REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

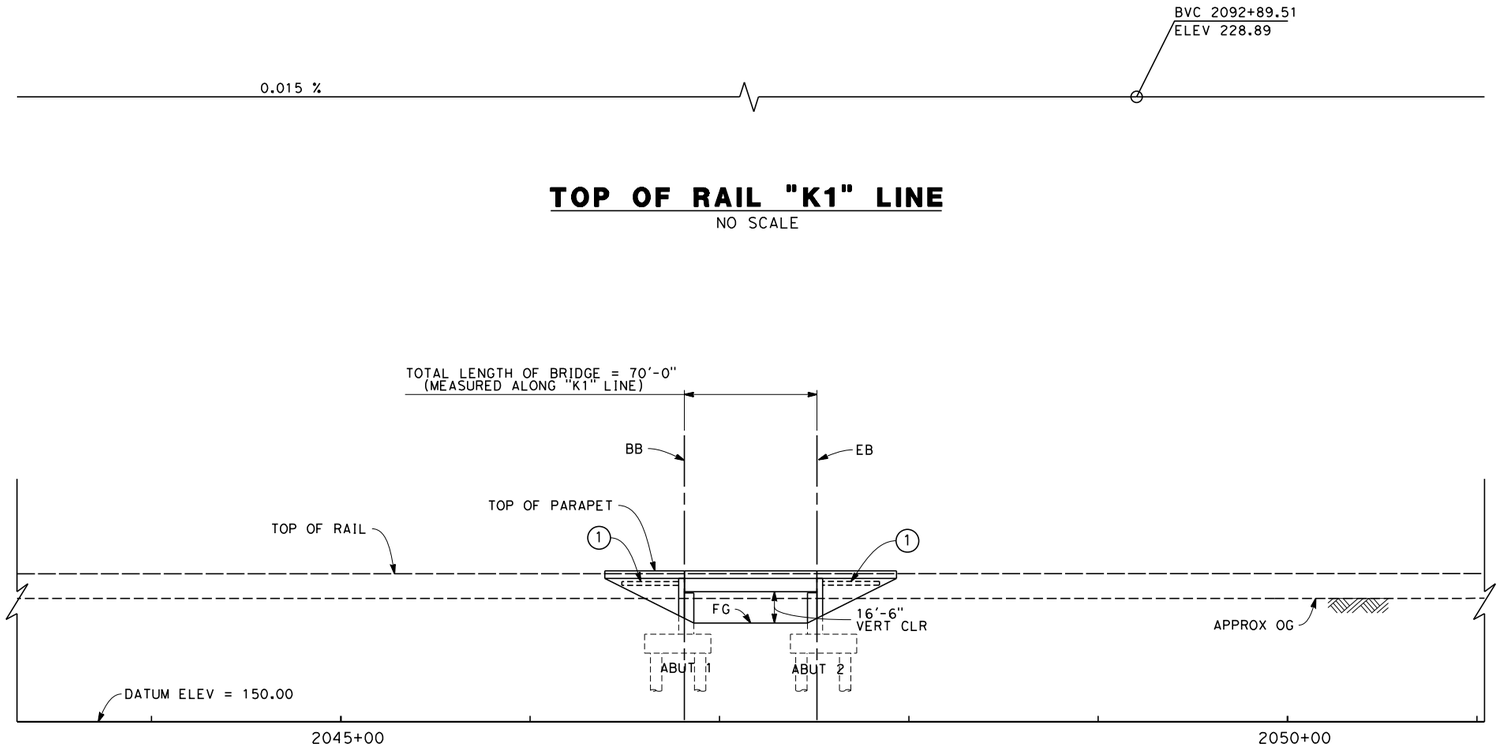
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

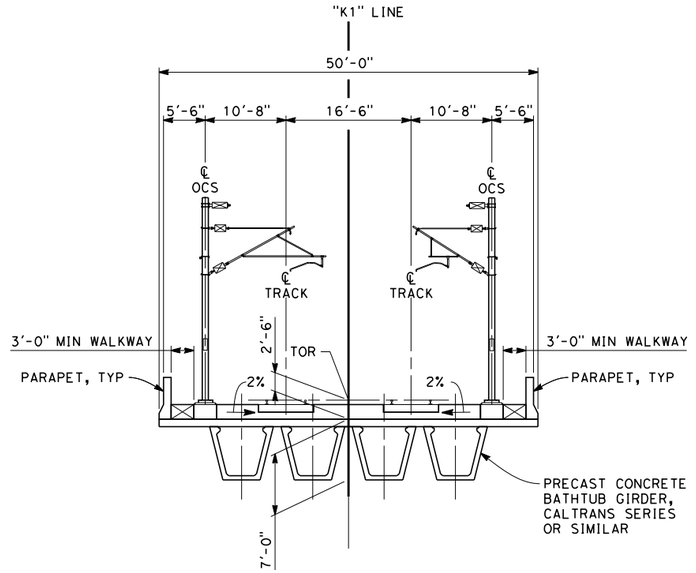
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
IDAHO AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2060
SCALE AS SHOWN
SHEET NO. 1 OF 2



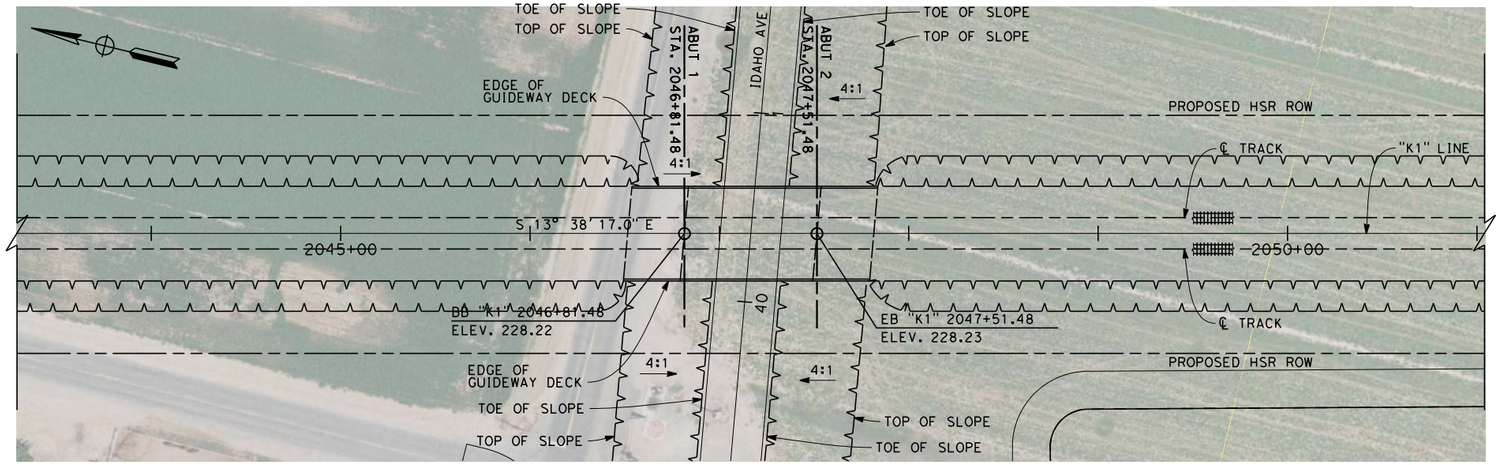
TOP OF RAIL "K1" LINE

NO SCALE



TYPICAL SECTION

SCALE: 1"=10'



PLAN

SCALE: 1"=40'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
IDAHO AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2061
SCALE AS SHOWN
SHEET NO. 2 OF 2

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M.FISHER
DRAWN BY F.PALERMO
CHECKED BY A.ARMSTRONG
IN CHARGE R.COFFIN
DATE 12/31/13

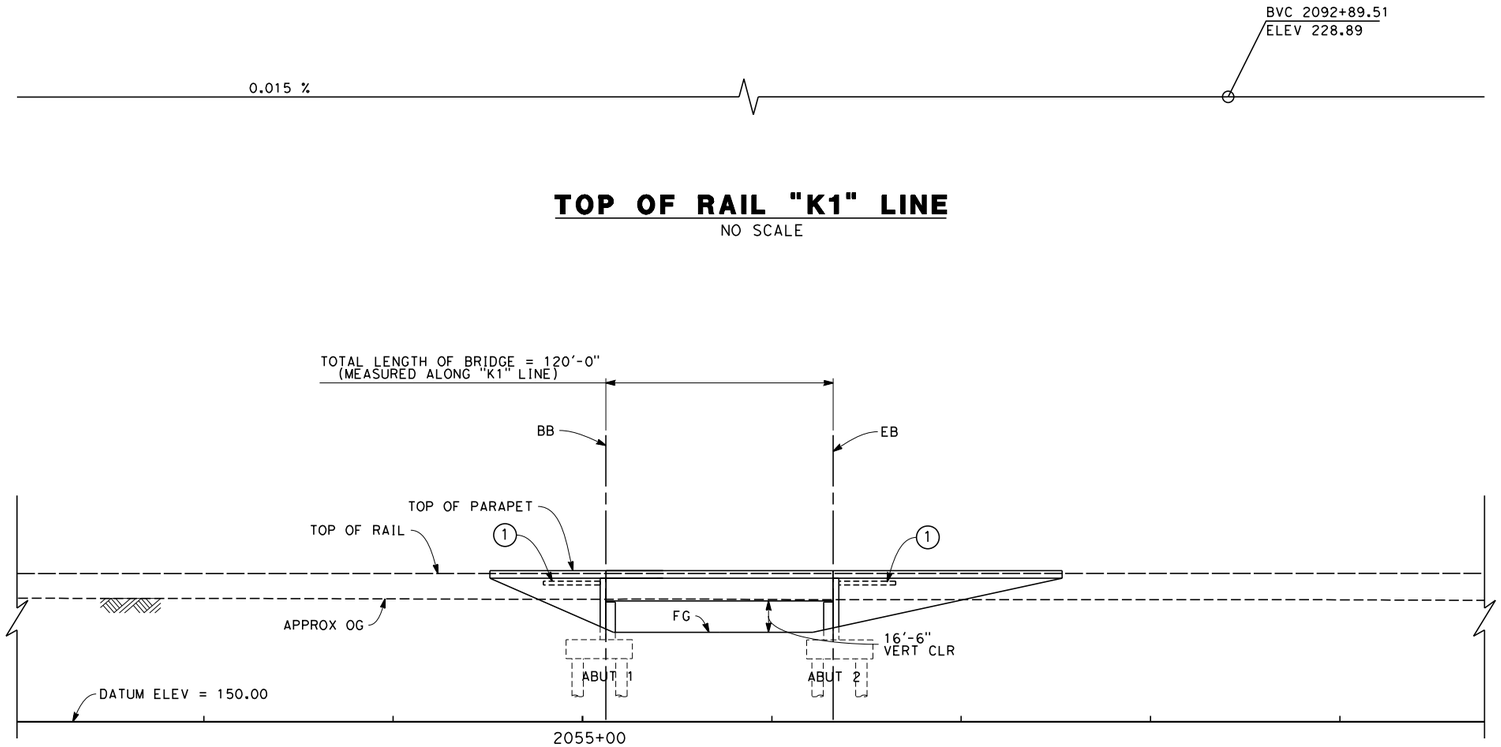
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
12TH AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2065
SCALE AS SHOWN
SHEET NO. 1 OF 2

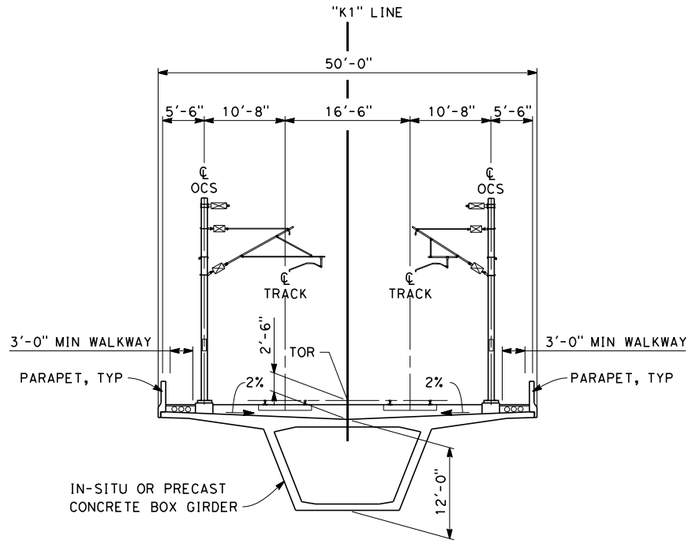


TOP OF RAIL "K1" LINE

NO SCALE

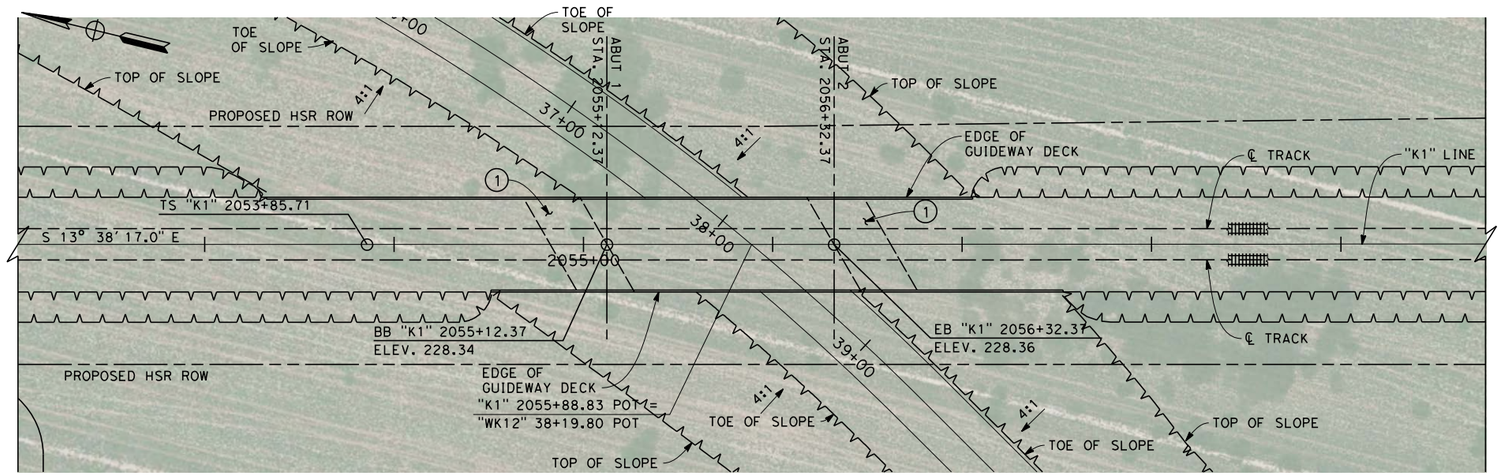
ELEVATION

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'



PLAN

SCALE: 1"=40'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
12TH AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2066
SCALE AS SHOWN
SHEET NO. 2 OF 2

IONA AVE
SUBSECTION HW
IDAHO AVE
S 11TH AVE
EXISTING BNSF
"K1" LINE
JACKSON AVE
12TH AVE
SV2071
KENT AVE
KANSAS AVE
LANSING AVE
SR 43
SUBSECTION C1 & C2

LEGEND
EXISTING FREIGHT RAILROAD
PROPOSED CHST

2000 0 2000 4000
1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M.FISHER
DRAWN BY F.PALERMO
CHECKED BY A.ARMSTRONG
IN CHARGE R.COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

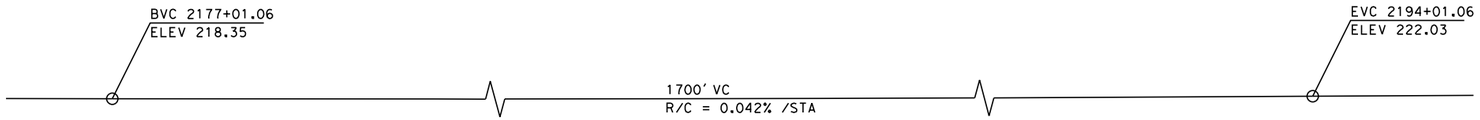
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
S 11TH AVE UNDERPASS
KEY MAP

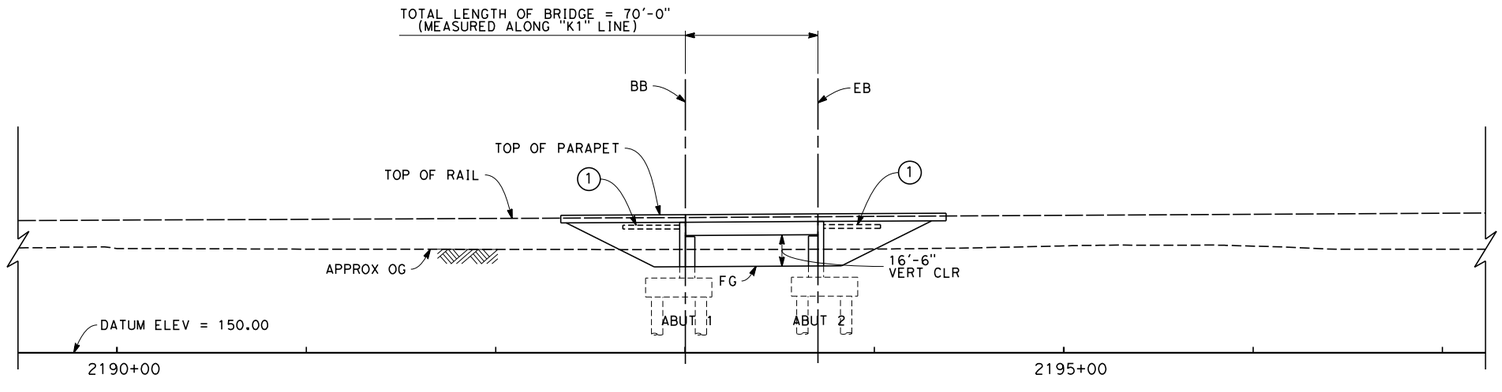
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2070
SCALE AS SHOWN
SHEET NO. 1 OF 2

Nadine.Hutton 12/12/2013 10:32:49 PM CAHSRP-r1.tbl PDF_half_black_200dpi.pltt \\pwworking\hmm\external\nadine.hutton-arup.com\d0103429\SV2070.dgn



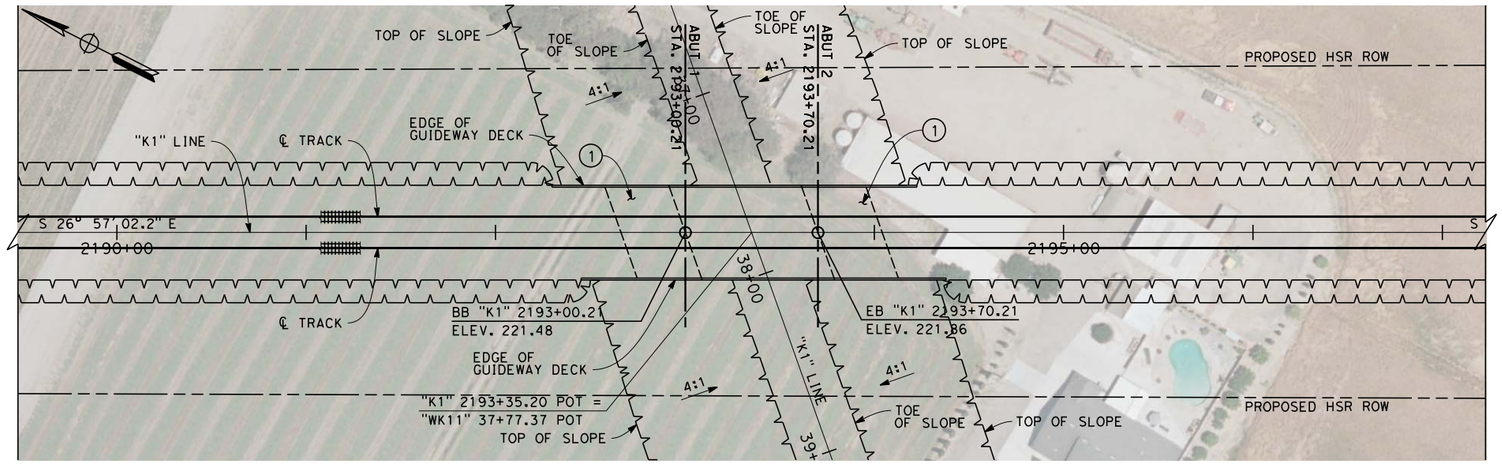
TOP OF RAIL "K1" LINE

NO SCALE



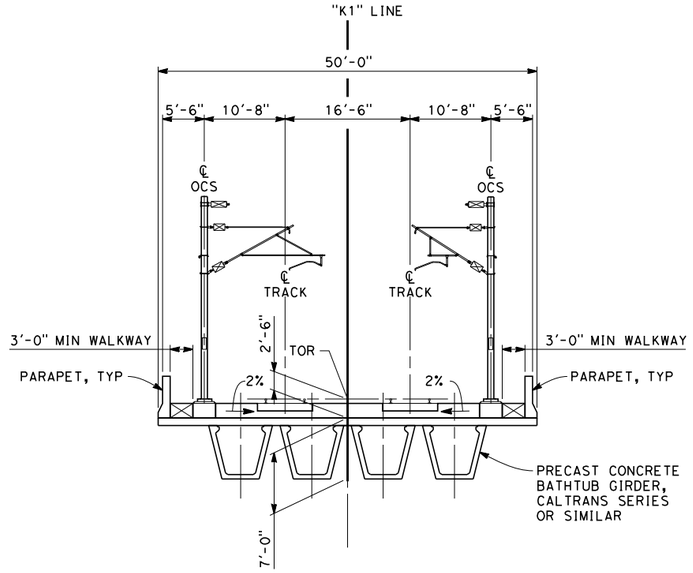
ELEVATION

SCALE: 1"=40'



PLAN

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
S 11TH AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2071
SCALE AS SHOWN
SHEET NO. 2 OF 2

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M.FISHER
DRAWN BY F.PALERMO
CHECKED BY A.ARMSTRONG
IN CHARGE R.COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

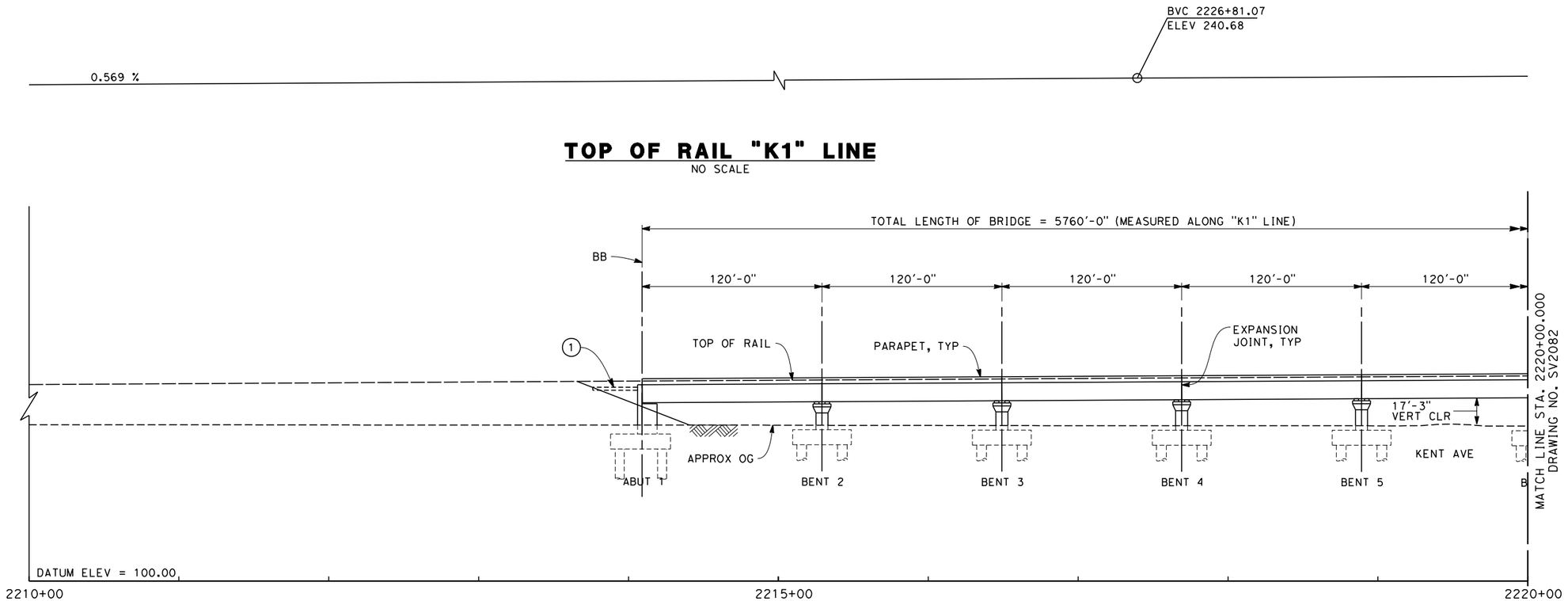
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

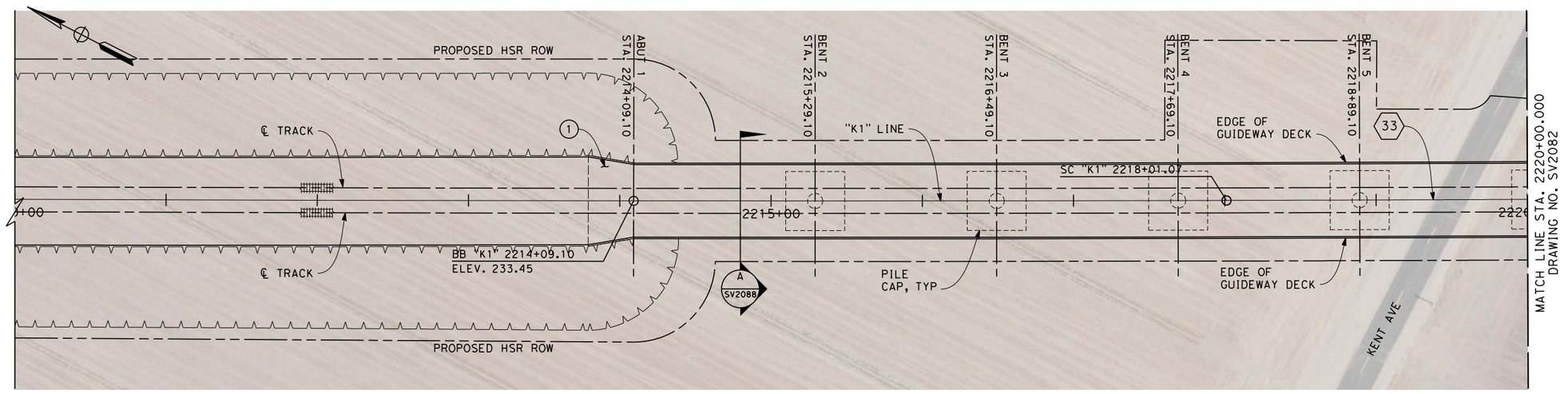
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2080
SCALE AS SHOWN
SHEET NO. 1 OF 9



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB
(2) RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(33)

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

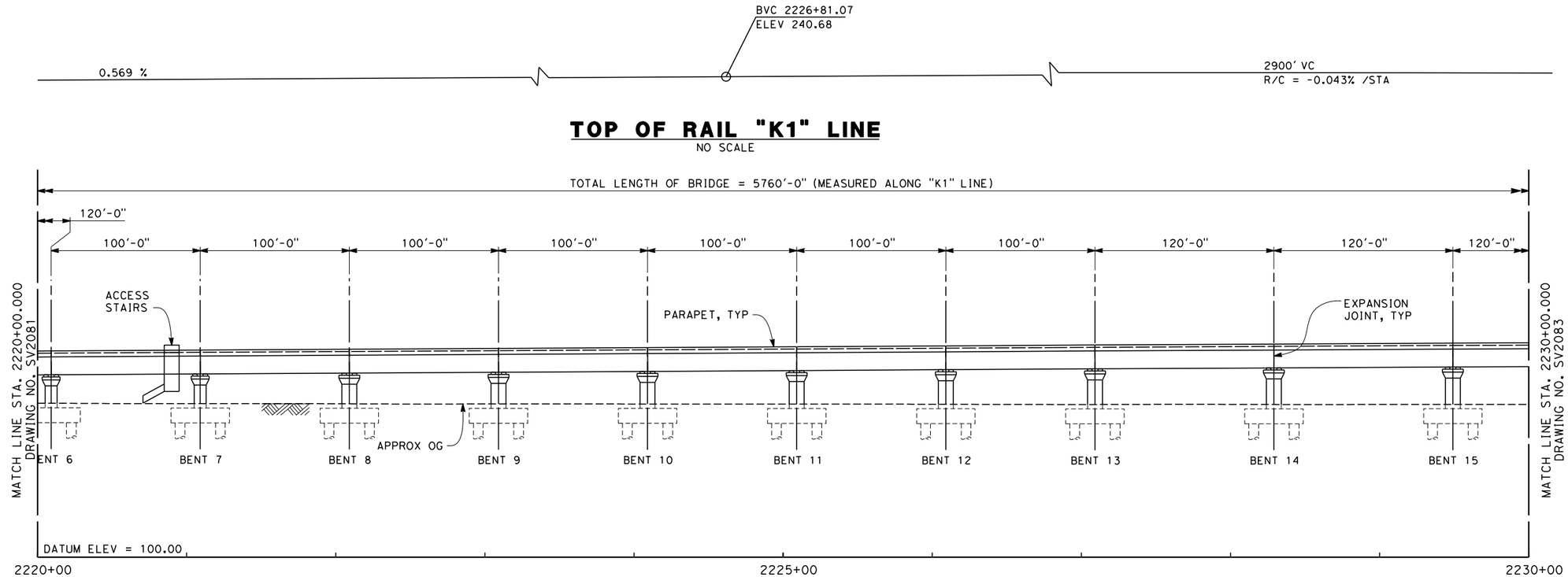
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2081
SCALE AS SHOWN
SHEET NO. 2 OF 9

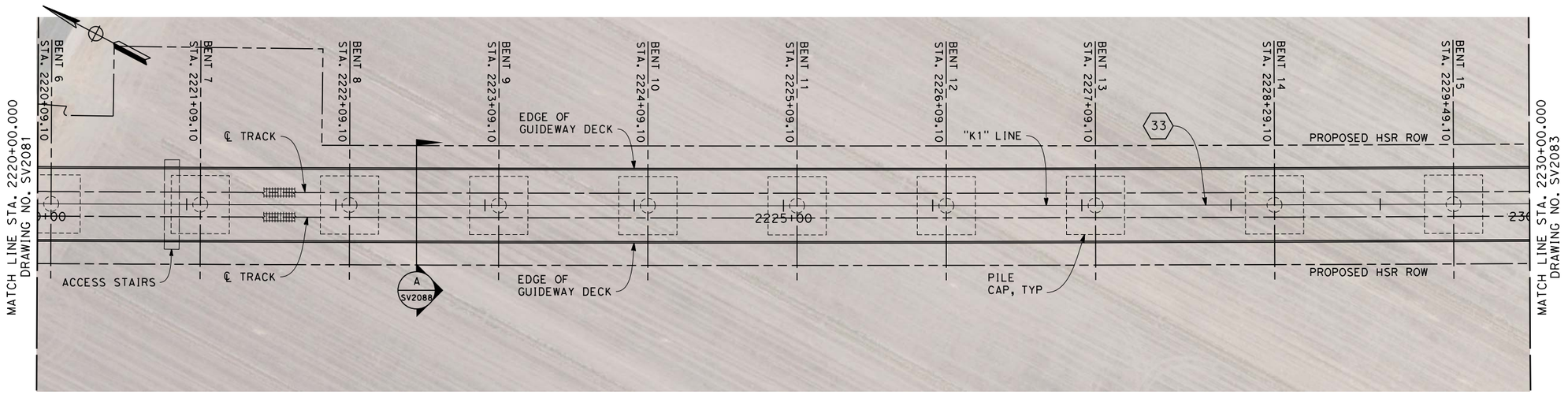


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

① STRUCTURE APPROACH SLAB

② RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

33

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

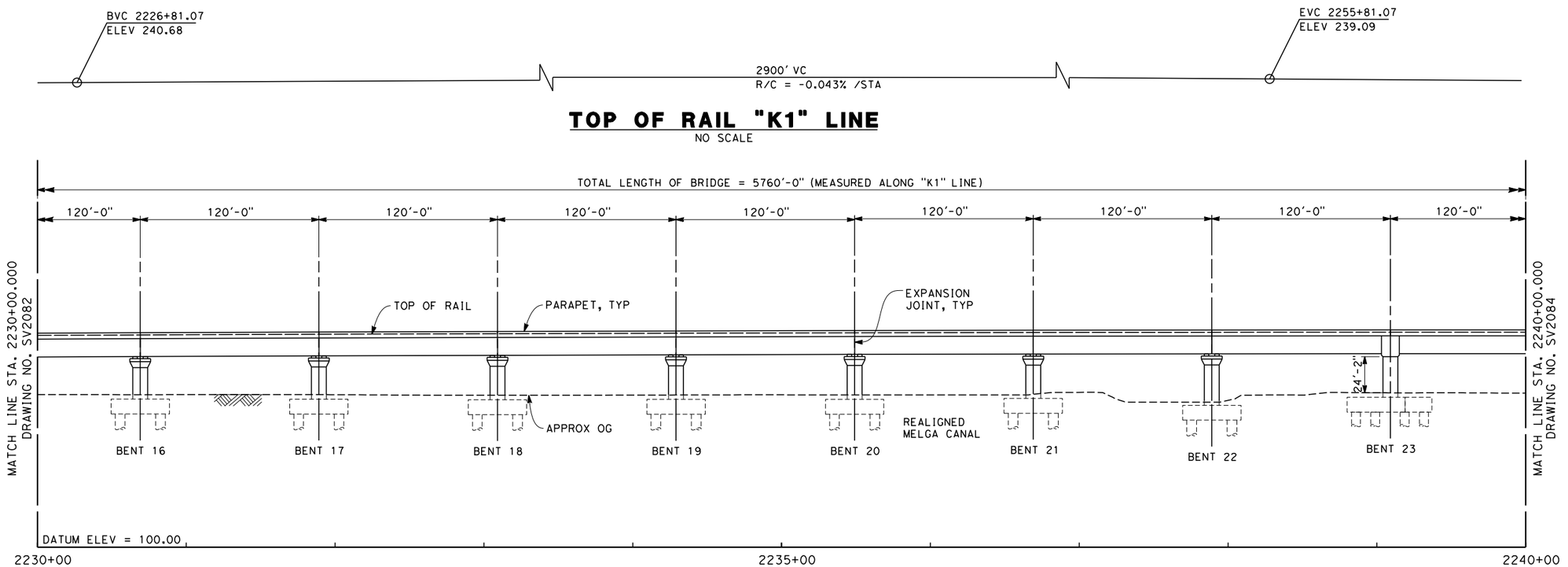
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2082
SCALE AS SHOWN
SHEET NO. 3 OF 9

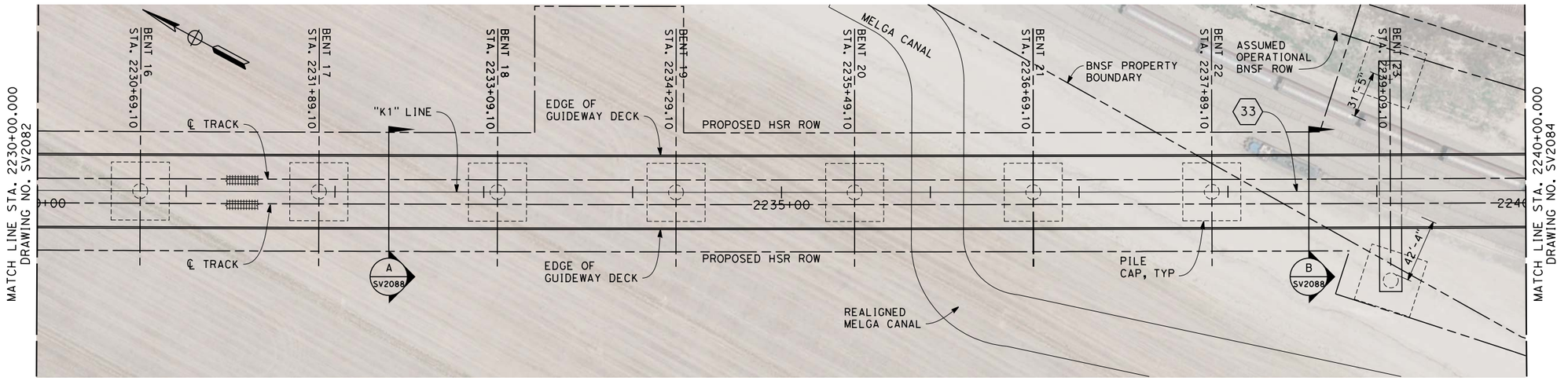


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   - SIMPLE SPANS - MSS OR FLPM
   - CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   - STEEL TRUSS - INSITU, SLID OR LAUNCHED
   - ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

33

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

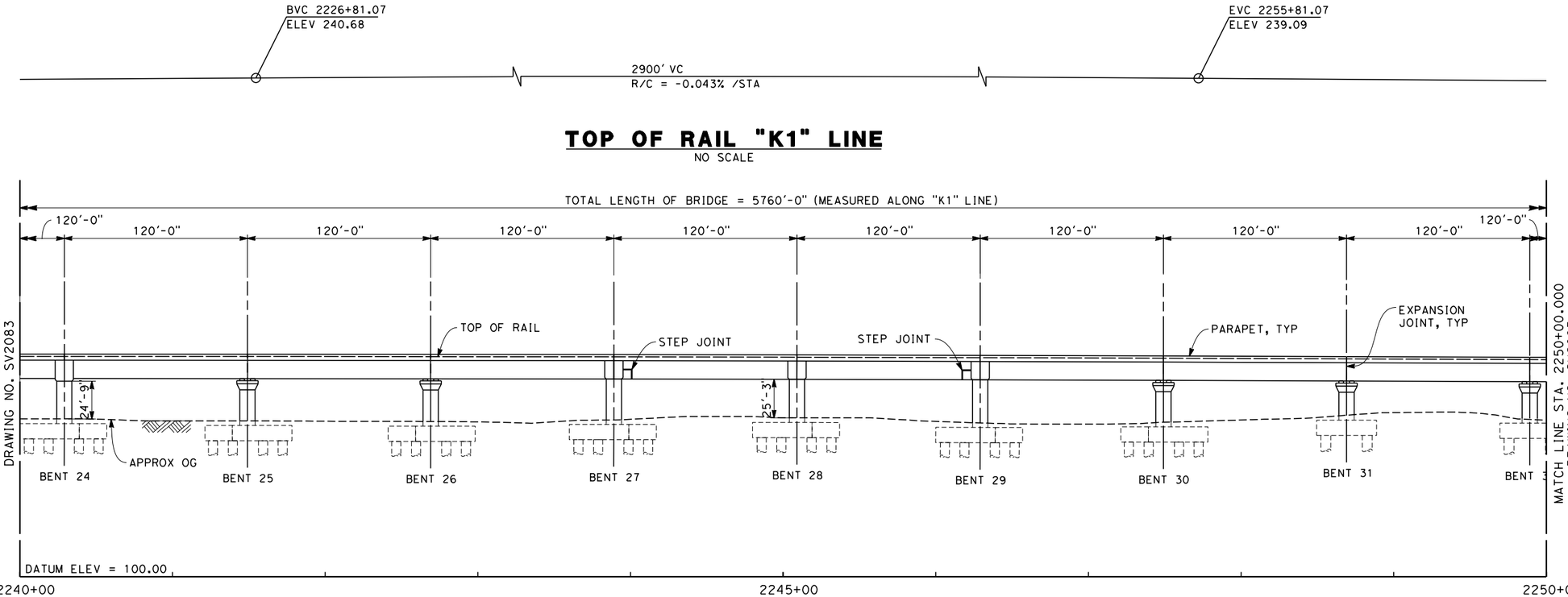
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2083
SCALE AS SHOWN
SHEET NO. 4 OF 9

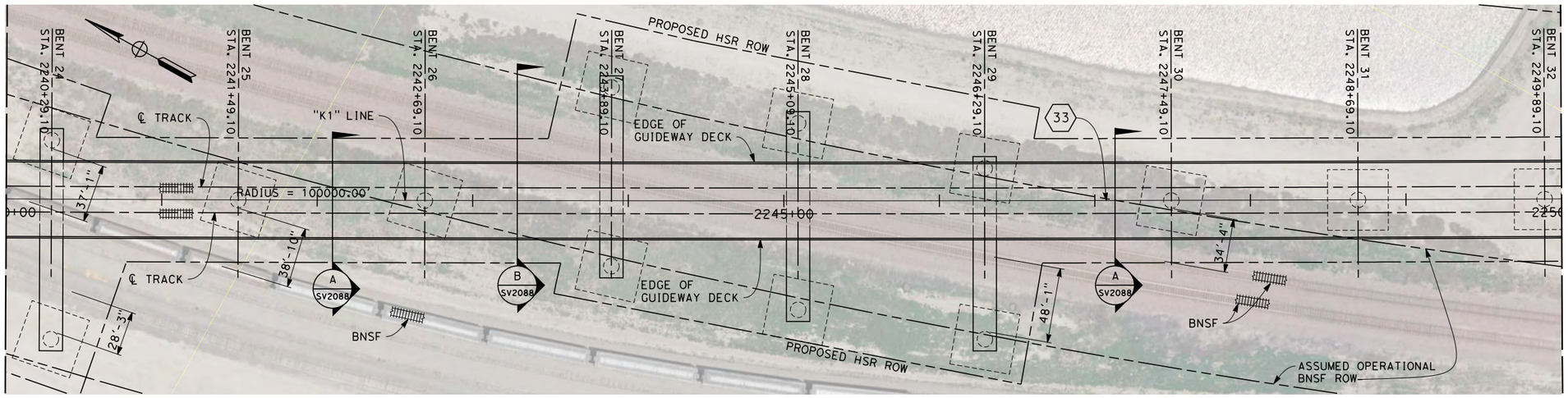


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   - SIMPLE SPANS - MSS OR FLPM
   - CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   - STEEL TRUSS - INSITU, SLID OR LAUNCHED
   - ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

33

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2084
SCALE AS SHOWN
SHEET NO. 5 OF 9

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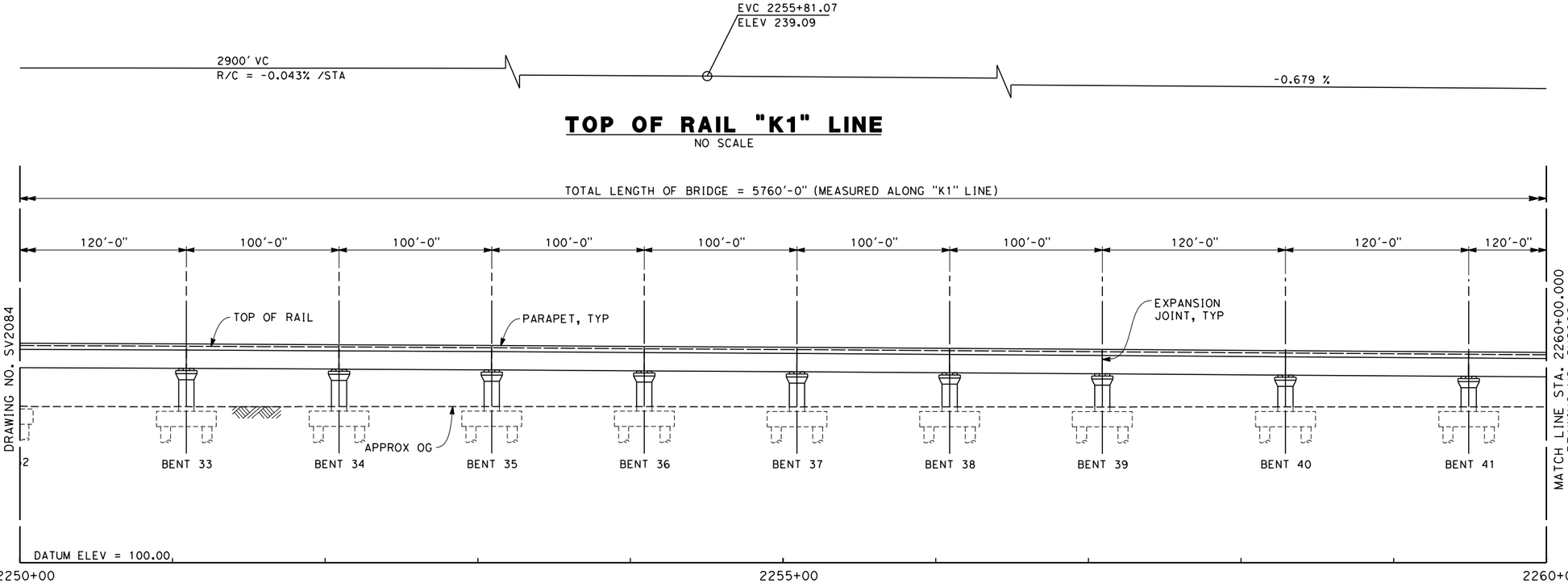


NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(33)

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

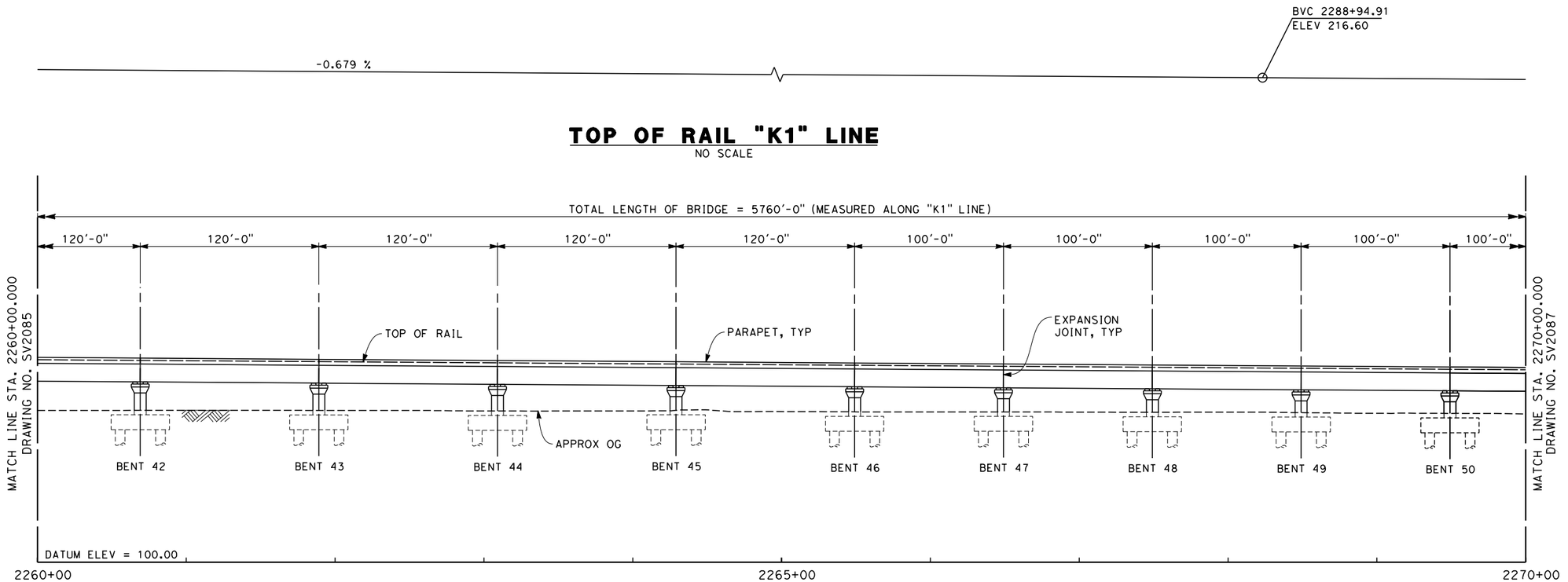
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

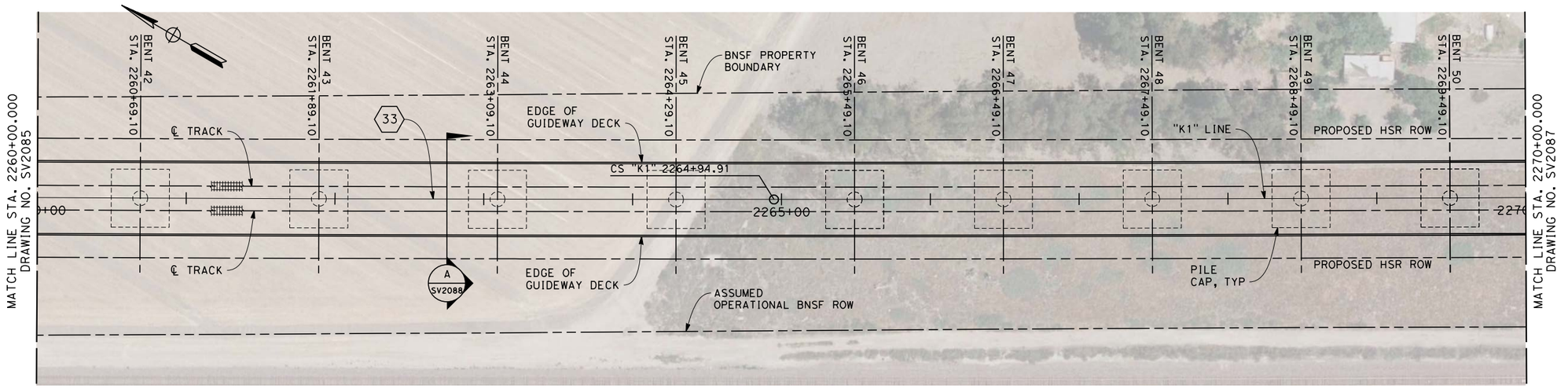
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2085
SCALE AS SHOWN
SHEET NO. 6 OF 9



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

33

R = 100000.00'
Δ = 02° 41' 21.7"
T = 2347.4'
L = 4693.8'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

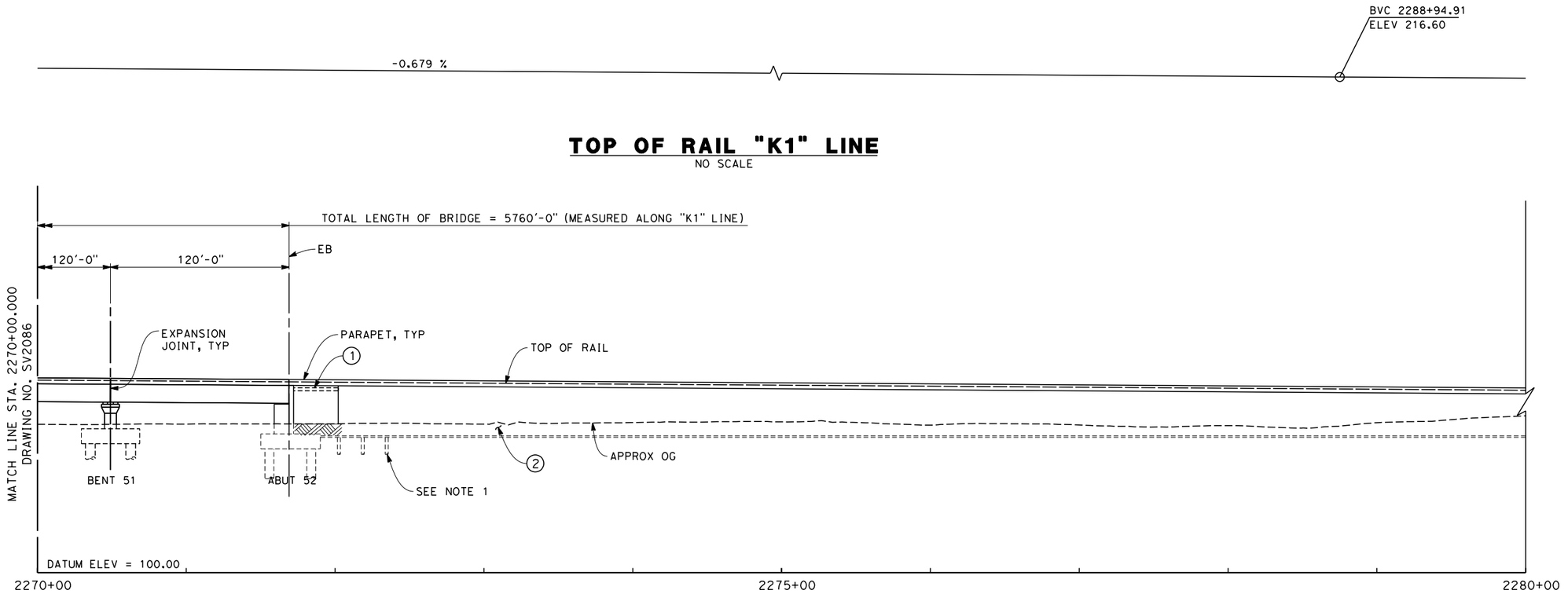
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

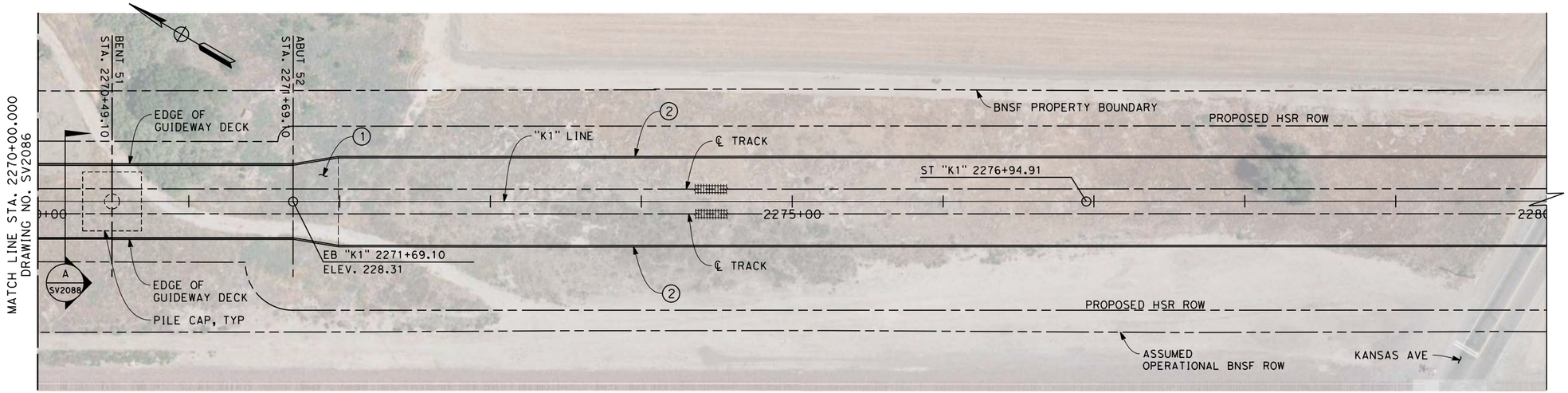
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2086
SCALE AS SHOWN
SHEET NO. 7 OF 9



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

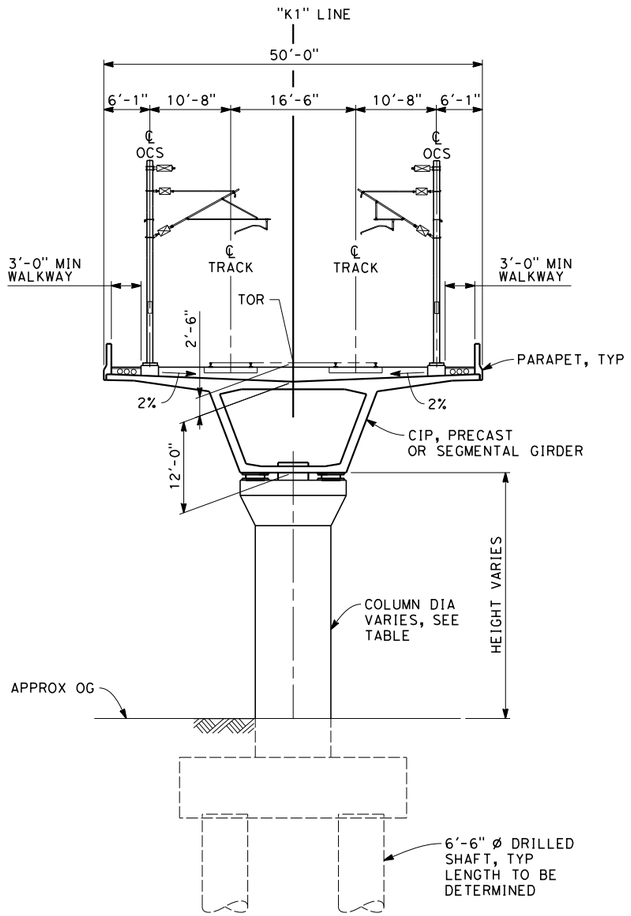
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
SOUTH BNSF VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2087
SCALE AS SHOWN
SHEET NO. 8 OF 9

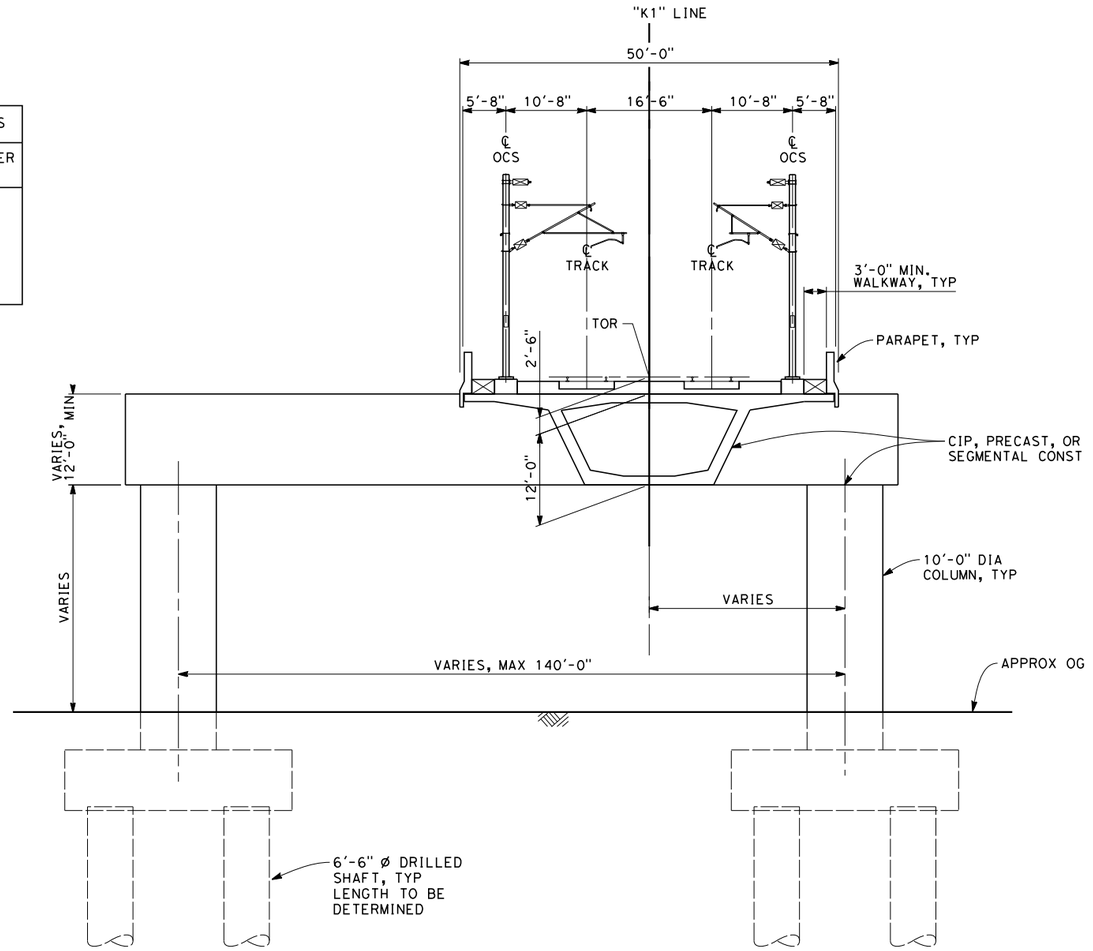
COLUMN DIAMETERS	
HEIGHT TO SOFFIT	DIAMETER
0-20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT



SECTION A

SCALE: 1"=10'

STA. 2214+09 THROUGH 2237+89
STA. 2240+29 THROUGH 2242+69
STA. 2246+29 THROUGH 2271+69



SECTION B

SCALE: 1"=10'

STA. 2237+89 THROUGH 2240+29
STA. 2242+69 THROUGH 2246+29

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALEMRO
CHECKED BY A. ARMSTRONG
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 K1
SOUTH BNSF VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2088
SCALE AS SHOWN
SHEET NO. 9 OF 9

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

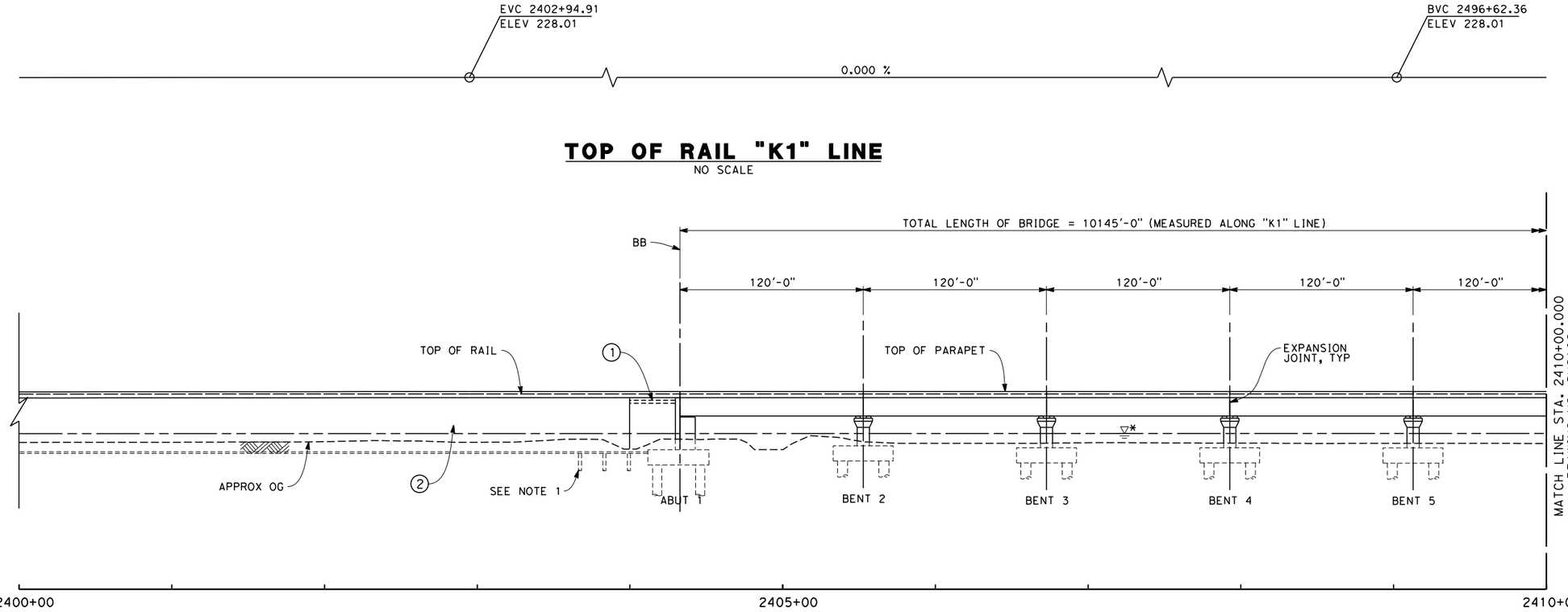
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2100
SCALE AS SHOWN
SHEET NO. 1 OF 14

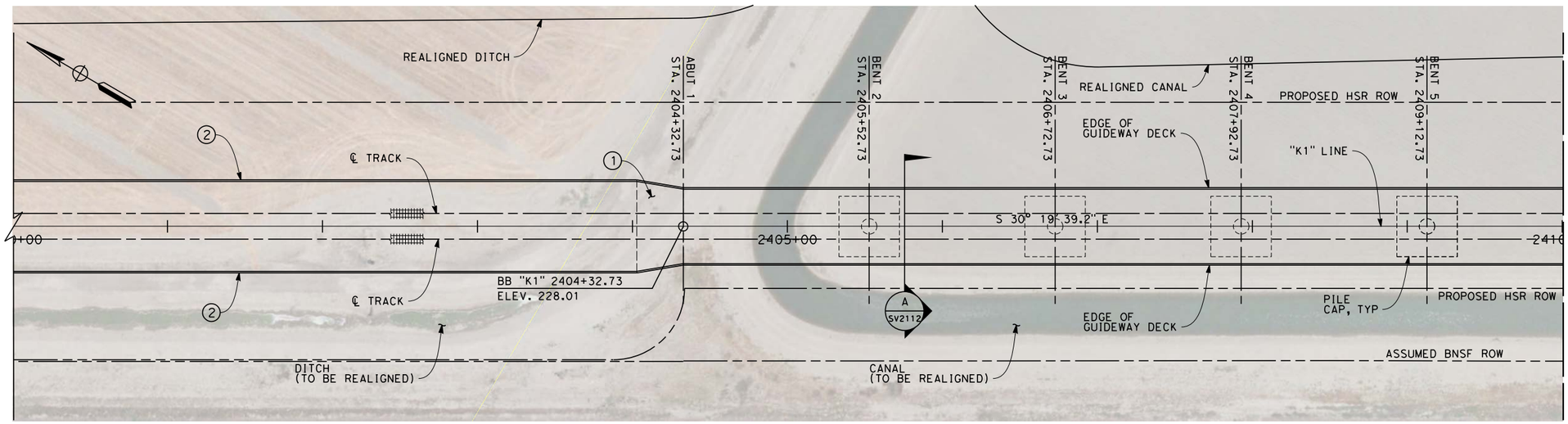


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

① STRUCTURE APPROACH SLAB

② RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

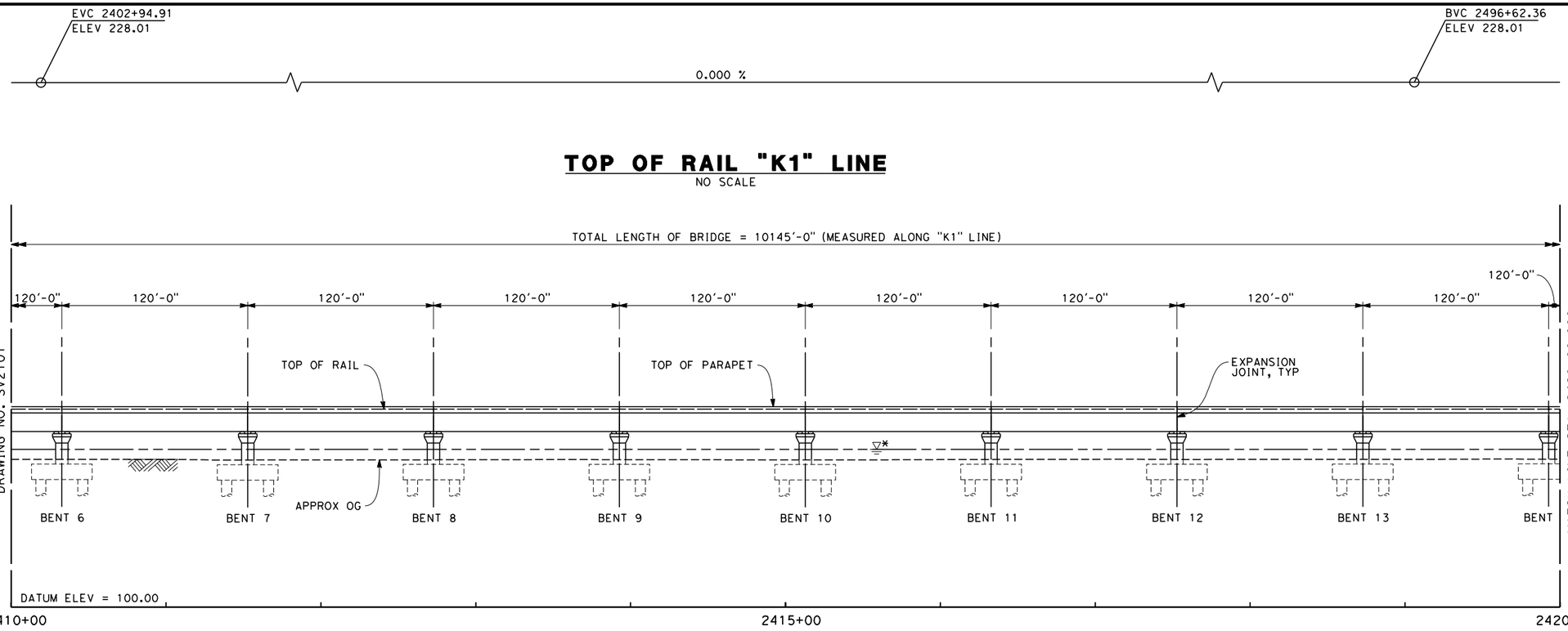
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

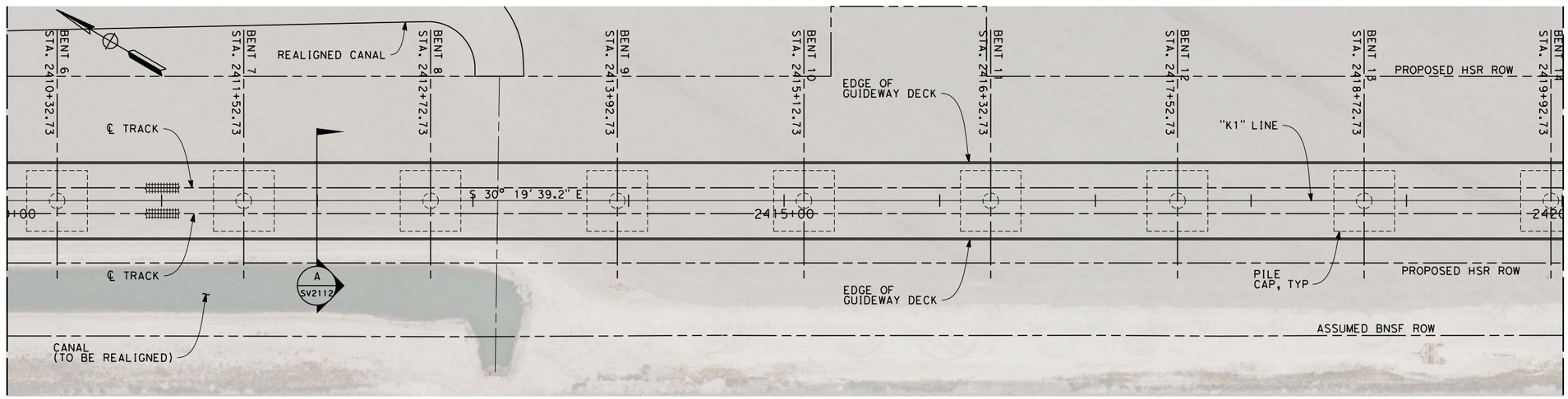
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2101
SCALE AS SHOWN
SHEET NO. 2 OF 14



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A.ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

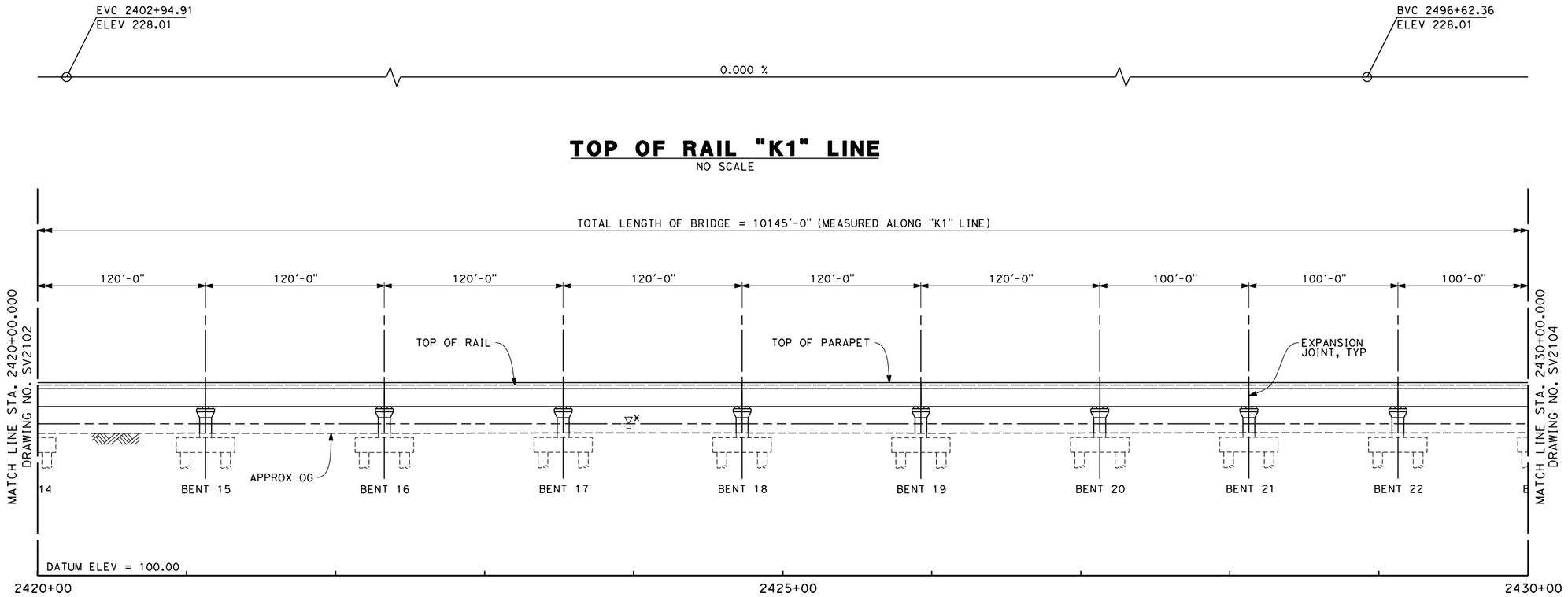
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

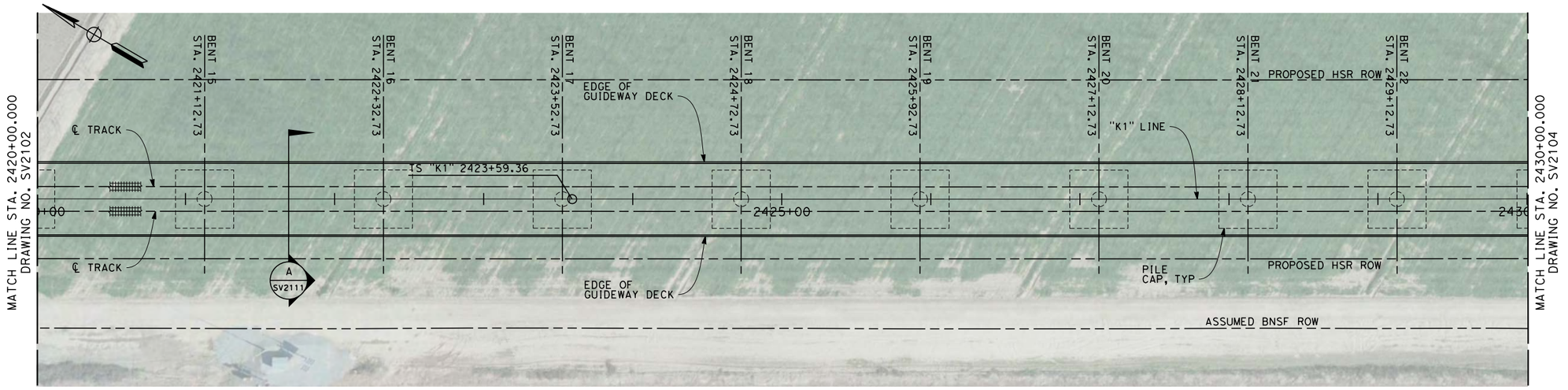
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2102
SCALE AS SHOWN
SHEET NO. 3 OF 14



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2103
SCALE AS SHOWN
SHEET NO. 4 OF 14

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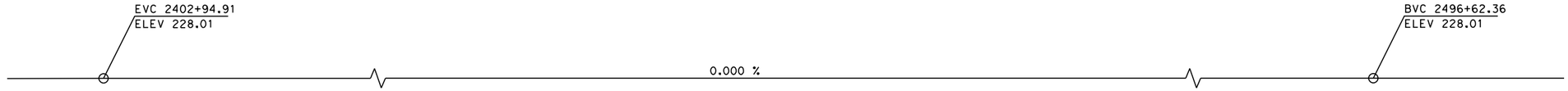
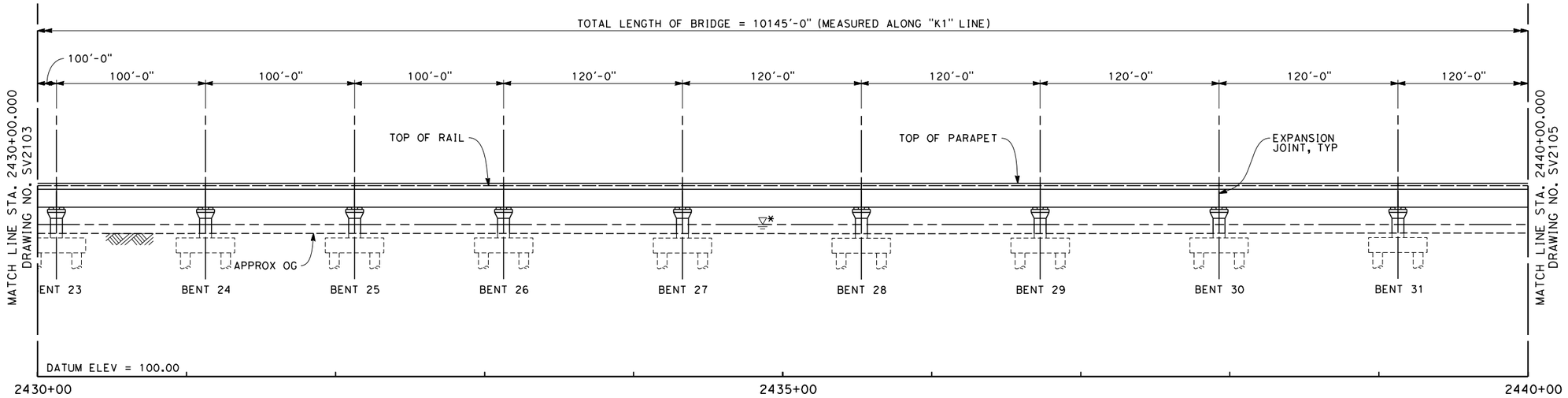
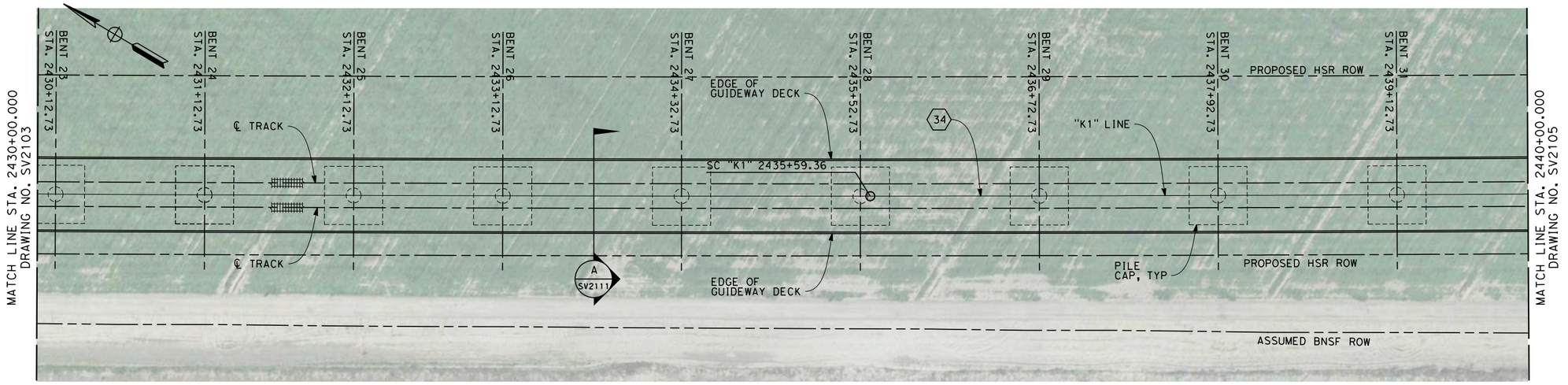


TOP OF RAIL "K1" LINE
NO SCALE



ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(34)

R = 85000.00'

Δ = 0° 50' 01.6"

T = 618.5'

L = 1236.9'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

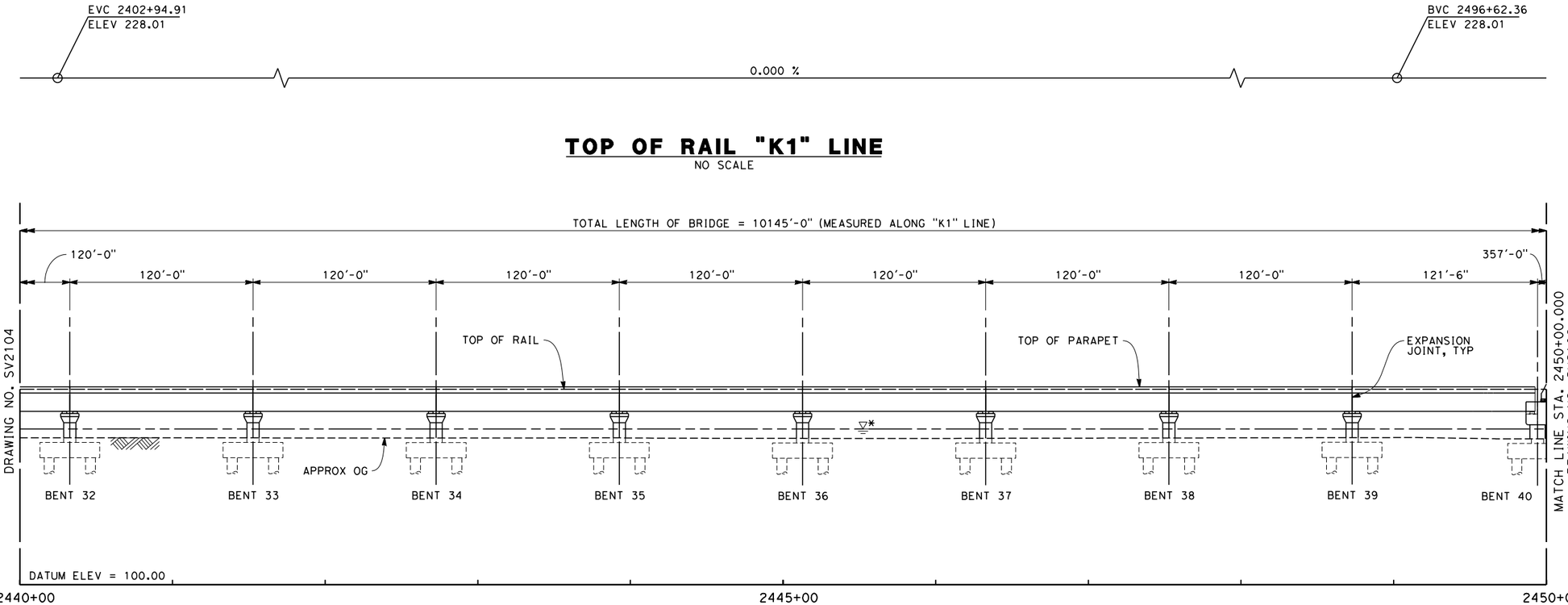
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2104
SCALE AS SHOWN
SHEET NO. 5 OF 14

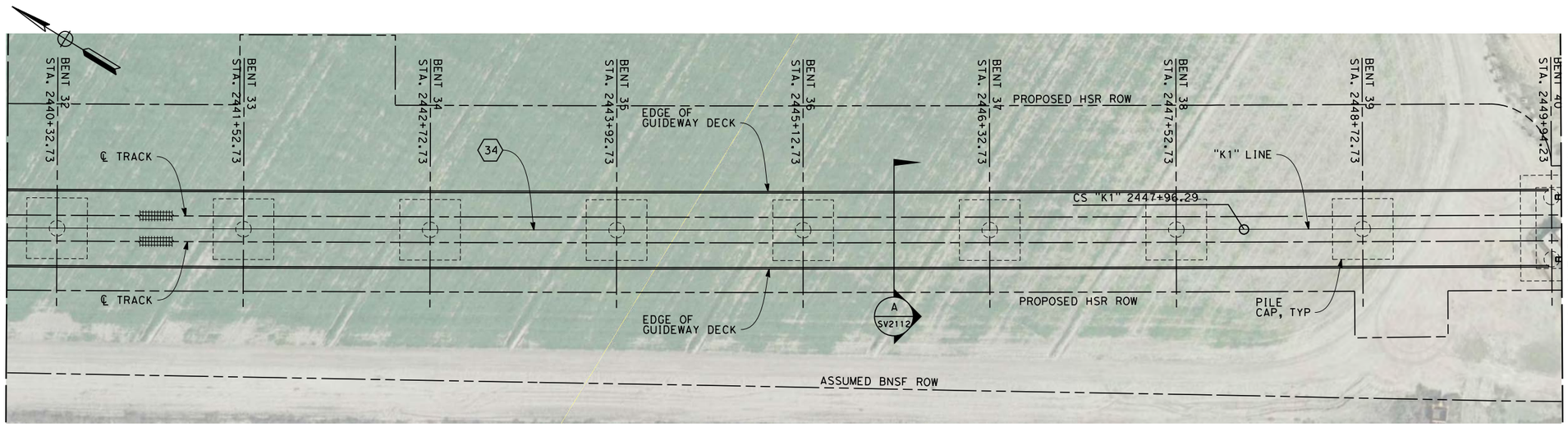


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(34)

R = 85000.00'

Δ = 0° 50' 01.6"

T = 618.5'

L = 1236.9'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

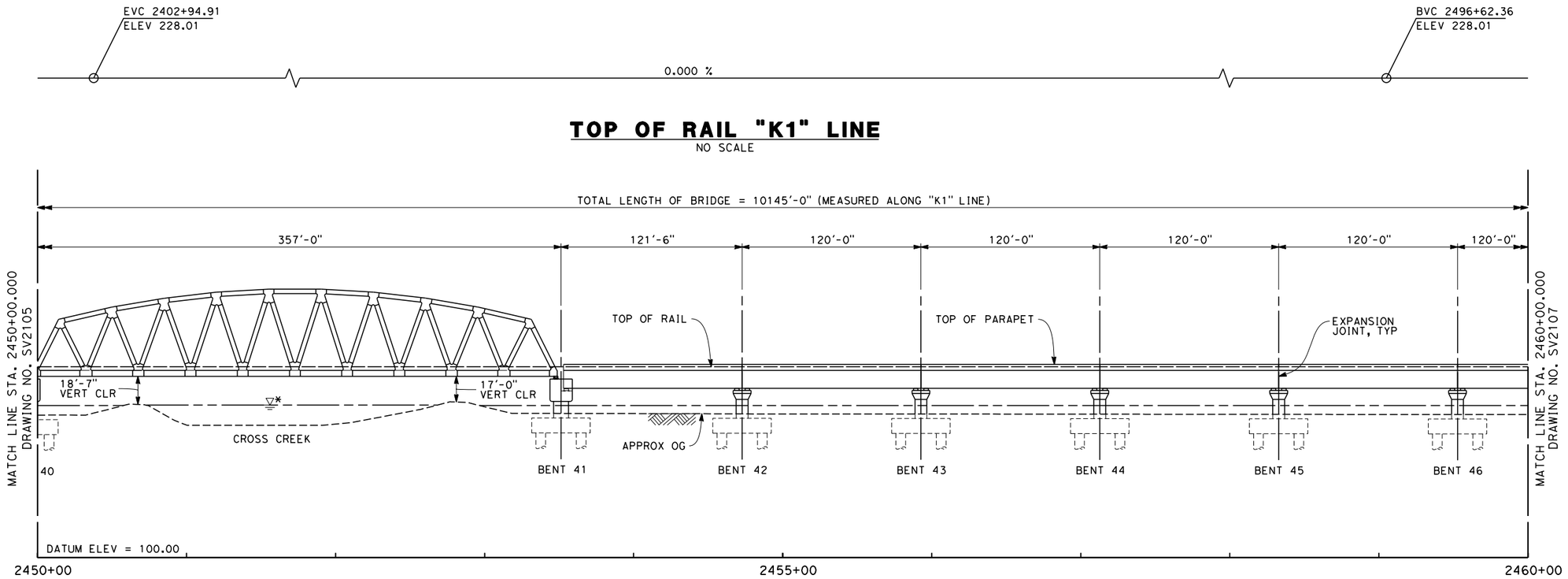
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

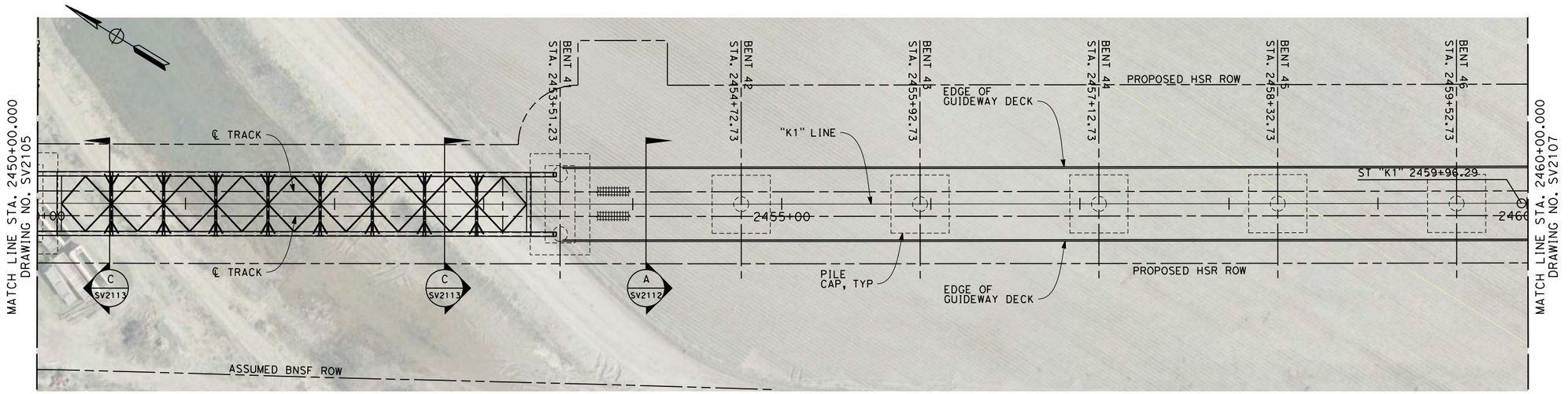
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2105
SCALE AS SHOWN
SHEET NO. 6 OF 14



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2106
SCALE AS SHOWN
SHEET NO. 7 OF 14

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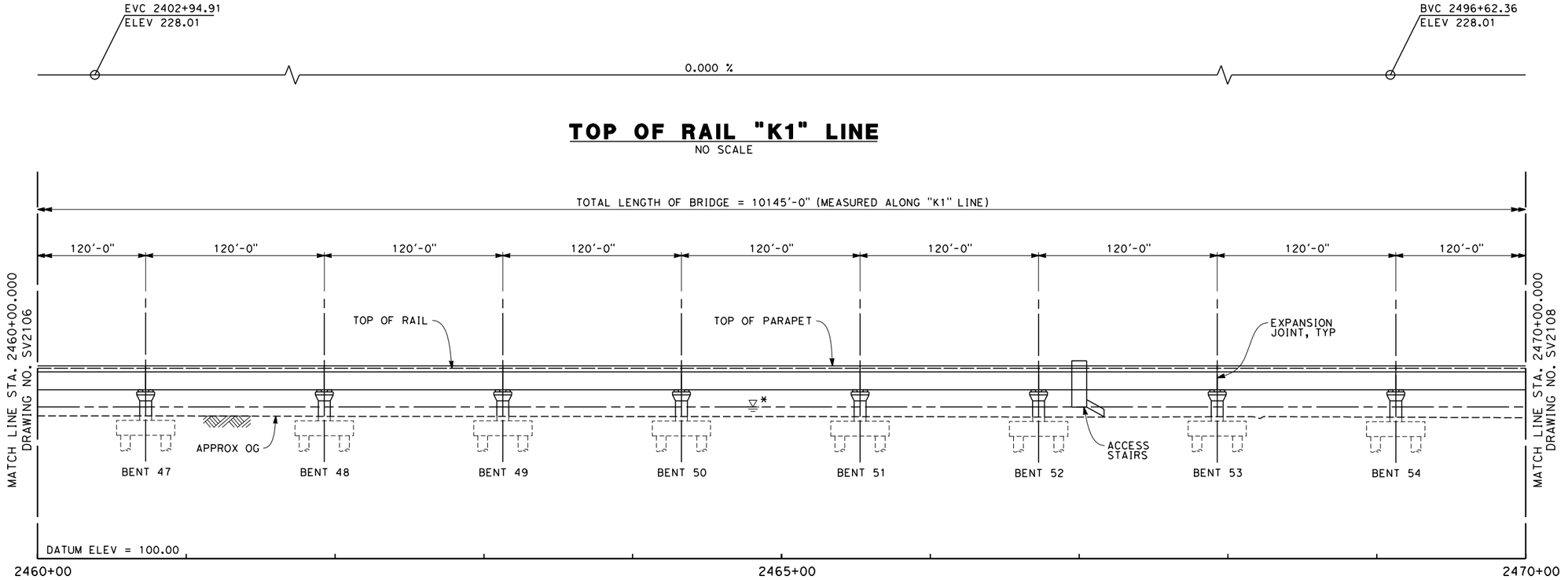
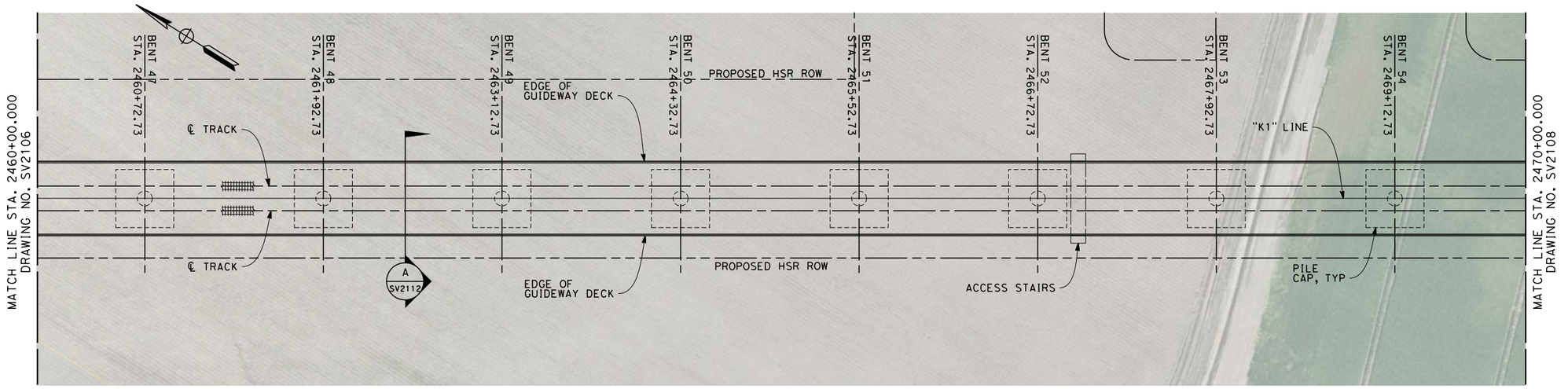


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
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LEGEND:

1. STRUCTURE APPROACH SLAB
2. RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

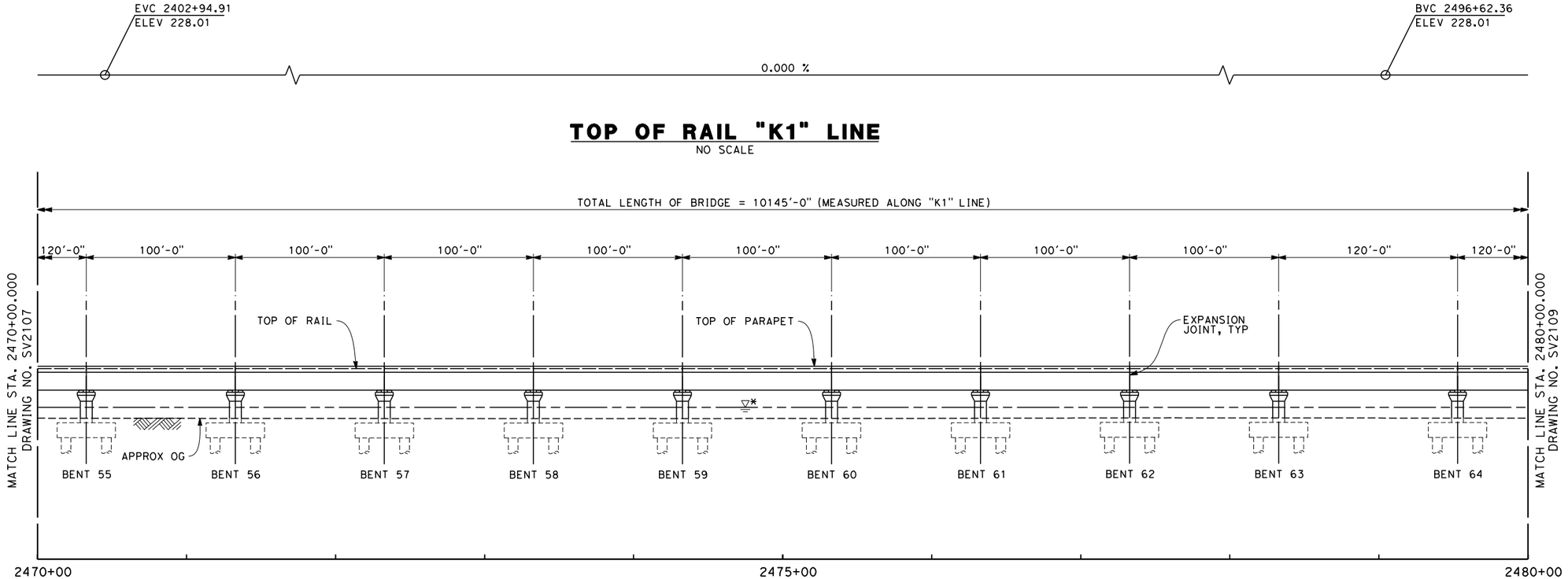
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

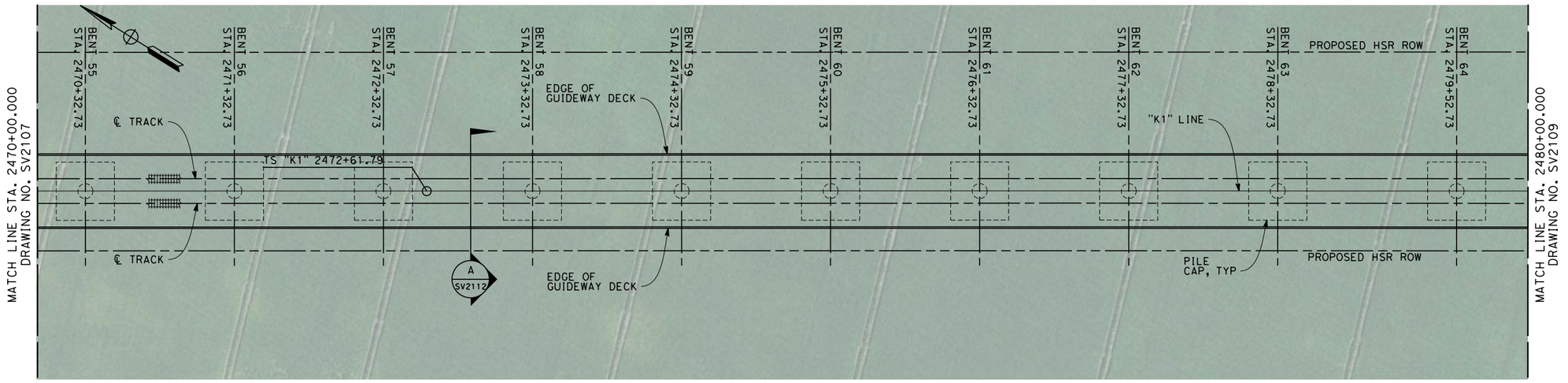
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2107
SCALE AS SHOWN
SHEET NO. 8 OF 14

Nadine.Hutton 12/12/2013 10:39:17 PM c:\pwworking\hmm\external\nadine.hutton-arup.com\d0103429\SV2107.dgn



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

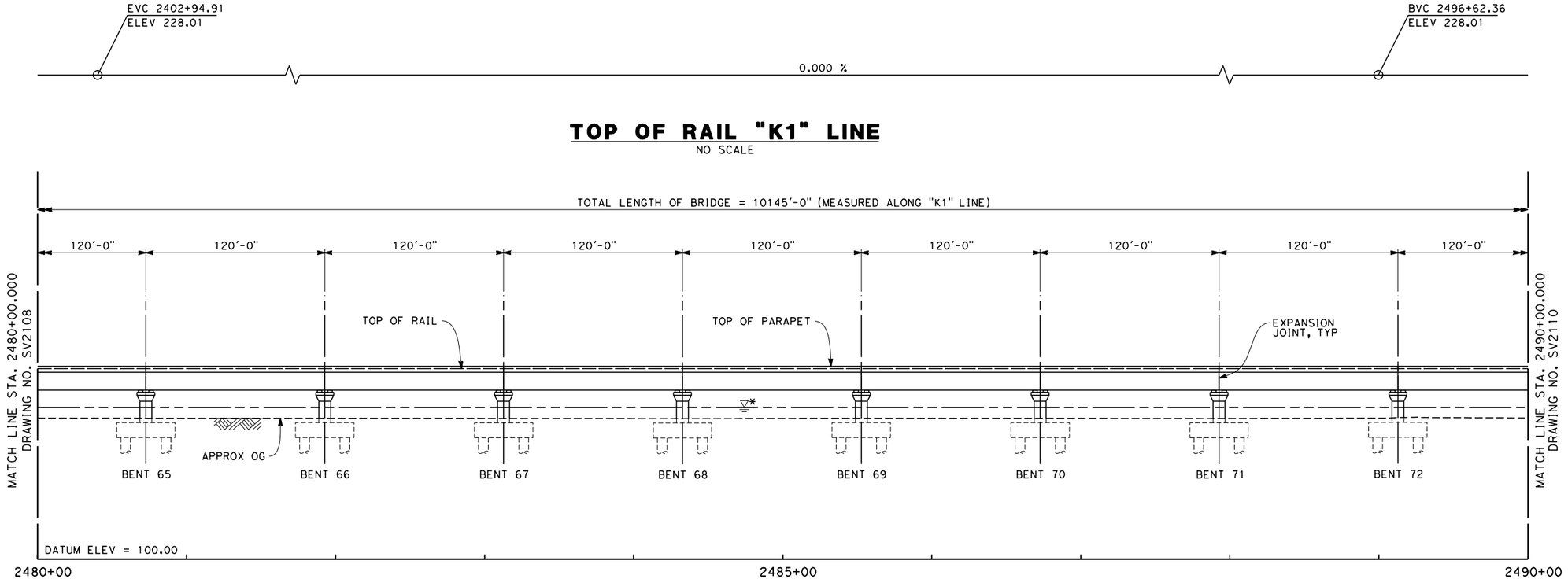
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

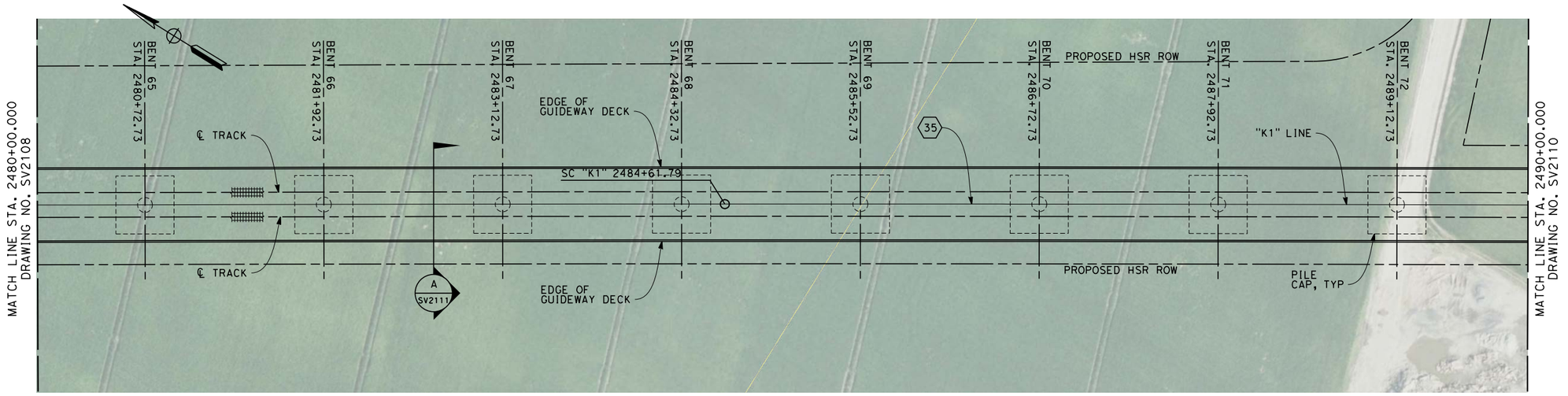
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2108
SCALE AS SHOWN
SHEET NO. 9 OF 14

Nadine.Hutton 12/12/2013 10:39:38 PM c:\pwworking\hmm\external\nadine.hutton-arup.com\d0103429\SV2108.dgn



TOP OF RAIL "K1" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(35)

R = 170000.00'

Δ = 01° 14' 39.4"

T = 1846.0'

L = 3691.9'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

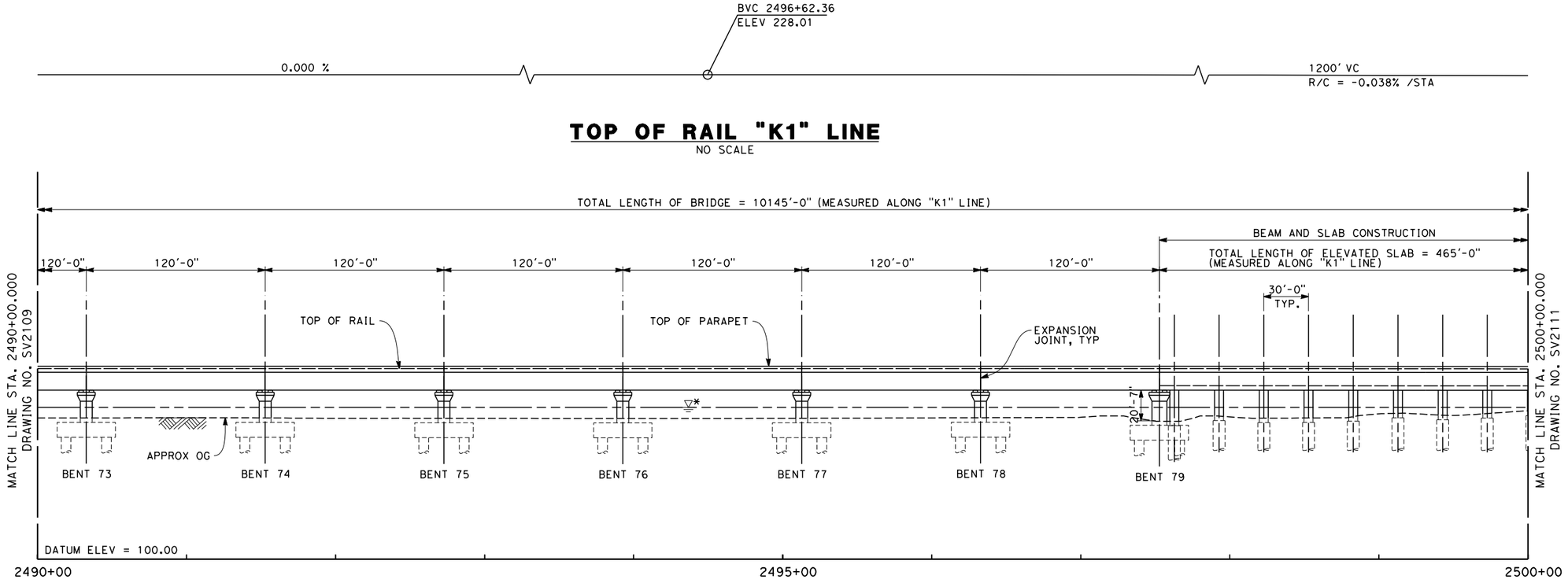
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2109
SCALE AS SHOWN
SHEET NO. 10 OF 14

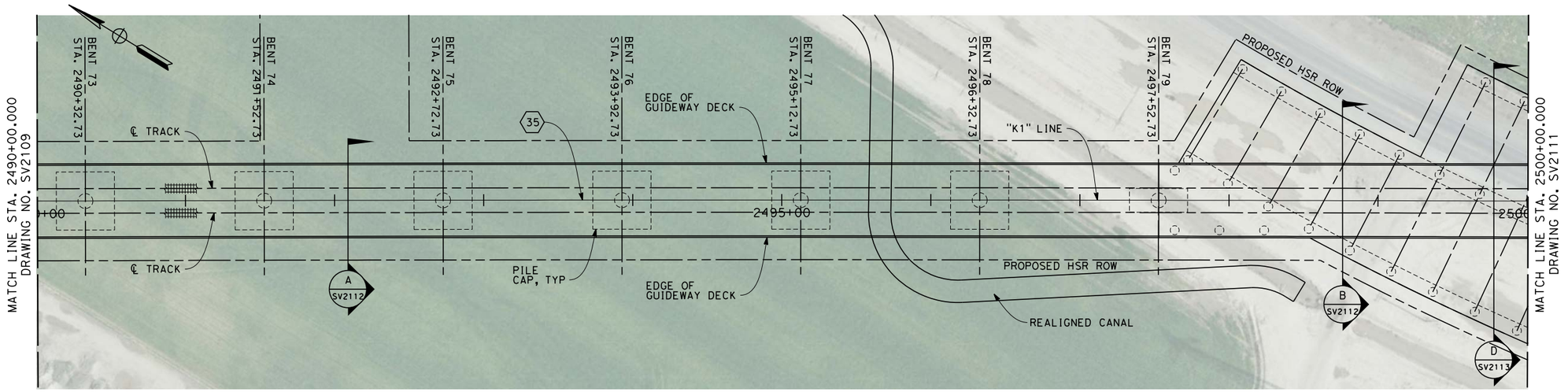


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

1. STRUCTURE APPROACH SLAB
2. RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(35)

R = 170000.00'

Δ = 01° 14' 39.4"

T = 1846.0'

L = 3691.9'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

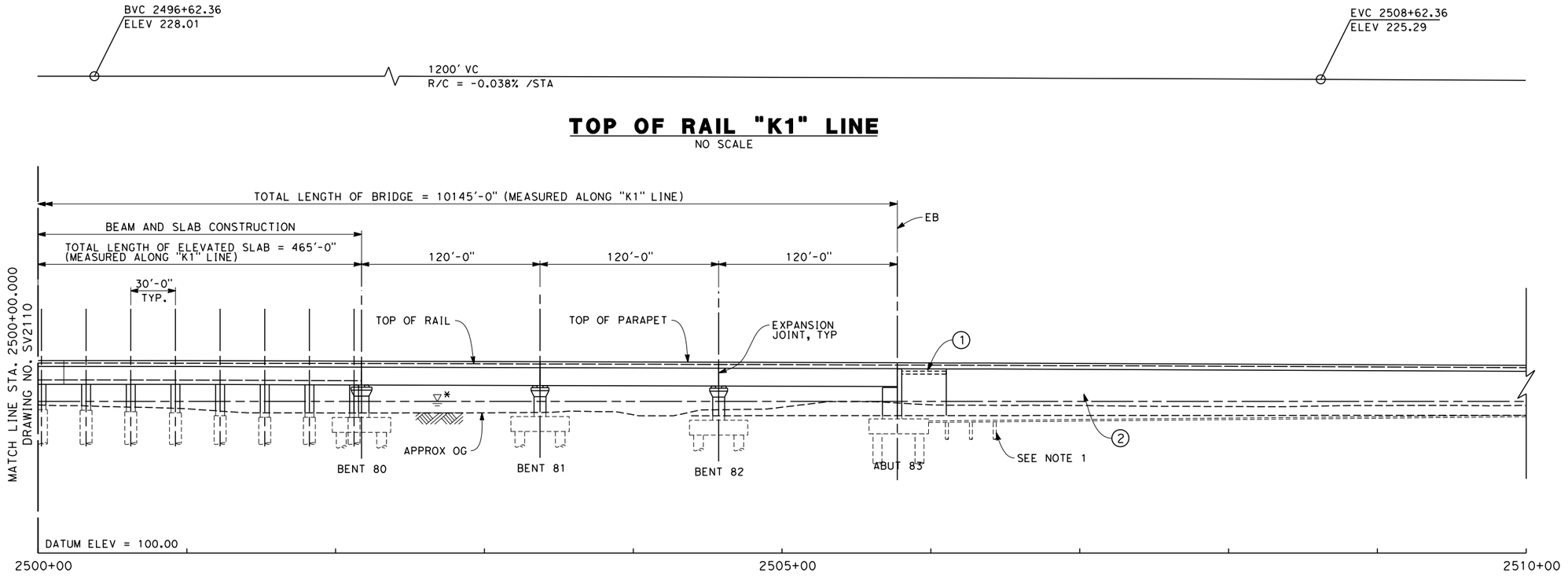
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2110
SCALE AS SHOWN
SHEET NO. 11 OF 14

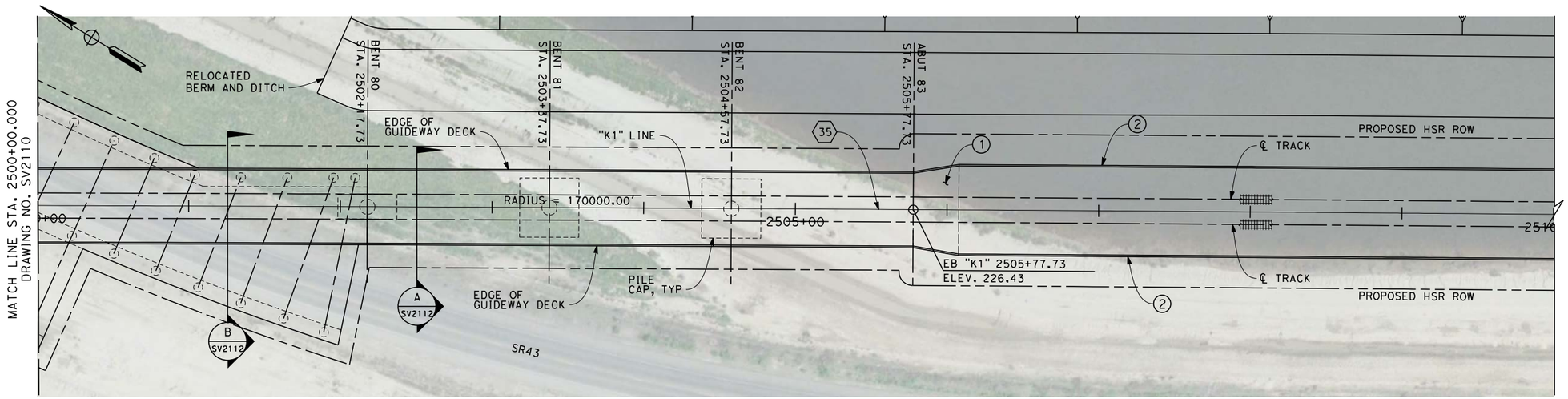


TOP OF RAIL "K1" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(35)

R = 170000.00'

Δ = 01° 14' 39.4"

T = 1846.0'

L = 3691.9'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

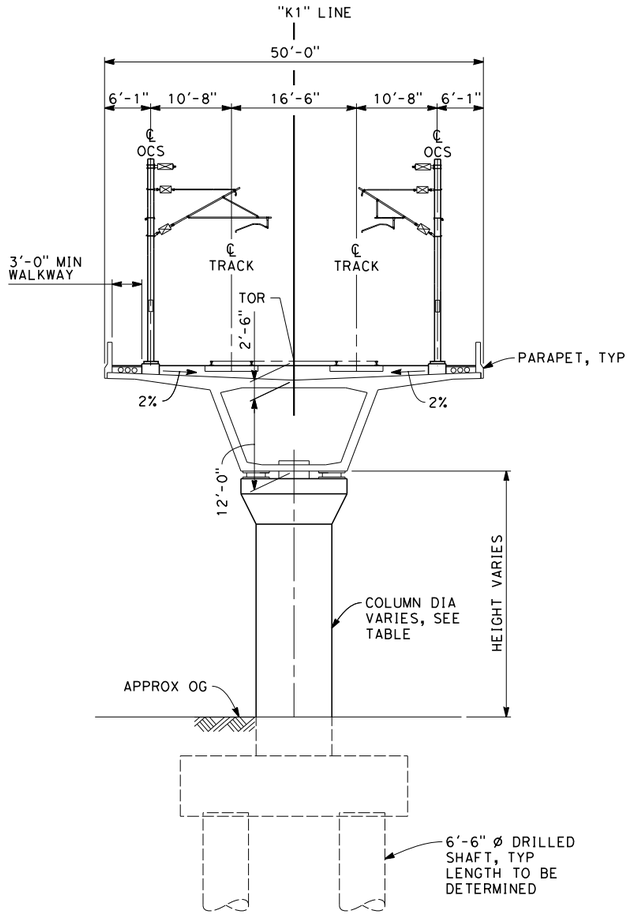
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2111
SCALE AS SHOWN
SHEET NO. 12 OF 14

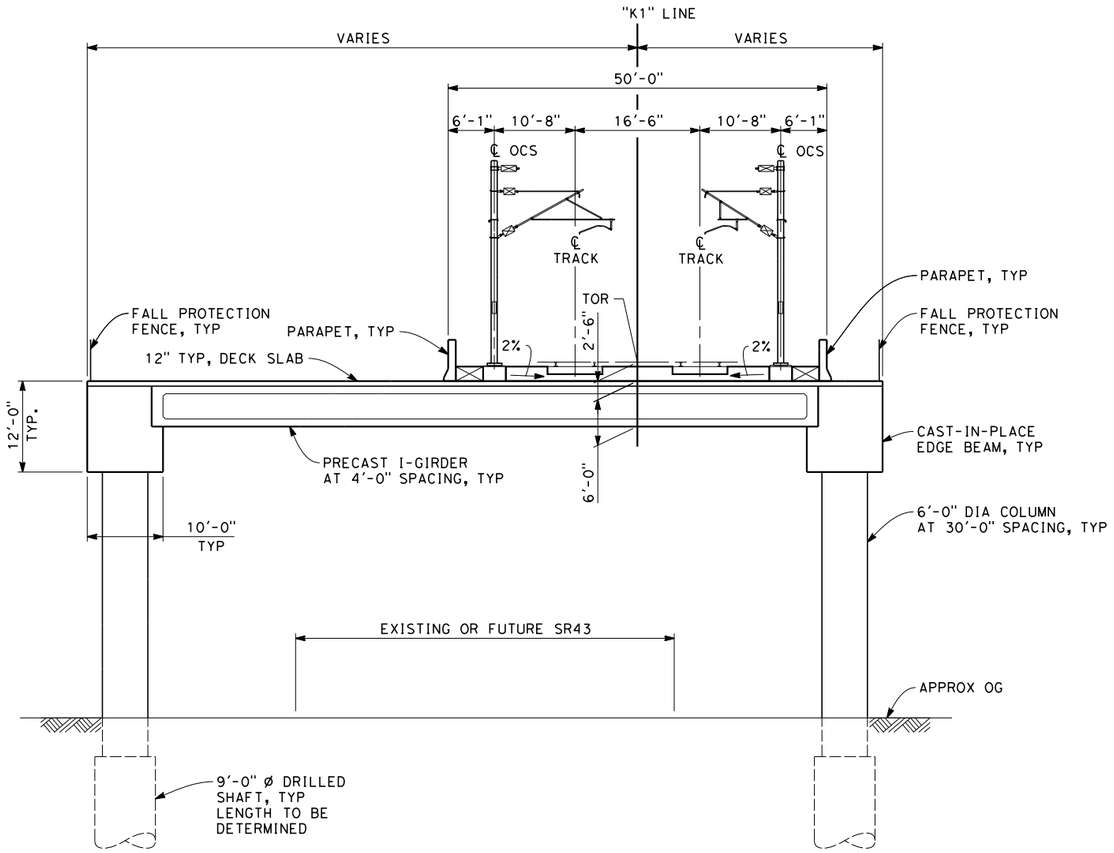


COLUMN DIAMETERS	
HEIGHT TO SOFFIT	DIAMETER
0-20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT

SECTION A

SCALE: 1"=10'

STA. 2404+33 THROUGH 2449+94
STA. 2453+51 THROUGH 2497+53
STA. 2502+18 THROUGH 2505+78



SECTION B

SCALE: 1"=10'

STA. 2497+53 THROUGH 2499+50
STA. 2501+00 THROUGH 2502+18

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

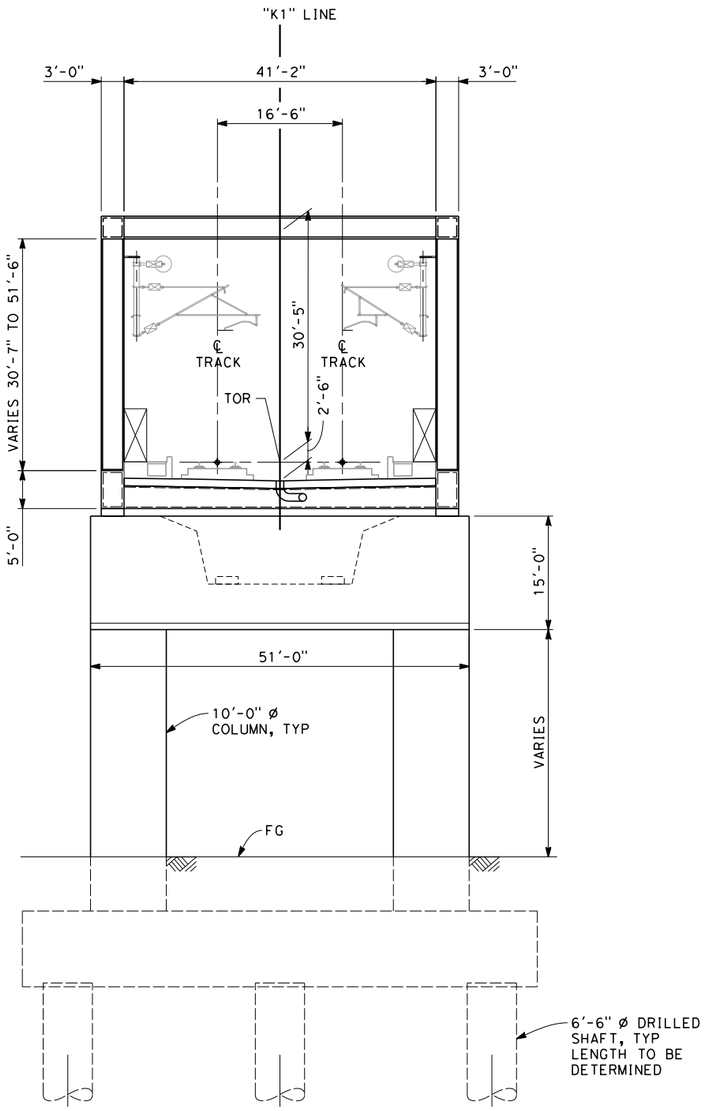
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K1
CROSS CREEK VIADUCT
TYPICAL SECTIONS

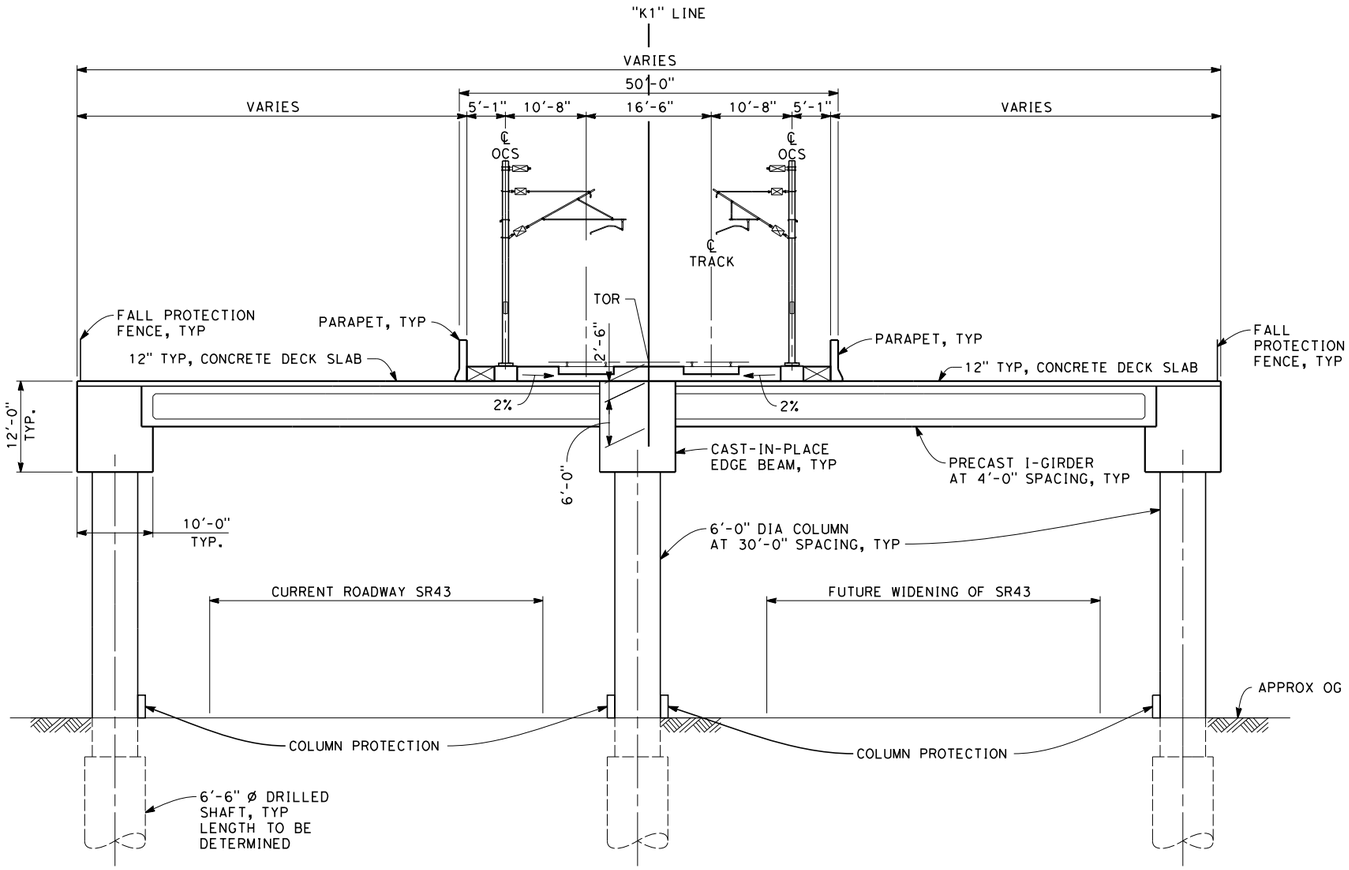
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2112
SCALE AS SHOWN
SHEET NO. 13 of 14



SECTION C

SCALE: 1"=10'

STA. 2449+94 THROUGH 2453+51



SECTION D

SCALE: 1"=10'

STA. 2499+50 THROUGH 2501+00

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K1
CROSS CREEK VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2113
SCALE AS SHOWN
SHEET NO. 14 OF 14

IONA AVE

SUBSECTION HW

SV2121

IDAHO AVE

JACKSON AVE

S 11TH AVE

12TH AVE

EXISTING BNSF

KENT AVE

KANSAS AVE

LANSING AVE

SR 43

SUBSECTION C3

NEVADA AVE

LEGEND

EXISTING FREIGHT RAILROAD

PROPOSED CHST

2000 0 2000 4000

1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER

DRAWN BY F. PALERMO

CHECKED BY A. ARMSTRONG

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

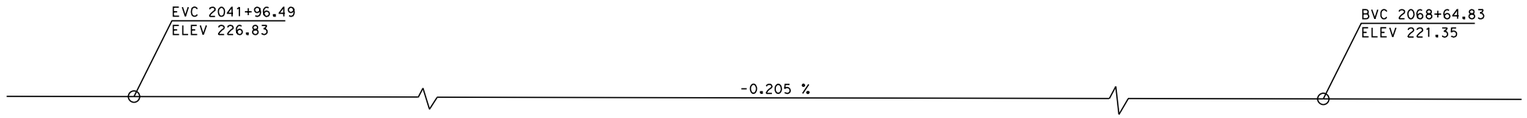
KAWEAH SUBSECTION
ALIGNMENT K2
IDAHO AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003

DRAWING NO. SV2120

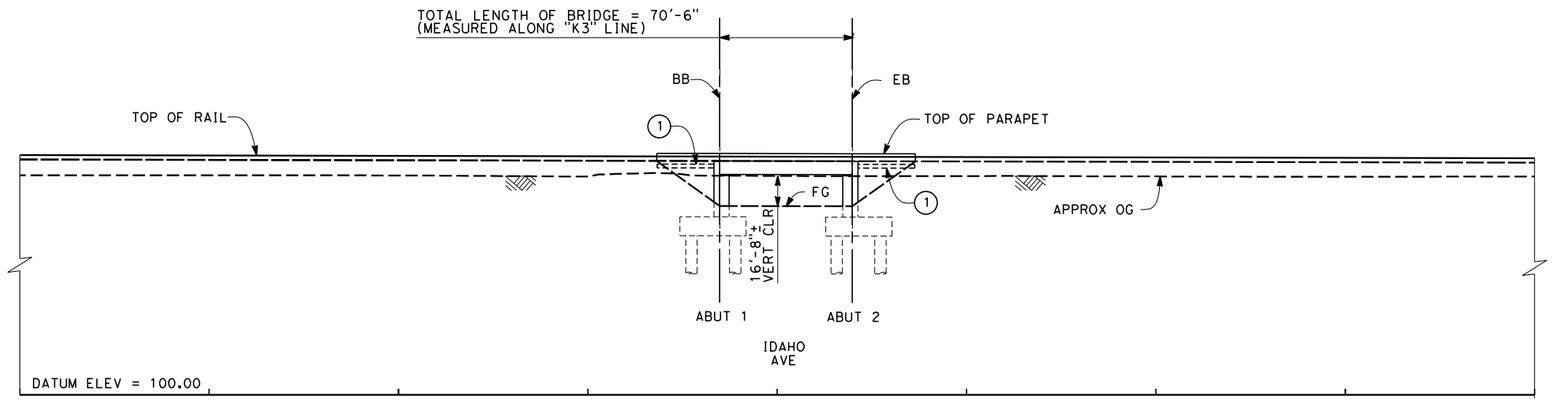
SCALE AS SHOWN

SHEET NO. 1 OF 2



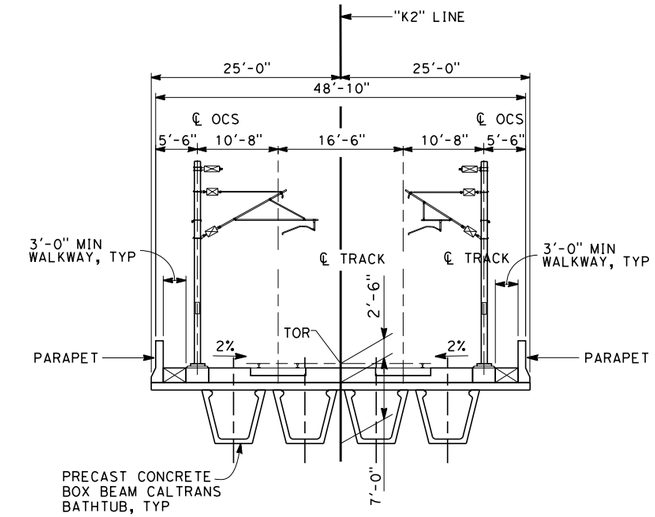
TOP OF RAIL "K2" LINE

NO SCALE



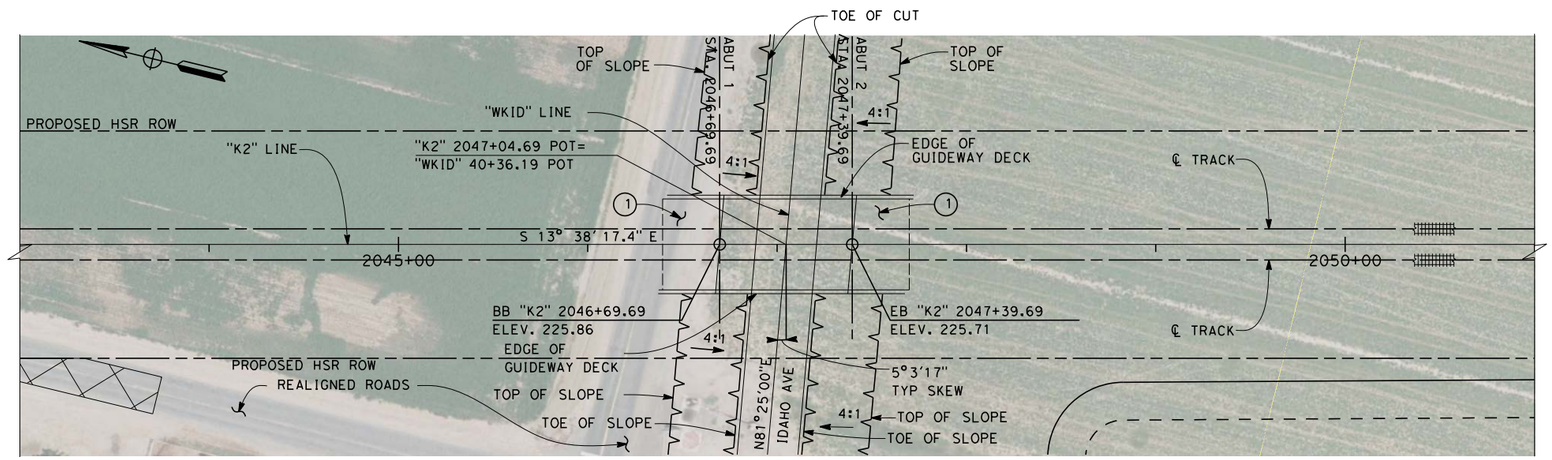
ELEVATION

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'



PLAN

SCALE: 1"=40'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY J. VALENZUELA
CHECKED BY A.ARMSTRONG
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
IDAHO AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2121
SCALE AS SHOWN
SHEET NO. 2 OF 2

IONA AVE
SUBSECTION HW
SV2126
IDAHO AVE
S 11TH AVE
EXISTING BNSF
JACKSON AVE
12TH AVE
KENT AVE
KANSAS AVE
LANSING AVE
SR 43
SUBSECTION C3
NEVADA AVE

LEGEND
EXISTING FREIGHT RAILROAD
PROPOSED CHST

2000 0 2000 4000
1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M .FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

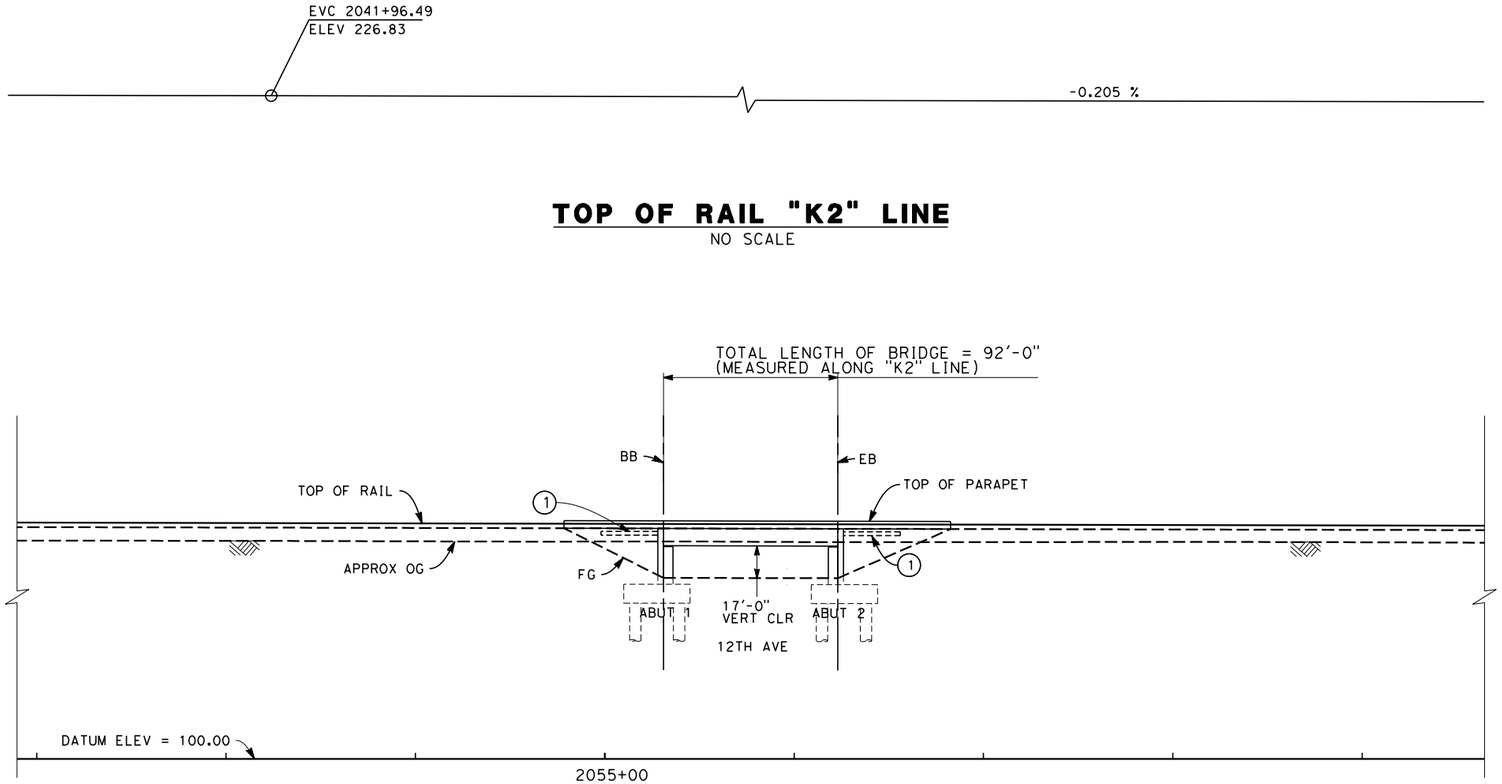
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

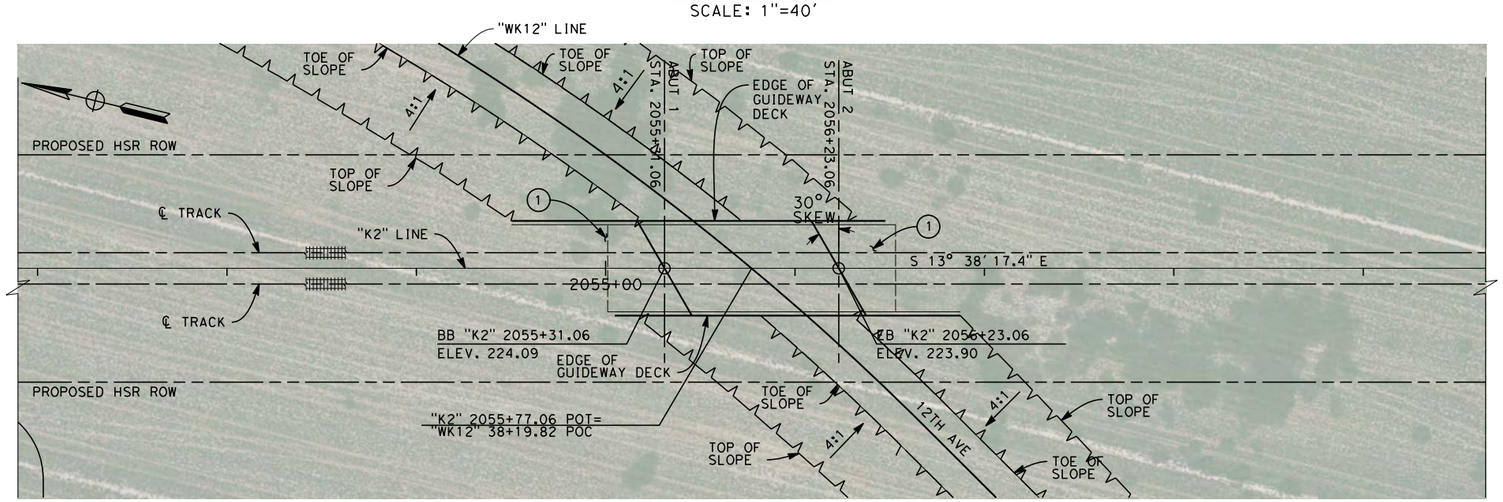
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
12TH AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2125
SCALE AS SHOWN
SHEET NO. 1 OF 2

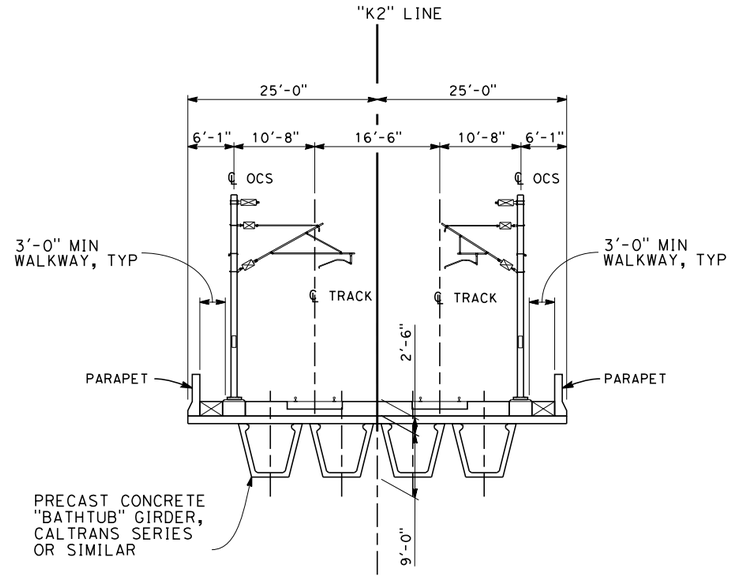


TOP OF RAIL "K2" LINE
NO SCALE

ELEVATION
SCALE: 1"=40'



PLAN
SCALE: 1"=40'



TYPICAL SECTION
SCALE: 1"=10'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY J. VALENZUELA
CHECKED BY A. ARMSTRONG
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
12TH AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2126
SCALE AS SHOWN
SHEET NO. 2 OF 2

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IONA AVE
SUBSECTION HW
IDAHO AVE
S 11TH AVE
EXISTING BNSF
JACKSON AVE
12TH AVE
SV2131
KENT AVE
KANSAS AVE
LANSING AVE
SR 43
SUBSECTION C3
NEVADA AVE

LEGEND
EXISTING FREIGHT RAILROAD
PROPOSED CHST

2000 0 2000 4000
1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

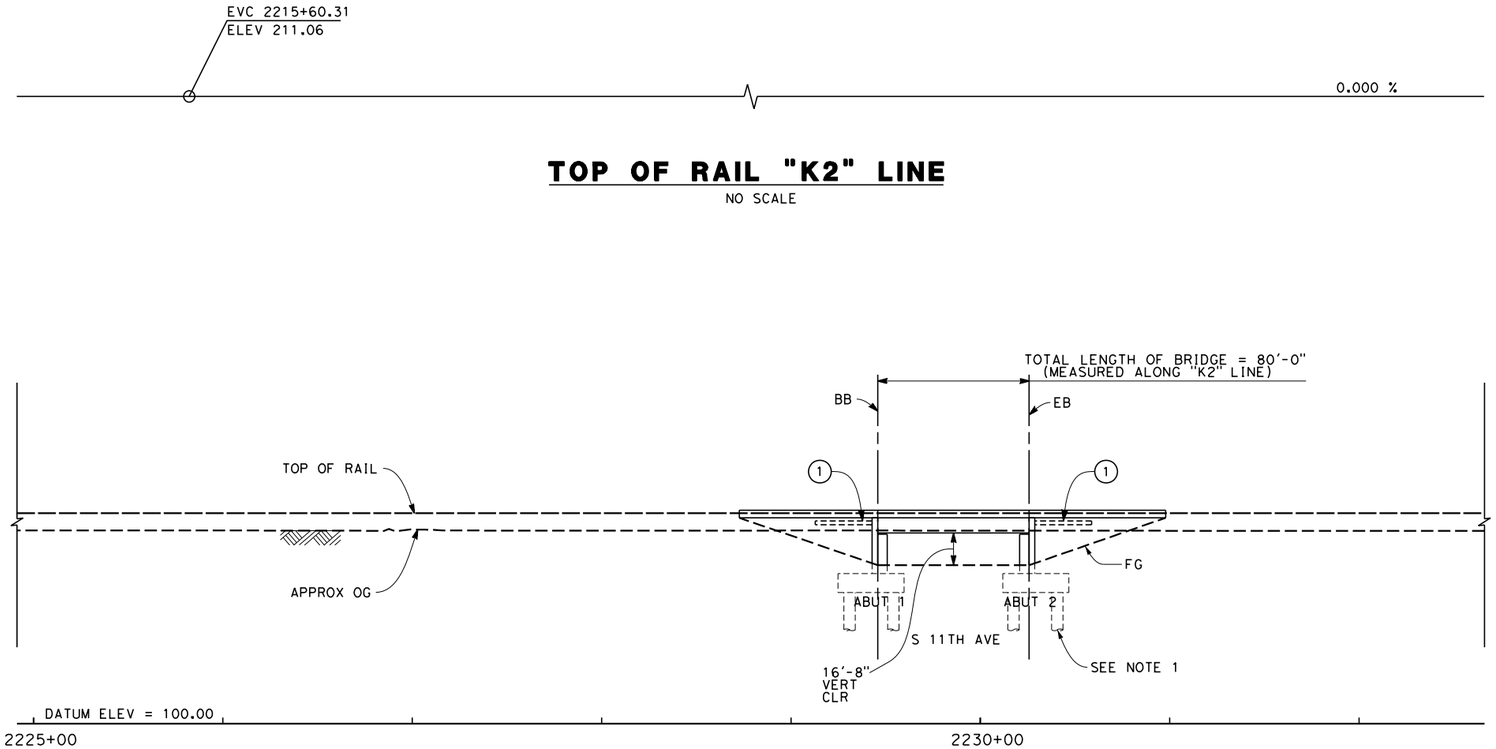
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
S 11TH AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2130
SCALE AS SHOWN
SHEET NO. 1 OF 2

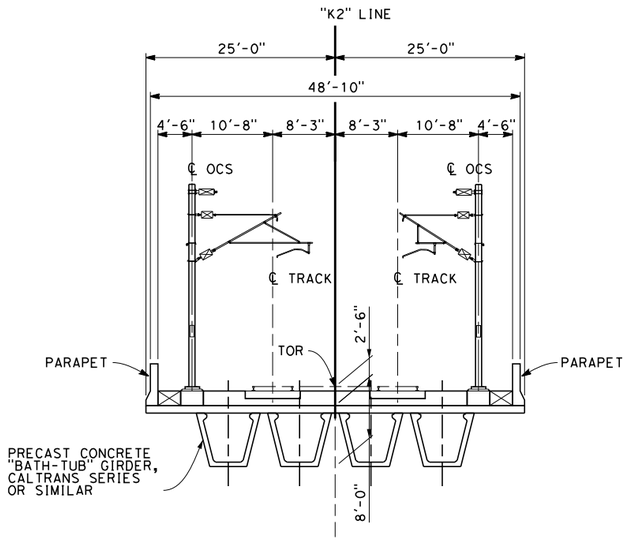


TOP OF RAIL "K2" LINE

NO SCALE

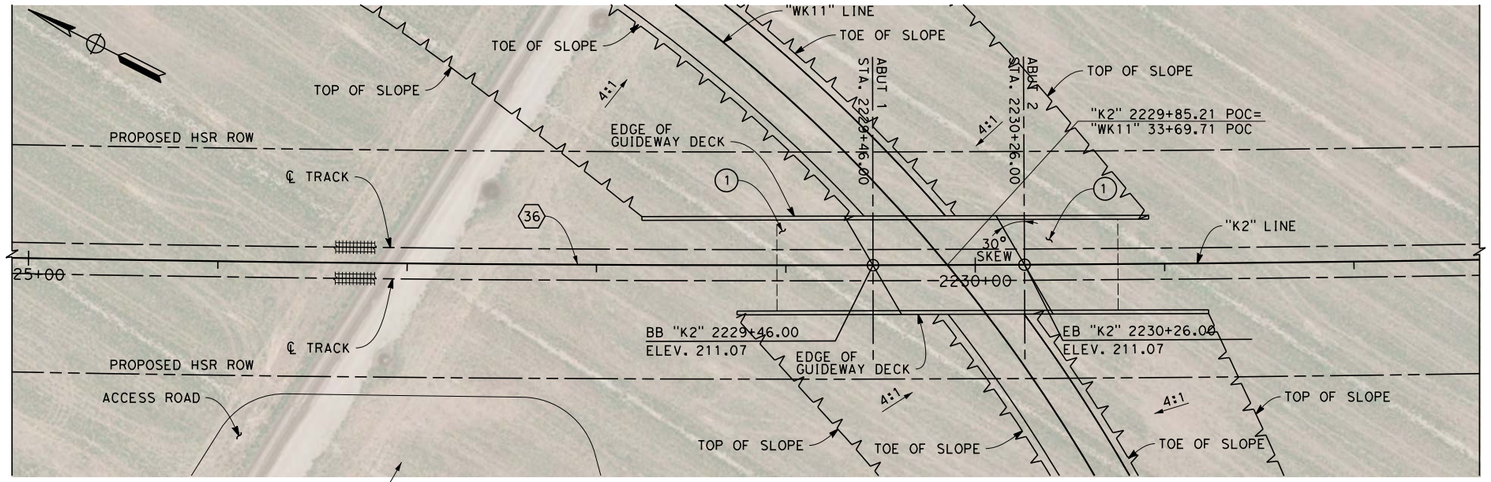
ELEVATION

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'



PLAN

SCALE: 1"=40'

CURVE DATA

36

R = 22008.25'
Δ = 21° 59' 18.7"
T = 4275.7'
L = 8446.2'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
S 11TH AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2131
SCALE AS SHOWN
SHEET NO. 2 OF 2

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

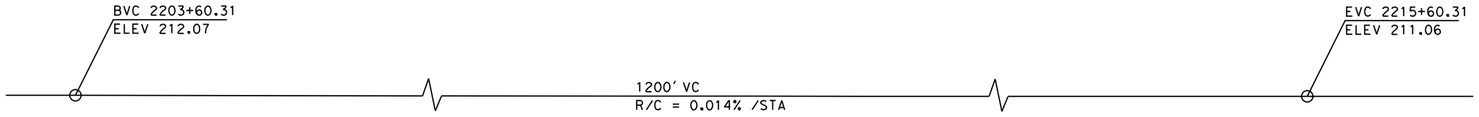
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

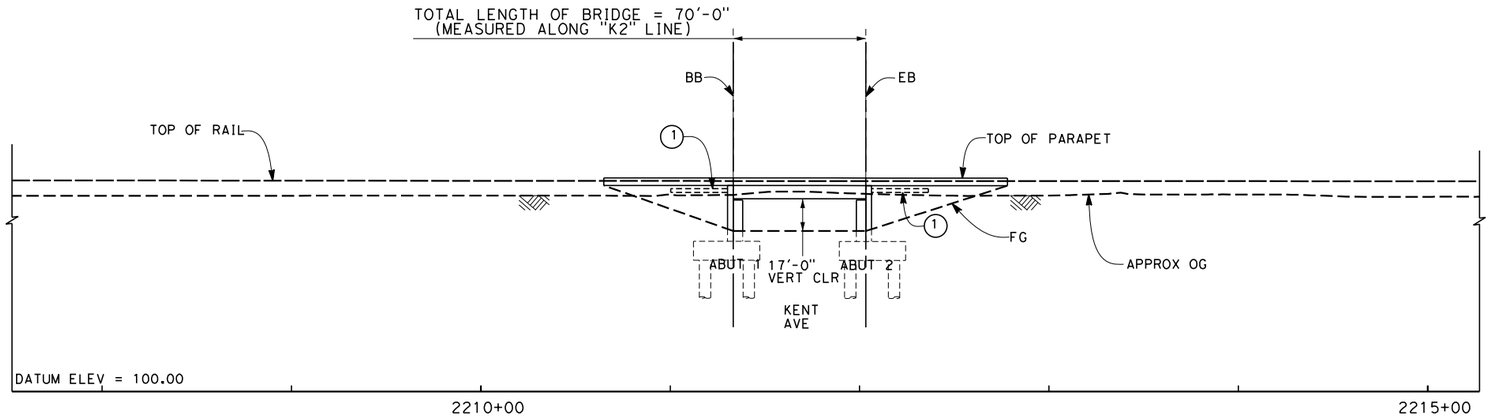
KAWEAH SUBSECTION
ALIGNMENT K2
KENT AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2135
SCALE AS SHOWN
SHEET NO. 1 OF 2



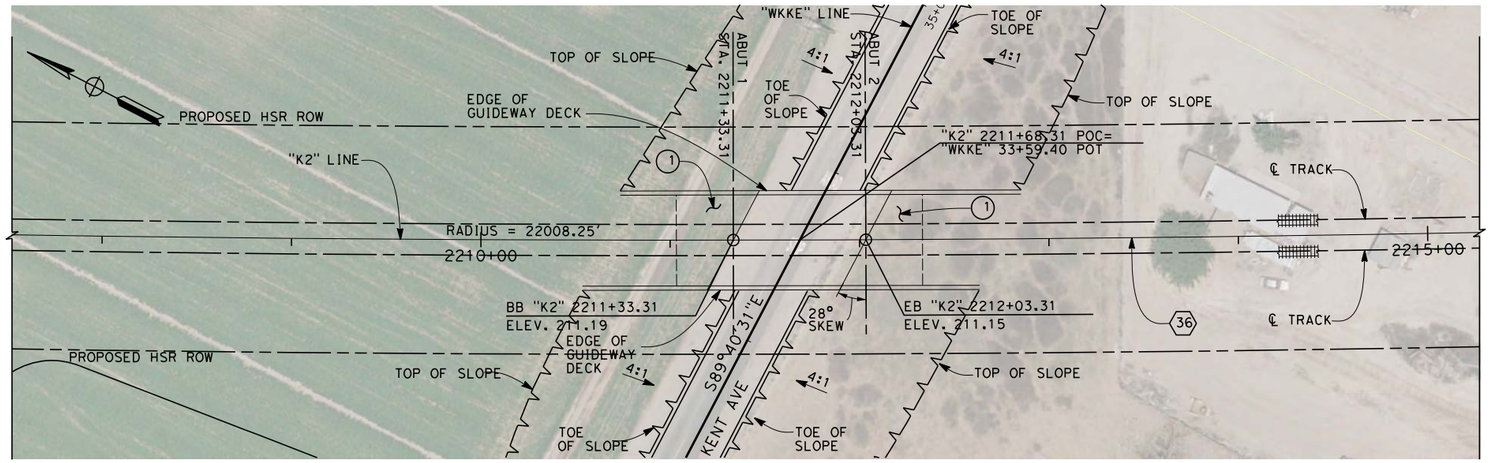
TOP OF RAIL "K2" LINE

NO SCALE



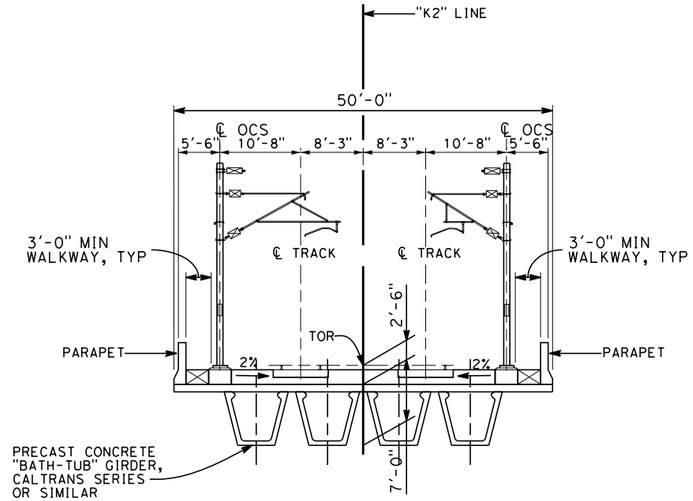
ELEVATION

SCALE: 1"=40'



PLAN

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'

CURVE DATA

(36)

R = 22008.25'
Δ = 21° 59' 18.7"
T = 4275.7'
L = 8446.2'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY J. VALENZUELA
CHECKED BY A. ARMSTRONG
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
KENT AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2136
SCALE AS SHOWN
SHEET NO. 2 OF 2

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

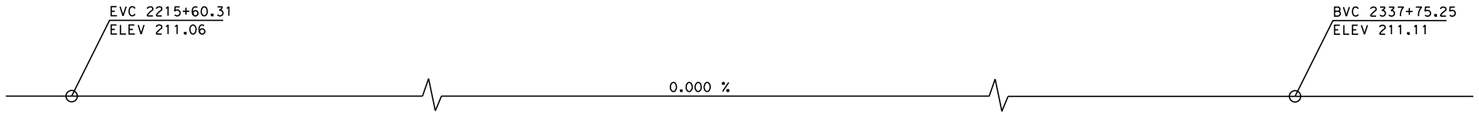
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

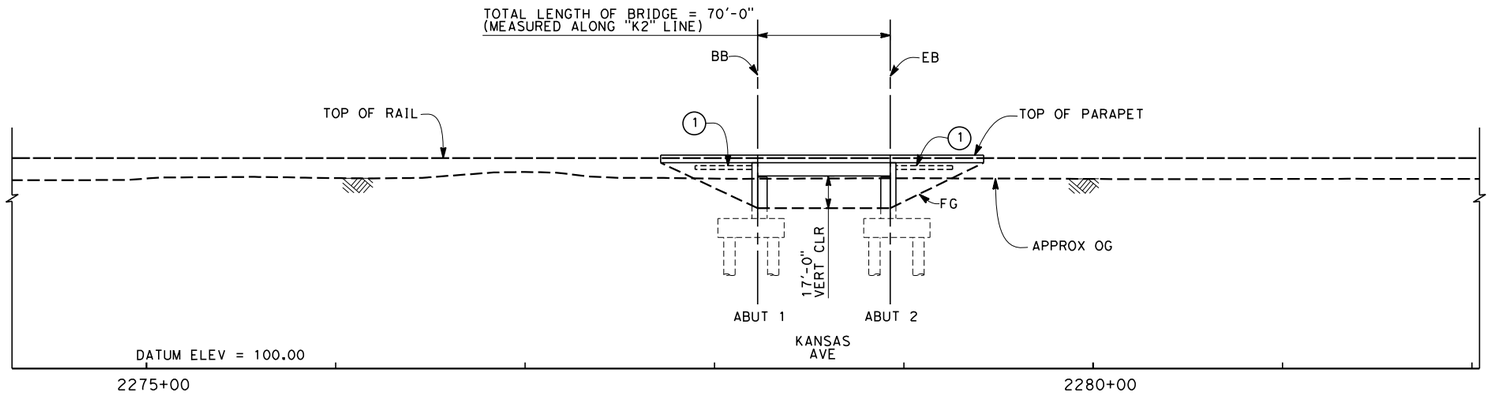
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
KANSAS AVE UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2140
SCALE AS SHOWN
SHEET NO. 1 OF 2



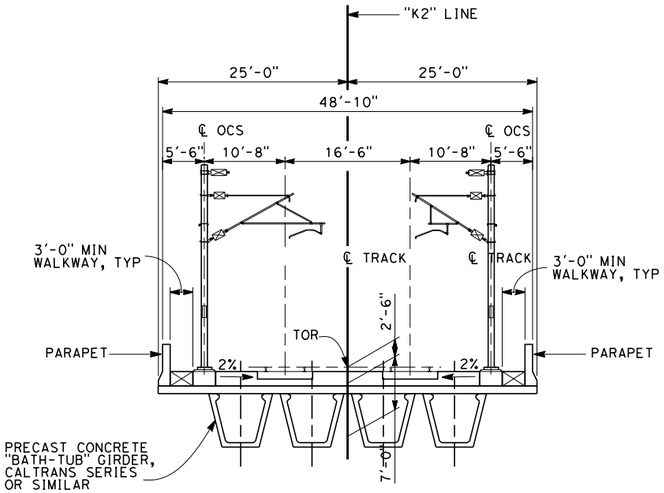
TOP OF RAIL "K2" LINE

NO SCALE



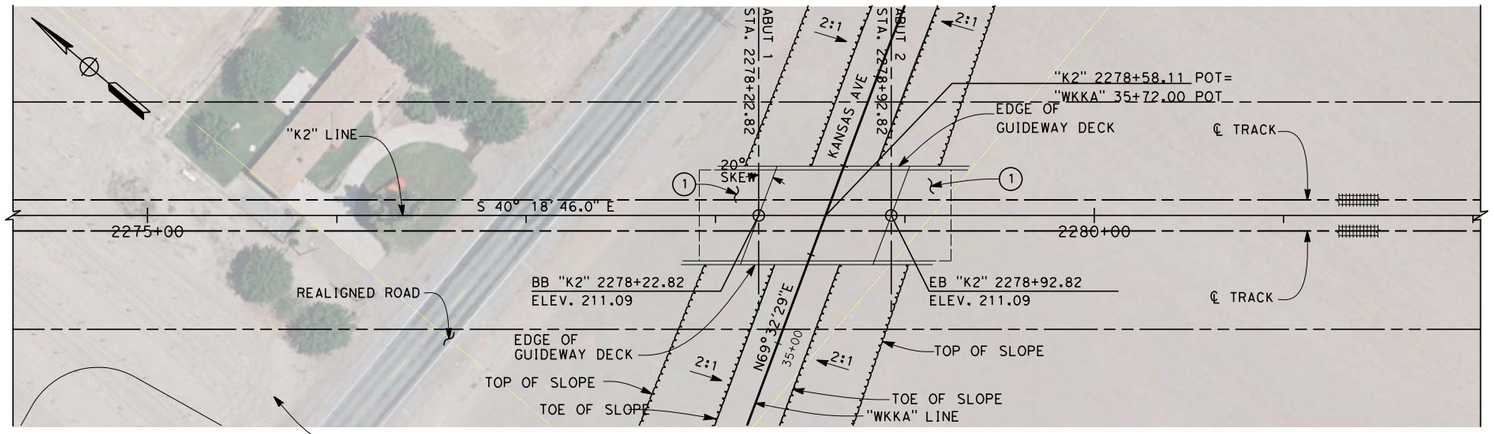
ELEVATION

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'



PLAN

SCALE: 1"=40'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.

LEGEND:

(1) STRUCTURE APPROACH SLAB

INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

40 0 40 80
1"=40'

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
KANSAS AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2141
SCALE AS SHOWN
SHEET NO. 2 OF 2

IONA AVE
SUBSECTION HW
IDAHO AVE
S 11TH AVE
EXISTING BNSF
JACKSON AVE
12TH AVE
KENT AVE
KANSAS AVE
LANSING AVE
SR 43
SV2151
SV2152
SV2153
SV2154
SV2155
SV2156
SV2157
SV2158
SV2159
SV2160
SV2161
SV2162
SV2163
SV2164
SV2165
SV2166
SUBSECTION C3
NEVADA AVE

LEGEND
EXISTING FREIGHT RAILROAD
PROPOSED CHST

2000 0 2000 4000
1"=2000'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
CROSS CREEK VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2150
SCALE AS SHOWN
SHEET NO. 1 OF 18

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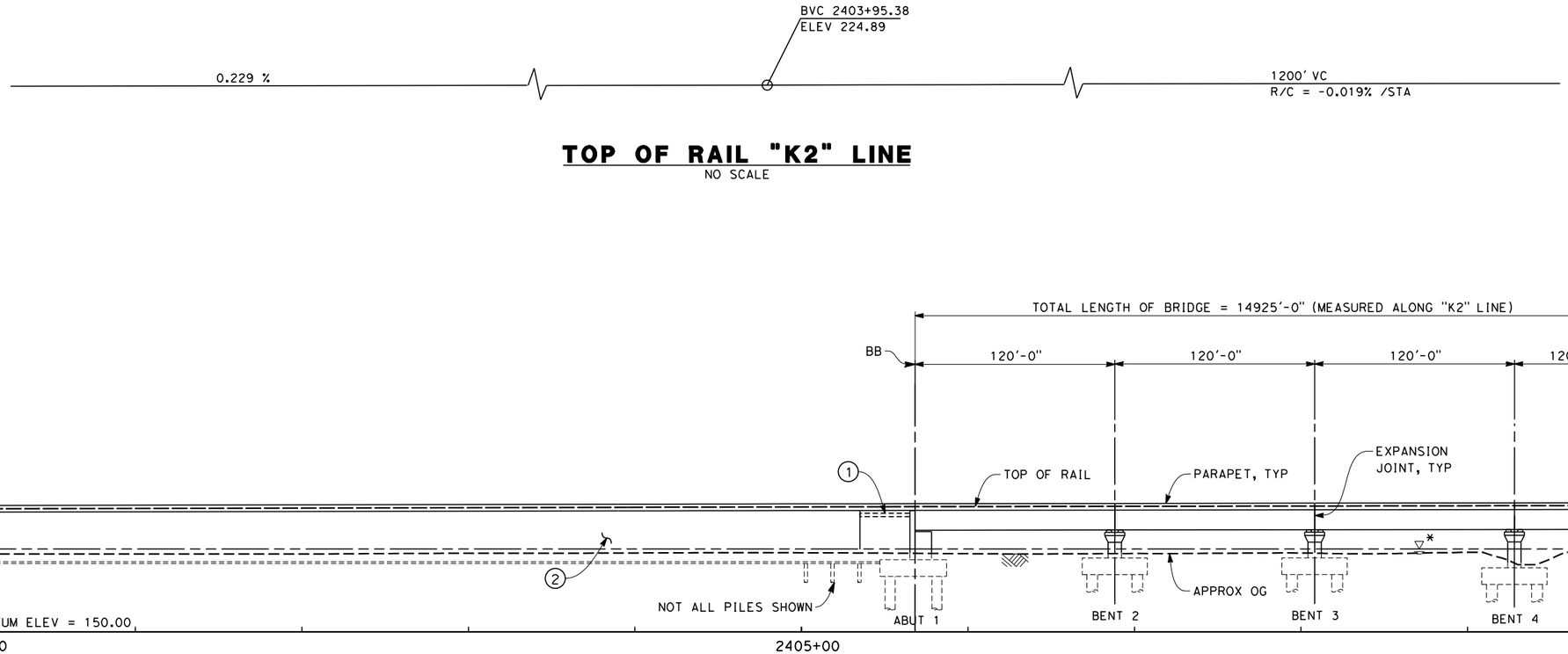

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   - SIMPLE SPANS - MSS OR FLPM
   - CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   - STEEL TRUSS - INSITU, SLID OR LAUNCHED
   - ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2151
SCALE AS SHOWN
SHEET NO. 2 OF 18

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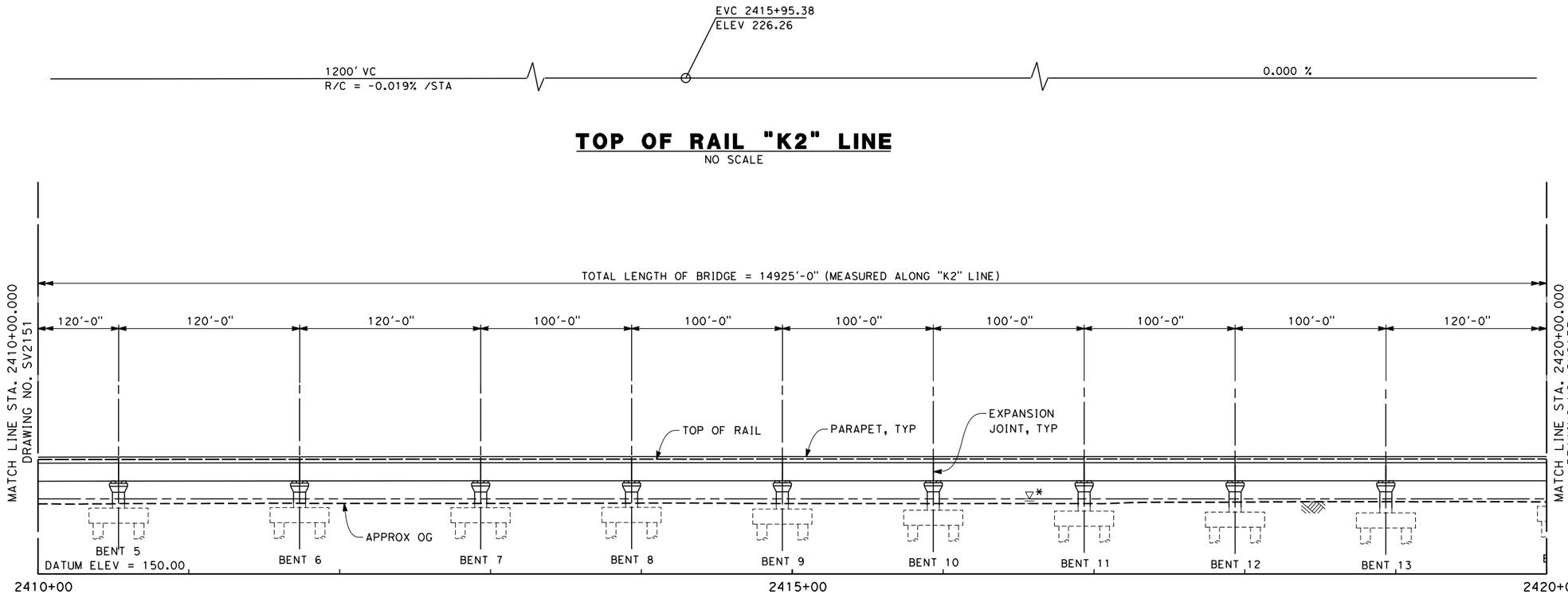


NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

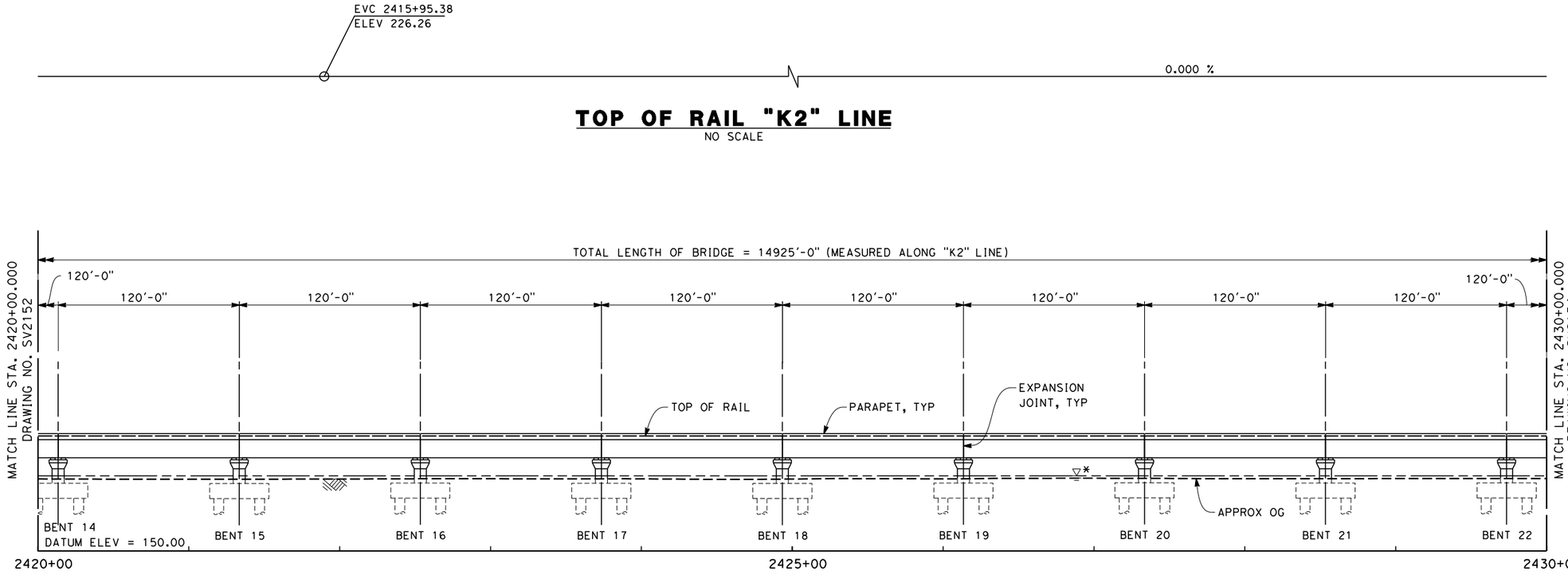
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2152
SCALE AS SHOWN
SHEET NO. 3 OF 18

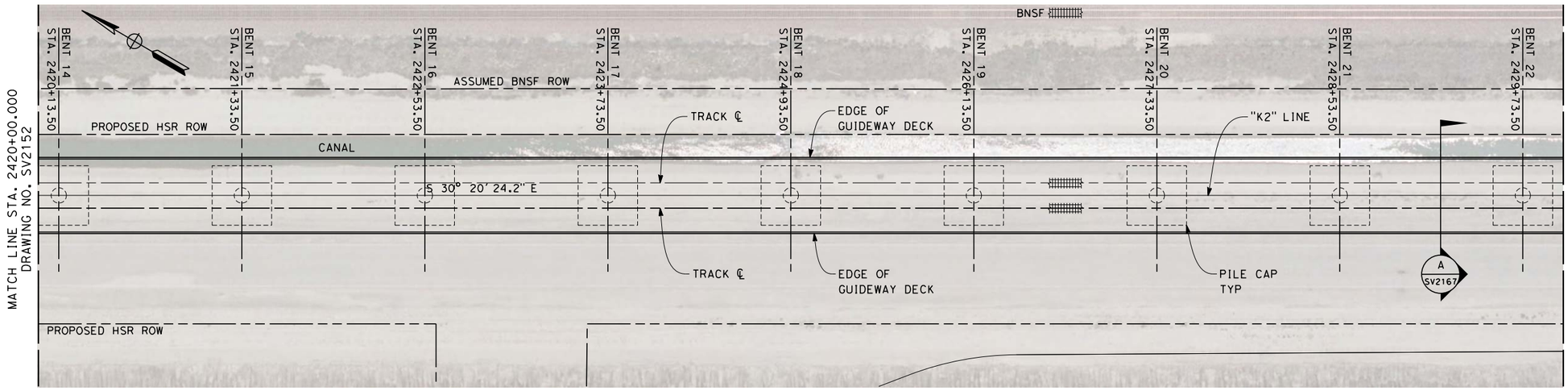


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2153
SCALE AS SHOWN
SHEET NO. 4 OF 18

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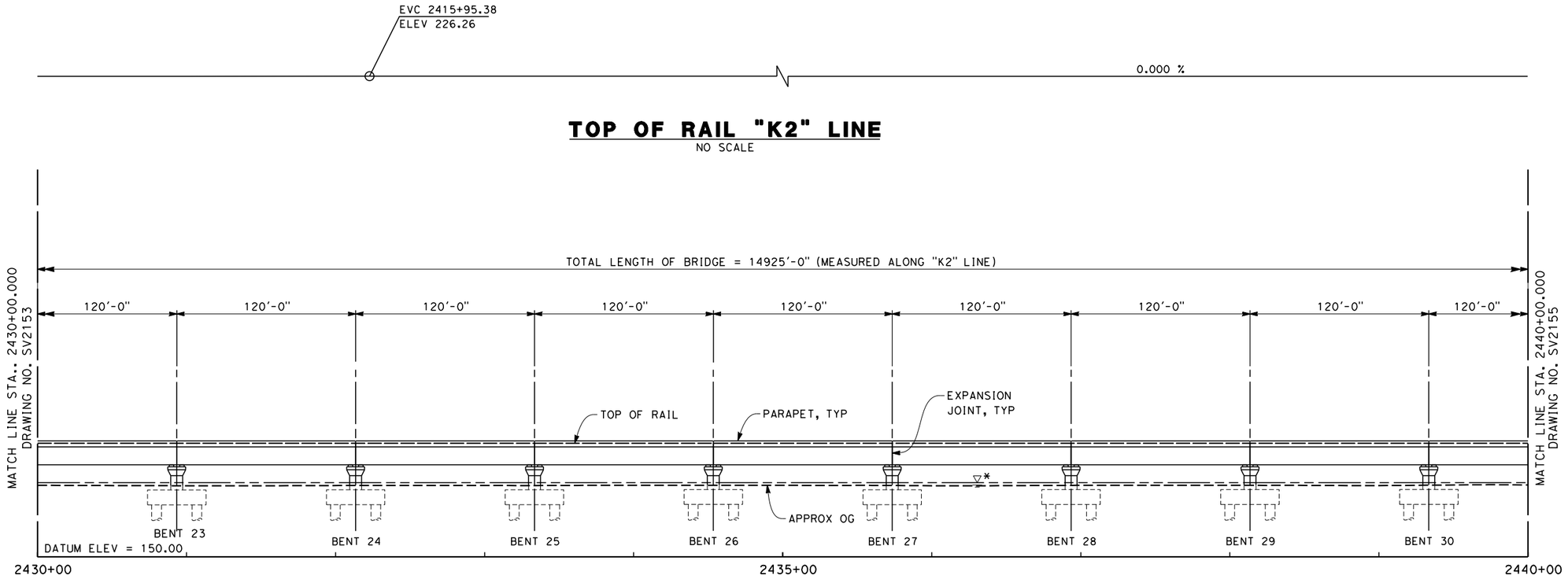
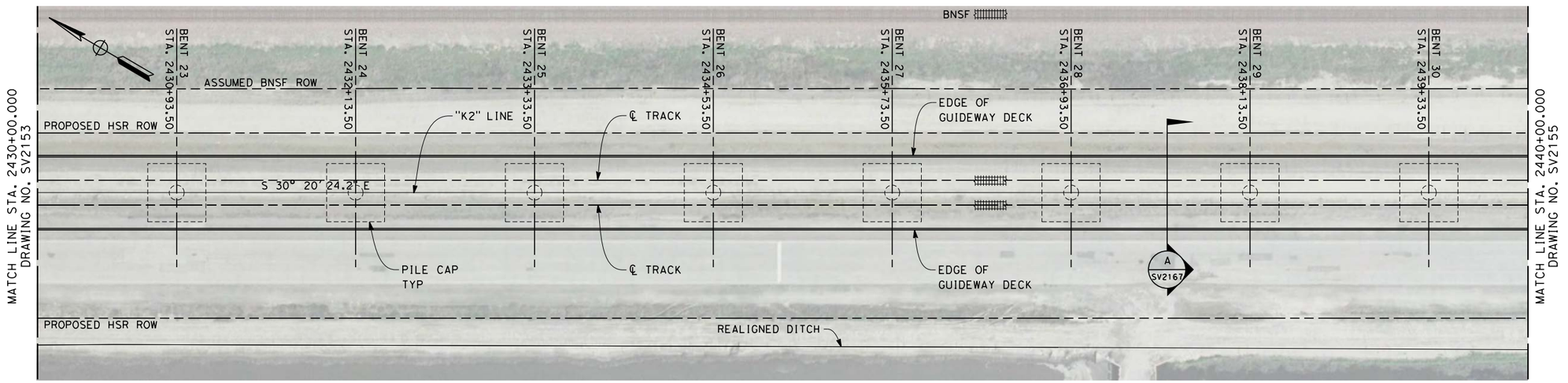


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

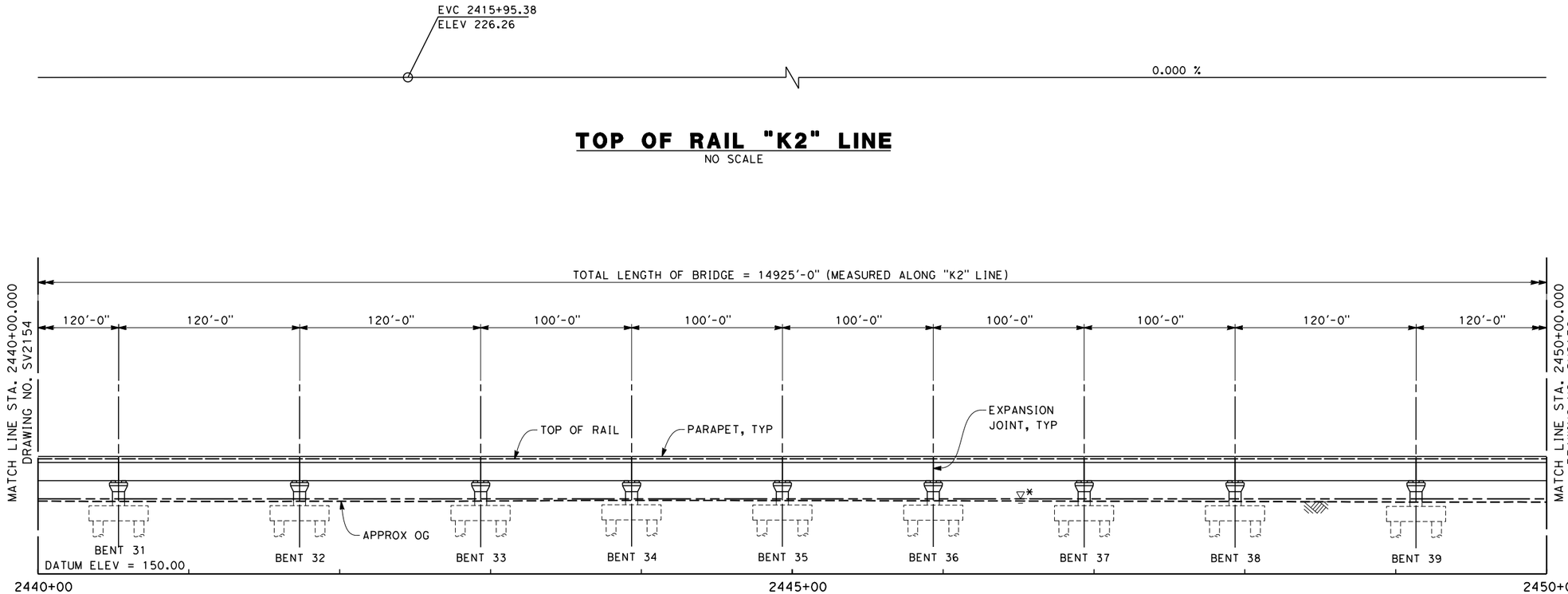
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2154
SCALE AS SHOWN
SHEET NO. 5 OF 18

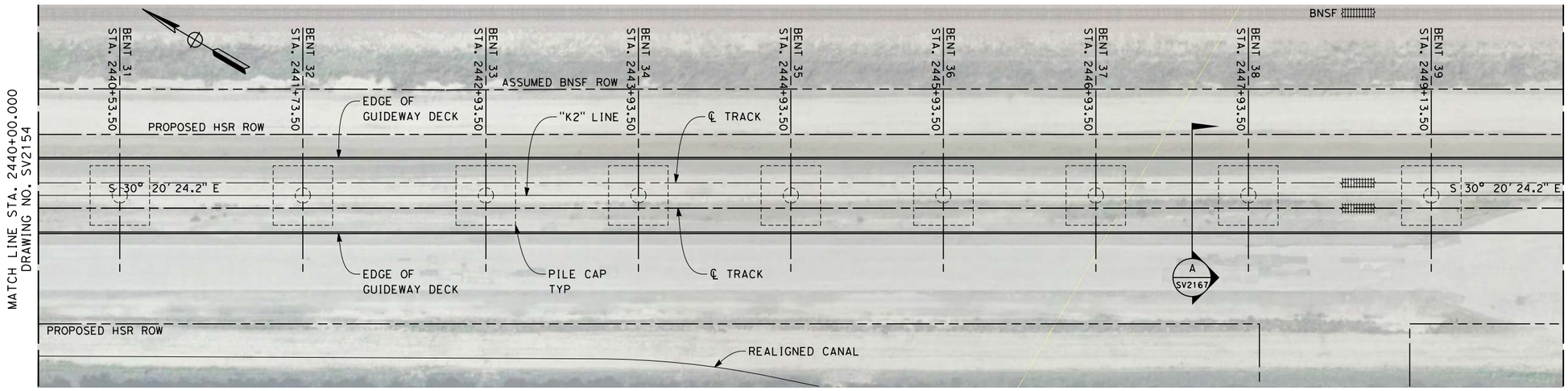


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

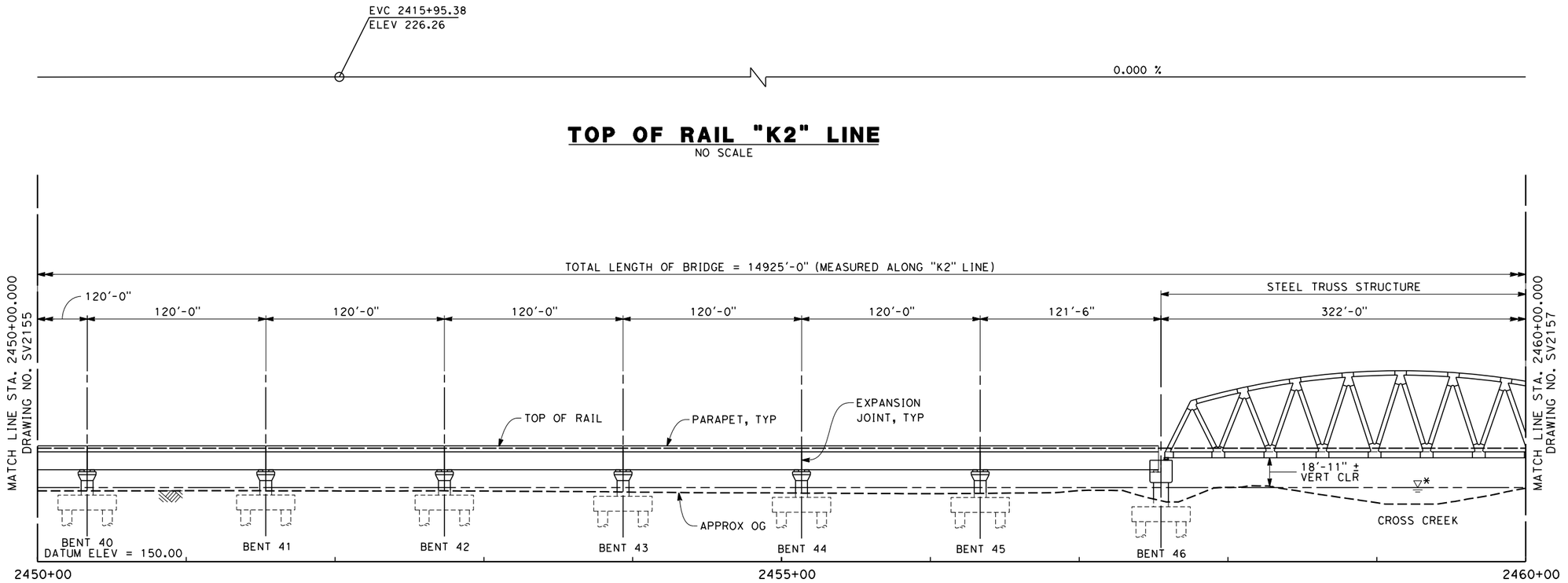
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

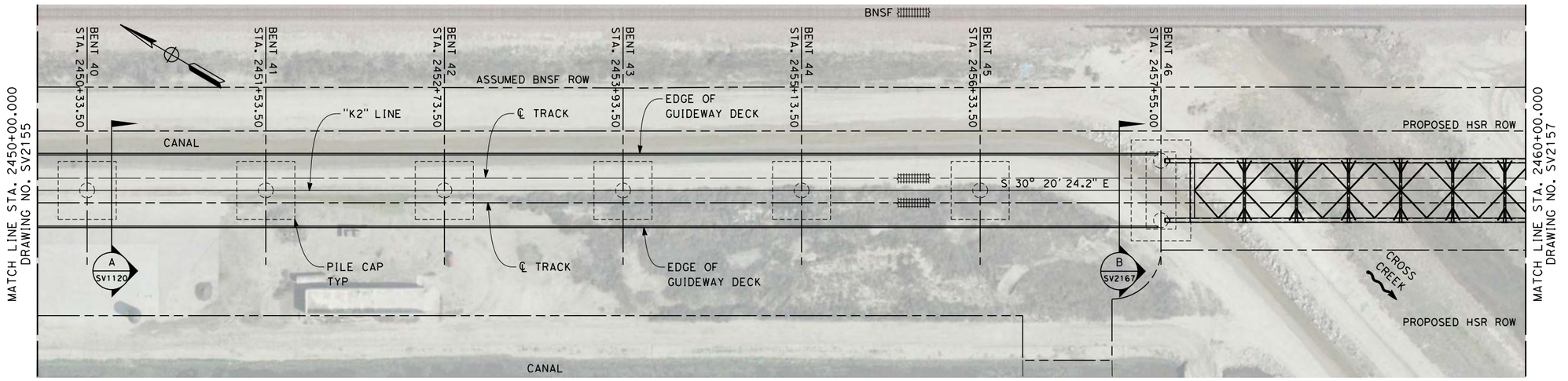
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2155
SCALE AS SHOWN
SHEET NO. 6 OF 18



TOP OF RAIL "K2" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

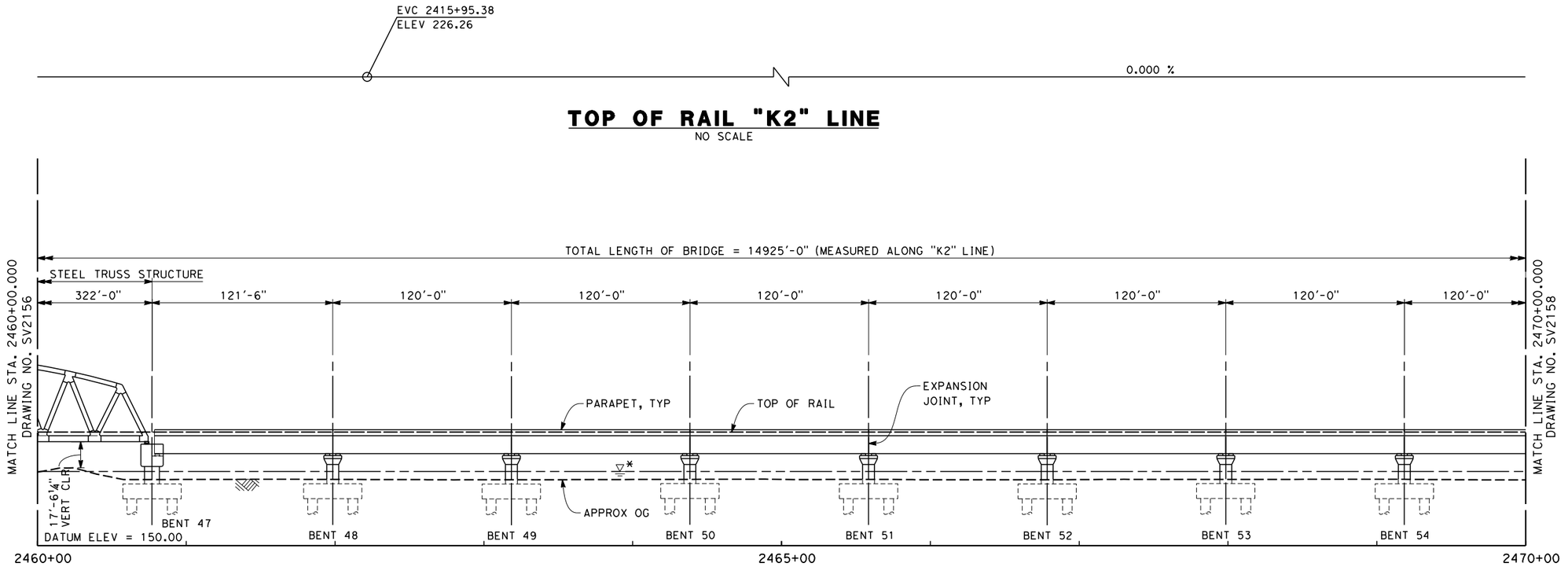
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

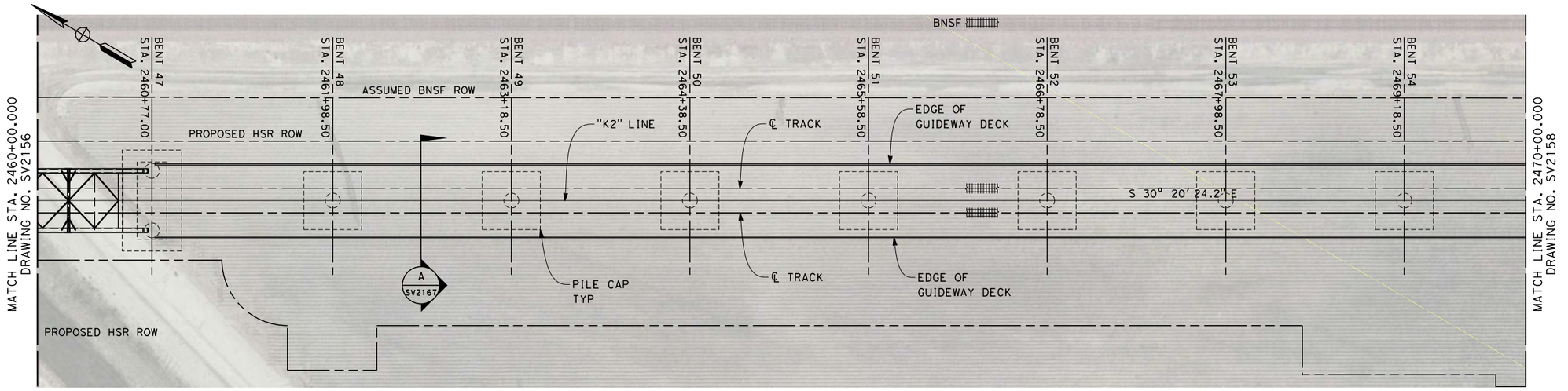
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2156
SCALE AS SHOWN
SHEET NO. 7 OF 18



TOP OF RAIL "K2" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

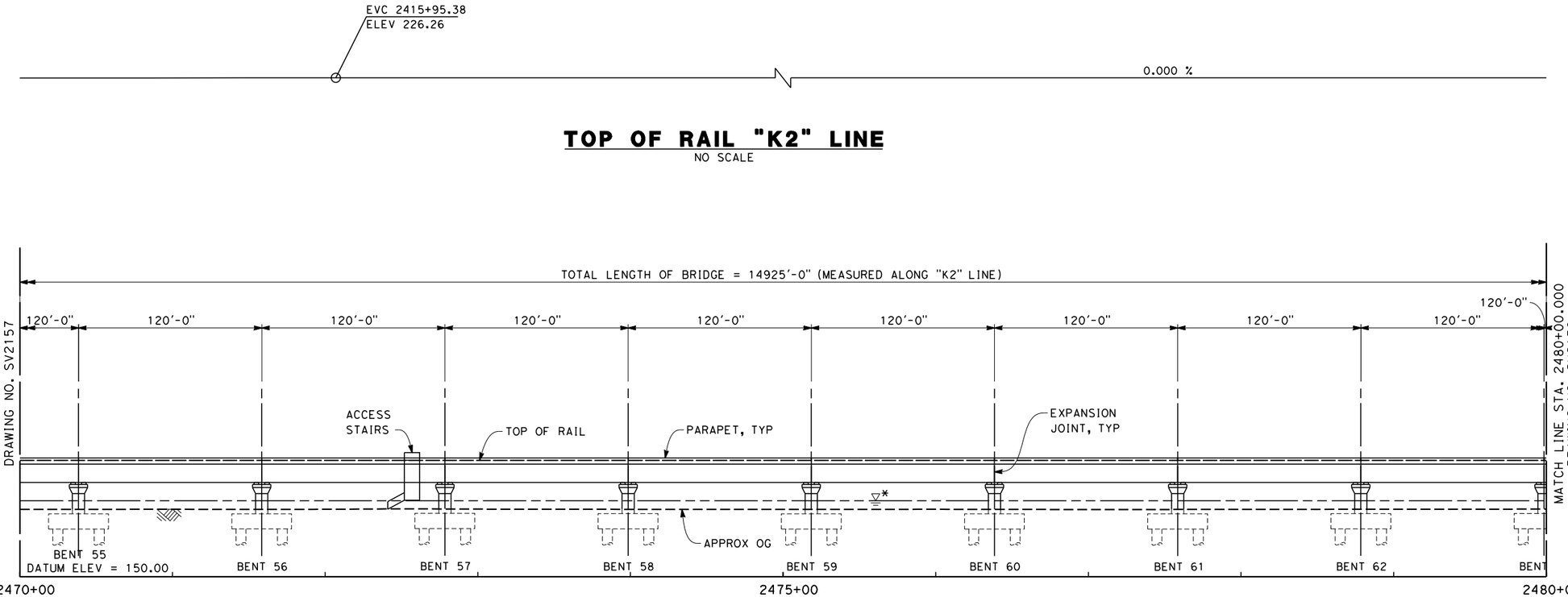
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2157
SCALE AS SHOWN
SHEET NO. 8 OF 18



NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   - SIMPLE SPANS - MSS OR FLPM
   - CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   - STEEL TRUSS - INSITU, SLID OR LAUNCHED
   - ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

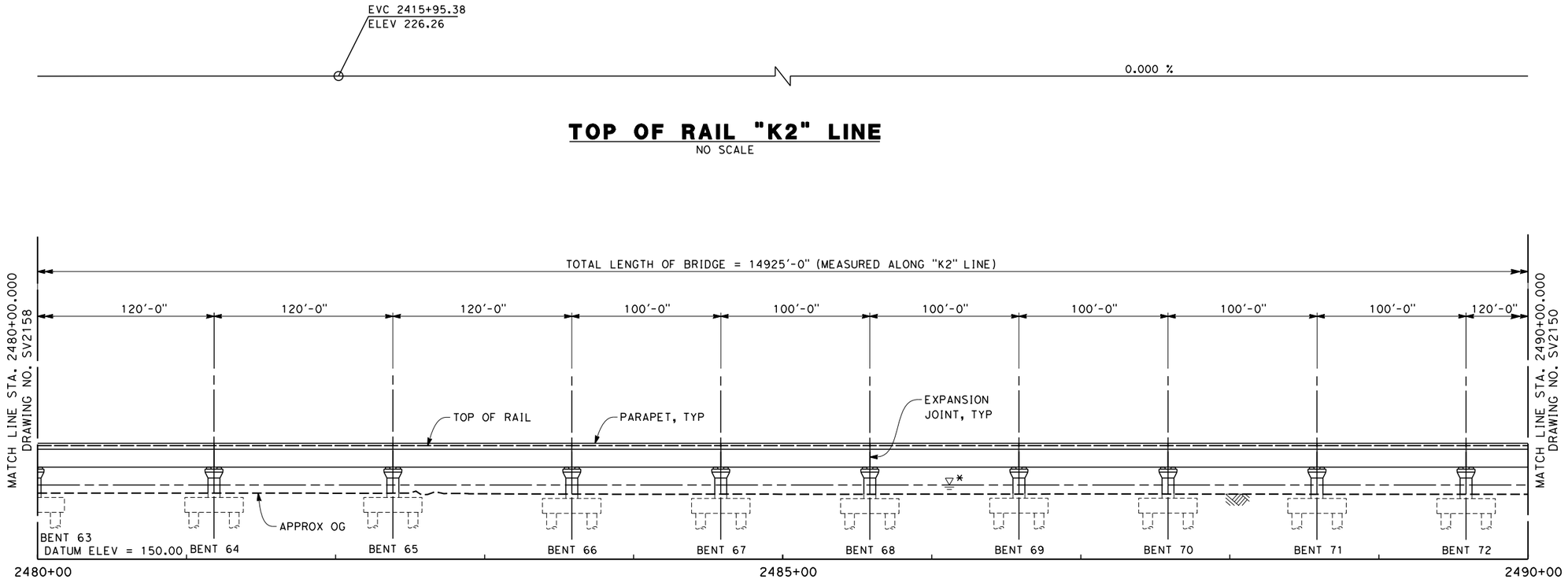
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2158
SCALE AS SHOWN
SHEET NO. 9 OF 18

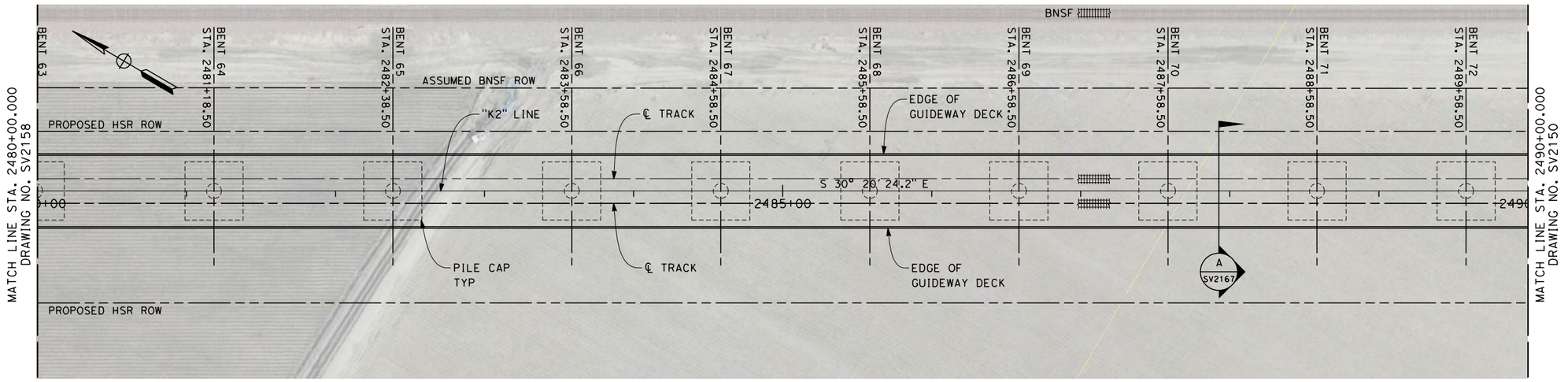


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

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2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

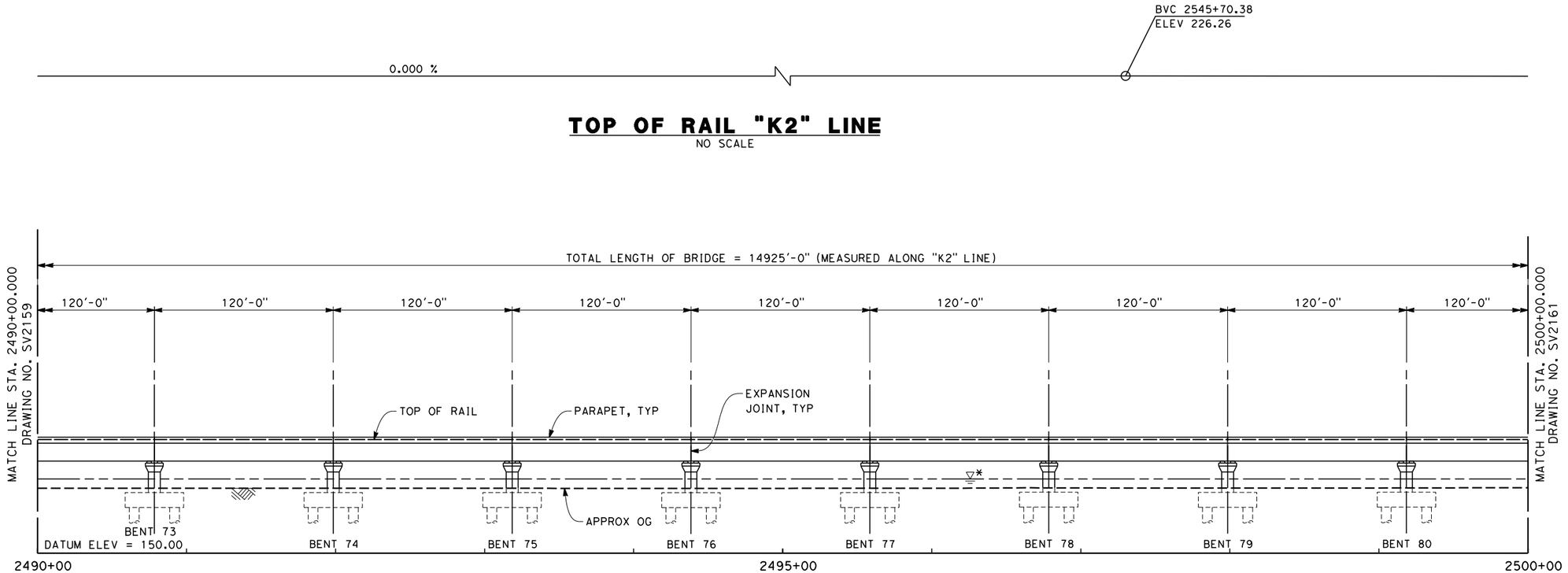
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2159
SCALE AS SHOWN
SHEET NO. 10 OF 18

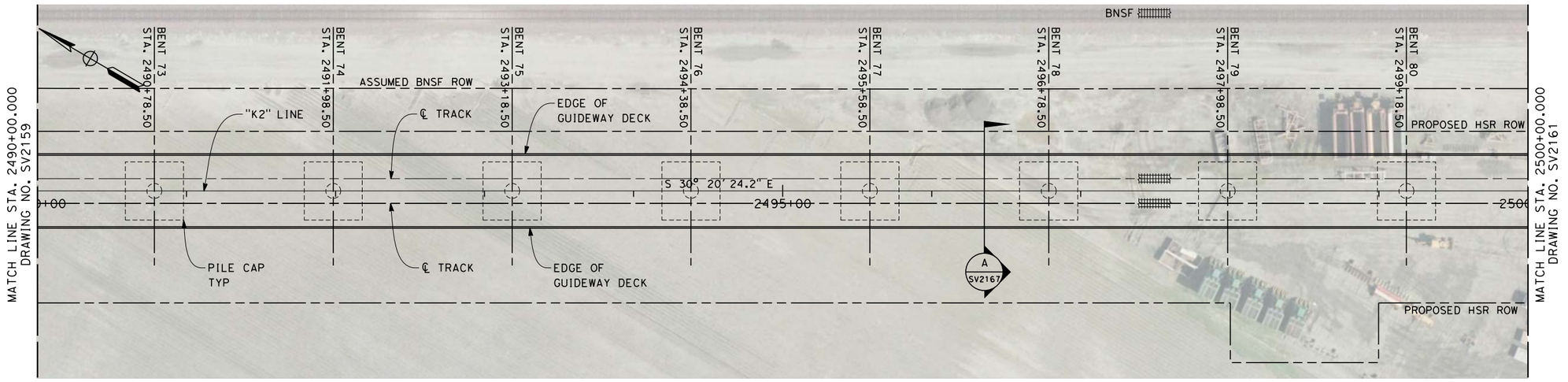


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

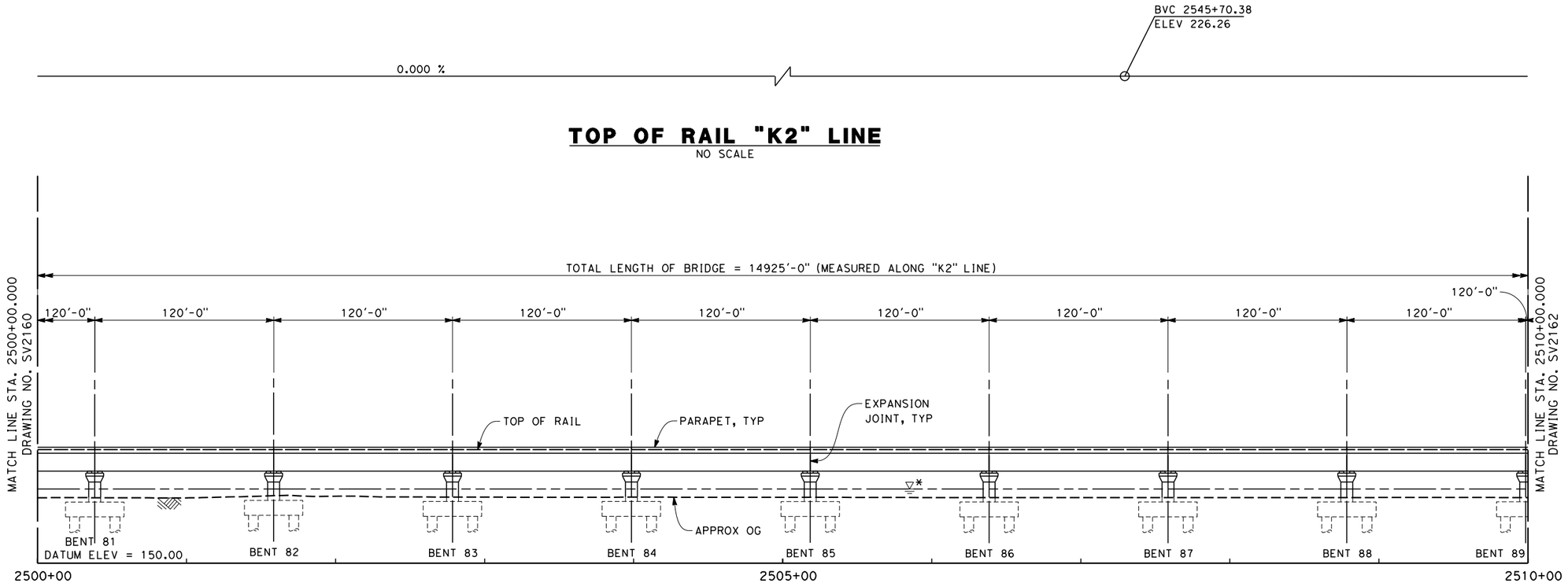
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2160
SCALE AS SHOWN
SHEET NO. 11 OF 18

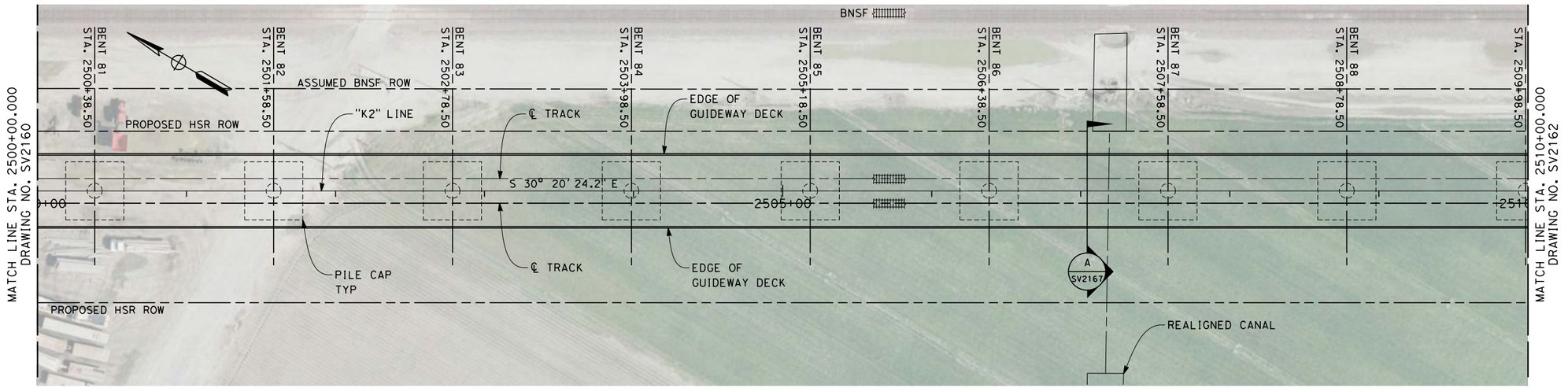


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

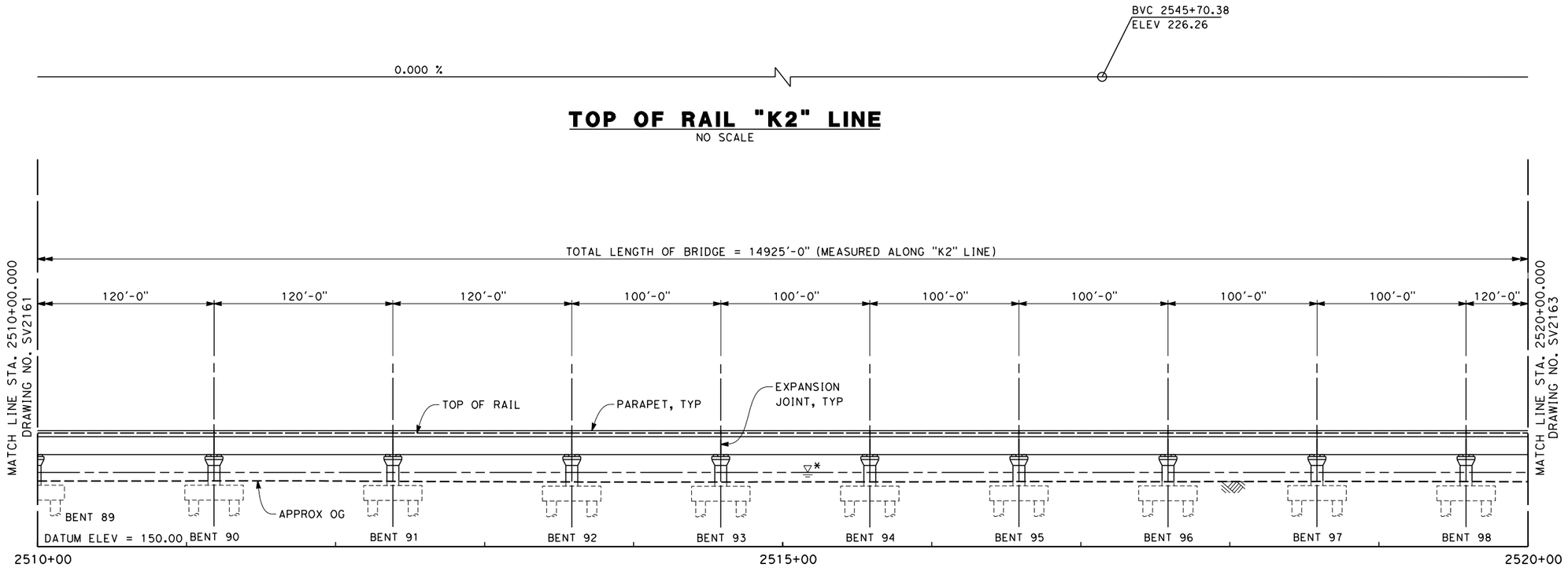
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

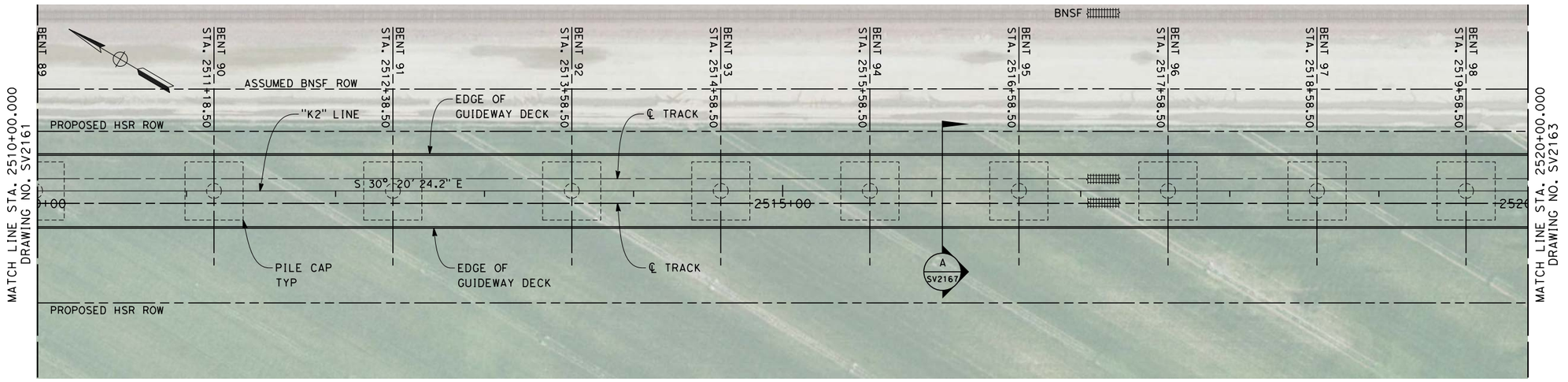
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2161
SCALE AS SHOWN
SHEET NO. 12 OF 18



TOP OF RAIL "K2" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
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LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

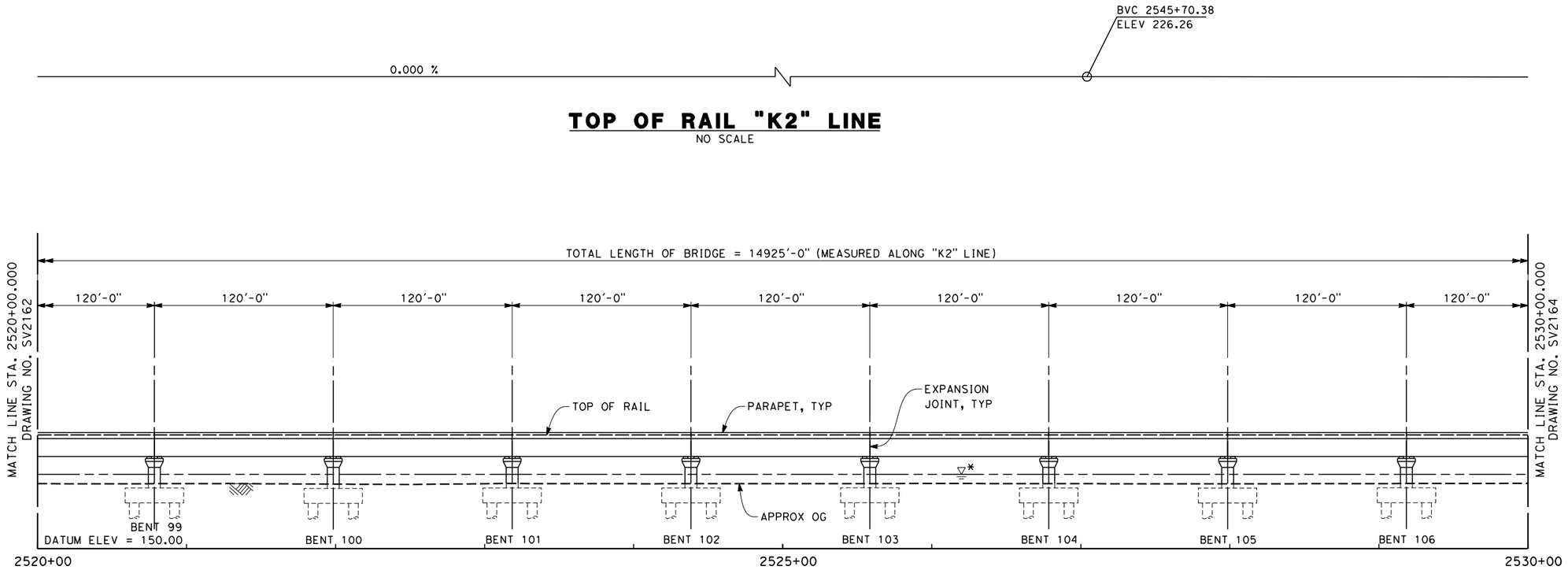
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2162
SCALE AS SHOWN
SHEET NO. 13 OF 18

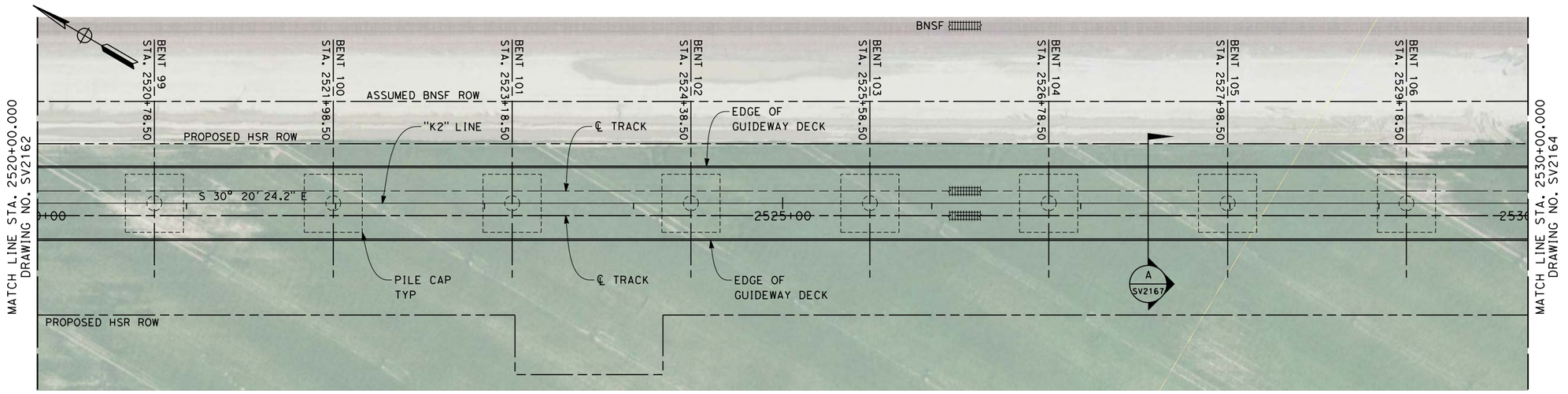


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

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2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
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LEGEND:

1. STRUCTURE APPROACH SLAB
2. RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

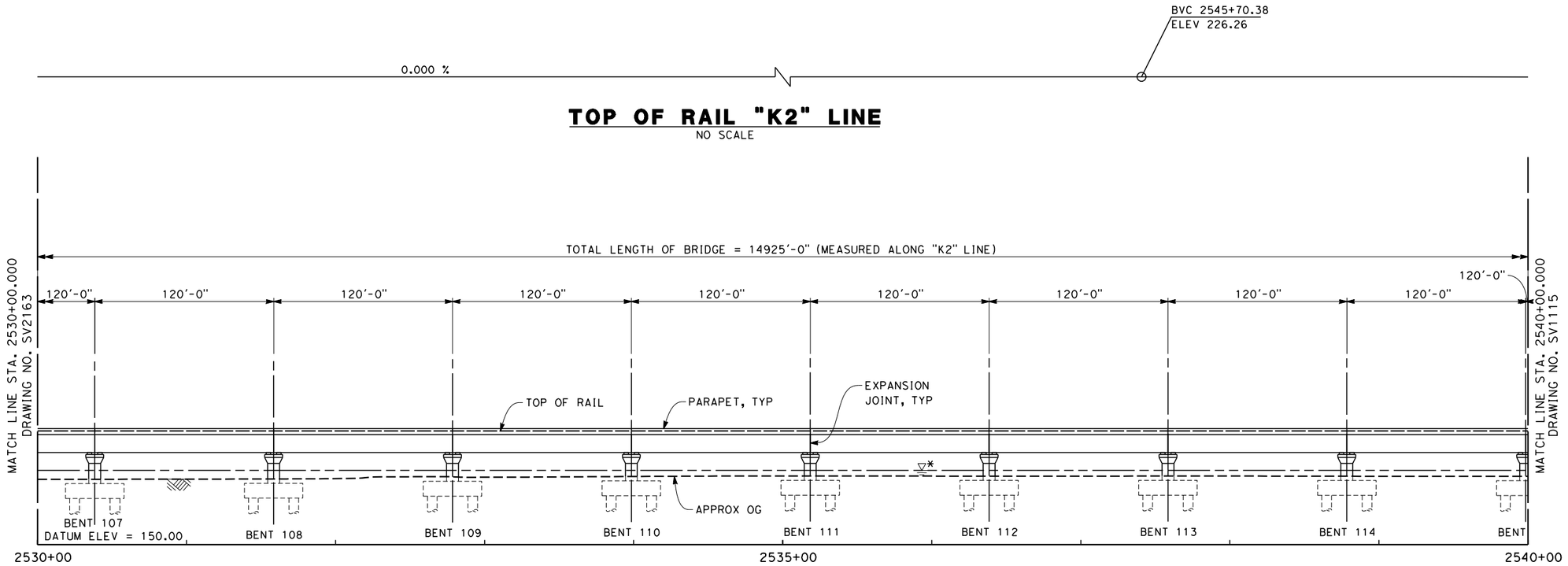
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

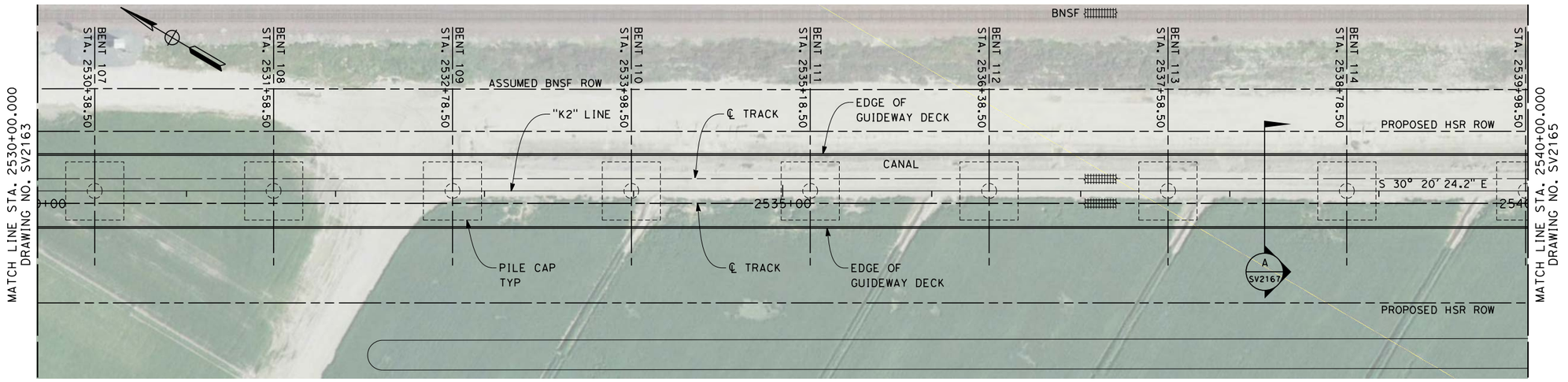
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2163
SCALE AS SHOWN
SHEET NO. 14 OF 18

Nadine.Hutton 12/12/2013 10:25:59 PM c:\pwworking\hmm\external\nadine.hutton-arup.com\d0103430\X-FB-SV-2163-K2.dgn



TOP OF RAIL "K2" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
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LEGEND:
(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
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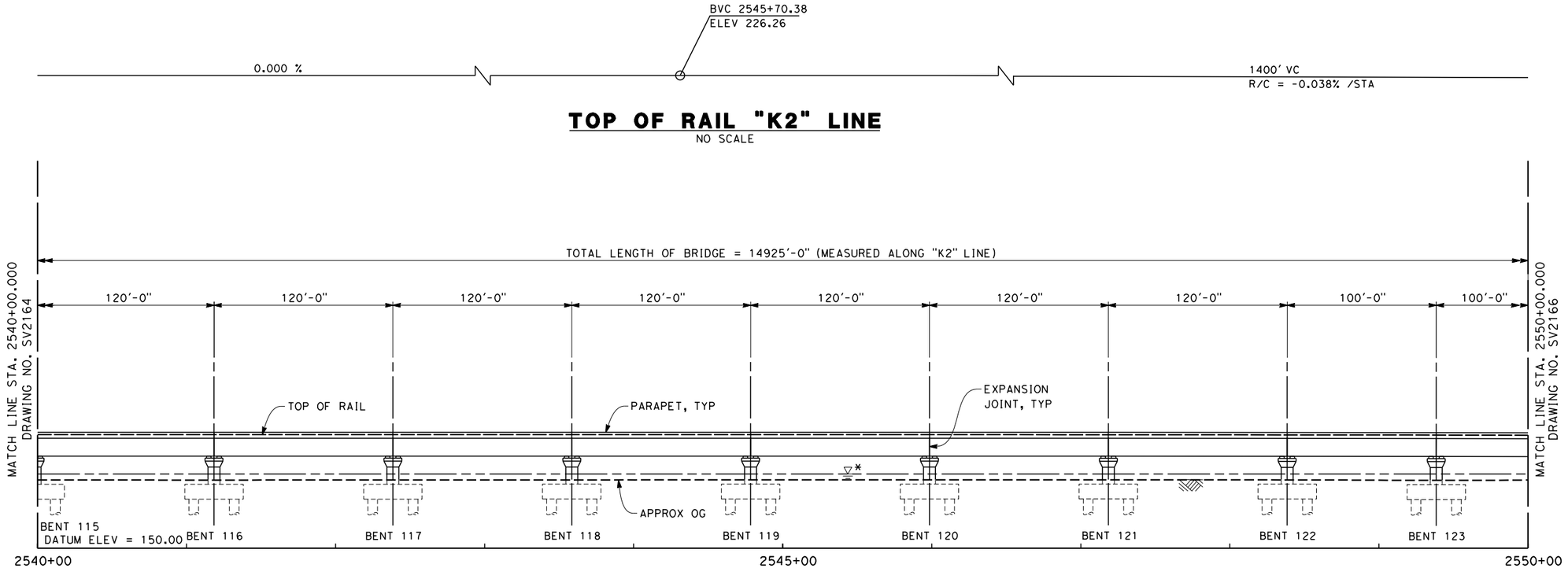
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2164
SCALE AS SHOWN
SHEET NO. 15 OF 18

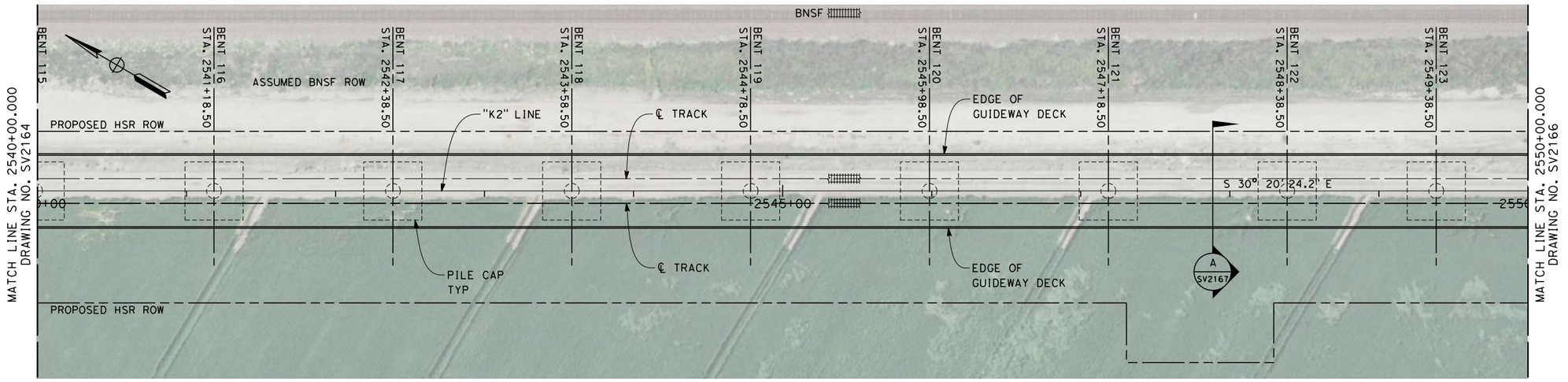


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

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3. SUPERSTRUCTURE CONSTRUCTION, UON
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

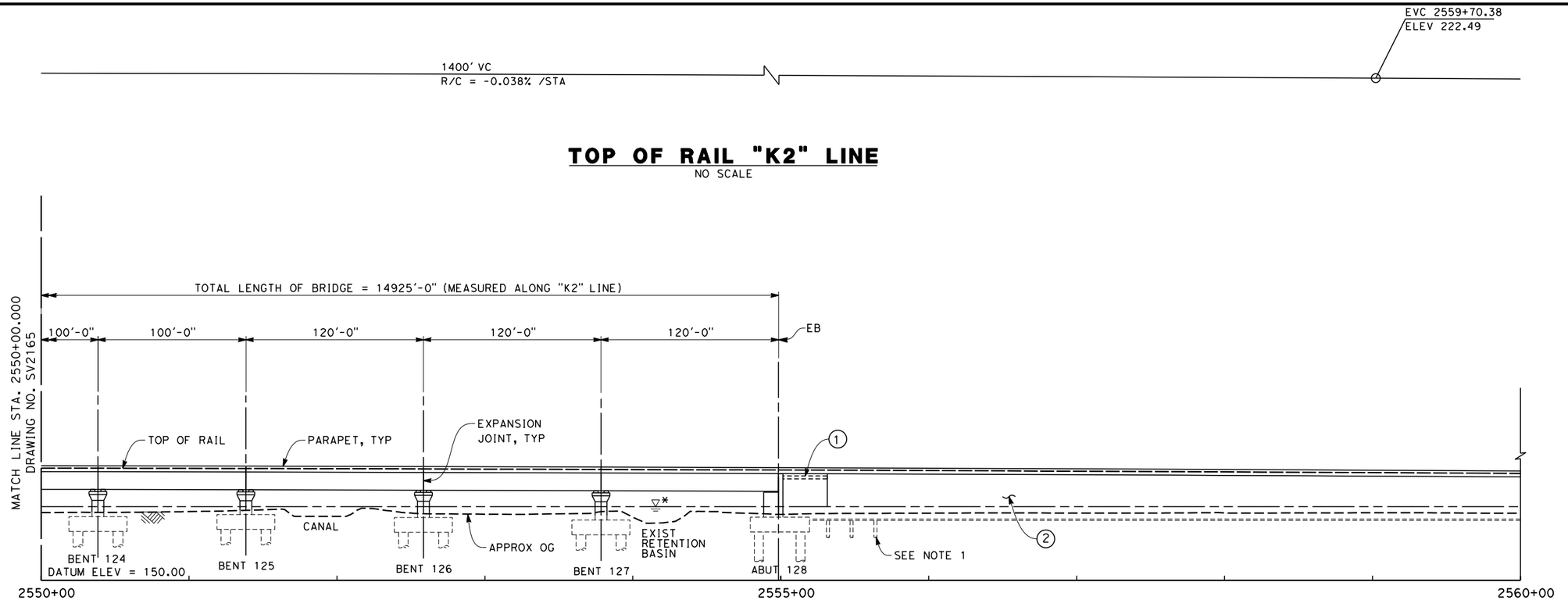
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2165
SCALE AS SHOWN
SHEET NO. 16 OF 18

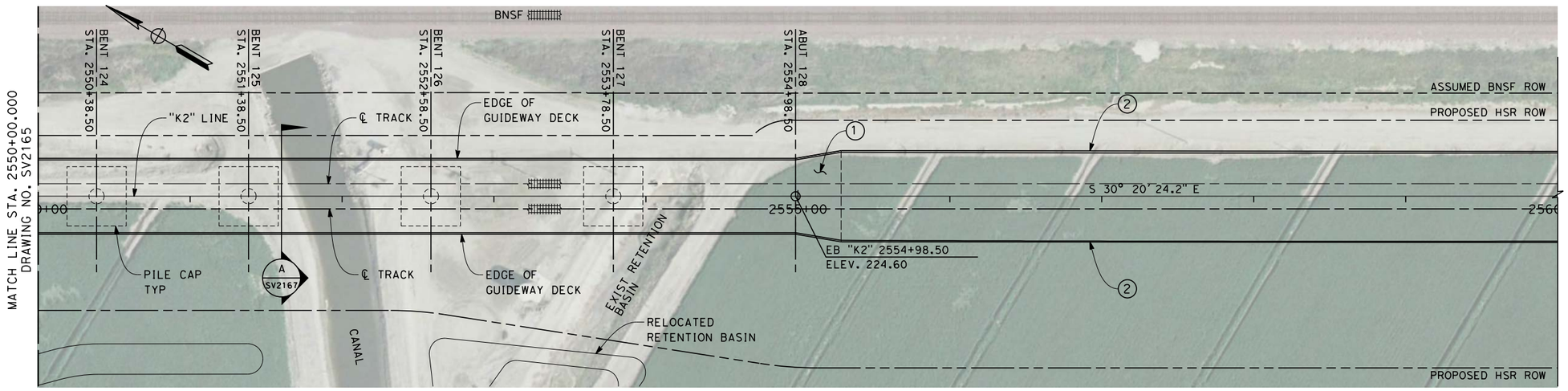


TOP OF RAIL "K2" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

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3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

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40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

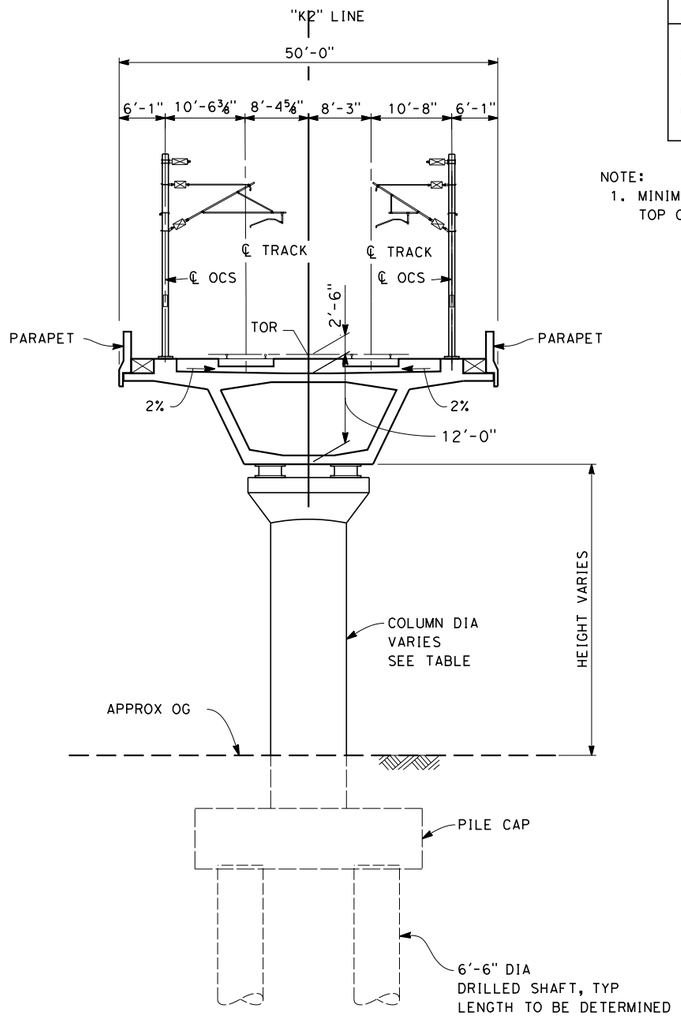
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K2
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2166
SCALE AS SHOWN
SHEET NO. 17 OF 18

COLUMN DIAMETERS	
COLUMN HEIGHT	DIAMETER
< 20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT

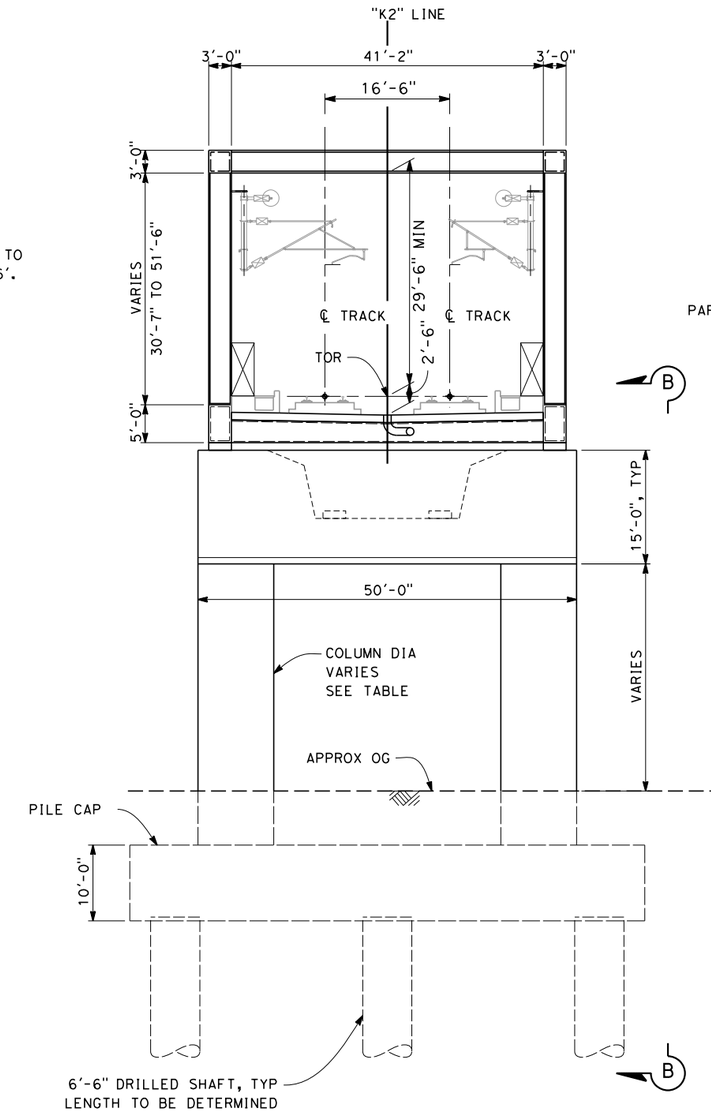
NOTE:
1. MINIMUM DIMENSION FROM SOFFIT TO TOP OF FOUNDATION SHALL BE 16'.



SECTION A

SCALE: 1" = 10'

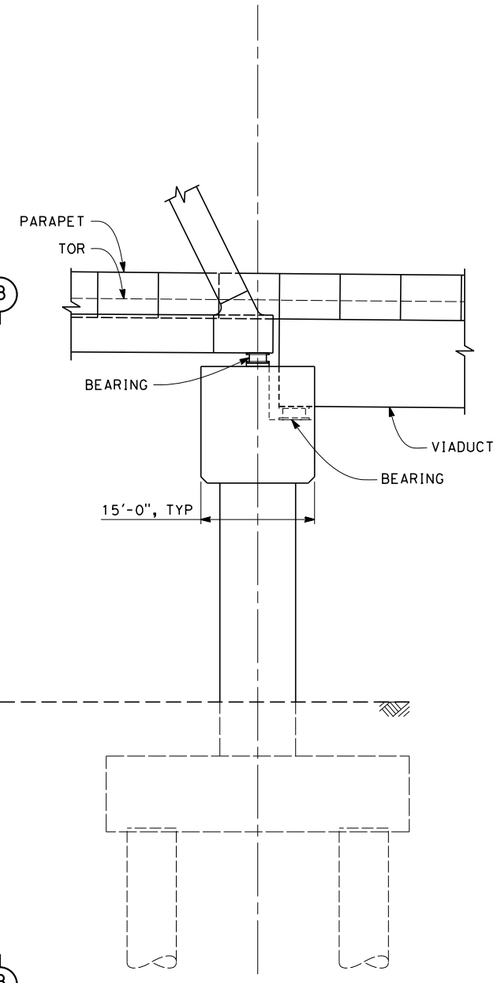
STA 2405+74 THROUGH 2457+55
STA 2460+77 THROUGH 2554+99



SECTION B

SCALE: 1" = 10'

STA 2457+55 THROUGH 2460+77



SECTION B-B

10 0 10 20
1"-10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
CROSS CREEK VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2167
SCALE AS SHOWN
SHEET NO. 18 OF 18

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY E. SUDHAUSEN
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

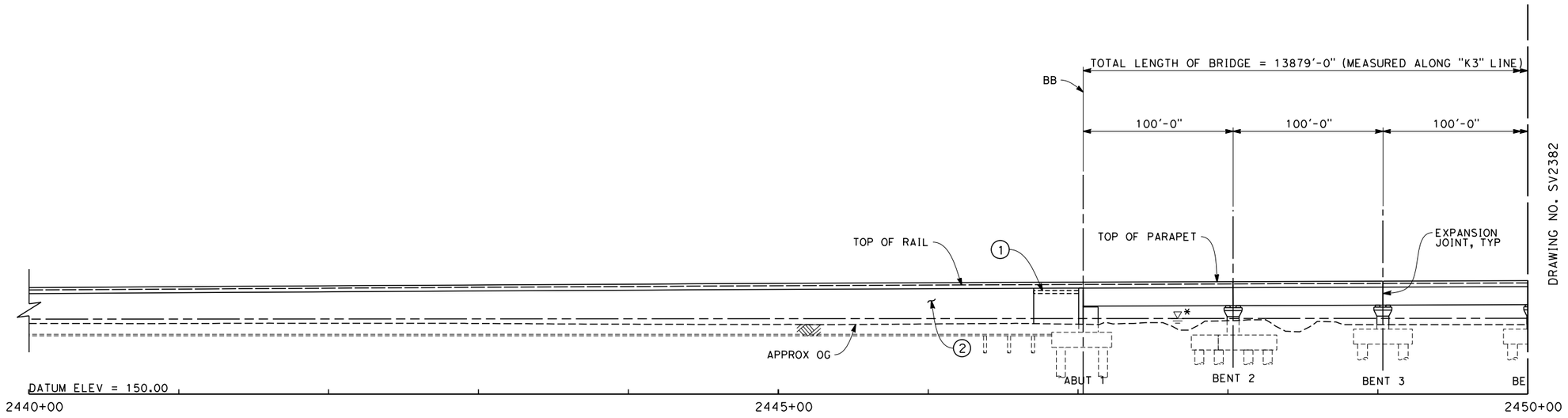
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2380
SCALE AS SHOWN
SHEET NO. 1 OF 18

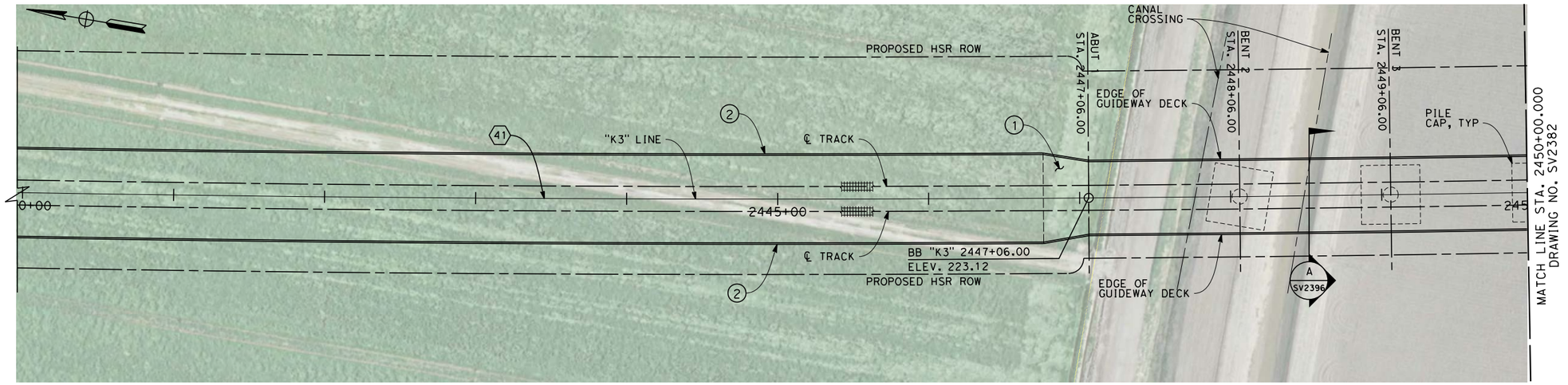
TOP OF RAIL "K3" LINE

NO SCALE



ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

41

R = 28600.00'
Δ = 49° 32' 56.7"
T = 13199.6'
L = 24733.1'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

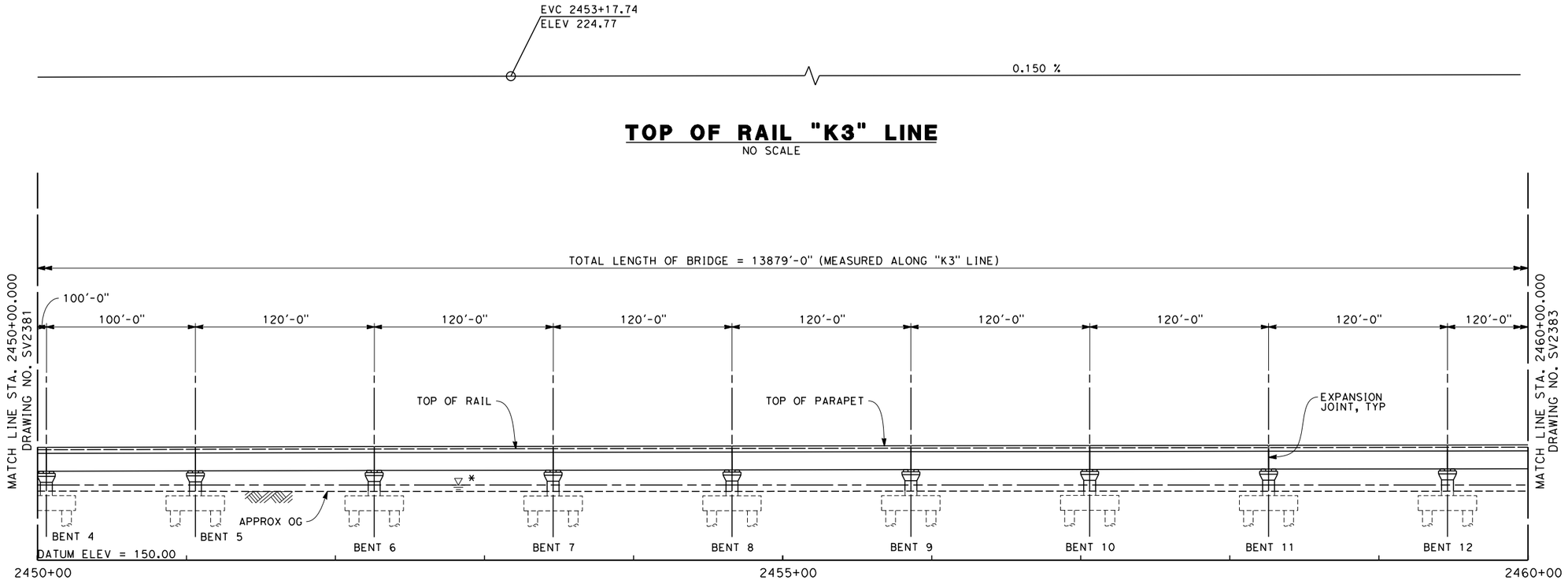
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2381
SCALE AS SHOWN
SHEET NO. 2 OF 18

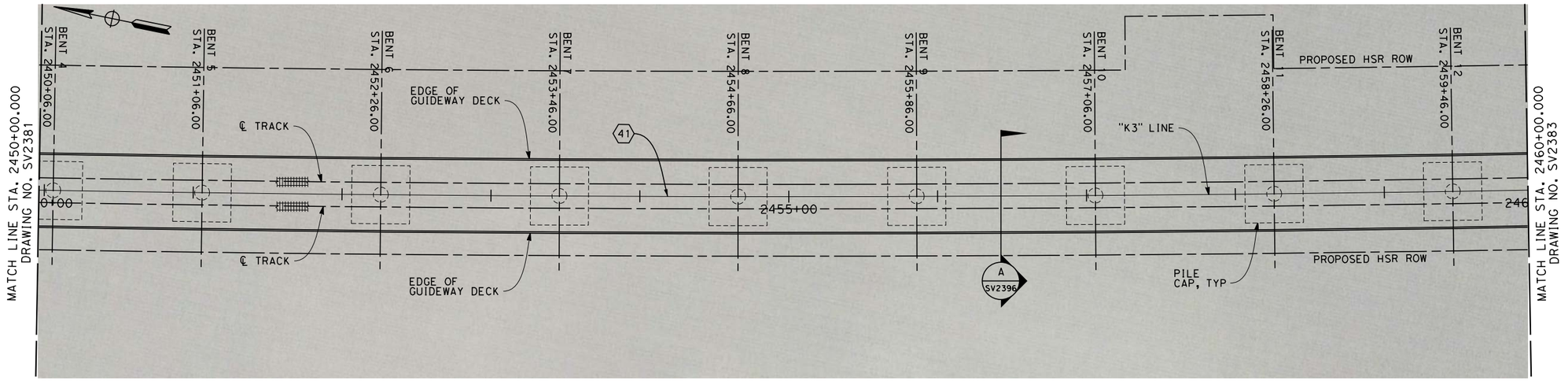


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

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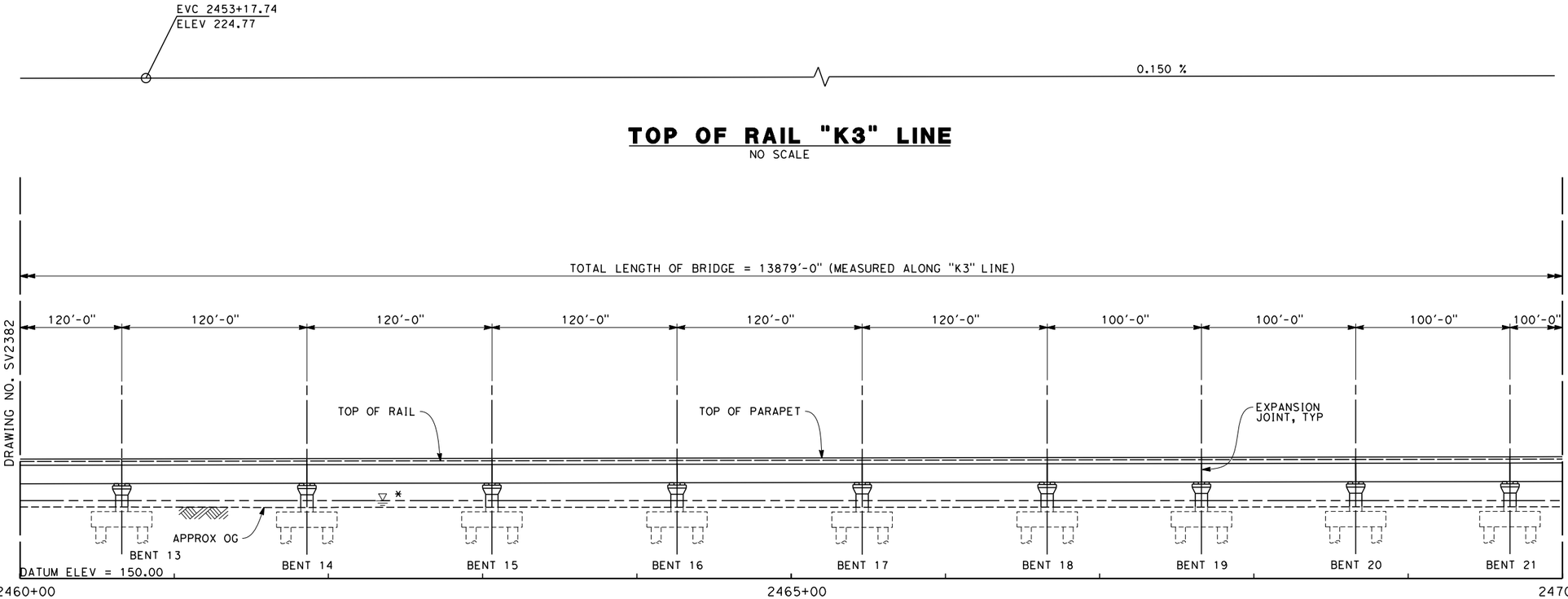
URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2382
SCALE AS SHOWN
SHEET NO. 3 OF 18



NOTES

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   - SIMPLE SPANS - MSS OR FLPM
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CALIFORNIA HIGH-SPEED TRAIN

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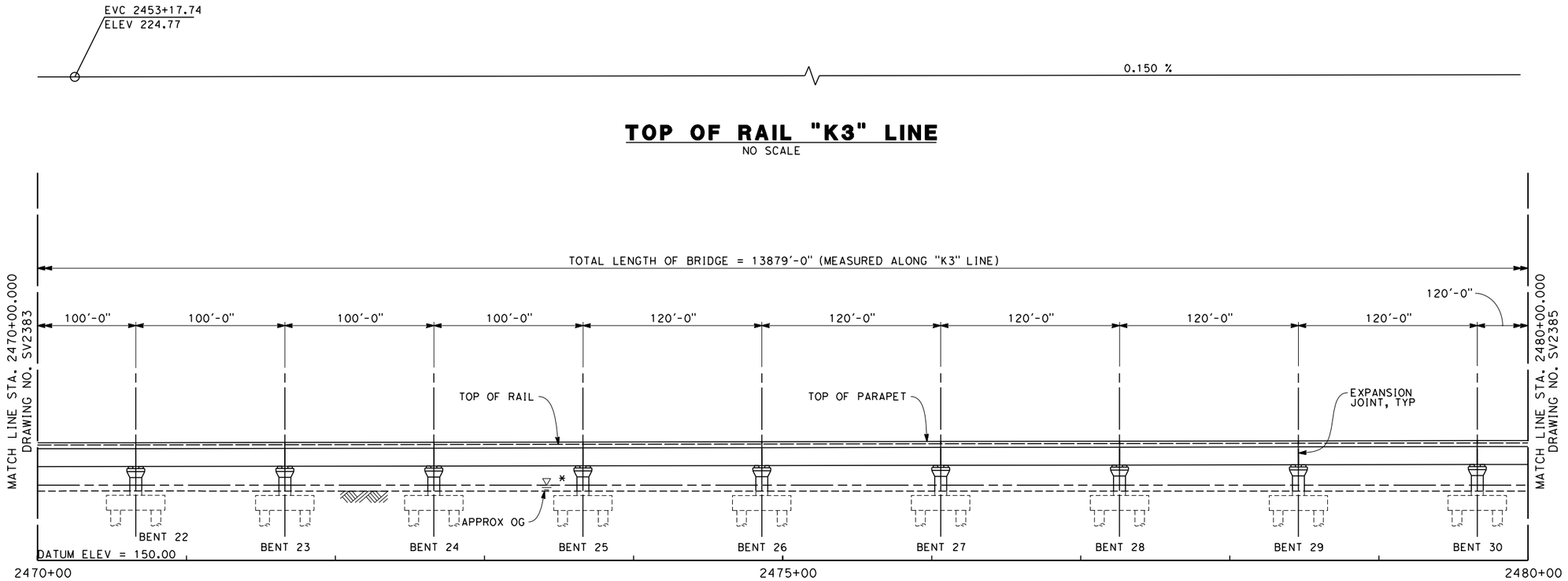
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2383
SCALE AS SHOWN
SHEET NO. 4 OF 18

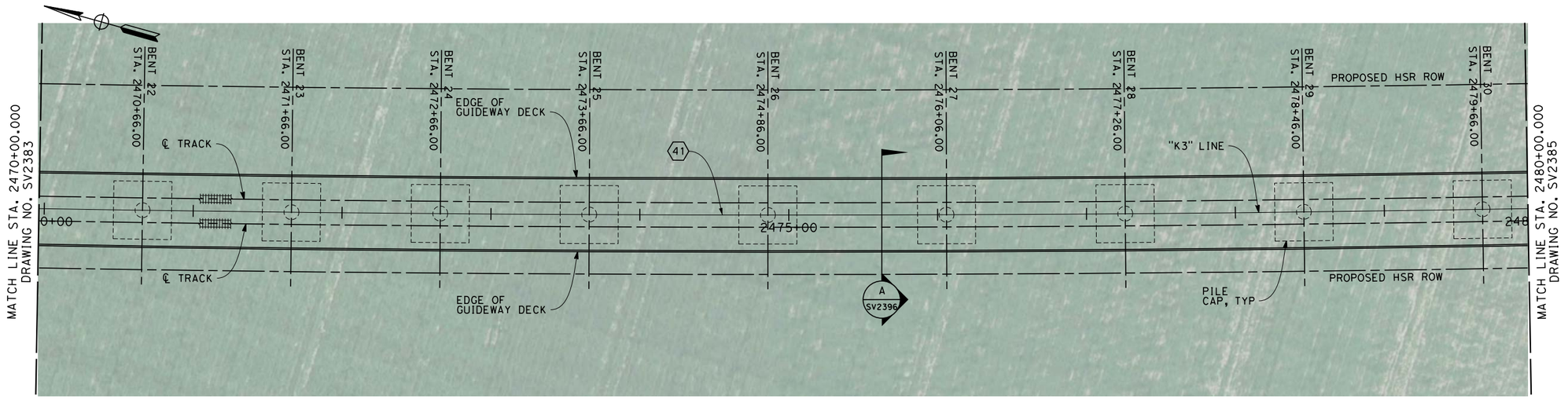


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

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(2) RETAINING WALL

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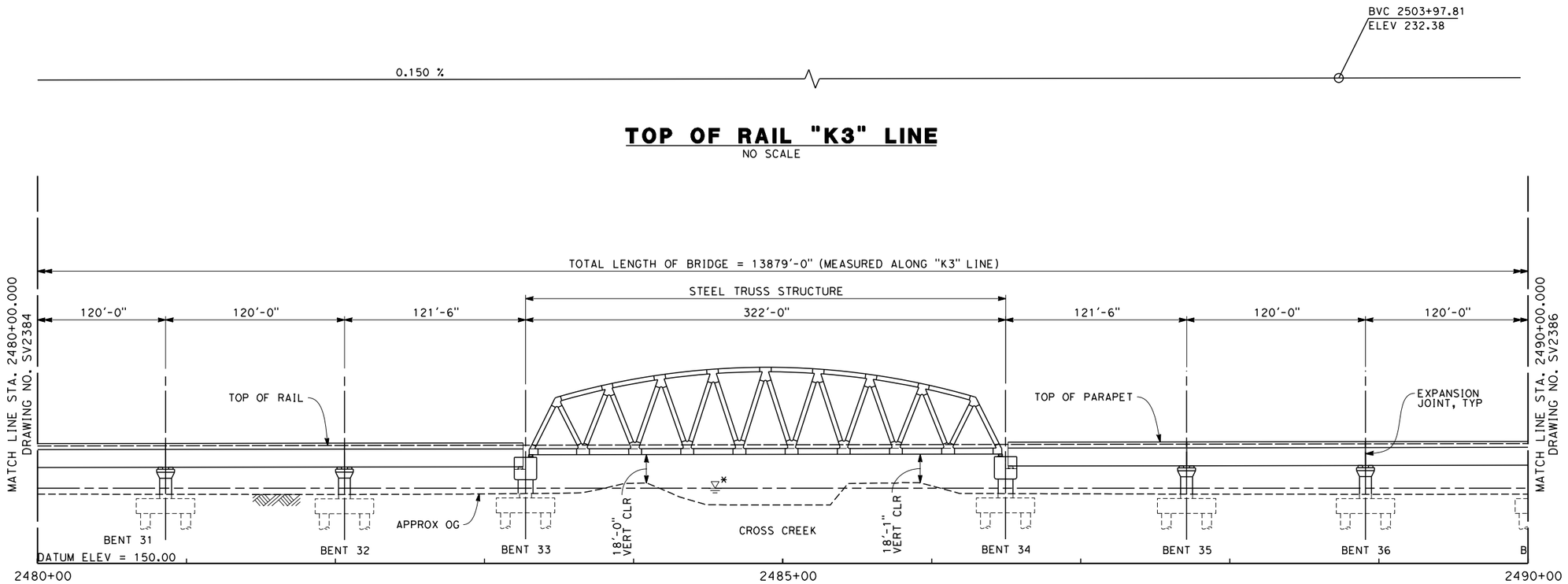
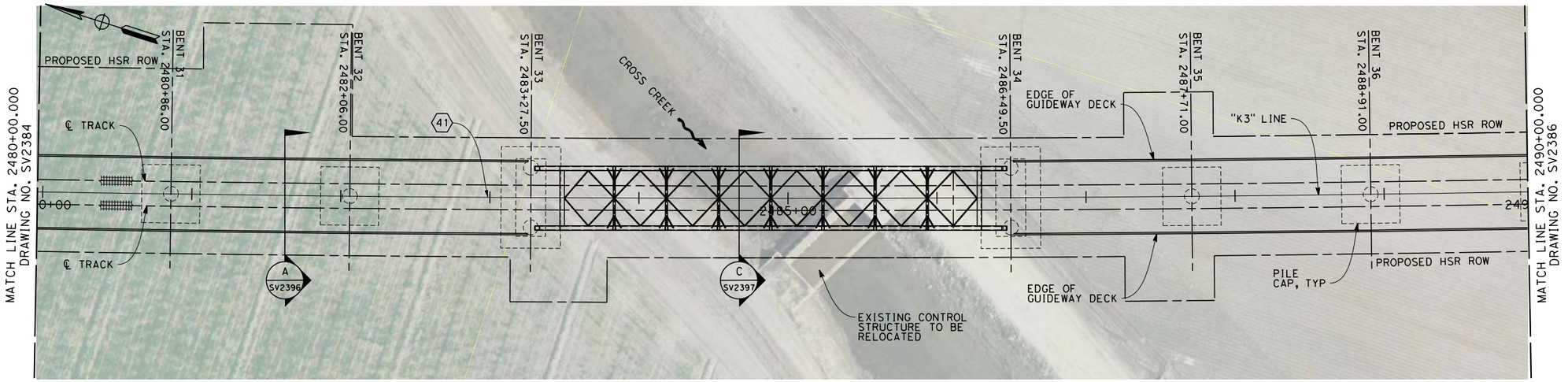
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2384
SCALE AS SHOWN
SHEET NO. 5 OF 18



TOP OF RAIL "K3" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

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(2) RETAINING WALL

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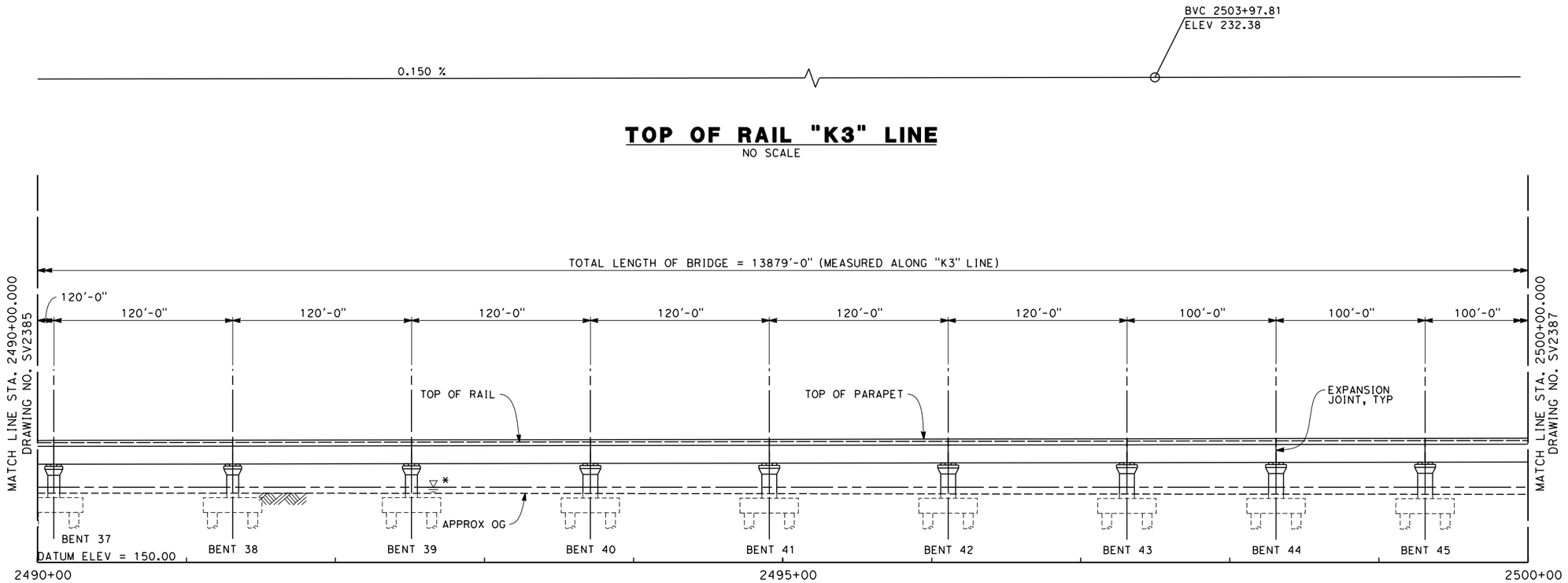
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

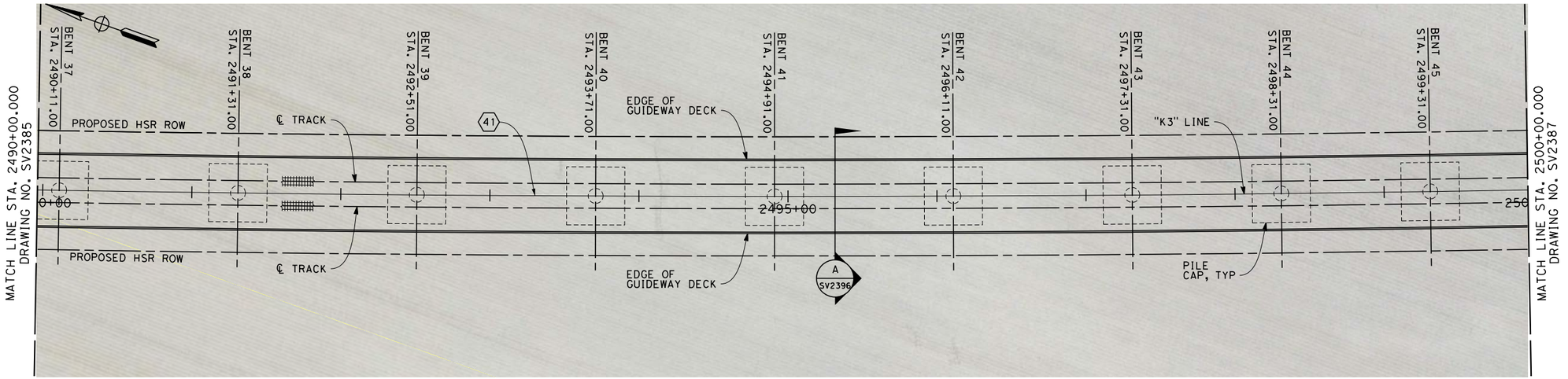
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2385
SCALE AS SHOWN
SHEET NO. 6 OF 18



TOP OF RAIL "K3" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

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(2) RETAINING WALL

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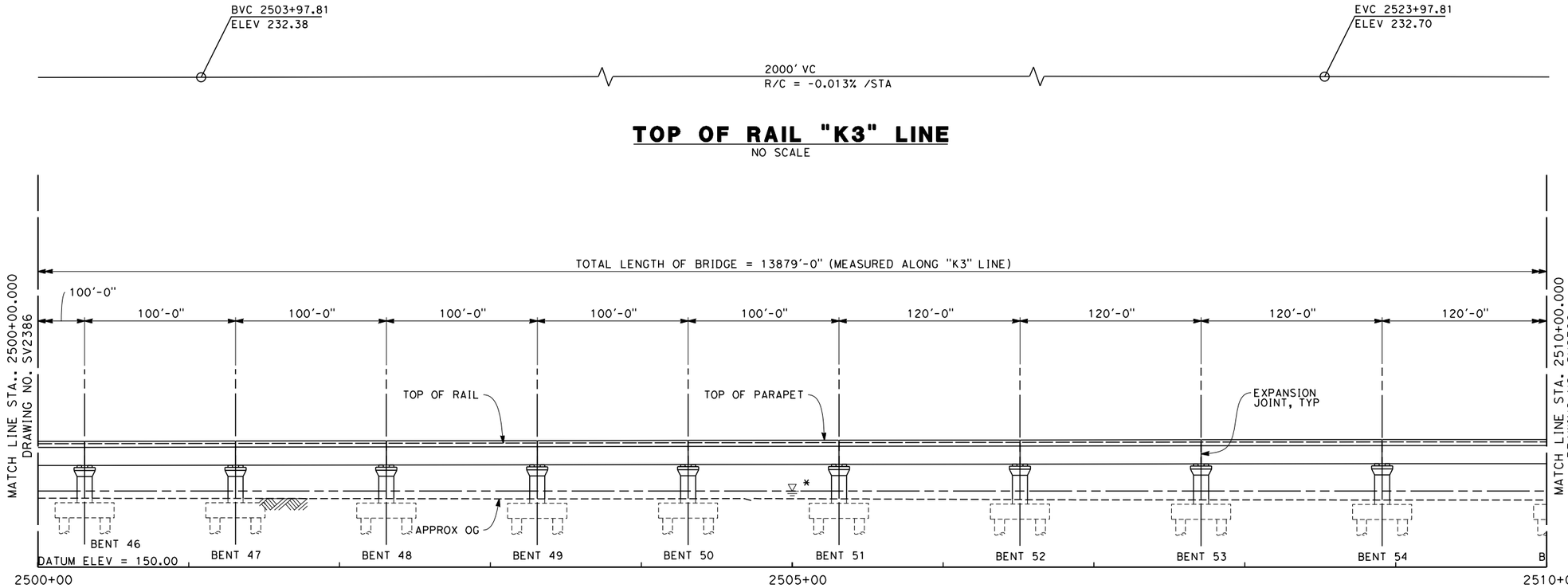
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2386
SCALE AS SHOWN
SHEET NO. 7 OF 18

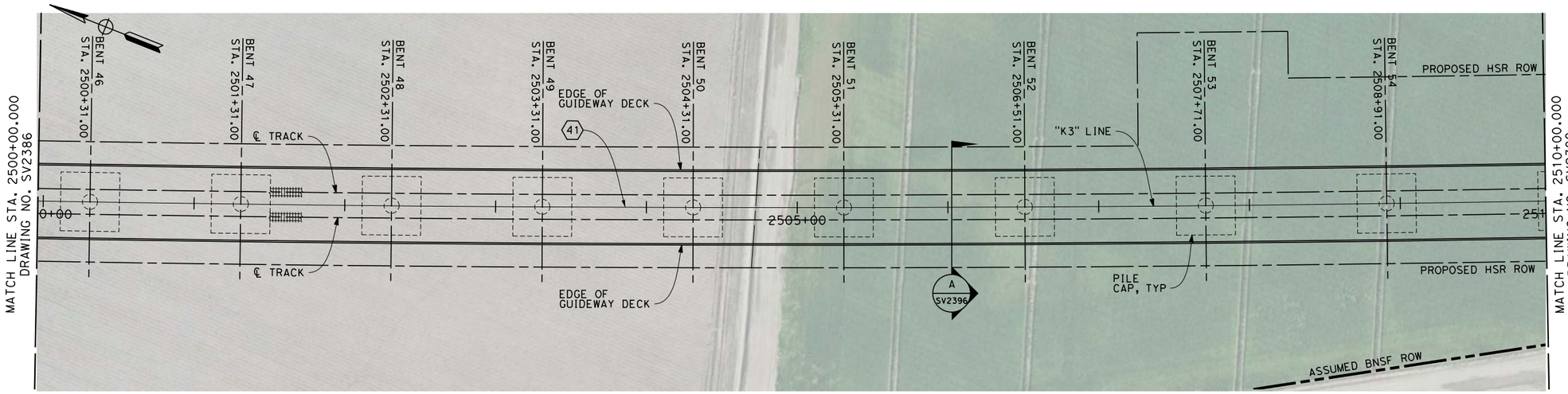


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

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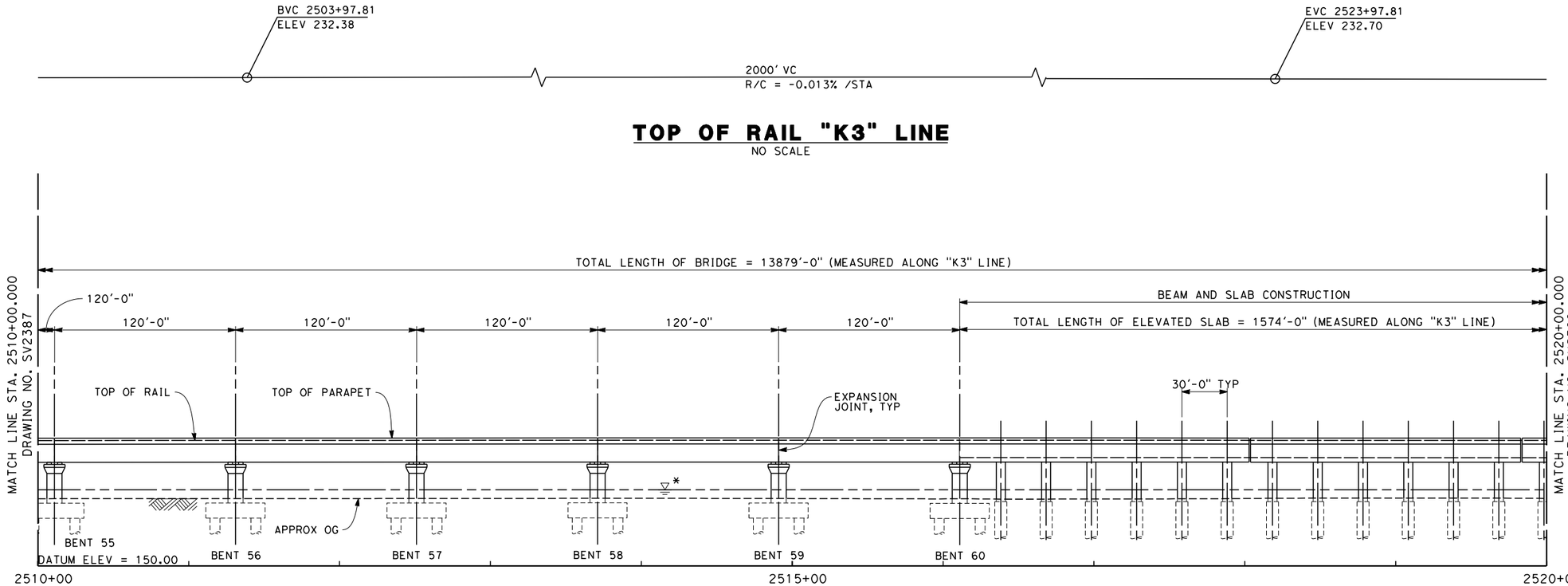
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2387
SCALE AS SHOWN
SHEET NO. 8 OF 18

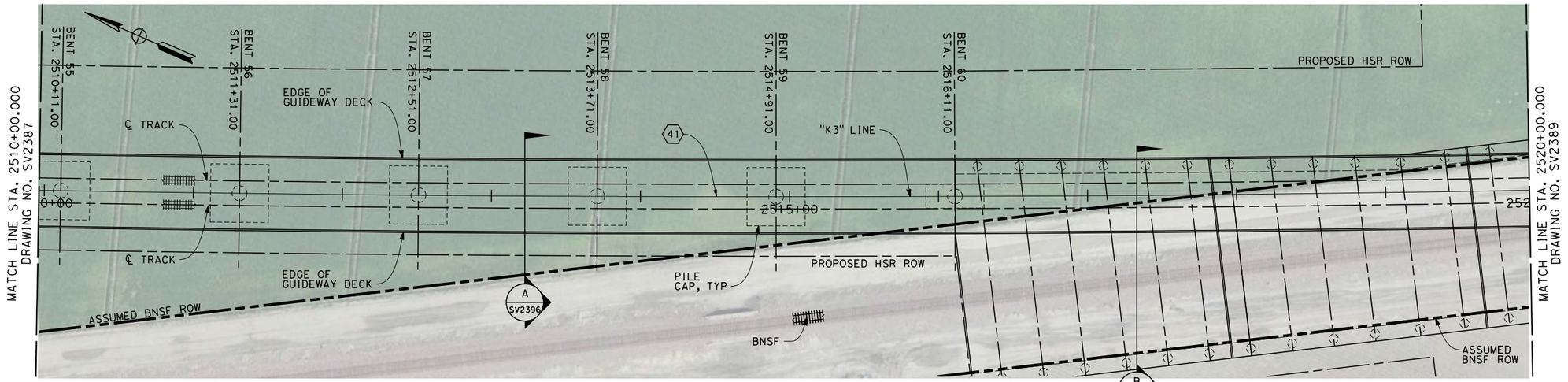


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

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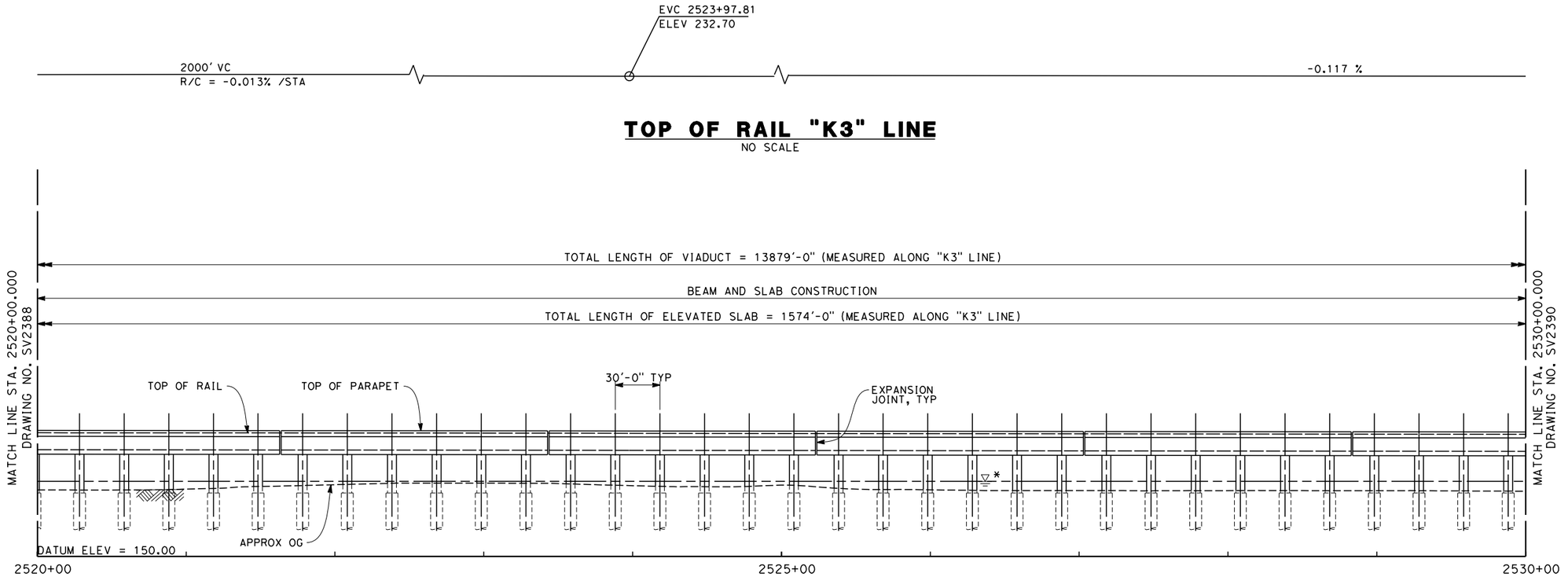
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2388
SCALE AS SHOWN
SHEET NO. 9 OF 18

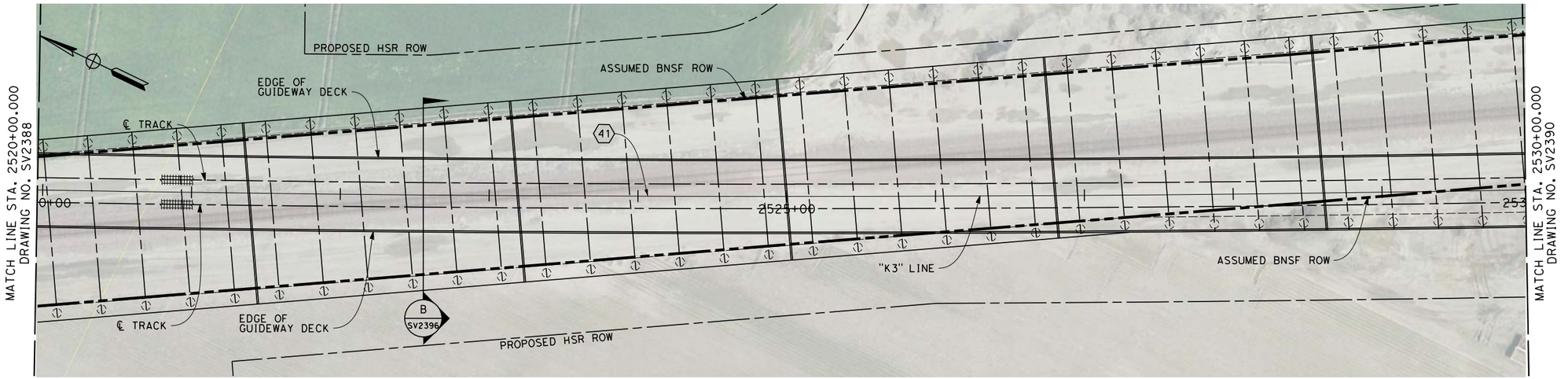


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

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(2) RETAINING WALL

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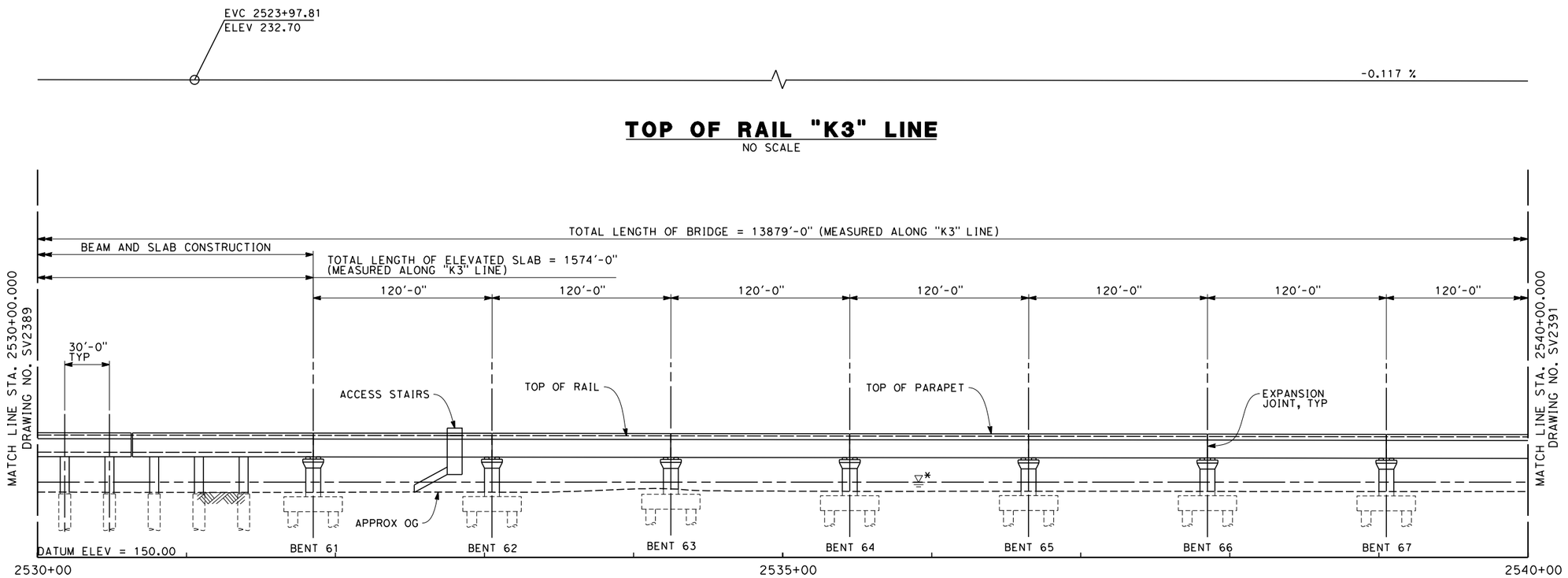
URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2389
SCALE AS SHOWN
SHEET NO. 10 OF 18



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Δ = 49° 32' 56.7"
T = 13199.6'
L = 24733.1'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

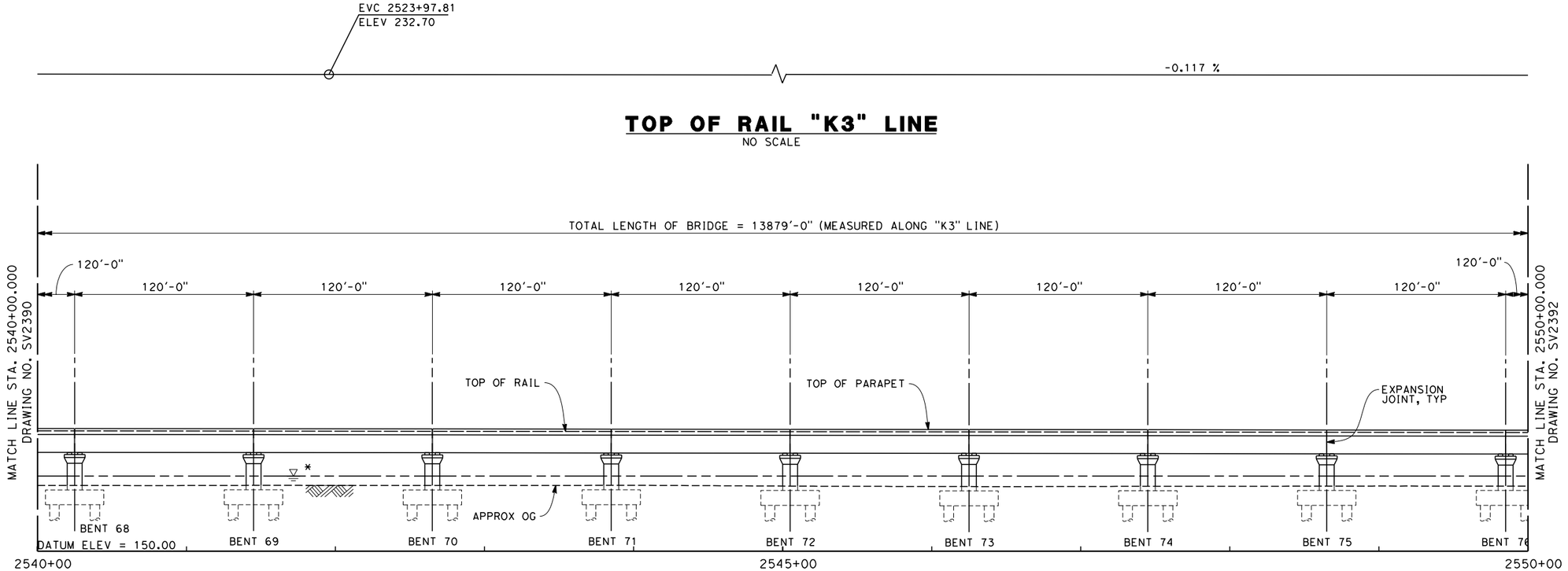
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2390
SCALE AS SHOWN
SHEET NO. 11 OF 18

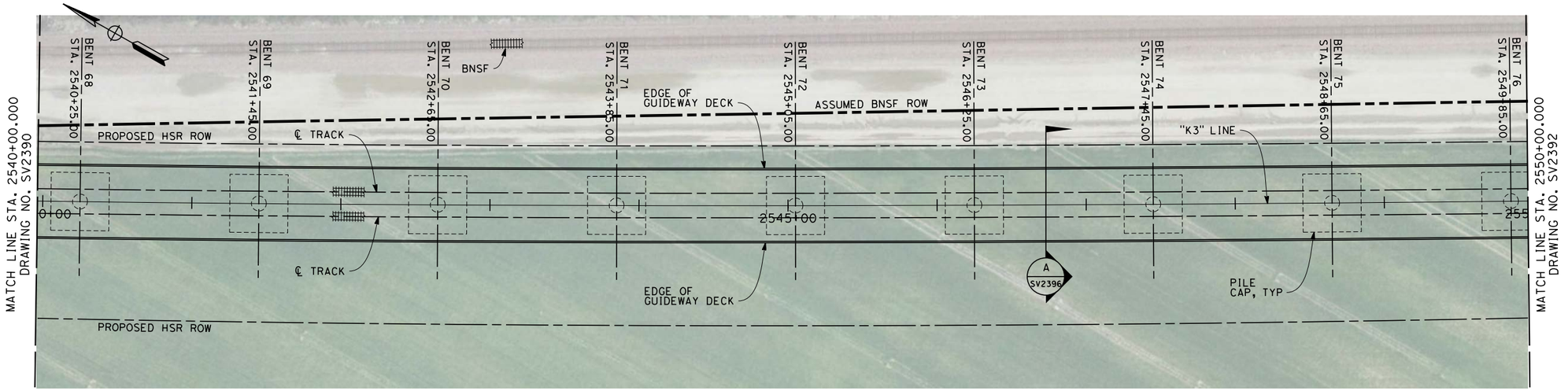


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

1. STRUCTURE APPROACH SLAB
2. RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

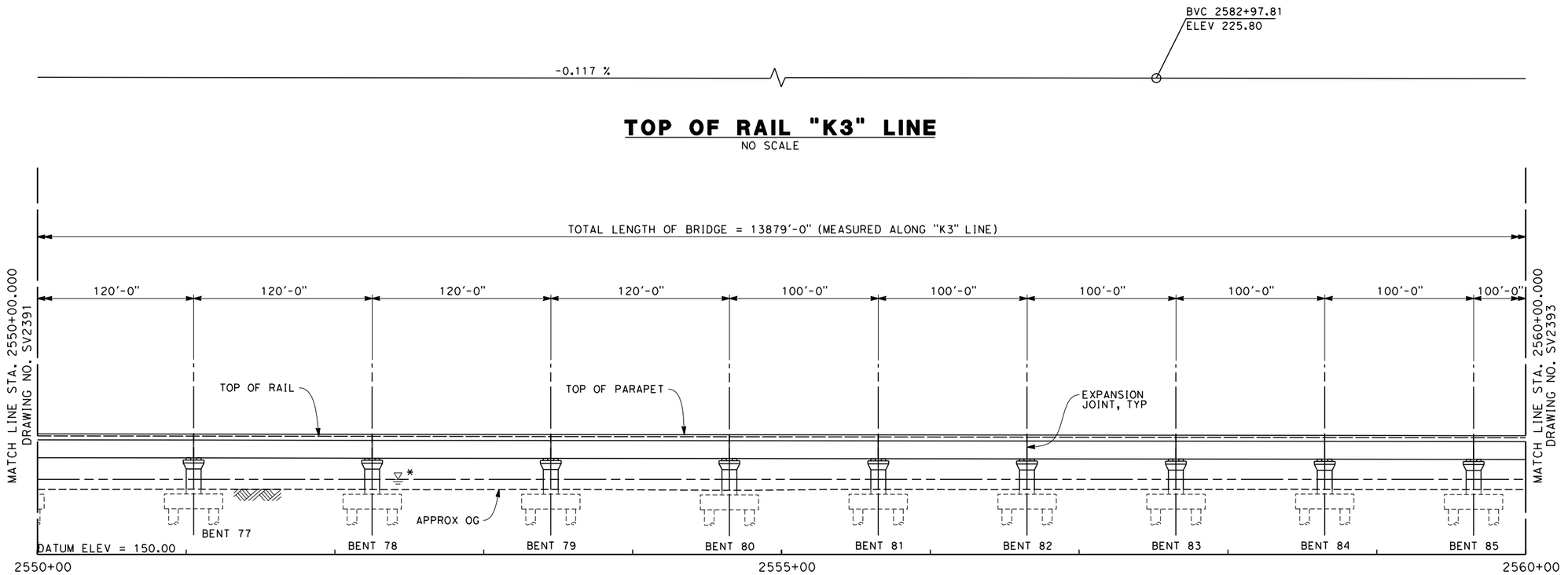
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2391
SCALE AS SHOWN
SHEET NO. 12 OF 18

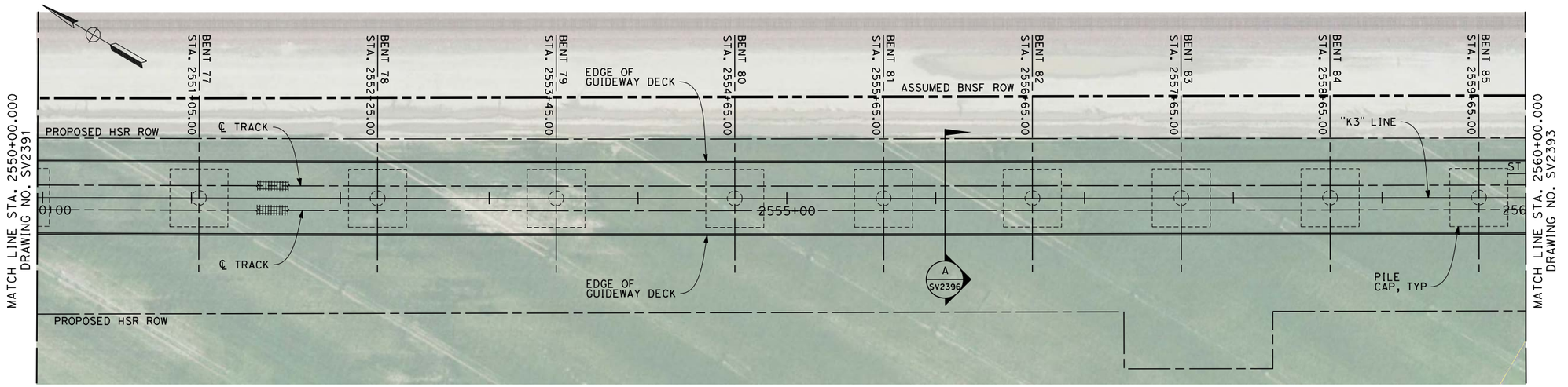


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

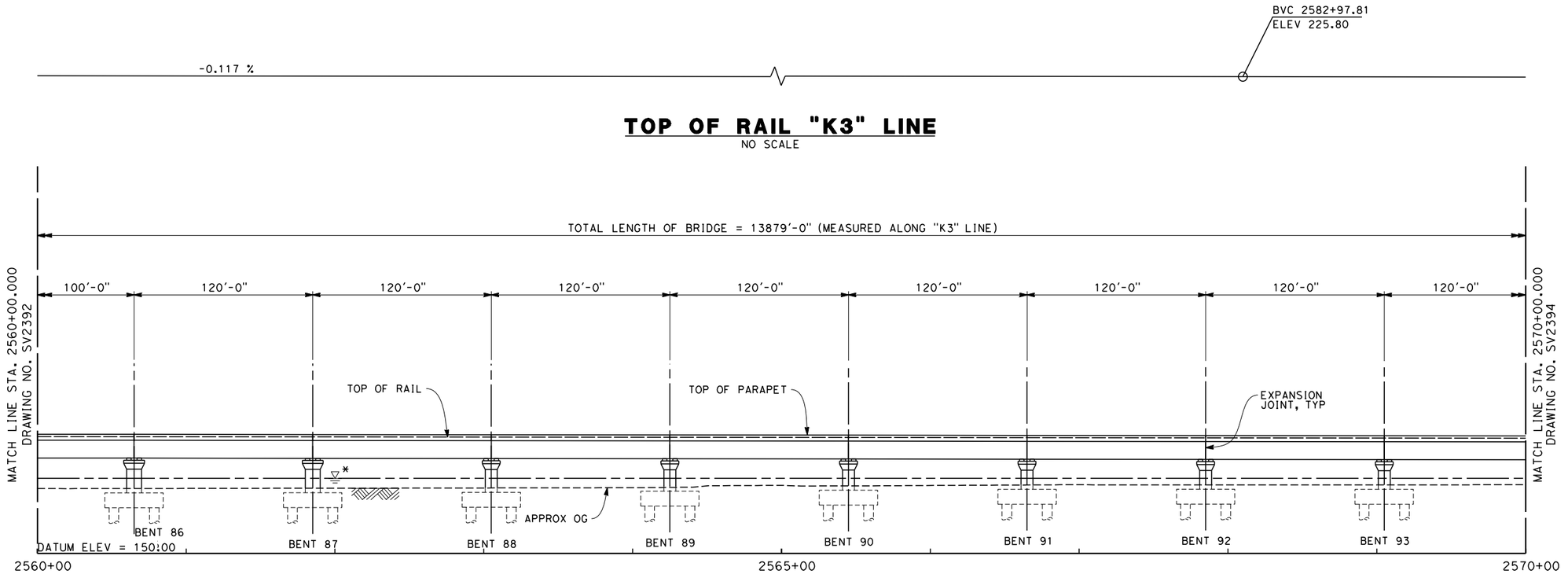
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD

KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2392
SCALE AS SHOWN
SHEET NO. 13 OF 18

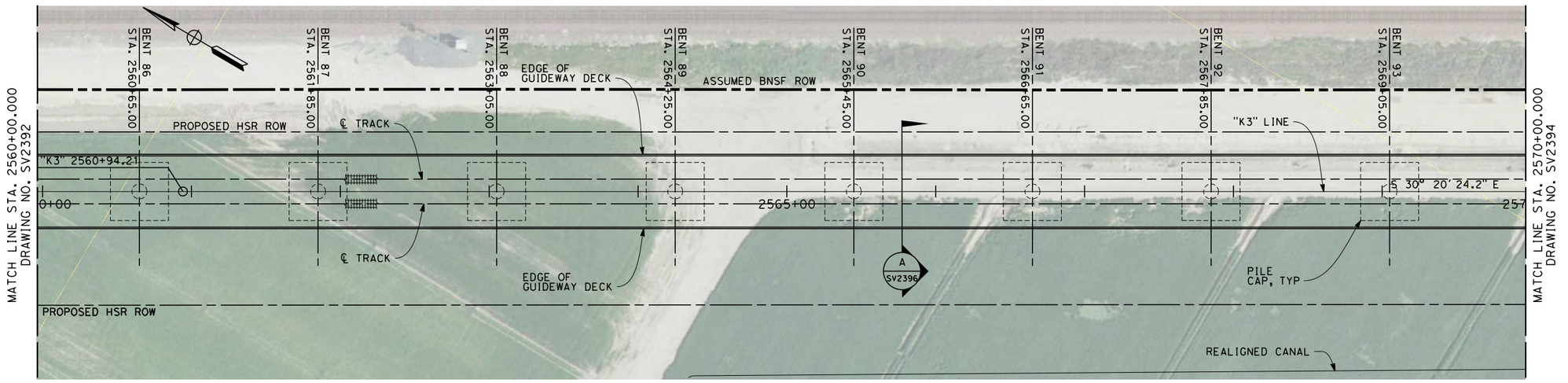


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

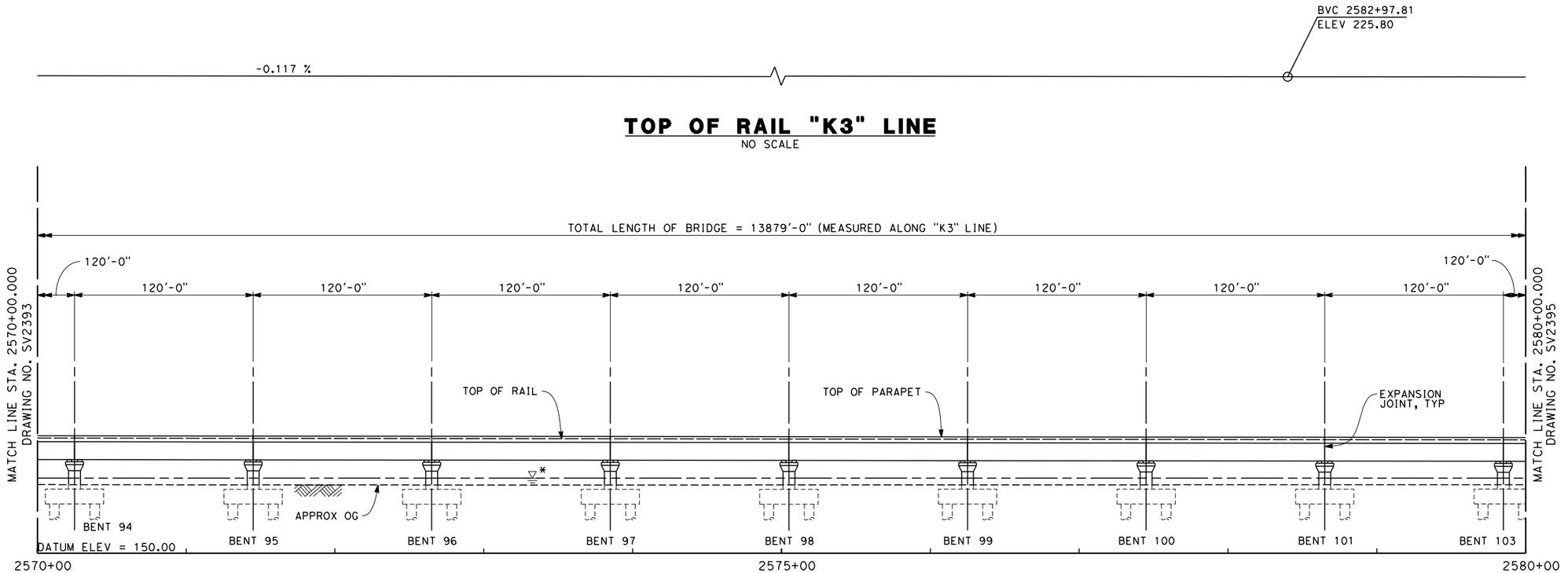
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2393
SCALE AS SHOWN
SHEET NO. 14 OF 18

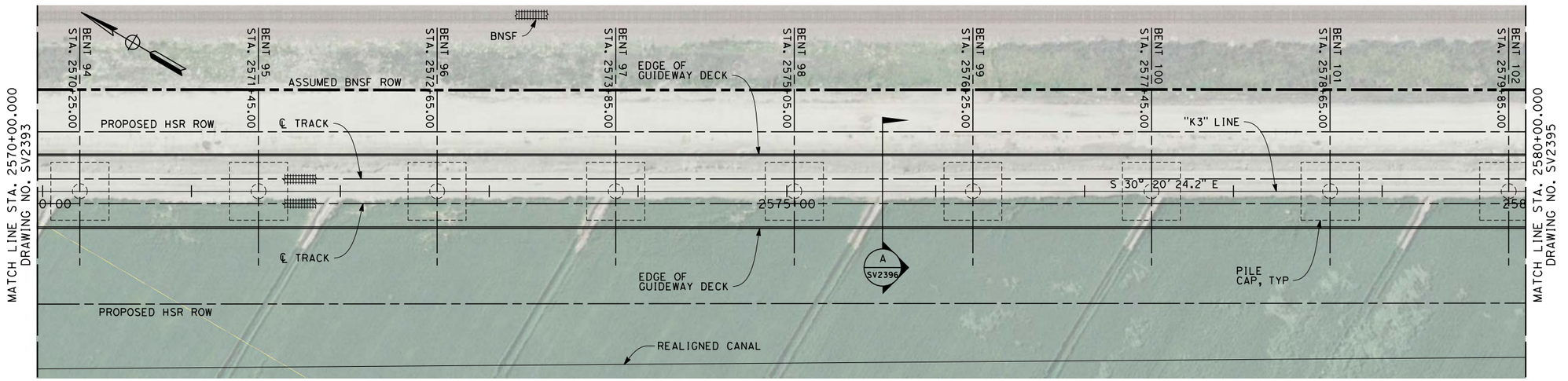


TOP OF RAIL "K3" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

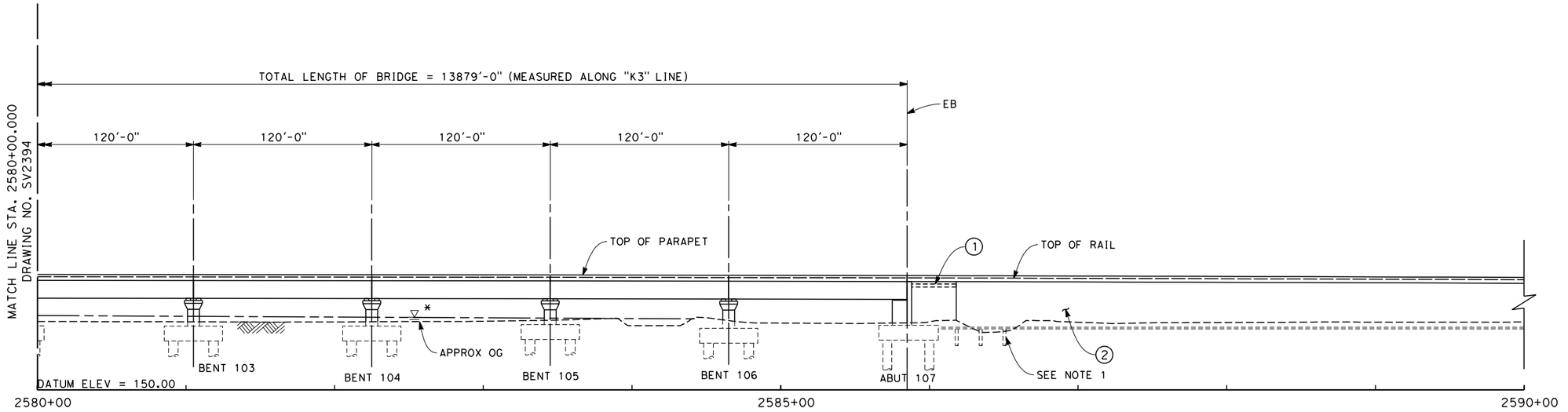
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

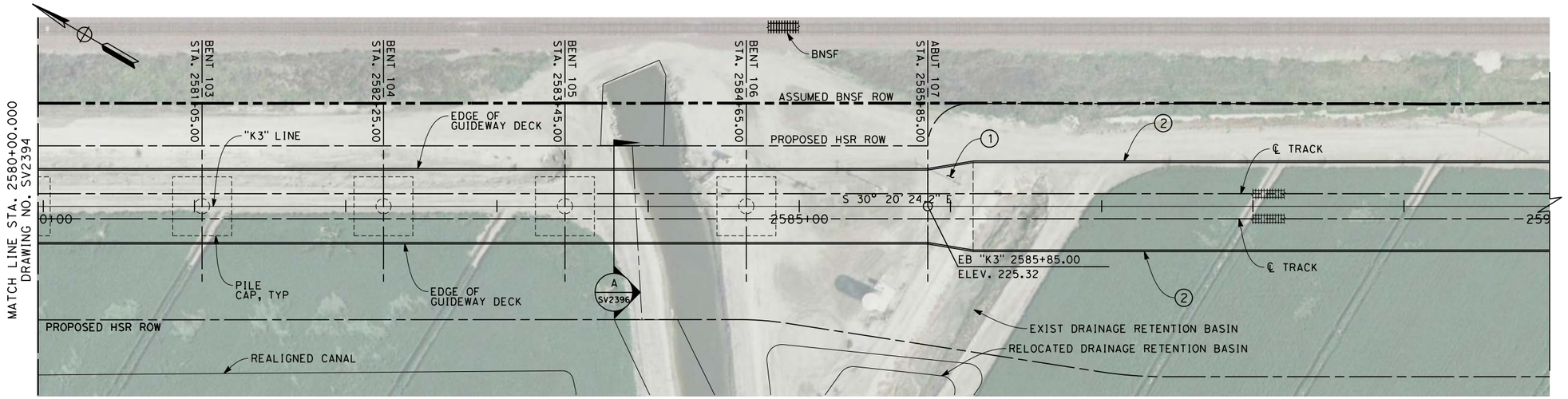
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2394
SCALE AS SHOWN
SHEET NO. 15 OF 18

TOP OF RAIL "K3" LINE
NO SCALE



ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

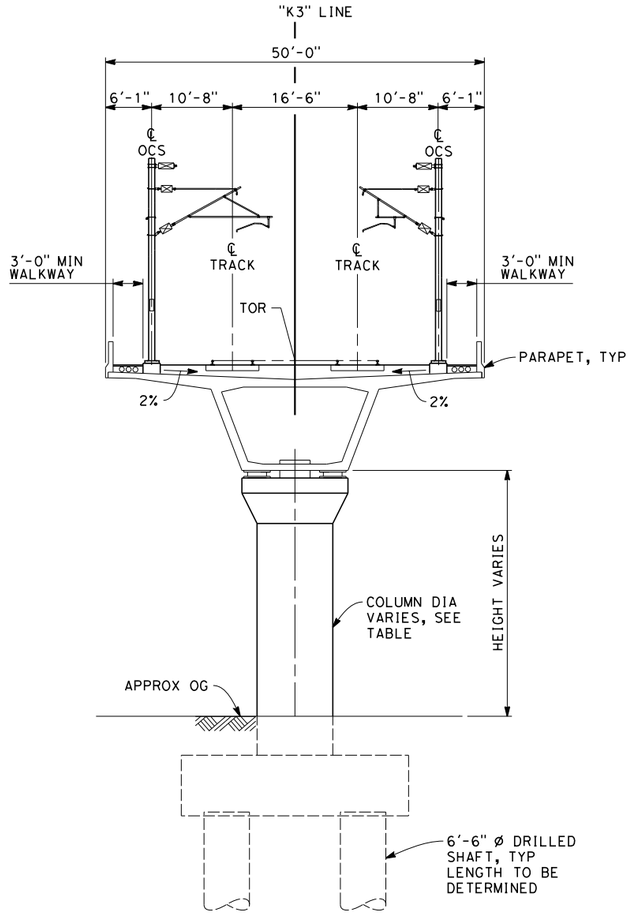
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

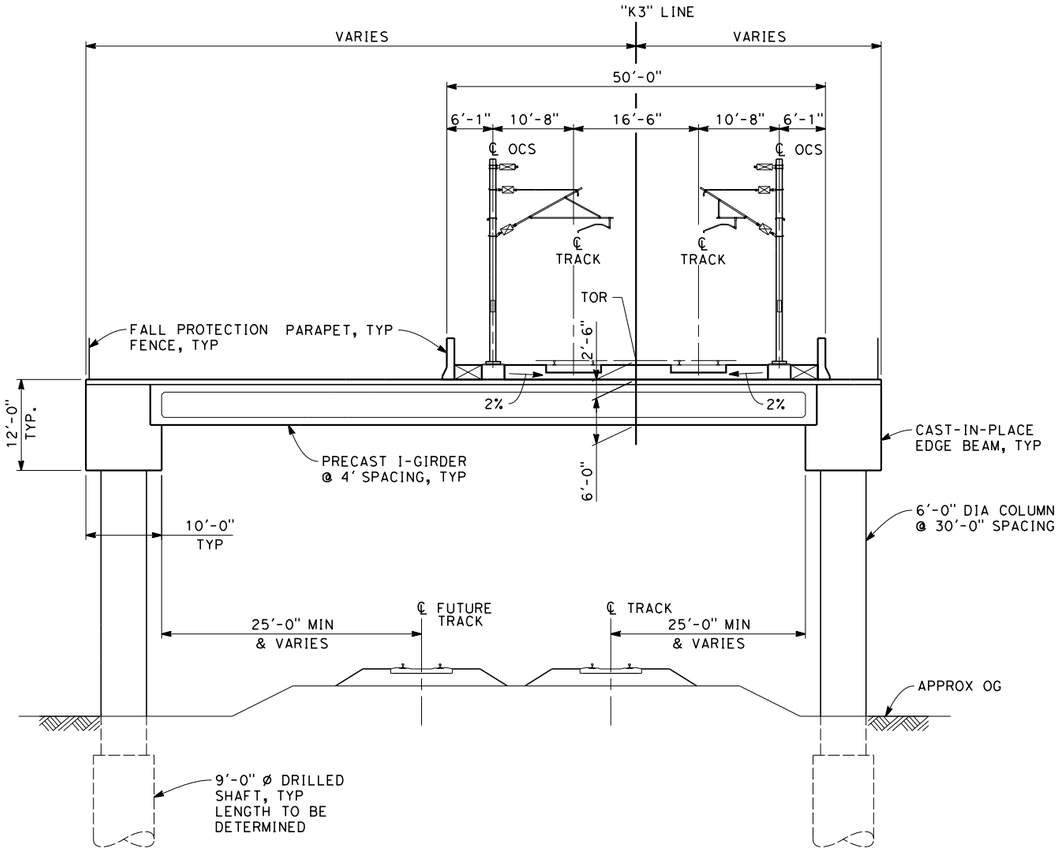
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2395
SCALE AS SHOWN
SHEET NO. 16 OF 18



COLUMN DIAMETERS	
HEIGHT TO SOFFIT	DIAMETER
< 20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT



SECTION A

SCALE: 1" = 10'

STA 2447+06.00 THROUGH 2483+27.50
STA 2486+49.50 THROUGH 2516+11.00
STA 2530+65.00 THROUGH 2585+85.00

SECTION B

SCALE: 1" = 10'

STA 2516+11.00 THROUGH 2531+85

NOTE:
1. MINIMUM DIMENSION FROM SOFFIT TO TOP OF FOUNDATION SHALL BE 16'.

10 0 10 20
1"-10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

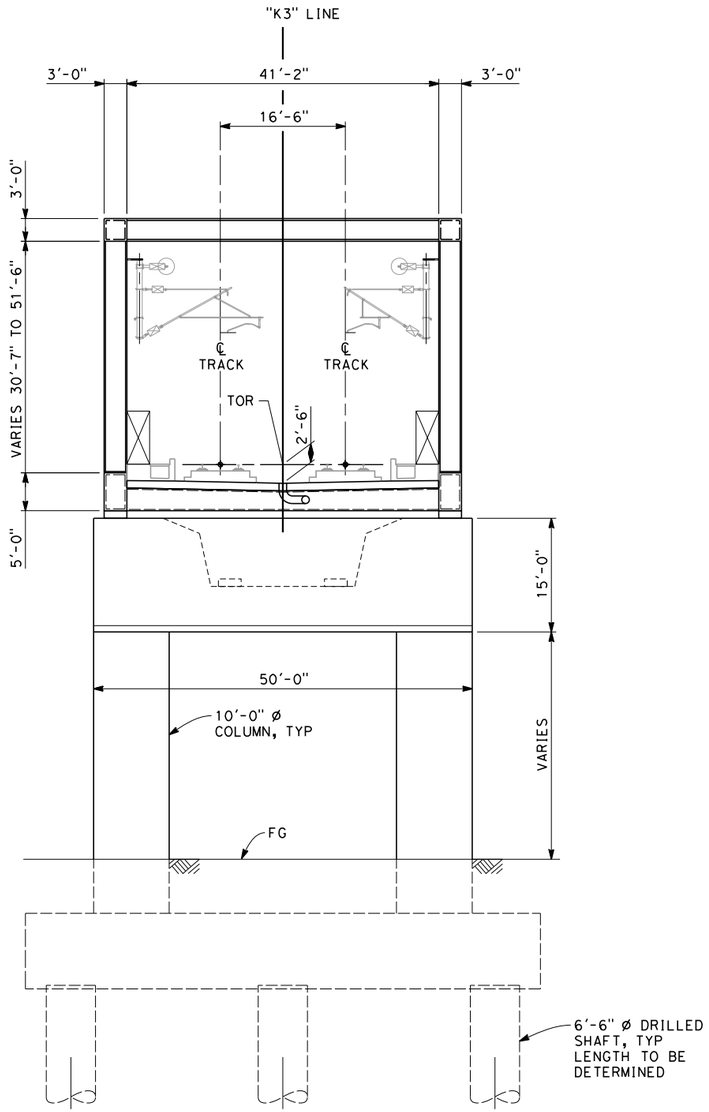
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

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

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2396
SCALE AS SHOWN
SHEET NO. 17 OF 18



SECTION C

SCALE: 1" = 10'

STA 2483+27.50 THROUGH 2486+49.50

10 0 10 20
1"-10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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
CROSS CREEK VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2397
SCALE AS SHOWN
SHEET NO. 18 OF 18

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY E. SUDHAUSEN
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

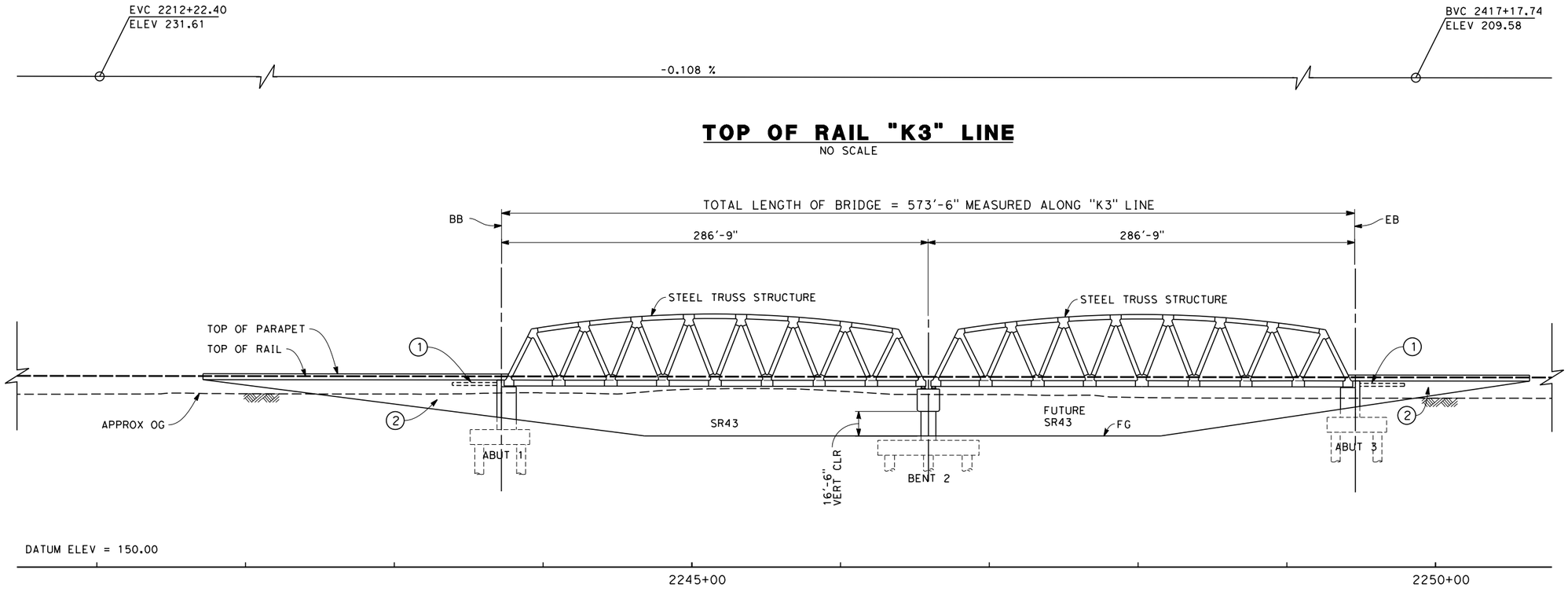
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

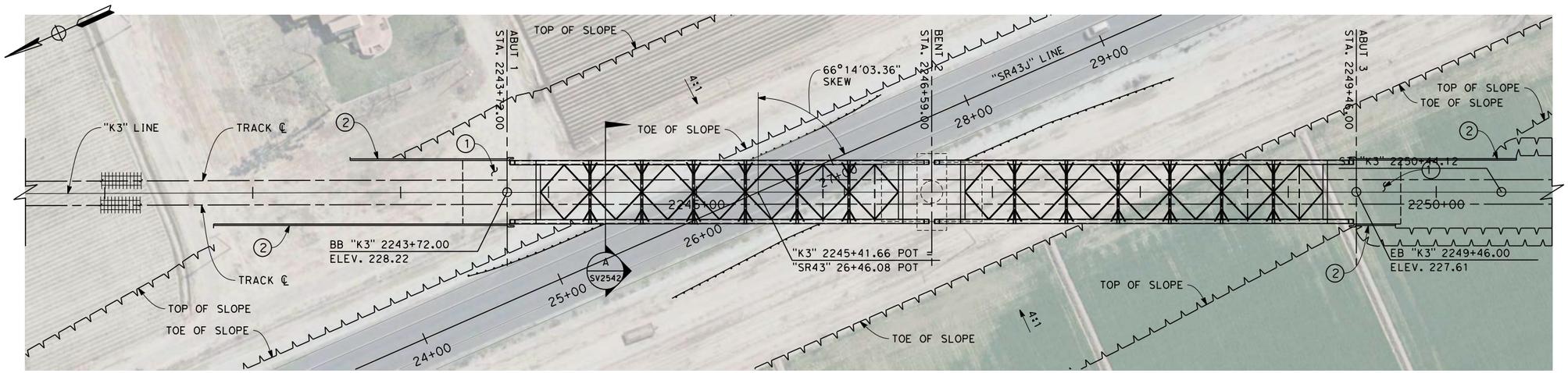
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STATE ROUTE 43 UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2540
SCALE AS SHOWN
SHEET NO. 1 OF 3



TOP OF RAIL "K3" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB
(2) RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY J. VALENZUELA
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

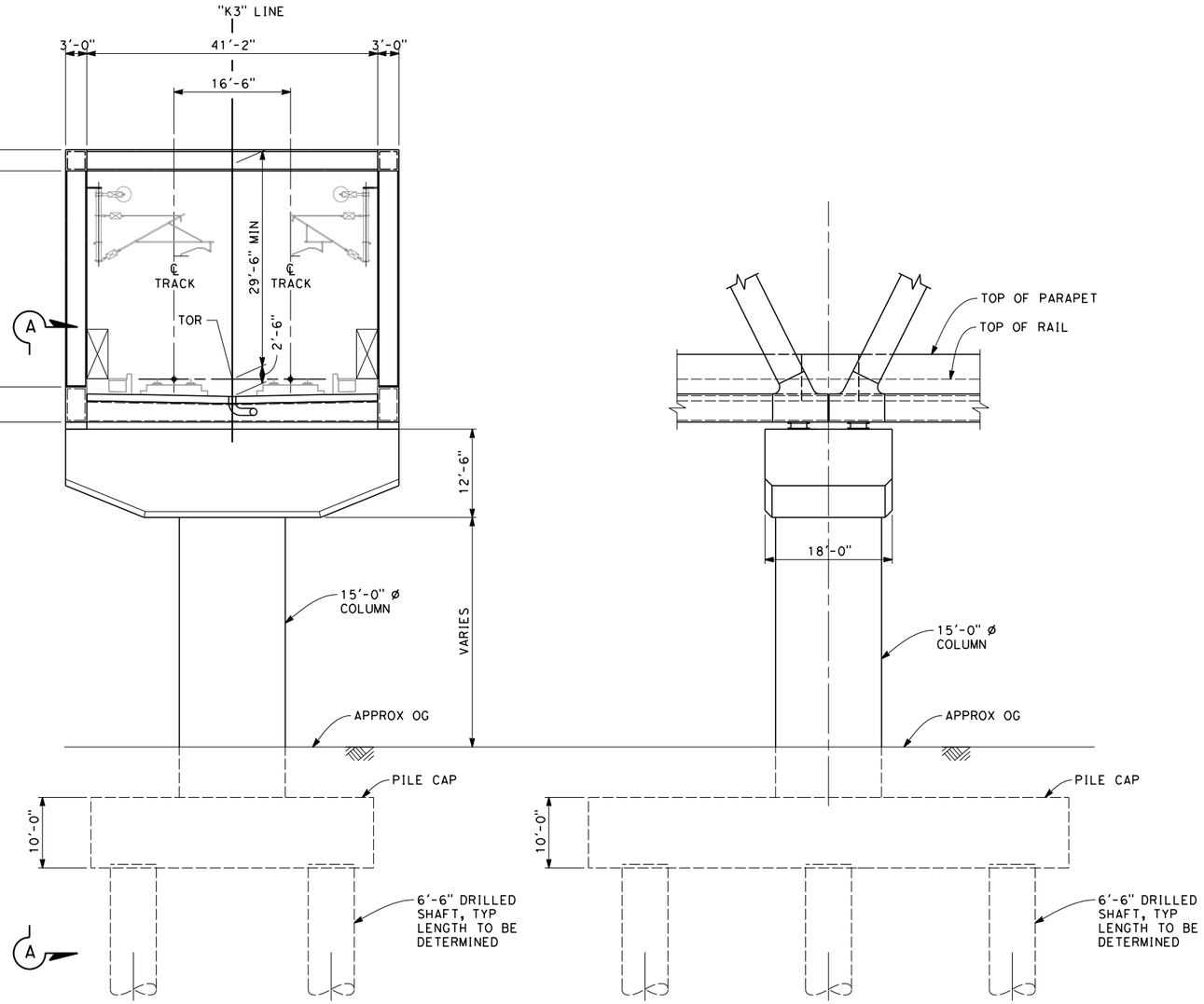
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STATE ROUTE 43 UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2541
SCALE AS SHOWN
SHEET NO. 2 OF 3



SECTION A
SCALE: 1" = 10'

SECTION A-A
SCALE: 1" = 10'

10 0 10 20
1"-10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY Y. REN
DRAWN BY D. ORIZA
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

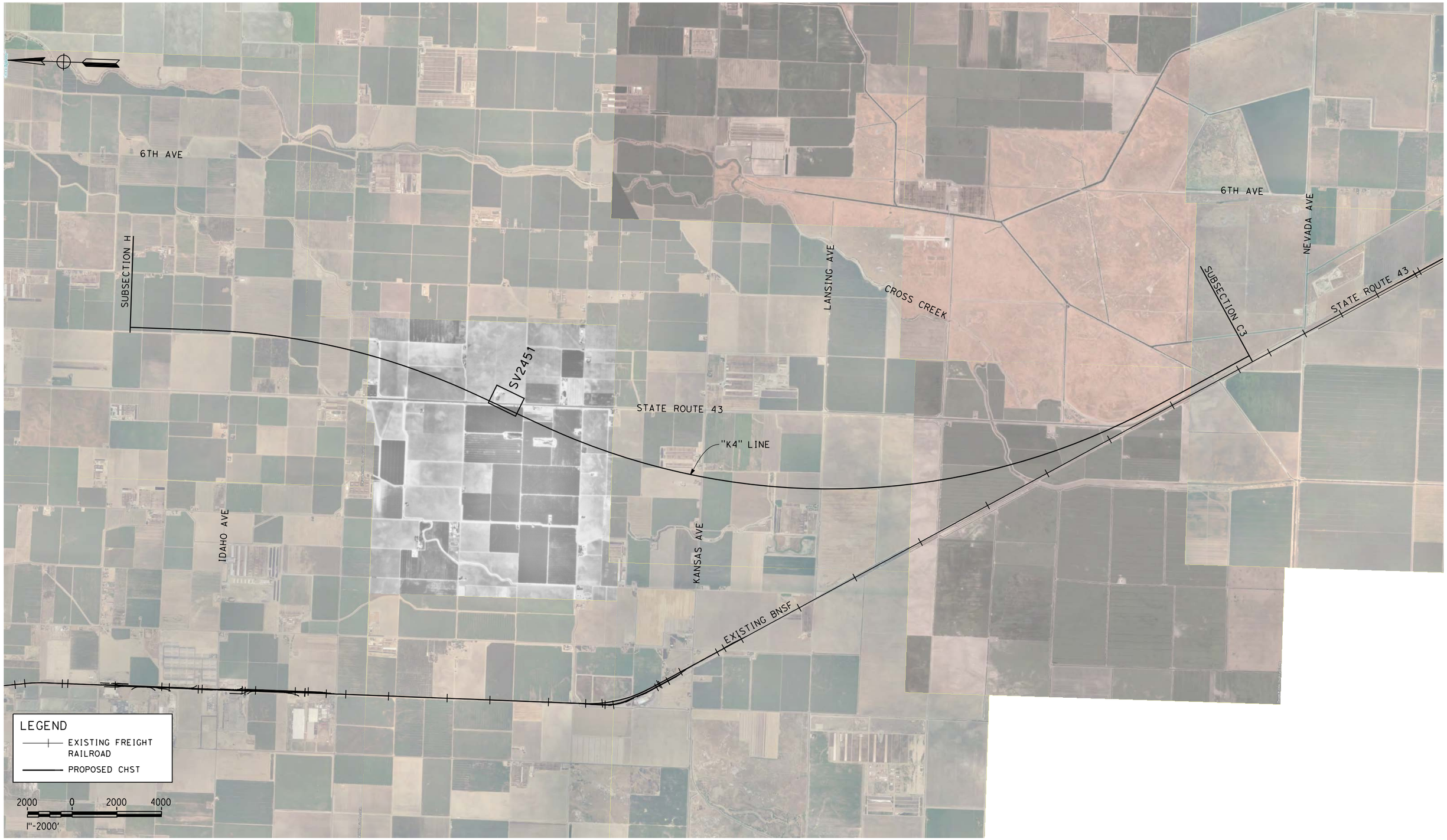
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K3
STATE ROUTE 43 UNDERPASS
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2542
SCALE AS SHOWN
SHEET NO. 3 OF 3



REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY E. SUDHAUSEN
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

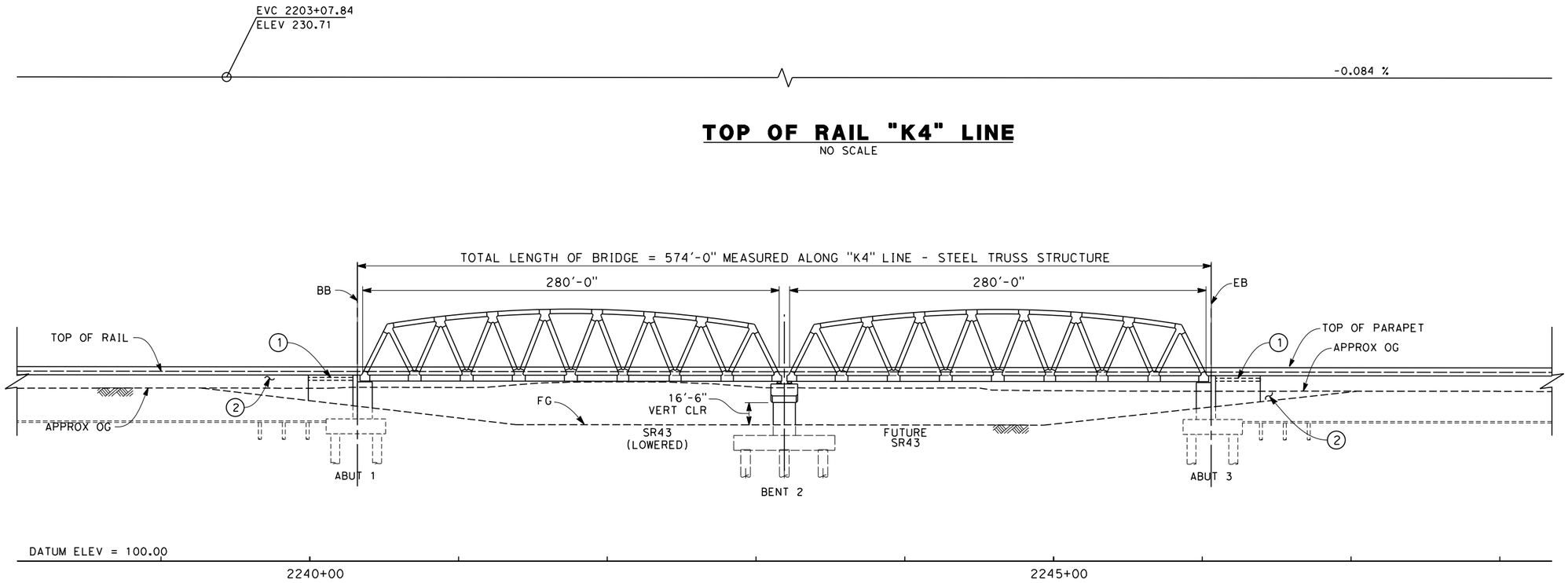
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

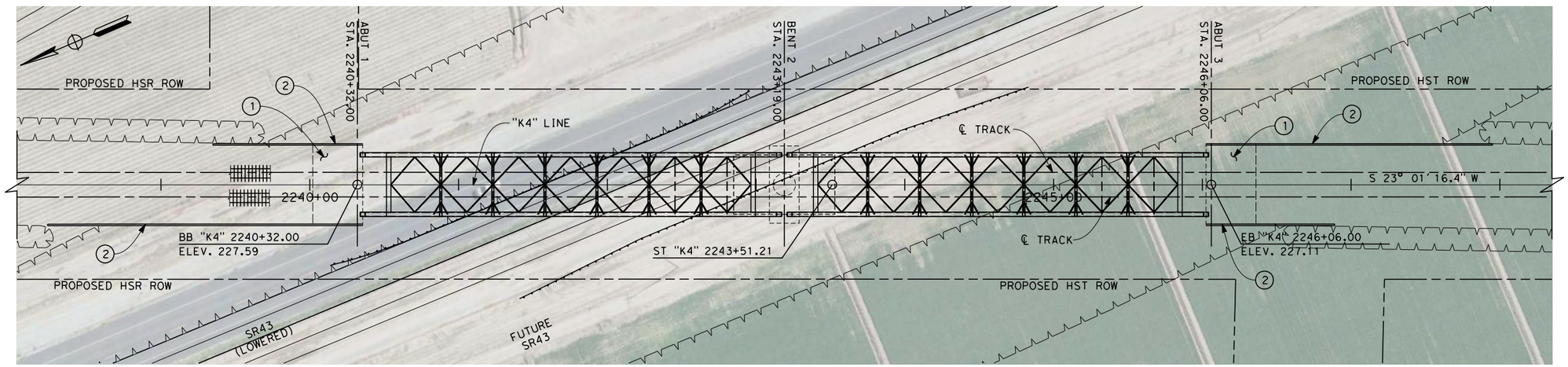
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
STATE ROUTE 43 UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2450
SCALE AS SHOWN
SHEET NO. 1 OF 3



TOP OF RAIL "K4" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB
(2) RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY S.T. MAK
DRAWN BY J. VALENZUELA
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

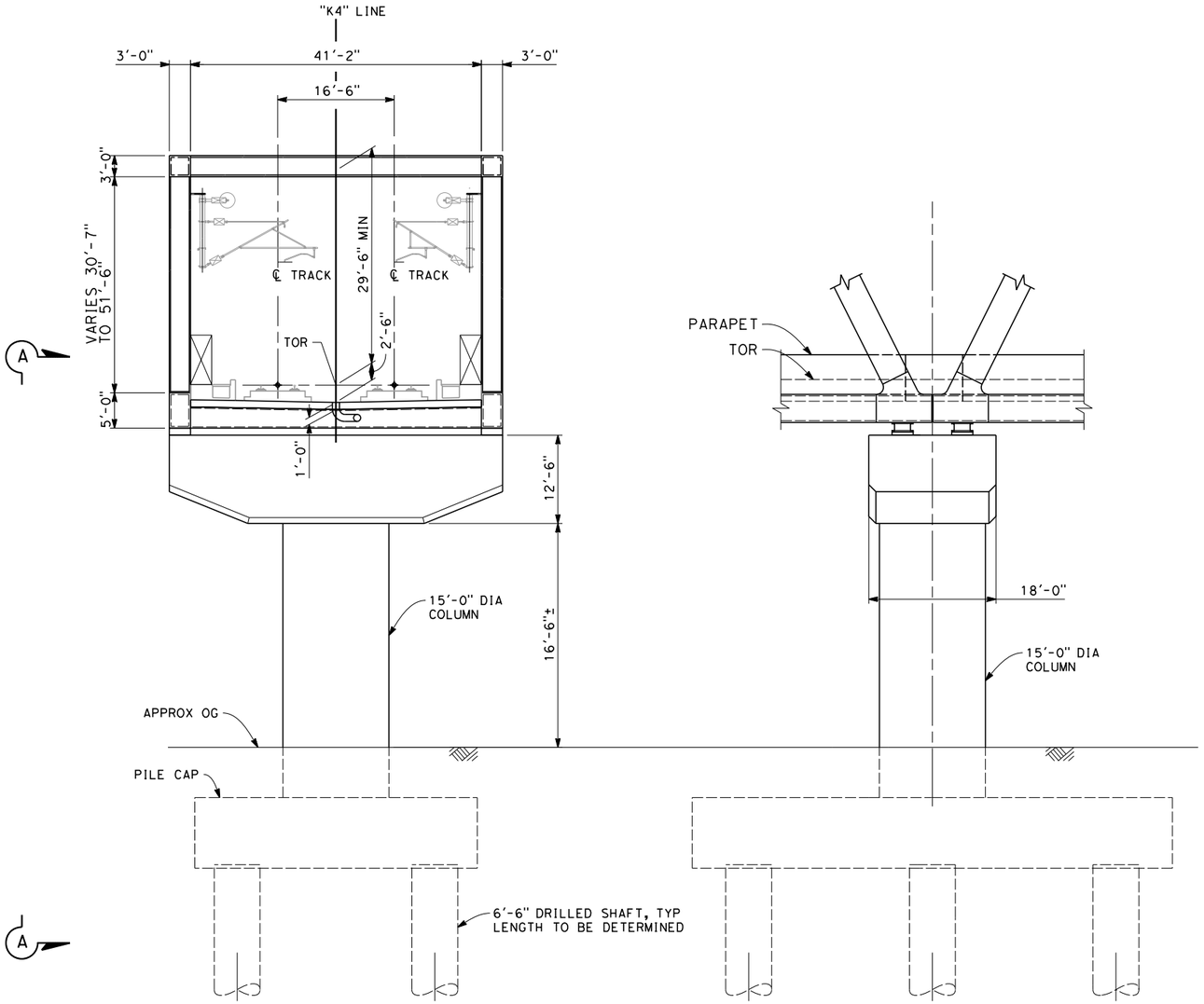
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
STATE ROUTE 43 UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2451
SCALE AS SHOWN
SHEET NO. 2 OF 3



SECTION A
SCALE: 1" = 10'

SECTION A-A
SCALE: 1" = 10'

10 0 10 20
1"-10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY Y. REN
DRAWN BY D. ORIZA
CHECKED BY A. ARMSTRONG
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 K4
STATE ROUTE 43 UNDERPASS
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2452
SCALE AS SHOWN
SHEET NO. 3 OF 3

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY E. SUDHAUSEN
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

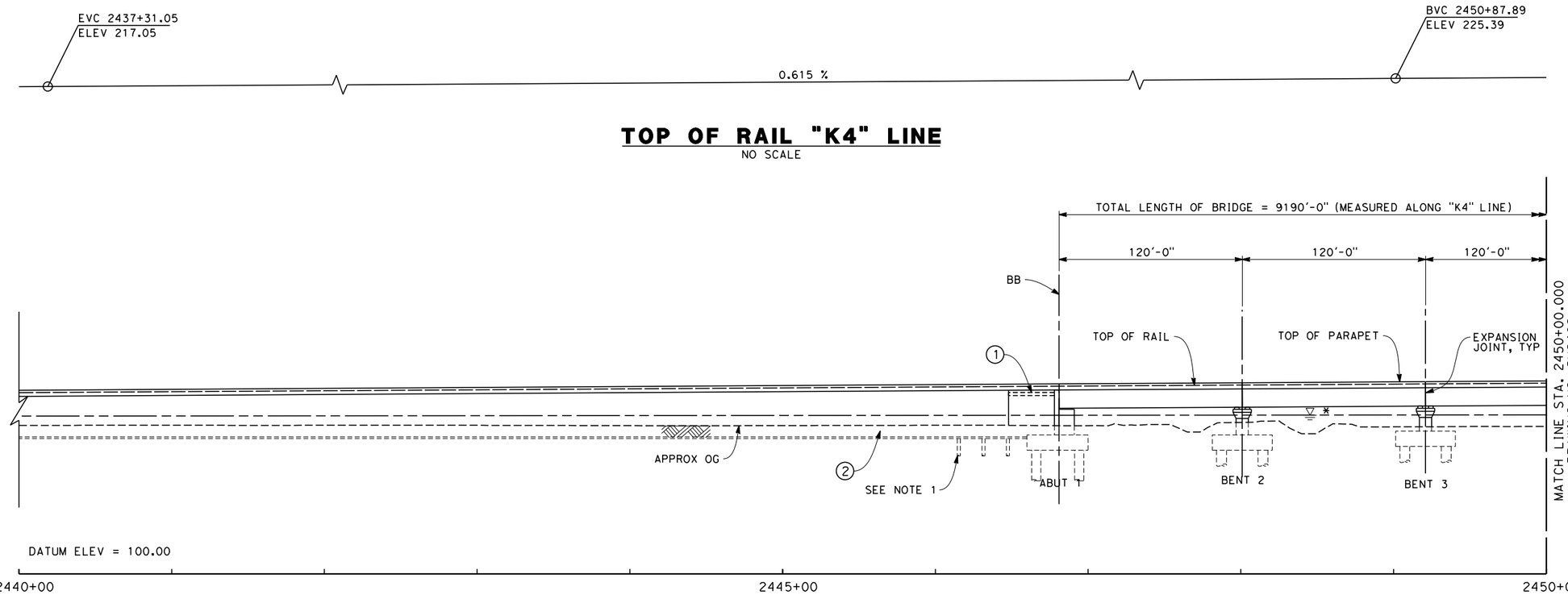
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

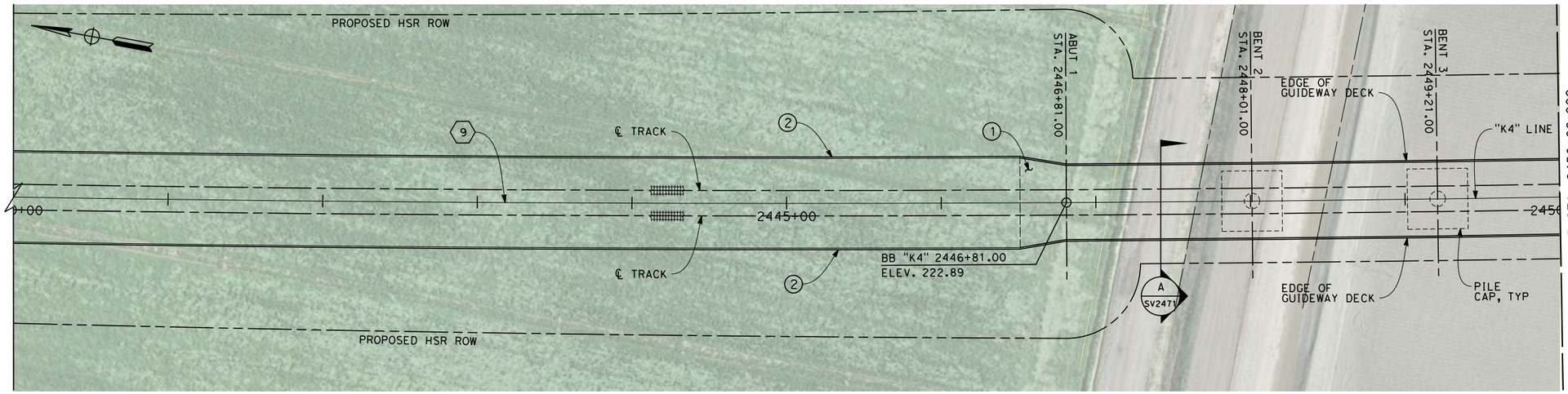
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2460
SCALE AS SHOWN
SHEET NO. 1 OF 13



TOP OF RAIL "K4" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

9

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2461
SCALE AS SHOWN
SHEET NO. 2 OF 13

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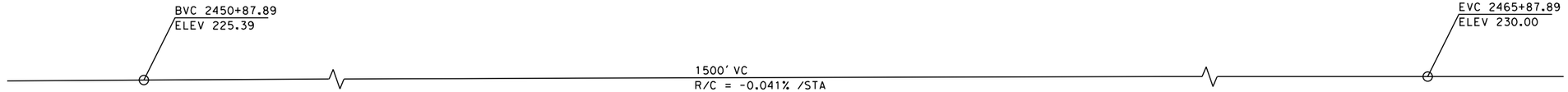
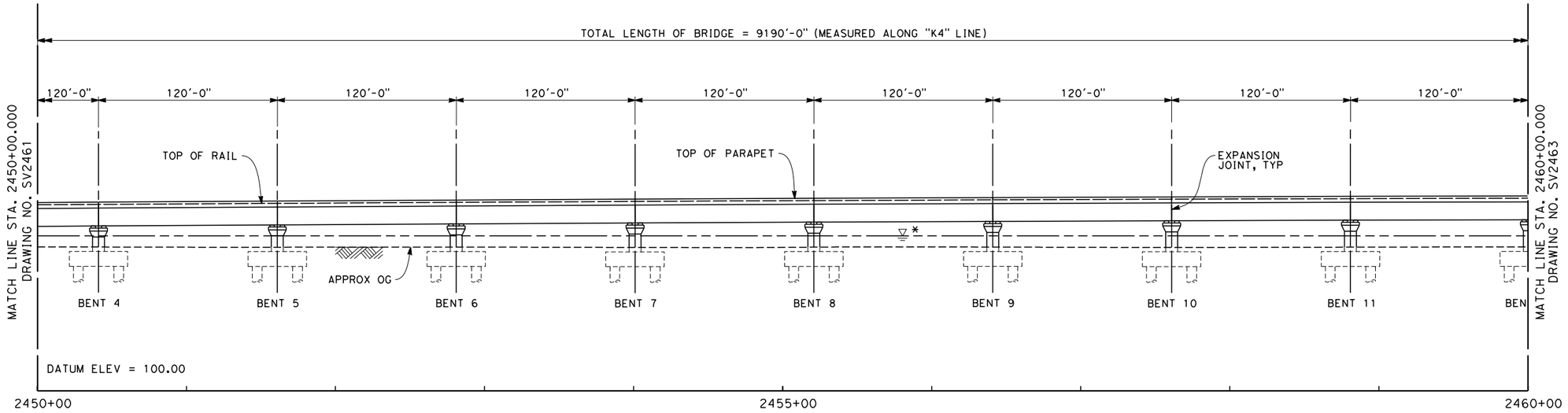


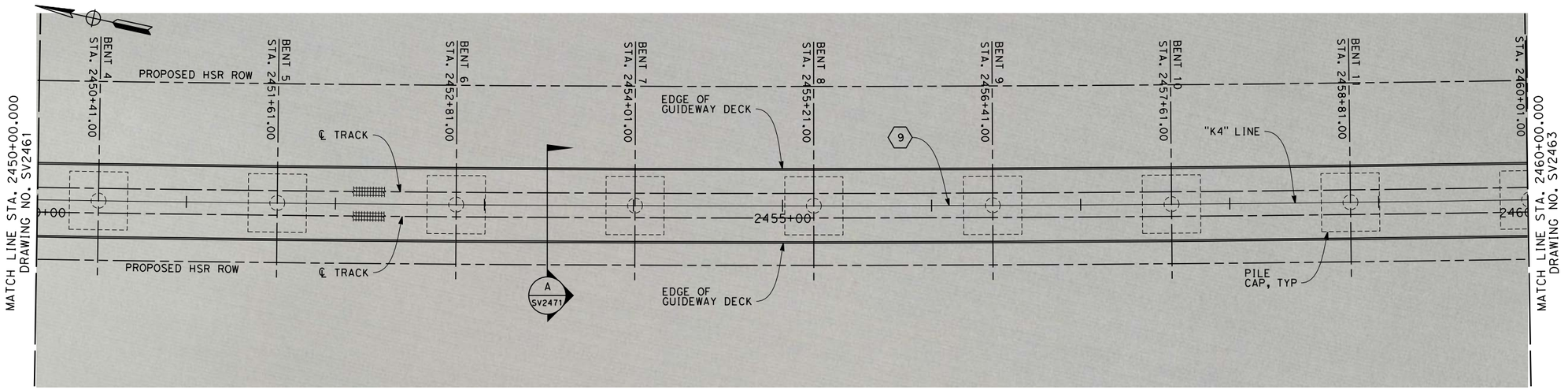
TOP OF RAIL "K4" LINE

NO SCALE



ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F.PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

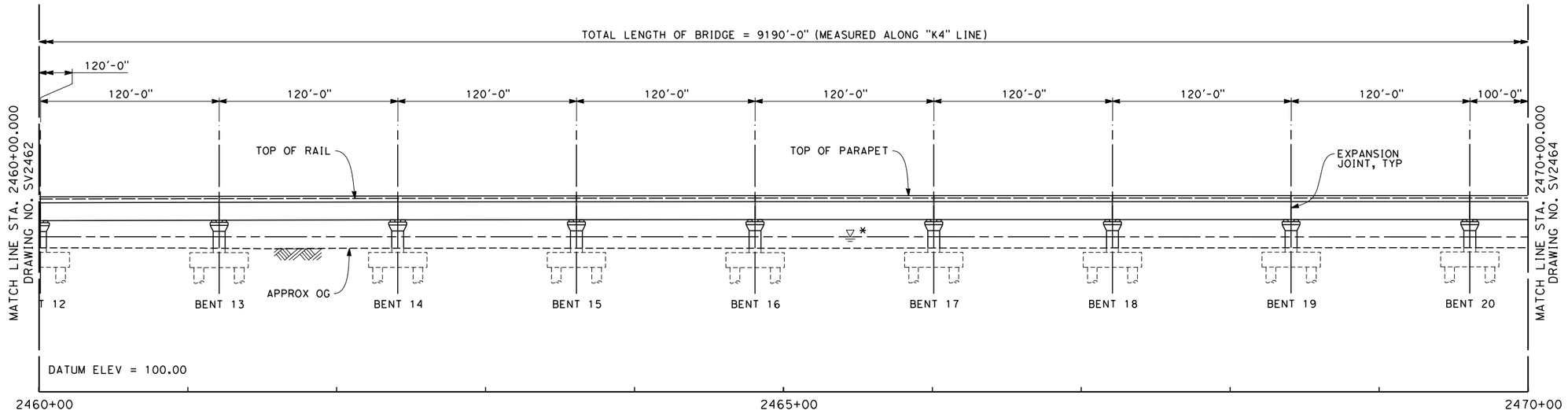
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2462
SCALE AS SHOWN
SHEET NO. 3 OF 13

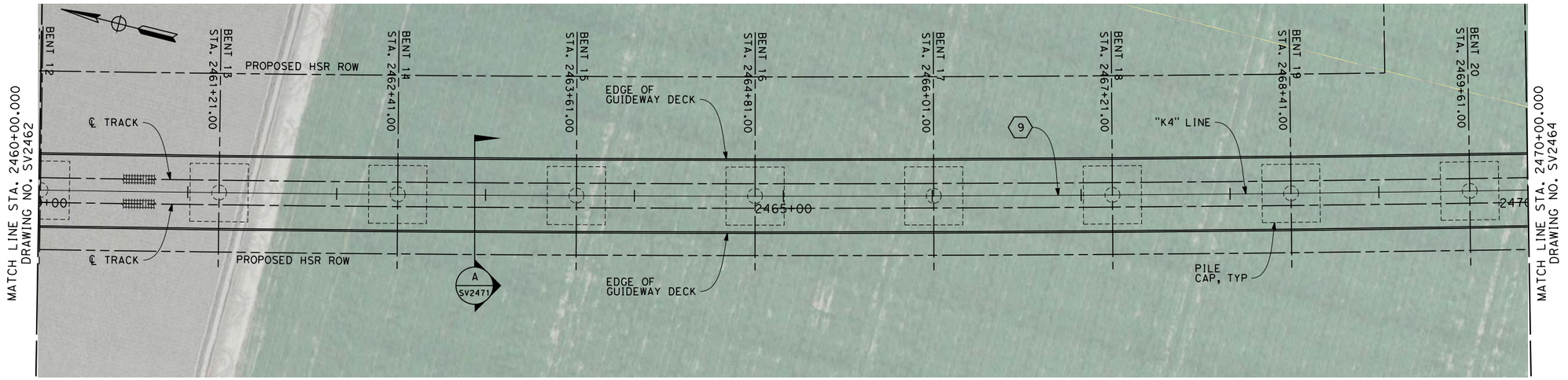
TOP OF RAIL "K4" LINE

NO SCALE



ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
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LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2463
SCALE AS SHOWN
SHEET NO. 4 OF 13

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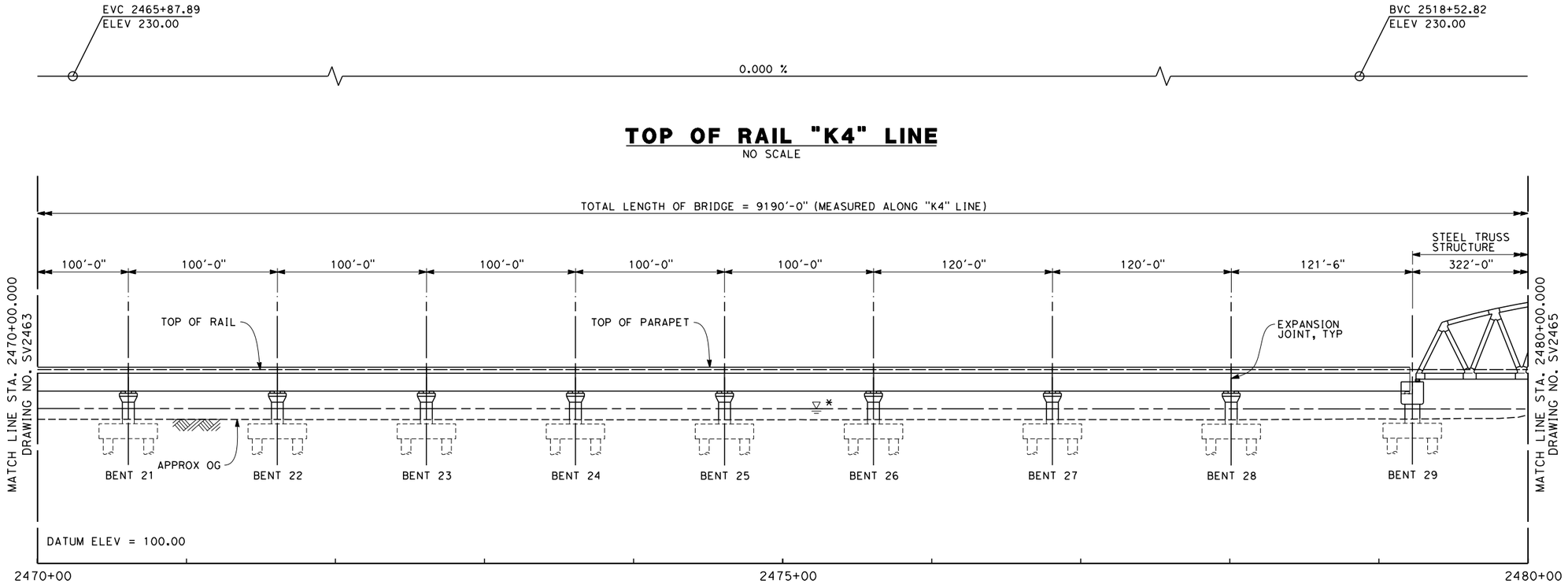
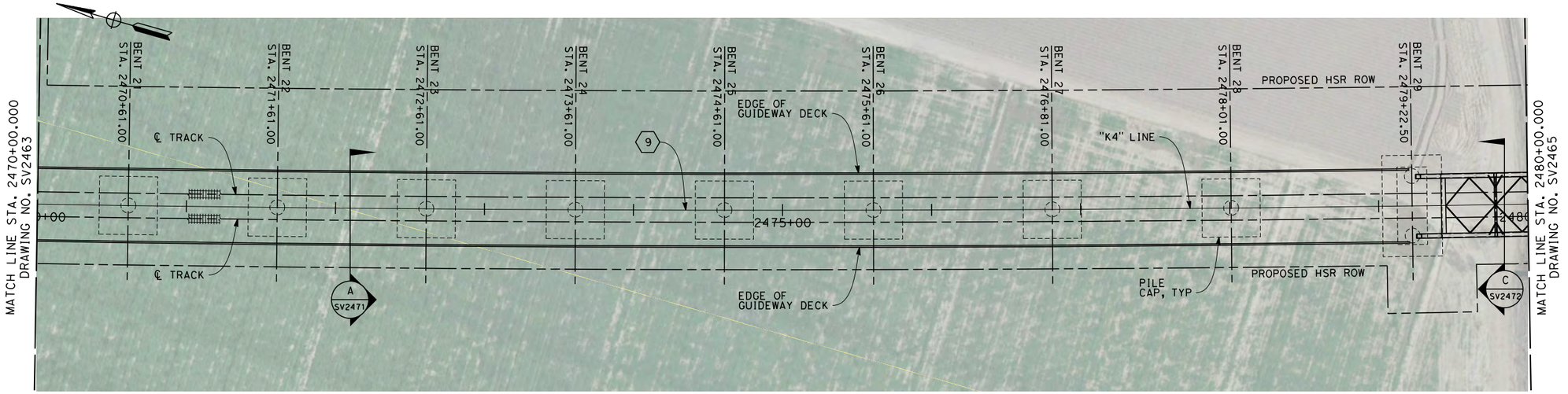


TOP OF RAIL "K4" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

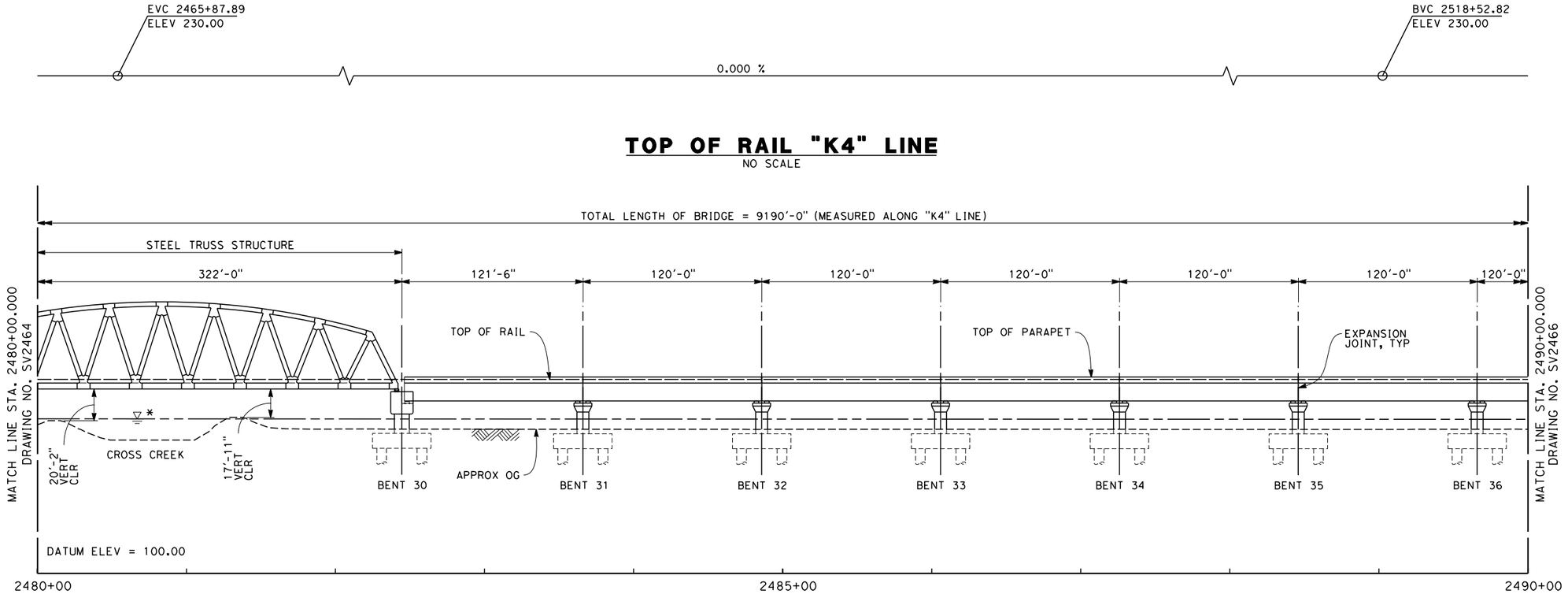
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

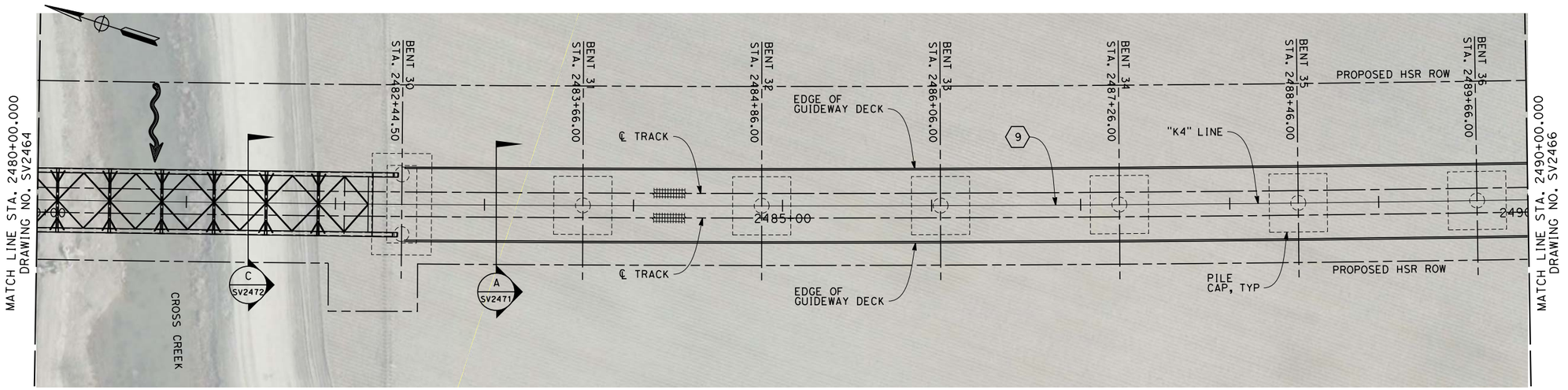
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2464
SCALE AS SHOWN
SHEET NO. 5 OF 13



TOP OF RAIL "K4" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
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LEGEND:
(1) STRUCTURE APPROACH SLAB
(2) RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)
R = 30500.00'
Δ = 49° 01' 18.3"
T = 13906.6'
L = 26095.5'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

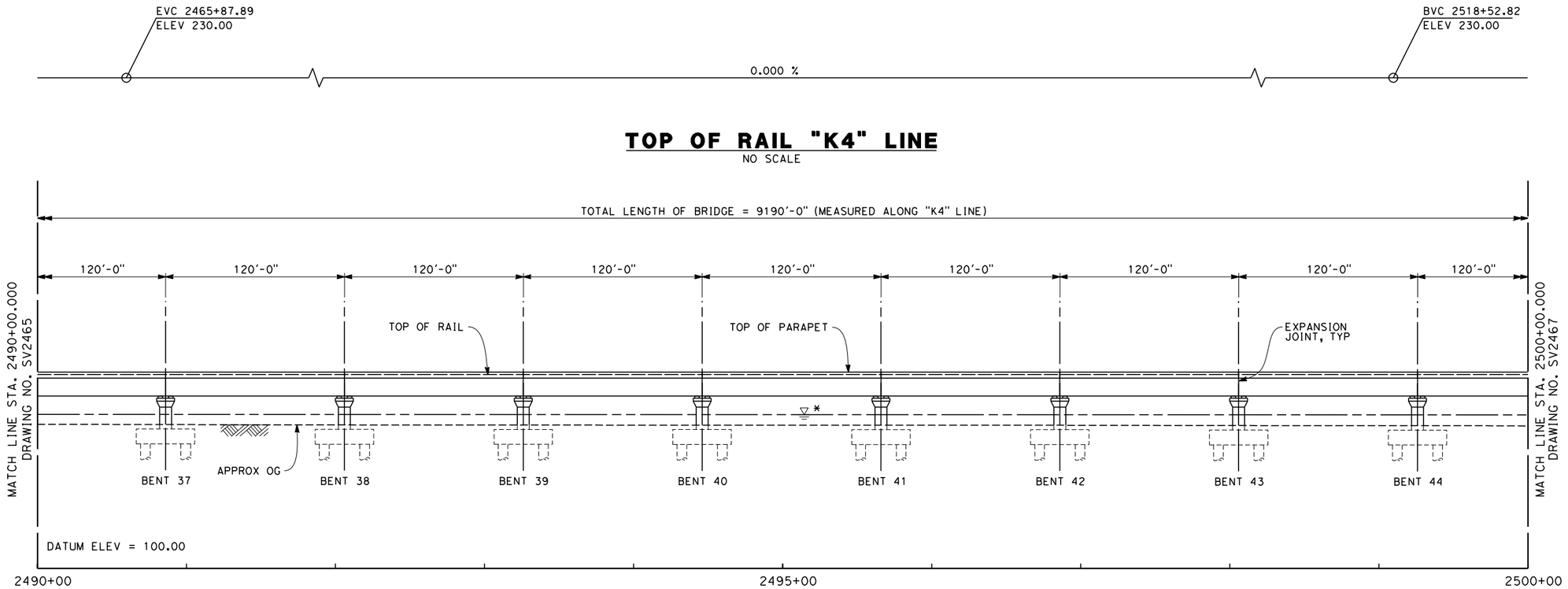
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

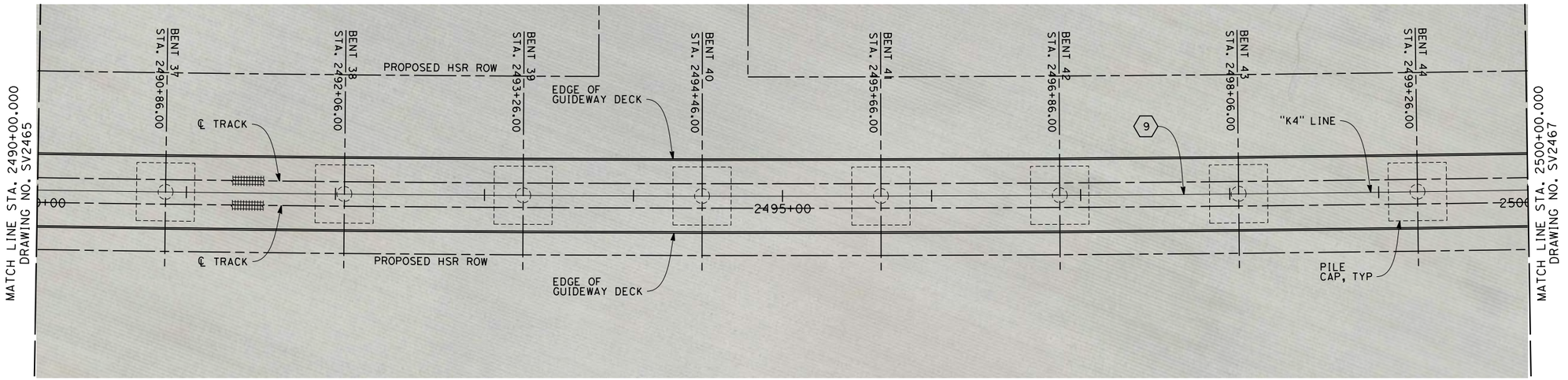
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2465
SCALE AS SHOWN
SHEET NO. 6 OF 13



TOP OF RAIL "K4" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

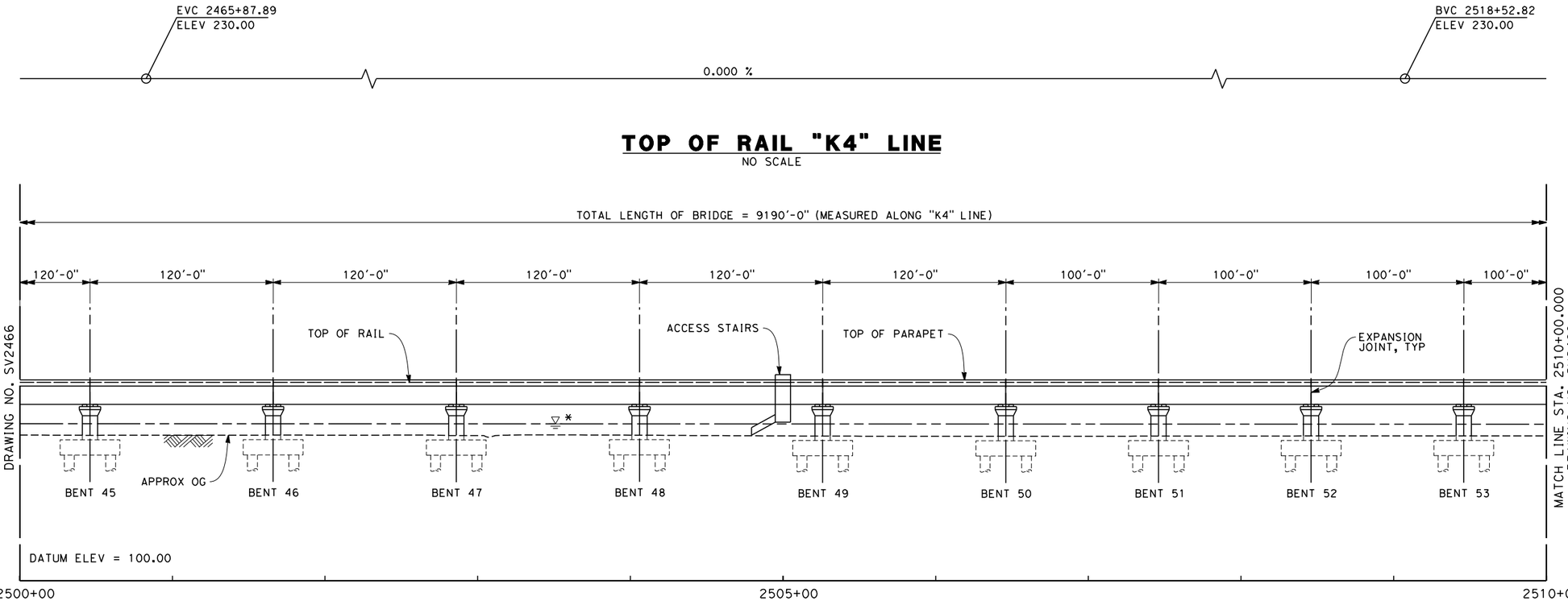
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

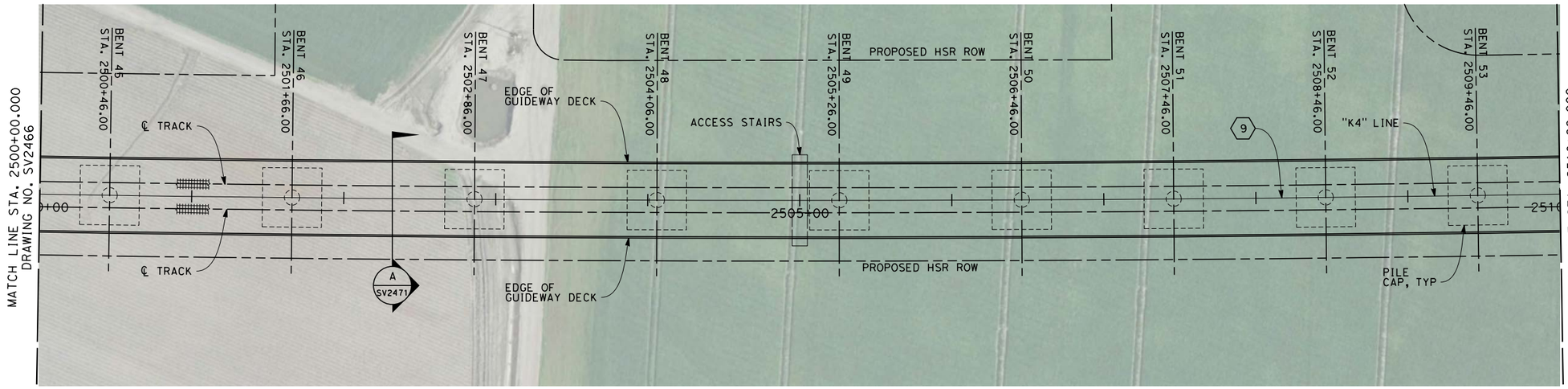
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2466
SCALE AS SHOWN
SHEET NO. 7 OF 13



TOP OF RAIL "K4" LINE
NO SCALE

ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
(1) STRUCTURE APPROACH SLAB
(2) RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'
Δ = 49° 01' 18.3"
T = 13906.6'
L = 26095.5'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

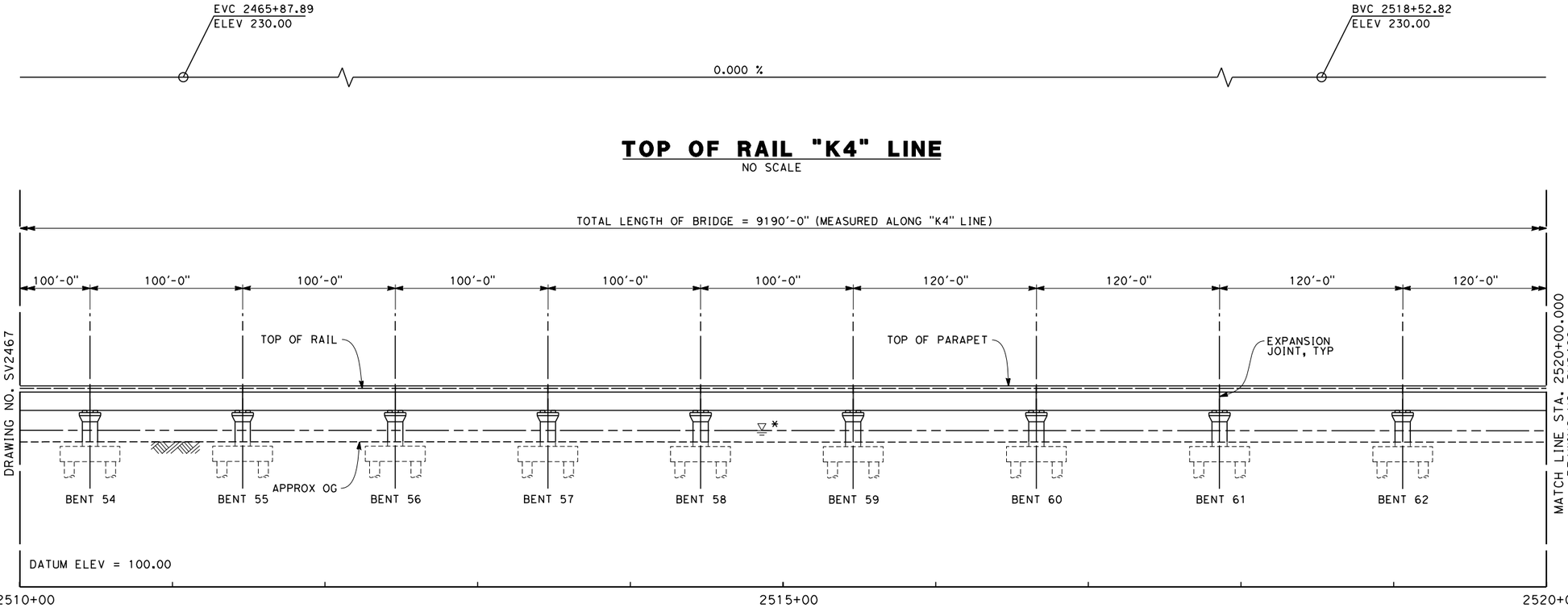
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2467
SCALE AS SHOWN
SHEET NO. 8 OF 13

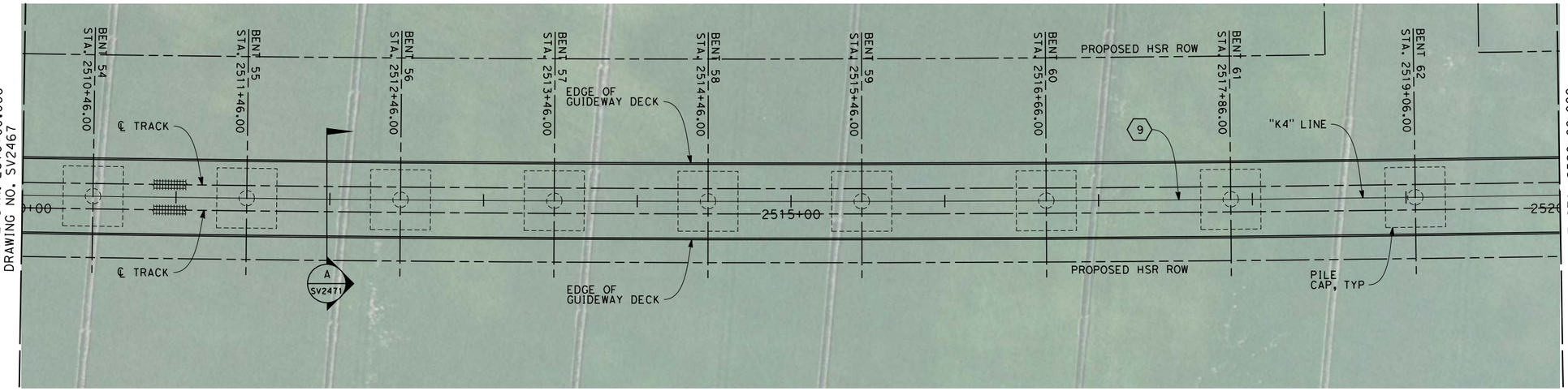


TOP OF RAIL "K4" LINE

NO SCALE

ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80

1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

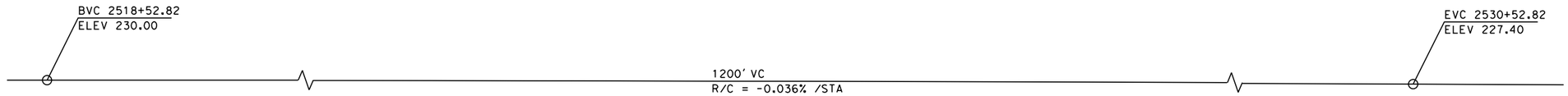
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

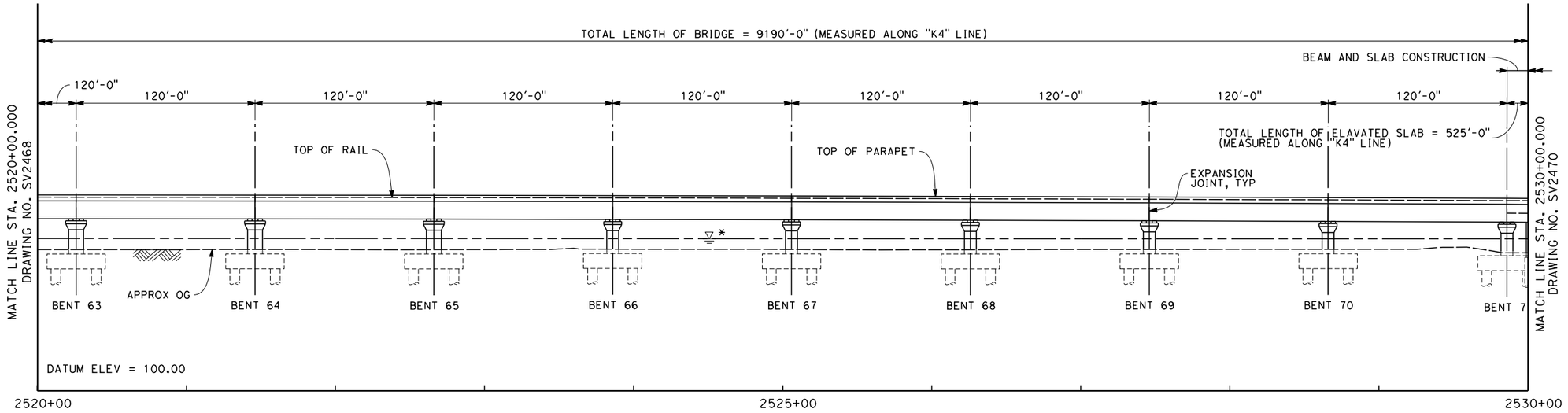
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

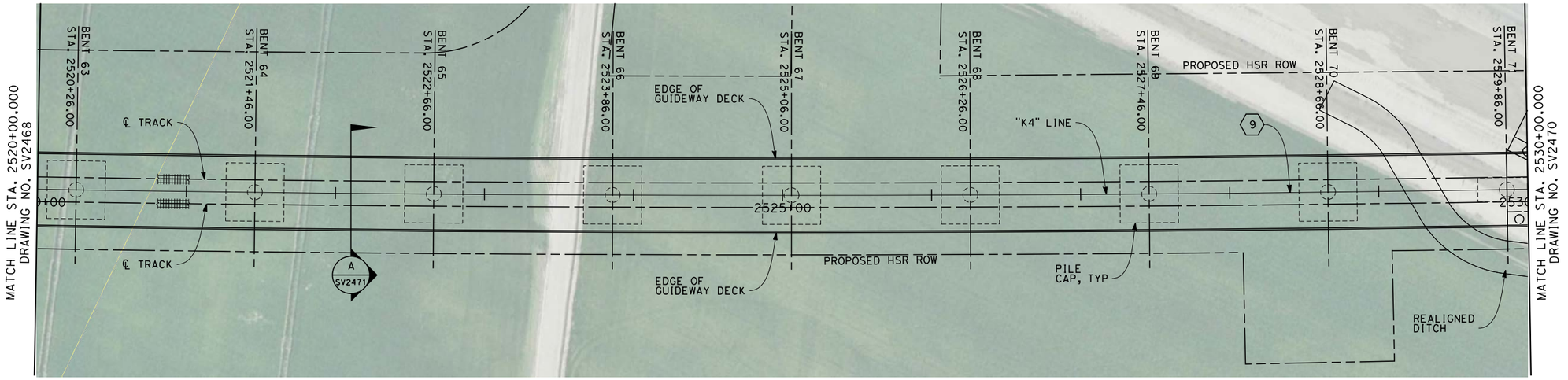
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2468
SCALE AS SHOWN
SHEET NO. 9 OF 13



TOP OF RAIL "K4" LINE
NO SCALE



ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:
1. STRUCTURE APPROACH SLAB
2. RETAINING WALL
* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

(9)

R = 30500.00'

Δ = 49° 01' 18.3"

T = 13906.6'

L = 26095.5'

40 0 40 80
1"=40'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

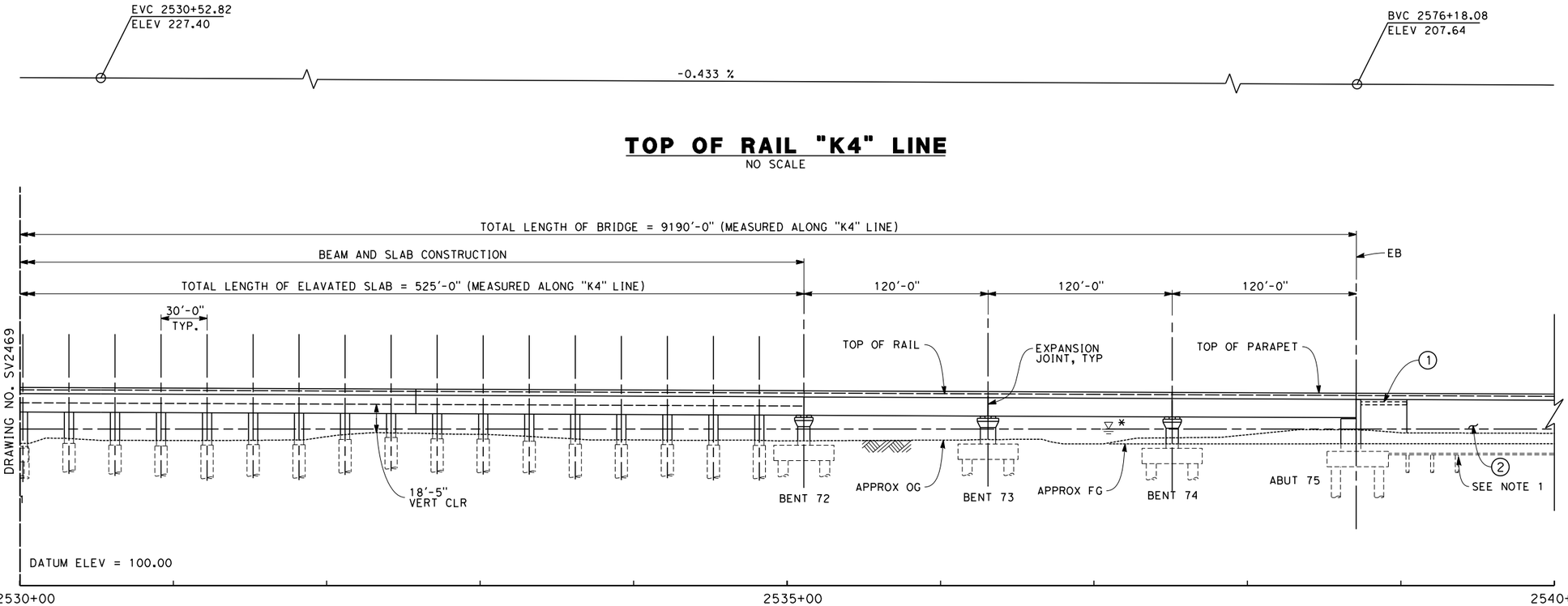
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2469
SCALE AS SHOWN
SHEET NO. 10 OF 13



NOTES

1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
   SIMPLE SPANS - MSS OR FLPM
   CONTINUOUS SPANS - BCC - PRECAST IN-SITU
   STEEL TRUSS - INSITU, SLID OR LAUNCHED
   ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE PROVIDED AT SYSTEMS SITES (APPROX. 2.5 MILE INTERVALS). LADDER ACCESS TO VIADUCTS IS PROVIDED AT 2500 FT INTERVALS WITH ACCESS ROAD AND TURNING CIRCLE WHERE NECESSARY.

LEGEND:

(1) STRUCTURE APPROACH SLAB

(2) RETAINING WALL

* ESTIMATED 100-YEAR FLOOD ELEVATION, SEE "FRESNO TO BAKERSFIELD CORRIDOR HYDROLOGY, HYDRAULICS AND DRAINAGE 15% DRAFT REPORT".

CURVE DATA

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REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

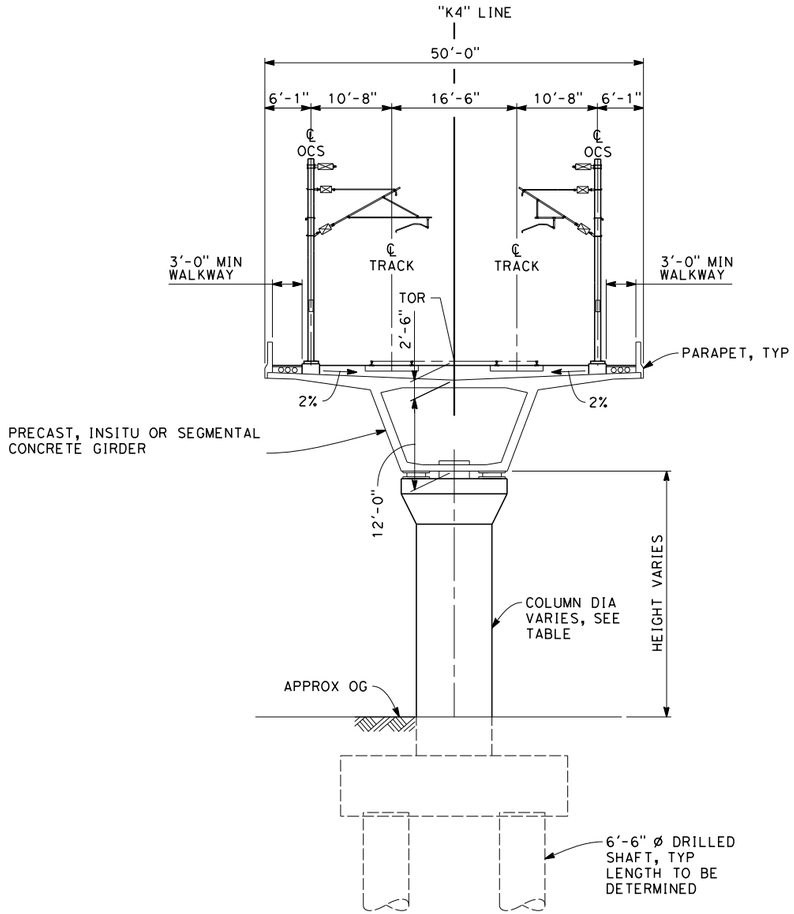
URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

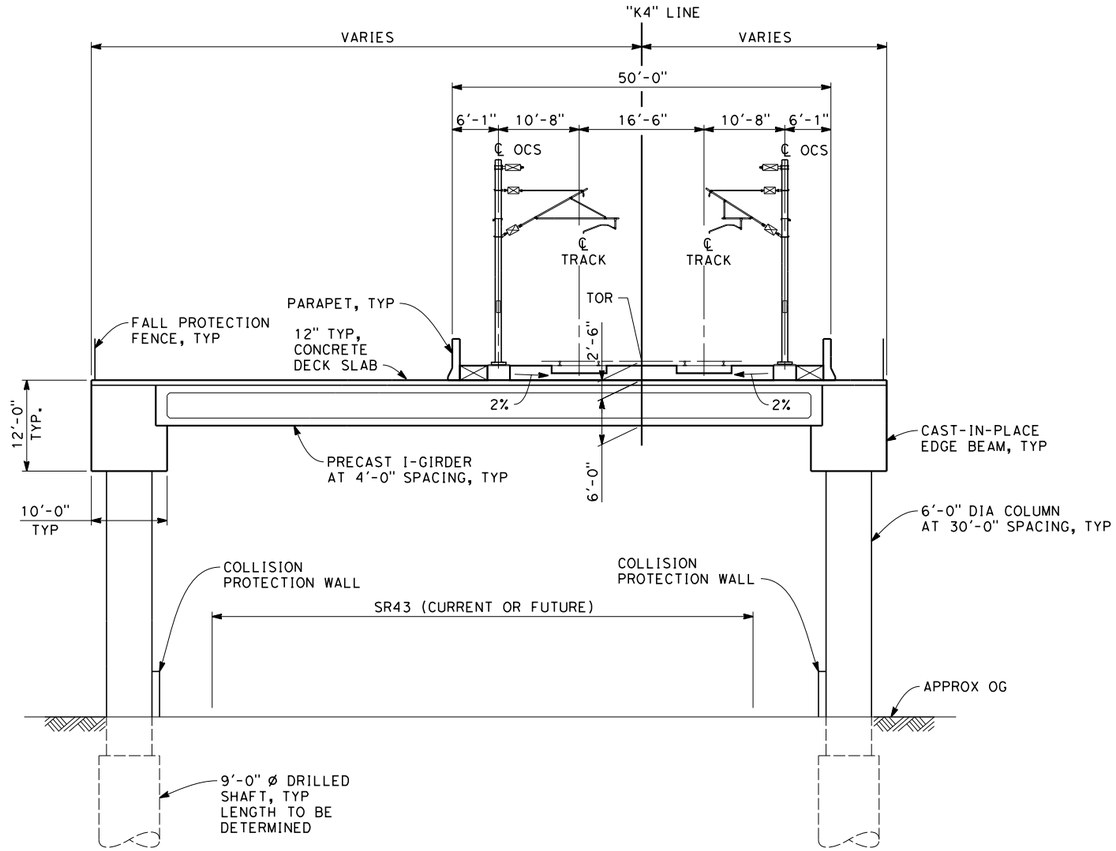
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2470
SCALE AS SHOWN
SHEET NO. 11 OF 13

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



COLUMN DIAMETERS	
HEIGHT TO SOFFIT	DIAMETER
0-20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT



SECTION A

SCALE: 1" = 10'

STA 2446+81.00 THROUGH 2479+22.50
STA 2482+44.50 THROUGH 2529+86.00
STA 2535+11.00 THROUGH 2538+71.00

SECTION B

SCALE: 1" = 10'

STA 2529+86.00 THROUGH 2531+50.00
STA 2532+80.00 THROUGH 2535+11.00

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

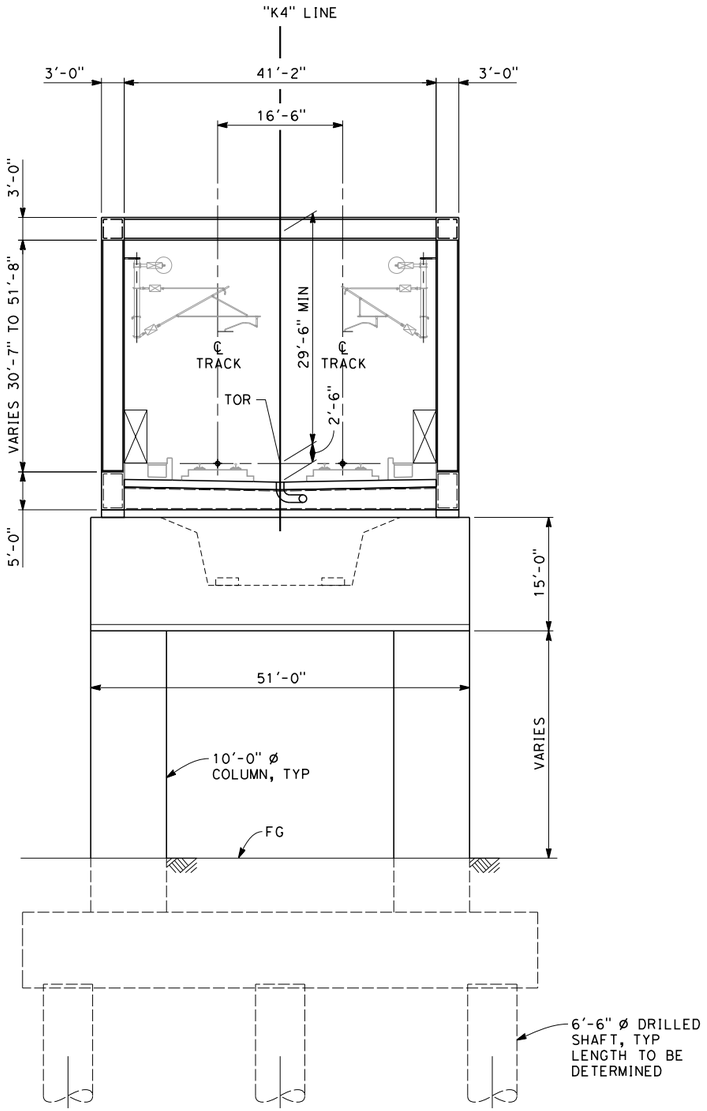
RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION

URS | HMM | ARUP
California High-Speed Train

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
KAWEAH SUBSECTION
ALIGNMENT K4
CROSS CREEK VIADUCT
TYPICAL SECTIONS

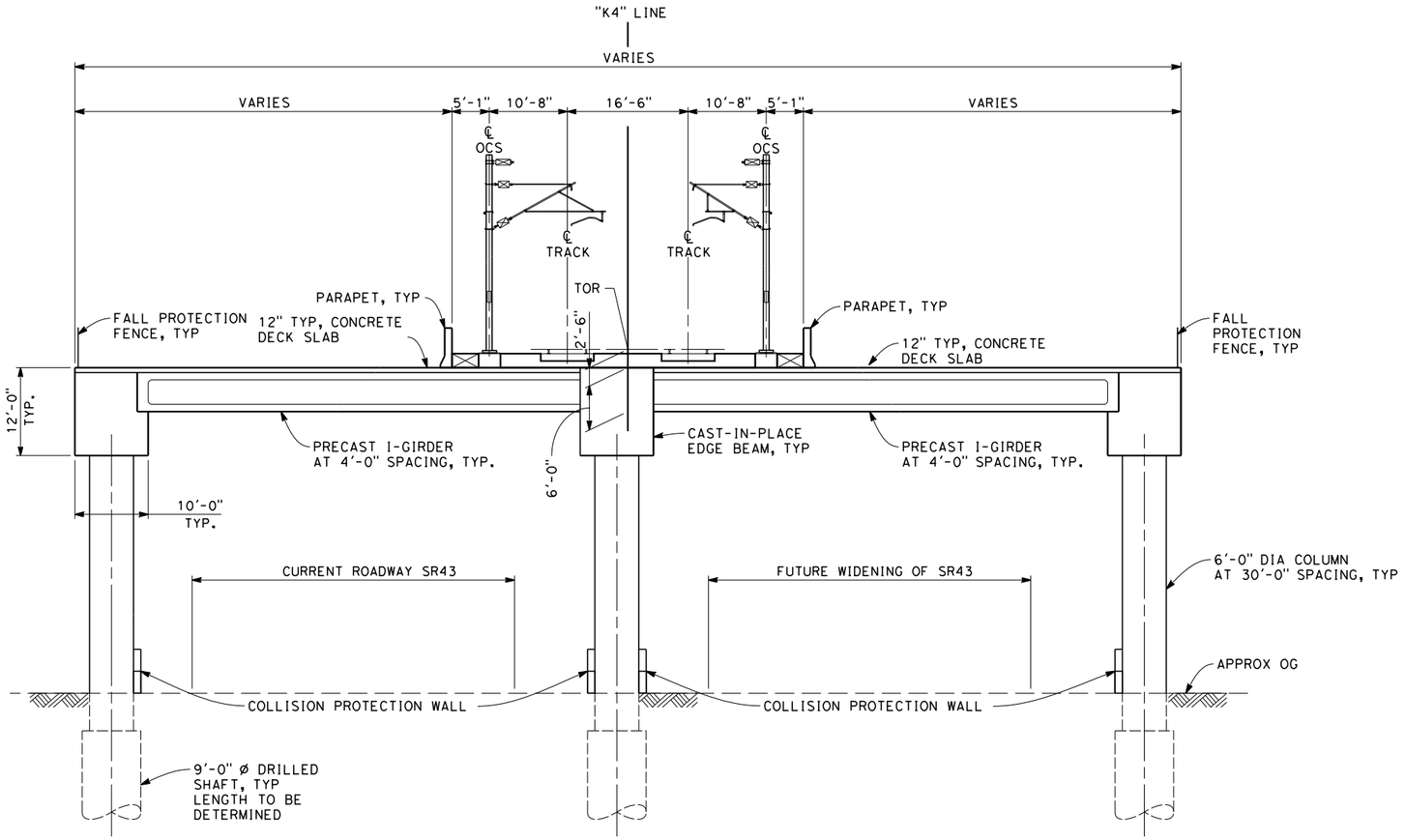
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2471
SCALE AS SHOWN
SHEET NO. 12 OF 13



SECTION C

SCALE: 1" = 10'

STA 2479+22.50 THROUGH 2482+44.50



SECTION D

SCALE: 1" = 10'

STA 2531+50.00 THROUGH 2532+80.00

10 0 10 20
1"=10'

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
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 K4
CROSS CREEK VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2472
SCALE AS SHOWN
SHEET NO. 13 OF 13