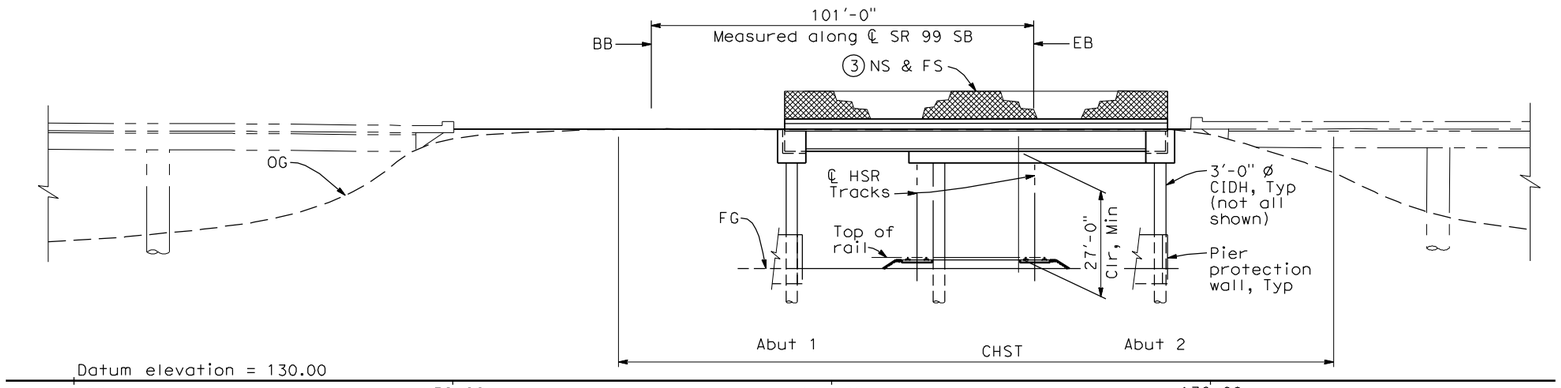
CONTRACT NO. HSR06-007
DRAWING NO. ST1114
SCALE As shown
SHEET NO. OF

cisnerose 4/29/2011 10:11:42 AM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\WX-MF-ST-OH_Le Grand Road-Loc 19.dgn



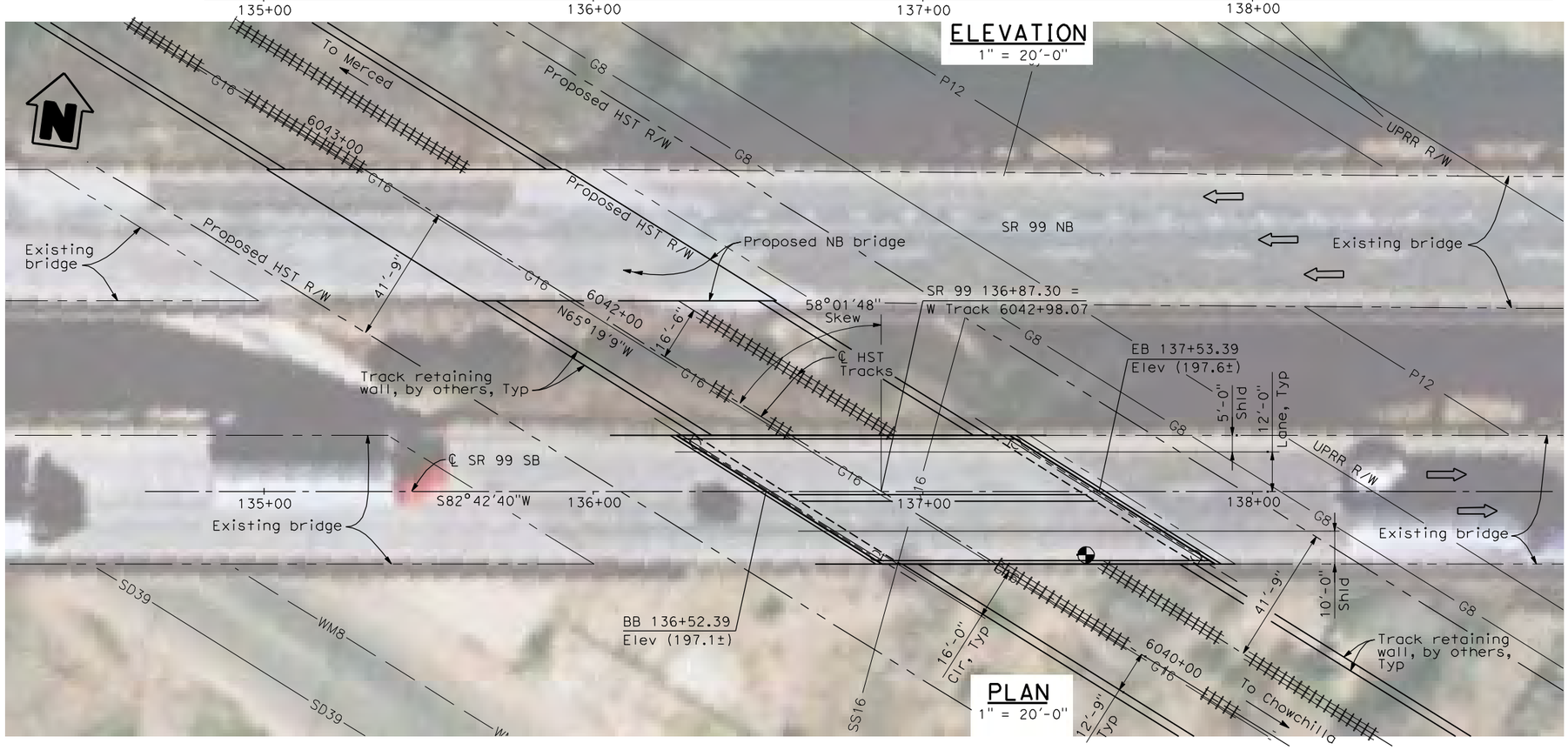
PROFILE GRADE

NTS



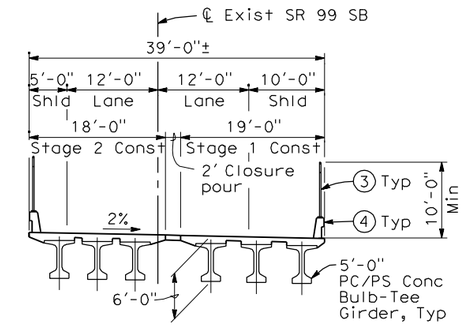
ELEVATION

1" = 20'-0"



PLAN

1" = 20'-0"



TYPICAL SECTION

1" = 10'-0"

NOTES:

1. Paint "Bridge No. WX-YY"
2. Paint "SR 99 OH"
3. Chain Link Railing Type 7 (Mod)
4. Concrete Barrier Type 732
5. Southbound bridge shown, northbound bridge similar.
6. Bearing, stationing and elevation of SR 99 SB to be verified.
7. Existing underground and overhead utilities to be determined.

LEGEND:

⇦ Direction of traffic

⊕ Point of minimum vertical clearance

G = Gas
FO = Fiber Optic
P = Petroleum
SD = Storm Drain
SS = Sanitary Sewer
WM = Water

DATE OF ESTIMATE		
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	6'-0"
LENGTH	=	101'-0"
WIDTH	=	39'-0"
AREA	=	3,950 ft²
COST/ □FT INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	
TOTAL COST	=	

LOCATION 67

20 0 20 40
1"=20'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY H. LEE
DRAWN BY B. DOLAN
CHECKED BY L. LEUNG
IN CHARGE A. BOONE
DATE 04/29/2011

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
UPRR/SR 99 MERCED CONNECTION
AVENUE 21
SR 99 SOUTHBOUND OVERHEAD
PLANNING STUDY

CONTRACT NO. HSR06-007
DRAWING NO. ST1181
SCALE As shown
SHEET NO. OF

cisnerose 4/30/2011 6:37:49 PM I:\CHSR\60022962\Task-02_Merced-Fresno\CADD\Struct\Sheet\APS\A2\15% cost reduction submittal\Grade Structure\W-MF-ST-OH_SR 99-Loc67.dgn

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

INDEX OF PLANS

T-1	TITLE SHEET
X-1 TO X-15	TYPICAL CROSS SECTIONS
K-1	KEYMAP
L-1 TO L-17	LAYOUT
P-1 TO P-27	PROFILE AND SUPERELEVATION
SC-1 TO SC-18	STAGE CONSTRUCTION
BR-1 TO BR-6	STRUCTURE PLANS

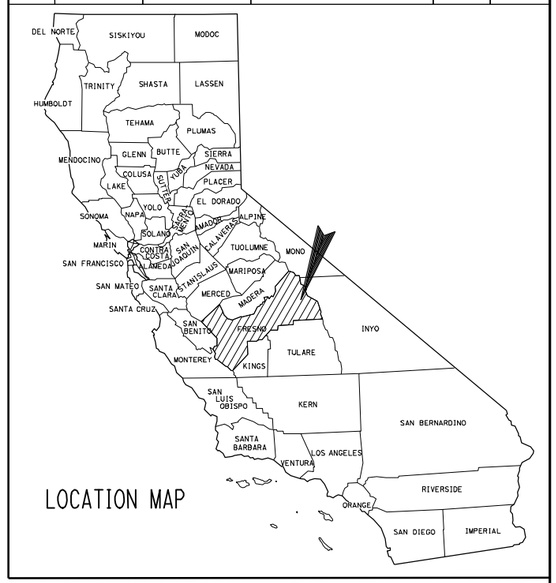
CALIFORNIA HIGH SPEED RAIL AUTHORITY

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN THE CITY OF FRESNO
0.5 MI SOUTH OF CLINTON AVENUE
TO 0.2 MI SOUTH OF ASHLAN AVENUE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



END CONSTRUCTION
STA 239+45 PM 26.2

BEGIN CONSTRUCTION
STA 229+27 PM 23.7

BEGIN WORK
14+00

DAKOTA Ave OC
Br No. 42-148

END WORK
243+00

TO VISALIA

TO MADERA

ASHLAN Ave OC
Br No. 42-140

ROUTE 99

UPRR

CLINTON Ave OC
Br No. 42-183

FRESNO

PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

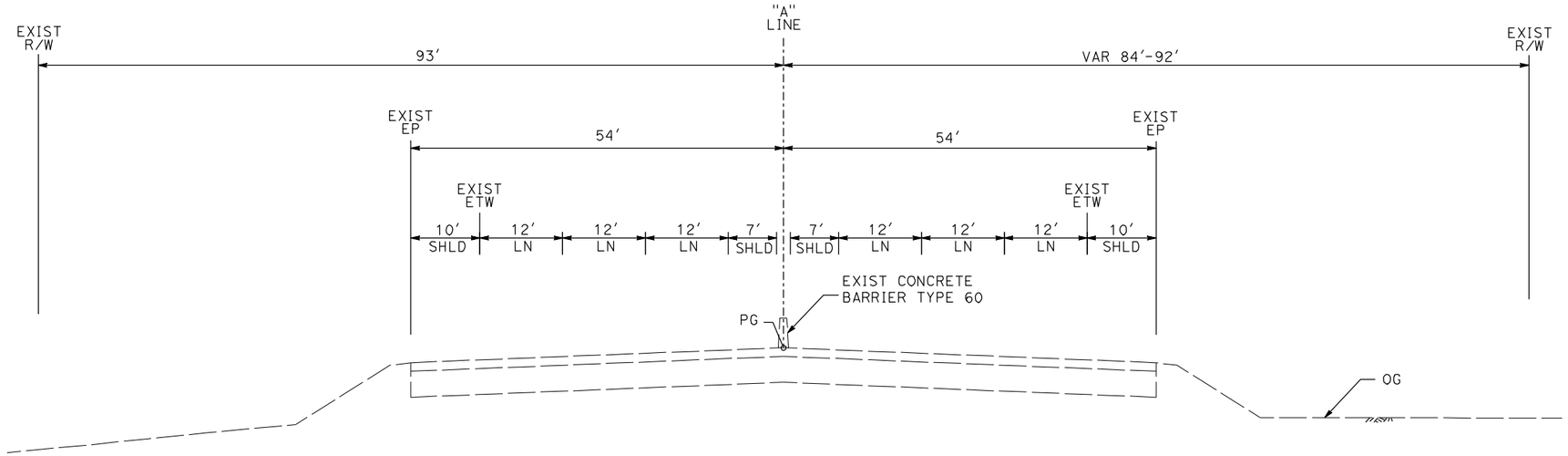
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

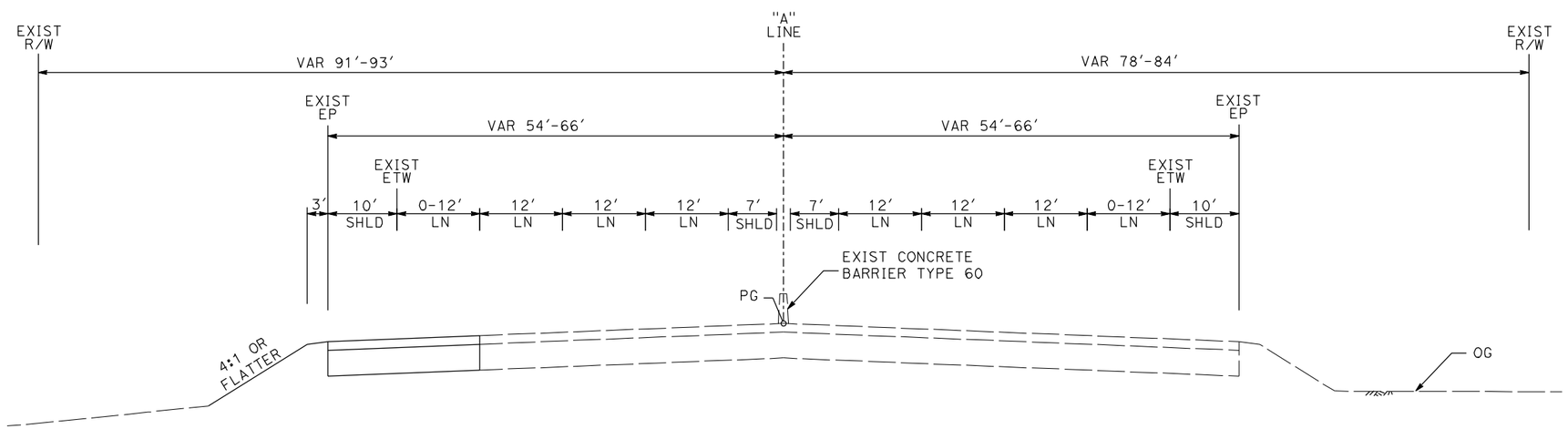
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TITLE

CONTRACT NO. HSR06-007
DRAWING NO. **T-1**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => [illegible]



SB 117+00 TO 117+40 **NB 117+00 TO 119+55**



SB 117+40 TO 123+40 **NB 119+55 TO 123+15**

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

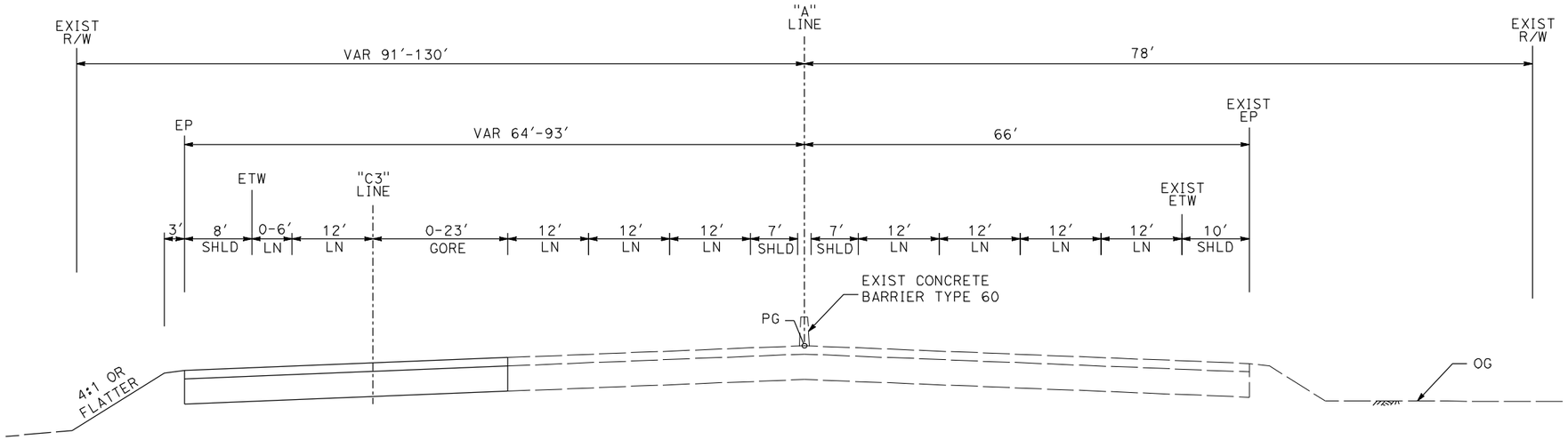
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

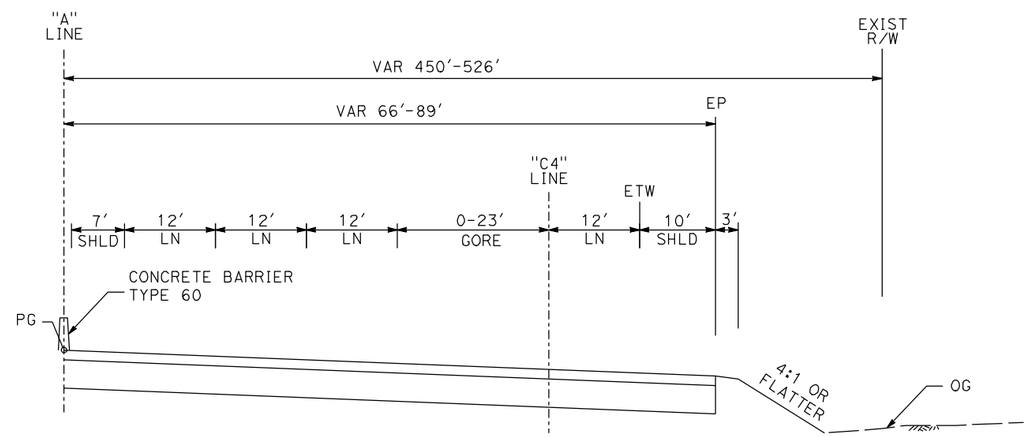
CONTRACT NO. HSR06-007
DRAWING NO. **X-1**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011



SB 123+40 TO 129+27

NB 123+15 TO 130+18



NB 130+18 TO 132+89

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

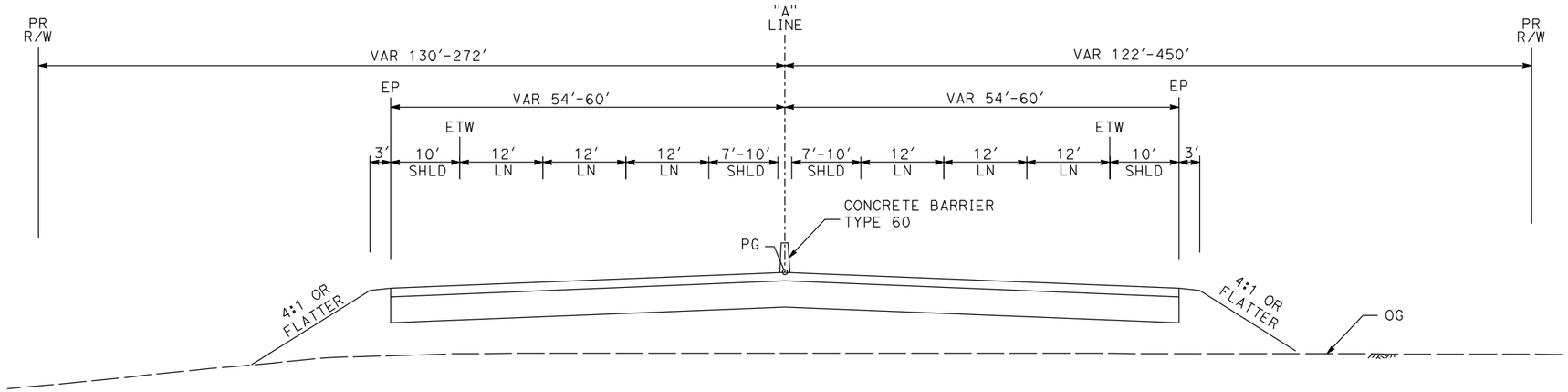
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

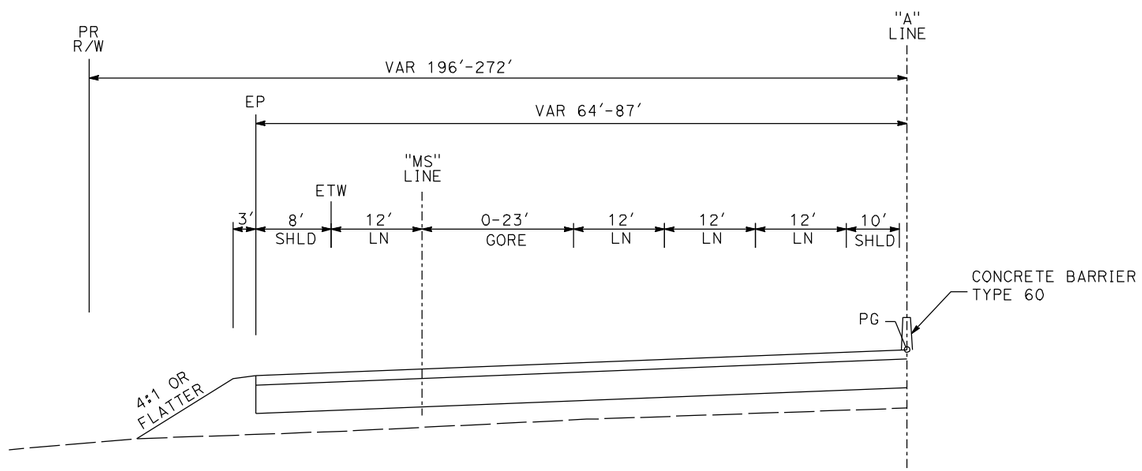
CONTRACT NO. HSR06-007
DRAWING NO. **X-2**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => [illegible]



SB 129+27 TO 146+07

NB 132+89 TO 152+18



SB 146+07 TO 148+79

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

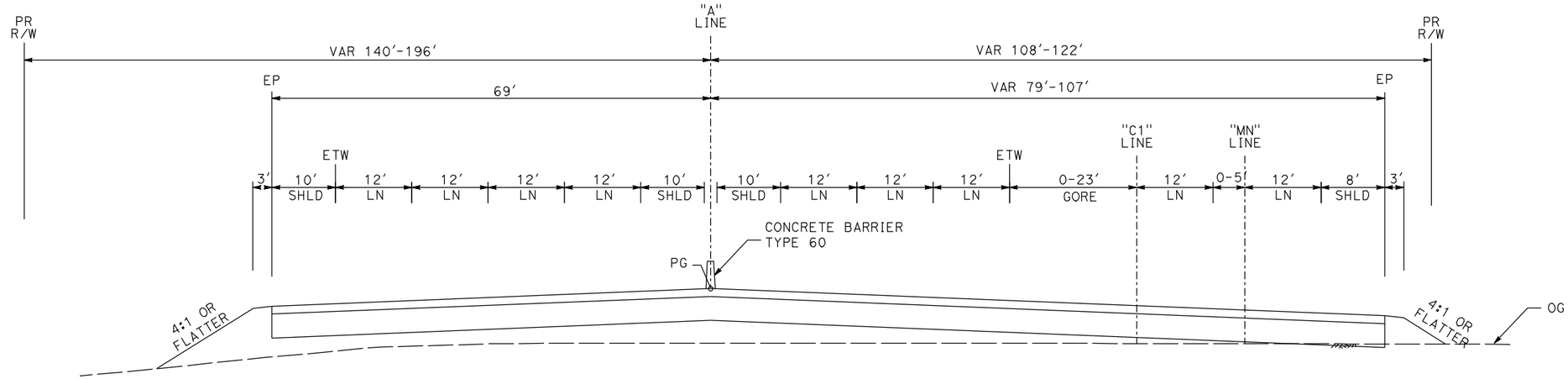
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

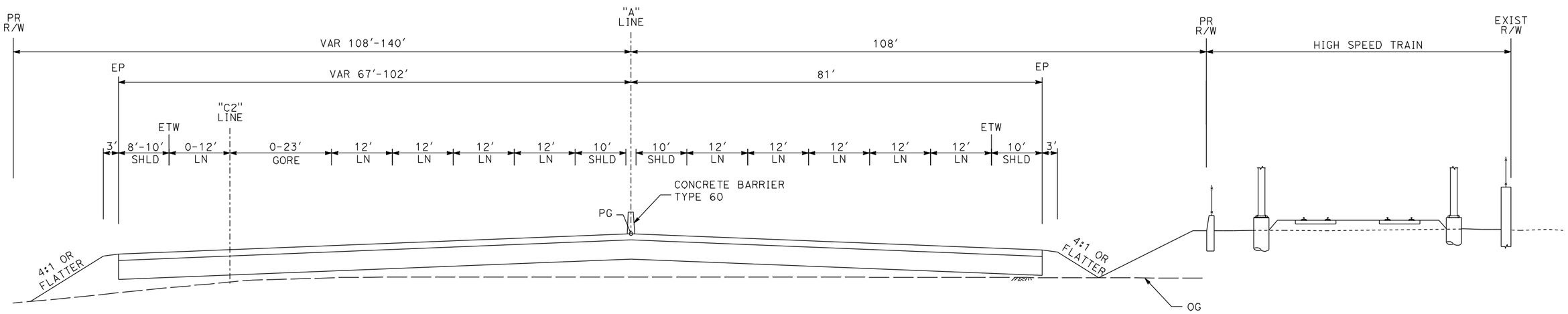
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-3**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011



SB 148+79 TO 157+19 **NB 152+18 TO 158+14**



SB 157+19 TO 161+30 **NB 152+18 TO 158+14**

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

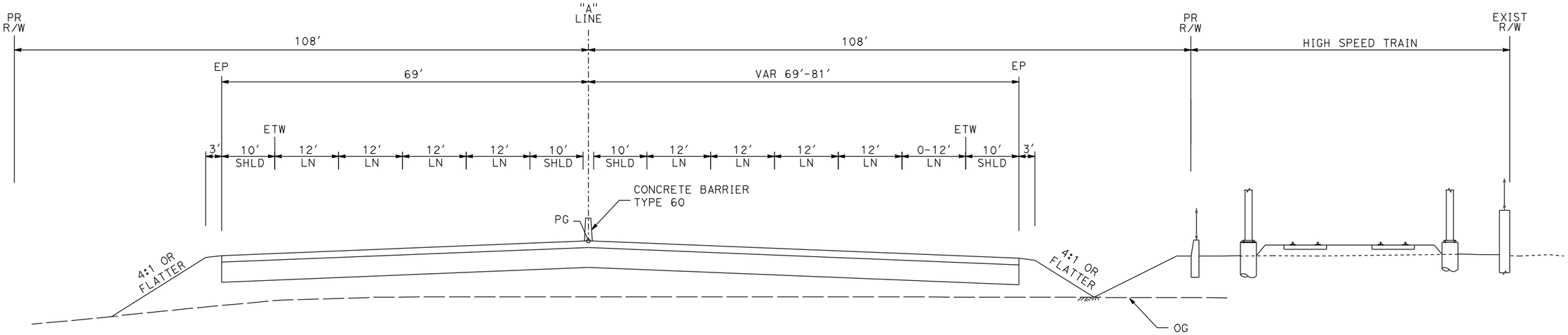
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

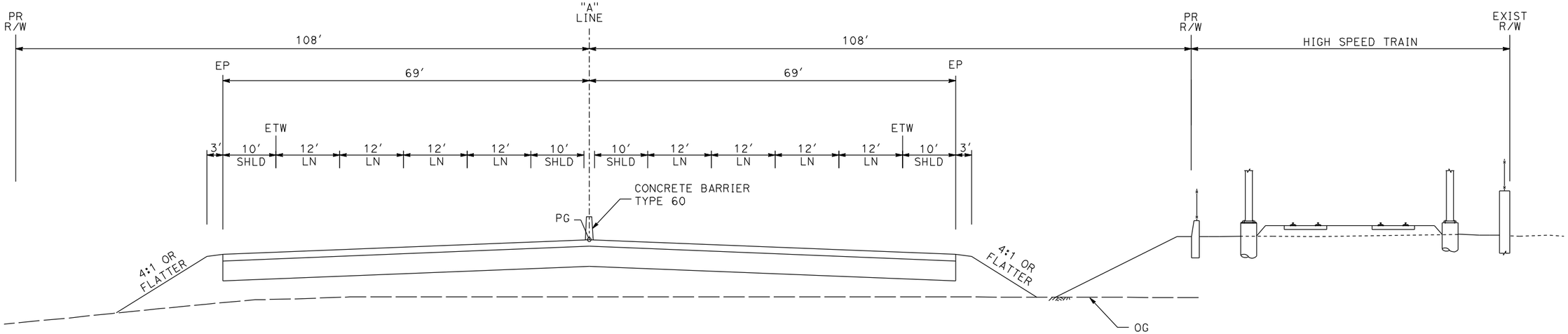
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. X-4
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011



SB 161+30 TO 164+14 **NB 158+14 TO 164+14**



SB 164+14 TO 220+00 **NB 164+14 TO 220+80**

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

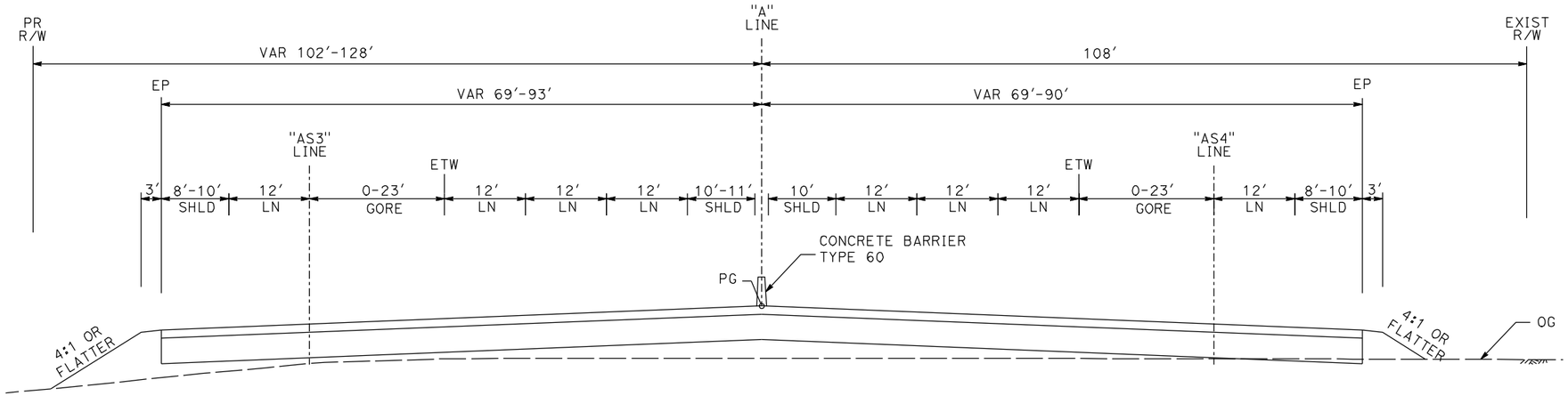
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

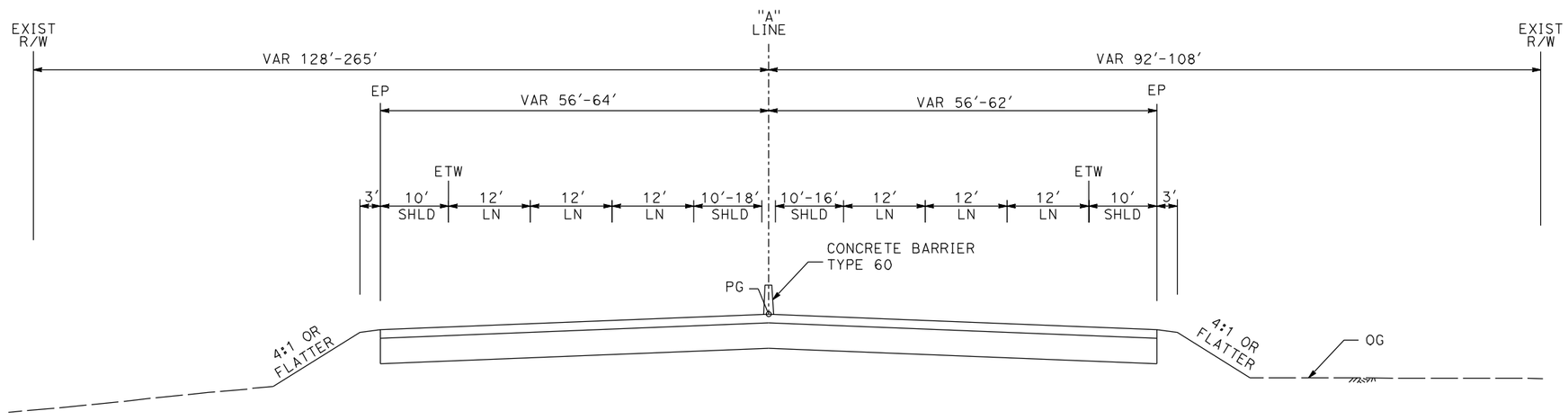
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-5**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011



SB 220+00 TO 226+80 **NB 220+80 TO 223+50**



SB 226+80 TO 239+45 **NB 223+50 TO 239+45**

ROUTE 99

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

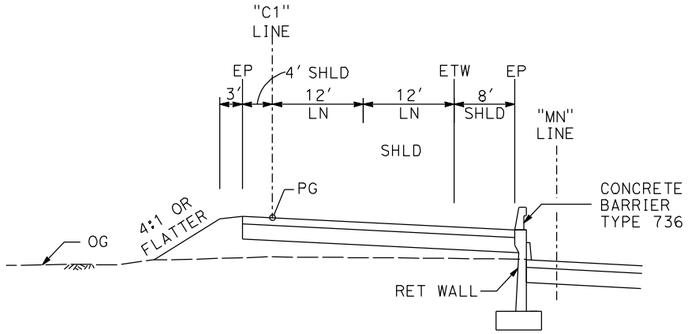
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

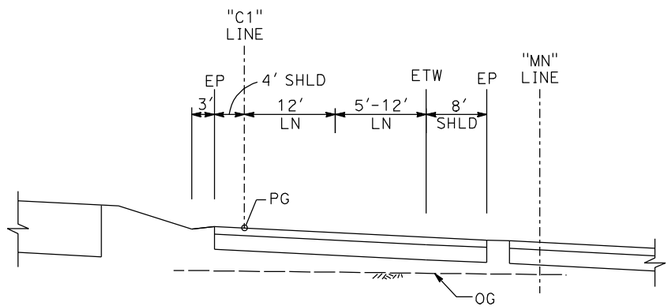
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-6**
SCALE NO SCALE
SHEET NO.

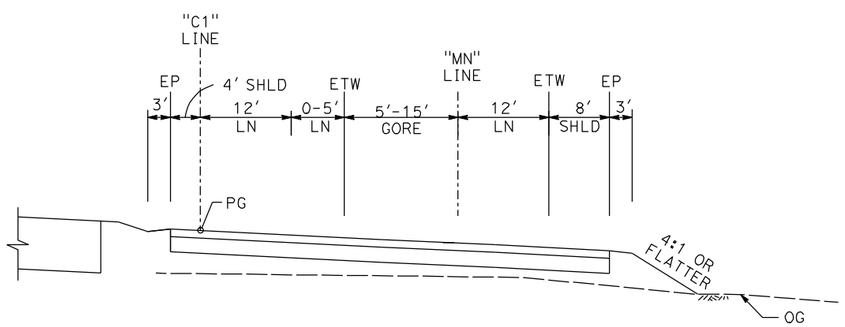
DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS



142+10 TO 1147+31

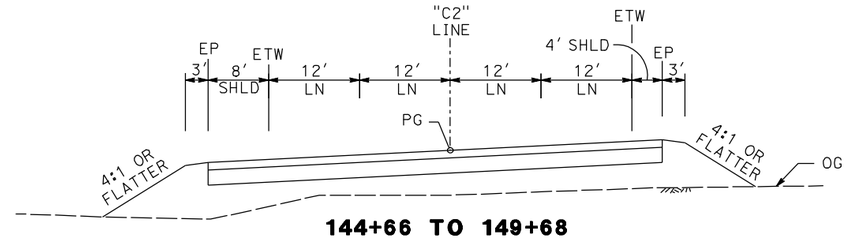


147+31 TO 149+07

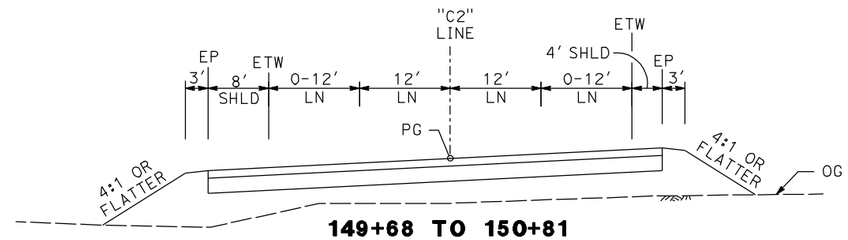


149+07 TO 152+15

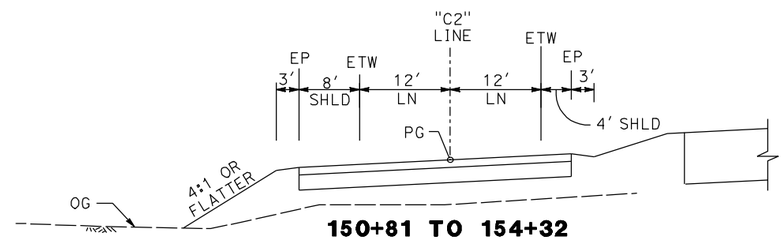
C1 LINE
(NB ON RAMP AT CLINTON AVE)



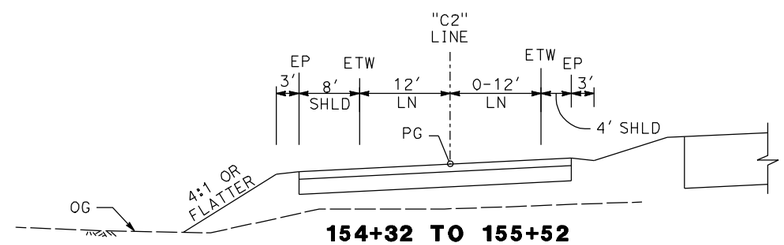
144+66 TO 149+68



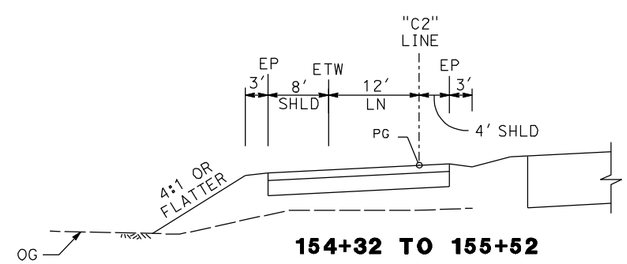
149+68 TO 150+81



150+81 TO 154+32



154+32 TO 155+52



154+32 TO 155+52

C2 LINE
(SB OFF RAMP AT CLINTON AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

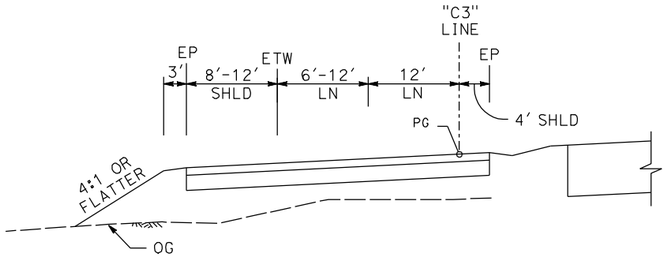
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

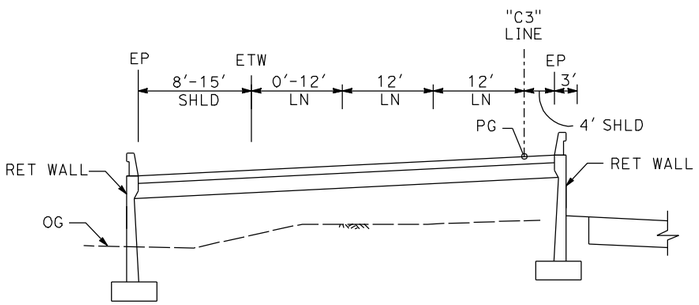
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-7**
SCALE NO SCALE
SHEET NO.

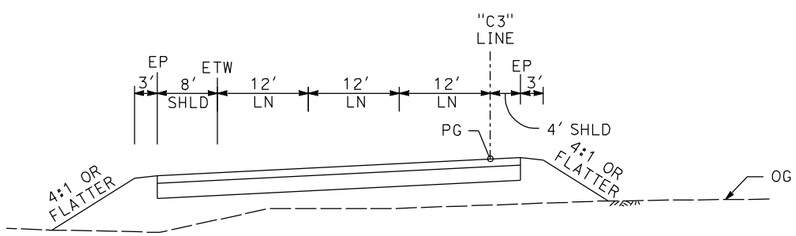
DATE PLOTTED => 26-APR-2011



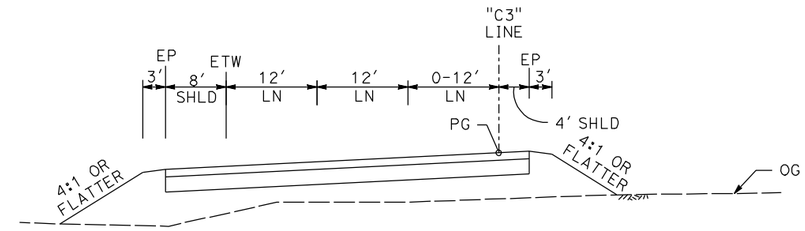
129+27 TO 131+09



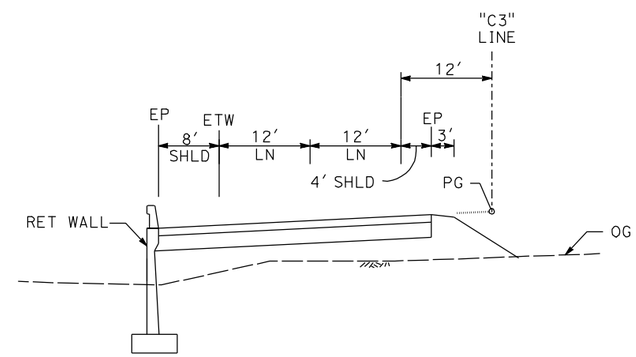
131+09 TO 134+80



134+80 TO 139+92



139+92 TO 141+22



141+22 TO 143+56

C3 LINE
(SB ON RAMP AT CLINTON AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

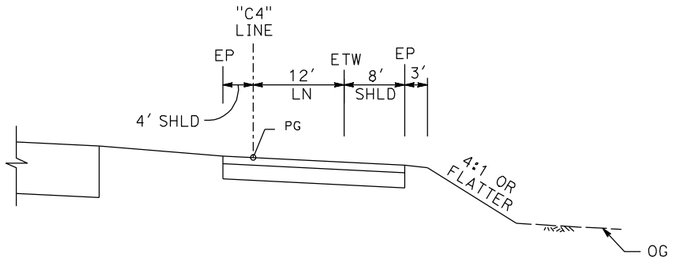
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

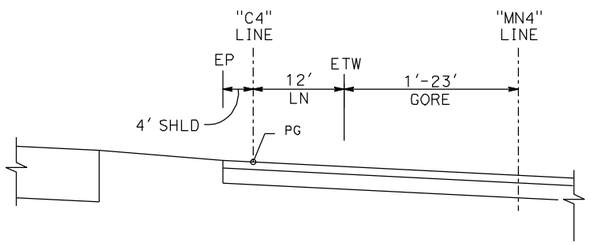
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-8**
SCALE NO SCALE
SHEET NO.

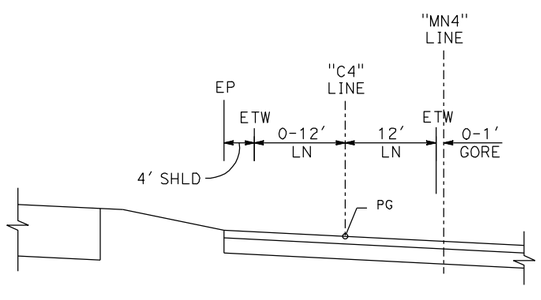
DATE PLOTTED => 26-APR-2011
USERNAME => 1700



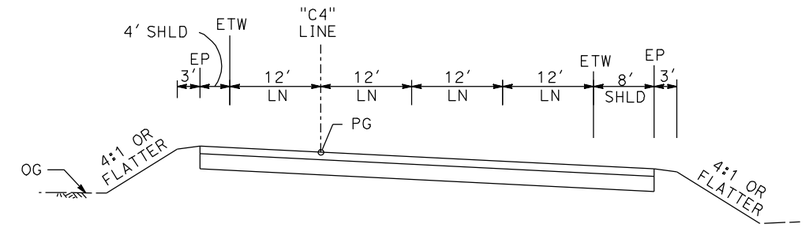
132+89 TO 133+20



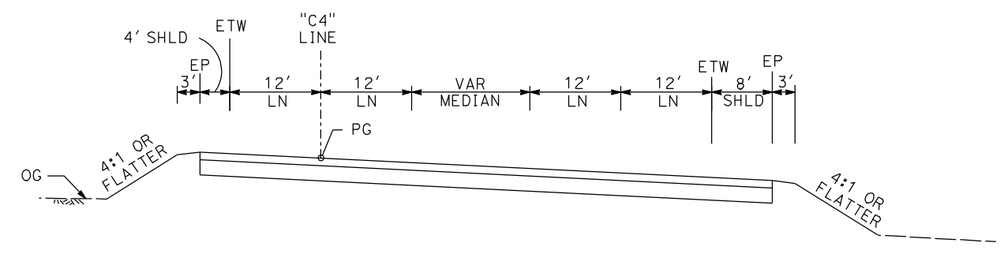
133+20 TO 134+72



134+72 TO 135+92



135+92 TO 139+95



139+95 TO 141+12

C4 LINE
(NB OFF RAMP AT CLINTON AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

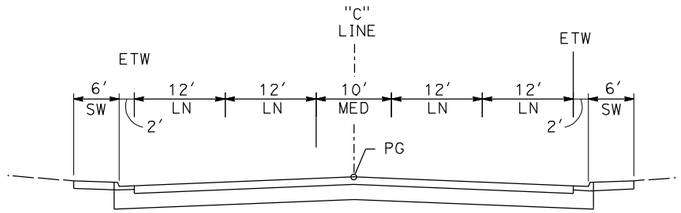
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

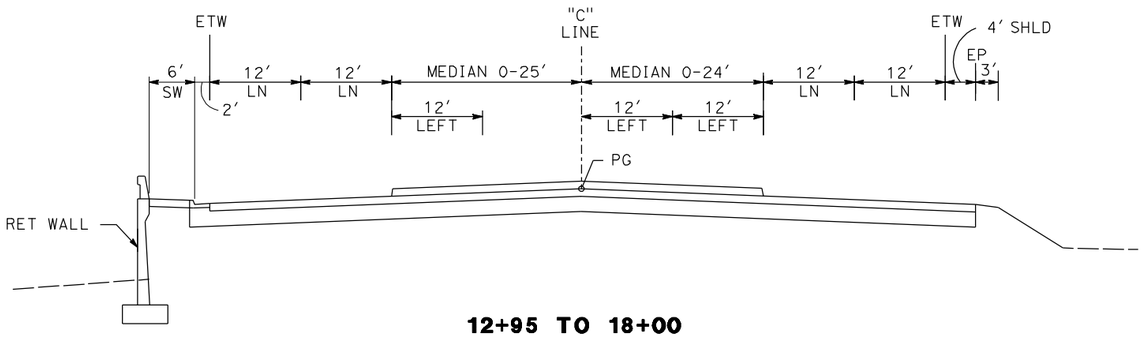
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. X-9
SCALE NO SCALE
SHEET NO.

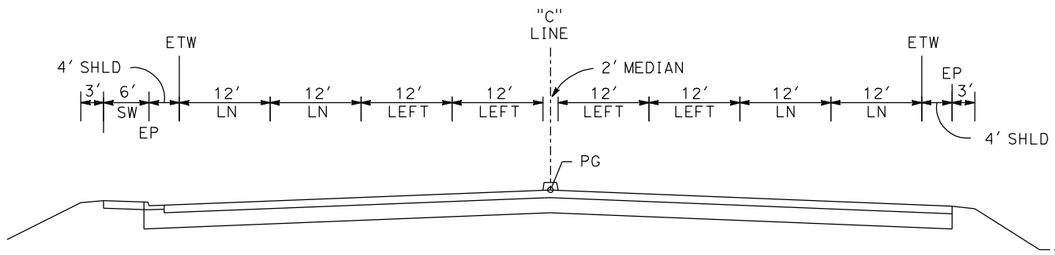
DATE PLOTTED => 26-APR-2011



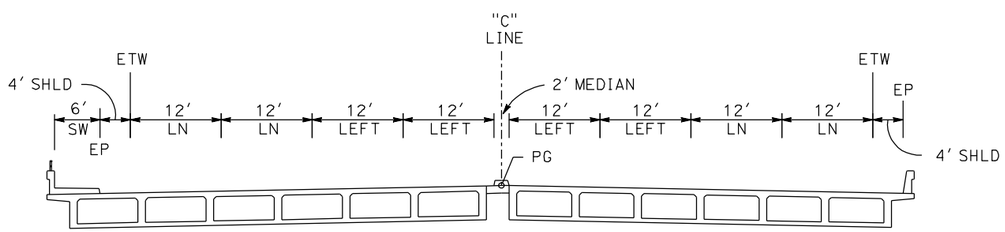
10+00 TO 12+95



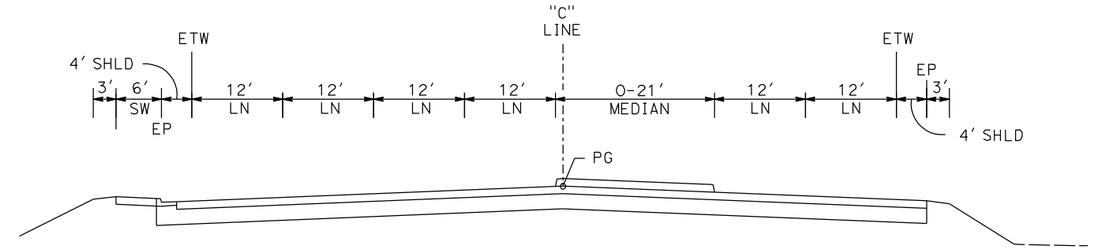
12+95 TO 18+00



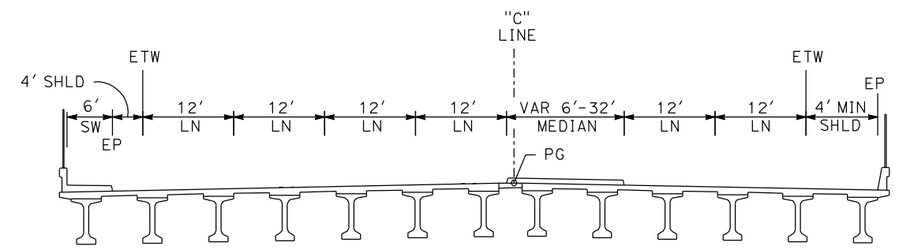
18+00 TO 19+66



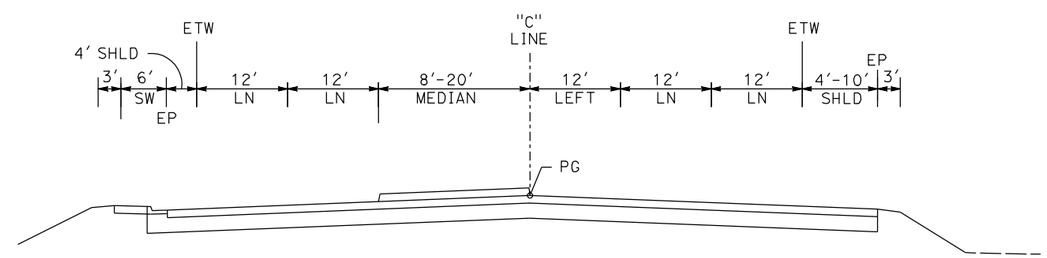
19+66 TO 22+49
CLINTON AVE OC



22+49 TO 24+08



24+08 TO 27+98
FREPNO YARD OH



27+98 TO 34+18

CLINTON AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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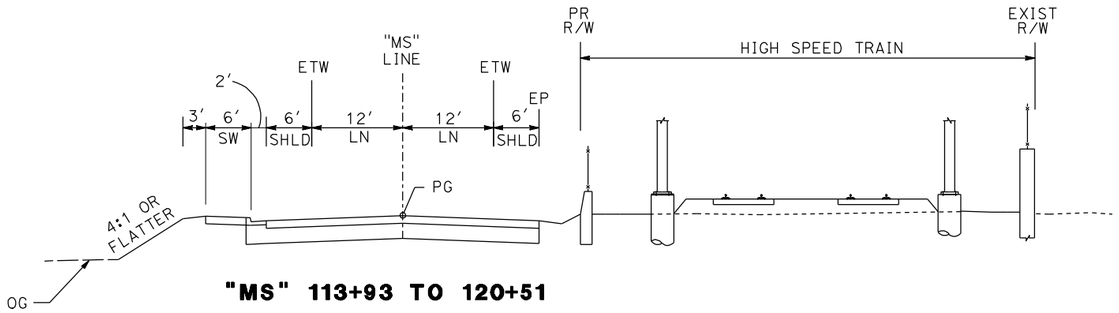
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

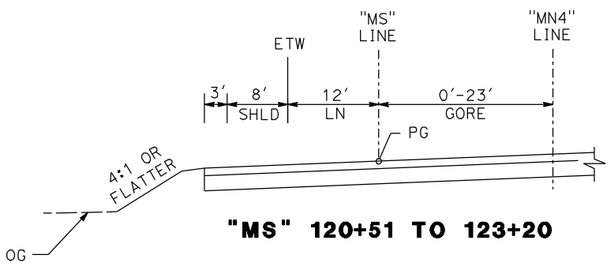
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-10**
SCALE NO SCALE
SHEET NO.

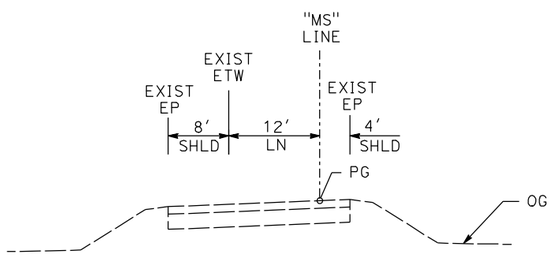
DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS



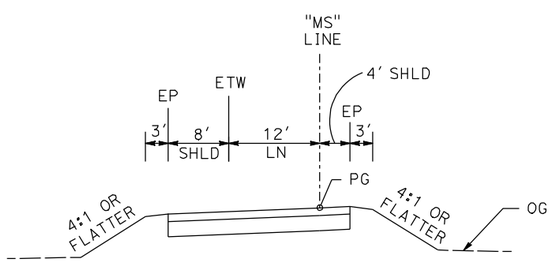
"MS" 113+93 TO 120+51



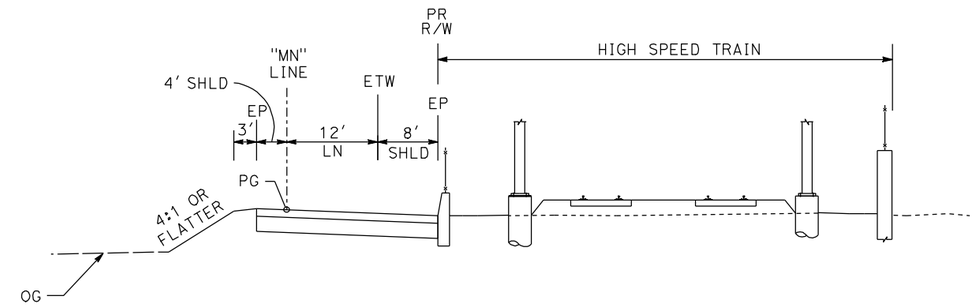
"MS" 120+51 TO 123+20



"MS" 129+00 TO 133+00



"MS" 123+20 TO 129+00
"MS" 133+00 TO 146+08



"MN" 124+25 TO 149+06

GOLDEN STATE BLVD

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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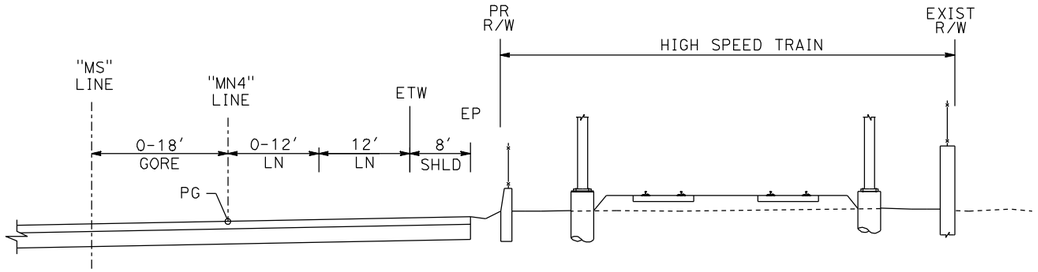
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

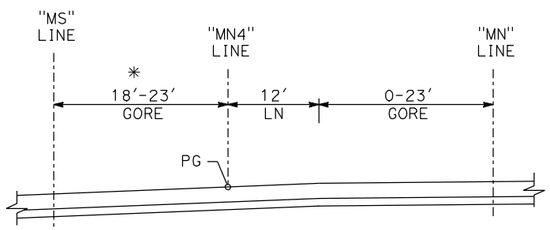
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-11**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS

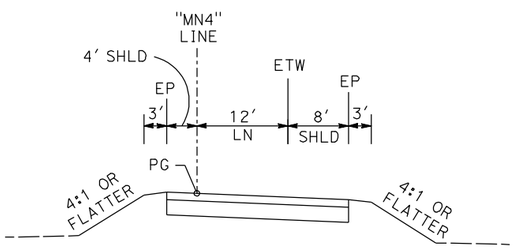


"MN4" 120+51 TO 122+70

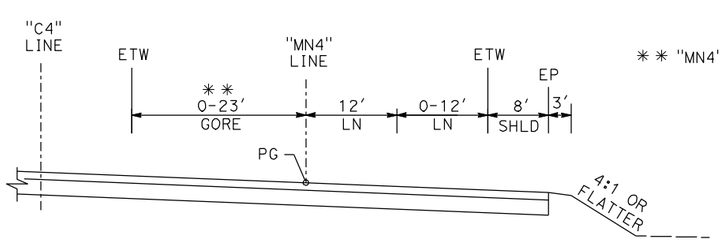


* "MN4" 122+70 TO 123+20

"MN4" 122+70 TO 123+62



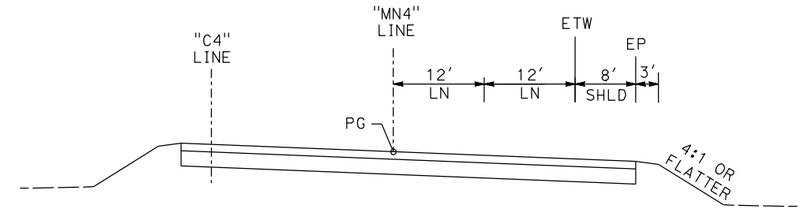
"MN4" 123+62 TO 132+24



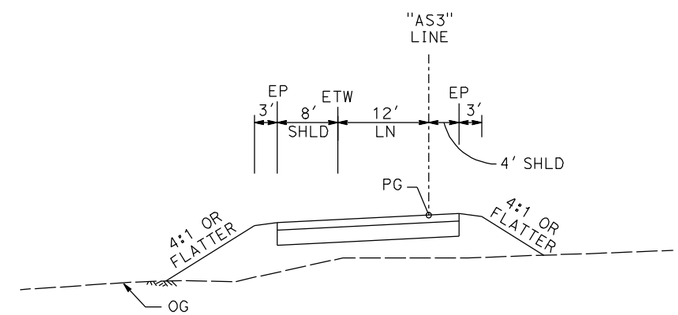
** "MN4" 132+24 TO 134+18

"MN4" 132+24 TO 134+46

MN4 LINE
(GOLDEN STATE BLVD NB OFF RAMP AT)



"MN4" 134+46 TO 134+98



"AS3" 226+72 TO 233+35

AS3 LINE
(SB ON RAMP AT ASHLAN AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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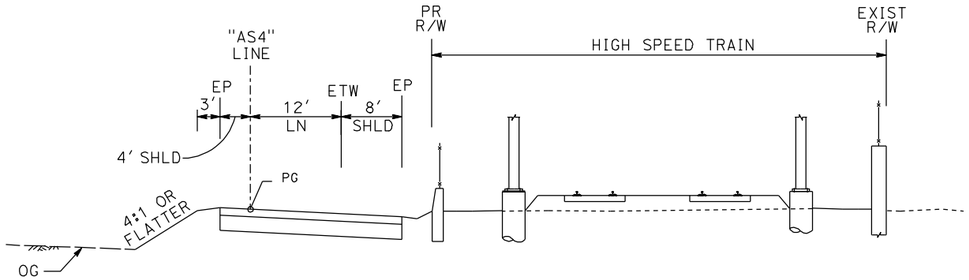
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

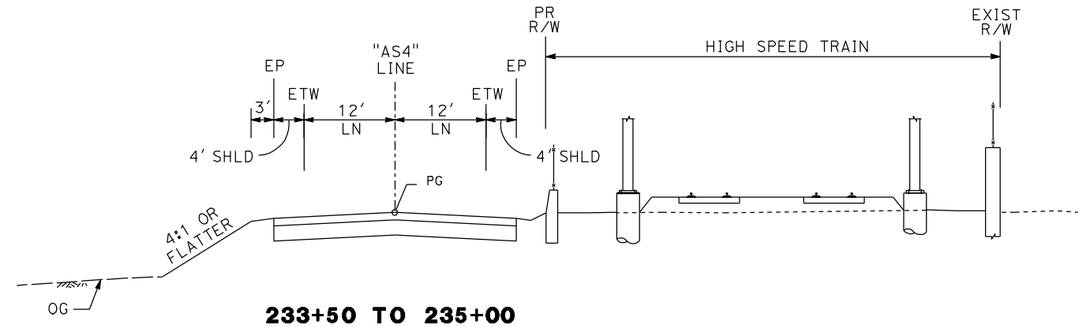
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-12**
SCALE NO SCALE
SHEET NO.

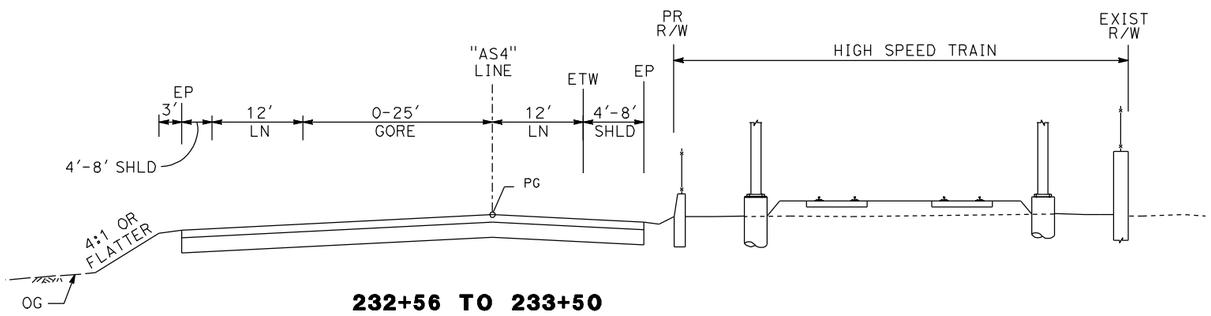
DATE PLOTTED => 26-APR-2011



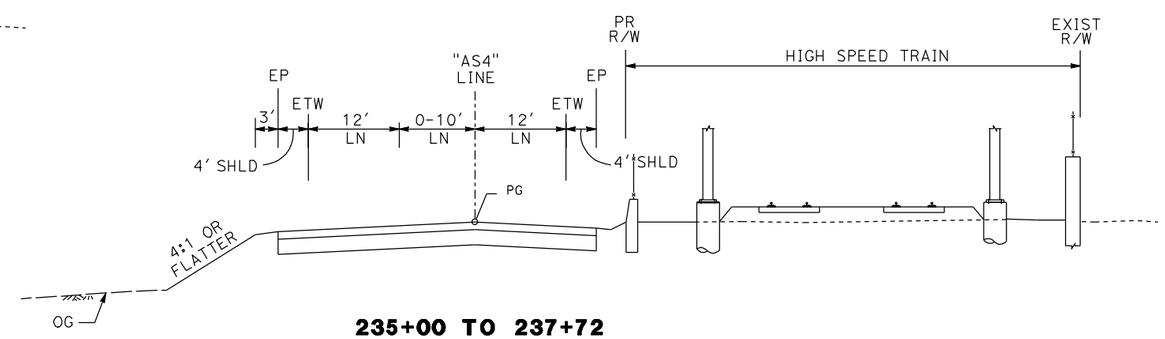
223+51 TO 232+56



233+50 TO 235+00



232+56 TO 233+50



235+00 TO 237+72

AS4 LINE
(NB OFF RAMP AT ASHLAN AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

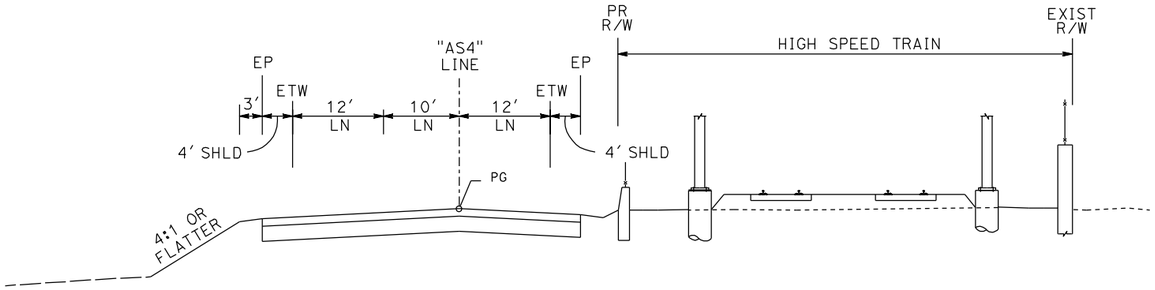
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

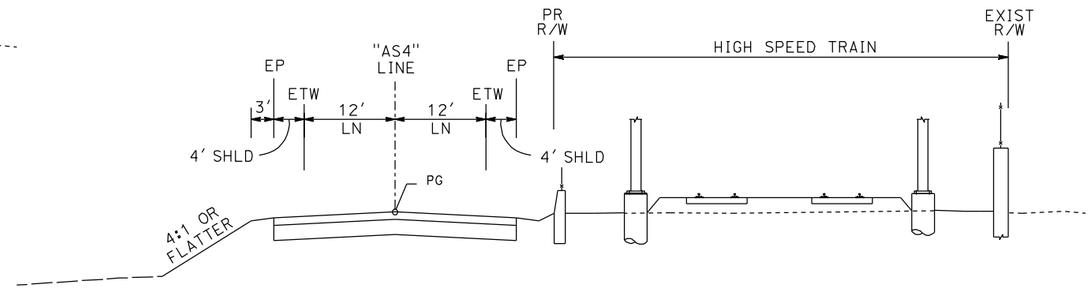
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-13**
SCALE NO SCALE
SHEET NO.

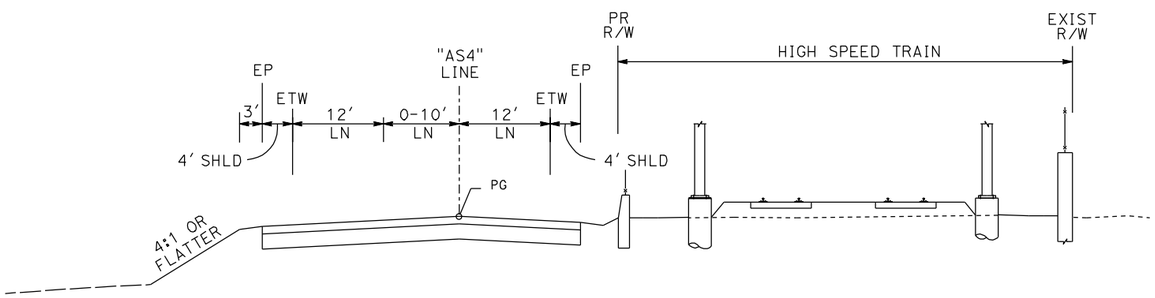
DATE PLOTTED => 26-APR-2011



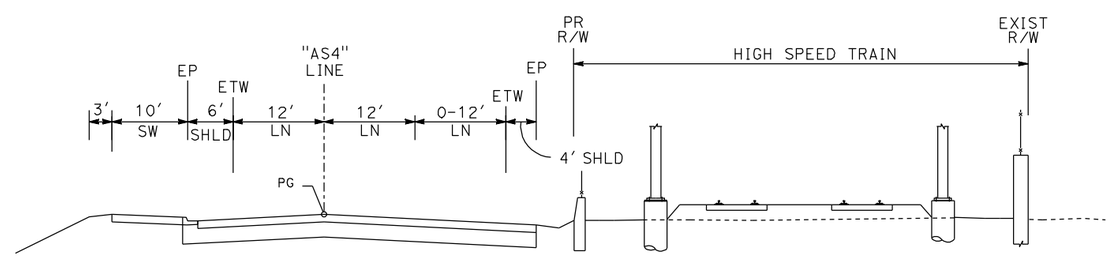
237+72 TO 243+78



245+19 TO 249+52



243+78 TO 245+19



245+19 TO 249+52

AS4 LINE
(NB OFF RAMP AT ASHLAN AVE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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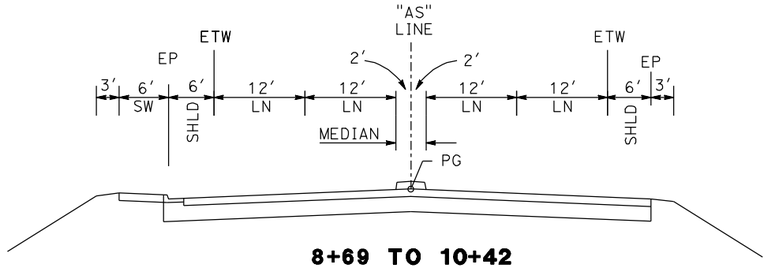
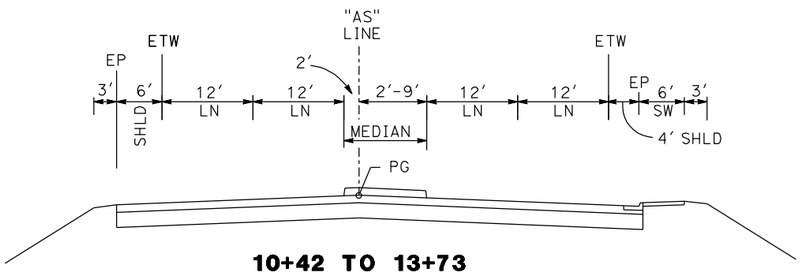
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-14**
SCALE NO SCALE
SHEET NO.

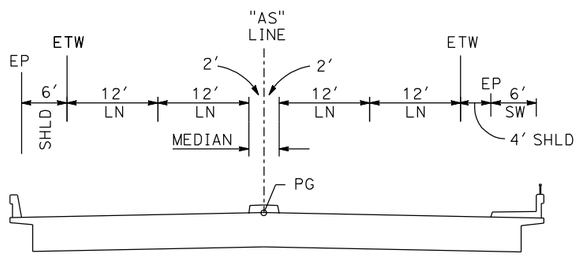
DATE PLOTTED => 26-APR-2011



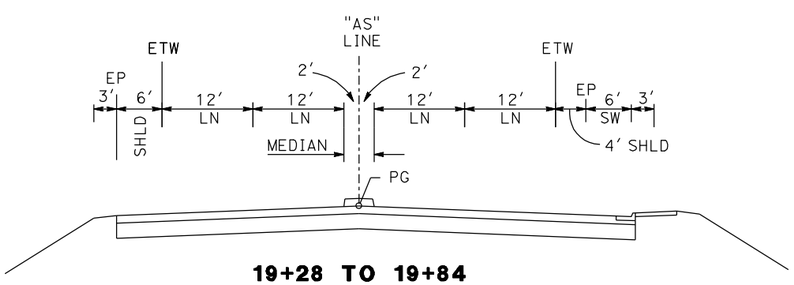
8+69 TO 10+42



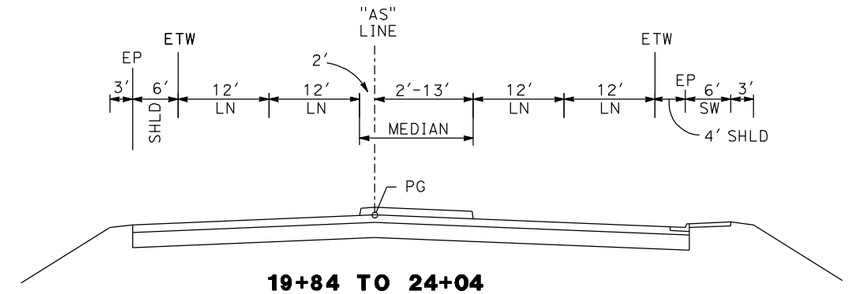
10+42 TO 13+73



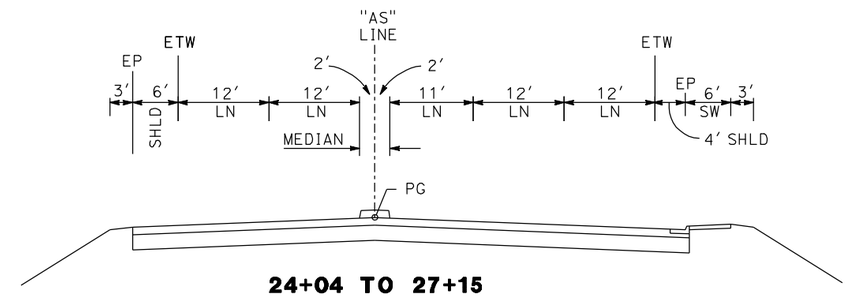
13+73 TO 19+28



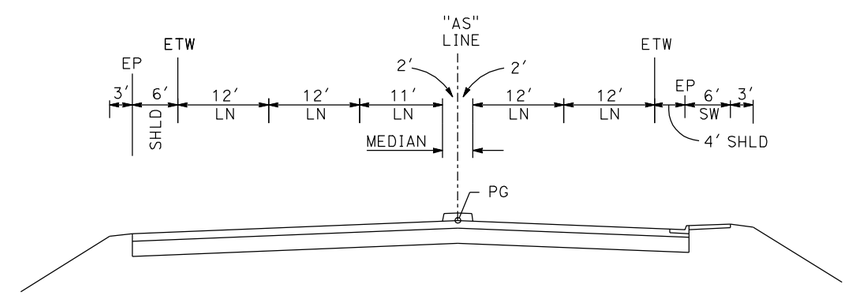
19+28 TO 19+84



19+84 TO 24+04



24+04 TO 27+15



27+15 TO 30+00

ASHLAN AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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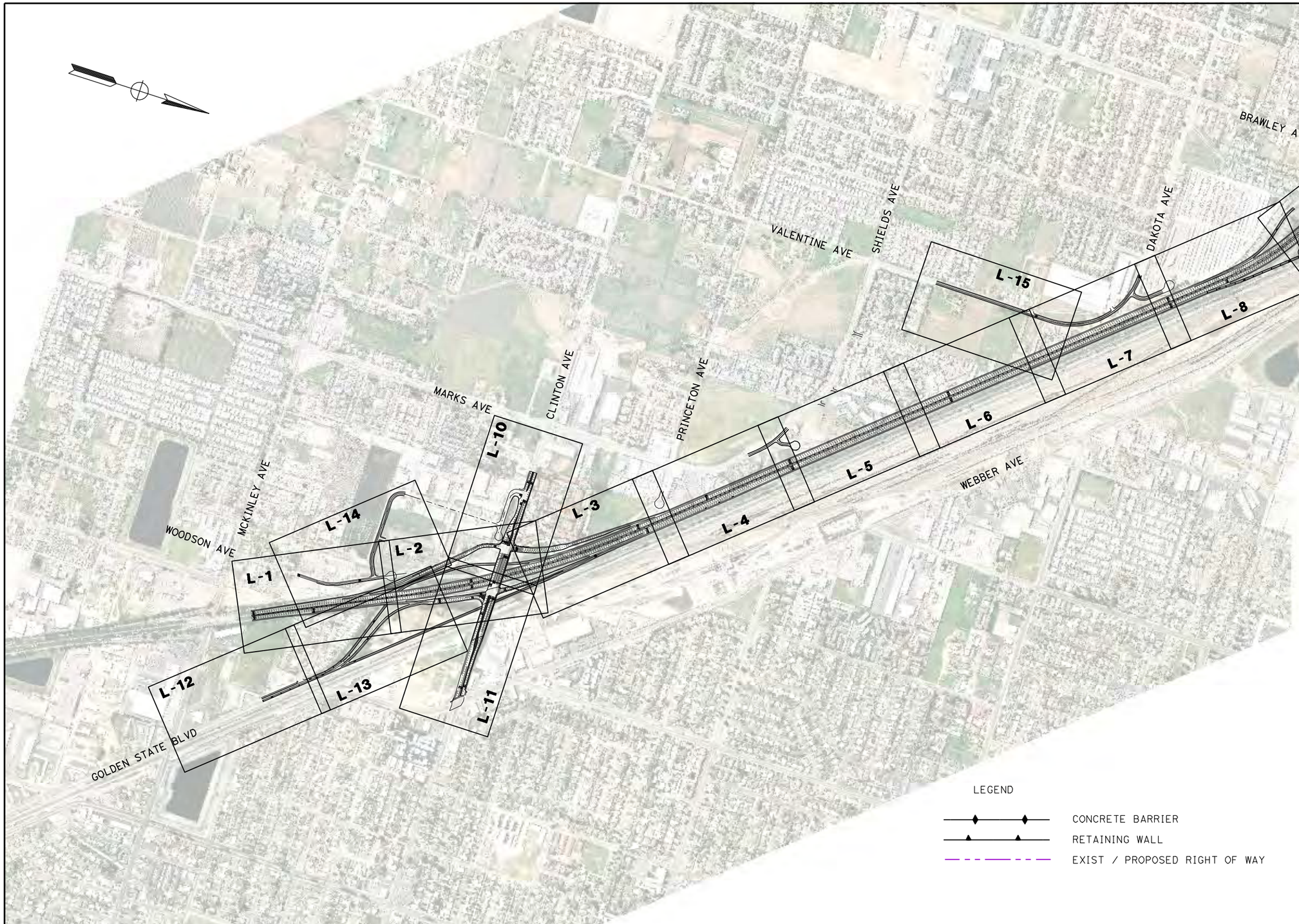
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR06-007
DRAWING NO. **X-15**
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011



ABBREVIATIONS

BC	BEGIN CURVE
BVC	BEGIN VERTICAL CURVE
CG	CURB GUTTER
CL	CENTER LINE
CT	CALTRANS
EC	END CURVE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
ETW	EDGE OF TRAVELED WAY
EVC	END VERTICAL CURVE
HORIZ	HORIZONTAL
HST	HIGH SPEED TRAIL
L	LENGTH
LT	LEFT
NB	NORTHBOUND
OC	OVERCROSSING
OG	ORIGINAL GROUND
PCC	POINT OF COMPOUND CURVE
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
POT	POINT ON TANGENT
PVI	POINT OF VERTICAL INTERSECTION
PR	PROPOSED
PRVC	POINT REVERSE VERTICAL CURVE
R	RADIUS
RT	RIGHT
R/W	RIGHT OF WAY
SB	SOUTHBOUND
SHLD	SHOULDER
SR	STATE ROUTE
SW	SIDEWALK
T	TANGENT
UPRR	UNION PACIFIC RAILROAD

LEGEND

- CONCRETE BARRIER
- RETAINING WALL
- EXIST / PROPOSED RIGHT OF WAY

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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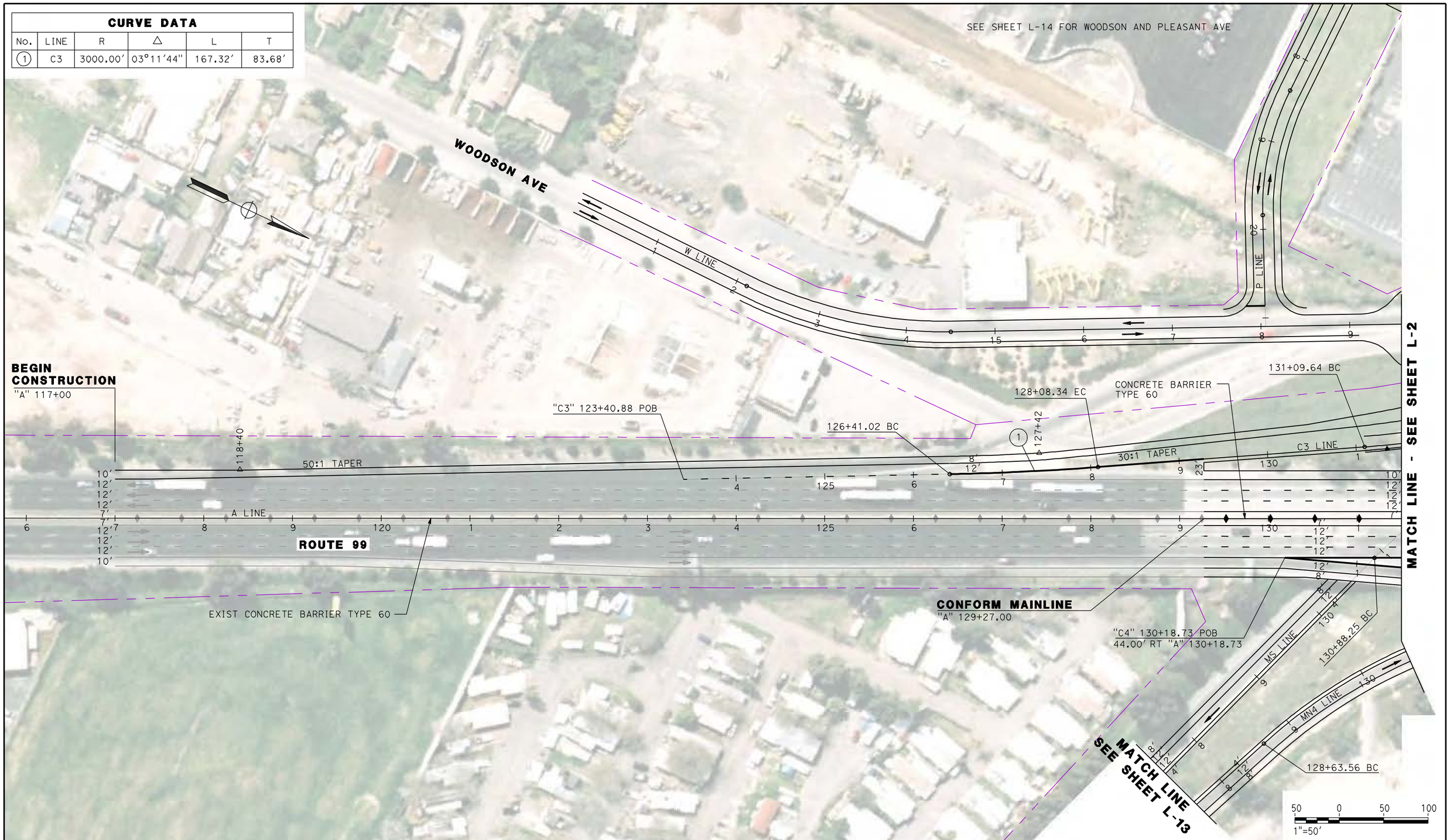
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
KEY MAP

CONTRACT NO. HSR06-007
DRAWING NO. K-1
SCALE NO SCALE
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => [illegible]

CURVE DATA					
No.	LINE	R	Δ	L	T
1	C3	3000.00′	03°11′44"	167.32′	83.68′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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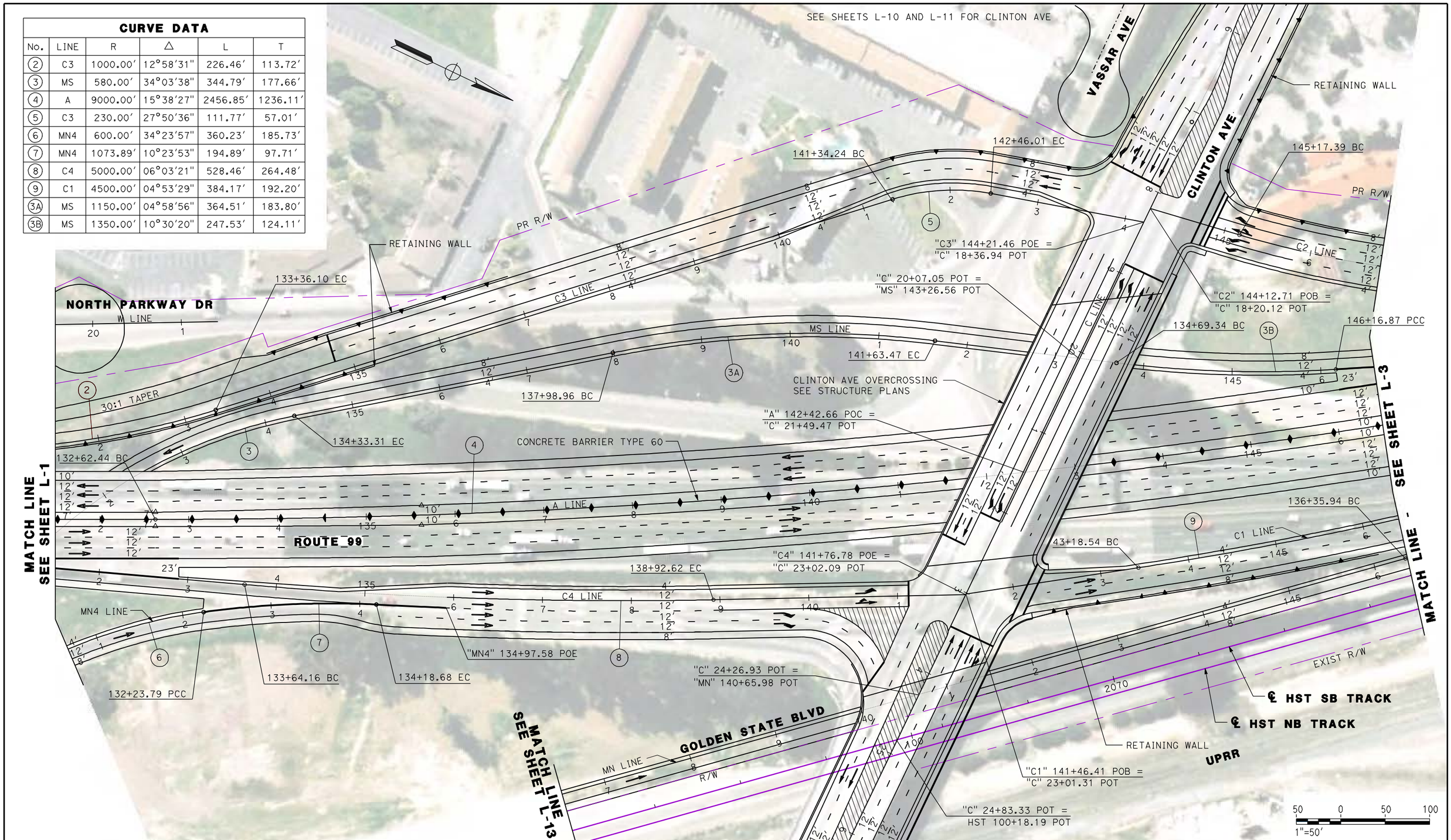
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-1
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS

CURVE DATA					
No.	LINE	R	Δ	L	T
2	C3	1000.00′	12°58′31"	226.46′	113.72′
3	MS	580.00′	34°03′38"	344.79′	177.66′
4	A	9000.00′	15°38′27"	2456.85′	1236.11′
5	C3	230.00′	27°50′36"	111.77′	57.01′
6	MN4	600.00′	34°23′57"	360.23′	185.73′
7	MN4	1073.89′	10°23′53"	194.89′	97.71′
8	C4	5000.00′	06°03′21"	528.46′	264.48′
9	C1	4500.00′	04°53′29"	384.17′	192.20′
3A	MS	1150.00′	04°58′56"	364.51′	183.80′
3B	MS	1350.00′	10°30′20"	247.53′	124.11′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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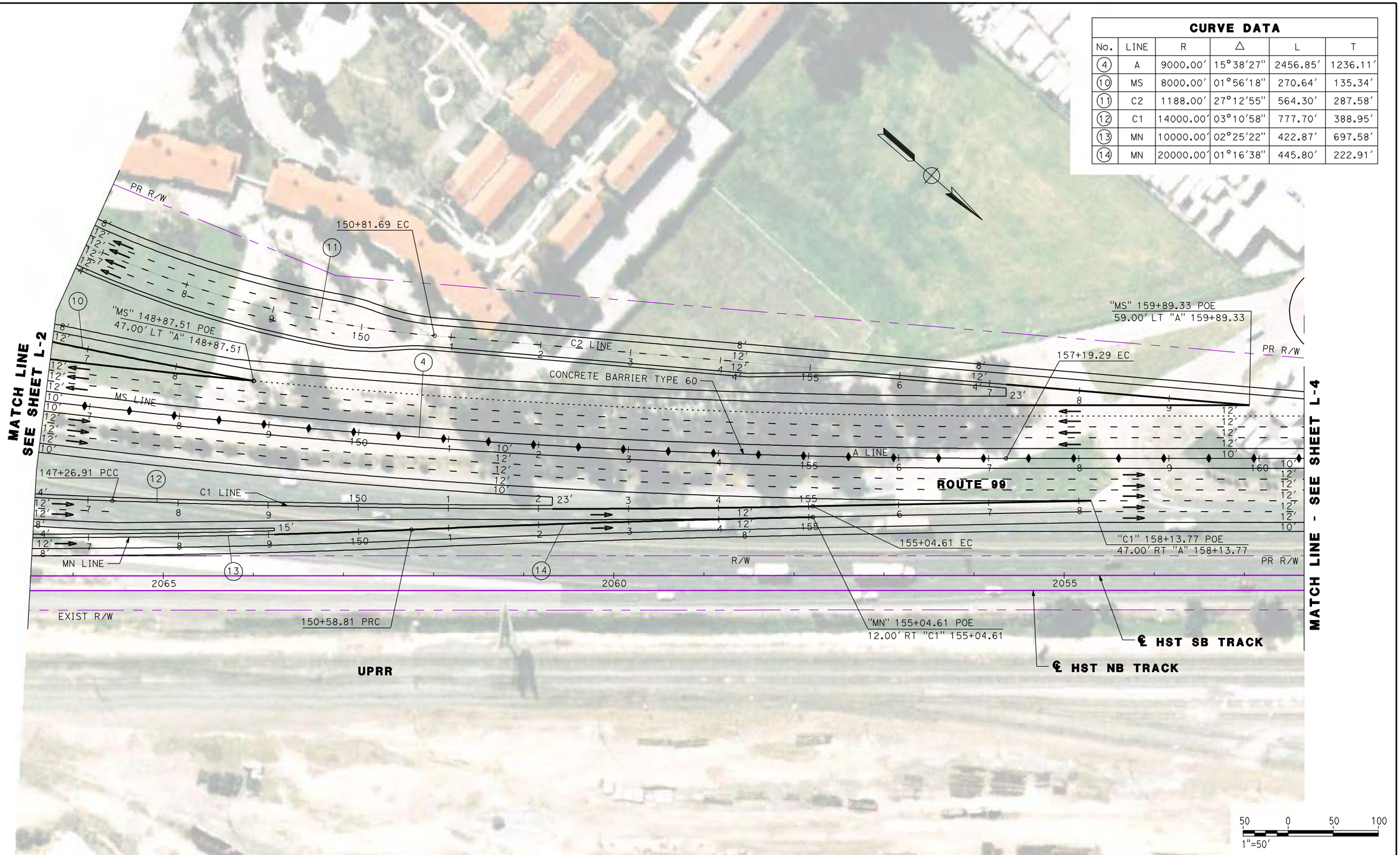
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-2
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

CURVE DATA					
No.	LINE	R	Δ	L	T
4	A	9000.00′	15°38′27″	2456.85′	1236.11′
10	MS	8000.00′	01°56′18″	270.64′	135.34′
11	C2	1188.00′	27°12′55″	564.30′	287.58′
12	C1	14000.00′	03°10′58″	777.70′	388.95′
13	MN	10000.00′	02°25′22″	422.87′	697.58′
14	MN	20000.00′	01°16′38″	445.80′	222.91′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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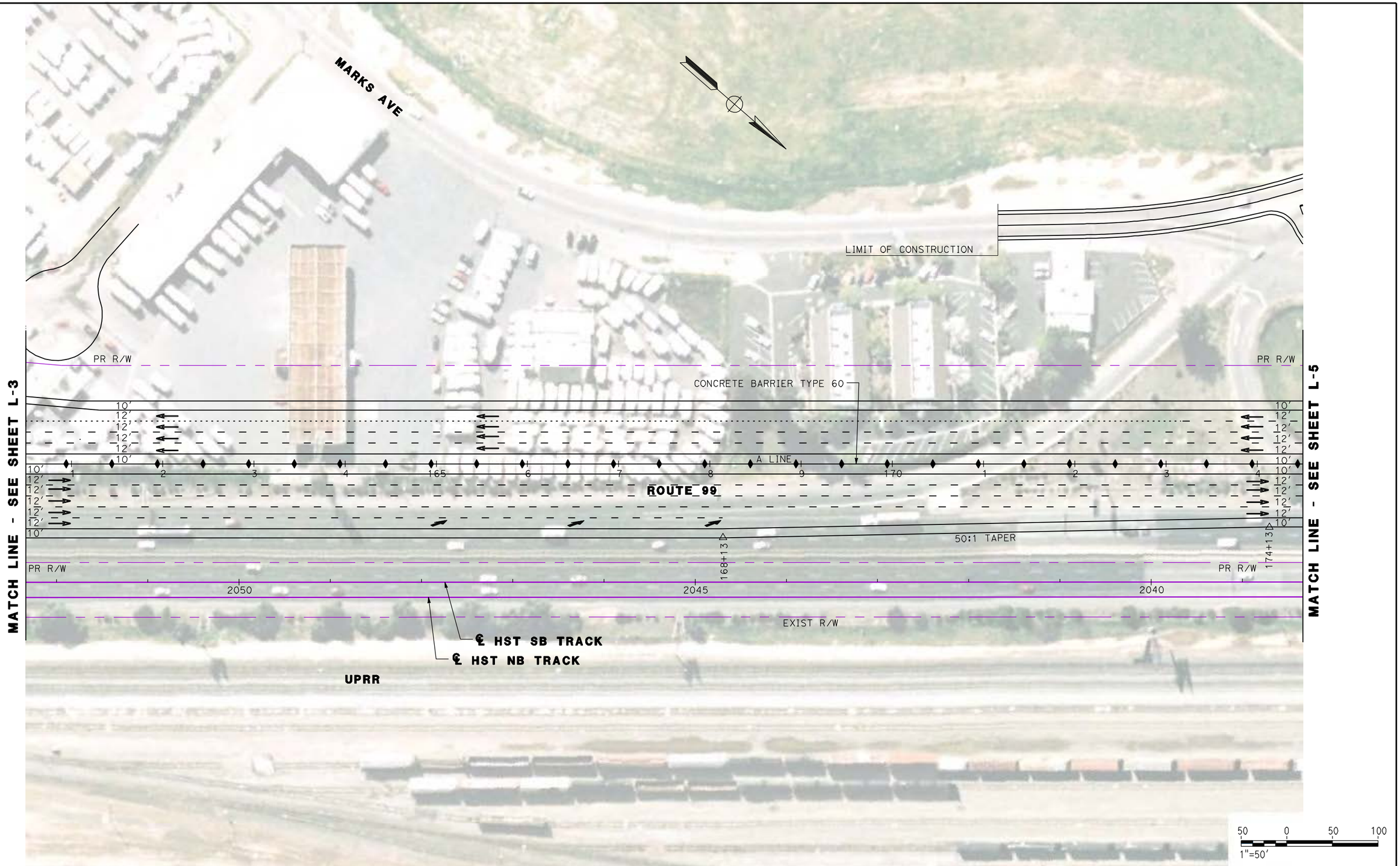
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-3
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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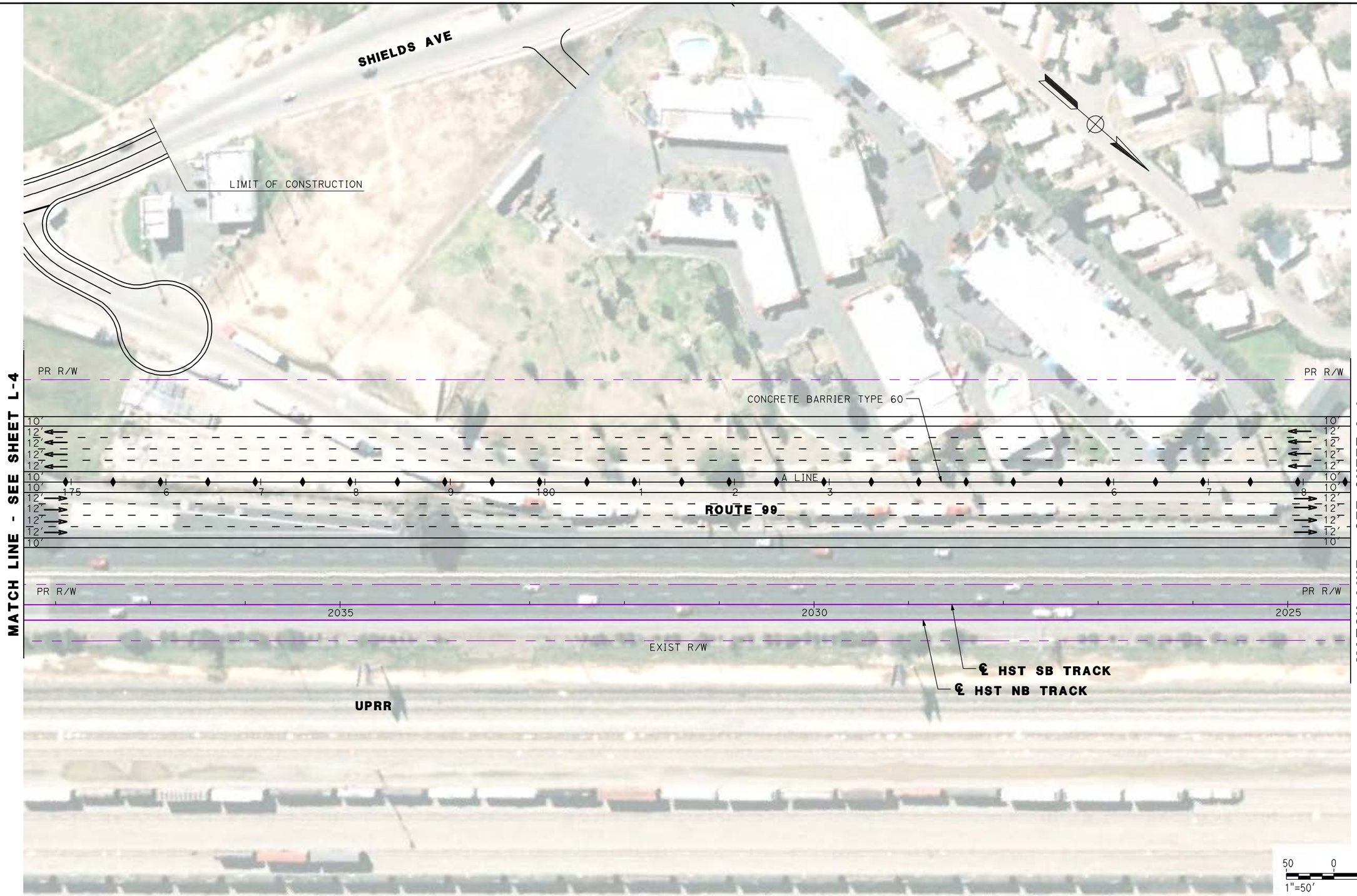
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-4
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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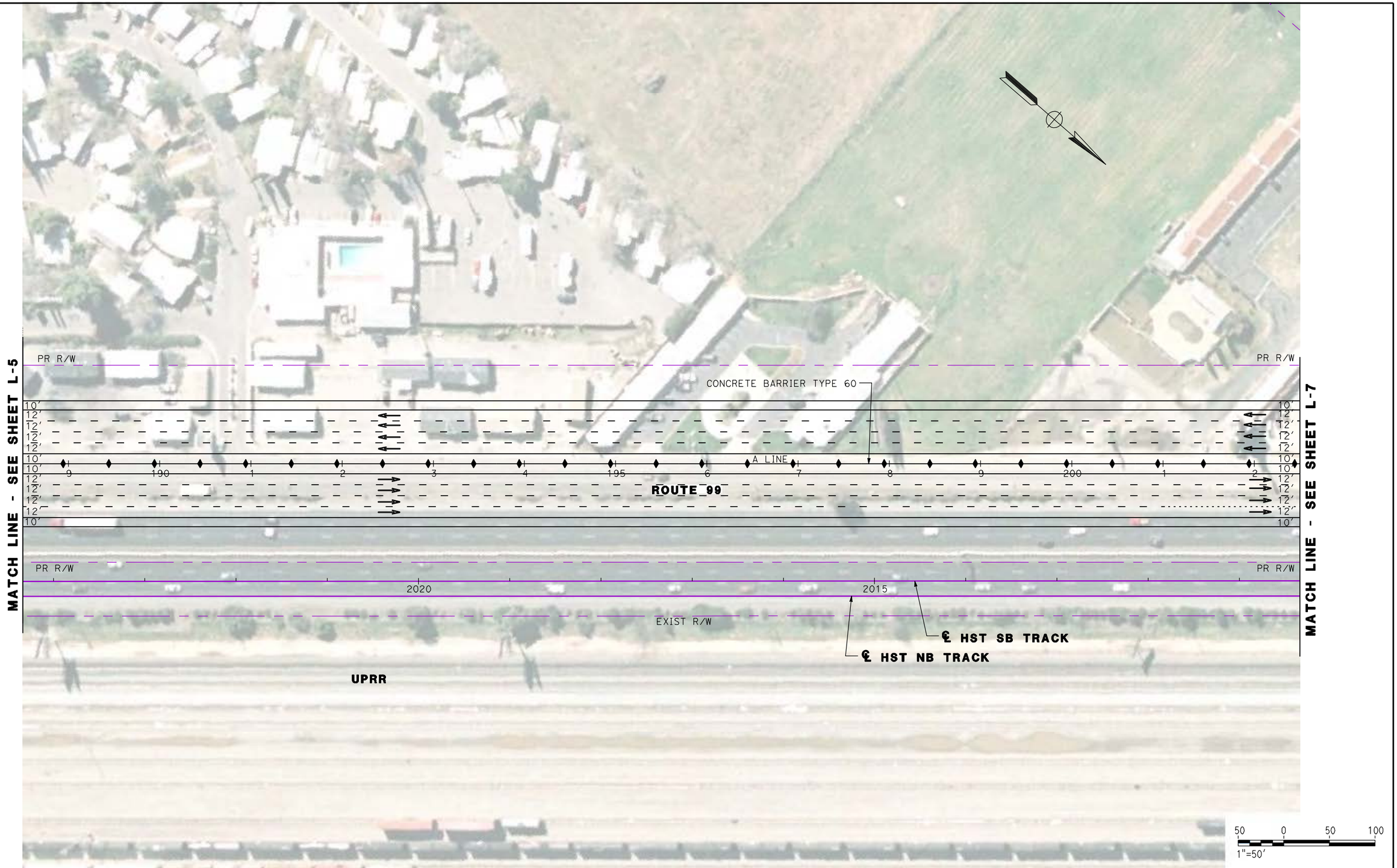
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. **L-5**
SCALE AS SHOWN
SHEET NO.



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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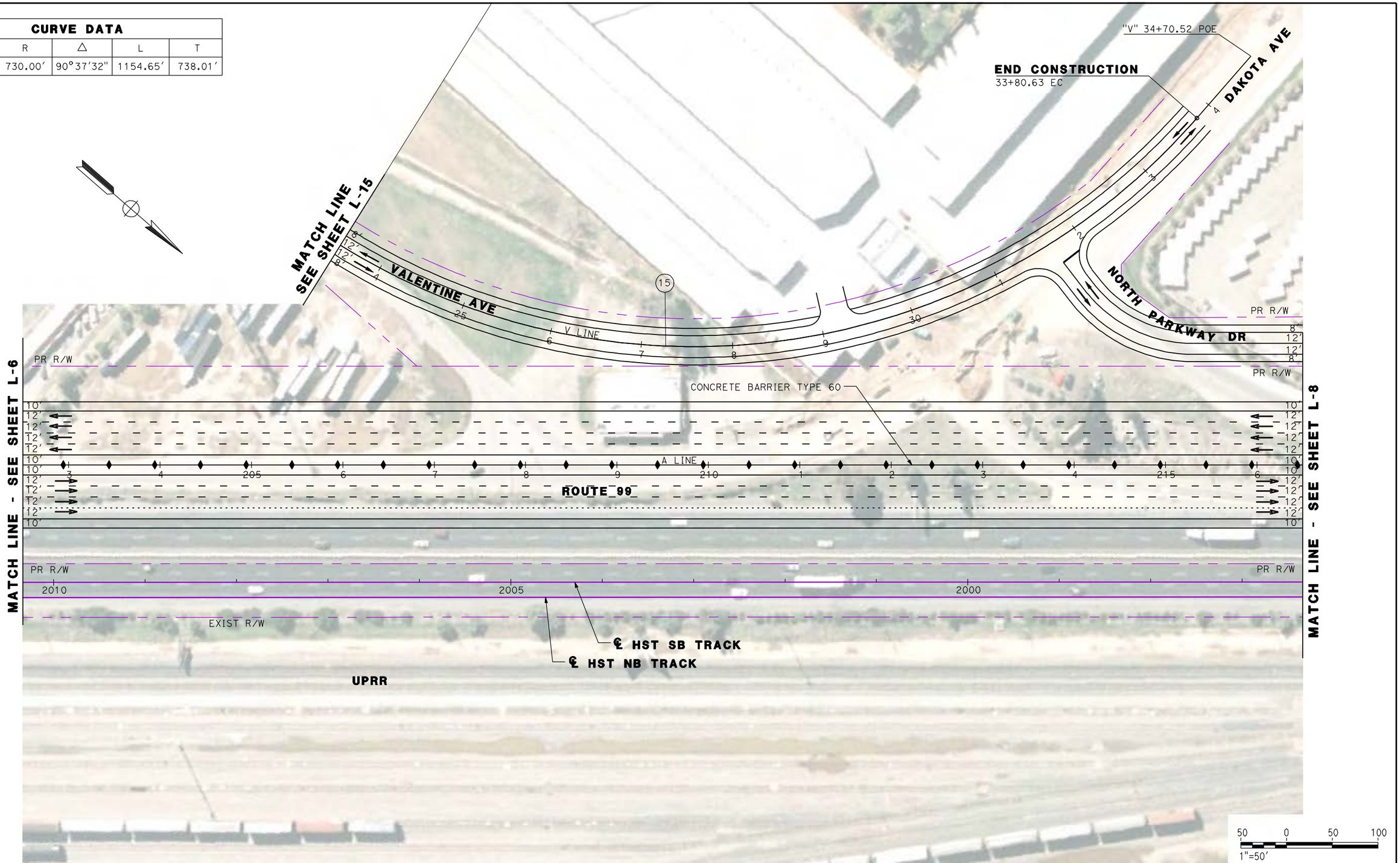
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-6
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

CURVE DATA					
No.	LINE	R	Δ	L	T
15	V	730.00′	90°37′32"	1154.65′	738.01′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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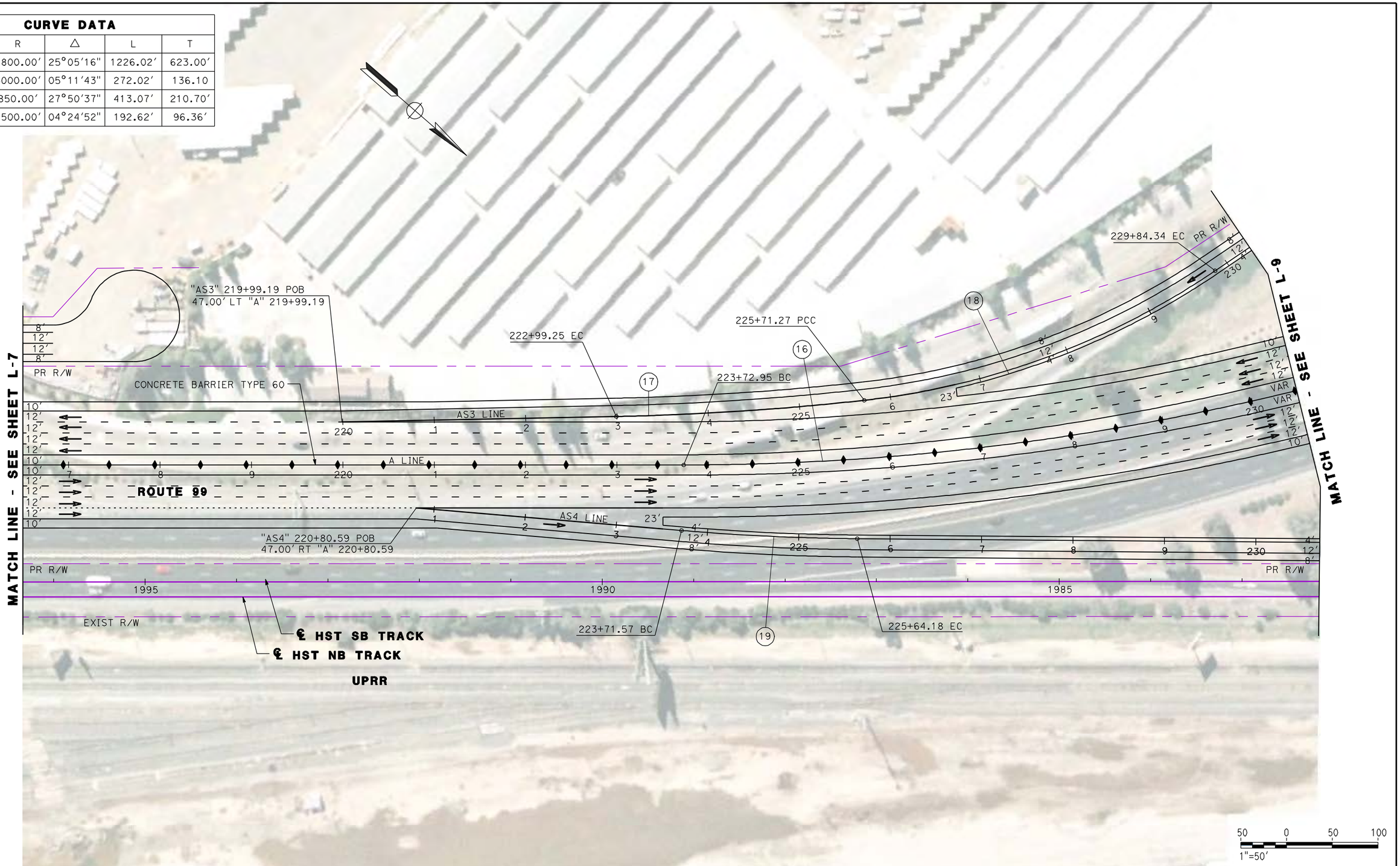
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-7
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

CURVE DATA					
No.	LINE	R	△	L	T
16	A	2800.00′	25°05′16"	1226.02′	623.00′
17	AS3	3000.00′	05°11′43"	272.02′	136.10
18	AS3	850.00′	27°50′37"	413.07′	210.70′
19	AS4	2500.00′	04°24′52"	192.62′	96.36′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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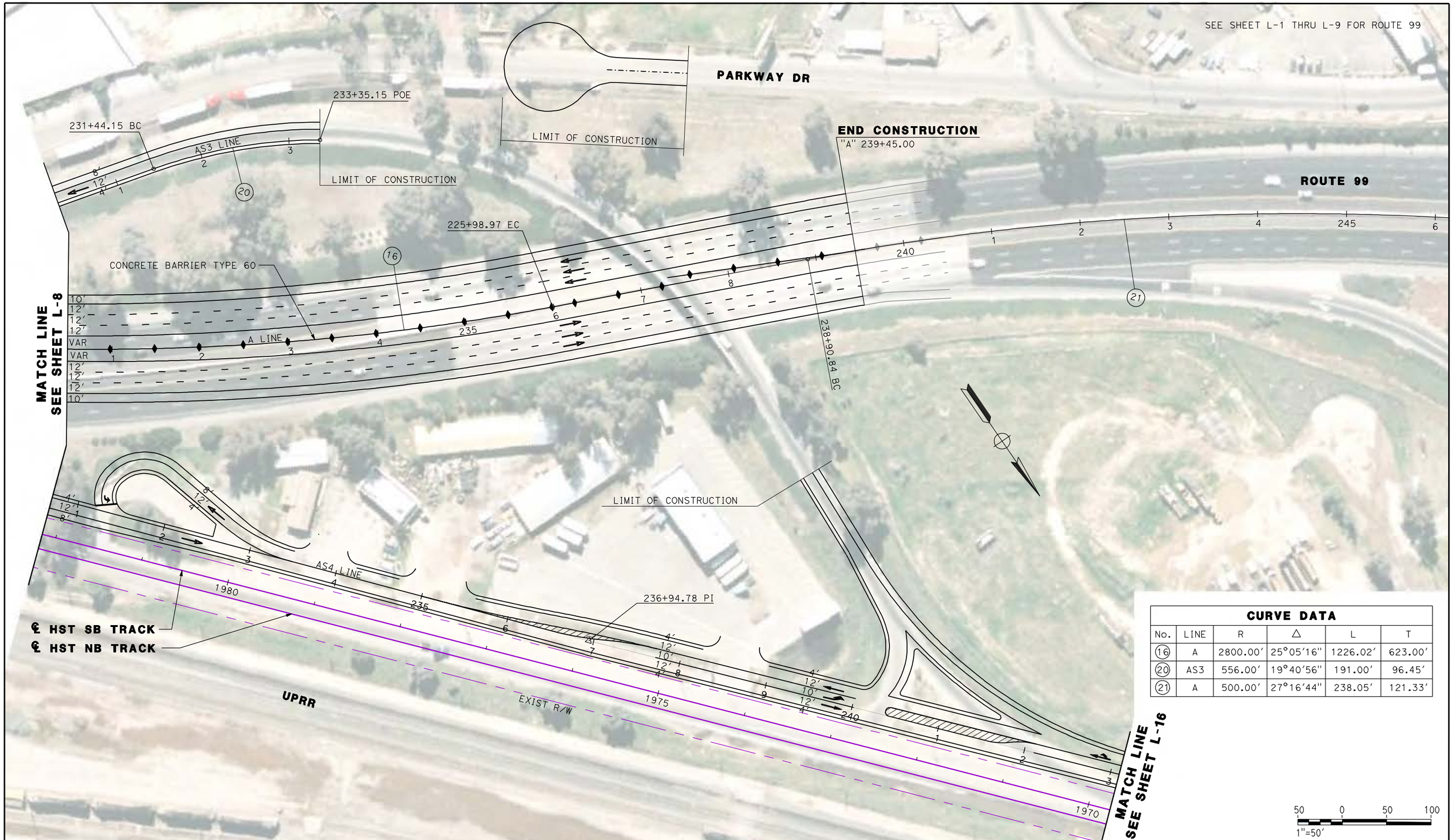
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-8
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



CURVE DATA					
No.	LINE	R	Δ	L	T
16	A	2800.00′	25°05′16″	1226.02′	623.00′
20	AS3	556.00′	19°40′56″	191.00′	96.45′
21	A	500.00′	27°16′44″	238.05′	121.33′

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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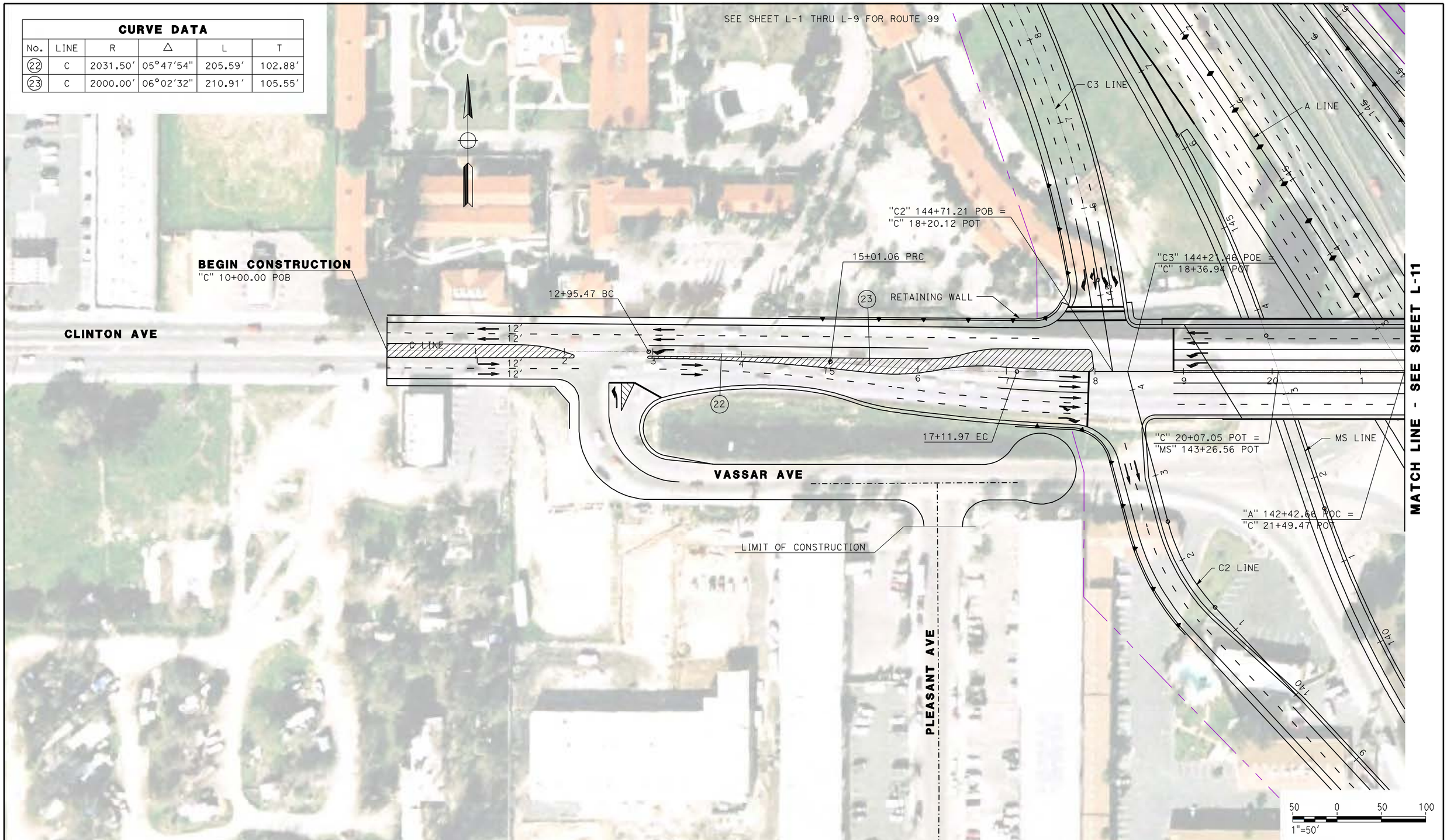
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-9
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

CURVE DATA					
No.	LINE	R	Δ	L	T
22	C	2031.50′	05°47′54"	205.59′	102.88′
23	C	2000.00′	06°02′32"	210.91′	105.55′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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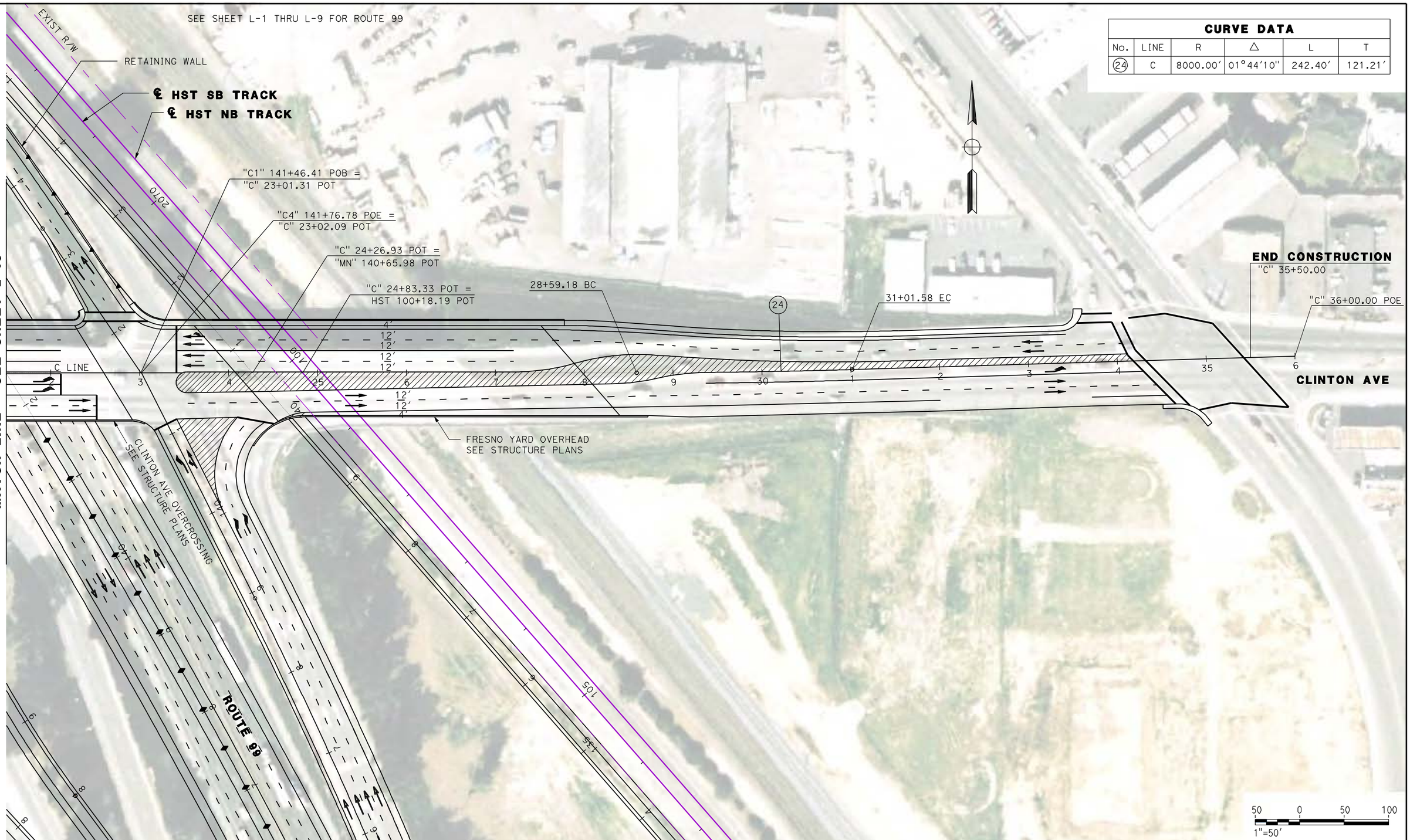
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-10
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

CURVE DATA					
No.	LINE	R	Δ	L	T
24	C	8000.00′	01°44′10″	242.40′	121.21′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
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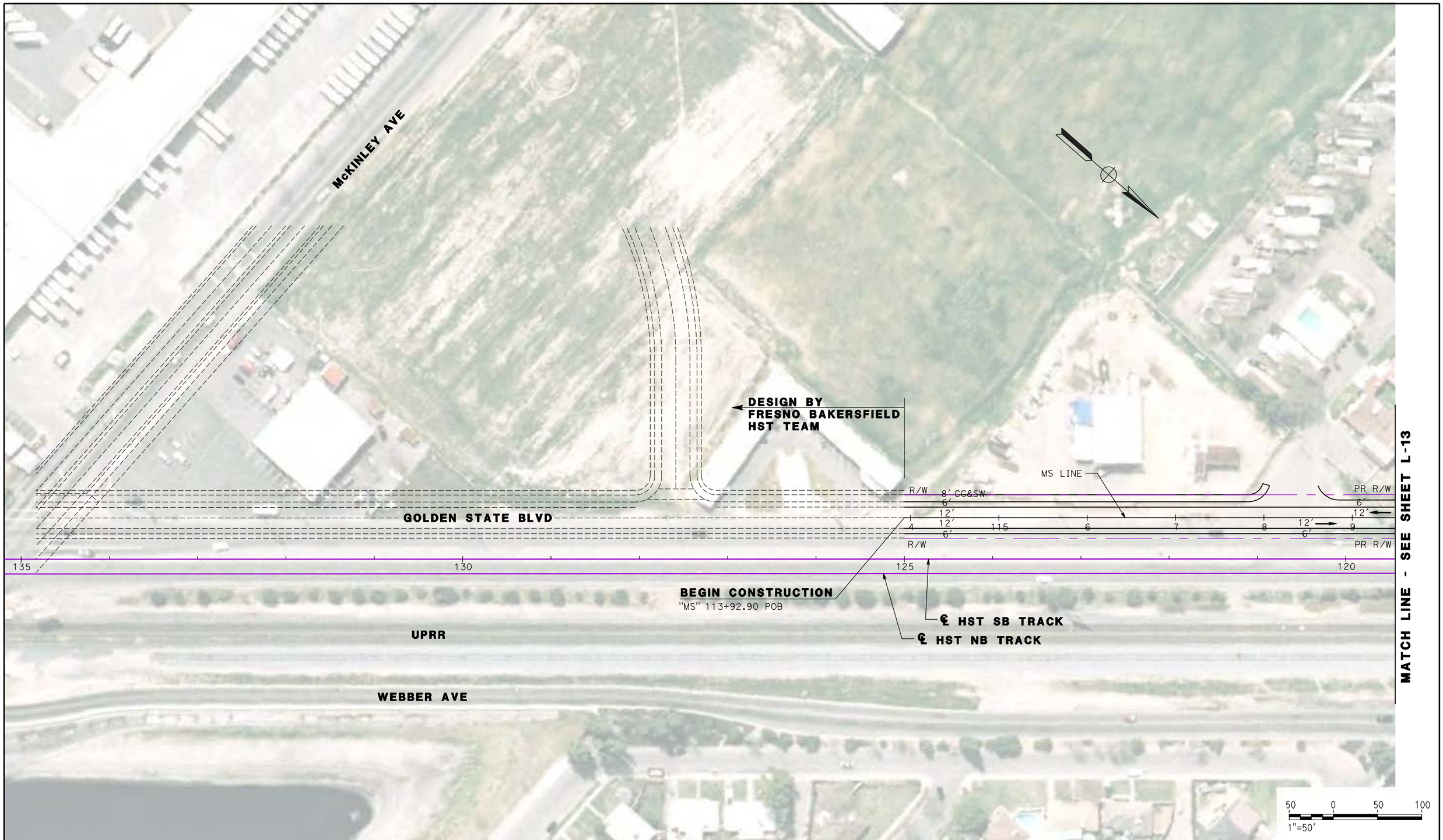
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-11
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

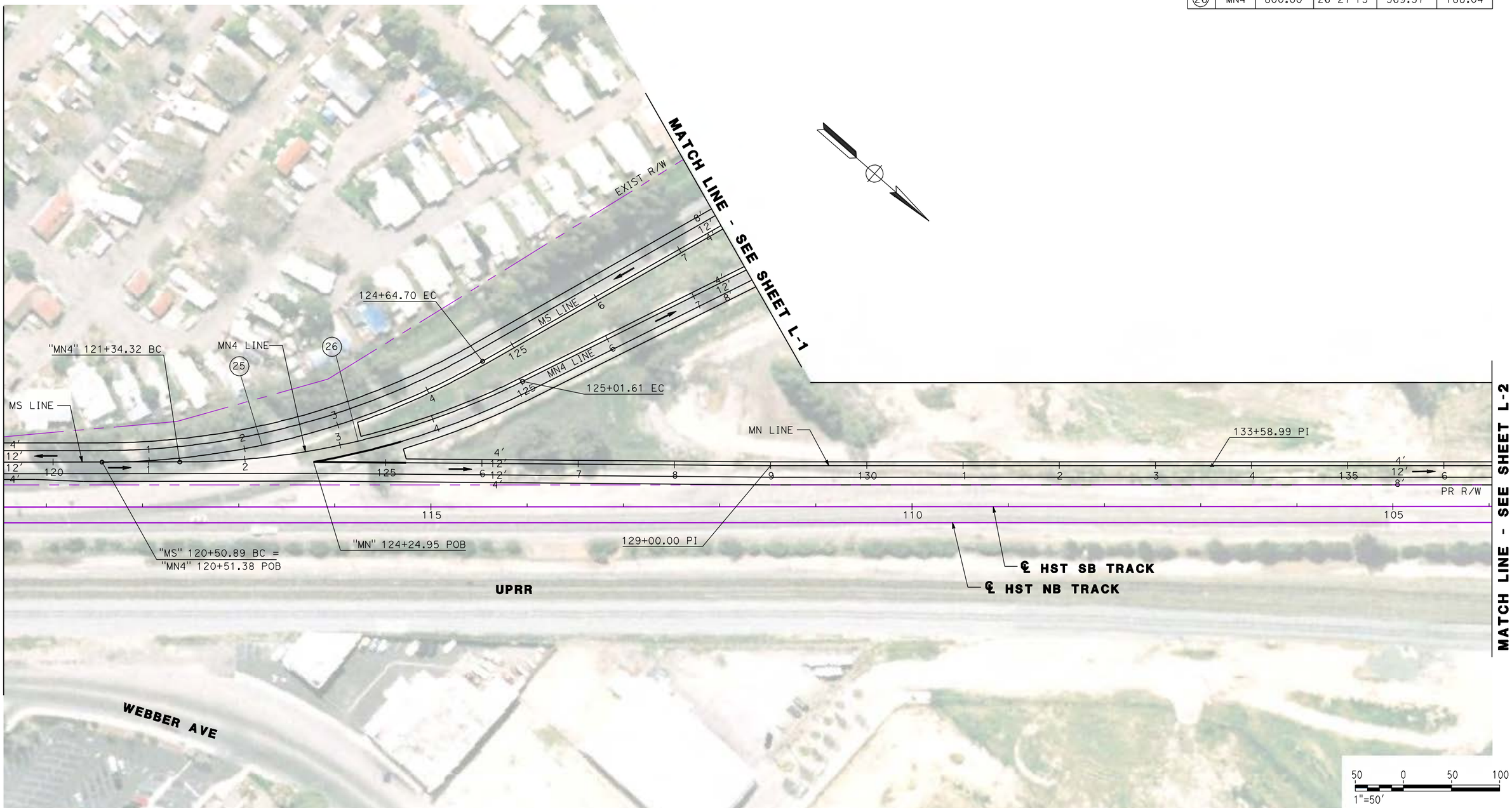
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-12
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => LROS

CURVE DATA					
No.	LINE	R	△	L	T
25	MS	800.00′	29°28′13″	413.81′	211.65′
26	MN4	800.00′	26°27′15″	369.37′	188.04′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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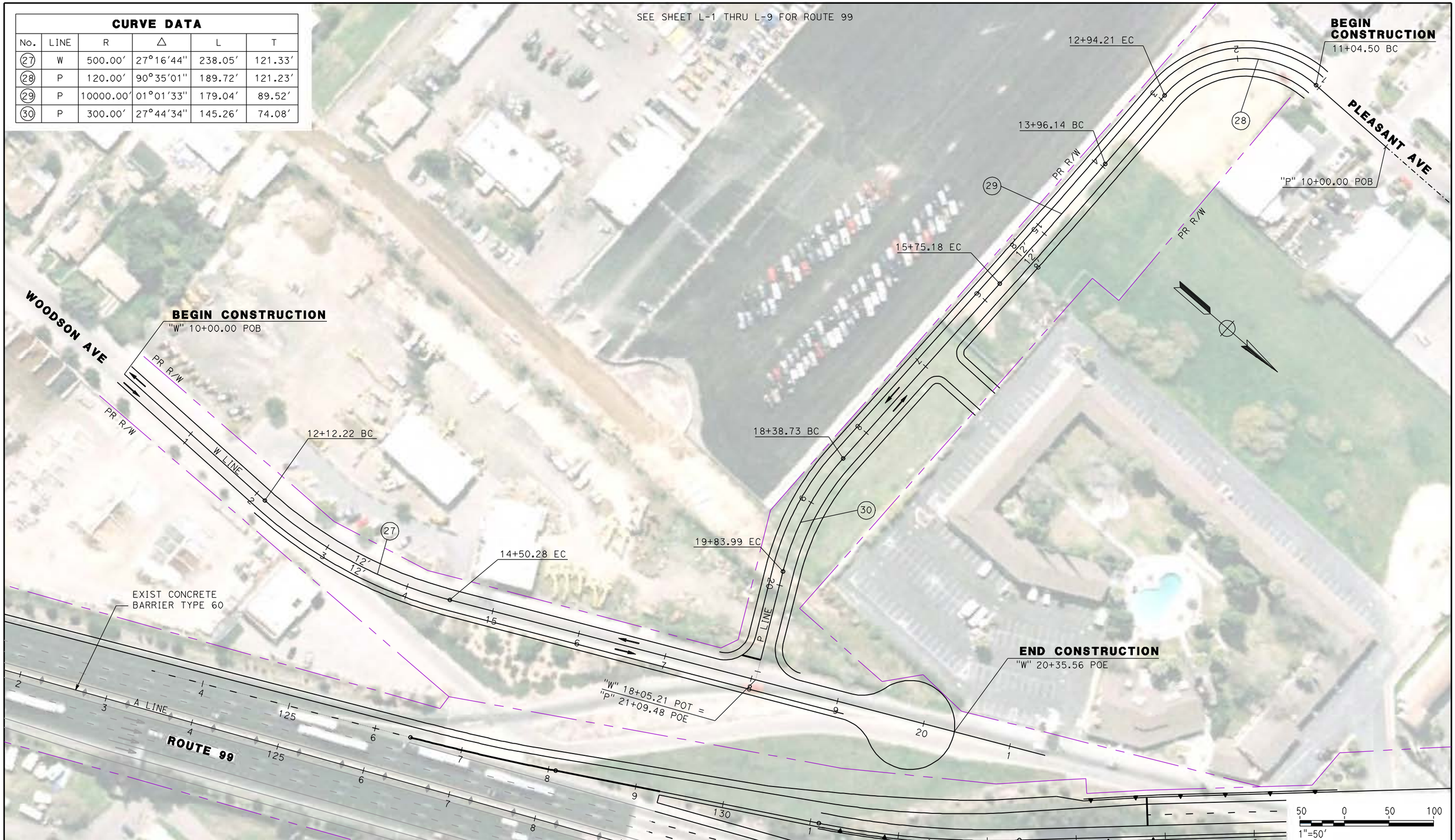
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-13
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS

CURVE DATA					
No.	LINE	R	△	L	T
27	W	500.00′	27°16′44″	238.05′	121.33′
28	P	120.00′	90°35′01″	189.72′	121.23′
29	P	10000.00′	01°01′33″	179.04′	89.52′
30	P	300.00′	27°44′34″	145.26′	74.08′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-14
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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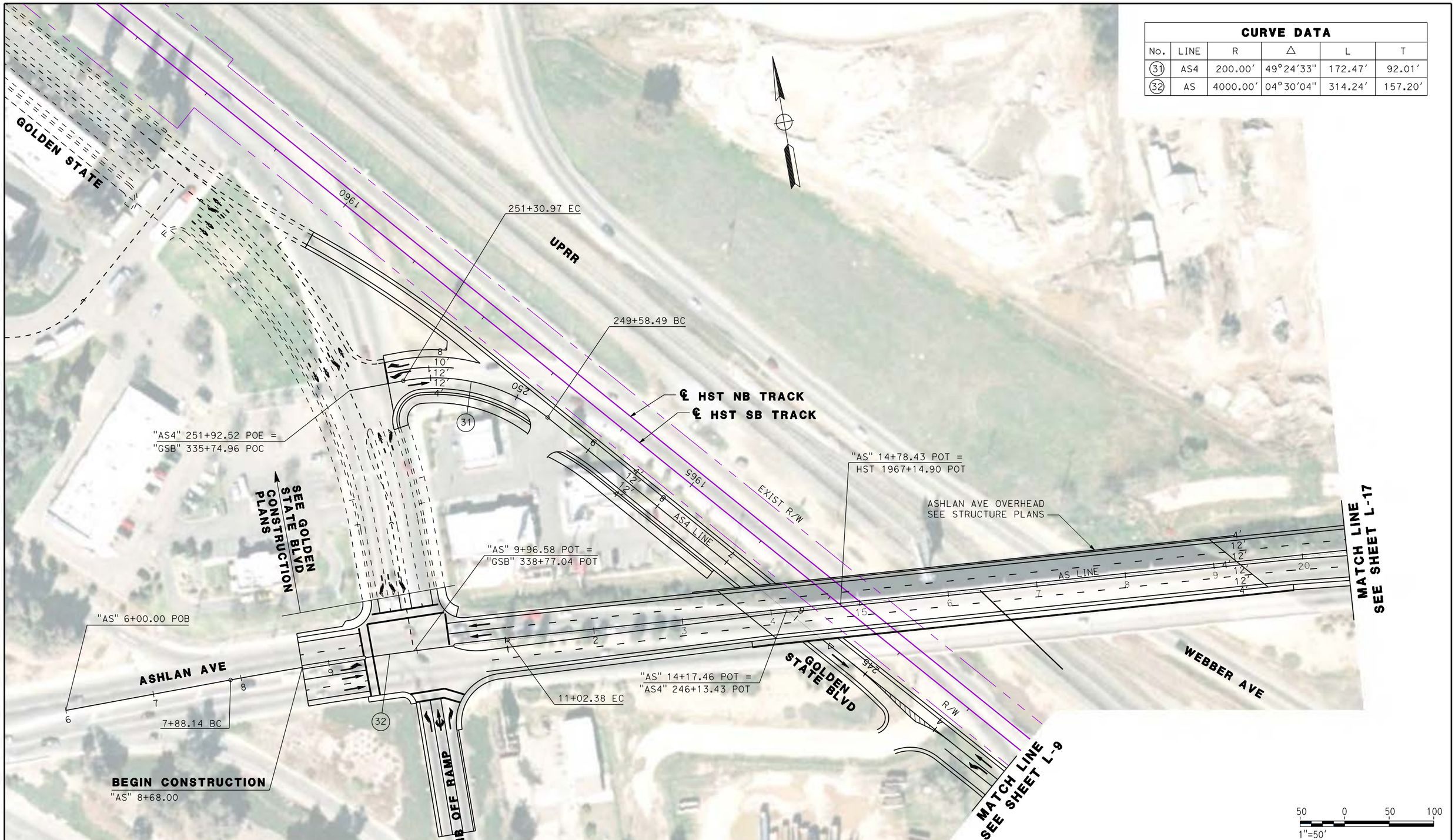
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. **L-15**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



CURVE DATA					
No.	LINE	R	△	L	T
31	AS4	200.00'	49°24'33"	172.47'	92.01'
32	AS	4000.00'	04°30'04"	314.24'	157.20'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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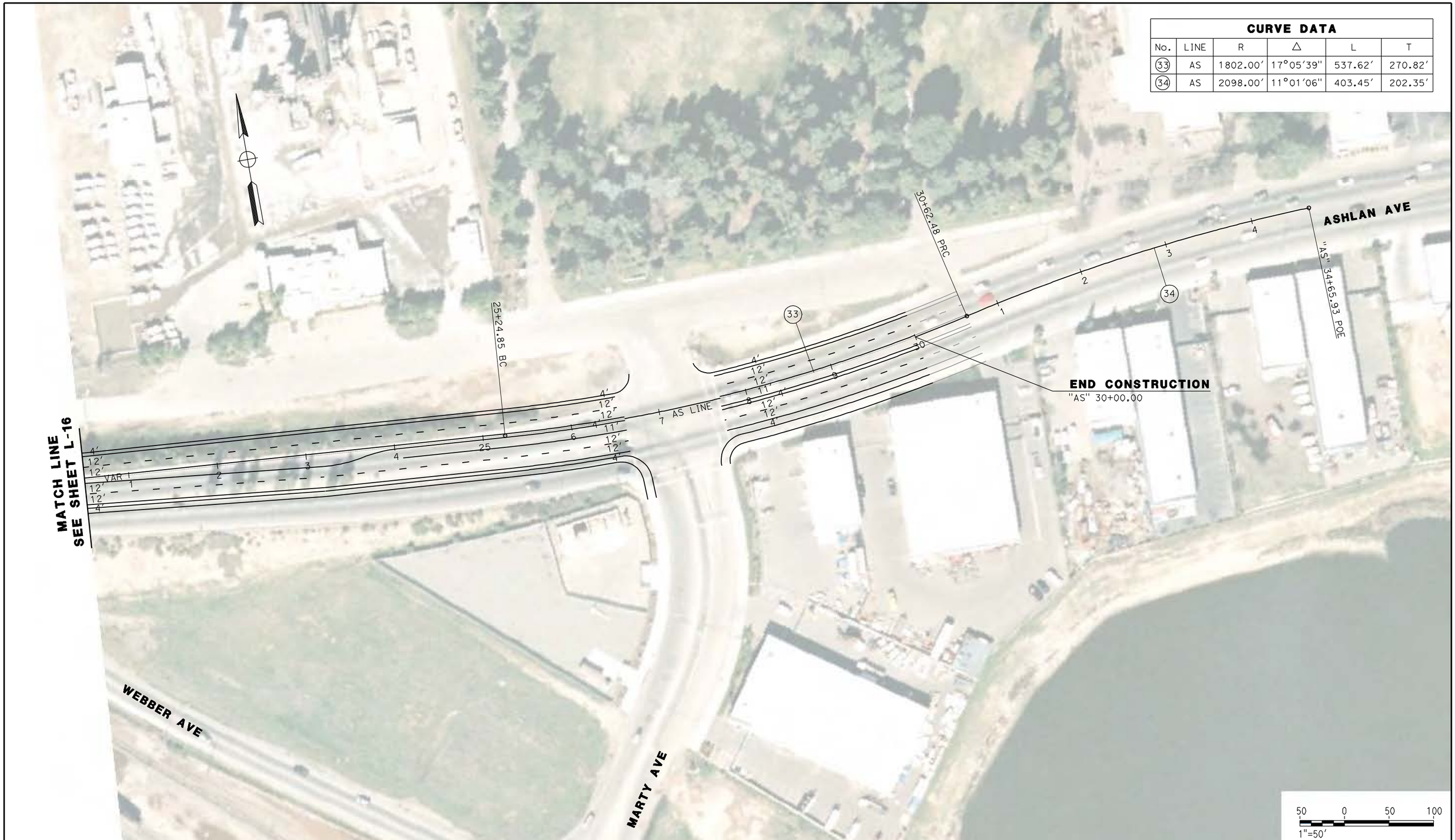
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-16
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011

CURVE DATA					
No.	LINE	R	△	L	T
33	AS	1802.00′	17°05′39"	537.62′	270.82′
34	AS	2098.00′	11°01′06"	403.45′	202.35′



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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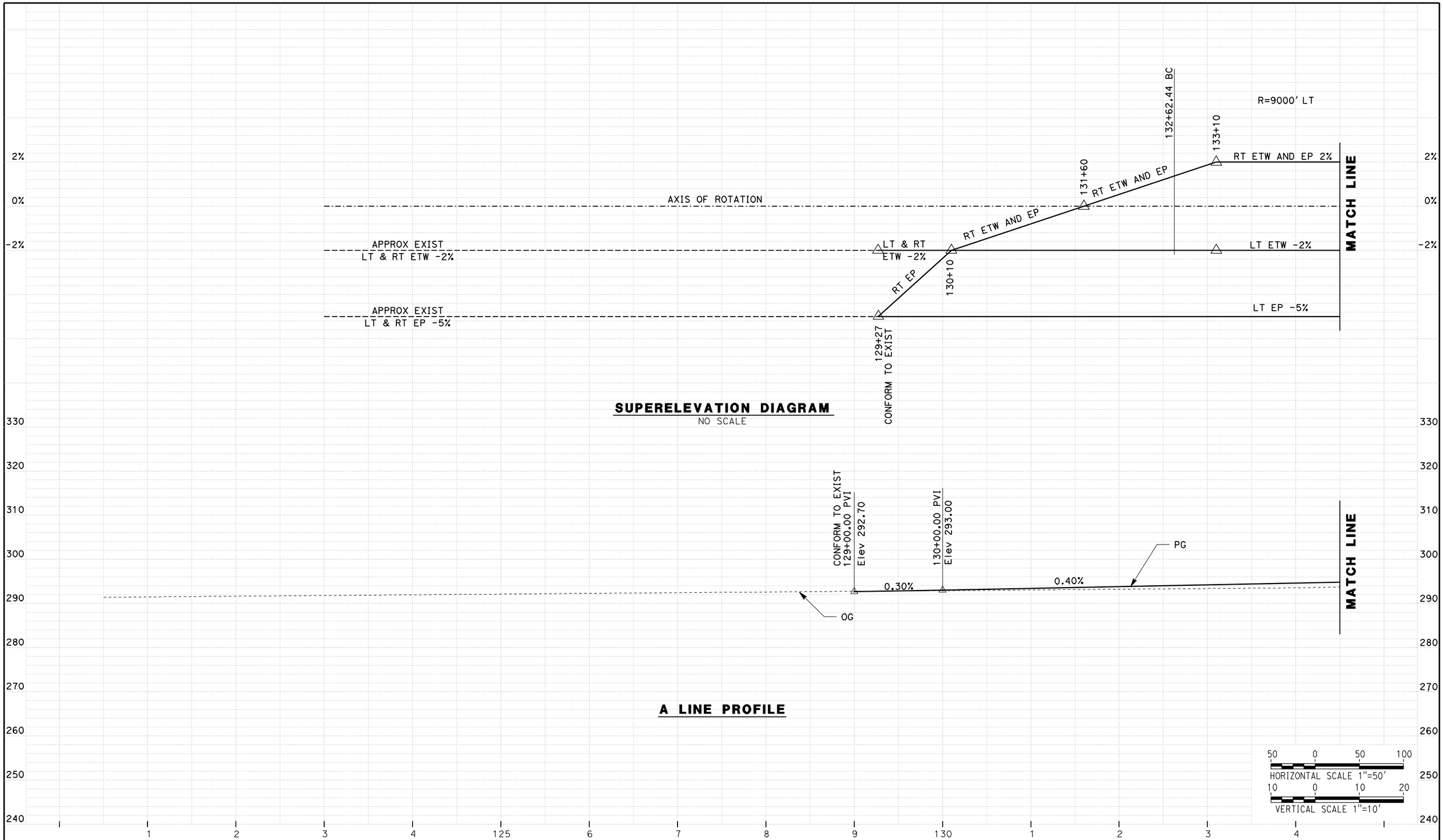
ROUTE 99 RE-ALIGNMENT
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. L-17
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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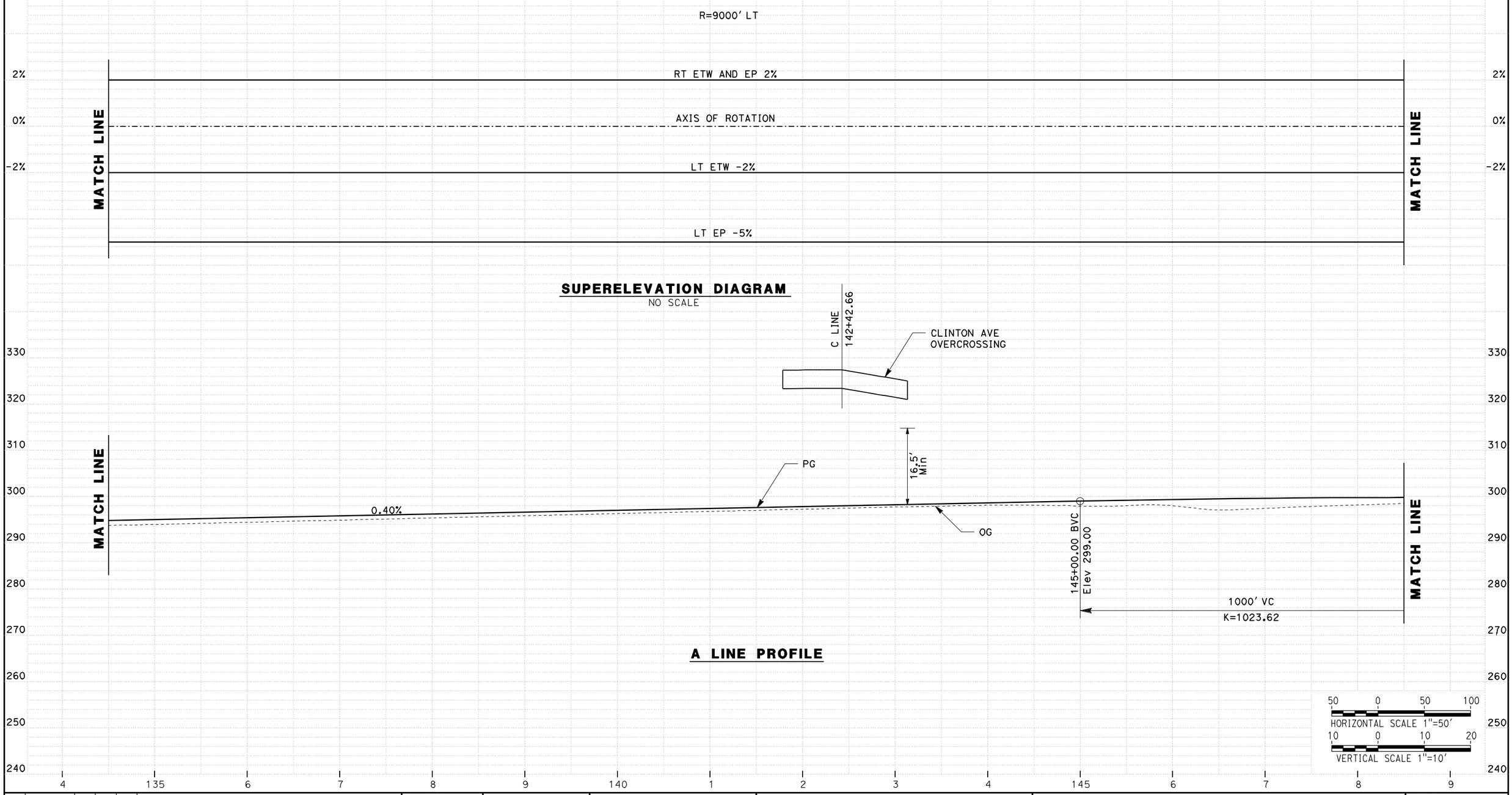
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-1**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN
SUBMITTAL

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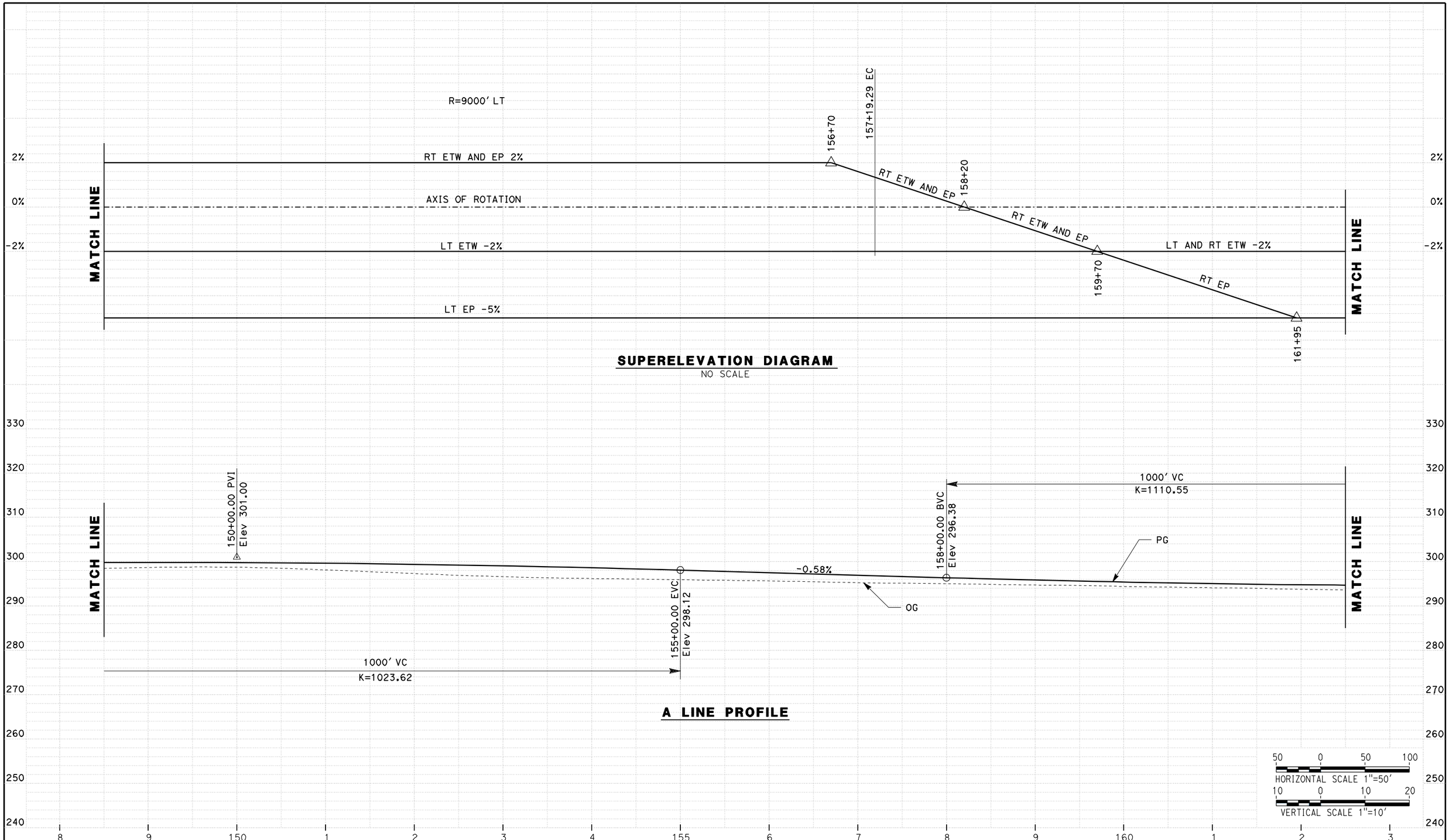
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. P-2
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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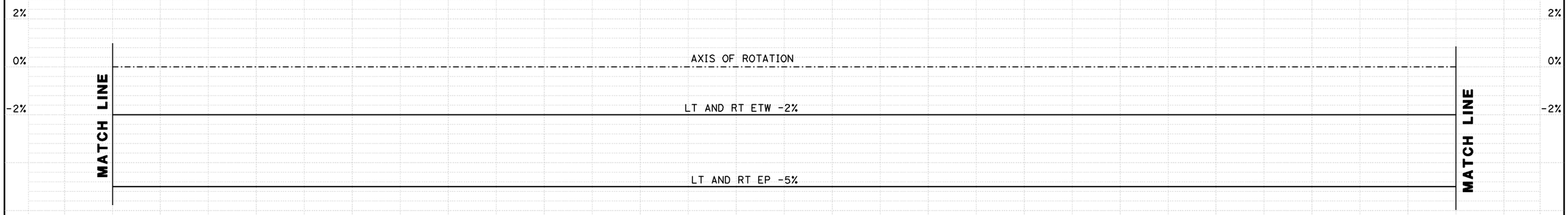
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

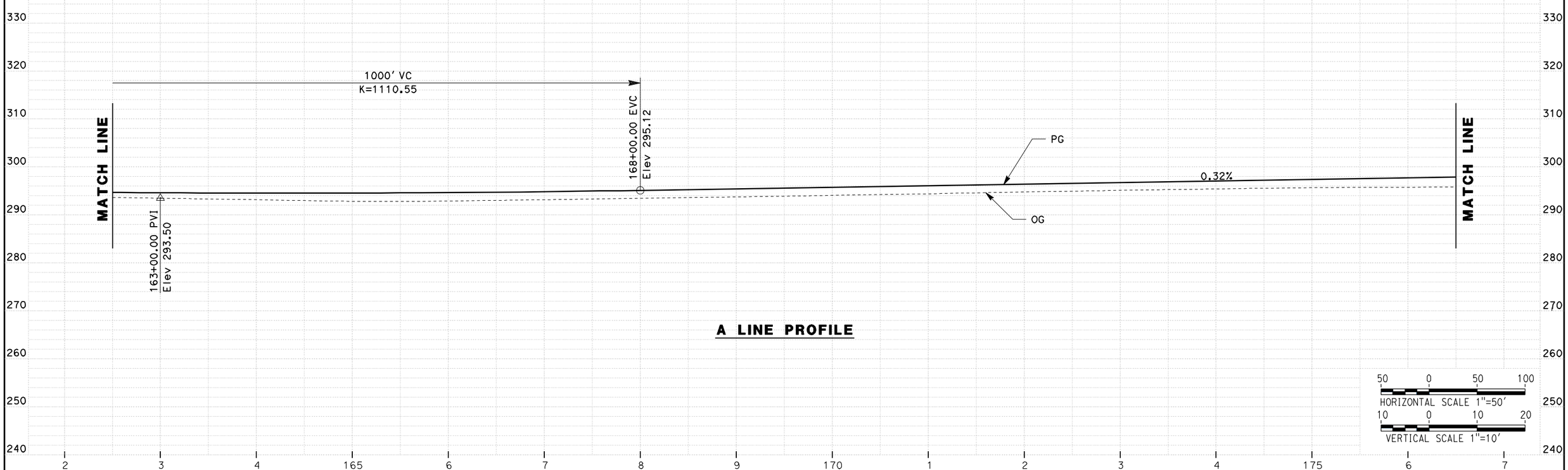
CONTRACT NO. HSR06-007
DRAWING NO. **P-3**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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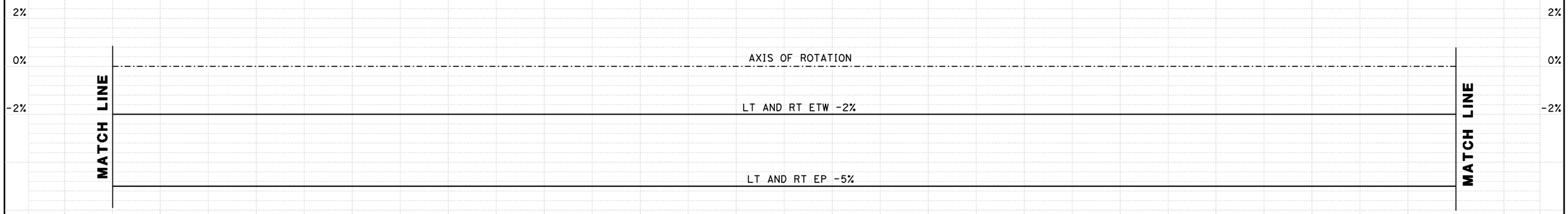
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

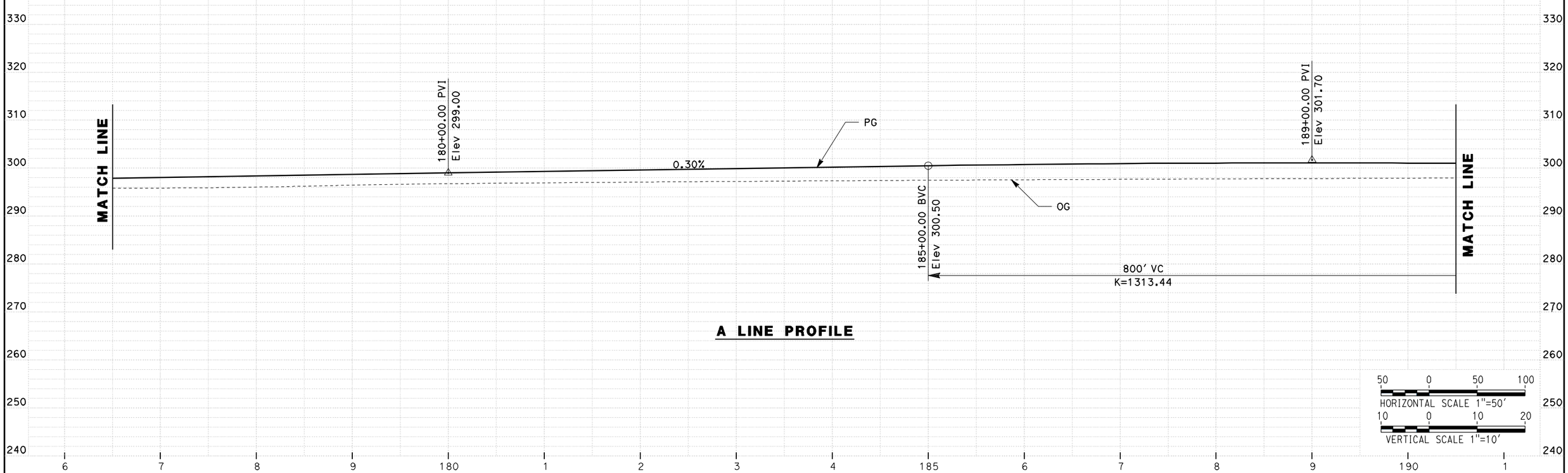
CONTRACT NO. HSR06-007
DRAWING NO. P-4
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM

NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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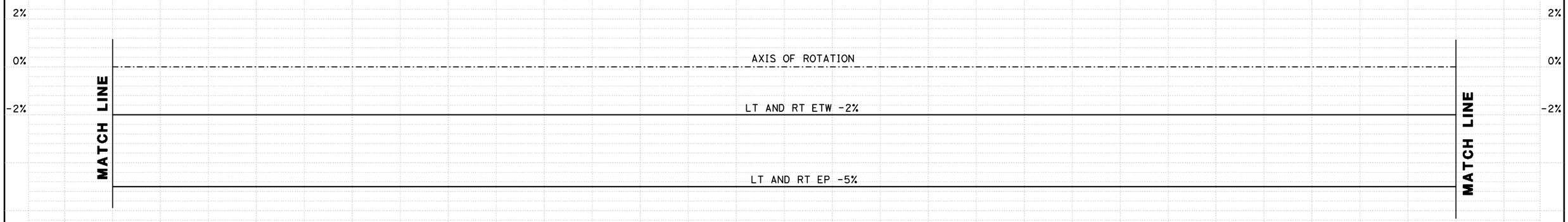
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

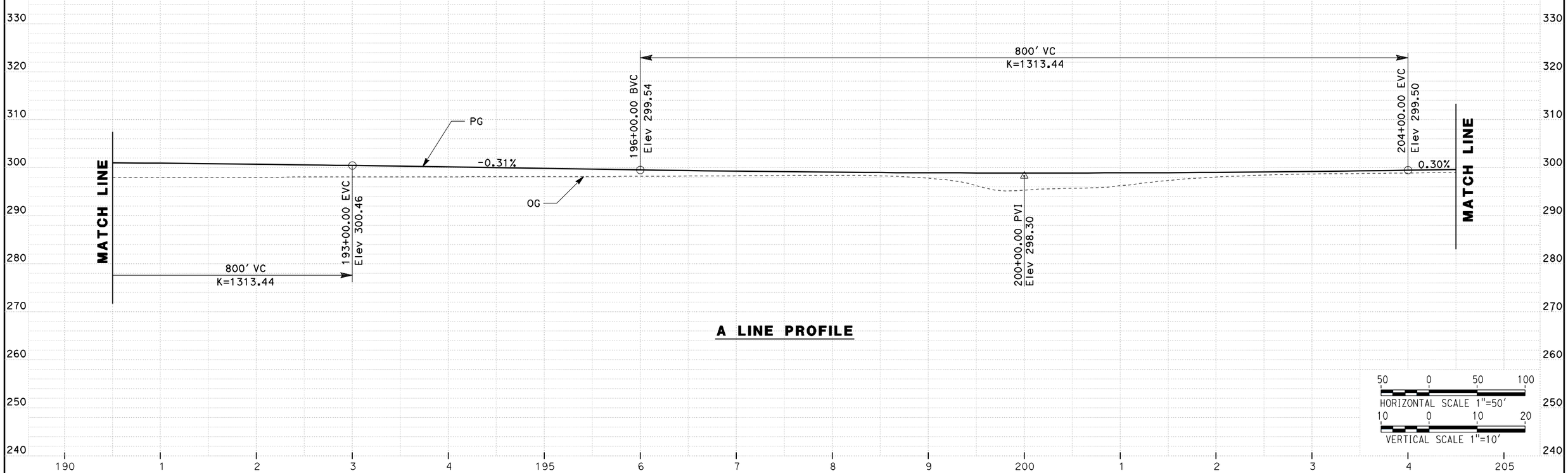
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-5**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM
NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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2020 L Street, Suite 300
Sacramento, CA 95811
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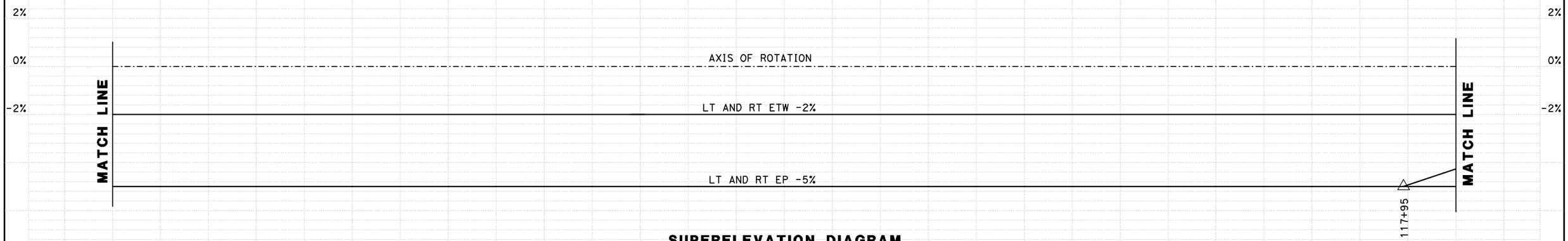
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

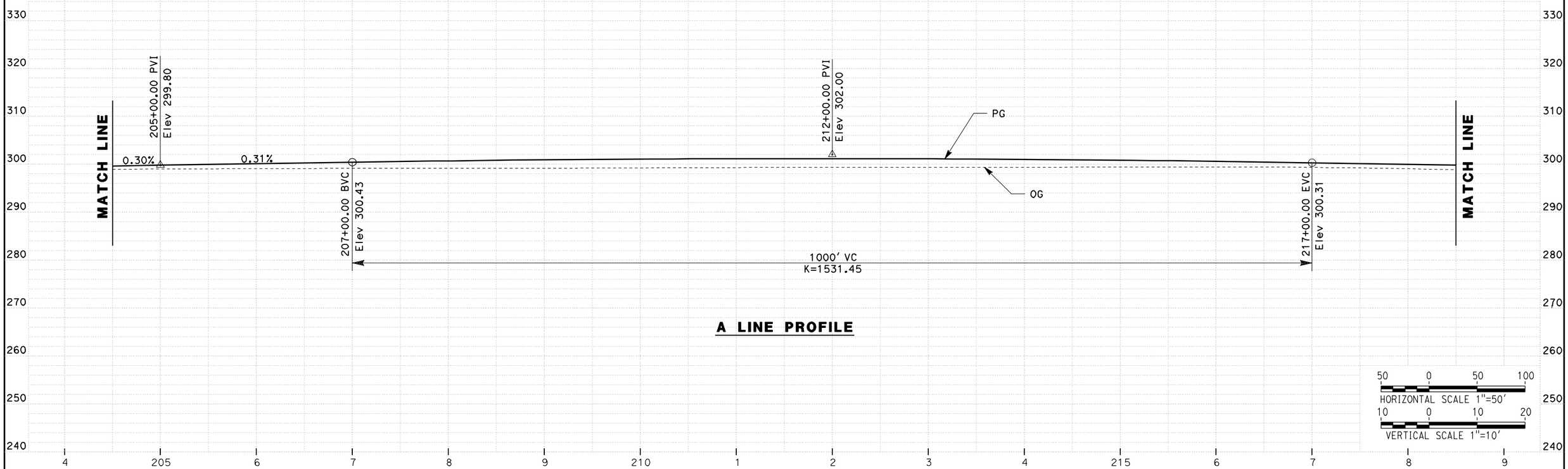
CONTRACT NO. HSR06-007
DRAWING NO. P-6
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM

NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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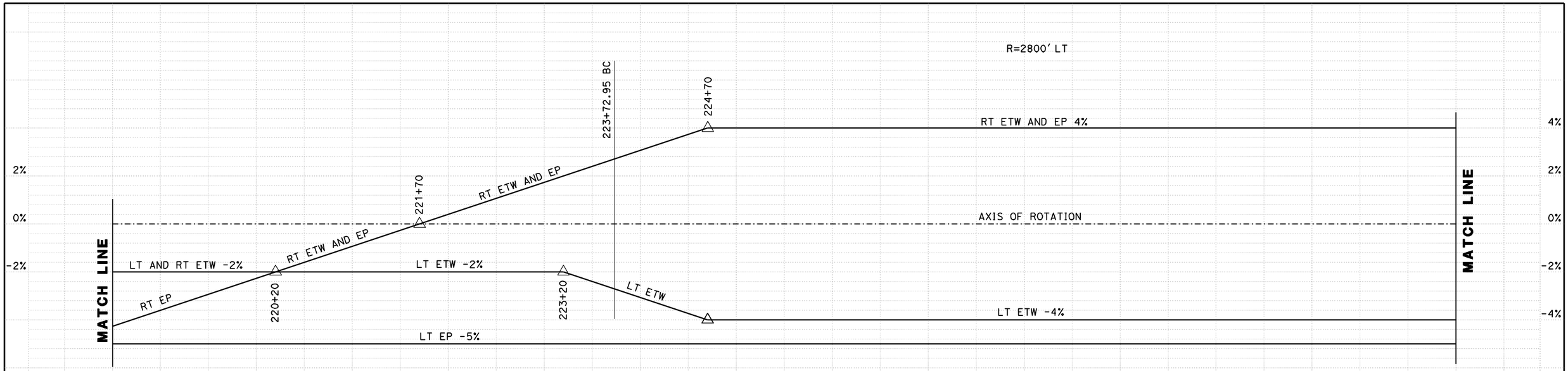
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

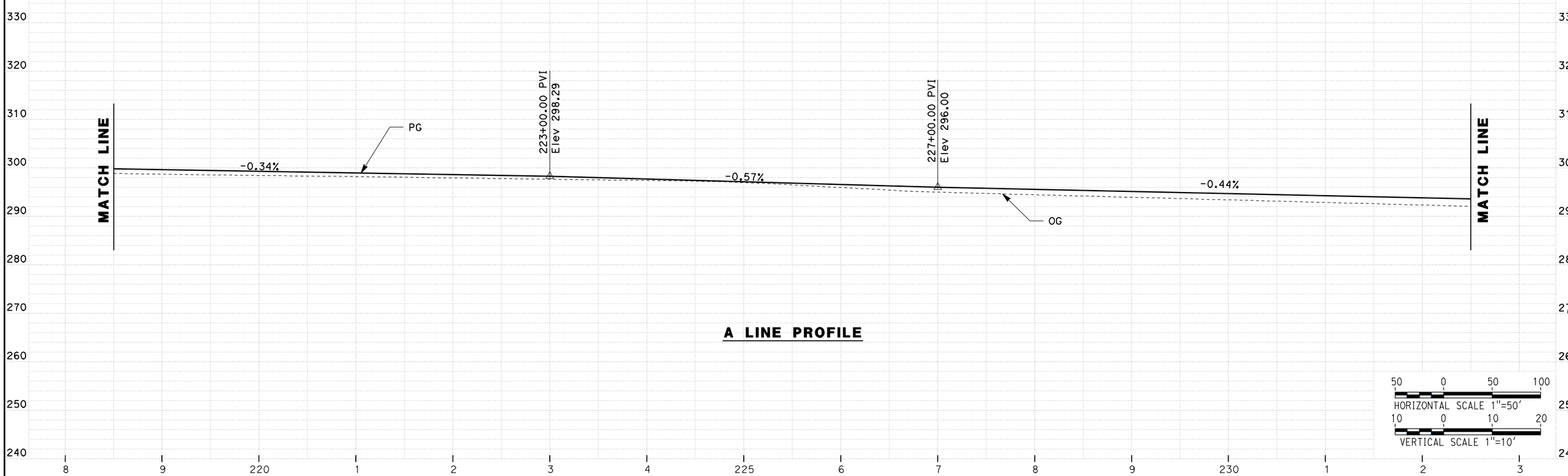
CONTRACT NO. HSR06-007
DRAWING NO. P-7
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM

NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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Sacramento, CA 95811
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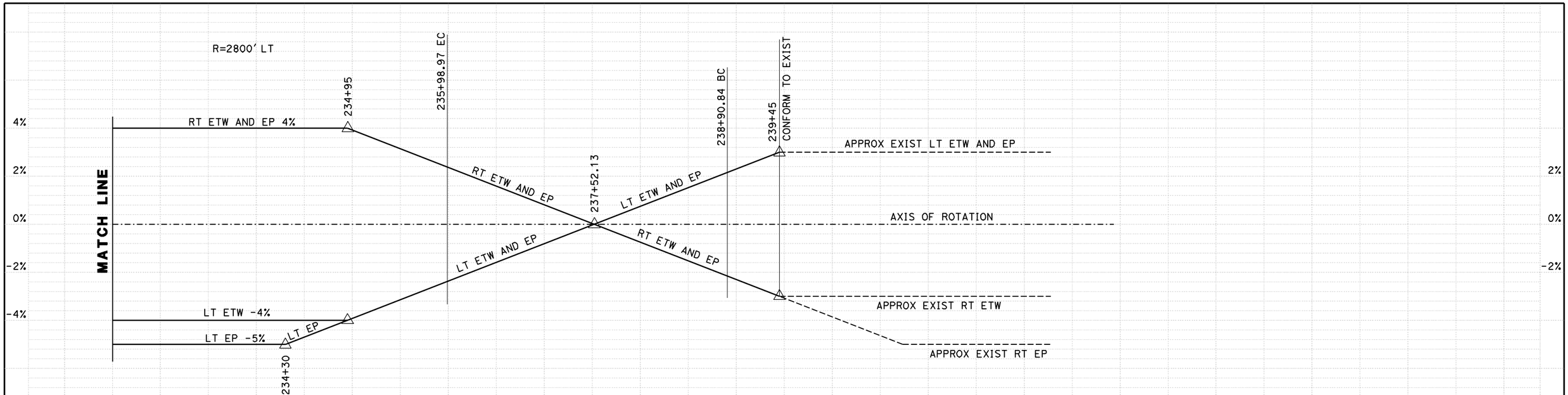
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

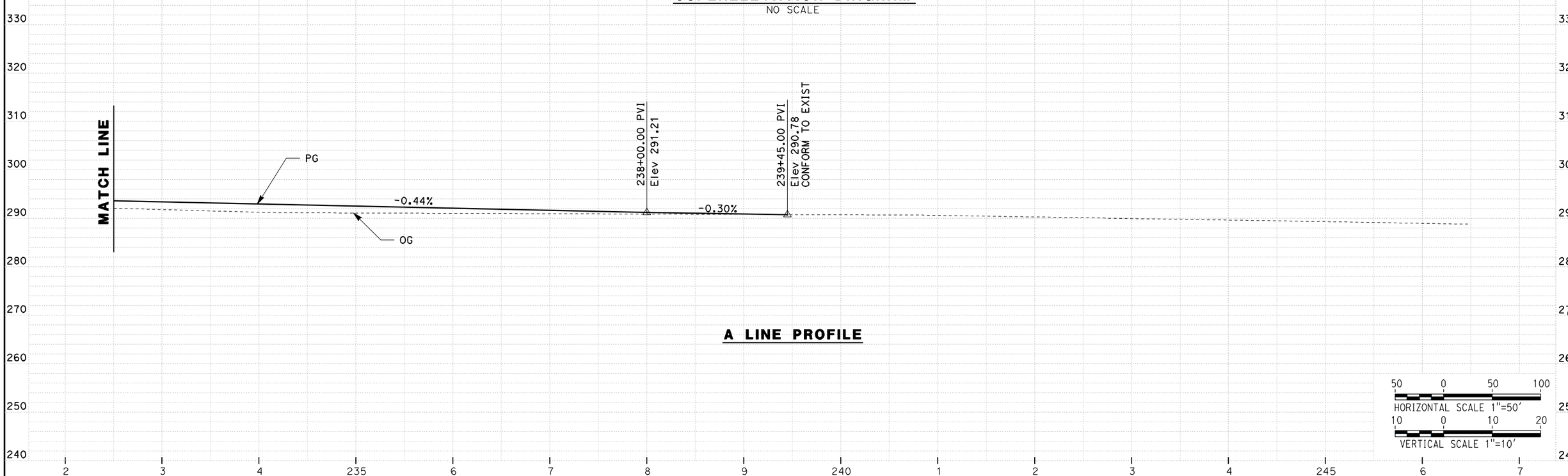
CONTRACT NO. HSR06-007
DRAWING NO. **P-8**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM

NO SCALE



A LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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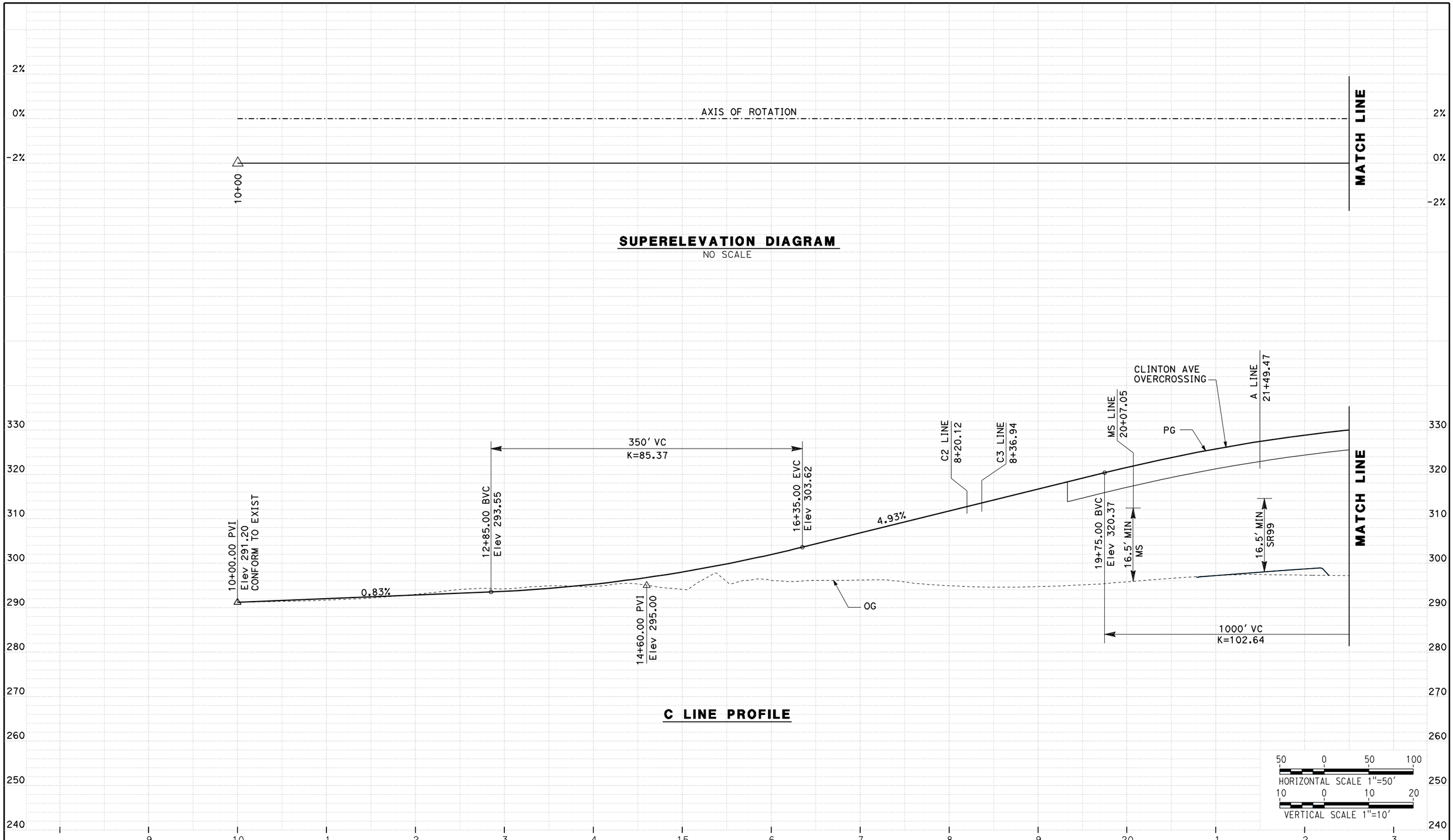
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-9**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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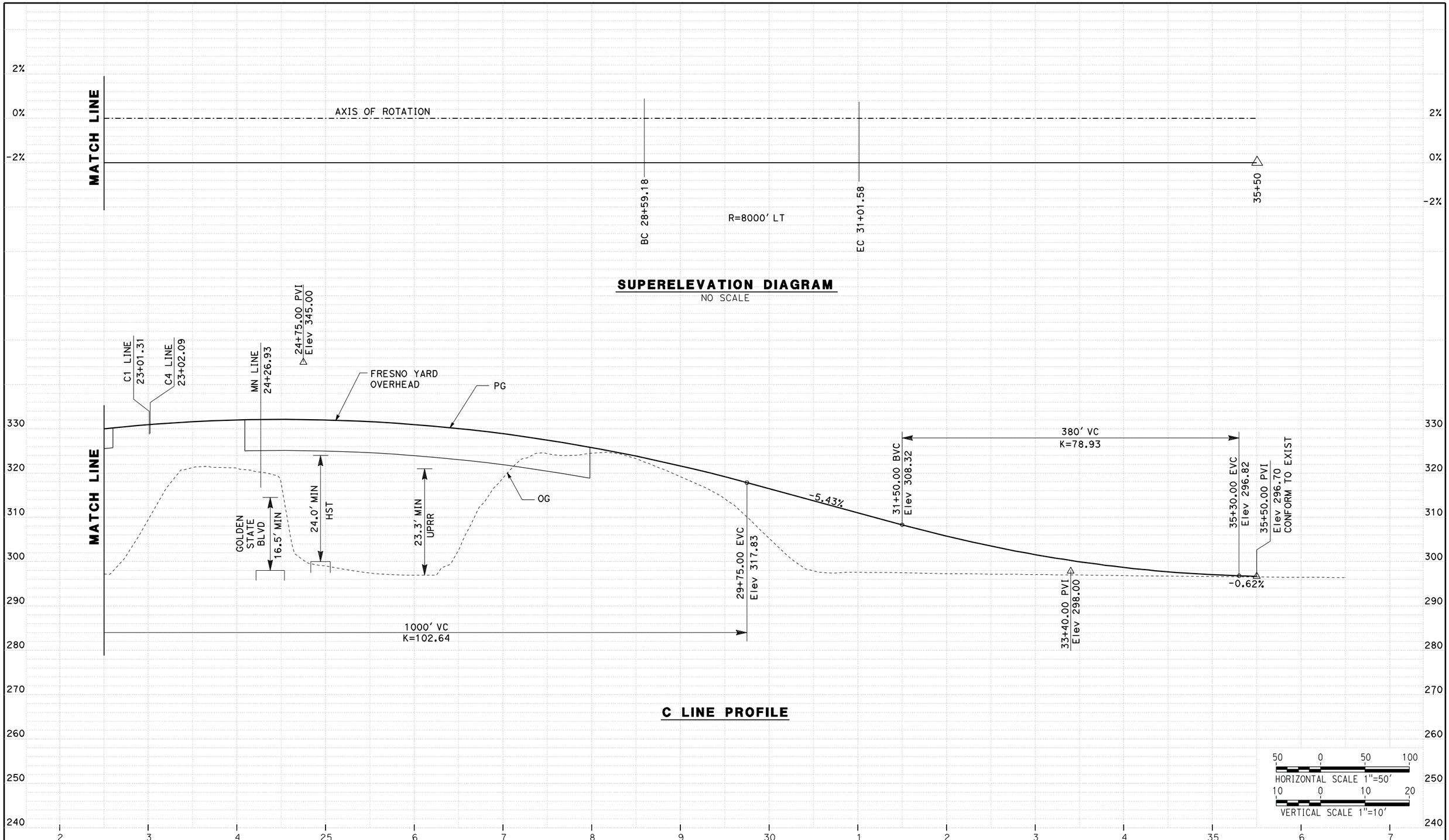
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-10**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



C LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
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RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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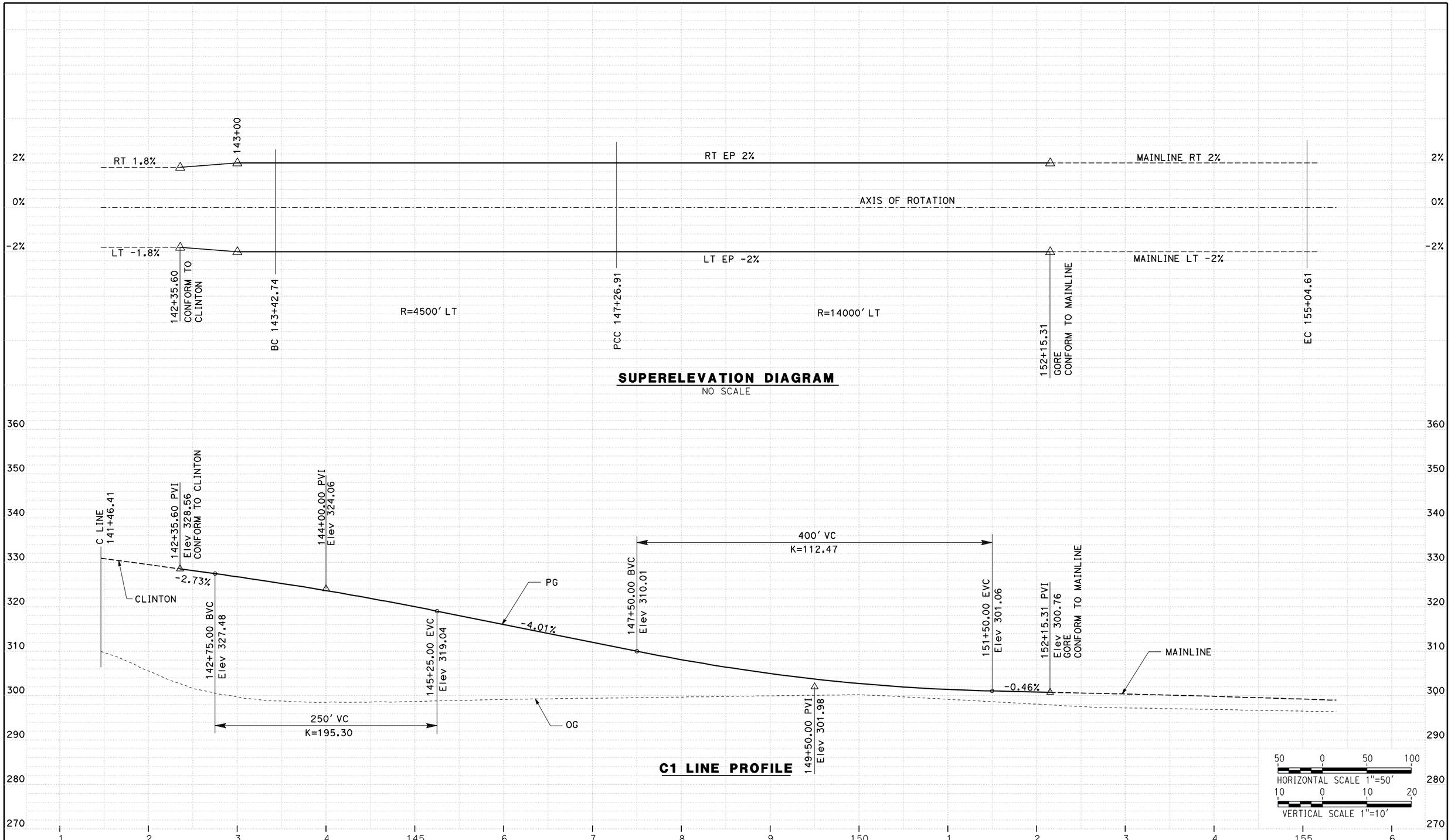
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. P-11
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY L. HEUSTON
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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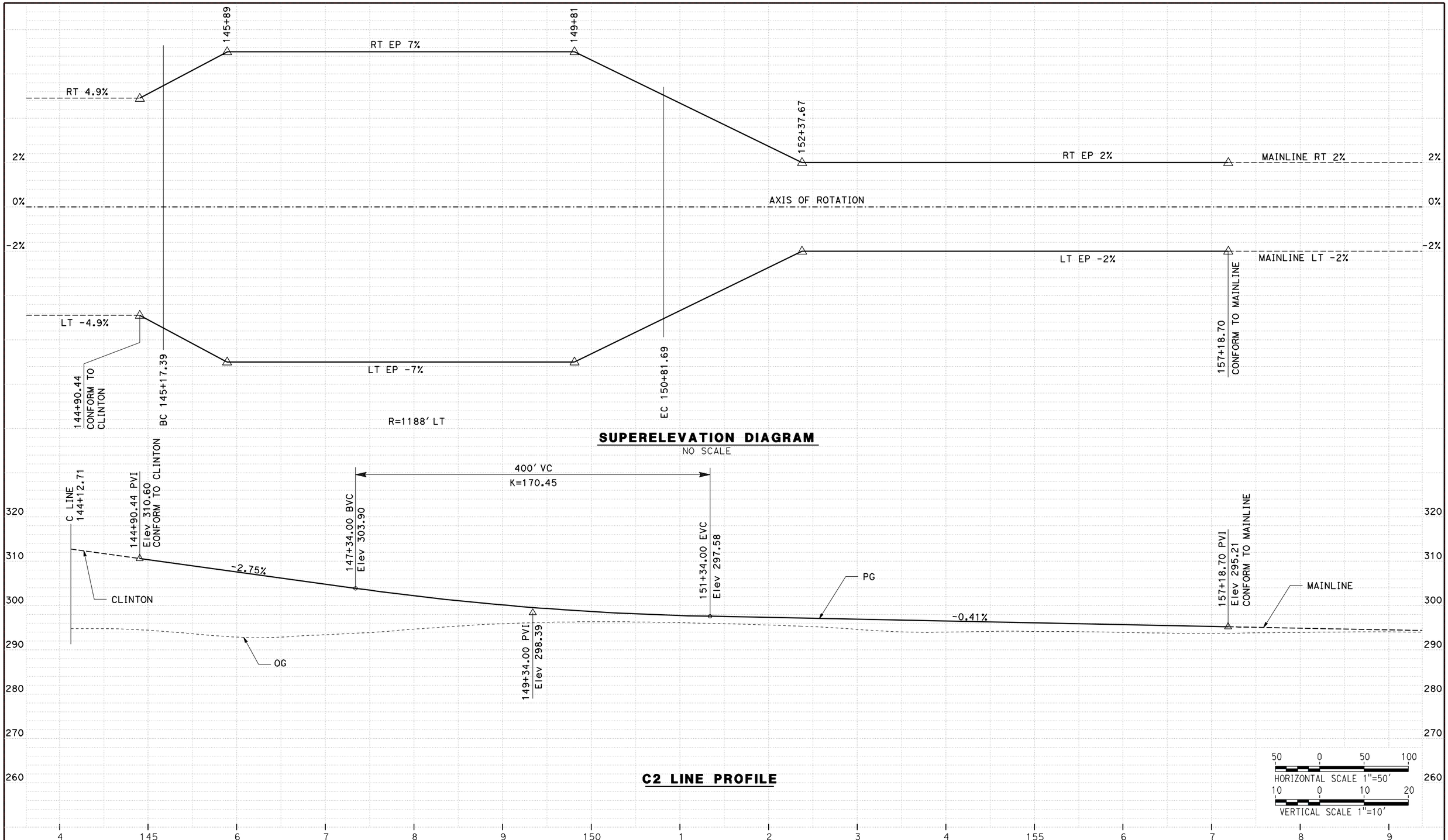
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-12**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY L. HEUSTON
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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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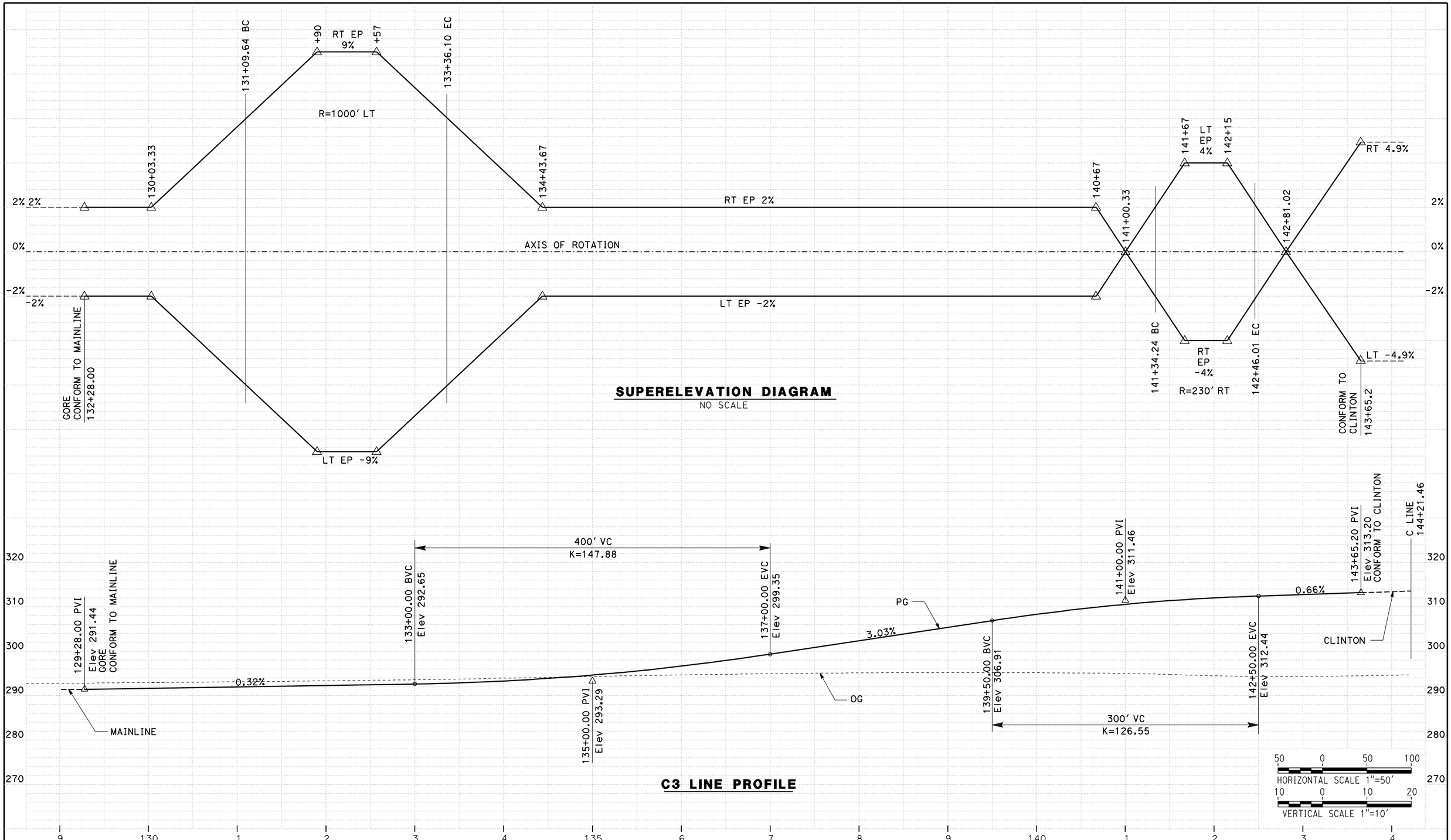
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-13**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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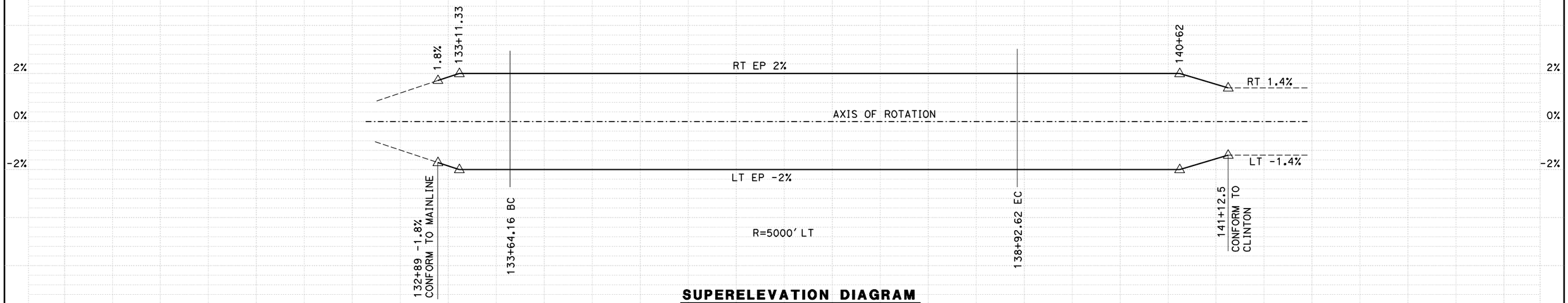
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

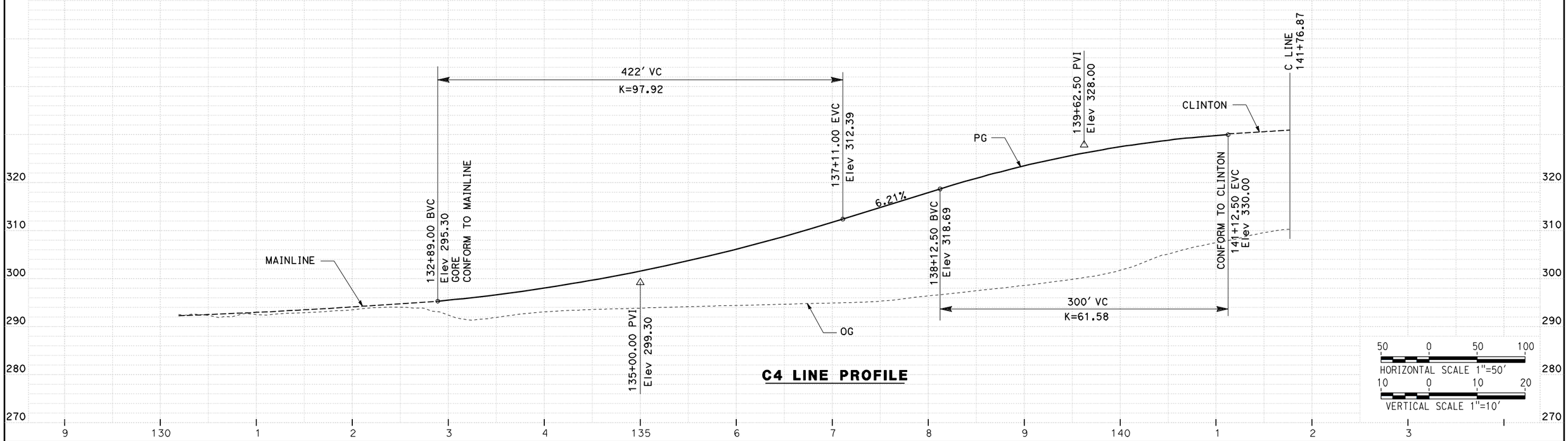
CONTRACT NO. HSR06-007
DRAWING NO. **P-14**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



C4 LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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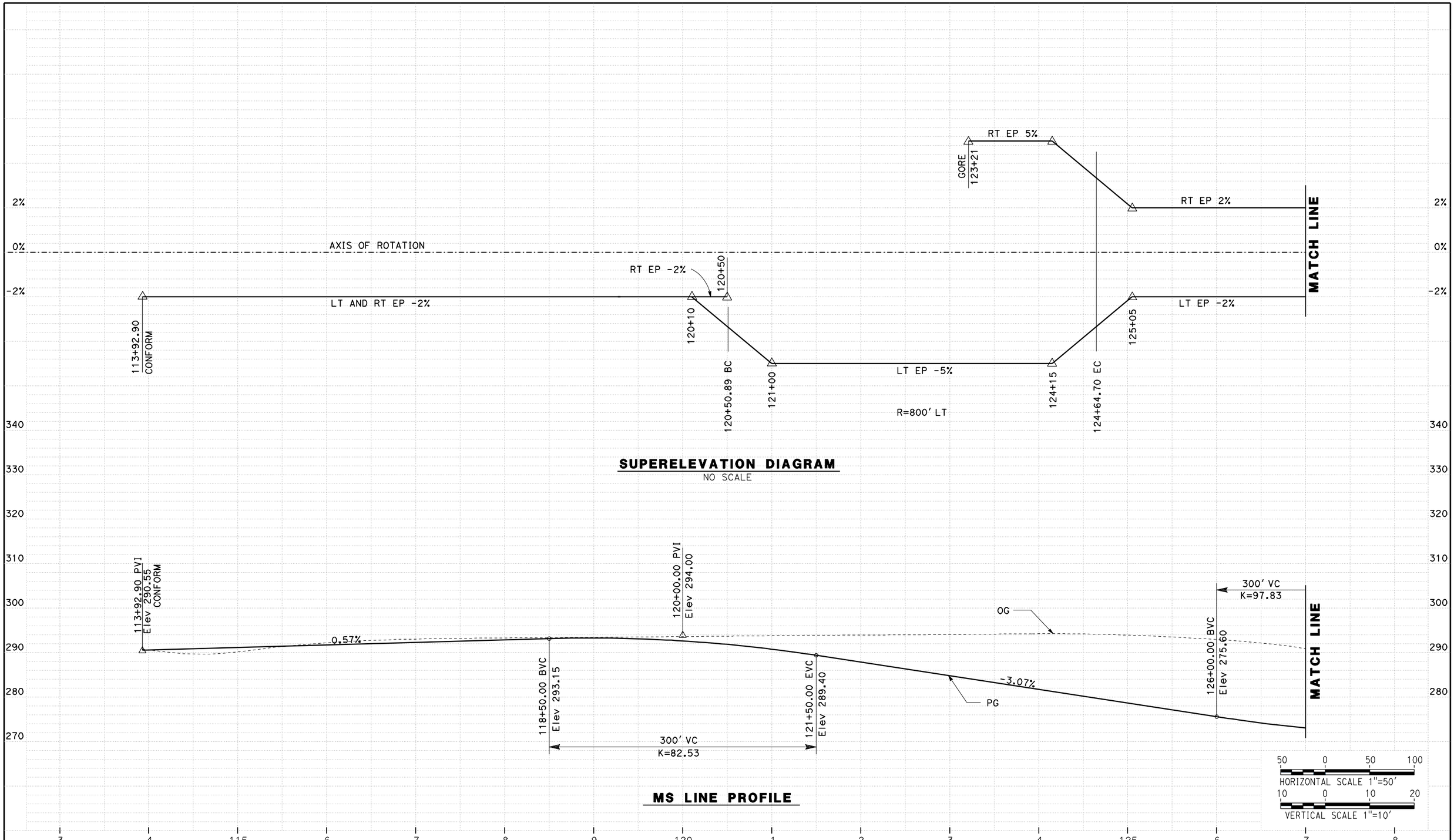
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-15**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM
NO SCALE

MS LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
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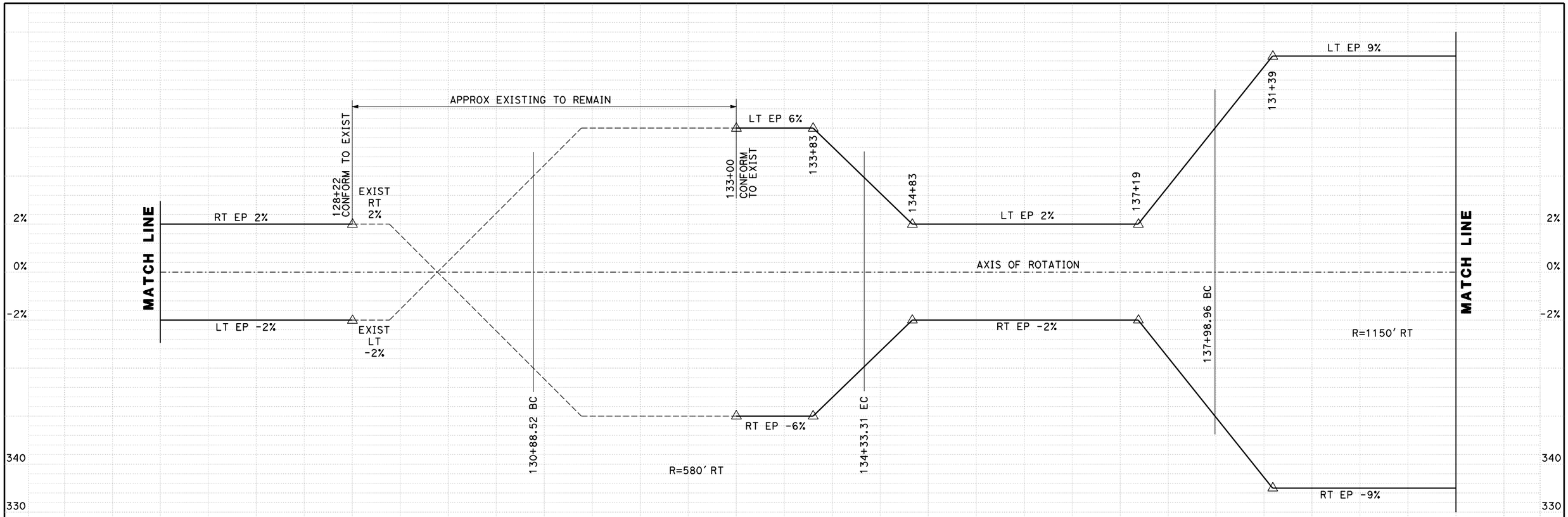
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

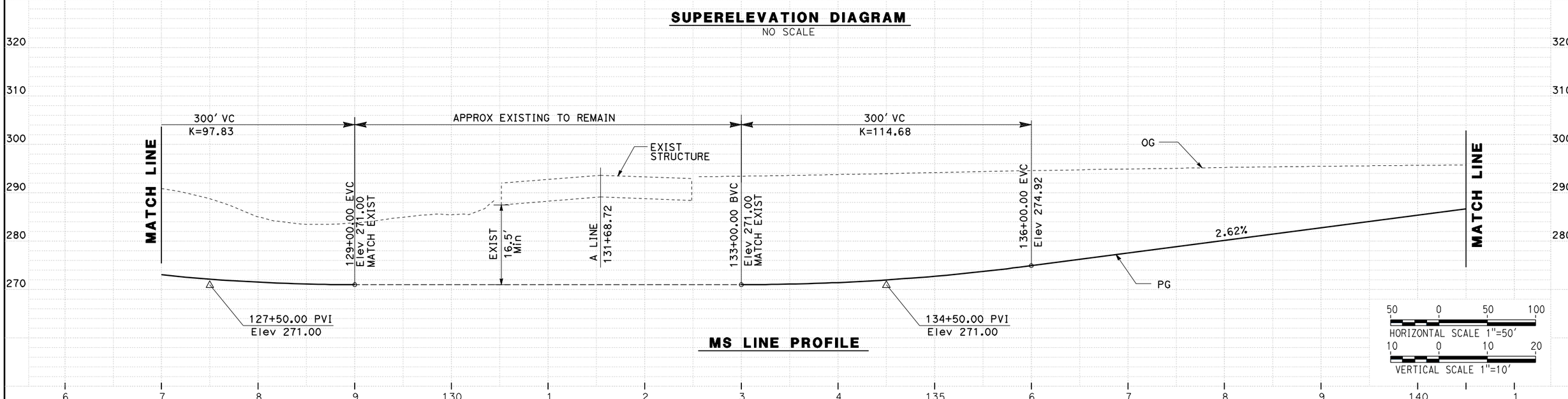
CONTRACT NO. HSR06-007
DRAWING NO. **P-16**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



MS LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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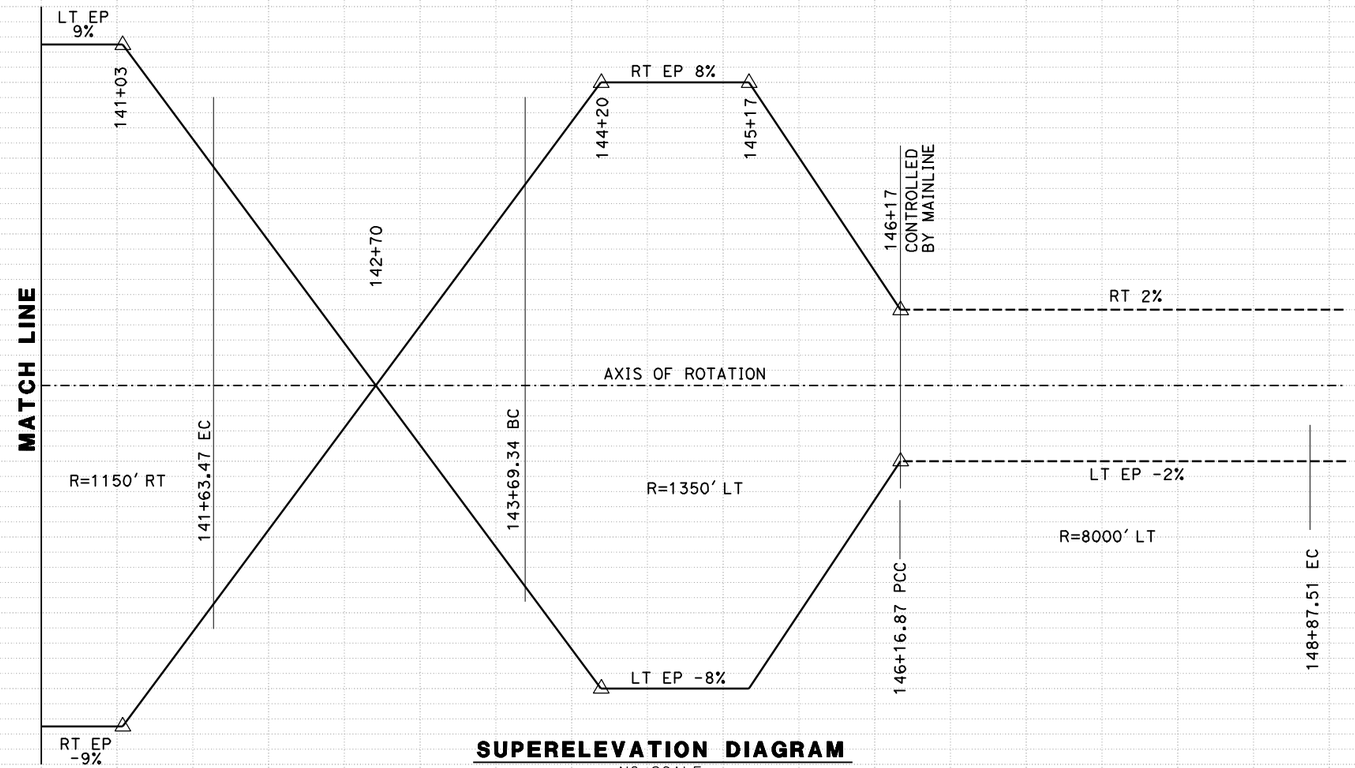
PROFILE AND SUPERELEVATION

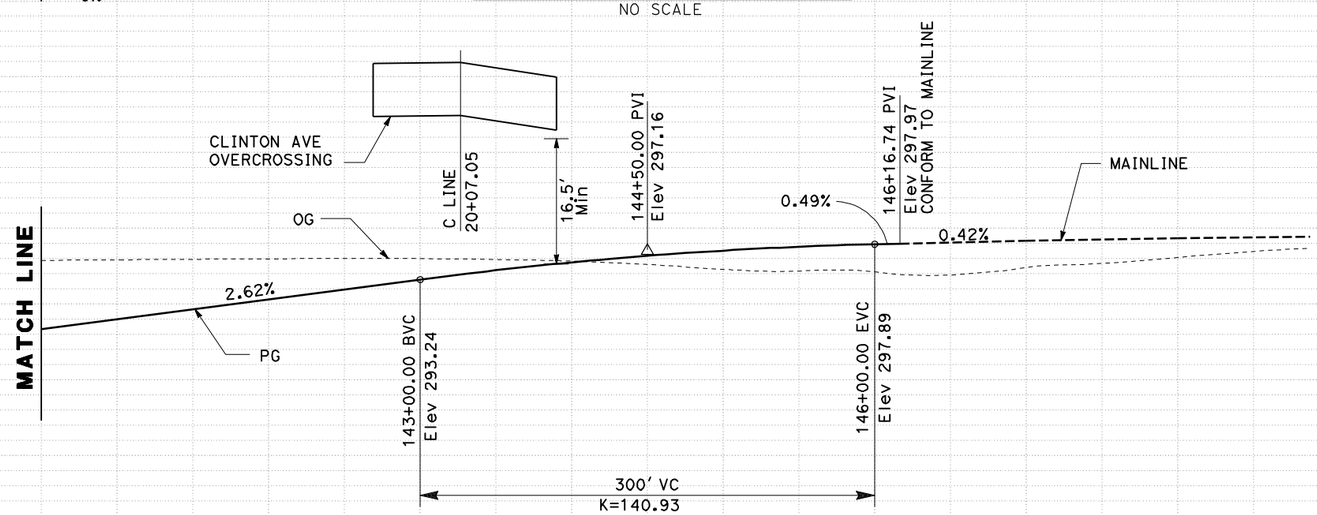
CONTRACT NO. HSR06-007
DRAWING NO. P-17
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ros

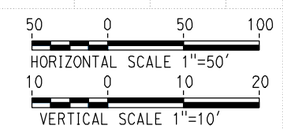


SUPERELEVATION DIAGRAM

NO SCALE



MS LINE PROFILE



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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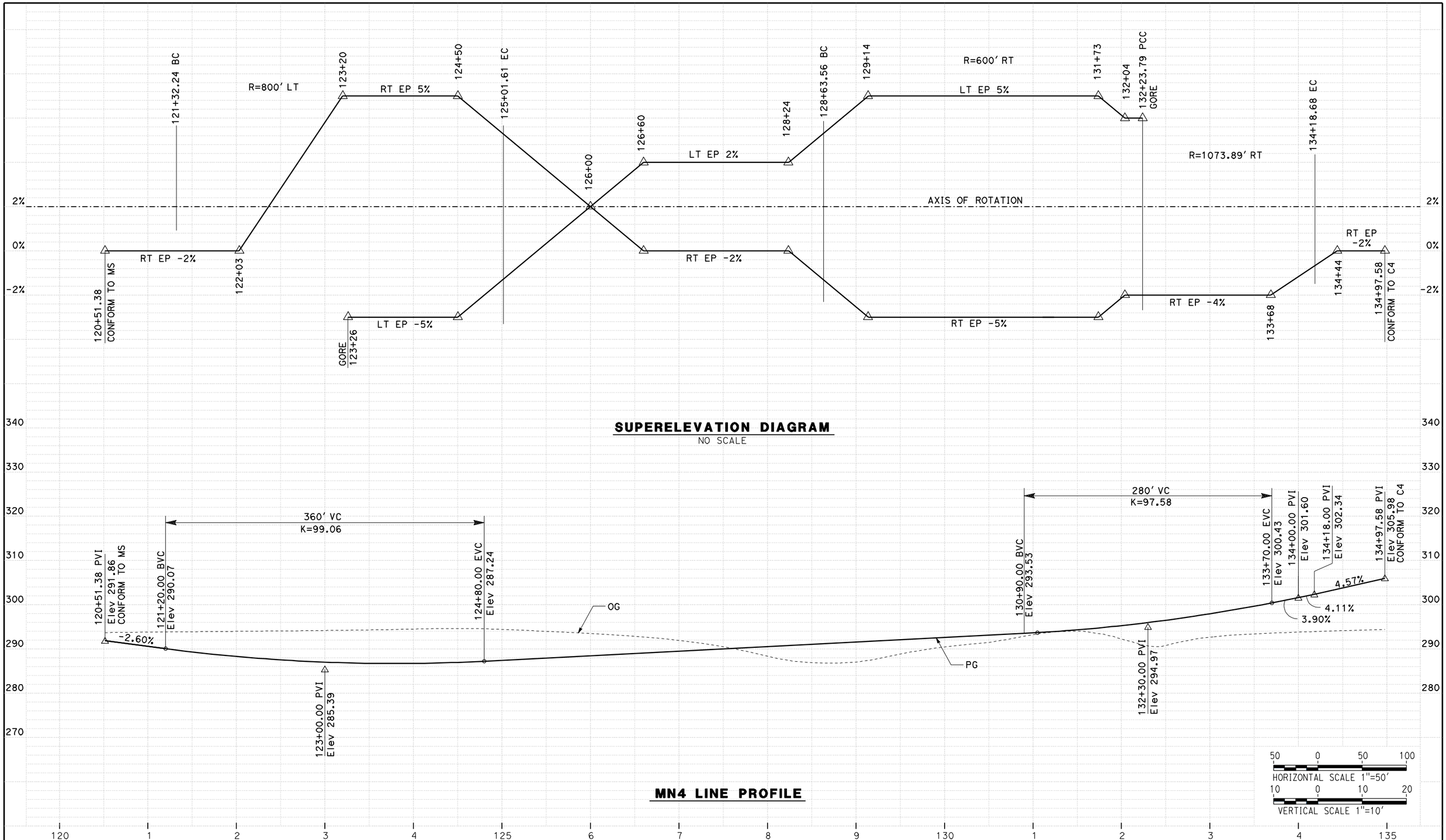
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-18**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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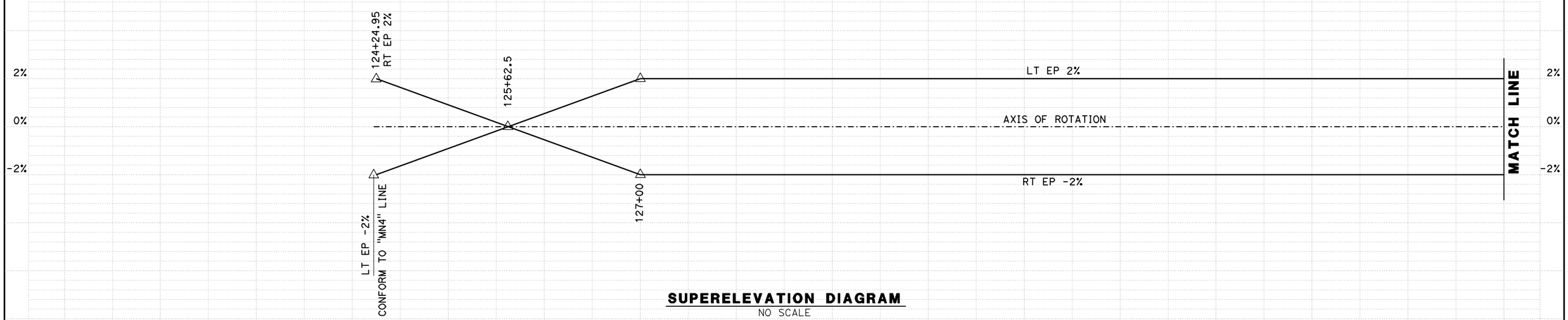
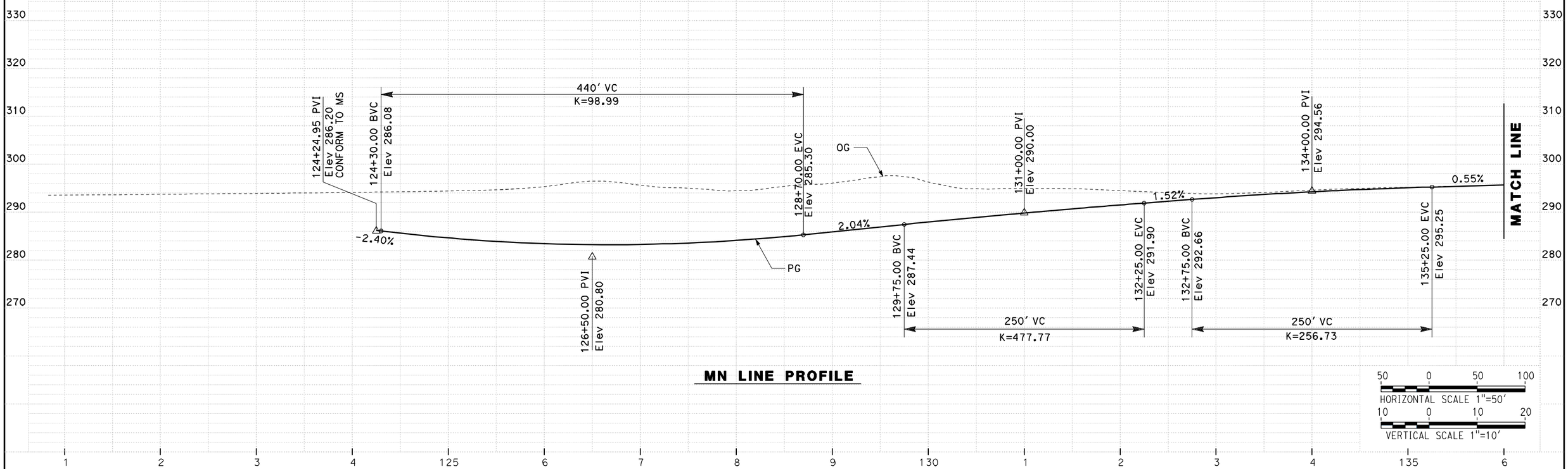
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-19**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM
NO SCALE



MN LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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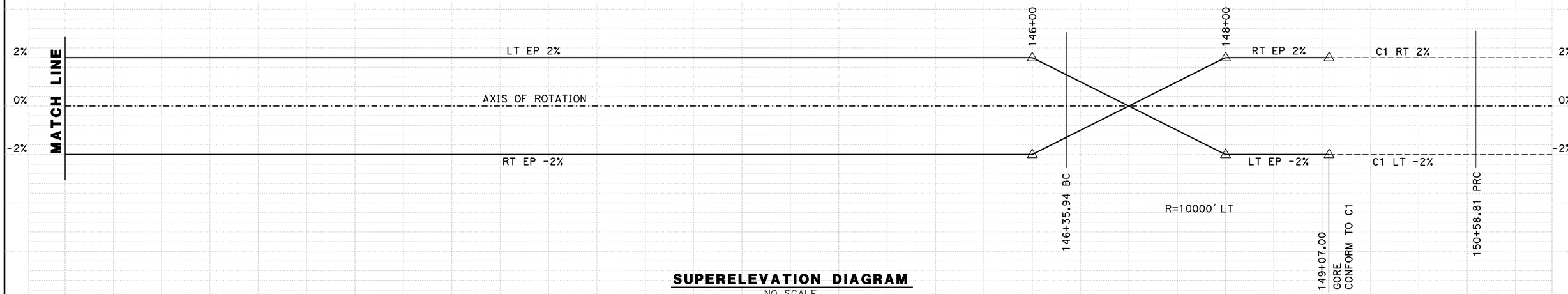
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

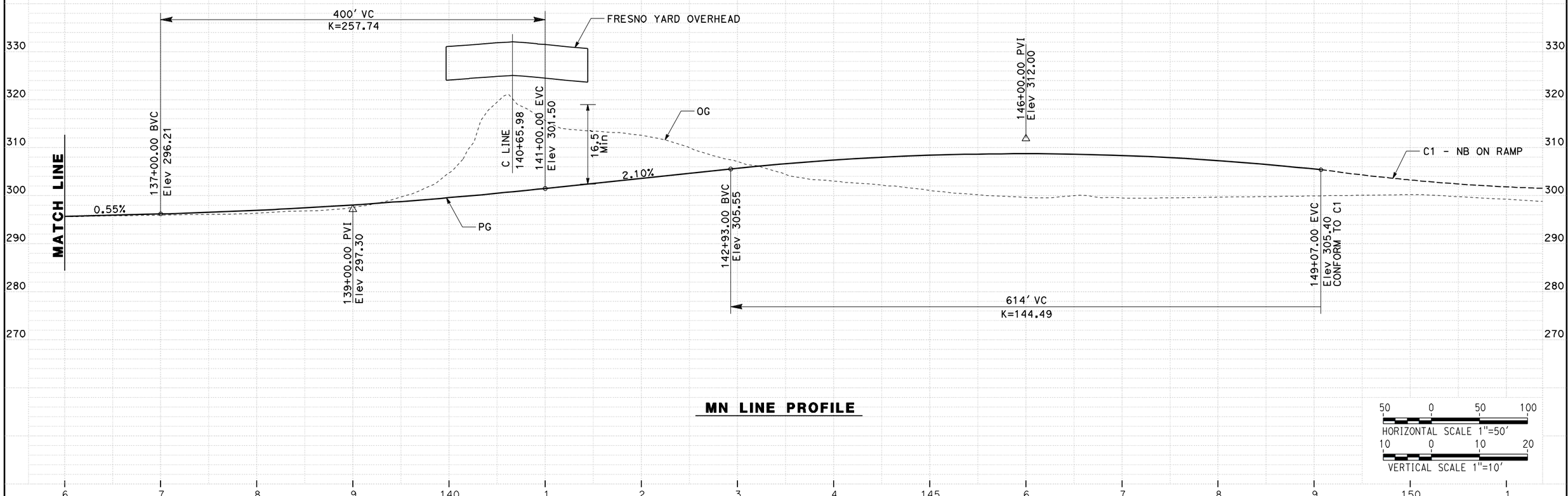
CONTRACT NO. HSR06-007
DRAWING NO. P-20
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



SUPERELEVATION DIAGRAM

NO SCALE



MN LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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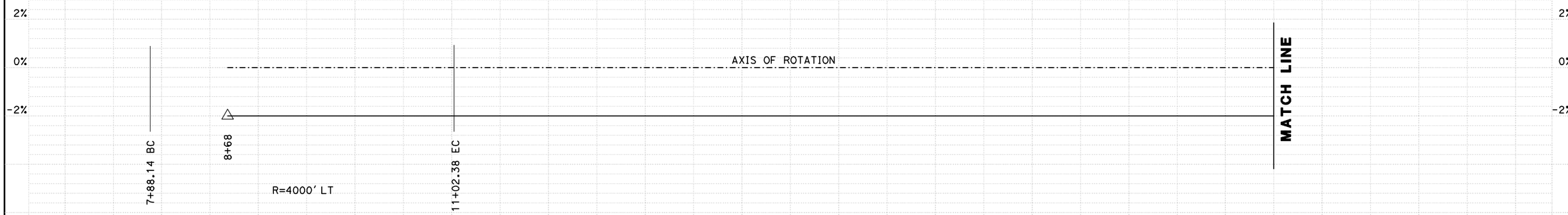
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

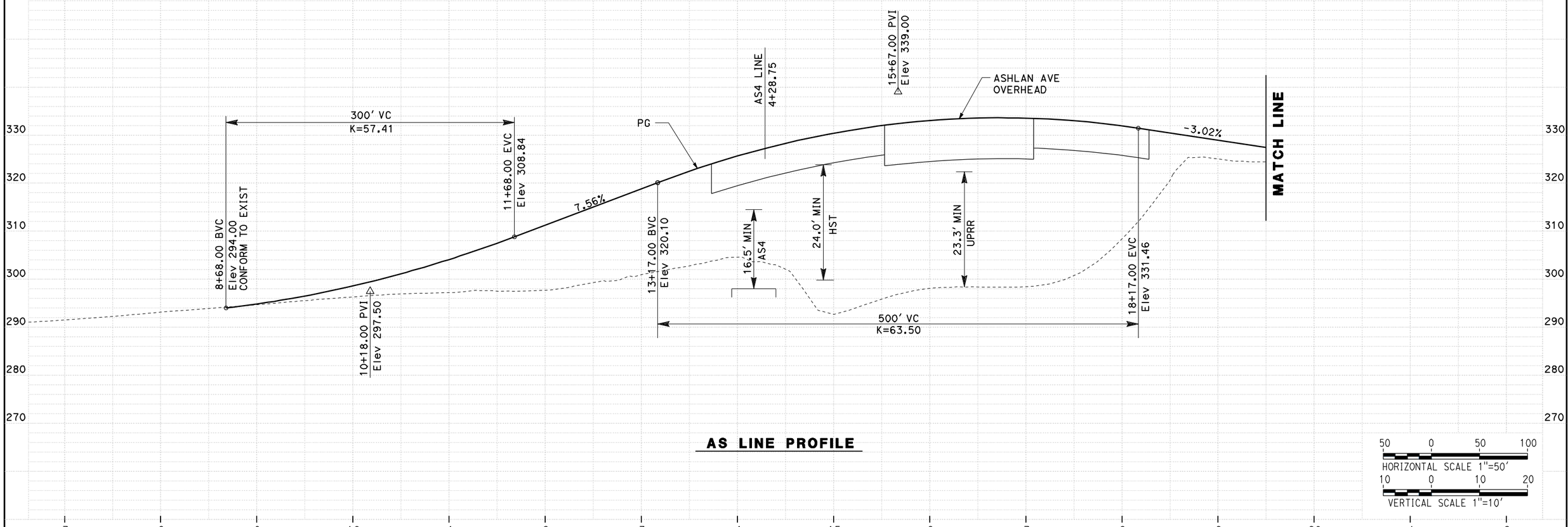
CONTRACT NO. HSR06-007
DRAWING NO. **P-21**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => [illegible]



SUPERELEVATION DIAGRAM

NO SCALE



AS LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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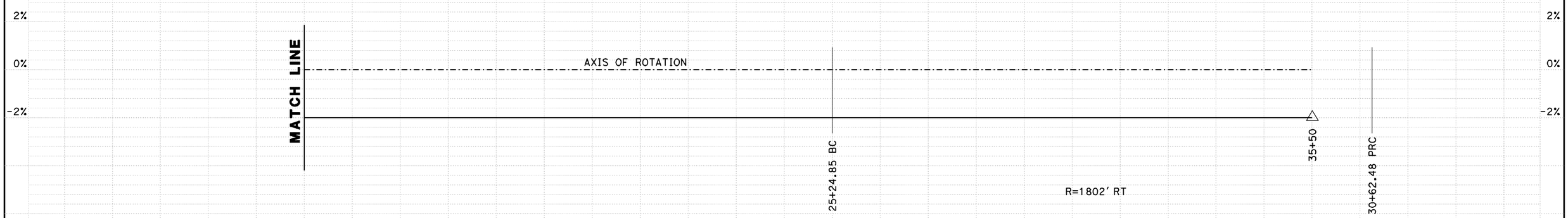
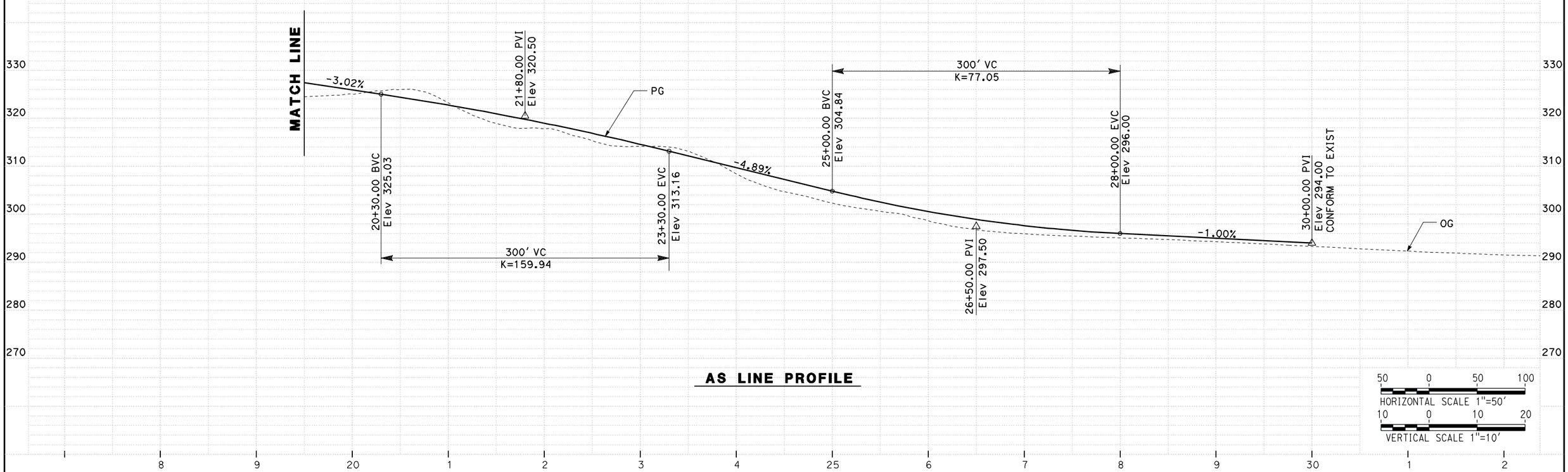
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-22**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS



SUPERELEVATION DIAGRAM
NO SCALE



AS LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
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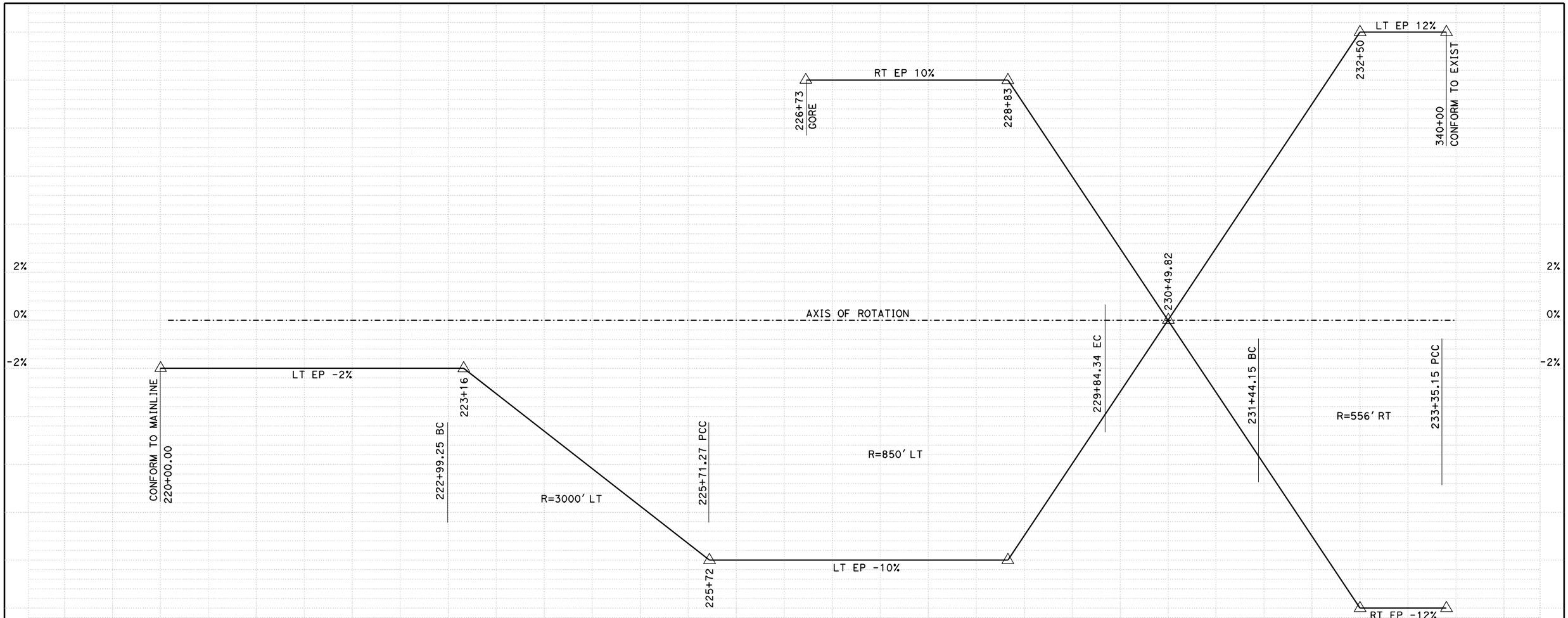
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

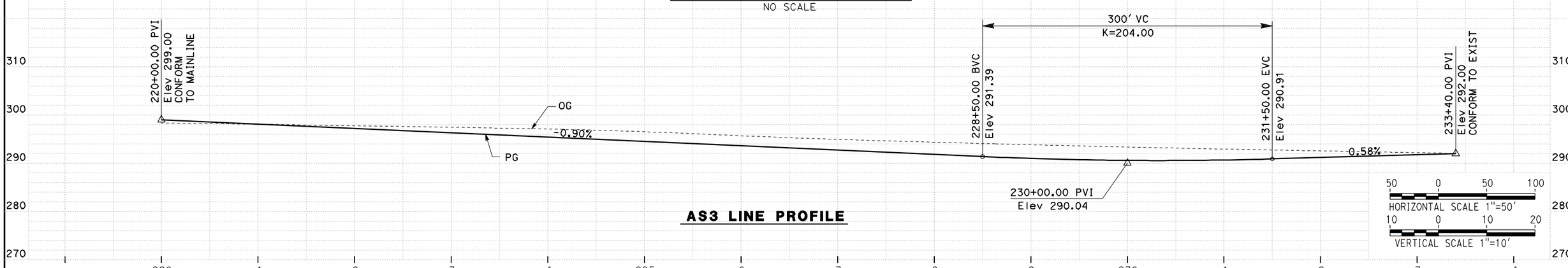
CONTRACT NO. HSR06-007
DRAWING NO. **P-23**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



AS3 LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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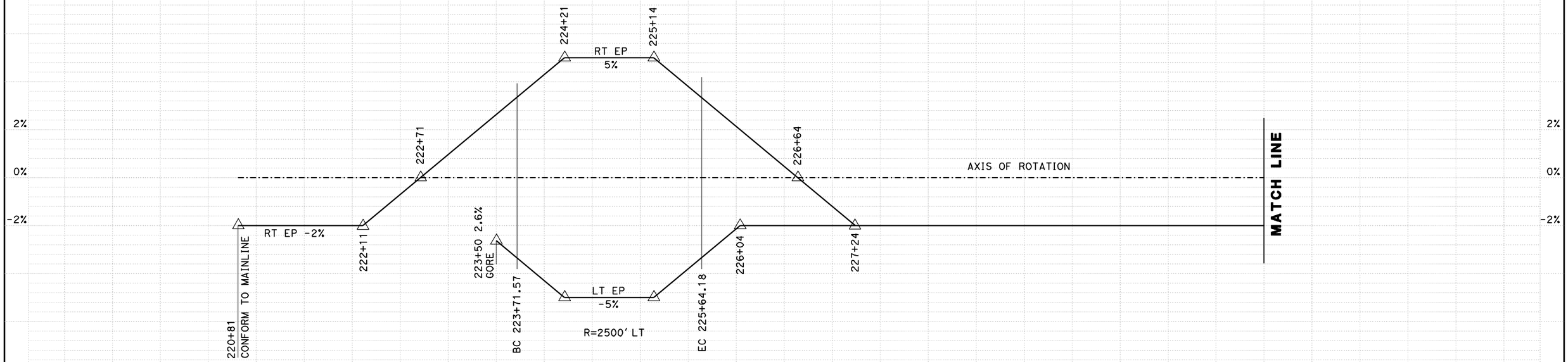
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

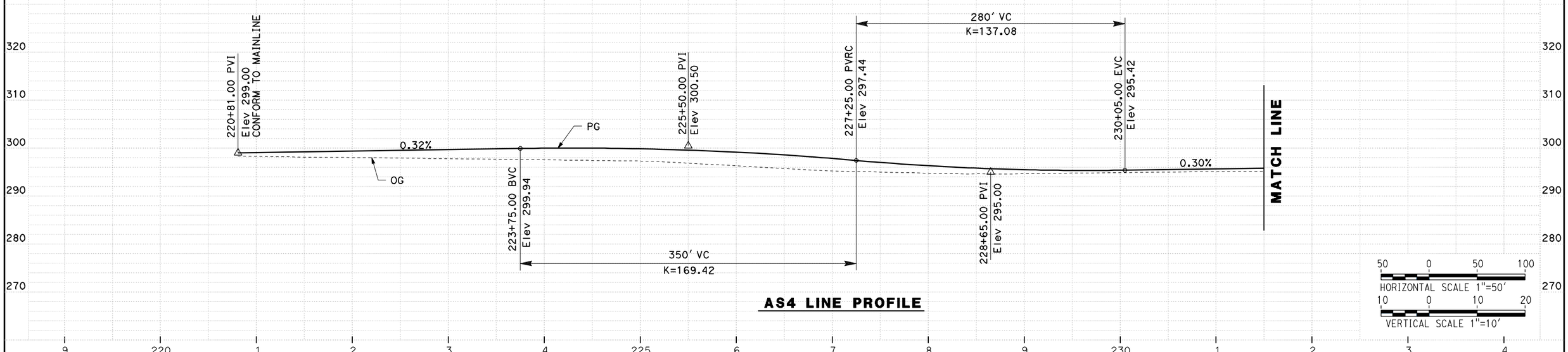
CONTRACT NO. HSR06-007
DRAWING NO. **P-24**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



AS4 LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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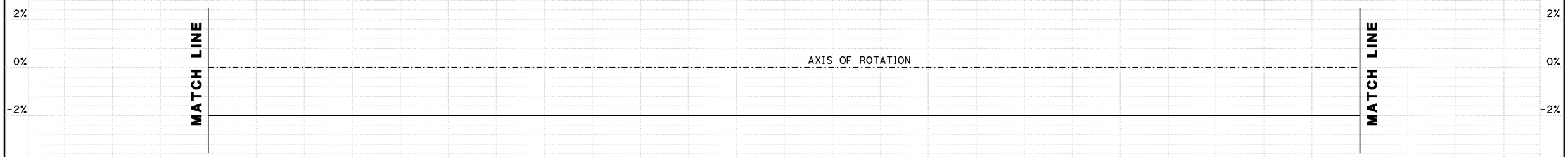
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

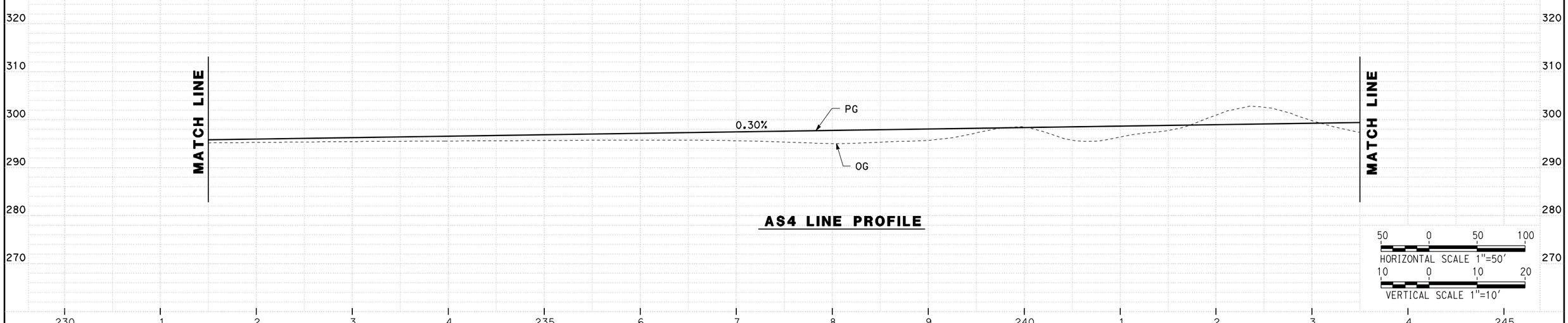
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. **P-25**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM
NO SCALE



AS4 LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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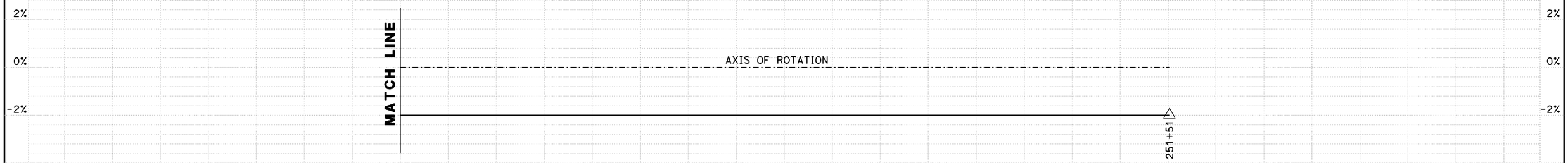
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

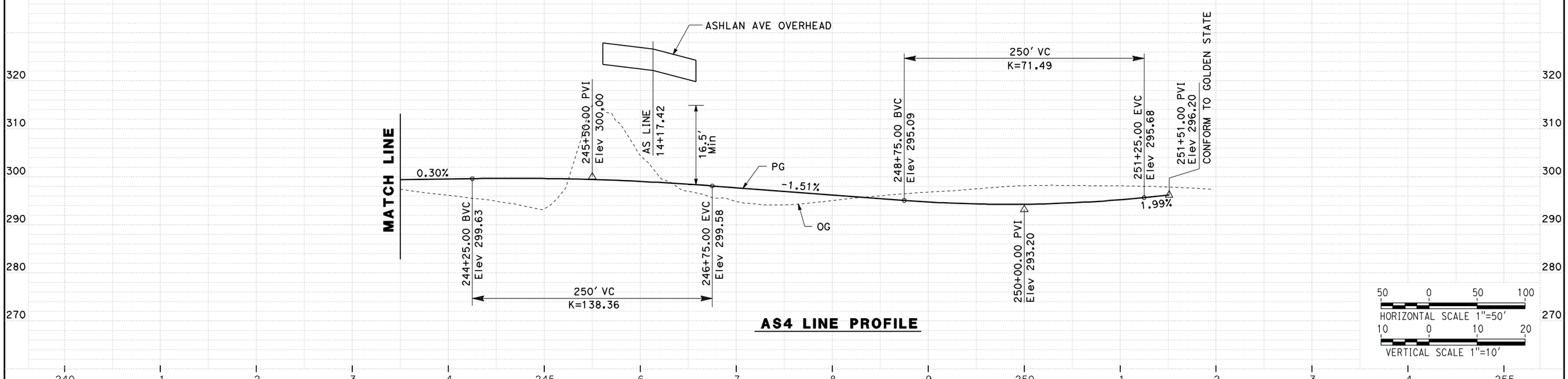
CONTRACT NO. HSR06-007
DRAWING NO. **P-26**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SUPERELEVATION DIAGRAM

NO SCALE



AS4 LINE PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
PROFILE AND SUPERELEVATION

CONTRACT NO. HSR06-007
DRAWING NO. P-27
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

STAGING NOTES:

1. -CLOSE ON/OFF RAMP AT DAKOTA, PRINCETON AND SHIELD AVE.
   -CLOSE SOUTHBOUND ON/OFF RAMP AT CLINTON AVE.
2. -ROUTE 99 NORTHBOUND/SOUTHBOUND TRAFFIC REMAIN AS IS.
   SEE TYPICAL SECTION SHEETS SC-2 AND SC-4.
3. -CONSTRUCT ROUTE 99.
   -CONSTRUCT SOUTHBOUND ON/OFF RAMP AT CLINTON AVE.
   -CONSTURCT SOUTHBOUND ON RAMP ASHLAN AVE.
   -CONSTRUCT SOUTHBOUND OFF RAMP MOTEL DR.
4. -MULTIPLE PHASES AND NIGHT CLOSURE ARE ANTICIPATED FOR
   CONFORM TO ROUTE 99.
5. -ASHLAN AVE SOUTHBOUND ON RAMP TO REMAIN OPEN AT ALL TIMES.
6. -HIGH SPEED RAIL TO BE CONSTRUCTED AFTER COMPLETION OF ROUTE 99.

LEGEND:

CONSTRUCT THIS STAGE

CONSTRUCT PREVIOUS STAGE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
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IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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CONSTRUCTION

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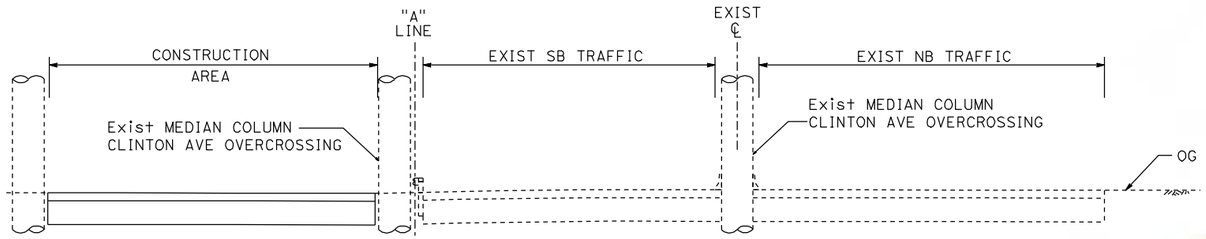
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

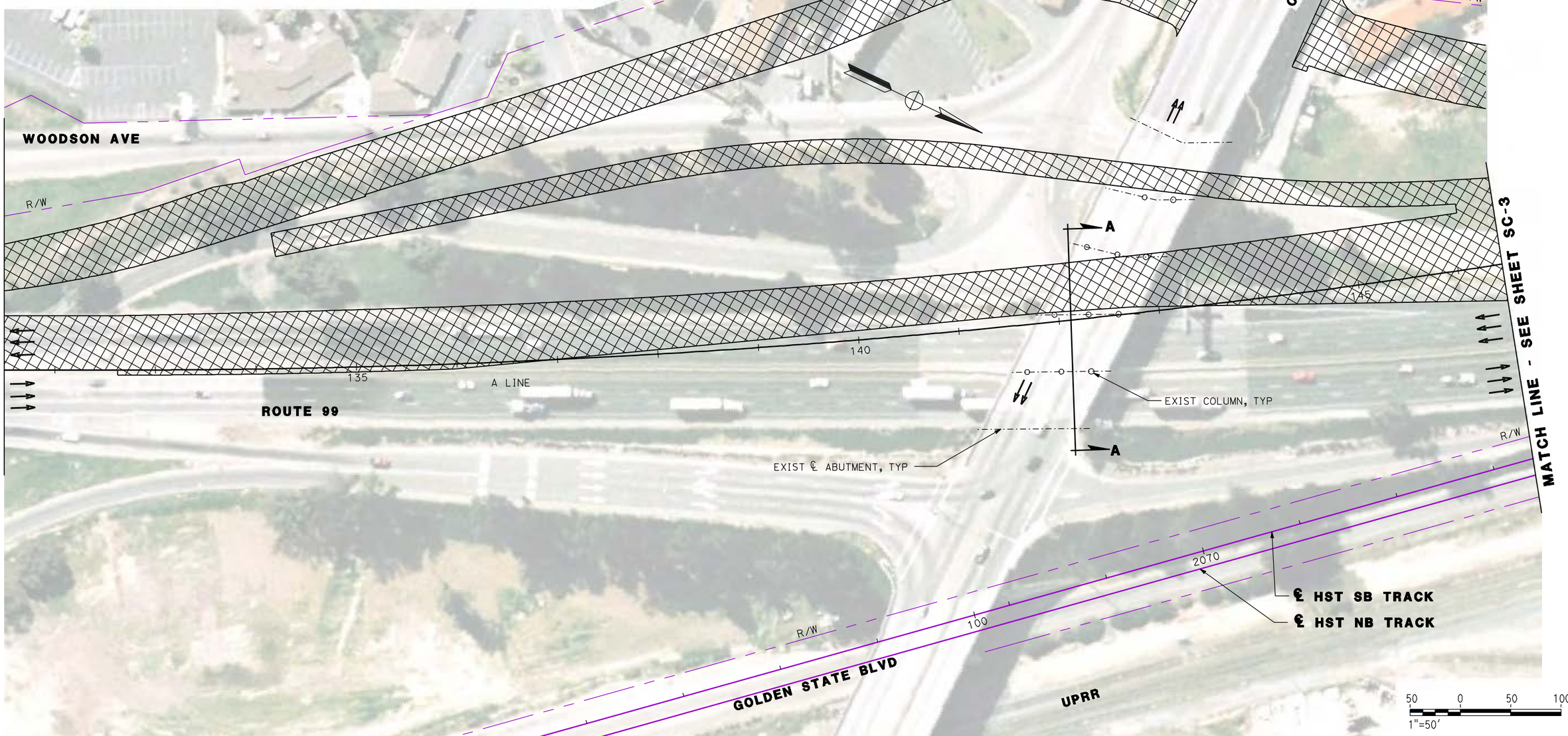
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-1
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS



SECTION A-A
ROUTE 99 AT CLINTON AVE



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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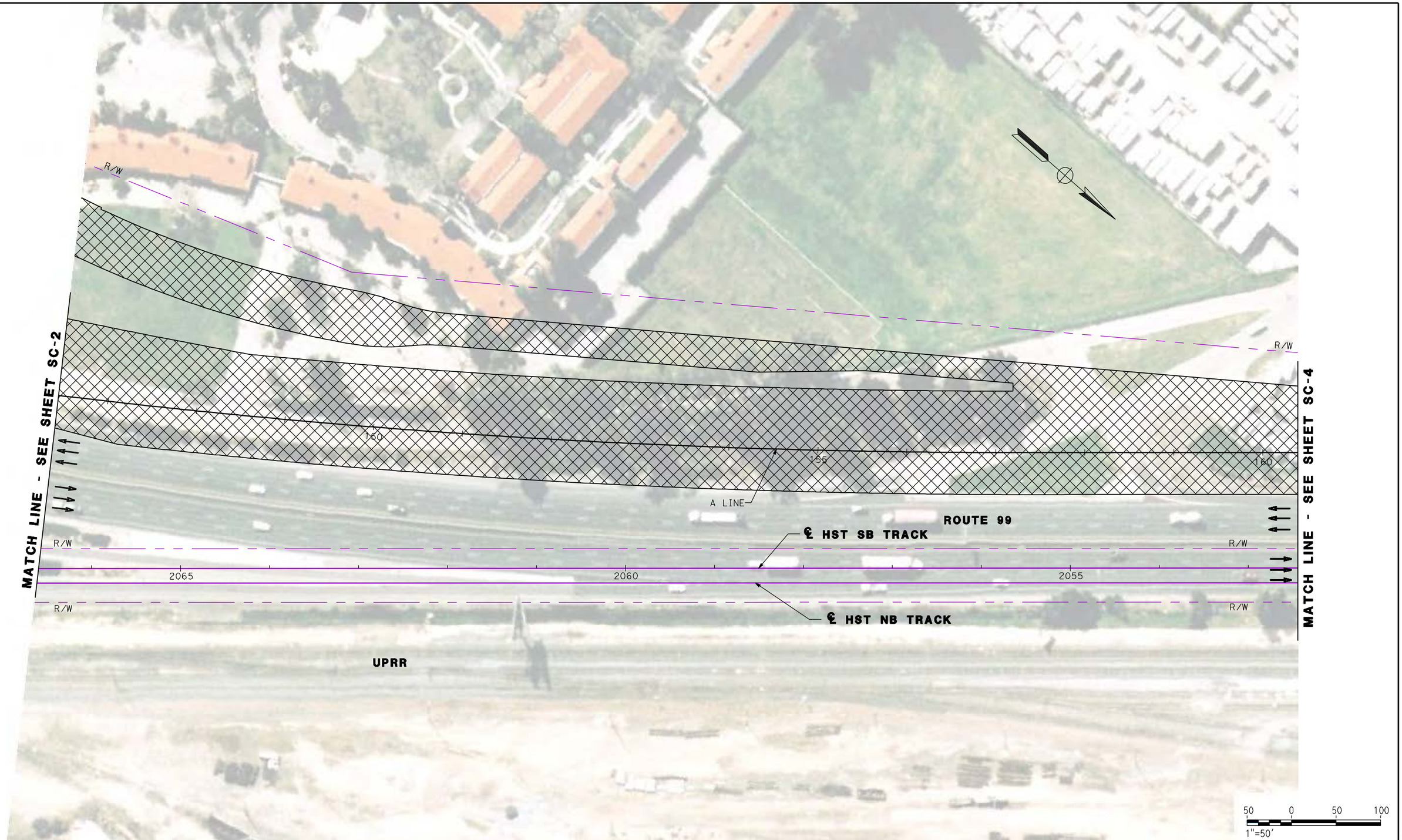
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. **SC-2**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
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CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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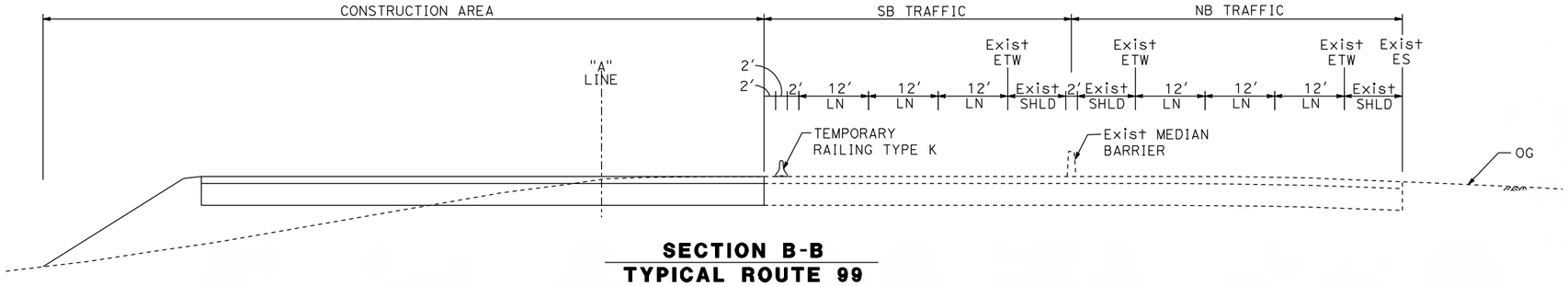
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

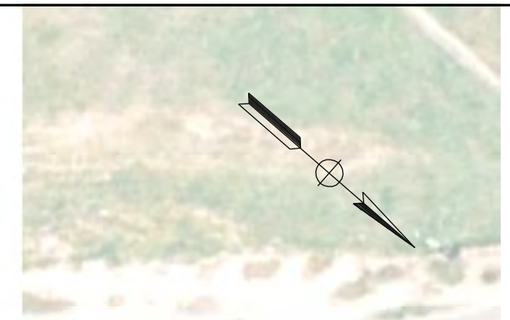
CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

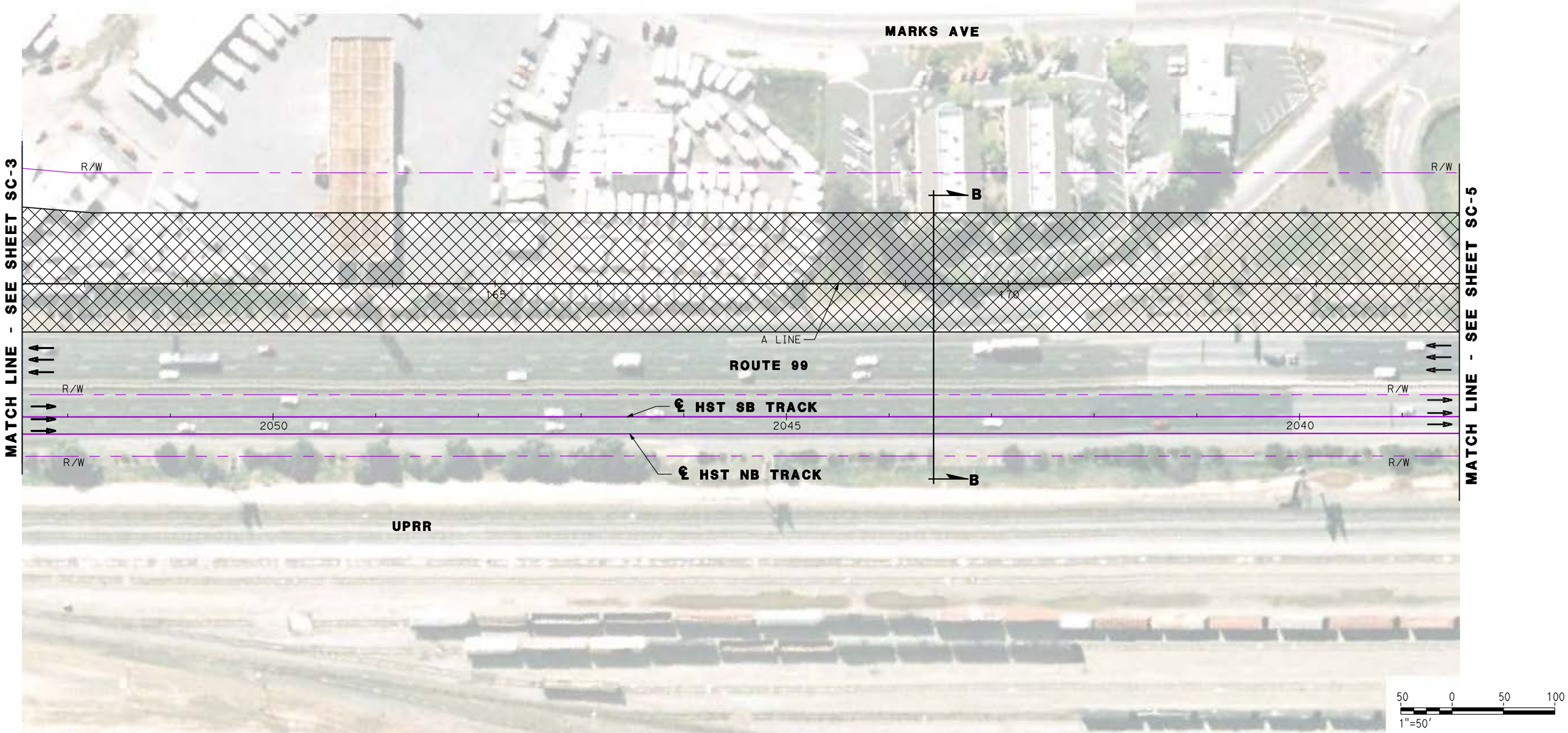
CONTRACT NO. HSR06-007
DRAWING NO. SC-3
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



SECTION B-B
TYPICAL ROUTE 99





REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

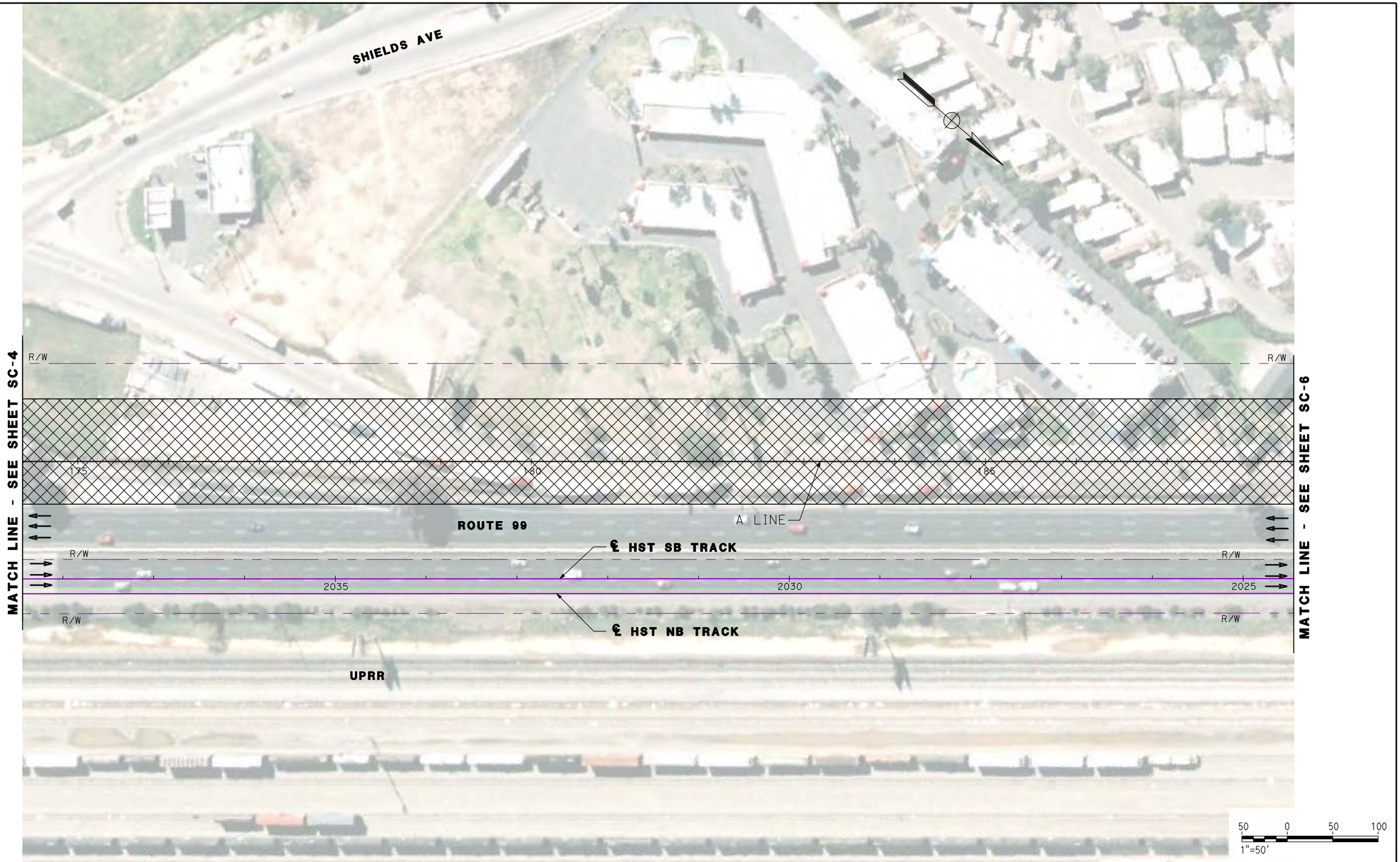
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-4
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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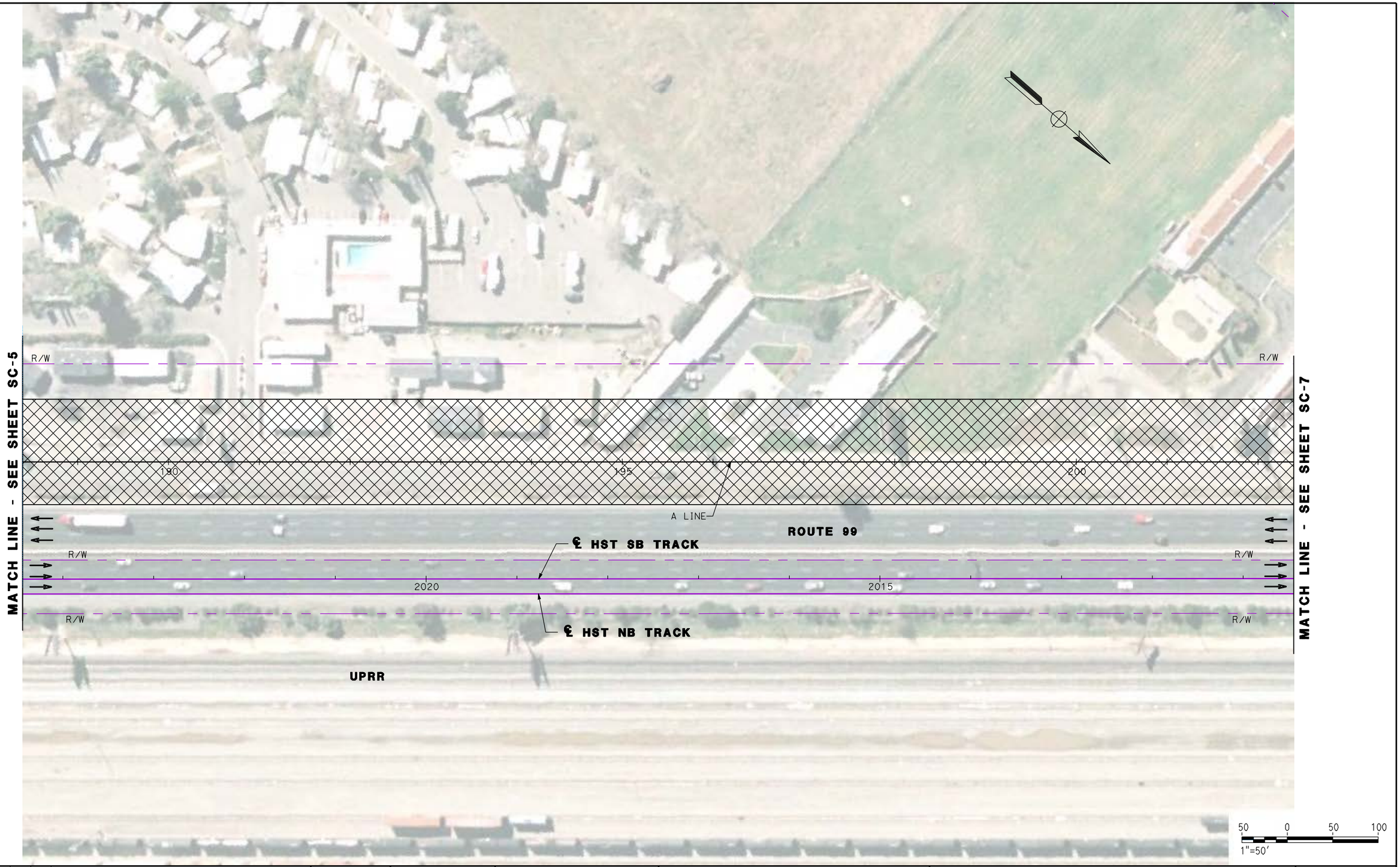
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-5
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ROS



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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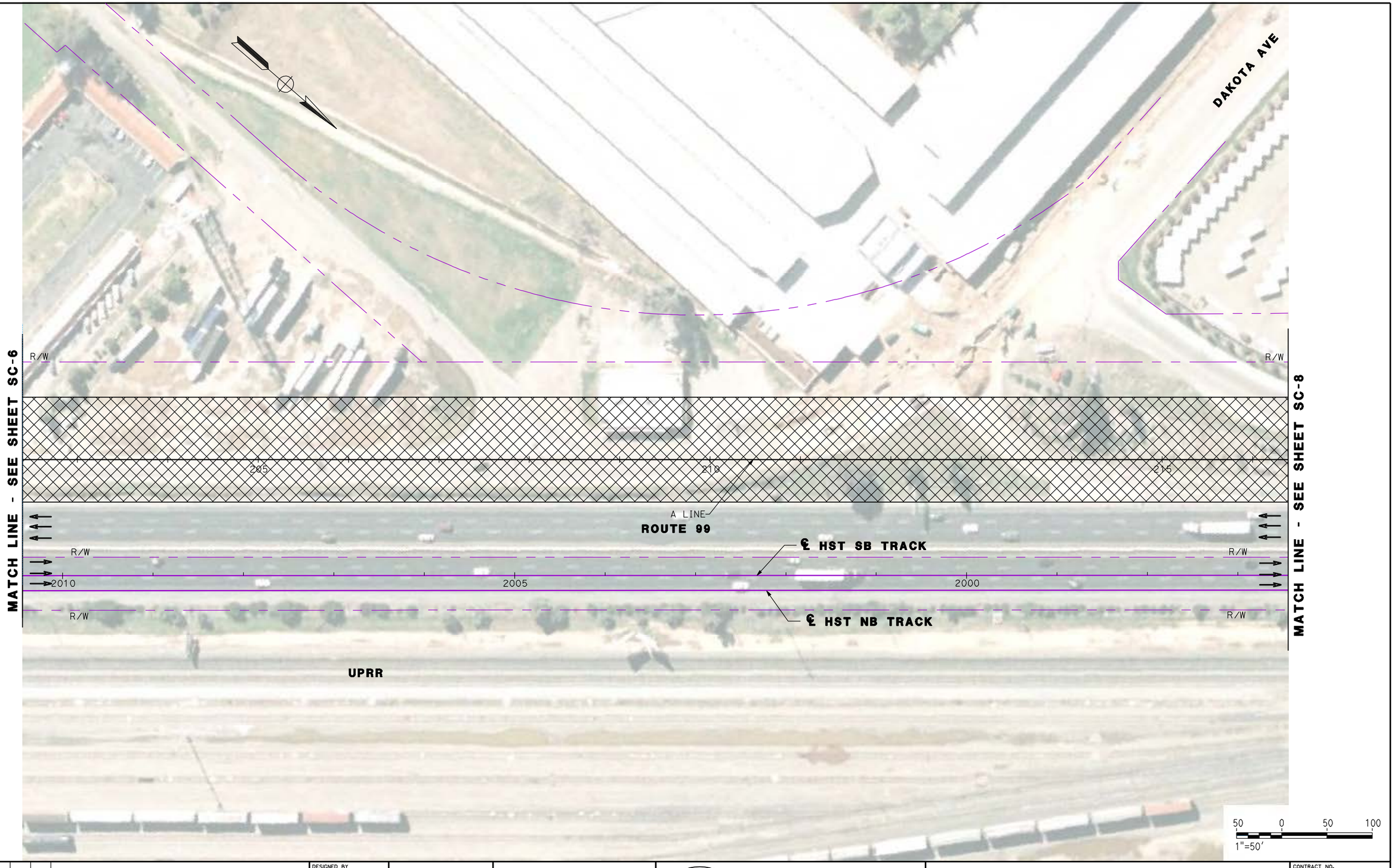
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. **SC-6**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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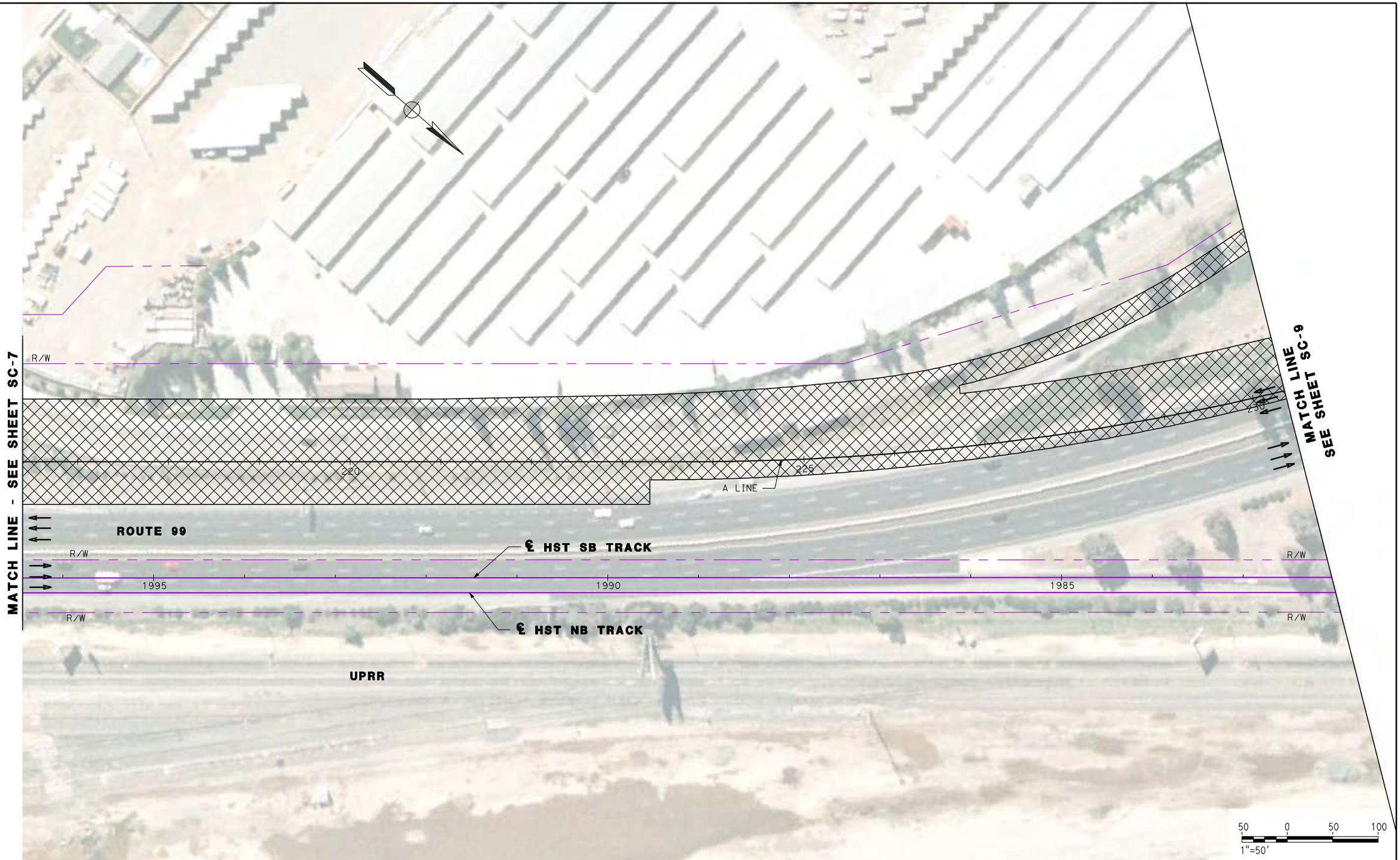
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. **SC-7**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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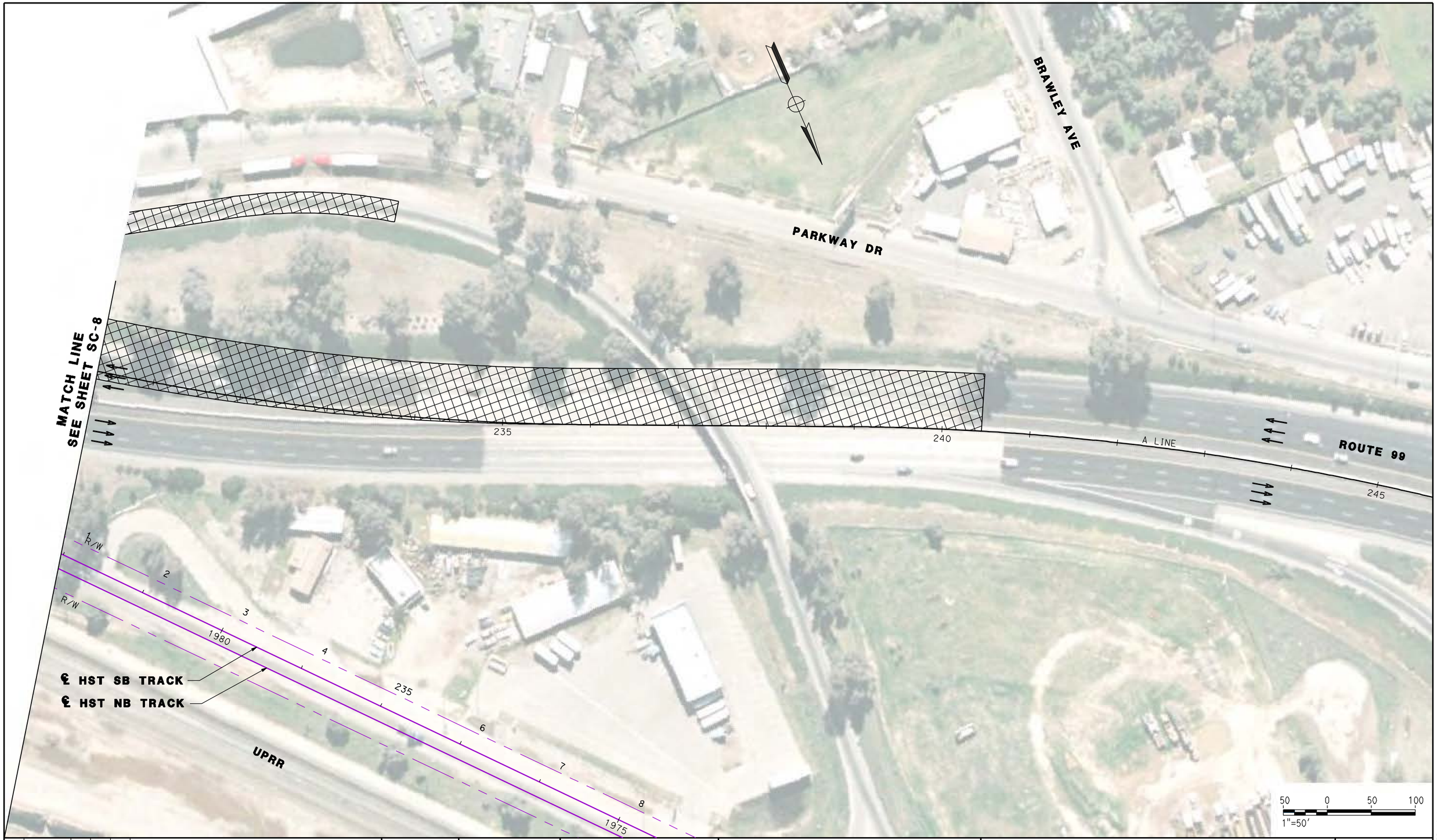
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-8
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN
SUBMITTAL

NOT FOR
CONSTRUCTION

AECOM Technical Services, Inc.
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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 1 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-9
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011

STAGING NOTES:

1. -CLOSE ON/OFF RAMP AT DAKOTA, PRINCETON AND SHIELD AVE.
   -CLOSE SOUTHBOUND ON/OFF RAMP AT CLINTON AVE.
   -CLOSE NORTHBOUND ON/OFF RAMP AT CLINTON AVE.

2. -SHIFT ROUTE 99 NORTHBOUND/SOUTHBOUND TO STAGE 1 PAVEMENT.
   SEE TYPICAL SECTION SHEETS SC-11 AND SC-13.

3. -CONSTRUCT REMAINDER OF ROUTE 99.
   -CONSTRUCT NORTHBOUND ON/OFF RAMP AT CLINTON AVE.
   -CONSTURCT NORTHBOUND OFF RAMP ASHLAN AVE.
   -CONSTRUCT NORTHBOUND ON RAMP MOTEL DR.

4. -SHIFT EASTBOUND AND WESTBOUND CLINTON AVE TRAFFIC TO
   SOUTHERLY PORTION OF CLINTON AVENUE.
   -REMOVE NORTHERLY PORTION OF CLINTON AVENUE OC.
   -CONSTRUCT NEW NORTHERLY PORTION OF CLINTON AVE.
   -SHIFT EASTBOUND AND WESTBOUND CLINTON AVE TRAFFIC TO
   NORTHERLY PORTION OF CLINTON AVENUE.
   -CONSTRUCT NEW SOUTHERLY PORTION OF CLINTON AVE.
   -SEE TYPICAL SECTION SHEET SC-11.

5. -MULTIPLE PHASES AND NIGHT CLOSURES ARE ANTICIPATED FOR REMOVAL OF
   EXISTING BRIDGE, BRIDGE CONSTRUCTION AND CONFORM TO ROUTE 99.

6. -ASHLAN AVE NORTHBOUND OFF RAMP TO REMAIN OPEN AT ALL TIMES.

7. -HIGH SPEED RAIL TO BE CONSTRUCTED AFTER COMPLETION OF ROUTE 99.

LEGEND:

CONSTRUCT THIS STAGE

CONSTRUCT PREVIOUS STAGE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

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Sacramento, CA 95811
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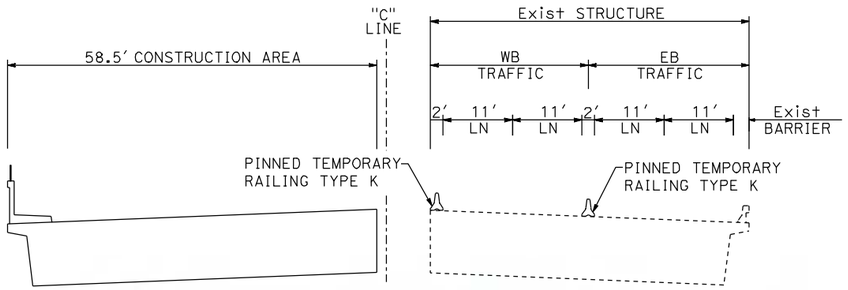
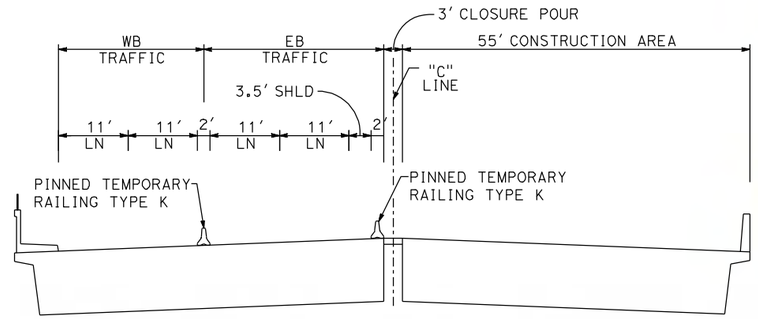
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

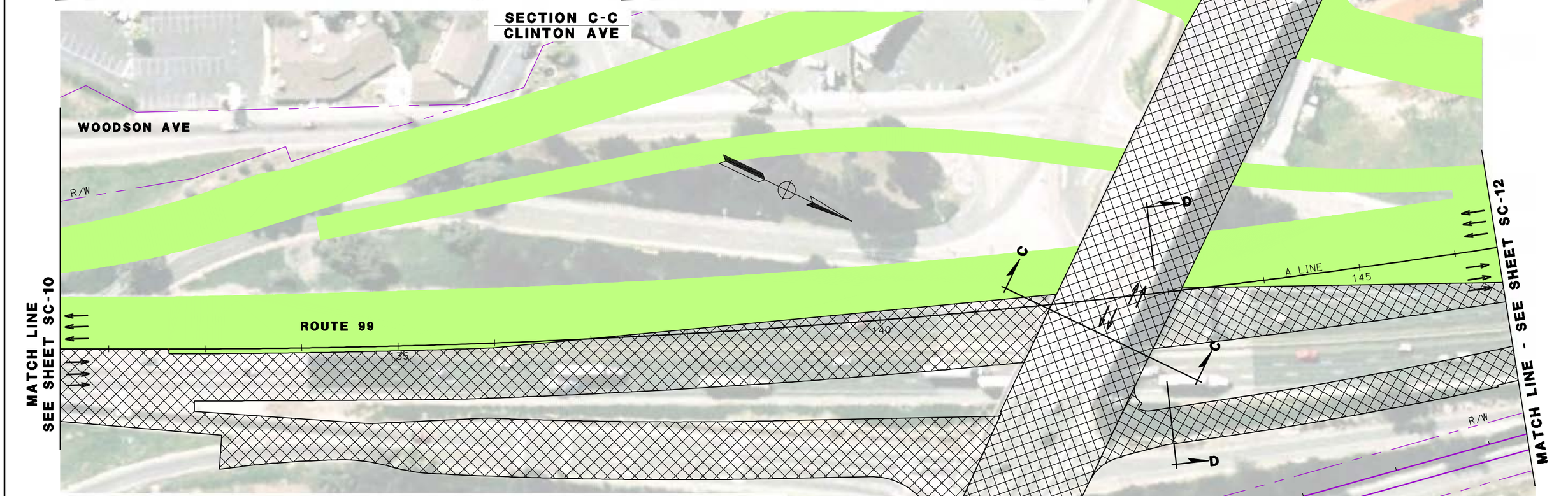
CONTRACT NO. HSR06-007
DRAWING NO. SC-10
SCALE AS SHOWN
SHEET NO.

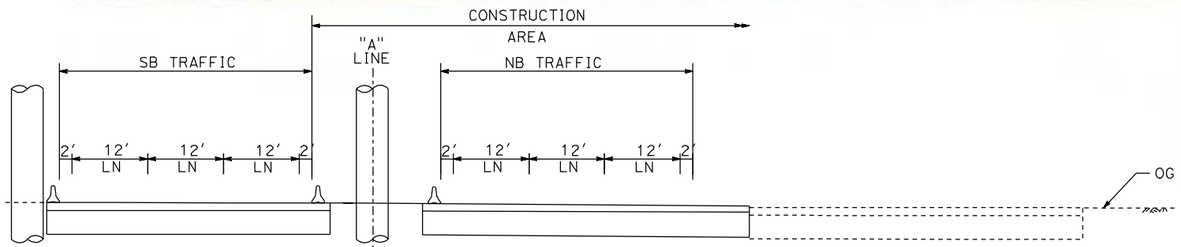
DATE PLOTTED => 26-APR-2011
USERNAME =>





SECTION C-C
CLINTON AVE





SECTION D-D
ROUTE 99 AT CLINTON AVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
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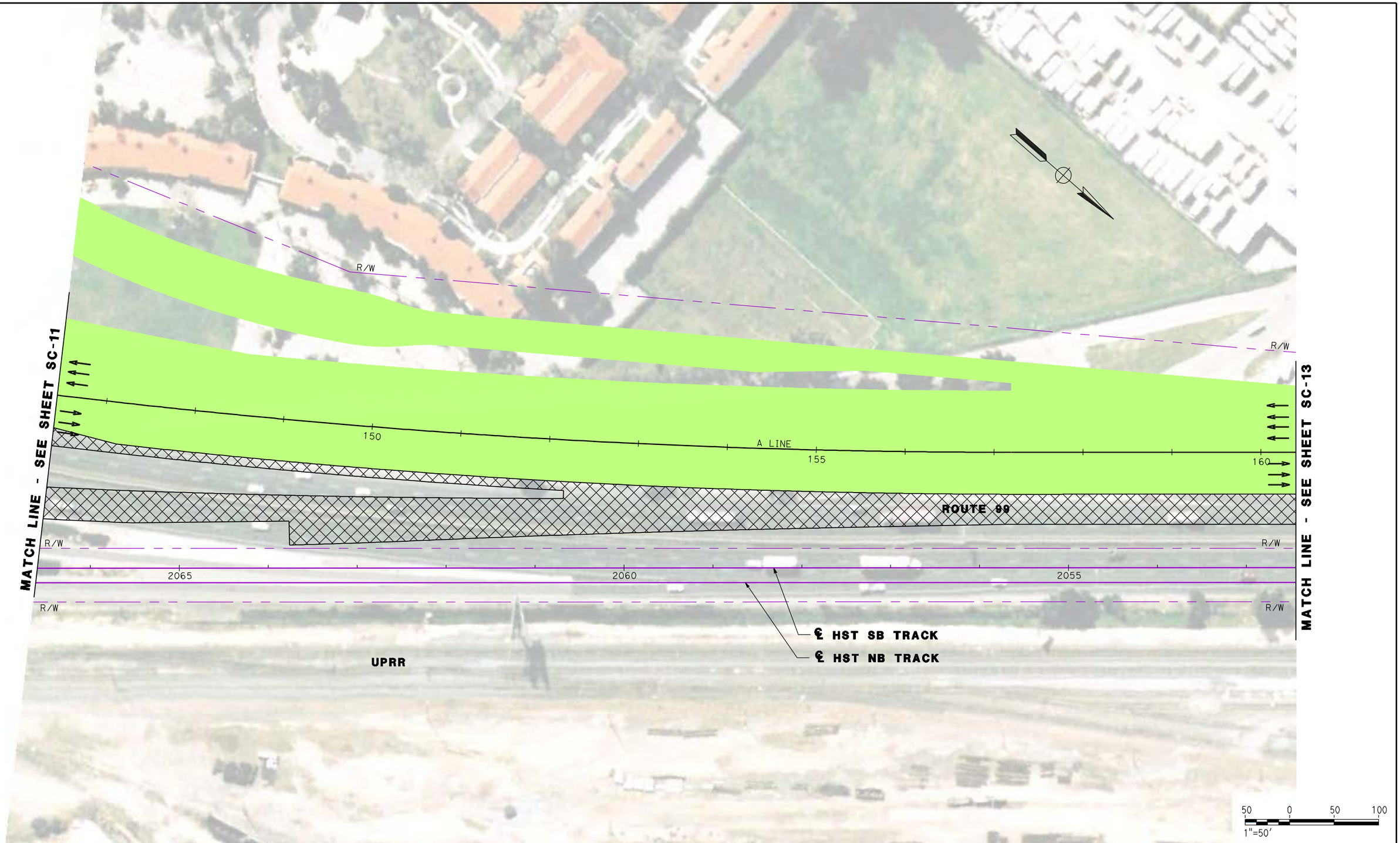
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-11
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
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Sacramento, CA 95811
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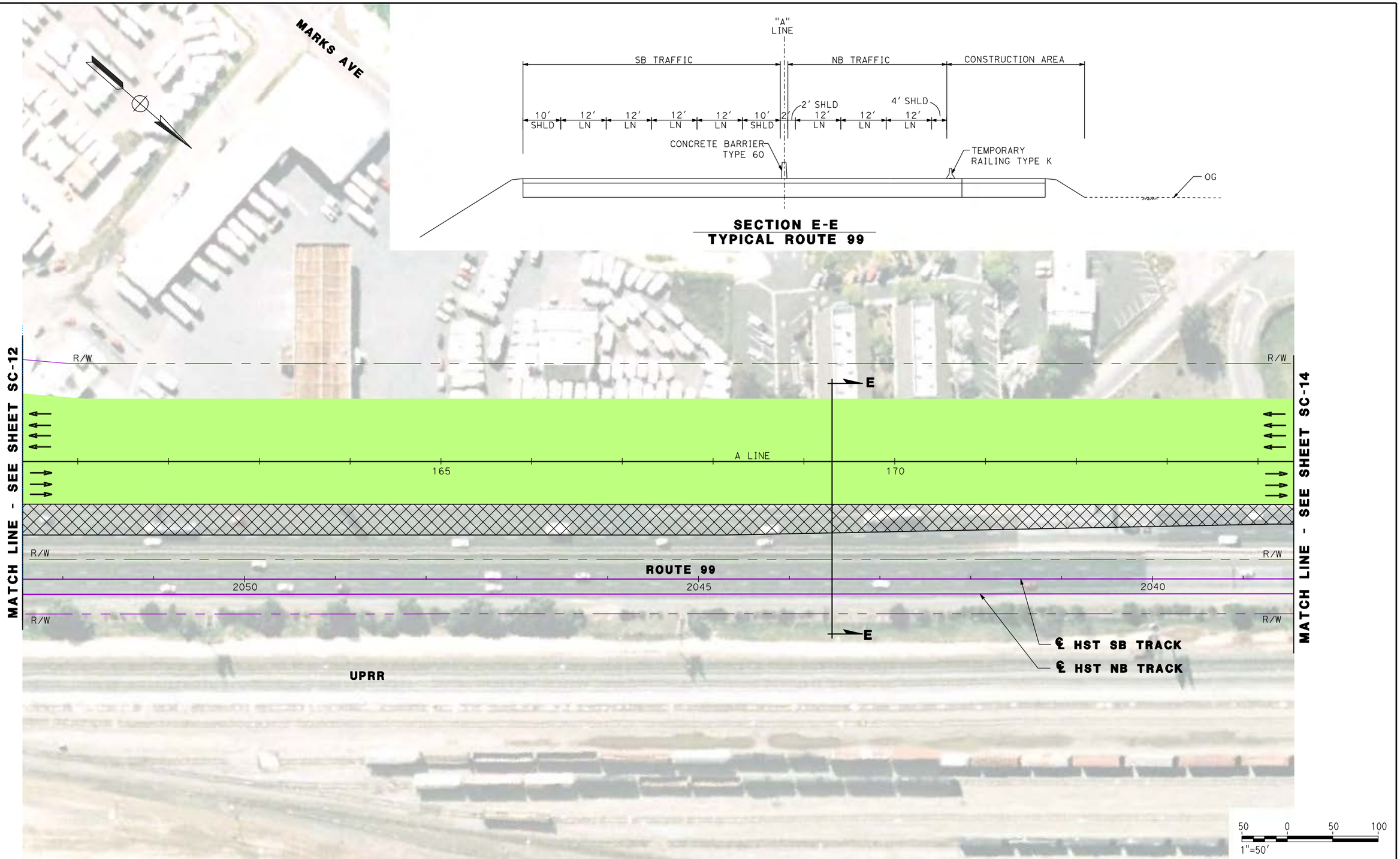
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-12
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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NOT FOR CONSTRUCTION

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Sacramento, CA 95811
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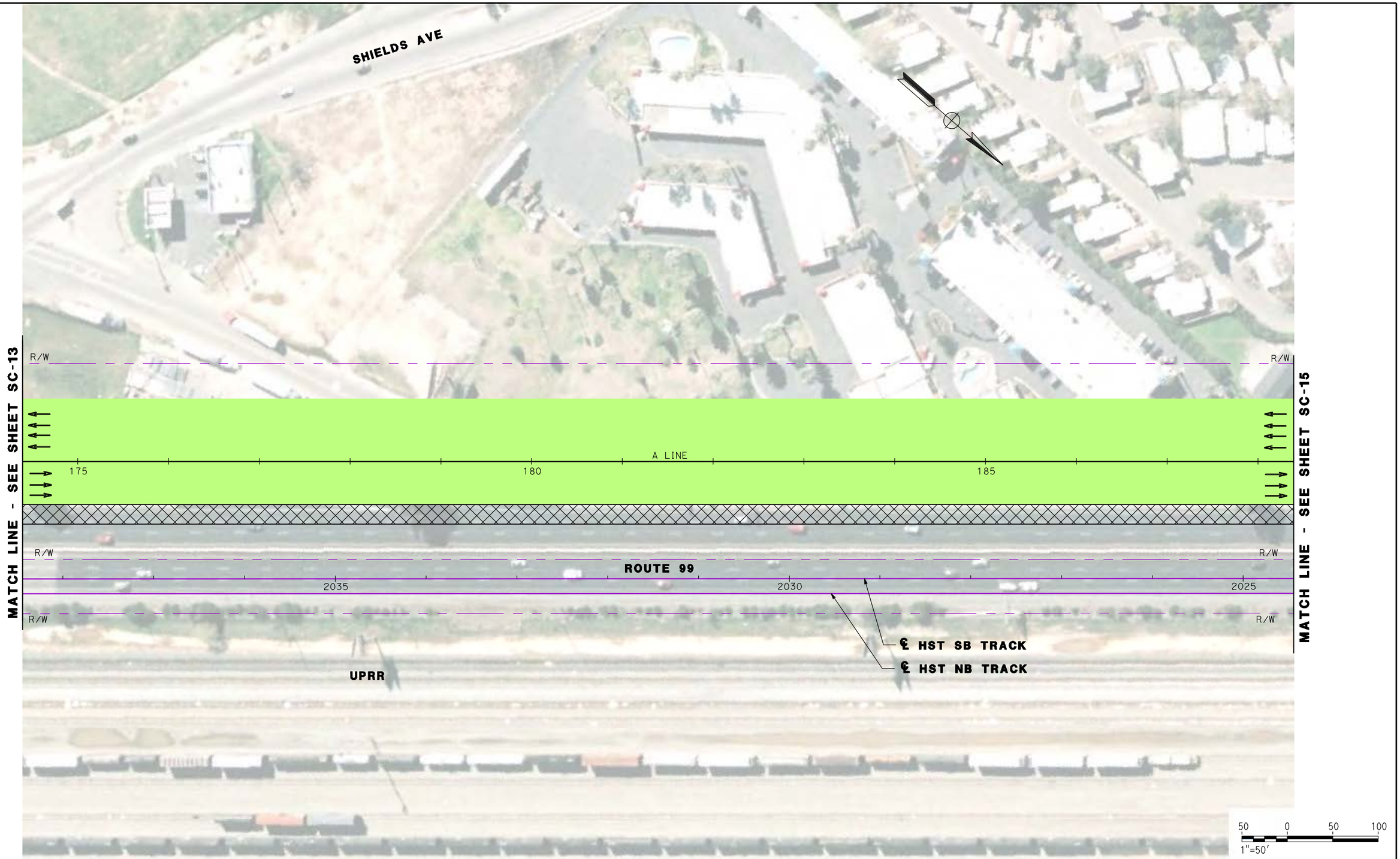
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-13
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
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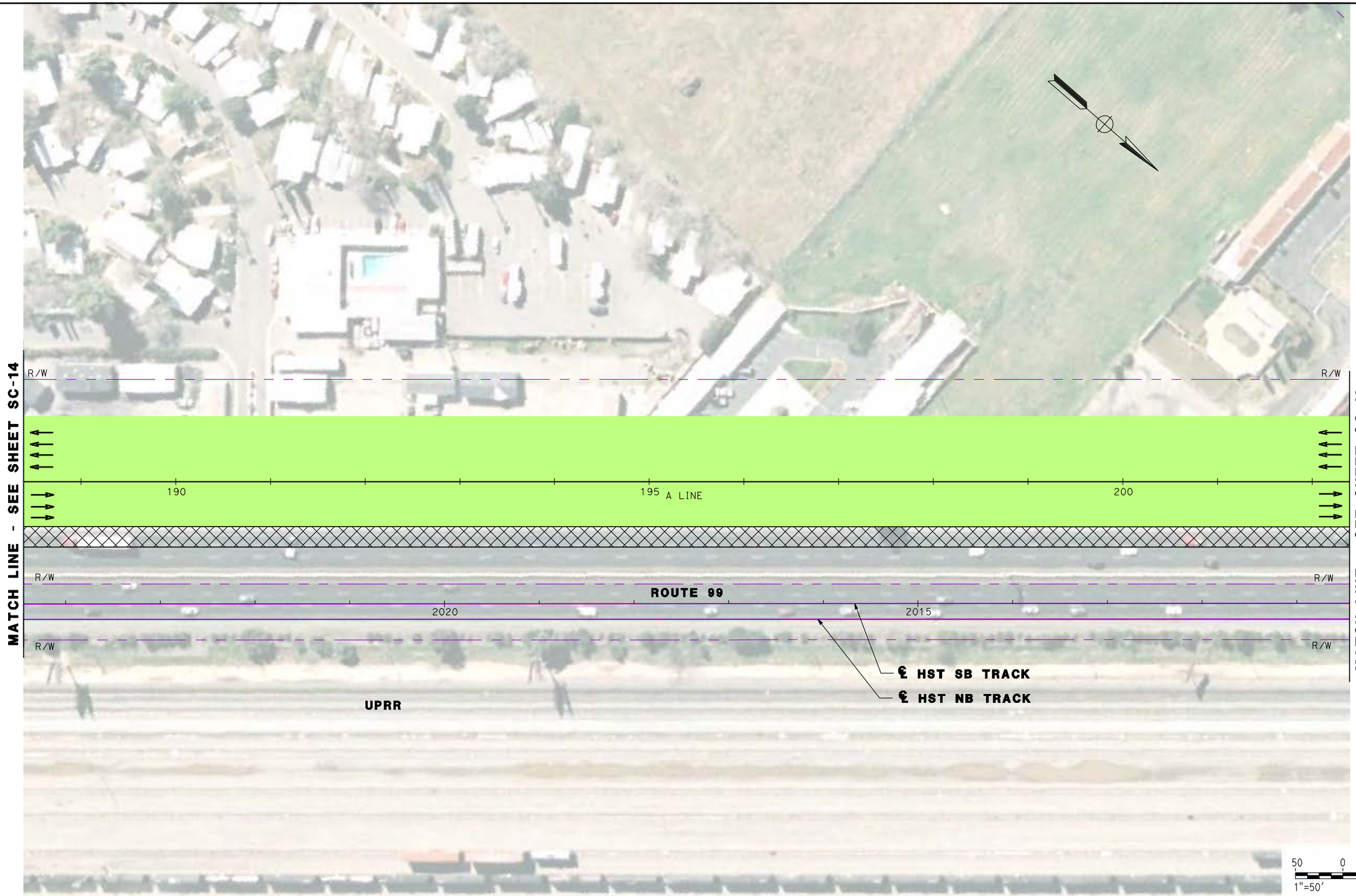
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-14
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
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SUBMITTAL

NOT FOR
CONSTRUCTION

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Sacramento, CA 95811
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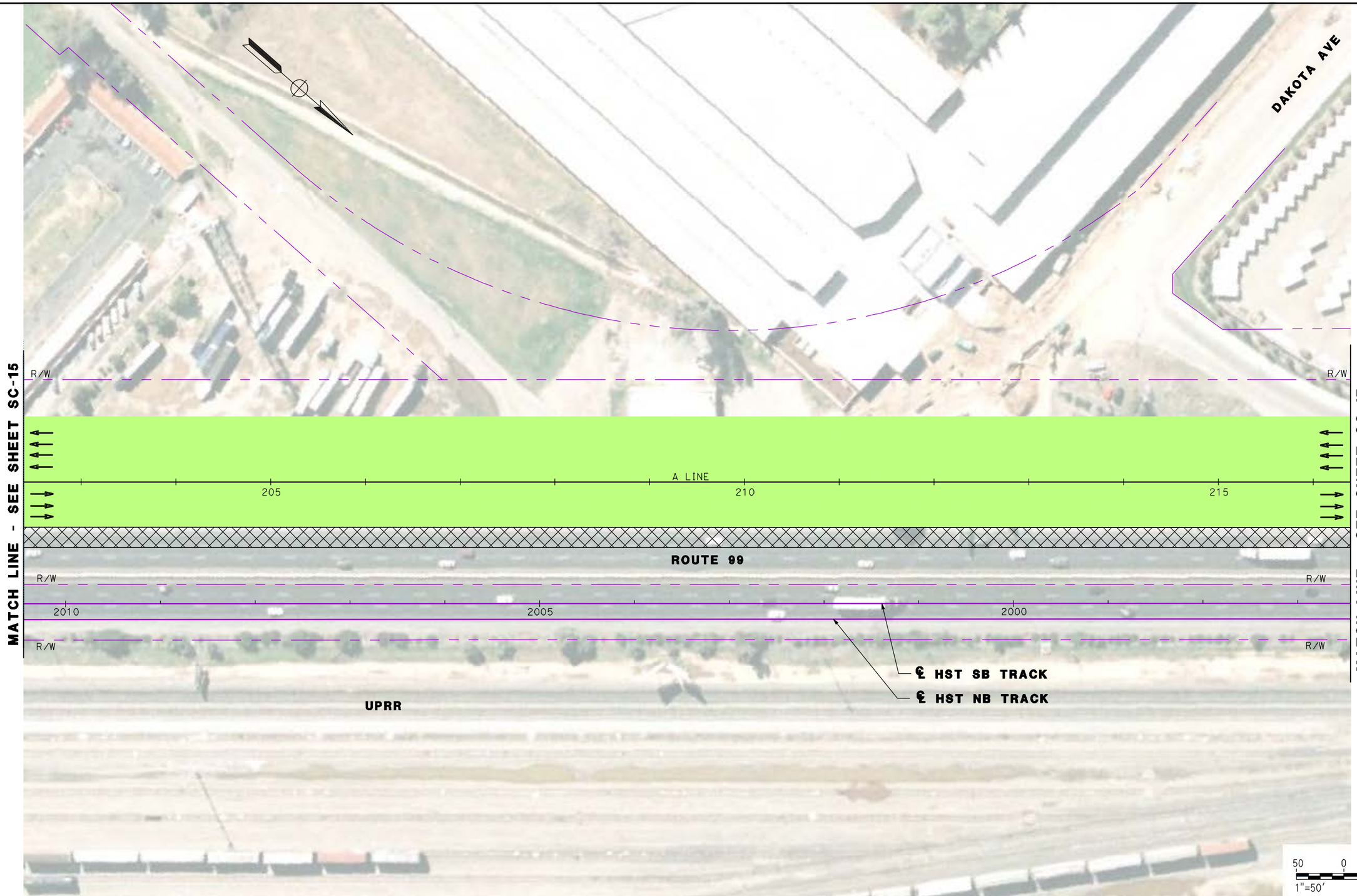
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-15
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME => L.ros



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN
SUBMITTAL

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CONSTRUCTION

AECOM
Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
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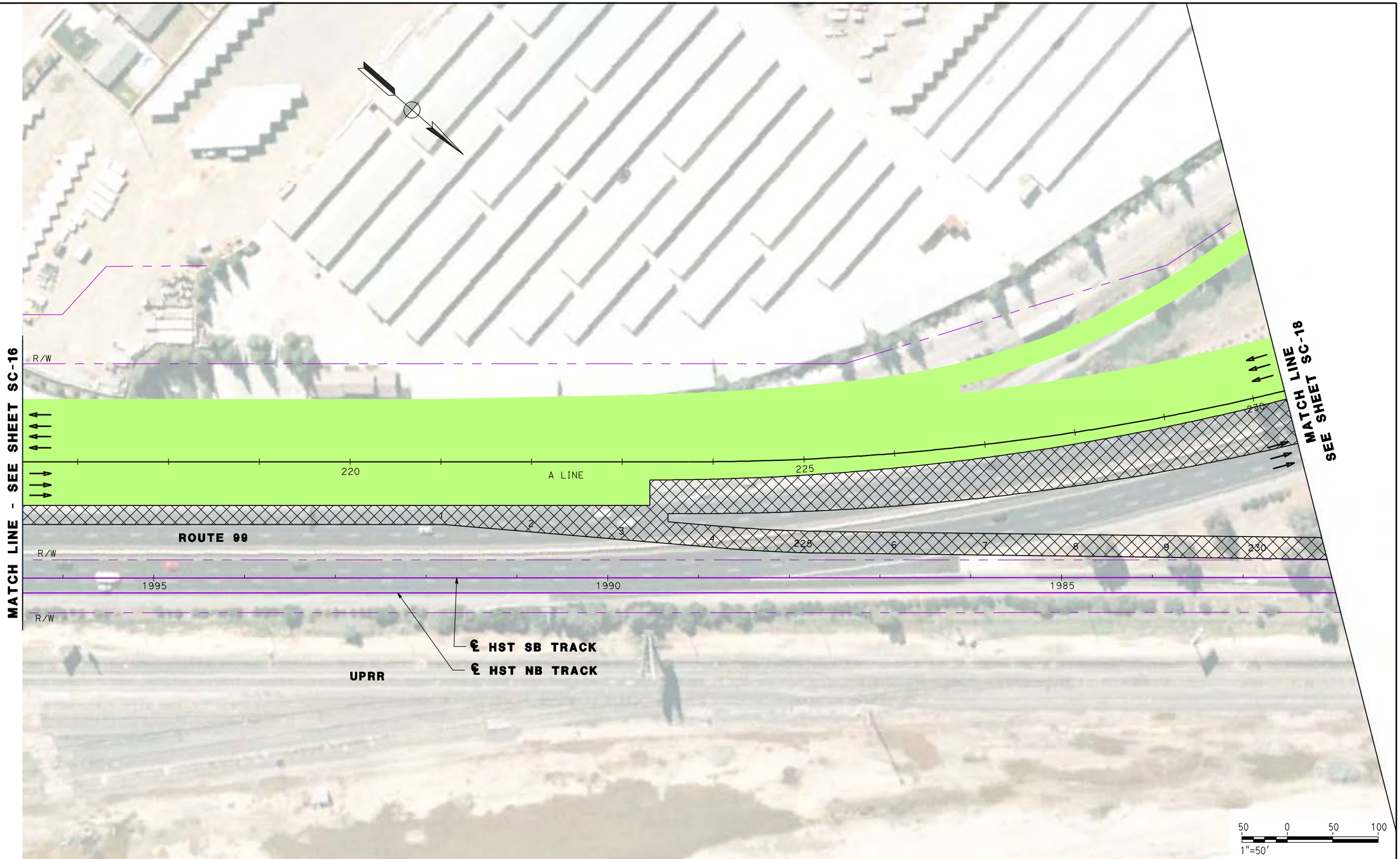
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-16
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011
USERNAME =>



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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2020 L Street, Suite 300
Sacramento, CA 95811
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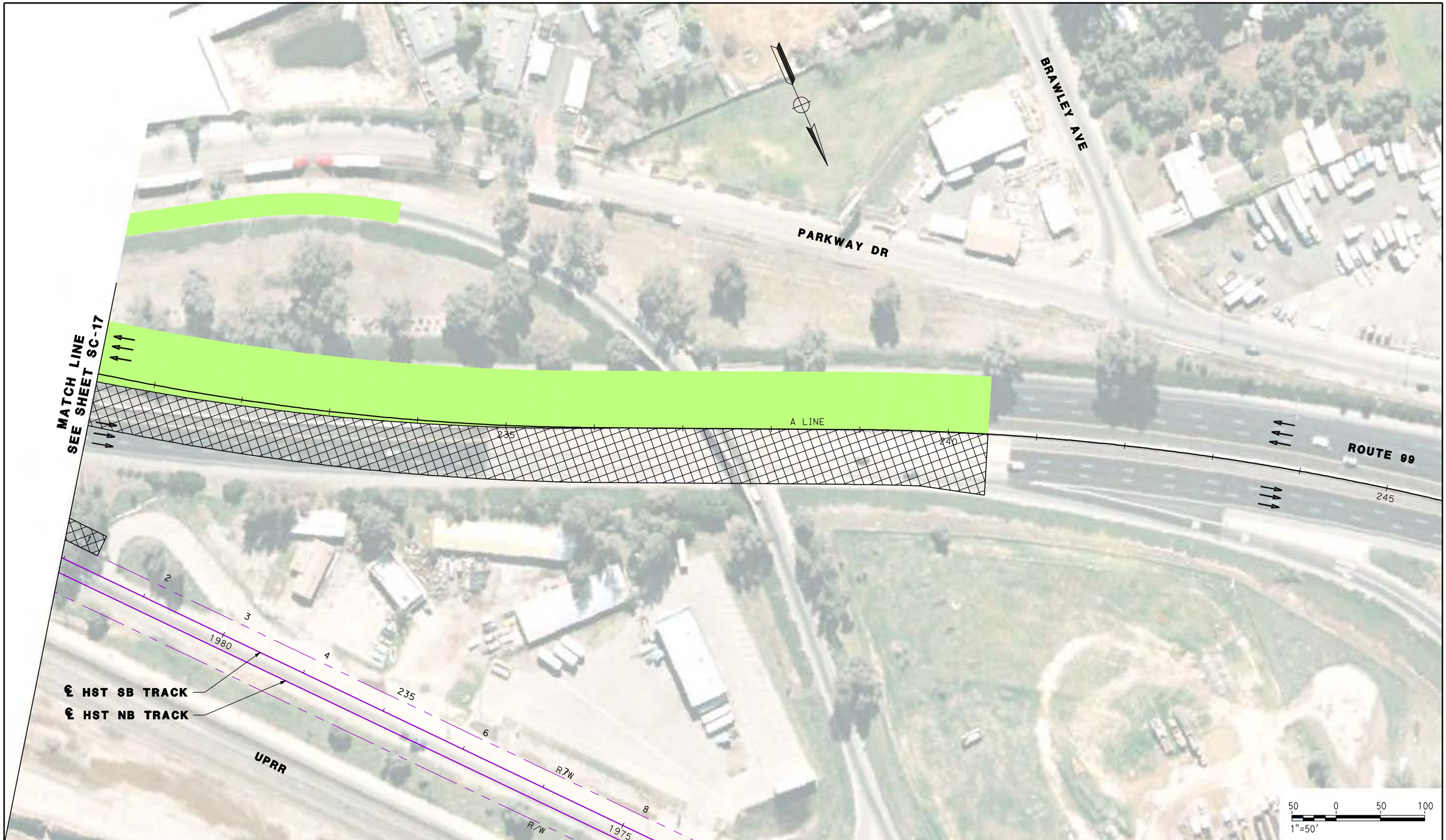
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. SC-17
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 26-APR-2011



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY G. MANOREK
DRAWN BY L. ROS
CHECKED BY L. HEUSTON
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

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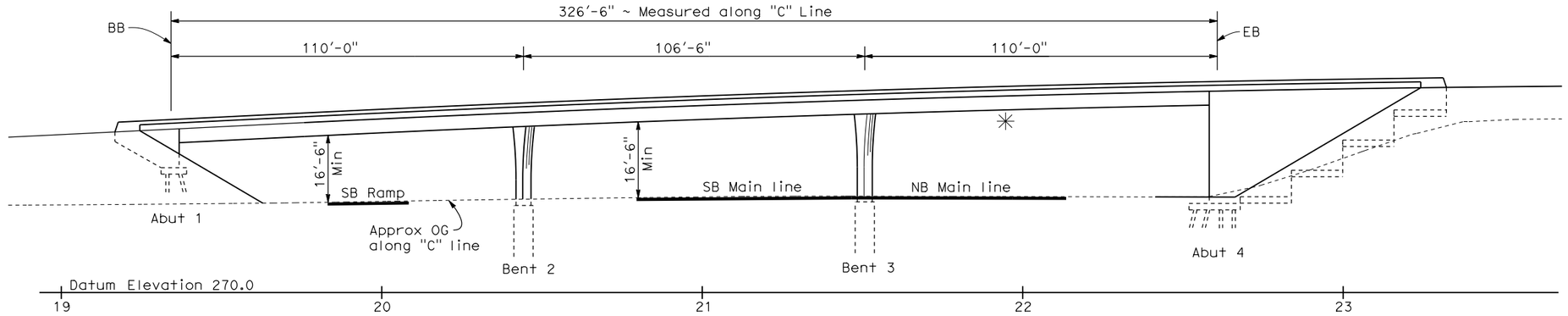
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
STAGE 2 CONSTRUCTION

CONTRACT NO. HSR06-007
DRAWING NO. **SC-18**
SCALE AS SHOWN
SHEET NO.

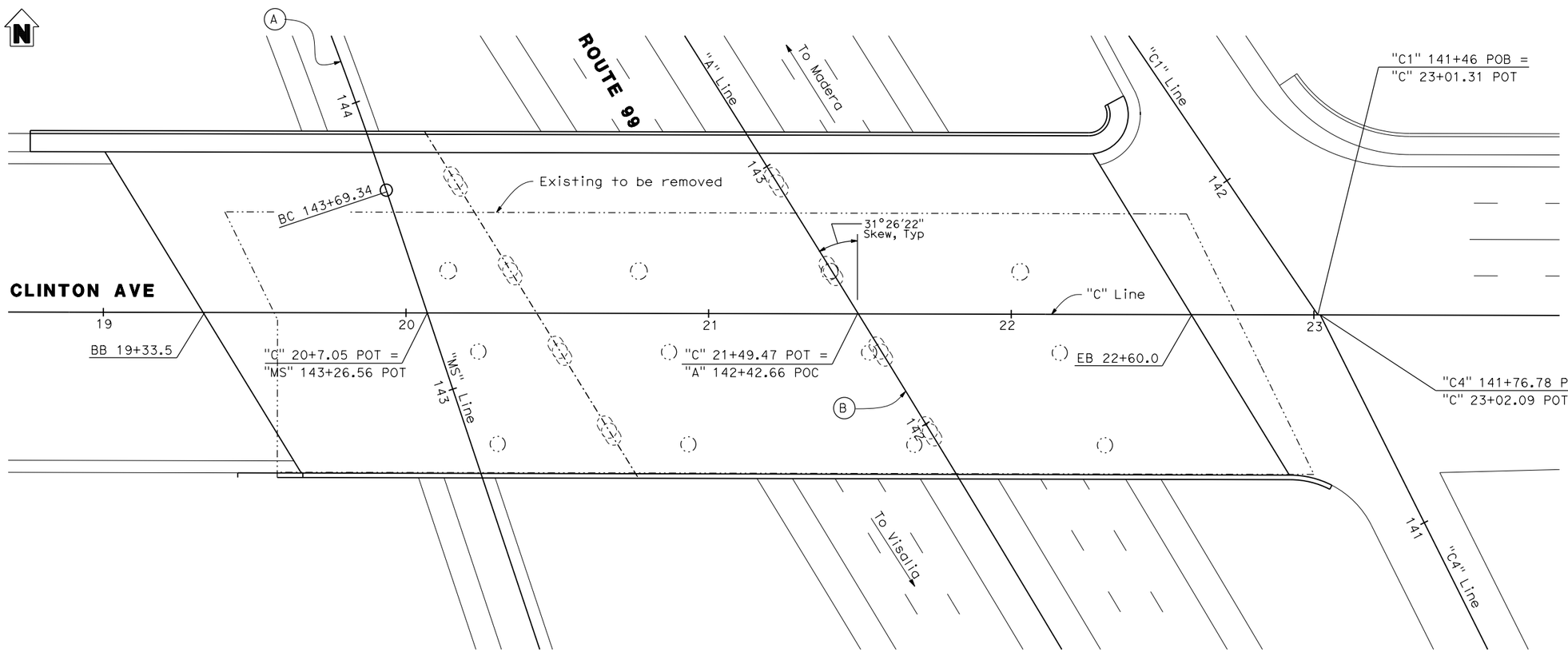
DATE PLOTTED => 26-APR-2011



ELEVATION
1"=20'

✳ Temporary Falsework Clearance = 15'-0"
Falsework Depth = 3'-3 1/2"

DATE OF ESTIMATE	=	10-21-2010
BRIDGE REMOVAL	=	$ 600,000
STRUCTURE DEPTH	=	4'-6"
LENGTH	=	326'-6"
WIDTH	=	114'-6"
AREA	=	37,385 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	$ 175/ft^2
TOTAL COST	=	$ 6,543,000



CURVE DATA (A)
R = 1350'
Δ = 10°30'20"
L = 247.53'
T = 124.11'

CURVE DATA (B)
R = 9000.00'
Δ = 15°38'27"
L = 2456.85'
T = 1236.11

PLAN
1"=20'

CLINTON AVE OVERCROSSING (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
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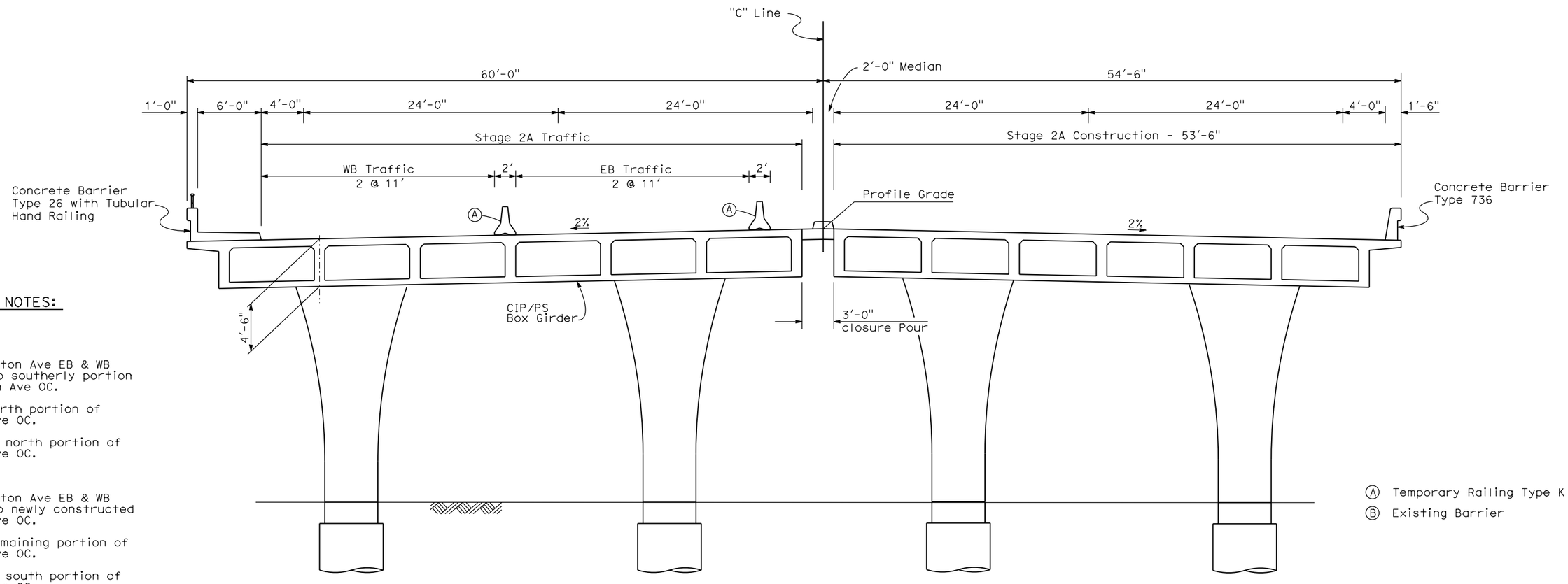
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-1**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011
USERNAME => [illegible]



TYPICAL SECTION
1"=5'

STAGING NOTES:

STAGE 1:

Shift Clinton Ave EB & WB traffic to southerly portion of Clinton Ave OC.

Remove north portion of Clinton Ave OC.

Construct north portion of Clinton Ave OC.

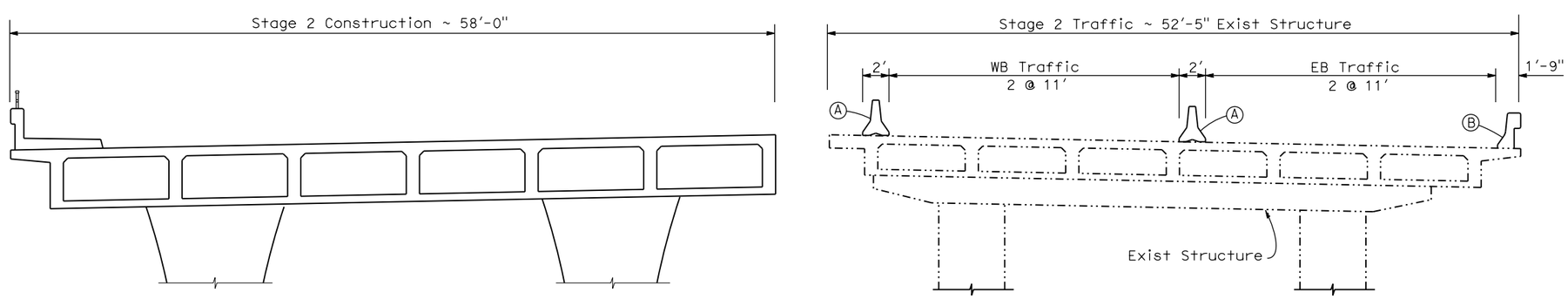
STAGE 2:

Shift Clinton Ave EB & WB traffic to newly constructed Clinton Ave OC.

Remove remaining portion of Clinton Ave OC.

Construct south portion of Clinton Ave OC.

Closure pour.



STAGE CONSTRUCTION
1"=5'

CLINTON AVE OVERCROSSING (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

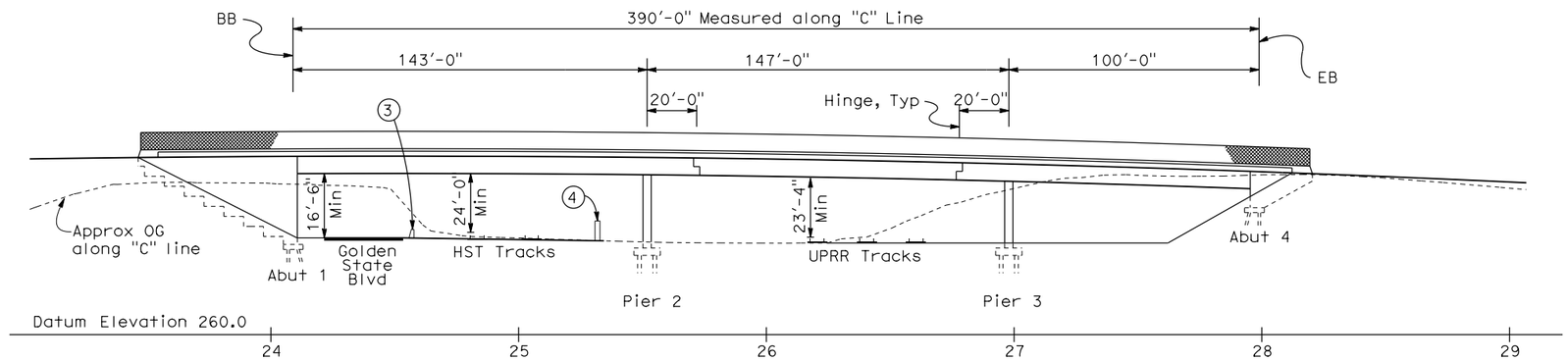
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
ADVANCE PLANNING STUDY

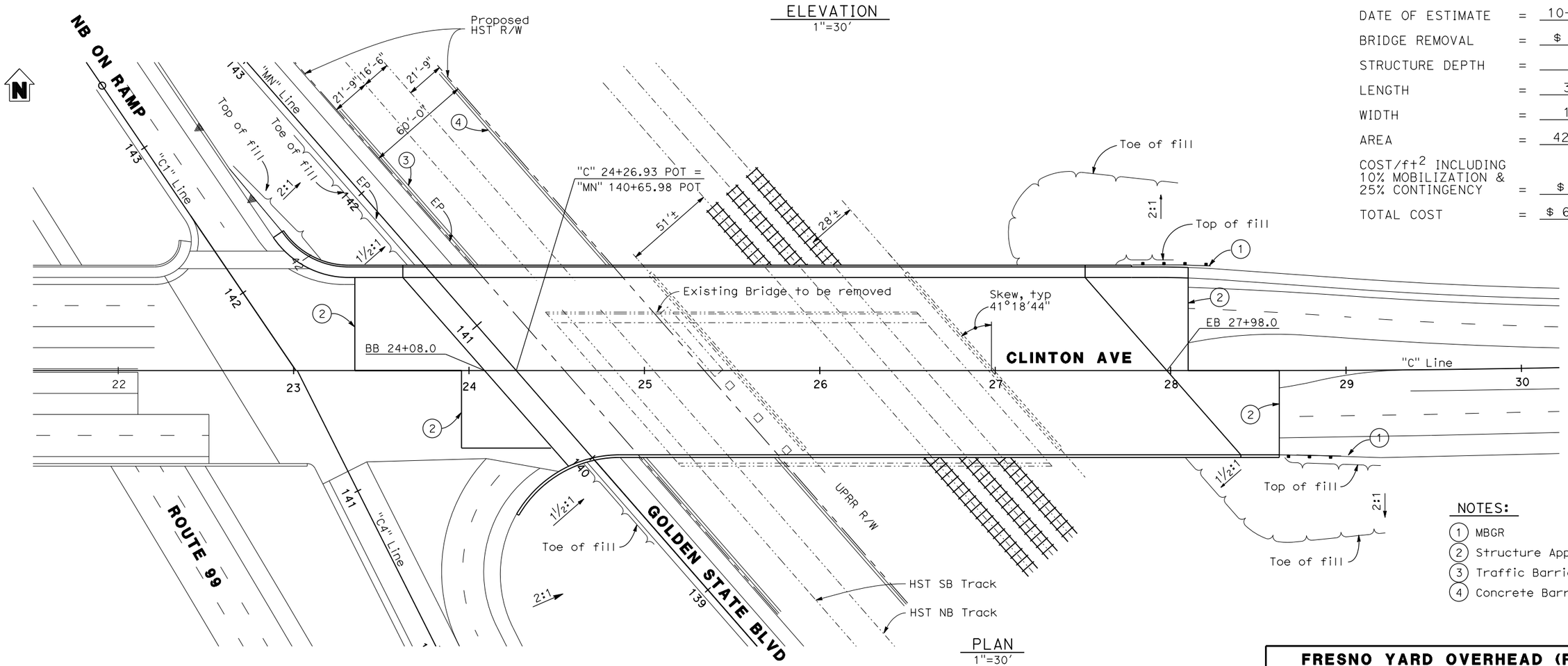
CONTRACT NO. HSR006-007
DRAWING NO. **BR-2**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011



ELEVATION
1"=30'

DATE OF ESTIMATE	=	10-21-2010
BRIDGE REMOVAL	=	$ 400,000
STRUCTURE DEPTH	=	7'-6"
LENGTH	=	390'-0"
WIDTH	=	109'-6"
AREA	=	42,705 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	$ 150/ft^2
TOTAL COST	=	$ 6,810,000



PLAN
1"=30'

NOTES:

1. MBGR
2. Structure Approach
3. Traffic Barrier
4. Concrete Barrier Wall

FRESNO YARD OVERHEAD (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

RECORD SET 15% DESIGN SUBMITTAL

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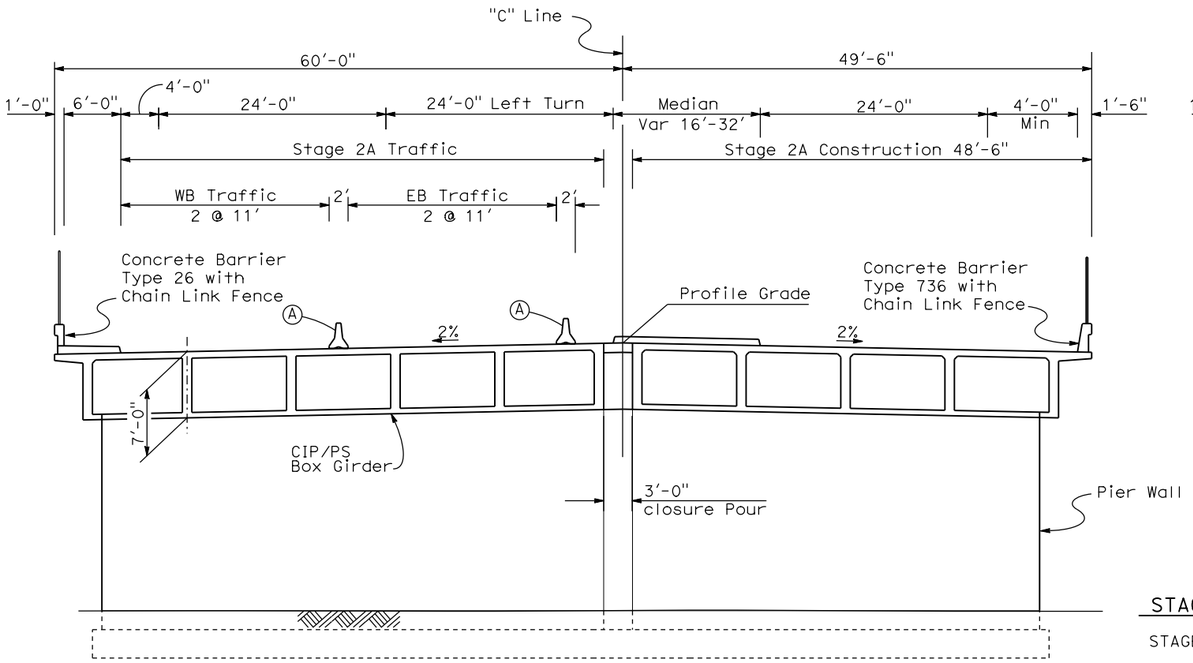
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

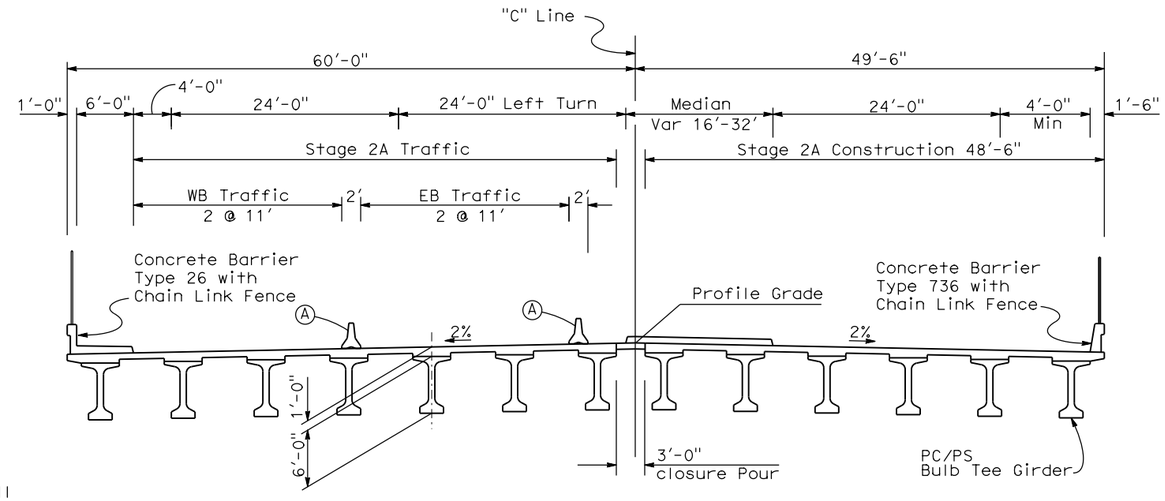
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-3**
SCALE AS SHOWN
SHEET NO.



STAGE 2A - SPANS 1 & 3



STAGE 2A - SPAN 2

Ⓐ Temporary Railing Type K

Ⓑ Existing Barrier

STAGING NOTES:

STAGE 2:

Shift Clinton Ave EB & WB traffic to southerly portion of Fresno Yard OH.

Remove north portion of Fresno Yard OH.

Construct north portion of Fresno Yard OH.

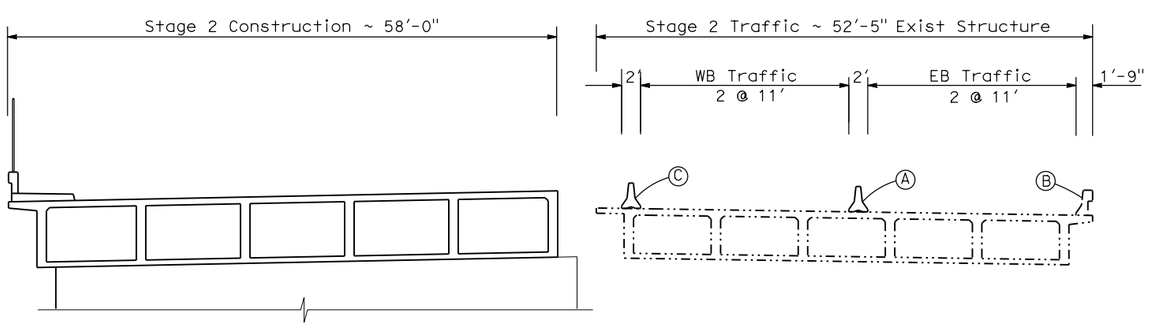
STAGE 2A:

Shift Clinton Ave EB & WB traffic to newly constructed Fresno Yard OH.

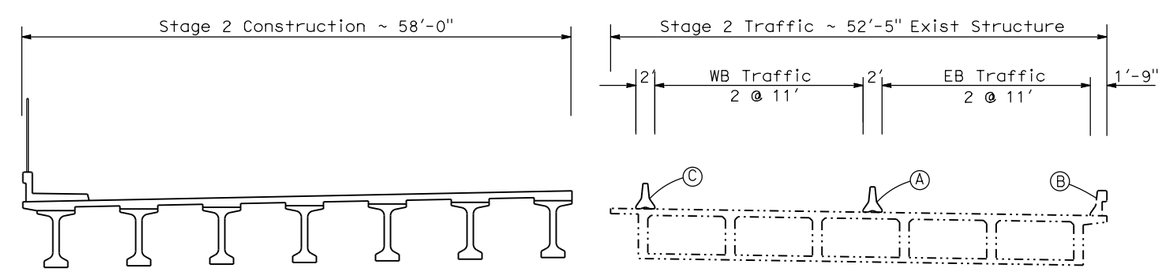
Remove remaining portion of Fresno Yard OH.

Construct south portion of Fresno Yard OH.

Closure pour.



STAGE 1 - SPANS 1 & 3



STAGE 1 - SPAN 2

TYPICAL SECTION
1/8"=1'-0"

FRESNO YARD OVERHEAD (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE J. MATSUI-DRURY
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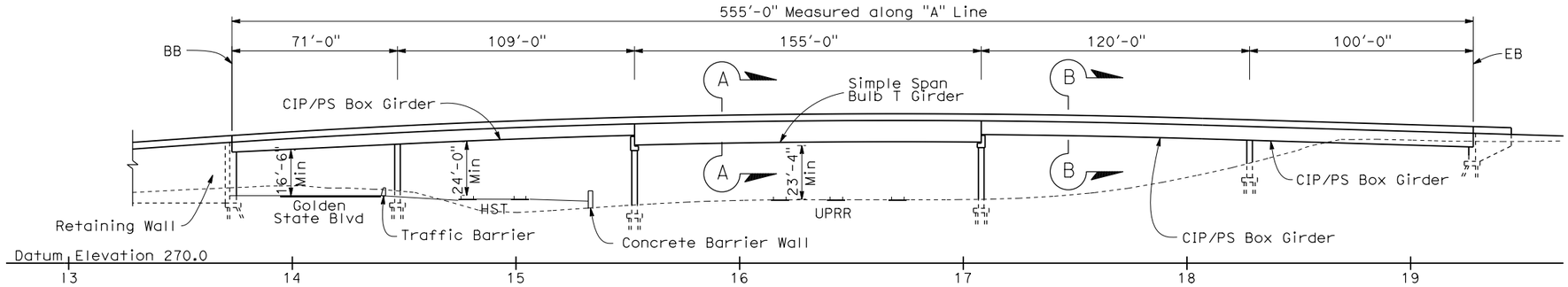
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-4**
SCALE AS SHOWN
SHEET NO.

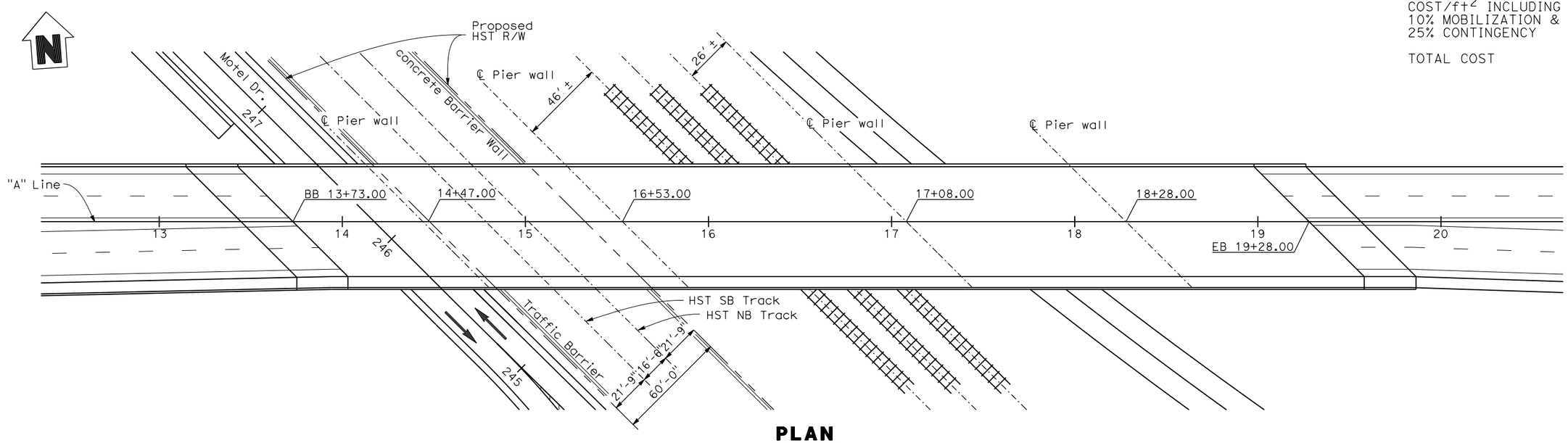
DATE PLOTTED => 28-APR-2011



ELEVATION

1" = 30'

DATE OF ESTIMATE	=	3-14-2011
BRIDGE REMOVAL	=	$ 600,000
STRUCTURE DEPTH	=	9'-6"
LENGTH	=	555'-0"
WIDTH	=	68'-6"
AREA	=	38,020 ft^2
COST/ft^2 INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	=	$ 175/ft^2
TOTAL COST	=	$ 6,700,000



PLAN

1" = 30'

ASHLAN AVE OVERHEAD (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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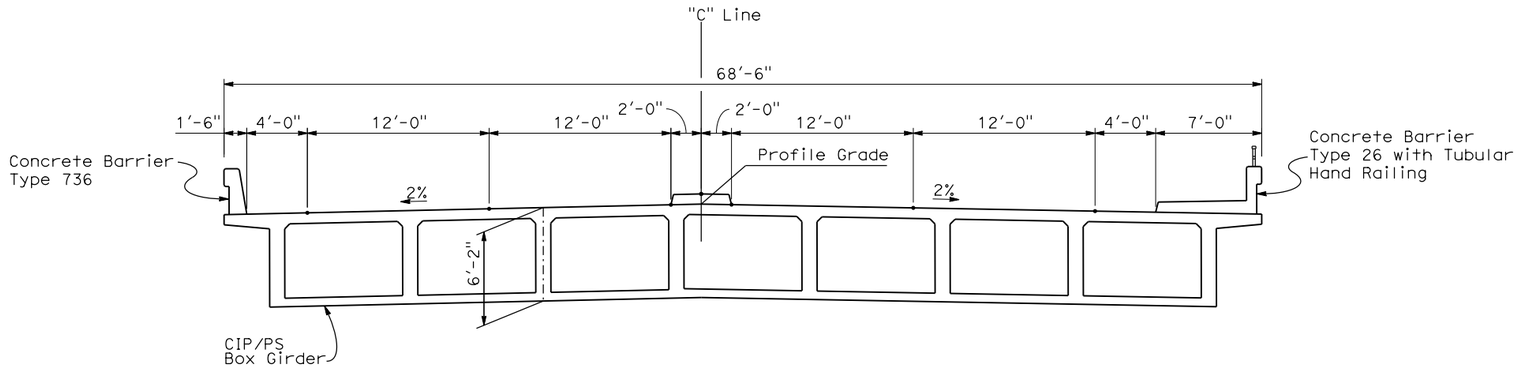
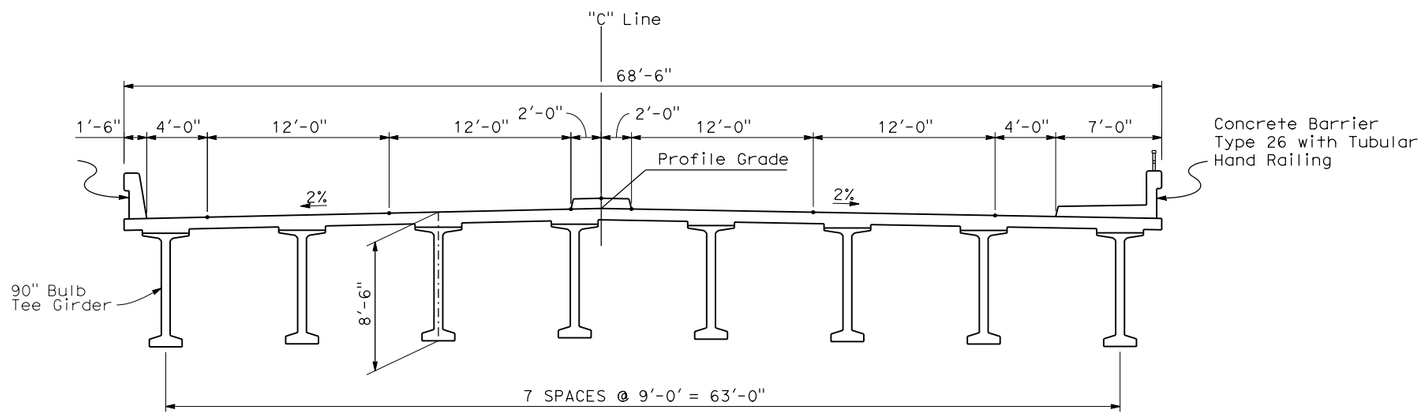
CONTRACT NO. HSR006-007
DRAWING NO. **BR-5**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011
USERNAME =>



SECTION A-A
1"=5'



SECTION B-B
1"=5'

ASHLAN AVE OVERHEAD (REPLACE)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. FREDERICKS
DRAWN BY P. WALKER
CHECKED BY J. SHOWERS
IN CHARGE J. MATSUI-DRURY
DATE 04/29/11

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH SPEED TRAIN PROJECT
MERCED TO FRESNO
ROUTE 99 RE-ALIGNMENT
ADVANCE PLANNING STUDY

CONTRACT NO. HSR006-007
DRAWING NO. **BR-6**
SCALE AS SHOWN
SHEET NO.

DATE PLOTTED => 28-APR-2011

LOCATION NO.	SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
GENERAL						
		B9190-B	HYBRID	GENERAL	INDEX OF DRAWINGS	SHEET 1 OF 1
		B9191-B	HYBRID	GENERAL	ABBREVIATIONS, SYMBOLS AND NOTES	SHEET 1 OF 1
		B9200-B	HYBRID		INDEX MAP	SHEET 1 OF 2
		B9201-B	HYBRID		INDEX MAP	SHEET 2 OF 2
		CB9200-B	BNSF MAINLINE/WYE/MERCED DO - (HYBRID)	LOCAL & FRONTAGE RD	KEY MAP	SHEET 1 OF 2
		CB9201-B	UPRR/SR99 WYE/MERCED DO - (HYBRID)	LOCAL & FRONTAGE RD	KEY MAP	SHEET 2 OF 2
		CR9190-B	HYBRID	LOCAL ROADS	TYPICAL CROSS SECTIONS	SHEET 1 OF 2
		CR9191-B	HYBRID	LOCAL ROADS	TYPICAL CROSS SECTIONS	SHEET 2 OF 2
		CR9192-B	HYBRID		GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN	SHEET 1 OF 1
LAYOUT						
46		CR4000-A	BNSF MAIN LINE - (HYBRID)	LOCAL ROAD - ROAD 30 1/2	LAYOUT	SHEET 1 OF 1
47		CR4001-A	BNSF MAIN LINE - (HYBRID)	LOCAL ROAD - ROAD 29	LAYOUT	SHEET 1 OF 1
57		CR4012-A	BNSF MAIN LINE - (HYBRID)	LOCAL ROAD - HANOVER	LAYOUT	SHEET 1 OF 1
67		CR4018-A	BNSF MAIN LINE - (HYBRID)	LOCAL ROAD - ROAD 33	LAYOUT	SHEET 1 OF 1
75		CR9200-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - WEST FRONTAGE ROAD	LAYOUT	
75		CR9201-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - WEST FRONTAGE ROAD	LAYOUT	
76		CR9202-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - WEST FRONTAGE ROAD	LAYOUT	
76		CR9203-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - WEST FRONTAGE ROAD	LAYOUT	
66		CR9204-B	UPRR/SR99 MERCED - (HYBRID)	PROPOSED WEST FRONTAGE ROAD	LAYOUT	
66		CR9205-B	UPRR/SR99 MERCED - (HYBRID)	PROPOSED WEST FRONTAGE ROAD	LAYOUT	
66		CR9206-B	UPRR/SR99 MERCED - (HYBRID)	PROPOSED WEST FRONTAGE ROAD	LAYOUT	
66		CR9207-B	UPRR/SR99 MERCED - (HYBRID)	PROPOSED WEST FRONTAGE ROAD	LAYOUT	
77		CR9208-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - ROAD 11	LAYOUT	
77		CR9209-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - ROAD 11	LAYOUT	
76		CR9210-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - SANDY MUSH ROAD	LAYOUT	STA 30+00 TO STA 33+00
77		CR9211-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - CROSS ROAD	LAYOUT	STA 120+00 TO STA 140+00
80		CR9212-B	UPRR/SR99 MAINLINE/WYE DO - (HYBRID)	LOCAL ROAD - AVENUE 24 1/2	LAYOUT	
80		CR9213-B	UPRR/SR99 WYE DO - (HYBRID)	LOCAL ROAD - AVENUE 24 1/2	LAYOUT	
81		CR9214-B	UPRR/SR99 MAINLINE/WYE DO - (HYBRID)	LOCAL ROAD - ROAD 12	LAYOUT	STA 50+00 TO 95+58.26 & STA 71+00 TO 81+00
82		CR9215-B	UPRR/SR99 MERCED DO - (HYBRID)	LOCAL ROAD - ROAD 12 1/2 & AVENUE 24 3/4	LAYOUT	STA 81+00 TO STA 96+00
82		CR9216-B	UPRR/SR99 MERCED/WYE DO - (HYBRID)	LOCAL ROAD - AVENUE 24 3/4	LAYOUT	STA 96+00 TO STA 109+18.38
78		CR9217-B	BNSF MAINLINE /WYE DO - (HYBRID)	LOCAL ROAD - AVENUE 24	LAYOUT	STA 75+00 TO STA 100+00
78		CR9218-B	BNSF MAINLINE/WYE DO - (HYBRID)	LOCAL ROAD - AVENUE 24	LAYOUT	STA 100+00 TO STA 116+86.44
85		CR9219-B	UPRR/SR99 MERCED - (HYBRID)	HEALY ROAD	LAYOUT	
86		CR9220-B	UPRR/SR99 MERCED - (HYBRID)	GERARD AVENUE/CALTRANS FRONTAGE ROAD	LAYOUT	

REV	DATE	BY	CHK	APP	DESCRIPTION

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DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

HYBRID
GENERAL
INDEX OF DRAWINGS
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. B9190-B
SCALE NONE
SHEET NO. ### OF ###

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ABBREVIATIONS

ALIGNMENT

HORIZONTAL

BC	BEGINNING OF CURVE
EC	END OF CURVE
PC	POINT OF CURVE
PCC	POINT OF COMPOUNT CURVES
PI	POINT OF INTERSECTION OF TWO TANGENTS
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PT	POINT OF TANGENCY
R	RADIUS OF CURVATURE IN FEET
V, DS	DESIGN VELOCITY IN MILES PER HOUR

VERTICAL

BVC	BEGIN OF VERTICAL CURVE
EVC	END OF VERTICAL CURVE
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

ALT	ALTERNATIVE
AVE	AVENUE
BB	BEGIN BRIDGE
BEG	BEGIN
BLVD	BOULEVARD
℄	CENTER LINE
CL	CENTERLINE, CLASS
CLR	CLEAR
COL	COLUMN
DWG	DRAWING
EB	END BRIDGE
ELEV	ELEVATION
EQ	EQUATION
ES	EDGE OF SIDEWALK
ETW	EDGE OF TRAVELED WAY
EXIST(E)	EXISTING
FL	FLOW LINE
HORIZ	HORIZONTAL
HP	HINGE POINT
HST	HIGH SPEED TRAIN
HWY	HIGHWAY
IC	INTERCHANGE
IN	INCH
L	LENGTH
LT	LEFT
MBGR	METAL BEAM GUARD RAIL
ML	MAINLINE
MPH	MILES PER HOUR
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NB	NORTH BOUND
No, NO	NUMBER
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
O/H OH	OVERHEAD
PG&E	PACIFIC GAS & ELECTRIC
PGL, FG	PROFILE GRADE LINE
RET	RETAINING
RR	RAILROAD
RD	ROAD
R/W	RIGHT OF WAY
RT	RIGHT
SB	SOUTH BOUND
SHLD	SHOULDER
SR	STATE ROUTE
SHT	SHEET
SS	SANITARY SEWER
SSD	STOPPING SIGHT DISTANCE
ST	STREET
STA	STATION
STD	STANDARD
SD	STORM DRAIN
STRUCT, STR	STRUCTURE
T	TANGENT
TEL	TELEPHONE
	(OH) OVERHEAD LINE
	(UG) UNDERGROUND LINE
TOR	TOP OF RAIL
TK	TRACK
TYP	TYPICAL
TBD	TO BE DETERMINED
TF	TELECOMMUNICATIONS FIBER OPTIC
UPRR	UNION PACIFIC RAILROAD
VAR	VARIES
V VERT	VERTICAL
W	WATER, WEST

SYMBOLS

	MATCH LINE
	HST TRACK
	PROPOSED HST RIGHT-OF-WAY
	FREIGHT/PASSENGER TRACK - EXISTING
	EXISTING RIGHT-OF-WAY OR EXISTING BRIDGE FEATURES
	RETAINING WALLS
	ORIGINAL GROUND
G16	GAS LINE (16")
TC	COMMUNICATION LINE
W	WATER LINE
FO	FIBER OPTIC LINE
E	ELECTRICAL LINE
	ELECTRICAL TOWER
S	SEWER LINE
SD	STORM DRAIN LINE
O	FUEL LINE
TC	TELEPHONE LINE
P12	PETROLEUM LINE (12")
(OH)	OVERHEAD
	NORTH ARRROW
	PVI
	MBGR
	DIRECTION OF TRAVEL
250	PROPOSED CONTOUR

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. LI
DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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MERCED TO FRESNO
HYBRID
GENERAL
ABBREVIATIONS, SYMBOLS AND NOTES
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. B9191-B
SCALE NO SCALE
SHEET NO. ### OF ###

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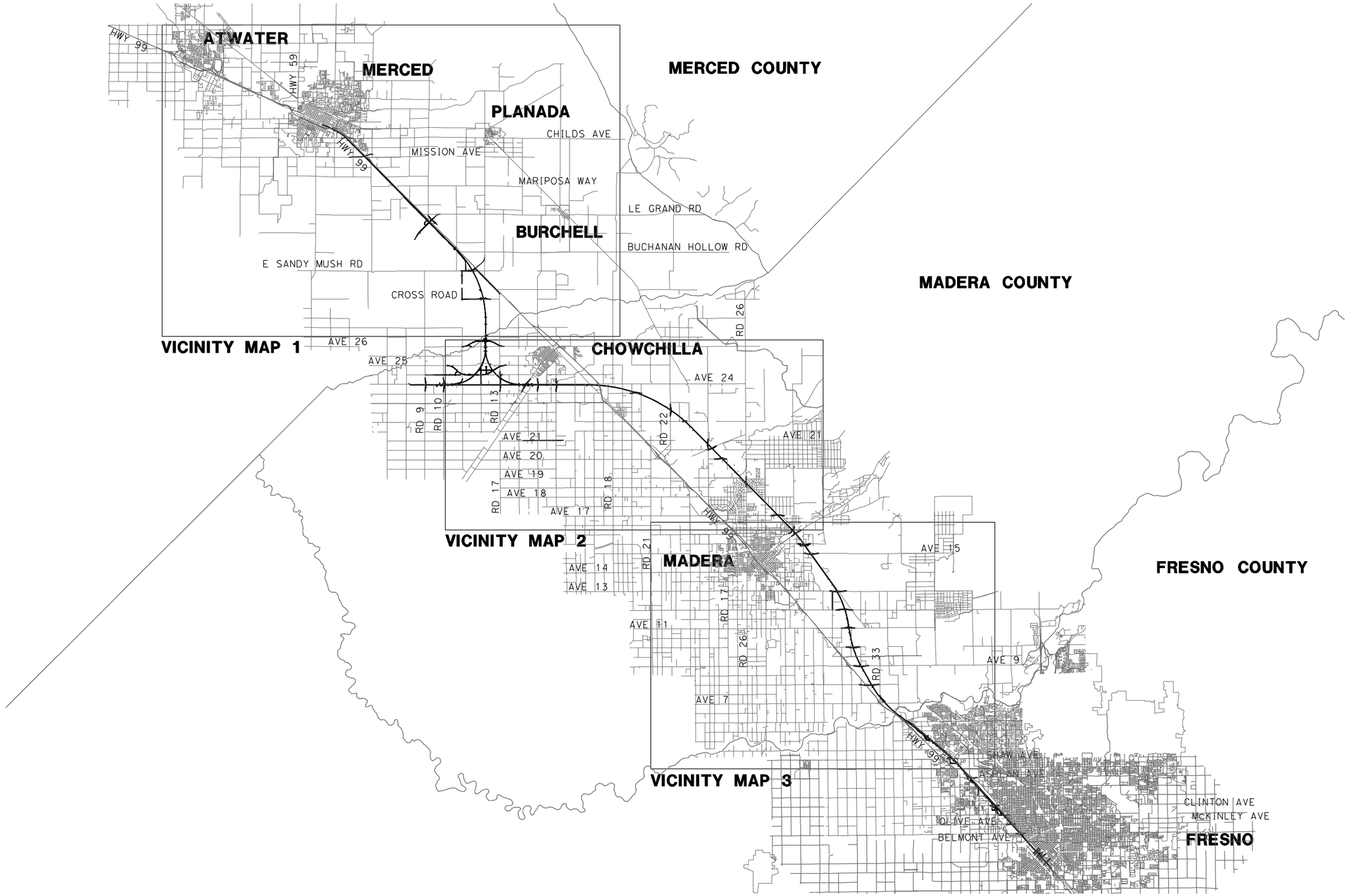

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY A. TRINH
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

INDEX MAP
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B9200-B
SCALE NO SCALE
SHEET NO. ### OF ###

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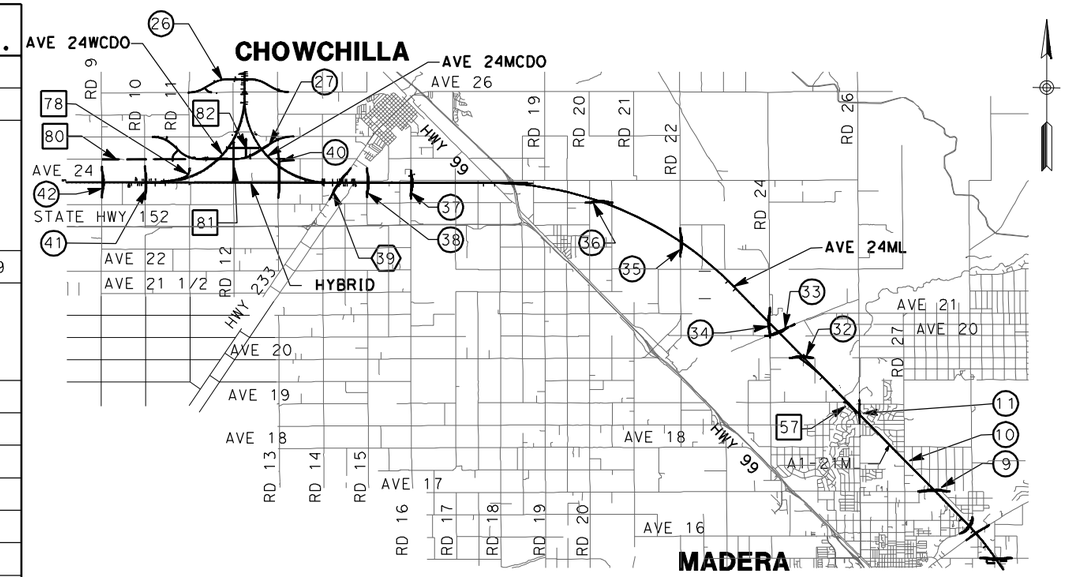
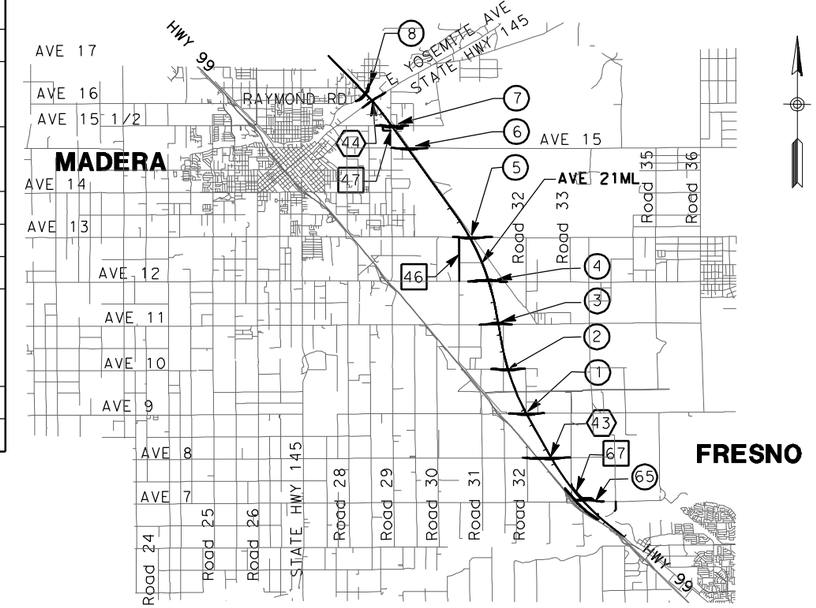
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
1	GRADE SEPARATION - AVENUE 9	CT0001-A - CT0003-A	ST1001
2	GRADE SEPARATION - AVENUE 10	CT0004-A - CT0006-A	ST1002
3	GRADE SEPARATION - AVENUE 11	CT0007-A - CT0009-A	ST1003
4	GRADE SEPARATION - AVENUE 12	CT0010-A - CT0012-A	ST1004
5	GRADE SEPARATION - AVENUE 13	CT0013-A - CT0016-A	ST1005
6	GRADE SEPARATION - AVENUE 15	CT0017-A - CT0019-A	ST1006
7	GRADE SEPARATION - AVENUE 15 1/2	CT0020-A - CT0022-A	ST1007
8	GRADE SEPARATION - RAYMOND RD	CT0023-A - CT0025-A	ST1008
9	GRADE SEPARATION - AVENUE 17	CT0026-A - CT0028-A	ST1009
10	GRADE SEPARATION - ROAD 27	CT0029-A - CT0031-A	
11	GRADE SEPARATION - ROAD 26	CT0032-A - CT0034-A	
19	GRADE SEPARATION - LE GRAND INTERCHANGE	CT7208-B - CT7214-B	ST1114
25	GRADE SEPARATION - CROSS ROAD	CT5238-B - CT5240-B	ST1136
26	GRADE SEPARATION - AVENUE 26 ALT 1	CT5227-B - CT5236-B	ST1135
	UNDERPASS - AVENUE 26 ALT 2	CT5246-B - CT5248-B	
27	GRADE SEPARATION - AVENUE 25	CT5209-B - CT5225-B	ST1133 - ST1134
32	GRADE SEPARATION - AVENUE 20	CT0113-A - CT0115-A	ST1035
33	GRADE SEPARATION - AVENUE 20 1/2	CT0116-A - CT0118-A	ST1036 - ST1037
34	GRADE SEPARATION - ROAD 24	CT0119-A - CT0121-A	ST1038 - ST1039
35	GRADE SEPARATION - ROAD 22	CT0122-A - CT0124-A	ST1040
35.	SANDY MUSH RD INTERCHANGE	CT7204-B - CT7207-B	ST1142
36	GRADE SEPARATION - AVENUE 23 1/2	CT0125-A - CT0127-A	ST1041

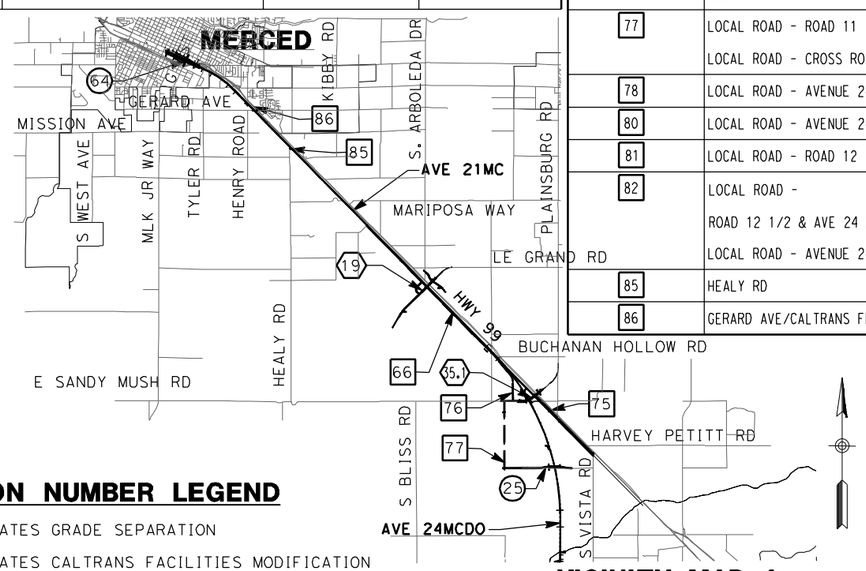
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STR DWG NO.
37	GRADE SEPARATION - ROAD 16	CT0128-A - CT0130-A	ST1042
38	GRADE SEPARATION - ROAD 15	CT0131-A - CT0133-A	ST1043
39	GRADE SEPARATION - ROBERTSON BLVD (SR233) ALT 1	CT7200-B - CT7203-B	ST1150
	UNDERPASS - ROBERTSON BLVD (SR233) ALT 2	CT7215-B - CT7217-B	
40	GRADE SEPARATION - ROAD 13	CT5203-B - CT5208-B	ST1121 & ST1139
41	GRADE SEPARATION - ROAD 10 ALT 1	CT5200-B - CT5202-B	ST1160
	GRADE SEPARATION - ROAD 10 ALONG EXIST ALT 2	CT5249-B - CT5251-B	ST1160
42	GRADE SEPARATION - ROAD 9	CT0143-A - CT0145-A	ST1120
64	GRADE SEPARATION - G STREET	CT0149-A	ST1180
65	GRADE SEPARATION - AVENUE 7	CT0146-A - CT0148-A	
43	CALTRANS - AVENUE 8	CT2000-A - CT2002-A	ST1000
44	CALTRANS - SR 145	CT2003-A - CT2005-A	
46	LOCAL ROAD - ROAD 30 1/2	CR4000-A	
47	LOCAL ROAD - ROAD 29	CR4001-A	
57	LOCAL ROAD - HANOVER DR	CR4012-A	
66	PROPOSED WEST FRONTAGE ROAD	CR9204-B - CR9207-B	
67	LOCAL ROAD - ROAD 33	CR4018-A	
75	LOCAL ROAD - WEST FRONTAGE ROAD	CR9200-B - CR9201-B	
76	LOCAL ROAD - SANDY MUSH ROAD	CR9210-B	
	LOCAL ROAD - WEST FRONTAGE ROAD	CR9202-B - CR9203-B	
77	LOCAL ROAD - ROAD 11	CR9208-B - CR9209-B	
	LOCAL ROAD - CROSS ROAD	CR9211-B	
78	LOCAL ROAD - AVENUE 24	CR9217-B - CR9218-B	
80	LOCAL ROAD - AVENUE 24 1/2	CR9212-B - CR9213-B	
81	LOCAL ROAD - ROAD 12	CR9214-B	
82	LOCAL ROAD - ROAD 12 1/2 & AVE 24 3/4	CR9215-B	
	LOCAL ROAD - AVENUE 24 3/4	CR9216-B	
85	HEALY RD	CR9219-B	
86	GERARD AVE/CALTRANS FRONTAGE RD	CR9220-B	



VICINITY MAP 2



VICINITY MAP 3



VICINITY MAP 1

LOCATION NUMBER LEGEND

(X) - INDICATES GRADE SEPARATION

⟨X⟩ - INDICATES CALTRANS FACILITIES MODIFICATION

[X] - INDICATES LOCAL ROAD RELOCATION

FOR ROADWAY STRUCTURES SEE STRUCTURAL INDEX MAPS

9000 0 9000 18000
GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY T. WALTZ
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 06/30/2011

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CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

INDEX MAP
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. B9201-B
SCALE NO SCALE
SHEET NO. ### OF ###

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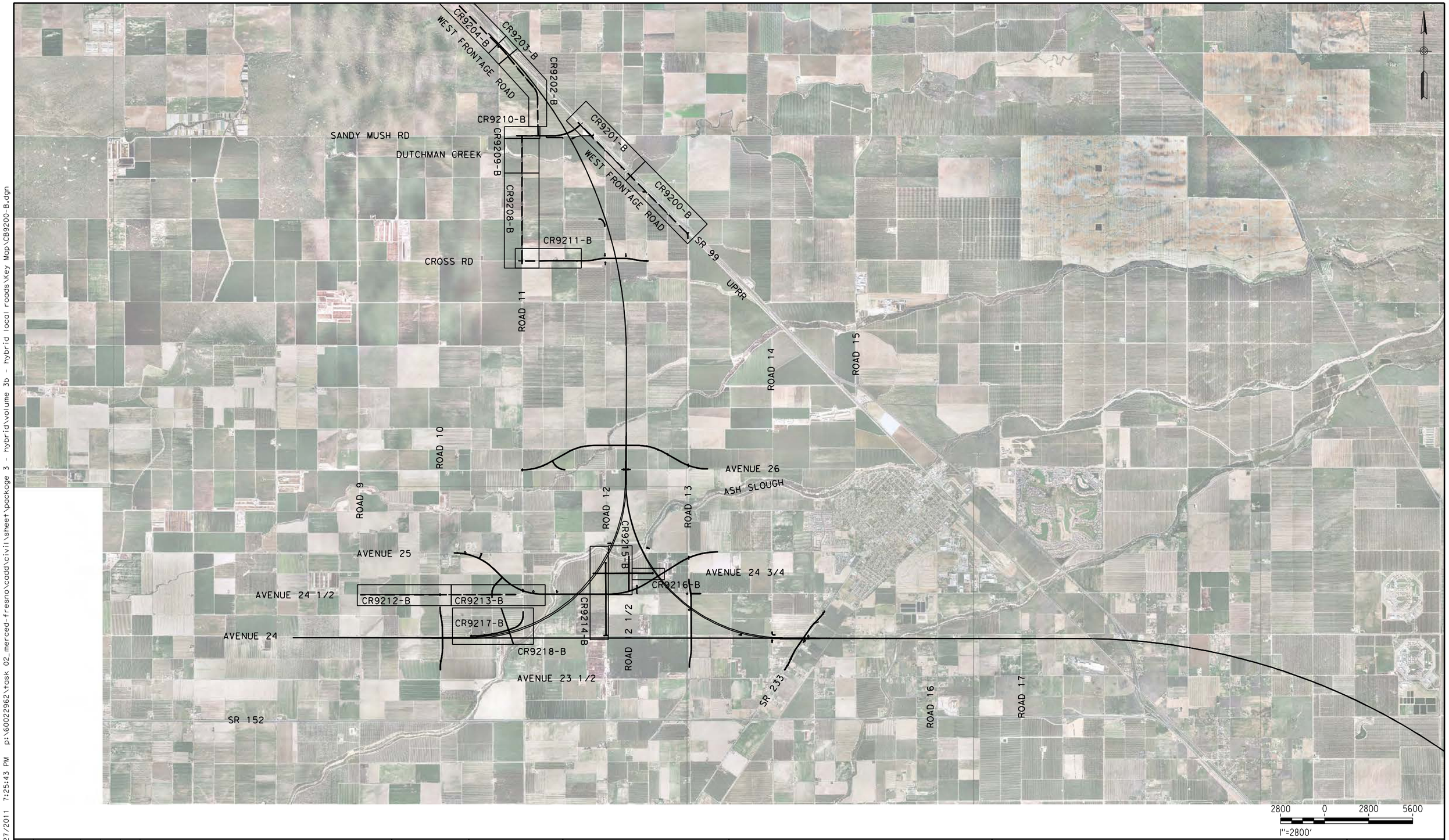

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MAINLINE/WYE/MERCED DO - (HYBRID)
LOCAL & FRONTAGE ROAD
KEY MAP
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CB9200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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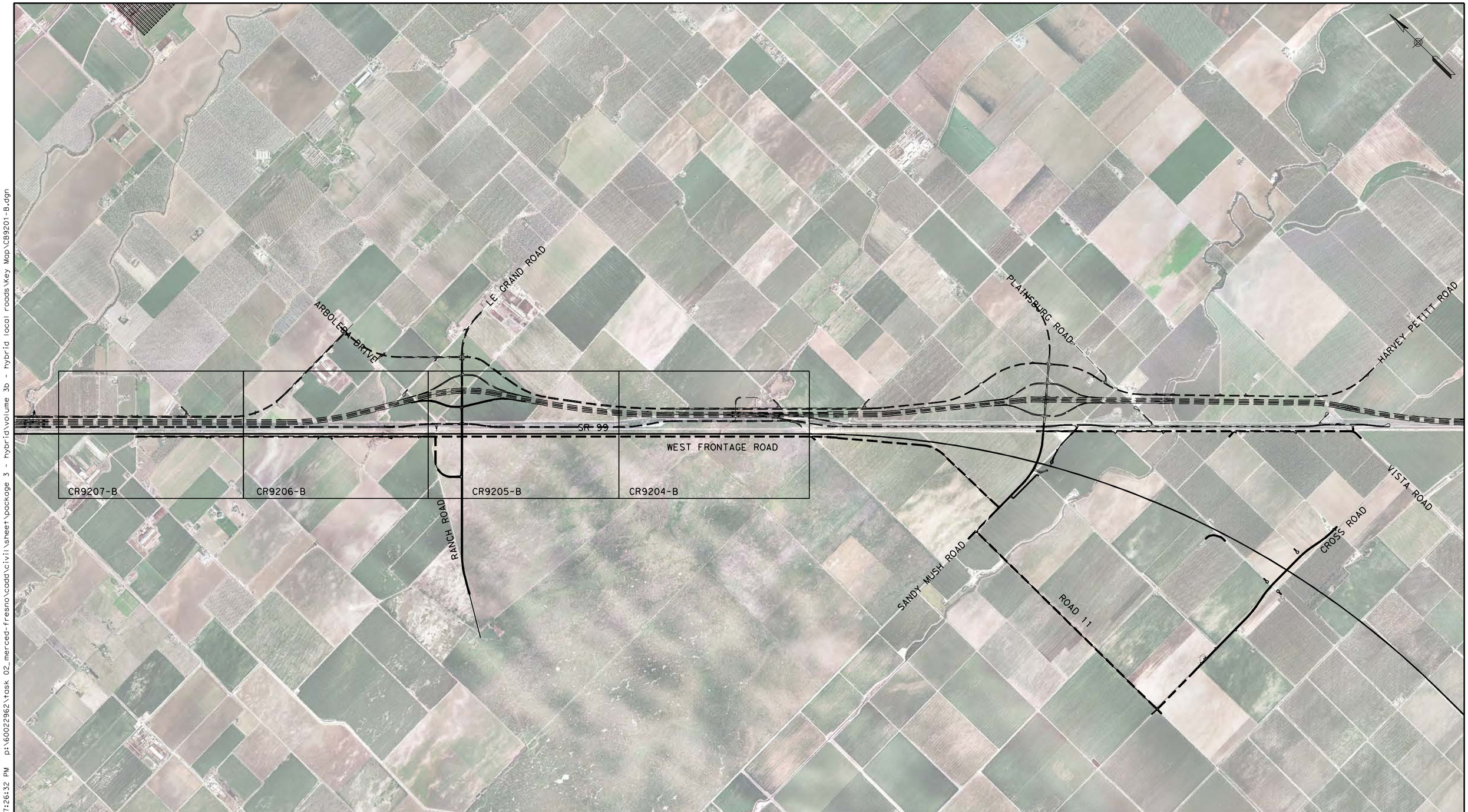

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 WYE/MERCED DO - (HYBRID)
LOCAL & FRONTAGE RD
KEY MAP
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CB9201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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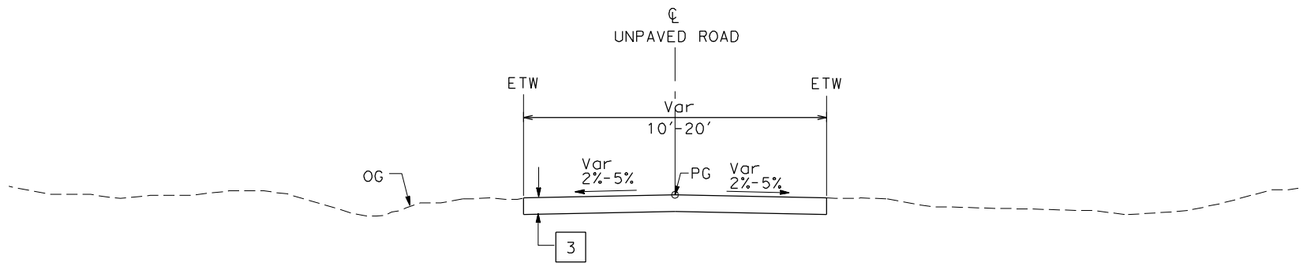
ReyesC1

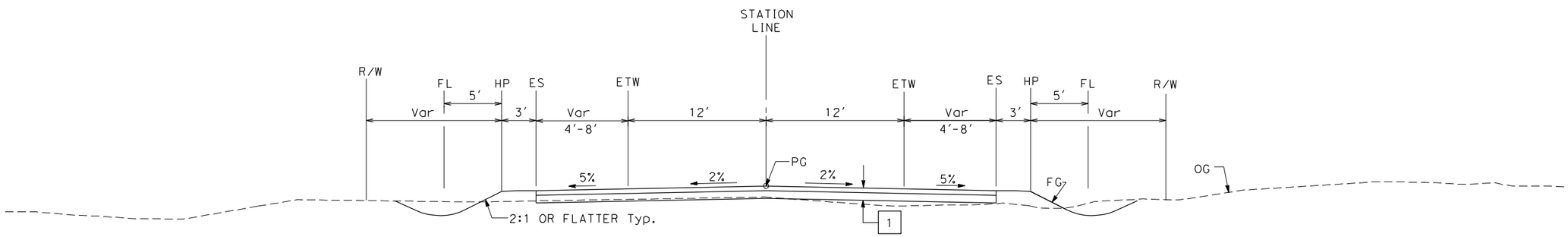
STRUCTURAL SECTIONS:

1 — HMA TYPE A
AB CLASS 2

3 — AB CLASS 2



UNPAVED ROAD (TYP)
SEE LAYOUT SHEETS
FOR ACTUAL ROADWAY WIDTHS



2-LANE FRONTAGE ROAD
SEE LAYOUT SHEETS
FOR ACTUAL SHOULDER WIDTHS

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. OAKS
DRAWN BY K. OAKS
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IN CHARGE A. BOONE
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
LOCAL ROADS
TYPICAL CROSS SECTIONS
SHEET 1 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CR9190-B
SCALE NTS
SHEET NO. ### OF ###

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STRUCTURAL SECTIONS:

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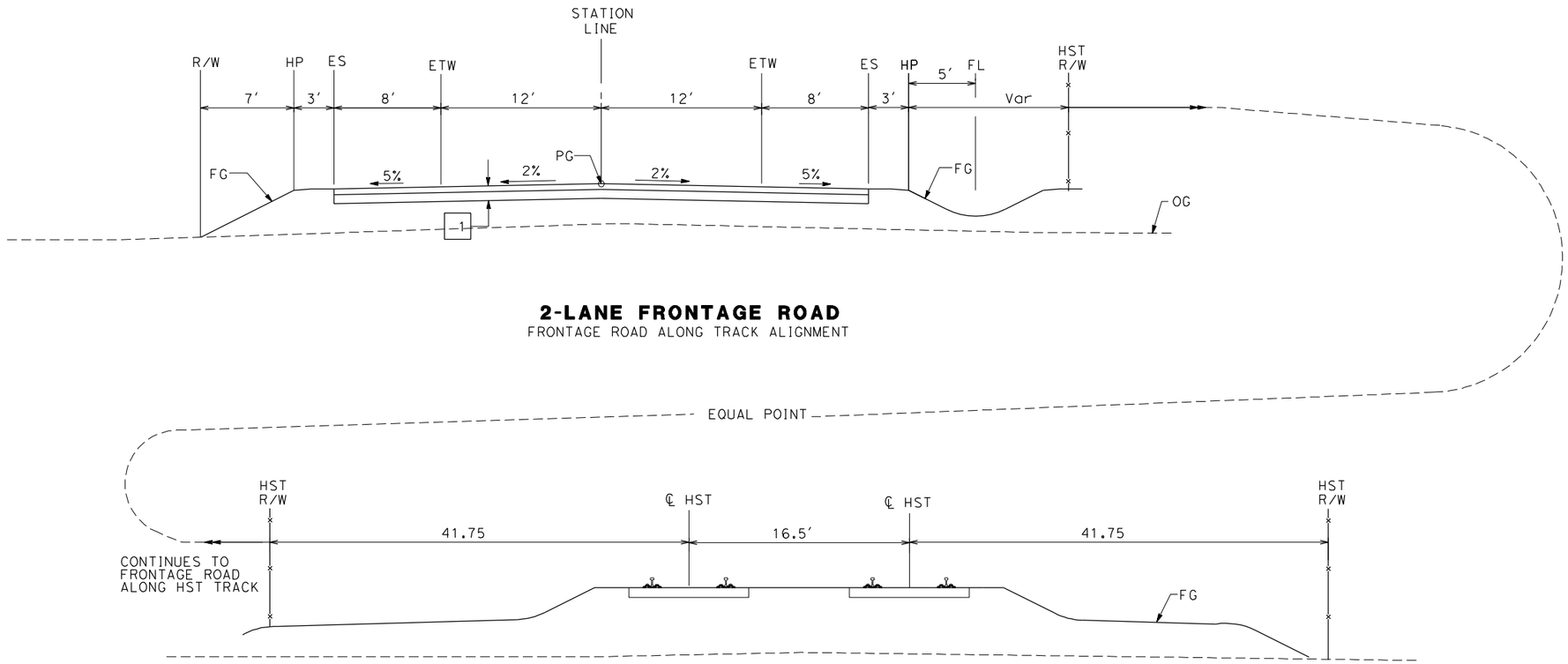
AB CLASS 2



2-LANE FRONTAGE ROAD

FRONTAGE ROAD ALONG TRACK ALIGNMENT

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. OAKS
DRAWN BY K. OAKS
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IN CHARGE A. BOONE
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID
LOCAL ROADS
TYPICAL CROSS SECTIONS
SHEET 2 OF 2

CONTRACT NO. HSR06-007
DRAWING NO. CR9191-B
SCALE NTS
SHEET NO. ### OF ###

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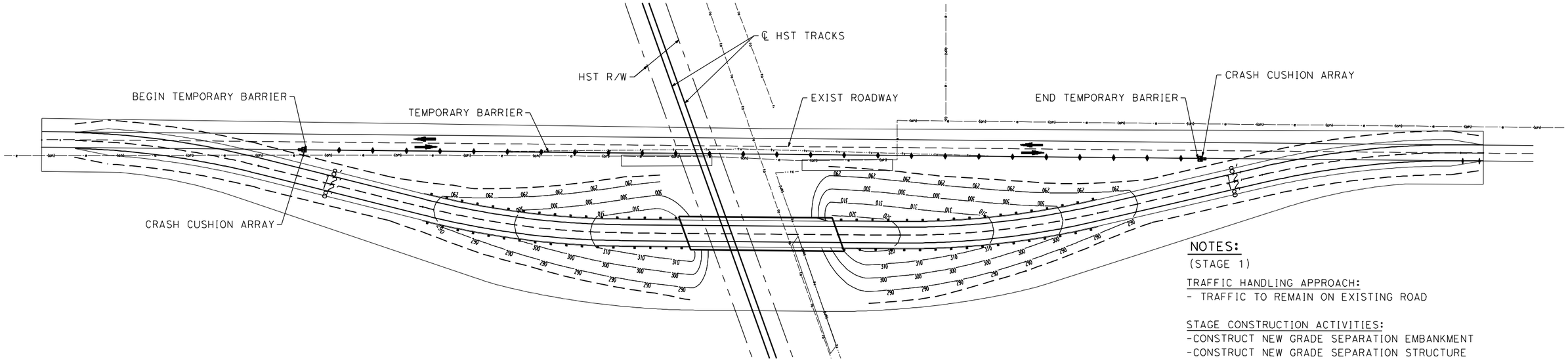
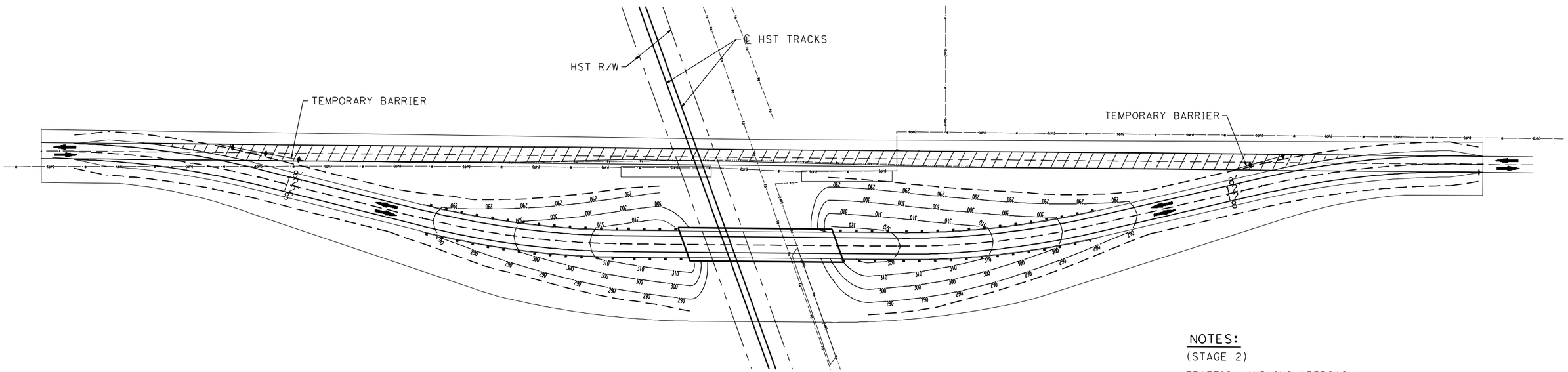


STAGE CONSTRUCTION (STAGE 1)

NOTES:
(STAGE 1)

TRAFFIC HANDLING APPROACH:
- TRAFFIC TO REMAIN ON EXISTING ROAD

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT NEW GRADE SEPARATION EMBANKMENT
-CONSTRUCT NEW GRADE SEPARATION STRUCTURE
-CONSTRUCT DRAINAGE FACILITY



STAGE CONSTRUCTION (STAGE 2)

NOTES:
(STAGE 2)

TRAFFIC HANDLING APPROACH:
- SHIFT TRAFFIC TO NEW GRADE SEPARATION FACILITY

STAGE CONSTRUCTION ACTIVITIES:
-CONSTRUCT REALIGNED ROAD CONFORMS
-COMPLETE DRAINAGE FACILITIES
-REMOVE SURFACE AND BASE OF EXIST ROAD

LEGEND

- CRASH CUSHION ARRAY (TYPE U11)
- TEMPORARY BARRIER (TYPE K)
- DIRECTION OF TRAVEL
- REMOVE BASE AND SURFACING (EXIST ROAD)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY S. WONG
DRAWN BY F. DEMARCO
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
HYBRID

GENERAL STAGE CONSTRUCTION AND TRAFFIC PLAN
SHEET 1 OF 1

CONTRACT NO. HSR06-007
DRAWING NO. CR9192-B
SCALE NO SCALE
SHEET NO. ### OF ###

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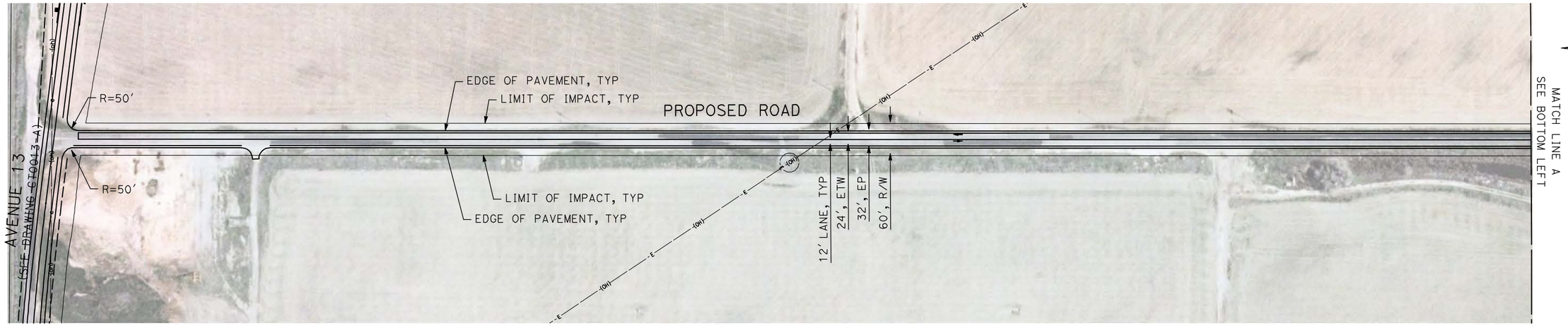

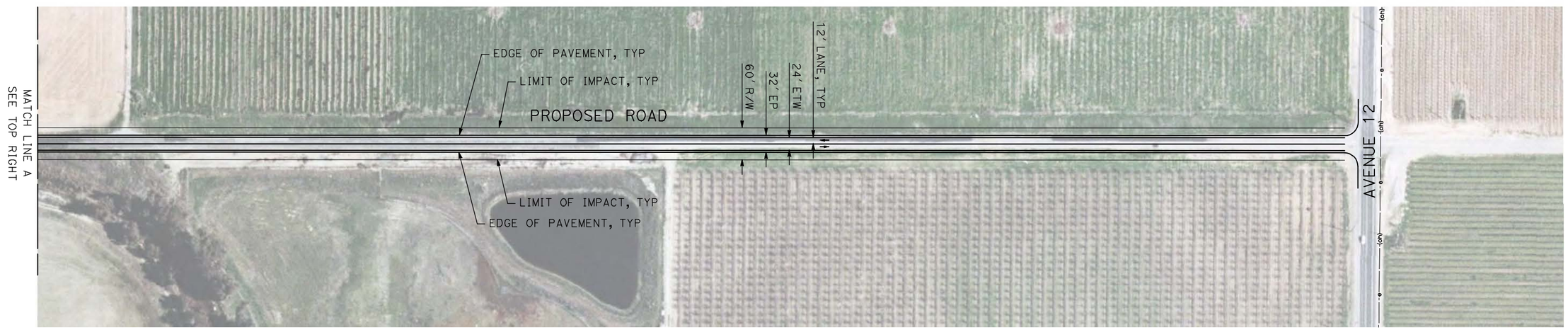

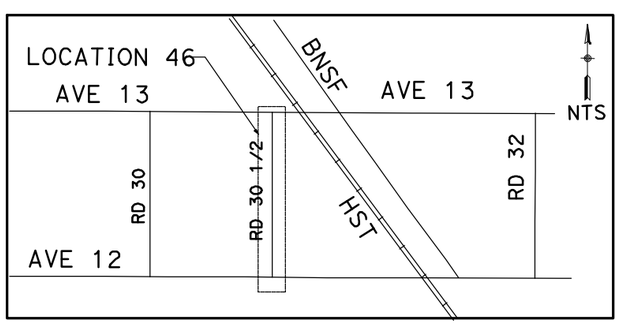

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GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
LOCAL ROAD - ROAD 30 1/2
LAYOUT
SHEET 1 OF 1

CONTRACT NO. HST06-007
DRAWING NO. CR4000-A
SCALE AS SHOWN
SHEET NO. OF ###

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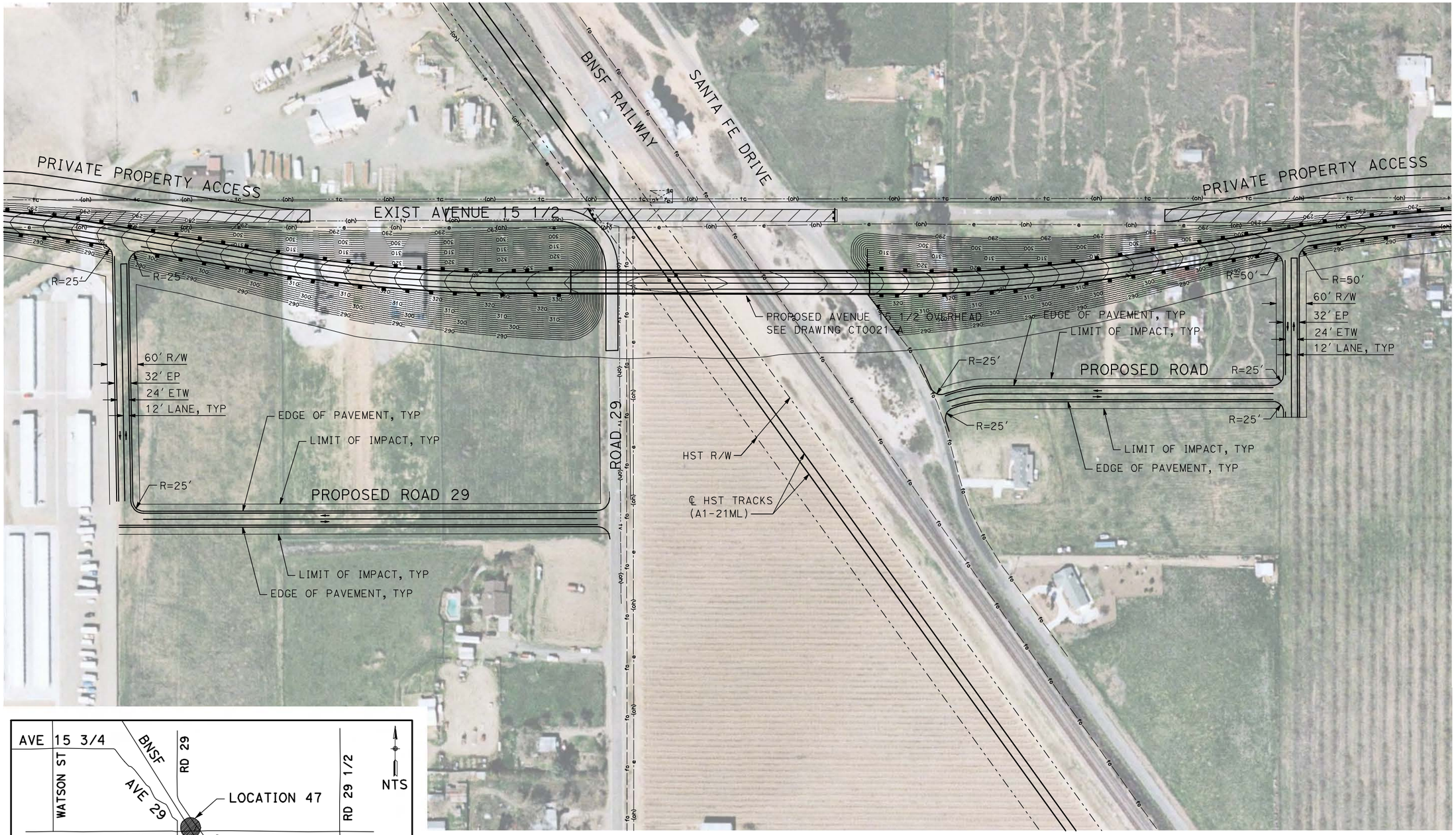

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
LOCAL ROAD - ROAD 29
LAYOUT
SHEET 1 OF 1

CONTRACT NO. HST06-007
DRAWING NO. CR4001-A
SCALE AS SHOWN
SHEET NO. OF ###

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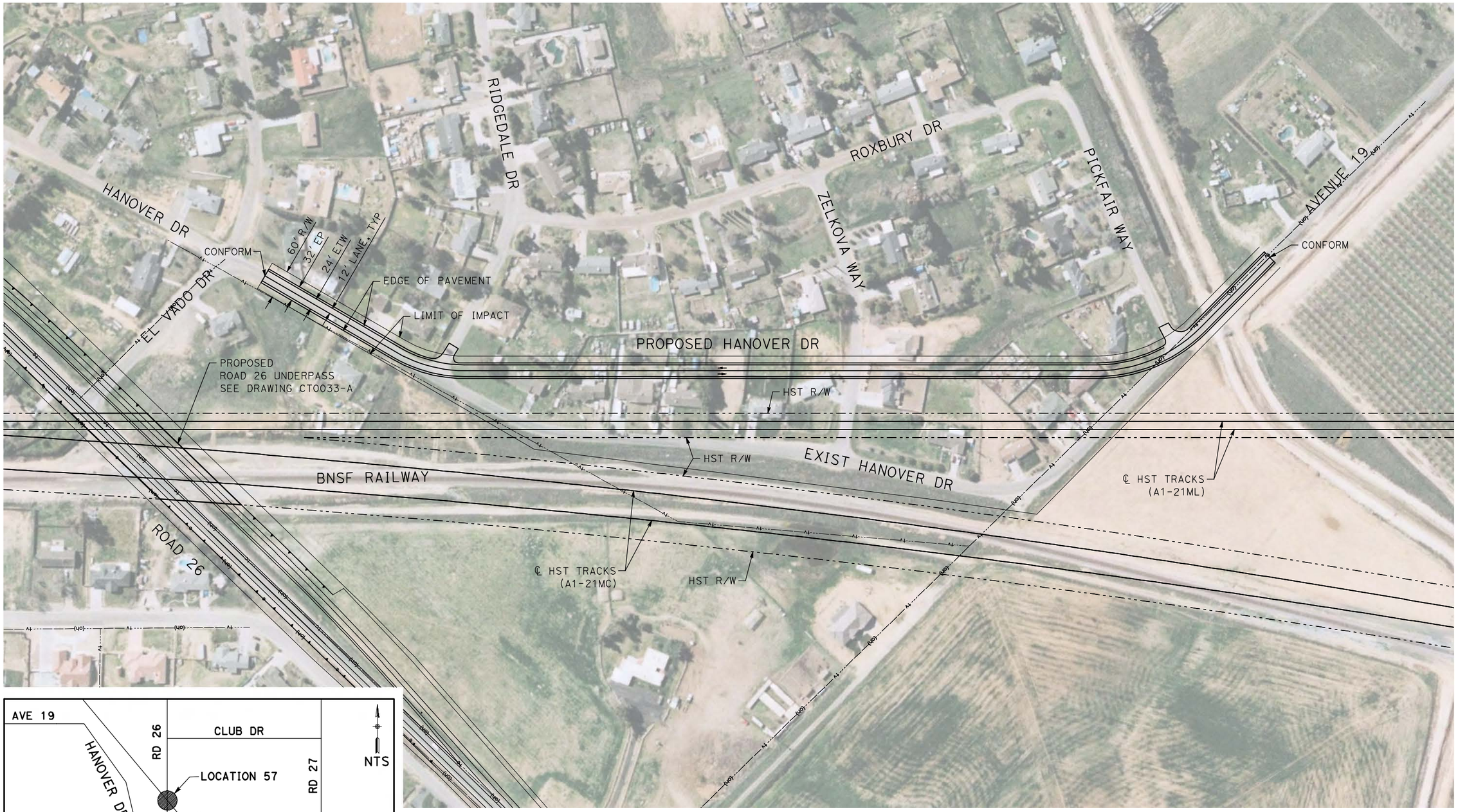

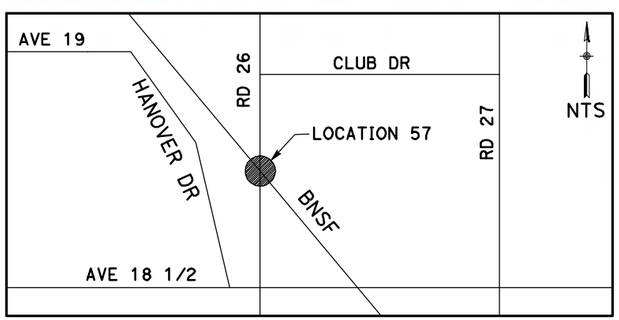

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GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. GIBSON
DRAWN BY H. PHAN
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAIN LINE - (HYBRID)
LOCAL ROAD - HANOVER DR
LAYOUT
SHEET 1 OF 1

CONTRACT NO. HST06-007
DRAWING NO. CR4012-A
SCALE AS SHOWN
SHEET NO. OF ###

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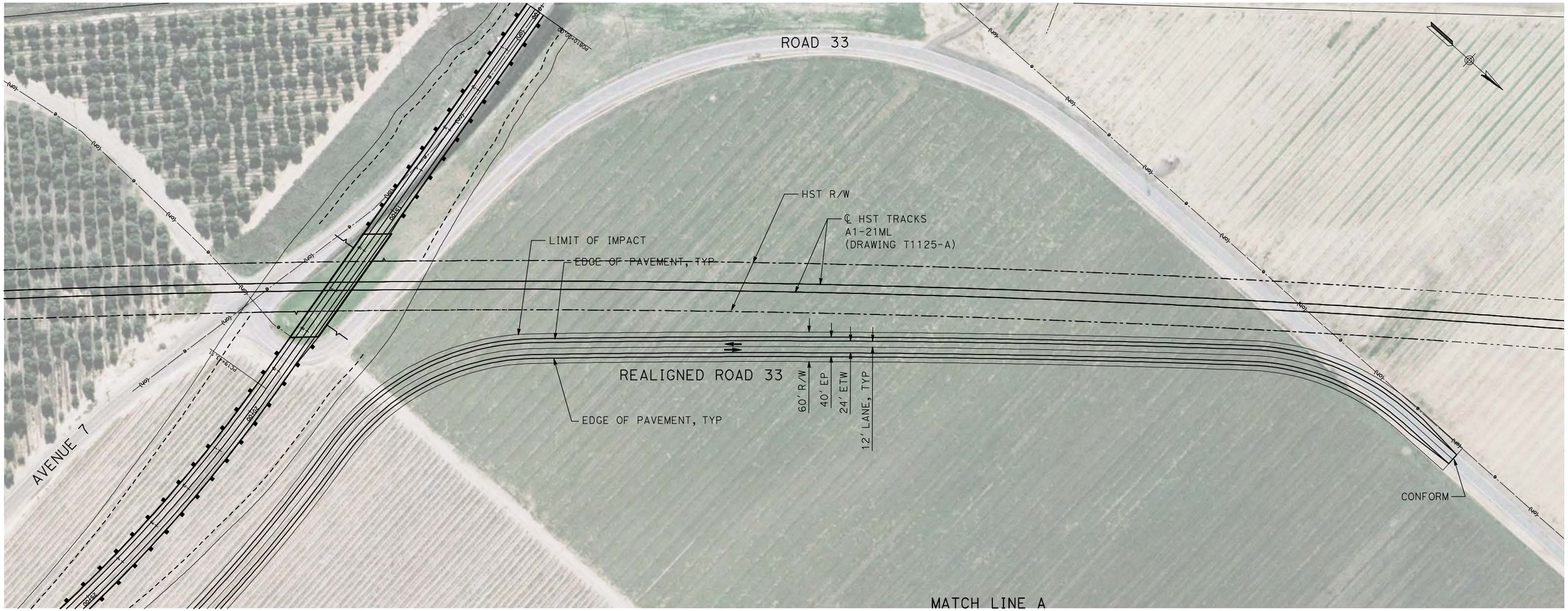

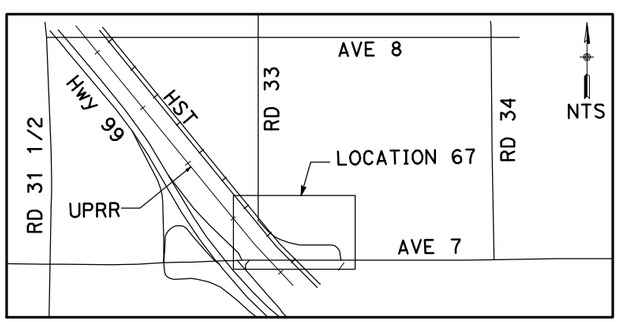

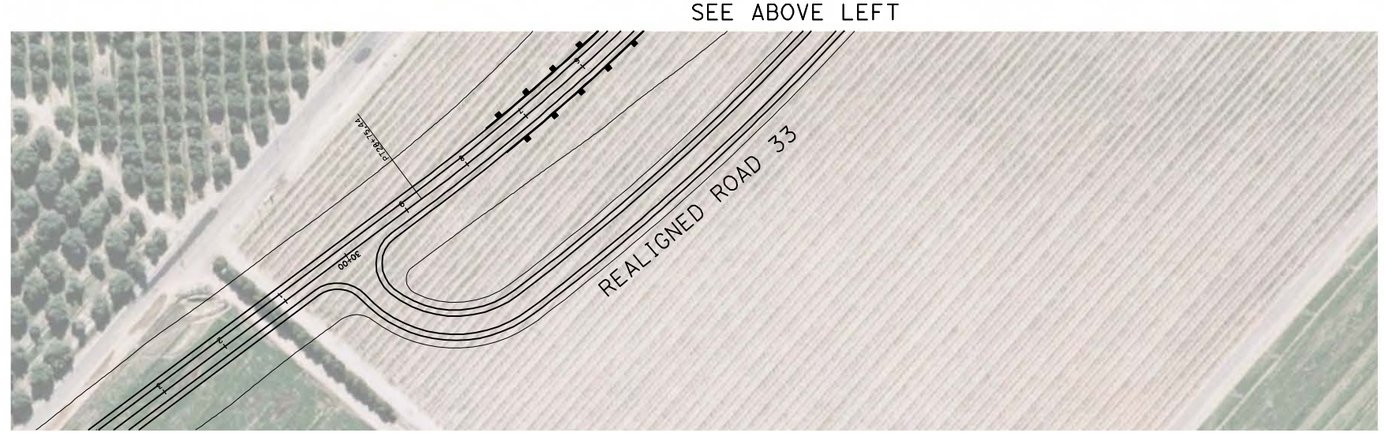

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GRAPHIC SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MERCED CONNECTION - AVE 24 WYE
LOCAL ROAD - ROAD 33
LAYOUT
SHEET 1 OF 1

CONTRACT NO. HST06-007
DRAWING NO. CR4018-A
SCALE AS SHOWN
SHEET NO. ### OF ###

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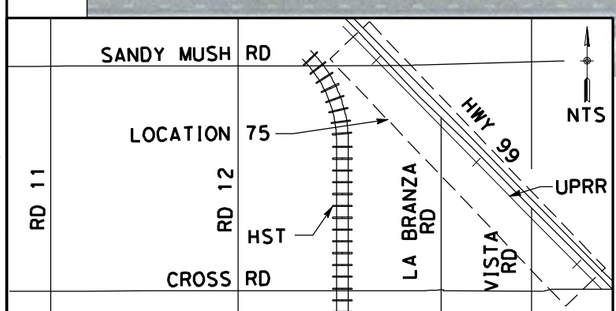

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9200-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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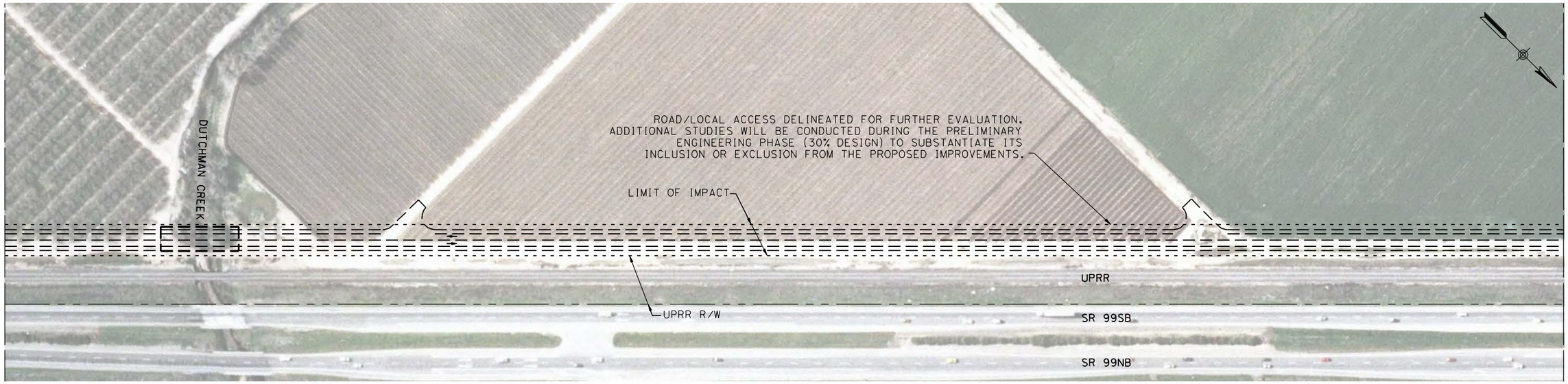

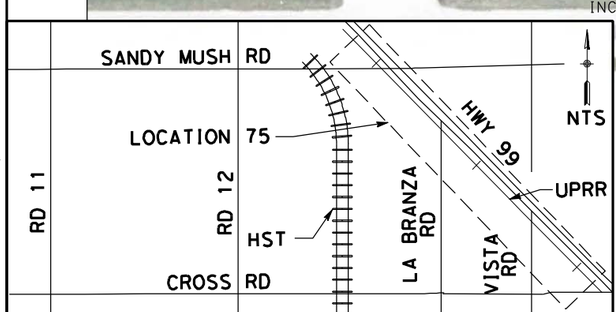

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9201-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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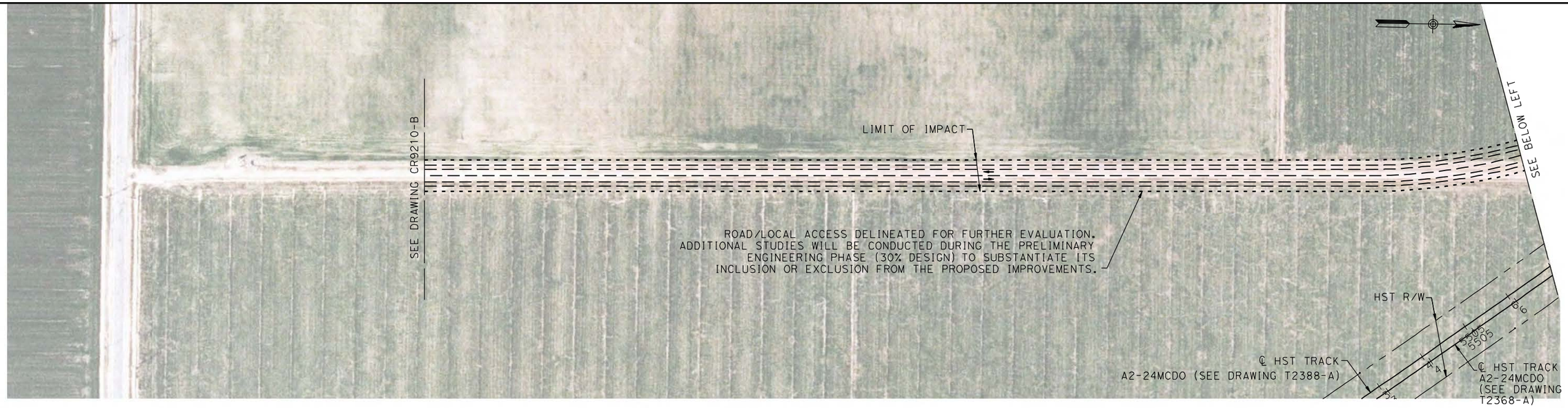

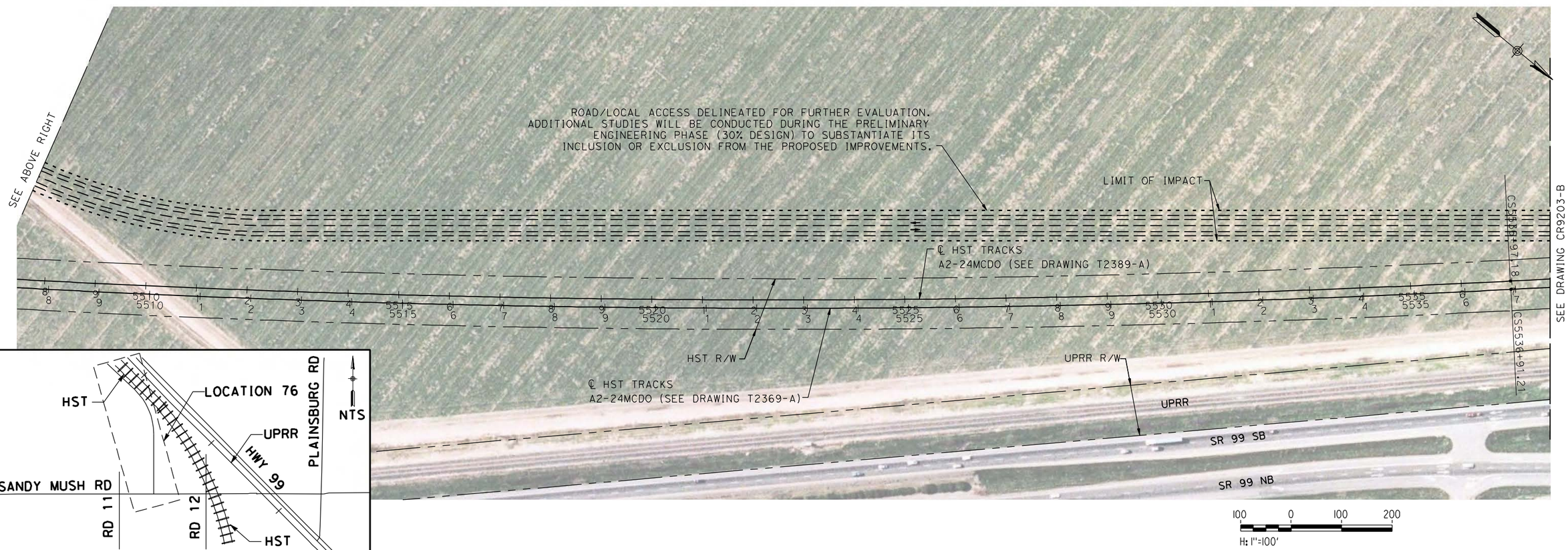

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9202-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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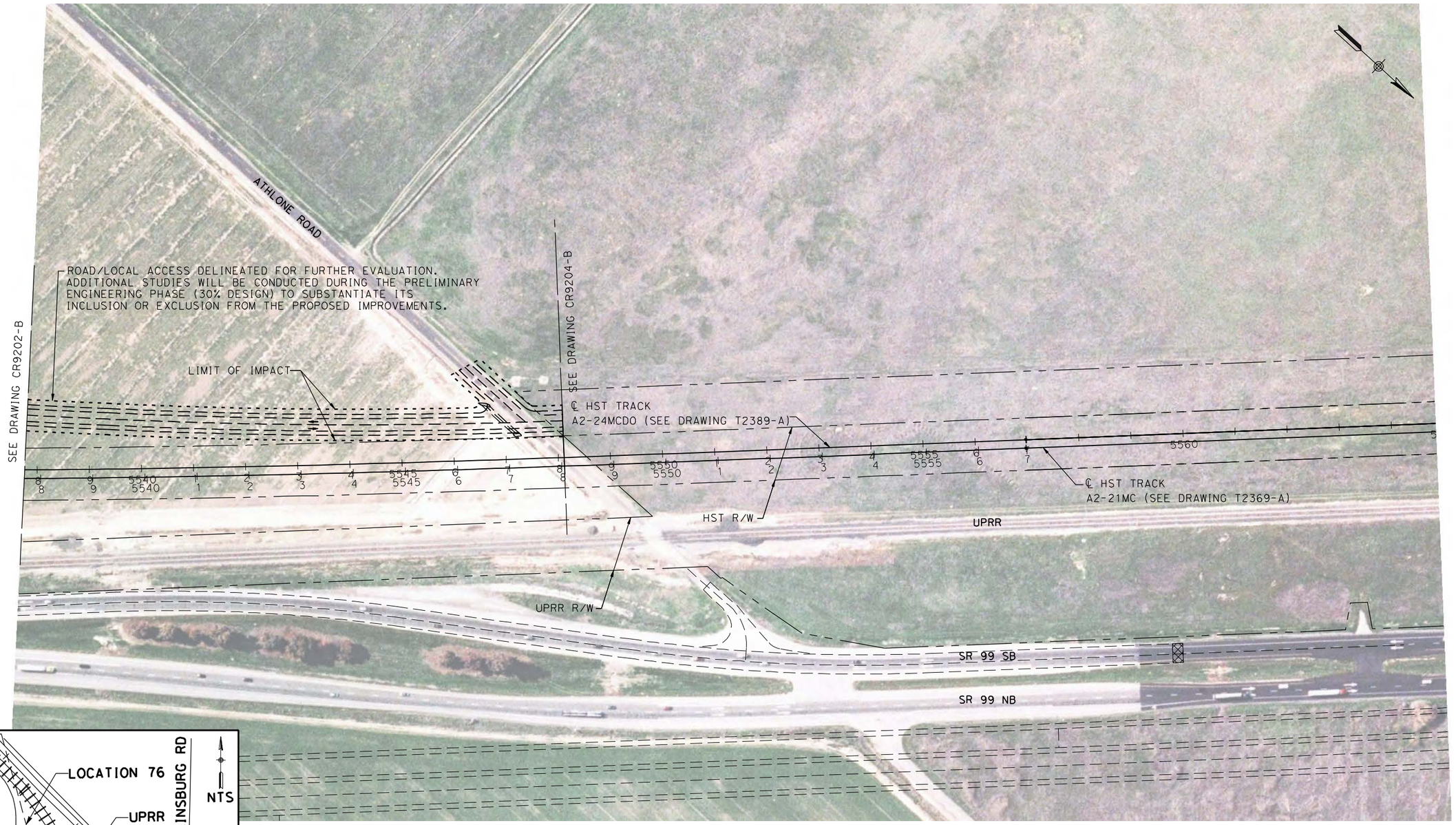

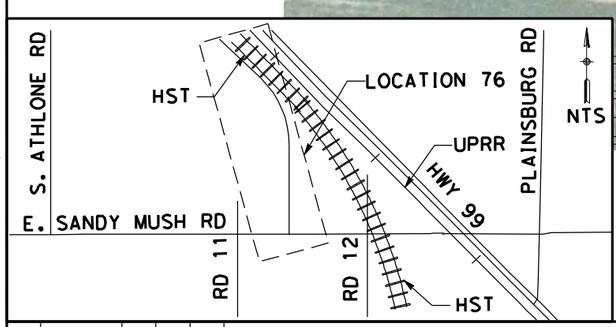

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REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY A. SILVER
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DATE 04/29/2011

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2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9203-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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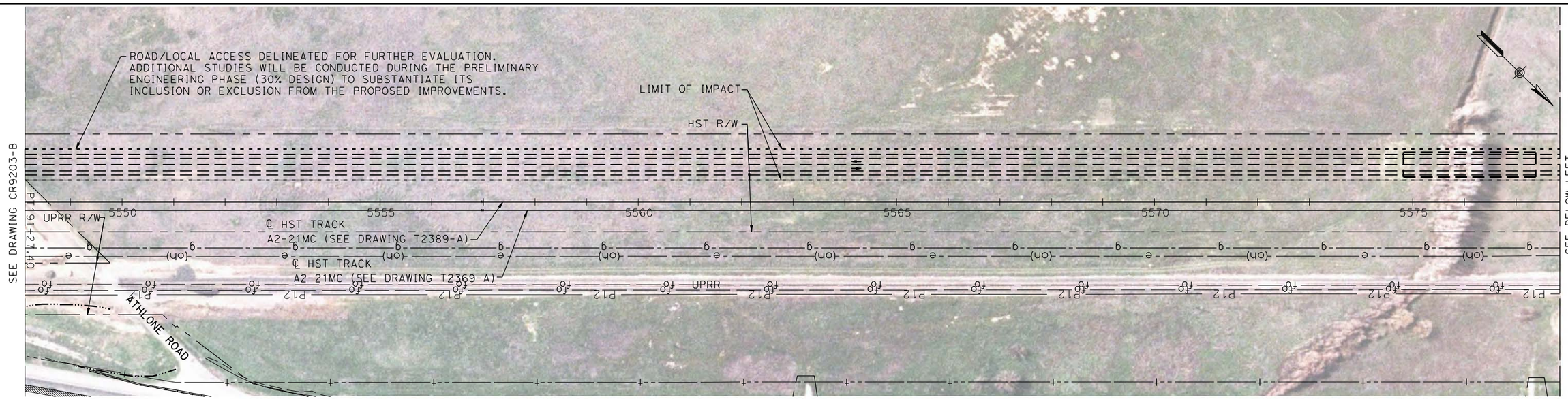

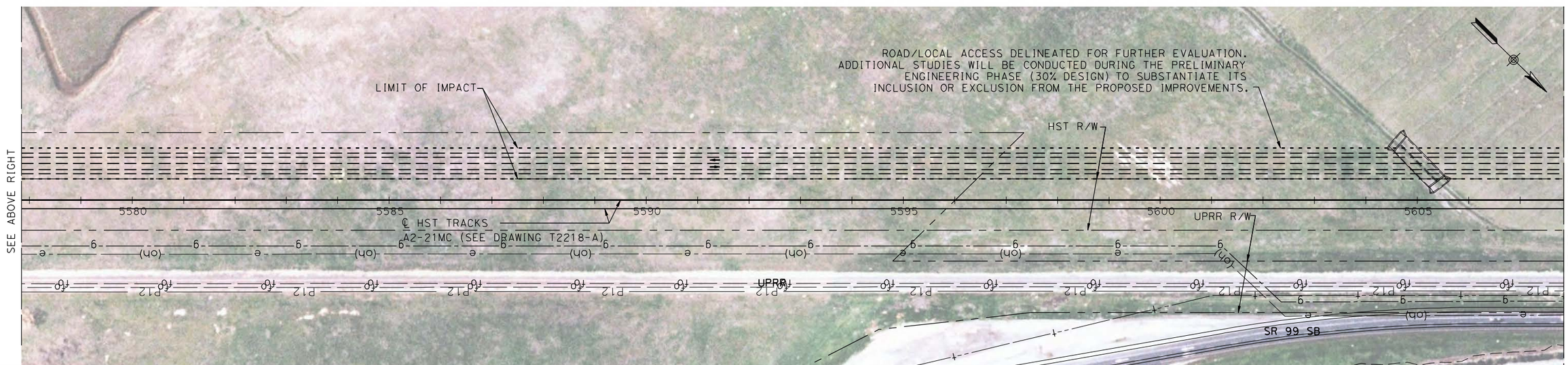

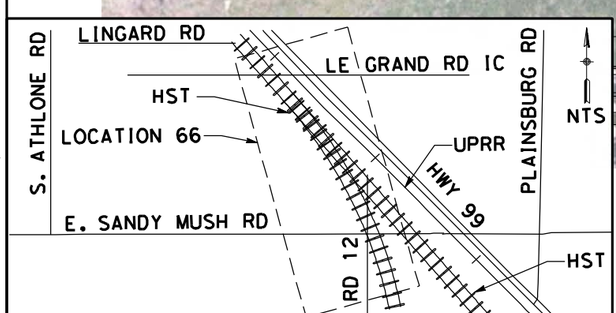

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
PROPOSED WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9204-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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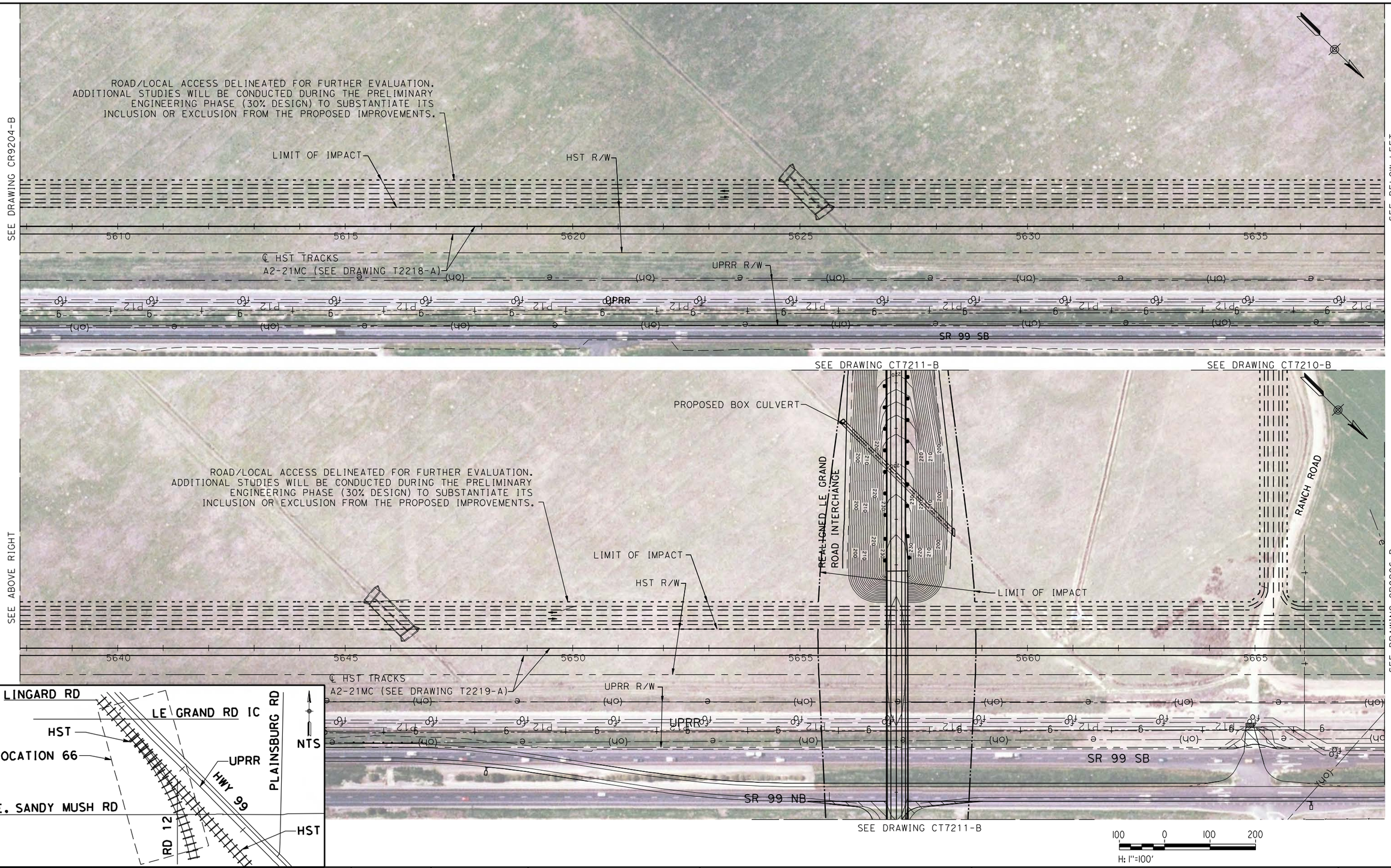
ReyesC1



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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

UPRR/SR99 MERCED - (HYBRID)
PROPOSED WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9205-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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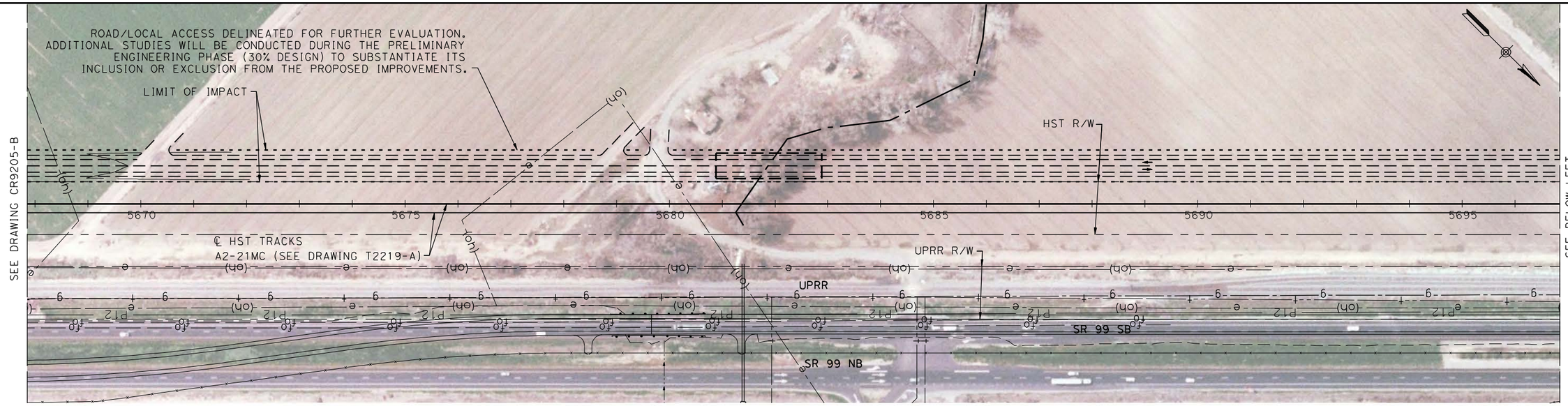

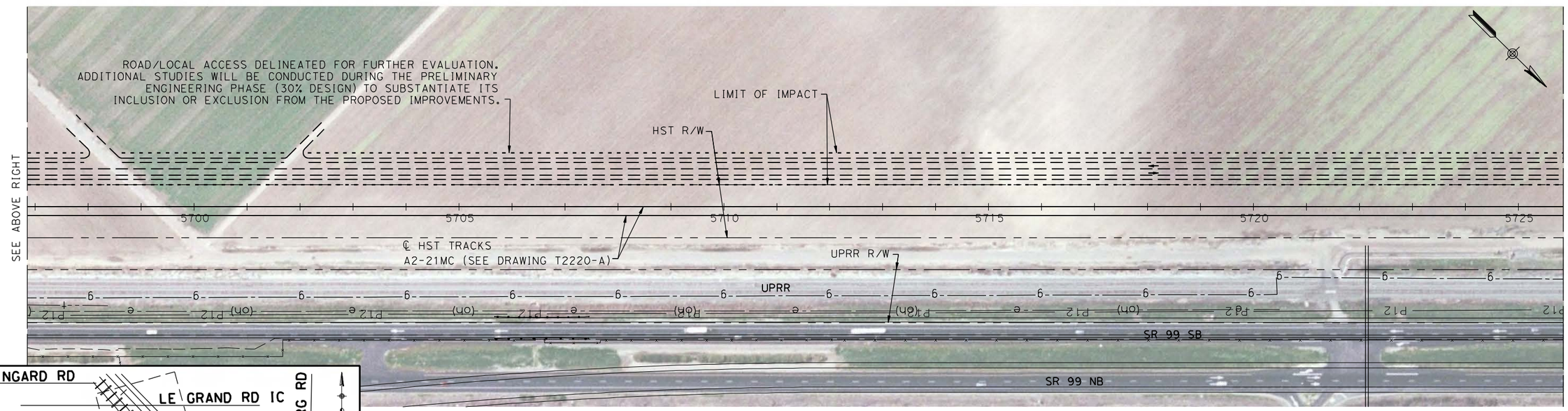

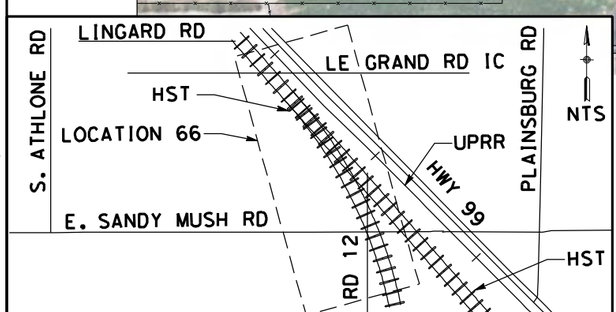

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H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

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2020 L Street, Suite 300
Sacramento, CA 95811

CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
PROPOSED WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9206-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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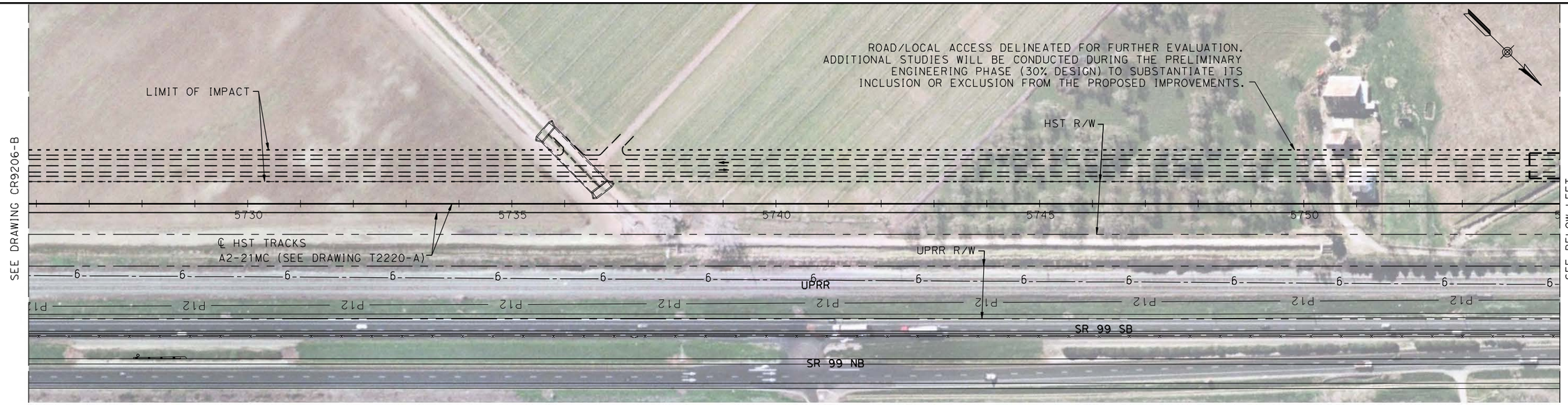
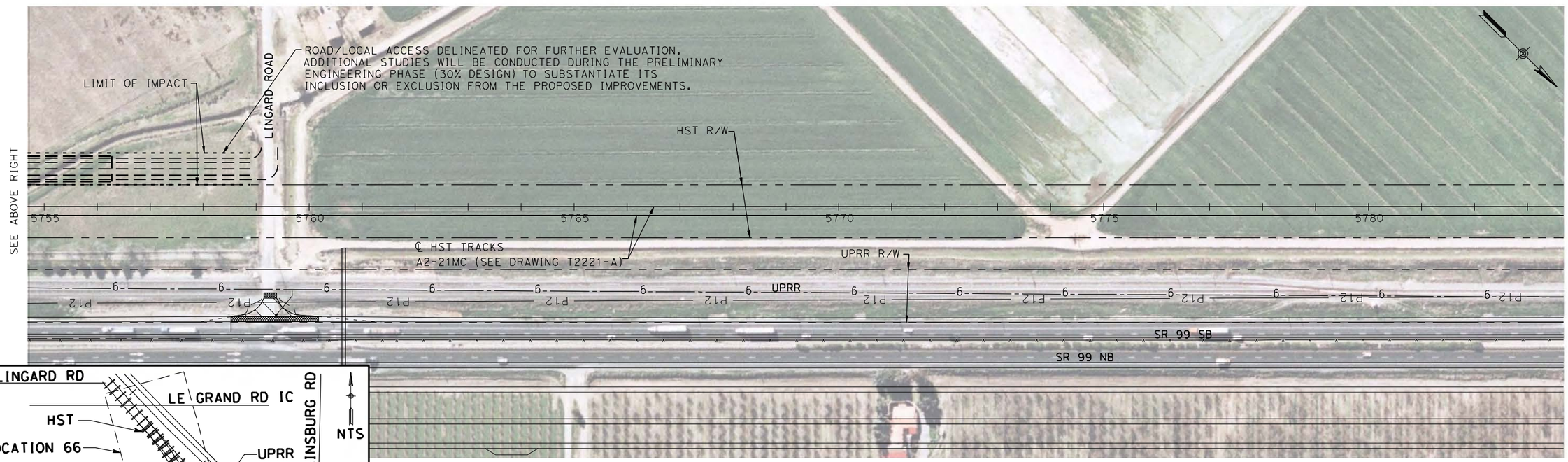
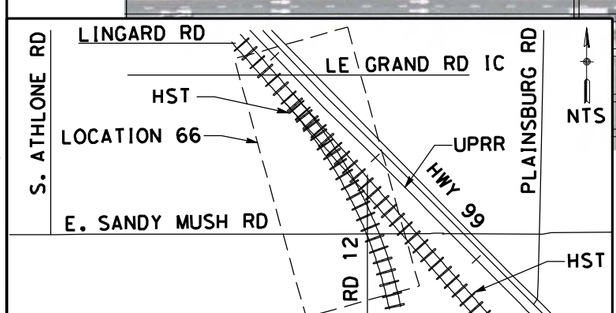
ReyesC1







100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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SUBMITTAL

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CONSTRUCTION

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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
UPRR/SR99 MERCED - (HYBRID)
PROPOSED WEST FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9207-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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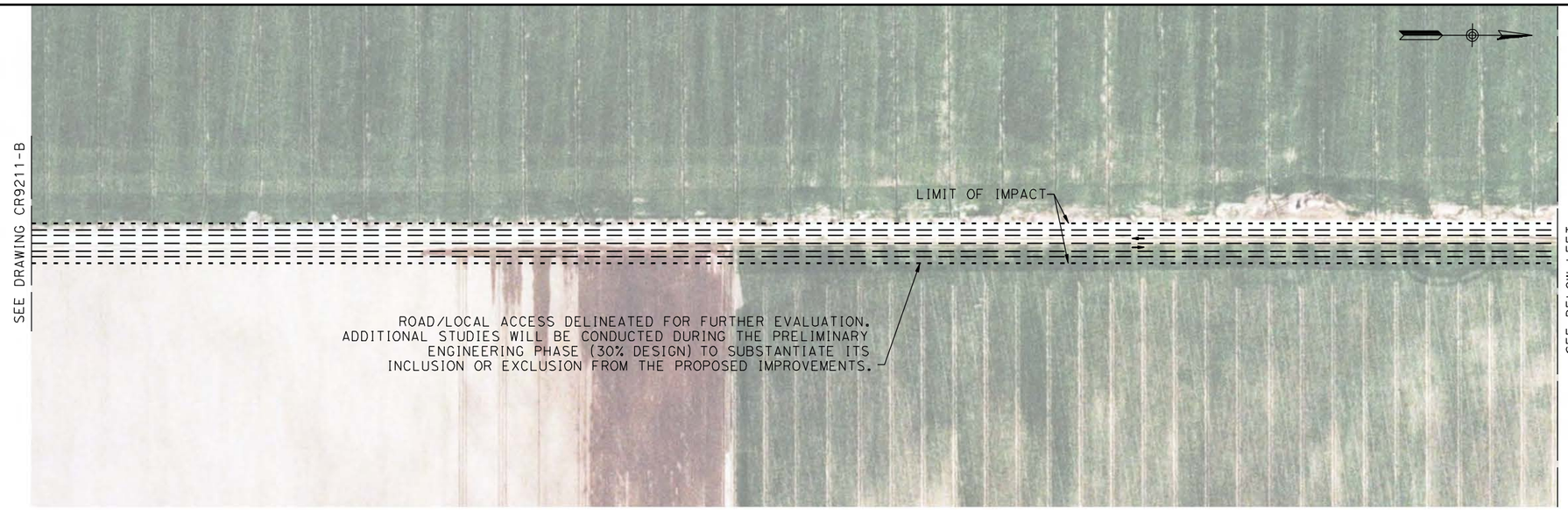
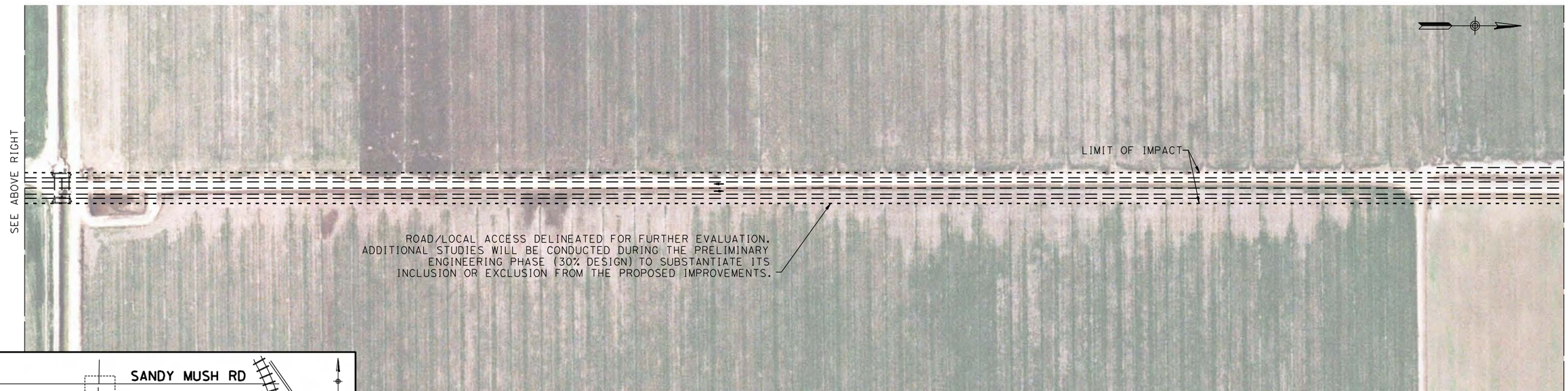
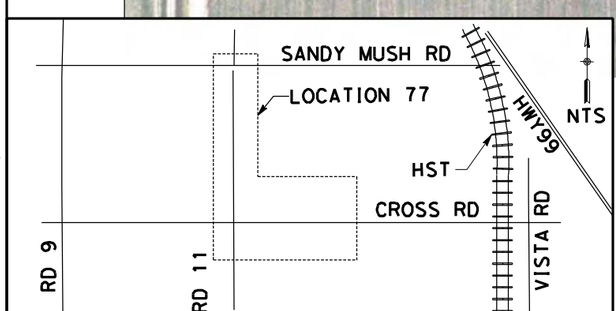
ReyesC1







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H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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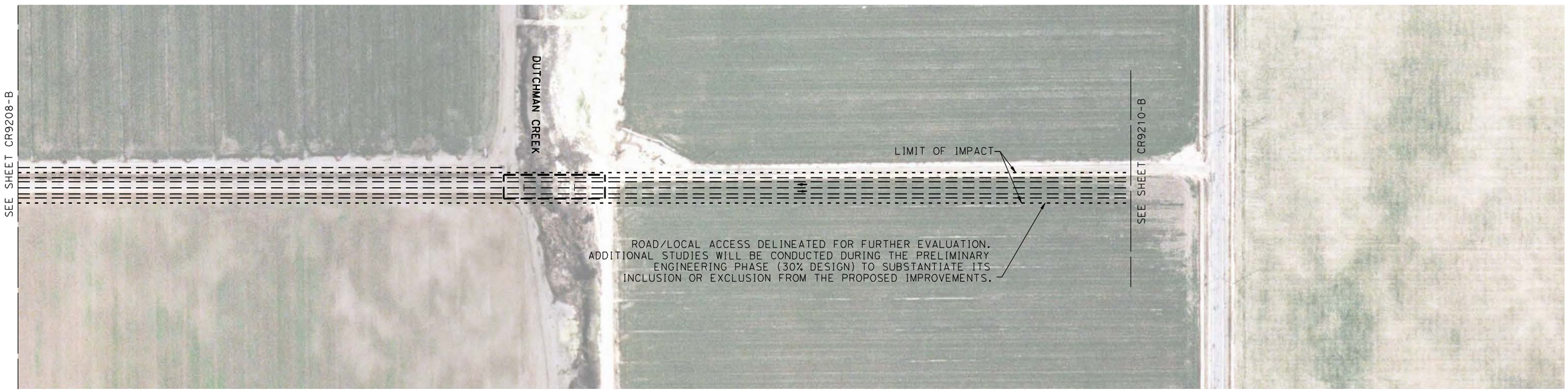
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

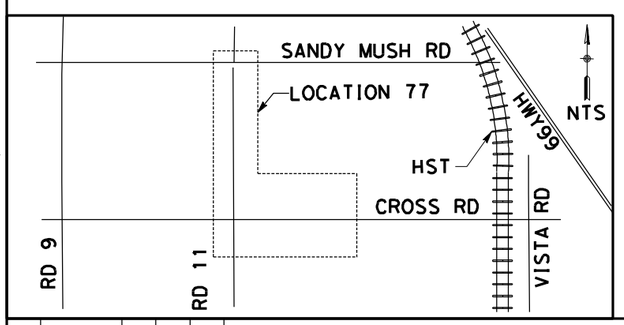
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - ROAD 11
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9208-B
SCALE AS SHOWN
SHEET NO. ### OF ###

ReyesC1 4/27/2011 7:29:32 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9208-B.dgn





100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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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

UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - ROAD 11
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9209-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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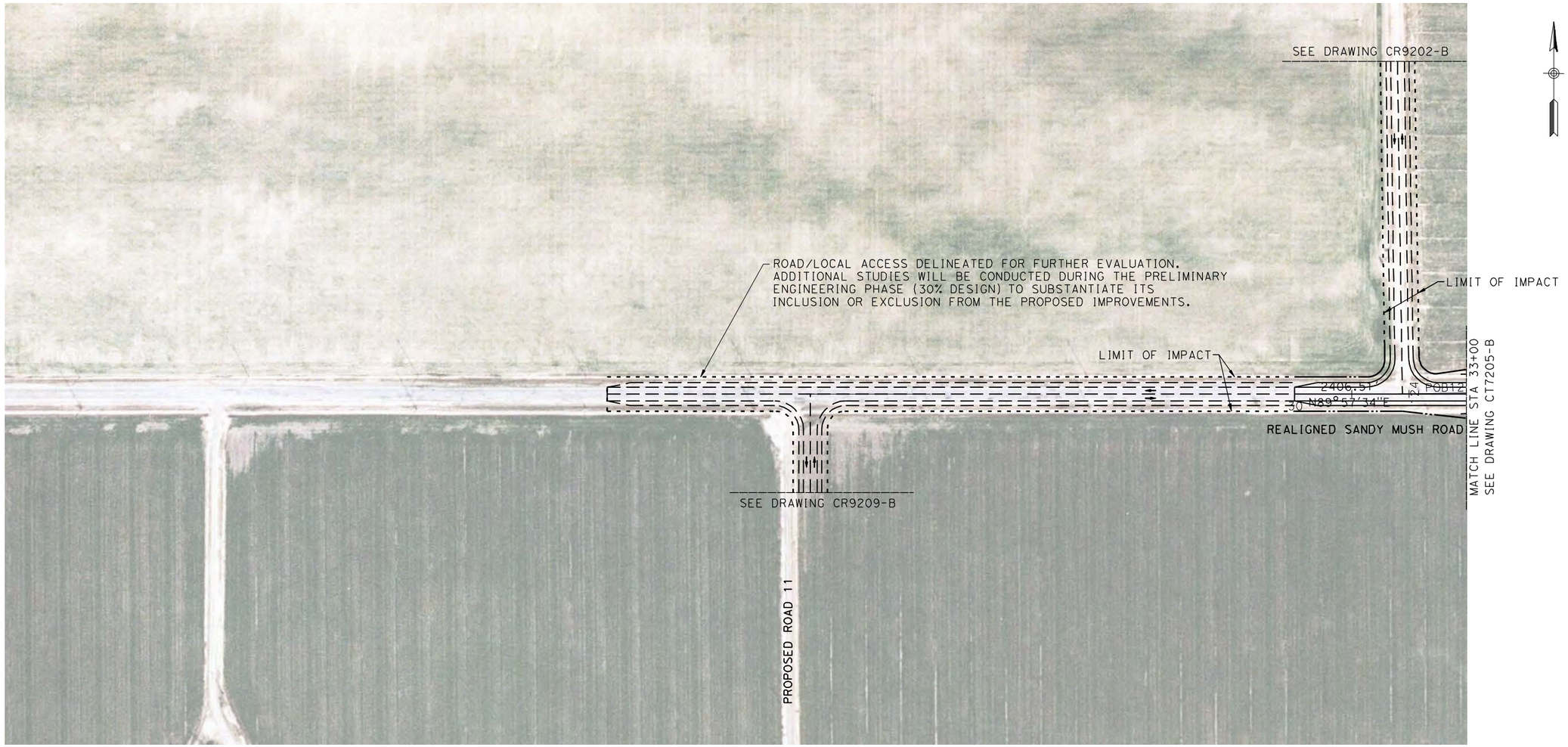

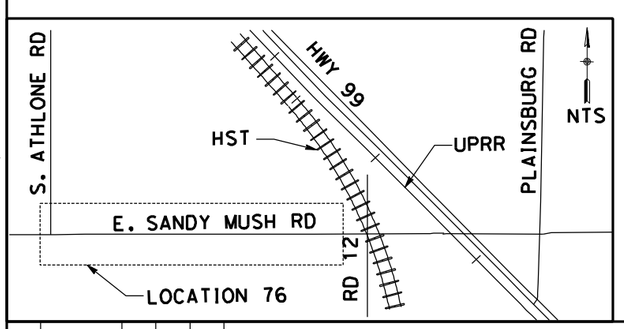

100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
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SUBMITTAL

NOT FOR
CONSTRUCTION

AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

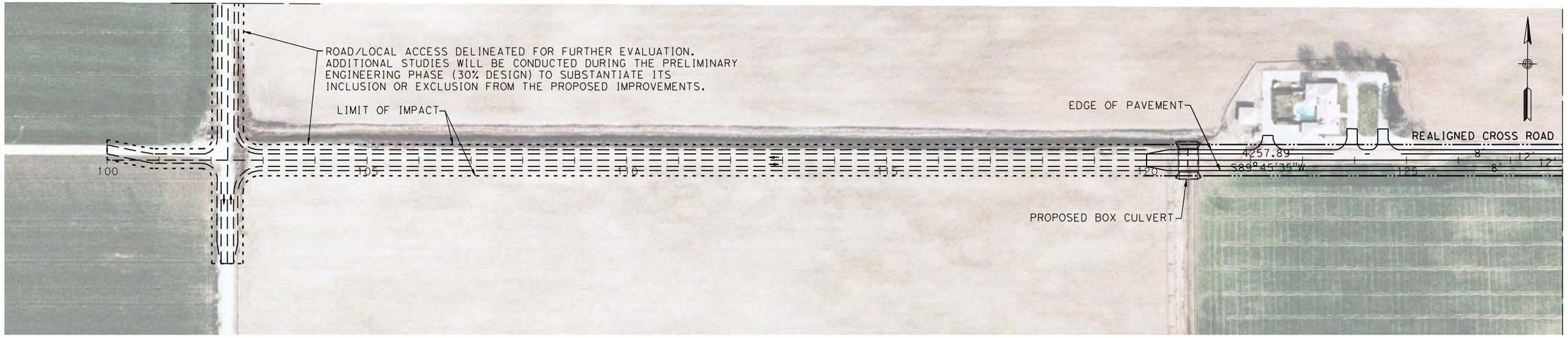
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

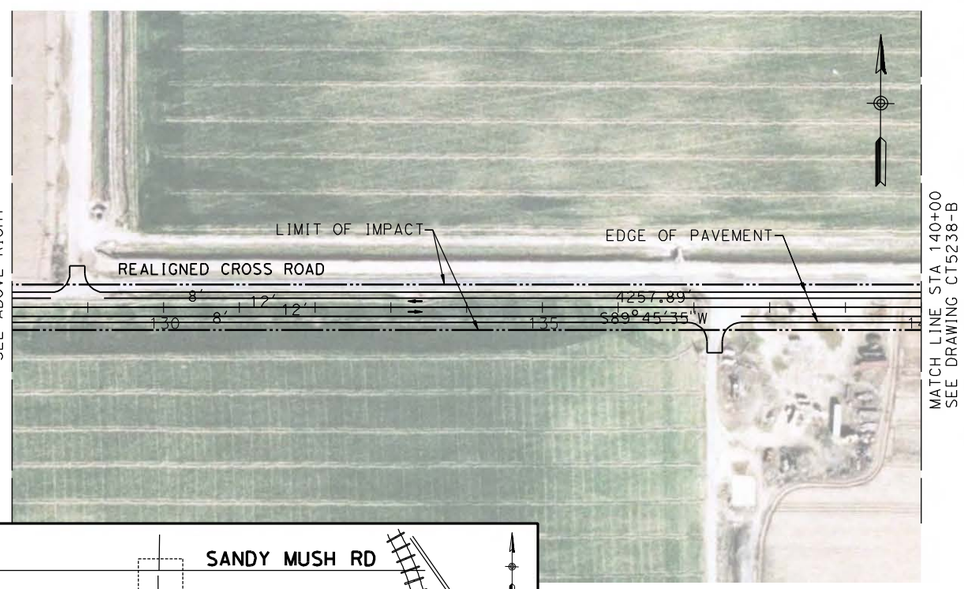
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO

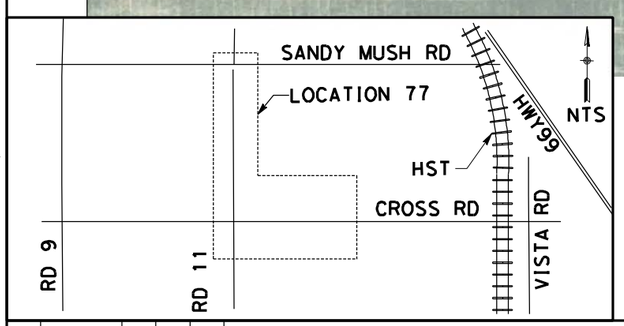
UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - SANDY MUSH ROAD
LAYOUT
STA 30+00 TO STA 33+00

CONTRACT NO. HSR06-007
DRAWING NO. CR9210-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:30:02 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9210-B.dgn
ReyesC1







100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

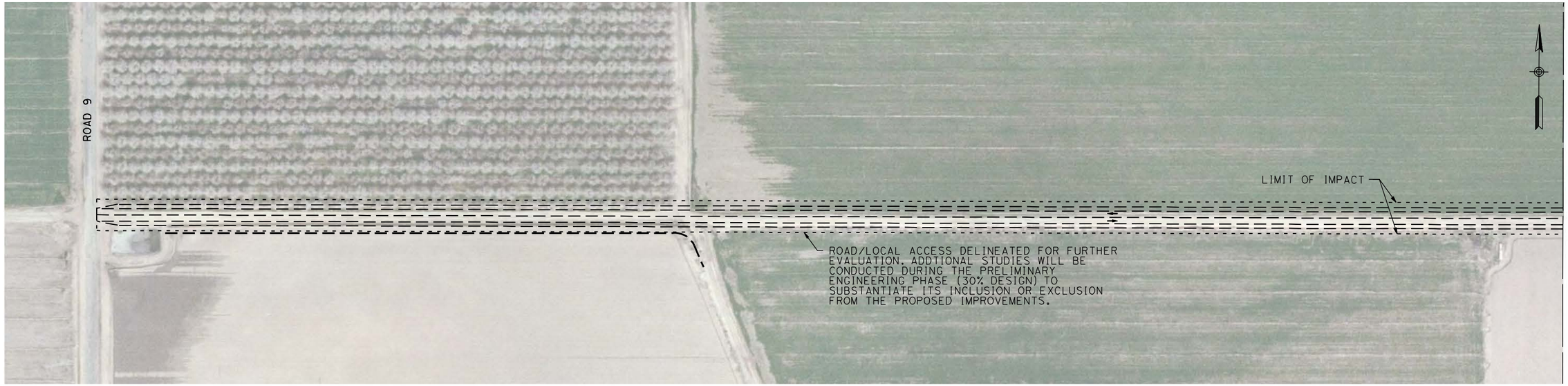
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

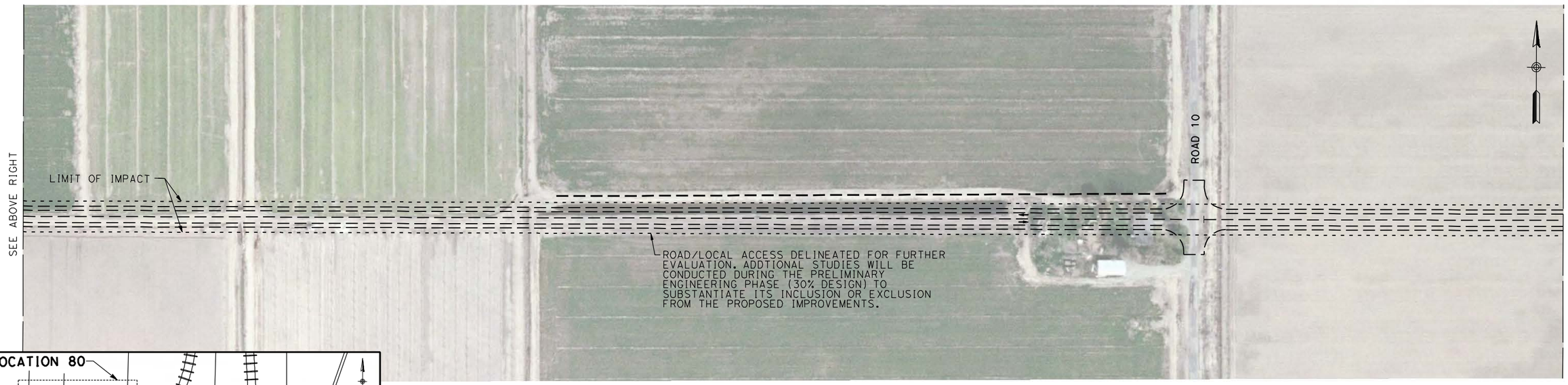
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

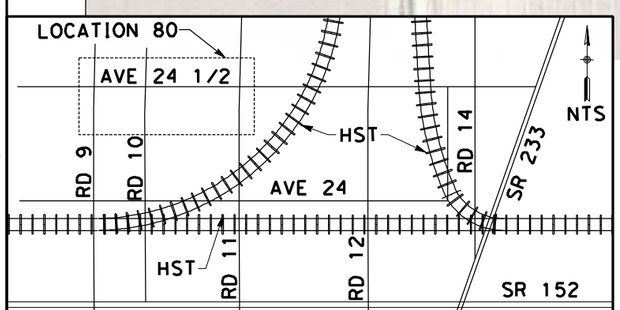
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - CROSS ROAD
LAYOUT
STA 120+00 TO STA 140+00

CONTRACT NO. HSR06-007
DRAWING NO. CR9211-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:30:16 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9211-B.dgn
ReyesC1







100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

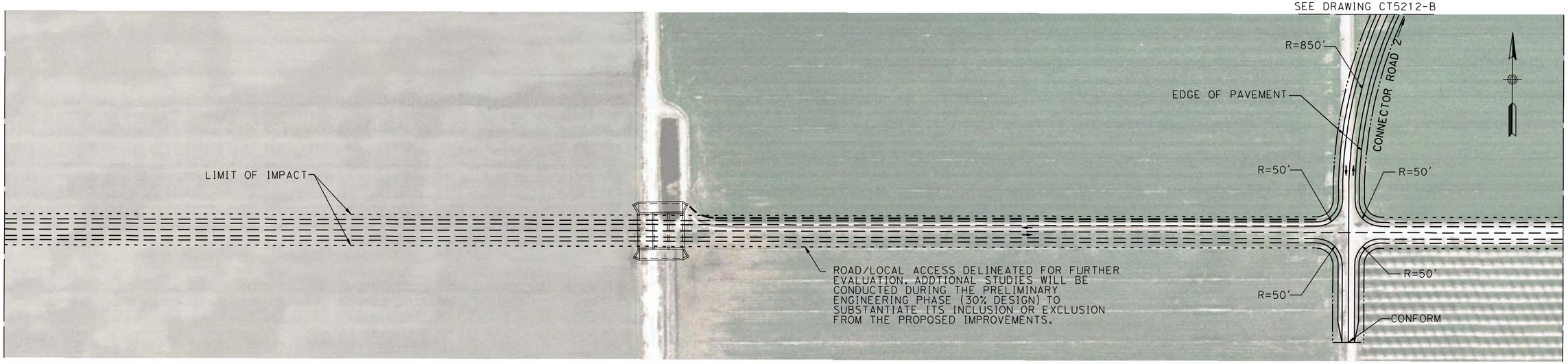
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

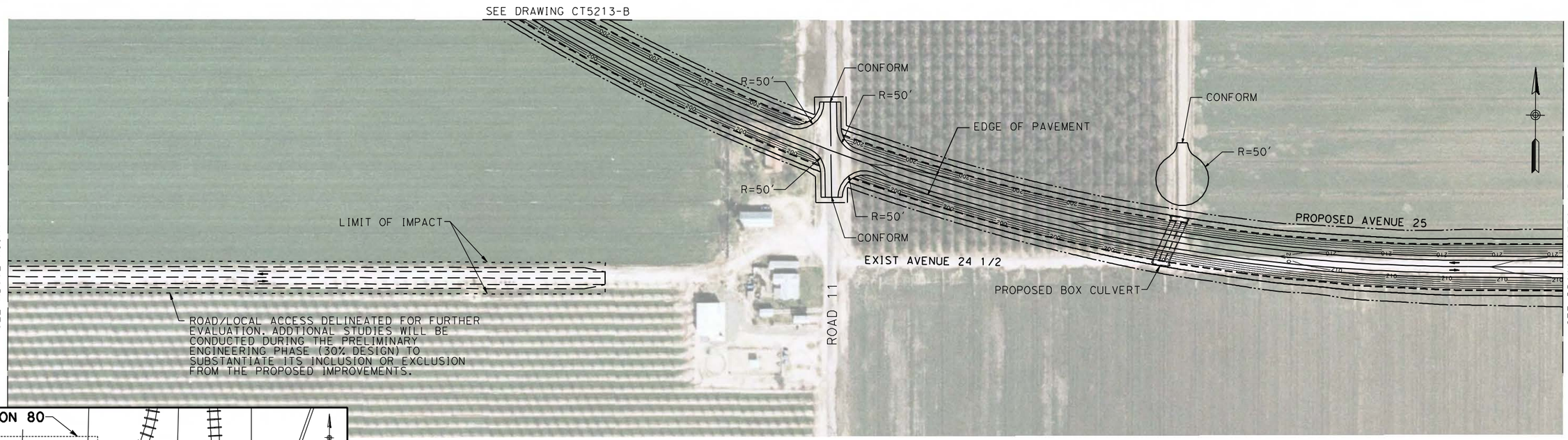
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

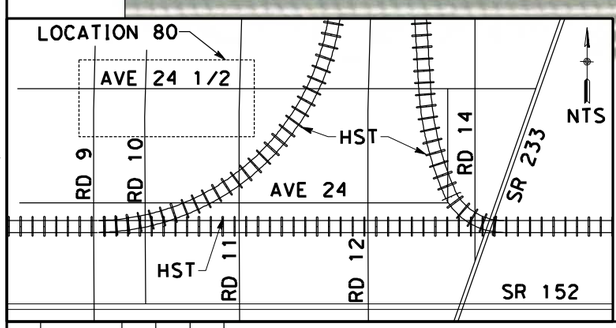
CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MAINLINE/WYE DO - (HYBRID)
LOCAL ROAD - AVENUE 24 1/2
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9212-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:30:28 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9212-B.dgn
ReyesC1







100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE A. BOONE
DATE 04/29/2011

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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

UPRR/SR99 WYE DO - (HYBRID)
LOCAL ROAD - AVENUE 24 1/2
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9213-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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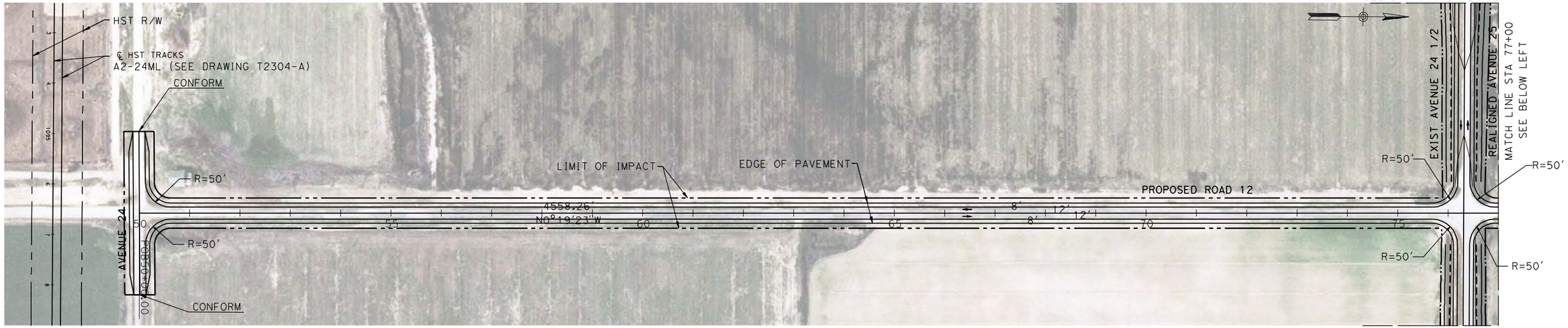

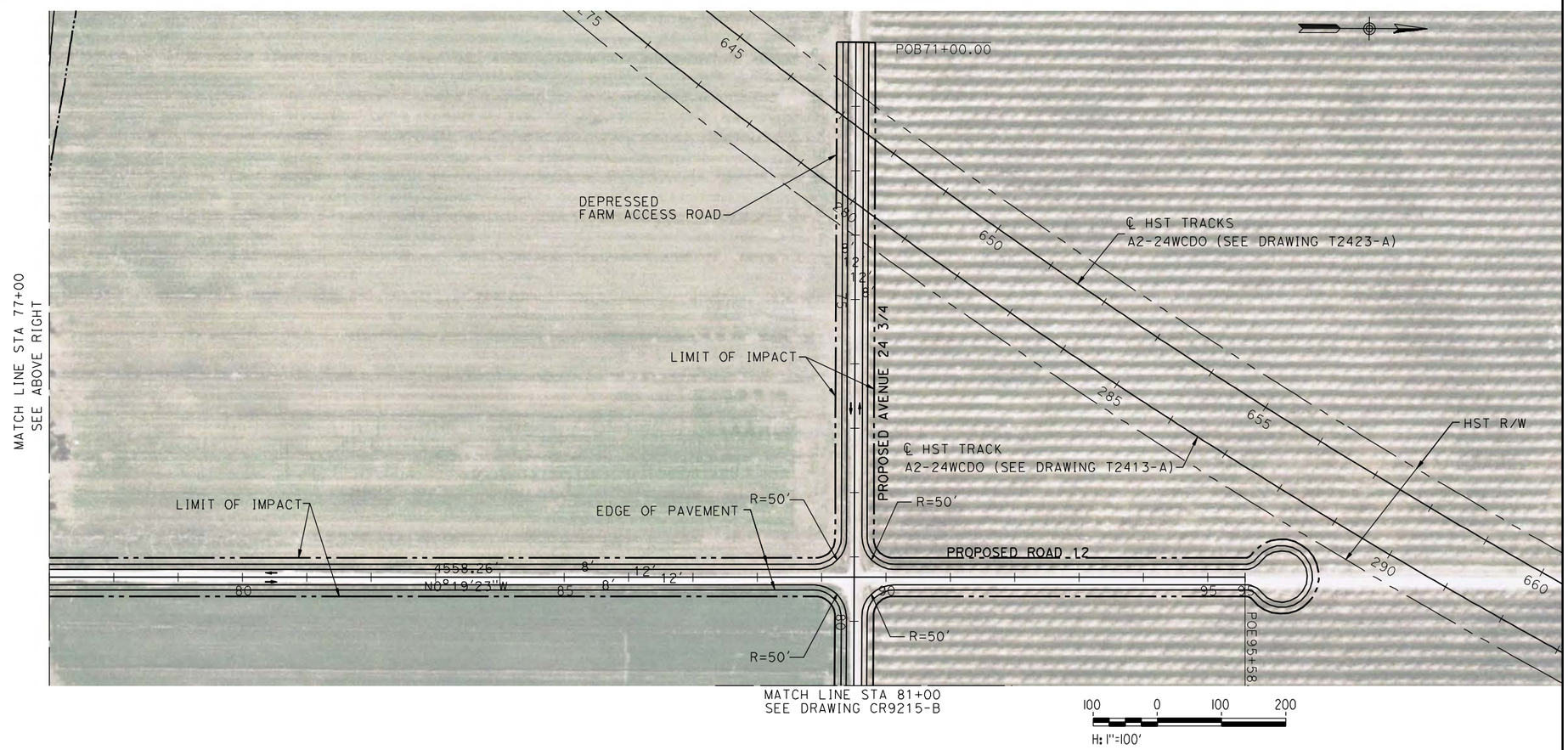

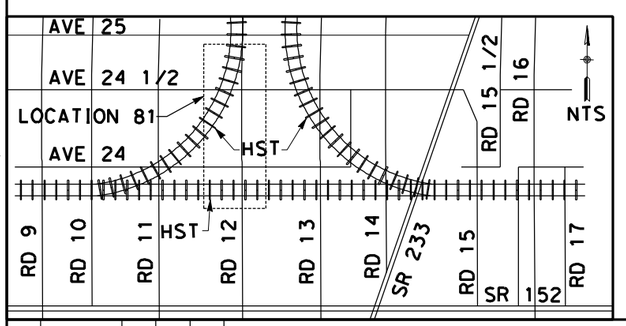

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
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DATE 04/29/2011

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Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MAINLINE/WYE DO - (HYBRID)
LOCAL ROAD - ROAD 12
LAYOUT
STA 50+00 TO 95+58.26 & STA 71+00 TO 81+00

CONTRACT NO. HSR06-007
DRAWING NO. CR9214-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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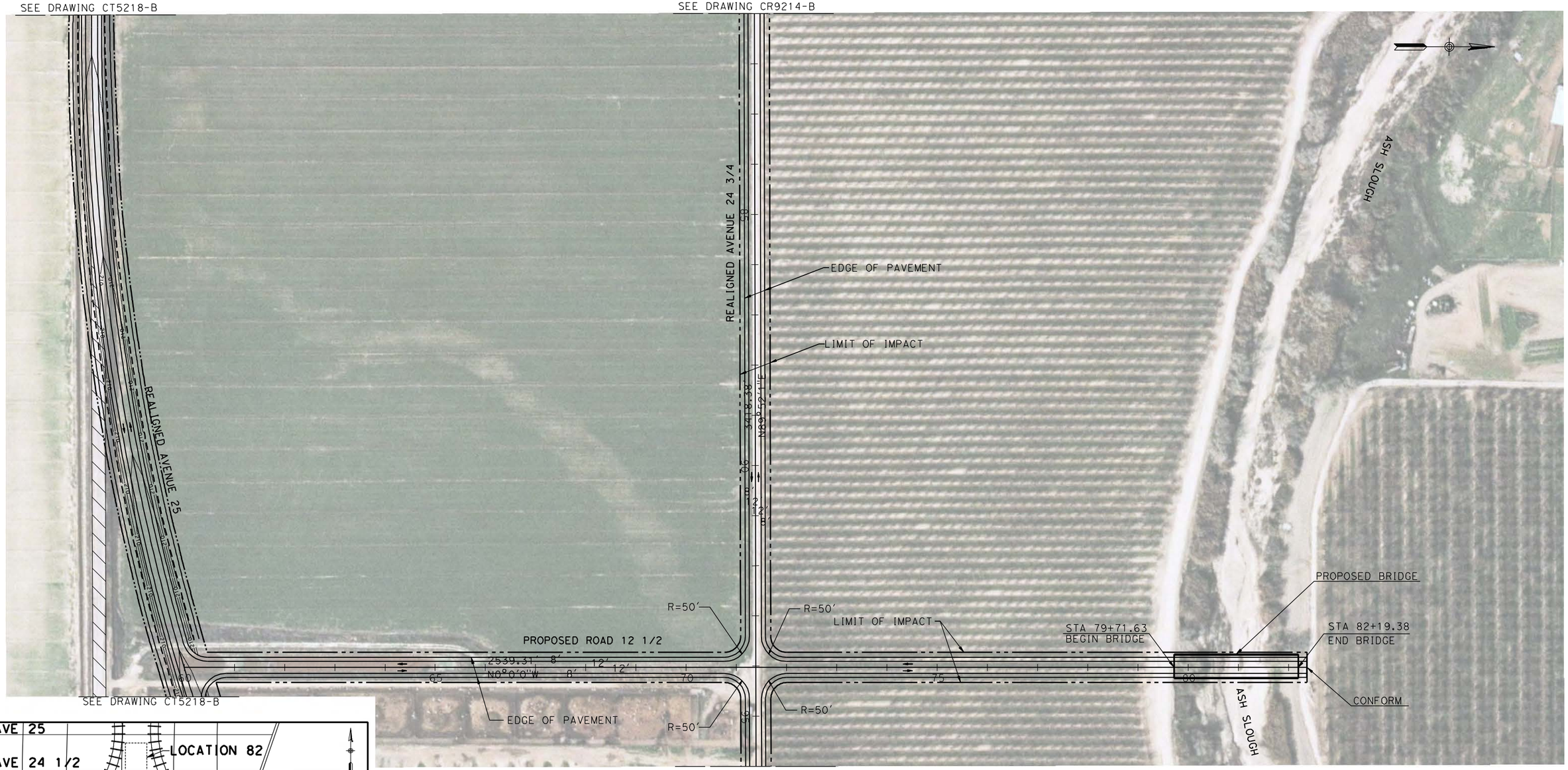
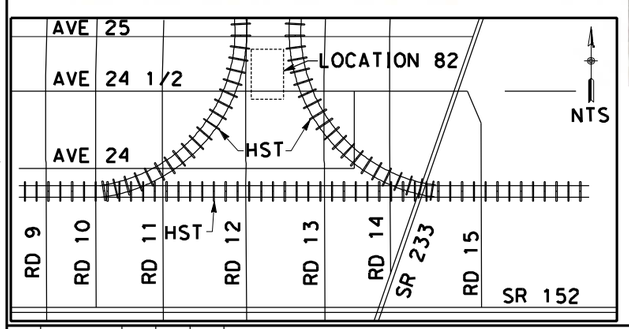
ReyesC1





100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

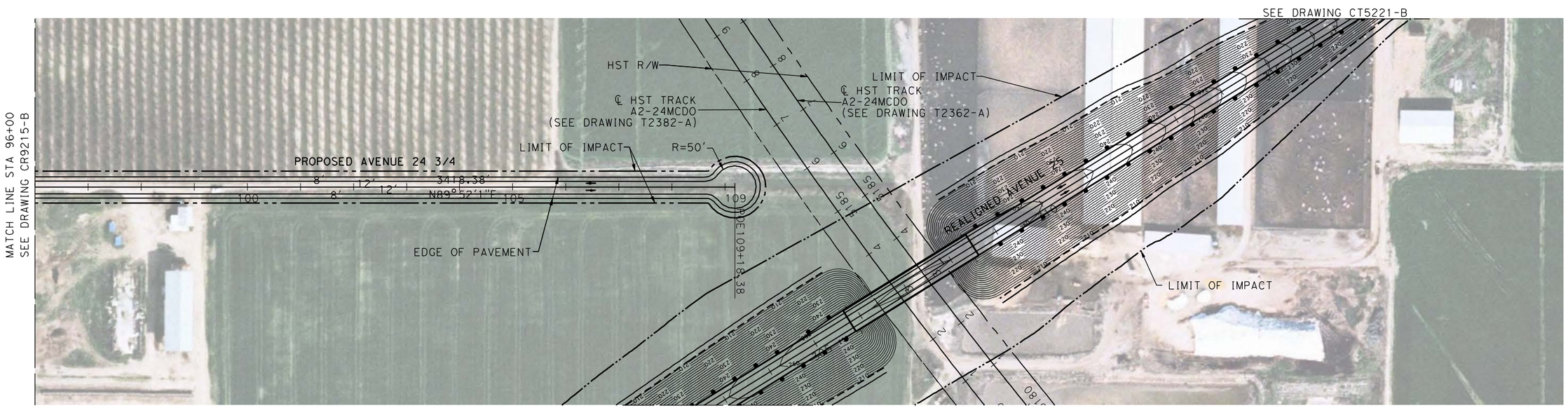
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

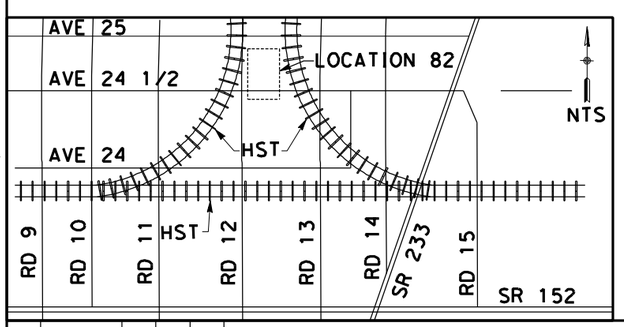
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED DO - (HYBRID)
LOCAL ROAD - ROAD 12 1/2 & AVENUE 24 3/4
LAYOUT
STA 81+00 TO STA 96+00

CONTRACT NO. HSR06-007
DRAWING NO. CR9215-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:31:14 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9215-B.dgn
ReyesC1





100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY A. SILVER
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DATE 04/29/2011

RECORD SET
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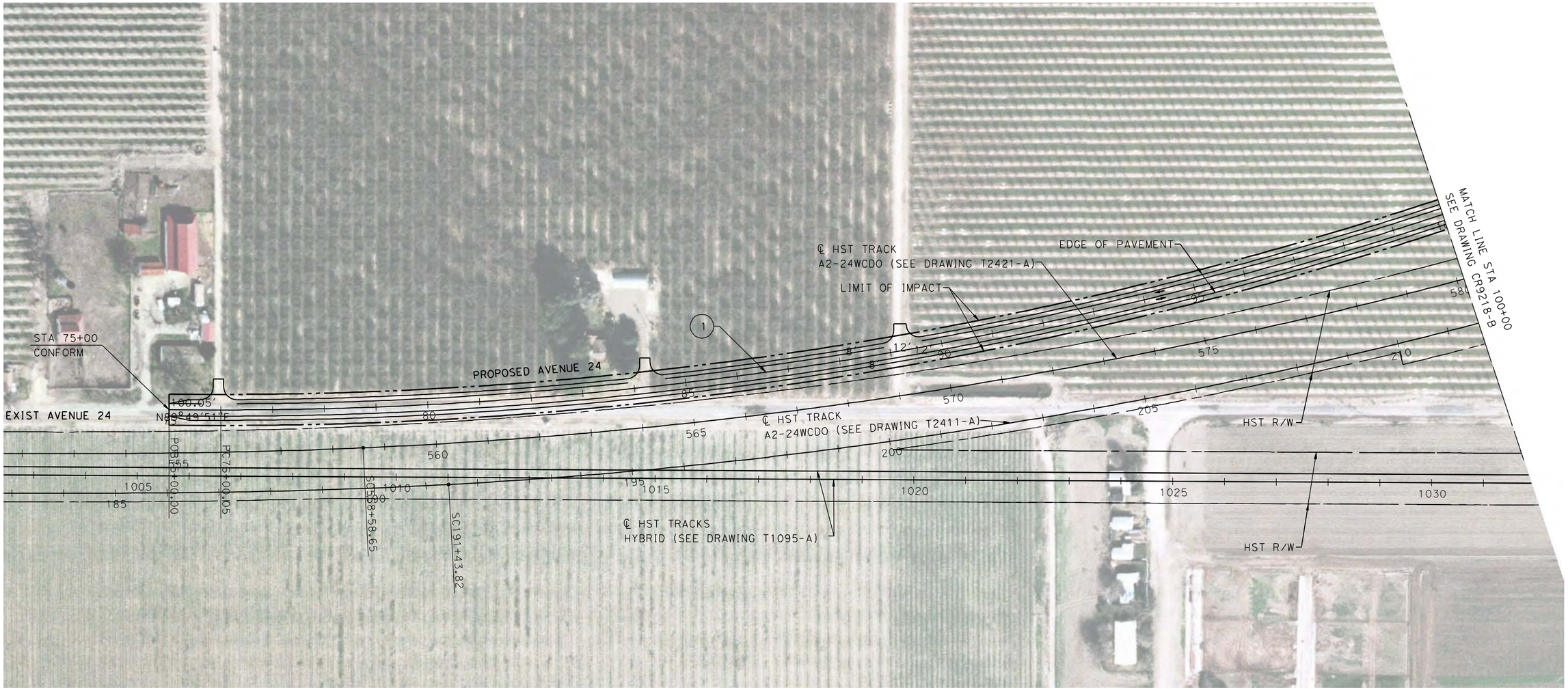
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

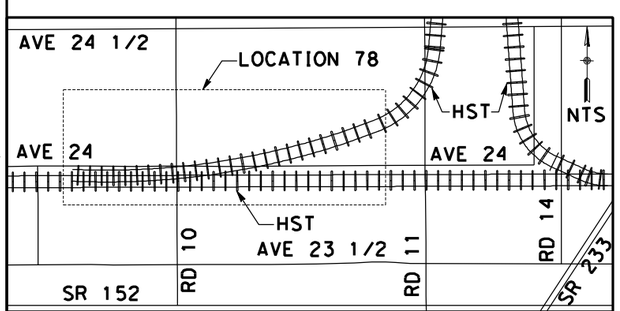
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
UPRR/SR99 MERCED/WYE DO - (HYBRID)
LOCAL ROAD - AVENUE 24 3/4
LAYOUT
STA 96+00 TO STA 109+18.38

CONTRACT NO. HSR06-007
DRAWING NO. CR9216-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:31:28 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet package 3 - hybrid volume 3b - hybrid local roads\Layout\CR9216-B.dgn
ReyesC1





CURVE DATA

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100 0 100 200
H: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. AYELE
DRAWN BY C. DELOS REYES
CHECKED BY A. SILVER
IN CHARGE A. BOONE
DATE 04/29/2011

RECORD SET
15% DESIGN SUBMITTAL

NOT FOR CONSTRUCTION

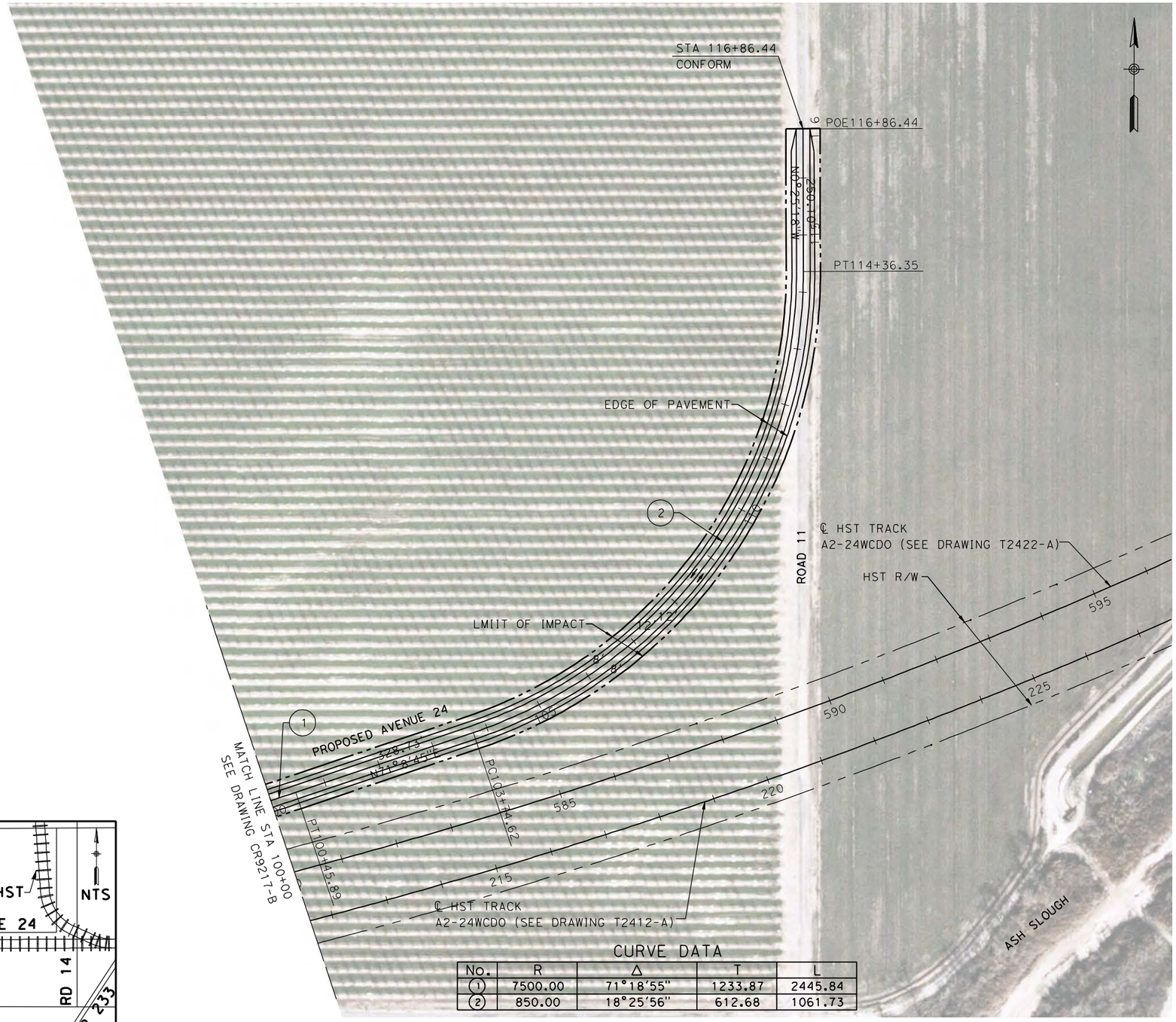
AECOM Technical Services, Inc.
2020 L Street, Suite 300
Sacramento, CA 95811
CH2MHILL

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE/WYE DO - (HYBRID)
LOCAL ROAD - AVENUE 24
LAYOUT
STA 75+00 TO STA 100+00

CONTRACT NO. HSR06-007
DRAWING NO. CR9217-B
SCALE AS SHOWN
SHEET NO. ### OF ###

p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9217-B.dgn 4/27/2011 7:31:42 PM ReyesC1

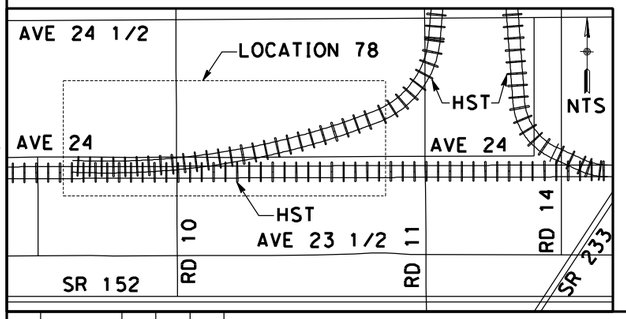


CURVE DATA

No.	R	Δ	T	L
1	7500.00	71°18'55"	1233.87	2445.84
2	850.00	18°25'56"	612.68	1061.73

100 0 100 200

H: 1"=100'



REV	DATE	BY	CHK	APP	DESCRIPTION

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IN CHARGE A. BOONE
DATE 04/29/2011

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
MERCED TO FRESNO
BNSF MAINLINE/WYE DO - (HYBRID)
LOCAL ROAD - AVENUE 24
LAYOUT
STA 100+00 TO STA 116+86.44

CONTRACT NO. HSR06-007
DRAWING NO. CR9218-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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ReyesC1

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CHECKED BY A. SILVER
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
HEALY ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9219-B
SCALE AS SHOWN
SHEET NO. ### OF ###

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ReyesC1

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DESIGNED BY D. AYELE
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CHECKED BY A. SILVER
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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

UPRR/SR99 MERCED - (HYBRID)
GERARD AVENUE/CALTRANS FRONTAGE ROAD
LAYOUT

CONTRACT NO. HSR06-007
DRAWING NO. CR9220-B
SCALE AS SHOWN
SHEET NO. ### OF ###

4/27/2011 7:32:20 PM p:\60022962\task 02_merced-fresno\cadd\civil\sheet\package 3 - hybrid\volume 3b - hybrid local roads\Layout\CR9220-B.dgn
ReyesC1