CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

Revised Draft EIR / Supplemental Draft EIS

Fresno to Bakersfield Section

Volume III:

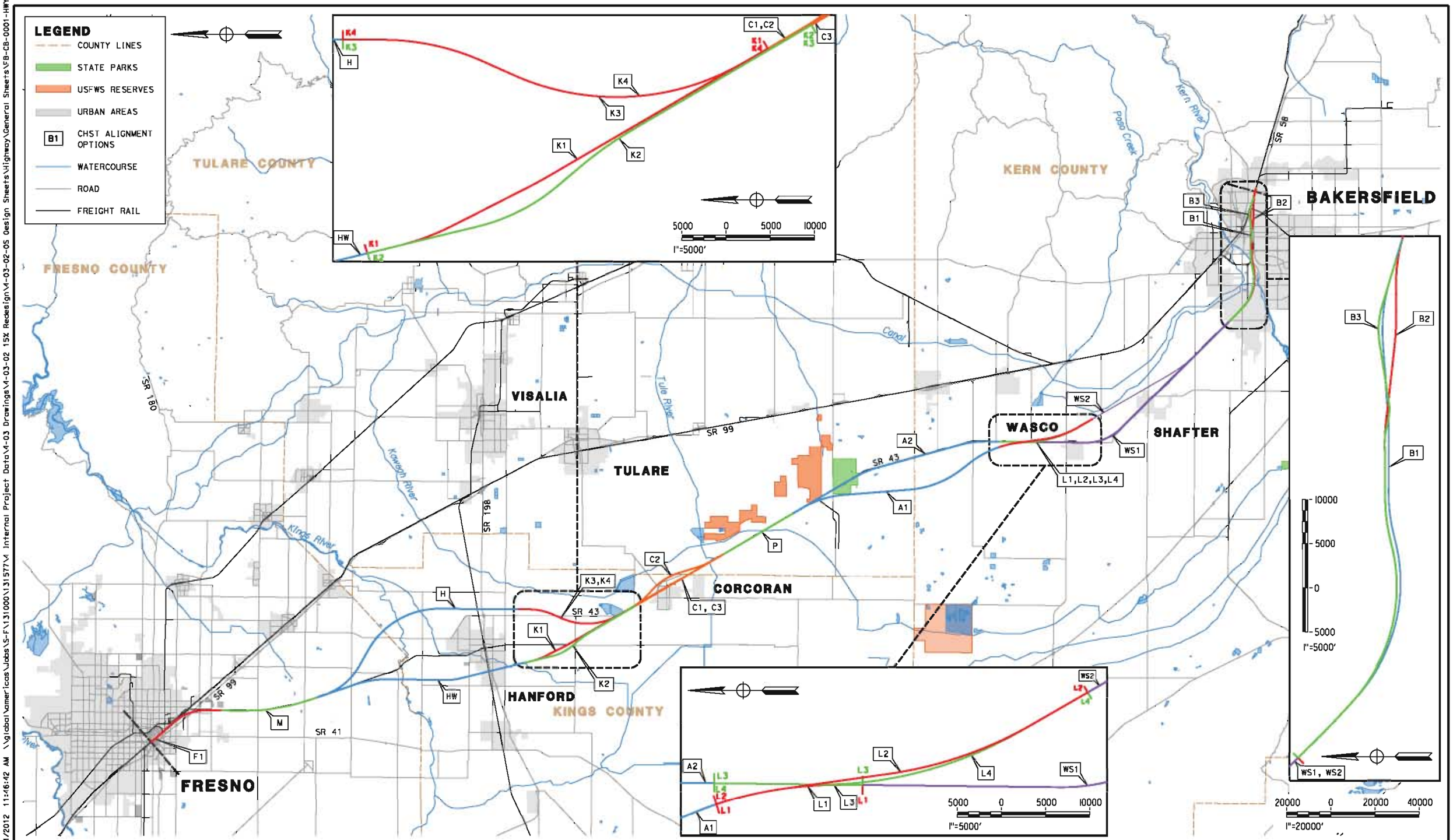
Section C – Roadway and Grade Separation Plans

Part 1 of 2

July 2012

CALIFORNIA High-Speed Rail Authority

U.S. Department of Transportation
Federal Railroad Administration



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

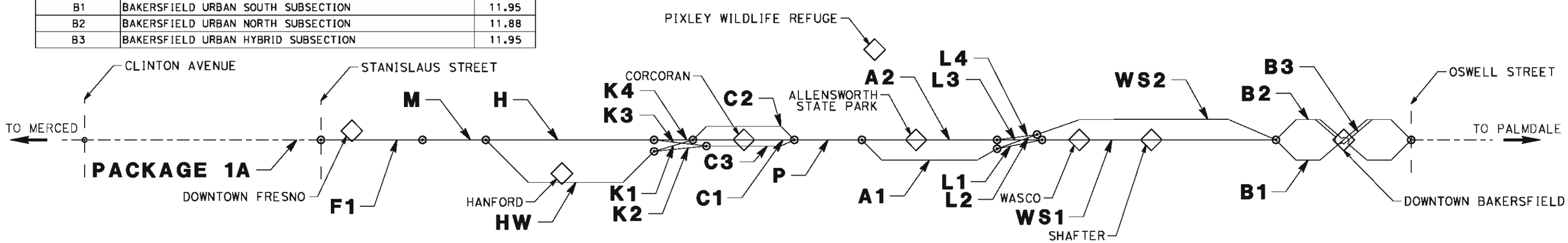
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD

ALIGNMENT LOCATION MAP

CONTRACT NO. HSR-06-0003
DRAWING NO. CB0001
SCALE AS SHOWN
SHEET NO. 1 OF 11

paul.tonkin 5/14/2012 11:46:42 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\General Sheets\FB-CB-0001-HWY.dgn

SUBSECTION CODE	NAME	LENGTH (MI)
F1	FRESNO SUBSECTION	7.00
M	MONMOUTH SUBSECTION	8.24
H	HANFORD SUBSECTION	20.45
HW	HANFORD WEST BYPASS SUBSECTION	18.27
K1	KAWEAH SUBSECTION	9.68
K2	KAWEAH SUBSECTION	10.83
K3	KAWEAH SUBSECTION	10.61
K4	KAWEAH SUBSECTION	9.53
C1	CORCORAN SUBSECTION	9.80
C2	CORCORAN BYPASS SUBSECTION	9.94
C3	CORCORAN SUBSECTION	8.74
P	PIXLEY SUBSECTION	6.88
A1	ALLENSWORTH BYPASS SUBSECTION	19.06
A2	THROUGH ALLENSWORTH SUBSECTION	19.03
L1	POSO CREEK SUBSECTION	3.18
L2	POSO CREEK SUBSECTION	8.41
L3	POSO CREEK SUBSECTION	3.18
L4	POSO CREEK SUBSECTION	8.43
WS1	THROUGH WASCO-SHAFTER SUBSECTION	20.63
WS2	WASCO-SHAFTER BYPASS SUBSECTION	14.49
B1	BAKERSFIELD URBAN SOUTH SUBSECTION	11.95
B2	BAKERSFIELD URBAN NORTH SUBSECTION	11.88
B3	BAKERSFIELD URBAN HYBRID SUBSECTION	11.95



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. LABANOWSKI
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IN CHARGE R. COFFIN
DATE 05/18/12

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CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
ALIGNMENT
ALIGNMENT SUBSECTION DIAGRAM

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0002
SCALE AS SHOWN
SHEET NO. 2 OF 11

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GENERAL SHEETS

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0001	ALIGNMENT - LOCATION MAP	SHEET 1 OF 11	1
CB0002	ALIGNMENT - ALIGNMENT SUBSECTIONS DIAGRAM	SHEET 2 OF 11	
CB1003	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 1 OF 7	SHEET 3 OF 11	
CB1004	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 2 OF 7	SHEET 4 OF 11	
CB1005	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 3 OF 7	SHEET 5 OF 11	
CB1006	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 4 OF 7	SHEET 6 OF 11	
CB1007	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 5 OF 7	SHEET 7 OF 11	
CB1008	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 6 OF 7	SHEET 8 OF 11	
CB1009	ROADWAY & GRADE SEPARATION - INDEX OF SHEETS - SHEET 7 OF 7	SHEET 9 OF 11	
CB0010	GENERAL - ABBREVIATIONS & LEGENDS - SHEET 1 OF 2	SHEET 10 OF 11	
CB0011	GENERAL - ABBREVIATIONS & LEGENDS - SHEET 2 OF 2	SHEET 11 OF 11	

ALIGNMENT F1 - FRESNO SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0040	FRESNO SUBSECTION - ALIGNMENT F1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 32	1
CT1012	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - STANISLAUS ST & TUOLUMNE ST	SHEET 2 OF 32	
CT1013	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - FRESNO ST	SHEET 3 OF 32	
CT1016	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - TULARE ST (OVERHEAD)	SHEET 4 OF 32	
CT1017	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - TULARE ST (UNDERPASS)	SHEET 5 OF 32	
CT1019	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - VENTURA ST (OVERHEAD)	SHEET 6 OF 32	
CT1020	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - VENTURA ST (UNDERPASS)	SHEET 7 OF 32	
CT1021	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - E CHURCH AVE	SHEET 8 OF 32	
CT1025	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - E CENTRAL AVE	SHEET 9 OF 32	
CT1028	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION LAYOUT - E AMERICAN AVE	SHEET 10 OF 32	
CT2011	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - STANISLAUS ST	SHEET 11 OF 32	
CT2012	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - TUOLUMNE ST	SHEET 12 OF 32	
CT2013	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - FRESNO ST	SHEET 13 OF 32	
CT2014	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - H ST (FRESNO ST)	SHEET 14 OF 32	
CT2015	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - G ST (FRESNO ST)	SHEET 15 OF 32	
CT2016	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - TULARE ST (OVERHEAD)	SHEET 16 OF 32	
CT2017	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - TULARE ST (UNDERPASS)	SHEET 17 OF 32	
CT2018	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - G ST (TULARE ST UNDERPASS)	SHEET 18 OF 32	
CT2019	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - VENTURA ST (OVERHEAD)	SHEET 19 OF 32	
CT2020	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - VENTURA ST (UNDERPASS)	SHEET 20 OF 32	
CT2029	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - G ST & H ST (VENTURA ST UNDERPASS)	SHEET 21 OF 32	
CT2021	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - E CHURCH AVE	SHEET 22 OF 32	
CT2022	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - G ST (E CHURCH ST)	SHEET 23 OF 32	
CT2023	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - OLD E CHURCH AVE	SHEET 24 OF 32	
CT2024	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - S GOLDEN STATE BLVD	SHEET 25 OF 32	
CT2025	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - E CENTRAL AVE	SHEET 26 OF 32	
CT2027	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - S CEDAR AVE	SHEET 27 OF 32	
CT2028	FRESNO SUBSECTION - ALIGNMENT F1 - GRADE SEPARATION PROFILE - E AMERICAN AVE	SHEET 28 OF 32	
CT3001	FRESNO SUBSECTION - ALIGNMENT F1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 29 OF 32	
CT3002	FRESNO SUBSECTION - ALIGNMENT F1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 30 OF 32	
CT3003	FRESNO SUBSECTION - ALIGNMENT F1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 31 OF 32	
CT3004	FRESNO SUBSECTION - ALIGNMENT F1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 32 OF 32	

ALIGNMENT M - MONMOUTH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0050	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 29	1
CT1101	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E LINCOLN AVE	SHEET 2 OF 29	
CT1103	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E ADAMS AVE	SHEET 3 OF 29	
CT1104	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E SOUTH AVE	SHEET 4 OF 29	
CT1106	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E MANNING AVE	SHEET 5 OF 29	
CT1109	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E FLORAL AVE	SHEET 6 OF 29	
CT1110	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E FLORAL AVE	SHEET 7 OF 29	
CT1111	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E NEBRASKA AVE	SHEET 8 OF 29	
CT1112	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E NEBRASKA AVE	SHEET 9 OF 29	
CT1113	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E MOUNTAIN VIEW AVE	SHEET 10 OF 29	
CT1114	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION LAYOUT - E MOUNTAIN VIEW AVE	SHEET 11 OF 29	
CT1115	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY LAYOUT - S CHESTNUT AVE (NORTH)	SHEET 12 OF 29	
CT1116	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY LAYOUT - S CHESTNUT AVE (SOUTH)	SHEET 13 OF 29	
CT2101	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E LINCOLN AVE	SHEET 14 OF 29	
CT2102	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY PROFILE - S CEDAR AT E ADAMS AVE	SHEET 15 OF 29	
CT2103	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E ADAMS AVE	SHEET 16 OF 29	
CT2104	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E SOUTH AVE	SHEET 17 OF 29	
CT2106	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E MANNING AVE	SHEET 18 OF 29	
CT2108	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E FLORAL AVE	SHEET 19 OF 29	
CT2109	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E FLORAL AVE	SHEET 20 OF 29	
CT2110	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E NEBRASKA AVE	SHEET 21 OF 29	
CT2111	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E NEBRASKA AVE	SHEET 22 OF 29	
CT2112	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - S CHESTNUT AVE AT E NEBRASKA AVE	SHEET 23 OF 29	
CT2113	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E MOUNTAIN VIEW AVE	SHEET 24 OF 29	
CT2114	MONMOUTH SUBSECTION - ALIGNMENT M - GRADE SEPARATION PROFILE - E MOUNTAIN VIEW AVE	SHEET 25 OF 29	
CT2115	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY PROFILE - S CHESTNUT AVE (NORTH)	SHEET 26 OF 29	
CT2116	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY PROFILE - S CHESTNUT AVE (SOUTH)	SHEET 27 OF 29	
CT3010	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 28 OF 29	
CT3011	MONMOUTH SUBSECTION - ALIGNMENT M - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 29 OF 29	

ALIGNMENT H - HANFORD SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0055	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 69	
CT1117	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - S CLOVIS AVE	SHEET 2 OF 69	
CT1118	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - S CLOVIS AVE	SHEET 3 OF 69	
CT1119	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - E ELKHORN AVE	SHEET 4 OF 69	
CT1120	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - E ELKHORN AVE	SHEET 5 OF 69	
CT1121	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - S FOWLER AVE	SHEET 6 OF 69	
CT1122	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - S FOWLER AVE	SHEET 7 OF 69	
CT1123	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - E DAVIS AVE	SHEET 8 OF 69	
CT1124	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - E DAVIS AVE	SHEET 9 OF 69	
CT1125	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS	SHEET 10 OF 69	
CT1126	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS	SHEET 11 OF 69	
CT1128	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - CAIRO AVE	SHEET 12 OF 69	
CT1129	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - CAIRO AVE	SHEET 13 OF 69	
CT1130	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - DOVER AVE	SHEET 14 OF 69	
CT1131	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - DOVER AVE	SHEET 15 OF 69	
CT1132	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - 8TH AVE (NORTH)	SHEET 16 OF 69	
CT1133	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - 8TH AVE (SOUTH)	SHEET 17 OF 69	
CT1134	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - EXCELSIOR AVE	SHEET 18 OF 69	
CT1135	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - EXCELSIOR AVE	SHEET 19 OF 69	
CT1136	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - ELDER AVE	SHEET 20 OF 69	
CT1137	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - ELDER AVE	SHEET 21 OF 69	
CT1138	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - FLINT AVE	SHEET 22 OF 69	
CT1139	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - FLINT AVE	SHEET 23 OF 69	
CT1140	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - FARGO AVE	SHEET 24 OF 69	
CT1141	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - FARGO AVE	SHEET 25 OF 69	
CT1144	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - HANFORD ARMONA RD	SHEET 26 OF 69	
CT1145	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - HANFORD ARMONA RD	SHEET 27 OF 69	
CT1146	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - HOUSTON AVE	SHEET 28 OF 69	
CT1147	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - HOUSTON AVE	SHEET 29 OF 69	
CT1148	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - IONA AVE	SHEET 30 OF 69	
CT1149	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION LAYOUT - IONA AVE	SHEET 31 OF 69	
CT2117	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - S CLOVIS AVE	SHEET 32 OF 69	
CT2118	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - S CLOVIS AVE	SHEET 33 OF 69	
CT2119	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - E ELKHORN AVE	SHEET 34 OF 69	
CT2120	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - E ELKHORN AVE	SHEET 35 OF 69	
CT2121	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - S FOWLER AVE	SHEET 36 OF 69	
CT2122	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - S FOWLER AVE	SHEET 37 OF 69	
CT2123	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - E DAVIS AVE	SHEET 38 OF 69	
CT2124	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - E DAVIS AVE	SHEET 39 OF 69	
CT2125	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43	SHEET 40 OF 69	
CT2126	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - STATE ROUTE 43 KINGS RIVER LEVEE ACCESS	SHEET 41 OF 69	
CT2127	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - STATE ROUTE 43 KINGS RIVER LEVEE ACCESS	SHEET 42 OF 69	
CT2128	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - CAIRO AVE	SHEET 43 OF 69	
CT2129	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - CAIRO AVE	SHEET 44 OF 69	
CT2130	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - DOVER AVE	SHEET 45 OF 69	
CT2131	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - DOVER AVE	SHEET 46 OF 69	
CT2132	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - 8TH AVE (NORTH)	SHEET 47 OF 69	
CT2133	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - 8TH AVE (SOUTH)	SHEET 48 OF 69	
CT2134	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - EXCELSIOR AVE	SHEET 49 OF 69	
CT2135	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - EXCELSIOR AVE	SHEET 50 OF 69	
CT2136	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - ELDER AVE	SHEET 51 OF 69	
CT2137	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - ELDER AVE	SHEET 52 OF 69	
CT2138	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - FLINT AVE	SHEET 53 OF 69	
CT2139	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - FLINT AVE	SHEET 54 OF 69	
CT2140	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - FARGO AVE	SHEET 55 OF 69	
CT2141	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - FARGO AVE	SHEET 56 OF 69	
CT2142	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - 7 1/2 AVE CONNECTOR	SHEET 57 OF 69	
CT2143	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - 7 1/2 AVE	SHEET 58 OF 69	
CT2144	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - HANFORD ARMONA RD	SHEET 59 OF 69	
CT2145	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - HANFORD ARMONA RD	SHEET 60 OF 69	
CT2146	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - HOUSTON AVE	SHEET 61 OF 69	
CT2147	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - HOUSTON AVE	SHEET 62 OF 69	
CT2148	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - IONA AVE	SHEET 63 OF 69	
CT2149	HANFORD SUBSECTION - ALIGNMENT H - GRADE SEPARATION PROFILE - IONA AVE	SHEET 64 OF 69	

ALIGNMENT H - HANFORD SUBSECTION CONT'D

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CR1251	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY LAYOUT - E CLARKSON AVE & S MINNEWAWA AVE	SHEET 65 OF 69	1
CR2251	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY PROFILE - E CLARKSON AVE & S MINNEWAWA AVE	SHEET 66 OF 69	
CR2252	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY PROFILE - E CLARKSON AVE & S MINNEWAWA AVE	SHEET 67 OF 69	
CT3030	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 68 OF 69	
CT3031	HANFORD SUBSECTION - ALIGNMENT H - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 69 OF 69	

ALIGNMENT HW - HANFORD WEST BYPASS SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0210	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 51	
CT1310	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - E CONEJO AVE	SHEET 2 OF 51	
CT1311	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - E ELKHORN AVE	SHEET 3 OF 51	
CT1313	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - S CLOVIS AVE	SHEET 4 OF 51	
CT1314	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - S CLOVIS AVE	SHEET 5 OF 51	
CT1315	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - EXCELSIOR AVE	SHEET 6 OF 51	
CT1316	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - EXCELSIOR AVE	SHEET 7 OF 51	
CT1317	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - FLINT AVE	SHEET 8 OF 51	
CT1319	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - FARGO AVE	SHEET 9 OF 51	
CT1321	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - GRANGEVILLE BLVD	SHEET 10 OF 51	
CT1322	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION LAYOUT - W LACEY BLVD / 13TH AVE	SHEET 11 OF 51	
CT1323	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION LAYOUT - W LACEY BLVD / 13TH AVE	SHEET 12 OF 51	
CT1325	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION LAYOUT - W LACEY BLVD / 13TH AVE	SHEET 13 OF 51	
CT1327	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION LAYOUT - GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD	SHEET 14 OF 51	
CT1328	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION LAYOUT - GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD	SHEET 15 OF 51	
CT1330	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION LAYOUT - GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD	SHEET 16 OF 51	
CT1334	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - HOUSTON AVE	SHEET 17 OF 51	
CT1336	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION LAYOUT - IONA AVE	SHEET 18 OF 51	
CT2310	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - E CONEJO AVE	SHEET 19 OF 51	
CT2311	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - E ELKHORN AVE	SHEET 20 OF 51	
CT2312	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - E ELKHORN AVE	SHEET 21 OF 51	
CT2313	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - S CLOVIS AVE	SHEET 22 OF 51	
CT2314	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - S CLOVIS AVE	SHEET 23 OF 51	
CT2315	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - EXCELSIOR AVE	SHEET 24 OF 51	
CT2316	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - EXCELSIOR AVE	SHEET 25 OF 51	
CT2317	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - FLINT AVE	SHEET 26 OF 51	1
CT2318	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - FLINT AVE	SHEET 27 OF 51	
CT2319	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - FARGO AVE	SHEET 28 OF 51	
CT2320	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - FARGO AVE	SHEET 29 OF 51	
CT2321	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - GRANGEVILLE BLVD	SHEET 30 OF 51	
CT2322	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION PROFILE - W LACEY BLVD	SHEET 31 OF 51	
CT2323	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION PROFILE - 13TH AVE	SHEET 32 OF 51	
CT2324	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION PROFILE - 13TH AVE	SHEET 33 OF 51	
CT2325	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION PROFILE - W LACEY BLVD	SHEET 34 OF 51	
CT2326	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION PROFILE - 13TH AVE	SHEET 35 OF 51	
CT2327	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 198	SHEET 36 OF 51	
CT2328	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 198	SHEET 37 OF 51	
CT2329	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION PROFILE - GLENDALE AVE	SHEET 38 OF 51	
CT2330	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEPARATION PROFILE - HANFORD ARMONA RD	SHEET 39 OF 51	
CT2331	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (AT-GRADE) - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 198 RAMPS	SHEET 40 OF 51	
CT2332	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION PROFILE - STATE ROUTE 198 / GLENDALE AVE	SHEET 41 OF 51	
CT2333	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW (BELOW-GRADE) - GRADE SEPARATION PROFILE - HANFORD ARMONA RD	SHEET 42 OF 51	
CT2334	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - HOUSTON AVE	SHEET 43 OF 51	
CT2335	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - HOUSTON AVE	SHEET 44 OF 51	
CT2336	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - IONA AVE	SHEET 45 OF 51	
CT2337	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - IONA AVE	SHEET 46 OF 51	
CT2338	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - GRADE SEPARATION PROFILE - 12TH AVE (AT IONA AVE)	SHEET 47 OF 51	
CT 3330	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 48 OF 51	
CT 3331	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 49 OF 51	
CT 3332	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 50 OF 51	
CT 3333	HANFORD WEST BYPASS SUBSECTION - ALIGNMENT HW - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 51 OF 51	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY E. SUDHAUSEN
DRAWN BY P. LEES
CHECKED BY G. SCHLERETH
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
ROADWAY & GRADE SEPARATION
INDEX OF SHEETS
SHEET 2 OF 7

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1004
SCALE NO SCALE
SHEET NO. 4 OF 11

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ALIGNMENT K1 - KAWEAH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0220	KAWEAH SUBSECTION - ALIGNMENT K1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 19	1
CT1350	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION LAYOUT - 12TH AVE / IDAHO AVE	SHEET 2 OF 19	
CT1351	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION LAYOUT - 12TH AVE / IDAHO AVE	SHEET 3 OF 19	
CT1354	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 4 OF 19	
CT1356	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION LAYOUT - S 11TH AVE	SHEET 5 OF 19	
CT1359	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION LAYOUT - LANSING AVE	SHEET 6 OF 19	
CT2350	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 7 OF 19	
CT2351	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 8 OF 19	
CT2352	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - 12TH AVE (AT IDAHO AVE)	SHEET 9 OF 19	
CT2353	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - 12TH AVE (AT IDAHO AVE)	SHEET 10 OF 19	
CT2354	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 11 OF 19	
CT2355	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 12 OF 19	
CT2356	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - 11TH AVE	SHEET 13 OF 19	
CT2357	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - 11TH AVE	SHEET 14 OF 19	
CT2358	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - DRIVEWAY (AT 11TH AVE)	SHEET 15 OF 19	
CT2359	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - LANSING AVE	SHEET 16 OF 19	
CT2360	KAWEAH SUBSECTION - ALIGNMENT K1 - GRADE SEPARATION PROFILE - LANSING AVE	SHEET 17 OF 19	
CT 3340	KAWEAH SUBSECTION - ALIGNMENT K1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 18 OF 19	
CT 3341	KAWEAH SUBSECTION - ALIGNMENT K1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 19 OF 19	

ALIGNMENT K2 - KAWEAH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0230	KAWEAH SUBSECTION - ALIGNMENT K2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 26	1
CT1370	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - 12TH AVE / IDAHO AVE	SHEET 2 OF 26	
CT1371	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - 12TH AVE / IDAHO AVE	SHEET 3 OF 26	
CT1374	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 4 OF 26	
CT1376	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - S 11TH AVE/ KENT AVE	SHEET 5 OF 26	
CT1377	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - S 11TH AVE/ KENT AVE	SHEET 6 OF 26	
CT1378	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - KANSAS AVE	SHEET 7 OF 26	
CT1379	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - LANSING AVE	SHEET 8 OF 26	
CT1381	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 9 OF 26	
CT1382	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 10 OF 26	
CT2370	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 11 OF 26	
CT2371	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 12 OF 26	
CT2372	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - 12TH AVE (AT IDAHO)	SHEET 13 OF 26	
CT2373	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - 12TH AVE (AT IDAHO)	SHEET 14 OF 26	
CT2374	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 15 OF 26	
CT2375	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 16 OF 26	
CT2376	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - 11TH AVE	SHEET 17 OF 26	
CT2377	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - KENT AVE	SHEET 18 OF 26	
CT2378	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - KANSAS AVE	SHEET 19 OF 26	
CT2379	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - LANSING AVE	SHEET 20 OF 26	
CT2380	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - LANSING AVE	SHEET 21 OF 26	
CT2381	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 22 OF 26	
CT2382	KAWEAH SUBSECTION - ALIGNMENT K2 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 23 OF 26	
CT3350	KAWEAH SUBSECTION - ALIGNMENT K2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 24 OF 26	
CT33S1	KAWEAH SUBSECTION - ALIGNMENT K2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 25 OF 26	
CT3352	KAWEAH SUBSECTION - ALIGNMENT K2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 26 OF 26	

ALIGNMENT K3 - KAWEAH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0060	KAWEAH SUBSECTION - ALIGNMENT K3 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 27	1
CT1201	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - IDAHO AVE	SHEET 2 OF 27	
CT1202	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - IDAHO AVE	SHEET 3 OF 27	
CT1203	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 4 OF 27	
CT1204	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 5 OF 27	
CT1205	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (JERSEY AVE)	SHEET 6 OF 27	
CT1206	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (JERSEY AVE)	SHEET 7 OF 27	
CT1207	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - KENT AVE	SHEET 8 OF 27	
CT1208	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - KENT AVE	SHEET 9 OF 27	
CT1209	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - KANSAS AVE	SHEET 10 OF 27	
CT1210	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - KANSAS AVE	SHEET 11 OF 27	
CT1211	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 12 OF 27	
CT1212	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 13 OF 27	
CT2201	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 14 OF 27	
CT2202	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 15 OF 27	
CT2203	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 16 OF 27	
CT2204	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 17 OF 27	
CT2205	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (JERSEY AVE)	SHEET 18 OF 27	
CT2206	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (JERSEY AVE)	SHEET 19 OF 27	
CT2207	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - KENT AVE	SHEET 20 OF 27	
CT2208	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - KENT AVE	SHEET 21 OF 27	
CT2209	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - KANSAS AVE	SHEET 22 OF 27	
CT2210	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - KANSAS AVE	SHEET 23 OF 27	
CT2211	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 24 OF 27	
CT2212	KAWEAH SUBSECTION - ALIGNMENT K3 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 25 OF 27	
CT3220	KAWEAH SUBSECTION - ALIGNMENT K3 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 26 OF 27	
CT3221	KAWEAH SUBSECTION - ALIGNMENT K3 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 27 OF 27	

ALIGNMENT K4 - KAWEAH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0065	KAWEAH SUBSECTION - ALIGNMENT K4 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 23	1
CT1220	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - IDAHO AVE	SHEET 2 OF 23	
CT1221	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - IDAHO AVE	SHEET 3 OF 23	
CT1222	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 4 OF 23	
CT1223	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - JACKSON AVE	SHEET 5 OF 23	
CT1224	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (JERSEY AVE)	SHEET 6 OF 23	
CT1225	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (JERSEY AVE)	SHEET 7 OF 23	
CT1226	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - KENT AVE	SHEET 8 OF 23	
CT1227	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - KENT AVE	SHEET 9 OF 23	
CT1228	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - KANSAS AVE	SHEET 10 OF 23	
CT1229	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION LAYOUT - KANSAS AVE	SHEET 11 OF 23	
CT2220	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 12 OF 23	
CT2221	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - IDAHO AVE	SHEET 13 OF 23	
CT2222	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 14 OF 23	
CT2223	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - JACKSON AVE	SHEET 15 OF 23	
CT2224	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (JERSEY AVE)	SHEET 16 OF 23	
CT2225	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (JERSEY AVE)	SHEET 17 OF 23	
CT2226	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - KENT AVE	SHEET 18 OF 23	
CT2227	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - KENT AVE	SHEET 19 OF 23	
CT2228	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - KANSAS AVE	SHEET 20 OF 23	
CT2229	KAWEAH SUBSECTION - ALIGNMENT K4 - GRADE SEPARATION PROFILE - KANSAS AVE	SHEET 21 OF 23	
CT3230	KAWEAH SUBSECTION - ALIGNMENT K4 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 22 OF 23	
CT3231	KAWEAH SUBSECTION - ALIGNMENT K4 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 23 OF 23	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY E. SUDHAUSEN
DRAWN BY P. LEES
CHECKED BY G. SCHLERETH
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

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CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
ROADWAY & GRADE SEPARATION
INDEX OF SHEETS
SHEET 3 OF 7

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1005
SCALE NO SCALE
SHEET NO. 5 OF 11

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ALIGNMENT C1 - CORCORAN SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0070	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 19	1
CT1230	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 2 OF 19	
CT1231	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 3 OF 19	
CT1232	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION LAYOUT - AVE 144	SHEET 4 OF 19	
CT1233	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION LAYOUT - AVE 144	SHEET 5 OF 19	
CT2230	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 6 OF 19	
CT2231	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 7 OF 19	
CT2232	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION PROFILE - AVE 144	SHEET 8 OF 19	
CT2233	CORCORAN SUBSECTION - ALIGNMENT C1 - GRADE SEPARATION PROFILE - AVE 144	SHEET 9 OF 19	
CR1201	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY LAYOUT - SANTA FE AVE OFF RAMP	SHEET 10 OF 19	
CR1202	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY LAYOUT - SANTA FE AVE	SHEET 11 OF 19	
CR1203	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY LAYOUT - SANTA FE AVE	SHEET 12 OF 19	
CR1204	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY LAYOUT - SANTA FE AVE	SHEET 13 OF 19	
CR2201	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY PROFILE & SUPERELEVATION DIAGRAM - SANTA FE AVE OFF RAMP	SHEET 14 OF 19	
CR2202	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY PROFILE - SANTA FE AVE	SHEET 15 OF 19	
CR2203	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY PROFILE - SANTA FE AVE	SHEET 16 OF 19	
CR2204	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY PROFILE - SANTA FE AVE	SHEET 17 OF 19	
CT3040	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 18 OF 19	
CT3041	CORCORAN SUBSECTION - ALIGNMENT C1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 19 OF 19	

ALIGNMENT C2 - CORCORAN BYPASS SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0075	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 24	1
CT1239	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 2 OF 24	
CT1240	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - NEVADA AVE	SHEET 3 OF 24	
CT1241	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (CORCORAN)	SHEET 4 OF 24	
CT1242	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (CORCORAN)	SHEET 5 OF 24	
CT1243	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - STATE ROUTE 43 (CORCORAN)	SHEET 6 OF 24	
CT1244	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - CORCORAN HWY	SHEET 7 OF 24	
CT1248	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION LAYOUT - WHITLEY AVE/ STATE ROUTE 137	SHEET 8 OF 24	
CT2239	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 9 OF 24	
CT2240	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - NEVADA AVE	SHEET 10 OF 24	
CT2241	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (CORCORAN)	SHEET 11 OF 24	
CT2242	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (CORCORAN)	SHEET 12 OF 24	
CT2243	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 (CORCORAN)	SHEET 13 OF 24	
CT2244	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - CORCORAN HWY	SHEET 14 OF 24	
CT2245	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - CORCORAN HWY	SHEET 15 OF 24	
CT2246	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - 5TH AVE	SHEET 16 OF 24	
CT2247	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEPARATION PROFILE - ORANGE AVE CONNECTOR	SHEET 17 OF 24	
CT2248	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - WHITLEY AVE / STATE ROUTE 137	SHEET 18 OF 24	
CR1230	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY LAYOUT - NILES AVE	SHEET 19 OF 24	
CR1231	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY LAYOUT - 5 1/2 AVE	SHEET 20 OF 24	
CR2230	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY PROFILE - NILES AVE	SHEET 21 OF 24	
CR2231	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY PROFILE - 5 1/2 AVE	SHEET 22 OF 24	
CT3042	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 23 OF 24	
CT3043	CORCORAN BYPASS SUBSECTION - ALIGNMENT C2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 24 OF 24	

ALIGNMENT C3 - CORCORAN SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0080	CORCORAN SUBSECTION - ALIGNMENT C3 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 43	1
CT1271	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - CHARLES ST	SHEET 2 OF 43	
CT1272	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - CHARLES ST	SHEET 3 OF 43	
CT1273	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - OTIS AVE	SHEET 4 OF 43	
CT1274	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - OTIS AVE	SHEET 5 OF 43	
CT1275	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - OTIS AVE	SHEET 6 OF 43	
CT1280	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43	SHEET 7 OF 43	
CT1281	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43	SHEET 8 OF 43	
CT1282	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43	SHEET 9 OF 43	
CT1283	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43	SHEET 10 OF 43	
CT1284	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - STATE ROUTE 43	SHEET 11 OF 43	
CT1294	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - AVE 148	SHEET 12 OF 43	
CT1295	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - AVE 148 & RD 24	SHEET 13 OF 43	
CT1296	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION LAYOUT - RD 24	SHEET 14 OF 43	
CT2271	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - CHARLES ST	SHEET 15 OF 43	
CT2272	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - CHARLES ST	SHEET 16 OF 43	
CT2273	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - SANTA FE AVE	SHEET 17 OF 43	
CT2274	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - OTIS AVE	SHEET 18 OF 43	
CT2275	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - OTIS AVE	SHEET 19 OF 43	
CT2276	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - OTIS AVE	SHEET 20 OF 43	
CT2277	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - CONNECTIONS TO OTIS AVE	SHEET 21 OF 43	
CT2278	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - CONNECTIONS TO OTIS AVE	SHEET 22 OF 43	
CT2279	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - LETTS AVE	SHEET 23 OF 43	
CT2284	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 24 OF 43	
CT2285	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 25 OF 43	
CT2286	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 26 OF 43	
CT2287	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 27 OF 43	
CT2288	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 28 OF 43	
CT2289	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 29 OF 43	
CT2290	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 30 OF 43	
CT2291	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 31 OF 43	
CT2292	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 32 OF 43	
CT2293	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 MAINLINE (SB)	SHEET 33 OF 43	
CT2294	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 SB OFF RAMP	SHEET 34 OF 43	
CT2295	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 SB ON RAMP	SHEET 35 OF 43	
CT2296	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 NB OFF RAMP	SHEET 36 OF 43	
CT2297	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 43 NB ON RAMP	SHEET 37 OF 43	
CT2298	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - AVE 148	SHEET 38 OF 43	
CT2299	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - AVE 148	SHEET 39 OF 43	
CT2300	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - RD 24	SHEET 40 OF 43	
CT2301	CORCORAN SUBSECTION - ALIGNMENT C3 - GRADE SEPARATION PROFILE - RD 24	SHEET 41 OF 43	
CT3044	CORCORAN SUBSECTION - ALIGNMENT C3 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 42 OF 43	
CT3045	CORCORAN SUBSECTION - ALIGNMENT C3 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 43 OF 43	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY E. SUDHAUSEN
DRAWN BY P. LEES
CHECKED BY G. SCHLERETH
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

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CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
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INDEX OF SHEETS
SHEET 4 OF 7

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1006
SCALE NO SCALE
SHEET NO. 6 OF 11

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ALIGNMENT P - PIXLEY SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0100	PIXLEY SUBSECTION - ALIGNMENT P - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 16	1
CT1401	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION LAYOUT - AVE 128	SHEET 2 OF 16	
CT1411	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION LAYOUT - HESSE AVE	SHEET 3 OF 16	
CT1421	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION LAYOUT - AVE 112	SHEET 4 OF 16	
CT1431	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION LAYOUT - AVE 88	SHEET S OF 16	
CT2401	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 128	SHEET 6 OF 16	
CT2402	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 128	SHEET 7 OF 16	
CT2411	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - HESSE AVE	SHEET 8 OF 16	
CT2412	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - HESSE AVE	SHEET 9 OF 16	
CT2421	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 112	SHEET 10 OF 16	
CT2422	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 112	SHEET 11 OF 16	
CT2423	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 112 CONNECTOR	SHEET 12 OF 16	
CT2431	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 88	SHEET 13 OF 16	
CT2432	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 88	SHEET 14 OF 16	
CT2433	PIXLEY SUBSECTION - ALIGNMENT P - GRADE SEPARATION PROFILE - AVE 88 CONNECTOR	SHEET 15 OF 16	
CT3060	PIXLEY SUBSECTION - ALIGNMENT P - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 16 OF 16	

ALIGNMENT A1 - ALLENSWORTH BYPASS SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0110	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 20	2
CT1S01	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - COUNTY RD J22	SHEET 2 OF 20	
CT1511	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - GARCES HWY	SHEET 3 OF 20	
CT1S12	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - SCOFIELD AVE	SHEET 4 OF 20	
CT1S13	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - SCOFIELD AVE	SHEET S OF 20	
CT1S21	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - POND RD	SHEET 6 OF 20	
CT1522	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - POND RD	SHEET 7 OF 20	
CT1S23	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - MAGNOLIA AVE	SHEET 8 OF 20	
CT1S31	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION LAYOUT - PETERSON RD	SHEET 9 OF 20	
CT2S01	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - COUNTY RD J22	SHEET 10 OF 20	
CT2511	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - GARCES HWY	SHEET 11 OF 20	
CT2512	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - SCOFIELD AVE	SHEET 12 OF 20	
CT2S13	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - SCOFIELD AVE	SHEET 13 OF 20	
CT2S14	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - SCOFIELD AVE	SHEET 14 OF 20	
CT2521	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - POND RD	SHEET 15 OF 20	
CT2S22	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - POND RD	SHEET 16 OF 20	
CT2S23	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - MAGNOLIA AVE	SHEET 17 OF 20	
CT2S24	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - MAGNOLIA AVE	SHEET 1B OF 20	
CT2531	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - GRADE SEPARATION PROFILE - PETERSON RD	SHEET 19 OF 20	
CT3070	ALLENSWORTH BYPASS SUBSECTION - ALIGNMENT A1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 20 OF 20	

ALIGNMENT A2 - ALLENSWORTH SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
C80120	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 18	2
CT1601	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - COUNTY RD J22	SHEET 2 OF 18	
CT1602	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - COUNTY RD J22	SHEET 3 OF 18	
CT1611	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - AVE 24	SHEET 4 OF 18	
CT1621	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - GARCES HWY	SHEET S OF 18	
CT1631	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - SCHUSTER RD	SHEET 6 OF 18	
CT1641	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION LAYOUT - PETERSON RD	SHEET 7 OF 18	
CT2601	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - COUNTY RD J22	SHEET 8 OF 18	
CT2602	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - COUNTY RD J22	SHEET 9 OF 18	
CT2611	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - AVE 24	SHEET 10 OF 18	
CT2612	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - AVE 24	SHEET 11 OF 18	
CT2621	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - GARCES HWY	SHEET 12 OF 18	
CT2622	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - GARCES HWY	SHEET 13 OF 18	
CT2631	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - SCHUSTER RD	SHEET 14 OF 18	
CT2632	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - SCHUSTER RD	SHEET 15 OF 18	
CT2641	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - PETERSON RD	SHEET 16 OF 18	
CT2642	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - GRADE SEPARATION PROFILE - PETERSON RD	SHEET 17 OF 18	
CT3080	THROUGH ALLENSWORTH SUBSECTION - ALIGNMENT A2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 18 OF 18	

ALIGNMENT L1 - POSO CREEK SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0130	POSO CREEK SUBSECTION - ALIGNMENT L1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 1	2

ALIGNMENT L2 - POSO CREEK SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0140	POSO CREEK SUBSECTION - ALIGNMENT L2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 7	2
CT1751	POSO CREEK SUBSECTION - ALIGNMENT L2 - GRADE SEPARATION LAYOUT - STATE ROUTE 46	SHEET 2 OF 7	
CT1752	POSO CREEK SUBSECTION - ALIGNMENT L2 - GRADE SEPARATION LAYOUT - STATE ROUTE 46	SHEET 3 OF 7	
CT2751	POSO CREEK SUBSECTION - ALIGNMENT L2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 46	SHEET 4 OF 7	
CT2752	POSO CREEK SUBSECTION - ALIGNMENT L2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 46	SHEET S OF 7	
CT2753	POSO CREEK SUBSECTION - ALIGNMENT L2 - GRADE SEPARATION PROFILE - ROOT AVE	SHEET 6 OF 7	
CT3100	POSO CREEK SUBSECTION - ALIGNMENT L2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 7 OF 7	

ALIGNMENT L3 - POSO CREEK SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0150	POSO CREEK SUBSECTION - ALIGNMENT L3 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 1	2

ALIGNMENT L4 - POSO CREEK SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0160	POSO CREEK SUBSECTION - ALIGNMENT L4 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 7	2
CT1851	POSO CREEK SUBSECTION - ALIGNMENT L4 - GRADE SEPARATION LAYOUT - STATE ROUTE 46	SHEET 2 OF 7	
CT1852	POSO CREEK SUBSECTION - ALIGNMENT L4 - GRADE SEPARATION LAYOUT - STATE ROUTE 46	SHEET 3 OF 7	
CT2851	POSO CREEK SUBSECTION - ALIGNMENT L4 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 46	SHEET 4 OF 7	
CT2852	POSO CREEK SUBSECTION - ALIGNMENT L4 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - STATE ROUTE 46	SHEET S OF 7	
CT2853	POSO CREEK SUBSECTION - ALIGNMENT L4 - GRADE SEPARATION PROFILE - ROOT AVE	SHEET 6 OF 7	
CT3120	POSO CREEK SUBSECTION - ALIGNMENT L4 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 7 OF 7	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY E. SUDHAUSEN
DRAWN BY P. LEES
CHECKED BY G. SCHLERETH
IN CHARGE R. COFFIN
DATE 05/18/12

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INDEX OF SHEETS
SHEET 5 OF 7

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1007
SCALE NO SCALE
SHEET NO. 7 OF 11

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ALIGNMENT WS1 - WASCO-SHAFTER SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0170	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 61	
CT1900	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - MCCOMBS AVE	SHEET 2 OF 61	
CT1901	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - KIMBERLINA RD	SHEET 3 OF 61	
CT1911	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - MERCED AVE	SHEET 4 OF 61	
CT1912	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - POPLAR AVE	SHEET 5 OF 61	
CT1913	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - FRESNO AVE	SHEET 6 OF 61	
CT1917	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - 7TH STANDARD RD	SHEET 7 OF 61	
CT1921	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - KRATZMEYER RD	SHEET 8 OF 61	
CT1924	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - BURBANK ST	SHEET 9 OF 61	
CT1925	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - BURBANK ST	SHEET 10 OF 61	
CT1927	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - RENFRO RD	SHEET 11 OF 61	
CT1928	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION LAYOUT - RENFRO RD	SHEET 12 OF 61	
CT2899	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - MCCOMBS AVE	SHEET 13 OF 61	
CT2900	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - MCCOMBS AVE	SHEET 14 OF 61	
CT2901	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - KIMBERLINA RD	SHEET 15 OF 61	
CT2911	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - MERCED AVE	SHEET 16 OF 61	
CT2912	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - MERCED AVE	SHEET 17 OF 61	
CT2913	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - POPLAR AVE	SHEET 18 OF 61	
CT2914	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - POPLAR CONNECTOR	SHEET 19 OF 61	
CT2915	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - FRESNO AVE	SHEET 20 OF 61	
CT2916	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - FRESNO AVE	SHEET 21 OF 61	
CT2917	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - 7TH STANDARD RD	SHEET 22 OF 61	
CT2921	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - KRATZMEYER RD	SHEET 23 OF 61	
CT2922	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - KRATZMEYER CONNECTOR	SHEET 24 OF 61	
CT2926	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - BURBANK ST	SHEET 25 OF 61	
CT2927	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - BURBANK ST	SHEET 26 OF 61	
CT2928	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - BURBANK CONNECTOR	SHEET 27 OF 61	
CT2929	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - RENFRO RD	SHEET 28 OF 61	
CT2930	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - RENFRO RD	SHEET 29 OF 61	
CT2931	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - GRADE SEPARATION PROFILE - NORIEGA CONNECTOR	SHEET 30 OF 61	
CR1900	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 31 OF 61	2
CR1901	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 32 OF 61	
CR1902	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 33 OF 61	
CR1903	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 34 OF 61	
CR1904	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 35 OF 61	
CR1905	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 36 OF 61	
CR1906	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 37 OF 61	
CR1907	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 38 OF 61	
CR1908	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 39 OF 61	
CR1909	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 40 OF 61	
CR1910	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 41 OF 61	
CR1911	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 42 OF 61	
CR1912	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 43 OF 61	
CR1913	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY LAYOUT - SANTA FE WAY & RENFRO RD	SHEET 44 OF 61	
CR2900	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 45 OF 61	
CR2901	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 46 OF 61	
CR2902	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 47 OF 61	
CR2903	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 48 OF 61	
CR2904	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 49 OF 61	
CR2905	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 50 OF 61	
CR2906	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 51 OF 61	
CR2907	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 52 OF 61	
CR2908	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 53 OF 61	
CR2909	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 54 OF 61	
CR2910	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 55 OF 61	
CR2911	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 56 OF 61	
CR2912	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 57 OF 61	
CR2913	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 58 OF 61	
CR2914	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 59 OF 61	
CT3130	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 60 OF 61	
CT3131	THROUGH WASCO-SHAFTER SUBSECTION - ALIGNMENT WS1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 61 OF 61	

ALIGNMENT WS2 - WASCO-SHAFTER BYPASS SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0180	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 59	
CT1931	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - KIMBERLINA RD	SHEET 2 OF 59	
CT1932	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - KIMBERLINA RD & POPLAR AVE	SHEET 3 OF 59	
CT1933	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - POPLAR AVE	SHEET 4 OF 59	
CT1941	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - SHAFTER AVE	SHEET 5 OF 59	
CT1942	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - SHAFTER AVE	SHEET 6 OF 59	
CT1951	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - BEECH AVE	SHEET 7 OF 59	
CT1952	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - BEECH AVE & FRESNO AVE	SHEET 8 OF 59	
CT1961	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - EAST LERDO HWY	SHEET 9 OF 59	
CT1962	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - EAST LERDO HWY & CHERRY AVE	SHEET 10 OF 59	
CT1963	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - CHERRY AVE & RIVERSIDE ST	SHEET 11 OF 59	
CT1964	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - CHERRY AVE & RIVERSIDE ST	SHEET 12 OF 59	
CT1970	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - 7TH STANDARD RD	SHEET 13 OF 59	
CT1971	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - KRATZMEYER RD	SHEET 14 OF 59	
CT1975	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - RENFRO RD	SHEET 15 OF 59	
CT1976	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION LAYOUT - RENFRO RD	SHEET 16 OF 59	
CT2931	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - KIMBERLINA RD	SHEET 17 OF 59	
CT2932	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - KIMBERLINA RD	SHEET 18 OF 59	
CT2933	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - POPLAR AVE	SHEET 19 OF 59	
CT2934	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - POPLAR AVE	SHEET 20 OF 59	
CT2935	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - POPLAR AVE	SHEET 21 OF 59	
CT2941	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - SHAFTER AVE	SHEET 22 OF 59	
CT2942	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - SHAFTER AVE	SHEET 23 OF 59	
CT2951	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - BEECH AVE	SHEET 24 OF 59	
CT2952	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - BEECH AVE	SHEET 25 OF 59	
CT2953	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - FRESNO AVE	SHEET 26 OF 59	
CT2961	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - EAST LERDO HWY	SHEET 27 OF 59	
CT2962	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - EAST LERDO HWY	SHEET 28 OF 59	
CT2963	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - CHERRY AVE	SHEET 29 OF 59	
CT2964	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - CHERRY AVE	SHEET 30 OF 59	2
CT2965	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - RIVERSIDE ST	SHEET 31 OF 59	
CT2966	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - RIVERSIDE ST	SHEET 32 OF 59	
CT2967	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - RIVERSIDE ST	SHEET 33 OF 59	
CT2970	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - 7TH STANDARD RD	SHEET 34 OF 59	
CT2971	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - KRATZMEYER RD	SHEET 35 OF 59	
CT2972	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - KRATZMEYER CONNECTOR	SHEET 36 OF 59	
CT2977	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - RENFRO RD	SHEET 37 OF 59	
CT2978	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - RENFRO RD	SHEET 38 OF 59	
CT2979	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - GRADE SEPARATION PROFILE - NORIEGA CONNECTOR	SHEET 39 OF 59	
CR1984	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - MANNEL AVE & MERCED AVE	SHEET 40 OF 59	
CR1985	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 41 OF 59	
CR1986	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 42 OF 59	
CR1987	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 43 OF 59	
CR1988	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 44 OF 59	
CR1989	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 45 OF 59	
CR1990	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 46 OF 59	
CR1991	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY LAYOUT - SANTA FE WAY & RENFRO RD	SHEET 47 OF 59	
CR2984	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - MANNEL AVE & MERCED AVE	SHEET 48 OF 59	
CR2985	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 49 OF 59	
CR2986	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 50 OF 59	
CR2987	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 51 OF 59	
CR2988	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 52 OF 59	
CR2989	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 53 OF 59	
CR2990	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 54 OF 59	
CR2991	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 55 OF 59	
CR2992	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 56 OF 59	
CT3140	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 57 OF 59	
CT3141	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 58 OF 59	
CT3142	WASCO-SHAFTER BYPASS SUBSECTION - ALIGNMENT WS2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 59 OF 59	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY E. SUDHAUSEN
DRAWN BY P. LEES
CHECKED BY G. SCHLERETH
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
ROADWAY & GRADE SEPARATION
INDEX OF SHEETS
SHEET 6 OF 7

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1008
SCALE NO SCALE
SHEET NO. 8 OF 11

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ALIGNMENT B1 - BAKERSFIELD URBAN SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0190	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 10	2
CT1980	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - GRADE SEPARATION LAYOUT - ROSEDALE HWY/ STATE ROUTE 58	SHEET 2 OF 10	
CT2980	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - ROSEDALE HWY/ STATE ROUTE 58	SHEET 3 OF 10	
CR1949	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 4 OF 10	
CR1950	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY LAYOUT - ENGER ST	SHEET 5 OF 10	
CR1951	BAKERSFIELD URBAN SUBSECTION - AUGNMENT B1 - ROADWAY LAYOUT - N ST PEDESTRIAN BRIDGE	SHEET 6 OF 10	
CR1952	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY LAYOUT - VERDUGO LN	SHEET 7 OF 10	
CR2949	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY PROFILE - SANTA FE WAY	SHEET 8 OF 10	
CR2950	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY PROFILE - ENGER ST AND VERDUGO LN	SHEET 9 OF 10	
CT3170	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B1 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 10 OF 10	

ALIGNMENT B2 - BAKERSFIELD URBAN SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0200	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 13	2
CT1981	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - GRADE SEPARATION LAYOUT - ROSEDALE HWY/ STATE ROUTE 58	SHEET 2 OF 13	
CT2981	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - ROSEDALE HWY/ STATE ROUTE 58	SHEET 3 OF 13	
CR1959	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 4 OF 13	
CR1960	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY LAYOUT - ENGER ST	SHEET 5 OF 13	
CR1961	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY LAYOUT - N ST PEDESTRIAN BRIDGE	SHEET 6 OF 13	
CR1962	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY LAYOUT - EAST CALIFORNIA AVE	SHEET 7 OF 13	
CR1963	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY LAYOUT - VERDUGO LN	SHEET 8 OF 13	
CR2959	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY PROFILE - SANTA FE WAY	SHEET 9 OF 13	
CR2960	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY PROFILE - ENGER ST AND VERDUGO LN	SHEET 10 OF 13	
CR2962	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY PROFILE - EAST CALIFORNIA AVE	SHEET 11 OF 13	
CT3160	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 12 OF 13	
CT3180	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B2 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTIONS	SHEET 13 OF 13	

ALIGNMENT B3 - BAKERSFIELD URBAN SUBSECTION

DRAWING No	DRAWING DESCRIPTION	SHEET No.	PART No.
CB0240	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY/GRADE SEPARATION - KEY MAP	SHEET 1 OF 9	2
CT1990	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - GRADE SEPARATION LAYOUT - ROSEDALE HWY/ STATE ROUTE 58	SHEET 2 OF 9	
CT2990	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - GRADE SEP PROFILE & SUPERELEVATION DIAGRAM - ROSEDALE HWY/ STATE ROUTE 58	SHEET 3 OF 9	
CR1970	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY LAYOUT - SANTA FE WAY	SHEET 4 OF 9	
CR2970	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY PROFILE - SANTA FE WAY	SHEET 5 OF 9	
CR1971	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY LAYOUT - ENGER ST	SHEET 6 OF 9	
CR1972	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY LAYOUT - VERDUGO LN	SHEET 7 OF 9	
CR2971	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY PROFILE - ENGER AND VERDUGO LN	SHEET 8 OF 9	
CT3190	BAKERSFIELD URBAN SUBSECTION - ALIGNMENT B3 - ROADWAY/GRADE SEPARATION - TYPICAL CROSS SECTION	SHEET 9 OF 9	

A

AB	AGGREGATE BASE
ABBC	ASBESTOS BONDED BITUMINOUS COATED
ABM	AIR-BLOWN MORTAR
ABN	ABANDON
ABUT	ABUTMENT
AC	ASPHALT CONCRETE
ACB	ASPHALT CONCRETE BASE
ACP	ASBESTOS CEMENT PIPE
ADL	ADDED DEAD LOAD
ADJ	ADJUST
AFES	ALTERNATIVE FLARED END SECTION
AHD	AHEAD
ALT	ALTERNATE
AM	TIME FROM MIDNIGHT TO NOON
AP	ALTERNATIVE PIPE
APC	ALTERNATIVE PIPE CULVERT
APPROX	APPROXIMATE
APU	ALTERNATIVE PIPE UNDERDRAIN
ARS	ACCELERATION RESPONSE SPECTRUM
AR	ACCESS RESTRICTION
AS	AGGREGATE SUBBASE
ASRP	ALUMINUM SPIRAL RIB PIPE
ASSY	ASSEMBLY
ATPB	ASPHALT TREATED PERMEABLE BASE
ATPM	ASPHALT TREATED PERMEABLE MATERIAL
AVE	AVENUE
AVG	AVERAGE
@	AT

B

BAGR	BRIDGE APPROACH GUARD RAILING
BB	BEGINNING OF BRIDGE
BC	BEGIN HORIZONTAL CURVE
BCC	BALANCED CANTILEVER CONSTRUCTION
BCR	BEGIN CURB RETURN
BEG	BEGIN
BIT CTD	BITUMINOUS COATED
BK	BACK
BKF	BACKFILL
BLDG	BUILDING
BLM	BRIDGE-LOG MILE
BLVD	BOULEVARD
BM	BENCH MARK
BND	BOUND
BNSF	BURLINGTON NORTH & SANTA FE
BOT	BOTTOM
BR	BRIDGE
BRG	BEARING
BTU	BRITISH THERMAL UNIT
BVC	BEGIN VERTICAL CURVE
BW	BARBED WIRE

C

CAA	CABLE ANCHOR ASSEMBLY
CAP	CORRUGATED ALUMINUM PIPE
CAPA	CORRUGATED ALUMINUM PIPE ARCH
CAS	CONSTRUCTION AREA SIGN
CB	CONCRETE BARRIER
CBW	CONCRETE BLOCK WALL
C-C	CENTER TO CENTER

C CONTINUED

CHSRA	CALIFORNIA HIGH SPEED RAIL AUTHORITY
CHST	CALIFORNIA HIGH SPEED TRAIN
CHSR	CALIFORNIA HIGH SPEED RAIL
CG	CENTER OF GRAVITY
CHNL	CHANNEL
CI	CAST IRON
CIDH	CAST-IN-DRILLED-HOLE
CIP,C-I-P	CAST-IN-PLACE, CAST IRON PIPE
CIPCP	CAST IN PLACE CONCRETE PIPE
CISS	CAST-IN-STEEL-SHELL
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE, CLASS
CL2	CLASS 2
CL-6	CHAIN LINK FENCE (6 FT)
CLR	CLEAR, CLEARANCE
CM	CORRUGATED METAL
CMP	CORRUGATED METAL PIPE
CO	COUNTY
COL	COLUMN
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTOR
CONST	CONSTRUCT, CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CP	CANDLEPOWER
CR	CREEK
CRCP	CONTINUOUS REINFORCED CONCRETE PAVEMENT
CRSP	CONCRETED ROCK SLOPE PROTECTION
CS	CURVE TO SPIRAL
CSP	CORRUGATED STEEL PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CTB	CEMENT TREATED BASE
CTPB	CEMENT TREATED PERMEABLE BASE
CTPM	CEMENT TREATED PERMEABLE MATERIAL
CTRS	CENTERS
CVFPB	CENTRAL VALLEY FLOOD PROTECTION BOARD
CULV	CULVERT
℄	CENTERLINE

D

D	DEPTH
DD	DOWNDRAIN, DIRECTIVE DRILLING
DBL	DOUBLE
DEG	DEGREE
DEL	DELINEATOR
DET	DETAIL, DETOUR
DF	DOUGLAS FIR
DI	DRAINAGE INLET, DROP INLET
DIA	DIAMETER
DIAPH	DIAPHRAGM
DIST	DISTANCE, DISTRICT
DMBB	DOUBLE METAL BEAM BARRIER
DR	DRIVE
DTBB	DOUBLE THRIE BEAM BARRIER
DWY	DRIVEWAY

E

E	EAST, EASTING
EA	ACTUAL SUPERELEVATION
EU	UNBALANCED SUPERELEVATION

E CONTINUED

EASE	EASEMENT
EB	END OF BRIDGE, EASTBOUND
EC	END HORIZONTAL CURVE
ECR	END CURB RETURN
ED	EDGE DRAIN
EDC	EDGE DRAIN CLEANOUT
EDO	EDGE DRAIN OUTLET
EDV	EDGE DRAIN VENT
ELEC	ELECTROLIER
ELECT	ELECTRIC
ELEV	ELEVATION
EMB	EMBANKMENT
ENGR	ENGINEER
EOD	EDGE OF DECK
EP	EDGE OF PAVEMENT
EQ	EQUATION, EQUAL
ES	EDGE OF SHOULDER
ETW	EDGE OF TRAVELED WAY
EVC	END VERTICAL CURVE
EW	ENDWALL
EXC	EXCAVATION
EXIST, EX.	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXWY	EXPRESSWAY
EXT	EXTERIOR

F

F & C	FRAME AND COVER
F & G	FRAME AND GRATE
FB	FLOOR BEAM
F-B	FRESNO TO BAKERSFIELD
FDN	FOUNDATION
FEBT	FACING EASTBOUND TRAFFIC
FES	FLARED END SECTION
FF	FILTER FABRIC
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL	FLOW LINE
FNBT	FACING NORTHBOUND TRAFFIC
FOC	FACE OF CONCRETE
FR RD	FRONTAGE ROAD
FS	FAR SIDE, FINISHED SURFACE
FSBT	FACING SOUTHBOUND TRAFFIC
FT	FOOT, FEET
FTG	FOOTING
FWBT	FACING WESTBOUND TRAFFIC
FWY	FREEWAY
FPLM	FULL SPAN PRECAST LAUNCHING METHOD

G

G	ACCELERATION DUE TO GRAVITY
GA	GAGE
GALV	GALVANIZED
GP	GRADING PLANE
GR	GUARD RAILING
GSP	GALVANIZED STEEL PIPE
GTR	GUTTER

H

H	HEIGHT
HR	HOUR
HD	HORIZONTAL DRAIN
HDWL	HEADWALL
HEX HD	HEXAGONAL HEAD
HMA	HOT MIXED ASPHALT
HORIZ	HORIZONTAL
HP	HINGE POINT, HORSEPOWER
HPS	HIGH PERFORMANCE STEEL
HS	HIGH STRENGTH
HST	HIGH SPEED TRAIN
HSR	HIGH SPEED RAIL
HW	HEADWALL, HIGH WATER
HWM	HIGH WATER MARK
HWY	HIGHWAY

I

IB	IMPORTED BORROW
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH, INCHES
INT	INTERIOR
INV	INVERT
IRR	IRRIGATION

J

JCT	JUNCTION
JP	JOINT POLE
JPCP	JOINTED PLAIN CONCRETE PAVEMENT
JS	JUNCTION STRUCTURE
JT	JOINT

K

K	DISTANCE TO ACHIEVE 1% GRADE CHANGE

L

L	LENGTH
LAT	LATITUDE
LCB	LEAN CONCRETE BASE
LN	LANE
LOC	LOCATION
LOL	LAYOUT LINE
LONG	LONGITUDE
LONGIT	LONGITUDINAL
LS	LENGTH OF SPIRAL
LC	LENGTH OF CURVE
LT	LEFT

M

MAINT	MAINTENANCE
MAX	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
MED	MEDIAN
M-F	MERCED TO FRESNO
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MISC I & S	MISCELLANEOUS IRON AND STEEL
MKR	MARKER
M/L	MAIN LINE (RAILWAY)

M CONTINUED

MOD	MODIFIED, MODIFY
MON	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MPH	MILES PER HOUR
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EARTH
MTL	MATERIAL
MSS	MOVING SCAFFOLDING SYSTEM

N

N	NORTH, NORTHING
NB	NORTHBOUND
NO.	NUMBER (MUST HAVE PERIOD)
NOS.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NTS	NOT TO SCALE
N/A	NOT APPLICABLE

O

OBLR	OBLITERATE
OC	OVERCROSSING
OCS	OVERHEAD CONTACT SYSTEM
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OH	OVERHEAD
O-O	OUT TO OUT
OPP	OPPOSITE

P

P	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE, PRECAST
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PED	PEDESTRIAN
PED OC	PEDESTRIAN OVERCROSSING
PED UC	PEDESTRIAN UNDERCROSSING
PERM MTL	PERMEABLE MATERIAL
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
ℙ,PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POB	POINT OF BEGINNING
POC	POINT OF HORIZONTAL CURVE
POE	POINT OF ENDING
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
GENERAL
ABBREVIATIONS AND LEGENDS
SHEET 1 OF 2

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0010
SCALE NO SCALE
SHEET NO. 10 OF 11

paul.tonkin 5/14/2012 12:03:26 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\General Sheets\FB-CB-0010-HWY.dgn

P CONTINUED

PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED, PARALLEL STATION
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVP	MAINTENANCE VEHICLE PULLOUT

Q

QTY	QUANTITY

R

R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RD	ROAD
REINF	REINFORCED, REINFORCEMENT, REINFORCING
REL	RELOCATE
REPL	REPLACEMENT
RET	RETAINING
REV	REVISED
RDWY	ROADWAY
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RTE	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
RWY	RAILWAY

S

S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
SALV	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SPIRAL TO CURVE
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
SEC	SECOND
SECT	SECTION
SEP	SEPARATION
SG	SUBGRADE
SHLD	SHOULDER
SHT	SHEET
SIM	SIMILAR
S	STATION LINE
SM	SELECTED MATERIAL
SPEC	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE, SPIRAL TO SPIRAL

S CONTINUED

SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
SR	STATE ROUTE
ST	STREET, SPIRAL TO TANGENT
STA	STATION
STBB	SINGLE THRIE BEAM BARRIER
STD	STANDARD
STR	STRUCTURE
SRS	STAND ALONE RADIO SITE
SURF	SURFACING
SW	SIDEWALK, SOUND WALL
SWR	SEWER
SWS	SWITCHING STATION
SYM	SYMMETRICAL
S4S	SURFACE 4 SIDES
SJVR	SAN JOAQUIN VALLEY RAILROAD

T

T	SEMI-TANGENT
TAB	TABLET
TAN	TANGENT
TBB	THRIE BEAM BARRIER
TBR	TIMBER
TC	TOP OF CURB, TANGENT TO CURVE
TCB	TRAFFIC CONTROL BOX
TEL	TELEPHONE
TEMP	TEMPORARY
TG	TOP OF GRADE
TM	TOTAL
TOT	TECHNICAL MEMORANDUM
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
TPSS	TRACTION POWER SUPPLY STATION
TRANS	TRANSITION, TRANSVERSE
TS	TRAFFIC SIGNAL, TUBULAR STEEL, TANGET TO SPIRAL
TYP	TYPICAL
TOR	TOP OF RAIL

U

UC	UNDERCROSSING
UD	UNDERDRAIN
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
UPRR	UNION PACIFIC RAILROAD
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE

V

V	VALVE, DESIGN SPEED
VAR	VARIABLE
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VIA	VIADUCT
VOL	VOLUME

W

W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WT	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE
W/	WITH

X

X SEC	CROSS SECTION
XING	CROSSING

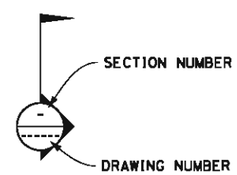
Y

YR	YEAR
YRS	YEARS

GENERAL NOTES

1. TRACK PROFILE IS DESIGNED AS TOP OF THE LOW RAIL.
2. MINIMUM VERTICAL CLEARANCE REQUIREMENTS TO CANALS AND DITCHES ARE NOT KNOWN. FURTHER CONSULTATION WITH THE WATERCOURSE OWNERS WILL BE REQUIRED TO DETERMINE NECESSARY CLEARANCES.
3. THE FOLLOWING ARE ROADWAY DESIGN STANDARD AND GUIDELINES:
   A. CALTRANS HIGHWAY DESIGN MANUAL (2006)
   B. AASHTO ROADSIDE DESIGN GUIDE (2006)
   C. APPLICABLE LOCAL DESIGN STANDARD AND GUIDELINES (I.E., CITY OF FRESNO)

LEGEND



PROPOSED HST RIGHT OF WAY
PROPOSED HST TRACK CENTERLINE
RETAINING WALL
TOE OF SLOPE

CONTROL LINE EXAMPLE "A" LINE
255+00 260+00 265+00

OR — TRACK (PLAN AND ELEVATION)

REL — TRACK TO BE REMOVED AND RELOCATED PER BNSF

REMOVE BASE & SURFACING

SOUND BARRIER (POTENTIAL)

DIRECTION OF FLOW

WATER SURFACE

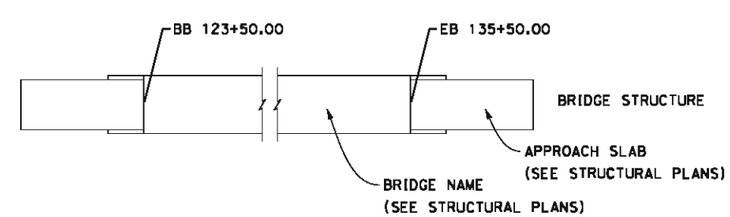
1 3 — CURVE DATA (ALIGNMENTS)
CURVE DATA (STRUCTURES)

1 — LINE DATA

-e-(oh)- — EXISTING OVERHEAD HIGH VOLTAGE POWER LINES

EXISTING HIGH VOLTAGE TOWER FOOTPRINT

OG / ORIGINAL GROUND



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 06/08/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
GENERAL
ABBREVIATIONS AND LEGENDS
SHEET 2 OF 2

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0011
SCALE NO SCALE
SHEET NO. 11 OF 11

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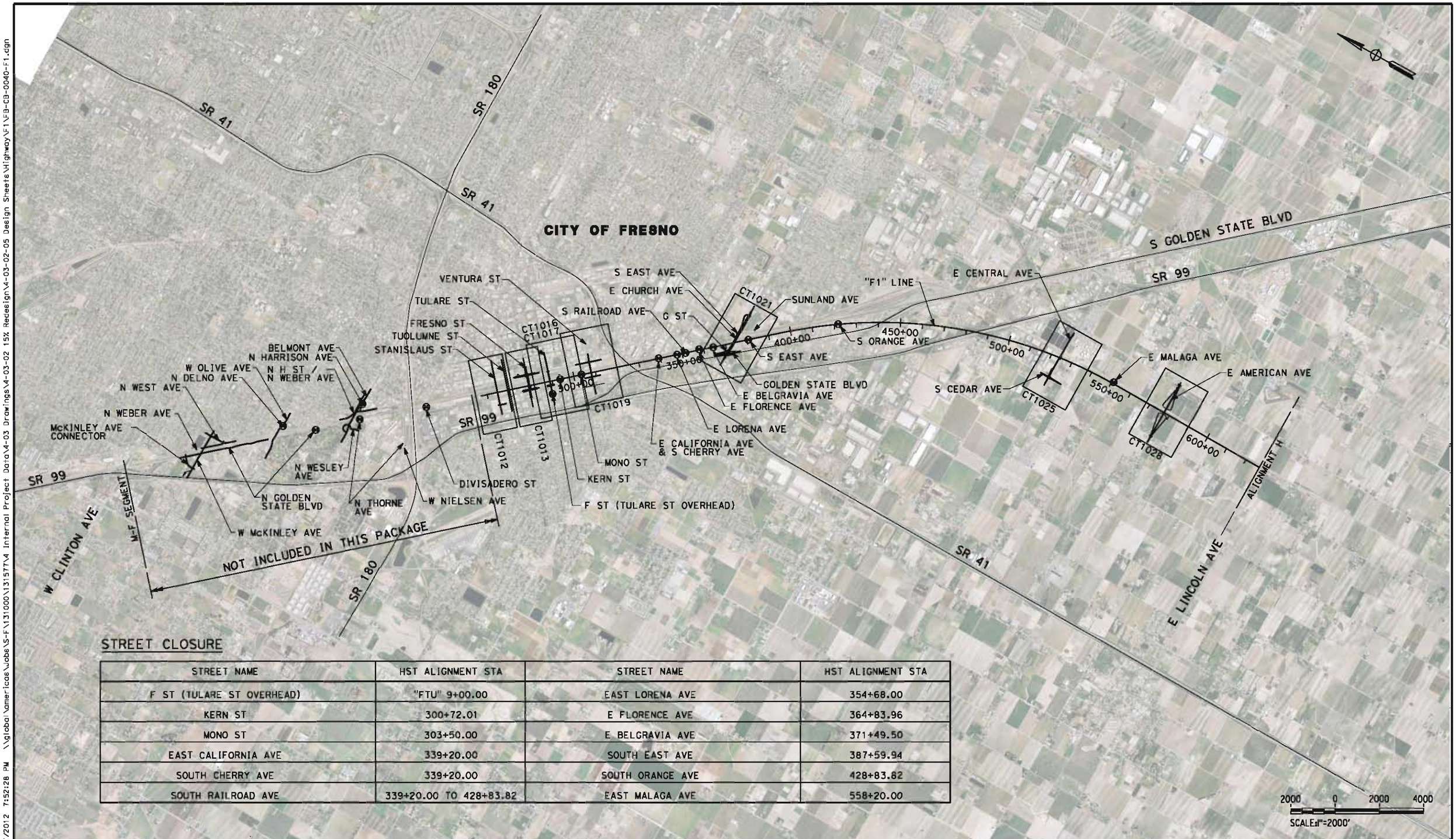

STREET CLOSURE

STREET NAME	HST ALIGNMENT STA	STREET NAME	HST ALIGNMENT STA
F ST (TULARE ST OVERHEAD)	"FTU" 9+00.00	EAST LORENA AVE	354+68.00
KERN ST	300+72.01	E FLORENCE AVE	364+83.96
MONO ST	303+50.00	E BELGRAVIA AVE	371+49.50
EAST CALIFORNIA AVE	339+20.00	SOUTH EAST AVE	387+59.94
SOUTH CHERRY AVE	339+20.00	SOUTH ORANGE AVE	428+83.82
SOUTH RAILROAD AVE	339+20.00 TO 428+83.82	EAST MALAGA AVE	558+20.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0040
SCALE AS SHOWN
SHEET NO. 1 OF 32

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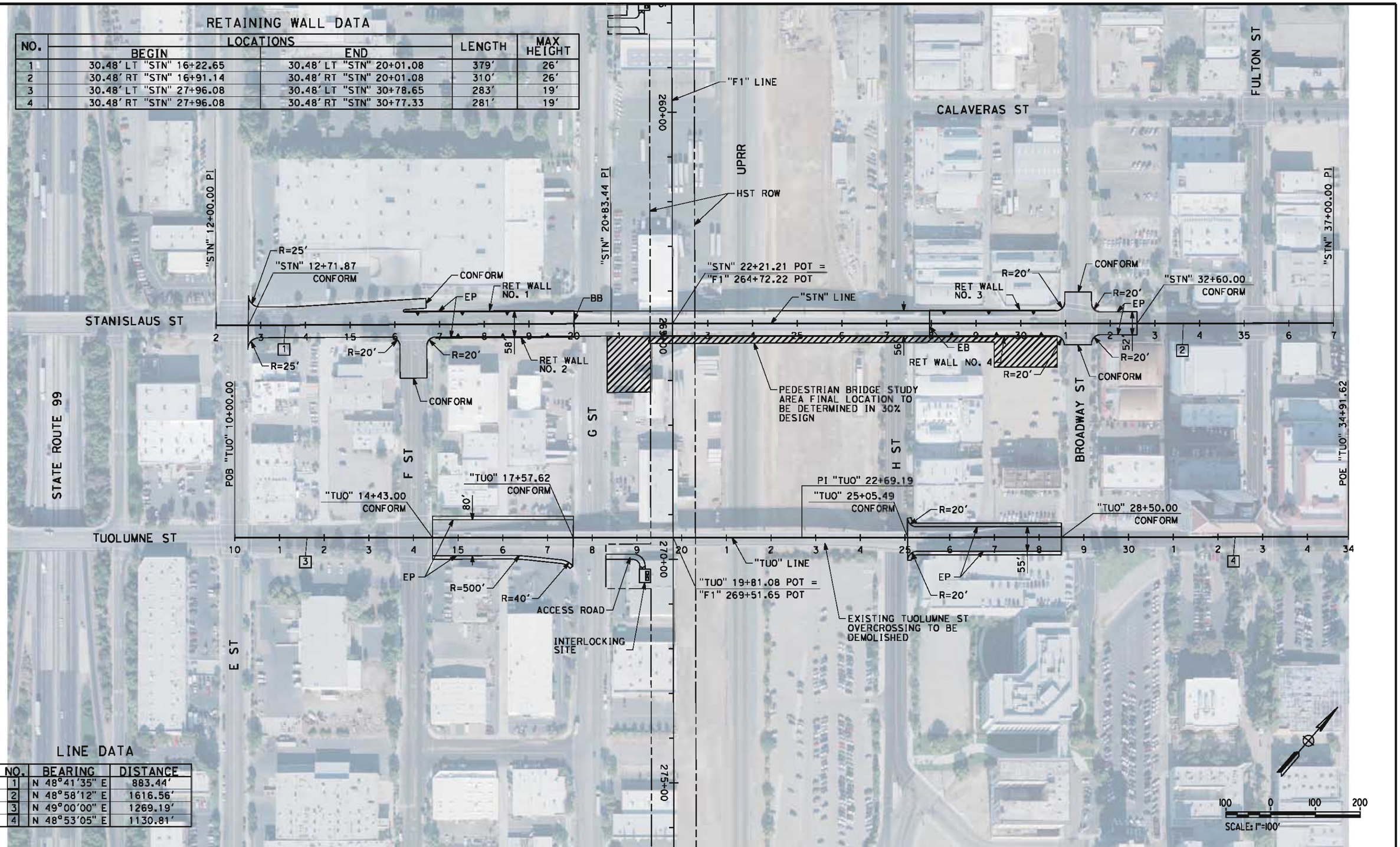
RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	30.48' LT "STN" 16+22.65	30.48' LT "STN" 20+01.08	379'	26'
2	30.48' RT "STN" 16+91.14	30.48' RT "STN" 20+01.08	310'	26'
3	30.48' LT "STN" 27+96.08	30.48' LT "STN" 30+78.65	283'	19'
4	30.48' RT "STN" 27+96.08	30.48' RT "STN" 30+77.33	281'	19'



LINE DATA

NO.	BEARING	DISTANCE
1	N 48°41'35" E	883.44'
2	N 48°58'12" E	1616.56'
3	N 49°00'00" E	1269.19'
4	N 48°53'05" E	1130.81'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
STANISLAUS ST & TUOLUMNE ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1012
SCALE AS SHOWN
SHEET NO. 2 OF 32

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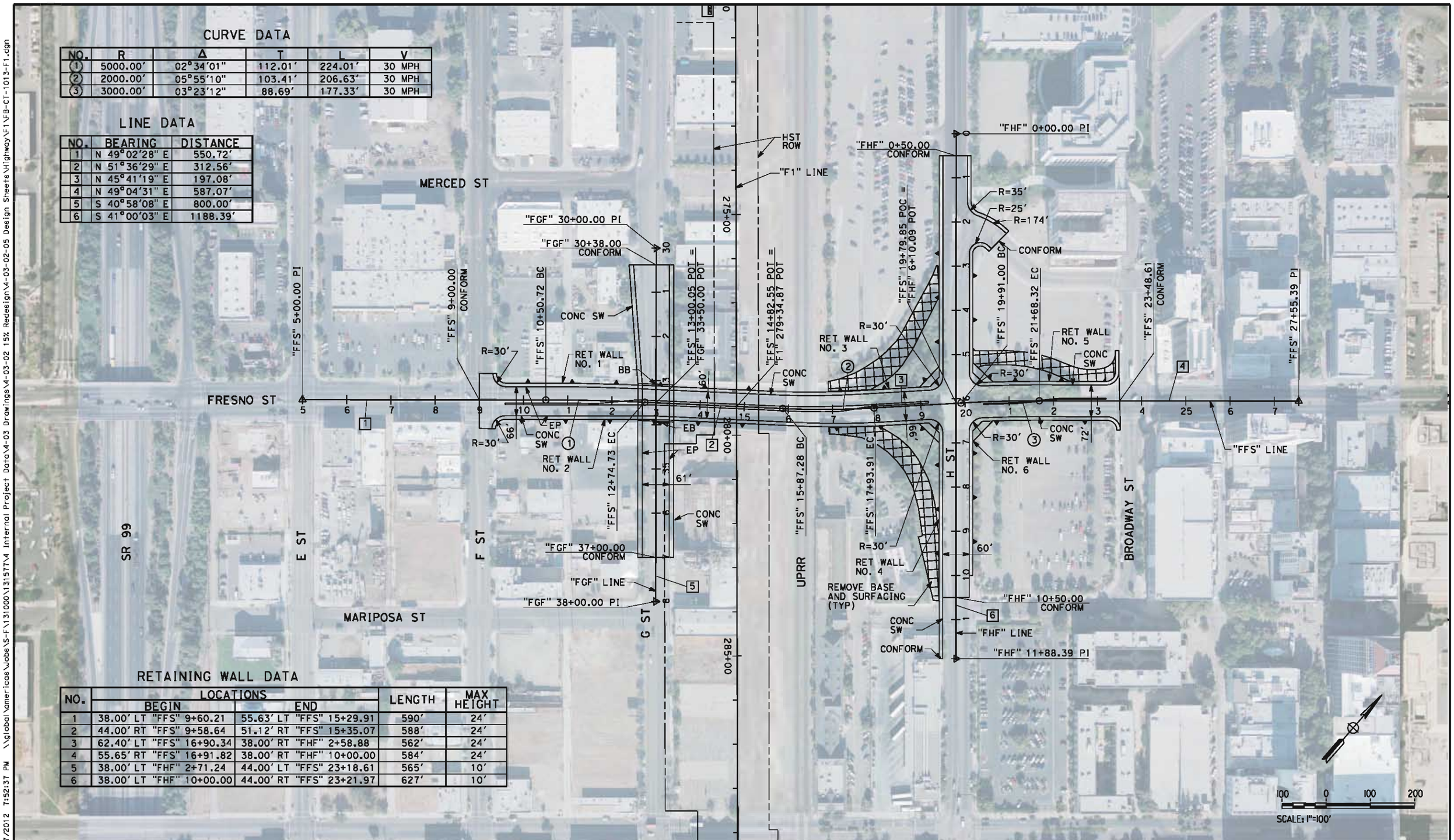
CURVE DATA

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	800.00'
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	38.00' LT "FHF" 2+71.24	44.00' LT "FFS" 23+18.61	565'	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 M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
FRESNO ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1013
SCALE AS SHOWN
SHEET NO. 3 OF 32

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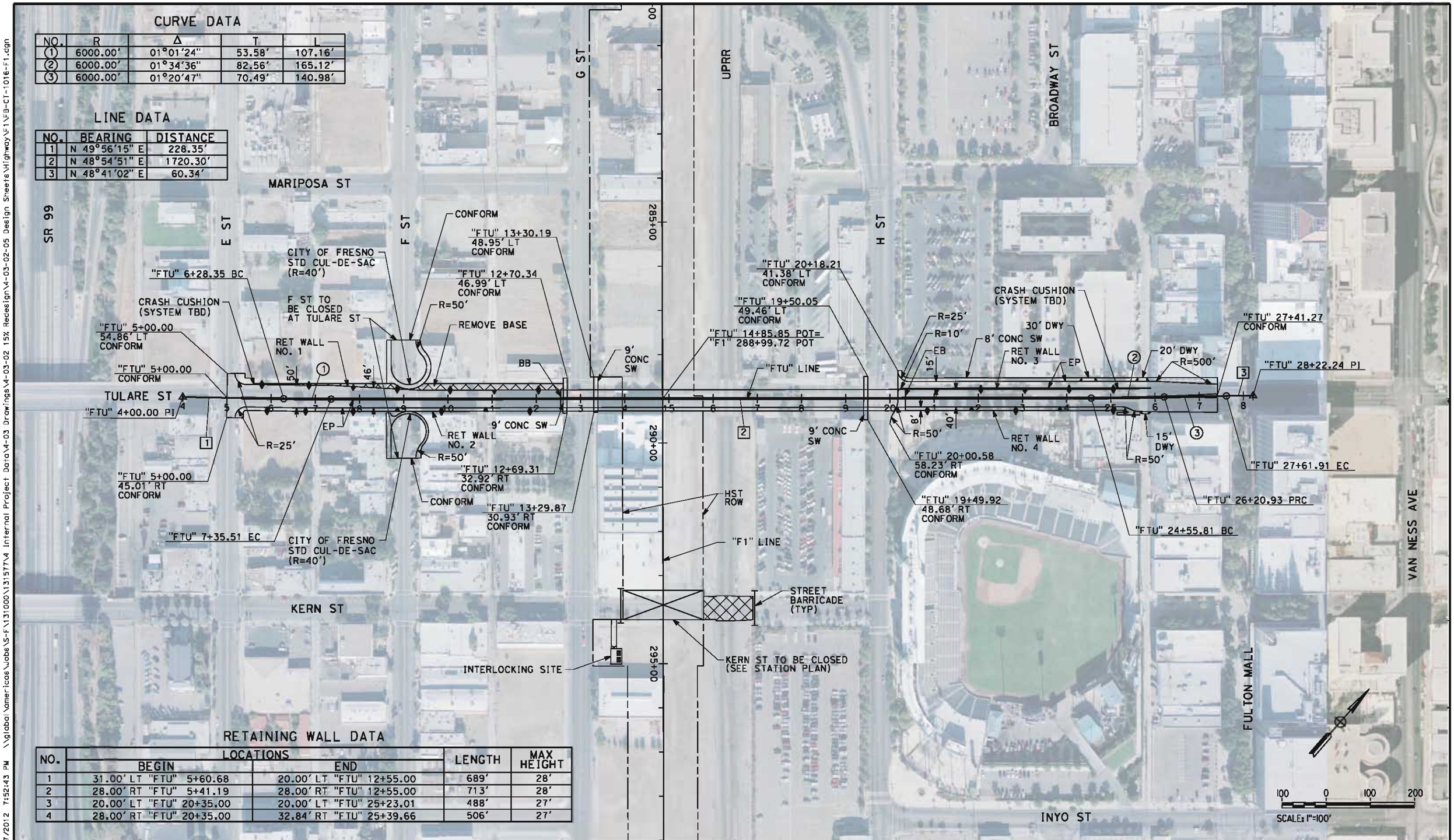
CURVE DATA

NO.	R	Δ	T	L
1	6000.00'	01°01'24"	53.58'	107.16'
2	6000.00'	01°34'36"	82.56'	165.12'
3	6000.00'	01°20'47"	70.49'	140.98'

LINE DATA

NO.	BEARING	DISTANCE
1	N 49°56'15" E	228.35'
2	N 48°54'51" E	1720.30'
3	N 48°41'02" E	60.34'



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	31.00' LT "FTU" 5+60.68	20.00' LT "FTU" 12+55.00	689'	28'
2	28.00' RT "FTU" 5+41.19	28.00' RT "FTU" 12+55.00	713'	28'
3	20.00' LT "FTU" 20+35.00	20.00' LT "FTU" 25+23.01	488'	27'
4	28.00' RT "FTU" 20+35.00	32.84' RT "FTU" 25+39.66	506'	27'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
TULARE ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1016
SCALE AS SHOWN
SHEET NO. 4 OF 32

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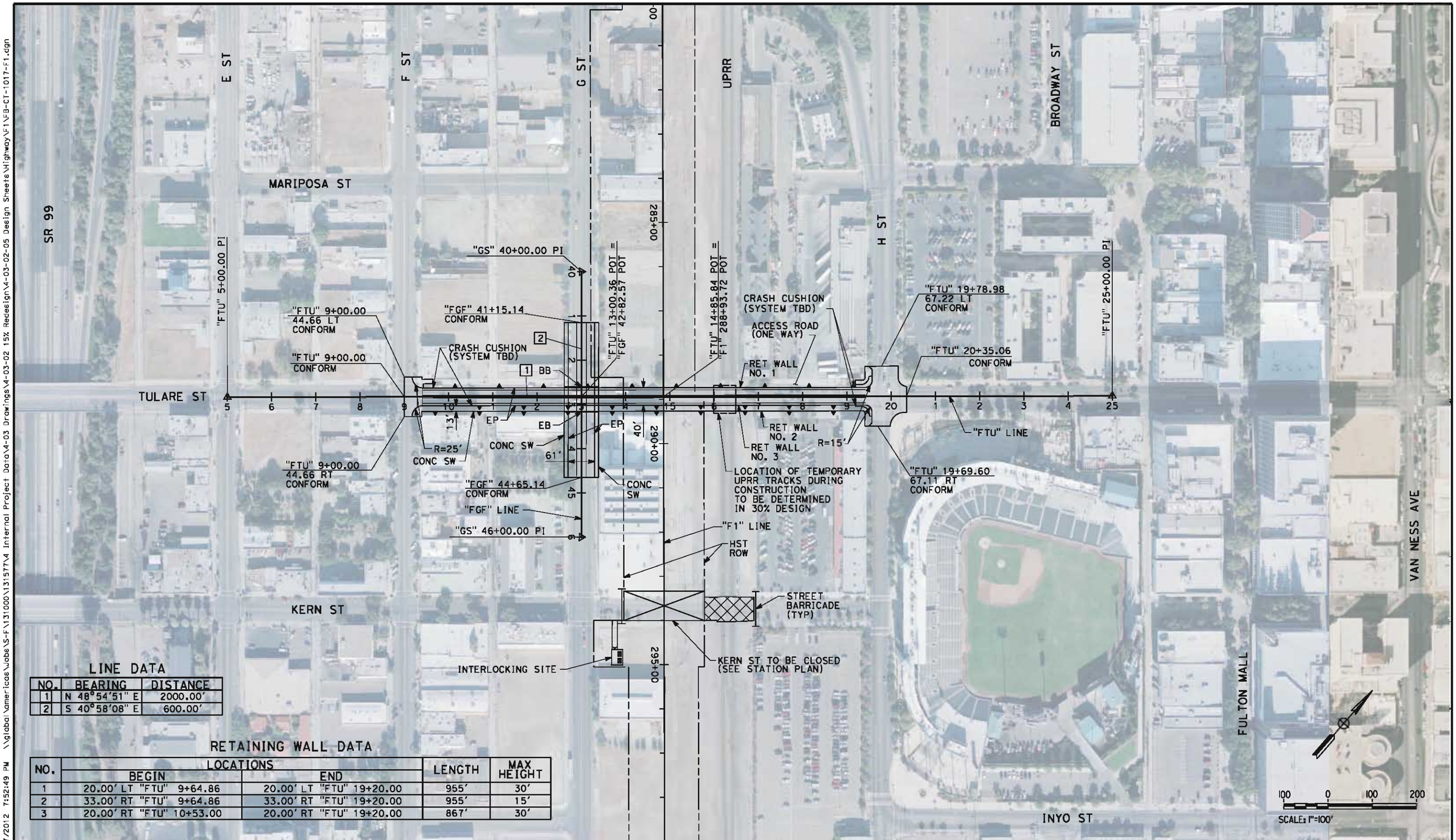

LINE DATA

NO.	BEARING	DISTANCE
1	N 48°54'51" E	2000.00'
2	S 40°58'08" E	600.00'

RETAINING WALL DATA

NO.	LOCATIONS		LENGTH	MAX HEIGHT
	BEGIN	END		
1	20.00' LT "FTU" 9+64.86	20.00' LT "FTU" 19+20.00	955'	30'
2	33.00' RT "FTU" 9+64.86	33.00' RT "FTU" 19+20.00	955'	15'
3	20.00' RT "FTU" 10+53.00	20.00' RT "FTU" 19+20.00	867'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
TULARE ST (UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1017
SCALE AS SHOWN
SHEET NO. 5 OF 32

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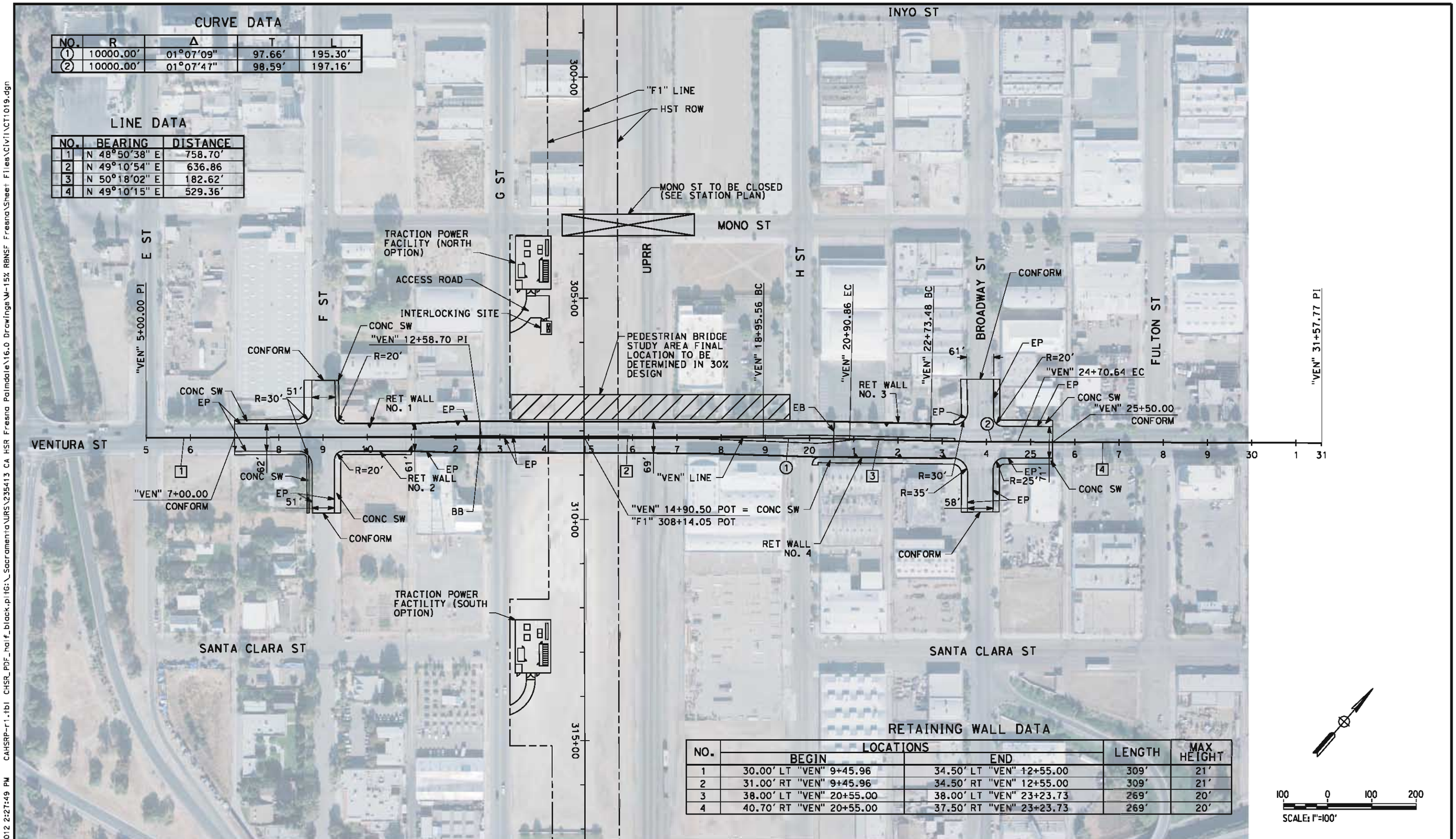
CURVE DATA

NO.	R	Δ	T	L
1	10000.00'	01°07'09"	97.66'	195.30'
2	10000.00'	01°07'47"	98.59'	197.16'

LINE DATA

NO.	BEARING	DISTANCE
1	N 48°50'38" E	758.70'
2	N 49°10'54" E	636.86
3	N 50°18'02" E	182.62'
4	N 49°10'15" E	529.36'



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	30.00' LT "VEN" 9+45.96	34.50' LT "VEN" 12+55.00	309'	21'
2	31.00' RT "VEN" 9+45.96	34.50' RT "VEN" 12+55.00	309'	21'
3	38.00' LT "VEN" 20+55.00	38.00' LT "VEN" 23+23.73	269'	20'
4	40.70' RT "VEN" 20+55.00	37.50' RT "VEN" 23+23.73	269'	20'

100 0 100 200
SCALE: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY M. BAMM
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
VENTURA ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1019
SCALE AS SHOWN
SHEET NO. 6 OF 32

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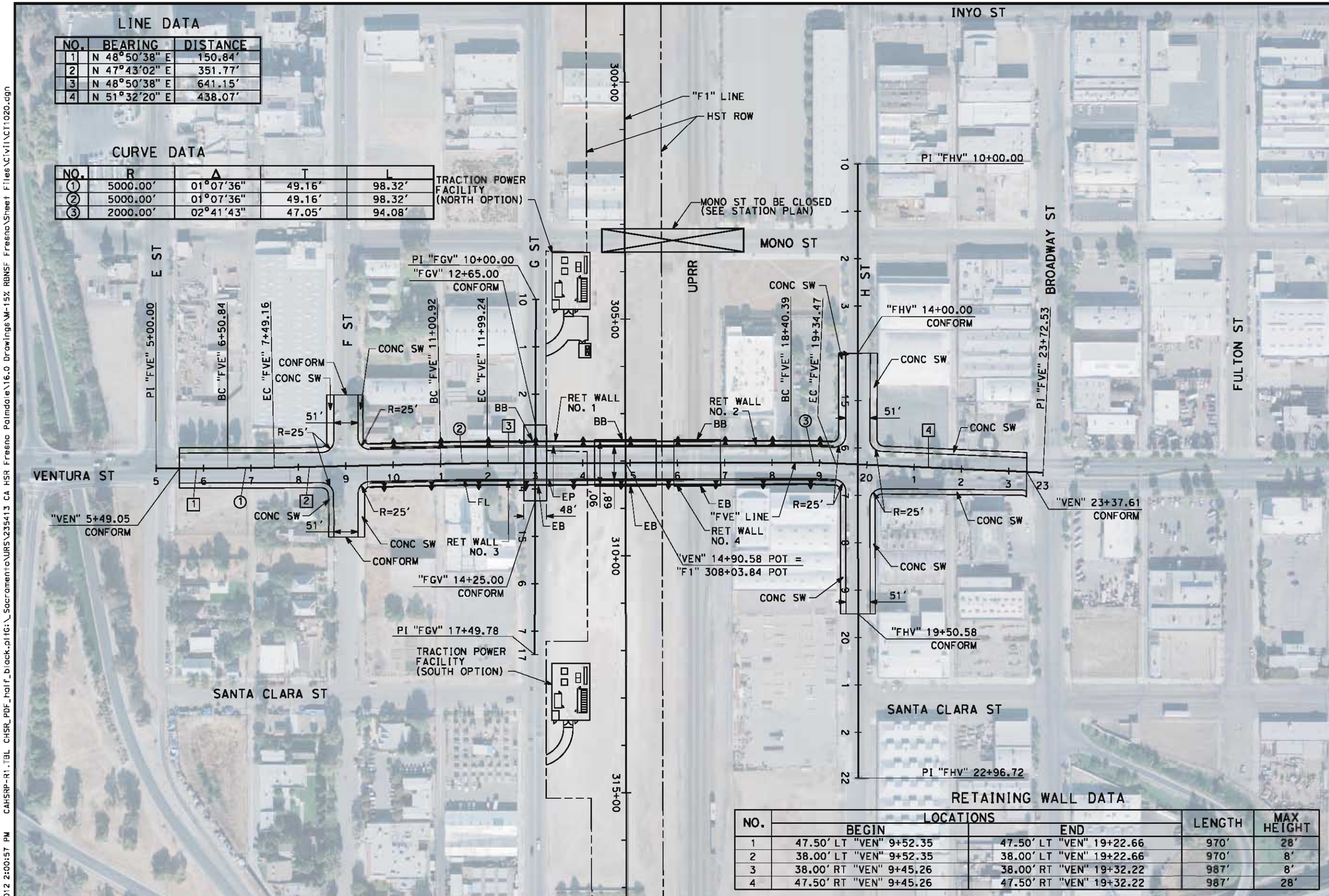
JOS53823

LINE DATA

NO.	BEARING	DISTANCE
1	N 48°50'38" E	150.84'
2	N 47°43'02" E	351.77'
3	N 48°50'38" E	641.15'
4	N 51°32'20" E	438.07'

CURVE DATA

NO.	R	Δ	T	L
1	5000.00'	01°07'36"	49.16'	98.32'
2	5000.00'	01°07'36"	49.16'	98.32'
3	2000.00'	02°41'43"	47.05'	94.08'



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	47.50' LT "VEN" 9+52.35	47.50' LT "VEN" 19+22.66	970'	28'
2	38.00' LT "VEN" 9+52.35	38.00' LT "VEN" 19+22.66	970'	8'
3	38.00' RT "VEN" 9+45.26	38.00' RT "VEN" 19+32.22	987'	8'
4	47.50' RT "VEN" 9+45.26	47.50' RT "VEN" 19+32.22	987'	28'

100 0 100 200
SCALE: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

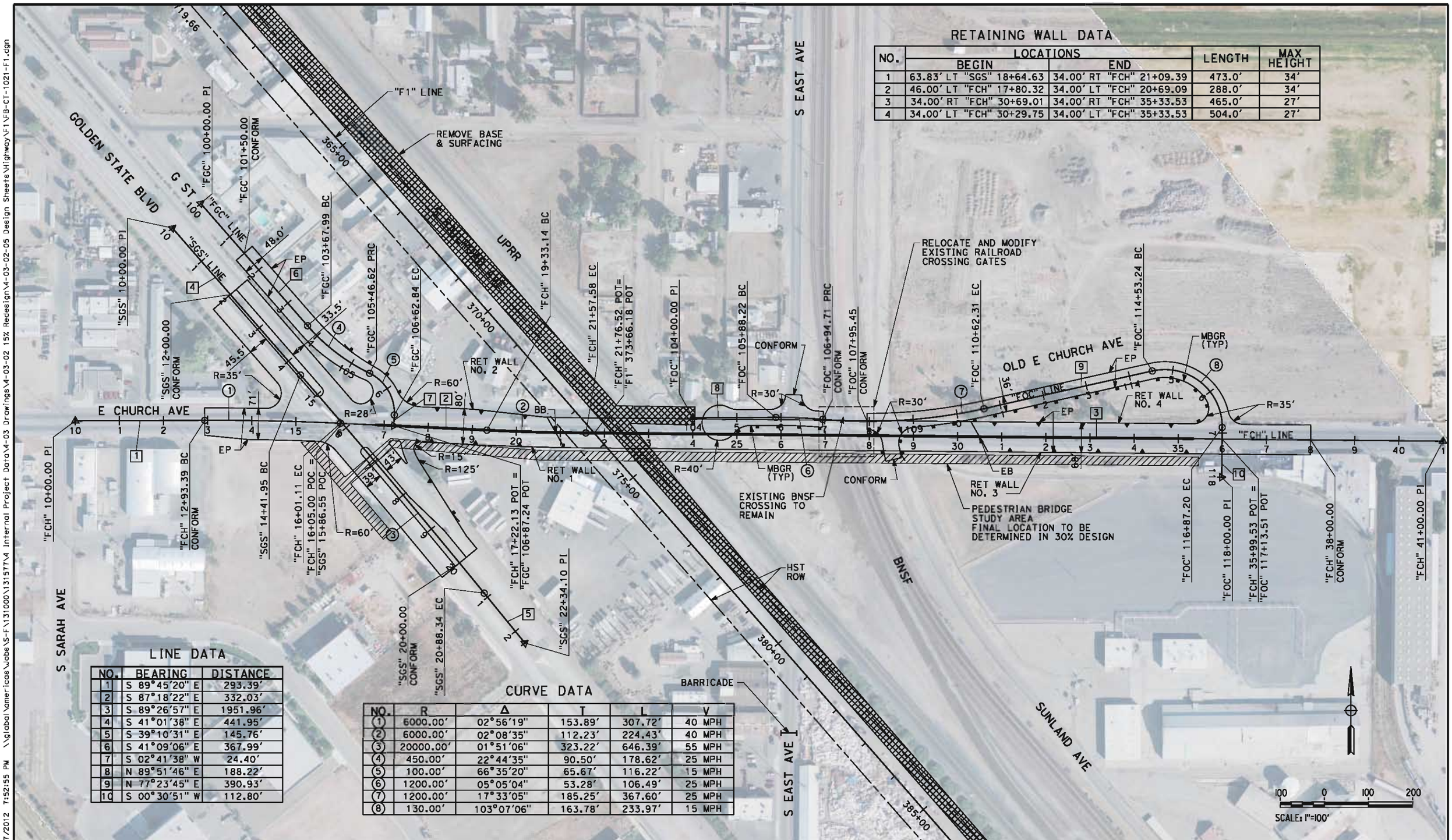
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
VENTURA ST (UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1020
SCALE AS SHOWN
SHEET NO. 7 OF 32

NET53329 5/11/2012 2:00:57 PM CAHSRP-R1.TBL CHSR_PDF_half_black.pltG:_Sacramento\URS\235413 CA HSR Fresno Palmdale\16.0 Drawings\M-15% RBNSF Fresno\Sheet Files\Civil\CT1020.dgn



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	63.83' LT "SGS" 18+64.63	34.00' RT "FCH" 21+09.39	473.0'	34'
2	46.00' LT "FCH" 17+80.32	34.00' LT "FCH" 20+69.09	288.0'	34'
3	34.00' RT "FCH" 30+69.01	34.00' RT "FCH" 35+33.53	465.0'	27'
4	34.00' LT "FCH" 30+29.75	34.00' LT "FCH" 35+33.53	504.0'	27'

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°45'20" E	293.39'
2	S 87°18'22" E	332.03'
3	S 89°26'57" E	1951.96'
4	S 41°01'38" E	441.95'
5	S 39°10'31" E	145.76'
6	S 41°09'06" E	367.99'
7	S 02°41'38" W	24.40'
8	N 89°51'46" E	188.22'
9	N 77°23'45" E	390.93'
10	S 00°30'51" W	112.80'

CURVE DATA

NO.	R	Δ	T	L	V
1	6000.00'	02°56'19"	153.89'	307.72'	40 MPH
2	6000.00'	02°08'35"	112.23'	224.43'	40 MPH
3	20000.00'	01°51'06"	323.22'	646.39'	55 MPH
4	450.00'	22°44'35"	90.50'	178.62'	25 MPH
5	100.00'	66°35'20"	65.67'	116.22'	15 MPH
6	1200.00'	05°05'04"	53.28'	106.49'	25 MPH
7	1200.00'	17°33'05"	185.25'	367.60'	25 MPH
8	130.00'	103°07'06"	163.78'	233.97'	15 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
E CHURCH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1021
SCALE AS SHOWN
SHEET NO. 8 OF 32

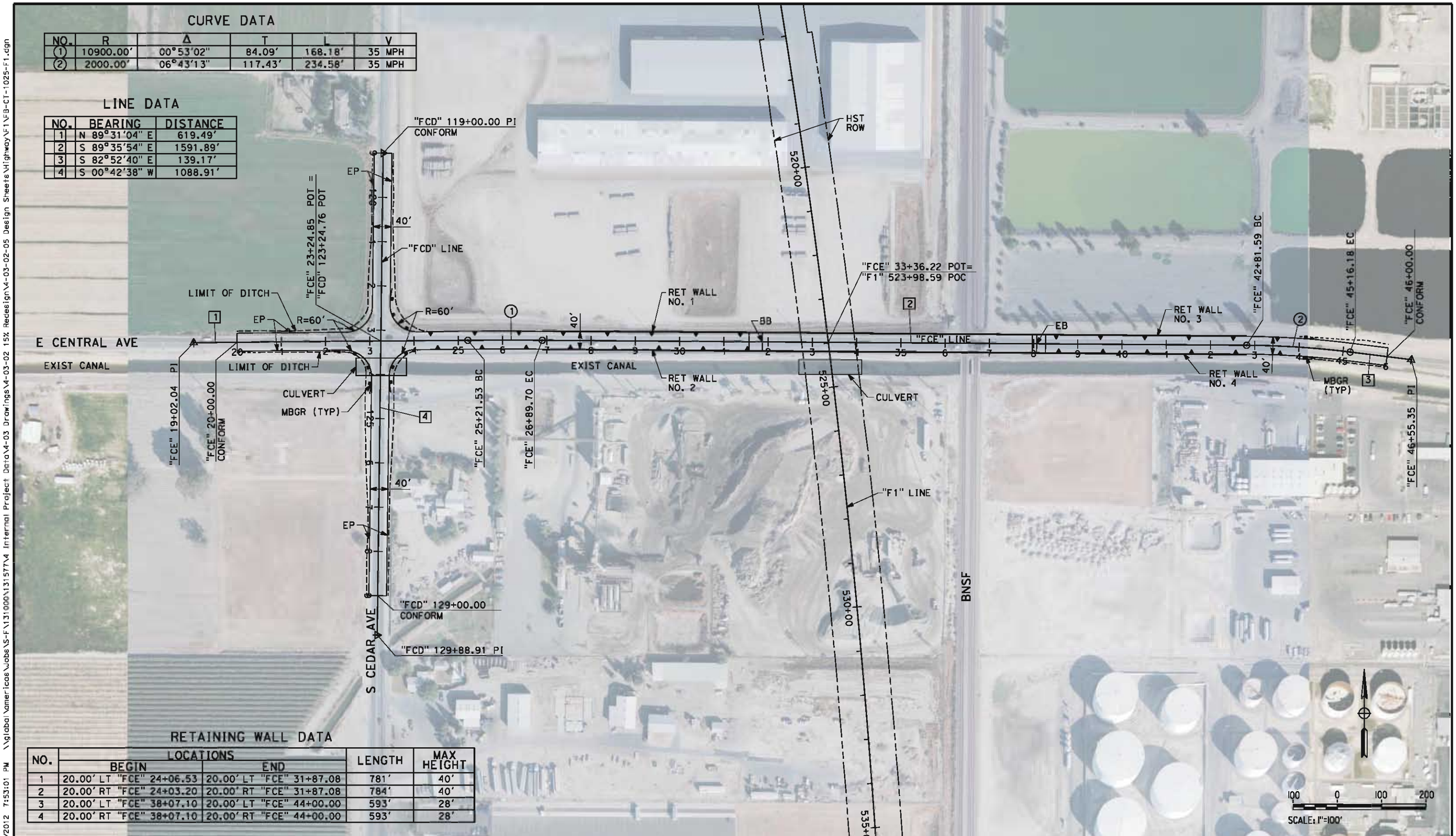
eron.sudhausen 5/17/2012 7:52:55 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-1021-F1.dgn

CURVE DATA

NO.	R	Δ	T	L	V
1	10900.00'	00°53'02"	84.09'	168.18'	35 MPH
2	2000.00'	06°43'13"	117.43'	234.58'	35 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	N 89°31'04" E	619.49'
2	S 89°35'54" E	1591.89'
3	S 82°52'40" E	139.17'
4	S 00°42'38" W	1088.91'



RETAINING WALL DATA

NO.	LOCATIONS BEGIN	LOCATIONS END	LENGTH	MAX HEIGHT
1	20.00' LT "FCE" 24+06.53	20.00' LT "FCE" 31+87.08	781'	40'
2	20.00' RT "FCE" 24+03.20	20.00' RT "FCE" 31+87.08	784'	40'
3	20.00' LT "FCE" 38+07.10	20.00' LT "FCE" 44+00.00	593'	28'
4	20.00' RT "FCE" 38+07.10	20.00' RT "FCE" 44+00.00	593'	28'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

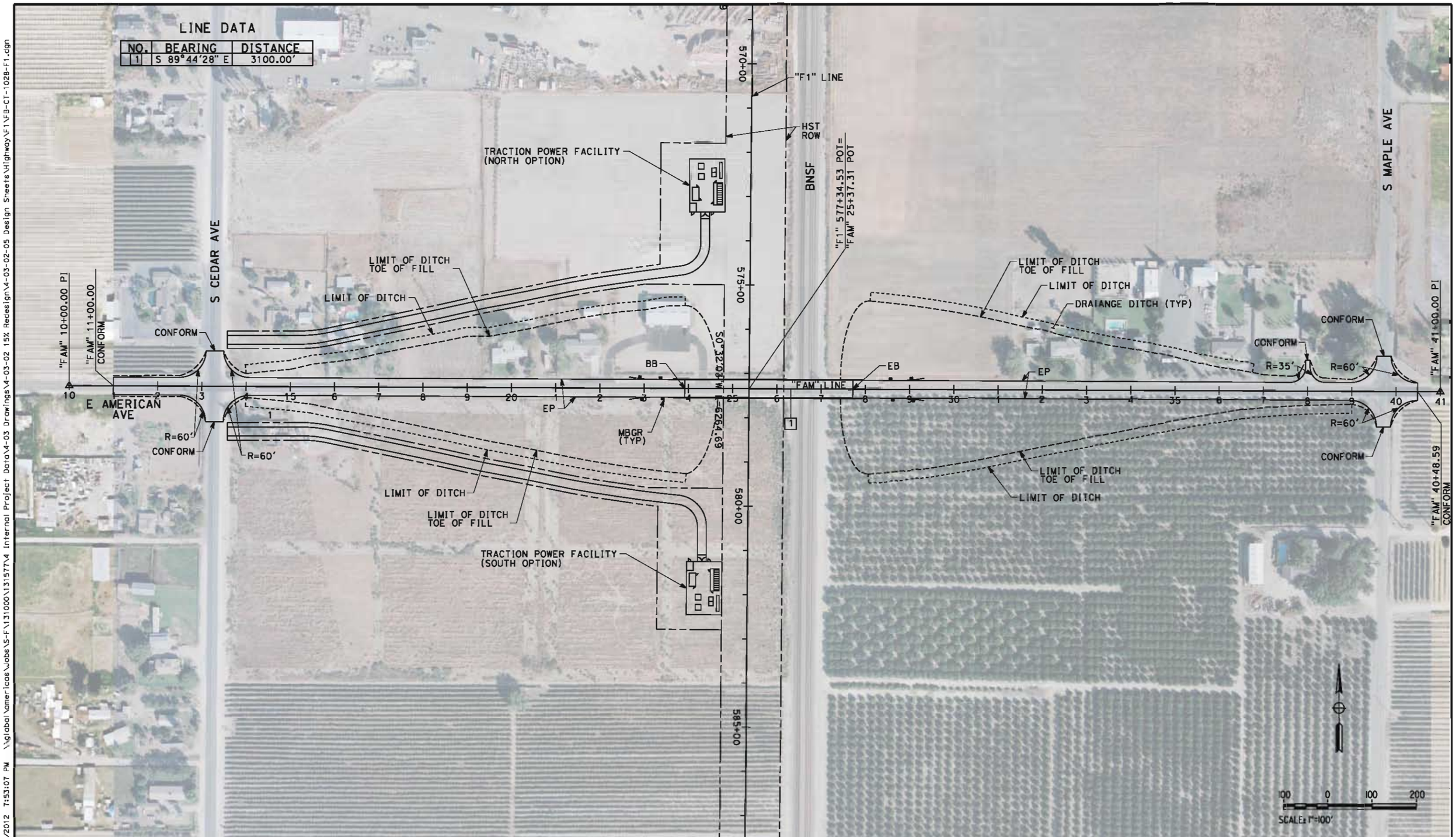
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
E CENTRAL AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1025
SCALE AS SHOWN
SHEET NO. 9 OF 32

eron.sudhausen 5/17/2012 7:53:01 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\F8-CT-1025-F1.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

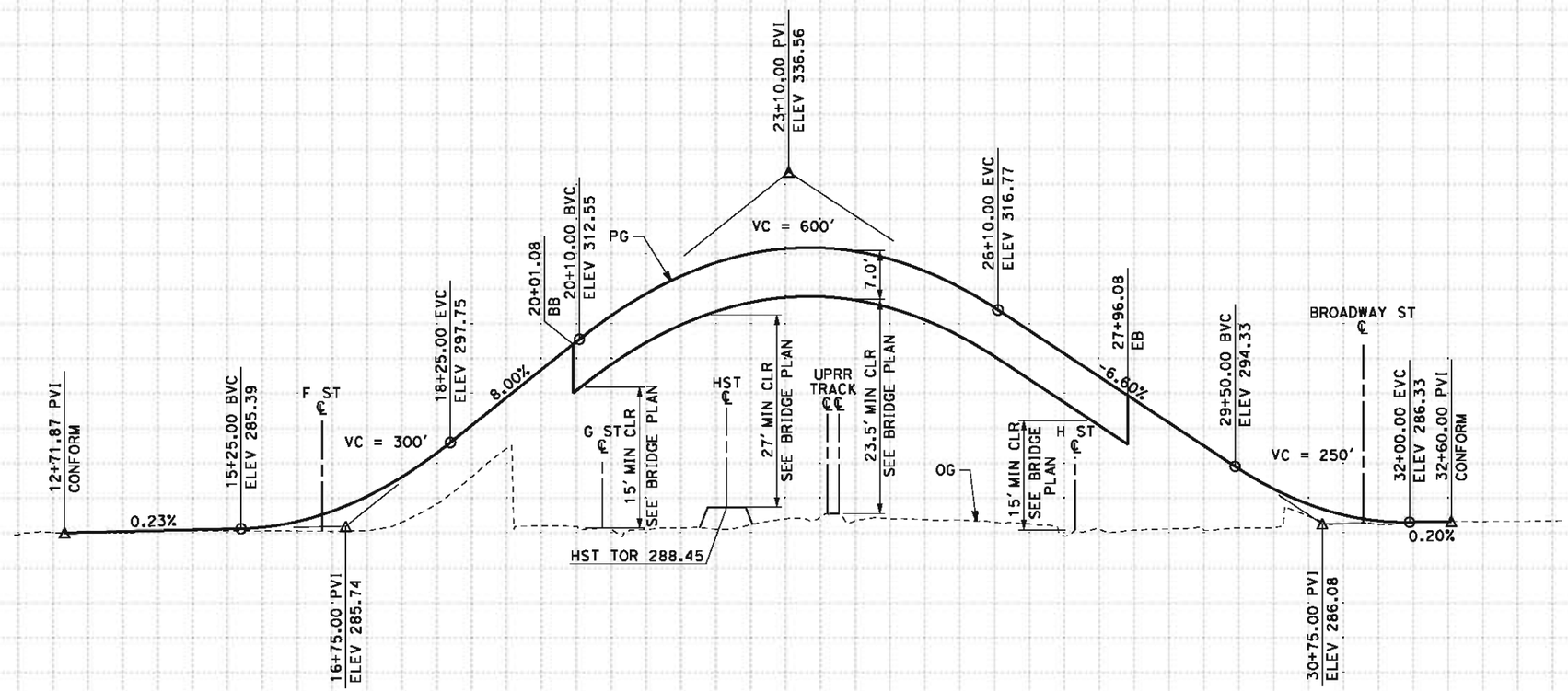
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION LAYOUT
E AMERICAN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1028
SCALE AS SHOWN
SHEET NO. 10 OF 32

eron.sudhausen 5/17/2012 7:53:07 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-1028-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 15' FROM ROAD SURFACE.
4. VERTICAL DESIGN SPEED = 30 MPH



PROFILE
"STN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
STANISLAUS ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2011
SCALE AS SHOWN
SHEET NO. 11 OF 32

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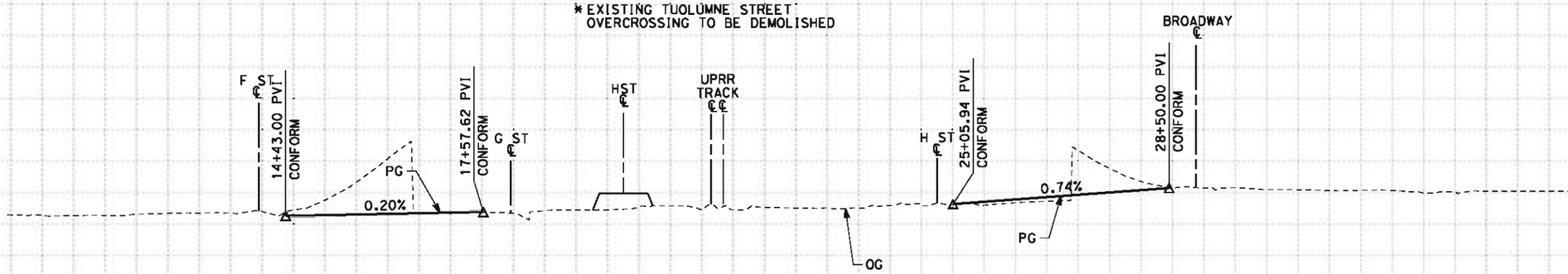
NOTES:

1. VERTICAL DESIGN SPEED = 30 MPH



PROFILE

"TUO" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
TUOLUMNE ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2012
SCALE AS SHOWN
SHEET NO. 12 OF 32

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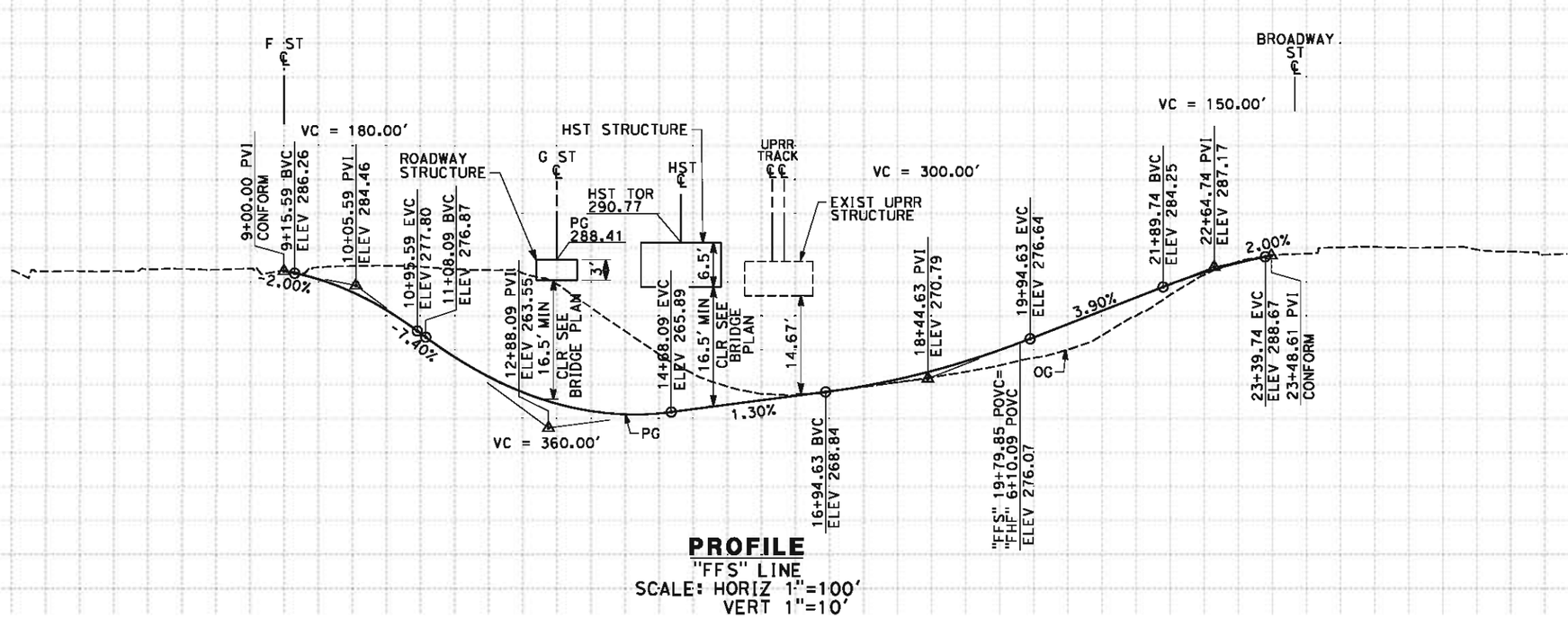
J0553823

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



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 M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
FRESNO ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2013
SCALE AS SHOWN
SHEET NO. 13 OF 32

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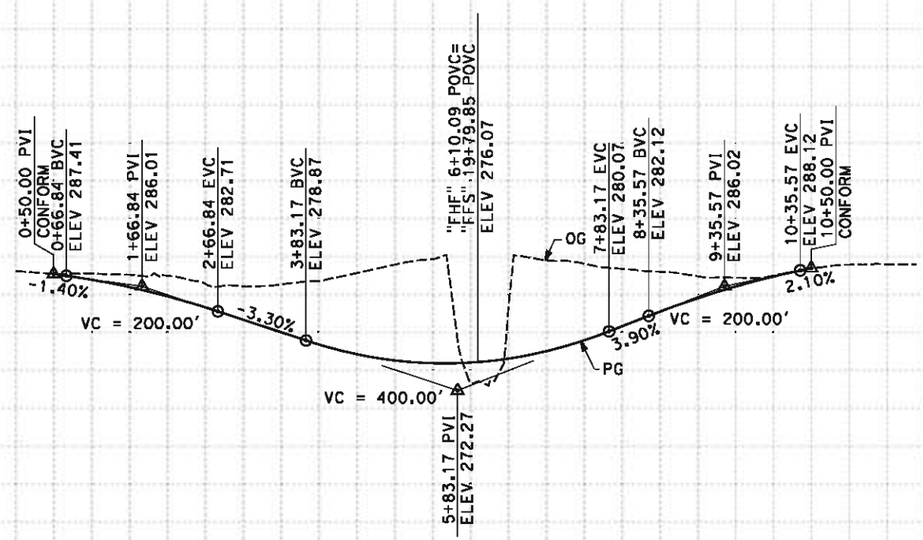
NOTES:
1. VERTICAL DESIGN SPEED = 30 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1013 FOR LAYOUT



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 M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

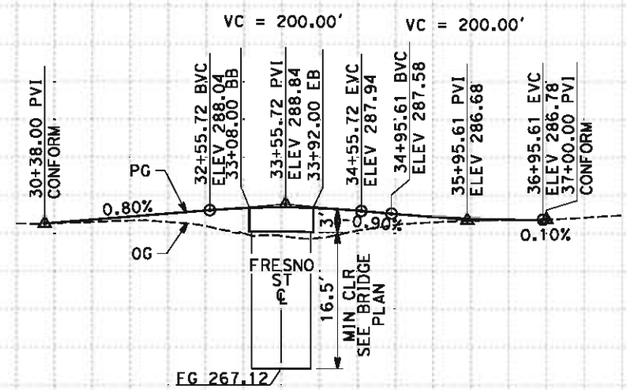
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
H ST (FRESNO ST)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2014
SCALE AS SHOWN
SHEET NO. 14 OF 32

eron.sudhausen 5/17/2012 7:53:09 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-2014-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 CT1013 FOR LAYOUT



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 M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

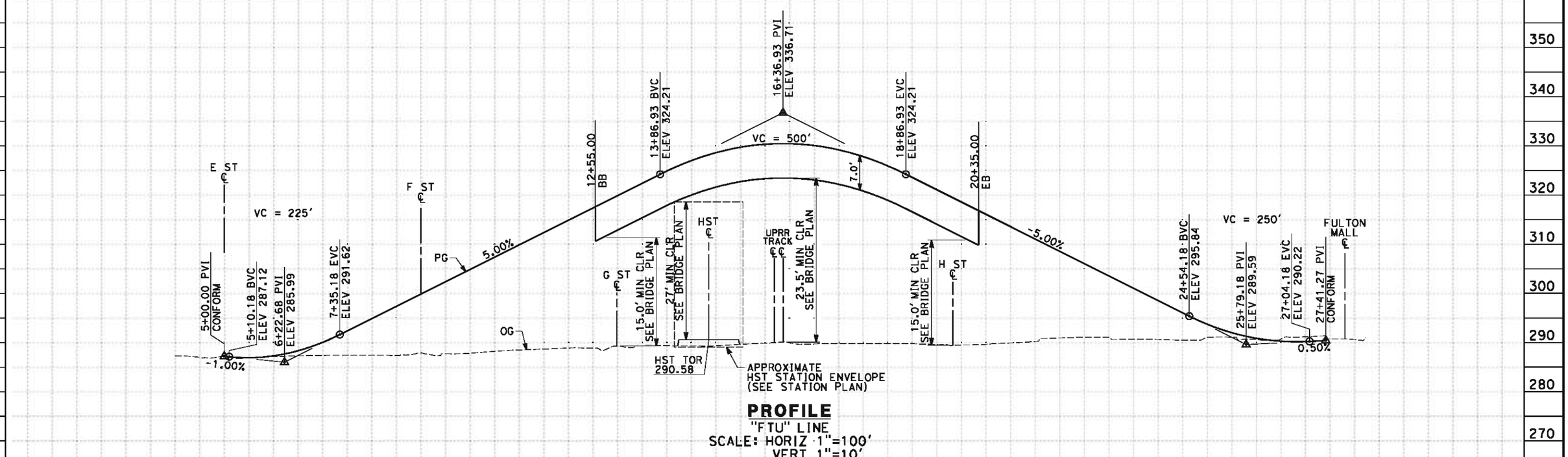
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
G ST (FRESNO ST)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2015
SCALE AS SHOWN
SHEET NO. 15 OF 32

eron.sudhausen 5/17/2012 7:53:11 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-2015-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 15' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FTU" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

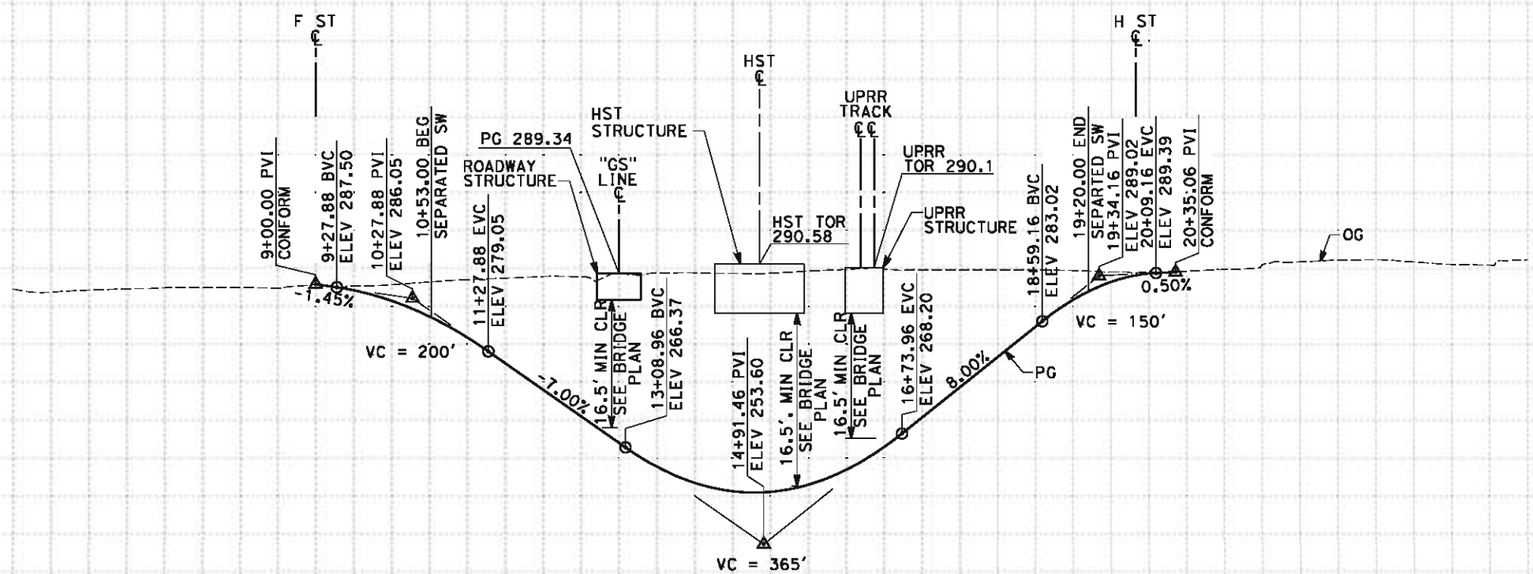
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
TULARE ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2016
SCALE AS SHOWN
SHEET NO. 16 OF 32

eron.sudhausen 5/17/2012 7:53:13 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-2016-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																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

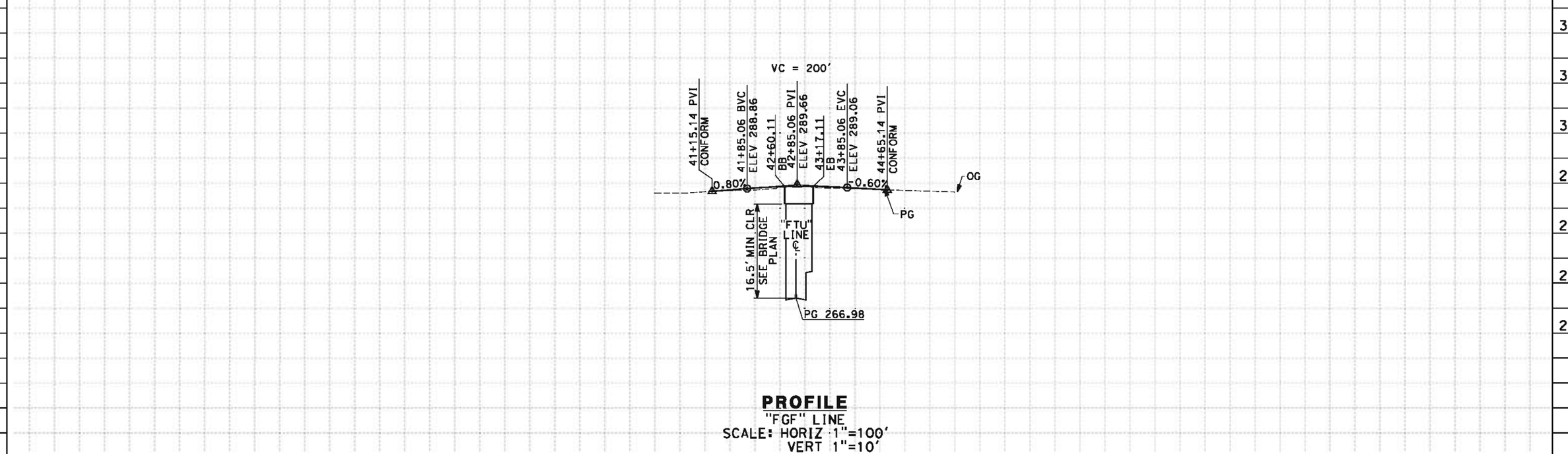
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
TULARE ST (UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2017
SCALE AS SHOWN
SHEET NO. 17 OF 32

\\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-2017-F1.dgn 5/17/2012 7:53:13 PM eron.sudhausen

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



PROFILE
"FGF" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		40	1	2	3	4	45	6	7	TOTAL
CY	Exc									
	Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

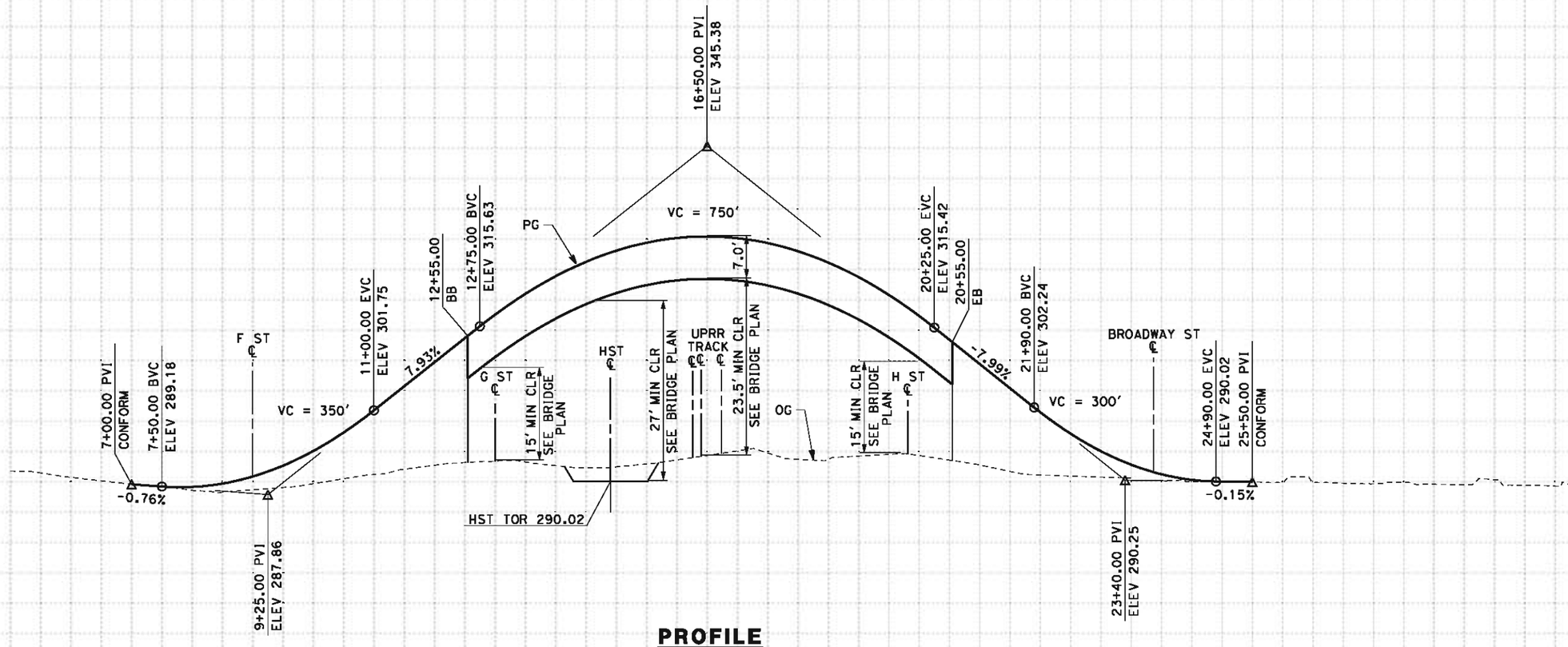
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
G ST (TULARE ST UNDERPASS)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2018
SCALE AS SHOWN
SHEET NO. 18 OF 32

eron.sudhausen 5/17/2012 7:53:14 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-2018-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 15' FROM ROAD SURFACE
4. VERTICAL DESIGN SPEED = 30 MPH



PROFILE
"VEN" 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	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY M. BAMM
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

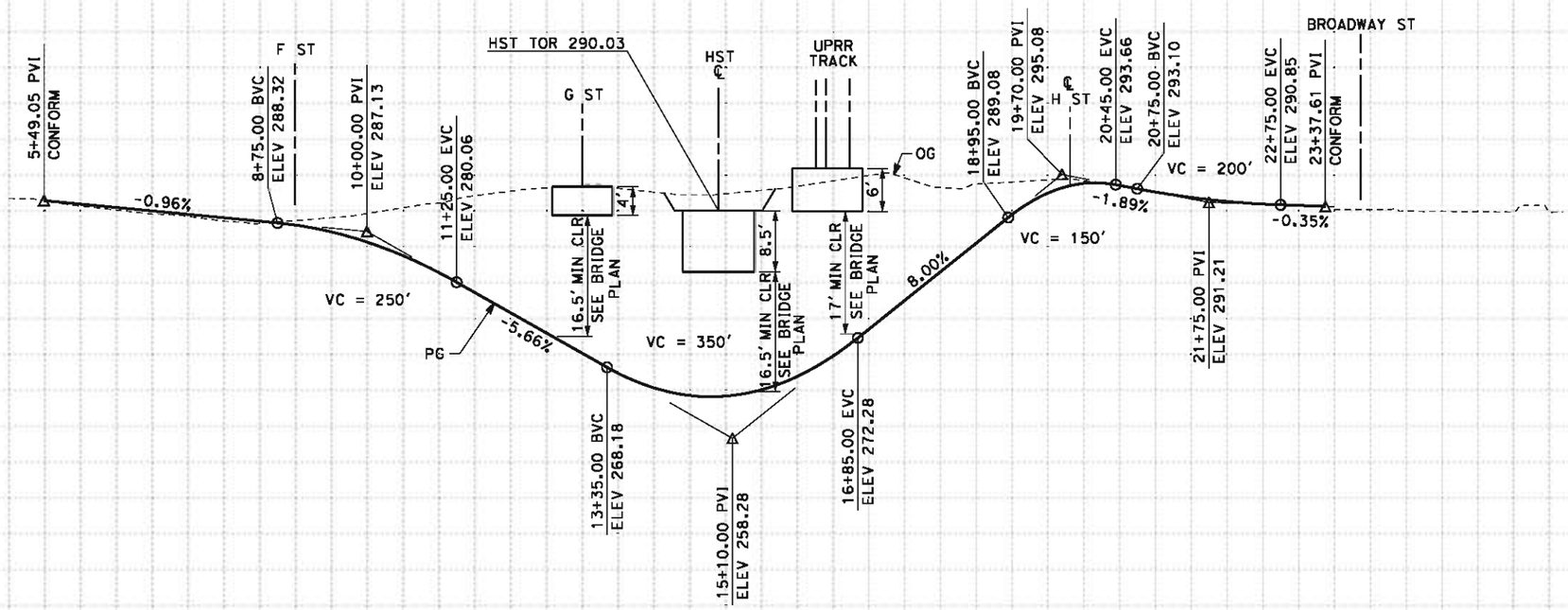
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
VENTURA ST (OVERHEAD)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2019
SCALE AS SHOWN
SHEET NO. 19 OF 32

CAHSRP-r1.tbl CHSR_PDF_half_black.pltG:_Sacramento\URS\235413 CA HSR Fresno Palmdale\16.0 Drawings\M-15% RBNSF Fresno\Sheet Files\Civil\CT2019.dgn 5/11/2012 2:21:43 PM NE153329

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER HST IS 16.5' FROM BOTTOM OF STRUCTURE
2. MINIMUM VERTICAL CLEARANCE UNDER UPRR IS 16.5' FROM BOTTOM OF STRUCTURE
3. MINIMUM VERTICAL CLEARANCE UNDER LOCAL STREET IS 16.5' FROM BOTTOM OF STRUCTURE
4. VERTICAL DESIGN SPEED = 25 MPH (AASHTO)



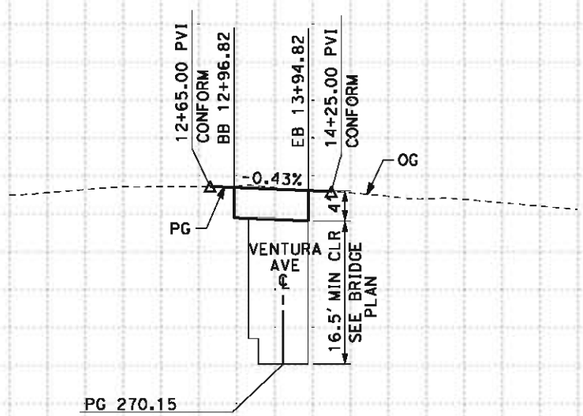
PROFILE

"VEN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

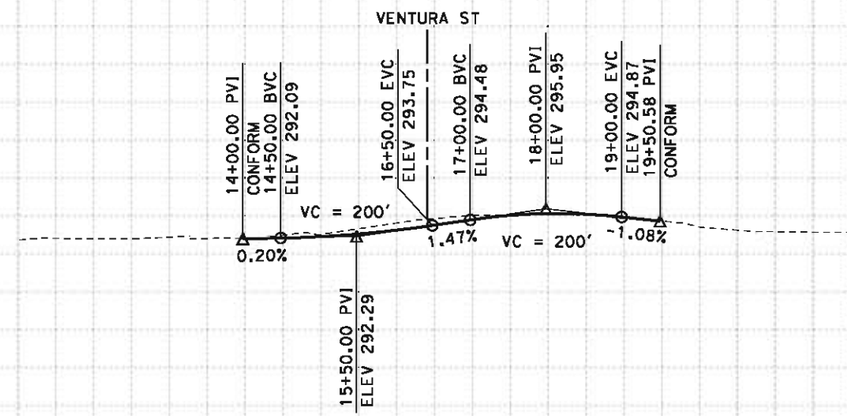
| STATION | | |

NOTES:

1. MINIMUM VERTICAL CLEARANCE UNDER LOCAL STREET IS 16.5' FROM BOTTOM OF STRUCTURE
2. VERTICAL DESIGN SPEED = 30 MPH



PROFILE
"FGV" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

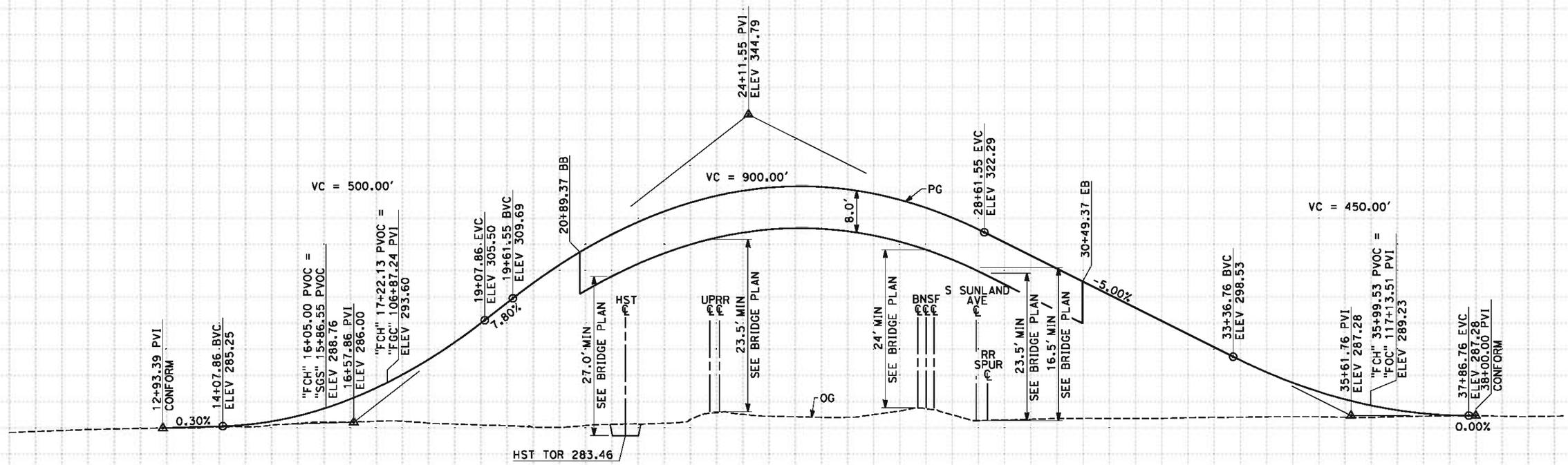


PROFILE
"FHV" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

| STATION | | |

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 BNSF IS 24' FROM TOP OF RAIL
4. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE
5. VERTICAL DESIGN SPEED = 40 MPH
6. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FCH" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	9	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
E CHURCH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2021
SCALE AS SHOWN
SHEET NO. 22 OF 32

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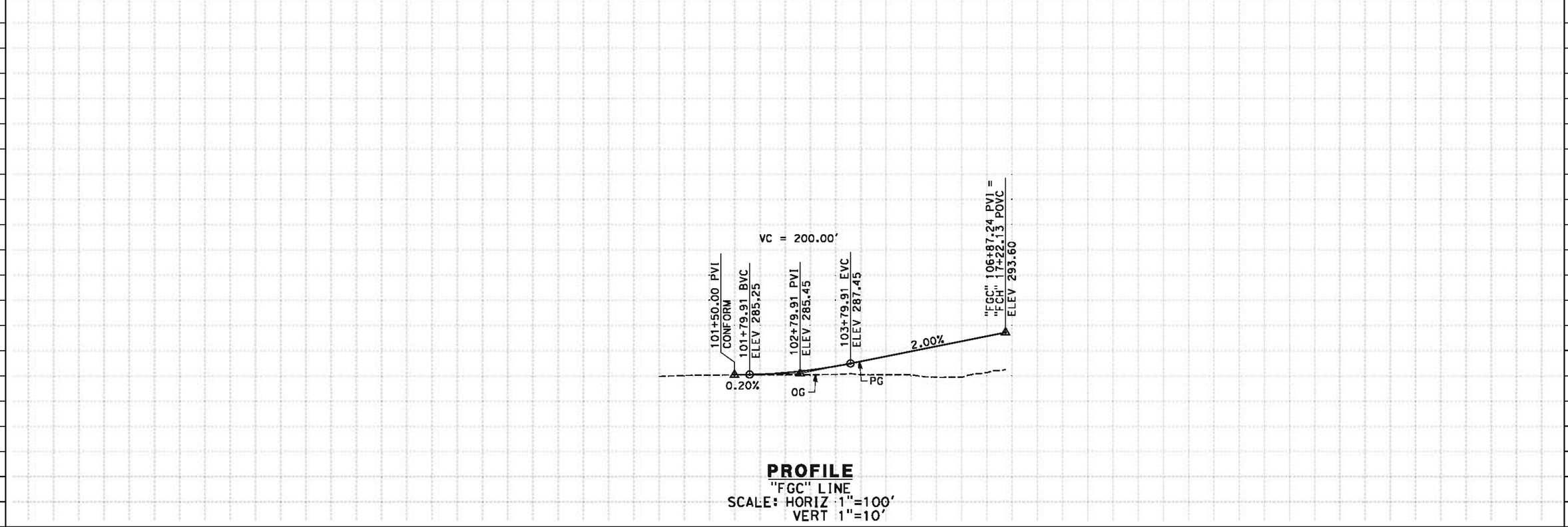
NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1020 FOR LAYOUT



PROFILE
"FGC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
G ST (E CHURCH AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2022
SCALE AS SHOWN
SHEET NO. 23 OF 32

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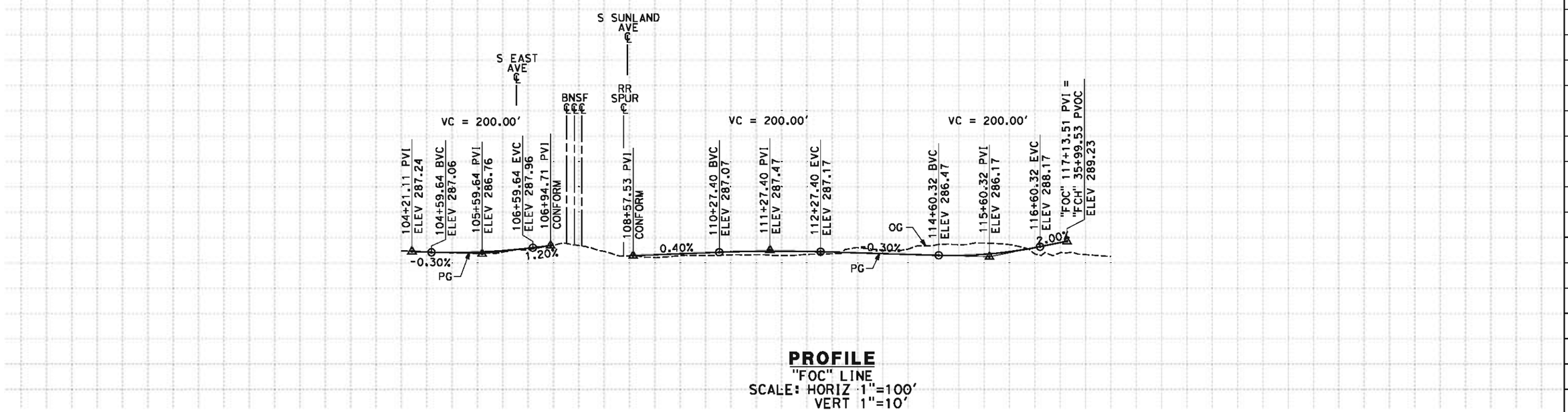
NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH & 15 MPH AT INTERSECTION
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1020 FOR LAYOUT



PROFILE
"FOC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	105	6	7	8	9	110	1	2	3	4	115	6	7	8	TOTAL
CY Exc																
CY Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
OLD E CHURCH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2023
SCALE AS SHOWN
SHEET NO. 24 OF 32

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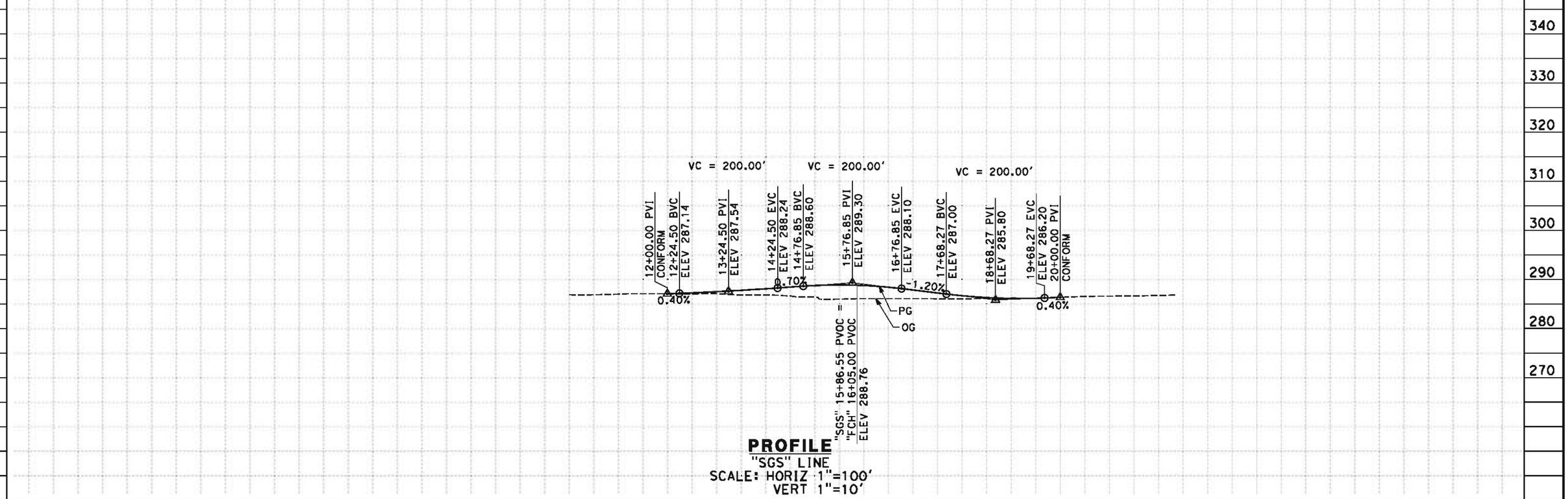
NOTES:

1. VERTICAL DESIGN SPEED = 50 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1021 FOR LAYOUT

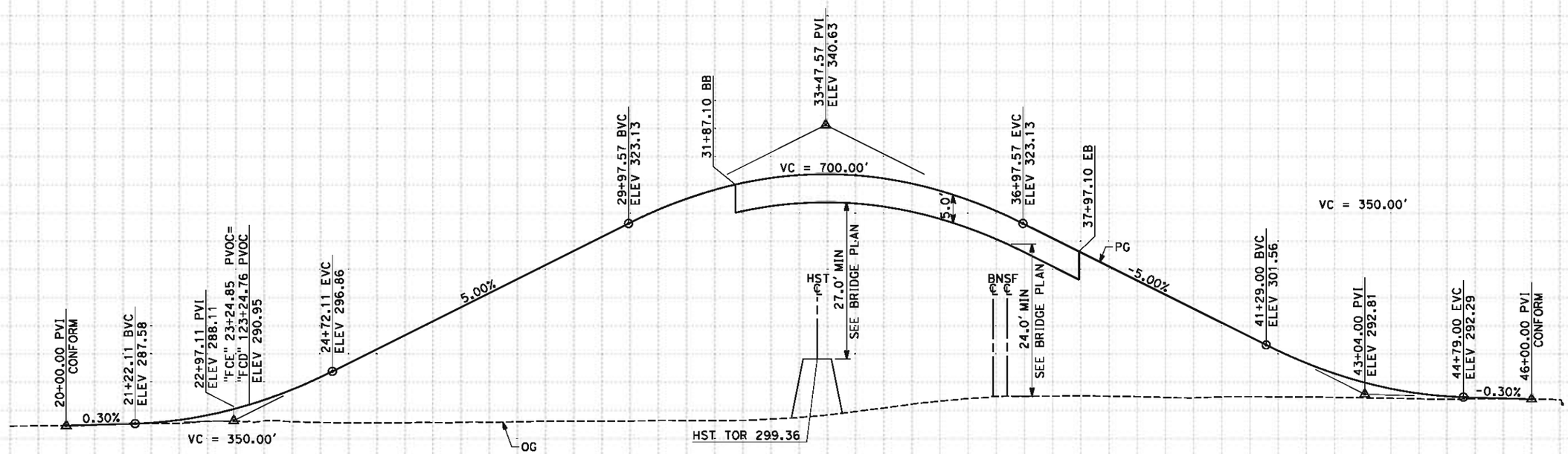


PROFILE
"SGS" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

| STATION | | |

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 35 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FCE" 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	9	40	1	2	3	4	45	6	7	8	TOTAL
CY	Exc																														
	Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
E CENTRAL AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2025
SCALE AS SHOWN
SHEET NO. 26 OF 32

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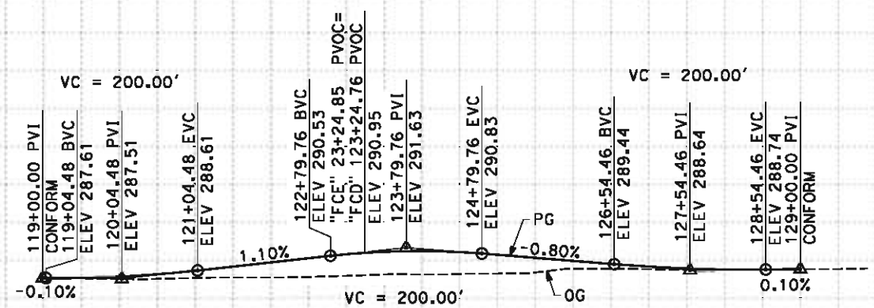
NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO SHEET CT1025 FOR LAYOUT



PROFILE
"FCD" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		6	7	8	9	120	1	2	3	4	125	6	7	8	9	130	TOTAL
CY	Exc																
	Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
S CEDAR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2027
SCALE AS SHOWN
SHEET NO. 27 OF 32

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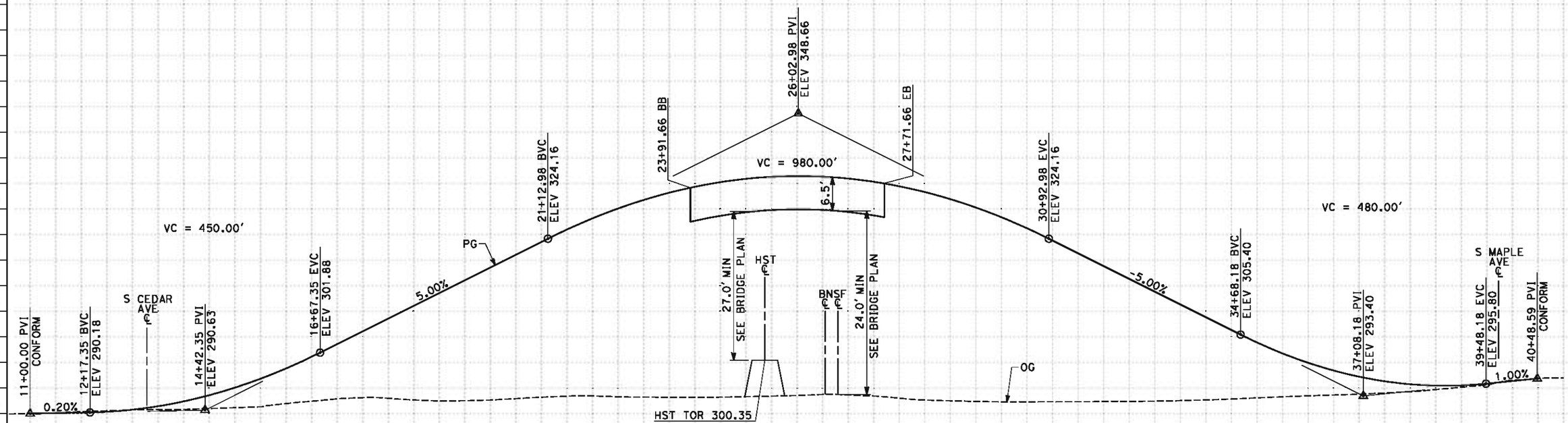
eron.sudhausen

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 45 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FAM" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	9	40	1	TOTAL
CY Exc																																
CY Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
GRADE SEPARATION PROFILE
E AMERICAN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2028
SCALE AS SHOWN
SHEET NO. 28 OF 32

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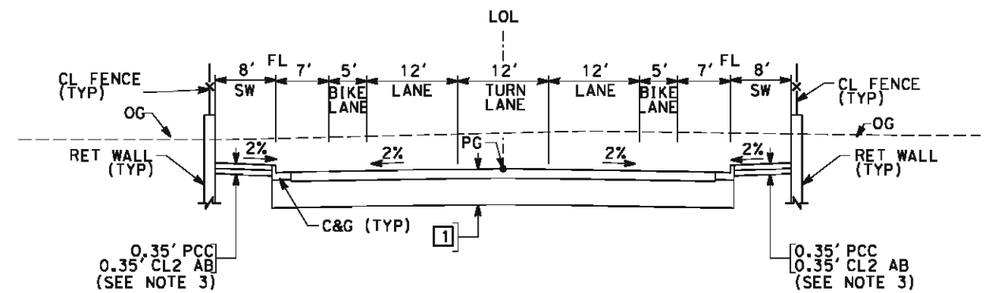
NOTES:

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.
3. PEDESTRIAN FACILITIES WILL BE DESIGNED TO COMPLY WITH ADA REQUIREMENTS.

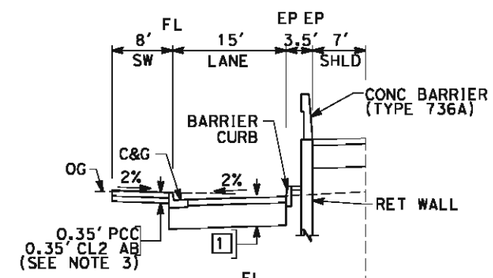
STRUCTURAL SECTIONS
TYPICAL ROADWAY

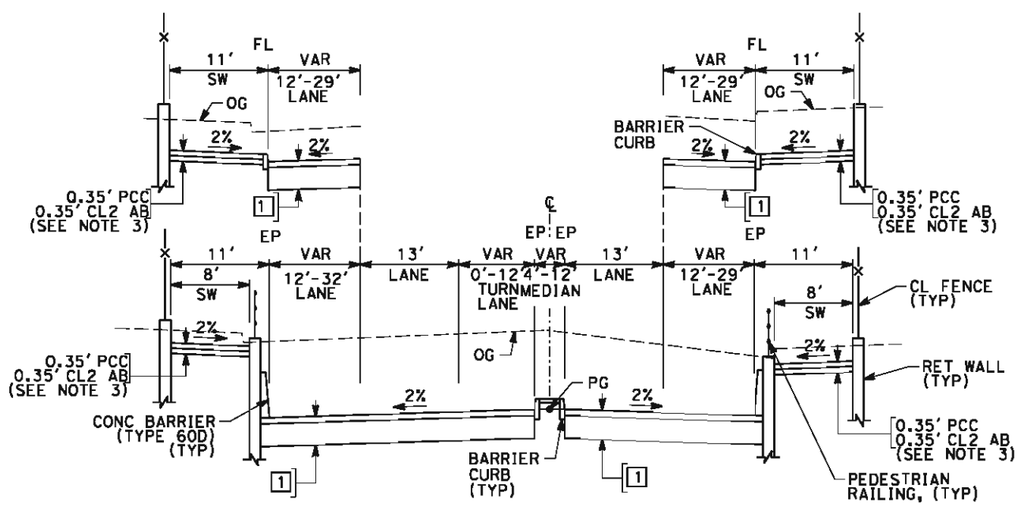
[1] 0.50' HMA (TYPE A)
1.50' CL2 AB



SECTION C

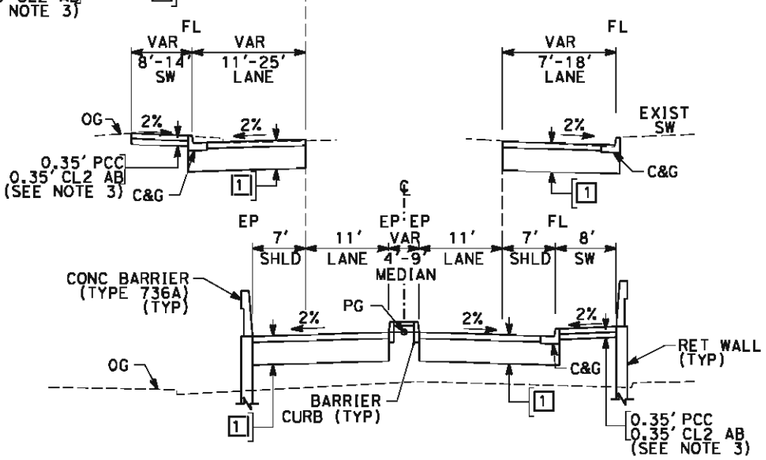
"FHF" 0+50.00 TO 10+50.00





SECTION B

"FFS" 9+00.00 TO 23+48.61



SECTION D

"FTU" 5+00.00 TO 12+55.00 (OVERHEAD OPTION)
"FTU" 20+35.00 TO 27+41.27 (OVERHEAD OPTION)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

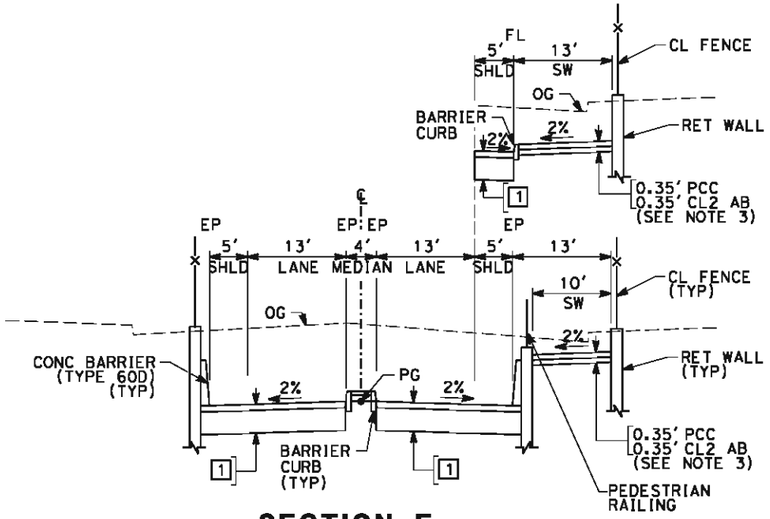
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

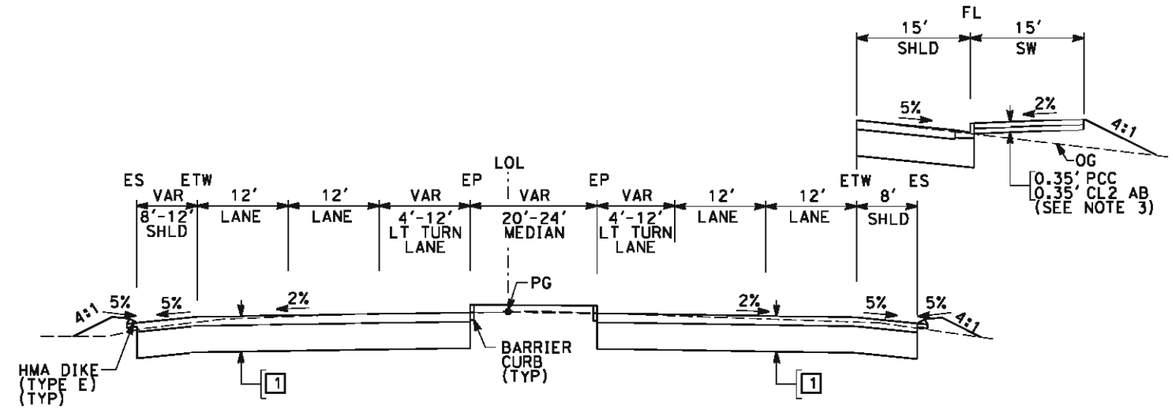
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3001
SCALE NO SCALE
SHEET NO. 29 OF 32

eron.sudhausen 5/17/2012 7:53:24 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-3001-F1.dgn



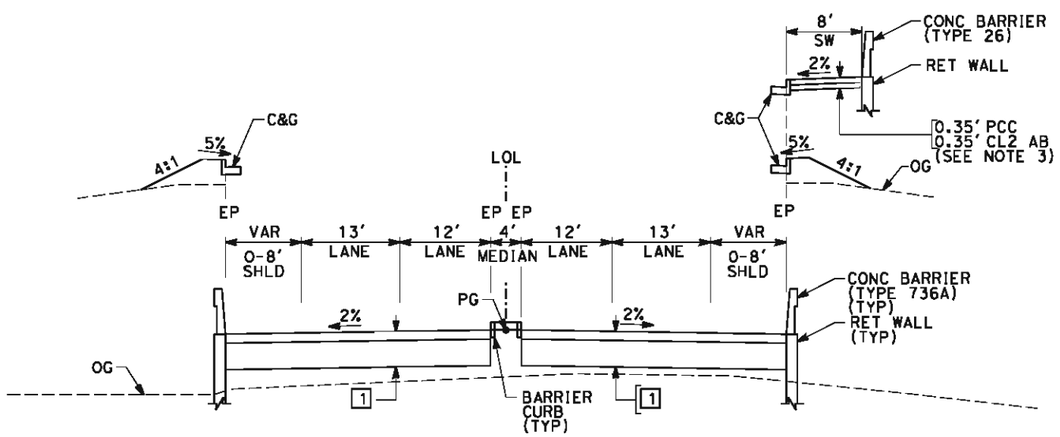
SECTION E

"FTU" 9+00.00 TO 20+35.06 (UNDERPASS OPTION)



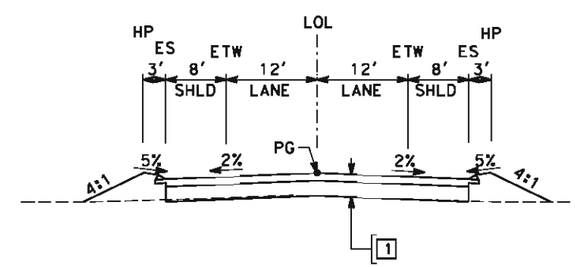
SECTION G

"SGS" 12+00.00 TO 20+00.00



SECTION F

"VEN" 7+00.00 TO 12+55.00 (OVERPASS OPTION)
"VEN" 20+55.00 TO 25+50.00 (OVERPASS OPTION)
"FCH" 12+93.39 TO 20+89.37
"FCH" 30+49.37 TO 38+00.00



SECTION H

"FOC" 104+21.11 TO 106+94.71
"FOC" 107+95.45 TO 117+13.51
"FCE" 20+00.00 TO 24+06.53
"FCE" 44+00.00 TO 46+00.00
"FCD" 119+00.00 TO 129+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3002
SCALE NO SCALE
SHEET NO. 30 OF 32

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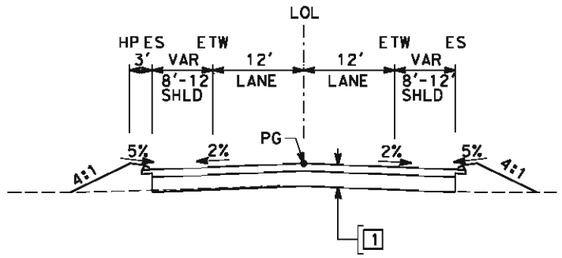
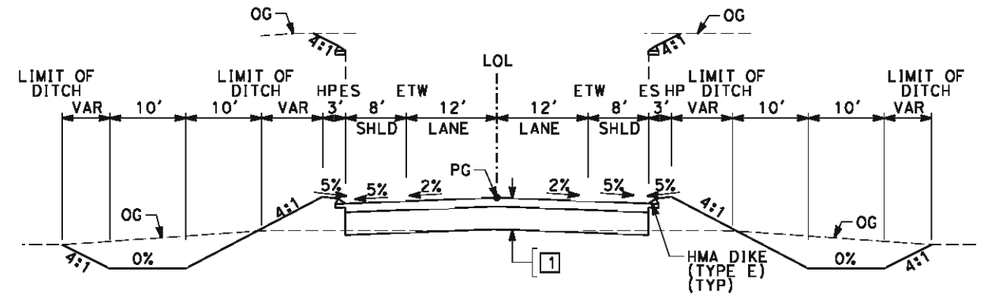


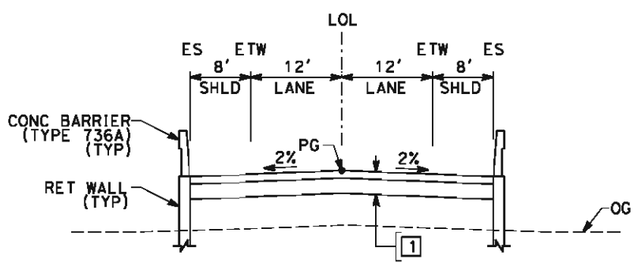
SECTION I

"FGC" 101+50.00 TO 106+87.24



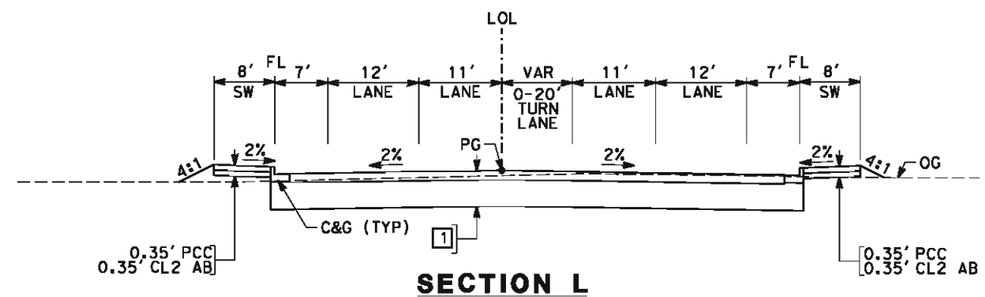
SECTION K

"FAM" 11+00.00 TO 23+91.66
"FAM" 27+71.66 TO 40+48.59



SECTION J

"FCE" 24+06.53 TO 31+87.10
"FCE" 37+97.10 TO 44+00.00



SECTION L

"FGF" 30+38.00 TO 33+08.00
"FGF" 33+92.00 TO 37+00.00
"FGF" 41+15.14 TO 42+60.11
"FGF" 43+17.11 TO 44+65.14

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

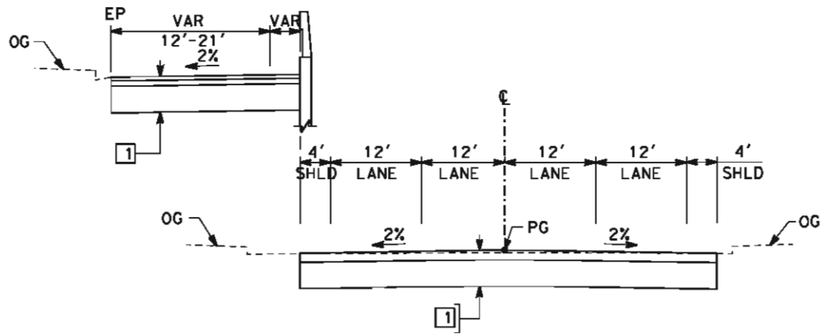
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

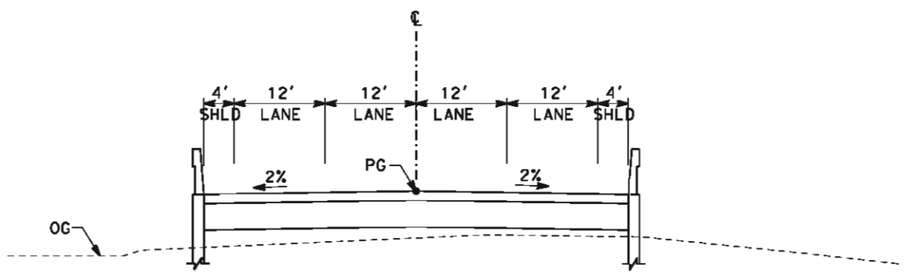
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3003
SCALE NO SCALE
SHEET NO. 31 OF 32

eron.sudhausen 5/17/2012 7:53:26 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\F1\FB-CT-3003-F1.dgn



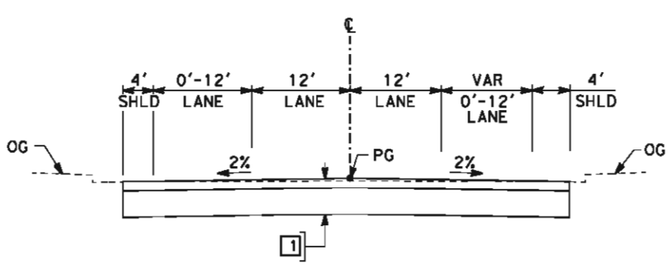
SECTION M

"STN" 12+71.87 TO 16+69.70



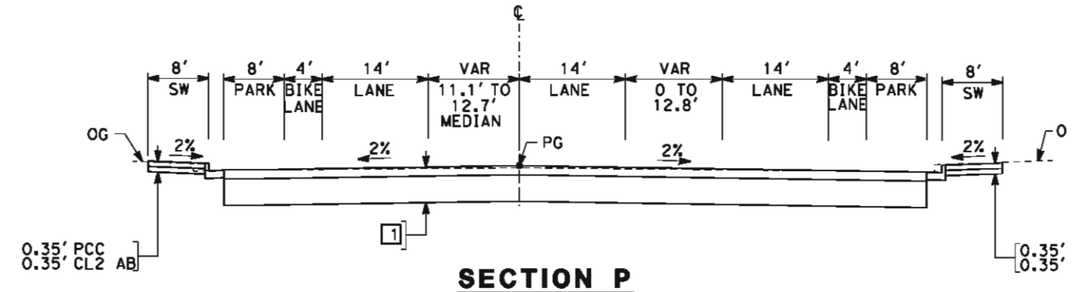
SECTION N

"STN" 16+69.70 TO 20+01.08
"STN" 27+96.08 TO 30+78.65



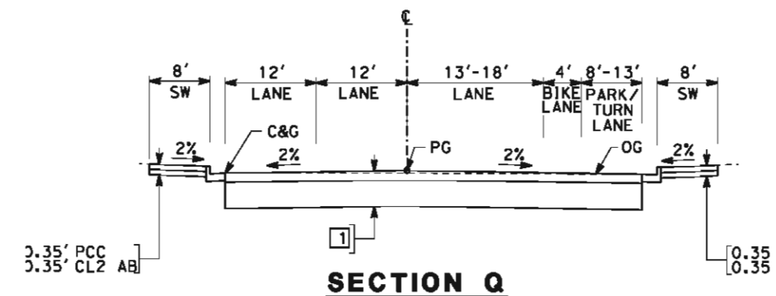
SECTION O

"STN" 30+78.65 TO 32+60.00



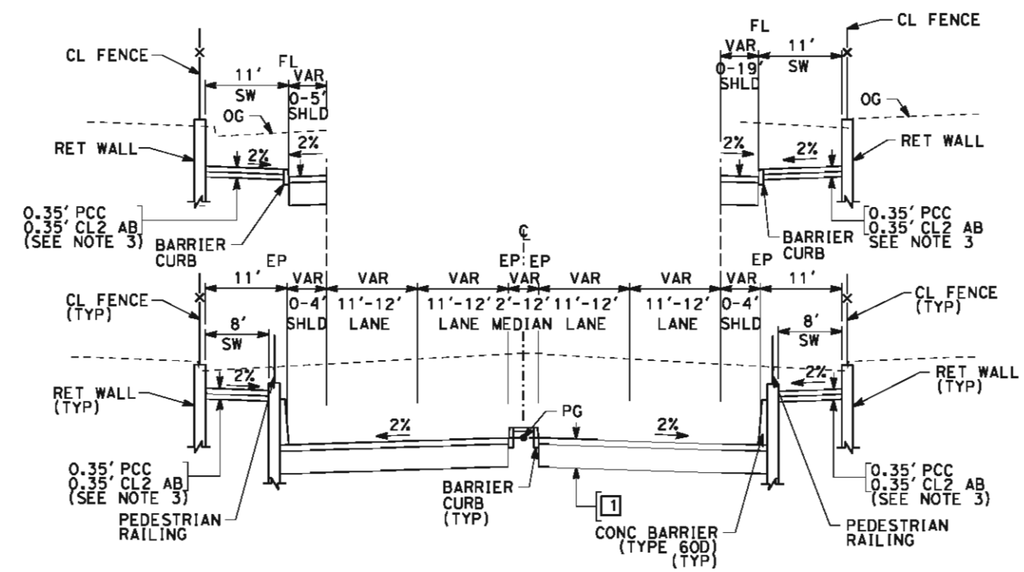
SECTION P

"TUO" 14+43.00 TO 17+57.62



SECTION Q

"TUO" 25+05.49 TO 28+50.00



SECTION R

"VEN" 5+23.68 TO 23+37.61 (UNDERPASS OPTION)

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

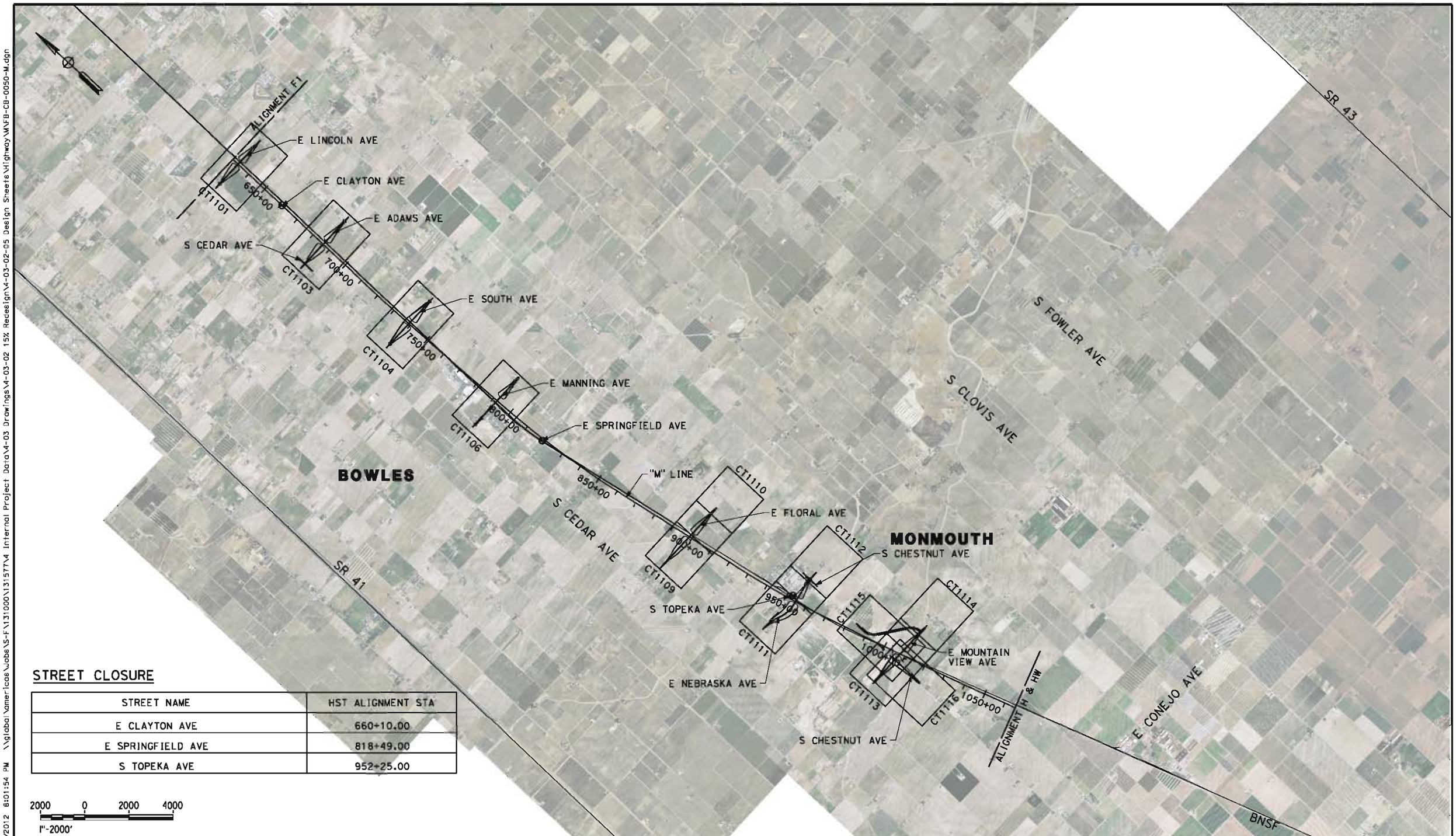
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
FRESNO SUBSECTION
ALIGNMENT F1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3004
SCALE AS SHOWN
SHEET NO. 32 OF 32

NE153329 5/11/2012 2:26:45 PM CAHSRP-r1.tbl CHSR_PDF_half_black.pltG:_Sacramento\URS\235413 CA HSR Fresno Palmdale\16.0 Drawings\M-15% RBNSF Fresno\Sheet Files\Civil\CT3004.dgn



STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
E CLAYTON AVE	660+10.00
E SPRINGFIELD AVE	818+49.00
S TOPEKA AVE	952+25.00

2000 0 2000 4000

1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

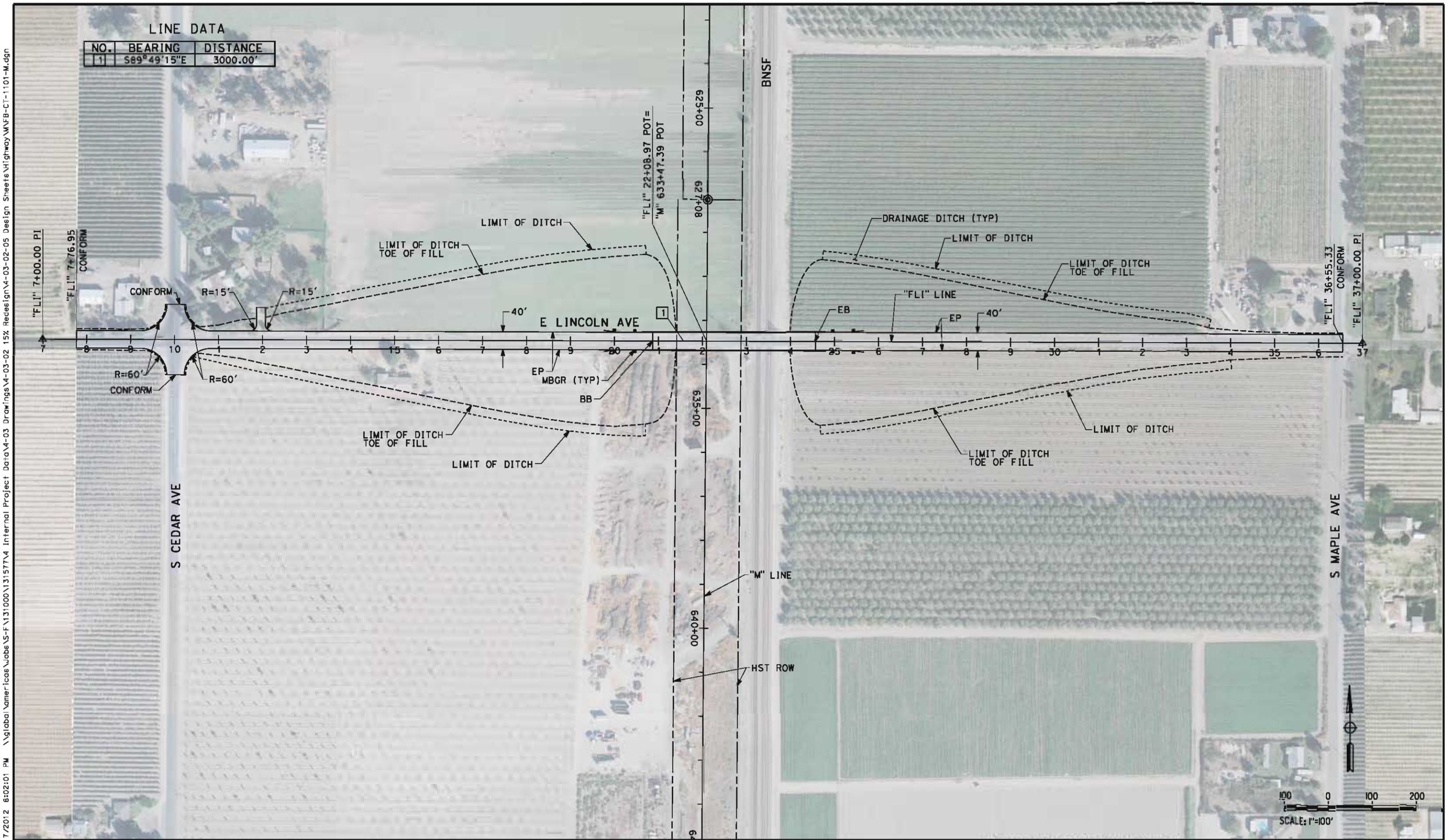
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0050
SCALE AS SHOWN
SHEET NO. 1 OF 29

eron.sudhausen 5/17/2012 8:01:54 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CB-0050-M.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

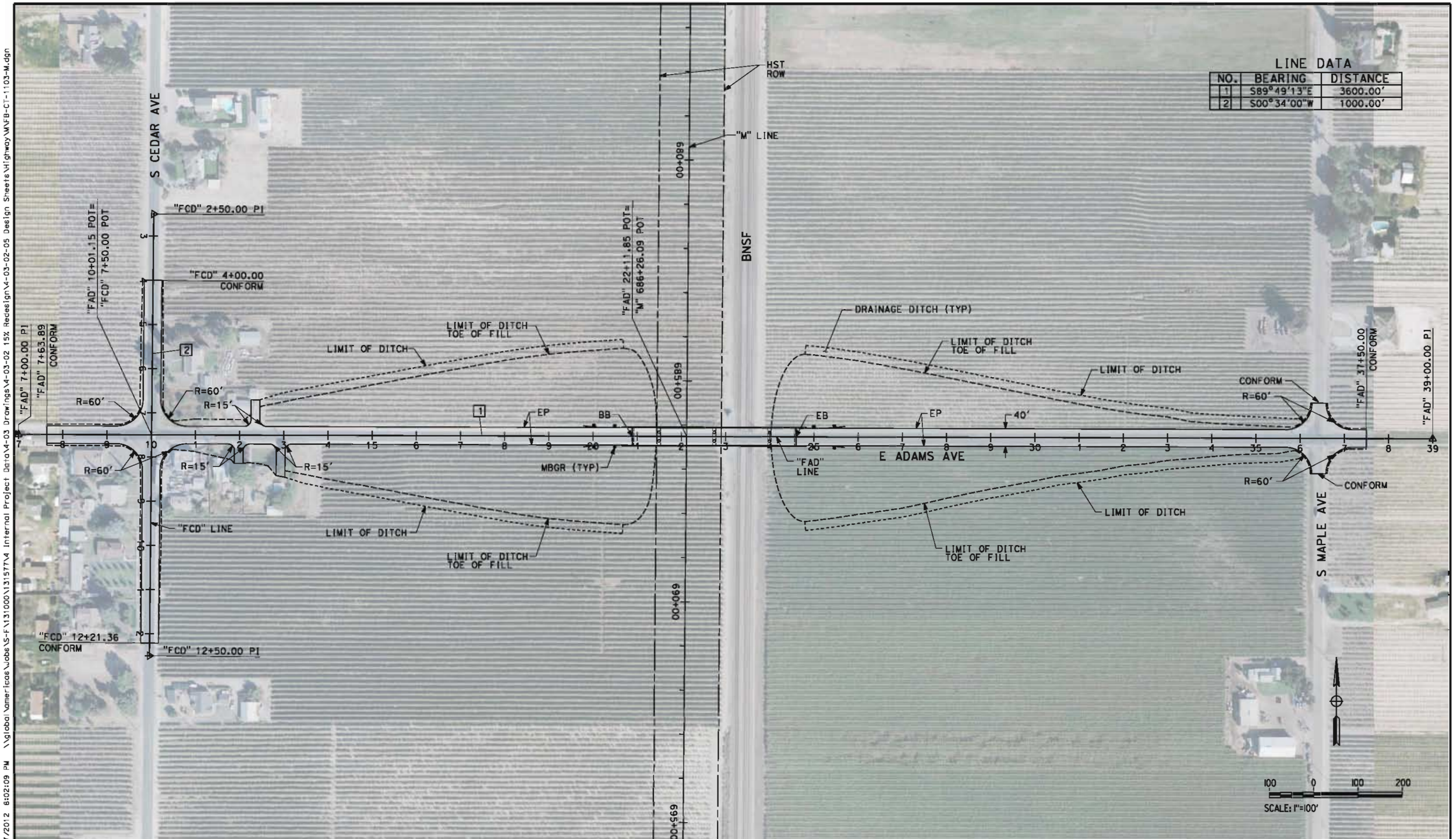
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E LINCOLN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1101
SCALE AS SHOWN
SHEET NO. 2 OF 29

eron.sudhausen 5/17/2012 8:02:01 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MAFB-CT-1101-M.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°49'13"E	3600.00'
2	S00°34'00"W	1000.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

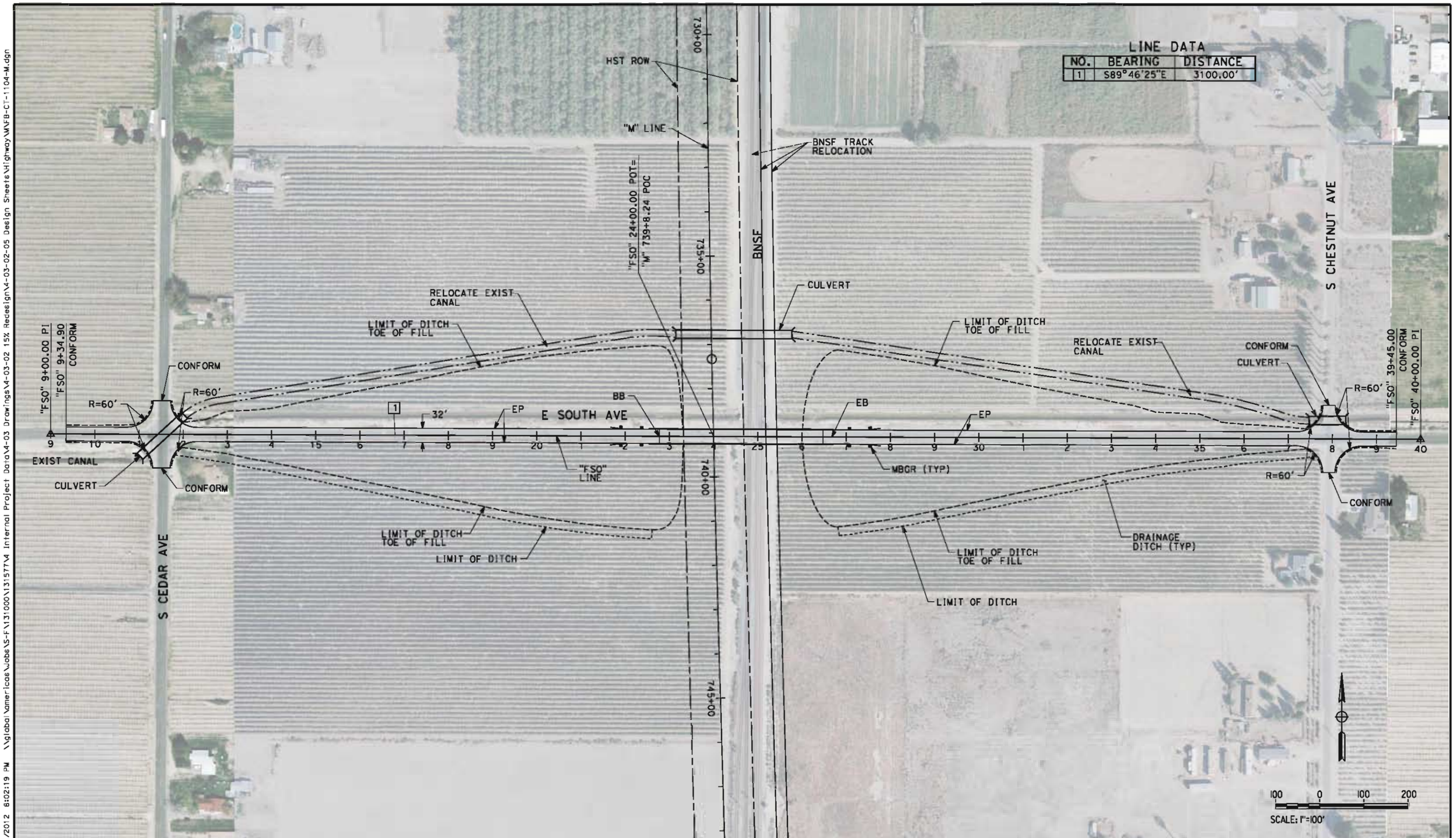
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E ADAMS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1103
SCALE AS SHOWN
SHEET NO. 3 OF 29

eran.sudhausen 5/17/2012 8:02:09 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MKFB-CT-1103-M.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

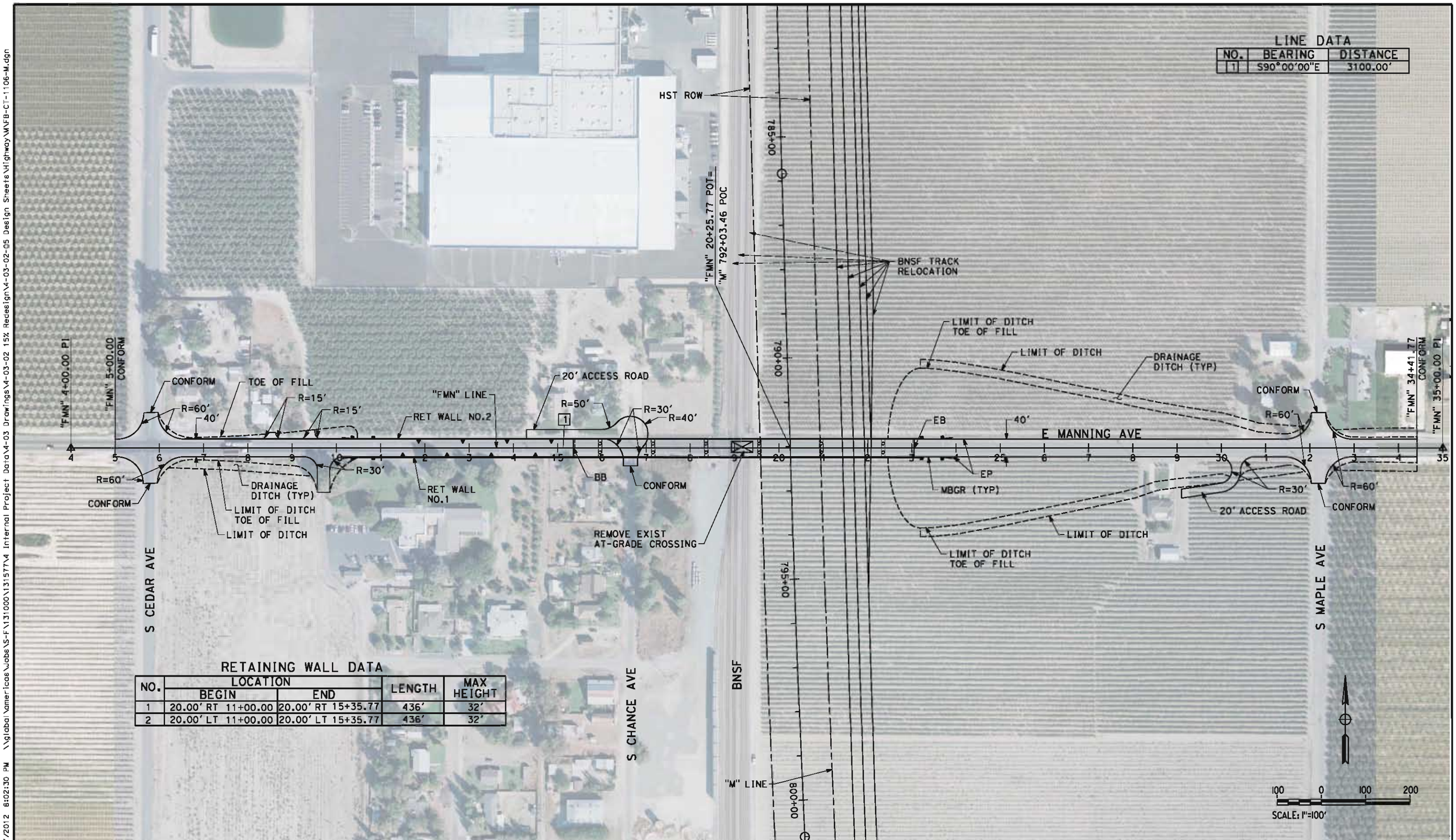
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E SOUTH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1104
SCALE AS SHOWN
SHEET NO. 4 OF 29

eron.sudhausen 5/17/2012 8:02:19 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MAFB-CT-1104-M.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S90°00'00"E	3100.00'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	20.00' RT 11+00.00	20.00' RT 15+35.77	436'	32'
2	20.00' LT 11+00.00	20.00' LT 15+35.77	436'	32'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E MANNING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1106
SCALE AS SHOWN
SHEET NO. 5 OF 29

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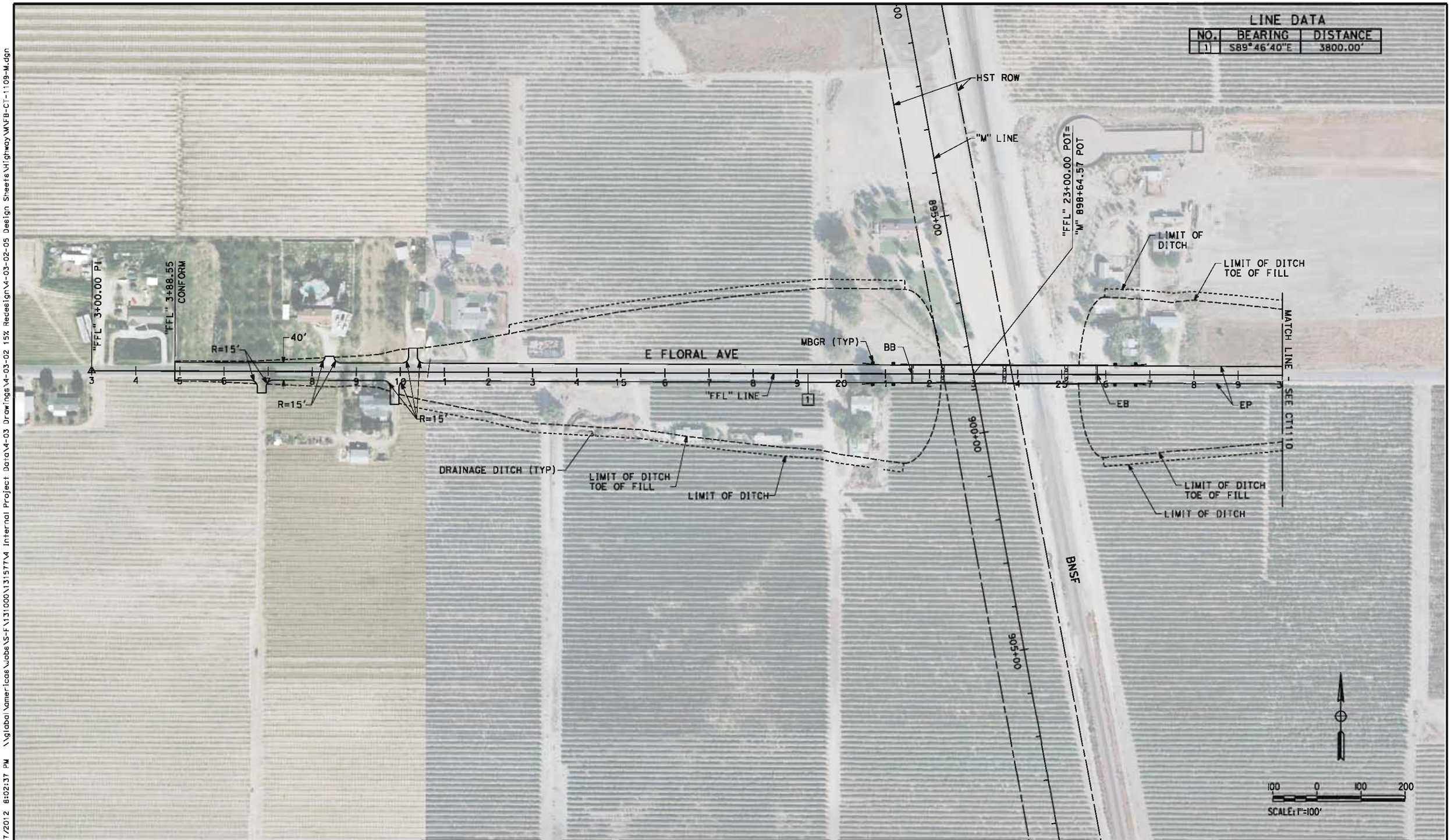


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E FLORAL AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1109
SCALE AS SHOWN
SHEET NO. 6 OF 29

eron.sudhausen 5/17/2012 8:02:37 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-1109-M.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

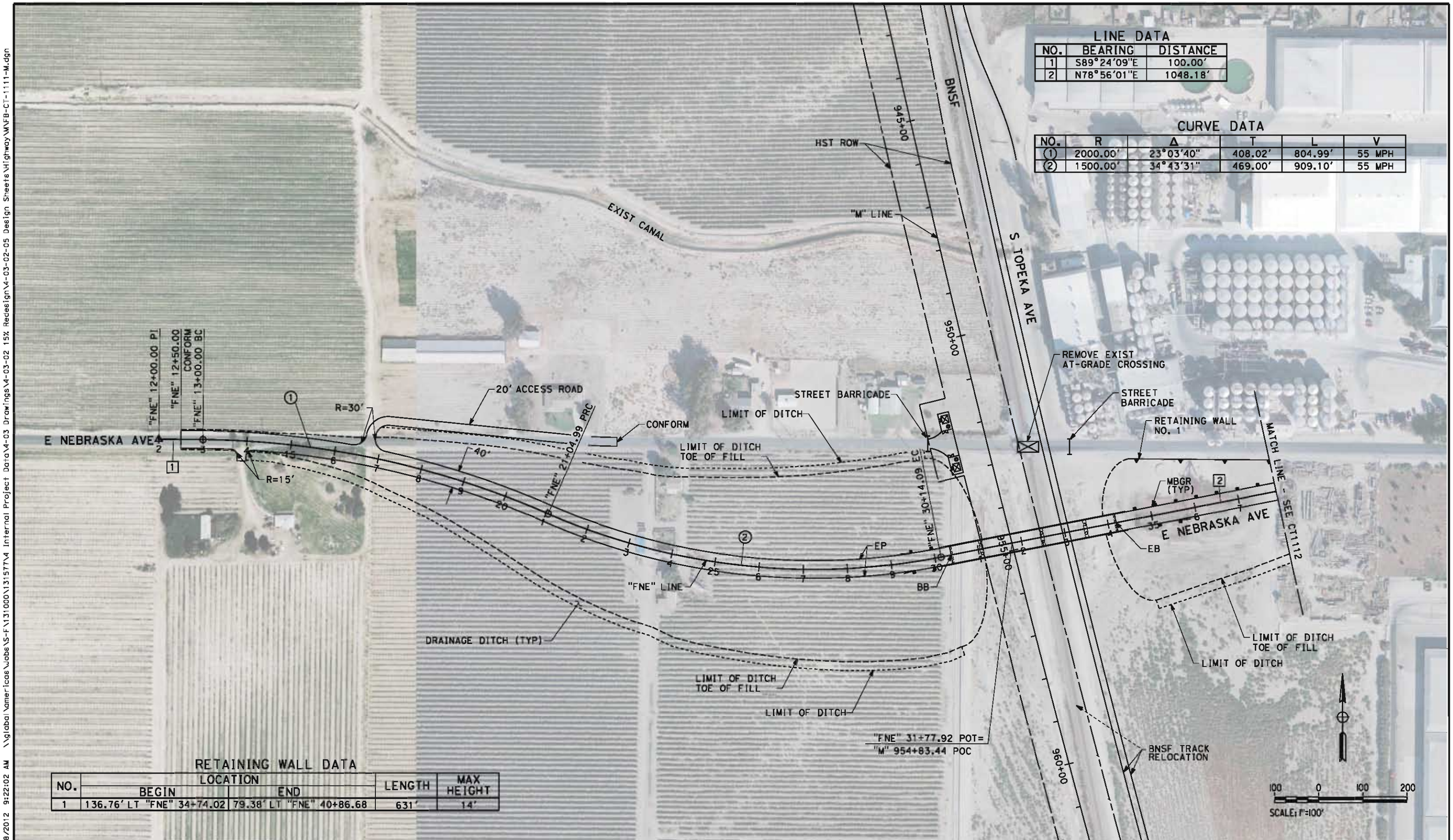
URS HMM ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E FLORAL AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1110
SCALE AS SHOWN
SHEET NO. 7 OF 29

eran.sudhausen 5/17/2012 8:02:44 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\M\FB-CT-1110-M.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°24'09"E	100.00'
2	N78°56'01"E	1048.18'

CURVE DATA

NO.	R	Δ	T	L	V
1	2000.00'	23°03'40"	408.02'	804.99'	55 MPH
2	1500.00'	34°43'31"	469.00'	909.10'	55 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	136.76' LT "FNE" 34+74.02	79.38' LT "FNE" 40+86.68	631'	14'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E NEBRASKA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1111
SCALE AS SHOWN
SHEET NO. 8 OF 29

eron.sudhausen 5/18/2012 9:22:02 AM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-1111-M.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	N78°56'01"E	1048.18'
3	S88°44'05"E	307.27'
4	S00°41'22"W	900.00'

CURVE DATA

NO.	R	Δ	T	L	V
(3)	2000.00'	12°19'55"	216.07'	430.46	55 MPH

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	136.76' LT "FNE" 34+74.02	79.38' LT "FNE" 40+86.68	631'	18'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

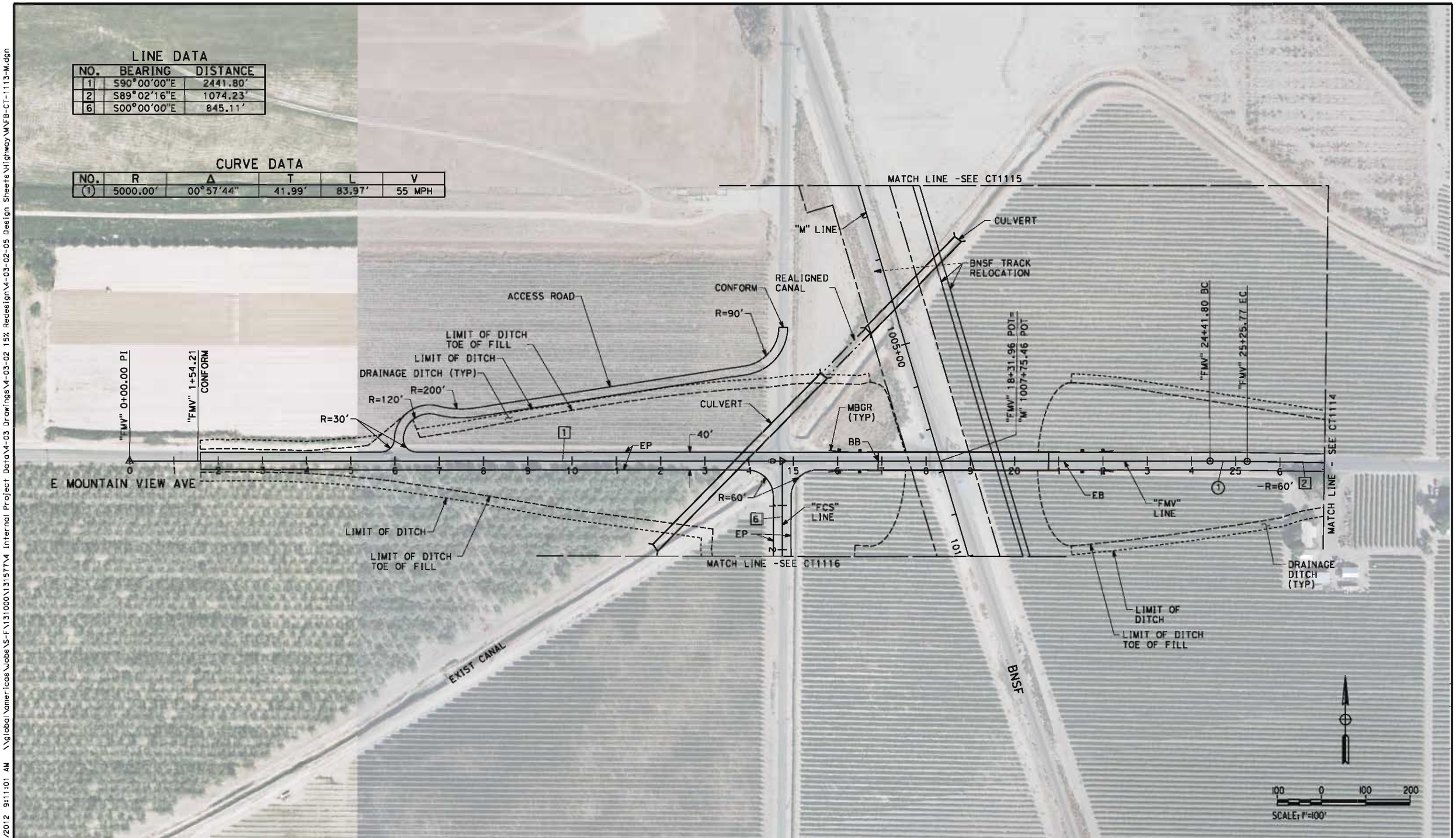
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E NEBRASKA AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1112
SCALE AS SHOWN
SHEET NO. 9 OF 29

eron.sudhausen 5/17/2012 8:02:56 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-1112-M.dgn

eran.sudhausen 5/18/2012 9:11:01 AM \\global\americas\Jobs\S-F\131000\13157\V4 Internal Project Data\V4-03 Drawings\V4-03-02 15% Redesign\V4-03-02-05 Design Sheets\Highway\MXFB-CT-1113-M.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S90°00'00"E	2441.80'
2	S89°02'16"E	1074.23'
6	S00°00'00"E	845.11'

CURVE DATA

NO.	R	Δ	T	L	V
(1)	5000.00'	00°57'44"	41.99'	83.97'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

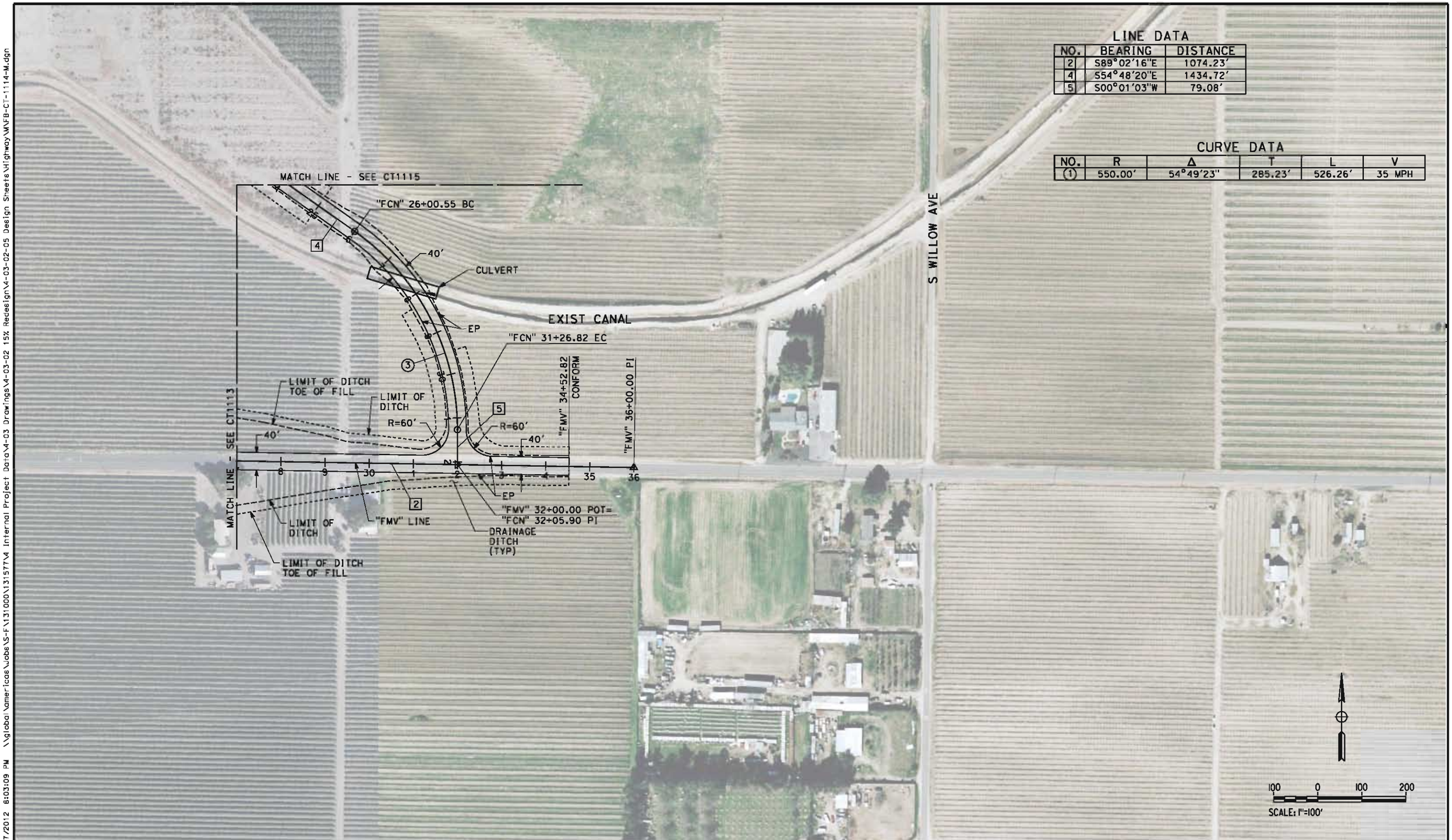
RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E MOUNTAIN VIEW AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1113
SCALE AS SHOWN
SHEET NO. 10 OF 29



LINE DATA

NO.	BEARING	DISTANCE
2	S89°02'16"E	1074.23'
4	S54°48'20"E	1434.72'
5	S00°01'03"W	79.08'

CURVE DATA

NO.	R	Δ	T	L	V
1	550.00'	54°49'23"	285.23'	526.26'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION LAYOUT
E MOUNTAIN VIEW AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1114
SCALE AS SHOWN
SHEET NO. 11 OF 29

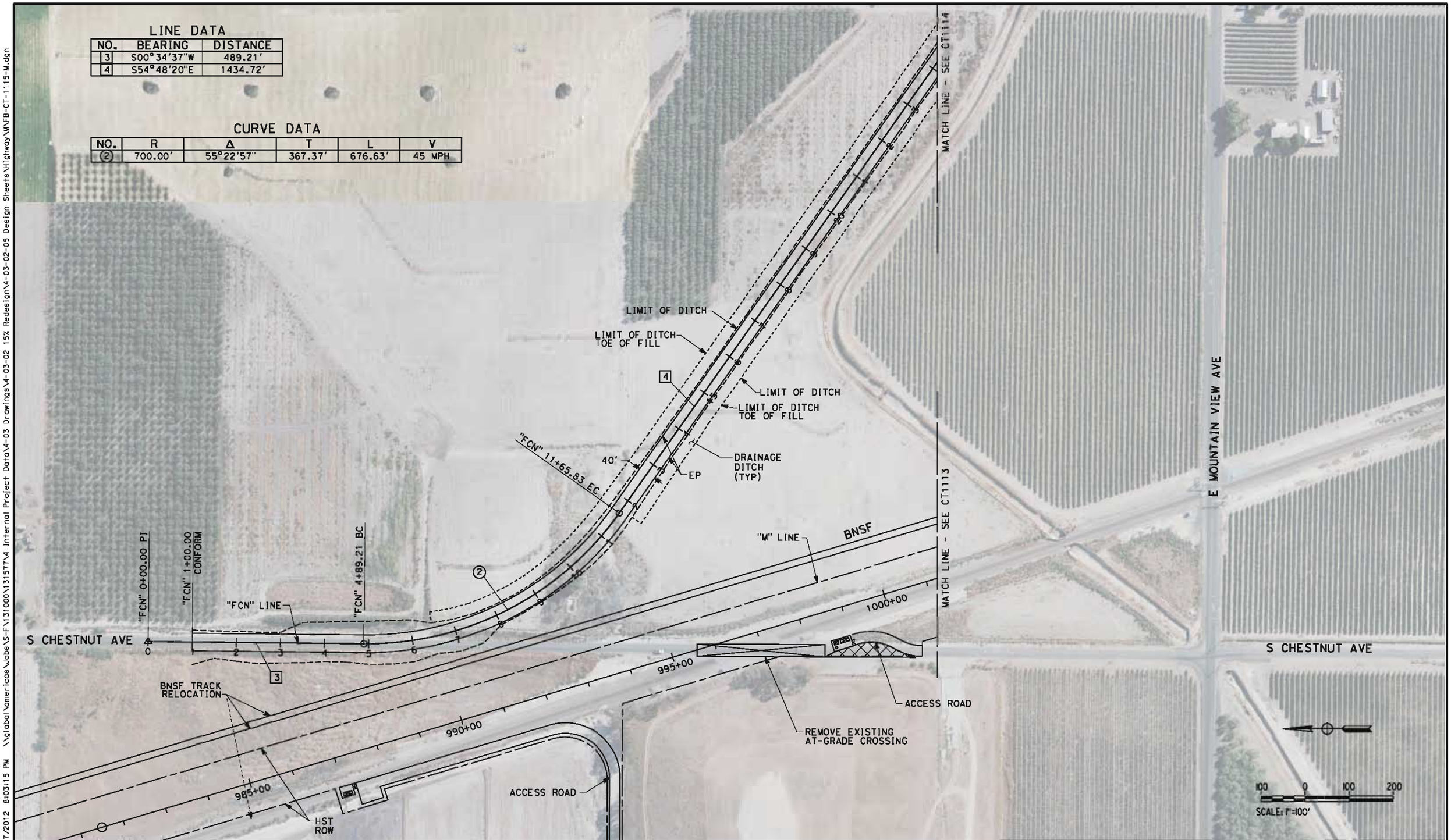
eran.sudhausen 5/17/2012 8:03:09 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-1114-M.dgn

LINE DATA

NO.	BEARING	DISTANCE
3	S00°34'37"W	489.21'
4	S54°48'20"E	1434.72'

CURVE DATA

NO.	R	Δ	T	L	V
2	700.00'	55°22'57"	367.37'	676.63'	45 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

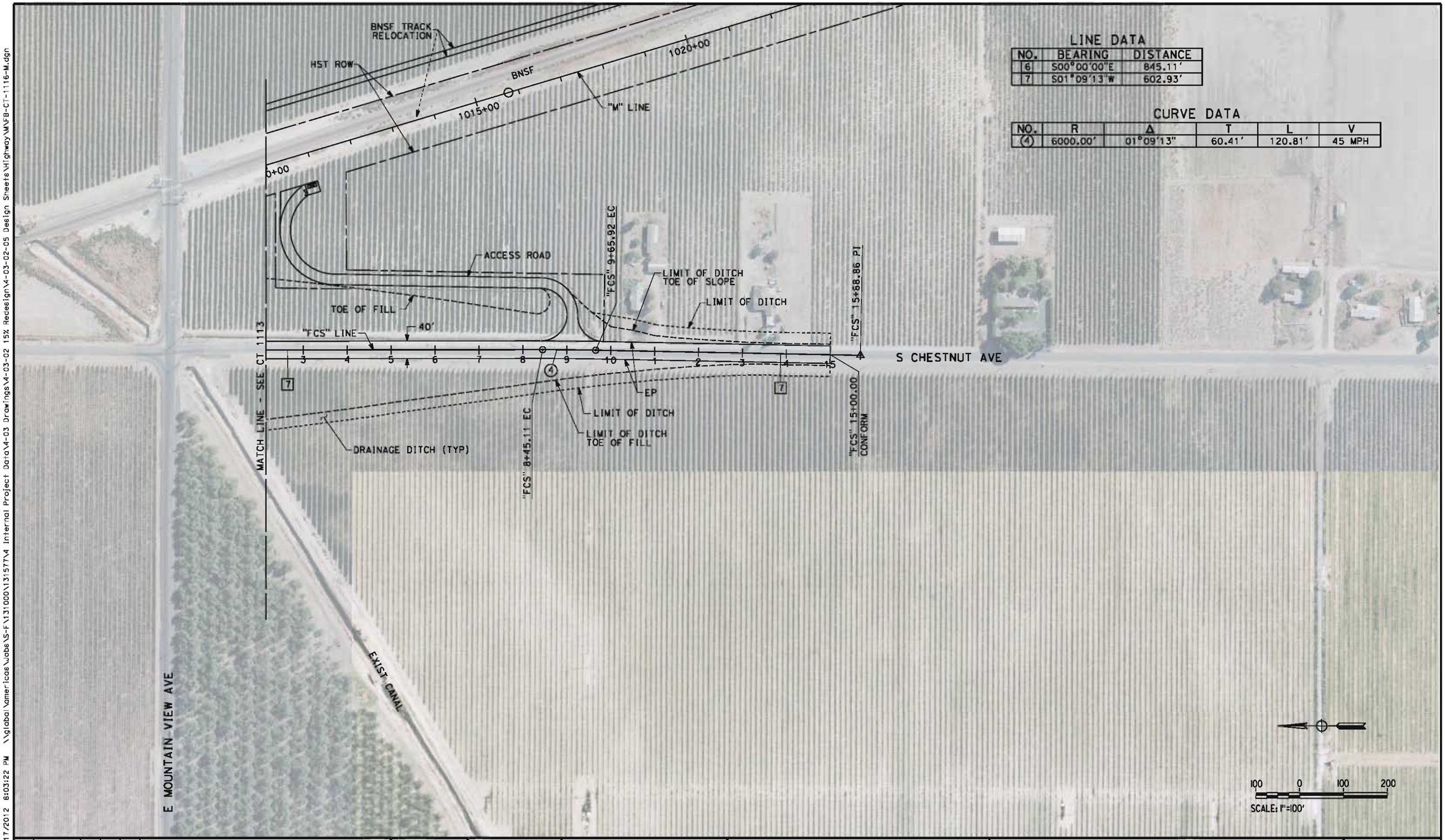
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY LAYOUT
S CHESTNUT AVE (NORTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1115
SCALE AS SHOWN
SHEET NO. 12 OF 29

eron.sudhausen 5/17/2012 8:03:15 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\M\FB-CT-1115-M.dgn



LINE DATA

NO.	BEARING	DISTANCE
6	S00°00'00"E	845.11'
7	S01°09'13"W	602.93'

CURVE DATA

NO.	R	Δ	T	L	V
4	6000.00'	01°09'13"	60.41'	120.81'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

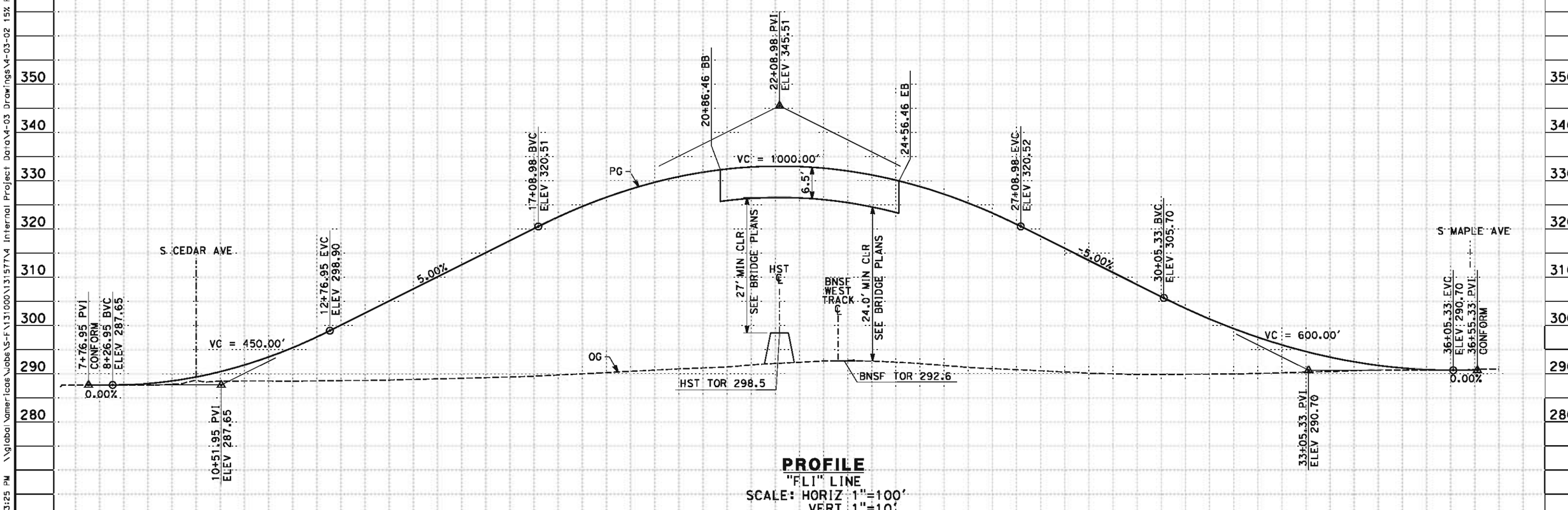
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY LAYOUT
S CHESTNUT AVE (SOUTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1116
SCALE AS SHOWN
SHEET NO. 13 OF 29

eron.sudhausen 5/17/2012 8:03:22 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MYFB-CT-1116-M.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 45 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FLI" 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	7	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

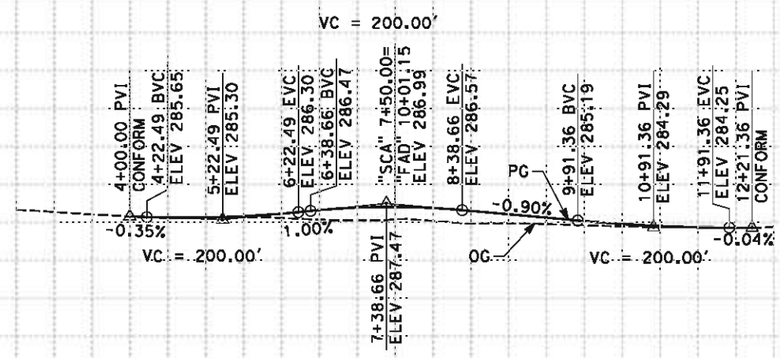
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E LINCOLN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2101
SCALE AS SHOWN
SHEET NO. 14 OF 29

eron.sudhausen 5/17/2012 8:03:25 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2101-M.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FCD" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		4	5	6	7	8	9	10	1	2	TOTAL
CY	Exc										
	Emb										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

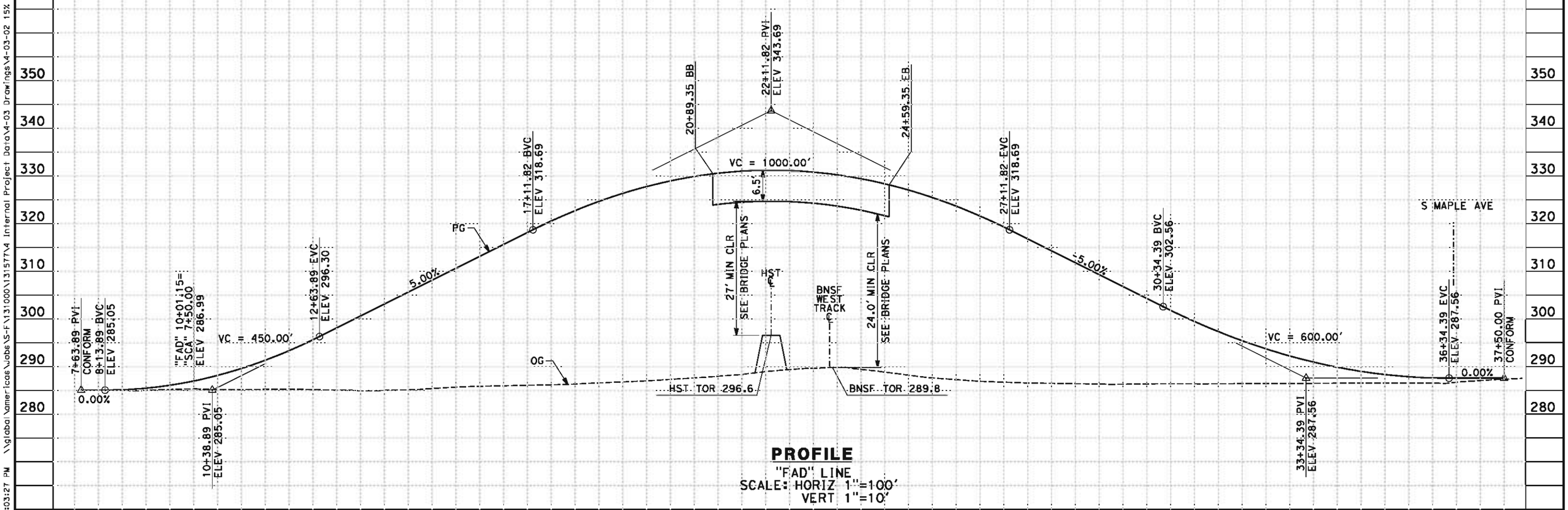
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY PROFILE
S CEDAR AT E ADAMS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2102
SCALE AS SHOWN
SHEET NO. 15 OF 29

eron.sudhausen 5/17/2012 8:03:26 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2102-M.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 45 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FAD" 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	7	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

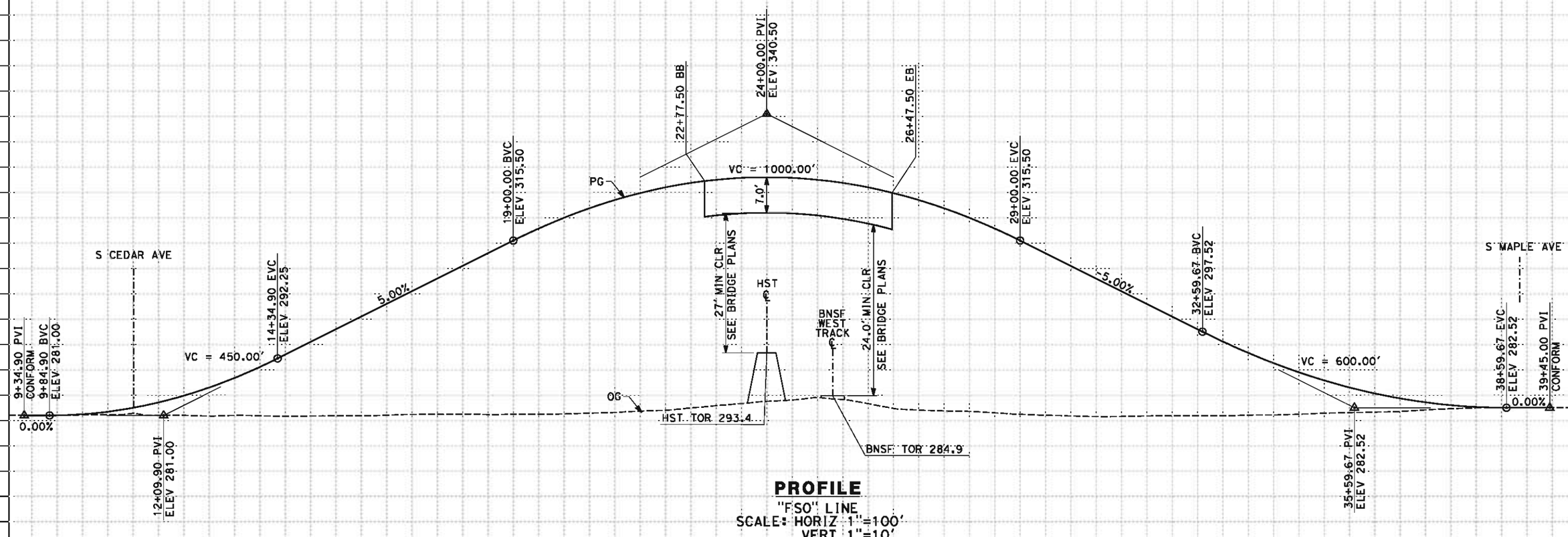
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E ADAMS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2103
SCALE AS SHOWN
SHEET NO. 16 OF 29

\\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MMFB-CT-2103-M.dgn 5/17/2012 8:03:27 PM eron.sudhausen

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 45 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FSO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	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 M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

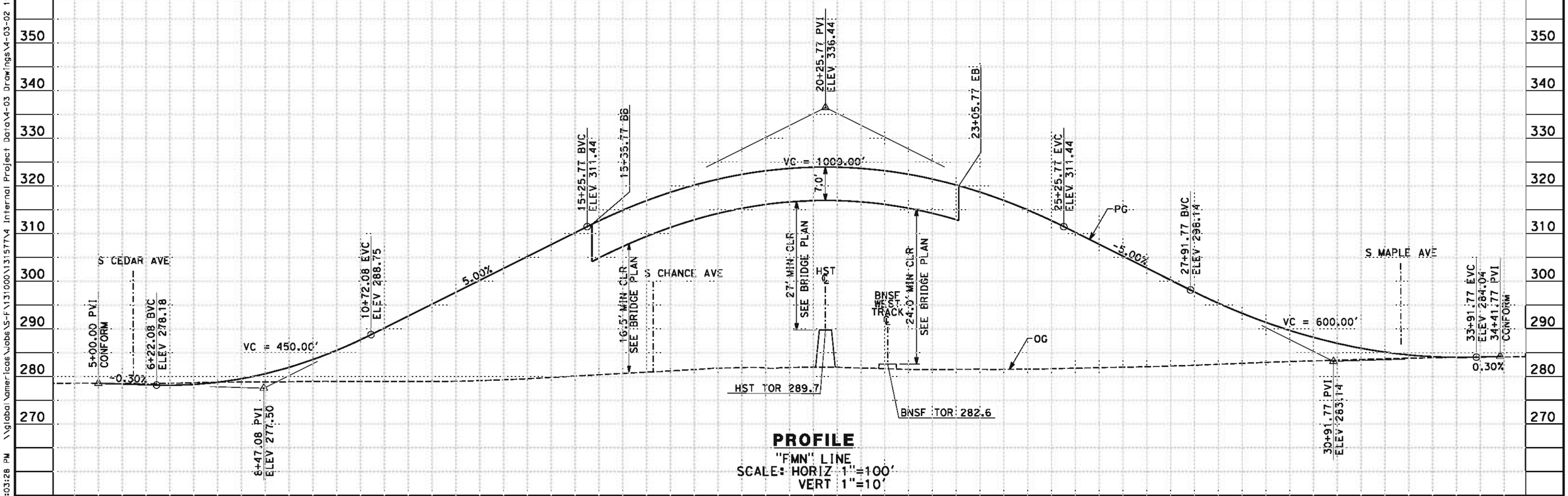
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E SOUTH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2104
SCALE AS SHOWN
SHEET NO. 17 OF 29

eron.sudhausen 5/17/2012 8:03:28 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2104-M.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE OVER S CHANCE AVE IS 16.5'
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"FMN" 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	9	30	1	2	3	4	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

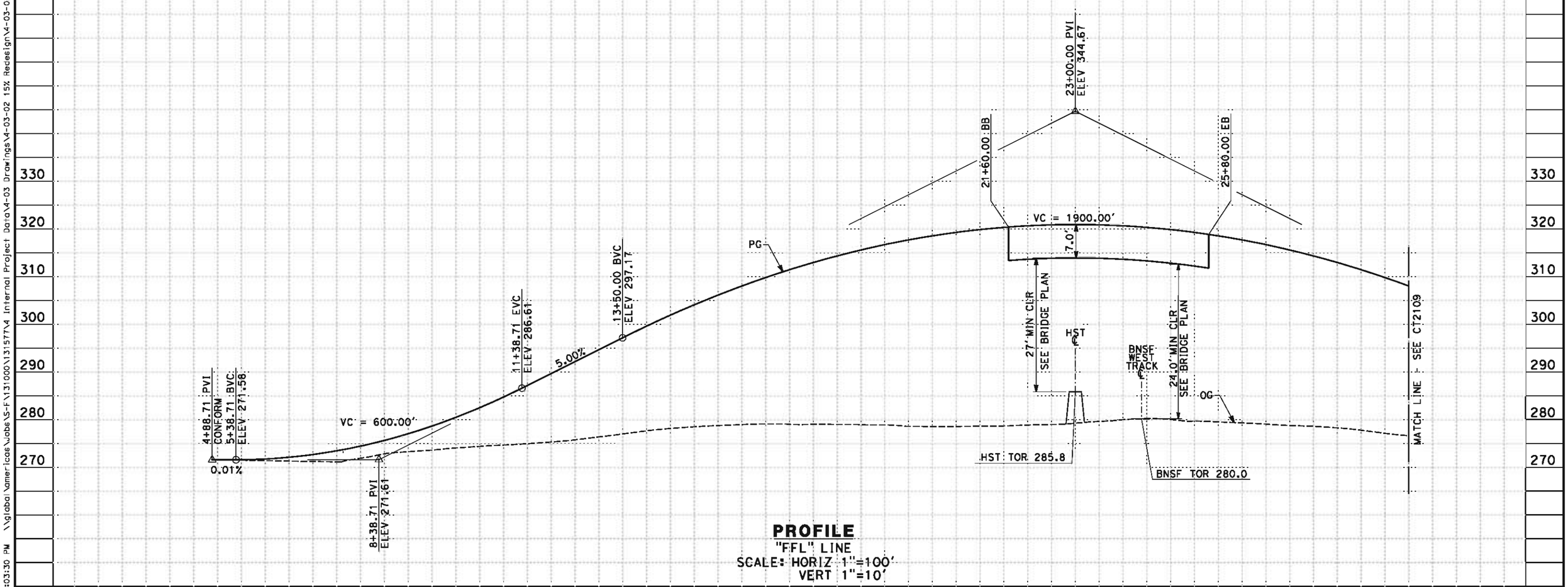
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E MANNING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2106
SCALE AS SHOWN
SHEET NO. 18 OF 29

eron.sudhausen 5/17/2012 8:03:28 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MYFB-CT-2106-M.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 55 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FFL" 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	9	30	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

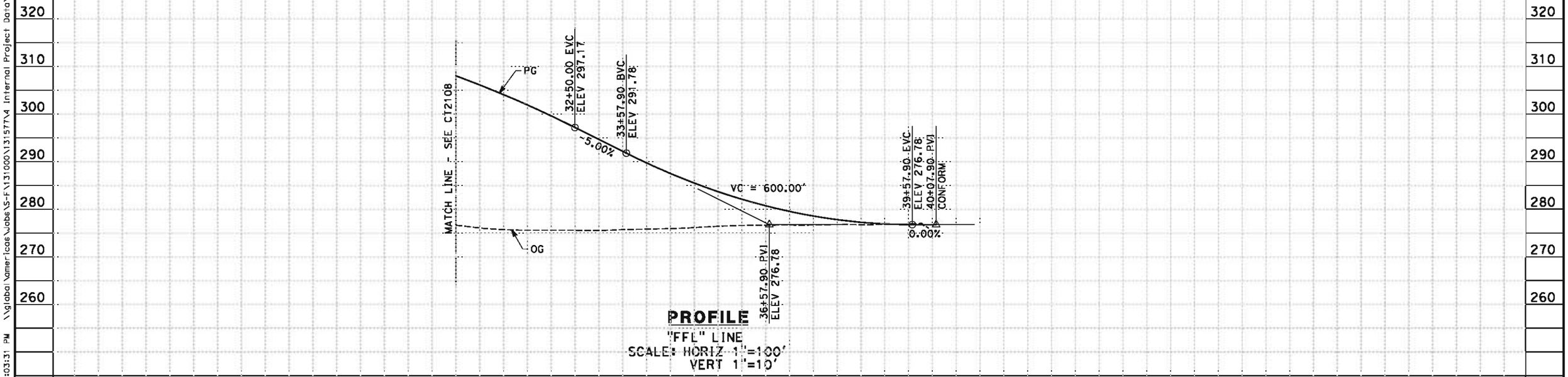
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E FLORAL AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2108
SCALE AS SHOWN
SHEET NO. 19 OF 29

\\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2108-M.dgn 5/17/2012 8:03:30 PM eron.sudhausen



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E FLORAL AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2109
SCALE AS SHOWN
SHEET NO. 20 OF 29

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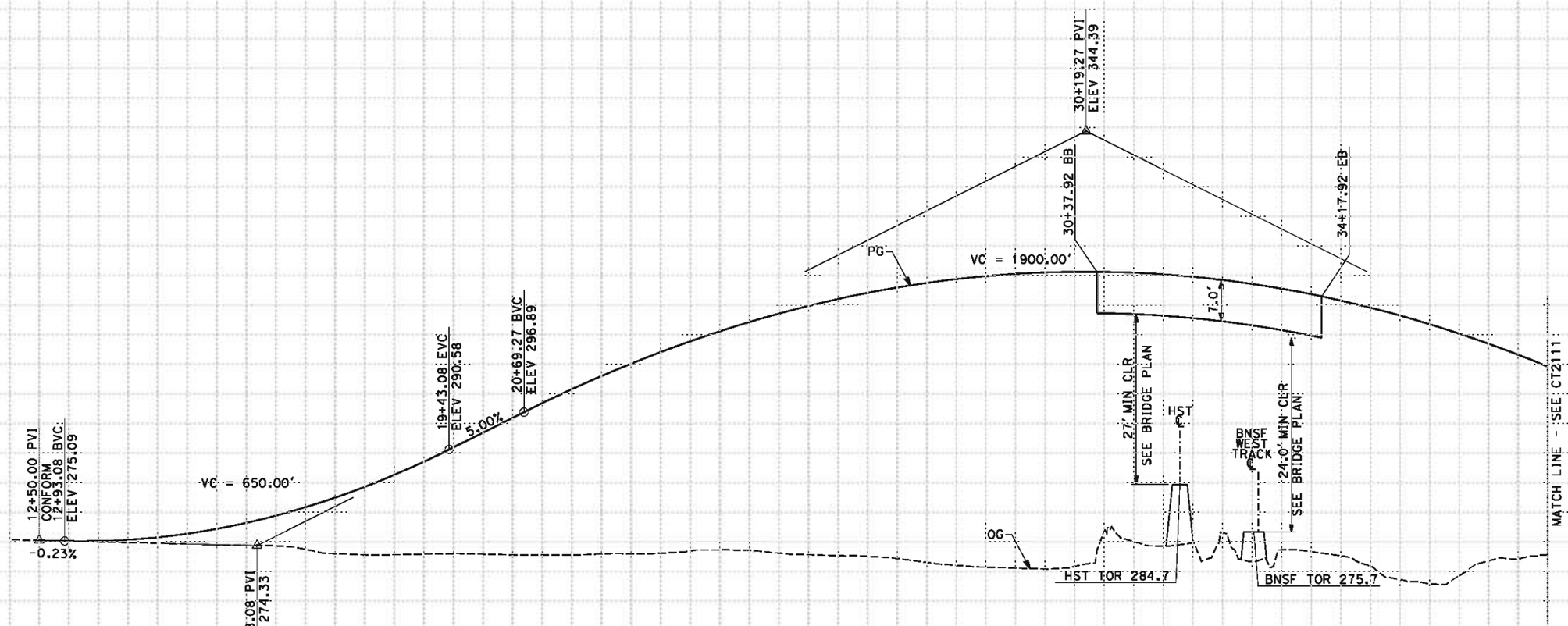
NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 55 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

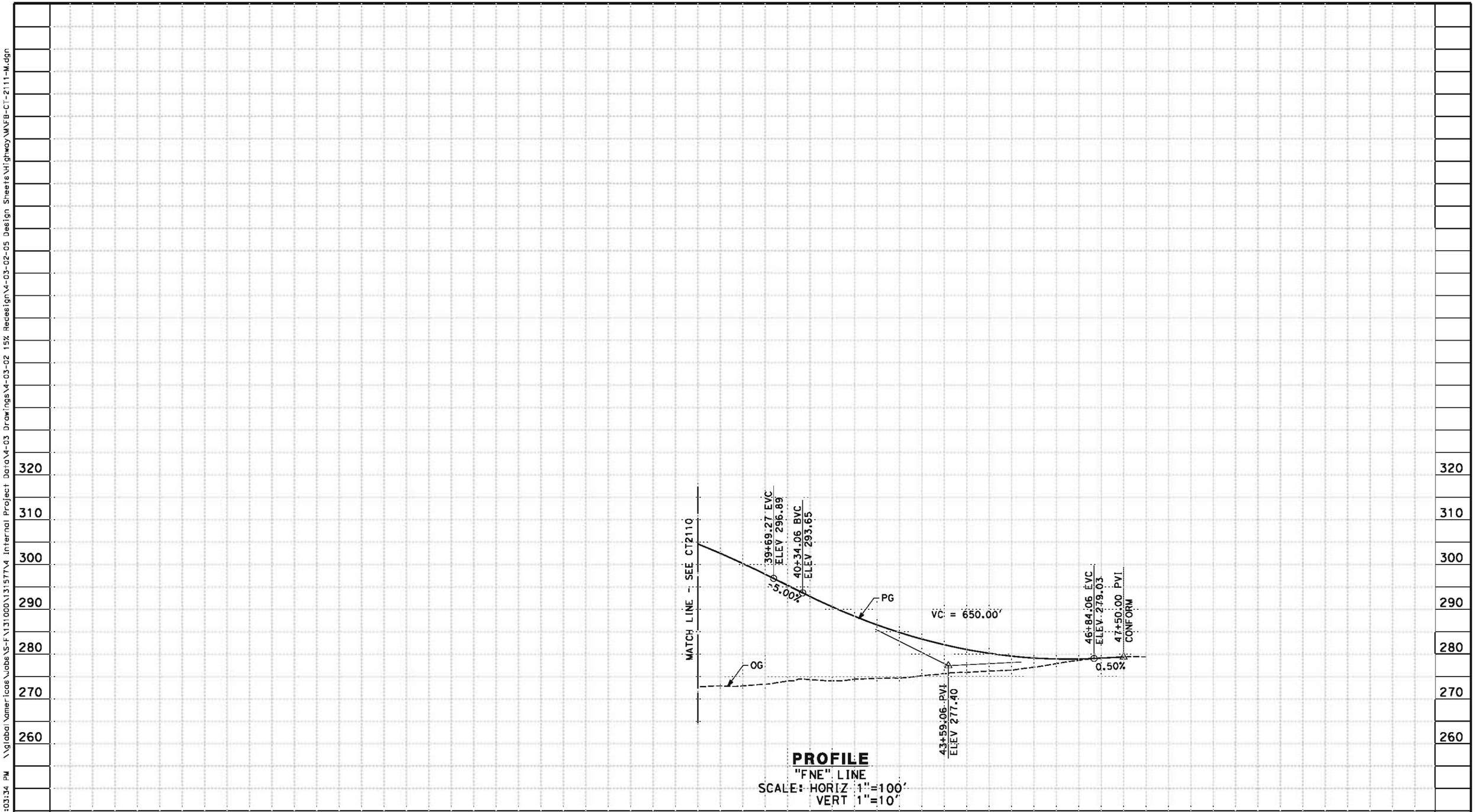
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E NEBRASKA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2110
SCALE AS SHOWN
SHEET NO. 21 OF 29

\\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MNFB-CT-2110-M.dgn 5/17/2012 8:03:33 PM eron.sudhausen



PROFILE
"FNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

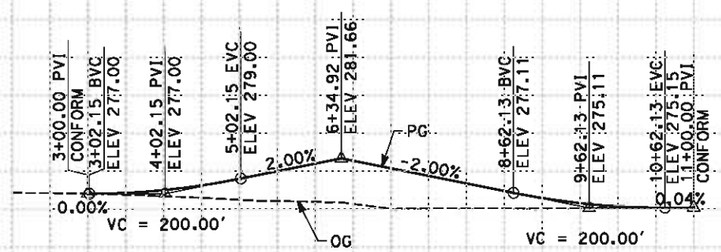
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E NEBRASKA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2111
SCALE AS SHOWN
SHEET NO. 22 OF 29

eron.sudhausen 5/17/2012 8:03:34 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2111-M.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"NCN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	3	4	5	6	7	8	9	10	1	TOTAL
CY Exc										
CY Emb										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
S CHESTNUT AVE AT E NEBRASKA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2112
SCALE AS SHOWN
SHEET NO. 23 OF 29

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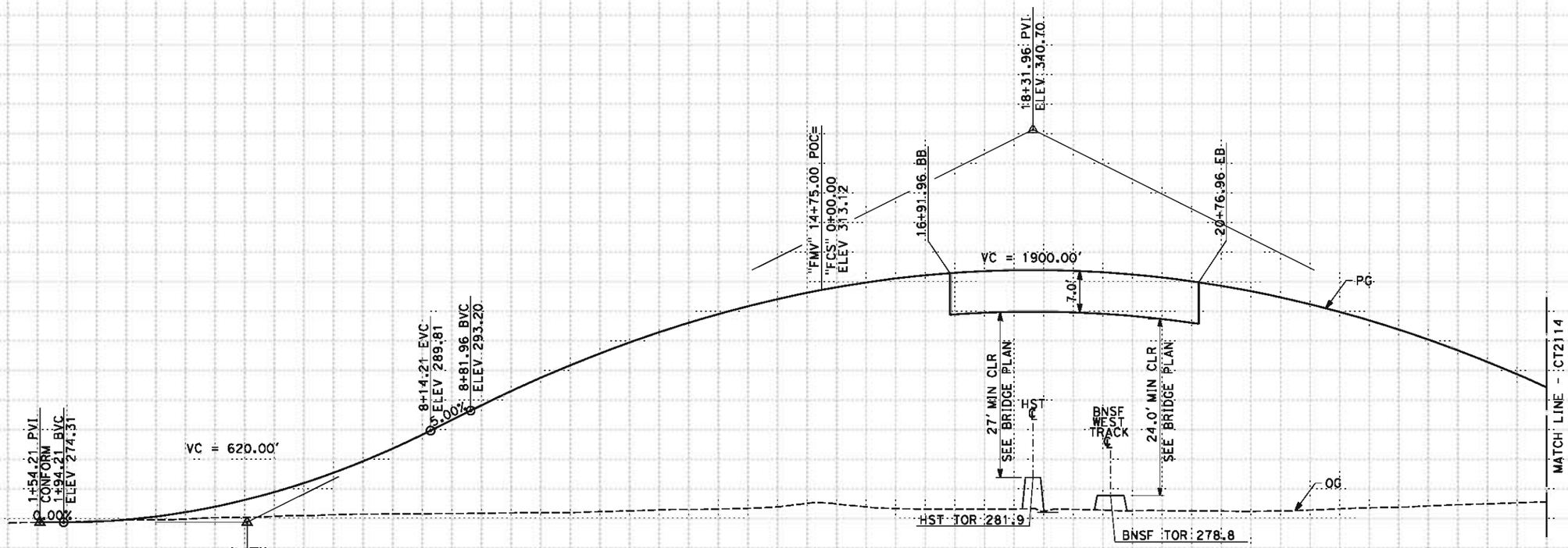
NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE OVER BNSF IS 24.0' FROM TOP OF RAIL
3. VERTICAL DESIGN SPEED = 55 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FMV" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	1	2	3	4	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

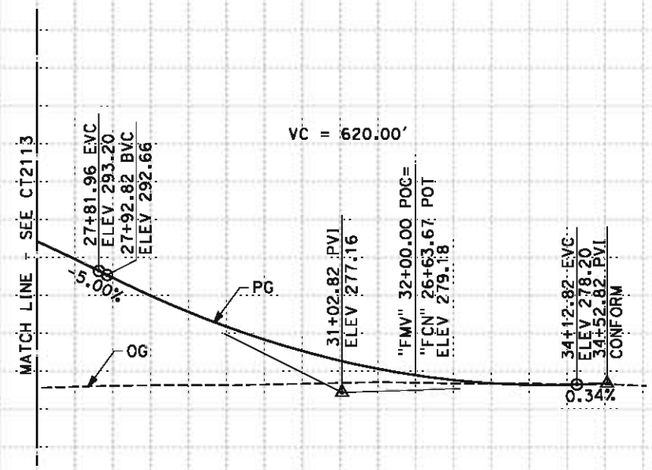
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E MOUNTAIN VIEW AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2113
SCALE AS SHOWN
SHEET NO. 24 OF 29

eron.sudhausen 5/17/2012 8:03:35 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2113-M.dgn



PROFILE
"FMV" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	30	1	2	3	4	5	TOTAL
CY Exc										
CY Emb										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

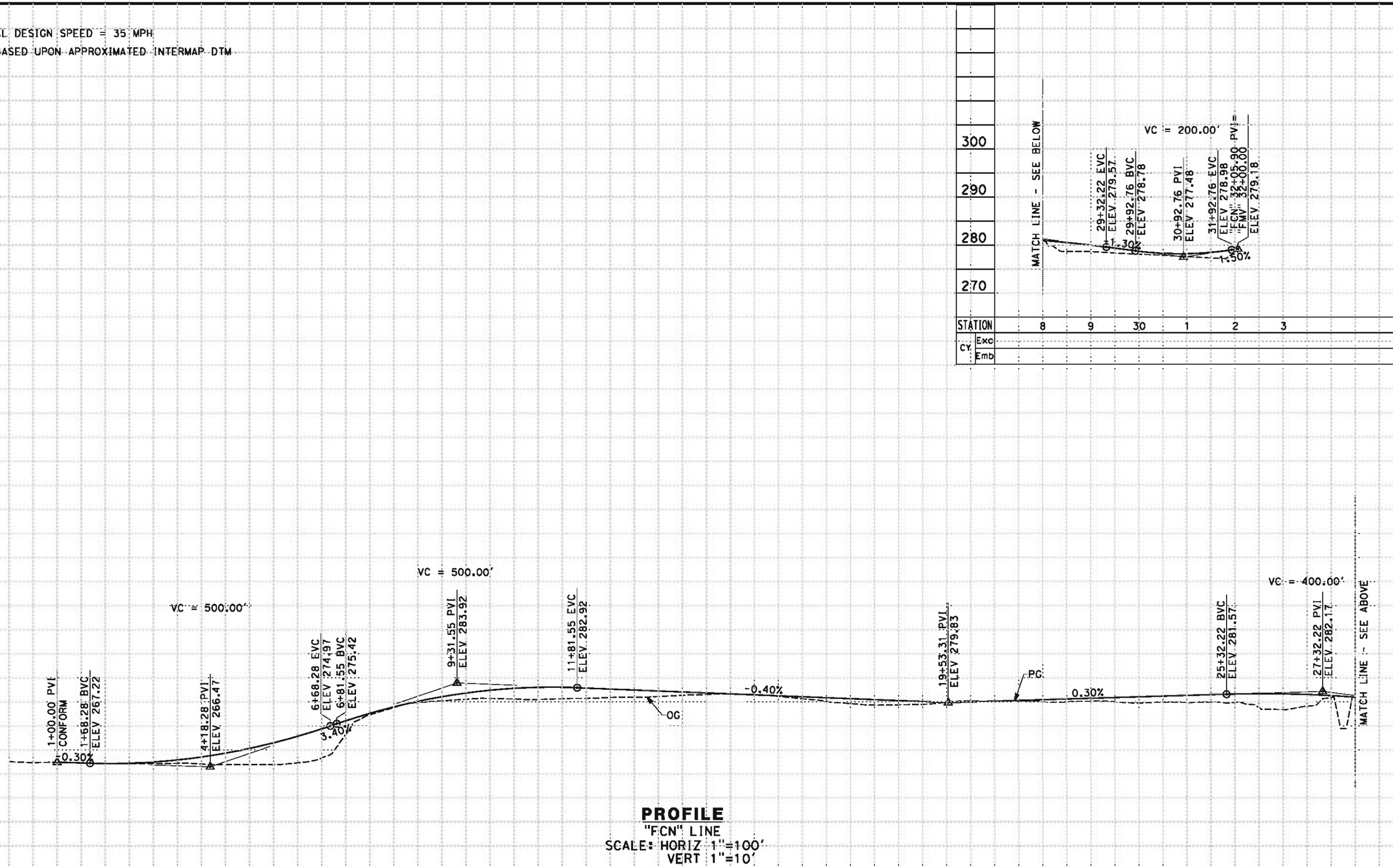
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
GRADE SEPARATION PROFILE
E MOUNTAIN VIEW AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2114
SCALE AS SHOWN
SHEET NO. 25 OF 29

eron.sudhausen 5/17/2012 8:03:36 PM \\global\americas\Jobs\S-F131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2114-M.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FCN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

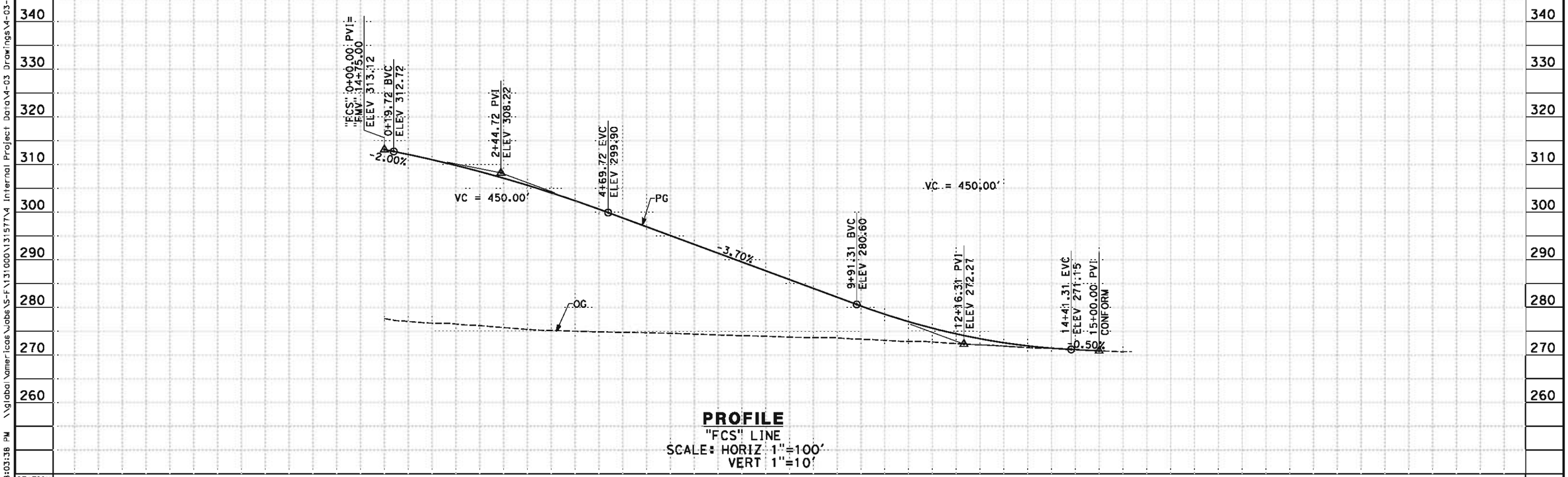
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY PROFILE
S CHESTNUT AVE (NORTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2115
SCALE AS SHOWN
SHEET NO. 26 OF 29

\\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2115-M.dgn 5/17/2012 8:03:37 PM eron.sudhausen

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FCS" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	0	1	2	3	4	5	6	7	8	9	10	1	2	3	4	TOTAL
CY Exc																
CY Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY PROFILE
S CHESTNUT AVE (SOUTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2116
SCALE AS SHOWN
SHEET NO. 27 OF 29

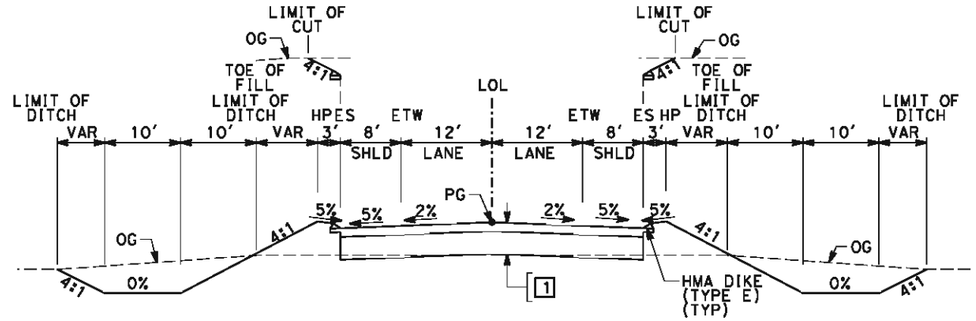
eron.sudhausen 5/17/2012 8:03:38 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-2116-M.dgn

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.

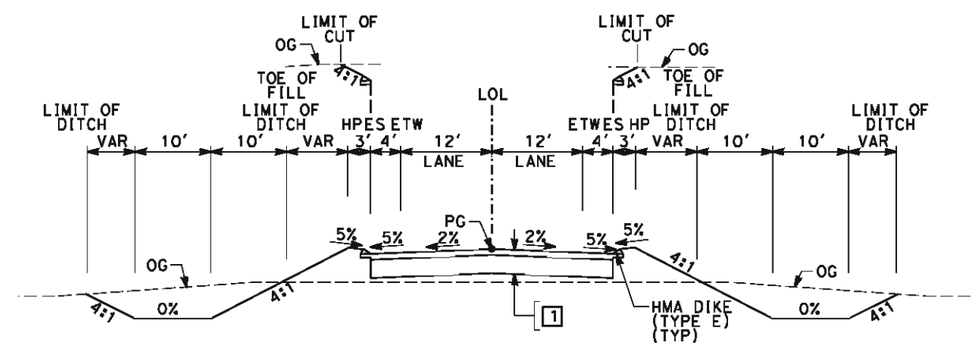
STRUCTURAL SECTIONS
TYPICAL ROADWAY

[1] 0.60' HMA (TYPE A)
1.50' CL2 AB



SECTION A

"FLI" 07+76.95 TO 20+86.47
"FLI" 24+56.47 TO 36+55.33
"FAD" 07+63.89 TO 20+89.35
"FAD" 24+59.35 TO 38+00.38
"FNE" 12+50.00 TO 30+37.92
"FNE" 34+57.92 TO 47+50.00
"FMV" 01+54.21 TO 16+91.96
"FMV" 21+11.96 TO 34+52.82
"FCN" 01+00.00 TO 32+05.90
"FCS" 00+00.00 TO 15+00.00



SECTION B

"FSO" 09+34.90 TO 22+77.50
"FSO" 26+67.50 TO 39+45.00
"FFL" 04+88.71 TO 21+60.00
"FFL" 25+80.00 TO 40+07.90

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

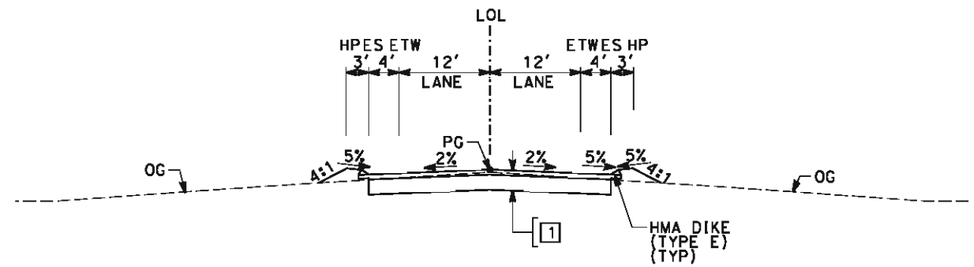
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

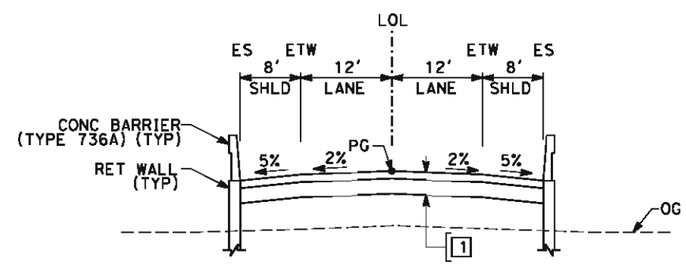
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3010
SCALE NO SCALE
SHEET NO. 28 OF 29

eron.sudhausen 5/17/2012 8:03:40 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-3010-M.dgn



SECTION C

"FCD" 04+00.00 TO 11+00.00
"NCN" 03+00.00 TO 11+00.00



SECTION D

"FMN" 05+48.21 TO 15+35.77
"FMN" 23+05.77 TO 34+00.73

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. MING
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

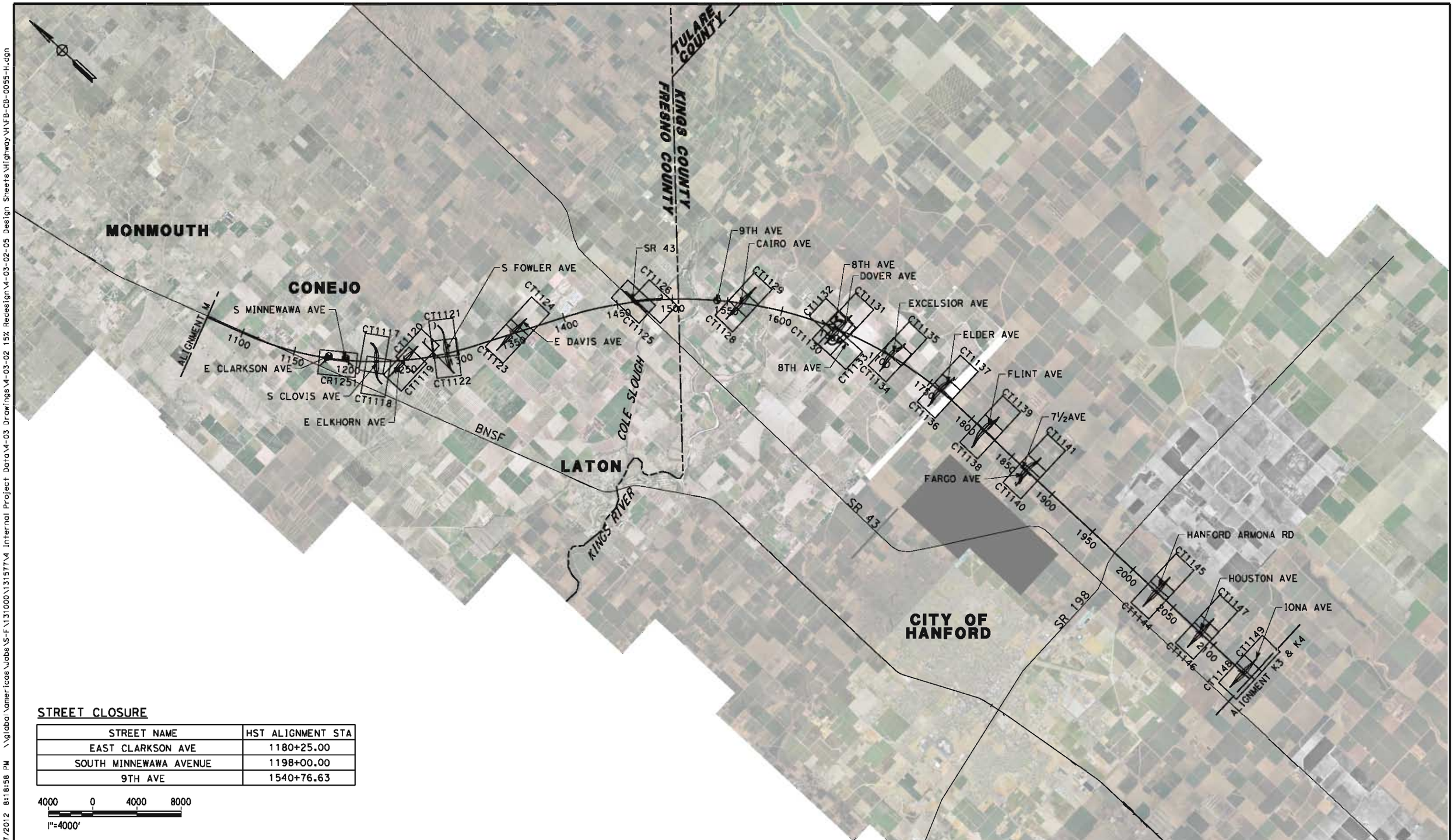
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
MONMOUTH SUBSECTION
ALIGNMENT M
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3011
SCALE NO SCALE
SHEET NO. 29 OF 29

eron.sudhausen 5/17/2012 8:03:41 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\MXFB-CT-3011-M.dgn



STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
EAST CLARKSON AVE	1180+25.00
SOUTH MINNEWAWA AVENUE	1198+00.00
9TH AVE	1540+76.63

4000 0 4000 8000

1"=4000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0055
SCALE AS SHOWN
SHEET NO. 1 OF 69

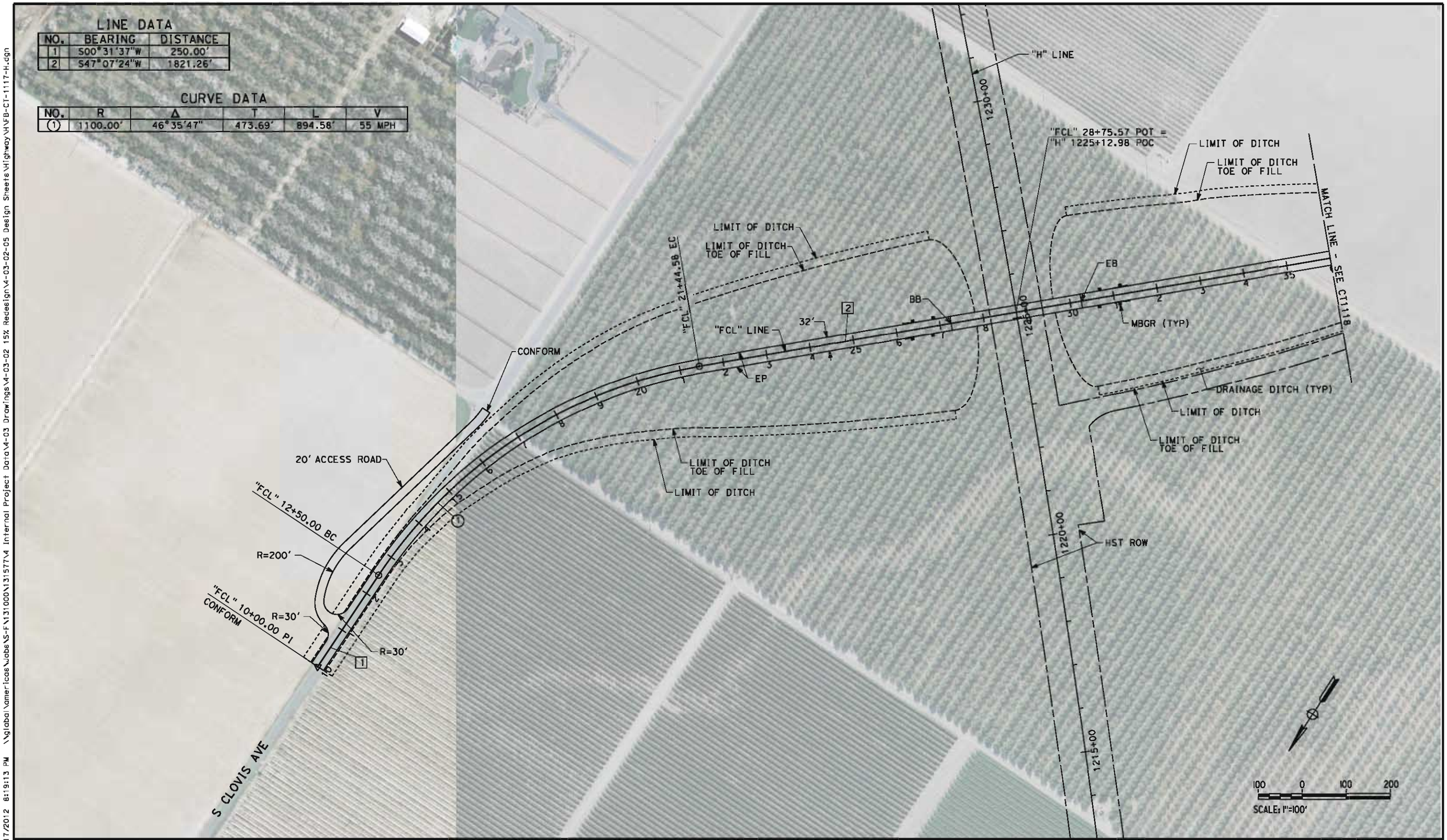
eron.sudhausen 5/17/2012 8:18:58 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CB-0055-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S00°31'37"W	250.00'
2	S47°07'24"W	1821.26'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	46°35'47"	473.69'	894.58'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
S CLOVIS AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1117
SCALE AS SHOWN
SHEET NO. 2 OF 69

eron.sudhausen 5/17/2012 8:19:13 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HFB-CT-1117-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S47°07'24"W	1821.26'
3	S2°32'24"W	225.00'

CURVE DATA

NO.	R	Δ	T	L	V
(2)	1100.00'	44°35'00"	450.96'	855.94'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

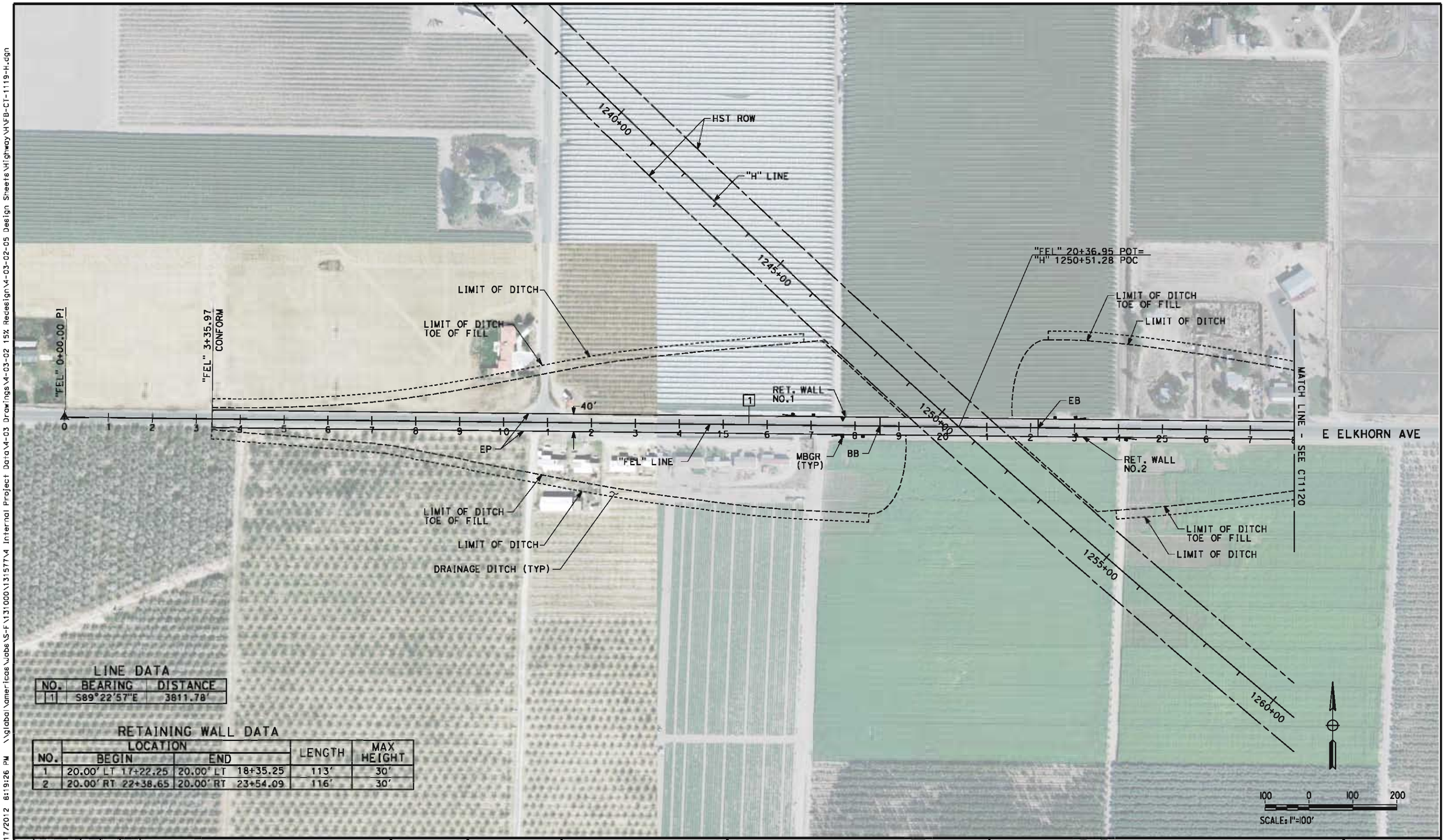
LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1118
SCALE AS SHOWN
SHEET NO. 3 OF 69

eran.sudhausen 5/17/2012 8:19:19 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HH\FB-CT-1118-H.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°22'57"E	3811.78'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	20.00' LT 17+22.25	20.00' LT 18+35.25	113'	30'
2	20.00' RT 22+38.65	20.00' RT 23+54.09	116'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
E ELKHORN AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1119
SCALE AS SHOWN
SHEET NO. 4 OF 69

eron.sudhausen 5/17/2012 8:19:26 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1119-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S89°22'57"E	3811.78'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1120
SCALE AS SHOWN
SHEET NO. 5 OF 69

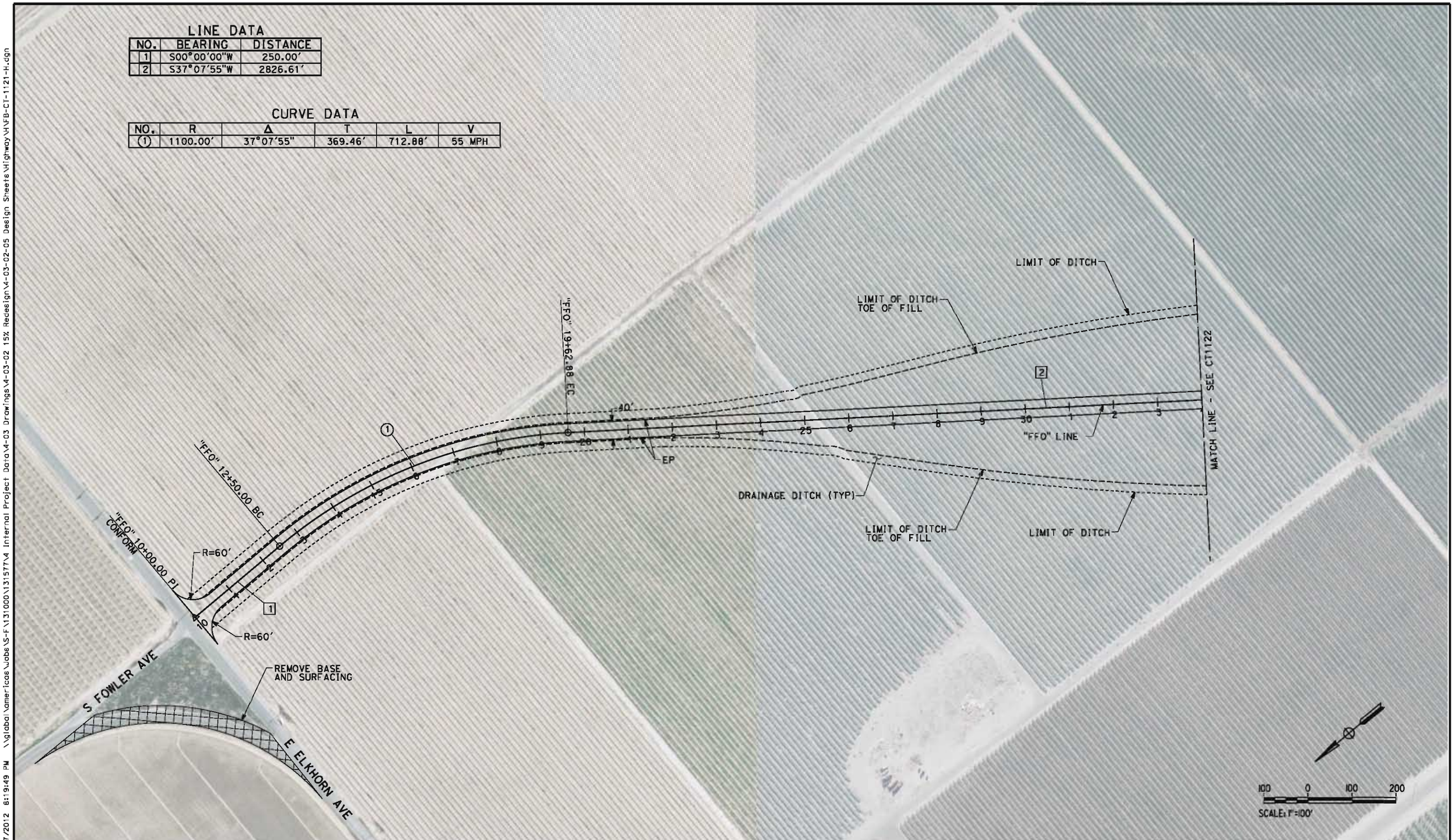
eron.sudhausen 5/17/2012 8:19:33 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\H\FB-CT-1120-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S00°00'00"W	250.00'
2	S37°07'55"W	2826.61'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	37°07'55"	369.46'	712.88'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
S FOWLER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1121
SCALE AS SHOWN
SHEET NO. 6 OF 69

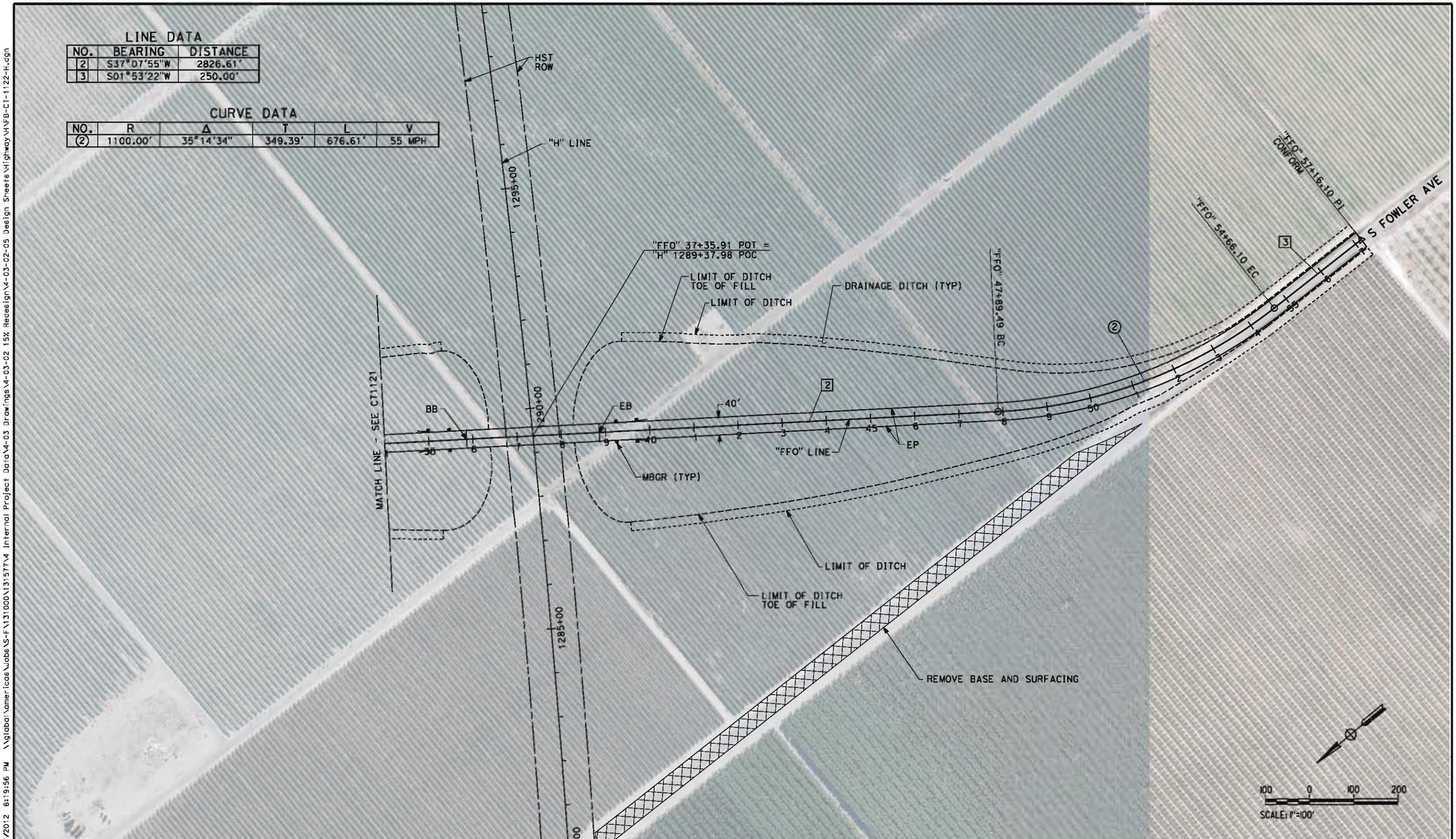
eron.sudhausen 5/17/2012 8:19:49 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1121-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S37°07'55"W	2826.61'
3	S01°53'22"W	250.00'

CURVE DATA

NO.	R	Δ	T	L	V
2	1100.00'	35°14'34"	349.39'	676.61'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

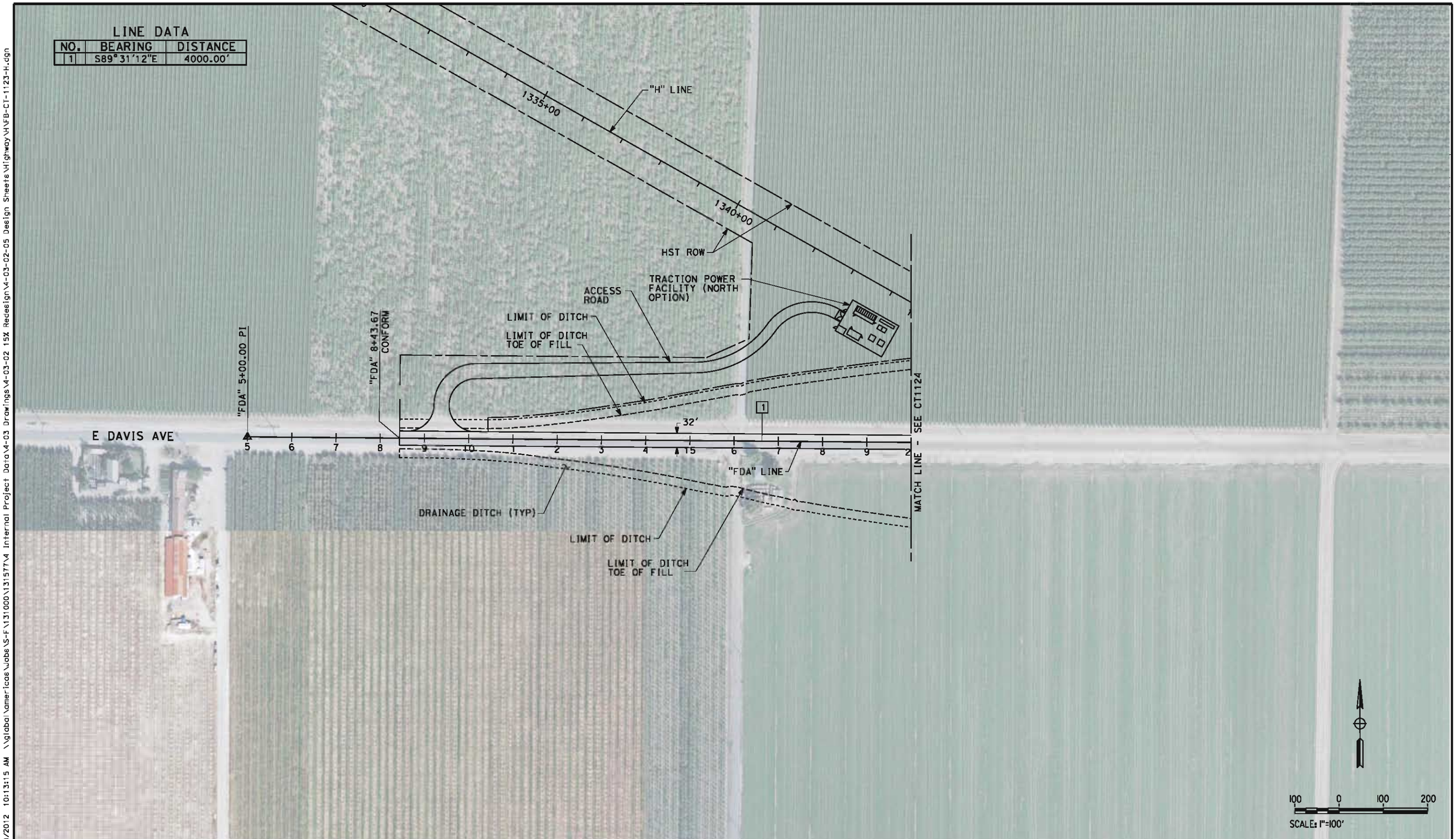
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
S FOWLER AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1122
SCALE AS SHOWN
SHEET NO. 7 OF 69

eron.sudhausen 5/17/2012 8:19:56 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1122-H.dgn

eron.sudhausen 5/18/2012 10:13:15 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1123-H.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°31'12"E	4000.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
E DAVIS AVE

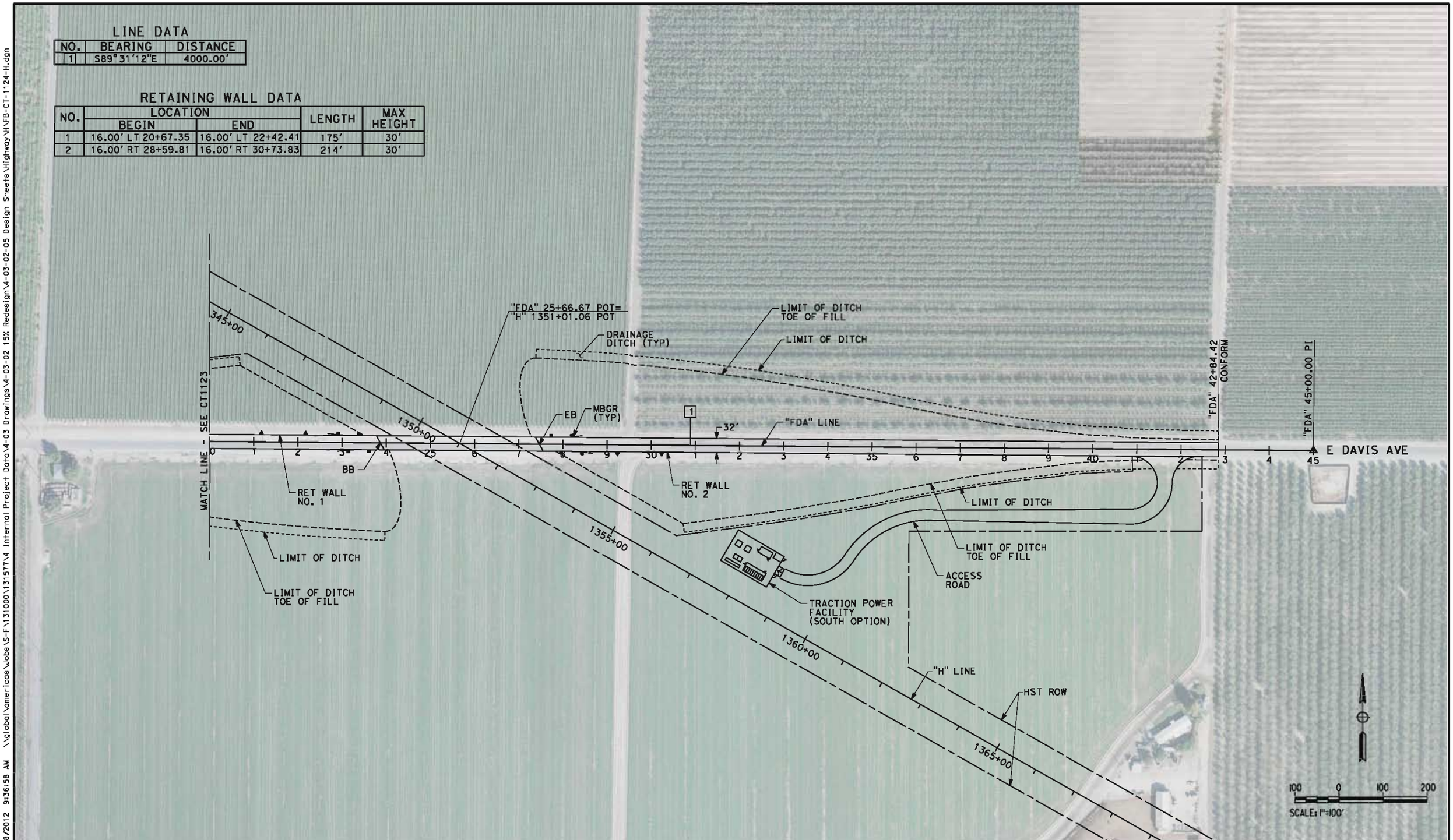
CONTRACT NO. HST 06-0003
DRAWING NO. CT1123
SCALE AS SHOWN
SHEET NO. 8 OF 69

LINE DATA

NO.	BEARING	DISTANCE
1	S89°31'12"E	4000.00'

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	16.00' LT 20+67.35	16.00' LT 22+42.41	175'	30'
2	16.00' RT 28+59.81	16.00' RT 30+73.83	214'	30'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
E DAVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1124
SCALE AS SHOWN
SHEET NO. 9 OF 69

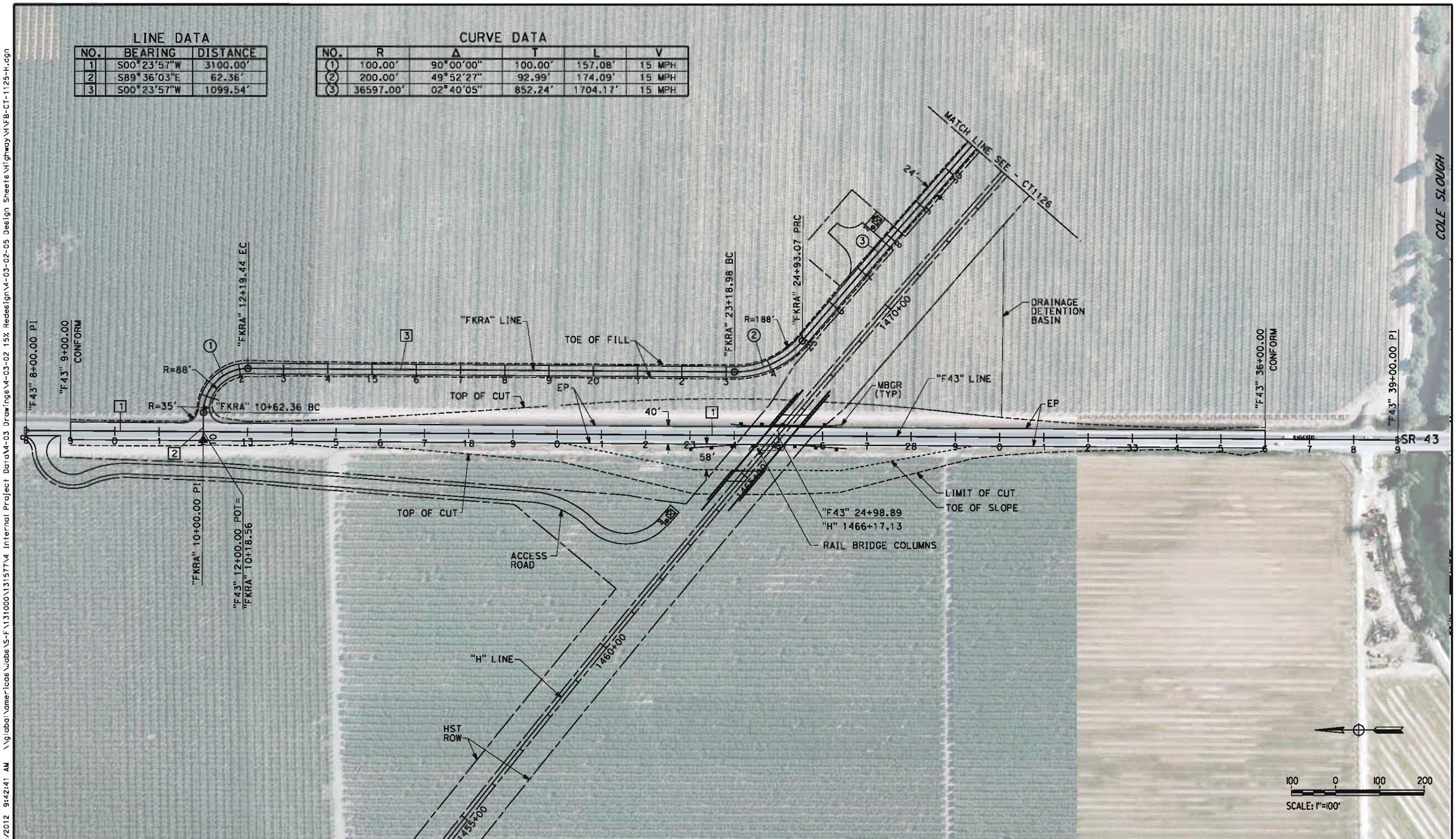
eran.sudhausen 5/18/2012 9:36:58 AM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HFB-CT-1124-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S00°23'57"W	3100.00'
2	S89°36'03"E	62.36'
3	S00°23'57"W	1099.54'

CURVE DATA

NO.	R	Δ	T	L	V
1	100.00'	90°00'00"	100.00'	157.08'	15 MPH
2	200.00'	49°52'27"	92.99'	174.09'	15 MPH
3	36597.00'	02°40'05"	852.24'	1704.17'	15 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1125
SCALE AS SHOWN
SHEET NO. 10 OF 69

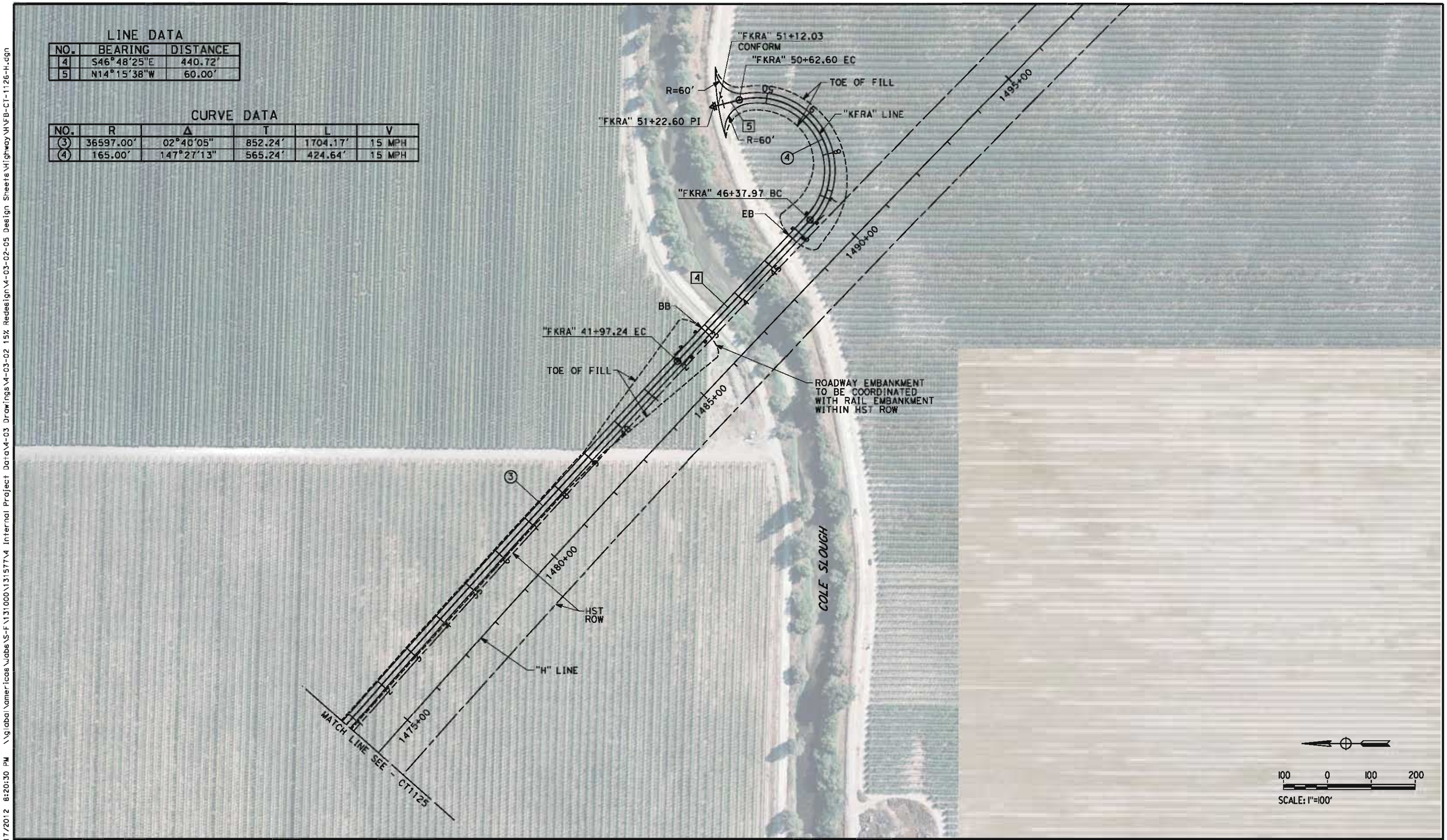
eran.sudhausen 5/18/2012 9:42:41 AM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1125-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
4	S46°48'25"E	440.72'
5	N14°15'38"W	60.00'

CURVE DATA

NO.	R	Δ	T	L	V
3	36597.00'	02°40'05"	852.24'	1704.17'	15 MPH
4	165.00'	147°27'13"	565.24'	424.64'	15 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

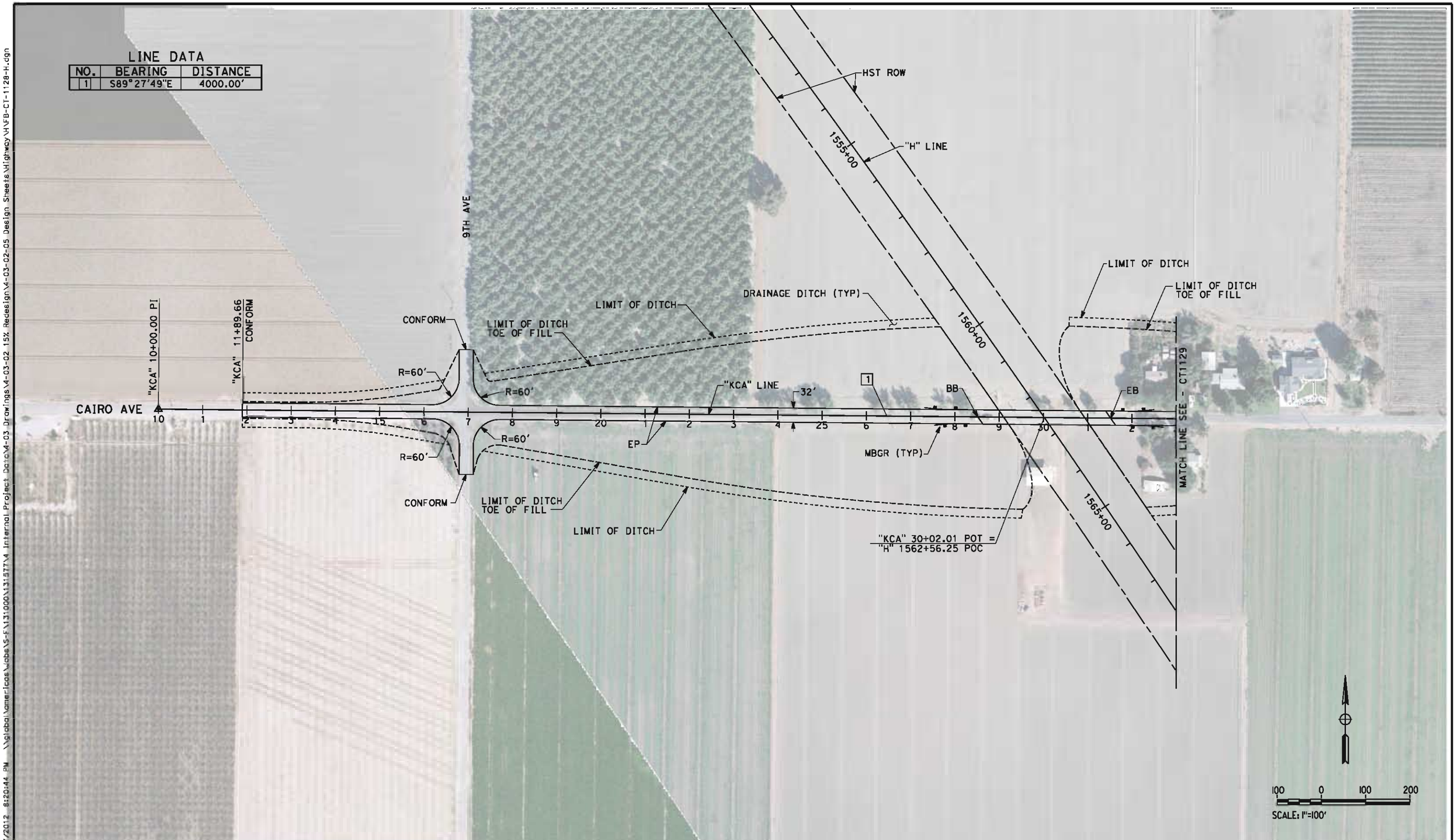
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1126
SCALE AS SHOWN
SHEET NO. 11 OF 69

eran.sudhausen 5/17/2012 8:20:30 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1126-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
CAIRO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1128
SCALE AS SHOWN
SHEET NO. 12 OF 69

eron.sudhausen 5/17/2012 8:20:44 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\M-03 Drawings\M-03-02 15% Redesign\M-03-02-05 Design Sheets\Highway\HNFB-CT-1128-H.dgn

eron.sudhausen 5/17/2012 8:20:51 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1129-H.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

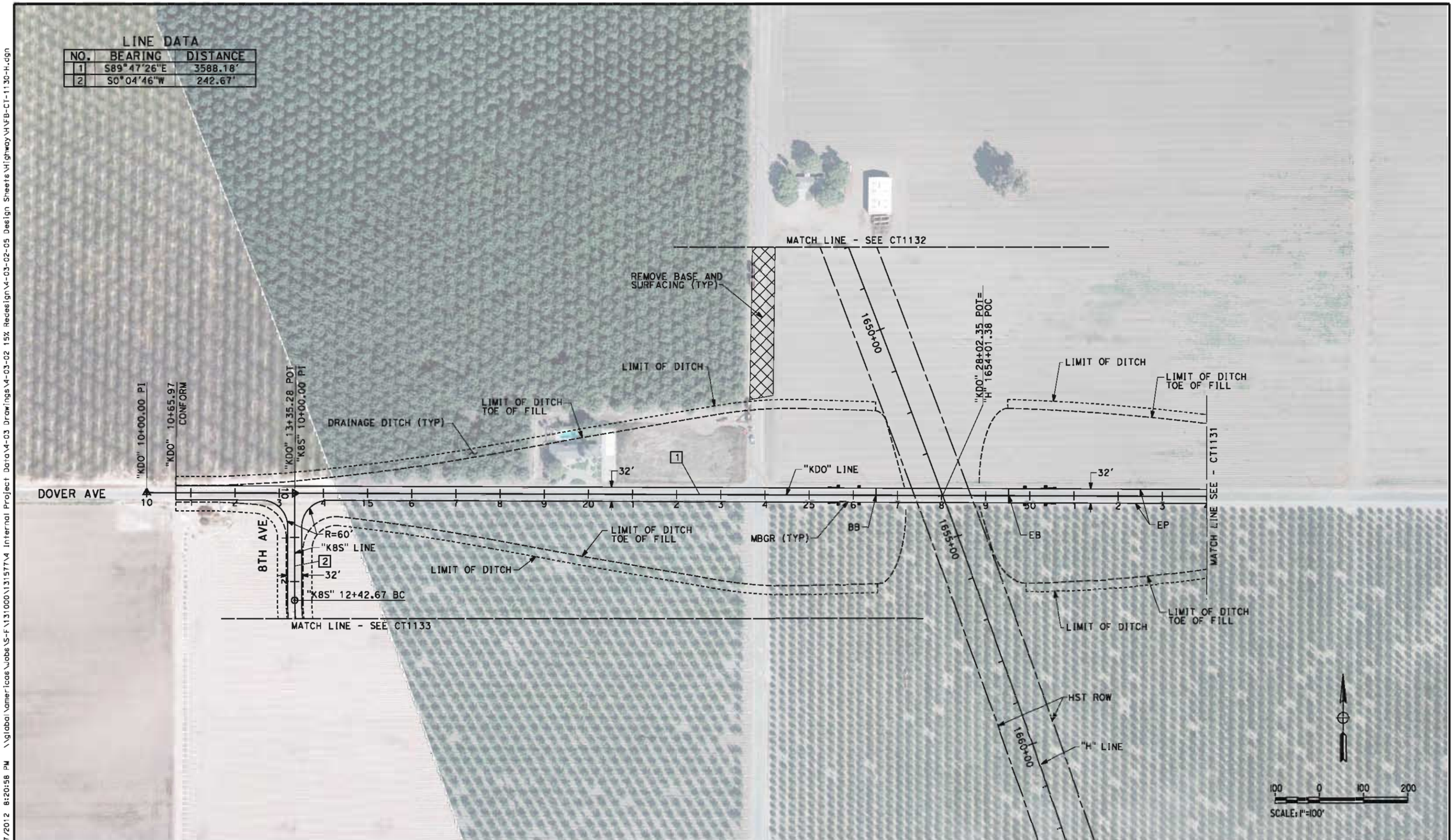
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
CAIRO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1129
SCALE AS SHOWN
SHEET NO. 13 OF 69



LINE DATA

NO.	BEARING	DISTANCE
1	S89°47'26"E	3588.18'
2	S0°04'46"W	242.67'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

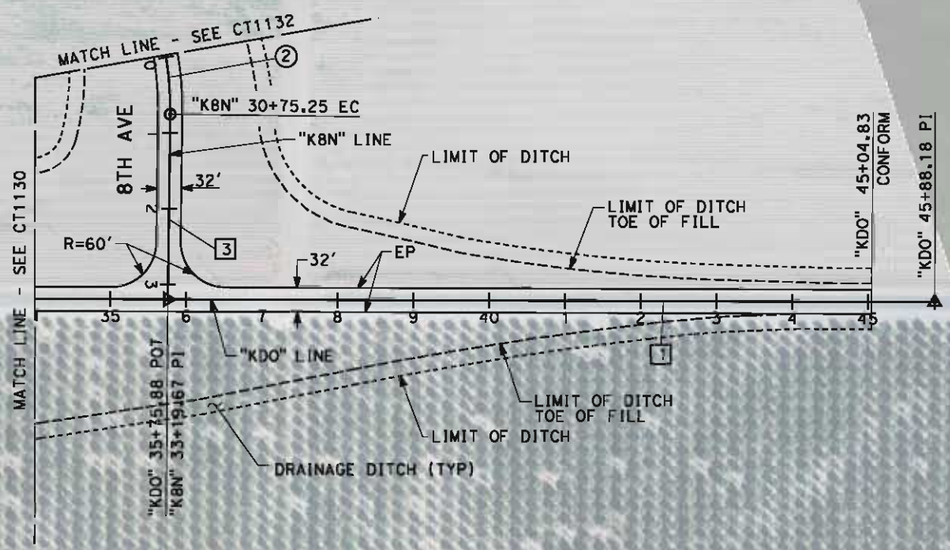
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
DOVER AVE

CONTRACT NO. HST 06-0003
DRAWING NO. CT1130
SCALE AS SHOWN
SHEET NO. 14 OF 69

eron.sudhausen 5/17/2012 8:20:58 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\H\FB-CT-1130-H.dgn

eran.sudhausen 5/17/2012 8:21:04 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1131-H.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°47'26"E	3588.18'
3	S0°44'50"W	244.42'

CURVE DATA

NO.	R	Δ	T	L	V
2	425.00'	83°11'29"	377.27'	617.08'	35 MPH

100 0 100 200
SCALE: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
DOVER AVE

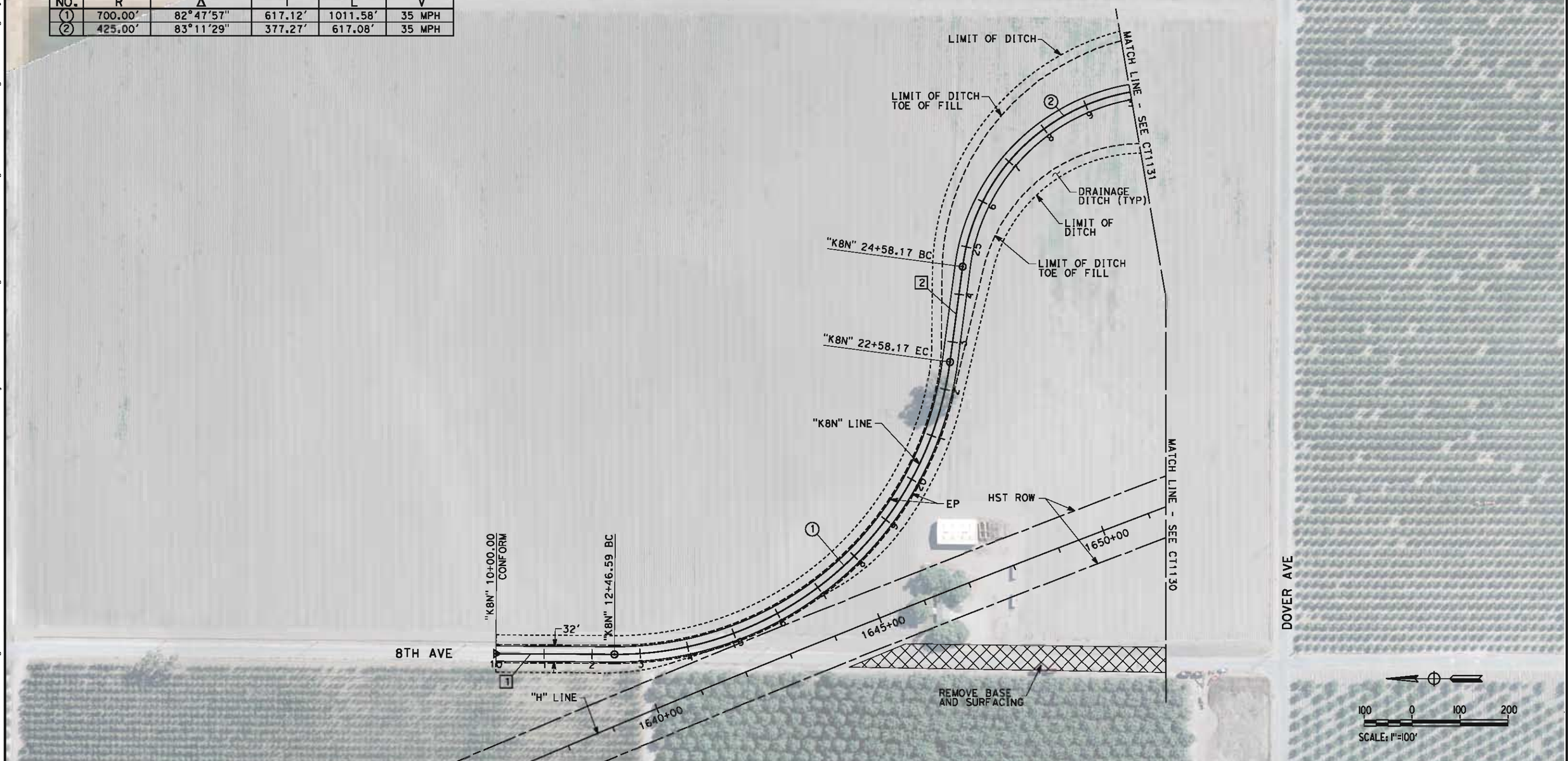
CONTRACT NO. HST 06-0003
DRAWING NO. CT1131
SCALE AS SHOWN
SHEET NO. 15 OF 69

LINE DATA

NO.	BEARING	DISTANCE
1	S00°21'19"W	246.59'
2	S82°26'38"E	200.00'

CURVE DATA

NO.	R	Δ	T	L	V
(1)	700.00'	82°47'57"	617.12'	1011.58'	35 MPH
(2)	425.00'	83°11'29"	377.27'	617.08'	35 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
8TH AVE (NORTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1132
SCALE AS SHOWN
SHEET NO. 16 OF 69

eron.sudhausen 5/17/2012 8:21:10 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1132-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
3	S76°13'50"E	200.00'
4	S0°21'19"W	250.00'

CURVE DATA

NO.	R	Δ	T	L	V
2	425.00'	76°18'37"	333.90'	566.04'	35 MPH
3	700.00'	76°35'09"	552.69'	935.67'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
8TH AVE (SOUTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1133
SCALE AS SHOWN
SHEET NO. 17 OF 69

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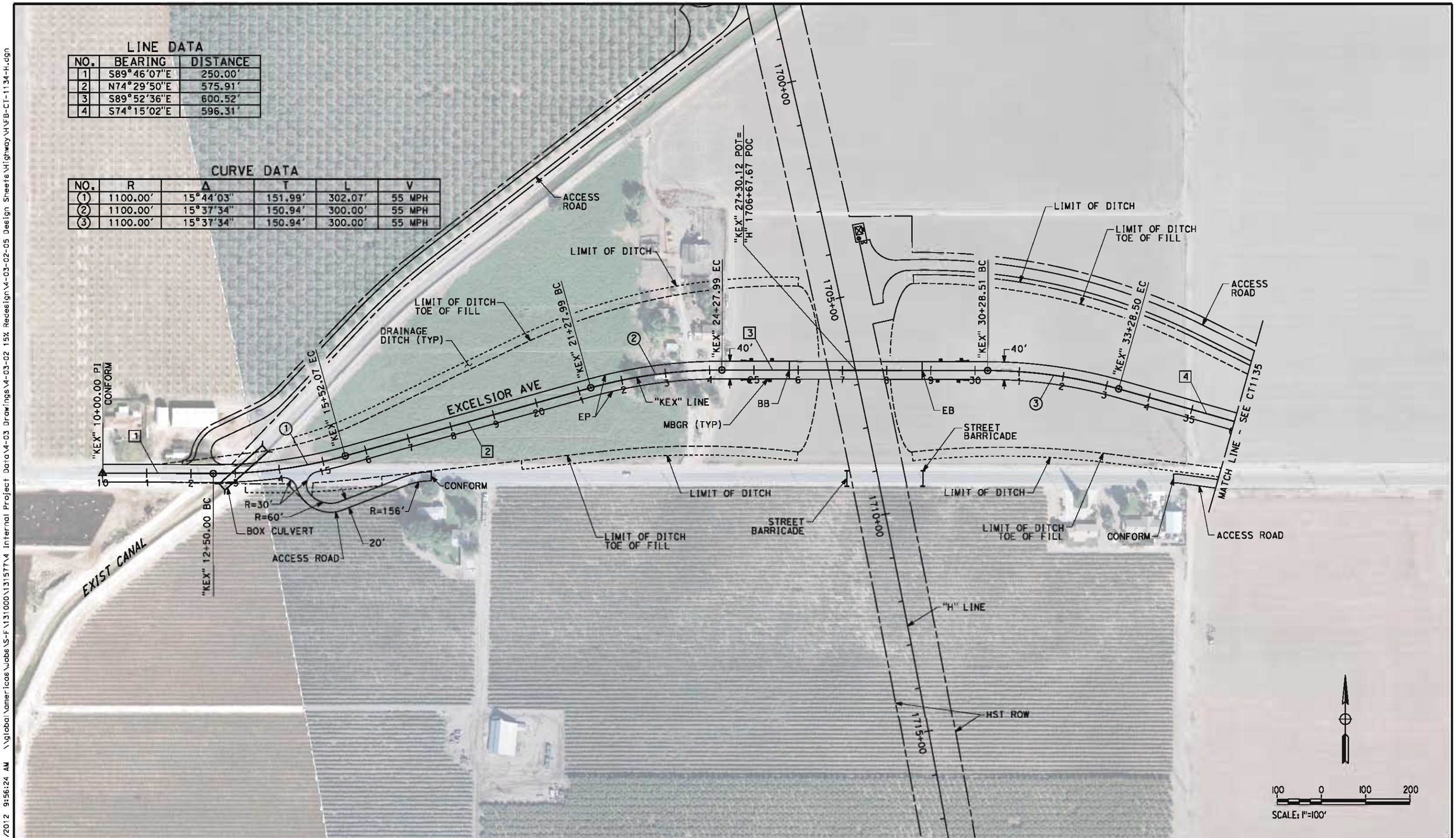
LINE DATA

NO.	BEARING	DISTANCE
1	S89°46'07"E	250.00'
2	N74°29'50"E	575.91'
3	S89°52'36"E	600.52'
4	S74°15'02"E	596.31'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	15°44'03"	151.99'	302.07'	55 MPH
2	1100.00'	15°37'34"	150.94'	300.00'	55 MPH
3	1100.00'	15°37'34"	150.94'	300.00'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1134
SCALE AS SHOWN
SHEET NO. 18 OF 69

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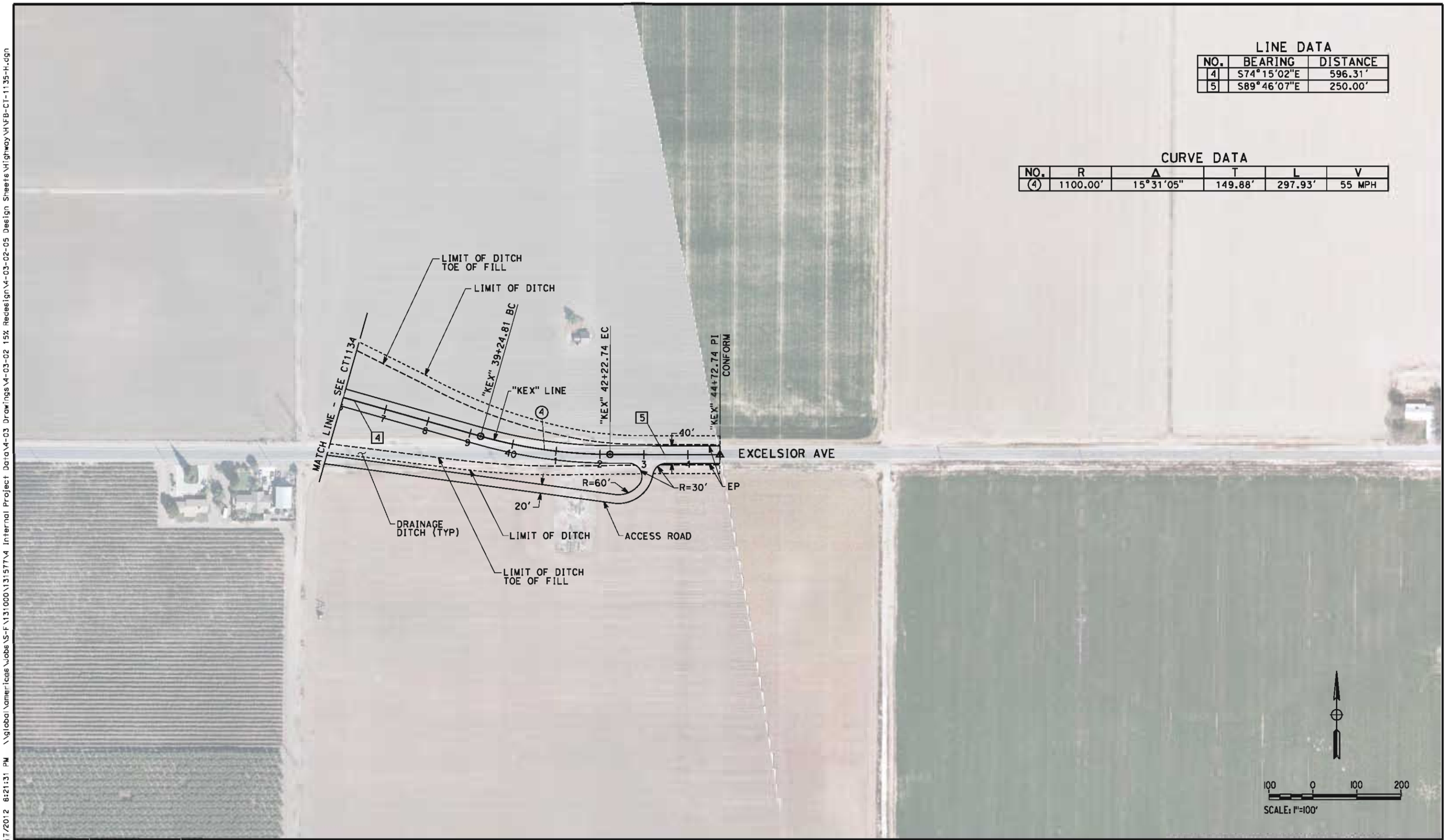
LINE DATA

NO.	BEARING	DISTANCE
4	S74°15'02"E	596.31'
5	S89°46'07"E	250.00'

CURVE DATA

NO.	R	Δ	T	L	V
4	1100.00'	15°31'05"	149.88'	297.93'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1135
SCALE AS SHOWN
SHEET NO. 19 OF 69

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LINE DATA

NO.	BEARING	DISTANCE
1	S89°53'06"E	251.35'
2	N74°39'31"E	573.10'
3	N89°53'20"E	800.03'
4	S74°05'35"E	560.07'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	15°27'23"	149.28'	296.74'	55 MPH
2	1100.00'	15°13'50"	147.07'	292.40'	55 MPH
3	1100.00'	16°01'05"	154.77'	307.52'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
ELDER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1136
SCALE AS SHOWN
SHEET NO. 20 OF 69

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LINE DATA

NO.	BEARING	DISTANCE
4	S74°05'35"E	560.07'
5	N89°53'06"E	248.68'

CURVE DATA

NO.	R	Δ	T	L	V
4	1100.00'	15°47'31"	152.56'	303.18'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
ELDER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1137
SCALE AS SHOWN
SHEET NO. 21 OF 69

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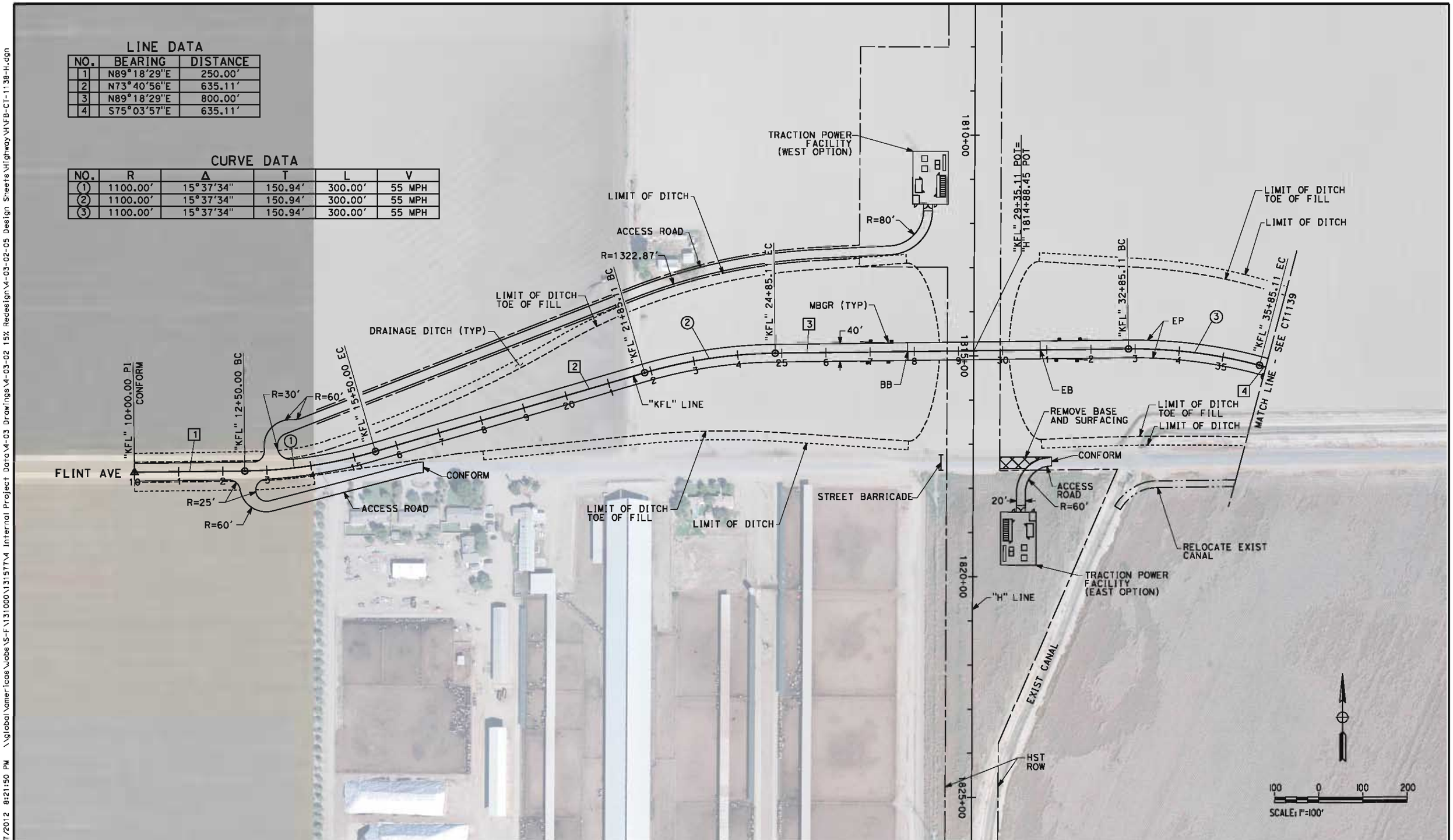
LINE DATA

NO.	BEARING	DISTANCE
1	N89°18'29"E	250.00'
2	N73°40'56"E	635.11'
3	N89°18'29"E	800.00'
4	S75°03'57"E	635.11'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	15°37'34"	150.94'	300.00'	55 MPH
2	1100.00'	15°37'34"	150.94'	300.00'	55 MPH
3	1100.00'	15°37'34"	150.94'	300.00'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1138
SCALE AS SHOWN
SHEET NO. 22 OF 69

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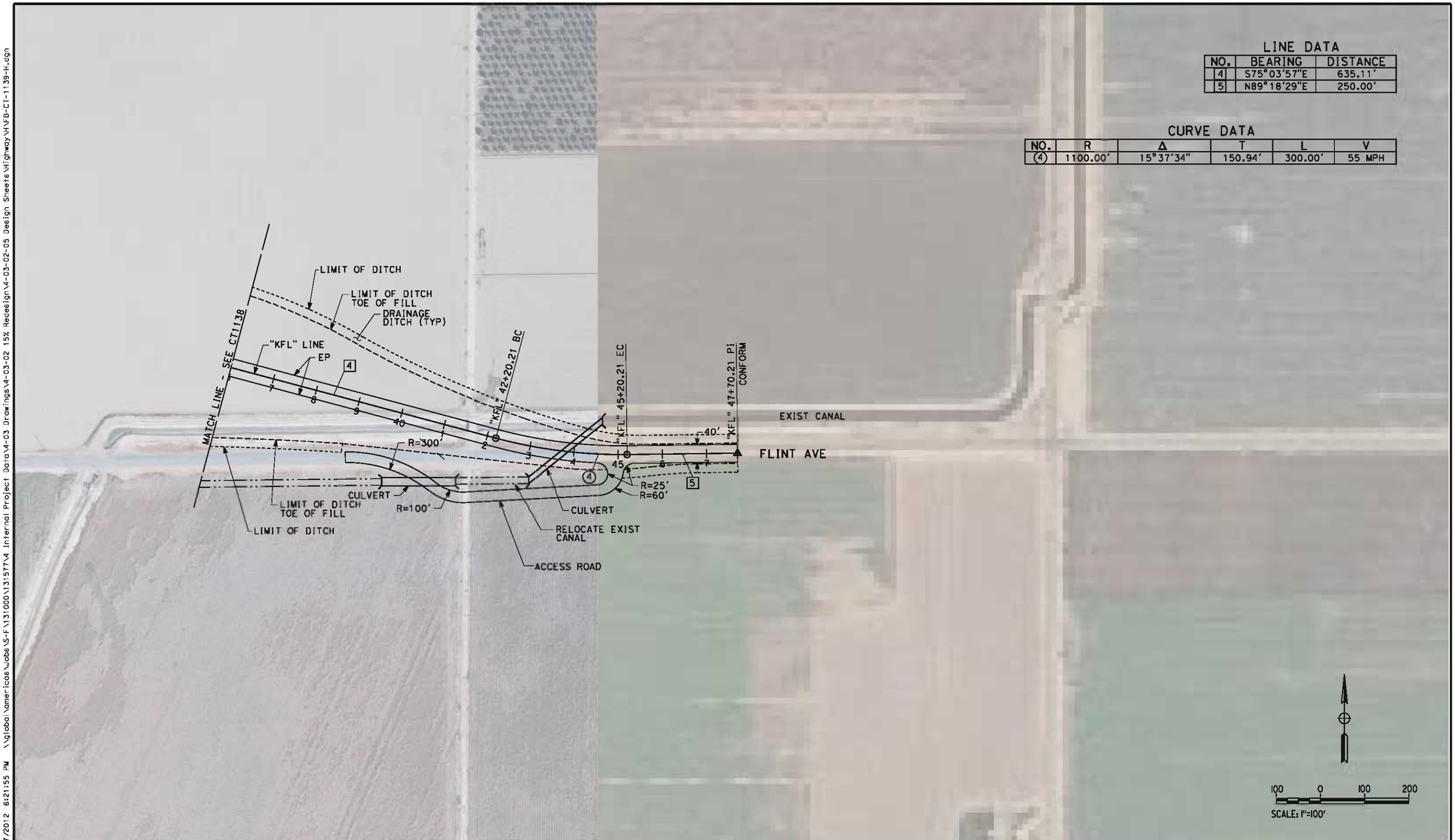
LINE DATA

NO.	BEARING	DISTANCE
4	S75°03'57"E	635.11'
5	N89°18'29"E	250.00'

CURVE DATA

NO.	R	Δ	T	L	V
4	1100.00'	15°37'34"	150.94'	300.00'	55 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
FLINT AVE

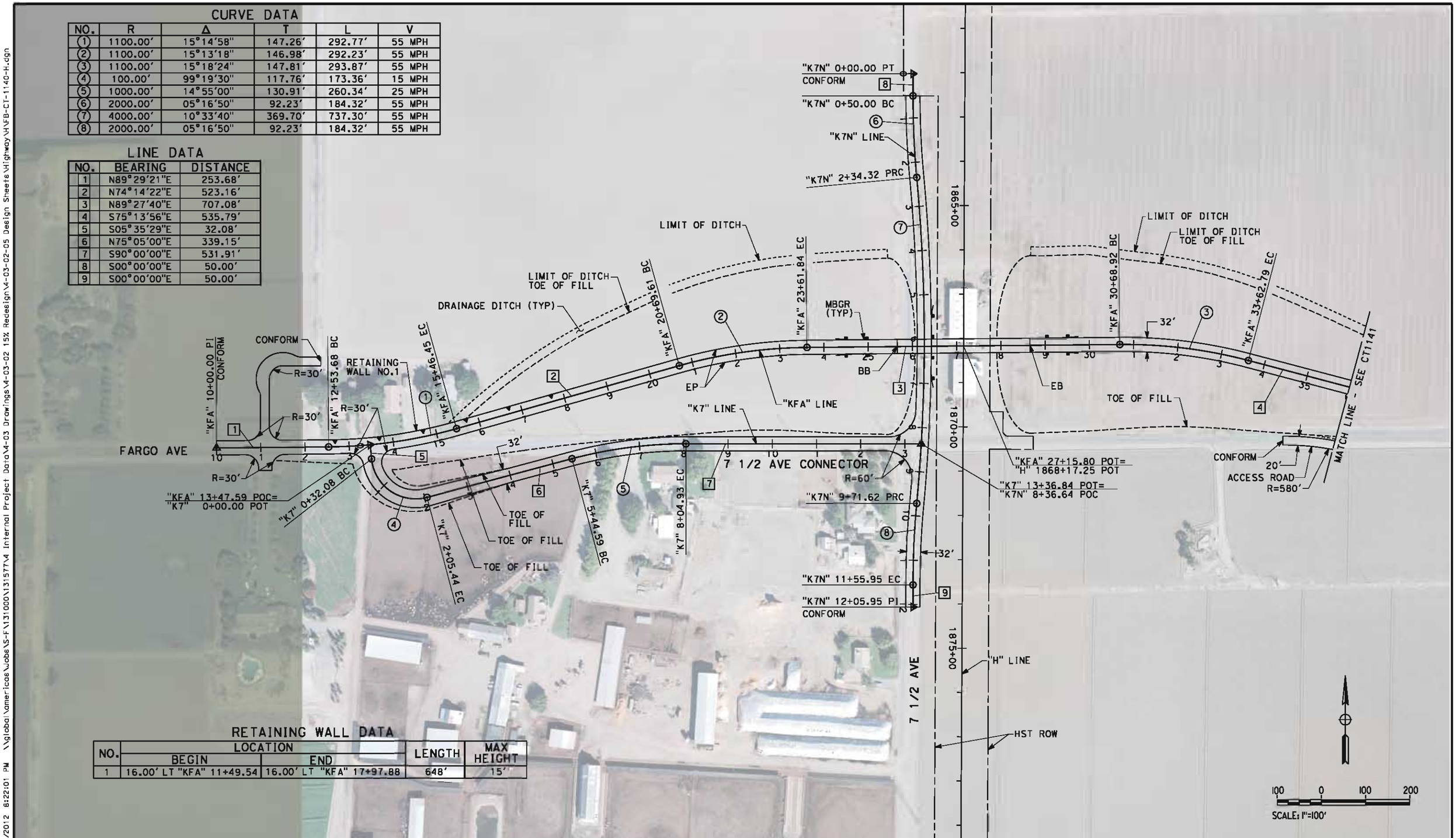
CONTRACT NO. HSR 06-0003
DRAWING NO. CT1139
SCALE AS SHOWN
SHEET NO. 23 OF 69

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	15°14'58"	147.26'	292.77'	55 MPH
2	1100.00'	15°13'18"	146.98'	292.23'	55 MPH
3	1100.00'	15°18'24"	147.81'	293.87'	55 MPH
4	100.00'	99°19'30"	117.76'	173.36'	15 MPH
5	1000.00'	14°55'00"	130.91'	260.34'	25 MPH
6	2000.00'	05°16'50"	92.23'	184.32'	55 MPH
7	4000.00'	10°33'40"	369.70'	737.30'	55 MPH
8	2000.00'	05°16'50"	92.23'	184.32'	55 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	N89°29'21"E	253.68'
2	N74°14'22"E	523.16'
3	N89°27'40"E	707.08'
4	S75°13'56"E	535.79'
5	S05°35'29"E	32.08'
6	N75°05'00"E	339.15'
7	S90°00'00"E	531.91'
8	S00°00'00"E	50.00'
9	S00°00'00"E	50.00'



RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	16.00' LT "KFA" 11+49.54	16.00' LT "KFA" 17+97.88	648'	15'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1140
SCALE AS SHOWN
SHEET NO. 24 OF 69

eran.sudhausen 5/17/2012 8:22:01 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-1140-H.dgn

LINE DATA

NO.	BEARING	DISTANCE
4	S74°13'56"E	535.79'
5	N89°29'21"E	289.25'

CURVE DATA

NO.	R	Δ	T	L	V
4	1000.00'	15°16'43"	134.13'	266.66'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1141
SCALE AS SHOWN
SHEET NO. 25 OF 69

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1144
SCALE AS SHOWN
SHEET NO. 26 OF 69

LINE DATA

NO.	BEARING	DISTANCE
1	S89°52'53"E	3650.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1145
SCALE AS SHOWN
SHEET NO. 27 OF 69

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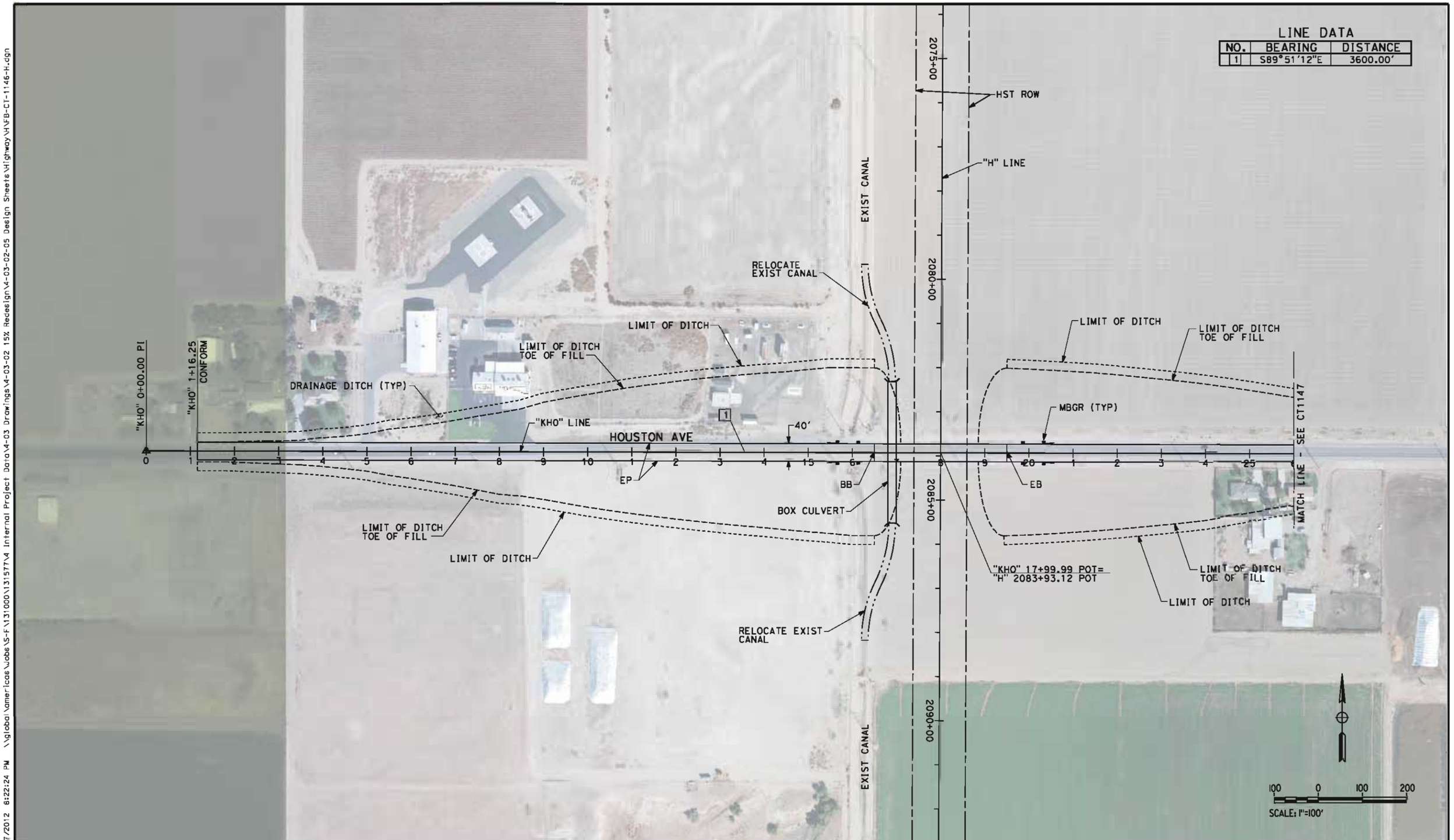

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1146
SCALE AS SHOWN
SHEET NO. 28 OF 69

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LINE DATA

NO.	BEARING	DISTANCE
1	S89°51'12"E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1147
SCALE AS SHOWN
SHEET NO. 29 OF 69

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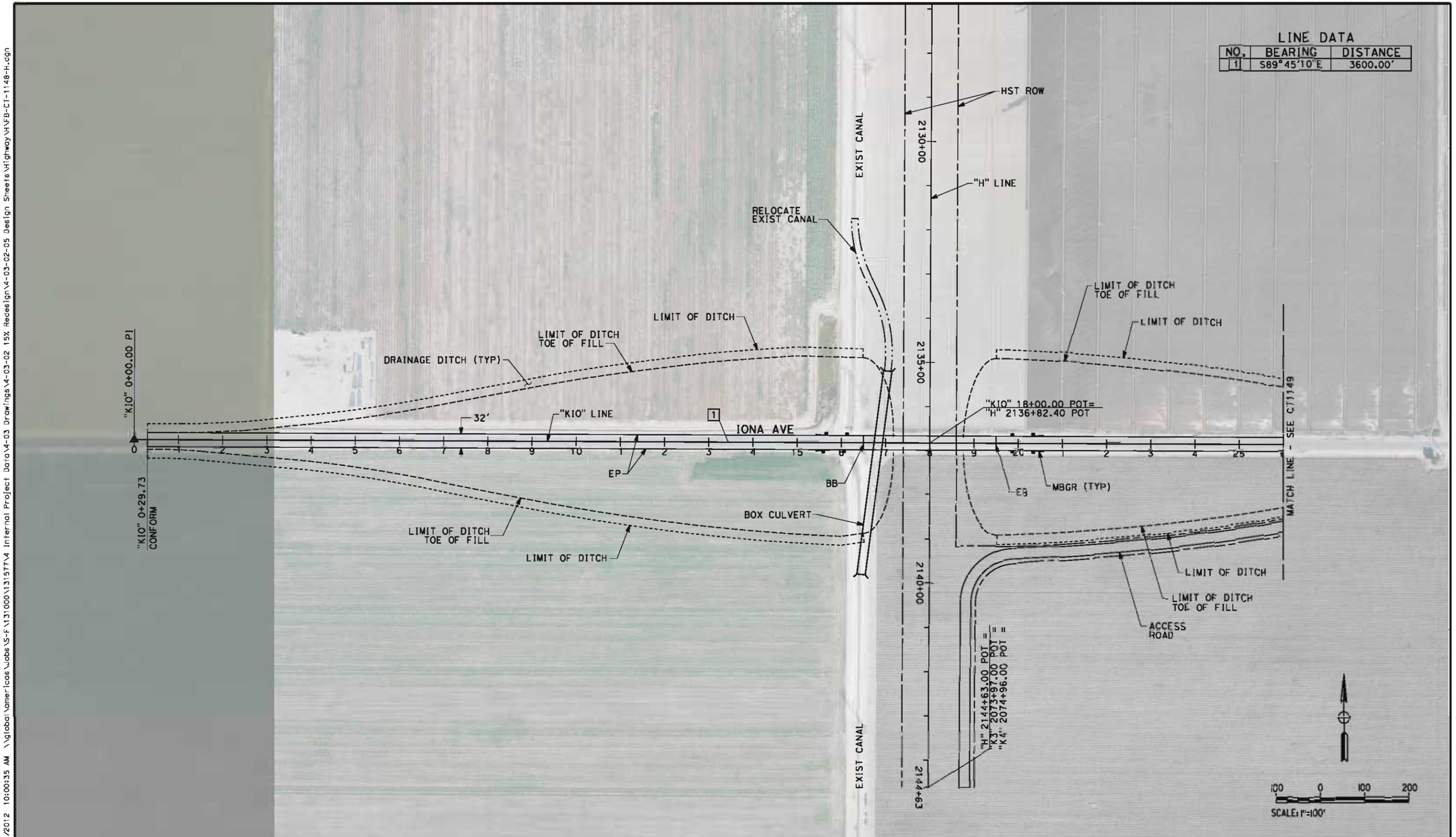

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1148
SCALE AS SHOWN
SHEET NO. 30 OF 69

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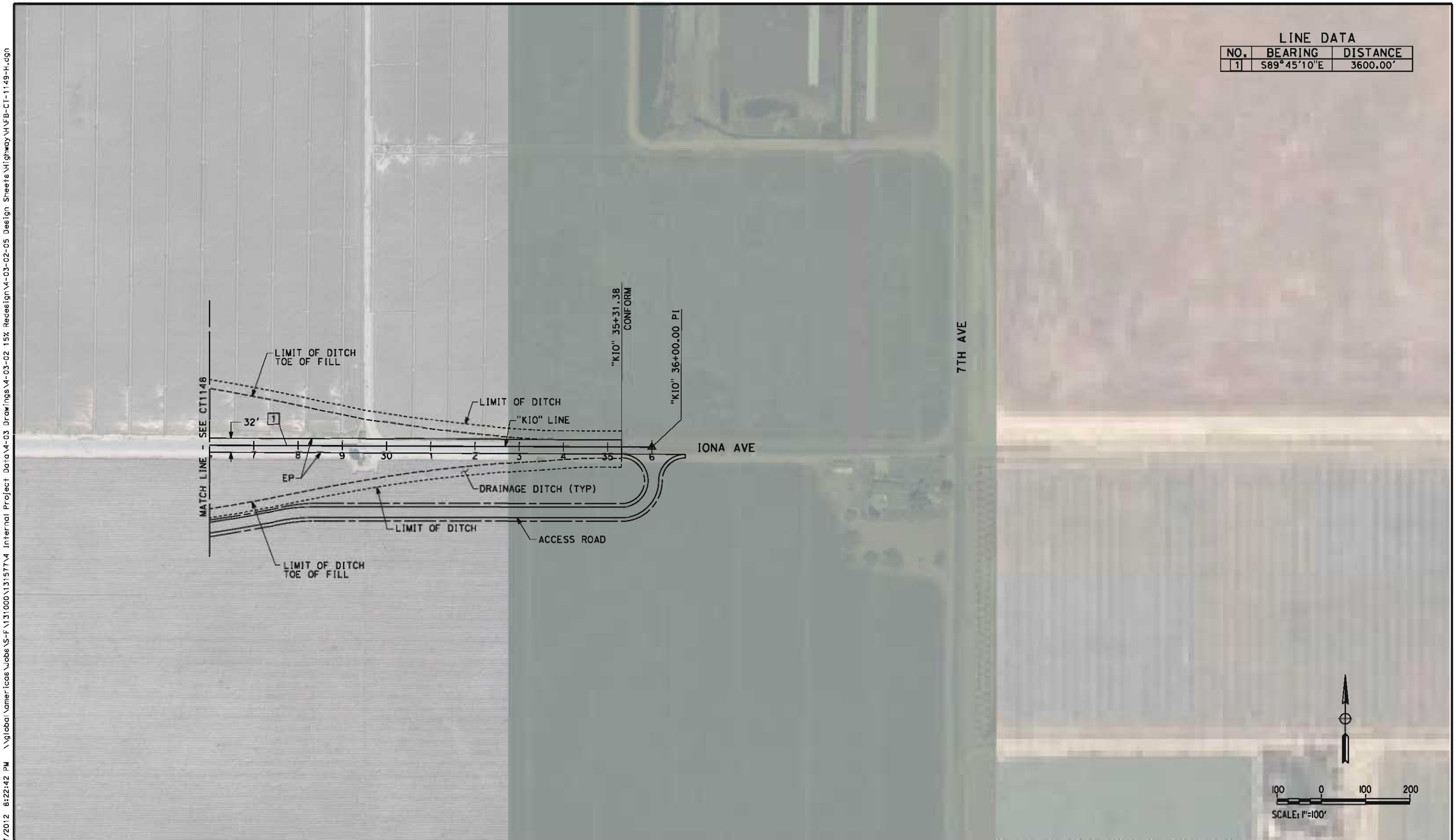


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

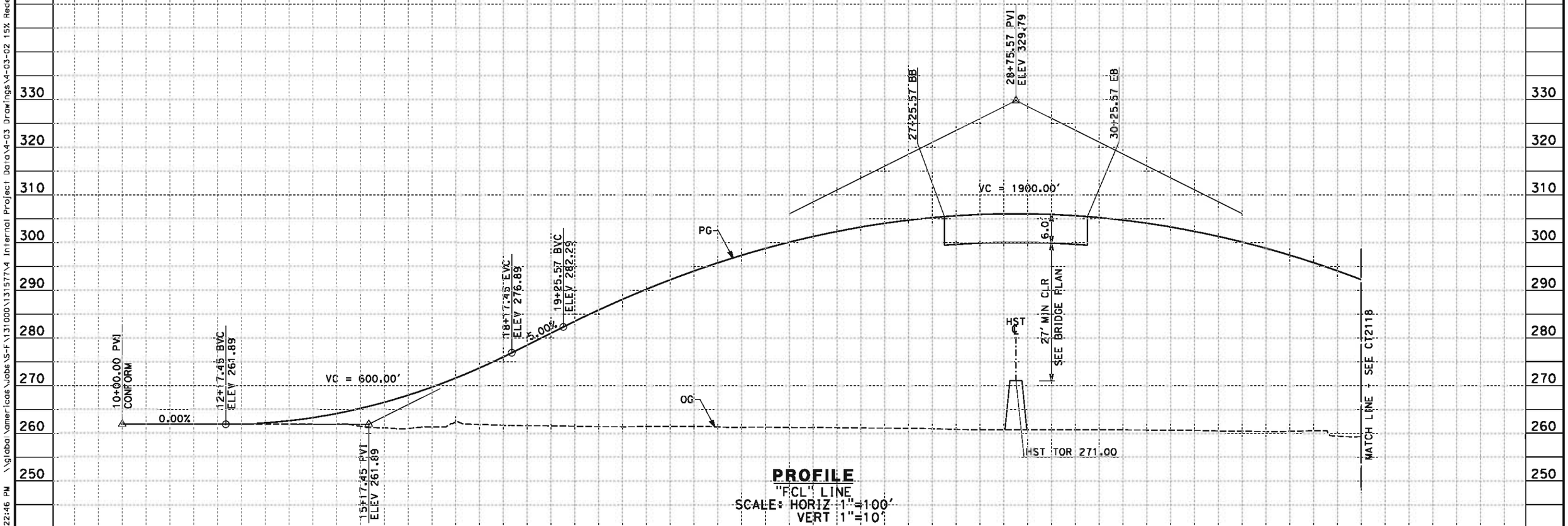
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION LAYOUT
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1149
SCALE AS SHOWN
SHEET NO. 31 OF 69

eran.sudhausen 5/17/2012 8:22:42 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\H\FB-CT-1149-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FCL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

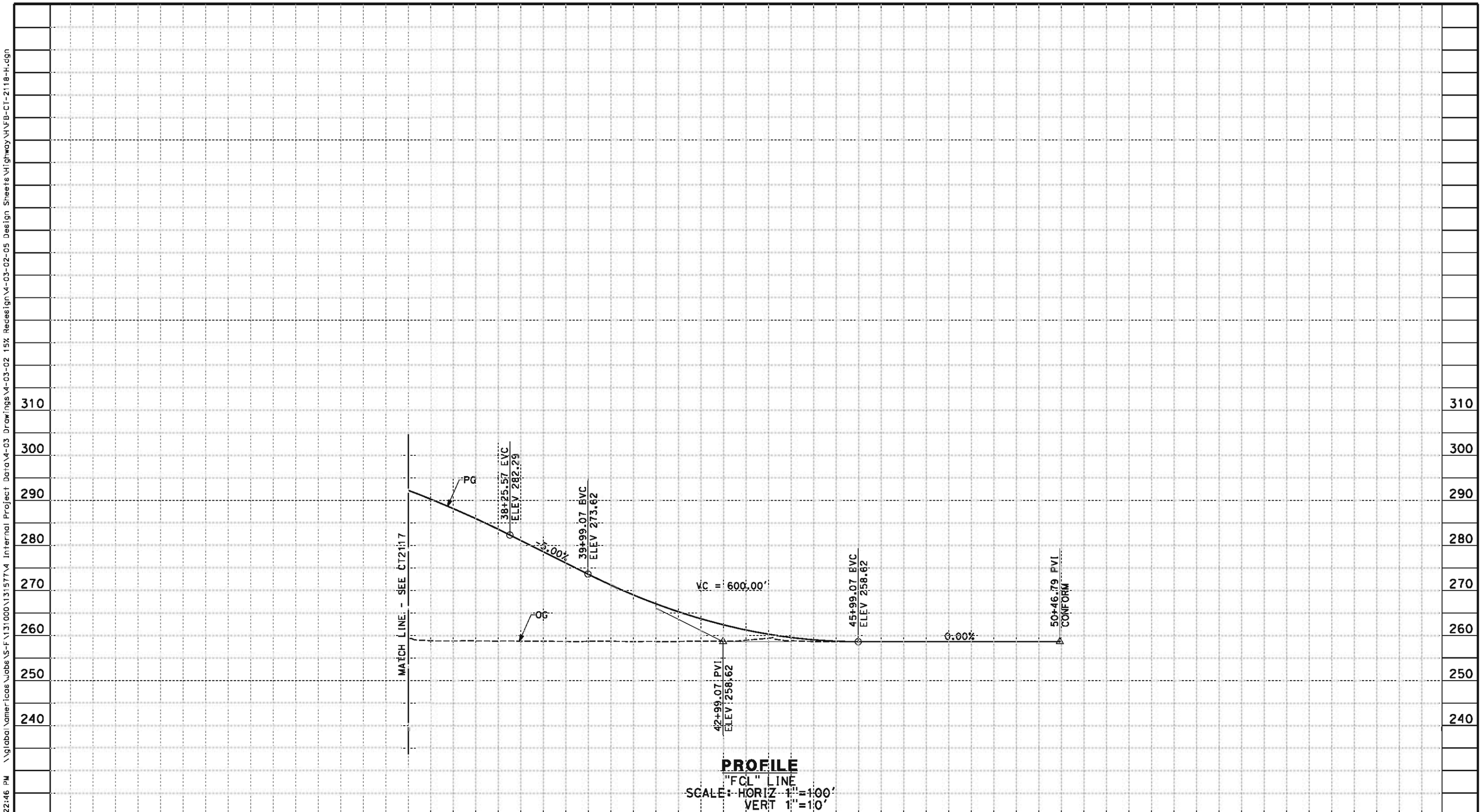
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2117
SCALE AS SHOWN
SHEET NO. 32 OF 69

eron.sudhausen 5/17/2012 8:22:46 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2117-H.dgn



PROFILE
"FCL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

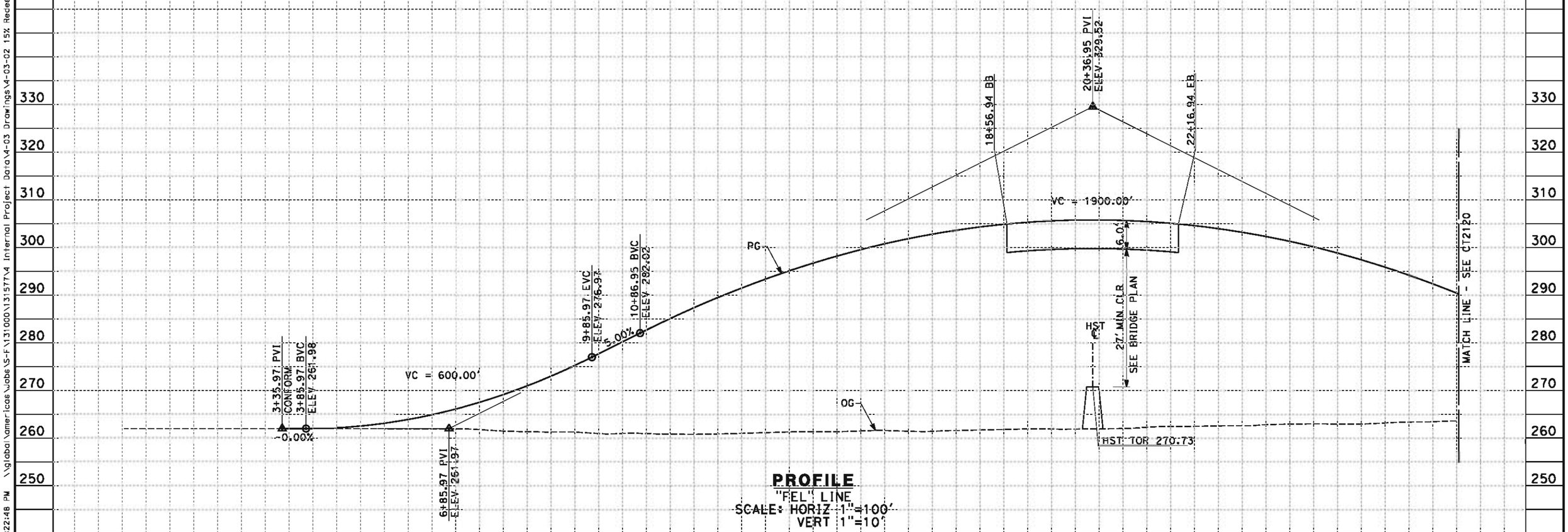
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2118
SCALE AS SHOWN
SHEET NO. 33 OF 69

eron.sudhausen 5/17/2012 8:22:46 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2118-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FEL" 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	3	4	25	6	7	8	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

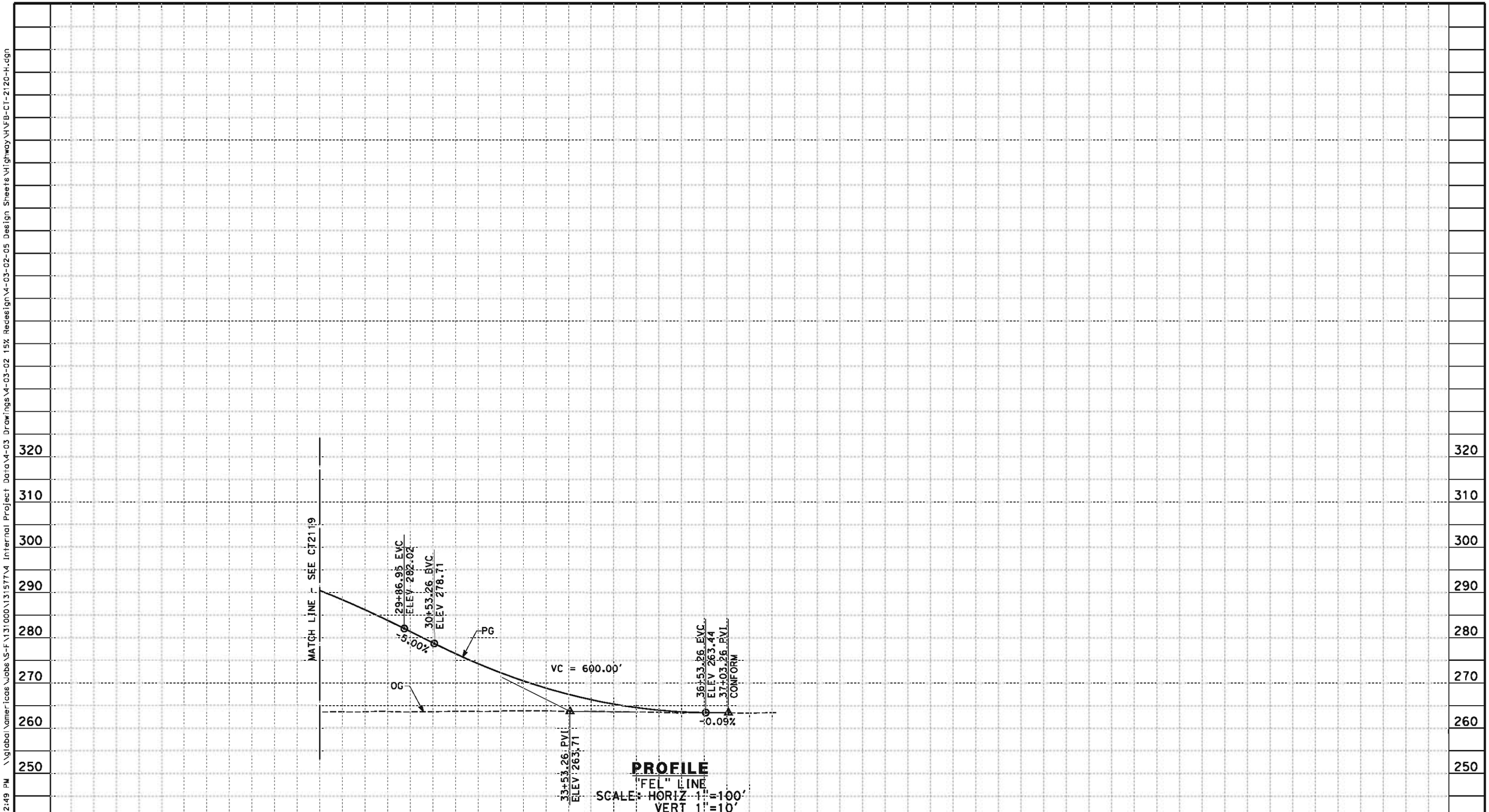
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2119
SCALE AS SHOWN
SHEET NO. 34 OF 69

eron.sudhausen 5/17/2012 8:22:48 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2119-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

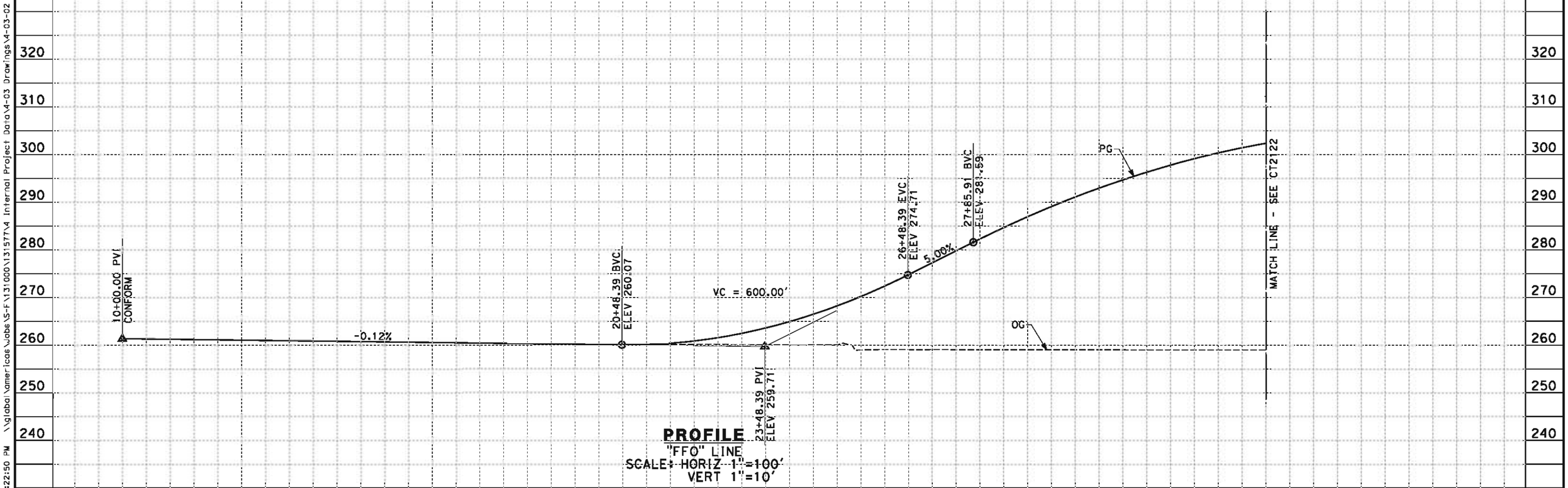
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2120
SCALE AS SHOWN
SHEET NO. 35 OF 69

eron.sudhausen 5/17/2012 8:22:49 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2120-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FFO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	TOTAL
CY Exc																										
CY Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

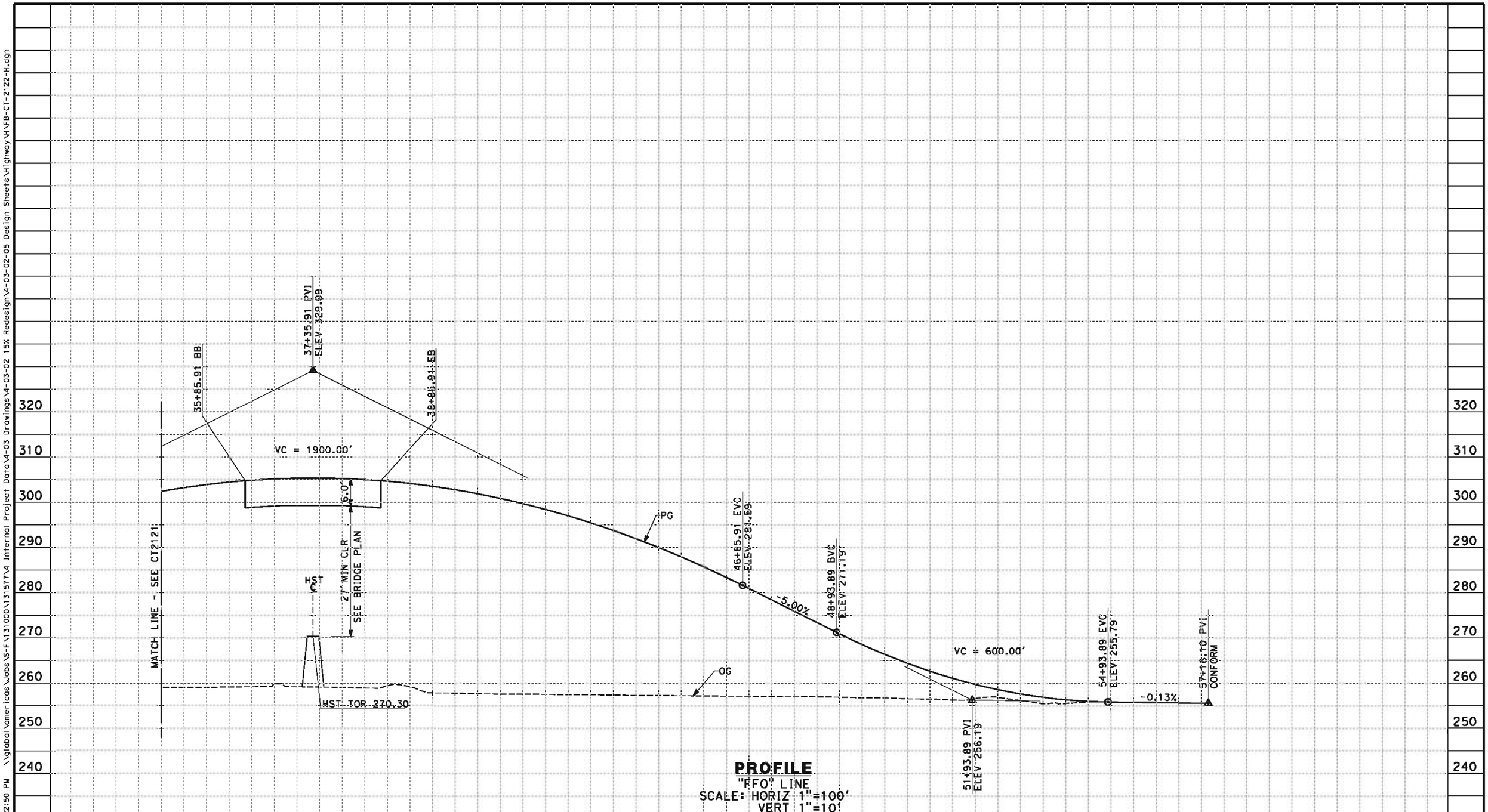
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
S FOWLER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2121
SCALE AS SHOWN
SHEET NO. 36 OF 69

eron.sudhausen 5/17/2012 8:22:50 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2121-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

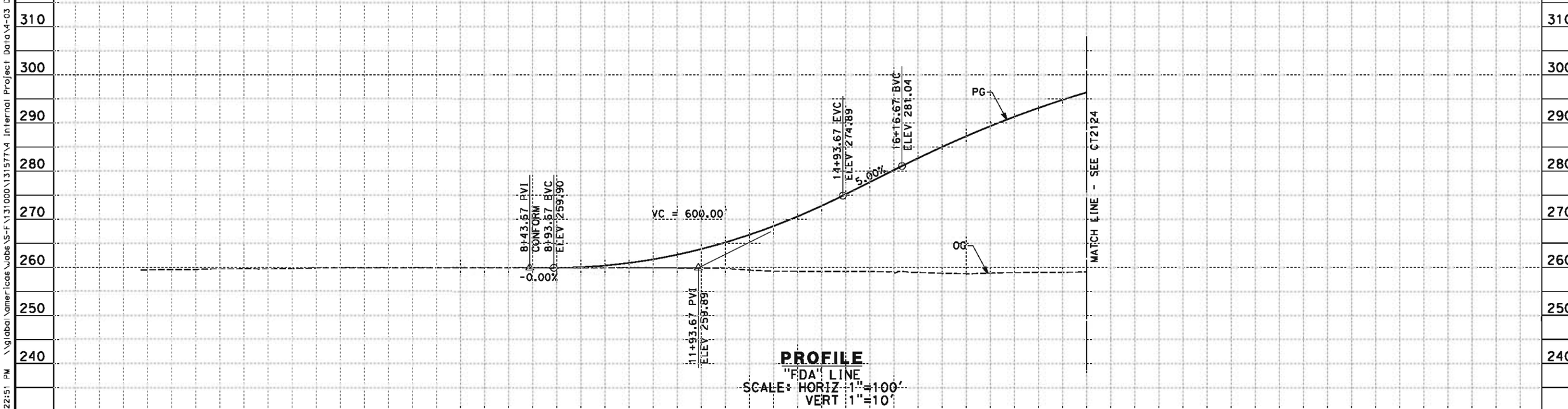
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
S FOWLER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2122
SCALE AS SHOWN
SHEET NO. 37 OF 69

eron.sudhausen 5/17/2012 8:22:50 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2122-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FDA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

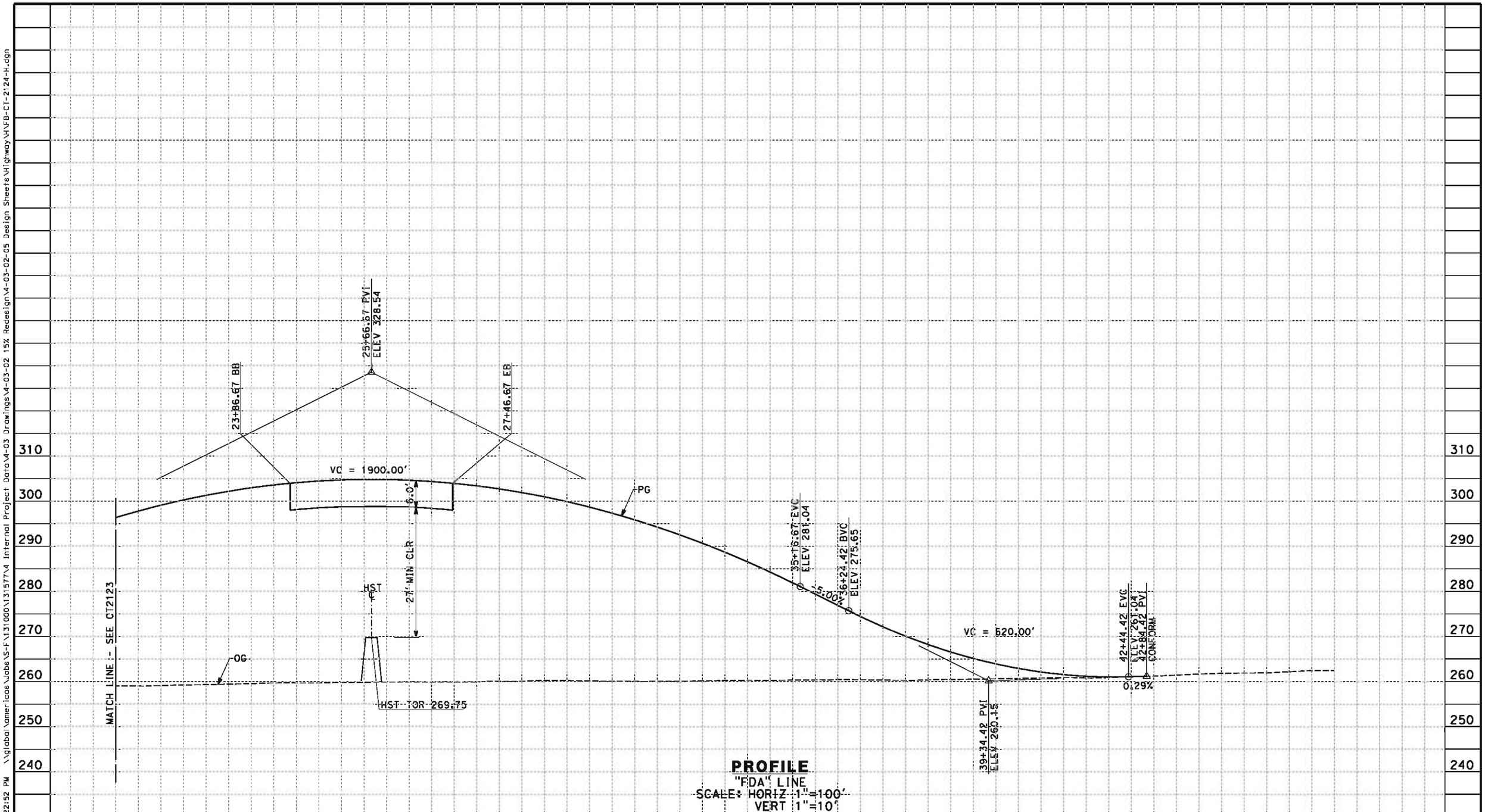
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
E DAVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2123
SCALE AS SHOWN
SHEET NO. 38 OF 69

eron.sudhausen 5/17/2012 8:22:51 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2123-H.dgn



PROFILE
"FDA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

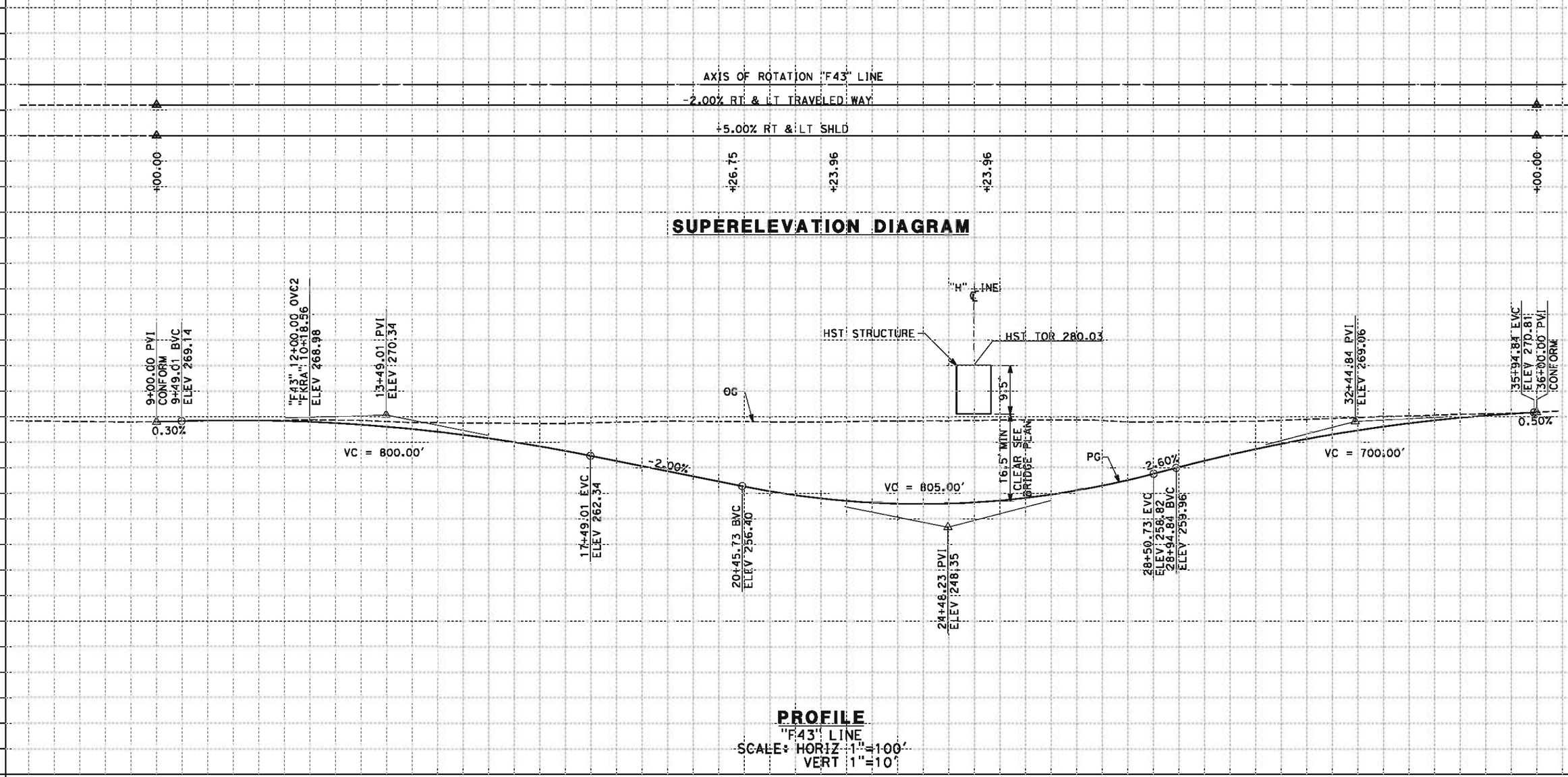
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
E DAVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2124
SCALE AS SHOWN
SHEET NO. 39 OF 69

eron.sudhausen 5/17/2012 8:22:52 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2124-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 65 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

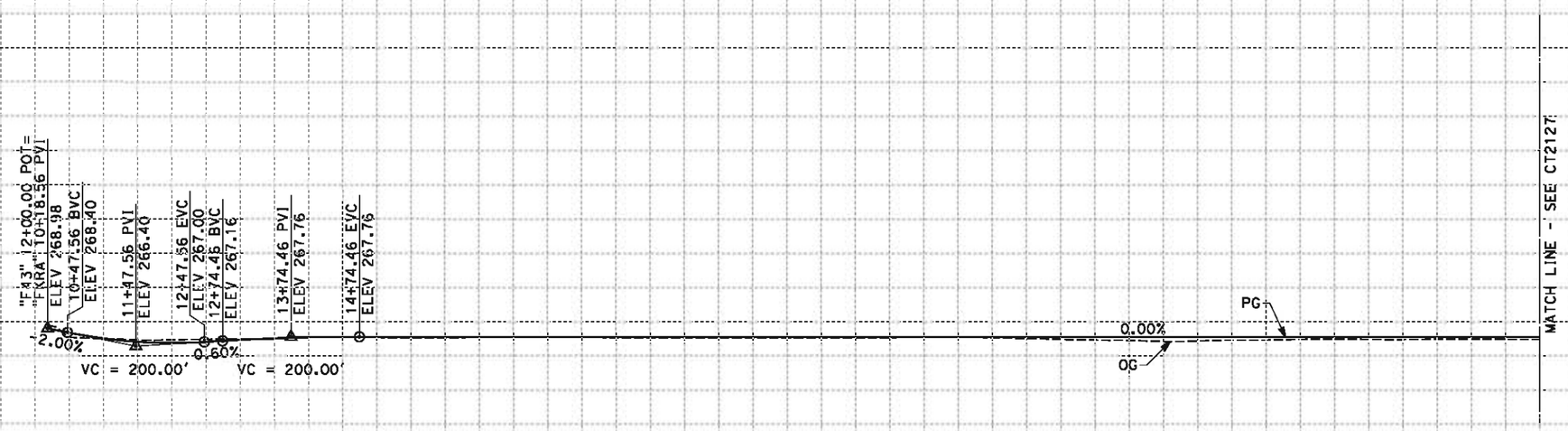
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2125
SCALE AS SHOWN
SHEET NO. 40 OF 69

\\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2125-H.dgn 5/17/2012 8:22:53 PM eron.sudhausen

NOTES:

1. MIN VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
2. VERTICAL DESIGN SPEED = 15 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FKRA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

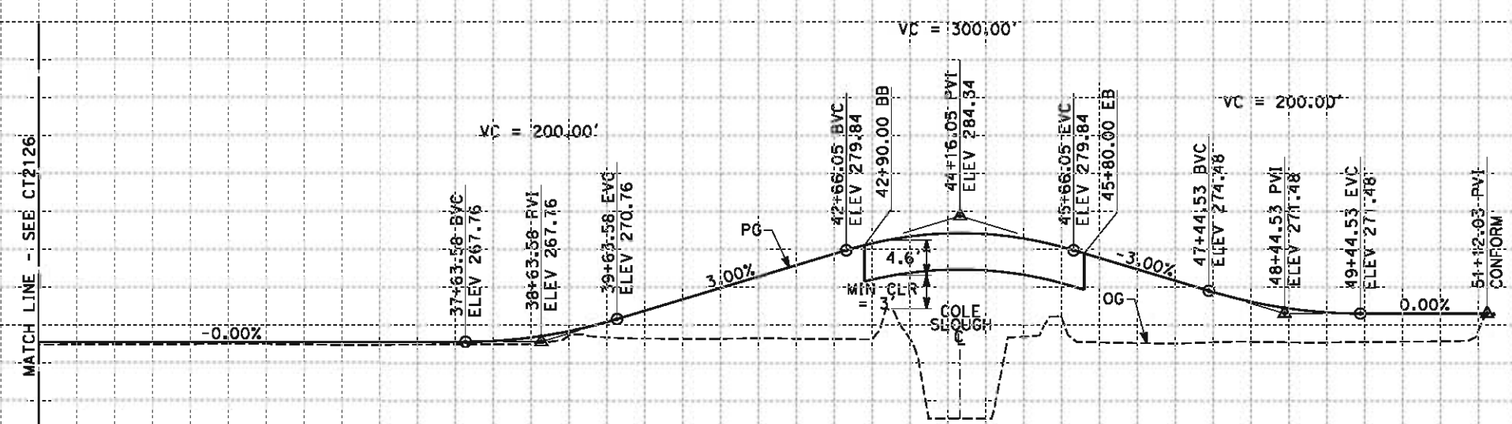
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2126
SCALE AS SHOWN
SHEET NO. 41 OF 69

eron.sudhausen 5/17/2012 8:22:54 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2126-H.dgn



PROFILE
"FKRA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

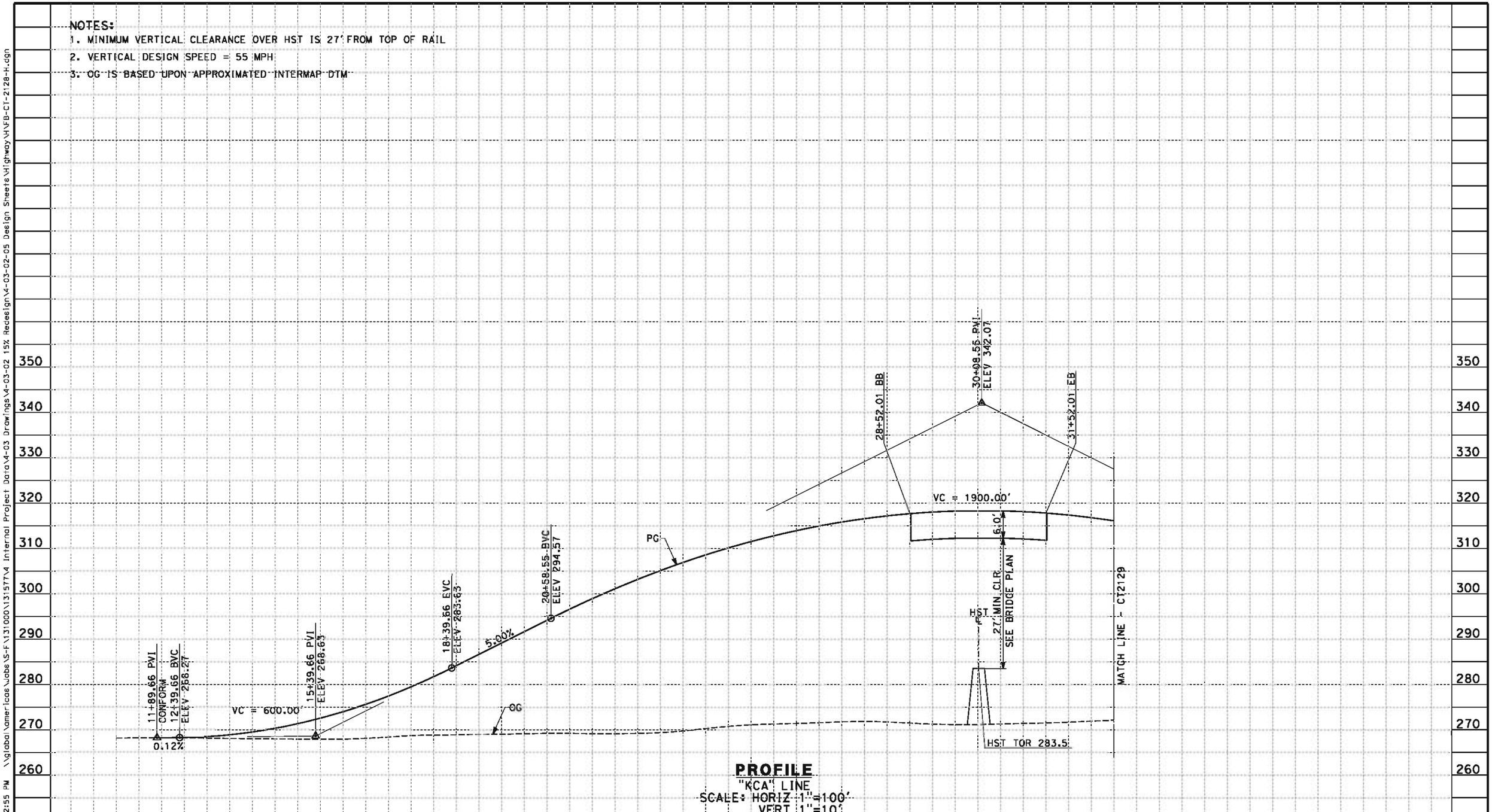
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
STATE ROUTE 43 - KINGS RIVER LEVEE ACCESS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2127
SCALE AS SHOWN
SHEET NO. 42 OF 69

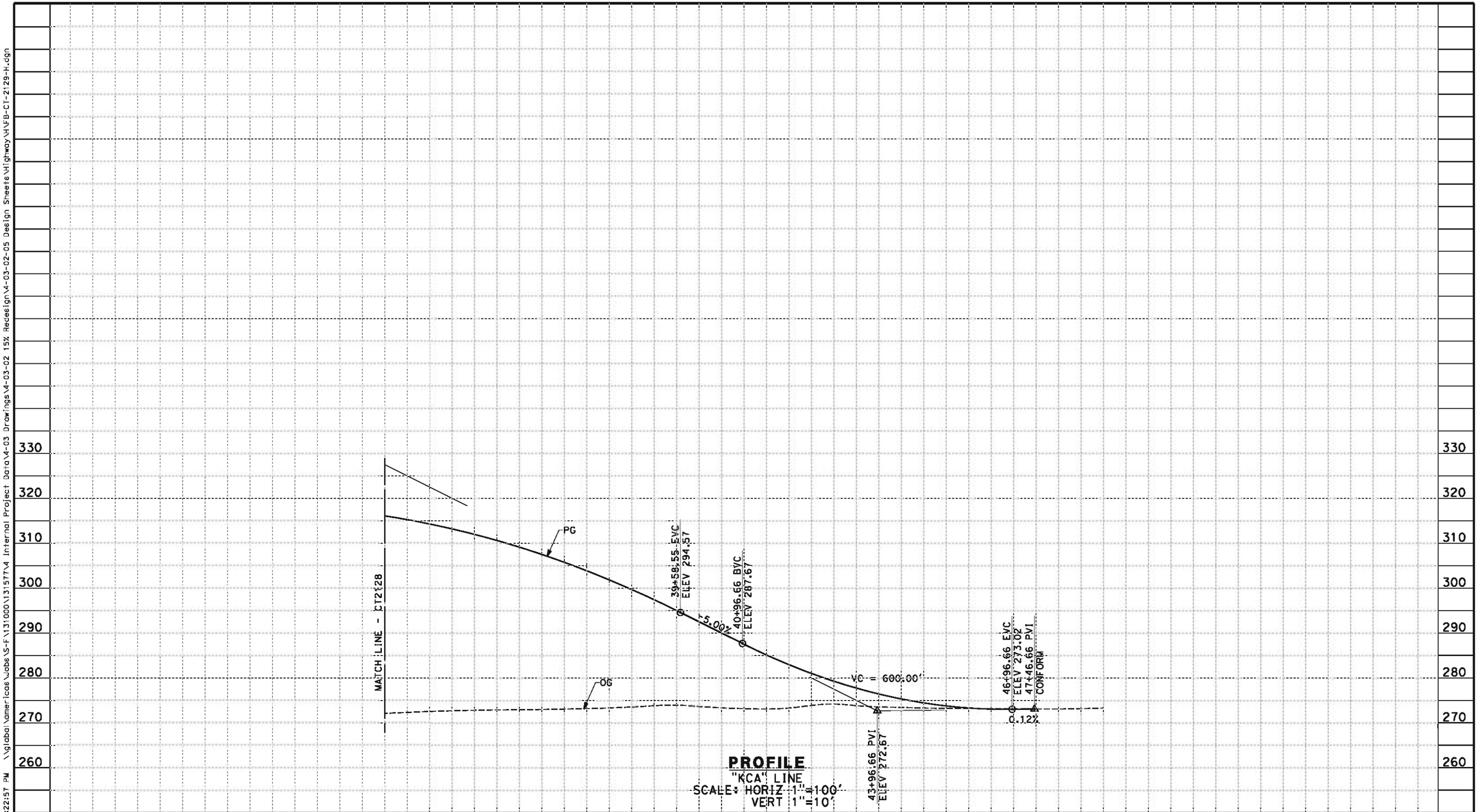
eron.sudhausen 5/18/2012 10:06:22 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HKFB-CT-2127-H.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KCA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

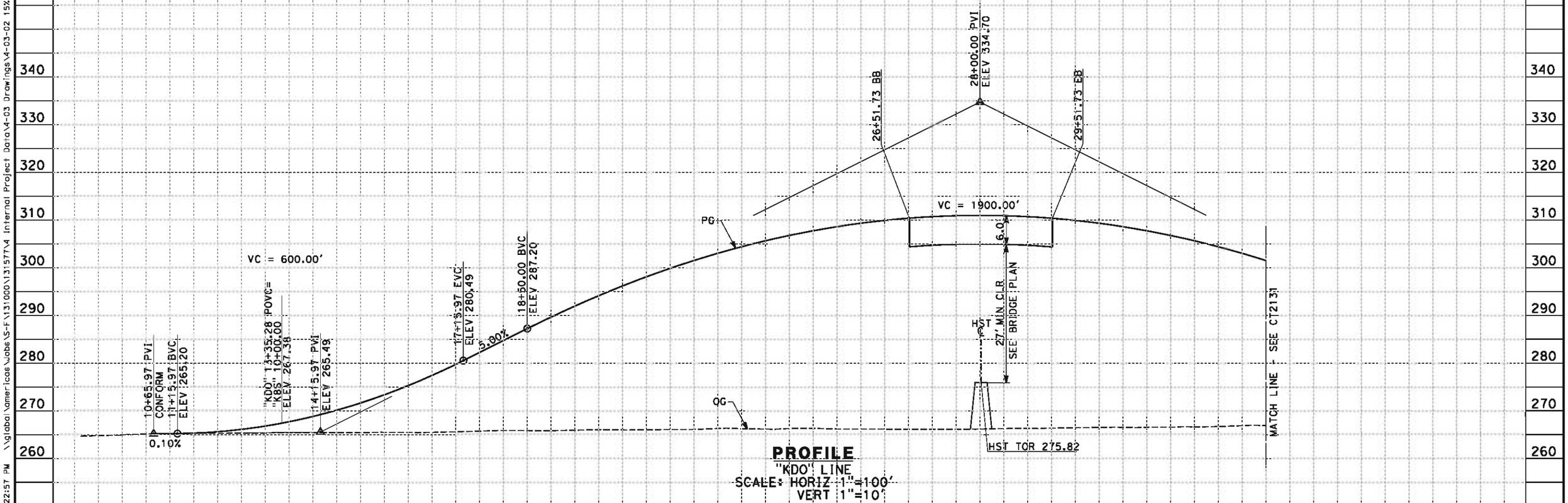
| STATION | | |


330
320
310
300
290
280
270
260
MATCH LINE - CT2128
PG
39+58.55 EVC
ELEV 294.57
-5.00%
40+96.66 BVC
ELEV 287.67
OG
VC = 600.00'
43+96.66 PVI
ELEV 272.67
0.12%
46+96.66 EVC
ELEV 273.02
47+46.66 PVI
CONFORM
PROFILE
"KCA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

| STATION | | |

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. 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	4	TOTAL
CY Exc																										
CY Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

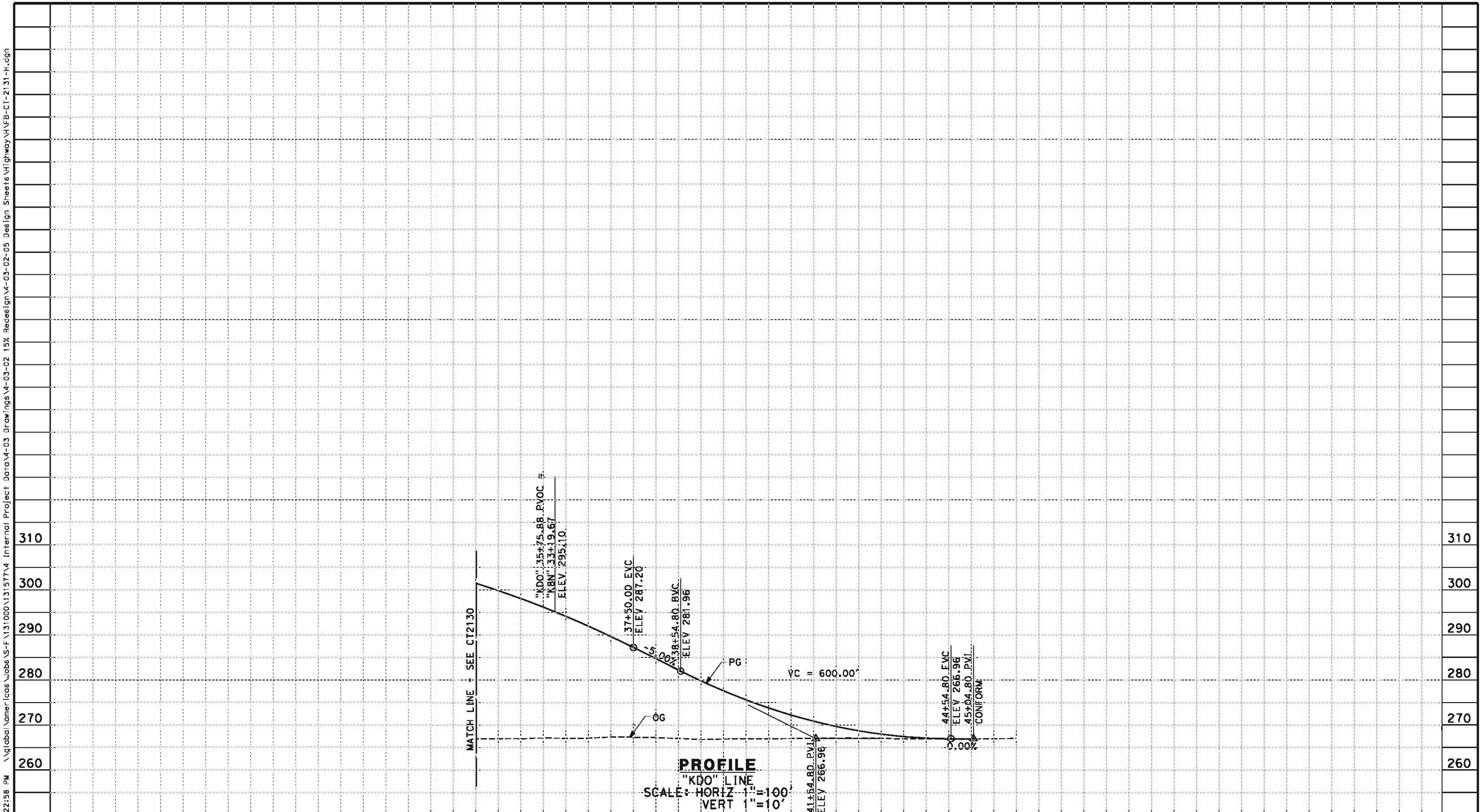
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
DOVER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2130
SCALE AS SHOWN
SHEET NO. 45 OF 69

eron.sudhausen 5/17/2012 8:22:57 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2130-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

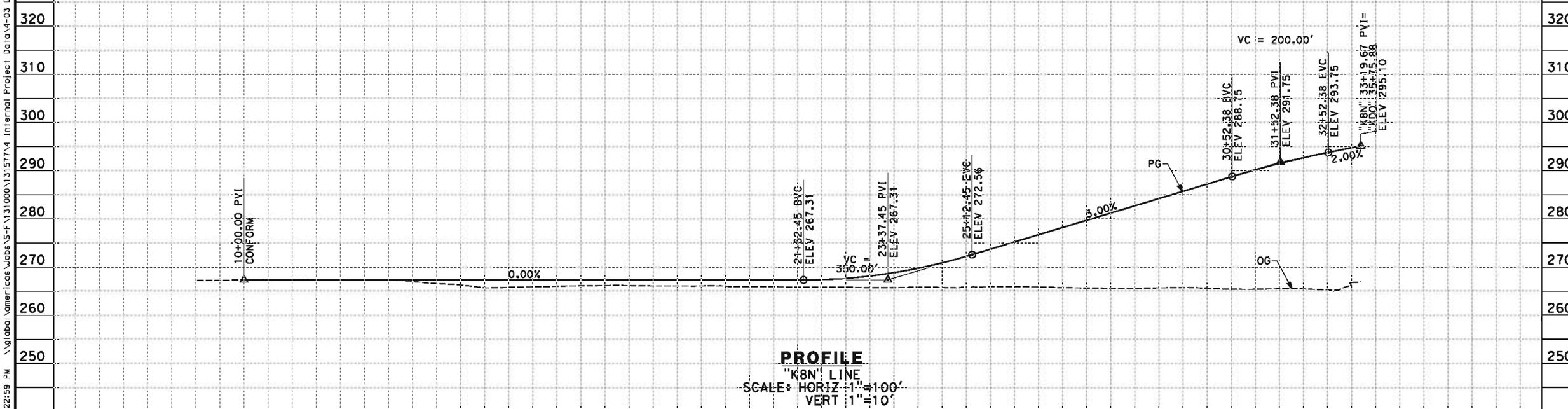
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
DOVER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2131
SCALE AS SHOWN
SHEET NO. 46 OF 69

eron.sudhausen 5/17/2012 8:22:58 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2131-H.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"K8N" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

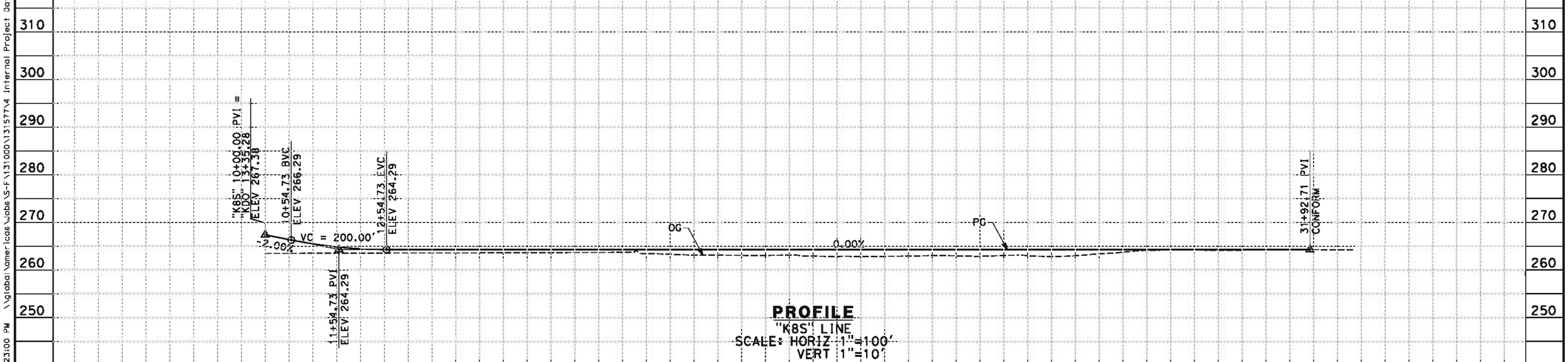
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
8TH AVE (NORTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2132
SCALE AS SHOWN
SHEET NO. 47 OF 69

eron.sudhausen 5/17/2012 8:22:59 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2132-H.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"K8S" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

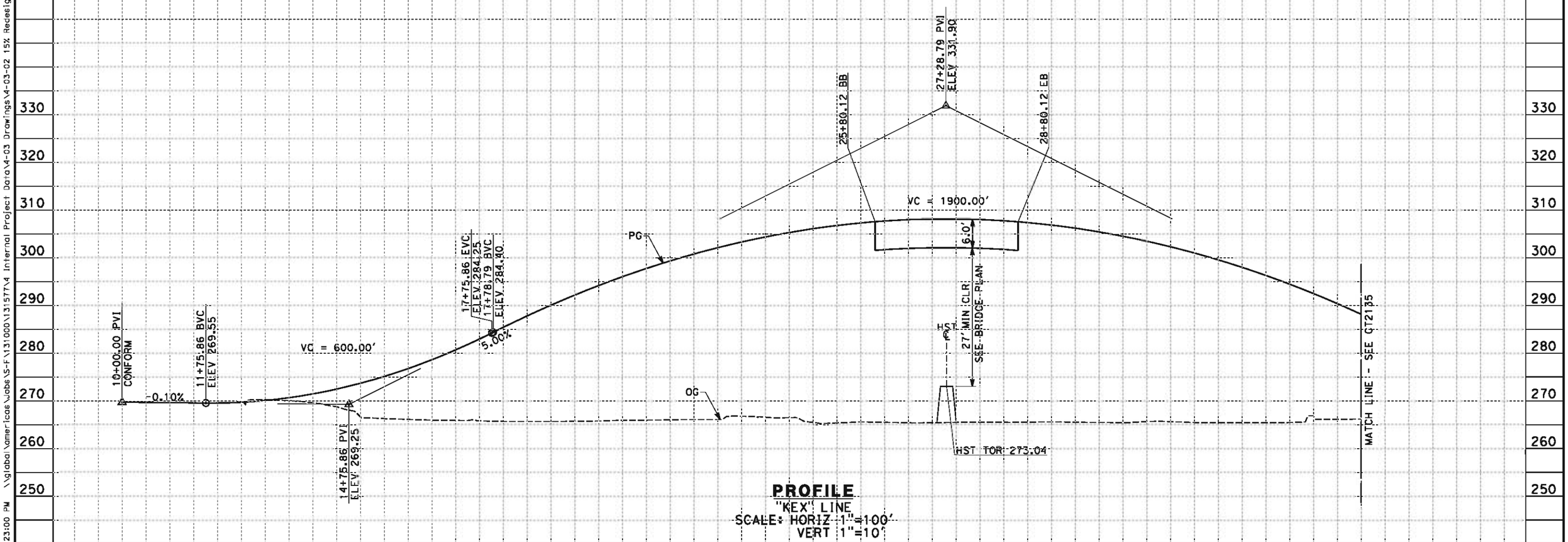
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
8TH AVE (SOUTH)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2133
SCALE AS SHOWN
SHEET NO. 48 OF 69

eron.sudhausen 5/17/2012 8:23:00 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2133-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KEX" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

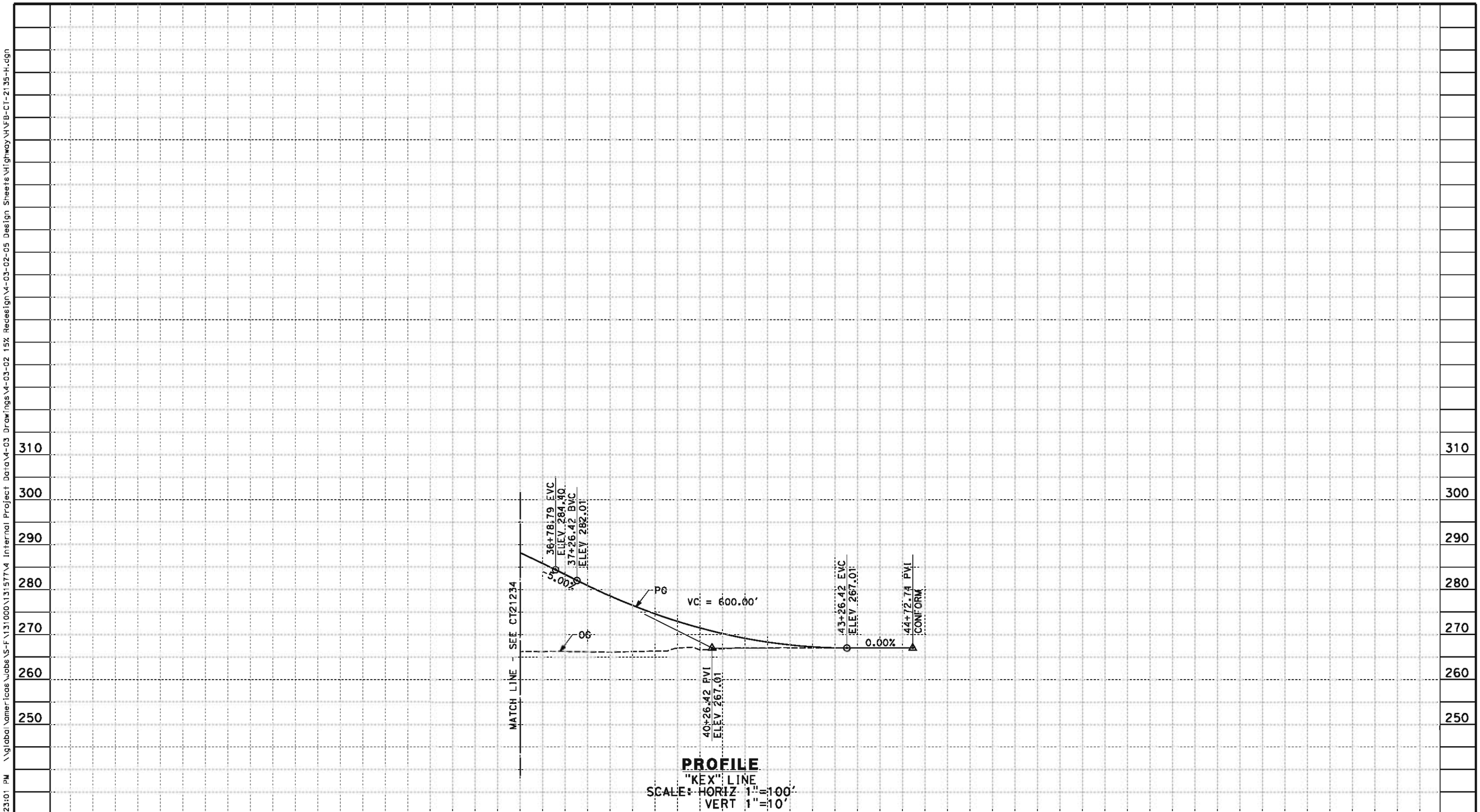
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2134
SCALE AS SHOWN
SHEET NO. 49 OF 69

\\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HKFB-CT-2134-H.dgn 5/17/2012 8:23:00 PM eron.sudhausen



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

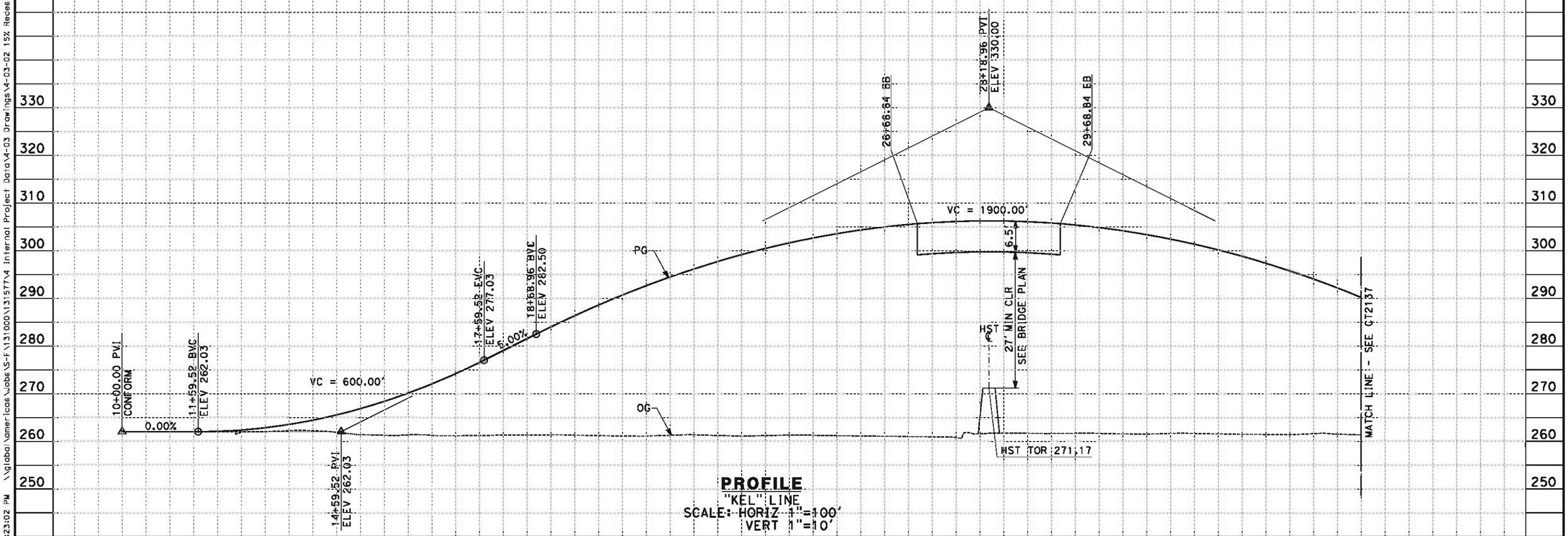
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2135
SCALE AS SHOWN
SHEET NO. 50 OF 69

eron.sudhausen 5/17/2012 8:23:01 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HKFB-CT-2135-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KEL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

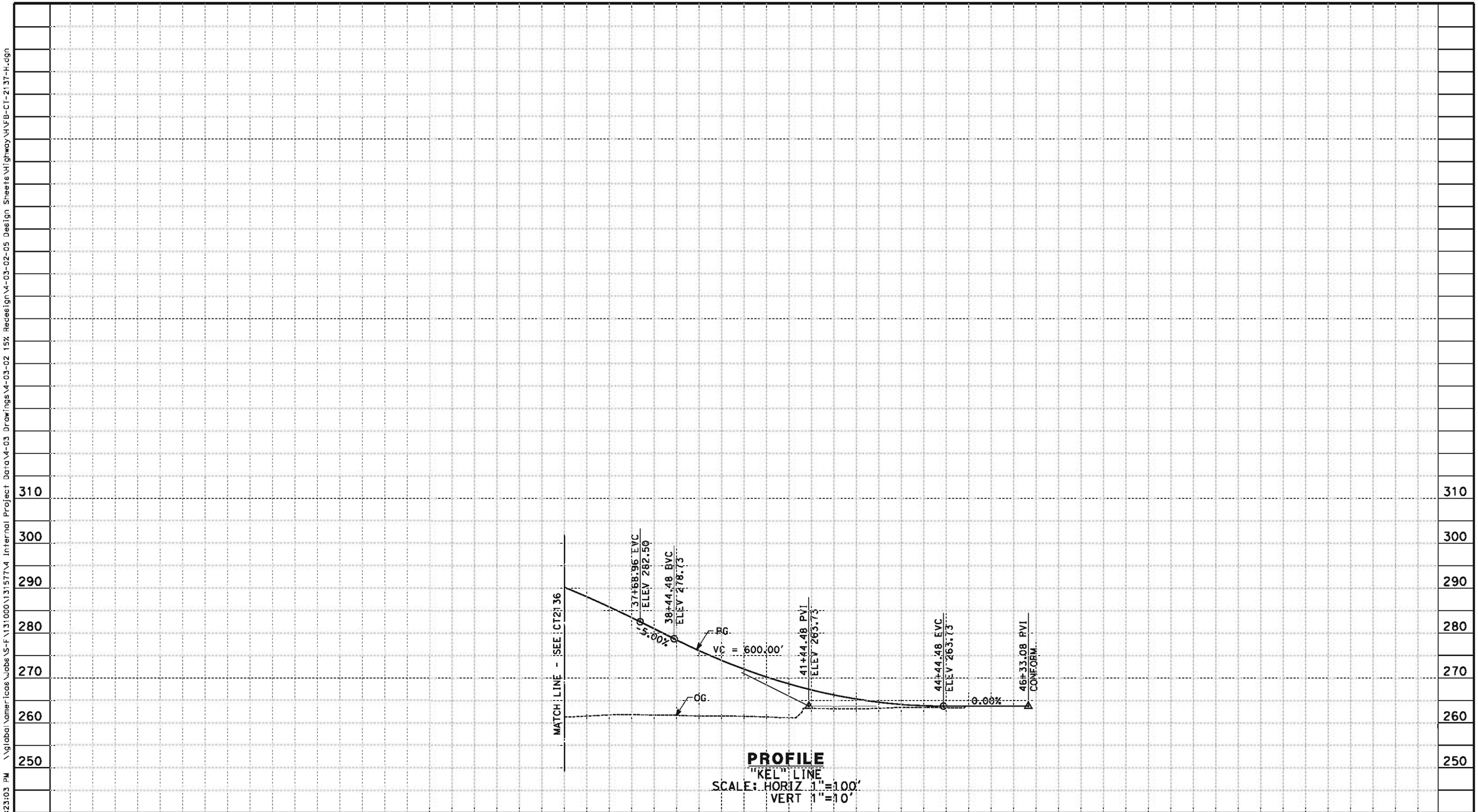
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
ELDER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2136
SCALE AS SHOWN
SHEET NO. 51 OF 69

eron.sudhausen 5/17/2012 8:23:02 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2136-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

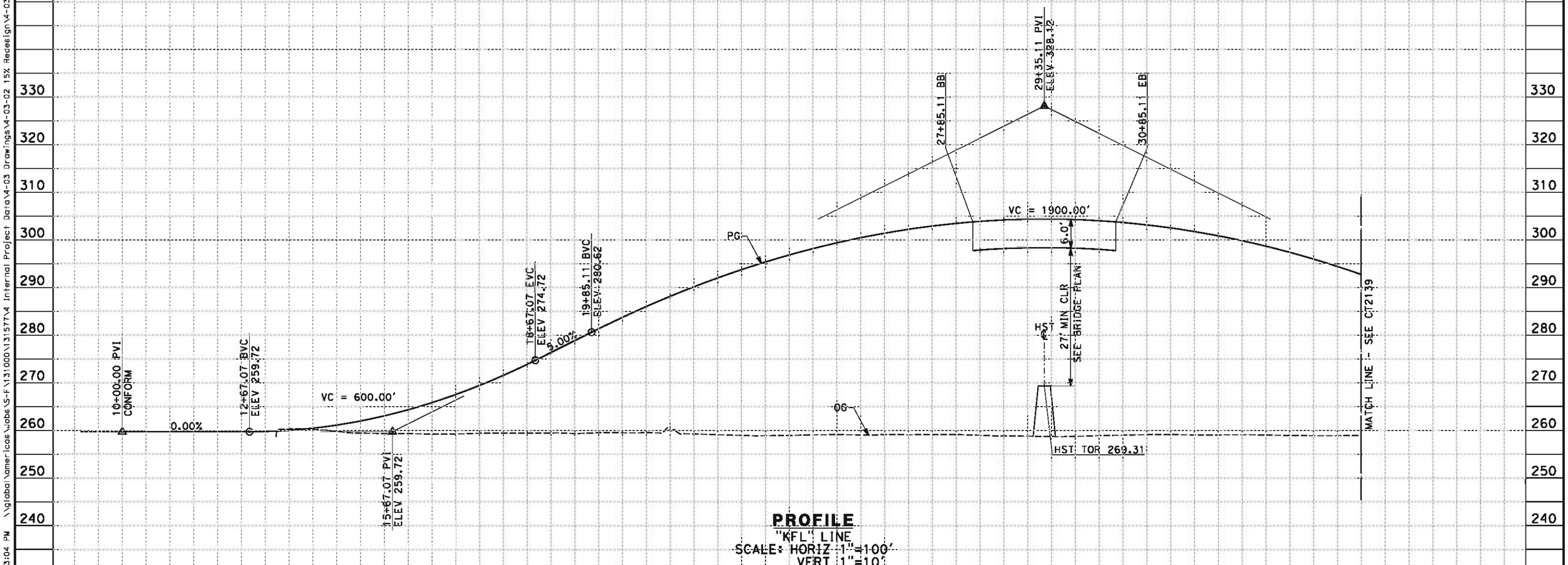
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
ELDER AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2137
SCALE AS SHOWN
SHEET NO. 52 OF 69

eron.sudhausen 5/17/2012 8:23:03 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2137-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KFL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

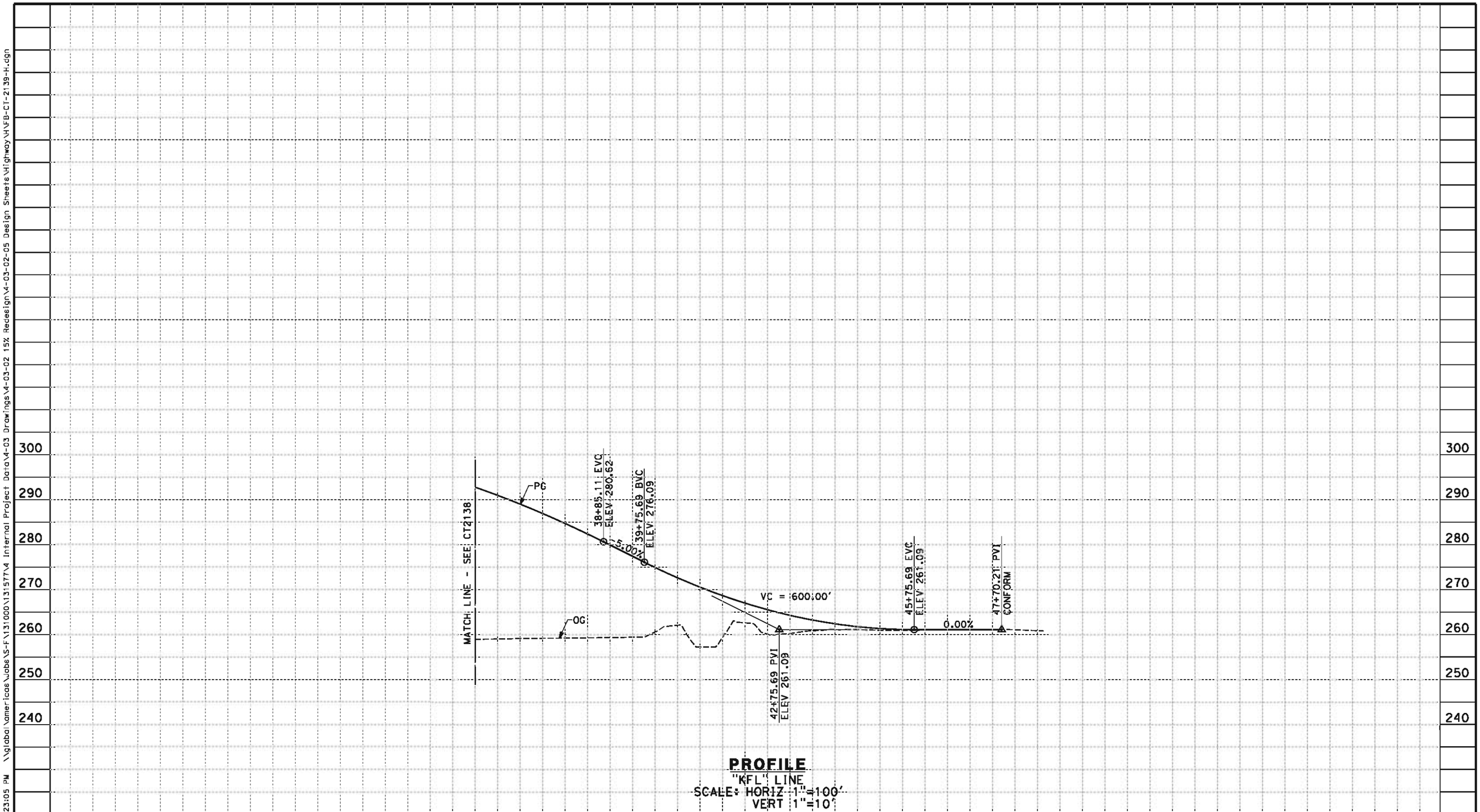
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2138
SCALE AS SHOWN
SHEET NO. 53 OF 69

eron.sudhausen 5/17/2012 8:23:04 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2138-H.dgn



PROFILE
"KFL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

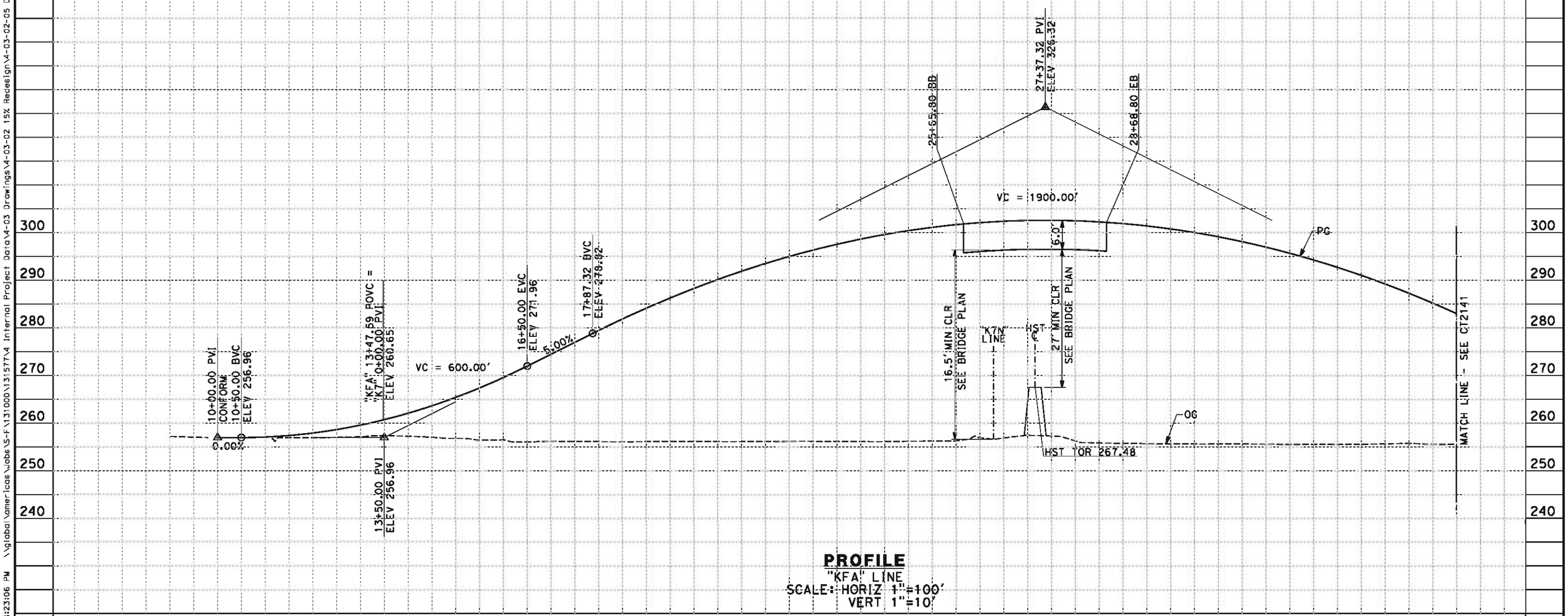
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2139
SCALE AS SHOWN
SHEET NO. 54 OF 69

eron.sudhausen 5/17/2012 8:23:05 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2139-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2140
SCALE AS SHOWN
SHEET NO. 55 OF 69

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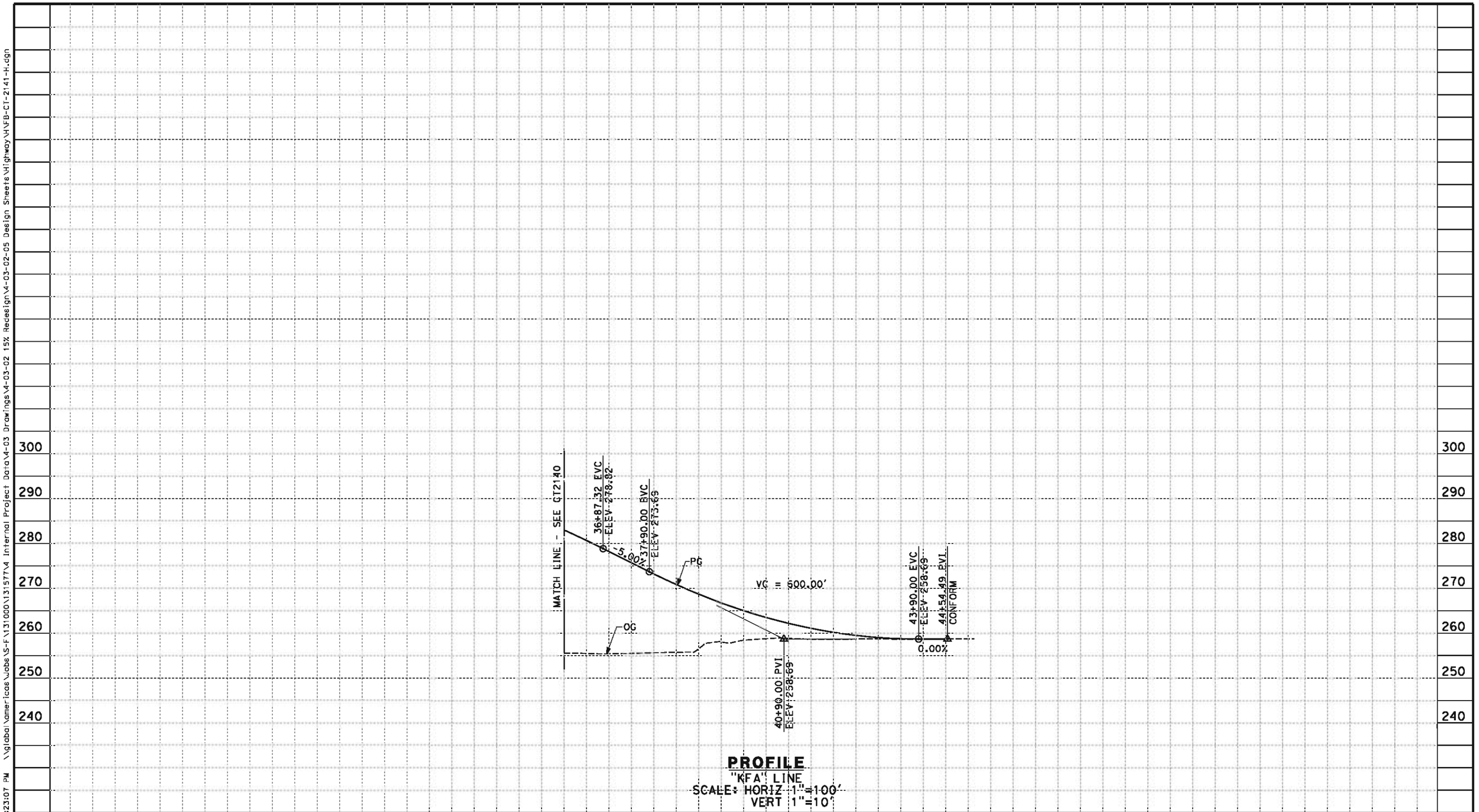

PROFILE
"KFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2141
SCALE AS SHOWN
SHEET NO. 56 OF 69

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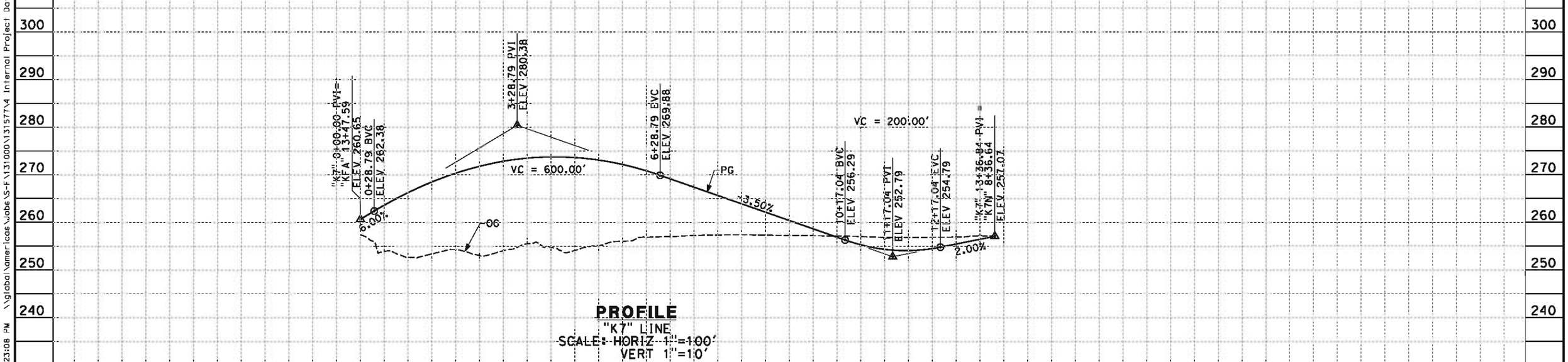
NOTES:

1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO DRAWING CT1140 FOR LAYOUT



PROFILE
"K7" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

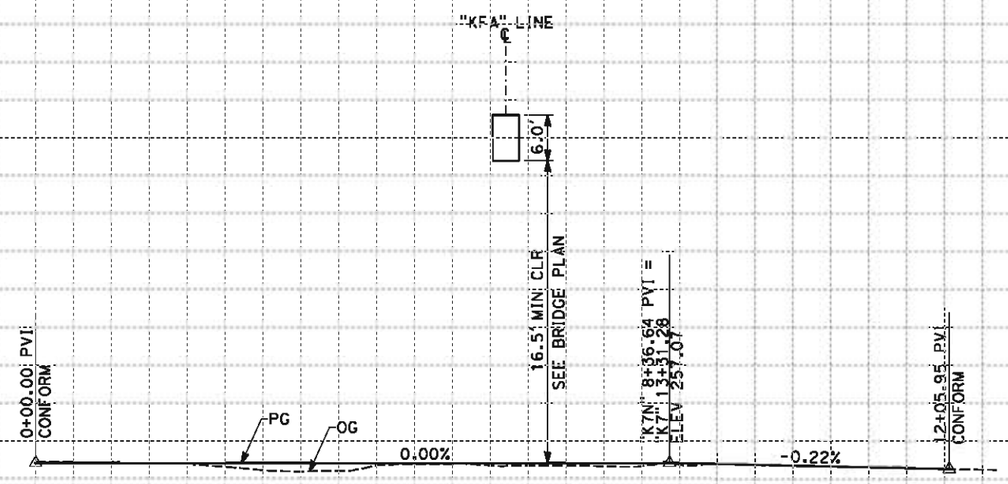
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
7 1/2 AVE CONNECTOR

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2142
SCALE AS SHOWN
SHEET NO. 57 OF 69

eron.sudhausen 5/17/2012 8:23:08 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HAFB-CT-2142-H.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER LOCAL STREET IS 16.5' FROM ROAD SURFACE.
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. REFER TO DRAWINGS CT1139 FOR LAYOUT



PROFILE
"K7N" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	0	1	2	3	4	5	6	7	8	9	10	1	2	TOTAL
CY Exc														
CY Emb														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

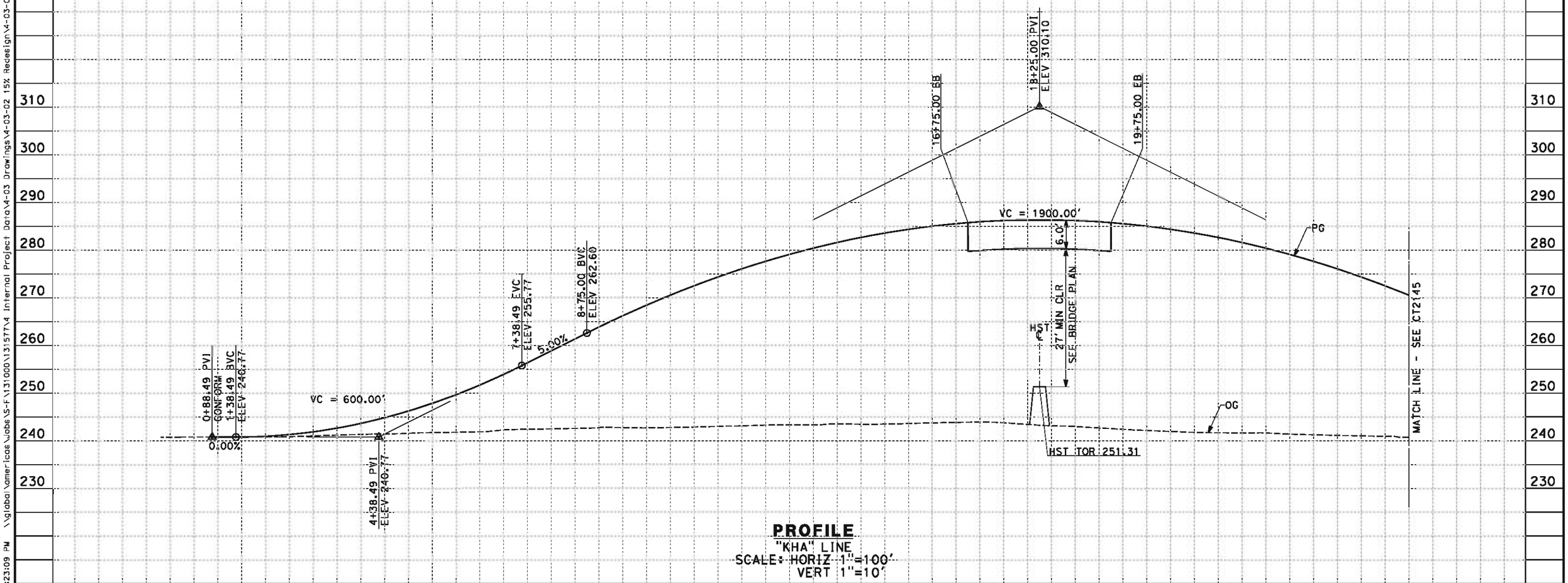
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
7½AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2143
SCALE AS SHOWN
SHEET NO. 58 OF 69

eron.sudhausen 5/17/2012 8:23:08 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HKFB-CT-2143-H.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"KHA" LINE

SCALE: HORIZ 1"=100'

VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

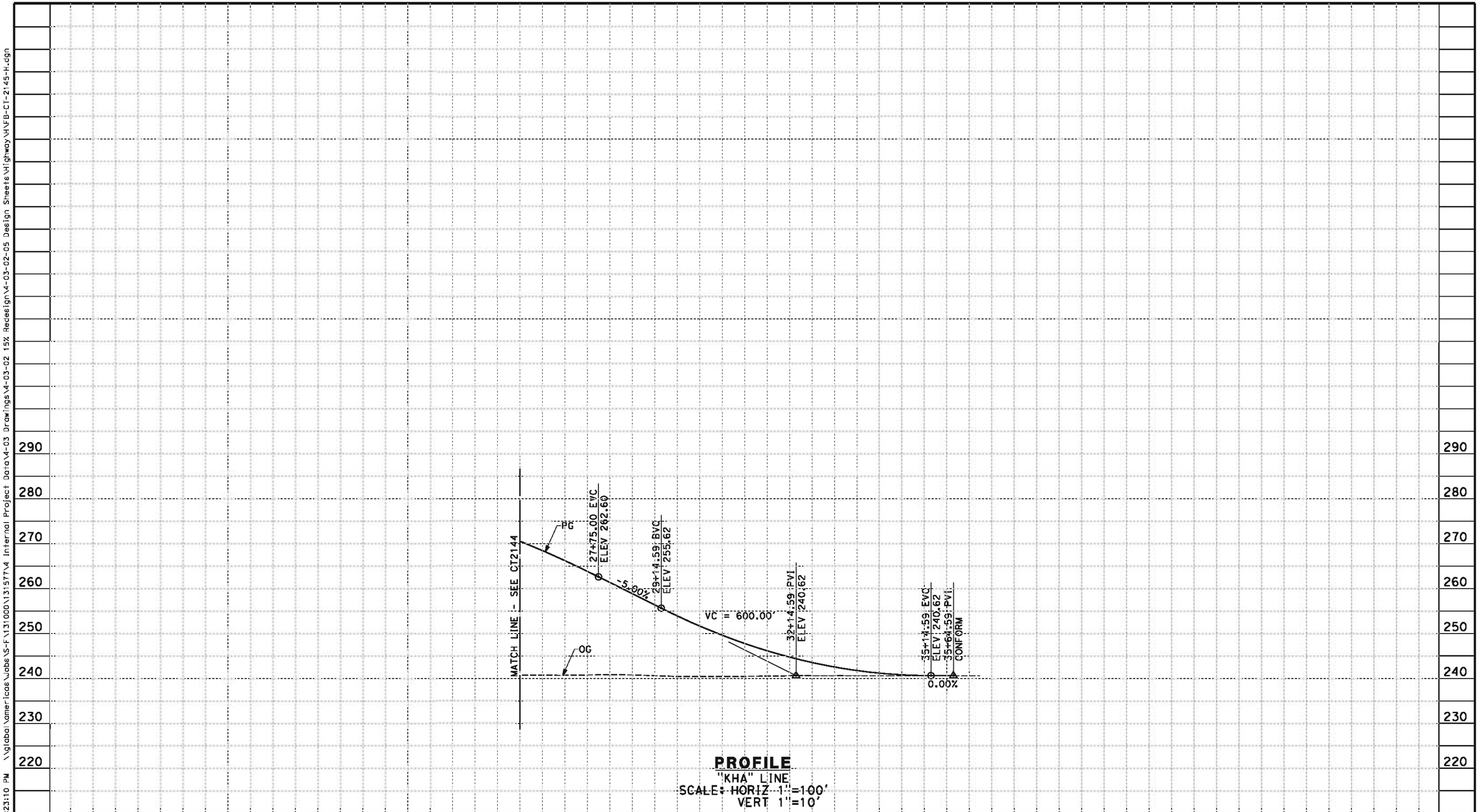
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2144
SCALE AS SHOWN
SHEET NO. 59 OF 69

eron.sudhausen 5/17/2012 8:23:09 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2144-H.dgn



PROFILE
"KHA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

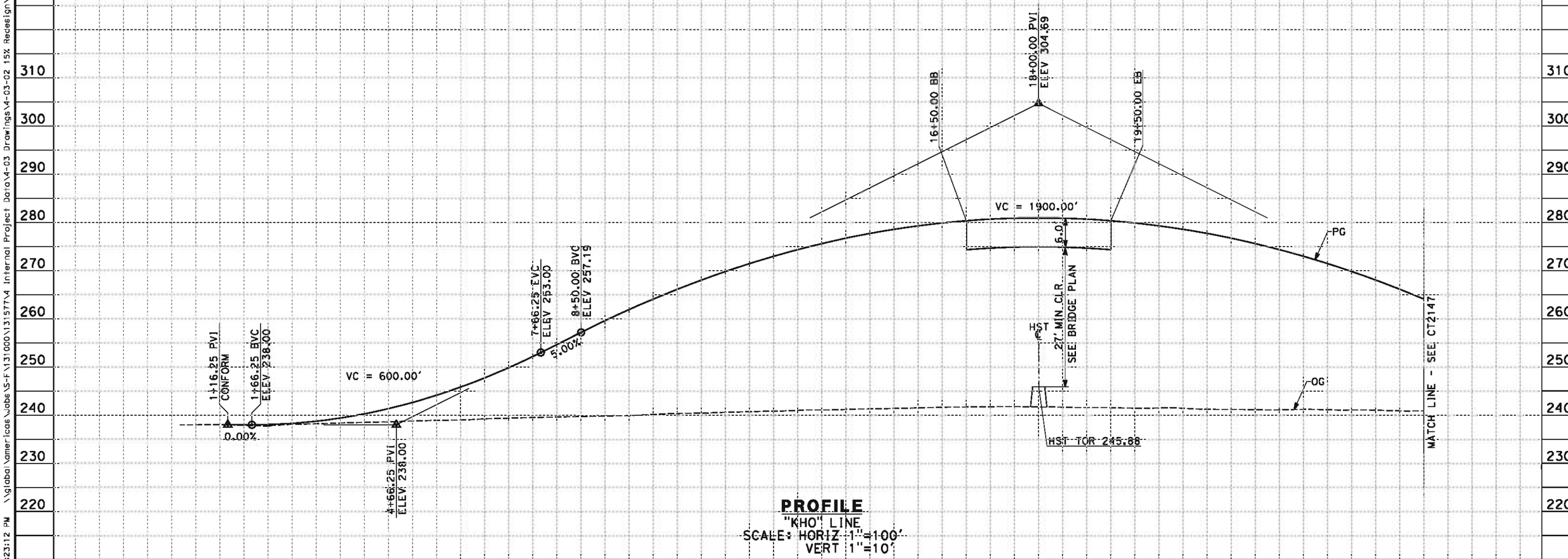
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2145
SCALE AS SHOWN
SHEET NO. 60 OF 69

eron.sudhausen 5/17/2012 8:23:10 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\KHFB-CT-2145-H.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KHO" 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	3	4	25	6	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

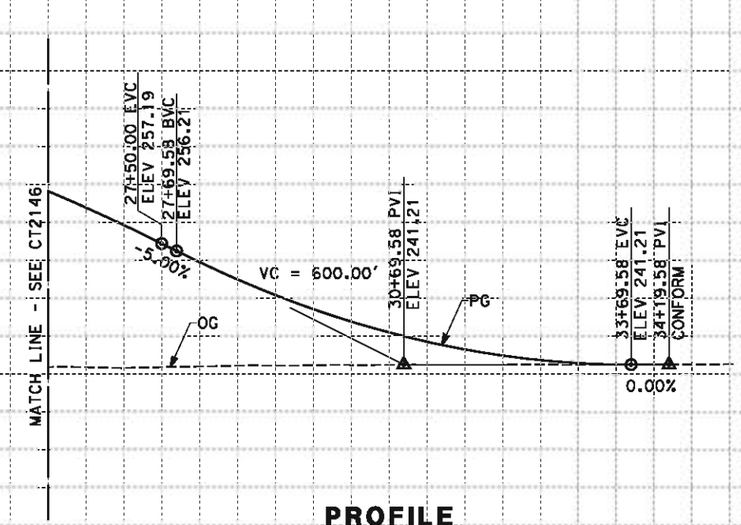
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2146
SCALE AS SHOWN
SHEET NO. 61 OF 69

eron.sudhausen 5/17/2012 8:23:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2146-H.dgn



PROFILE
"KHO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	6	7	8	9	30	1	2	3	4	35	TOTAL
CY Exc											
CY Emb											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

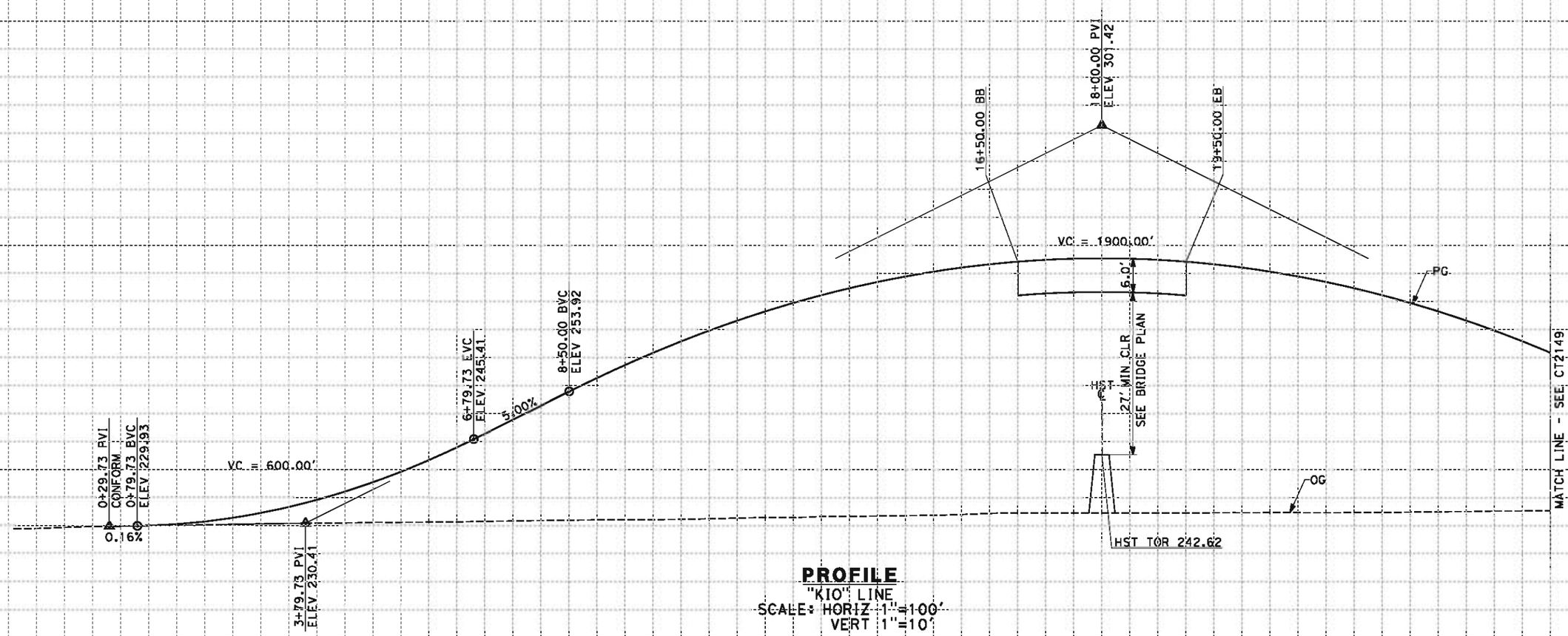
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2147
SCALE AS SHOWN
SHEET NO. 62 OF 69

eron.sudhausen 5/17/2012 8:23:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HKFB-CT-2147-H.dgn

NOTES:

1. MIN VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KIO" 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	3	4	25	6	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

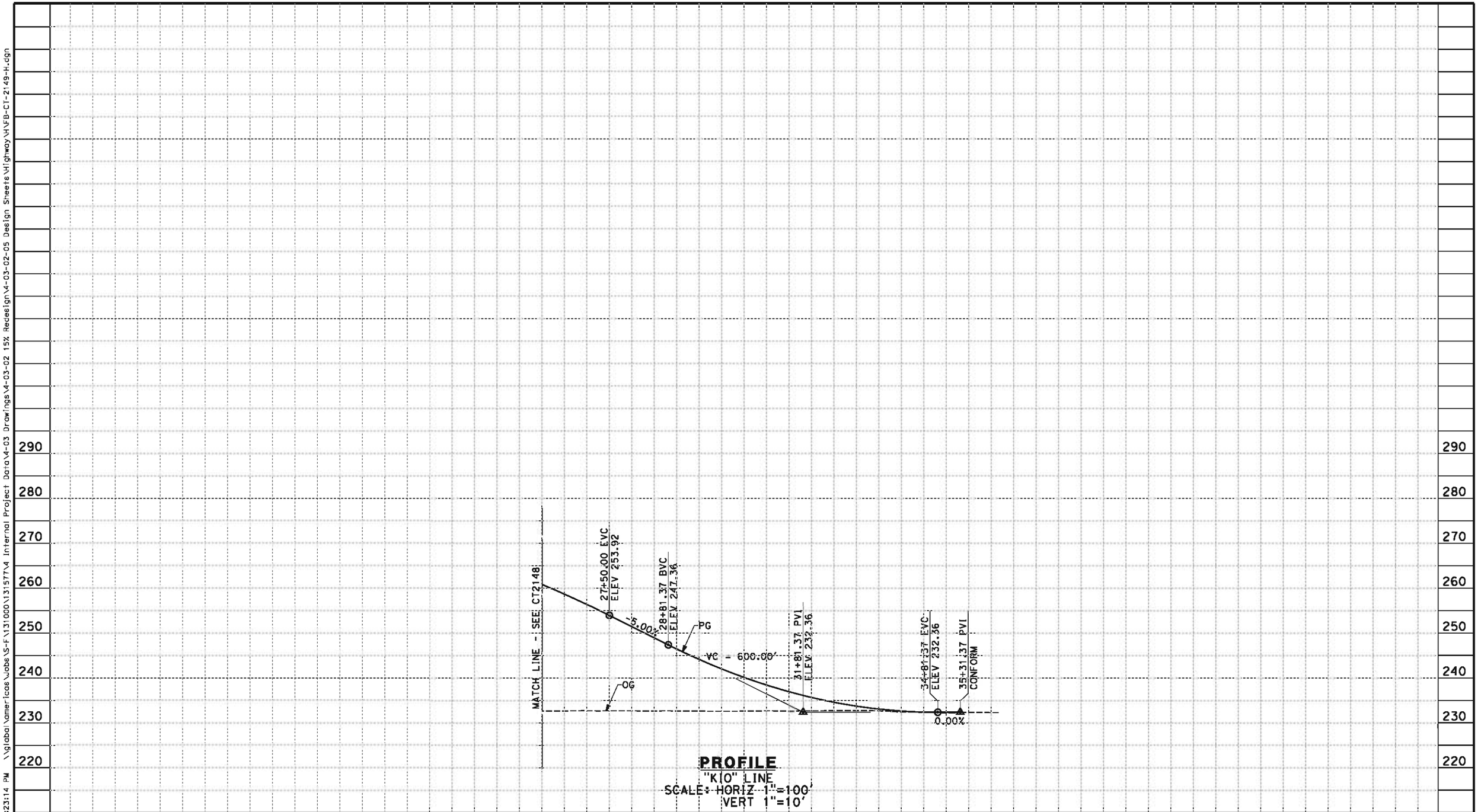
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2148
SCALE AS SHOWN
SHEET NO. 63 OF 69

eron.sudhausen 5/17/2012 8:23:14 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2148-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

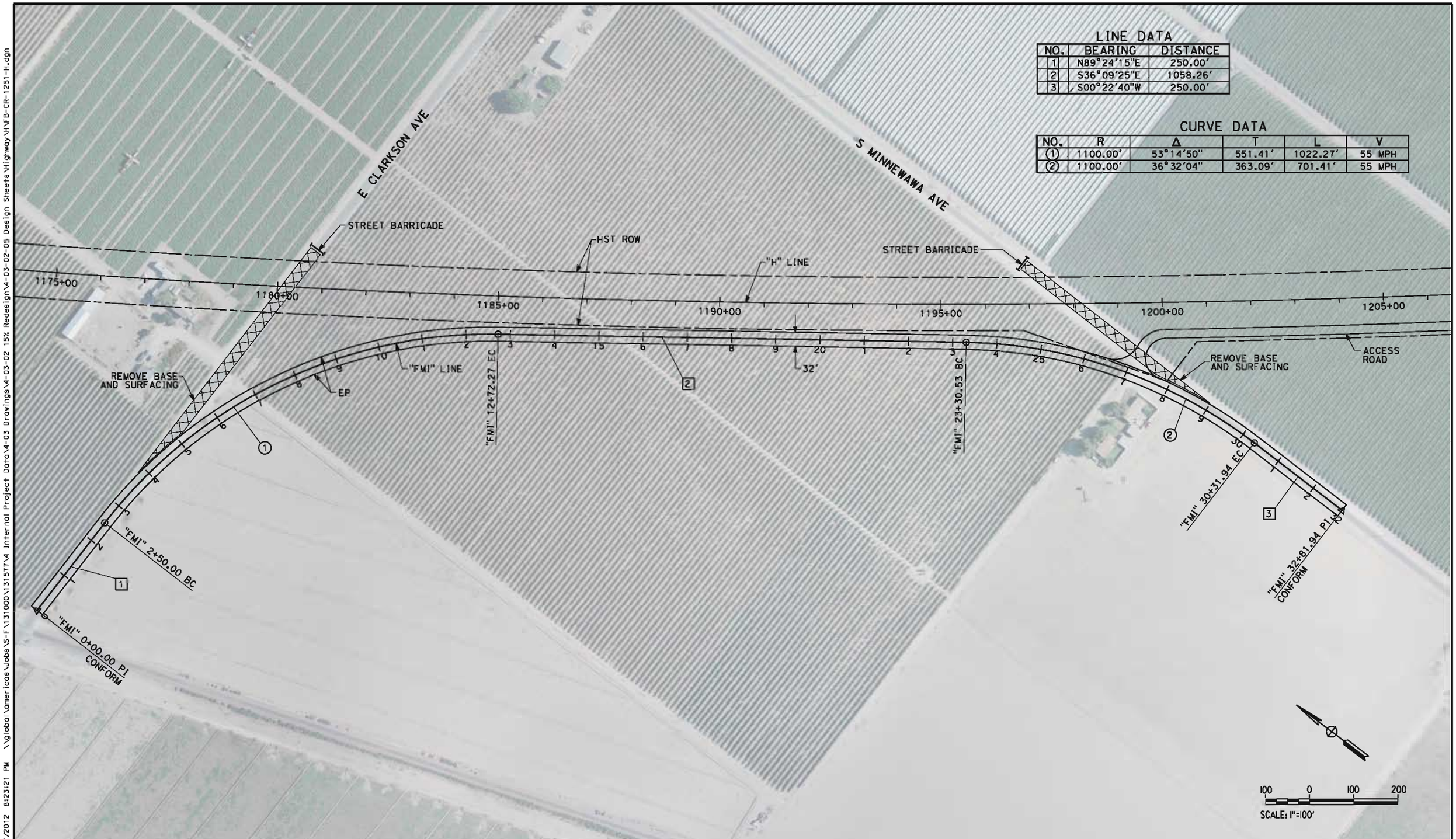
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
GRADE SEPARATION PROFILE
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2149
SCALE AS SHOWN
SHEET NO. 64 OF 69

eron.sudhausen 5/17/2012 8:23:14 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CT-2149-H.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	N89°24'15"E	250.00'
2	S36°09'25"E	1058.26'
3	S00°22'40"W	250.00'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	53°14'50"	551.41'	1022.27'	55 MPH
2	1100.00'	36°32'04"	363.09'	701.41'	55 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

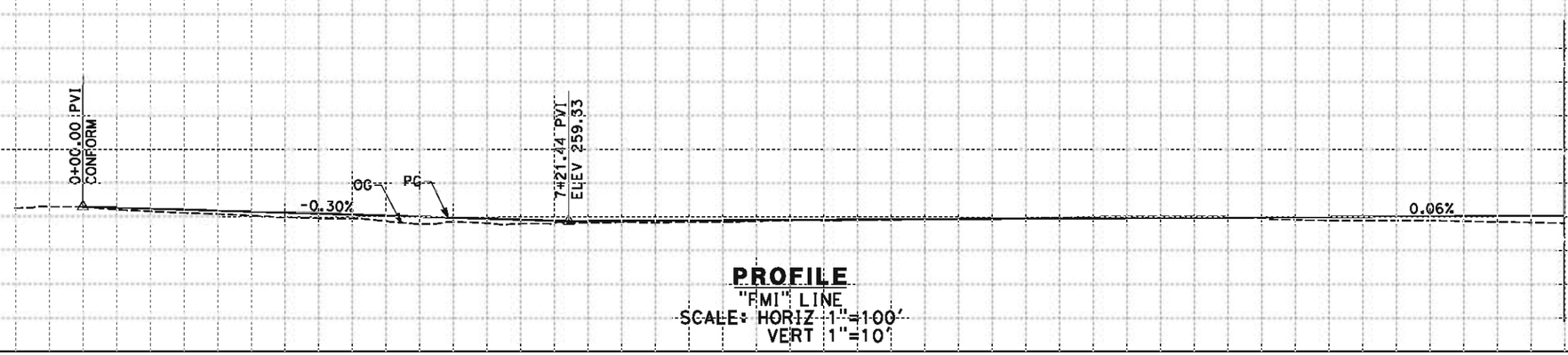
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY LAYOUT
E CLARKSON AVE & S MINNEWAWA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1251
SCALE AS SHOWN
SHEET NO. 65 OF 69

eran.sudhausen 5/17/2012 8:23:21 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CR-1251-H.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"FMI" 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 M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

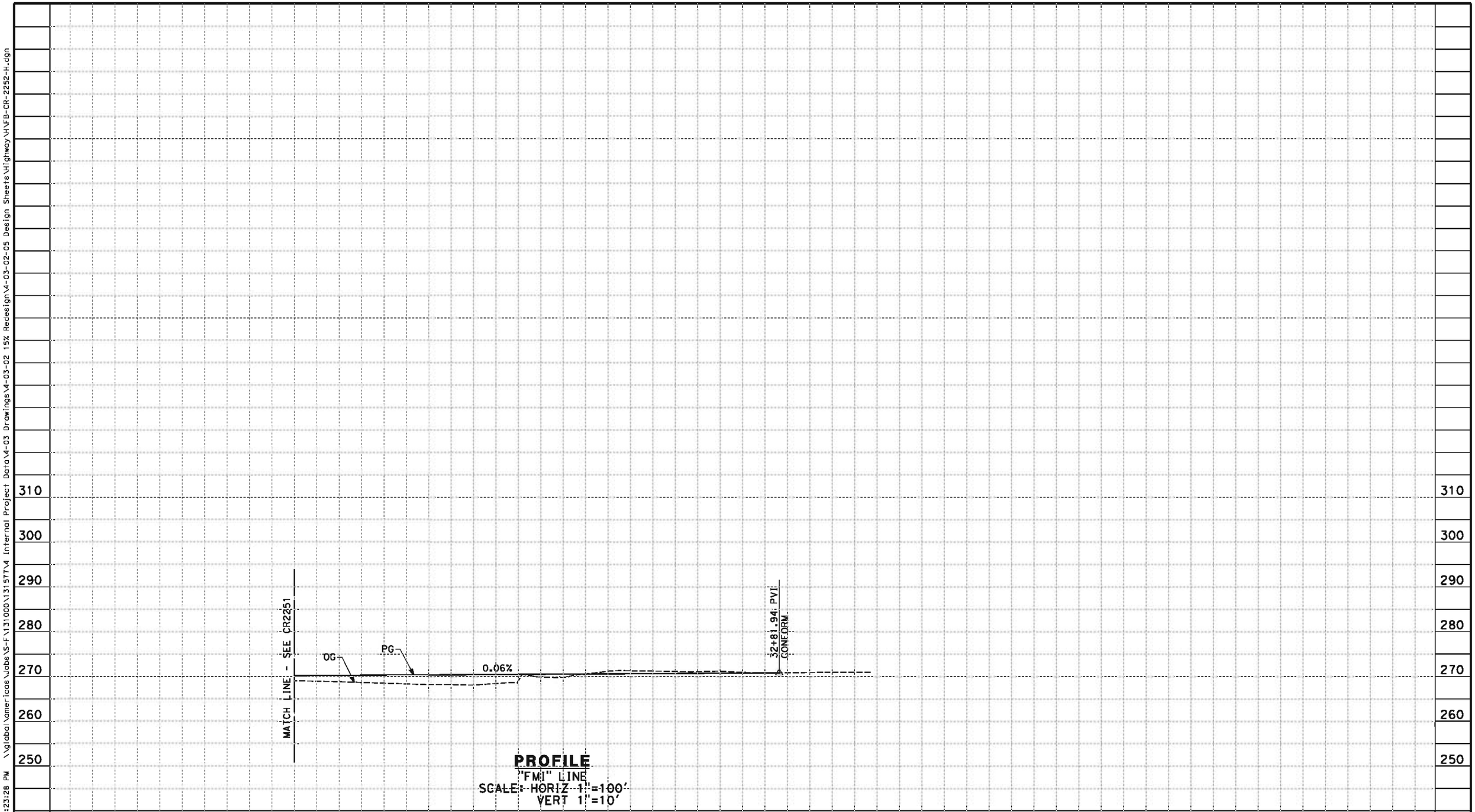
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY PROFILE
E CLARKSON AVE & S MINNEWAWA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2251
SCALE AS SHOWN
SHEET NO. 66 OF 69

eron.sudhausen 5/17/2012 8:23:27 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HNFB-CR-2251-H.dgn



PROFILE
"FMI" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY PROFILE
E CLARKSON AVE & S MINNEWAWA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2252
SCALE AS SHOWN
SHEET NO. 67 OF 69

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NOTES:

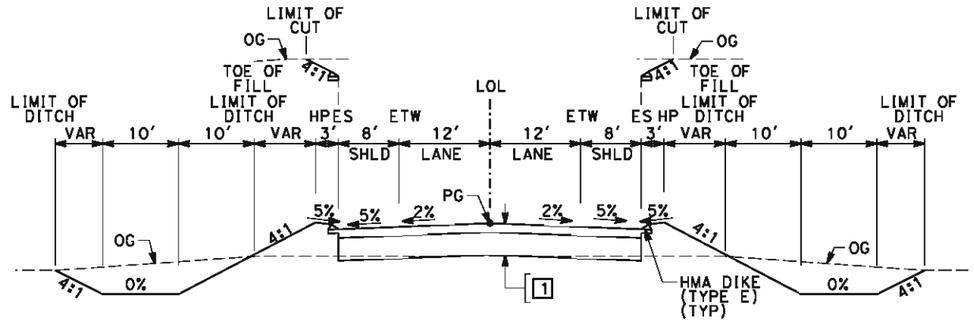
1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSION AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.

STRUCTURAL SECTIONS
TYPICAL ROADWAY

1 — 0.60' HMA (TYPE A)
1.50' CL2 AB

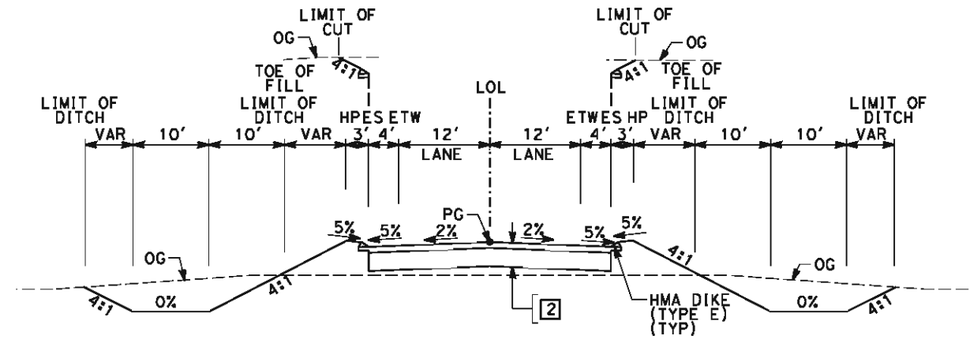
2 — 0.40' HMA (TYPE A)
1.20' CL2 AB

3 — 1.00' CL2 AB



SECTION A

"FEL" 03+35.97 TO 18+56.94	"KEL" 29+68.84 TO 46+33.08
"FEL" 22+16.94 TO 37+03.26	"KFL" 10+00.00 TO 27+85.11
"FFO" 10+00.00 TO 35+85.91	"KFL" 30+85.11 TO 47+70.21
"FFO" 38+85.91 TO 57+16.10	"KHA" 00+88.49 TO 16+75.00
"KEX" 10+00.00 TO 25+80.12	"KHA" 19+75.00 TO 35+64.59
"KEX" 28+80.12 TO 44+72.74	"KHO" 01+16.25 TO 16+50.00
"KEL" 10+00.00 TO 26+68.84	"KHO" 19+50.00 TO 34+19.58



SECTION B

"FCL" 10+00.00 TO 27+25.57	"KDO" 29+51.73 TO 45+04.83
"FCL" 30+25.57 TO 50+46.79	"K8N" 10+00.00 TO 33+19.67
"FDA" 08+43.67 TO 23+86.67	"K8S" 10+00.00 TO 31+92.71
"FDA" 27+46.67 TO 42+84.42	"KFA" 10+00.00 TO 25+65.80
"KCA" 11+89.66 TO 28+52.01	"KFA" 28+68.80 TO 44+54.49
"KCA" 31+52.01 TO 47+46.66	"KIO" 00+29.73 TO 16+50.00
"KDO" 10+65.97 TO 26+51.73	"KIO" 19+50.00 TO 35+31.37

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

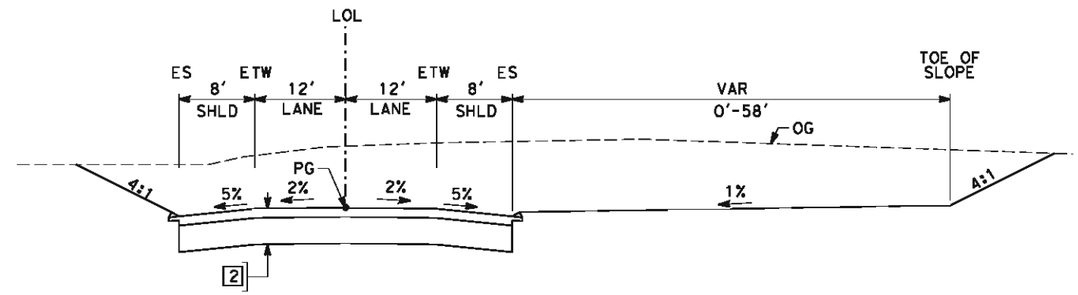
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

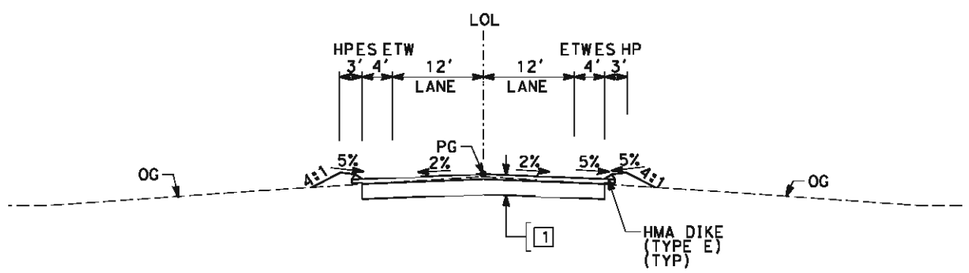
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3030
SCALE NO SCALE
SHEET NO. 68 OF 69

eron.sudhausen 5/17/2012 8:23:29 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\HHFB-CT-3030-H.dgn



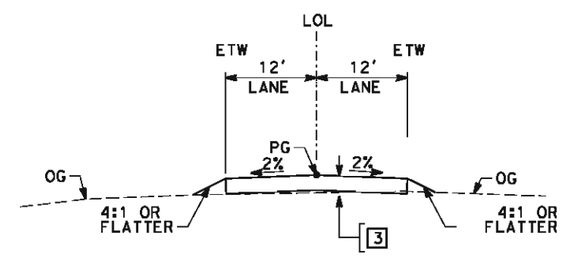
SECTION E

"F43" 09+00.00 TO 36+00.00



SECTION D

"K7" 00+00.00 TO 13+36.84
"K7N" 00+00.00 TO 12+05.95
"FMI" 00+00.00 TO 32+81.94



SECTION F

"FKRA" 10+18.56 TO 42+90.00
"FKRA" 46+37.97 TO 51+12.03

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
HANFORD SUBSECTION
ALIGNMENT H
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3031
SCALE NO SCALE
SHEET NO. 69 OF 69

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STREET CLOSURES

STREET NAME	HST ALIGNMENT STA.
S TOPEKA AVE	1124+00.00
S PEACH AVE	1162+00.00
E CLARKSON AVE	1175+00.00
S MINNEWAWA AVE	1230+00.00
E DAVIS ST	1288+00.00
E BARRETT AVE	1368+00.00
ELDER AVE	1610+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
ROADWAY/GRADE SEARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0210
SCALE AS SHOWN
SHEET NO. 1 OF 51

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LINE DATA

NO.	BEARING	DISTANCE
1	S89°17'53"E	2500.00'

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	108.85' LT "WFCO" 20+48.32	38.04' LT "WFCO" 29+35.23	929'	25'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
E CONEJO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1310
SCALE AS SHOWN
SHEET NO. 2 OF 51

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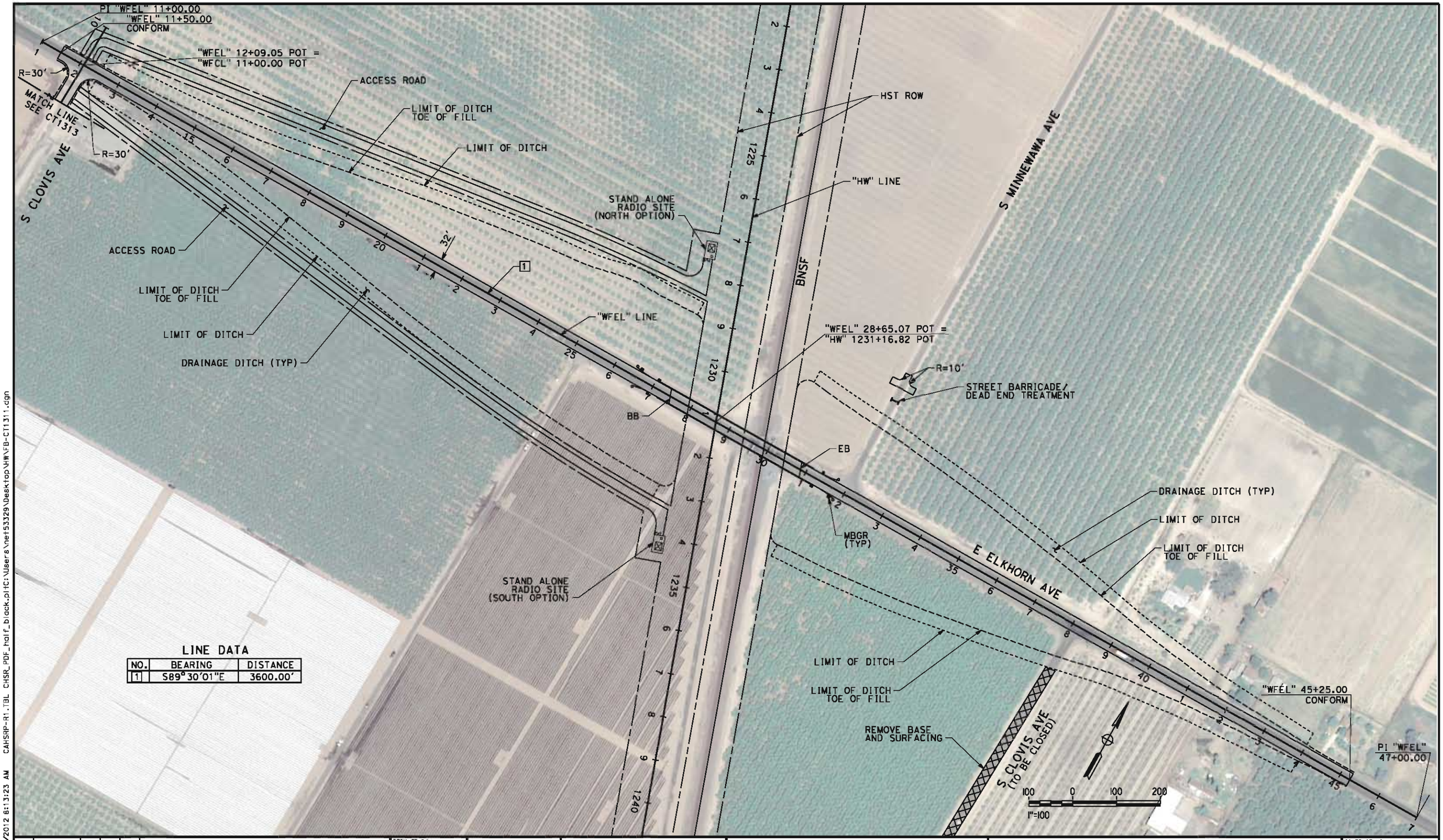

LINE DATA

NO.	BEARING	DISTANCE
1	S89°30'01"E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1311
SCALE AS SHOWN
SHEET NO. 3 OF 51

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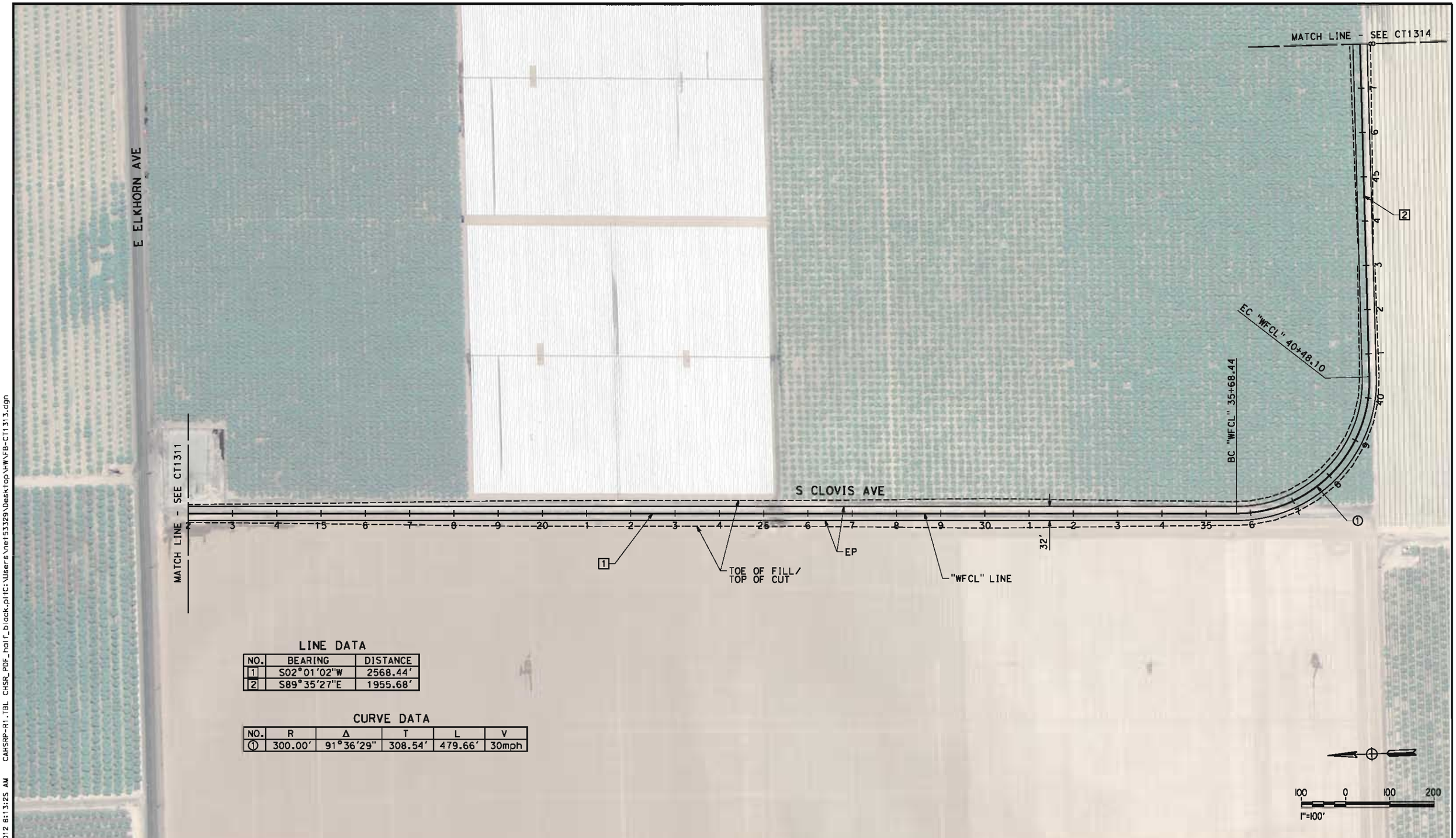

LINE DATA

NO.	BEARING	DISTANCE
1	S02°01'02"W	2568.44'
2	S89°35'27"E	1955.68'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	91°36'29"	308.54'	479.66'	30mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1313
SCALE AS SHOWN
SHEET NO. 4 OF 51

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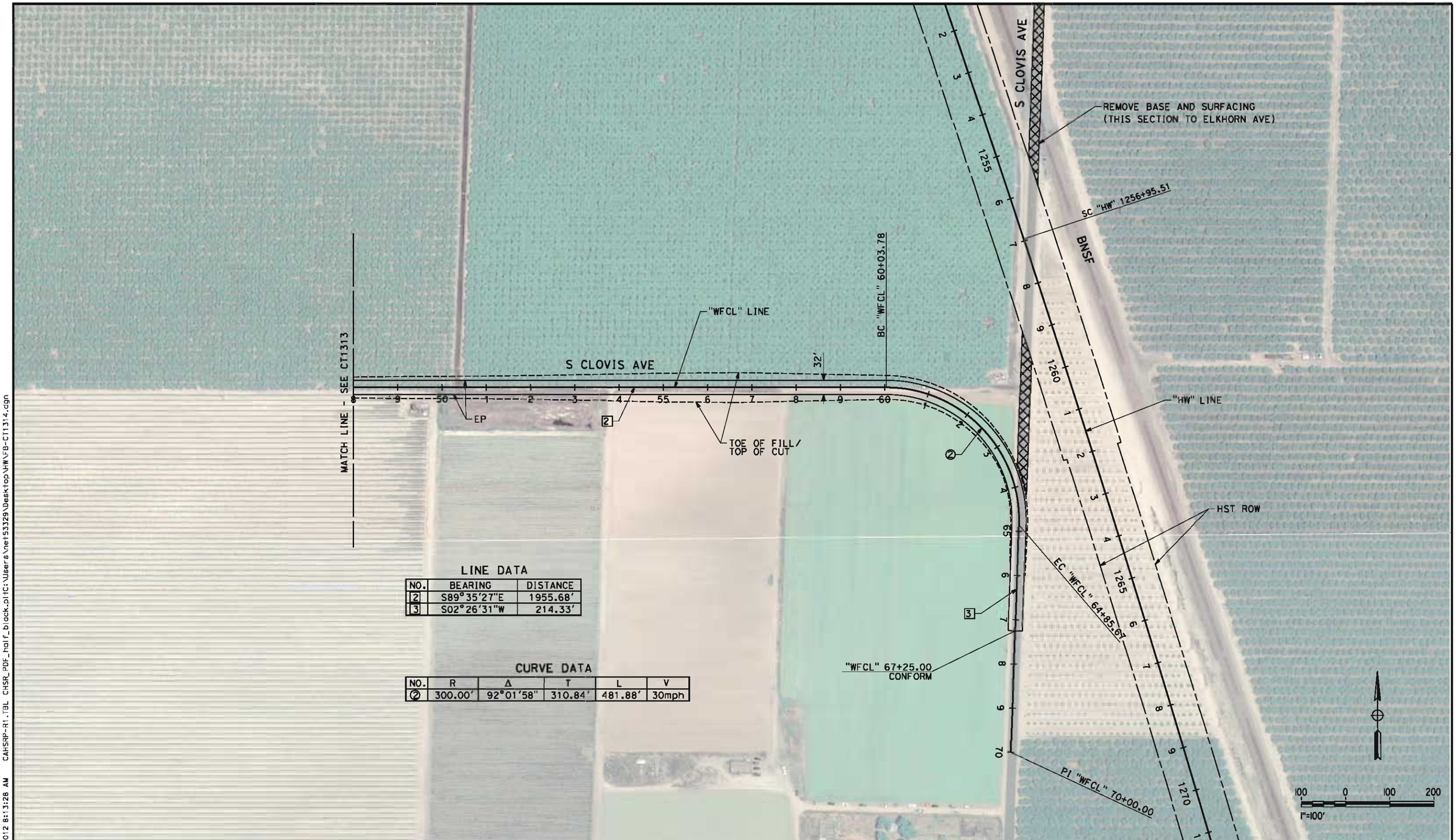

LINE DATA

NO.	BEARING	DISTANCE
2	S89°35'27"E	1955.68'
3	S02°26'31"W	214.33'

CURVE DATA

NO.	R	Δ	T	L	V
2	300.00'	92°01'58"	310.84'	481.88'	30mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1314
SCALE AS SHOWN
SHEET NO. 5 OF 51

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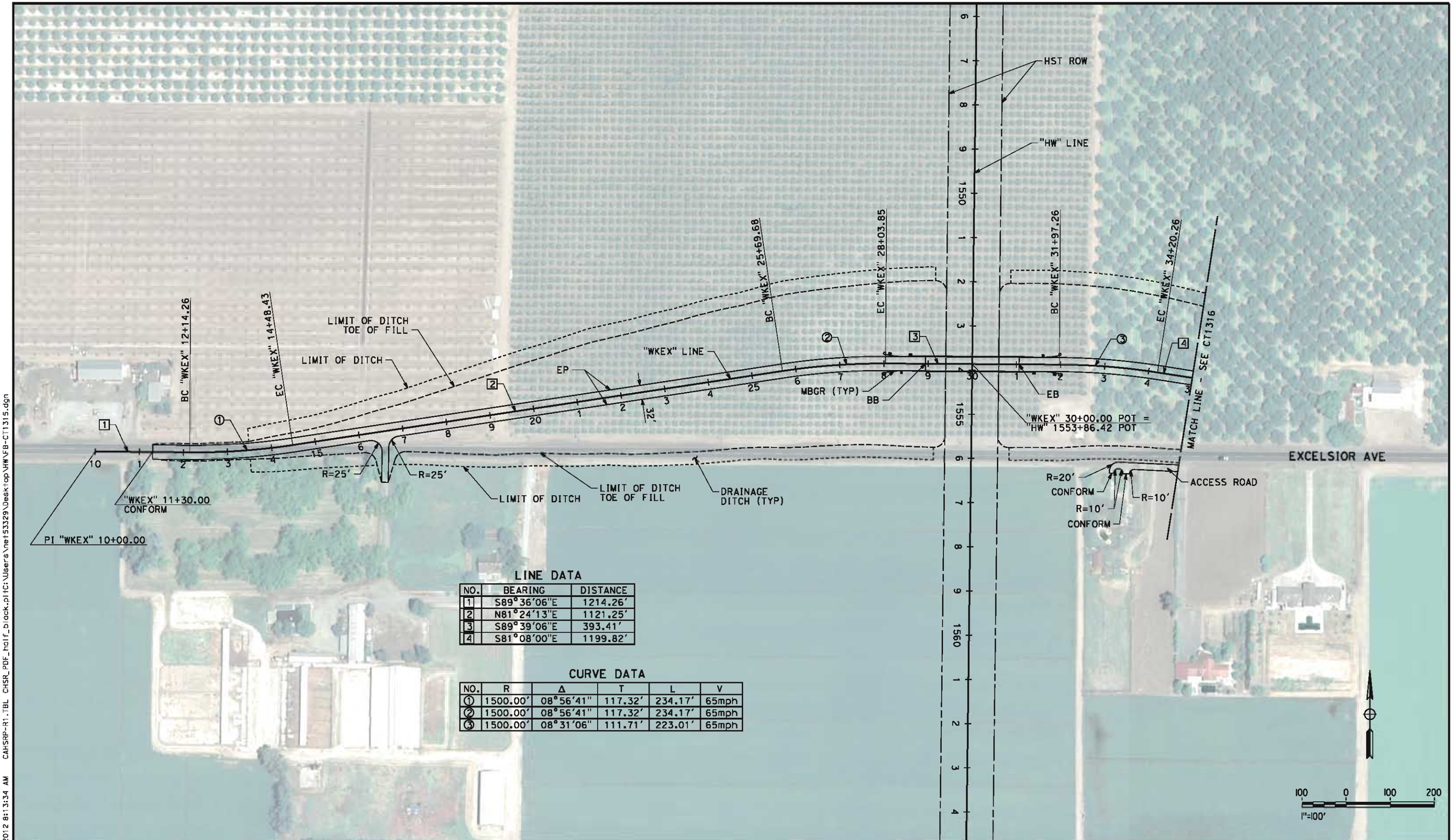

LINE DATA

NO.	BEARING	DISTANCE
1	S89°36'06"E	1214.26'
2	N81°24'13"E	1121.25'
3	S89°39'06"E	393.41'
4	S81°08'00"E	1199.82'

CURVE DATA

NO.	R	Δ	T	L	V
1	1500.00'	08°56'41"	117.32'	234.17'	65mph
2	1500.00'	08°56'41"	117.32'	234.17'	65mph
3	1500.00'	08°31'06"	111.71'	223.01'	65mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE G. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1315
SCALE AS SHOWN
SHEET NO. 6 OF 51

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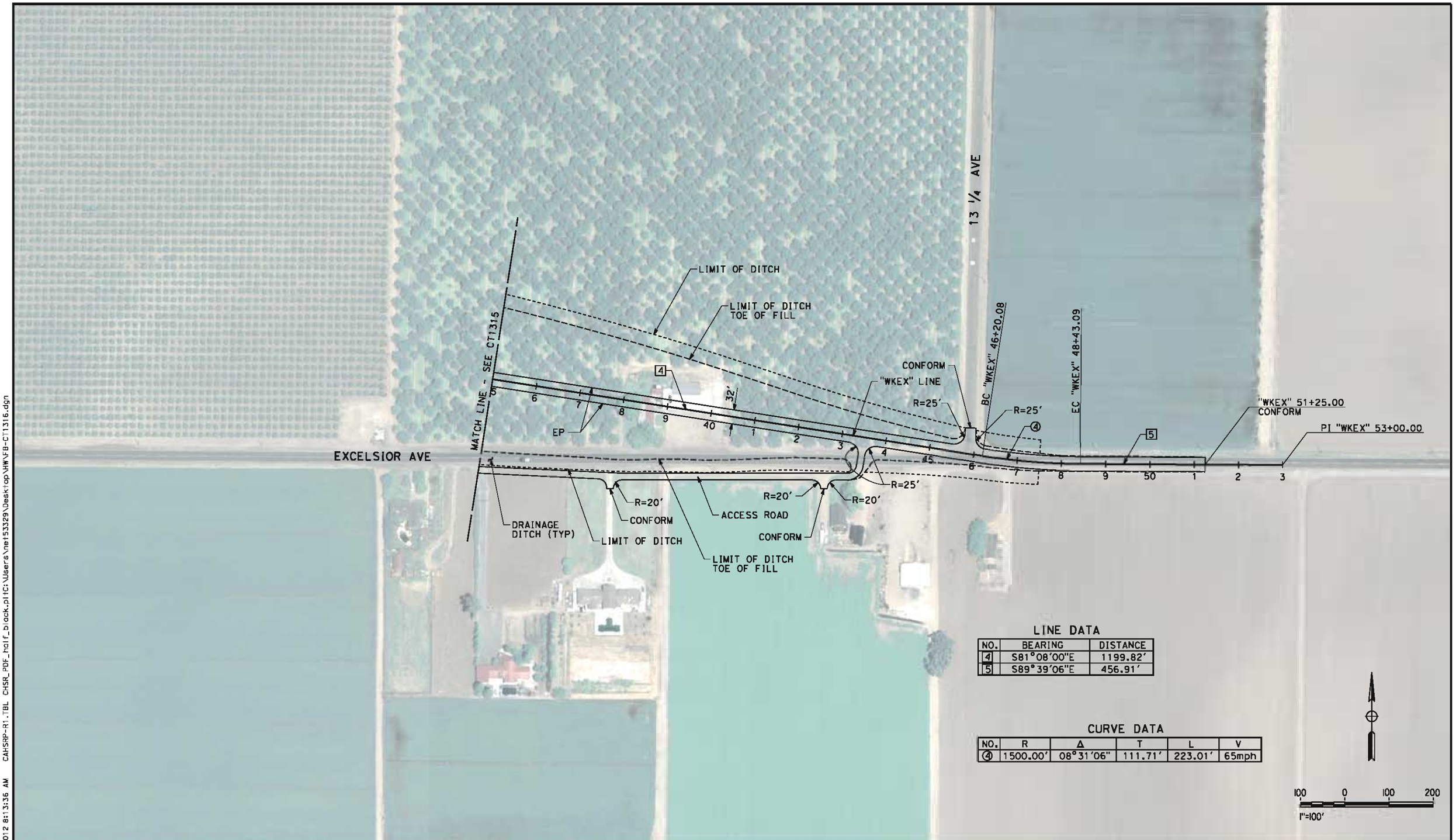

LINE DATA

NO.	BEARING	DISTANCE
4	S81°08'00"E	1199.82'
5	S89°39'06"E	456.91'

CURVE DATA

NO.	R	Δ	T	L	V
4	1500.00'	08°31'06"	111.71'	223.01'	65mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1316
SCALE AS SHOWN
SHEET NO. 7 OF 51

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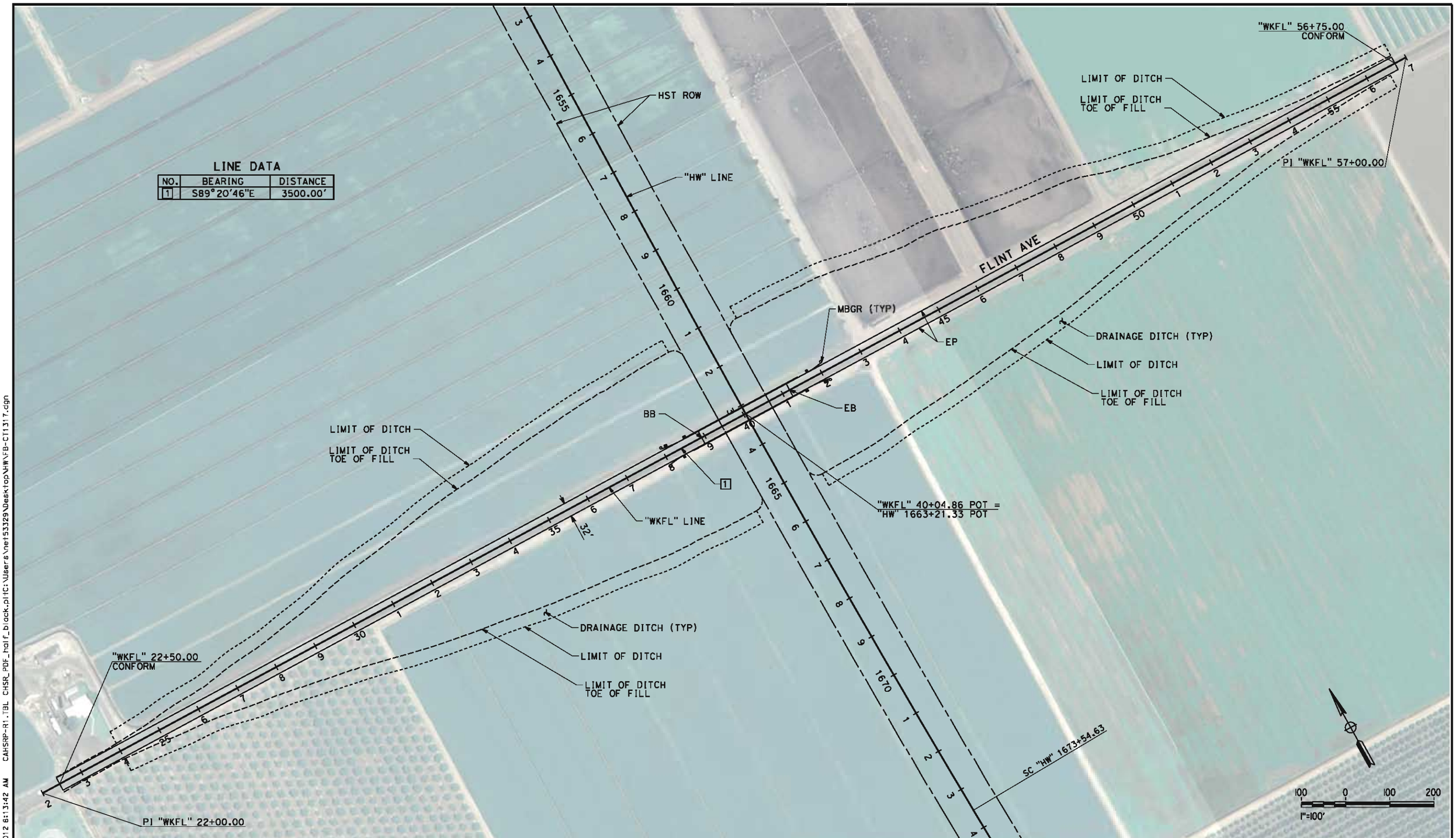

LINE DATA

NO.	BEARING	DISTANCE
1	S89°20'46"E	3500.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1317
SCALE AS SHOWN
SHEET NO. 8 OF 51

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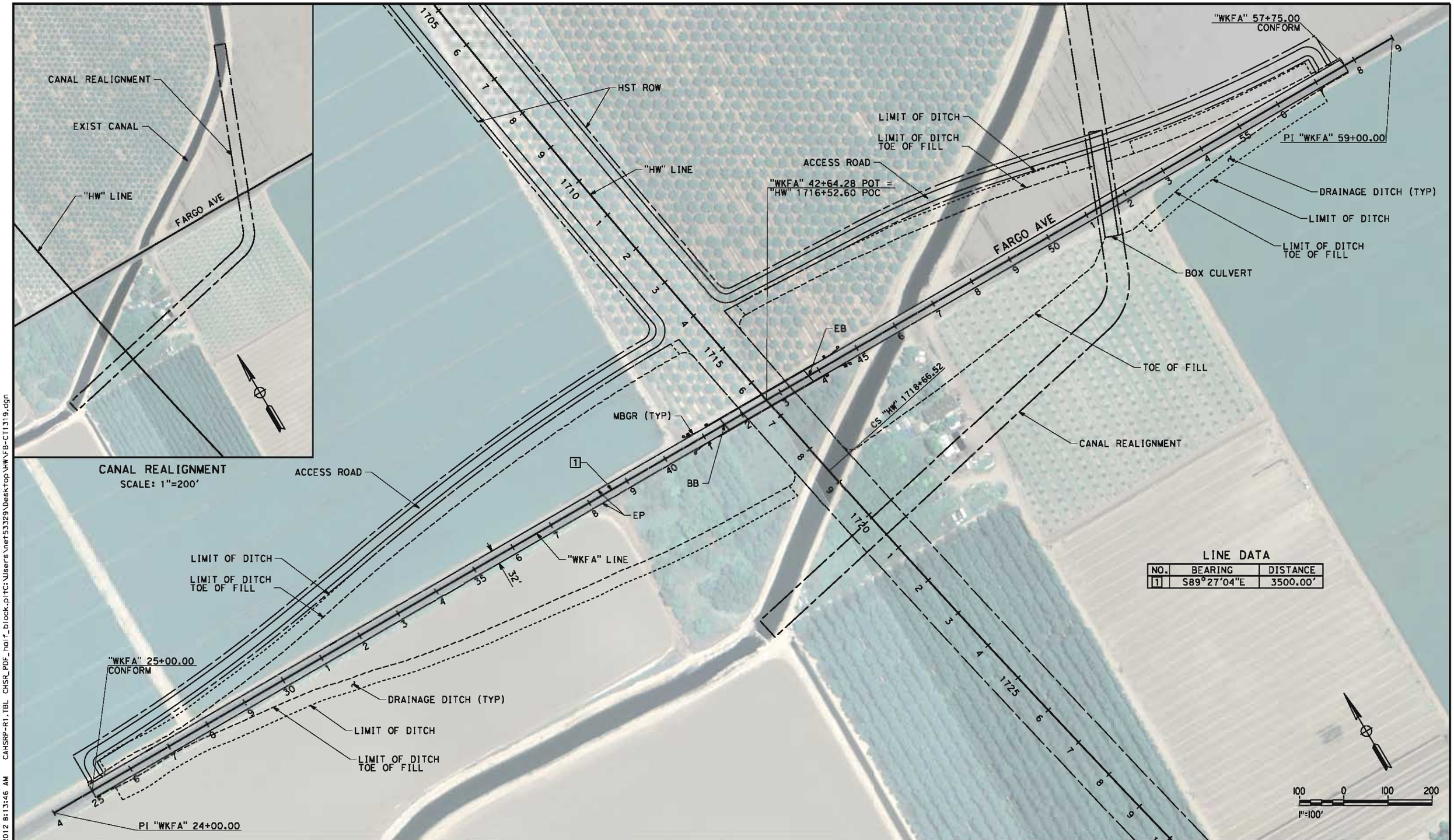

LINE DATA

NO.	BEARING	DISTANCE
1	S89°27'04"E	3500.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1319
SCALE AS SHOWN
SHEET NO. 9 OF 51

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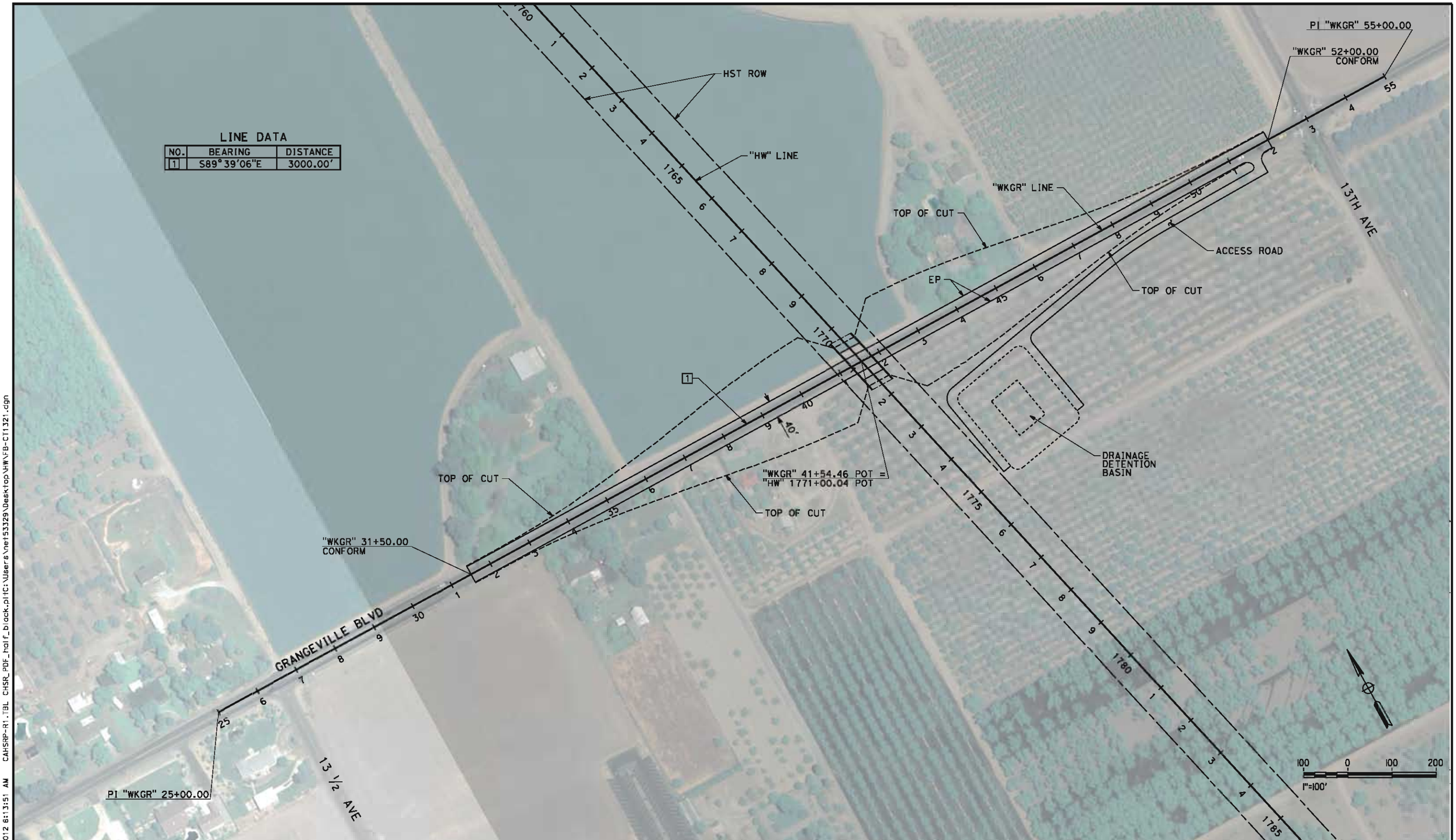

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
GRANGEVILLE BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1321
SCALE AS SHOWN
SHEET NO. 10 OF 51

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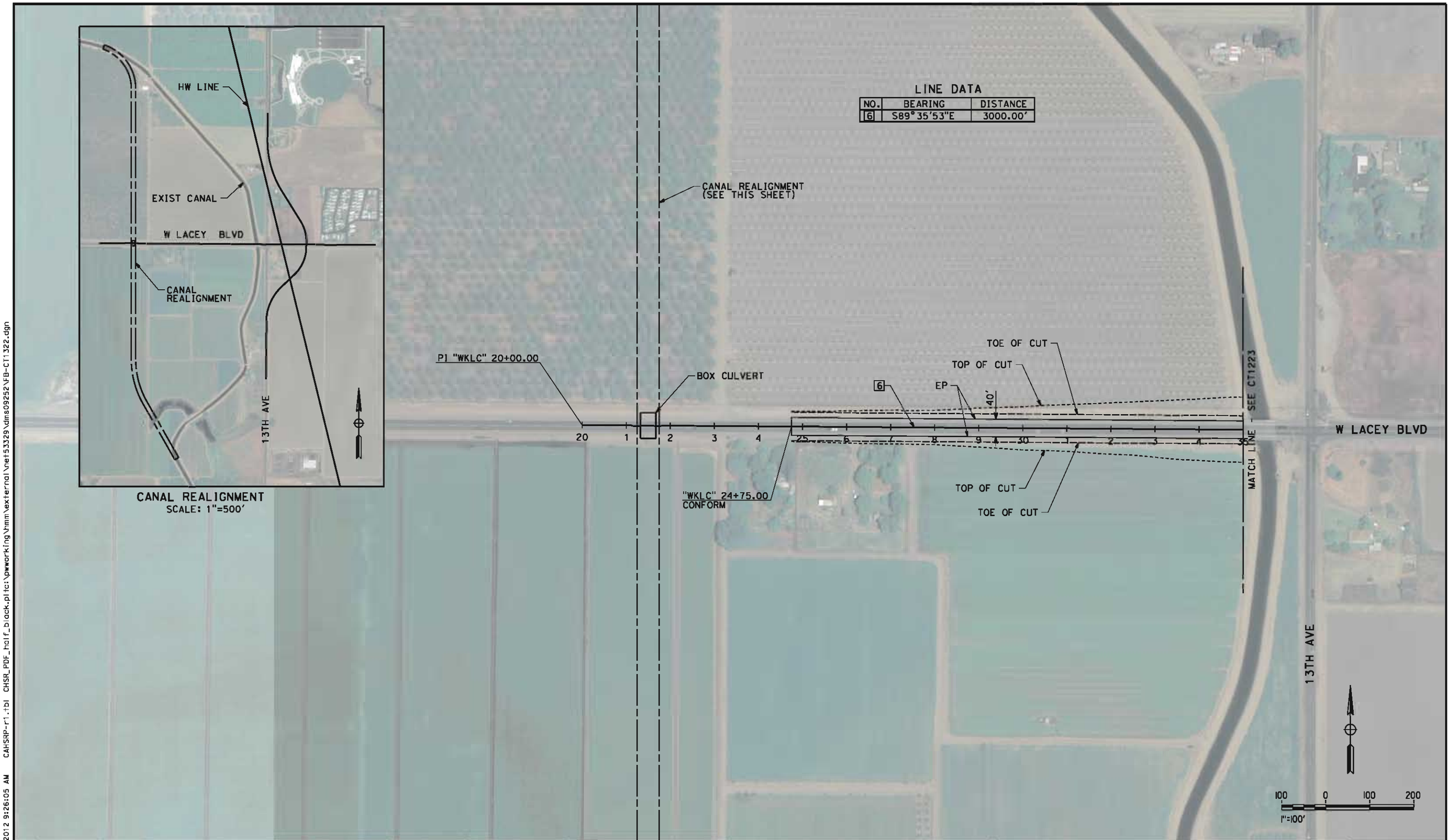


LINE DATA

NO.	BEARING	DISTANCE
6	S89°35'53"E	3000.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

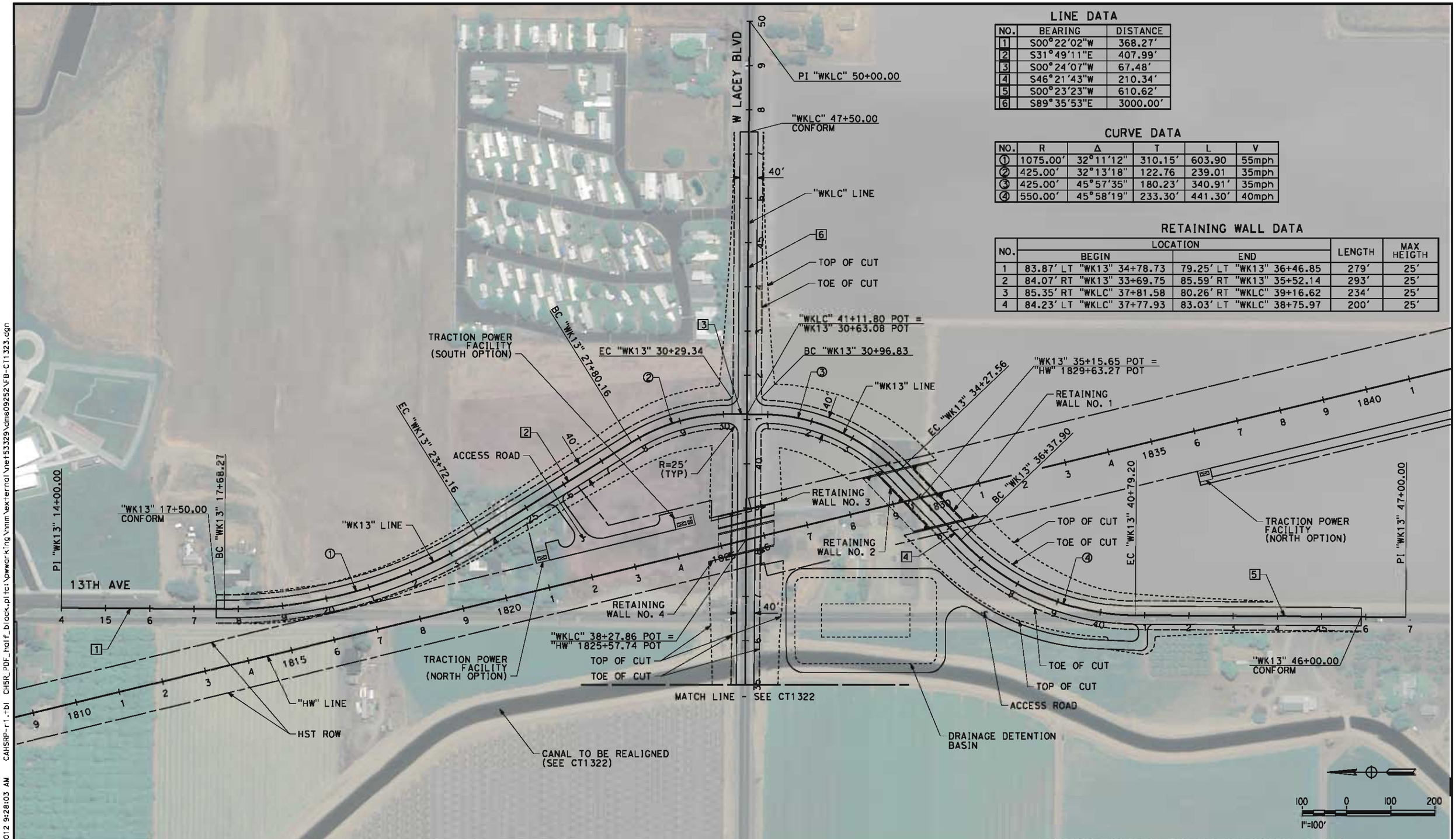
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION LAYOUT
W LACEY BOULEVARD / 13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1322
SCALE AS SHOWN
SHEET NO. 11 OF 51

NET53329 5/17/2012 9:26:05 AM CAHSRP-r1.tbl CHSR_PDF_half_black.plt c:\pwworking\hmm\external\net53329\dms09252\VFB-CT1322.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S00°22'02"W	368.27'
2	S31°49'11"E	407.99'
3	S00°24'07"W	67.48'
4	S46°21'43"W	210.34'
5	S00°23'23"W	610.62'
6	S89°35'53"E	3000.00'

CURVE DATA

NO.	R	Δ	T	L	V
1	1075.00'	32°11'12"	310.15'	603.90	55mph
2	425.00'	32°13'18"	122.76	239.01	35mph
3	425.00'	45°57'35"	180.23'	340.91'	35mph
4	550.00'	45°58'19"	233.30'	441.30'	40mph

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGTH
	BEGIN	END		
1	83.87' LT "WK13" 34+78.73	79.25' LT "WK13" 36+46.85	279'	25'
2	84.07' RT "WK13" 33+69.75	85.59' RT "WK13" 35+52.14	293'	25'
3	85.35' RT "WKLC" 37+81.58	80.26' RT "WKLC" 39+16.62	234'	25'
4	84.23' LT "WKLC" 37+77.93	83.03' LT "WKLC" 38+75.97	200'	25'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION LAYOUT
W LACEY BOULEVARD/13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1323
SCALE AS SHOWN
SHEET NO. 12 OF 51

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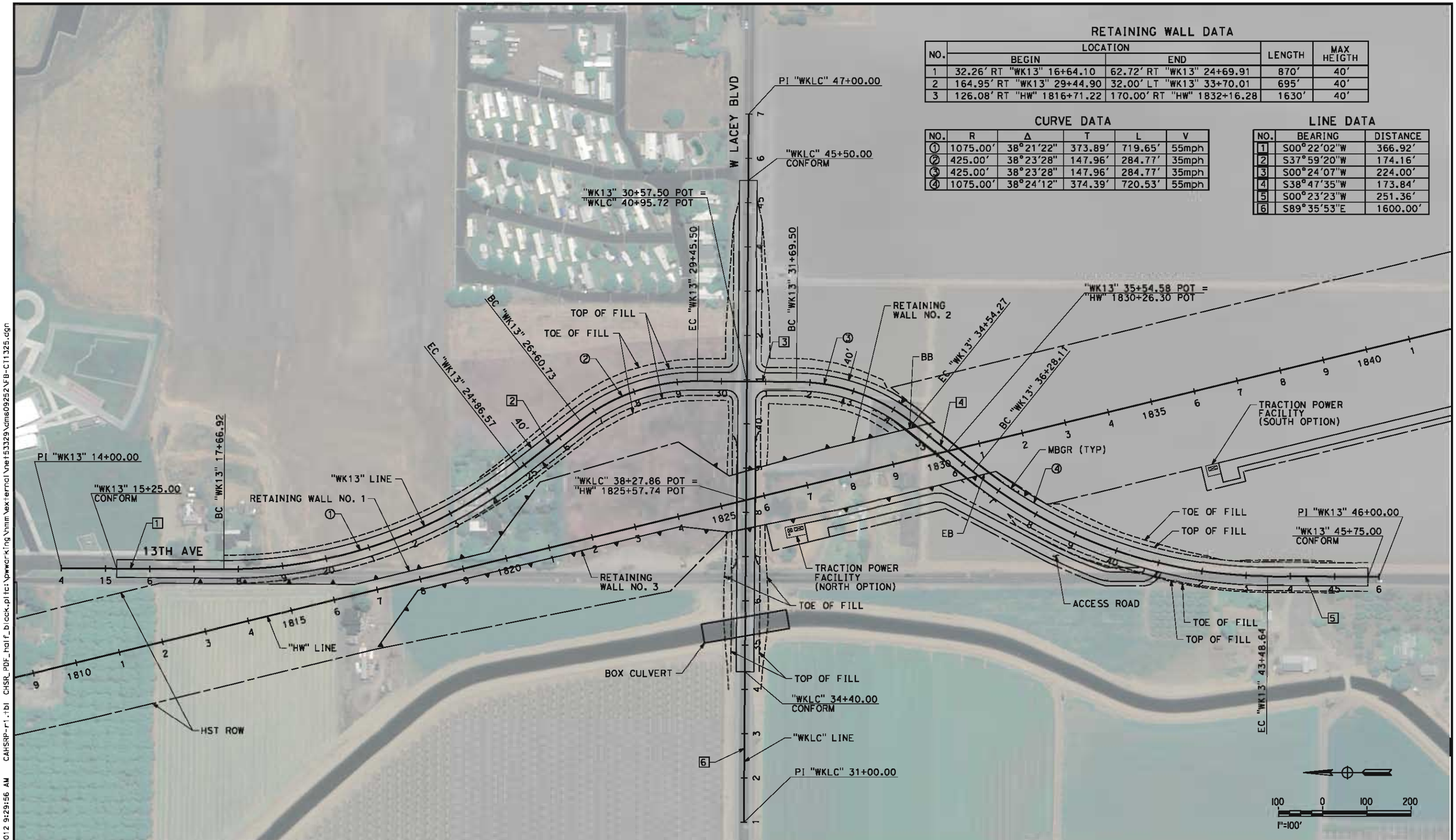

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGTH
1	32.26' RT "WK13" 16+64.10	62.72' RT "WK13" 24+69.91	870'	40'
2	164.95' RT "WK13" 29+44.90	32.00' LT "WK13" 33+70.01	695'	40'
3	126.08' RT "HW" 1816+71.22	170.00' RT "HW" 1832+16.28	1630'	40'

CURVE DATA

NO.	R	Δ	T	L	V
①	1075.00'	38°21'22"	373.89'	719.65'	55mph
②	425.00'	38°23'28"	147.96'	284.77'	35mph
③	425.00'	38°23'28"	147.96'	284.77'	35mph
④	1075.00'	38°24'12"	374.39'	720.53'	55mph

LINE DATA

NO.	BEARING	DISTANCE
1	S00°22'02"W	366.92'
2	S37°59'20"W	174.16'
3	S00°24'07"W	224.00'
4	S38°47'35"W	173.84'
5	S00°23'23"W	251.36'
6	S89°35'53"E	1600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION LAYOUT
W LACEY BOULEVARD/13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1325
SCALE AS SHOWN
SHEET NO. 13 OF 51

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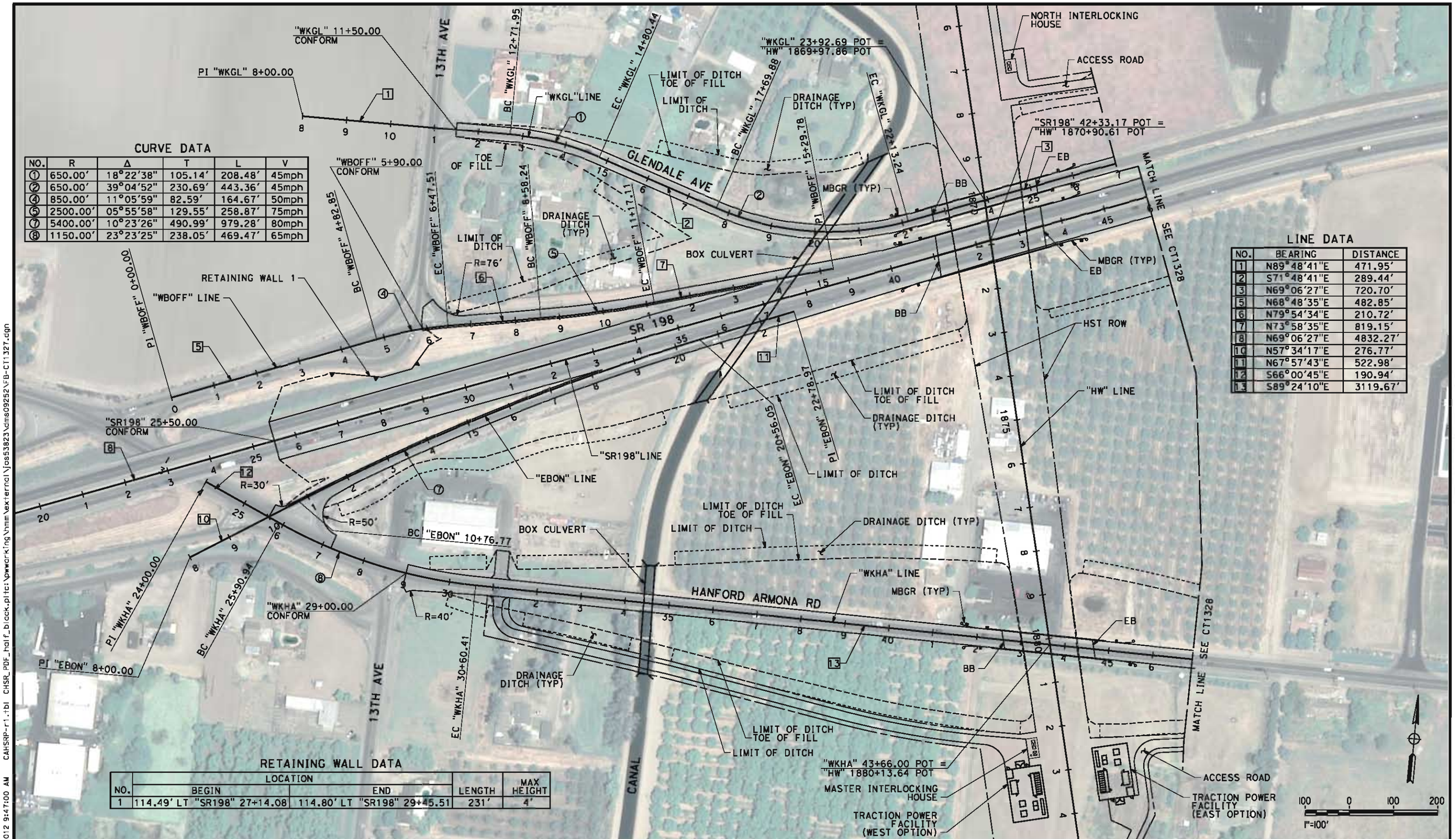

CURVE DATA

NO.	R	Δ	T	L	V
1	650.00'	18°22'38"	105.14'	208.48'	45mph
2	650.00'	39°04'52"	230.69'	443.36'	45mph
4	850.00'	11°05'59"	82.59'	164.67'	50mph
5	2500.00'	05°55'58"	129.55'	258.87'	75mph
7	5400.00'	10°23'26"	490.99'	979.28'	80mph
8	1150.00'	23°23'25"	238.05'	469.47'	65mph

LINE DATA

NO.	BEARING	DISTANCE
1	N89°48'41"E	471.95'
2	S71°48'41"E	289.44'
3	N69°06'27"E	720.70'
5	N68°48'35"E	482.85'
6	N79°54'34"E	210.72'
7	N73°58'35"E	819.15'
8	N69°06'27"E	4832.27'
10	N57°34'17"E	276.77'
11	N67°57'43"E	522.98'
12	S66°00'45"E	190.94'
13	S89°24'10"E	3119.67'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	114.49' LT "SR198" 27+14.08	114.80' LT "SR198" 29+45.51	231'	4'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q.EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION LAYOUT
GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1327
SCALE AS SHOWN
SHEET NO. 14 OF 51

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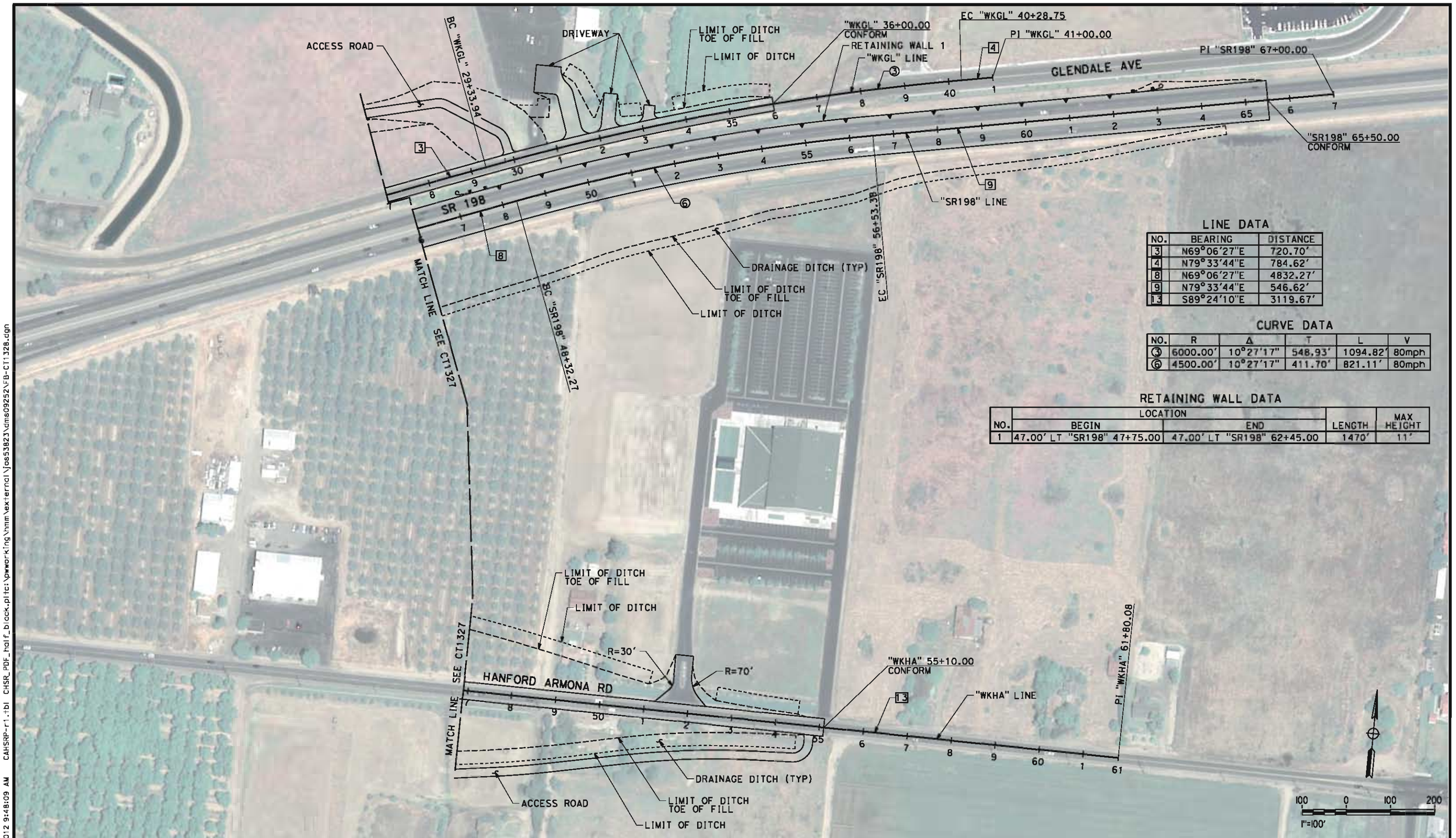

LINE DATA

NO.	BEARING	DISTANCE
3	N69°06'27"E	720.70'
4	N79°33'44"E	784.62'
8	N69°06'27"E	4832.27'
9	N79°33'44"E	546.62'
13	S89°24'10"E	3119.67'

CURVE DATA

NO.	R	Δ	T	L	V
3	6000.00'	10°27'17"	548.93'	1094.82'	80mph
6	4500.00'	10°27'17"	411.70'	821.11'	80mph

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	47.00' LT "SR198" 47+75.00	47.00' LT "SR198" 62+45.00	1470'	11'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q.EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION LAYOUT
GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1328
SCALE AS SHOWN
SHEET NO. 15 OF 51

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION LAYOUT
GLENDALE AVE/STATE ROUTE 198/HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1330
SCALE AS SHOWN
SHEET NO. 16 OF 51

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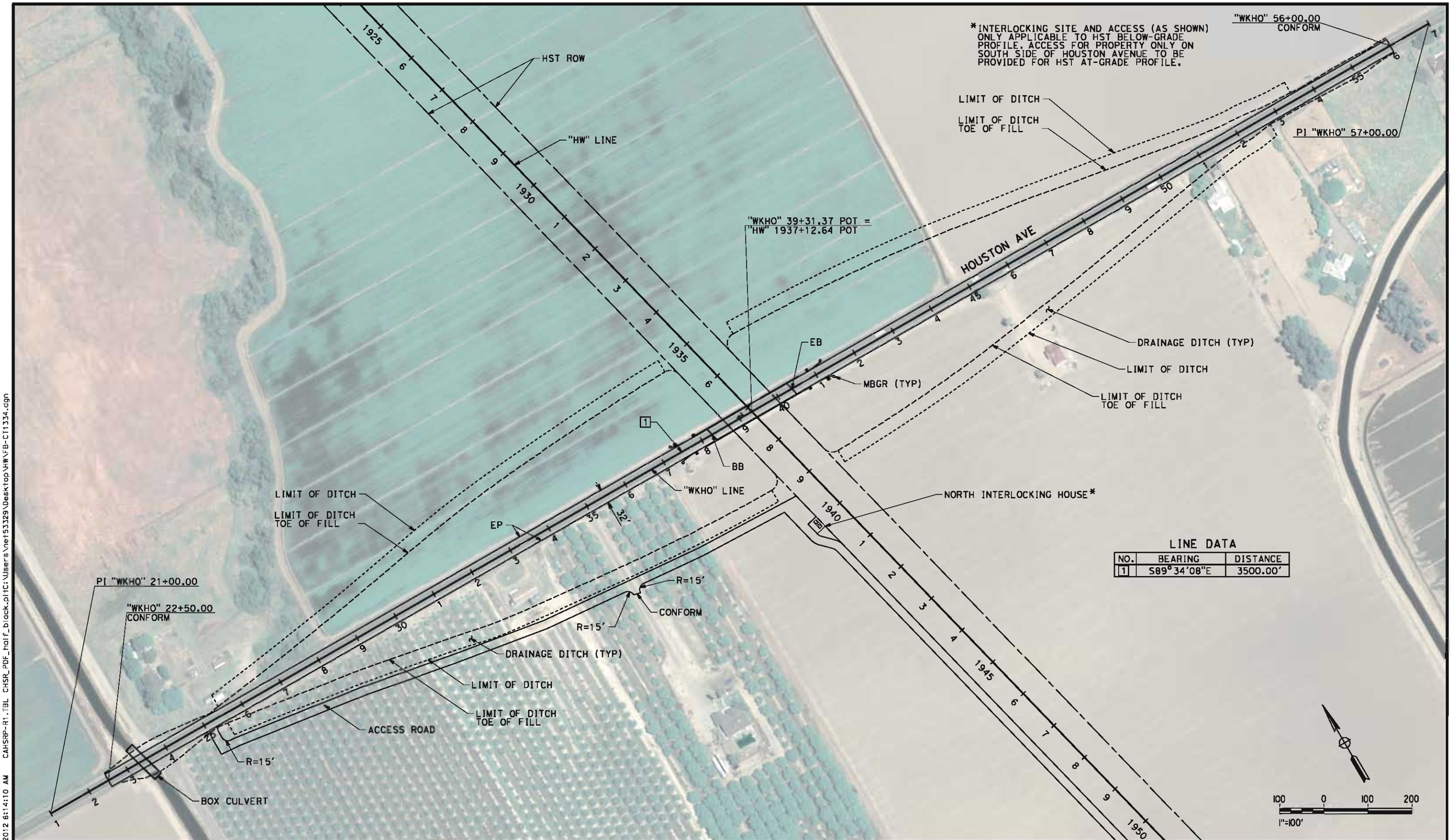

LINE DATA

NO.	BEARING	DISTANCE
1	S89°34'08"E	3500.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1334
SCALE AS SHOWN
SHEET NO. 17 OF 51

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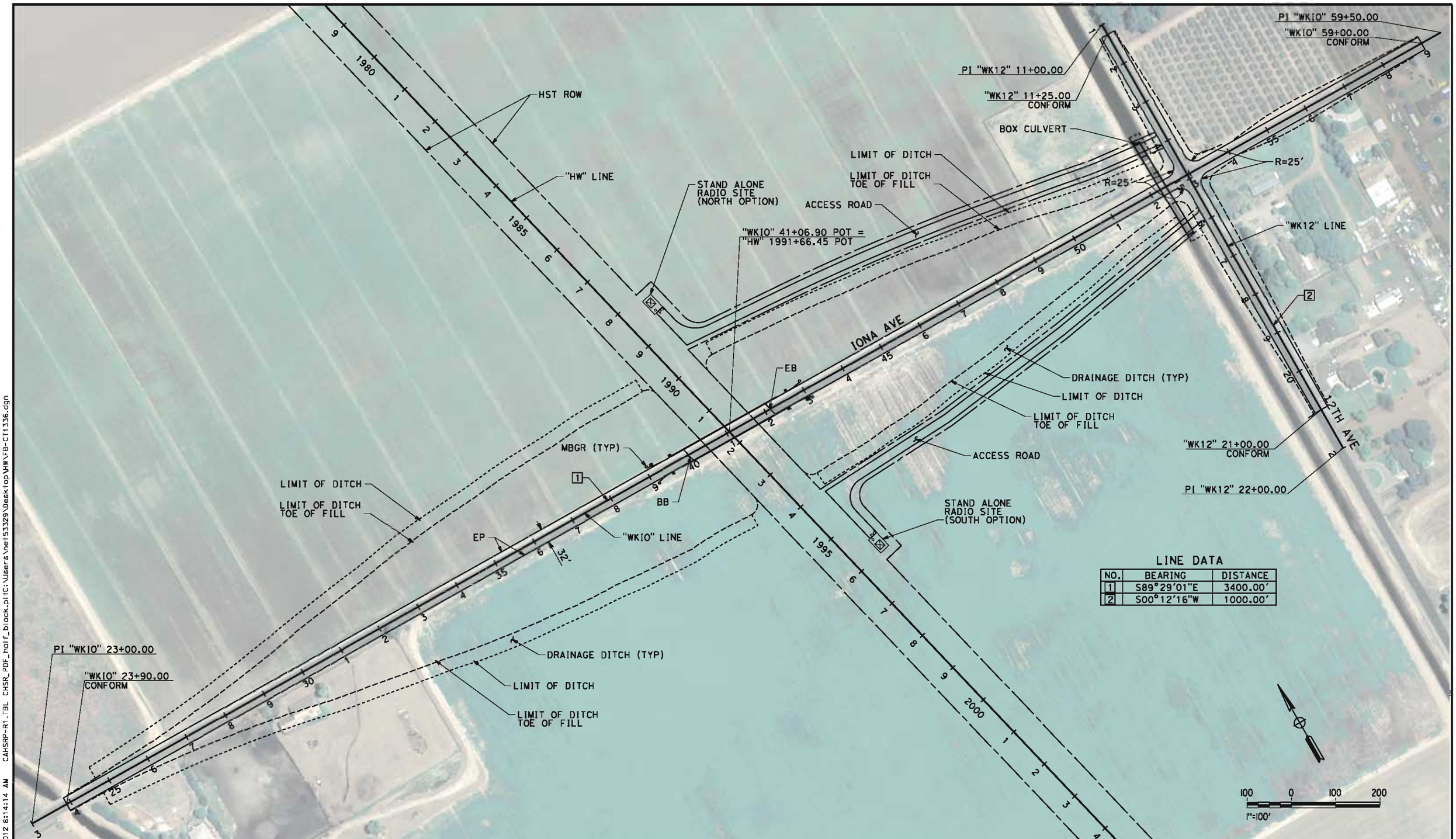


LINE DATA

NO.	BEARING	DISTANCE
1	S89°29'01"E	3400.00'
2	S00°12'16"W	1000.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

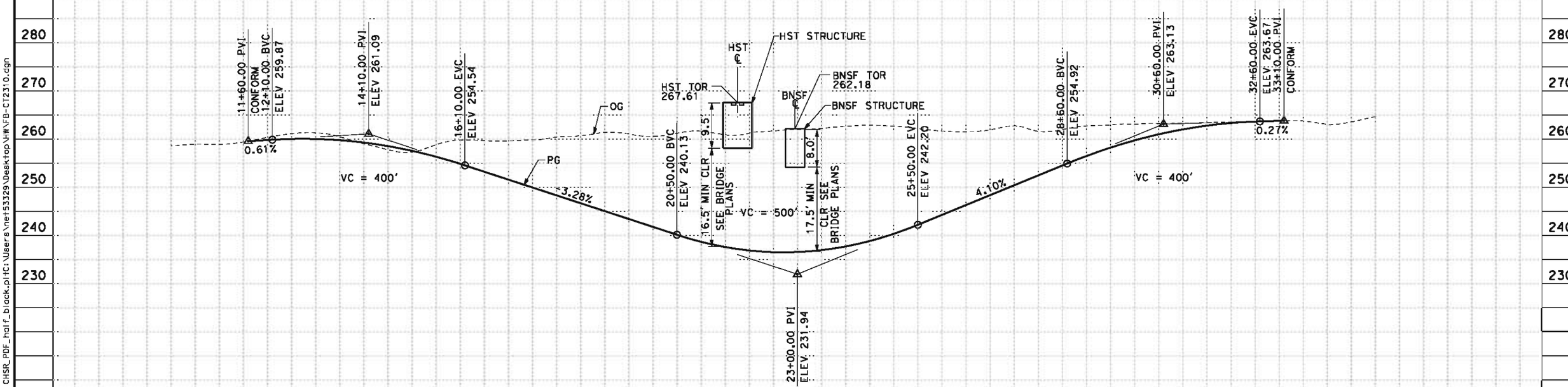
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION LAYOUT
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1336
SCALE AS SHOWN
SHEET NO. 18 OF 51

NET53329 5/11/2012 8:14:14 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT1336.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST IS 16.5'
2. VERTICAL DESIGN SPEED = 40 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. MIN VERTICAL CLEARANCE UNDER BNSF STRUCTURE IS 16.5'



PROFILE

"WFCO" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

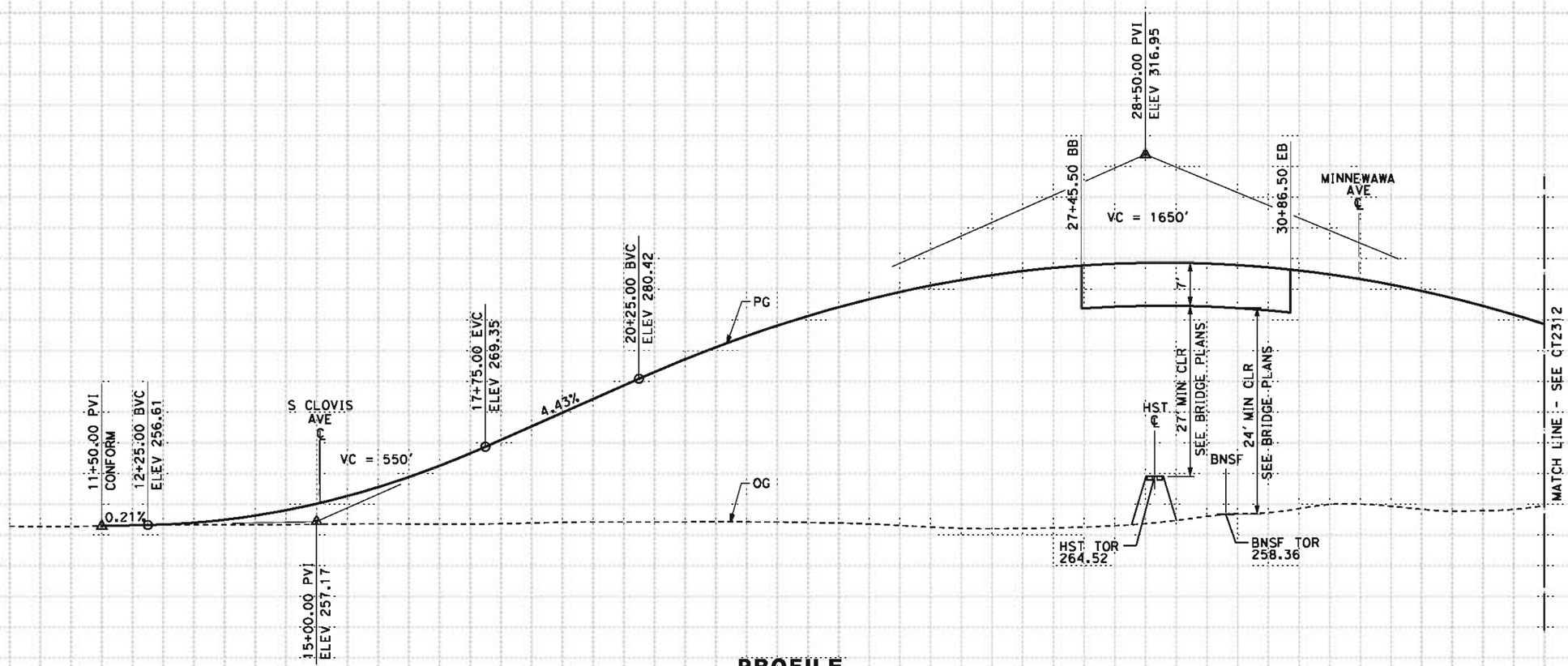
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
E CONEJO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2310
SCALE AS SHOWN
SHEET NO. 19 OF 51

NET53329 5/11/2012 6:14:15 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\HW\FB-CT2310.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WFEL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2311
SCALE AS SHOWN
SHEET NO. 20 OF 51

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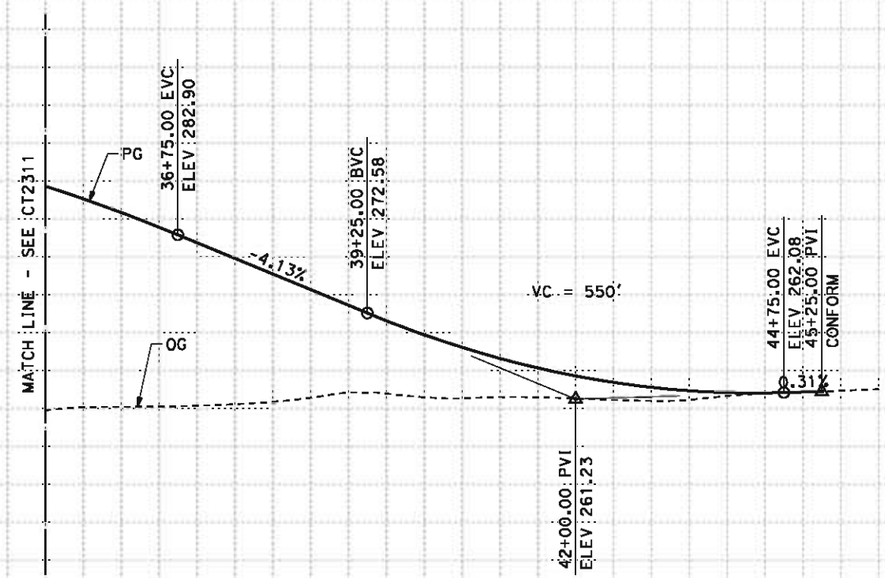


PROFILE
"WFEL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	35	6	7	8	9	40	1	2	3	4	45	6	TOTAL
CY Exc													
CY Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

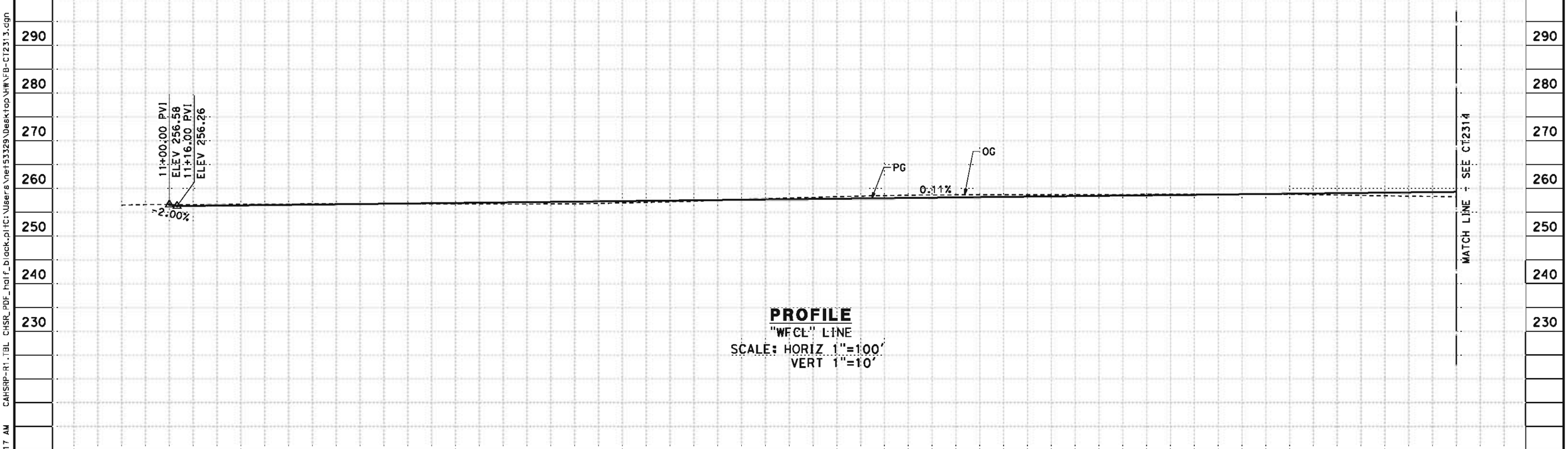
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
E ELKHORN AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2312
SCALE AS SHOWN
SHEET NO. 21 OF 51

NET53329 5/11/2012 8:14:17 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HWYB-CT2312.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WFCL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

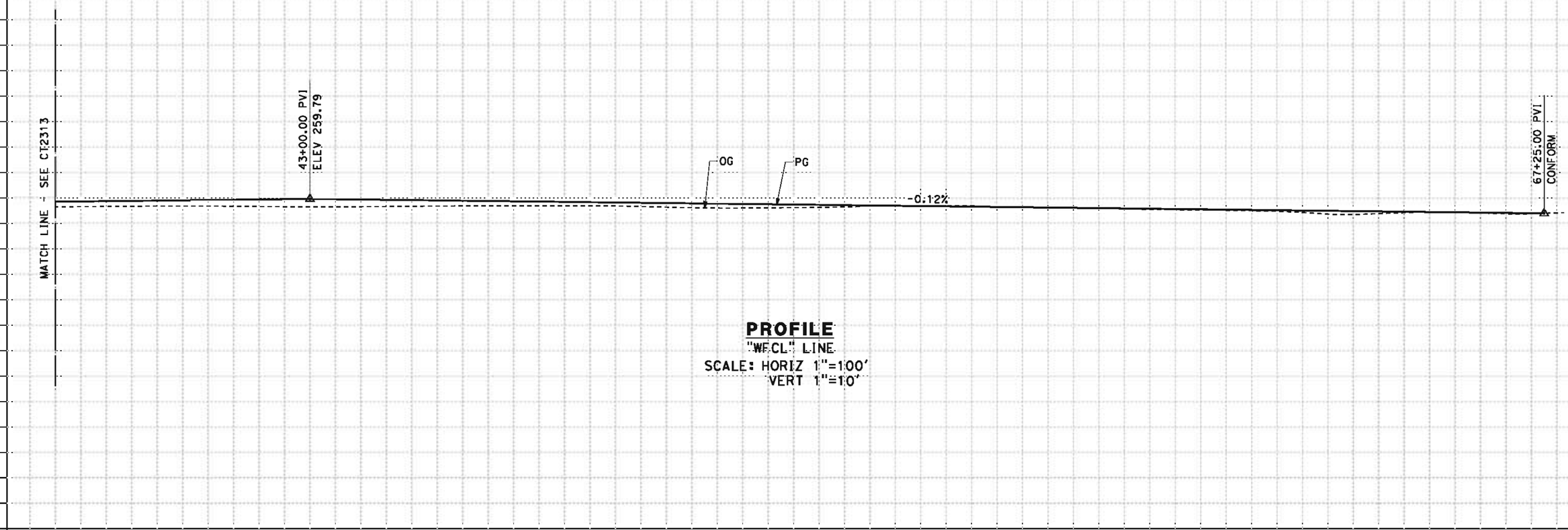
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2313
SCALE AS SHOWN
SHEET NO. 22 OF 51

NET53329 5/11/2012 8:14:17 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2313.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

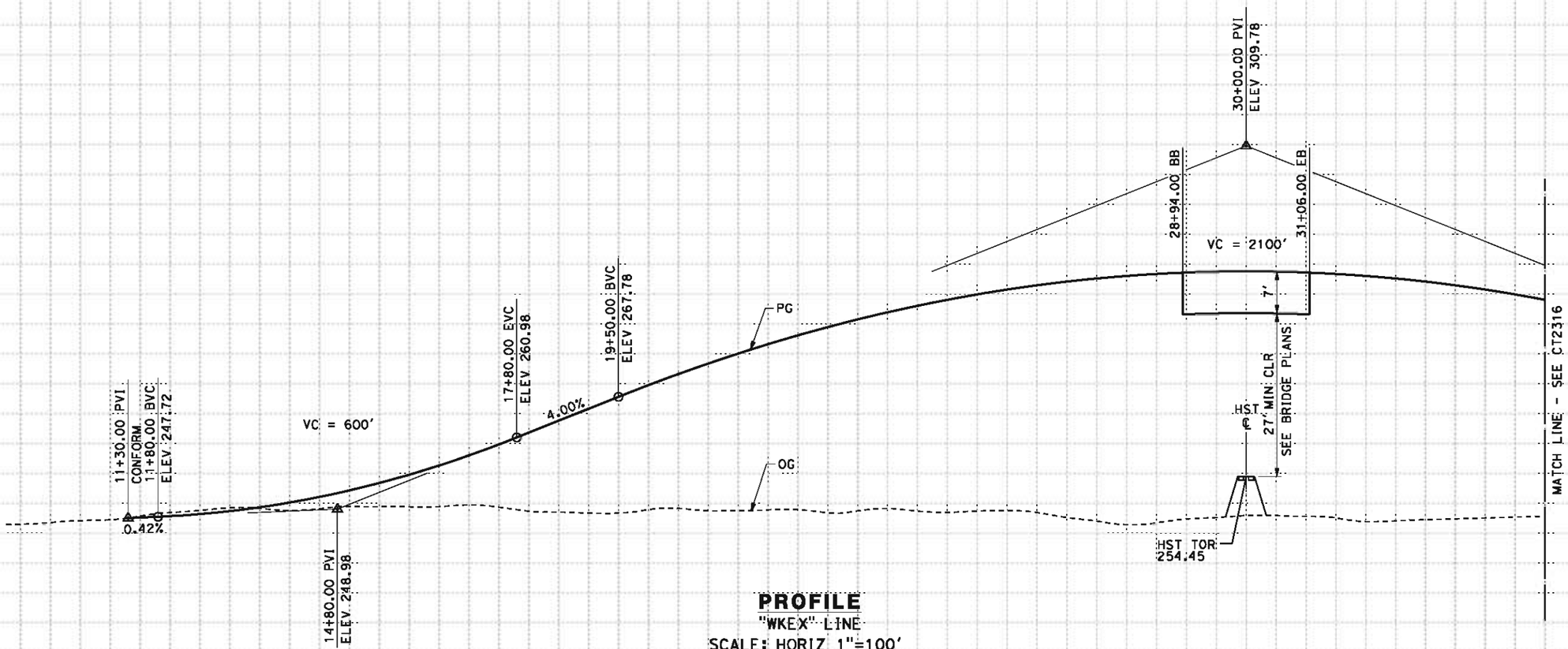
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
S CLOVIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2314
SCALE AS SHOWN
SHEET NO. 23 OF 51

NET53329 5/11/2012 8:14:18 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2314.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKEX" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

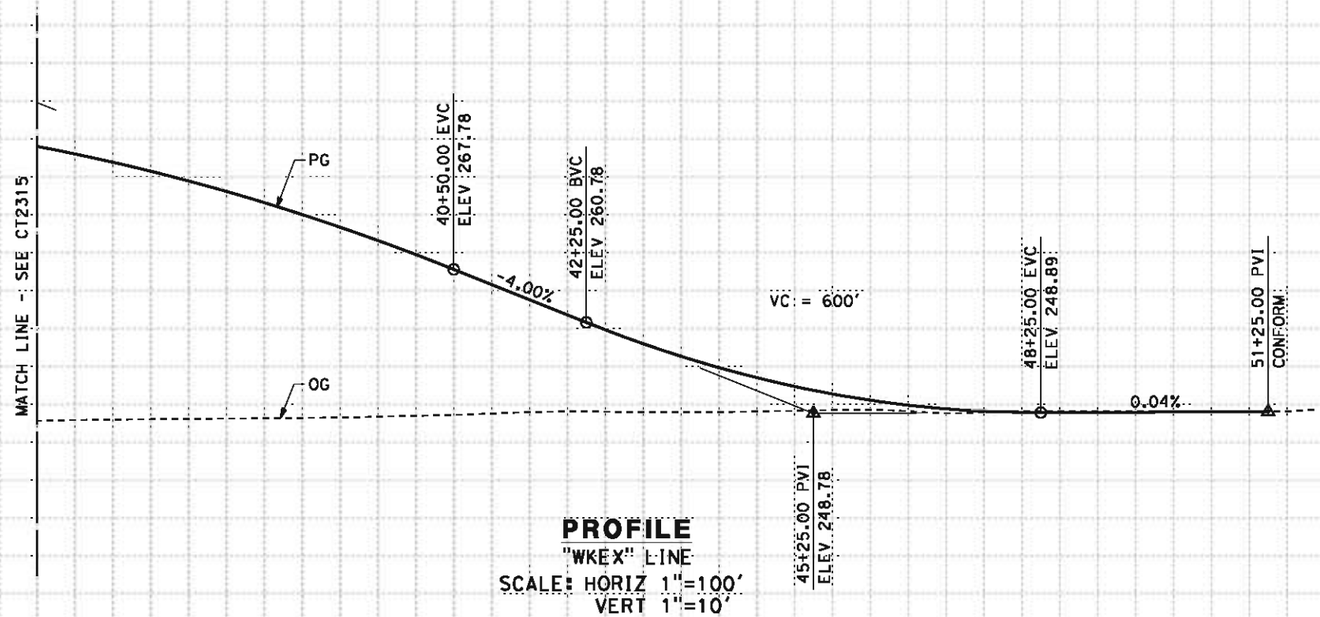
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2315
SCALE AS SHOWN
SHEET NO. 24 OF 51

CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\HW\FB-CT2315.dgn 5/11/2012 8:14:19 AM NET53329



PROFILE
"WKEX" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

290 280 270 260 250 240 230

STATION 35 6 7 8 9 40 1 2 3 4 45 6 7 8 9 50 1 2 3 TOTAL

CY Exc
Emb

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

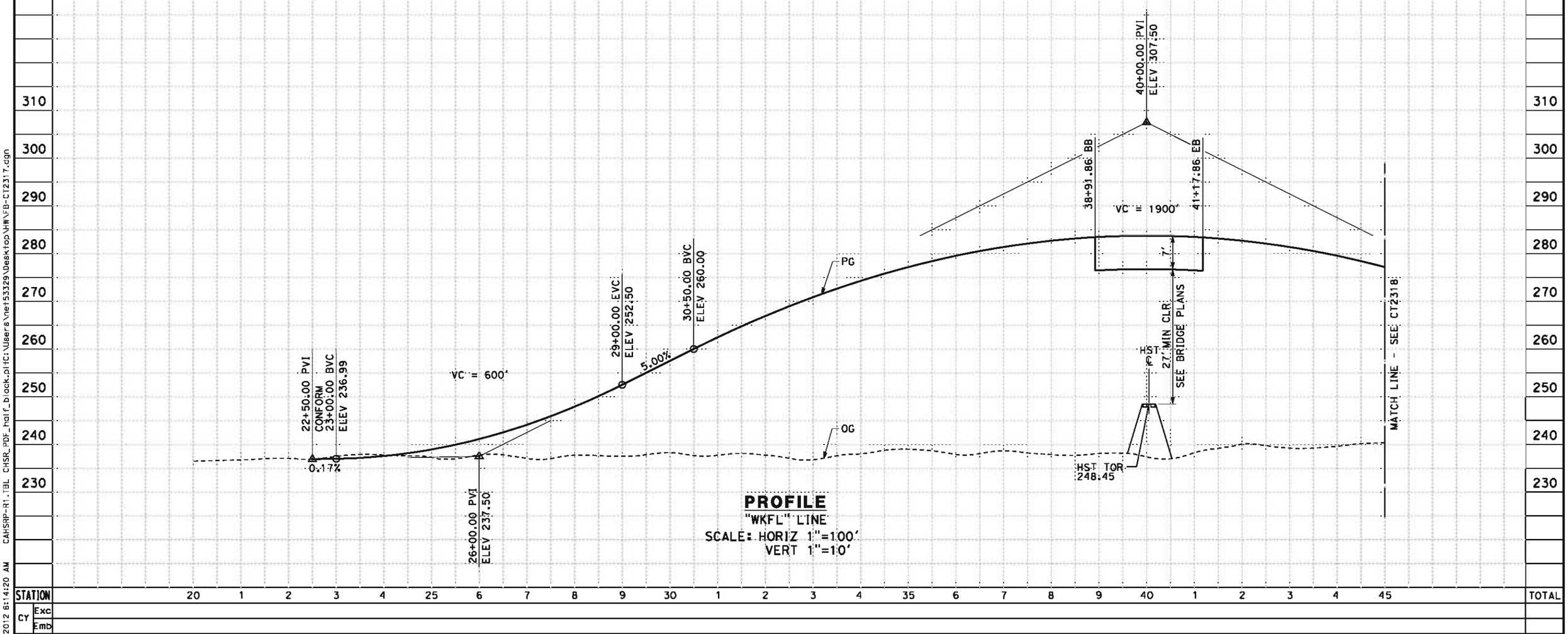
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
EXCELSIOR AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2316
SCALE AS SHOWN
SHEET NO. 25 OF 51

NET53329 5/11/2012 8:14:19 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2316.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKFL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

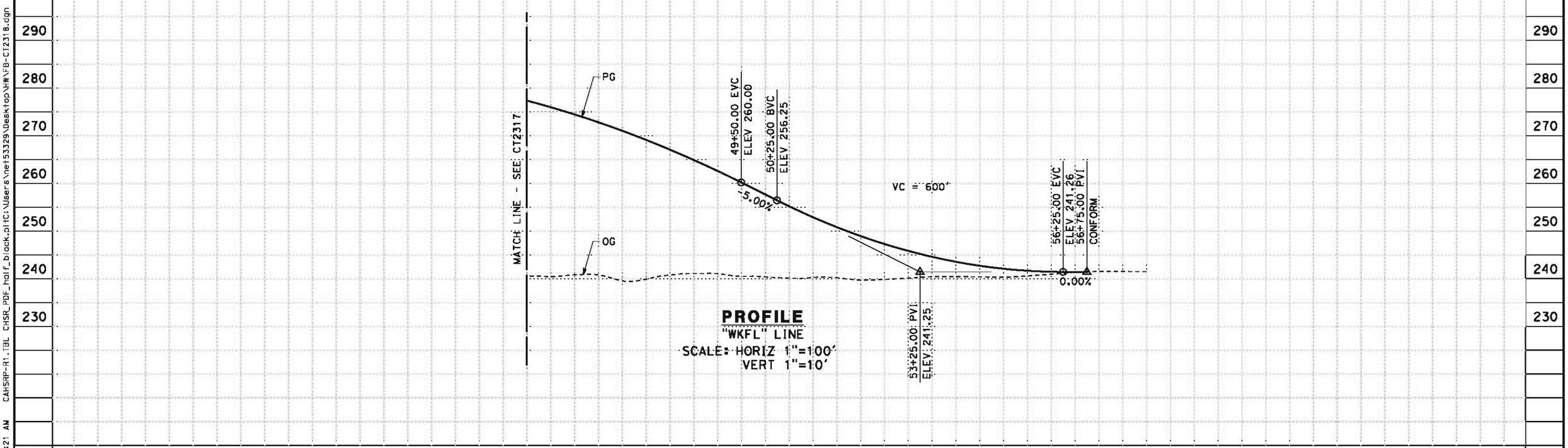
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2317
SCALE AS SHOWN
SHEET NO. 26 OF 51

NET53329 5/11/2012 6:14:20 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\HW\FB-CT2317.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

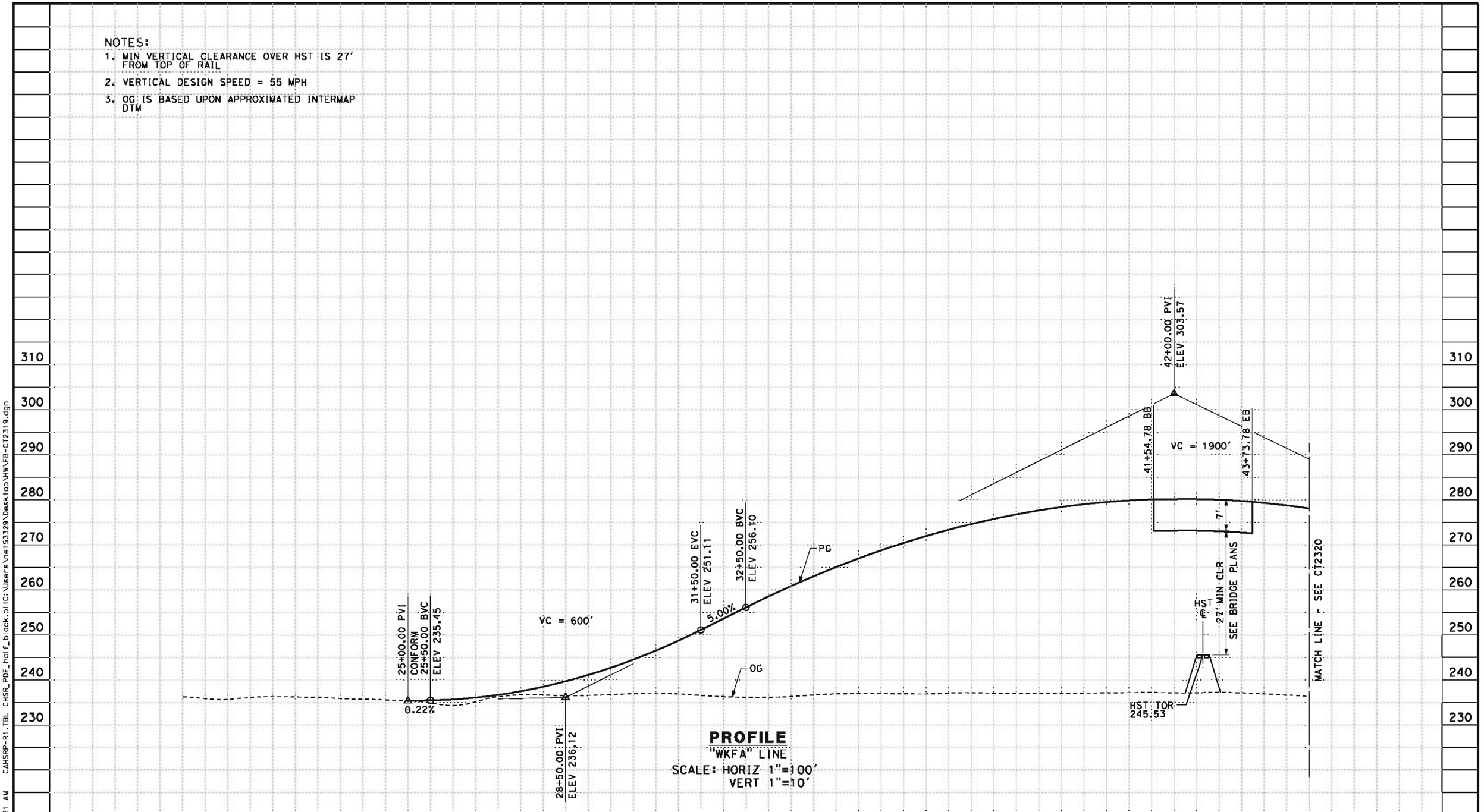
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
FLINT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2318
SCALE AS SHOWN
SHEET NO. 27 OF 51

NET53329 5/11/2012 8:14:21 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HWYB-CT2318.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

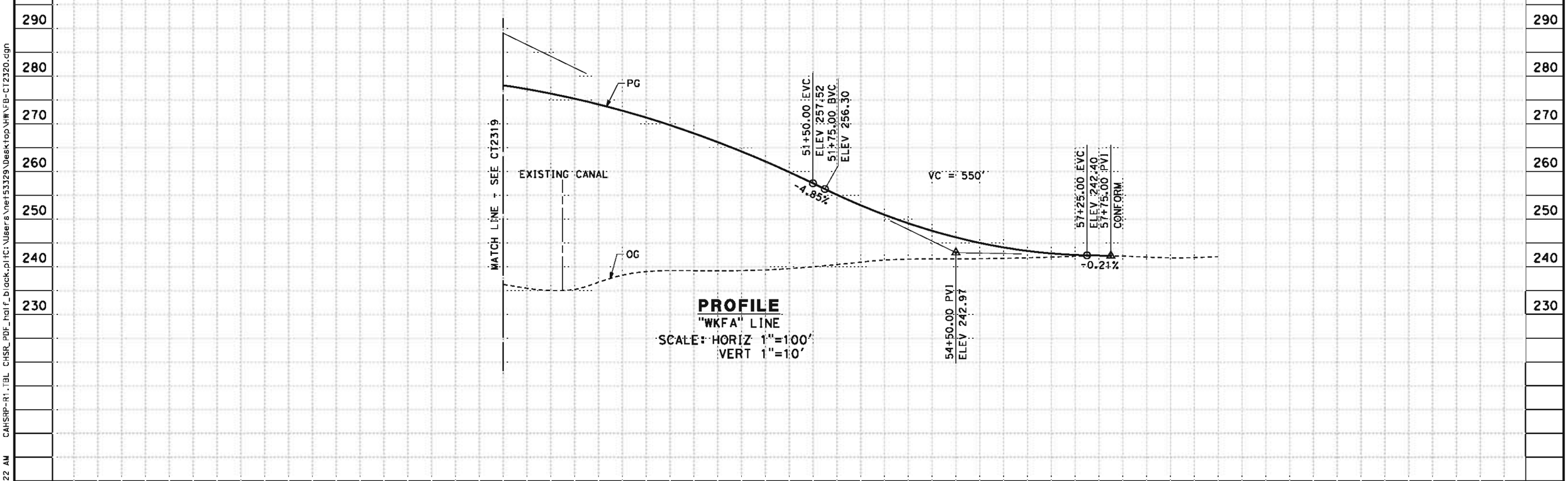
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
FARGO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2319
SCALE AS SHOWN
SHEET NO. 28 OF 51

NET53329 5/11/2012 8:14:21 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\HWYB-CT2319.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
FARGO AVE

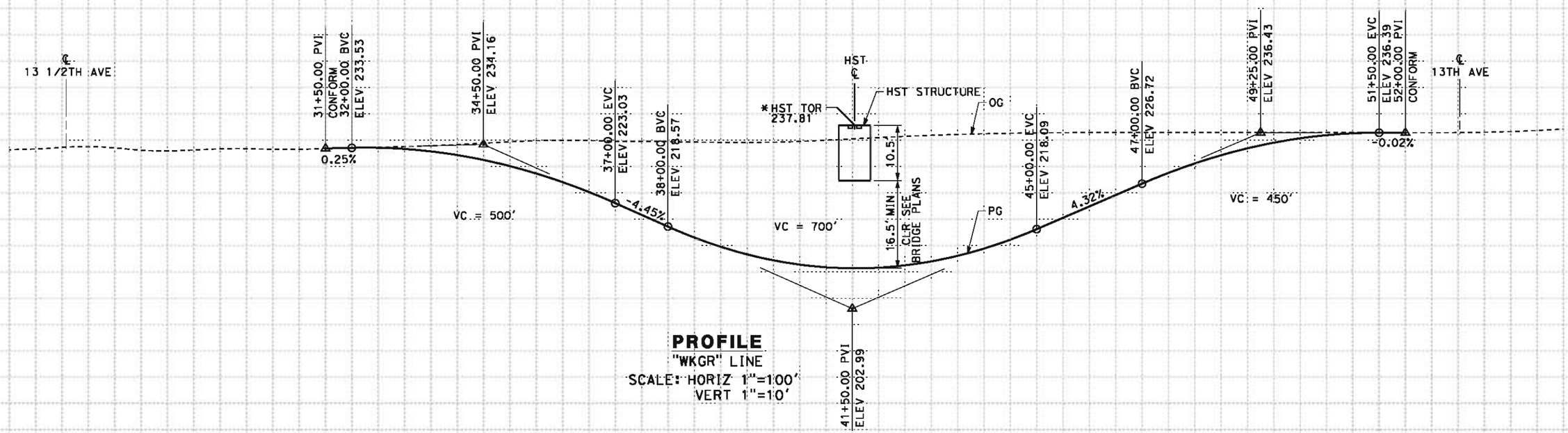
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2320
SCALE AS SHOWN
SHEET NO. 29 OF 51

NET53329 5/11/2012 8:14:22 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2320.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. MIN VERTICAL CLEARANCE UNDER BNSF STRUCTURE IS 16.5'

* AT-GRADE HST OPTION:
HST TOR = 238.18



PROFILE
"WKGR" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

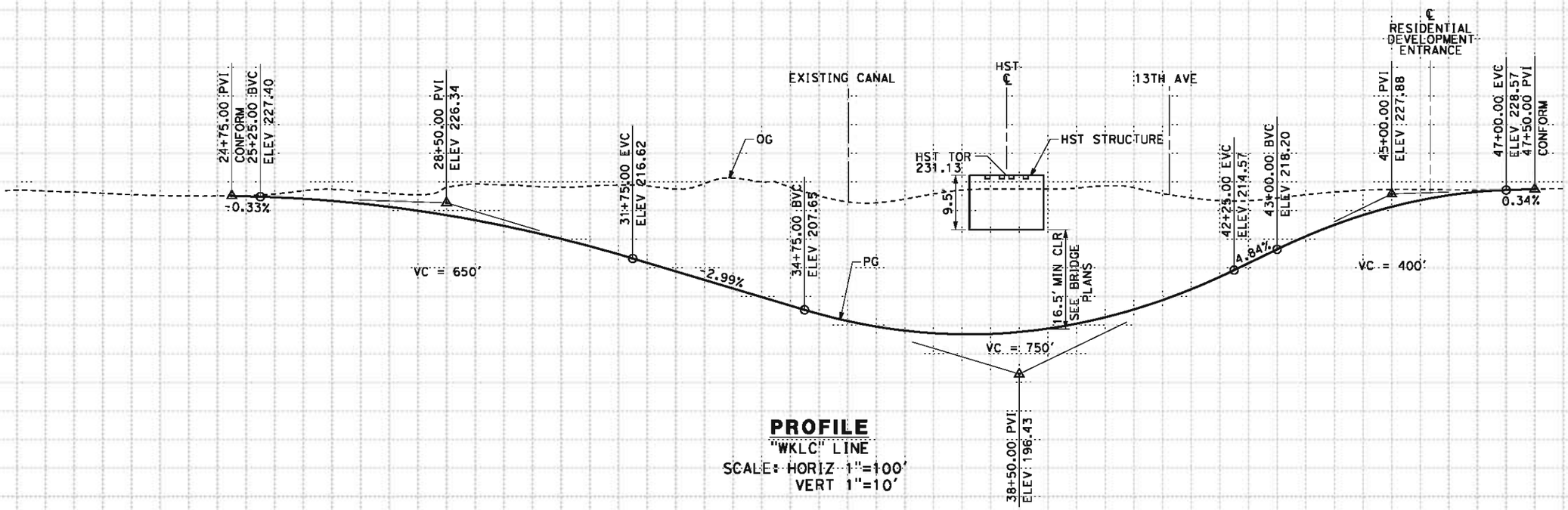
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
GRANGEVILLE BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2321
SCALE AS SHOWN
SHEET NO. 30 OF 51

NET53329 5/11/2012 8:14:23 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2321.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST IS 16.5'
2. VERTICAL DESIGN SPEED = 40 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKLC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

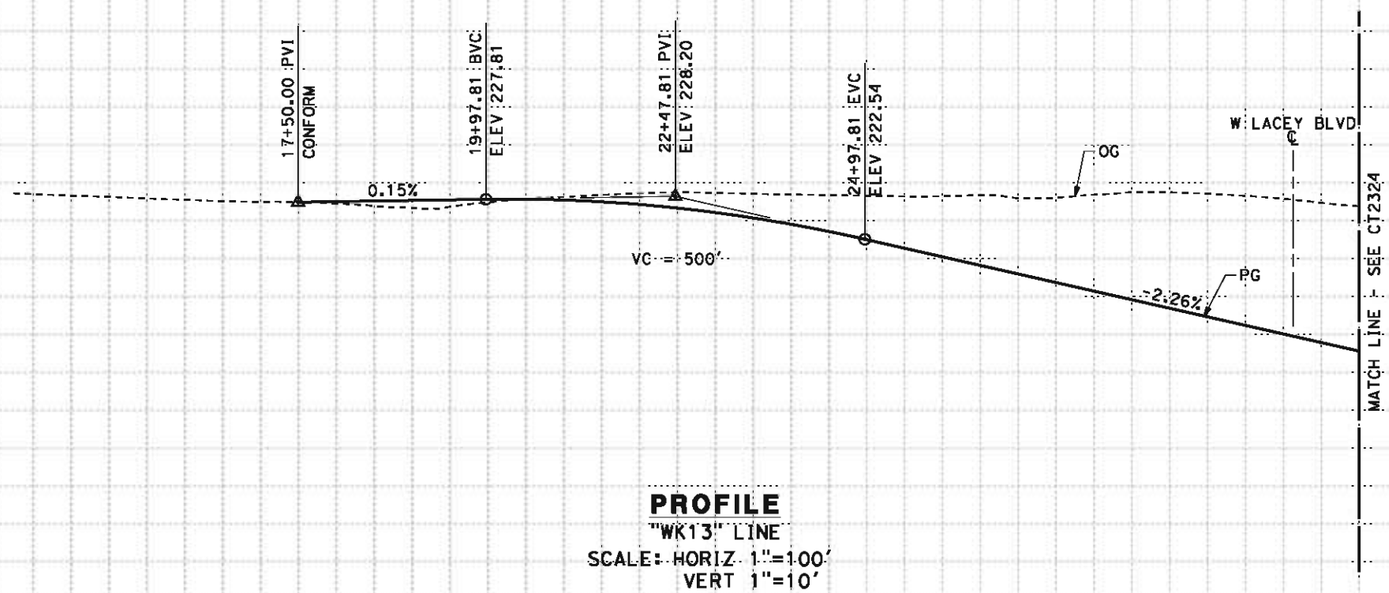
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION PROFILE
W LACEY BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2322
SCALE AS SHOWN
SHEET NO. 31 OF 51

NET53329 5/11/2012 8:14:23 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2322.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK13" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	TOTAL
CY Exc																				
CY Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

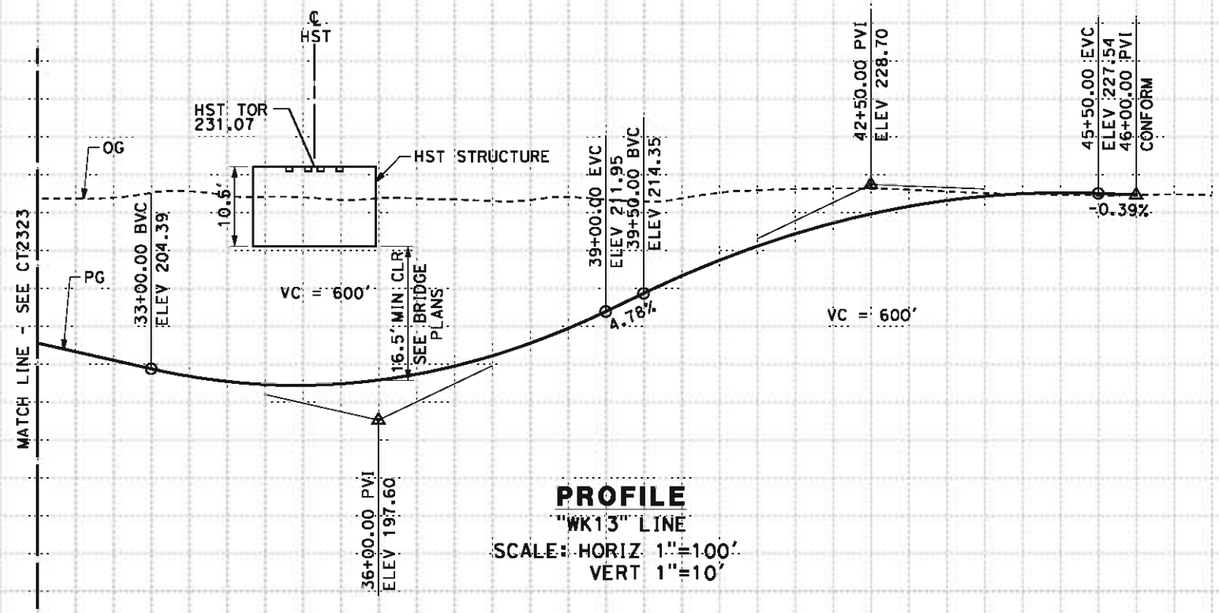
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION PROFILE
13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2323
SCALE AS SHOWN
SHEET NO. 32 OF 51

NET53329 5/11/2012 8:14:24 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2323.dgn



PROFILE
"WK13" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	TOTAL
CY Exc																			
CY Emb																			

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

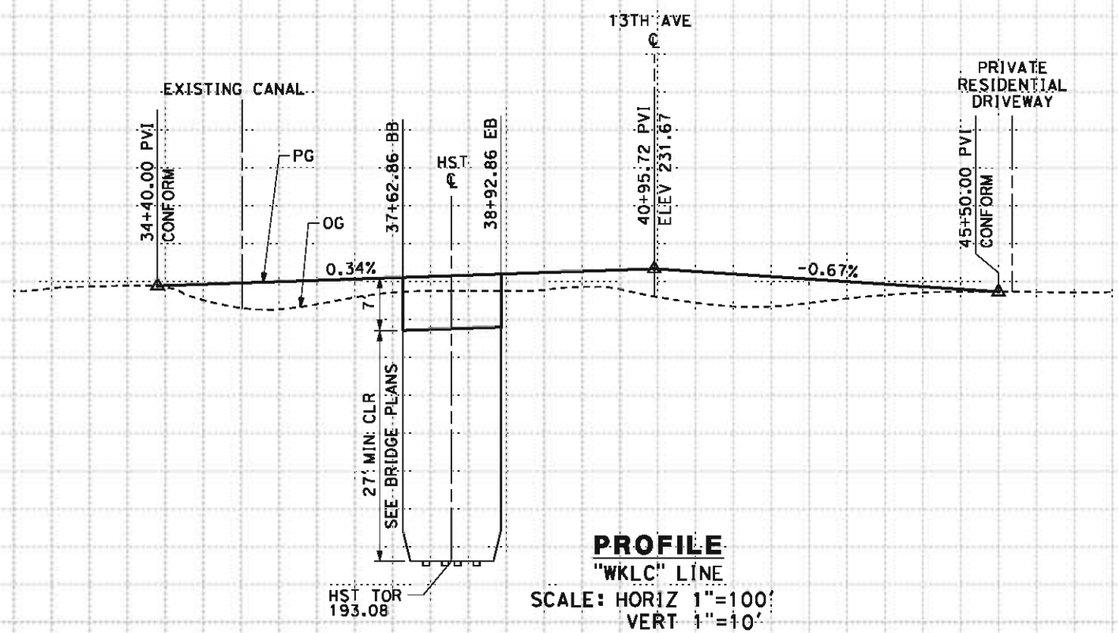
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION PROFILE
13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2324
SCALE AS SHOWN
SHEET NO. 33 OF 51

CAHSRP-R1.TBL CHSR_PDF_half_black.pltc:\Users\net53329\Desktop\HWYB-CT2324.dgn 5/11/2012 8:14:24 AM NET53329

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKLC" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		3	4	35	6	7	8	9	40	1	2	3	4	45	6	TOTAL
CY	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

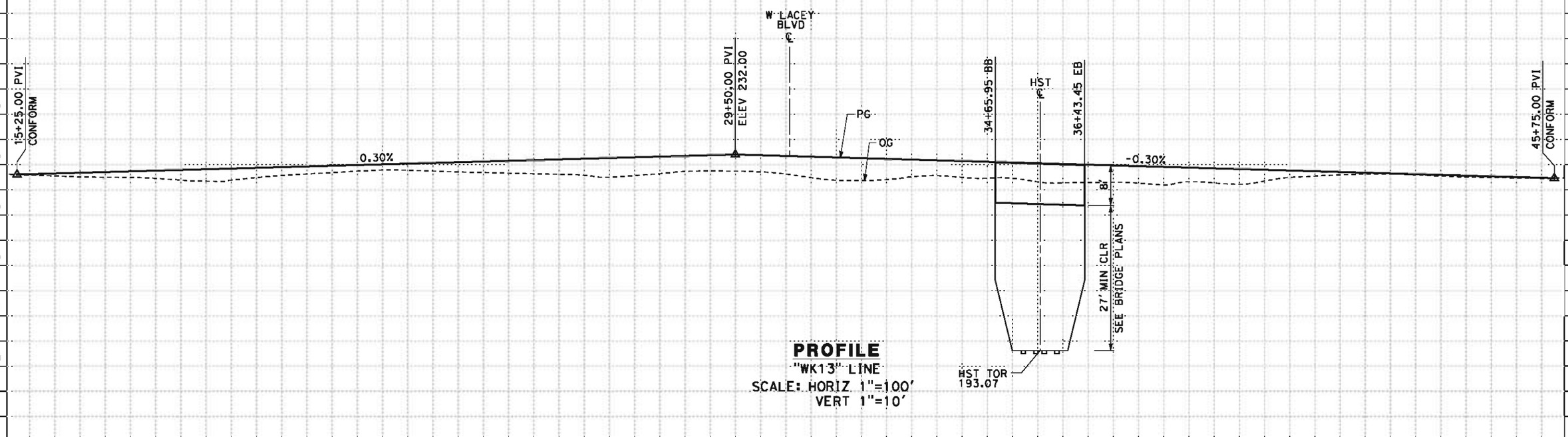
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION PROFILE
W LACEY BLVD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2325
SCALE AS SHOWN
SHEET NO. 34 OF 51

NET53329 5/11/2012 8:14:25 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2325.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK13" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

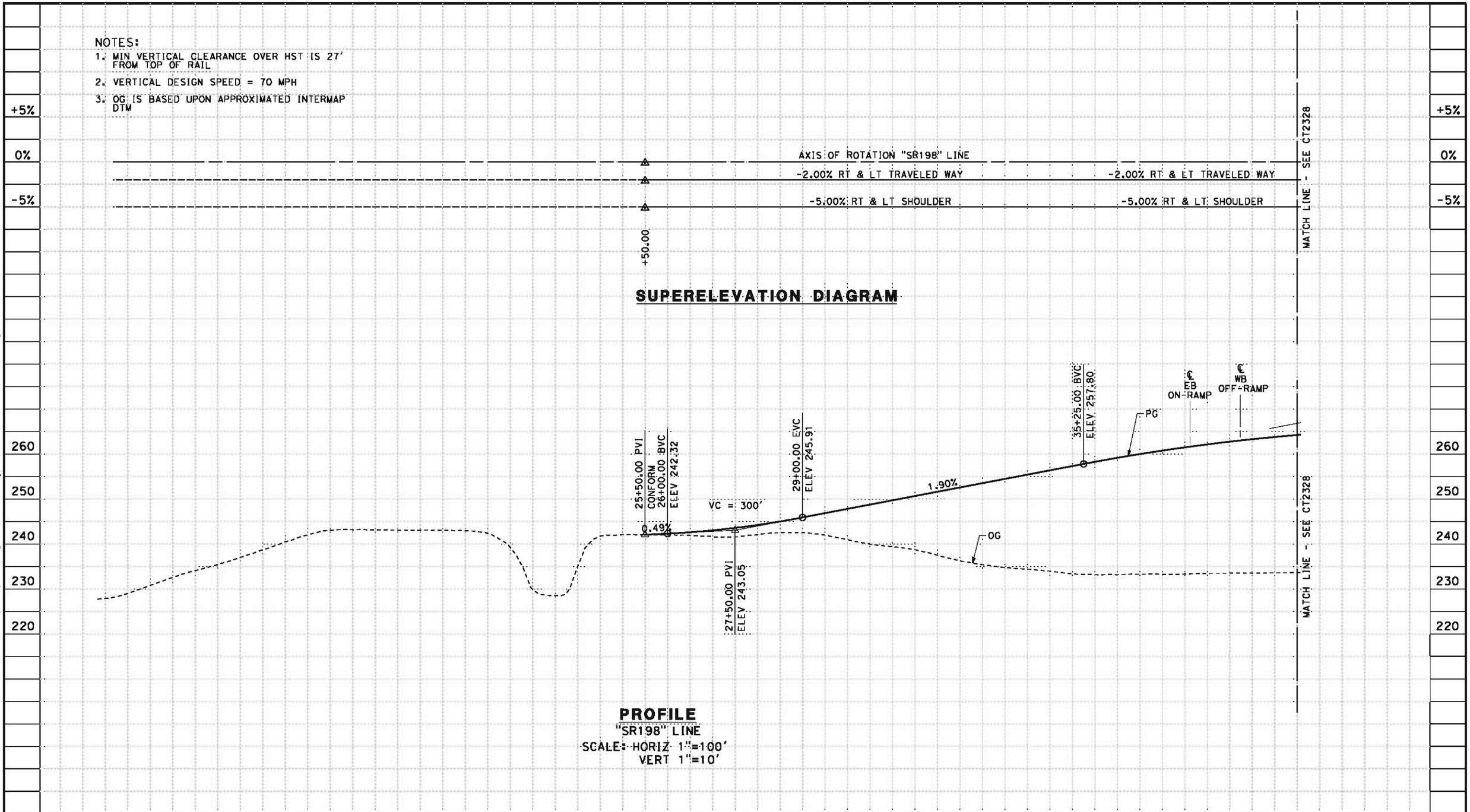
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION PROFILE
13TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2326
SCALE AS SHOWN
SHEET NO. 35 OF 51

NET53329 5/11/2012 8:14:26 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2326.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 70 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

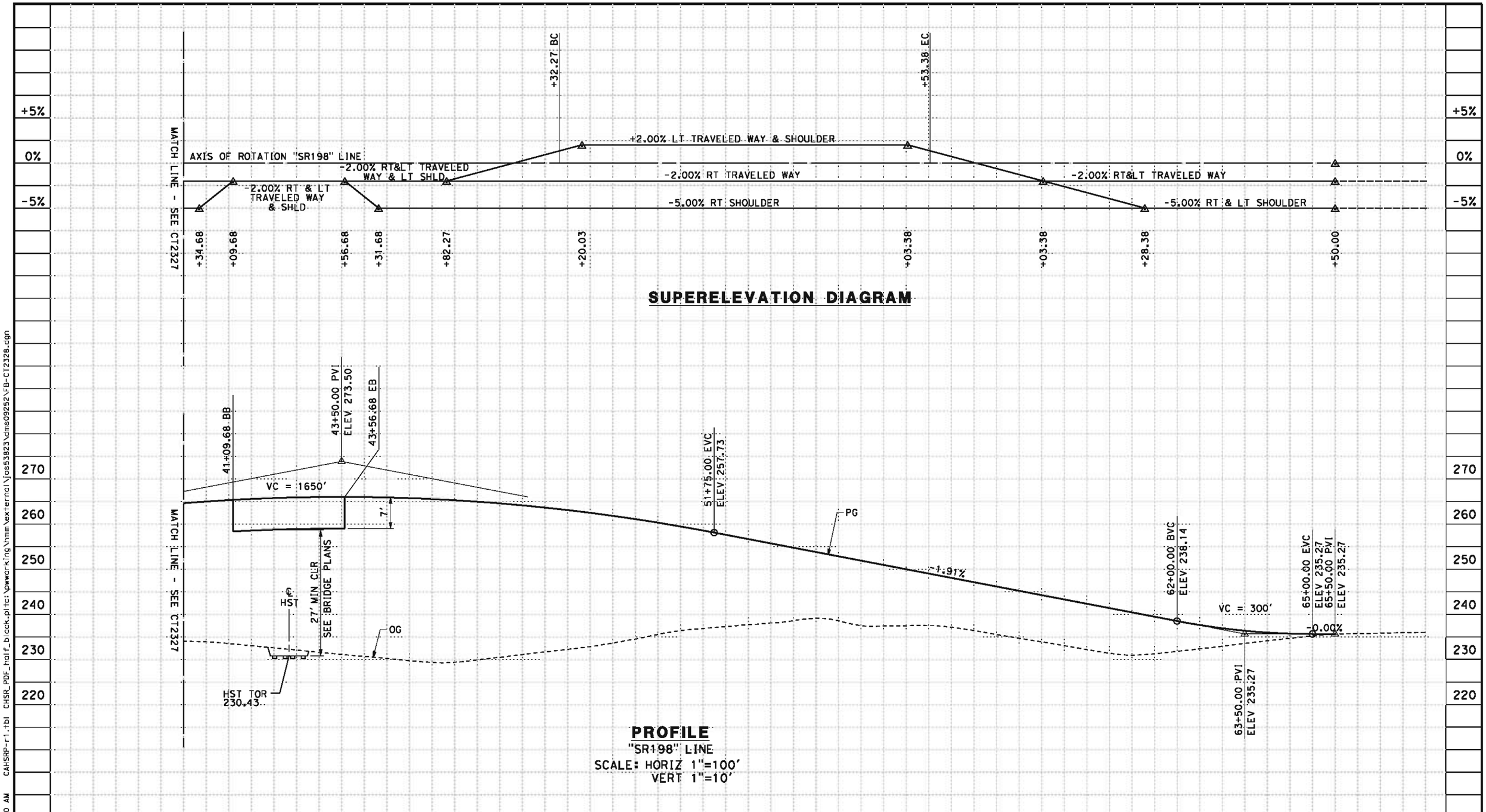
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 198

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2327
SCALE AS SHOWN
SHEET NO. 36 OF 51

J0553823 5/15/2012 11:35:21 AM CAHSRP-r1.tbl CHSR_PDF_half_black.pltcfg:\pwworking\hmm\external\jos53823\dms09252\FB-CT2327.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

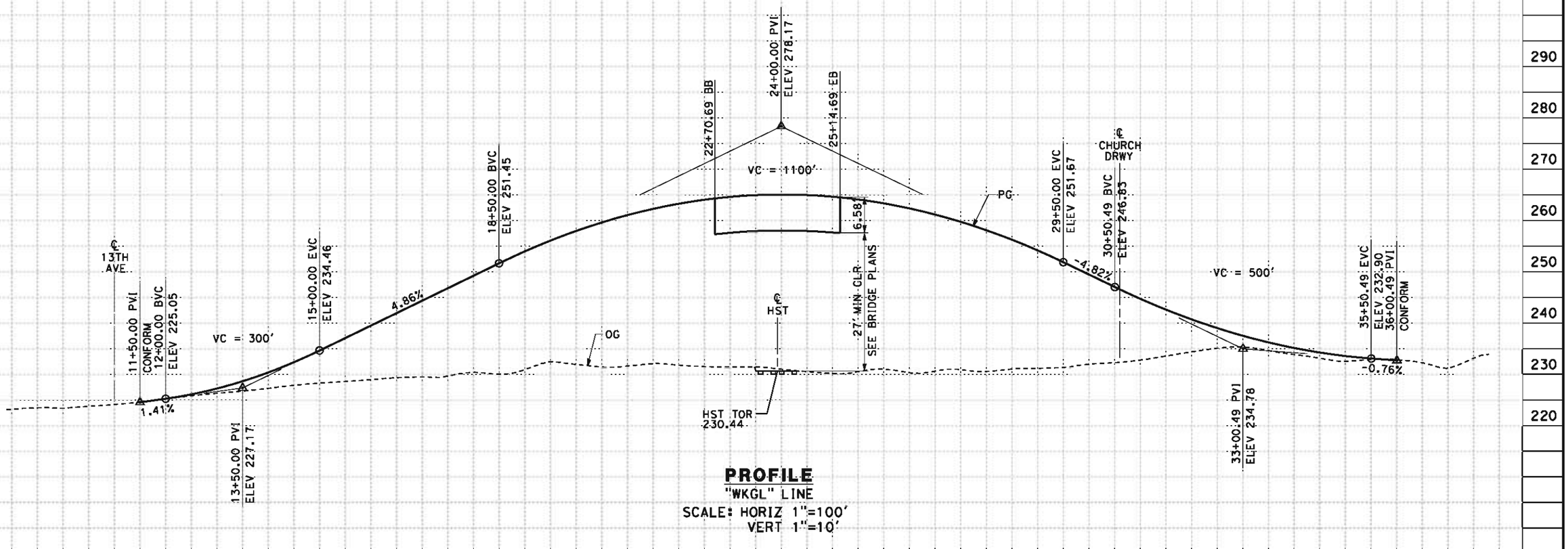
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 198

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2328
SCALE AS SHOWN
SHEET NO. 37 OF 51

JOS53823 5/15/2012 9:51:20 AM CAHSRP-r1.tbl CHSR_PDF_half_black.pltcfg \\pwworking\hmm\external\jos53823\dms09252\FB-CT2328.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 40 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKGL" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

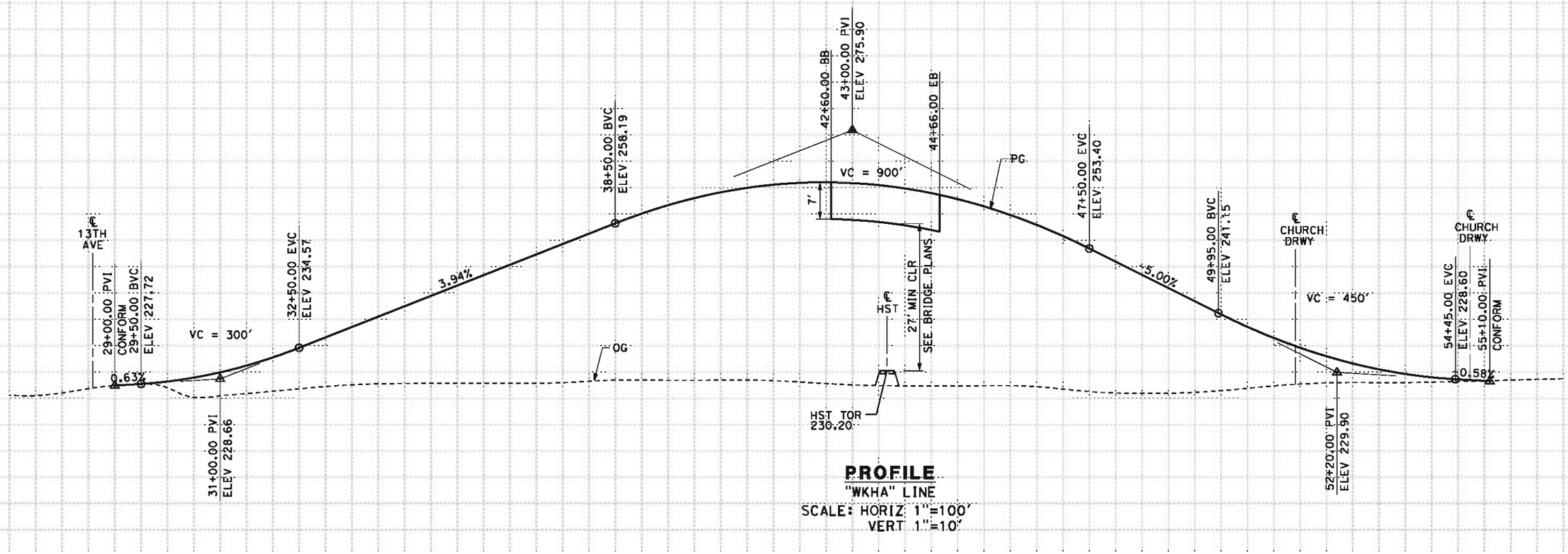
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION PROFILE
GLENDALE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2329
SCALE AS SHOWN
SHEET NO. 38 OF 51

NET53329 5/11/2012 8:14:28 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltcfg:C:\Users\net53329\Desktop\HW\FB-CT2329.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKHA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

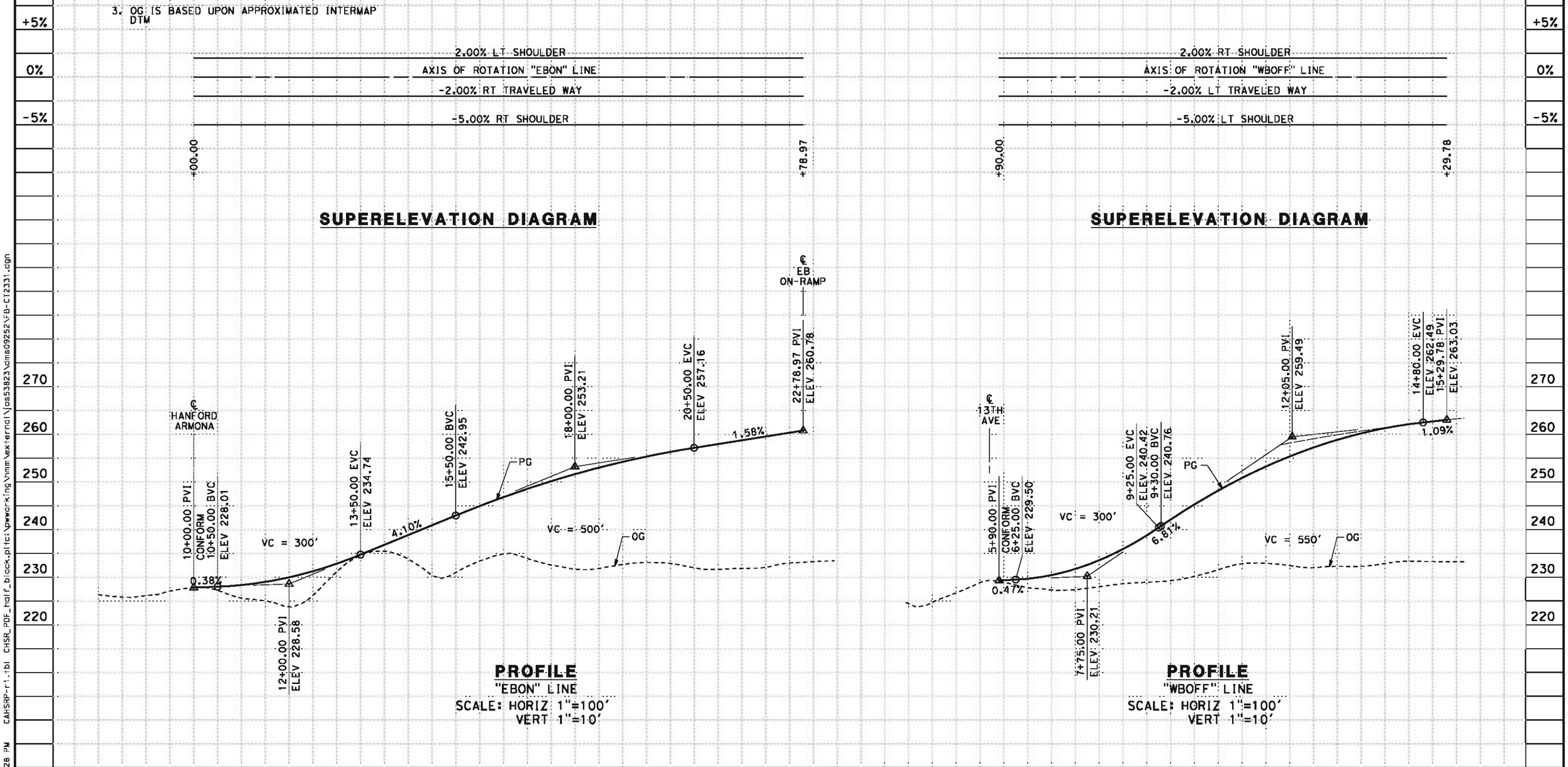
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEPARATION PROFILE
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2330
SCALE AS SHOWN
SHEET NO. 39 OF 51

JOS53823 5/21/2012 12:49:42 PM CAHSRP-r1.tbl CHSR_PDF_half_black.pltcfg \\pwworking\hmm\external\jos53823\dms09252\FB-CT2330.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



STATION	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	5	6	7	8	9	10	1	2	3	4	15	6	TOTAL
CY Exc																													
CY Emb																													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 198 RAMPS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2331
SCALE AS SHOWN
SHEET NO. 40 OF 51

J0553823 5/15/2012 1:20:28 PM CAHSRP-r1.tbl CHSR_PDF_half_black.pltcfg \\pwworking\hmm\external\jos53823\dms09252\FB-CT2331.dgn

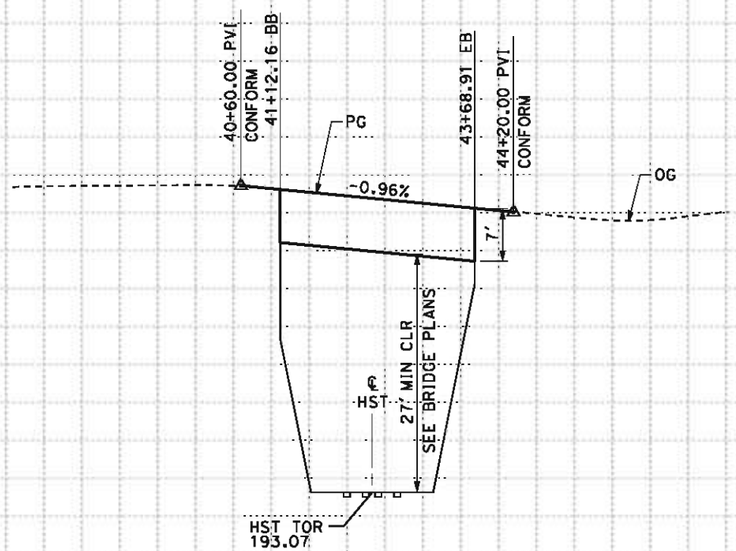
NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM

AXIS OF ROTATION "SR198" LINE

-2.00% RT & LT TRAVELED WAY & SHLD

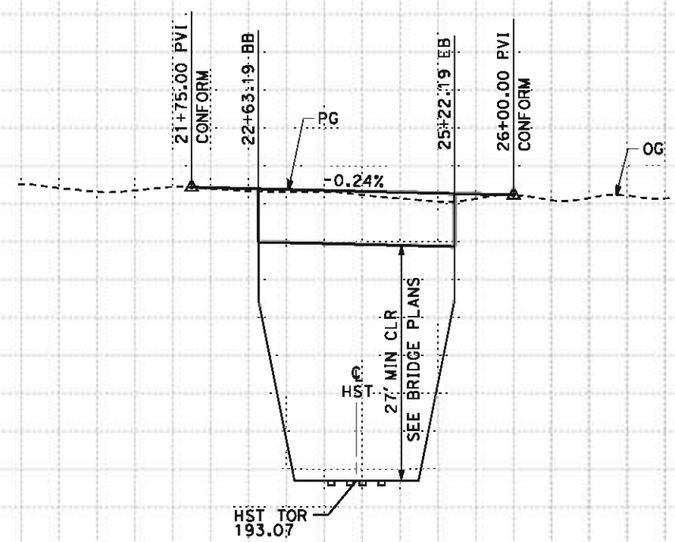
SUPERELEVATION DIAGRAM



PROFILE

"SR198" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'



PROFILE

"WKGL" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		40	1	2	3	4	45	20	1	2	3	4	25	6	7	TOTAL
CY	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

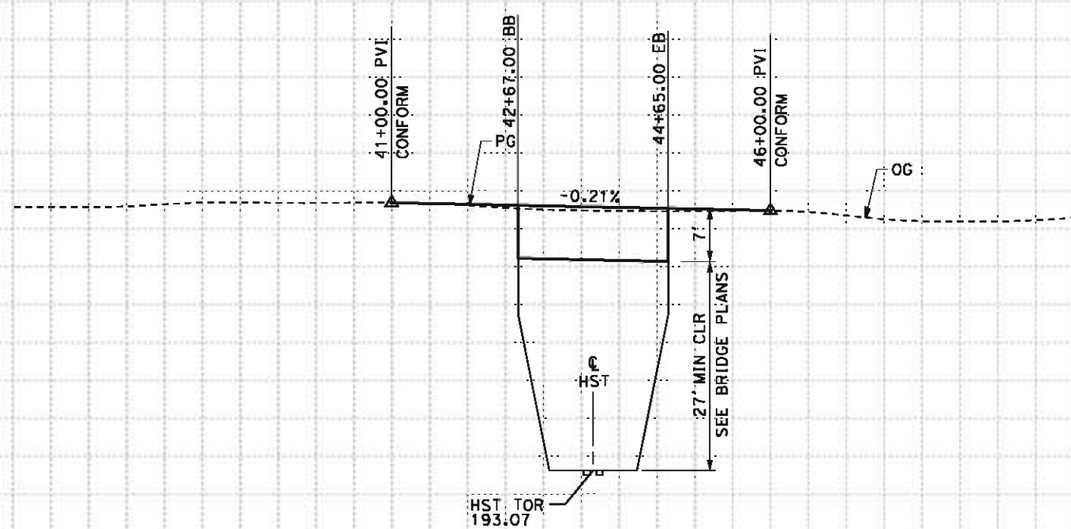
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION PROFILE
STATE ROUTE 198/GLENDALE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2332
SCALE AS SHOWN
SHEET NO. 41 OF 51

NET53329 5/17/2012 9:32:28 AM CAHSRP-r1.tbl CHSR_PDF_half_black.pltc:\pwworking\hmm\external\net53329\dms09252\FB-CT2332.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"WKHA" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	TOTAL
CY Exc																
CY Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

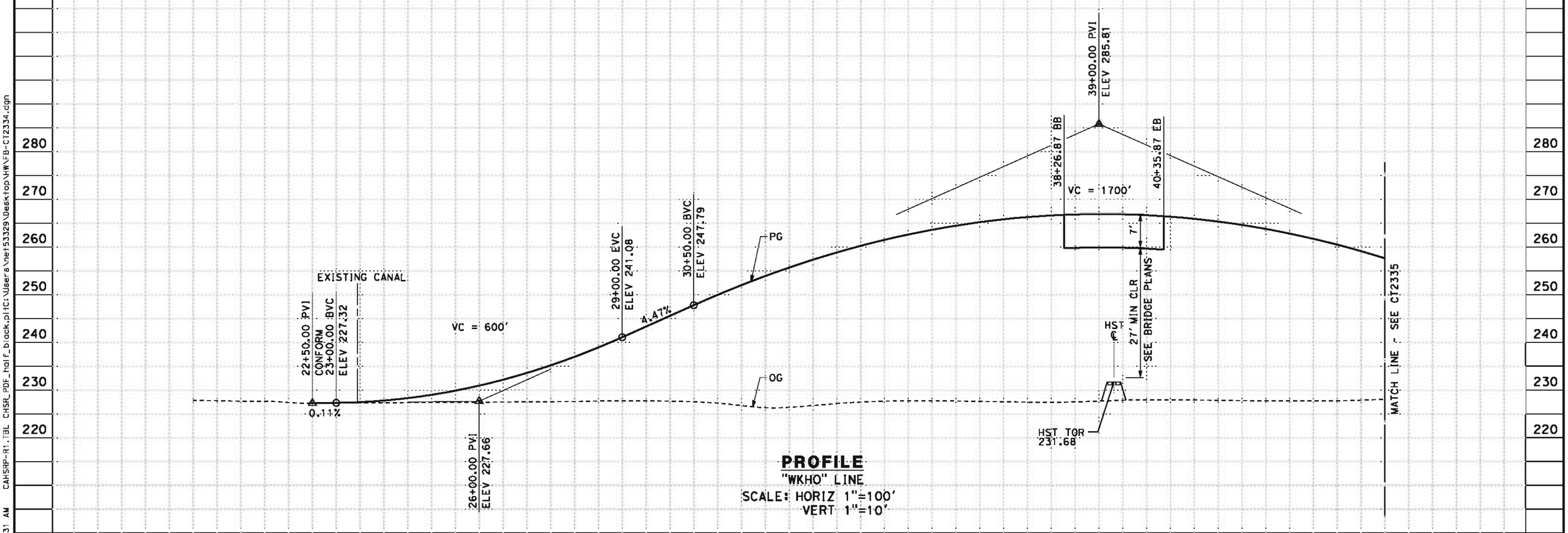
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (BELOW-GRADE)
GRADE SEPARATION PROFILE
HANFORD ARMONA RD

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2333
SCALE AS SHOWN
SHEET NO. 42 OF 51

NET53329 5/11/2012 8:14:31 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HWYB-CT2333.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKHO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

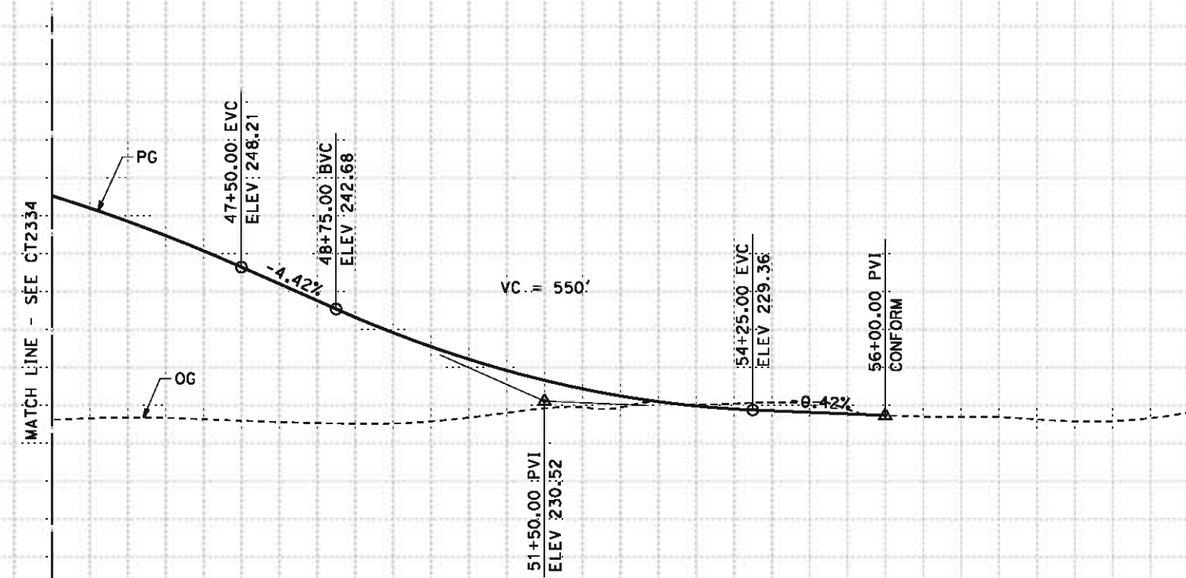
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2334
SCALE AS SHOWN
SHEET NO. 43 OF 51

NET53329 5/11/2012 8:14:31 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\WKHFB-CT2334.dgn



PROFILE
"WKHO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	TOTAL
CY Exc																	
CY Emb																	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

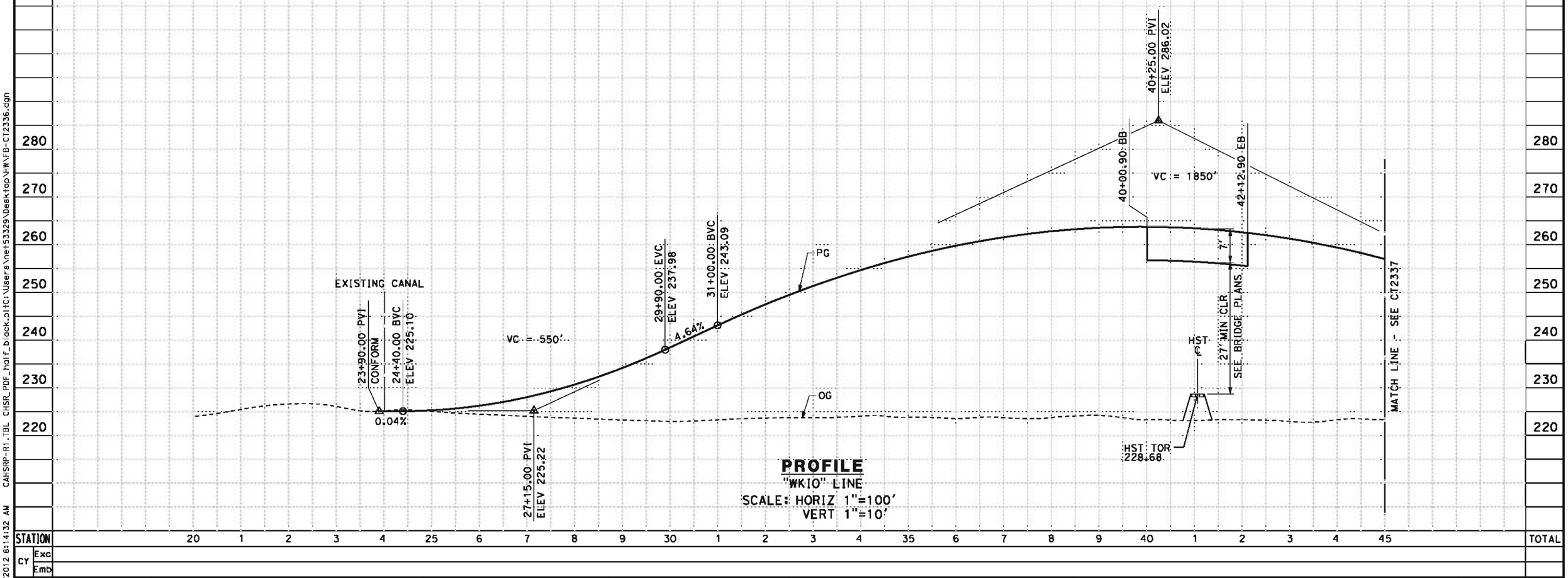
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
HOUSTON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2335
SCALE AS SHOWN
SHEET NO. 44 OF 51

NET53329 5/11/2012 8:14:32 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2335.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKIO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

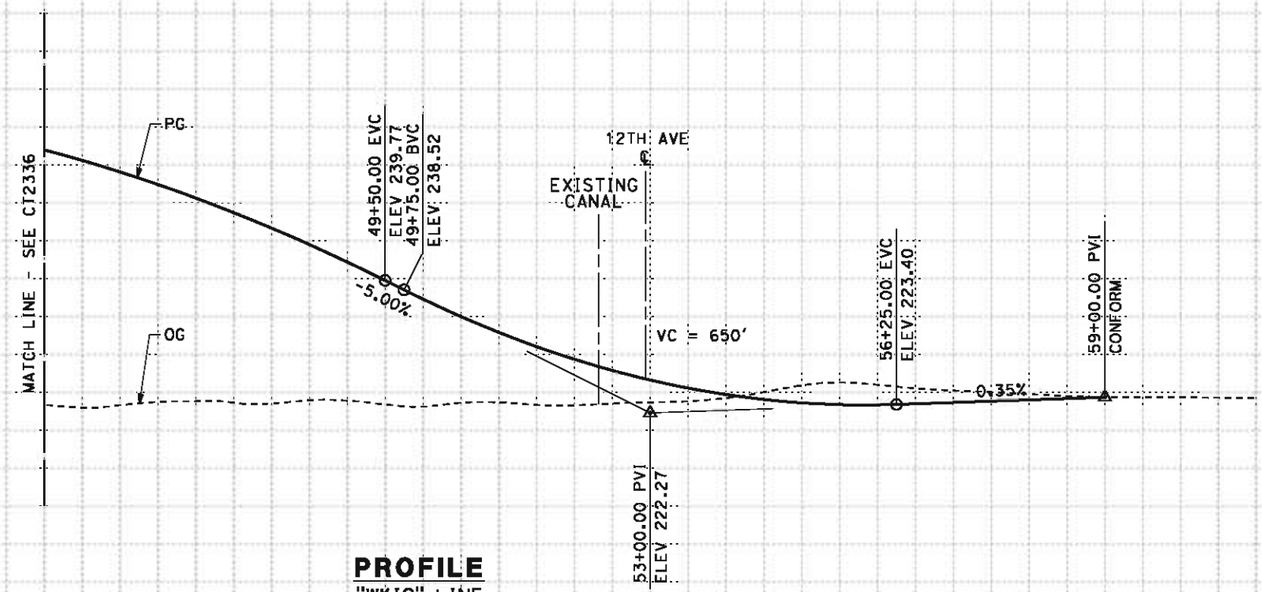
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2336
SCALE AS SHOWN
SHEET NO. 45 OF 51

NET53329 5/11/2012 8:14:32 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2336.dgn



PROFILE
"WKIO" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	1	TOTAL
CY	Exc																		
	Emb																		

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. DEASON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

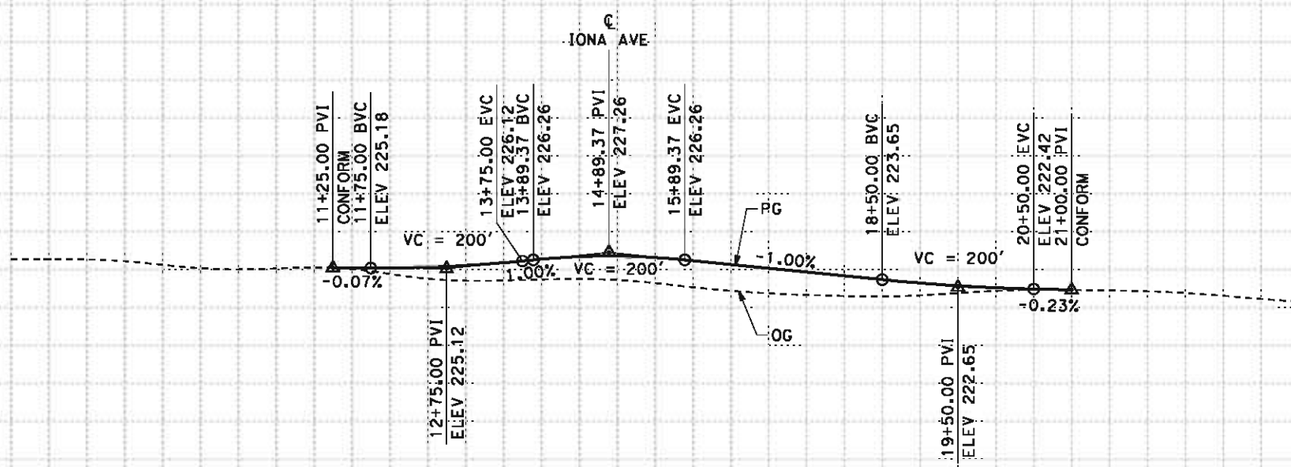
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
IONA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2337
SCALE AS SHOWN
SHEET NO. 46 OF 51

NET53329 5/11/2012 8:14:33 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2337.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK12" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	7	8	9	20	1	2	3	TOTAL
CY	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

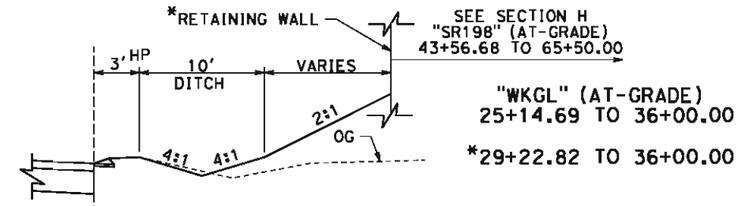
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
GRADE SEPARATION PROFILE
12TH AVE (AT IONA AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2338
SCALE AS SHOWN
SHEET NO. 47 OF 51

NET53329 5/11/2012 8:14:34 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT2338.dgn

NOTES:

1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.



STRUCTURAL SECTIONS

TYPICAL ROADWAY (4' SHOULDER)

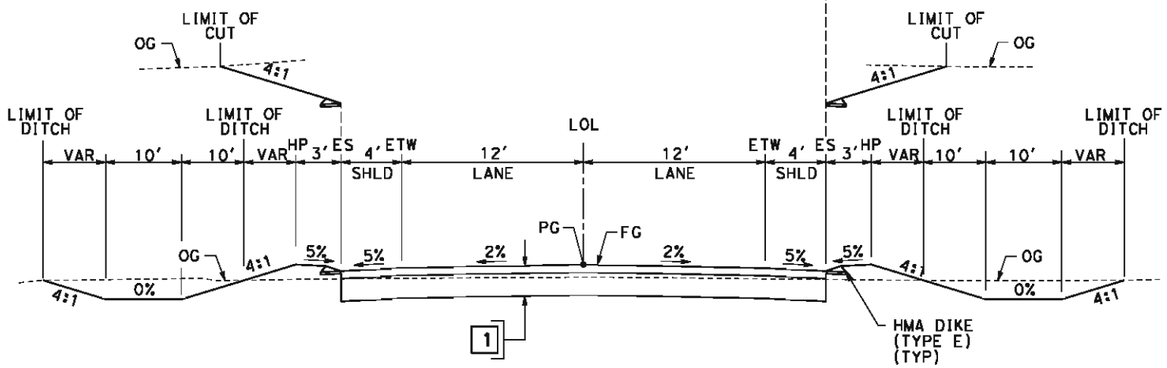
1 — 0.30' HMA (TYPE A)
1.40' CL 2 AB

TYPICAL ROADWAY (8' SHOULDER)

2 — 0.40' HMA (TYPE A)
1.70' CL 2 AB

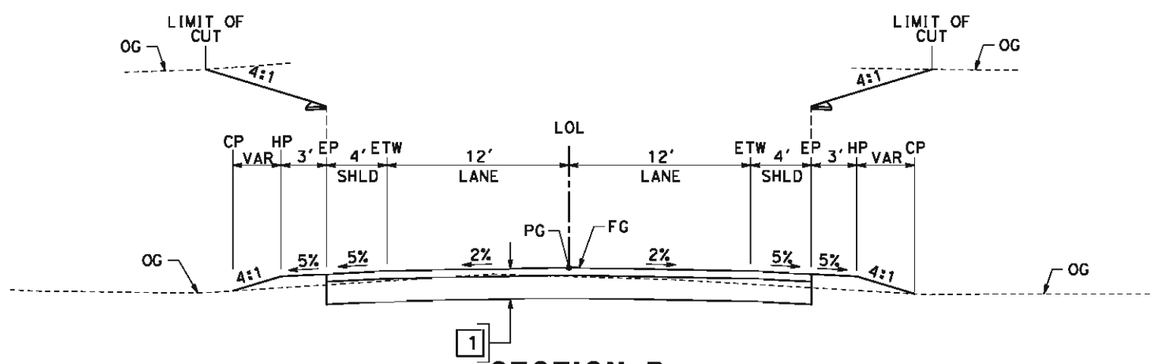
TYPICAL ROADWAY (SR198)

3 — 0.60' HMA (TYPE A)
1.80' CL 2 AB



SECTION A

"WFEL" 12+50.00 TO 27+45.50	"WKFL" 24+00.00 TO 38+91.86	"WKGL" (AT-GRADE) 11+50.00 TO 22+70.69	"WKHO" 25+50.00 TO 38+26.87
"WFEL" 30+86.50 TO 44+00.00	"WKFL" 41+17.86 TO 56+75.00	"WKGL" (AT-GRADE) 25+14.69 TO 36+00.00	"WKHO" 40+35.87 TO 53+50.00
"WKEX" 11+30.00 TO 28+94.00	"WKFA" 25+50.00 TO 41+54.78	"WKGL" (BELOW-GRADE) 21+75.00 TO 22+63.19	"WKIO" 24+75.00 TO 40+00.90
"WKEX" 31+06.00 TO 47+50.00	"WKFA" 43+73.78 TO 57+00.00	"WKGL" (BELOW-GRADE) 25+22.19 TO 26+00.00	"WKIO" 42+12.90 TO 52+57.36



SECTION B

"WFEL" 11+50.00 TO 12+50.00	"WKFL 22+50.00 TO 24+00.00	"WKHO" 53+50.00 TO 56+00.00
"WFEL" 44+00.00 TO 45+25.00	"WKFA 25+00.00 TO 25+50.00	"WKIO" 23+90.00 TO 24+75.00
"WFCL" 11+00.00 TO 67+25.00	"WKFA 57+00.00 TO 57+75.00	"WKIO" 52+57.36 TO 59+00.00
"WKEX" 47+50.00 TO 51+25.00	"WKHO" 22+50.00 TO 25+50.00	"WK12" 11+25.00 TO 21+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

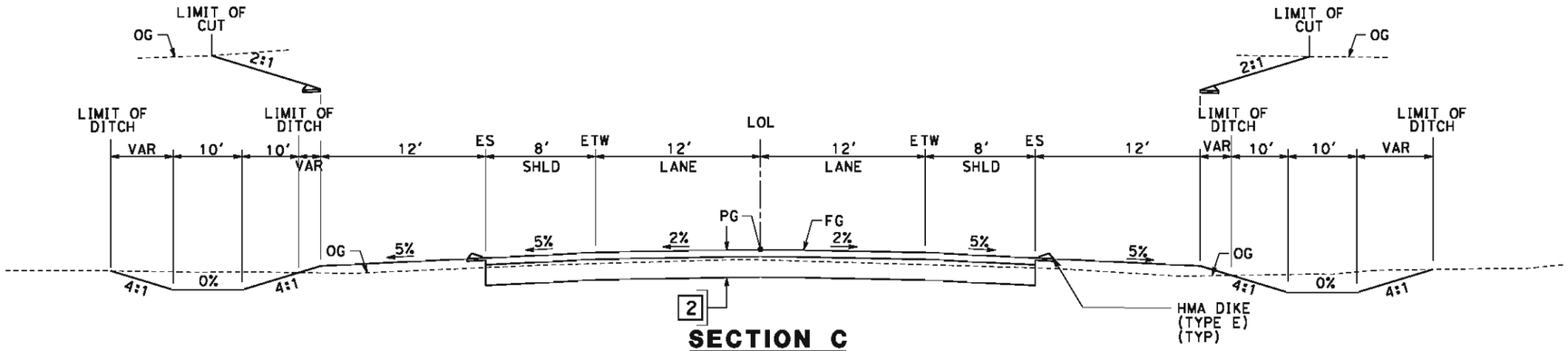
LIRS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

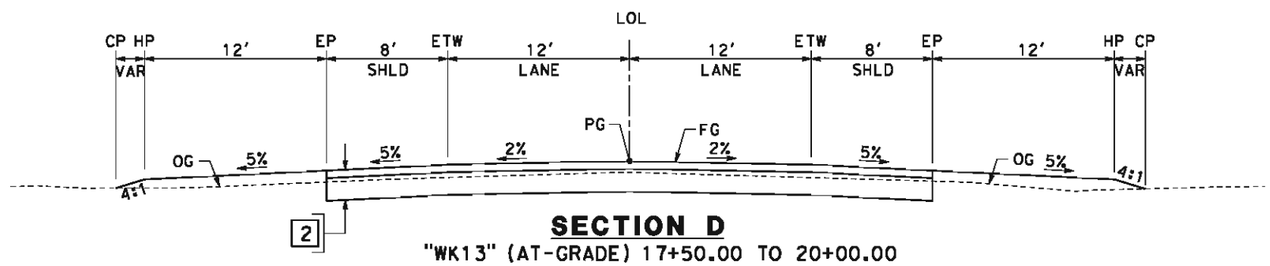
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3330
SCALE AS SHOWN
SHEET NO. 48 OF 51

J0553823 5/11/2012 11:03:34 AM CAHSRP-r1.tbl CHSR_PDF_half_black.pltcfg \\pwworking\hmm\external\jos53823\dms09252\FB-CT3330.dgn



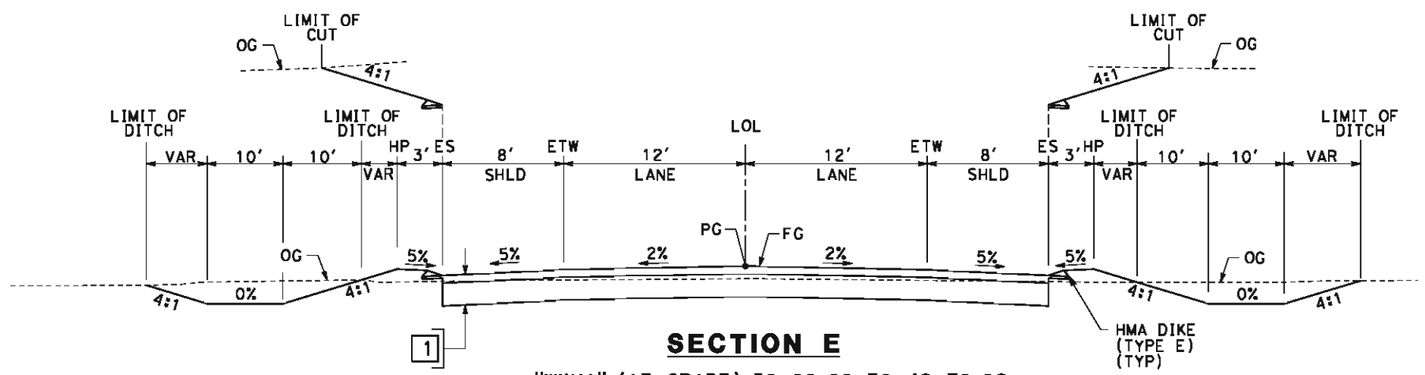
SECTION C

"WK13" (AT-GRADE) 20+00.00 TO 46+00.00
"WKLC" (AT-GRADE) 24+75.00 TO 47+50.00
"WK13" (BELOW GRADE) 15+25.00 TO 34+65.95
"WK13" (BELOW GRADE) 36+43.45 TO 45+75.00



SECTION D

"WK13" (AT-GRADE) 17+50.00 TO 20+00.00
"WKLC" (BELOW GRADE) 34+40.00 TO 37+62.86
"WKLC" (BELOW GRADE) 38+92.86 TO 45+50.00



SECTION E

"WKHA" (AT-GRADE) 30+00.00 TO 42+70.02
"WKHA" (AT-GRADE) 44+76.02 TO 54+60.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

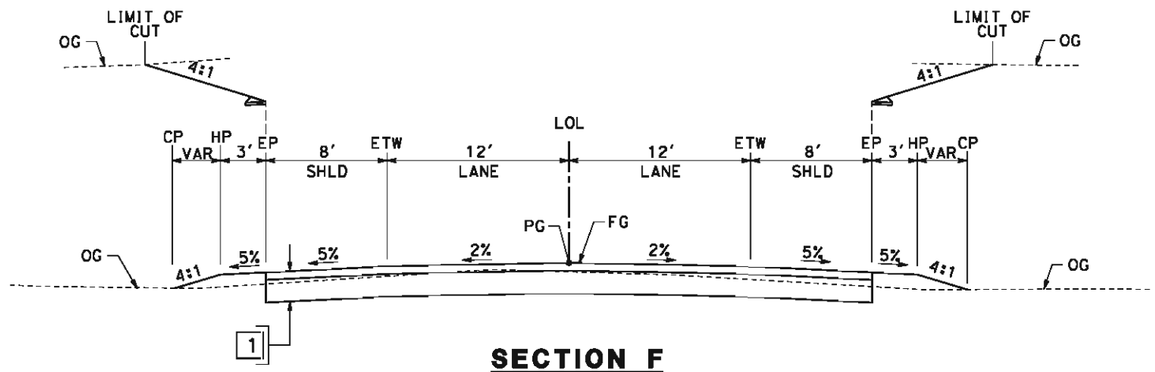
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

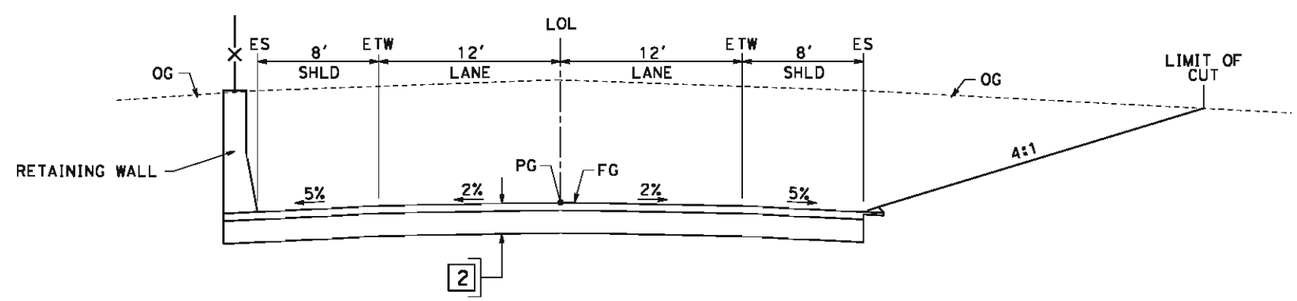
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3331
SCALE AS SHOWN
SHEET NO. 49 OF 51

NET53329 5/11/2012 8:14:34 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT3331.dgn



SECTION F

"WFCO" 11+60.00 TO 20+48.32
"WFCO" 29+35.23 TO 33+10.00
"WKGR" 31+50.00 TO 52+00.00
"WKHA" (AT-GRADE) 29+00.00 TO 30+00.00
"WKHA" (AT-GRADE) 54+60.00 TO 55+10.00
"WKHA" (BELOW GRADE) 41+00.00 TO 42+77.02
"WKHA" (BELOW GRADE) 44+75.02 TO 46+00.02



SECTION G

"WFCO" 20+48.32 TO 29+35.23

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

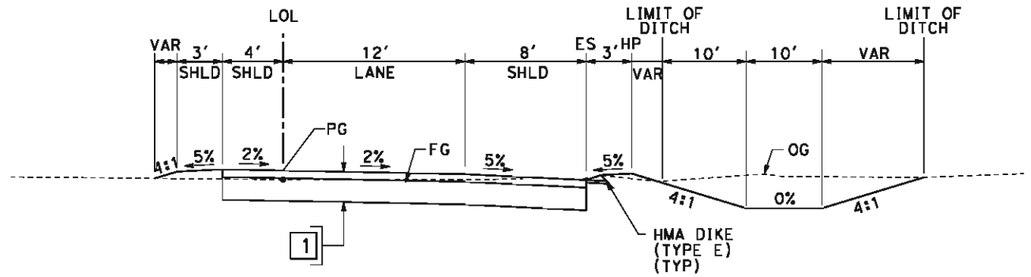
LIRS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

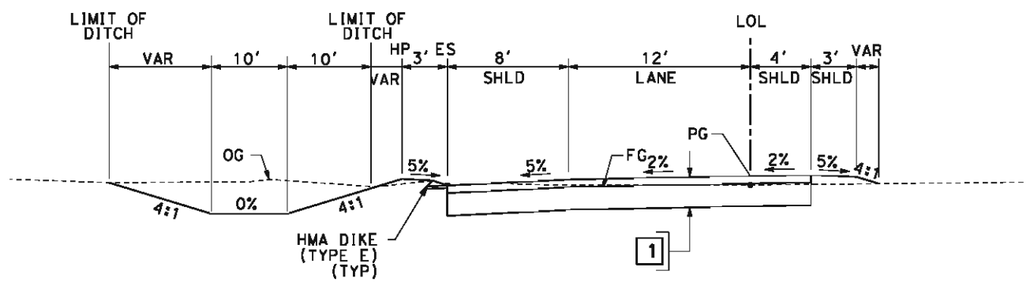
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3332
SCALE AS SHOWN
SHEET NO. 50 OF 51

NET53329 5/11/2012 8:14:35 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\HW\FB-CT3332.dgn



SECTION H

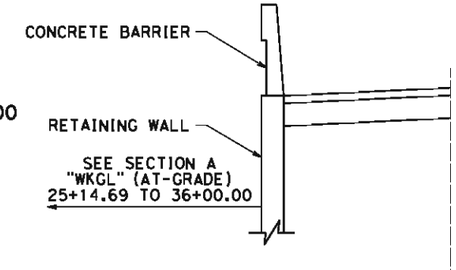
"EBON" 10+00.00 TO 22+78.97

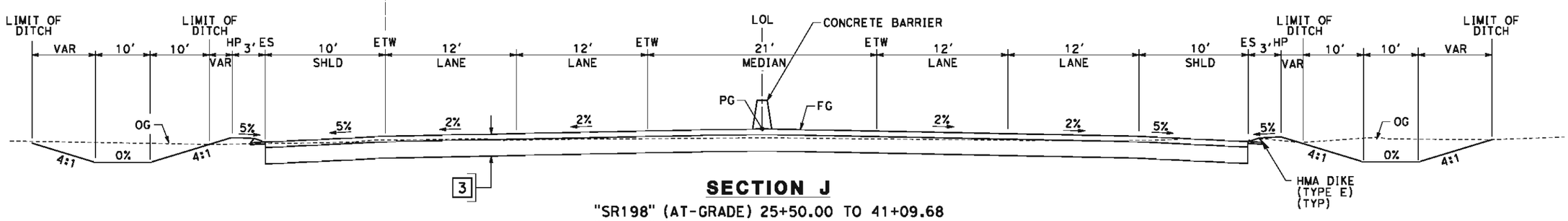


SECTION I

"WBOFF" 5+70.27 TO 15+29.78

"SR198" (AT-GRADE)
47+75.00 TO 62+45.00





SECTION J

"SR198" (AT-GRADE) 25+50.00 TO 41+09.68
"SR198" (AT-GRADE) 43+56.68 TO 65+50.00
"SR198" (BELOW GRADE) 40+60.00 TO 41+12.16
"SR198" (BELOW GRADE) 43+68.91 TO 44+20.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3333
SCALE AS SHOWN
SHEET NO. 51 OF 51

NE153329 5/15/2012 1:22:44 PM CAHSRP-r1.tbl CHSR_PDF_half_block.pltc:\pwworking\hmm\external\ne153329\dms09252\VFB-CT3333.dgn

STREET CLOSURE

STREET NAME	HST ALIGNMENT STA.
S 10TH AVE	2290+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

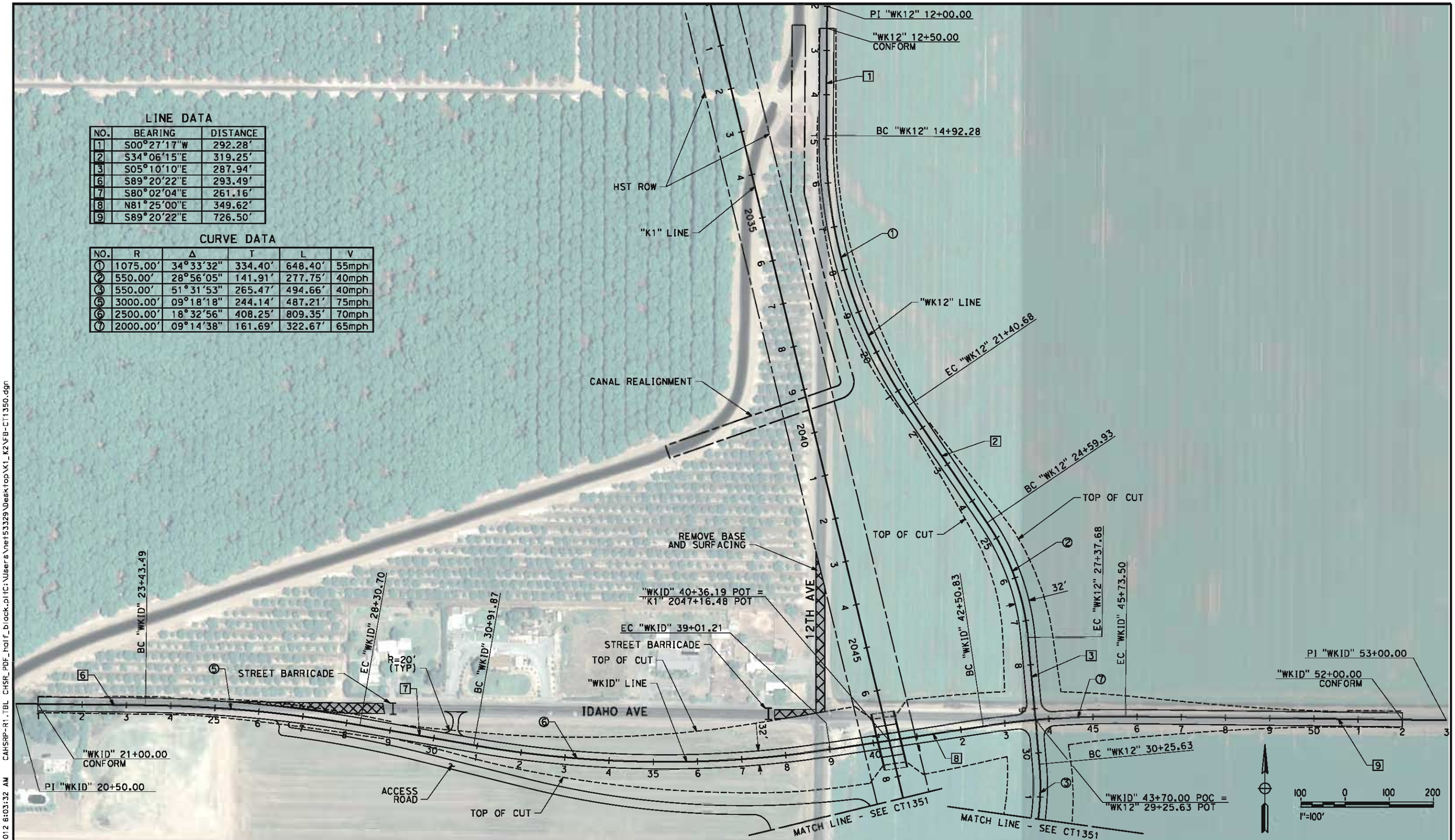
LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
ROADWAY/GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0220
SCALE AS SHOWN
SHEET NO. 1 OF 19

NET53329 5/11/2012 8:03:29 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CB0220.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S00°27'17"W	292.28'
2	S34°06'15"E	319.25'
3	S05°10'10"E	287.94'
6	S89°20'22"E	293.49'
7	S80°02'04"E	261.16'
8	N81°25'00"E	349.62'
9	S89°20'22"E	726.50'

CURVE DATA

NO.	R	Δ	T	L	V
1	1075.00'	34°33'32"	334.40'	648.40'	55mph
2	550.00'	28°56'05"	141.91'	277.75'	40mph
3	550.00'	51°31'53"	265.47'	494.66'	40mph
5	3000.00'	09°18'18"	244.14'	487.21'	75mph
6	2500.00'	18°32'56"	408.25'	809.35'	70mph
7	2000.00'	09°14'38"	161.69'	322.67'	65mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

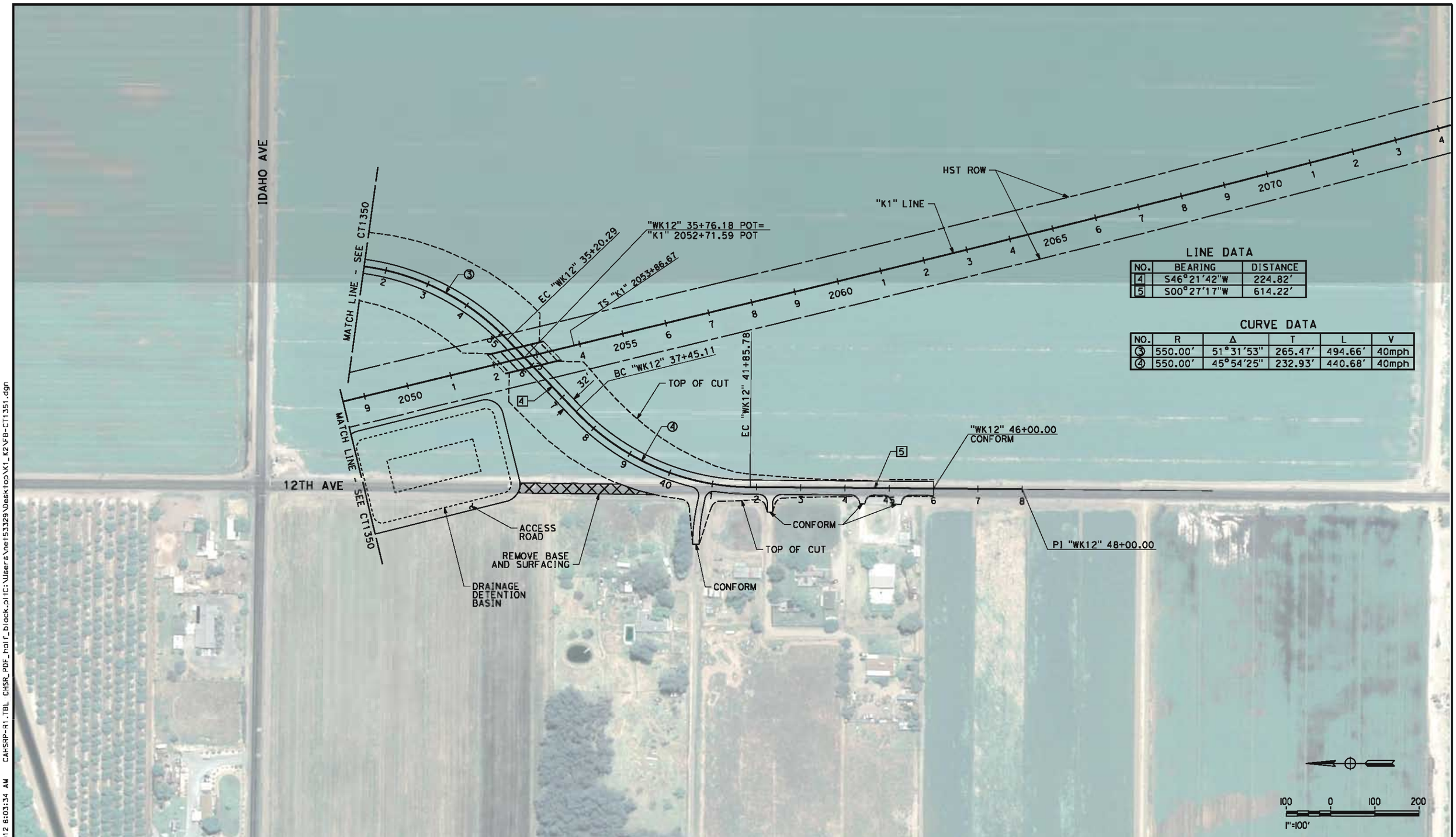
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION LAYOUT
12TH AVE / IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1350
SCALE AS SHOWN
SHEET NO. 2 OF 19

NET53329 5/11/2012 8:03:32 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT1350.dgn



LINE DATA

NO.	BEARING	DISTANCE
4	S46°21'42"W	224.82'
5	S00°27'17"W	614.22'

CURVE DATA

NO.	R	Δ	T	L	V
3	550.00'	51°31'53"	265.47'	494.66'	40mph
4	550.00'	45°54'25"	232.93'	440.68'	40mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

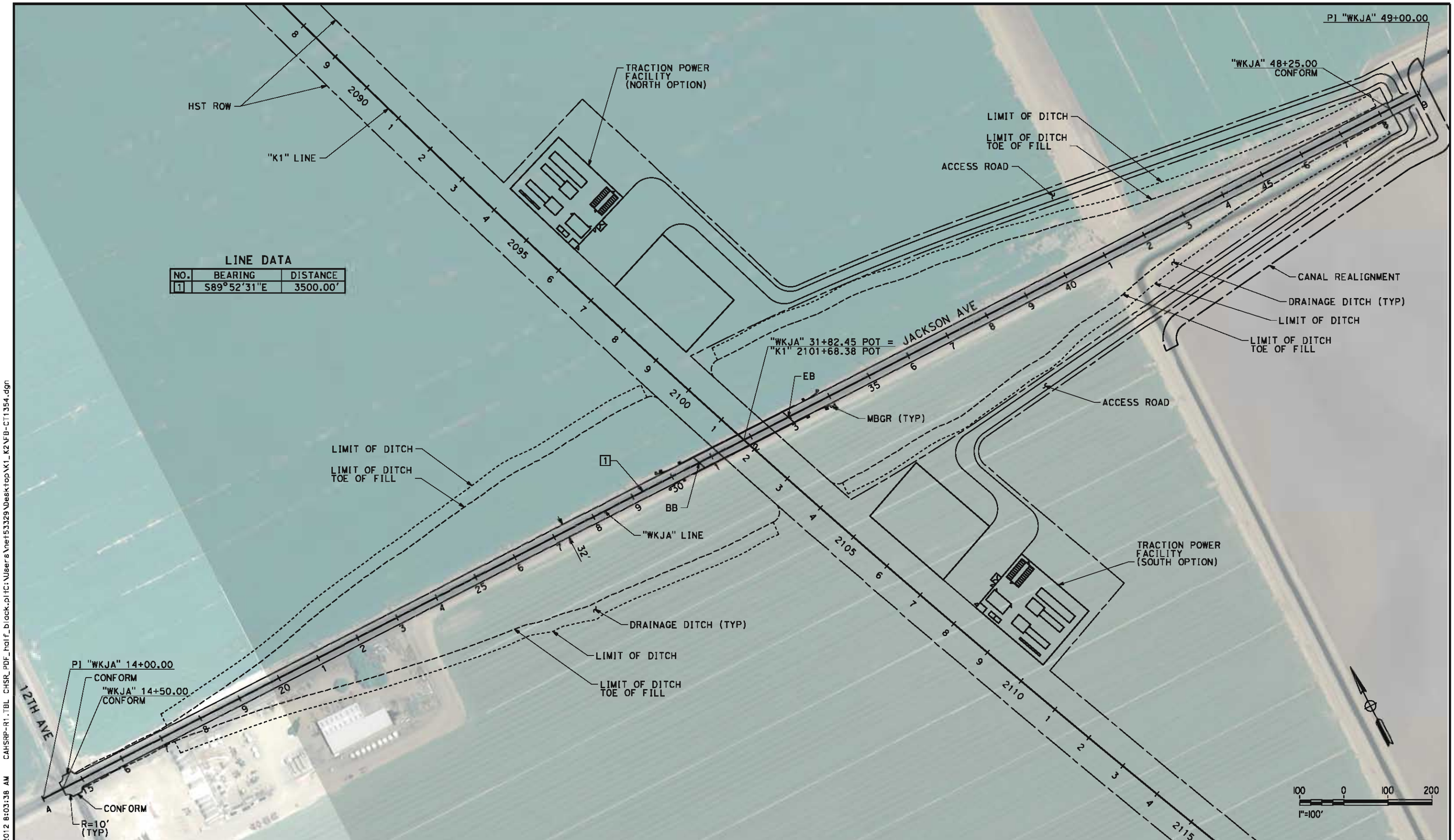
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION LAYOUT
12TH AVE / IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1351
SCALE AS SHOWN
SHEET NO. 3 OF 19

NET53329 5/11/2012 8:03:34 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT1351.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°52'31"E	3500.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

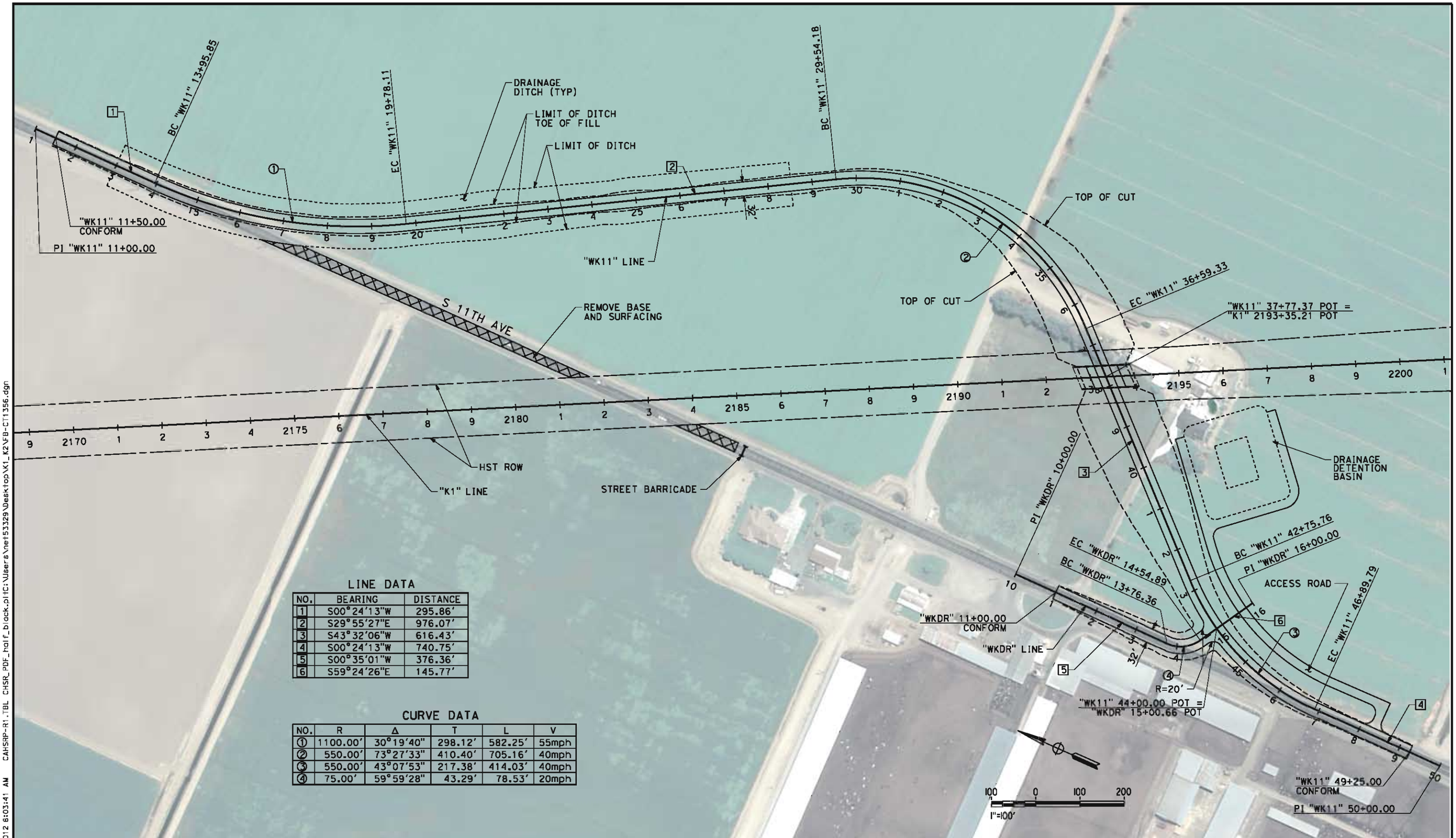
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1354
SCALE AS SHOWN
SHEET NO. 4 OF 19

NET53329 5/11/2012 8:03:38 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\Vnet53329\Desktop\K1_K2\FB-CT1354.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S00°24'13"W	295.86'
2	S29°55'27"E	976.07'
3	S43°32'06"W	616.43'
4	S00°24'13"W	740.75'
5	S00°35'01"W	376.36'
6	S59°24'26"E	145.77'

CURVE DATA

NO.	R	Δ	T	L	V
1	1100.00'	30°19'40"	298.12'	582.25'	55mph
2	550.00'	73°27'33"	410.40'	705.16'	40mph
3	550.00'	43°07'53"	217.38'	414.03'	40mph
4	75.00'	59°59'28"	43.29'	78.53'	20mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

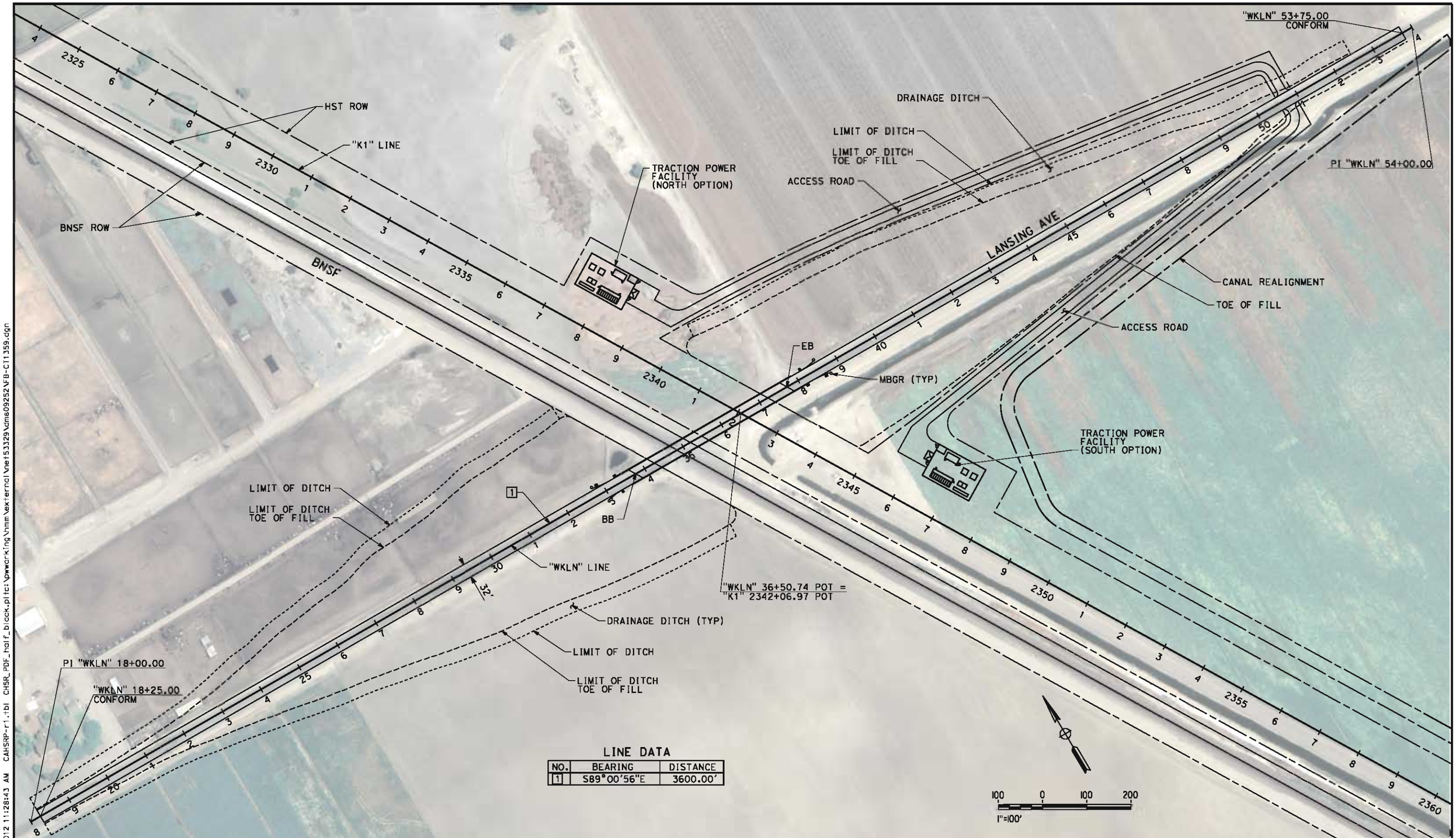
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION LAYOUT
S 11TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1356
SCALE AS SHOWN
SHEET NO. 5 OF 19

NET53329 5/11/2012 8:03:41 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT1356.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°00'56"E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

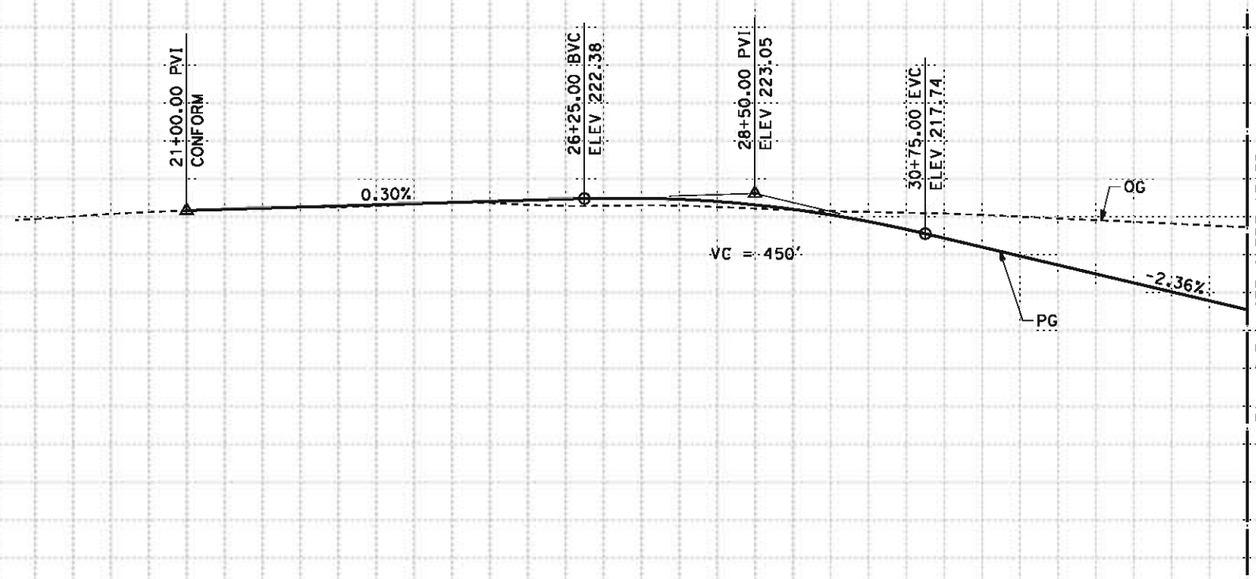
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION LAYOUT
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1359
SCALE AS SHOWN
SHEET NO. 6 OF 19

NET53329 5/15/2012 11:28:43 AM CAHSRP-r1.tbl CHSR_PDF_half_block.pltcfg \pwworking\hmm\external\net53329\dms09252\FB-CT1359.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM

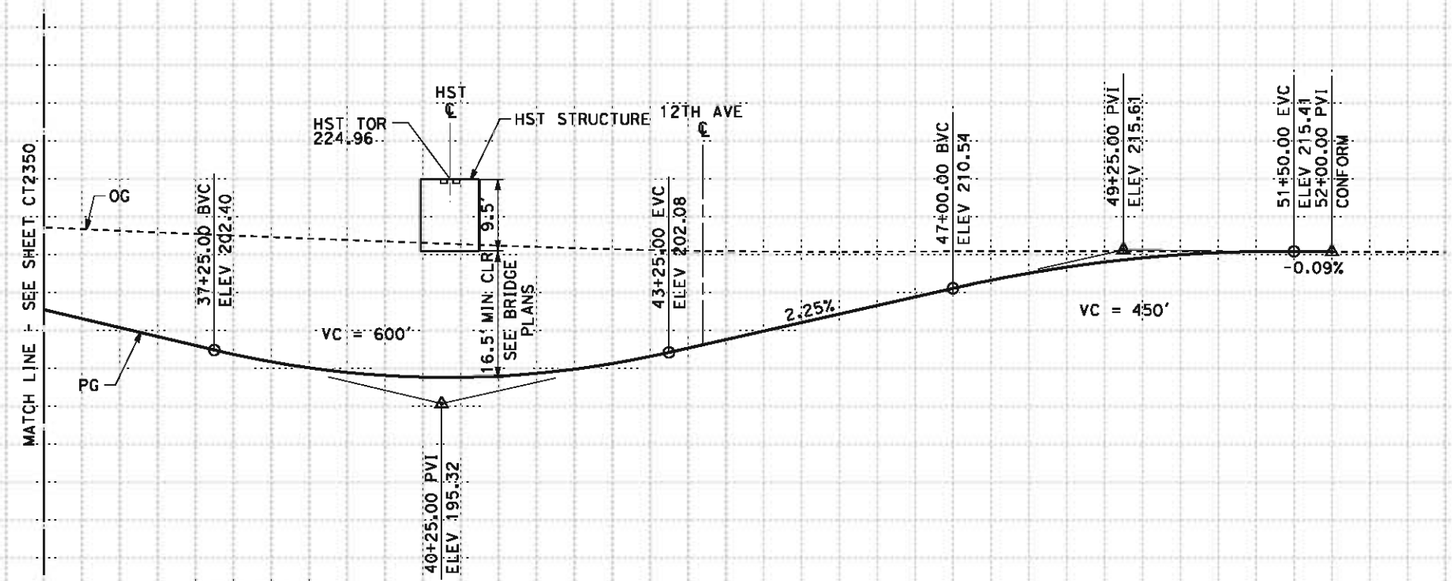


PROFILE

"WKID" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

| STATION | | |



PROFILE

"WKID" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	TOTAL
CY Exc																				
CY Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

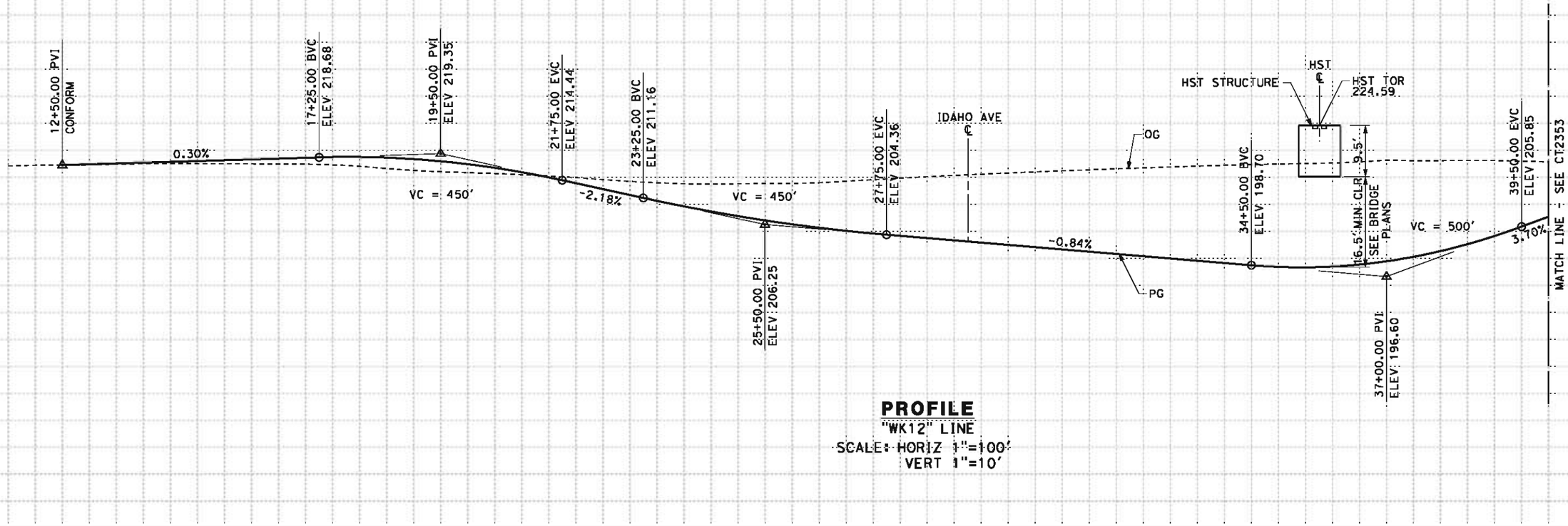
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2351
SCALE AS SHOWN
SHEET NO. 8 OF 19

NET53329 5/11/2012 8:03:46 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2351.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK12" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	9	40	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

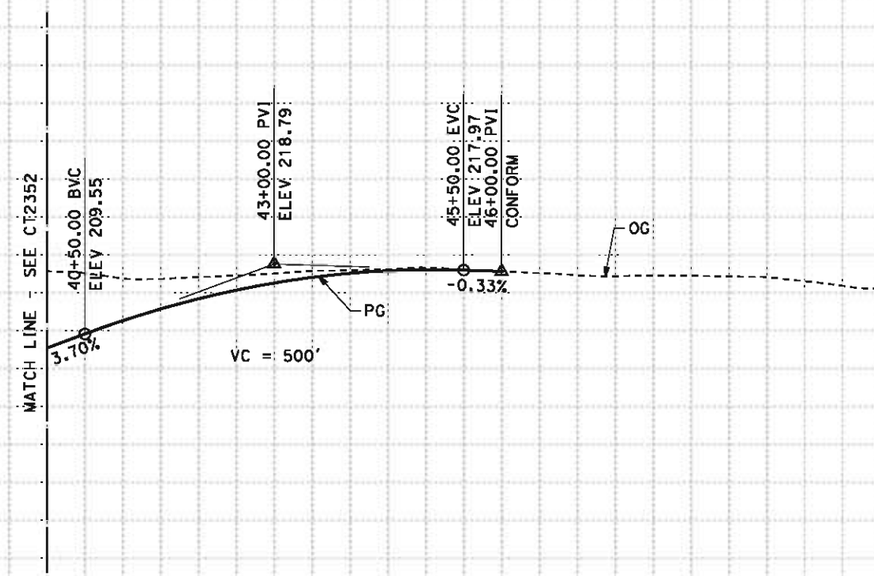
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
12TH AVE (AT IDAHO AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2352
SCALE AS SHOWN
SHEET NO. 9 OF 19

NET53329 5/11/2012 8:03:46 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2352.dgn



PROFILE
"WK12" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	40	1	2	3	4	45	6	7	8	9	50	1	TOTAL
CY Exc													
CY Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

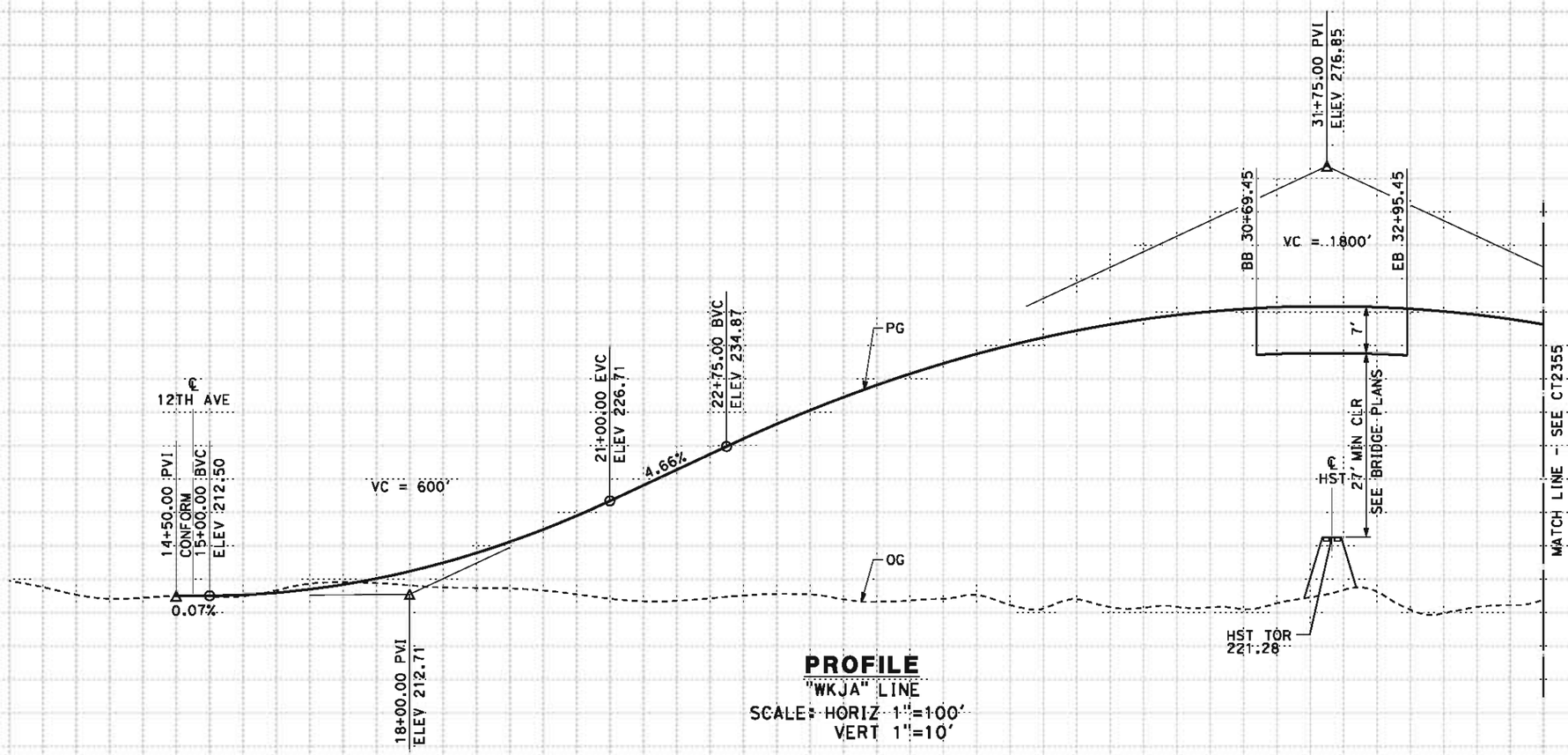
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
12TH AVE (AT IDAHO AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2353
SCALE AS SHOWN
SHEET NO. 10 OF 19

NET53329 5/11/2012 8:03:47 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2353.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

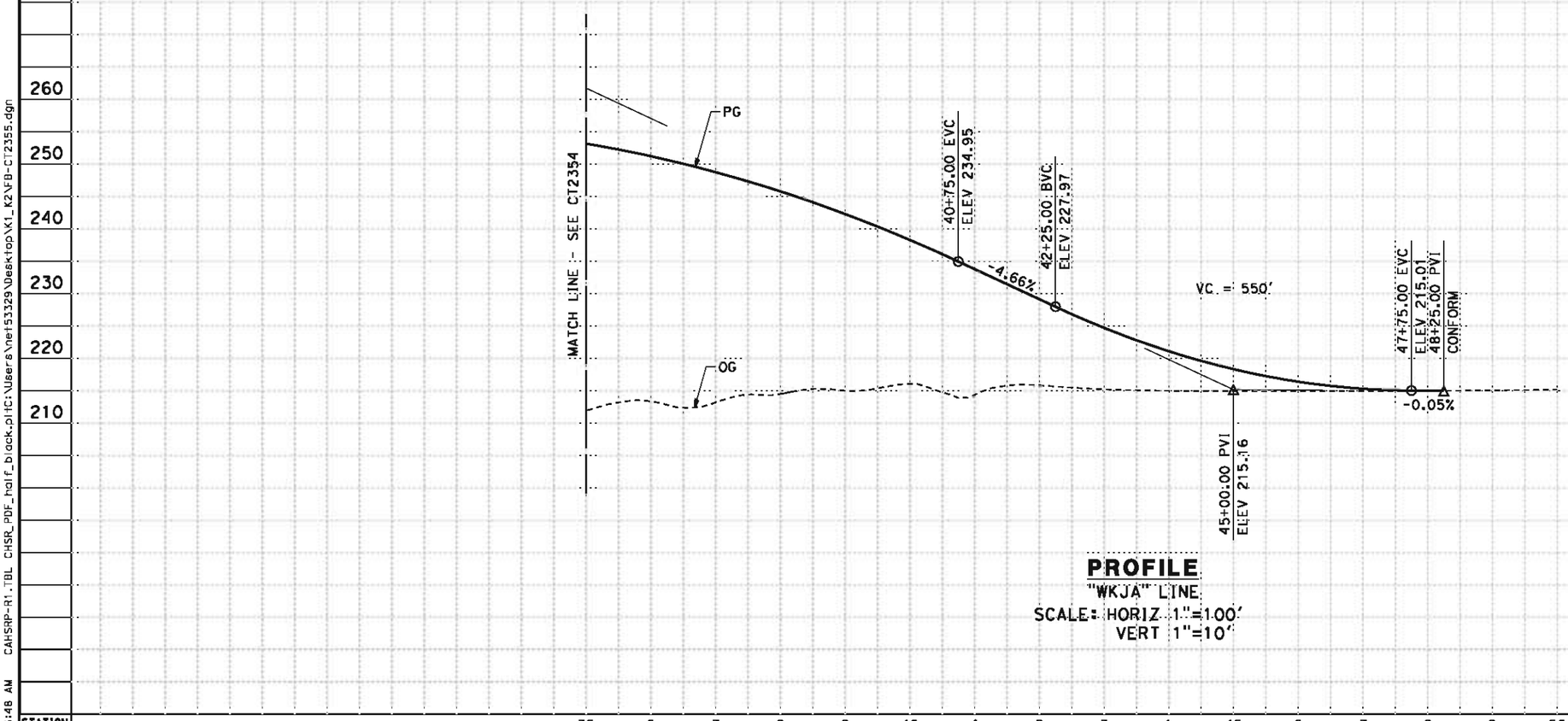
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2354
SCALE AS SHOWN
SHEET NO. 11 OF 19

NET53329 5/11/2012 8:03:48 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2354.dgn



PROFILE
"WKJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	TOTAL
CY Exc																	
CY Emb																	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

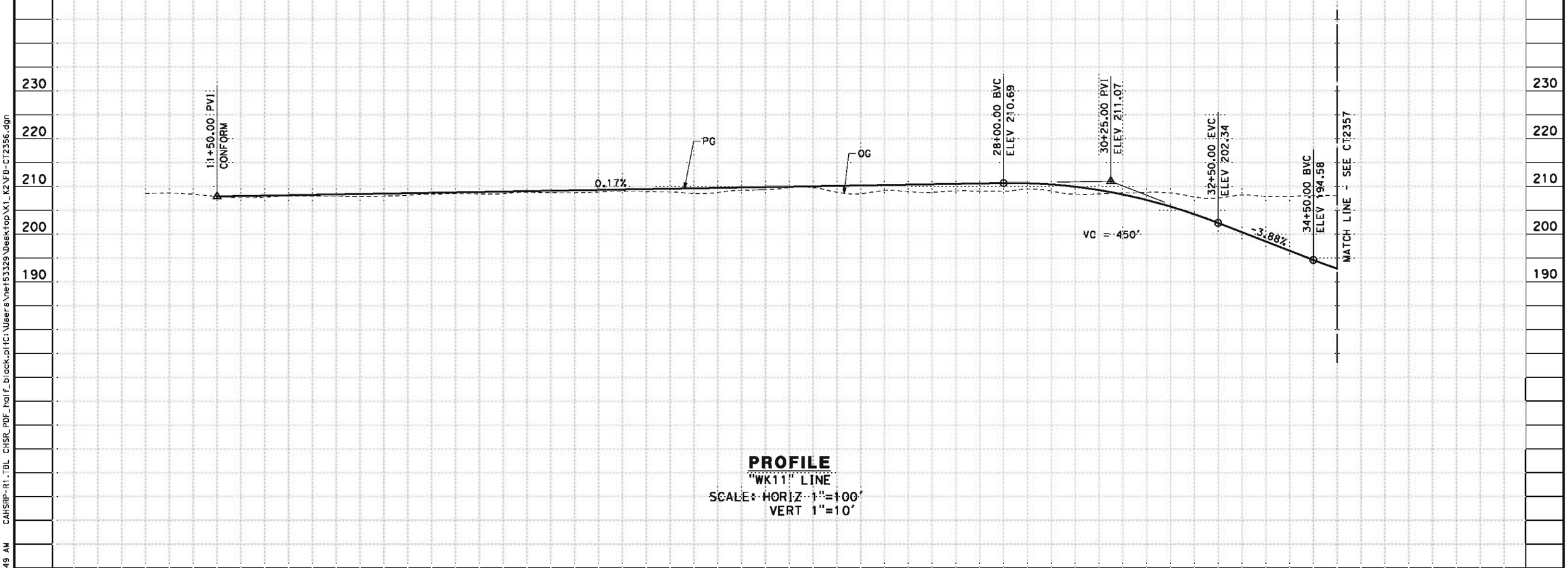
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2355
SCALE AS SHOWN
SHEET NO. 12 OF 19

NET53329 5/11/2012 8:03:48 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2355.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK11" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

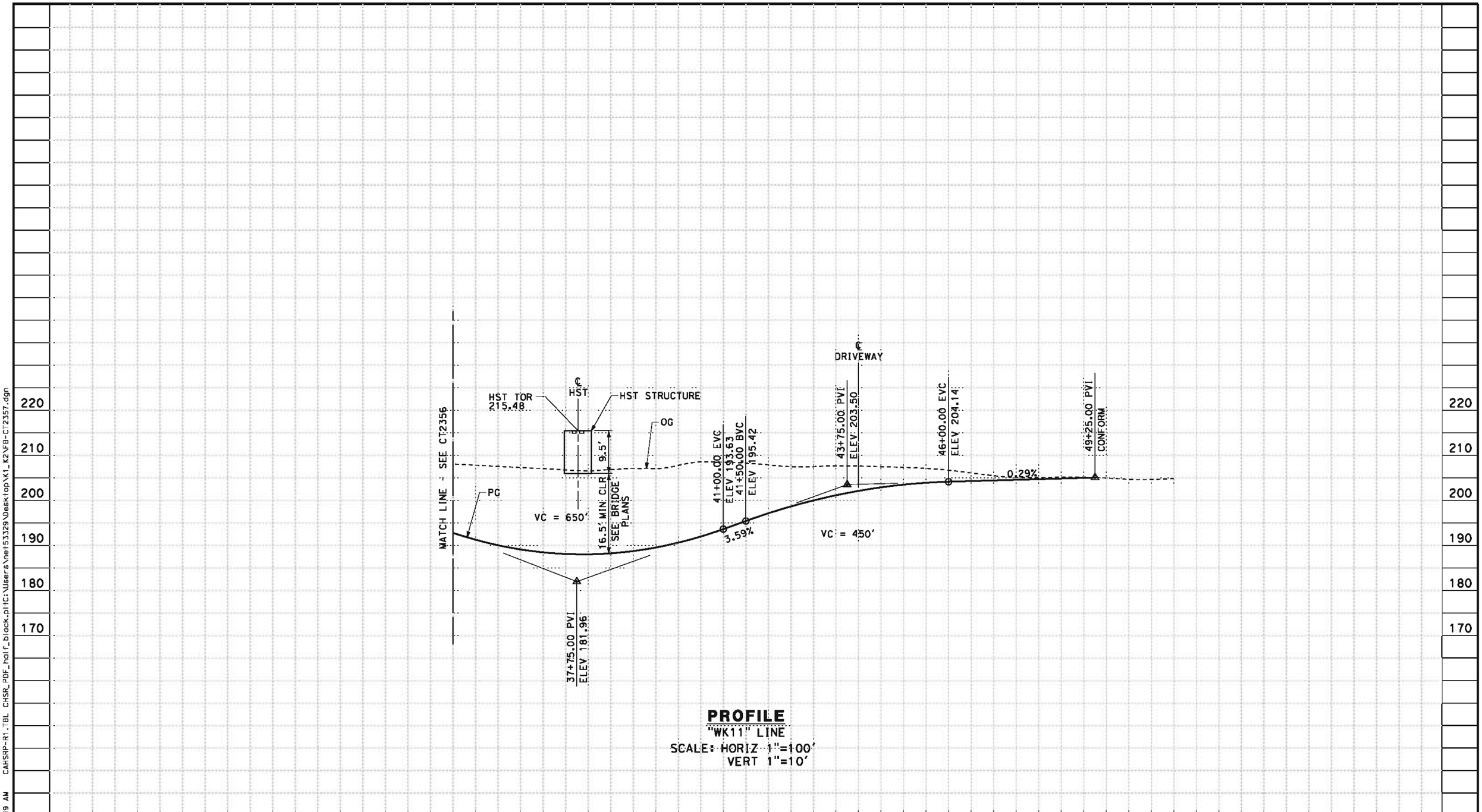
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
11TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2356
SCALE AS SHOWN
SHEET NO. 13 OF 19

NET53329 5/11/2012 8:03:49 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2356.dgn



PROFILE
"WK11" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

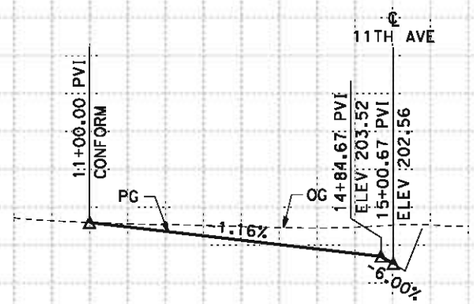
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
11TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2357
SCALE AS SHOWN
SHEET NO. 14 OF 19

NET53329 5/11/2012 8:03:49 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\Vnet53329\Desktop\K1_K2\FB-CT2357.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKDR" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	TOTAL
CY	Exc								
	Emb								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

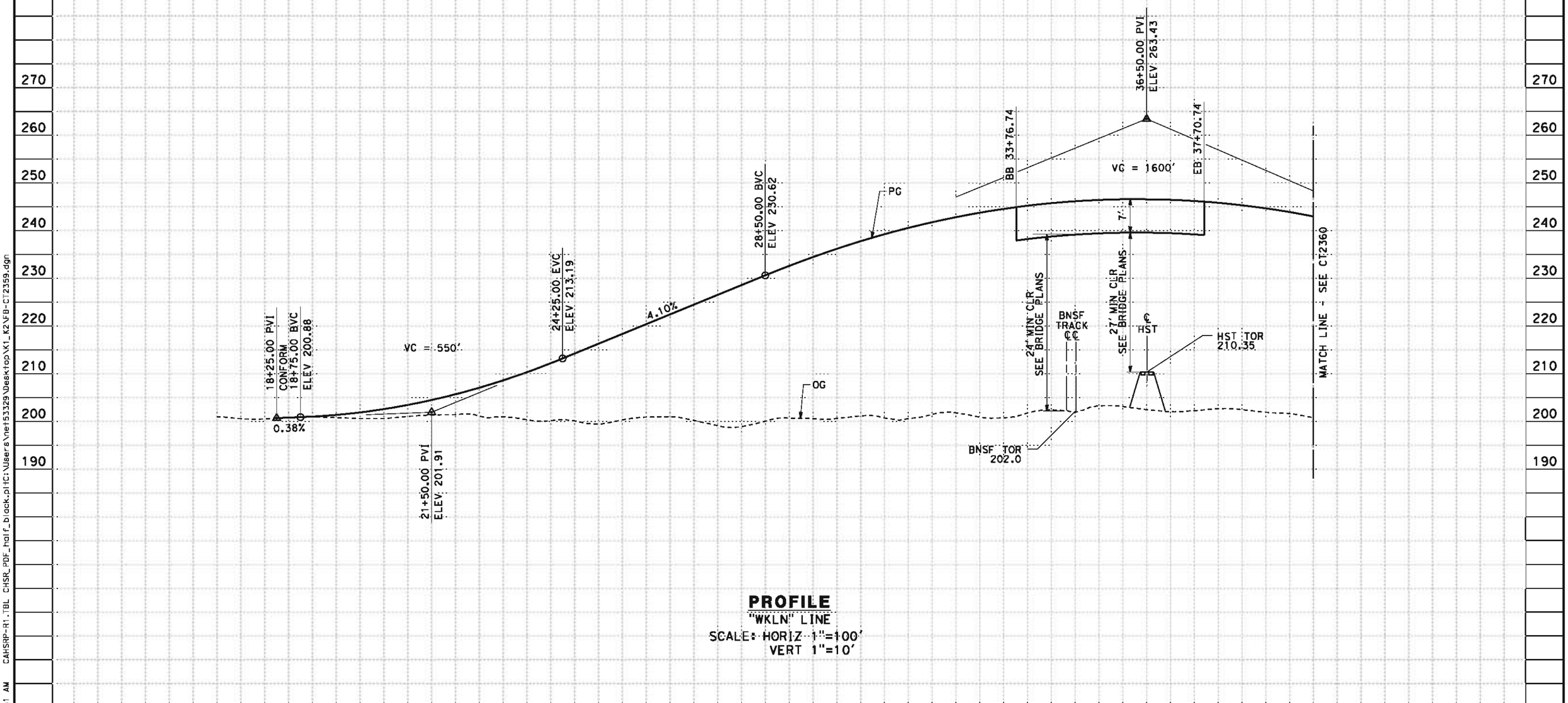
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
DRIVEWAY (AT 11TH AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2358
SCALE AS SHOWN
SHEET NO. 15 OF 19

NET53329 5/11/2012 8:03:50 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pl-IC:\Users\net53329\Desktop\K1_K2\FB-CT2358.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM
4. MIN VERTICAL CLEARANCE OVER BNSF IS 23.5' FROM TOP OF RAIL



PROFILE

"WKLN" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	TOTAL
CY Exc																									
CY Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

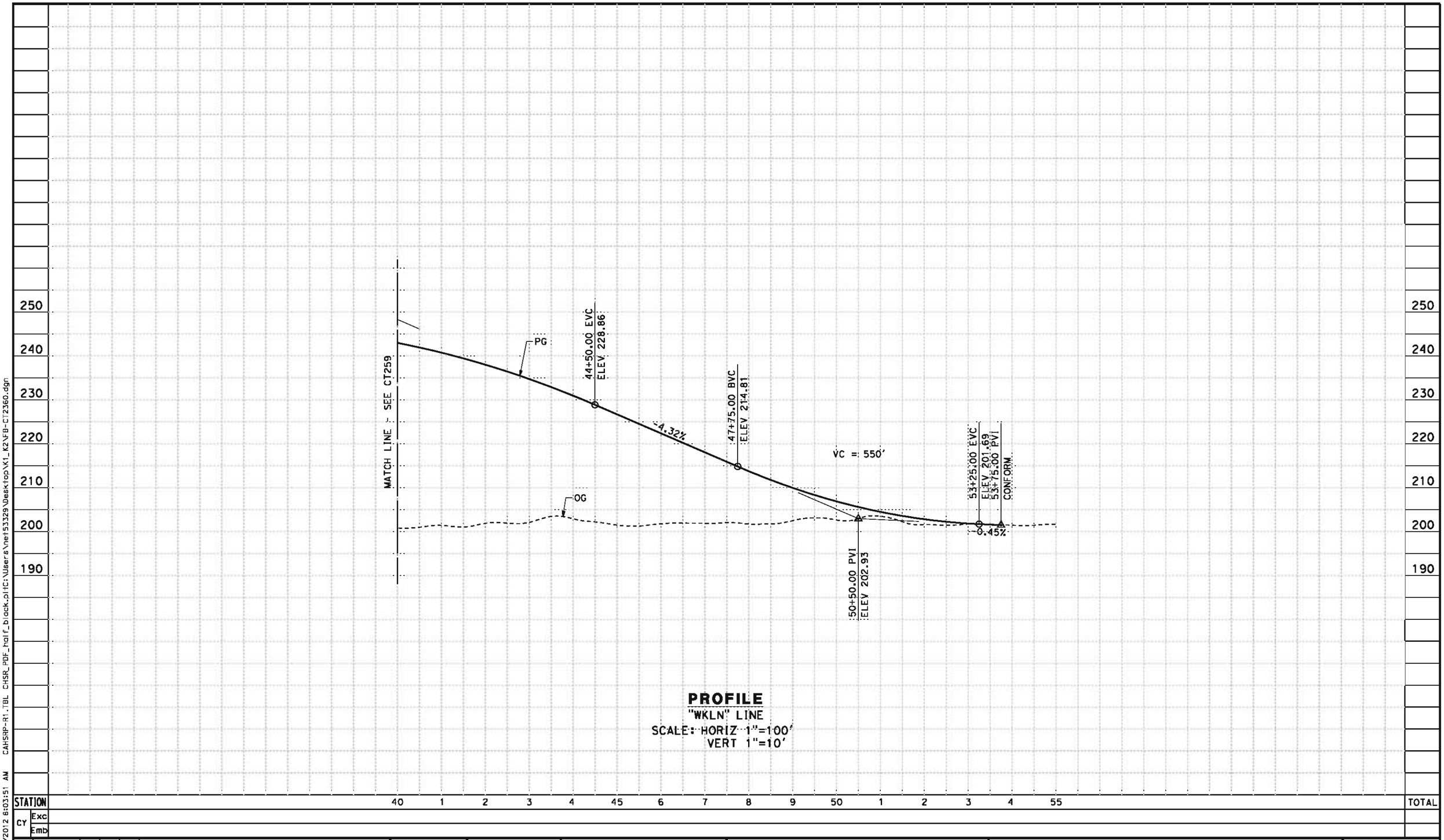
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2359
SCALE AS SHOWN
SHEET NO. 16 OF 19

NE153329 5/11/2012 8:03:51 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\ne153329\Desktop\K1_K2\FB-CT2359.dgn



PROFILE
"WKLN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
GRADE SEPARATION PROFILE
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2360
SCALE AS SHOWN
SHEET NO. 17 OF 19

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NOTES:

1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.

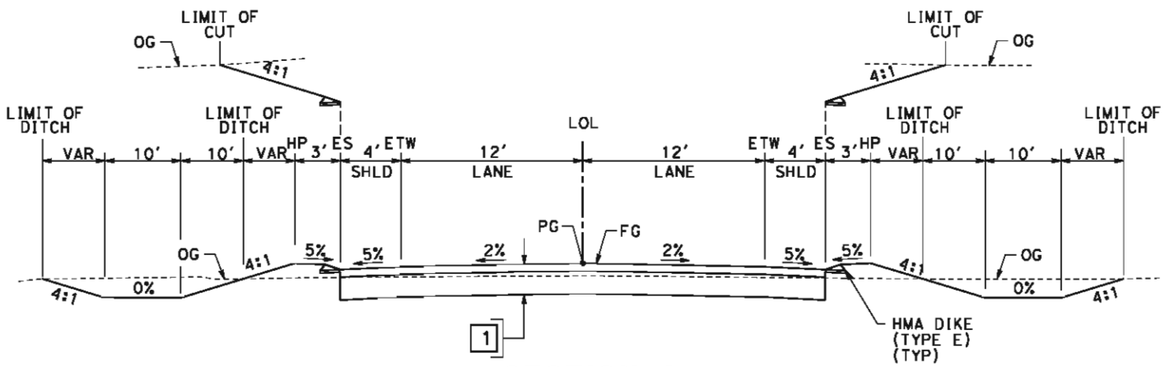
STRUCTURAL SECTIONS

TYPICAL ROADWAY (4' SHOULDER)

1 — 0.30' HMA (TYPE A)
1.40' CL 2 AB

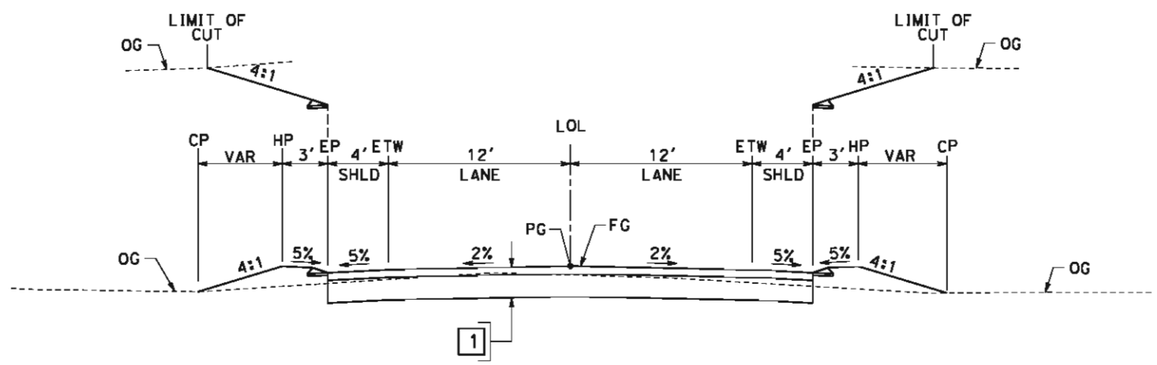
TYPICAL ROADWAY (8' SHOULDER)

2 — 0.40' HMA (TYPE A)
1.70' CL 2 AB



SECTION A

"WKJA" 17+25.00 TO 30+69.45
"WKJA" 32+95.45 TO 48+00.00
"WK11" 13+00.00 TO 28+50.00
"WKLN" 18+25.00 TO 33+76.74



SECTION B

"WKID" 21+00.00 TO 52+00.00
"WK12" 12+50.00 TO 46+00.00
"WKJA" 14+50.00 TO 17+25.00
"WKJA" 48+00.00 TO 48+25.00
"WK11" 11+50.00 TO 13+00.00
"WK11" 28+50.00 TO 49+25.00
"WKDR" 11+00.00 TO 14+84.66
"WKLN" 52+50.00 TO 53+75.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

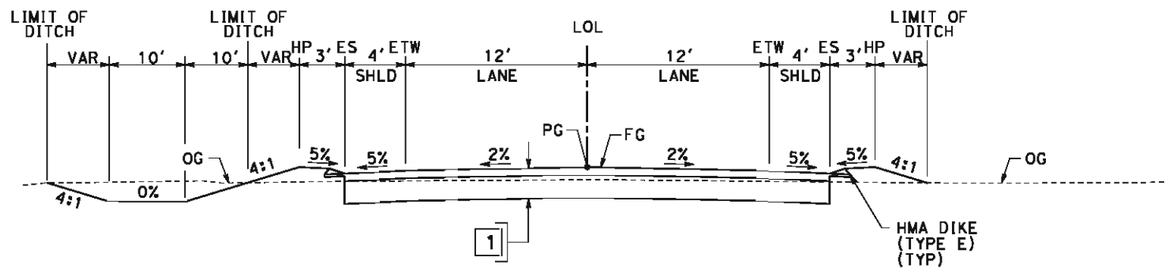
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3340
SCALE AS SHOWN
SHEET NO. 18 OF 19

NET53329 5/11/2012 8:03:52 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT3340.dgn



SECTION C

"WKLN" 37+70.74 TO 52+50.00

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K1
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3341
SCALE AS SHOWN
SHEET NO. 19 OF 19

STREET CLOSURE

STREET NAME	HST ALIGNMENT STA.
S 10TH AVE	2315+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY V. ORTEGA
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
ROADWAY/GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0230
SCALE AS SHOWN
SHEET NO. 1 OF 26

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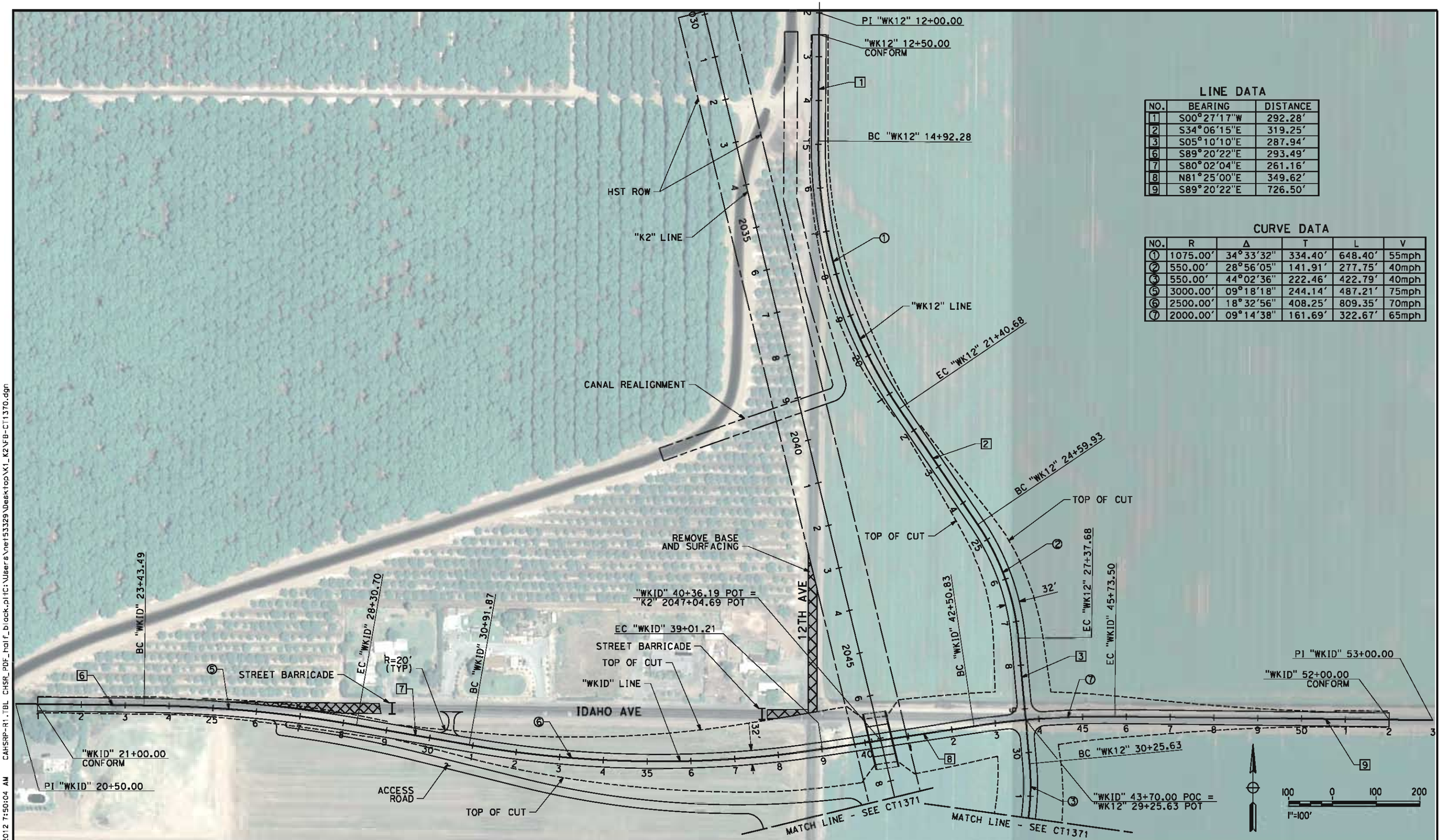

LINE DATA

NO.	BEARING	DISTANCE
1	S00°27'17"W	292.28'
2	S34°06'15"E	319.25'
3	S05°10'10"E	287.94'
6	S89°20'22"E	293.49'
7	S80°02'04"E	261.16'
8	N81°25'00"E	349.62'
9	S89°20'22"E	726.50'

CURVE DATA

NO.	R	Δ	T	L	V
1	1075.00'	34°33'32"	334.40'	648.40'	55mph
2	550.00'	28°56'05"	141.91'	277.75'	40mph
3	550.00'	44°02'36"	222.46'	422.79'	40mph
5	3000.00'	09°18'18"	244.14'	487.21'	75mph
6	2500.00'	18°32'56"	408.25'	809.35'	70mph
7	2000.00'	09°14'38"	161.69'	322.67'	65mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
12TH AVE / IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1370
SCALE AS SHOWN
SHEET NO. 2 OF 26

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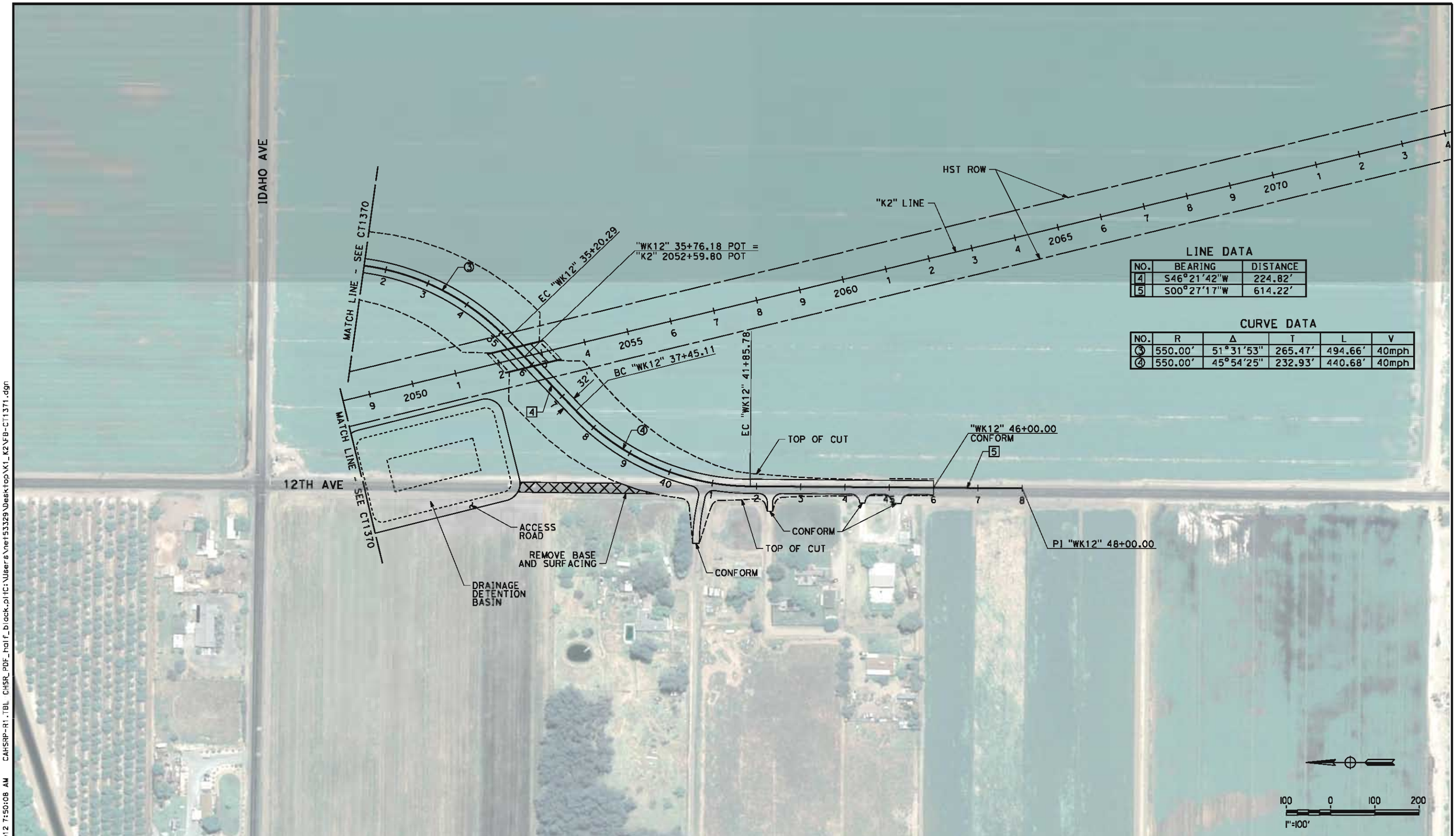

LINE DATA

NO.	BEARING	DISTANCE
4	S46°21'42"W	224.82'
5	S00°27'17"W	614.22'

CURVE DATA

NO.	R	Δ	T	L	V
3	550.00'	51°31'53"	265.47'	494.66'	40mph
4	550.00'	45°54'25"	232.93'	440.68'	40mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
12TH AVE / IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1371
SCALE AS SHOWN
SHEET NO. 3 OF 26

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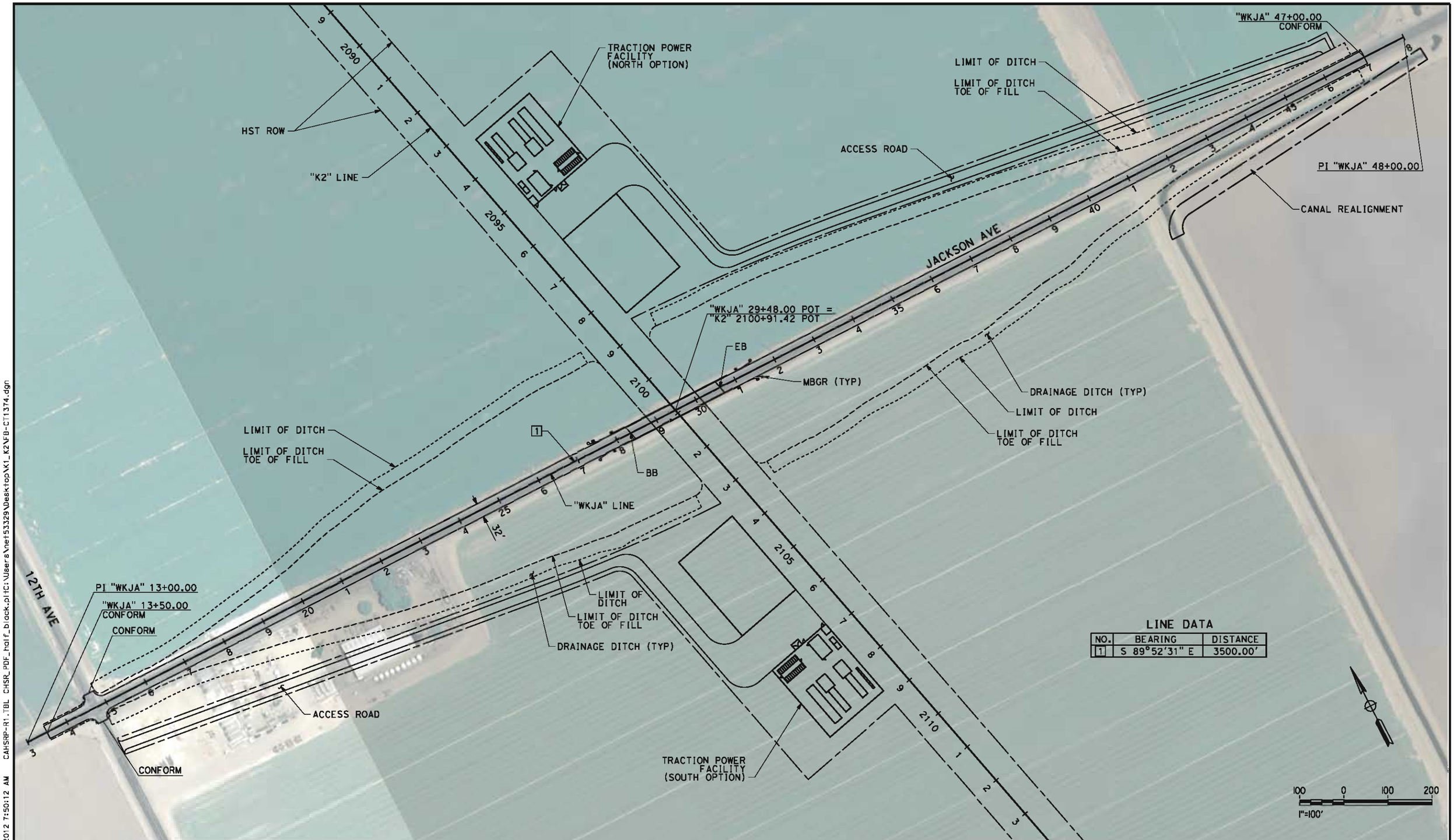

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°52'31" E	3500.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE O. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1374
SCALE AS SHOWN
SHEET NO. 4 OF 26

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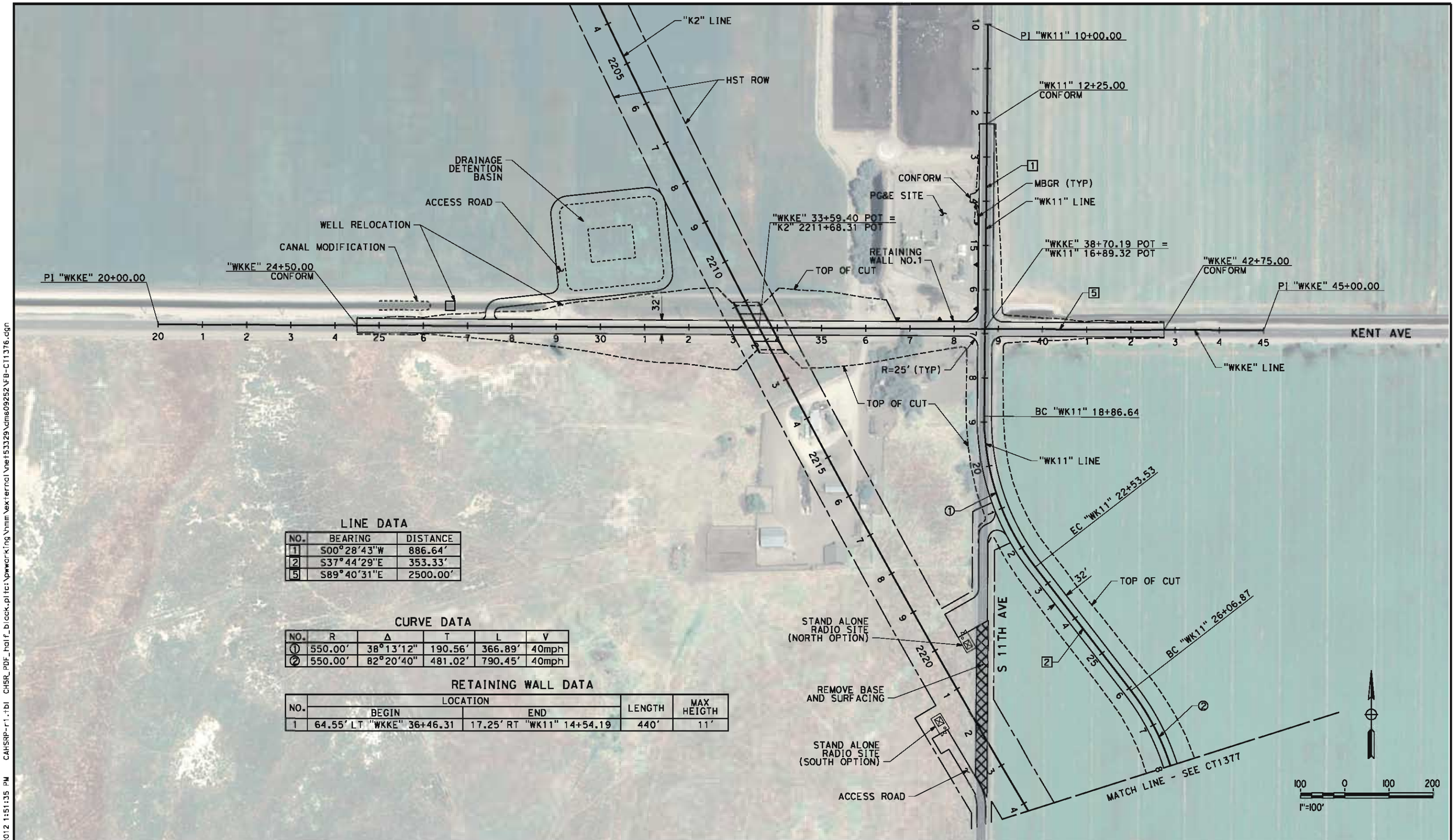

LINE DATA

NO.	BEARING	DISTANCE
1	S00°28'43"W	886.64'
2	S37°44'29"E	353.33'
5	S89°40'31"E	2500.00'

CURVE DATA

NO.	R	Δ	T	L	V
①	550.00'	38°13'12"	190.56'	366.89'	40mph
②	550.00'	82°20'40"	481.02'	790.45'	40mph

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGTH
	BEGIN	END		
1	64.55' LT "WKKE" 36+46.31	17.25' RT "WK11" 14+54.19	440'	11'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
S 11TH AVE / KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1376
SCALE AS SHOWN
SHEET NO. 5 OF 26

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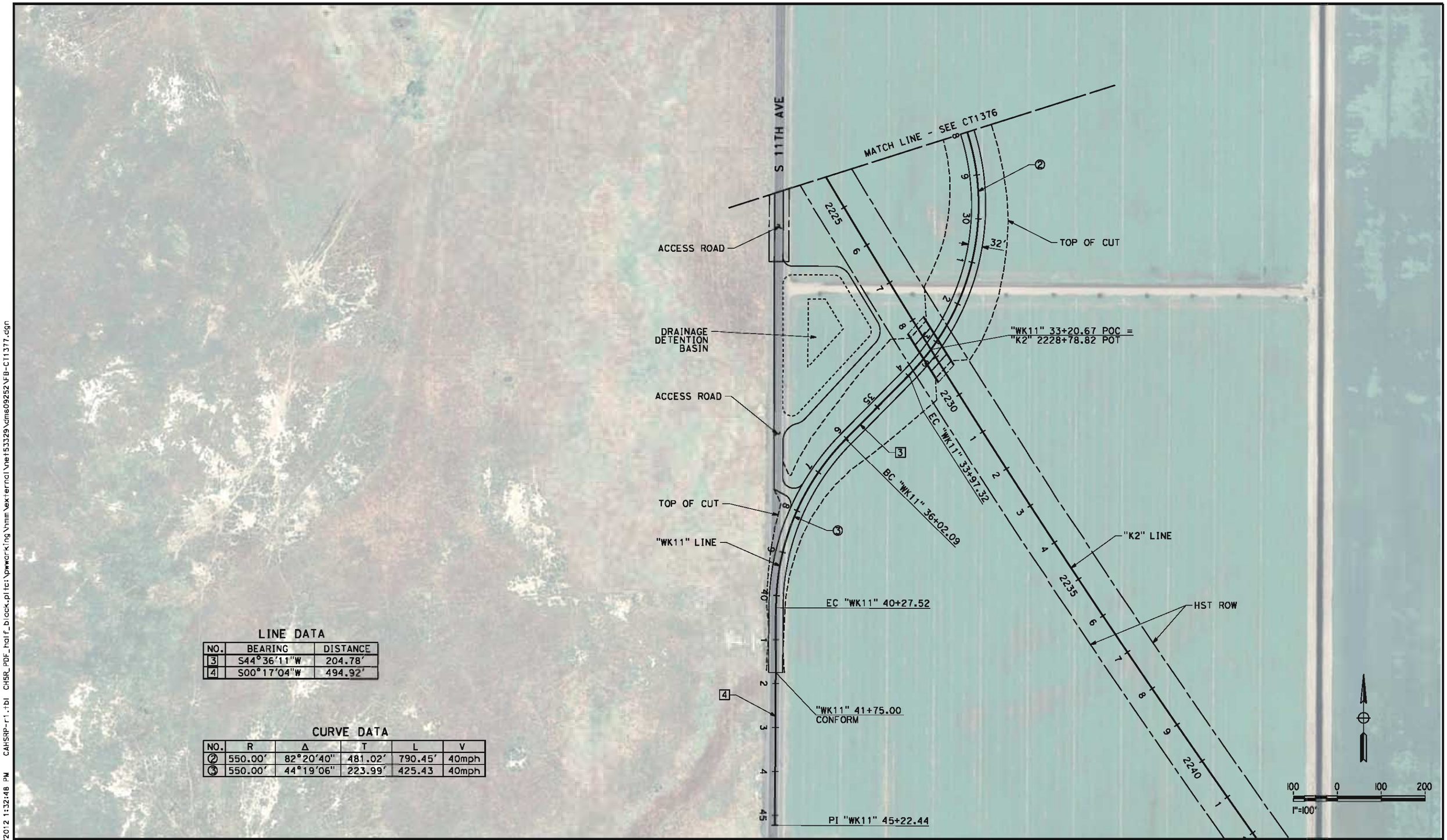

LINE DATA

NO.	BEARING	DISTANCE
3	S44°36'11"W	204.78'
4	S00°17'04"W	494.92'

CURVE DATA

NO.	R	Δ	T	L	V
2	550.00'	82°20'40"	481.02'	790.45'	40mph
3	550.00'	44°19'06"	223.99'	425.43	40mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
S 11TH AVE / KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1377
SCALE AS SHOWN
SHEET NO. 6 OF 26

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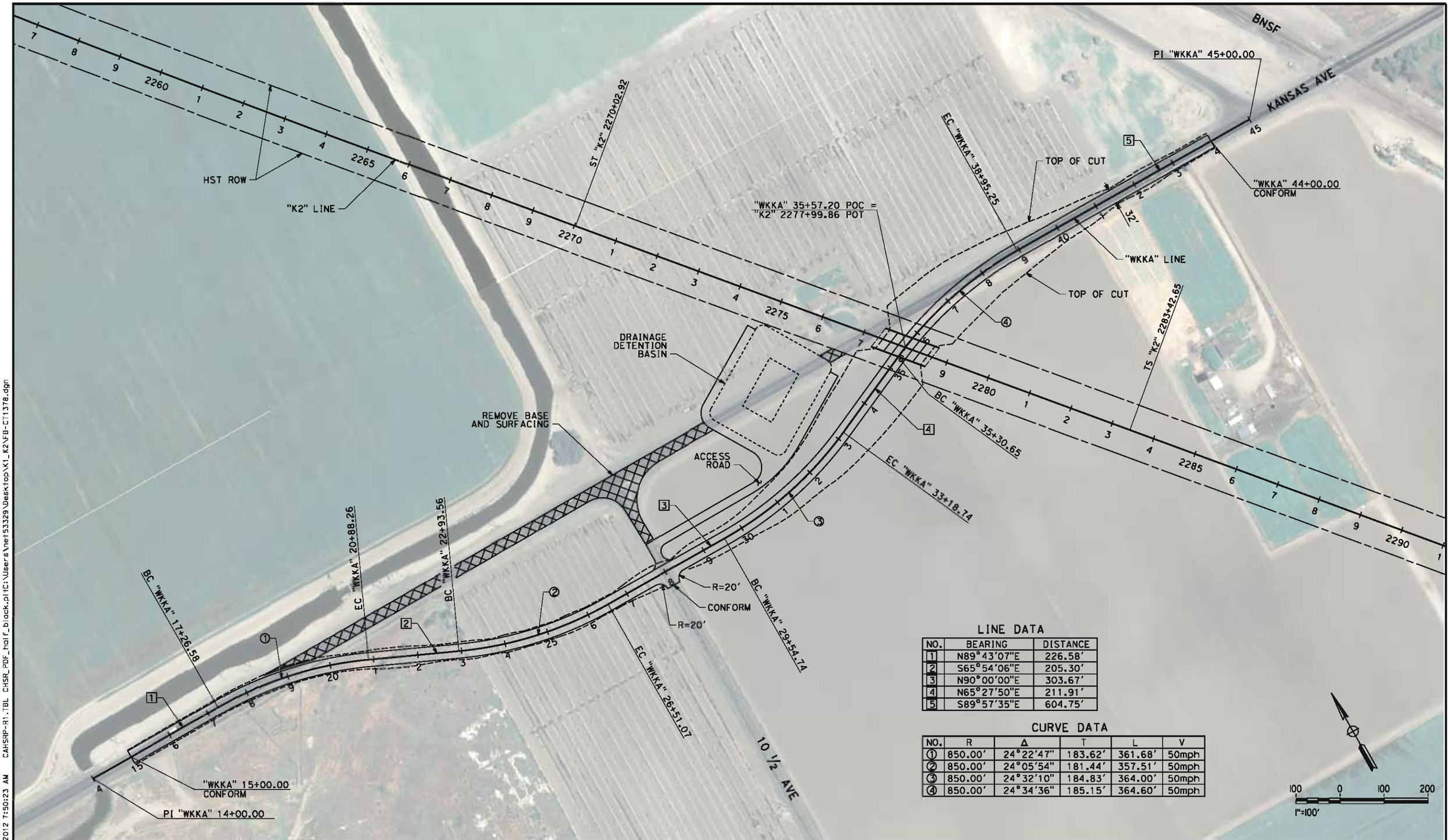

LINE DATA

NO.	BEARING	DISTANCE
1	N89°43'07"E	226.58'
2	S65°54'06"E	205.30'
3	N90°00'00"E	303.67'
4	N65°27'50"E	211.91'
5	S89°57'35"E	604.75'

CURVE DATA

NO.	R	Δ	T	L	V
1	850.00'	24°22'47"	183.62'	361.68'	50mph
2	850.00'	24°05'54"	181.44'	357.51'	50mph
3	850.00'	24°32'10"	184.83'	364.00'	50mph
4	850.00'	24°34'36"	185.15'	364.60'	50mph

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1378
SCALE AS SHOWN
SHEET NO. 7 OF 26

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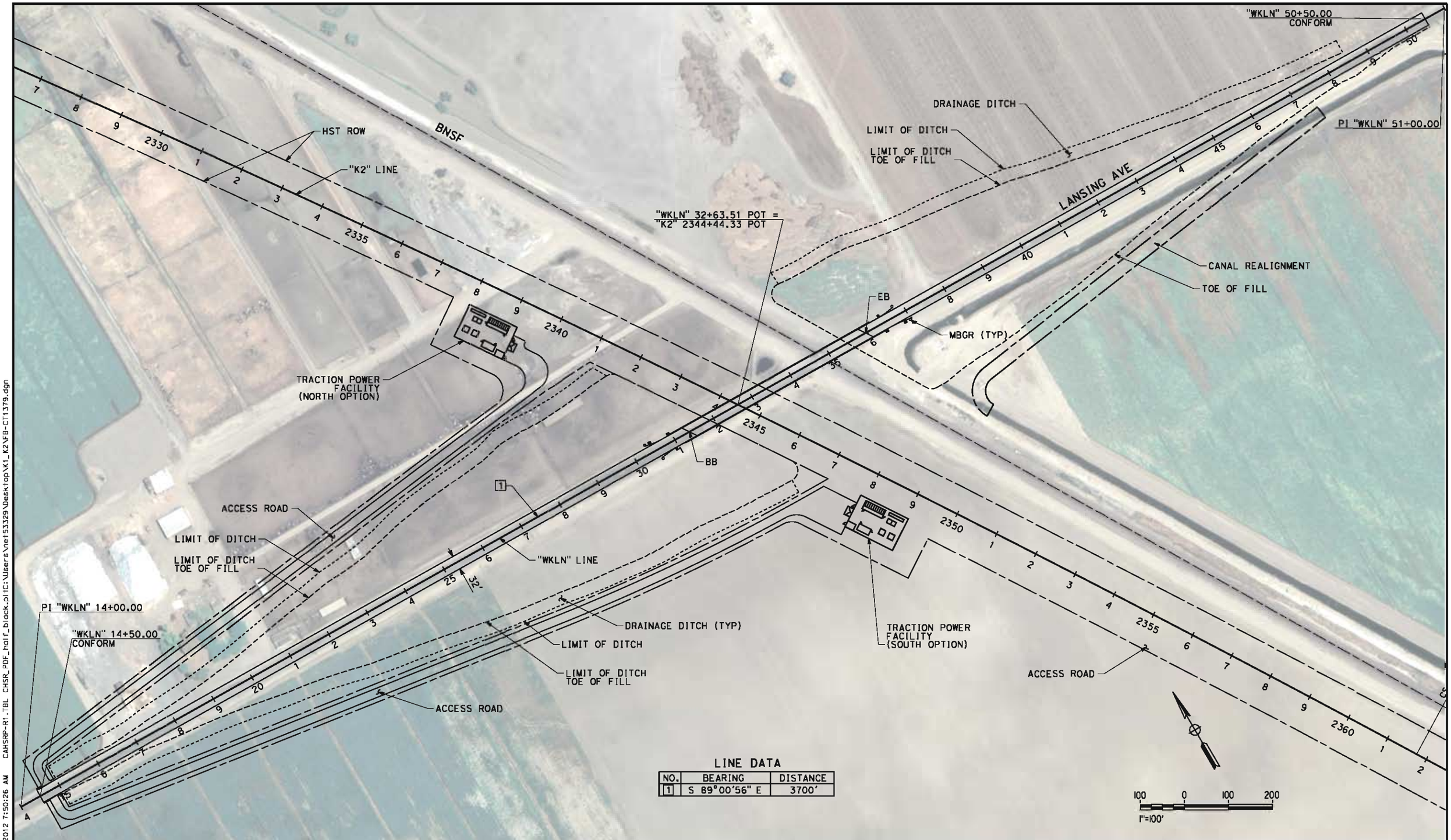

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°00'56" E	3700'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY P. BARBER
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1379
SCALE AS SHOWN
SHEET NO. 8 OF 26

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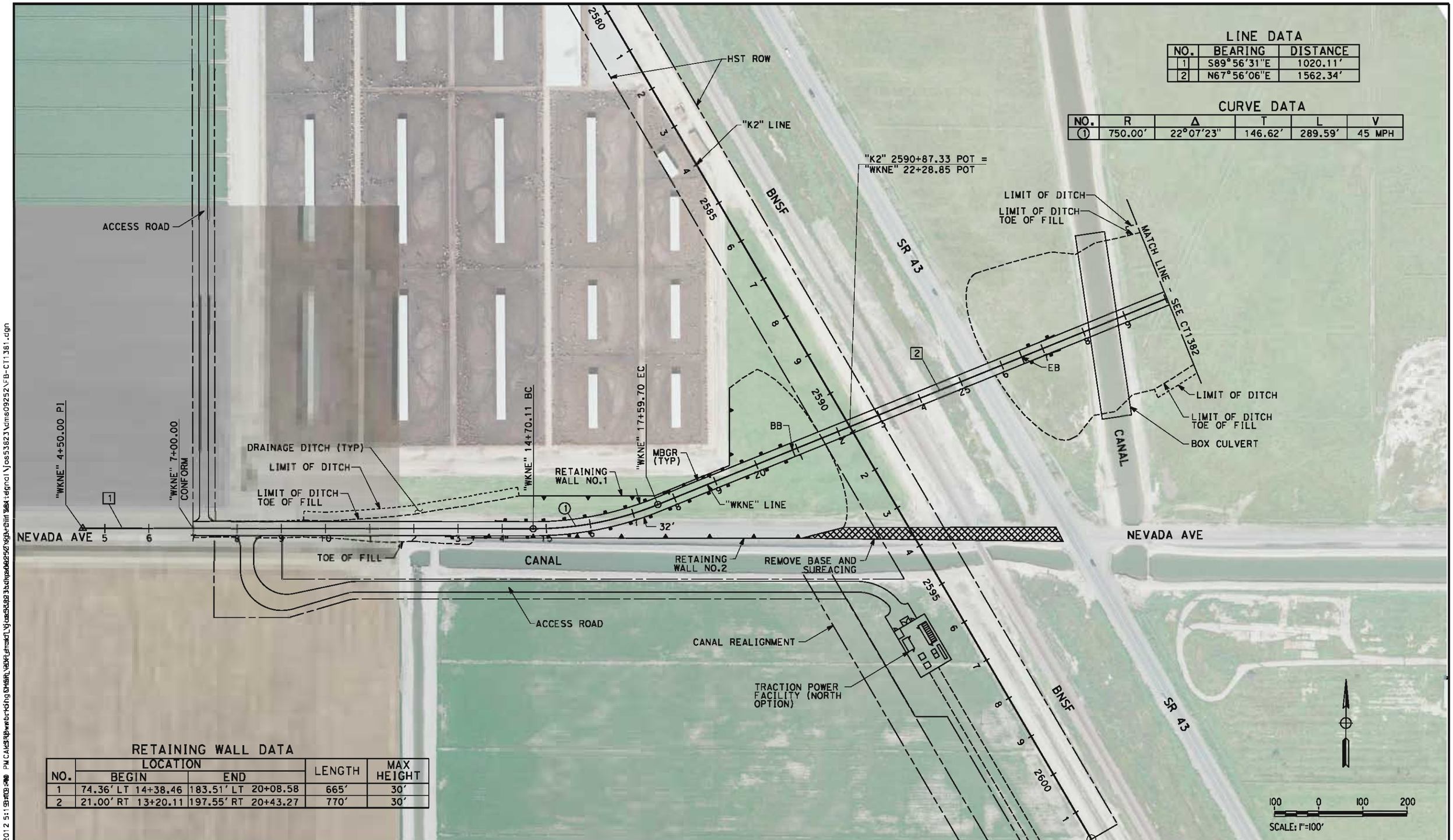

LINE DATA

NO.	BEARING	DISTANCE
1	S89°56'31"E	1020.11'
2	N67°56'06"E	1562.34'

CURVE DATA

NO.	R	Δ	T	L	V
1	750.00'	22°07'23"	146.62'	289.59'	45 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	74.36' LT 14+38.46	183.51' LT 20+08.58	665'	30'
2	21.00' RT 13+20.11	197.55' RT 20+43.27	770'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-003
DRAWING NO. CT1381
SCALE AS SHOWN
SHEET NO. 9 OF 26

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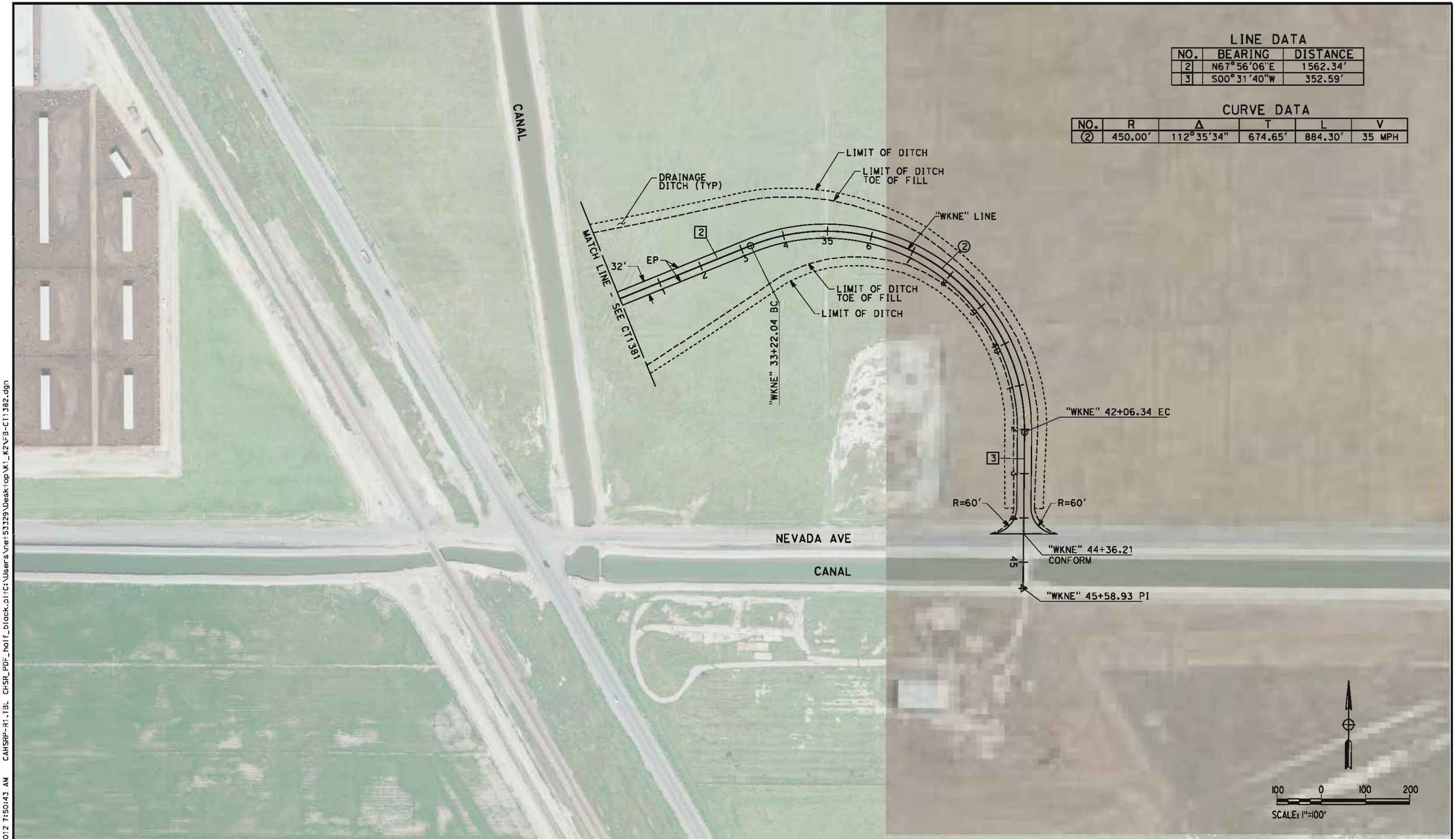
JOS53823



LINE DATA

NO.	BEARING	DISTANCE
2	N67°56'06"E	1562.34'
3	S00°31'40"W	352.59'

CURVE DATA

NO.	R	Δ	T	L	V
2	450.00'	112°35'34"	674.65'	884.30'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

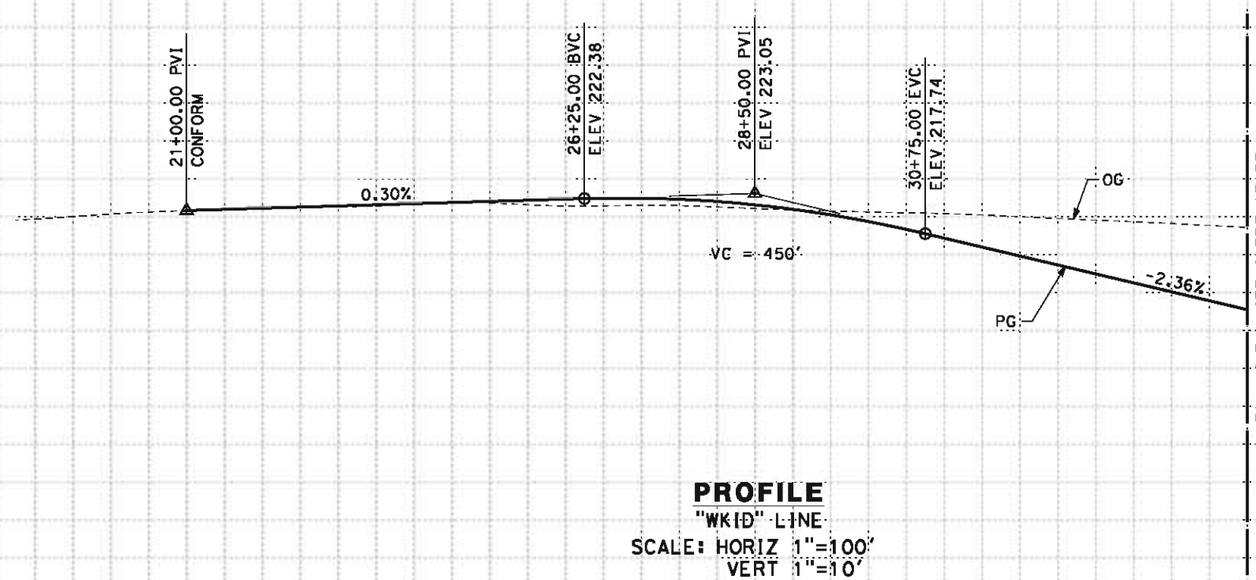
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1382
SCALE AS SHOWN
SHEET NO. 10 OF 26

NET53329 5/11/2012 7:50:43 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltG:\Users\net53329\Desktop\K1_K2\FB-CT1382.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKID" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	TOTAL
CY	Exc																
	Emb																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

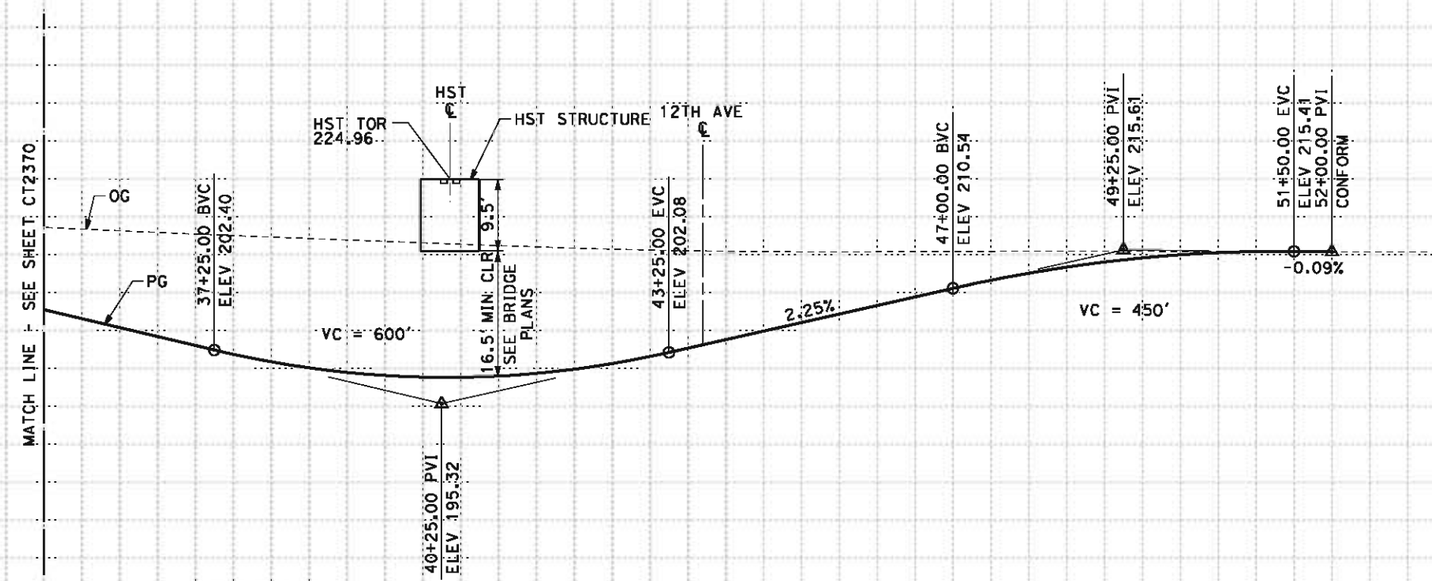
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2370
SCALE AS SHOWN
SHEET NO. 11 OF 26

NET53329 5/11/2012 7:50:44 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2370.dgn



PROFILE

"WKID" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	TOTAL
CY	Exc																				
	Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

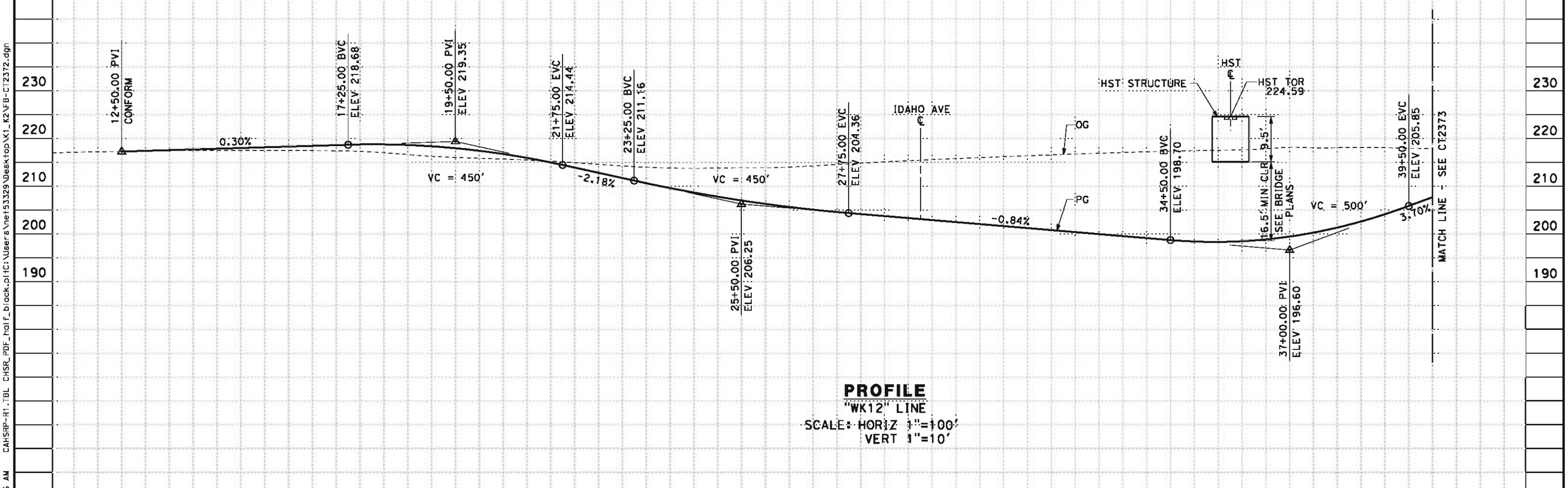
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2371
SCALE AS SHOWN
SHEET NO. 12 OF 26

NET53329 5/11/2012 7:50:45 AM CAHSRP-R1.TBL CHSR_PDF_half_black.plt C:\Users\net53329\Desktop\K1_K2\FB-CT2371.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"WK12" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	9	40	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

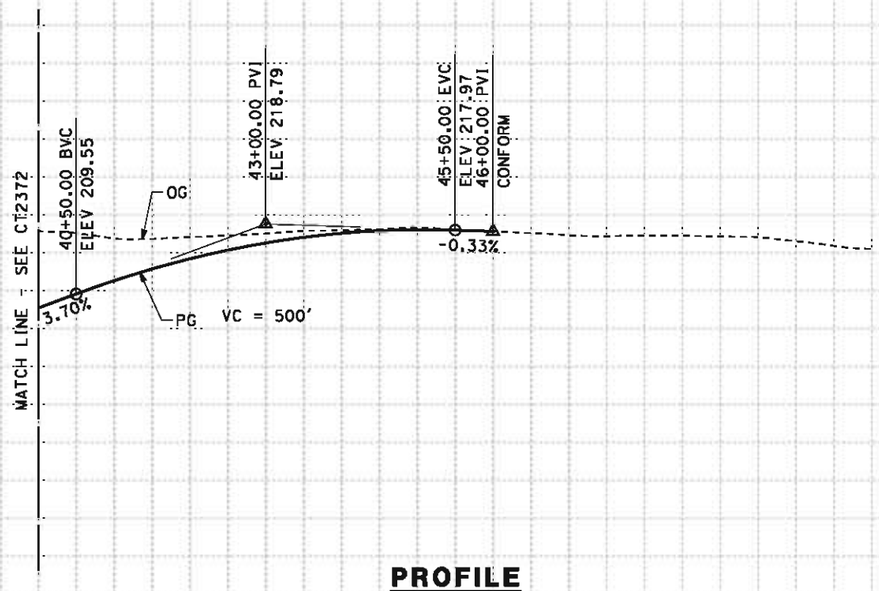
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
12TH AVE (AT IDAHO AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2372
SCALE AS SHOWN
SHEET NO. 13 OF 26

NET53329 5/11/2012 7:50:45 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2372.dgn



PROFILE

"WK12" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		40	1	2	3	4	45	6	7	8	9	50	1	TOTAL
CY	Exc													
	Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

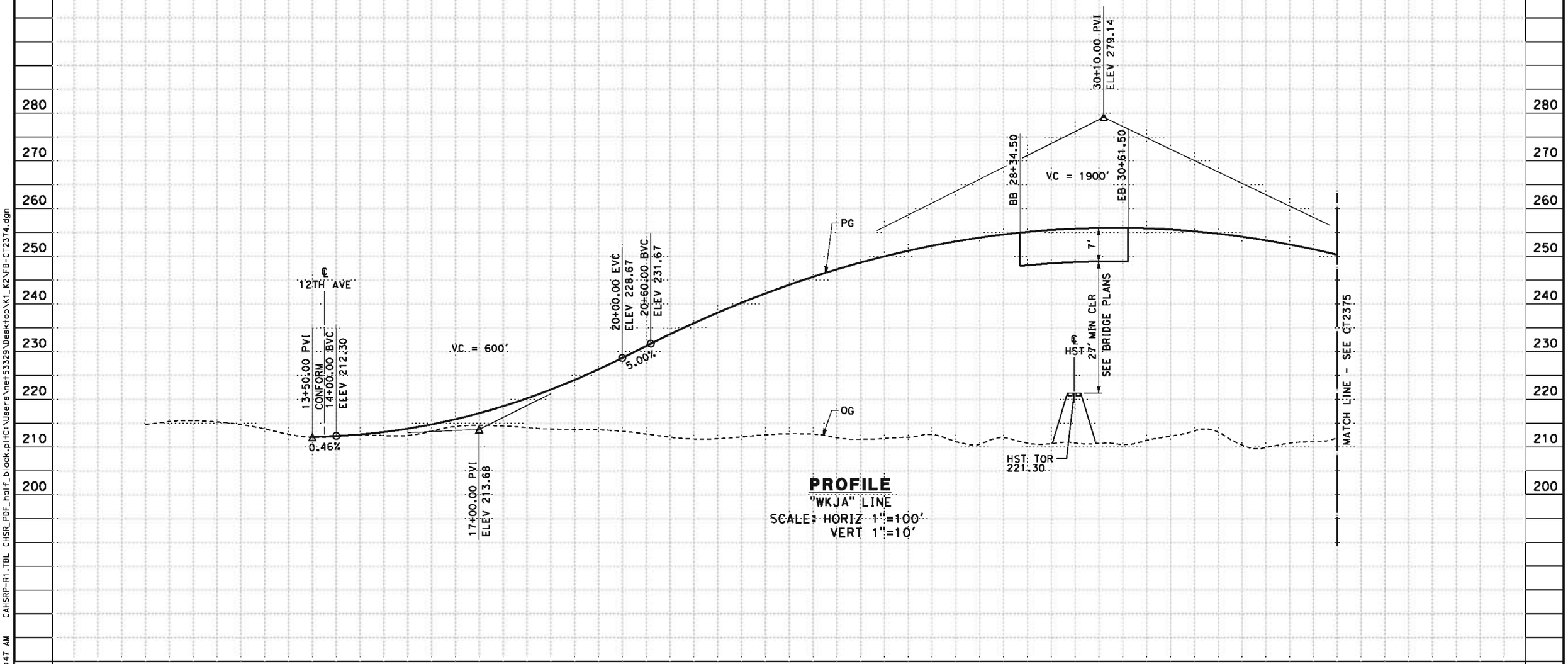
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
12TH AVE (AT IDAHO AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2373
SCALE AS SHOWN
SHEET NO. 14 OF 26

NET53329 5/11/2012 7:50:46 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2373.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

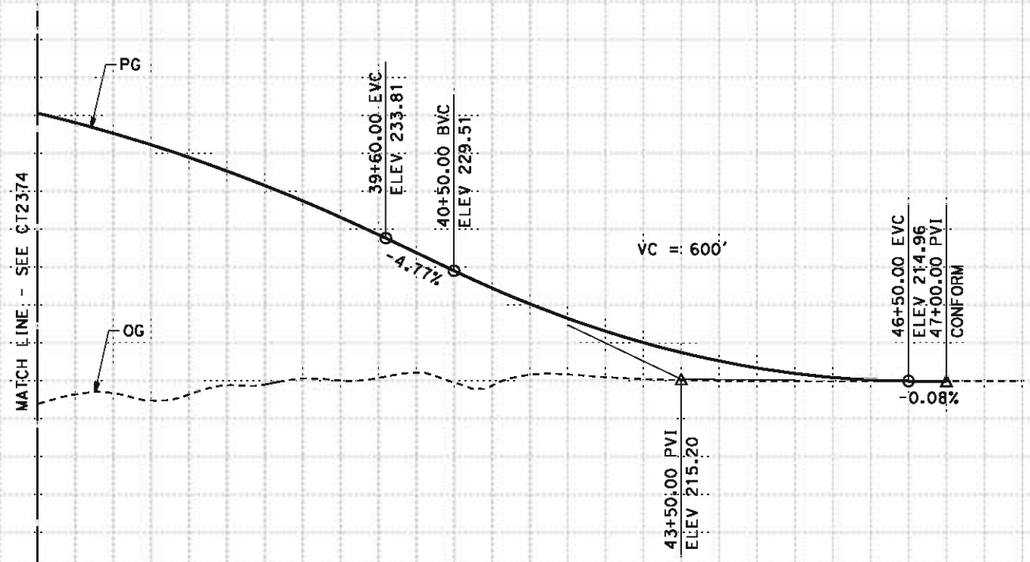
LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2374
SCALE AS SHOWN
SHEET NO. 15 OF 26

NET53329 5/11/2012 7:50:47 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltc:\Users\net53329\Desktop\K1_K2\FB-CT2374.dgn



PROFILE
"WKJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	35	6	7	8	9	40	1	2	3	4	45	6	7	8	TOTAL
CY Exc															
CY Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

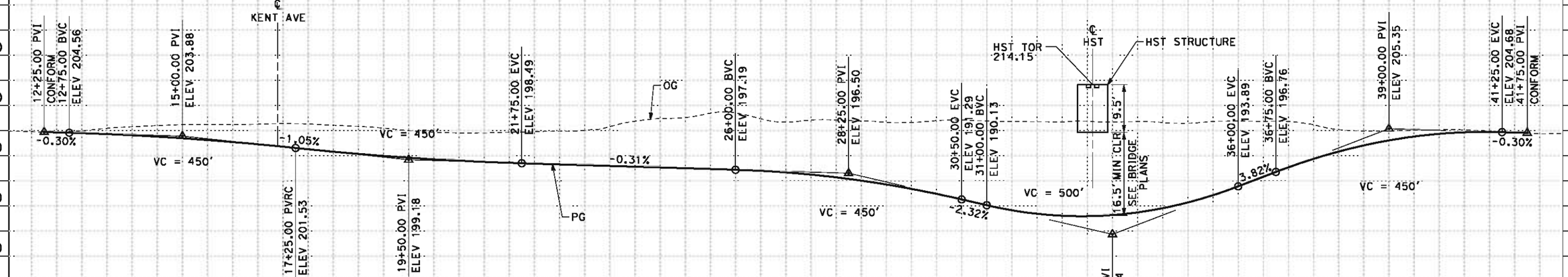
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2375
SCALE AS SHOWN
SHEET NO. 16 OF 26

NET53329 5/11/2012 7:50:47 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2375.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK11" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	7	8	9	40	1	2	TOTAL
CY Exc																																
CY Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

LIRS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

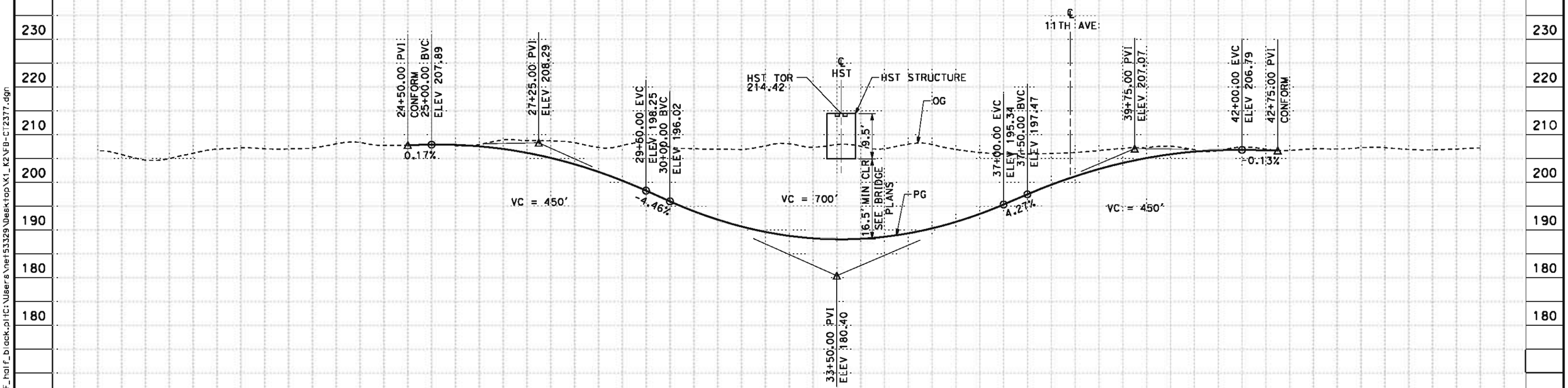
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
11TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2376
SCALE AS SHOWN
SHEET NO. 17 OF 26

J0553823 5/14/2012 1:37:58 PM CAHSRP-r1.tbl CHSR_PDF_half_block.pltcfg:\pwworking\hmm\external\jos53823\dms09252\FB-CT2376.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"WKKE" LINE

SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

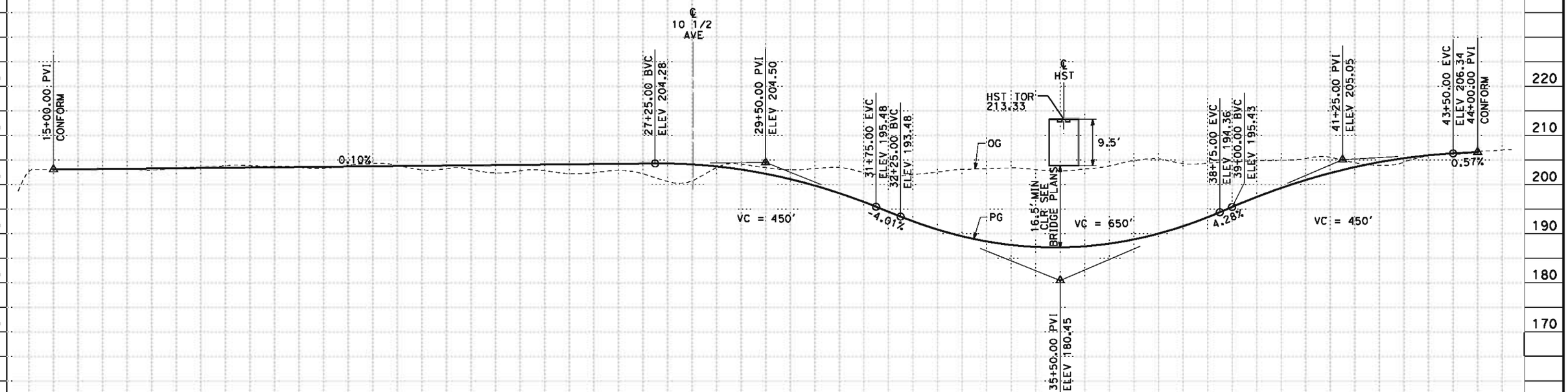
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2377
SCALE AS SHOWN
SHEET NO. 18 OF 26

NET53329 5/11/2012 7:50:48 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2377.dgn

NOTES:

1. MIN VERTICAL CLEARANCE UNDER HST IS 16.5'
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WK12" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	5	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

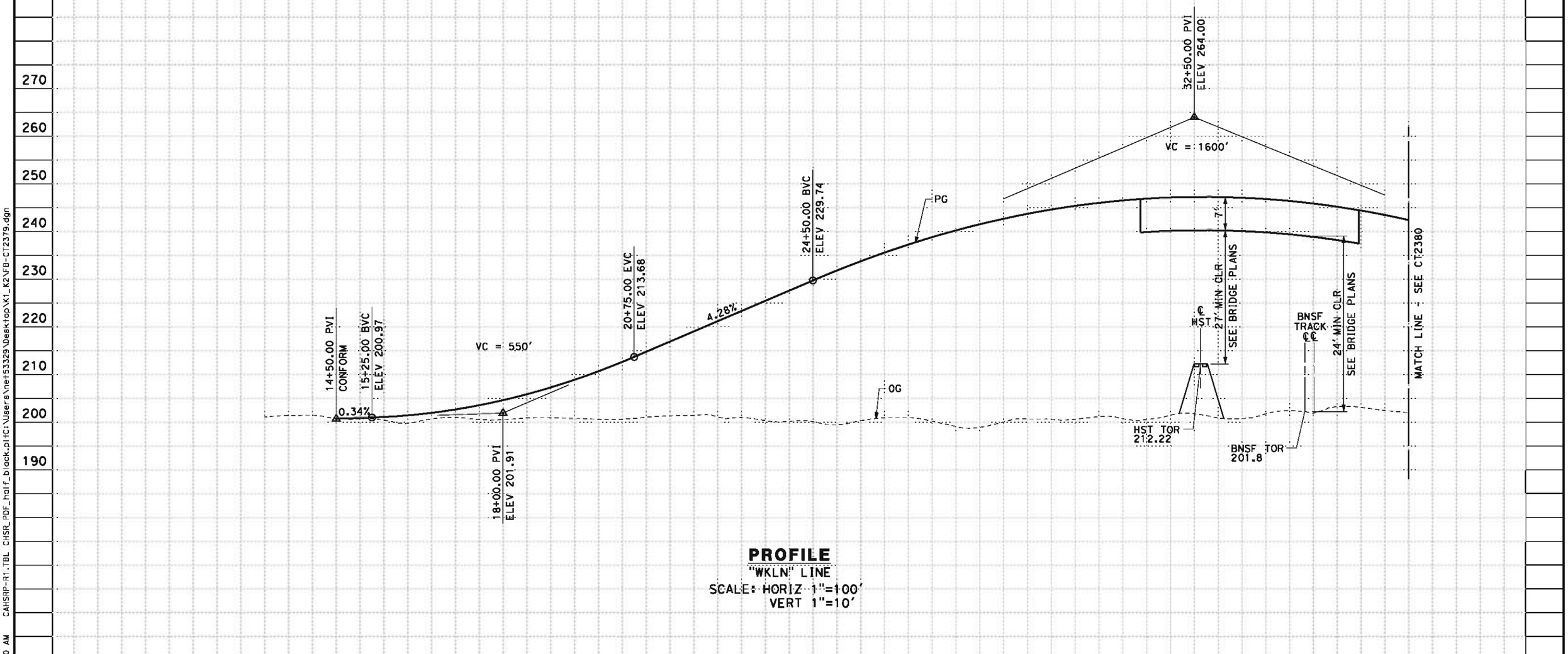
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2378
SCALE AS SHOWN
SHEET NO. 19 OF 26

NET53329 5/11/2012 7:50:49 AM CAHSRP-R1.TBL CHSR_PDF_half_block.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2378.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"WKLN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

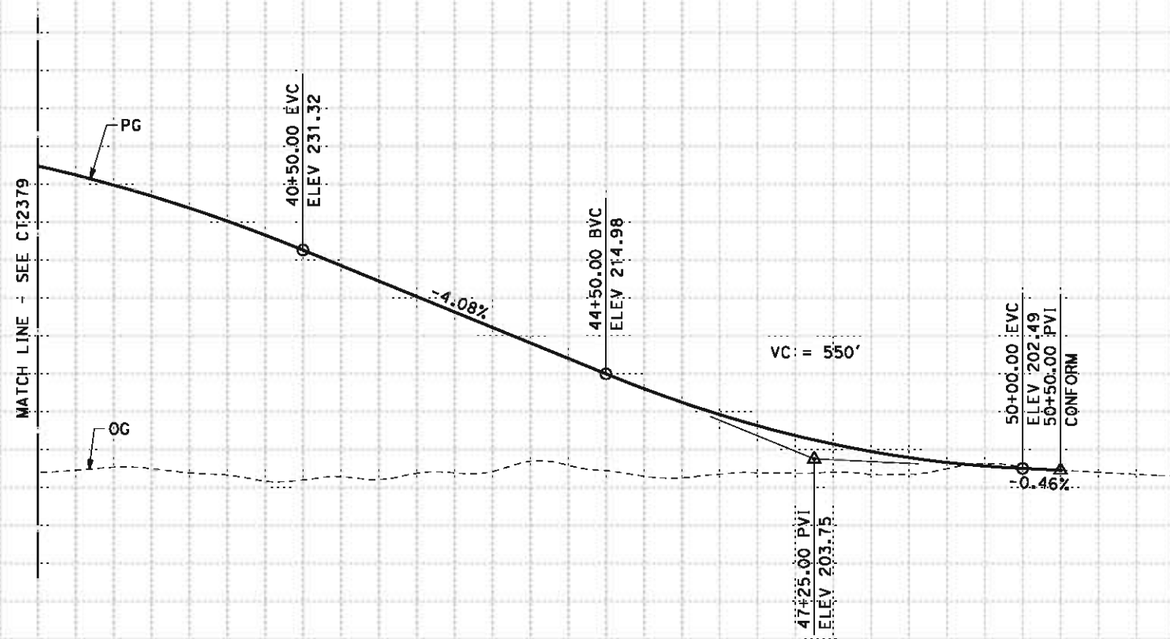
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2379
SCALE AS SHOWN
SHEET NO. 20 OF 26

NET53329 5/11/2012 7:50:50 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2379.dgn



PROFILE
"WKLN" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	TOTAL
CY Exc																	
CY Emb																	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY I. JOSIFEK
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

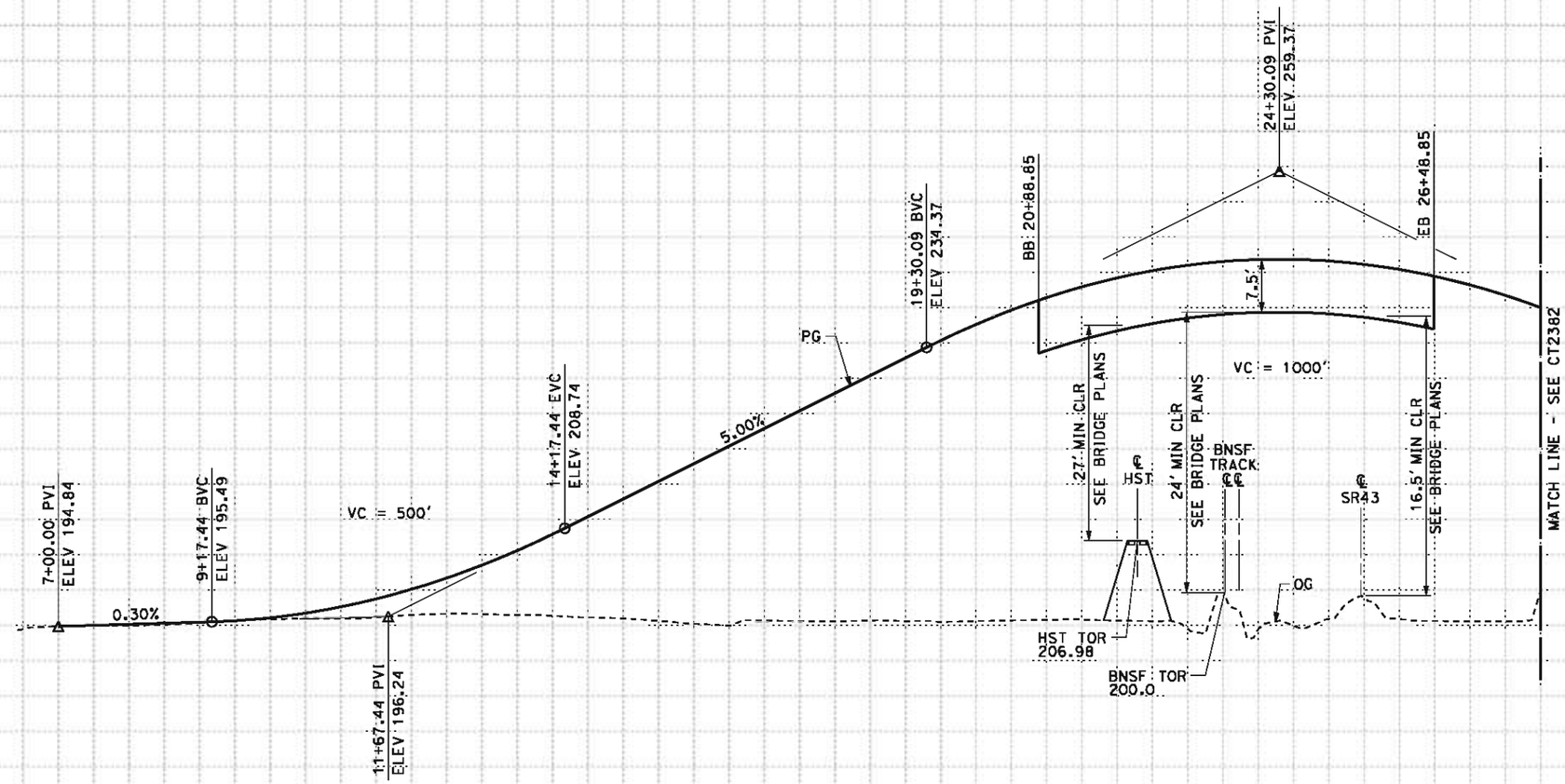
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
LANSING AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2380
SCALE AS SHOWN
SHEET NO. 21 OF 26

NET53329 5/11/2012 7:50:50 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2380.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 BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"WKNE" 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	9	30	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2381
SCALE AS SHOWN
SHEET NO. 22 OF 26

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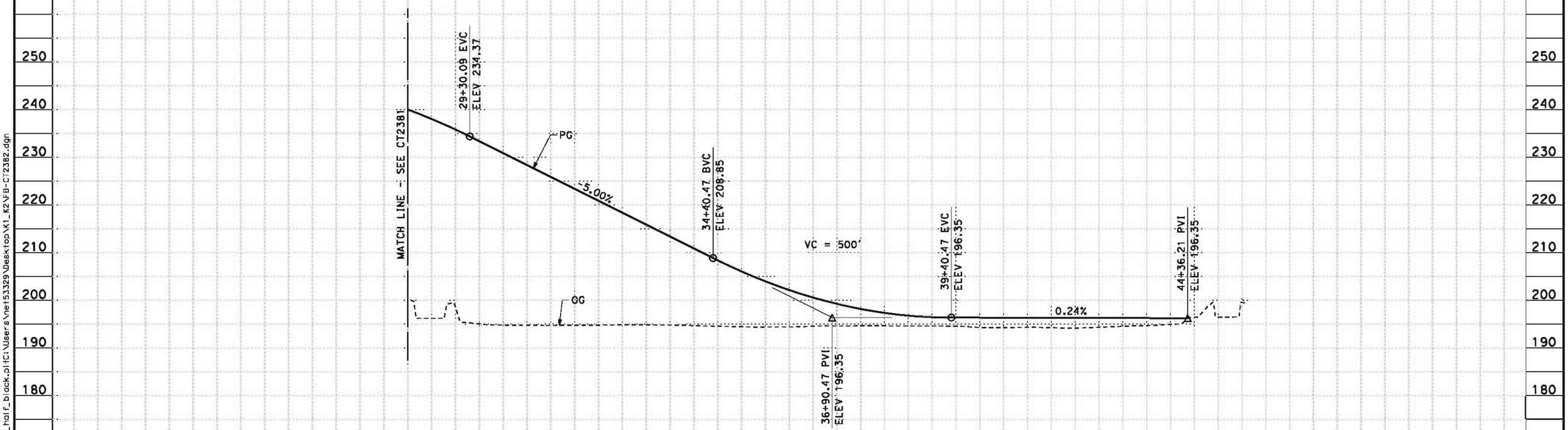


PROFILE
"WKNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	TOTAL
CY	Exc																			
	Emb																			

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

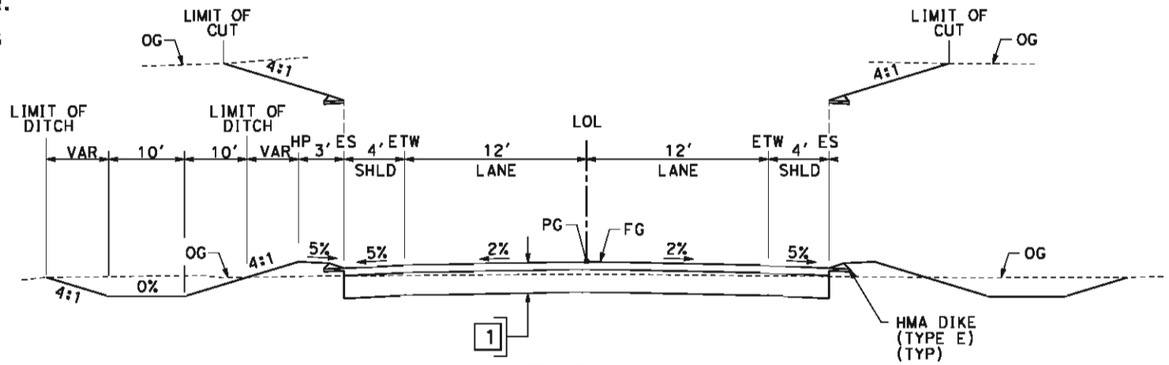
CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2382
SCALE AS SHOWN
SHEET NO. 23 OF 26

NET53329 5/11/2012 7:50:52 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT2382.dgn

NOTES:

1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.



SECTION A

"WKJA" 14+88.53 TO 28+34.50
"WKJA" 30+61.50 TO 46+75.00
"WKLN" 15+00.00 TO 31+37.51

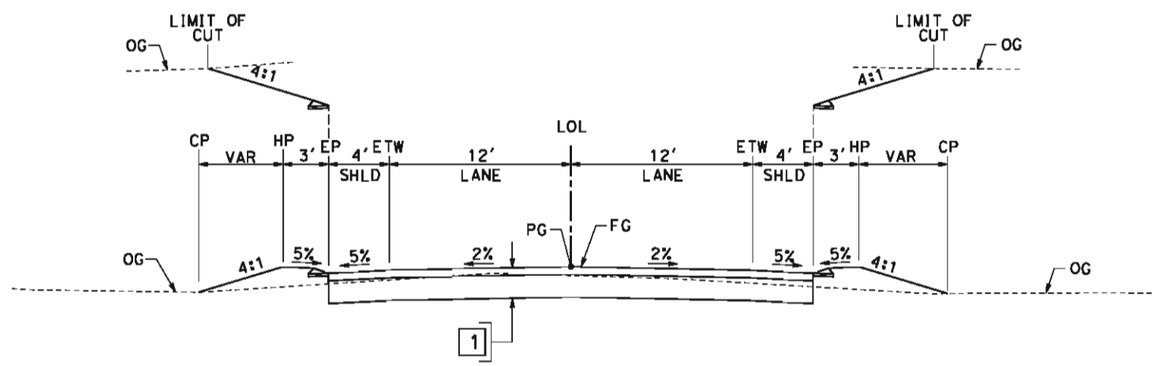
STRUCTURAL SECTIONS

TYPICAL ROADWAY (4' SHOULDER)

1 — 0.30' HMA (TYPE A)
1.40' CL 2 AB

TYPICAL ROADWAY (8' SHOULDER)

2 — 0.40' HMA (TYPE A)
1.70' CL 2 AB



SECTION B

"WKID" 21+00.00 TO 52+00.00
"WK12" 12+50.00 TO 46+00.00
"WKJA" 13+50.00 TO 14+88.53
"WKJA" 46+75.00 TO 47+00.00
"WK11" 12+25.00 TO 14+54.19
"WK11" 16+71.93 TO 41+75.00
"WKKE" 24+50.00 TO 36+46.31
"WKKE" 38+52.98 TO 42+75.00
"WKKA" 15+00.00 TO 44+00.00
"WKLN" 14+50.00 TO 15+00.00
"WKLN" 48+50.00 TO 50+50.00
"WKNE" 7+00.00 TO 9+50.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

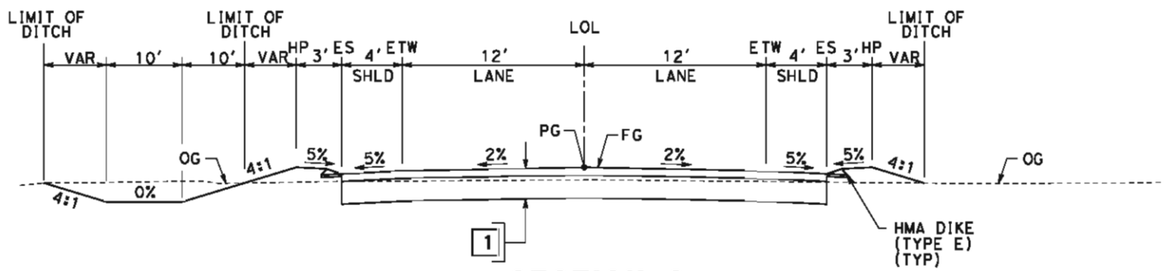
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

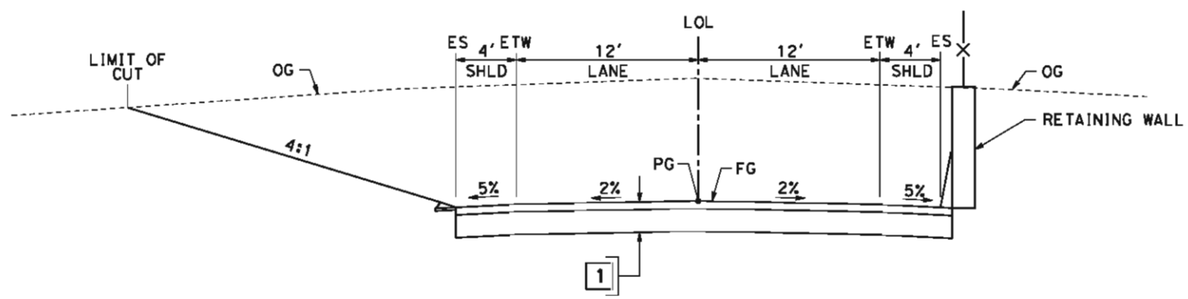
CONTRACT NO. HSR 06-0003
DRAWING NO. CT3350
SCALE AS SHOWN
SHEET NO. 24 OF 26

NET53329 5/11/2012 7:50:52 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT3350.dgn



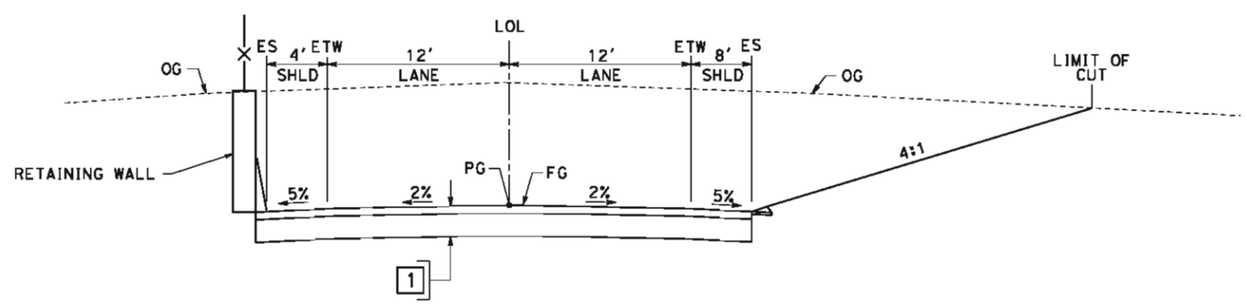
SECTION C

"WKLN" 35+95.51 TO 48+50.00



SECTION D

"WK11" 14+54.19 TO 16+71.93



SECTION E

"WKKE" 36+46.31 TO 38+52.98

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

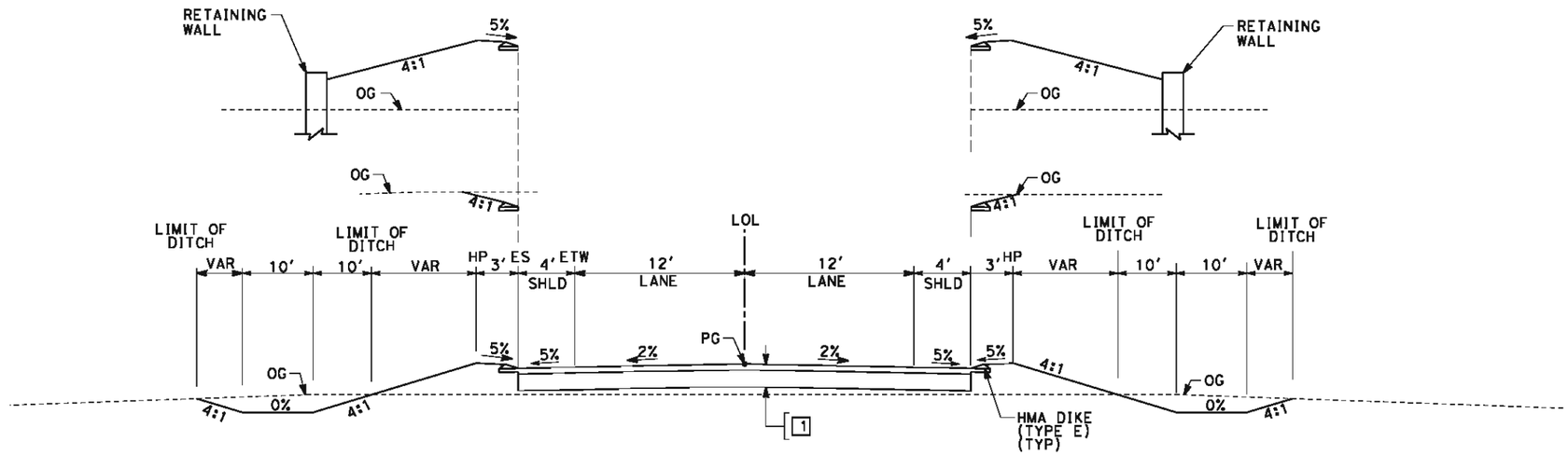
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3351
SCALE AS SHOWN
SHEET NO. 25 OF 26

NET53329 5/11/2012 7:50:53 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltc:\Users\net53329\Desktop\K1_K2\FB-CT3351.dgn



SECTION F

"WKNE" 9+50.00 TO 20+88.85

"WKNE" 26+48.85 TO 44+36.21

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. NETTLETON
DRAWN BY D. BARNHART
CHECKED BY B. RAWSON
IN CHARGE Q. EARLE
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

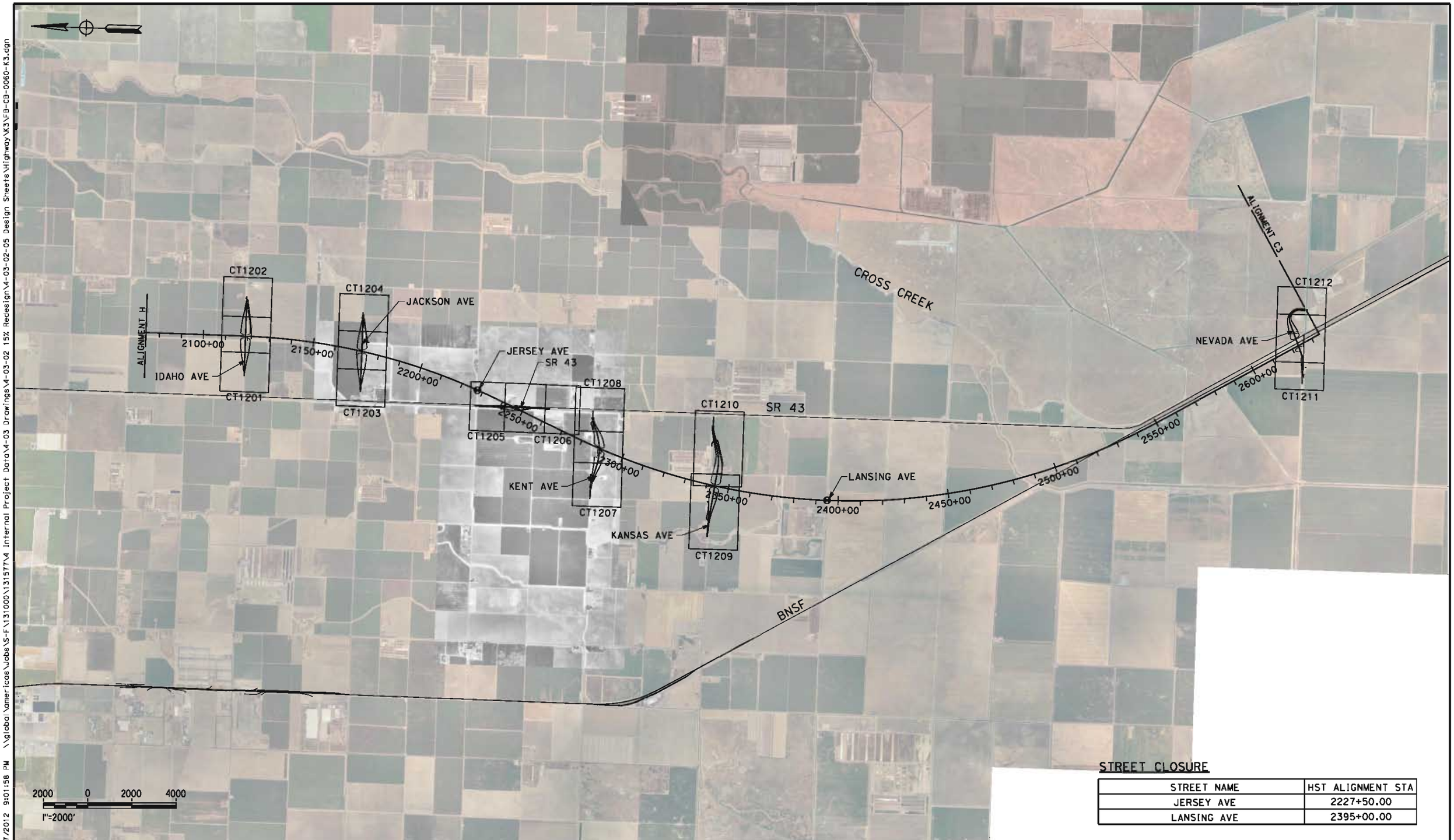
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
BAKERSFIELD TO PALMDALE
KAWEAH SUBSECTION
ALIGNMENT K2
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3352
SCALE AS SHOWN
SHEET NO. 26 OF 26

NET53329 5/11/2012 7:50:54 AM CAHSRP-R1.TBL CHSR_PDF_half_black.pltC:\Users\net53329\Desktop\K1_K2\FB-CT3352.dgn



STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
JERSEY AVE	2227+50.00
LANSING AVE	2395+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

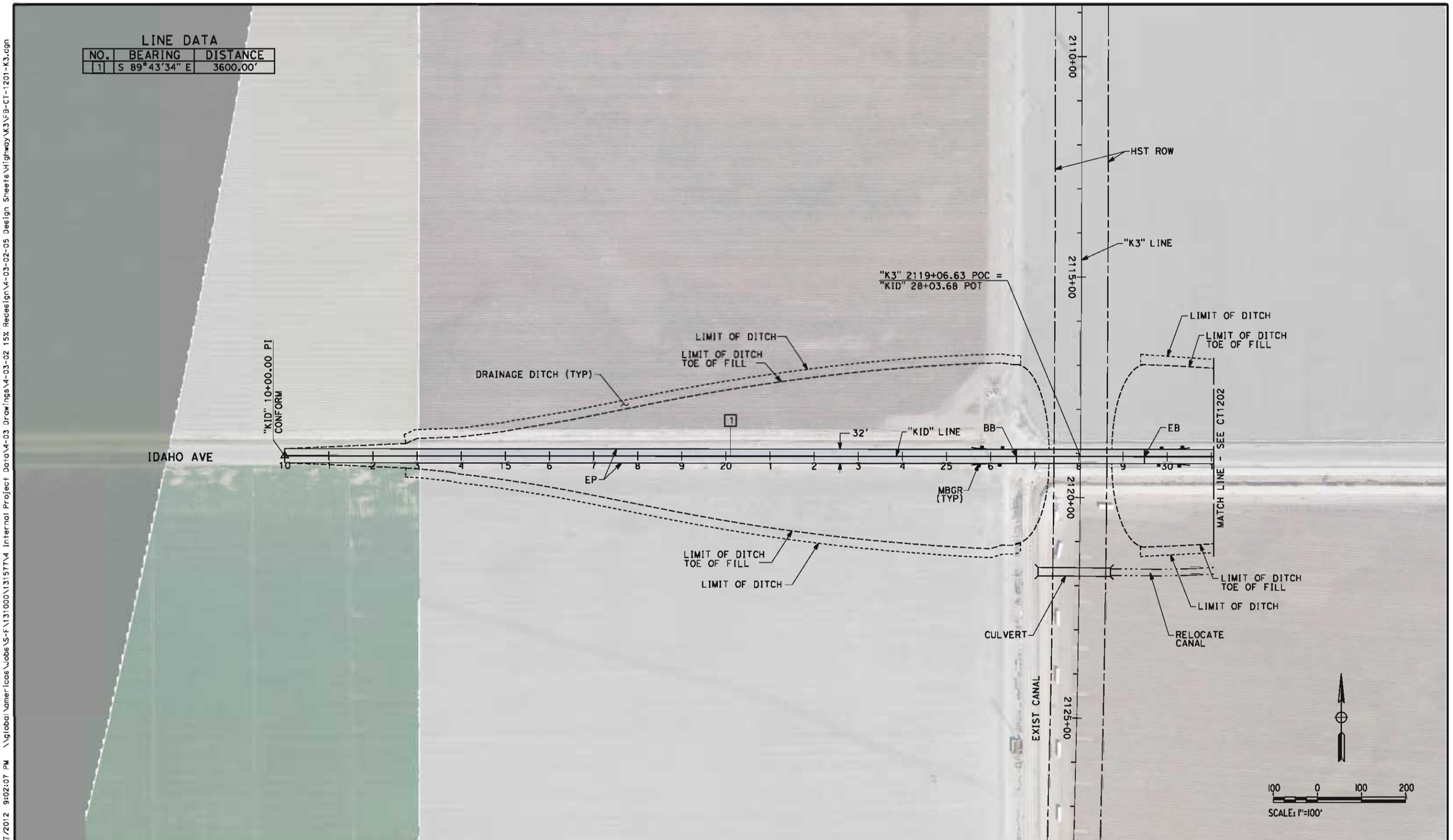
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0060
SCALE AS SHOWN
SHEET NO. 1 OF 27

eran.sudhausen 5/17/2012 9:01:58 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\F3-CB-0060-K3.dgn

eran.sudhausen 5/17/2012 9:02:07 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-1201-K3.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

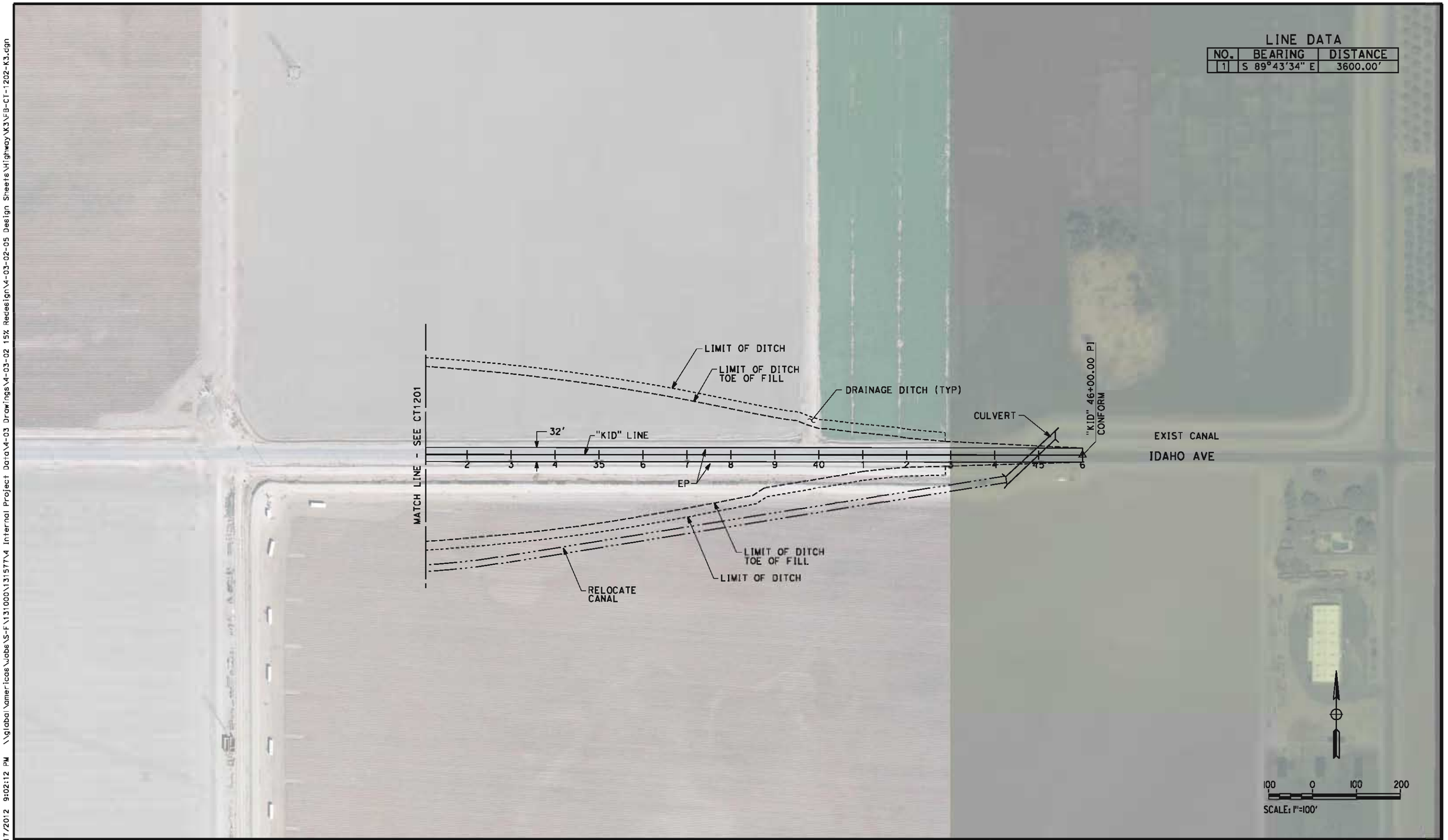
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1201
SCALE AS SHOWN
SHEET NO. 2 OF 27

eron.sudhausen 5/17/2012 9:02:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-1202-K3.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1202
SCALE AS SHOWN
SHEET NO. 3 OF 27

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°41'46" E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

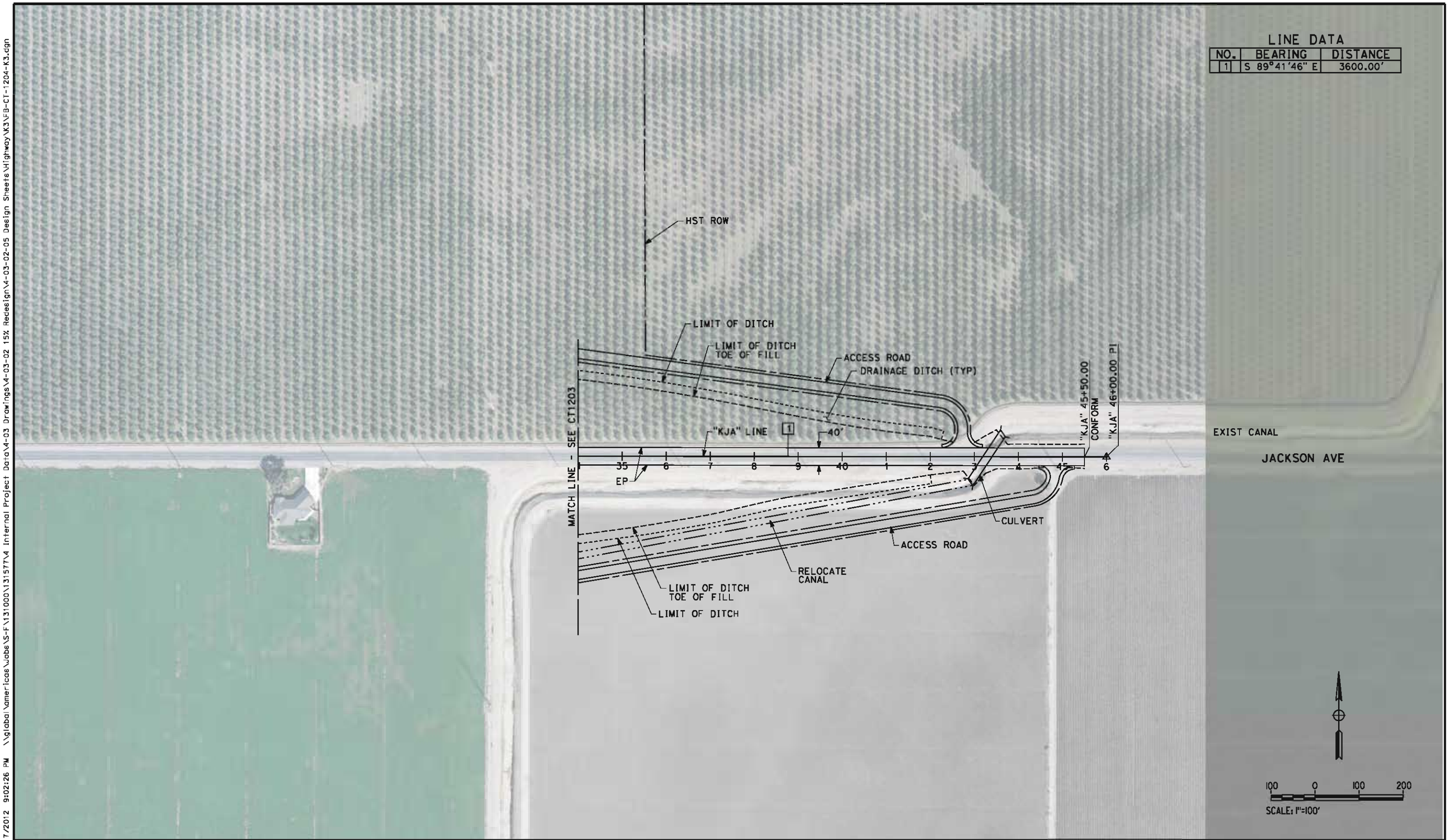
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1203
SCALE AS SHOWN
SHEET NO. 4 OF 27

eran.sudhausen 5/17/2012 9:02:19 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-1203-K3.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 89°41'46" E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

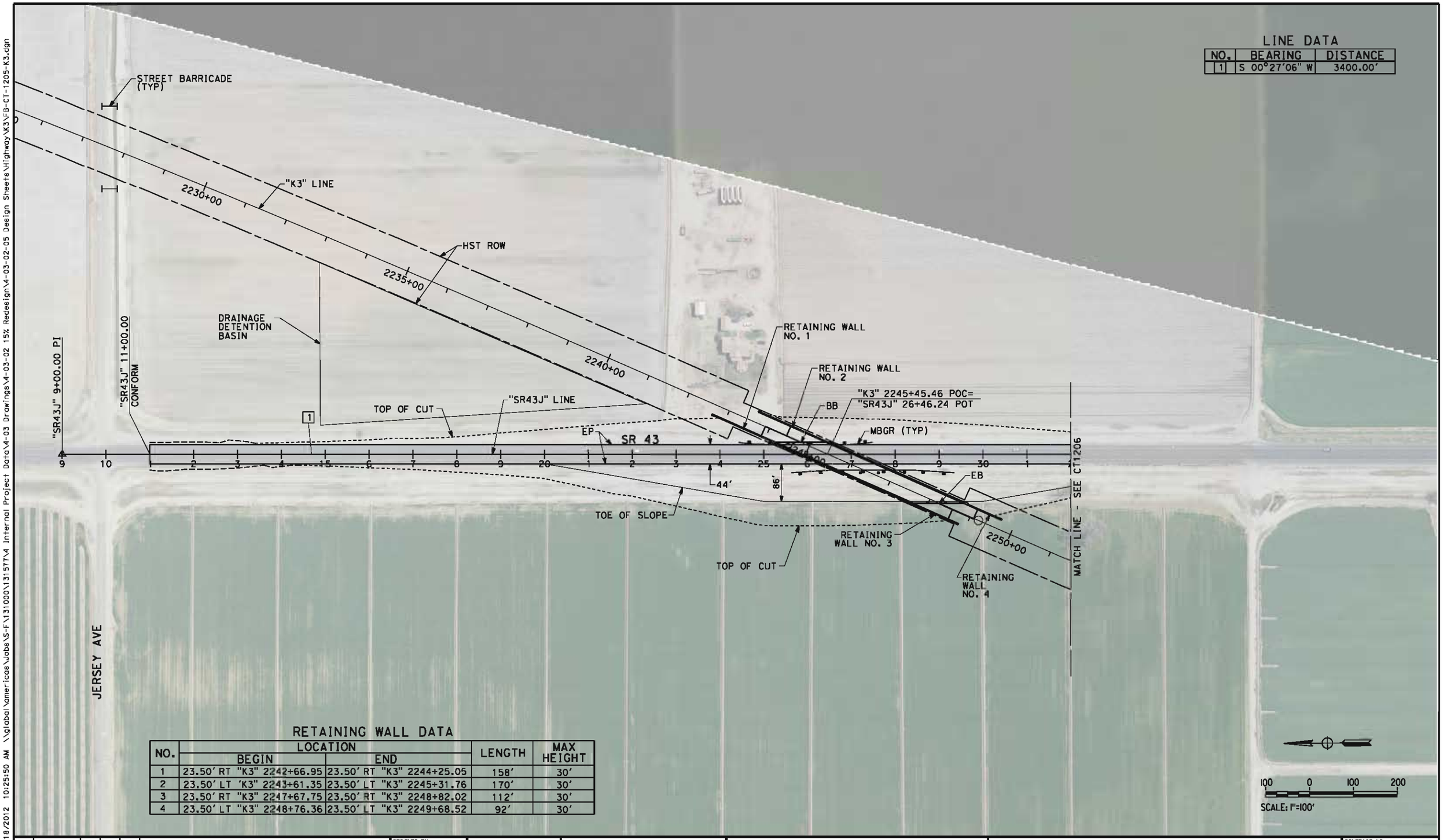
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1204
SCALE AS SHOWN
SHEET NO. 5 OF 27

eron.sudhausen 5/17/2012 9:02:26 PM \\global\americas\Jobs\S-F\131000\13157\X4 Internal Project Data\X4-03 Drawings\X4-03-02 15% Redesign\X4-03-02-05 Design Sheets\Highway\K3\F-B-CT-1204-K3.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 00°27'06" W	3400.00'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	23.50' RT "K3" 2242+66.95	23.50' RT "K3" 2244+25.05	158'	30'
2	23.50' LT 'K3" 2243+61.35	23.50' LT "K3" 2245+31.76	170'	30'
3	23.50' RT "K3" 2247+67.75	23.50' RT "K3" 2248+82.02	112'	30'
4	23.50' LT "K3" 2248+76.36	23.50' LT "K3" 2249+68.52	92'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1205
SCALE AS SHOWN
SHEET NO. 6 OF 27

eron.sudhausen 5/18/2012 10:25:50 AM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-1205-K3.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1206
SCALE AS SHOWN
SHEET NO. 7 OF 27

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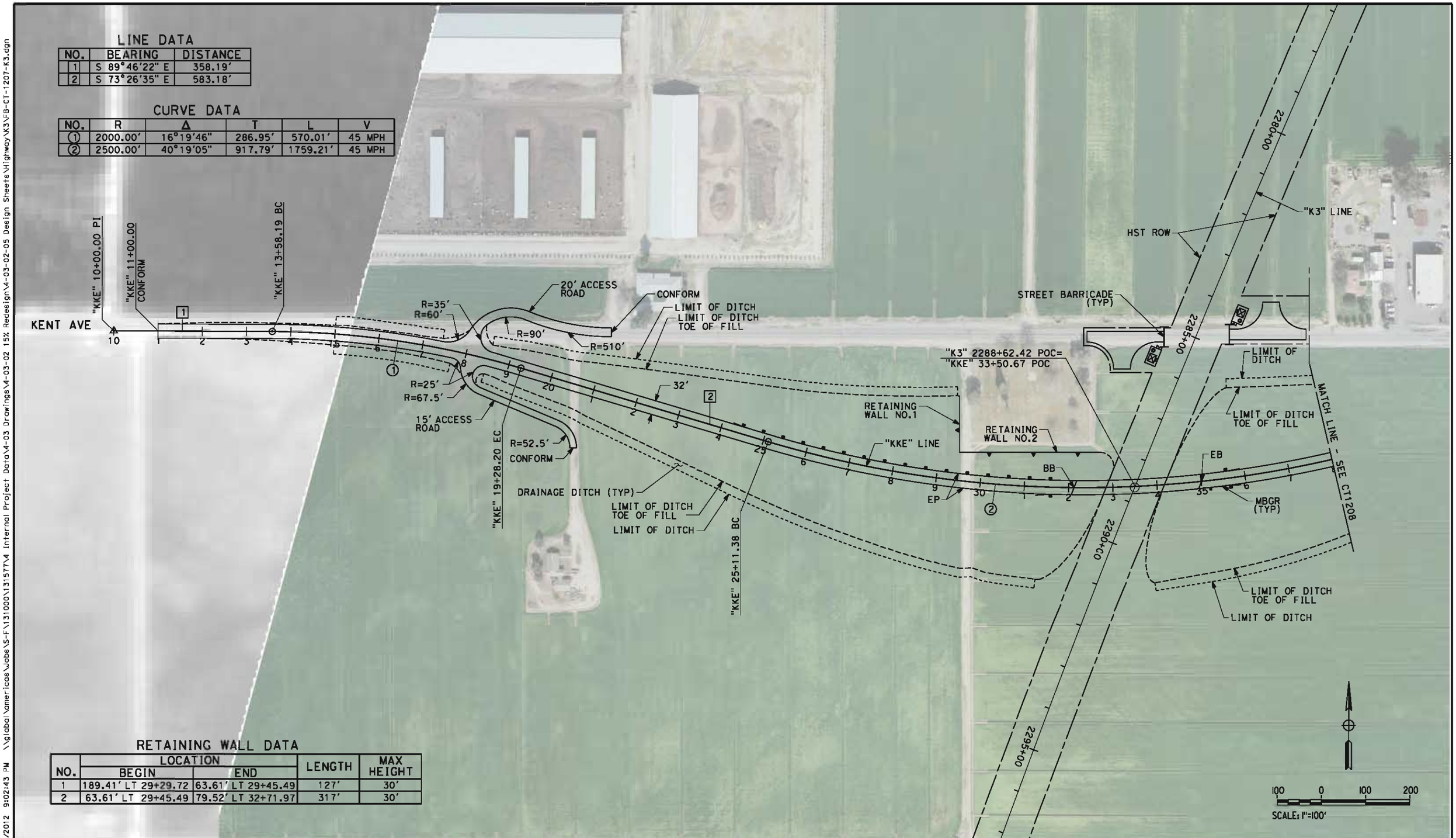
LINE DATA

NO.	BEARING	DISTANCE
1	S 89°46'22" E	358.19'
2	S 73°26'35" E	583.18'

CURVE DATA

NO.	R	Δ	T	L	V
1	2000.00'	16°19'46"	286.95'	570.01'	45 MPH
2	2500.00'	40°19'05"	917.79'	1759.21'	45 MPH



RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	189.41' LT 29+29.72	63.61' LT 29+45.49	127'	30'
2	63.61' LT 29+45.49	79.52' LT 32+71.97	317'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1207
SCALE AS SHOWN
SHEET NO. 8 OF 27

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LINE DATA

NO.	BEARING	DISTANCE
3	S 89°46'22" E	201.39'

CURVE DATA

NO.	R	Δ	T	L	V
2	2500.00'	40°19'05"	917.79'	1759.21'	45 MPH
3	1500.00'	23°59'19"	318.68'	628.02'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1208
SCALE AS SHOWN
SHEET NO. 9 OF 27

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LINE DATA

NO.	BEARING	DISTANCE
1	S 88°48'29" E	208.54'
2	S 81°45'53" E	2295.80'

CURVE DATA

NO.	R	Δ	T	L	V
1	5000.00'	07°02'35"	307.70'	614.63'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1209
SCALE AS SHOWN
SHEET NO. 10 OF 27

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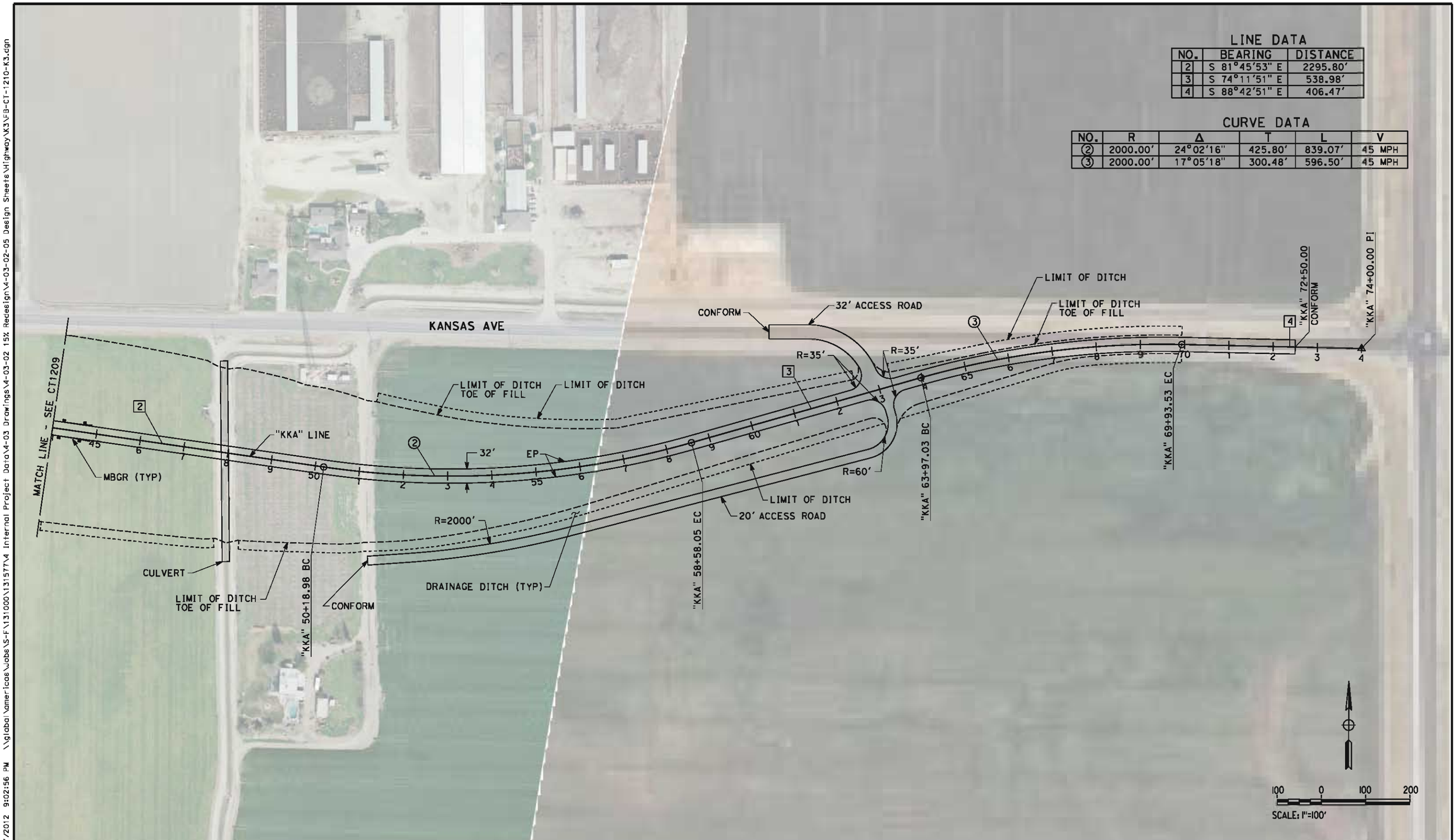

LINE DATA

NO.	BEARING	DISTANCE
2	S 81°45'53" E	2295.80'
3	S 74°11'51" E	538.98'
4	S 88°42'51" E	406.47'

CURVE DATA

NO.	R	Δ	T	L	V
2	2000.00'	24°02'16"	425.80'	839.07'	45 MPH
3	2000.00'	17°05'18"	300.48'	596.50'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
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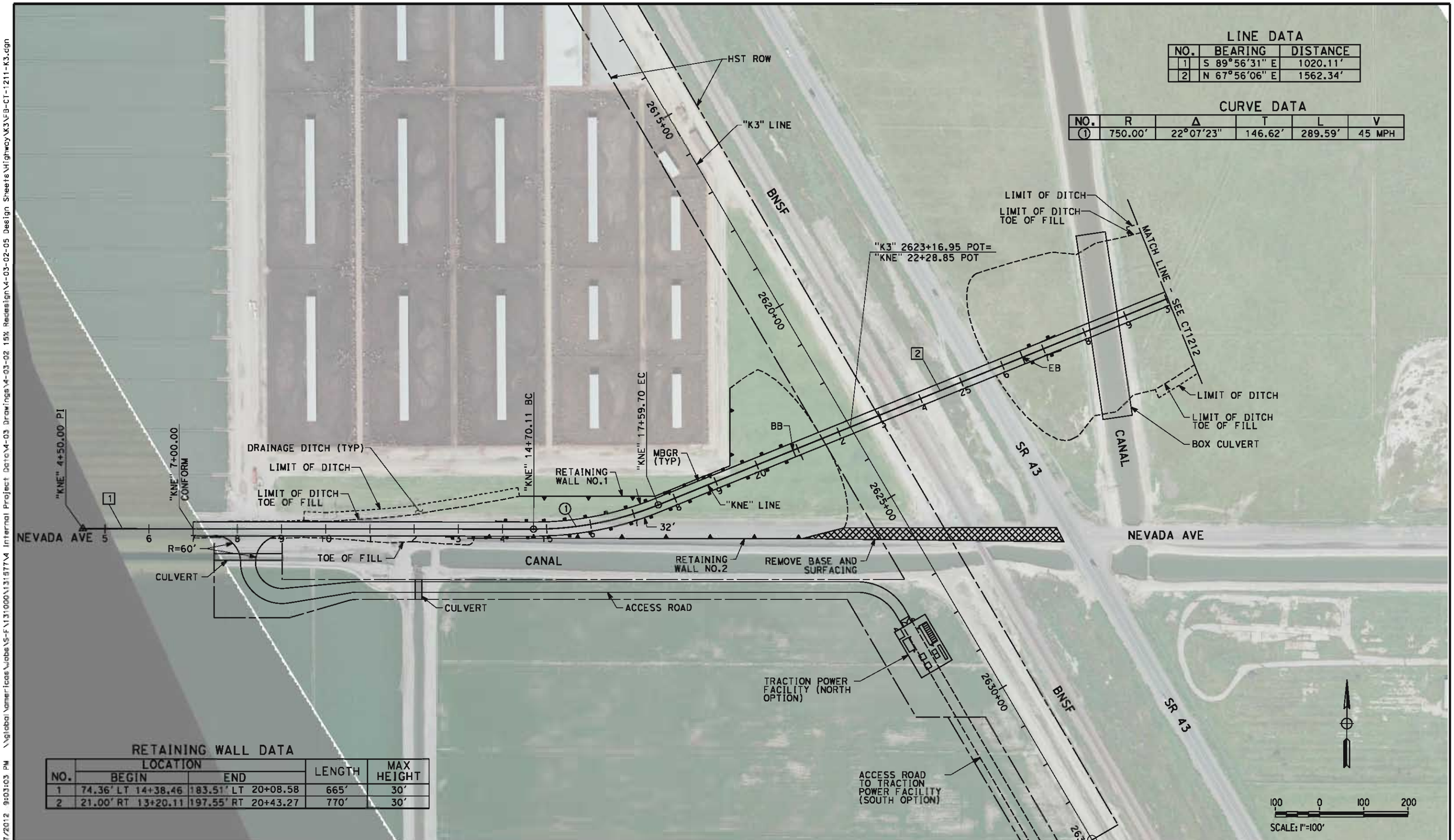
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1210
SCALE AS SHOWN
SHEET NO. 11 OF 27



LINE DATA

NO.	BEARING	DISTANCE
1	S 89°56'31" E	1020.11'
2	N 67°56'06" E	1562.34'

CURVE DATA

NO.	R	Δ	T	L	V
1	750.00'	22°07'23"	146.62'	289.59'	45 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	74.36' LT 14+38.46	183.51' LT 20+08.58	665'	30'
2	21.00' RT 13+20.11	197.55' RT 20+43.27	770'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1211
SCALE AS SHOWN
SHEET NO. 12 OF 27

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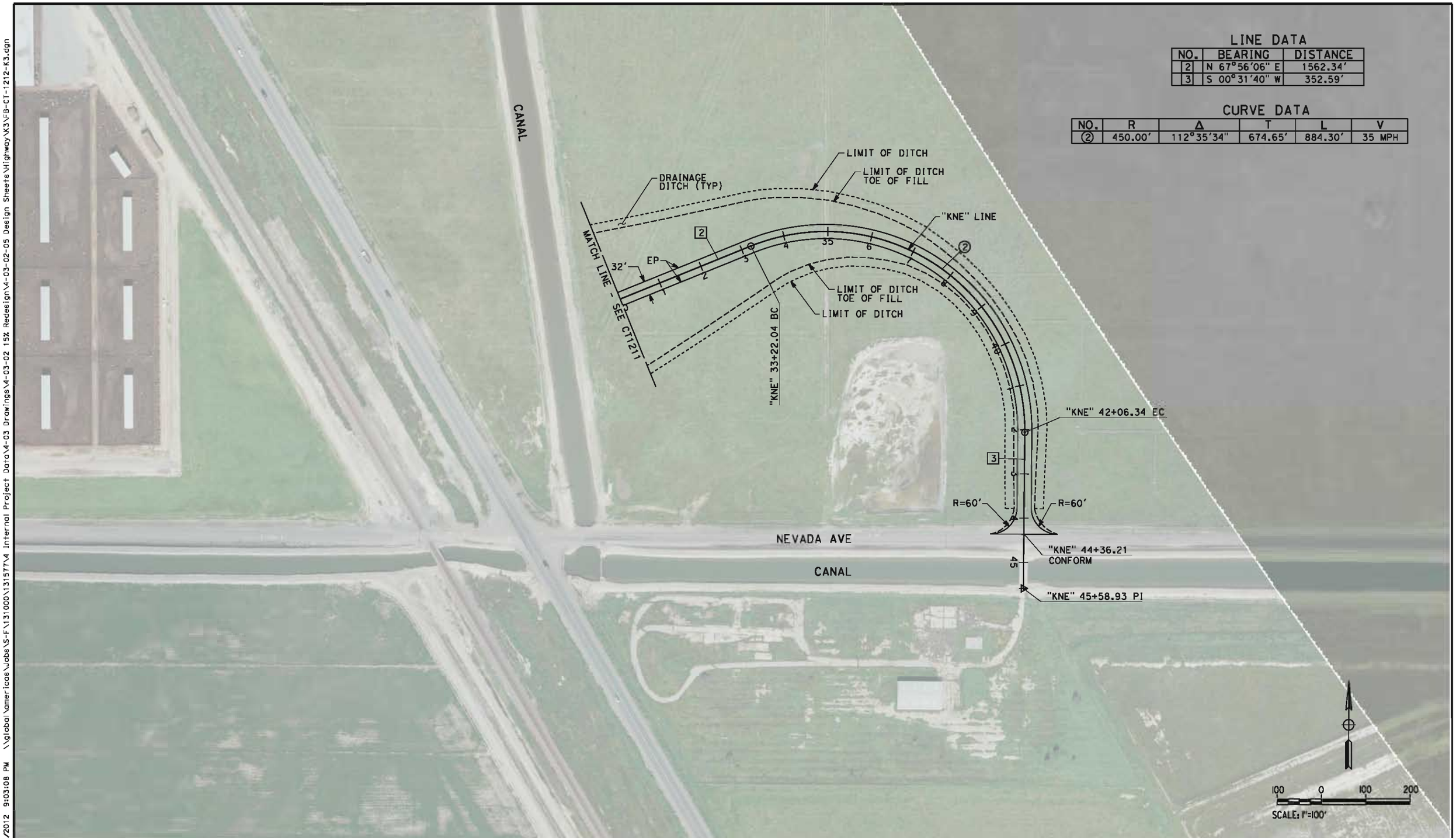


LINE DATA

NO.	BEARING	DISTANCE
2	N 67°56'06" E	1562.34'
3	S 00°31'40" W	352.59'

CURVE DATA

NO.	R	Δ	T	L	V
2	450.00'	112°35'34"	674.65'	884.30'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

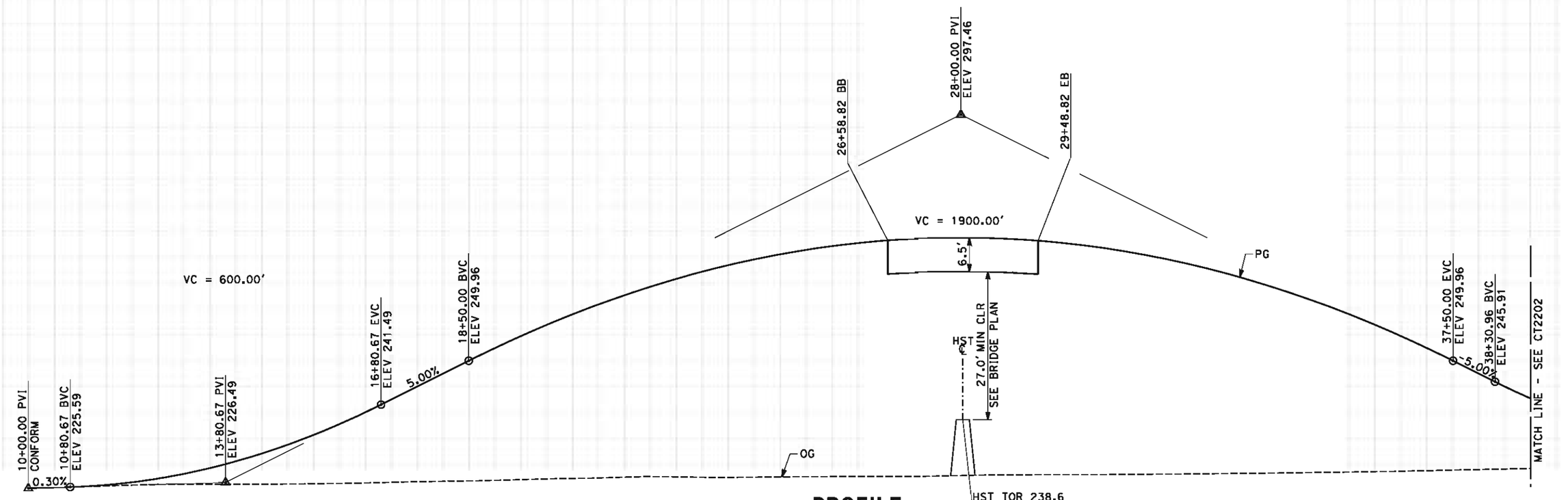
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1212
SCALE AS SHOWN
SHEET NO. 13 OF 27

eran.sudhausen 5/17/2012 9:03:08 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\F3-CT-1212-K3.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KID" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	9	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2201
SCALE AS SHOWN
SHEET NO. 14 OF 27

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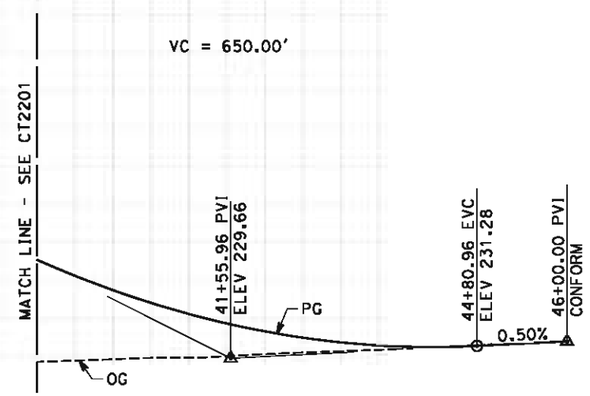


PROFILE
"KID" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

300 290 280 270 260 250 240 230 220

STATION		9	40	1	2	3	4	45	6	TOTAL
CY	Exc									
	Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

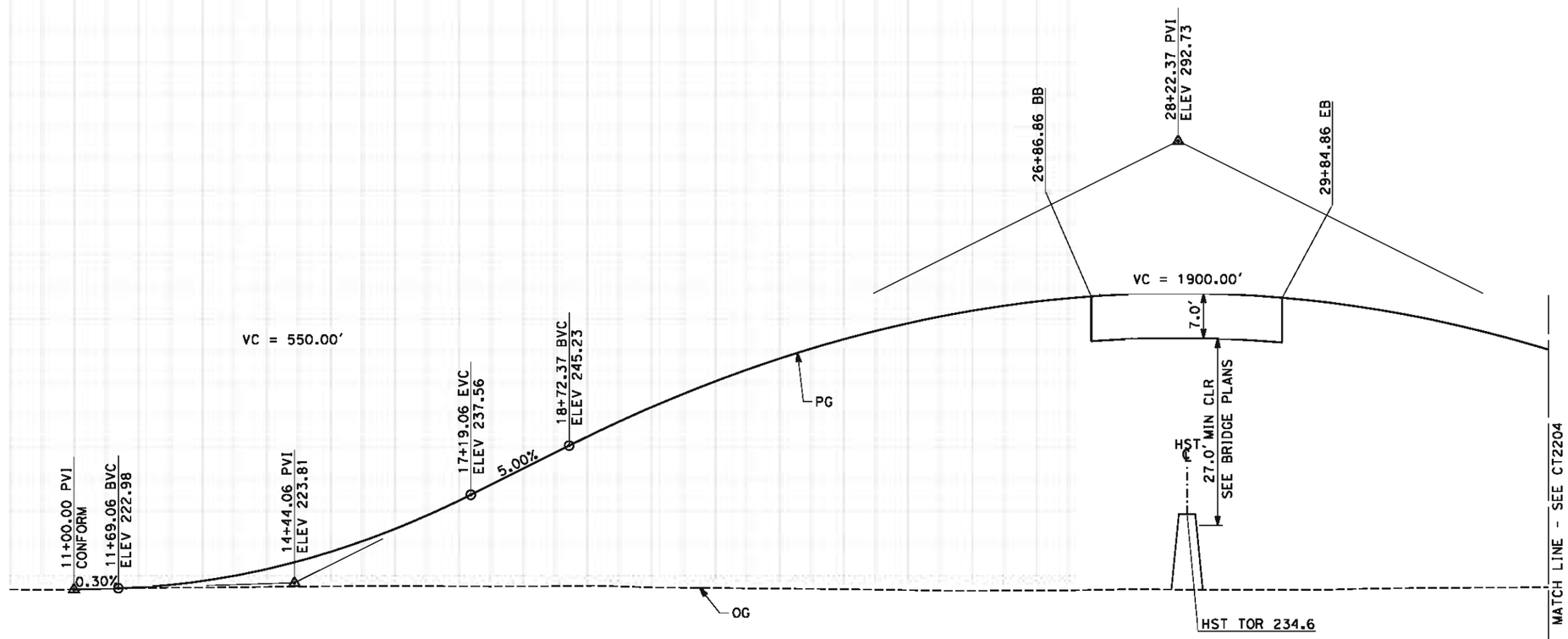
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2202
SCALE AS SHOWN
SHEET NO. 15 OF 27

eron.sudhausen 5/17/2012 9:03:11 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2202-K3.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	TOTAL
CY	Exc																										
	Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

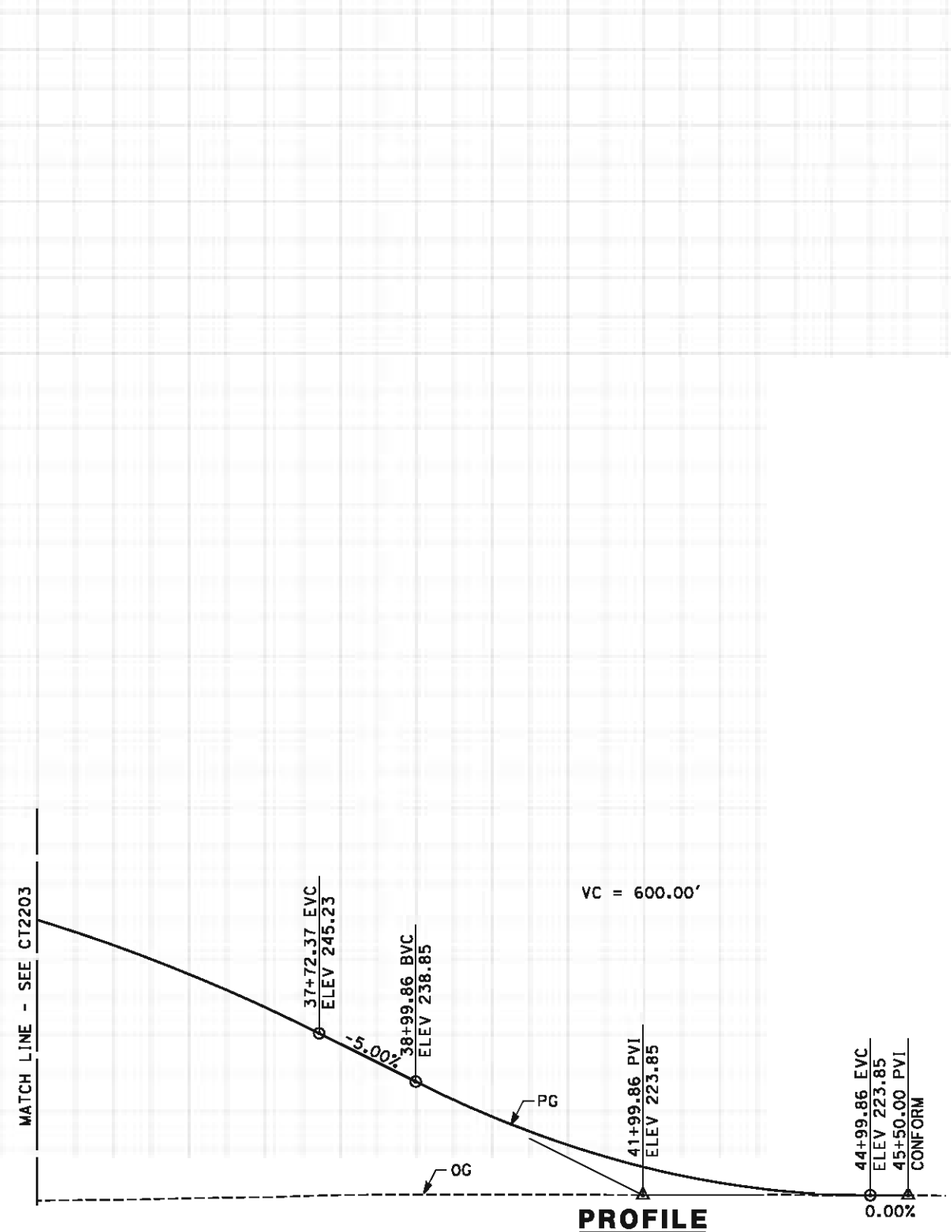
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2203
SCALE AS SHOWN
SHEET NO. 16 OF 27

eron.sudhausen 5/17/2012 9:03:12 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2203-K3.dgn



PROFILE
"KJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	35	6	7	8	9	40	1	2	3	4	45	6	TOTAL
CY Exc														
CY Emb														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

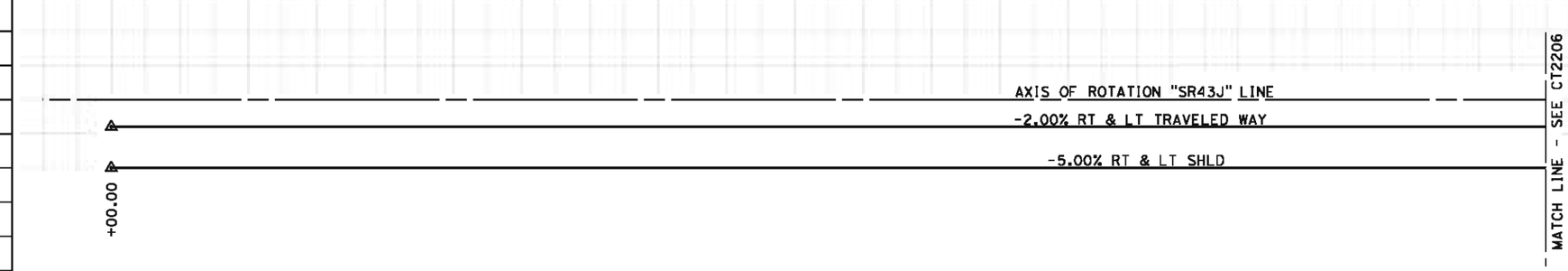
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
JACKSON AVE

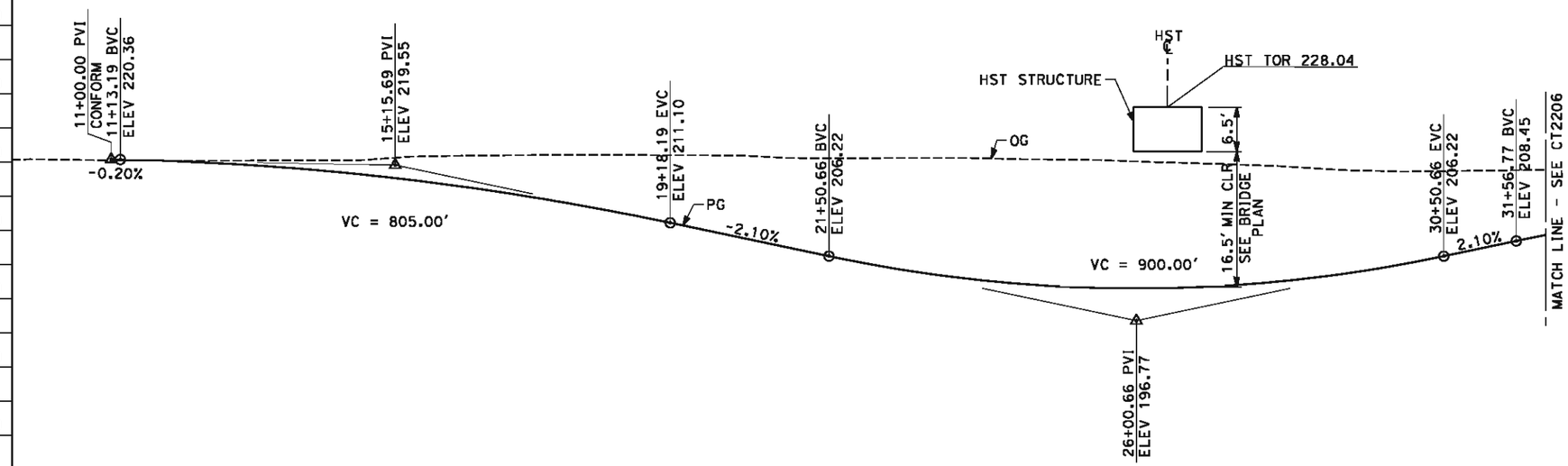
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2204
SCALE AS SHOWN
SHEET NO. 17 OF 27

eron.sudhausen 5/17/2012 9:03:13 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2204-K3.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
2. VERTICAL DESIGN SPEED = 70 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"SR43J" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

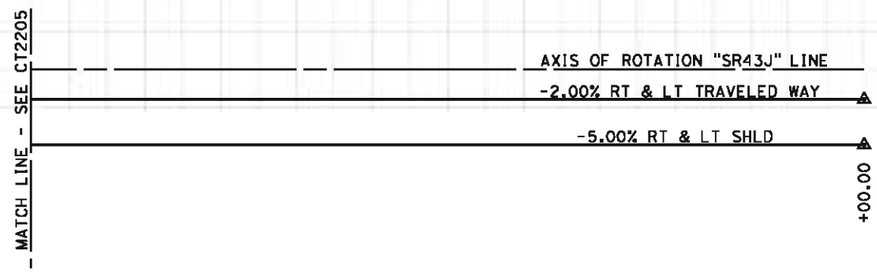
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

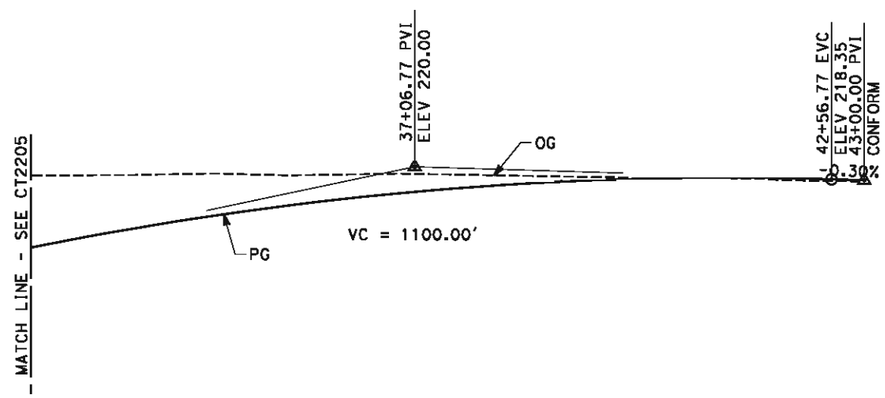
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2205
SCALE AS SHOWN
SHEET NO. 18 OF 27

eron.sudhausen 5/17/2012 9:03:14 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2205-K3.dgn



SUPERELEVATION DIAGRAM



PROFILE

"SR43J" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		2	3	4	35	6	7	8	9	40	1	2	3	TOTAL
CY	Exc													
	Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2206
SCALE AS SHOWN
SHEET NO. 19 OF 27

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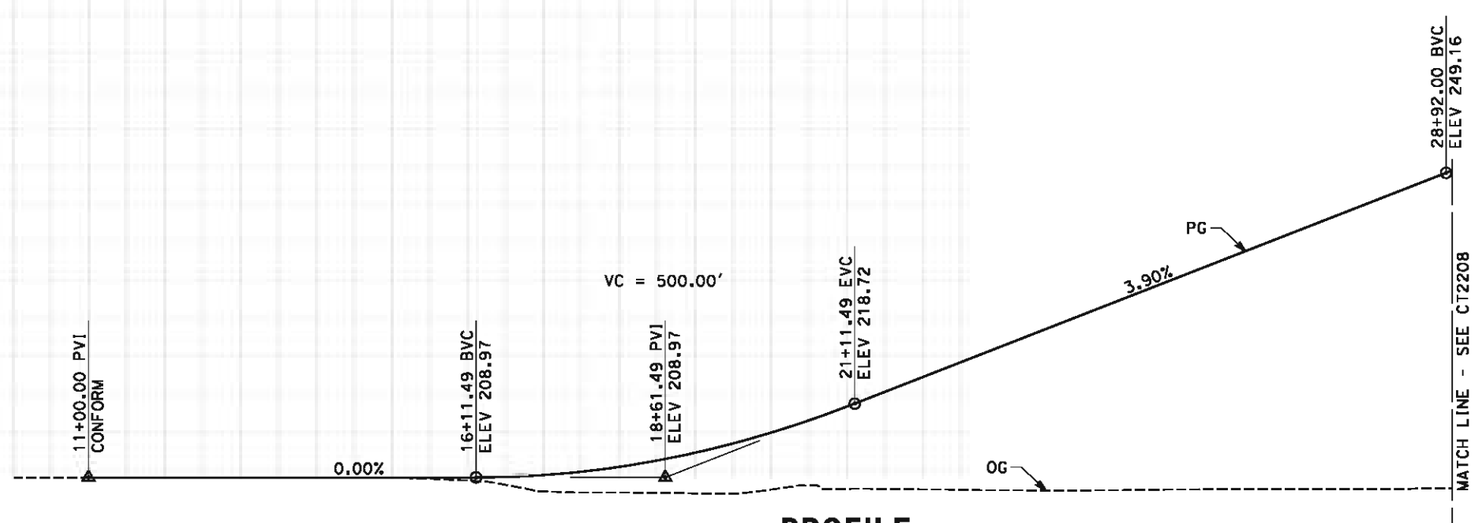
NOTES:
1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KKE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	TOTAL
CY	Exc																					
	Emb																					

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

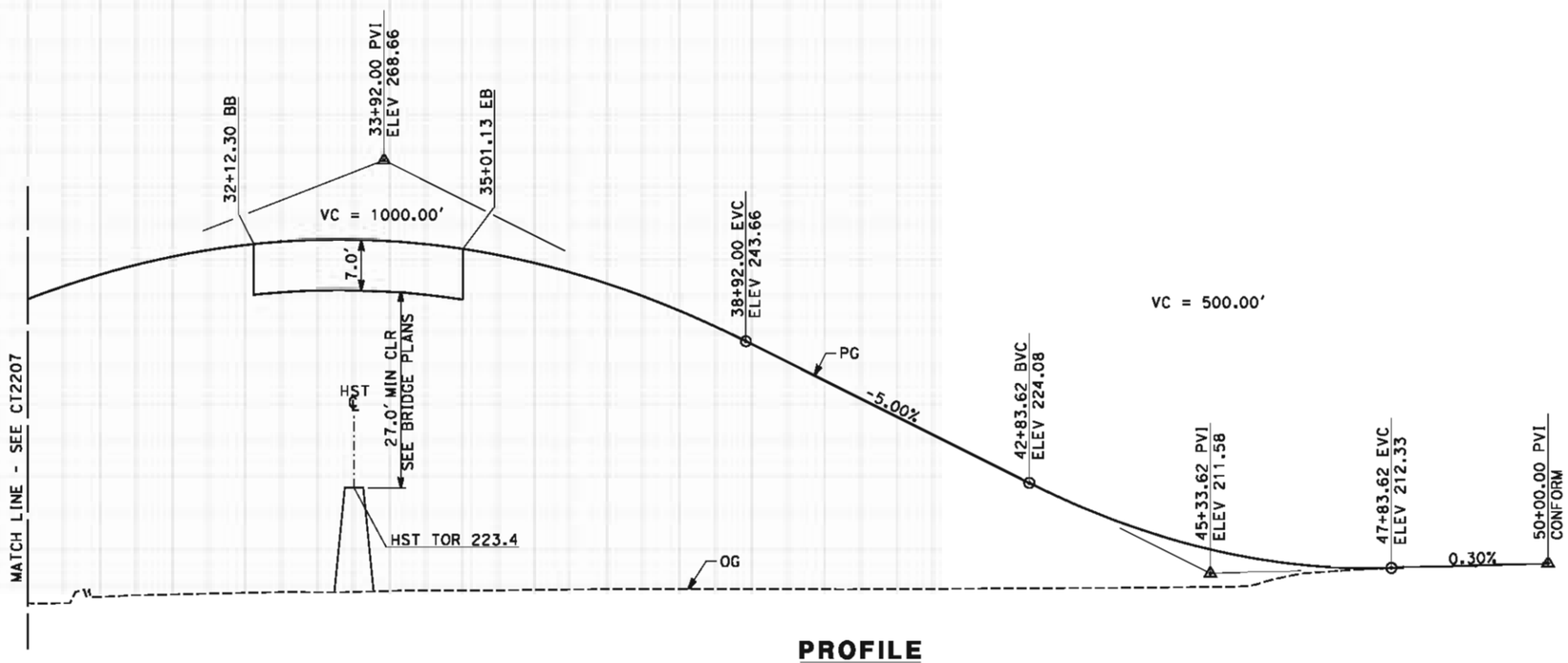
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2207
SCALE AS SHOWN
SHEET NO. 20 OF 27

eron.sudhausen 5/17/2012 9:03:18 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2207-K3.dgn



PROFILE

"KKE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	TOTAL
CY	Exc																								
	Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

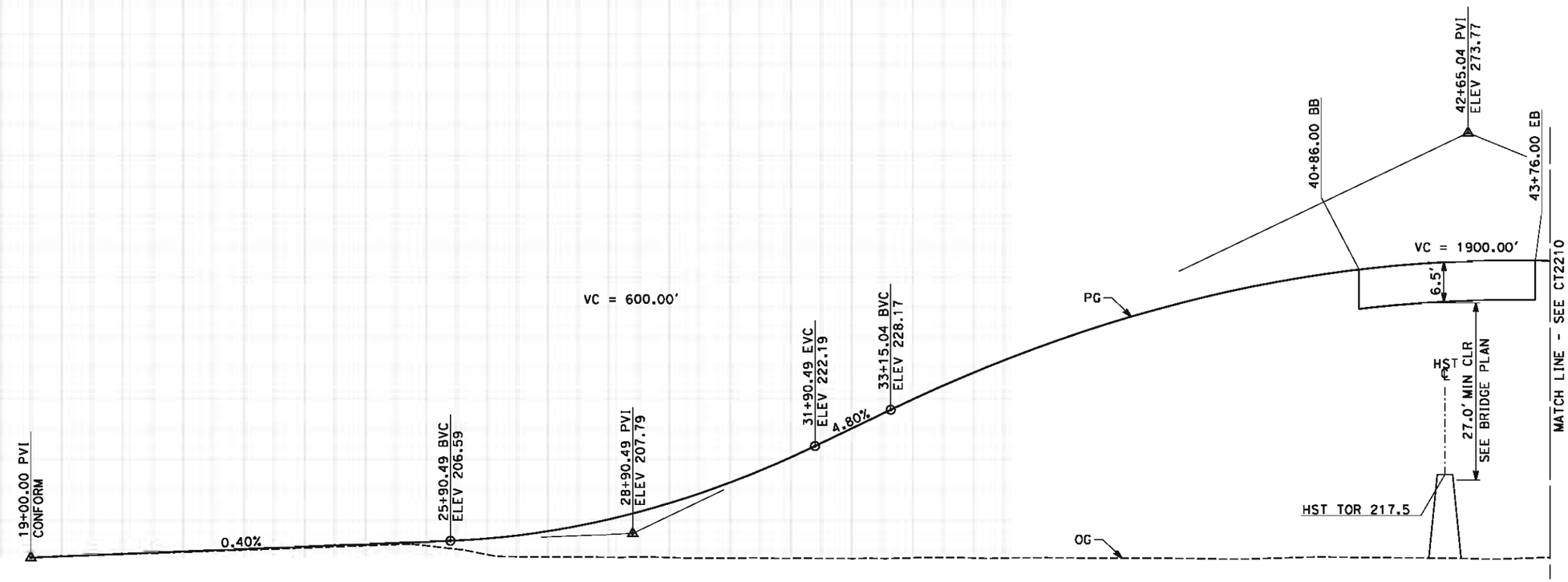
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2208
SCALE AS SHOWN
SHEET NO. 21 OF 27

\\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2208-K3.dgn 5/17/2012 9:03:19 PM eron.sudhausen

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KKA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

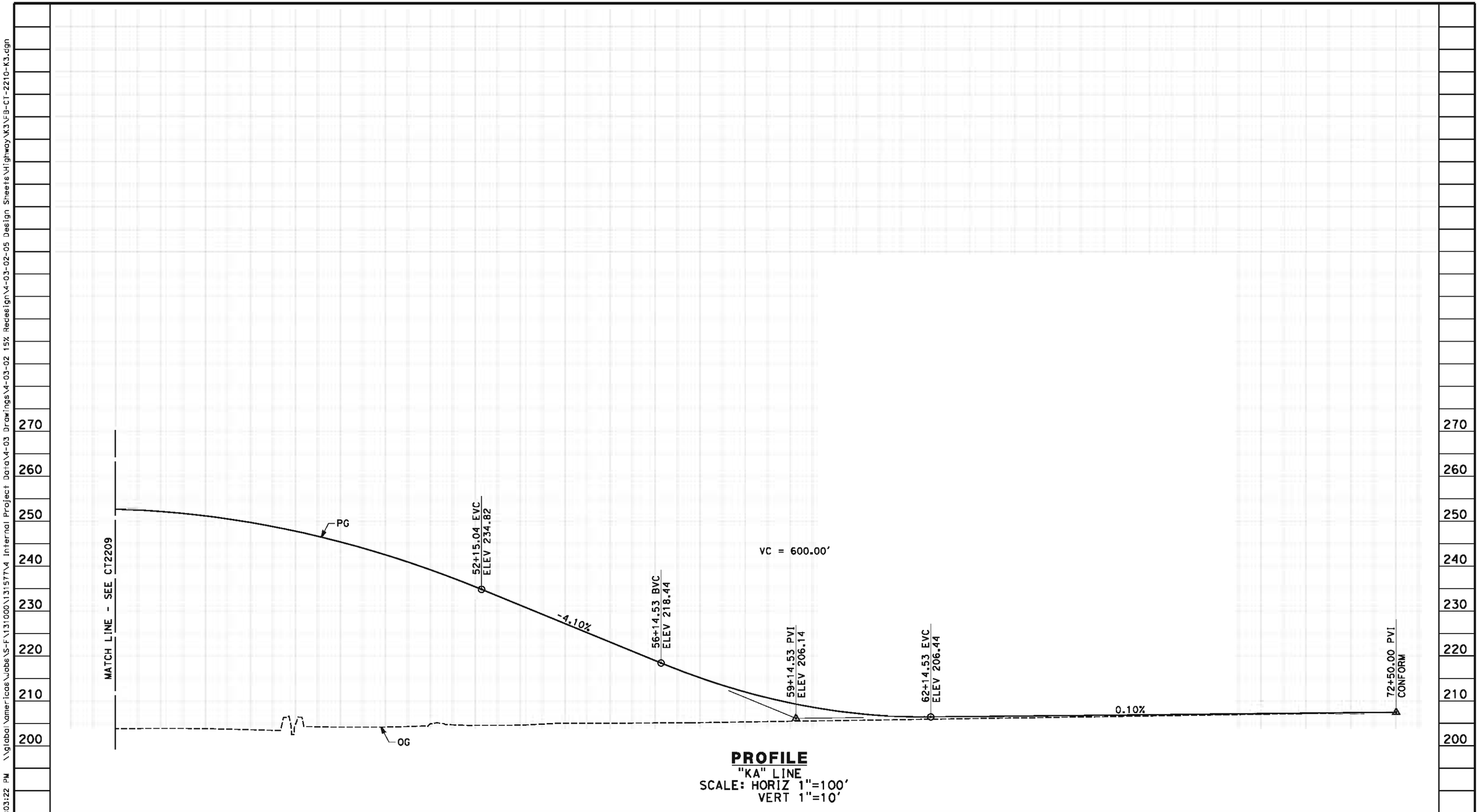
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2209
SCALE AS SHOWN
SHEET NO. 22 OF 27

eron.sudhausen 5/17/2012 9:03:21 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2209-K3.dgn



PROFILE
"KA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2210
SCALE AS SHOWN
SHEET NO. 23 OF 27

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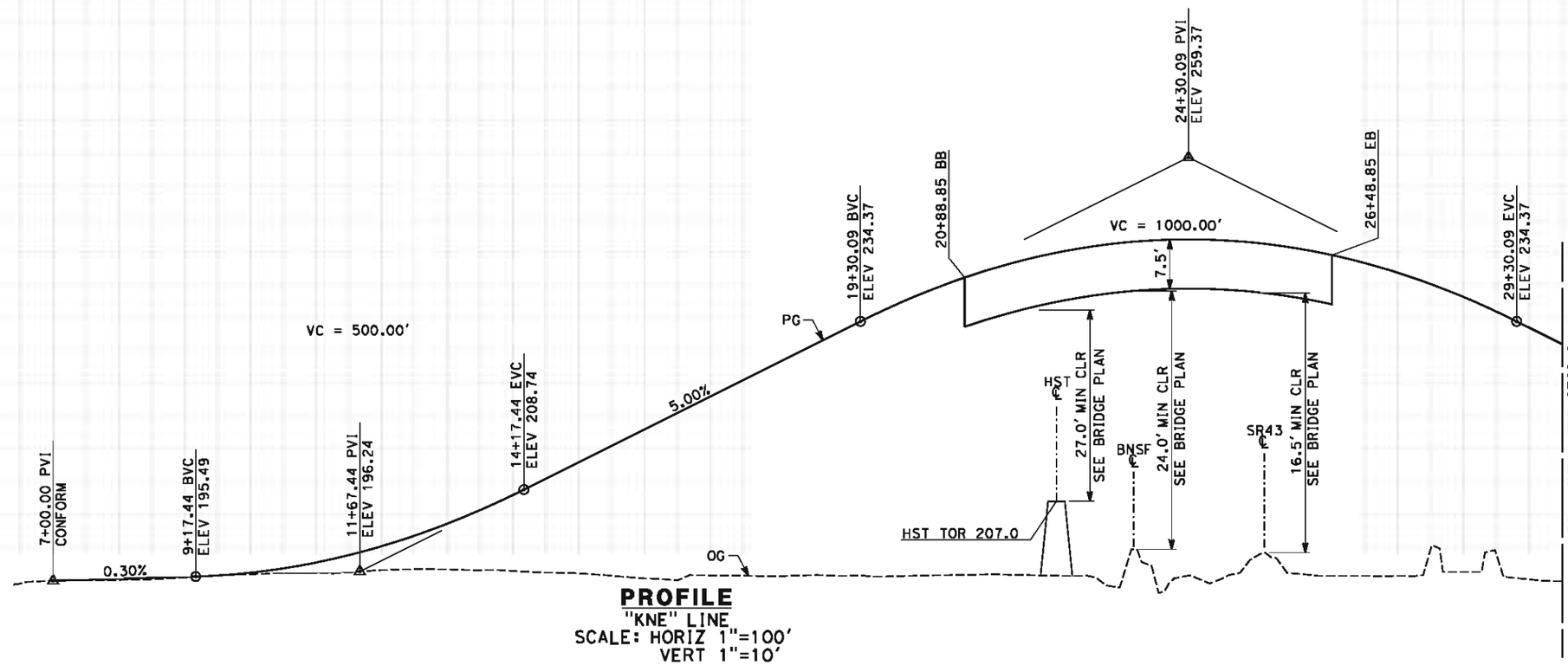
NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

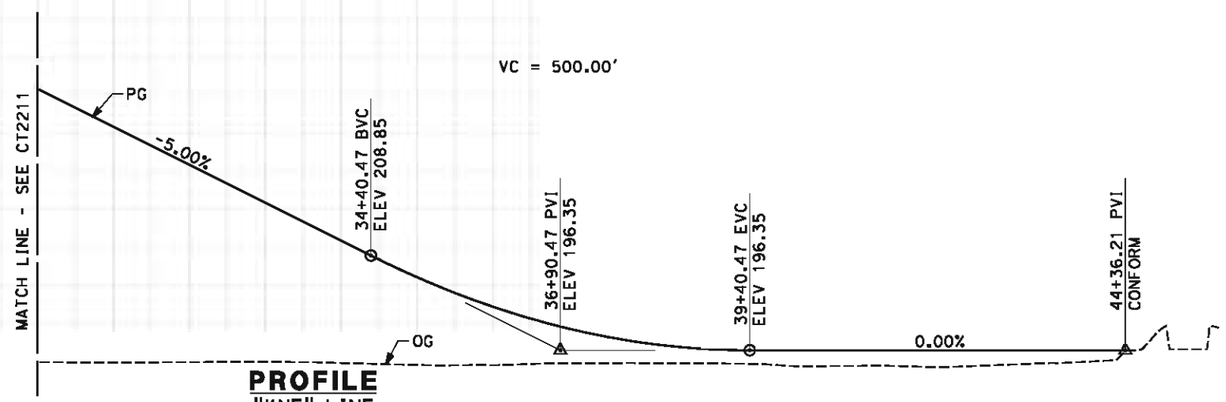
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2211
SCALE AS SHOWN
SHEET NO. 24 OF 27

\\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\F3-CT-2211-K3.dgn 5/17/2012 9:03:23 PM eron.sudhausen



PROFILE
"KNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	TOTAL
CY	Exc																	
	Emb																	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2212
SCALE AS SHOWN
SHEET NO. 25 OF 27

eron.sudhausen 5/17/2012 9:03:24 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-2212-K3.dgn

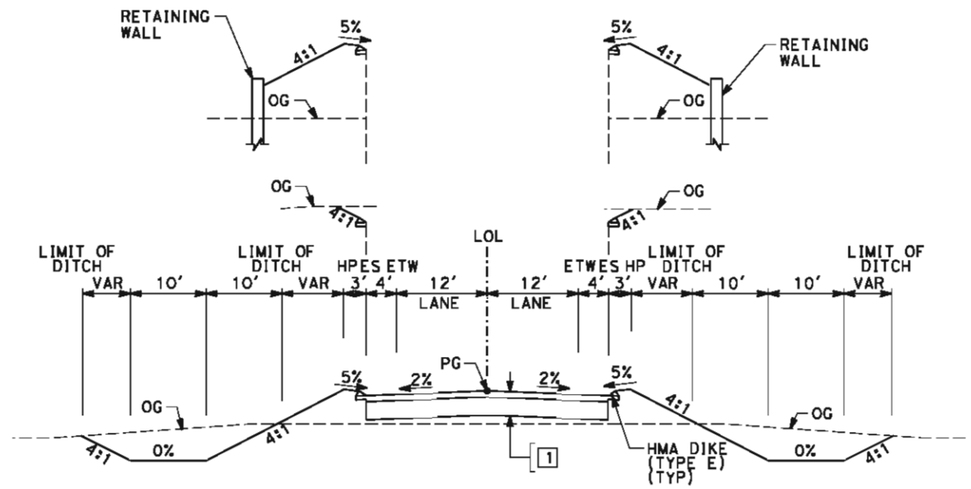
NOTES:

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

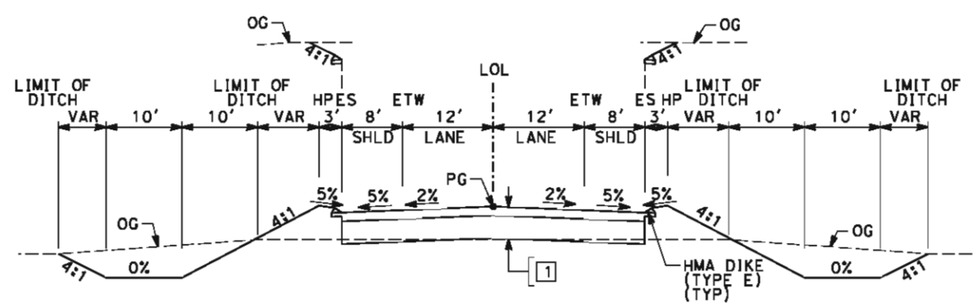
[1] 0.50' HMA (TYPE A)
1.00' CL2 AB

[2] 0.65' HMA (TYPE A)
1.75' CL2 AB



SECTION A

"KID" 10+00.00 TO 26+58.82
"KID" 29+48.82 TO 46+00.00
"KKE" 11+00.00 TO 32+12.30
"KKE" 35+01.13 TO 50+00.00
"KKA" 19+00.00 TO 40+86.00
"KKA" 43+76.00 TO 72+50.00
"KNE" 7+00.00 TO 20+88.85
"KNE" 26+48.85 TO 44+36.21



SECTION B

"KJA" 11+00.00 TO 26+86.86
"KJA" 29+84.86 TO 45+50.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

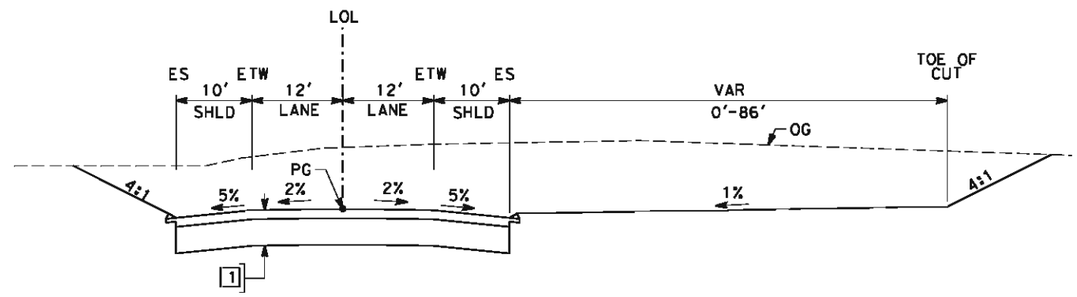
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3220
SCALE NO SCALE
SHEET NO. 26 OF 27

eron.sudhausen 5/17/2012 9:03:25 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-3220-K3.dgn



SECTION C

"SR43J" 11+00.00 TO 43+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

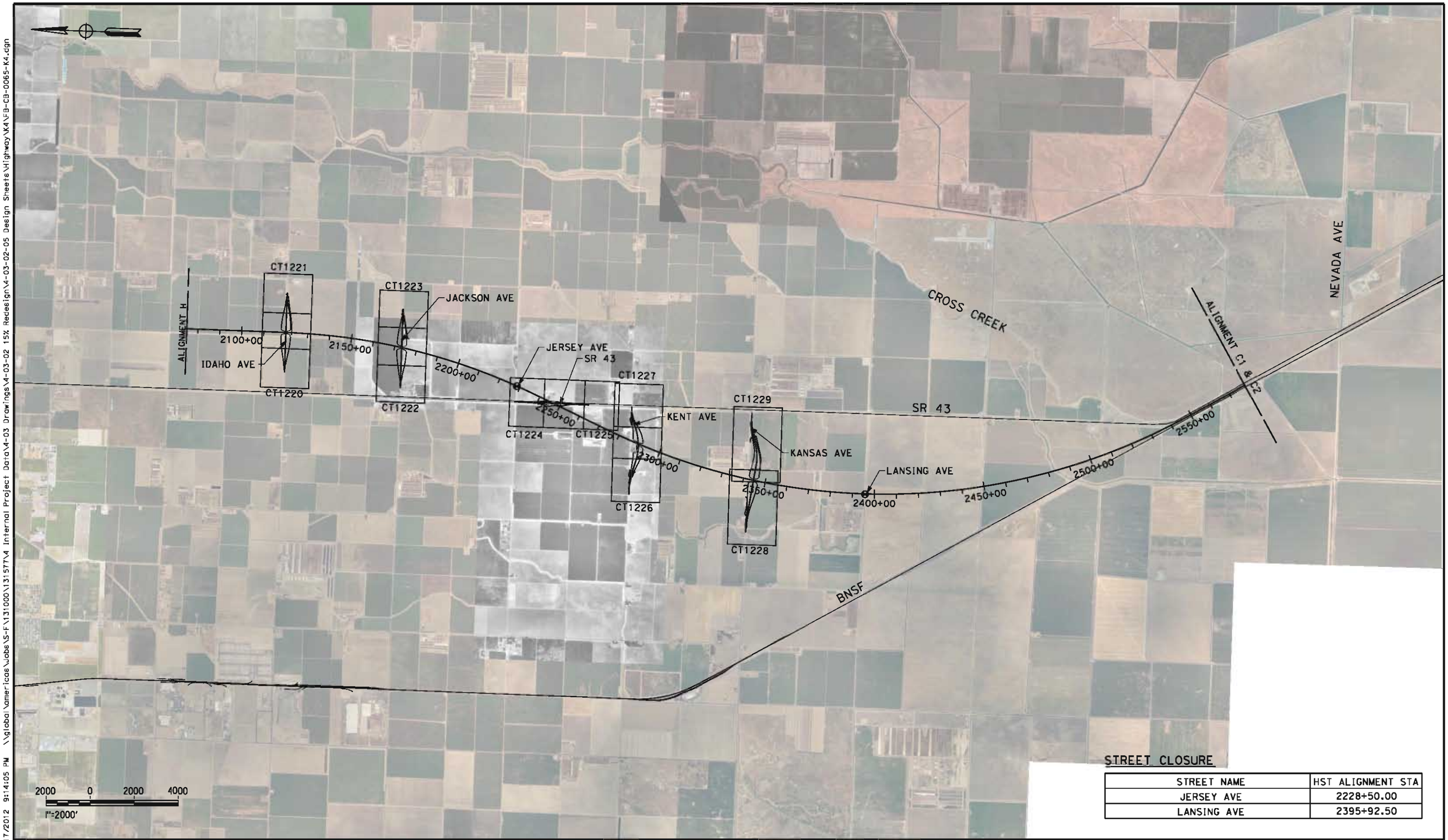
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3221
SCALE NO SCALE
SHEET NO. 27 OF 27

eron.sudhausen 5/17/2012 9:03:26 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K3\FB-CT-3221-K3.dgn



STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
JERSEY AVE	2228+50.00
LANSING AVE	2395+92.50

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

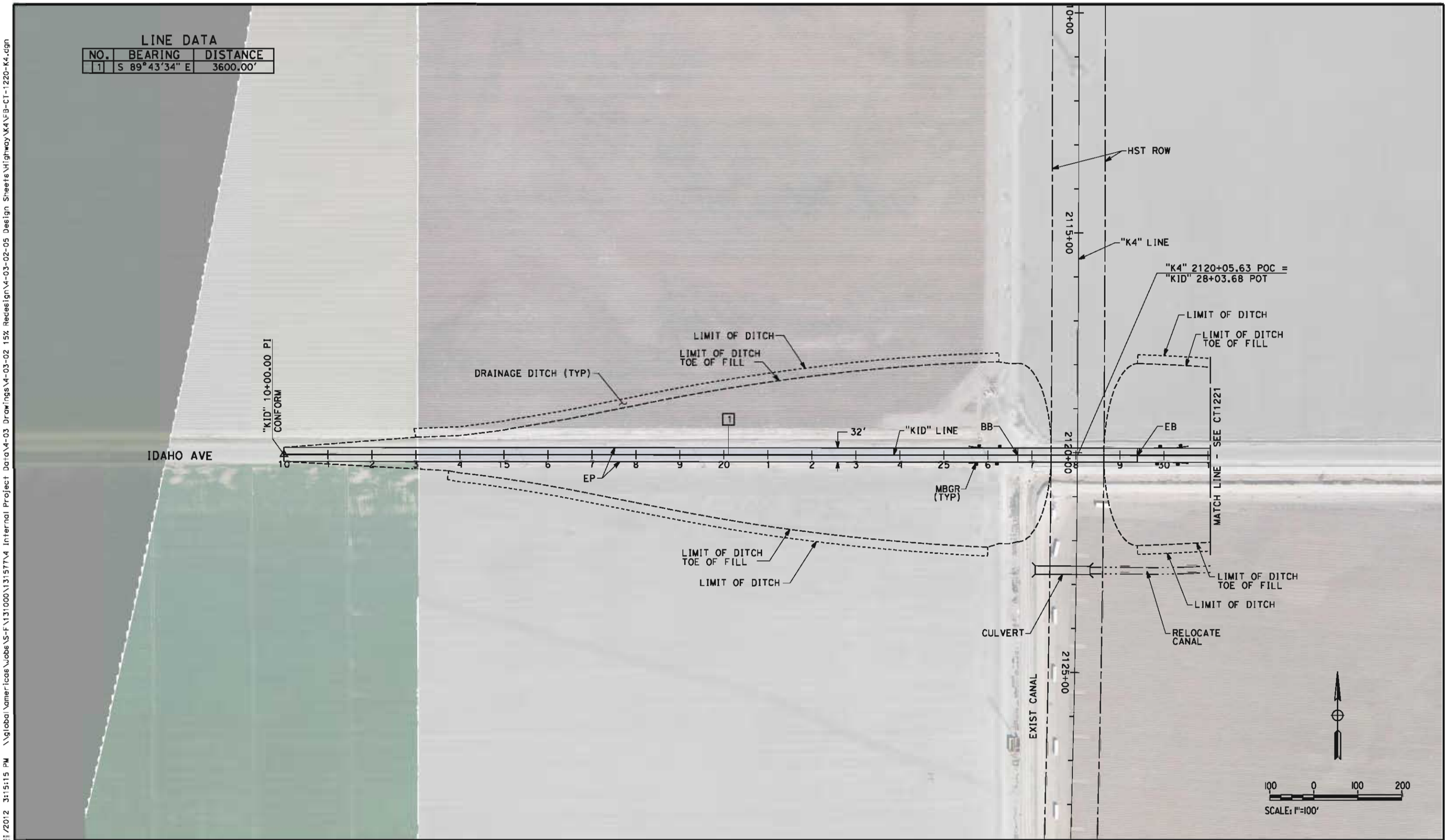
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0065
SCALE AS SHOWN
SHEET NO. 1 OF 23

eran.sudhausen 5/17/2012 9:14:05 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CB-0065-K4.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

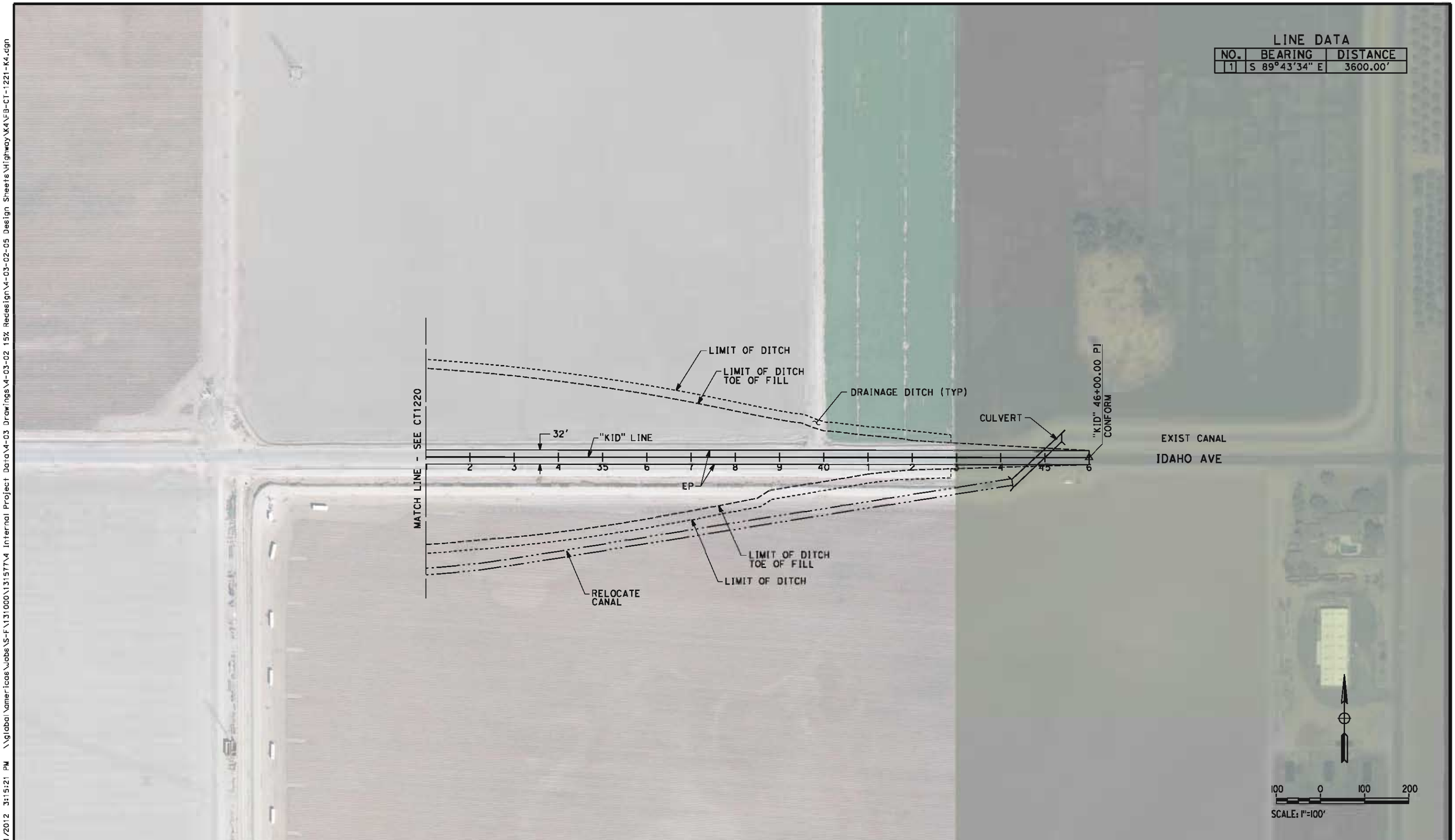
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1220
SCALE AS SHOWN
SHEET NO. 2 OF 23

eran.sudhausen 5/21/2012 3:15:15 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-1220-K4.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

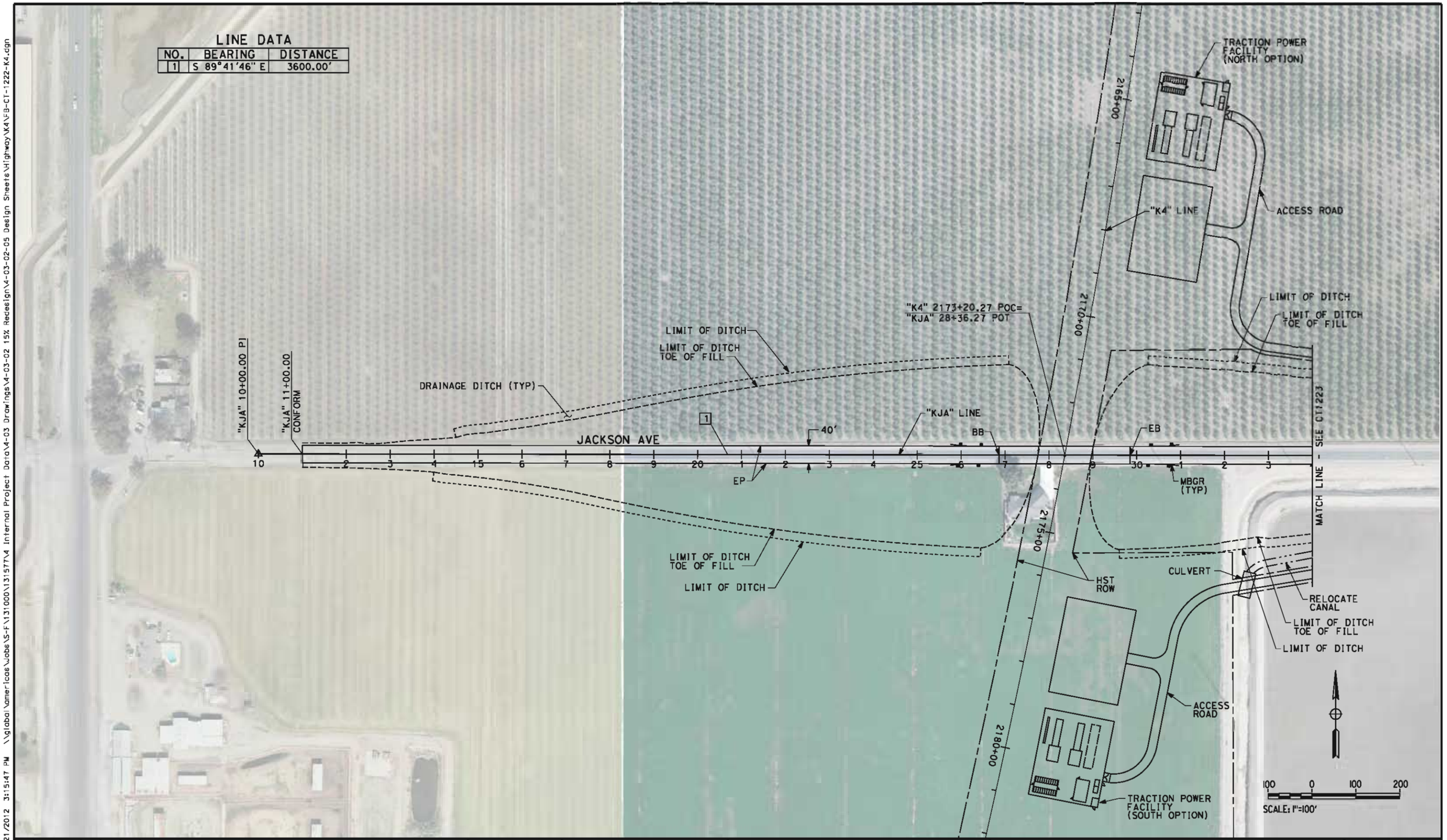
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1221
SCALE AS SHOWN
SHEET NO. 3 OF 23

eron.sudhausen 5/21/2012 3:15:21 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-1221-K4.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°41'46" E	3600.00'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

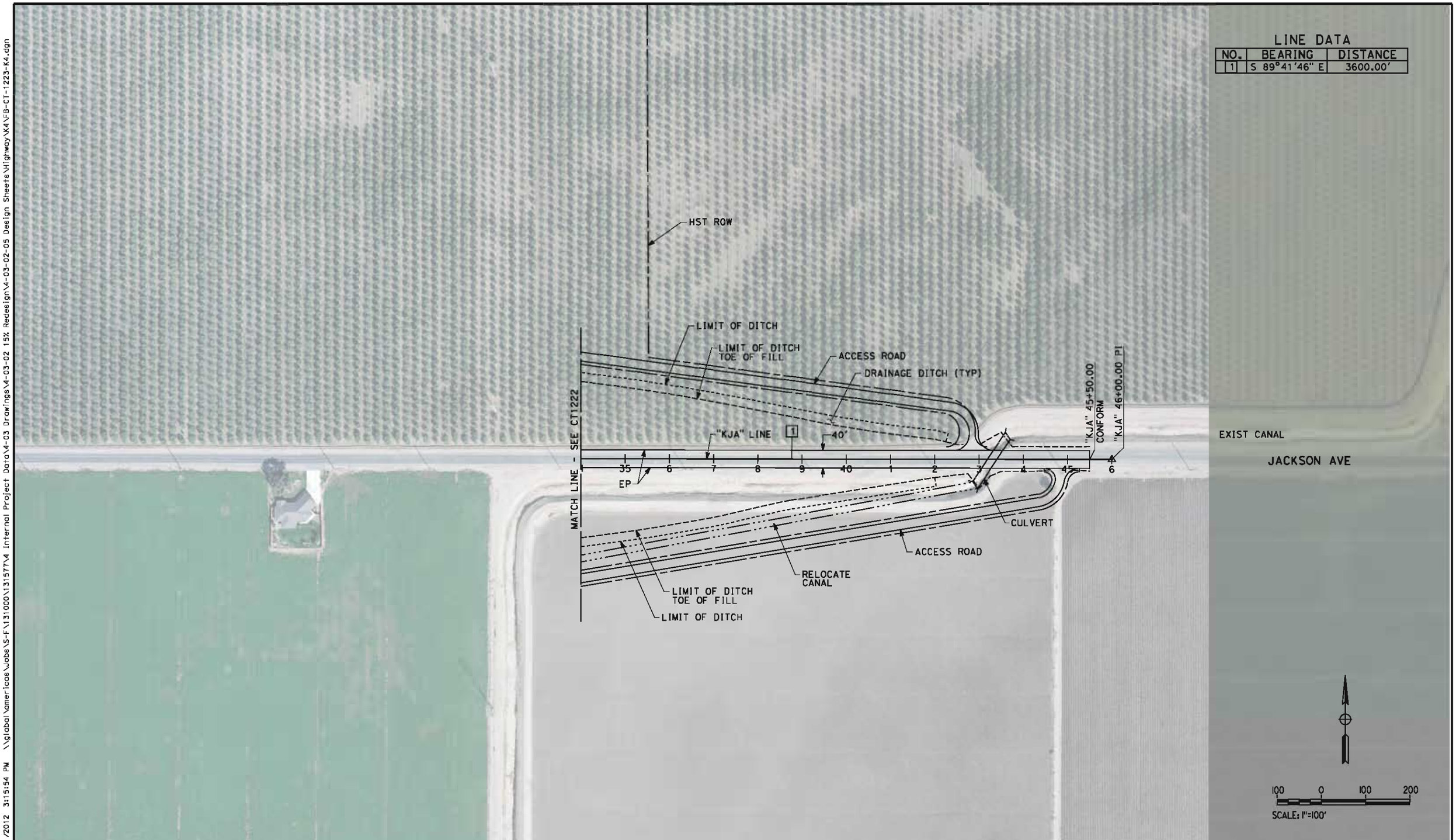
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1222
SCALE AS SHOWN
SHEET NO. 4 OF 23

eron.sudhausen 5/21/2012 3:15:47 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-1222-K4.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 89°41'46" E	3600.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

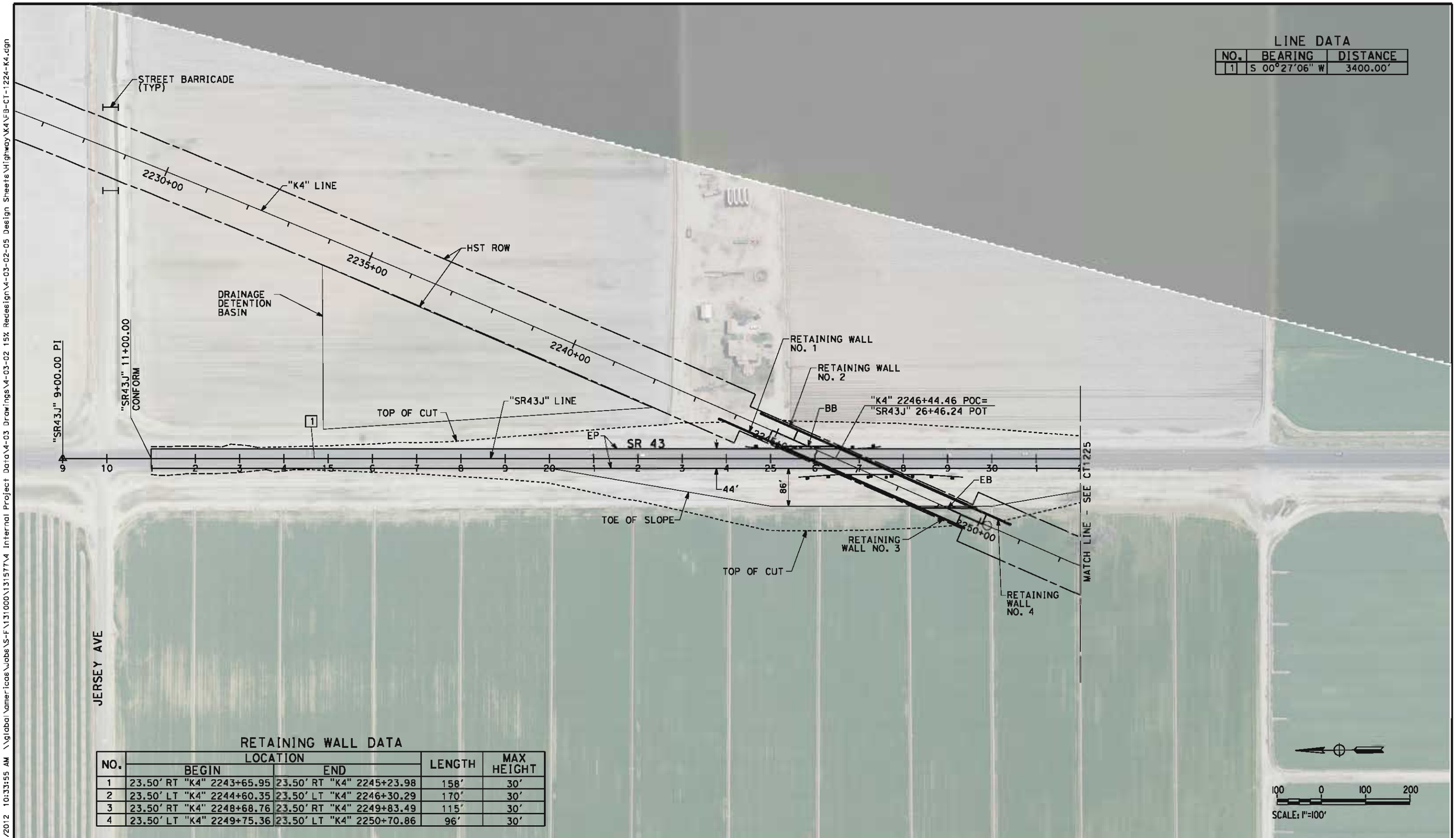
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1223
SCALE AS SHOWN
SHEET NO. 5 OF 23

eron.sudhausen 5/21/2012 3:15:54 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\F8-CT-1223-K4.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 00°27'06" W	3400.00'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	23.50' RT "K4" 2243+65.95	23.50' RT "K4" 2245+23.98	158'	30'
2	23.50' LT "K4" 2244+60.35	23.50' LT "K4" 2246+30.29	170'	30'
3	23.50' RT "K4" 2248+68.76	23.50' RT "K4" 2249+83.49	115'	30'
4	23.50' LT "K4" 2249+75.36	23.50' LT "K4" 2250+70.86	96'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1224
SCALE AS SHOWN
SHEET NO. 6 OF 23

eron.sudhausen 5/18/2012 10:33:55 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-1224-K4.dgn

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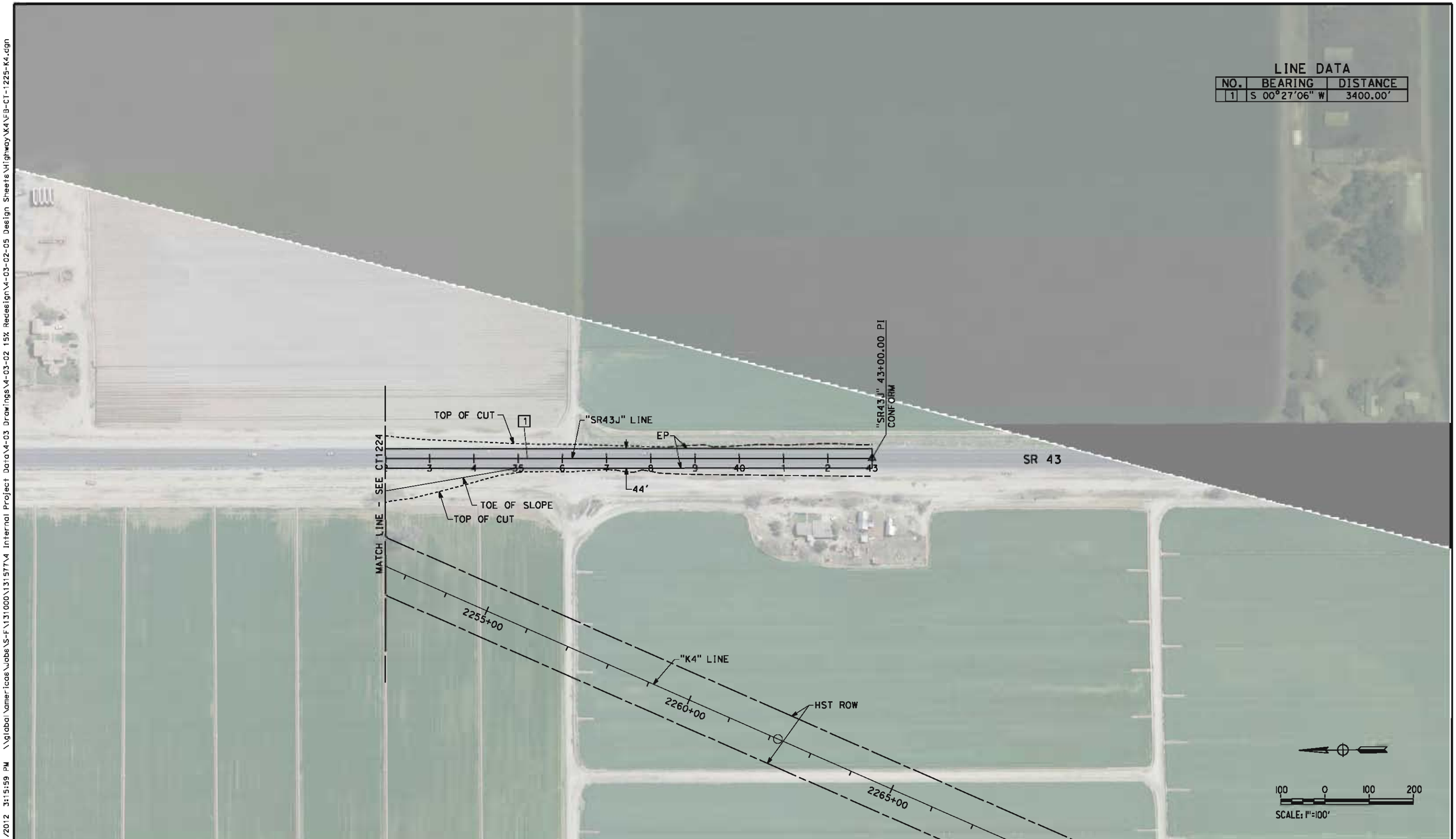


LINE DATA

NO.	BEARING	DISTANCE
1	S 00°27'06" W	3400.00'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (JERSEY AVE)

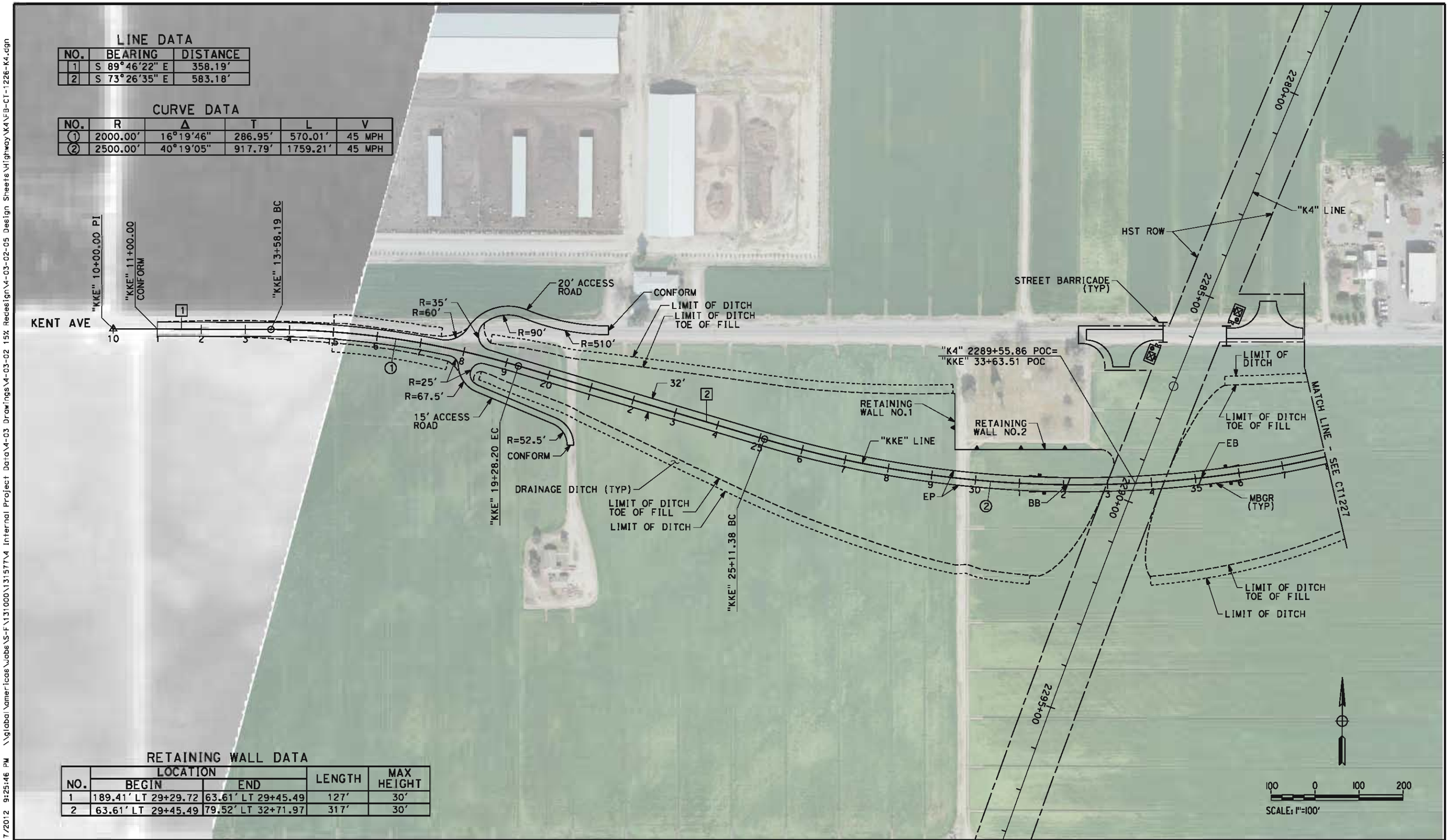
CONTRACT NO. HSR 06-0003
DRAWING NO. CT1225
SCALE AS SHOWN
SHEET NO. 7 OF 23

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°46'22" E	358.19'
2	S 73°26'35" E	583.18'

CURVE DATA

NO.	R	Δ	T	L	V
1	2000.00'	16°19'46"	286.95'	570.01'	45 MPH
2	2500.00'	40°19'05"	917.79'	1759.21'	45 MPH



RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	189.41' LT 29+29.72	63.61' LT 29+45.49	127'	30'
2	63.61' LT 29+45.49	79.52' LT 32+71.97	317'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1226
SCALE AS SHOWN
SHEET NO. 8 OF 23

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LINE DATA

NO.	BEARING	DISTANCE
3	S 89°46'22" E	201.39'

CURVE DATA

NO.	R	Δ	T	L	V
2	2500.00'	40°19'05"	917.79'	1759.21'	45 MPH
3	1500.00'	23°59'19"	318.68'	628.02'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1227
SCALE AS SHOWN
SHEET NO. 9 OF 23

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LINE DATA

NO.	BEARING	DISTANCE
1	S 88°48'29" E	208.54'
2	S 81°45'53" E	2295.80'

CURVE DATA

NO.	R	Δ	T	L	V
1	5000.00'	07°02'35"	307.70'	614.63'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1228
SCALE AS SHOWN
SHEET NO. 10 OF 23

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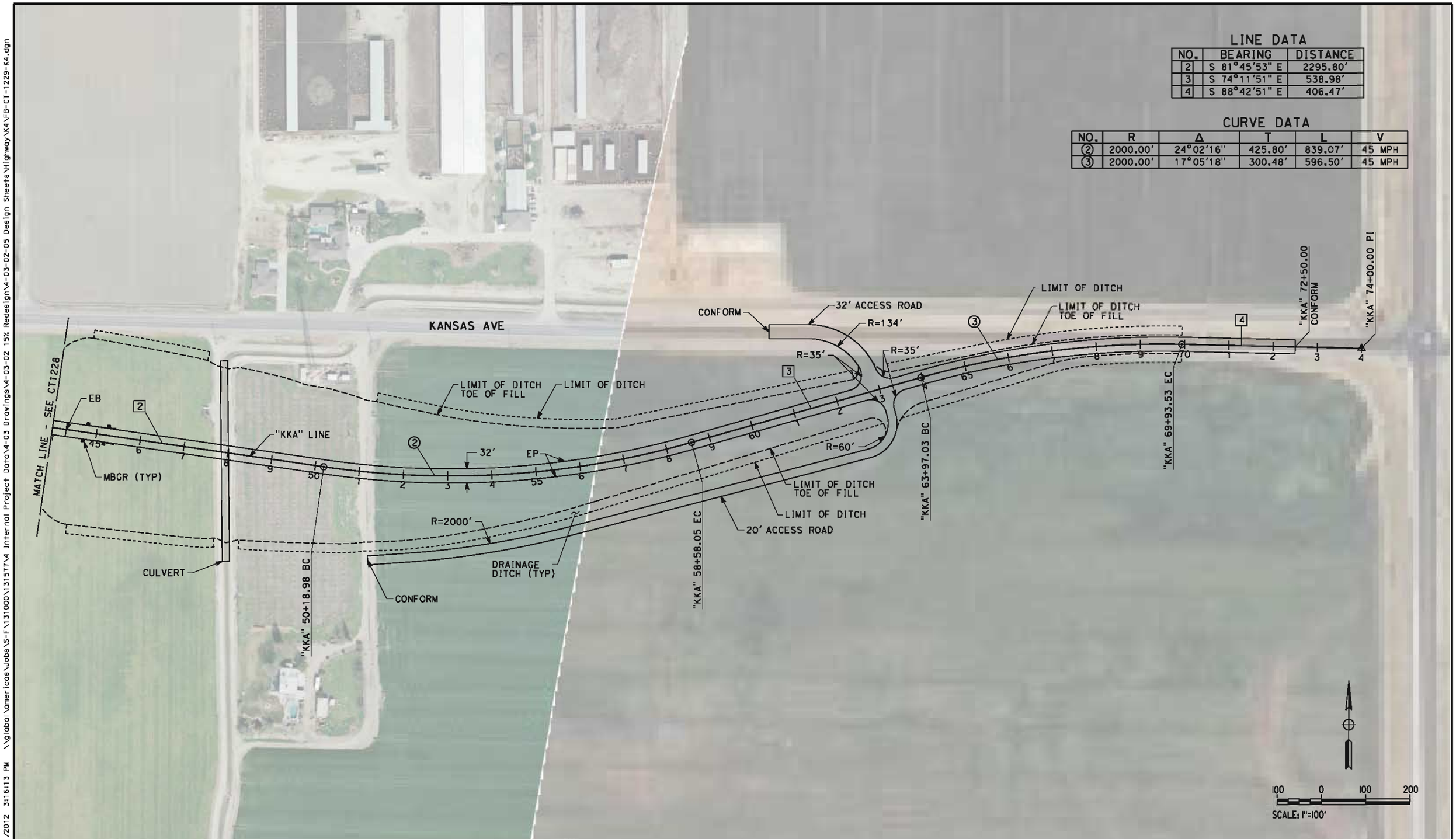
eron.sudhausen 5/21/2012 3:16:13 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-1229-K4.dgn



LINE DATA

NO.	BEARING	DISTANCE
2	S 81°45'53" E	2295.80'
3	S 74°11'51" E	538.98'
4	S 88°42'51" E	406.47'

CURVE DATA

NO.	R	Δ	T	L	V
2	2000.00'	24°02'16"	425.80'	839.07'	45 MPH
3	2000.00'	17°05'18"	300.48'	596.50'	45 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

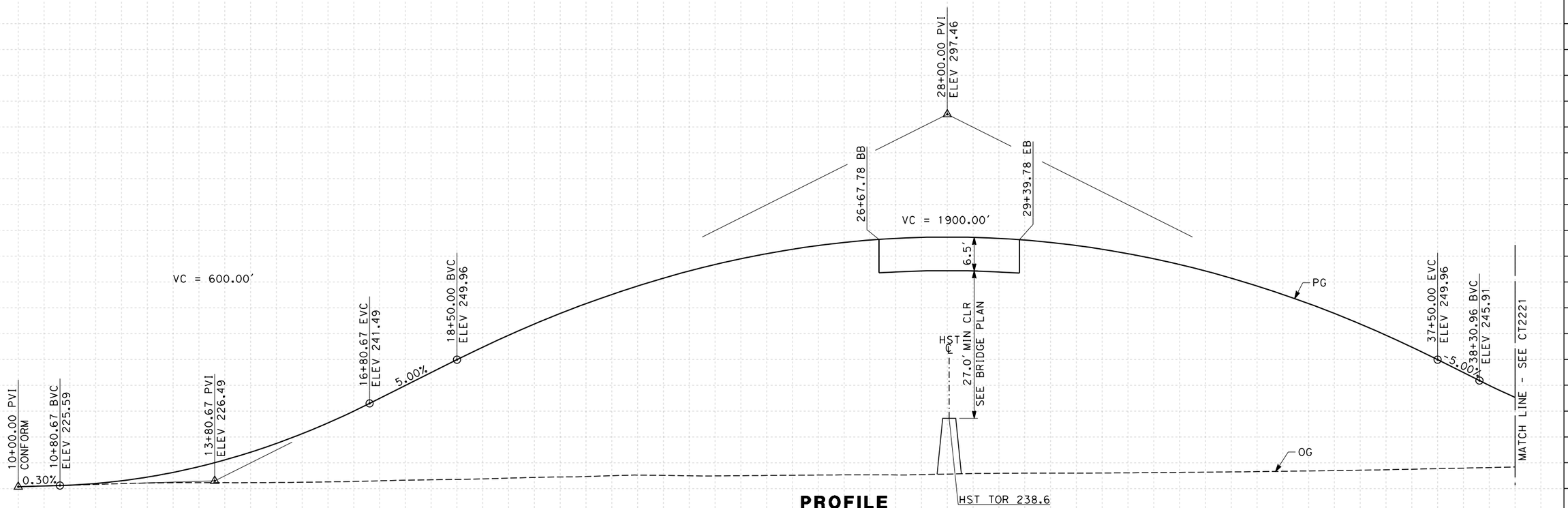
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION LAYOUT
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1229
SCALE AS SHOWN
SHEET NO. 11 OF 23

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KID" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	9	TOTAL
CY	Exc																															
	Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

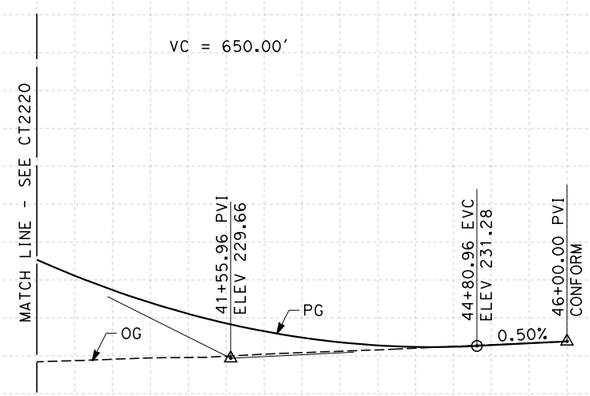
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2220
SCALE AS SHOWN
SHEET NO. 12 OF 23

J:\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2220-K4.dgn 2:09:02 PM 7/9/2012 eron.sudhausen



PROFILE
"KID" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	9	40	1	2	3	4	45	6	TOTAL
CY Exc									
CY Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

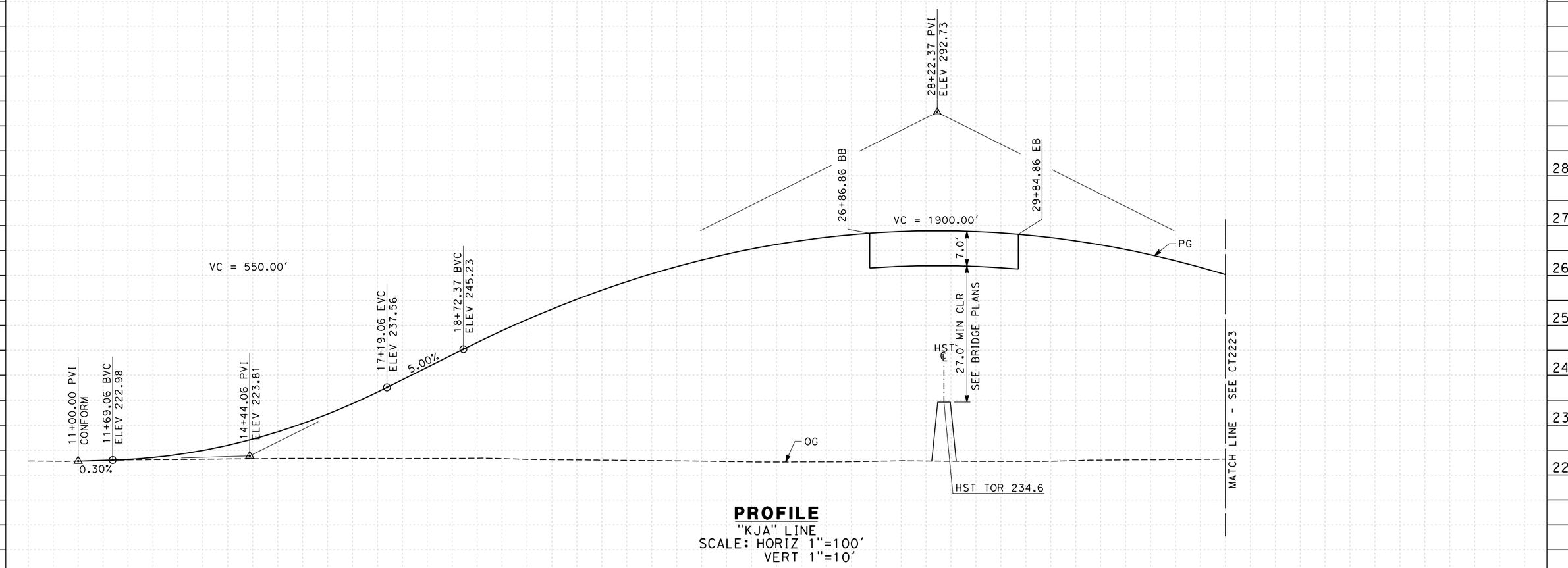
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
IDAHO AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2221
SCALE AS SHOWN
SHEET NO. 13 OF 23

eron.sudhausen 7/10/2012 9:13:09 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2221-K4.dgn

NOTES:
1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	TOTAL
CY Exc																										
CY Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2222
SCALE AS SHOWN
SHEET NO. 14 OF 23

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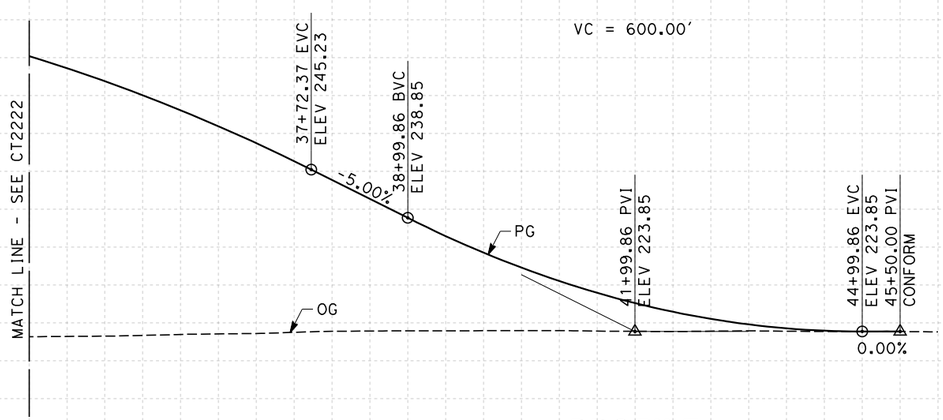

PROFILE
"KJA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	35	6	7	8	9	40	1	2	3	4	45	6	TOTAL
CY Exc														
CY Emb														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
JACKSON AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2223
SCALE AS SHOWN
SHEET NO. 15 OF 23

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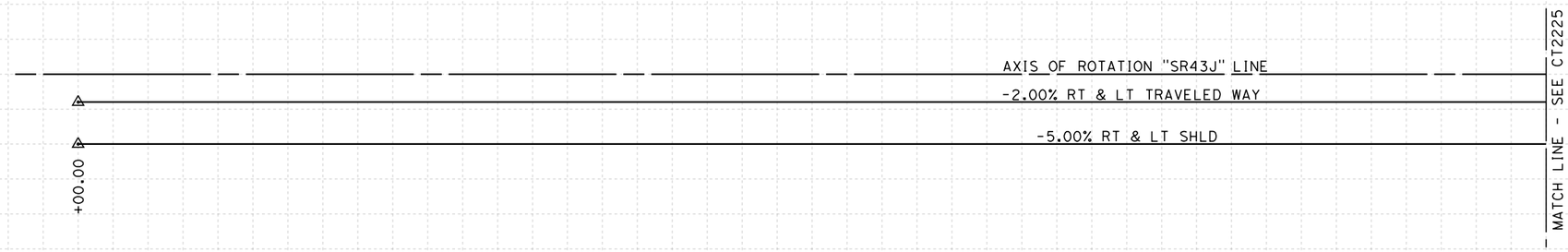
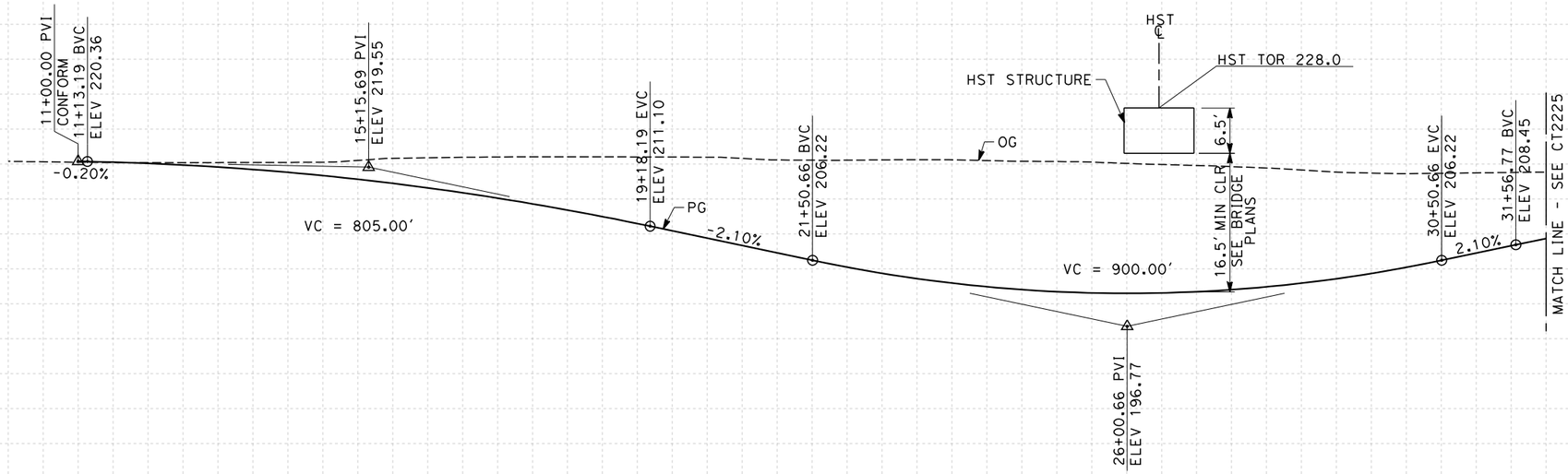
NOTES:

1. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
2. VERTICAL DESIGN SPEED = 70 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"SR43J" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	2	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2224
SCALE AS SHOWN
SHEET NO. 16 OF 23

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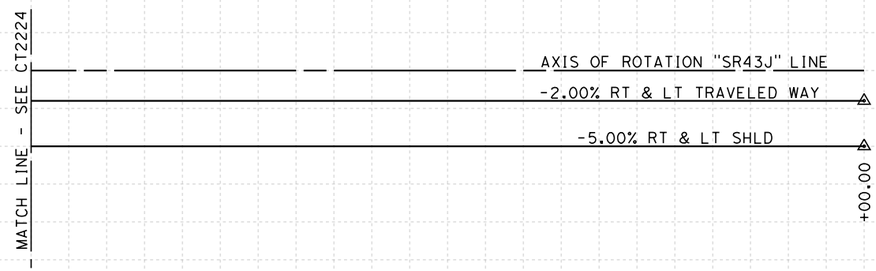
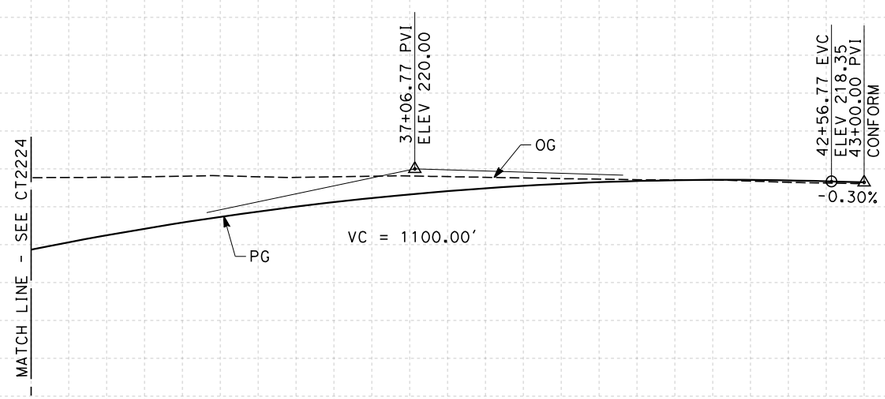


SUPERELEVATION DIAGRAM



PROFILE

"SR43J" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		2	3	4	35	6	7	8	9	40	1	2	3	TOTAL
CY	Exc													
	Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (JERSEY AVE)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2225
SCALE AS SHOWN
SHEET NO. 17 OF 23

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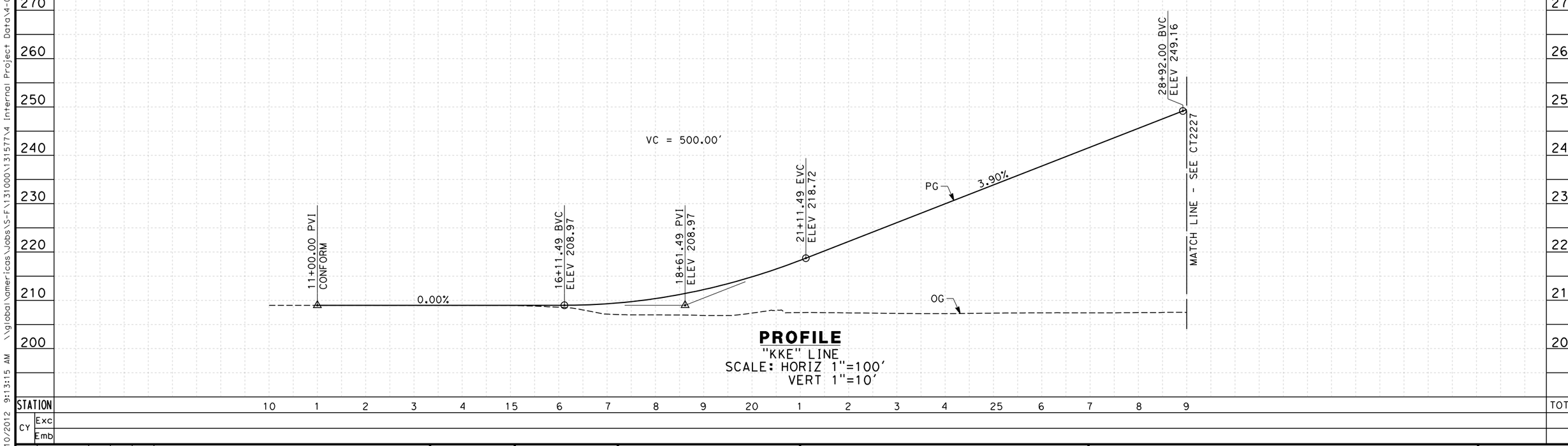
NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"KKE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

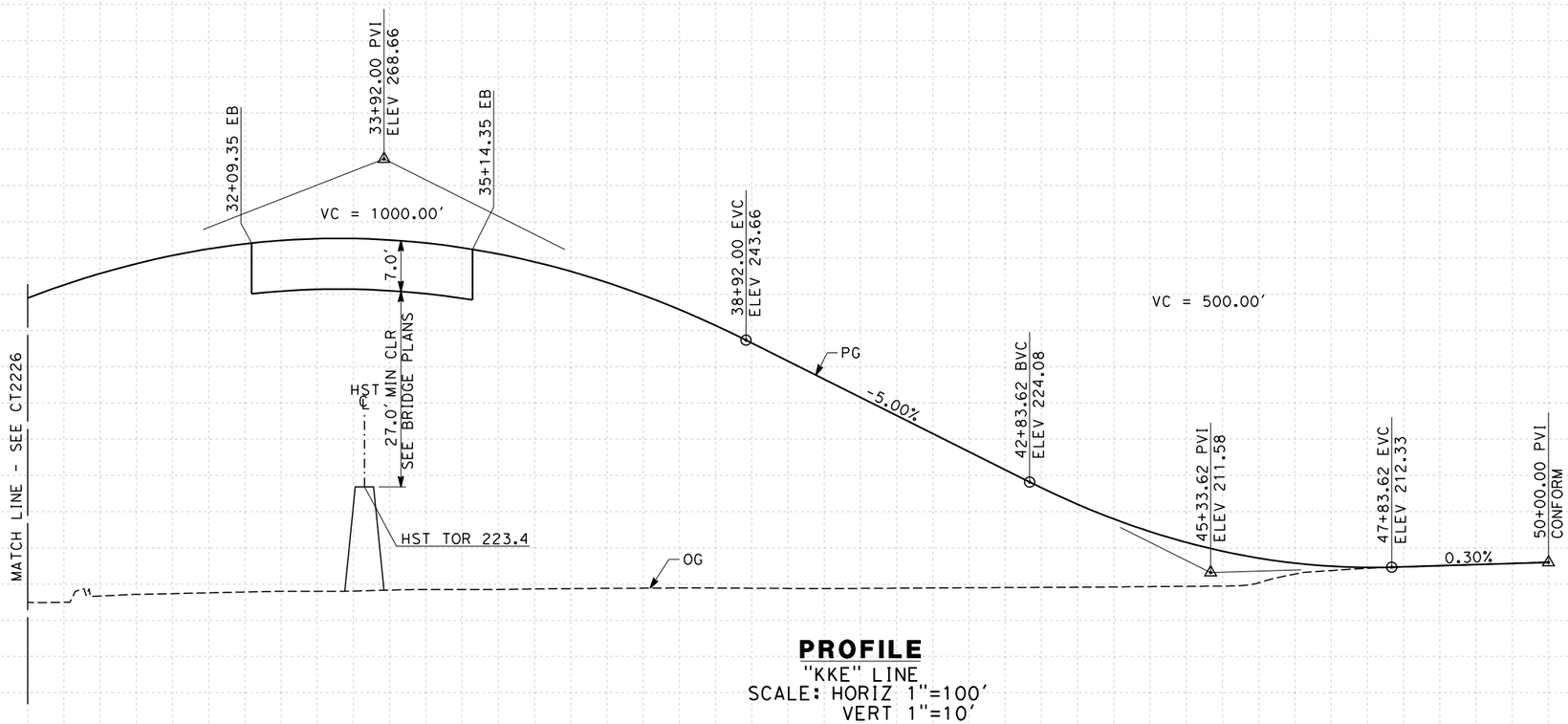
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2226
SCALE AS SHOWN
SHEET NO. 18 OF 23

eron.sudhausen 7/10/2012 9:13:15 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2226-K4.dgn



PROFILE
"KKE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	TOTAL
CY	Exc																									
	Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

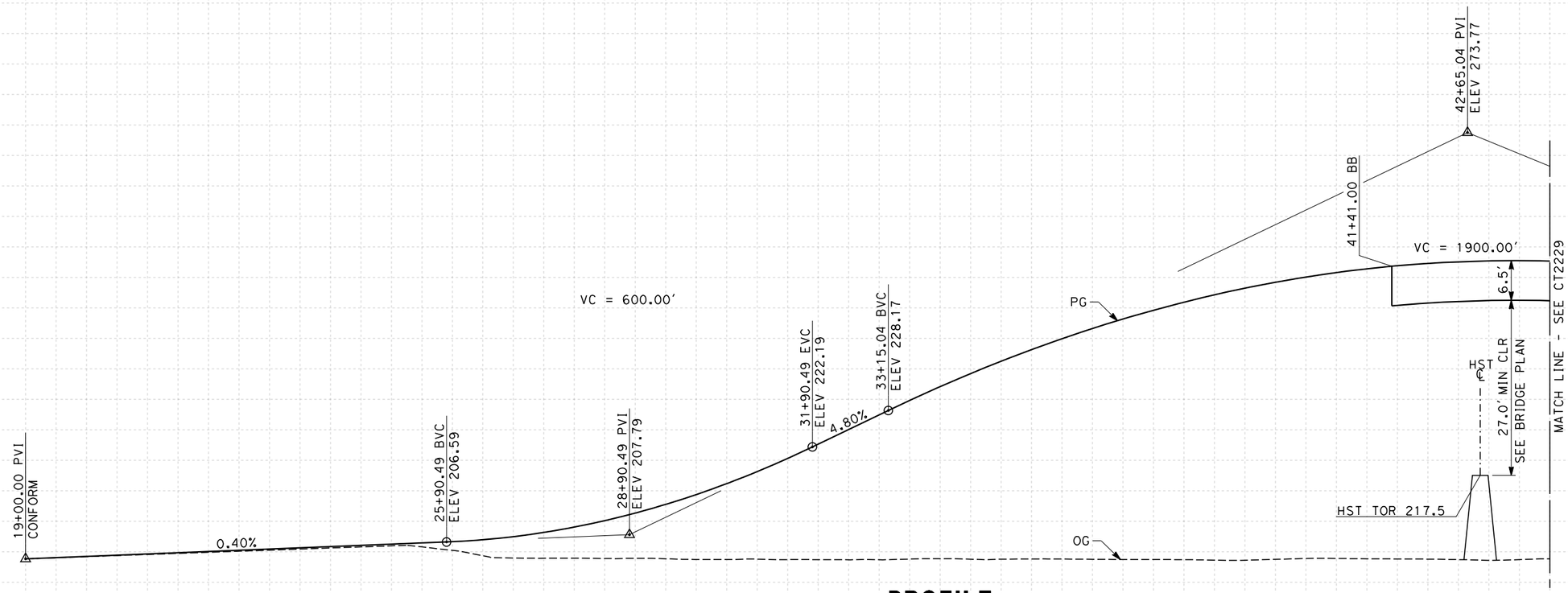
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
KENT AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2227
SCALE AS SHOWN
SHEET NO. 19 OF 23

eron.sudhausen 7/10/2012 9:13:16 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2227-K4.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 45 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"KKA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	9	20	1	2	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

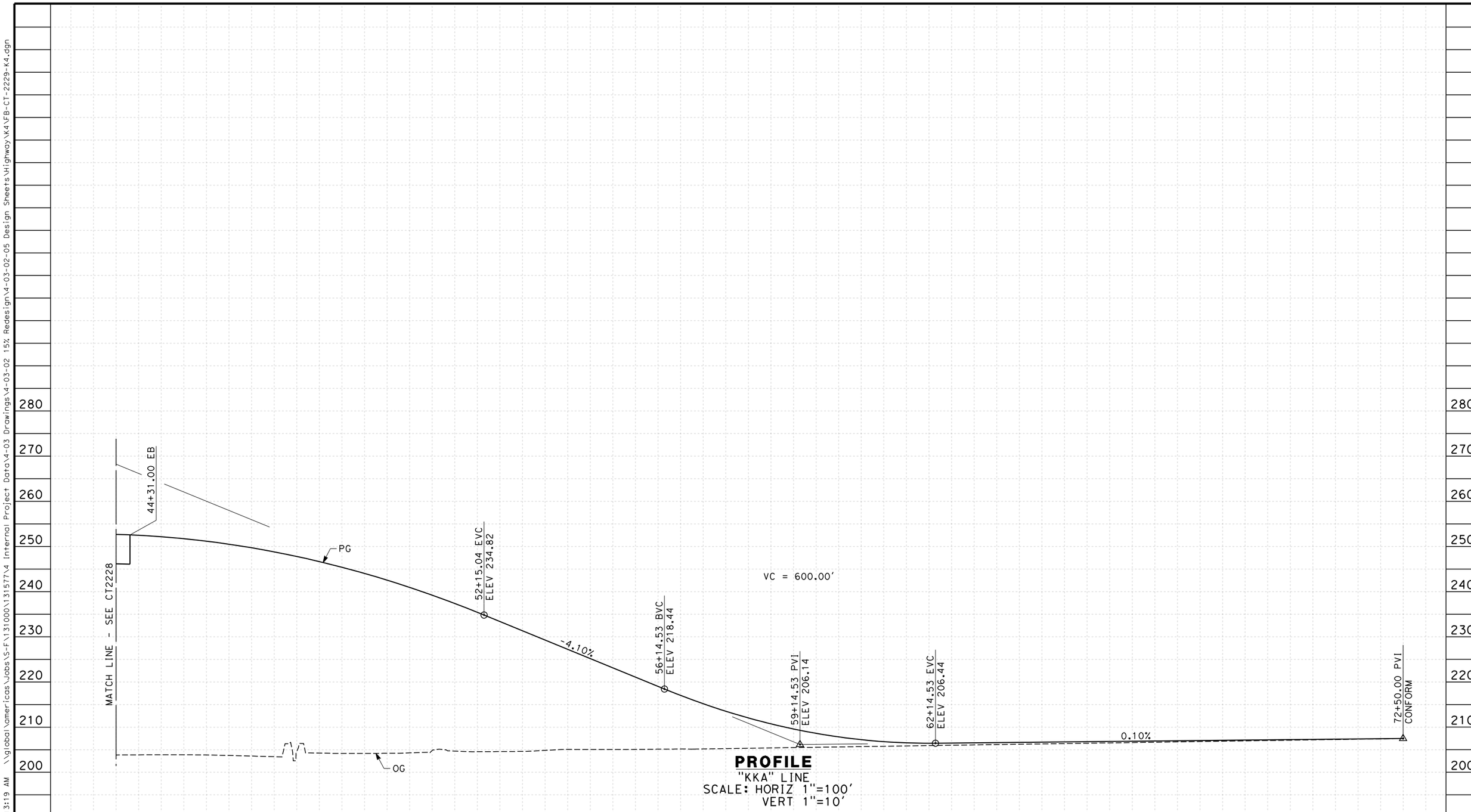
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2228
SCALE AS SHOWN
SHEET NO. 20 OF 23

eron.sudhausen 7/10/2012 9:40:19 AM J:\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2228-K4.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
GRADE SEPARATION PROFILE
KANSAS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2229
SCALE AS SHOWN
SHEET NO. 21 OF 23

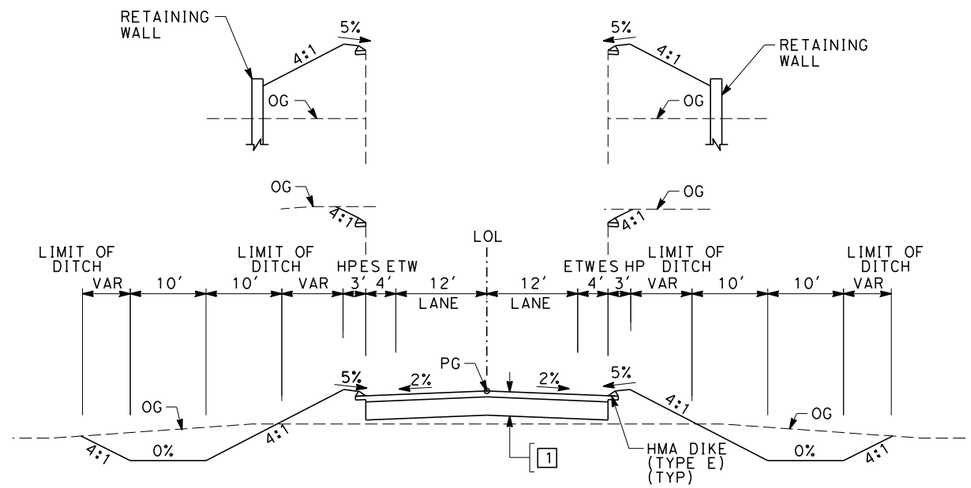
eron.sudhausen 7/10/2012 9:13:19 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-2229-K4.dgn

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.

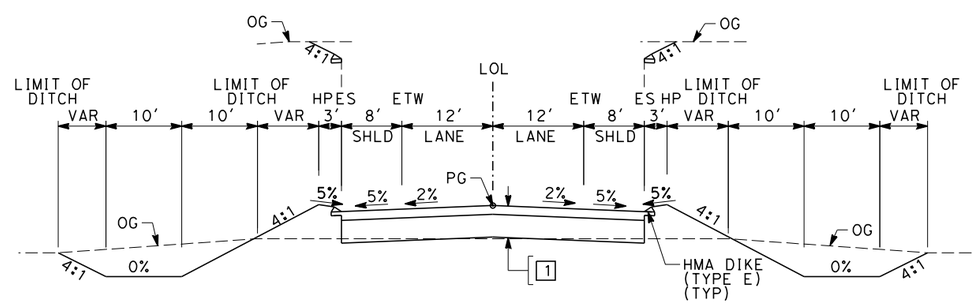
STRUCTURAL SECTIONS
TYPICAL ROADWAY

[1] 0.50' HMA (TYPE A)
1.00' CL2 AB



SECTION A

"KID" 10+00.00 TO 26+67.78
"KID" 29+39.78 TO 46+00.00
"KKE" 11+00.00 TO 32+09.35
"KKE" 35+14.35 TO 50+00.00
"KKA" 19+00.00 TO 41+41.00
"KKA" 44+31.00 TO 72+50.00



SECTION B

"KJA" 11+00.00 TO 26+86.86
"KJA" 29+84.86 TO 45+50.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

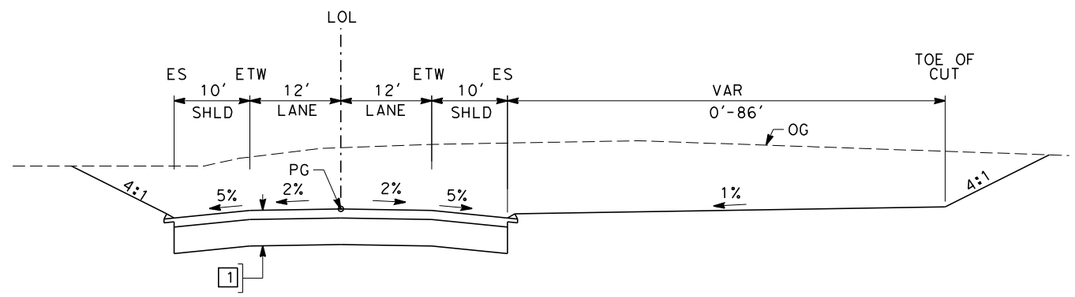
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3230
SCALE NO SCALE
SHEET NO. 22 OF 23

eron.sudhausen 7/10/2012 9:13:21 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-3230-K4.dgn



SECTION C

"SR43J" 11+00.00 TO 43+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

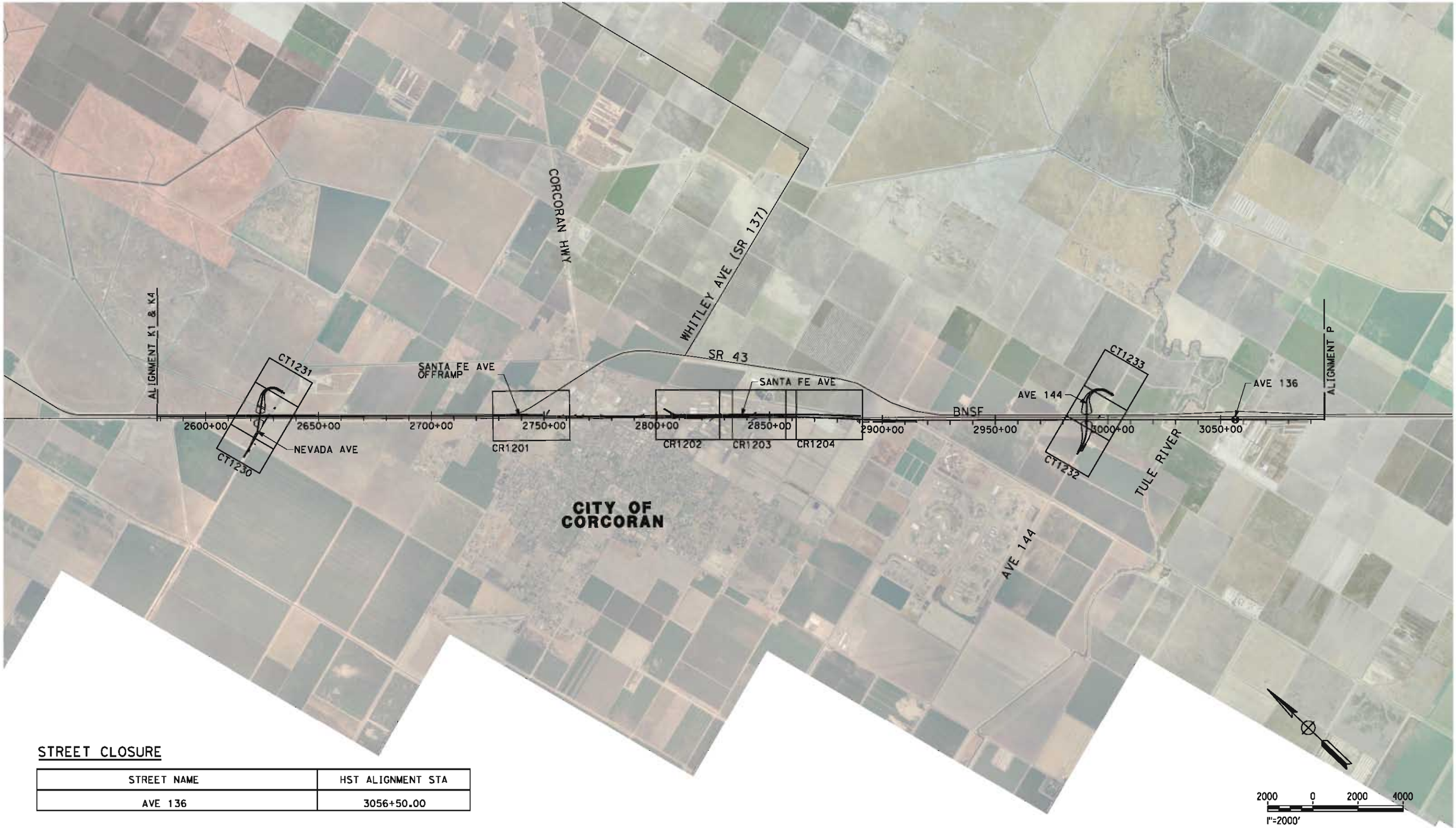
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3231
SCALE NO SCALE
SHEET NO. 23 OF 23

eron.sudhausen 7/10/2012 9:13:22 AM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\K4\FB-CT-3231-K4.dgn



STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
AVE 136	3056+50.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

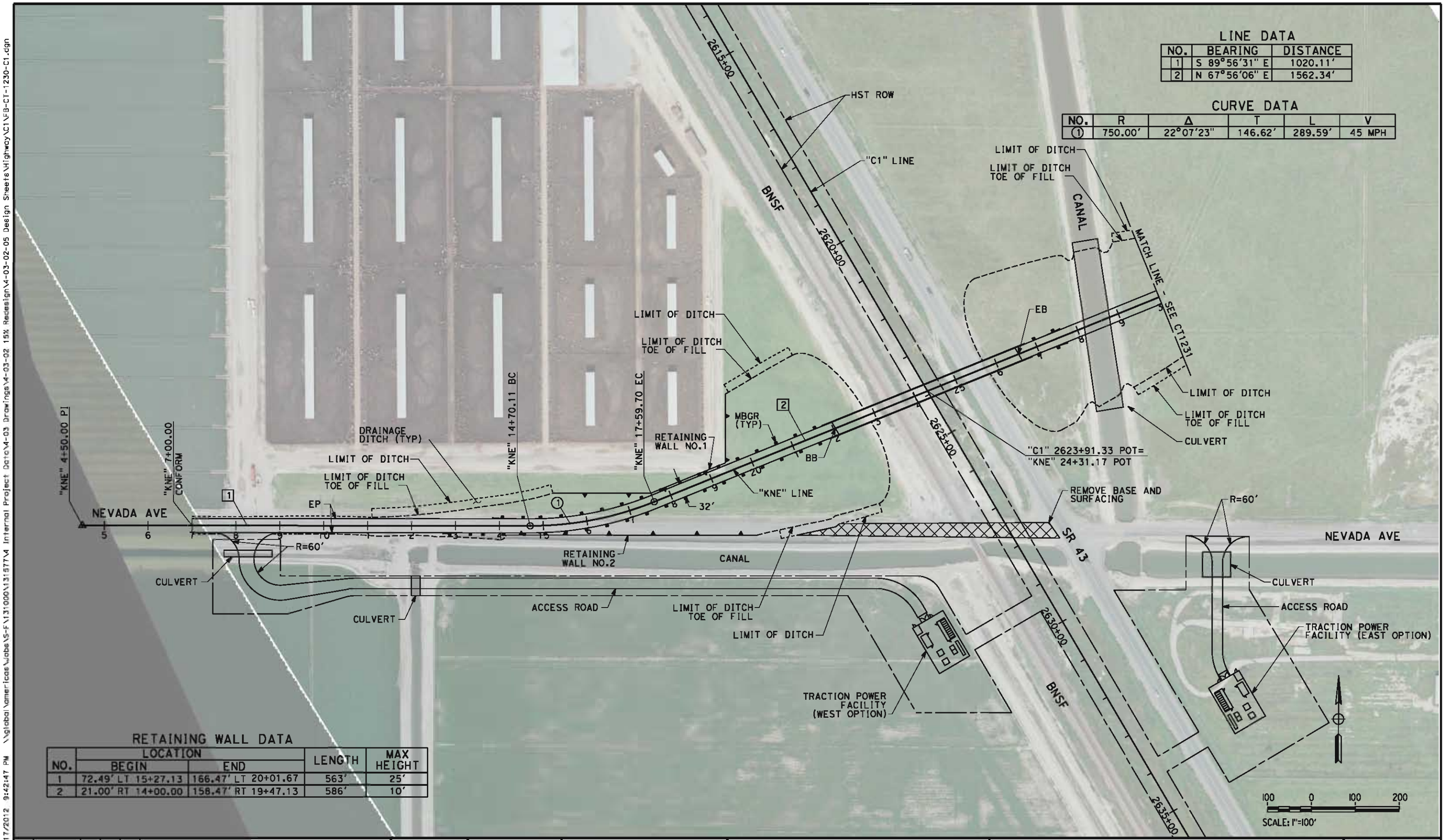
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0070
SCALE AS SHOWN
SHEET NO. 1 OF 19

eron.sudhausen 5/17/2012 9:42:38 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\F3-CB-0070-C1.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 89°56'31" E	1020.11'
2	N 67°56'06" E	1562.34'

CURVE DATA

NO.	R	Δ	T	L	V
1	750.00'	22°07'23"	146.62'	289.59'	45 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	72.49' LT 15+27.13	166.47' LT 20+01.67	563'	25'
2	21.00' RT 14+00.00	158.47' RT 19+47.13	586'	10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

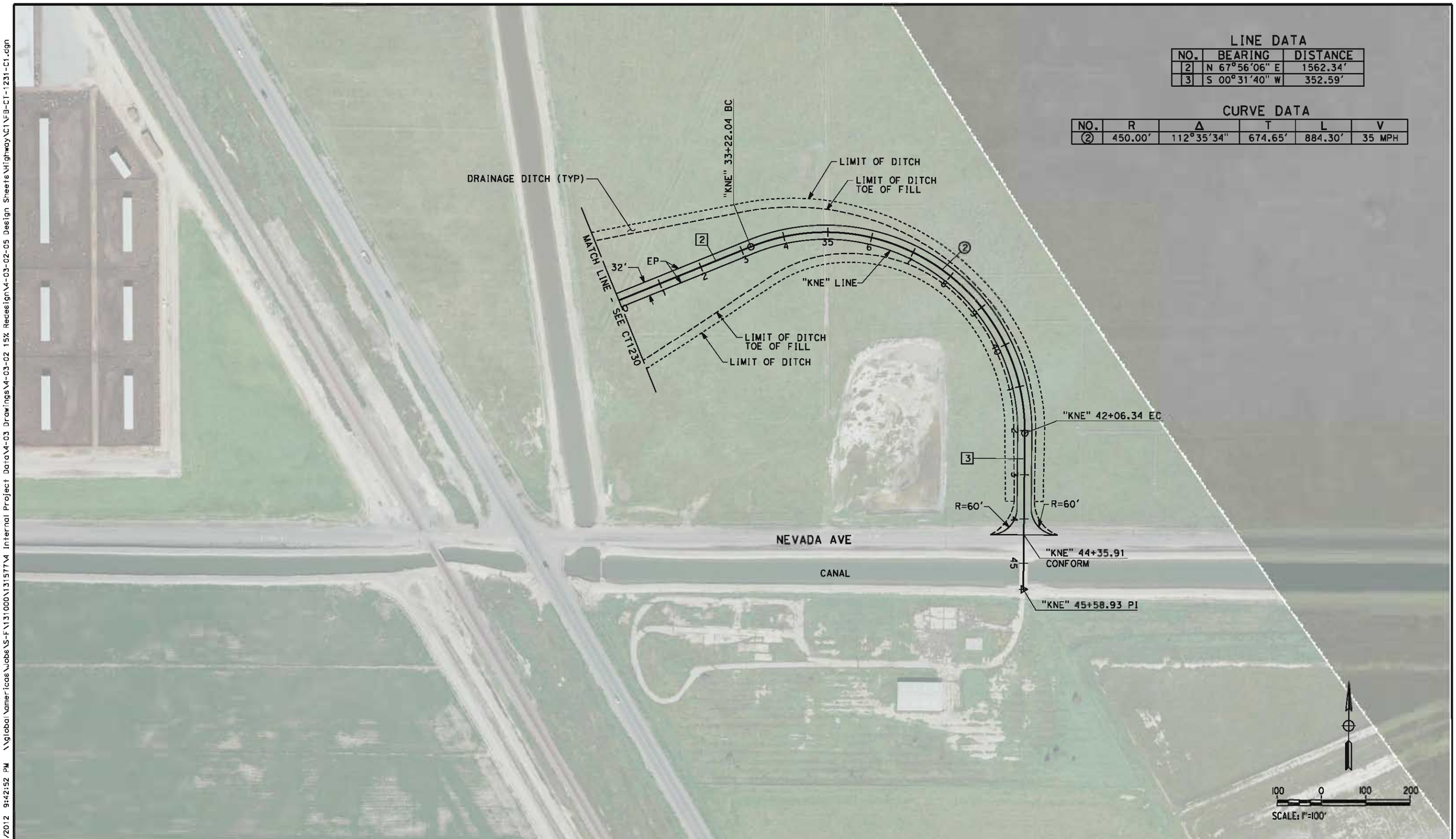
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1230
SCALE AS SHOWN
SHEET NO. 2 OF 19

eron.sudhausen 5/17/2012 9:42:47 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\F8-CT-1230-C1.dgn



LINE DATA

NO.	BEARING	DISTANCE
2	N 67°56'06" E	1562.34'
3	S 00°31'40" W	352.59'

CURVE DATA

NO.	R	Δ	T	L	V
2	450.00'	112°35'34"	674.65'	884.30'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1231
SCALE AS SHOWN
SHEET NO. 3 OF 19

eran.sudhausen 5/17/2012 9:42:52 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\F3-CT-1231-C1.dgn

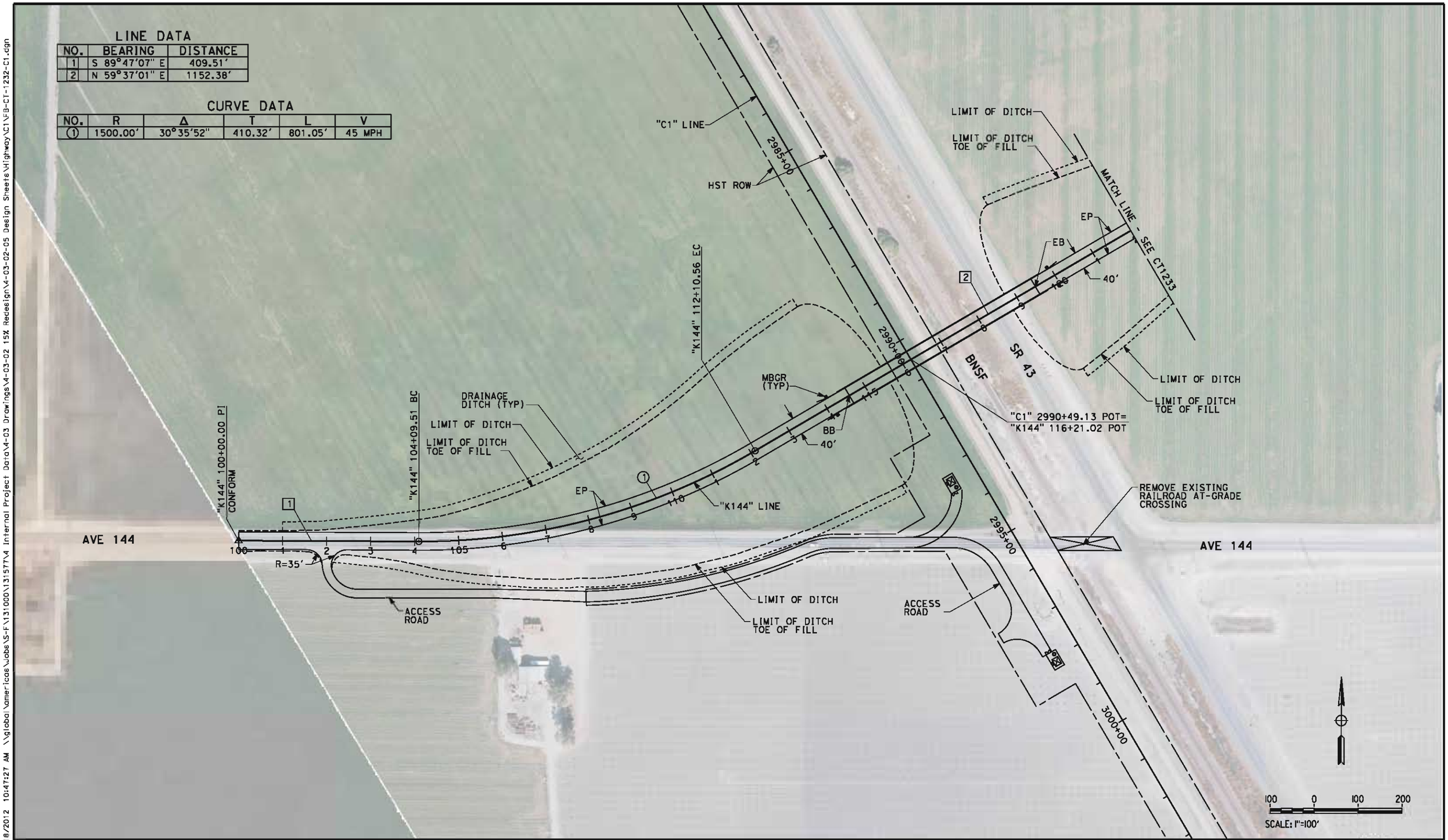
eran.sudhausen 5/18/2012 10:47:27 AM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-1232-C1.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S 89°47'07" E	409.51'
2	N 59°37'01" E	1152.38'

CURVE DATA

NO.	R	Δ	T	L	V
1	1500.00'	30°35'52"	410.32'	801.05'	45 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

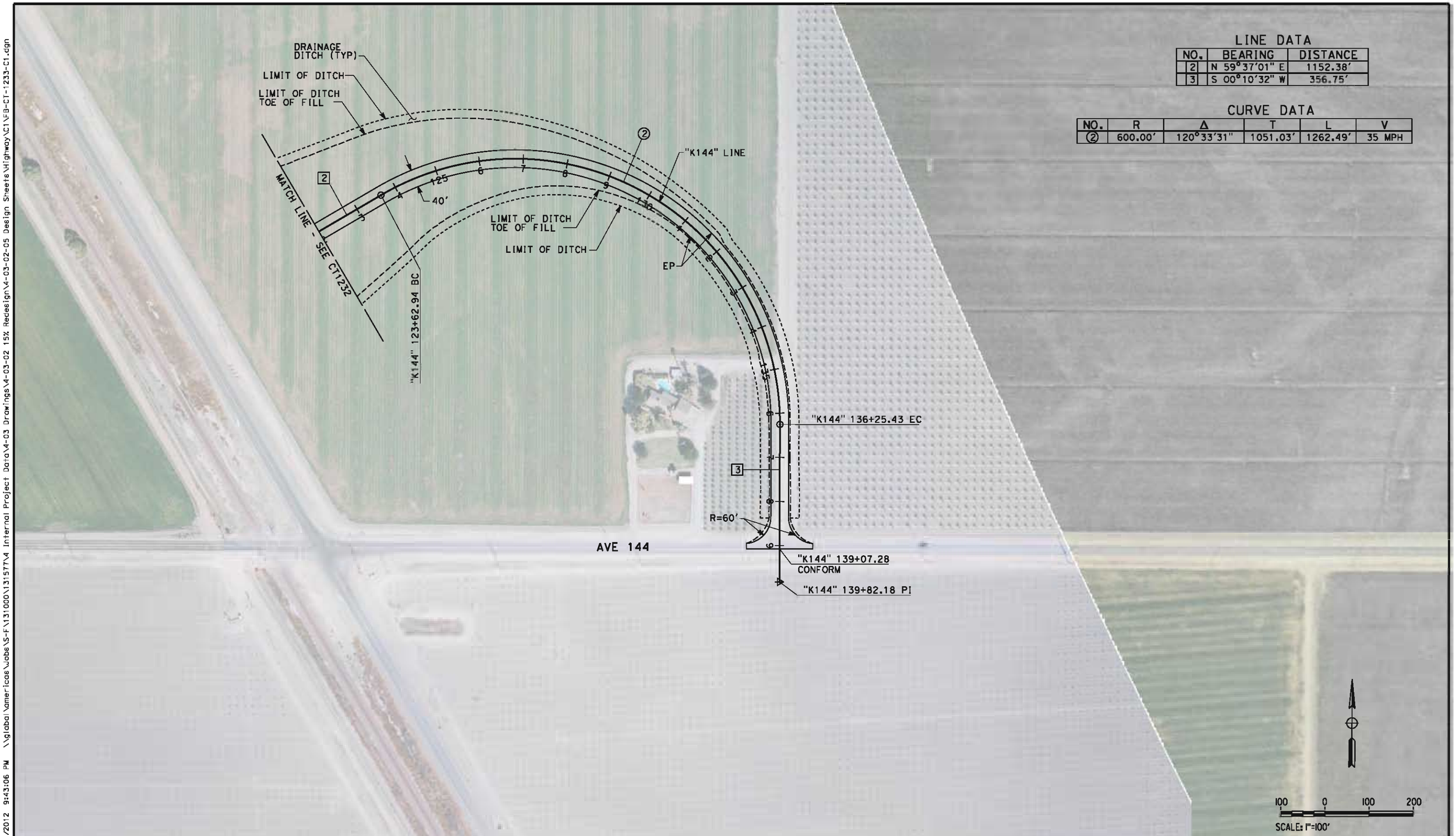
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION LAYOUT
AVE 144

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1232
SCALE AS SHOWN
SHEET NO. 4 OF 19



LINE DATA

NO.	BEARING	DISTANCE
2	N 59°37'01" E	1152.38'
3	S 00°10'32" W	356.75'

CURVE DATA

NO.	R	Δ	T	L	V
2	600.00'	120°33'31"	1051.03'	1262.49'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

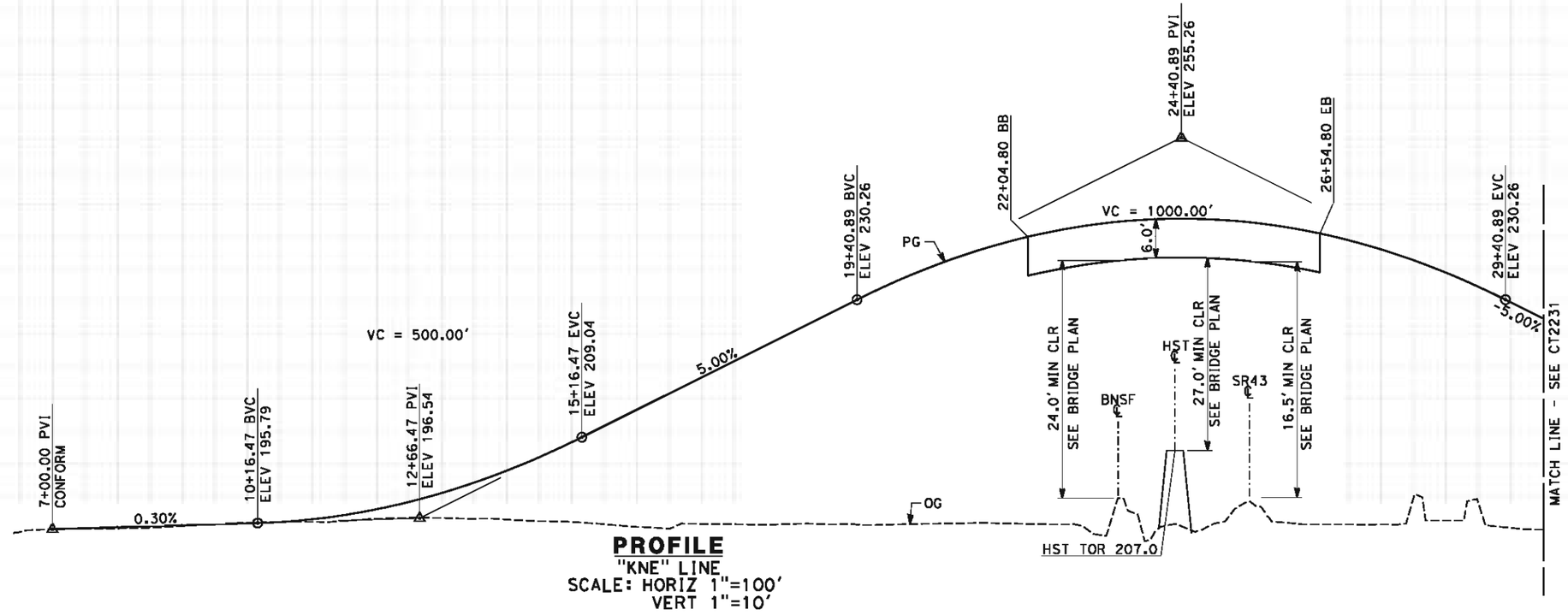
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION LAYOUT
AVE 144

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1233
SCALE AS SHOWN
SHEET NO. 5 OF 19

eron.sudhausen 5/17/2012 9:43:06 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-1233-C1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	TOTAL
CY	Exc																									
	Emb																									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2230
SCALE AS SHOWN
SHEET NO. 6 OF 19

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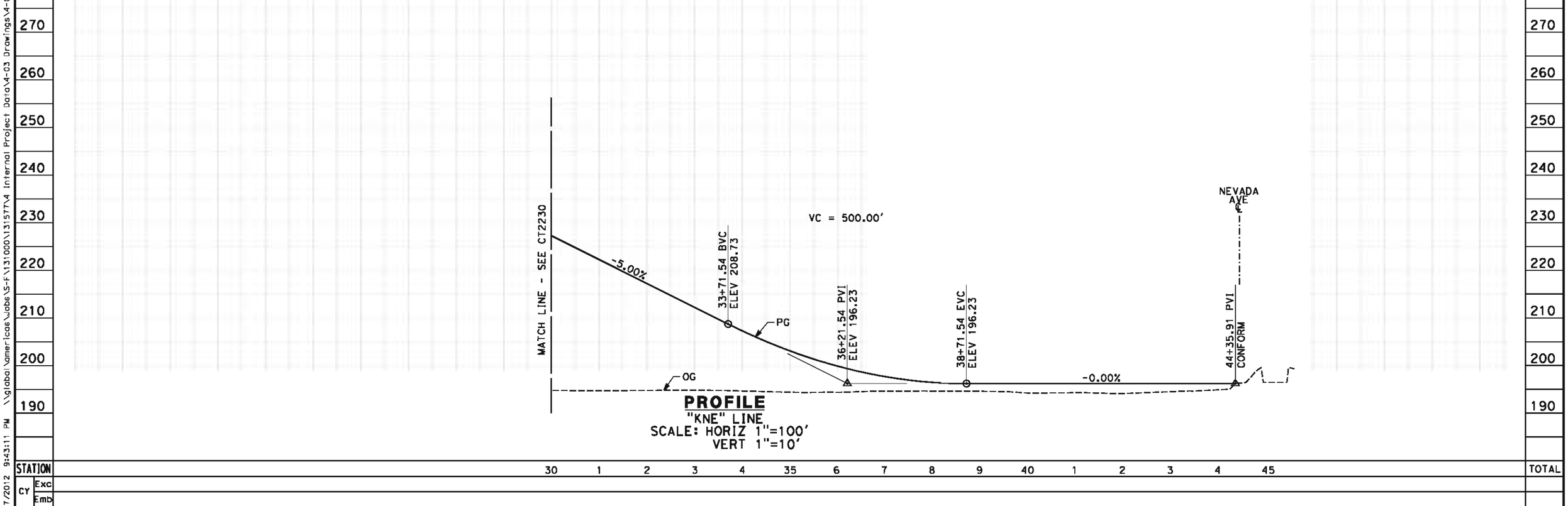


REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

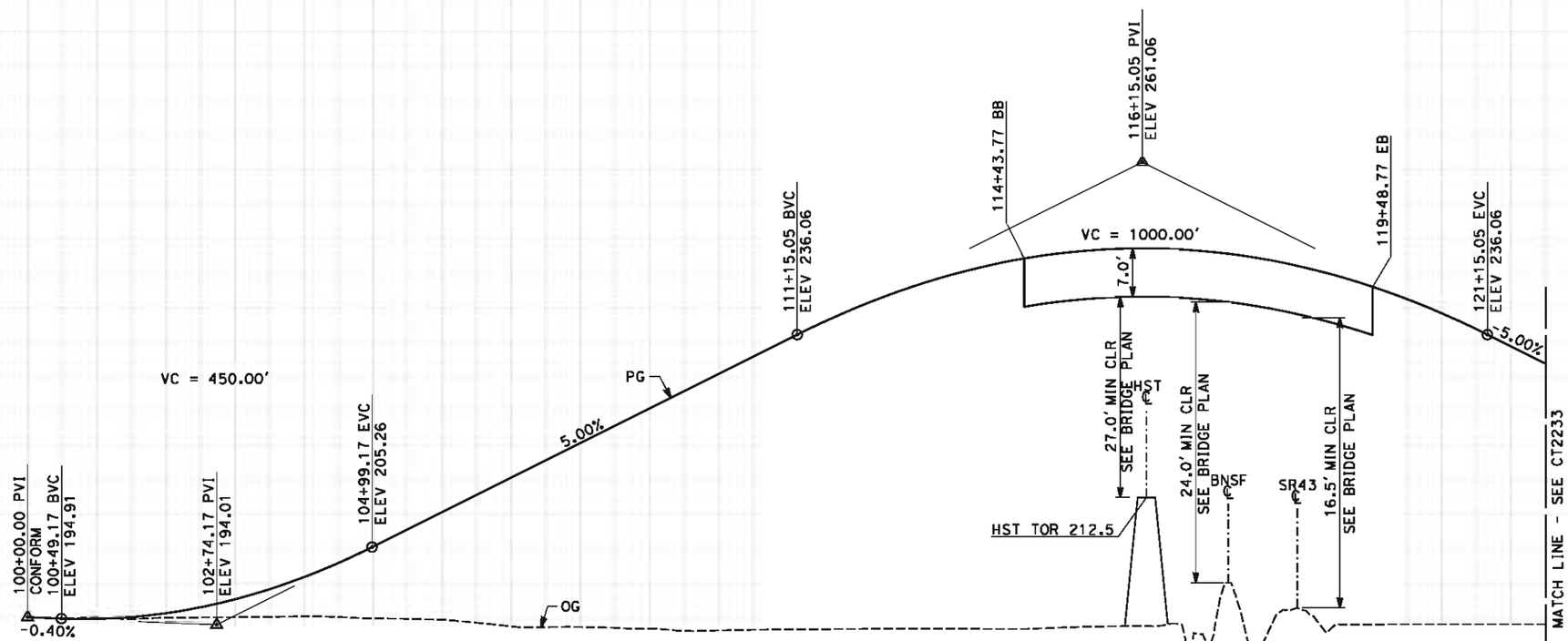
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2231
SCALE AS SHOWN
SHEET NO. 7 OF 19

eron.sudhausen 5/17/2012 9:43:11 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-2231-C1.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"K144" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	100	1	2	3	4	105	6	7	8	9	110	1	2	3	4	115	6	7	8	9	120	1	2	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

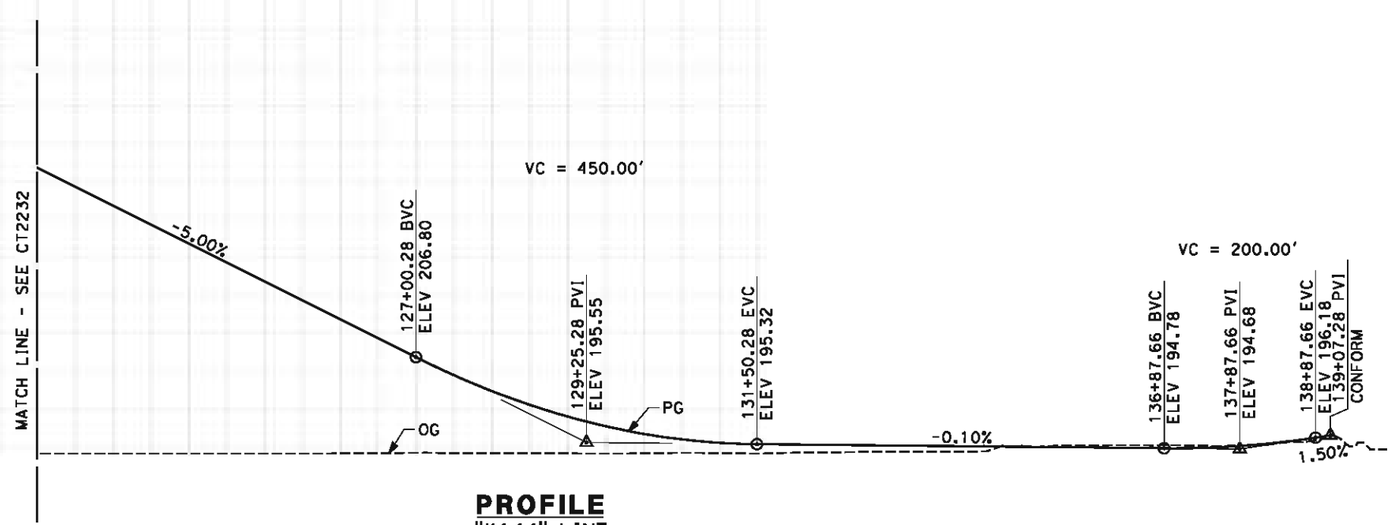
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION PROFILE
AVE 144

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2232
SCALE AS SHOWN
SHEET NO. 8 OF 19

eron.sudhausen 5/17/2012 9:43:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-2232-C1.dgn



PROFILE
"K144" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	125	6	7	8	9	130	1	2	3	4	135	6	7	8	9	140	TOTAL
CY Exc																				
CY Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
GRADE SEPARATION PROFILE
AVE 144

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2233
SCALE AS SHOWN
SHEET NO. 9 OF 19

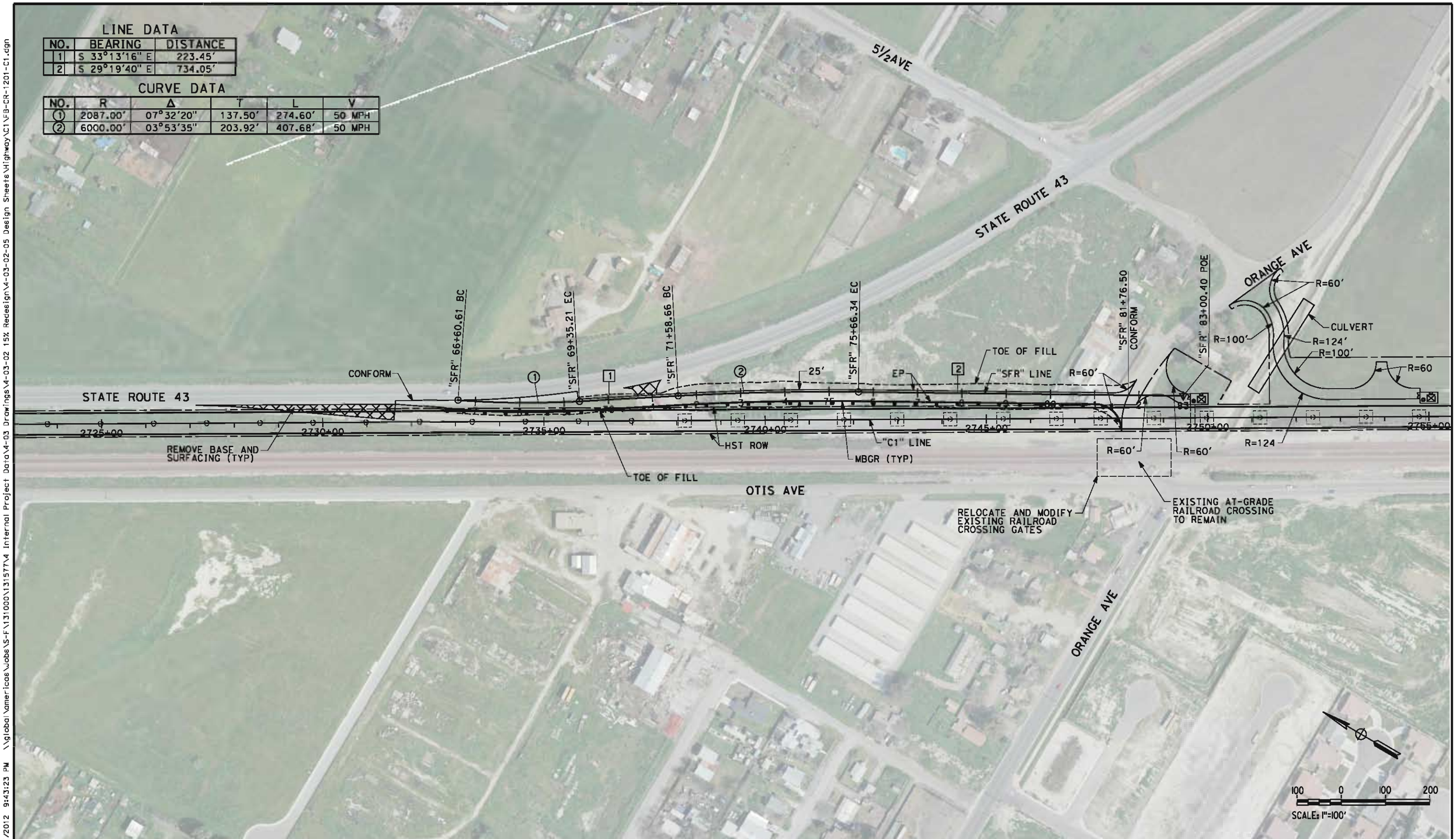
eron.sudhausen 5/17/2012 9:43:14 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-2233-C1.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S 33°13'16" E	223.45'
2	S 29°19'40" E	734.05'

CURVE DATA

NO.	R	Δ	T	L	V
1	2087.00'	07°32'20"	137.50'	274.60'	50 MPH
2	6000.00'	03°53'35"	203.92'	407.68'	50 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

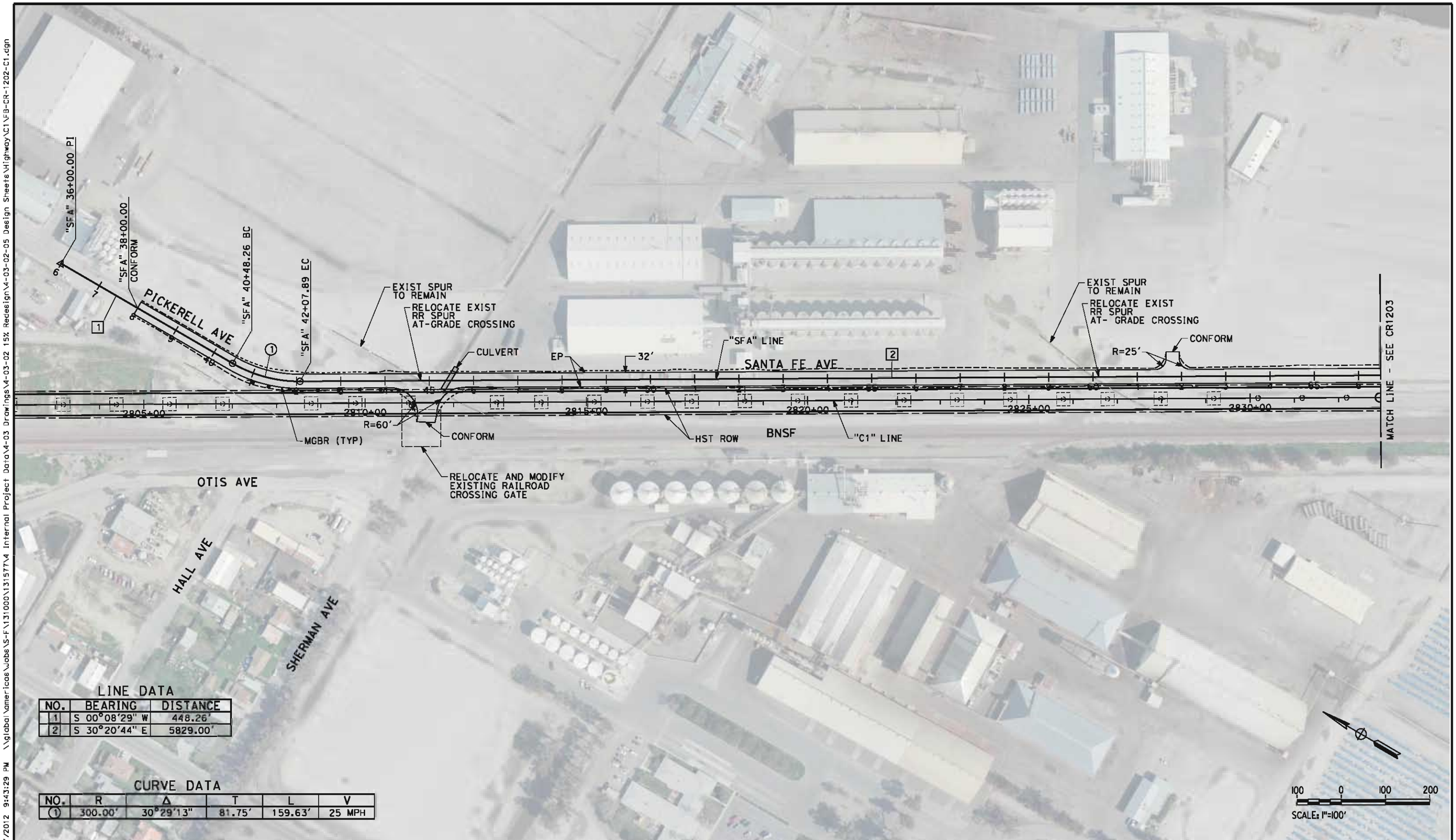
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY LAYOUT
SANTA FE AVE OFF RAMP

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1201
SCALE AS SHOWN
SHEET NO. 10 OF 19

eran.sudhausen 5/17/2012 9:43:23 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-1201-C1.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S 00°08'29" W	448.26'
2	S 30°20'44" E	5829.00'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	30°29'13"	81.75'	159.63'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

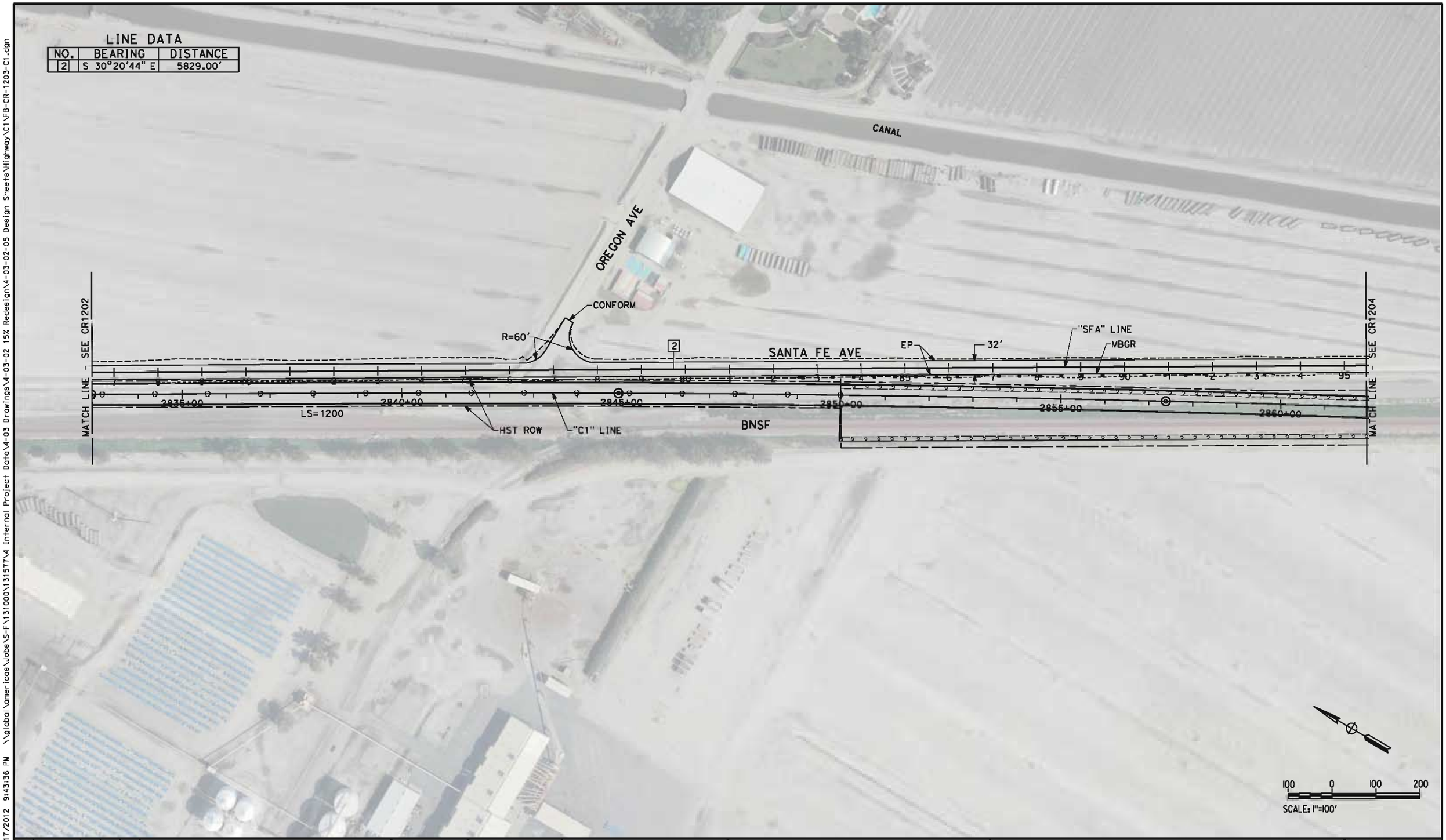
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY LAYOUT
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1202
SCALE AS SHOWN
SHEET NO. 11 OF 19

eron.sudhausen 5/17/2012 9:43:29 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-1202-C1.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S 30°20'44" E	5829.00'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY LAYOUT
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1203
SCALE AS SHOWN
SHEET NO. 12 OF 19

eron.sudhausen 5/17/2012 9:43:36 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-1203-C1.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S 30°20'44" E	5829.00'
3	S 28°03'13" E	909.56'
4	S 30°44'54" E	418.41'

CURVE DATA

NO.	R	Δ	T	L	V
2	20000.00'	02°17'31"	400.05'	800.00'	50 MPH
3	5000.00'	02°41'41"	117.60'	235.15'	50 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

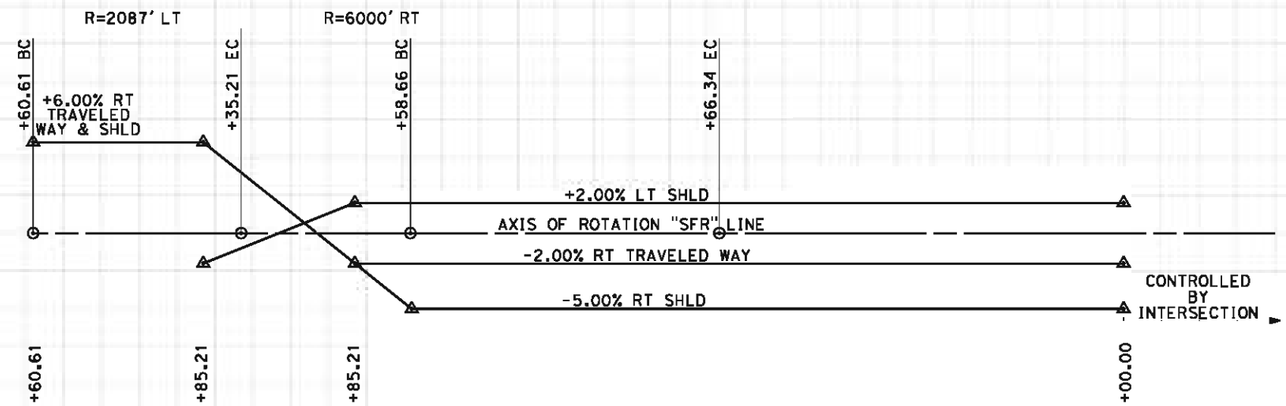
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY LAYOUT
SANTA FE AVE

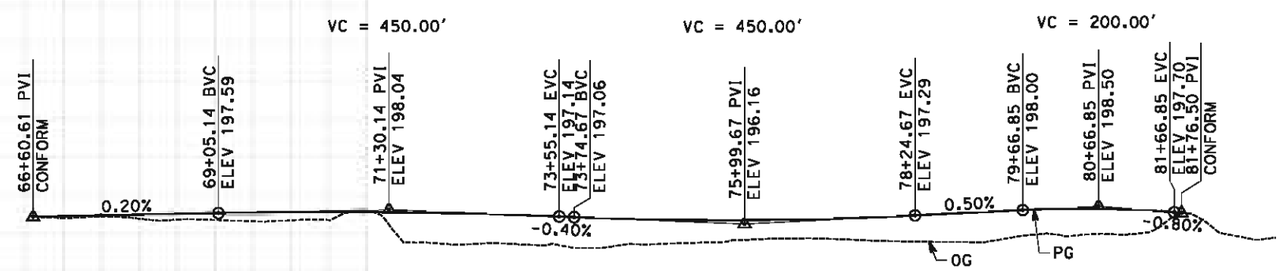
CONTRACT NO. HSR 06-0003
DRAWING NO. CR1204
SCALE AS SHOWN
SHEET NO. 13 OF 19

eron.sudhausen 5/17/2012 9:43:44 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-1204-C1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 50 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE
"SFR" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	65	6	7	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	3	4	85	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

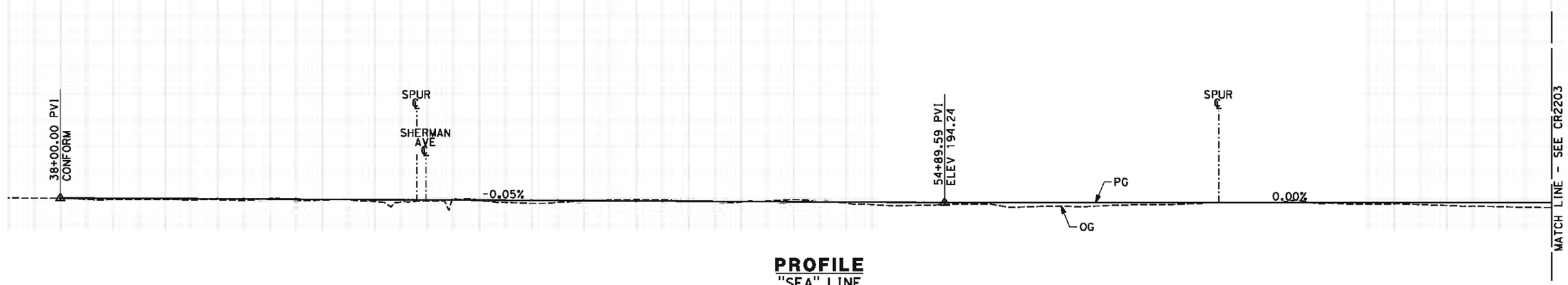
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY PROFILE & SUPERELEVATION DIAGRAM
SANTA FE AVE OFF RAMP

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2201
SCALE AS SHOWN
SHEET NO. 14 OF 19

eron.sudhausen 5/17/2012 9:43:45 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-2201-C1.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"SFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

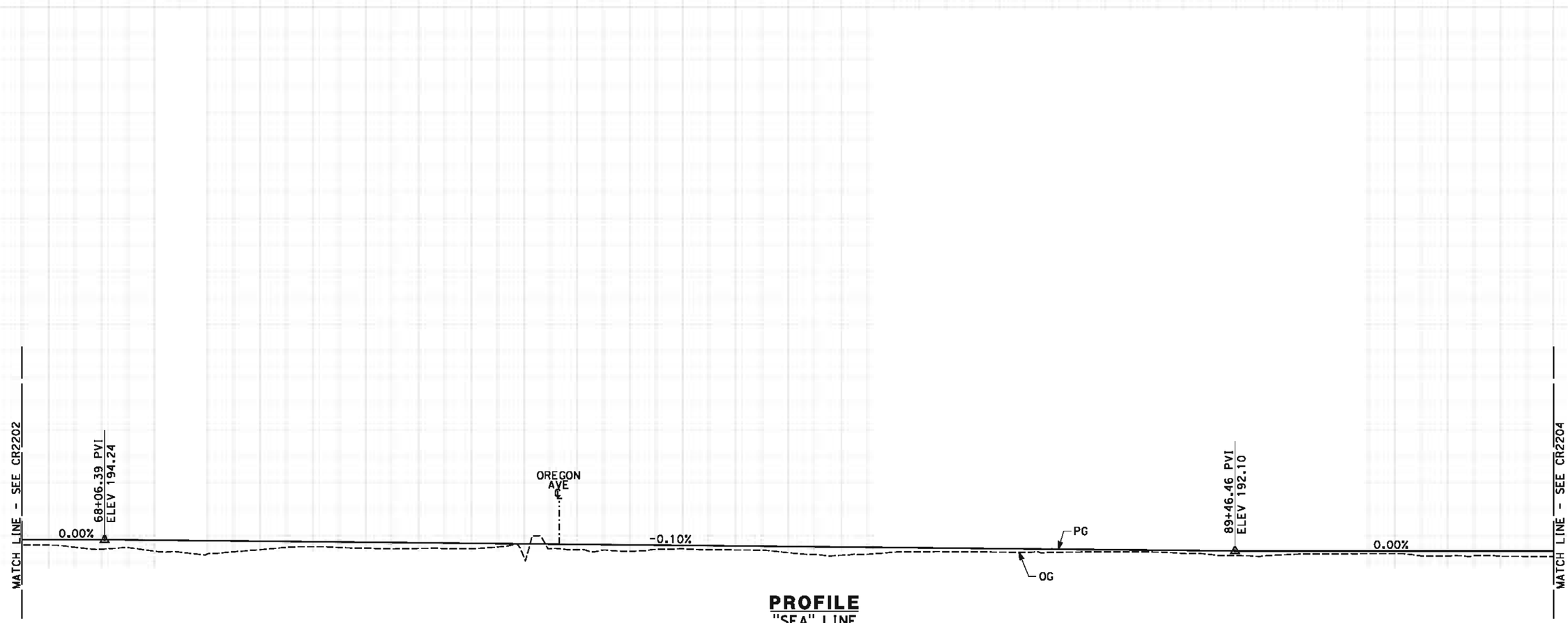
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY PROFILE
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2202
SCALE AS SHOWN
SHEET NO. 15 OF 19

eron.sudhausen 5/17/2012 9:43:47 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-2202-C1.dgn



PROFILE
"SFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	3	4	85	6	7	8	9	90	1	2	3	4	95	TOTAL
CY Exc																														
CY Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION
-
NOT FOR CONSTRUCTION

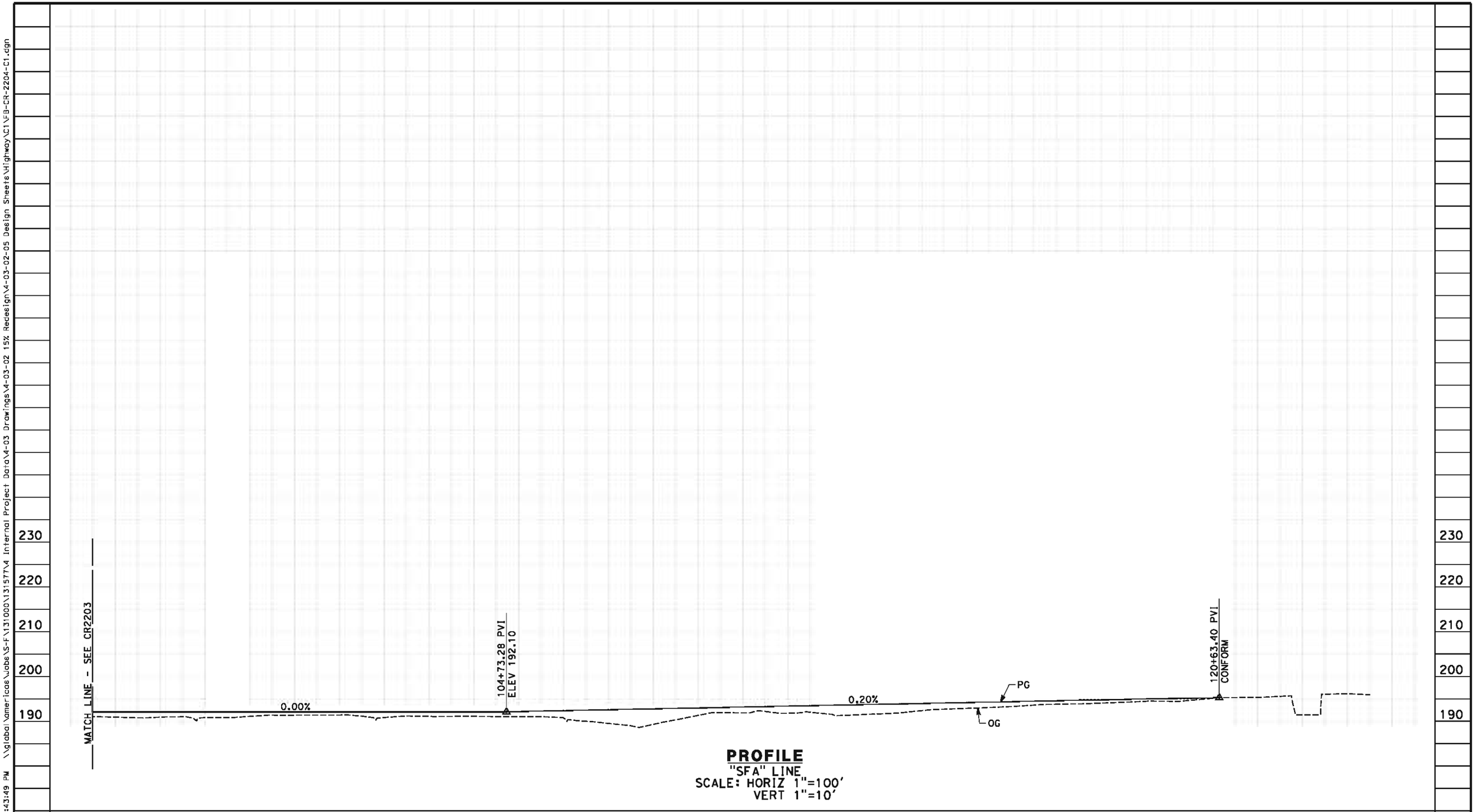
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY PROFILE
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2203
SCALE AS SHOWN
SHEET NO. 16 OF 19

eron.sudhausen 5/17/2012 9:43:48 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-2203-C1.dgn



PROFILE
"SFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY PROFILE
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2204
SCALE AS SHOWN
SHEET NO. 17 OF 19

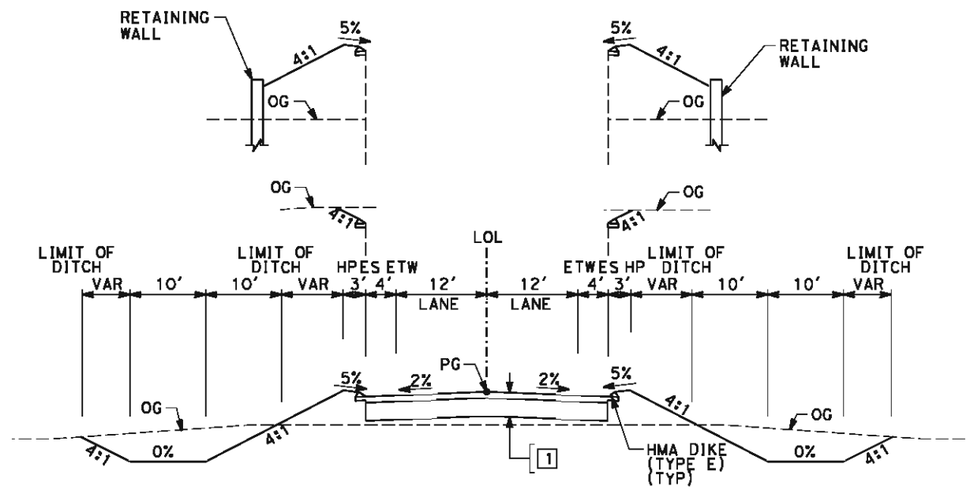
eron.sudhausen 5/17/2012 9:43:49 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CR-2204-C1.dgn

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.

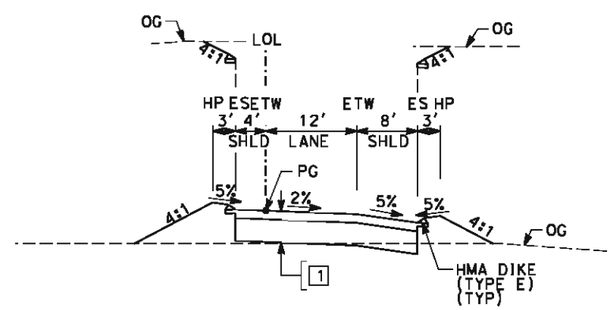
STRUCTURAL SECTIONS
TYPICAL ROADWAY

[1] 0.50' HMA (TYPE A)
1.50' CL2 AB



SECTION A

"KNE" 7+00.00 TO 22+04.80
"KNE" 26+54.80 TO 44+35.91
"K144" 100+00.00 TO 114+43.77
"K144" 119+48.77 TO 139+07.28



SECTION B

"SFR" 66+60.61 TO 81+75.24

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

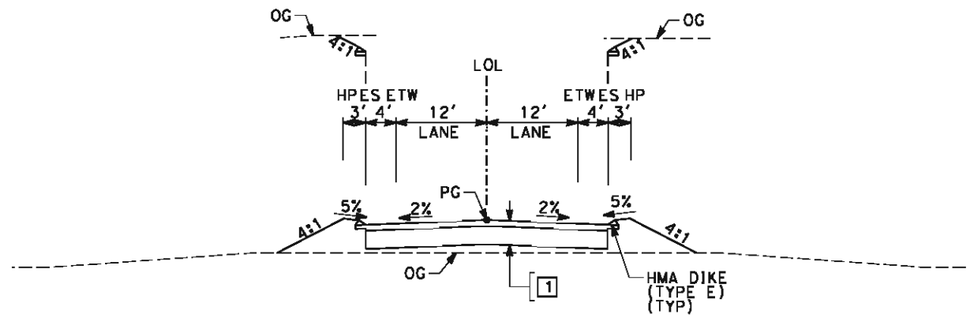
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3040
SCALE NO SCALE
SHEET NO. 18 OF 19

eron.sudhausen 5/17/2012 9:43:51 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-3040-C1.dgn



SECTION C

"SFA" 38+00.00 TO 120+63.40

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY J. MONG
DRAWN BY E. SUDHAUSEN
CHECKED BY M. BAMM
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

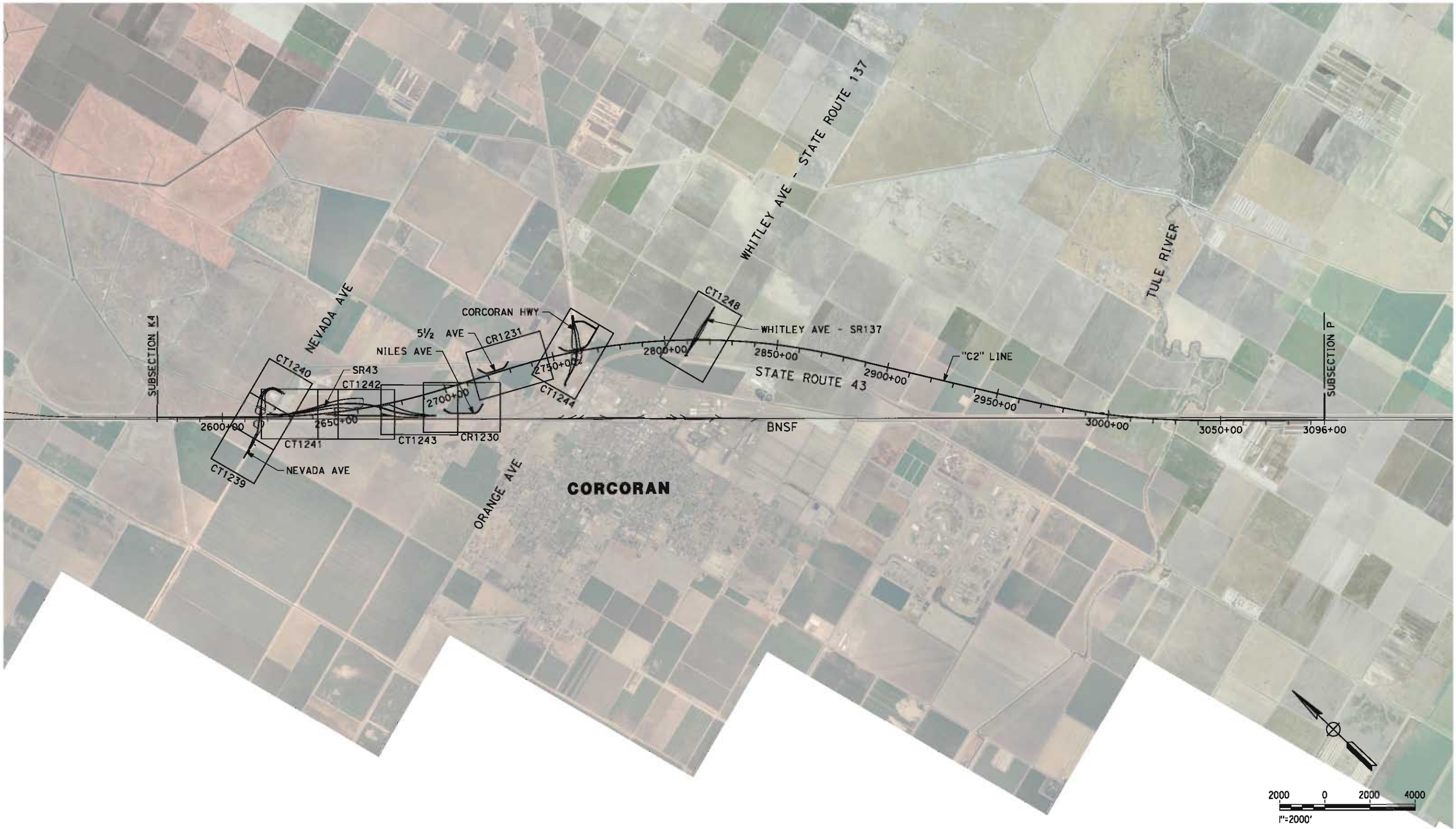
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C1
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3041
SCALE NO SCALE
SHEET NO. 19 OF 19

eron.sudhausen 5/17/2012 9:43:52 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C1\FB-CT-3041-C1.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY / GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0075
SCALE AS SHOWN
SHEET NO. 1 OF 24

eron.sudhausen 5/17/2012 9:57:57 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\F3-CB-0075-C2.dgn

RETAINING WALL DATA

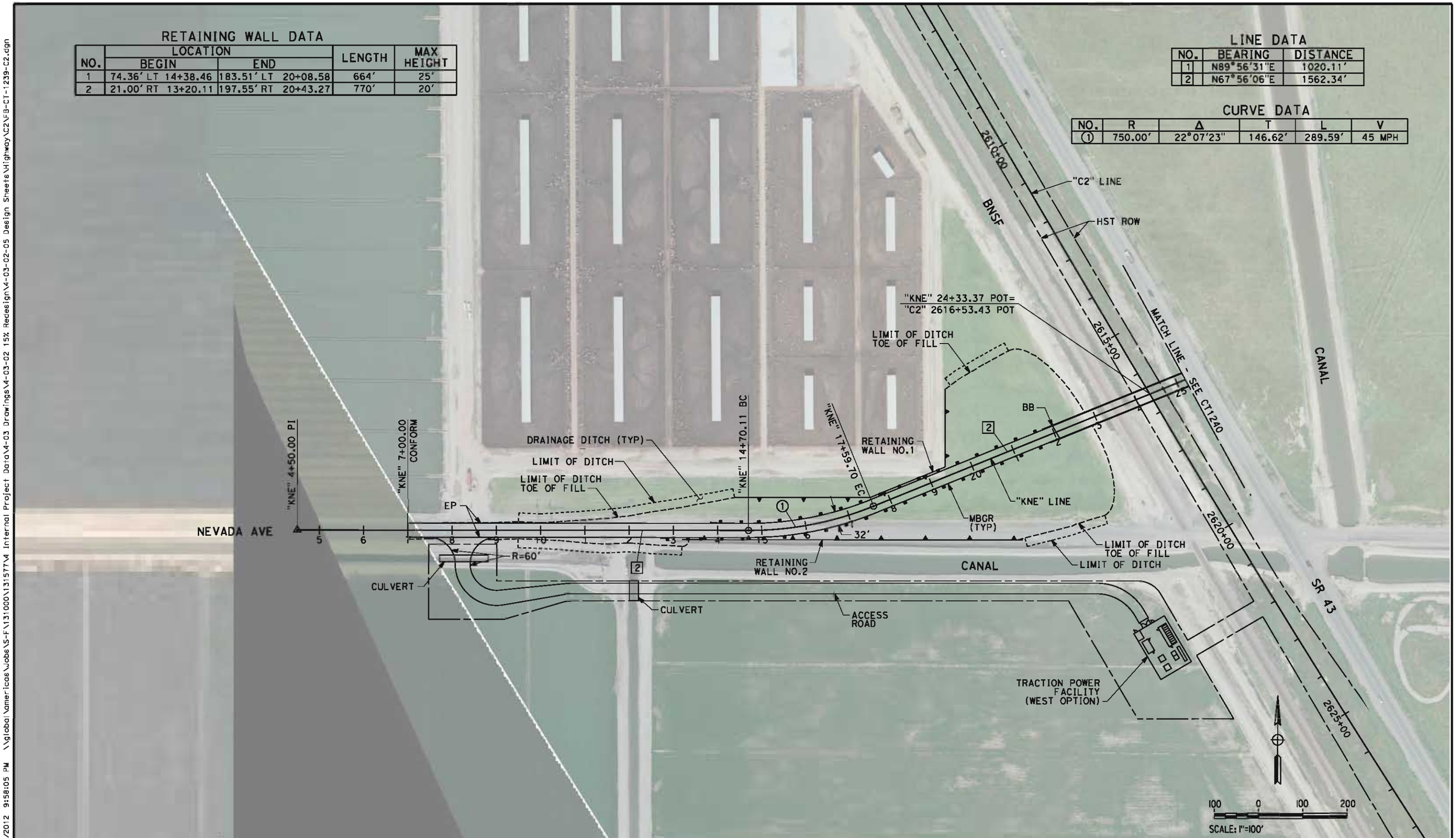
NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	74.36' LT 14+38.46	183.51' LT 20+08.58	664'	25'
2	21.00' RT 13+20.11	197.55' RT 20+43.27	770'	20'

LINE DATA

NO.	BEARING	DISTANCE
1	N89°56'31"E	1020.11'
2	N67°56'06"E	1562.34'

CURVE DATA

NO.	R	Δ	T	L	V
1	750.00'	22°07'23"	146.62'	289.59'	45 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

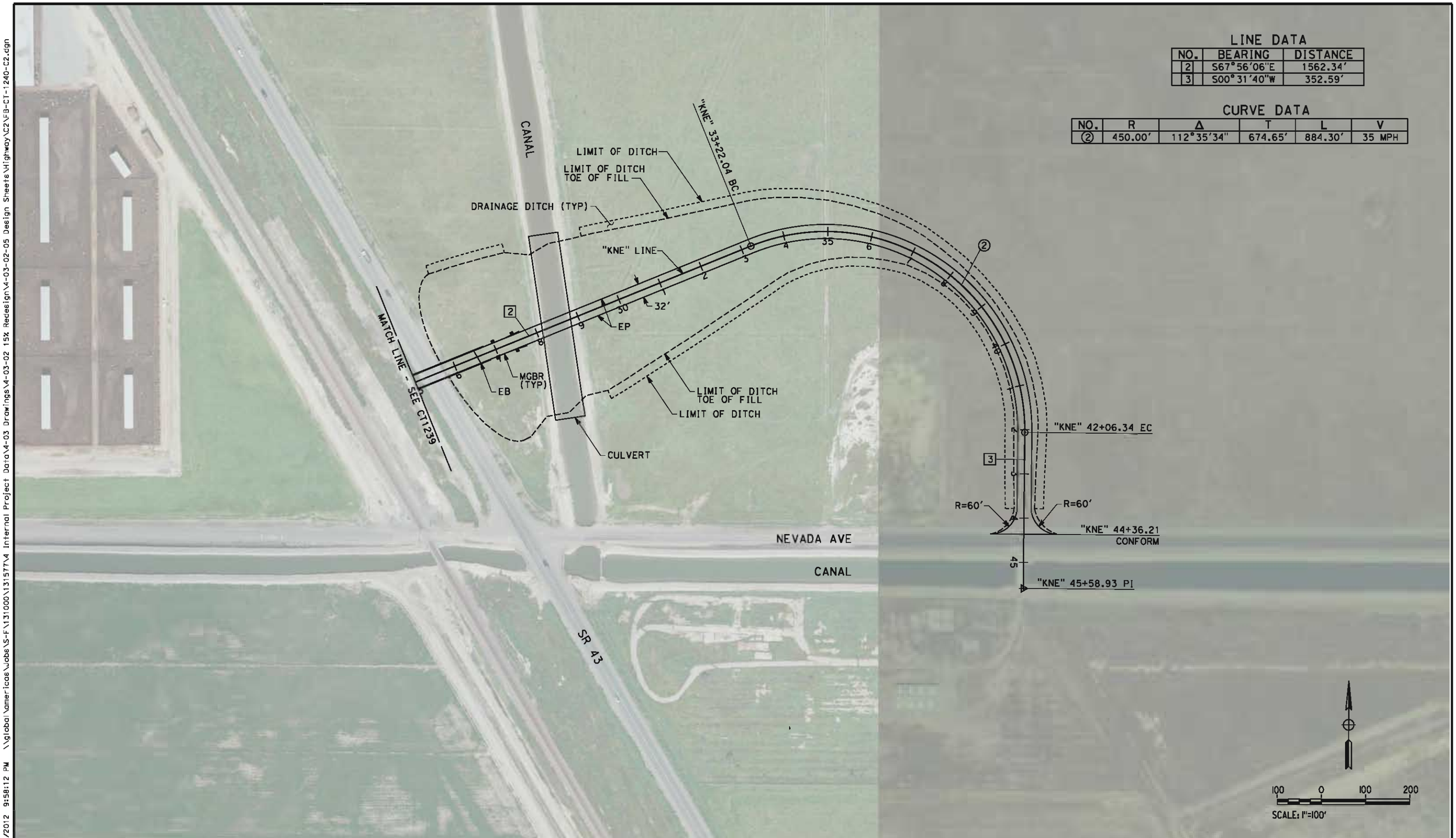
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1239
SCALE AS SHOWN
SHEET NO. 2 OF 24

eran.sudhausen 5/17/2012 9:58:05 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-1239-C2.dgn



LINE DATA

NO.	BEARING	DISTANCE
2	S67°56'06"E	1562.34'
3	S00°31'40"W	352.59'

CURVE DATA

NO.	R	Δ	T	L	V
2	450.00'	112°35'34"	674.65'	884.30'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

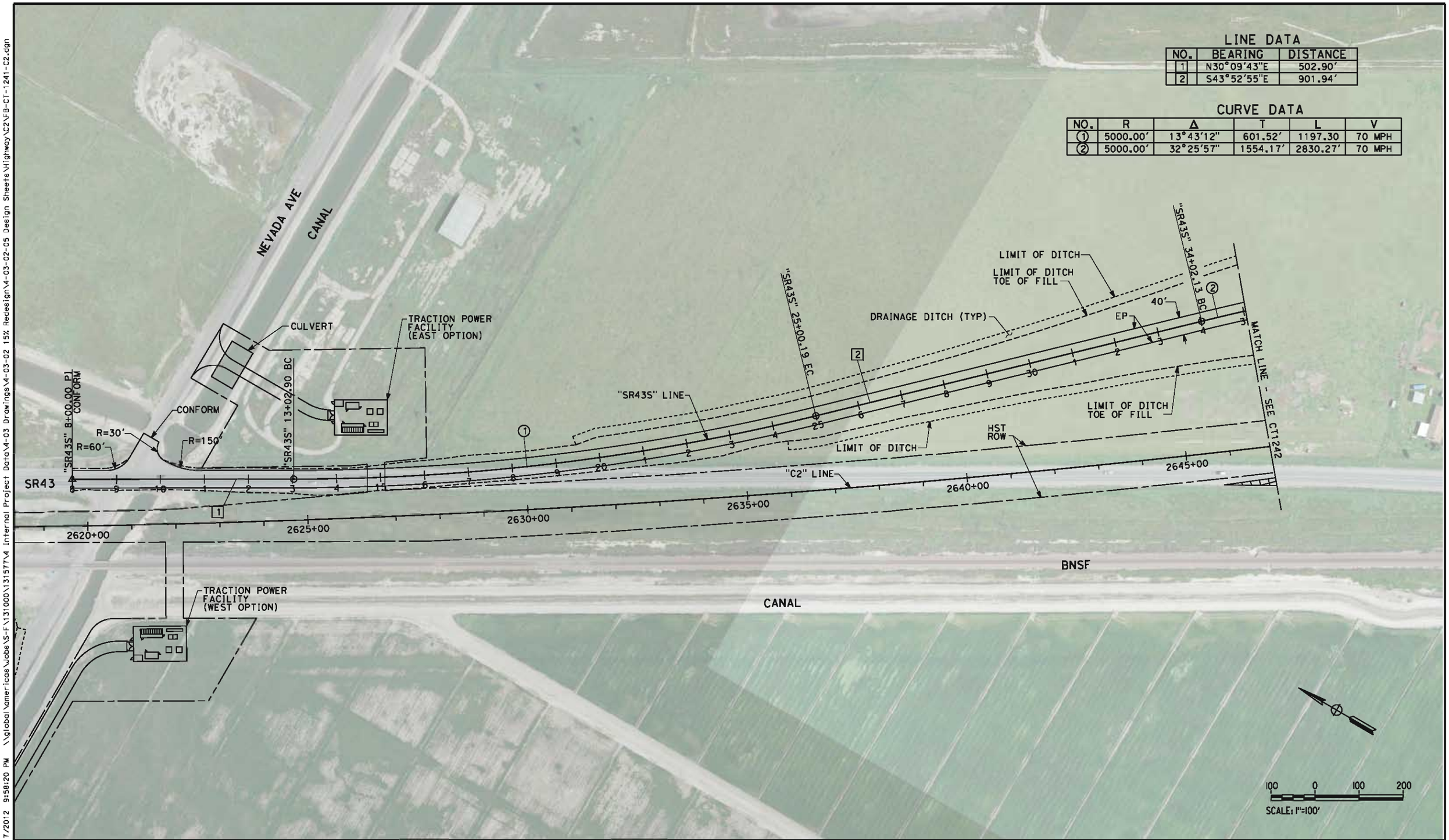
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1240
SCALE AS SHOWN
SHEET NO. 3 OF 24

eran.sudhausen 5/17/2012 9:58:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-1240-C2.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	N30°09'43"E	502.90'
2	S43°52'55"E	901.94'

CURVE DATA

NO.	R	Δ	T	L	V
1	5000.00'	13°43'12"	601.52'	1197.30	70 MPH
2	5000.00'	32°25'57"	1554.17'	2830.27'	70 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1241
SCALE AS SHOWN
SHEET NO. 4 OF 24

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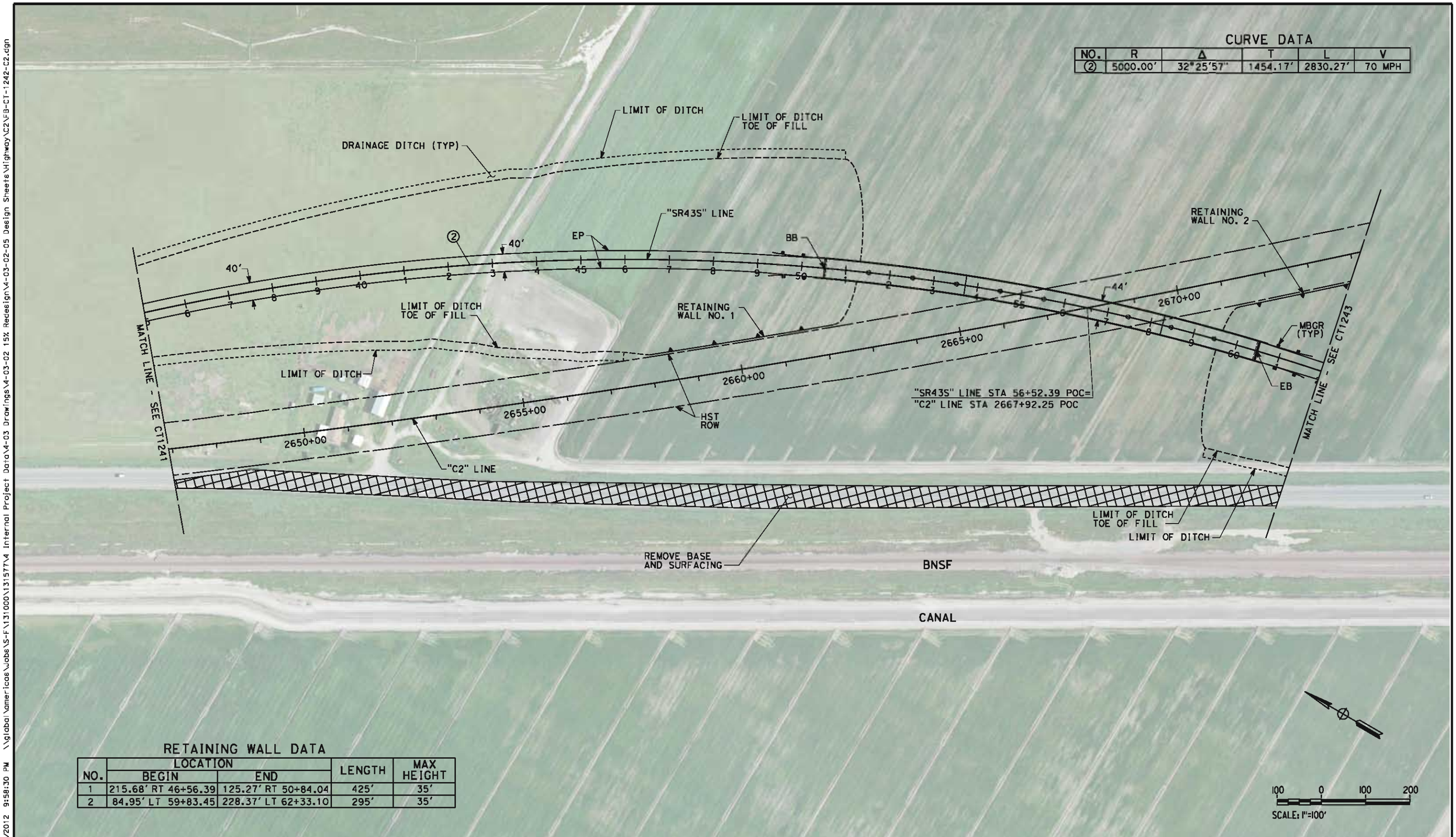


CURVE DATA

NO.	R	Δ	T	L	V
2	5000.00'	32°25'57"	1454.17'	2830.27'	70 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	215.68' RT 46+56.39	125.27' RT 50+84.04	425'	35'
2	84.95' LT 59+83.45	228.37' LT 62+33.10	295'	35'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

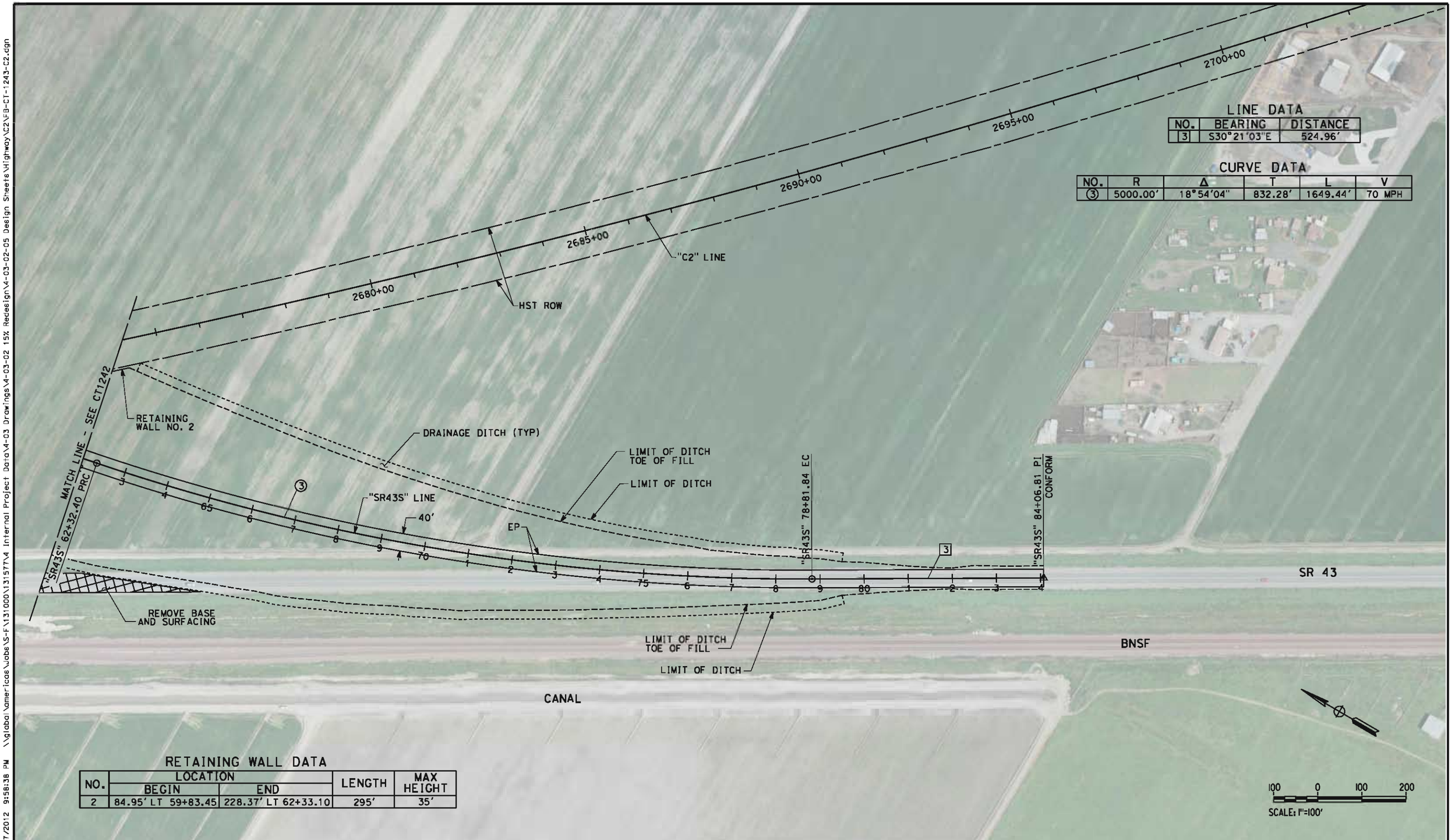
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1242
SCALE AS SHOWN
SHEET NO. 5 OF 24

eron.sudhausen 5/17/2012 9:58:30 PM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-1242-C2.dgn



LINE DATA

NO.	BEARING	DISTANCE
3	S30°21'03"E	524.96'

CURVE DATA

NO.	R	Δ	T	L	V
3	5000.00'	18°54'04"	832.28'	1649.44'	70 MPH

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
2	84.95' LT 59+83.45	228.37' LT 62+33.10	295'	35'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1243
SCALE AS SHOWN
SHEET NO. 6 OF 24

\\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-1243-C2.dgn
5/17/2012 9:58:38 PM
eron.sudhausen

LINE DATA

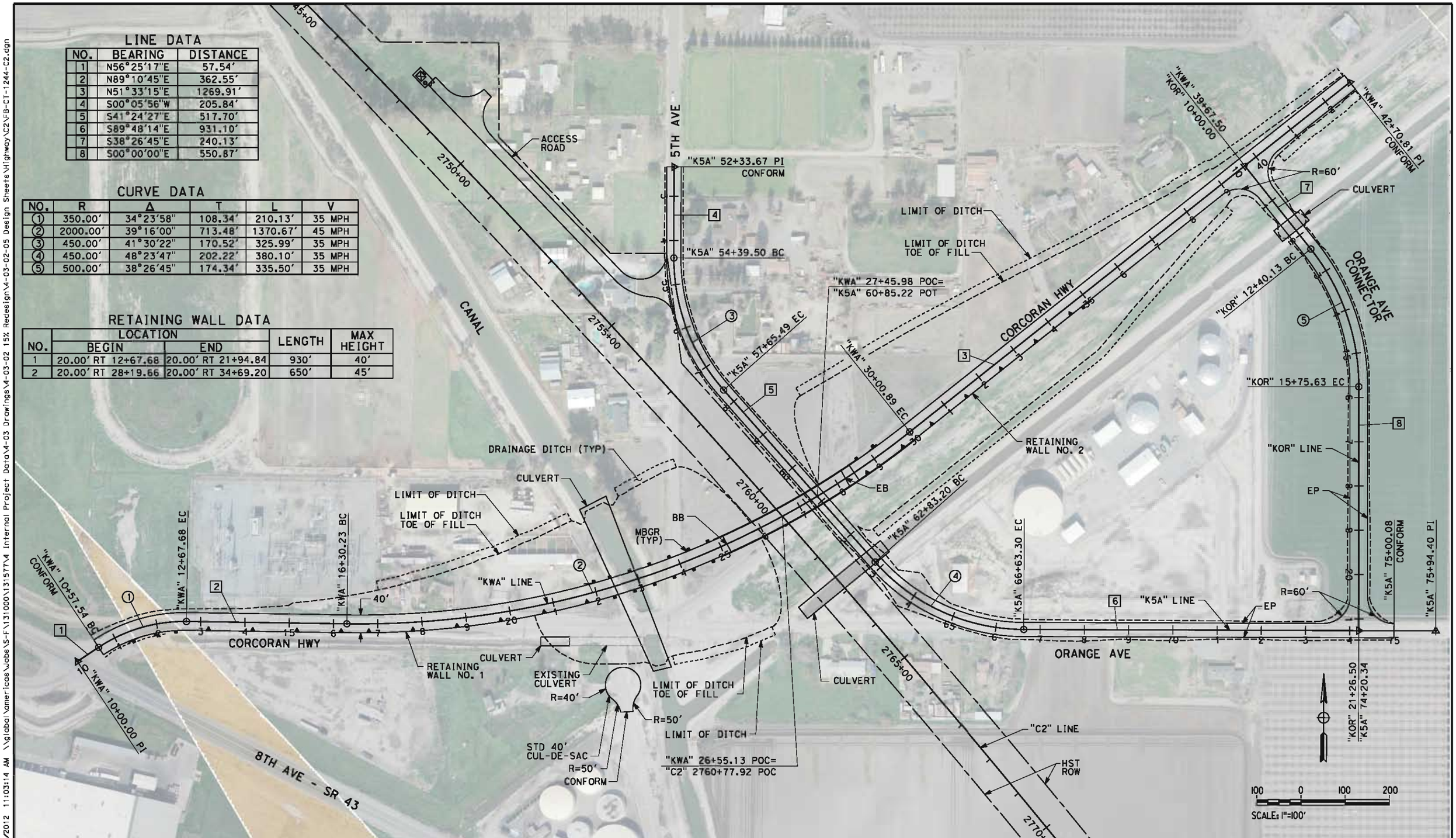
NO.	BEARING	DISTANCE
1	N56°25'17"E	57.54'
2	N89°10'45"E	362.55'
3	N51°33'15"E	1269.91'
4	S00°05'56"W	205.84'
5	S41°24'27"E	517.70'
6	S89°48'14"E	931.10'
7	S38°26'45"E	240.13'
8	S00°00'00"E	550.87'

CURVE DATA

NO.	R	Δ	T	L	V
1	350.00'	34°23'58"	108.34'	210.13'	35 MPH
2	2000.00'	39°16'00"	713.48'	1370.67'	45 MPH
3	450.00'	41°30'22"	170.52'	325.99'	35 MPH
4	450.00'	48°23'47"	202.22'	380.10'	35 MPH
5	500.00'	38°26'45"	174.34'	335.50'	35 MPH

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	20.00' RT 12+67.68	20.00' RT 21+94.84	930'	40'
2	20.00' RT 28+19.66	20.00' RT 34+69.20	650'	45'



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
CORCORAN HWY

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1244
SCALE AS SHOWN
SHEET NO. 7 OF 24

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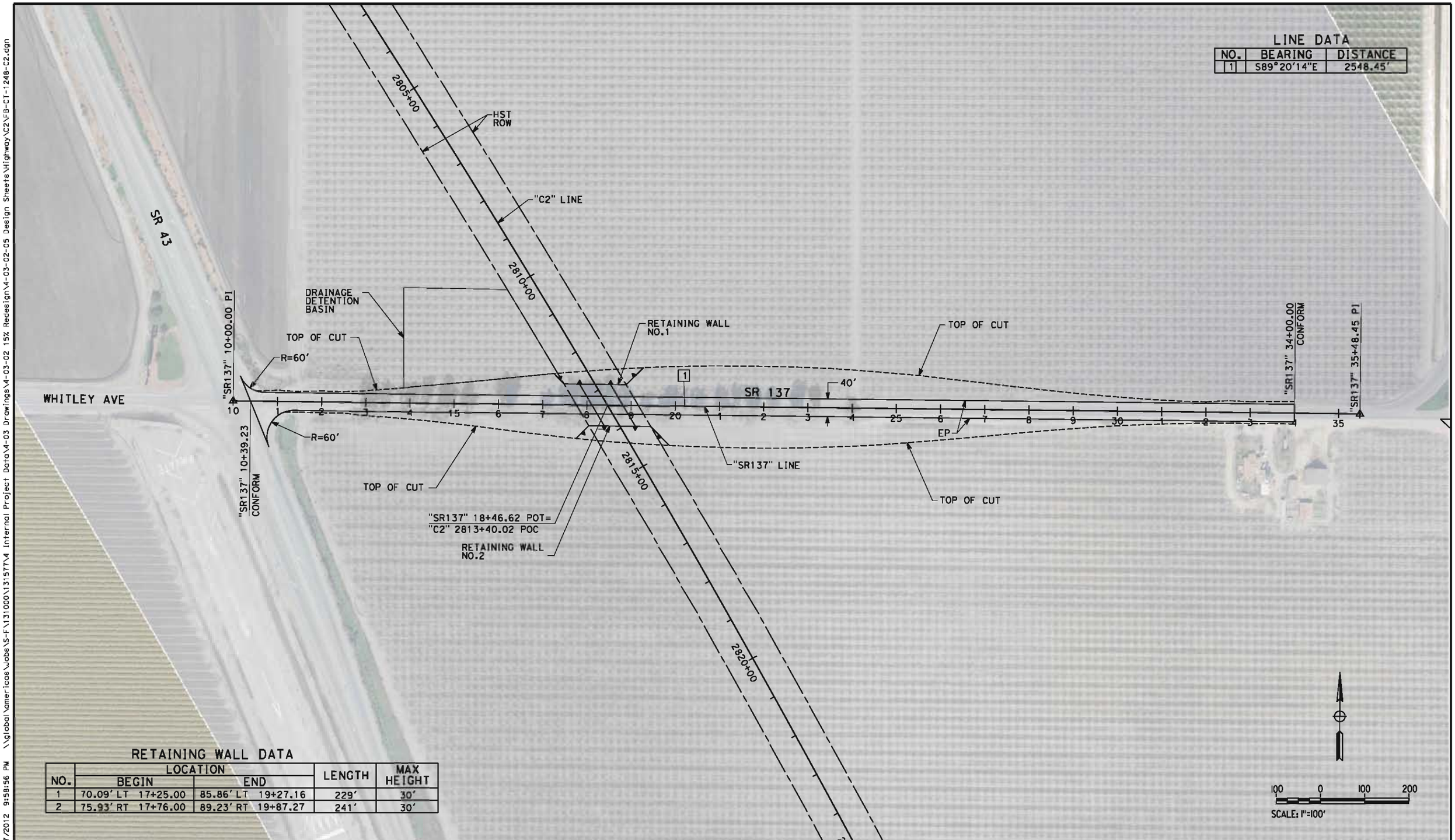

LINE DATA

NO.	BEARING	DISTANCE
1	S89°20'14"E	2548.45'

RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	70.09' LT 17+25.00	85.86' LT 19+27.16	229'	30'
2	75.93' RT 17+76.00	89.23' RT 19+87.27	241'	30'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION LAYOUT
WHITLEY AVE/STATE ROUTE 137

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1248
SCALE AS SHOWN
SHEET NO. 8 OF 24

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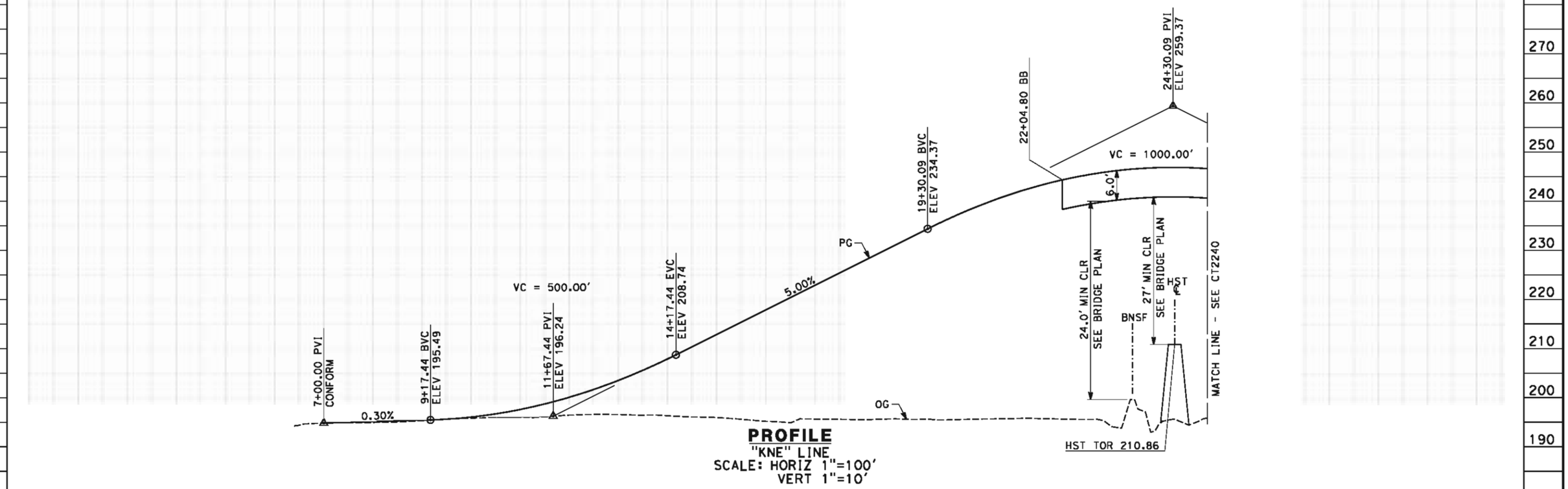
NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 24.0' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE BELOW HST STRUCTURE IS 16.5' FROM ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	5	6	7	8	9	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	TOTAL
CY Exc																							
CY Emb																							

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2239
SCALE AS SHOWN
SHEET NO. 9 OF 24

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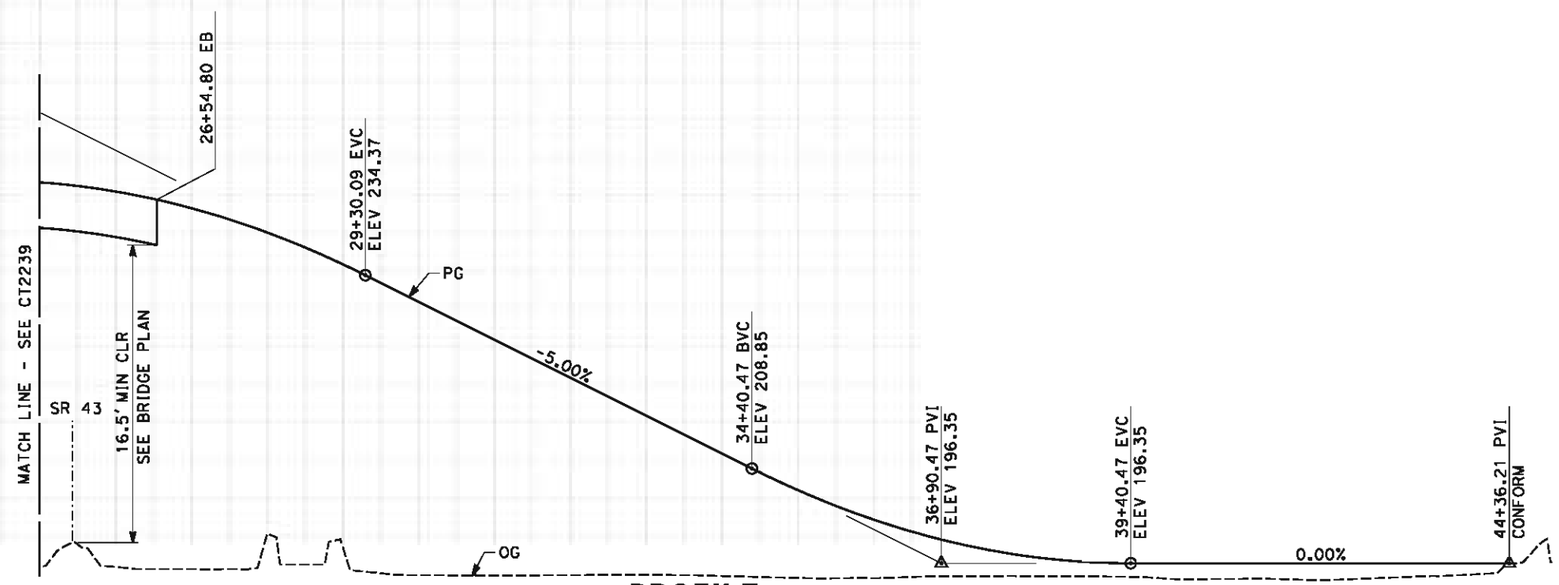

PROFILE
"KNE" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
NEVADA AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2240
SCALE AS SHOWN
SHEET NO. 10 OF 24

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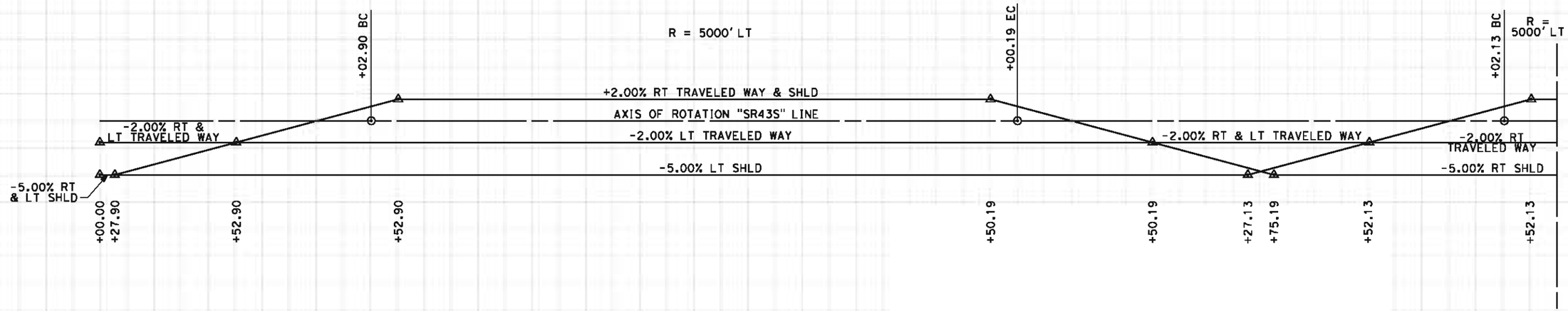
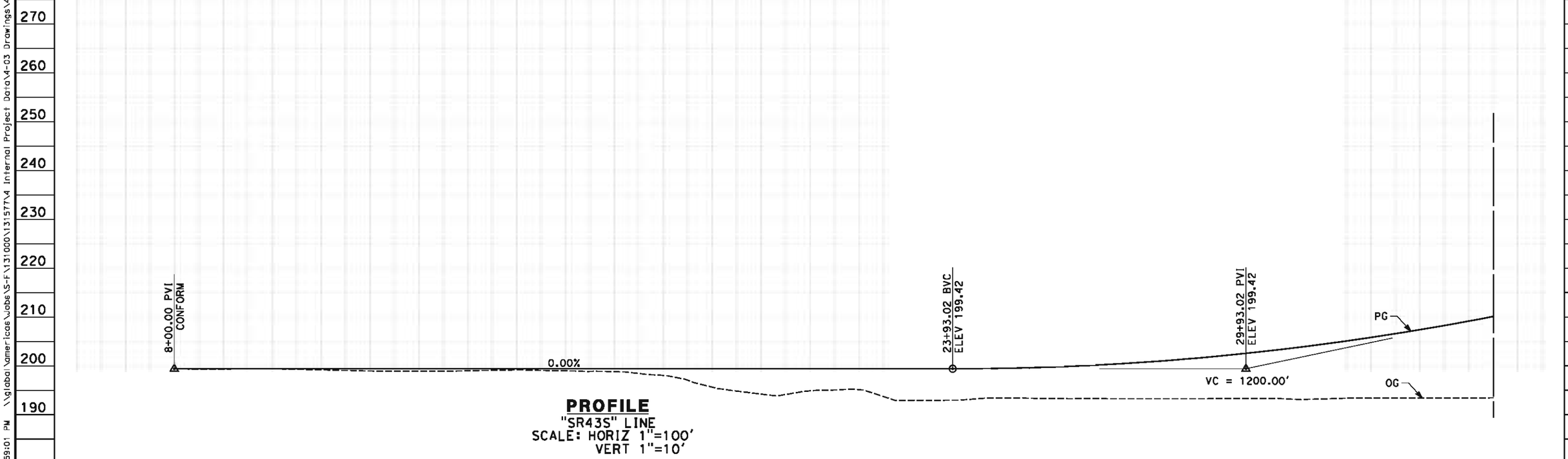
NOTES:
1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. VERTICAL DESIGN SPEED = 70 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"SR43S" 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	TOTAL
CY Exc																													
CY Emb																													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2241
SCALE AS SHOWN
SHEET NO. 11 OF 24

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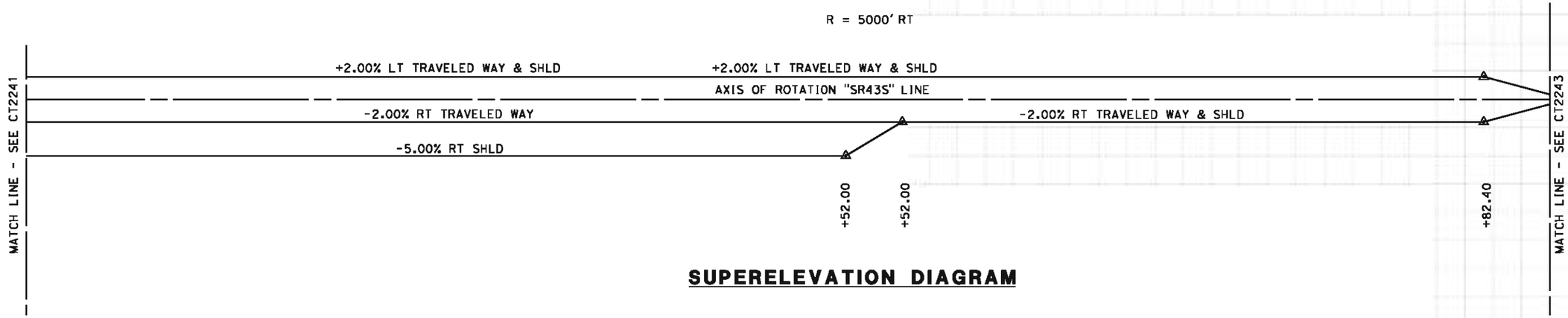
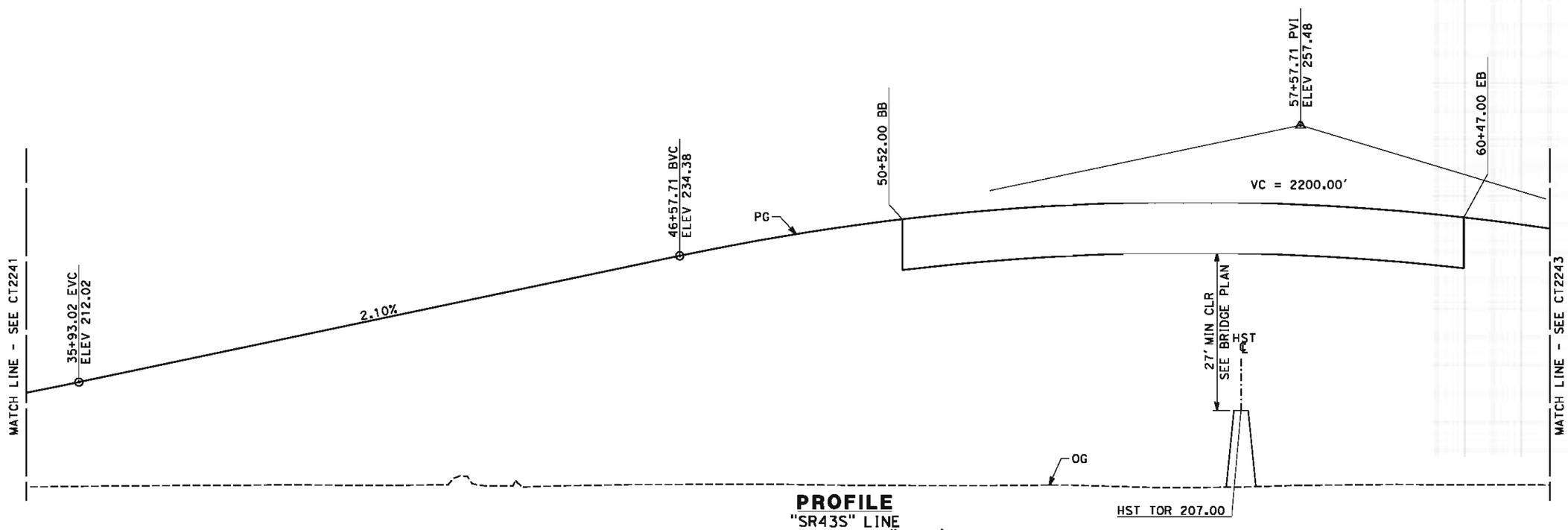


SUPERELEVATION DIAGRAM



PROFILE

"SR43S" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	1	2	TOTAL
CY Exc																													
CY Emb																													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2242
SCALE AS SHOWN
SHEET NO. 12 OF 24

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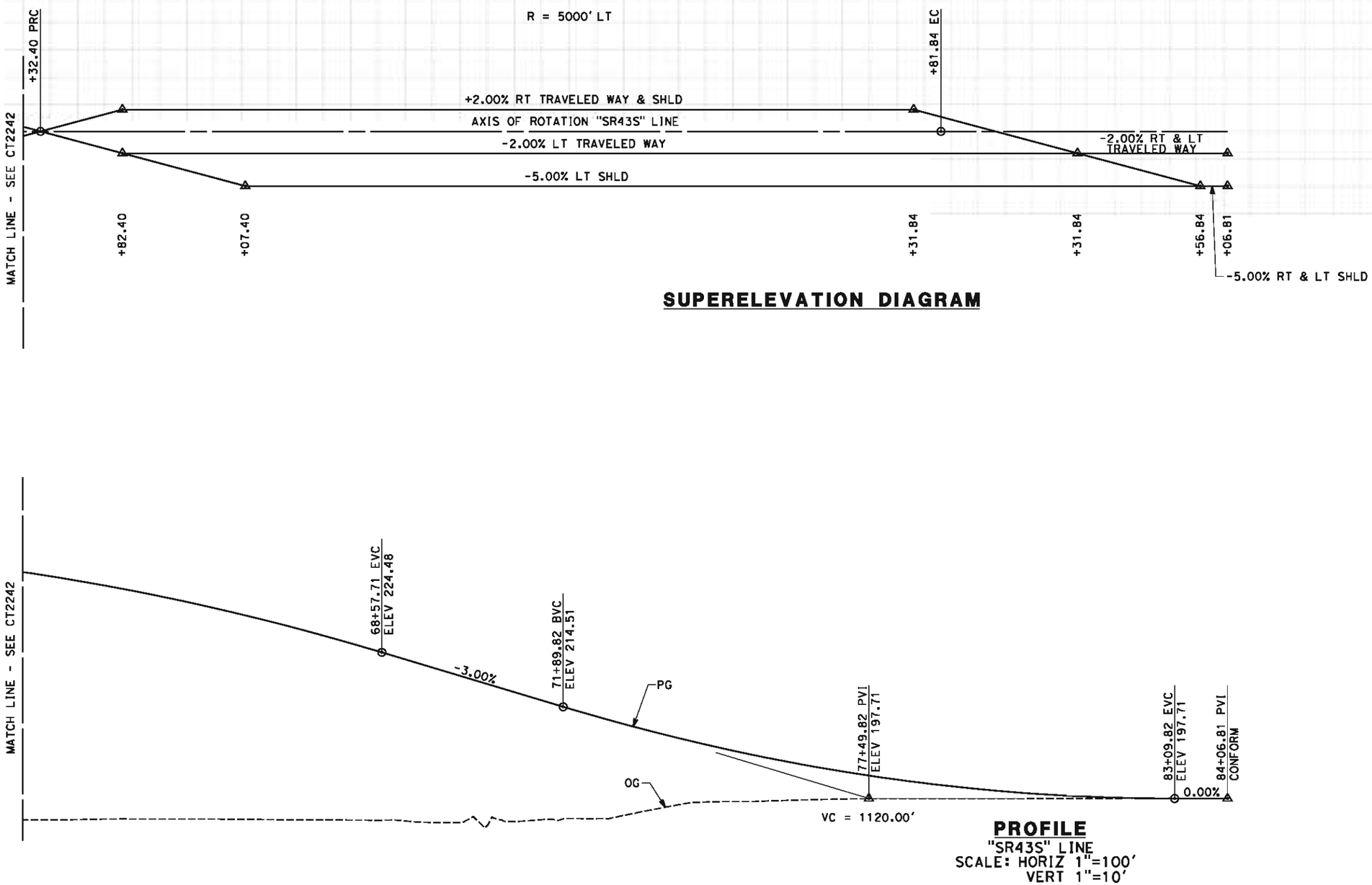

SUPERELEVATION DIAGRAM

PROFILE

"SR43S" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	65	6	7	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	3	4	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 (CORCORAN)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2243
SCALE AS SHOWN
SHEET NO. 13 OF 24

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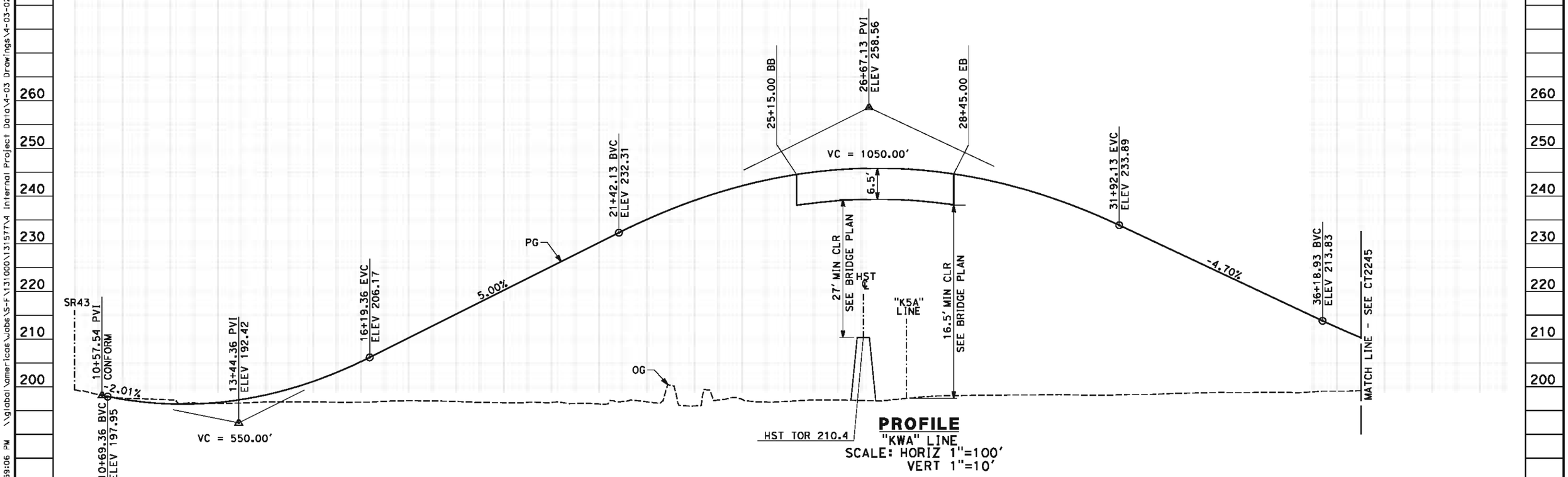
NOTES:

1. MINIMUM VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE UNDER STRUCTURE IS 16.5' FROM ROAD SURFACE
3. VERTICAL DESIGN SPEED = 45 MPH
4. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KWA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
CORCORAN HWY

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2244
SCALE AS SHOWN
SHEET NO. 14 OF 24

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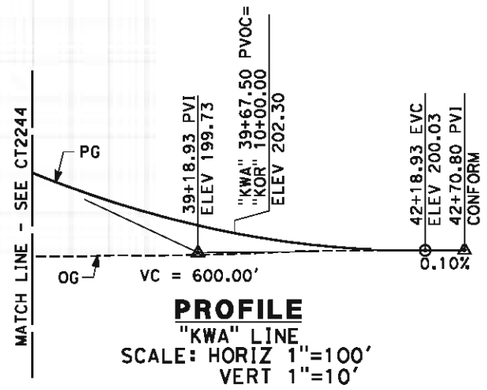
260
250
240
230
220
210
200



PROFILE
"KWA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	7	8	9	40	1	2	3	TOTAL
CY Exc								
CY Emb								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

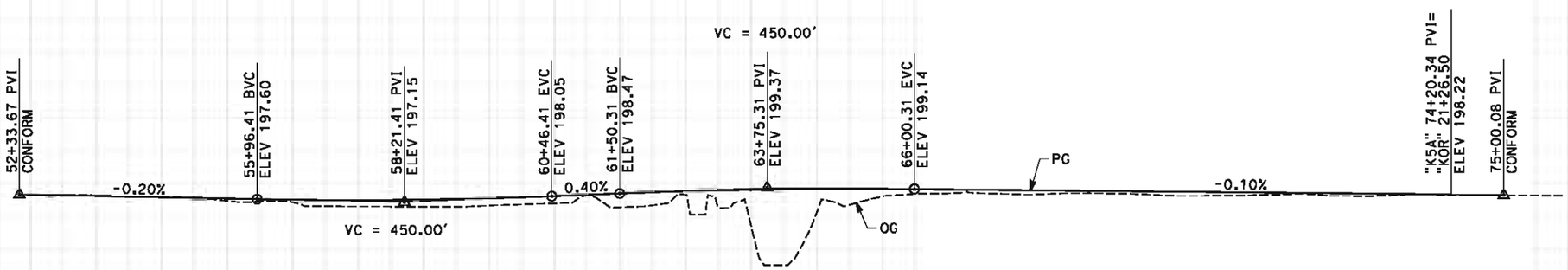
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
CORCORAN HWY

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2245
SCALE AS SHOWN
SHEET NO. 15 OF 24

NOTES:

1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO DRAWING CT1244 FOR LAYOUT



PROFILE

"K5A" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	7	8	9	70	1	2	3	4	75	6	TOTAL
CY Exc																										
CY Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
5TH AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2246
SCALE AS SHOWN
SHEET NO. 16 OF 24

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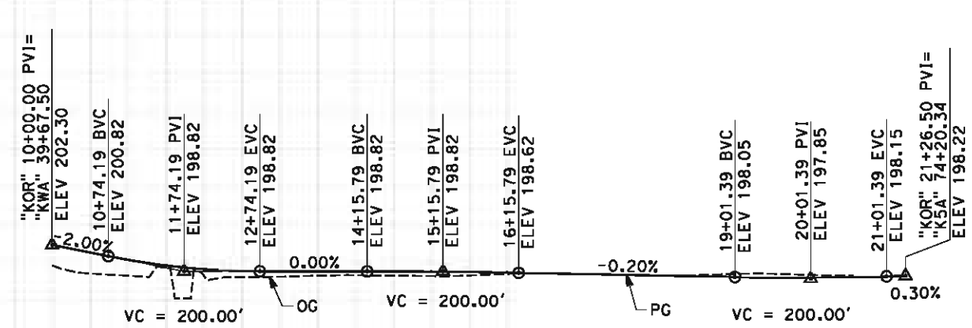
NOTES:

1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. REFER TO DRAWING CT1244 FOR LAYOUT



PROFILE

"KOR" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	7	8	9	20	1	2	3	TOTAL
CY	Exc															
	Emb															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEPARATION PROFILE
ORANGE AVE CONNECTOR

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2247
SCALE AS SHOWN
SHEET NO. 17 OF 24

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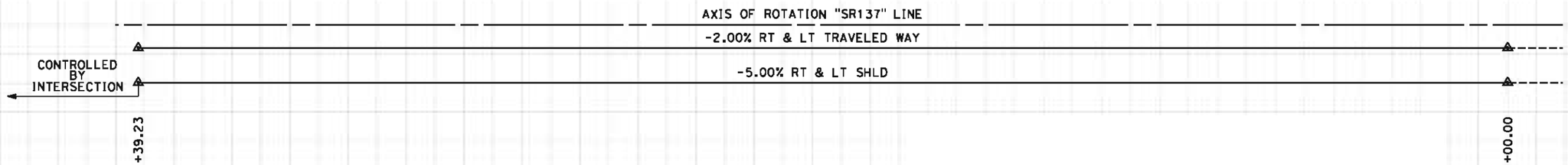
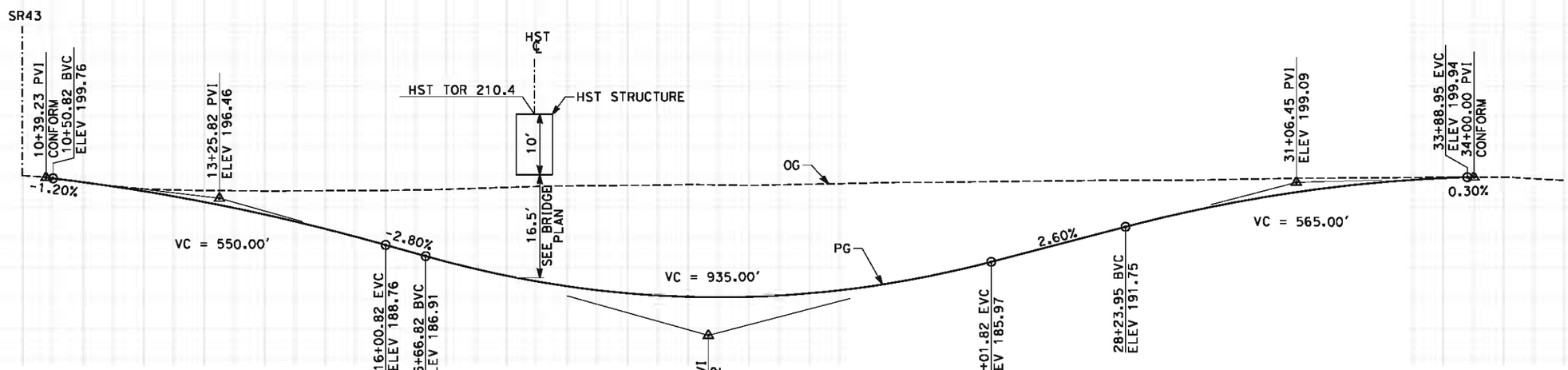
NOTES:
1. MINIMUM VERTICAL CLEARANCE UNDER HST STRUCTURE IS 16.5' FROM ROAD SURFACE
2. VERTICAL DESIGN SPEED = 55 MPH
3. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE
"SR137" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	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	TOTAL
CY Exc																												
CY Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

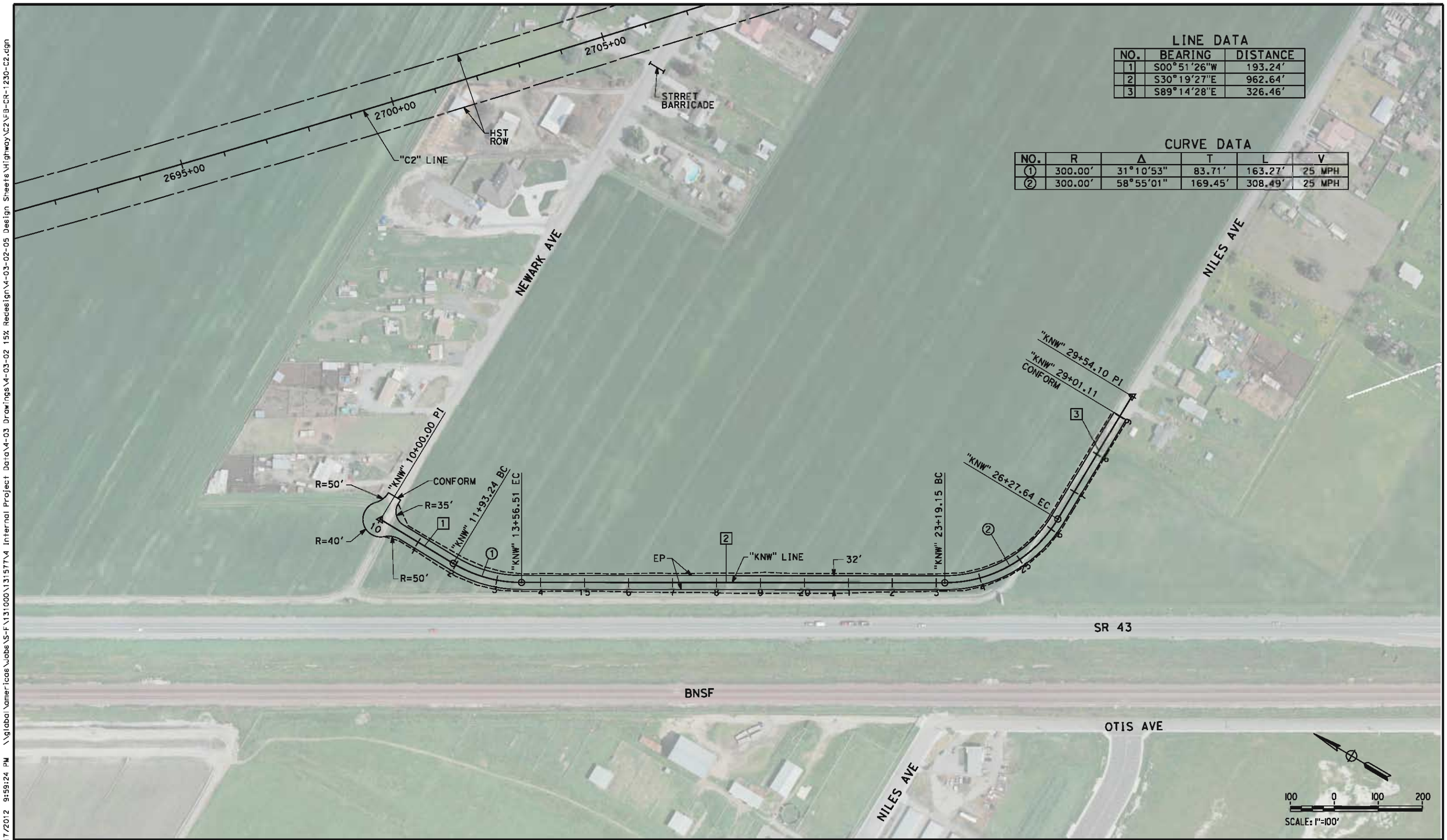
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
WHITLEY AVE/STATE ROUTE 137

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2248
SCALE AS SHOWN
SHEET NO. 18 OF 24

eron.sudhausen 5/17/2012 9:59:12 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-2248-C2.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S00°51'26"W	193.24'
2	S30°19'27"E	962.64'
3	S89°14'28"E	326.46'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	31°10'53"	83.71'	163.27'	25 MPH
2	300.00'	58°55'01"	169.45'	308.49'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY LAYOUT
NILES AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1230
SCALE AS SHOWN
SHEET NO. 19 OF 24

eron.sudhausen 5/17/2012 9:59:24 PM \\global\americas\labs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CR-1230-C2.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	S00°06'10"E	286.55'
2	S47°30'05"E	621.91'
3	S89°33'46"E	223.14'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	47°23'54"	131.69'	248.18'	25 MPH
2	300.00'	42°03'41"	115.34'	220.23'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

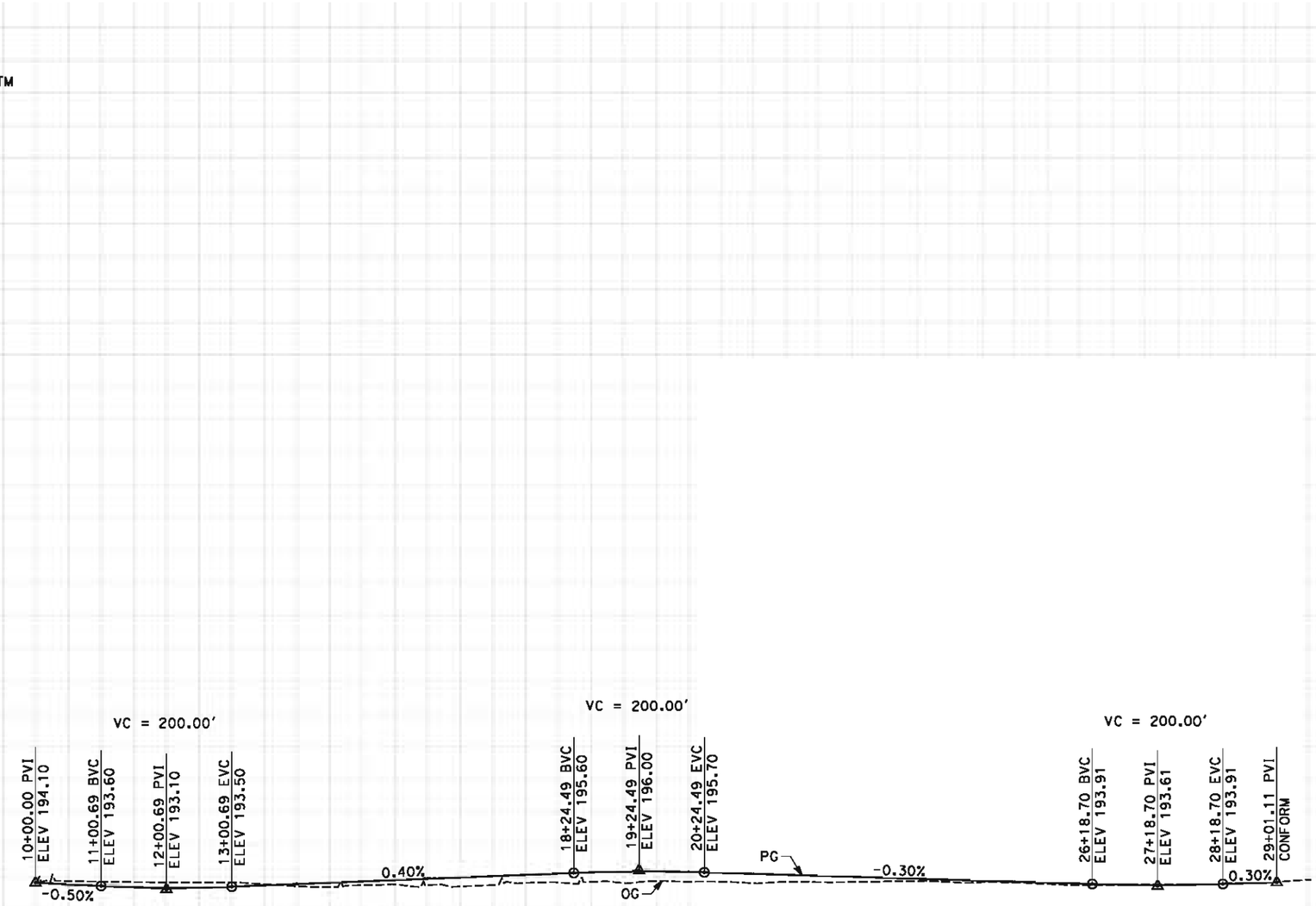
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY LAYOUT
5 1/2 AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR1231
SCALE AS SHOWN
SHEET NO. 20 OF 24

eron.sudhausen 5/18/2012 10:58:27 AM \\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CR-1231-C2.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 25 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"KNW" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	TOTAL
CY Exc																						
CY Emb																						

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

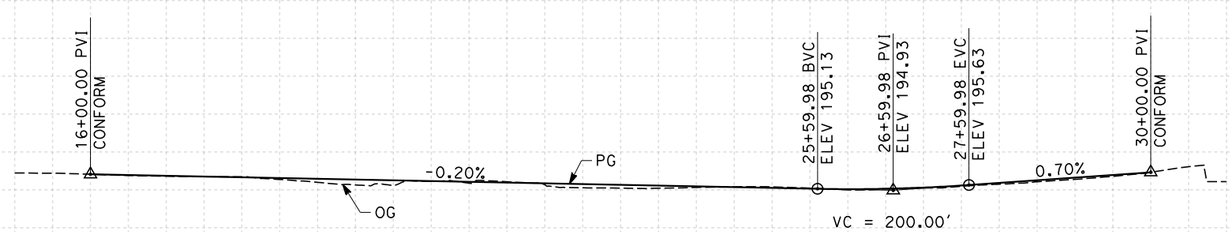
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY PROFILE
NILES AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2230
SCALE AS SHOWN
SHEET NO. 21 OF 24

eron.sudhausen 5/17/2012 9:59:35 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CR-2230-C2.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"K5H" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		15	6	7	8	9	20	1	2	3	4	25	6	7	8	9	30	1	TOTAL
CY	Exc																		
	Emb																		

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY PROFILE
5 1/2 AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CR2231
SCALE AS SHOWN
SHEET NO. 22 OF 24

eron.sudhausen 7/10/2012 9:44:09 AM J:\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CR-2231-C2.dgn

NOTES:

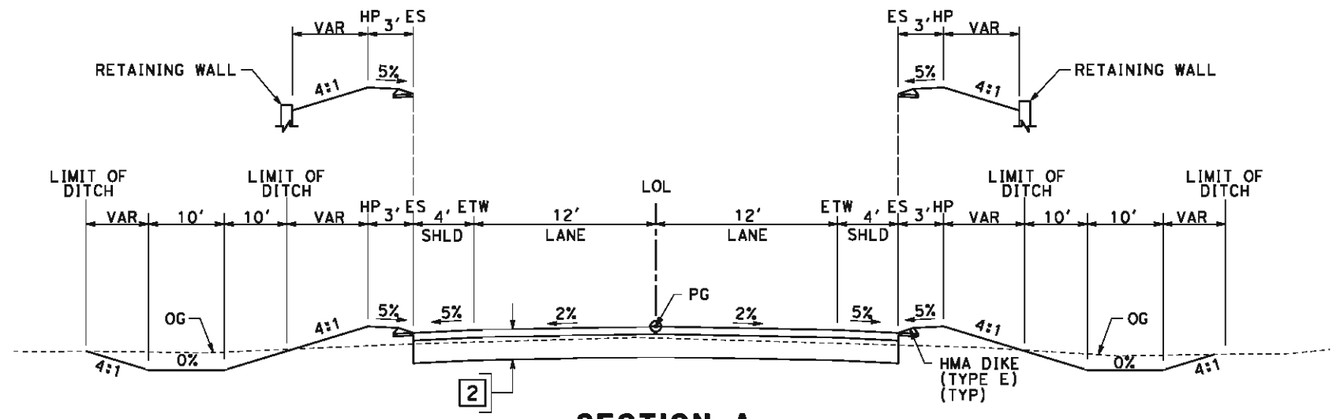
1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.

STRUCTURAL SECTIONS

TYPICAL ROADWAY

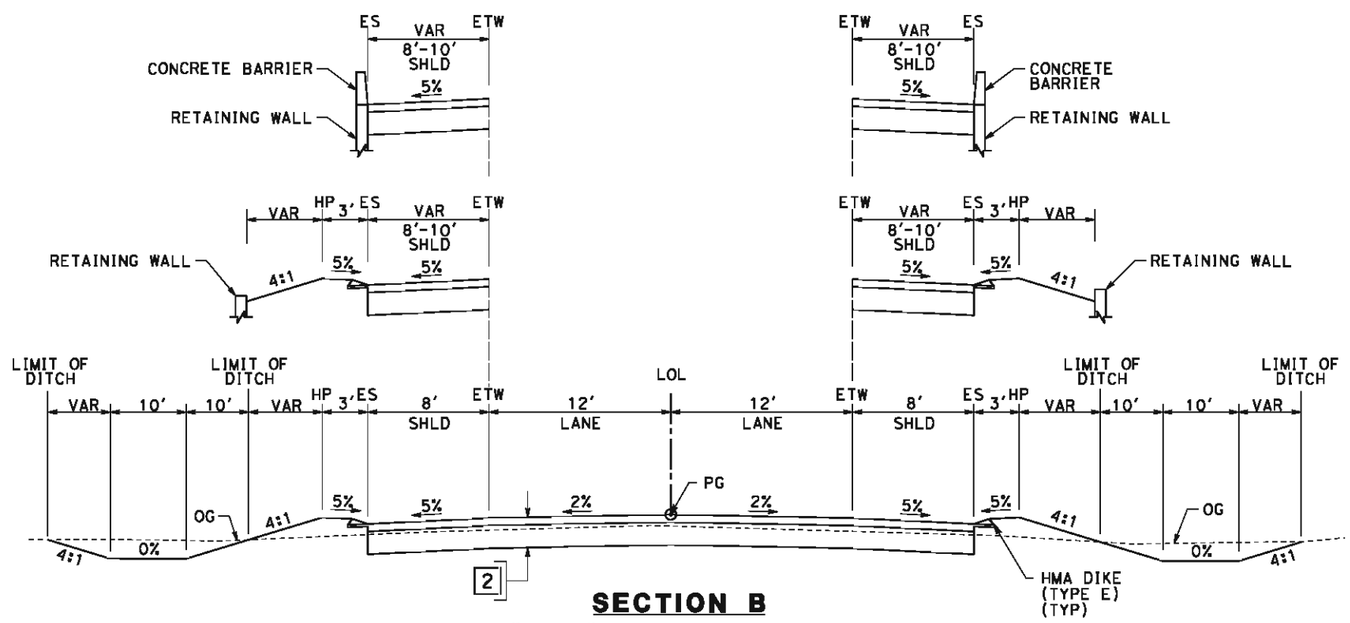
1 — 0.30' HMA (TYPE A)
1.40' CL 2 AB

2 — 0.50' HMA (TYPE A)
1.50' CL 2 AB



SECTION A

"KNE" 07+00.00 TO 22+04.80
"KNE" 26+54.80 TO 44+36.21



SECTION B

"SR43S" 8+00.00 TO 50+52.00
"SR43S" 60+47.00 TO 84+06.81
"KWA" 10+57.54 TO 21+15.00
"KWA" 28+45.00 TO 42+70+80

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3042
SCALE NO SCALE
SHEET NO. 23 OF 24

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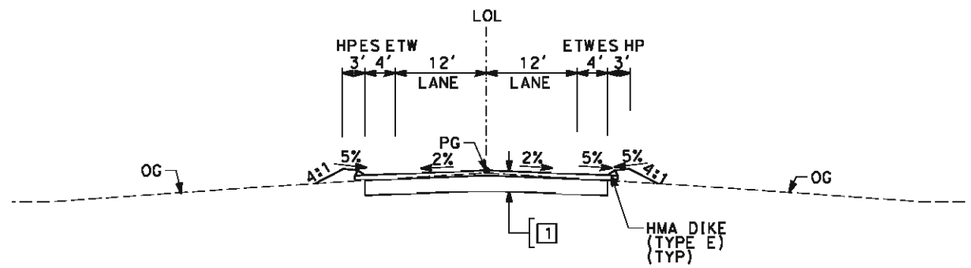
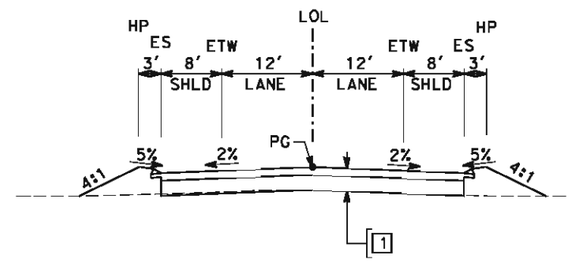


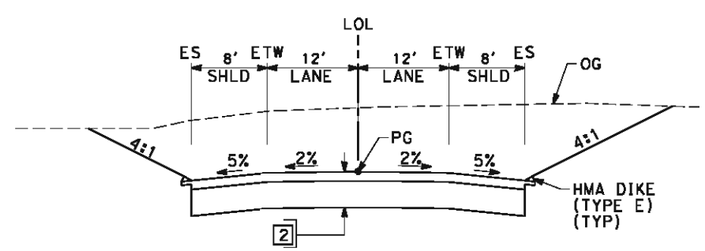
SECTION C

"KNW" 10+00.00 TO 29+01.11
"K5H" 16+00.00 TO 30+00.00
"K5A" 52+33.67 TO 75+00.08



SECTION D

"KOR" 10+00.00 TO 21+26.50



SECTION E

"SR137" 10+39.23 TO 34+00.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. BAMM
DRAWN BY E. SUDHAUSEN
CHECKED BY J. MONG
IN CHARGE R. COFFIN
DATE 05/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN BYPASS SUBSECTION
ALIGNMENT C2
ROADWAY / GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3043
SCALE NO SCALE
SHEET NO. 24 OF 24

eron.sudhausen 5/17/2012 9:59:38 PM \\global\americas\Jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-02 15% Redesign\4-03-02-05 Design Sheets\Highway\C2\FB-CT-3043-C2.dgn

STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
AVENUE 144	2995+60.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

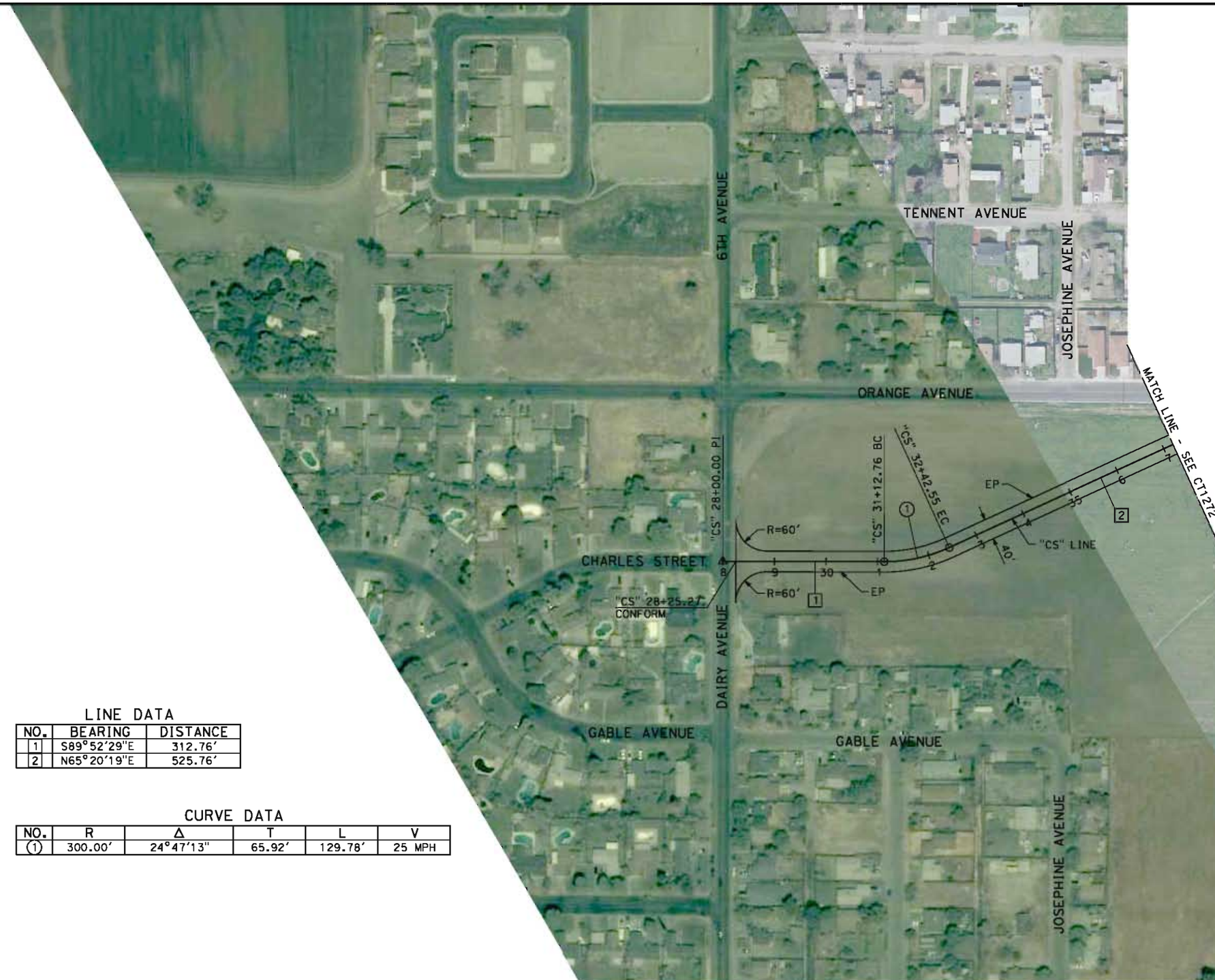
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
ROADWAY/GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0080
SCALE AS SHOWN
SHEET NO. 1 OF 43

carlton_allen 5/16/2012 2:12:21 PM HSTFB_C3_K01.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°52'29"E	312.76'
2	N65°20'19"E	525.76'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	24°47'13"	65.92'	129.78'	25 MPH

100 0 100 200
SCALE: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
CHARLES ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1271
SCALE AS SHOWN
SHEET NO. 2 OF 43

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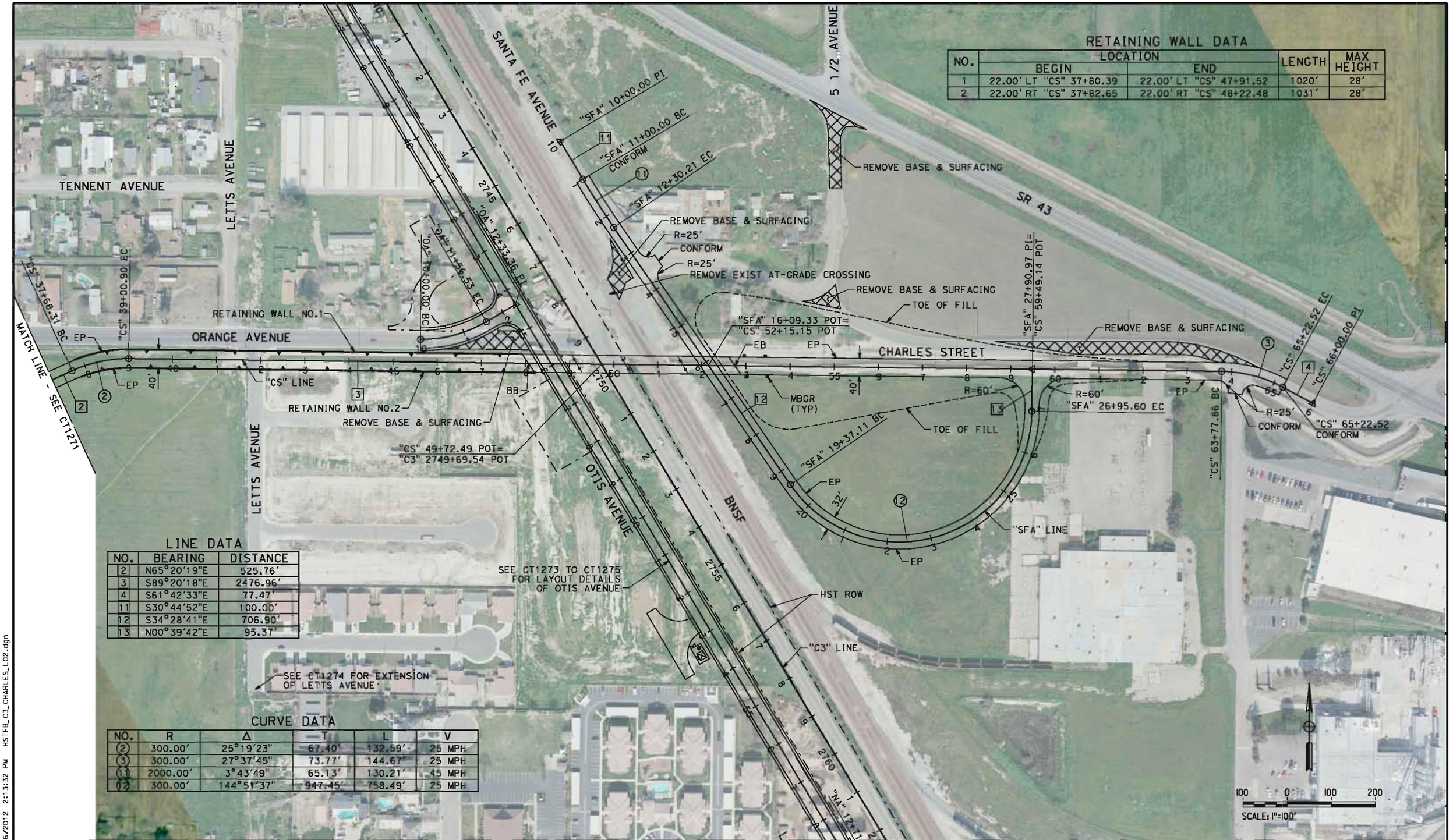


RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	22.00' LT "CS" 37+80.39	22.00' LT "CS" 47+91.52	1020'	28'
2	22.00' RT "CS" 37+82.65	22.00' RT "CS" 48+22.48	1031'	28'

LINE DATA

NO.	BEARING	DISTANCE
2	N65°20'19"E	525.76'
3	S89°20'18"E	2476.96'
4	S61°42'33"E	77.47'
11	S30°44'52"E	100.00'
12	S34°28'41"E	706.90'
13	N00°39'42"E	95.37'

CURVE DATA

NO.	R	Δ	T	L	V
2	300.00'	25°19'23"	67.40'	132.59'	25 MPH
3	300.00'	27°37'45"	73.77'	144.67'	25 MPH
11	2000.00'	3°43'49"	65.13'	130.21'	45 MPH
12	300.00'	144°51'37"	947.45'	758.49'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

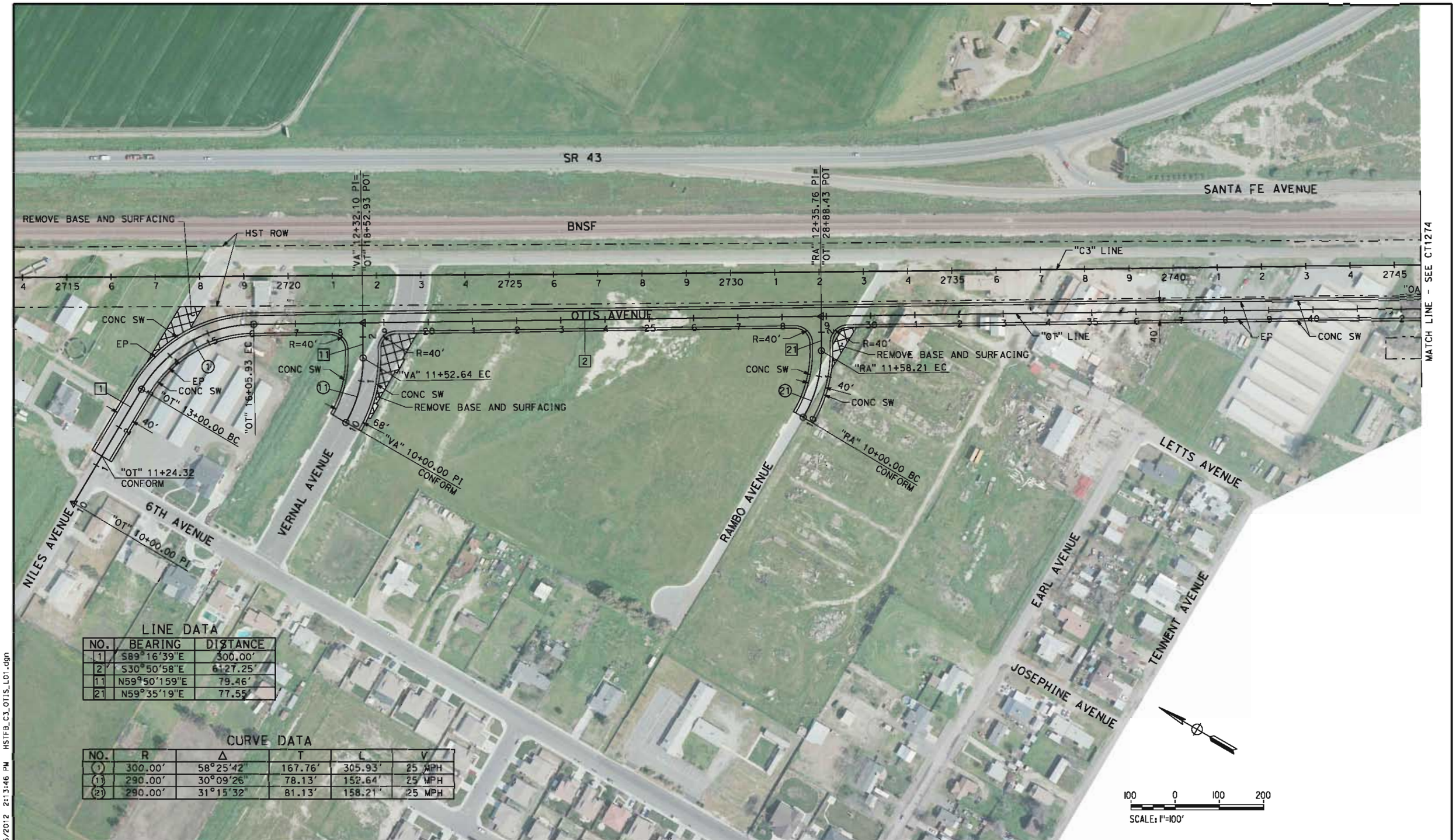
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
CHARLES ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1272
SCALE AS SHOWN
SHEET NO. 3 OF 43

carlton_allen 5/16/2012 2:13:32 PM HSTFB_C3_CHARLES_L02.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°16'39"E	300.00'
2	S30°50'58"E	6127.25'
11	N59°50'159"E	79.46'
21	N59°35'19"E	77.55'

CURVE DATA

NO.	R	Δ	T	L	V
1	300.00'	58°25'42"	167.76'	305.93'	25 MPH
11	290.00'	30°09'26"	78.13'	152.64'	25 MPH
21	290.00'	31°15'32"	81.13'	158.21'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1273
SCALE AS SHOWN
SHEET NO. 4 OF 43

cariton_allen 5/16/2012 2:13:46 PM HSTFB_C3_OTIS_L01.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S30°50'58"E	6127.25'
31	N59°35'19"E	76.84'
41	S89°27'27"E	37.55'
42	N59°35'19"E	77.08'
51	S00°00'00"E	600.00'

CURVE DATA

NO.	R	Δ	T	L	V
31	290.00'	30°55'32"	80.22'	156.64'	25 MPH
41	290.00'	30°57'14"	80.30'	154.77'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1274
SCALE AS SHOWN
SHEET NO. 5 OF 43

carlton_allen 5/16/2012 2:14:01 PM HSTFB_C3_OTIS_L02.dgn

LINE DATA

NO.	BEARING	DISTANCE
2	S30°50'58"E	6127.25'
3	S00°32'51"W	201.34'
61	S00°32'51"W	201.34'

CURVE DATA

NO.	R	Δ	T	L	V
2	300.00'	31°23'48"	84.32'	162.34'	25 MPH
61	290.00'	31°26'30"	81.63'	159.14'	25 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

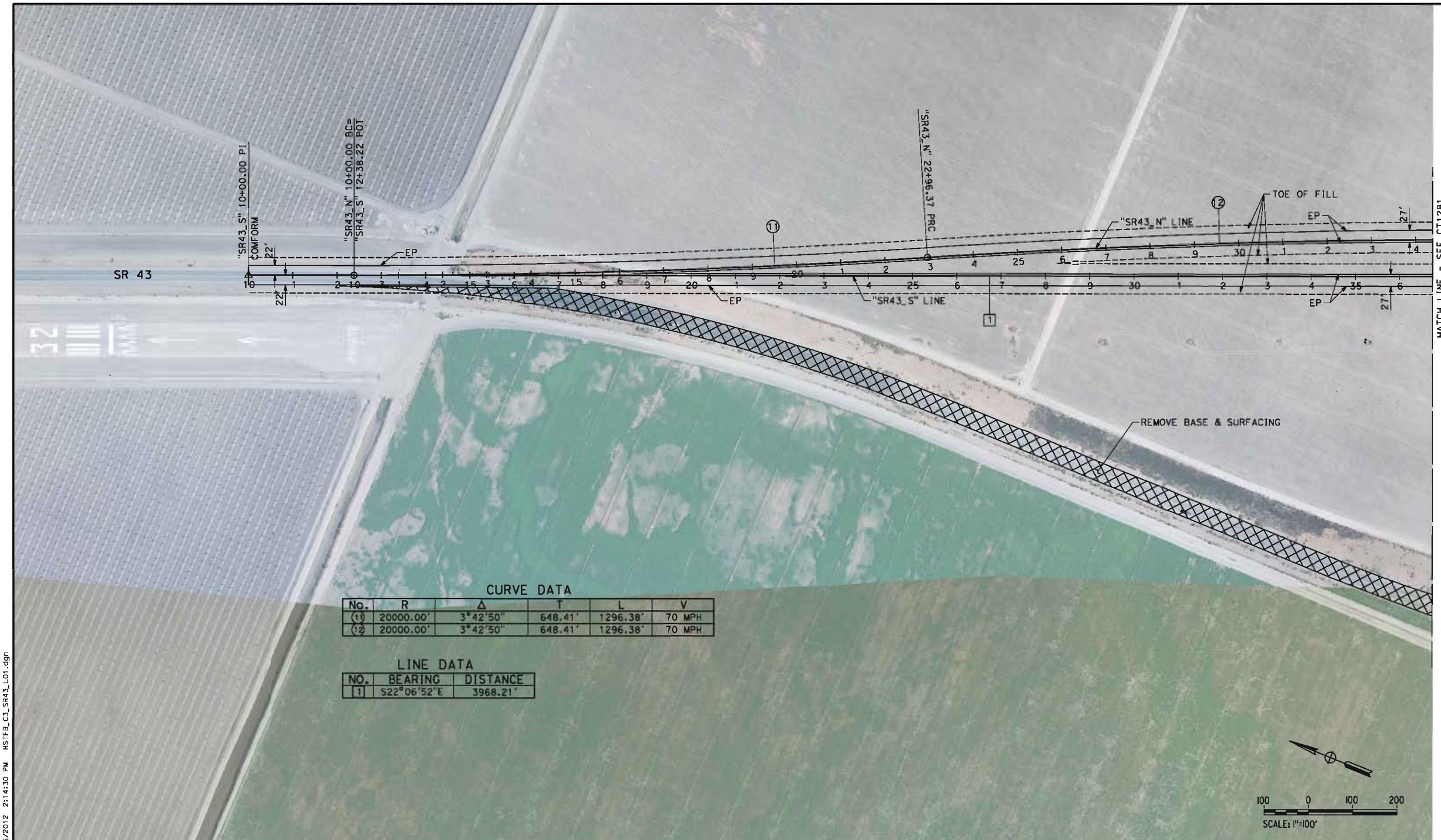
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1275
SCALE AS SHOWN
SHEET NO. 6 OF 43

carlton_allen 5/16/2012 2:14:15 PM HSTFB_C3_OTIS_L03.dgn



CURVE DATA

No.	R	Δ	T	L	V
(11)	20000.00'	3°42'50"	648.41'	1296.38'	70 MPH
(12)	20000.00'	3°42'50"	648.41'	1296.38'	70 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	S22°06'52"E	3968.21'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

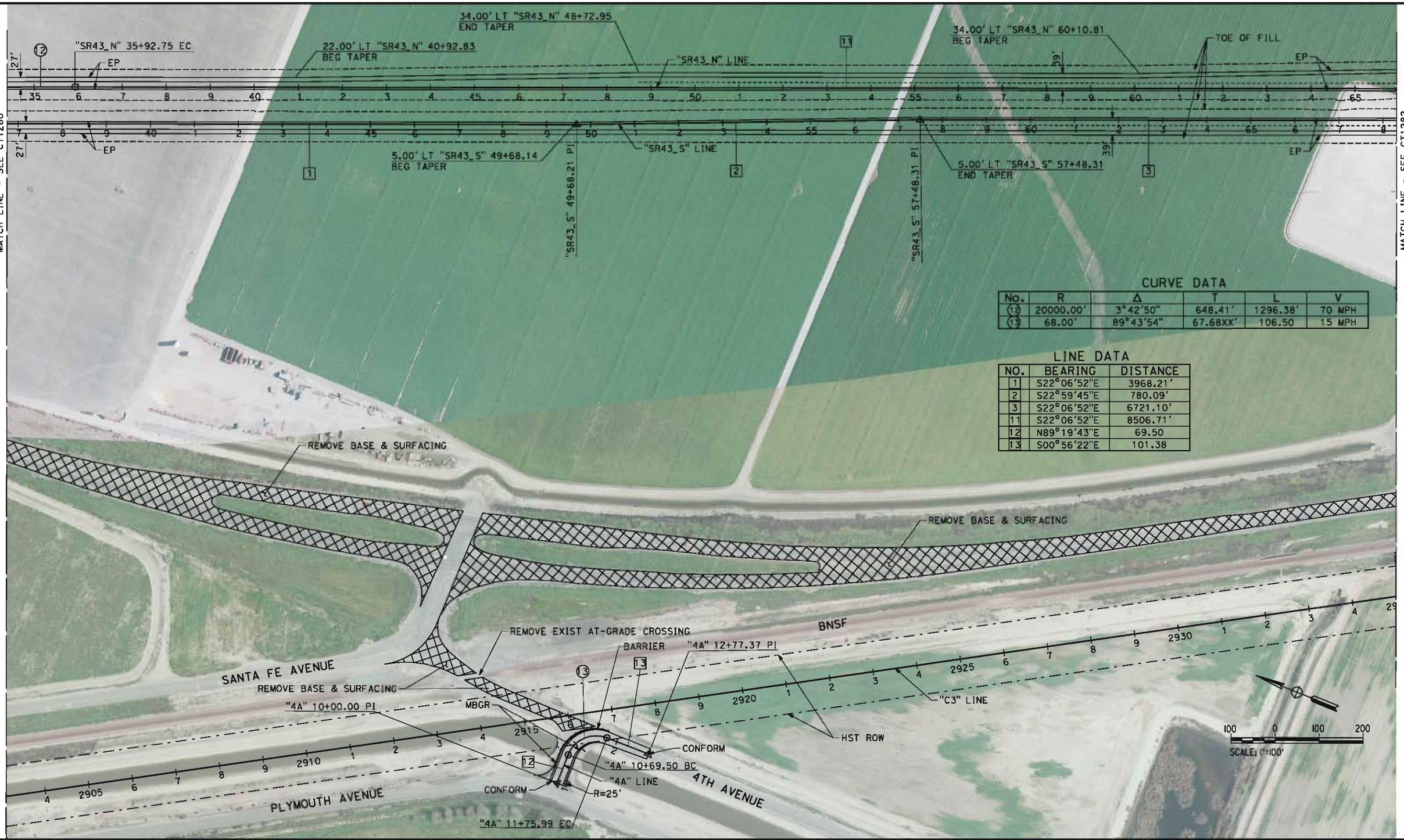
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1280
SCALE AS SHOWN
SHEET NO. 7 OF 43

carlton_allen 5/16/2012 2:14:30 PM HSTFB_C3_SR43_L01.dgn



CURVE DATA

No.	R	Δ	T	L	V
12	20000.00'	3°42'50"	648.41'	1296.38'	70 MPH
13	68.00'	89°43'54"	67.68XX'	106.50	15 MPH

LINE DATA

NO.	BEARING	DISTANCE
1	S22°06'52"E	3968.21'
2	S22°59'45"E	780.09'
3	S22°06'52"E	6721.10'
11	S22°06'52"E	8506.71'
12	N89°19'43"E	69.50
13	S00°56'22"E	101.38

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY U. ROLESCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

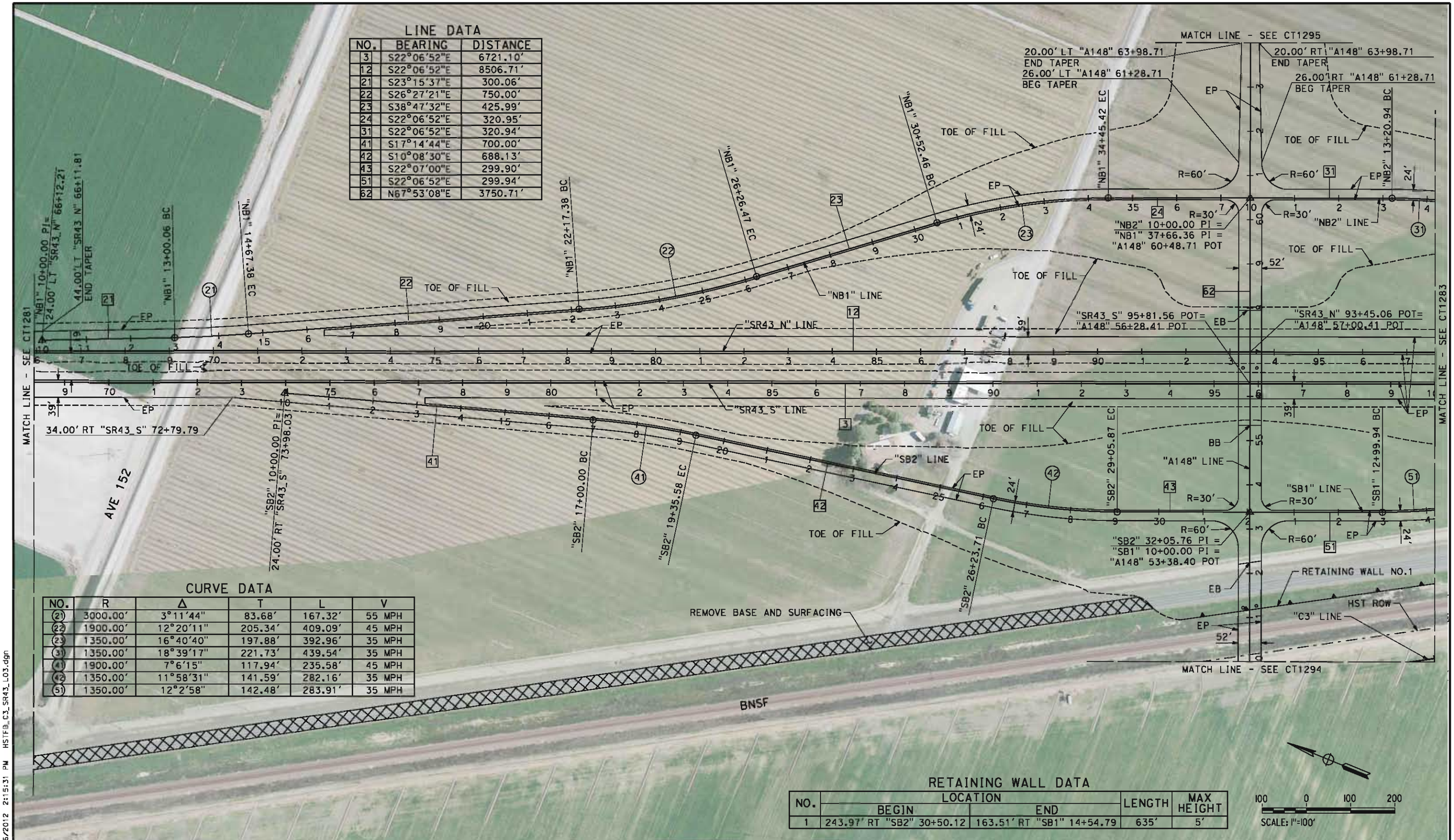
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1281
SCALE AS SHOWN
SHEET NO. 8 OF 43

carlton_allen 5/16/2012 2:15:00 PM HSTFB_C3_SR43_L02.dgn



LINE DATA

NO.	BEARING	DISTANCE
3	S22°06'52"E	6721.10'
12	S22°06'52"E	8506.71'
21	S23°15'37"E	300.06'
22	S26°27'21"E	750.00'
23	S38°47'32"E	425.99'
24	S22°06'52"E	320.95'
31	S22°06'52"E	320.94'
41	S17°14'44"E	700.00'
42	S10°08'30"E	688.13'
43	S22°07'00"E	299.90'
51	S22°06'52"E	299.94'
62	N67°53'08"E	3750.71'

CURVE DATA

NO.	R	Δ	T	L	V
21	3000.00'	3°11'44"	83.68'	167.32'	55 MPH
22	1900.00'	12°20'11"	205.34'	409.09'	45 MPH
23	1350.00'	16°40'40"	197.88'	392.96'	35 MPH
31	1350.00'	18°39'17"	221.73'	439.54'	35 MPH
41	1900.00'	7°6'15"	117.94'	235.58'	45 MPH
42	1350.00'	11°58'31"	141.59'	282.16'	35 MPH
51	1350.00'	12°2'58"	142.48'	283.91'	35 MPH

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	243.97' RT "SB2" 30+50.12	163.51' RT "SB1" 14+54.79	635'	5'

100 0 100 200
SCALE: 1"=100'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY D. ROLESCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

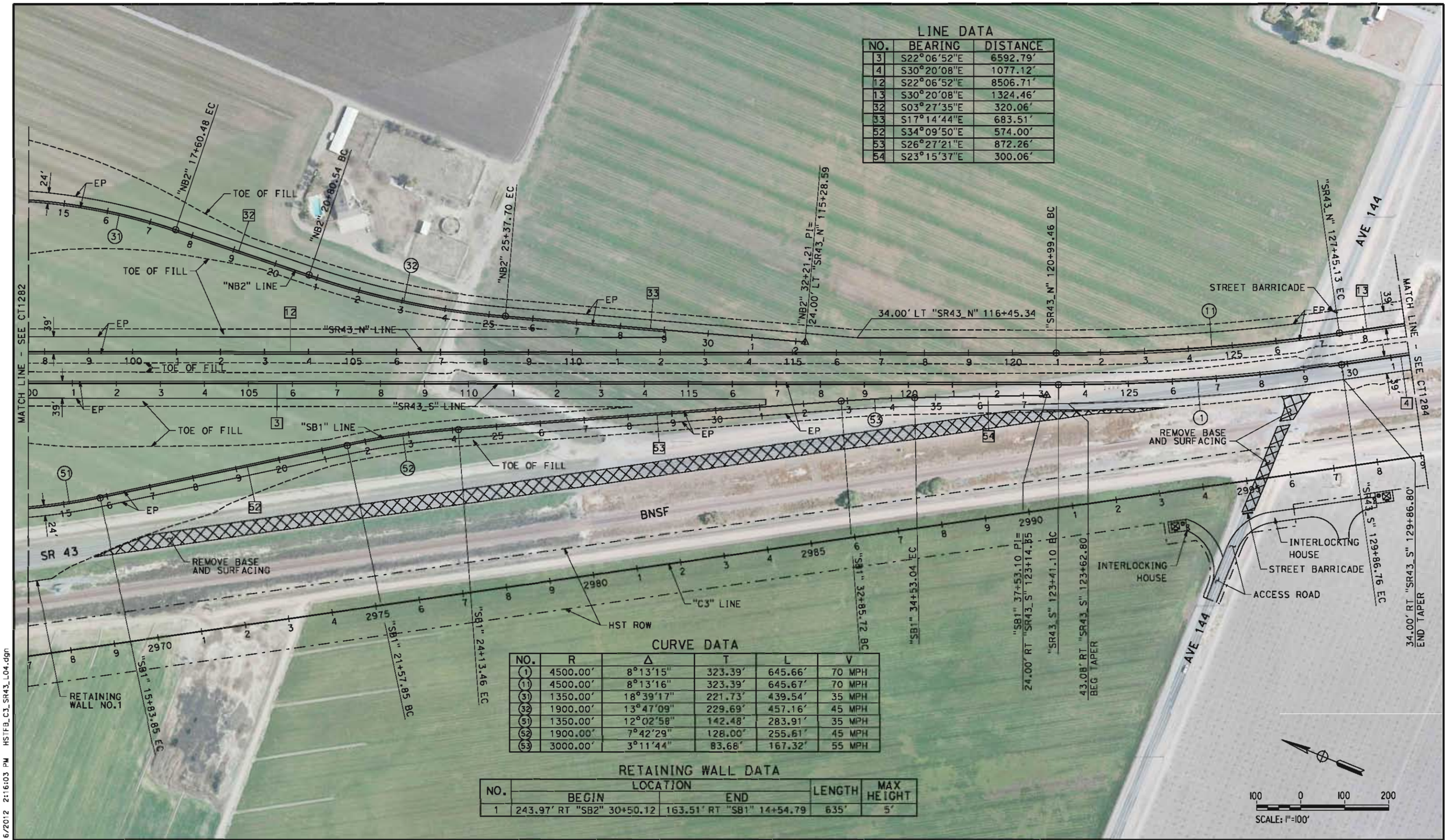
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1282
SCALE AS SHOWN
SHEET NO. 9 OF 43

cariton_allen 5/16/2012 2:15:31 PM HSTFB_C3_SR43_L03.dgn



LINE DATA

NO.	BEARING	DISTANCE
3	S22°06'52"E	6592.79'
4	S30°20'08"E	1077.12'
12	S22°06'52"E	8506.71'
13	S30°20'08"E	1324.46'
32	S03°27'35"E	320.06'
33	S17°14'44"E	683.51'
52	S34°09'50"E	574.00'
53	S26°27'21"E	872.26'
54	S23°15'37"E	300.06'

CURVE DATA

NO.	R	Δ	T	L	V
1	4500.00'	8°13'15"	323.39'	645.66'	70 MPH
11	4500.00'	8°13'16"	323.39'	645.67'	70 MPH
31	1350.00'	18°39'17"	221.73'	439.54'	35 MPH
32	1900.00'	13°47'09"	229.69'	457.16'	45 MPH
51	1350.00'	12°02'58"	142.48'	283.91'	35 MPH
52	1900.00'	7°42'29"	128.00'	255.61'	45 MPH
53	3000.00'	3°11'44"	83.68'	167.32'	55 MPH

RETAINING WALL DATA

NO.	LOCATION		LENGTH	MAX HEIGHT
	BEGIN	END		
1	243.97' RT "SB2" 30+50.12	163.51' RT "SB1" 14+54.79	635'	5'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1283
SCALE AS SHOWN
SHEET NO. 10 OF 43

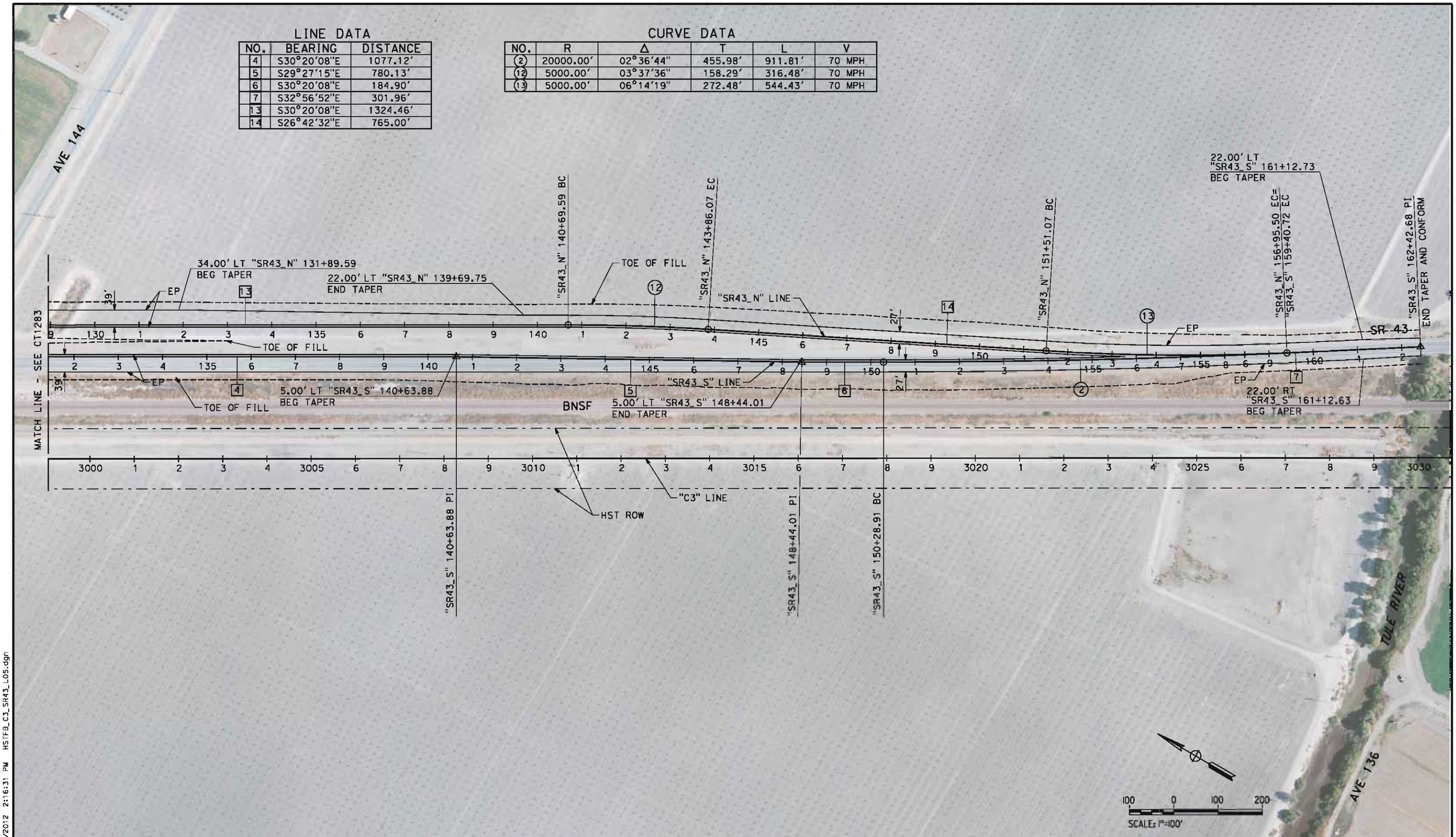
corlton_allen 5/16/2012 2:16:03 PM HSTFB_C3_SR43_L04.dgn

LINE DATA

NO.	BEARING	DISTANCE
4	S30°20'08"E	1077.12'
5	S29°27'15"E	780.13'
6	S30°20'08"E	184.90'
7	S32°56'52"E	301.96'
13	S30°20'08"E	1324.46'
14	S26°42'32"E	765.00'

CURVE DATA

NO.	R	Δ	T	L	V
2	20000.00'	02°36'44"	455.98'	911.81'	70 MPH
12	5000.00'	03°37'36"	158.29'	316.48'	70 MPH
13	5000.00'	06°14'19"	272.48'	544.43'	70 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

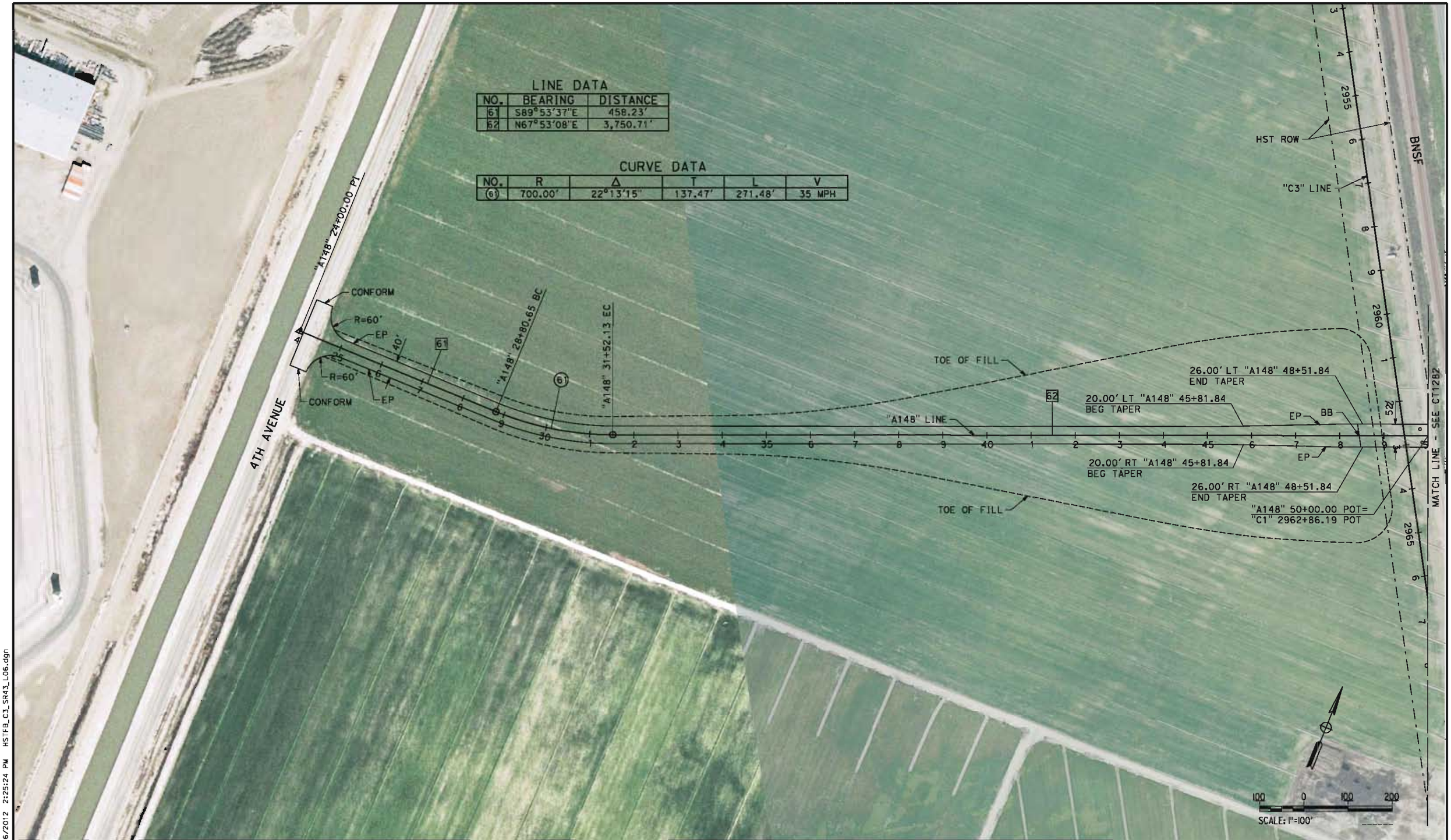
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
STATE ROUTE 43

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1284
SCALE AS SHOWN
SHEET NO. 11 OF 43

carlton_allen 5/16/2012 2:16:31 PM HSTFB_C3_SR43_L05.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
AVE 148

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1294
SCALE AS SHOWN
SHEET NO. 12 OF 43

carlton_allen 5/16/2012 2:25:24 PM HSTFB_C3_SR43_L06.dgn

LINE DATA

NO.	BEARING	DISTANCE
62	N67°53'08"E	3,750.71'
63	S89°45'51"E	890.77'
71	S00°14'09"W	3,817.83'

CURVE DATA

NO.	R	Δ	T	L	V
62	700.00'	22°21'01"	138.29'	273.06'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
AVE 148 & RD 24

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1295
SCALE AS SHOWN
SHEET NO. 13 OF 43

carlton_allen 5/16/2012 2:21:04 PM HSTFB_C3_SR43_L07.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

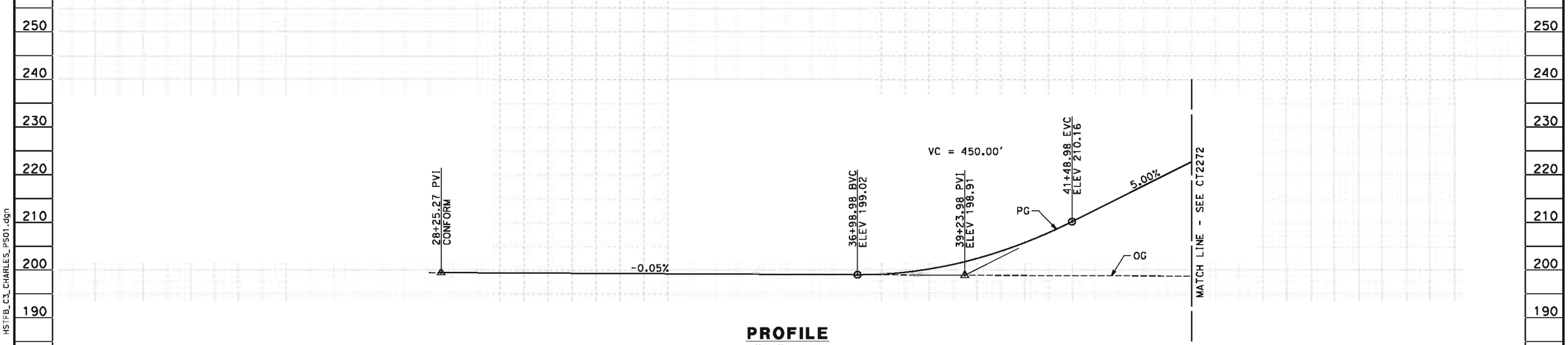
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION LAYOUT
RD 24

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1296
SCALE AS SHOWN
SHEET NO. 14 OF 43

carlton_allen 5/16/2012 2:21:22 PM HSTFB_C3_SR43_L08.dgn

NOTES:

1. MINIMUM VERTICAL CLEARANCE FOR HST IS 27' FROM TOP OF RAIL
2. MINIMUM VERTICAL CLEARANCE FOR BNSF IS 24' FROM TOP OF RAIL
3. MINIMUM VERTICAL CLEARANCE FOR HST IS 16.5' FROM TOP OF ROADWAY
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE

"CS" LINE

SCALE: HORIZ 1"=100'

VERT 1"=10'

STATION		8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	TOTAL
CY	Exc																		
	Emb																		

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

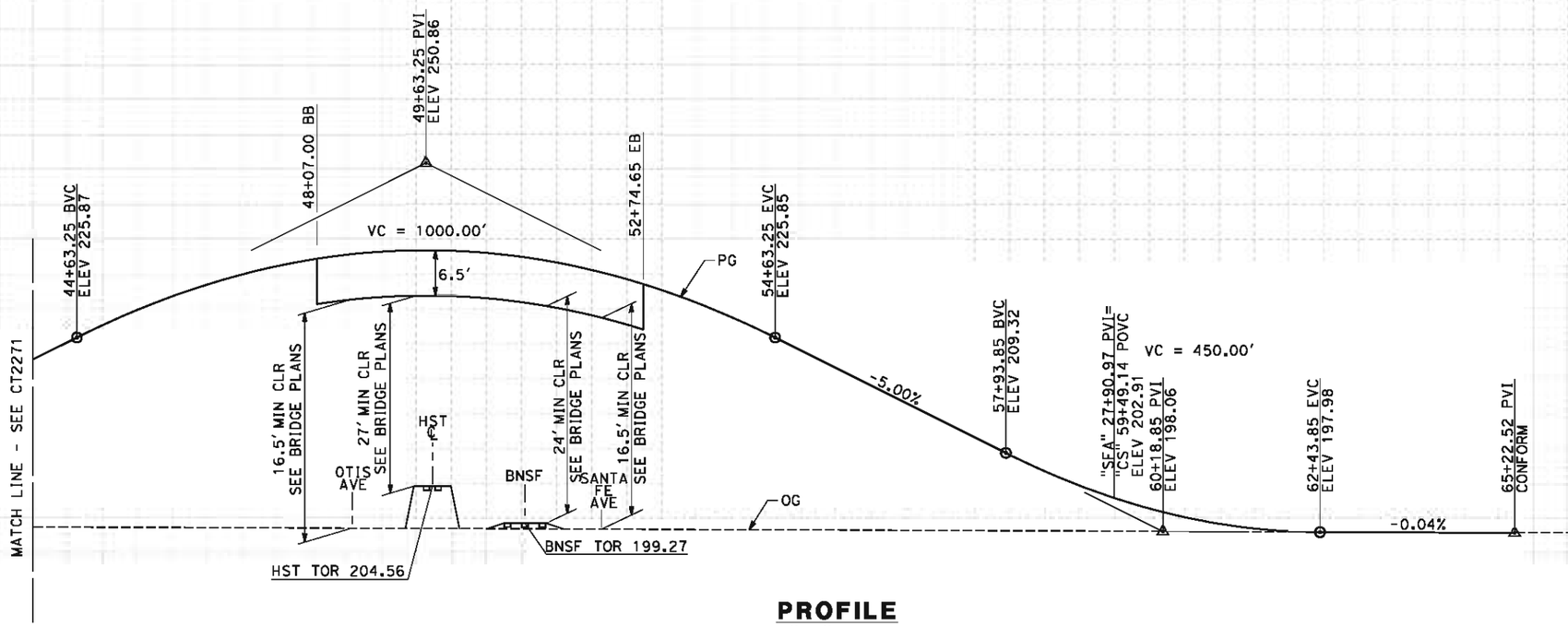
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
CHARLES ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2271
SCALE AS SHOWN
SHEET NO. 15 OF 43

carlton_allen 5/16/2012 2:21:45 PM HSTFB_C3_CHARLES_PS01.dgn



PROFILE

"CS" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	4	45	6	7	8	9	50	1	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	TOTAL
CY Exc																								
CY Emb																								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

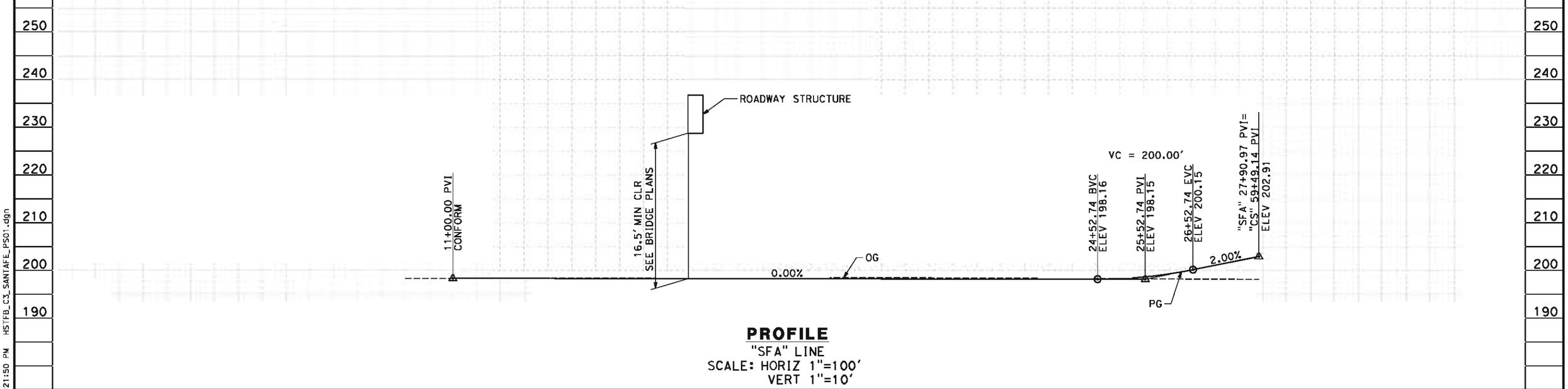
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
CHARLES ST

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2272
SCALE AS SHOWN
SHEET NO. 16 OF 43

carlton_allen 5/16/2012 2:21:47 PM HSTFB_C3_CHARLES_PS02.dgn

NOTES:

1. VERTICAL DESIGN SPEED = 55 MPH AND 25 MPH AT INTERSECTION
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. SEE SHEET CT1272 FOR LAYOUT VIEW
4. MINIMUM VERTICAL CLEARANCE IS 16.5' FROM TOP OF ROADWAY



PROFILE

"SFA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		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 M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

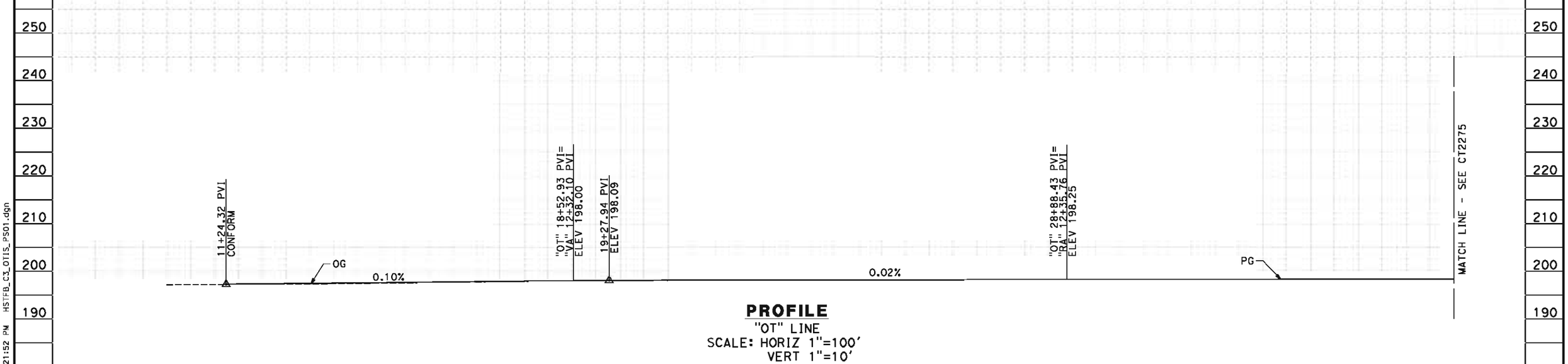
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
SANTA FE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2273
SCALE AS SHOWN
SHEET NO. 17 OF 43

corlton_allen 5/16/2012 2:21:50 PM HSTFB_C3_SANTAFE_PS01.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 35 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"OT" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	TOTAL
CY	Exc																													
	Emb																													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

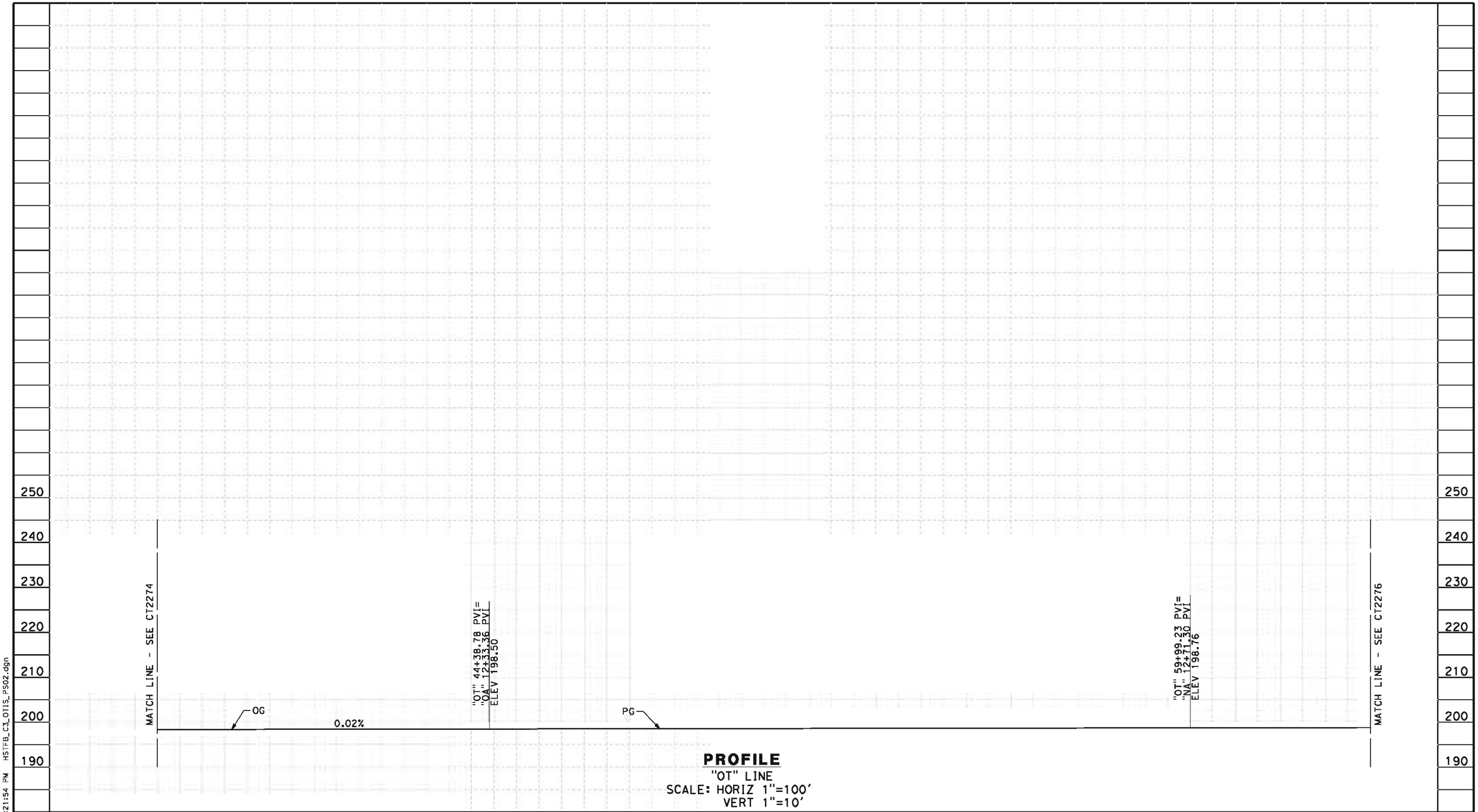
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2274
SCALE AS SHOWN
SHEET NO. 18 OF 43

5/16/2012 2:21:52 PM HSTFB_C3_OTIS_PS01.dgn
carlton_allen



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

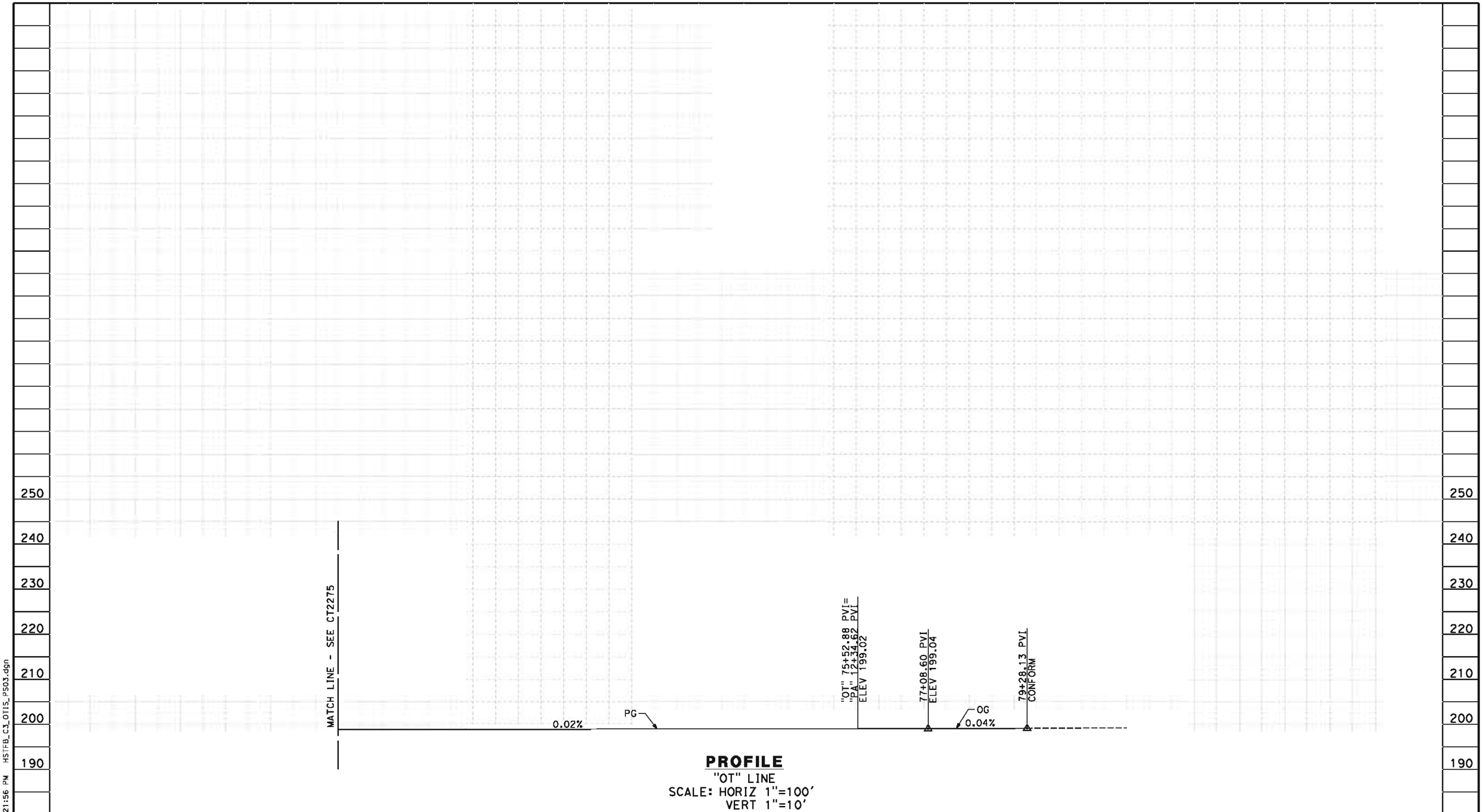
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2275
SCALE AS SHOWN
SHEET NO. 19 OF 43

corlton_allen 5/16/2012 2:21:54 PM HSTFB_C3_OTIS_PS02.dgn



PROFILE
"OT" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

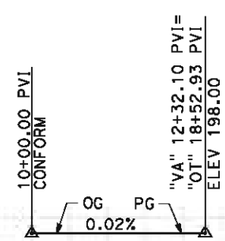
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2276
SCALE AS SHOWN
SHEET NO. 20 OF 43

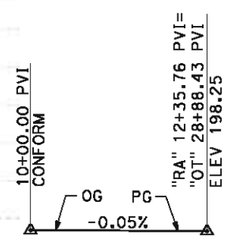
carlton_allen 5/16/2012 2:21:56 PM HSTFB_C3_OTIS_PS03.dgn

NOTES:

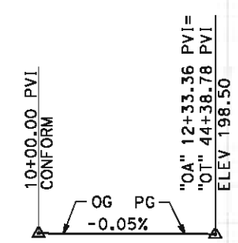
1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. SEE SHEETS CT1273, CT1274 AND CT1275 FOR LAYOUT VIEWS



PROFILE
"VA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'



PROFILE
"RA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'



PROFILE
"OA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	10	1	2	3	10	1	2	3	TOTAL
CY	Exc													
	Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

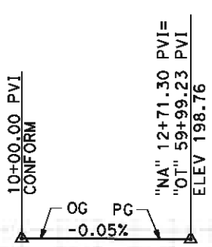
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

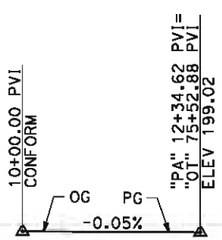
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
CONNECTIONS TO OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2277
SCALE AS SHOWN
SHEET NO. 21 OF 43

HSTFB_C3_OTIS_CONN_PS01.dgn 5/16/2012 2:21:59 PM carlton_allen



PROFILE
"NA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'



PROFILE
"PA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	10	1	2	3	TOTAL
CY	Exc									
	Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

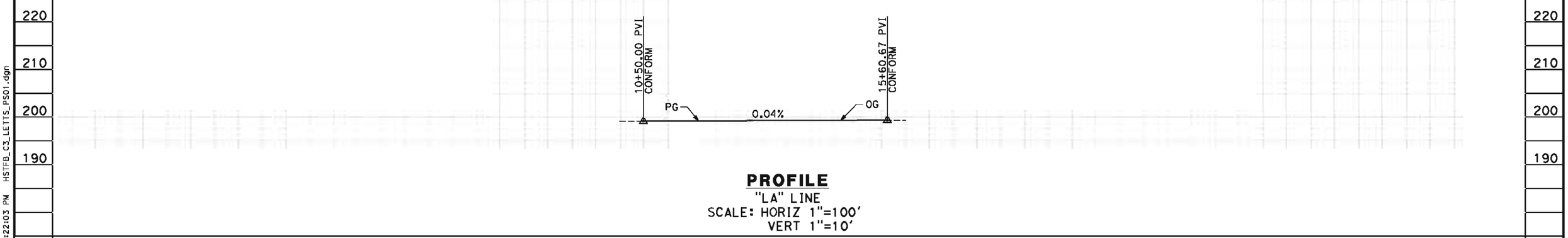
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
CONNECTIONS TO OTIS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2278
SCALE AS SHOWN
SHEET NO. 22 OF 43

carlton_allen 5/16/2012 2:22:01 PM HSTFB_C3_OTIS_CONN_PS02.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. SEE SHEET CT1274 FOR LAYOUT VIEW



PROFILE
"LA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

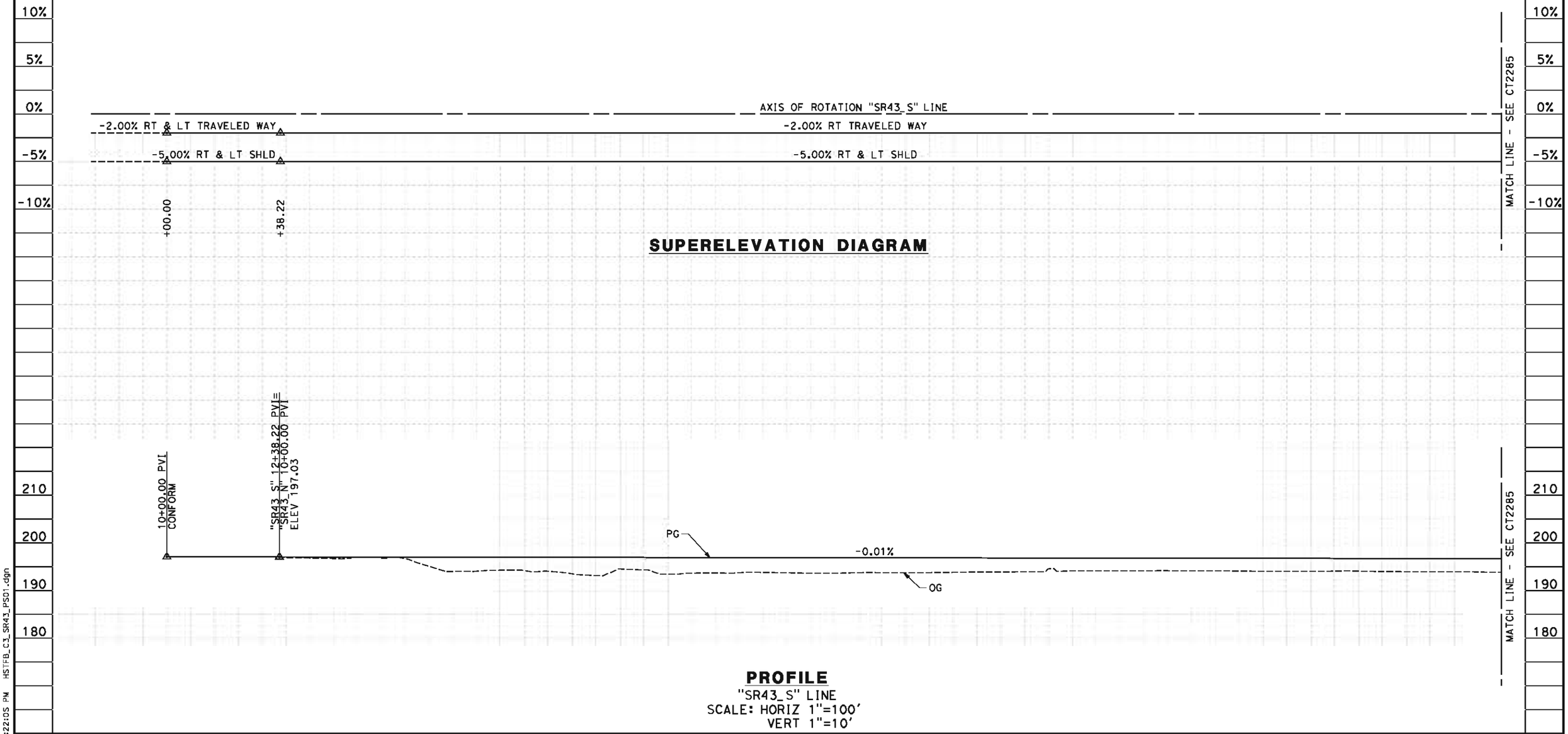
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
LETTS AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2279
SCALE AS SHOWN
SHEET NO. 23 OF 43

5/16/2012 2:22:03 PM HSTFB_C3_LETTS_PS01.dgn
carlton_allen

NOTES:
1. VERTICAL DESIGN SPEED = 70 MPH
2. 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	4	35	6	7	8	TOTAL
CY	Exc																														
	Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

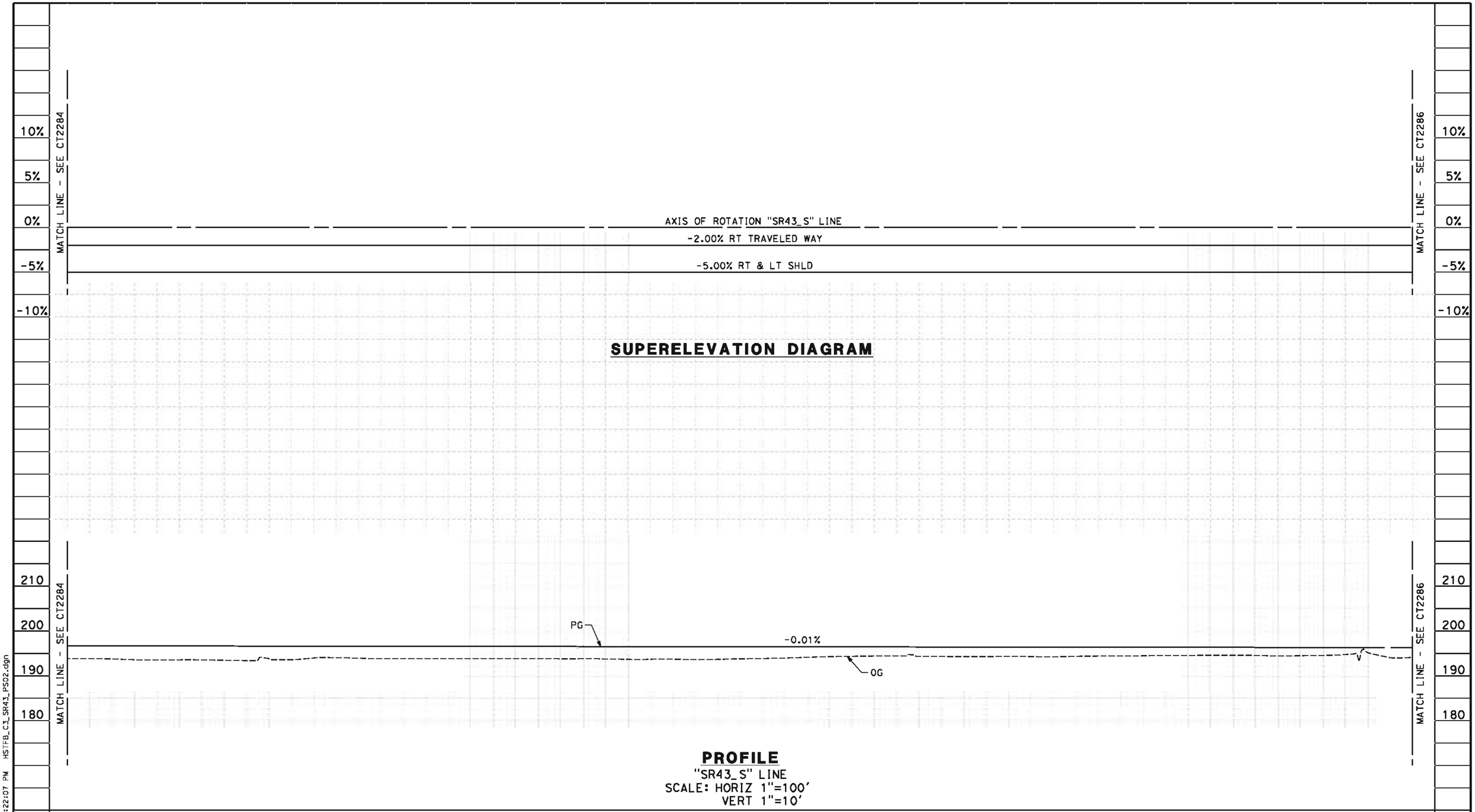
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (SB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2284
SCALE AS SHOWN
SHEET NO. 24 OF 43

carlton_allen 5/16/2012 2:22:05 PM HSTFB_C3_SR43_PS01.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

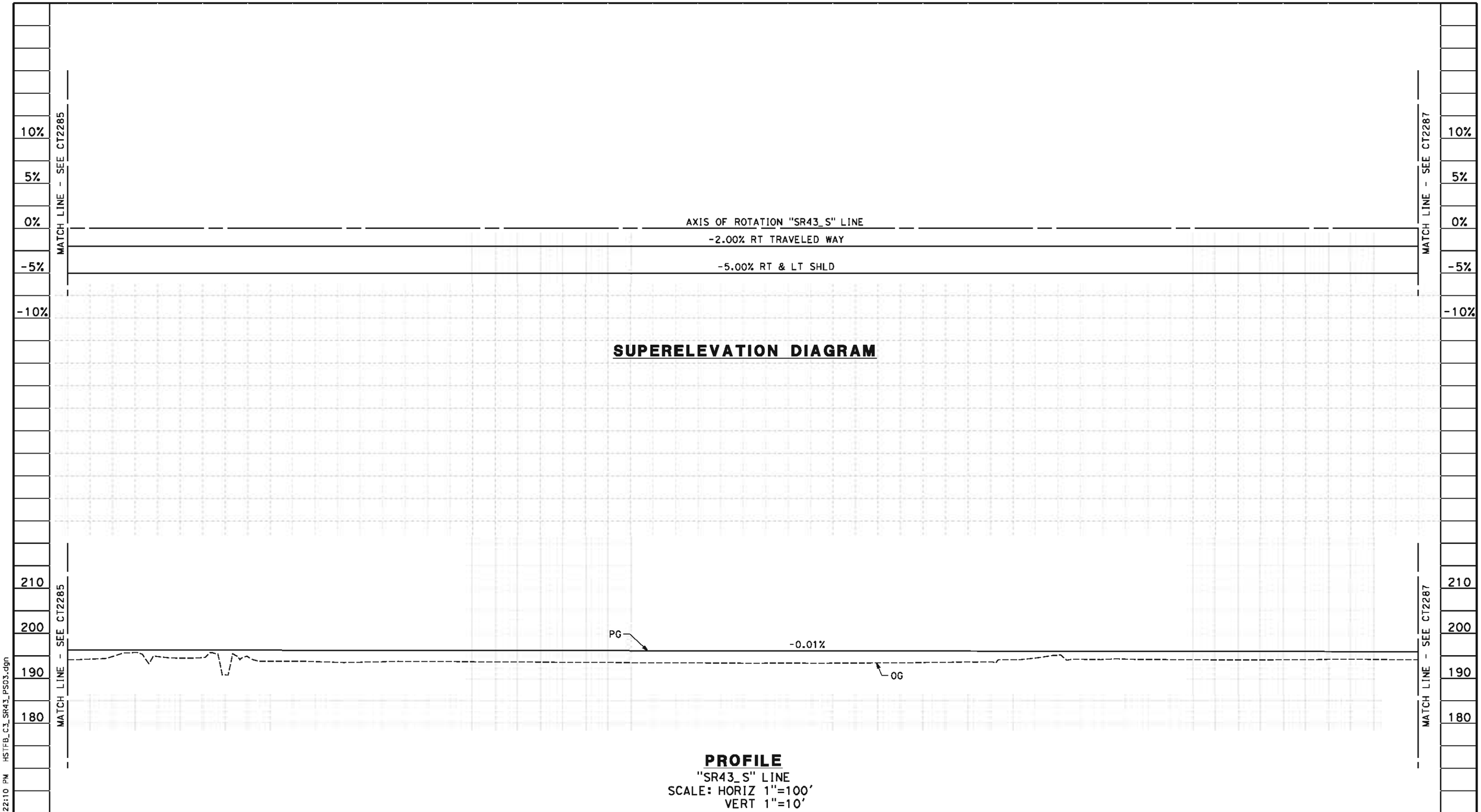
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (SB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2285
SCALE AS SHOWN
SHEET NO. 25 OF 43

5/16/2012 2:22:07 PM HSTFB_C3_SR43_PS02.dgn
carlton_allen



STATION	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	3	4	85	6	7	8	9	90	1	2	3	4	95	6	7	8	TOTAL
CY Exc																																
CY Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

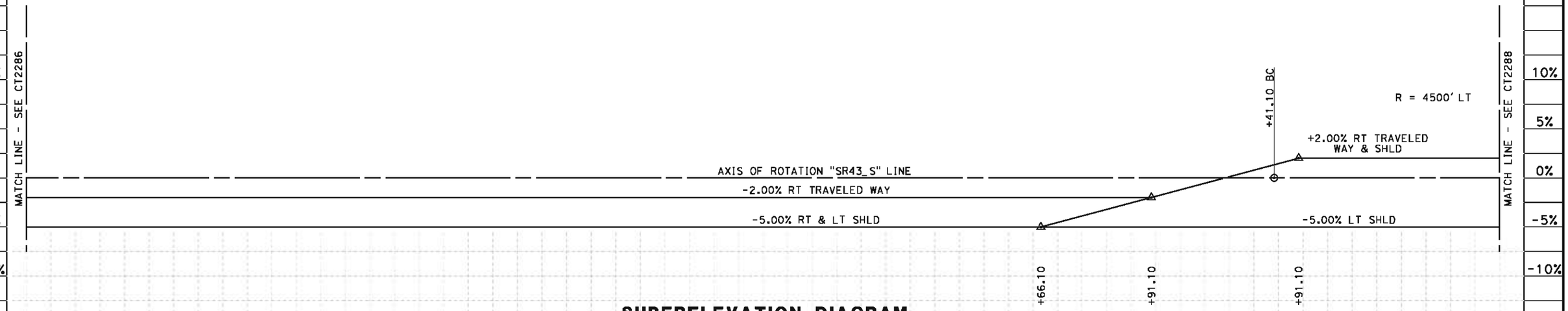
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

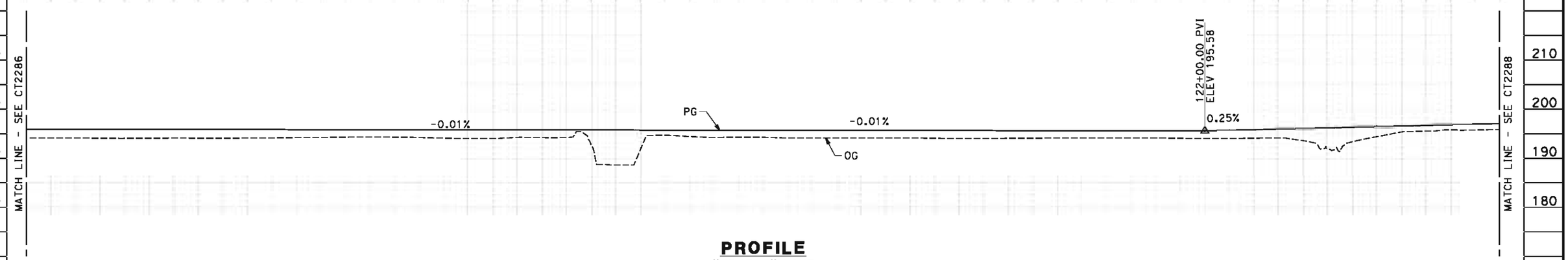
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (SB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2286
SCALE AS SHOWN
SHEET NO. 26 OF 43

carlton_allen 5/16/2012 2:22:10 PM HSTFB_C3_SR43_PS03.dgn



SUPERELEVATION DIAGRAM



PROFILE

"SR43_S" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	8	9	100	1	2	3	4	105	6	7	8	9	110	1	2	3	4	115	6	7	8	9	120	1	2	3	4	125	6	7	8	TOTAL
CY Exc																																
CY Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

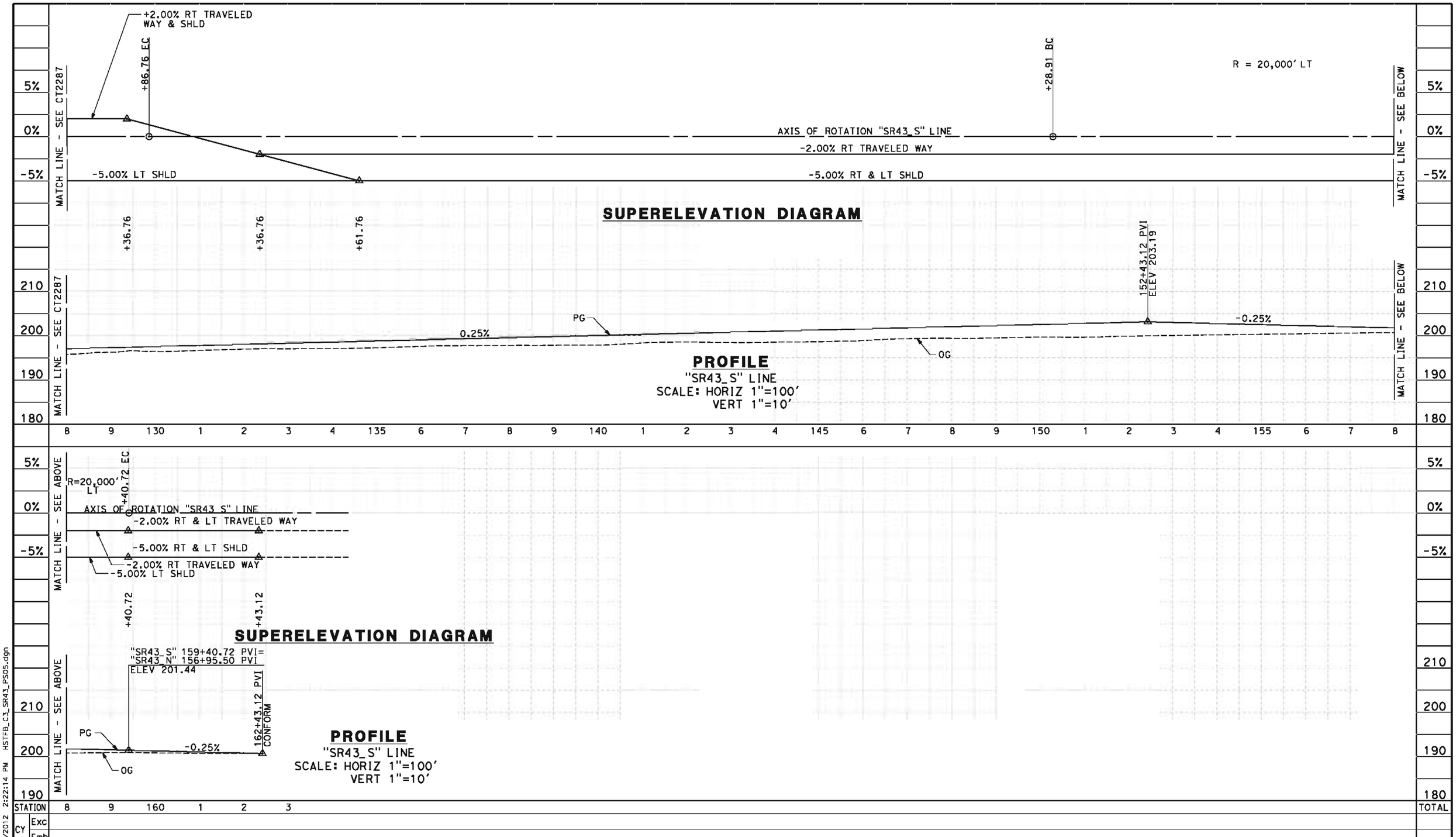
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (SB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2287
SCALE AS SHOWN
SHEET NO. 27 OF 43

5/16/2012 2:22:12 PM HSTFB_C3_SR43_PS04.dgn
carlton_allen



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

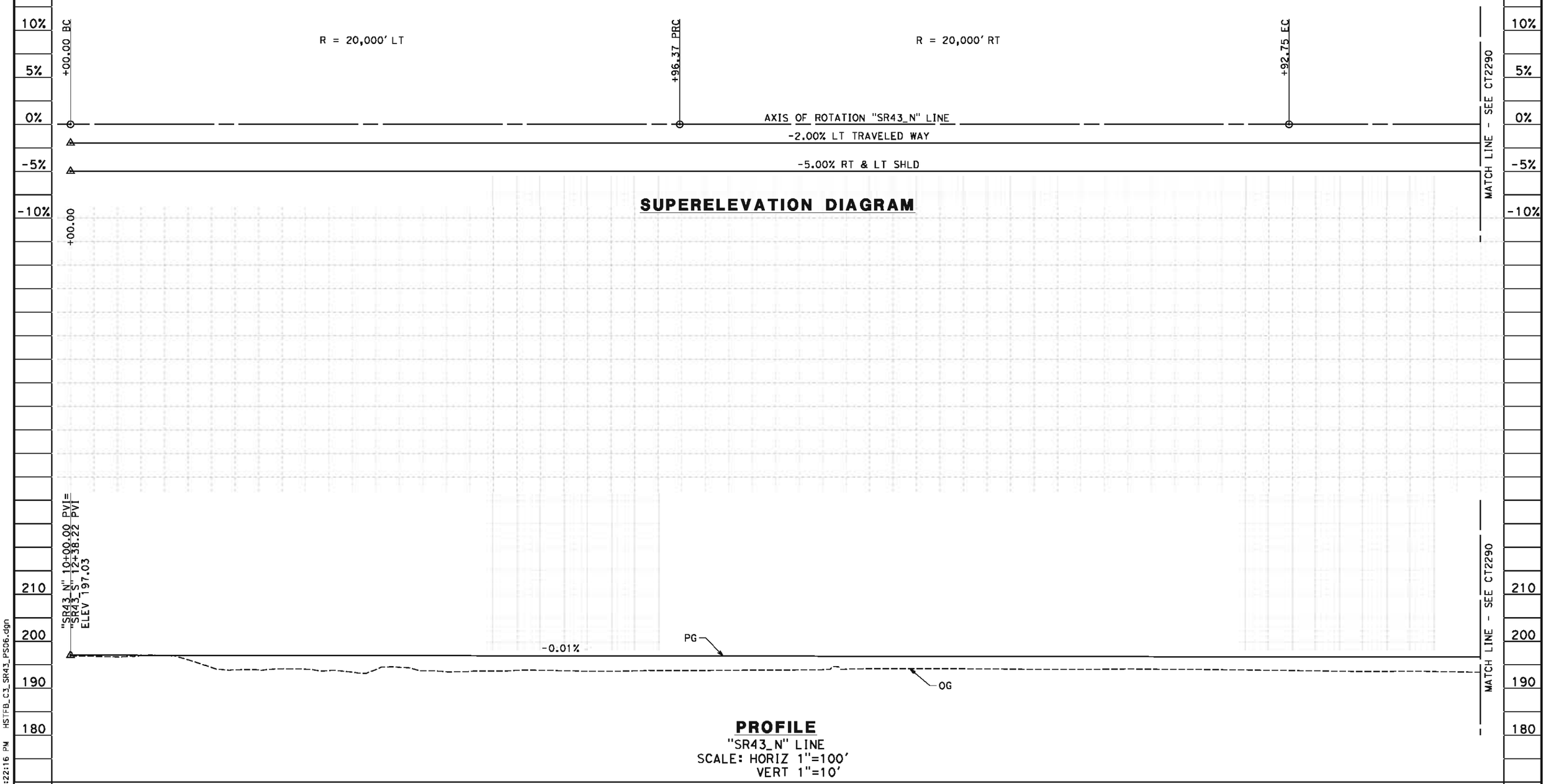
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (SB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2288
SCALE AS SHOWN
SHEET NO. 28 OF 43

HSTFB_C3_SR43_PS05.dgn 5/16/2012 2:22:14 PM carlton_allen

NOTES:
1. VERTICAL DESIGN SPEED = 70 MPH
2. 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	4	35	6	7	8	9	40	TOTAL
CY	Exc																																
	Emb																																

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (NB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2289
SCALE AS SHOWN
SHEET NO. 29 OF 43

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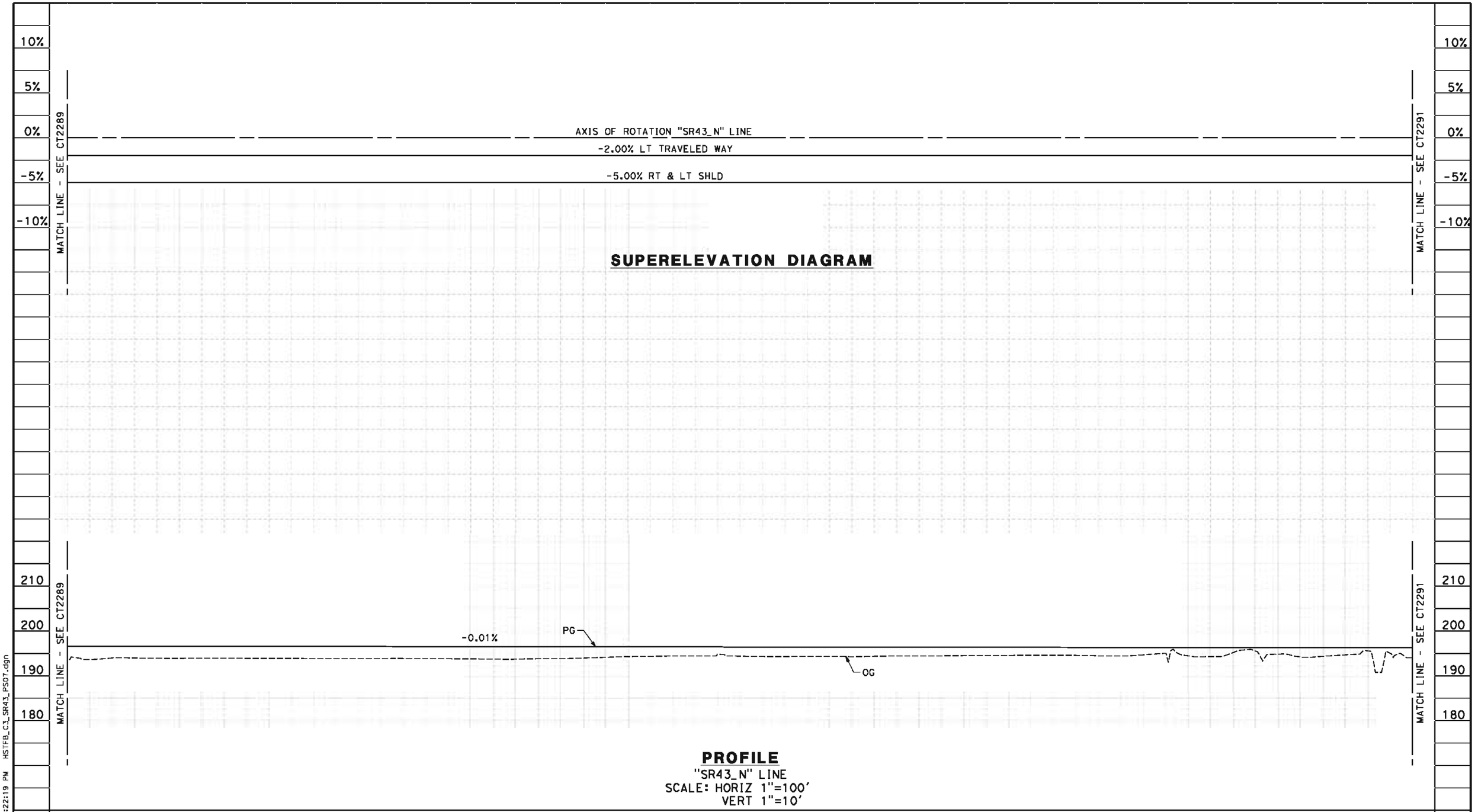
carlton_allen



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

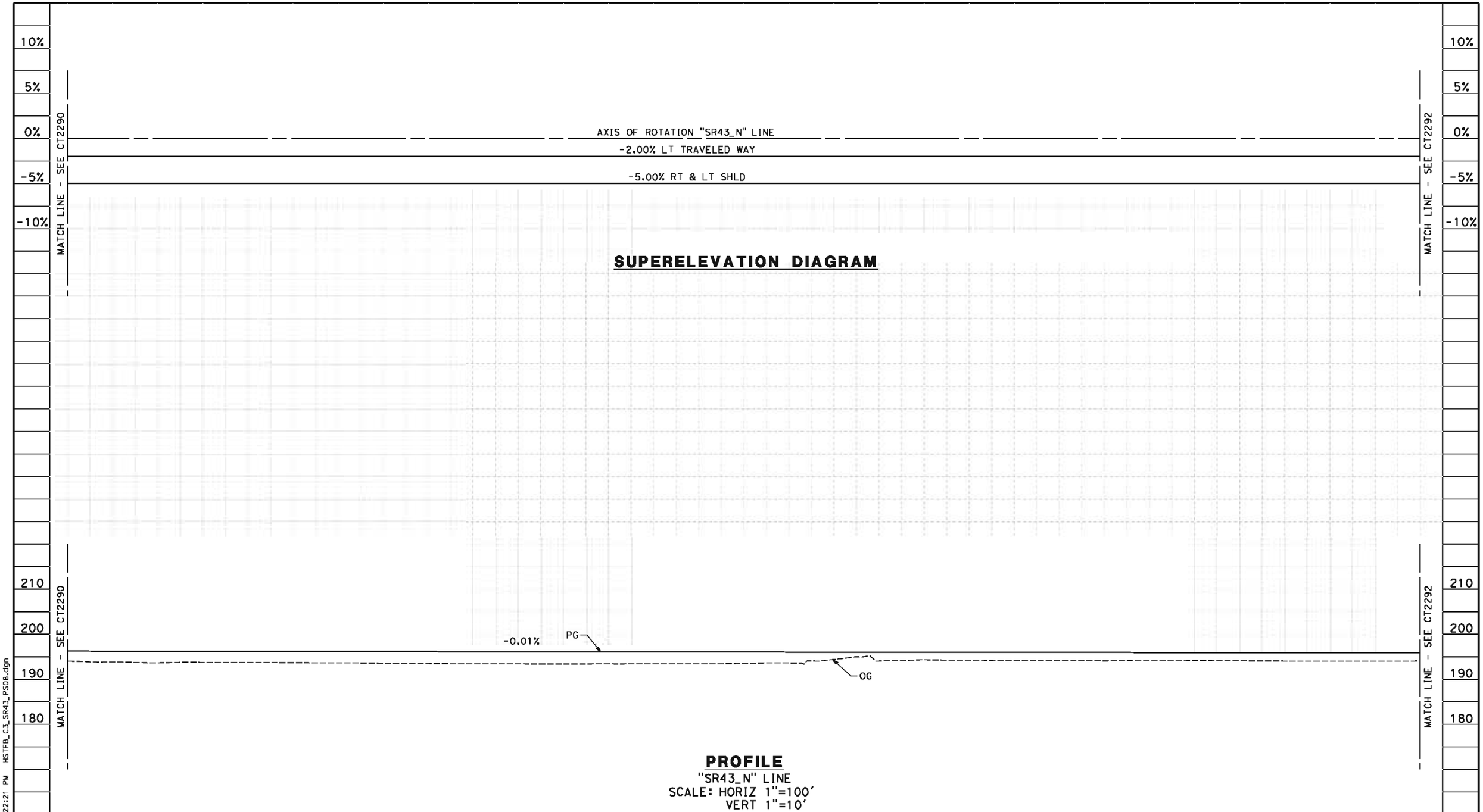
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (NB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2290
SCALE AS SHOWN
SHEET NO. 30 OF 43

corlton_allen 5/16/2012 2:22:19 PM HSTFB_C3_SR43_PS07.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

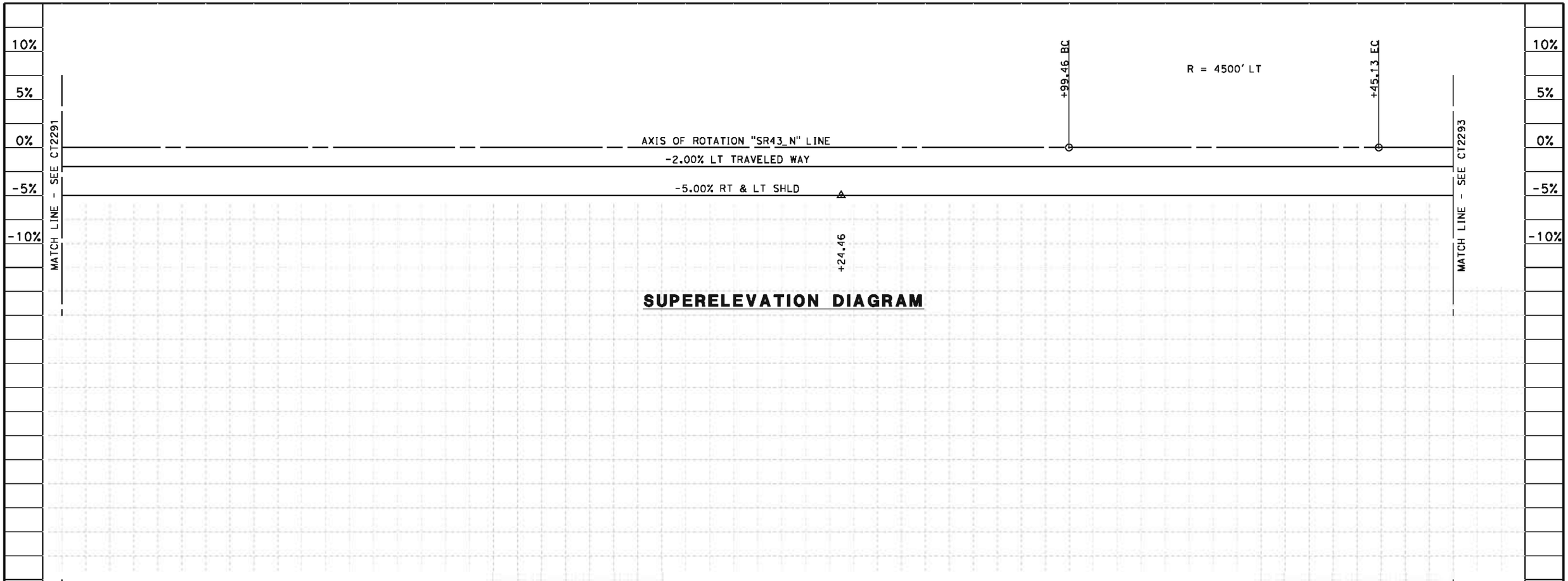
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

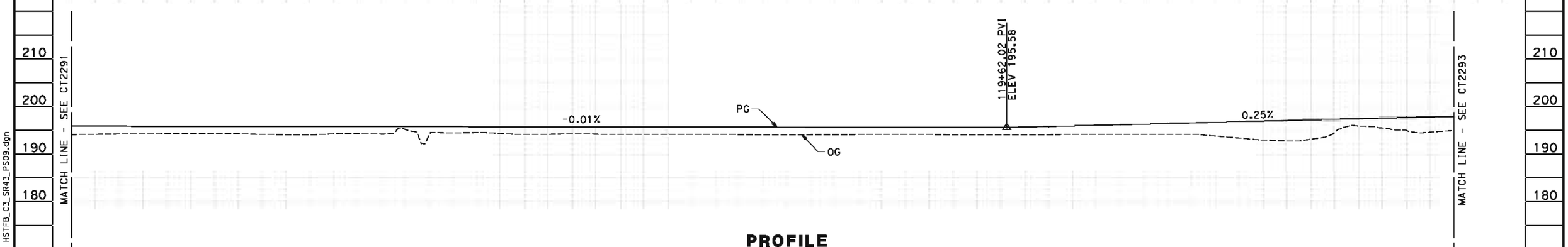
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (NB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2291
SCALE AS SHOWN
SHEET NO. 31 OF 43

cariton_allen 5/16/2012 2:22:21 PM HSTFB_C3_SR43_PS08.dgn



SUPERELEVATION DIAGRAM



PROFILE

"SR43_N" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		100	1	2	3	4	105	6	7	8	9	110	1	2	3	4	115	6	7	8	9	120	1	2	3	4	125	6	7	8	9	TOTAL
CY	Exc																															
	Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

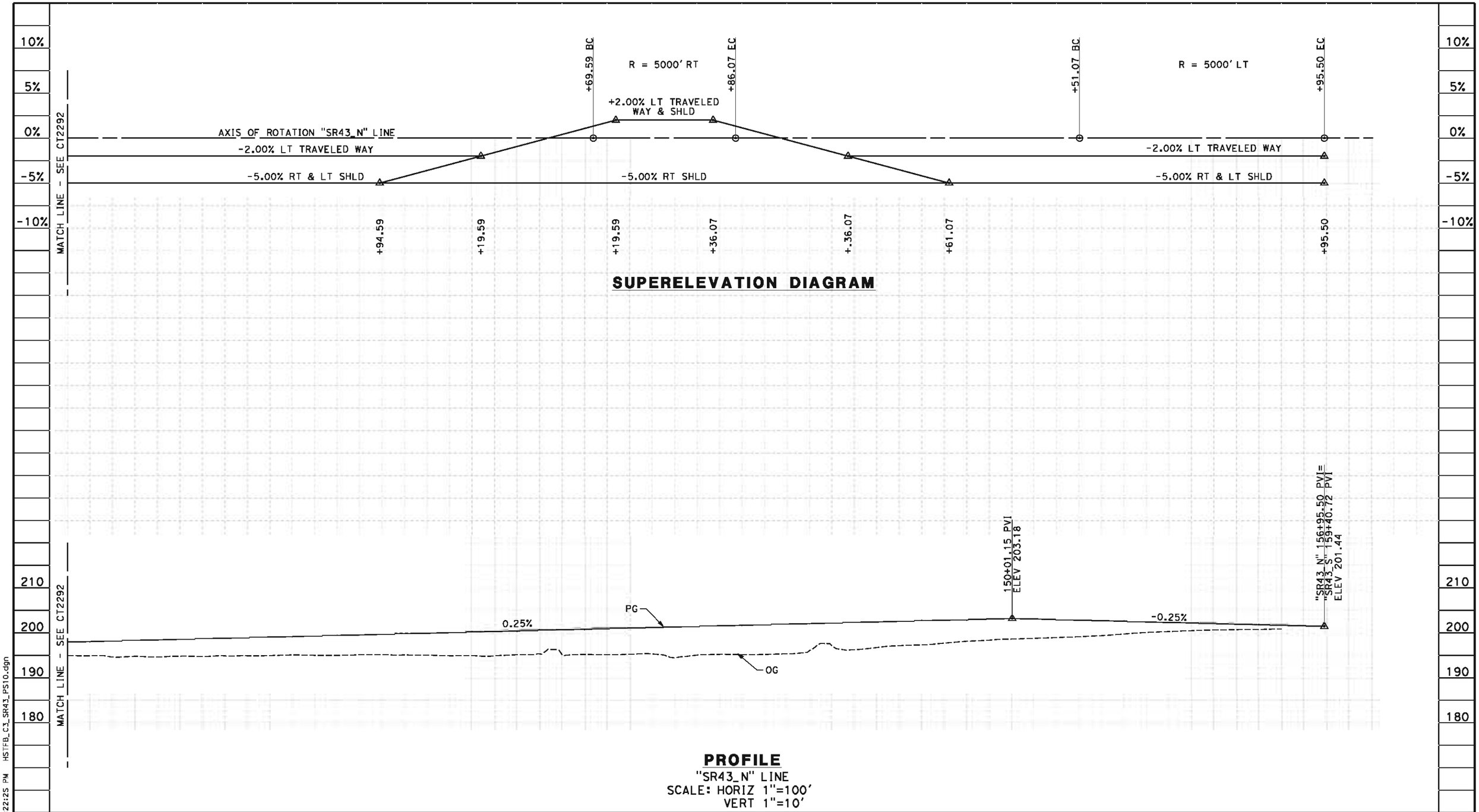
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (NB)

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2292
SCALE AS SHOWN
SHEET NO. 32 OF 43

carlton_allen 5/16/2012 2:22:23 PM HSTFB_C3_SR43_PS09.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

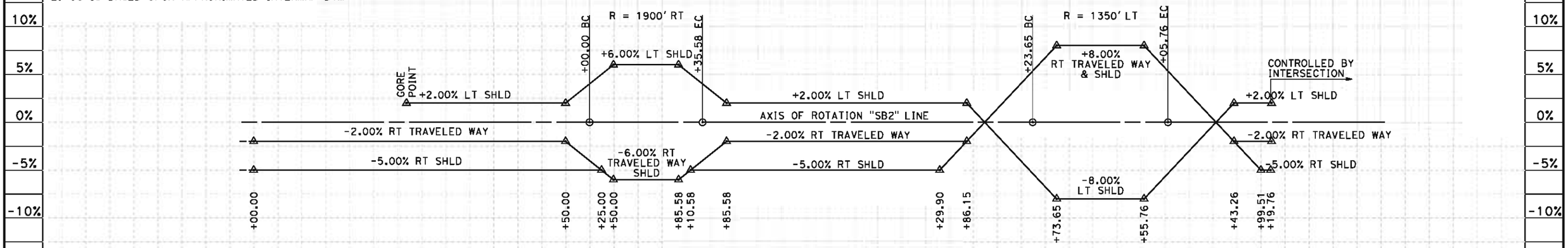
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 MAINLINE (NB)

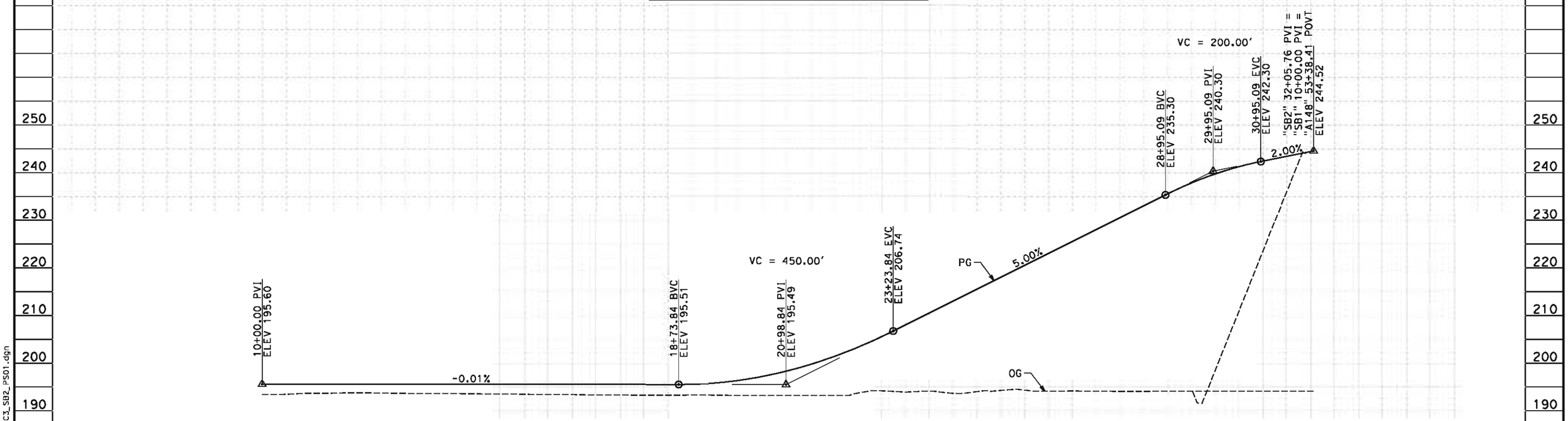
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2293
SCALE AS SHOWN
SHEET NO. 33 OF 43

carlton_allen 5/16/2012 2:22:25 PM HSTFB_C3_SR43_PS10.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH IN SAG
   VERTICAL DESIGN SPEED = 25 MPH AT CREST
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"SB2" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	TOTAL
CY	Exc																											
	Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

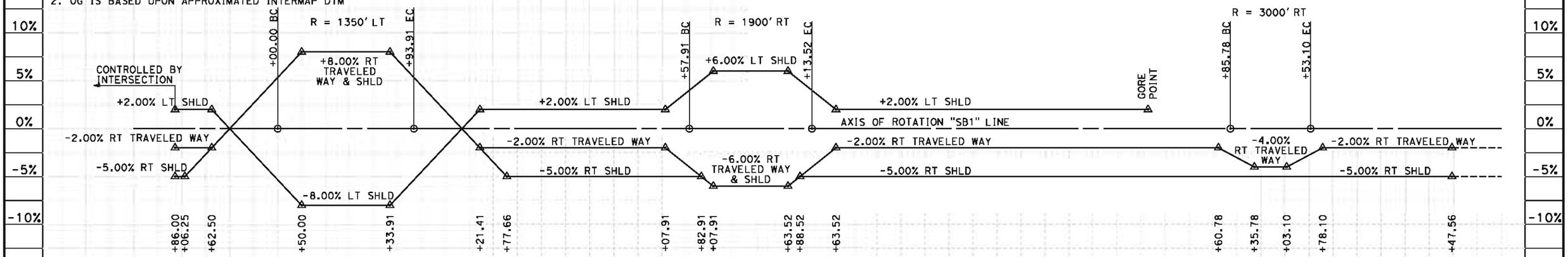
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 SB OFF RAMP

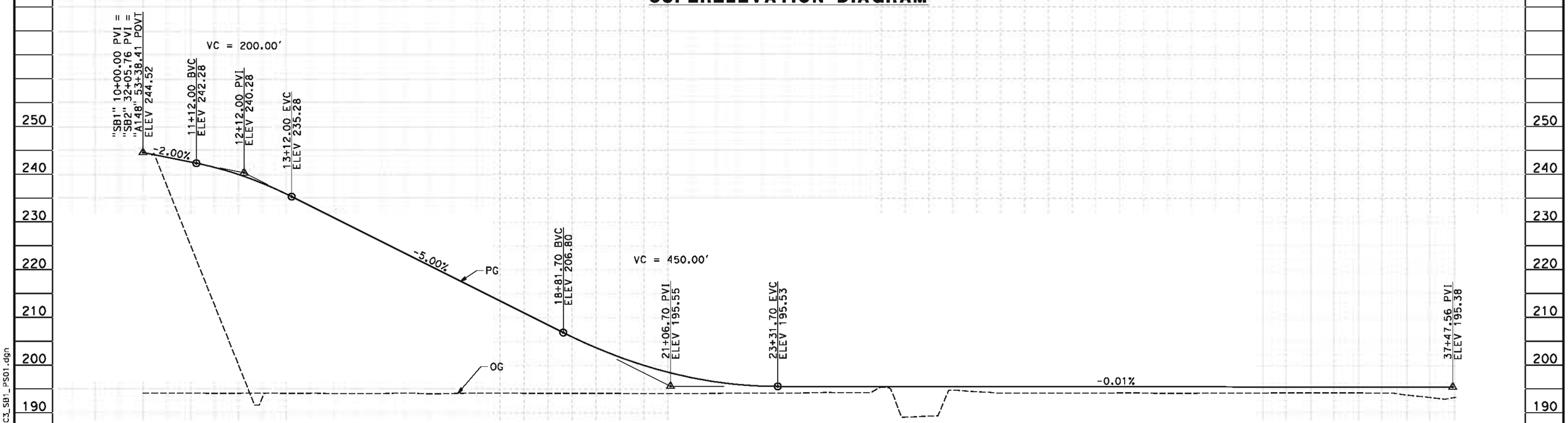
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2294
SCALE AS SHOWN
SHEET NO. 34 OF 43

carlton_allen 5/16/2012 2:22:30 PM HSTFB_C3_SB2_PS01.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH IN SAG
   VERTICAL DESIGN SPEED = 25 MPH AT CREST
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"SB1" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	TOTAL
CY	Exc																														
	Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

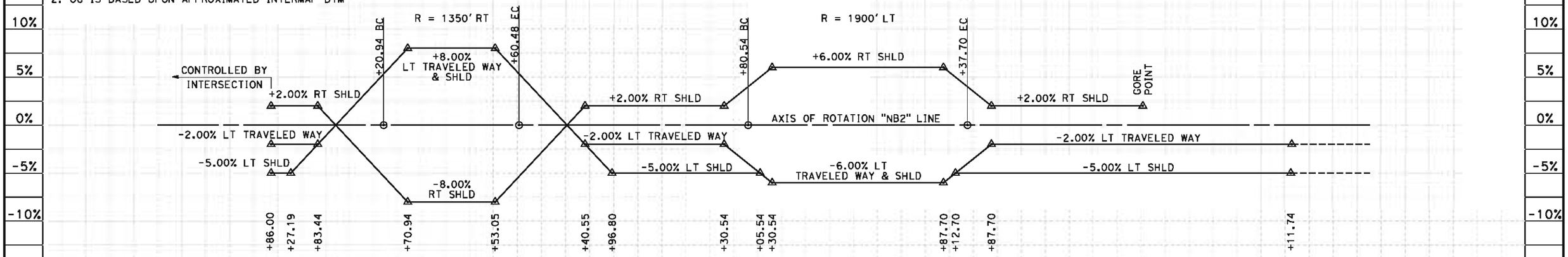
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 SB ON RAMP

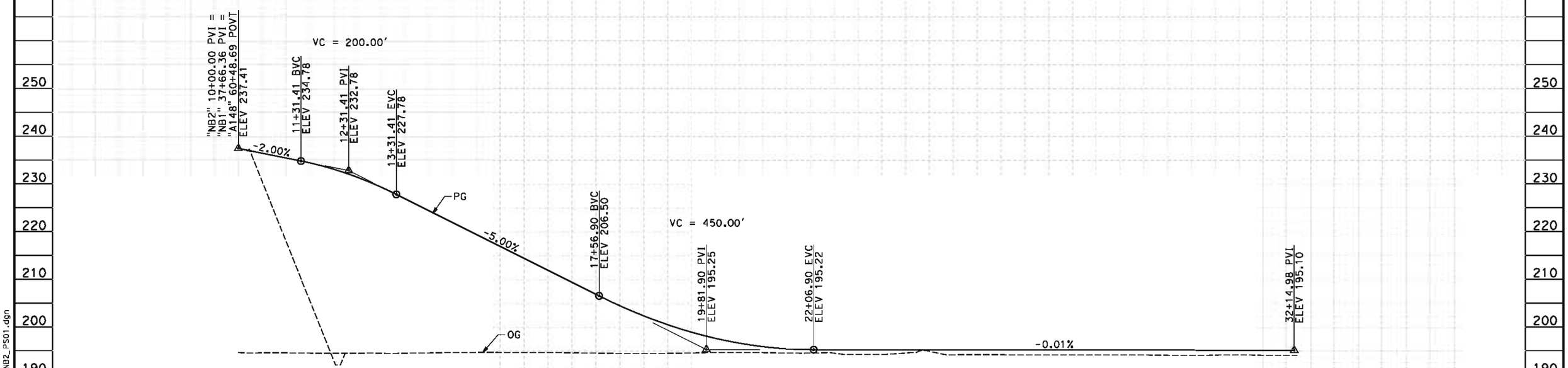
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2295
SCALE AS SHOWN
SHEET NO. 35 OF 43

carlton_allen 5/16/2012 2:22:27 PM HSTFB_C3_SB1_PS01.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH IN SAG
   VERTICAL DESIGN SPEED = 25 MPH AT CREST
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"NB2" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	TOTAL
CY	Exc																										
	Emb																										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

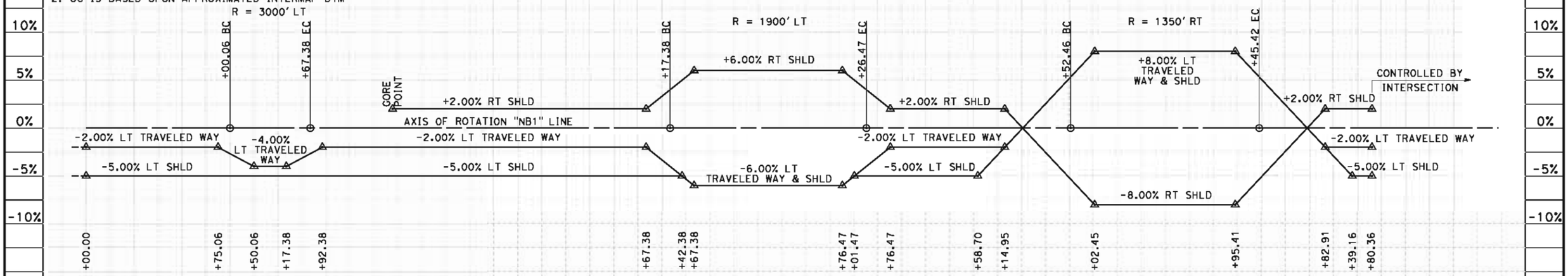
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 NB OFF RAMP

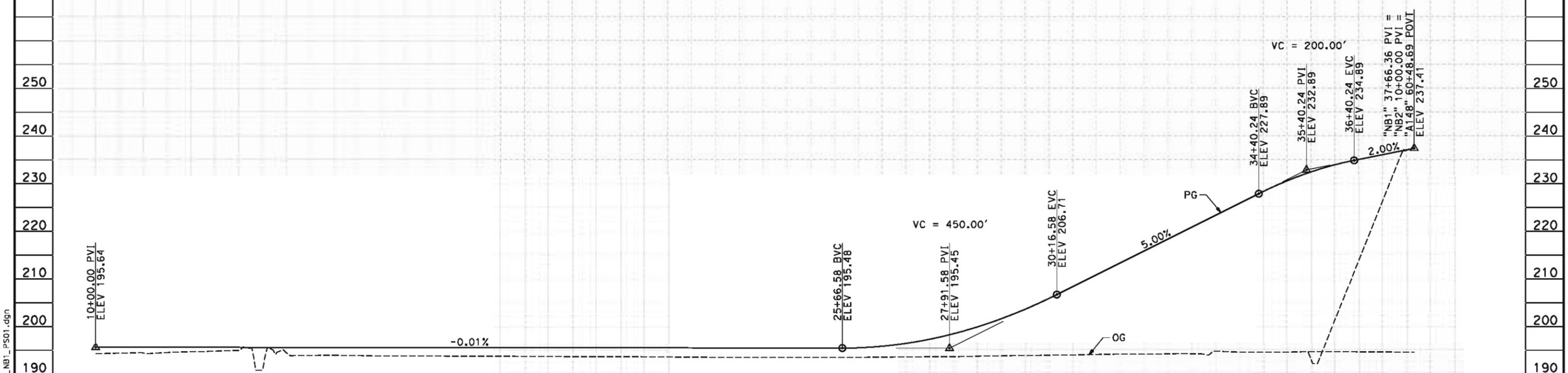
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2296
SCALE AS SHOWN
SHEET NO. 36 OF 43

5/16/2012 2:22:36 PM HSTFB_C3_NB2_PS01.dgn
carlton_allen

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH IN SAG
   VERTICAL DESIGN SPEED = 25 MPH AT CREST
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"NB1" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	9	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

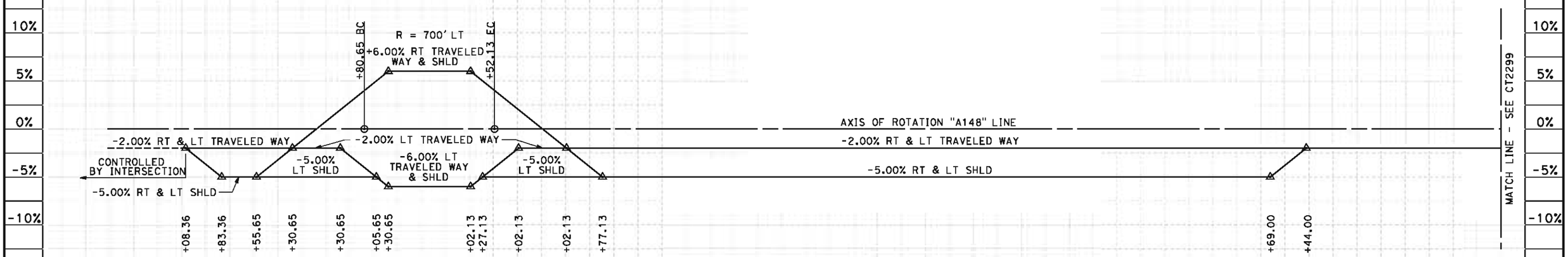
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
STATE ROUTE 43 NB ON RAMP

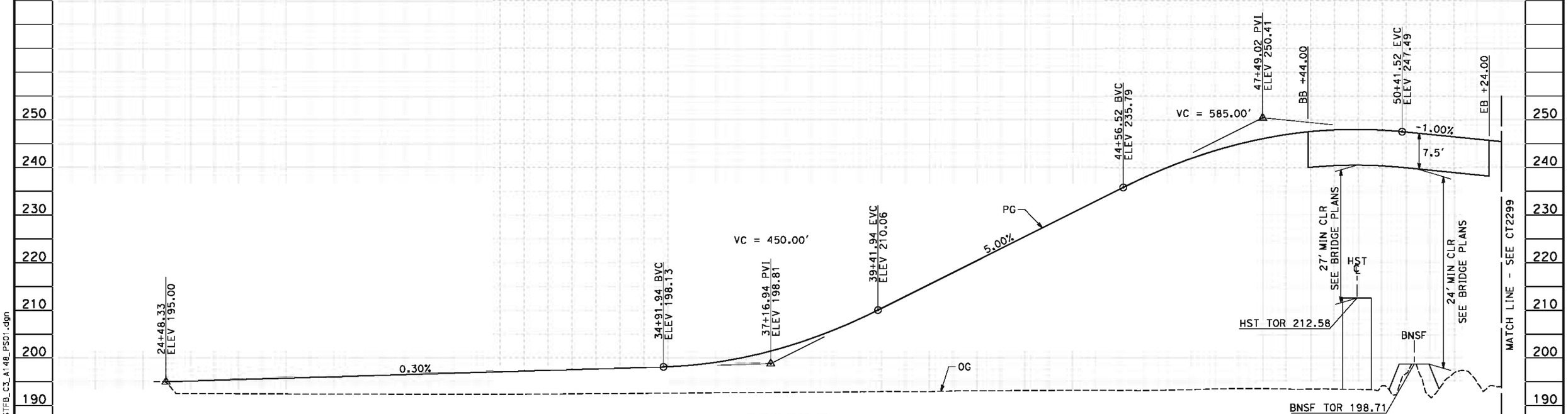
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2297
SCALE AS SHOWN
SHEET NO. 37 OF 43

HSTFB_C3_NB1_PS01.dgn 5/16/2012 2:22:33 PM
corlton_allen

NOTES:
1. VERTICAL DESIGN SPEED = 45 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



SUPERELEVATION DIAGRAM



PROFILE

"A148" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	3	4	25	6	7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

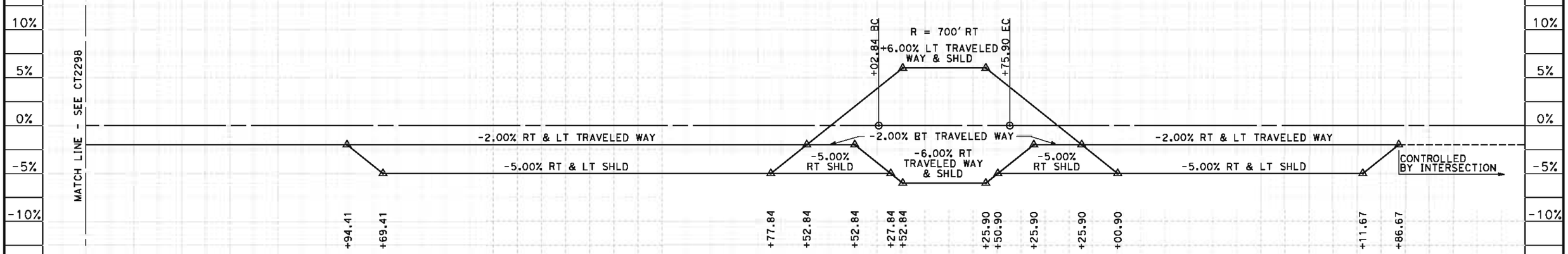
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

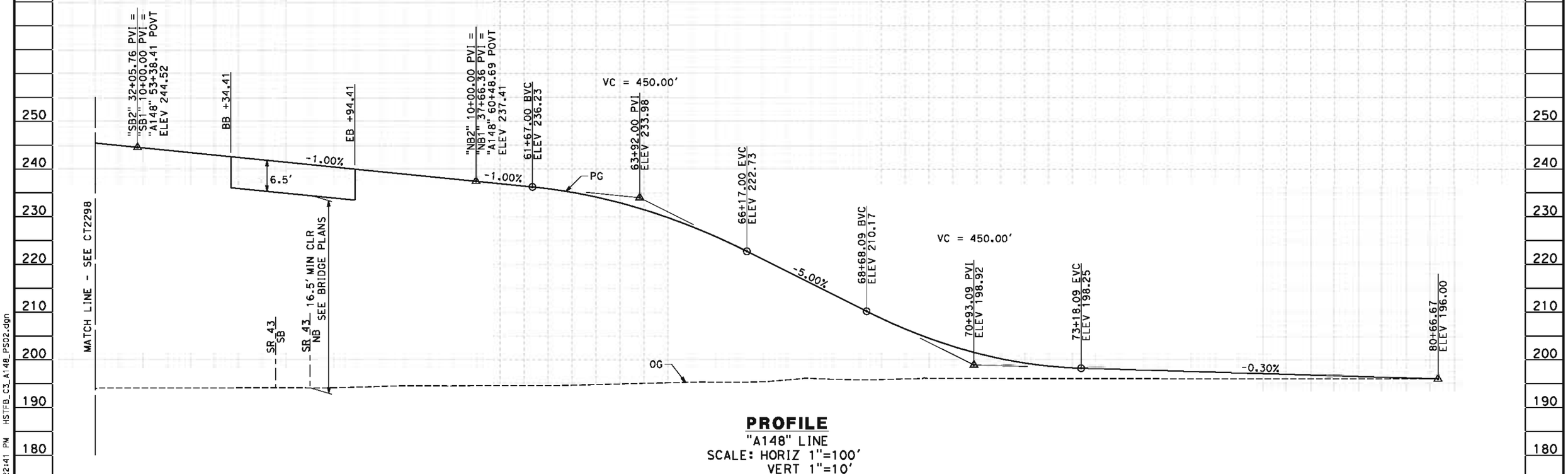
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
AVE 148

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2298
SCALE AS SHOWN
SHEET NO. 38 OF 43

carlton_allen 5/16/2012 2:22:39 PM HSTFB_C3_A148_PS01.dgn



SUPERELEVATION DIAGRAM



PROFILE

"A148" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	3	4	55	6	7	8	9	60	1	2	3	4	65	6	7	8	9	70	1	2	3	4	75	6	7	8	9	80	1	2	TOTAL
CY Exc																															
CY Emb																															

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

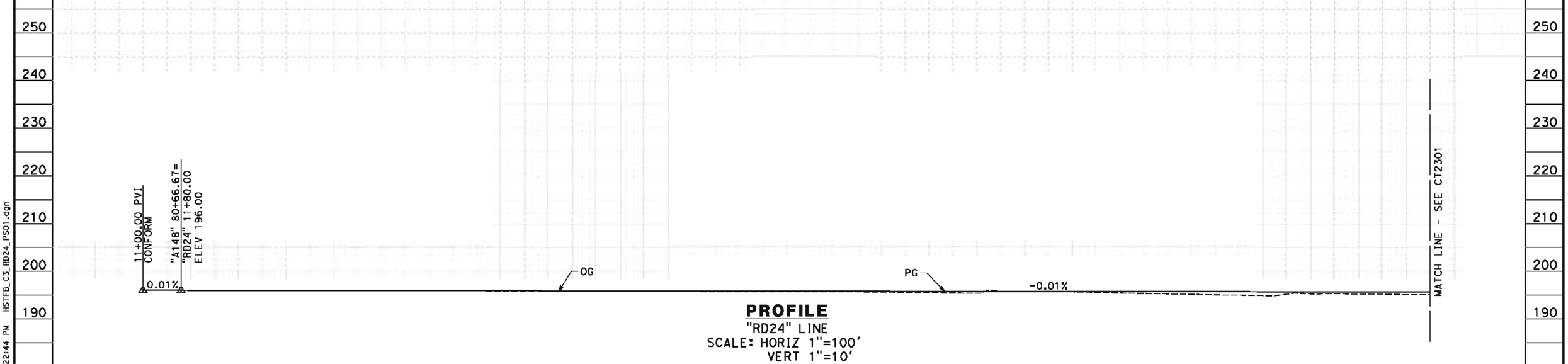
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEP PROFILE & SUPERELEVATION DIAGRAM
AVE 148

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2299
SCALE AS SHOWN
SHEET NO. 39 OF 43

5/16/2012 2:22:41 PM HSTFB_C3_A148_PS02.dgn
carlton_allen

NOTES:
1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"RD24" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

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	4	35	6	7	8	TOTAL
CY	Exc																														
	Emb																														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

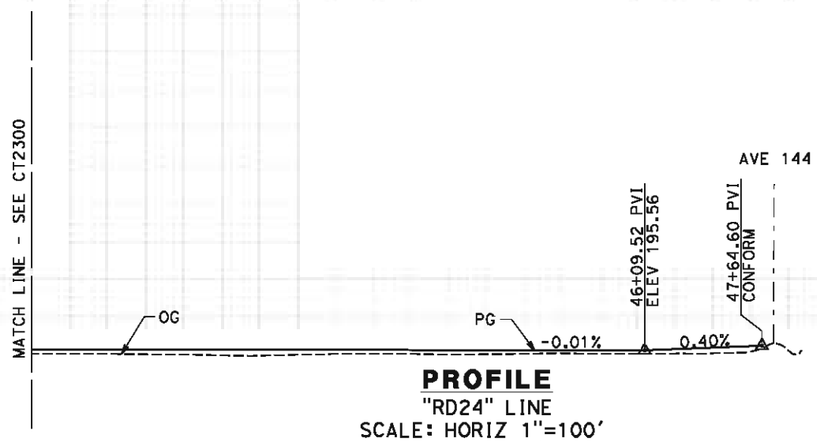
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
RD 24

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2300
SCALE AS SHOWN
SHEET NO. 40 OF 43

corlton_allen 5/16/2012 2:22:44 PM HSTFB_C3_RD24_PS01.dgn



PROFILE
"RD24" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		8	9	40	1	2	3	4	45	6	7	8	9	TOTAL
CY	Exc													
	Emb													

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

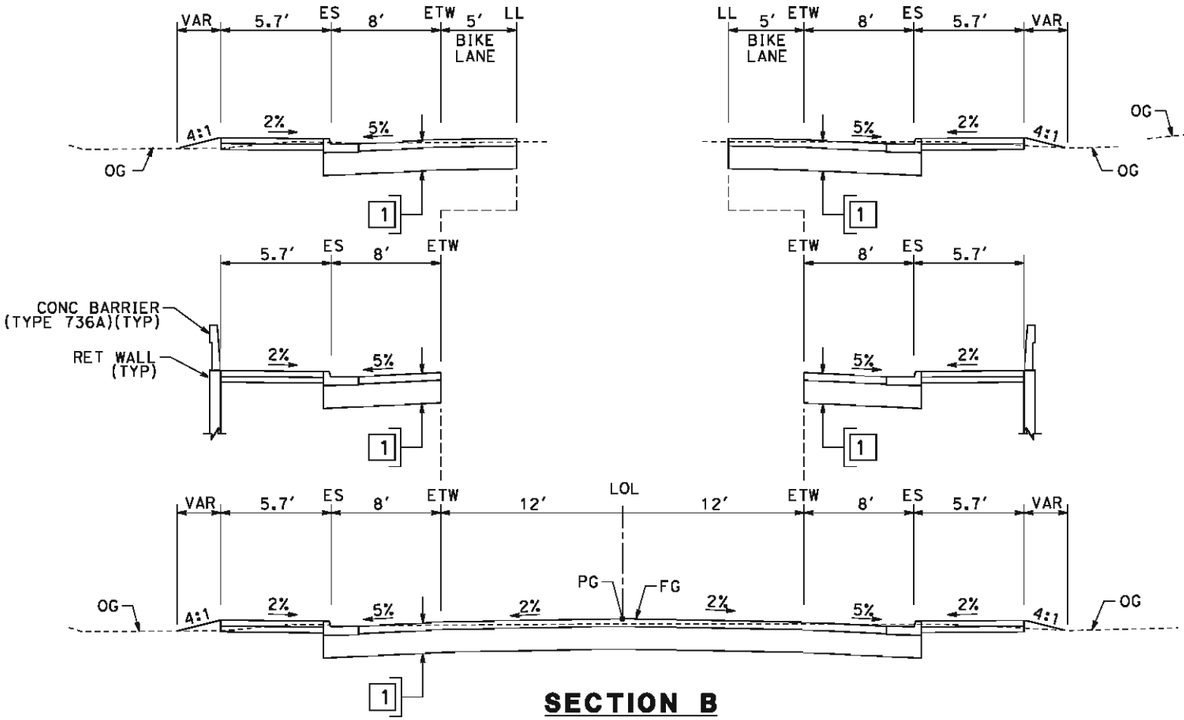
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
GRADE SEPARATION PROFILE
RD 24

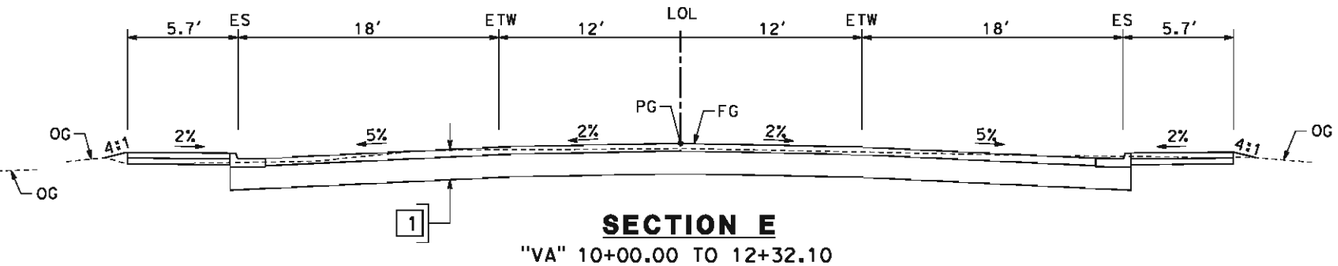
CONTRACT NO. HSR 06-0003
DRAWING NO. CT2301
SCALE AS SHOWN
SHEET NO. 41 OF 43

carlton_allen 5/16/2012 2:22:47 PM HSTFB_C3_RD24_PS02.dgn



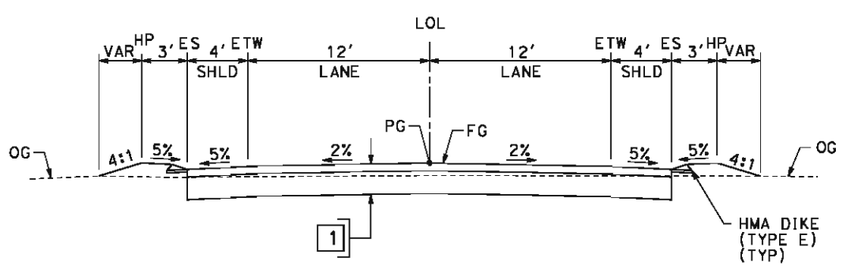
SECTION B

"OT" 11+00.00 TO 81+48.78
"RA" 10+00.00 TO 12+35.76
"OA" 10+00.00 TO 12+33.36
"NA" 10+00.00 TO 12+71.30
"PA" 10+00.00 TO 12+34.62



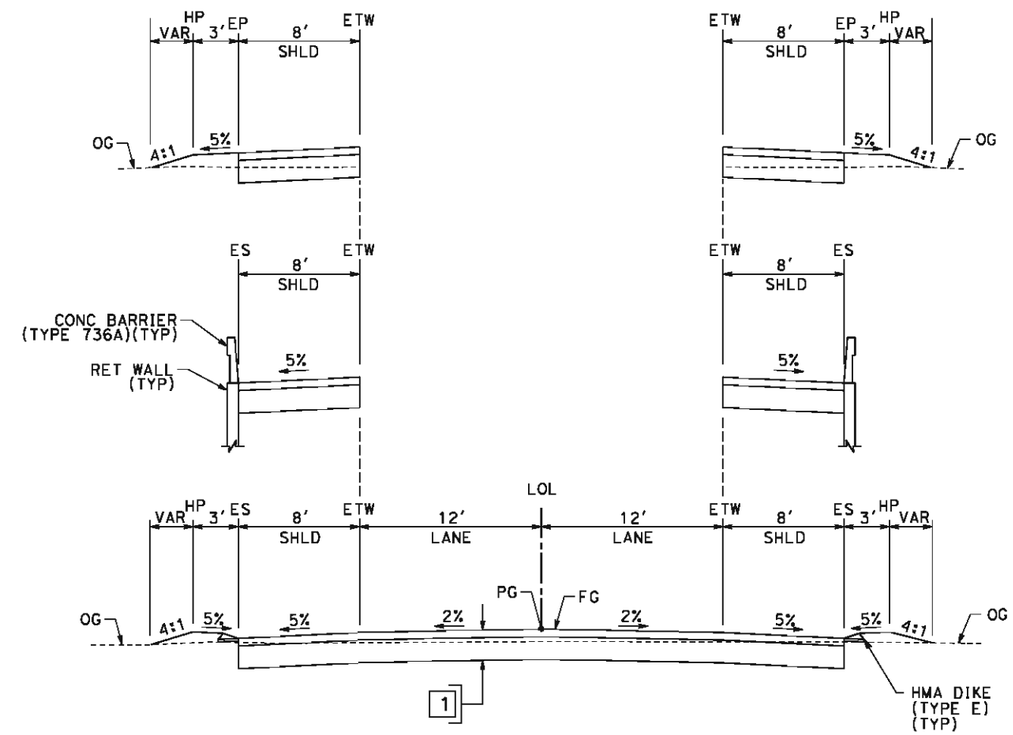
SECTION E

"VA" 10+00.00 TO 12+32.10



SECTION A

"SFA" 10+51.49 TO 27+90.97



SECTION D

"CS" 28+25.27 TO 65+22.52
"A148" 24+48.33 TO 80+66.67
"RD24" 11+00.00 TO 47+64.60

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

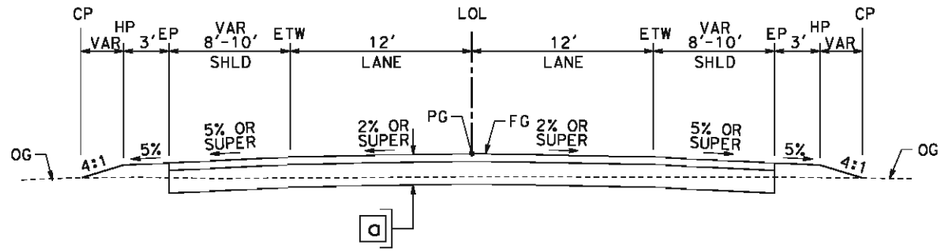
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

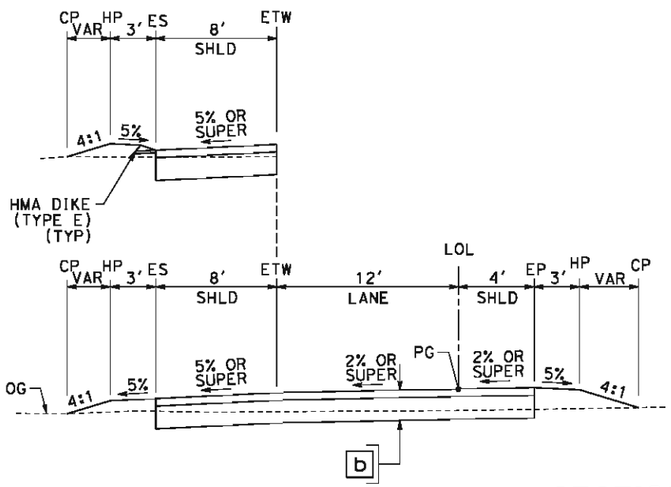
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3044
SCALE AS SHOWN
SHEET NO. 42 OF 43

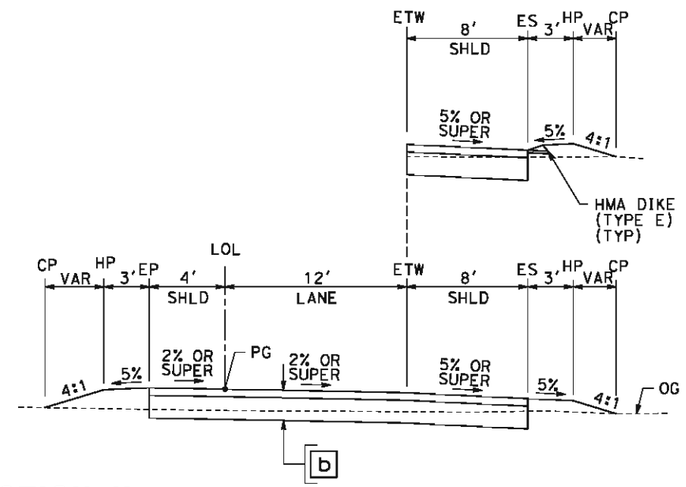
carlton_allen 5/16/2012 2:22:49 PM HSTFB_C3_X01.dgn



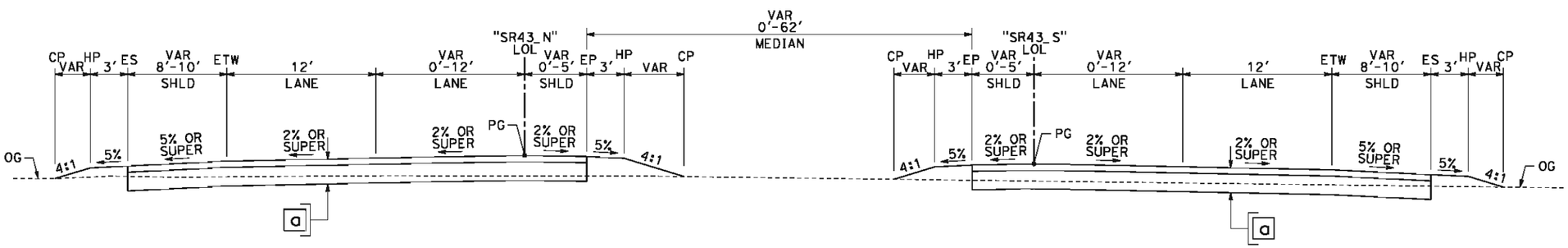
SECTION I
"SR43_S" 10+00.00 TO 12+38.22
"SR43_S" 159+40.72 TO 162+42.68



SECTION G
"NB1" 10+00.00 TO 37+66.36
"NB2" 10+00.00 TO 32+21.21



SECTION H
"SB1" 10+00.00 TO 37+53.10
"SB2" 10+00.00 TO 32+05.76



SECTION F
"SR43_N" 10+00.00 TO 156+95.50
"SR43_S" 12+38.22 TO 159+40.72

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
CORCORAN SUBSECTION
ALIGNMENT C3
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3045
SCALE AS SHOWN
SHEET NO. 43 OF 43

carlton_allen 5/16/2012 2:22:54 PM HSTFB_C3_X02.dgn

STREET CLOSURE

STREET NAME	HST ALIGNMENT STA
ANGIOLA DRIVE	3242+50.00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

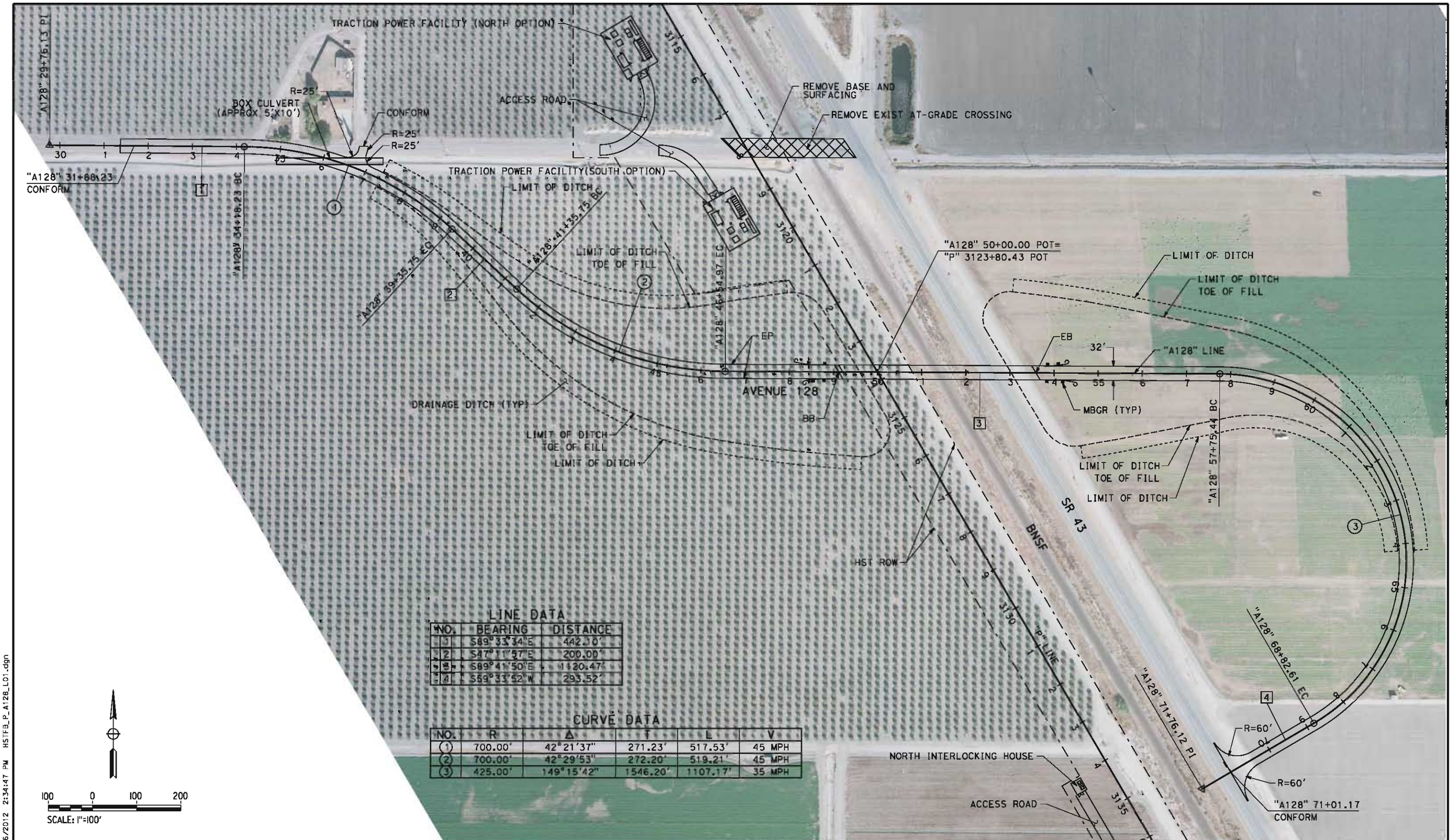
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
ROADWAY/GRADE SEPARATION
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB0100
SCALE AS SHOWN
SHEET NO. 1 OF 16

carlton_allen 5/16/2012 2:33:46 PM HSTFB_P_K01.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	S89°33'34"E	442.10'
2	S47°11'57"E	200.00'
3	S89°41'50"E	1120.47'
4	S59°33'52"W	293.52'

CURVE DATA

NO.	R	Δ	T	L	V
1	700.00'	42°21'37"	271.23'	517.53'	45 MPH
2	700.00'	42°29'53"	272.20'	519.21'	45 MPH
3	425.00'	149°15'42"	1546.20'	1107.17'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

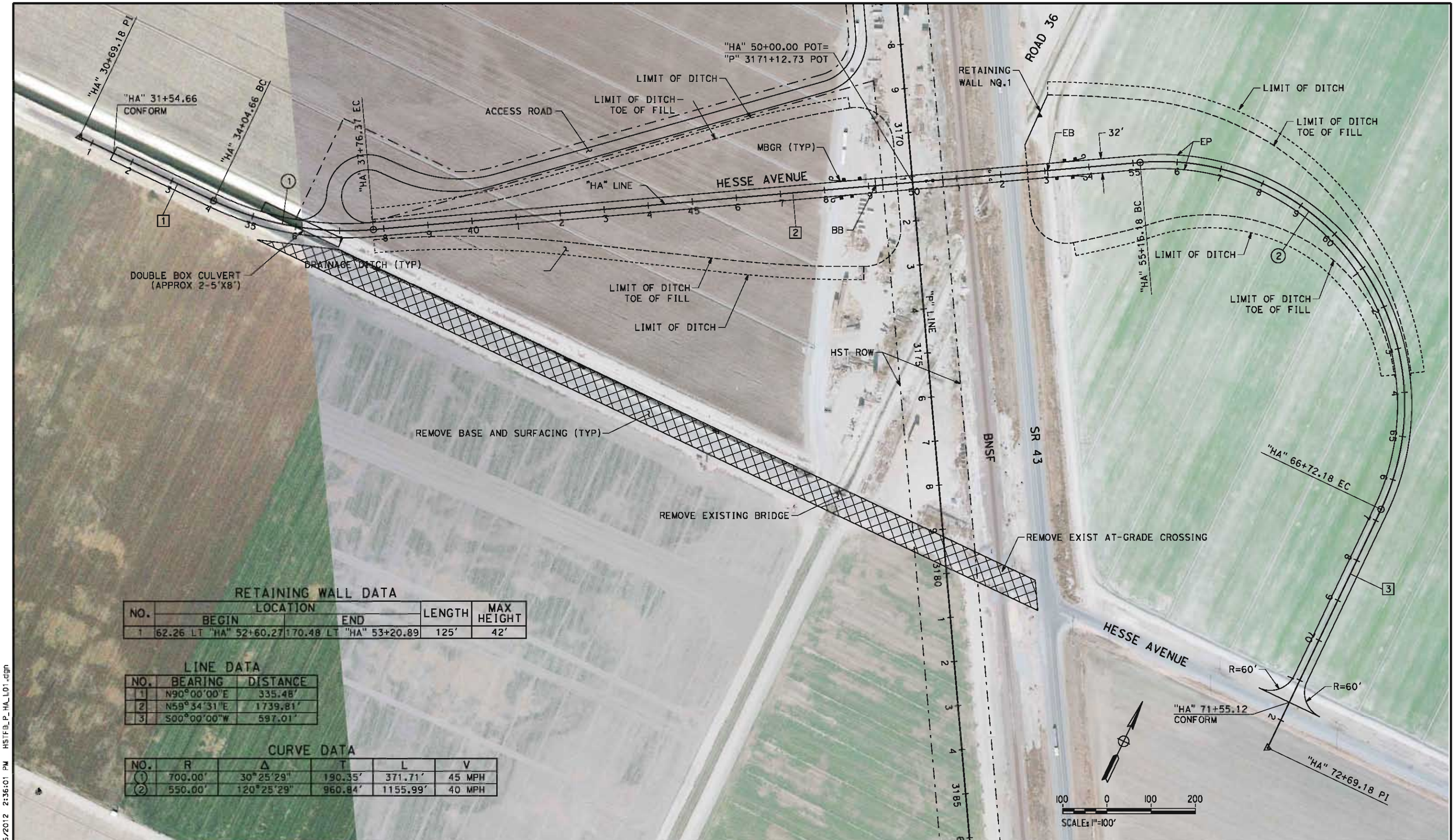
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION LAYOUT
AVE 128

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1401
SCALE AS SHOWN
SHEET NO. 2 OF 16

carlton_allen 5/16/2012 2:34:47 PM HSTFB_P_A128_L01.dgn



RETAINING WALL DATA

NO.	LOCATION BEGIN	LOCATION END	LENGTH	MAX HEIGHT
1	62.26 LT "HA" 52+60.27	170.48 LT "HA" 53+20.89	125'	42'

LINE DATA

NO.	BEARING	DISTANCE
1	N90°00'00"E	335.48'
2	N59°34'31"E	1739.81'
3	S00°00'00"W	597.01'

CURVE DATA

NO.	R	Δ	T	L	V
1	700.00'	30°25'29"	190.35'	371.71'	45 MPH
2	550.00'	120°25'29"	960.84'	1155.99'	40 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION LAYOUT
HESSE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1411
SCALE AS SHOWN
SHEET NO. 3 OF 16

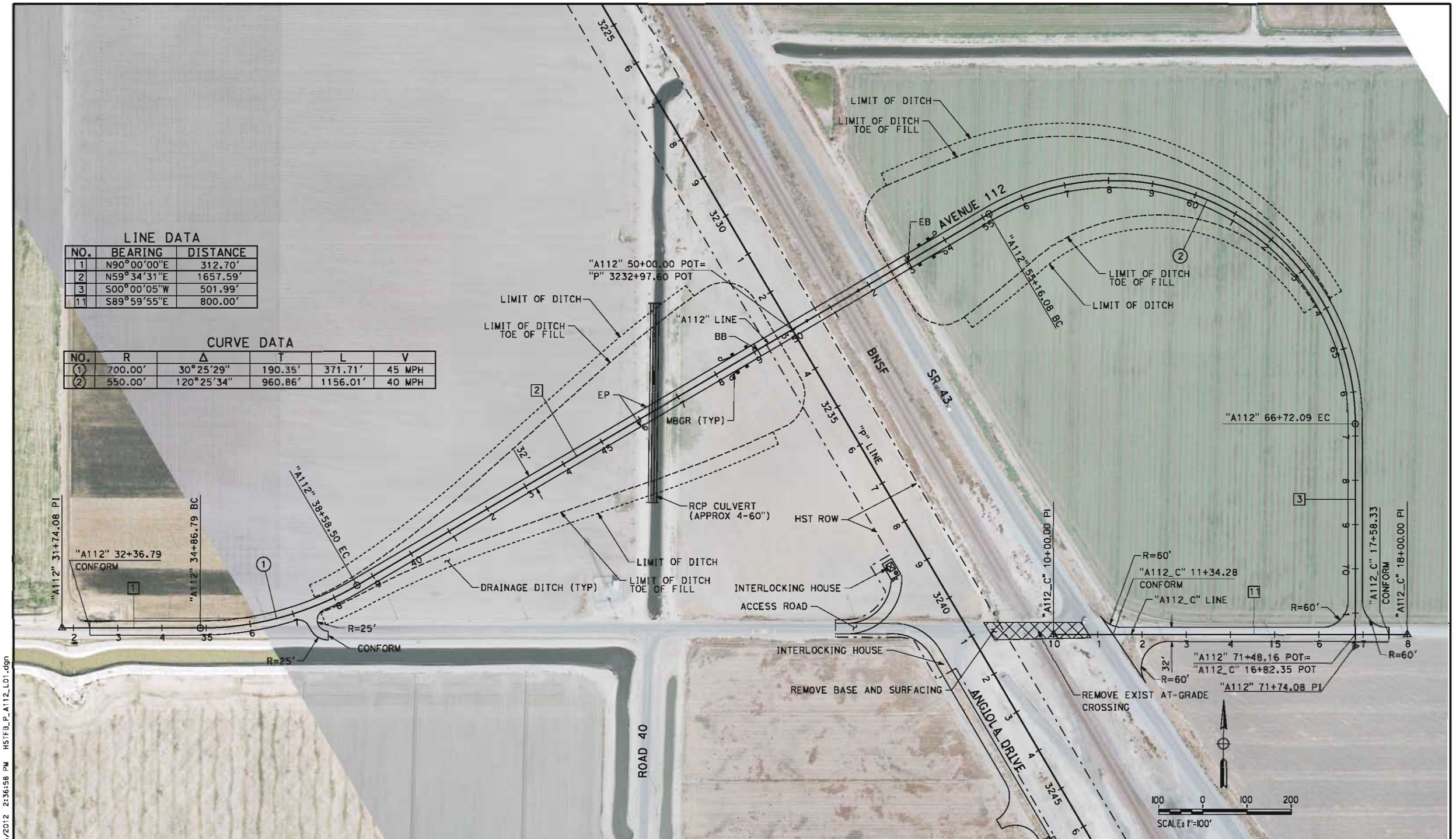
carlton_allen 5/16/2012 2:36:01 PM HSTFB_P_HA_L01.dgn

LINE DATA

NO.	BEARING	DISTANCE
1	N90°00'00"E	312.70'
2	N59°34'31"E	1657.59'
3	S00°00'05"W	501.99'
11	S89°59'55"E	800.00'

CURVE DATA

NO.	R	Δ	T	L	V
1	700.00'	30°25'29"	190.35'	371.71'	45 MPH
2	550.00'	120°25'34"	960.86'	1156.01'	40 MPH



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

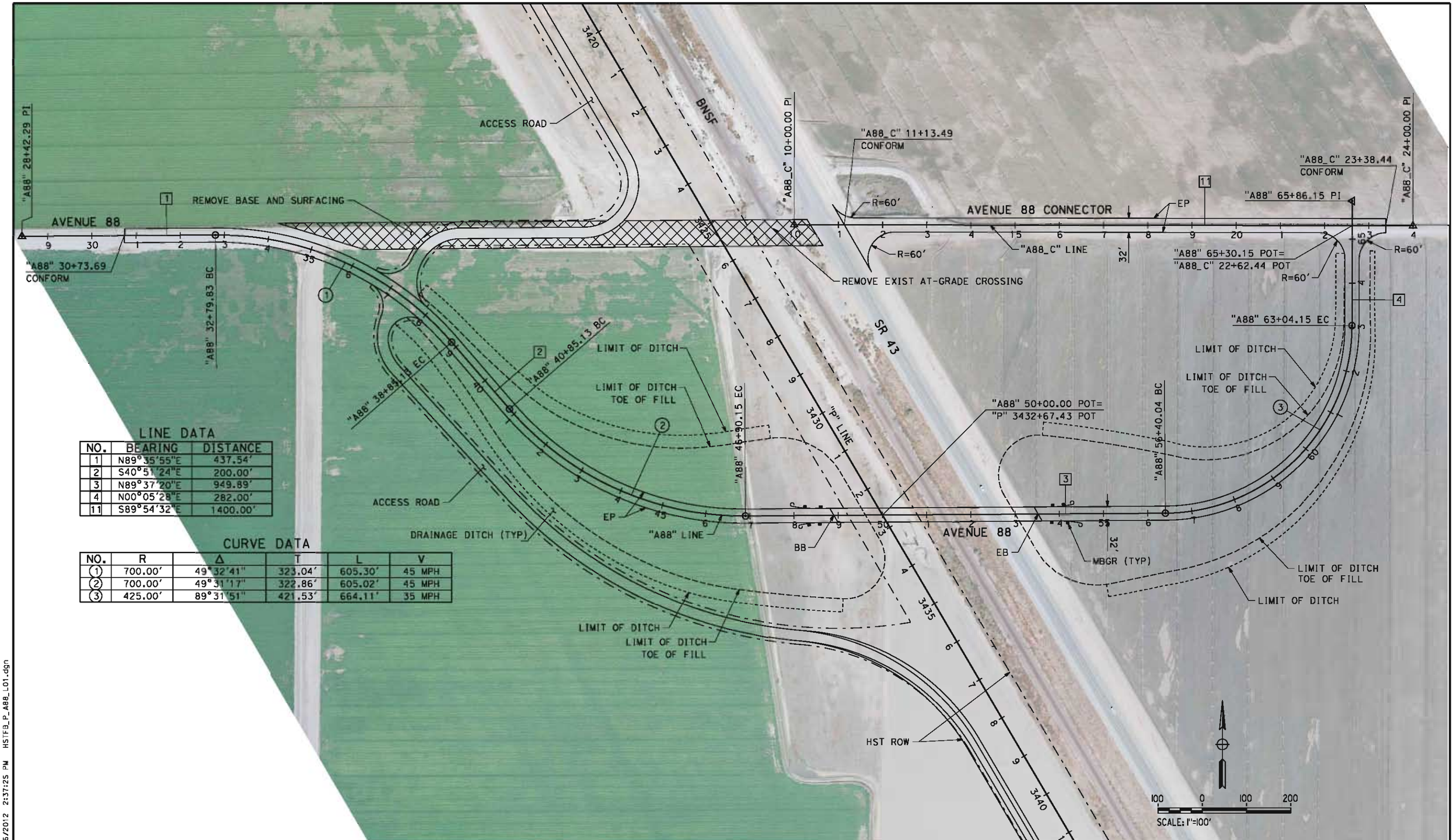
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION LAYOUT
AVE 112

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1421
SCALE AS SHOWN
SHEET NO. 4 OF 16

carlton_allen 5/16/2012 2:36:58 PM HSTFB_P_A112_L01.dgn



LINE DATA

NO.	BEARING	DISTANCE
1	N89°35'55"E	437.54'
2	S40°51'24"E	200.00'
3	N89°37'20"E	949.89'
4	N00°05'28"E	282.00'
11	S89°54'32"E	1400.00'

CURVE DATA

NO.	R	Δ	T	L	V
1	700.00'	49°32'41"	323.04'	605.30'	45 MPH
2	700.00'	49°31'17"	322.86'	605.02'	45 MPH
3	425.00'	89°31'51"	421.53'	664.11'	35 MPH

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

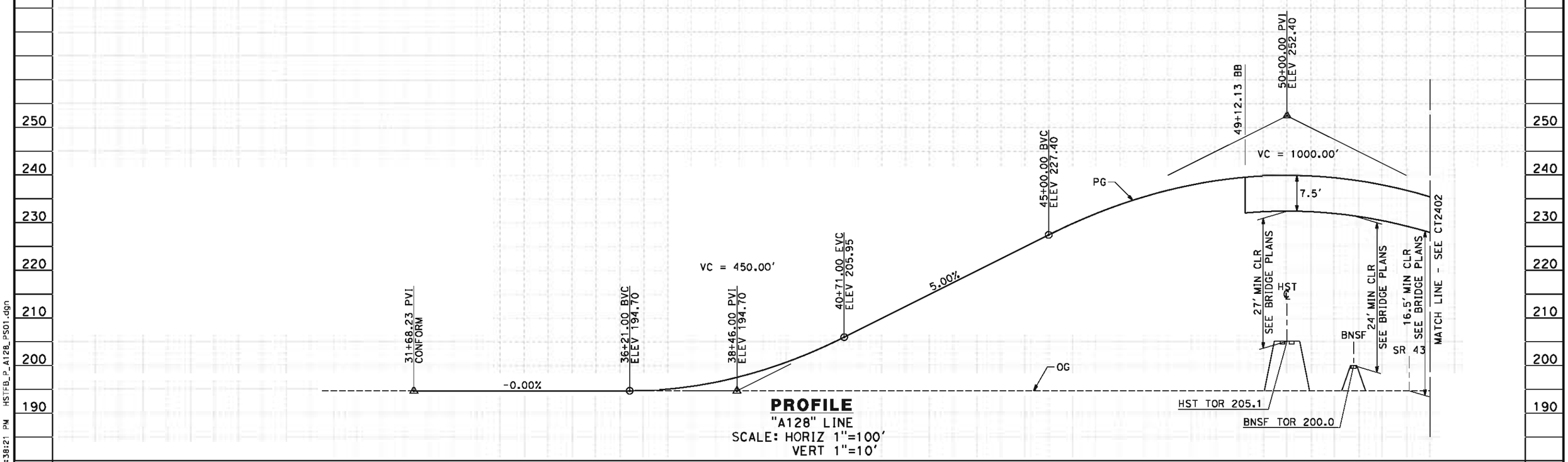
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION LAYOUT
AVE 88

CONTRACT NO. HSR 06-0003
DRAWING NO. CT1431
SCALE AS SHOWN
SHEET NO. 5 OF 16

carlton_allen 5/16/2012 2:37:25 PM HSTFB_P_A88_L01.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL.
2. MIN VERTICAL CLEARANCE OVER BNSF IS 24' FROM TOP OF RAIL.
3. MIN VERTICAL CLEARANCE OVER SR 43 IS 16.5' FROM ROADWAY.
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"A128" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	TOTAL
CY	Exc																												
	Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

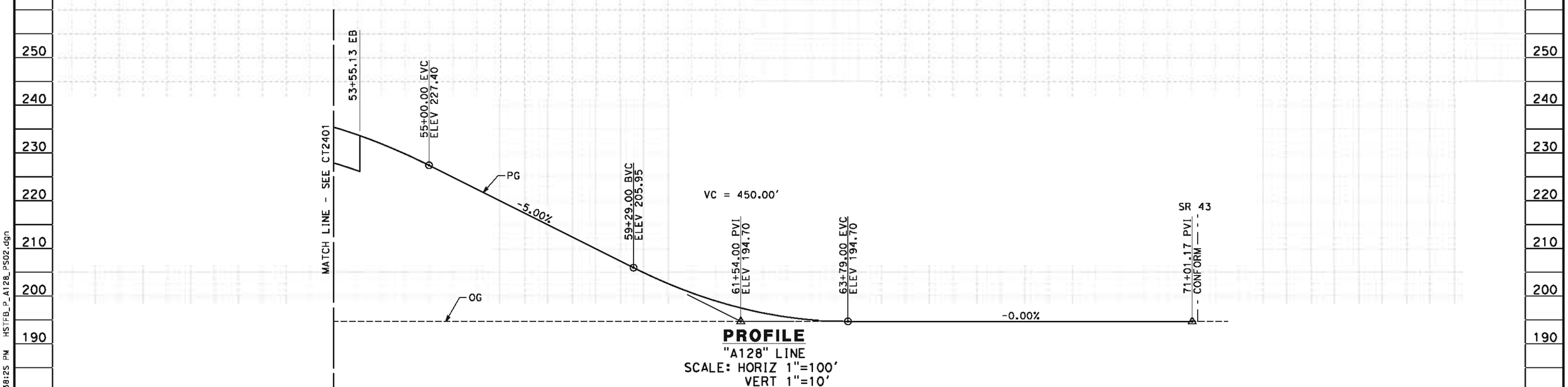
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 128

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2401
SCALE AS SHOWN
SHEET NO. 6 OF 16

carlton_allen 5/16/2012 2:38:21 PM HSTFB_P_A128_PS01.dgn



PROFILE
"A128" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

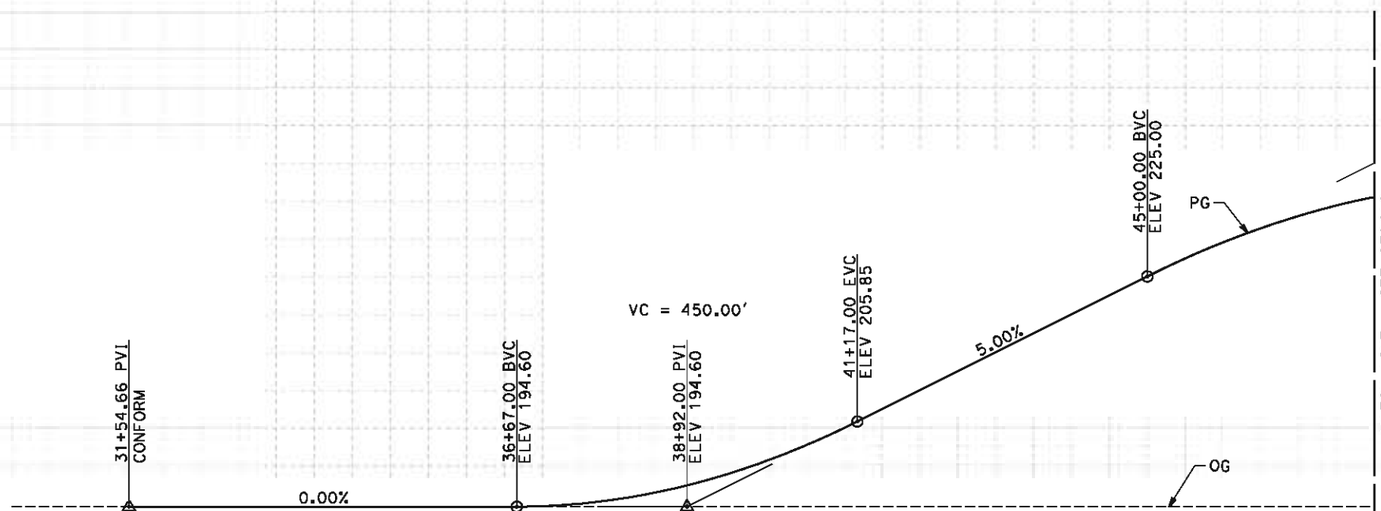
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 128

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2402
SCALE AS SHOWN
SHEET NO. 7 OF 16

cariton_allen 5/16/2012 2:38:25 PM HSTFB_P_A128_PS02.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL.
2. MIN VERTICAL CLEARANCE OVER BNSF IS 24' FROM TOP OF RAIL.
3. MIN VERTICAL CLEARANCE OVER SR 43 IS 16.5' FROM ROADWAY.
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"HA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	TOTAL
CY Exc																				
CY Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

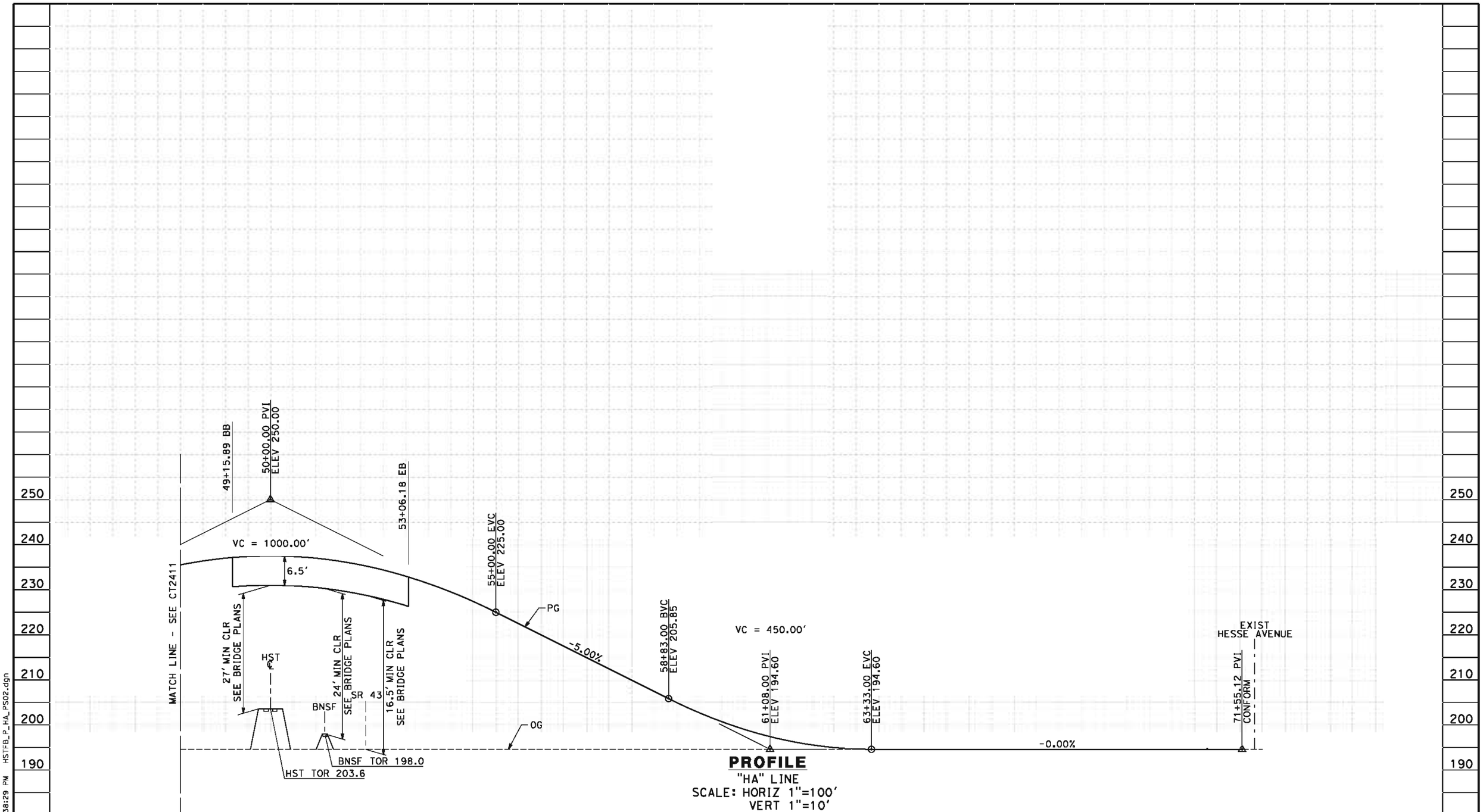
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
HESSE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2411
SCALE AS SHOWN
SHEET NO. 8 OF 16

carlton_allen 5/16/2012 2:38:27 PM HSTFB_P_HA_PS01.dgn



PROFILE
"HA" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

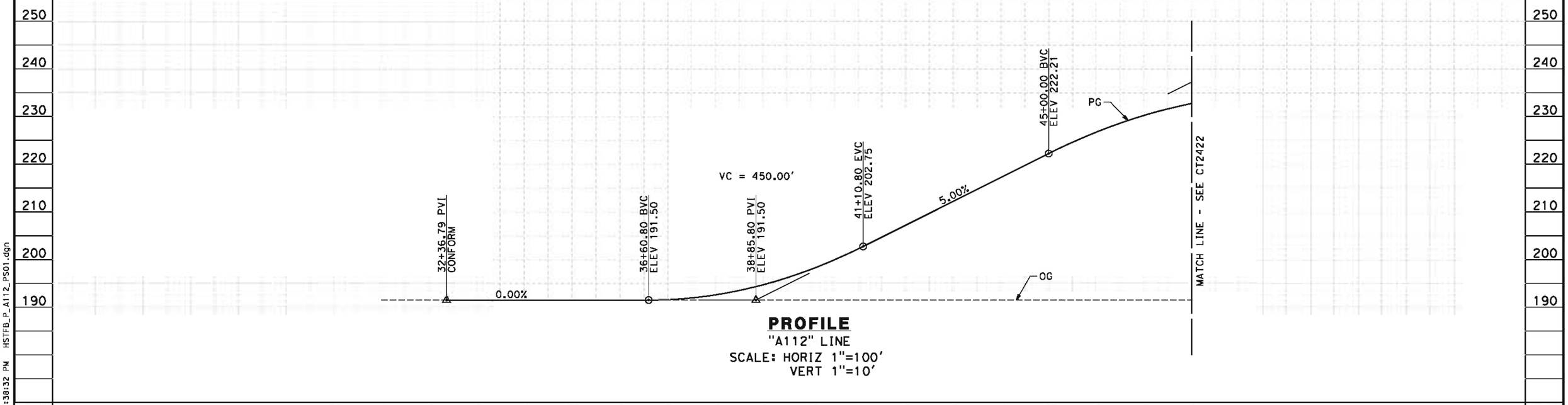
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
HESSE AVE

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2412
SCALE AS SHOWN
SHEET NO. 9 OF 16

carlton_allen 5/16/2012 2:38:29 PM HSTFB_P_HA_PS02.dgn

NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL.
2. MIN VERTICAL CLEARANCE OVER BNSF IS 24' FROM TOP OF RAIL.
3. MIN VERTICAL CLEARANCE OVER SR 43 IS 16.5' FROM ROADWAY.
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"A112" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	TOTAL
CY	Exc																				
	Emb																				

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 112

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2421
SCALE AS SHOWN
SHEET NO. 10 OF 16

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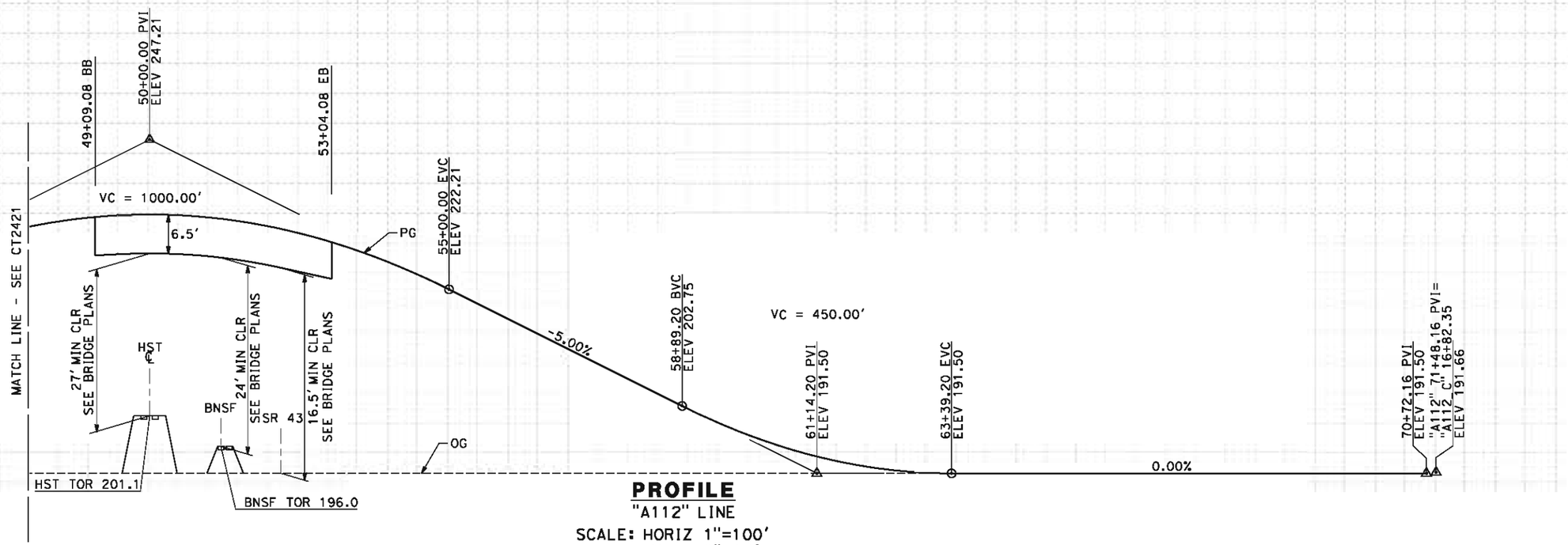

PROFILE
"A112" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	8	9	50	1	2	3	4	55	6	7	8	9	60	1	2	3	4	65	6	7	8	9	70	1	2	3	TOTAL
CY Exc																											
CY Emb																											

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 112

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2422
SCALE AS SHOWN
SHEET NO. 11 OF 16

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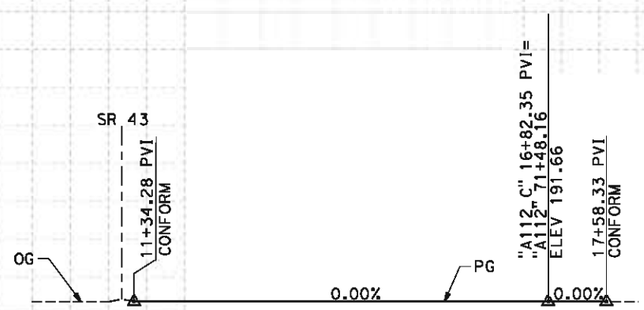
NOTES:
1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. SEE SHEET CT1421 FOR LAYOUT VIEW



PROFILE

"A112_C" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	7	8	TOTAL
CY	Exc										
	Emb										

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 112 CONNECTOR

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2423
SCALE AS SHOWN
SHEET NO. 12 OF 16

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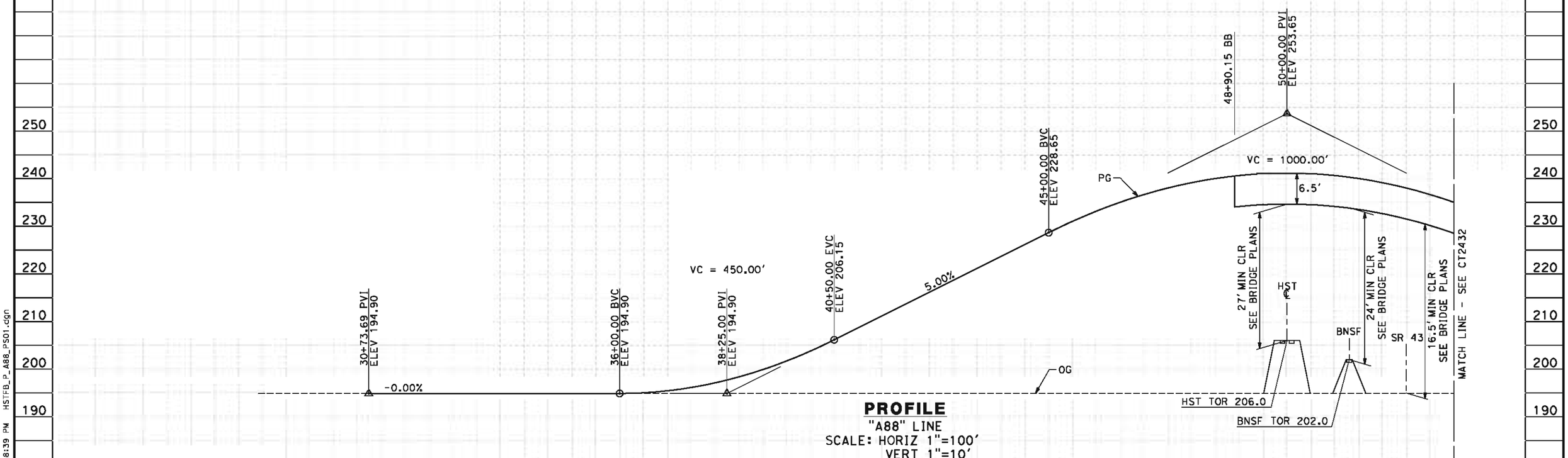
NOTES:

1. MIN VERTICAL CLEARANCE OVER HST IS 27' FROM TOP OF RAIL.
2. MIN VERTICAL CLEARANCE OVER BNSF IS 24' FROM TOP OF RAIL.
3. MIN VERTICAL CLEARANCE OVER SR 43 IS 16.5' FROM ROADWAY.
4. VERTICAL DESIGN SPEED = 45 MPH
5. OG IS BASED UPON APPROXIMATED INTERMAP DTM



PROFILE
"A88" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		7	8	9	30	1	2	3	4	35	6	7	8	9	40	1	2	3	4	45	6	7	8	9	50	1	2	3	TOTAL
CY	Exc																												
	Emb																												

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 88

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2431
SCALE AS SHOWN
SHEET NO. 13 OF 16

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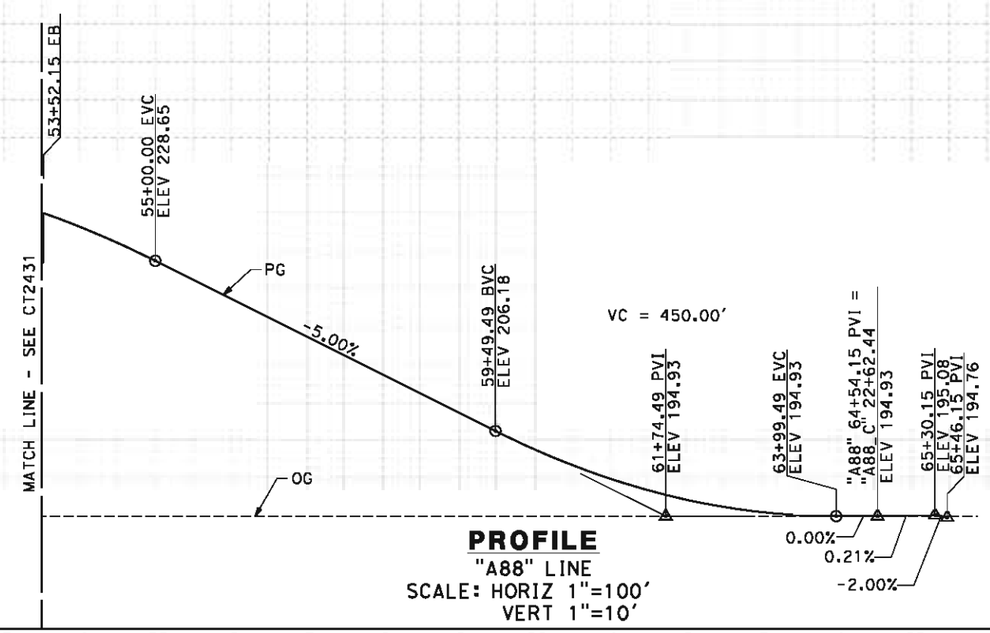


PROFILE
"A88" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION	3	4	55	6	7	8	9	60	1	2	3	4	65	TOTAL
CY Exc														
CY Emb														

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

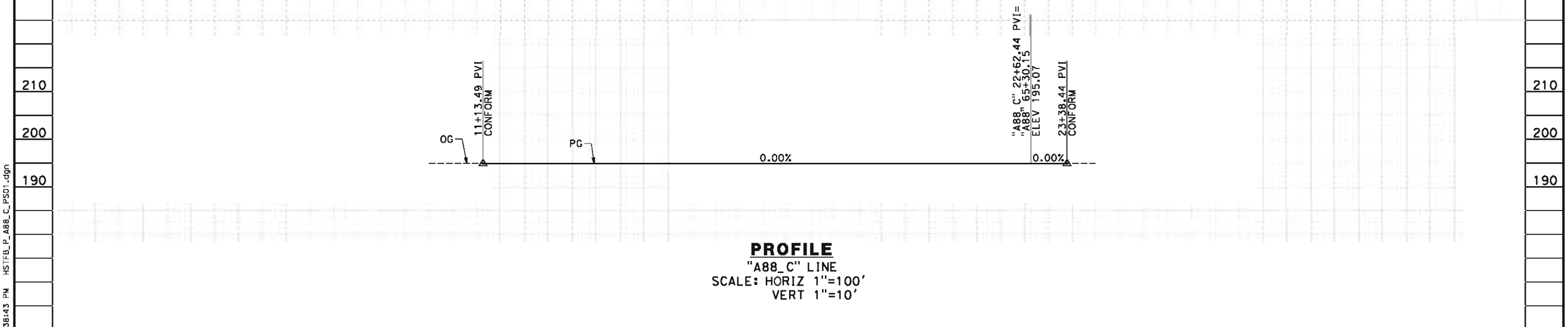
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 88

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2432
SCALE AS SHOWN
SHEET NO. 14 OF 16

carlton_allen 5/16/2012 2:38:41 PM HSTFB_P_A88_PS02.dgn

NOTES:
1. VERTICAL DESIGN SPEED = 55 MPH
2. OG IS BASED UPON APPROXIMATED INTERMAP DTM
3. SEE SHEET CT1431 FOR LAYOUT VIEW



PROFILE
"A88_C" LINE
SCALE: HORIZ 1"=100'
VERT 1"=10'

STATION		10	1	2	3	4	15	6	7	8	9	20	1	2	3	4	25	TOTAL
CY	Exc																	
	Emb																	

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
GRADE SEPARATION PROFILE
AVE 88 CONNECTOR

CONTRACT NO. HSR 06-0003
DRAWING NO. CT2433
SCALE AS SHOWN
SHEET NO. 15 OF 16

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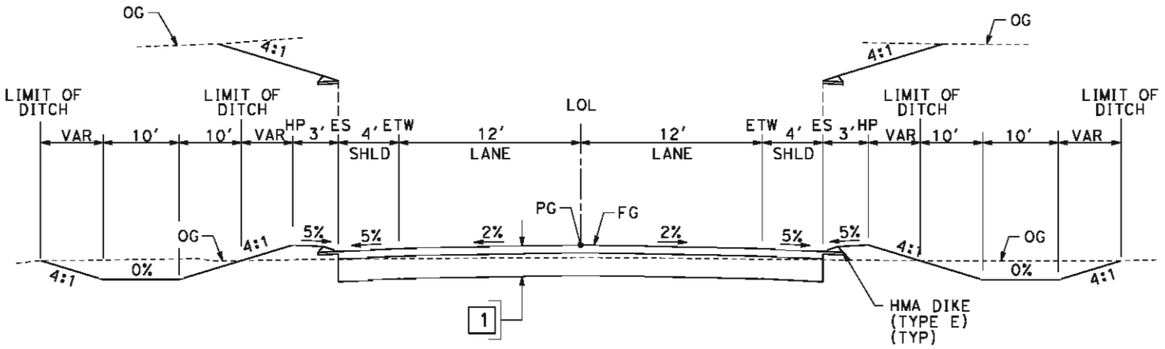
NOTES:

1. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
2. PAVEMENT SECTIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. EXACT DIMENSIONS AND MATERIAL OF THE PAVEMENT SECTION TO BE CONFIRMED.

STRUCTURAL SECTIONS

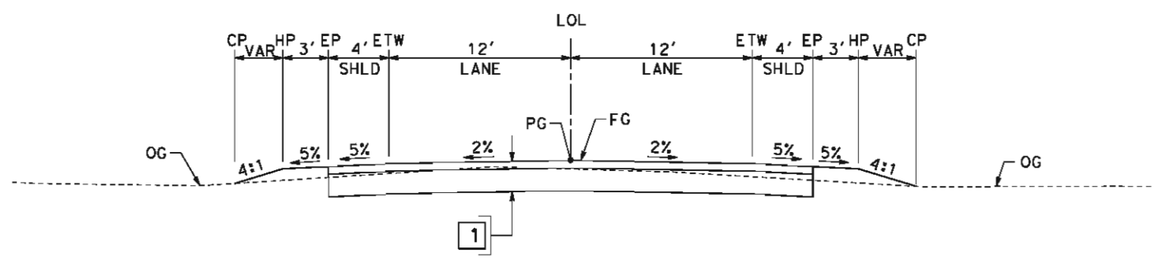
TYPICAL ROADWAY

1 — 0.30' HMA (TYPE A)
1.40' CL 2 AB



SECTION A

"A128" 36+21.00 TO 49+12.13
"A128" 53+55.13 TO 63+79.00
"HA" 36+67.00 TO 49+15.89
"HA" 53+06.18 TO 63+33.00
"A112" 37+50.00 TO 49+09.08
"A112" 53+04.08 TO 63+39.20
"A88" 37+20.00 TO 48+90.15
"A88" 53+52.15 TO 63+99.49



SECTION B

"A128" 31+36.79 TO 36+21.00
"A128" 63+79.00 TO 71+01.17
"HA" 31+54.66 TO 36+67.00
"HA" 63+33.00 TO 71+55.12
"A112" 32+36.79 TO 37+50.00
"A112" 63+39.20 TO 70+72.61
"A112_C" 11+34.28 TO 17+58.33
"A88" 30+73.69 TO 37+20.00
"A88" 63+99.49 TO 65+30.15
"A88_C" 11+13.49 TO 23+38.44

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. POLISCHUK
DRAWN BY S. KHAN
CHECKED BY C. ALLEN
IN CHARGE G. HORTON
DATE 5/18/12

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
FRESNO TO BAKERSFIELD
PIXLEY SUBSECTION
ALIGNMENT P
ROADWAY/GRADE SEPARATION
TYPICAL CROSS SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CT3060
SCALE AS SHOWN
SHEET NO. 16 OF 16

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