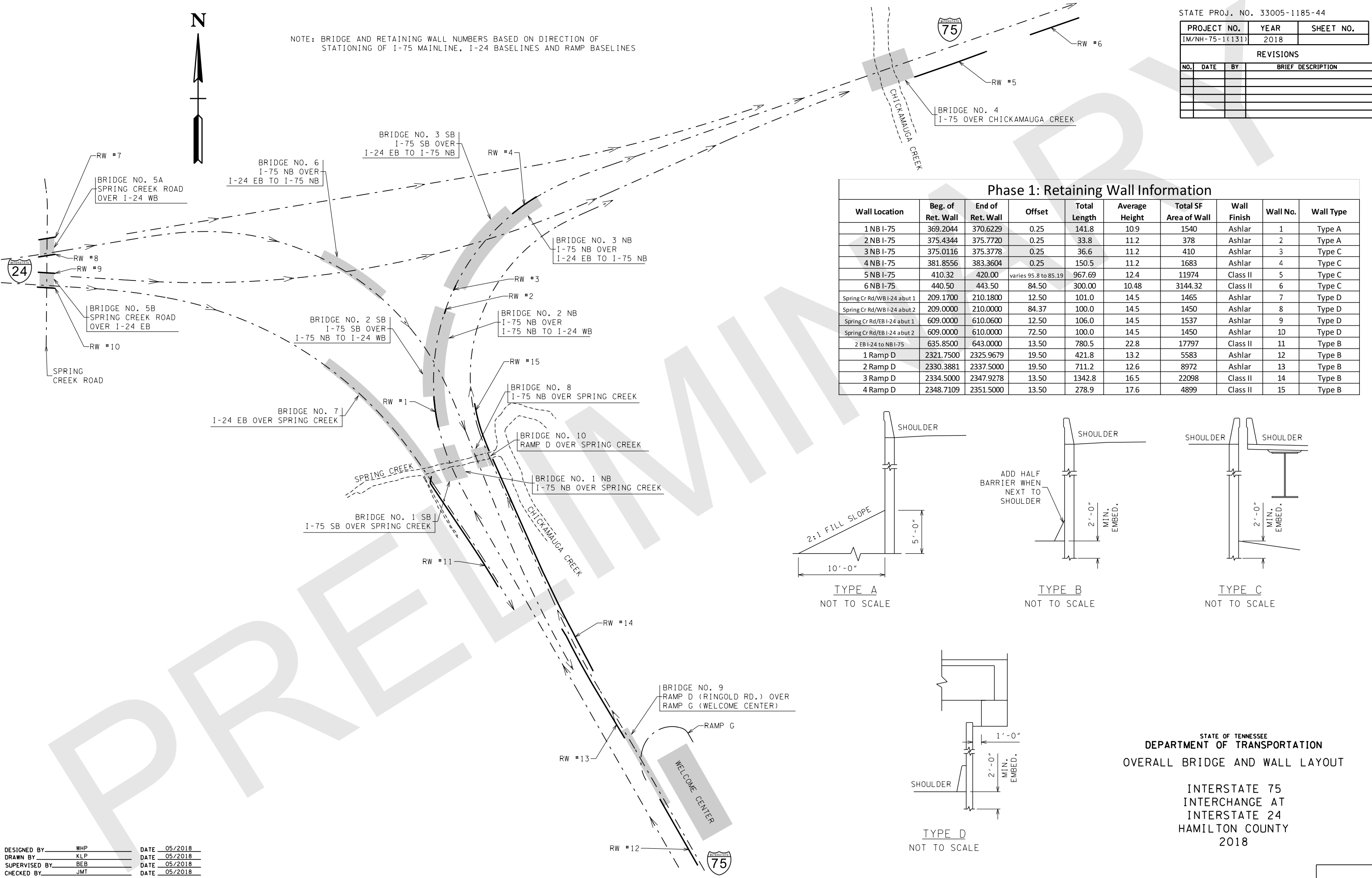


PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

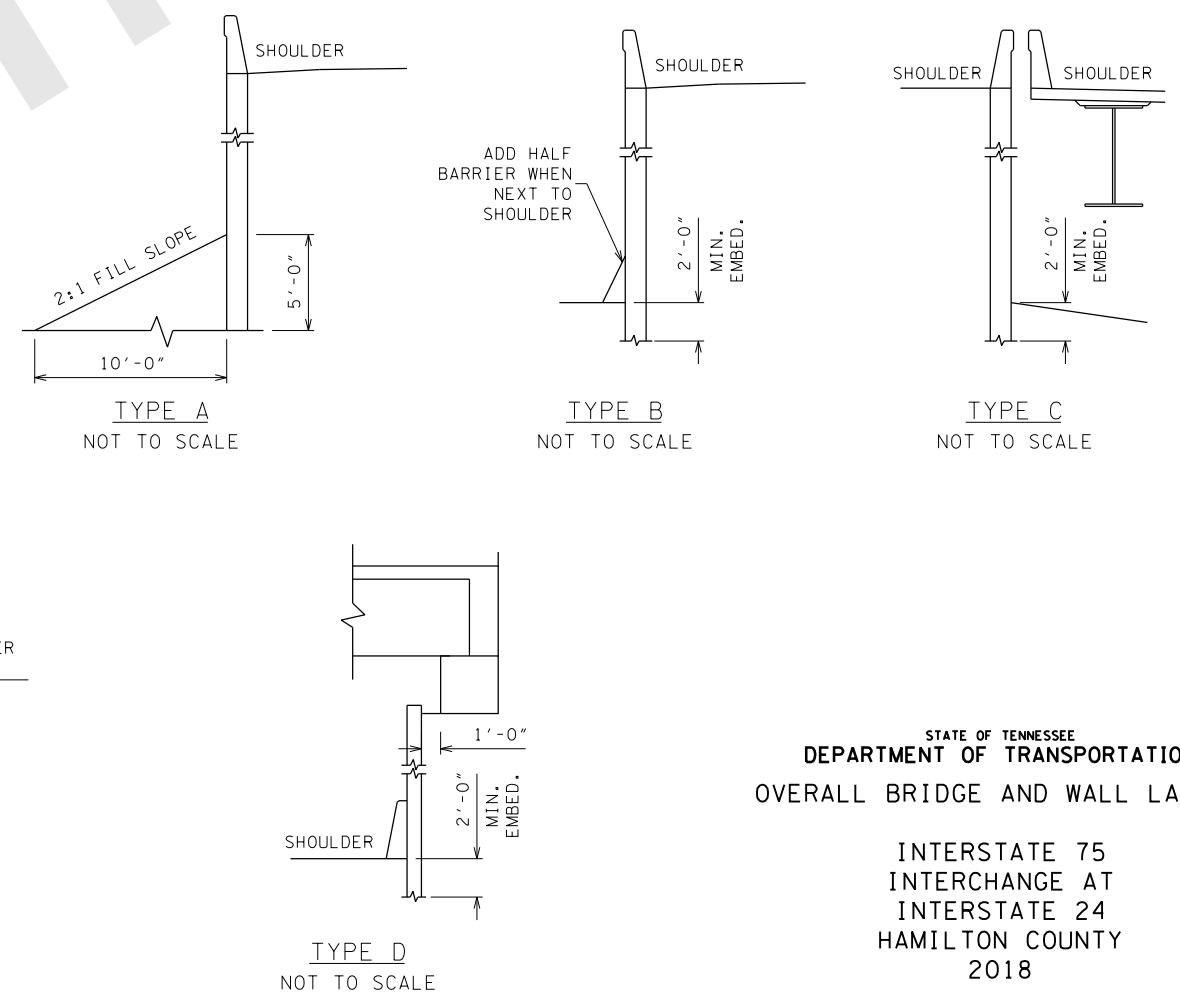
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

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

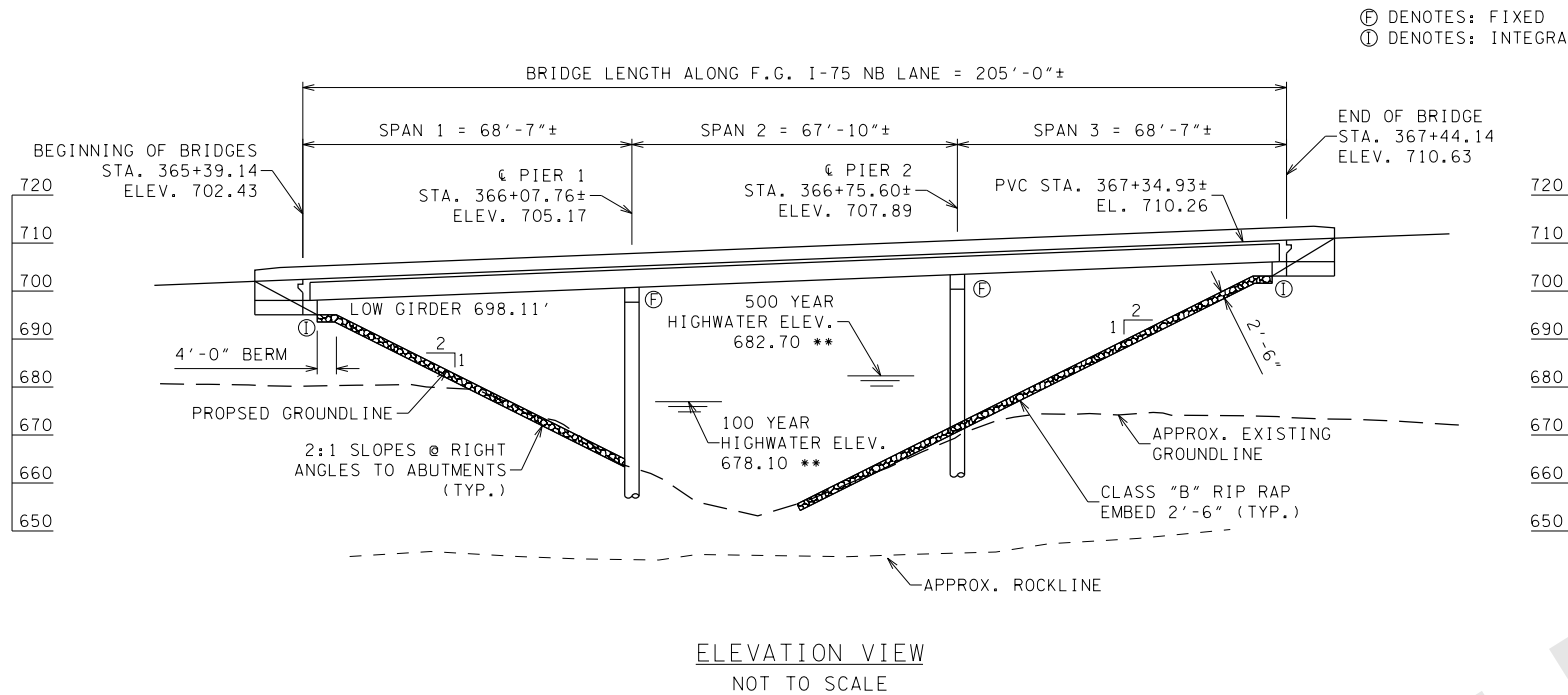
INTERSTATE 75
INTERCHANGE AT
INTERSTATE 24
HAMILTON COUNTY
2018

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

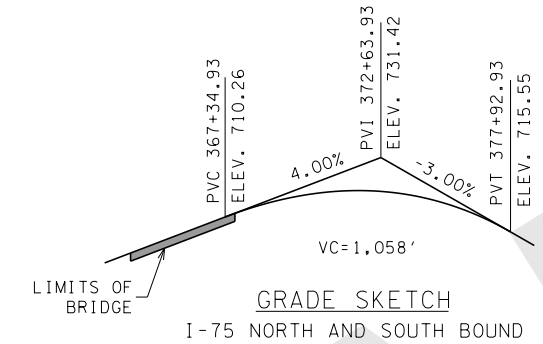
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION VIEW
NOT TO SCALE



SCOPE OF WORK

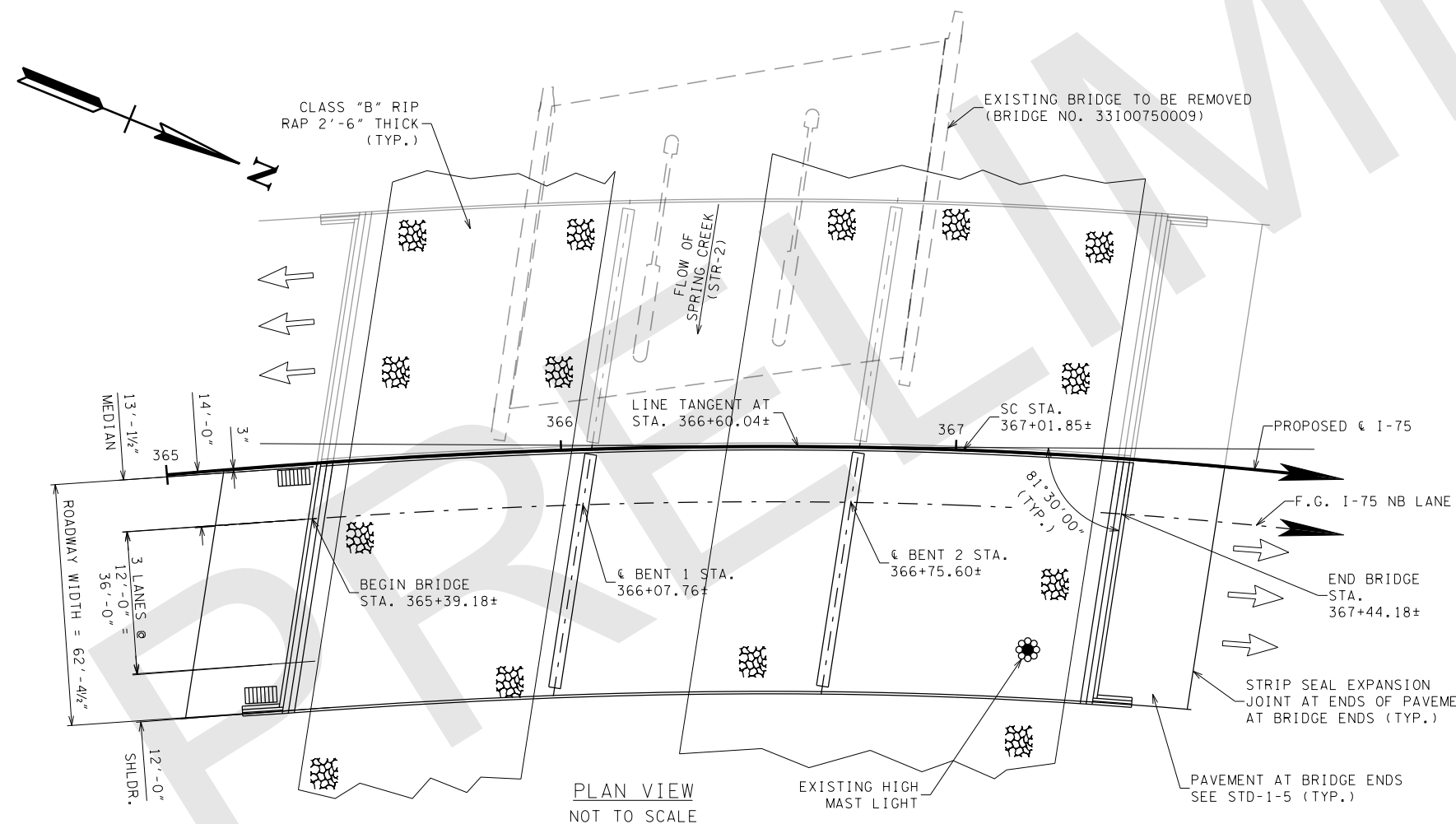
1. CONSTRUCT BENTS, ABUTMENTS AND SUPERSTRUCTURE.
2. APPLY TEXTURE COATING TO PARAPET, BENTS, AND ABUTMENTS.

GENERAL NOTES

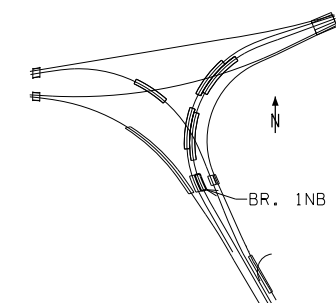
1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_{ds}=0.414$, $S_{d1}=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING 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.

SPIRAL I-75_2B PIs 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 As 100° 44' 14" (RT) Os 9° 54' 40" Ac 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
---------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



PLAN VIEW
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

HYDRAULIC DATA

DRAINAGE AREA20.8 SQ MI
DESIGN DISCHARGE (100 YEAR)10,450 CFS
AREA BELOW 100-YEAR ELEVATION1,370.47 SQ FT*
100-YEAR VELOCITY7.79 FPS
100 YEAR BRIDGE BACKWATER1.59 FT @ 678.10**
100 YEAR DISCHARGE10,450 CFS
500-YEAR DISCHARGE12,450 CFS
ROADWAY OVERTOPPING ELEVATIONN/A
*AT UPSTREAM INTERNAL BRIDGE SECTION	
**AT UPSTREAM FACE OF BRIDGE 7	

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

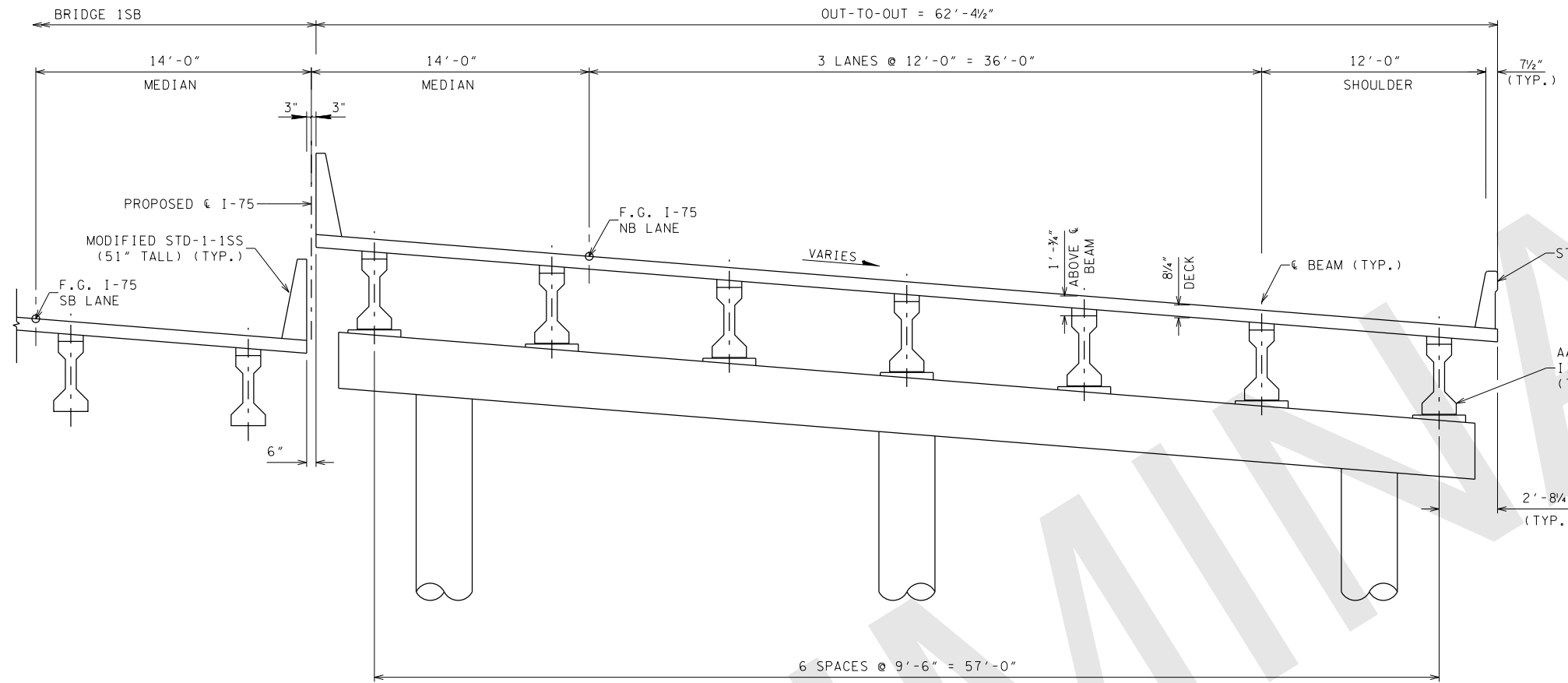
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

END OF BRIDGE DRAIN

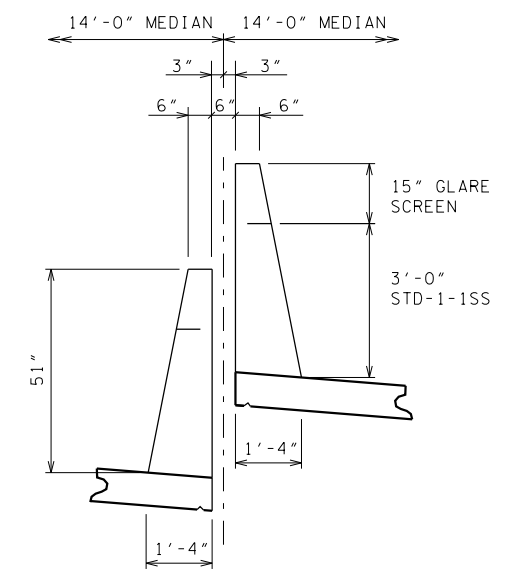
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT
LOOKING FORWARD
NOT TO SCALE



MODIFIED MEDIAN BARRIER
51" TALL
NOT TO SCALE

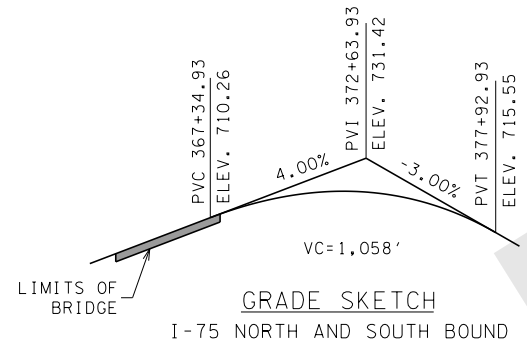
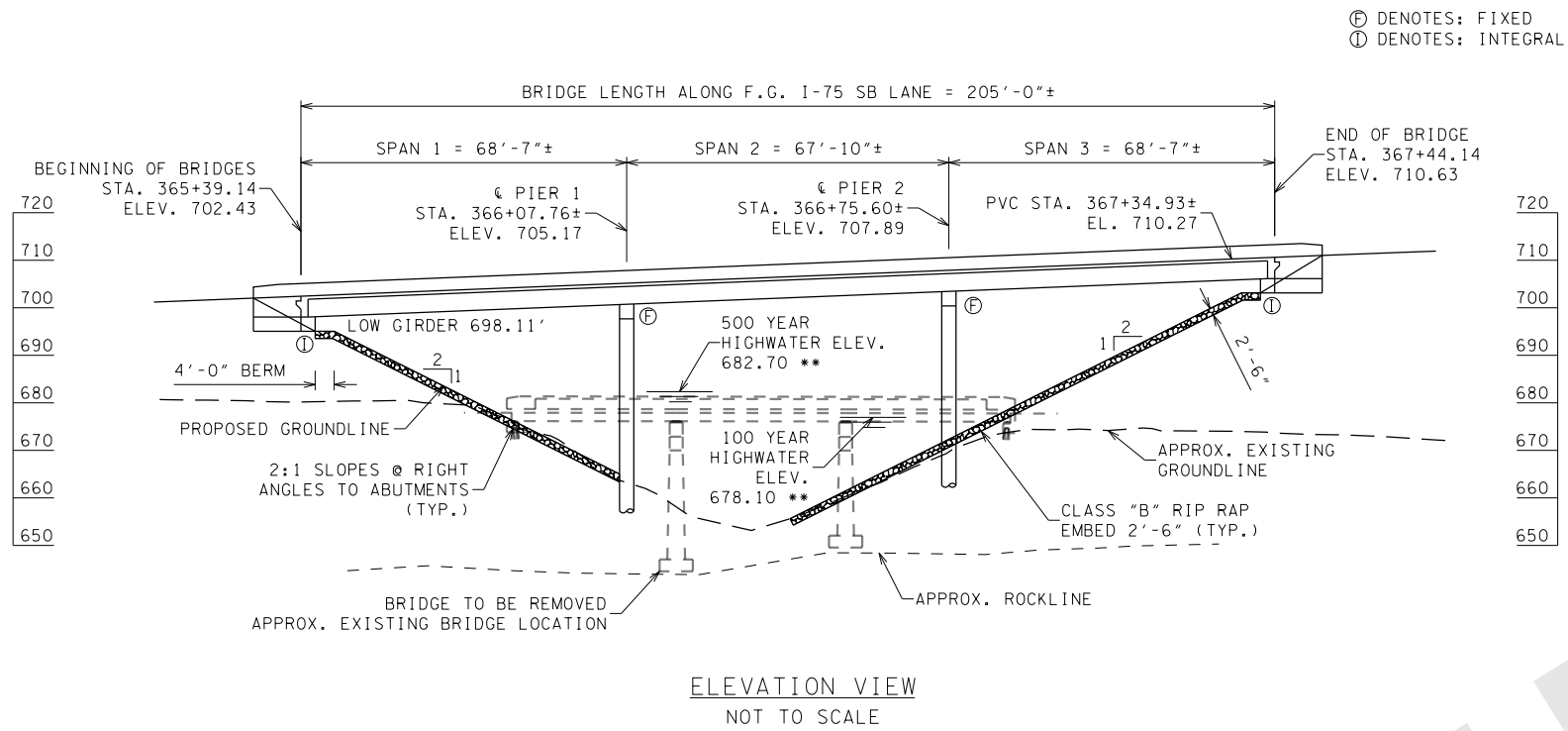
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1 NB
PRELIMINARY SUPERSTRUCTURE
BRIDGE NO XX-XXXX-XXXX
I-75NB
OVER
SPRING CREEK
HAMILTON COUNTY
2018

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 TDOT\Structures\Bridges\01NB - I-75 NB over Spring Ck\dgn\01NB - Prelim Superstructure.dgn 10/8/2018 3:41:37 PM

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

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



SCOPE OF WORK

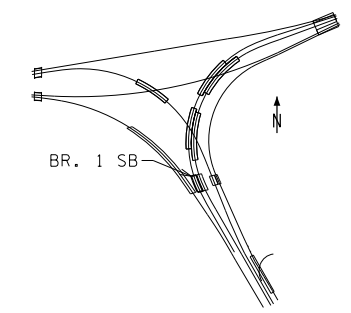
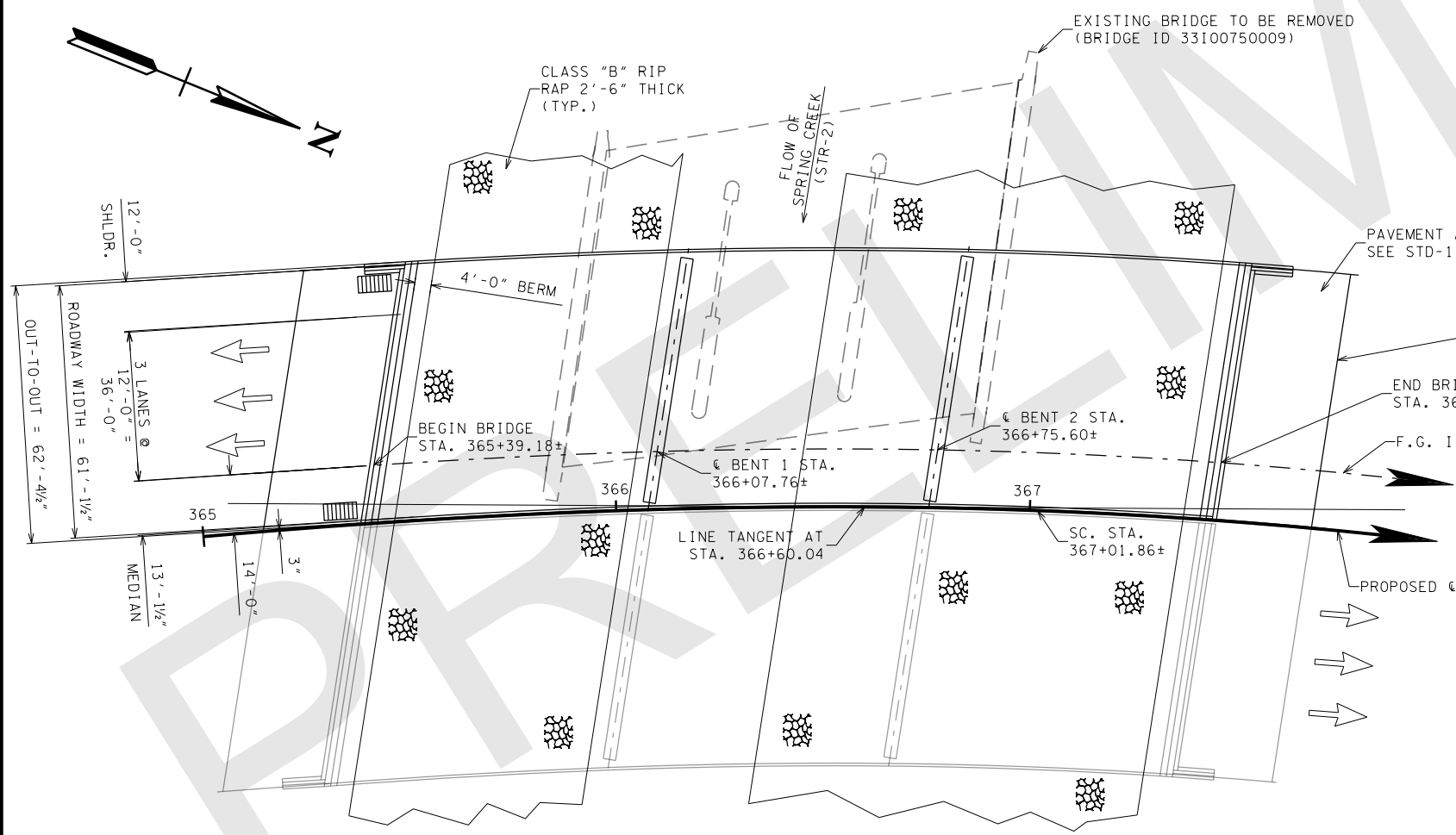
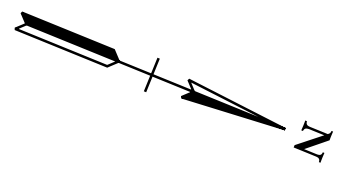
1. CONSTRUCT BENTS, ABUTMENTS AND SUPERSTRUCTURE.
2. APPLY TEXTURE COATING TO PARAPET, BENTS, AND ABUTMENTS.

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 FORM 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.

SPIRAL I-75_2B		CURVE I-75_2	
PIs	365+59.31	PI	379+91.83
Ns	243,982.9423	N	245,224.9318
Es	2,204,669.7877	E	2,203,955.9341
Os	9° 54' 40"	Δs	100° 44' 14" (RT)
LT	286.45	Os	9° 54' 40"
ST	143.41	Δc	80° 54' 53" (RT)
Ls	429.00	Dc	4' 37' 14"
		Rc	1,240.00
		Lc	1,751.16
		Ts	1,718.97
		Ls	429.00
		SE	0.080 FT/FT



LOCATION MAP NOT TO SCALE

HYDRAULIC DATA

DRAINAGE AREA	20.8 SQ MI
DESIGN DISCHARGE (100 YEAR)	10,450 CFS
AREA BELOW 100-YEAR ELEVATION	1,370.47 SQ FT*
100-YEAR VELOCITY	7.79 FPS
100 YEAR BRIDGE BACKWATER	1.59 FT @ 678.10**
100 YEAR DISCHARGE	10,450 CFS
500-YEAR DISCHARGE	12,450 CFS
ROADWAY OVERTOPPING ELEVATION	N/A
*AT UPSTREAM INTERNAL BRIDGE SECTION	
**AT UPSTREAM FACE OF BRIDGE 7	

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

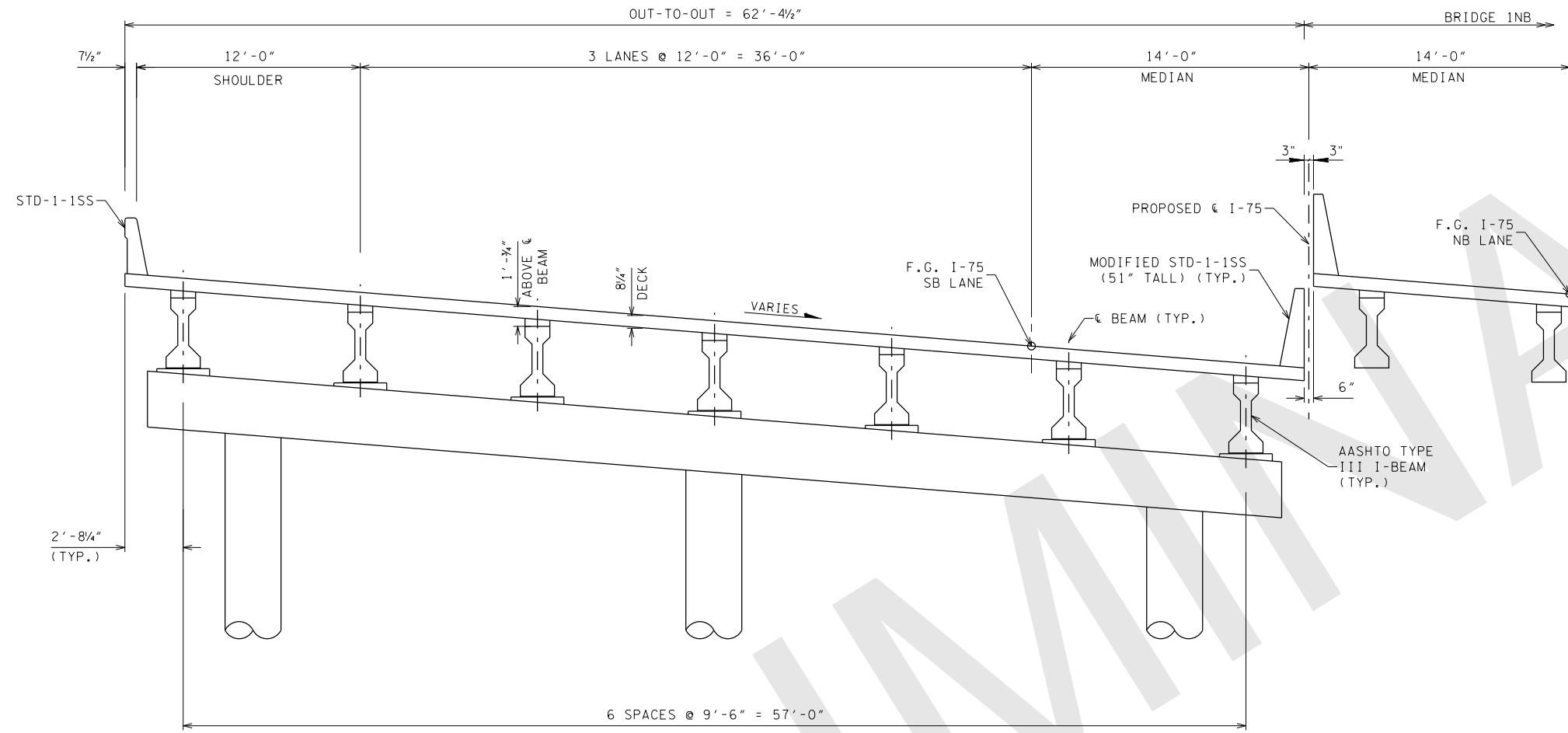
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

END OF BRIDGE DRAIN PLAN VIEW NOT TO SCALE

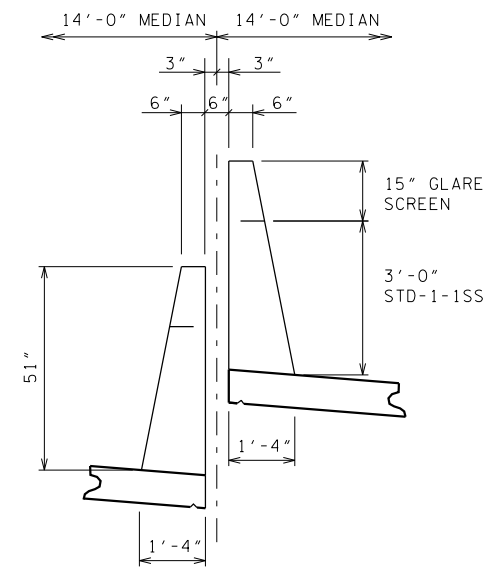
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT
LOOKING FORWARD
NOT TO SCALE



MODIFIED MEDIAN BARRIER
51" TALL
NOT TO SCALE

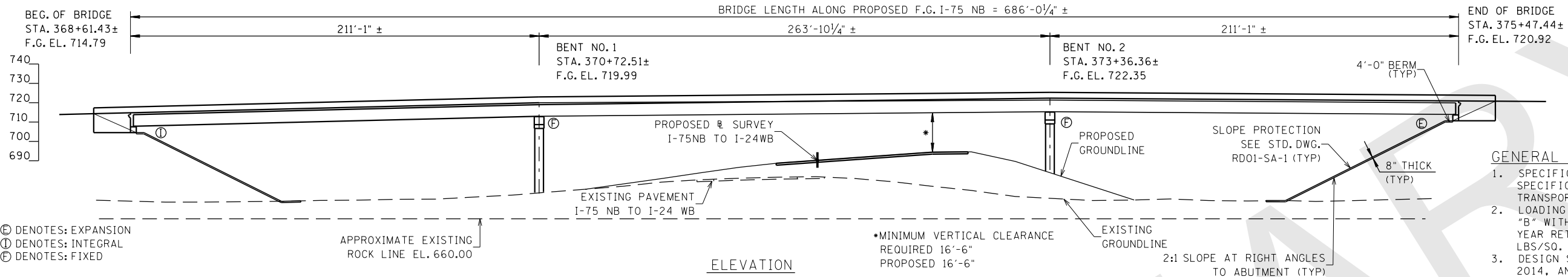
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 1 SB
PRELIMINARY SUPRESTRUCTRE
BRIDGE NO XX-XXXX-XXXX
I-75SB
OVER
SPRING CREEK
HAMILTON COUNTY
2018

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

Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\01SB - I-75SB over Spring Ck\Dgn\01SB - Prelim Superstructure.dgn 10/8/2018 3:41:38 PM

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

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



GENERAL NOTES

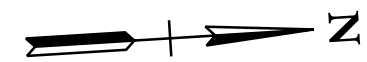
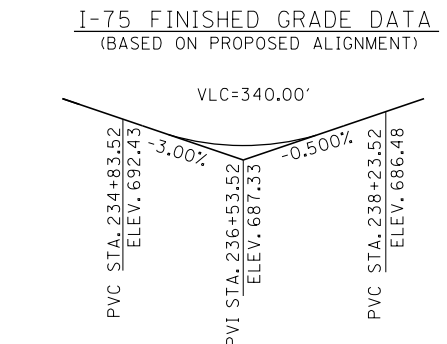
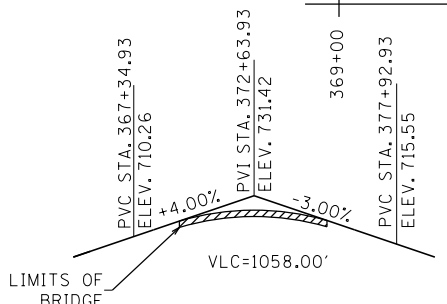
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
- LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_{ds}=0.414$, $S_{d1}=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING 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 ($F_y=50$ 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.

PHASE CONSTRUCTION:

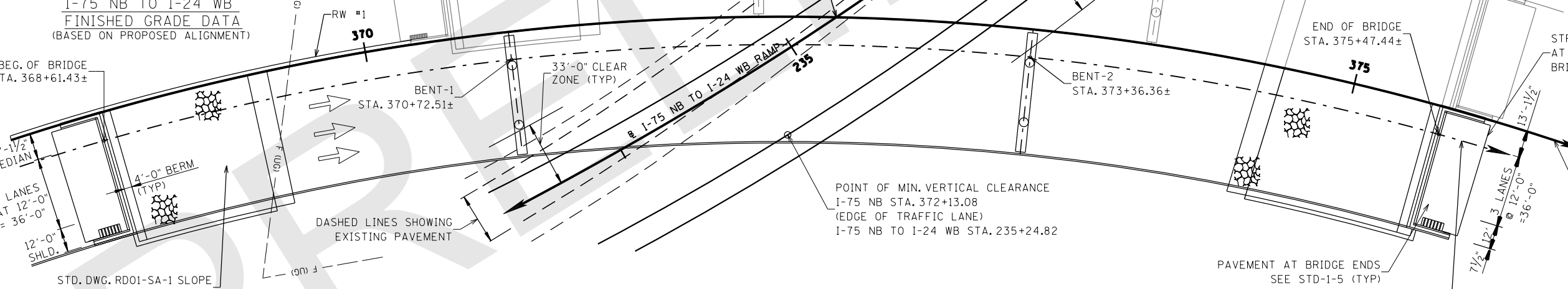
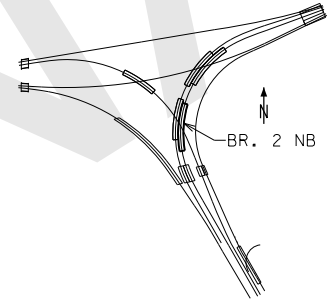
- MAINTAIN TRAFFIC ON EXISTING RAMPS WHILE NEW I-75 NB BRIDGE IS BEING CONSTRUCTED.

SCOPE OF WORK:

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



NOTE: ALL SUBSTRUCTURES RADIAL



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'

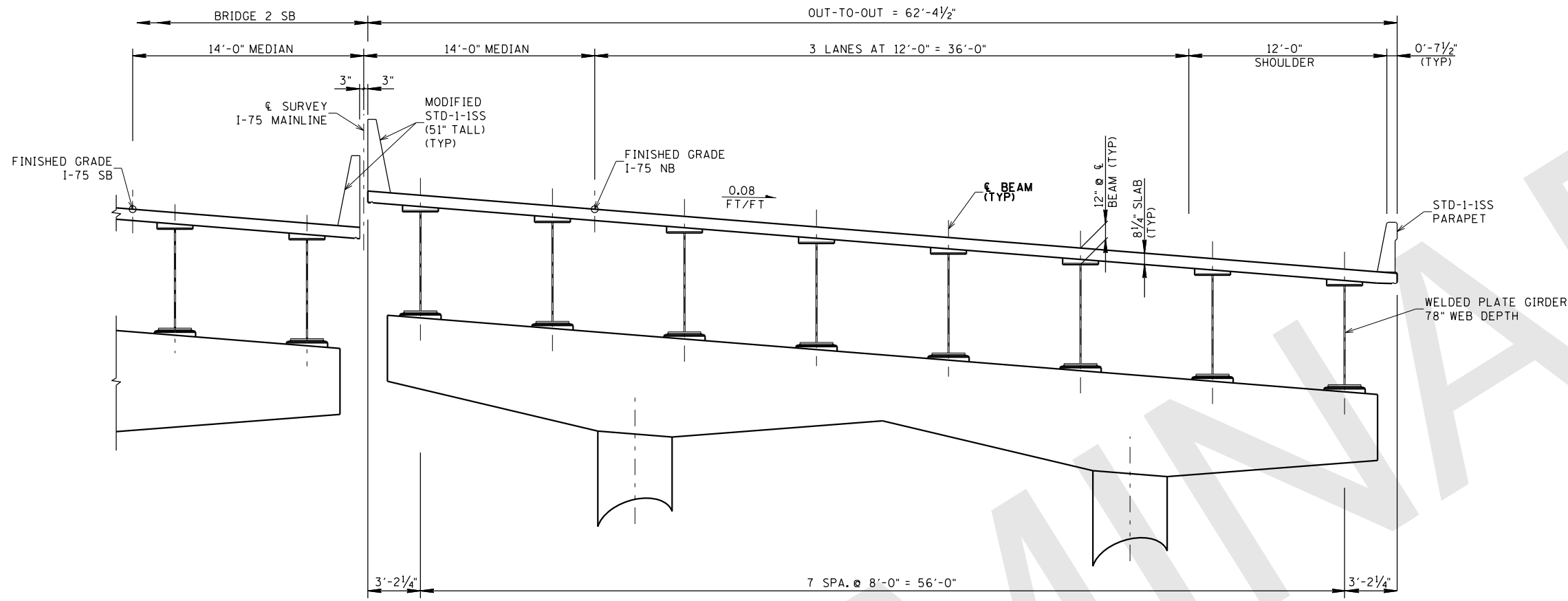
DESIGNED BY: WHP DATE: 05/2018
 DRAWN BY: KLP DATE: 05/2018
 SUPERVISED BY: BEB DATE: 05/2018
 CHECKED BY: JMT DATE: 05/2018

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

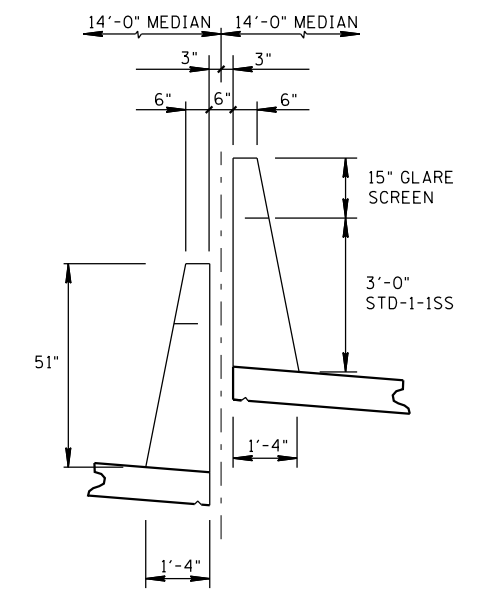
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
 BRIDGE NO. 2 NB
 PRELIMINARY LAYOUT
 BRIDGE ID NO.
 I-75 NORTHBOUND TO
 I-75NB RAMP
 OVER I-75 NB TO I-24 WB
 HAMILTON COUNTY
 2018

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)

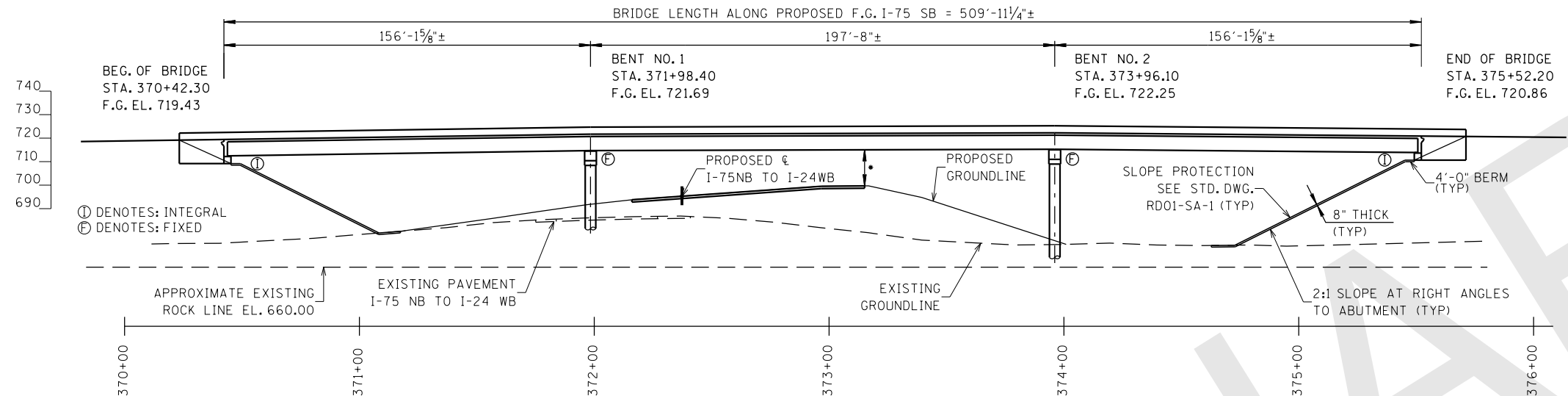
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2 NB
SUPERSTRUCTURE
BRIDGE NO XX-XXXX-XXXX
I-75 NORTHBOUND
OVER
I-75NB TO I-24 WB
HAMILTON COUNTY
2018

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

Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TDOT\Structures\Bridges\02NB - I-75 NB over I-75 NB to I-24 WB\02NB - I-75 NB over I-75 NB to I-24 WB.dgn
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



GENERAL NOTES

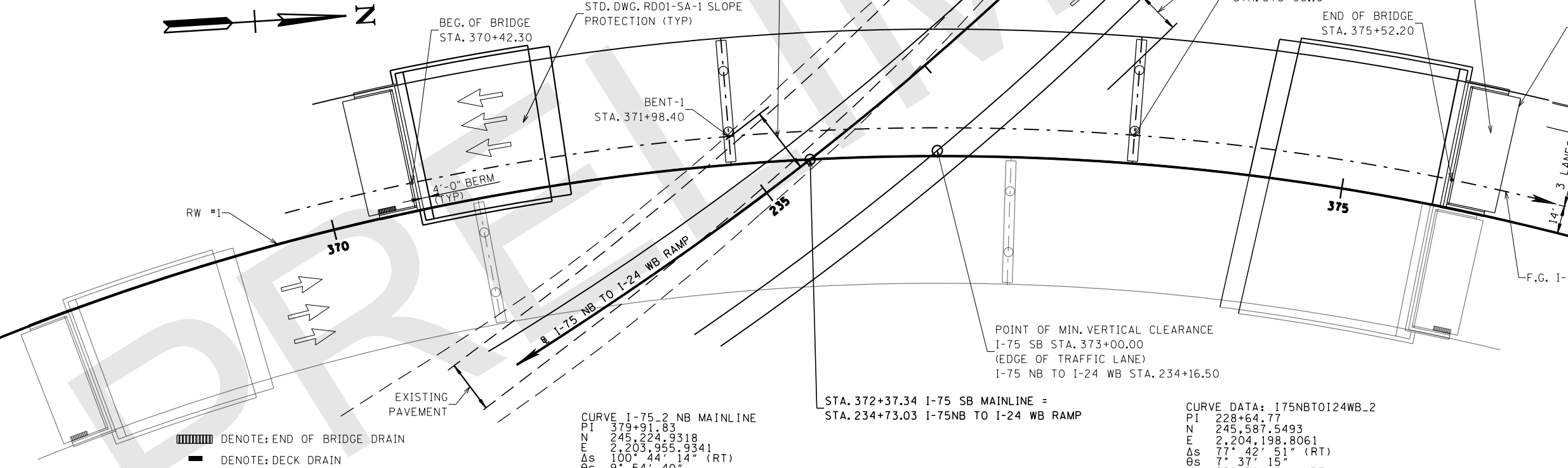
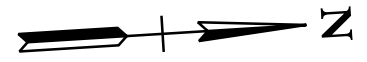
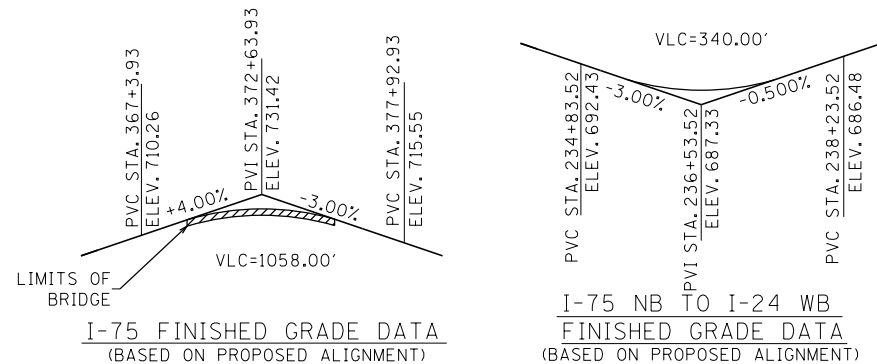
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
- LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_d=0.414$, $S_1=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING SURFACE.
- 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_y=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



LOCATION MAP
NOT TO SCALE

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**

CURVE I-75_2 NB MAINLINE
PI 379+91.83
N 245.224.9318
E 2.203.955.9341
As 100° 44' 14" (RT)
θs 9° 54' 40"
Ac 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'

PLAN

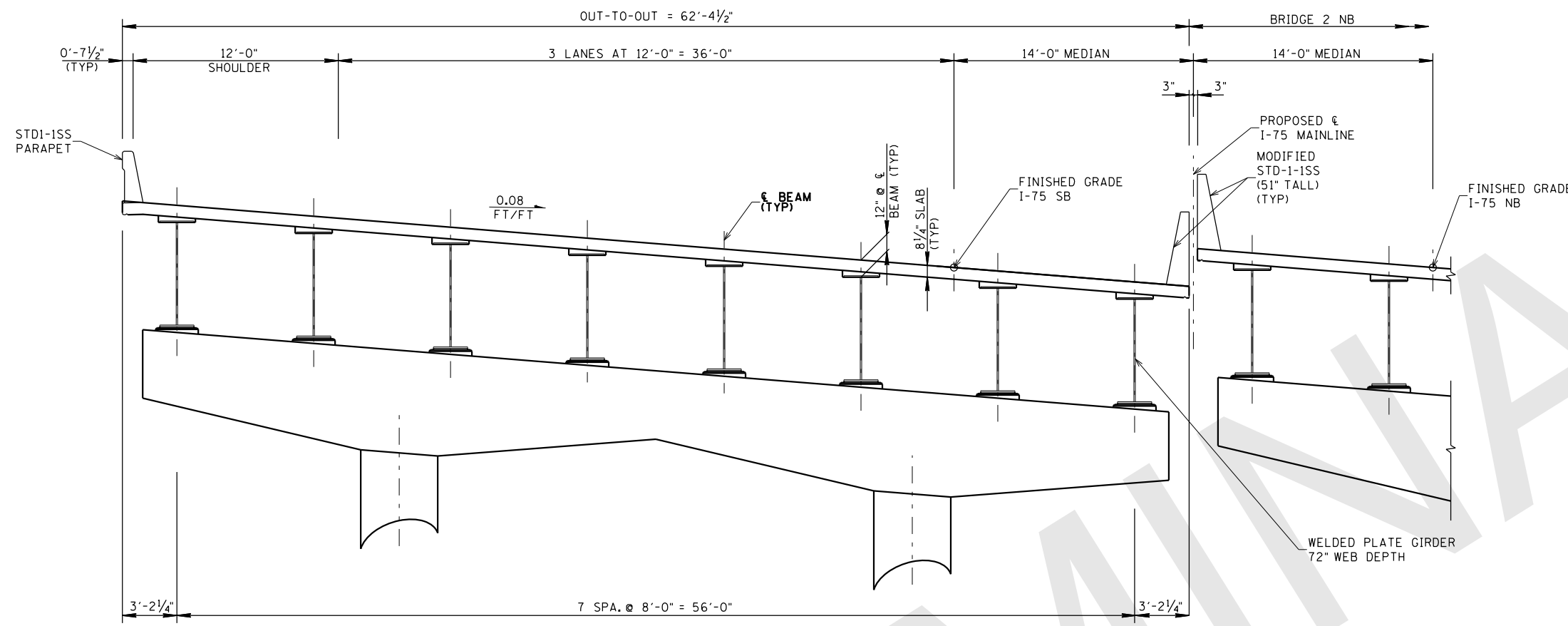
CURVE DATA: I75NBTOI24WB-2
PI 228+64.77
N 245.587.5493
E 2.204.198.8061
As 71° 42' 51" (RT)
θs 7° 37' 15"
Ac 62° 28' 21" (RT)
Dc 3' 44' 41"
Rc 1,530.00
Lc 1,668.24
Ts 1,439.67
Ls 407.00
SE 0.076 FT/FT
DESIGN SPEED 60 MPH
TRANS. LENGTH 514'

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

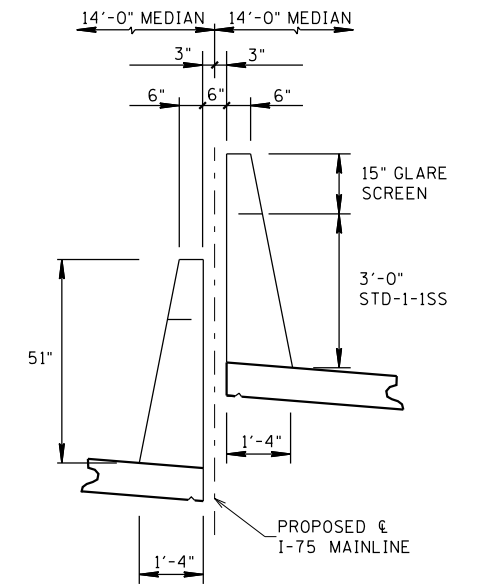
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT
LOOKING FORWARD



MODIFIED MEDIAN BARRIER
(51" TALL)

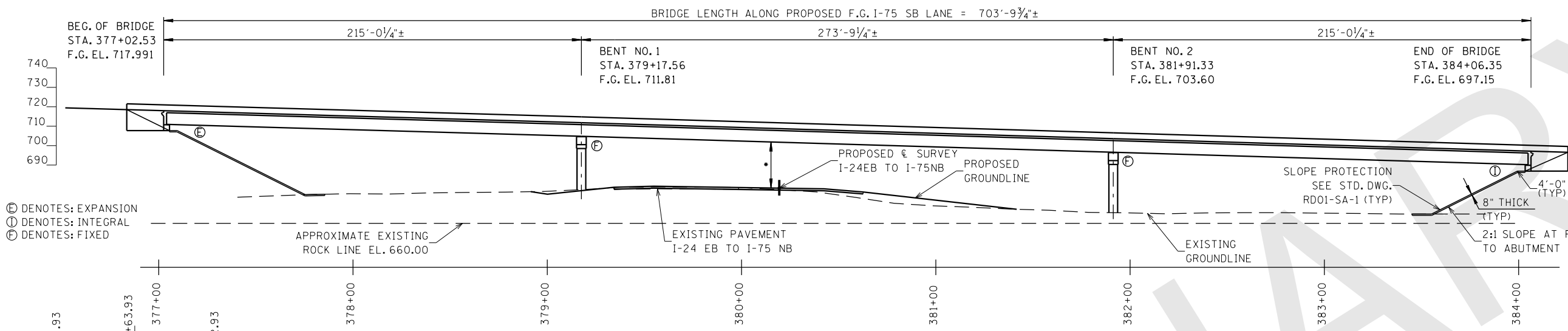
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2 SB
SUPERSTRUCTURE
BRIDGE NO XX-XXXX-XXXX
I-75 SOUTHBOUND
OVER
I-75 NB TO I-24 WB
HAMILTON COUNTY
2018

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

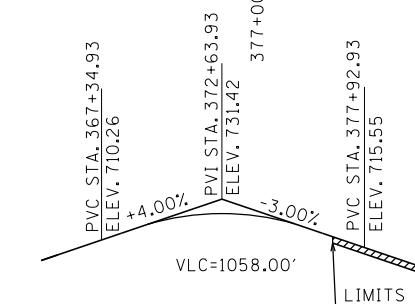
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

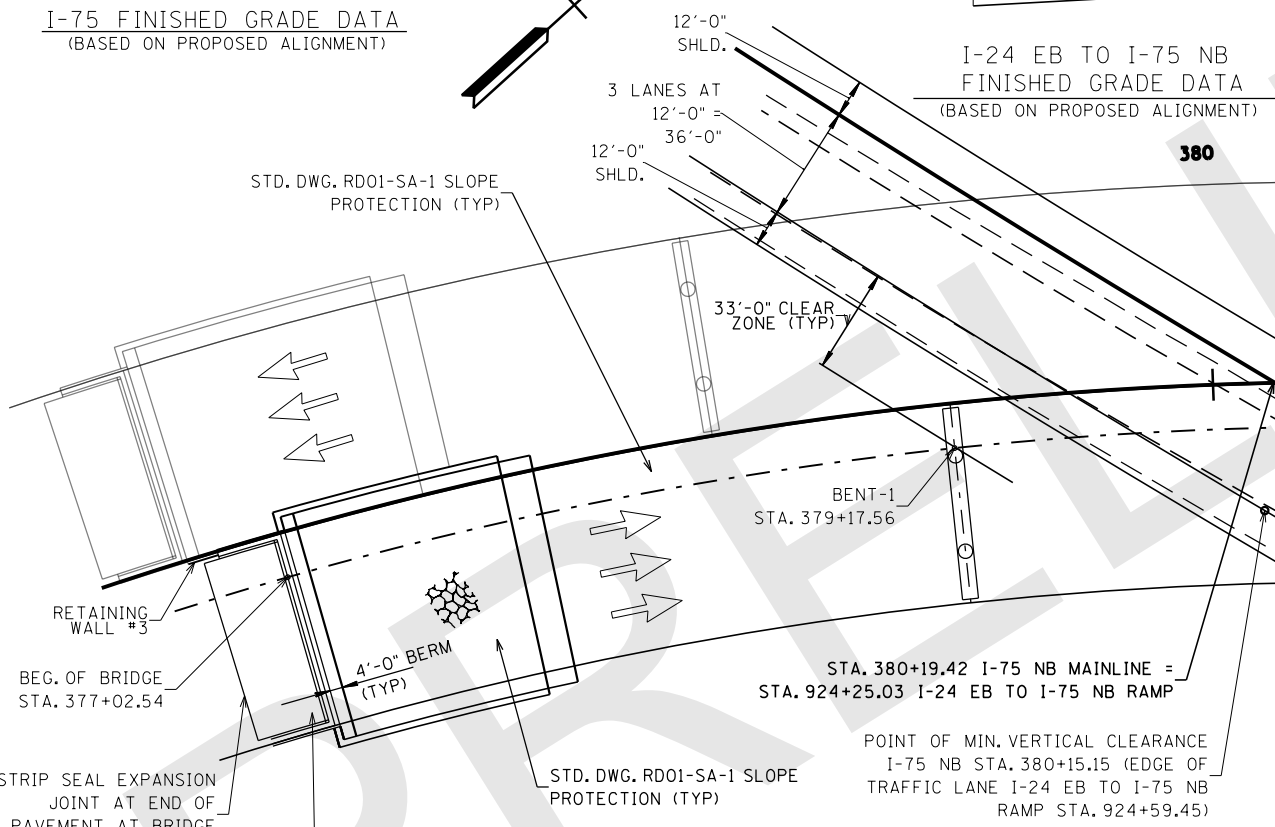
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



⊕ 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

PI	379+91.83
N	245° 24' 53.18"
E	203° 45' 9.341"
As	100° 44' 14.341" (RT)
Os	9° 54' 40.2"
Ac	80° 54' 53" (RT)
Dc	4° 37' 14.2"
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 I24EBTOI75NB-1

PI	917+79.94
NZ	245° 03' 25.33"
E	204° 22' 26.0101"
As	97° 34' 24" (LT)
Os	0° 49' 05.4"
Ac	25° 56' 14" (LT)
Dc	1° 00' 58"
Rc	1,638.00
Lc	2,553.20
Ts	2,463.98
Ls	161.00
SE	0.030 FT/FT
DESIGN SPEED	60 MPH
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

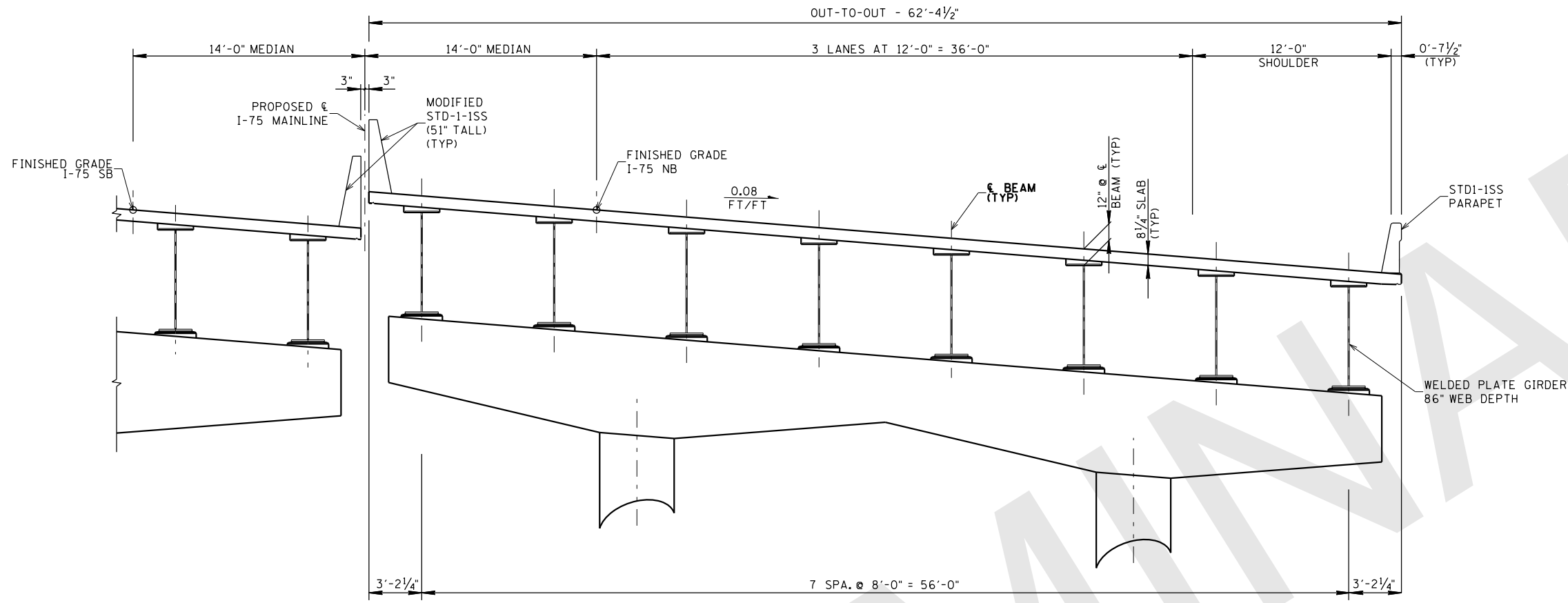
BRIDGE NO. 3 NB
 PRELIMINARY LAYOUT
 BRIDGE NO.
 I-75 NORTHBOUND
 OVER
 I-24 EB TO I-75 NB
 STATION 380+47.26
 HAMILTON COUNTY
 2018

LOCATION MAP
 NOT TO SCALE

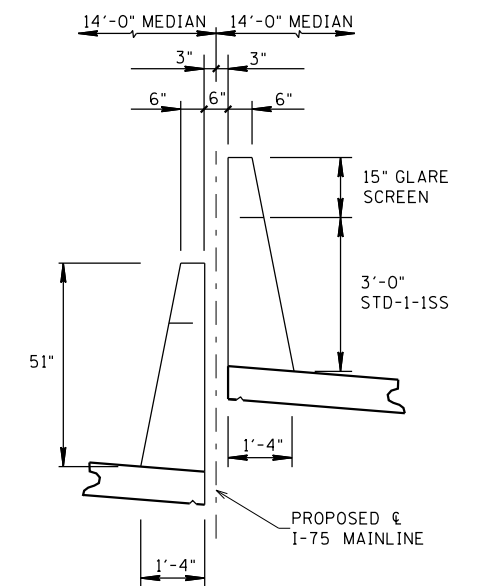
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT BENT
LOOKING FORWARD



MODIFIED MEDIAN BARRIER
(51" TALL)

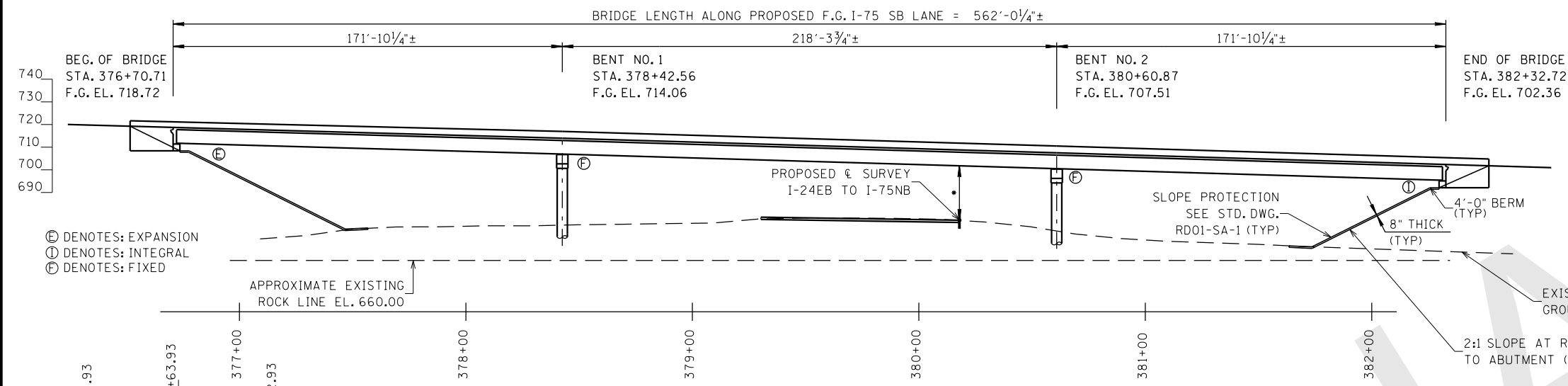
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 3 NB
SUPERSTRUCTURE
BRIDGE NO XX-XXXX-XXXX
I-75 NORTHBOUND
OVER
I-24 EB TO I-75 NB
HAMILTON COUNTY
2018

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

Y:\Projects\0010000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\03NB - I-75 NB over I-24 EB to I-75 NB over I-24 EB to I-75 NB over I-24 EB.dgn
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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)
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 I24EBTOI75NB-1

PI	917+79.94
N	245,030.2533
E	2,204,226.0101
Δs	27° 34' 24" (LT)
Δs	0° 49' 05"
Δc	25° 56' 14" (LT)
Dc	1° 00' 58"
Rc	5,638.00
Lc	2,552.26
Ts	1,463.98
Ls	161.00
SE	0.030 FT/FT
DESIGN SPEED	60 MPH
TRANS. LENGTH	268'

GENERAL NOTES

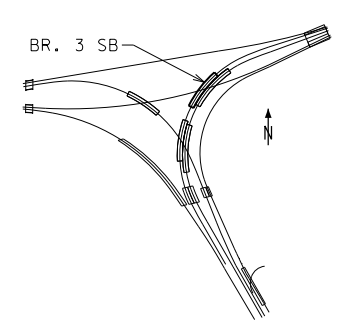
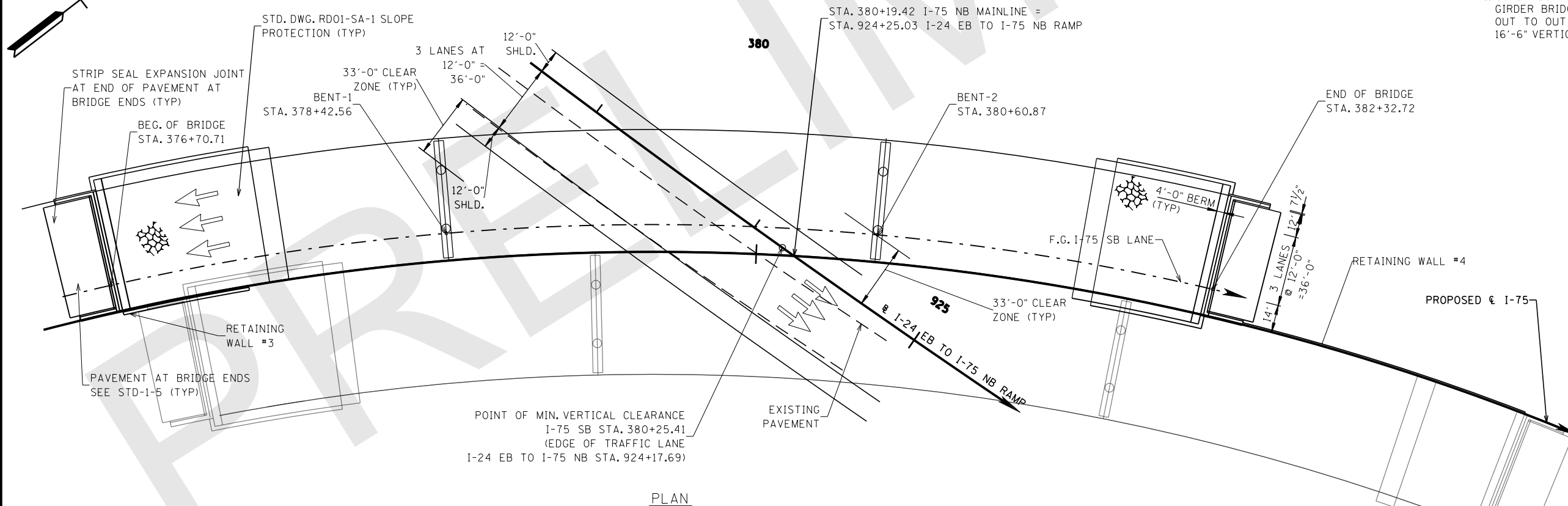
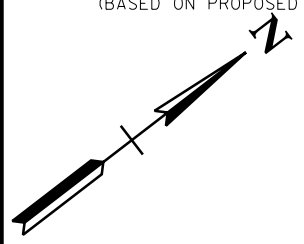
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
- LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_{ds}=0.414$, $S_{d1}=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING 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_y=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.

PHASE CONSTRUCTION:

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

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.



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

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

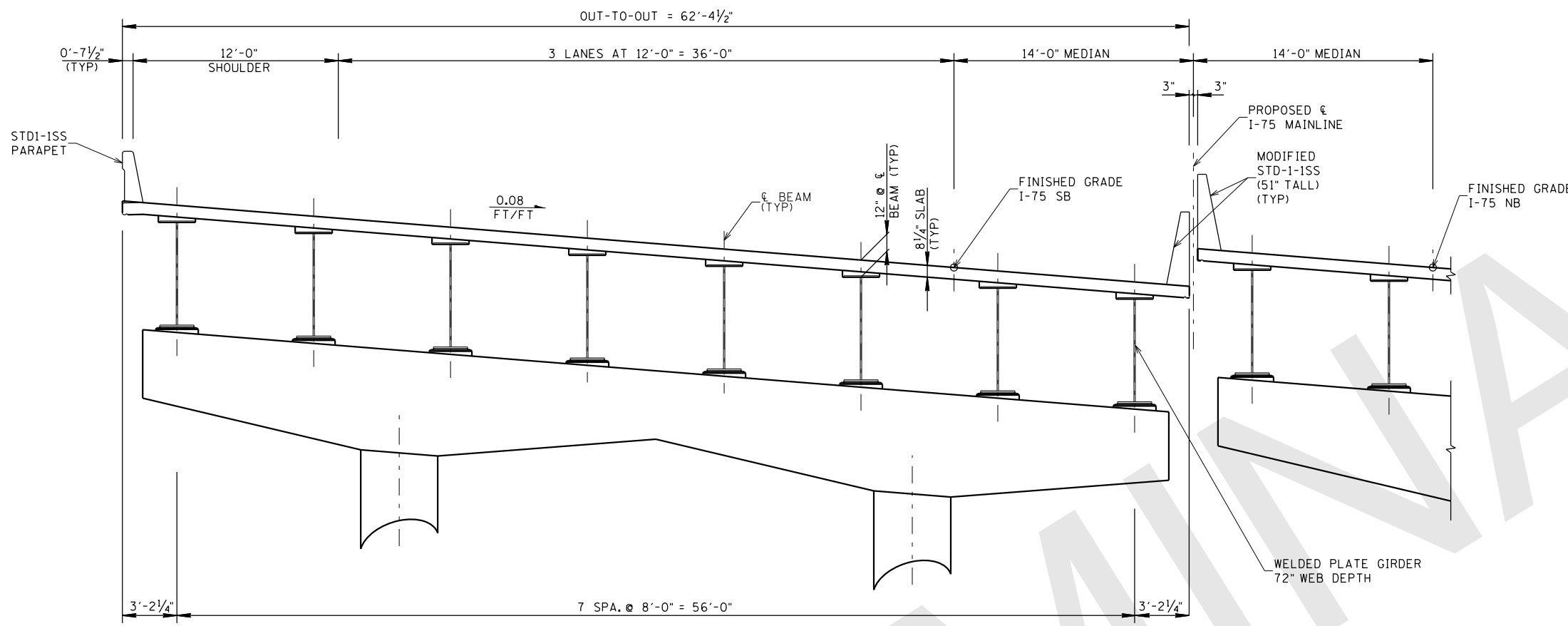
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

PLAN

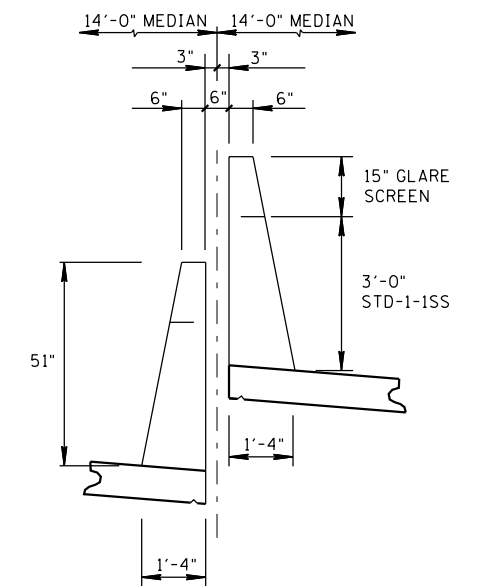
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)		

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

Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\03SB - I-75SB over I-24EB to I-75NB\03gn\03SB - Superstructure\I75SBoverI24EB.dgn 10/8/2018 3:41:42 PM

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

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

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

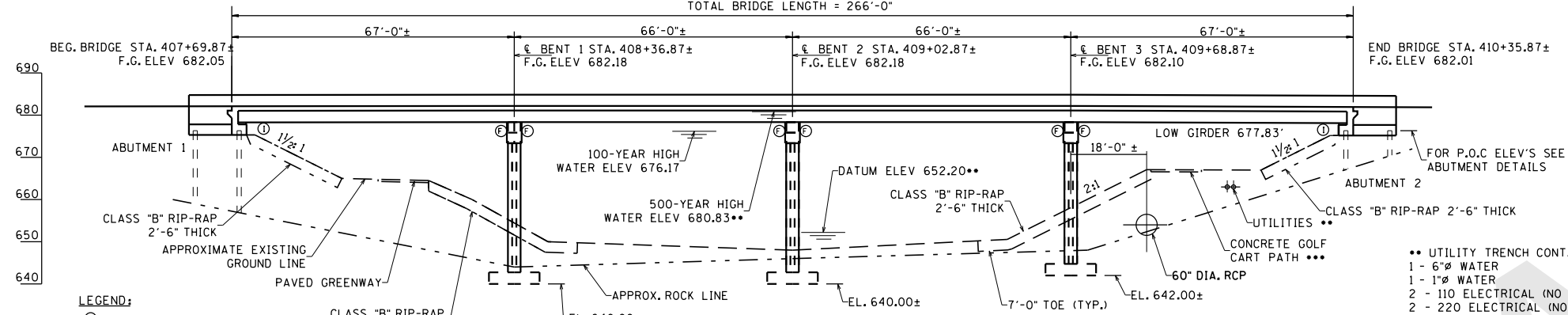
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

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

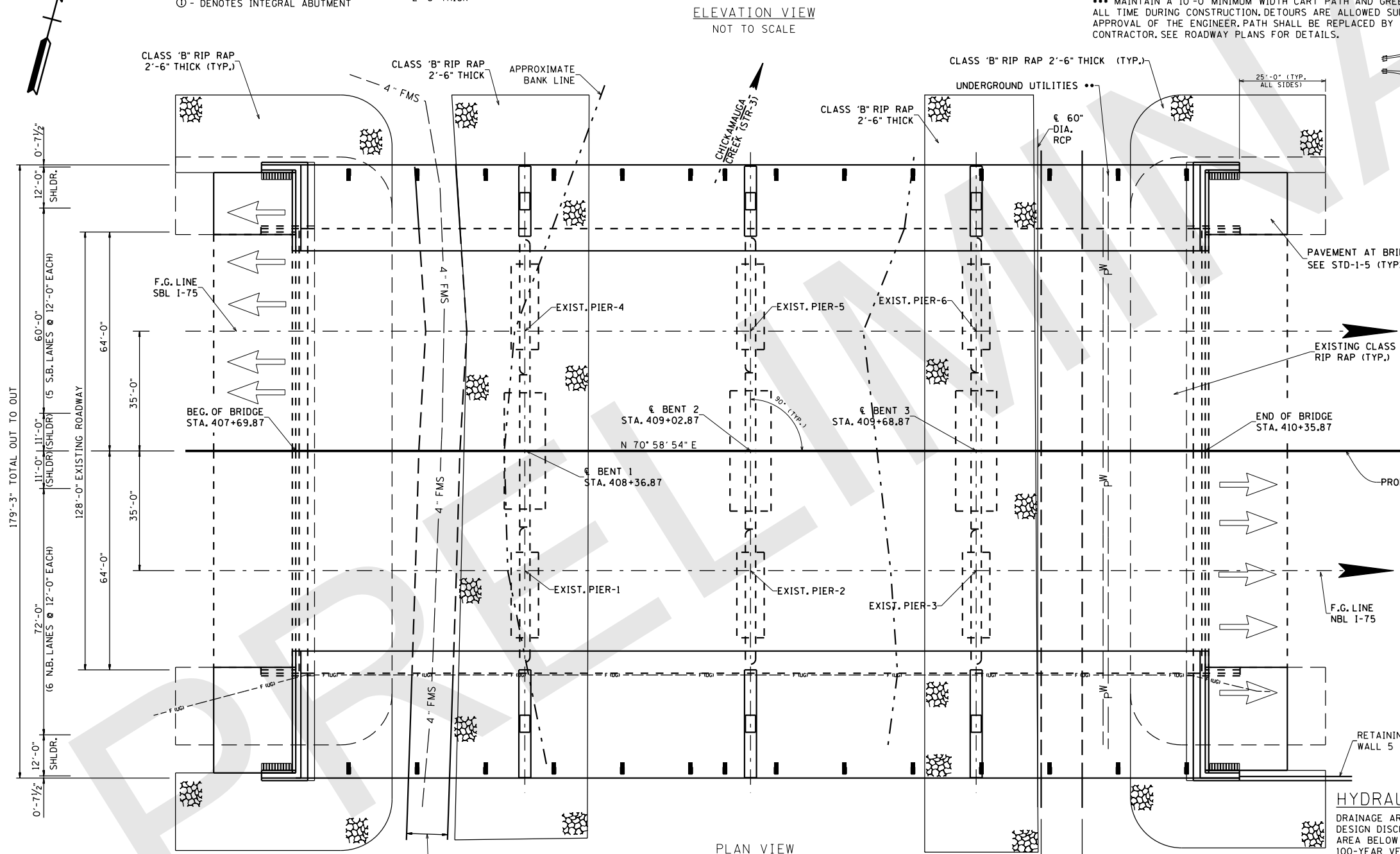
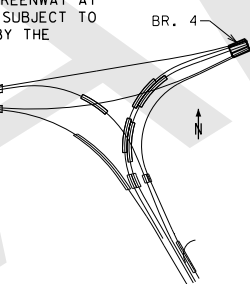
HYDRAULIC DATA

DRAINAGE AREA426.7 SQ MI
 DESIGN DISCHARGE (100-YEAR).....32,600 CFS
 AREA BELOW 100-YEAR ELEVATION.....4,114.24 SQ 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 INTERNAL BRIDGE SECTION
 **AT UPSTREAM FACE OF BRIDGE (MAX. BACKWATER IS 1.42 FT @ APPROACH)

TOTAL BRIDGE LENGTH = 266'-0"



I-75 FINISHED GRADE DATA
 (ORIGINAL PLANS DATA)



LEGEND:
 (E) - DENOTES FIXED CONNECTION
 (I) - DENOTES INTEGRAL ABUTMENT

** UTILITY TRENCH CONTAINS:
 1 - 6" WATER
 1 - 1" WATER
 2 - 110 ELECTRICAL (NO CONDUIT)
 2 - 220 ELECTRICAL (NO CONDUIT)

** MAINTAIN A 10'-0" MINIMUM WIDTH CART PATH AND GREENWAY AT ALL TIME DURING CONSTRUCTION. DETOURS ARE ALLOWED SUBJECT TO APPROVAL OF THE ENGINEER. PATH SHALL BE REPLACED BY THE CONTRACTOR. SEE ROADWAY PLANS FOR DETAILS.

Y:\Projects\001000000\004000\4304 I-75 Interchange at I-24 Owners Rep TDOT\Structures\Bridges\04 - Widening I-75 over South Chickamauga Cr\Dgn\04 - Preliminary Layout.dgn
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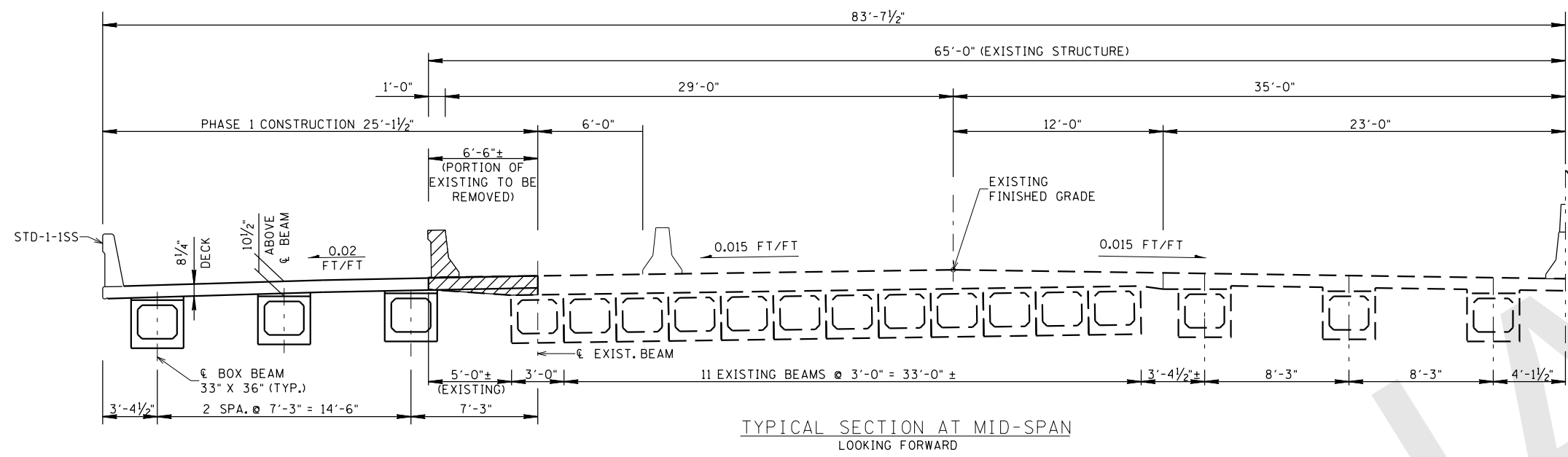
DENOTE: END OF BRIDGE DRAIN
 DENOTE: DECK DRAIN

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

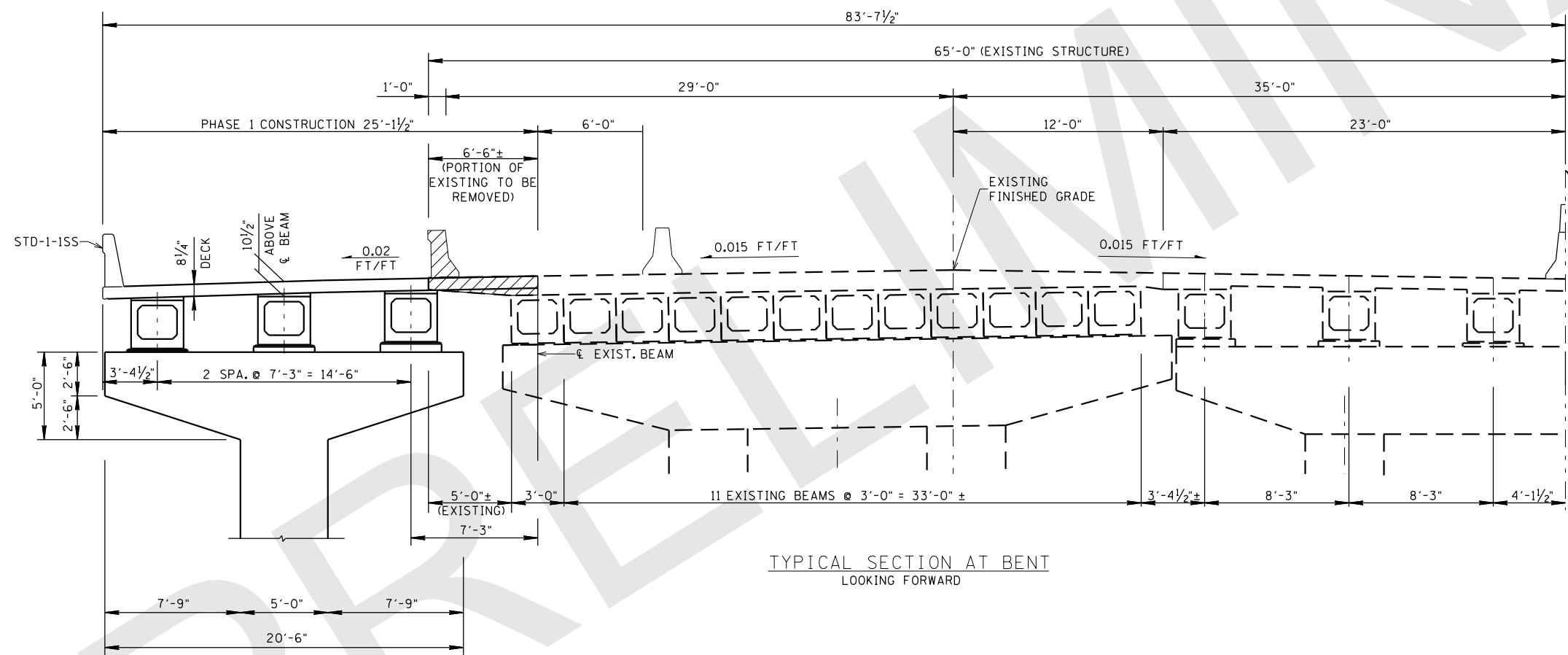
PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: DIMENSIONS FOR EXISTING STRUCTURE TO BE FIELD VERIFIED.



TYPICAL SECTION AT MID-SPAN
LOOKING FORWARD



TYPICAL SECTION AT BENT
LOOKING FORWARD

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

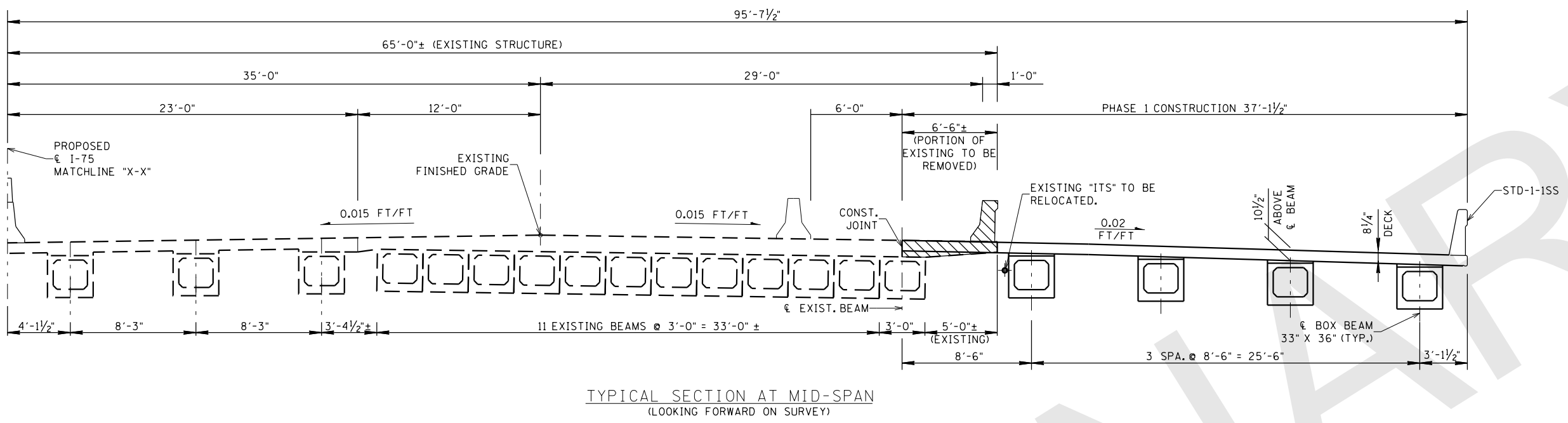
DESIGNED BY: WHP DATE: 05/2018
DRAWN BY: KLP DATE: 05/2018
SUPERVISED BY: BEB DATE: 05/2018
CHECKED BY: JMT DATE: 05/2018

10/8/2018 3:44:43 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

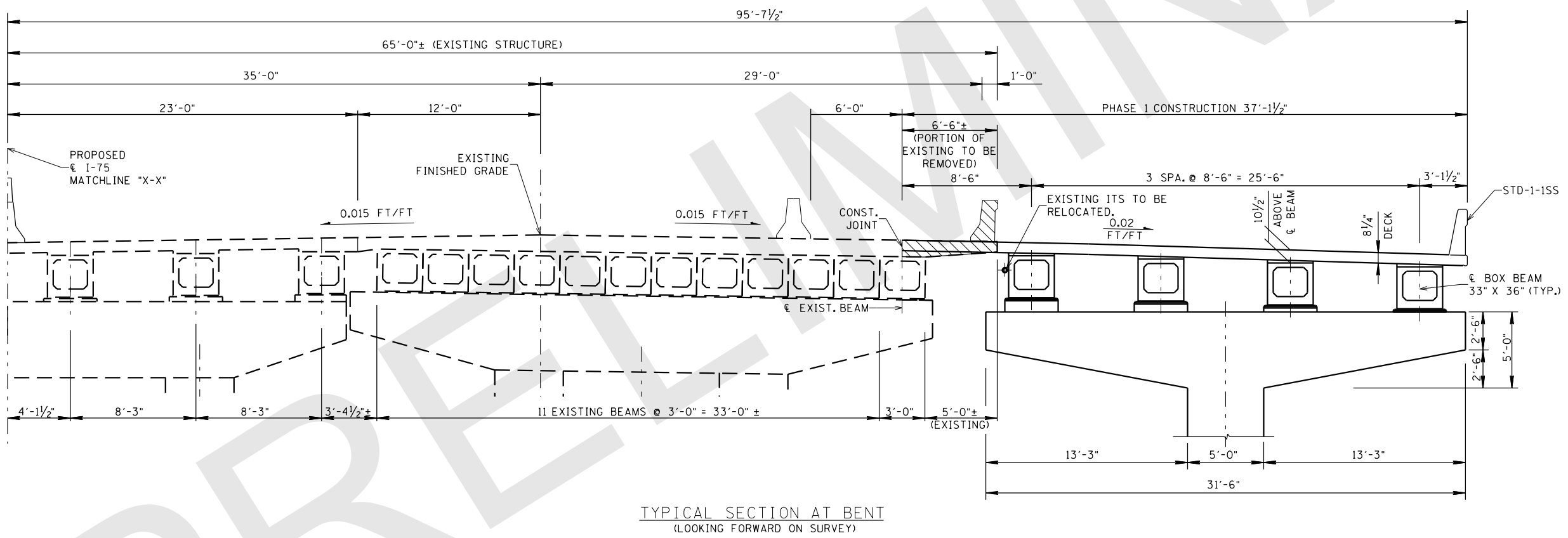
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: DIMENSIONS FOR EXISTING STRUCTURE TO BE FIELD VERIFIED.



TYPICAL SECTION AT MID-SPAN
(LOOKING FORWARD ON SURVEY)



TYPICAL SECTION AT BENT
(LOOKING FORWARD ON SURVEY)

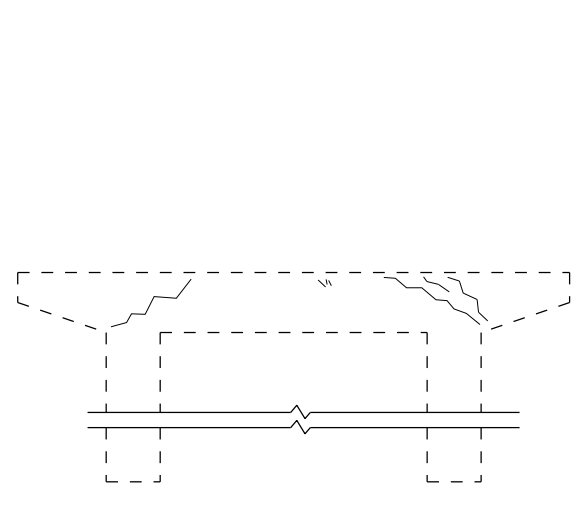
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 4
PRELIMINARY SUPERSTRUCTURE
NORTHBOUND
BRIDGE NO. 33100750019
I-75 OVER
CHICKAMAUGA CREEK
HAMILTON COUNTY
2018

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

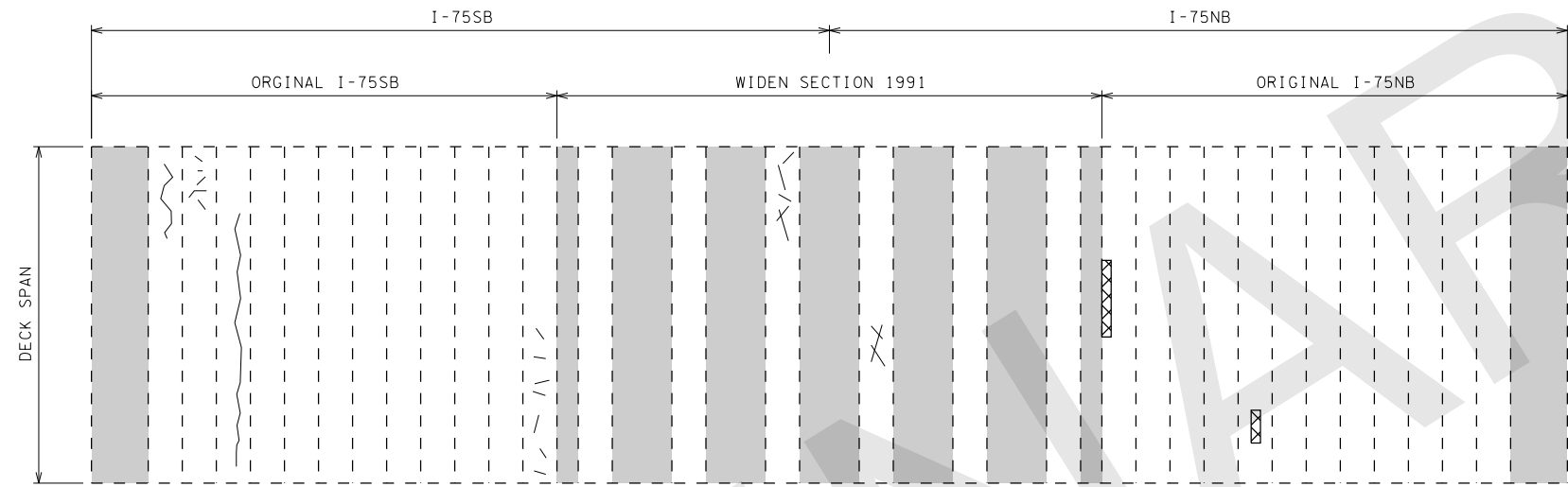
Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\04 - Widening I-75 over South Chickamauga Cr\04 - Superstructure\NB.dgn 10/8/2018 3:41:43 PM

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

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



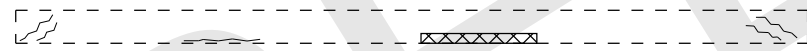
TYPICAL BENT SECTION
NOT TO SCALE



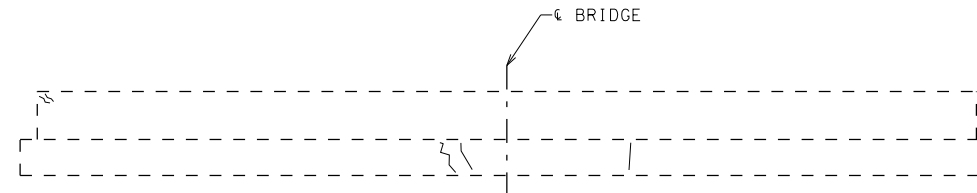
SHOWING BOTTOM OF DECK
NOT TO SCALE

- 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

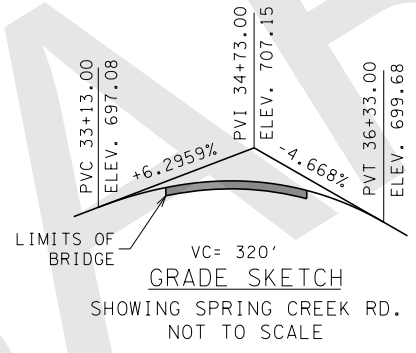
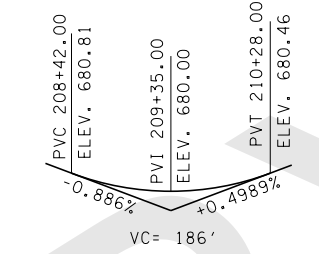
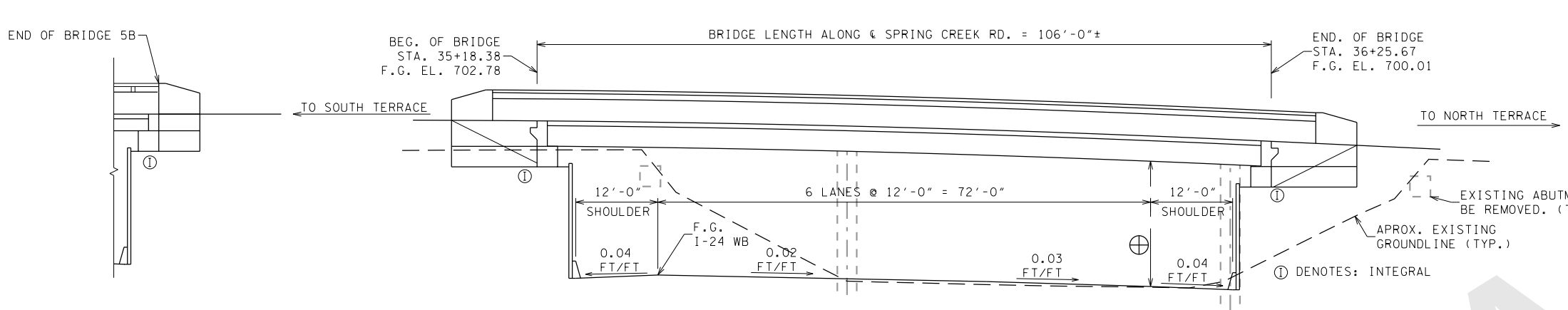
DESIGNED BY: WHP DATE: 05/2018
DRAWN BY: KLP DATE: 05/2018
SUPERVISED BY: BEB DATE: 05/2018
CHECKED BY: JMT DATE: 05/2018

10/8/2018 3:41:44 PM Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\05A - Spring Creek Road over I-24 WB\Drawn\5A_Prelim Layout.dgn

STATE PROJ. NO. 33005-1185-44

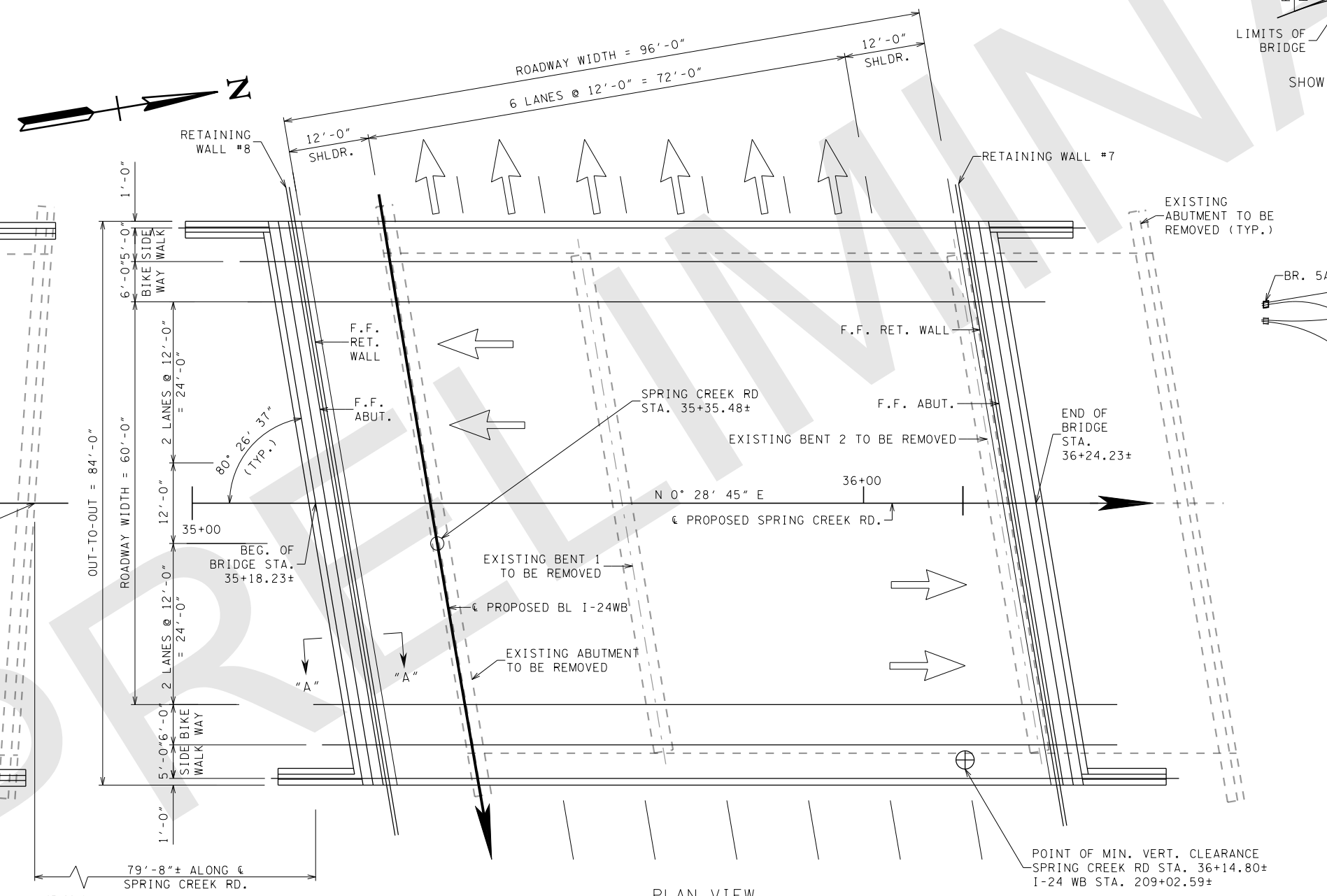
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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

- 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 1 SPAN OF 36" WELDED PLATE GIRDER AND COMPOSITE CONCRETE DECK SLAB.
 - USE STD-11-1 BRIDGE RAILING.
 - 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.
 - BRIDGE DECK FINISH TO BE IN ACCORDANCE WITH NOTE "A" IN ARTICLE 604.22 OF THE STANDARD SPECIFICATIONS.



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.

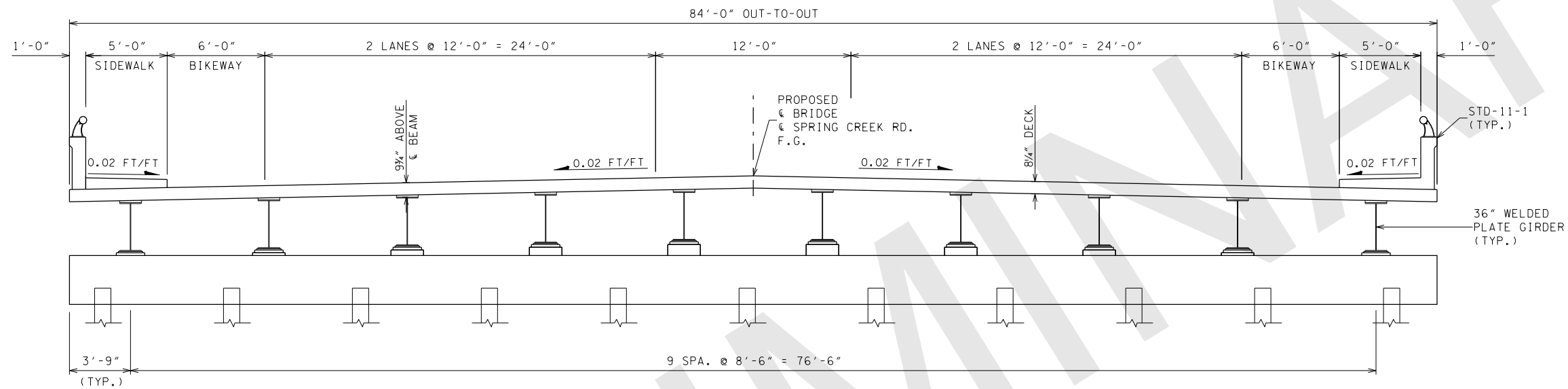
60' ROADWAY WITH STD-11-1 PARAPET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

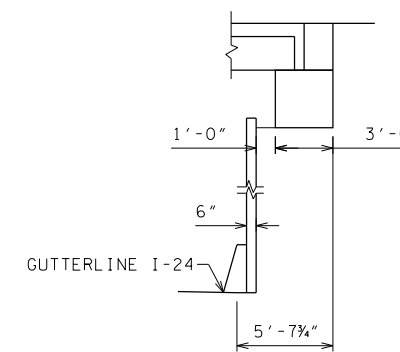
BRIDGE NO. 5A
PRELIMINARY LAYOUT OF BRIDGE
BRIDGE NO. 33100240063
SPRING CREEK ROAD
OVER I-24 WB
HAMILTON COUNTY
2018

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

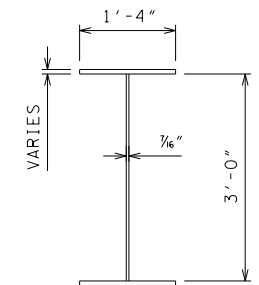
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION AT ABUTMENT
NOT TO SCALE



SECTION "A" - "A"
NOT TO SCALE



TYPICAL BEAM CROSS SECTION
NOT TO SCALE

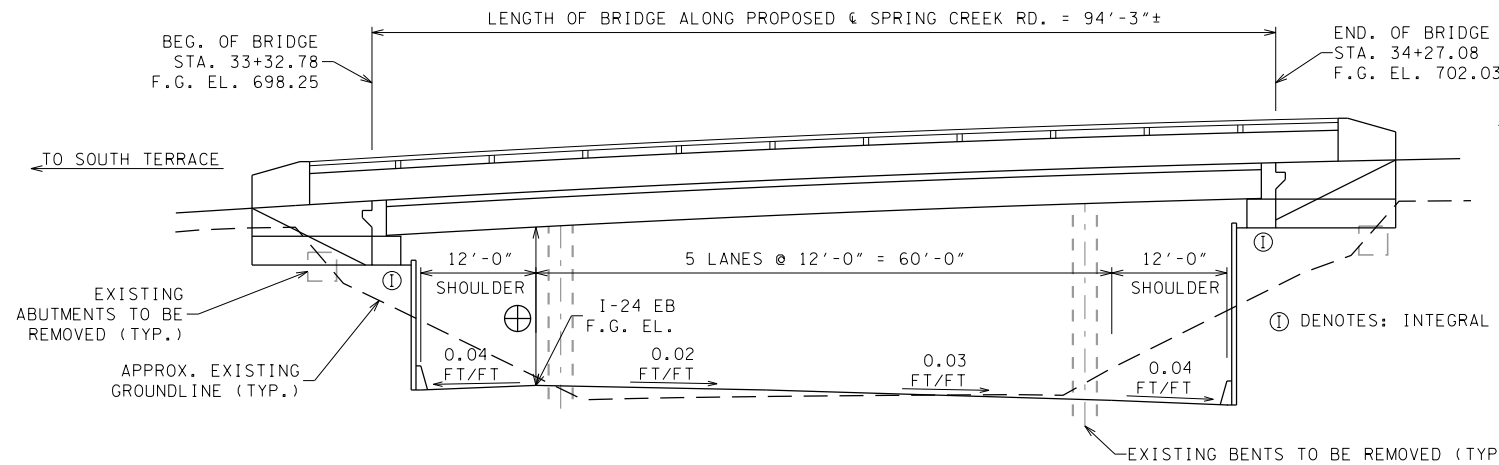
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 5A
PRELIMINARY SUPERSTRUCTURE
BRIDGE NO. 33100240063
SPRING CREEK ROAD
OVER I-24 WB
HAMILTON COUNTY
2018

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

Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\05a - Spring Creek Road over I-24 WB\0gn\5a_Prelim Superstructure.dgn

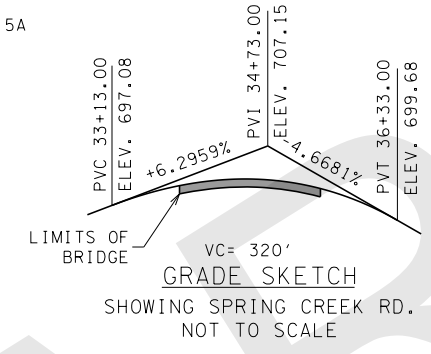
PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

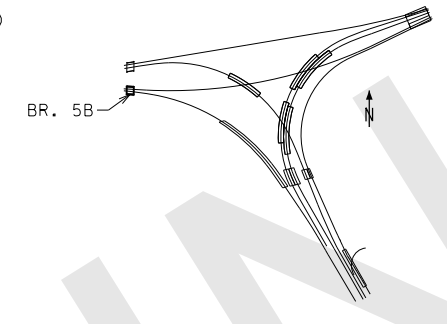


ELEVATION VIEW
LOOKING WEST
NOT TO SCALE

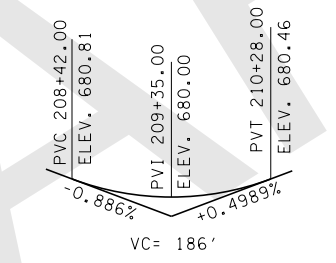
POINT OF MIN. VERT. CLEARANCE:
REQUIRED: 16'-6"
ACTUAL: 16'-11"



GRADE SKETCH
SHOWING SPRING CREEK RD.
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



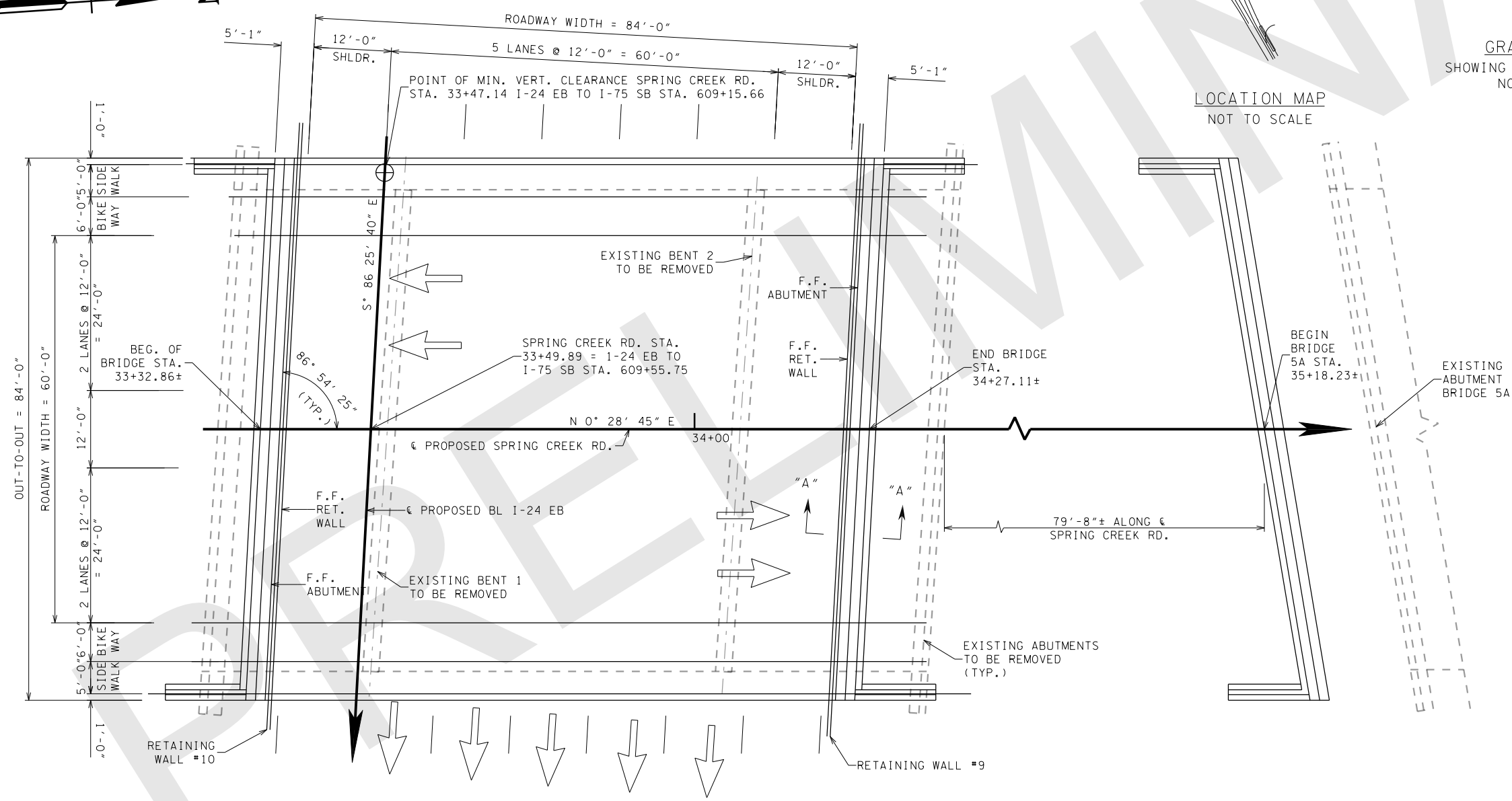
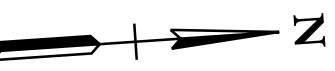
GRADE SKETCH
SHOWING I-24EB TO I-75SB
NOT TO SCALE

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/SO. 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 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

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

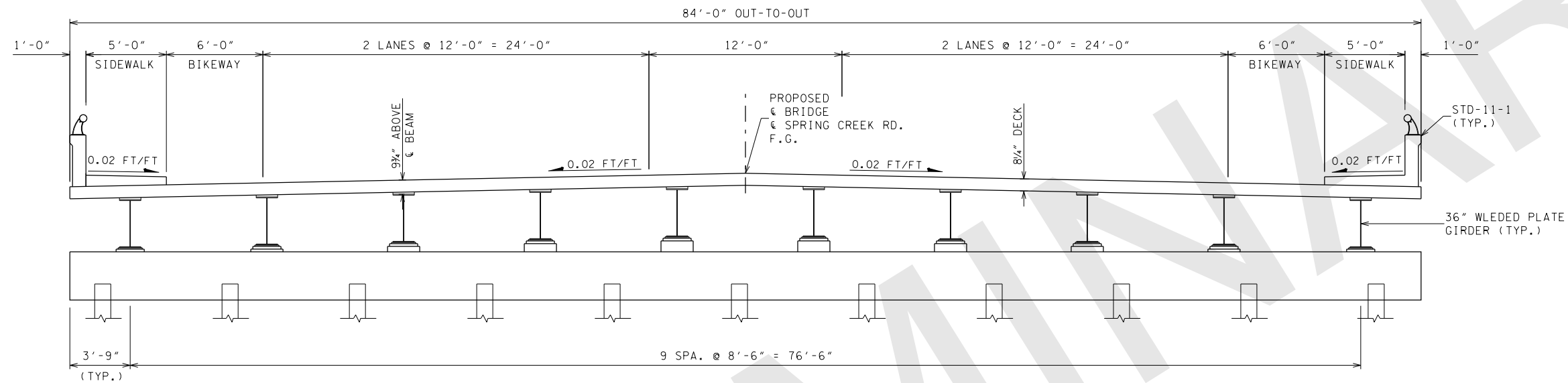
BRIDGE NO 5B
PRELIMINARY LAYOUT OF BRIDGE
BRIDGE NO. 33100240063
SPRING CREEK ROAD
OVER I-24 EB
HAMILTON COUNTY
2018

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

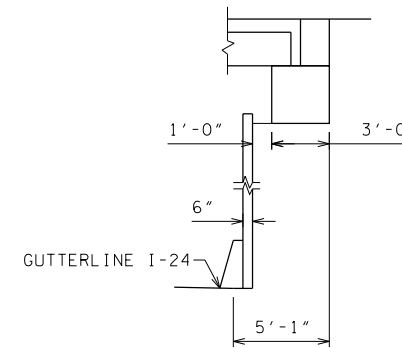
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PROJECT NO.	YEAR	SHEET NO.
1M/NH-75-1(131)	2018	

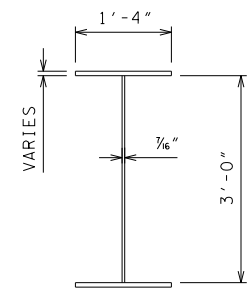
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



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 TDOT\Structures\Bridges\05B - Spring Creek Road over I-24 EB\Dgn\5B_Prelim Superstructure.dgn 10/8/2018 3:41:46 PM

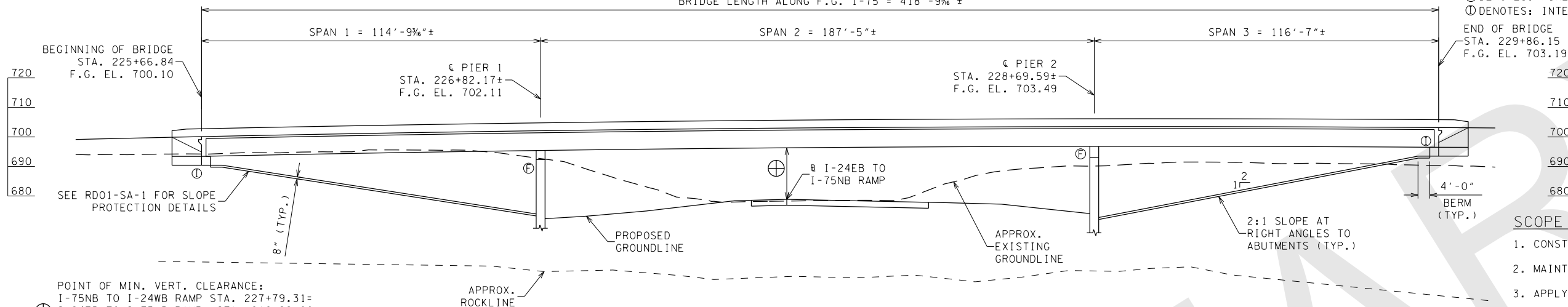
BRIDGE LENGTH ALONG F.G. I-75 = 418'-9 1/2"±

⊕ DENOTES: FIXED
⊙ DENOTES: INTERGRAL
END OF BRIDGE
STA. 229+86.15
F.G. EL. 703.19

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

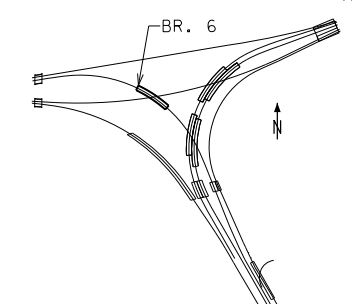
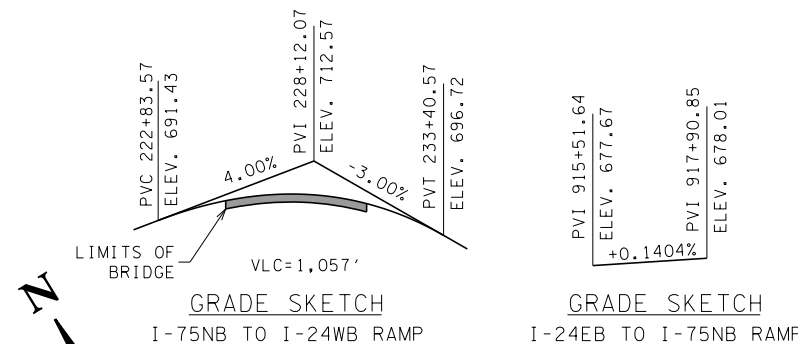
1. CONSTRUCT BENTS, ABUTMENT, AND SUPERSTRUCTURE.
2. MAINTAIN 16'-6" MIN. VERTICAL CLEARANCE.
3. APPLY TEXTURE COATING TO PARAPET AND BENTS.
4. SWITCH TRAFFIC TO NEWLY CONSTRUCTED BRIDGE.
5. DEMOLISH EXISTING BRIDGE.

GENERAL NOTES

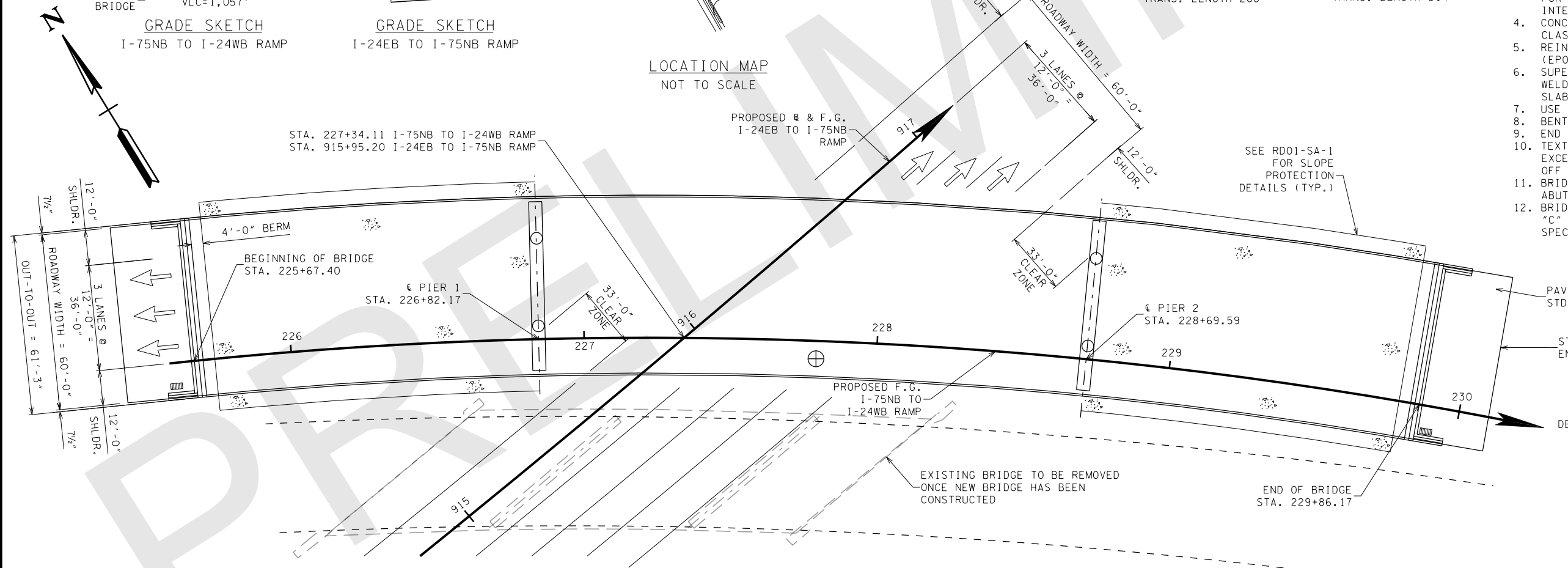
1. SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
2. LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_{ds}=0.414$, $S_{d1}=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR FUTURE WEARING 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.

POINT OF MIN. VERT. CLEARANCE:
I-75NB TO I-24WB RAMP STA. 227+79.31=
I-24EB TO I-75NB RAMP STA. 916+22.00
REQUIRED: 16'-6"
ACTUAL: 16'-6"

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

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

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

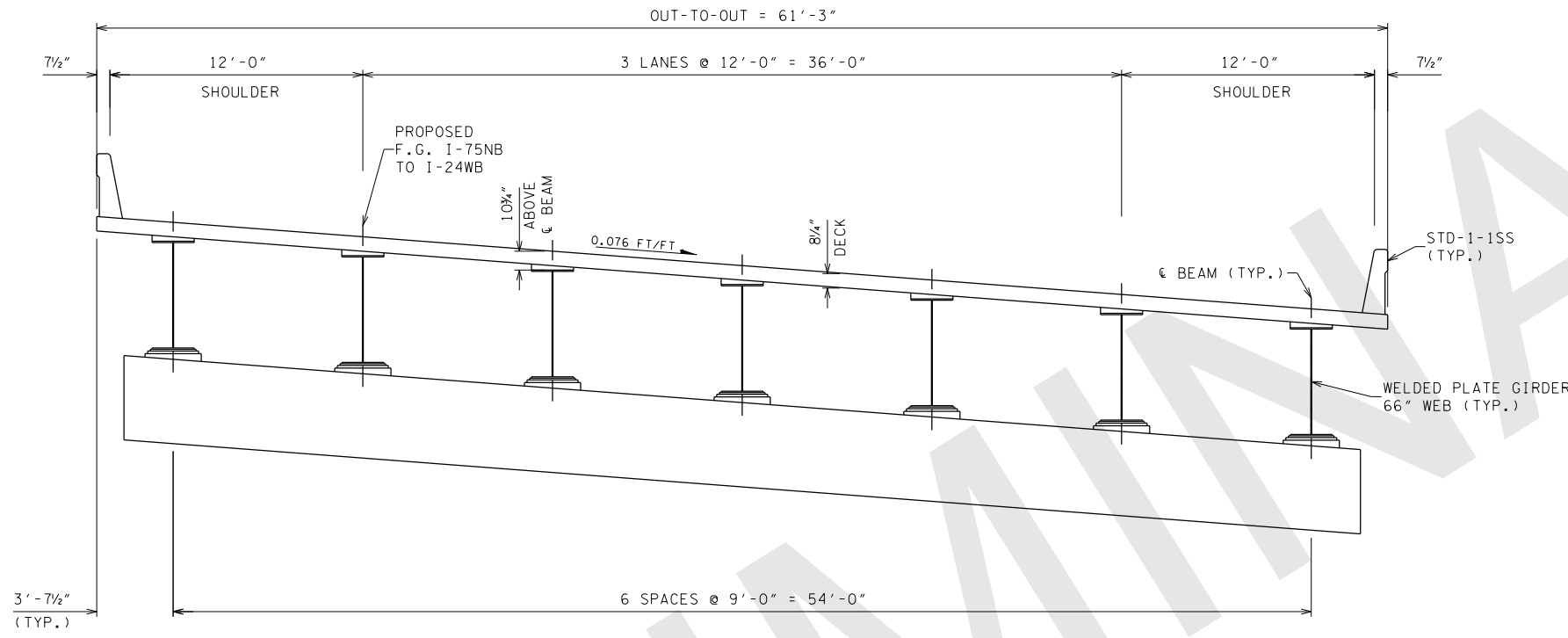
2041 ADT (I-75SB TO I-24WB) = 36,380
DESIGN SPEED (I-75SB TO I-24WB) = 60 MPH
60'-0" ROADWAY WITH STD-1-1SS PARAPET

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

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

I:\Projects\00000000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\06 - Preliminary 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

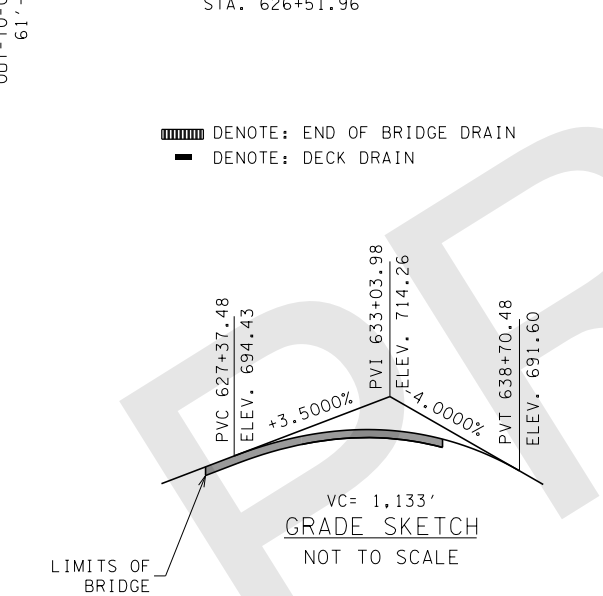
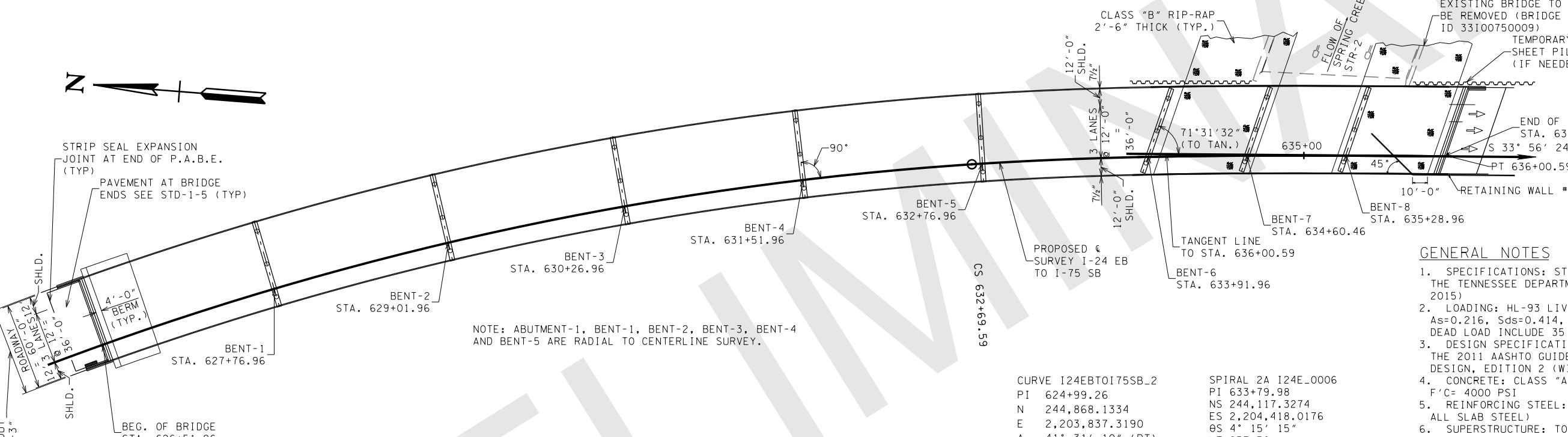
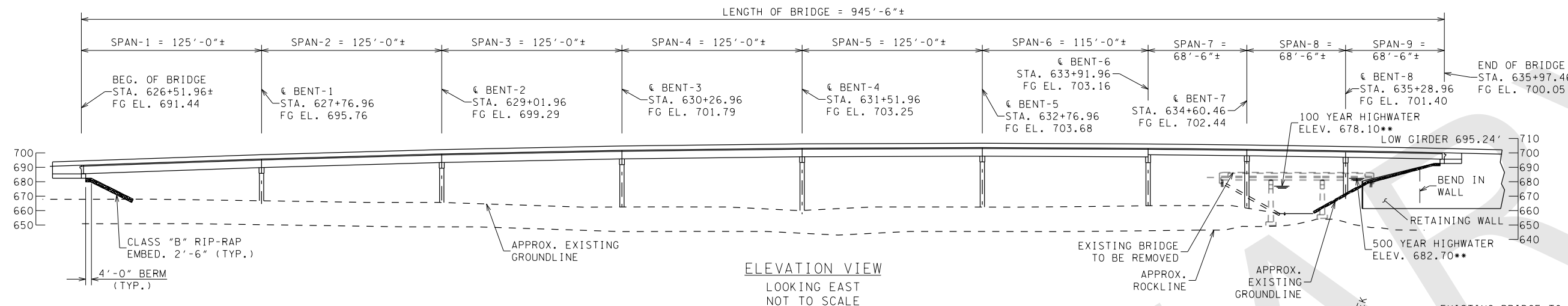
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 10/8/2018 3:41:47 PM

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

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

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

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



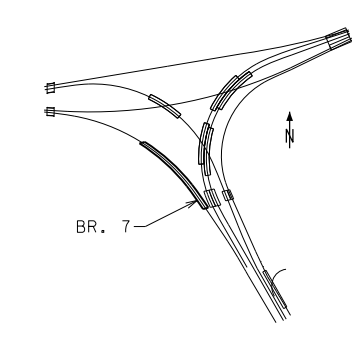
DESIGNED BY	WHP	DATE	05/2018
DRAWN BY	KLP	DATE	05/2018
SUPERVISED BY	BEB	DATE	05/2018
CHECKED BY	JMT	DATE	05/2018

- SCOPE OF WORK**
- INSTALL TEMPORARY SHORING AS REQUIRED TO MAINTAIN TRAFFIC.
 - CONSTRUCT NEW SUPERSTRUCTURE AND ABUTMENTS.
 - APPLY TEXTURE COATING TO PARAPET, BENT, AND COLUMNS.
 - INSTALL WALLS AT ABUTMENTS 1 AND 2.

HYDRAULIC DATA

DRAINAGE AREA	20.8 SQ MI
DESIGN DISCHARGE (100 YEAR)	10,450 CFS
AREA BELOW 100-YEAR ELEVATION	1,370.47 SQ FT*
100-YEAR VELOCITY	7.79 FPS
100 YEAR BRIDGE BACKWATER	1.59 FT @ 678.10**
100 YEAR DISCHARGE	10,450 CFS
500-YEAR DISCHARGE	12,450 CFS
ROADWAY OVERTOPPING ELEVATION	N/A

* AT UPSTREAM INTERNAL BRIDGE SECTION
** AT UPSTREAM FACE OF BRIDGE



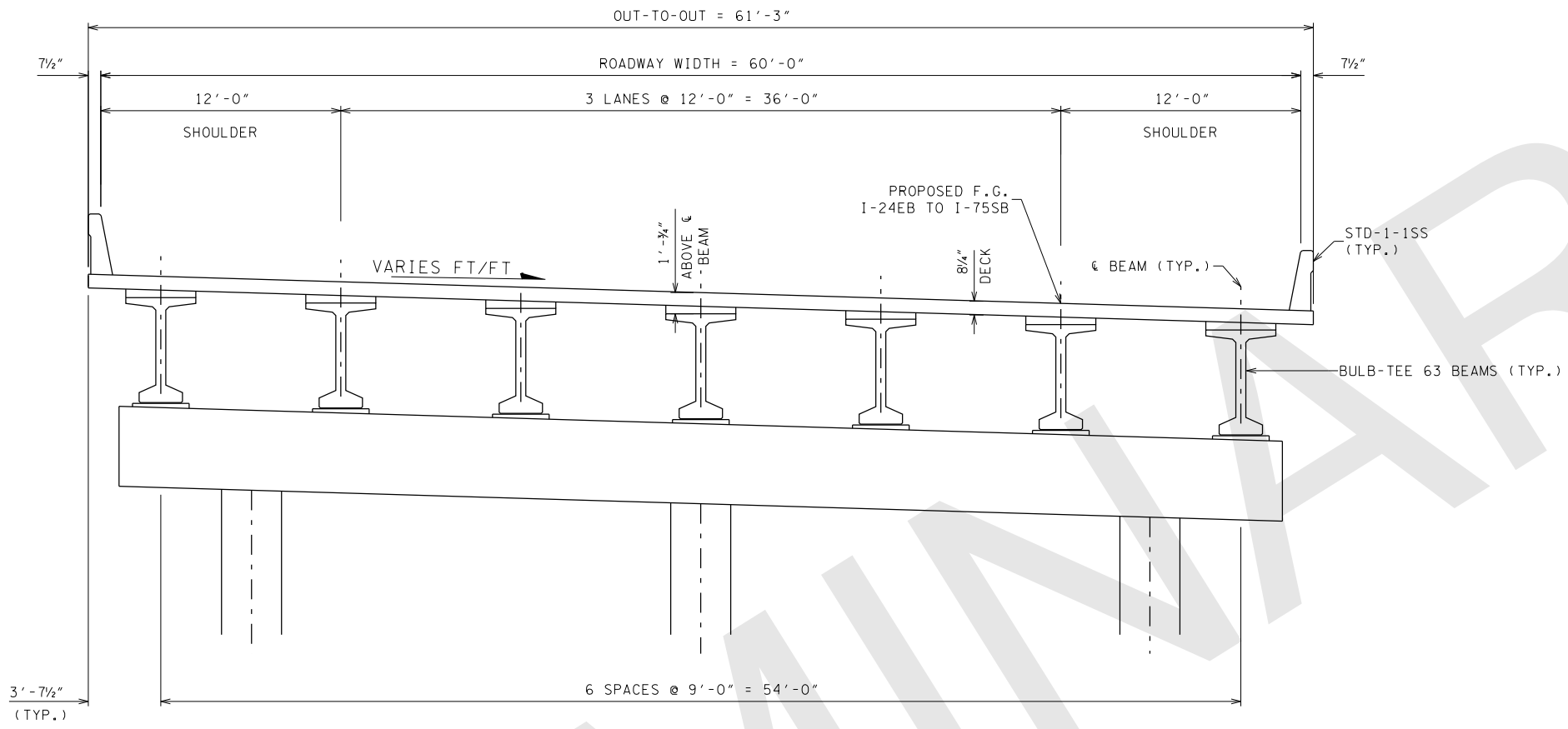
- GENERAL NOTES**
- SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 1, 2015)
 - LOADING: HL-93 LIVE LOADING; SEISMIC CATEGORY "B" WITH $A_s=0.216$, $S_d=0.414$, $S_d1=0.167$, (100.0 YEAR RETURN PERIOD). DEAD LOAD INCLUDE 35 LBS/SQ. FT. FOR 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 6 SPANS OF 63" BULB-TEE BEAMS AND 3 SPANS OF TYPE III I BEAMS.
 - USE STD-1-1SS BRIDGE RAILING.
 - BENTS ARE THREE 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)
 - 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.

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

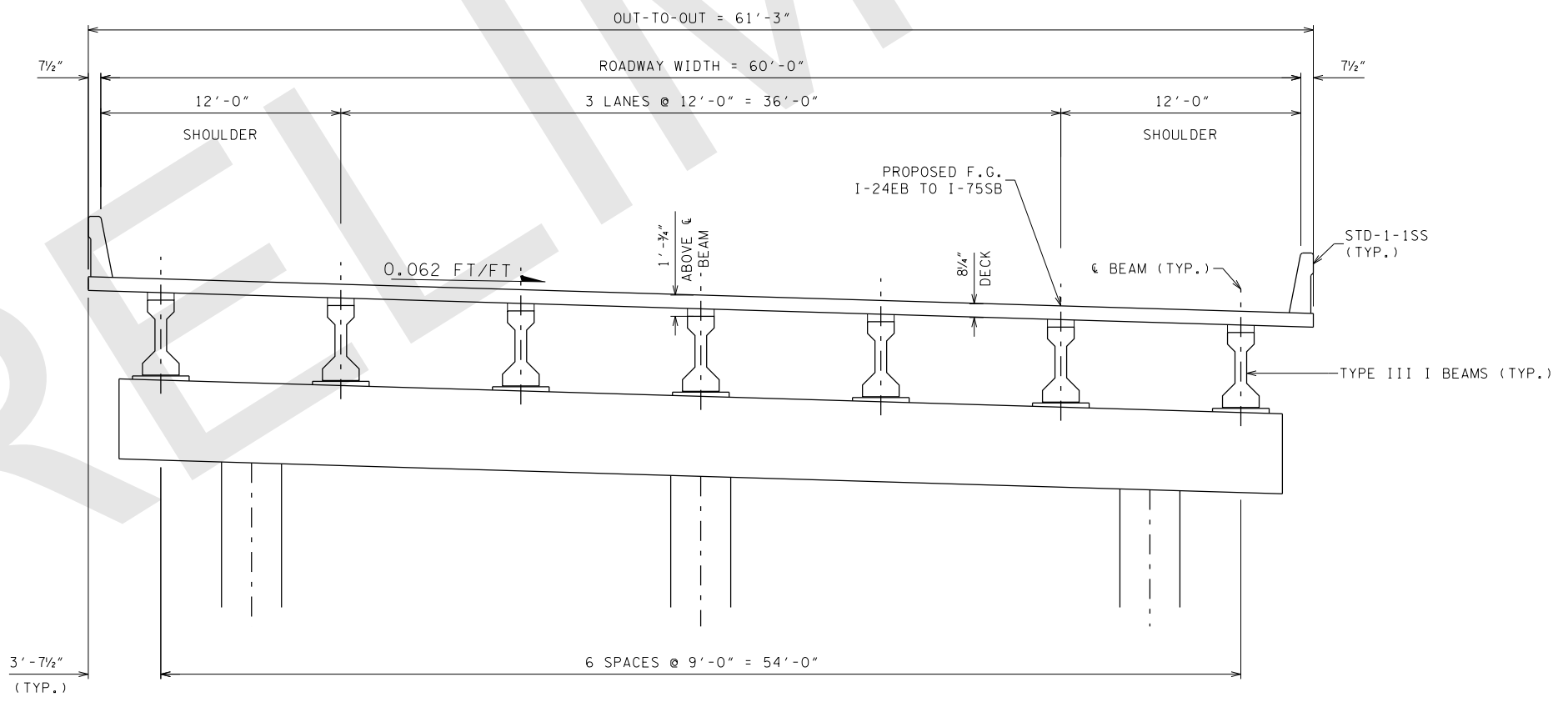
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BRIDGE NO. 7
 PRELIMINARY LAYOUT OF BRIDGE
 BRIDGE NO XX-XXXX-XXXX
 I-24EB TO I-75SB
 OVER
 SPRING CREEK
 HAMILTON COUNTY
 2018

I:\Projects\00000000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\07 - I-24 EB to I-75 SB over Spring Creek\Drawings\07 - Preliminary Layout\WithSpons.dgn

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

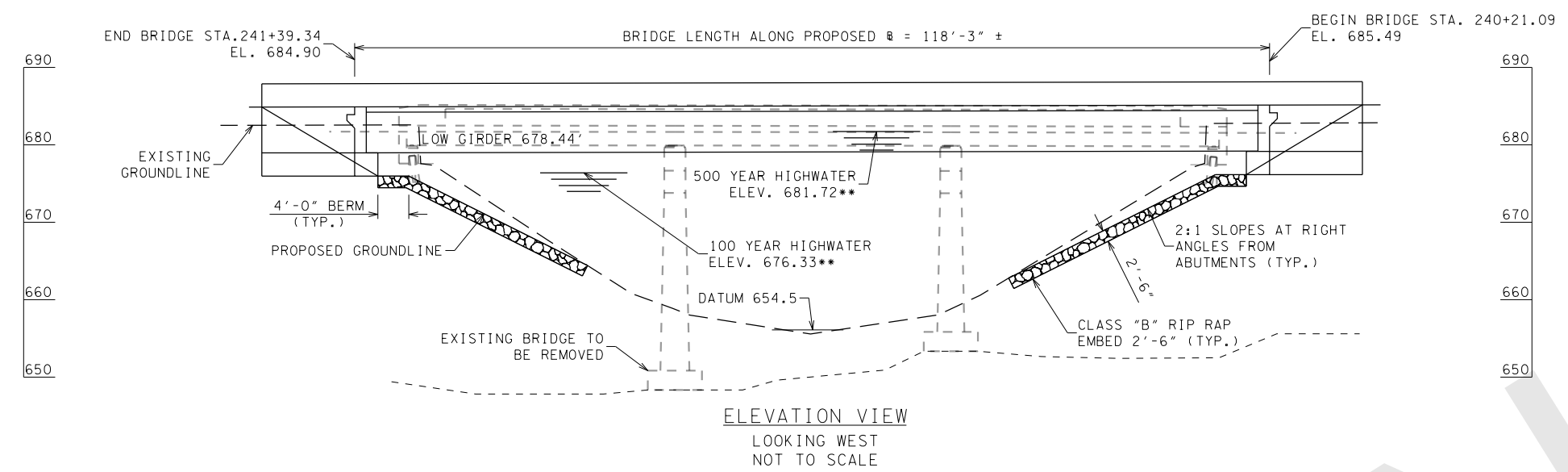
DESIGNED BY: WHP DATE: 05/2018
DRAWN BY: KLP DATE: 05/2018
SUPERVISED BY: BEB DATE: 05/2018
CHECKED BY: JMT DATE: 05/2018

Y:\Projects\00100000\004000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\07 - I-24 EB to I-75 SB over Spring Creek\07 - Preliminary Superstructure\WithSpans.dgn 10/8/2018 3:41:48 PM

Y:\Projects\00000000\000000\4304 I-75 Interchange at I-24 Owners Rep TD01\Structures\Bridges\08 - Preliminary Layout of Bridge.dgn
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PROJECT NO.	YEAR	SHEET NO.
IM/NH-75-1(131)	2018	

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



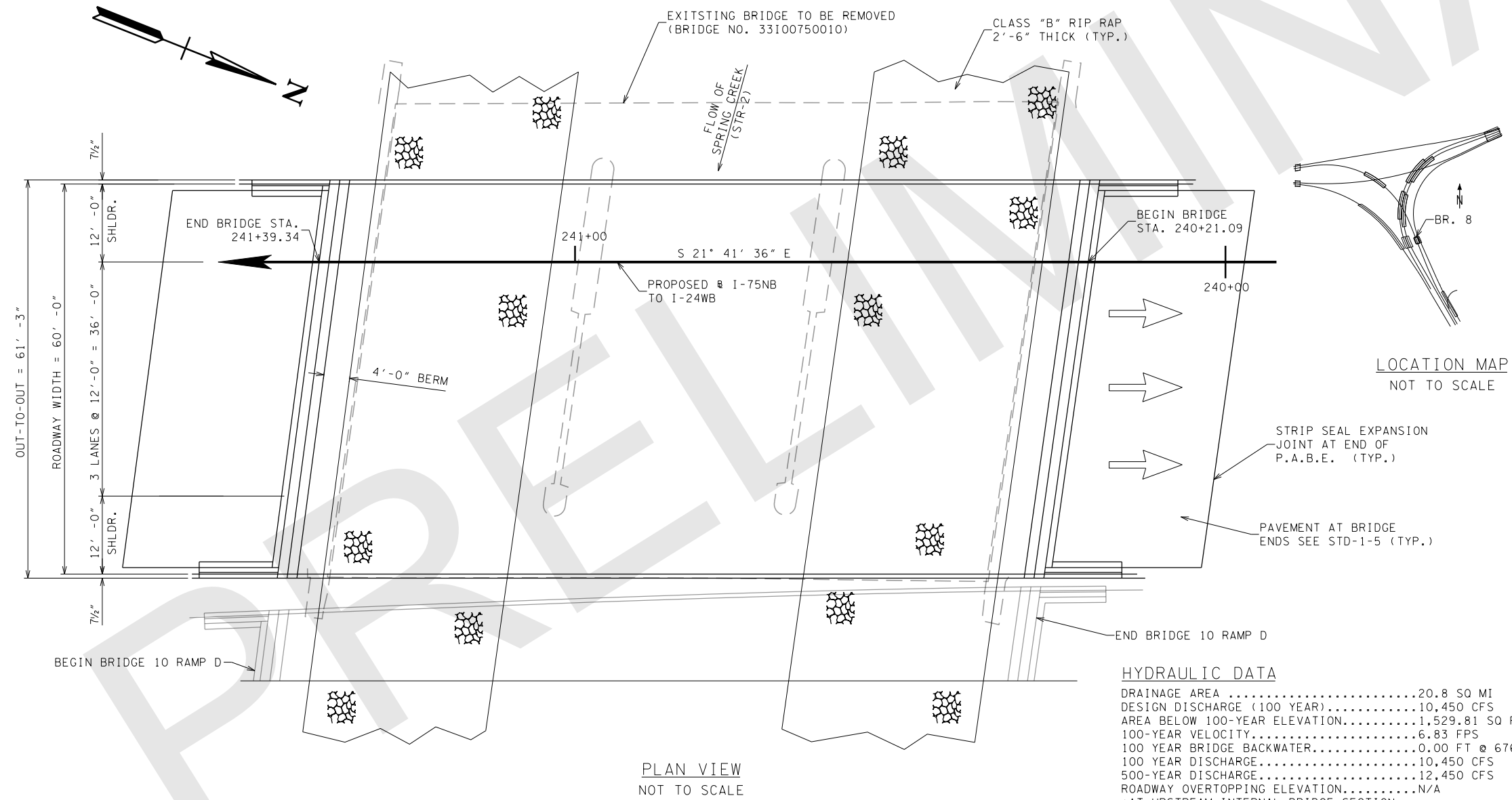
GRADE SKETCH
SHOWING I-75NB TO I-24WB
NOT TO SCALE

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

HYDRAULIC DATA

DRAINAGE AREA	20.8 SQ MI
DESIGN DISCHARGE (100 YEAR)	10,450 CFS
AREA BELOW 100-YEAR ELEVATION	1,529.81 SQ FT*
100-YEAR VELOCITY	6.83 FPS
100 YEAR BRIDGE BACKWATER	0.00 FT @ 676.33**
100 YEAR DISCHARGE	10,450 CFS
500-YEAR DISCHARGE	12,450 CFS
ROADWAY OVERTOPPING ELEVATION	N/A
*AT UPSTREAM INTERNAL BRIDGE SECTION	
**AT UPSTREAM FACE OF BRIDGE (MAX. BACKWATER IS 0.31 FT @ APPROACH)	

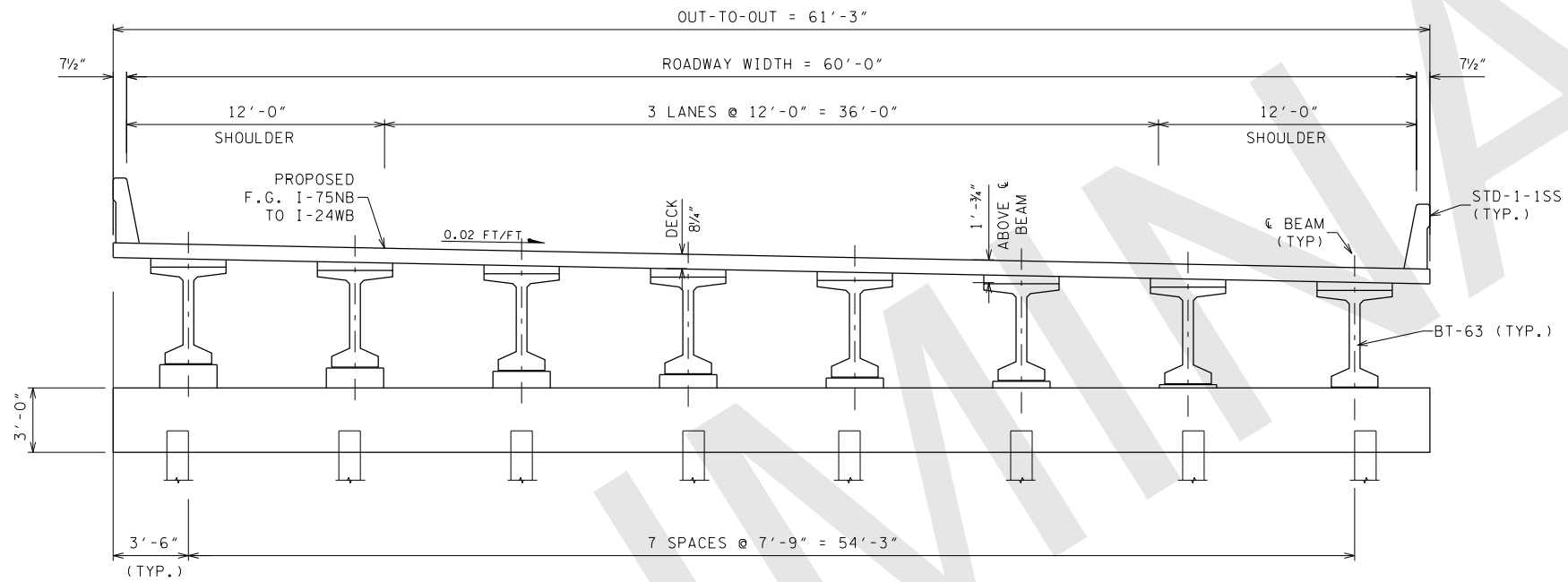
2041 ADT (I-75NB TO I-24WB) = 27,670
 DESIGN SPEED (I-75NB TO I-24WB) = 60 MPH
 60'-0" ROADWAY WIDTH WITH STD-1-1SS PARAPET

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

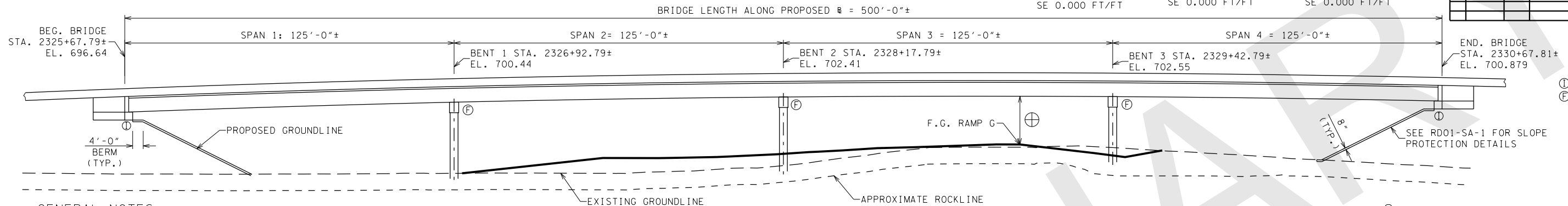
SCOPE OF WORK

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

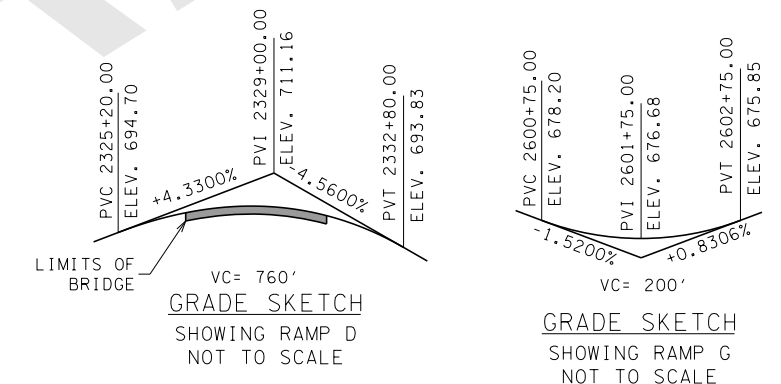
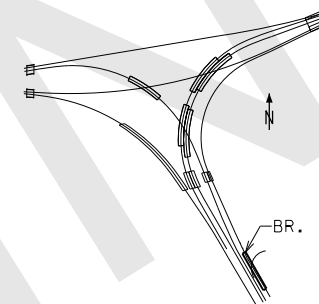


GENERAL NOTES

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

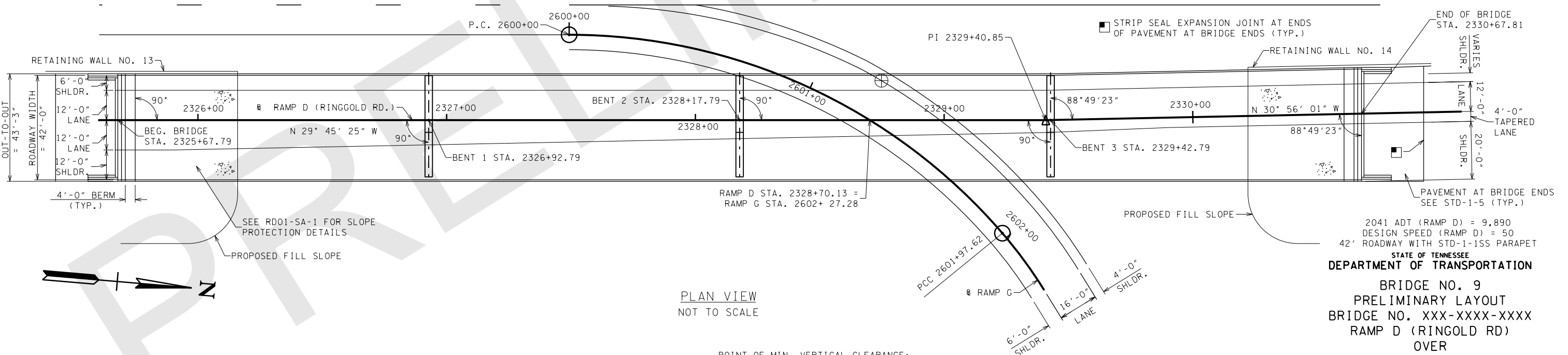


ADT (RAMP D) =

ADT (RAMP G) =

DESIGN SPEED (RAMP D) =

DESIGN SPEED (RAMP G) =



PLAN VIEW

NOT TO SCALE

DESIGNED BY: WHP DATE: 05/2018

DRAWN BY: KLP DATE: 05/2018

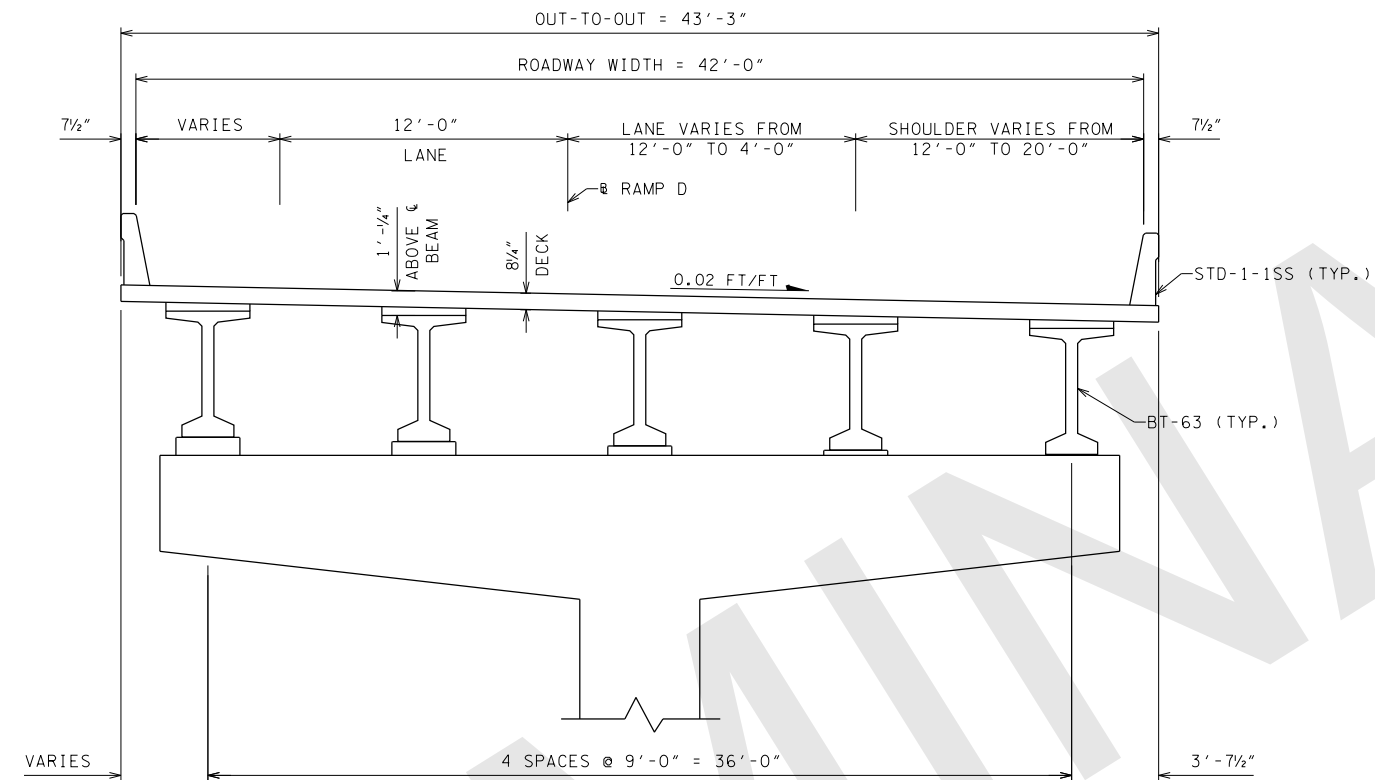
SUPERVISED BY: BEB DATE: 05/2018

CHECKED BY: JMT DATE: 05/2018

I:\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 10/8/2018 3:41:50 PM

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.	
IM/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

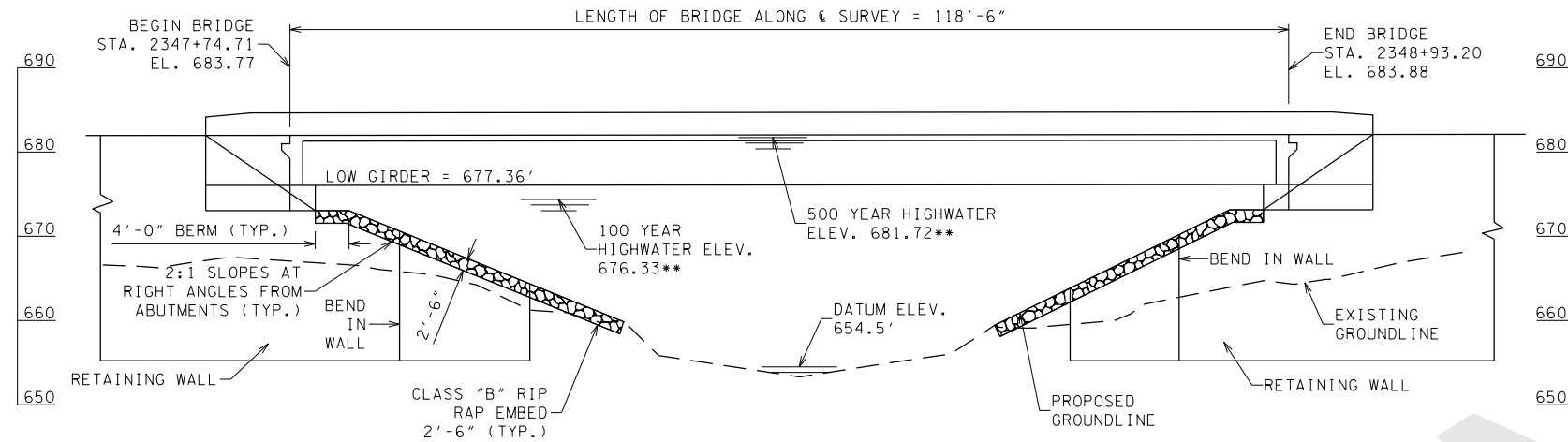
GRADE SKETCH
SHOWING RAMP D
NOT TO SCALE

SCOPE OF WORK

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

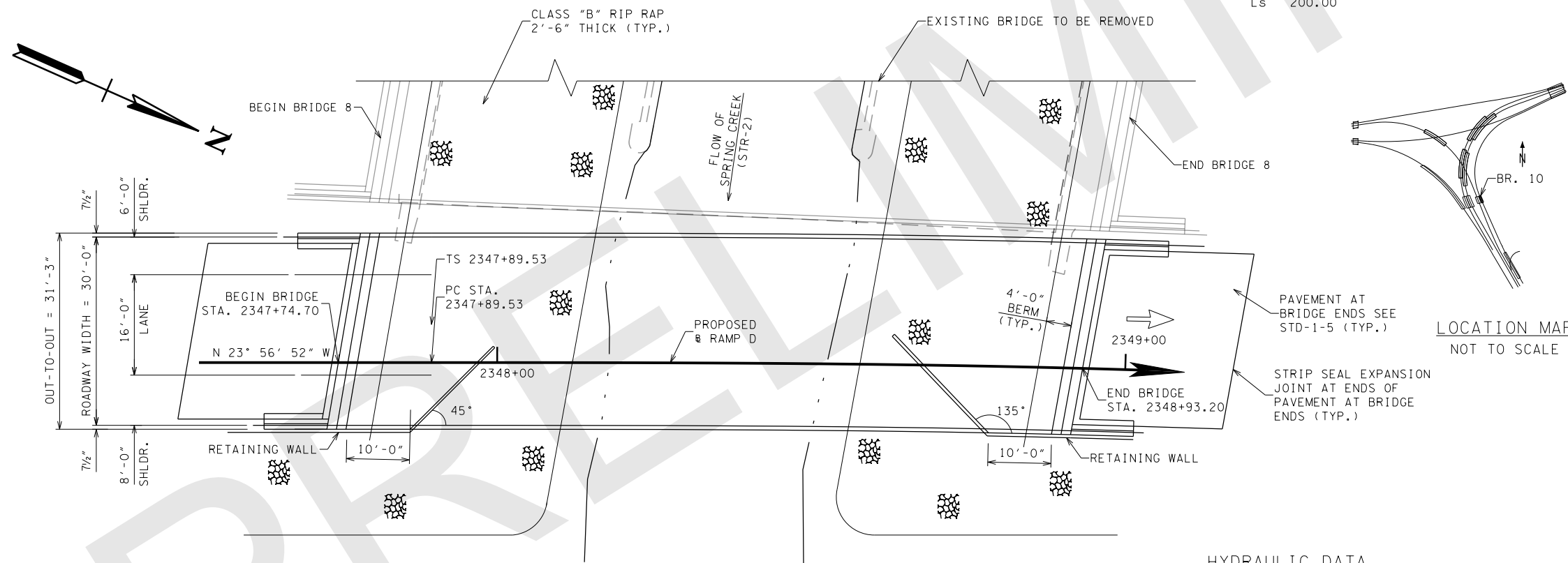
GENERAL NOTES

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-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 1 SPANS OF BT-63 BEAMS AND COMPOSITE CONCRETE DECK SLAB.
7. USE STD-1-ISS 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.

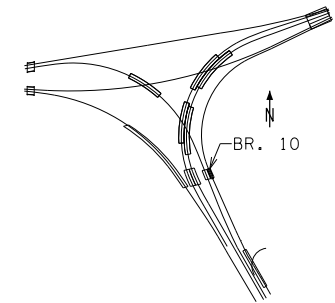


ELEVATION VIEW
NOT TO SCALE

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 AREA20.8 SQ MI
DESIGN DISCHARGE (100 YEAR).....10,450 CFS
AREA BELOW 100-YEAR ELEVATION.....1,529.81 SQ FT*
100-YEAR VELOCITY.....6.83 FPS
100 YEAR BRIDGE BACKWATER.....0.00 FT @ 676.33**
100 YEAR DISCHARGE.....10,450 CFS
500-YEAR DISCHARGE.....12,450 CFS
ROADWAY OVERTOPPING ELEVATION.....N/A
*AT UPSTREAM INTERNAL BRIDGE SECTION
**AT UPSTREAM FACE OF BRIDGE 8 (MAX. BACKWATER IS 0.31 FT @ APPROACH)

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

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

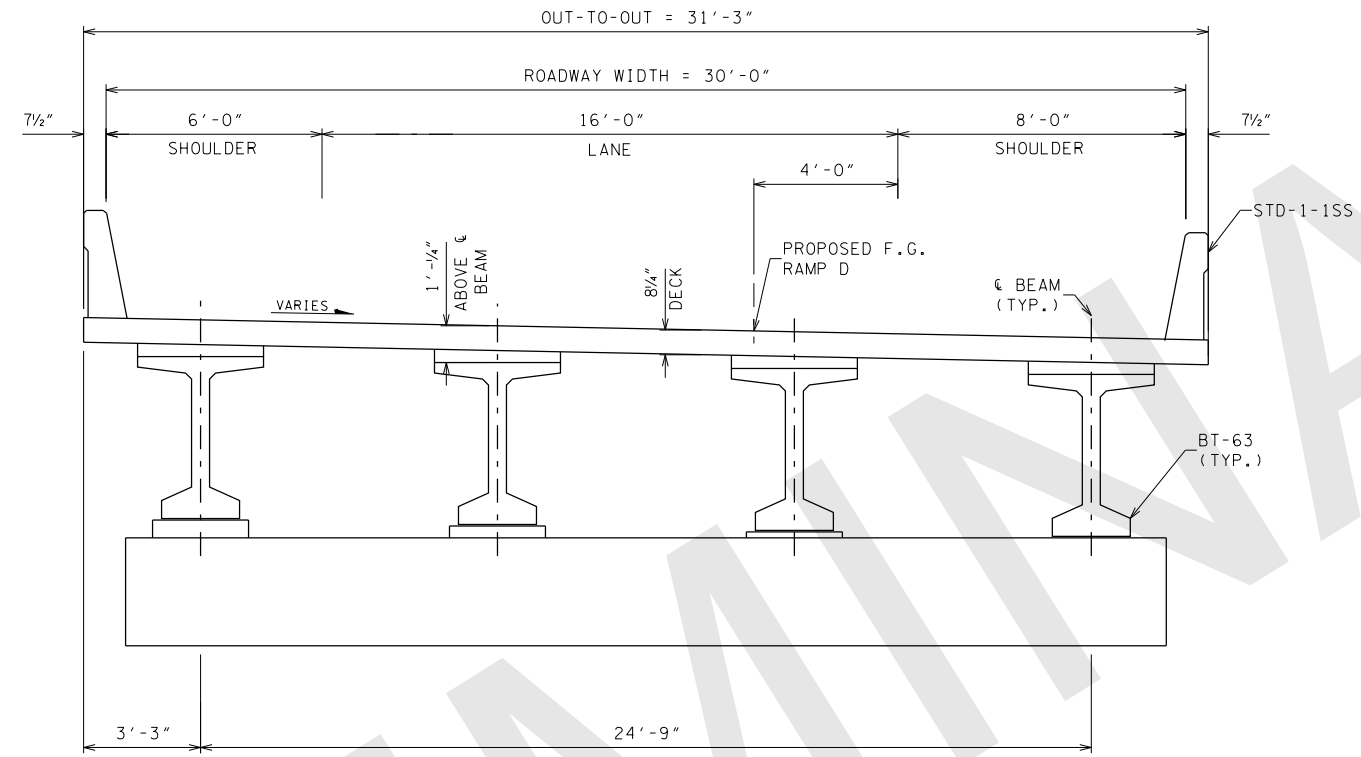
BRIDGE NO. 10
PRELIMINARY LAYOUT OF BRIDGE
BRIDGE NO. XX-XXXX-XXXX
RAMP D
OVER
SPRING CREEK
HAMILTON COUNTY
2018

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

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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
 NOT TO SCALE

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

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