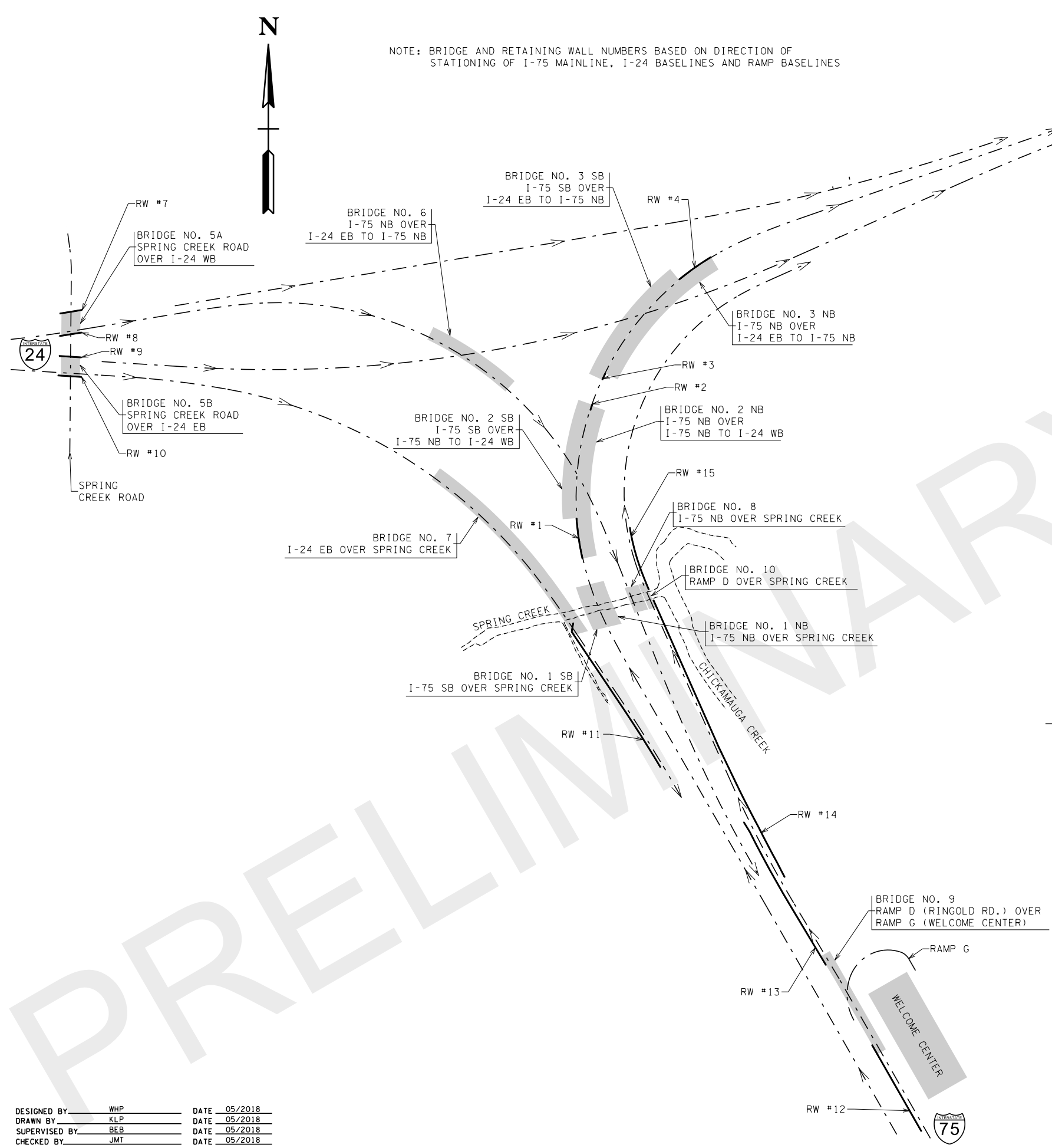


PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

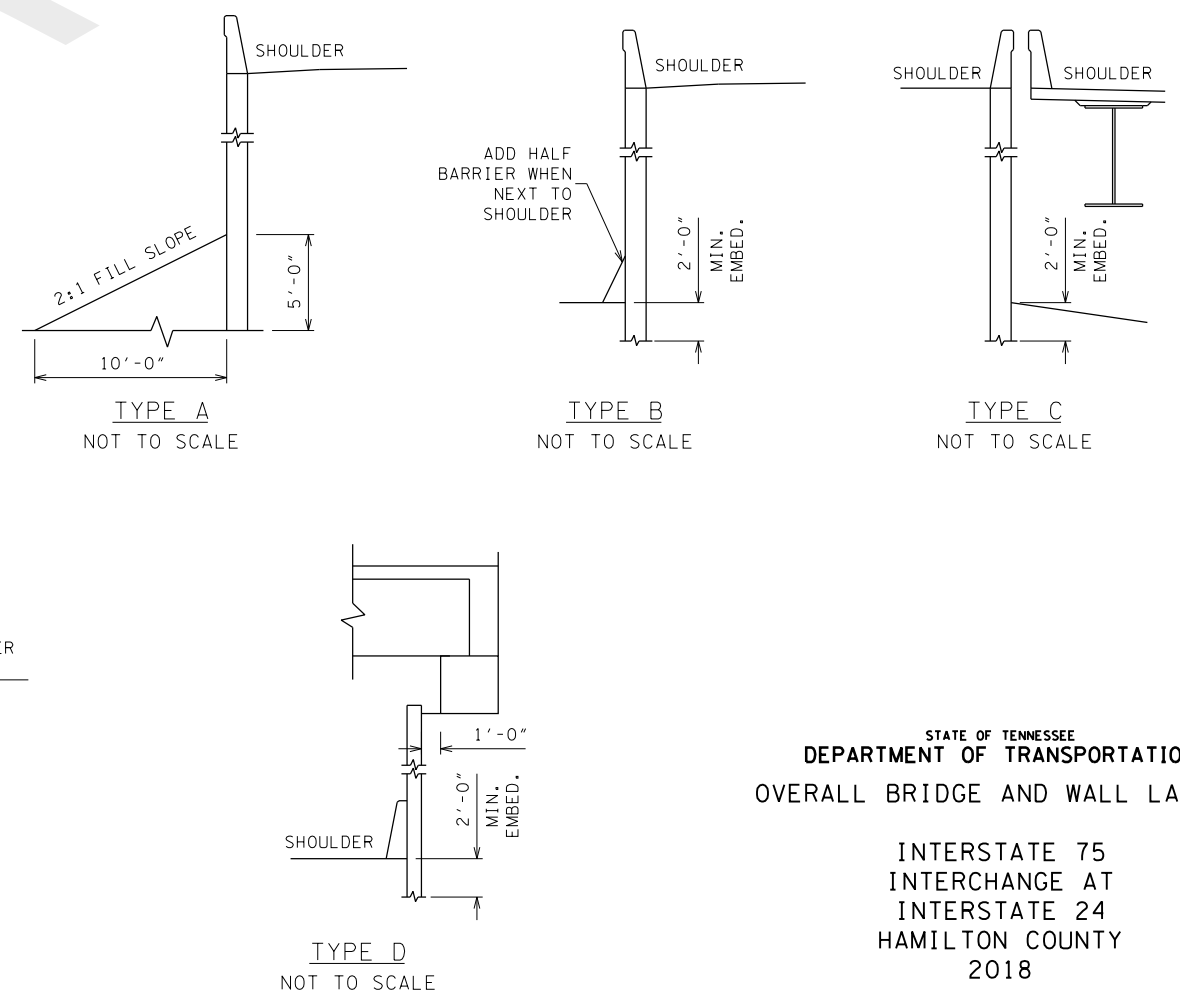
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: BRIDGE AND RETAINING WALL NUMBERS BASED ON DIRECTION OF STATIONING OF I-75 MAINLINE, I-24 BASELINES AND RAMP BASELINES



### Phase 1: Retaining Wall Information

Wall Location	Beg. of Ret. Wall	End of Ret. Wall	Offset	Total Length	Average Height	Total SF Area of Wall	Wall Finish	Wall No.	Wall Type
1 NB I-75	369.2044	370.6229	0.25	141.8	10.9	1540	Ashlar	1	Type A
2 NB I-75	375.4344	375.7720	0.25	33.8	11.2	378	Ashlar	2	Type A
3 NB I-75	375.0116	375.3778	0.25	36.6	11.2	410	Ashlar	3	Type C
4 NB I-75	381.8556	383.3604	0.25	150.5	11.2	1683	Ashlar	4	Type C
5 NB I-75	410.32	420.00	varies 95.8 to 85.19	967.69	12.4	11974	Class II	5	Type C
6 NB I-75	440.50	443.50	84.50	300.00	10.48	3144.32	Class II	6	Type C
Spring Cr Rd/WB I-24 abut 1	209.1700	210.1800	12.50	101.0	14.5	1465	Ashlar	7	Type D
Spring Cr Rd/WB I-24 abut 2	209.0000	210.0000	84.37	100.0	14.5	1450	Ashlar	8	Type D
Spring Cr Rd/EB I-24 abut 1	609.0000	610.0600	12.50	106.0	14.5	1537	Ashlar	9	Type D
Spring Cr Rd/EB I-24 abut 2	609.0000	610.0000	72.50	100.0	14.5	1450	Ashlar	10	Type D
2 EB I-24 to NB I-75	635.8500	643.0000	13.50	780.5	22.8	17797	Class II	11	Type B
1 Ramp D	2321.7500	2325.9679	19.50	421.8	13.2	5583	Ashlar	12	Type B
2 Ramp D	2330.3881	2337.5000	19.50	711.2	12.6	8972	Ashlar	13	Type B
3 Ramp D	2334.5000	2347.9278	13.50	1342.8	16.5	22098	Class II	14	Type B
4 Ramp D	2348.7109	2351.5000	13.50	278.9	17.6	4899	Class II	15	Type B



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
OVERALL BRIDGE AND WALL LAYOUT

INTERSTATE 75  
INTERCHANGE AT  
INTERSTATE 24  
HAMILTON COUNTY  
2018

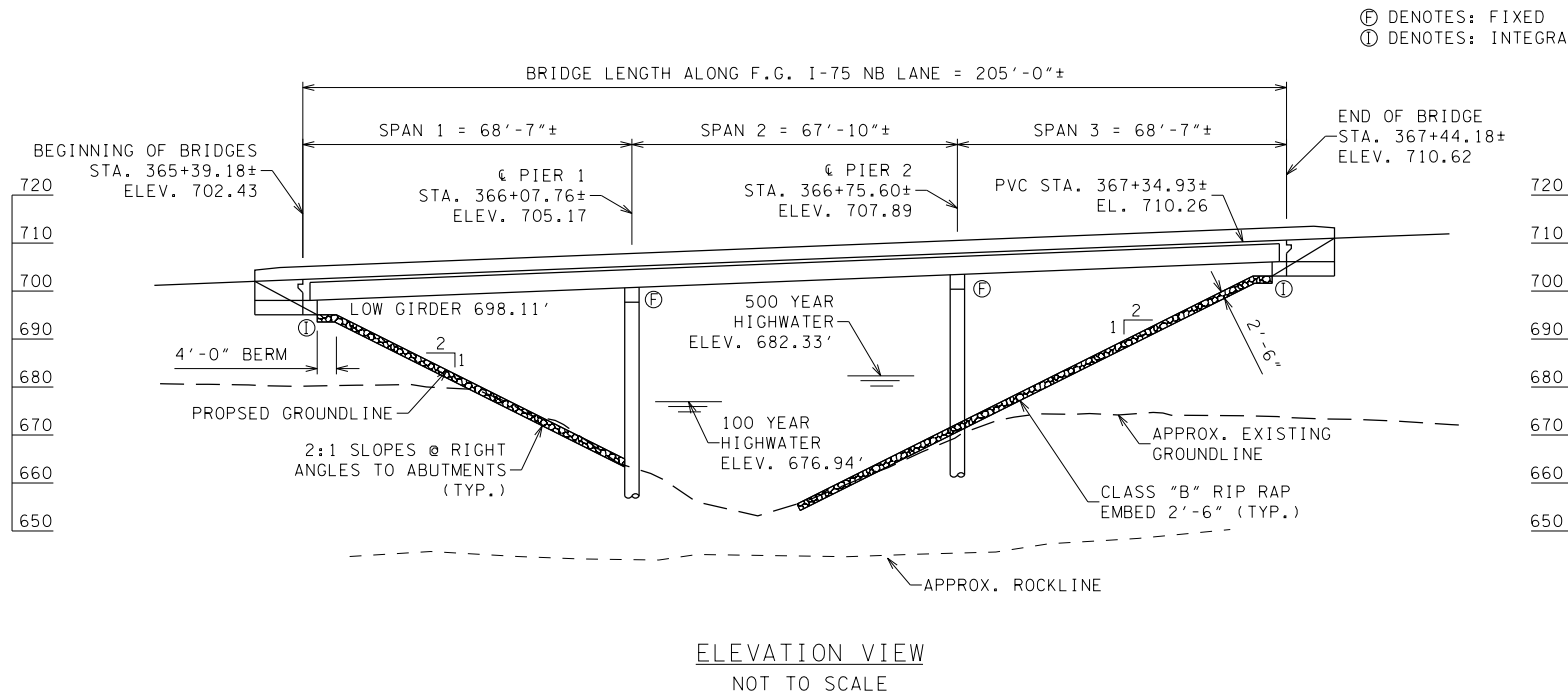
DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
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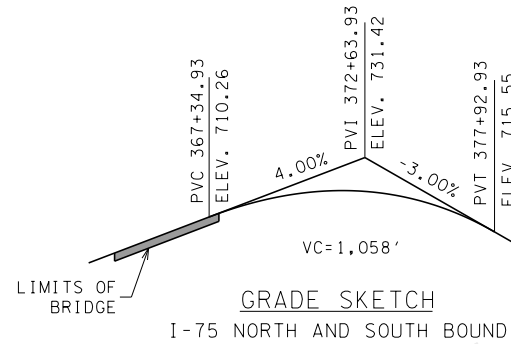
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION VIEW  
NOT TO SCALE



GRADE SKETCH

SCOPE OF WORK

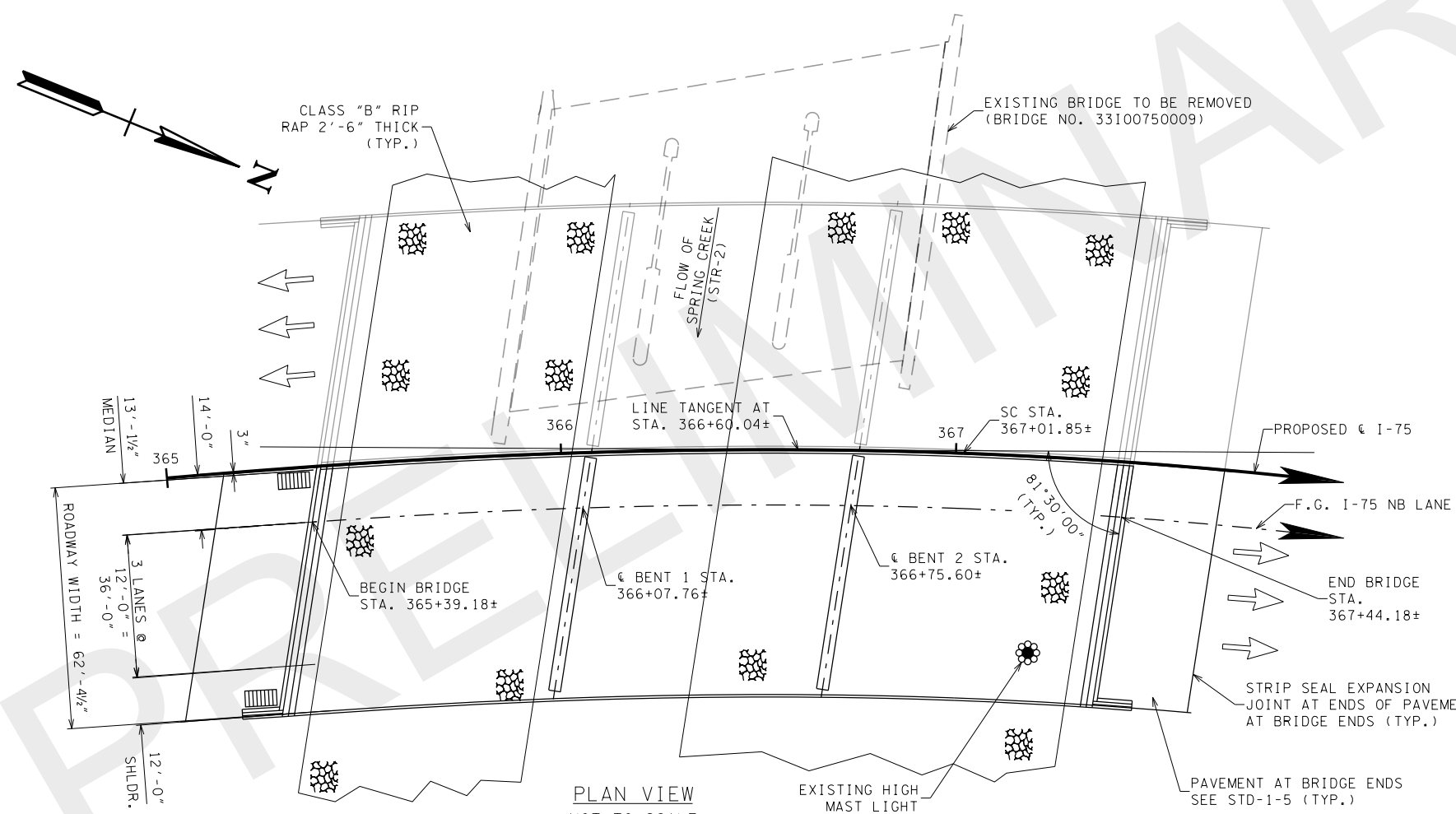
1. CONSTRUCT BENTS, ABUTMENTS AND SUPERSTRUCTURE.
2. APPLY TEXTURE COATING TO PARAPET, BENTS, AND ABUTMENTS.

GENERAL NOTES

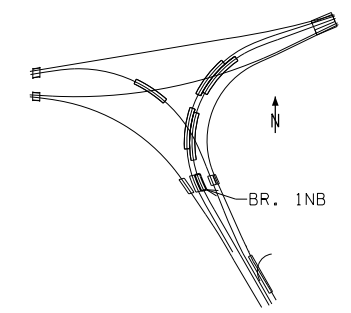
1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 3 SPANS OF AASHTO TYPE III BEAMS AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. BENTS ARE MULTI POST, FIXED CAP STRUCTURES.
9. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
10. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
11. MACHINE RIP-RAP SHALL BE CLASS "B", TO MEET THE QUALITY REQUIREMENTS OF SECTION 709 AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEMS.
12. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
13. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

NOTE: ANY WORK WITHIN THE STREAM CHANNEL AREA SHALL BE SEPARATED FROM FLOWING WATER OR CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS.

<p>SPIRAL I-75-2B                  PIs 365+59.31                  Ns 243,982.9423                  Es 2,204,669.7877  <math>\theta_s</math> 9° 54' 40"                  LT 286.45                  ST 143.41                  Ls 429.00</p>	<p>CURVE I-75-2                  PI 379+91.83                  N 245,224.9318                  E 2,203,955.9341  <math>\Delta_s</math> 100° 44' 14" (RT)  <math>\theta_s</math> 9° 54' 40"  <math>\Delta_c</math> 80° 54' 53" (RT)                  Dc 4° 37' 14"                  Rc 1,240.00                  Lc 1,751.16                  Ts 1,718.97                  Ls 429.00                  SE 0.080 FT/FT</p>
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PLAN VIEW  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE

HYDRAULIC DATA

DRAINAGE AREA = 20.8 SQ. MI. (STREAMSTATS)  
 DESIGN DISCHARGE (100 YR) = 10,450 CFS (FEMA FIS)  
 WATER AREA PROVIDED BELOW 100 YEAR ELEVATION = 1,370.47 SQ. FT. (UPSTREAM FACE)  
 100 YEAR VELOCITY = 7.79 FPS  
 100 YEAR BRIDGE BACKWATER = 0.43 FT @ EL. 676.94\*  
 100 YEAR DISCHARGE = 10,450 CFS (FEMA FIS)  
 500 YEAR DISCHARGE = 12,450 CFS (FEMA FIS)  
 ROADWAY OVERTOPPING = N/A

\* AT UPSTREAM FACE OF BRIDGE NO. 10 (MAX BW IS 1.59 FT AT APPROACH)

2041 ADT (I-75NB) = 127,360  
 DESIGN SPEED (I-75NB) = 60 MPH  
 62'-0" ROADWAY WITH STD-1-1SS  
 STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 1 NB  
 PRELIMINARY BRIDGE LAYOUT  
 BRIDGE NO. XX-XXX-XXXX  
 I-75 NB  
 OVER SPRING CREEK  
 HAMILTON COUNTY  
 2018

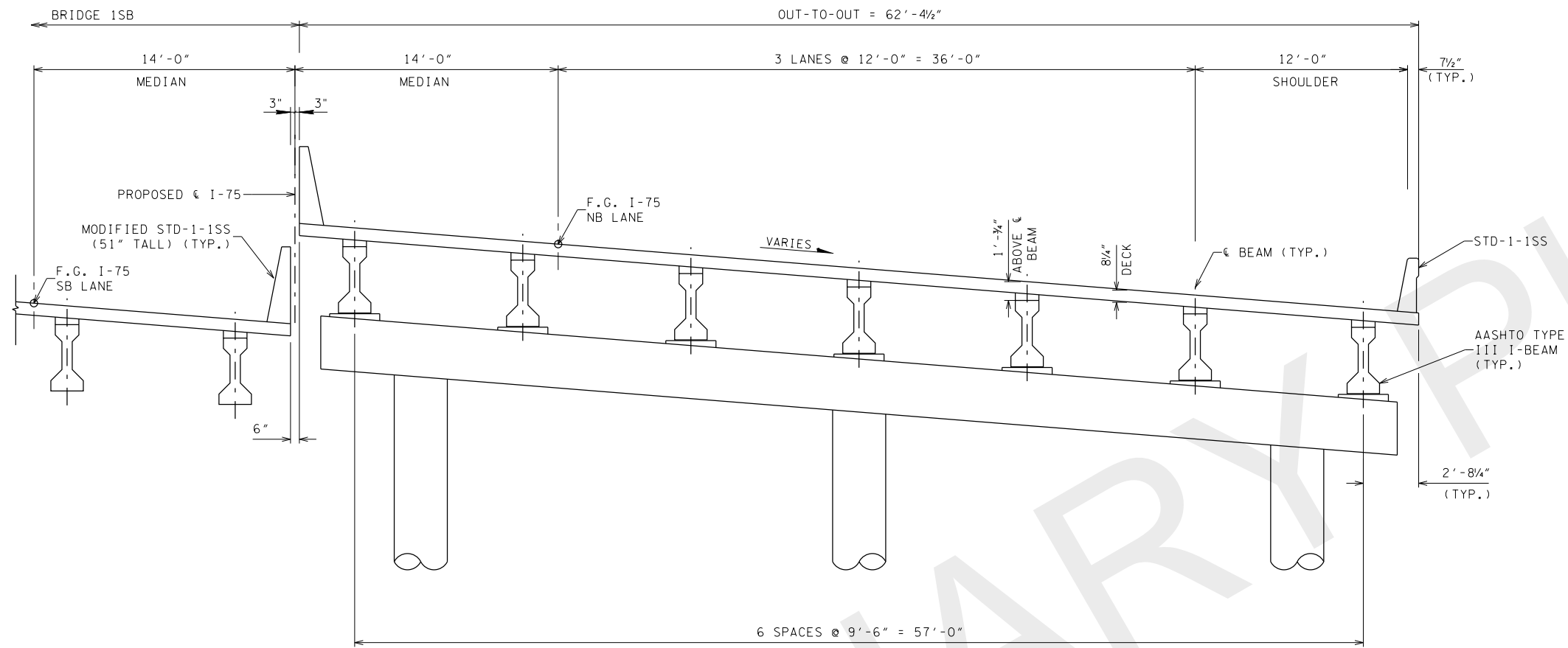
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

END OF BRIDGE DRAIN

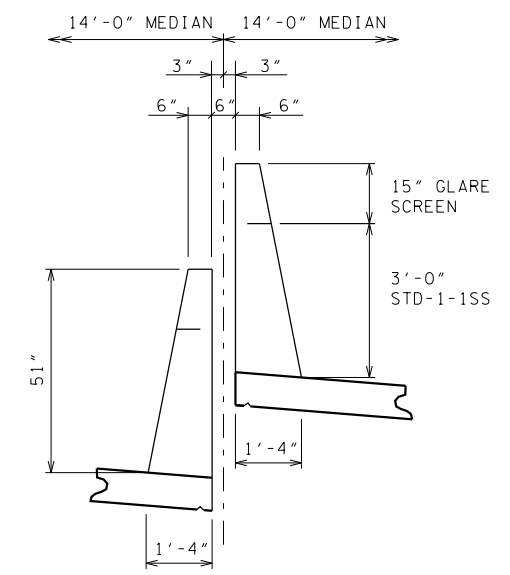
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD  
NOT TO SCALE



MODIFIED MEDIAN BARRIER  
51" TALL  
NOT TO SCALE

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 1 NB  
PRELIMINARY SUPERSTRUCTURE  
BRIDGE NO XX-XXXX-XXXX  
I-75NB  
OVER  
SPRING CREEK  
HAMILTON COUNTY  
2018

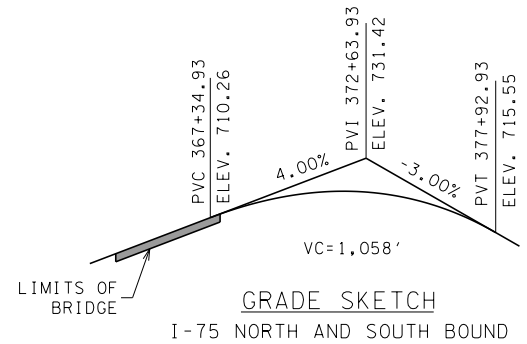
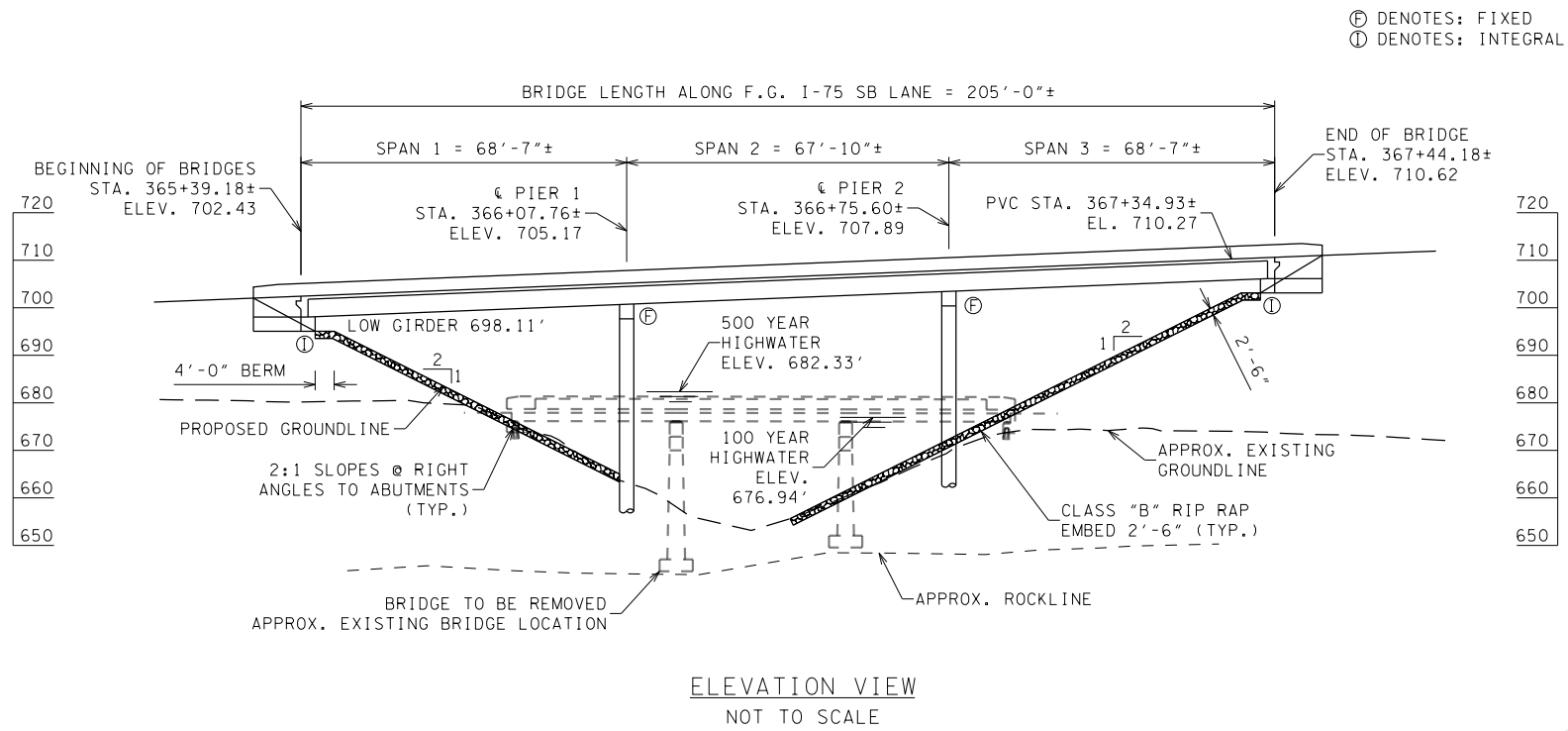
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DRAWN BY: KLP DATE: 05/2018  
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



SPIRAL I-75\_2B  
 PI 365+59.31  
 Ns 243,982.9423  
 Es 2,204,669.7877  
 Os 9° 54' 40"  
 LT 286.45  
 ST 143.41  
 Ls 429.00

CURVE I-75\_2  
 PI 379+91.83  
 N 245,224.9318  
 E 2,203,955.9341  
 Δs 100° 44' 14" (RT)  
 Δs 9° 54' 40"  
 Δc 80° 54' 53" (RT)  
 Dc 4' 37' 14"  
 Rc 1,240.00  
 Lc 1,751.16  
 Ts 1,718.97  
 Ls 429.00  
 SE 0.080 FT/FT

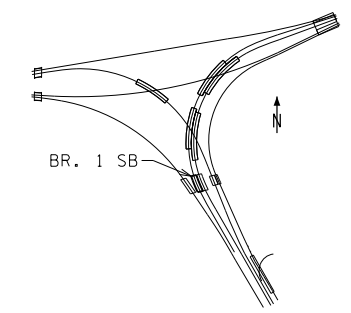
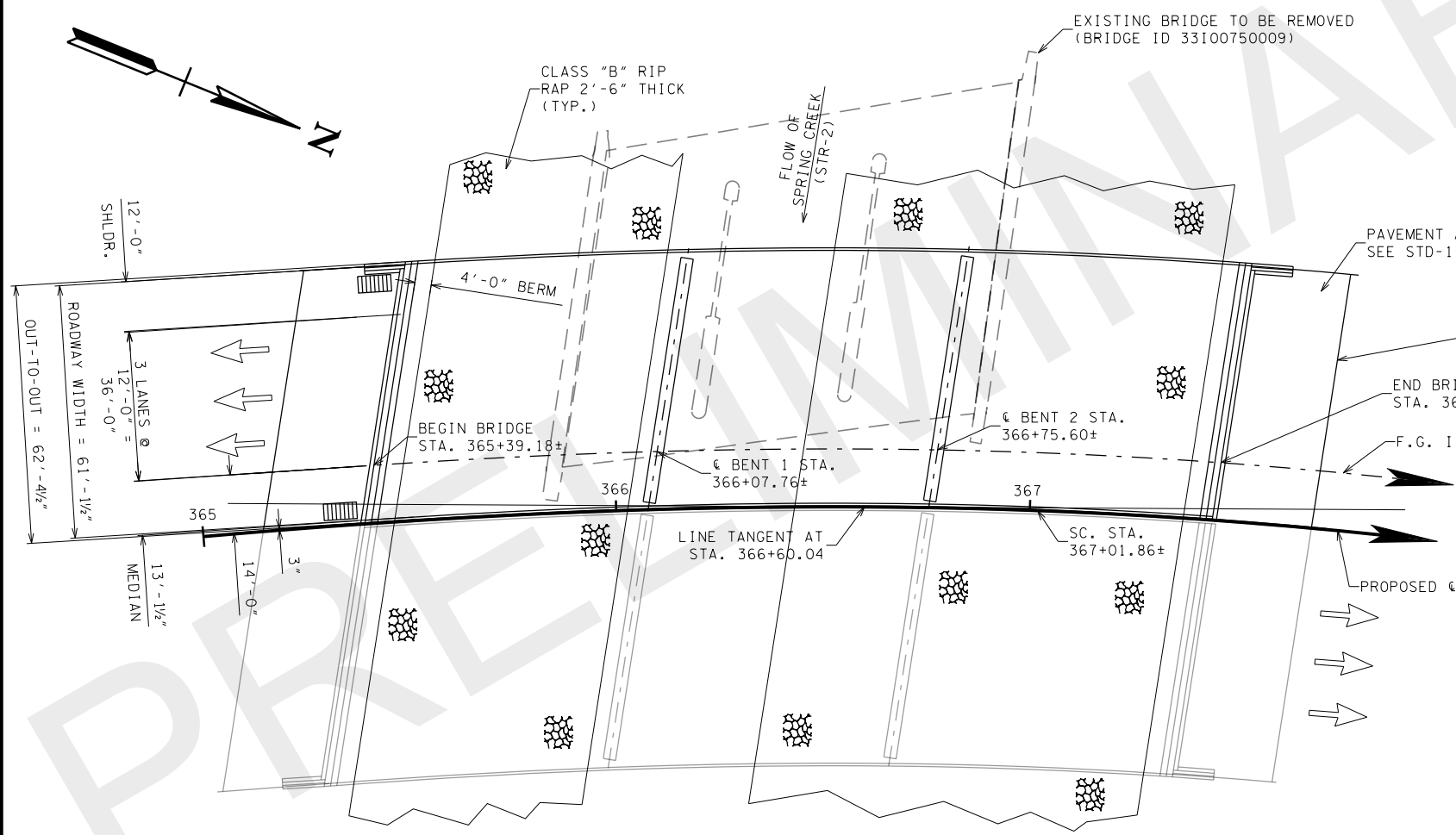
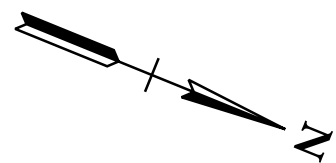
**SCOPE OF WORK**

1. CONSTRUCT BENTS, ABUTMENTS AND SUPERSTRUCTURE.
2. APPLY TEXTURE COATING TO PARAPET, BENTS, AND ABUTMENTS.

**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
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LOCATION MAP  
NOT TO SCALE

**HYDRAULIC DATA**

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 DESIGN DISCHARGE (100 YR) = 10,450 CFS (FEMA FIS)  
 WATER AREA PROVIDED BELOW 100 YEAR ELEVATION = 1,370.47 SQ. FT. (UPSTREAM FACE)  
 100 YEAR VELOCITY = 7.79 FPS  
 100 YEAR BRIDGE BACKWATER = 0.43 FT @ EL. 676.94\*  
 100 YEAR DISCHARGE = 10,450 CFS (FEMA FIS)  
 500 YEAR DISCHARGE = 12,450 CFS (FEMA FIS)  
 ROADWAY OVERTOPPING = N/A

\* AT UPSTREAM FACE OF BRIDGE NO. 10 (MAX BW IS 1.59 FT AT APPROACH)

2041 ADT (I-75SB) = 127,360  
 DESIGN SPEED (I-75SB) = 60 MPH  
 62'-0" ROADWAY WITH STD-1-1SS

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 1 SB  
 PRELIMINARY BRIDGE LAYOUT  
 BRIDGE NO. XX-XXXX-XXXX  
 I-75SB  
 OVER SPRING CREEK  
 HAMILTON COUNTY  
 2018

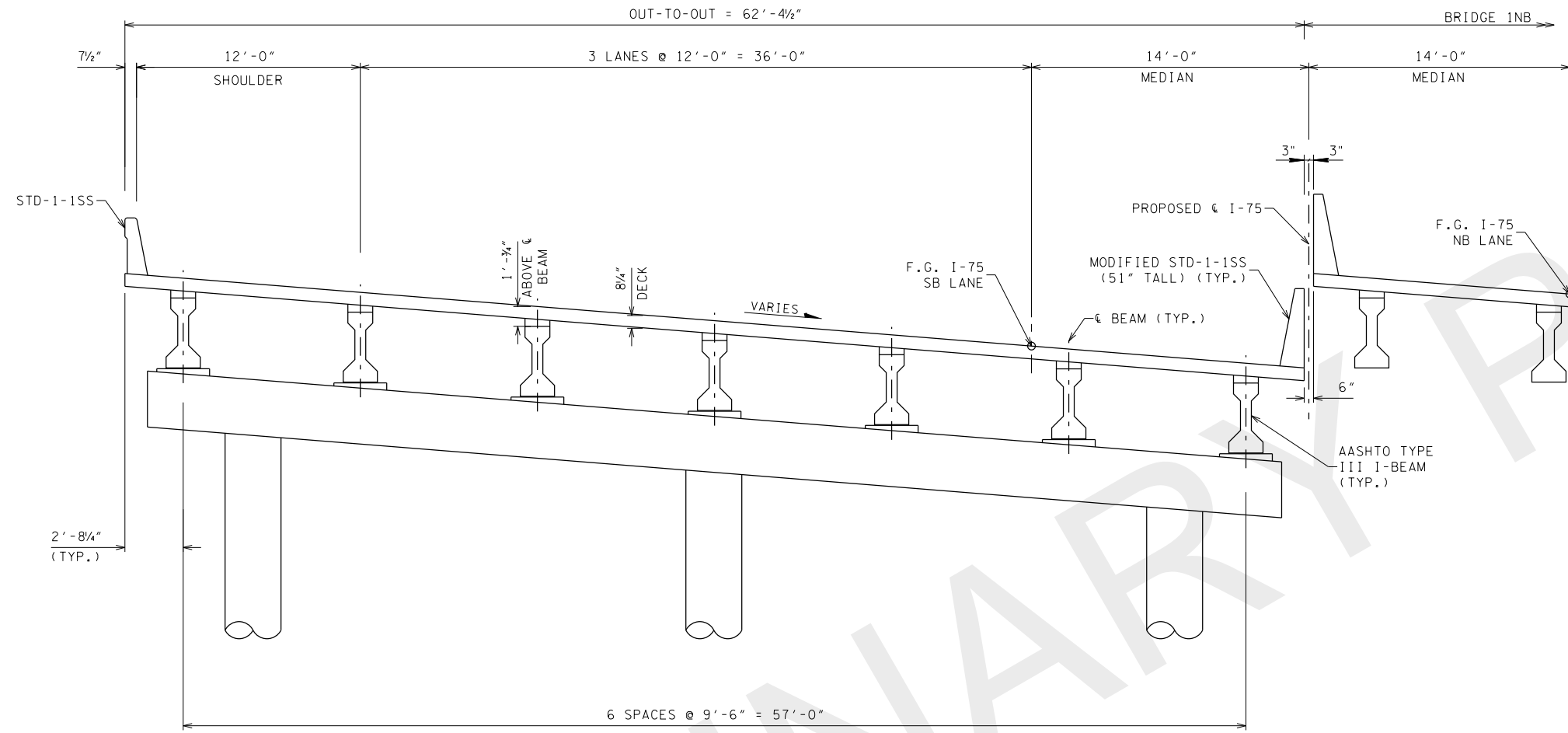
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

END OF BRIDGE DRAIN  
 PLAN VIEW  
 NOT TO SCALE

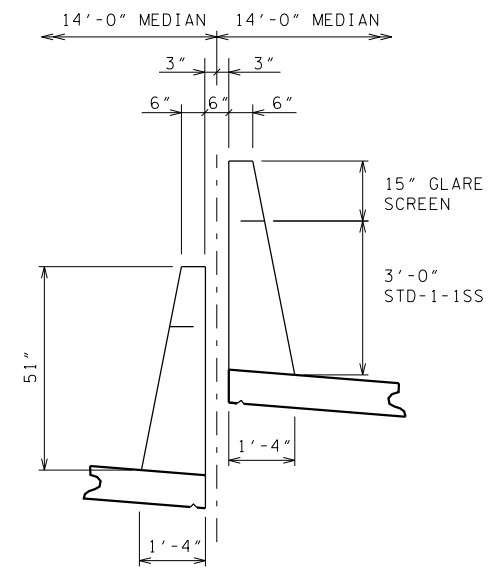
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD  
NOT TO SCALE



MODIFIED MEDIAN BARRIER  
51" TALL  
NOT TO SCALE

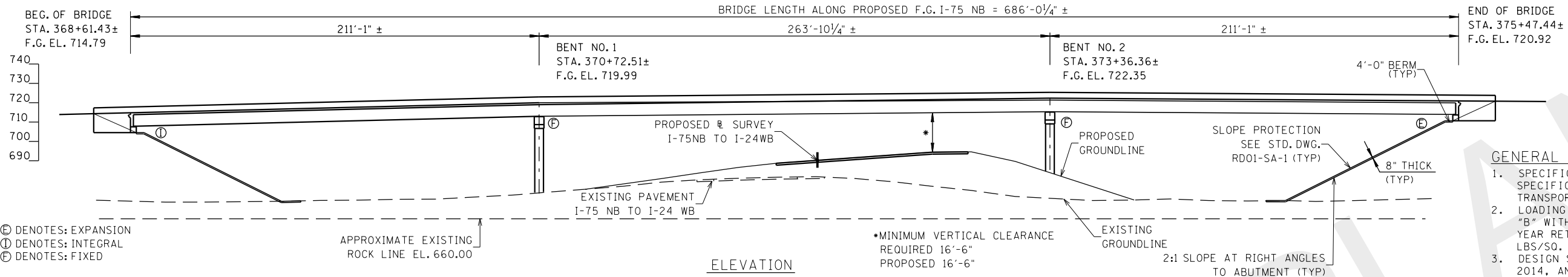
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 1 SB  
PRELIMINARY SUPRESTRUCTRE  
BRIDGE NO XX-XXXX-XXXX  
I-75SB  
OVER  
SPRING CREEK  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

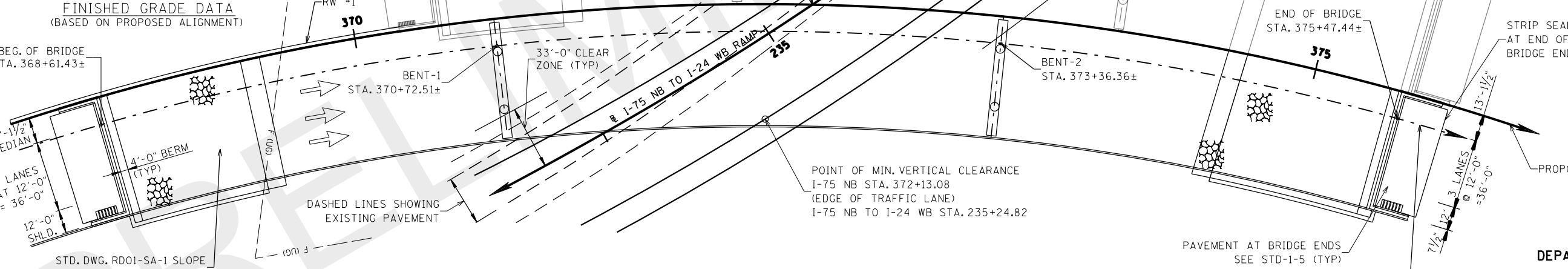
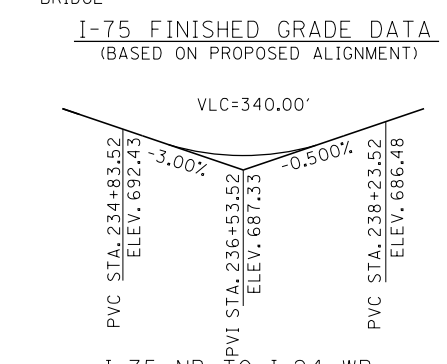
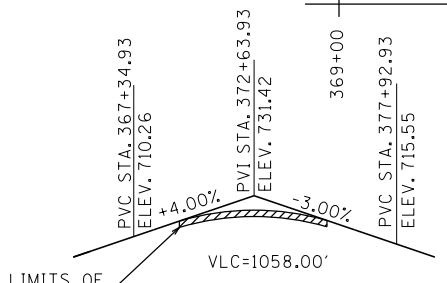
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



- GENERAL NOTES**
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
  - LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
  - DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
  - CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
  - REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
  - SUPERSTRUCTURE: TO CONSIST OF 3 SPANS OF CONTINUOUS WELDED PLATE GIRDERS (F<sub>y</sub>=50 KSI) AND COMPOSITE CONCRETE DECK SLAB.
  - USE STD-1-1SS BRIDGE RAILING.
  - BENTS ARE TWO POST, FIXED CAP STRUCTURES.
  - END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
  - TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
  - BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
  - BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



**CURVE DATA: I-75\_2 NB MAINLINE**

PI	379+91.83
N	245,224,9318
E	2,203,955,9341
Δs	100° 44' 14" (RT)
θs	9° 54' 40"
Δc	80° 54' 53" (RT)
Dc	4° 37' 14"
Rc	1,240.00
Lc	1,751.16
Ts	1,718.97
Ls	429.00
SE	0.080 FT/FT
DESIGN SPEED	60 MPH
TRANS. LENGTH	536'

**CURVE DATA: I75NBTOI24WB\_2**

PI	228+64.77
N	245,587,5493
E	2,204,198,8061
Δs	77° 42' 51" (RT)
θs	7° 37' 15"
Δc	62° 28' 21" (RT)
Dc	3° 44' 41"
Rc	1,530.00
Lc	1,668.24
Ts	1,439.67
Ls	407.00
SE	0.076 FT/FT
DESIGN SPEED	60 MPH
TRANS. LENGTH	514'

DESIGNED BY: WHP DATE: 05/2018

DRAWN BY: KLP DATE: 05/2018

SUPERVISED BY: BEB DATE: 05/2018

CHECKED BY: JMT DATE: 05/2018

⊖ DENOTE: END OF BRIDGE DRAIN

— DENOTE: DECK DRAIN

**LOCATION MAP**  
NOT TO SCALE

- PHASE CONSTRUCTION:**
- MAINTAIN TRAFFIC ON EXISTING RAMPS WHILE NEW I-75 NB BRIDGE IS BEING CONSTRUCTED.
- SCOPE OF WORK:**
- CONSTRUCT 3 SPAN CURVED WELDED STEEL PLATE GIRDER BRIDGE WITH 8 1/4" COMPOSITE CONCRETE DECK. OUT TO OUT WIDTH OF 62'-4 1/2" ALONG WITH MAINTAINING 16'-6" VERTICAL CLEARANCE.

STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**

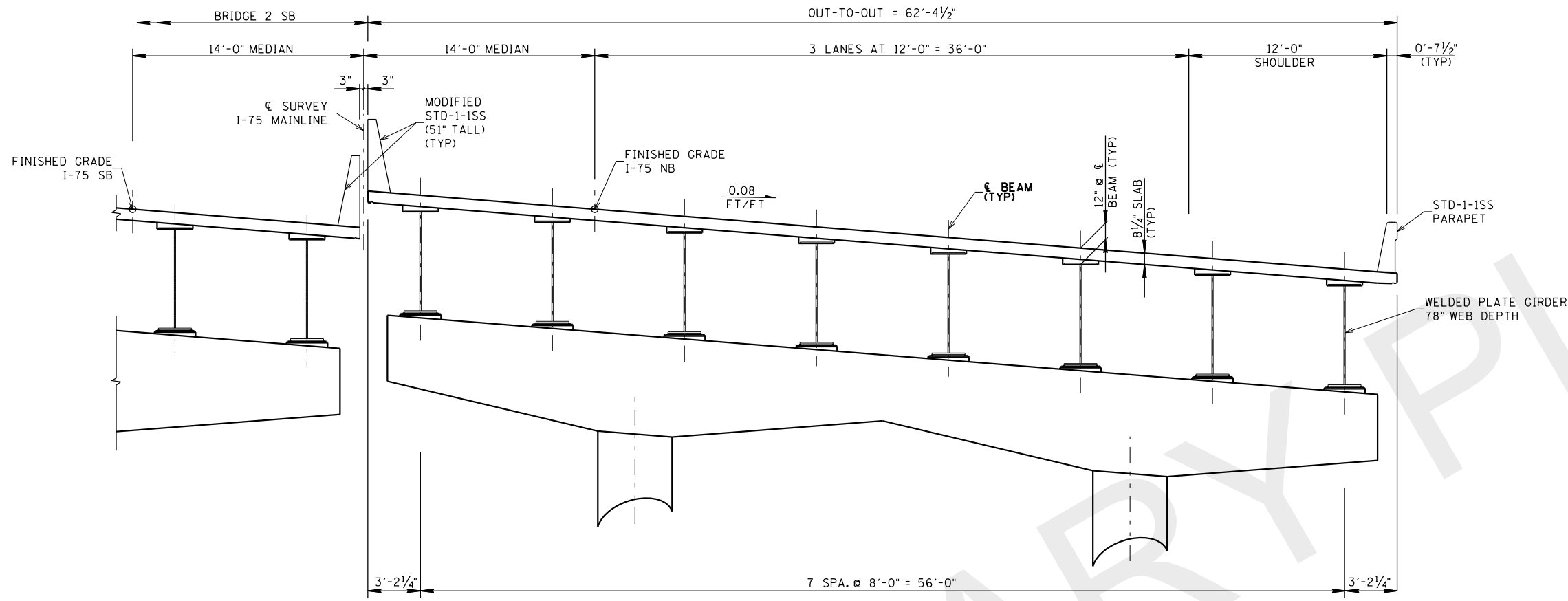
BRIDGE NO. 2 NB  
PRELIMINARY LAYOUT  
BRIDGE ID NO.  
I-75 NORTHBOUND TO  
I-75NB RAMP  
OVER I-75 NB TO I-24 WB  
STATION 372+10.80  
HAMILTON COUNTY  
2018

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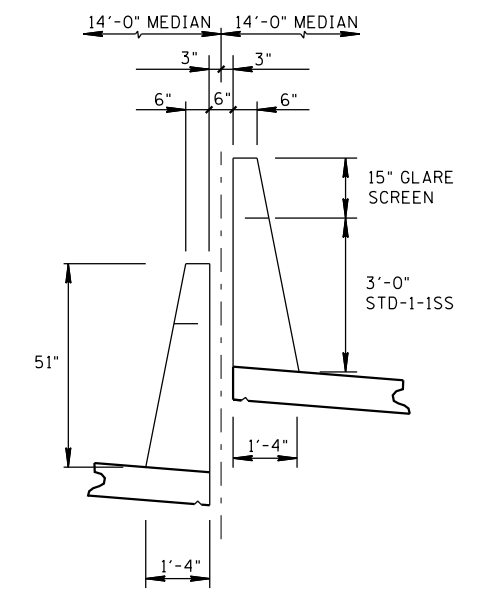
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD



MODIFIED MEDIAN BARRIER  
(51" TALL)

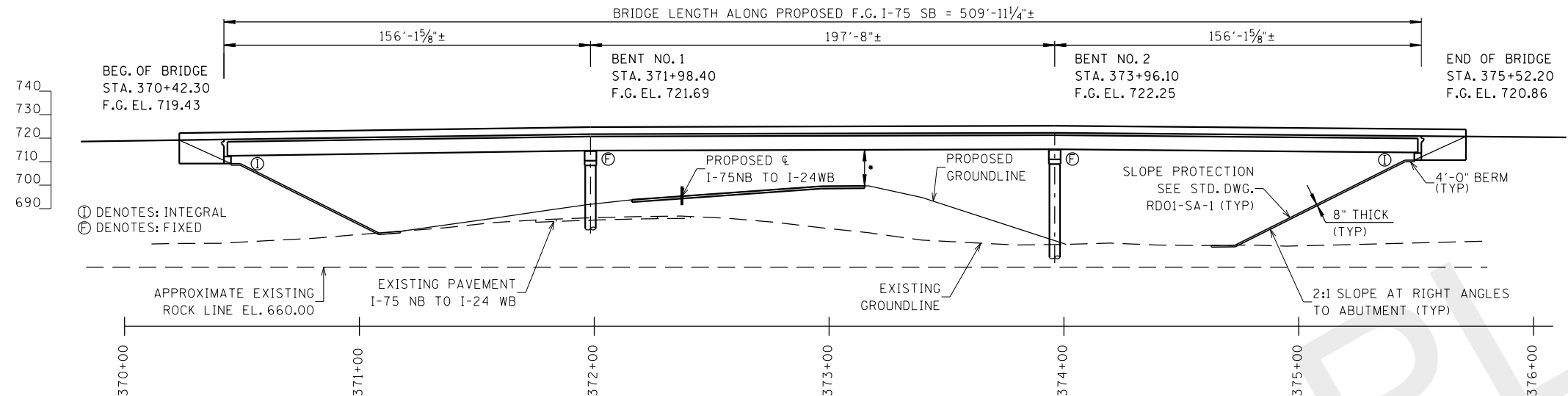
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 2 NB  
SUPERSTRUCTURE  
BRIDGE NO XX-XXXX-XXXX  
I-75 NORTHBOUND  
OVER  
I-75NB TO I-24 WB  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



**GENERAL NOTES**

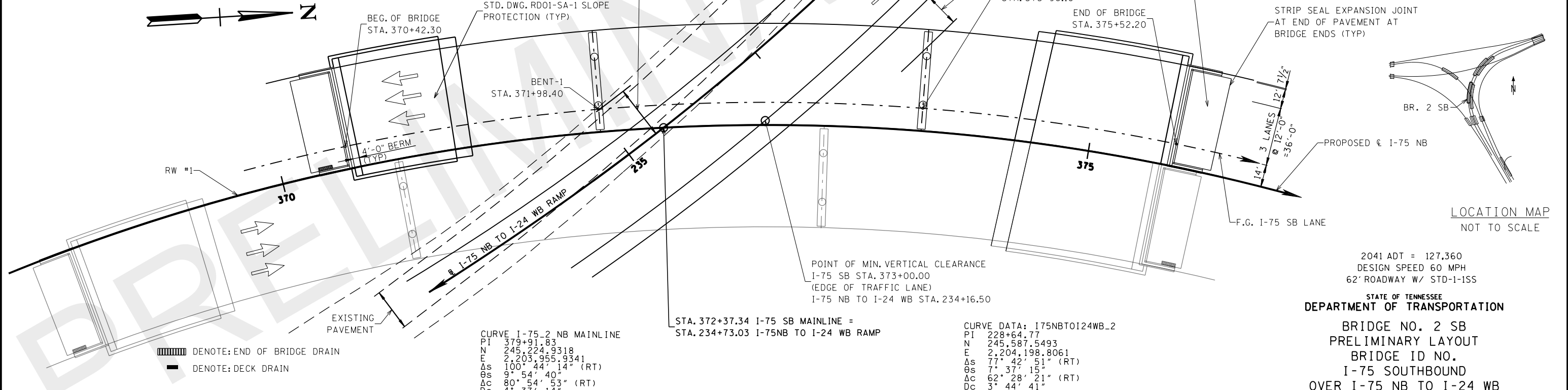
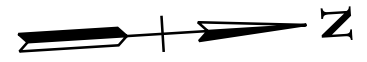
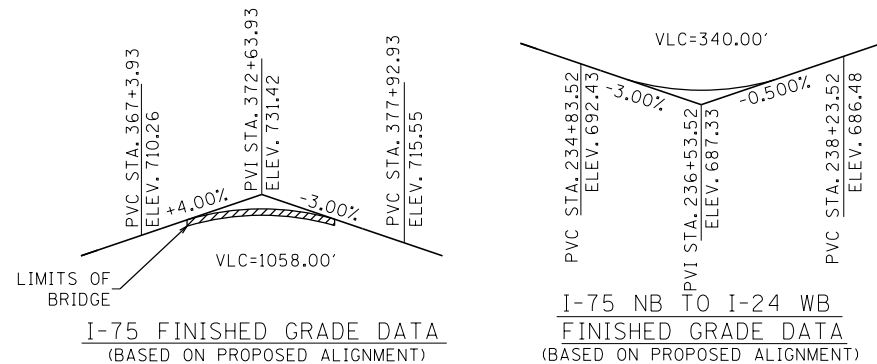
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
- LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
- DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
- CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
- REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
- SUPERSTRUCTURE: TO CONSIST OF 3 SPANS OF CONTINUOUS WELDED PLATE GIRDERS (F<sub>y</sub>=50 KSI) AND COMPOSITE CONCRETE DECK SLAB.
- USE STD-1-1SS BRIDGE RAILING.
- BENTS ARE TWO POST, FIXED CAP STRUCTURES.
- END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
- TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
- BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
- BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

**SCOPE OF WORK:**

- CONSTRUCT 3 SPAN CURVED WELDED STEEL PLATE GIRDER BRIDGE WITH 8 1/4" COMPOSITE CONCRETE DECK. OUT TO OUT WIDTH OF 62'-4 1/2" ALONG WITH MAINTAINING 16'-6" VERTICAL CLEARANCE.

•MINIMUM VERTICAL CLEARANCE REQUIRED 16'-6" PROPOSED 16'-10"

**ELEVATION**



**PLAN**

CURVE I-75\_2 NB MAINLINE  
 PI 379+91.83  
 N 245,224.9318  
 E 2,203,955.9341  
 Δs 100° 44' 14" (RT)  
 Δs 9° 54' 40"  
 Δc 80° 54' 53" (RT)  
 Δc 4° 37' 14"  
 Rc 1,240.00  
 Lc 1,751.16  
 Ts 1,718.97  
 Ls 429.00  
 SE 0.080 FT/FT  
 DESIGN SPEED 60 MPH  
 TRANS. LENGTH 536'

CURVE DATA: I75NBTOI24WB-2  
 PI 228+64.77  
 N 245,587,5493  
 E 2,204,198,8061  
 Δs 71° 42' 51" (RT)  
 Δs 7° 37' 15"  
 Δc 62° 28' 21" (RT)  
 Δc 3° 44' 41"  
 Rc 1,530.00  
 Lc 1,668.24  
 Ts 1,439.67  
 Ls 407.00  
 SE 0.076 FT/FT  
 DESIGN SPEED 60 MPH  
 TRANS. LENGTH 514'

▬▬▬▬▬ DENOTE: END OF BRIDGE DRAIN  
 ——— DENOTE: DECK DRAIN

**PHASE CONSTRUCTION:**

- ONCE NB I-75 BRIDGE IS CONSTRUCTED DEVIATE SB I-75 TRAFFIC ON NB I-75 BRIDGE.
- CONSTRUCT SB I-75 BRIDGE.

2041 ADT = 127,360  
 DESIGN SPEED 60 MPH  
 62' ROADWAY W/ STD-1-1SS

**STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION**

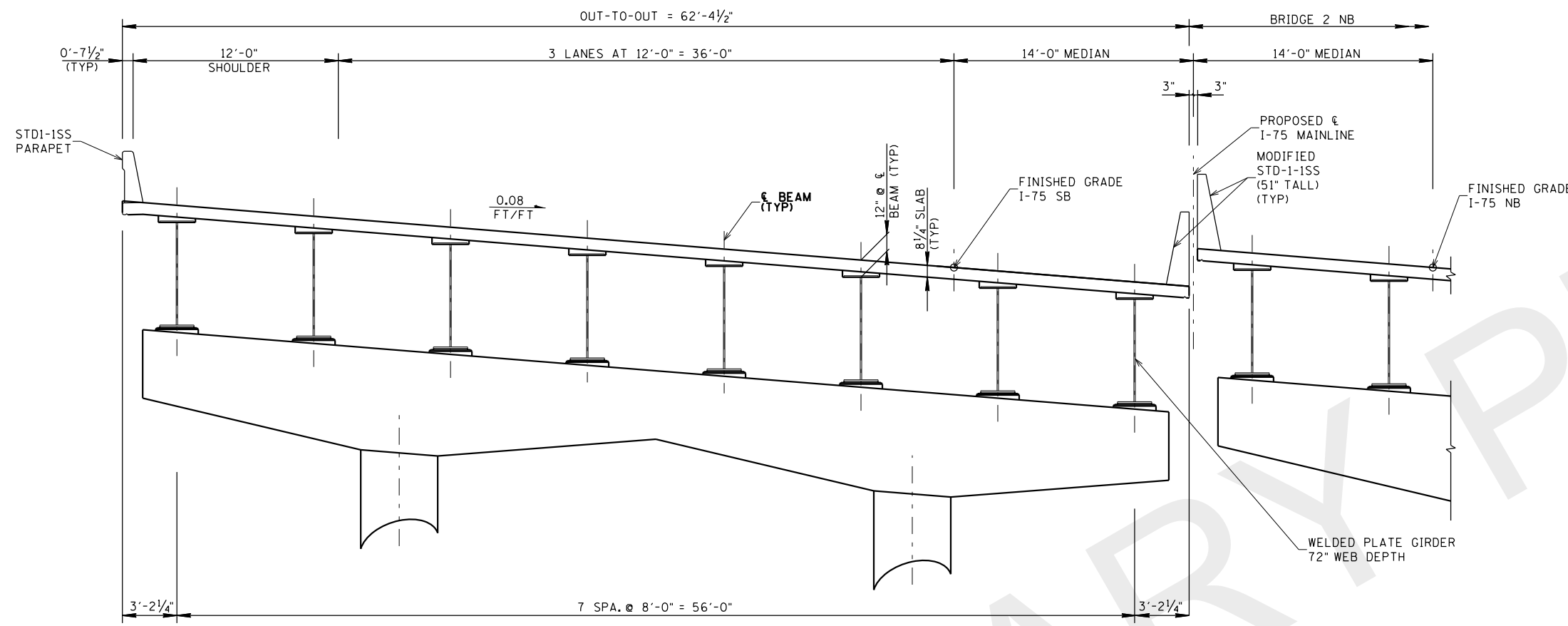
**BRIDGE NO. 2 SB  
 PRELIMINARY LAYOUT  
 BRIDGE ID NO.  
 I-75 SOUTHBOUND  
 OVER I-75 NB TO I-24 WB  
 STATION 373+00.00  
 HAMILTON COUNTY  
 2018**

5/25/2018 4:33:22 PM Y:\Projects\0010000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\025B - I-75 SB over I-24WB\025B - Preliminary Layout I75 SB over I-24 WB.DGN

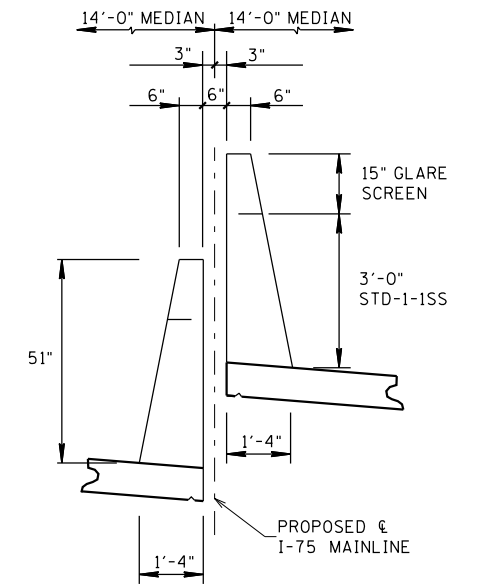


PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD



MODIFIED MEDIAN BARRIER  
(51\"/>

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 2 SB  
SUPERSTRUCTURE  
BRIDGE NO XX-XXXX-XXXX  
I-75 SOUTHBOUND  
OVER  
I-75 NB TO I-24 WB  
HAMILTON COUNTY  
2018

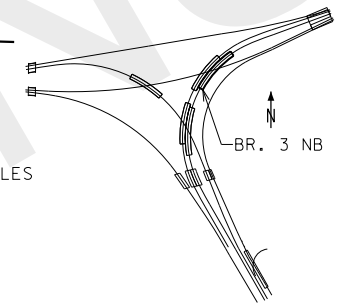
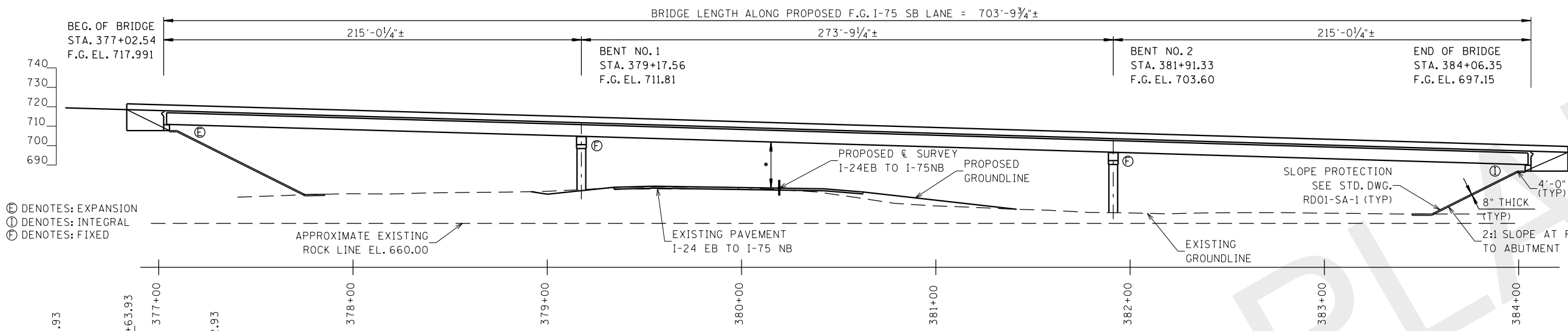
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

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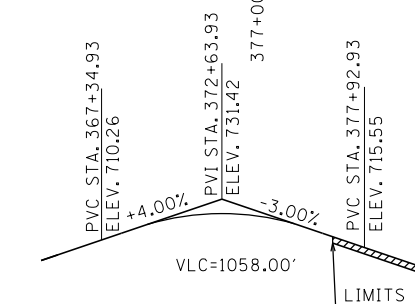
PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

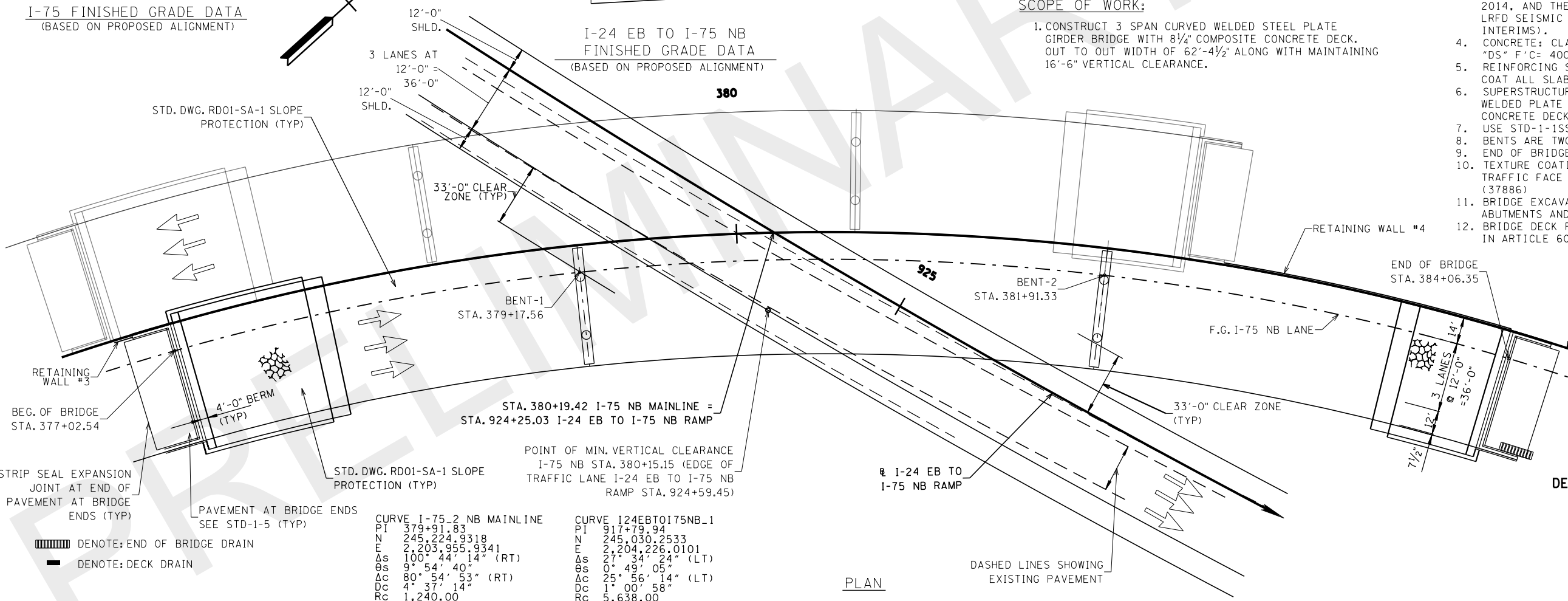
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



⊕ DENOTES: EXPANSION  
 ⊙ DENOTES: INTEGRAL  
 ⊖ DENOTES: FIXED



I-75 FINISHED GRADE DATA  
 (BASED ON PROPOSED ALIGNMENT)



▬ DENOTE: END OF BRIDGE DRAIN  
 ▬ DENOTE: DECK DRAIN

DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
 CHECKED BY: JMT DATE: 05/2018

CURVE I-75-2 NB MAINLINE		CURVE I24EBTOI75NB-1	
PI	379+91.83	PI	917+79.94
N	245.224.9318	N	245.030.2533
E	26203.955.9341	E	27204.226.0101
As	100° 44' 14" (RT)	As	97° 34' 24" (LT)
Os	9° 54' 40"	Os	0° 49' 05"
Ac	80° 54' 53" (RT)	Ac	25° 56' 14" (LT)
Dc	4° 37' 14"	Dc	1° 00' 58"
Rc	1,240.00	Rc	5,638.00
Lc	1,751.16	Lc	2,553.20
Ts	1,718.97	Ts	1,483.98
Ls	429.00	Ls	161.00
SE	0.080 FT/FT	SE	0.030 FT/FT
DESIGN SPEED	60 MPH	DESIGN SPEED	60 MPH
TRANS. LENGTH	536'	TRANS. LENGTH	268'

NOTE: ALL SUBSTRUCTURES RADIAL

PLAN

PHASE CONSTRUCTION:

1. MAINTAIN TRAFFIC ON EXISTING RAMPS WHILE NEW I-75 NB BRIDGE IS BEING CONSTRUCTED.

SCOPE OF WORK:

1. CONSTRUCT 3 SPAN CURVED WELDED STEEL PLATE GIRDER BRIDGE WITH 8 1/4" COMPOSITE CONCRETE DECK, OUT TO OUT WIDTH OF 62'-4 1/2" ALONG WITH MAINTAINING 16'-6" VERTICAL CLEARANCE.

GENERAL NOTES

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 3 SPANS OF CONTINUOUS WELDED PLATE GIRDERS ( $F_y=50$  KSI) AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. BENTS ARE TWO POST, FIXED CAP STRUCTURES.
9. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
10. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
11. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
12. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

2041 ADT = 127,360  
 DESIGN SPEED 60 MPH  
 62' ROADWAY W/ STD-1-1SS

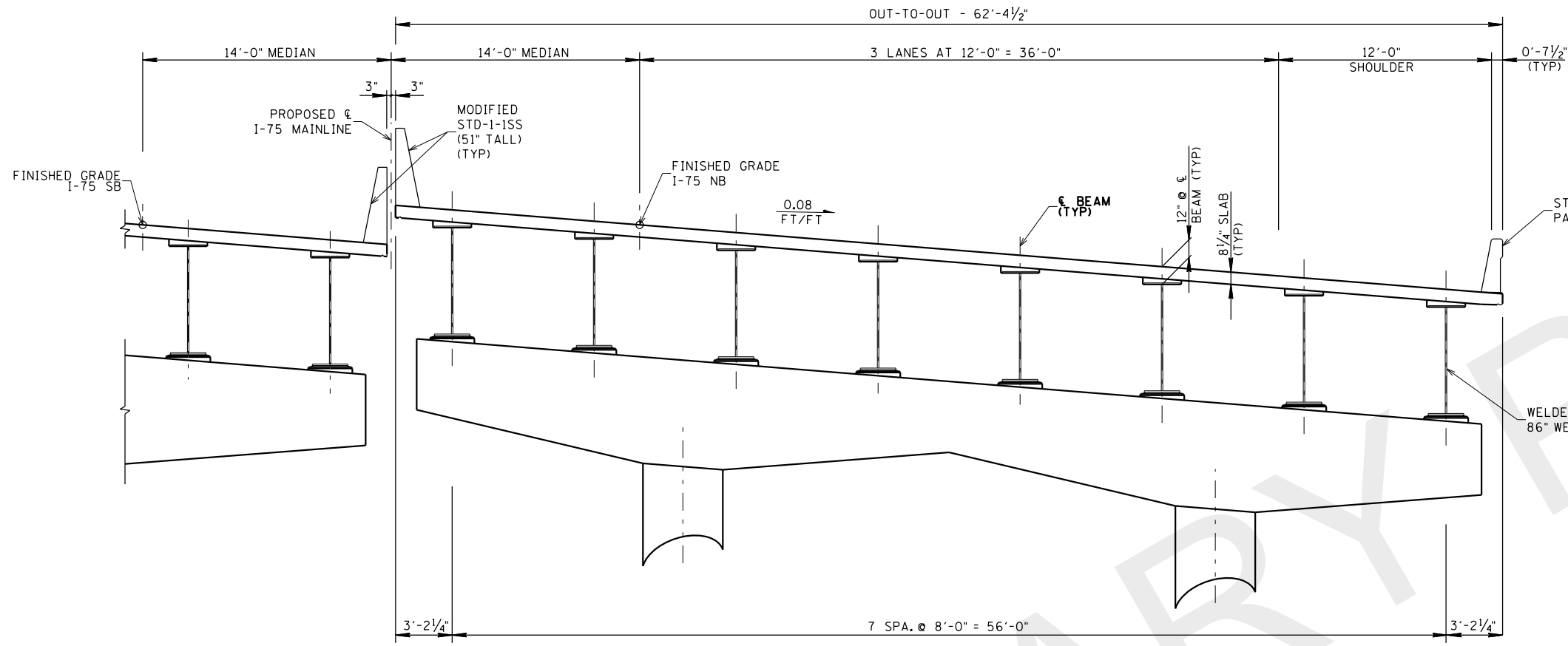
STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 3 NB  
 PRELIMINARY LAYOUT  
 BRIDGE NO.  
 I-75 NORTHBOUND  
 OVER  
 I-24 EB TO I-75 NB  
 STATION 380+47.26  
 HAMILTON COUNTY  
 2018

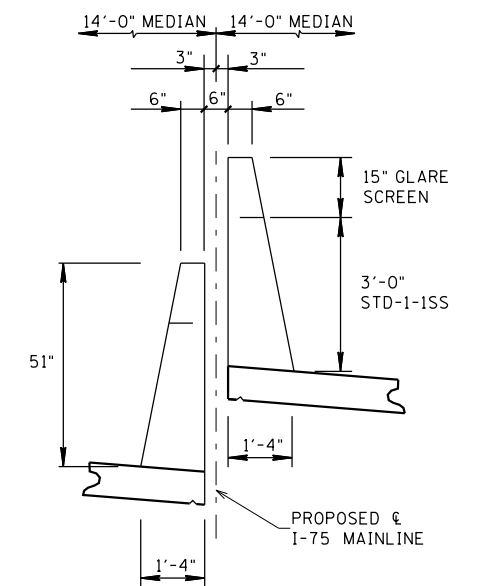
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD



MODIFIED MEDIAN BARRIER  
(51" TALL)

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 3 NB  
SUPERSTRUCTURE  
BRIDGE NO XX-XXXX-XXXX  
I-75 NORTHBOUND  
OVER  
I-24 EB TO I-75 NB  
HAMILTON COUNTY  
2018

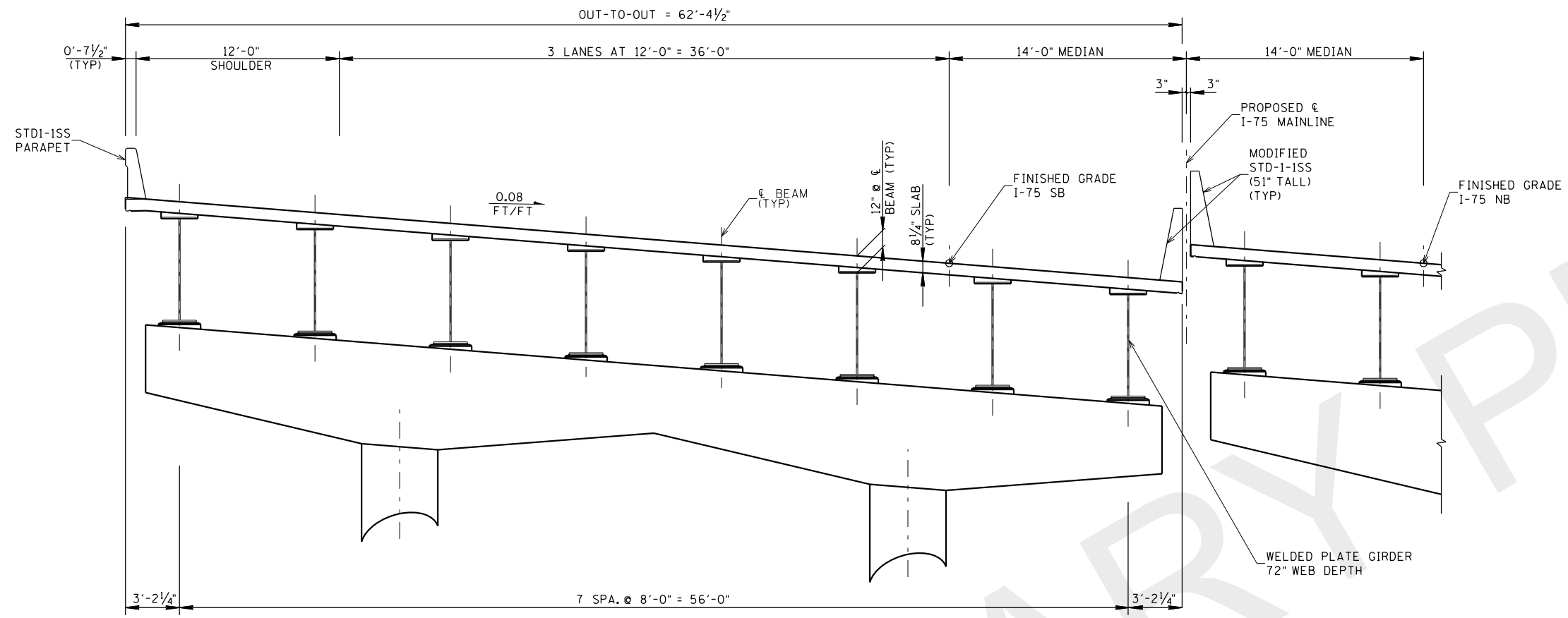
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DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

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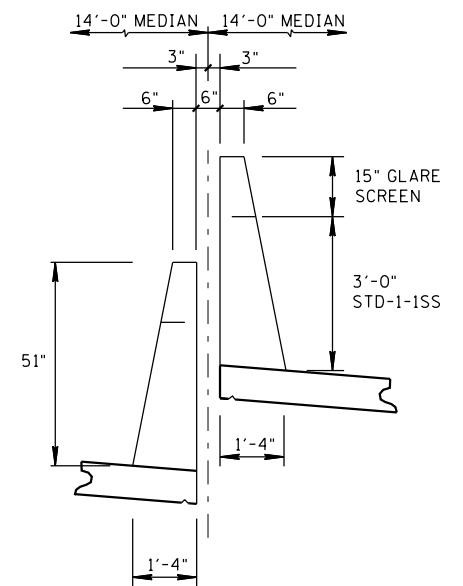


PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD



MODIFIED MEDIAN BARRIER  
(51" TALL)

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 3 SB  
SUPERSTRUCTURE  
BRIDGE NO XX-XXXX-XXXX  
I-75 SOUTHBOUND  
OVER  
I-24 EB TO I-75 NB  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

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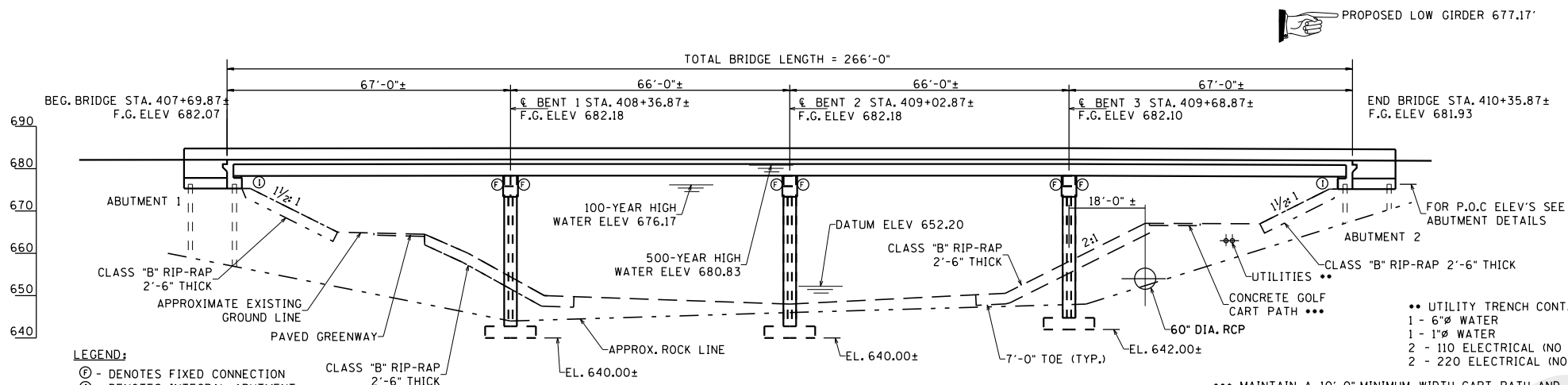
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STATE PROJ. NO. 33005-1185-44

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

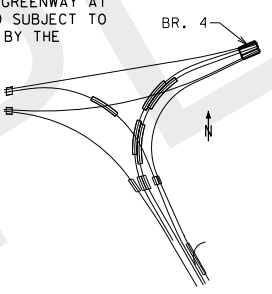


**I-75 FINISHED GRADE DATA**  
(ORIGINAL PLANS DATA)

**LIST OF REFERENCE DRAWINGS**

M-248-84 THRU M-248-100  
H-7-117 THRU H-7-120 AND F-10-84 AND F-10-84-85

- GENERAL NOTES**
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, (JANUARY 1, 2015)
  - LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
  - DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
  - CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
  - REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
  - SUPERSTRUCTURE: TO CONSIST OF 4 SPANS OF 33"x36" BOX BEAMS AND COMPOSITE CONCRETE DECK SLAB.
  - USE STD-1-1SS BRIDGE RAILING.
  - BENTS ARE HAMMERHEAD, FIXED CAP STRUCTURES.
  - END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
  - TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
  - MACHINE RIP-RAP SHALL BE CLASS "B", TO MEET THE QUALITY REQUIREMENTS OF SECTION 709 AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEMS.
  - BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
  - BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



- SCOPE OF WORK:**
- WIDEN BRIDGES TO MATCH PROPOSED APPROACH ROADWAYS.
  - PERFORM DECK REPAIRS ON EXISTING BRIDGES (REFERENCE TDOT DECK SURVEY).
  - REPAIR DETERIORATED AREAS OF CONCRETE ON BEAMS AND SUBSTRUCTURES (REFERENCE TDOT BRIDGE INSPECTION REPORT).
  - REPLACE EXISTING AND ADD TO WIDENED PORTION OF BRIDGES, CONCRETE PAVEMENT AT BRIDGE ENDS (REFERENCE TDOT STANDARD DRAWING STD-1-5).
  - INSTALL NEW STD-1-1SS PARAPETS AND STANDARD GUARDRAIL END TERMINALS AND TRANSITIONS.
  - APPLY A THIN, EPOXY OVERLAY TO BRIDGE DECK AND CONCRETE PAVEMENT AT BRIDGE ENDS.
  - WIDEN EXISTING ABUTMENTS AND BENTS AS REQUIRED TO ACCOMMODATE 179'-3" OUT-TO-OUT SUPERSTRUCTURE.
  - APPLY TEXTURE COATING TO TOP AND INSIDE FACE OF PARAPETS.
  - INSTALL RIP-RAP SCOUR PROTECTION FOR ABUTMENTS.
  - INSTALL TEXTURE COAT FOR ALL CONCRETE SURFACES.

NOTE: ANY WORK WITHIN THE DREAM CHANNEL AREA (E.G. FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI BARREL CULVERT/BRIDGE CONSTRUCTION ETC.) SHALL BE SEPARATED FROM FLOWING WATER OF EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES AND ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION.

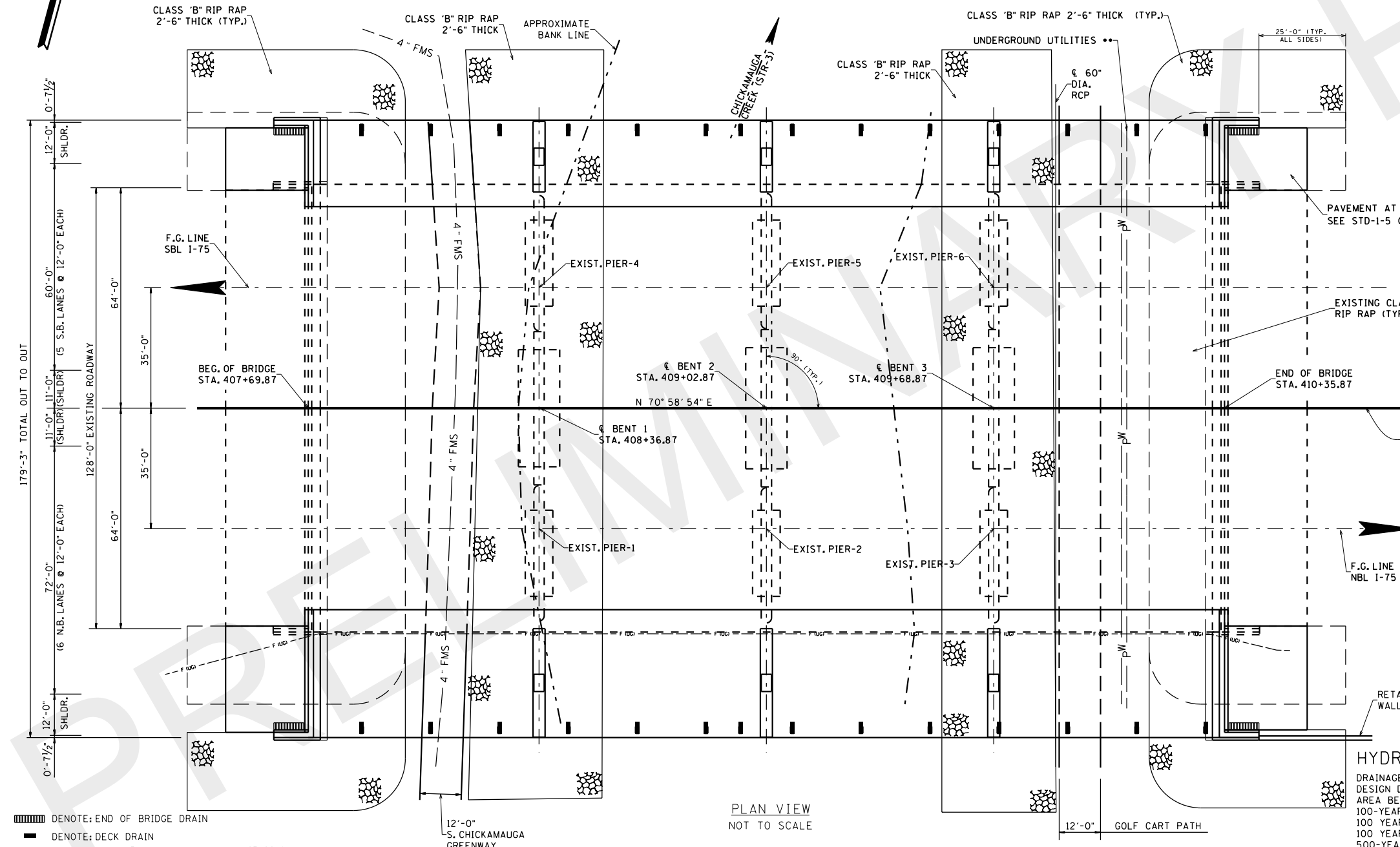
2041 ADT (I-75NB) = 127,360  
DESIGN SPEED (I-75NB) = 60 MPH  
128'-0" ROADWAY WITH STD-1-1SS

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 4  
PRELIMINARY LAYOUT OF BRIDGE  
BRIDGE NO. 33100750019  
I-75 OVER  
CHICKAMAUGA CREEK  
HAMILTON COUNTY  
2018

**HYDRAULIC DESIGN DATA**

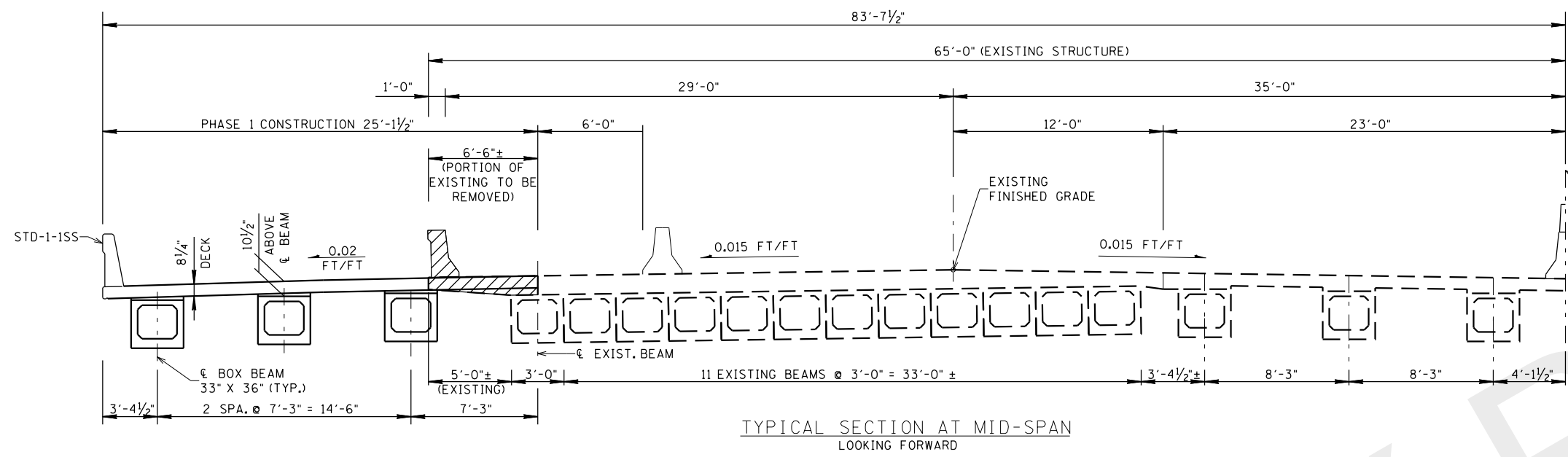
DRAINAGE AREA	426.7 SO MI
DESIGN DISCHARGE (100-YEAR)	32,600 CFS
AREA BELOW 100-YEAR ELEVATION	4,114.24 SO FT.
100-YEAR VELOCITY	8.12 FPS
100 YEAR BRIDGE BACKWATER	0.87 FT @ 676.17'
100 YEAR DISCHARGE	32,600 CFS
500-YEAR DISCHARGE	44,000 CFS
ROADWAY OVERTOPPING ELEVATION	N/A
• AT UPSTREAM FACE	
•• AT UPSTREAM FACE OF BRIDGE (MAX. BACKWATER IS 1.42 FT @ APPROACH)	



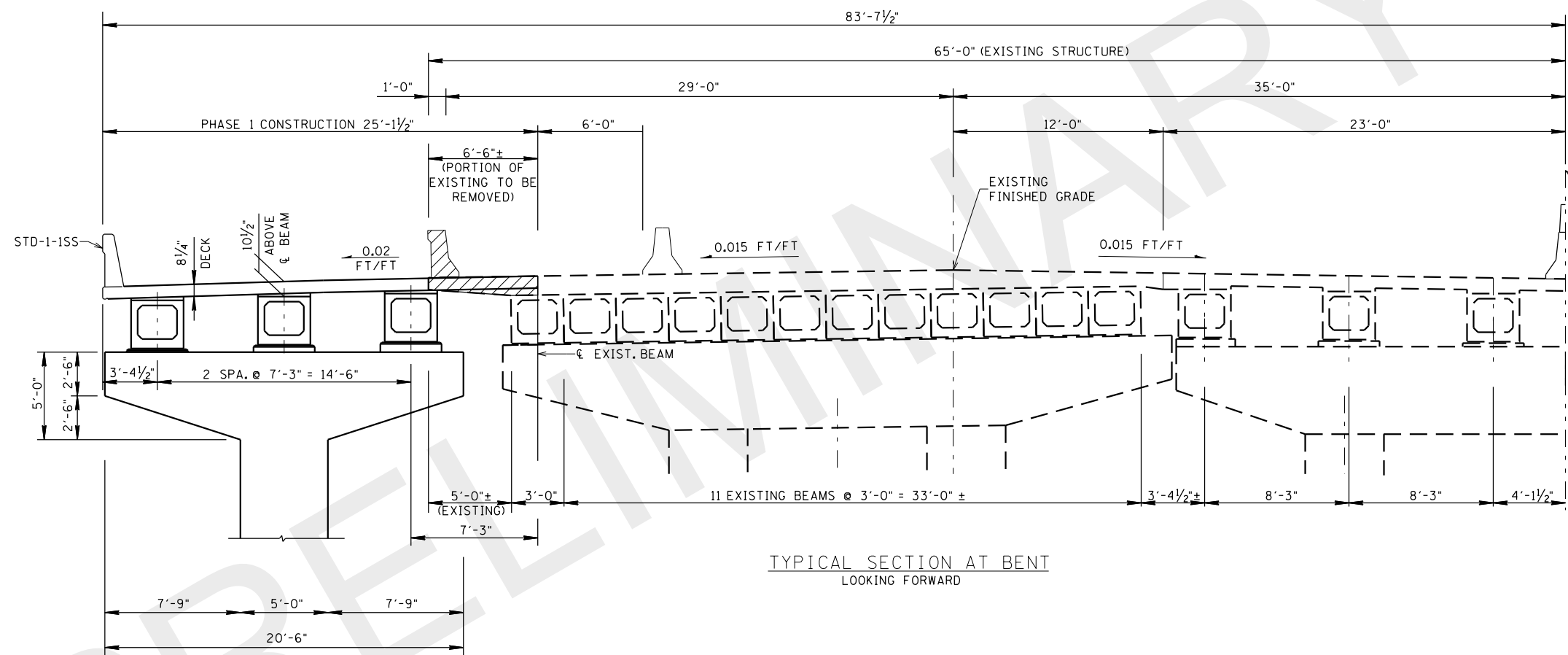
DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT MID-SPAN  
LOOKING FORWARD



TYPICAL SECTION AT BENT  
LOOKING FORWARD

NOTE: DIMENSIONS FOR EXISTING STRUCTURE TO BE FIELD VERIFIED.

PROPOSED € I-75  
MATCHLINE "X-X"

PROPOSED € I-75  
MATCHLINE "X-X"

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 4  
PRELIMINARY SUPERSTRUCTURE  
SOUTHBOUND  
BRIDGE NO. 33100750019  
I-75 OVER  
CHICKAMAUGA CREEK  
HAMILTON COUNTY  
2018

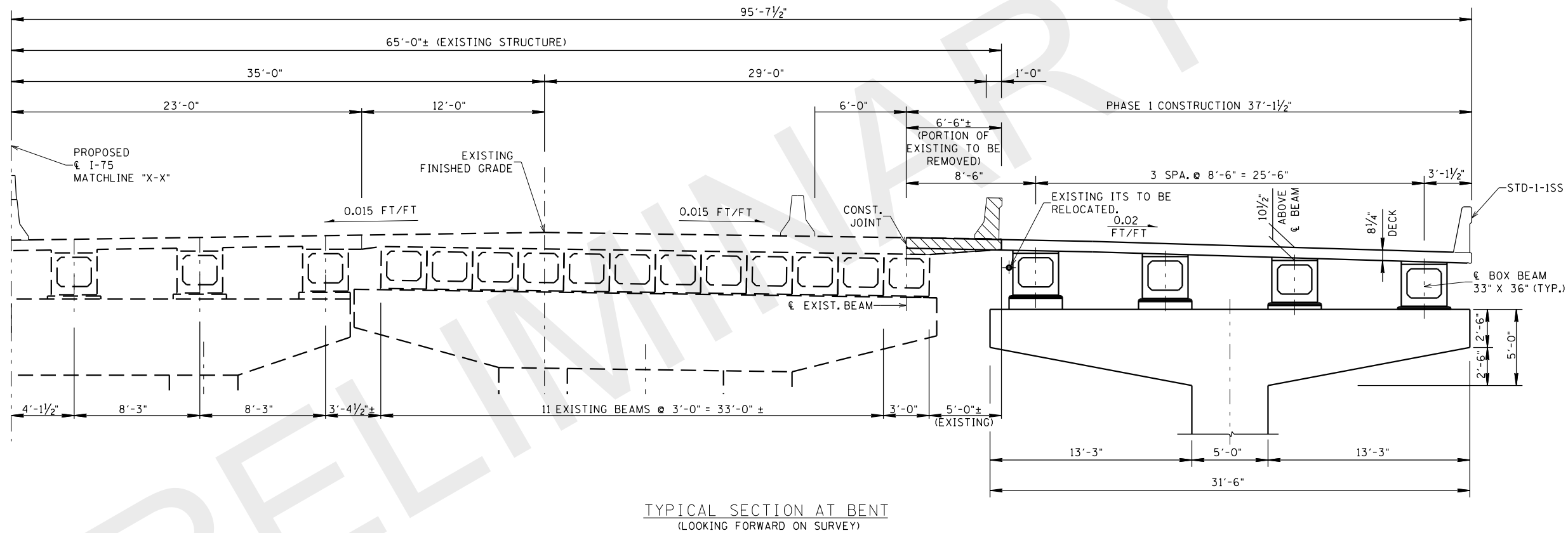
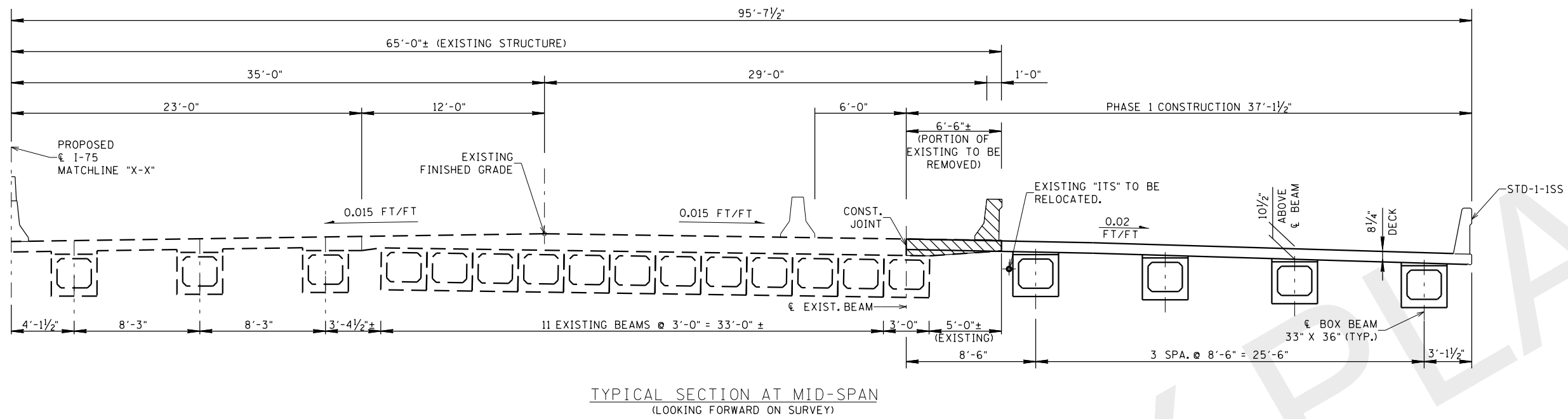
DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

5/25/2018 4:33:26 PM Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\04 - Widening I-75 over South Chickamauga Cr\Dgn\04 - SuperstructureSB.dgn

PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: DIMENSIONS FOR EXISTING STRUCTURE TO BE FIELD VERIFIED.



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 BRIDGE NO. 4  
 PRELIMINARY SUPERSTRUCTURE  
 NORTHBOUND  
 BRIDGE NO. 33100750019  
 I-75 OVER  
 CHICKAMAUGA CREEK  
 HAMILTON COUNTY  
 2018

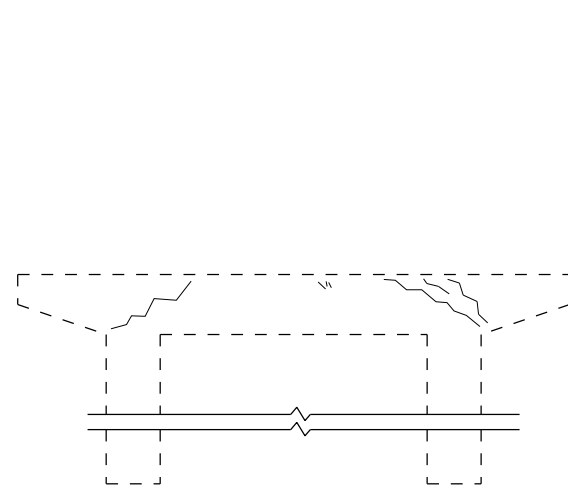
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 SUPERVISED BY: BEB DATE: 05/2018  
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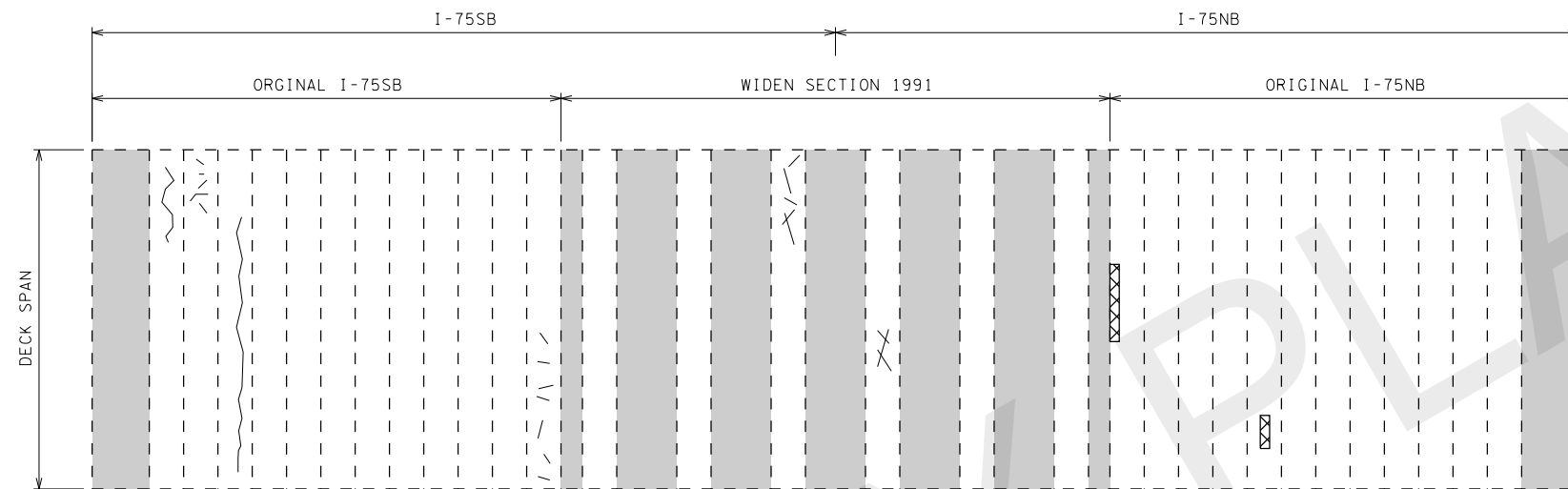


PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



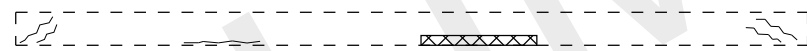
TYPICAL BENT SECTION  
NOT TO SCALE



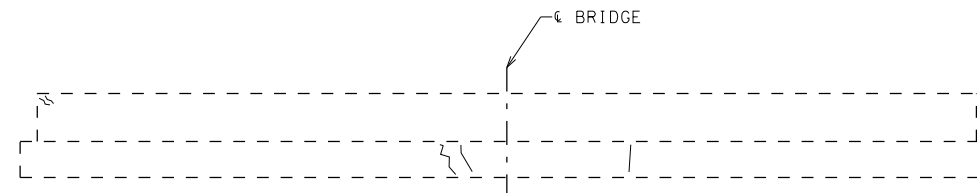
SHOWING BOTTOM OF DECK  
NOT TO SCALE

- CRACK
- OVERHANG/ BETWEEN BEAMS
- SPALL/DELAMINATION

APPROXIMATE LINEAR FOOT OF CRACK: 1150 LF  
APPROXIMATE SPALLS/DELAMINATIONS: 25 SF



TYPICAL BEAM ELEVATION  
NOT TO SCALE



TYPICAL ABUTMENT SECTION  
NOT TO SCALE

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

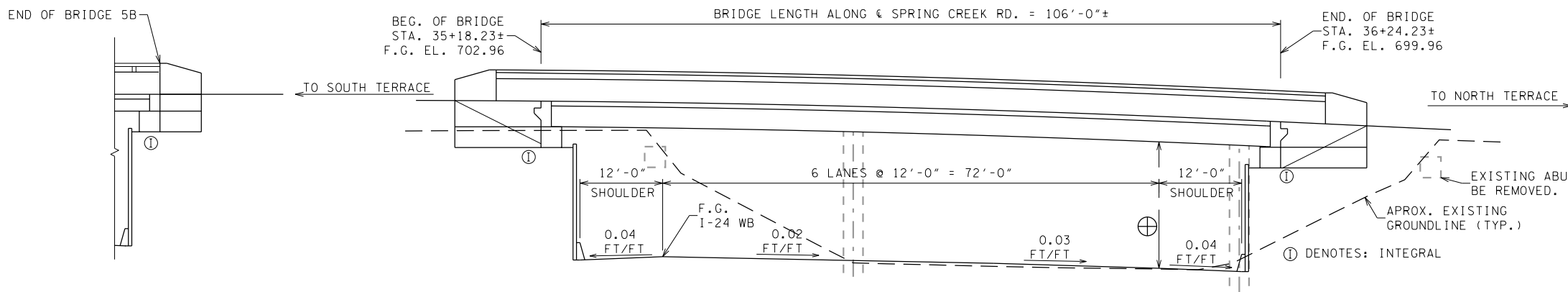
BRIDGE NO. 4  
PRELIMINARY REPAIR SHEET  
BRIDGE NO. 33100750019  
I-75 OVER  
CHICKAMAUGA CREEK  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

5/25/2018 4:33:25 PM Y:\Projects\00100000\04304 I-75 Interchange at I-24 Owners Rep TDOT\Structures\Bridges\04 - Widening I-75 over South Chickamauga Cr\Dgn\04 - xRepair - Sheet.dgn

PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

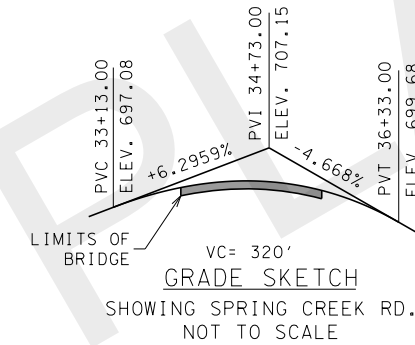
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



MIN. VERT. CLEARANCE:  
 REQUIRED: 16'-6"  
 ACTUAL: 16'-11"  
 F.F. DENOTES FRONT FACE

**ELEVATION VIEW**  
 LOOKING WEST  
 NOT TO SCALE

**GRADE SKETCH**  
 SHOWING I-75NB TO I-24WB  
 NOT TO SCALE



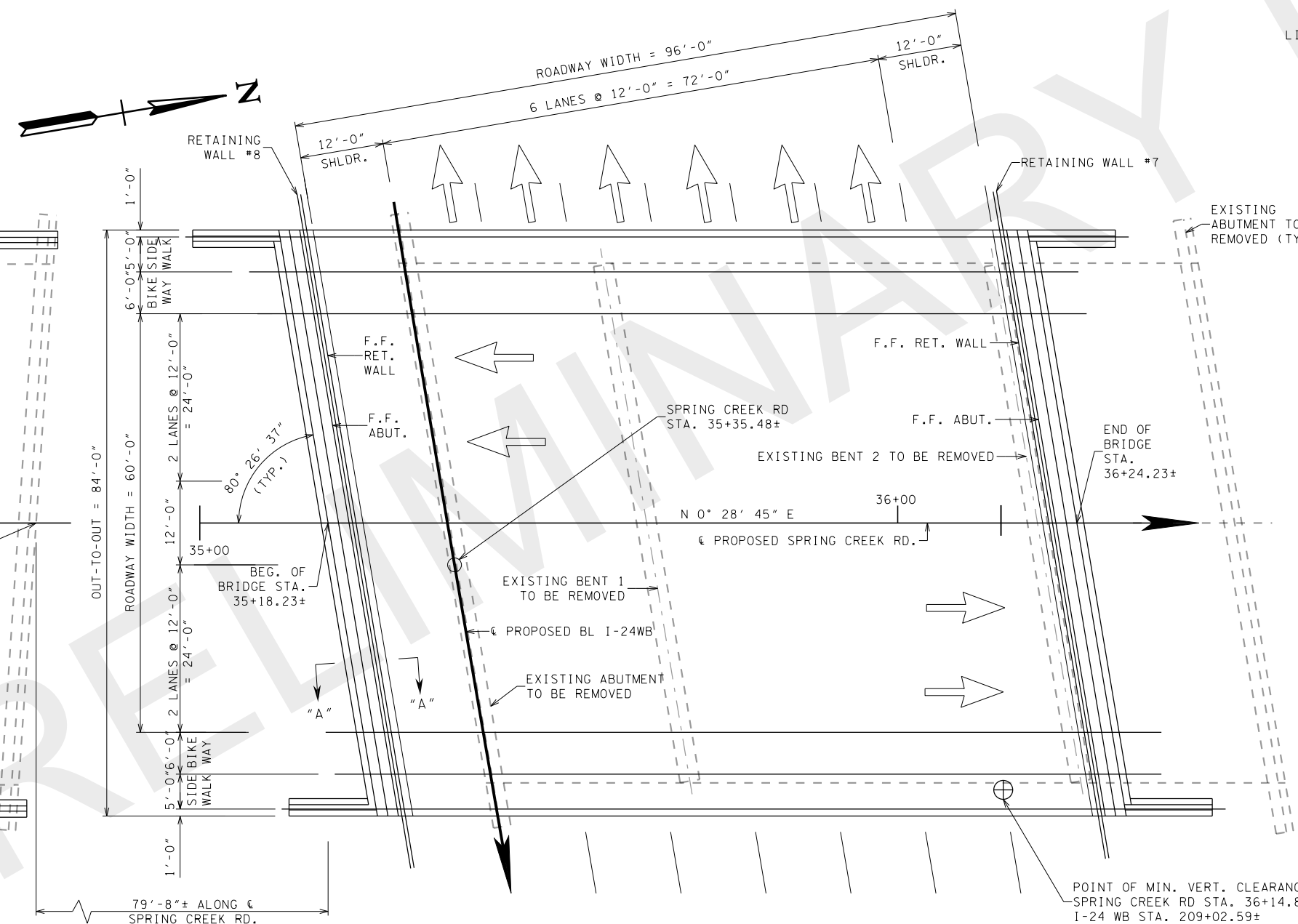
**GRADE SKETCH**  
 SHOWING SPRING CREEK RD.  
 NOT TO SCALE

**SCOPE OF WORK**

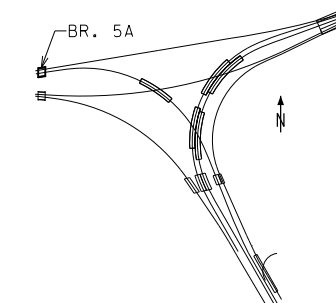
1. INSTALL WALLS AT ABUTMENTS 1 AND 2.
2. REMOVE BENTS, SUPERSTRUCTURE, ABUTMENTS AND PLACE NEW SUPERSTRUCTURE AND ABUTMENTS.
3. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
4. APPLY TEXTURE COATING TO PARAPET, BENT, AND COLUMNS.

**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7<sup>th</sup> EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 1 SPAN OF 36" WELDED PLATE GIRDER AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-11-1 BRIDGE RAILING.
8. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
9. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
10. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS.
11. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "A" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



**PLAN VIEW**  
 NOT TO SCALE



**LOCATION MAP**  
 NOT TO SCALE

DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
 CHECKED BY: JMT DATE: 05/2018

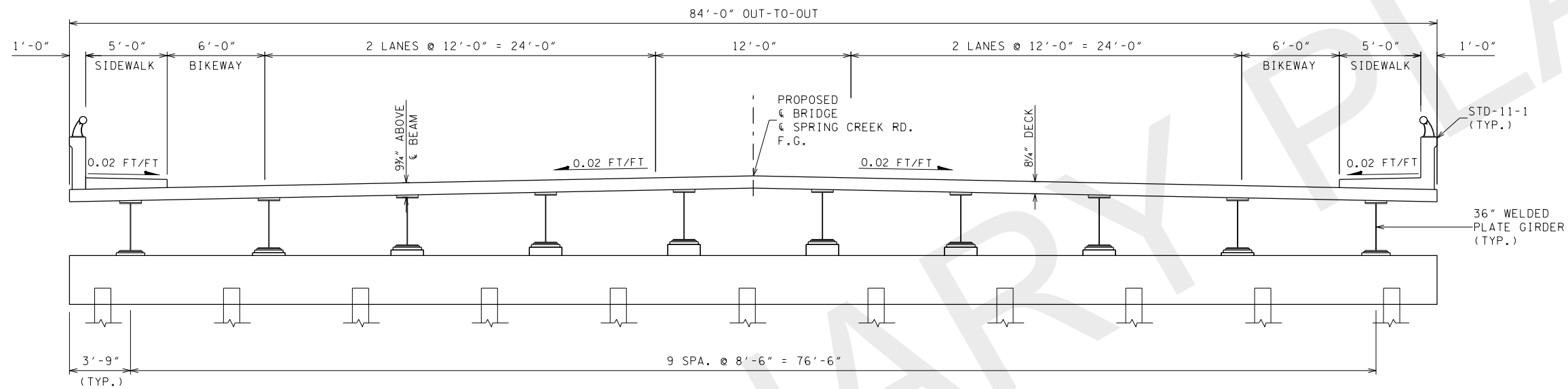
2041 ADT (SPRING CREEK RD.) = 6,810  
 2041 ADT (I-24 WB) = 77,930  
 DESIGN SPEED (SPRING CREEK RD.) = 30 M.P.H.  
 DESIGN SPEED (I-24 WB) = 55 M.P.H.  
 60' ROADWAY WITH STD-11-1 PARAPET

STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**  
 BRIDGE NO. 5A  
 PRELIMINARY LAYOUT OF BRIDGE  
 BRIDGE NO. 33100240063  
 SPRING CREEK ROAD  
 OVER I-24 WB  
 HAMILTON COUNTY  
 2018

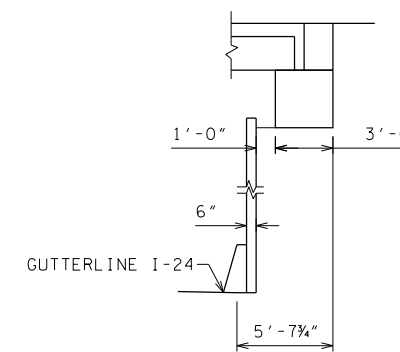
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

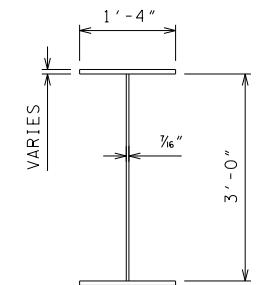
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT ABUTMENT  
NOT TO SCALE



SECTION "A" - "A"  
NOT TO SCALE



TYPICAL BEAM CROSS SECTION  
NOT TO SCALE

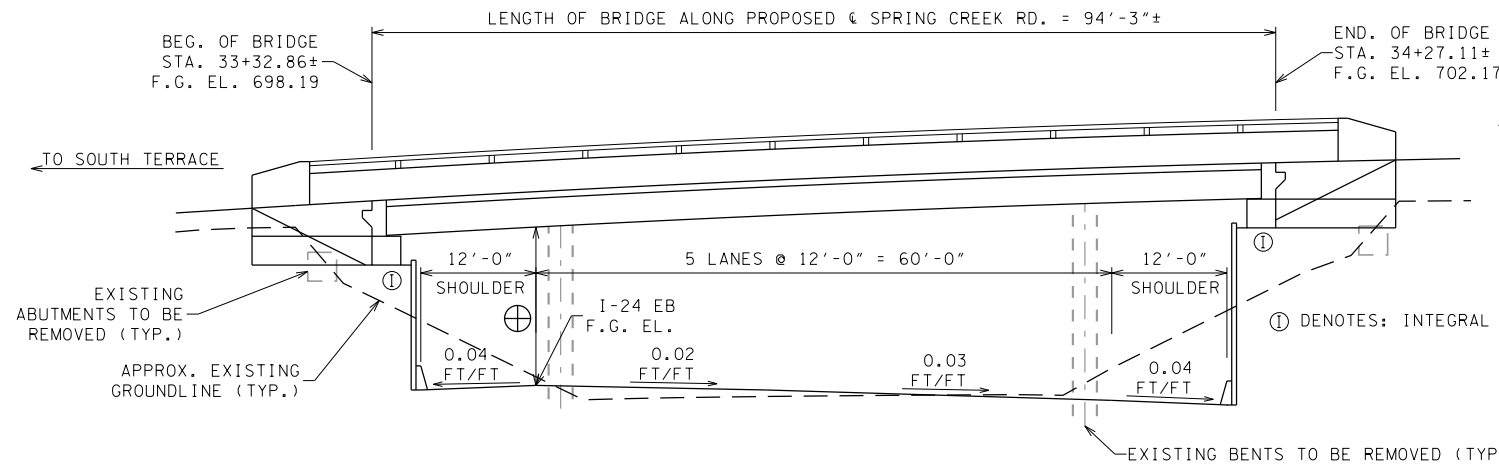
STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 5A  
PRELIMINARY SUPERSTRUCTURE  
BRIDGE NO. 33I00240063  
SPRING CREEK ROAD  
OVER I-24 WB  
HAMILTON COUNTY  
2018

DESIGNED BY WHP DATE 05/2018  
DRAWN BY KLP DATE 05/2018  
SUPERVISED BY BEB DATE 05/2018  
CHECKED BY JMT DATE 05/2018

PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

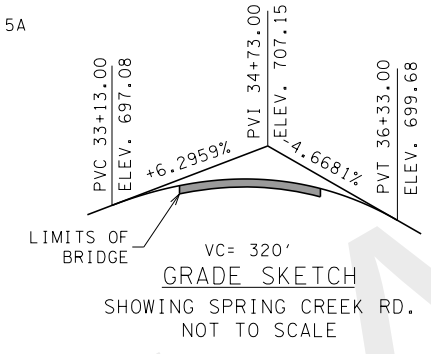
  

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

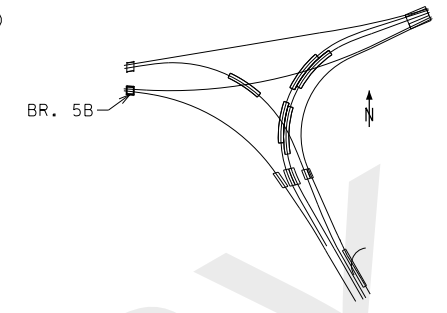


**ELEVATION VIEW**  
LOOKING WEST  
NOT TO SCALE

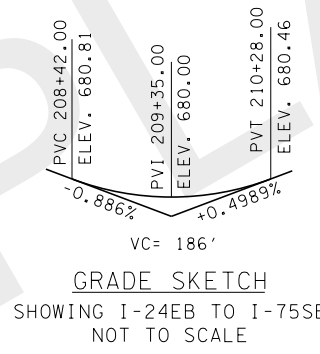
POINT OF MIN. VERT. CLEARANCE:  
REQUIRED: 16'-6"  
ACTUAL: 16'-11"



**GRADE SKETCH**  
SHOWING SPRING CREEK RD.  
NOT TO SCALE



**LOCATION MAP**  
NOT TO SCALE



**GRADE SKETCH**  
SHOWING I-24EB TO I-75SB  
NOT TO SCALE

**SCOPE OF WORK**

1. INSTALL WALLS AT ABUTMENTS 1 AND 2.
2. REMOVE BENTS, SUPERSTRUCTURE, ABUTMENTS AND PLACE NEW SUPERSTRUCTURE AND ABUTMENTS.
3. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
4. APPLY TEXTURE COATING TO PARAPET, BENT, AND COLUMNS.

**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7<sup>TH</sup> EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 1 SPAN OF 36' WELDED PLATE GIRDER AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-11-1 BRIDGE RAILING.
8. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
9. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
10. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS.
11. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "A" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

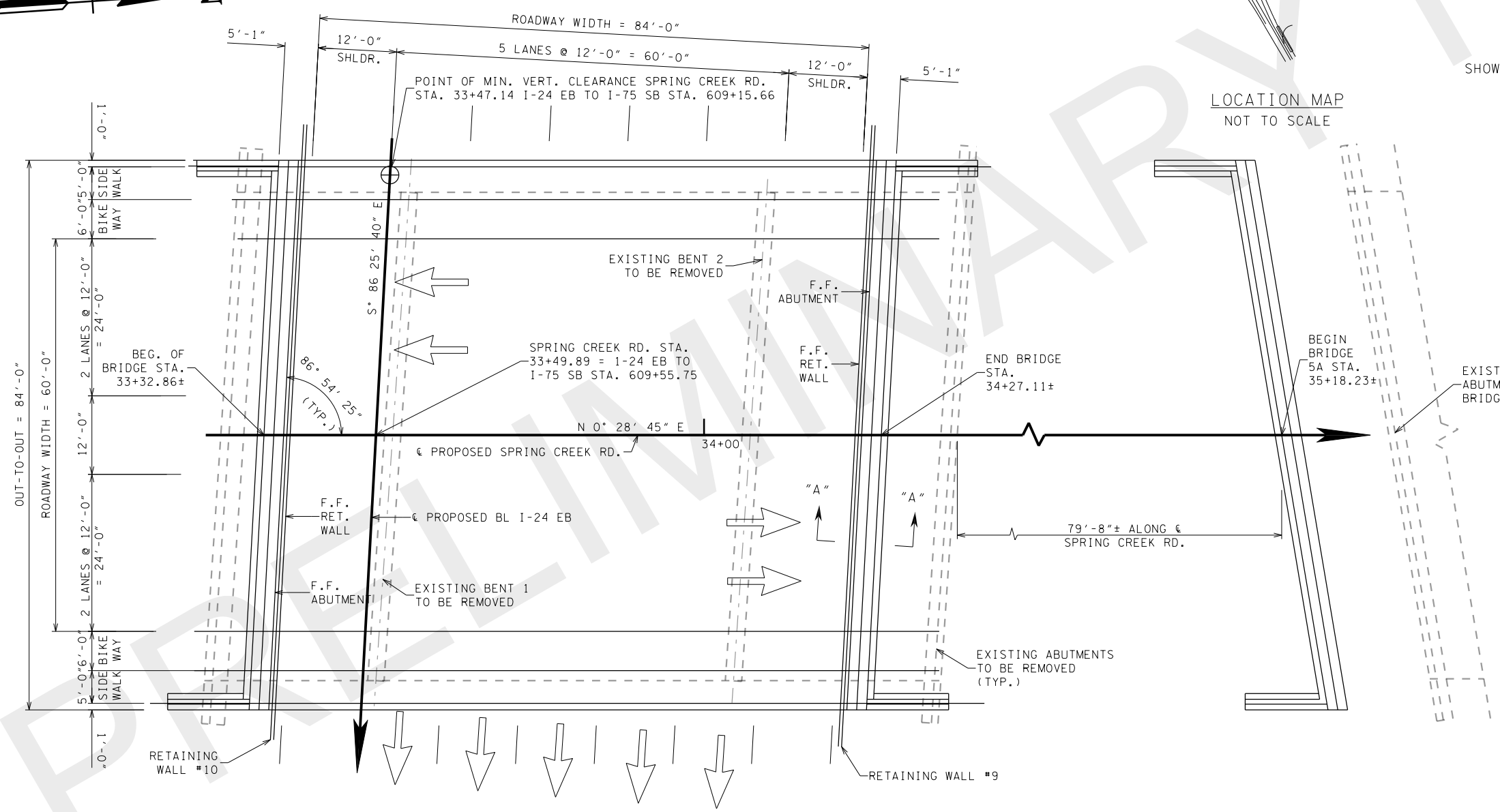
2041 ADT (SPRING CREEK RD.) = 5,030  
2041 ADT (I-24 EB) = 80,680

DESIGN SPEED (SPRING CREEK RD.) = 30 M.P.H.  
DESIGN SPEED (I-24 EB) = 55 M.P.H.

60' ROADWAY WITH STD-11-1 PARAPET

STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE NO 5B**  
**PRELIMINARY LAYOUT OF BRIDGE**  
**BRIDGE NO. 33100240063**  
**SPRING CREEK ROAD**  
**OVER I-24 EB**  
**HAMILTON COUNTY**  
**2018**



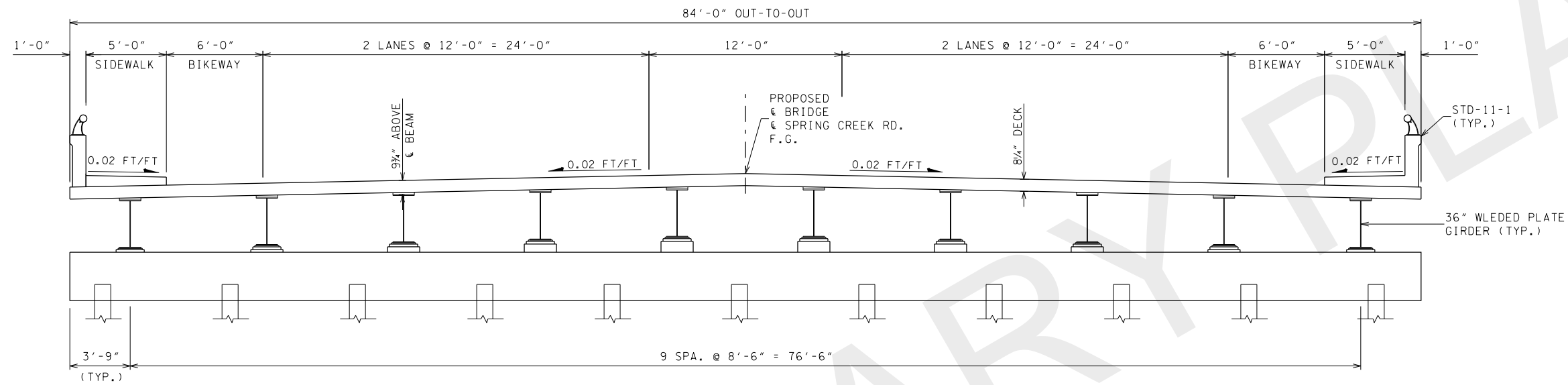
**PLAN VIEW**  
NOT TO SCALE

DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

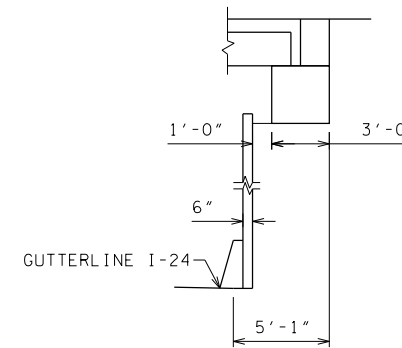
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

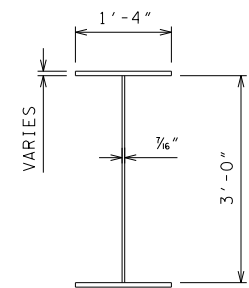
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT ABUTMENT  
NOT TO SCALE



SECTION "A" - "A"  
NOT TO SCALE



TYPICAL BEAM CROSS SECTION  
NOT TO SCALE

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 5B  
PRELIMINARY SUPERSTRUCTURE  
BRIDGE NO. 33100240063  
SPRING CREEK ROAD  
OVER I-24 EB  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

Y:\Projects\0010000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\05B - Spring Creek Road over I-24 EB\Drawings\Superstructure.dgn 5/25/2018 4:33:28 PM

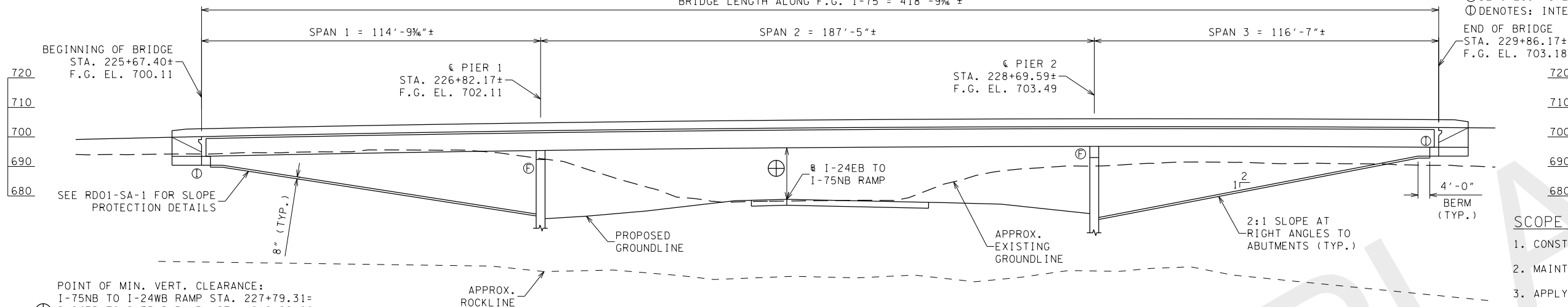
BRIDGE LENGTH ALONG F.G. I-75 = 418'-9 1/2"±

⊕ DENOTES: FIXED  
⊙ DENOTES: INTERGRAL  
END OF BRIDGE  
STA. 229+86.17±  
F.G. EL. 703.18

STATE PROJ. NO. 33005-1185-44

PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



**ELEVATION VIEW**  
LOOKING WEST  
NOT TO SCALE

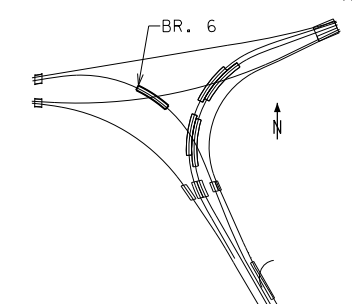
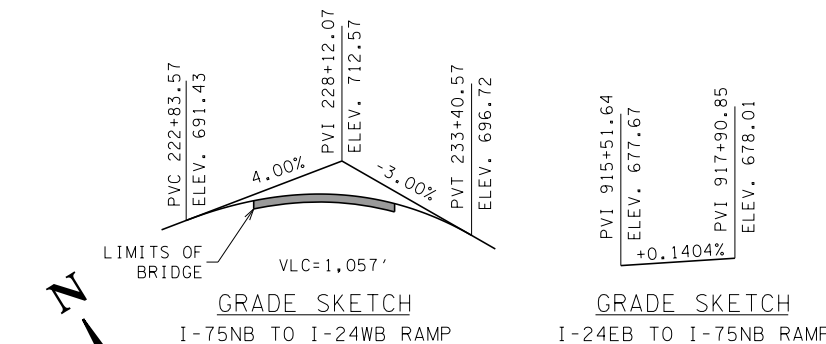
**SCOPE OF WORK**

1. CONSTRUCT BENTS, ABUTMENT, AND SUPERSTRUCTURE.
2. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
3. APPLY TEXTURE COATING TO PARAPET AND BENTS.
4. SWITCH TRAFFIC TO NEWLY CONSTRUCTED BRIDGE.
5. DEMOLISH EXISTING BRIDGE.

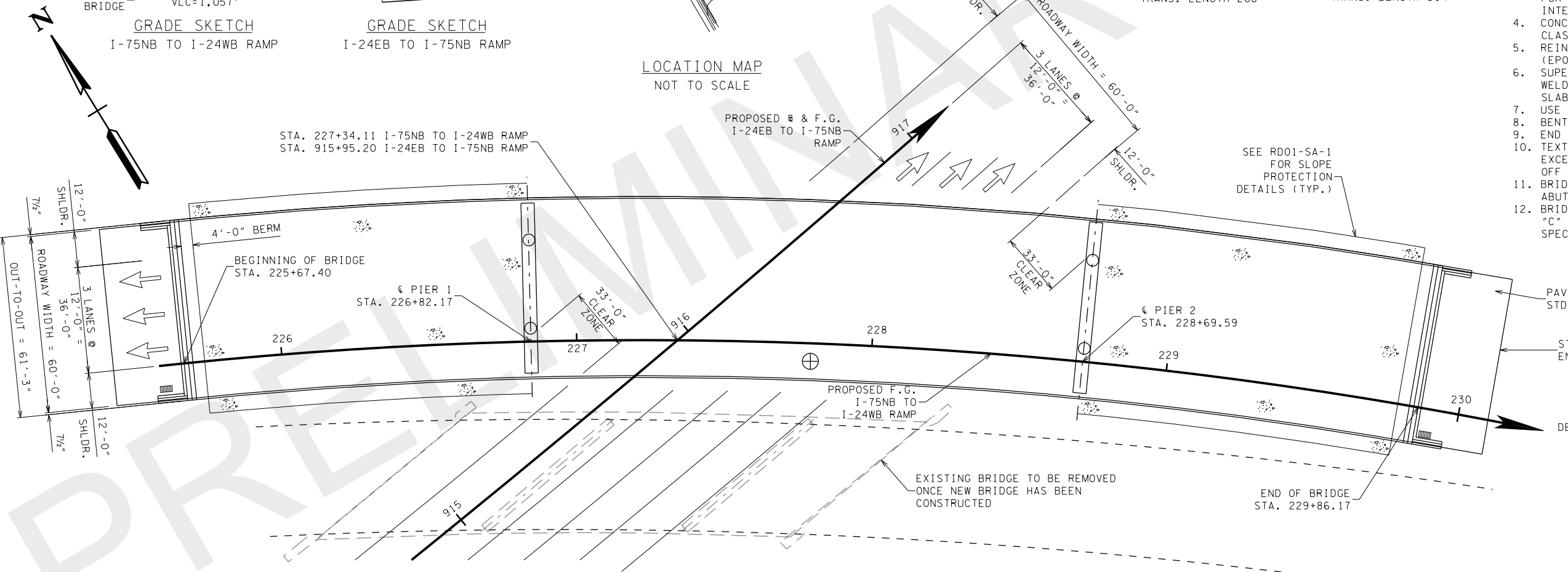
**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 3 SPANS OF 60" WELDED PLATE GIRDER AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. BENTS ARE TWO POST, FIXED CAP STRUCTURES.
9. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
10. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
11. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND FINAL PROFILE AT BENTS.
12. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

CURVE I24EBTOI75NB_1		CURVE I75NBTOI24WB_2	
PI	917+79.94	PI	228+64.77
N	245,030.2533	N	245,587.5493
E	2,204,226.0101	E	2,204,198.8061
Δs	27° 34' 24" (LT)	Δs	77° 42' 51" (RT)
Θs	0° 49' 05"	Θs	7° 37' 15"
Δc	25° 56' 14" (LT)	Δc	62° 28' 21" (RT)
Dc	1° 00' 58"	Dc	3° 44' 41"
Rc	5,638.00	Rc	1,530.00
Lc	2,552.26	Lc	1,668.24
Ts	1,463.98	Ts	1,439.67
Ls	161.00	Ls	407.00
SE	0.030 FT/FT	SE	0.076 FT/FT
DESIGN SPEED	30 MPH	DESIGN SPEED	60MPH
TRANS. LENGTH	268'	TRANS. LENGTH	514'



**LOCATION MAP**  
NOT TO SCALE



**PLAN VIEW**  
NOT TO SCALE

DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

PAVEMENT AT BRIDGE ENDS SEE STD-1-5 FOR DETAILS (TYP.)

STRIP SEAL EXPANSION JOINT AT BRIDGE ENDS OF PAVEMENT AT BRIDGE ENDS (TYP.)

2041 ADT (I-75SB TO I-24WB) = 36,380

DESIGN SPEED (I-75SB TO I-24WB) = 60 MPH

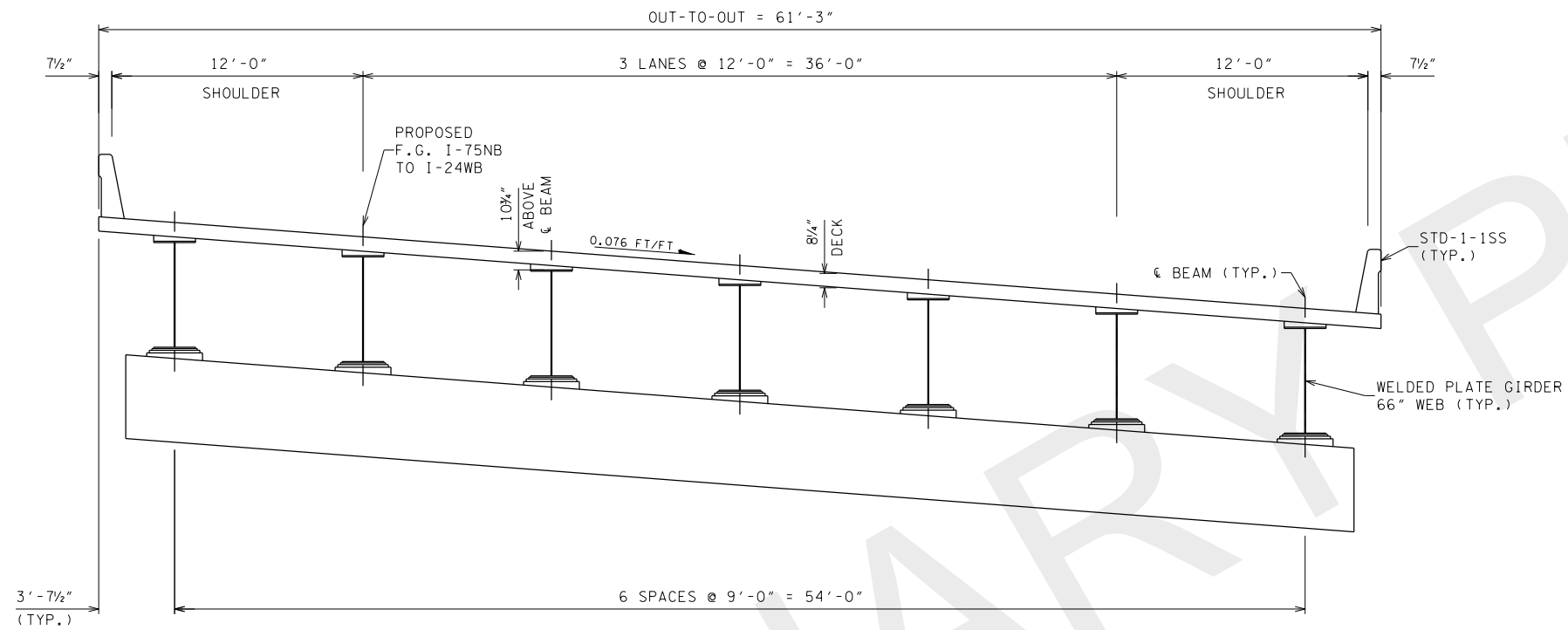
60'-0" ROADWAY WITH STD-1-1SS PARAPET

STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE NO. 6**  
PRELIMINARY LAYOUT  
BRIDGE NO. XX-XXXX-XXXX  
I-75 NB TO I-24 WB  
OVER  
I-24 EB TO I-75 NB RAMP  
HAMILTON COUNTY  
2018

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
 LOOKING FORWARD  
 NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 BRIDGE NO. 6  
 PRELIMINARY SUPERSTRUCTURE  
 BRIDGE NO. XX-XXXX-XXXX  
 I-75 NB TO I-24 WB  
 OVER  
 I-24 EB TO I-75 SB  
 HAMILTON COUNTY  
 2018

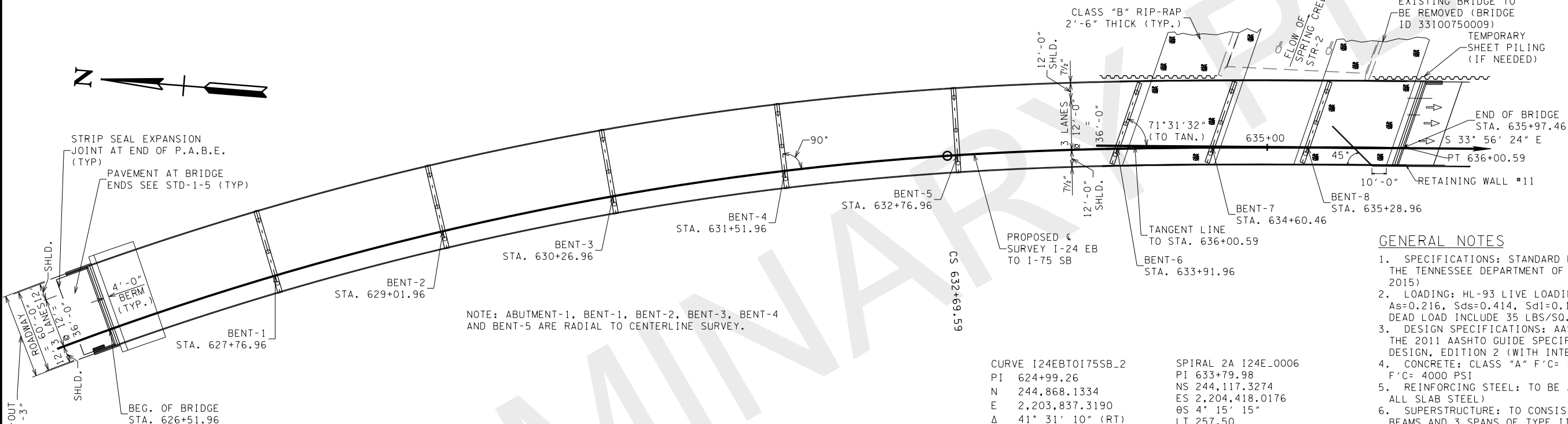
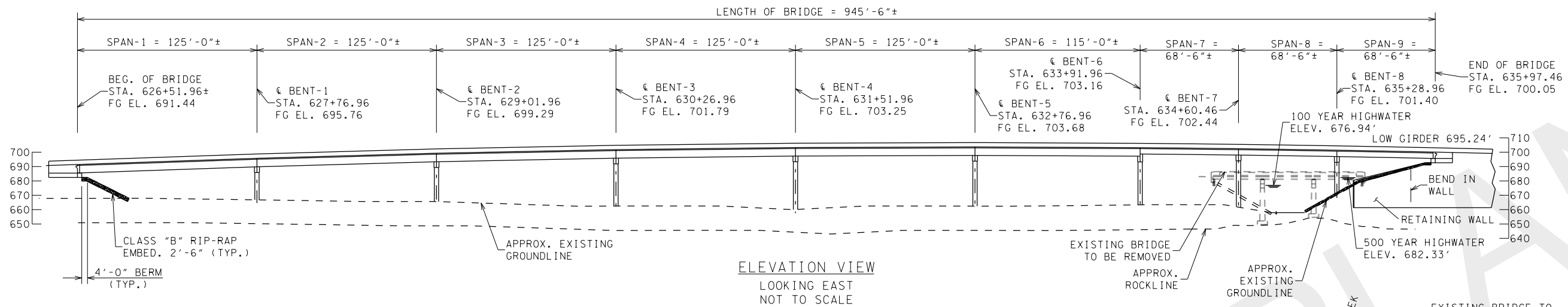
DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
 CHECKED BY: JMT DATE: 05/2018

Y:\Projects\0010000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\06 - I-75NB to I-24WB over I-24WB Preliminary Superstructure.dgn  
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



**SCOPE OF WORK**

1. INSTALL TEMPORARY SHORING AS REQUIRED TO MAINTAIN TRAFFIC.
2. CONSTRUCT NEW SUPERSTRUCTURE AND ABUTMENTS.
3. APPLY TEXTURE COATING TO PARAPET, BENT, AND COLUMNS.
4. INSTALL WALLS AT ABUTMENTS 1 AND 2.

**HYDRAULIC DATA**

DRAINAGE AREA = 20.8 SQ. MI. (STREAMSTATS)  
 DESIGN DISCHARGE (100 YR) = 10,450 CFS (FEMA FIS)  
 WATER AREA PROVIDED BELOW 100 YEAR ELEVATION = 1,370.47 SQ. FT. (UPSTREAM FACE)  
 100 YEAR VELOCITY = 7.79 FPS  
 100 YEAR BRIDGE BACKWATER = 0.43 FT @ EL. 676.94\*  
 100 YEAR DISCHARGE = 10,450 CFS (FEMA FIS)  
 500 YEAR DISCHARGE = 12,450 CFS (FEMA FIS)  
 ROADWAY OVERTOPPING = N/A  
 \* AT UPSTREAM FACE OF BRIDGE NO. 7 (MAX BW IS 1.59 FT AT APPROACH)

**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_d=0.414$ ,  $S_d1=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 6 SPANS OF 63" BULB-TEE BEAMS AND 3 SPANS OF TYPE III I BEAMS.
7. USE STD-1-1SS BRIDGE RAILING.
8. BENTS ARE THREE POST, FIXED CAP STRUCTURES.
9. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
10. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
11. MACHINE RIP-RAP SHALL BE CLASS "B", TO MEET THE QUALITY REQUIREMENTS OF SECTION 709 AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEMS.
12. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
13. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

2041 ADT (I-24EB TO I-75SB) = 39,560  
 DESIGN SPEED (I-24EB TO I-75SB) = 61'-3" ROADWAY WIDTH WITH STD-1-1SS PARAPET

STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**  
 BRIDGE NO. 7  
 PRELIMINARY LAYOUT OF BRIDGE  
 BRIDGE NO XX-XXXX-XXXX  
 I-24EB TO I-75SB  
 OVER  
 SPRING CREEK  
 HAMILTON COUNTY  
 2018

DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

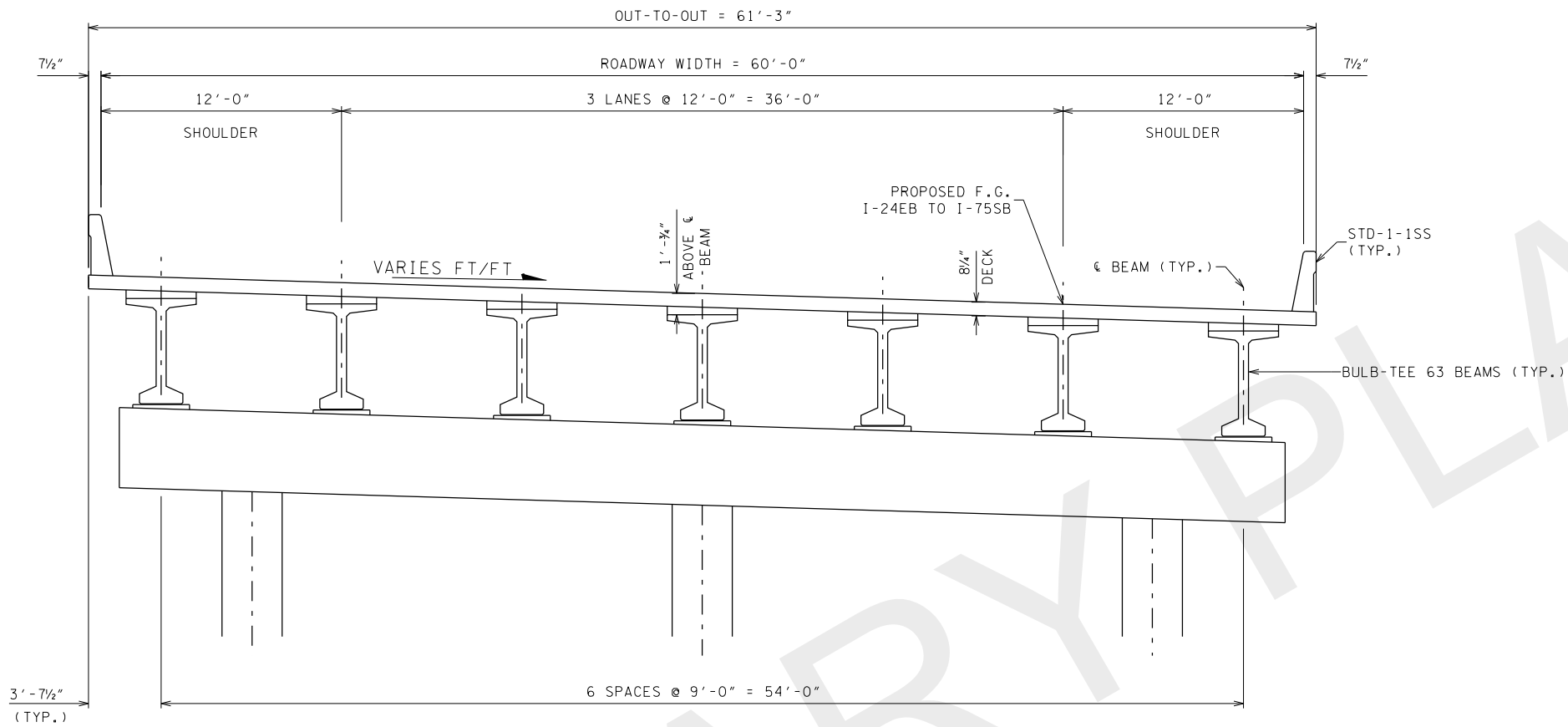
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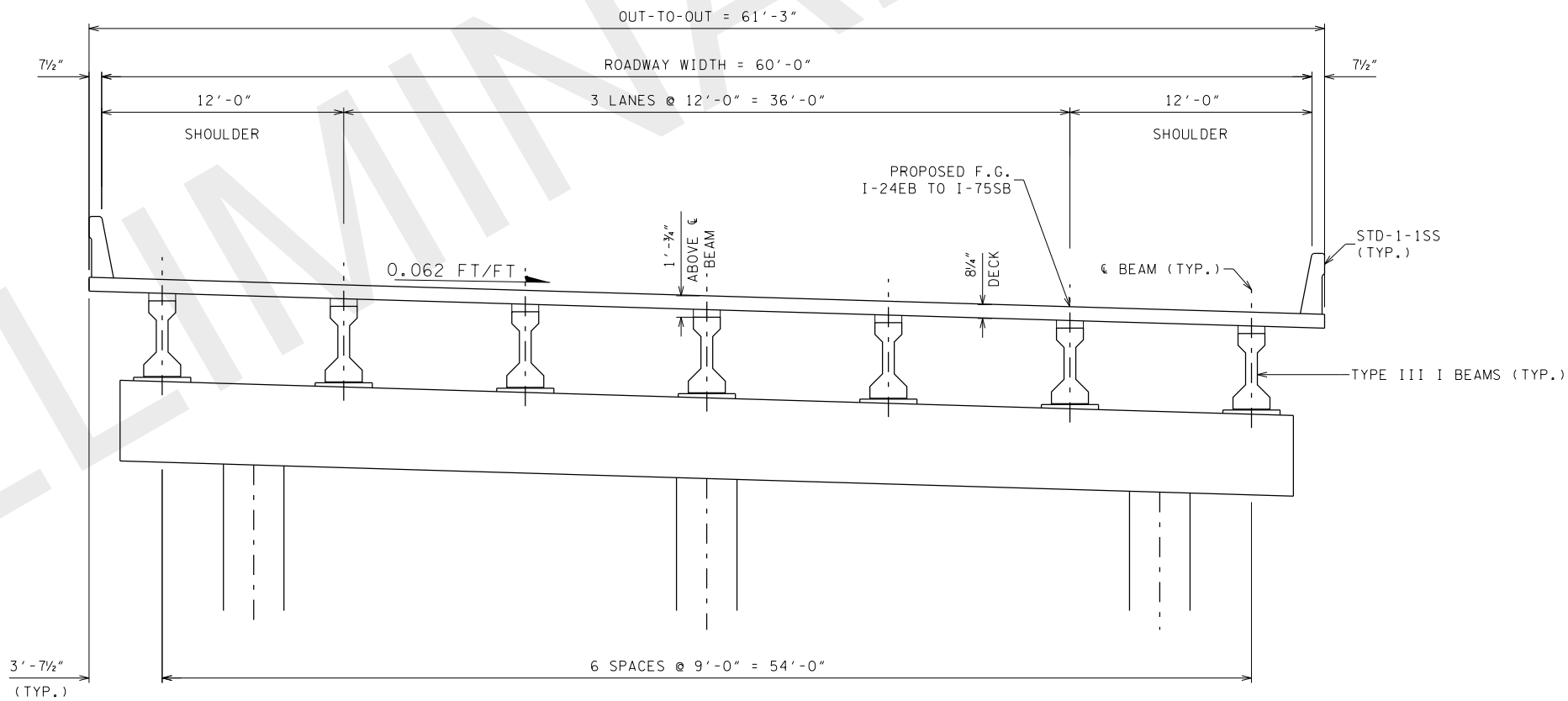
PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION SPANS 1, 2, 3, 4, 5 AND 6  
(LOOKING FORWARD)



TYPICAL SECTION SPANS 7, 8 AND 9  
(LOOKING FORWARD)

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 7  
PRELIMINARY SUPERSTRUCTURE  
BRIDGE NO. XX-XXXX-XXXX  
I-24EB TO I-75 SB  
OVER  
SPRING CREEK  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
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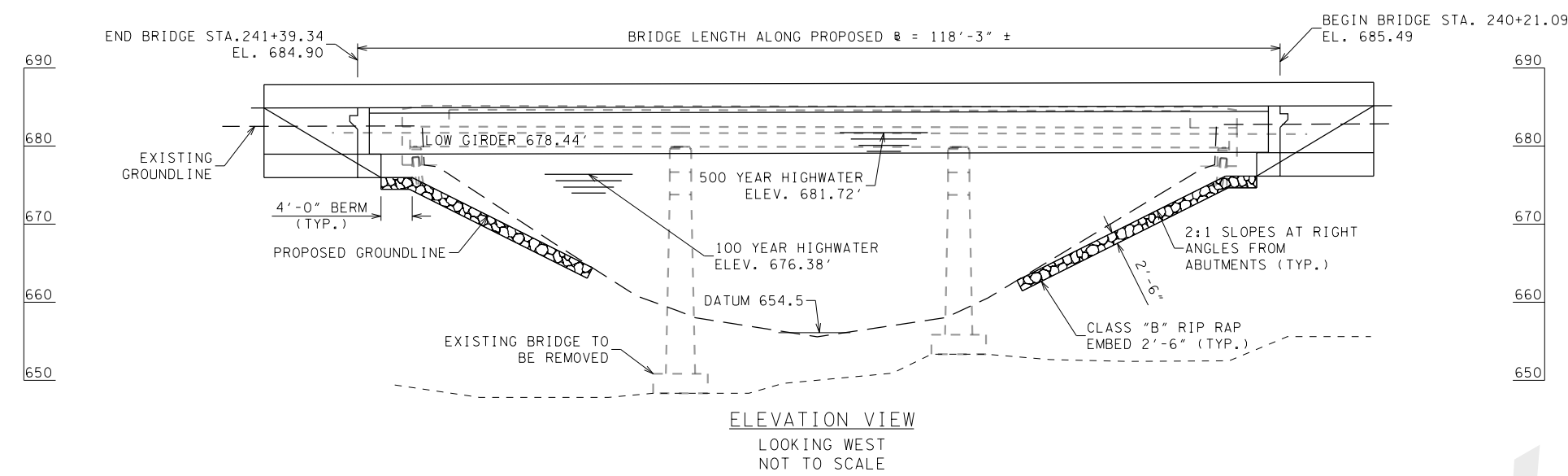
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5/25/2018 4:33:31PM Y:\Projects\00100000\04304 I-75 Interchange at I-24 Owners Rep TDOT\Structures\Bridges\08 - I-75 NB to I-24 WB over Spring Creek\08.Preliminary Layout of Bridge.dgn

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



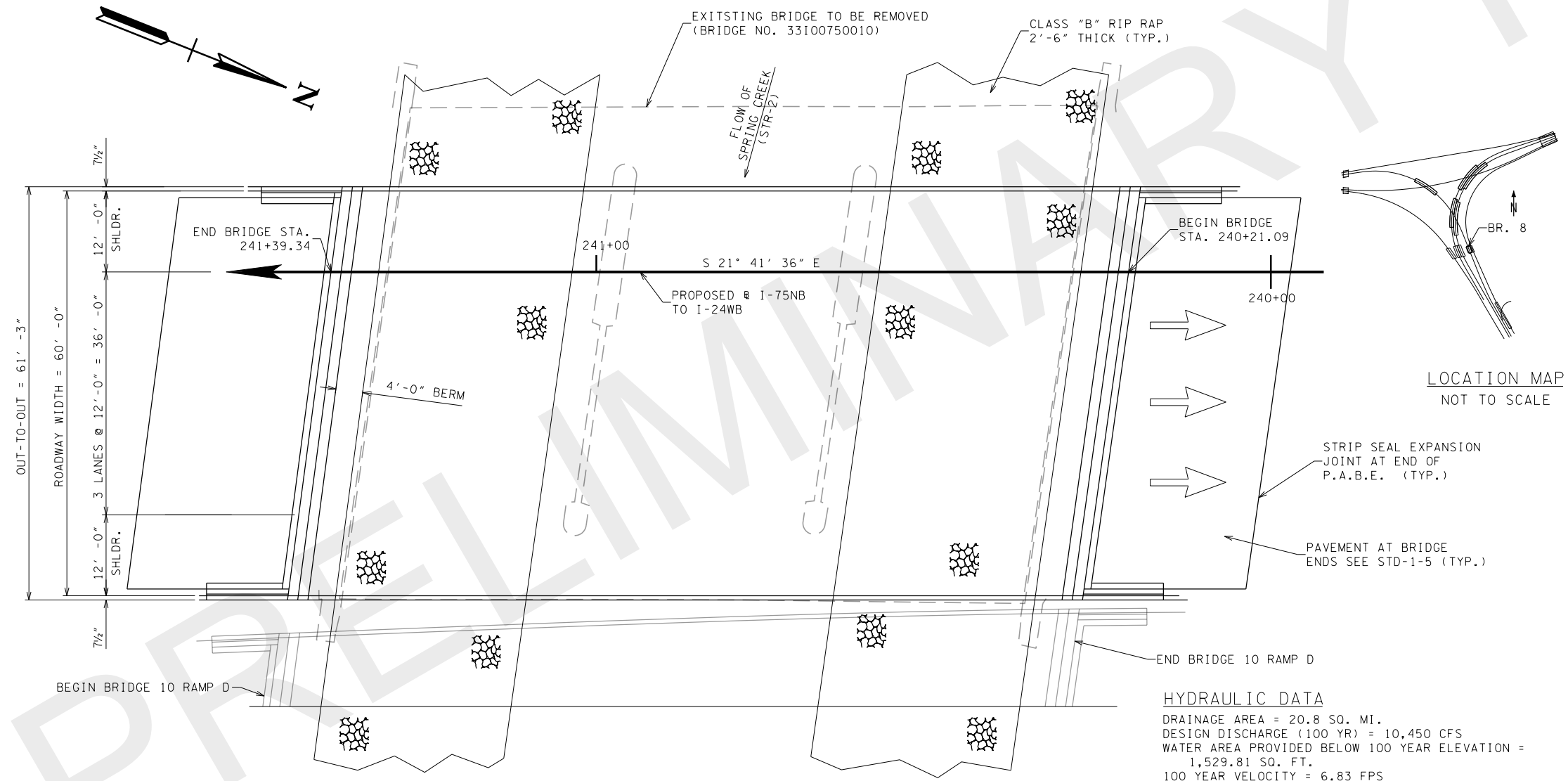
GRADE SKETCH  
SHOWING I-75NB TO I-24WB  
NOT TO SCALE

SCOPE OF WORK

1. REMOVE BENTS, SUPERSTRUCTURE, ABUTMENTS AND PLACE NEW SUPERSTRUCTURE AND ABUTMENTS.
2. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
3. APPLY TEXTURE COATING TO PARAPET AND COLUMNS.

GENERAL NOTES

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "DS" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 1 SPAN OF BT-63 BEAMS AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
9. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
10. MACHINE RIP-RAP SHALL BE CLASS "XXX", TO MEET THE QUALITY REQUIREMENTS OF SECTION 709 AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEMS.
11. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS.
12. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



LOCATION MAP  
NOT TO SCALE

PLAN VIEW  
NOT TO SCALE

**HYDRAULIC DATA**  
 DRAINAGE AREA = 20.8 SQ. MI.  
 DESIGN DISCHARGE (100 YR) = 10,450 CFS  
 WATER AREA PROVIDED BELOW 100 YEAR ELEVATION = 1,529.81 SQ. FT.  
 100 YEAR VELOCITY = 6.83 FPS  
 100 YEAR BRIDGE BACKWATER = 0.00 FT @ EL. 676.38\*  
 100 YEAR DISCHARGE = 10,450 CFS  
 500 YEAR DISCHARGE = 12,450 CFS  
 ROADWAY OVERTOPPING = N/A  
 \* AT UPSTREAM FACE OF BRIDGE NO. 8 (MAX BW IS 0.31 FT AT APPROACH)

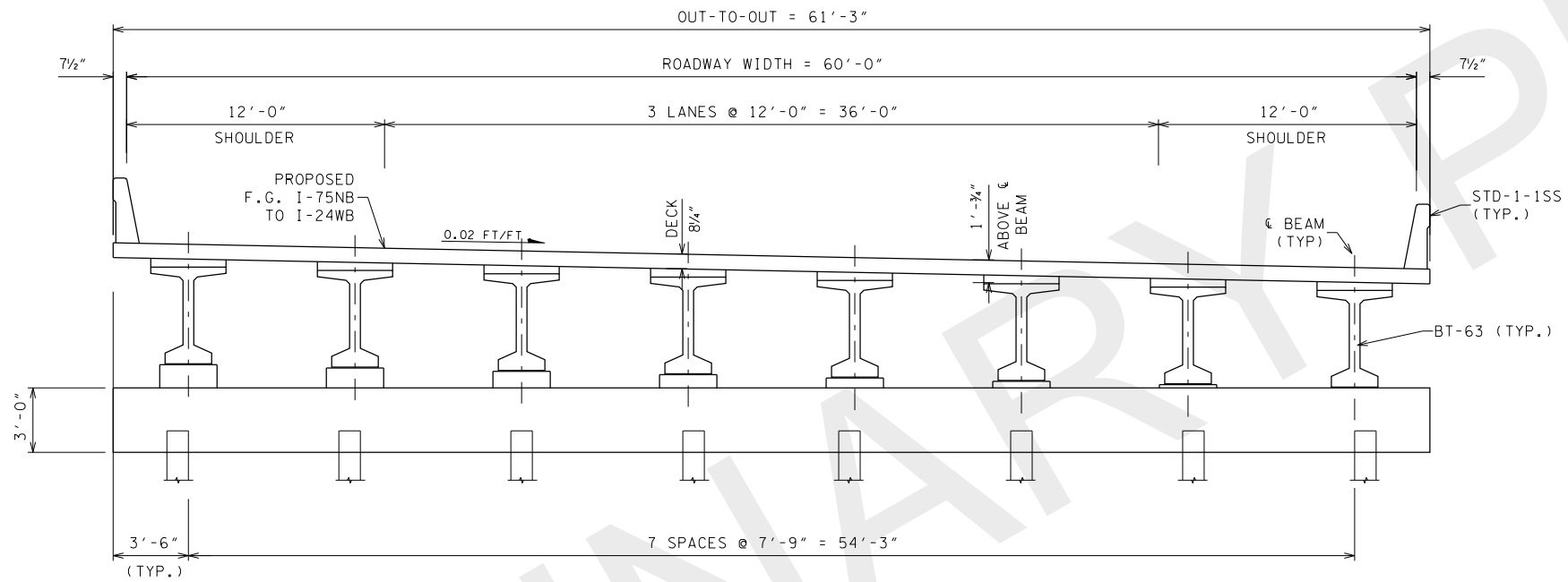
2041 ADT (I-75NB TO I-24WB) = 27,670  
 DESIGN SPEED (I-75NB TO I-24WB) = 60 MPH  
 60'-0" ROADWAY WIDTH WITH STD-1-1SS PARAPET

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 BRIDGE NO. 8  
 PRELIMINARY LAYOUT  
 BRIDGE NO. XX-XXX-XXXX  
 I-75NB TO I-24WB  
 OVER  
 SPRING CREEK  
 HAMILTON COUNTY  
 2018

DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT ABUTMENT  
 LOOKING FORWARD  
 NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 BRIDGE NO. 8  
 PRELIMINARY SUPERSTRUCTRE  
 BRIDGE NO. XX-XXXX-XXXX  
 I-75NB TO I-24WB  
 OVER  
 CHICKAMAUGA CREEK  
 HAMILTON COUNTY  
 2018

DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
 CHECKED BY: JMT DATE: 05/2018

**SCOPE OF WORK**

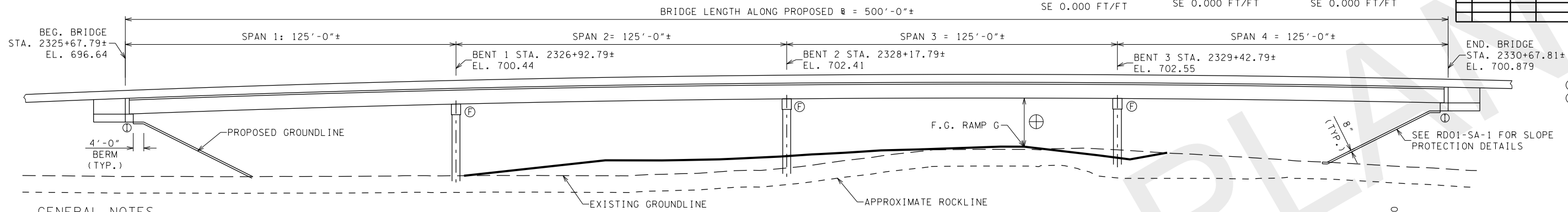
1. REMOVE BENTS, SUPERSTRUCTURE, ABUTMENTS AND PLACE NEW SUPERSTRUCTURE AND ABUTMENTS.
2. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
3. APPLY TEXTURE COATING TO PARAPET, BENT, AND COLUMNS.
4. INSTALL WALLS AT ABUTMENTS 1 AND 2.

CURVE RAMPG-1	CURVE RAMPG-2	CURVE RAMPG-3
PI 2601+05.37	PI 2603+10.27	PI 2604+30.71
N 242.322.3333	N 242.527.8870	N 242.544.1047
E 2,205,722.0608	E 2,205,794.7420	E 2,205,938.2537
Δ 49° 13' 47" (RT)	Δ 64° 04' 47" (RT)	Δ 21° 48' 01" (RT)
D 24° 54' 40"	D 31° 49' 52"	D 34° 43' 29"
R 230.00	R 180.00	R 165.00
L 197.62	L 201.31	L 62.78
T 105.37	T 112.65	T 31.77
SE 0.000 FT/FT	SE 0.000 FT/FT	SE 0.000 FT/FT

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

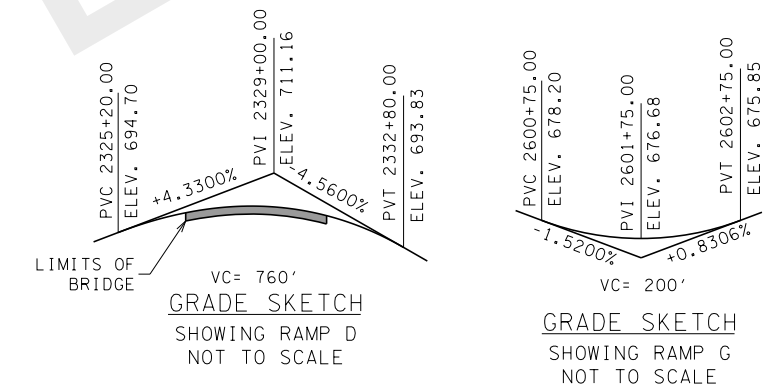
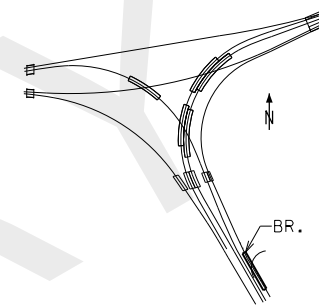


**GENERAL NOTES**

1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH  $A_s=0.216$ ,  $S_{ds}=0.414$ ,  $S_{d1}=0.167$ , (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
3. DESIGN SPECIFICATIONS: AASHTO LRFD 7TH EDITION, 2014, AND THE 2011 AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN, EDITION 2 (WITH INTERIMS).
4. CONCRETE: CLASS "A" F'C= 3000 PSI, BRIDGE DECK CLASS "D" F'C= 4000 PSI
5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 4 SPANS OF BT-63 BEAMS AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. BENTS ARE HAMMERHEAD, FIXED CAP STRUCTURES.
9. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
10. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
11. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS AND EXISTING GROUND LINE AT BENTS.
12. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.

**ELEVATION VIEW**

LOOKING WEST  
NOT TO SCALE

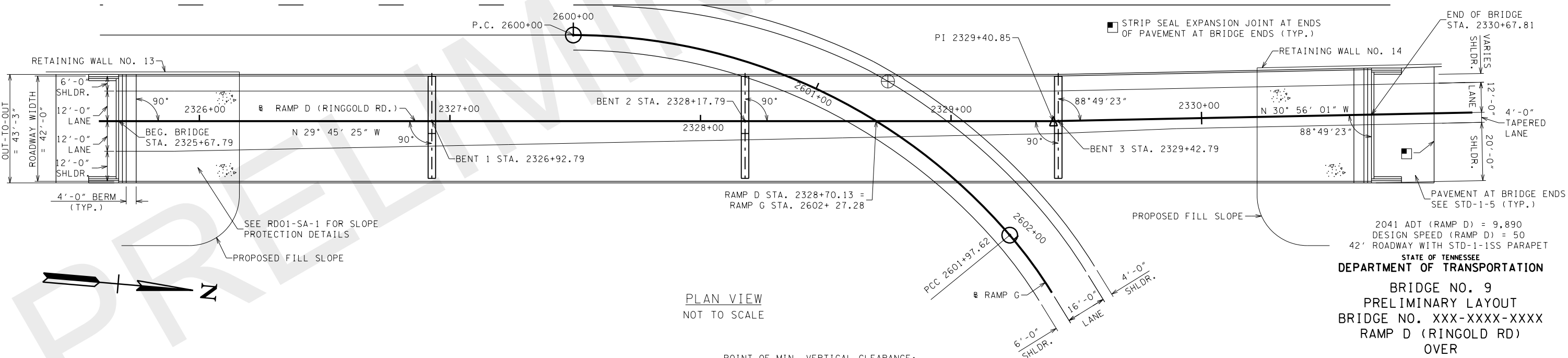


ADT (RAMP D) =

ADT (RAMP G) =

DESIGN SPEED (RAMP D) =

DESIGN SPEED (RAMP G) =



**PLAN VIEW**

NOT TO SCALE

POINT OF MIN. VERTICAL CLEARANCE:

⊕ RAMP D STA. 2328+74.80

⊕ RAMP G STA. 2602+23.19

REQUIRED: 16'-6"

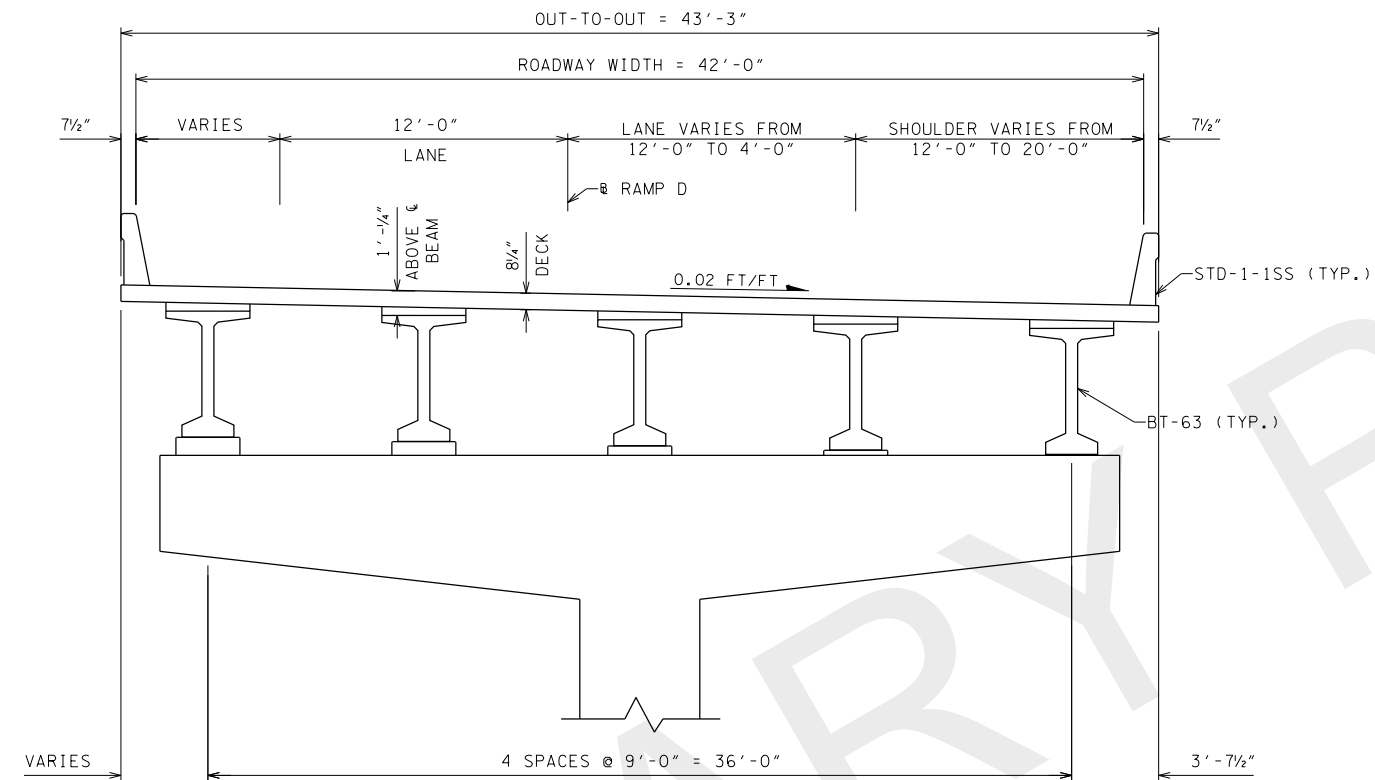
ACTUAL: 18'-6"

DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

5/25/2018 4:33:32 PM Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\09 - Ramp D over Welcome Center Ramp\09-Prelim Layout.dgn

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
LOOKING FORWARD  
NOT TO SCALE

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
BRIDGE NO. 9  
PRELIMINARY SUPERSTRUCTURE  
BRIDGE NO. XX-XXXX-XXXX  
RAMP D (RINGGOLD RD)  
OVER  
RAMP G (WELCOME CENTER)  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

PVI 2346+50.00  
EL. 683.67  
+0.0876%  
PVI 2349+70.00  
EL. 683.95

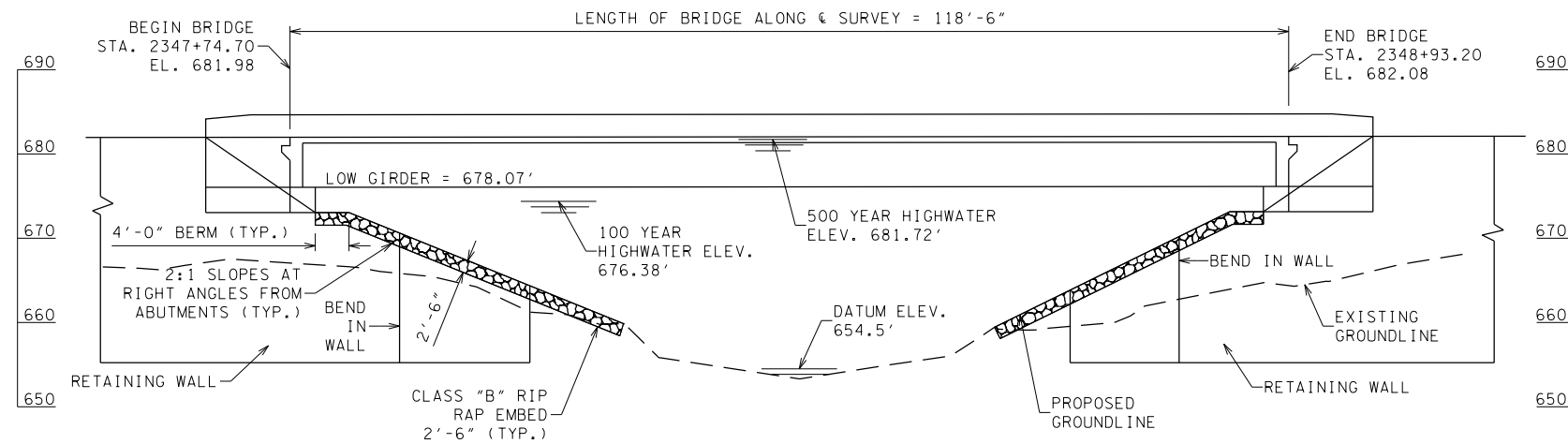
GRADE SKETCH  
SHOWING RAMP D  
NOT TO SCALE

SCOPE OF WORK

1. CONSTRUCT ABUTMENT AND SUPERSTRUCTURE.
2. APPLY TEXTURE COATING TO PARAPET AND COLUMNS.

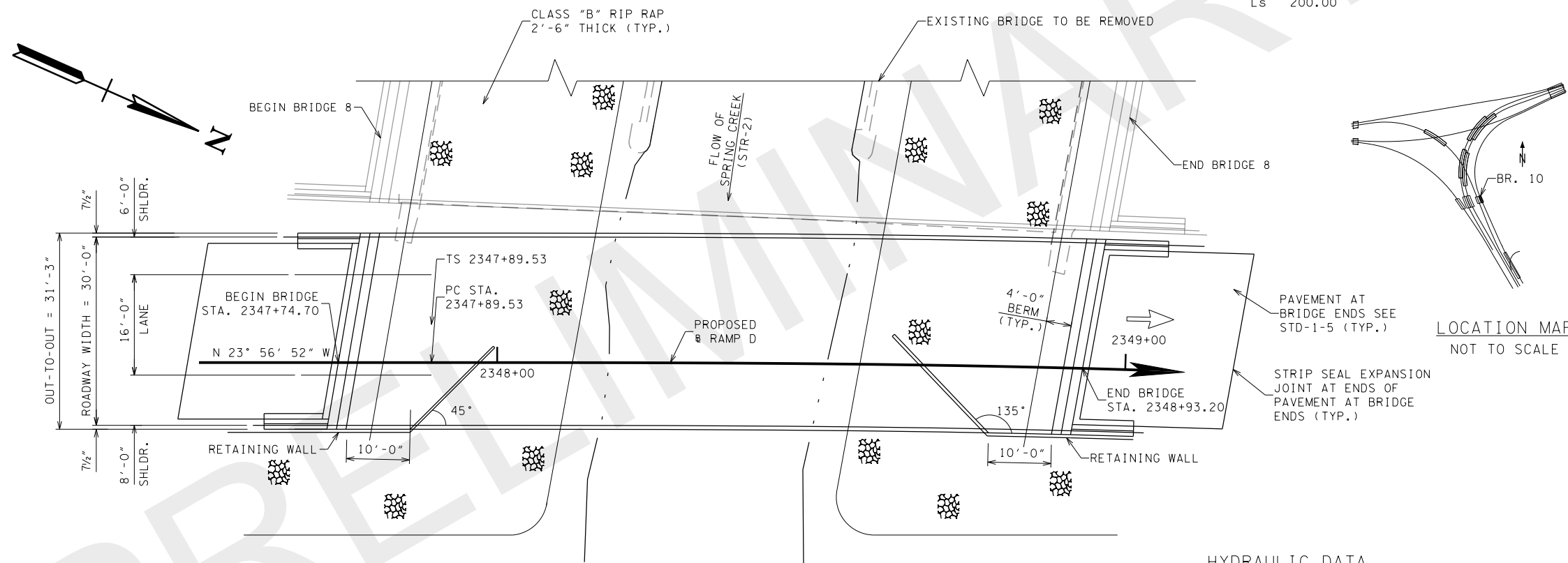
GENERAL NOTES

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5. REINFORCING STEEL: TO BE ASTM A615 GRADE 60. (EPOXY COAT ALL SLAB STEEL)
6. SUPERSTRUCTURE: TO CONSIST OF 1 SPANS OF BT-63 BEAMS AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-1SS BRIDGE RAILING.
8. END OF BRIDGE DRAINS REQUIRED (USE WHEN NEEDED)
9. TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF WHITE (37886)
10. MACHINE RIP-RAP SHALL BE CLASS "B", TO MEET THE QUALITY REQUIREMENTS OF SECTION 709 AND SHALL BE MEASURED AND PAID FOR UNDER ROADWAY ITEMS.
11. BRIDGE EXCAVATION IS BASED ON FINAL PROFILE AT ABUTMENTS.
12. BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "C" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



ELEVATION VIEW  
NOT TO SCALE

SPIRAL RAMPD\_4B  
PIs 2349+22.94  
Ns 244,187.5644  
Es 2,204,829.4915  
θs 5° 43' 46"  
LT 133.40  
ST 66.73  
Ls 200.00



PLAN VIEW  
NOT TO SCALE

LOCATION MAP  
NOT TO SCALE

HYDRAULIC DATA

DRAINAGE AREA = 20.8 SQ. MI.  
DESIGN DISCHARGE (100 YR) = 10,450 CFS  
WATER AREA PROVIDED BELOW 100 YEAR ELEVATION = 1,529.81 SQ. FT.  
100 YEAR VELOCITY = 6.83 FPS  
100 YEAR BRIDGE BACKWATER = 0.00 FT @ EL. 676.38\*  
100 YEAR DISCHARGE = 10,450 CFS  
500 YEAR DISCHARGE = 12,450 CFS  
ROADWAY OVERTOPPING = N/A

\* AT UPSTREAM FACE OF BRIDGE NO. 10 (MAX BW IS 0.31 FT AT APPROACH)

2041 ADT (RAMP D) = 4,945  
DESIGN SPEED (RAMP D) = 50 MPH  
30' ROADWAY WITH STD-1-1SS PARAPET

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

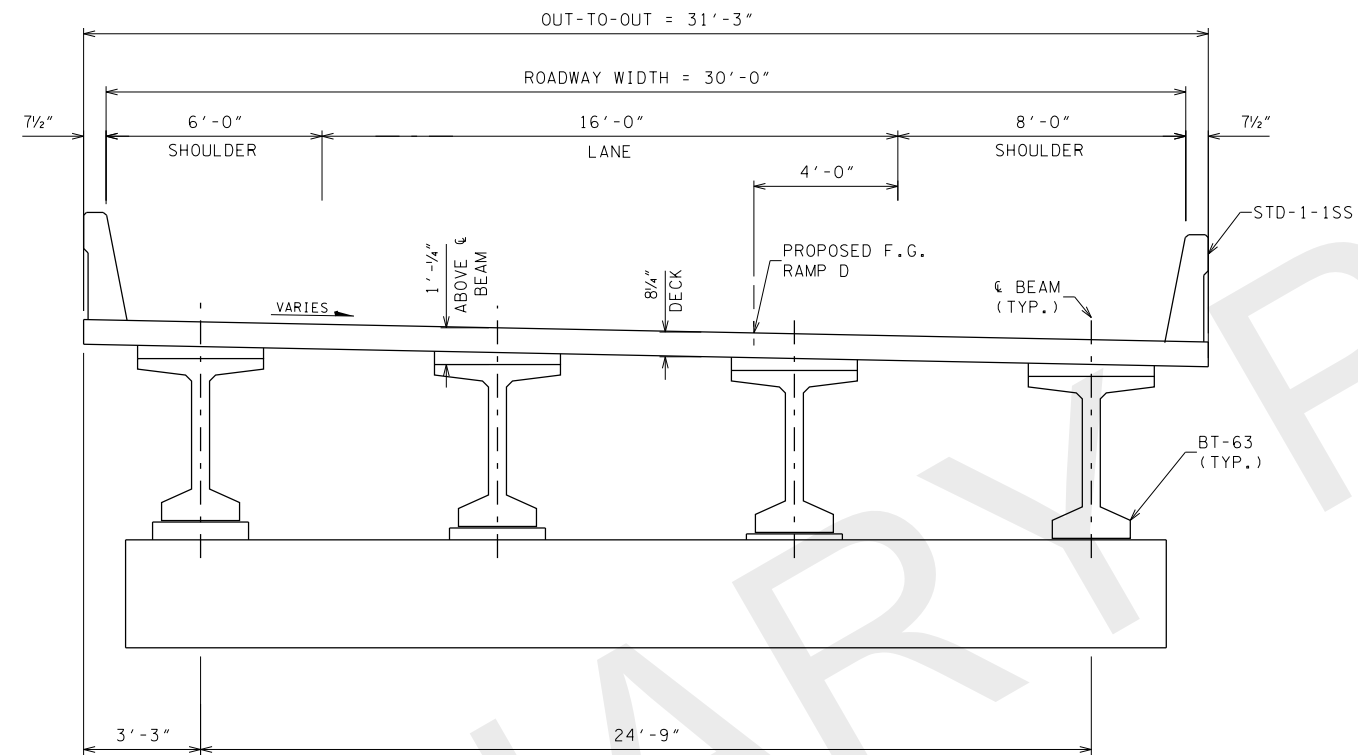
BRIDGE NO. 10  
PRELIMINARY LAYOUT OF BRIDGE  
BRIDGE NO. XX-XXXX-XXXX  
RAMP D  
OVER  
SPRING CREEK  
HAMILTON COUNTY  
2018

DESIGNED BY: WHP DATE: 05/2018  
DRAWN BY: KLP DATE: 05/2018  
SUPERVISED BY: BEB DATE: 05/2018  
CHECKED BY: JMT DATE: 05/2018

5/25/2018 4:33:33 PM Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\10 - Ramp D over Spring Creek\10 - Preliminary Layout.dgn

PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT  
 LOOKING FORWARD  
 NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 BRIDGE NO. 10  
 PRELIMINARY SUPERSTRUCTURE  
 BRIDGE NO. XX-XXXX-XXXX  
 RAMP D  
 OVER  
 SPRING CREEK  
 HAMILTON COUNTY  
 2018

DESIGNED BY: WHP DATE: 05/2018  
 DRAWN BY: KLP DATE: 05/2018  
 SUPERVISED BY: BEB DATE: 05/2018  
 CHECKED BY: JMT DATE: 05/2018