

frank.palermo 12/23/2013 2:30:27 PM c:\pwworking\hmm\external\frank.palermo01-arup.com\d0128411\FB-SV-2220-H.dgn



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

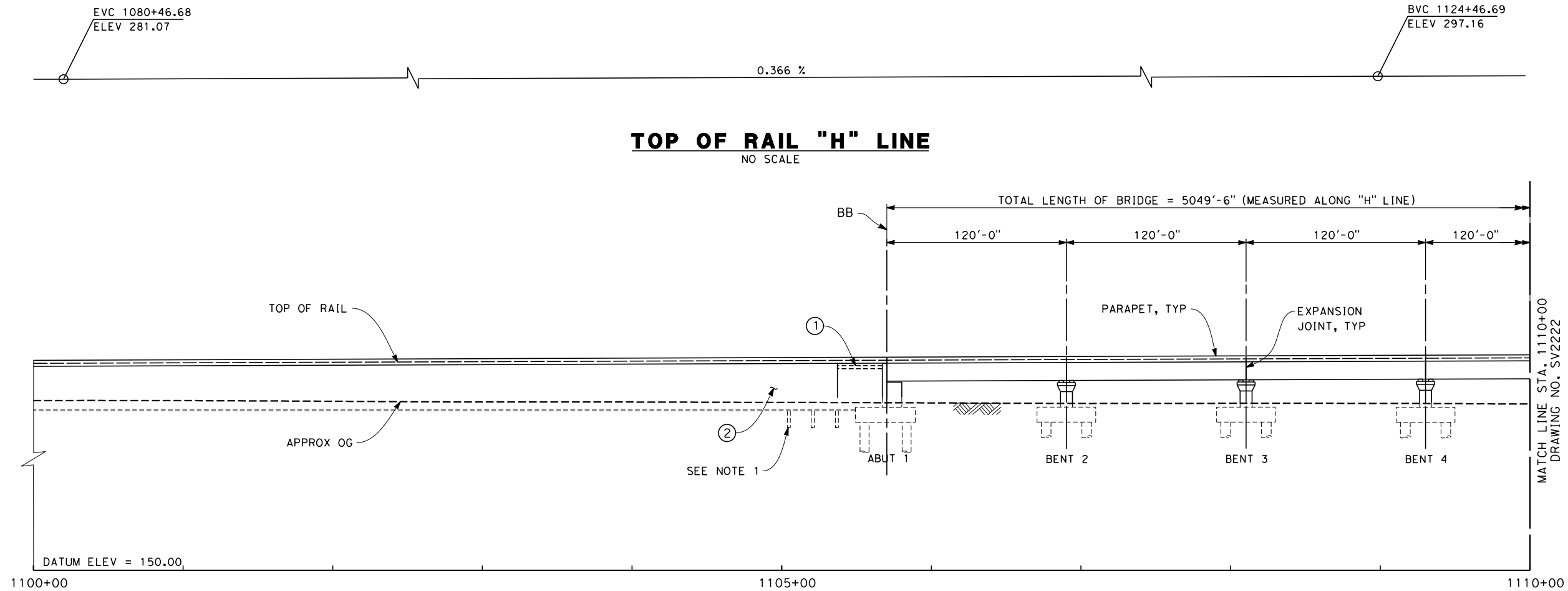


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

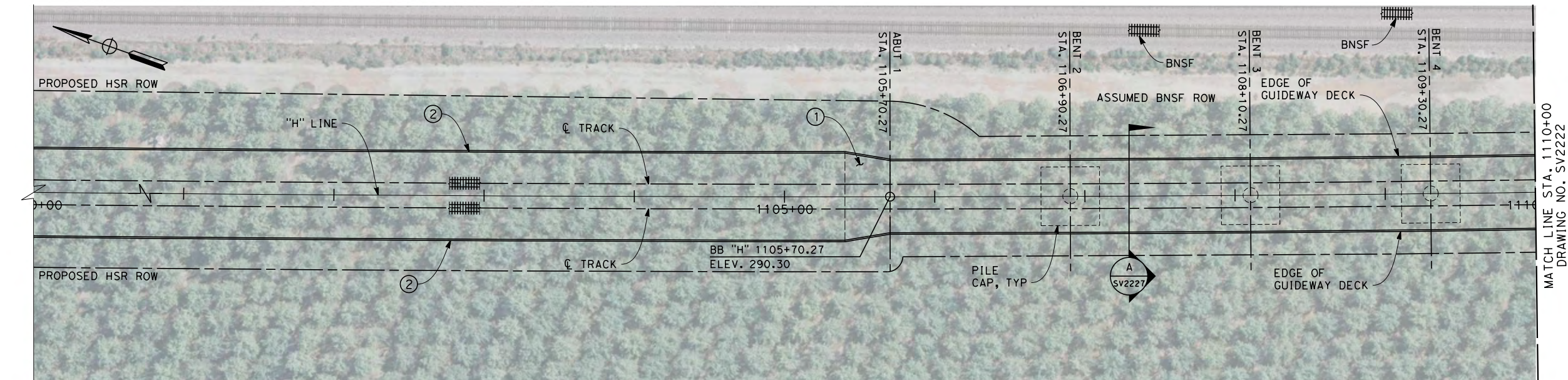
HANFORD SUBSECTION
ALIGNMENT H
CONEJO VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2220
SCALE AS SHOWN
SHEET NO. 1 OF 8

c:\pwworking\hmm\external\frank.palermo01-arup.com\d0128411\FB-SV-2221-H.dgn 12/23/2013 2:31:19 PM frank.palermo



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".



REV	DATE	BY	CHK	APP	DESCRIPTION

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

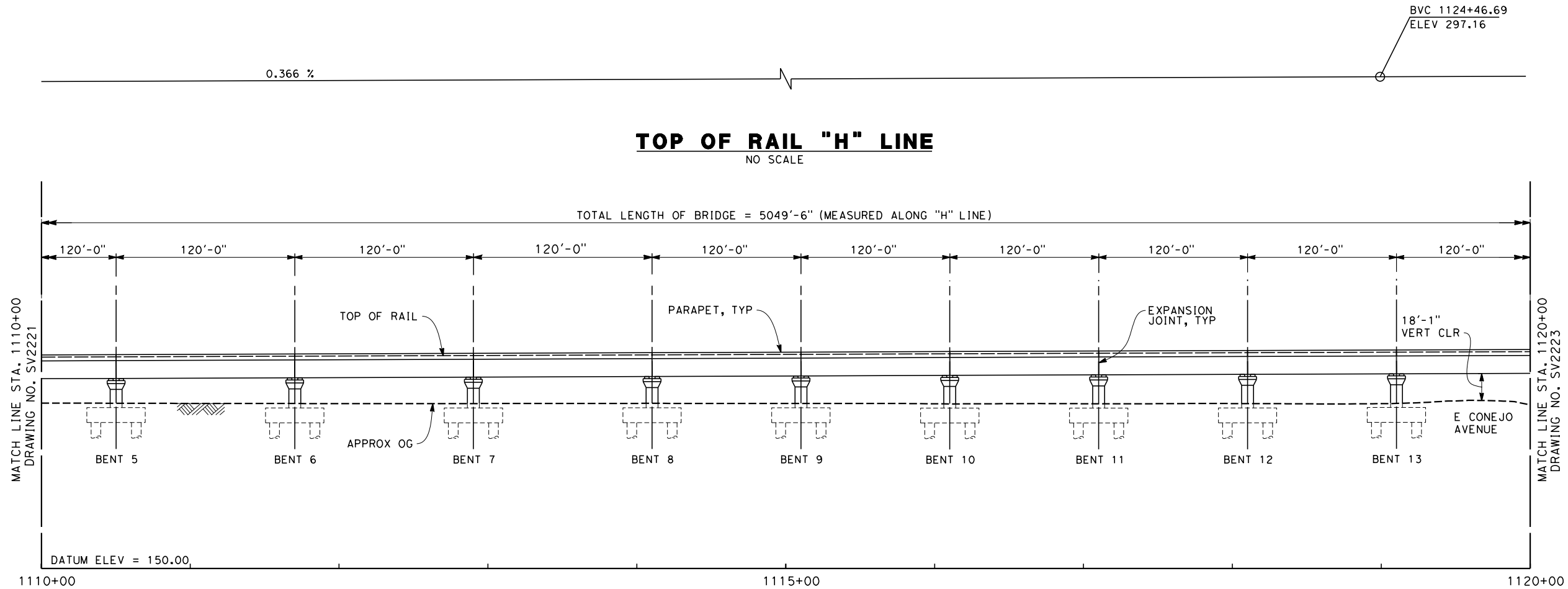
RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



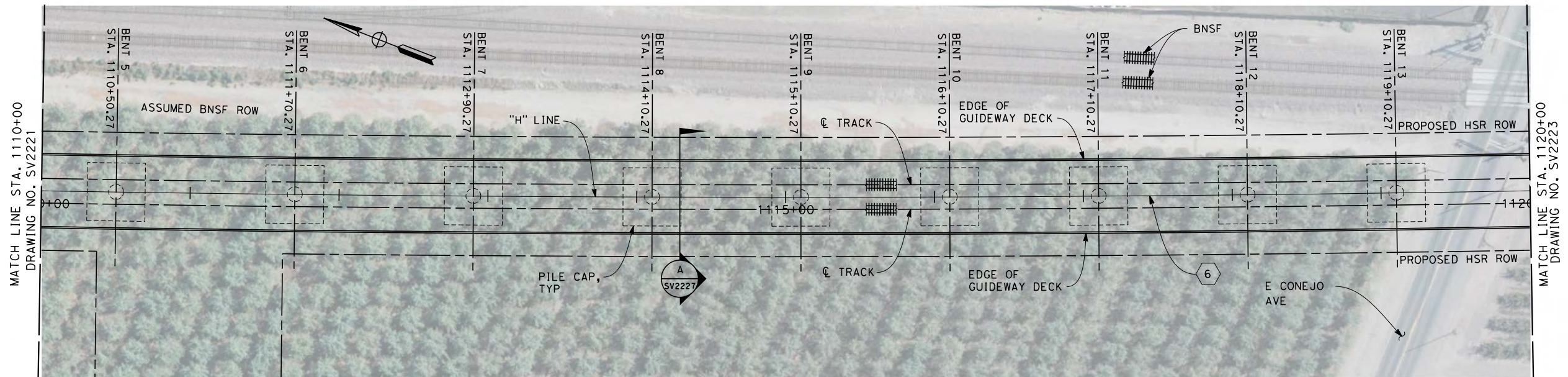
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD SUBSECTION ALIGNMENT H CONEJO VIADUCT PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2221
SCALE AS SHOWN
SHEET NO. 2 OF 8

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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

⑥

R= 29000
Δ= 37°42'29"
T= 9903
L= 19086



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

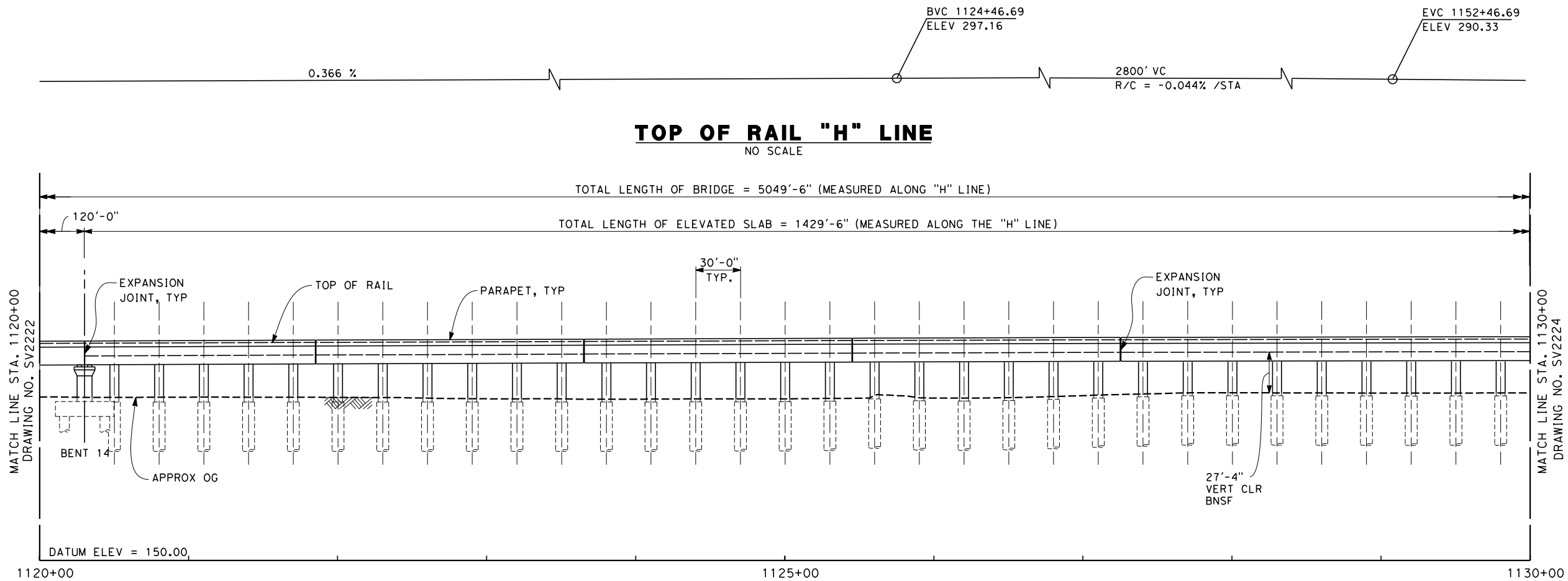


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

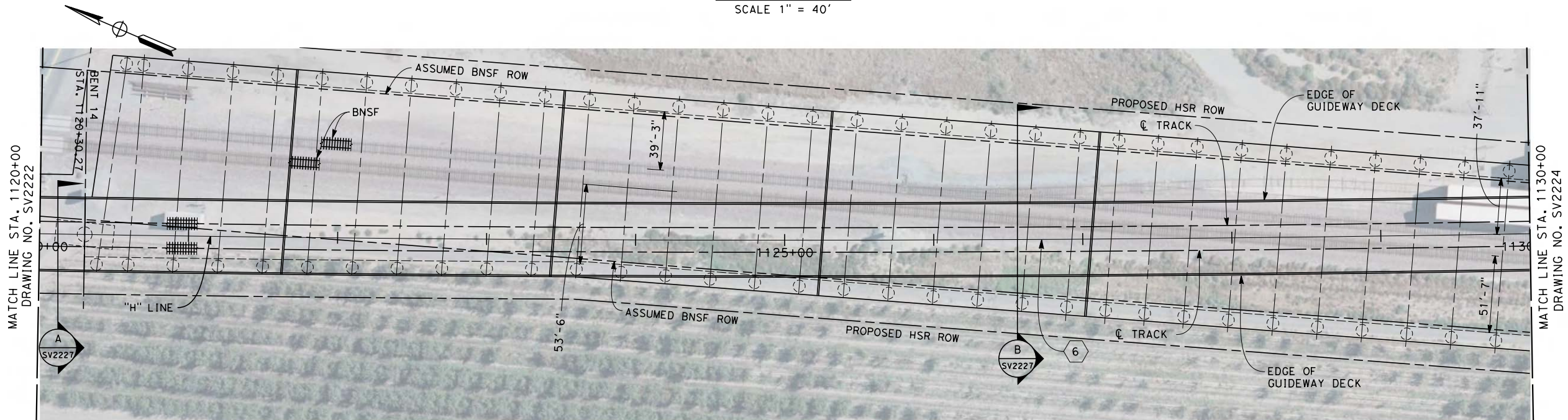
HANFORD SUBSECTION
ALIGNMENT H
CONEJO VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2222
SCALE AS SHOWN
SHEET NO. 3 OF 8

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12/23/2013 2:32:29 PM
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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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CONTINUOUS SPANS - BCC - PRECAST IN-SITU
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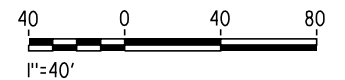
LEGEND:

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

CURVE DATA

6

R = 29000.00'
Δ = 37° 42' 29.3"
T = 9903.0'
L = 19085.8'



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

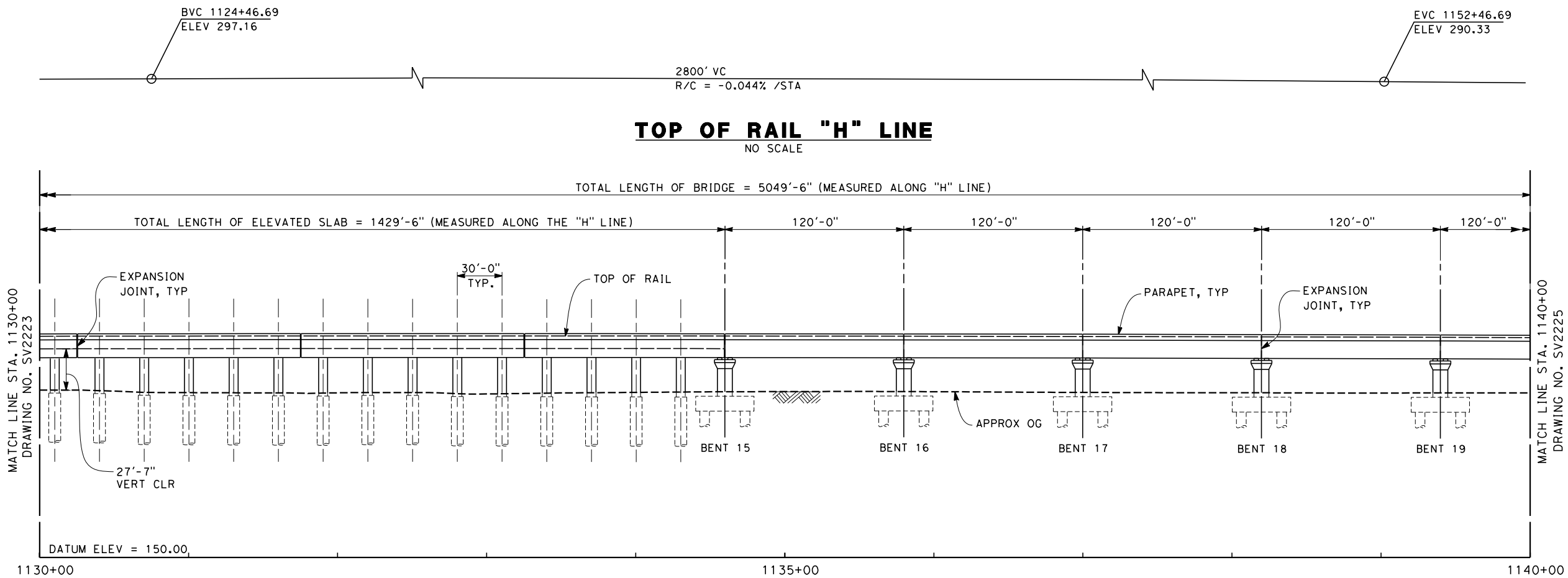


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

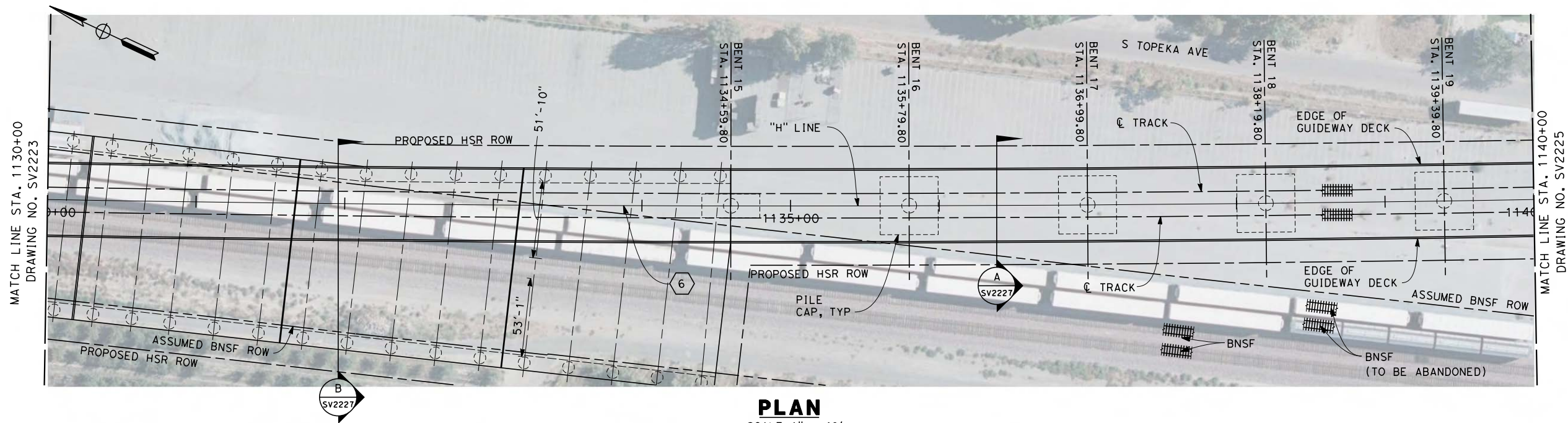
HANFORD SUBSECTION
ALIGNMENT H
CONEJO VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2223
SCALE AS SHOWN
SHEET NO. 4 OF 8

12/23/2013 2:32:55 PM c:\pwworking\hmm\external\frank.palermo01-arup.com\d0128411\FB-SV-2224-H.dgn frank.palermo



ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

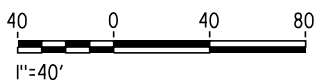
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST
IN-SITU
STEEL TRUSS - INSITU, SLID
OR LAUNCHED
ELEVATED SLABS - PC BEAM AND
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- ② RETAINING WALL
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CURVE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

⑥
R = 29000.00'
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L = 19085.8'



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

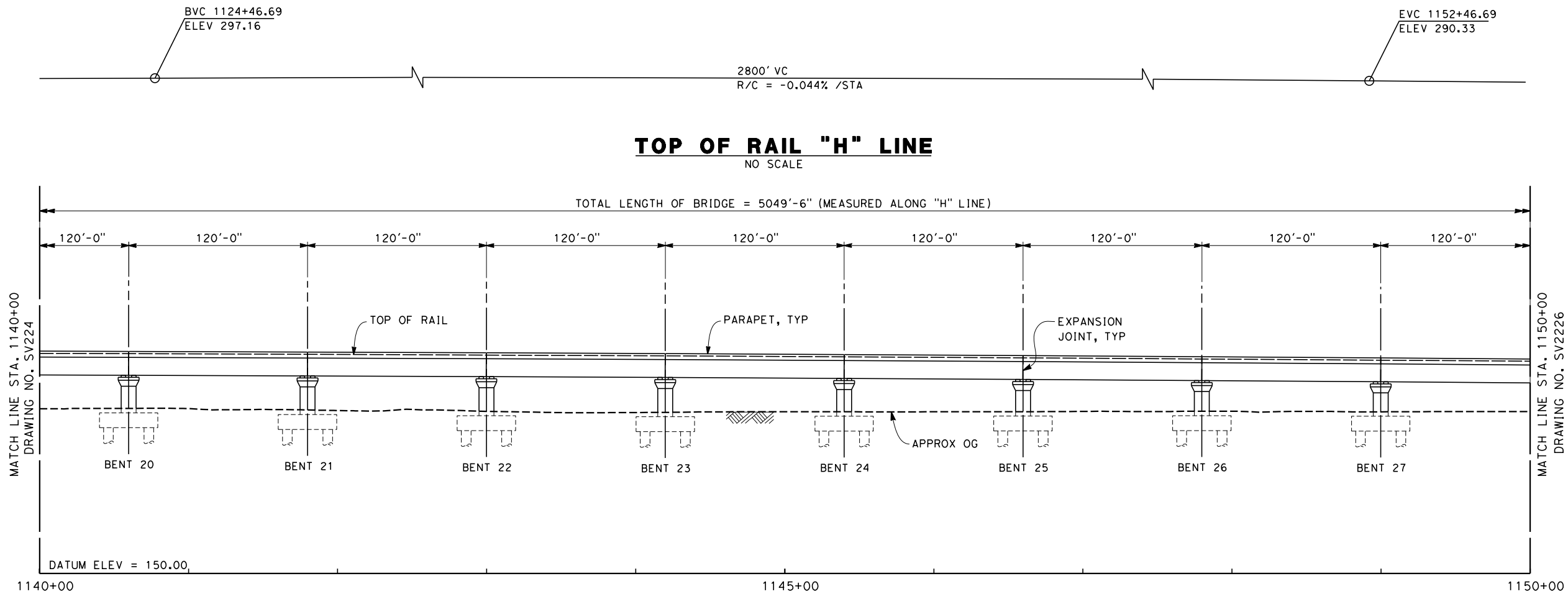
**NOT FOR
CONSTRUCTION**



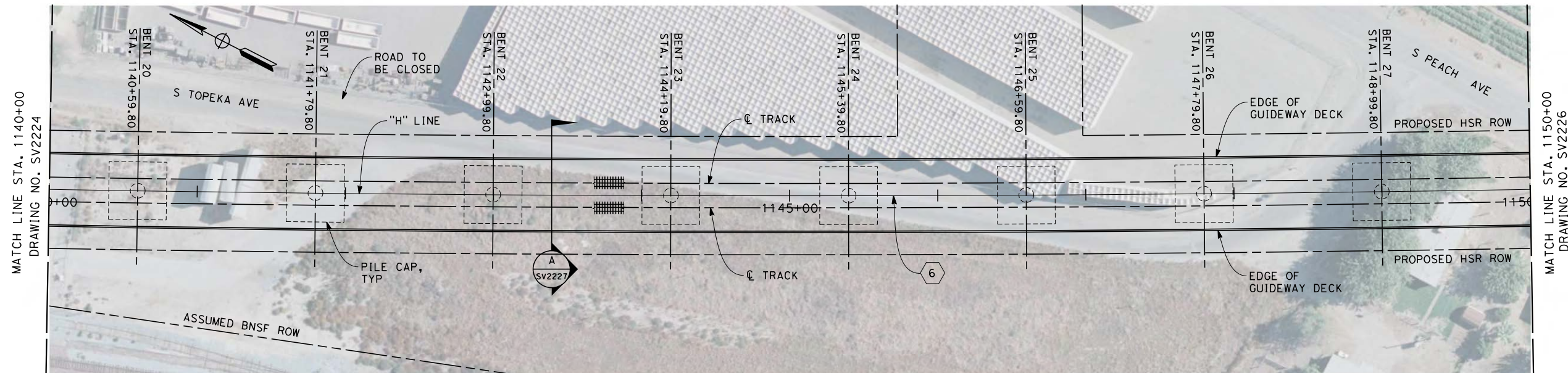
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD SUBSECTION
ALIGNMENT H
CONEJO VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2224
SCALE AS SHOWN
SHEET NO. 5 OF 8

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12/23/2013 2:33:24 PM
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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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- ② RETAINING WALL
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CURVE DATA

⑥
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Δ = 37° 42' 29.3"
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L = 19085.8'



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

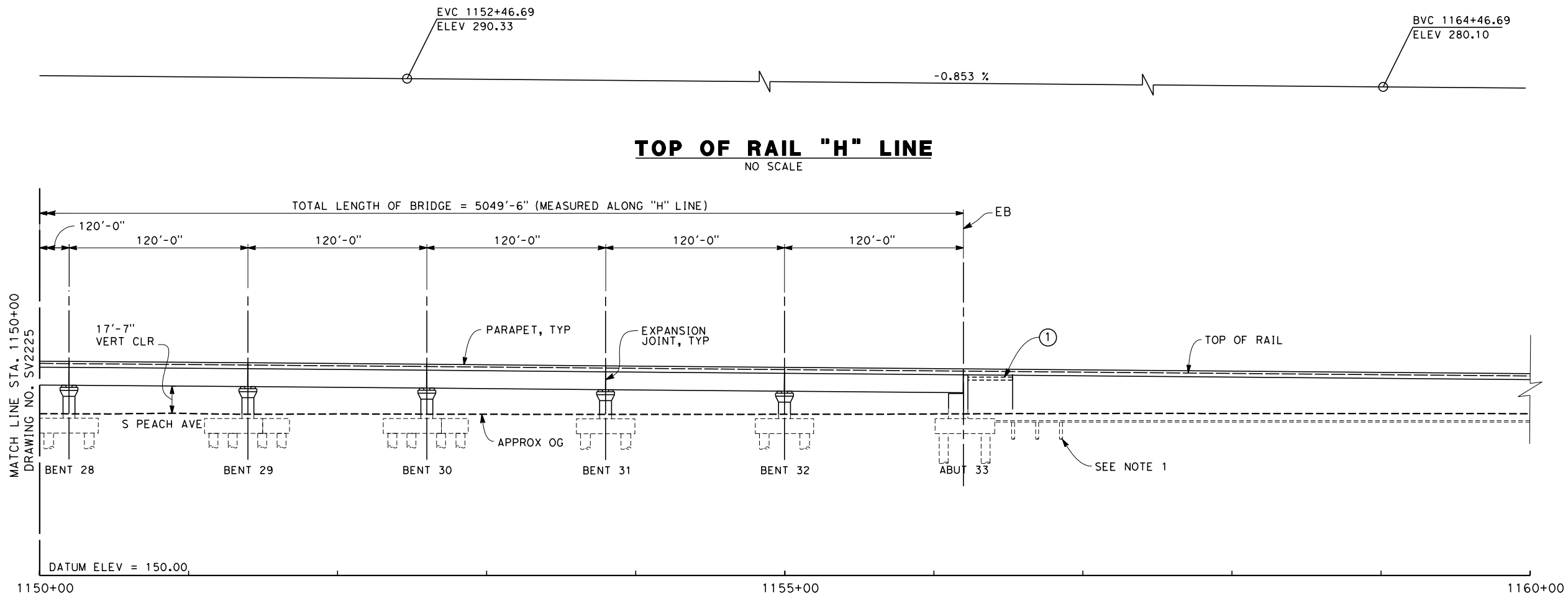


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

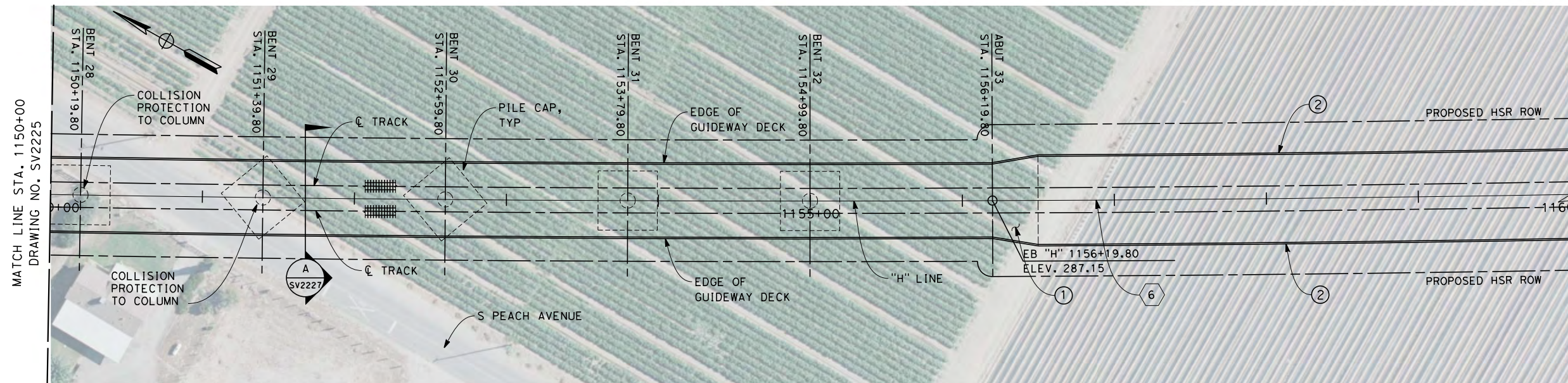
HANFORD SUBSECTION
ALIGNMENT H
CONEJO VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2225
SCALE AS SHOWN
SHEET NO. 6 OF 8

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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".

CURVE DATA

⑥

R = 29000.00'
Δ = 37° 42' 29.3"
T = 9903.0'
L = 19085.8'



REV	DATE	BY	CHK	APP	DESCRIPTION

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

RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD SUBSECTION ALIGNMENT H CONEJO VIADUCT PLAN AND ELEVATION	CONTRACT NO. HSR 06-0003
	DRAWING NO. SV2226
	SCALE AS SHOWN
	SHEET NO. 7 OF 8



STA 1105+70 THROUGH 1123+80



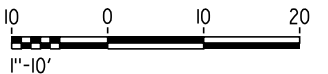
URS | HMM | ARUP

CALIFORNIA HIGH-SPEED TRAIN



SECTION B
SCALE: 1" = 10'

STA 1123+80 THROUGH 1133+40



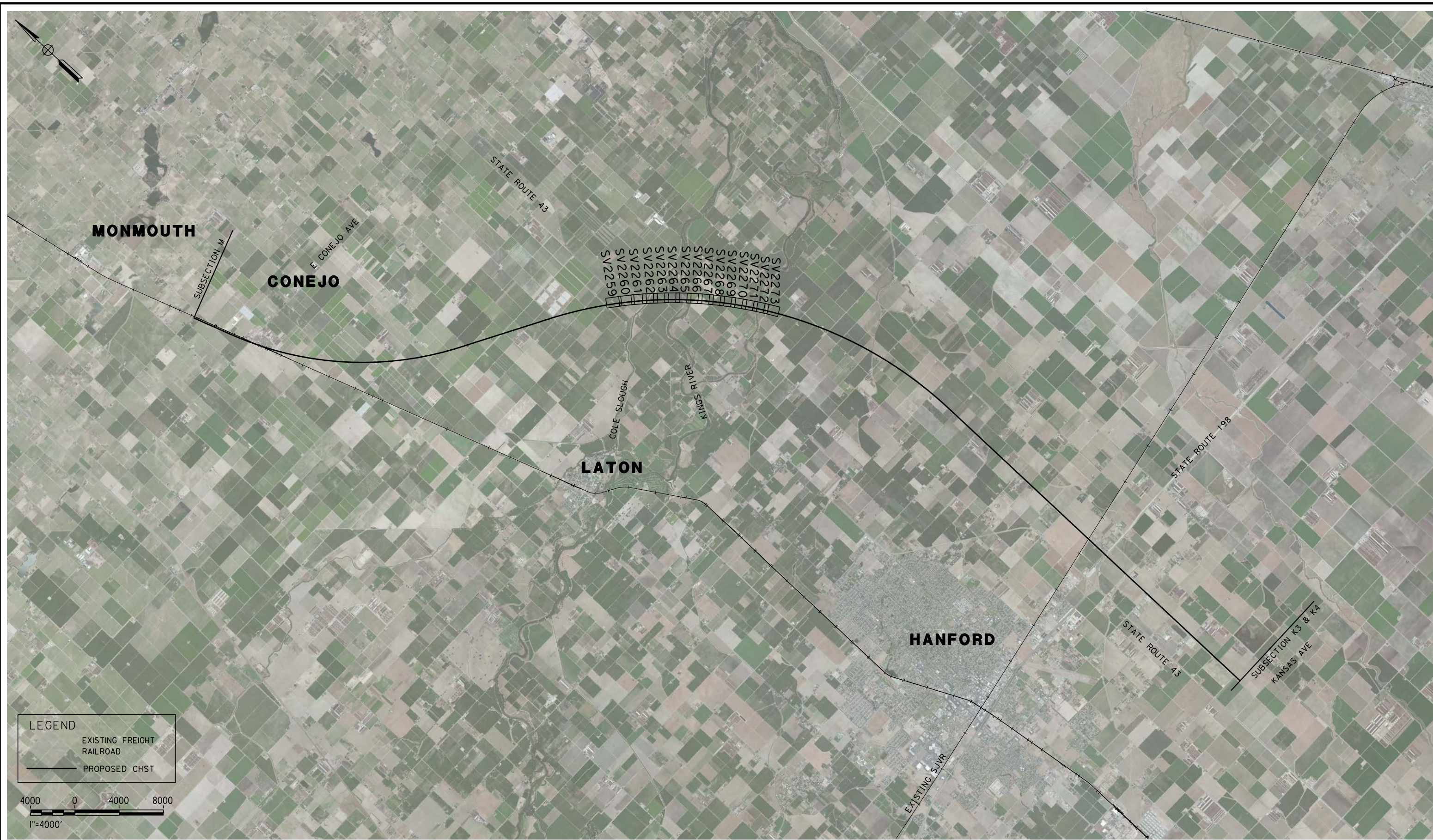
DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV2227
SCALE	AS SHOWN
SHEET NO.	8 OF 8

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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**

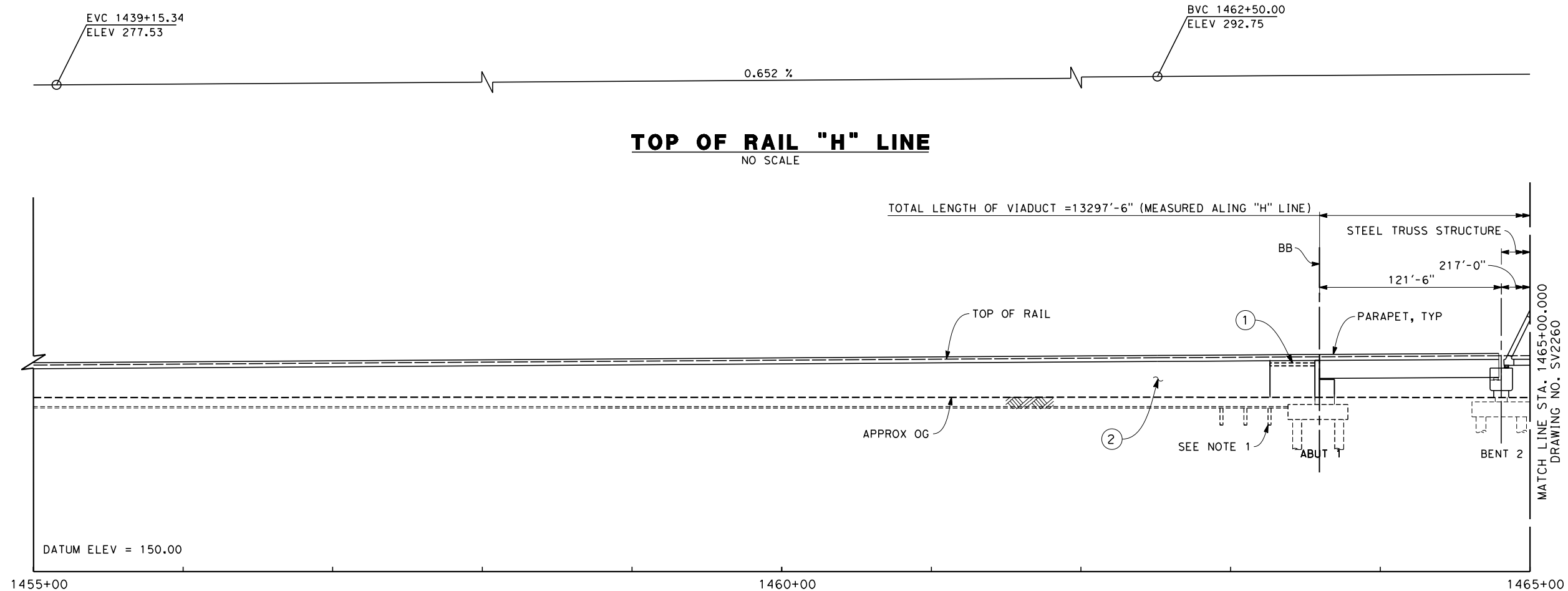


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

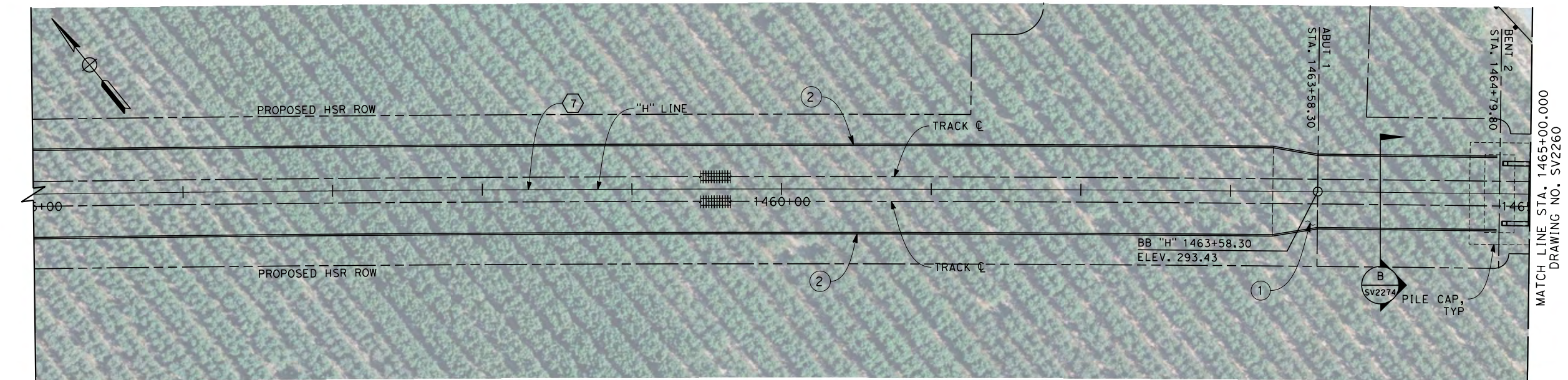
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2258
SCALE AS SHOWN
SHEET NO. 1 OF 18

12/23/2013 2:38:21 PM c:\pwworking\hmm\external\frank.palermo01-arup.com\d0128411\FB-SV-2259-H.dgn frank.palermo



ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

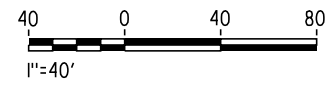
- NOTES**
1. NOT ALL PILES SHOWN
 2. PILE LENGTH TO BE DETERMINED
 3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
 4. UTILITY LOCATIONS TO BE DETERMINED
 5. ACCESS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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

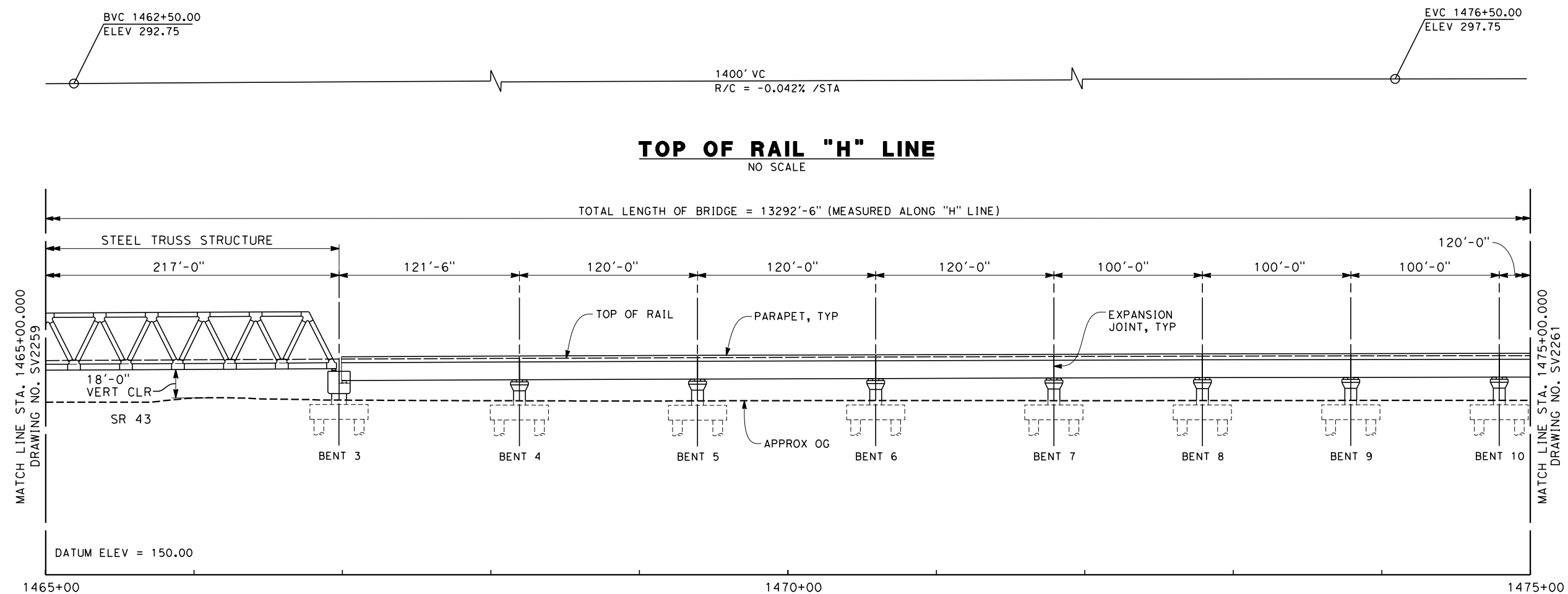
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CONSTRUCTION**



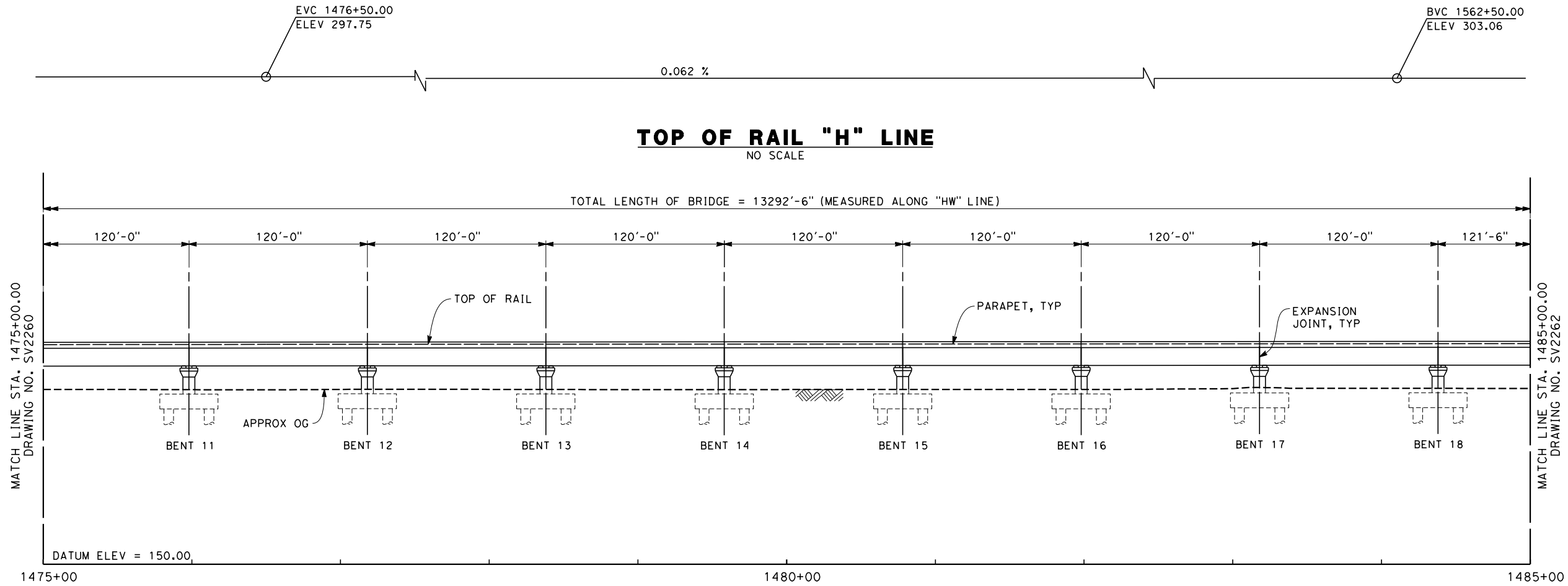
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

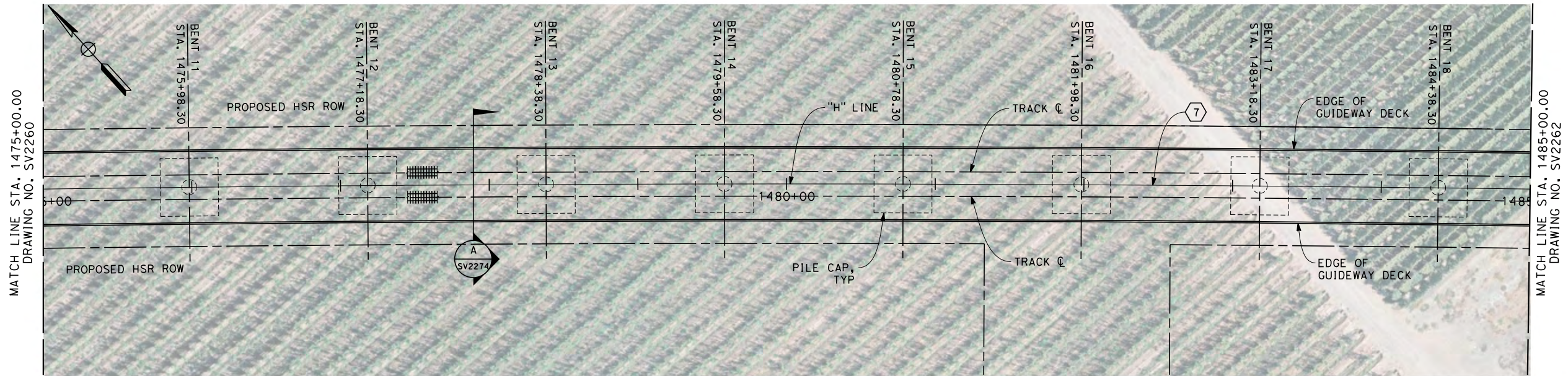
CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2259
SCALE
AS SHOWN
SHEET NO.
2 OF 18



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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
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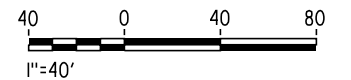
LEGEND:

- 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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

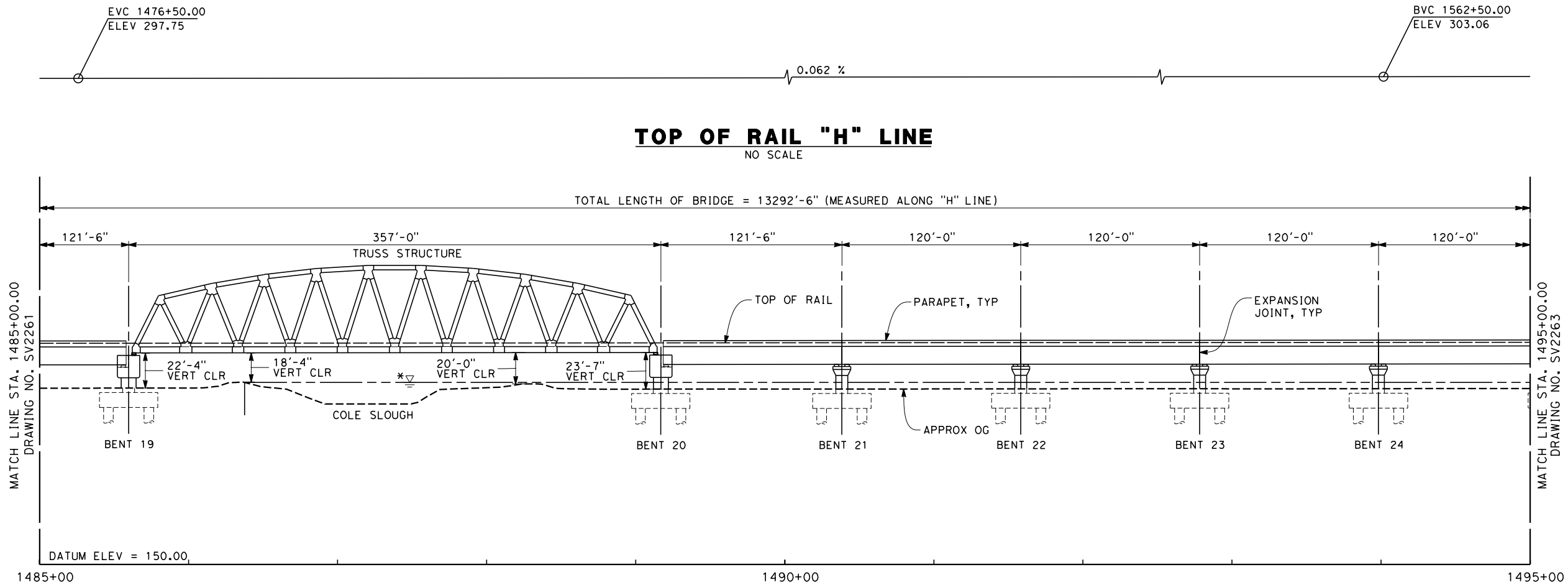


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

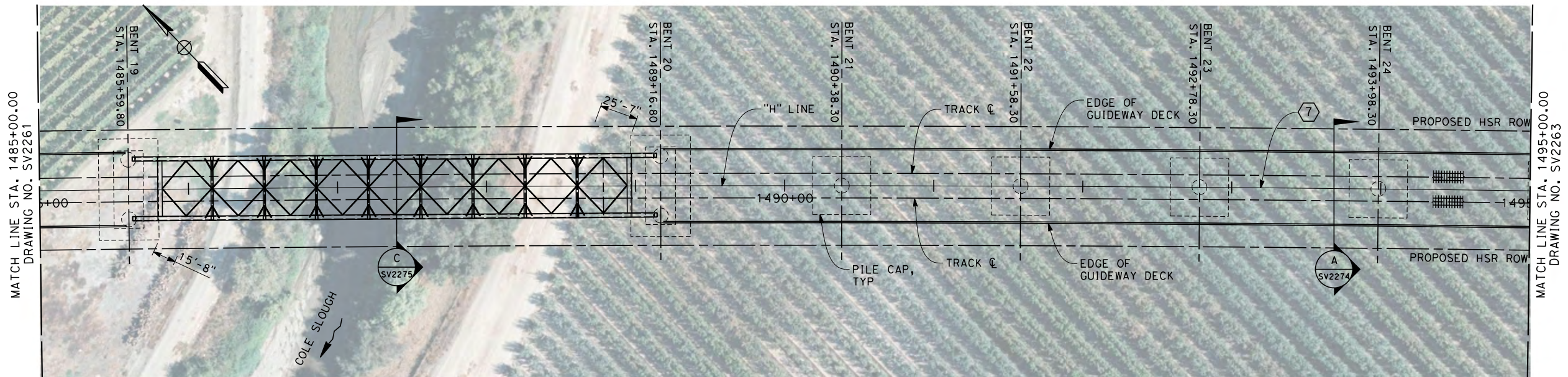
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2261
SCALE AS SHOWN
SHEET NO. 4 OF 18

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ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

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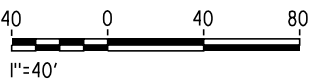
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REV	DATE	BY	CHK	APP	DESCRIPTION

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CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

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**NOT FOR
CONSTRUCTION**

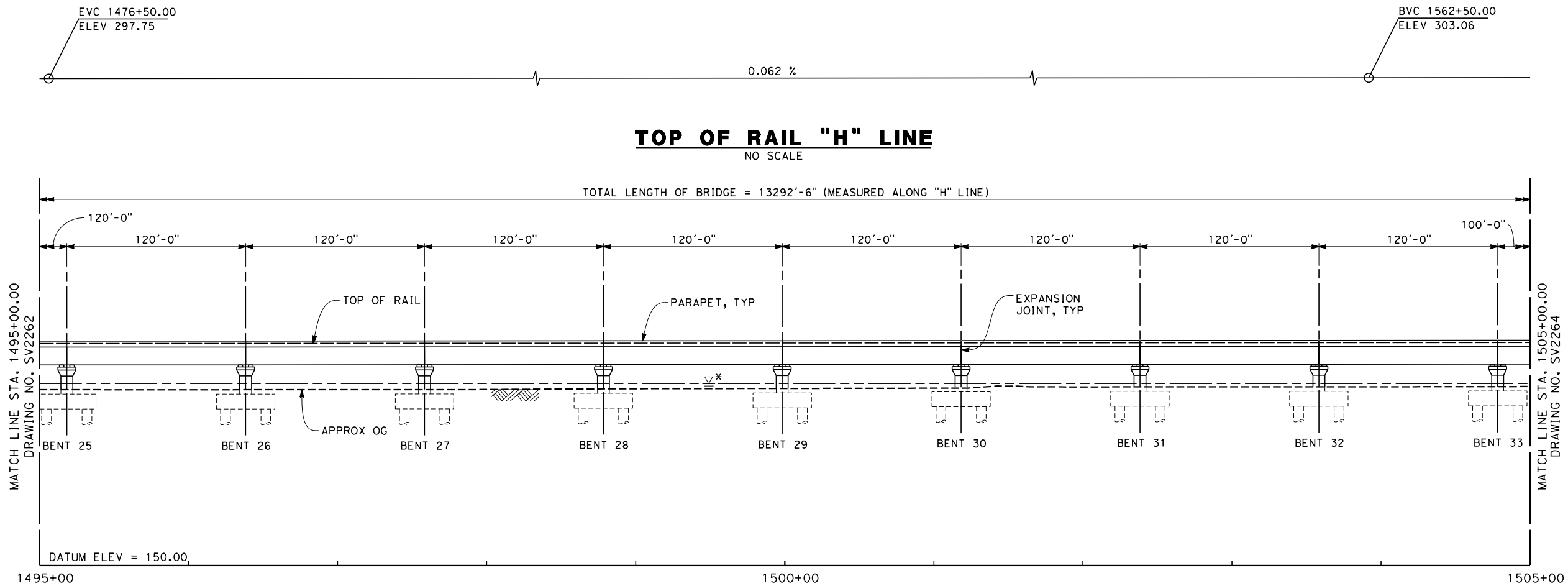


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

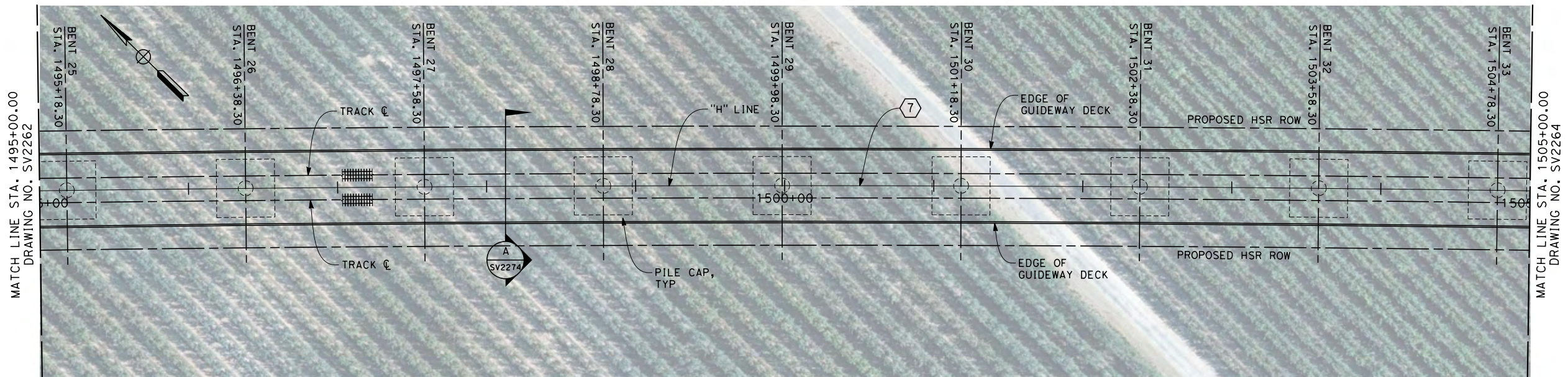
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2262
SCALE AS SHOWN
SHEET NO. 5 OF 18

c:\pwworking\hmm\external\frank.palermo01-arup.com\d0128411\FB-SV-2263-H.dgn 12/23/2013 2:39:56 PM frank.palermo



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.

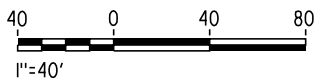
LEGEND:

- 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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

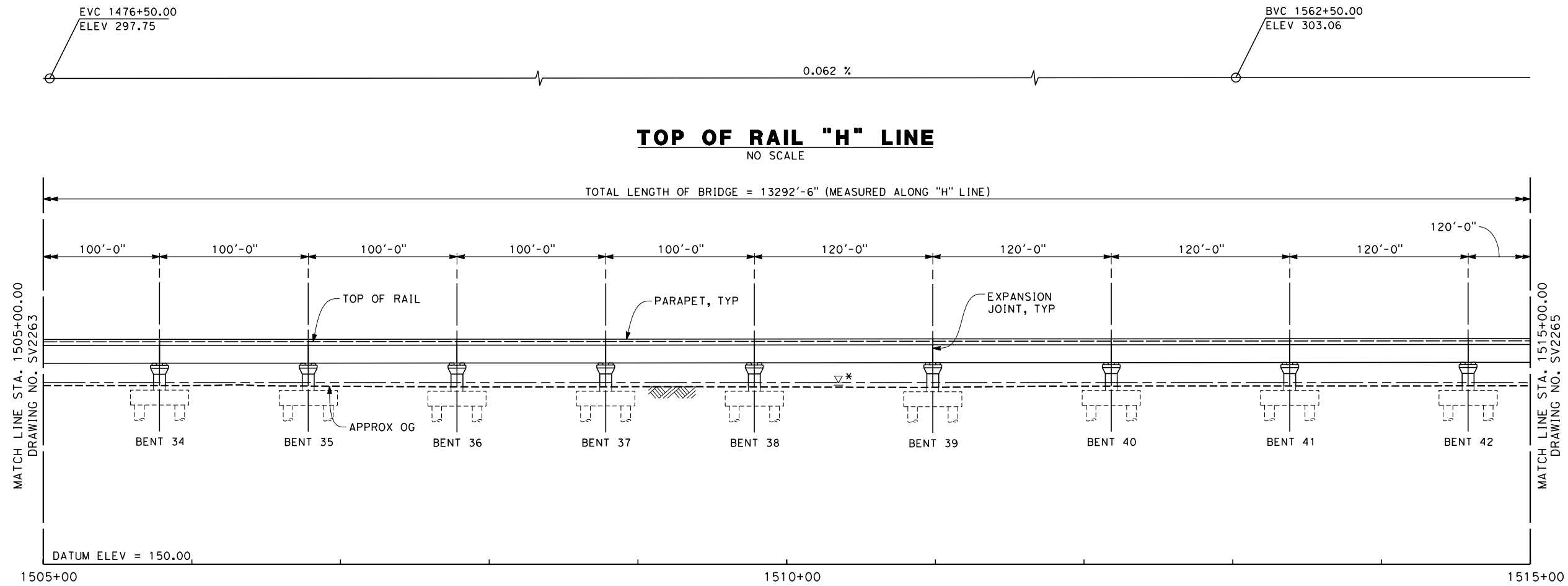


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

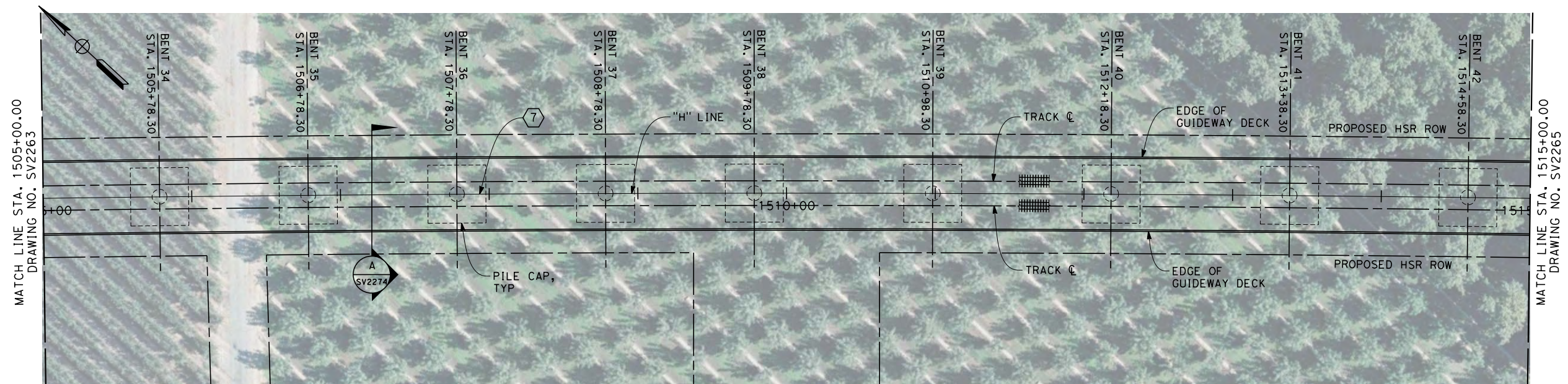
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2263
SCALE AS SHOWN
SHEET NO. 6 OF 18

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ELEVATION
SCALE 1" = 40'



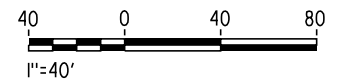
PLAN
SCALE 1" = 40'

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
- ⑦
- R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

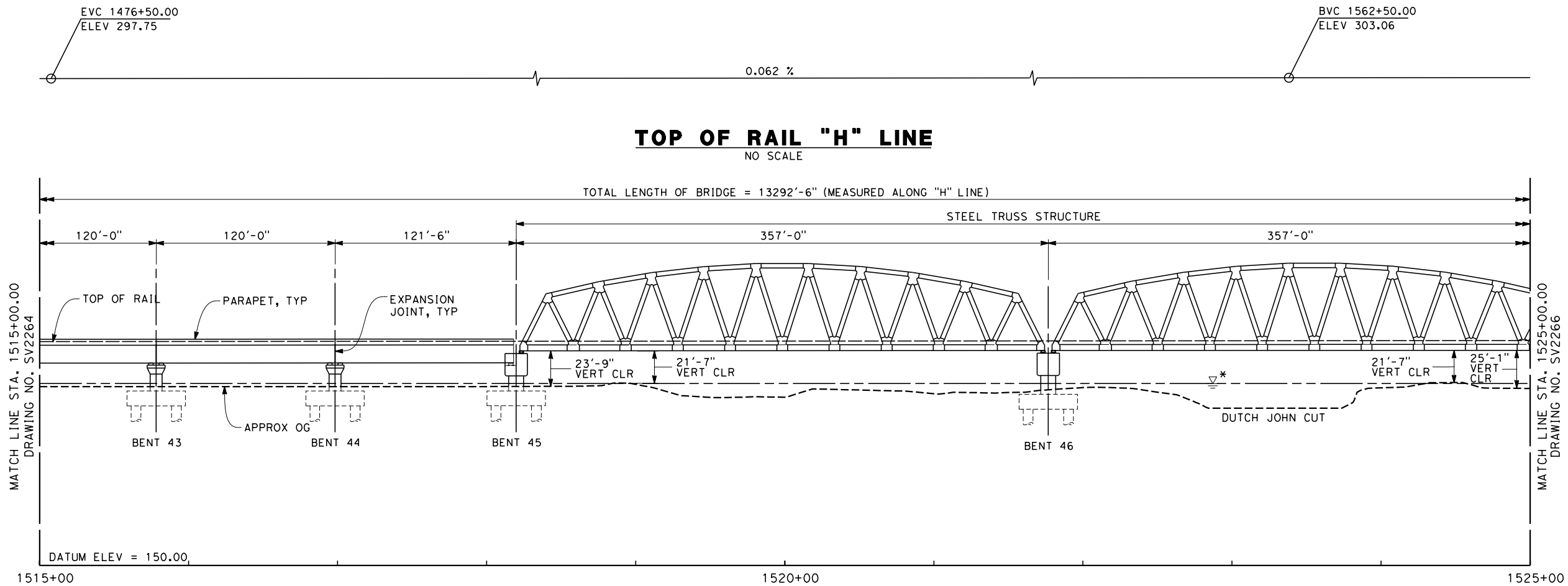


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

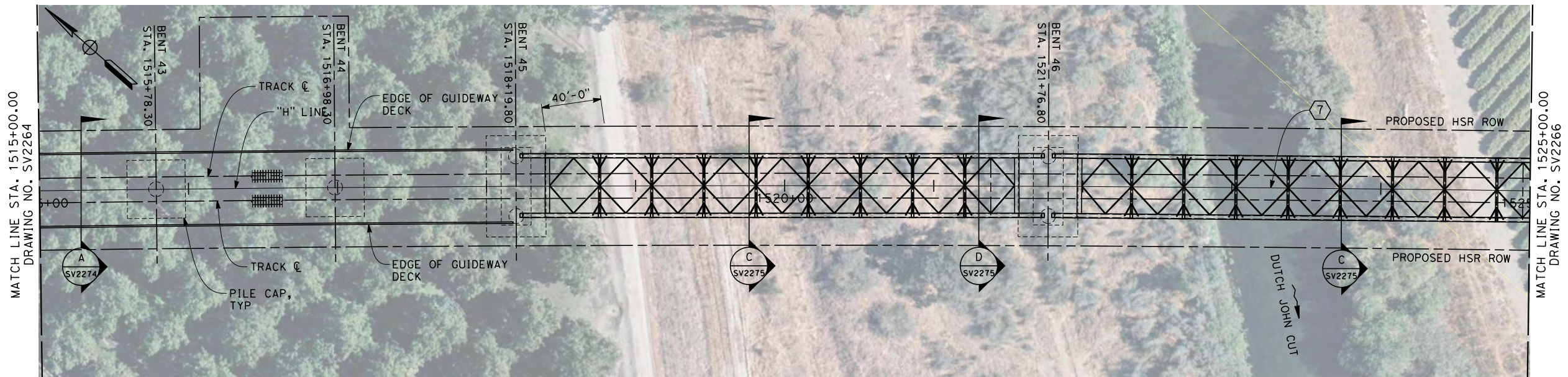
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2264
SCALE AS SHOWN
SHEET NO. 7 OF 18

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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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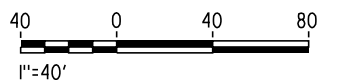
LEGEND:

- 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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

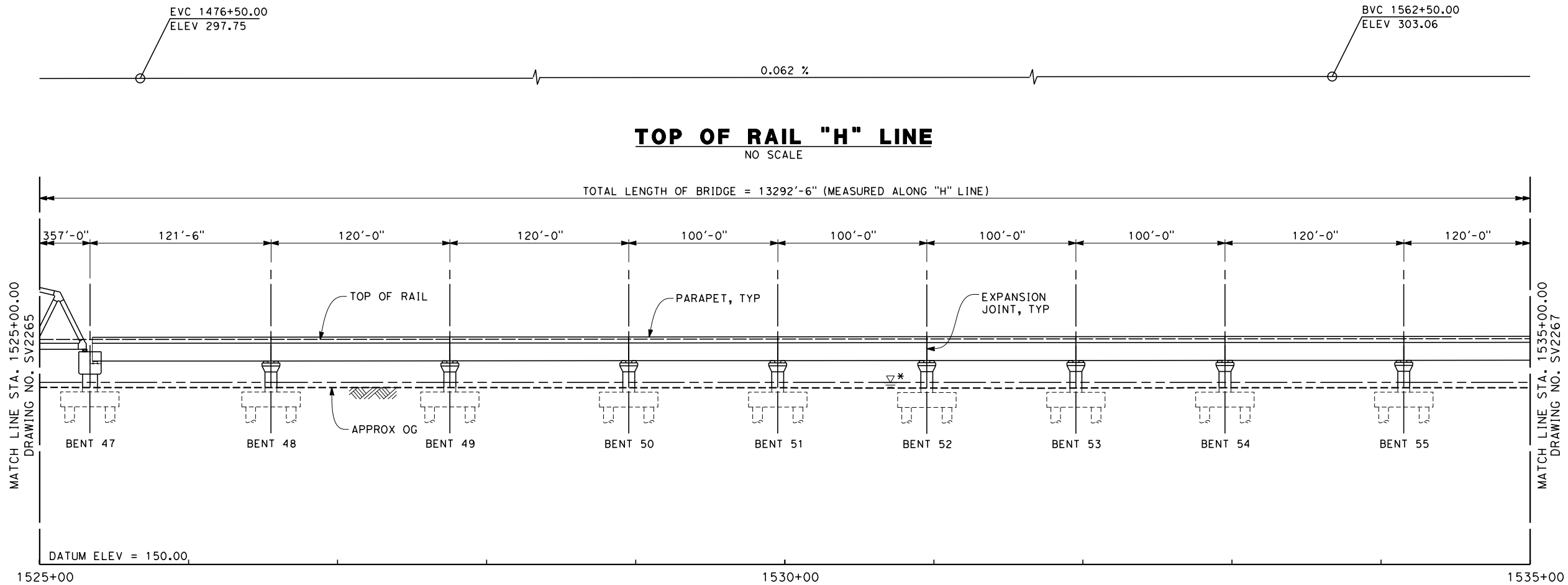


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

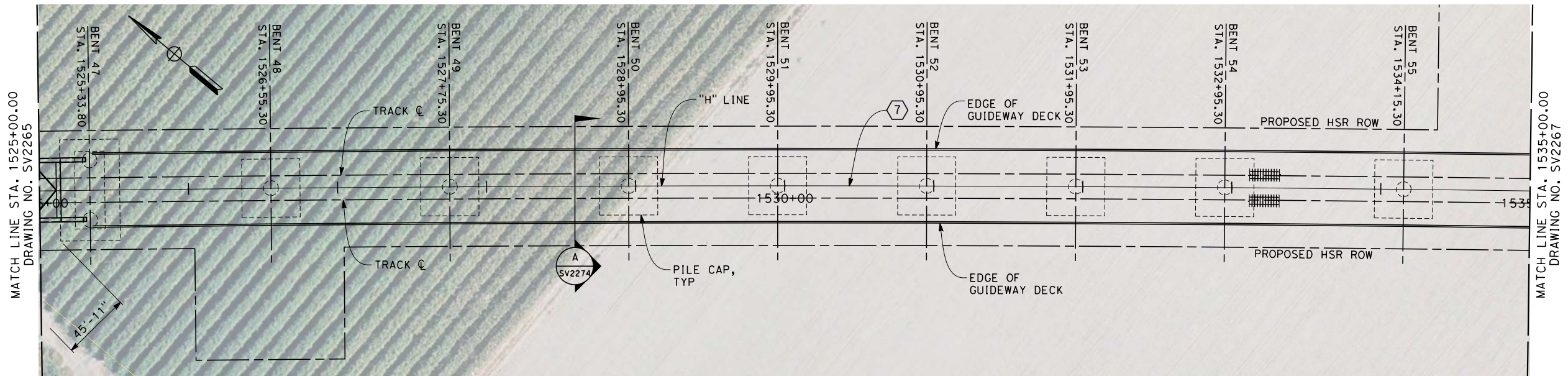
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2265
SCALE AS SHOWN
SHEET NO. 8 OF 18

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ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

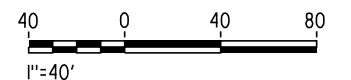
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
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LEGEND:

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

CURVE DATA

- ⑦
- R = 36500.00'
- Δ = 58° 05' 38.8"
- T = 20271.5'
- L = 37008.6'



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

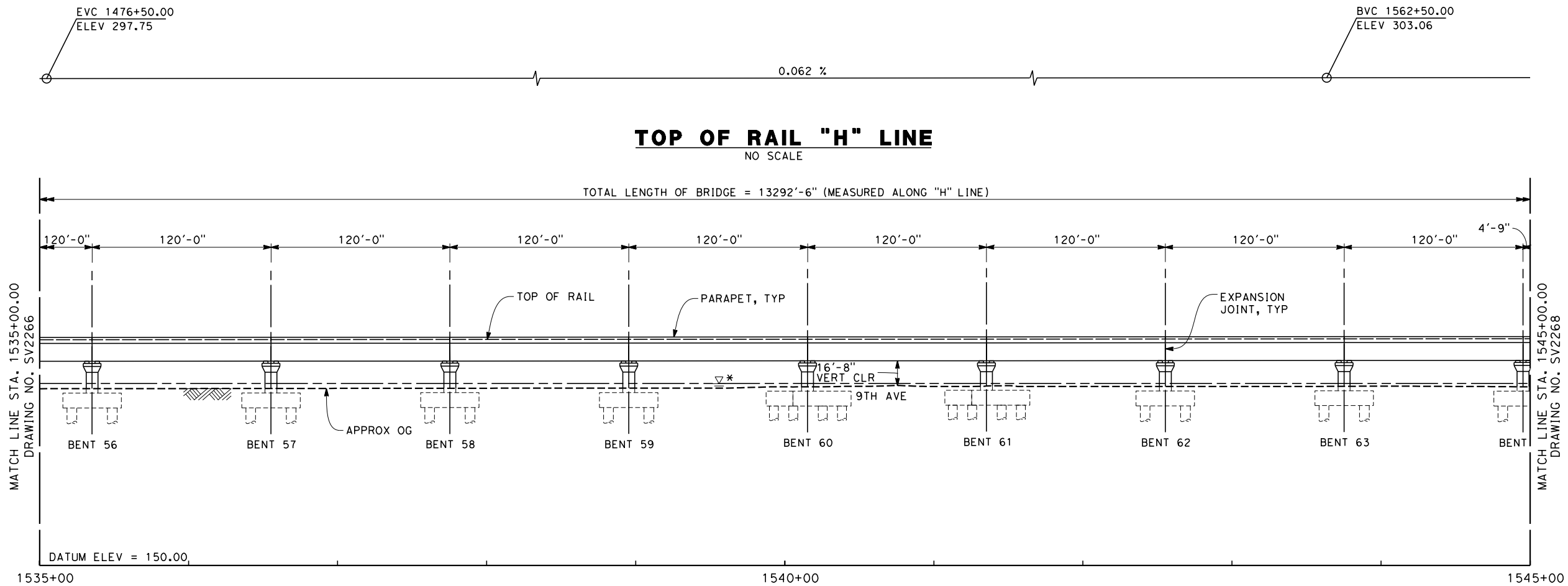
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NOT FOR CONSTRUCTION



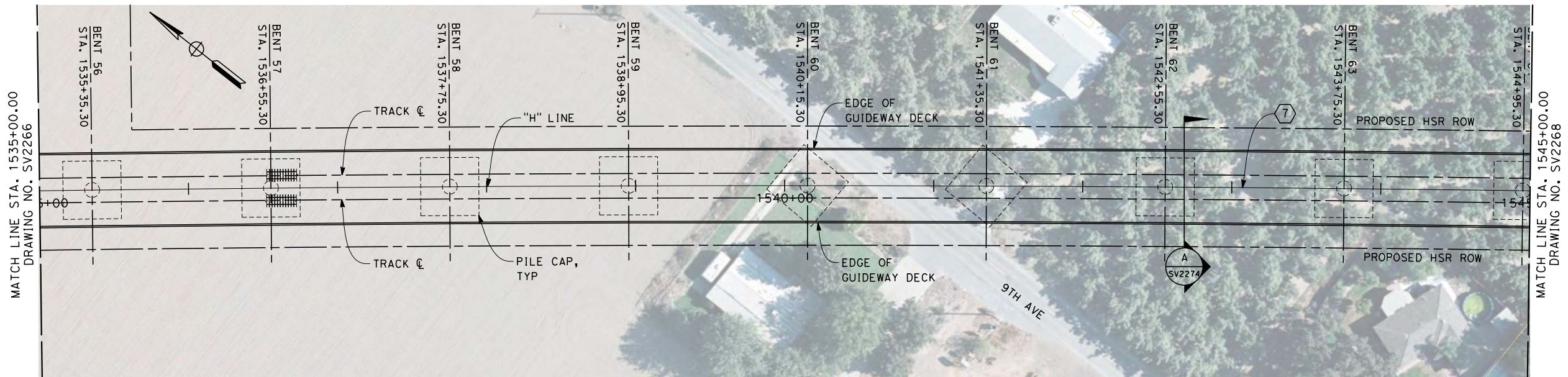
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD SUBSECTION ALIGNMENT H KINGS RIVER VIADUCT PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2266
SCALE AS SHOWN
SHEET NO. 9 OF 18

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ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

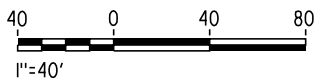
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
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LEGEND:

- 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

- ⑦
- R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



REV	DATE	BY	CHK	APP	DESCRIPTION

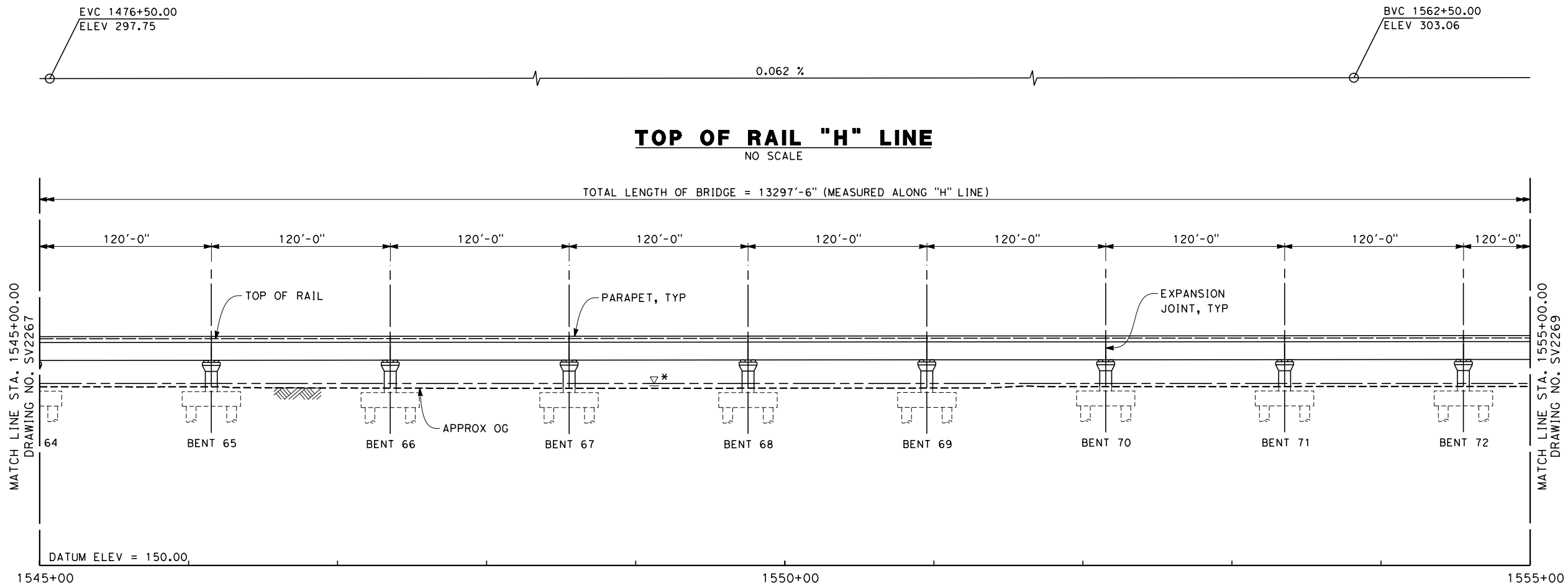
DESIGNED BY M. FISHER
DRAWN BY F. PALERMO
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD SUBSECTION ALIGNMENT H KINGS RIVER VIADUCT PLAN AND ELEVATION	CONTRACT NO. HSR 06-0003
	DRAWING NO. SV2267
	SCALE AS SHOWN
	SHEET NO. 10 OF 18

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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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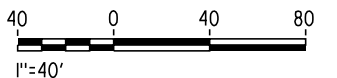
LEGEND:

- 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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

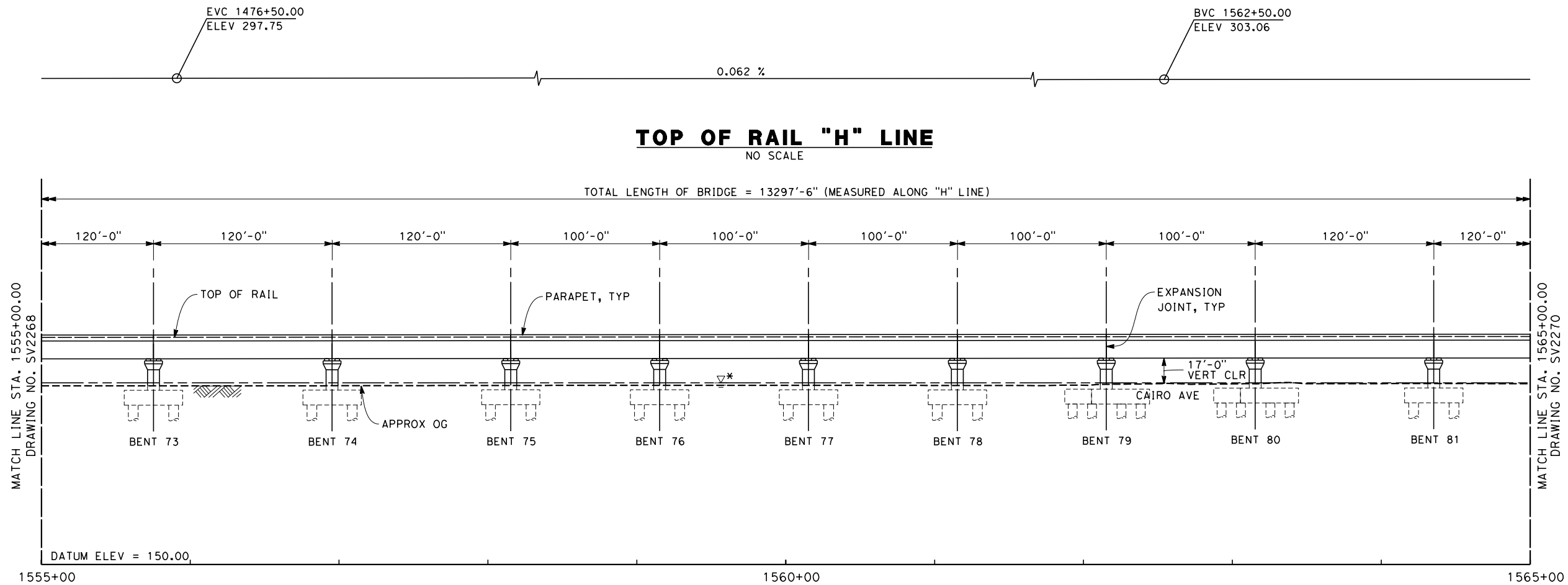


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

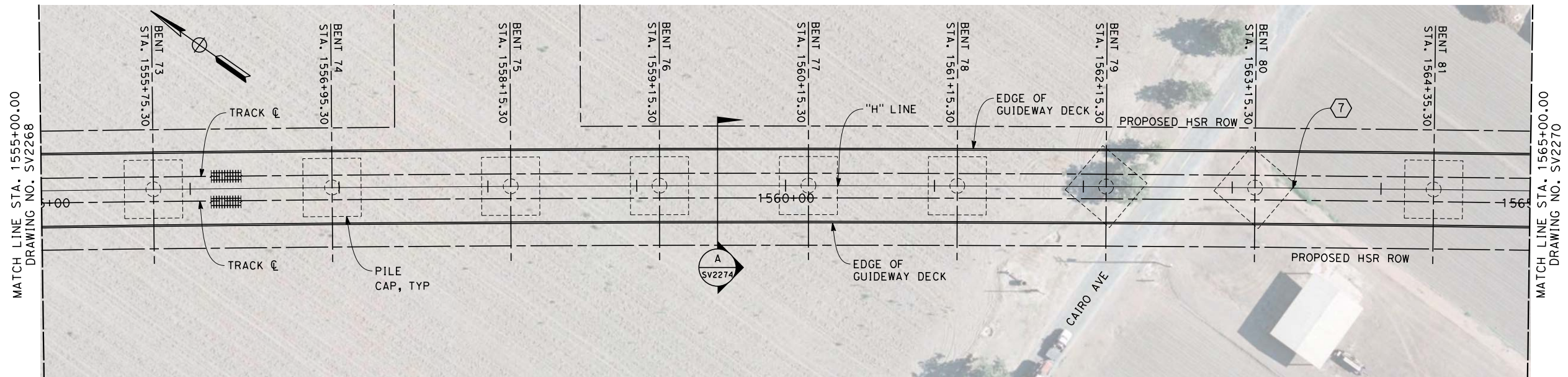
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2268
SCALE AS SHOWN
SHEET NO. 11 OF 18

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ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

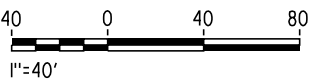
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
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LEGEND:

- 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

⑦
R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



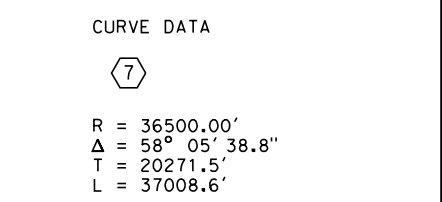
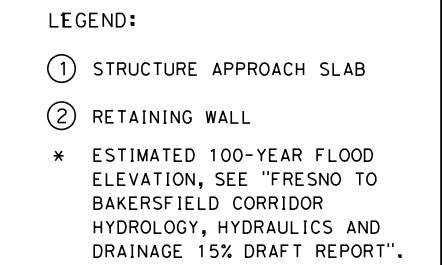
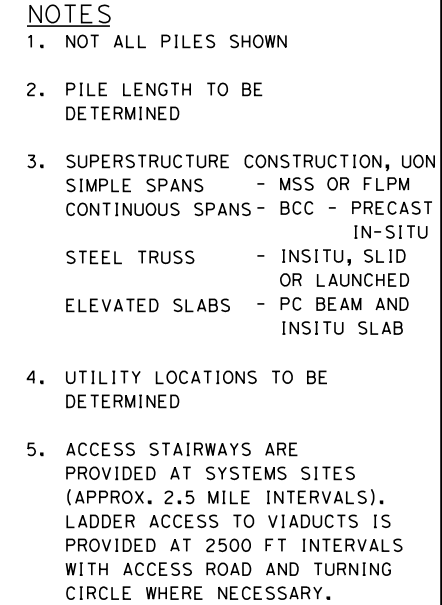
REV	DATE	BY	CHK	APP	DESCRIPTION

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

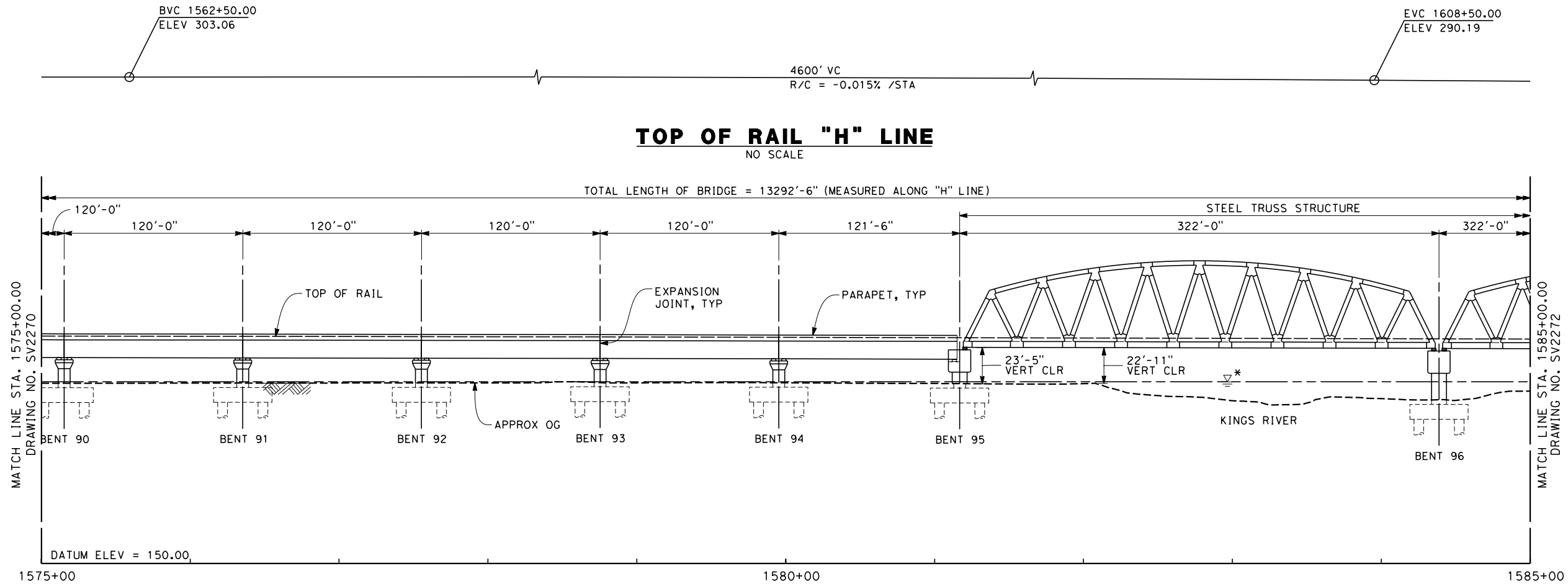
RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



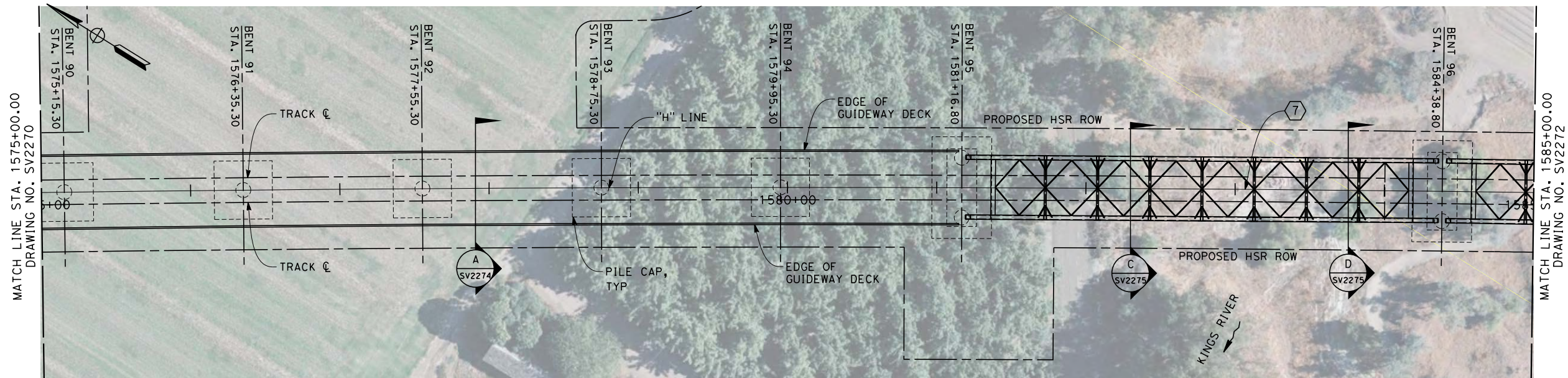
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD SUBSECTION ALIGNMENT H KINGS RIVER VIADUCT PLAN AND ELEVATION	CONTRACT NO. HSR 06-0003
	DRAWING NO. SV2269
	SCALE AS SHOWN
	SHEET NO. 12 OF 18

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ELEVATION
SCALE 1" = 40'



PLAN
SCALE 1" = 40'

NOTES

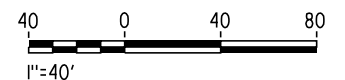
1. NOT ALL PILES SHOWN
2. PILE LENGTH TO BE DETERMINED
3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
4. UTILITY LOCATIONS TO BE DETERMINED
5. ACCESS STAIRWAYS ARE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

⑦
R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'



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**

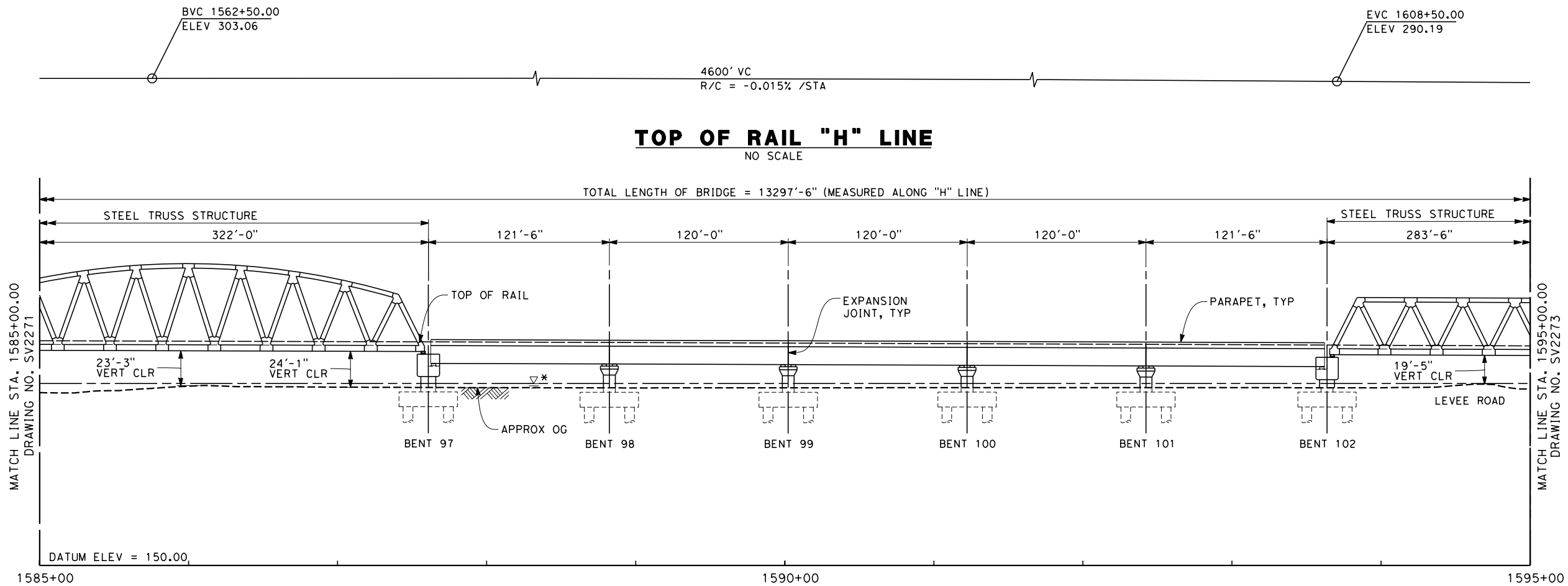


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

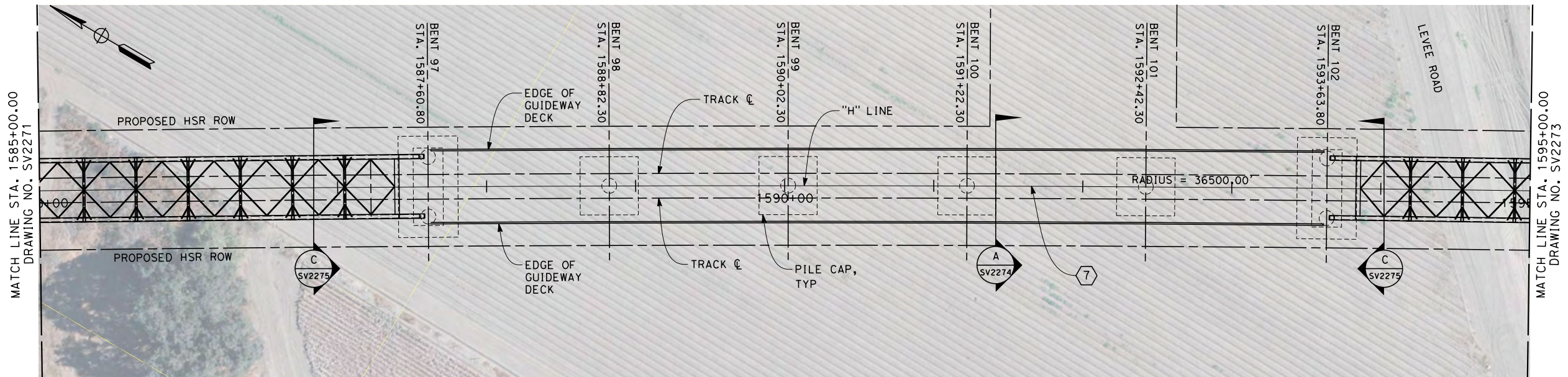
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2271
SCALE AS SHOWN
SHEET NO. 14 OF 18

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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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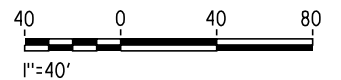
LEGEND:

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

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**

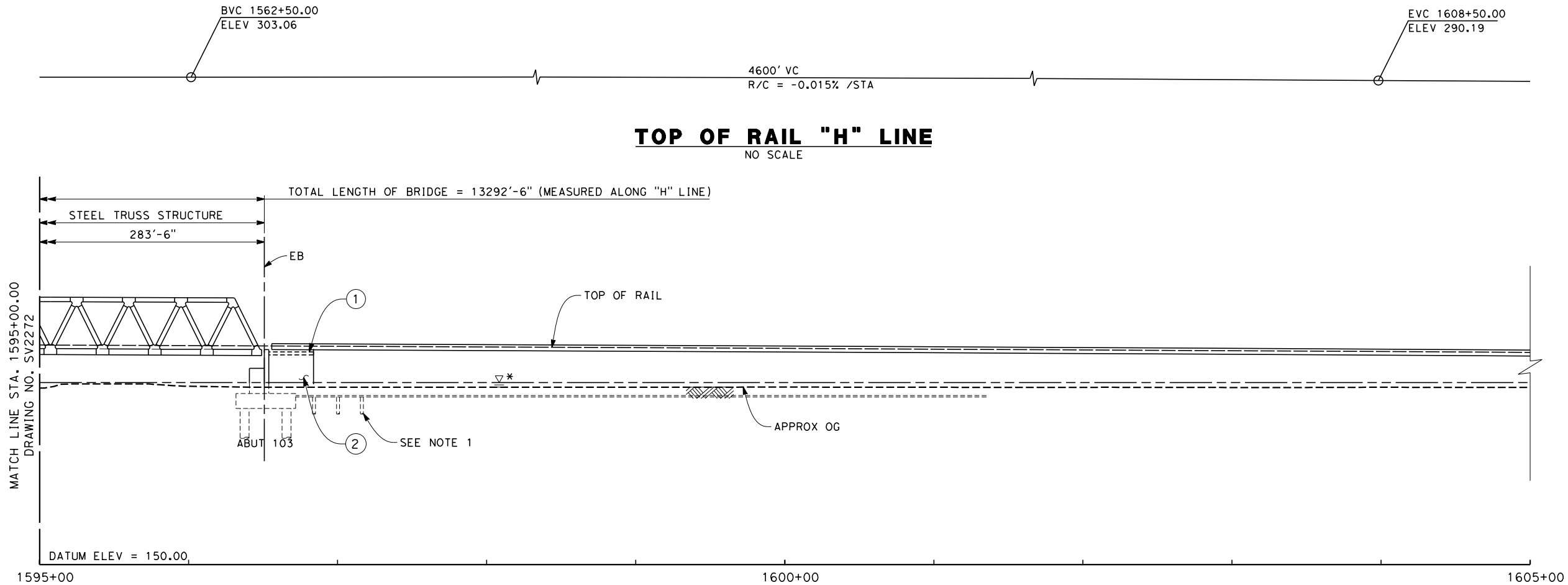


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

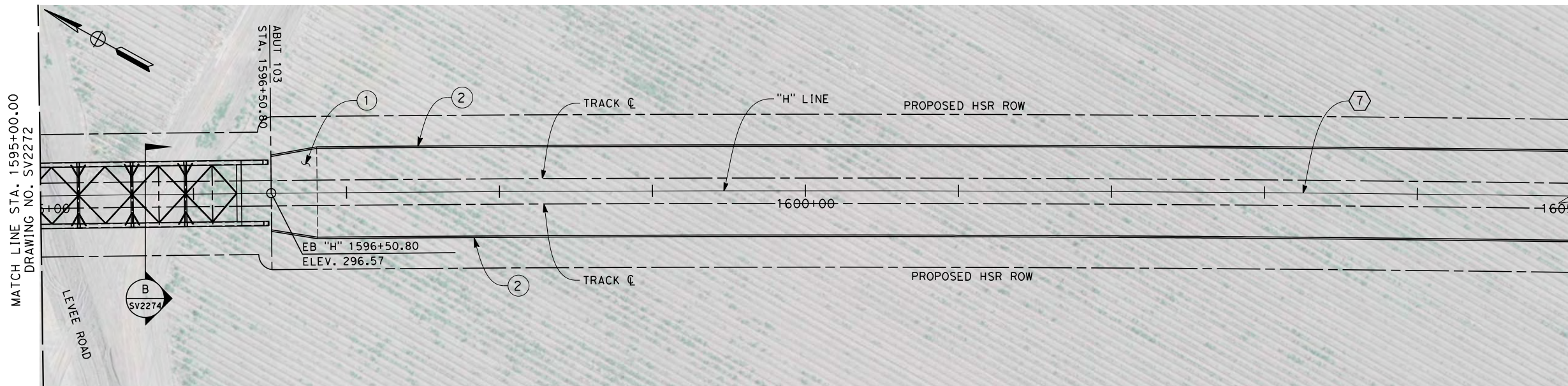
HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2272
SCALE AS SHOWN
SHEET NO. 15 OF 18

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frank.palermo



- 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

⑦

R = 36500.00'
Δ = 58° 05' 38.8"
T = 20271.5'
L = 37008.6'

PLAN
SCALE 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**

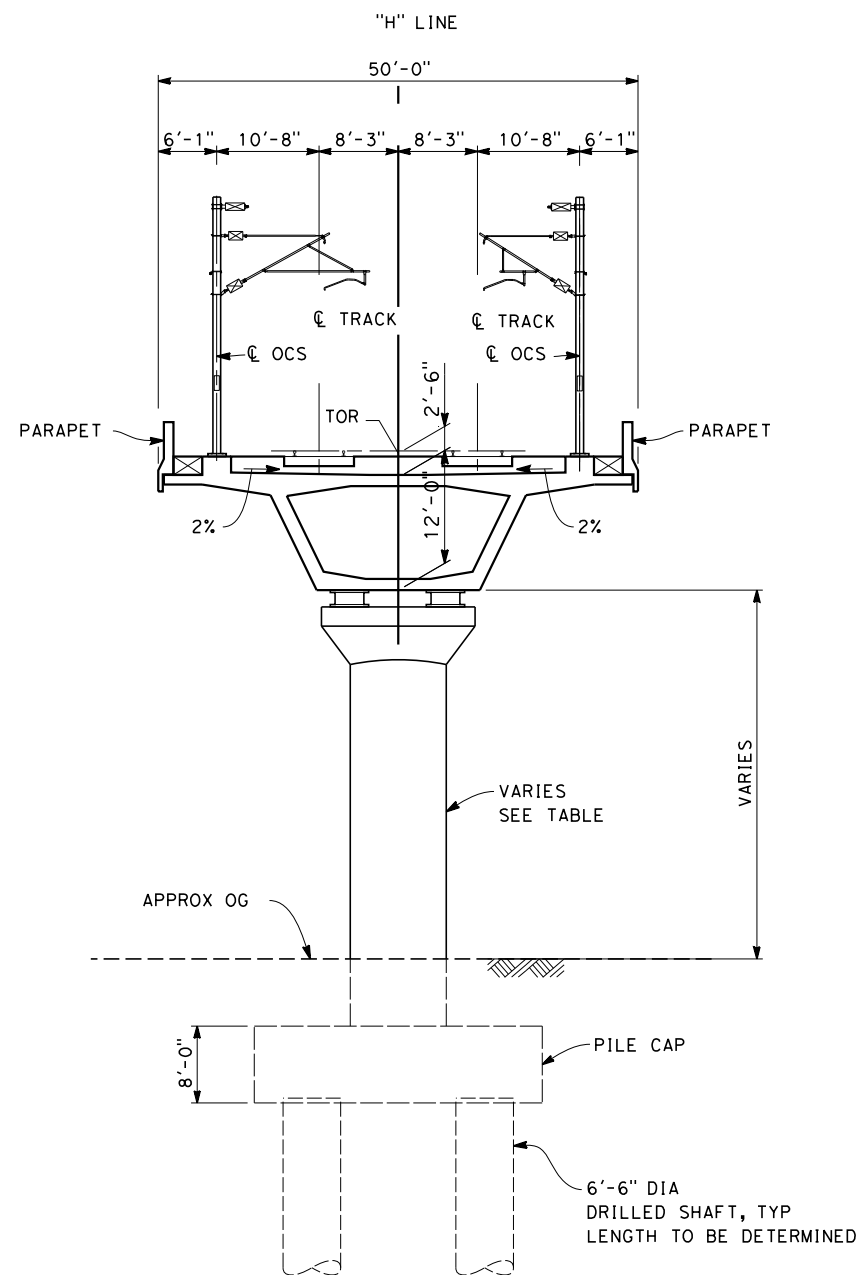


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2273
SCALE AS SHOWN
SHEET NO. 16 OF 18

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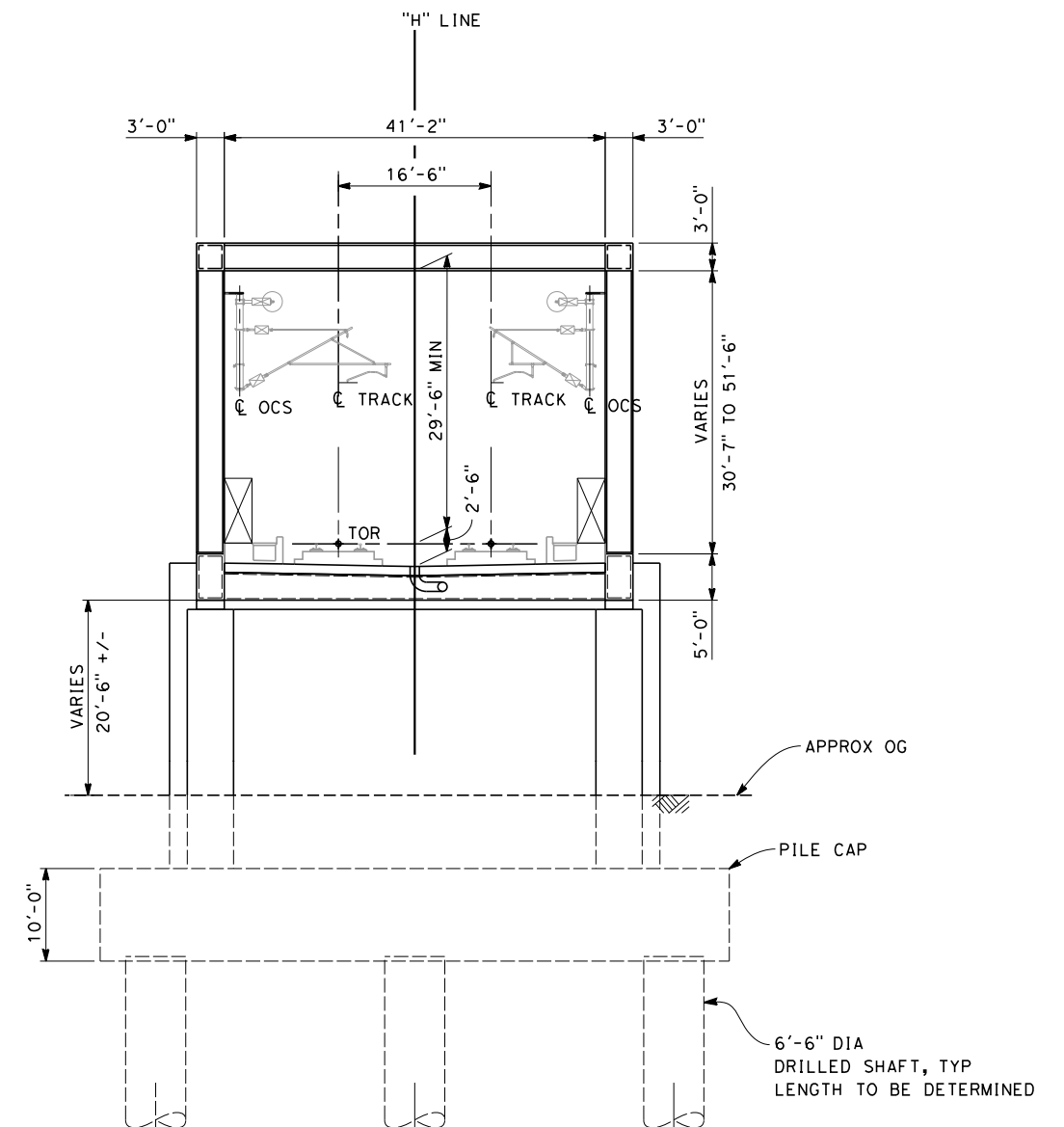


SECTION A

SCALE: 1" = 10'

STA 1468+18 THROUGH 1485+70
STA 1489+27 THROUGH 1518+30
STA 1525+44 THROUGH 1580+87
STA 1587+31 THROUGH 1593+34

COLUMN DIAMETERS	
COLUMN HEIGHT	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 B

SCALE: 1" = 10'

STA 1463+48 (BENT 2)
STA 1466+96 (BENT 3)
STA 1596+52 (ABUT 90)



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

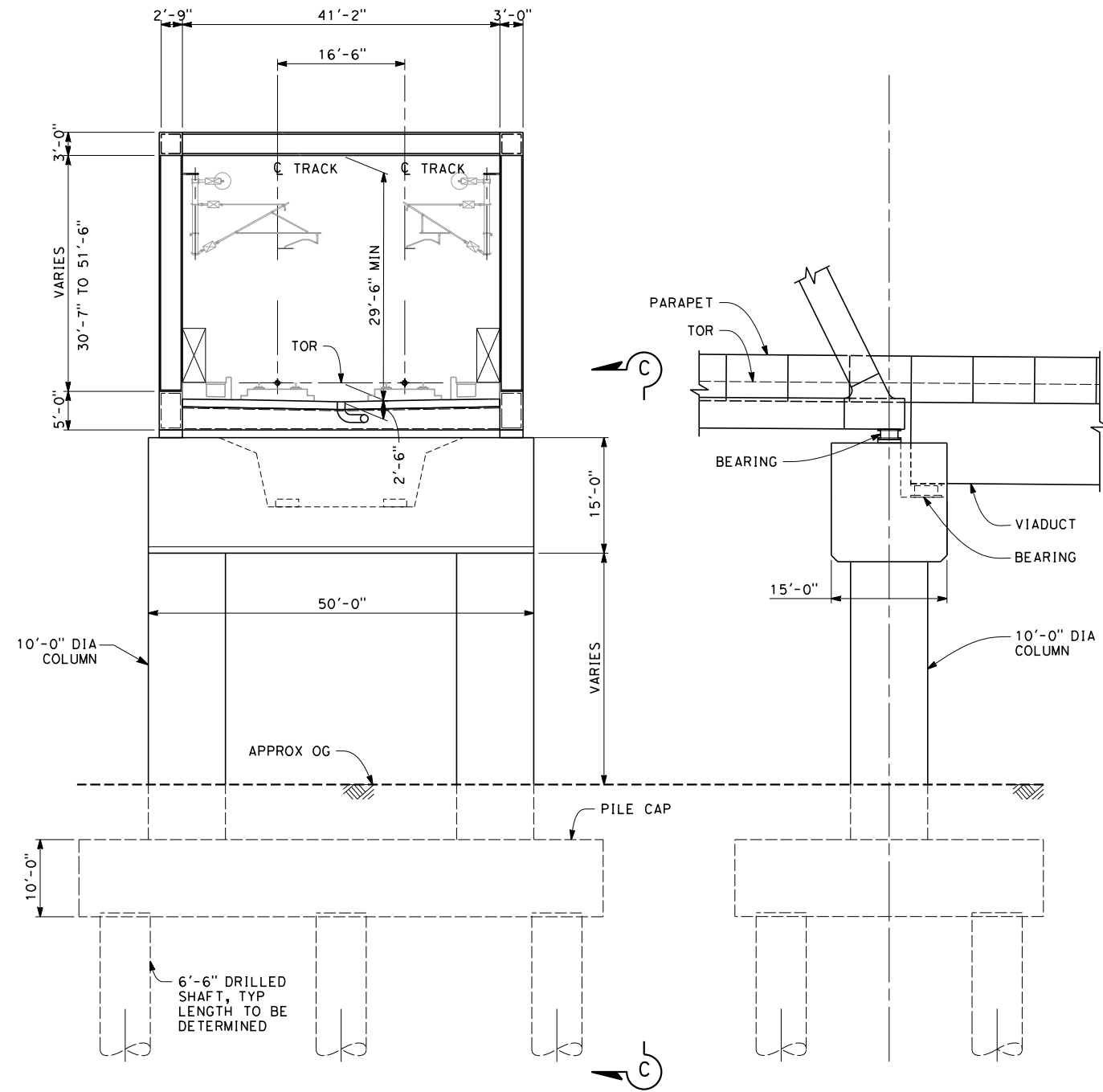
RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD SUBSECTION ALIGNMENT H KINGS RIVER VIADUCT TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2274
SCALE AS SHOWN
SHEET NO. 17 OF 18

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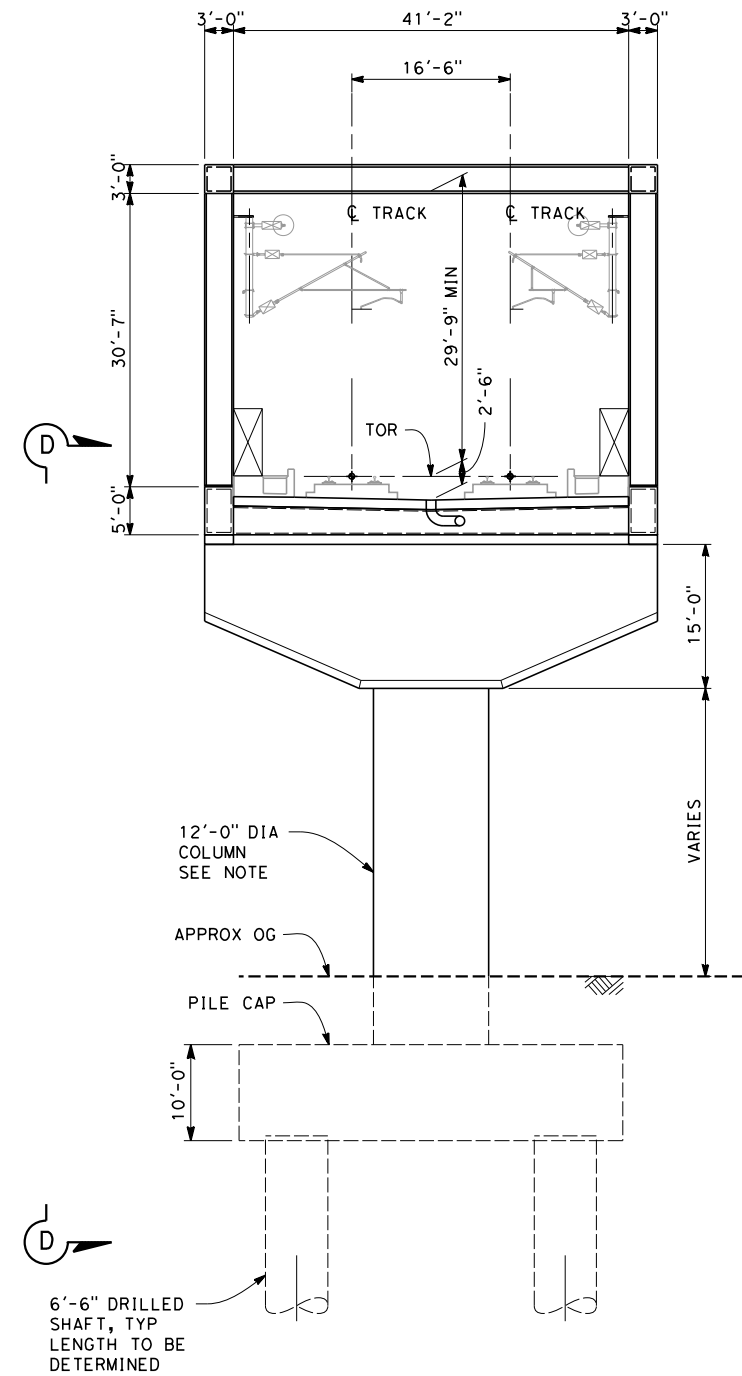


SECTION C

SCALE: 1" = 10'

STA 1485+70 THROUGH 1489+27
STA 1518+30 THROUGH 1525+44
STA 1580+97 THROUGH 1587+31
STA 1593+34 THROUGH 1596+52

SECTION C-C



SECTION D

SCALE: 1" = 10'

STA 1521+87 (BENT 33)
STA 1584+09 (BENT 83)



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**

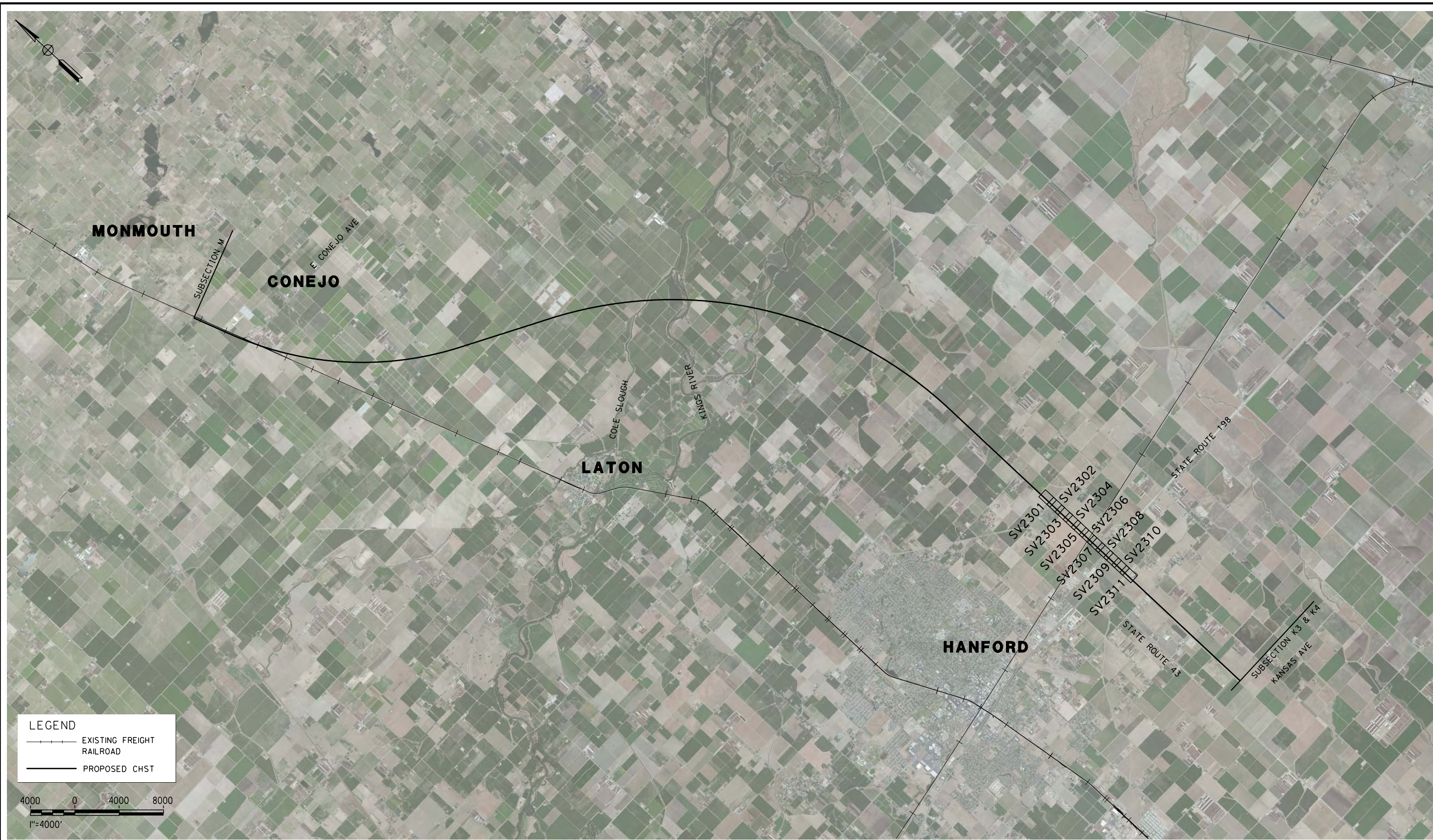


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
KINGS RIVER VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2275
SCALE AS SHOWN
SHEET NO. 18 OF 18

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LEGEND

EXISTING FREIGHT RAILROAD

PROPOSED CHST



REV	DATE	BY	CHK	APP	DESCRIPTION

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

RECORD SET 15%
DESIGN SUBMISSION

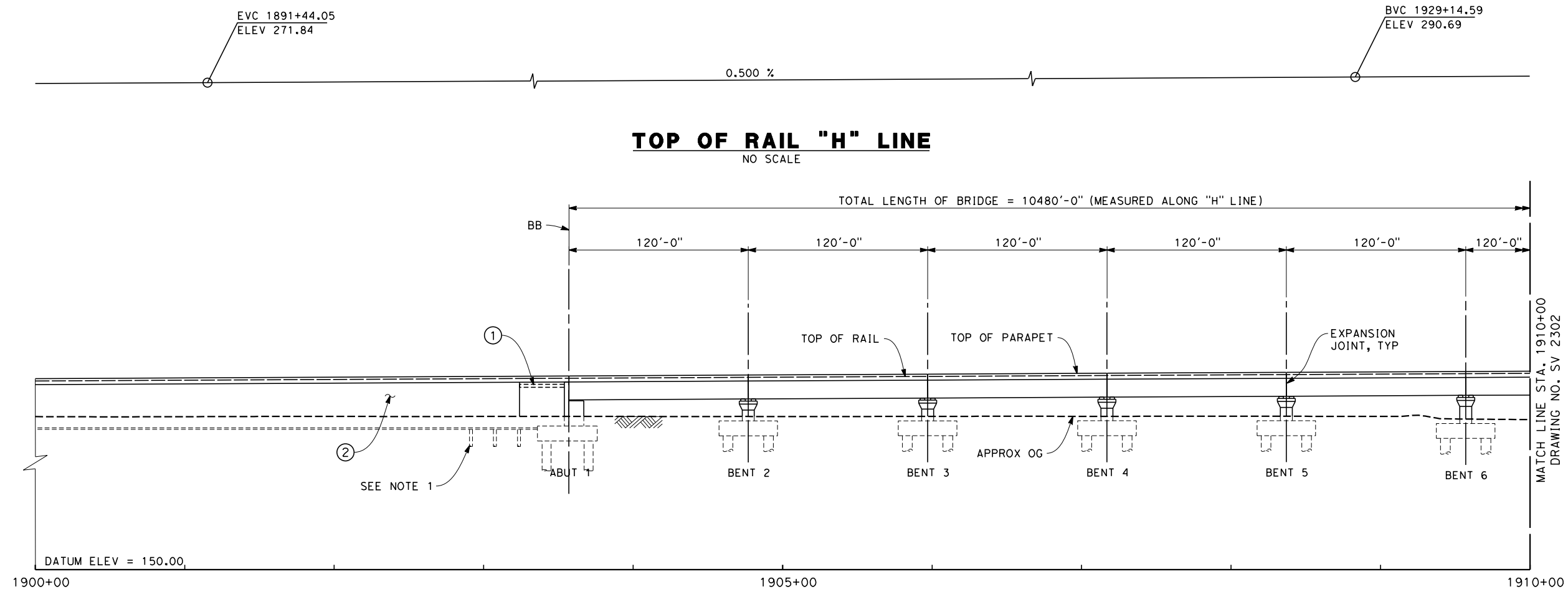
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CONSTRUCTION



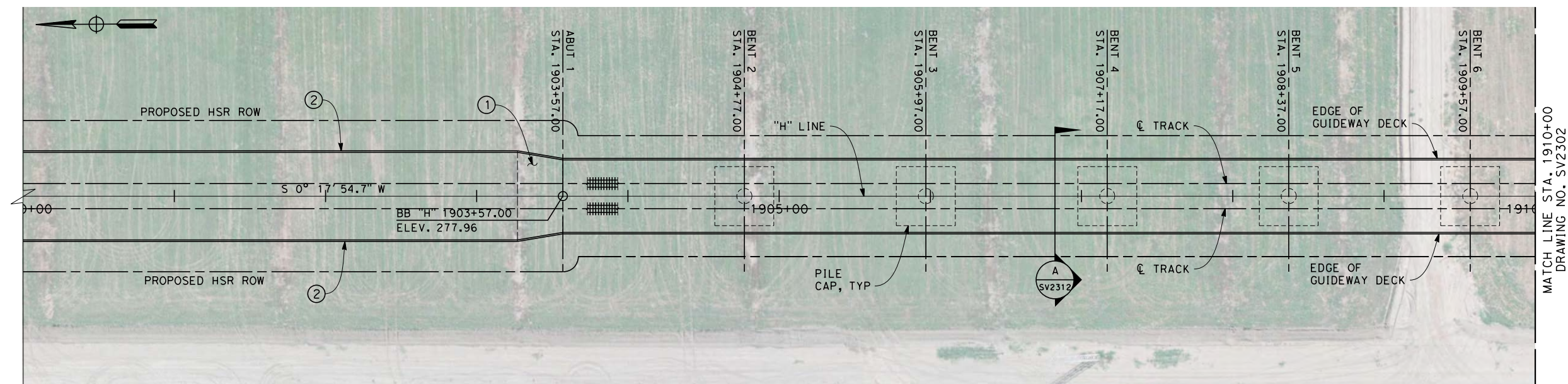
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2300
SCALE AS SHOWN
SHEET NO. 1 OF 14



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".



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

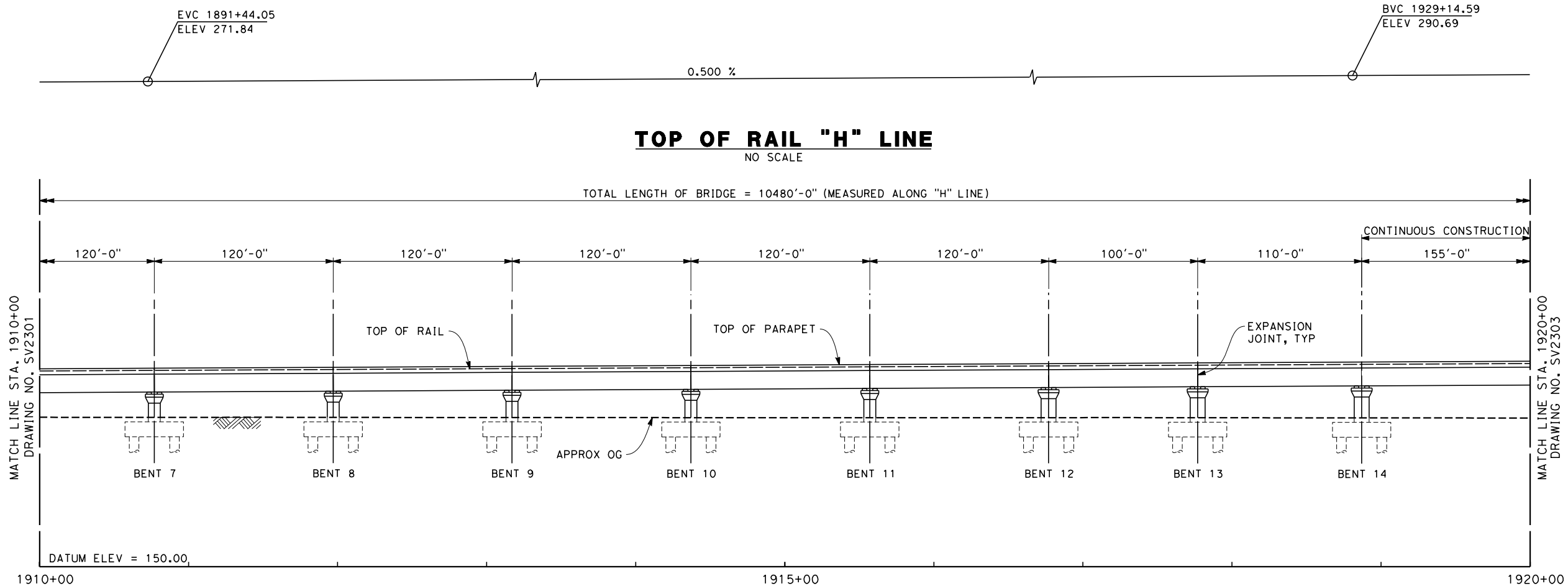
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DESIGN SUBMISSION
-
NOT FOR
CONSTRUCTION**



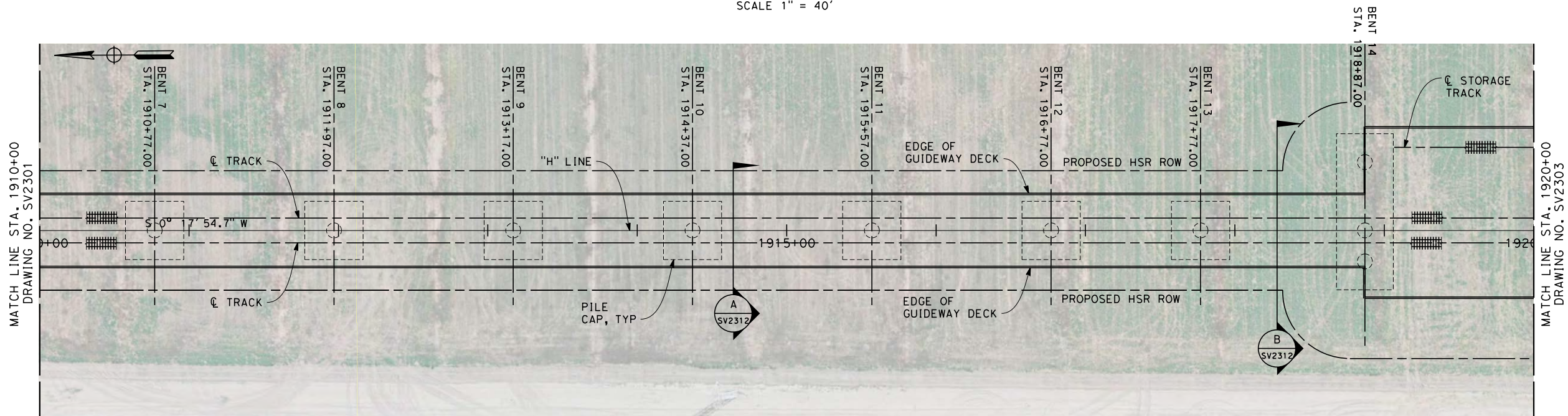
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV2301
SCALE	AS SHOWN
SHEET NO.	2 OF 14

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ELEVATION
SCALE 1" = 40'



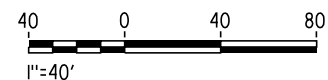
PLAN
SCALE 1" = 40'

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".



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**

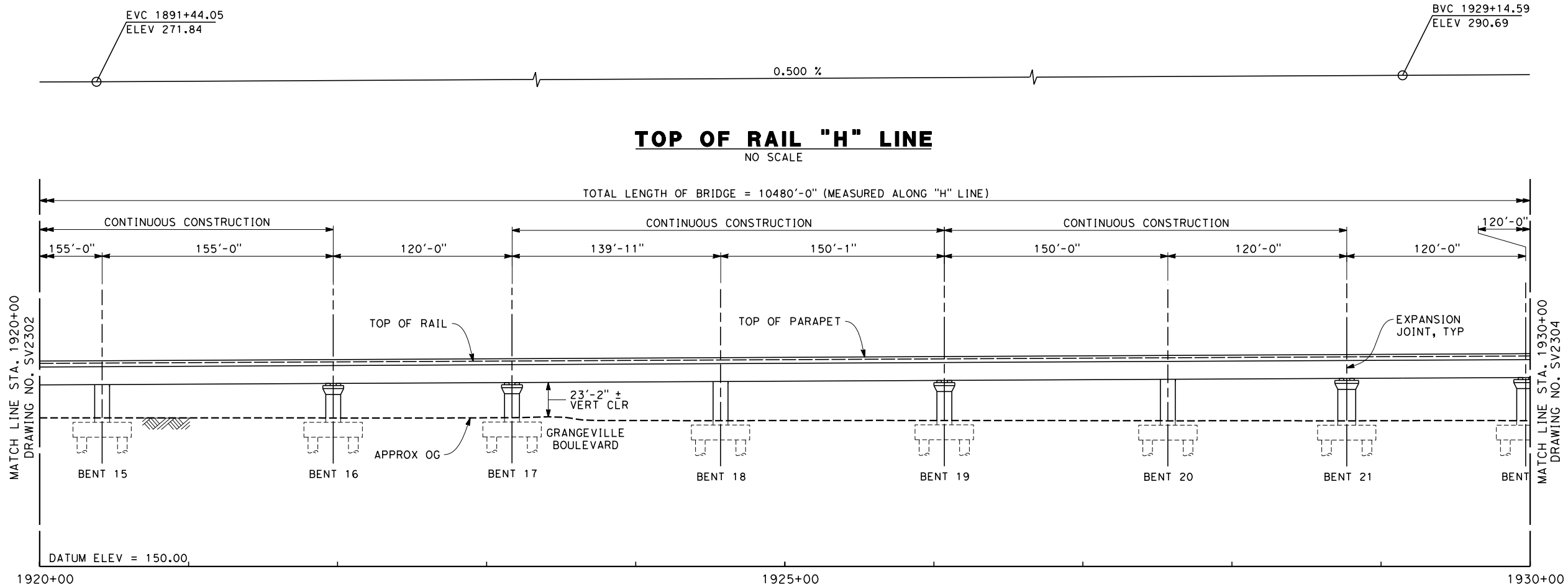


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

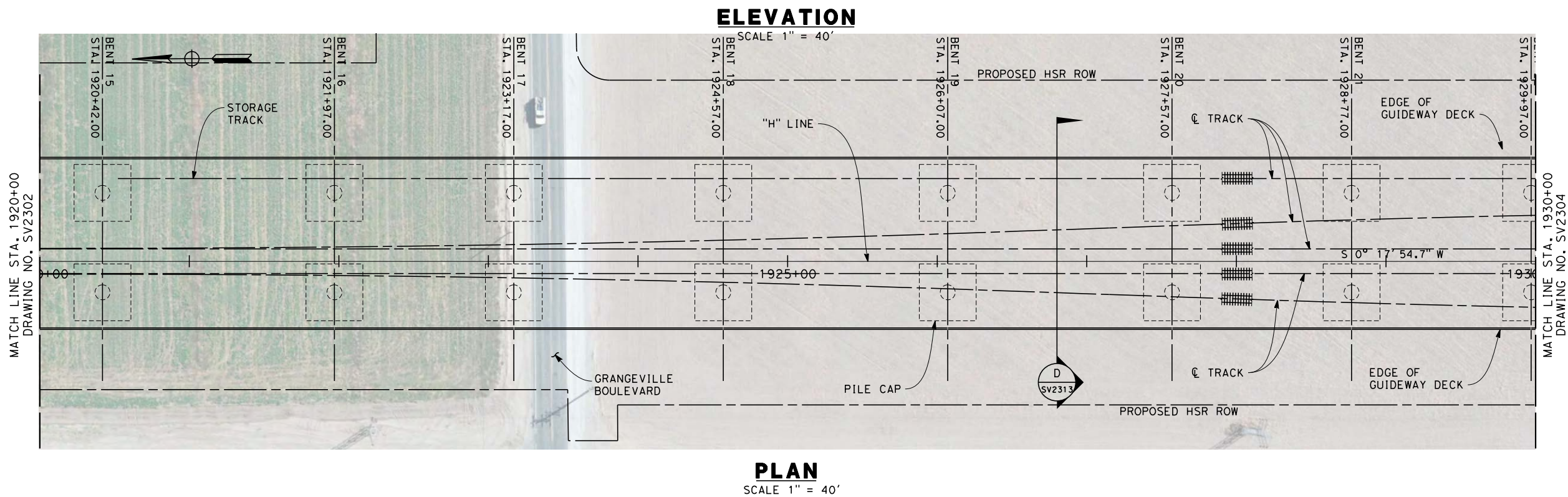
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2302
SCALE AS SHOWN
SHEET NO. 3 OF 14

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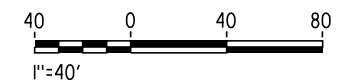
NOTES

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**

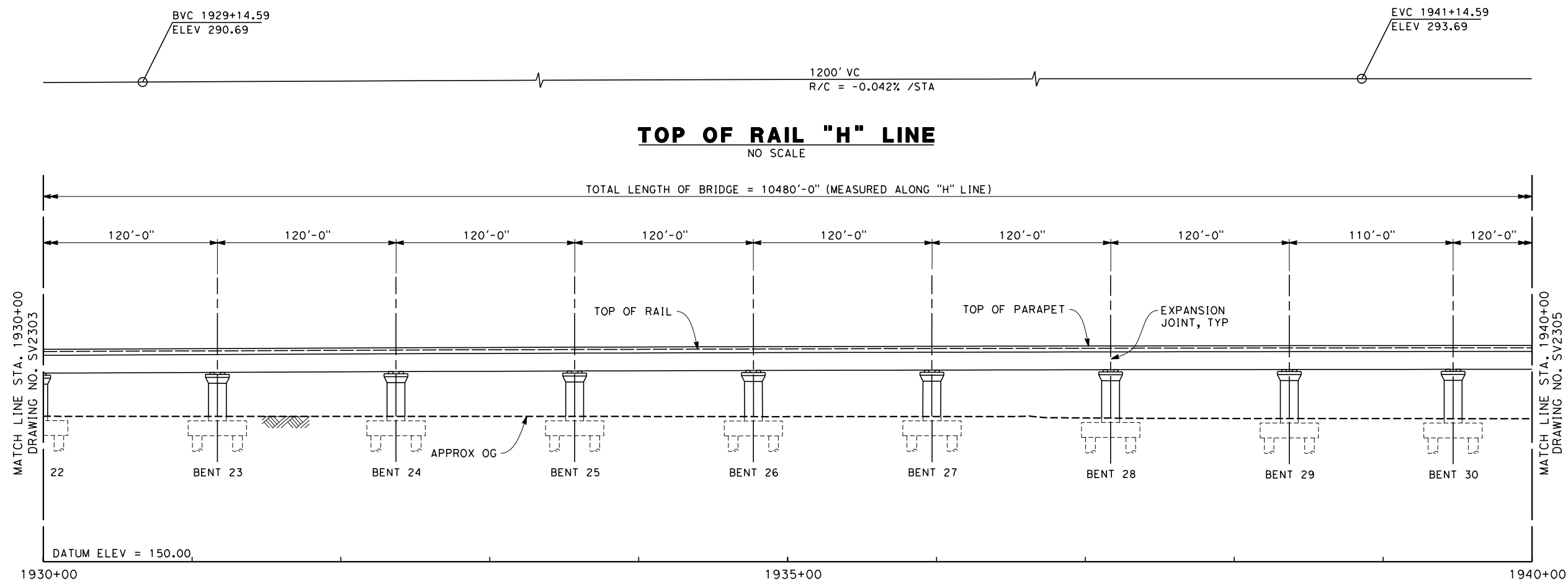
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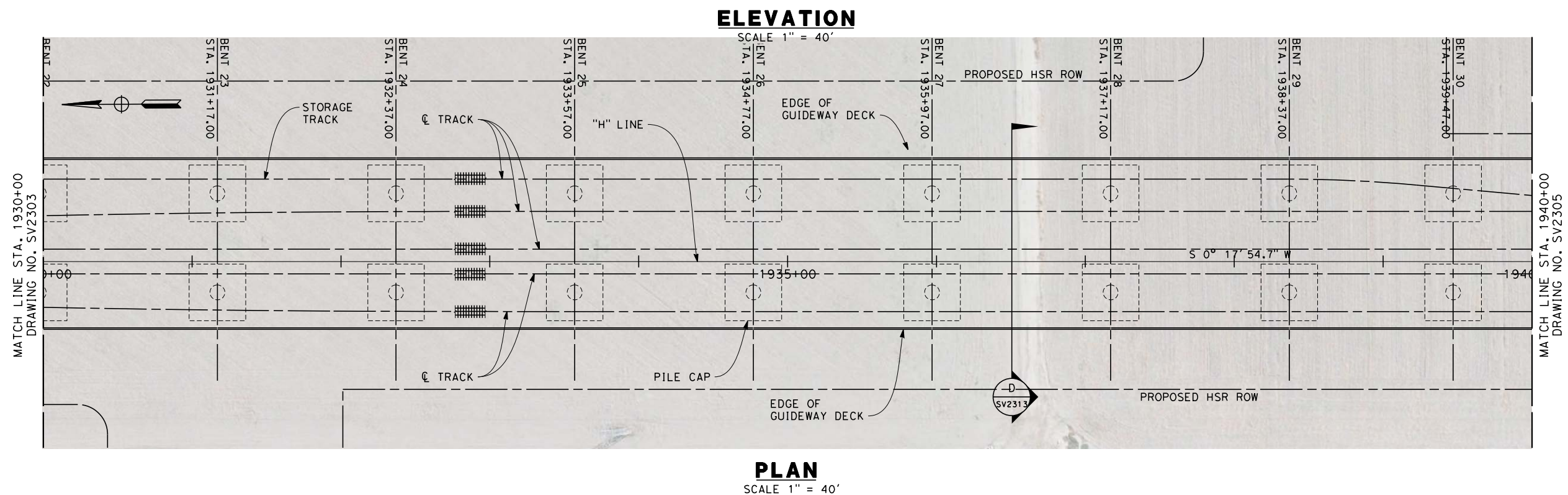
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

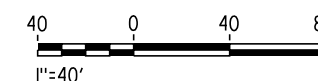
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2303
SCALE AS SHOWN
SHEET NO. 4 OF 14



- ## 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".



12 11 10 9 8 7 6 5 4 3 2 1						
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**

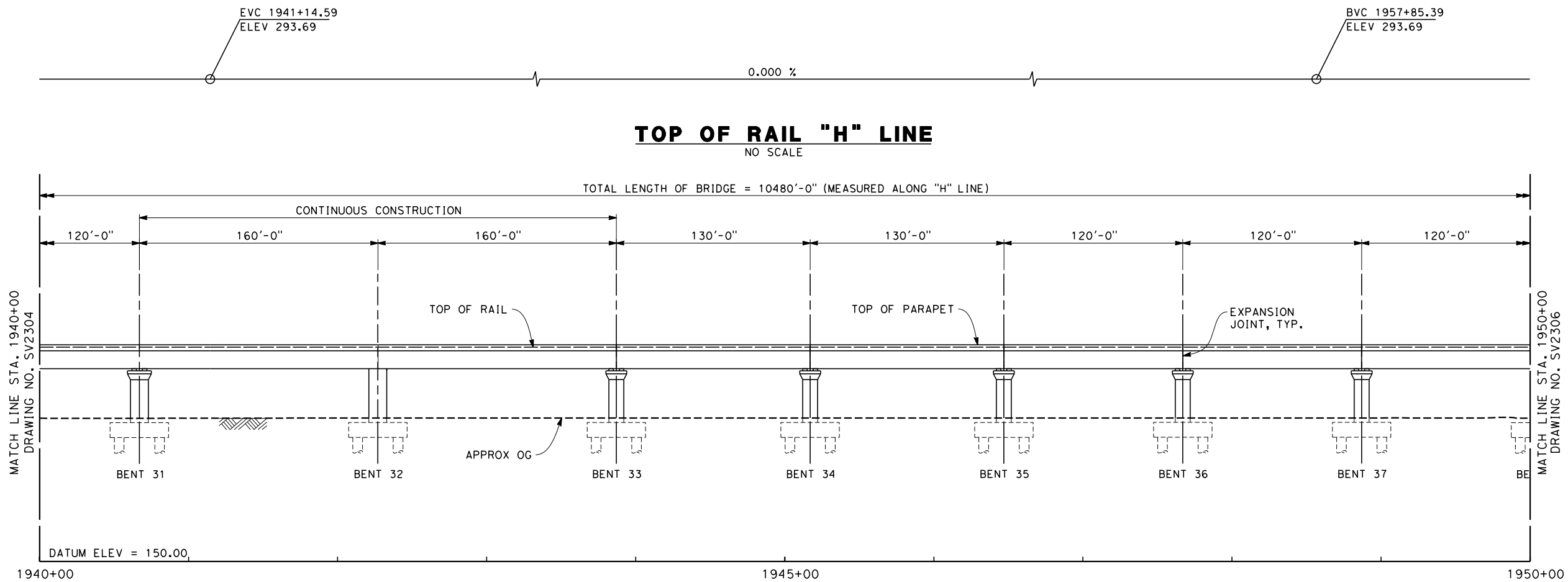


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV2304
SCALE	AS SHOWN
SHEET NO.	5 OF 14

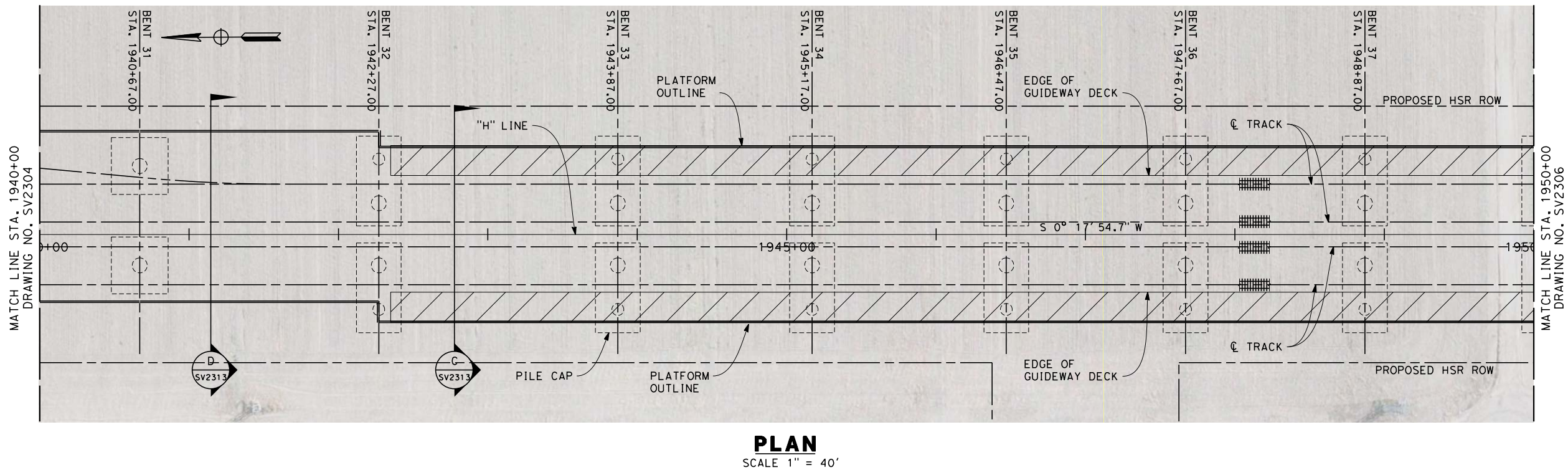
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NOTES

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
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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".



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**

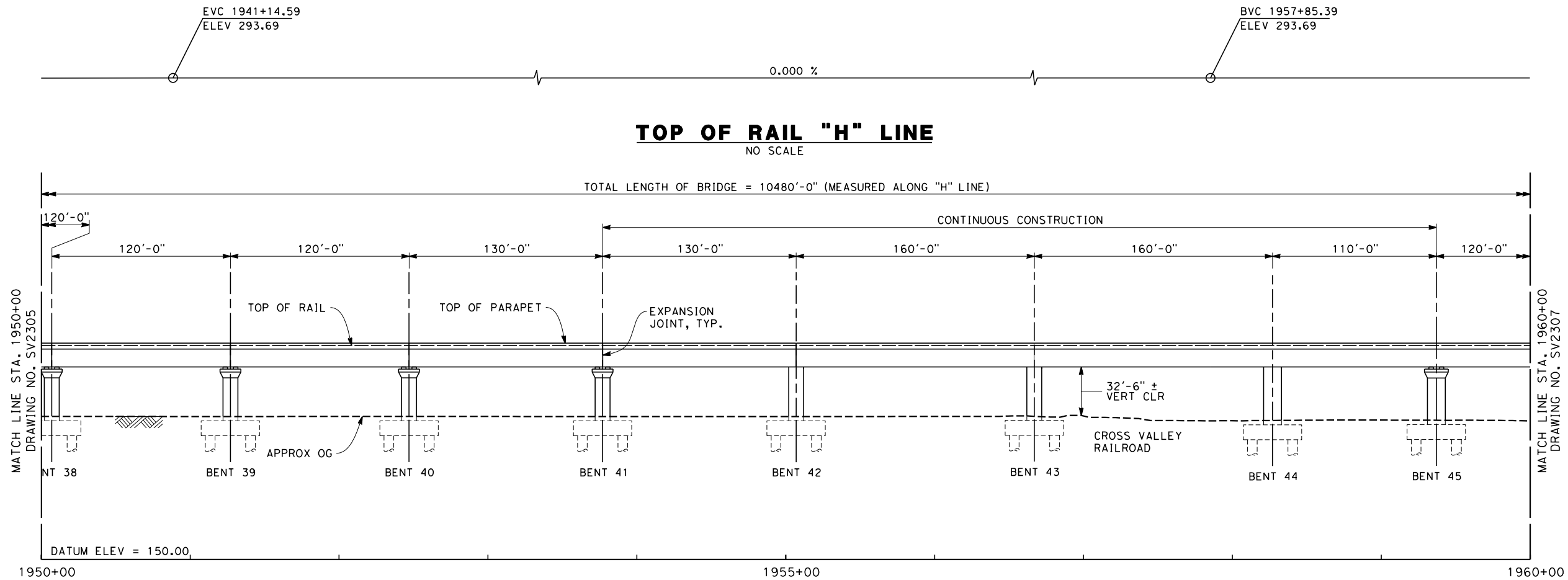


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

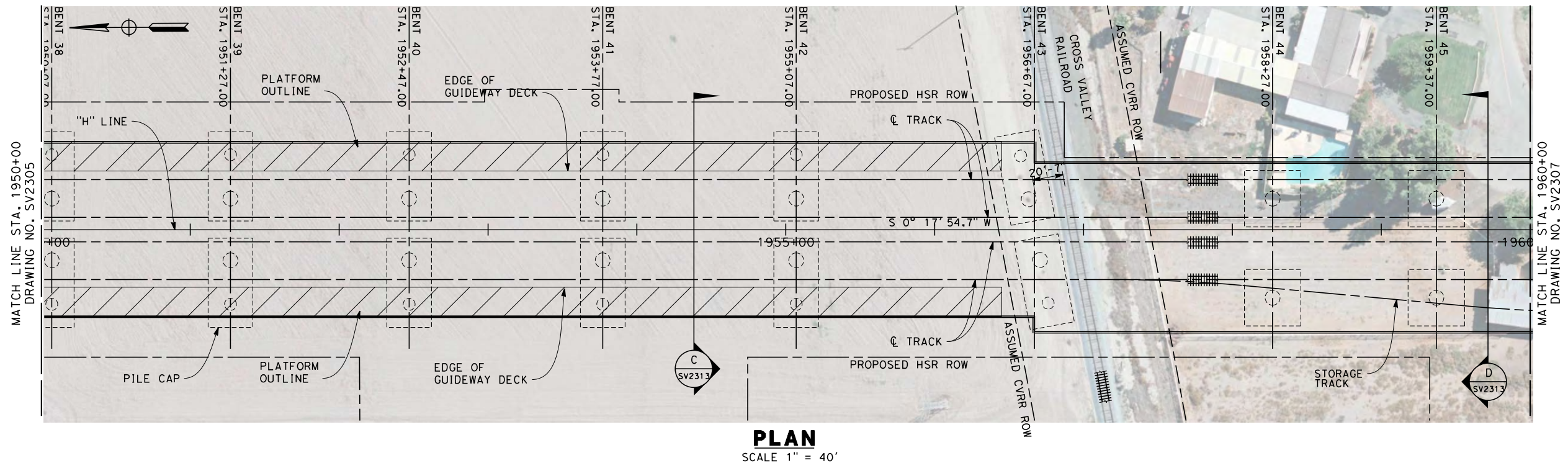
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2305
SCALE AS SHOWN
SHEET NO. 6 OF 14

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ELEVATION
SCALE 1" = 40'

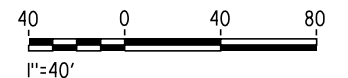


NOTES

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".



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**

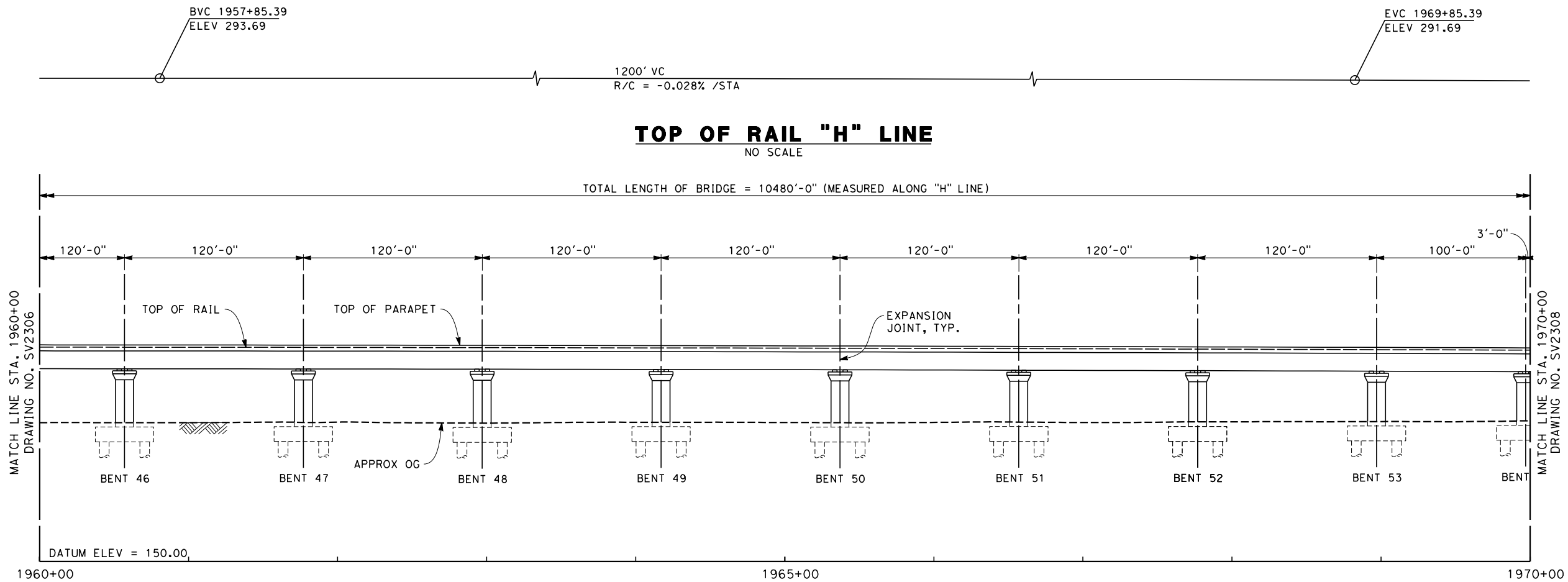


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2306
SCALE AS SHOWN
SHEET NO. 7 OF 14

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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
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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".

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**

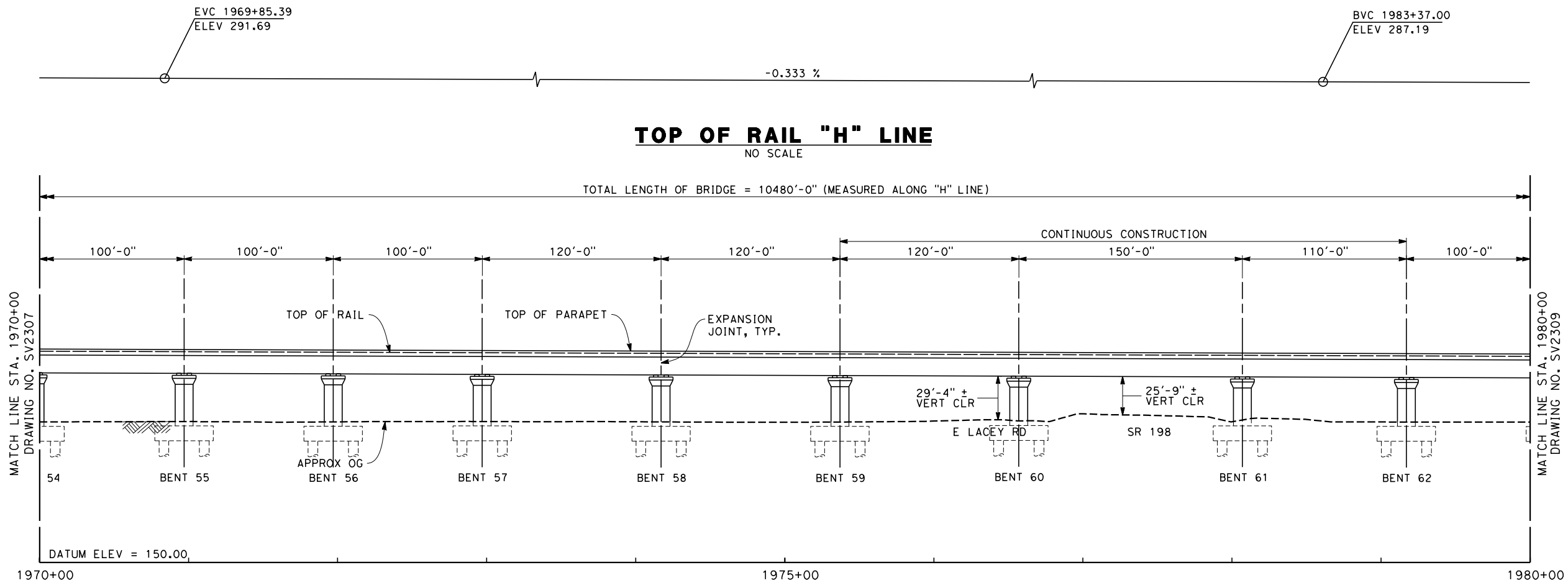


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

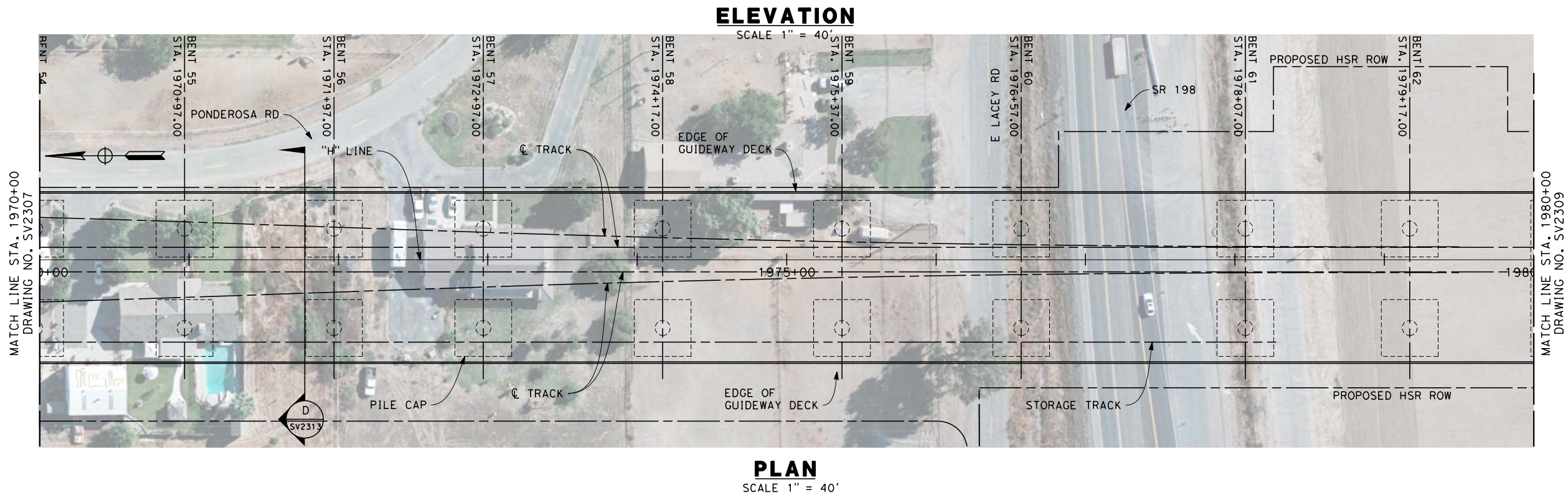
CONTRACT NO. HSR 06-0003
DRAWING NO. SV2307
SCALE AS SHOWN
SHEET NO. 8 OF 14

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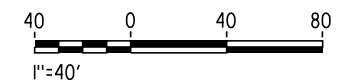
NOTES

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
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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".



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**

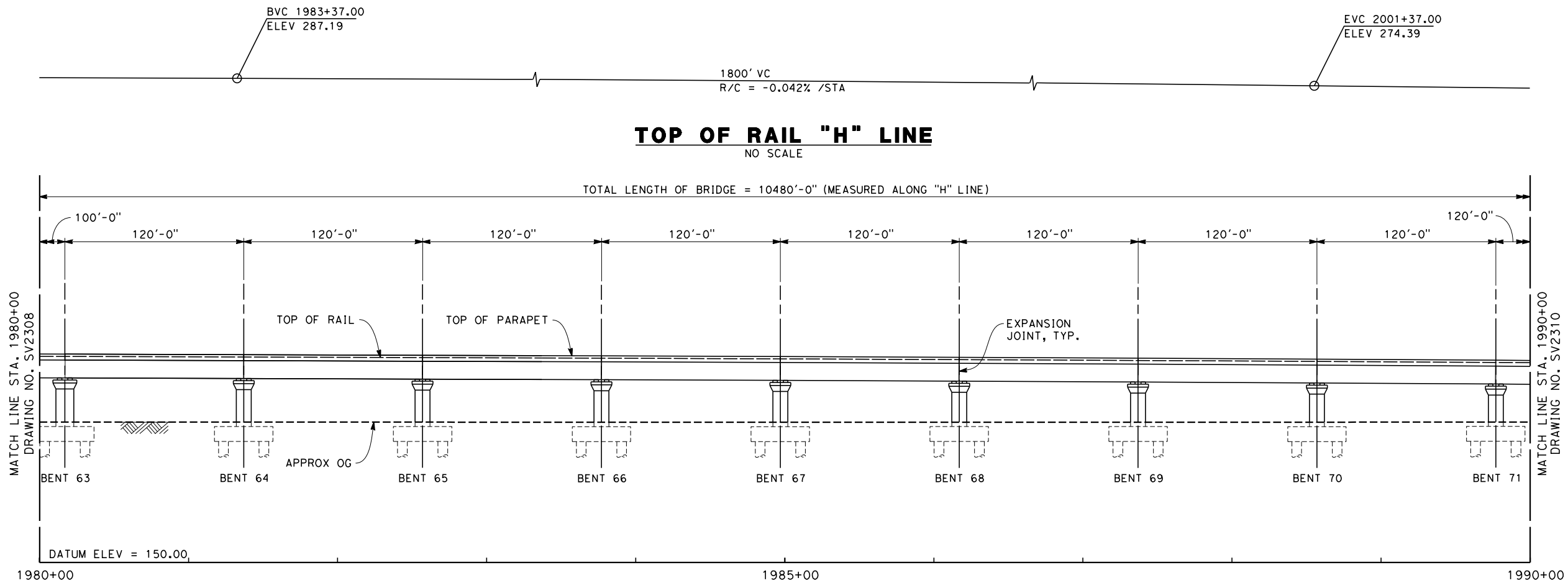


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

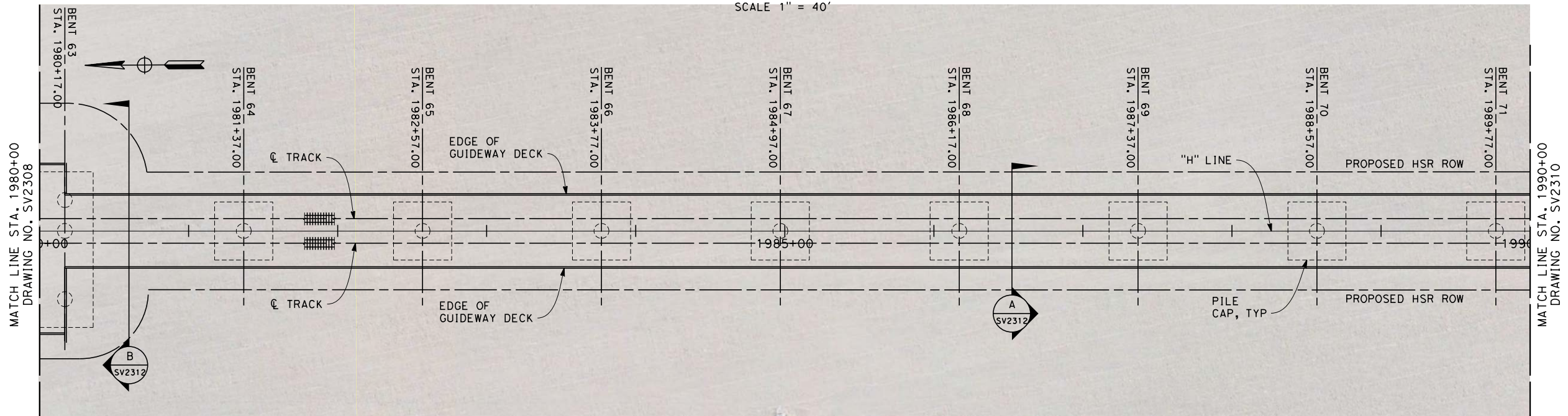
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2308
SCALE AS SHOWN
SHEET NO. 9 OF 14

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ELEVATION
SCALE 1" = 40'



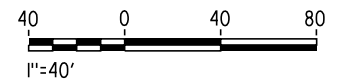
PLAN
SCALE 1" = 40'

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".



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**

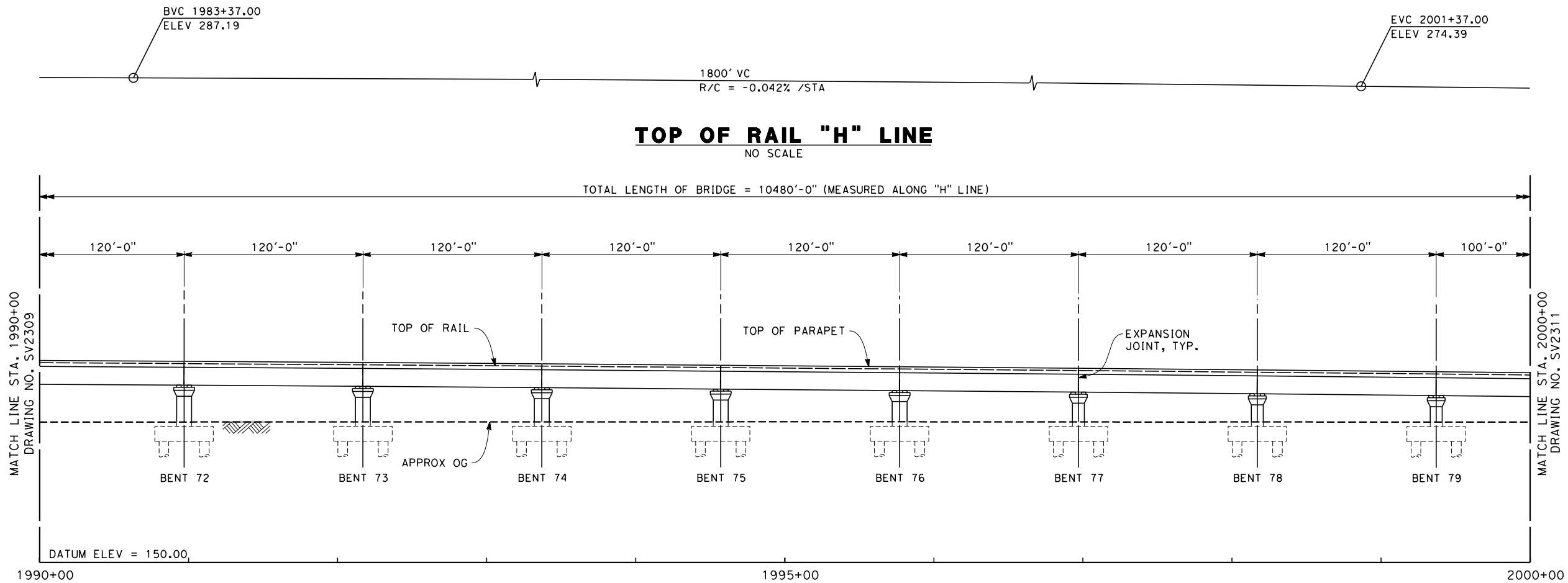


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

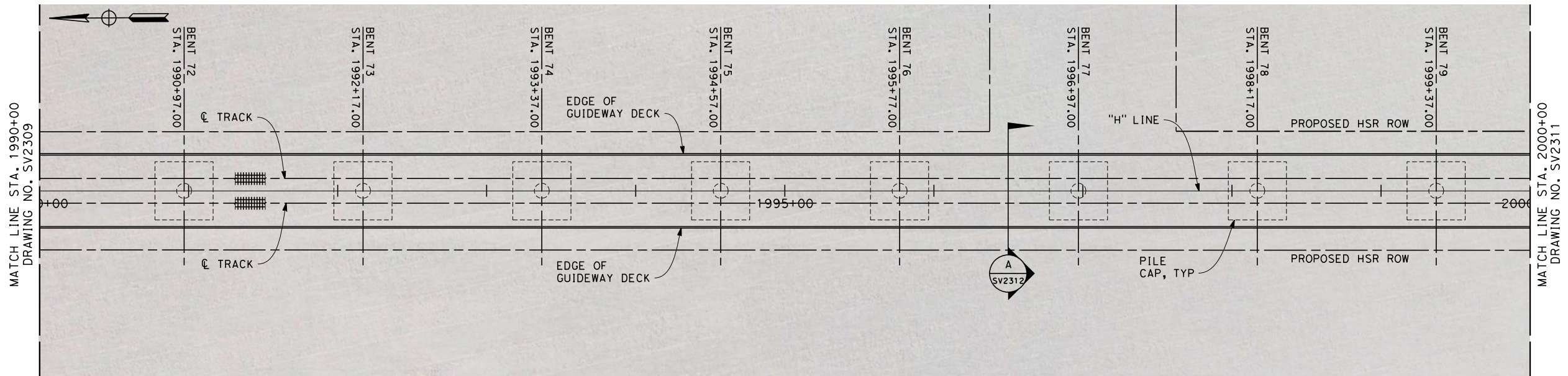
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2309
SCALE AS SHOWN
SHEET NO. 10 OF 14

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frank.palermo



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".



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**

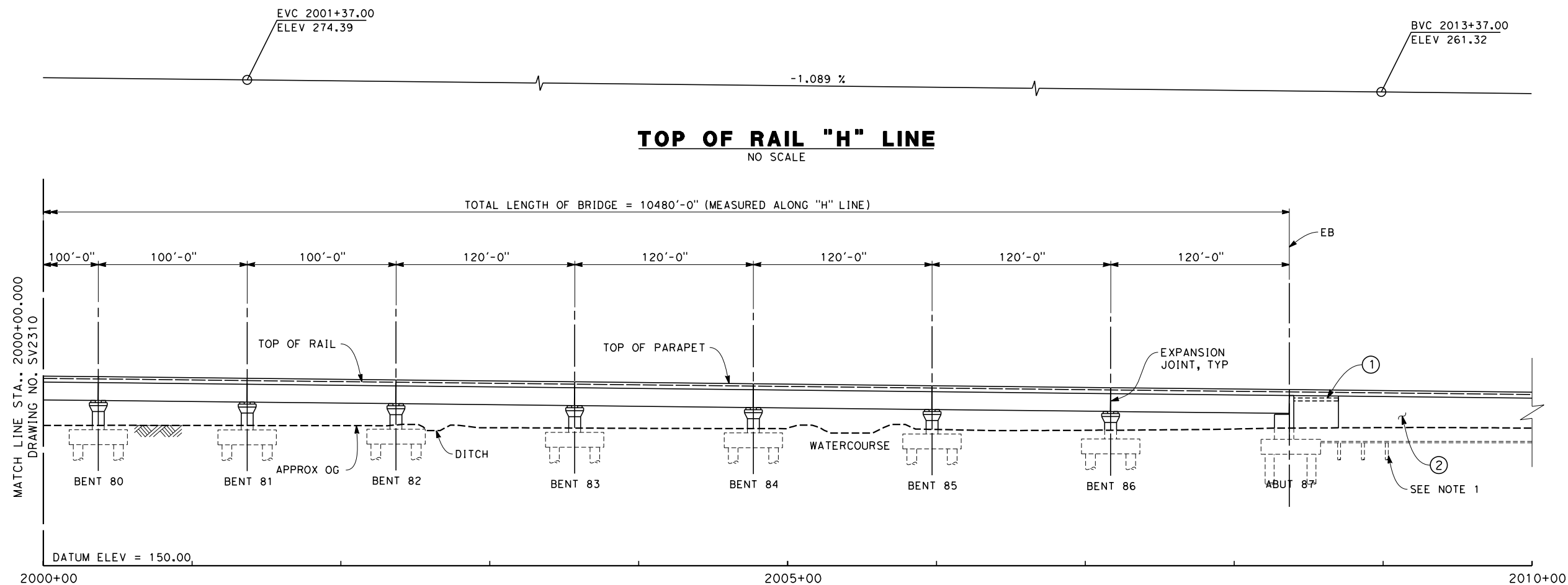
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CONSTRUCTION**



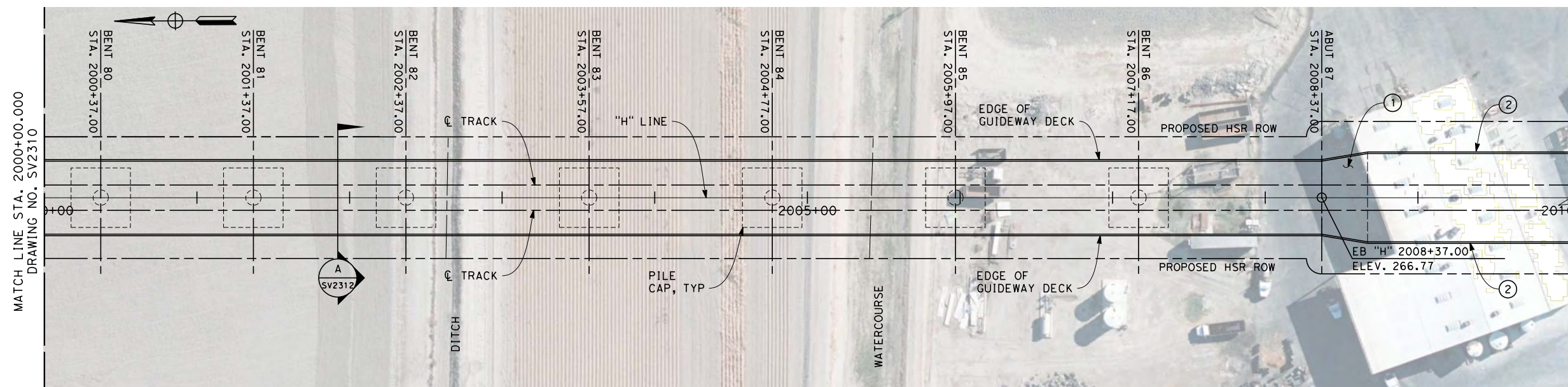
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2310
SCALE AS SHOWN
SHEET NO. 11 OF 14



ELEVATION
SCALE 1" = 40'



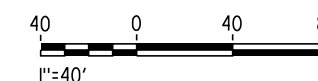
PLAN
SCALE 1" = 40'

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".



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**

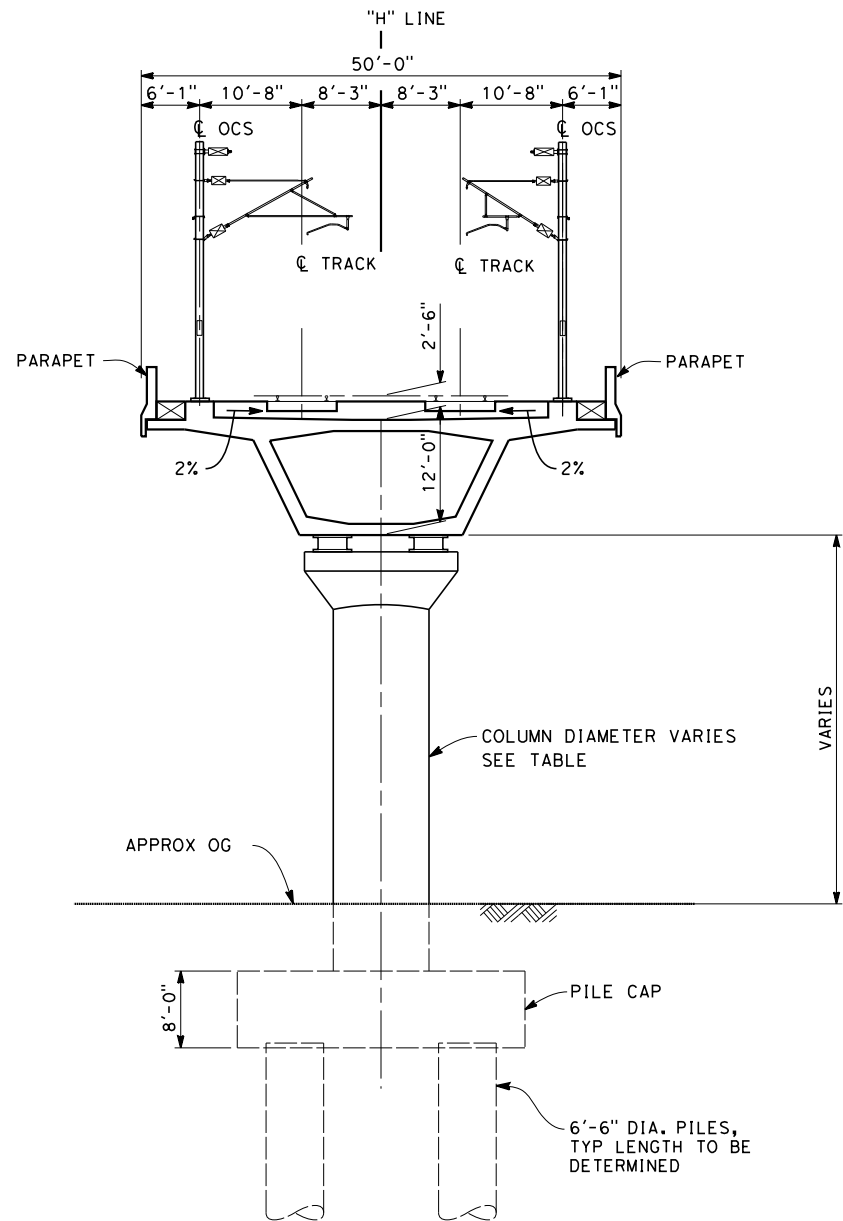


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
PLAN AND ELEVATION

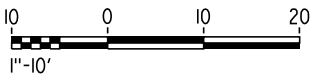
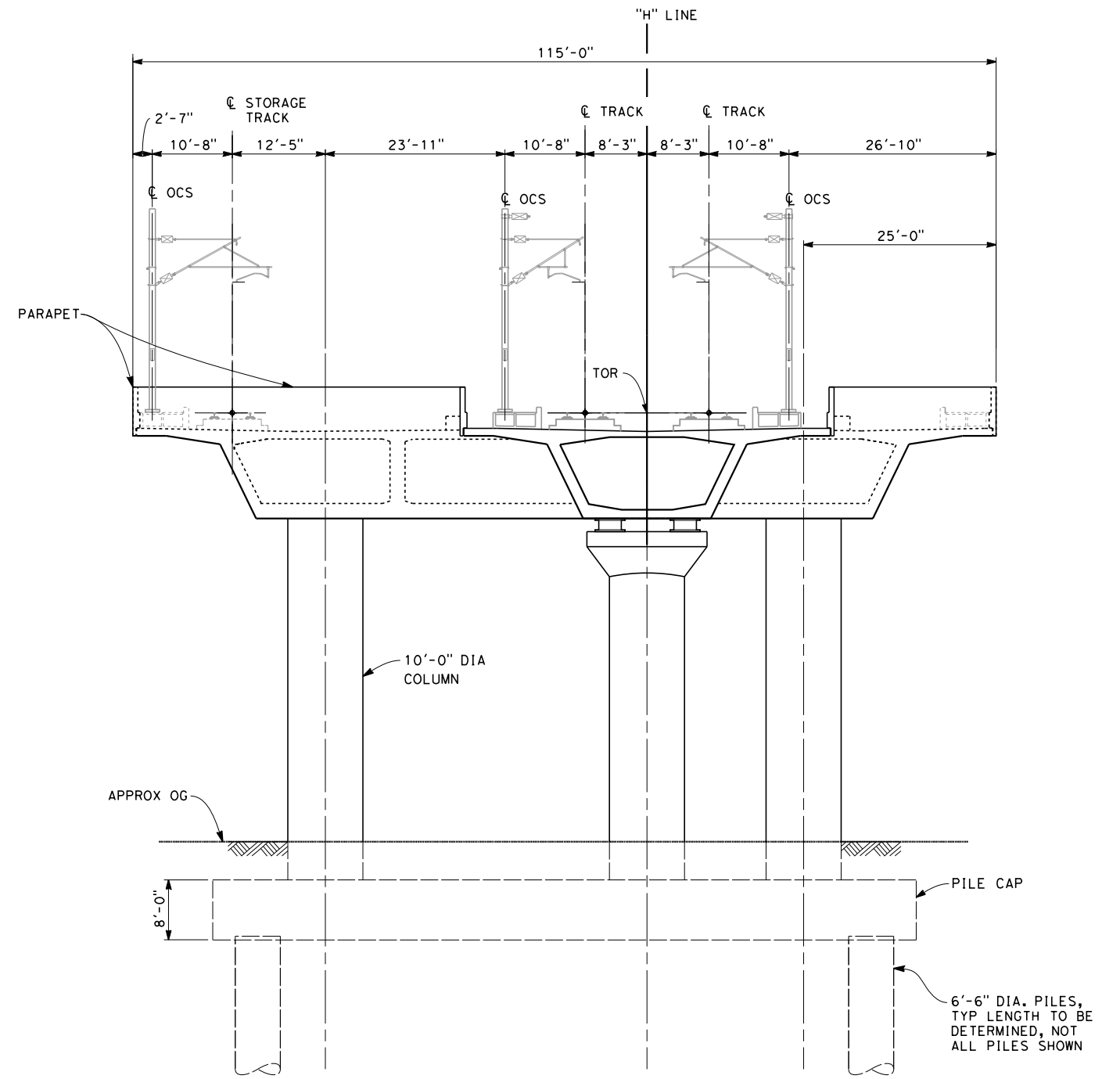
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DRAWING NO.	SV2311
SCALE	AS SHOWN
SHEET NO.	12 OF 14

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frank.palermo



COLUMN DIAMETERS	
COLUMN HEIGHT	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



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

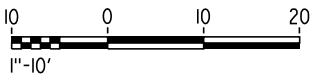
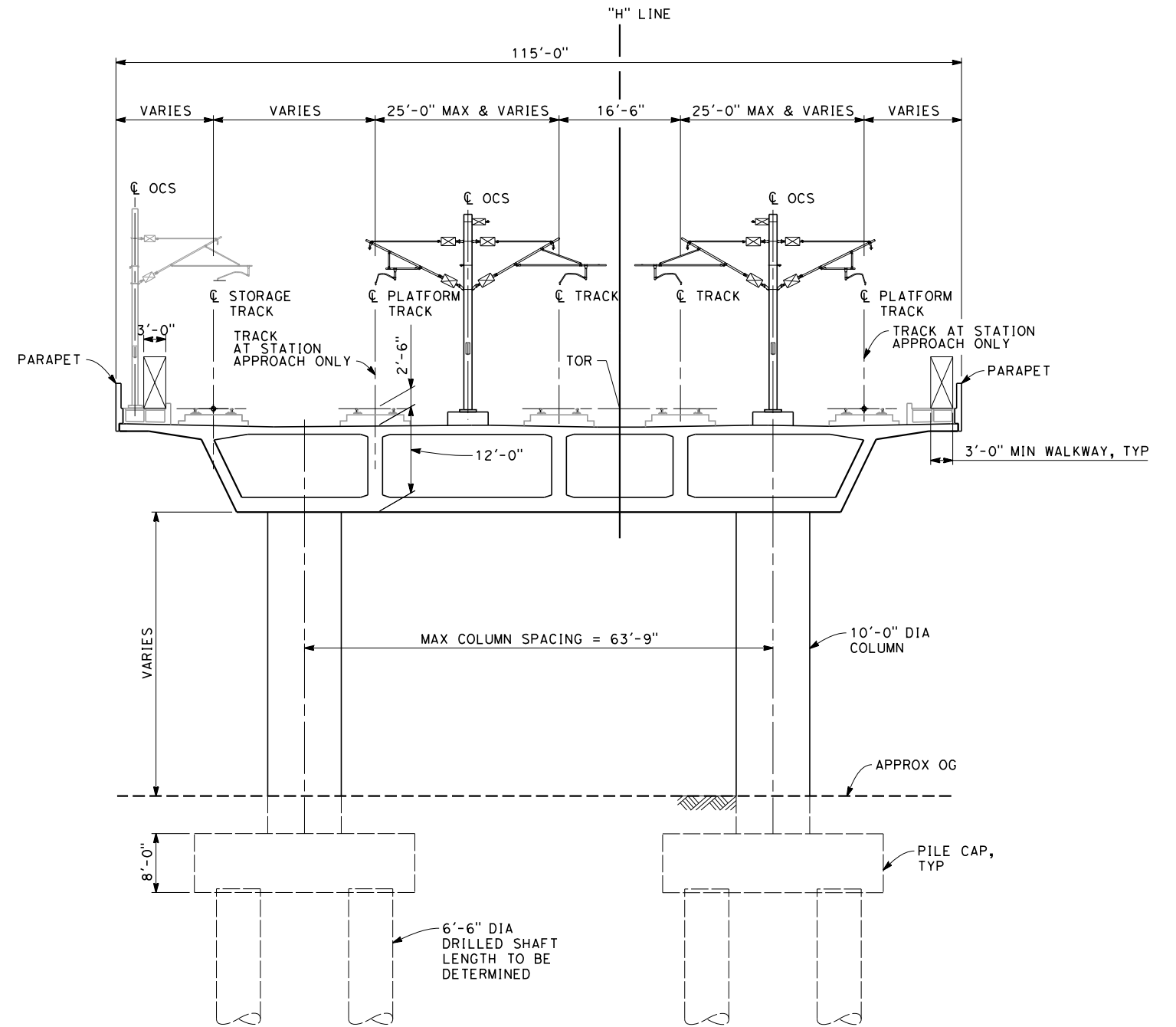
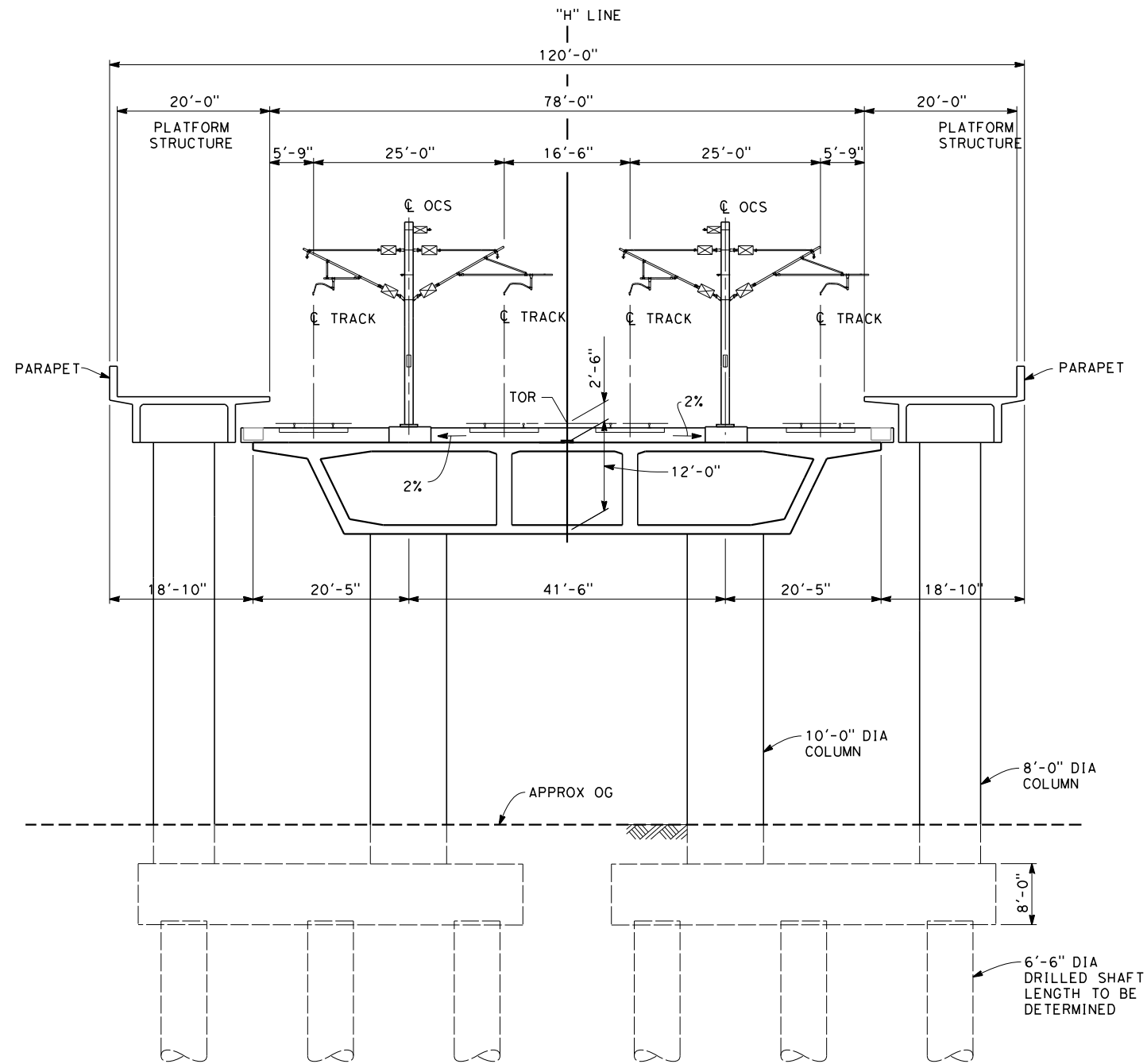


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD SUBSECTION
ALIGNMENT H
HANFORD VIADUCT
TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2312
SCALE AS SHOWN
SHEET NO. 13 OF 14

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frank.palermo



REV	DATE	BY	CHK	APP	DESCRIPTION

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

RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD SUBSECTION ALIGNMENT H HANFORD VIADUCT TYPICAL SECTIONS

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2313
SCALE AS SHOWN
SHEET NO. 14 OF 14

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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**

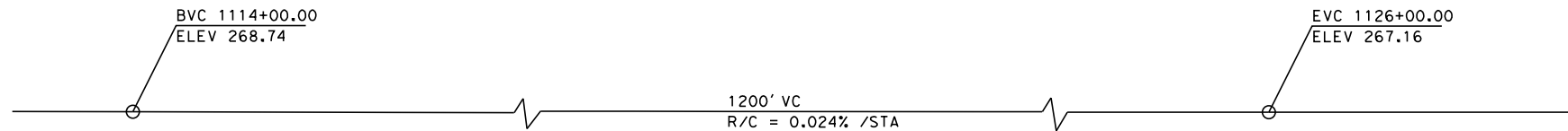
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
E CONEJO AVE HST UNDERPASS
KEY MAP

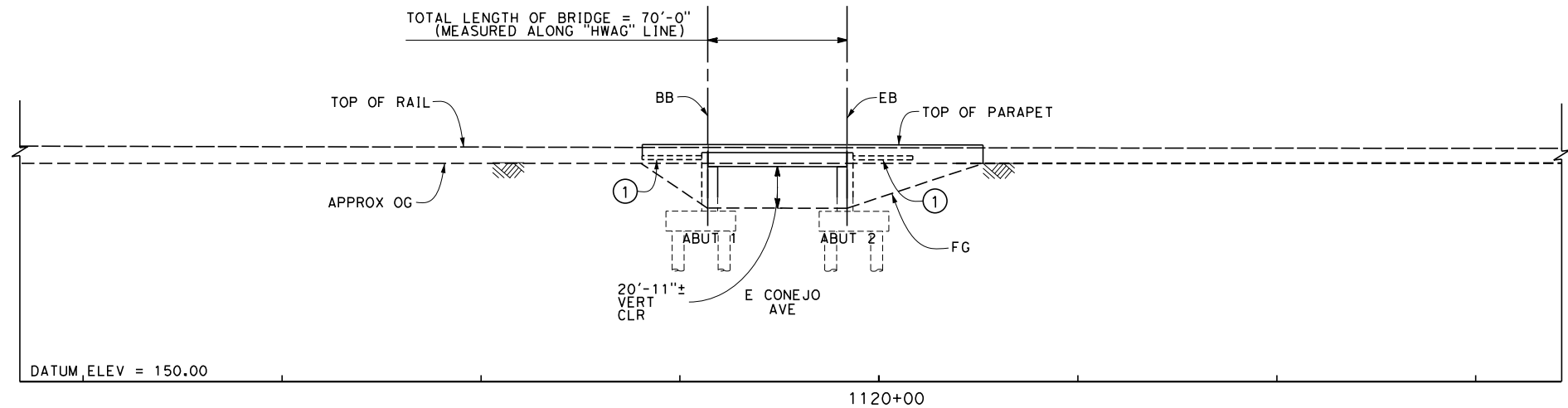
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HSR 06-0003
DRAWING NO.
SV2010
SCALE
AS SHOWN
SHEET NO.
1 OF 2

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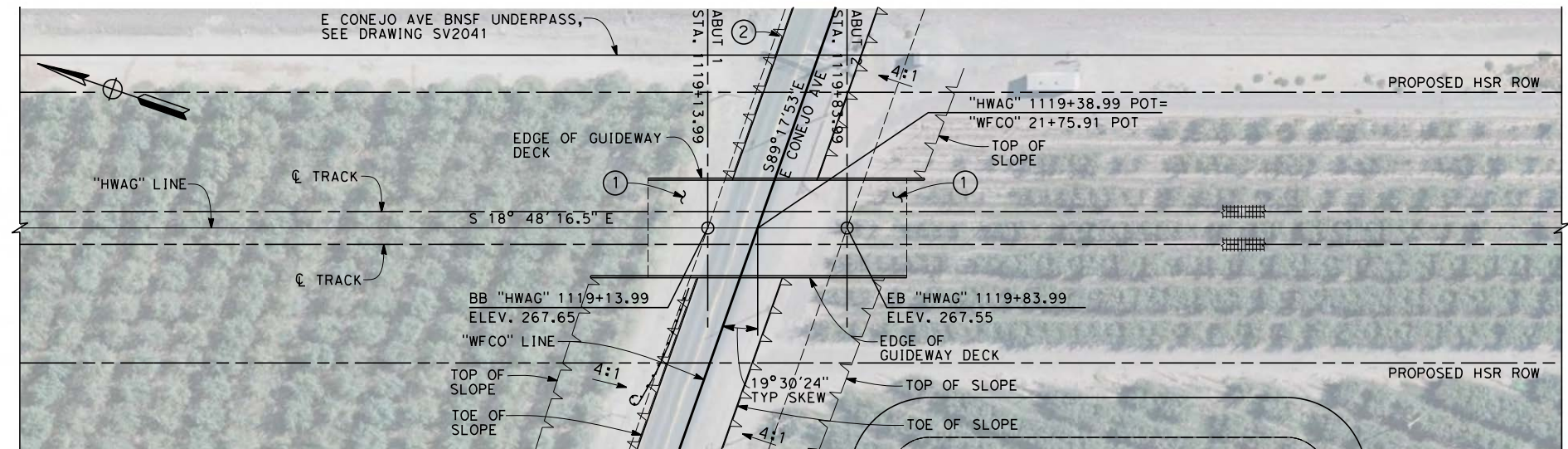
TOP OF RAIL "HWAG" LINE

NO SCALE



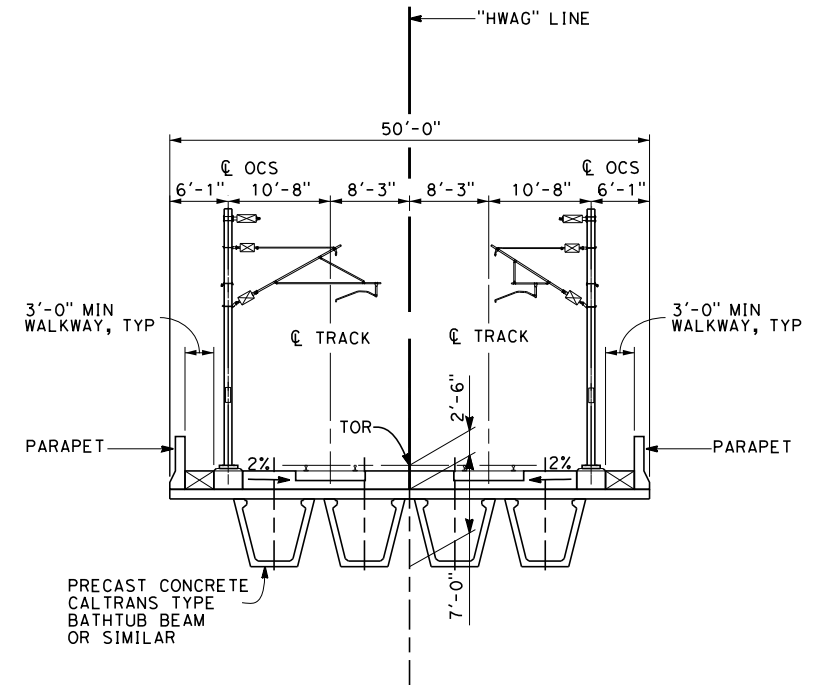
ELEVATION

SCALE: 1"=40'



PLAN

SCALE: 1"=40'



TYPICAL SECTION

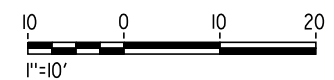
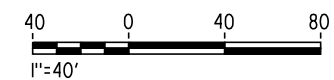
SCALE: 1"=10'

NOTES:

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

LEGEND:

- ① STRUCTURE APPROACH SLAB
- ② RETAINING WALLS
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
E CONEJO AVE HST UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-003
DRAWING NO. SV2011
SCALE AS SHOWN
SHEET NO. 2 OF 2

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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**

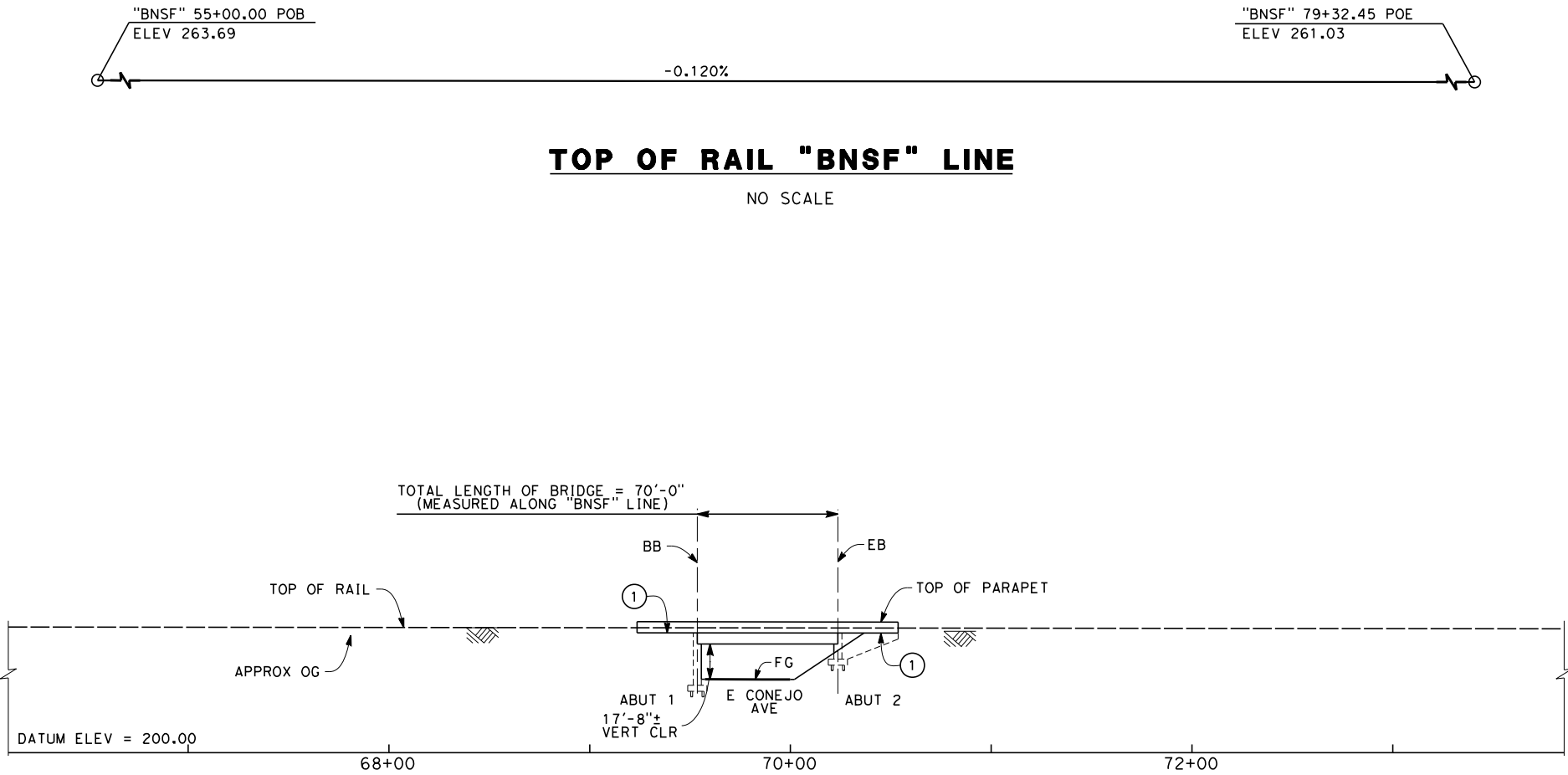
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
E CONEJO AVE BNSF UNDERPASS
KEY MAP

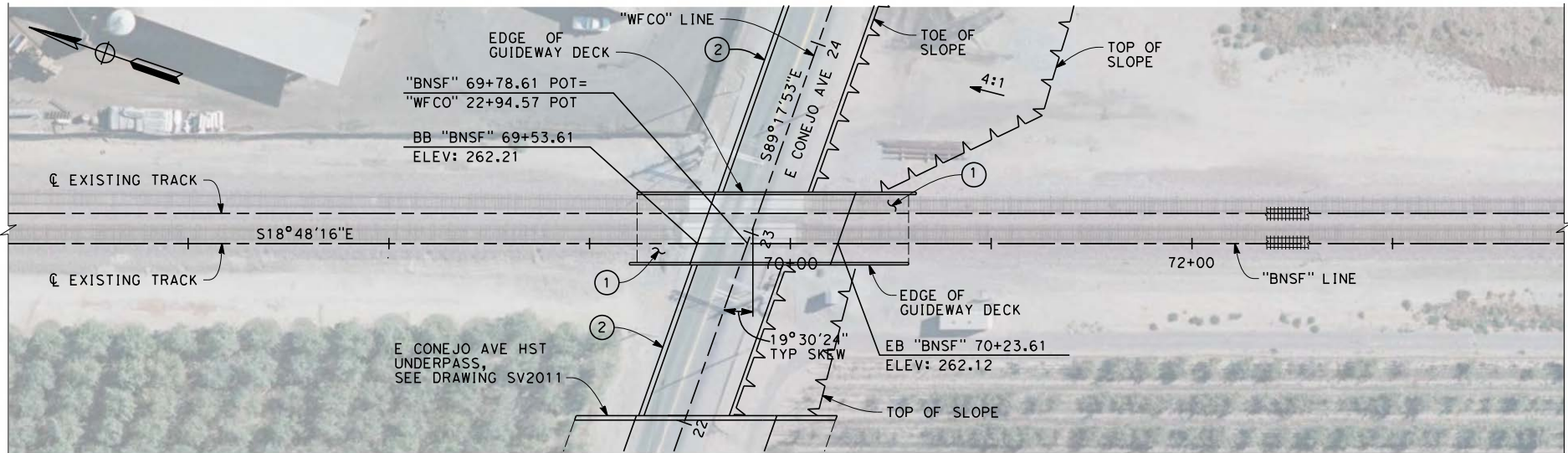
CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2040
SCALE
AS SHOWN
SHEET NO.
1 OF 2

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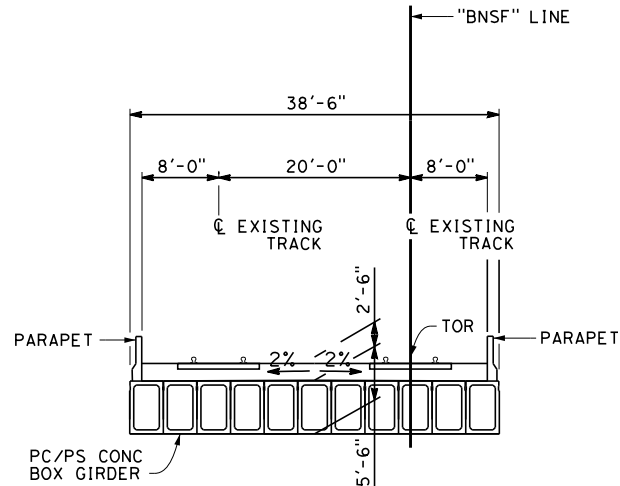
ELEVATION

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
- ② RETAINING WALLS
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
E CONEJO AVE BNSF UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2041
SCALE AS SHOWN
SHEET NO. 2 OF 2

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LEGEND

—+— EXISTING FREIGHT RAILROAD

— PROPOSED CHST



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN

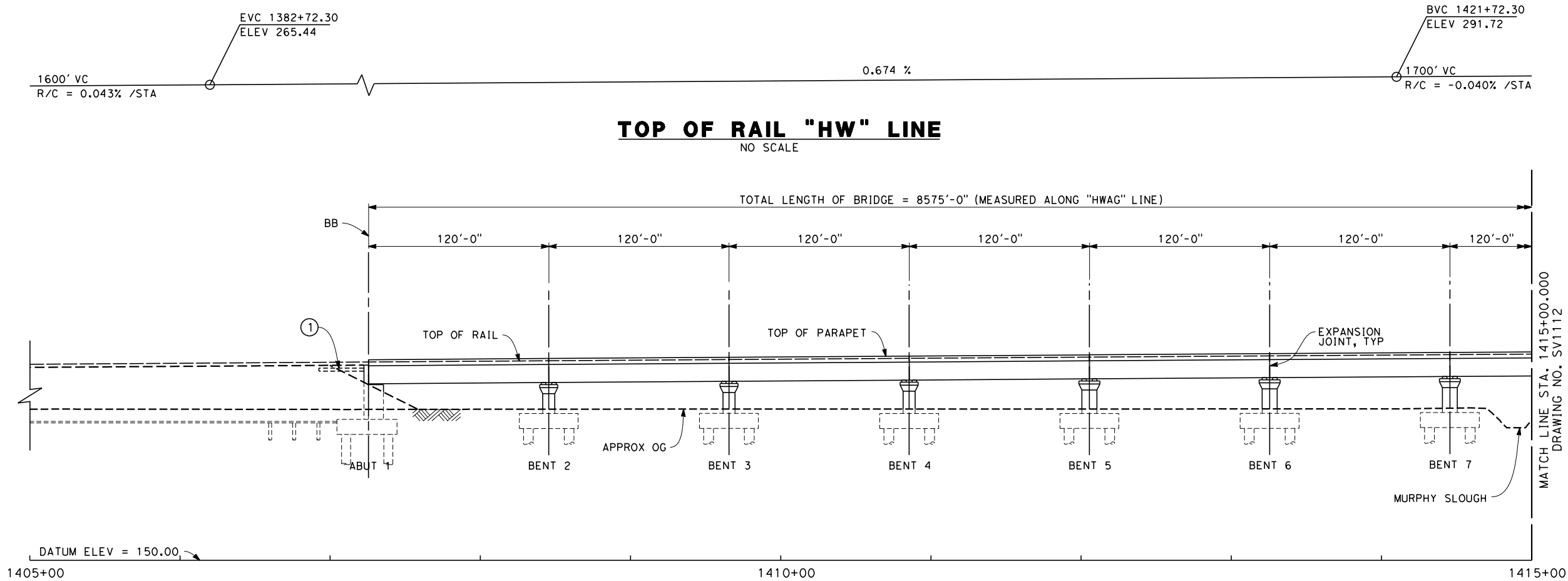
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

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

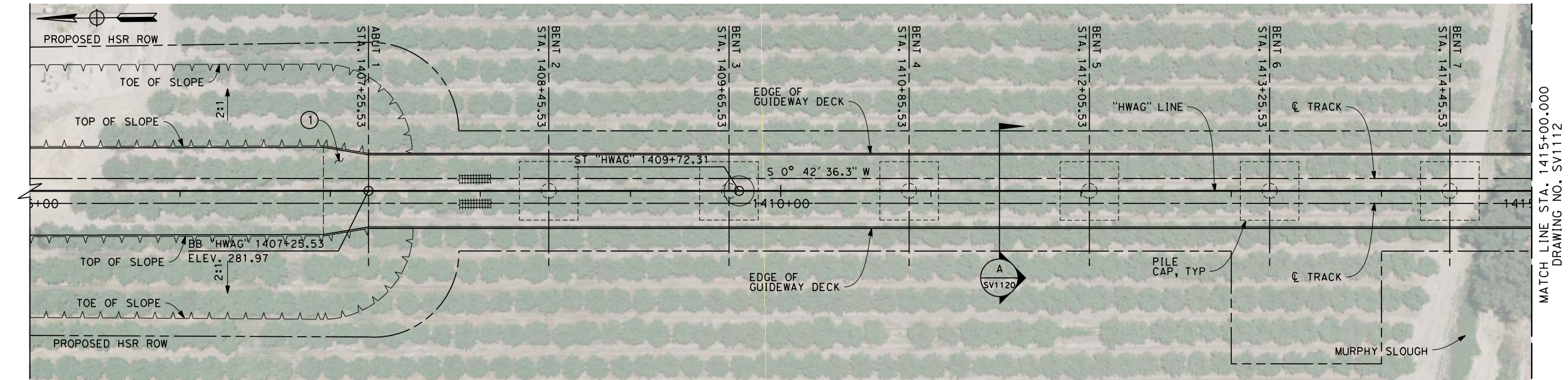
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1110
SCALE AS SHOWN
SHEET NO. 1 OF 11

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ELEVATION
SCALE 1" = 40'



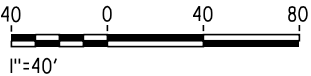
PLAN
SCALE 1" = 40'

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".



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**

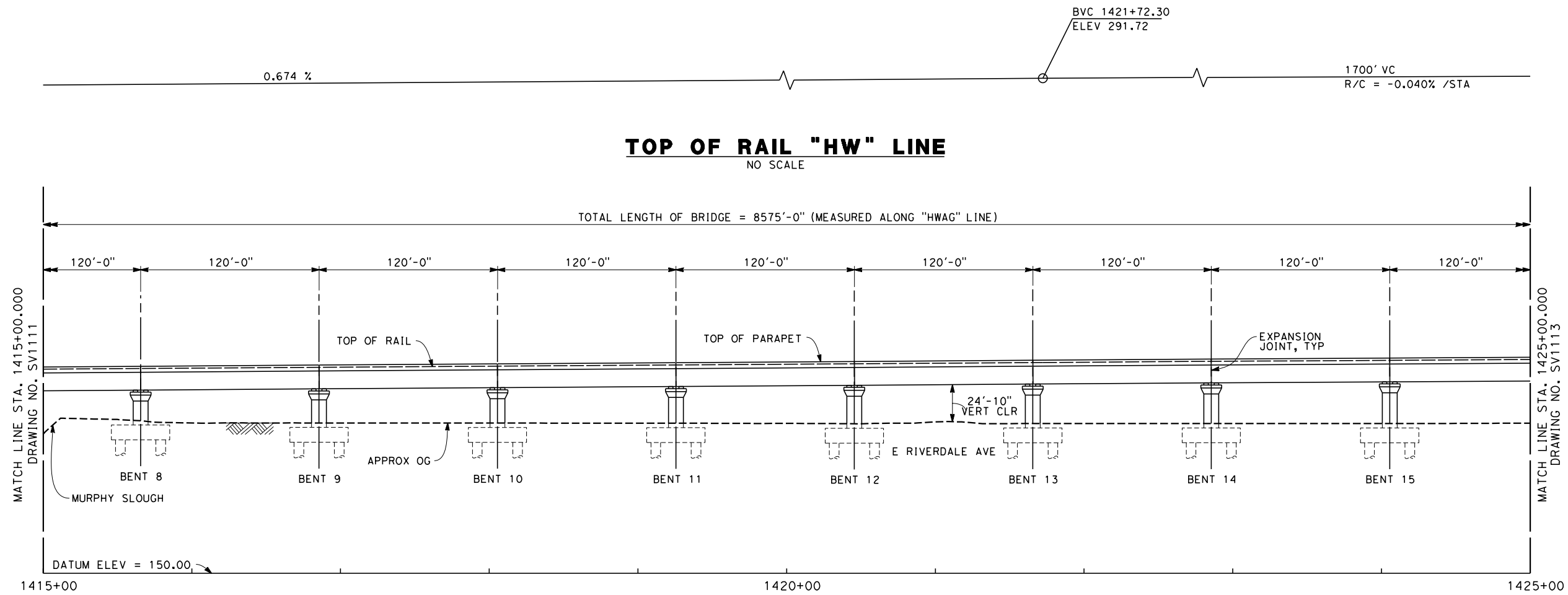
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CONSTRUCTION**



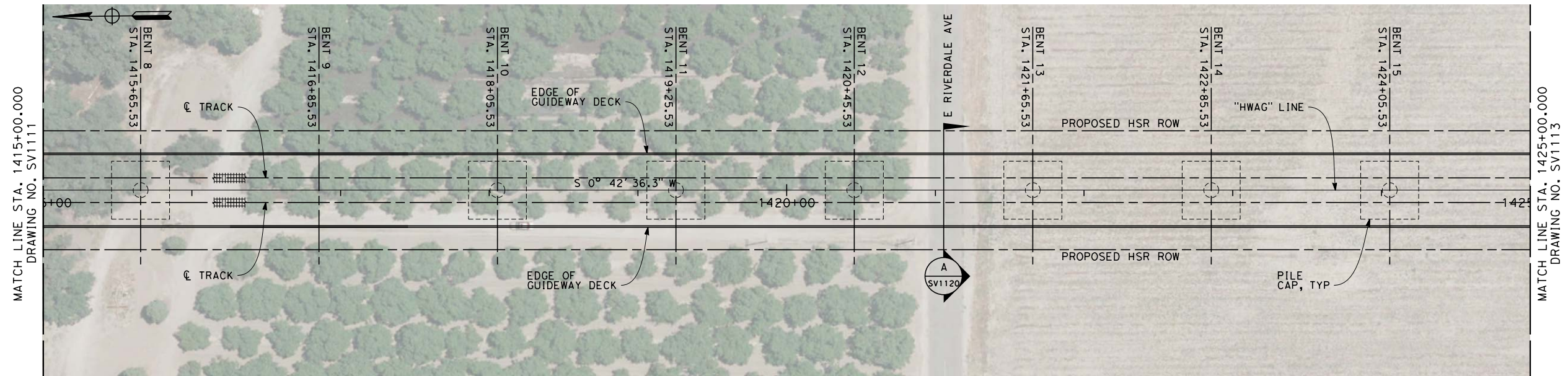
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1111
SCALE AS SHOWN
SHEET NO. 2 OF 11

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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".



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

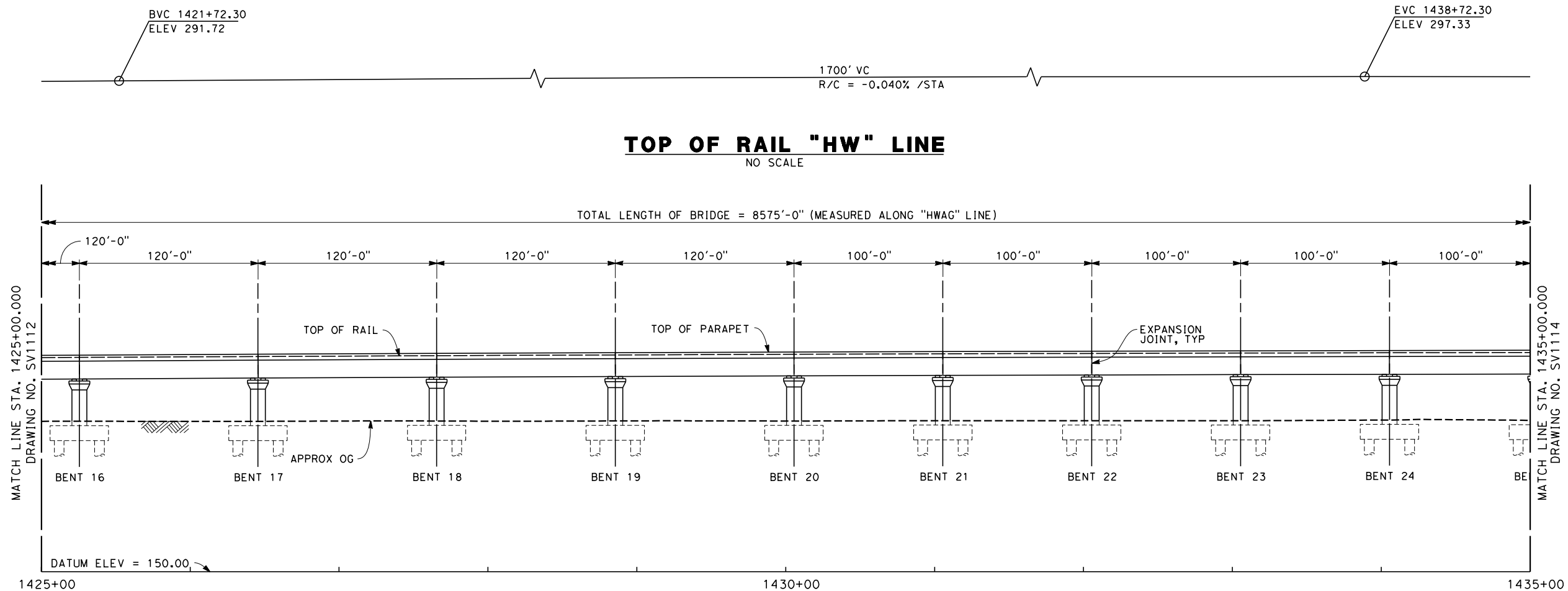
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NOT FOR CONSTRUCTION



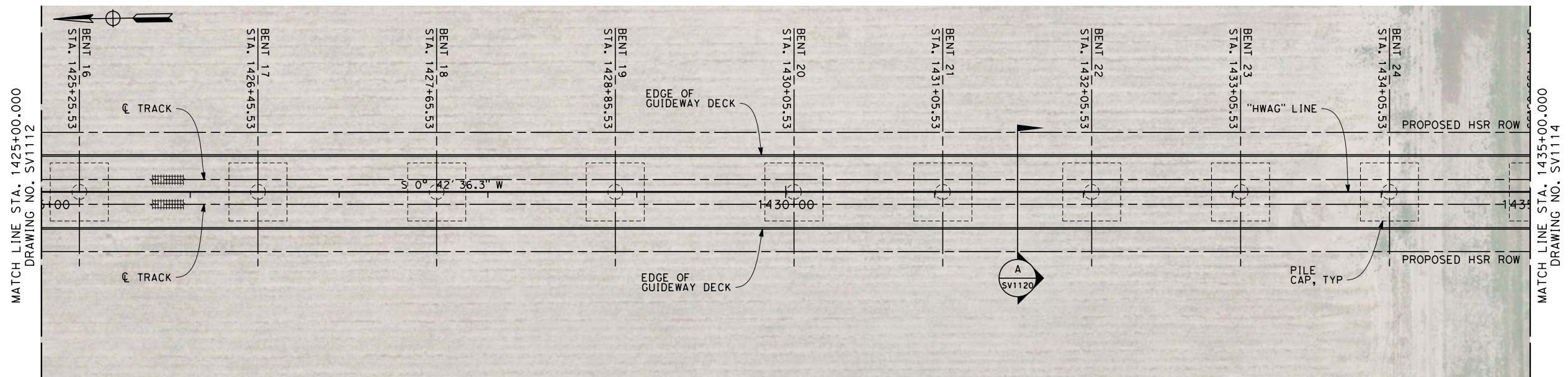
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW (AT-GRADE) KINGS RIVER VIADUCT PLAN AND ELEVATION
--

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1112
SCALE AS SHOWN
SHEET NO. 3 OF 11

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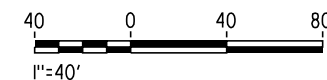
ELEVATION
SCALE 1" = 40'



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".



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**

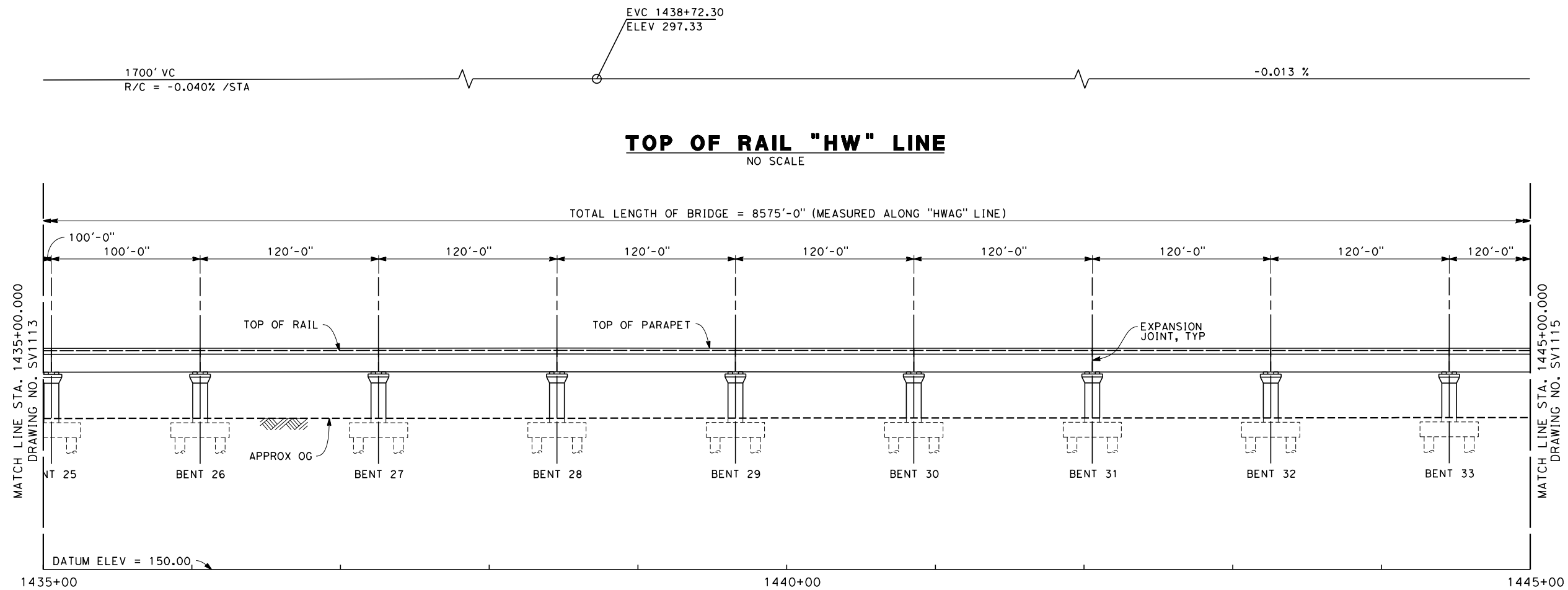
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CONSTRUCTION**



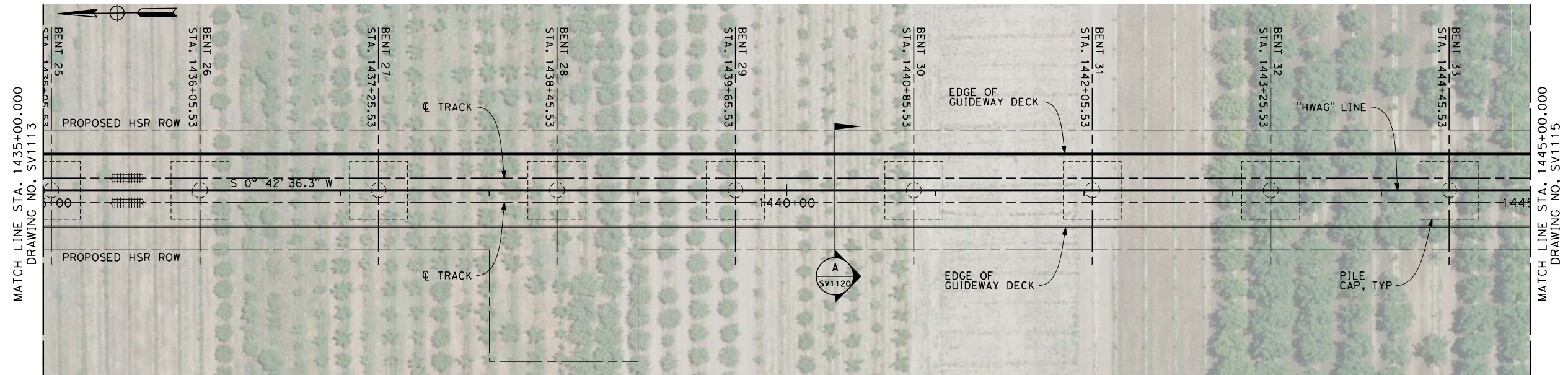
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1113
SCALE AS SHOWN
SHEET NO. 4 OF 11

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ELEVATION
SCALE 1" = 40'



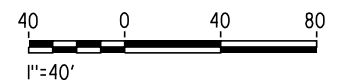
PLAN
SCALE 1" = 40'

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".



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**

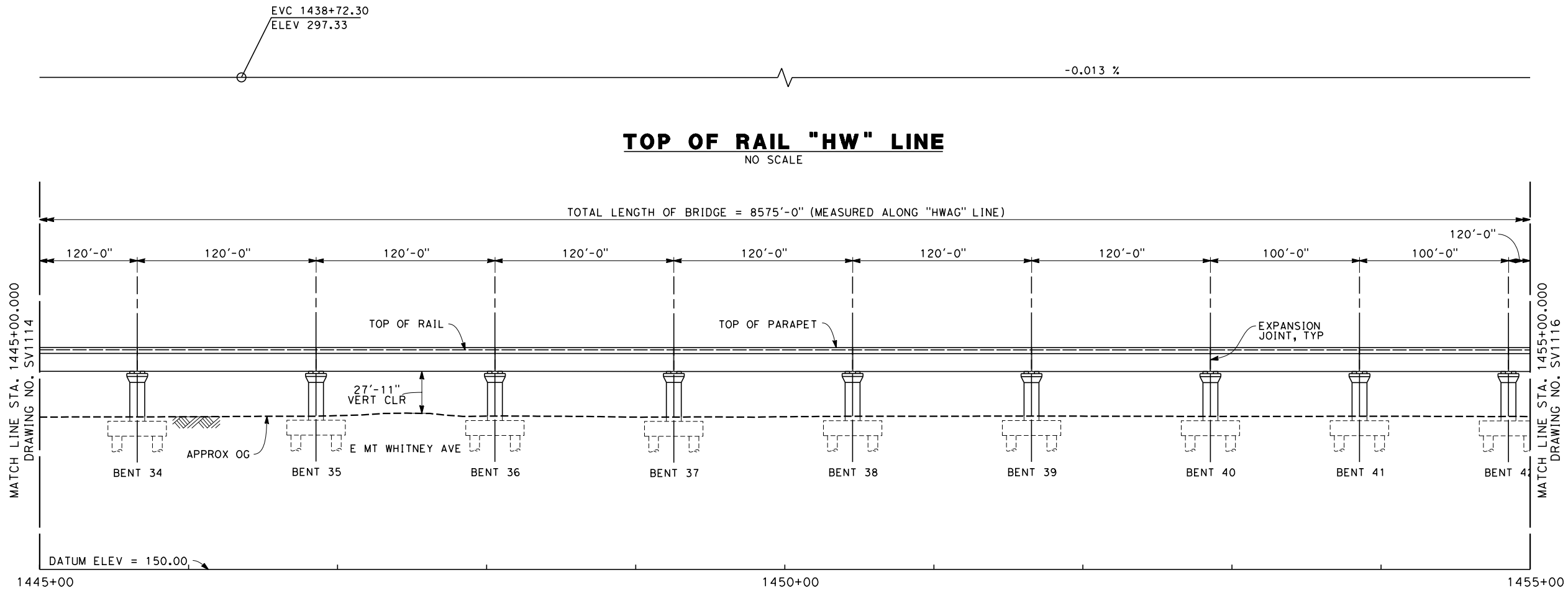
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CONSTRUCTION**



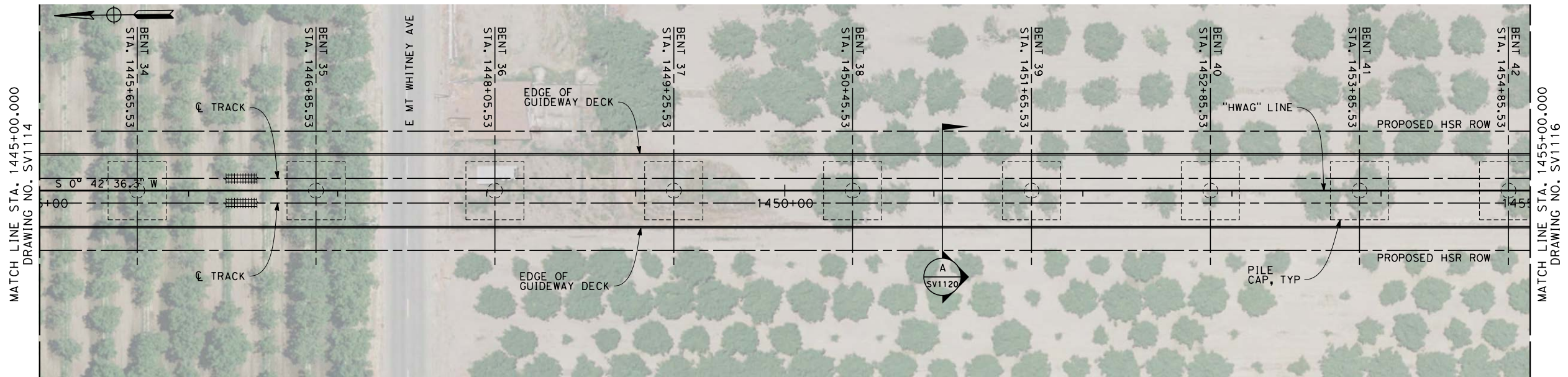
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1114
SCALE AS SHOWN
SHEET NO. 5 OF 11

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ELEVATION
SCALE 1" = 40'



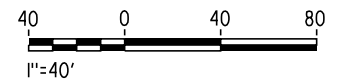
PLAN
SCALE 1" = 40'

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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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**

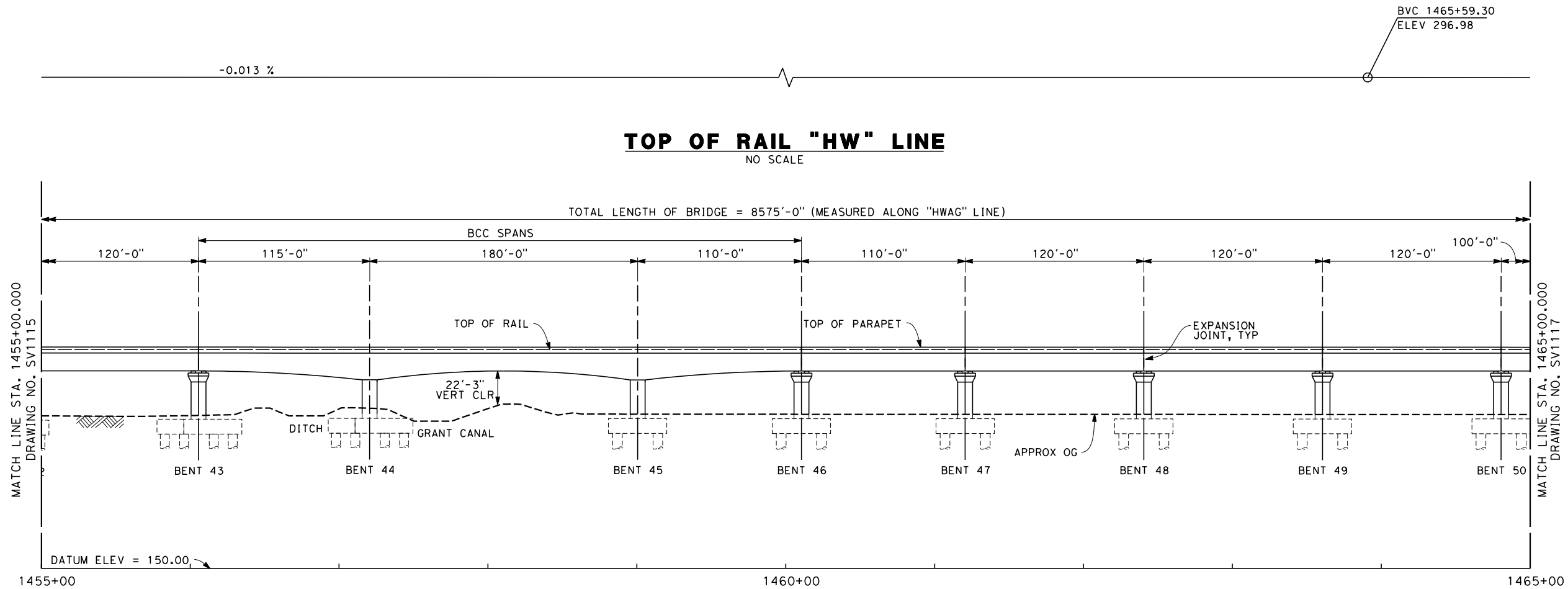


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

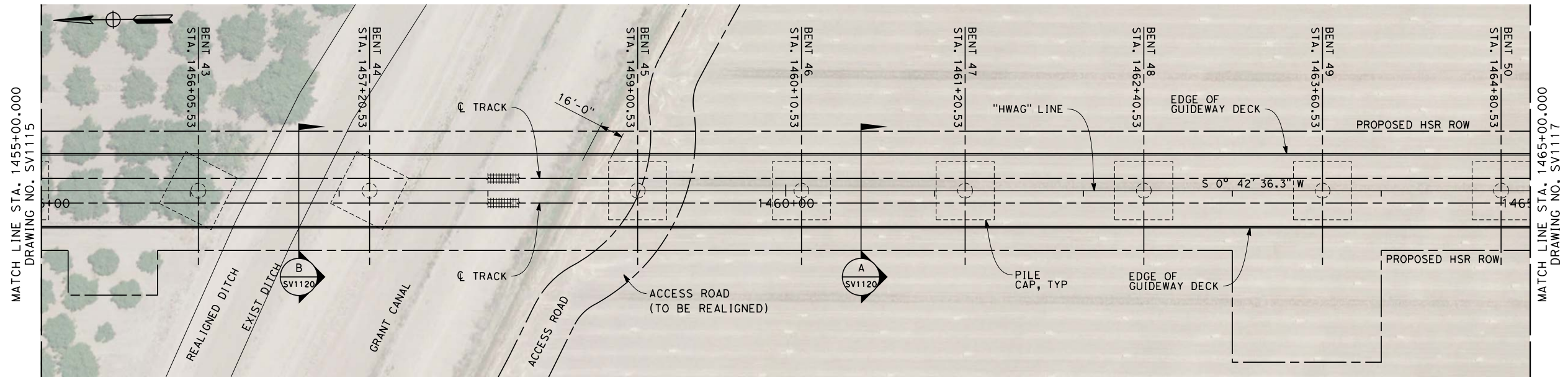
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1115
SCALE AS SHOWN
SHEET NO. 6 OF 11

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ELEVATION
SCALE 1" = 40'



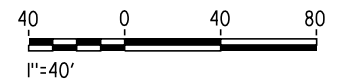
PLAN
SCALE 1" = 40'

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".



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**

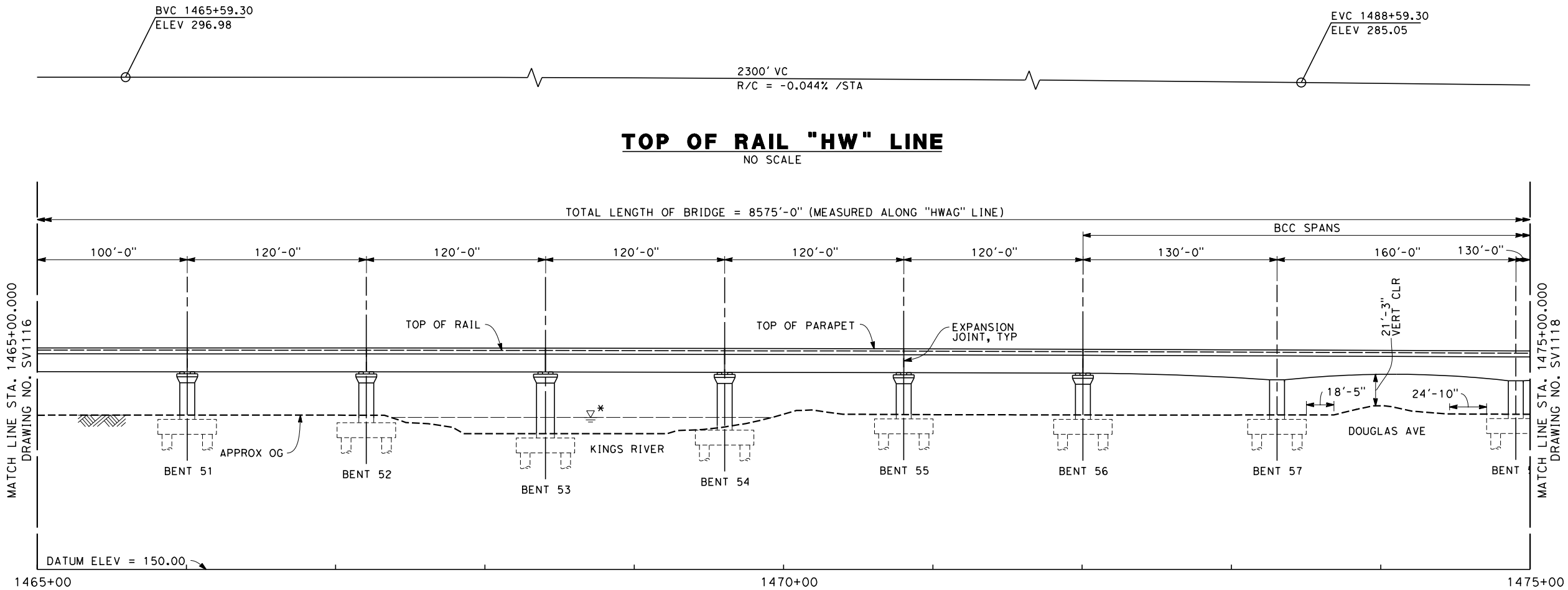


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

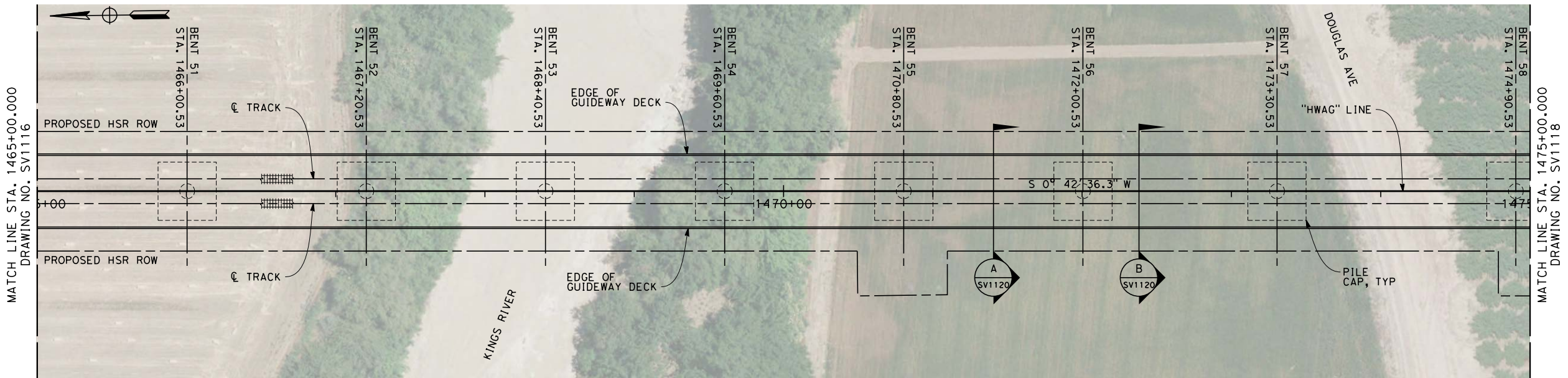
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1116
SCALE AS SHOWN
SHEET NO. 7 OF 11

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ELEVATION
SCALE 1" = 40'



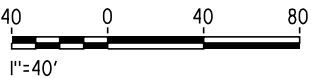
PLAN
SCALE 1" = 40'

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".



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**

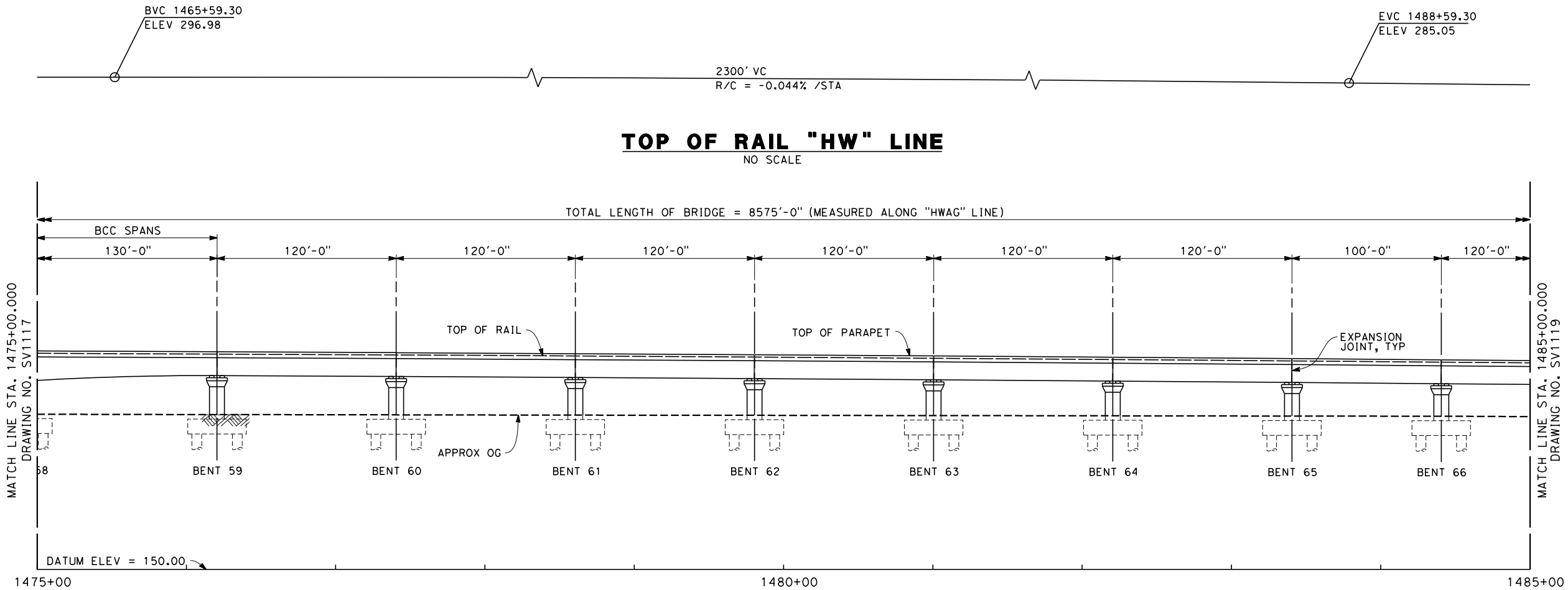


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

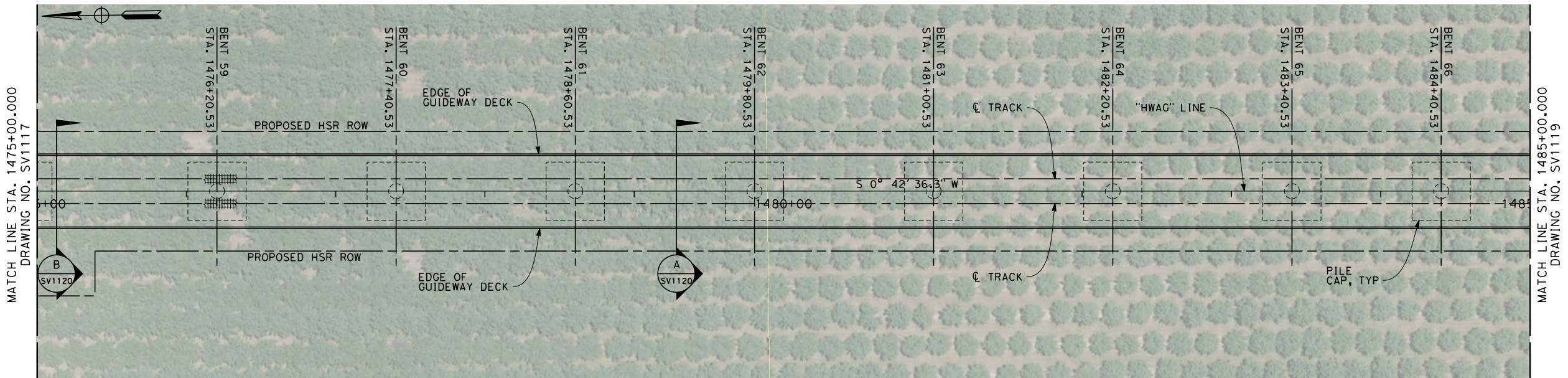
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1117
SCALE AS SHOWN
SHEET NO. 8 OF 11

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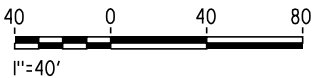
ELEVATION
SCALE 1" = 40'



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".



REV	DATE	BY	CHK	APP	DESCRIPTION

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

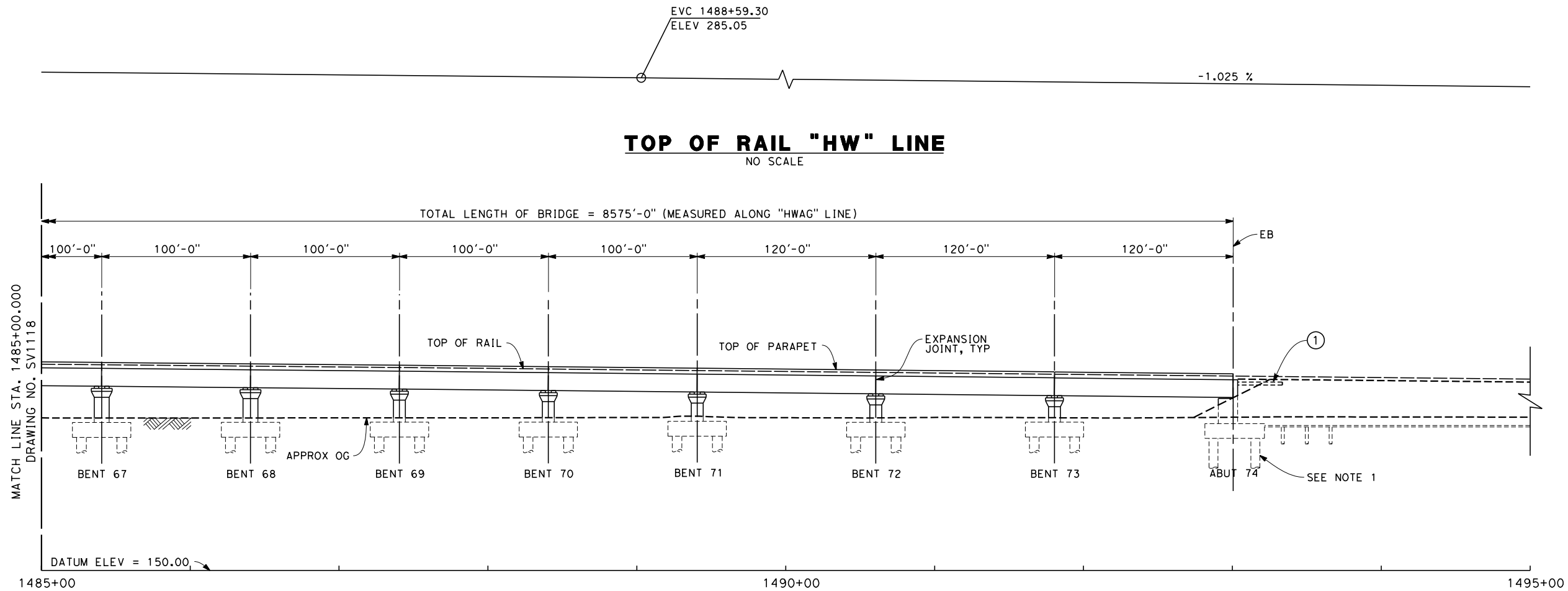
RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



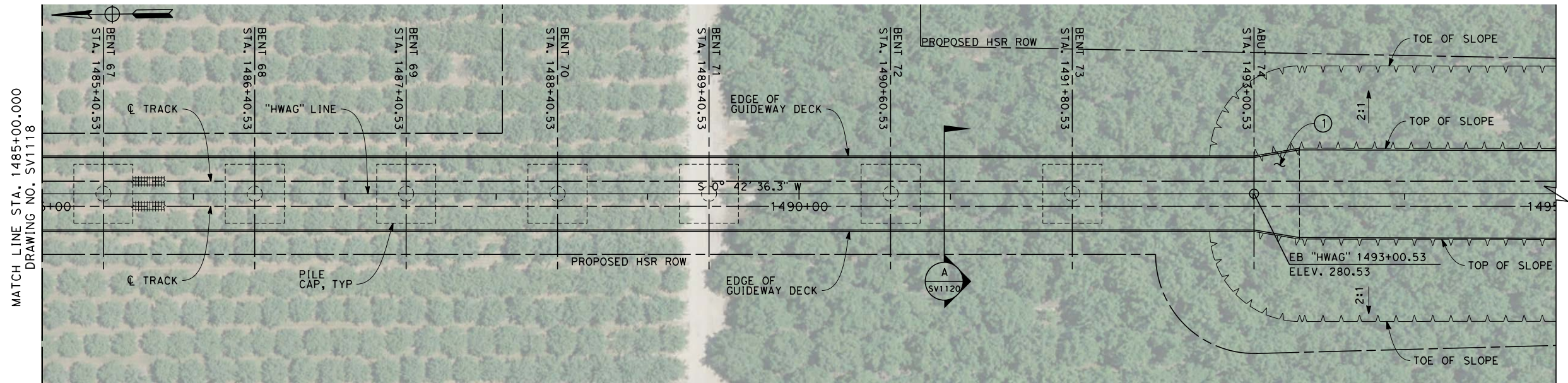
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW (AT-GRADE) KINGS RIVER VIADUCT PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1118
SCALE AS SHOWN
SHEET NO. 9 OF 11

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ELEVATION
SCALE 1" = 40'



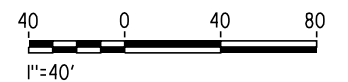
PLAN
SCALE 1" = 40'

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".



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**

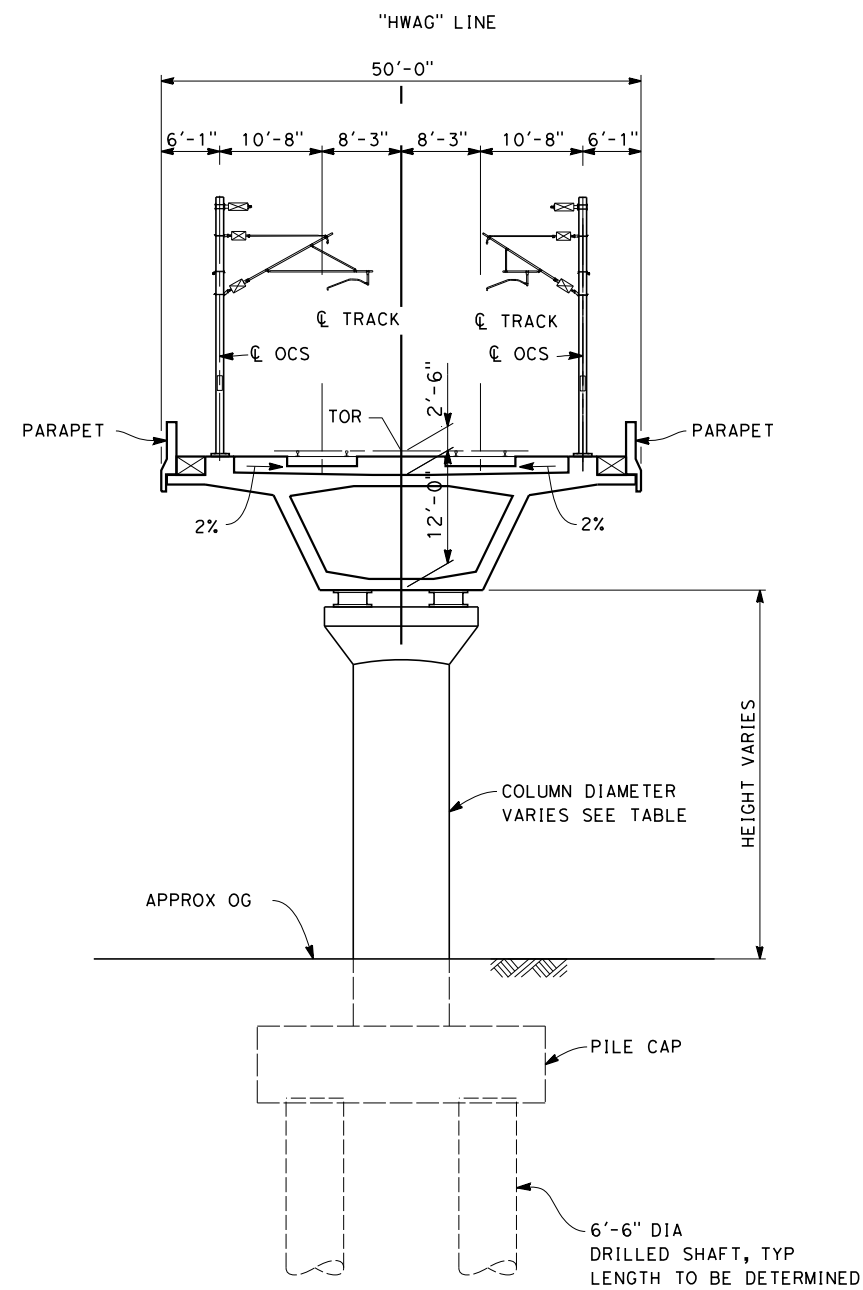


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
KINGS RIVER VIADUCT
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1119
SCALE AS SHOWN
SHEET NO. 10 OF 11

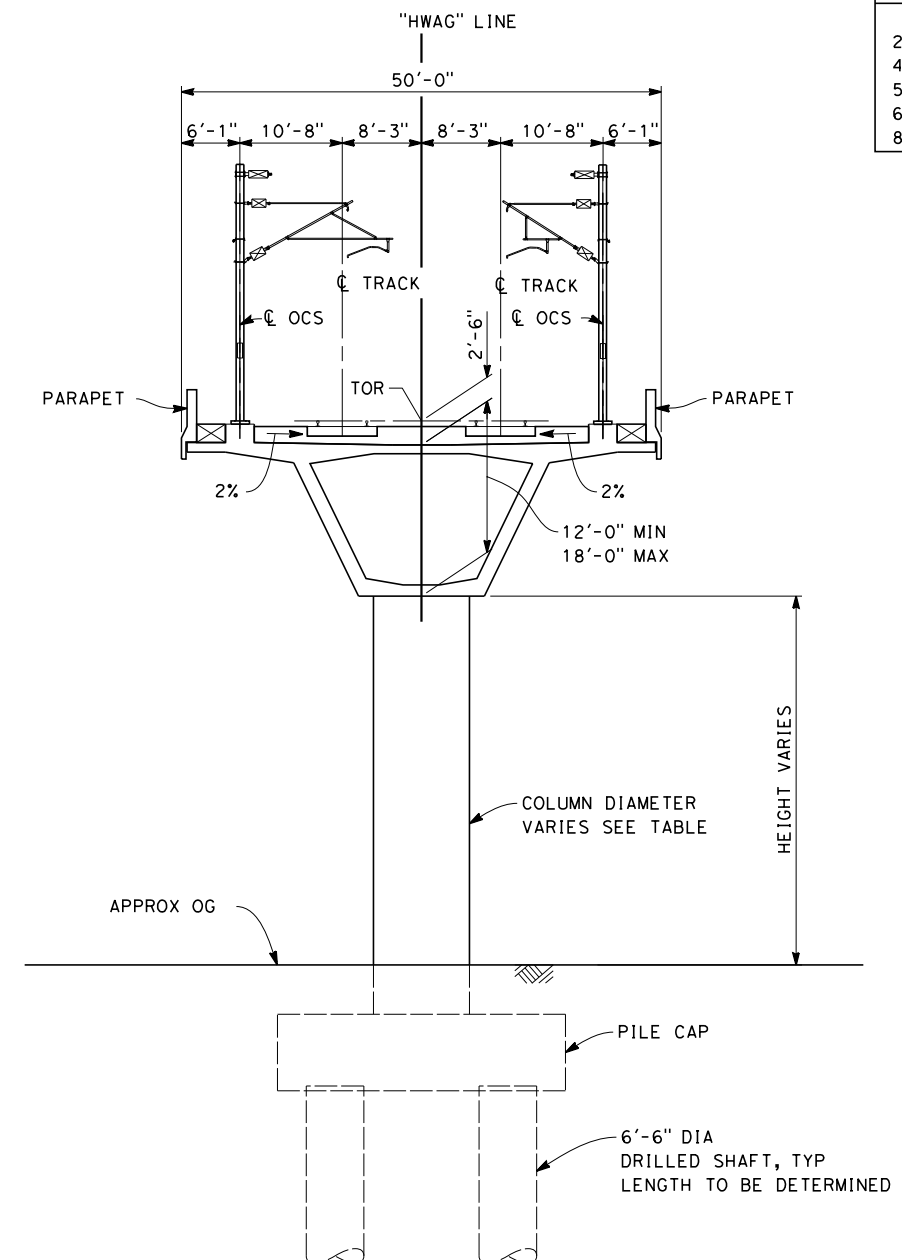
COLUMN DIAMETERS	
HEIGHT TO SOFFIT	DIAMETER
0-20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT



SECTION A

SCALE: 1" = 10'

STA 1407+26 THROUGH 1456+06
STA 1460+11 THROUGH 1472+01
STA 1476+21 THROUGH 1493+01



SECTION B

SCALE: 1" = 10'

STA 1456+06 THROUGH 1460+11
STA 1472+01 THROUGH 1476+21



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**



CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
 HANFORD WEST BYPASS SUBSECTION
 ALIGNMENT HW (AT-GRADE)
 KINGS RIVER VIADUCT
 TYPICAL SECTIONS

CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV1120
SCALE	AS SHOWN
SHEET NO.	11 OF 11

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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**

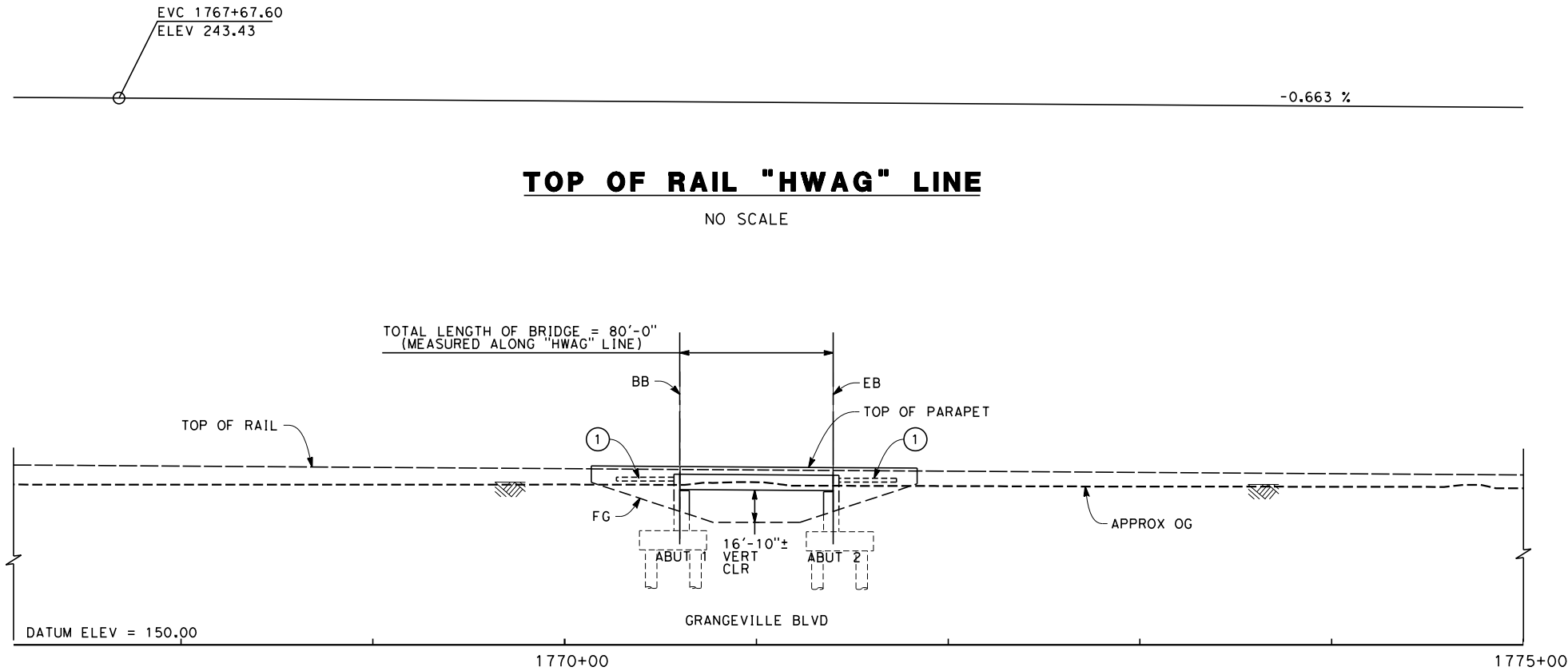
**NOT FOR
CONSTRUCTION**



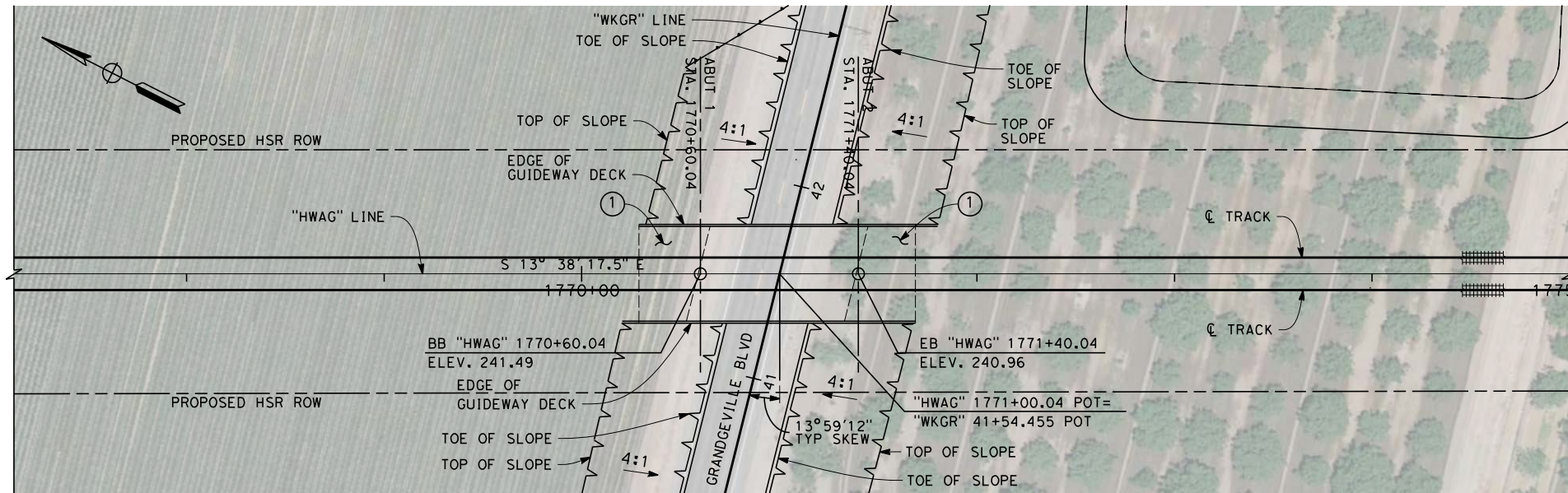
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
GRANGEVILLE BLVD UNDERPASS
KEY MAP

CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2025
SCALE
AS SHOWN
SHEET NO.
1 OF 2

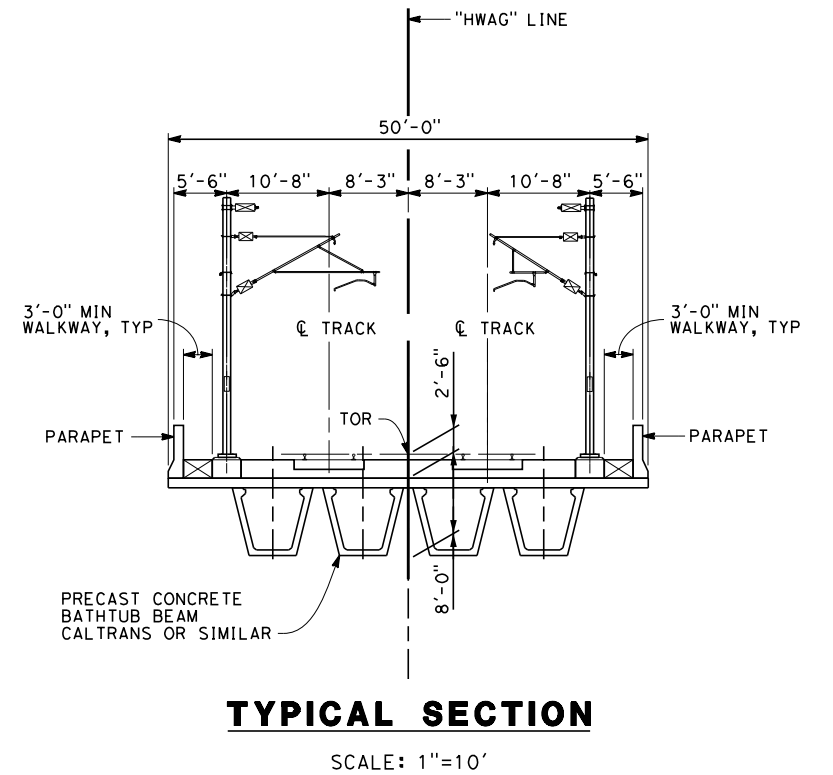
andrew.armstrong 2/12/2013 10:34:16 AM c:\pwworking\hmm\external\andrew.armstrong-arup.com\dms90424\X-FB-SV-2026-HWAG.dgn



ELEVATION
SCALE: 1"=40'



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



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



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW (AT-GRADE) GRANGEVILLE BLVD UNDERPASS PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2026
SCALE AS SHOWN
SHEET NO. 2 OF 2

andrew.armstrongdsg12/2013 10:34:32 AM CAHSR-r1.tbl PDF_half_black_200dpi.plt \\pwworking\hmm\external\andrew.armstrong-arup.com\dms90424\X-FB-SV-2030-HWAG.dgn



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**

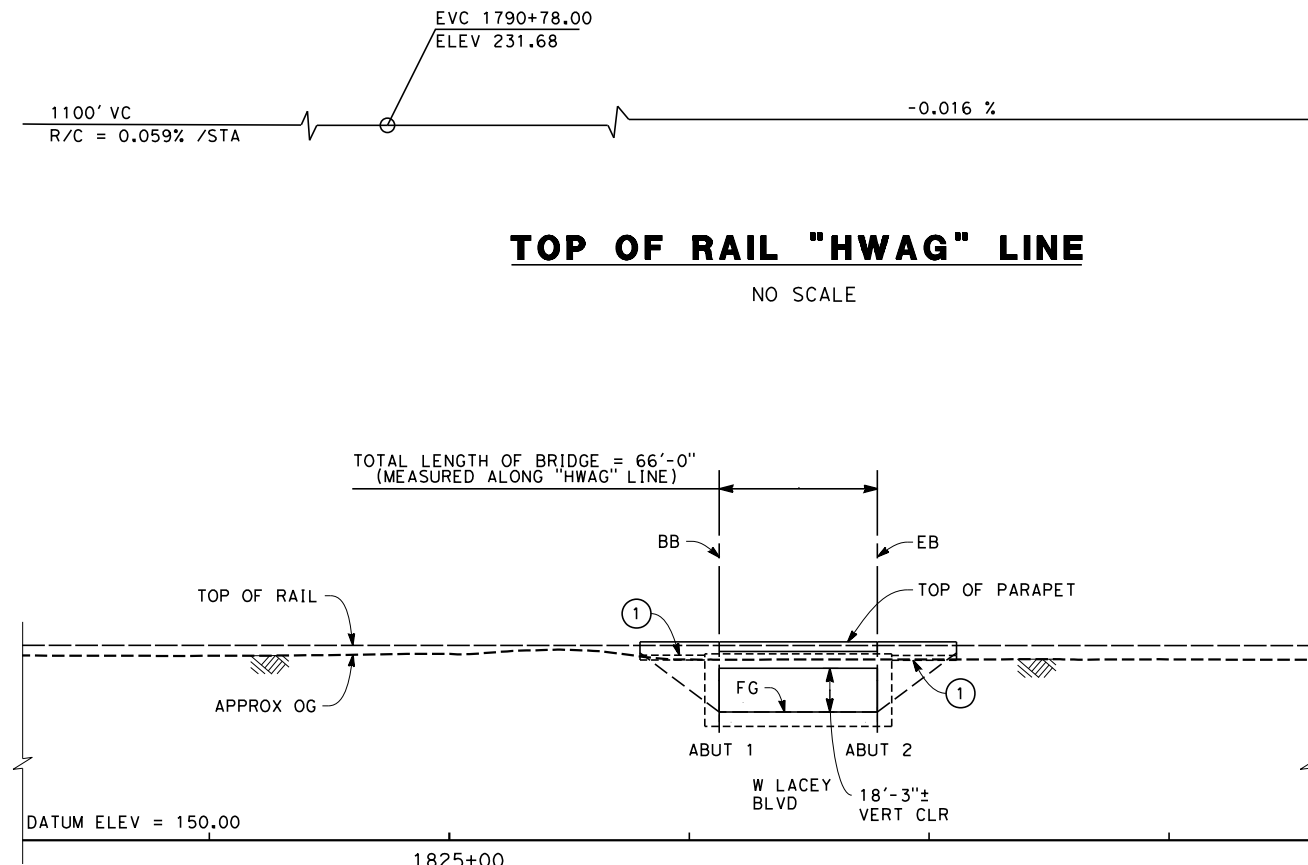


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
W LACEY BLVD UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2030
SCALE AS SHOWN
SHEET NO. 1 OF 2

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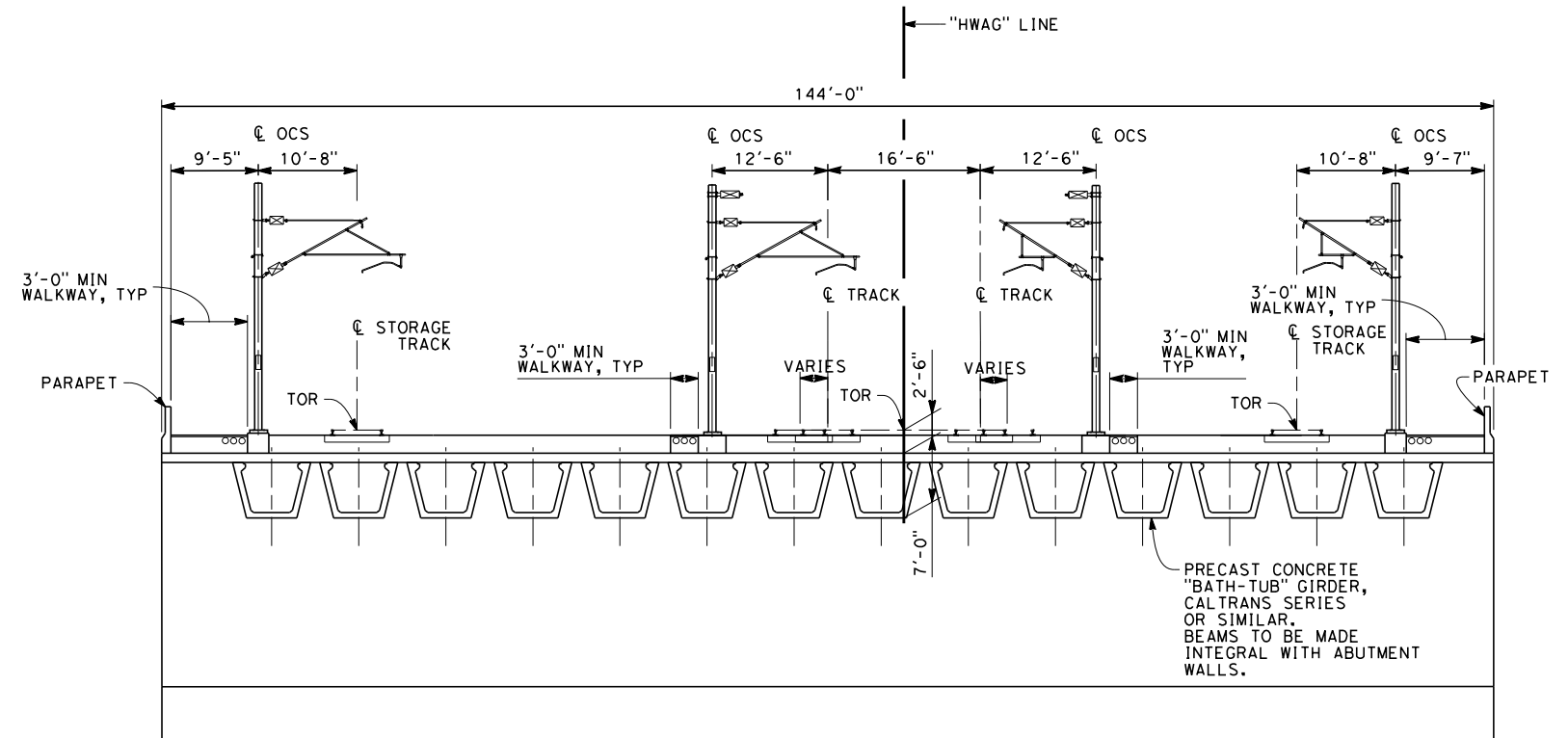


TOP OF RAIL "HWAG" LINE

NO SCALE

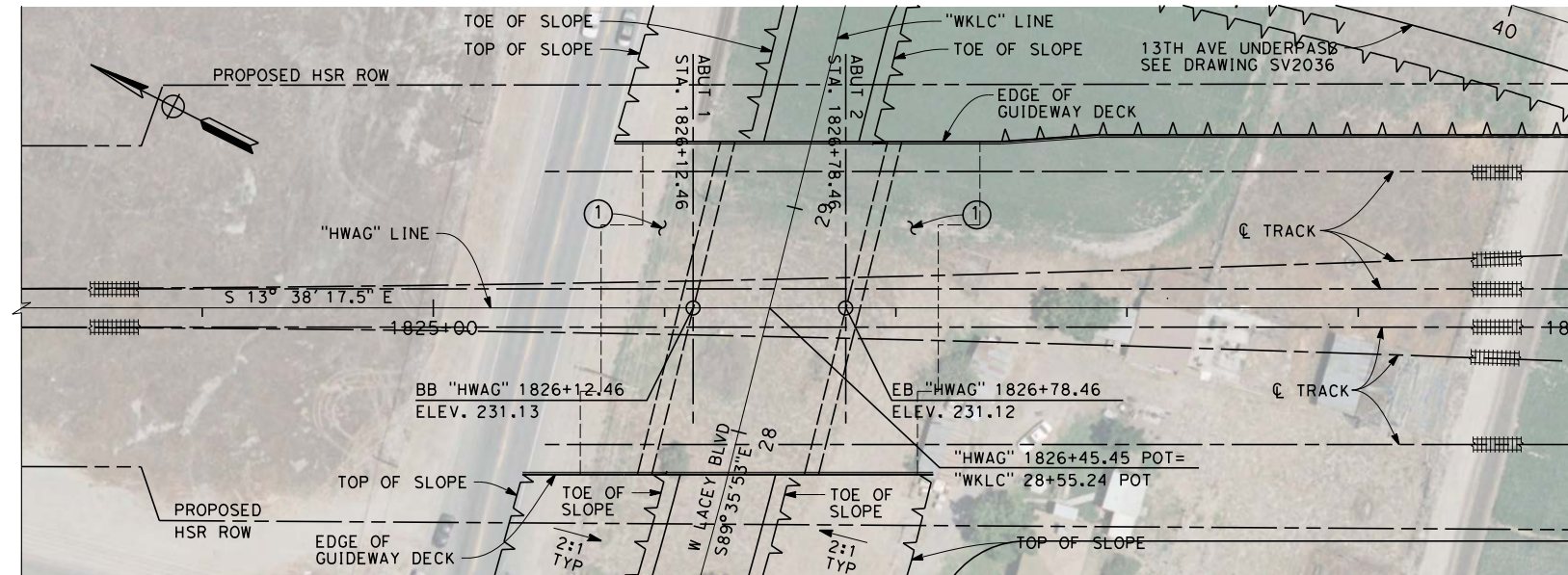
ELEVATION

SCALE: 1"=40'



TYPICAL SECTION

SCALE: 1"=10'



PLAN

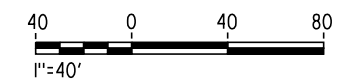
SCALE: 1"=40'

NOTES:

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

LEGEND:

- ① STRUCTURE APPROACH SLAB
- ② RETAINING WALL
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW (AT-GRADE) W LACEY BLVD UNDERPASS PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2031
SCALE AS SHOWN
SHEET NO. 2 OF 2

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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**

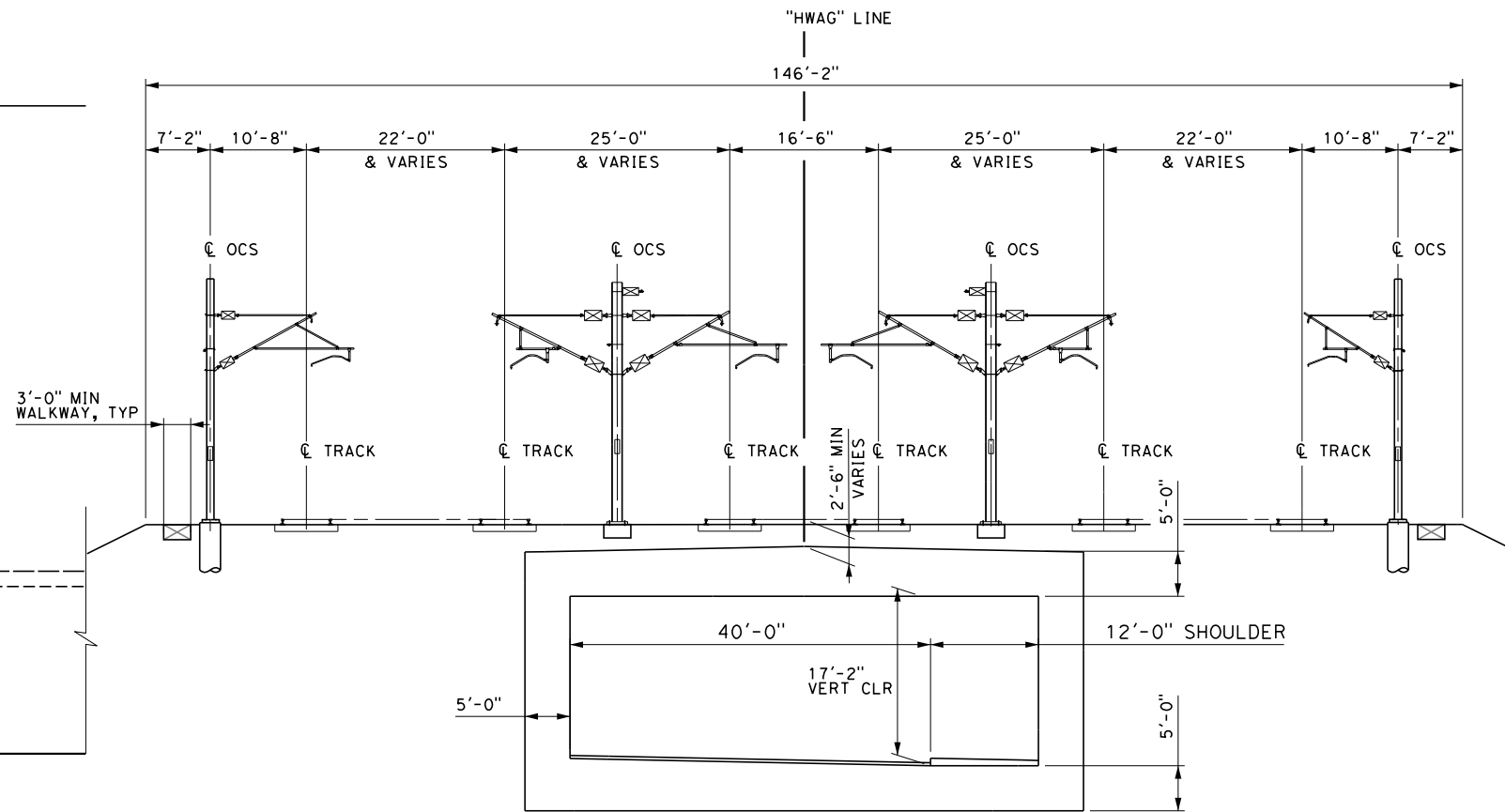
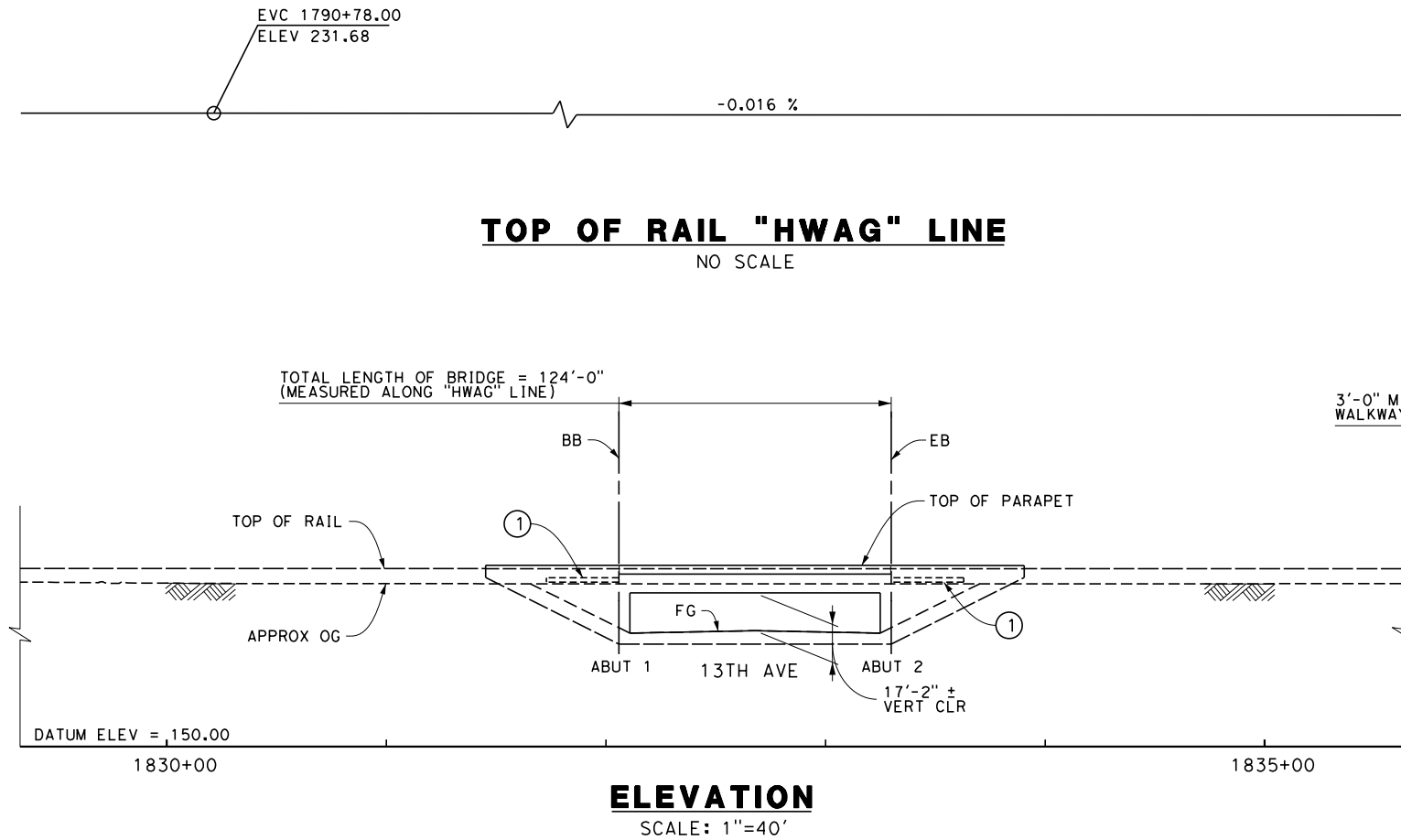
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
13TH AVE UNDERPASS
KEY MAP

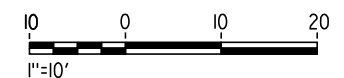
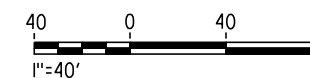
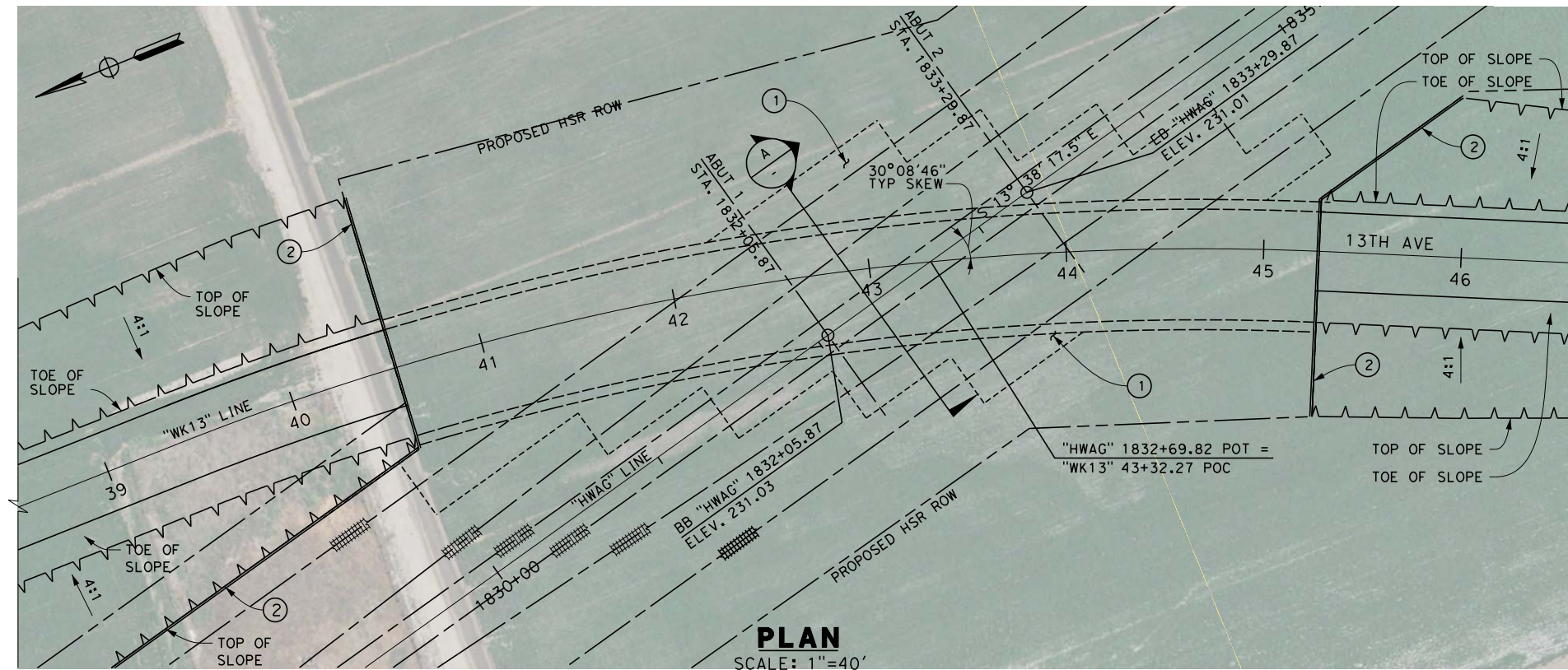
CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2035
SCALE
AS SHOWN
SHEET NO.
1 OF 2

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TYPICAL SECTION A
SCALE: 1"=10'

- NOTES:
- FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.
 - WALKWAY AND DUCTBANKS LOCALLY REALIGNED TO PASS OVER SUBSURFACE STRUCTURES.
- LEGEND:
- ① STRUCTURE APPROACH SLAB
 - ② RETAINING WALL
 - INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
13TH AVE UNDERPASS
PLAN AND ELEVATION

CONTRACT NO.
HSR 06-0003

DRAWING NO.
SV2036

SCALE
AS SHOWN

SHEET NO.
2 OF 2

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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**

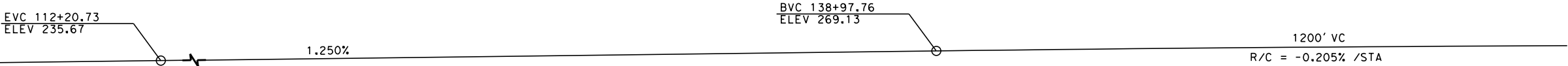


CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
SJVR OVERPASS
KEY MAP

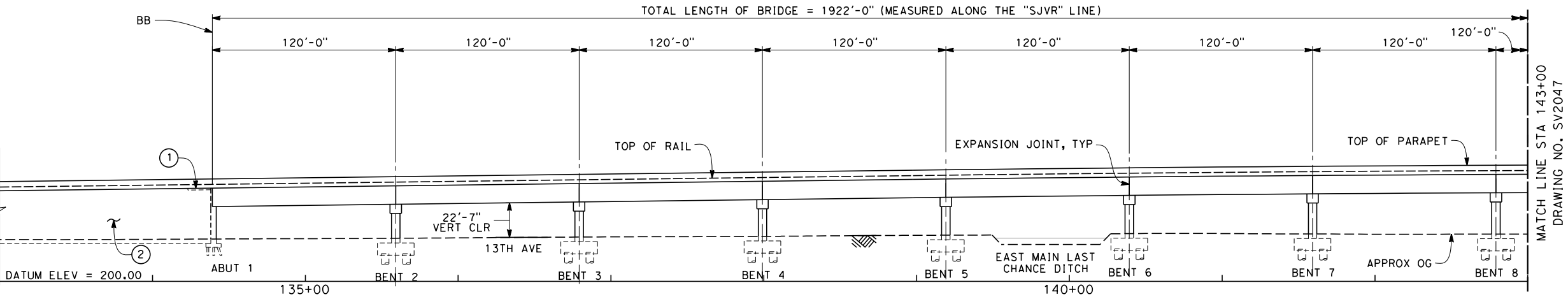
CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2045
SCALE
AS SHOWN
SHEET NO.
1 OF 4

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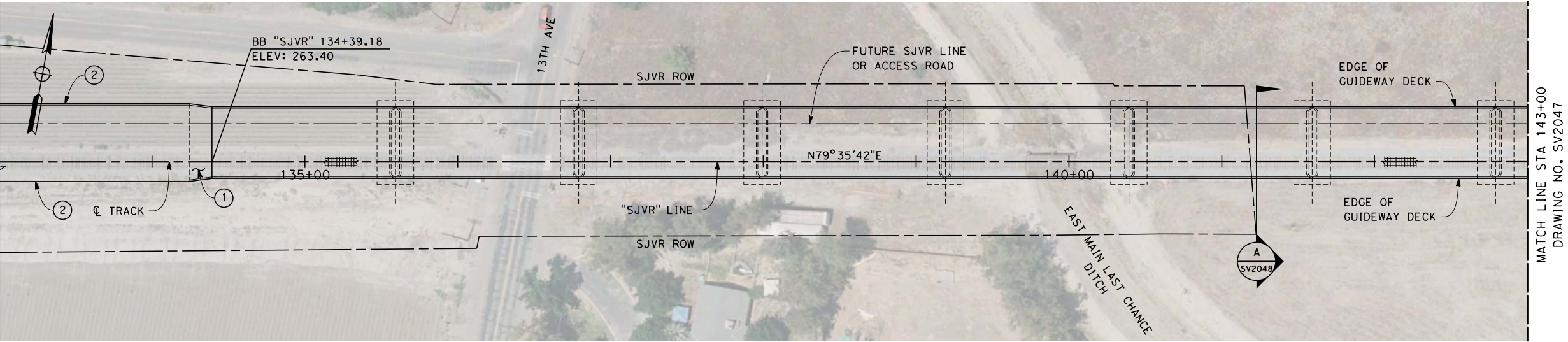
TOP OF RAIL "SJVR" LINE

NO SCALE



ELEVATION

SCALE: 1"=40'



PLAN

SCALE: 1"=40'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.
3. THE SJVR CROSSING OF THE HST SHALL INCLUDE PHYSICAL MEASURES SUCH AS CONTAINMENT PARAPETS, BARRIERS, AND/OR PHYSICAL DERAILMENT PROTECTION TO MITIGATE THE POTENTIAL FOR ERRANT VEHICLES AND/OR CARGO ON OR APPROACHING THE OVERHEAD FACILITY FROM INTRUDING INTO THE HST FACILITY AND ITS OPERATING SPACE. DESIGN OF THE PHYSICAL MEASURES SHALL BE SUBSTANTIATED BY A SITE-SPECIFIC PRELIMINARY HAZARD ANALYSIS (PHA) AND A THREAT AND VULNERABILITY ASSESSMENT (TVA).

LEGEND:

- ① STRUCTURE APPROACH SLAB
 - ② RETAINING WALL
 - ③ AR FENCE (WITH SOLID PLATE)
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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

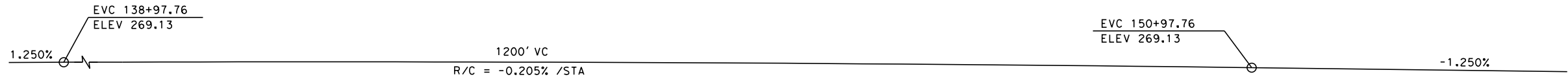
NOT FOR
CONSTRUCTION



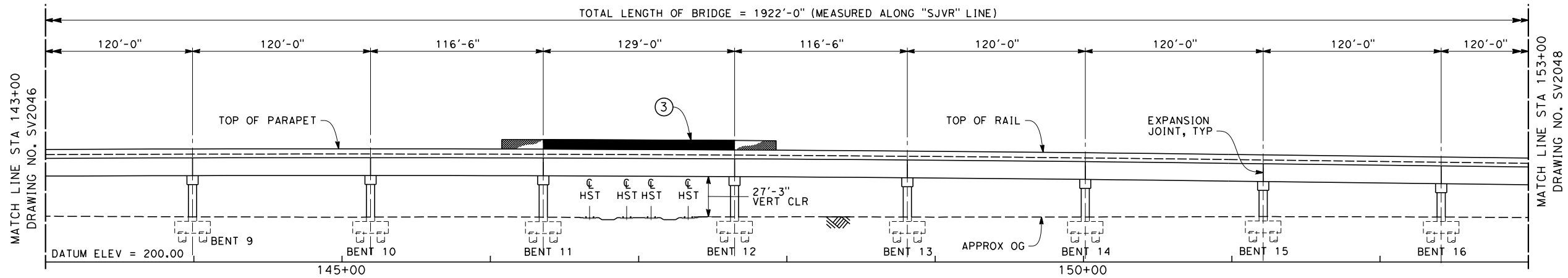
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
SJVR OVERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2046
SCALE AS SHOWN
SHEET NO. 2 OF 4

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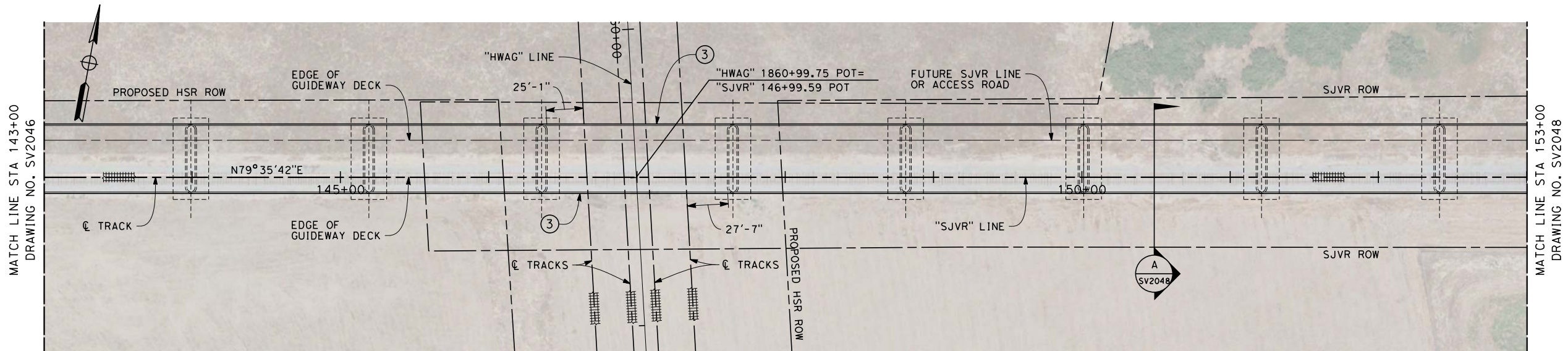


- NOTES:
1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
 2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.
 3. THE SJVR CROSSING OF THE HST SHALL INCLUDE PHYSICAL MEASURES SUCH AS CONTAINMENT PARAPETS, BARRIERS, AND/OR PHYSICAL DERAILMENT PROTECTION TO MITIGATE THE POTENTIAL FOR ERRANT VEHICLES AND/OR CARGO ON OR APPROACHING THE OVERHEAD FACILITY FROM INTRUDING INTO THE HST FACILITY AND ITS OPERATING SPACE. DESIGN OF THE PHYSICAL MEASURES SHALL BE SUBSTANTIATED BY A SITE-SPECIFIC PRELIMINARY HAZARD ANALYSIS (PHA) AND A THREAT AND VULNERABILITY ASSESSMENT (TVA).



- LEGEND:
- ① STRUCTURE APPROACH SLAB
 - ② RETAINING WALL
 - ③ AR FENCE (WITH SOLID PLATE)
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK

ELEVATION
SCALE: 1"=40'



PLAN
SCALE: 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

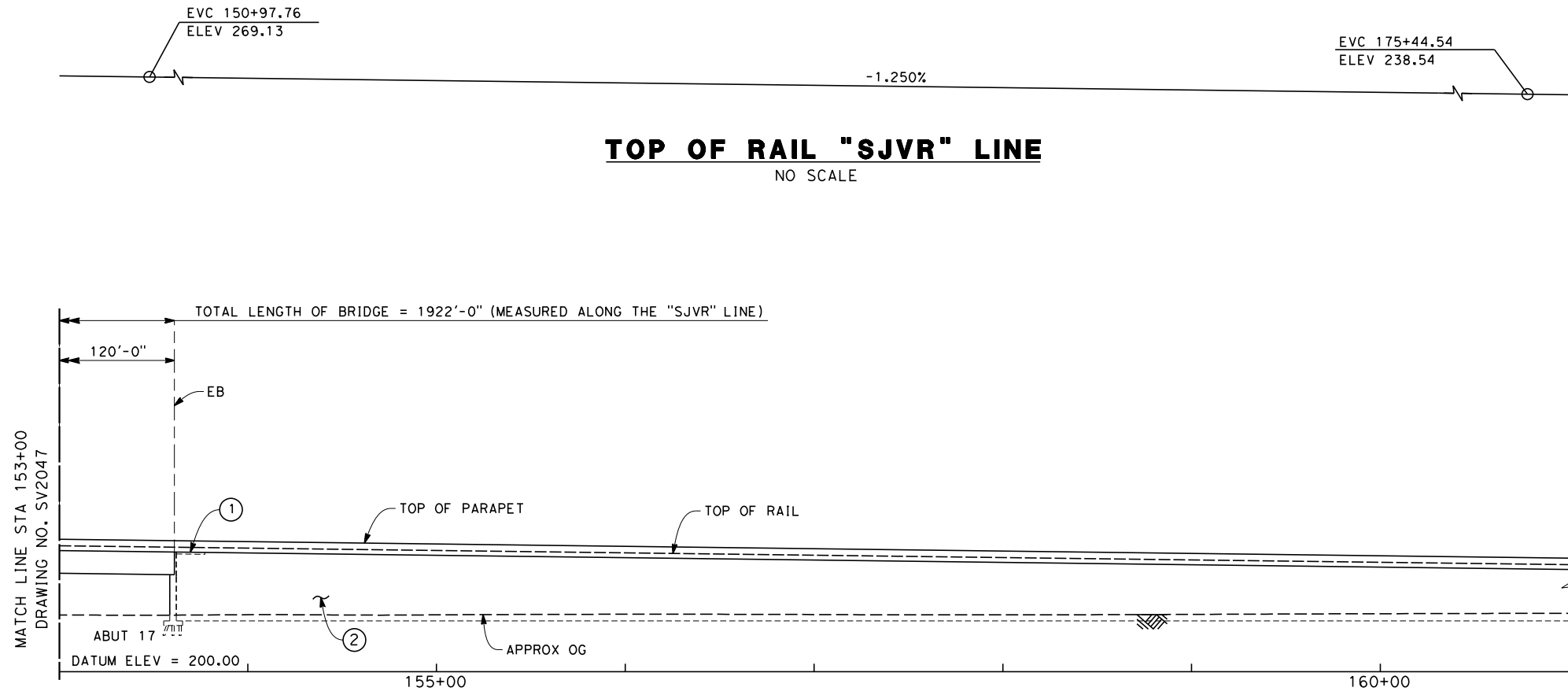
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NOT FOR CONSTRUCTION



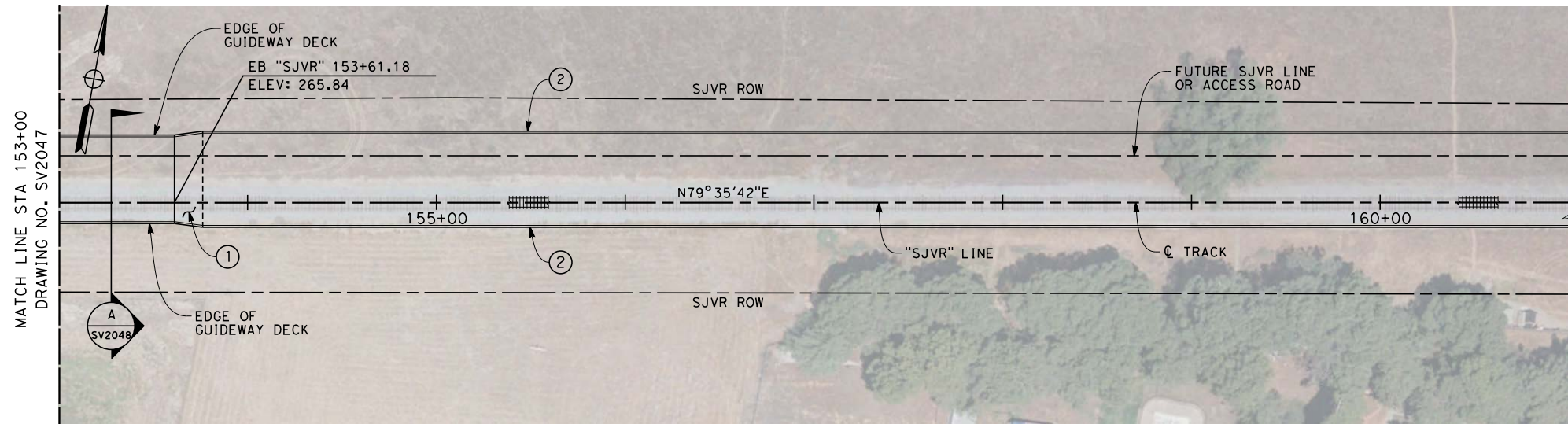
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW (AT-GRADE) SJVR OVERPASS PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2047
SCALE AS SHOWN
SHEET NO. 3 OF 4

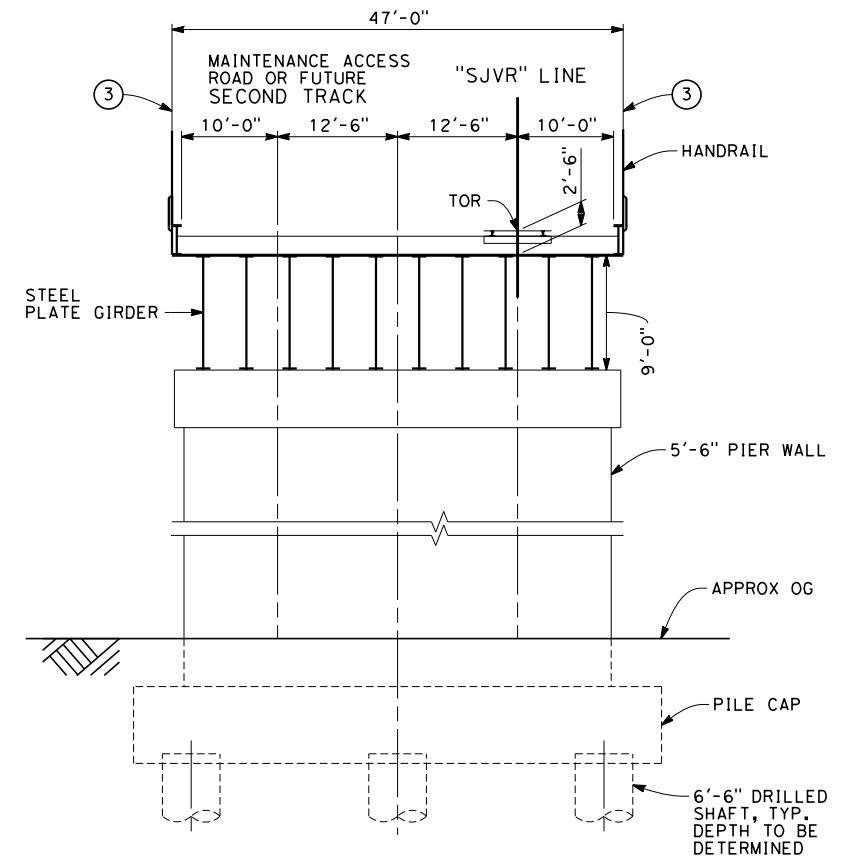
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ELEVATION
SCALE: 1"=40'



PLAN
SCALE: 1"=40'

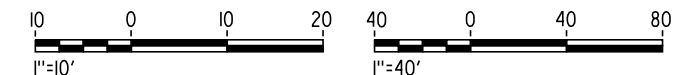


TYPICAL SECTION
SCALE: 1"=10'

- NOTES:
1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
 2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.
 3. THE SJVR CROSSING OF THE HST SHALL INCLUDE PHYSICAL MEASURES SUCH AS CONTAINMENT PARAPETS, BARRIERS, AND/OR PHYSICAL DERAILMENT PROTECTION TO MITIGATE THE POTENTIAL FOR ERRANT VEHICLES AND/OR CARGO ON OR APPROACHING THE OVERHEAD FACILITY FROM INTRUDING INTO THE HST FACILITY AND ITS OPERATING SPACE. DESIGN OF THE PHYSICAL MEASURES SHALL BE SUBSTANTIATED BY A SITE-SPECIFIC PRELIMINARY HAZARD ANALYSIS (PHA) AND A THREAT AND VULNERABILITY ASSESSMENT (TVA).

- LEGEND:
- ① STRUCTURE APPROACH SLAB
 - ② RETAINING WALL
 - ③ AR FENCE (WITH SOLID PLATE)

INDICATES RAILROAD AND
HIGH-SPEED TRAIN TRACK



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**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW (AT-GRADE)
SJVR OVERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2048
SCALE AS SHOWN
SHEET NO. 4 OF 4

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



URS | HMM | ARUP

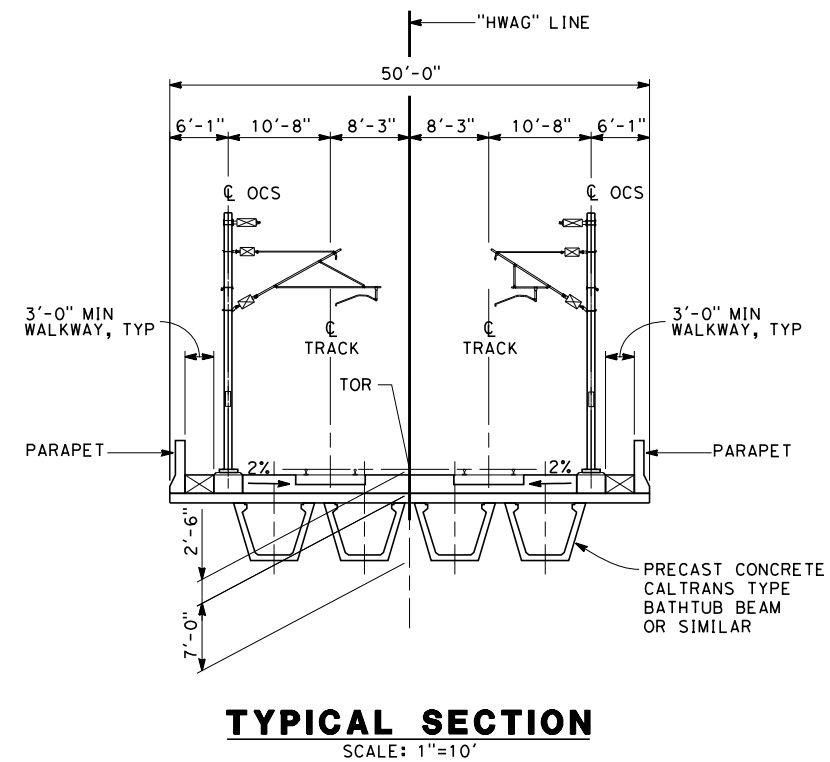
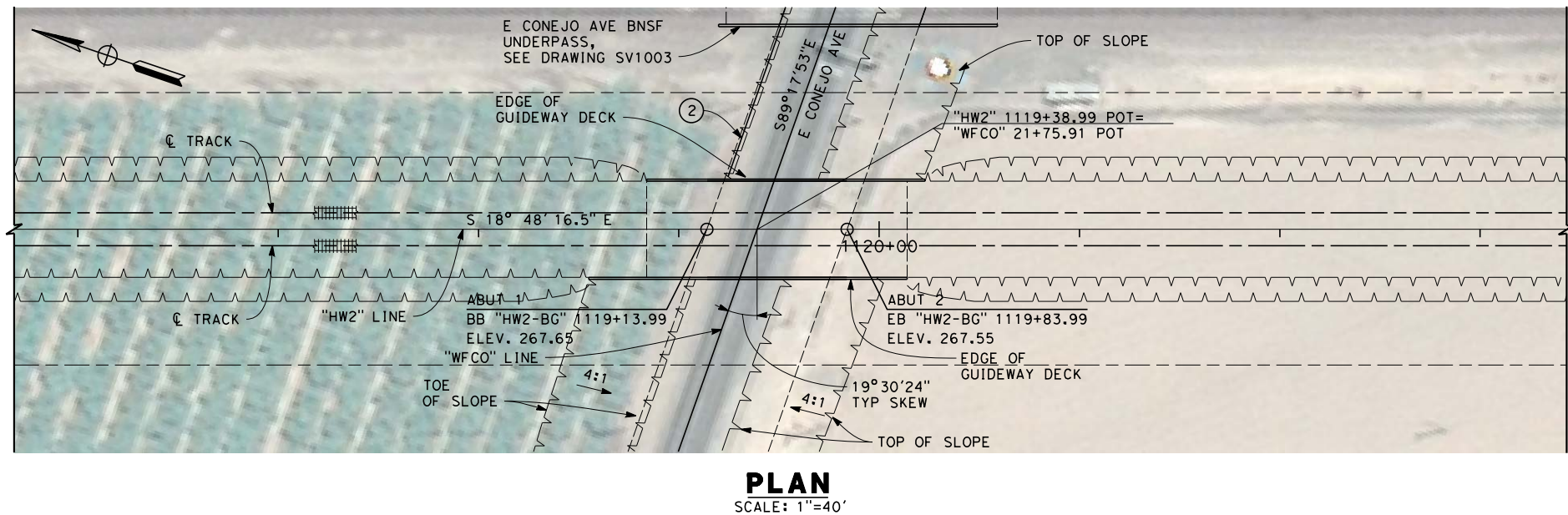
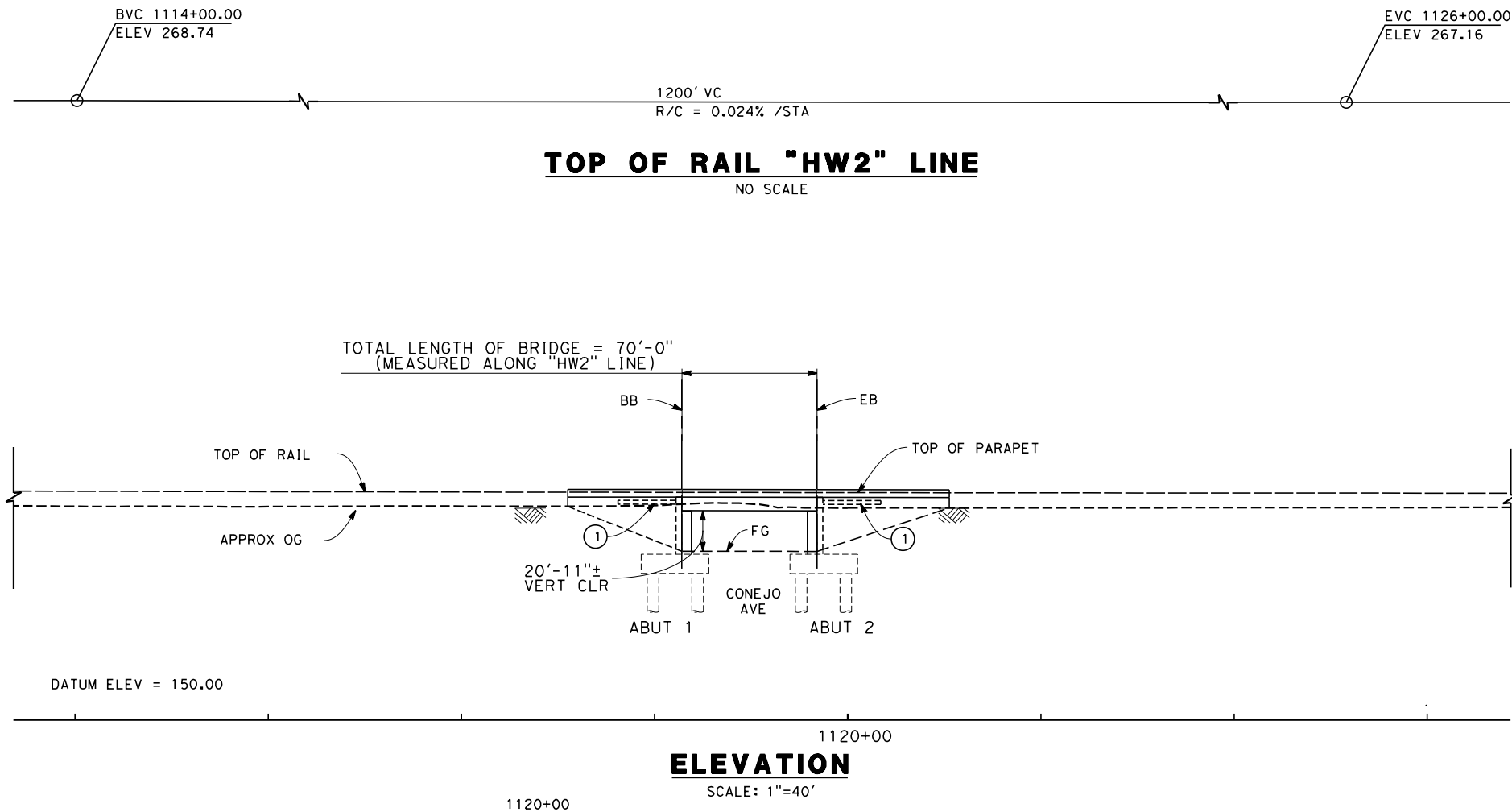
CALIFORNIA HIGH-SPEED TRAIN



HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
E CONEJO AVE HST UNDERPASS
KEY MAP

CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV1000
SCALE	AS SHOWN
SHEET NO.	1 OF 2

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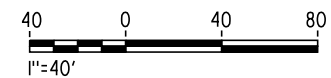


NOTES:

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

LEGEND:

- ① STRUCTURE APPROACH SLAB
- ② RETAINING WALLS
- INDICATES RAILROAD AND
HIGH-SPEED TRAIN TRACK



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

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DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
E CONEJO AVE HST UNDERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1001
SCALE AS SHOWN
SHEET NO. 2 OF 2

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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**

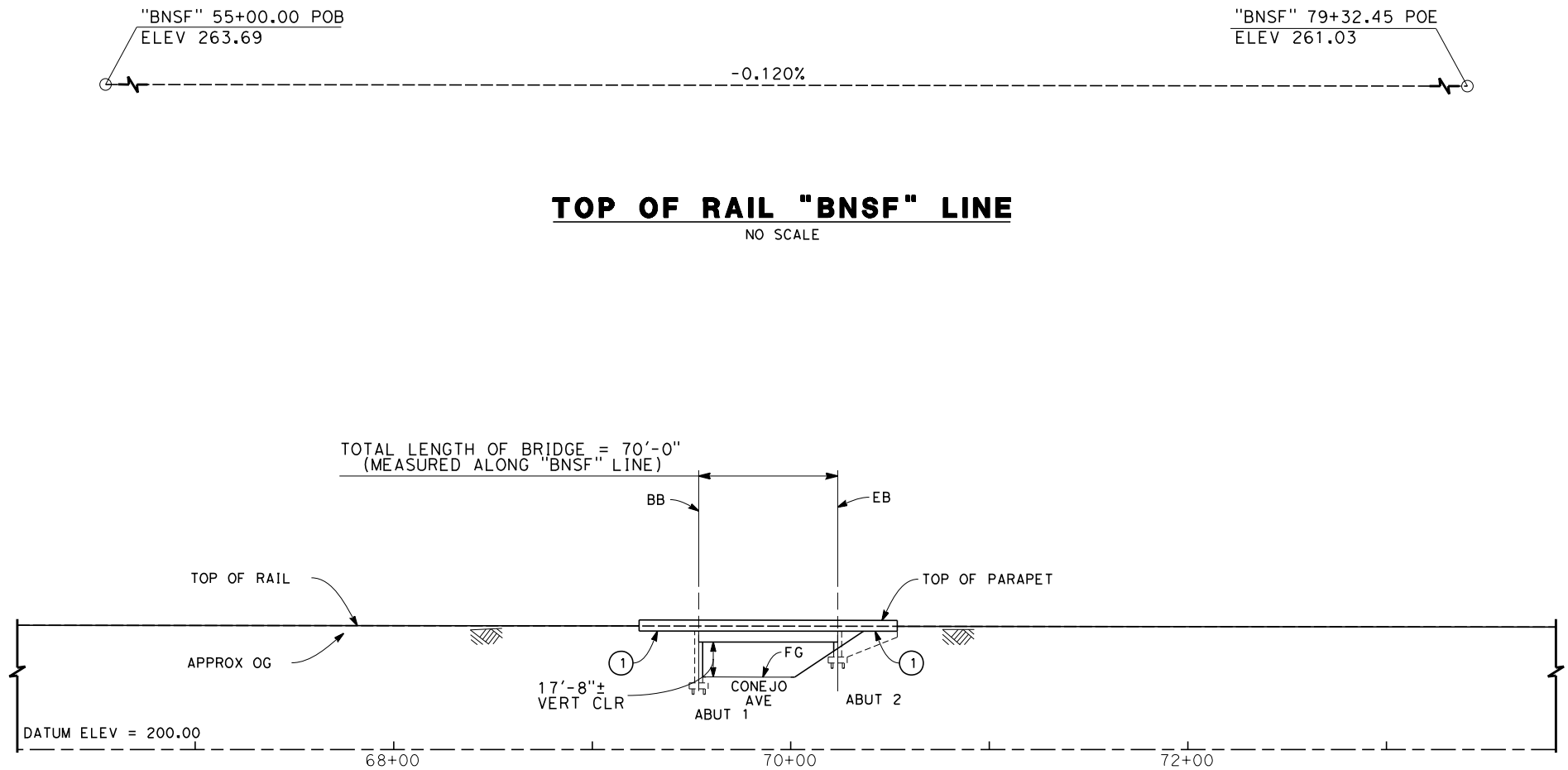


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

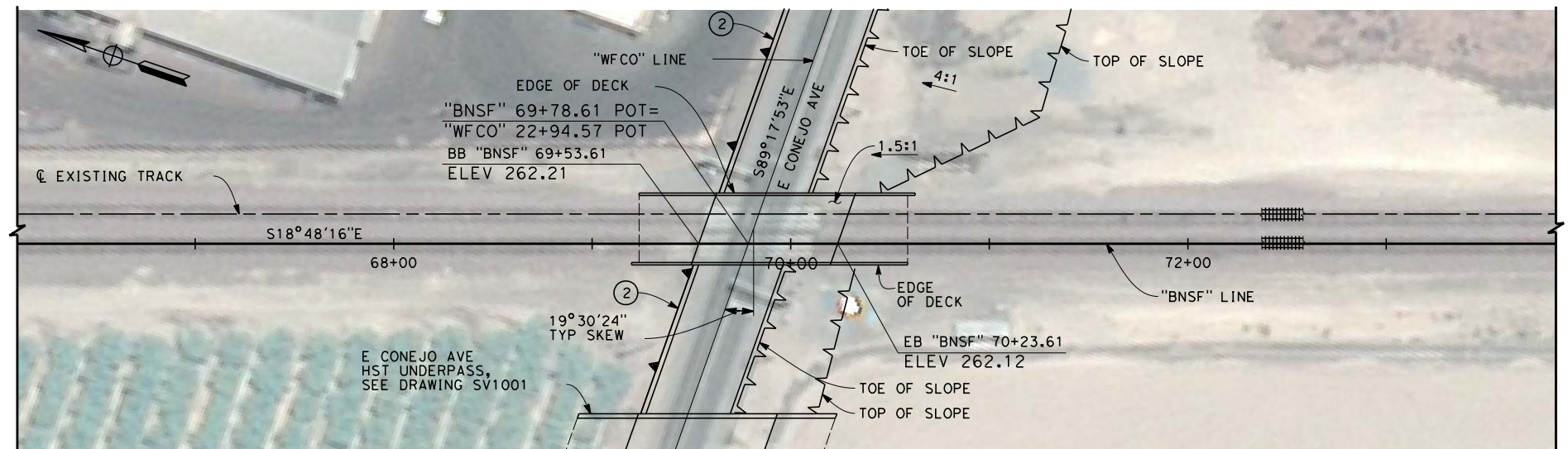
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
E CONEJO AVE BNSF UNDERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1002
SCALE AS SHOWN
SHEET NO. 1 OF 2

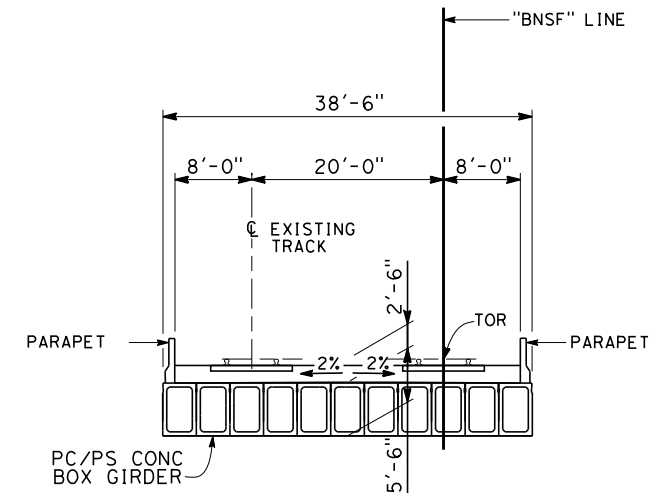
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ELEVATION
SCALE: 1"=40'



PLAN
SCALE: 1"=40'



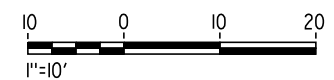
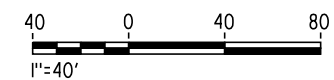
TYPICAL SECTION
SCALE: 1"=10'

NOTES:

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

LEGEND:

- ① STRUCTURE APPROACH SLAB
- ② RETAINING WALLS
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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



CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED E CONEJO AVE BNSF UNDERPASS PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1003
SCALE AS SHOWN
SHEET NO. 2 OF 2

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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 12/13/13

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

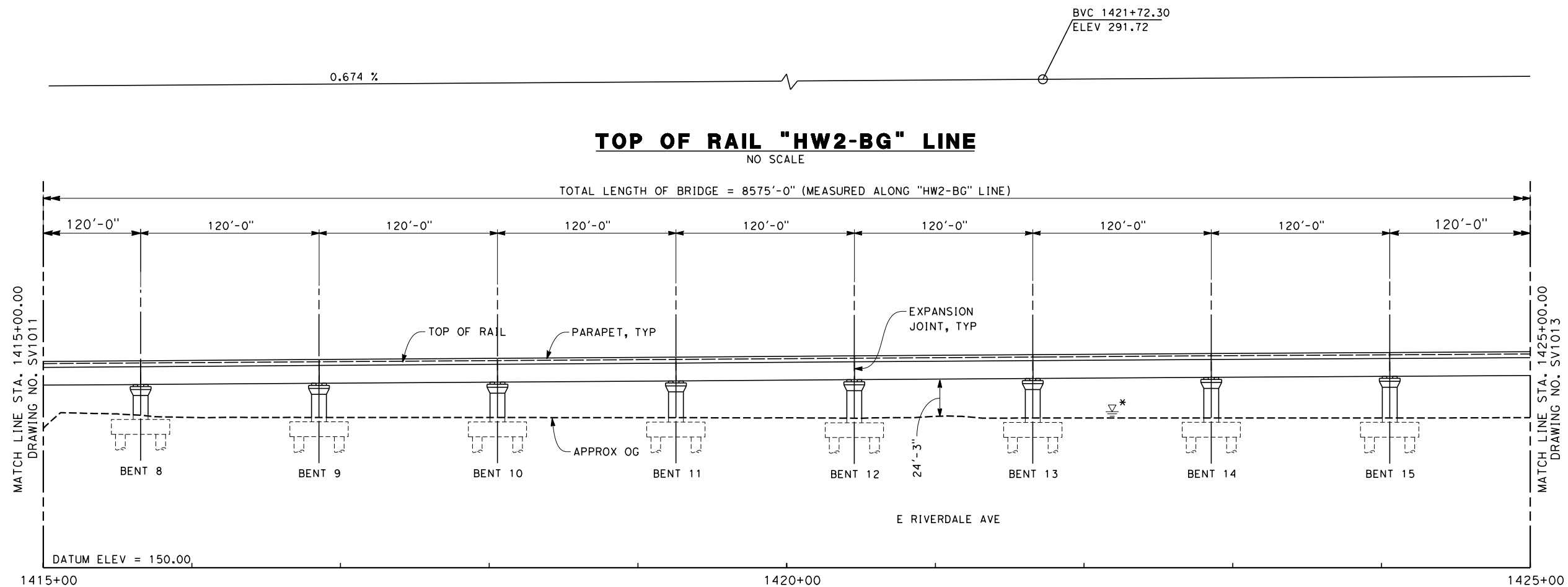


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

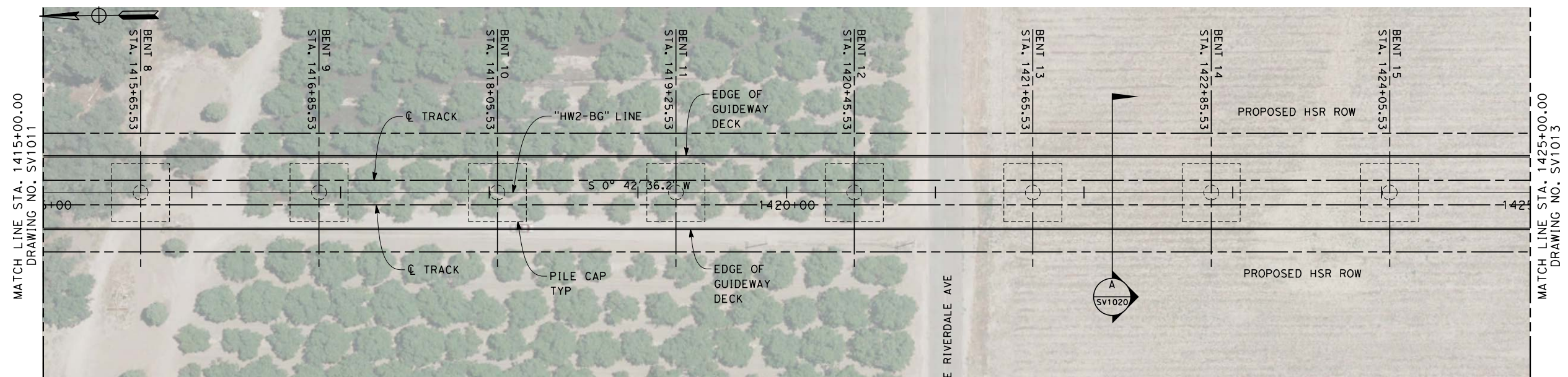
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
KINGS RIVER VIADUCT
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1010
SCALE AS SHOWN
SHEET NO. 1 OF 11

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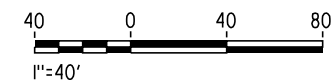
ELEVATION
SCALE 1" = 40'



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".



REV	DATE	BY	CHK	APP	DESCRIPTION

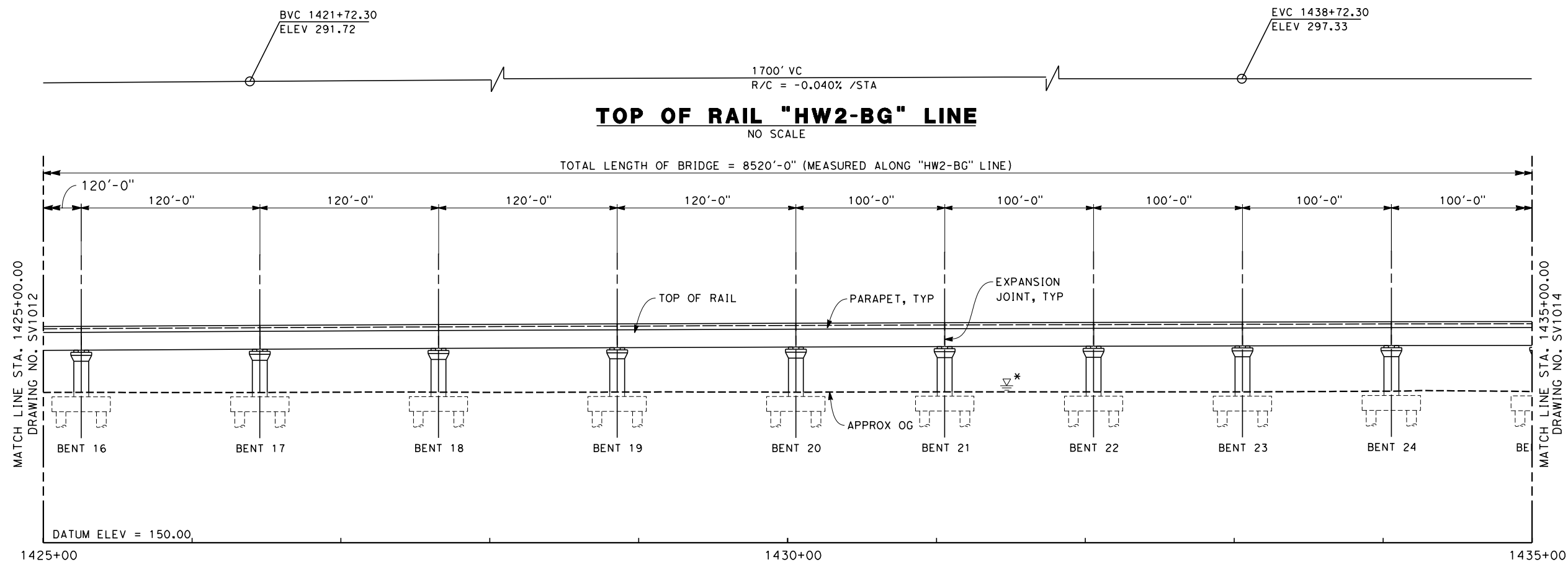
DESIGNED BY M. FISHER
DRAWN BY N. HUTTON
CHECKED BY A. AMRSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION

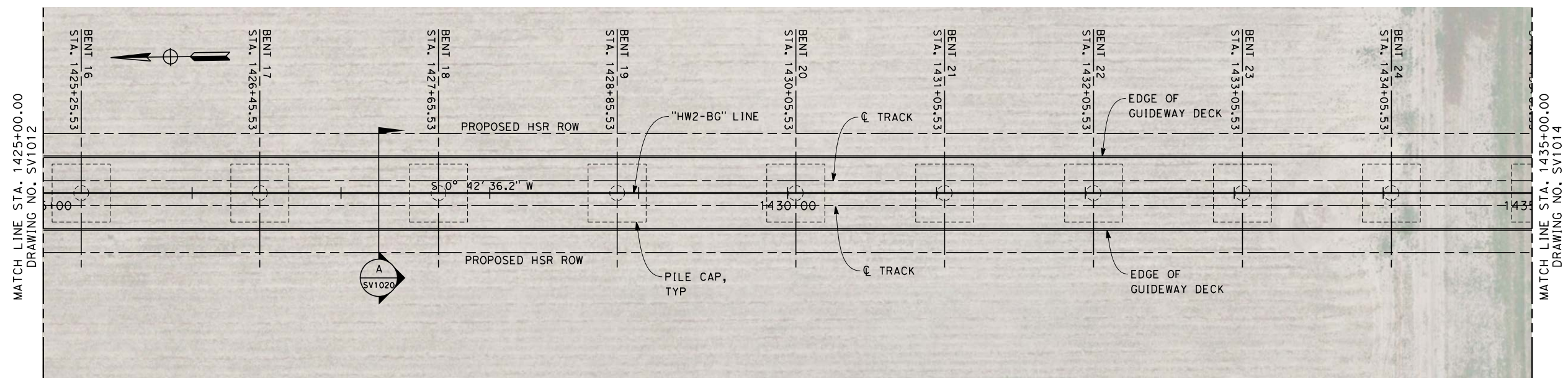


CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED KINGS RIVER VIADUCT PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1012
SCALE AS SHOWN
SHEET NO. 3 OF 11



ELEVATION
SCALE 1" = 40'



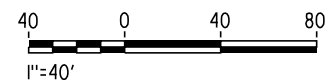
PLAN
SCALE 1" = 40'

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".

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

**RECORD SET 15%
DESIGN SUBMISSION**

-

**NOT FOR
CONSTRUCTION**

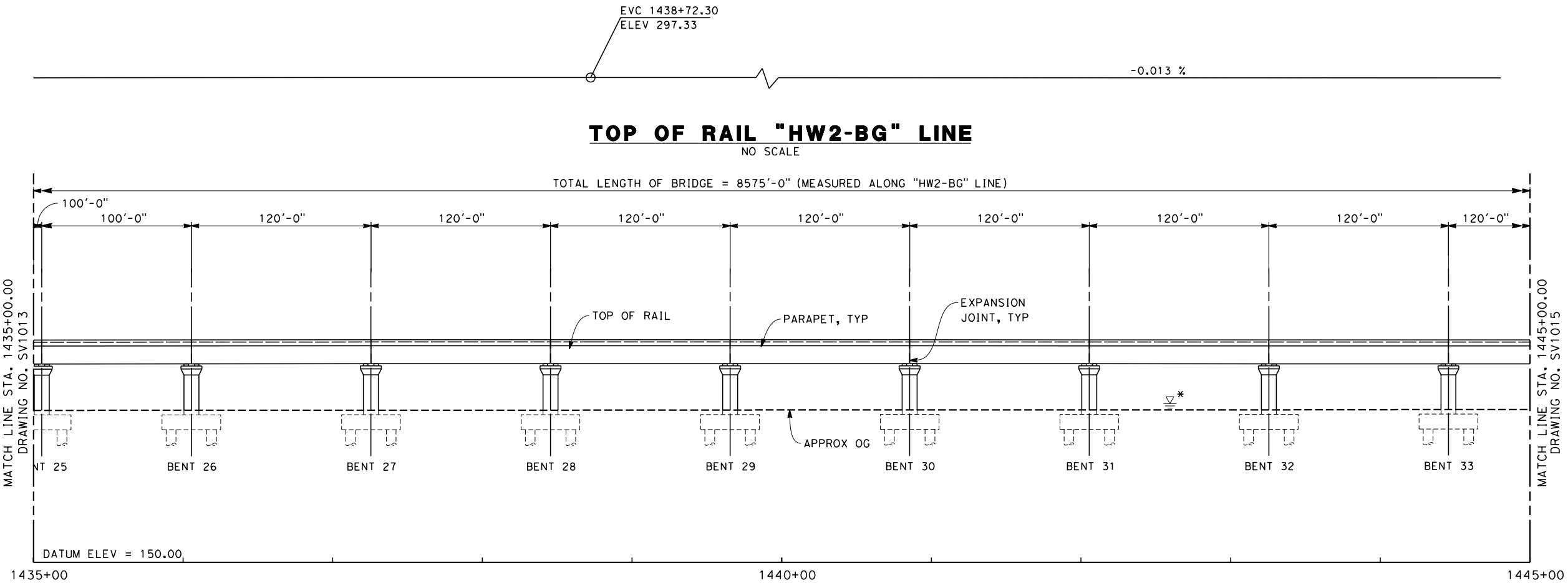


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
KINGS RIVER VIADUCT
PLAN AND PROFILE

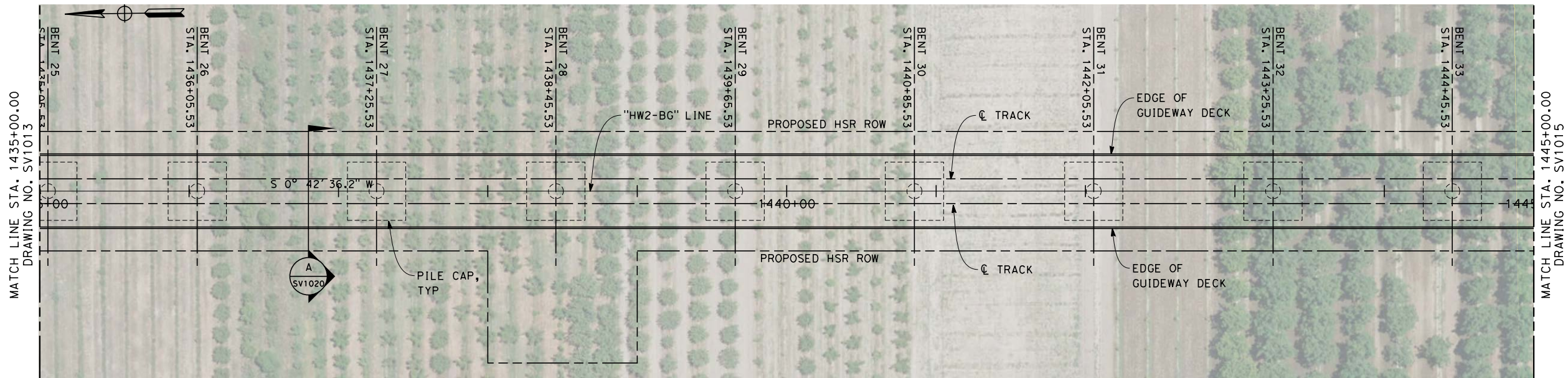
CONTRACT NO.	HSR 06-0003
DRAWING NO.	SV1013
SCALE	AS SHOWN
SHEET NO.	4 OF 11

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ELEVATION
SCALE 1" = 40'



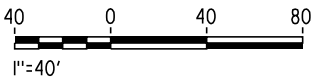
PLAN
SCALE 1" = 40'

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".



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

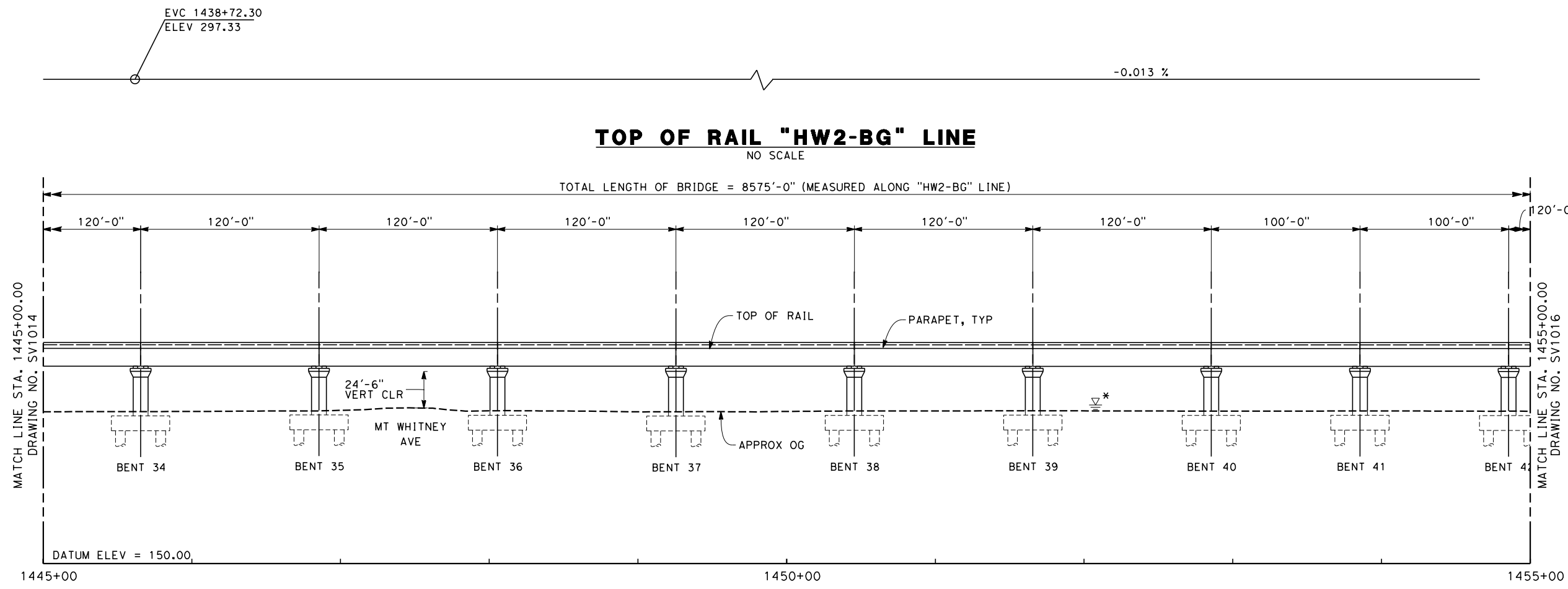


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

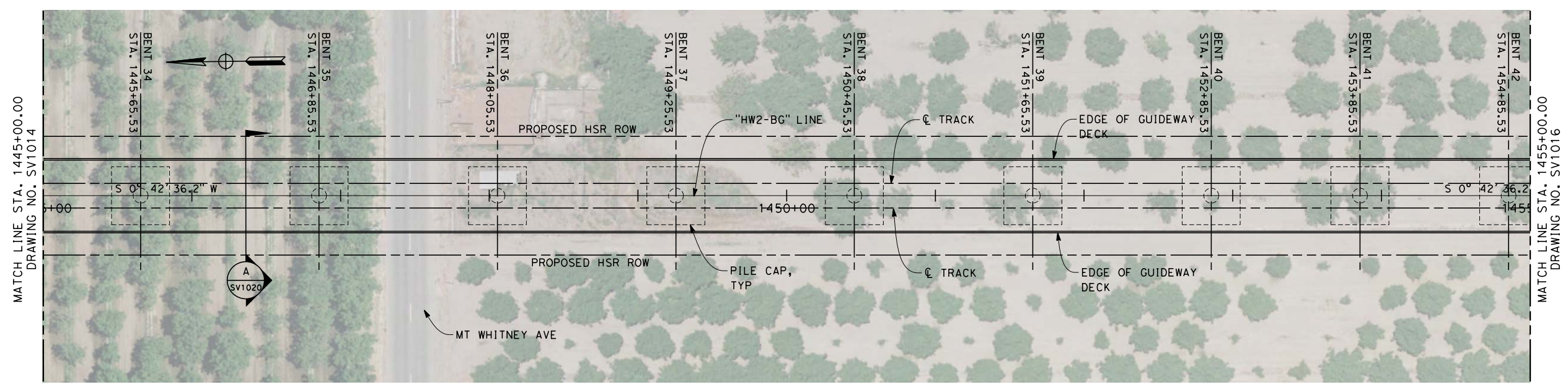
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
KINGS RIVER VIADUCT
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1014
SCALE AS SHOWN
SHEET NO. 5 OF 11

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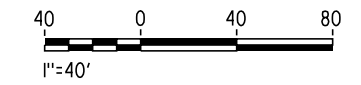
ELEVATION
SCALE 1" = 40'



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".



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

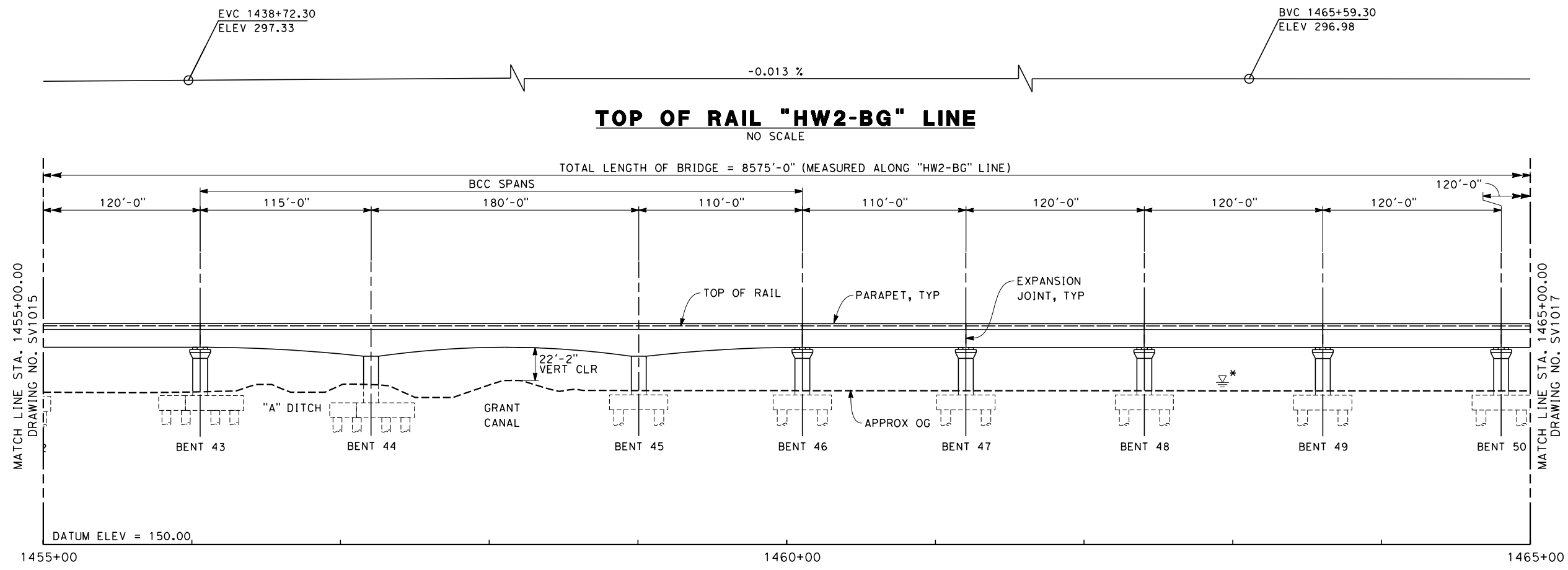


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

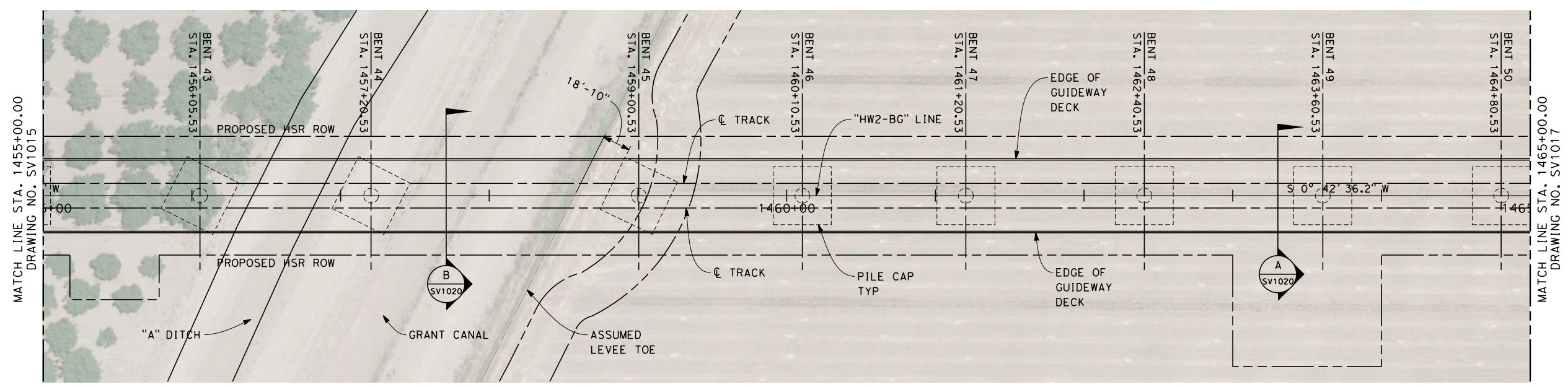
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
KINGS RIVER VIADUCT
PLAN AND PROFILE

CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV1015
SCALE
AS SHOWN
SHEET NO.
6 OF 11

c:\pwworking\hmm\external\andrew.armstrong-arup.com\dms82478\X-FB-SV-1016-HW2.dgn 2/12/2013 2:46:42 PM andrew.armstrong



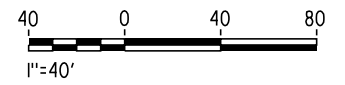
ELEVATION
SCALE 1" = 40'





PLAN
SCALE 1" = 40'

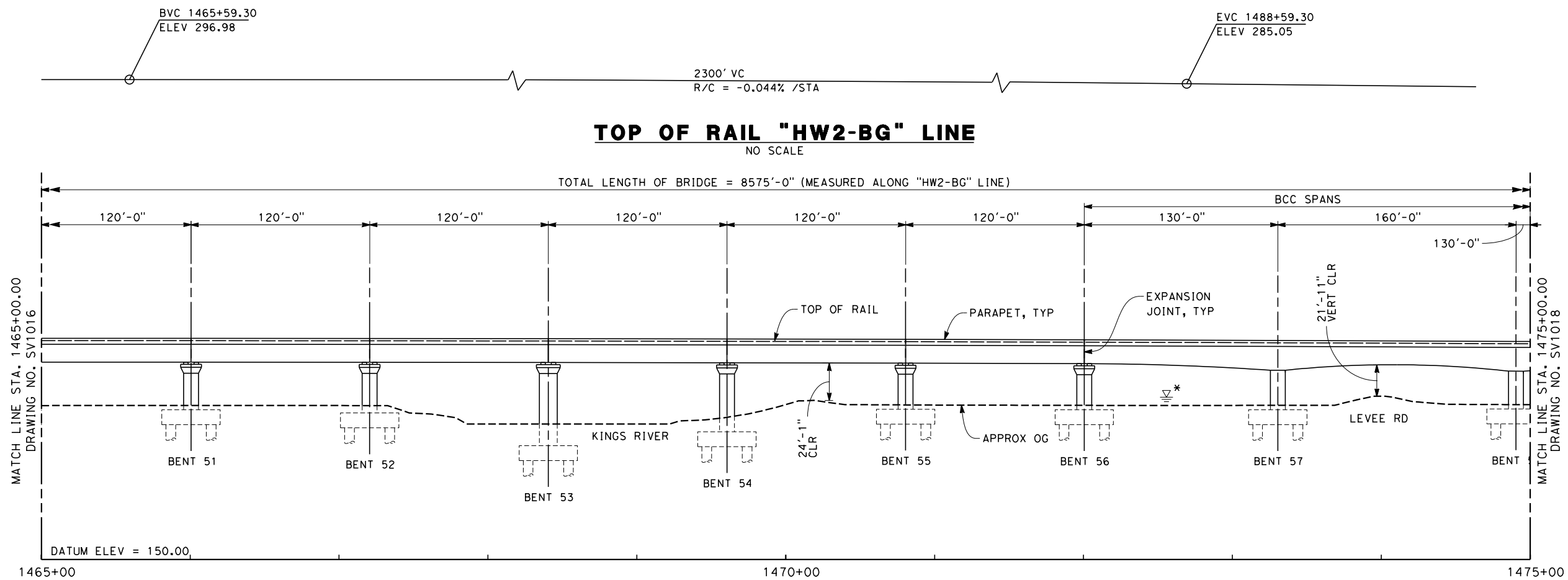
- NOTES**
1. NOT ALL PILES SHOWN
 2. PILE LENGTH TO BE DETERMINED
 3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
 4. UTILITY LOCATIONS TO BE DETERMINED
 5. ACCESS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

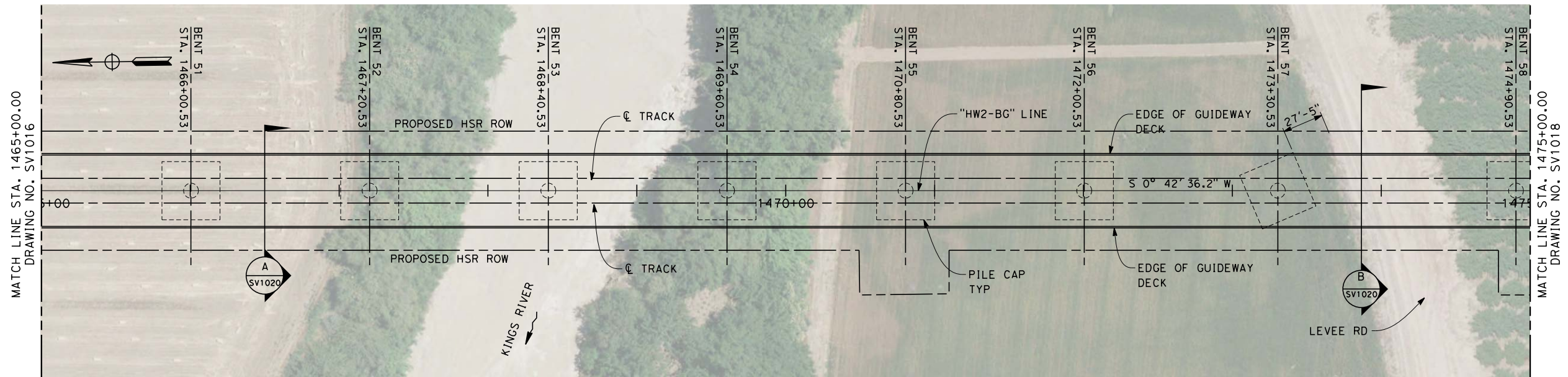


						DESIGNED BY M. FISHER	RECORD SET 15% DESIGN SUBMISSION NOT FOR CONSTRUCTION	 	CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED KINGS RIVER VIADUCT PLAN AND PROFILE	CONTRACT NO. HSR 06-0003
						DRAWN BY N. HUTTON				DRAWING NO. SV1016
						CHECKED BY A. ARMSTRONG				SCALE AS SHOWN
						IN CHARGE R. COFFIN				SHEET NO. 7 OF 11
						DATE 12/31/13				
REV	DATE	BY	CHK	APP	DESCRIPTION					

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ELEVATION
SCALE 1" = 40'



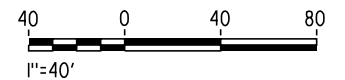
PLAN
SCALE 1" = 40'

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".



REV	DATE	BY	CHK	APP	DESCRIPTION

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

**RECORD SET 15%
DESIGN SUBMISSION**

**NOT FOR
CONSTRUCTION**

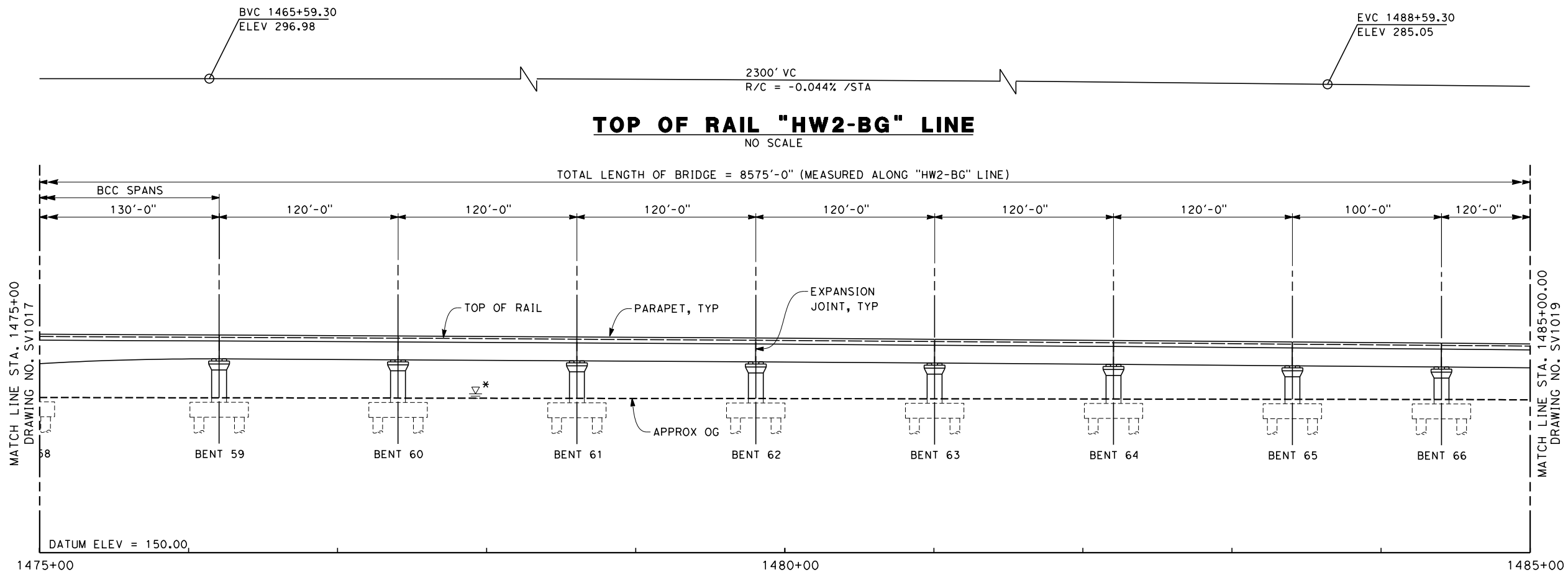


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**

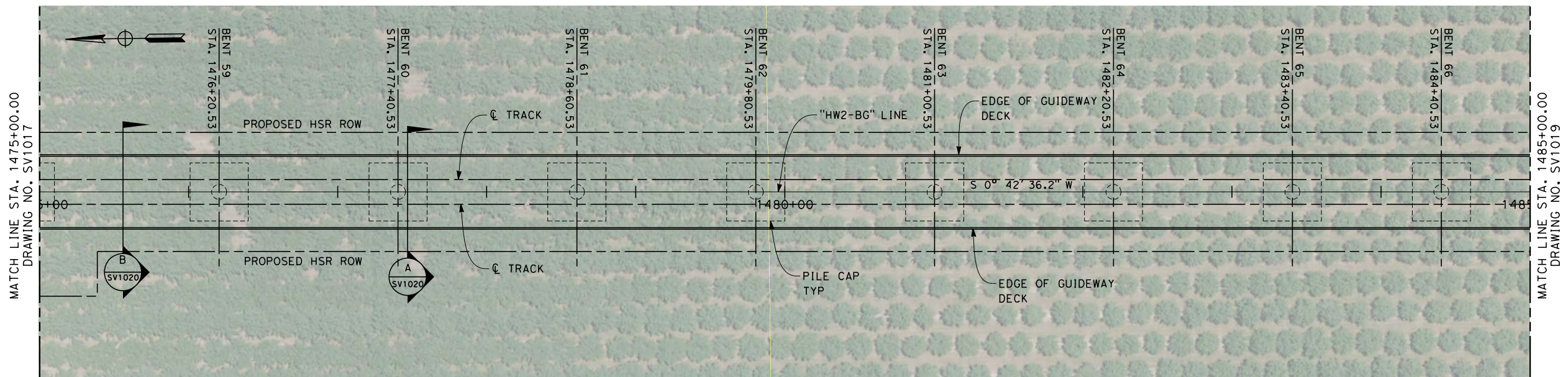
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
KINGS RIVER VIADUCT
PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1017
SCALE AS SHOWN
SHEET NO. 8 OF 11

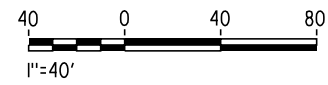
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- NOTES**
1. NOT ALL PILES SHOWN
 2. PILE LENGTH TO BE DETERMINED
 3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
 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 N. HUTTON
CHECKED BY A. ARMSTRONG
IN CHARGE R. COFFIN
DATE 12/31/13

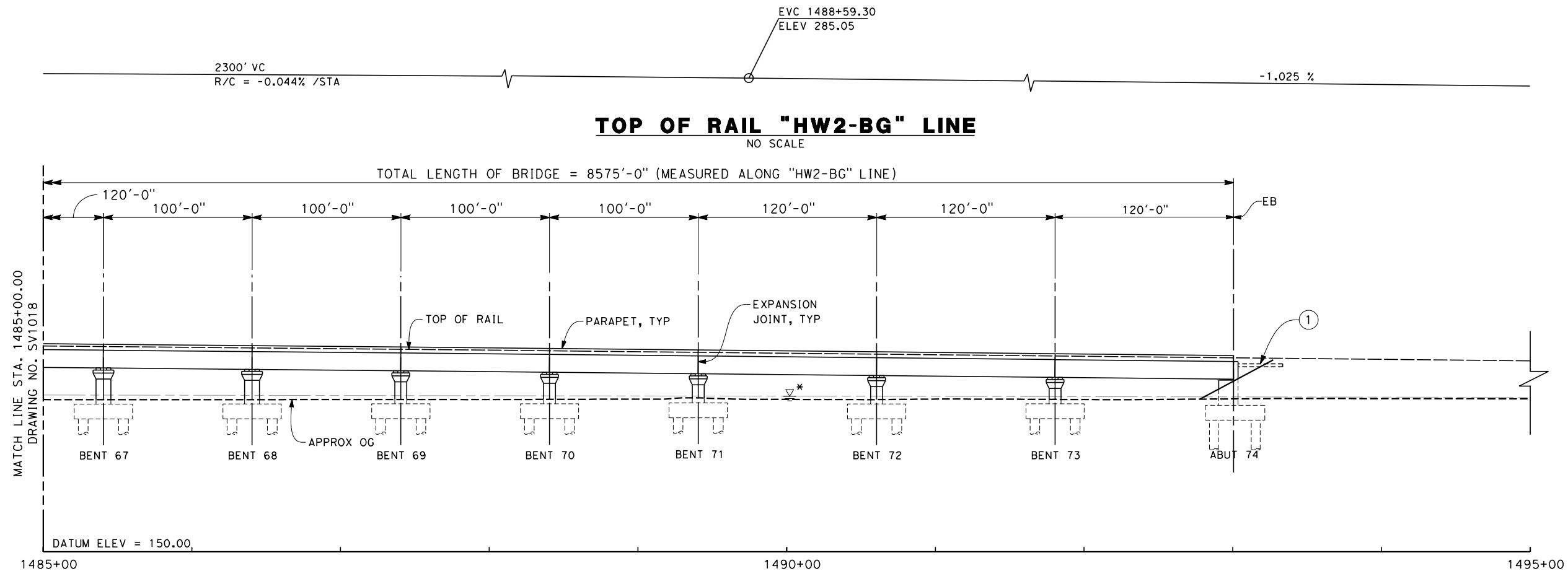
RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION



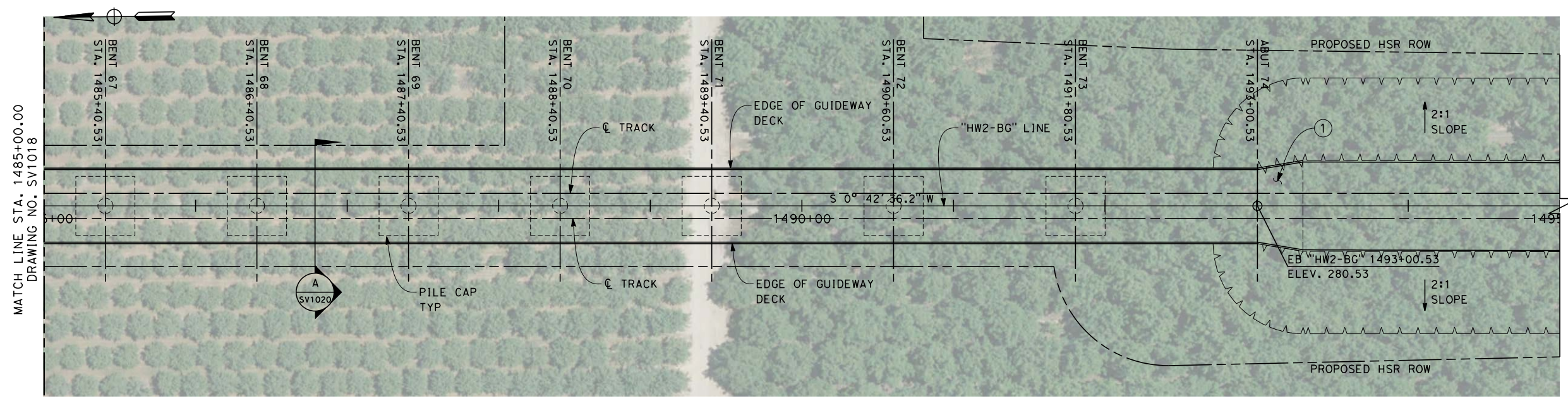
CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED KINGS RIVER VIADUCT PLAN AND PROFILE

CONTRACT NO. HSR 06-0003
DRAWING NO. SV1018
SCALE AS SHOWN
SHEET NO. 9 OF 11

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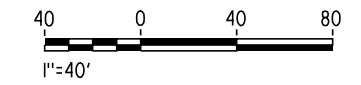
ELEVATION
SCALE 1" = 40'





PLAN
SCALE 1" = 40'

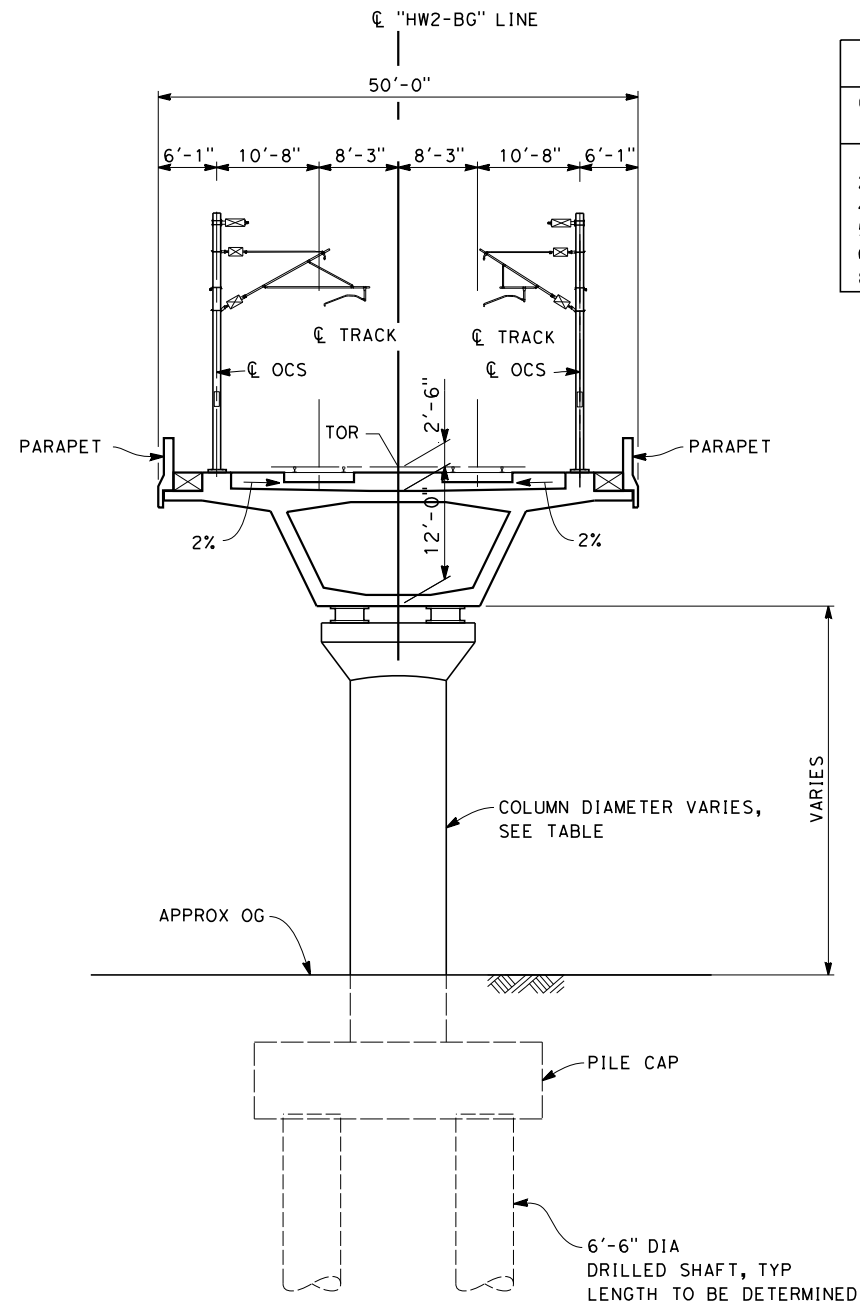
- NOTES**
1. NOT ALL PILES SHOWN
 2. PILE LENGTH TO BE DETERMINED
 3. SUPERSTRUCTURE CONSTRUCTION, UON
SIMPLE SPANS - MSS OR FLPM
CONTINUOUS SPANS - BCC - PRECAST IN-SITU
STEEL TRUSS - INSITU, SLID OR LAUNCHED
ELEVATED SLABS - PC BEAM AND INSITU SLAB
 4. UTILITY LOCATIONS TO BE DETERMINED
 5. ACCESS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



						DESIGNED BY M. FISHER	RECORD SET 15% DESIGN SUBMISSION NOT FOR CONSTRUCTION	 	CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED KINGS RIVER VIADUCT PLAN AND PROFILE	CONTRACT NO. HSR 06-0003	
						DRAWN BY F. PALERMO				DRAWING NO. SV1019	
						CHECKED BY A. ARMSTRONG				SCALE AS SHOWN	
						IN CHARGE R. COFFIN				SHEET NO. 10 OF 11	
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 12/31/13					

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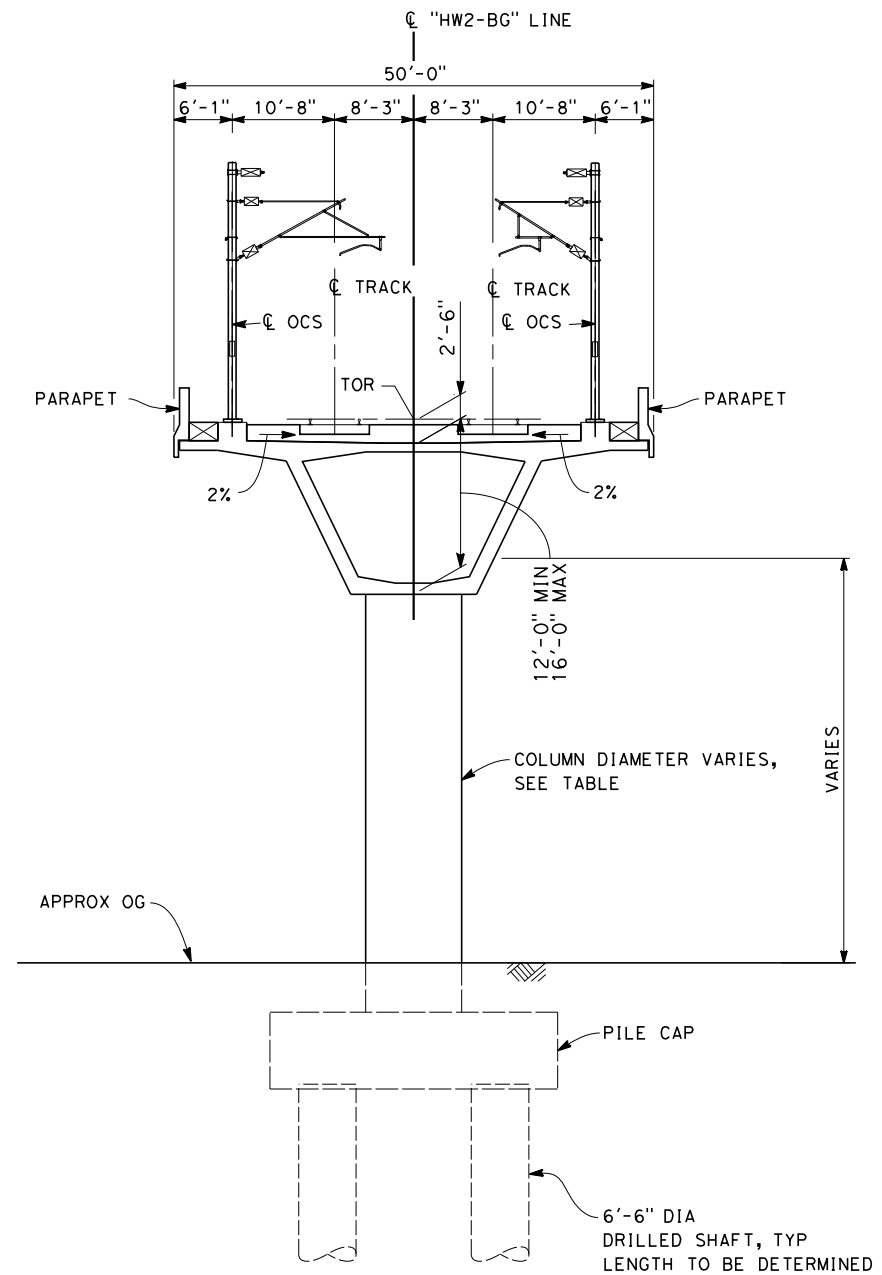


SECTION A

SCALE: 1" = 10'

STA 1407+26 THROUGH 1456+06
STA 1460+11 THROUGH 1472+01
STA 1476+21 THROUGH 1493+01

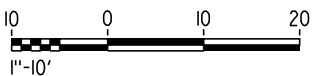
COLUMN DIAMETERS	
COLUMN HEIGHT	DIAMETER
0-20	8 FT
20-40	10 FT
40-50	12 FT
50-60	15 FT
60-80	20 FT
80-100	25 FT



SECTION B

SCALE: 1" = 10'

STA 1456+06 THROUGH 1460+11
STA 1472+01 THROUGH 1476+21



REV	DATE	BY	CHK	APP	DESCRIPTION


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

RECORD SET 15% DESIGN SUBMISSION
NOT FOR CONSTRUCTION

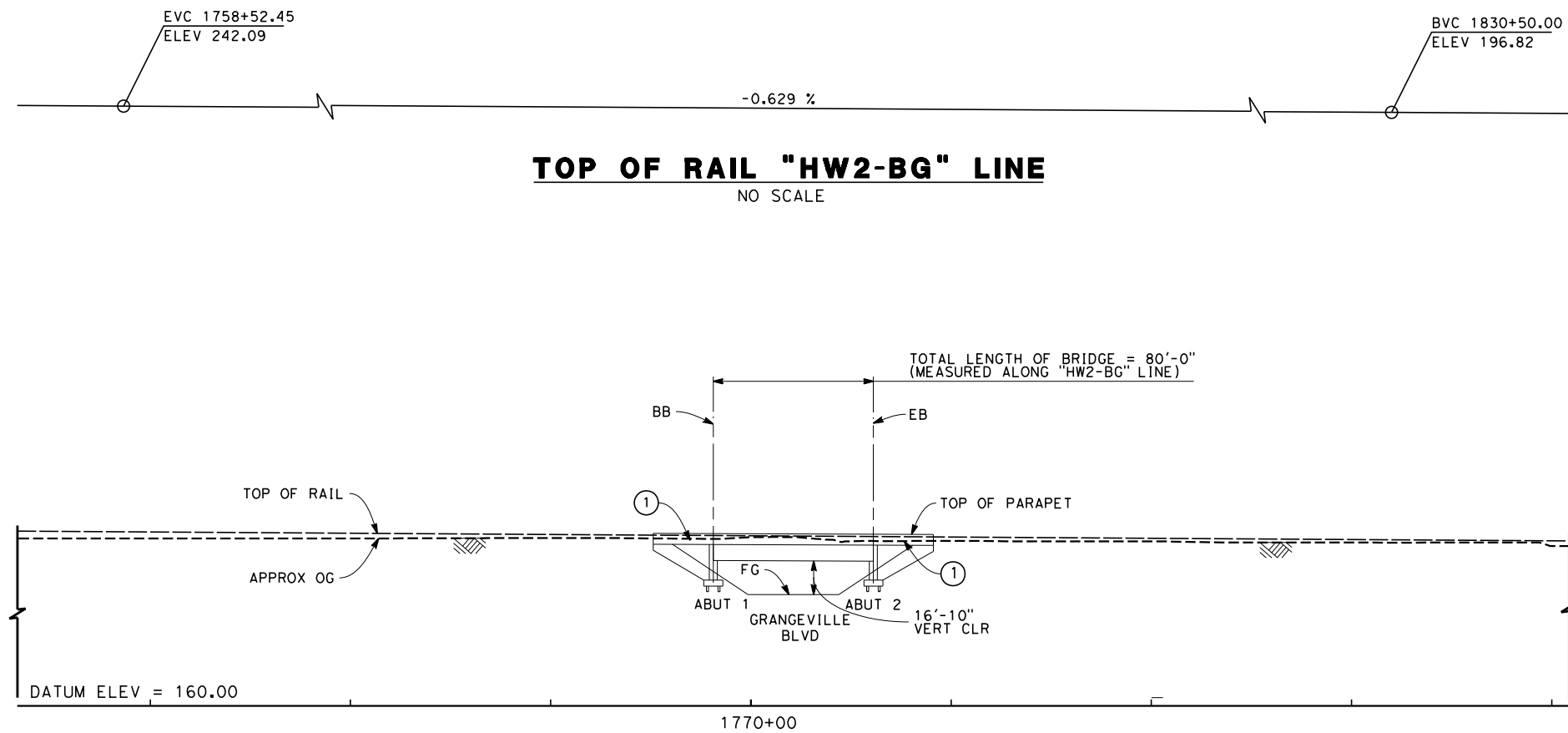


CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD
HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED KINGS RIVER VIADUCT TYPICAL SECTIONS

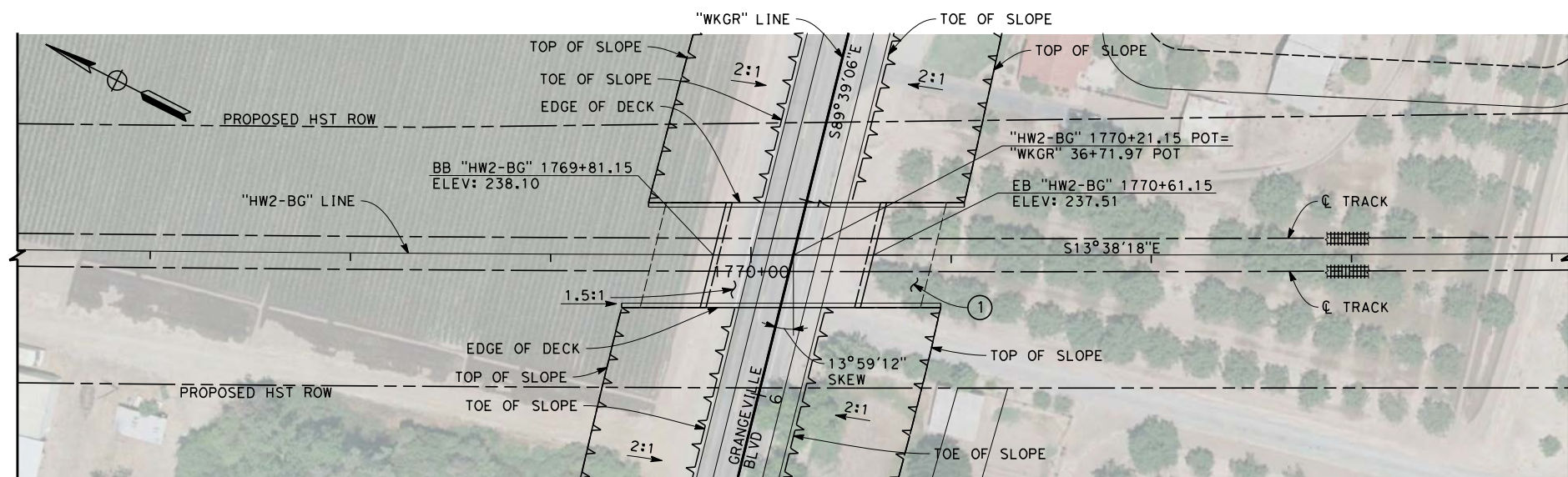
CONTRACT NO. HSR 06-0003
DRAWING NO. SV1020
SCALE AS SHOWN
SHEET NO. 11 OF 11

						DESIGNED BY M. FISHER	RECORD SET 15% DESIGN SUBMISSION - NOT FOR CONSTRUCTION	 	CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD HANFORD WEST BYPASS SUBSECTION ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED GRANGEVILLE BLVD UNDERPASS KEY MAP	CONTRACT NO. HSR 06-0003
						DRAWN BY F. PALERMO				DRAWING NO. SV2027
						CHECKED BY A. ARMSTRONG				SCALE AS SHOWN
						IN CHARGE R. COFFIN				SHEET NO. 1 OF 2
						DATE 12/31/13				
REV	DATE	BY	CHK	APP	DESCRIPTION					

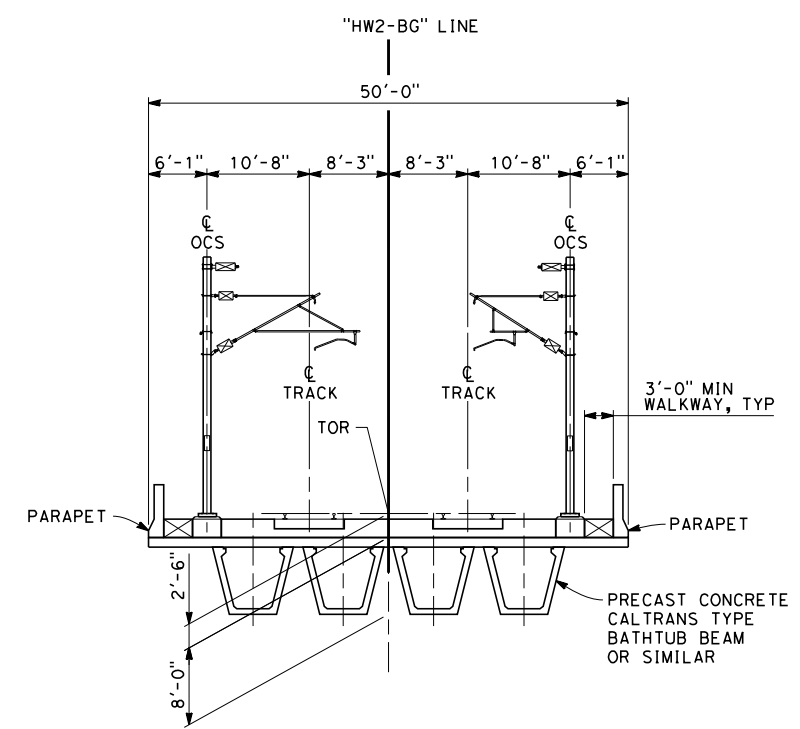
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ELEVATION
SCALE: 1"=40'



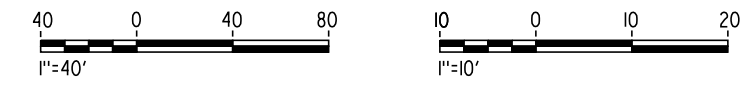
PLAN
SCALE: 1"=40'



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



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**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD**
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
GRANGEVILLE BLVD UNDERPASS
PLAN AND ELEVATION

CONTRACT NO.
HSR 06-0003
DRAWING NO.
SV2028
SCALE
AS SHOWN
SHEET NO.
2 OF 2

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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

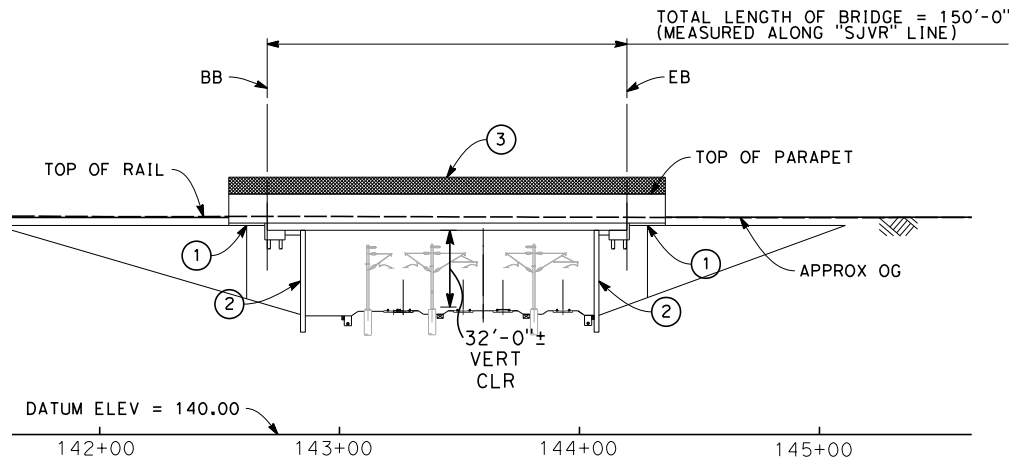
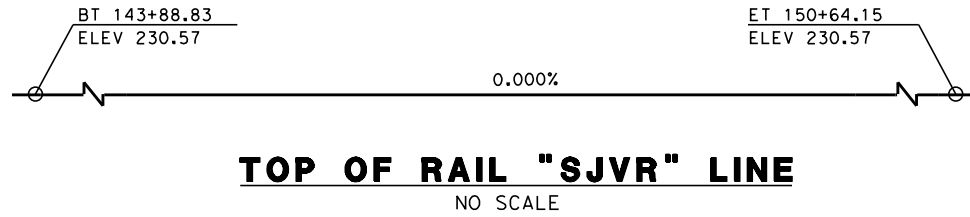


CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

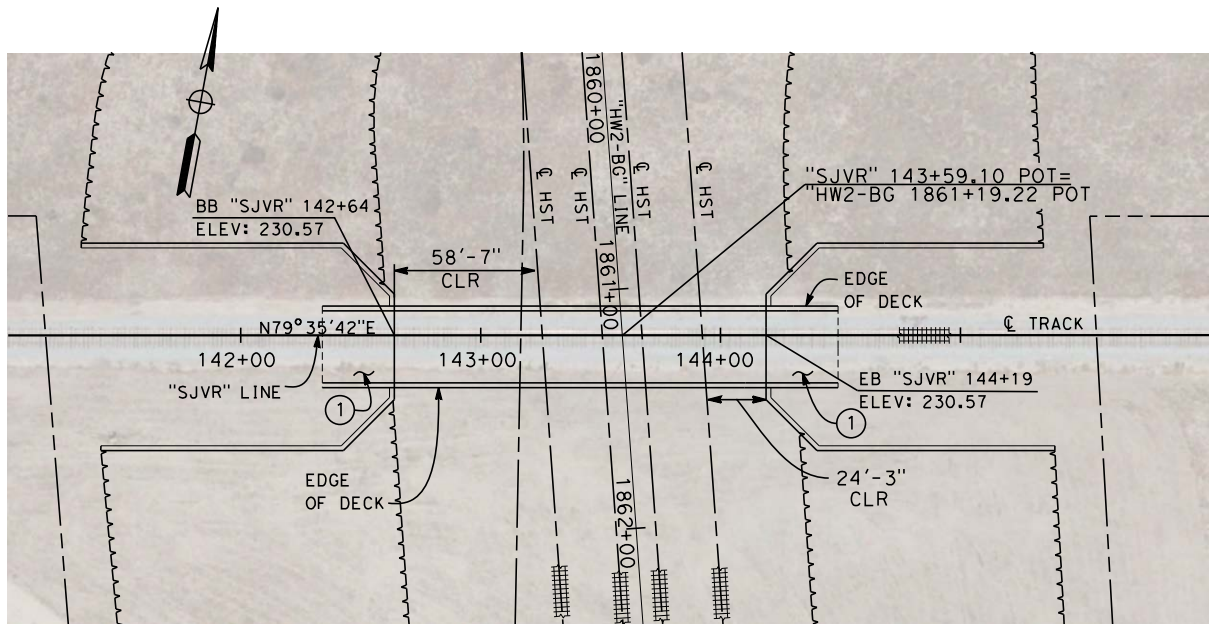
HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
SJVR OVERPASS
KEY MAP

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2050
SCALE AS SHOWN
SHEET NO. 1 OF 2

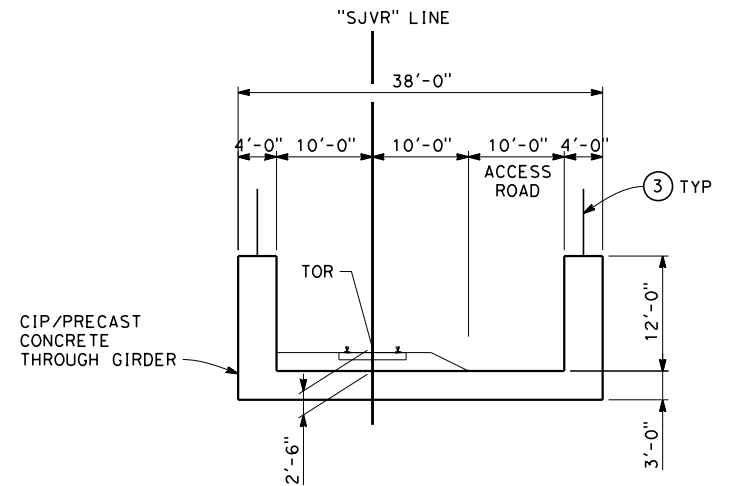
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ELEVATION
SCALE: 1"=40'



PLAN
SCALE: 1"=40'



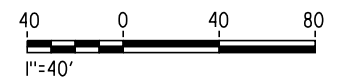
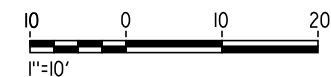
TYPICAL SECTION
SCALE: 1"=10'

NOTES:

1. PILE LENGTH TO BE DETERMINED/NOT ALL PILES SHOWN.
2. FOR MINIMUM VERTICAL CLEARANCES, SEE ALIGNMENT DRAWINGS.
3. THE SJVR CROSSING OF THE HST SHALL INCLUDE PHYSICAL MEASURES SUCH AS CONTAINMENT PARAPETS, BARRIERS, AND/OR PHYSICAL DERAILMENT PROTECTION TO MITIGATE THE POTENTIAL FOR ERRANT VEHICLES AND/OR CARGO ON OR APPROACHING THE OVERHEAD FACILITY FROM INTRUDING INTO THE HST FACILITY AND ITS OPERATING SPACE. DESIGN OF THE PHYSICAL MEASURES SHALL BE SUBSTANTIATED BY A SITE-SPECIFIC PRELIMINARY HAZARD ANALYSIS (PHA) AND A THREAT AND VULNERABILITY ASSESSMENT (TVA).

LEGEND:

- ① STRUCTURE APPROACH SLAB
 - ② RETAINING WALL
 - ③ AR FENCE (WITH SOLID METAL PLATE OVER HST)
- INDICATES RAILROAD AND HIGH-SPEED TRAIN TRACK



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**



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

HANFORD WEST BYPASS SUBSECTION
ALIGNMENT HW2 (BELOW-GRADE) - MODIFIED
SJVR OVERPASS
PLAN AND ELEVATION

CONTRACT NO. HSR 06-0003
DRAWING NO. SV2051
SCALE AS SHOWN
SHEET NO. 2 OF 2