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(See Sheet IA)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

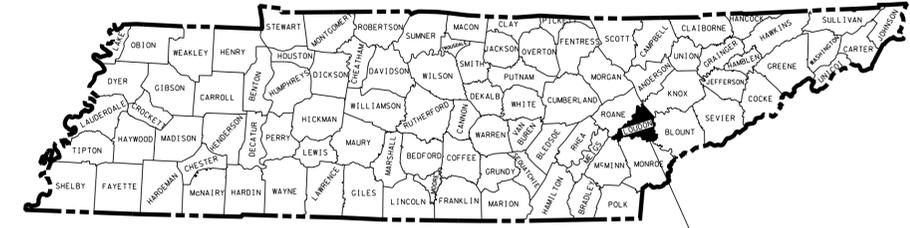
TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	PHSIP-73(61)	
STATE PROJ. NO.	53008-3237-94	

LOUDON COUNTY

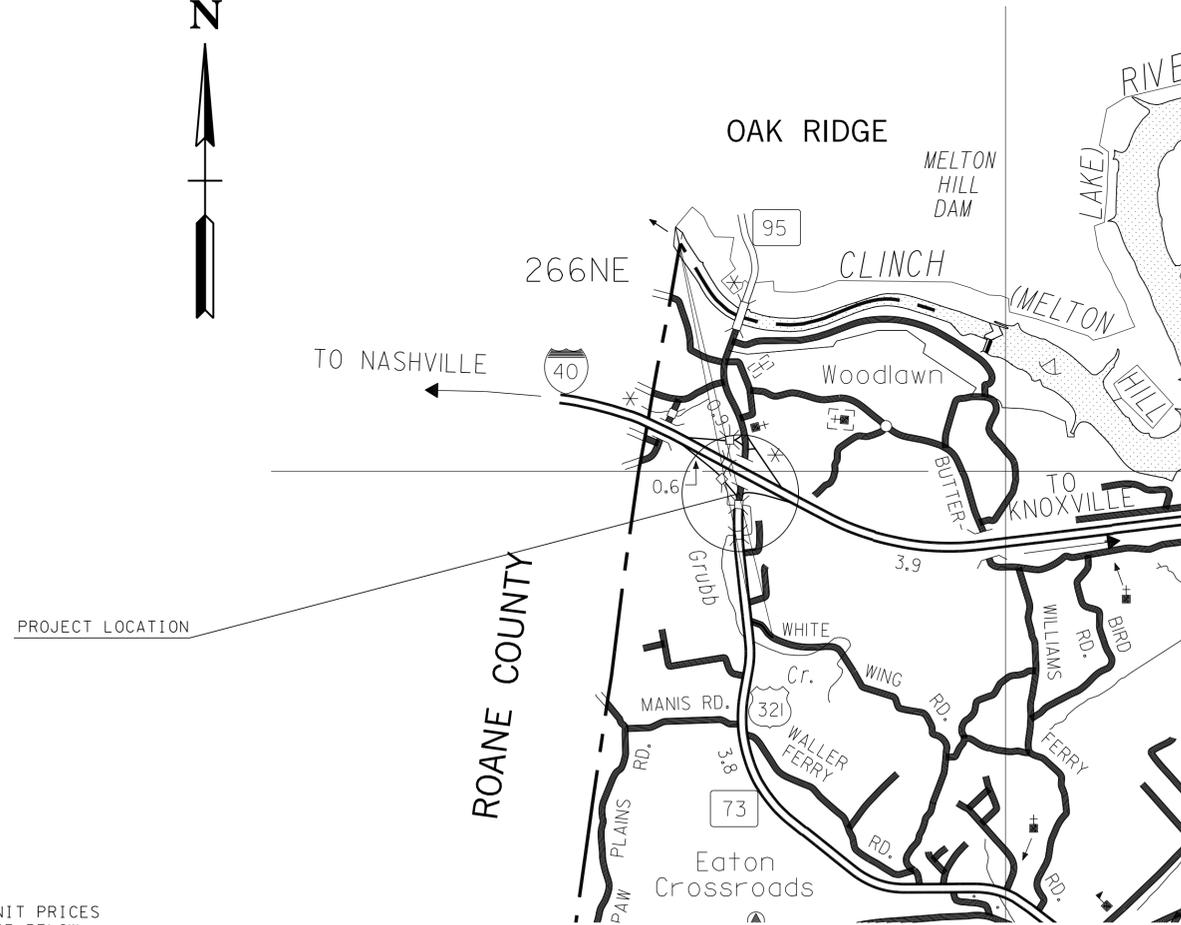
S.R. 73 (U.S. 321) INTERSECTION
AT I-40 EXIT 364 EASTBOUND RAMPS
SIGNALIZATION AND INTERSECTION IMPROVEMENTS

CONSTRUCTION
GRADING, DRAINAGE, GUARDRAIL, PAVING,
SIGNS, STRIPING, SIGNAL

STATE HIGHWAY NO. 73 F.A.H.S. NO. 73



PROJECT LOCATION
LOUDON COUNTY



SCALE: 1" = 2640'

ROADWAY LENGTH (SR 73)	0.165 MILES
PROJECT LENGTH (SR 73)	0.165 MILES
ROADWAY LENGTH (I-40 EB OFF RAMP)	0.095 MILES
PROJECT LENGTH (I-40 EB OFF RAMP)	0.095 MILES
ROADWAY LENGTH (I-40 EB ON RAMP)	0.170 MILES
PROJECT LENGTH (I-40 EB ON RAMP)	0.170 MILES

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT C.E. MANAGER 1 Roland L. Jones, P.E.
DESIGNED BY RPM Transportation Consultants, LLC
DESIGNER Kristen D. Rice, P.E. CHECKED BY Daniel J. Spann, P.E., PTOE
P.E. NO. 53008-3237-94
PIN NO. 118458.00

NO EXCLUSIONS
NO EQUATIONS

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TRAFFIC DATA (SR 73)

ADT (2014)	10,040
ADT (2034)	13,130
DHV (2034)	1,433
D	65 - 35
T (ADT)	10 %
T (DHV)	7 %
V	55 MPH

TRAFFIC DATA (I-40 EB OFF RAMP)

ADT (2014)	2,700
ADT (2034)	3,510
DHV (2034)	360
D	50 - 50
T (ADT)	10 %
T (DHV)	7 %
V	45 MPH

TRAFFIC DATA (I-40 EB ON RAMP)

ADT (2014)	2,470
ADT (2014)	3,210
DHV (2034)	559
D	80 - 20
T (ADT)	10 %
T (DHV)	7 %
V	45 MPH

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	S-1
NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS	

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
RD01-TS-3C	10-15-02	DESIGN STANDARDS 4 AND 6 LANE ARTERIAL HIGHWAYS WITH FLUSH MEDIANS
RD01-TS-4	07-23-13	DESIGN STANDARDS 1 AND 2 LANE RAMPS
DRAINAGE – CULVERTS AND ENDWALL		
D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
DRAINAGE-CATCH BASINS AND MANHOLES		
D-CB-42SB	09-24-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CBB-42	05-27-01	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-JBS-1	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 JUNCTION BOX
ROADSIDE SAFETY DEVICES AND FENCES		
S-CZ-1		CLEAR ZONE CRITERIA
S-GR31-1		W-BEAM GUARDRAIL
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 21, 13, AND IN-LINE TERMINALS
S-GRC-1		GUARDRAIL CONNECTIONS TO BRIDGE ENDS OR BARRIER WALL
S-GRT-1		TYPE 12 GUARDRAIL TERMINAL (BURIED-IN-BACKSLOPE)
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-3		SAFETY PLAN: MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-4		SAFETY PLAN FOR PIERS IN CLEAR ZONE
S-PL-6		SAFETY PLAN: SAFETY HARDWARE PLACEMENT
S-SSMB-3	07-16-13	51" HALF SIZE SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-4	07-30-10	FLARED SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL (VERTICAL BACK)
S-SSMB-6	10-24-13	GUARDRAIL ATTACHMENT TO SINGLE SLOPE CONCRETE BARRIER WALL
S-F-1	05-24-12	HIGH VISIBILITY FENCE
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-L-1SA	07-29-04	STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	05-25-11	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-9	11-01-11	MARKING DETAILS FOR RAMP INTERSECTIONS
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-6	02-12-91	STANDARD MOUNTING DETAILS – BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS, ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A	11-01-11	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-19-13	STANDARD STEEL SIGN SUPPORTS
T-S-20	11-01-11	SIGN DETAILS
T-S-21	02-28-13	DETAILS FOR SIGNS MOUNTED ON CONCRETE MEDIAN BARRIERS
T-S-23A	7-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY SQUARE TUBE SIGN SUPPORT
T-S-23C	7-19-13	BREAKAWAY U-POST SIGN SUPPORTS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	1A

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DEPARTMENT OF TRANSPORTATION

**INDEX
AND
STANDARD
DRAWINGS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	1B

STANDARD DRAWINGS (CONT.)

STD-17-75

BOX BRIDGE, 2 BARRELS AT 10', CLEAR HTS. 7'-10', 0'-60' FILL

- T-S-24 08-02-13 DETAILS OF SIGN WITH SOLAR FLASHING ASSEMBLY
- T-SG-2 07-29-04 LOOP LEAD-INS, CONDUIT AND PULL BOXES
- T-SG-3A ALTERNATE DETECTION DETAILS
- T-SG-5 07-29-04 CONTROLLER CABINET DETAILS
- T-SG-7 11-01-11 SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
- T-SG-7A 11-01-11 TYPICAL SIGN HEAD PLACEMENT
- T-SG-9 11-16-07 DETAILS OF CANTILEVER SIGNAL SUPPORT
- T-SG-9A MISCELLANEOUS SIGNAL DETAILS
- T-SG-10 05-06-13 MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
- T-SG-12 11-01-11 TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
- T-WZ-10 04-02-12 ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
- T-WZ-18 03-13-09 SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
- T-WZ-40 04-02-12 RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
- T-WZ-41 04-02-12 LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS

EROSION PREVENTION AND SEDIMENT CONTROL

- EC-STR-2 08-01-12 SEDIMENT FILTER BAGS
- EC-STR-6 ROCK CHECK DAM
- EC-STR-6A 08-01-12 ENHANCED ROCK CHECK DAM
- EC-STR-3C 08-01-12 SILT FENCE WITH WIRE BACKING
- EC-STR-3E 04-01-08 SILT FENCE FABRIC JOINING DETAILS
- EC-STR-8 08-01-12 FILTER SOCK
- EC-STR-11 08-01-12 CULVERT PROTECTION TYPE 1
- EC-STR-11A 08-01-12 CULVERT PROTECTION TYPE 2
- EC-STR-19 04-01-08 CATCH BASIN PROTECTION
- ES-STR-25 TEMP. CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
- EC-STR-30 INSTREAM DIVERSION (WITHOUT TRAFFIC)
- EC-STR-30A INSTREAM DIVERSION (WITH TRAFFIC)
- EC-STR-32 08-01-12 TEMPORARY DIVERSION CULVERTS
- EC-STR-34 08-01-12 EROSION CONTROL BLANKET FOR SLOPE INSTALLATION

BOX CULVERT STANDARD DRAWINGS

- STD-17-1 INDEX OF DRAWINGS
- STD-17-2 TERMINOLOGY
- STD-17-3 GENERAL NOTES
- STD-17-4 DESIGN SECTION LIMITS
- STD-17-5 TYPICAL SECTION AND DETAILS
- STD-17-6 TYPICAL ELEVATIONS
- STD-17-10 TYPICAL WINGWALL DETAILS AND NOTES
- STD-17-13 WINGWALL DIMENSIONS AND QUANTITIES
- STD-17-17 06-01-11 BACKFILL AND DRAINAGE DETAILS
- STD-17-18 BACKFILL DETAILS

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DEPARTMENT OF TRANSPORTATION

**INDEX
AND
STANDARD
DRAWINGS**

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
201-01	CLEARING AND GRUBBING	LS	1
202-04.01	REMOVAL OF STRUCTURES (CONCRETE DITCH, I-40 EB ON RAMP)	LS	1
202-04.02	REMOVAL OF STRUCTURES (BOX CULVERT ENDWALL, I-40 EB OFF RAMP)	LS	1
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	2650
203-04	PLACING AND SPREADING TOPSOIL	C.Y.	125
203-06	WATER	M.G.	8
209-03.22	FILTER SOCK (18 INCH)	L.F.	5000
209-05	SEDIMENT REMOVAL	C.Y.	500
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	500
209-08.07	ROCK CHECK DAM	EACH	35
209-08.08	ENHANCED ROCK CHECK DAM	EACH	2
209-09.01	SANDBAGS	EACH	100
209-09.04	SEDIMENT FILTER BAG (15X10)	EACH	2
209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	10
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	6
209-65.04	TEMPORARY IN STREAM DIVERSION	L.F.	300
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	2600
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	200
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	955
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	255
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	6
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	22
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	17
411-01.07	ACS MIX(PG64-22) GRADING E SHOULDER	TON	97
411-02.10	ACS MIX(PG70-22) GRADING D	TON	2170
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	30000
604-02.01	CLASS A CONCRETE (BOX BRIDGES)	C.Y.	45
604-02.02	STEEL BAR REINFORCEMENT (BOX BRIDGES)	LB.	7625
604-36	SCARIFYING	S.Y.	475
607-02.02	15" CONCRETE PIPE CULVERT(CLASS III)	L.F.	12
611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	1
611-09.03	CAPPING EXISTING CATCHBASIN	EACH	1
611-42.02	CATCH BASINS, TYPE 42, 4' - 8' DEPTH	EACH	1
621-03.03	24" TEMPORARY DRAINAGE PIPE	L.F.	325
703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	480
705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	110
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	875
705-04.02	GUARDRAIL TERMINAL (TYPE 12)	EACH	1
705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	1
705-04.07	TAN ENERGY ABSORBING TERMINAL (NCHRP 350, TL3)	EACH	3
705-04.09	EARTH PAD FOR TYPE 38 GR END TREATMENT	EACH	3
705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	3
707-08.11	HIGH VISIBILITY CONSTRUCTION FENCE	L.F.	1600
709-05.06	MACHINED RIPRAP (CLASS A-1)	TON	2500
709-05.05	MACHINED RIPRAP (CLASS A-3)	TON	50
709-05.08	MACHINED RIPRAP (CLASS B)	TON	25
709-05.09	MACHINED RIPRAP (CLASS C)	TON	25
711-05.77	FLARED SINGLE SLOPE CONCRETE MEDIAN BARRIER WALL	L.F.	330
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	1100
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	40
712-06	SIGNS (CONSTRUCTION)	S.F.	567
712-06.01	VERTICAL PANELS	S.F.	40
712-08	ARROW BOARD (TYPE C)	EACH	1
712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	4750
712-09.02	REMOVABLE PAVEMENT MARKING LINE (8" BARRIER LINE)	L.F.	4750
712-09.03	REMOVABLE PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	350
712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.	215
712-09.05	REMOVABLE PAVEMENT MARKING (ARROW)	EACH	33
712-09.31	REMOVABLE BLACK-OUT TAPE (8IN)	L.F.	1000
713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	1
713-01.02	STEEL BAR REINFORCEMENT (FOUNDATION FOR SIGN SUPPORTS)	LB.	301
713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH	6
713-06	STEEL I-BEAMS & WF-BEAMS (BREAKAWAY) SIGN SUPPORT	LB.	685
713-11.01	"U" SECTION STEEL POSTS	LB.	311
713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	408
713-11.21	P POST SLIP BASE	EACH	4
713-11.22	U POST SLIP BASE	EACH	3
713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	81
713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	80
713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	110
713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
713-15.02	REMOVAL & RELOCATION OF SIGN & SUPPORT	EACH	11
713-15.07	SUSPENDED FLAT SHEET ALUMINUM SIGN (0.080" THICK) SIGNS	EACH	2
713-30.09	BARRIER MOUNTED SIGN SUPPORT	EACH	2
714-05.02	PULL BOXES (TYPE A) (LIGHTING)	EACH	3
714-06.03	CABLE (1/1C #10 AWG)	L.F.	600
714-06.11	CABLE (#6 SOLID COPPER) (GROUND)	L.F.	450
714-06.12	CABLE (#6 SOLID COPPER BARE) (GROUND)	L.F.	100
714-09.09	LUMINAIRES (15 FT MAST ARM)	EACH	3
716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	315
716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	160
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	13
716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	3
716-04.05	PLASTIC WORD PAVEMENT MARKING (STRAIGHT ARROW)	EACH	6
716-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	S.F.	15
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	1
716-06.01	PAINTED WORD PVMT MARK (ONLY)	EACH	6
716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN LINE)	L.M.	1
716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6 IN LINE)	L.M.	1
716-12.04	ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN DOTTED LINE)	L.F.	315
716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6 IN DOTTED LINE)	L.F.	460
717-01	MOBILIZATION	LS	1
725-02.79	FIBER SPLICE ENCLOSURE (CABINET)	EACH	2
725-05.07	FIBER OPTIC TRANSCEIVER (SM)	EACH	2
725-23.14	FIBER OPTIC CABLE (6F)	L.F.	850

ESTIMATED ROADWAY QUANTITIES (CONT.)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(9) 730-01.04	MODIFICATION OF EXISTING TRAFFIC SIGNAL EQUIPMENT	LS	1
730-02.08	SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED)	EACH	1
730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	6
730-02.30	SIGNAL HEAD ASSEMBLY (130A2 WITH BACKPLATE)	EACH	2
730-02.31	SIGNAL HEAD ASSEMBLY (130A2 POLE MOUNTED)	EACH	1
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	4
730-03.23	INSTALL PULL BOX (FIBER OPTIC TYPE A)	EACH	2
730-03.24	INSTALL PULL BOX (FIBER OPTIC TYPE B)	EACH	2
730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
730-05.03	SERVICE CABLE (2 CONDUCTOR, # 6 AWG)	L.F.	130
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	950
730-11.01	STEEL CONDUIT RISER ASSEMBLY	EACH	1
730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	500
730-12.07	CONDUIT 1" DIAMETER (RGS)	L.F.	225
730-12.12	CONDUIT 1" DIAMETER (JACK AND BORE)	L.F.	200
730-12.14	CONDUIT 3" DIAMETER (JACK AND BORE)	L.F.	675
(18) 730-13.02	VEHICLE DETECTOR (VIDEO)	EACH	2
730-13.08	VEHICLE DETECTOR (SHELF MOUNT)	EACH	2
(11) 730-14.01	SHIELDED DETECTOR CABLE	L.F.	675
(11) 730-14.02	SAW SLOT	L.F.	275
(11) 730-14.03	LOOP WIRE	L.F.	575
730-15.12	MODIFY CABINET (INSTALL FO MODEM & FO CABLE)	EACH	1
(13) 730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1
(12) 730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(14) 730-18.01	MASTER CONTROLLER	EACH	1
(15) 730-23.64	CANTILEVER SIGNAL SUPPORT (1 ARM @ 30')	EACH	1
(15) 730-23.96	CANTILEVER SIGNAL SUPPORT (1 ARM @ 55')	EACH	1
(15) 730-23.97	CANTILEVER SIGNAL SUPPORT (1 ARM @ 75')	EACH	1
(17) 730-26.08	FLASHING WARNING BEACON	EACH	2
(1) 740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	580
801-01	SEEDING (WITH MULCH)	UNIT	10
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	30
(23) 801-02	SEEDING (WITHOUT MULCH)	UNIT	25
(16) 801-03	WATER (SEEDING & SODDING)	M.G.	55
803-01	SODDING (NEW SOD)	S.Y.	4500
(1) 805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	2650

SUMMARY OF QUANTITIES - ITEM NO. 712-06

SIGN NO.	DESCRIPTION	SIZE (IN.)	NUMBER REQUIRED
G20-2A	END ROAD WORK	48X24	5
R1-1	STOP	48X48	2
R1-2	YIELD	36X36X36	1
R3-8	ADVANCE INTERSECTION LANE CONTROL	36X36	1
W4-2R	LANE ENDS	48X48	1
W5-1	ROAD NARROWS	48X48	2
W16-2P	500 FT SUPPLEMENTAL PLAQUE	24X18	2
W8-11	UNEVEN LANES	36X36	2
W12-1	DOUBLE ARROW FOR OBSTACLE	48X48	1
W8-17	SHOULDER DROP OFF (SYMBOL)	36X36	2
W8-17P	SHOULDER DROP OFF (PLAQUE)	24X18	2
W20-1	ROAD WORK AHEAD	48X48	1
W20-1	ROAD WORK 1/2 MILE	48X48	2
W20-1	ROAD WORK 1500 FEET	48X48	3
W20-1	ROAD WORK 1000 FEET	48X48	3
W20-1	ROAD WORK 500 FEET	48X48	2
W20-1	ROAD WORK 1 MILE	48X48	2
W20-5R	RIGHT LANE CLOSED 1000 FEET	48X48	1
W21-5L	LEFT SHOULDER CLOSED	48X48	2
W21-5L	LEFT SHOULDER CLOSED 1000 FEET	48X48	2
W21-5R	RIGHT SHOULDER CLOSED	48X48	3
W21-5R	RIGHT SHOULDER CLOSED 1000 FEET	48X48	2

- NOTES:
- ITEM 712-06, SIGNS (CONSTRUCTION), INCLUDES SIGNS SHOWN AND IS CONSIDERED A MINIMUM. ADDITIONAL SIGNS MAY BE REQUIRED BY THE ENGINEER AND WILL BE PAID FOR AT THE PRICE BID FOR ITEM 712-06.
 - SIGNS SHALL BE LOCATED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
 - CONSTRUCTION SIGNING AND TRAFFIC CONTROL SHALL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SECTION 712 OF THE TENNESSEE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - THE CONTRACTOR IS NOT RELIEVED OF ANY RESPONSIBILITY TO PROVIDE ADEQUATE AND SAFE TRAFFIC CONTROL MEASURES BY THE ABOVE.

- FOOTNOTES:
- SEE SUBSECTION 209-07 OF THE STANDARD SPECIFICATION FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
 - THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
 - TO BE USED ON RAMP, QUANTITIES MAY BE INCREASED OR DECREASED, COST TO INCLUDE REMOVAL OF ANY EXISTING DELINEATORS - AS DIRECTED BY THE ENGINEER.
 - REMOVE EXISTING SIGN FACES, SUPPORTS AND FOOTING ON APPROXIMATELY 12 EXISTING SIGNS ON SR-73 AND I-40 RAMP WITHIN THE PROJECT LIMITS OR AS DIRECTED BY THE ENGINEER.
 - INCLUDES THE RELOCATION OF EXISTING SIGNS DURING CONSTRUCTION TO A LOCATION VISIBLE TO ONCOMING TRAFFIC.
 - ITEM TO INCLUDE MOUNTING OF SIGNS ON MAST ARM.
 - ITEM TO INCLUDE MOUNTING AT 35' HEIGHT ON MAST ARM POLES.
 - THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
 - ITEM INCLUDES ADJUSTMENT OF SIGNAL EQUIPMENT FOR S.R. 73 AND THE I-40 WESTBOUND RAMP DUE TO S.R. 73 PROPOSED WIDENING AND ADDITION OF TRAVEL LANE.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHANGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE FOR ITEM NO. 730-05.01 FOR PAYMENT BY THE CONTRACTOR. ITEM TO INCLUDE 1-2C #6 CABLE FROM EXISTING ELECTRIC SERVICE TO CONTROLLER. INCLUDES A 50 AMP, 2 POLE WEATHER PROOF EXTERNAL DISCONNECT. ENCLOSURE SHALL BE METALLIC WITH A 50 AMP SINGLE POLE CIRCUIT BREAKER.
 - ITEM INCLUDED FOR RELOCATION OF LOOPS FOR NORTHBOUND S.R. 73 FOR THE INTERSECTION WITH I-40 WESTBOUND RAMP DUE TO S.R. 73 PROPOSED WIDENING AND ADDITION OF TRAVEL LANE.
 - CONTROLLER TO BE EAGLE SIEMENS M 50, OR APPROVED EQUAL.
 - ITEM TO INCLUDE CABINET BASE AND EDI CONFLICT MONITORS.
 - TO BE INCLUDED IN THE S.R. 73 & I-40 EASTBOUND RAMP INTERSECTION CABINET FOR COMMUNICATIONS.
 - ITEM TO INCLUDE ADDITIONAL HEIGHT FOR LUMINAIRE MOUNTING AT 35'.
 - INCLUDES FIVE THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.
 - TO BE MOUNTED ON SIGNS NO. 1 & 26. ITEM INCLUDES ALL INCIDENTAL MATERIALS AND EQUIPMENT FOR A FULLY OPERATIONAL SOLAR POWERED FLASHING WARNING BEACON.
 - ITEM INCLUDES 2 CAMERAS, VIDEO PROCESSOR, APPROXIMATELY 200 FT OF CABLE PER MANUFACTURER, AND ALL APPURTENANCES FOR A COMPLETE SYSTEM.
 - ITEM TO BE USED AS NEEDED OR AS DIRECTED BY ENGINEER DURING TRAFFIC CONTROL PHASING.
 - TO BE SINGLE MODE, EXTERNAL FIBER-OPTIC MODEM COMPATIBLE WITH FIBER-OPTIC CABLE AND SIGNAL CONTROLLER CABINET.
 - INSTALLATION OF FIBER OPTIC CABLE TO INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS AS NECESSARY INCLUDING BUT NOT LIMITED TO POLE ATTACHMENTS MATERIALS AND HARDWARE, LASHING WIRING, ALUMINUM WRAPPING TAPE, TRACER WIRE, AND MARKER TAPE FOR UNDERGROUND RUNS, BONDING AND GROUNDING, CABLE PULLING LUBRICANT, JUMPERS, DISTRIBUTION BOXES, CONNECTORS, TESTING, ETC. FOR THE SUCCESSFUL INSTALLATION OF FIBER OPTIC CABLE AS INDICATED IN THE PLANS.
 - ITEM TO BE USED AS SEPARATION BUFFERS FOR THE STREAMS.
 - ITEM TO BE USED WITH EROSION CONTROL BLANKET.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	2

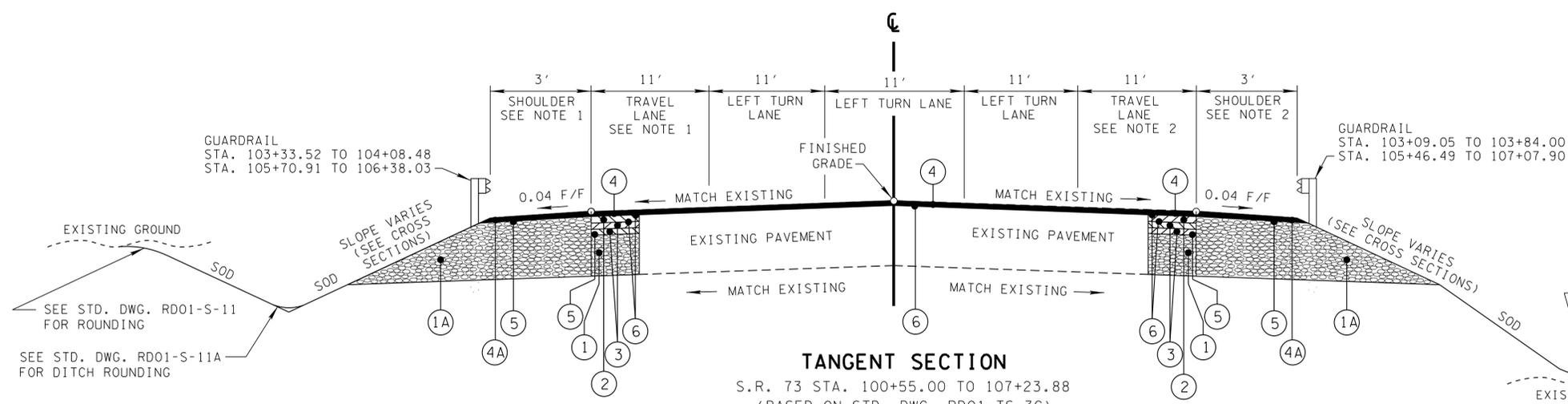
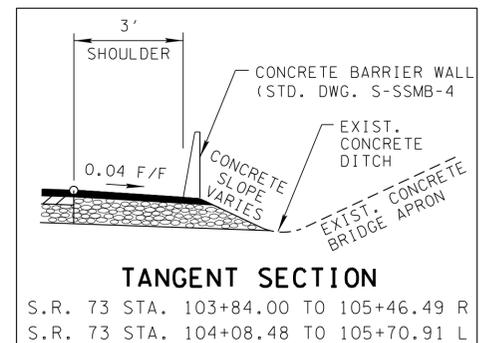
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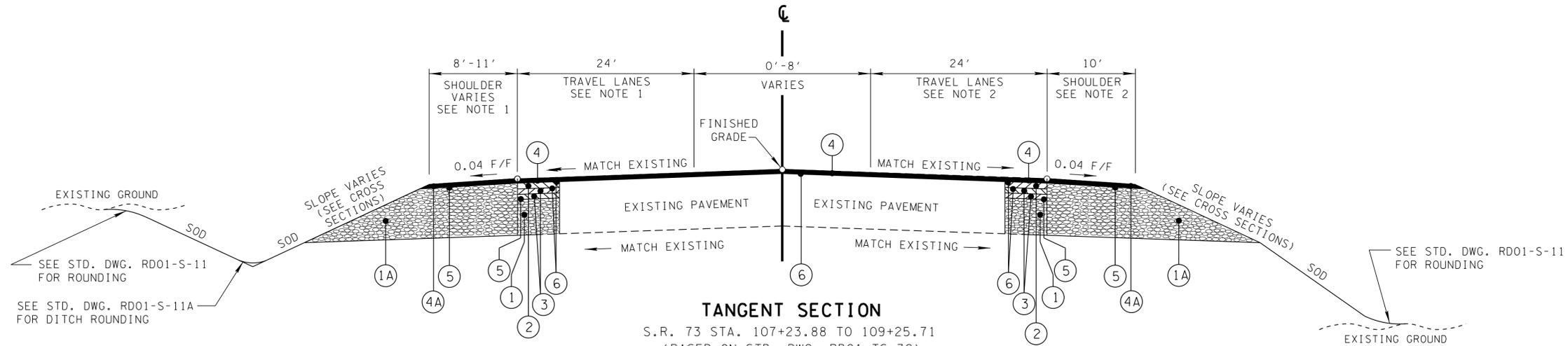
**ESTIMATED
ROADWAY
QUANTITIES**

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	2
CONST.	2014	PHSIP-73(61)	2A



NOTE 1: PROPOSED FULL DEPTH PAVEMENT BETWEEN STA. 102+79.48 AND 107+23.88 LT.
 NOTE 2: PROPOSED FULL DEPTH PAVEMENT BETWEEN STA. 103+00.84 AND 107+23.88 RT.
 NOTE 3: SEE SHEET 3A FOR LIMITS OF COLD PLANING



NOTE 1: PROPOSED FULL DEPTH PAVEMENT BETWEEN STA. 107+23.88 AND 108+43.73 LT.
 NOTE 2: PROPOSED FULL DEPTH PAVEMENT BETWEEN STA. 107+23.88 AND 108+17.11 RT.
 NOTE 3: SEE SHEET 3A FOR LIMITS OF COLD PLANING

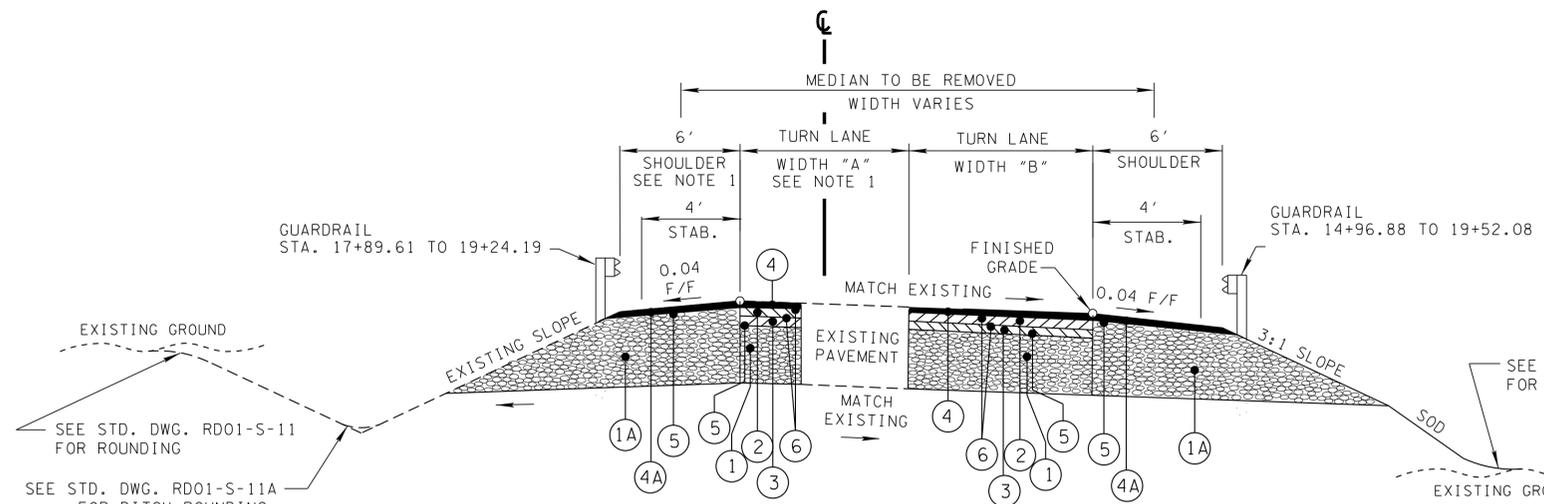
PROPOSED PAVEMENT SCHEDULE	
① MINERAL AGGREGATE BASE ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D ROADWAY @ 10.00" THICK	④ BITUMINOUS SURFACE @ 1.25" THICK (APPROX. 132.5 LBS./S.Y.) ITEM NO. 411-02.10 ACS MIX (PG70-22) GRADING D
①A MINERAL AGGREGATE BASE ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D ROADWAY @ 17.75" THICK	④A BITUMINOUS SURFACE @ 1.50" THICK (APPROX. 154.5 LBS./S.Y.) ITEM NO. 411-01.07 ACS MIX (PG64-22) GRADING D
② BITUMINOUS BINDER @ 2.00" THICK (APPROX. 226 LBS./S.Y.) ITEM NO. 307-02.08 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	⑤ PRIME COAT ITEM NO. 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) @ 0.30 - 0.35 GAL./S.Y. ITEM NO. 402-02 AGGREGATE FOR COVER MATERIAL (PC) @ 8 - 12 LBS./S.Y.
③ BITUMINOUS BINDER @ 6.00" THICK (APPROX. 690 LBS./S.Y.) ITEM NO. 307-02.01 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A TO BE PLACED IN TWO EQUAL LIFTS	⑥ TACK COAT ITEM NO. 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	2A
CONST.	2014	PHSIP-73(61)	2B



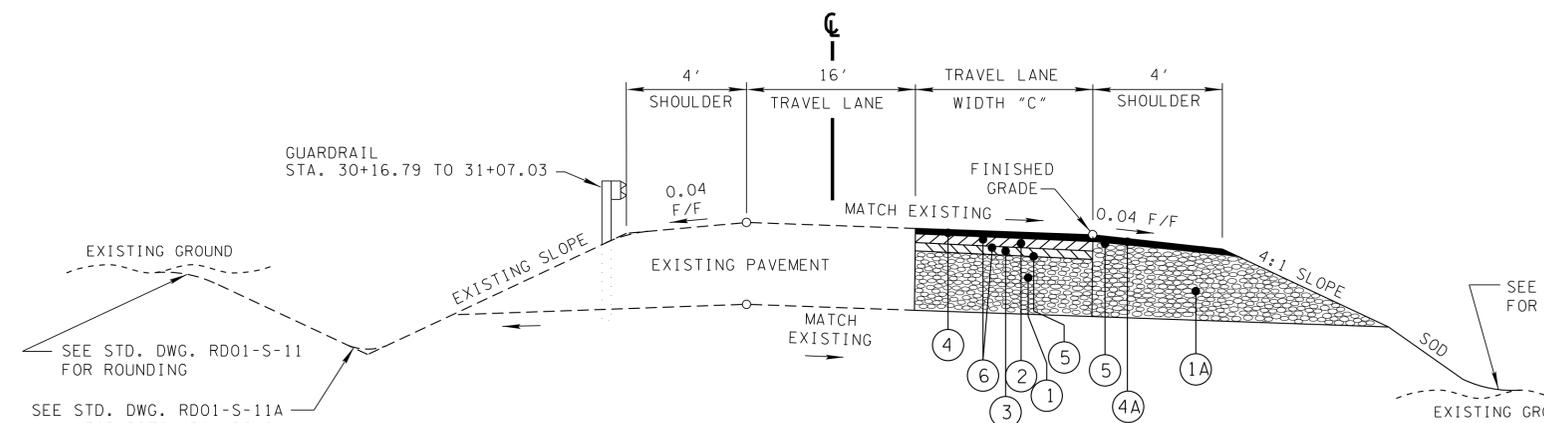
TURN LANE WIDTH "A"	
STATION	WIDTH
14+79.47 TO 19+05.45	15'
19+05.45 TO 19+48.68	15' TO 40'

TURN LANE WIDTH "B"	
STATION	WIDTH
14+79.47 TO 17+11.78	0' TO 15'
17+11.78 TO 18+94.36	15'
18+94.36 TO 19+48.68	15' TO 40'

TANGENT SECTION

I-40 EASTBOUND OFF RAMP STA. 14+79.47 TO 19+80.88
(BASED ON STD. DWG. RD01-TS-4)

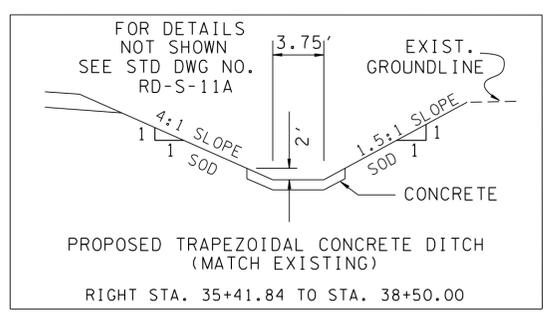
NOTE 1: PROPOSED FULL DEPTH PAVEMENT BETWEEN STA. 17+71.01 AND 19+35.45 LT.



TURN LANE WIDTH "C"	
STATION	WIDTH
31+35.40 TO 33+48.92	16'
33+48.92 TO 38+96.40	16'-0'

TANGENT SECTION

I-40 EASTBOUND ON RAMP STA. 31+35.40 TO 38+96.40
(BASED ON STD. DWG. RD01-TS-4)



PROPOSED PAVEMENT SCHEDULE	
① MINERAL AGGREGATE BASE ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D ROADWAY @ 10.00" THICK	④ BITUMINOUS SURFACE @ 1.25" THICK (APPROX. 132.5 LBS./S.Y.) ITEM NO. 411-02.10 ACS MIX (PG70-22) GRADING D
①A MINERAL AGGREGATE BASE ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D ROADWAY @ 15.75" THICK	④A BITUMINOUS SURFACE @ 1.50" THICK (APPROX. 154.5 LBS./S.Y.) ITEM NO. 411-01.07 ACS MIX (PG64-22) GRADING D
② BITUMINOUS BINDER @ 2.00" THICK (APPROX. 226 LBS./S.Y.) ITEM NO. 307-02.08 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	⑤ PRIME COAT ITEM NO. 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) @ 0.30 - 0.35 GAL./S.Y. ITEM NO. 402-02 AGGREGATE FOR COVER MATERIAL (PC) @ 8 - 12 LBS./S.Y.
③ BITUMINOUS BINDER @ 4.00" THICK (APPROX. 460 LBS./S.Y.) ITEM NO. 307-02.01 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	⑥ TACK COAT ITEM NO. 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TYPICAL
SECTIONS
AND
PAVEMENT
SCHEDULE**

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GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE OR CITY-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATER COURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREAS THAT ARE TO BE ABANDONED SHALL BE SCARIFIED, OBLITERATED, TOPSOILED AND SEEDED. SCARIFYING AND OBLITERATING THE PAVEMENT WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS. TOPSOIL, IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEMS 203-04 AND/OR 203-07. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM 801-01.
- SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.
- ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

GUARDRAIL

- THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.
- GUARDRAIL IS TO BE COMPLETE IN PLACE BEFORE THE MAINLINE ROADWAY IS OPENED TO TRAFFIC.

DRAINAGE

- THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- EXCAVATION FOR PIPE CULVERTS, STORM SEWER, AND CONDUITS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE.

- CULVERT EXCAVATION FOR CONCRETE BOX OR SLAB TYPE CULVERTS OR BRIDGES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- THE CUTTING OF INLET AND OULET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
- WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.
- DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

UTILITIES

- THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
- UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

MISCELLANEOUS

- NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

RIGHT - OF - WAY

- ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

- TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

FINAL PAVEMENT MARKING IF 4" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.01, ENHANCED FLATLINE THERMOPLASTIC MARKING (4" LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

FINAL PAVEMENT MARKING IF 6" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMOPLASTIC MARKING (6" LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

- THE PAVEMENT MARKING ON THE LANE SHIFT FOR LANE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, LIN. MI.
- BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM 712-09.01 REMOVABLE PAVEMENT MARKING LINE, LIN. FT. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL LUMP SUM.
- BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

TYPE	YEAR	PROJECT NO.	SHEET NO.
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**GENERAL NOTES
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GENERAL NOTES (CONT.)

PAVING

- (30) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (31) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A PARRALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

RESURFACING

- (32) WHERE DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (33) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE ENGINEER.

SIGNING

- (34) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM CROSS-SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, TELEPHONE NO. (615)-741-0982. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.
- (35) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (36) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.
- (37) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J.K. POLK BUILDING, NASHVILLE, TN. 37243-1420.
- (38) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- (39) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (40) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.
- (41) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

- (42) ON ALL ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL UTILIZE ALL EXISTING DIRECTIONAL SIGNING FOR AS LONG AS POSSIBLE. THESE EXISTING SIGNS CAN BE MOVED USING TEMPORARY SUPPORTS AS NEEDED. AS SOON AS THESE EXISTING DIRECTIONAL SIGNS COME DOWN PERMANENTLY, THE CONTRACTOR SHALL HAVE UP AT LEAST ONE NEW TEMPORARY "ADVANCE GUIDE SIGN" AND ONE NEW TEMPORARY "EXIT DIRECTIONAL SIGN" AT ALL EXIT RAMPS. THESE SIGNS ARE TO BE MAINTAINED WITHIN CLEAR VIEW OF THE PUBLIC ON THE RIGHT SIDE OF THE HIGHWAY AND SHALL BE REPLACED IF DAMAGED, DURING ALL PHASES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

SIGNALIZATION

- (43) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.
- (44) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER FOR PICKUP BY THE CITY.
- (45) IF RESURFACING IS INCLUDED IN THE PROJECT, SIGNAL DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.
- (46) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (47) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.
- (48) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTION WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.
- (49) THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR SUPPLYING THE CONTRACTOR WITH AS BUILT SIGNAL PLANS AT THE PRE-CONSTRUCTION CONFERENCE. THESE PLANS WILL PROVIDE THE CONTRACTOR WITH THE DESIRED LOCATION FOR THE DETECTOR LOOP REPLACEMENT.
- (50) LOOPS SHALL BE INSTALLED IN THE LEVELING COURSE IF A LEVELING COURSE IS PROVIDED.
- (51) LOOP REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.
- (52) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED AND TRAFFIC SIGNAL STRUCTUES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL NOTES

- (53) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (54) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (55) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (56) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (57) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

- (58) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (59) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (60) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

LIGHTING

- (61) INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED MARCH 1, 2006 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.
- (62) THE GROUND WIRE SHALL BE RUN INSIDE CONDUIT WITHIN STRUCTURES. SHALL BE COLORED GREEN AND HAVE THW INSULATION.
- (63) ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.
- (64) BRACKET ARMS SHALL BE ROUND TAPERED TRUSS TYPE WITH STRAP MOUNTING AND LENGTHS AS SCHEDULED.
- (65) BRACKET ARM UPSWEEP SHALL BE THE SAME FOR ALL LIGHT STANDARDS OF THE SAME TYPE.

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GENERAL NOTES (CONT.)

EROSION PREVENTION AND SEDIMENT CONTROL DISTURBED AREA

- (66) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (67) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.
- (68) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (69) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (70) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL AND MINIMIZE SOIL COMPACTION.
- (71) NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

SEDIMENT CONTROL

- (72) EPSC MEASURES SHALL BE INSTALLED CONCURRENTLY WITH CLEARING OPERATIONS, SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (73) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (74) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (75) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.

- (76) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURE THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.
- (77) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- (78) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (79) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

- (80) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PREVENT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (81) THE NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL
- (82) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMIT SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.
- (83) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S. INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.
- (84) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSING MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST BE USED AT THE POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.
- (85) HEAVY EQUIPMENT WORKING IN WETLANDS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT MUST BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED.
- (86) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

SPECIES

- (87) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

INSPECTION, MAINTENANCE, REPAIR

- (88) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (89) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- (90) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.
- (91) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.
- (92) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/ QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- (93) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- (94) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (100) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

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GENERAL NOTES (CONT.)

EROSION PREVENTION AND SEDIMENT CONTROL INSPECTION, MAINTENANCE, REPAIR (CONT.)

- (101) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

MATERIALS

- (102) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

SWPPP, PERMITS, PLANS, RECORDS

- (103) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.
- (104) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (105) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.
- (106) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTING SHALL BE MAINTAINED IN LEGIBLE CONDITION.
- (107) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (108) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTION INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE

ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

- (109) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.
- (110) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL I - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE OR EQUIVALENT COURSE. A COPY OF CERTIFICATION RECORDS FOR THIS COURSE SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

- (111) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (112) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES
AND
SPECIAL NOTES**

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	2G

SPECIAL NOTES

TRAFFIC SIGNAL

- (1) ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
- (2) LOCATIONS OF SIGNAL POLES ARE APPROXIMATE AND CAN BE ADJUSTED UP TO 2 FT. IN THE FIELD TO AVOID UTILITY CONFLICT. THE MAST ARM LENGTH SHOULD BE VERIFIED BASED ON THE FIELD LOCATION OF THE SIGNAL POLES.
- (3) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

CIRCULAR INDICATIONS SHALL MEET "ITE VTC SH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW. ARROW INDICATIONS SHALL MEET "ITE VTC SH-LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW. INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE. COMPATABILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

MANUFACTURER SHALL PROVIDE A MINIMUM FIVE-YEAR WARRANTY FOR OPERATION OF THE LED UNIT.

- (4) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE *AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS*, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.
- (5) SIGNAL HEADS SHALL INCLUDE LOWERED BACKPLATES WITH A 1" MINIMUM YELLOW RETRO REFLECTIVE BORDER AROUND THE PERIMETER OF THE FACE OF THE BACKPLATE. THE RETRO REFLECTIVE BORDER TO BE MADE OF A TYPE III PRISMATIC OR BETTER MATERIAL.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

- (6) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 8A, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AND
SPECIAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	3
CONST.	2014	PHSIP-73(61)	3

UTILITY OWNERS LIST

WATER & SEWER:
LENOIR CITY UTILITY BOARD
200 DEPOT ST.
LENOIR CITY, TN 37771
CONTACT: MR. LEON SHIELDS 865-740-9104
EMAIL: LSHIELDS@LCUB.COM

GAS:
LENOIR CITY UTILITY BOARD
200 DEPOT ST.
LENOIR CITY, TN 37771
CONTACT: SUPERINTENDENT, MR. MIKE STRANGE 865-986-6591 X-1708

POWER:
LENOIR CITY UTILITY BOARD
200 DEPOT ST.
LENOIR CITY, TN 37771
CONTACT: SUPERINTENDENT, MR. MIKE HALL 865-986-6591 X-1722

TELEPHONE/FIBER OPTICS:
AT&T
1413 HWY. 139
DANDRIDGE, TN 37725
CONTACT: MR. WAYNE BROWNING 865-755-4872

NOTE:
CONTRACTOR TO CONTACT LEON SHIELDS AT 865-740-9104 BEFORE CONSTRUCTION COMMENCES.

CURVE SR73-1
PI 101+39.53
N 565,749.7871
E 2,465,171.0966
Δ 5° 09' 01" (RT)
D 2' 00' 00"
R 2,864.79
L 257.51
T 128.84
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

LOVES TRAVEL STOPS & COUNTRY STORES, INC.
C/O BURKE & ASSOCIATES, LLC

(9155 HWY 321 N
LENOIR CITY, TN 37771)
3336 E 32ND ST., SUITE 217
TULSA, OK 74135

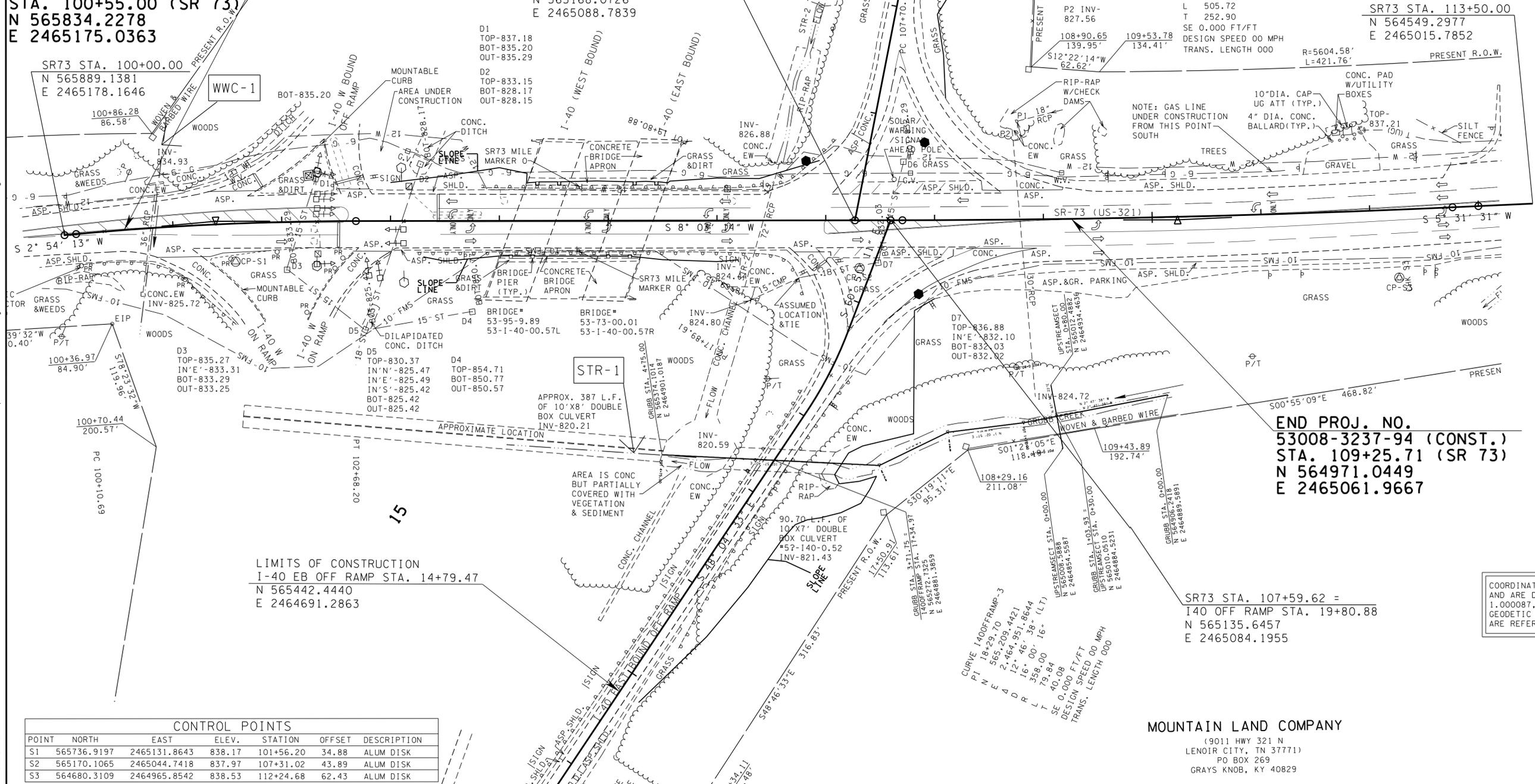
CURVE SR73-2
PI 110+23.36
N 564,874.5013
E 2,465,047.2436
Δ 2° 31' 43" (LT)
D 0° 30' 00"
R 11,459.16
L 505.72
T 252.90
SE 0.000 FT/FT
DESIGN SPEED 00 MPH
TRANS. LENGTH 000

BEGIN PROJ. NO. 53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 107+26.87 =
140 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852

SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646



END PROJ. NO. 53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET	DESCRIPTION
S1	565736.9197	2465131.8643	838.17	101+56.20	34.88	ALUM DISK
S2	565170.1065	2465044.7418	837.97	107+31.02	43.89	ALUM DISK
S3	564680.3109	2464965.8542	838.53	112+24.68	62.43	ALUM DISK

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COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.000087, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

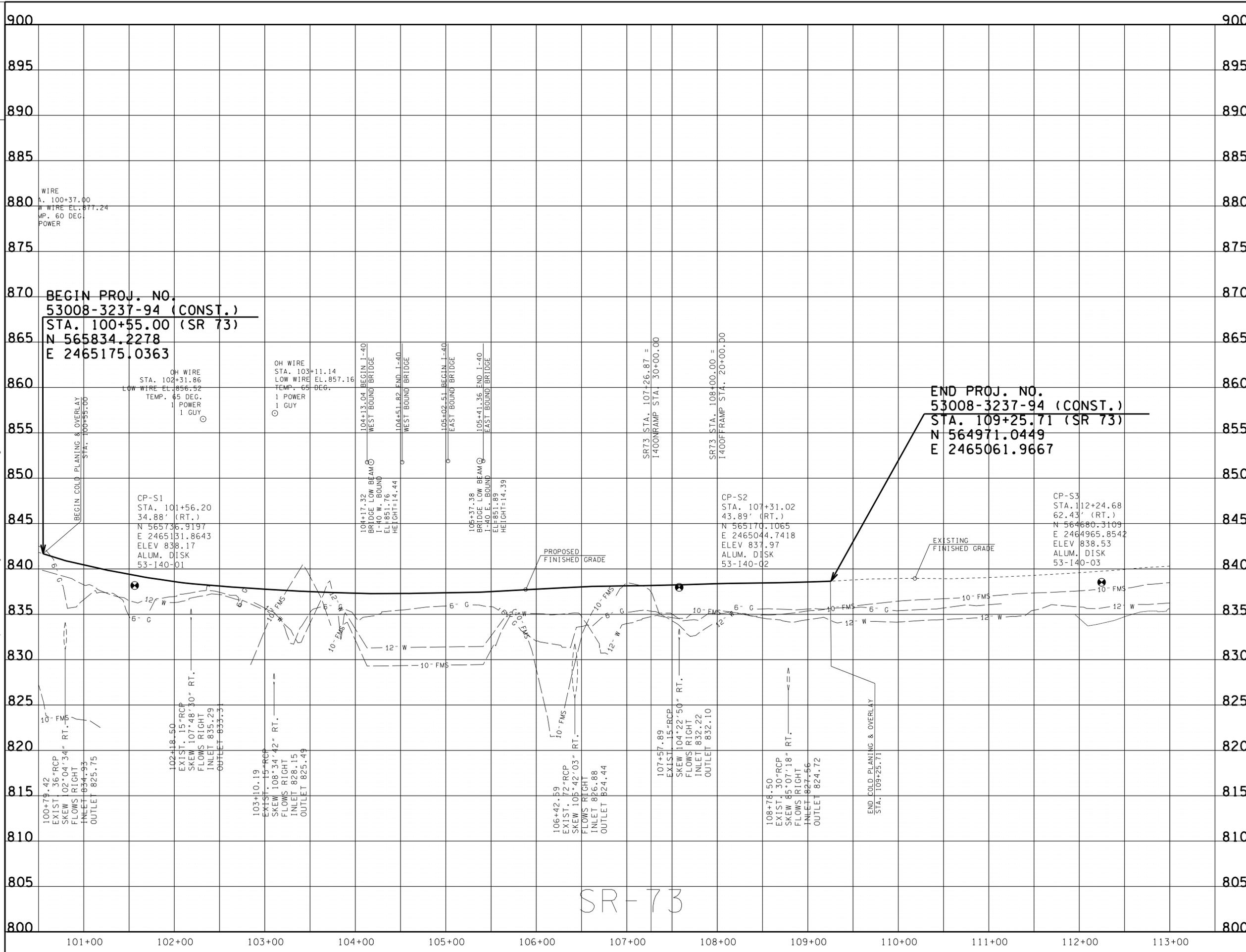
PRESENT LAYOUT

S.R. 73 AND I-40 EB RAMP

SCALE: 1"=50'

MOUNTAIN LAND COMPANY
(9011 HWY 321 N
LENOIR CITY, TN 37771)
PO BOX 269
GRAYS KNOB, KY 40829

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	3B
CONST.	2014	PHSIP-73(61)	3B

NO EXCLUSIONS

NO EQUATIONS

UNOFFICIAL

SET

NOT FOR

BIDDING

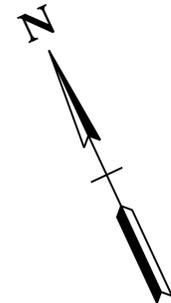
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

S.R. 73 AND I-40 EB RAMP
SCALE: 1"=50' HORIZ.
1"= 5' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	4
CONST.	2014	PHSIP-73(61)	4



LIMITS OF CONSTRUCTION
 I-40 EB OFF RAMP STA. 14+79.47
 N 565442.4440
 E 2464691.2863

ST BOUND)
 ALT

GRASS&WEEDS

WOVEN & BARBED WIRE

PRESENT R.O.W.

I40 OFF RAMP STA. 7+00.00
 N 565900.2907
 E 246062.2363

12+95.64
 154.71'

S63°30'13"E
 140.91'

14+34.11
 117.48'

S48°46'33"E
 316.83'

PRESENT R.O.W.
 17+50.91
 113.61'

UPSTREAMSECT STA. 0+00.00
 N 565008.5888
 E 2464854.5587

GRUBB STA. 1+03.92 =
 UPSTREAMSECT STA. 0+30.00
 N 565010.0510
 E 2464884.5231

GRUBB STA. 0+00.00
 N 564906.2418
 E 2464889.5891

SR73 STA. 107+59.62 =
 I40 OFF RAMP STA. 19+80.88
 N 565135.6457
 E 2465084.1955

MOUNTAIN LAND COMPANY
 LEAD R.C.T.Y. T89
 PO BOX 269
 GRAYS BAR, KY 40829

NOTE:
 CONTRACTOR TO CONTACT LEON SHIELDS AT 865-740-9104
 BEFORE CONSTRUCTION COMMENCES.

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 BIDDING**

COORDINATE VALUES ARE NAD/83
 (1995), AND ARE DATUM ADJUSTED BY
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

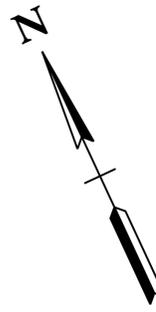
**PRESENT
 LAYOUT**

I-40 EB OFF RAMP

SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	4A
CONST.	2014	PHSIP-73(61)	4A



LIMITS OF CONSTRUCTION
 I-40 EB OFF RAMP STA. 14+79.47
 N 565442.4440
 E 2464691.2863

I40 OFF RAMP STA. 7+00.00
 N 565900.2907
 E 246062.2363

ST BOUND)
 ALT

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-  FULL DEPTH PAVEMENT
-  AREA TO BE SCARIFIED AND SODDED.

NOTES:

1. EXISTING CATCHBASIN AT STA. 19+40.32 TO BE CAPPED AT FINISHED GRADE OF PROPOSED ROADWAY.
2. SEE SHEETS 3A AND 5A FOR S.R. 73 AND I-40 EASTBOUND ON RAMP PROPOSED LAYOUTS.
3. CONTRACTOR TO USE ALL MEANS NECESSARY TO ENSURE THAT STREAM STR-2 IS NOT IMPACTED DURING CONSTRUCTION.
4. CONTRACTOR TO CONTACT LEON SHIELDS WITH LCUB AT 865-740-9104 BEFORE CONSTRUCTION COMMENCES.

BEGIN GUARDRAIL WITH TYPE 12 BURIED IN BACKSLOPE GUARDRAIL TERMINAL (SEE STD DWG S-GRT-1)
 STA. 14+96.88
 OFF. 20.28' RT.

BEGIN COLD PLANING & OVERLAY (I-40 EB OFF-RAMP) STA. 14+79.47
 BEGIN TAPER (I-40 EB OFF-RAMP) STA. 14+79.47
 OFF. 7.95' RT.

IN.EL. 821.54
 STA. 17+67.02
 OFF. 53.31' RT.
 (I-40 OFF-RAMP)
 (STD. DWG. STD-17-10 AND STD-17-13)

GT.EL. MATCH ROADWAY ELEV.
 IN.EL. 832.10 (EXIST.)
 OUT EL. 832.02 (EXIST.)
 STA. 19+40.32
 OFF 3.28' RT.
 (I-40 OFF-RAMP)
 (SEE NOTE 1)

GT.EL. 837.71
 IN.EL. 832.14
 OUT EL. 832.14
 STA. 19+52.49
 OFF 1.84' RT.
 (I-40 OFF-RAMP)

EXISTING 90.70 L.L.F. OF 10'X7' DOUBLE BOX CULVERT #52-140-0.52 INV-821.43

END TAPER (I-40 EB OFF-RAMP) STA. 17+11.78
 OFF. 22.45' RT.

STA. 18+94.36
 OFF. 22.50' RT.
 (I-40 EB OFF-RAMP)

END GUARDRAIL WITH TYPE 38 END TREATMENT (SEE STD DWG S-GRT-2)
 STA. 19+52.08
 OFF. 70.64' RT.

SR73 STA. 107+59.62 =
 I40 OFF RAMP STA. 19+80.88
 N 565135.6457
 E 2465084.1955

**UNOFFICIAL SET
 NOT FOR BIDDING**

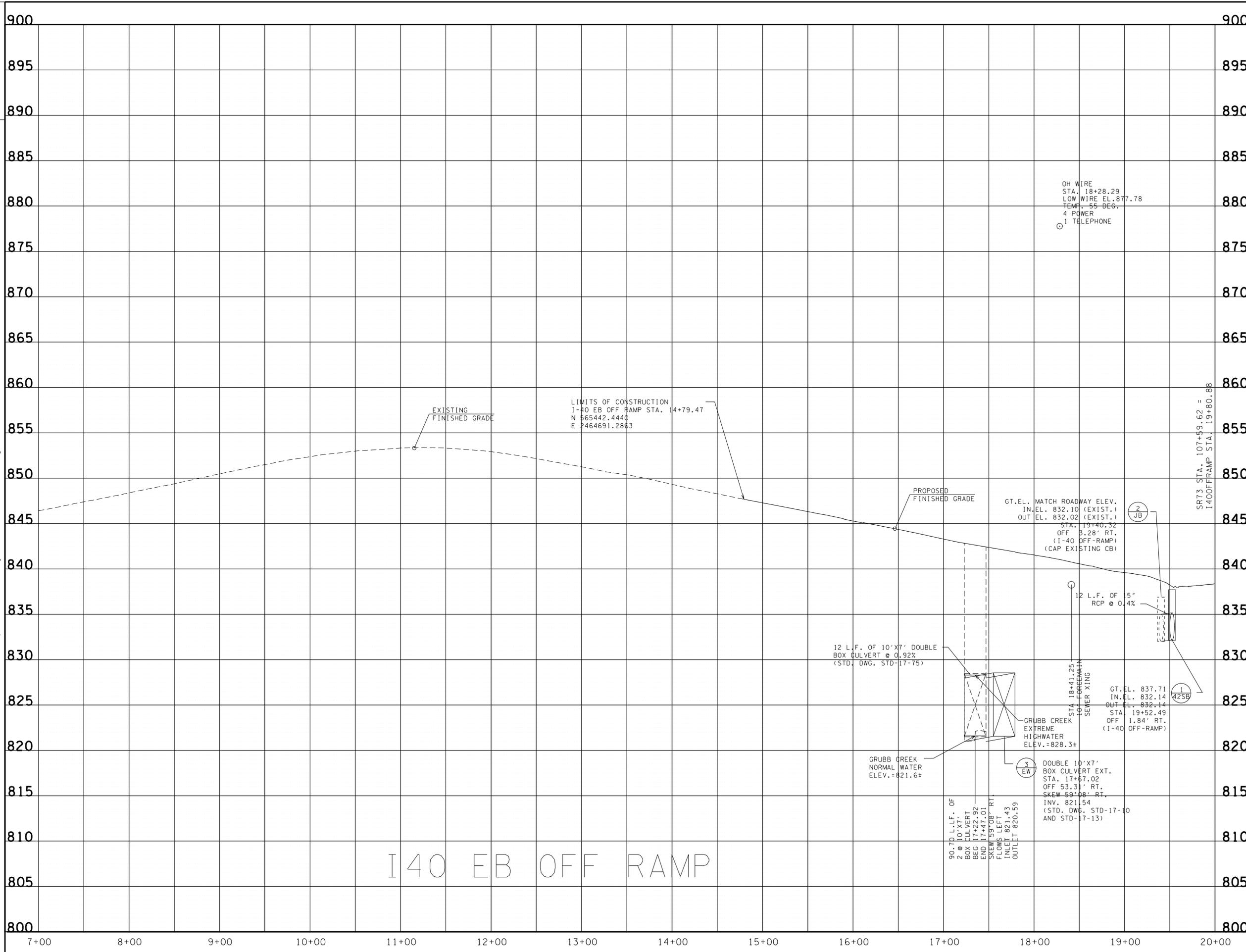
COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.000087, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO NAVD 1988.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

I-40 EB OFF RAMP

SCALE: 1"=50'



TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	4B
CONST.	2014	PHSIP-73(61)	4B

NO EXCLUSIONS
NO EQUATIONS

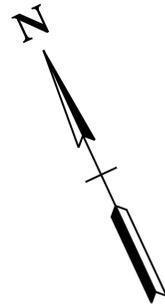
UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

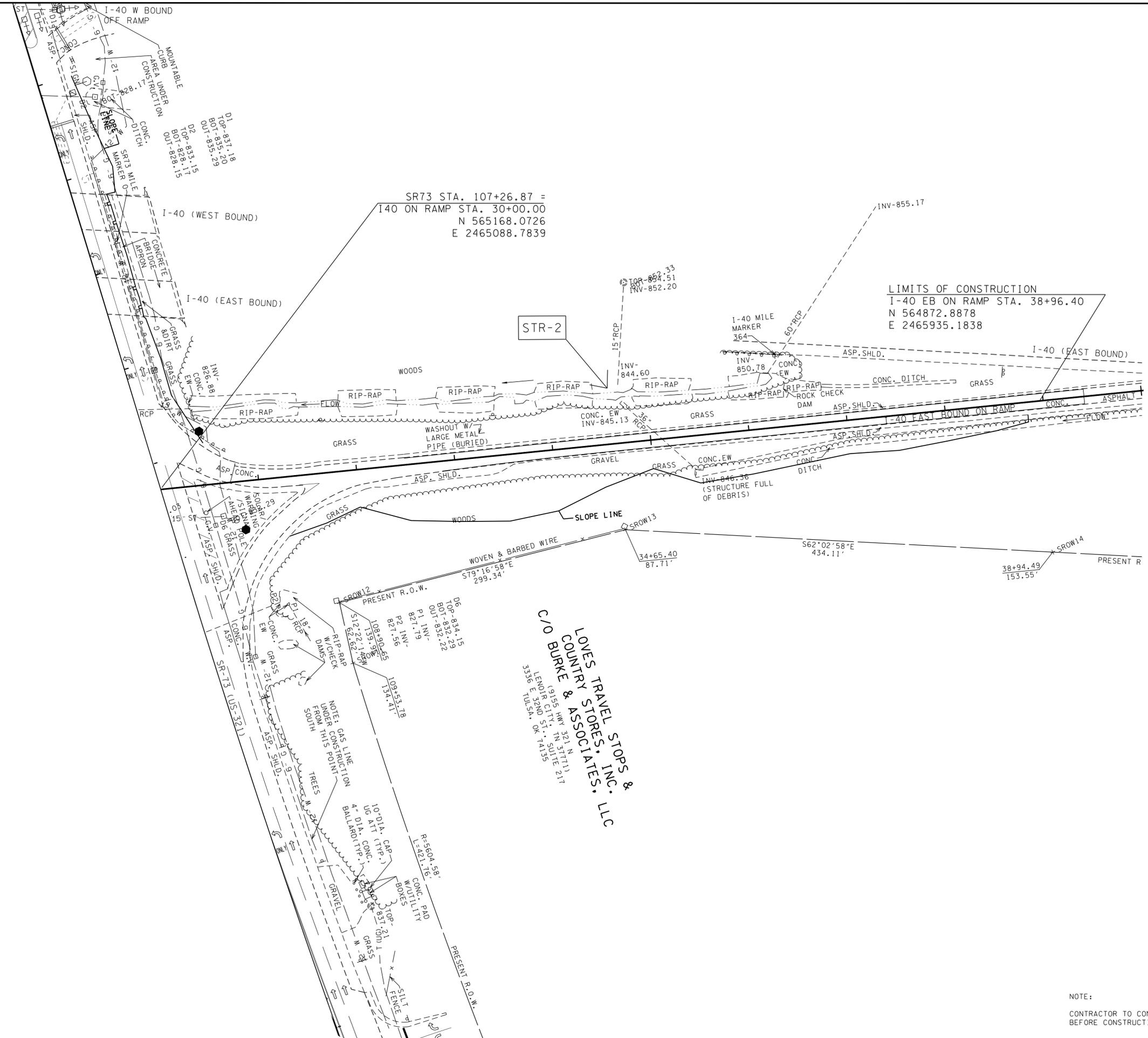
PROFILE

I-40 EB OFF RAMP
SCALE: 1"=50' HORIZ.
1"= 5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	5
CONST.	2014	PHSIP-73(61)	5



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SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

LIMITS OF CONSTRUCTION
I-40 EB ON RAMP STA. 38+96.40
N 564872.8878
E 2465935.1838

C/O BURKE & ASSOCIATES, INC. LLC
LOVELY TRAVEL STOPS &
COUNTRY STORES, INC. LLC
1915 HWY 321 N
LENDOR CITY, TN 37171
3336 E. JULISA, OK 74135

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

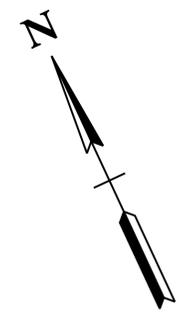
**PRESENT
LAYOUT**

I-40 EB ON RAMP

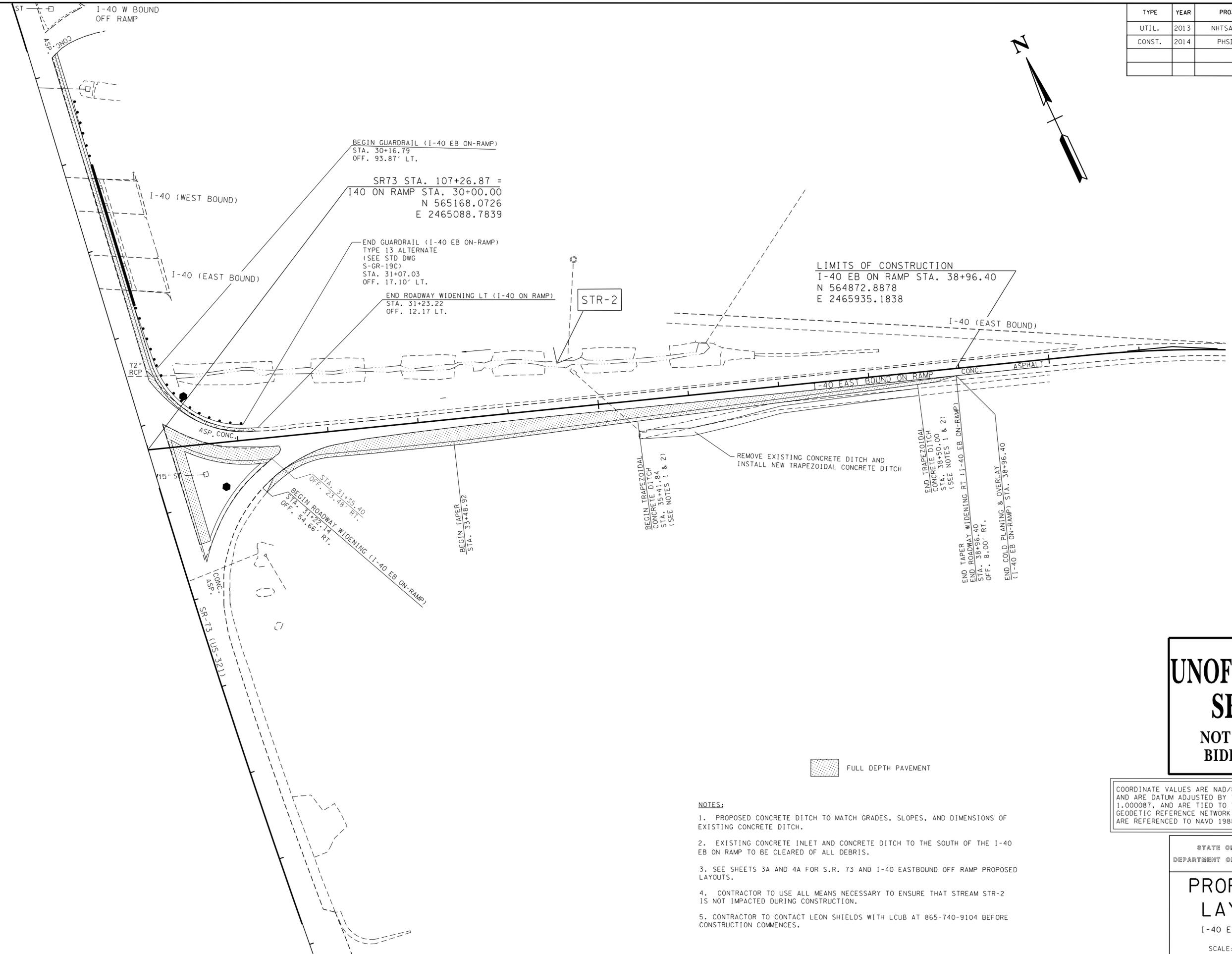
SCALE: 1"=50'

NOTE:
CONTRACTOR TO CONTACT LEON SHIELDS AT 865-740-9104 BEFORE CONSTRUCTION COMMENCES.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	5A
CONST.	2014	PHSIP-73(61)	5A



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LIMITS OF CONSTRUCTION
I-40 EB ON RAMP STA. 38+96.40
N 564872.8878
E 2465935.1838

FULL DEPTH PAVEMENT

- NOTES:**
1. PROPOSED CONCRETE DITCH TO MATCH GRADES, SLOPES, AND DIMENSIONS OF EXISTING CONCRETE DITCH.
 2. EXISTING CONCRETE INLET AND CONCRETE DITCH TO THE SOUTH OF THE I-40 EB ON RAMP TO BE CLEARED OF ALL DEBRIS.
 3. SEE SHEETS 3A AND 4A FOR S.R. 73 AND I-40 EASTBOUND OFF RAMP PROPOSED LAYOUTS.
 4. CONTRACTOR TO USE ALL MEANS NECESSARY TO ENSURE THAT STREAM STR-2 IS NOT IMPACTED DURING CONSTRUCTION.
 5. CONTRACTOR TO CONTACT LEON SHIELDS WITH LCUB AT 865-740-9104 BEFORE CONSTRUCTION COMMENCES.

COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.000087, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO NAVD 1988.

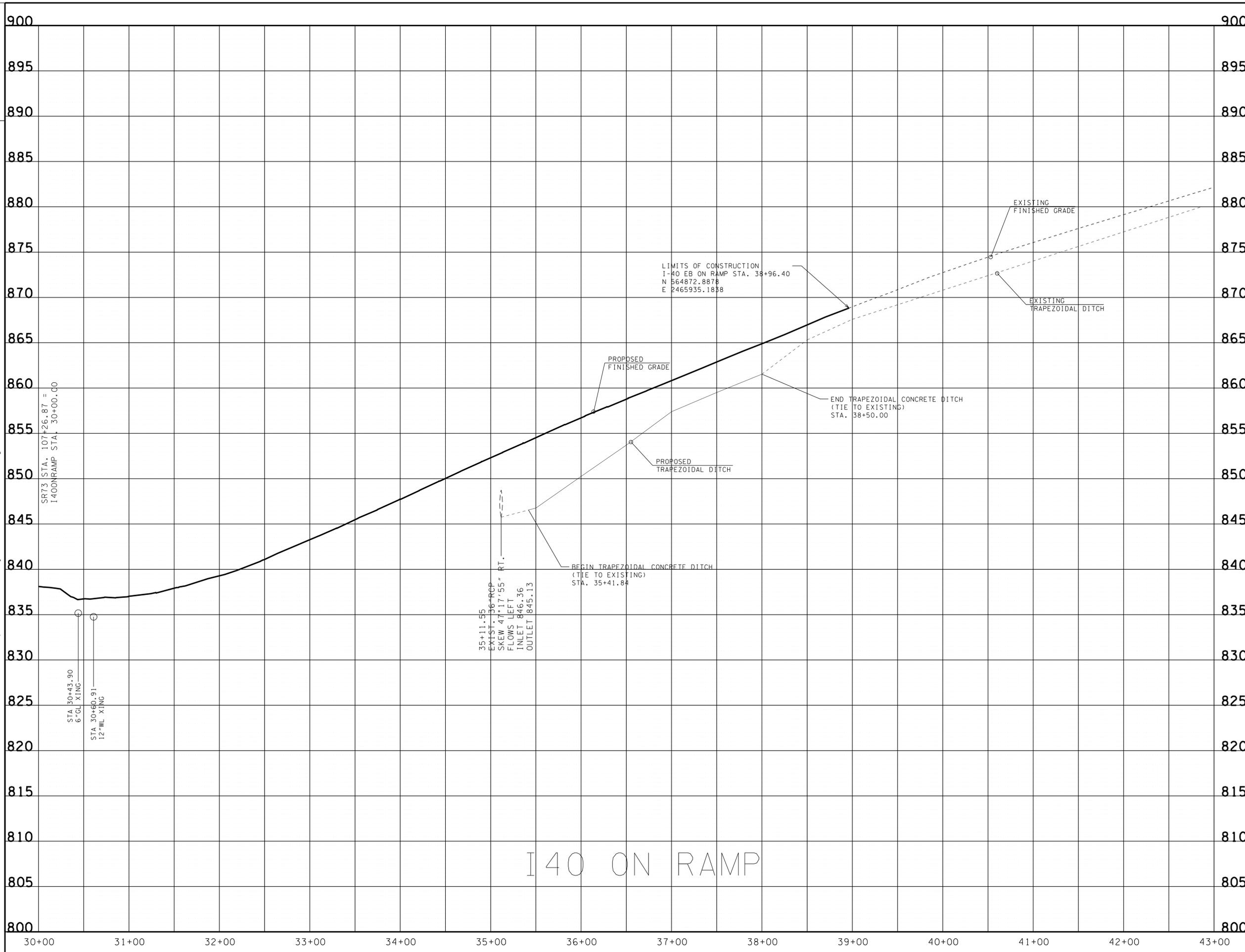
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NOT FOR
BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED
LAYOUT**

I-40 EB ON RAMP

SCALE: 1"=50'



TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	5B
CONST.	2014	PHSIP-73(61)	5B

NO EXCLUSIONS
NO EQUATIONS

**UNOFFICIAL
SET
NOT FOR
BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
PROFILE
I-40 EB ON RAMP
SCALE: 1"=50' HORIZ.
1"= 5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	6

DRAINAGE DATA FOR PIPE STATION 103+10.19
 DIRECTION OF FLOW RIGHT
 DRAINAGE AREA 2.3±AC. FLAT, ROLLING, (HILLY) MTNS.
 PRESENT STRUCTURE: 15"RCP
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 REMARKS: _____

DRAINAGE DATA FOR PIPE STATION 106+42.59
 DIRECTION OF FLOW RIGHT
 DRAINAGE AREA 161.0±AC. FLAT, ROLLING, (HILLY) MTNS.
 PRESENT STRUCTURE: 12"RCP
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 REMARKS: _____

DRAINAGE DATA FOR PIPE STATION 35+11.55
 DIRECTION OF FLOW LEFT
 DRAINAGE AREA 55.4±AC. FLAT, ROLLING, (HILLY) MTNS.
 PRESENT STRUCTURE: 36"RCP
 EXISTING STRUCTURE CONDITION: SEMI-FUNCTIONAL
 REMARKS: FULL OF SEDIMENT, LEAVES, & DEBRIS

DRAINAGE DATA FOR PIPE STATION 102+18.50
 DIRECTION OF FLOW RIGHT
 DRAINAGE AREA 0.1±AC. (FLAT) ROLLING, HILLY, MTNS.
 PRESENT STRUCTURE: 15"RCP
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 REMARKS: _____

DRAINAGE DATA FOR PIPE STATION 107+57.89
 DIRECTION OF FLOW RIGHT
 DRAINAGE AREA 0.2±AC. FLAT, (ROLLING) HILLY, MTNS.
 PRESENT STRUCTURE: 15"RCP
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 REMARKS: _____

DRAINAGE DATA FOR PIPE STATION 100+79.42
 DIRECTION OF FLOW RIGHT
 DRAINAGE AREA 30.8±AC. FLAT, ROLLING, (HILLY) MTNS.
 PRESENT STRUCTURE: 36"RCP
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 REMARKS: _____

END PROJ. NO. 51008-3237-94 (CONST.) STA. 109+25.71 (SR 73)
 N 564971.0449
 E 2465061.9667

LIMITS OF CONSTRUCTION
 I-40 EB OFF RAMP STA. 14+79.47
 N 565442.4440
 E 2464691.2863

DRAINAGE/ HYDRAULIC DATA FOR BRIDGE STATION 17+34.97 STREAM NAME GRUBB CREEK
 STREAM BED LINING: GRAVEL
 DIRECTION OF FLOW LEFT
 DRAINAGE AREA 1231±AC. () FLAT () ROLLING (X) HILLY () MTNS.
 PRESENT STRUCTURE: SPAN 30.7' HEIGHT 7' STRUCTURE 2 @ 10'X7' SUPERSTRUCTURE CONC. BOX CULVERT
 BEGIN STATION-OFFSET 17+22.92 END STATION-OFFSET 17+47.01
 LOW BEAM ELEV. N/A LOCATION, N/A
 INLET INVERT ELEV. 821.49 OUTLET INVERT. 820.59
 NORMAL WATER ELEV. 821.6± EXTREME HIGHWATER ELEV. 828.3± DATE, UNKNOWN
 HOW OBTAINED: RANDOM TRASH IN WOODS
 BACKWATER FROM WHAT STREAM (IF APPLICABLE): N/A
 EXISTING STRUCTURE CONDITION: FUNCTIONAL
 SEE STREAM CROSS-SECTIONS FOR VEGETATIVE COVER, SEE PRESENT LAYOUT (LEVEL 40) FOR STREAM ALIGNMENT AND CROSS-SECTION LOCATIONS.
 SEE CENTERLINE PROFILE OR FIELD BOOK FOR EXISTING BRIDGE OPENING SKETCHES.
 REMARKS: BANKS ARE SUBJECT TO SCOUR

UNOFFICIAL SET NOT FOR BIDDING

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

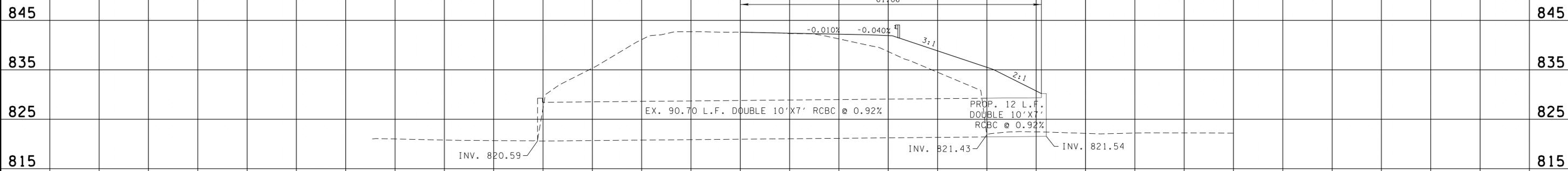
DRAINAGE MAP

S.R. 73 AND I-40 EB RAMPS
 SCALE: 1"=100'

4/30/2014 8:22:28 AM \\FILESERVER\file_server\PROJECTS\2013\13-0302 (SR-73 IS at I-40 Exit 364 EB Ramps - Loudon County - TD00 TE Services)\Design\Construction\18458-00-info\006 drainage map.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	6
CONST.	2014	PHSIP-73(61)	7

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CULVERT EXTENSION STA. 17+67.02 RT (I-40 EB OFF RAMP)

STATION	17+67.02 RT
STRUCTURE	DOUBLE 10'X7' RCBC
SKEW	59°08'
INLET ELEVATION	821.54
STANDARD DRAWING NUMBERS	STD-17-75, STD-17-10, STD-17-13
D.A.	1.231 AC.
O50	656.52 CFS
V50	19.09 CFS/FT
W.S. ELEV. (50)	824.98 FT

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NOT FOR
BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
**CULVERT
CROSS-
SECTIONS**
SCALE: 1"=10' HORIZ.
1"=10' VERT.

120 100 80 60 40 20 0 20 40 60 80 100 120

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-03.22	FILTER SOCK (18 INCH)	L.F.	5000
209-05	SEDIMENT REMOVAL	C.Y.	500
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	500
209-08.07	ROCK CHECK DAM	EACH	35
209-08.08	ENHANCED ROCK CHECK DAM	EACH	2
209-09.01	SANDBAGS	EACH	100
209-09.04	SEDIMENT FILTER BAG (15'X10')	EACH	2
209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	10
209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	6
209-65.04	TEMPORARY IN STREAM DIVERSION	L.F.	300
303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	200
621-03.03	24" TEMPORARY DRAINAGE PIPE	L.F.	325
709-05.06	MACHINED RIPRAP (CLASS A-1)	TON	2500
709-05.05	MACHINED RIPRAP (CLASS A-3)	TON	50
709-05.08	MACHINED RIPRAP (CLASS B)	TON	25
709-05.09	MACHINED RIPRAP (CLASS C)	TON	25
740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	580
801-01	SEEDING (WITH MULCH)	UNIT	10
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	30
801-02	SEEDING (WITHOUT MULCH)	UNIT	25
801-03	WATER (SEEDING & SODDING)	M.G.	55
803-01	SODDING (NEW SOD)	S.Y.	4500
805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	2650

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

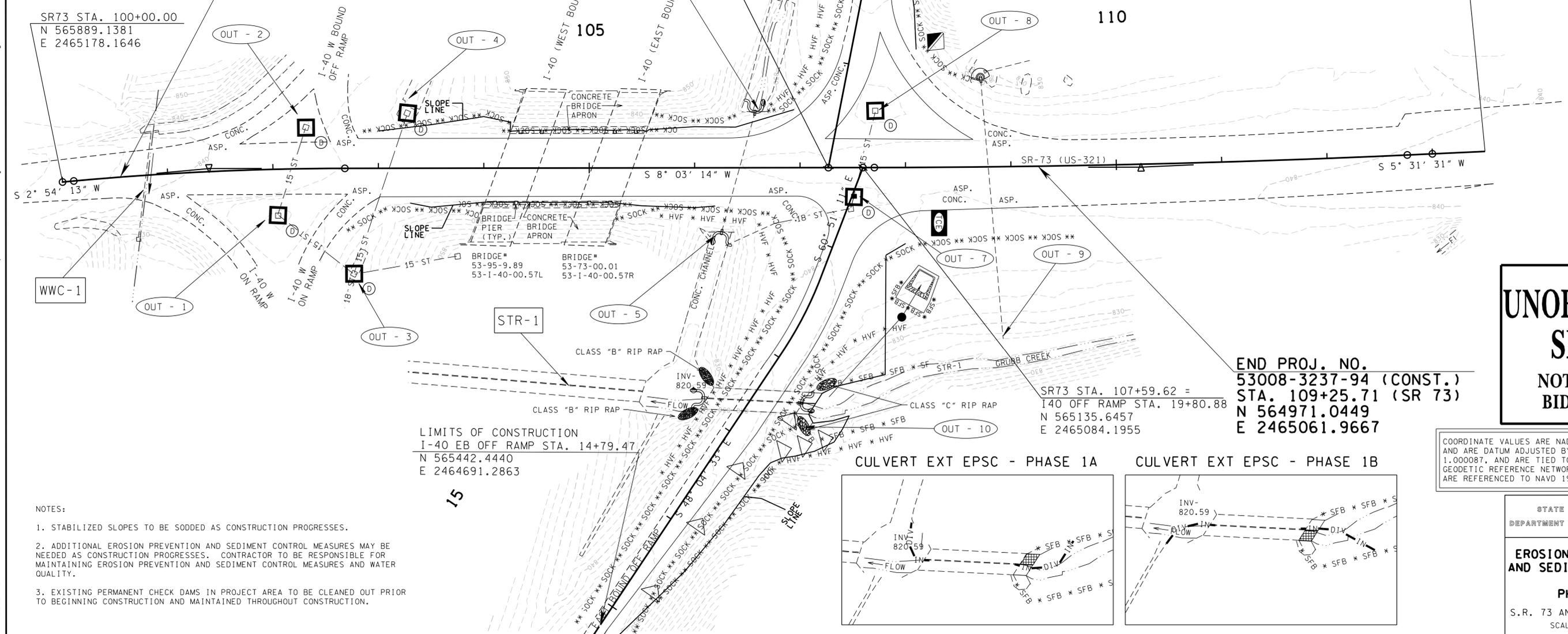
SYMBOL	ITEM	STD. DWG.
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A
	CLASS "B" RIP RAP	
	CLASS "C" RIP RAP	
	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	FILTER SOCK	EC-STR-8
	ROCK CHECK DAM	EC-STR-6
	INSTREAM DIVERSION	EC-STR-30 EC-STR-30A
	SEDIMENT FILTER BAG	EC-STR-2
	HIGH VISIBILITY FENCE	S-F-1
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	7
CONST.	2014	PHSIP-73(61)	8

BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852



SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646

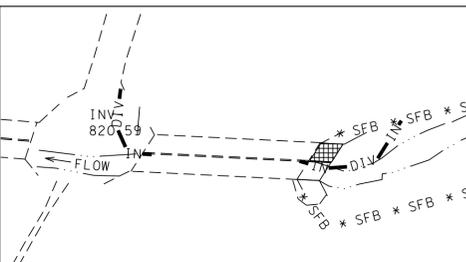
LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

SR73 STA. 107+59.62 =
I40 OFF RAMP STA. 19+80.88
N 565135.6457
E 2465084.1955

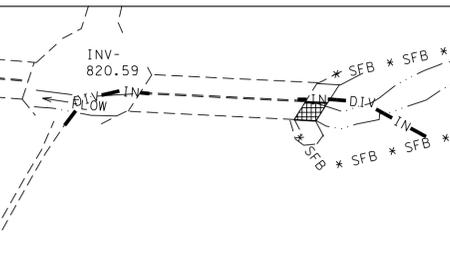
END PROJ. NO.
53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

- NOTES:
1. STABILIZED SLOPES TO BE SODDED AS CONSTRUCTION PROGRESSES.
 2. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MAY BE NEEDED AS CONSTRUCTION PROGRESSES. CONTRACTOR TO BE RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES AND WATER QUALITY.
 3. EXISTING PERMANENT CHECK DAMS IN PROJECT AREA TO BE CLEANED OUT PRIOR TO BEGINNING CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION.

CULVERT EXT EPSC - PHASE 1A



CULVERT EXT EPSC - PHASE 1B



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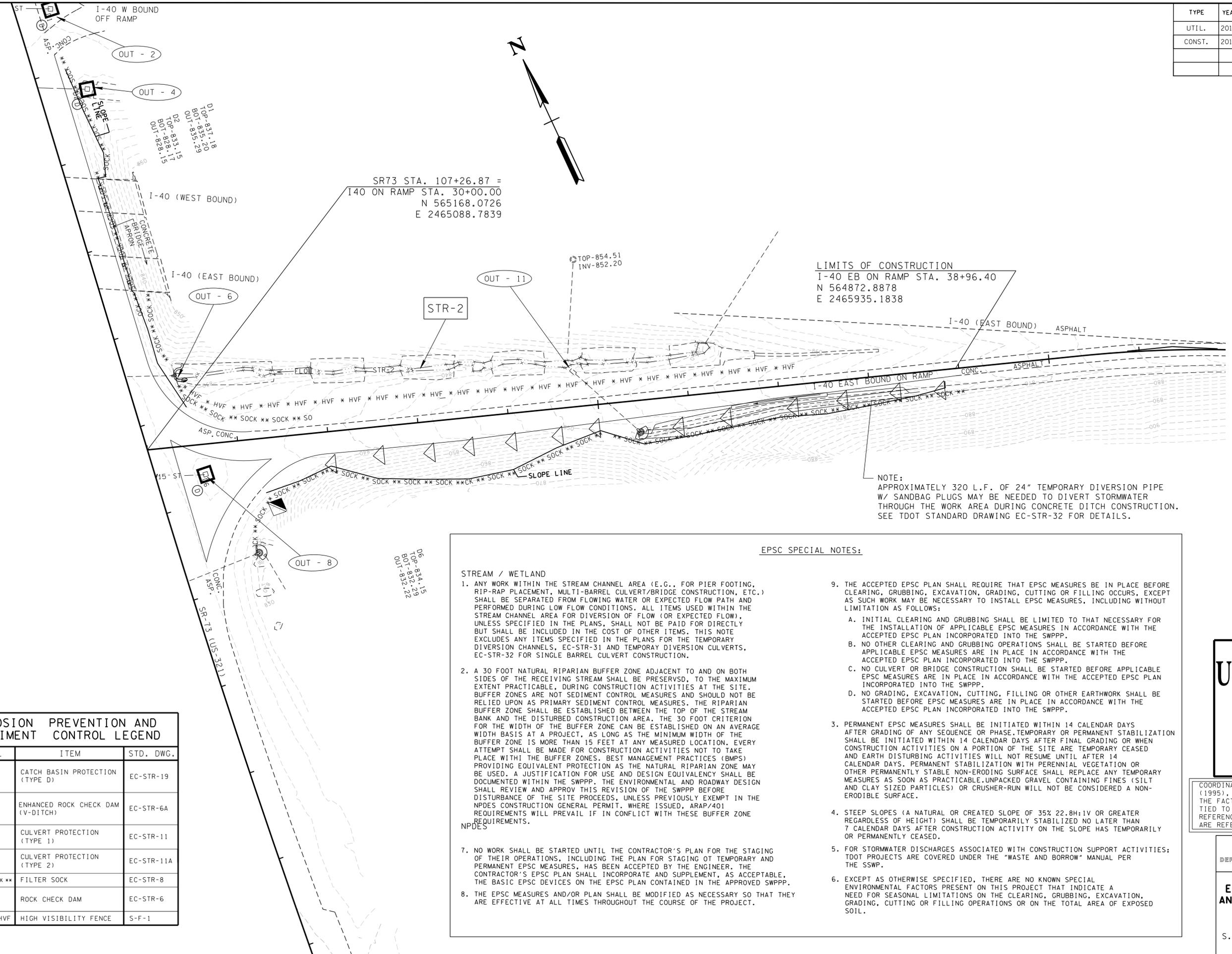
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN PHASE 1
S.R. 73 AND I-40 EB RAMPS
SCALE: 1"=50'

4/30/2014 8:25:03 AM \\FILESERVER\file_server\PROJECTS\2013\3-0302 (SR-73 IS of I-40 Exit 364 EB Ramps - Loudon County - TD00 TE Services)\Design\Construction\18458-00-info\008.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	7A
CONST.	2014	PHSIP-73(61)	8A

4/30/2014 8:27:49 AM \\FILESERVER\file_server\PROJECTS\2013\13-0302 (SR-73 IS at I-40 Exit 364 EB Ramps - Loudon County - TD00 TE Services)\Design\Construction\18458-00-info\008A.sht



LIMITS OF CONSTRUCTION
 I-40 EB ON RAMP STA. 38+96.40
 N 564872.8878
 E 2465935.1838

NOTE:
 APPROXIMATELY 320 L.F. OF 24" TEMPORARY DIVERSION PIPE W/ SANDBAG PLUGS MAY BE NEEDED TO DIVERT STORMWATER THROUGH THE WORK AREA DURING CONCRETE DITCH CONSTRUCTION. SEE TDOT STANDARD DRAWING EC-STR-32 FOR DETAILS.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
	CULVERT PROTECTION (TYPE 2)	EC-STR-11A
** SOCK ** SOCK **	FILTER SOCK	EC-STR-8
	ROCK CHECK DAM	EC-STR-6
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

EPSC SPECIAL NOTES:

STREAM / WETLAND

1. ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR 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 FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY 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.
2. A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPs) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT, WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.
7. NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.
8. THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

9. THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:
 - A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - D. NO GRADING, EXCAVATION, CUTTING, FILLING OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
3. PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER GRADING OF ANY SEQUENCE OR PHASE, TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.
4. STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% 22.8H:1V OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
5. FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWP.
6. EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**EROSION PREVENTION AND SEDIMENT CONTROL PLAN
PHASE 1**
 S.R. 73 AND I-40 EB RAMPS
 SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	8
CONST.	2014	PHSIP-73(61)	9

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	CLASS "B" RIP RAP	
	CLASS "C" RIP RAP	
	EROSION CONTROL BLANKET	EC-STR-34
	FILTER SOCK	EC-STR-8
	ROCK CHECK DAM	EC-STR-6
	HIGH VISIBILITY FENCE	S-F-1



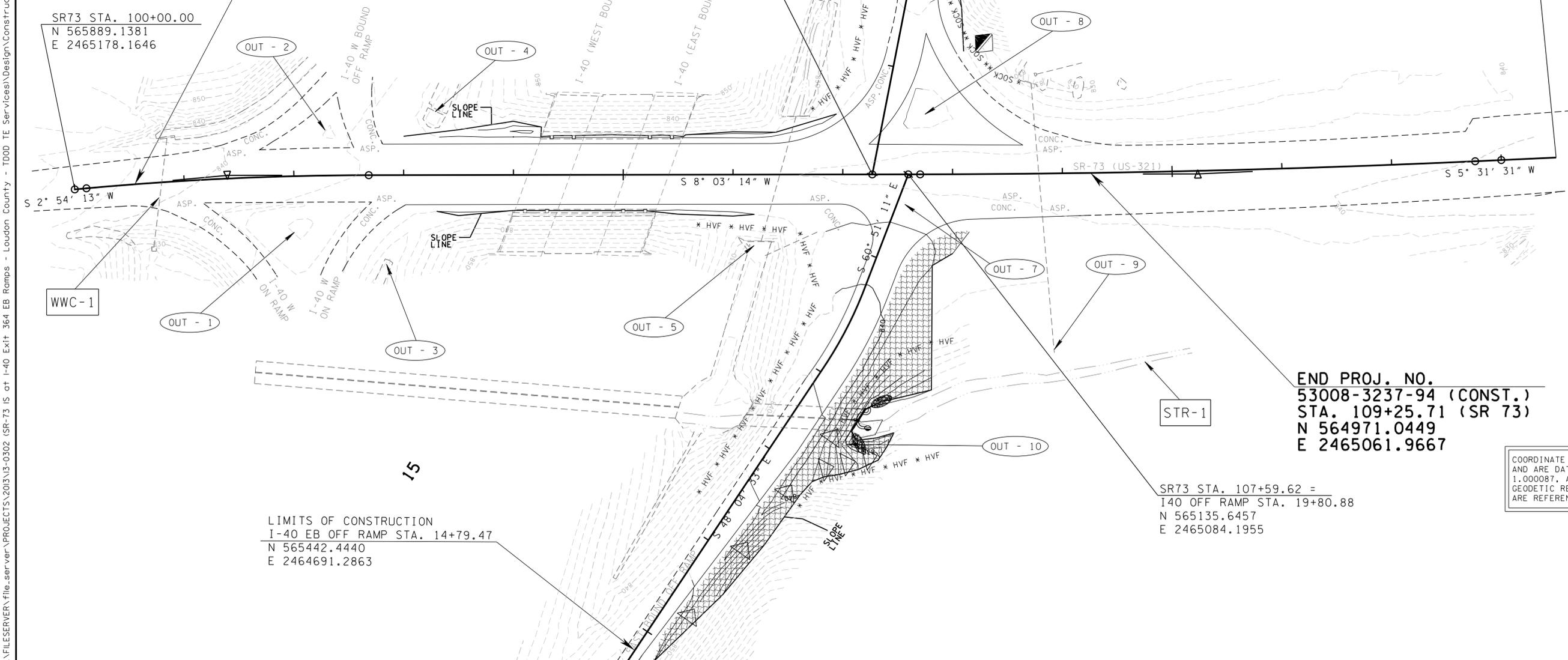
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BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852

SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646



LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

SR73 STA. 107+59.62 =
I40 OFF RAMP STA. 19+80.88
N 565135.6457
E 2465084.1955

END PROJ. NO.
53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

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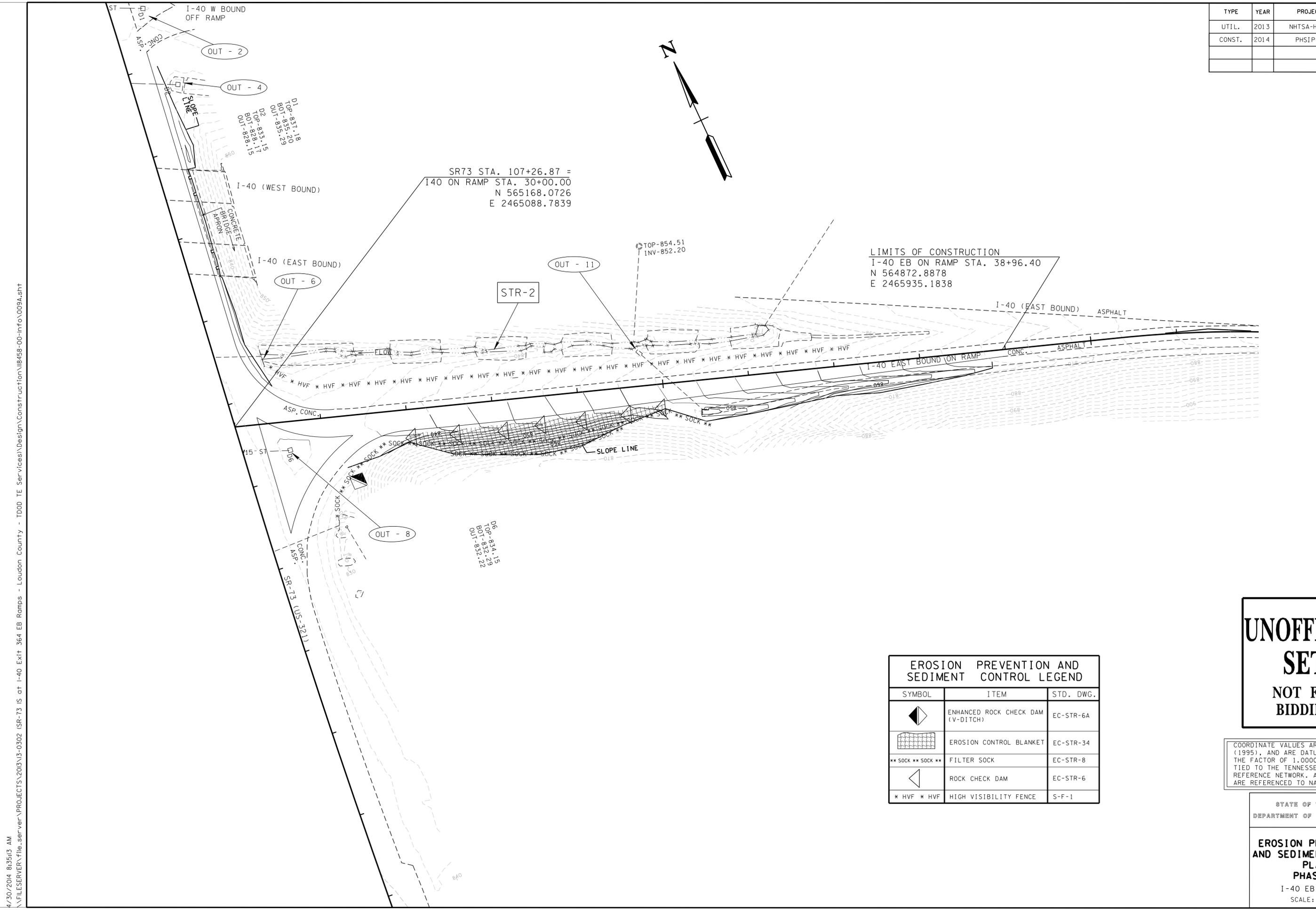
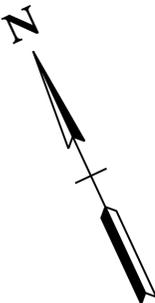
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**EROSION PREVENTION
AND SEDIMENT CONTROL
PLAN
PHASE 2**

S.R. 73 AND I-40 EB RAMPS
SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	8A
CONST.	2014	PHSIP-73(61)	9A



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	EROSION CONTROL BLANKET	EC-STR-34
	FILTER SOCK	EC-STR-8
	ROCK CHECK DAM	EC-STR-6
	HIGH VISIBILITY FENCE	S-F-1

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**EROSION PREVENTION
AND SEDIMENT CONTROL
PLAN
PHASE 2**
I-40 EB OFF RAMP
SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	10

TRAFFIC CONTROL LEGEND

- WORK ZONE
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- SIGN SUPPORT
- REMOVABLE LANE ARROW PAVEMENT MARKING
- EXISTING LANE ARROW PAVEMENT MARKING
- REMOVABLE 24" STOP LINE
- EXISTING STOP LINE
- RSSLW REMOVABLE SINGLE SOLID WHITE LINE
- RDWL REMOVABLE DOTTED WHITE LINE
- RDYSL REMOVABLE DOUBLE SOLID YELLOW LINE

SUMMARY OF QUANTITIES - ITEM NO. 712-06

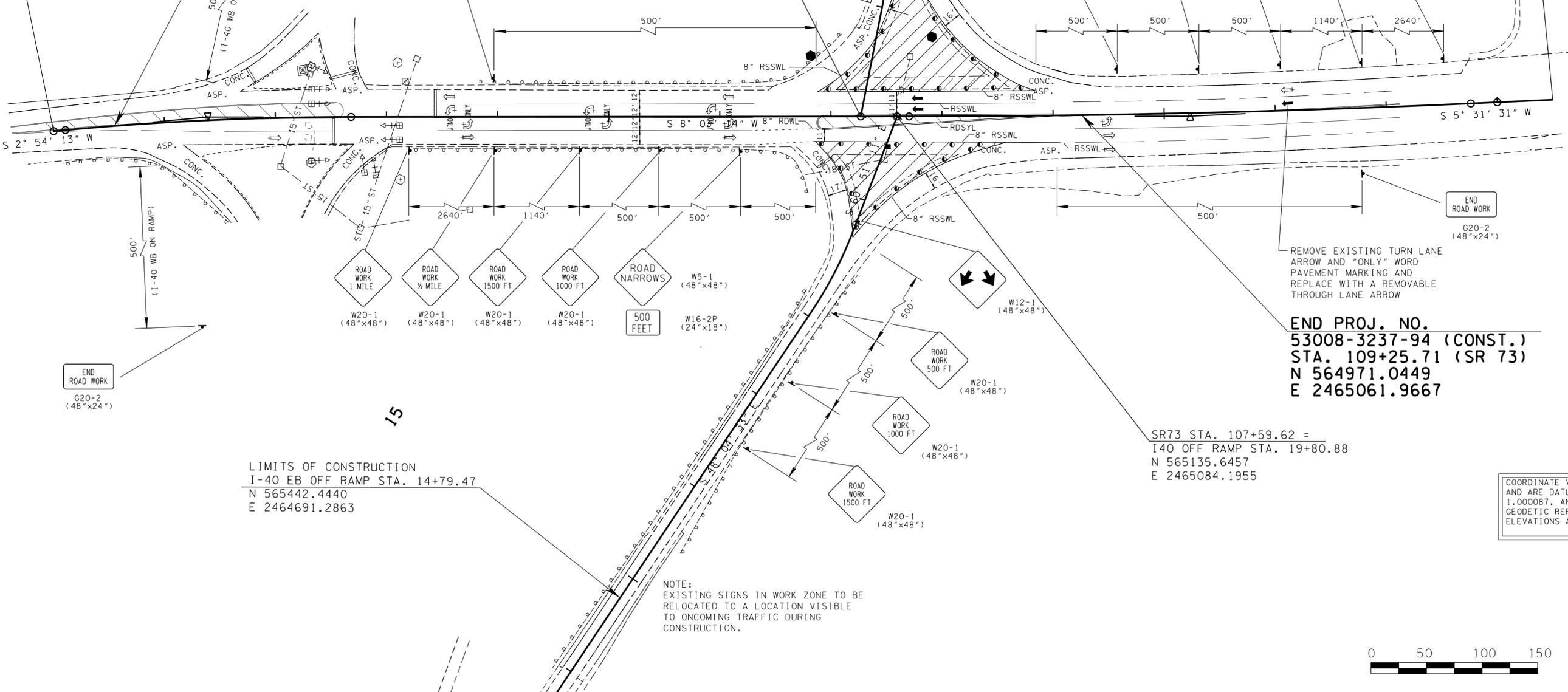
SIGN NO.	DESCRIPTION	SIZE (IN.)	NUMBER REQUIRED
G20-2A	END ROAD WORK	48x24	5
R1-1	STOP	48x48	2
R1-2	YIELD	36x36x36	1
R3-8	ADVANCE INTERSECTION LANE CONTROL	36x36	1
W4-2R	LANE ENDS	48x48	1
W5-1	ROAD NARROWS	48x48	2
W16-2P	500 FT SUPPLEMENTAL PLAQUE	24x18	2
W8-11	UNEVEN LANES	36x36	2
W12-1	DOUBLE ARROW FOR OBSTACLE	48x48	1
W8-17	SHOULDER DROP OFF (SYMBOL)	36x36	2
W8-17P	SHOULDER DROP OFF (PLAQUE)	24x18	2
W20-1	ROAD WORK AHEAD	48x48	1
W20-1	ROAD WORK 1/2 MILE	48x48	2
W20-1	ROAD WORK 1500 FEET	48x48	3
W20-1	ROAD WORK 1000 FEET	48x48	3
W20-1	ROAD WORK 500 FEET	48x48	2
W20-1	ROAD WORK 1 MILE	48x48	2
W20-5R	RIGHT LANE CLOSED 1000 FEET	48x48	1
W21-5L	LEFT SHOULDER CLOSED	48x48	2
W21-5L	LEFT SHOULDER CLOSED 1000 FEET	48x48	2
W21-5R	RIGHT SHOULDER CLOSED	48x48	3
W21-5R	RIGHT SHOULDER CLOSED 1000 FEET	48x48	2

BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646

105
SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
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END PROJ. NO.
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N 565135.6457
E 2465084.1955

LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

REMOVE EXISTING TURN LANE ARROW AND "ONLY" WORD PAVEMENT MARKING AND REPLACE WITH A REMOVABLE THROUGH LANE ARROW

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
PHASE 1
SCALE: 1"=50'



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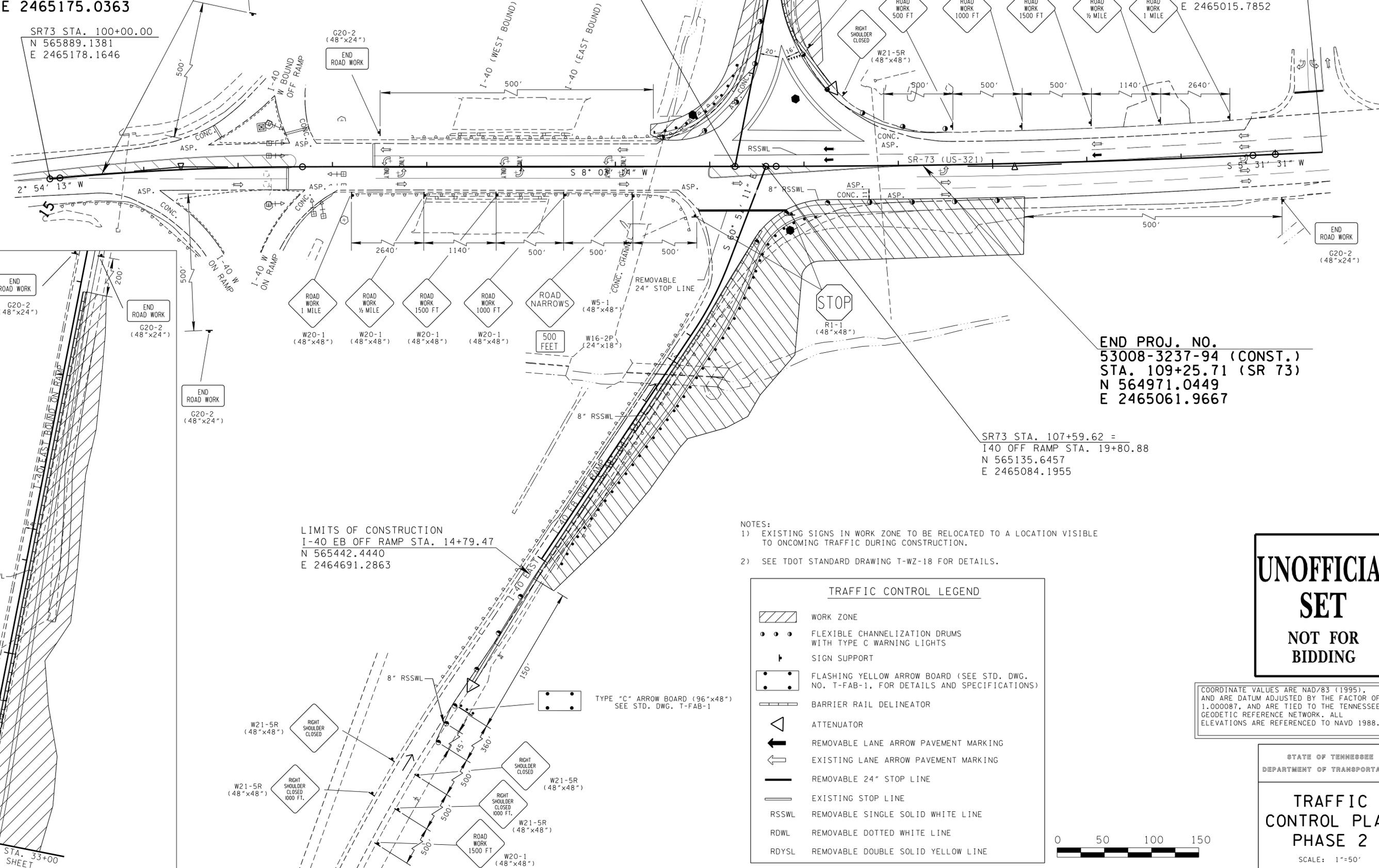
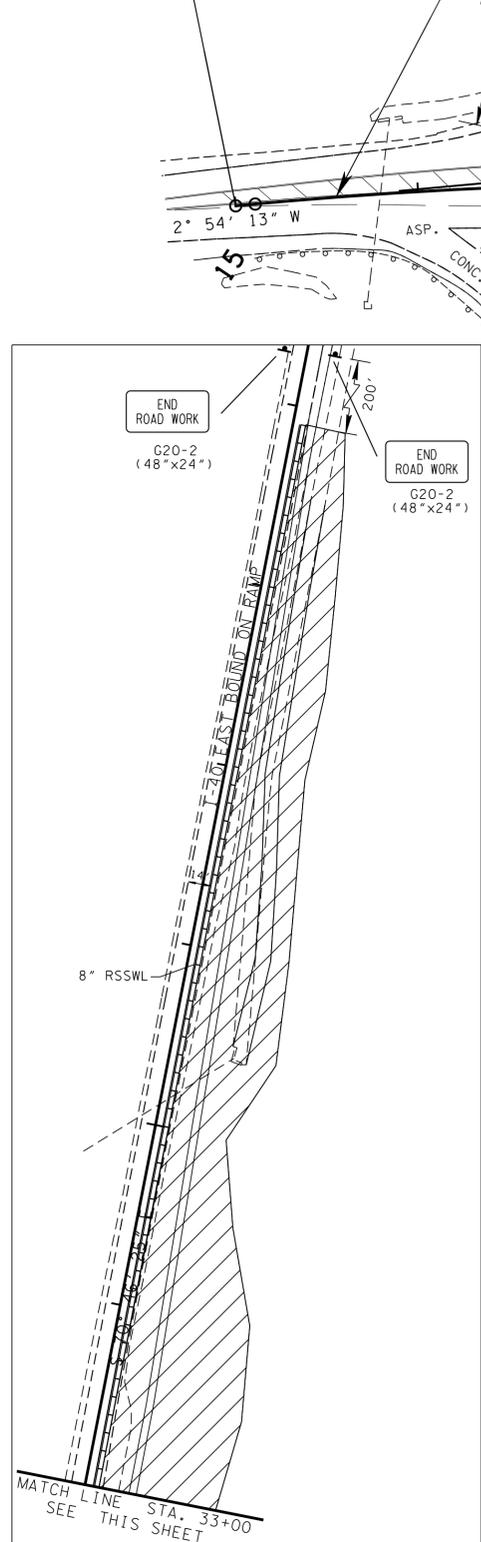
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	10A

BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

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E 2465178.1646

SR73 STA. 107+26.87 =
I40ONRAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852



LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

SR73 STA. 107+59.62 =
I40 OFF RAMP STA. 19+80.88
N 565135.6457
E 2465084.1955

END PROJ. NO.
53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

- NOTES:**
- EXISTING SIGNS IN WORK ZONE TO BE RELOCATED TO A LOCATION VISIBLE TO ONCOMING TRAFFIC DURING CONSTRUCTION.
 - SEE TDOT STANDARD DRAWING T-WZ-18 FOR DETAILS.

TRAFFIC CONTROL LEGEND	
	WORK ZONE
	FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
	SIGN SUPPORT
	FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1, FOR DETAILS AND SPECIFICATIONS)
	BARRIER RAIL DELINEATOR
	ATTENUATOR
	REMOVABLE LANE ARROW PAVEMENT MARKING
	EXISTING LANE ARROW PAVEMENT MARKING
	REMOVABLE 24" STOP LINE
	EXISTING STOP LINE
	RSSWL REMOVABLE SINGLE SOLID WHITE LINE
	RDWL REMOVABLE DOTTED WHITE LINE
	RDYSL REMOVABLE DOUBLE SOLID YELLOW LINE



**UNOFFICIAL
SET
NOT FOR
BIDDING**

COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.000087, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TRAFFIC
CONTROL PLAN
PHASE 2**

SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	10B

TRAFFIC CONTROL LEGEND

- WORK ZONE
- FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
- SIGN SUPPORT
- FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1, FOR DETAILS AND SPECIFICATIONS)
- REMOVABLE LANE ARROW PAVEMENT MARKING
- EXISTING LANE ARROW PAVEMENT MARKING
- REMOVABLE WORD PAVEMENT MARKING (ONLY)
- REMOVABLE 24" STOP LINE
- EXISTING STOP LINE
- RSSWL REMOVABLE SINGLE SOLID WHITE LINE
- RDWL REMOVABLE DOTTED WHITE LINE
- RDYSL REMOVABLE DOUBLE SOLID YELLOW LINE



BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646

SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852

END PROJ. NO.
53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

SR73 STA. 107+59.62 =
I40 OFF RAMP STA. 19+80.88
N 565135.6457
E 2465084.1955

LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

NOTE:
EXISTING SIGNS IN WORK ZONE TO BE
RELOCATED TO A LOCATION VISIBLE
TO ONCOMING TRAFFIC DURING
CONSTRUCTION.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TRAFFIC
CONTROL PLAN
PHASE 3**
SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	10C

BEGIN PROJ. NO.
53008-3237-94 (CONST.)
STA. 100+55.00 (SR 73)
N 565834.2278
E 2465175.0363

SR73 STA. 100+00.00
N 565889.1381
E 2465178.1646

SR73 STA. 107+26.87 =
I40 ON RAMP STA. 30+00.00
N 565168.0726
E 2465088.7839

SR73 STA. 113+50.00
N 564549.2977
E 2465015.7852

END PROJ. NO.
53008-3237-94 (CONST.)
STA. 109+25.71 (SR 73)
N 564971.0449
E 2465061.9667

SR73 STA. 107+59.62 =
I40 OFF RAMP STA. 19+80.88
N 565135.6457
E 2465084.1955

LIMITS OF CONSTRUCTION
I-40 EB OFF RAMP STA. 14+79.47
N 565442.4440
E 2464691.2863

NOTE:
EXISTING SIGNS IN WORK ZONE TO BE
RELOCATED TO A LOCATION VISIBLE
TO ONCOMING TRAFFIC DURING
CONSTRUCTION.

TRAFFIC CONTROL LEGEND	
	WORK ZONE
	FLEXIBLE CHANNELIZATION DRUMS WITH TYPE C WARNING LIGHTS
	SIGN SUPPORT
	FLASHING YELLOW ARROW BOARD (SEE STD. DWG. NO. T-FAB-1, FOR DETAILS AND SPECIFICATIONS)
	BARRIER RAIL DELINEATOR
	ATTENUATOR
	REMOVABLE LANE ARROW PAVEMENT MARKING
	EXISTING LANE ARROW PAVEMENT MARKING
	REMOVABLE WORD PAVEMENT MARKING (ONLY)
	REMOVABLE 24" STOP LINE
	EXISTING STOP LINE
	RSSWL REMOVABLE SINGLE SOLID WHITE LINE
	RDWL REMOVABLE DOTTED WHITE LINE
	RDYSL REMOVABLE DOUBLE SOLID YELLOW LINE



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BIDDING**

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL PLAN
PHASE 4**
SCALE: 1"=50'

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PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	100

- A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:
- DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:
 - WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.
 - DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.
 - SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a. PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

- DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:
 - THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

- THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a. AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.
- THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.
- THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

- FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES. SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

- B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

- IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

- IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:
 - SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
- IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:
 - SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

- C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

- SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
- WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

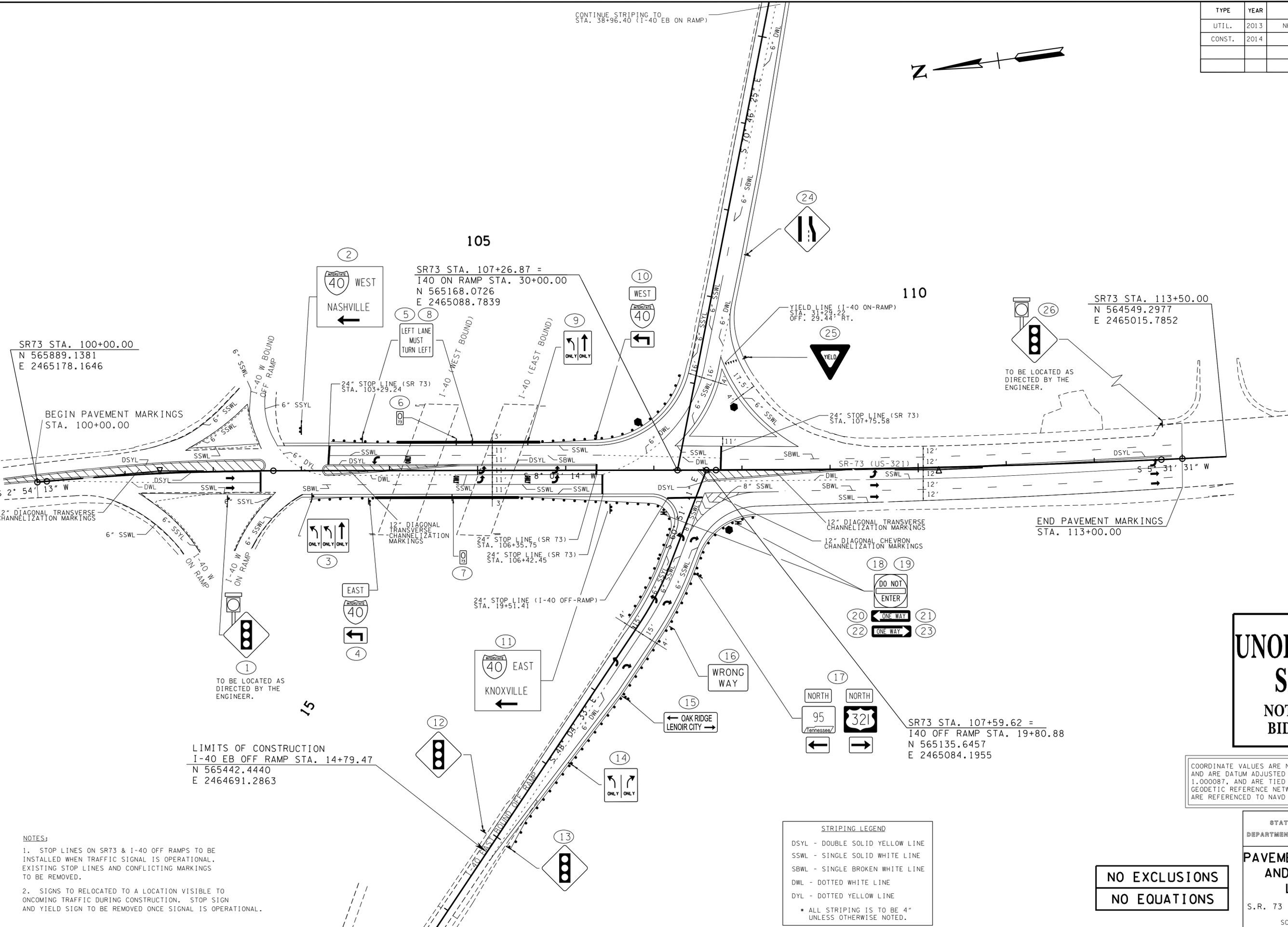
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**TRAFFIC
CONTROL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	9
CONST.	2014	PHSIP-73(61)	11



CONTINUE STRIPING TO STA. 38+96.40 (I-40 EB ON RAMP)



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNAGE LAYOUT

S.R. 73 AND I-40 EB RAMPS
SCALE: 1"=50'

**NO EXCLUSIONS
NO EQUATIONS**

STRIPING LEGEND
 DSYL - DOUBLE SOLID YELLOW LINE
 SSWL - SINGLE SOLID WHITE LINE
 SBWL - SINGLE BROKEN WHITE LINE
 DWL - DOTTED WHITE LINE
 DYL - DOTTED YELLOW LINE
 * ALL STRIPING IS TO BE 4" UNLESS OTHERWISE NOTED.

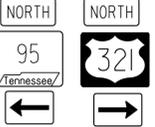
NOTES:
 1. STOP LINES ON SR73 & I-40 OFF RAMPS TO BE INSTALLED WHEN TRAFFIC SIGNAL IS OPERATIONAL. EXISTING STOP LINES AND CONFLICTING MARKINGS TO BE REMOVED.
 2. SIGNS TO BE RELOCATED TO A LOCATION VISIBLE TO ONCOMING TRAFFIC DURING CONSTRUCTION. STOP SIGN AND YIELD SIGN TO BE REMOVED ONCE SIGNAL IS OPERATIONAL.

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ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	11B

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
4			24"	12"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h = 12'-6"				7'-0"	
10			24"	12"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h = 12'-6"				7'-0"	
17			24"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h ₁ = 12'-6" h ₂ = 13'-0"				7'-0"	
15			10'-0"	4'-0"	9"	1"	8"	6"		EMOD		TYPE "A"				S4X7.7	h ₁ = 14'-3" h ₂ = 14'-9"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
2			7'-0"	5'-0"	9"	1"	8"	6"		EMOD	24"X24"	TYPE "A"				S4X7.7	h ₁ = 14'-9" h ₂ = 15'-3"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
11			7'-0"	5'-0"	9"	1"	8"	6"		EMOD	24"X24"	TYPE "A"				S4X7.7	h ₁ = 14'-9" h ₂ = 15'-3"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	

U-POST SUBSTITUTION TABLE	
BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2*/FT. U1	2*/FT. M1 OR 2*/FT. R1
2.5*/FT. U3	2.5*/FT. M3 OR 3*/FT. R2*
3*/FT. U6	
4*/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5*/FT.

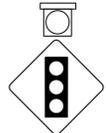
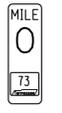
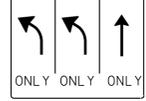
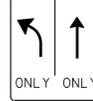
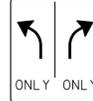
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SIGN
SCHEDULE**

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS
 DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	11A

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
1 26 12 13	 W3-3		36"	36"									BLACK RED (REF.) GREEN (REF.)	YELLOW (REF.)		P6 P8	h = 13'-0" h = 13'-0" h = 13'-6" h = 13'-6"				7'-0"	SIGNS NO. 1 & 26 w/P6 SUPPORT: REQUIRES WARNING LIGHT ITEM NO. 713-26.08. SEE STD. DWG. T-S-24. REQUIRES SLIP BASE ITEM NO. 713-11.21. SEE STD. DWG. T-S-23A
24	 W4-2		48"	48"											0.100" SHEET ALUMINUM	U3	h ₁ = 14'-6" h ₂ = 15'-0"				7'-0"	
25	 R1-2		36" X 36" X 36"										RED (REF.)	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM	U3	h = 12'-6"				7'-0"	
5 8	 R3-7		30"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h = 12'-6" h = 12'-6"				7'-0"	SLIP BASE REQUIRED ITEM NO. 713-11.22. SEE STD DWG. T-S-23C.
6 7	 TN-17a		6"	12"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM						4'-0"	MOUNT ON BARRIER WALL SUPPORT TO BE PAID FOR UNDER ITEM NO. 713-30.09. SEE STD. DWG. T-S-21.
3	 R3-8a (MOD)		48"	30"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	U3	h ₁ = 12'-6" h ₂ = 13'-0"				7'-0"	
9	 R3-8a (MOD)		30"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h = 9'-0"				7'-0"	SLIP BASE REQUIRED ITEM NO. 713-11.22. SEE STD DWG. T-S-23C.
14	 R3-8a (MOD)		30"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U6	h = 9'-0"				7'-0"	SLIP BASE REQUIRED ITEM NO. 713-11.22. SEE STD DWG. T-S-23C.
18 19	 R5-1		36"	36"									WHITE (REF.)	WHITE (REF.) RED (REF.)	0.100" SHEET ALUMINUM	P5	h = 9'-6" h = 9'-6"				7'-0"	SLIP BASE REQUIRED ITEM NO. 713-11.21. SEE STD. DWG. T-S-23A.
16	 R5-1A		36"	24"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P8	h = 11'-6" h = 11'-6"				7'-0"	
22	 R6-1R		36"	12"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM					6'-0"	MOUNTED UNDER SIGN NO. 18	
23																					6'-0"	MOUNTED UNDER SIGN NO. 19
20 21	 R6-1L		36"	12"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM					6'-0"	MOUNTED UNDER SIGN NO. 18	
																					6'-0"	MOUNTED UNDER SIGN NO. 19

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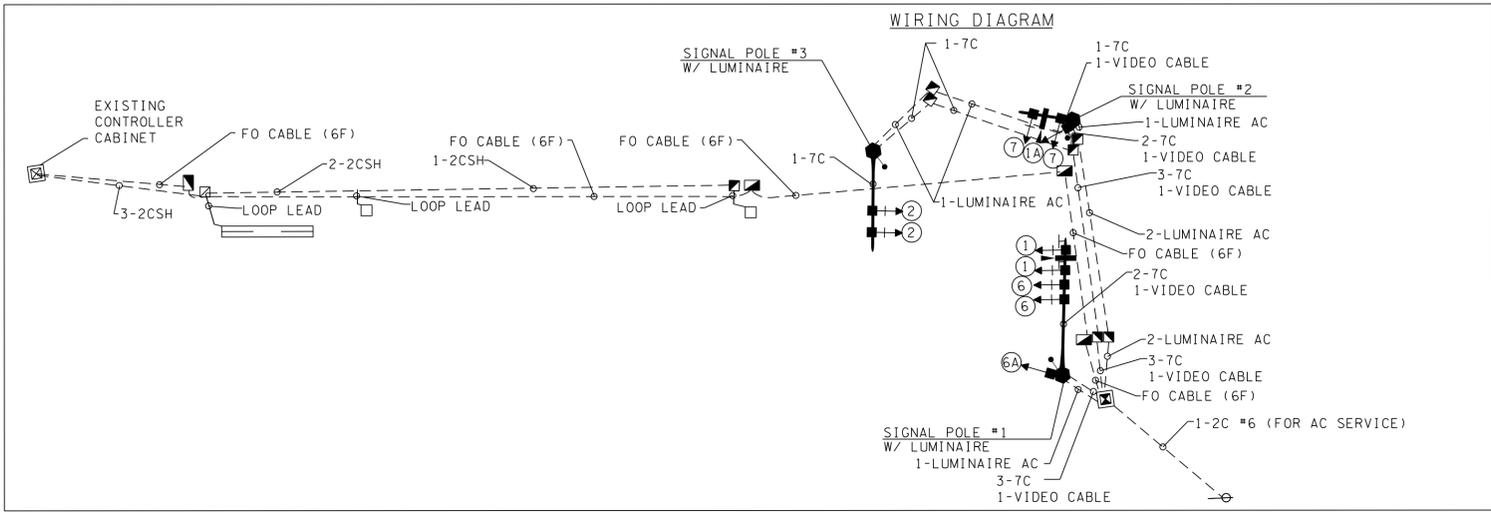
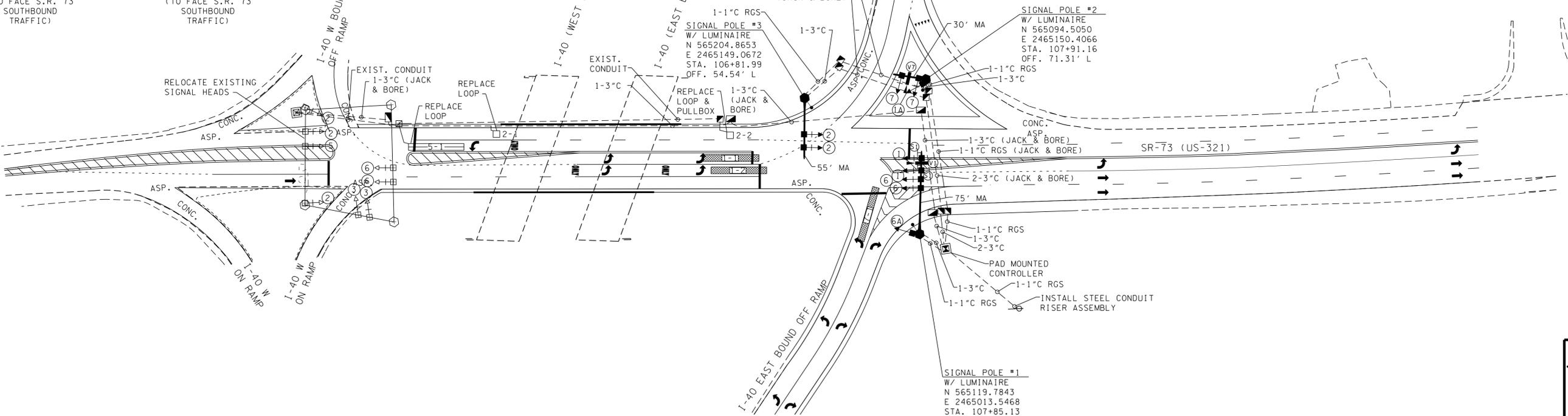
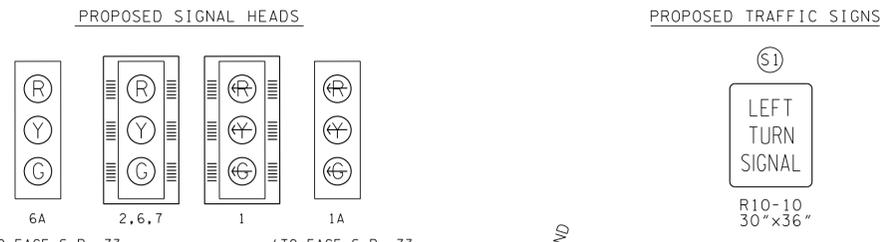
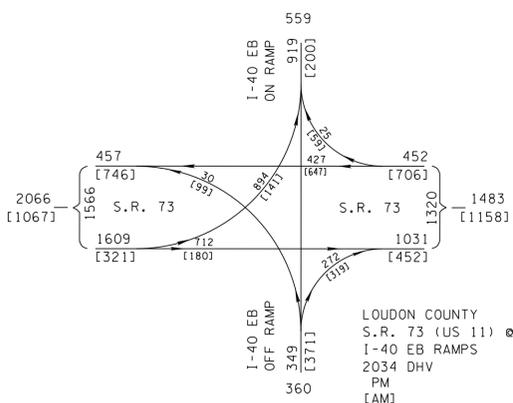
**SIGN
 SCHEDULE**

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	10
CONST.	2014	PHSIP-73(61)	12

SIGNAL SUPPORT POLE DATA								
POLE NO.	STATION	OFFSET	NORTHING	EASTING	GRD ELEV @ POLE	ARM ELEVATION	MAST ARM LENGTH	FOOTING DEPTH
1	107+85.13	67.74' R	565119.78	2465013.55	838.20'	858.20'	75'-0"	15'-0" MIN.
2	107+91.16	71.31' L	565094.51	2465150.41	836.17'	856.17'	30'-0"	15'-0" MIN.
3	106+81.99	54.54' L	565204.87	2465149.07	834.46'	854.46'	55'-0"	15'-0" MIN.

NOTES:

- SIGNAL POLES MAY BE ADJUSTED UP TO 2' TO AVOID CONFLICTS WITH UTILITIES AS APPROVED BY THE ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR STAKING POLE LOCATIONS. THESE LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO WORK COMMENCING.
- CONTRACTOR TO VERIFY EXISTING CONDUIT AND PULLBOX LOCATIONS FOR LOOP REPLACEMENT ON NORTHBOUND S.R. 73 FOR SIGNAL AT I-40 WESTBOUND RAMPS.
- TRAFFIC SIGNAL AT S.R. 73 AND I-40 WESTBOUND RAMPS TO REMAIN IN OPERATION AT ALL TIMES DURING CONSTRUCTION.



SIGNAL SUPPORT POLE DATA	
	PAD MOUNTED CONTROLLER CABINET (NEW)
	TRAFFIC SIGNAL POLE AND MAST ARM (NEW)
	SIGNAL HEAD WITH NUMBER (NEW)
	SIGNAL HEAD WITH NUMBER AND BACKPLATE (NEW)
	FIBER OPTIC PULL BOX (NEW)
	PULL BOX (NEW)
	6'X6' LOOP DETECTOR (NEW)
	6'X50' LOOP DETECTOR (NEW)
	6'X50' VIDEO DETECTION ZONE (NEW)
	VIDEO DETECTION (NEW)
	15' LUMINAIRE (NEW)
	MAST ARM MOUNTED SIGN WITH NUMBER (NEW)
	UNDERGROUND CONDUIT (NEW)
	SIGNAL HEAD (EXISTING)
	PAD MOUNTED CONTROLLER CABINET (EXISTING)
	PULL BOX (EXISTING)
	STEEL STRAIN POLE (EXISTING)
	6'X50' LOOP DETECTOR (EXISTING)
	6'X6' LOOP DETECTOR (EXISTING)

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COORDINATE VALUES ARE NAD/83 (1995), AND ARE DATUM ADJUSTED BY THE FACTOR OF 1.000087, AND ARE TIED TO THE TENNESSEE GEODETIC REFERENCE NETWORK. ALL ELEVATIONS ARE REFERENCED TO NAVD 1988.

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**PROPOSED
SIGNAL LAYOUT**
S.R. 73 AND I-40 EB RAMPS
SCALE: 1" = 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	PHSIP-73(61)	12A

VIDEO DETECTION ASSIGNMENT CHART

ZONE ASSIGNMENT	SIZE	PHASE	MODE	DISTANCE FROM STOP BAR	DETECTION UNIT
1-1	6'X50'	1	PRESENCE	-4'	V1
1-2	6'X50'	1	PRESENCE	-4'	V1
7-1	6'X50'	7	PRESENCE	-4'	V7

VIDEO DETECTOR NOTES

- (1) ALL ZONES TO BE 6' IN WIDTH CENTERED IN TRAFFIC LANE.
- (2) SEE STD. DWG. T-SG-3A FOR VIDEO DETECTION DETAILS.

S.R. 73 AND I-40 EASTBOUND RAMP BASIC OR SEMI-ACTUATED TIMING (SECS)

PHASE	INITIAL INTERVAL	VEHICLE INTERVAL	MAX I (AM)	MAX I (PM)	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION (1)	LEFT TURN OPERATION (2)
					YELLOW	ALL RED	WALK	FLASHING DON'T WALK			
1	6.0	3.0	13.0	37.5	3.0	2.5	-	-	-	L	PROT.
2	20.0	3.0	31.0	27.0	5.0	2.0	-	-	MIN.	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-
6	20.0	3.0	44.0	64.5	5.0	2.0	-	-	MIN.	-	-
7	6.0	3.0	16.0	11.5	3.0	2.5	-	-	-	L	PROT.
8	-	-	-	-	-	-	-	-	-	-	-

- NOTES:
1. TIMINGS ARE INITIAL AND MAY BE ADJUSTED BY THE CONTRACTOR BASED ON FIELD OBSERVATIONS TO PROVIDE EFFICIENT OPERATION.
2. MASTER CONTROLLER TO BE LOCATED AT S.R. 73 AND I-40 EASTBOUND RAMP.

- (1)NL = NON LOCK (2) PERM = PERMITTED
L = LOCK PROT = PROTECTED
P/P = PROT/PERM

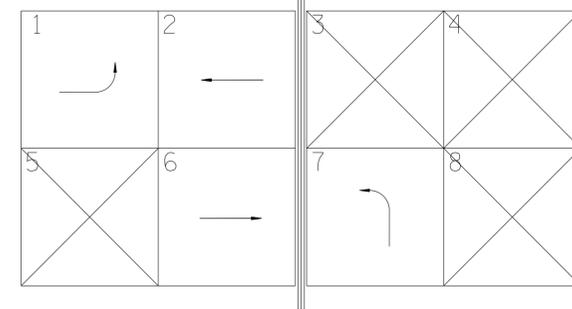
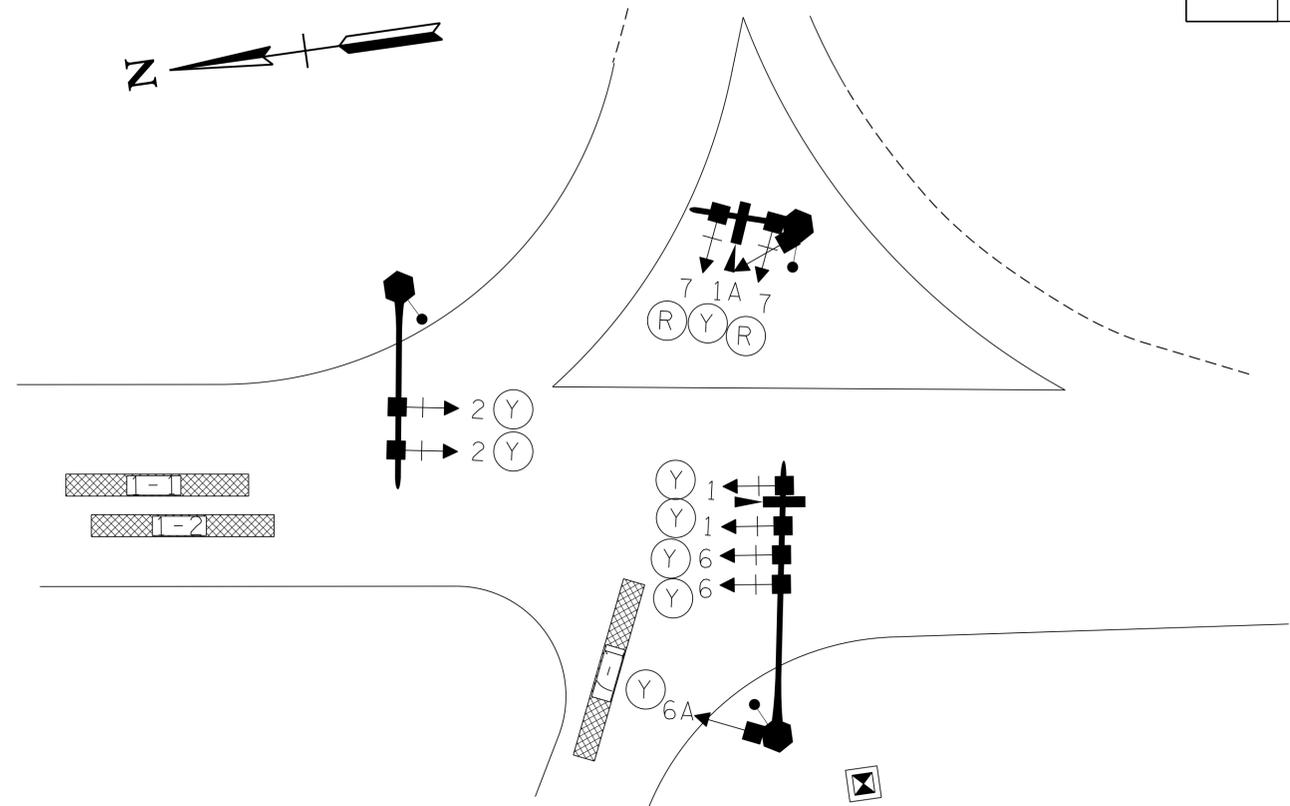
S.R. 73 AND I-40 WESTBOUND RAMP BASIC OR SEMI-ACTUATED TIMING (SECS)

PHASE	INITIAL INTERVAL	VEHICLE INTERVAL	MAX I (AM)	MAX I (PM)	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION (1)	LEFT TURN OPERATION (2)
					YELLOW	ALL RED	WALK	FLASHING DON'T WALK			
1	-	-	-	-	-	-	-	-	-	-	-
2	20.0	3.0	48.0	64.4	5.0	2.0	-	-	MIN.	-	-
3	6.0	3.0	12.0	11.6	3.0	2.5	-	-	-	L	PROT.
4	-	-	-	-	-	-	-	-	-	-	-
5	6.0	3.0	13.0	14.6	3.0	2.5	-	-	-	NL	P/P
6	20.0	3.0	35.0	49.8	5.0	2.0	-	-	MIN.	-	-
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-

- NOTES:
1. TIMINGS ARE INITIAL AND MAY BE ADJUSTED BY THE CONTRACTOR BASED ON FIELD OBSERVATIONS TO PROVIDE EFFICIENT OPERATION.
2. OFFSET FROM MASTER CONTROLLER TO BE 58 SECONDS FOR AM AND 52 SECONDS FOR PM FROM START OF GREEN FOR PHASES 2 & 6.

- (1)NL = NON LOCK (2) PERM = PERMITTED
L = LOCK PROT = PROTECTED
P/P = PROT/PERM

DETECTION ZONE NUMBERING AND FLASHING OPERATION



EIGHT PHASE DESIGNATIONS

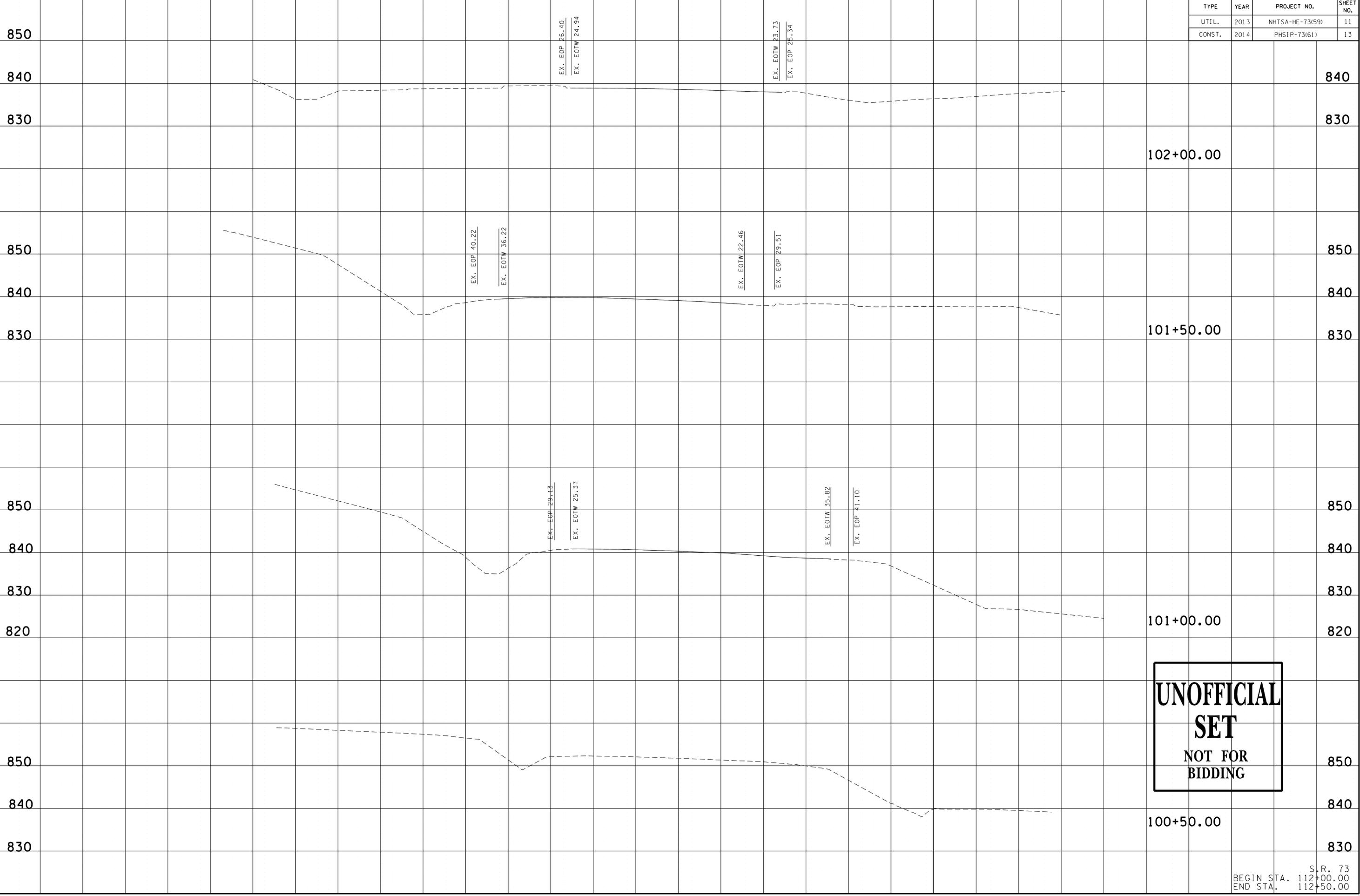
PHASING NOTES

- (1) MIN RECALL: Ø2,Ø6
- (2) ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

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SIGNAL DETAILS



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100+50.00

101+00.00

101+50.00

102+00.00

830

840

850

830

840

850

EX. EOP 26.40
EX. EOTW 24.94

EX. EOTW 23.73
EX. EOP 25.34

EX. EOP 40.22
EX. EOTW 36.22

EX. EOTW 22.46
EX. EOP 29.51

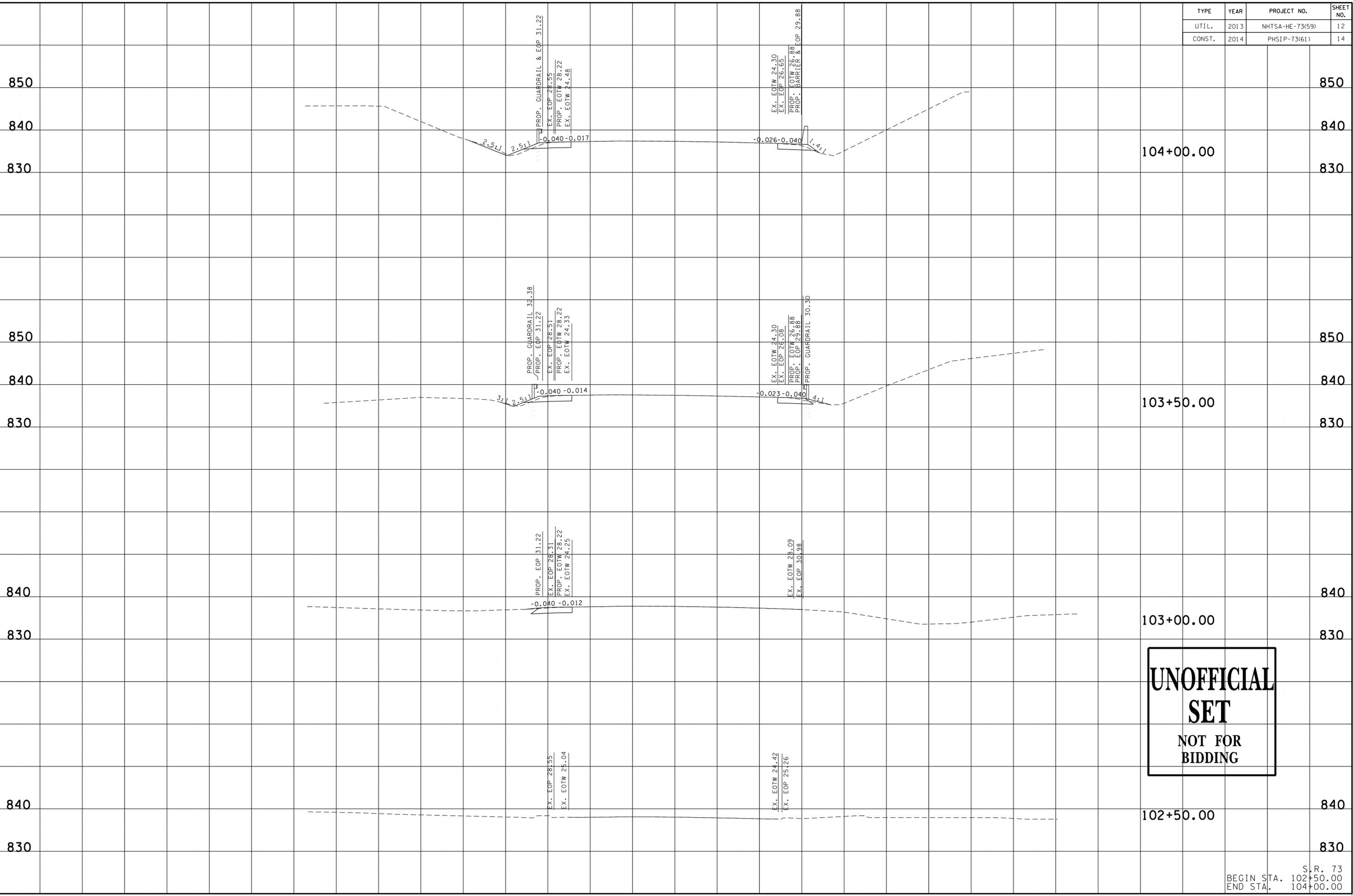
EX. EOP 29.13
EX. EOTW 25.37

EX. EOTW 35.82
EX. EOP 41.10

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	11
CONST.	2014	PHSIP-73(61)	13

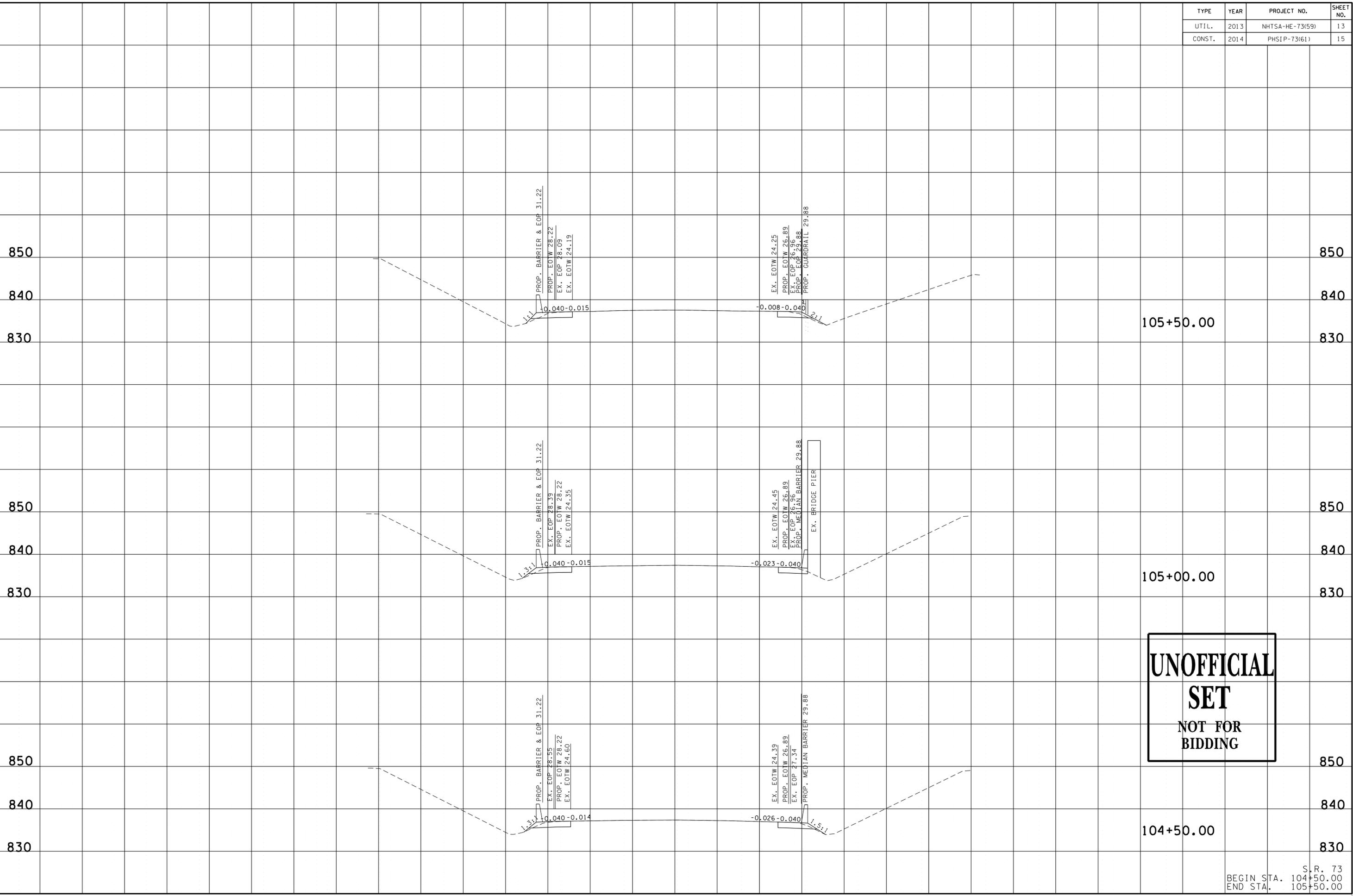
S.R. 73
BEGIN STA. 112+00.00
END STA. 112+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	12
CONST.	2014	PHSIP-73(61)	14



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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	13
CONST.	2014	PHSIP-73(61)	15



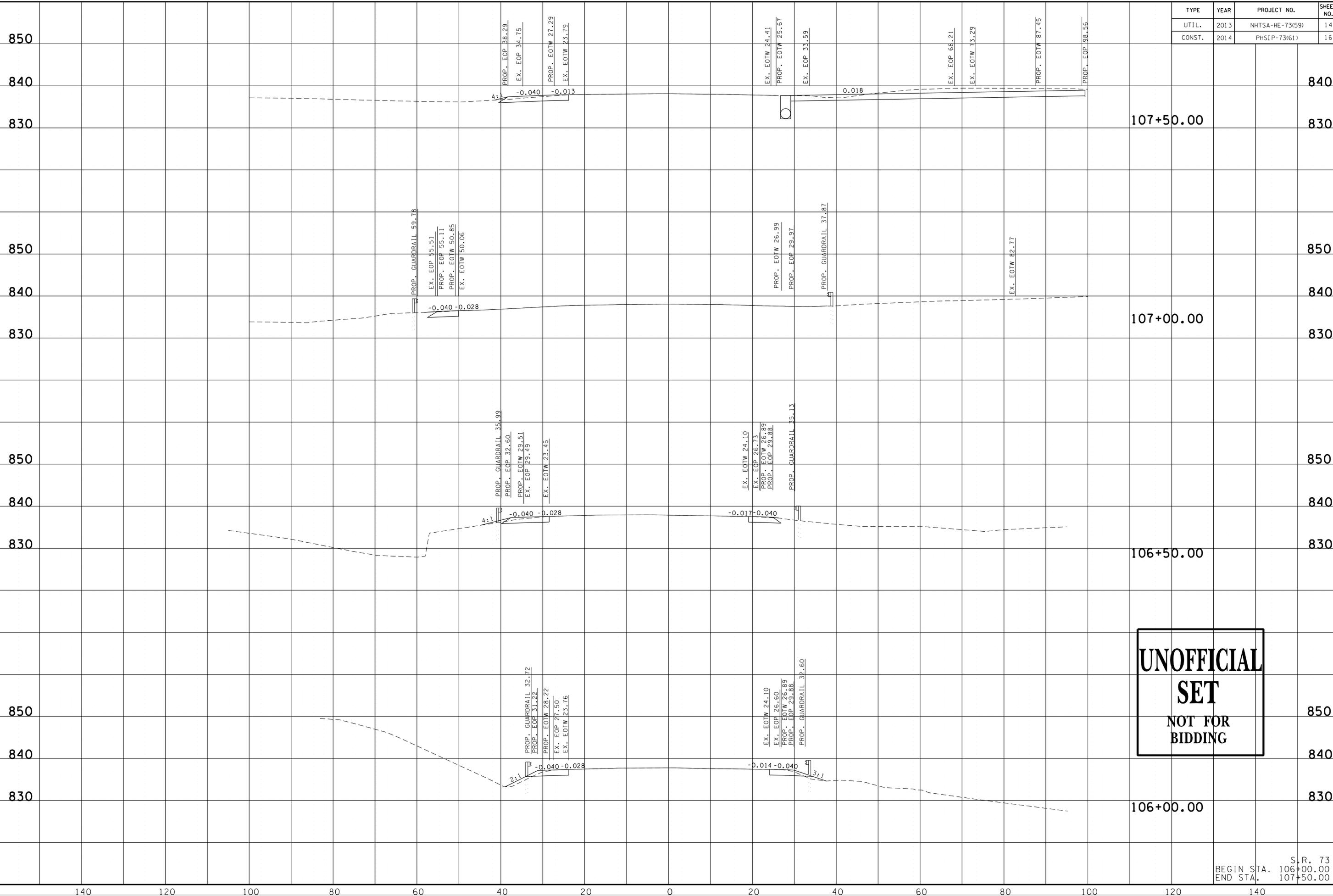
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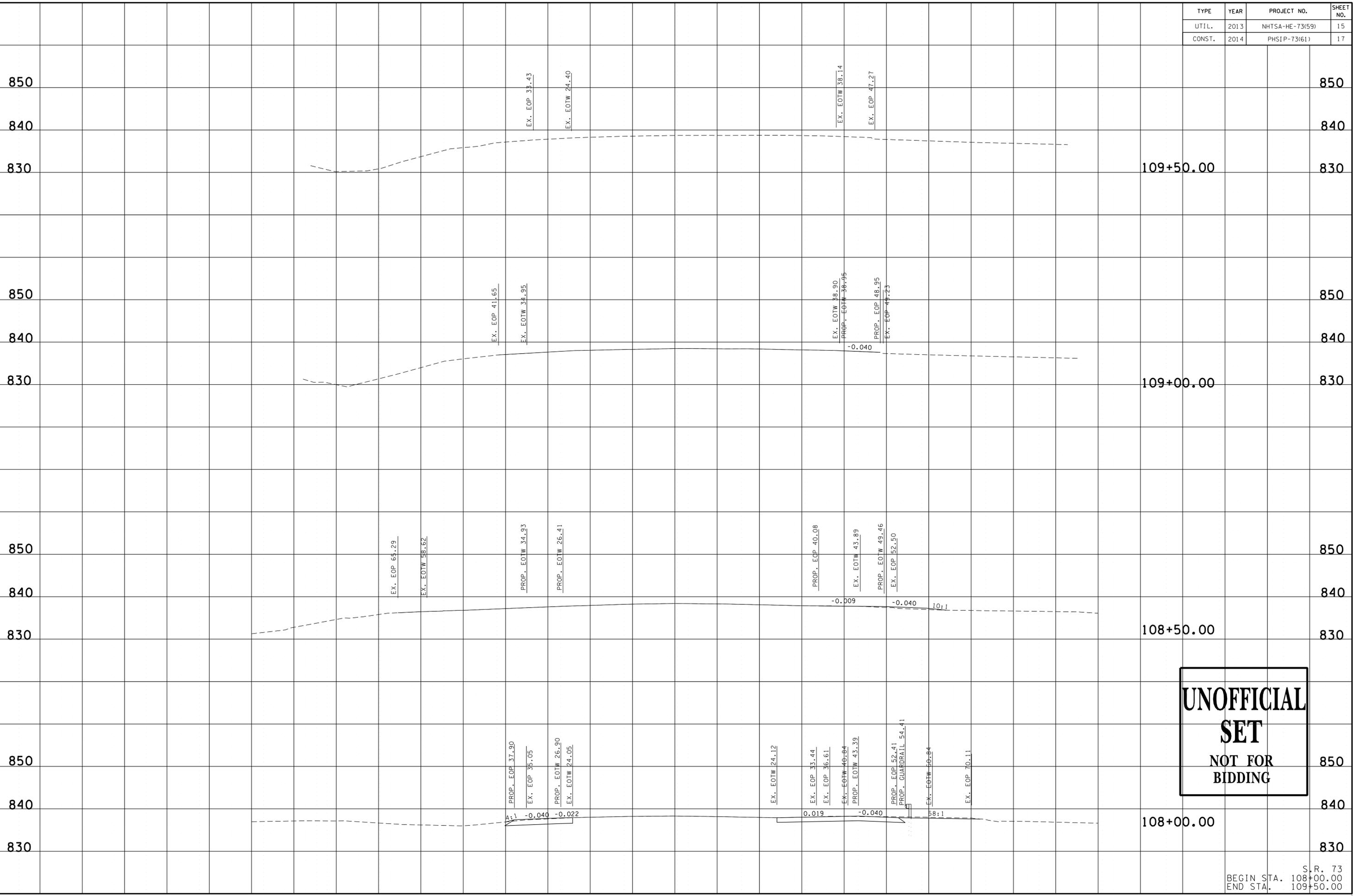


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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	14
CONST.	2014	PHSIP-73(61)	16

S.R. 73
 BEGIN STA. 106+00.00
 END STA. 107+50.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	15
CONST.	2014	PHSIP-73(61)	17



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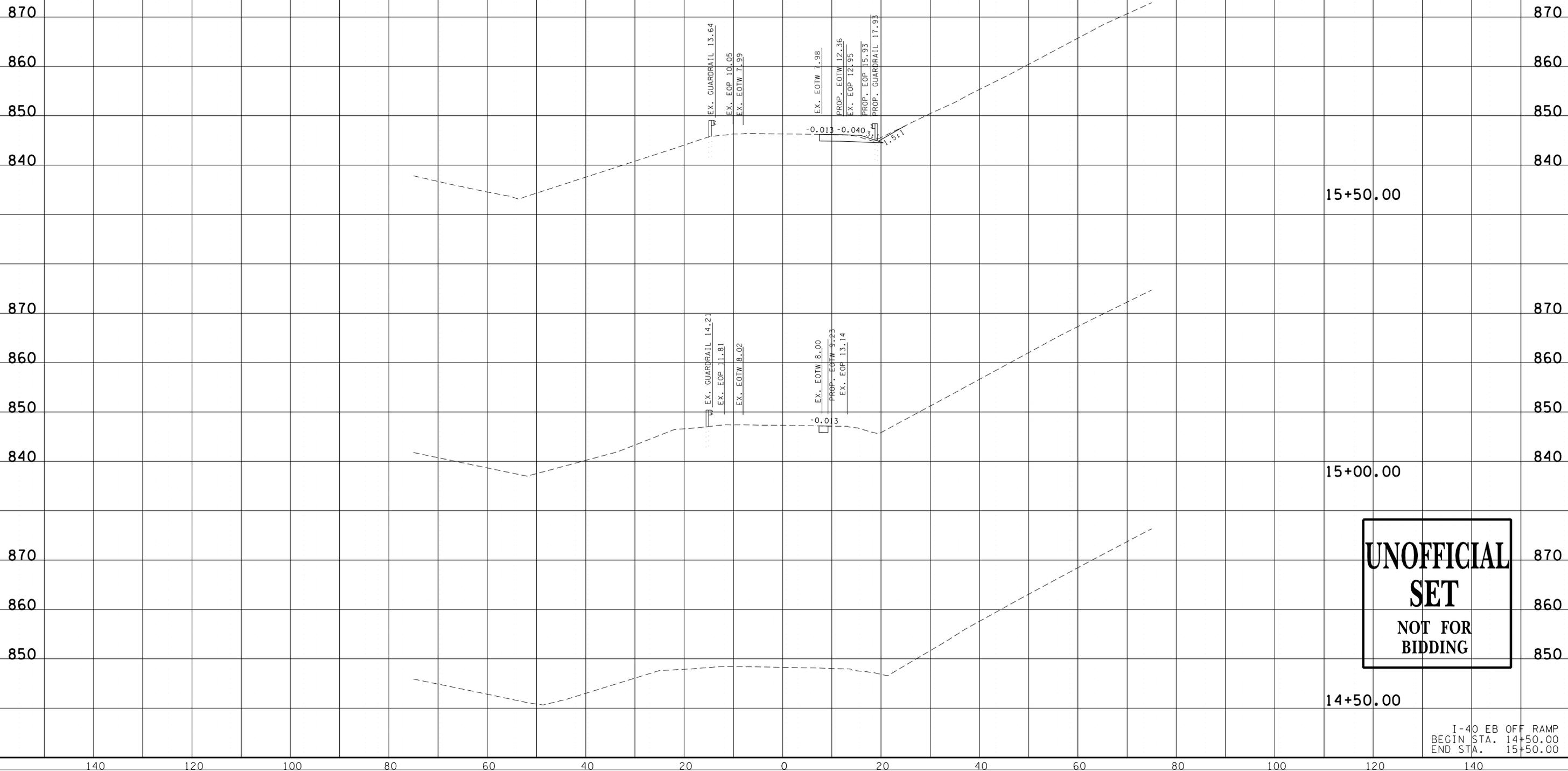
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FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	16
CONST.	2014	PHSIP-73(61)	18



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I-40 EB OFF RAMP
BEGIN STA. 14+50.00
END STA. 15+50.00

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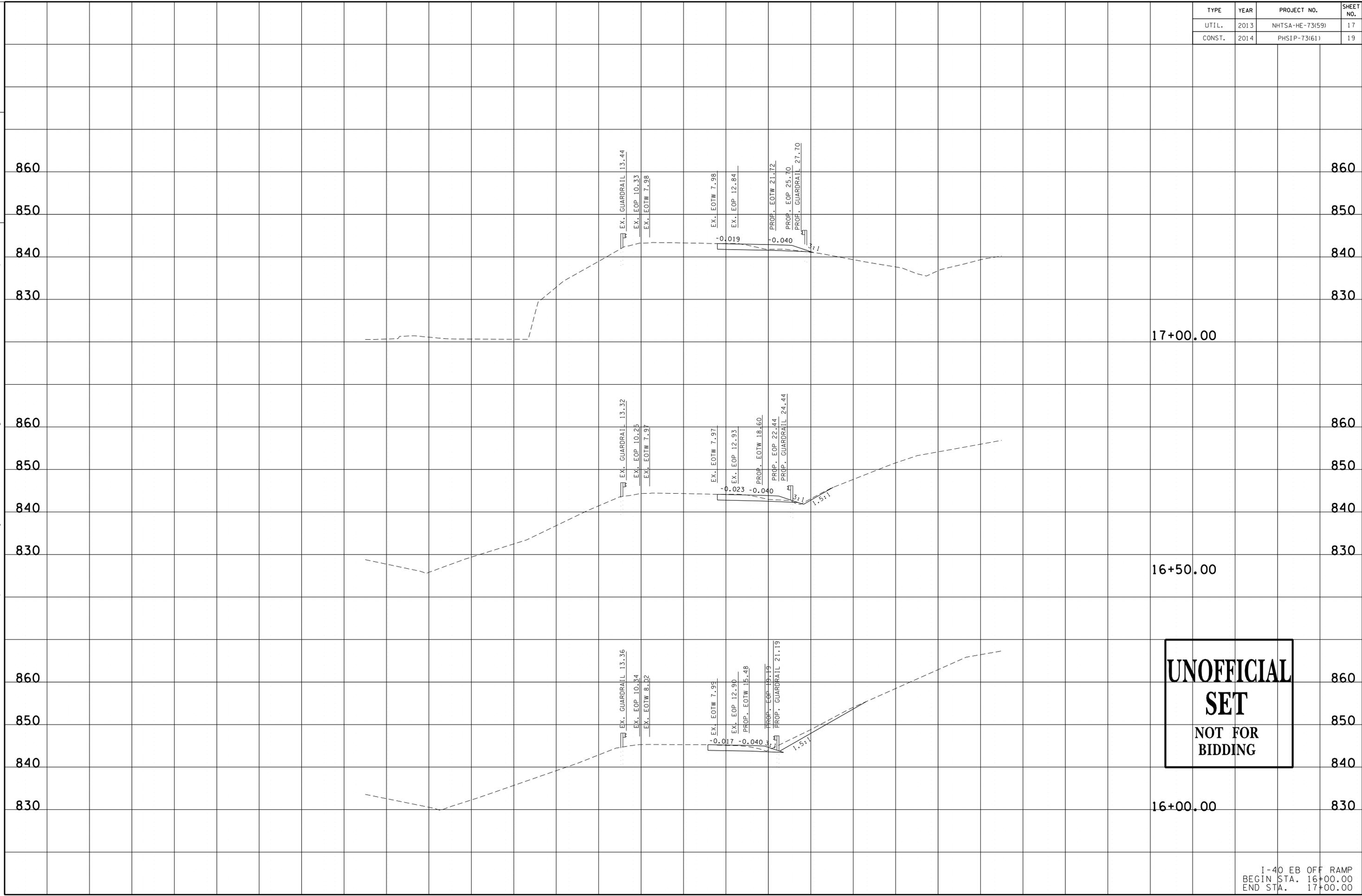
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DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	17
CONST.	2014	PHSIP-73(61)	19



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I-40 EB OFF RAMP
BEGIN STA. 16+00.00
END STA. 17+00.00

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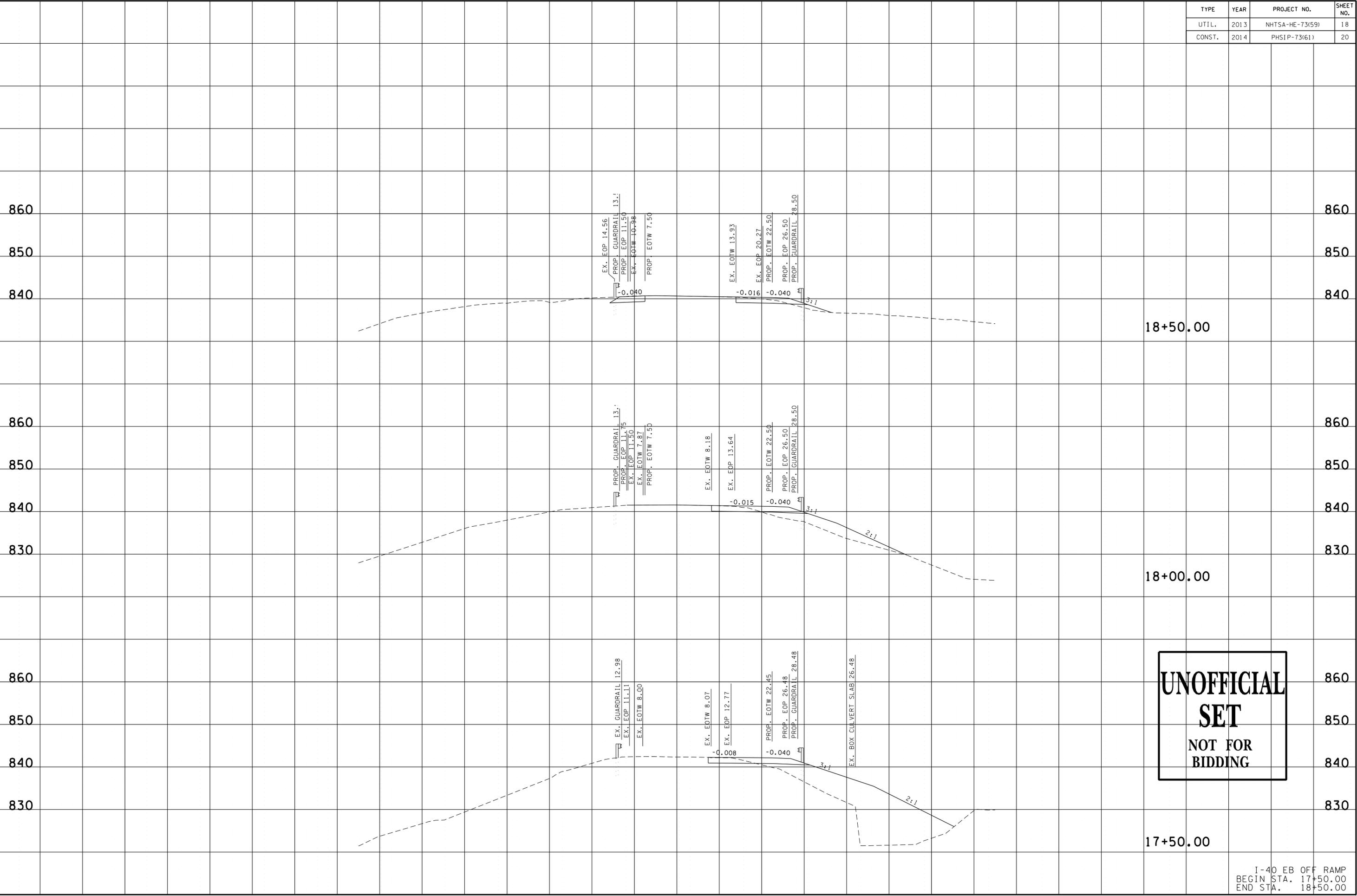
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DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	18
CONST.	2014	PHSIP-73(61)	20



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I-40 EB OFF RAMP
BEGIN STA. 17+50.00
END STA. 18+50.00

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FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	19
CONST.	2014	PHSIP-73(61)	21

860

850

840

860

850

840

860

850

840

860

850

840

19+50.00

19+00.00

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I-40 EB OFF RAMP
BEGIN STA. 19+00.00
END STA. 19+50.00

EX. EOP 43.55
EX. EOTW 38.28

EX. EOTW 15.49
PROP. GUARDRAIL 13.51
PROP. EOP 11.50

EX. EOP 8.15
PROP. EOTW 7.50

EX. EOP 8.40
EX. EOTW 12.55

PROP. EOTW 22.79
PROP. EOP 27.44
PROP. GUARDRAIL 29.44

EX. EOTW 33.77
EX. EOP 40.92

EX. EOTW 45.99
PROP. EOTW 47.21

EX. EOP 40.07
PROP. EOP 61.98

PROP. GUARDRAIL 66.17
EX. EOTW 70.44

EX. EOP 81.00

LIMITS OF I-40
OFF RAMP 12.04
SEE S.R. 75 X-SECTIONS

-0.002

-0.001

-0.040

-0.040

-0.013

-0.013

-0.040

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FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	20
CONST.	2014	PHSIP-73(61)	22

860

850

840

830

830

860

850

840

830

830

PROP. GUARDRAIL 40.72

EX. EOTW 36.53
PROP. EOP 36.11
PROP. EOTW 31.81
EX. EOTW 31.27

EX. EOTW 8.09

EX. EOP 0.59

PROP. EOTW 5.45

PROP. EOP 15.91

PROP. EOP 57.09

EX. EOP 71.73

PROP. EOTW 115.99

0.016
0.040
12:1

30+50.00

30+00.00

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I-40 EB ON RAMP
BEGIN STA. 30+00.00
END STA. 30+50.00

140

120

100

80

60

40

20

0

20

40

60

80

100

120

140

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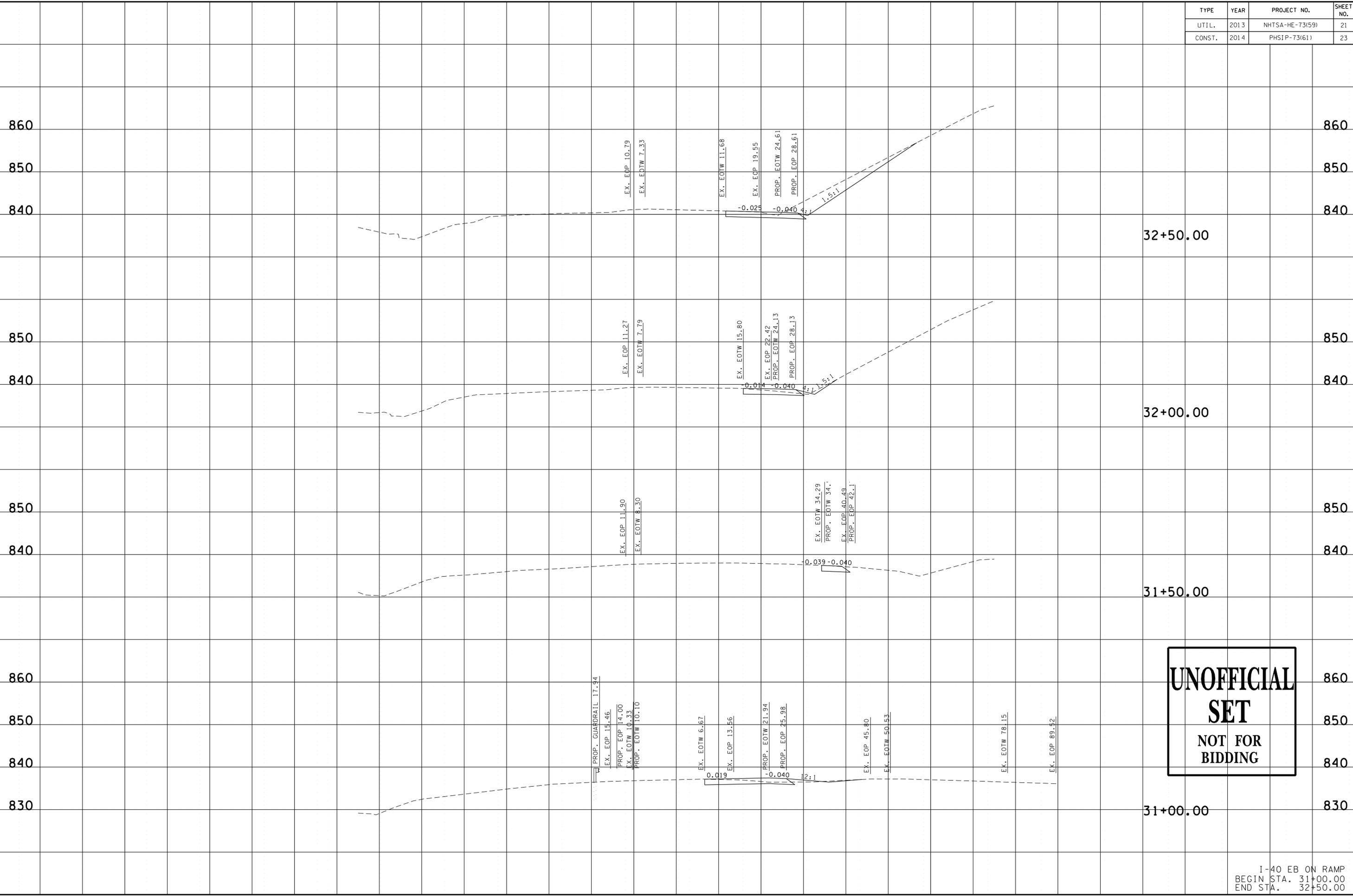
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DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	21
CONST.	2014	PHSIP-73(61)	23



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I-40 EB ON RAMP
BEGIN STA. 31+00.00
END STA. 32+50.00

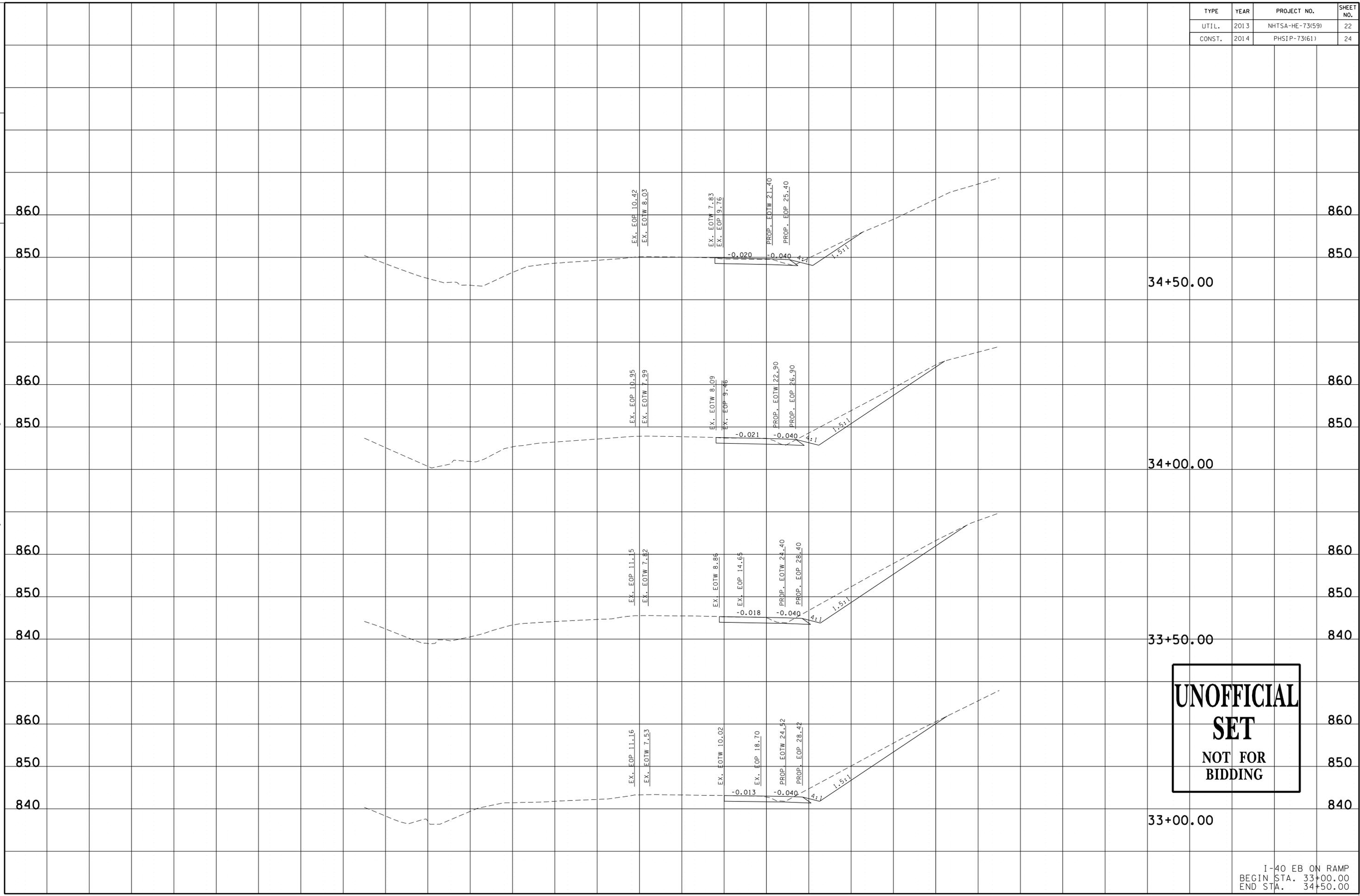
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TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	22
CONST.	2014	PHSIP-73(61)	24



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I-40 EB ON RAMP
BEGIN STA. 33+00.00
END STA. 34+50.00

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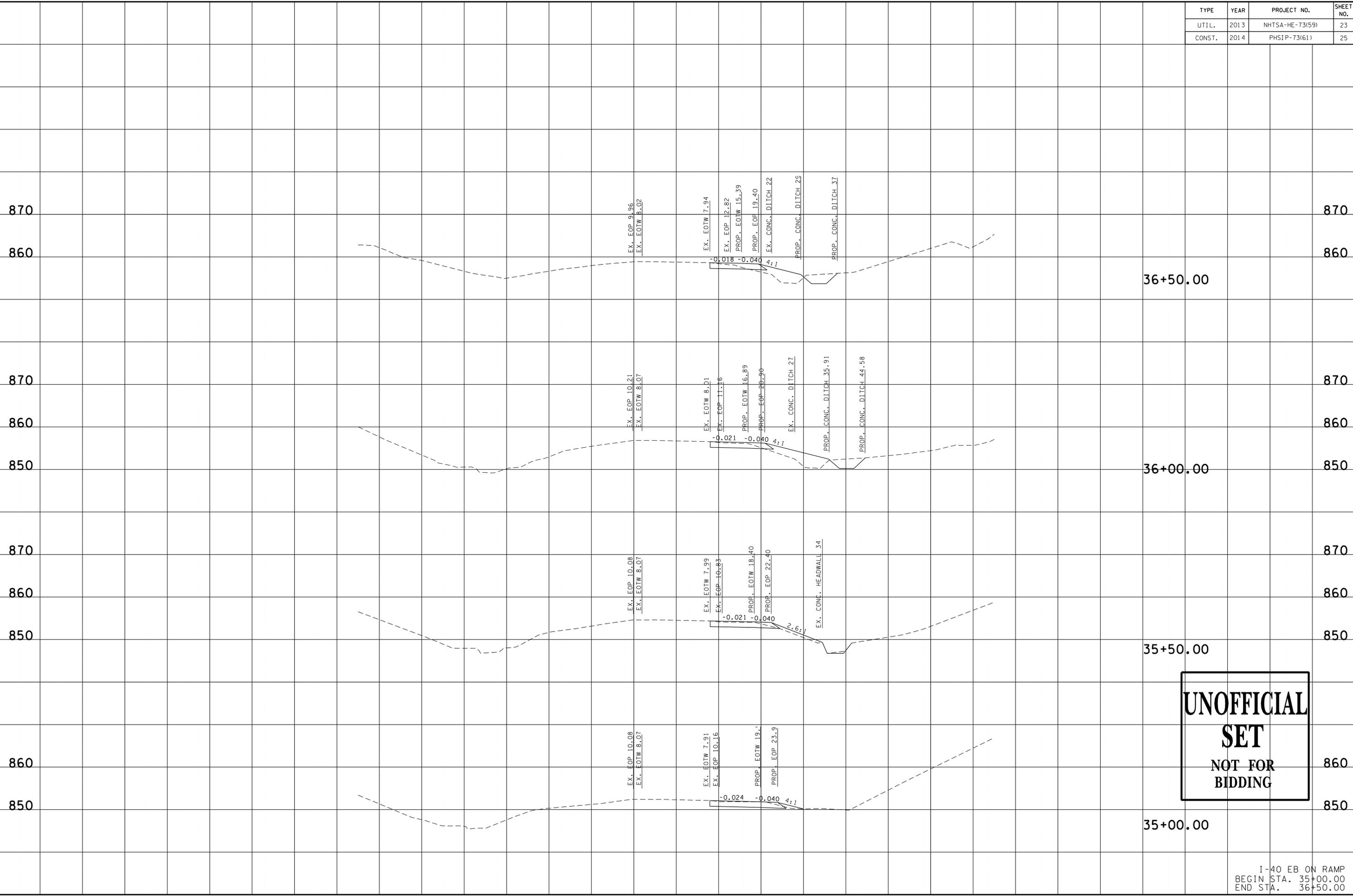
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TENNESSEE D. O. T.

DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	23
CONST.	2014	PHSIP-73(61)	25



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I-40 EB ON RAMP
BEGIN STA. 35+00.00
END STA. 36+50.00

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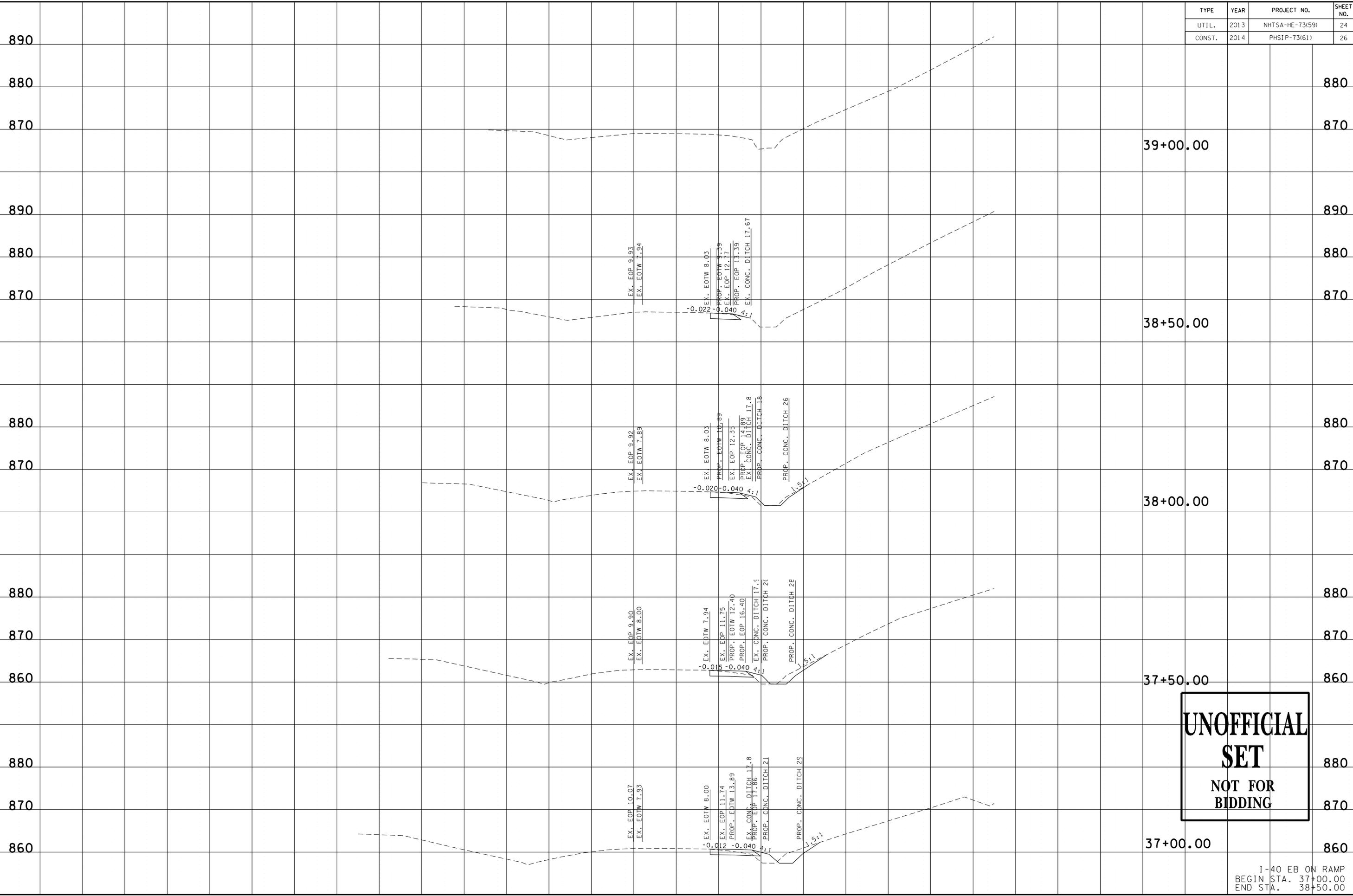
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TENNESSEE D.O.T.

DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTIL.	2013	NHTSA-HE-73(59)	24
CONST.	2014	PHSIP-73(61)	26



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I-40 EB ON RAMP
BEGIN STA. 37+00.00
END STA. 38+50.00