REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

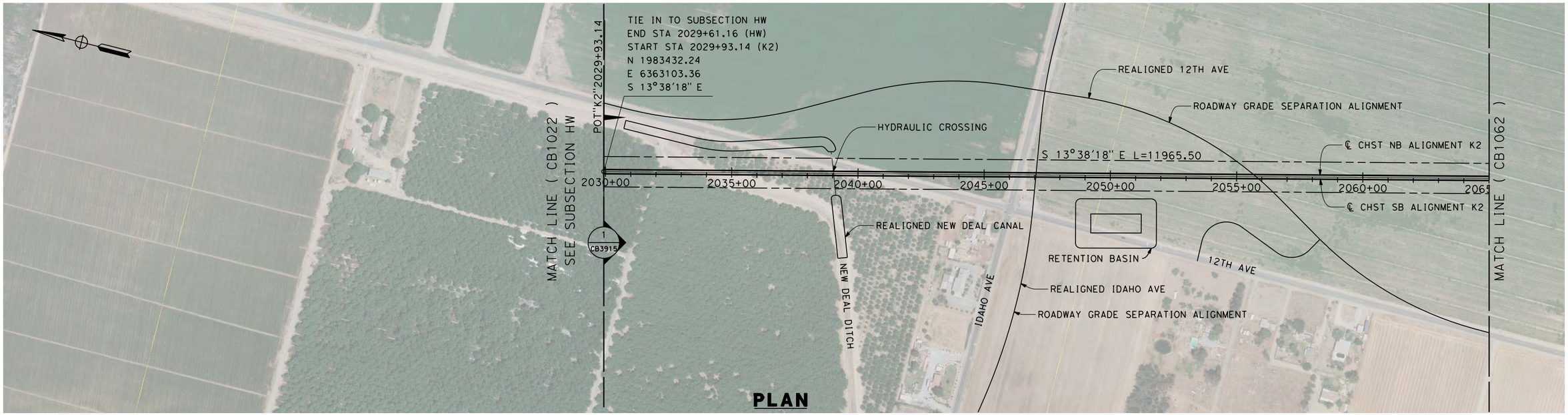
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD

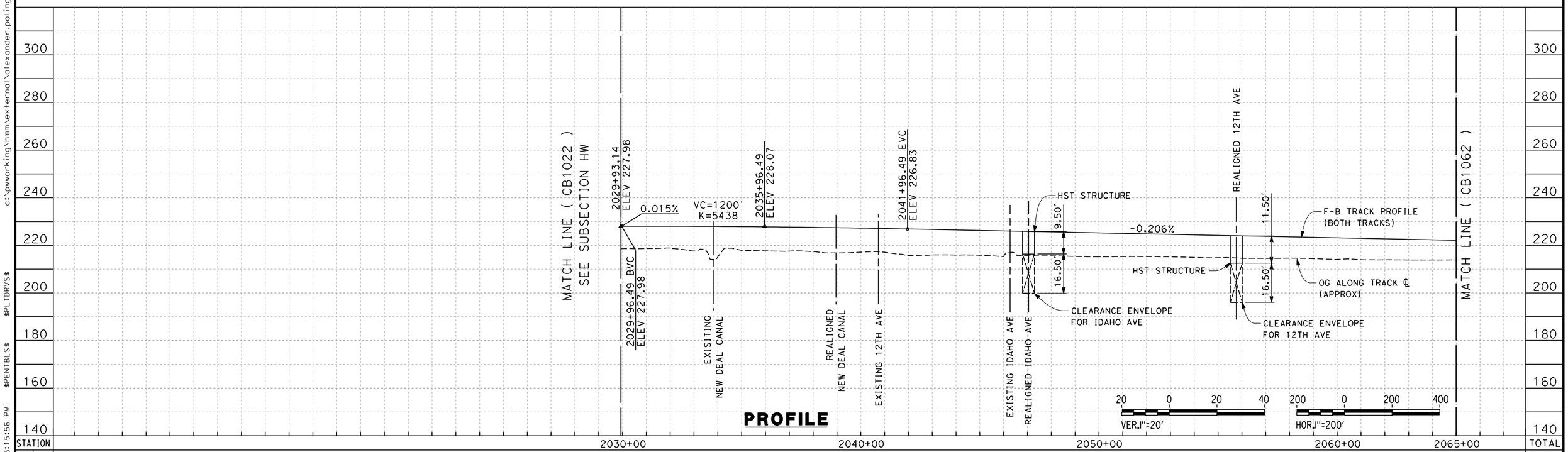
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2029+93 TO 2601+70
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1060
SCALE AS SHOWN
SHEET NO. 1 OF 15

c:\pwworking\hmm\external\eron.sudhausen-arup.com\dms70815\FB-CB-1060.dgn $PLTDRVS$ $PENTBLS$ 2/10/2013 10:31:57 AM eron.sudhausen



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

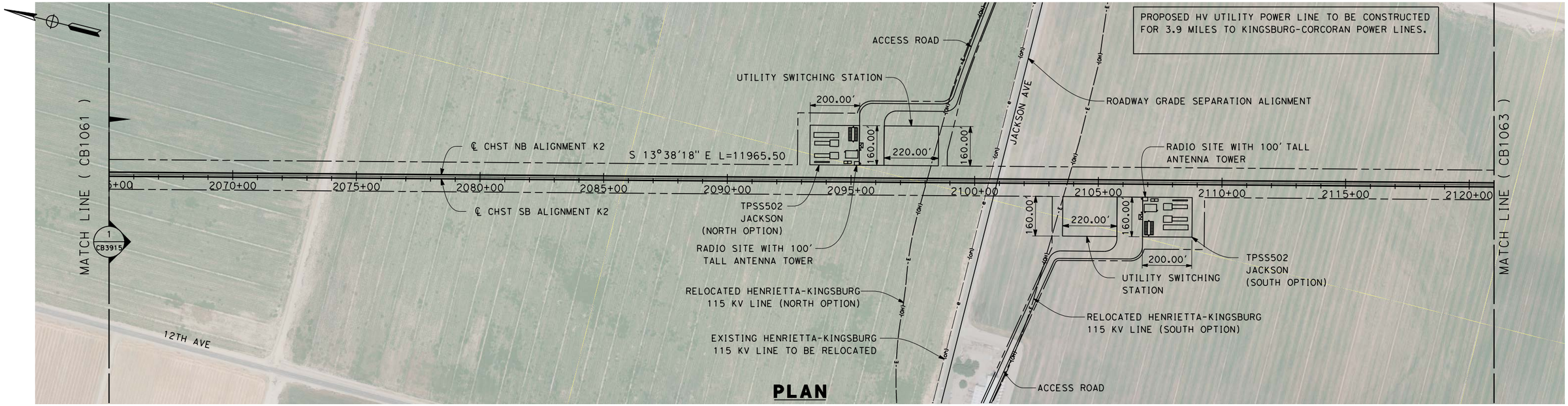
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

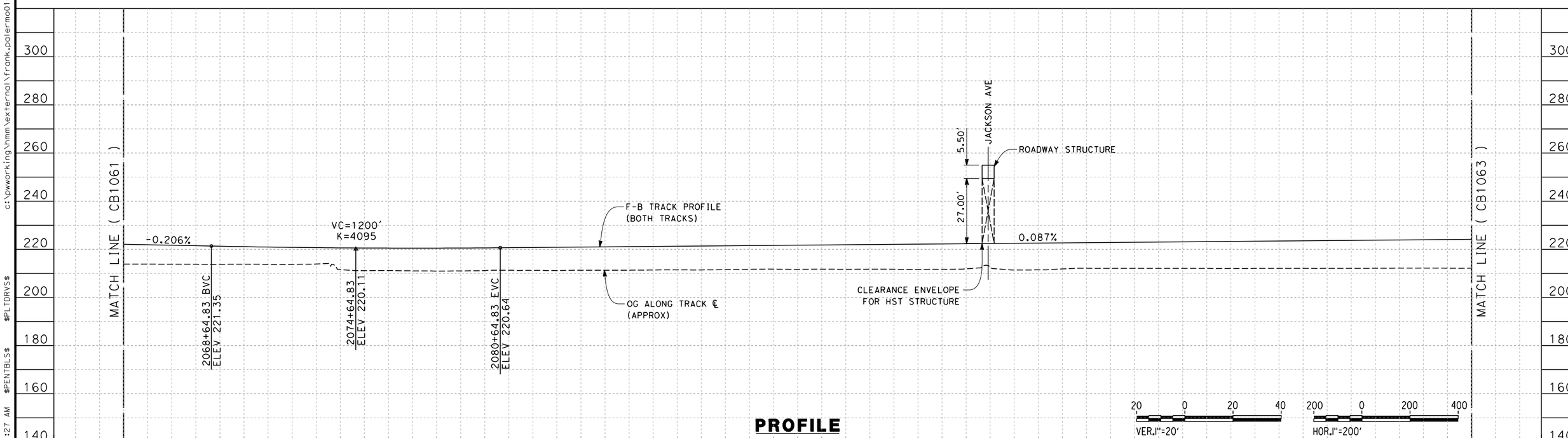
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2029+93 TO 2065+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1061
SCALE AS SHOWN
SHEET NO. 2 OF 15

alexander.poling@10/2013 3:15:56 PM $PENTBLS$ $PLTDRVS$ c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-1061.dgn



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

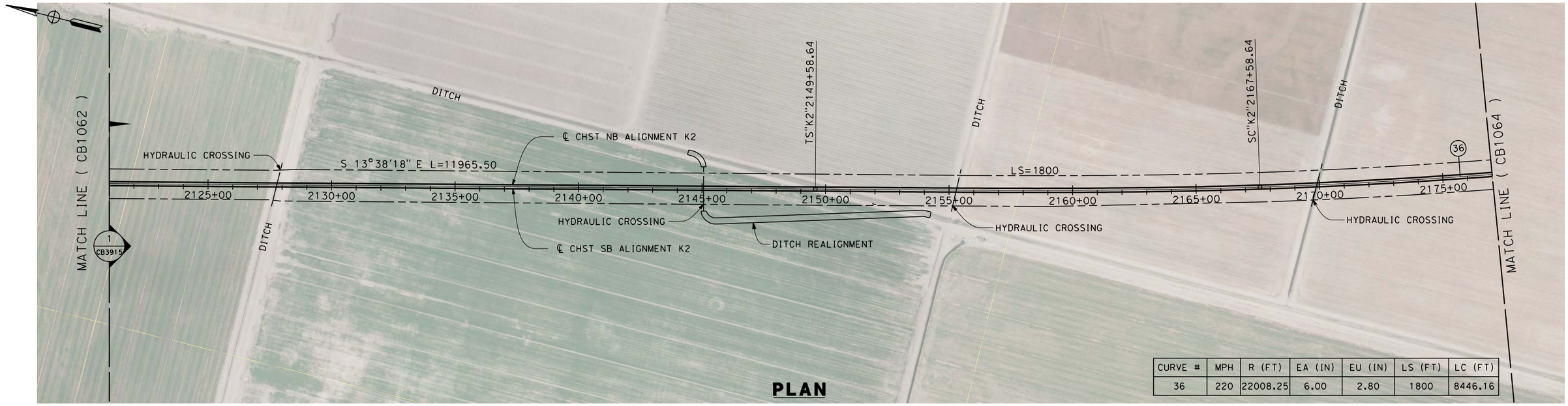
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2065+00 TO 2121+00
PLAN AND PROFILE

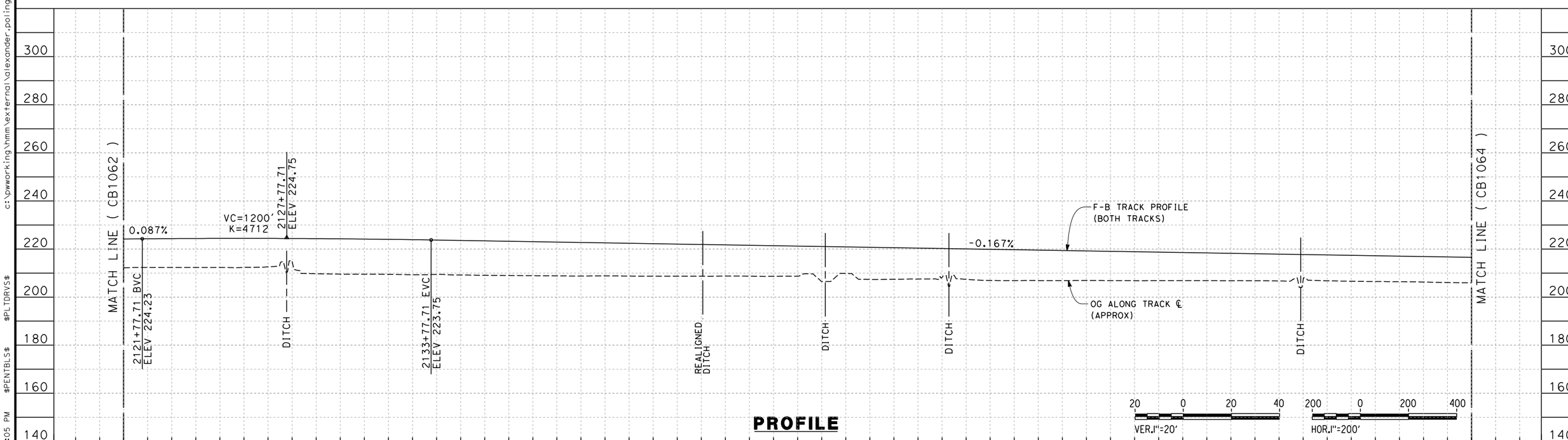
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1062
SCALE AS SHOWN
SHEET NO. 3 OF 15

frank.palermo 12/31/2013 11:01:27 AM $PENTBLS$ $PLTDRVS$ c:\pwworking\hmm\external\frank.palermo01-arup.com\dms70815\VFB-CB-1062.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
36	220	22008.25	6.00	2.80	1800	8446.16

PLAN



PROFILE

STATION	2121+00	2130+00	2140+00	2150+00	2160+00	2170+00	2177+00	TOTAL
CY Exc								
CY Emb								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

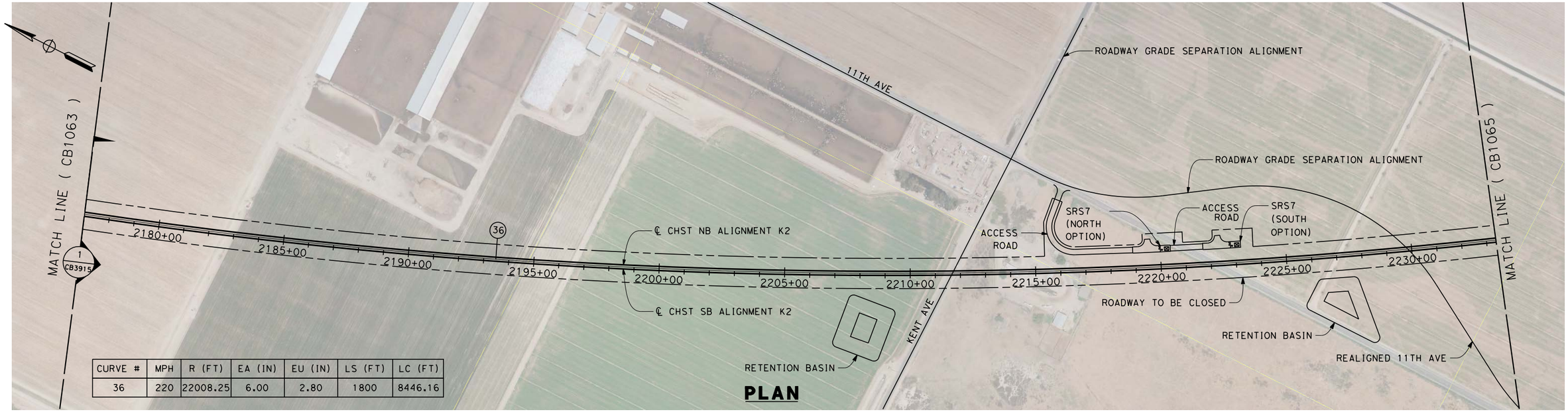
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2121+00 TO 2177+00
PLAN AND PROFILE

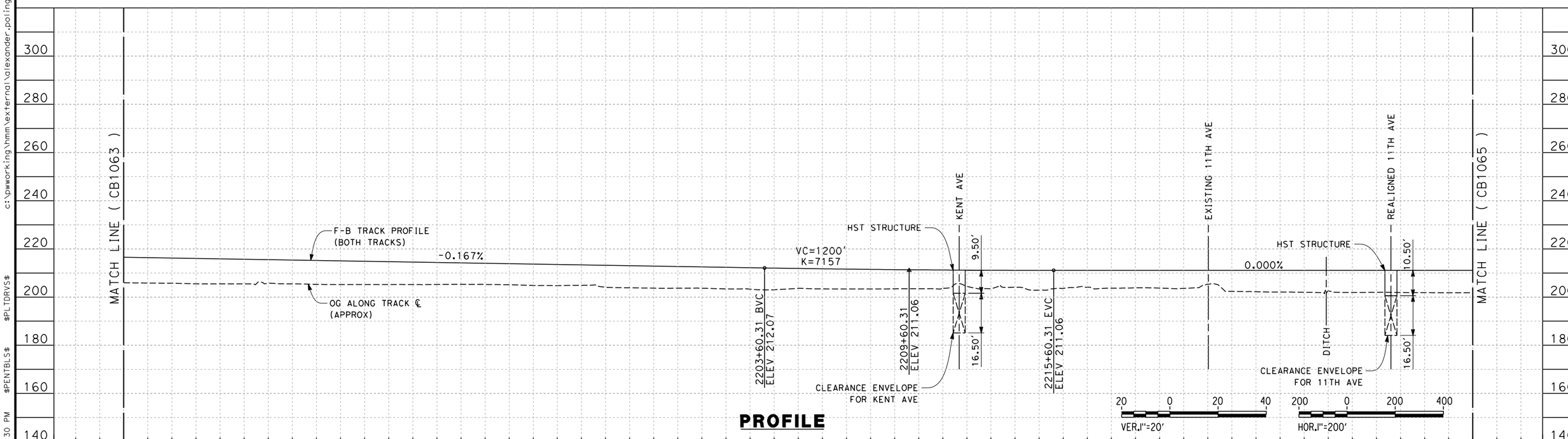
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1063
SCALE AS SHOWN
SHEET NO. 4 OF 15

c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-1063.dgn $PLTDRVS$ $PENTBLS$ alexander.poling 10/2013 3:19:05 PM



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
36	220	22008.25	6.00	2.80	1800	8446.16

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

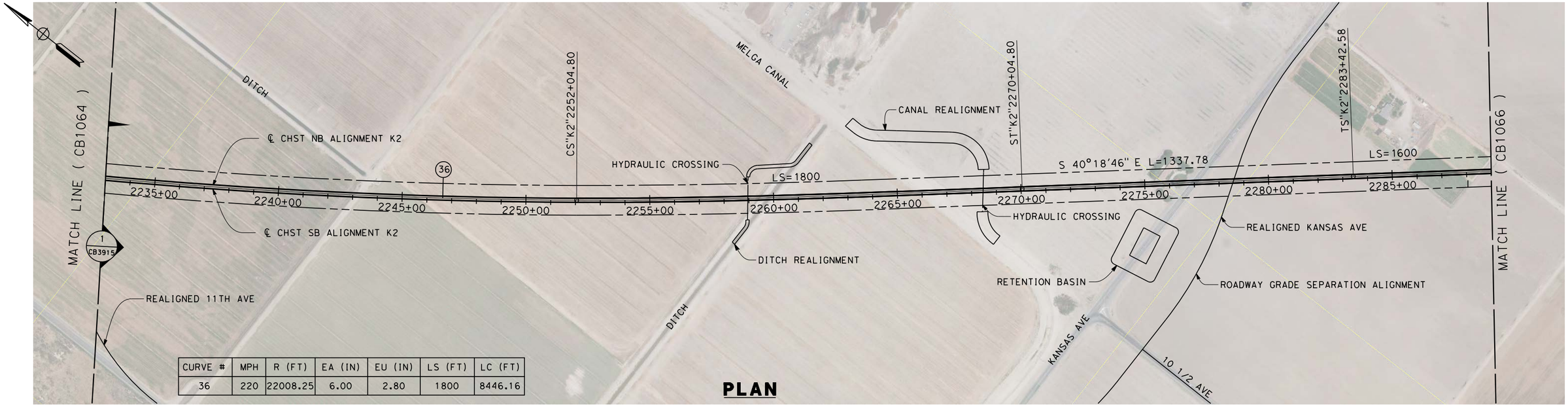
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2177+00 TO 2233+00
PLAN AND PROFILE

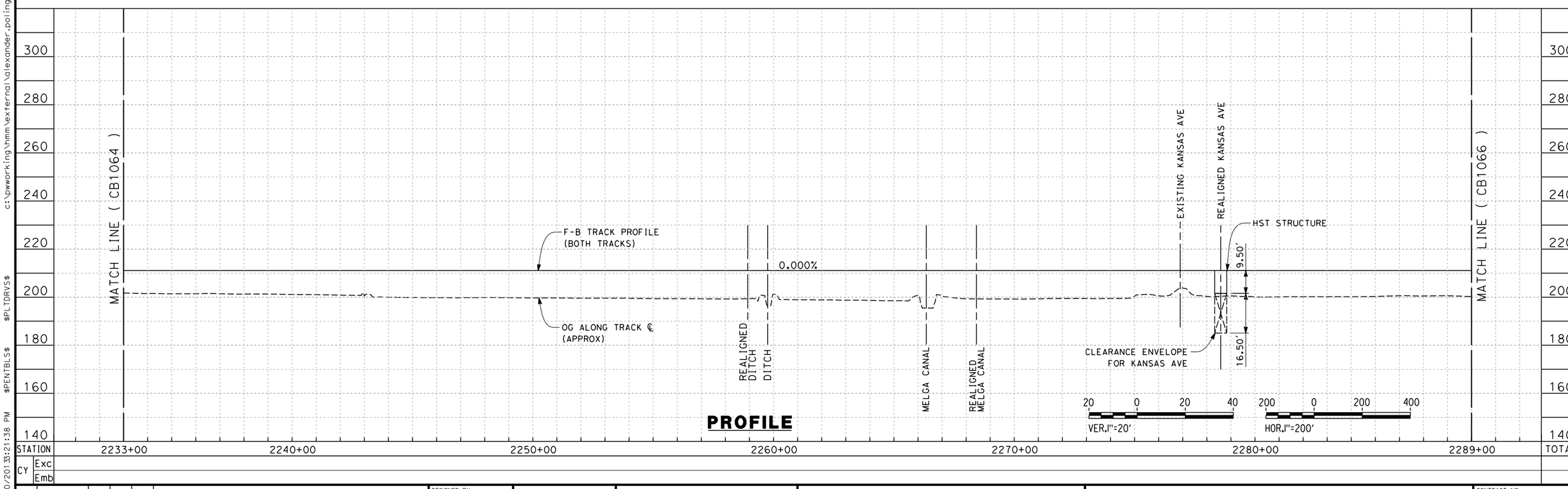
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1064
SCALE AS SHOWN
SHEET NO. 5 OF 15

c:\pwworking\hmm\external\alexander.poling\dms70815\FB-CB-1064.dgn $PLTDRVS$ $PENTBLS$ alexander.poling 10/2013 3:20:30 PM



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
36	220	22008.25	6.00	2.80	1800	8446.16

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

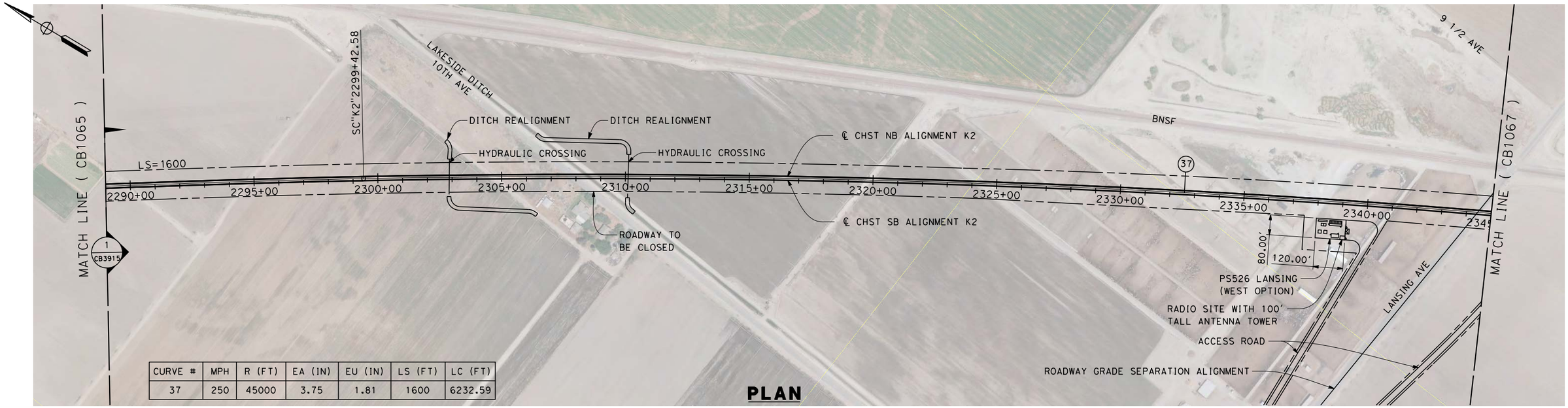
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2233+00 TO 2289+00
PLAN AND PROFILE

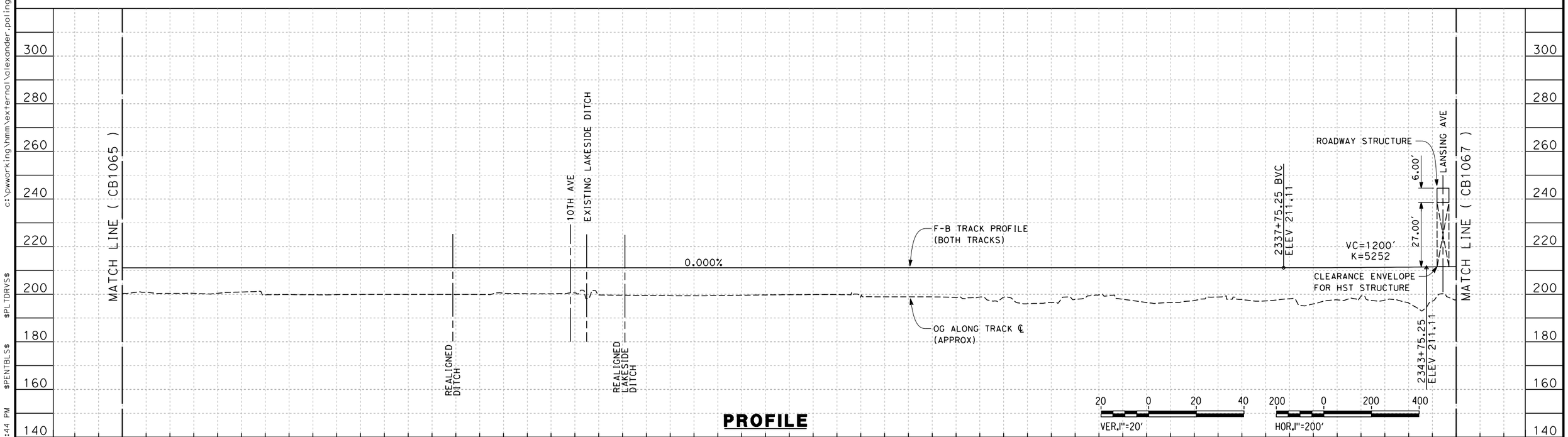
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1065
SCALE AS SHOWN
SHEET NO. 6 OF 15

c:\pwworking\hmm\external\alexander.poling\alexander.poling\10/2013 3:21:38 PM $PLTDRVS$ $PENTBLS$



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
37	250	45000	3.75	1.81	1600	6232.59

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

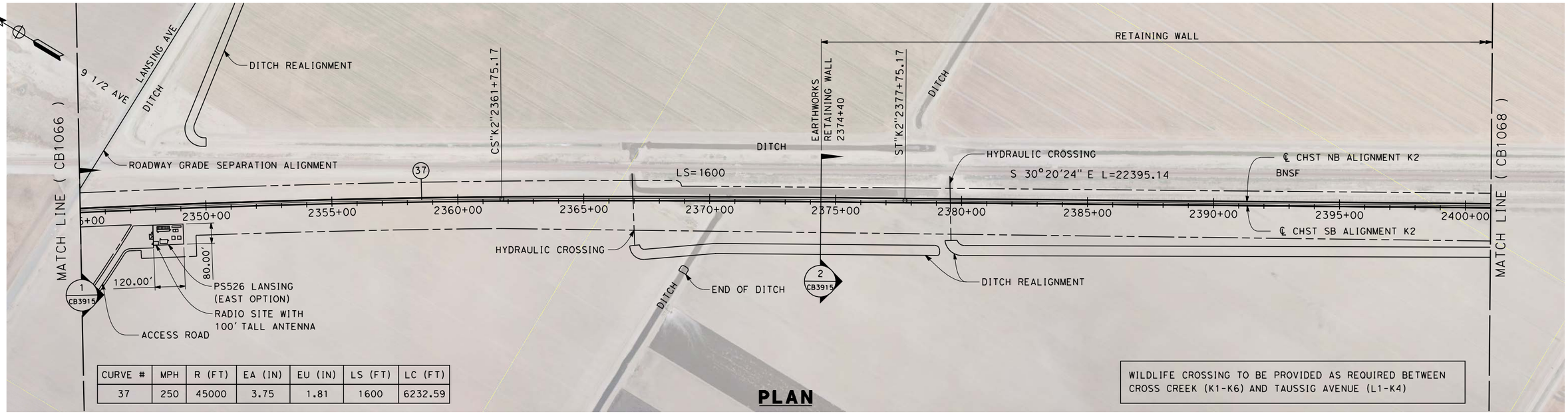
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMNET K2
STA 2289+00 TO 2345+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1066
SCALE AS SHOWN
SHEET NO. 7 OF 15

c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-1066.dgn $PLTDRVS$ $PENTBLS$ alexander.poling 10/2013 3:22:44 PM

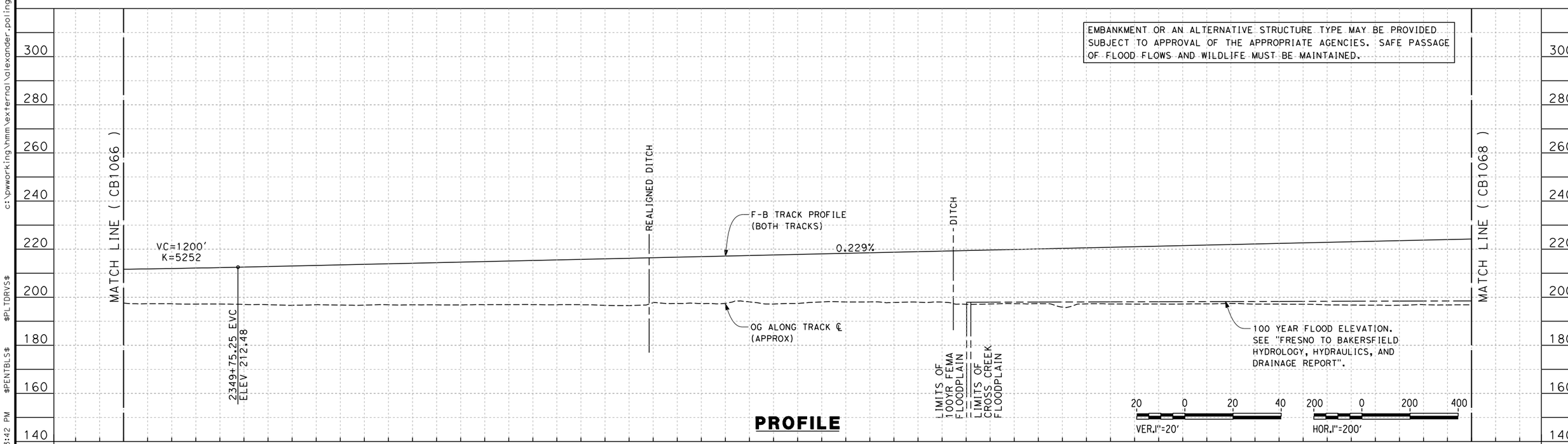


CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
37	250	45000	3.75	1.81	1600	6232.59

WILDLIFE CROSSING TO BE PROVIDED AS REQUIRED BETWEEN CROSS CREEK (K1-K6) AND TAUSSIG AVENUE (L1-K4)

PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE TYPE MAY BE PROVIDED SUBJECT TO APPROVAL OF THE APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

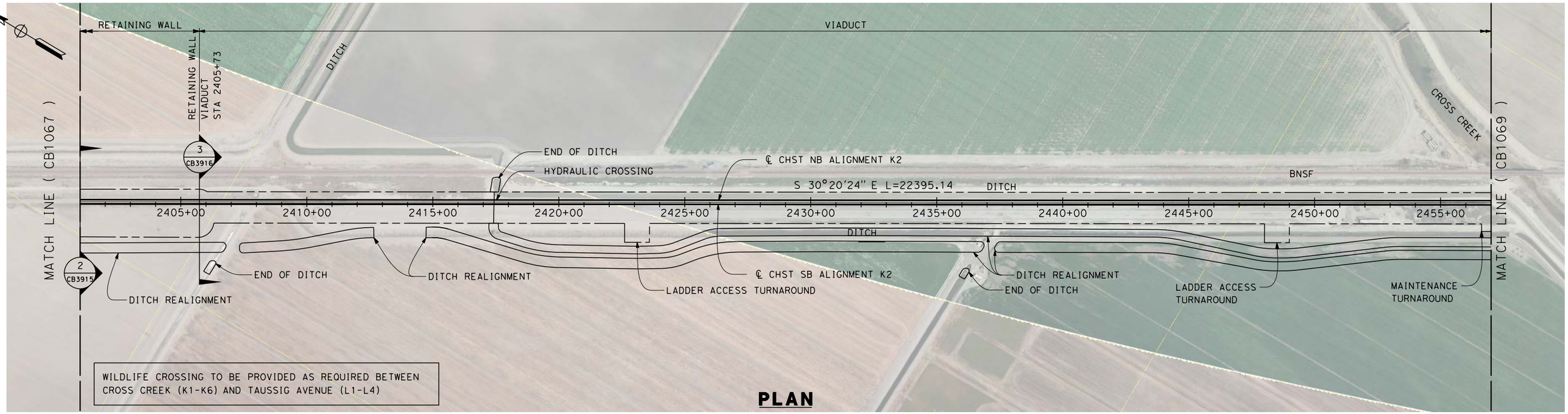
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2345+00 TO 2401+00
PLAN AND PROFILE

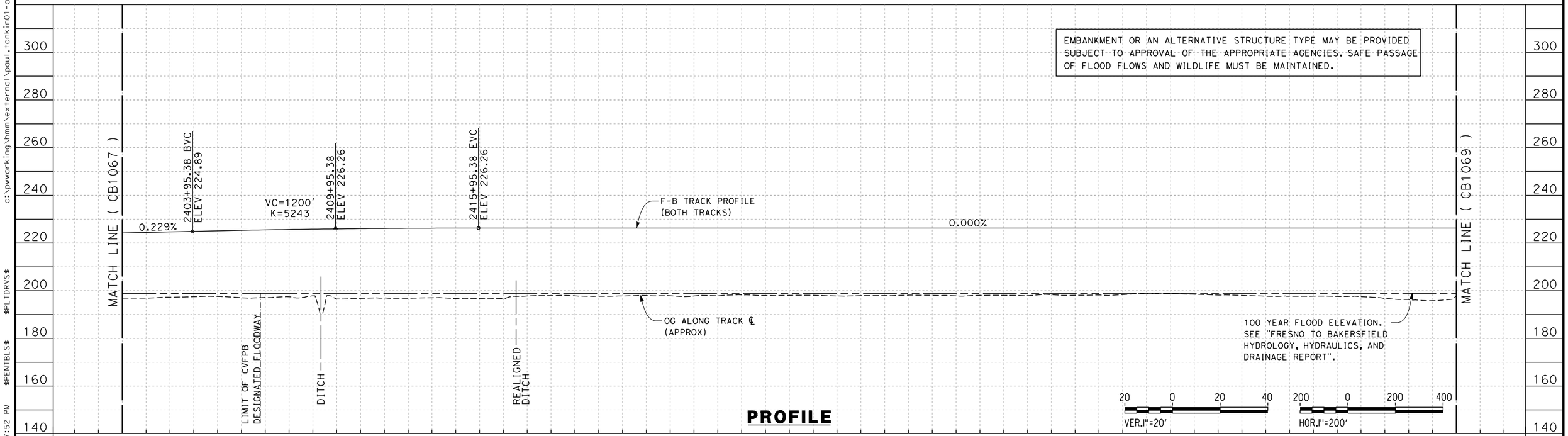
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1067
SCALE AS SHOWN
SHEET NO. 8 OF 15

c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-1067.dgn
$PLTDRVS$
$PENTBLS$
alexander.poling 2/10/2013 3:23:42 PM



PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE TYPE MAY BE PROVIDED SUBJECT TO APPROVAL OF THE APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

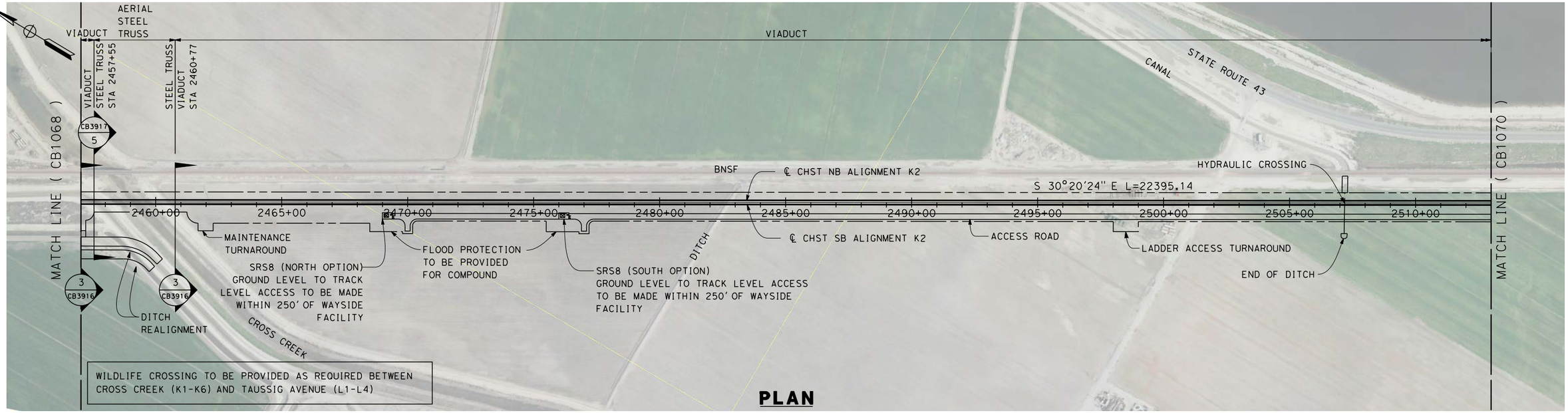
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2401+00 TO 2457+00
PLAN AND PROFILE

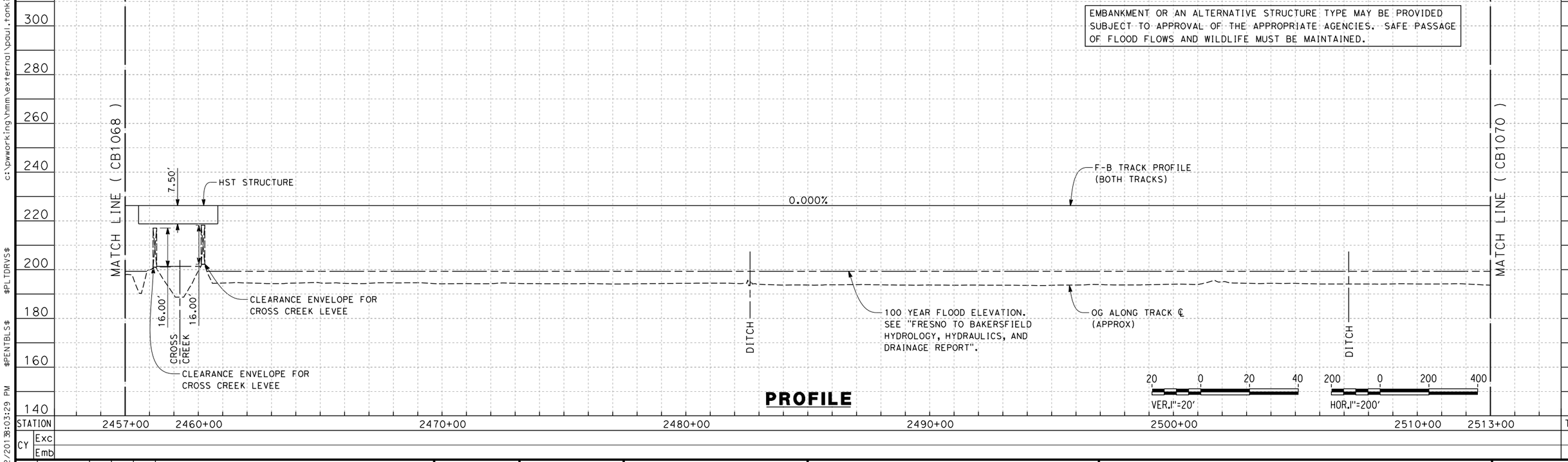
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1068
SCALE AS SHOWN
SHEET NO. 9 OF 15

c:\pwworking\hmm\external\paul.tonkin01-arup.com\dms70815\FB-CB-1068.dgn
$PLTDRVS$
$PENTBLS$
12/12/2013 7:57:52 PM
paul.tonkin



PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE TYPE MAY BE PROVIDED SUBJECT TO APPROVAL OF THE APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

STATION	2457+00	2460+00	2470+00	2480+00	2490+00	2500+00	2510+00	2513+00	TOTAL
CY Exc									
CY Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

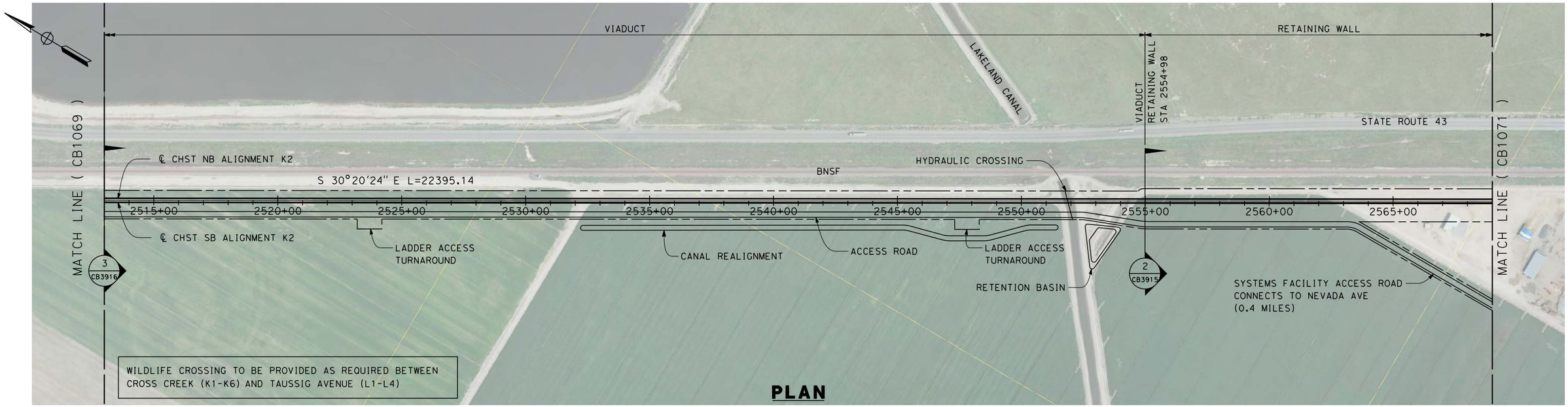
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2457+00 TO 2513+00
PLAN AND PROFILE

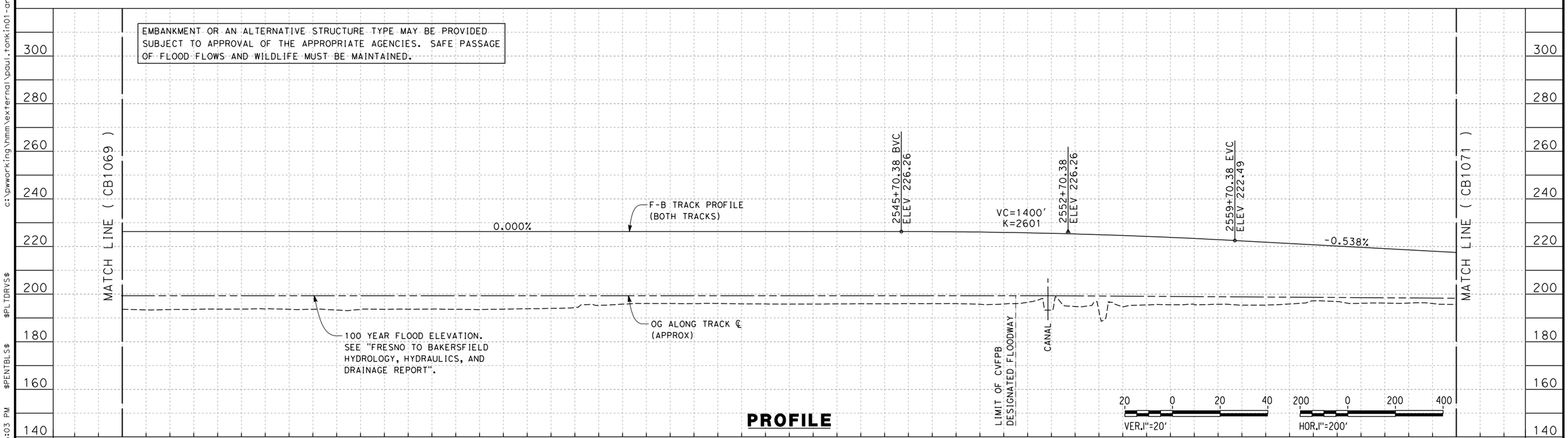
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1069
SCALE AS SHOWN
SHEET NO. 10 OF 15

c:\pwworking\hmm\external\paul.tonkin01-arup.com\dms70815\FB-CB-1069.dgn $PLTDRVS$ $PENTBLS$ 12/12/2013 3:03:29 PM paul.tonkin



PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE TYPE MAY BE PROVIDED SUBJECT TO APPROVAL OF THE APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

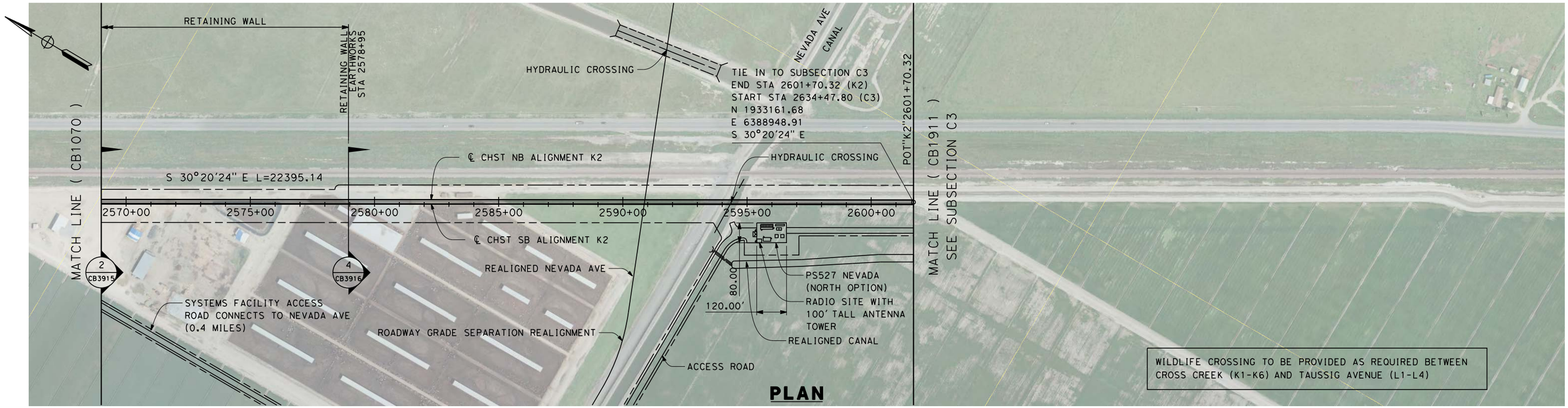
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

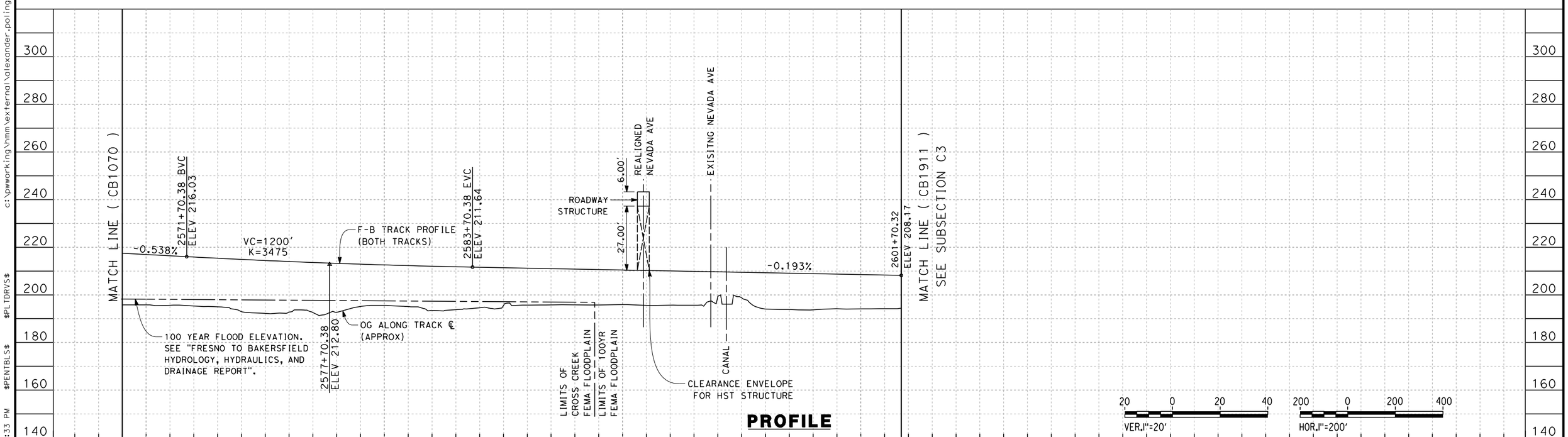
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2513+00 TO 2569+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1070
SCALE AS SHOWN
SHEET NO. 11 OF 15

c:\pwworking\hmm\external\paul.tonkin01-arup.com\dms70815\FB-CB-1070.dgn $PLTDRVS$ $PENTBLS$ 12/12/2013 3:16:03 PM paul.tonkin



PLAN



PROFILE

STATION	2570+00	2580+00	2590+00	2600+00	TOTAL
CY Exc					
CY Emb					

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

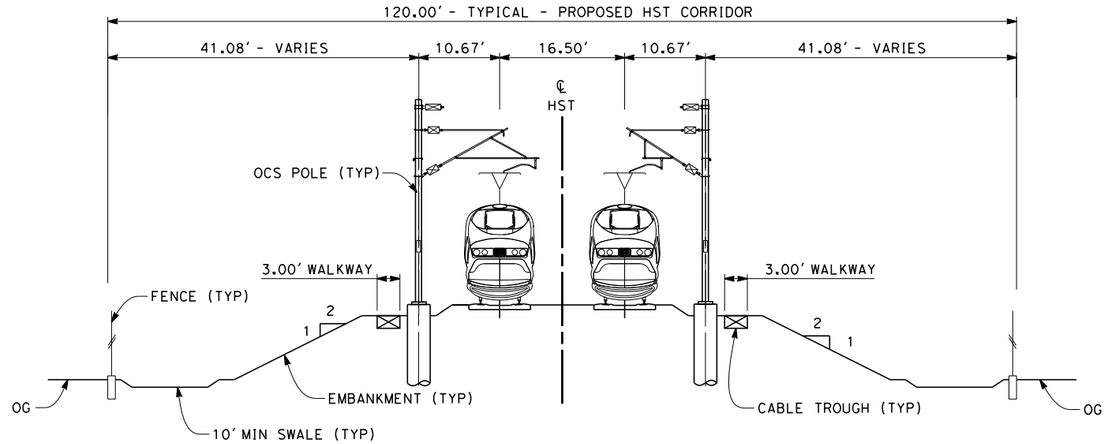
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
STA 2569+00 TO 2601+70
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1071
SCALE AS SHOWN
SHEET NO. 12 OF 15

c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-1071.dgn $PLTDRVS$ $PENTBLS$ alexander.poling 10/20/13 3:29:33 PM

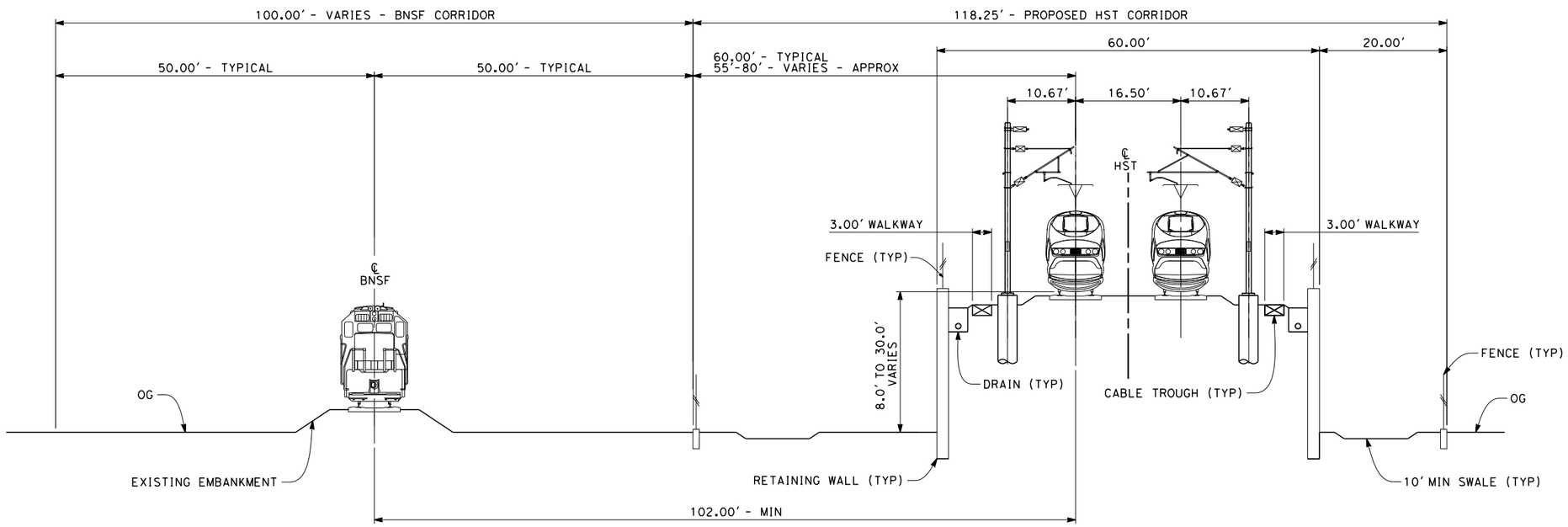
NOTES:

1. TRACKFORM SHOWN IS INDICATIVE.
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



SECTION 1

TWIN TRACK AT GRADE
STA 2029+93 THROUGH 2374+40



SECTION 2

TWIN TRACK ON RETAINED EMBANKMENT ADJACENT TO BNSF
STA 2374+40 THROUGH 2405+73
STA 2554+98 THROUGH 2578+95

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

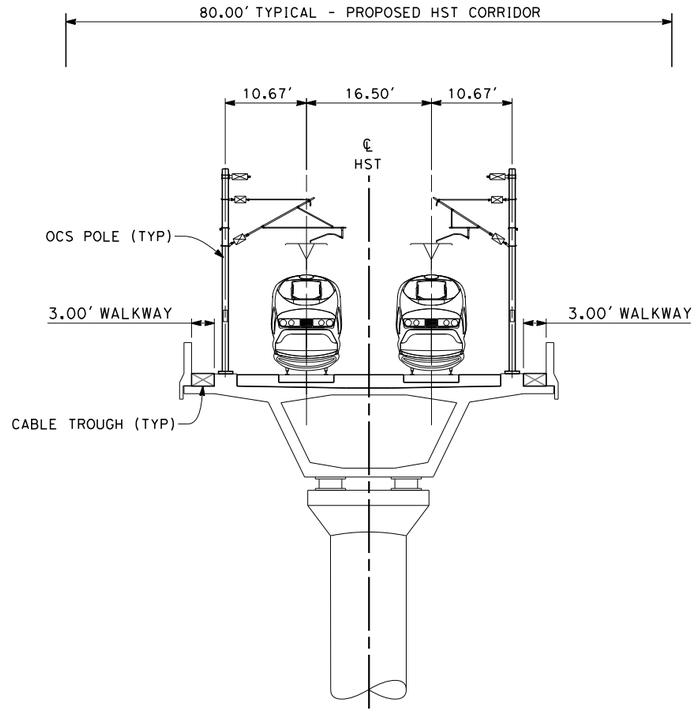
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3915
SCALE AS SHOWN
SHEET NO. 13 OF 15

alexander.poling@10/2013 3:30:12 PM $PENTBLS$ $PLTDRVS$ c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-3915.dgn

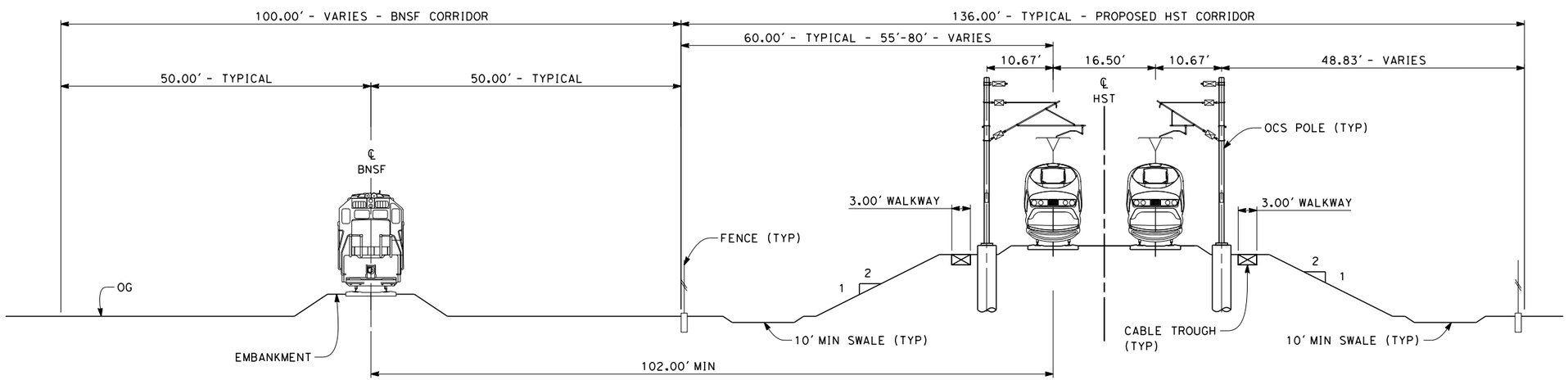
NOTES:

1. TRACKFORM SHOWN IS INDICATIVE.
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
3. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS.



SECTION 3

TWIN TRACK AERIAL VIADUCT
STA 2405+73 TO 2457+55
STA 2460+77 TO 2554+98



SECTION 4

TWIN TRACK ADJACENT TO SINGLE TRACK BNSF
STA 2578+95 TO 2601+70

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

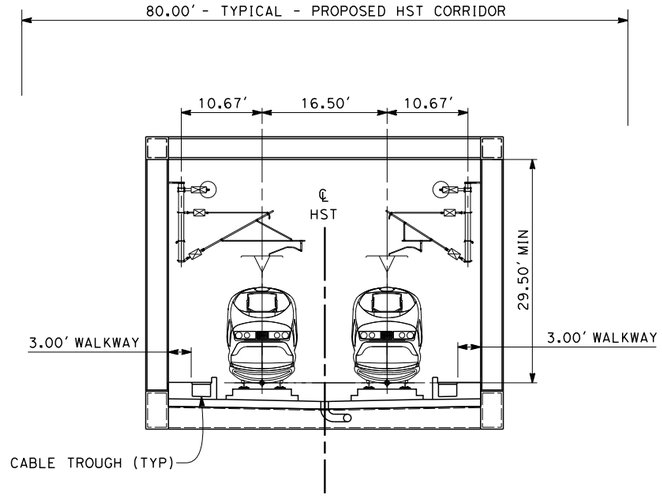
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3916
SCALE AS SHOWN
SHEET NO. 14 OF 15

alexander.poling@10/2013 3:30:38 PM $PENTBLS$ $PLTDRVS$ c:\pwworking\hmm\external\alexander.poling-arup.com\dms70815\FB-CB-3916.dgn

NOTES:

1. TRACKFORM SHOWN IS INDICATIVE.
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
3. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS.



SECTION 5

TWIN TRACK TRUSS
STA 2457+55 TO 2460+77

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY J. BORGHESI
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN 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
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3917
SCALE AS SHOWN
SHEET NO. 15 OF 15

paul.tonkin 12/12/2013 8:20:20 PM $PENTBLS$ $PLTDRVS$ c:\pwworking\hmm\external\paul.tonkin01-arup.com\dms70815\FB-CB-3917.dgn

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

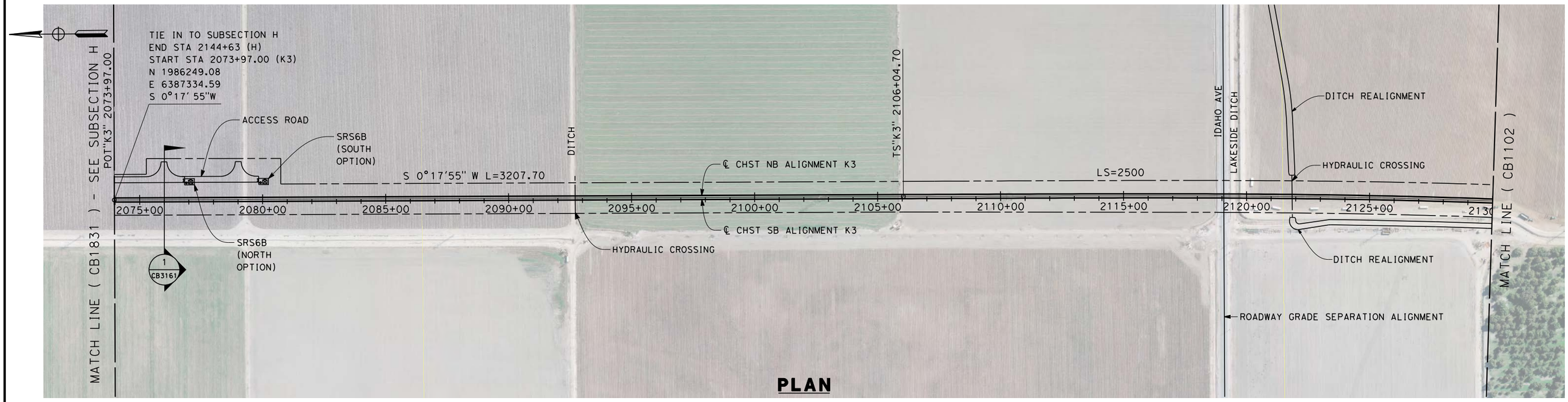
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

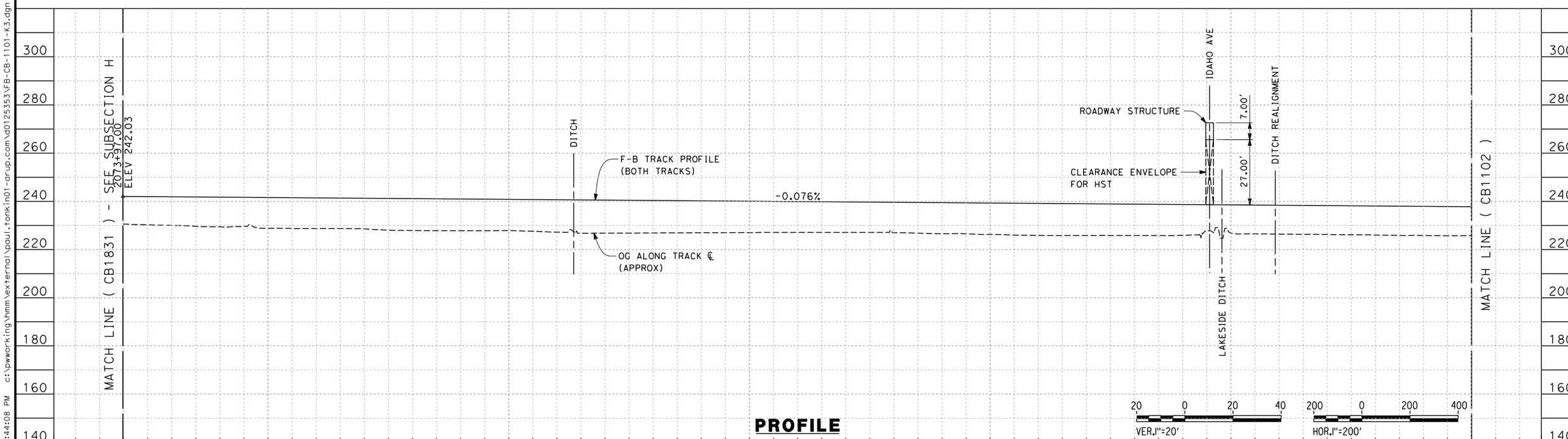
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2073+97 TO 2634+00
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1100
SCALE AS SHOWN
SHEET NO. 1 OF 16

eron.sudhausen 12/9/2013 5:38:18 PM c:\pwworking\hmm\external\eron.sudhausen-arup.com\d0125353\FB-CB-1100-K3.dgn



PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

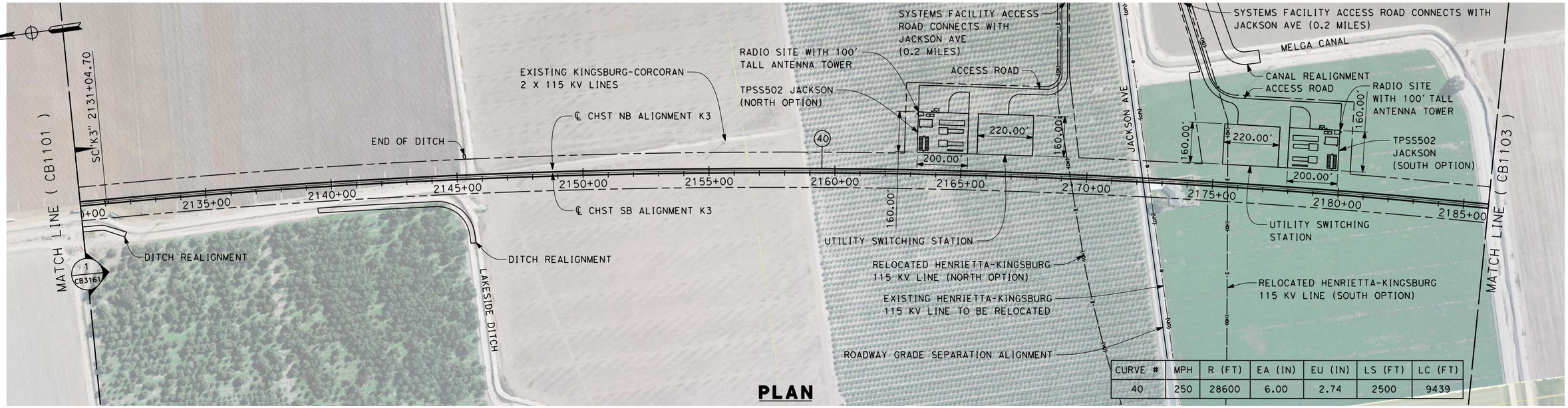
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2073+97 TO 2130+00
PLAN AND PROFILE

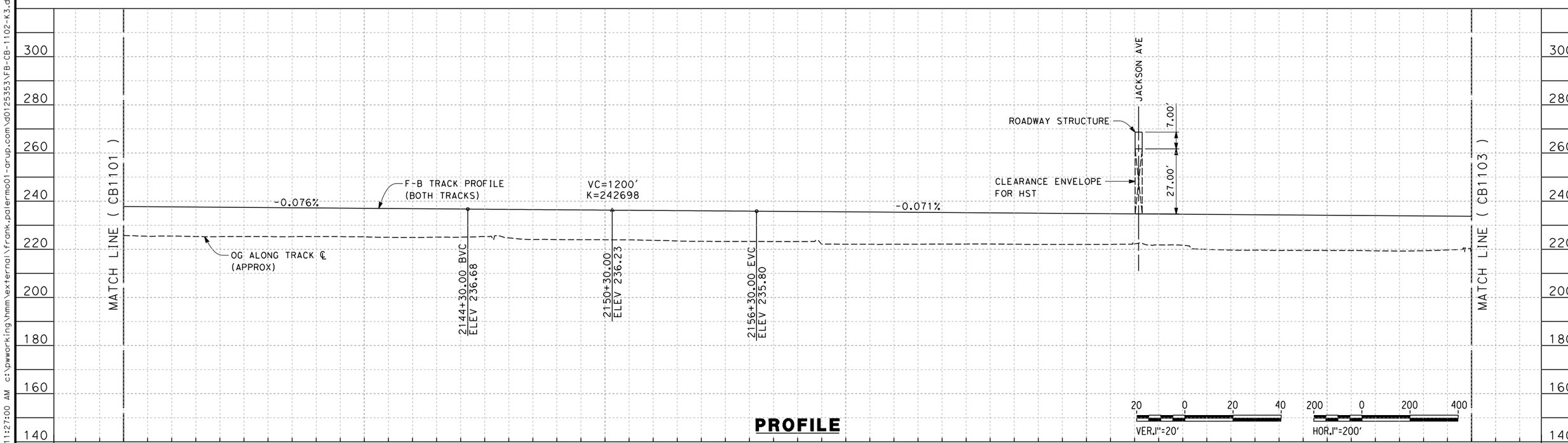
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1101
SCALE AS SHOWN
SHEET NO. 2 OF 16

12/23/2013 5:44:08 PM c:\pwworking\hmm\external\paul.tonkin01-arup.com\d0125353\FB-CB-1101-K3.dgn
paul.tonkin



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
40	250	28600	6.00	2.74	2500	9439

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

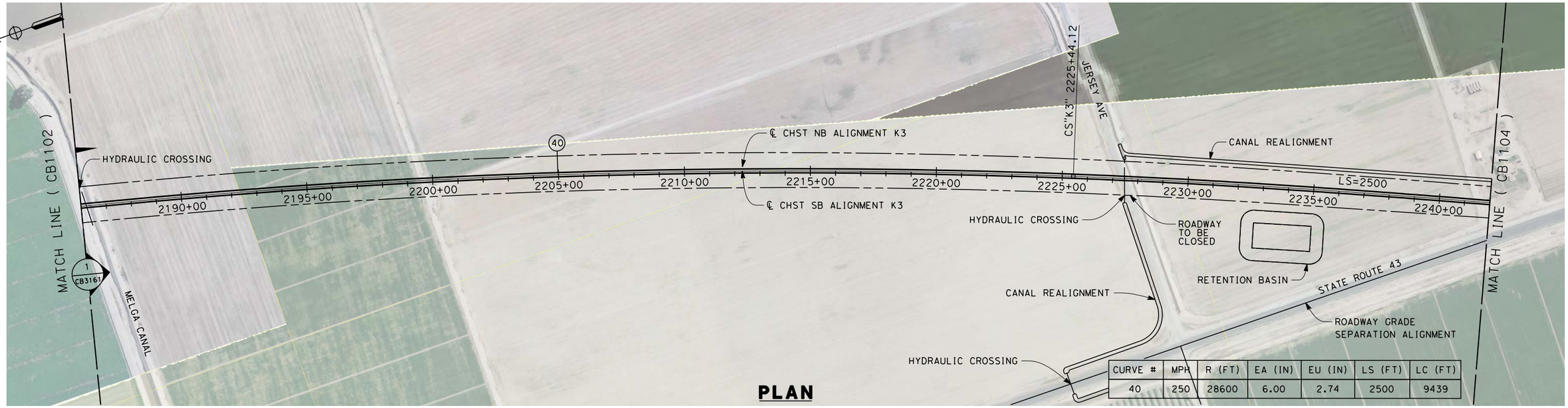
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2130+00 TO 2186+00
PLAN AND PROFILE

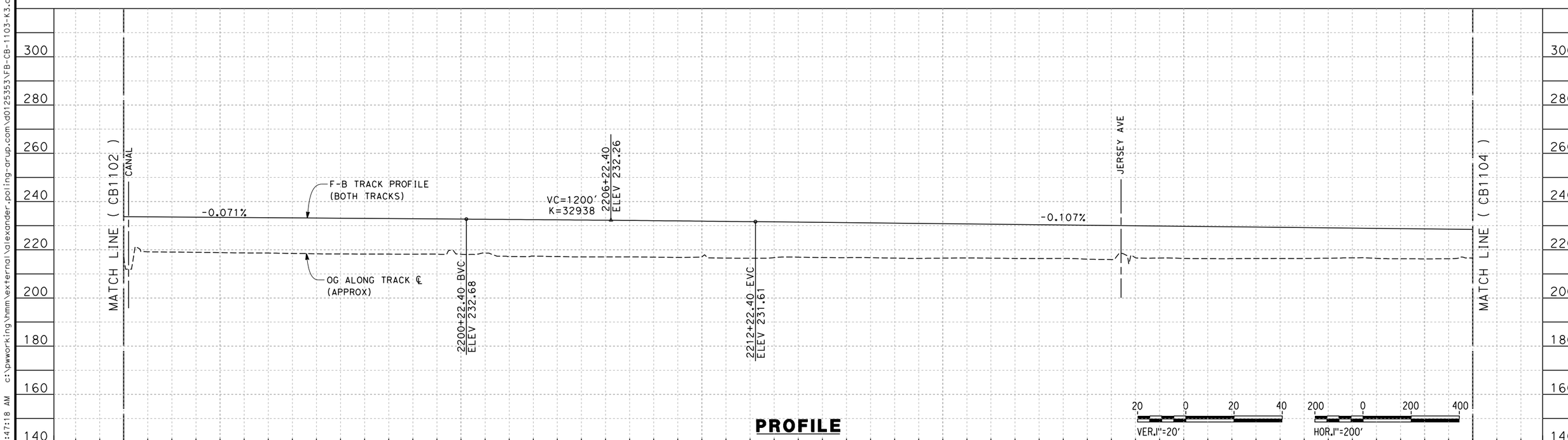
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1102
SCALE AS SHOWN
SHEET NO. 3 OF 16

frank.palermo 12/31/2013 11:27:00 AM c:\pwworking\hmm\external\frank.palermo01-arup.com\d0125353\FB-CB-1102-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
40	250	28600	6.00	2.74	2500	9439

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

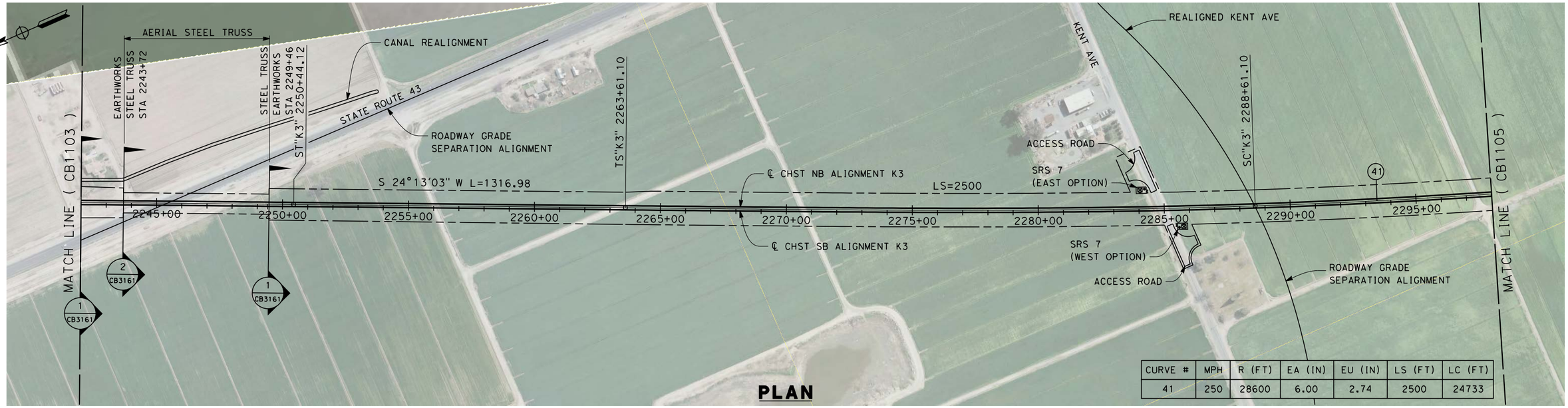
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2186+00 TO 2242+00
PLAN AND PROFILE

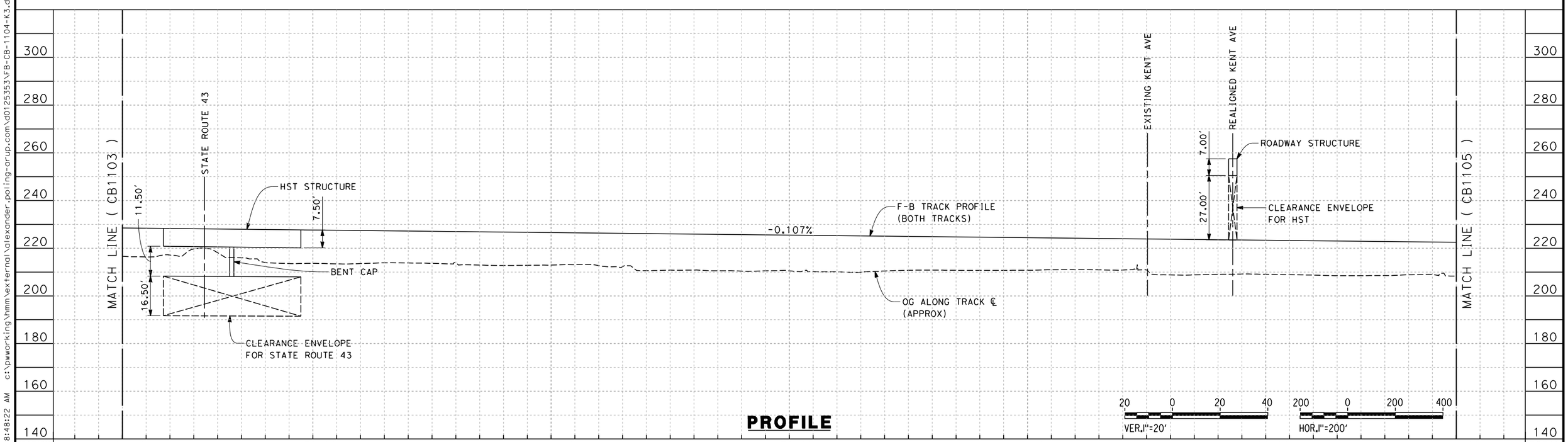
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1103
SCALE AS SHOWN
SHEET NO. 4 OF 16

alexander.poling 12/12/2013 8:47:18 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1103-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

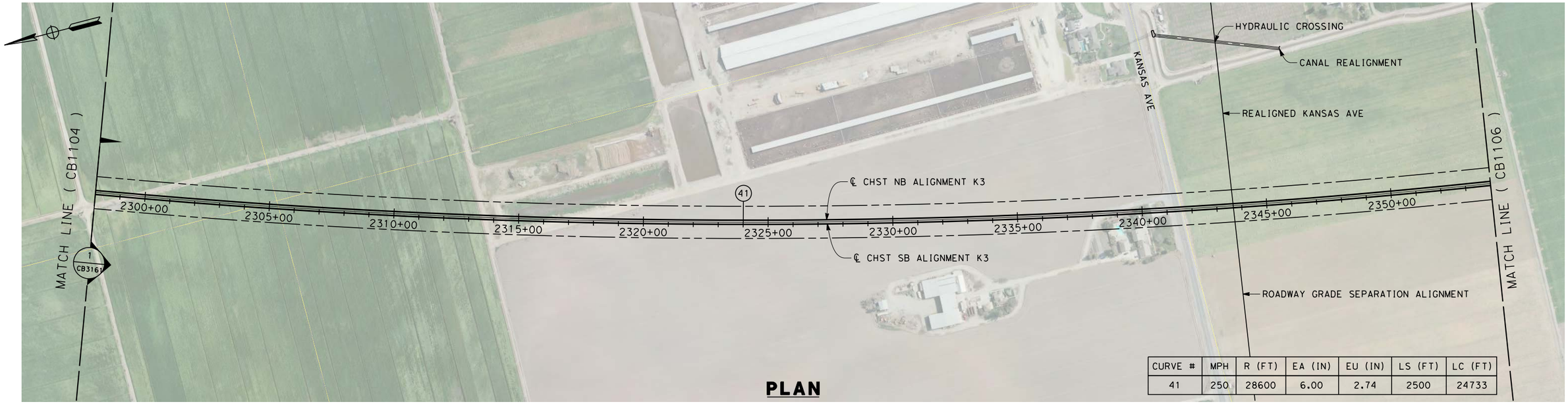
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2242+00 TO 2298+00
PLAN AND PROFILE

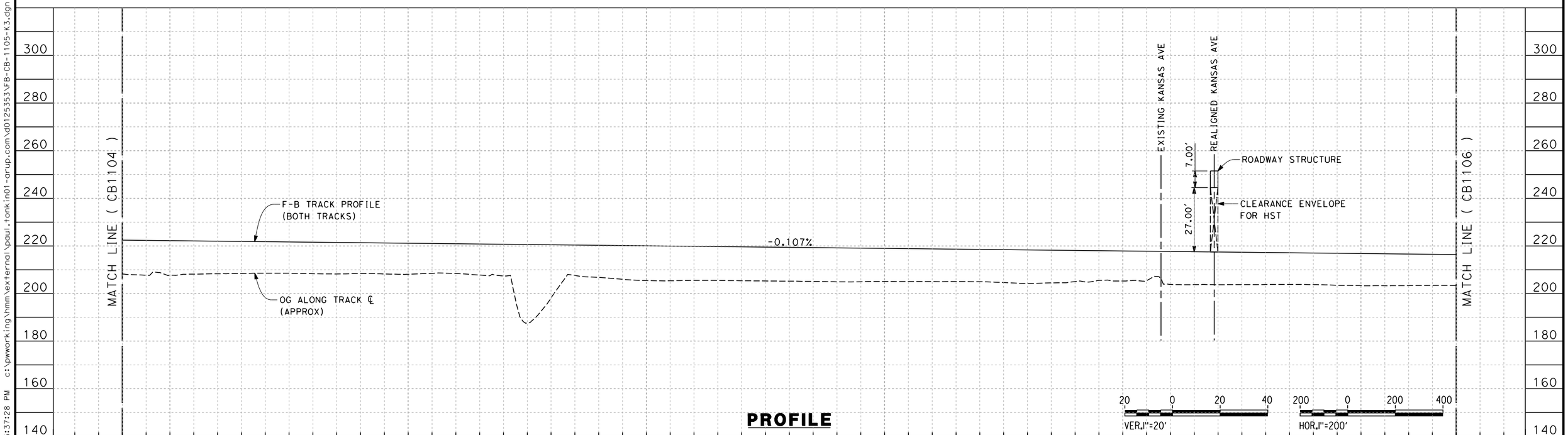
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1104
SCALE AS SHOWN
SHEET NO. 5 OF 16

alexander.poling 12/12/2013 8:48:22 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1104-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

PLAN



PROFILE

STATION	2298+00	2300+00	2310+00	2320+00	2330+00	2340+00	2350+00	2354+00	TOTAL
CY Exc									
CY Emb									

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

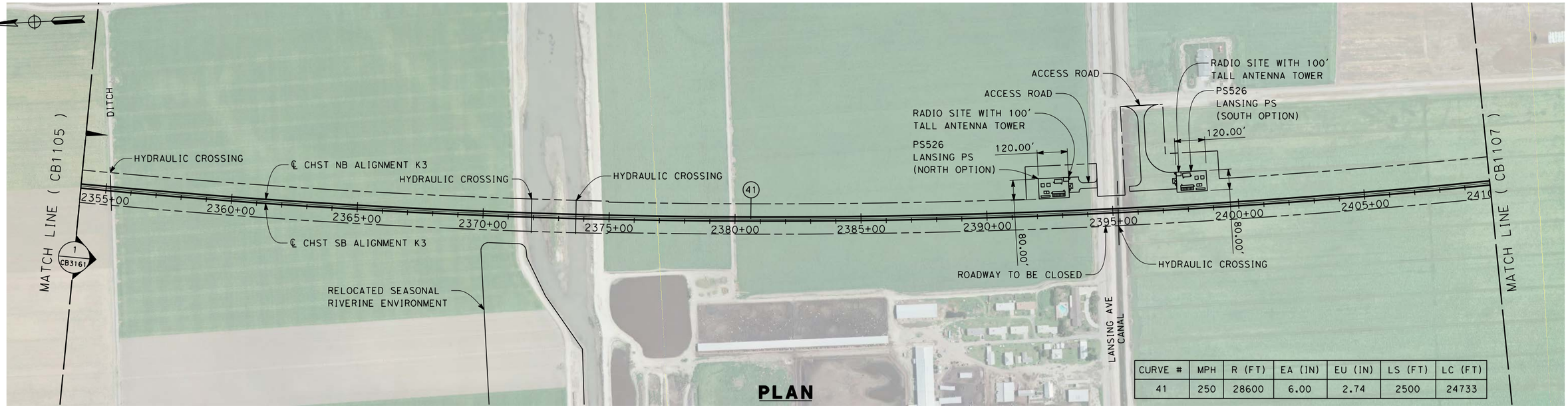
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2298+00 TO 2354+00
PLAN AND PROFILE

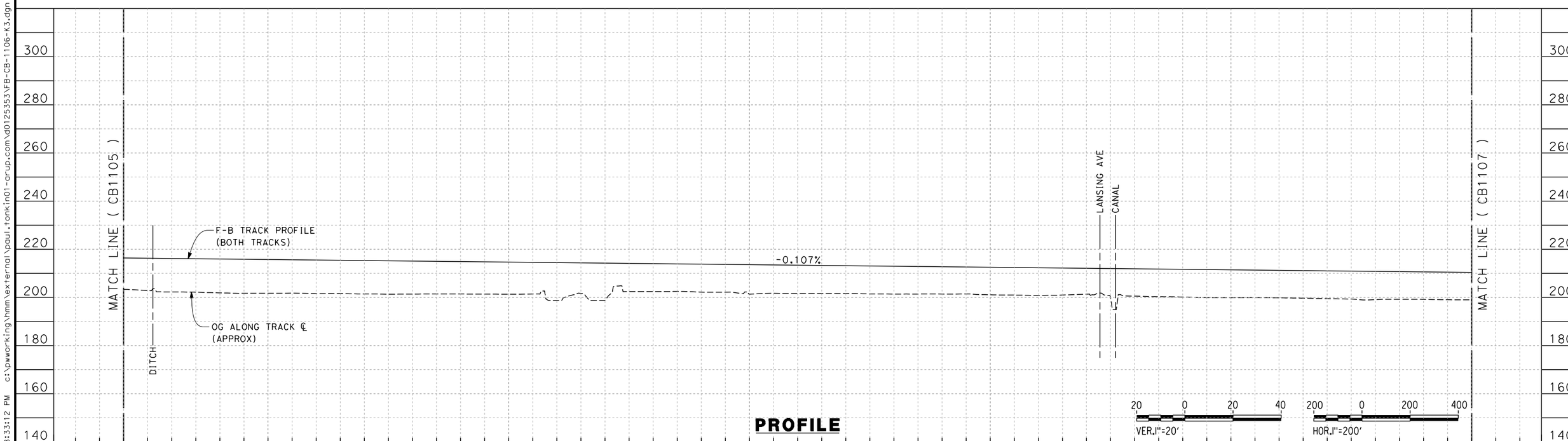
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1105
SCALE AS SHOWN
SHEET NO. 6 OF 16

paul.tonkin 12/23/2013 5:37:28 PM c:\pwworking\hmm\external\paul.tonkin01-arup.com\d0125353\FB-CB-1105-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

PLAN



PROFILE

STATION	2354+00	2360+00	2370+00	2380+00	2390+00	2400+00	2410+00	TOTAL
CY Exc								
CY Emb								

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

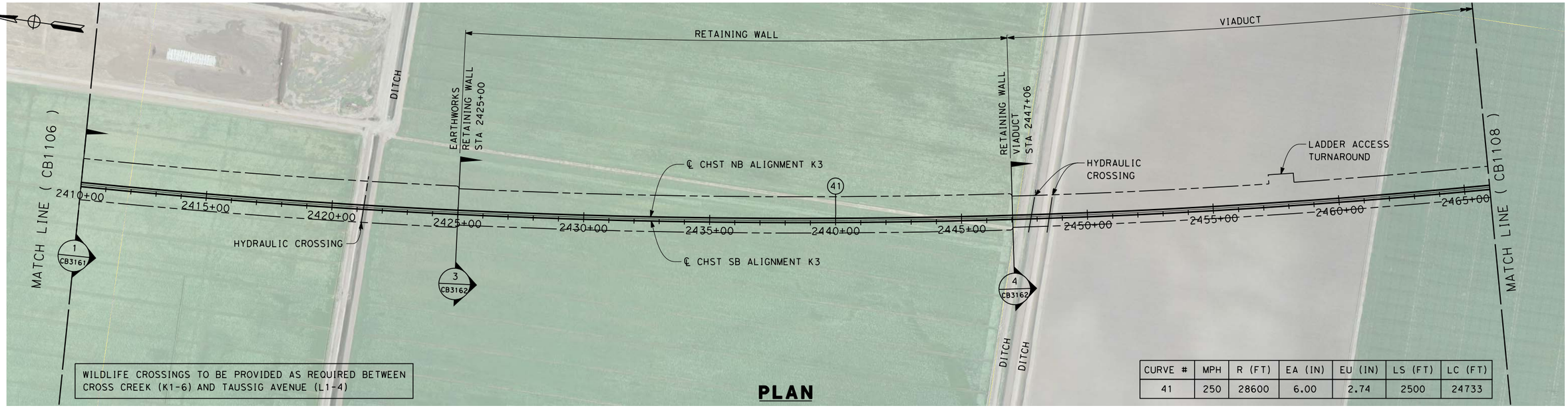
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2354+00 TO 2410+00
PLAN AND PROFILE

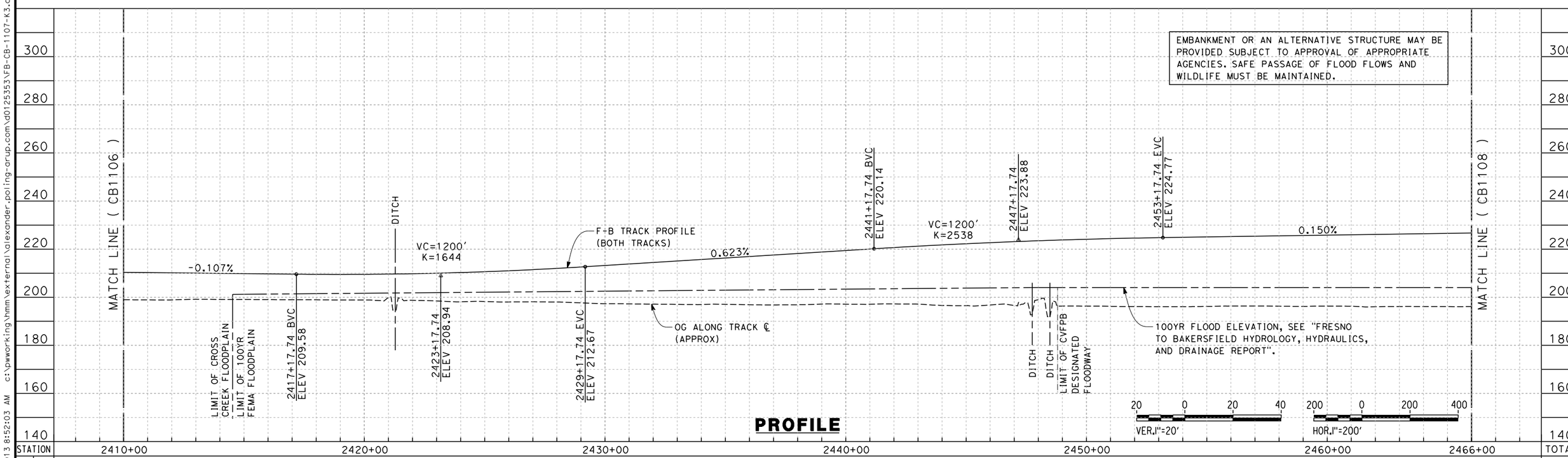
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1106
SCALE AS SHOWN
SHEET NO. 7 OF 16

paul.tonkin 12/12/2013 8:33:12 PM c:\pwworking\hmm\external\paul.tonkin01-arup.com\d0125353\FB-CB-1106-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

PLAN



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

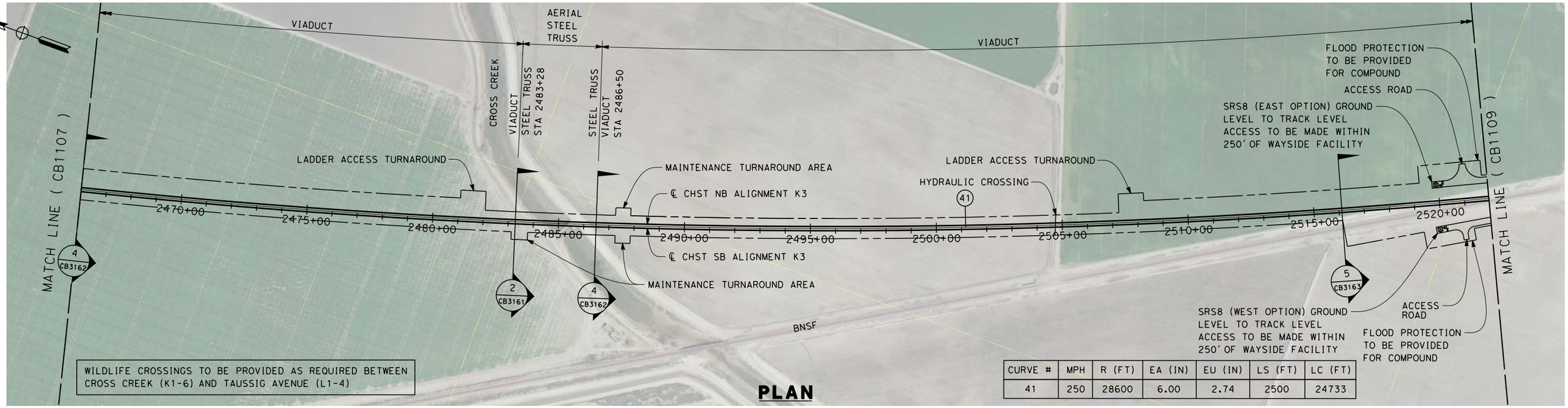
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2410+00 TO 2466+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1107
SCALE AS SHOWN
SHEET NO. 8 OF 16

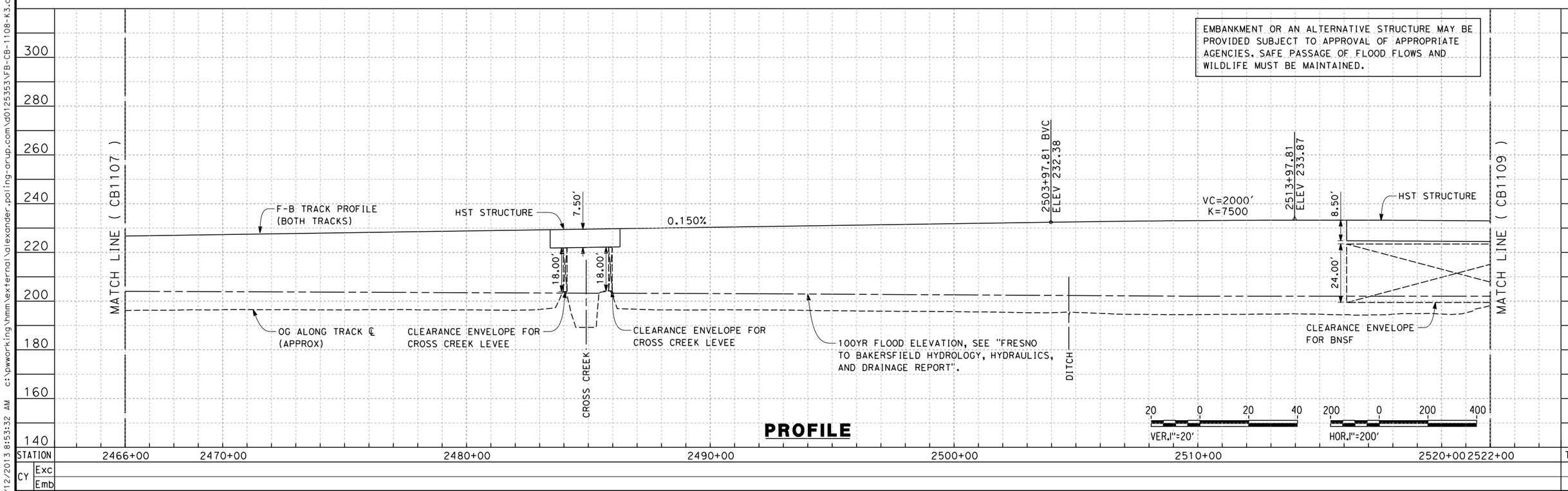
alexander.poling 12/12/2013 8:52:03 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1107-K3.dgn



CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE MAY BE PROVIDED SUBJECT TO APPROVAL OF APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

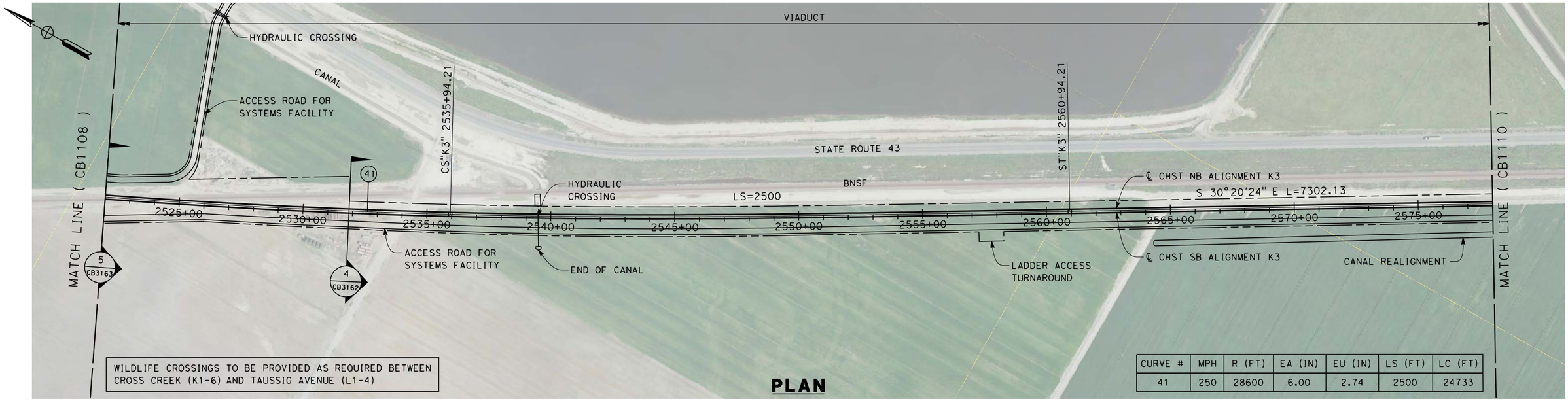
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2466+00 TO 2522+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1108
SCALE AS SHOWN
SHEET NO. 9 OF 16

alexander.poling 12/12/2013 8:53:32 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1108-K3.dgn

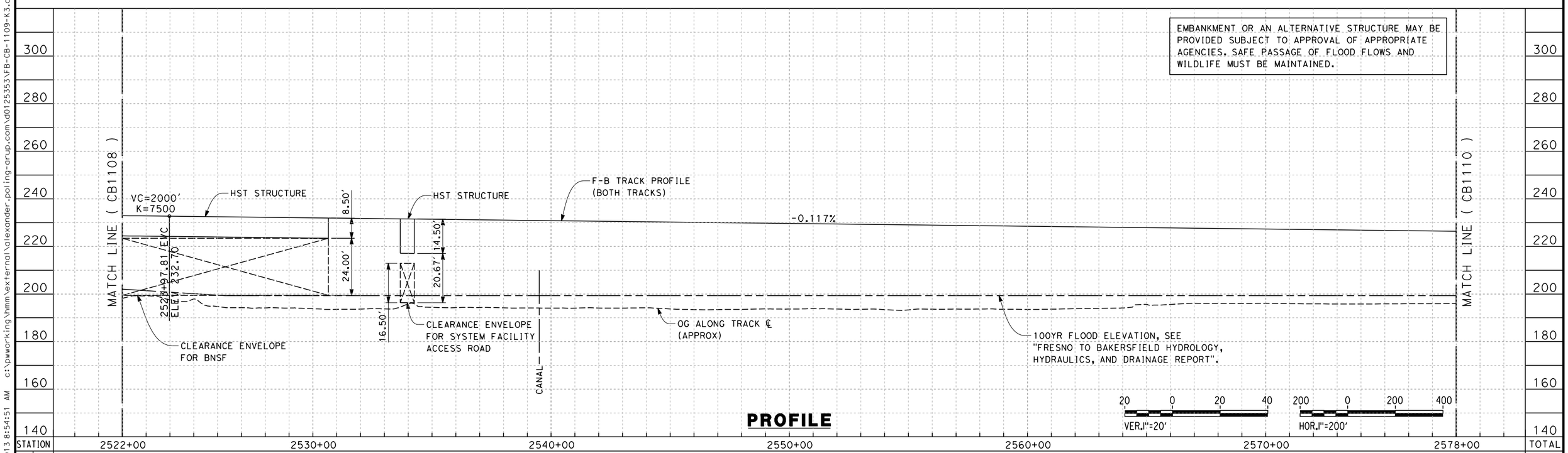


WILDLIFE CROSSINGS TO BE PROVIDED AS REQUIRED BETWEEN CROSS CREEK (K1-6) AND TAUSSIG AVENUE (L1-4)

PLAN

CURVE #	MPH	R (FT)	EA (IN)	EU (IN)	LS (FT)	LC (FT)
41	250	28600	6.00	2.74	2500	24733

EMBANKMENT OR AN ALTERNATIVE STRUCTURE MAY BE PROVIDED SUBJECT TO APPROVAL OF APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

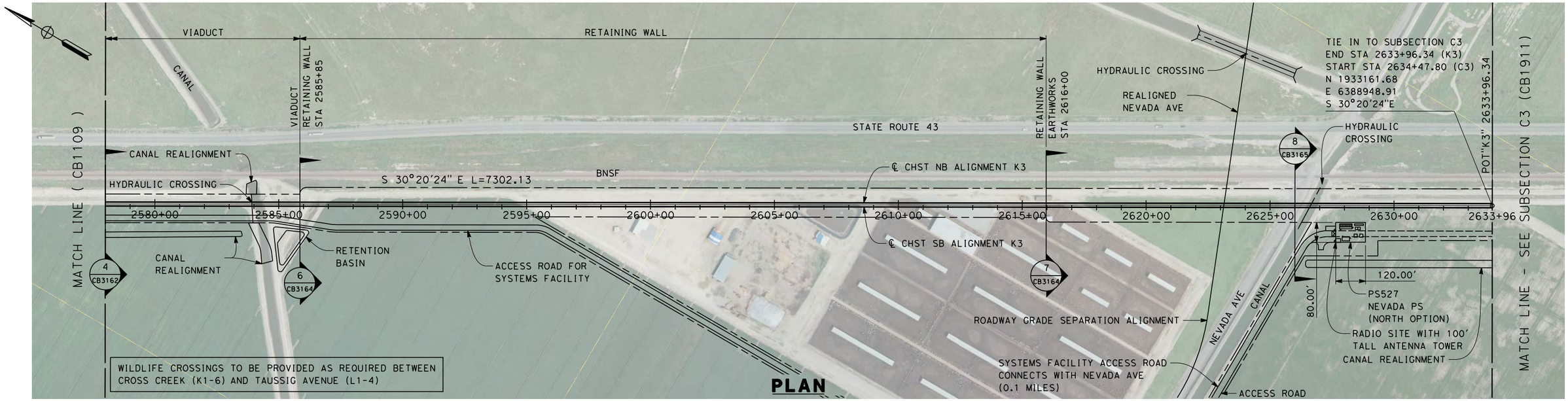
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2522+00 TO 2578+00
PLAN AND PROFILE

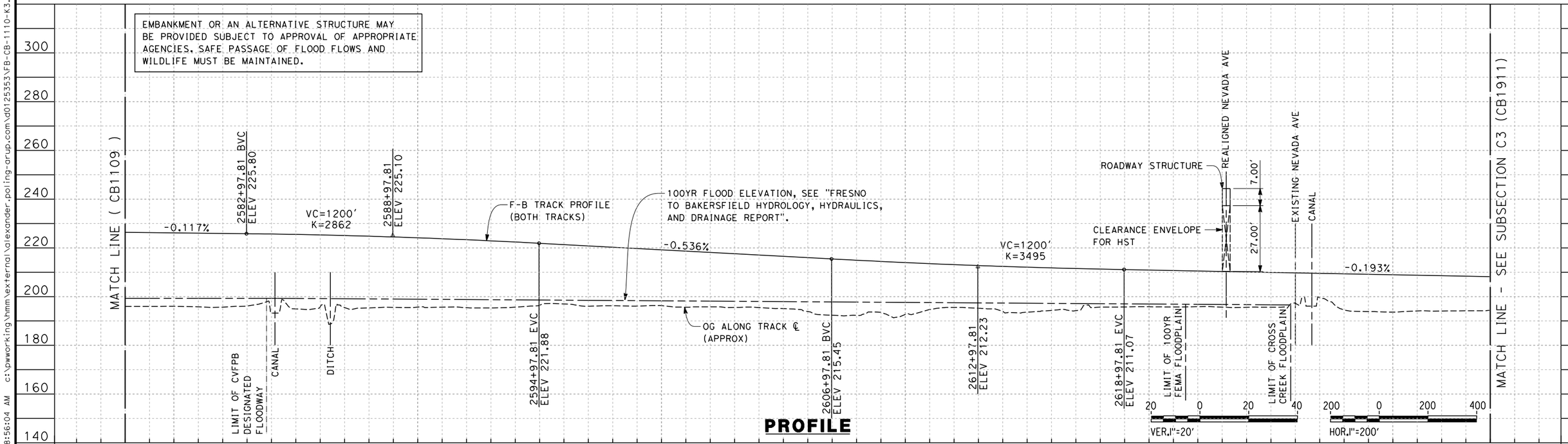
CONTRACT NO. HSR 06-0003
DRAWING NO. CB1109
SCALE AS SHOWN
SHEET NO. 10 OF 16

alexander.poling 12/12/2013 8:54:51 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1109-K3.dgn



PLAN

EMBANKMENT OR AN ALTERNATIVE STRUCTURE MAY BE PROVIDED SUBJECT TO APPROVAL OF APPROPRIATE AGENCIES. SAFE PASSAGE OF FLOOD FLOWS AND WILDLIFE MUST BE MAINTAINED.



PROFILE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

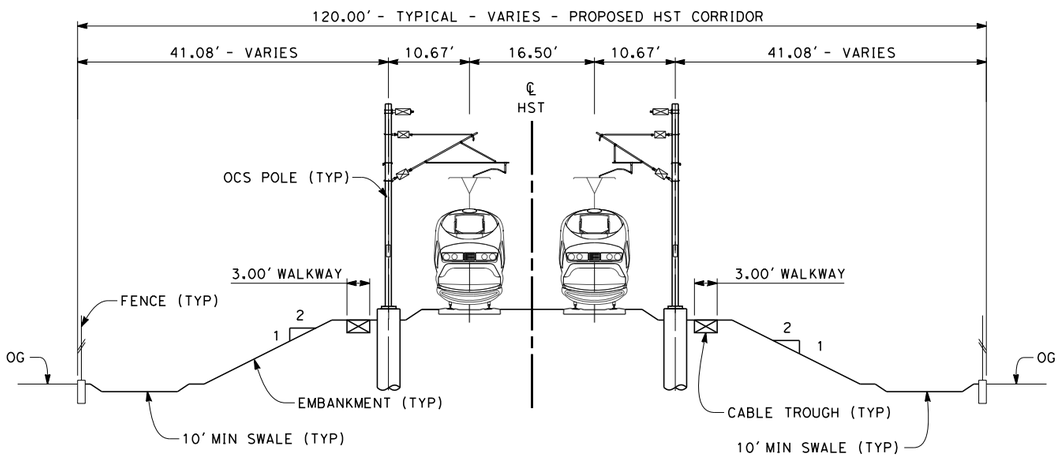
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STA. 2578+00 TO 2634+00
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. CB1110
SCALE AS SHOWN
SHEET NO. 11 OF 16

alexander.poling 12/12/2013 8:56:04 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-1110-K3.dgn

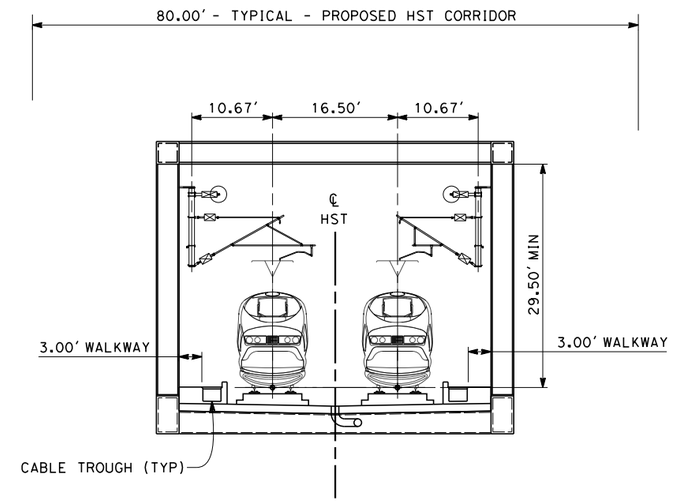
NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



SECTION 1

TWIN TRACK - AT-GRADE WITH OPEN DRAINAGE
STA 2073+97 THROUGH STA 2243+72
STA 2249+46 THROUGH STA 2425+00



SECTION 2

TWIN TRACK TRUSS
STA 2243+72 THROUGH STA 2249+46
STA 2483+28 THROUGH STA 2486+50

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

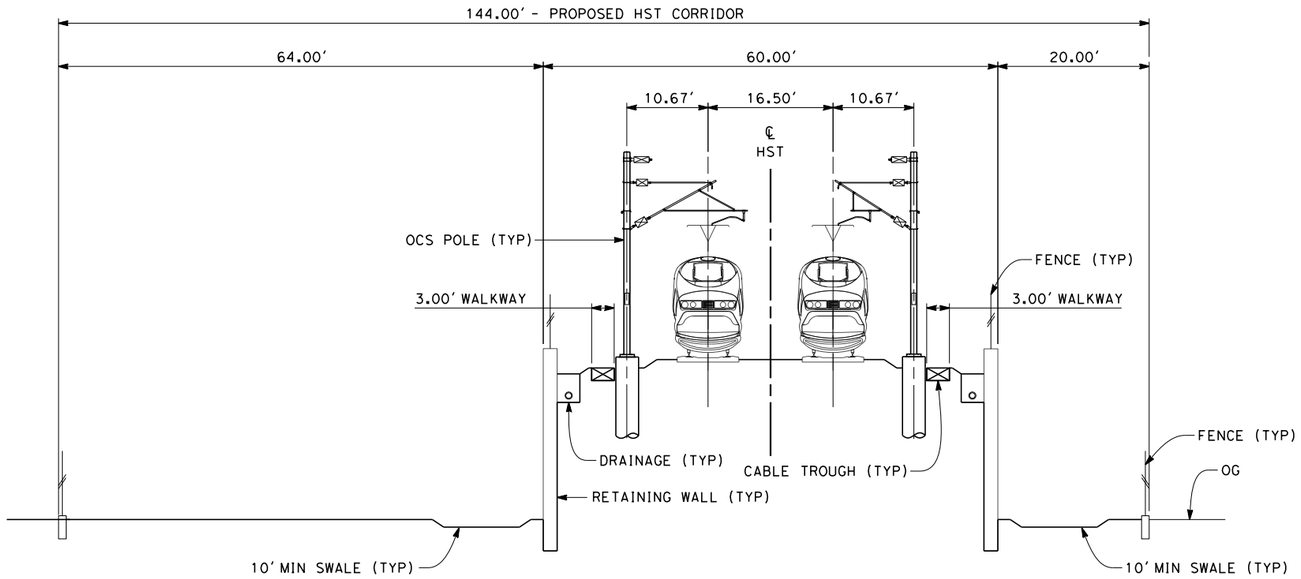
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3161
SCALE AS SHOWN
SHEET NO. 12 OF 16

alexander.poling 12/12/2013 8:56:47 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-3161-K3 .dgn

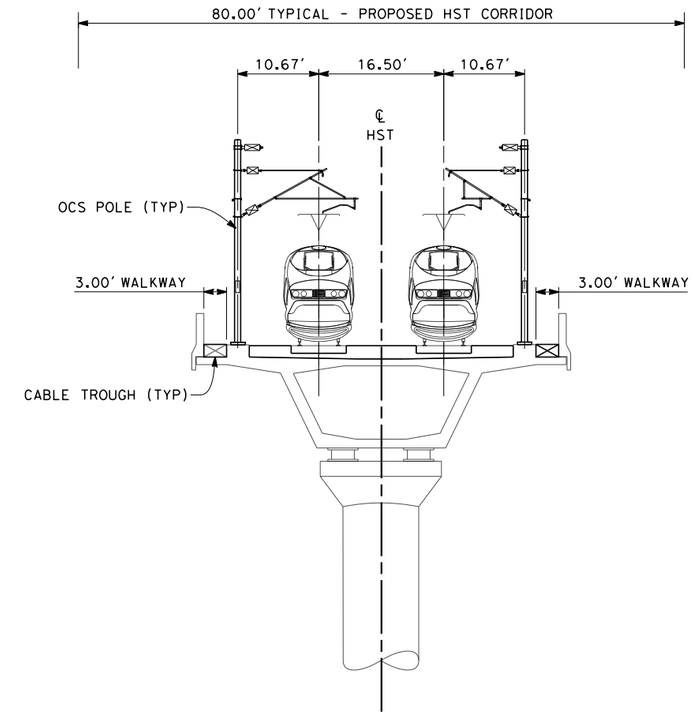
NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



SECTION 3

TWIN TRACK - ON RETAINED EMBANKMENT
STA 2425+00 THROUGH STA 2447+06



SECTION 4

TWIN TRACK - AERIAL VIADUCT
STA 2447+06 THROUGH STA 2483+28
STA 2486+50 THROUGH STA 2516+11
STA 2531+85 THROUGH STA 2585+85

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

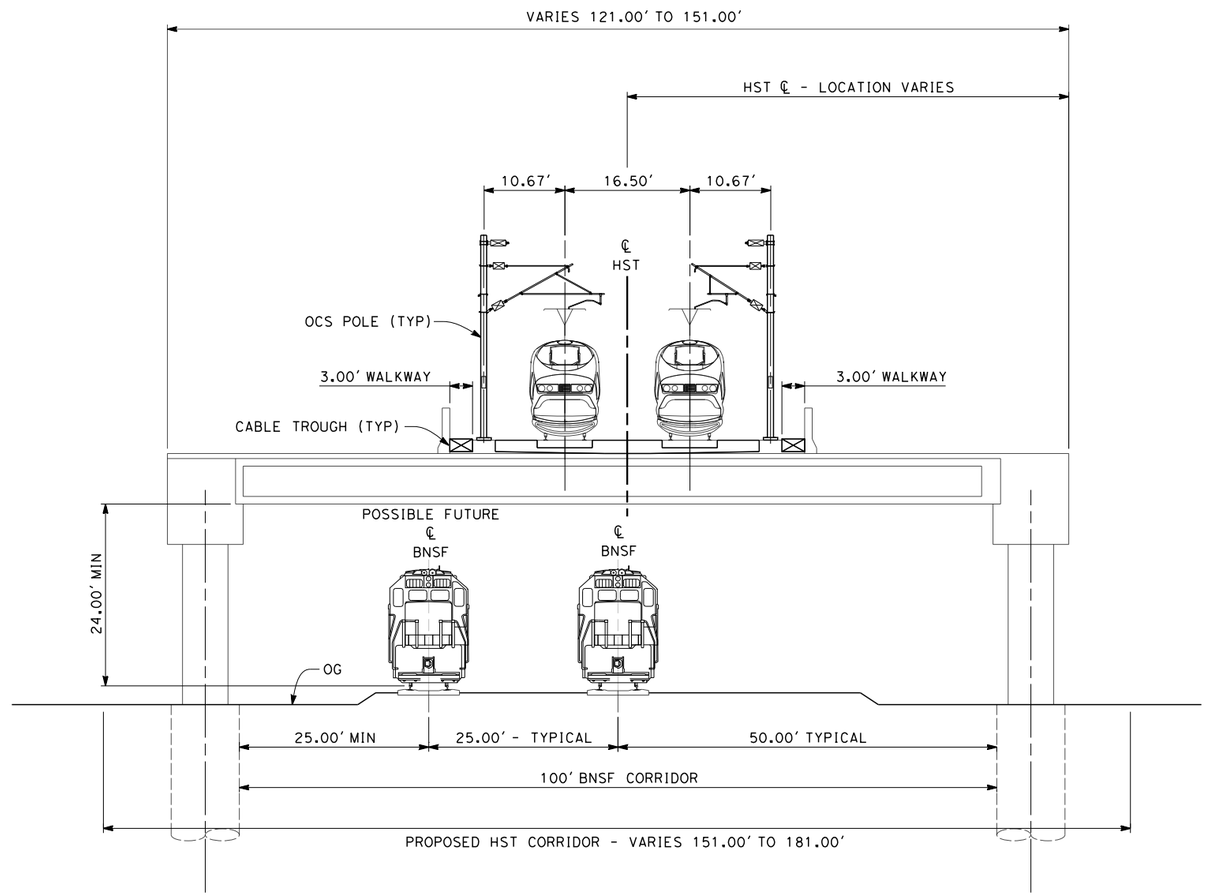
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3162
SCALE AS SHOWN
SHEET NO. 13 OF 16

alexander.poling 12/12/2013 8:57:14 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-3162-K3.dgn

NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



SECTION 5

TWIN TRACK - ELEVATED SLAB OVER BNSF
STA 2516+11 THROUGH STA 2531+85

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

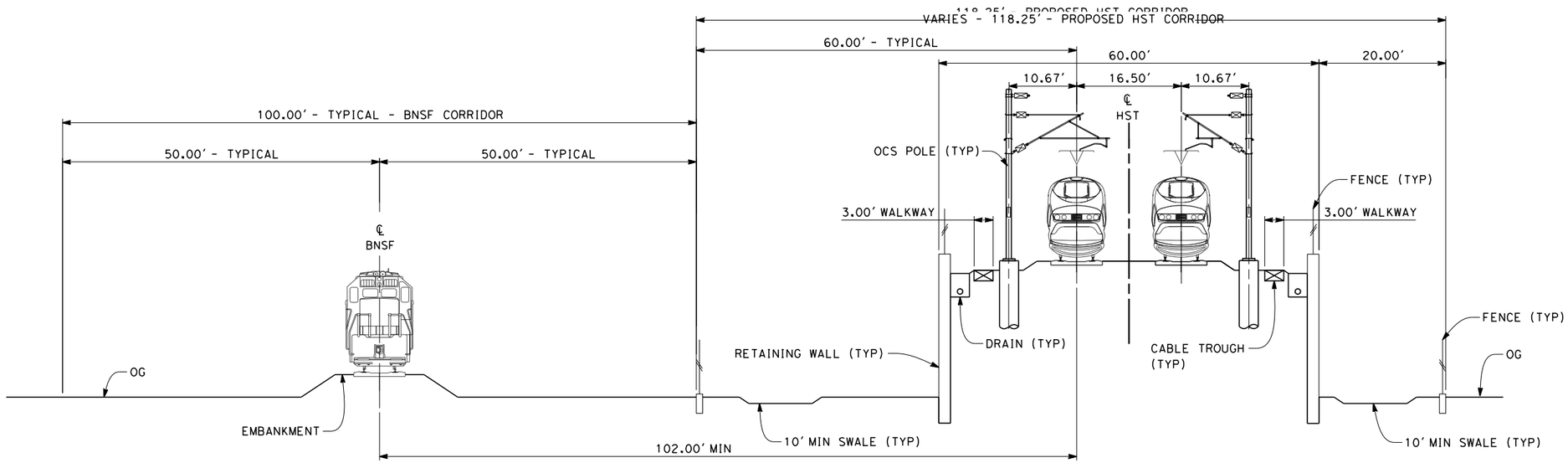
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3163
SCALE AS SHOWN
SHEET NO. 14 OF 16

$USER$ $DATE$ $TIME$ $FILE$

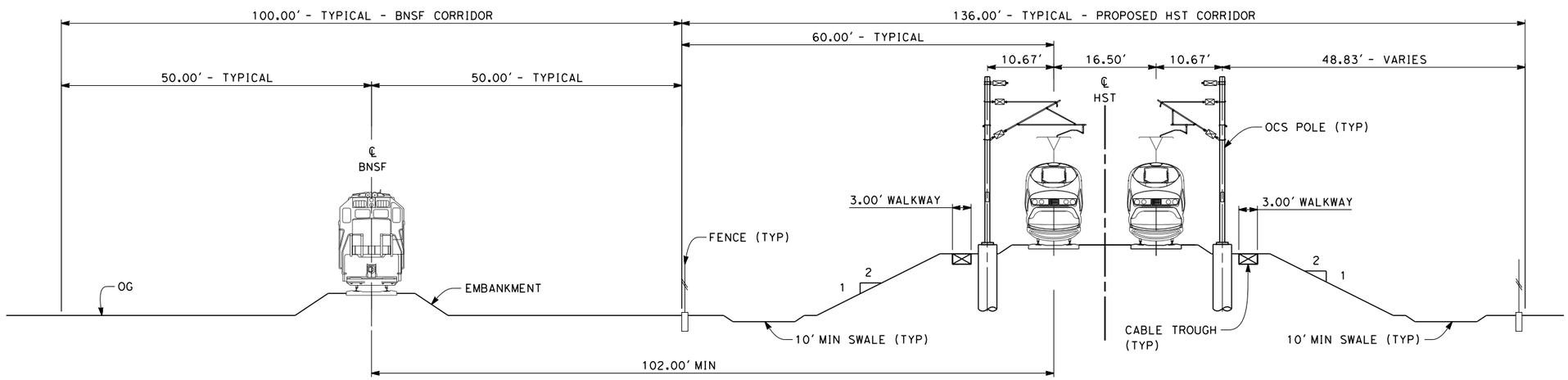
NOTES:

1. TRACKFORM SHOWN IS INDICATIVE
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL CROSS SECTIONS
3. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.



SECTION 6

TWIN TRACK - RETAINED EMBANKMENT ADJACENT TO SINGLE TRACK BNSF
STA 2585+85 THROUGH STA 2616+00



SECTION 7

TWIN TRACK - ADJACENT TO SINGLE TRACK BNSF
STA 2616+00 THROUGH STA 2626+00

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY A. POLING
DRAWN BY E. TANAKA
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN 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
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. CB3164
SCALE AS SHOWN
SHEET NO. 15 OF 16

alexander.poling 12/12/2013 8:58:20 AM c:\pwworking\hmm\external\alexander.poling-arup.com\d0125353\FB-CB-3164-K3.dgn