See Sheet 1A for
Index Of Sheets

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	NH/STP-I-24-9(76)	
NH-STATE PROJ. NO.	63001-3153-44	
STP-STATE PROJ. NO.	63030-3210-14	

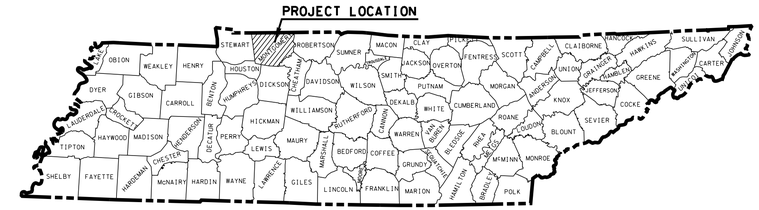
MONTGOMERY COUNTY

SIA IMPROVEMENTS SERVING HANKOOK TIRE
SR 237 (ROSSVIEW RD.) FROM WEST OF I-24 TO
EAST OF INTERNATIONAL BOULEVARD

CONSTRUCTION

STATE HIGHWAY NO. 237 F.A.H.S. NO.

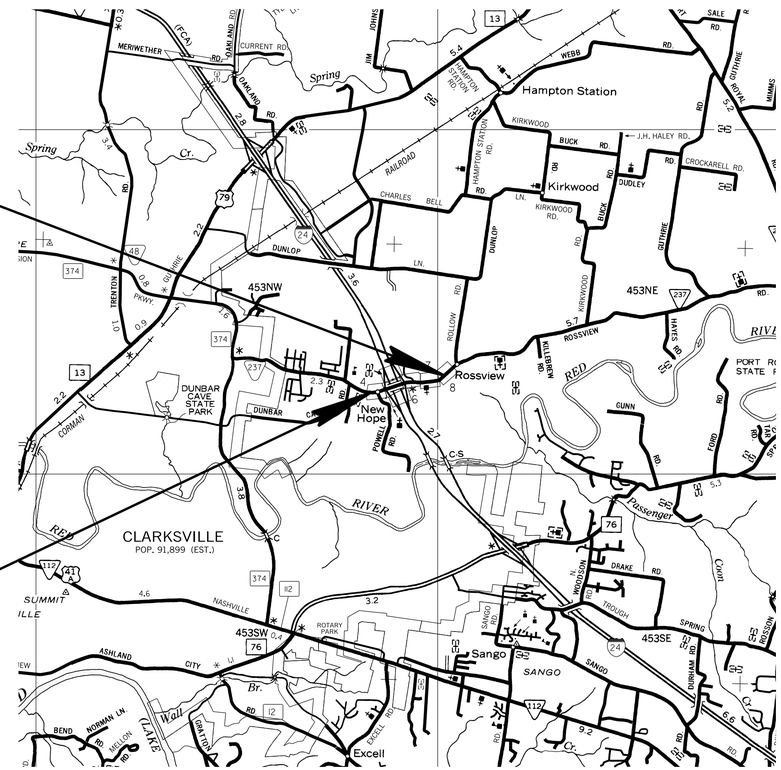
PROJECT LOCATION



NO EXCLUSIONS
NO EQUATIONS

63001-3153-44
63030-3210-14
END PROJ. NO. NH/STP-I-24-9(76) CONST.
STA. 124+58.63

63001-3153-44
63030-3210-14
BEGIN PROJ. NO. NH/STP-I-24-9(76) CONST.
STA. 70+50.00



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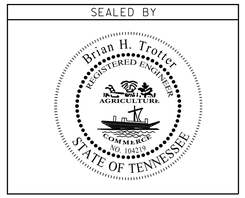

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

SURVEY DATE: NOVEMBER 25, 2013

TRAFFIC DATA	
ADT (2016)	8,410
ADT (2036)	21,530
DHV (2036)	2,793
D	55 - 45
T (ADT)	7 %
T (DHV)	5 %
V	40 MPH

ROADWAY LENGTH	0.954 MILES
BRIDGE LENGTH	0.070 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	1.024 MILES

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

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 DESIGN MANAGER LORI LANGE, P.E.
DESIGNED BY ICA ENGINEERING
DESIGNER TERESA S. SNOW CHECKED BY BRIAN TROTTER, P.E.
P.E. NO. 63030-1209-04
PIN NO. 119831.00

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	1A

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.

STANDARD ROADWAY DRAWINGS

ROADWAY DESIGN STANDARDS

DWG. NO	REV.	DESCRIPTION
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-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
RD01-SD-4		INTERSECTION SIGHT DISTANCE 5-LANE AND 4-LANE UNDIVIDED ROADWAYS
RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
RD01-TS-1	10-15-02	DESIGN STANDARDS FOR LOCAL ROADS AND STREETS
RD01-TS-2	10-15-02	DESIGN STANDARDS FOR COLLECTOR ROADS AND STREETS
RD01-TS-4	07-23-13	DESIGN STANDARDS 1 AND 2 LANE RAMPS
RD01-TS-6	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITH SHOULDER
RD01-TS-6A	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
RD-UD-3	09-05-96	UNDERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-6	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 1:1 & 2:1 SLOPES
RD-UD-7	12-18-94	LATERIAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES

DRAINAGE - CULVERTS AND ENDWALL

DWG. NO	REV.	DESCRIPTION
D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
D-PB-2	01-29-14	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PE-1	02-12-76	TYPE "A" CONCRETE ENDWALL 2:1 SLOPE, 36" TO 78"
D-PE-4	01-15-13	STRAIGHT CONCRETE ENDWALL
D-PE-18A	06-14-13	18" CONCRRETE ENDWALL CROSS DRAIN
D-PE-18B		18" CONCRRETE ENDWALL CROSS DRAIN
D-PE-24A	06-14-13	24" CONCRRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRRETE ENDWALL CROSS DRAIN
D-PE-30A	06-14-13	30" CONCRRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-30B		30" CONCRRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36A	06-14-13	36" CONCRRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-36B		36" CONCRRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-99	11-01-13	PIPE GRATE & SKEWED CONNECTION DETAILS FOR "U" ENDWALLS
D-PG-3	04-15-97	FERROUS AND ALUMINUM CORRUGATED METAL PIPE
D-PO-1	05-27-01	STANDARD OVAL & FLAT BASE CONCRETE CULVERT PIPE
D-SEW-1A	06-14-13	SIDE DRAIN CONCRETE ENDWALL WITH STEEL PIPE GRATE

DRAINAGE-CATCH BASINS AND MANHOLES

DWG. NO	REV.	DESCRIPTION
D-CB-12LP	08-01-12	LOW PROFILE 32'X 32" SQARE CONCRETE NO. 12LP CATCH BASIN
D-CB-12S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-14S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-16S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 16 CATCH BASIN
D-CB-25SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 25 CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB)
D-CB-42S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-43SB	03-11-14	STANDARD 8' X 4' RECTANGULAR CONCRETE NO. 43SB CATCH BASIN
D-CB-99	06-07-13	MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99R	03-11-14	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CB-99RA	03-19-14	BILL OF STEEL FOR ROUND CATCH BASIN LIDS
D-CBB-12A	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16, & 17 TYPE CATCH BASINS
D-CBB-12B	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & 6" MOUNTABLE INLET DETAILS FOR NOS. 25, 26 & 27 TYPE CATCH BASINS
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

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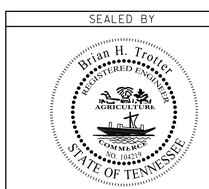

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX AND STANDARD DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	1B

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION
DRAINAGE-CATCH BASINS AND MANHOLES (CONT.)		
D-MH-2	08-01-12	STANDARD MASONRY & PRECAST NO. 3 MANHOLE
D-MH-3	04-21-14	STANDARD PRECAST CIRCULAR LID DETAILS FOR NO. 3 MANHOLE
D-MH-4	08-01-12	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS
D-RF-1		STANDARD PRECAST RISER
ROADWAY AND PAVEMENT APPURTENANCES		
RP-D-15	07-15-08	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	07-15-08	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-H-3	06-04-13	CURB RAMP AND TRUNCATED DOME SURFACE DETAIL
RP-H-4	06-04-13	PERPENDICULAR CURB RAMP
RP-H-5	06-04-13	PARALLEL CURB RAMP
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-MC-2	02-28-02	STANDARD 6" SLOPING (MOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-11	02-28-02	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS
RP-S-7	06-04-13	DETAILS FOR STANDARD CONCRETE SIDEWALKS
RP-S-8	01-19-93	DETAILS FOR STANDARD CONCRETE STEPS AND PIPE HANDRAILS
SAFETY APPURTENANCES AND FENCE		
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10C	05-14-10	RIGHT-OF-WAY FENCE AT BRIDGES AND BOX CULVERTS
S-F-10D		RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-CZ-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-2		SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
S-PL-3		SAFETY PLAN: MINIMUM INSTALLATION AT BRIDGE ENDS
S-PL-6		SAFETY PLAN: SAFETY HARDWARE PLACEMENT
S-GR31-1		W-BEAM GUARDRAIL
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-2R		EARTH PAD FOR TYPE 38 (RETROFIT)
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 21, 13 AND IN-LINE TERMINALS
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS
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-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-14	08-17-12	STANDARD STEEL GROUND MOUNTED STIGNS, BEARK-AWAY TYPE POST FOOTING DETAILS, WF-BEAMS
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	02-14-14	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
T-S-19	07-19-13	STANDARD STEEL SIGN SUPPORTS
T-S-23A	07-19-13	MULTI-DIRECTIONAL SLIP BASE BREAKAWAY SQUARE TUBE SIGN SUPPORTS
T-SG-1	11-01-11	WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	11-11-04	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS
T-SG-4		SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	12-04-13	CONTROLLER CABINET DETAILS
T-SG-7	11-01-11	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG-7A	11-01-11	TYPICAL SIGNAL HEAD PLACEMENT
T-SG-8	12-04-13	STRAIN POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-SG-9	12-04-13	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	12-04-13	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	12-04-13	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-29-04	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-01-09	FLASHING BEACON DETAIL
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-13	09-13-09	TWO-OUTSIDE LANE CLOSURE ON FREEWAY OR EXPRESSWAY
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-21	03-15-11	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
T-WZ-30	09-01-05	TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-6	08-01-12	ROCK CHECK DAM
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
EC-STR-11	08-01-12	CULVERT PROCTECTION TYPE 1
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-31	08-01-12	TEMPORARY DIVERSION CHANNEL
EC-STR-31A	04-01-08	TEMPORARY DIVERSION CHANNEL DESIGN
EC-STR-37	08-01-12	SEDIMENT TUBE
EC-STR-39	08-01-12	CURB INLET PROTECTION TYPE 1 & 2
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-46		CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A		CATCH BASIN FILTER ASSEMBLY (TYPE 6) SLIPCOVER DETAILS
EC-STR-47		CATCH BASIN FILTER ASSEMBLY (TYPE 7)
EC-STR-47A		CATCH BASIN FILTER ASSEMBLY (TYPE 7) SLIPCOVER DETAILS
EC-STR-48		CATCH BASIN FILTER ASSEMBLY (TYPE 8)
EC-STR-48A		CATCH BASIN FILTER ASSEMBLY (TYPE 8) SLIPCOVER DETAILS

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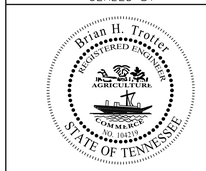

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	1C

PROJECT COMMITMENTS

COMMITMENT ID	SOURCE DIVISION	DESCRIPTION	STA./LOCATION
EDHZ001	ENVIRONMENTAL	1. THE EXISTING SR 237 (ROSSVIEW ROAD) BRIDGES OVER I-24 (BRIDGE NOS. 63100240025 AND 63100240026) HAVE ASBESTOS CONTAINING MATERIAL (ACM) IN THE WHITE TEXTURE COATING THAT IS ON THE PARAPET WALLS, THE UNDERSIDE OF THE BRIDGE DECK, THE ABUTMENT, THE BRIDGE OVERHANG, THE BENTS AND THE CONCRETE SLOPES. 2. TO MINIMIZE THE RISK TO CONSTRUCTION WORKERS, TDOT IS COMMITTED TO THE REMOVAL OF ACM FROM BRIDGES THAT ARE BEING DEMOLISHED, REHABILITATED OR REPAIRED. ACM ABATEMENT SHOULD BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES. ABATEMENT SHOULD BE ACCOMPLISHED PER SPECIAL PROVISION SP202ACM REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. 3. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT OR DEMOLITION.	STA. 85+38± TO STA. 87+10± STA. 91+77± TO STA. 93+62±

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2A

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY STP	QUANTITY NHPP	TOTAL QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	0.5	0.5	1
	201-01	CLEARING AND GRUBBING	LS	0.5	0.5	1
(1)	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	0.5	0.5	1
(2)	202-01.01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1		1
(3)	202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.		459	459
(4)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	21677	45064	66741
	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	7535	7386	14921
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	1179	5378	6557
	203-06	WATER	M.G.	66	65	131
(5)	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	298		298
(5)	209-05	SEDIMENT REMOVAL	C.Y.	30	50	80
(5)	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.		3450	3450
(5)	209-08.07	ROCK CHECK DAM PER	EACH	14	77	91
(5)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	17	33	50
(5)	209-09.41	CURB INLET PROTECTION (TYPE 2)	EACH	45	34	79
(5)	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	2		2
(5)	209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	20	16	36
(5)	209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	2		2
(5)	209-40.46	CATCH BASIN FILTER ASSEMBLY(TYPE 6)	EACH		10	10
(5)	209-40.47	CATCH BASIN FILTER ASSEMBLY(TYPE 7)	EACH		2	2
(5)	209-40.48	CATCH BASIN FILTER ASSEMBLY(TYPE 8)	EACH	3	4	7
(5)(6)	209-65.03	TEMPORARY DIVERSION CHANNEL	L.F.	909	769	1678
	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	16871	21688	38559
(5)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	53	22	75
	307-01.01	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	TON	1843		1843
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	1038		1038
	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	4903	4528	9431
	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	2424	2225	4649
	313-03	TREATED PERMEABLE BASE	S.Y.		13123	13123
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	56	48	104
	402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	214	198	412
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	16	13	29
	411-01.10	ACS MIX(PG64-22) GRADING D	TON	259	407	666
	411-02.10	ACS MIX(PG70-22) GRADING D	TON	1421	1305	2726
	415-01.01	COLD PLANING BITUMINOUS PAVEMENT	TON	96		96
	501-01.03	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"	S.Y.		12001	12001
(7)	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	1		1
(7)	604-01.02	STEEL BAR REINFORCEMENT (ROADWAY)	LB.	39		39
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	2697	1604	4301
	607-03.04	18" CONCRETE PIPE CULVERT (CLASS V)	L.F.		92	92
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	297	1357	1654
	607-05.30	24" PIPE CULVERT	L.F.	15		15
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	43	806	849
	607-06.30	30" PIPE CULVERT	L.F.		77	77
	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.		66	66
	607-07.30	36" PIPE CULVERT	L.F.		35	35
	607-16.08	53"X 34" HORIZONTAL OVAL CONCRETE PIPE CULVERT	L.F.	88		88
	607-37.30	12IN CORRUGATED METAL PIPE CULVERT	L.F.	19		19
	607-39.02	18" PIPE CULVERT (SIDE DRAIN)	L.F.	52		52

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY STP	QUANTITY NHPP	TOTAL QUANTITY
	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	1	1	2
	611-02.10	JUNCTION BOX, TYPE 1	EACH		1	1
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	8	7	15
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	145	187	332
	611-07.32	24IN ENDWALL (SIDE DRAIN)	EACH	1		1
	611-07.54	18IN ENDWALL (CROSS DRAIN) 3:1	EACH		2	2
	611-07.57	24IN ENDWALL (CROSS DRAIN) 3:1	EACH	1		1
	611-07.60	30IN ENDWALL (CROSS DRAIN) 3:1	EACH		1	1
	611-07.63	36IN ENDWALL (CROSS DRAIN) 3:1	EACH		2	2
	611-09.03	CAPPING EXISTING CATCHBASIN	EACH	2		2
	611-12.01	CATCH BASINS, TYPE 12, 0' - 4' DEPTH	EACH	5	4	9
	611-12.02	CATCH BASINS, TYPE 12, > 4' - 8' DEPTH	EACH	14	17	31
	611-12.03	CATCH BASINS, TYPE 12, > 8' - 12' DEPTH	EACH		4	4
	611-12.04	CATCH BASINS, TYPE 12, > 12' - 16' DEPTH	EACH		3	3
	611-14.02	CATCH BASINS, TYPE 14, > 4' - 8' DEPTH	EACH		2	2
	611-16.02	CATCH BASINS, TYPE 16, > 4' - 8' DEPTH	EACH	2	4	6
	611-25.02	CATCH BASINS, TYPE 25, > 4' - 8' DEPTH	EACH		1	1
	611-42.01	CATCH BASINS, TYPE 42, 0' - 4' DEPTH	EACH	1	1	2
	611-43.02	CATCH BASINS, TYPE 43, > 4' - 8' DEPTH	EACH	1		1
(8)	701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	540	8361	8901
	701-02	CONCRETE DRIVEWAY	S.F.	830	270	1110
	701-02.03	CONCRETE CURB RAMP	S.F.	185		185
	701-03	CONCRETE MEDIAN PAVEMENT	C.Y.		7	7
	702-01.01	EXTRUDED MOUNTABLE CURB	L.F.		125	125
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	238	268	506
	703-01	CEMENT CONCRETE DITCH PAVING	C.Y.		41	41
	705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.		216	216
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.		1465	1465
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH		3	3
	705-04.05	GUARDRAIL TERMINAL (TYPE-IN-LINE)	EACH		5	5
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH		1	1
	706-01	GUARDRAIL REMOVED	L.F.		2592	2592
(9)	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH		4	4
(10)(26)	707-01.01	CHAIN-LINK FENCE (4-FOOT)	L.F.		5857	5857
(26)	707-01.02	END & CORNER POST ASSEMBLY(CHAIN-LINK FENCE 4')	EACH		37	37
(11)	707-06.01	REMOVAL OF FENCE (4' STOCK FENCE)	L.F.		5882	5882
(5)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	375	375	750
(5)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	210	210	420
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	35		35
	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.		3585	3585
	710-05	LATERAL UNDERDRAIN	L.F.		563	563
	710-06.11	LATERAL UNDERDRAIN ENDWALL (2:1)	EACH		1	1
	710-06.12	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH		2	2
	710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH		15	15

NOTE: SEE SHEET 2A2 FOR ALL FOOTNOTES

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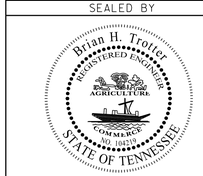

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2A1

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY STP	QUANTITY NHPP	TOTAL QUANTITY
	712-01	TRAFFIC CONTROL	LS	0.5	0.5	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.		5000	5000
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	10	228	238
	712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH		250	250
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	3	2	5
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	3	2	5
	712-06	SIGNS (CONSTRUCTION)	S.F.	293	1256	1549
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	120	72	192
	712-08.03	ARROW BOARD (TYPE C)	EACH	2	4	6
(12)	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.		8194	8194
(12)	712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.		89	89
(12)	712-09.05	REMOVABLE PAVEMENT MARKING (ARROW)	EACH		6	6
	713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	1	2	3
	713-01.02	STEEL BAR REINFORCEMENT(FOUNDATION FOR SIGN SUPPORTS)	LB.	301	601	902
(13)	713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH		42	42
	713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	462	2219	2681
	713-11.01	"U" SECTION STEEL POSTS	LB.	223	116	339
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	601	1082	1683
	713-11.21	P POST SLIP BASE	EACH		1	1
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	96	241	337
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	104	98	202
	713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	60	332	392
(14)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	0.5	0.5	1
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2	4	6
	716-01.21	SNWPLWBLE PVMT MRKRS (BI-DIR)(1 COLOR)	EACH	139	173	312
	716-01.22	SNWPLWBLE PVMT MRKRS (MONO-DIR)(1 COLOR)	EACH	62	116	178
	716-01.23	SNWPLWBLE PVMT MRKRS (BI-DIR)(2 COLOR)	EACH		30	30
(15)	716-02.04	PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING)	S.Y.	58	443	501
(15)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	139	230	369
(15)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	8	37	45
(15)	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.		133	133
(15)	716-04.04	PLASTIC PAVEMENT MARKING (TRANSVERSE SHOULDER)	L.F.		134	134
(15)	716-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	S.F.		7	7
(15)	716-04.14	PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW)	EACH	3	1	4
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0.1		0.1
(16)	716-05.02	PAINTED PAVEMENT MARKINGS (8" BARRIER LINE)	L.M.		1.6	1.6
(16)	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.		302	302
(16)	716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)	EACH	2	5	7
(16)	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)	L.M.	2.4	1.8	4.2
	716-08.20	REMOVAL OF PAVEMENT MARKING (LINE)	L.M.		0.8	0.8
	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	3.5	2.5	6.0
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.		1.9	1.9
	716-12.04	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN DOTTED LINE)	L.F.		218	218
	717-01	MOBILIZATION	LS	0.5	0.5	1
(17)	730-01.08	SCHOOL SPEED LIMIT FLASHING SIGNAL INSTALLED	EACH		1	1
	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	4	8	12
	730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	EACH	1	1	2
	730-02.30	SIGNAL HEAD ASSEMBLY (130A3 WITH BACKPLATE)	EACH	2	7	9
(27)	730-03.11	INSTALL SPLICE BOX (UNDER GRADE)	EACH	1	2	3
	730-03.20	INSTALL PULL BOX (TYPE A)	EACH	6	8	14
	730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	EACH	1	5	6
	730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	EACH	2	2	4

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY STP	QUANTITY NHPP	TOTAL QUANTITY
(18)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1	2	3
	730-05.02	SERVICE CABLE (2 CONDUCTOR, # 8 AWG)	L.F.	245	343	588
	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	1046	1592	2638
	730-08.40	INTERCONNECT CABLE - FIBER OPTIC (36 SMFO)	L.F.	460	2276	2736
	730-08.41	INTERCONNECT CABLE - FIBER OPTIC (6 SMFO DROP-CABLE)	L.F.	65	130	195
(33)	730-09.01	SPAN WIRE ASSEMBLY(21,388 LBS.MIN.BRK STRENGTH)	L.F.		364	364
(33)	730-09.02	SPAN WIRE ASSEMBLY(19,172 LBS.MIN.BRK STRENGTH)	L.F.		406	406
(33)	730-09.03	SPAN WIRE ASSEMBLY(19,274 LBS.MIN.BRK STRENGTH)	L.F.	460		460
	730-10.01	TETHER WIRE ASSEMBLY - 1/4" DIAMETER	L.F.	438	732	1170
(29)	730-12.01	CONDUIT 1" DIAMETER (PVC)	L.F.	461	537	998
(29)	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	1133	1334	2467
(29)	730-12.06	CONDUIT 2 1/2" DIAMETER (PVC)	L.F.	12	26	38
(29)	730-12.07	CONDUIT 1" DIAMETER (RGS)	L.F.	200	246	446
	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	220	172	392
(19)	730-12.16	CONDUIT (2" RGS ATTACHED TO BRIDGE)	L.F.		387	387
	730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH	4	5	9
(31)	730-13.02	VEHICLE DETECTOR (VIDEO)	EACH		2	2
(20)	730-13.08	VEHICLE DETECTOR (RADAR FOR ADVANCE DETECTION)	EACH		2	2
	730-14.01	SHIELDED DETECTOR CABLE	L.F.	1366	1296	2662
	730-14.02	SAW SLOT	L.F.	779	760	1539
	730-14.03	LOOP WIRE	L.F.	2322	2200	4522
	730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1	2	3
(21)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1	2	3
(32)	730-18.01	MASTER CONTROLLER	EACH		1	1
(22)	730-23.01	STEEL STRAIN POLE (SIGNAL SUPPORT)	EACH	4	8	12
(23)	730-23.48	CANTILEVER SIGNAL SUPPORT (1 ARM @ 20')	EACH		1	1
(30)	730-35.06	BATTERY BACK-UP AND POWER CONDITIONER	EACH	1	2	3
(28)	730-40.02	TEMPORARY TRAFFIC SIGNAL SYSTEM	LS		1	1
(5)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	1125	1130	2255
(5)	740-11.02	TEMPORARY SEDIMENT TUBE 12IN (EROSION CONTROL)	L.F.	16631	15352	31983
(5)	740-11.03	TEMPORARY SEDIMENT TUBE 18IN (EROSION CONTROL)	L.F.	450	849	1299
(5)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	572	528	1100
	801-03	WATER (SEEDING & SODDING)	M.G.	122	393	515
(24)	801-02	SEEDING (WITHOUT MULCH)	UNIT	62	49	111
(24)	801-07	SEED (SUPPLEMENTAL APPLICATION)	LB.	50	50	100
(24)	801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)	TON	0.5	0.5	1
	803-01	SODDING (NEW SOD)	S.Y.	6895	32445	39340
(24)	805-12.03	EROSION CONTROL BLANKET (TYPE III)	S.Y.		9835	9835
(25)	806-02.03	PROJECT MOWING	CYCL	6		6

NOTE: SEE SHEET 2A2 FOR ALL FOOTNOTES

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ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2A2

(1) SEE SHEET 2T FOR TABULATION OF ITEMS TO BE REMOVED

(2) FOR REMOVAL OF INDUSTRIAL PARK ENTRANCE SIGN TRACT 23

(3) FOR REMOVAL OF EXISTING CONCRETE ISLANDS & CURBS AT RAMP INTERSECTIONS

(4) INCLUDES 108 CY FOR EPSC MEASURES

(5) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.

(6) DIVERSION CHANNEL INCLUDES THE COST OF TEMPORARY LINER, AS APPROVED BY THE ENGINEER, TO PREVENT EROSION, SILTATION COLLECTION AND RUNOFF INTO WWC-1 (EPHEMERAL STREAM)

(7) FOR USE TO CONNECT EXISTING SIDEWALK AT STA. 107+40.82, SEE DETAIL SHEET 2J

(8) INCLUDES 5522 S.F. FOR MULTI-USE PATH, 52 S.F. TO RECONNECT PRIVATE SIDEWALK AT STA. 102+40.82 AND 3527 FOR SIDEWALKS ALONG SR 237 AND INTERNATIONAL BLVD.

(9) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVE 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 MANUFACTURERS DRAWINGS.

(10) PRICE BID SHALL INCLUDE ALL COSTS FOR THE INSTALLATION INCLUDING MINOR CLEARING AND GRUBBING OF NEW FENCE AT THE LOCATION SHOWN IN THE PLANS

(11) REMOVAL OF EXISTING FENCE SHALL BE PERFORMED BY HAND OR BY SUITABLE MEANS TO AVOID DAMAGE TO ADJACENT VEGETATION. VEGETATION SHALL ONLY BE REMOVED IF IT IS ENTANGLED IN THE FENCE ITSELF

(12) FOR USE AS TEMPORARY TRAFFIC CONTROL MARKING ON NEW CONCRETE PAVEMENT

(13) TO BE USED ON RAMPS

(14) REMOVE SIGN, SUPPORT AND FOOTINGS ON APPROXIMATELY 25 SIGNS AND REMOVE SIGN AND SUPPORTS (NO FOOTINGS ON THESE SIGNS) ON APPROXIMATELY 20 EXISTING SIGNS WITHIN THE LIMITS OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER

(15) CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID TO THERMOPLASTIC.

(16) FOR USE AS TEMPORARY TRAFFIC CONTROL MARKING ON INTERMEDIATE LAYERS OF PAVEMENT ONLY; NOT TO BE USED ON NEW CONCRETE PAVEMENT.

(17) ITEM NO TO INCLUDE SIGN FACE (TN-8-OH), ALL ELECTRICAL; FLASING LIGHTS, WIRING AND CONNECTORS (AS SPECIFICED IN TDOT STANDARD SPECIFICATIONS BOOK 730-28, FLASHING SCHOOL SIGNALS), TIMER, ALL BRACKETS CONTROL BOX WITH LOCK AND KEY AND ALL OTHER INCIDENTALS NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM AS LOCATED IN THE PLANS. CHARGES FOR ELECTRICAL SERVICE TO BE PAID FOR UNDER ITEM NO 730-05.01. ITEM TO INCLUDE THE REMOVAL OF THE EXISTING SCHOOL FLASHING EQUIPMENT, POLE AND WIRING.

(18) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNALS. CHARGES SHALL BE INCLUDED IN THE BID FOR THIS ITEM. INCLUDES THE COST OF THE STEEL CONDUIT RISER ASSEMBLIES AND PROPOSED POWER CABLE OVERHEAD AS REQUIRED

(19) PRICE BID INCLUDES ALL LABOR AND MATERIAL FOR ATTACHING 2" RGS CONDUIT TO NEW BRIDGES OVER I-24

(20) PRICE BID SHALL INCLUDE ALL LABOR AND MATERIALS TO INSTALL A RADAR DETECTION SYSTEM CAPABLE OF PERFORMING ADVANCED DETECTION AS INDICATED ON THE PLANS. THIS INCLUDES, BUT IS NOT LIMITED TO, MOUNTING BRACKETS (INCLUDING 15' AND 20' MAST ARMS), CABLING, PATCH CORDS, RACK CARDS AND OTHER PERTAINENT HARDWARE.

(21) ITEMS INCLUDES ALL AUXILIARY EQUIPMENT TO PROVIDE SIGNALIZATION CONTROL AS SPECIFIED IN THE PLANS, AND ALL HARDWARE NECESSARY FOR A FULLY OPERATIONAL SIGNAL

(22) THE COST OF 3'-0" DIAMETER FOOTING TO BE INCLUDED IN THE COST OF ITEM 730-23.01, SEE SHEETS 23-23E FOR FOOTING DEPTHS AND LOCATIONS

(23) TO BE USED FOR THE SCHOOL SIGNAL SPEED SIGN SUPPORT. THE FOOTING FOR THE 20'-0" CANTILEVER SIGNAL SUPPORT WILL USE A 3'-0" DIA. DRILLED SHAFT WITH A DEPTH OF 15'-0"

(24) TO BE USED WHERE AND AS DIRECTED BY THE ENGINEER

(25) ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM NO. 806-02.03, PROJECT MOWING, CYCL.

(26) SEE SHEET 2T FOR TABULATION AND LOCATION OF CA FENCE

(27) PRICE BID INCLUDES ALL LABOR AND MATERIALS (INCLUDING FURNISHING UNDERGROUND SPLICE ENCLOSURES) TO PERFORM FUSION SPLICES FOR MAIN AND DROP FIBER OPTIC CABLES AS SHOWN IN THE PLANS

(28) PRICE BID INCLUDES ALL LABOR AND MATERIALS TO FURNISH FULLY OPERATIONAL SIGNALS AT BOTH RAMP INTERSECTIONS. ALSO TO INCLUDE ANY ADJUSTMENTS TO SIGNALS TO CONFORM TO CHANGES DURING CONSTRUCTION AND REMOVAL OF BOTH SYSTEMS WHEN PERMANENT SIGNAL SYSTEMS ARE INSTALLED. SEE SHEET 2T FOR TABULATED ITEMS TO BE INCLUDED IN PRICE BID.

(29) ALL TRENCH EXCAVATION IS CONSIDERED UNCLASSIFIED AND SHALL NOT BE MEAURED AND PAID FOR SEPARATELY. ALL COSTS ASSOCIATED WITH TRENCH EXCAVATION SHALL BE INCLUDED IN THE LINEAR FOOT COST OF THE CONDUIT.

(30) PRICE BID SHALL INCLUDE ALL LABOR AND MATERIALS TO INSTALL UPS BATTERY BACK-UP SYSTEM AT EACH SIGNALIZED INTERSECTION. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO, POWER CONDITIONER, 12V ALPHACELL BATTERIES, ALL NECESSARY WIRING AND AN S-6 ENCLOSURE (NAT. ALUM.) SECURED TO A CONCRETE BASE.

(31) PRICE BID SHALL INCLUDE ALL LABOR AND MATERIALS TO INSTALL VIDEO DETECTION AT THE INTERSECTIONS OF RAMP 'A'/SR 237 (ROSSVIEW ROAD) AND RAMP 'C'/SR 237 (ROSSVIEW ROAD). THIS INCLUDES FURNISHING 2 CAMERAS, 2 PROCESSING UNITS, CAMERA MOUNTING ASSEMBLIES, COAXIAL CABLING, POWER CABLING SURGE PROTECTION AND RELATED EQUIPMENT TO PROVIDE ALL DETECTION ZONES AS INDICTED ON THE PLANS.

(32) SHALL BE INSTALLED IN SIGNAL CABINET AT THE INTERSECTION OF SR 237 AND RAMP A

(33) RAMP 'A'/SR 237 INTERSECTION SHALL USE 21,388 LBS; RAMP 'C'/SR 237 SHALL USE 19,172 LBS; INTERNATION BLVD./ SR 237 SHALL USE 19,274 LBS.

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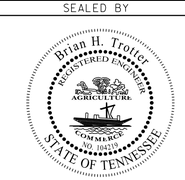

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2B

ESTIMATED UTILITY QUANTITIES

63030-3210-14

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
790-05.07	POLE 50FT CLASS H1 METAL	EACH	8
790-06.07	POLE 55FT CLASS H1 METAL	EACH	3
790-22.15	1Ø DEAD END TAP W/ EXTENSION 25KV	EACH	1
790-26.02	3Ø CROSSARM DBL LRG COND 25KV	EACH	5
790-26.12	3Ø CROSSARM DBL SM ANGLE 25KV	EACH	2
790-26.16	3Ø XARM FBRGLS LRG COND MED ANGLE 25KV	EACH	1
790-26.24	3Ø VERTICAL DEAD END LRG COND 25KV	EACH	2
790-26.26	3Ø CROSSARM DEAD END 25KV	EACH	2
790-26.28	3Ø DBL 10FT XARM DDE 25KV	EACH	1
790-30.03	SECONDARY ASSEMBLIES DEADEND	EACH	7
790-30.04	SECONDARY ASSEMBLIES MISC	EACH	8
790-32.19	DN GUY HVY CONST - 1 PREFORM	EACH	24
790-32.23	GUY GUARD	EACH	12
790-33.04	SCREW TYPE ANCHOR 10,000LB-12,000LB	EACH	12
790-40.02	OH COND 2 7/1 ACSR SPARATE	LF	350
790-40.42	OH COND 336.4 19 AAC TULIP	LF	1888
790-40.49	OH COND 795 37 AAC ARBUTUS	LF	5664
790-42.09	3IN DIA PVC PIPE	LF	112
790-42.16	1DUCT @ 36IN-48IN DEPTH	LF	112
790-43.46	SECONDARY PULL BOX LARGE	EACH	1
790-43.50	SECONDARY RISER W/ 2IN CONDUIT	EACH	1
790-46.03	1Ø TRANSFORMER CONV W/XARM MTD FUSE & LA	EACH	1
790-61.01	1Ø FUSE CUTOUT XARM MOUNT 25KV	EACH	2
790-68.01	POLE GROUND ROD TYPE	EACH	11
790-98.01	REMOVE WIRE	LF	14800
790-98.02	REMOVE POLES	EACH	13
790-98.03	REMOVE FRAMING/ASSOCIATED APPARATUS	EACH	111
791.06.34	CONNECT TO 8IN EX. STL MAIN W/STOPPLE	EACH	1
791-01.02	2IN STEEL GAS MAIN	L.F.	75
791-01.05	6IN STEEL GAS MAIN	L.F.	1050
791-01.06	8IN STEEL GAS MAIN	L.F.	1600
791-03.02	2IN HDPE GAS MAIN	L.F.	130
791-04.20	HDD 2IN STEEL PIPE - UNCONSOLIDATED	L.F.	100
791-04.23	HDD 6IN STEEL PIPE - UNCONSOLIDATED	L.F.	150
791-06.02	CONNECT TO 2IN EX. PE MAIN	EACH	1
791-06.31	CONNECT TO 2IN EX. STL MAIN W/STOPPLE	EACH	1
791-06.33	CONNECT TO 6IN EX. STL MAIN W/STOPPLE	EACH	2
791-07.01	2IN PE GAS VALVE ASSEMBLY	EACH	1
791-07.09	2IN STEEL GAS VALVE ASSEMBLY	EACH	1
791-07.11	6IN STEEL GAS VALVE ASSEMBLY	EACH	1
791-07.12	8IN STEEL GAS VALVE ASSEMBLY	EACH	1
791-09.04	REGULATOR STATION	EACH	1
793-01.08	POLE 35FT CLASS 5 WOOD	EACH	3
793-01.41	ANCHOR 1IN	EACH	15
793-11.20	HANDHOLE 30INX48IN	EACH	3
793-13.07	4IN SCHEDULE 40 PVC	L.F.	1344
795-01.01	4IN DIP RESTRAINED JOINT WATER LINE	LF	24
795-01.03	6IN DIP RESTRAINED JOINT WATER LINE	LF	1405
795-01.09	12IN DIP RESTRAINED JOINT WATER LINE	LF	60
795-01.13	16IN DIP RESTRAINED JOINT WATER LINE	LF	162
795-01.19	24IN DIP RESTRAINED JOINT WATER LINE	LF	3321
795-05.68	BORE/JACK 24IN STEEL CASING PIPE-UNCON	LF	94
795-05.70	BORE/JACK 36IN STEEL CASING PIPE-UNCON	LF	40
795-06.30	CUT/CAP EXISTING LINES (ALL SIZES)	EACH	11
795-07.03	6IN x 6IN TAPPING SLEEVE AND VALVE	EACH	4
795-07.15	12IN X 12IN TAPPING SLEEVE AND VALVE	EACH	1
795-07.61	24IN X 16IN TAPPING SLEEVE AND VALVE	EACH	2

ESTIMATED UTILITY QUANTITIES

63030-3210-14

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
795-08.04	6IN GATE VALVE ASSEMBLY	EACH	1
795-08.13	16IN BUTTERFLY VALVE ASSEMBLY	EACH	1
795-08.19	24IN BUTTERFLY VALVE ASSEMBLY	EACH	4
795-09.01	3/4IN WATER SERVICE METER ASSEMBLY	EACH	4
795-09.09	RELOCATE/RECONNECT SERVICE ASSEMBLY	EACH	3
795-09.10	SAMPLE TAP	EACH	3
795-09.28	3/4IN COPPER SERVICE PIPE	LF	170
795-11.02	FIRE HYDRANT ASSEMBLY	EACH	8
795-13.01	DI FITTINGS	LB	14007
795-14.08	RESTORE ASPHALT	SY	120
795-14.09	RESTORE CONCRETE	SY	50
795-14.10	RESTORE GRAVEL	SY	380
797-03.07	8IN PVC FORCE MAIN	LF	285
797-03.09	10IN PVC FORCE MAIN	LF	967
797-05.57	10IN PVC GRAVITY SEWER 12FT-18FT DEPTH	LF	330
797-06.64	BORE/JACK 16IN STEEL CASING PIPE UNCON.	LF	128
797-06.65	BORE/JACK 18IN STEEL CASING PIPE UNCON.	LF	187
797-07.03	48IN MANHOLE 6FT-8FT DEPTH	EACH	1
797-07.07	48IN MANHOLE 14FT-16FT DEPTH	EACH	3
797-08.01	DI FITTINGS	LB	464
797-09.08	8IN PLUG VALVE ASSEMBLY	EACH	2
797-09.26	2IN AIR /VAC VALVE ASSEMBLY	EACH	1
797-09.40	CUT AND CAP (ALL SIZES)	EACH	4
797-11.25	RETIRE IN PLACE 48IN MANHOLE	EACH	1
797-11.38	BY-PASS PUMPING	LS	1
797-11.39	TV INSPECTIONS	LF	1582
797-11.40	RESTORE ASPHALT	SY	100
797-11.41	RESTORE CONCRETE	SY	50
797-11.42	RESTORE GRAVEL	SY	200

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DEPARTMENT OF TRANSPORTATION

ESTIMATED
UILITIES
QUANTITIES

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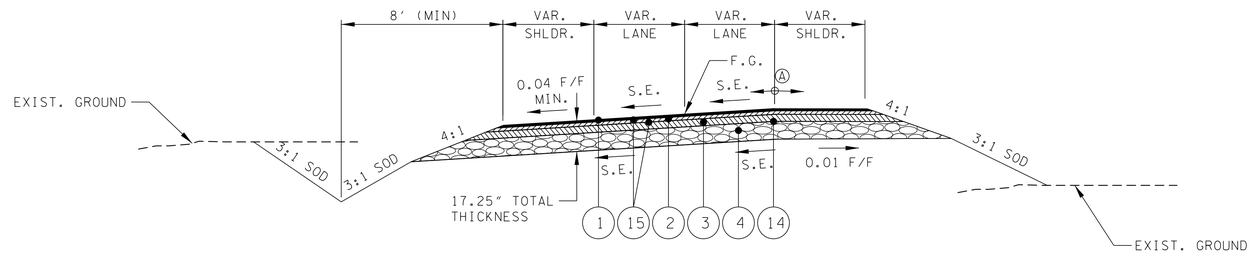
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2
CONST.	2014	NH/STP-I-24-9(76)	2C



SR 237 (ROSSVIEW RD.) TANGENT SECTION

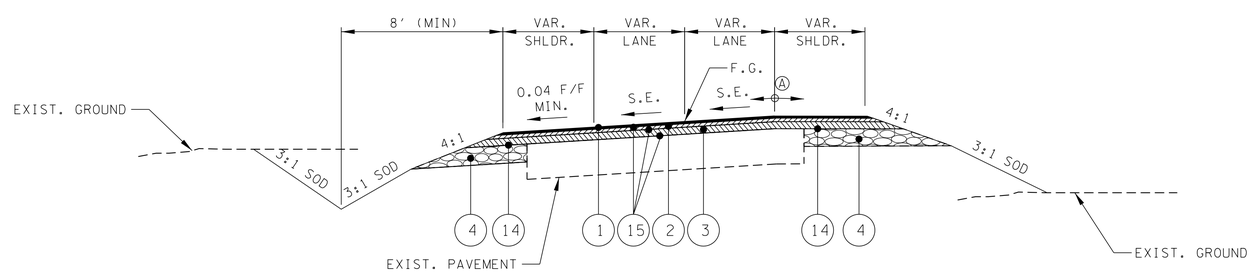
(BASED ON STD. DWG. RD01-TS-2)

LEFT LANE/SHLDR.
STA. 74+00.00 TO STA. 75+50.00 24' TO 30'/4'
STA. 75+50.00 TO STA. 76+48.30 30'/4'
STA. 119+00.00 TO STA. 124+00.00 30' TO 12'/10' TO 4'
(SEE OVERLAY AND WIDEN TYPICAL SECTION STA. 123+50.00 TO STA. 124+00.00)

RIGHT LANE/SHLDR.
STA. 74+00.00 TO STA. 75+50.00 12' TO 18'/4'
STA. 75+50.00 TO STA. 76+48.30 18'/4'
STA. 119+00.00 TO STA. 124+00.00 30' TO 12'/10' TO 4'
(SEE OVERLAY AND WIDEN TYPICAL SECTION STA. 123+50.00 TO STA. 124+00.00)

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.

SEE SHEET 2K FOR PAVEMENT SCHEDULE



NOTE: OVERLAY DEPTHS VARY. MAINTAIN FINISH GRADE ELEVATION WITH MINIMUM DEPTH OVERLAY 1.25" D-MIX. MILLING MAY BE REQUIRED.

SR 237 (ROSSVIEW RD.) OVERLAY AND WIDEN SECTION

(BASED ON STD. DWG. RD01-TS-2)

LEFT LANE/SHLDR.
STA. 70+50.00 TO STA. 74+00.00 12' TO 24'/4'
STA. 119+00.00 TO STA. 124+00.00 30' TO 12'/10' TO 4'
(OVERLAY AND WIDEN STA. 123+50.00 TO STA. 124+00.00)

RIGHT LANE/SHLDR.
STA. 70+50.00 TO STA. 74+00.00 12'/4'
STA. 119+00.00 TO STA. 124+00.00 30' TO 12'/10' TO 4'
(OVERLAY AND WIDEN STA. 123+50.00 TO STA. 124+00.00)

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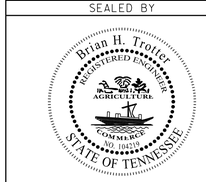

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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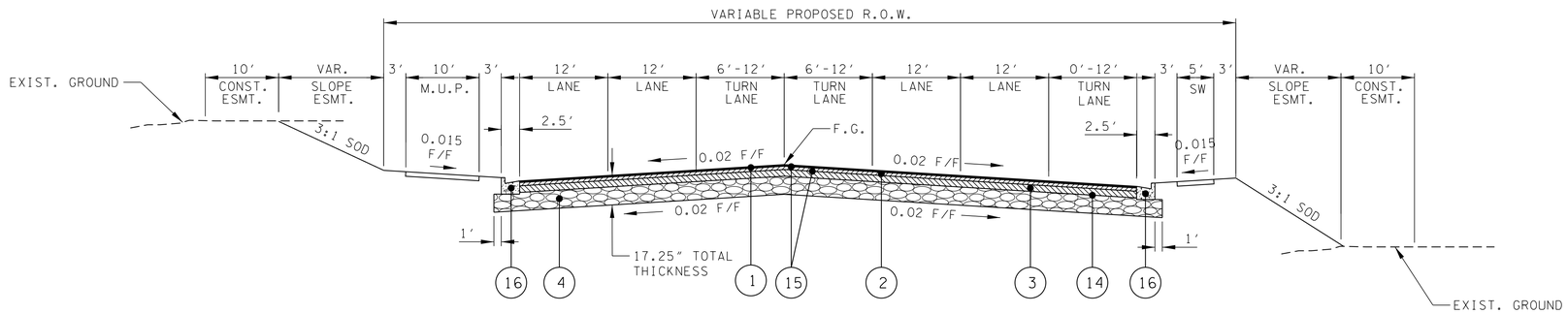
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2A
CONST.	2014	NH/STP-I-24-9(76)	2D

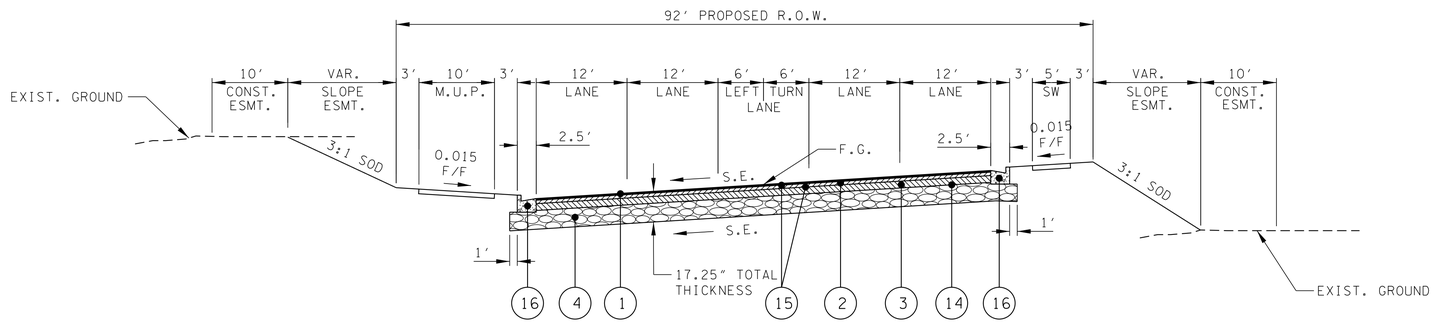


SR 237 (ROSSVIEW RD.) TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-6A)

STA. 77+73.63 TO STA. 82+95.12

SEE SHEET 2K FOR PAVEMENT SCHEDULE



SR 237 (ROSSVIEW RD.) SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-6A)

STA. 76+48.30 TO STA. 77+73.63
(MULTI USE PATH BEGINS STA. 77+06.92)

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TYPICAL SECTIONS

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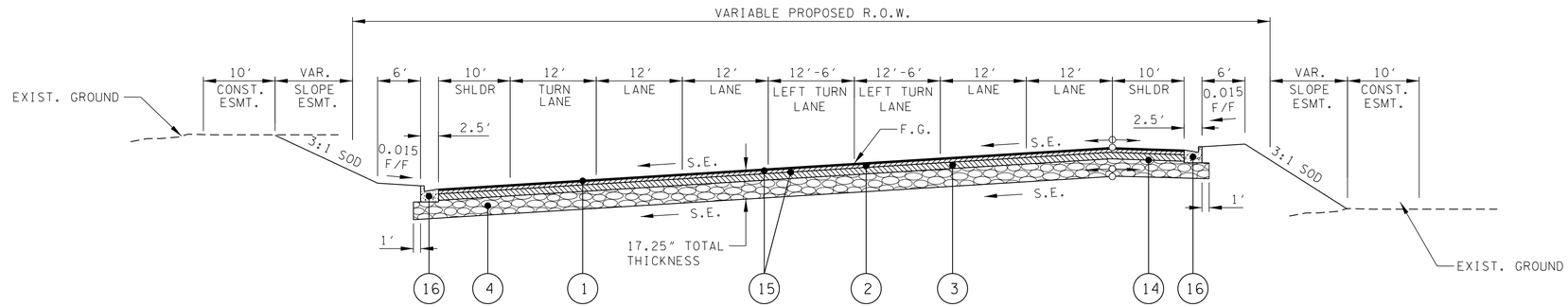
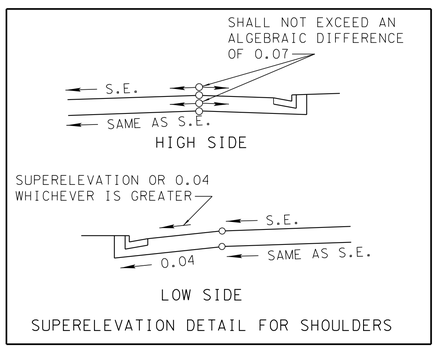
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2B
CONST.	2014	NH/STP-I-24-9(76)	2E



SR 237 (ROSSVIEW RD.) SUPERELEVATED SECTION

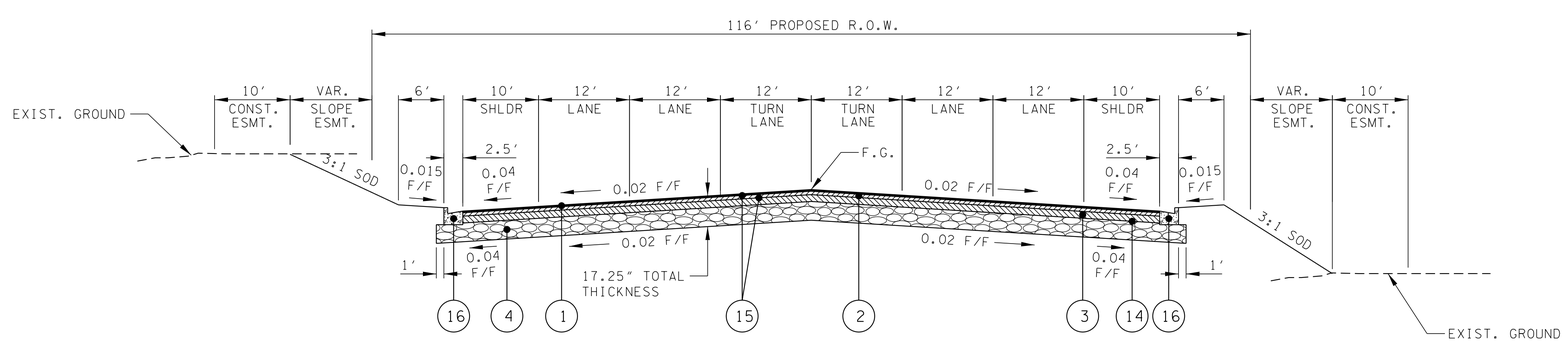
(BASED ON STD. DWG. RD01-TS-6)

STA. 95+12.57 TO STA. 99+00.00
(12′ RT. TURN LANE STA. 95+85 TO 99+00)
(12′ TO 6′ TURN LANE TAPER STA. 96+50 TO 98+90)



SUPERELEVATION DETAIL FOR SHOULDERS

SEE SHEET 2K FOR PAVEMENT SCHEDULE



SR 237 (ROSSVIEW RD.) TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-6)

STA. 82+95.12 TO STA. 95+12.57

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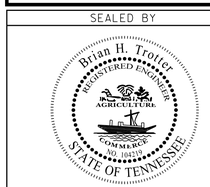

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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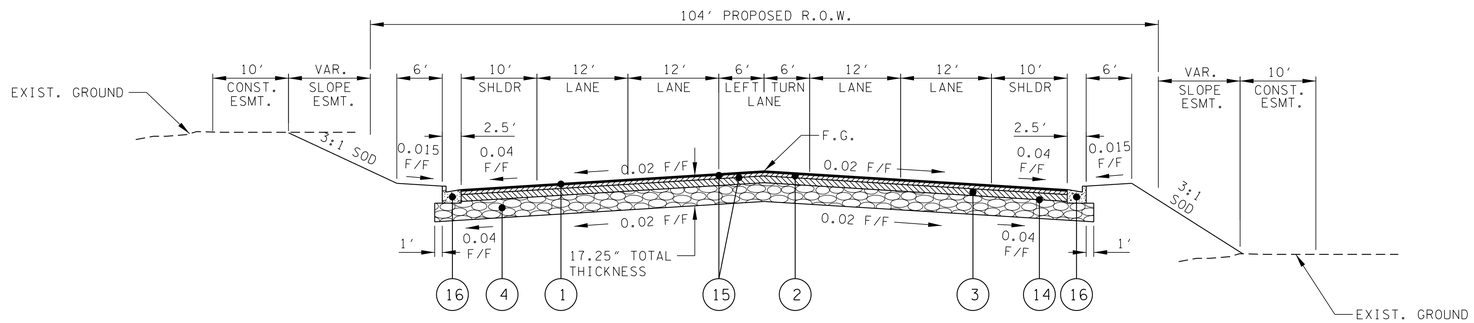
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2C
CONST.	2014	NH/STP-I-24-9(76)	2F

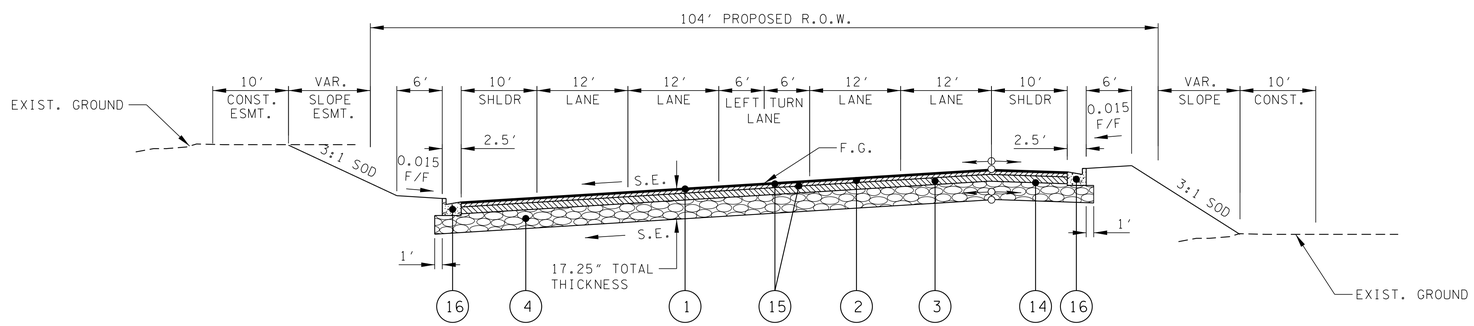


SR 237 (ROSSVIEW RD.) TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-6)

STA. 102+29.62 TO STA. 106+77.29
STA. 111+02.63 TO STA. 119+00.00

SEE SHEET 2K FOR PAVEMENT SCHEDULE



SR 237 (ROSSVIEW RD.) SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-6)

STA. 99+00.00 TO STA. 102+29.62
(INCLUDES RIGHT TURN LANE TAPER 99+00 TO 100+60)
STA. 106+77.29 TO STA. 111+02.63

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TYPICAL SECTIONS

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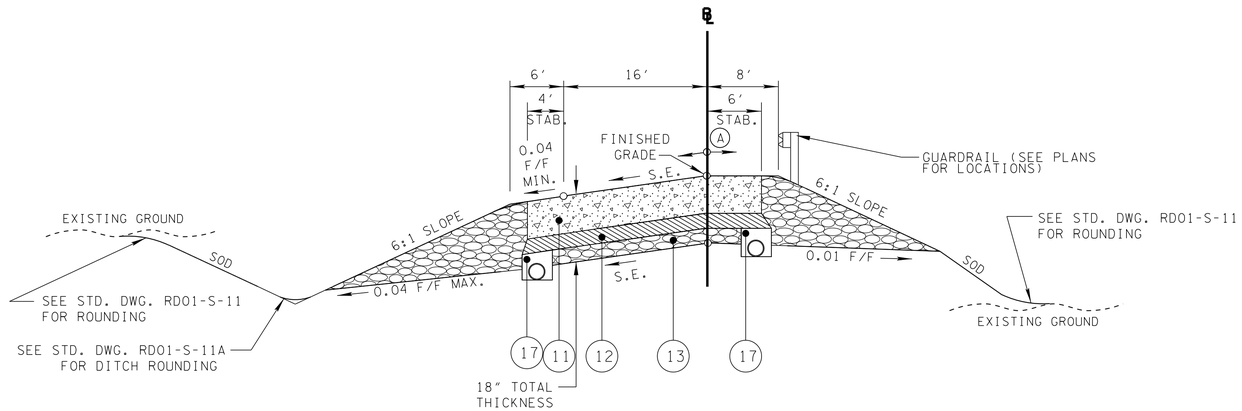
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2D
CONST.	2014	NH/STP-I-24-9(76)	2G



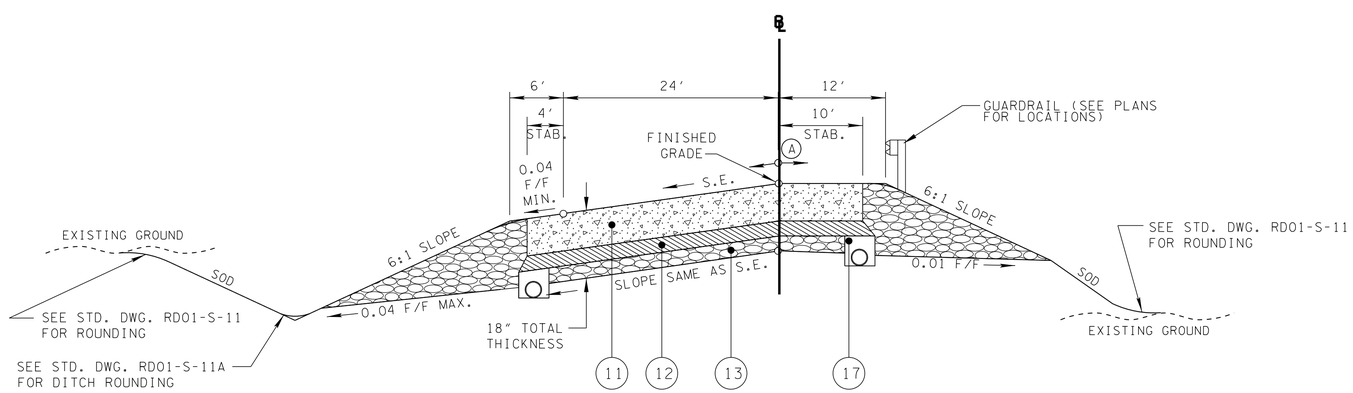
ONE LANE RAMP SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-4)

RAMP "A" - STA. 35+25.00 TO STA. 36+45.00 (16′ TO 24′)
RAMP "B" - STA. 45+00.00 TO STA. 48+90.00 (24′ TO 16′)
RAMP "B" - STA. 48+90.00 TO STA. 49+00.00
RAMP "D" - STA. 50+48.00 TO STA. 55+50.00

SEE SHEET 2K FOR PAVEMENT SCHEDULE

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.



TWO LANE RAMP SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-4)

RAMP "A" - STA. 36+45.00 TO STA. 39+64.00
RAMP "B" - STA. 40+48.00 TO STA. 45+00.00

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TYPICAL SECTIONS

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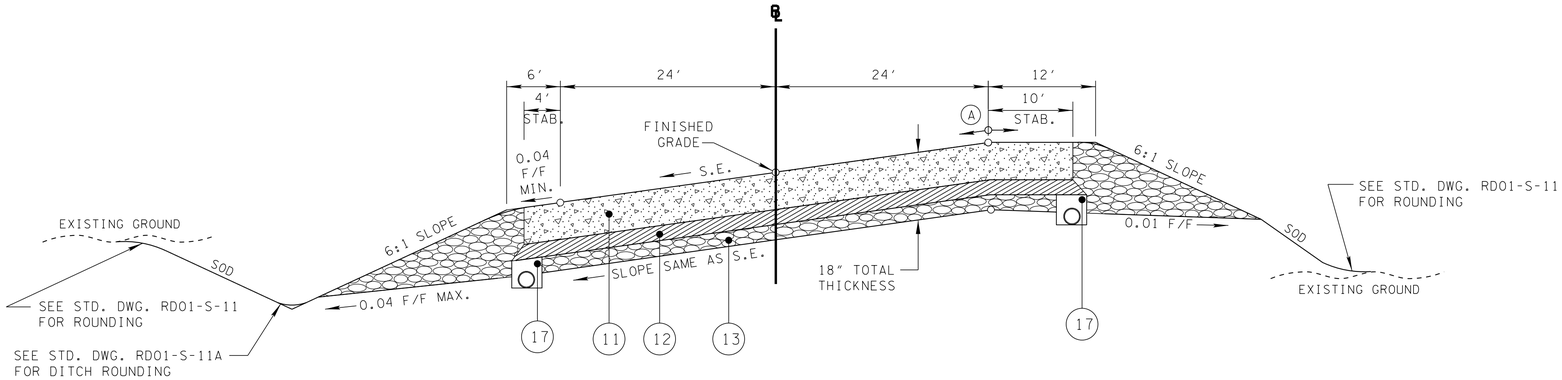
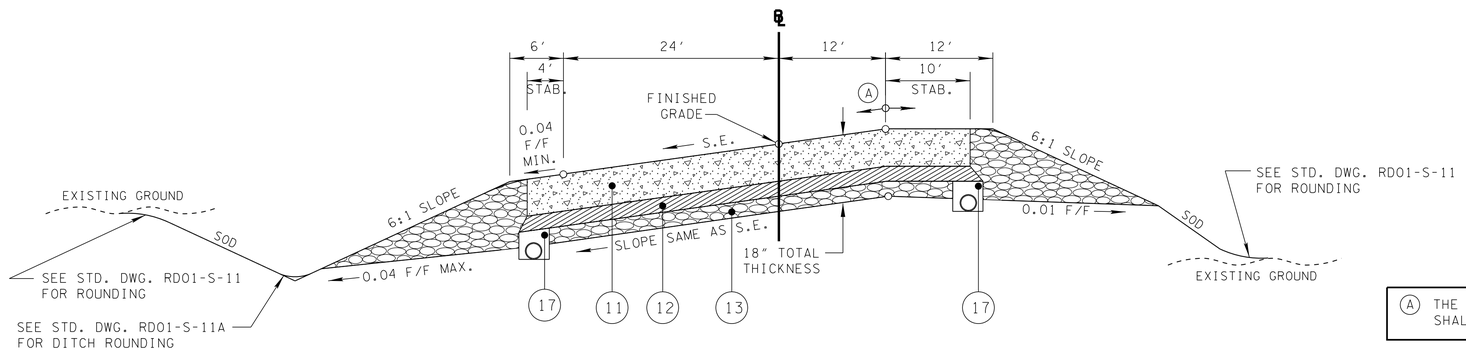
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2E
CONST.	2014	NH/STP-I-24-9(76)	2H



RAMP "C" SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-4)

STA. 44+70.00 TO STA. 46+20.00 (12′ RT. TO 24′ RT.)
STA. 46+20.00 TO STA. 49+64.00



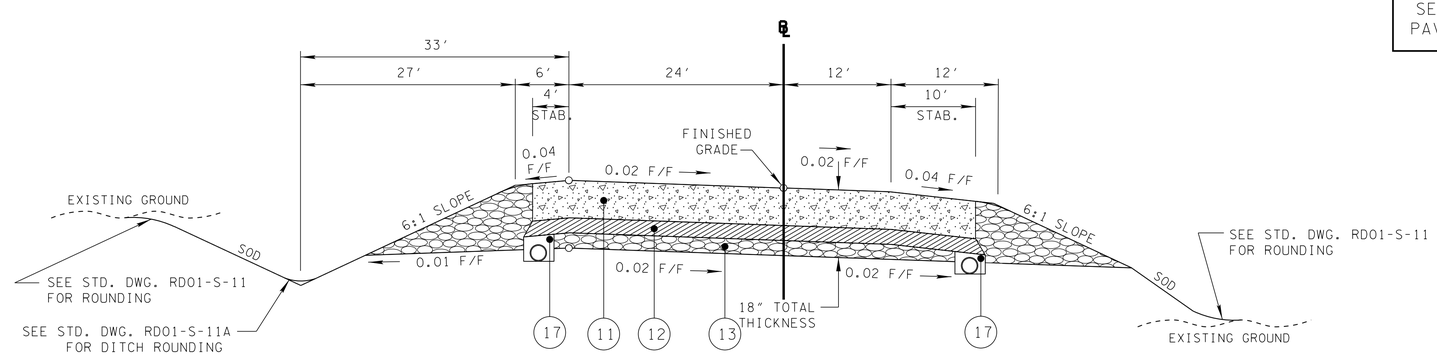
RAMP "C" SUPERELEVATED SECTION

(BASED ON STD. DWG. RD01-TS-4)

STA. 44+59.00 TO STA. 44+70.00

(A) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07.

SEE SHEET 2K FOR PAVEMENT SCHEDULE



RAMP "C" TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-4)

STA. 40+40.00 TO STA. 42+20.00 (16′ LT. TO 24′ LT.)
STA. 40+40.00 TO STA. 42+20.00 (0′ RT. TO 12′ RT.)
STA. 42+20.00 TO STA. 44+59.00

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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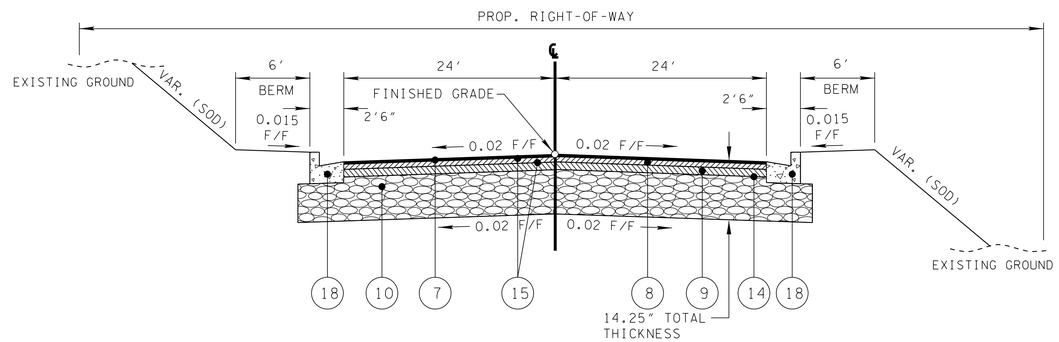
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2F
CONST.	2014	NH/STP-I-24-9(76)	2I

REV. 06-23-14: REVISED BOTTOM TYPICAL TO INCLUDE NEW ROAD

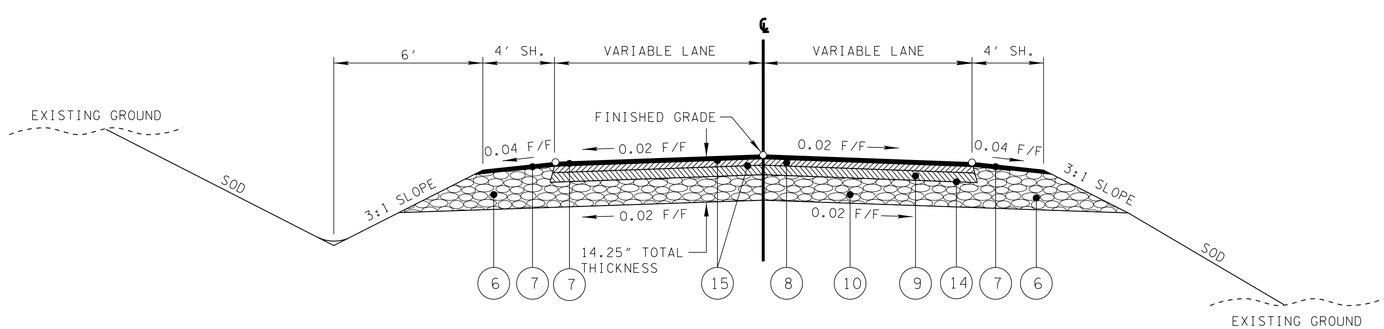


HANKOOK DR. TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-6A)

STA. 49+29.76 TO STA. 49+70.00

SEE SHEET 2K FOR PAVEMENT SCHEDULE



LOCAL ROAD TYPICAL TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-1)

POWELL ROAD STA. 30+17.79 TO STA. 31+15.00 (2@11' LANES)
NEW ROAD STA. (2@12' LANES)

UNOFFICIAL SET

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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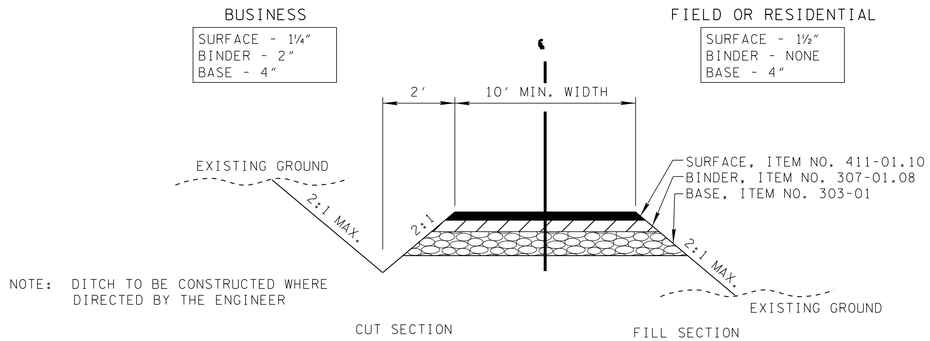
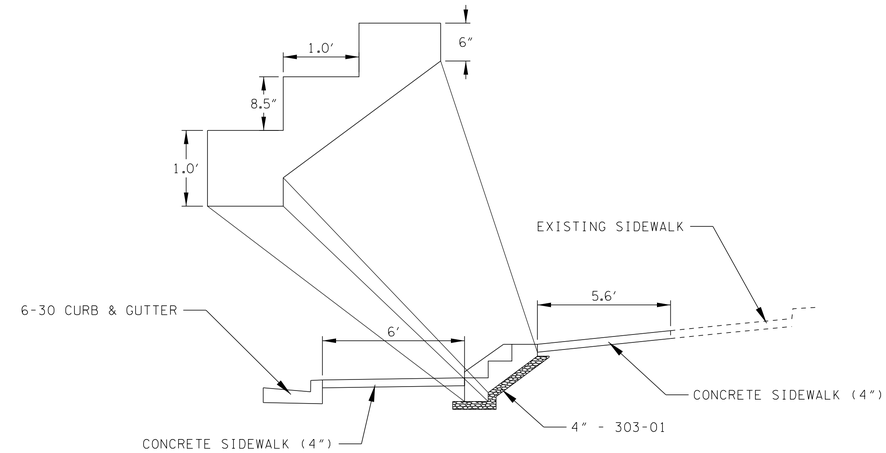
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	2G
CONST.	2014	NH/STP-I-24-9(76)	2J

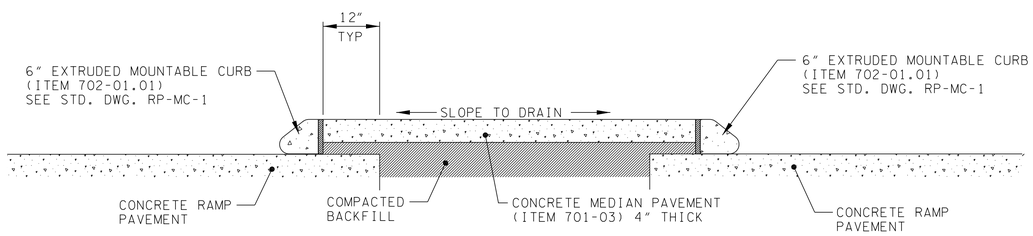


TYPICAL SECTION

PRIVATE DRIVE TO BUSINESS, FIELD, OR RESIDENTIAL PROPERTY

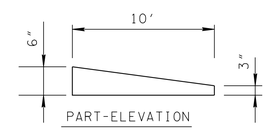


STEPS & SIDEWALK STA. 107+40.82

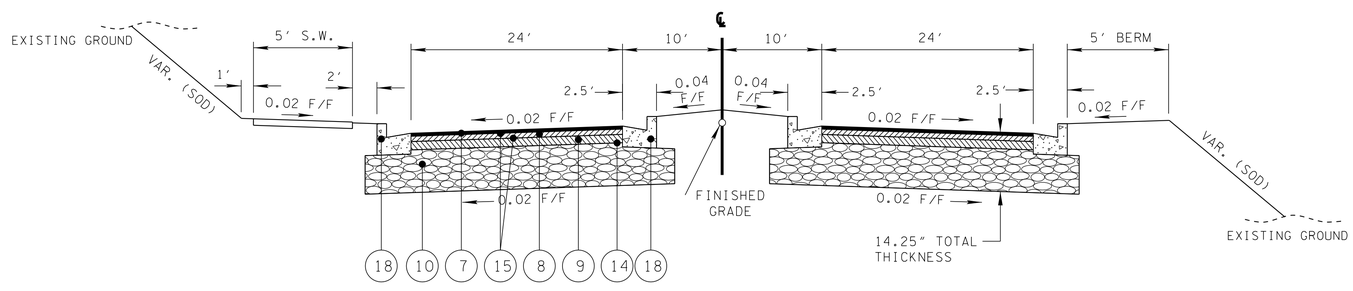


CONCRETE ISLAND DETAIL

N.T.S.
RAMP "C" AT SR 237



CURB TRANSITION DETAIL



INTERNATIONAL BLVD. TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-6)

STA. 48+50.00 TO STA. 49+70.00

SEE SHEET 2K FOR PAVEMENT SCHEDULE

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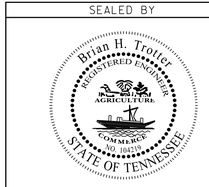

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2K

PROPOSED PAVEMENT SCHEDULE

(1) 1¼" BITUMINOUS SURFACE (ROADWAY) (± 132.5 LB/SY) ITEM 411-02.10 ACS MIX (PG70-22) GRADING D	(10) 8" MINERAL AGGREGATE BASE (ROADWAY) ITEM 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
(2) 2" BITUMINOUS BINDER (ROADWAY) (± 226 LB/SY) ITEM 307-02.08 ASPHALTIC CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	(11) 10" PORTLAND CEMENT CONCRETE PAVEMENT ITEM 501-01.03 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 10"
(3) 4" BITUMINOUS BASE (ROADWAY) (± 460 LB/SY) ITEM 307-02.01 ASPHALTIC CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	(12) 4" TREATED PERMEABLE BASE ITEM 313-03 TREATED PERMEABLE BASE
(4) 10" MINERAL AGGREGATE BASE (ROADWAY) ITEM 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	(13) 4" MINERAL AGGREGATE BASE (ROADWAY & SHOULDER) ITEM 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
(6) 16" MINERAL AGGREGATE BASE (SHOULDER) ITEM 303-01 MINERAL AGGREGATE BASE, TYPE A BASE, GRADING D	(14) PRIME COAT ITEM 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.30-0.35 GAL/SY) ITEM 402-02 AGGREGATE FOR COVER MATERIAL (PC) (RATE 8-12 LB/SY)
(7) 1¼" BITUMINOUS SURFACE (ROADWAY) (± 132.5 LB/SY) ITEM 411-01.10 ACS MIX (PG64-22) GRADING D	(15) TACK COAT ITEM 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.07 GAL/SY)
(8) 2" BITUMINOUS BINDER (ROADWAY) (± 226 LB/SY) ITEM 307-01.08 ASPHALTIC CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	(16) TYPE 6-30 CONCRETE COMBINED CURB & GUTTER (7") ITEM 702-03 CONCRETE COMBINED CURB AND GUTTER SEE STD. DWG. RP-NMC-11
(9) 3" BITUMINOUS BASE (ROADWAY) (± 345 LB/SY) ITEM 307-01.01 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A	(17) AGGREGATE UNDERDRAINS (DET. "F" ON STD. DWG. RD-UD-3) ITEM 710-02 AGGREGATE UNDERDRAINS (WITH PIPE)
	(18) TYPE 6-30 CONCRETE COMBINED CURB & GUTTER (6") ITEM 702-03 CONCRETE COMBINED CURB AND GUTTER SEE STD. DWG. RP-NMC-11

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2L

GENERAL NOTES

GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE 0F THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.

(3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-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 WATERCOURSE. 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

(1) 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.

GUARDRAIL

(1) 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.

(2) 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.

DRAINAGE

(1) 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.

(2) EXCAVATION FOR CULVERTS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).

(3) THE CUTTING OF INLET AND OUTLET 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).

(4) 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.

(5) 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

(1) 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.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S 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.

(3) 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.

(4) 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.

(5) 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.

FENCING

(1) LOCATION OF THE FENCE SHALL BE ONE FOOT INSIDE THE RIGHT-OF-WAY EXCEPT WHERE SHOWN ON THE PLANS.

(2) FENCES SHALL BE TURNED IN AT DRAINAGE STRUCTURES, STOCK PASSES AND BRIDGES WHERE DIRECTED BY THE ENGINEER SO AS TO ABUT WINGWALLS AND/OR ABUTMENTS.

(3) THE CONTRACTOR SHALL GIVE THE AFFECTED PROPERTY OWNERS TWO WEEKS NOTICE PRIOR TO CUTTING FENCES.

(4) THE CONTRACTOR SHALL BE REQUIRED TO INSTALL ACCESS CONTROL FENCES PRIOR TO CUTTING EXISTING STOCK FENCES IN AREAS UTILIZED BY DOMESTIC LIVESTOCK OR OTHER AREAS AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS

(1) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER.

(2) 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

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) 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. 716-05.20, PAINTED PAVEMENT MARKING (6" LINE), L.M.

(2) 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. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

FINAL PAVEMENT MARKING IF 4" ENHANCED FLATLINE THERMOPLASTIC IS USED

(4) 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 THERMO PVMT MRKNG (4IN 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

(5) 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 THERMO PVMT MRKNG (6IN 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 REFLECTORIZED PAINT IS USED

(6) PERMANENT PAVEMENT LINE MARKINGS SHALL BE REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S 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 (4IN LINE), L.M.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(7) THE PAVEMENT MARKING ON THE SHIFTS OR DETOURS FOR CENTERLINE AND EDGELINES 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. 716-05.20 PAINTED PAVEMENT MARKING (6" LINE), L.M. OR 716-05.02 PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

(8) BEFORE OPENING THE LANE SHIFTS OR DETOURS 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.

PAVEMENT

PAVING

(1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.

(2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

(3) 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 LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

SIGNING

(1) 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.

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GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2M

GENERAL NOTES

SIGNING

(2) 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.

(3) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.

(4) 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

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

(2) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

(3) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) 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.

(2) 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.

(3) 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.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) 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.

(6) 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 A 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.

(7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

(1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

(2) 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.

(3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

(4) 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.

(5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

(6) 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

(7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

(8) 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.

(9) 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.

(10) 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.

(11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES 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.

(12) 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.

(13) 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.

(14) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

(15) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT 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.

(16) 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.

(17) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.

(18) 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 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS 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.

(19) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.

(20) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS 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 CROSSING 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.

(21) 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.

(22) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

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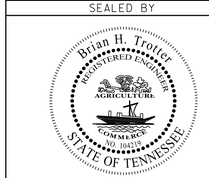

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2N

GENERAL NOTES

SPECIES

(23) 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

(24) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.

(25) 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, CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

(26) 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.

(27) 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.

(28) 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.

(29) 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.

(30) 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.

(31) 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

(32) 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

(33) 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.

(34) 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.

(35) 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.

(36) 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 A LOCAL CONTACT PERSON WITH A BREIF 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 POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

(37) 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.

(38) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS 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.

(39) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.

(40) 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.

(41) 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 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

(42) 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.

(43) 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.

SPECIAL NOTES

GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.

(3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN.

(4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

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GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20

SPECIAL NOTES

SEEDING AND SODDING

ALL EXISTING ROADS WITHIN THE RIGHT-OF-WAY AND NOT IN THE GRADED AREA 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 ITEM 203-04, PLACING AND SPREADING TOPSOIL, C.Y. SEEDING, IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, WILL BE MEASURED AND PAID FOR UNDER ITEM 801-02, SEEDING (WITHOUT MULCH) , UNIT AND 805-12.03, EROSION CONTROL BLANKET (TYPE III), S.Y.

A.

SIGNALIZATION

TEMPORARY SIGNALIZATION

(1) ALL ADJUSTMENTS TO SIGNAL EQUIPMENT NECESSARY TO MAINTAIN PROPER SIGNAL OPERATION DURING ALL PHASES OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST ASSOCIATED WITH ANY ADJUSTMENT TO THE TEMPORARY SIGNAL WILL NOT BE PAID FOR DIRECTLY BUT INCLUDED IN THE COST OF OTHER ITEMS.

(2) PERMANENT SIGNAL APPURTENANCES MAY BE UTILIZED BY THE CONTRACTOR FOR THE TEMPORARY SIGNAL DURING INTERIM PHASES OF CONSTRUCTION.

(3) ALL TEMPORARY SIGNAL APPURTENANCES ARE TO BE FULLY REMOVED FROM THE PROJECT SITE AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PERMANENT SIGNALIZATION

(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) THE TRAFFIC SIGNAL SUPPORT POLES SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRIES, AND TRAFFIC SIGNALS (CURRENT EDITION WITH ADDENDA). WIND LOADS SHALL BE BASED ON A BASIC WIND SPEED OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY I. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 OF THE SUBJECT AASHTO DOCUMENT AND THE FOLLOWING LOADS:

GALLOPING – NO DESIGN NECESSARY. VIBRATION DAMPENERS SHALL BE USED ON ALL CANTILEVERED ARMS THAT ARE 50' OR LONGER.

VORTEX SHEDDING – NOT APPLICABLE ON TRAFFIC SIGNAL SUPPORTS WITH A TAPER OF AT LEAST 0.14 IN/FT.

NATURAL WIND GUSTS – THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS SHALL BE 11.2 MPH.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 12, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

GEOTECHNICAL

(2) INSTALLATION OF EROSION CONTROL MATTING AND ESTABLISHMENT OF VEGETATION SHALL BE CONDUCTED AS SOON AS PRACTICAL TO PREVENT EROSION OF THE CUT AND FILL SLOPES.

ENVIRONMENTAL

ECOLOGY

(1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE WILL ADVISE THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING CONCERNING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR DESIGNATED CONSULTANT WILL NEED TO BE ON-SITE FOR WORK BEING DONE WHICH COULD AFFECT THE STREAM OR SPECIES.

(2) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE WILL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED BRIDGE WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS WHICH MUST BE FOLLOWED.

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SPECIAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2P

PAVEMENT QUANTITIES

LOCATION	PAY ITEMS												
	303-01	307-01.01	307-01.08	307-02.01	307-02.08	313-03	402-01	402-02	403-01	411-01.10	411-02.10	501-01.03	701-02
	(TON)					(SY)	(TON)						
SR 237	25672.00			9430.41	4648.23		60.76	243.17	26.00		2725.18		
POWELL ROAD	147.26	56.31	36.89				0.49	1.96	0.20	24.68			
RAMP 'A'	974.22					1968.67	2.91	11.81				1790.78	
RAMP 'B'	1936.00					3577.67	5.42	21.47				3216.75	
RAMP 'C'	2407.00					5902.67	8.94	35.42				5523.26	
RAMP 'D'	984.00					1673.33	2.54	10.04				1469.45	
HANKOOK DRIVE	111.65	37.95	34.86				0.33	1.32	0.13	14.58			
INTERNATIONAL BLVD.	361.00	110.40	72.32				0.97	4.00	0.39	42.40			
DRIVEWAYS & PRIVATE SIDEWALKS	420.26		119.20							130.48			1110.00
TEMPORARY WIDENING & SHOULDER REINFORCEMENT	3544.73	1637.57	774.12				20.76	82.19	2.06	453.85			
TRAFFIC CONTROL	2000.00												
TOTALS	**38558.12**	**1842.23**	**1037.39**	**9430.41**	**4648.23**	**13122.34**	**103.12**	**411.38**	**28.78**	**665.99**	**2725.18**	**12000.24**	**1110.00**

ESTIMATED GRADING QUANTITIES

LOCATION	ROAD & DRAINAGE EXC. (UNCL.)		BORROW EXCAVATION (UNCL.) (1)	EXCESS EXCAVATION WASTE	EMBANKMENT
	COMMON	TOPSOIL			
	(C.Y.)				
STAGE 1 CONSTRUCTION					
SR 237	766	1123	1363		1851
RAMP A	138			138	
RAMP B	424			424	
RAMP C	4363	1028		2869	1299
RAMP D	146			146	
EPSC	36			36	
SUB-TOTALS (STAGE 1)	**5873**	**2151**	**0**	**2251**	**3150**
STAGE 2 & 2A CONSTRUCTION					
EXCESS MATERIAL STAGE 1				2251	
SR 237 (STAGE 2 & 2A)	16788	6526	30140		40807
RAMP A (STAGE 2)	4252	696		4193	51
RAMP A (STAGE 2A)	832	224		731	88
RAMP B (STAGE 2)	935	846	3610		3952
RAMP B (STAGE 2A)	930	446		725	178
RAMP C (STAGE 2)	4383	1034		3176	1050
RAMP C (STAGE 2A)	500	44	1000		1304
RAMP D (STAGE 2)	5168	712		5047	105
RAMP D (STAGE 2A)	3554	572		3322	202
POWELL RD.	44	70	51		83
INTERNATIONAL BLVD.	470	105		377	81
DRIVEWAYS	40			23	15
EPSC	36			36	
SUB-TOTALS (STAGE 2 & 2A)	**37932**	**11275**	**14921**	**0**	**47916**
STAGE 3 CONSTRUCTION					
SR 237	8761	468		8439	280
NEW ROAD	63	142	92		135
DRIVEWAYS	40			23	15
EPSC	36			36	
SUB-TOTALS (STAGE 3)	**8900**	**610**	**0**	**8406**	**430**
TOTALS	**52705**	**14036**	**14921**		**51496**

(1) EXCESS EXCAVATION MATERIALS FROM OTHER AREAS OF CONSTRUCTION TO BE USED AS BORROW MATERIAL WHEN POSSIBLE

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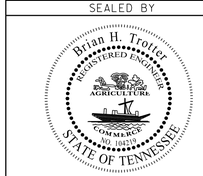

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DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 1 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2Q

STORM SEWER ENDWALLS

SHEET NO.	LOCATION	STATION	OFFSET (FT)	SIDE	DRAIN. CODE	TYPE	STANDARD DRAWING	CLASS "A" CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	24 IN ENDWALL SIDE DRAIN 6:1 611-07.32	18 IN ENDWALL CROSS DRAIN 3:1 611-07.54	24 IN ENDWALL CROSS DRAIN 3:1 611-07.57	30 IN ENDWALL CROSS DRAIN 3:1 611-07.60	36 IN ENDWALL CROSS DRAIN 3:1 611-07.63
4A	SR 237	76+00.00	38.00	RT	406	24" 6:1	D-SEW-1A			1				
5A	SR 237	87+75.00	98.00	LT	520	30" 3:1	D-PE-30A D-PE-30B						1	
5A	SR 237	89+00.00	115.00	RT	527	36" 3:1	D-PE-36A D-PE-36B							1
6A	SR 237	97+00.00	88.00	LT	607	18" 3:1	D-PE-18A D-PE-18B				1			
6A	SR 237	101+35.00	57.00	LT	620	24" 3:1	D-PE-24A D-PE-24B					1		
7A	INTERNAT'L	49+14.27	55.37	RT	719	ST	D-PE-4	1.16	40.00					
TOTALS								**1.16**	**40.00**	**1**	**1**	**1**	**1**	**1**

GUARDRAIL

SHEET NO.	LOCATION	SIDE		STATION		GUARDRAIL TO BE REMOVED 706-01 (L.F.)	GUARDRAIL		TERMINALS			REMARKS
							BRIDGE ENDS 705-01.01 (L.F.)	SINGLE TYPE 2 705-02.02 (L.F.)	TYPE 13 705-04.03	TYPE IN-LINE 705-04.05	TYPE 38 705-04.07	
		LT	RT	FROM	TO				(EACH)			
5A	SR 237	X		83+08.95	85+38.56	227.98						
5A	SR 237	X		83+32.40	85+36.71		26.9	182.73	1	1		
5/5B	RAMP "B"/SR 237	X		43+85.75	85+38.63	591.24						
5	SR 237	X		87+06.70	88+85.06	178.99						
5	SR 237	X		87+06.87	91+80.75	473.08						
5	I-24 EAST BOUND	X	X	418+71.09	420+34.19	326.78						BOTH SIDES
5	I-24 WEST BOUND	X	X	420+21.82	421+84.93	328.26						BOTH SIDES
5A	SR 237	X		87+21.71	89+29.93		26.9	198.44		1		
5A	SR 237	X		89+93.22	91+78.42		26.9	175.42		1		
5	SR 237	X		90+76.28	91+80.80	105.81						
5/6	SR 237	X		93+57.93	95+37.73	179.73						
5/6	SR 237	X		93+57.97	95+37.55	179.2						
5A-6A	SR 237	X		93+62.42	94+41.68		26.9				1	
5A	SR 237		X	83+95.57	85+36.71		26.9	503.02	1	2		
5A	SR 237		X	87+21.71	91+78.42		53.8	404.95				
5A-6A	SR 237		X	93+62.42	94+41.55		26.9		1			
TOTALS						**2591.07**	**215.2**	**1464.56**	**3**	**5**	**1**	

CROSS DRAIN TABULATION

STATION	LOCATION	RCP CLASS III 607-03.02	RCP CLASS III OR CMP 10 GA. OR HDPE OR PVC			HORIZONTAL OVAL CONCRETE PIPE	RCP CLASS V FILL HEIGHT > 24 FT. 607-03.04	SKEW	END TREATMENT									REMARKS
			607-05.30	607-06.30	607-07.30				INLET		OUTLET		CLASS B RIP-RAP 709-05.08 (TON)	18 IN EW CROSS DRAIN 3:1 611-07.54	36 IN EW CROSS DRAIN 3:1 611-07.63	CLASS A CONC. 611-07.01 (C.Y.)	REINF. STEEL 611-07.02 (LB.)	
		18"	24"	30"	36"	53"X34"	18"		TYPE	DWG NO.	TYPE	DWG NO.		(EACH)				
		L.F.																
51+69.88	RAMP "D"	103.48						58°56'24"	ST	D-PE-4	ST	D-PE-4				5.42	187	
82+00.00	SR 237			76.5	34.1			90°00'00"			36" 3:1	D-PE-36A D-PE-36B			1			
84+67.47	SR 237						91.1	89°45'17"	EXIST		18" 3:1	D-PE-18A D-PE-18B		1				
104+87.85	SR 237		14.26			87.15		90°00'00"			A	D-PE-1	34.20			7.26	105	54" ENDWALL REQ'D
TOTALS		**103.48**	**14.26**	**76.5**	**34.1**	**87.15**	**91.1**						**34.20**	**1**	**1**	**12.68**	**292**	

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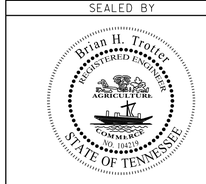

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TABULATED QUANTITIES

SHEET 2 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2R

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM OUT. EL.	TO CODE	TO IN. EL.	% GRADE	REINFORCED CONC. PIPE - CLASS III SIZE & LENGTH (L.F.) 18"	24"	30"	36"
4A	406	604.00	405	602.83	2.44%		47.86		
4A	405	602.62	404	601.19	3.01%			47.51	
4A	403	602.10	404	602.02	0.55%	14.63			
4A	404	601.02	402	600.06	1.00%			96.00	
4A	402	599.89	401	598.43	1.00%			146.49	
4A	410	602.04	411	599.44	1.10%		236.00		
4A/5A	401	598.26	514	596.65	1.00%			161.40	
4A/5A	411	599.44	504	597.67	1.10%		161.40		
5A	514	596.32	515	595.99	0.99%			33.34	
5A	515	595.66	516	595.25	1.16%			35.38	
5A	513	596.93	516	596.25	1.05%	79.82			
5A	518	597.36	513	597.09	1.10%	38.96			
5A	511	598.77	513	598.09	1.08%	69.18			
5A	510	600.17	511	598.94	1.03%	113.00			
5A	525	601.33	526	600.08	1.03%	121.00			
5A	526	589.87	527	583.50	9.71%				65.63
5A	524	600.22	526	598.22	1.02%	196.00			
5A	504	597.17	505	596.76	1.23%			33.34	
5A	505	596.76	506	596.34	1.19%			35.38	
5A	503	597.98	506	597.17	1.06%	76.15			
5A	502	598.82	503	598.15	1.05%	63.95			
5A	501	600.46	502	598.99	1.14%	129.00			
5A	520	593.00	521	592.49	1.05%			48.63	
5A	521	592.32	522	591.11	1.00%			121.00	
5A	522	590.94	526	590.04	0.99%			90.75	
5A	523	600.22	522	598.22	1.02%	196.00			
6A	602	592.98	604	591.49	1.53%	97.17			
6A	603	591.75	604	591.42	0.40%	81.62			
6A	604	591.25	605	590.85	0.41%		98.82		
6A	605	587.10	608	584.28	2.00%		140.76		
6A	608	584.11	609	582.52	1.13%		140.99		
6A	609	582.36	610	581.08	1.00%		127.47		
6A	610	580.91	611	575.39	3.43%		161.00		
6A	611	575.22	612	571.12	2.25%		182.35		
6A	613	571.61	612	571.12	0.43%	114.98			
6A	601	595.15	602	594.77	0.42%	91.08			
6A	607	588.72	606	588.60	0.43%	27.87			
6A	606	588.27	605	587.27	1.00%	100.26			
6A	620	583.20	621	581.68	11.15%		13.63		
6A	621	581.51	622	576.75	2.96%		161.00		
6A	622	576.58	624	571.74	2.65%		182.35		
6A	625	572.09	624	571.74	0.30%	114.98			
7A/6A	709	572.47	613	571.94	0.40%	133.67			
7A/6A	717	572.80	625	572.42	0.30%	128.67			
7A	708	573.24	709	572.64	0.40%	148.95			
7A	707	573.92	708	573.41	0.40%	128.79			
7A	706	574.55	707	574.09	0.40%	115.74			
7A	705	575.16	706	574.72	0.30%	146.00			
7A	704	576.12	705	575.33	0.30%	261.00			
7A	703	577.27	704	576.29	0.75%	131.00			
7A	702	578.00	703	577.70	2.58%	11.63			
7A	701	579.14	703	577.44	1.00%	170.11			
7A	716	573.30	717	572.97	0.30%	108.87			
7A	715	573.87	716	573.47	0.30%	132.94			
7A	714	574.47	715	574.04	0.30%	145.62			
7A	713	575.08	714	574.64	0.30%	146.00			
7A	712	576.03	713	575.25	0.30%	261.00			
7A	711	577.19	712	576.20	0.76%	131.00			
7A	710	579.06	711	577.36	1.00%	170.11			
TOTALS						**4196.74**	**1653.63**	**849.21**	**65.63**

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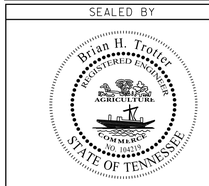

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TABULATED QUANTITIES

SHEET 3 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2S

CATCH BASINS AND MANHOLES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSIONS	DEPTH (FT.)	STANDARD DRAWING	PAY ITEMS (EACH) TYPE 12 611-12.01 0' - 4'	TYPE 12 611-12.02 4' - 8'	TYPE 12 611-12.03 8' - 12'	TYPE 12 611-12.04 12' - 16'	TYPE 14 611-14.02 4' - 8'	TYPE 16 611-16.02 4' - 8'	TYPE 25 611-25.02 4' - 8'	TYPE 42 611-42.01 0' - 4'	TYPE 43 611-43.02 4' - 8'	TYPE 1 J.B. 611-02.10	TYPE 3 M.H. 611-01.02 4' - 8'
4	SR 237	79+50.00	44.00' RT	401	603.66	CB	4X4	5.40	D-CB-12SB		1									
4	SR 237	78+00.00	32.00' RT	402	605.52	CB	4X4	5.63	D-CB-12SB		1									
4	SR 237	77+00.00	50.00' RT	403	605.10	CB	32"X32"	3.00	D-CB-42S								1			
4	SR 237	77+00.00	32.00' RT	404	607.21	CB	4X4	6.19	D-CB-12SB		1									
4	SR 237	76+48.00	30.50' RT	405	608.39	MH	5	5.77	D-MH-2											1
4	SR 237	77+10.00	32.00' LT	410	606.50	CB	4X4	4.46	D-CB-12SB		1									
4	SR 237	79+50.00	32.00' LT	411	603.90	CB	4X4	4.46	D-CB-12SB		1									
5	SR 237	84+75.00	48.00' LT	501	604.17	CB	4X3	3.88	D-CB-12S	1										
5	SR 237	83+42.00	48.00' LT	502	602.95	CB	4X3	4.13	D-CB-12S		1									
5	SR 237	82+75.00	59.81' LT	503	602.08	CB	4X3	4.10	D-CB-12S		1									
5	SR 237	81+17.40	32.65' LT	504	602.30	CB	8X4	5.13	D-CB-16S						1					
5	SR 237	81+58.70	34.20' LT	505	602.18	CB	8X4	5.42	D-CB-16S						1					
5	SR 237	82+00.00	35.75' LT	506	602.24	CB	4X4	6.07	D-CB-12SB		1									
5	SR 237	84+75.00	48.00' RT	510	604.17	CB	4X3	4.00	D-CB-12S		1									
5	SR 237	83+58.00	48.00' RT	511	603.10	CB	4X3	4.33	D-CB-12S		1									
5	SR 237	82+84.32	47.12' RT	513	602.66	MH	5	5.73	D-MH-2											1
5	SR 237	81+17.40	44.65' RT	514	602.06	CB	8X4	5.74	D-CB-16S						1					
5	SR 237	81+58.70	46.20' RT	515	601.94	CB	8X4	6.28	D-CB-16S						1					
5	SR 237	82+00.00	47.75' RT	516	602.00	CB	4X4	9.51	D-CB-12SB			1								
5	RAMP "B"	40+89.62	14.08' RT	518	601.24	CB	4X3	3.88	D-CB-12S	1										
5	SR 237	87+75.00	48.00' LT	521	605.33	CB	4X4	13.01	D-CB-12SB				1							
5	SR 237	89+00.00	48.00' LT	522	604.91	CB	4X4	13.97	D-CB-12SB				1							
5	SR 237	91+00.00	48.00' LT	523	604.22	CB	4X3	4.00	D-CB-12S		1									
5	SR 237	91+00.00	48.00' RT	524	604.22	CB	4X3	4.00	D-CB-12S		1									
5	SR 237	87+75.00	48.00' RT	525	605.33	CB	4X3	4.00	D-CB-12S		1									
5	SR 237	89+00.00	48.00' RT	526	604.91	CB	4X4	15.04	D-CB-12SB				1							
5	SR 237	84+67.47	51.33' RT	528	577.98	JB	32"X32"	3.33	D-JBS-1										1	
6	SR 237	94+92.00	48.00' LT	601	599.15	CB	8X3	4.05	D-CB-14S					1						
6	SR 237	94+92.00	48.00' RT	602	599.15	CB	8X3	6.17	D-CB-14S					1						
6	RAMP "C"	48+76.38	38.03' RT	603	595.63	CB	4X3	3.88	D-CB-12S	1										
6	SR 237	95+95.00	42.00' RT	604	597.13	CB	4X4	5.88	D-CB-25SB							1				
6	SR 237	97+00.00	46.75' RT	605	595.24	CB	4X4	8.14	D-CB-12SB			1								
6	SR 237	97+00.00	58.76' LT	606	596.88	CB	4X4	8.61	D-CB-12SB			1								
6	SR 237	98+50.00	43.01' RT	608	592.13	CB	4X4	8.02	D-CB-12SB			1								
6	SR 237	100+00.00	42.00' RT	609	588.69	CB	4X4	6.33	D-CB-12SB		1									
6	SR 237	101+35.00	42.00' RT	610	585.41	CB	4X4	4.50	D-CB-12SB		1									
6	SR 237	103+00.00	42.00' RT	611	581.08	CB	4X4	5.86	D-CB-12SB		1									
6	SR 237	104+87.85	42.00' RT	612	577.11	CB	7X7	6.28	D-CB-12SD		1									
6	SR 237	106+10.33	42.00' RT	613	576.35	CB	8X4	4.74	D-CB-16S						1					
6	SR 237	101+35.00	42.00' LT	621	586.01	CB	4X4	4.50	D-CB-12SB		1									
6	SR 237	103+00.00	42.00' LT	622	581.08	CB	4X4	4.50	D-CB-12SB		1									
6	SR 237	104+87.85	54.00' LT	623	576.50	CB	8X4	4.71	D-CB-43SB									1		
6	SR 237	104+87.85	42.00' LT	624	577.11	CB	7X7	5.66	D-CB-12SD		1									
6	SR 237	106+10.33	42.00' LT	625	576.35	CB	8X4	4.26	D-CB-16S						1					
7	SR 237	118+74.11	42.00' RT	701	583.92	CB	4X4	4.78	D-CB-12SB		1									
7	SR 237	117+00.00	57.00' RT	702	581.70	CB	32"X32"	3.70	D-CB-42S								1			
7	SR 237	117+00.00	42.00' RT	703	581.70	CB	4X4	4.43	D-CB-12SB		1									
7	SR 237	115+65.00	42.00' RT	704	580.44	CB	4X4	4.32	D-CB-12SB		1									
7	SR 237	113+00.00	42.00' RT	705	579.03	CB	4X4	3.87	D-CB-12SB	1										
7	SR 237	111+50.00	42.00' RT	706	578.43	CB	4X4	3.88	D-CB-12SB	1										
7	SR 237	110+30.26	42.00' RT	707	578.55	CB	4X4	4.63	D-CB-12SB		1									
7	SR 237	109+00.00	42.00' RT	708	578.84	CB	4X4	5.60	D-CB-12SB		1									
7	SR 237	107+50.00	42.00' RT	709	577.43	CB	4X4	4.96	D-CB-12SB		1									
7	SR 237	118+74.11	42.00' LT	710	583.32	CB	4X4	4.17	D-CB-12SB		1									
7	SR 237	117+00.00	42.00' LT	711	581.70	CB	4X4	4.51	D-CB-12SB		1									
7	SR 237	115+65.00	42.00' LT	712	580.44	CB	4X4	4.41	D-CB-12SB		1									
7	SR 237	113+00.00	42.00' LT	713	579.03	CB	4X4	3.95	D-CB-12SB	1										
7	SR 237	111+50.00	42.00' LT	714	578.43	CB	4X4	3.96	D-CB-12SB	1										
7	SR 237	110+00.00	42.00' LT	715	577.83	CB	4X4	3.96	D-CB-12SB	1										
7	SR 237	108+60.00	42.00' LT	716	577.06	CB	4X4	3.76	D-CB-12LP	1										
7	SR 237	107+45.00	42.00' LT	717	576.81	CB	4X4	4.01	D-CB-12SB		1									
7	INTERNAT'L	48+89.05	36.11' LT	718	580.23	CB	4X4	6.68	D-CB-12SB		1									
TOTALS										**9**	**31**	**4**	**3**	**2**	**6**	**1**	**2**	**1**	**1**	**2**

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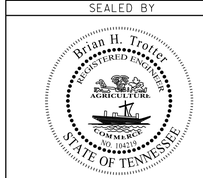

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 4 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2T

REMOVAL OF STRUCTURES

SHEET NO.	LOCATION	STATION	STATION	OFFSET	DESCRIPTION	REMARKS
4	POWELL RD.	30+14.66		C.L.	45.5 L.F. 18" RCP W/ENDWALLS	
4/5	SR 237/RAMP "B"	80+46.75	40+87.02	RT.	187 L.F. CONCRETE DITCH	
5	SR 237	85+28		71' LT. TO 52' LT.	39.5 L.F. CONCRETE DITCH	
5	SR 237	85+28		7' LT. TO 108' RT.	120 L.F. CONCRETE DITCH	
5B	RAMP "C"	40+40	45+80	LT.	537.7 L.F. CONCRETE DITCH	
5B	RAMP "C"	40+40	45+80	RT.	539.2 L.F. CONCRETE DITCH	
6	RAMP "D"	51+09.61		C.L.	84.9 L.F. 18" RCP W/ENDWALLS	
6	SR 237	99+95.48	100+57.84	LT.	62.8 L.F. CONCRETE DITCH	
6	SR 237	100+57.46	100+78.24	LT.	21 L.F. 15" CMP W/ENDWALLS	
6	SR 237	100+77.96	100+94.84	LT.	17.4 L.F. CONCRETE DITCH	
6	SR 237	100+91.34		LT.	63.2 L.F. CONCRETE DITCH	
6	SR 237	100+94.89	101+42.37	LT.	47.5 L.F. 18" RCP W/ENDWALLS	
6	SR 237	101+42.37		LT.	63.2 L.F. CONCRETE DITCH	
6	SR 237	104+92.75		RT.	40.2 L.F. 24" RCP W/ENDWALLS	
6	SR 237	106+42.72	106+62.74	RT.	20 L.F. 12" CMP	
6	NEW ROAD	51+13.33		C.L.	35.49 L.F. 18" CMP	
7	SR 237	107+39.71	107+45.91	RT.	6.2 L.F. 12" CMP	
7	SR 237	108+06.34	108+35.03	RT.	29.6 L.F. 12" CMP	

NO ADDITIONAL COMPENSATION WILL BE MADE FOR THESE REMOVALS

ITEM NO. 730-40.02 - TEMPORARY TRAFFIC SIGNAL SYSTEM

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	12
730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
730-05.02	SERVICE CABLE (2 CONDUCTOR, # 8 AWG)	L.F.	196
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	940
730-08.30	INTERCONNECT CABLE (COPPER-TWISTED PAIR)	L.F.	1250
730-09.01	SPAN WIRE ASSEMBLY	L.F.	1139
730-10.02	MESSENGER CABLE - 1/4" DIAMETER	L.F.	1250
730-12.07	CONDUIT 1" DIAMETER (RGS)	L.F.	95
730-13.02	VEHICLE DETECTOR (VIDEO)	EACH	2
730-15.07	CABINET (EIGHT PHASE POLE MOUNTED)	EACH	2
730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	2
730-18.01	MASTER CONTROLLER	EACH	1
730-21.01	WOOD POLE (SIGNAL SUPPORT) CLASS 3, 35' LENGTH	EACH	6
730-21.02	WOOD POLE (SIGNAL SUPPORT) CLASS 3, 40' LENGTH	EACH	1
730-21.10	WOOD POLE (SIGNAL SUPPORT, CLASS 3, 50' LENGTH)	EACH	1
730-22.02	GUYING DEVICE (ANGLE ANCHOR)	EACH	8

CONTROL ACCESS FENCE

STATION	OFFSET (FT)	LOCATION	STATION	OFFSET (FT)	LOCATION	CHAIN-LINK FENCE (4 FOOT) 707-01.01 (FT)	END & CORNER POST ASSEMBLY 707-01.02 (EACH)
76+93.50	128.31	SR 237 LT	80+87.81	129.14	SR 237 LT	394.31	2
80+87.81	129.14	SR 237 LT	38+22.20	140.03	RAMP "A" RT	104.49	1
38+22.20	140.03	RAMP "A" RT	32+01.14	115.03	RAMP "A" RT	643.80	1
76+93.50	61.00	SR 237 RT	78+87.43	48.99	SR 237 RT	194.31	2
78+87.43	48.99	SR 237 RT	79+08.84	50.71	SR 237 RT	21.48	1
79+08.84	50.71	SR 237 RT	79+50.00	54.00	SR 237 RT	41.29	1
79+50.00	54.00	SR 237 RT	80+99.50	54.00	SR 237 RT	149.50	1
80+99.50	54.00	SR 237 RT	81+64.06	98.25	SR 237 RT	78.27	1
81+64.06	98.25	SR 237 RT	41+33.18	126.02	RAMP "B" RT	51.98	1
41+33.18	126.02	RAMP "B" RT	45+10.19	116.90	RAMP "B" RT	394.08	1
45+10.19	116.90	RAMP "B" RT	49+88.64	119.27	RAMP "B" RT	478.46	1
35+93.04	123.98	RAMP "C" RT	42+80.42	139.52	RAMP "C" RT	672.31	2
42+80.42	139.52	RAMP "C" RT	45+36.88	132.46	RAMP "C" RT	256.55	1
45+36.88	132.46	RAMP "C" RT	47+29.87	127.16	RAMP "C" RT	193.07	1
47+29.87	127.16	RAMP "C" RT	48+21.97	126.82	RAMP "C" RT	100.58	1
48+21.97	126.82	RAMP "C" RT	97+66.44	102.72	SR 237 RT	113.25	1
97+66.44	102.72	SR 237 RT	101+35.46	94.81	SR 237 RT	341.43	1
101+35.46	94.81	SR 237 RT	101+60.00	86.21	SR 237 RT	26.00	1
87+21.71	54.00	SR 237 RT	88+17.71	150.00	SR 237 RT	135.76	2
88+17.71	150.00	SR 237 RT	90+82.42	150.00	SR 237 RT	264.71	1
90+82.42	150.00	SR 237 RT	91+78.42	54.00	SR 237 RT	135.76	1
101+60.00	51.90	SR 237 LT	100+57.57	52.02	SR 237 LT	104.44	2
100+57.57	52.02	SR 237 LT	99+00.00	64.00	SR 237 LT	165.08	1
99+00.00	64.00	SR 237 LT	98+48.91	64.12	SR 237 LT	53.66	1
98+48.91	64.12	SR 237 LT	97+91.32	75.92	SR 237 LT	61.88	1
97+91.32	75.92	SR 237 LT	51+32.46	183.32	RAMP "D" RT	77.63	1
51+32.46	183.32	RAMP "D" RT	53+09.07	139.65	RAMP "D" RT	195.09	1
53+09.07	139.65	RAMP "D" RT	55+59.63	114.04	RAMP "D" RT	272.27	1
87+21.71	54.00	SR 237 LT	87+51.02	94.94	SR 237 LT	50.35	2
91+18.18	113.18	SR 237 LT	91+78.42	54.00	SR 237 LT	84.44	2
TOTALS						5856.23	37

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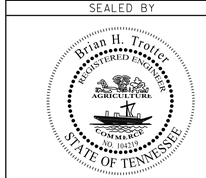

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 5 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	2U

SIDE DRAIN TABULATION

STATION	LOCATION			DESCRIPTION	SURFACE WIDTH	18" PIPE CULVERT	12IN CORRUGATED METAL PIPE CULVERT	REMARKS
						607-39.02	607-37.30	
		LT	RT		(FT.)	L.F.		
76+48.30	SR 237	X		FIELD ENT.	10	30.0		
89+59.90	SR 237	X		PARK & RIDE ENT.	40			RETAIN EXIST.
102+29.52	SR 237		X	PRIVATE	14		18.5	EXTEND EXIST.
104+30.00	SR 237	X		FIELD ENT.	12			NO S.D. REQD.
106+52.97	SR 237		X	BUSINESS	16			NO S.D. REQD.
108+18.10	SR 237		X	PRIVATE	14			NO S.D. REQD.
116+58.99	SR 237		X	BUSINESS	36			NO S.D. REQD.
30+97.93	POWELL RD.		X	PRIVATE	10			NO S.D. REQD.
31+04.00	POWELL RD.	X		BUSINESS	22			NO S.D. REQD.
51+60.07	NEW RD.		X	PRIVATE	14	22.0		
TOTALS						**52.0**	**18.5**	

SPECIAL DITCHES

STATION		LOCATION	SIDE		WIDTH	LENGTH	CEMENT CONCRETE DITCH PAVING	SODDING (NEW SOD)	REMARKS
							703-01	803-01	
FROM	TO		LT	RT	(L.F.)		(C.Y.)	(S.Y.)	
70+50.00	76+00.00	SR 237		X	8	550.00		488.89	
77+00.00	78+00.00	SR 237		X	8	100.00		88.89	
35+25.00	39+00.00	RAMP "A"	X		8	375.00		333.33	
35+25.00	35+50.00	RAMP "A"		X	8	25.00		22.22	
38+00.00	38+50.00	RAMP "A"		X	8	50.00		44.44	
40+40.00	48+00.00	RAMP "C"	X		4	760.00	37.53	337.78	
40+40.00	45+50.00	RAMP "C"		X	4	56.00	2.77	24.89	
50+81.00	55+50.00	RAMP "D"	X		8	469.00		416.89	
50+92.53	55+50.00	RAMP "D"		X	8	457.47		406.64	
96+50.00	97+00.00	SR 237	X		8	50.00		44.44	
119+50.00	124+13.00	SR 237		X	8	463.00		411.56	
124+00.00	124+58.63	SR 237	X		8	58.63		52.12	
TOTALS							**40.29**	**2672.09**	

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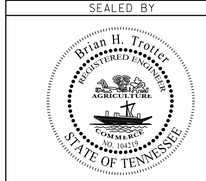

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

SHEET 6 OF 6

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	3
CONST.	2014	NH/STP-I-24-9(76)	3

UTILITIES

(1) 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.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S 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.

(3) 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.

(4) 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.

(5) 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.

RIGHT - OF – WAY

(1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, ROADWAY DESIGN DIVISION AND THE CIVIL ENGINEERING MANAGER 1, REGIONAL ROADWAY DESIGN OFFICE, ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

(2) ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.

(3) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(5) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(6) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(7) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(8) 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.

(9) ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

UTILITY OWNERS

WATER:
CITY OF CLARKSVILLE
2215 MADISON STREET
CLARKSVILLE, TN 37043
PAT HICKEY
PAT.HICKEY@CITYOFCLARKSVILLE.COM
(931) 645-7418 EXT. 1001

ELECTRIC:
C.E.M.C.
1940 MADISON EXTENSION
CLARKSVILLE, TN 37043
MARK COOK
MCOOK@CEMC.ORG
(931) 645-2481 EXT. 1117

CDE LIGHTBAND
2021 WILMA RUDOLPH BLVD.
CLARKSVILLE, TN 37040
TERRY RESHA
TRESHA@CLARKSVILLEDE.COM
(931) 905-7228 EXT. 228

STREET LIGHTS:
CLARKSVILLE STREET DEPARTMENT
199 TENTH STREET
CLARKSVILLE, TN 37040
DAVID SHEPARD
DSHEPARD@CITYOFCLARKSVILLE.COM
(931) 645-7464

SEWER:
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2215 MADISON STREET
CLARKSVILLE, TN 37043
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GAS:
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2215 MADISON STREET
CLARKSVILLE, TN 37043
MICHAEL YOUNG
MICHAEL.YOUNG@CITYOFCLARKSVILLE.COM
(615) 645-7418 EXT. 1500

CABLE:
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1850 BUSINESS PARK DRIVE
SUITE 101
CLARKSVILLE, TN 37040
CURT BALLANCE
CURT.BALLANCE@CHARTER.COM
(931) 241-8441

TELEPHONE:
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333 COMMERCE STREET, RM 23C142
NASHVILLE, TN 37201
KIM BEAN
KB1078@ATT.COM
(615) 214-4871

COUNTY:
MONTGOMERY COUNTY ENGINEER
1 MILLENNIUM PLAZA, SUITE 102
CLARKSVILLE, TN 37040
NICHOLAS B. POWELL, P.E.
NBPOWELL@MCGTN.NET
(931) 553-5113

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R.O.W. & UTILITY NOTES

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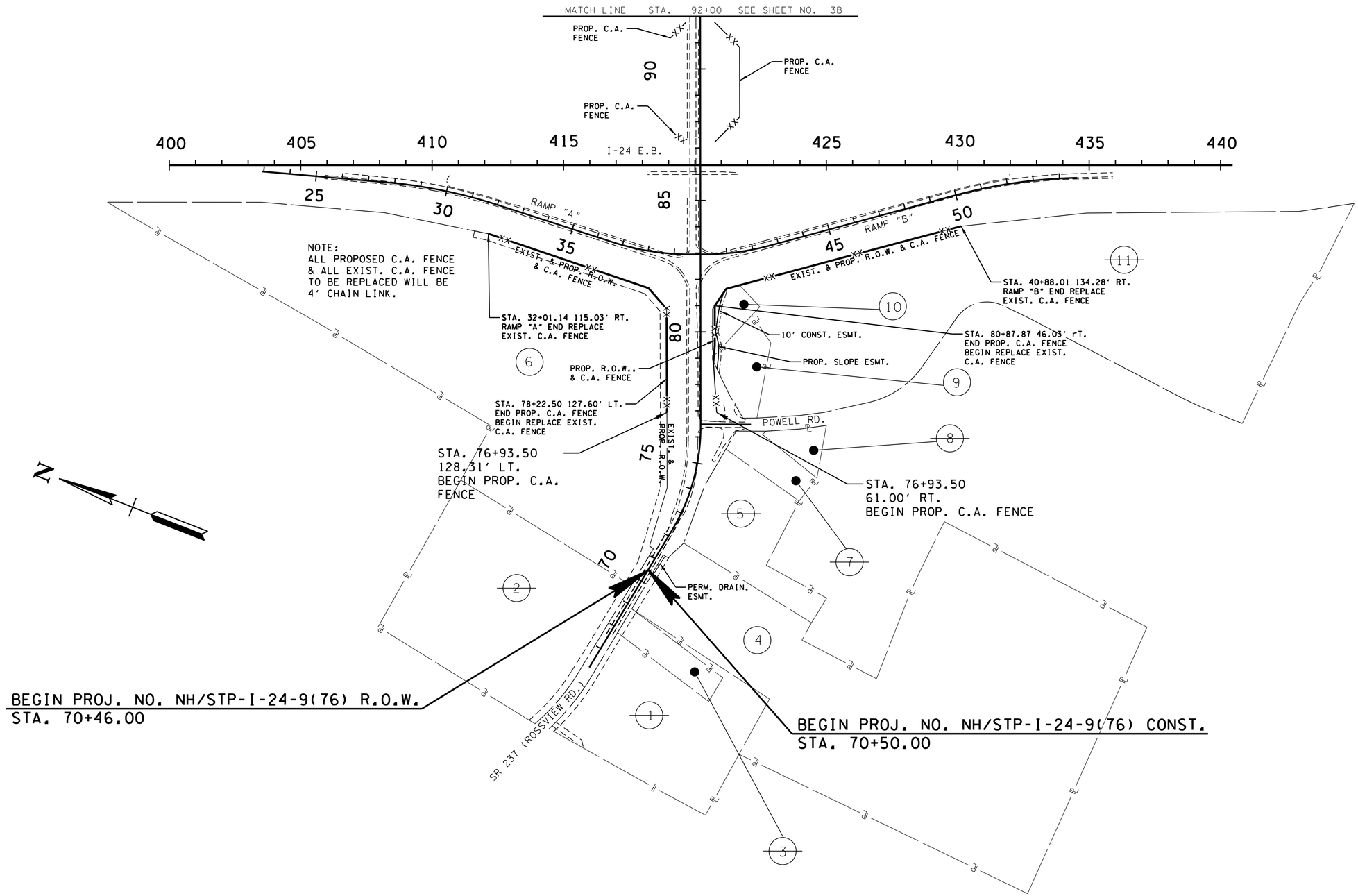
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	3A
CONST.	2014	NH/STP-I-24-9(76)	3A



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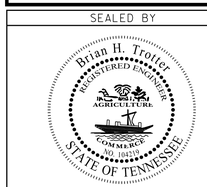

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 66+00 TO STA. 92+00

SCALE: 1"=200'

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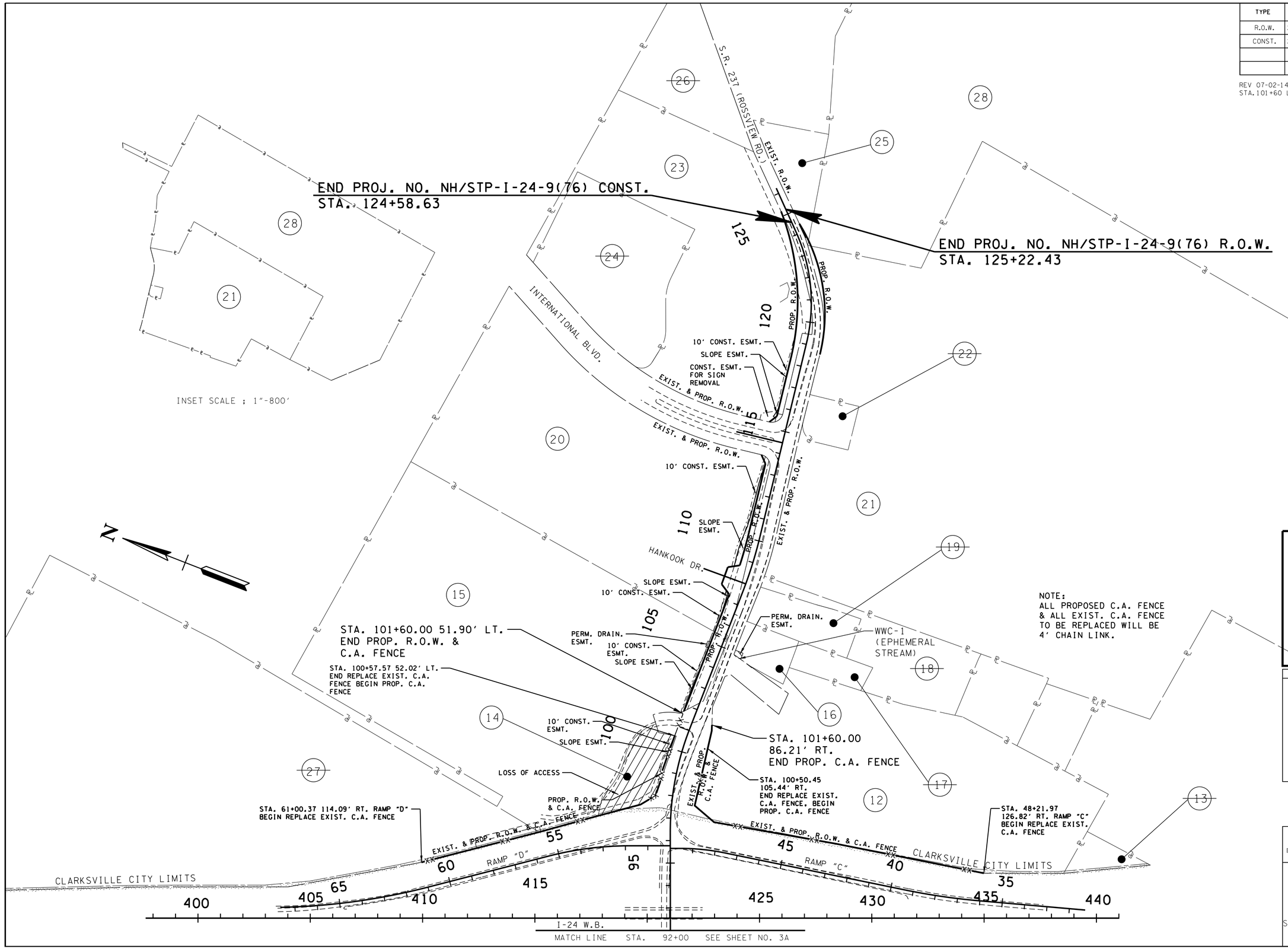
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	3B
CONST.	2014	NH/STP-I-24-9(76)	3B

REV 07-02-14: REVISED LIMIT OF C.A. TO STA. 101+60 LT & RT



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108310
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPERTY MAP

STA. 92+00 TO STA. 126+00

SCALE: 1"=200'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	3C
CONST.	2014	NH/STP-I-24-9(76)	3C

REV 04-04-14: CORRECTED TOTAL AREA RIGHT FOR TRACT #15.

REV 04-10-14: REVISED PROPERTY OWNER NAME & DEED INFO TRACT 12.

REV 05-09-14: REVISED PROPERTY OWNER NAME TRACT 25

R.O.W. ACQUISITION TABLE FOR STP-I-24-9(76), 63030-2210-14

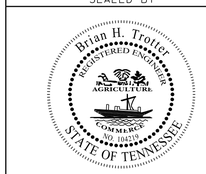
TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE BK.	DEED DOCUMENT REFERENCE PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.	
~~1~~	~~PATRICIA D. PARCHMAN~~	~~57~~	~~33~~	~~454~~	~~432~~		~~6.740~~	~~6.740~~					~~6.740~~				
~~2~~	~~TANNER PROPERTIES, GP~~	~~57~~	~~16.02~~	~~1392~~	~~162~~	~~10.990~~		~~10.990~~				~~10.990~~					
~~3~~	~~JAMES P. PARCHMAN~~	~~57~~	~~33.01~~	~~411~~	~~339~~		~~1.040~~	~~1.040~~					~~1.040~~				
4	JAMES PATRICK PARCHMAN	57	99.0	454	430		30.710	30.710					30.710	599			
~~5~~	~~SEAY FAMILY PARTNERSHIP~~	~~57~~	~~31.0~~	~~1106~~	~~2192~~		~~3.540~~	~~3.540~~					~~3.540~~				
6	HAYES PROPERTIES OF CLARKSVILLE, LP	57	16.0	1392	162	29.740		29.740				29.740					(1)
~~7~~	~~BRENDTHA McGREGOR, AND HEIRS~~	~~57~~	~~30.0~~	~~101~~	~~374~~		~~0.930~~	~~0.930~~					~~0.930~~				
~~8~~	~~EARLEAN McGREGOR-GARRETT~~	~~57~~	~~30.01~~	~~1509~~	~~1886~~		~~0.560~~	~~0.560~~					~~0.560~~				
~~11~~	~~BATSON DEVELOPMENT COMPANY, INC.~~	~~57~~	~~23.01~~	~~141~~	~~401~~		~~26.270~~	~~26.270~~					~~26.270~~				
12	CORNELIA C. MITCHELL AND HUSBAND, JOHN L. MITCHELL, ET AL	57	17.0	245 171 172	883 445 231		24.580	24.580					24.580				(1)
~~13~~	~~BATSON DEVELOPMENT COMPANY, INC.~~	~~57~~	~~23.0~~	~~390~~	~~1715~~		~~0.780~~	~~0.780~~					~~0.780~~				
15	THE INDUSTRIAL DEVELOPMENT BOARD OF THE COUNTY OF MONTGOMERY, TENNESSEE	57	17.01	1185	387	38.732	3944 S.F.	38.823	0.412	3944 S.F.	0.502	38.320	0.000	392	730	3311	
16	RONNIE WALLACE	57	18.0	1181	2121		1.060	1.060					1.060	887			
~~17~~	~~CEMETARY~~	~~57~~	~~19.01~~	~~17~~	~~533~~		~~0.940~~	~~0.940~~					~~0.940~~				
~~18~~	~~JAMES REESE ET UX~~	~~57~~	~~20.0~~	~~824~~	~~2815~~		~~4.200~~	~~4.200~~					~~4.200~~				
~~19~~	~~ST MATTHEWS CHURCH OF THE AFRICAN METHODIST EPISCOPAL CHURCH~~	~~57~~	~~19.0~~	~~17~~	~~533~~		~~1.920~~	~~1.920~~					~~1.920~~				
20	THE INDUSTRIAL DEVELOPMENT BOARD OF THE COUNTY OF MONTGOMERY, TENNESSEE	57	17.02	1075	2964	26.262	1658 S.F.	26.300	0.716	1658 S.F.	0.754	25.546	0.000		0.159 AC	0.153 AC	
21	B & S DEVELOPMENT	58	1.0	1145	1486		114.450	114.450		0.125	0.125		114.325				
~~22~~	~~RAKESHKUMAR RATILAL PATEL AND WIFE, DIPIKABEN RAKESH PATEL~~	~~57~~	~~17.05~~	~~1474~~	~~2500~~		~~1.000~~	~~1.000~~					~~1.000~~				
23	THE INDUSTRIAL DEVELOPMENT BOARD OF THE COUNTY OF MONTGOMERY, TENNESSEE	57	17.02	1075	2964	18.715	1083 S.F.	18.740	0.650	1083 S.F.	0.675	18.065	0.000		412	0.121 AC	
~~24~~	~~THREE C GROUP, LLC~~	~~57~~	~~17.04~~	~~1184~~	~~2958~~	~~8.110~~		~~8.110~~				~~8.110~~					
25	LUCIEN C. CONNELL III AND WIFE, MARY ANN CONNELL	58	2.0	1423	1937		1.980	1.980		516 S.F.	516 S.F.		1.968				
~~26~~	~~THE INDUSTRIAL DEVELOPMENT BOARD OF THE COUNTY OF MONTGOMERY, TENNESSEE~~	~~58~~	~~3.02~~	~~833~~	~~2207~~	~~4.700~~		~~4.700~~				~~4.700~~					
~~27~~	~~THE INDUSTRIAL DEVELOPMENT BOARD OF THE COUNTY OF MONTGOMERY, TENNESSEE~~	~~57~~	~~16.01~~	~~654~~	~~2057~~	~~55.250~~		~~55.250~~				~~55.250~~					
28	LUCIEN C. CONNELL AND MARGARET ELIZABETH CONNELL, ETAL	58	4.05	1422	982		229.000	229.000		159 S.F.	159 S.F.		228.996				

(1) FOR INCIDENTAL DAMAGES ONLY

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

8/5/2014 7:49:43 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	3D
CONST.	2014	NH/STP-I-24-9(76)	3D

R.O.W. ACQUISITION TABLE FOR NH-I-24-9(76), 63001-2153-44

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA ACRES			AREA TO BE ACQUIRED ACRES			AREA REMAINING ACRES		EASEMENT (SQUARE FEET)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE BK.	DEED DOCUMENT REFERENCE PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERM. DRAINAGE	SLOPE	CONST.	
9	TRUSTEE FOR THE NEW HOPE BAPTIST CHURCH	57	27.0	151 129	450 65		1.180	1.180		64 S.F.	64 S.F.		1.179		760	834	
10	TRUSTEE FOR THE NEW HOPE BAPTIST CHURCH	57	26.0	439	2194		0.590	0.590		1452 S.F.	1452 S.F.		0.557		2458	2303	
14	WKB PROPERTIES	57	17.03	1194	2644	1.590		1.590	1409 S.F.		1409 S.F.	1.558			345	2395	(2)

(2) 1.558 AC LOSS OF ACCESS

UNOFFICIAL SET

NOT FOR BIDDING

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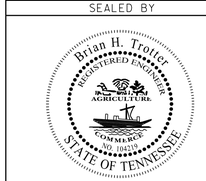

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY ACQUISITION TABLE

8/5/2014 7:51:10 PM
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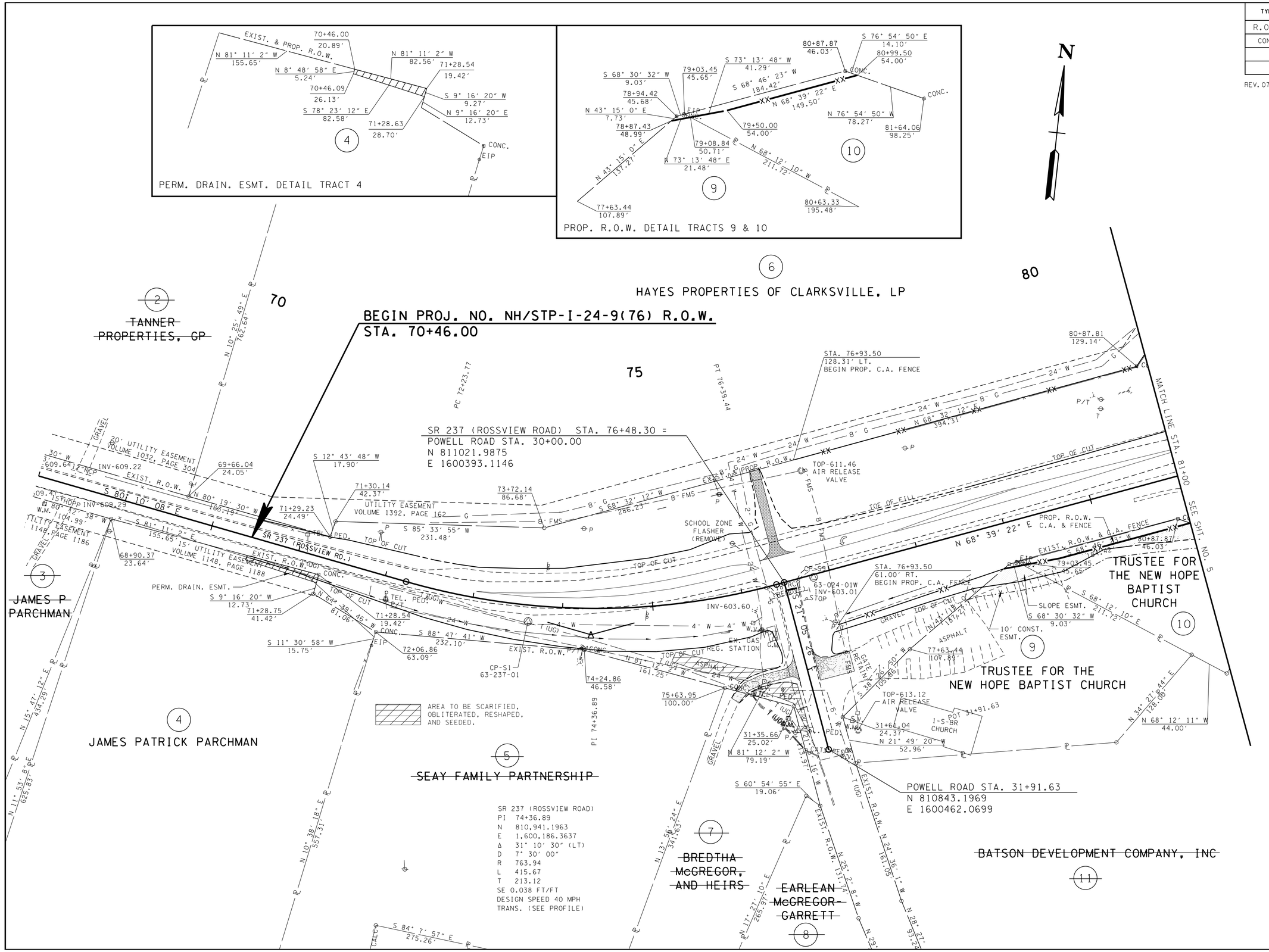
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	4
CONST.	2014	NH/STP-I-24-9(76)	4

REV. 07-21-14: ADDED ENTRANCE LT. STA. 76+48.30



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

8/5/2014 7:52:24 PM
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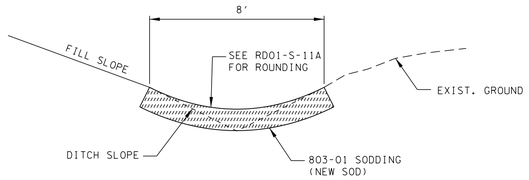
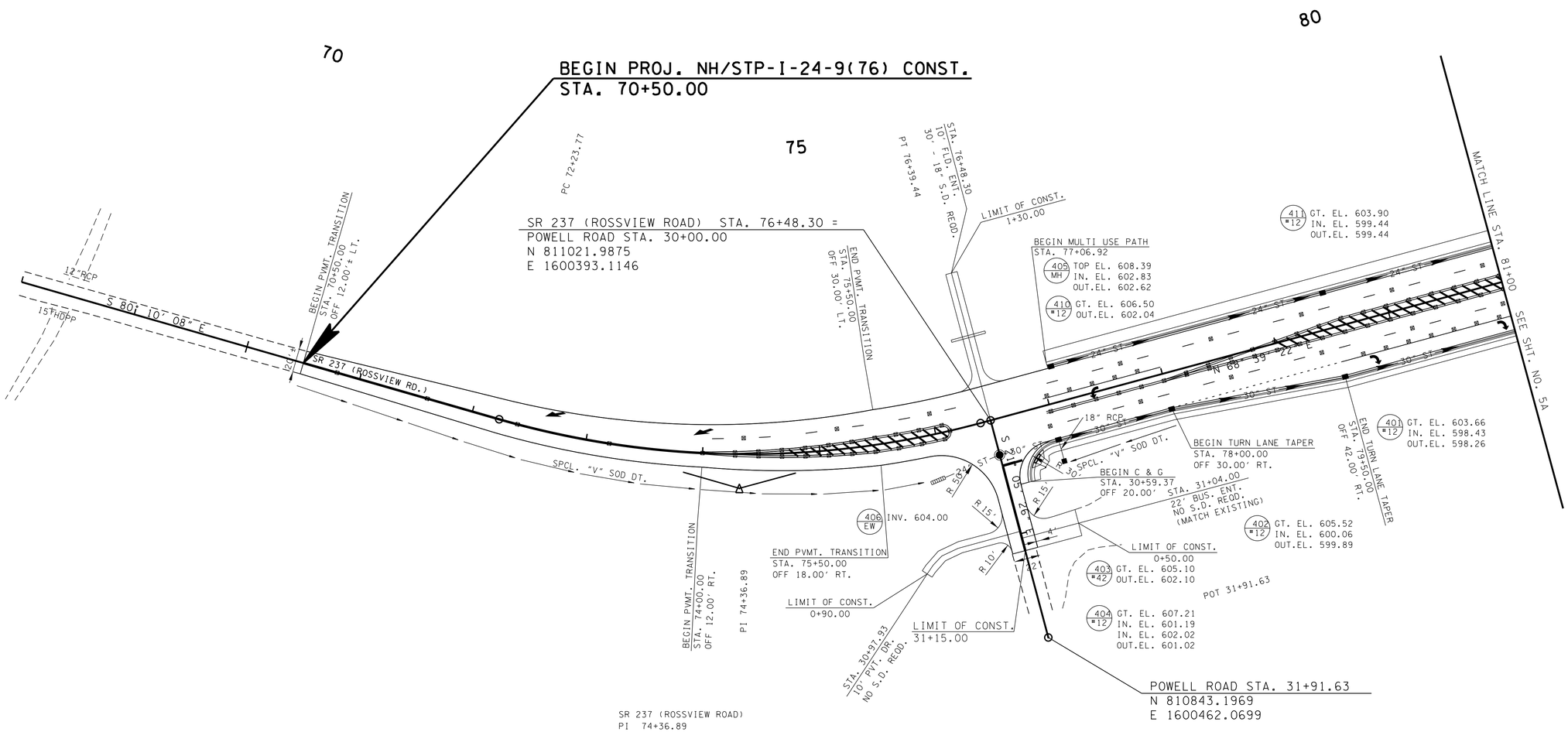
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	4A
CONST.	2014	NH/STP-I-24-9(76)	4A

REV. 07-21-14: ADDED ENTRANCE LT. STA. 76+48.30



SPCL. "V" SOD DT.
SR 237 STA. 70+50.00 RT. TO STA. 76+00.00 RT.
SR 237 STA. 77+00.00 RT. TO STA. 78+00.00 RT.



SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
TENNESSEE DEPARTMENT OF AGRICULTURE
TENNESSEE DEPARTMENT OF COMMERCE AND INSURANCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

8/5/2014 7:52:25 PM
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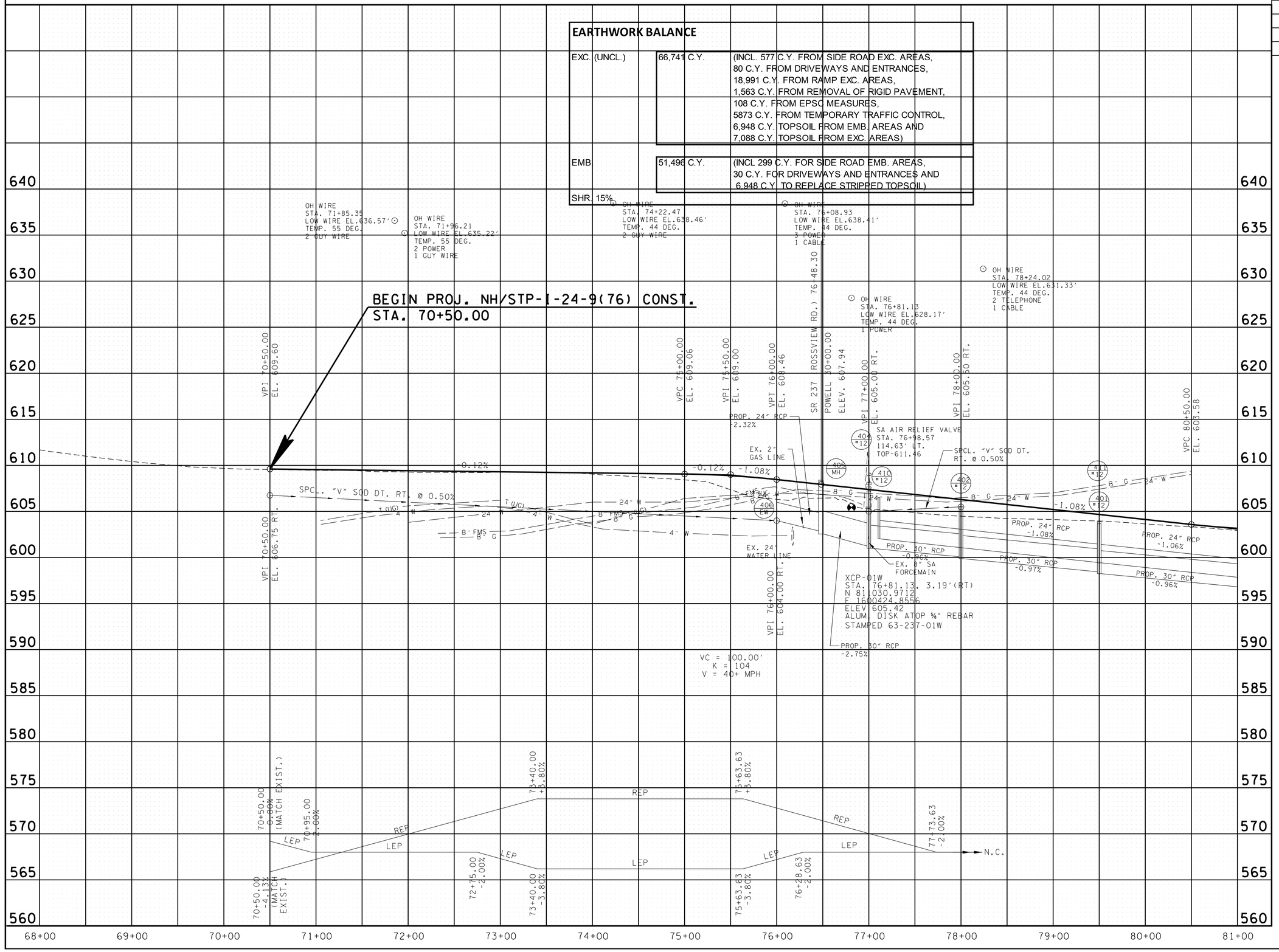
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	4B
CONST.	2014	NH/STP-I-24-9(76)	4B

EARTHWORK BALANCE

EXC. (UNCL.)	66,741 C.Y.	(INCL. 577 C.Y. FROM SIDE ROAD EXC. AREAS, 80 C.Y. FROM DRIVEWAYS AND ENTRANCES, 18,991 C.Y. FROM RAMP EXC. AREAS, 1,563 C.Y. FROM REMOVAL OF RIGID PAVEMENT, 108 C.Y. FROM EPSC MEASURES, 5873 C.Y. FROM TEMPORARY TRAFFIC CONTROL, 6,948 C.Y. TOPSOIL FROM EMB. AREAS AND 7,088 C.Y. TOPSOIL FROM EXC. AREAS)
EMB.	51,496 C.Y.	(INCL 299 C.Y. FOR SIDE ROAD EMB. AREAS, 30 C.Y. FOR DRIVEWAYS AND ENTRANCES AND 6,948 C.Y. TO REPLACE STRIPPED TOPSOIL)
SHR. 15%		



UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 68+00 TO STA. 81+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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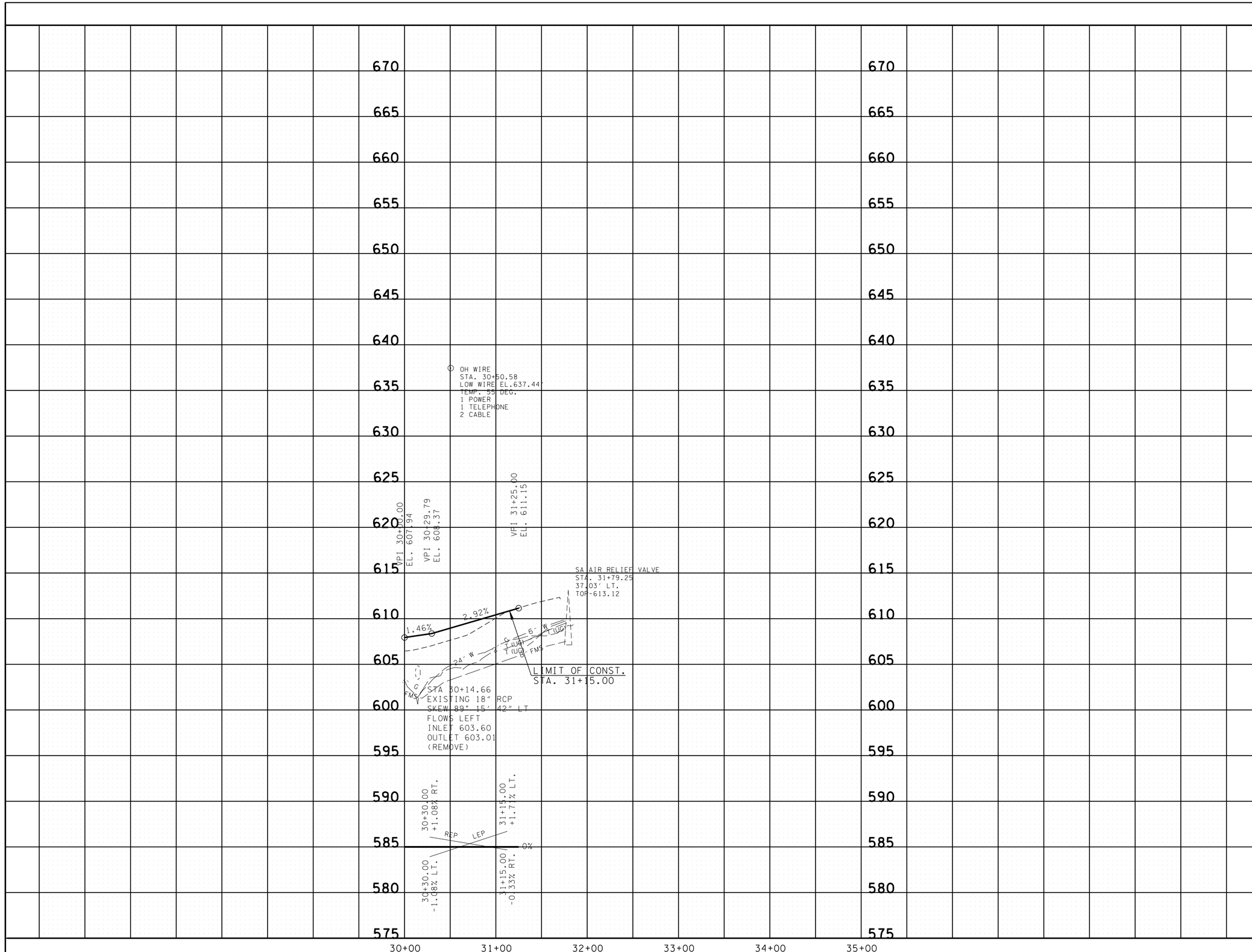

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	4C
CONST.	2014	NH/STP-I-24-9(76)	4C

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
No. 18419
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

POWELL ROAD

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:33 PM
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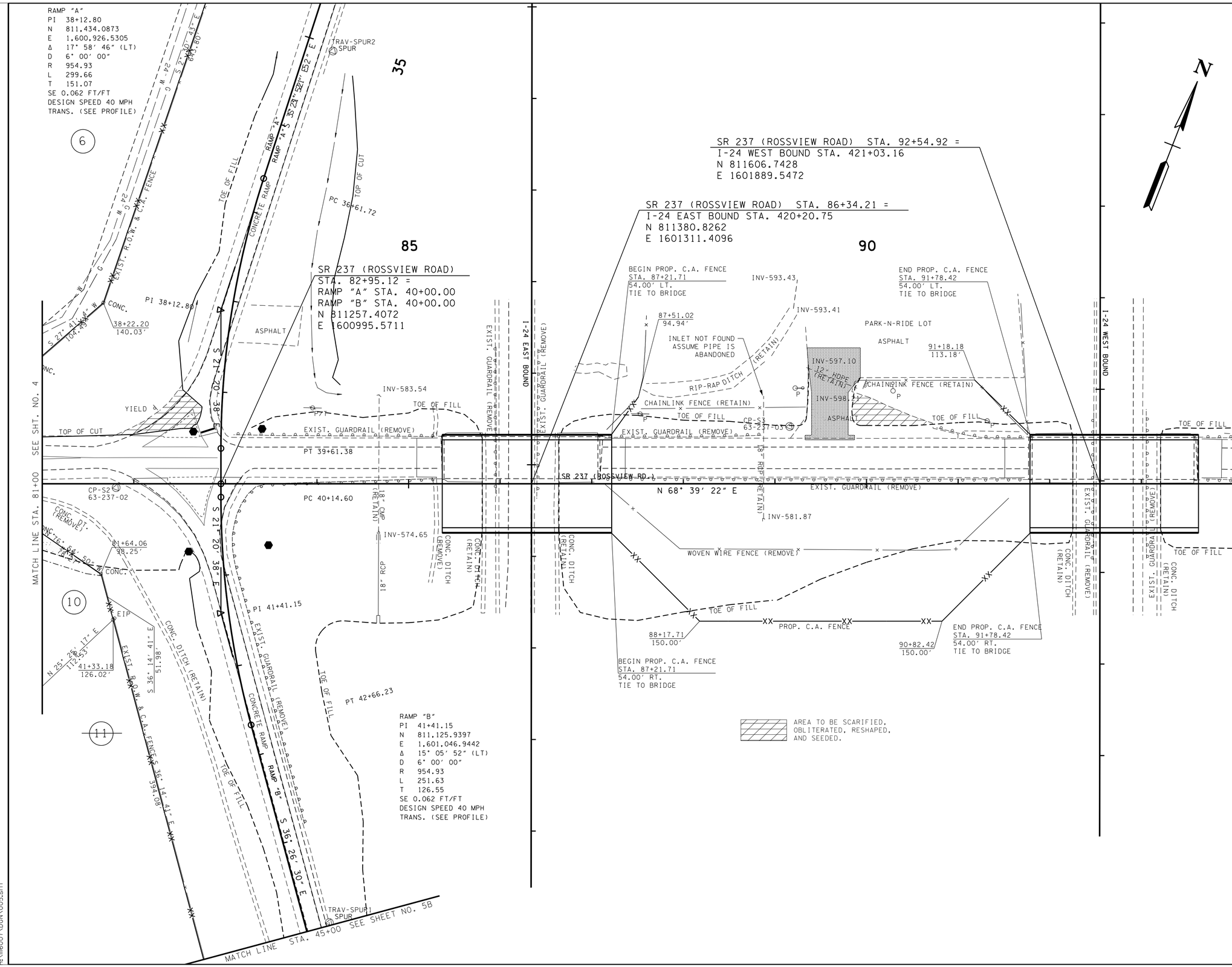
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5
CONST.	2014	NH/STP-I-24-9(76)	5



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Brian H. Trotter
REGISTERED ENGINEER
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50'

8/5/2014 7:52:34 PM
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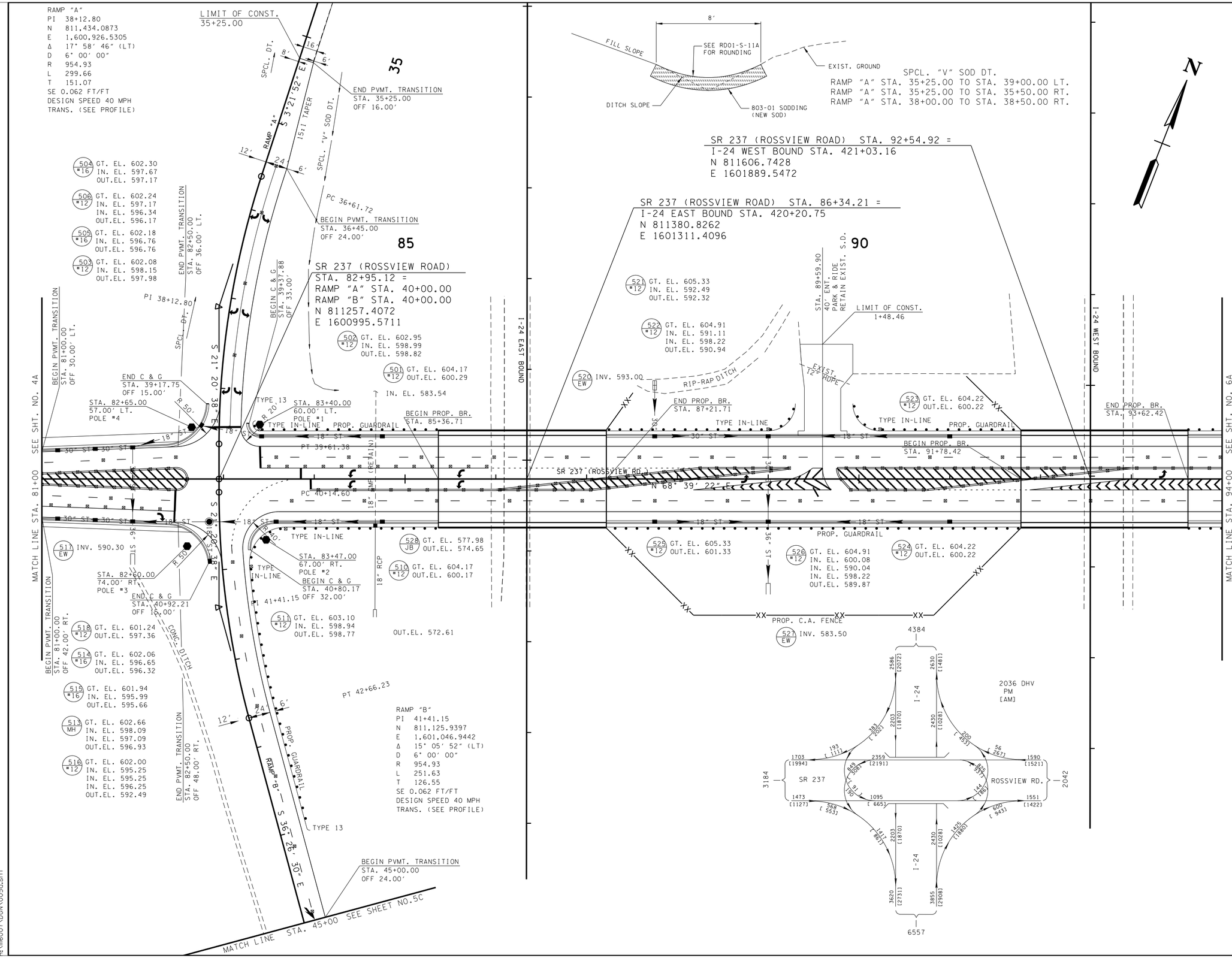
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5A
CONST.	2014	NH/STP-I-24-9(76)	5A



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50′

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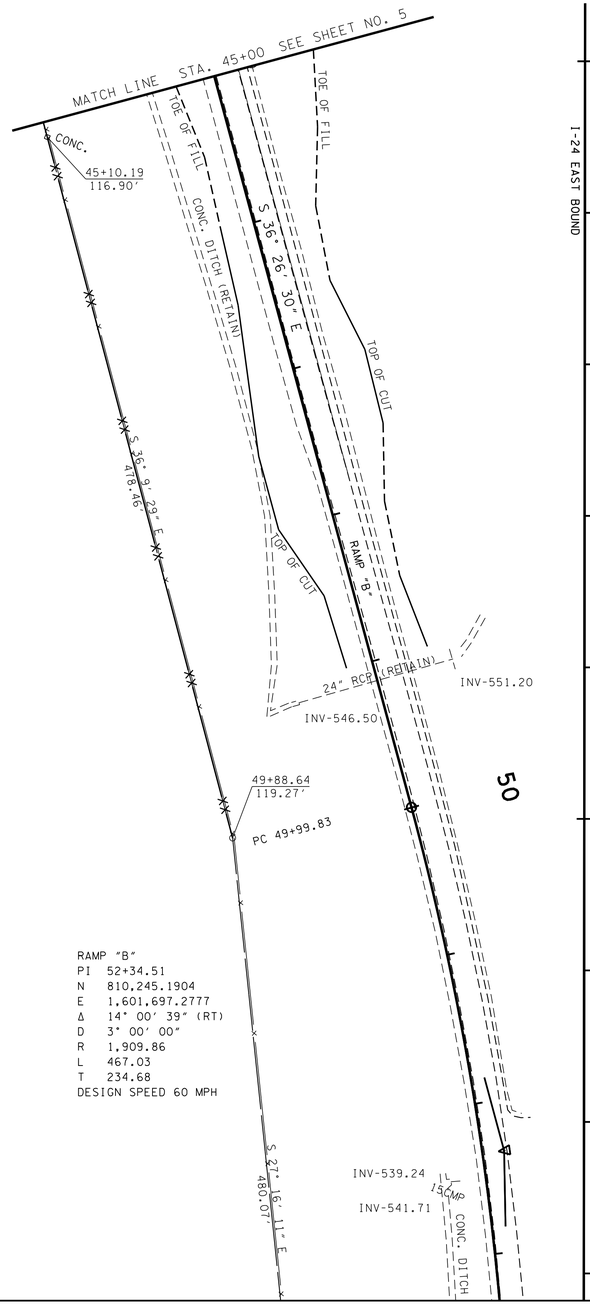
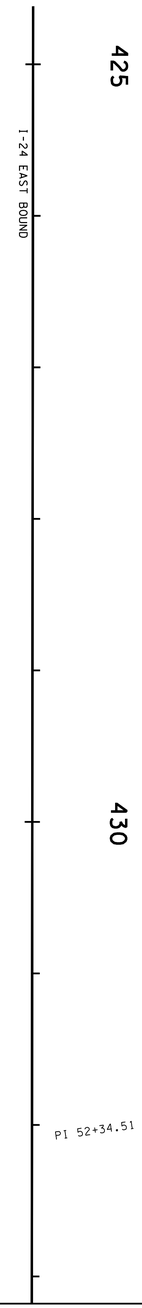
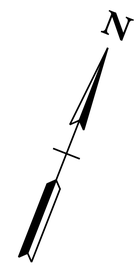
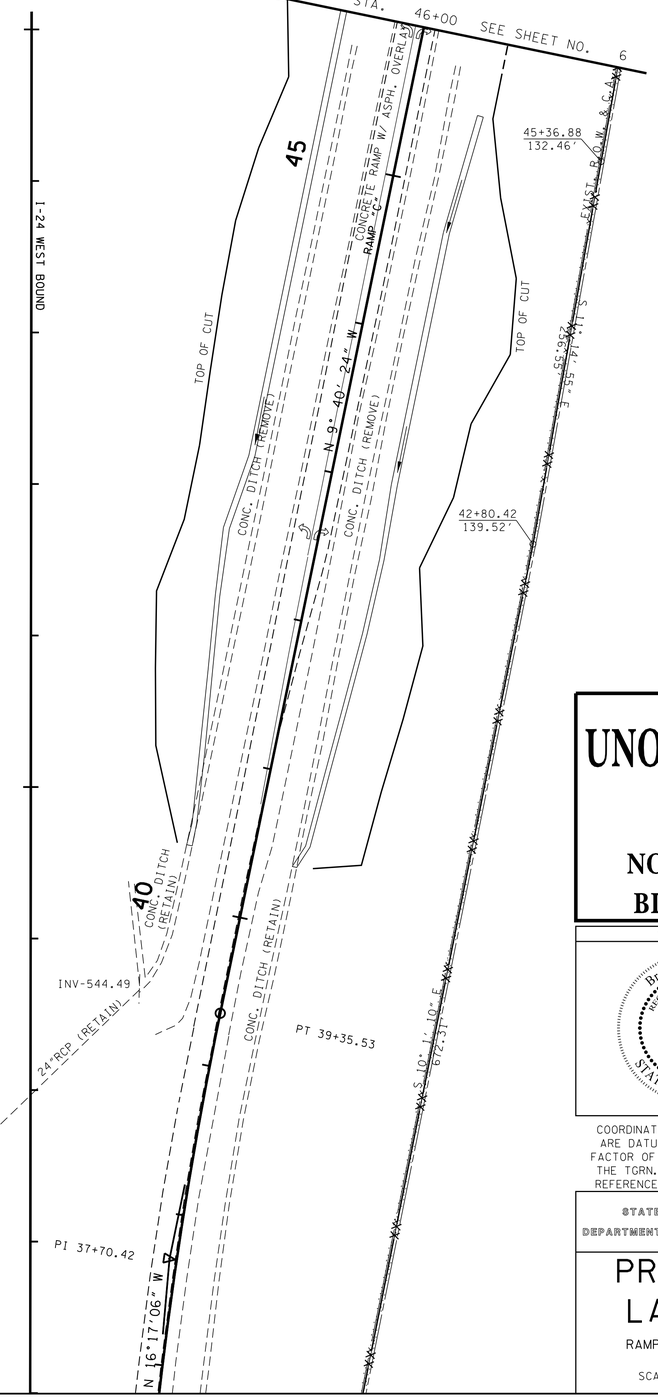
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5B
CONST.	2014	NH/STP-I-24-9(76)	5B



RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH







RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

RAMP B & RAMP C

SCALE: 1"= 50'

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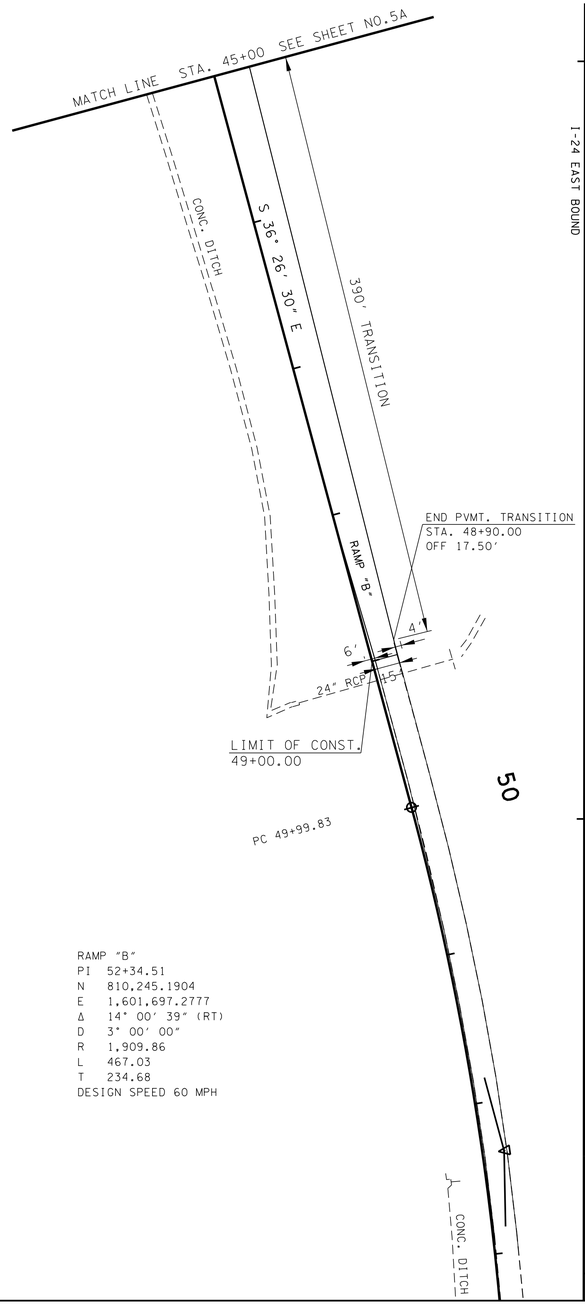
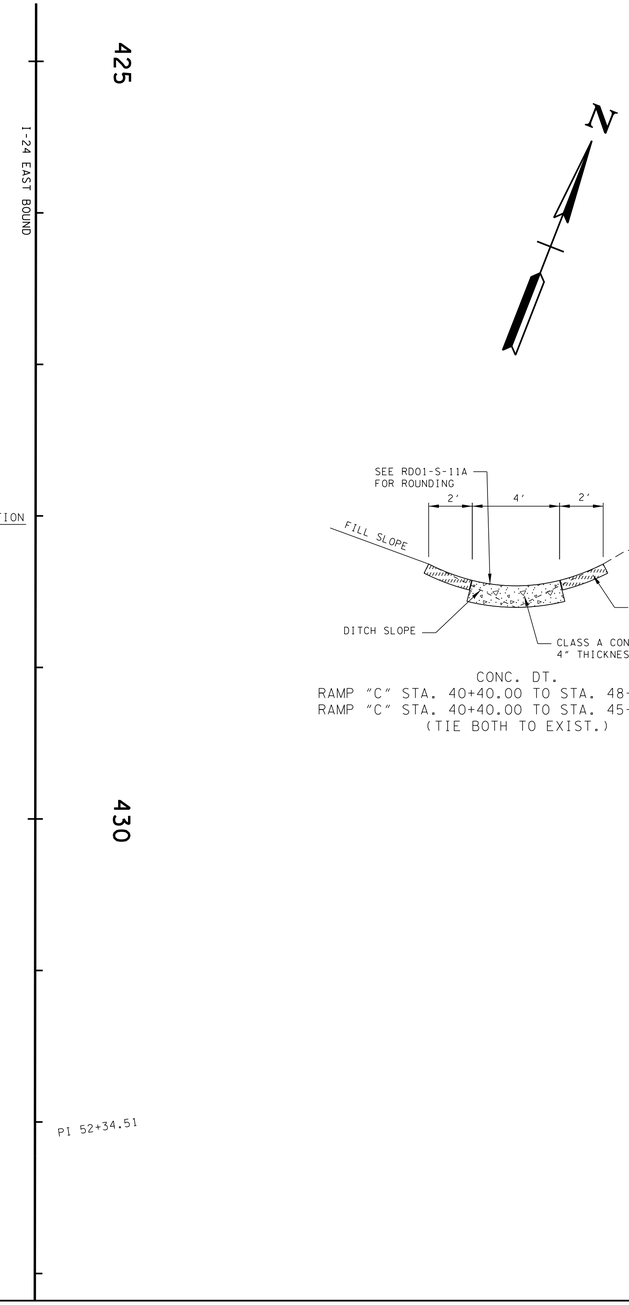
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5C
CONST.	2014	NH/STP-I-24-9(76)	5C

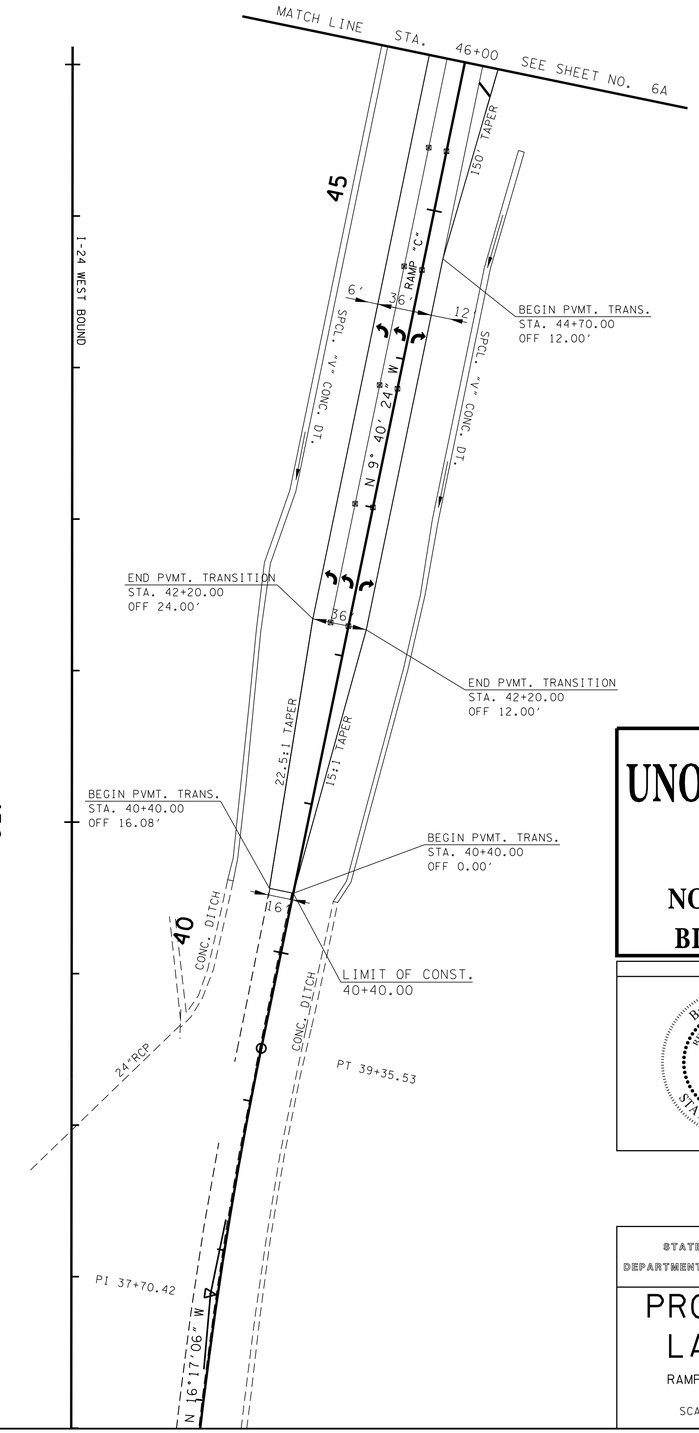


RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



CONC. DT.
RAMP "C" STA. 40+40.00 TO STA. 48+00.00 LT.
RAMP "C" STA. 40+40.00 TO STA. 45+50.00 RT.
(TIE BOTH TO EXIST.)

RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH



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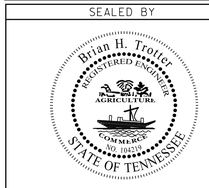

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

RAMP B & RAMP C

SCALE: 1"= 50'

8/5/2014 7:52:35 PM
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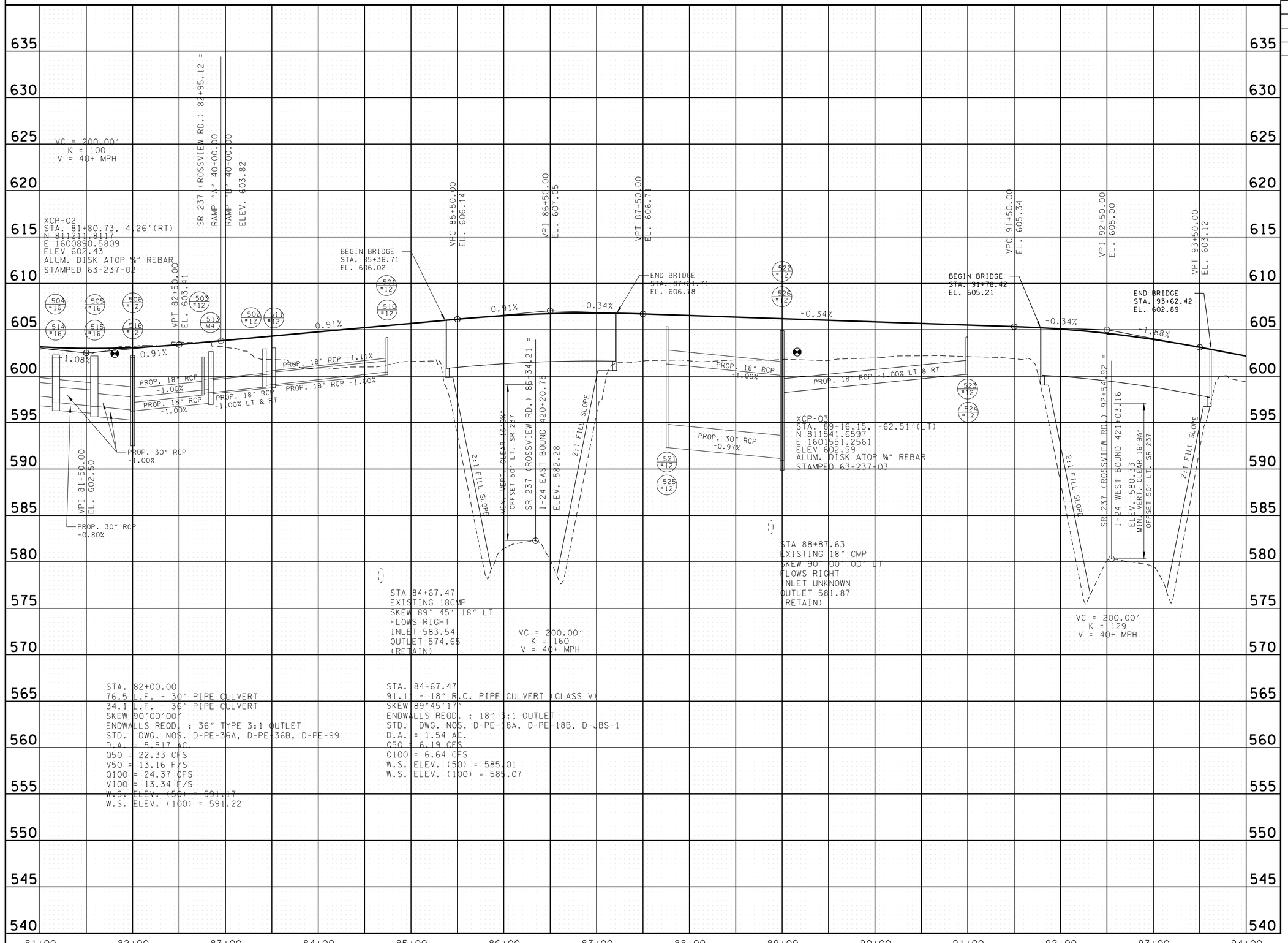
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5D
CONST.	2014	NH/STP-I-24-9(76)	5D



UNOFFICIAL SET

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SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104370
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:36 PM
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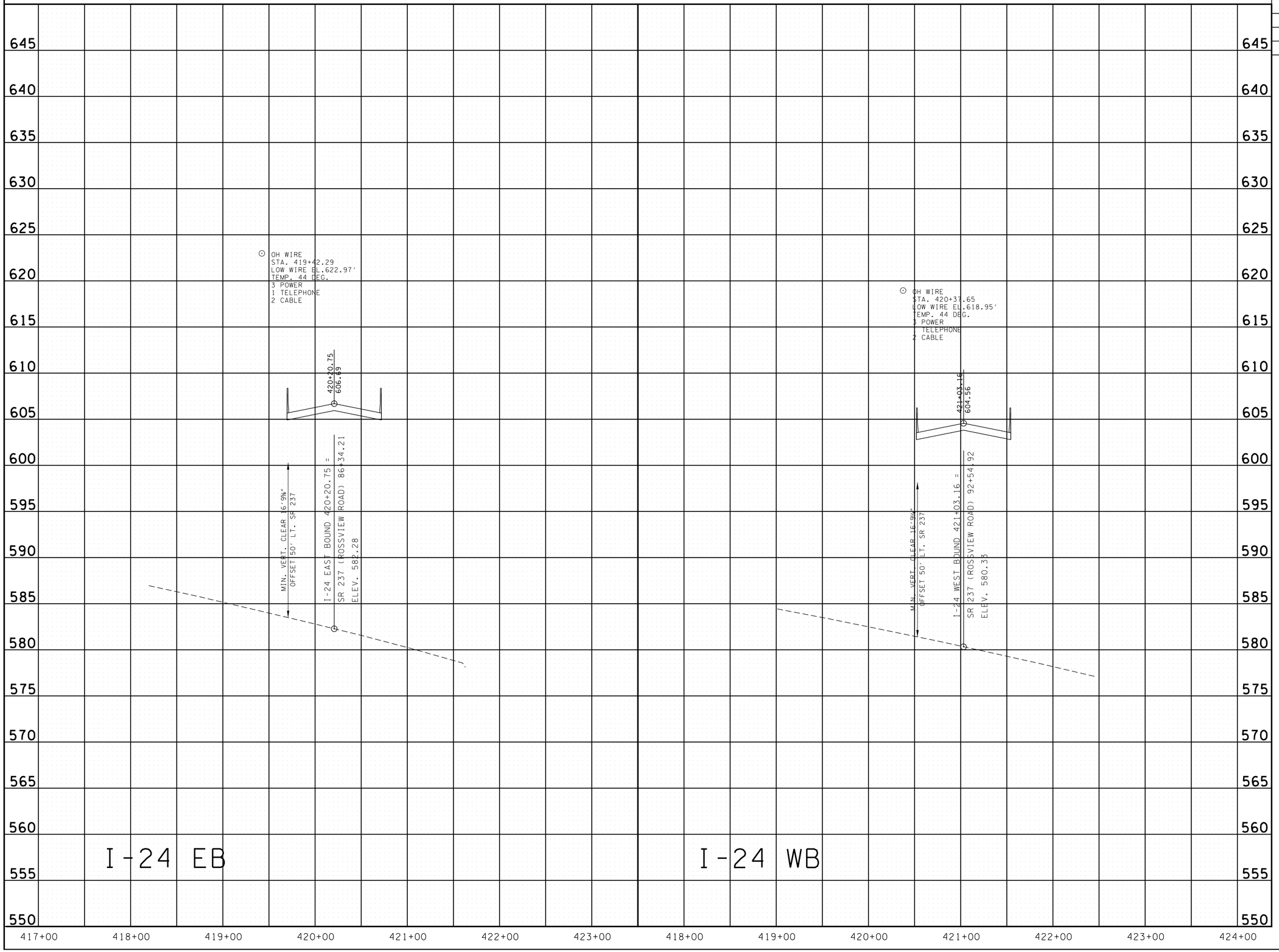
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5E
CONST.	2014	NH/STP-I-24-9(76)	5E



UNOFFICIAL SET

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SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

I-24 E.B. & I-24 W.B.

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:36 PM
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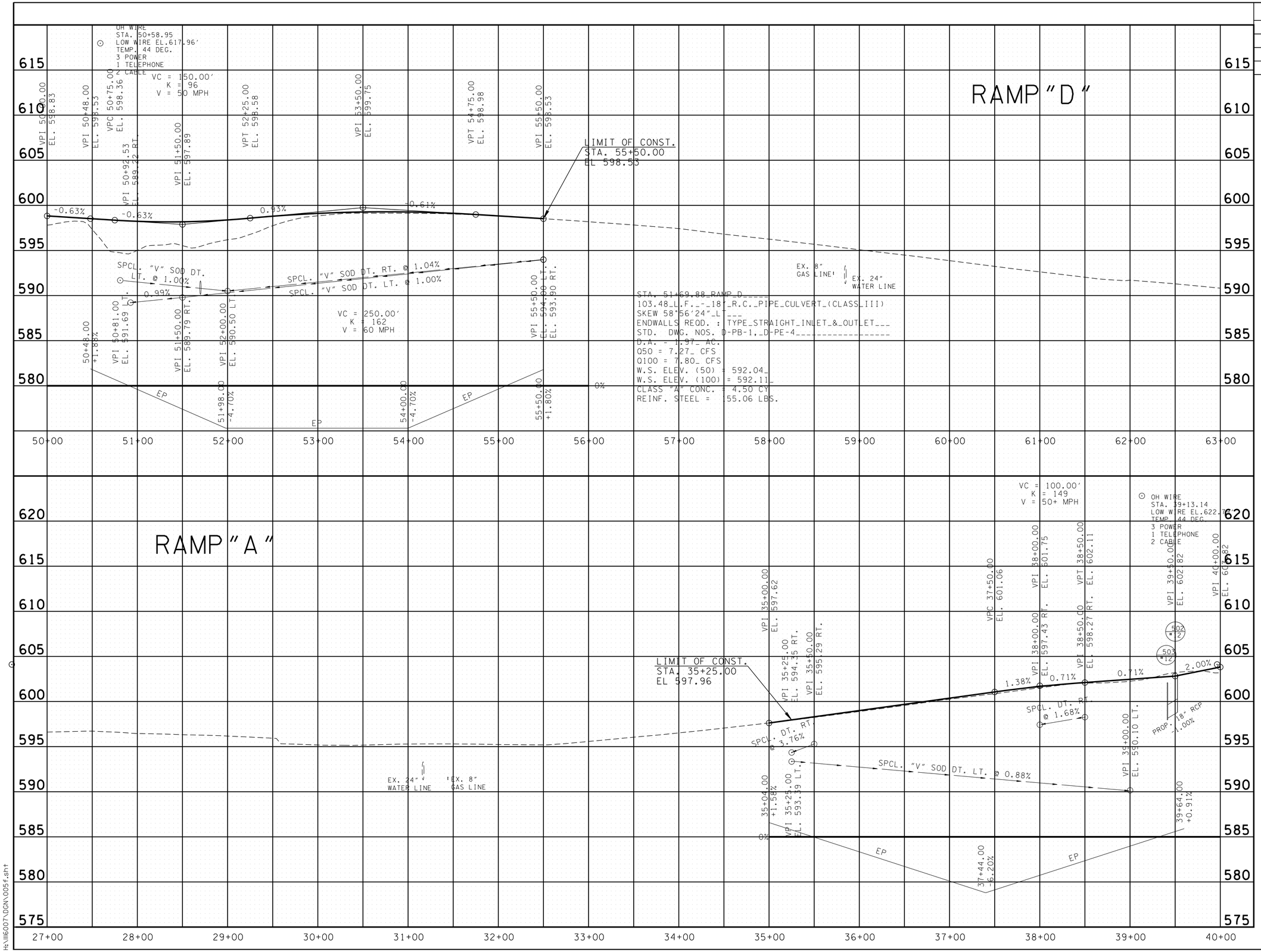
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5F
CONST.	2014	NH/STP-I-24-9(76)	5F



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

RAMPS "A" & "D"

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:37 PM
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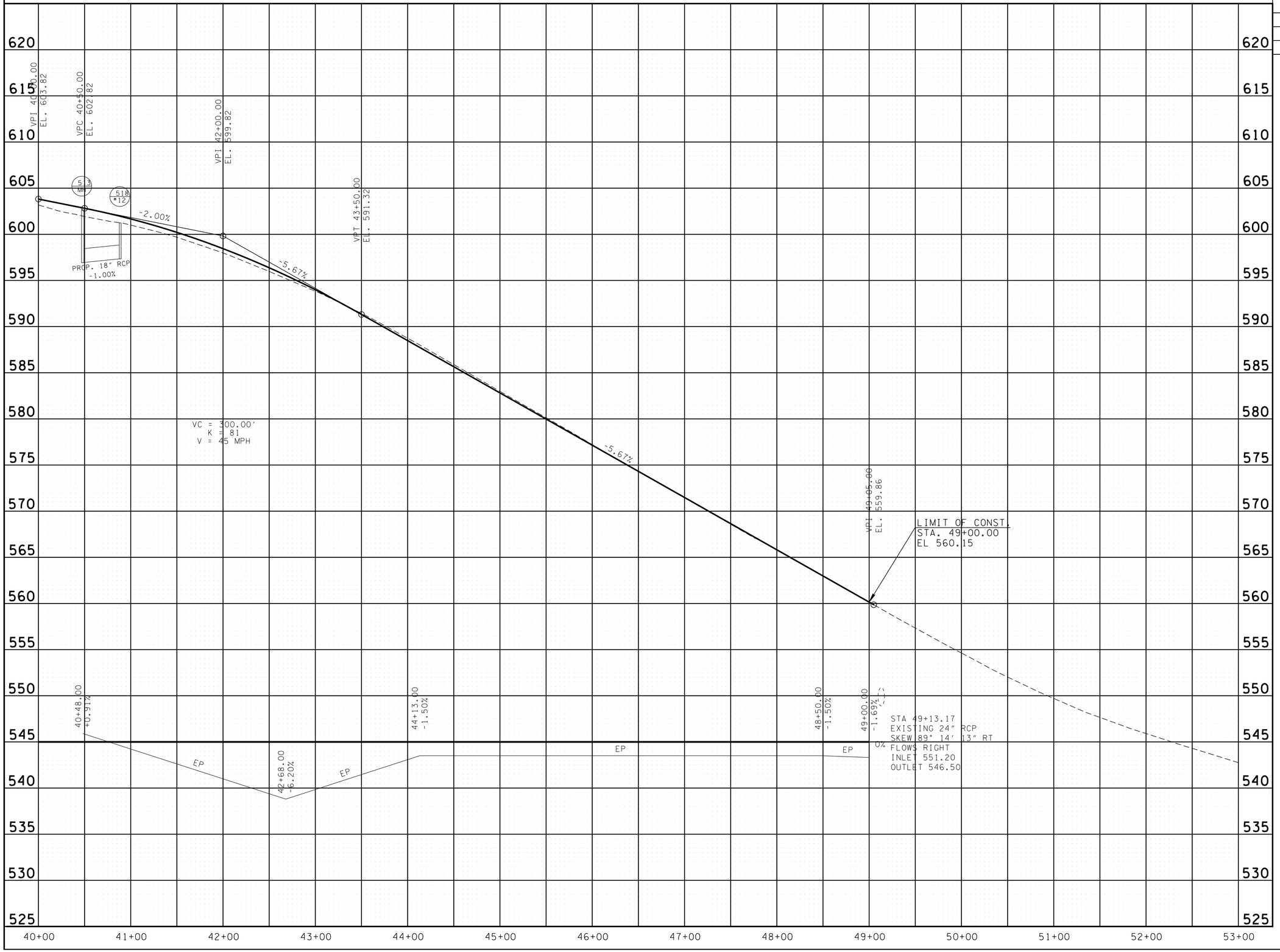
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5G
CONST.	2014	NH/STP-I-24-9(76)	5G



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

RAMP "B"

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:37 PM
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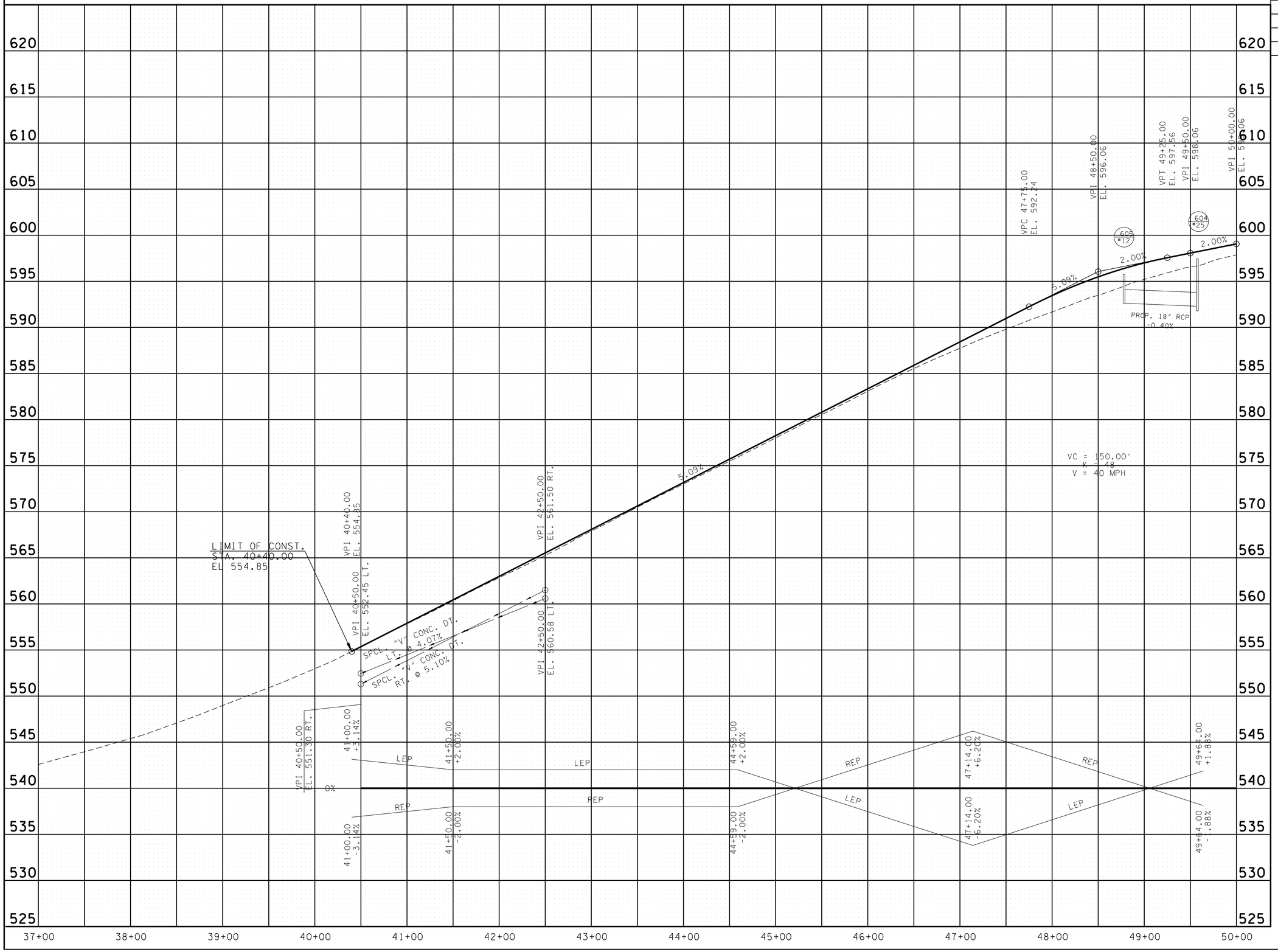
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	5H
CONST.	2014	NH/STP-I-24-9(76)	5H



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

RAMP "C"

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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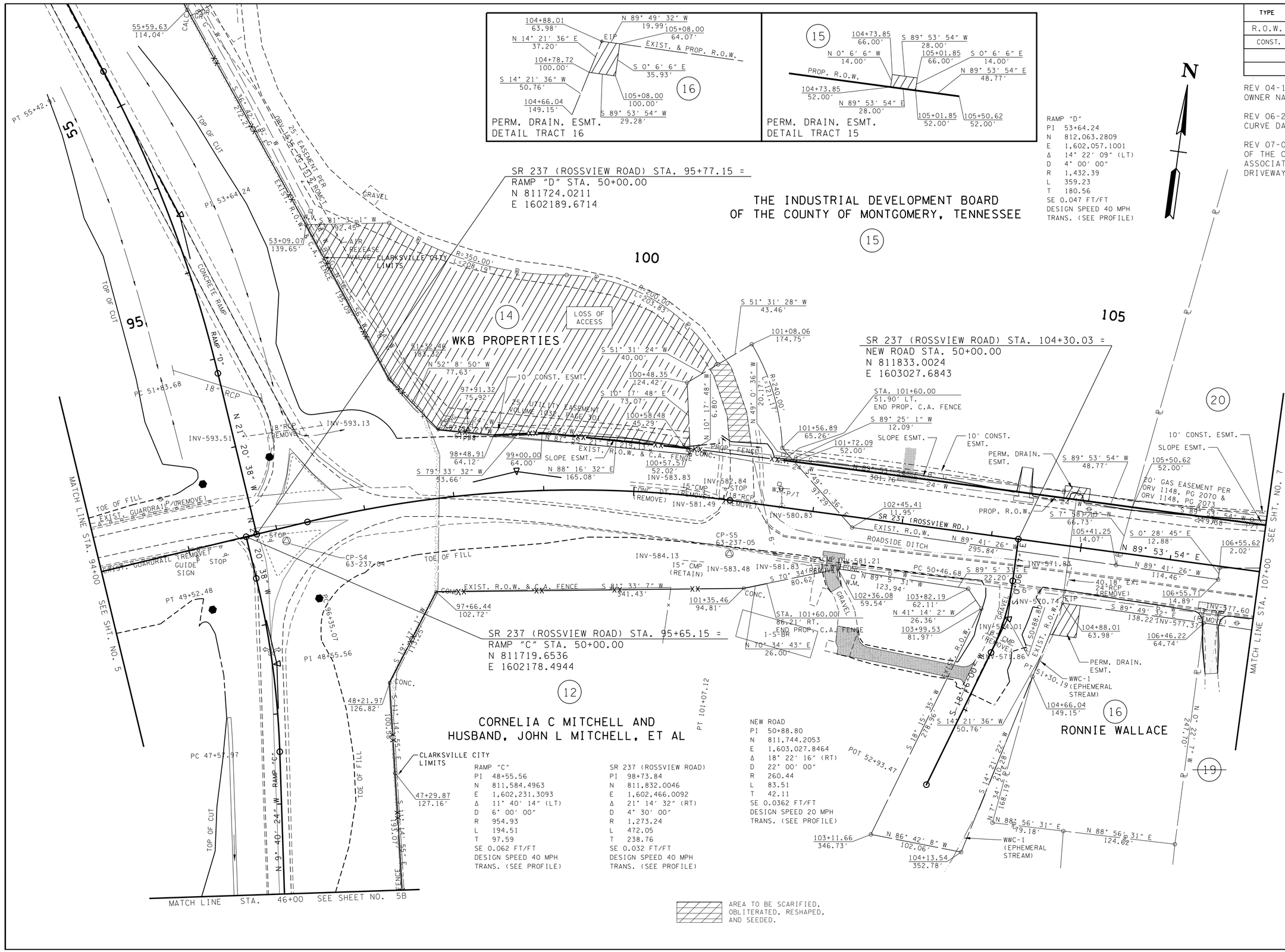
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	6
CONST.	2014	NH/STP-I-24-9(76)	6

REV 04-10-14: REVISED PROPERTY OWNER NAME TRACT 12

REV 06-23-14: ADDED NEW ROAD, CURVE DATA & SLOPE LINES

REV 07-02-14: REVISED THE LIMIT OF THE C.A. FENCE, UPDATED ALL ASSOCIATED LABELS AND ADDED A DRIVEWAY TO TRACT 12



RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22′ 09″ (LT)
D 4° 00′ 00″
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40′ 14″ (LT)
D 6° 00′ 00″
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14′ 32″ (RT)
D 4° 30′ 00″
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22′ 16″ (RT)
D 22° 00′ 00″
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104339
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 94+00 TO STA. 107+00

SCALE: 1"= 50′

8/5/2014 7:52:39 PM
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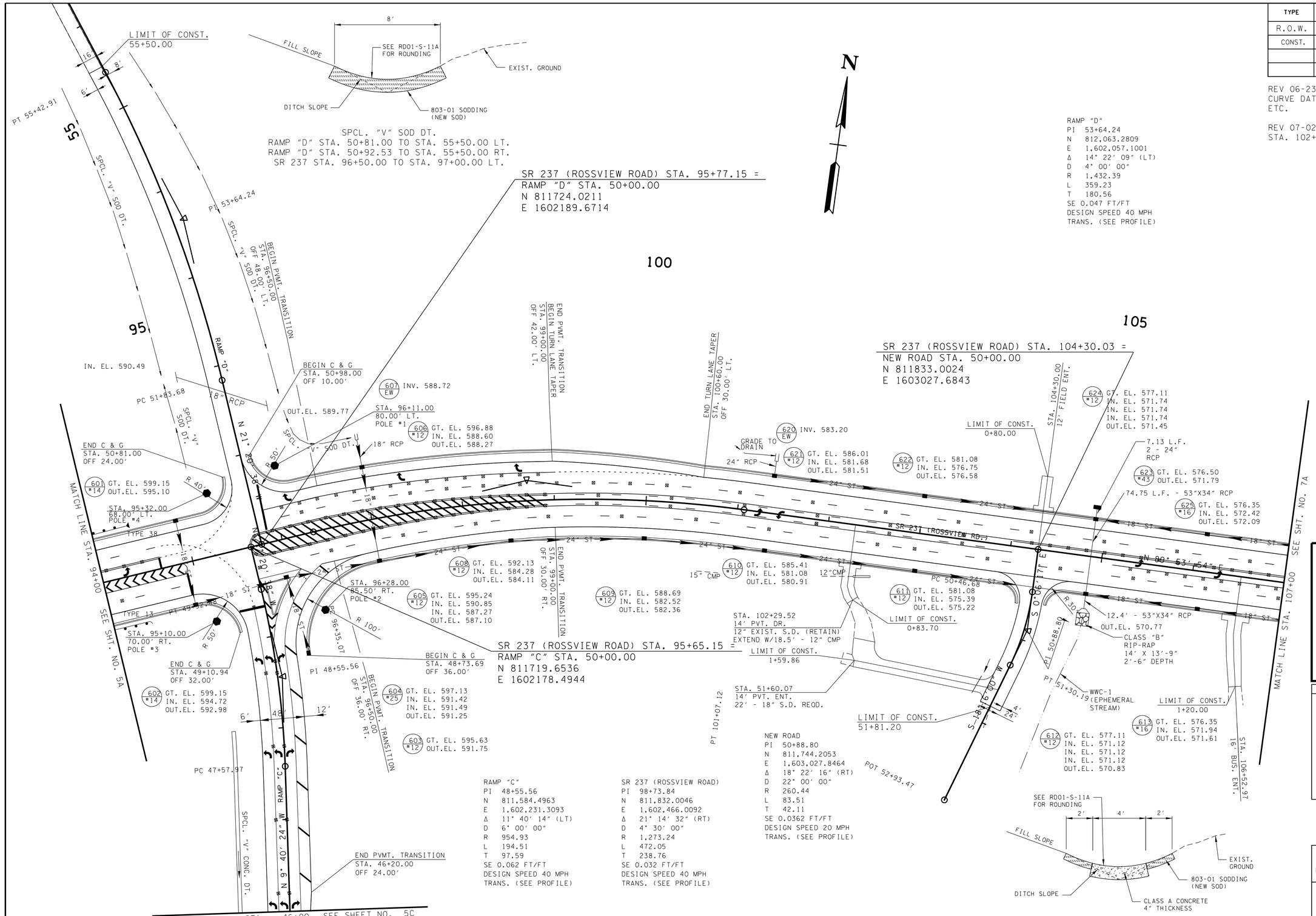
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	6A
CONST.	2014	NH/STP-I-24-9(76)	6A

REV 06-23-14: ADDED NEW ROAD, CURVE DATA, LIMIT OF CONST., ETC.

REV 07-02-14: ADDED DRIVE RT. STA. 102+29.52



UNOFFICIAL SET

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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 104319
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 94+00 TO STA. 107+00

SCALE: 1"= 50'

8/8/2014 1:52:21PM
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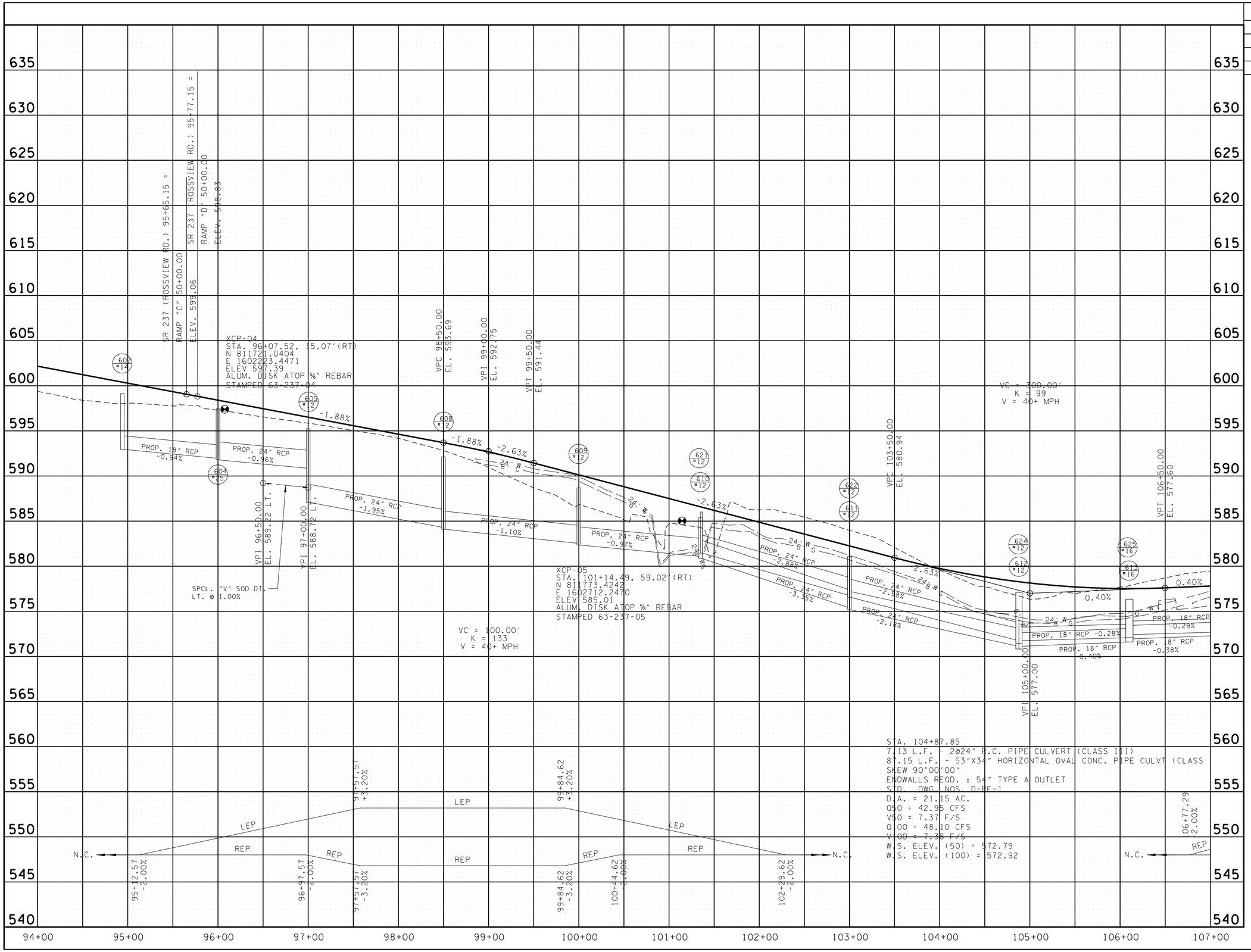
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	6B
CONST.	2014	NH/STP-I-24-9(76)	6B



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:40 PM
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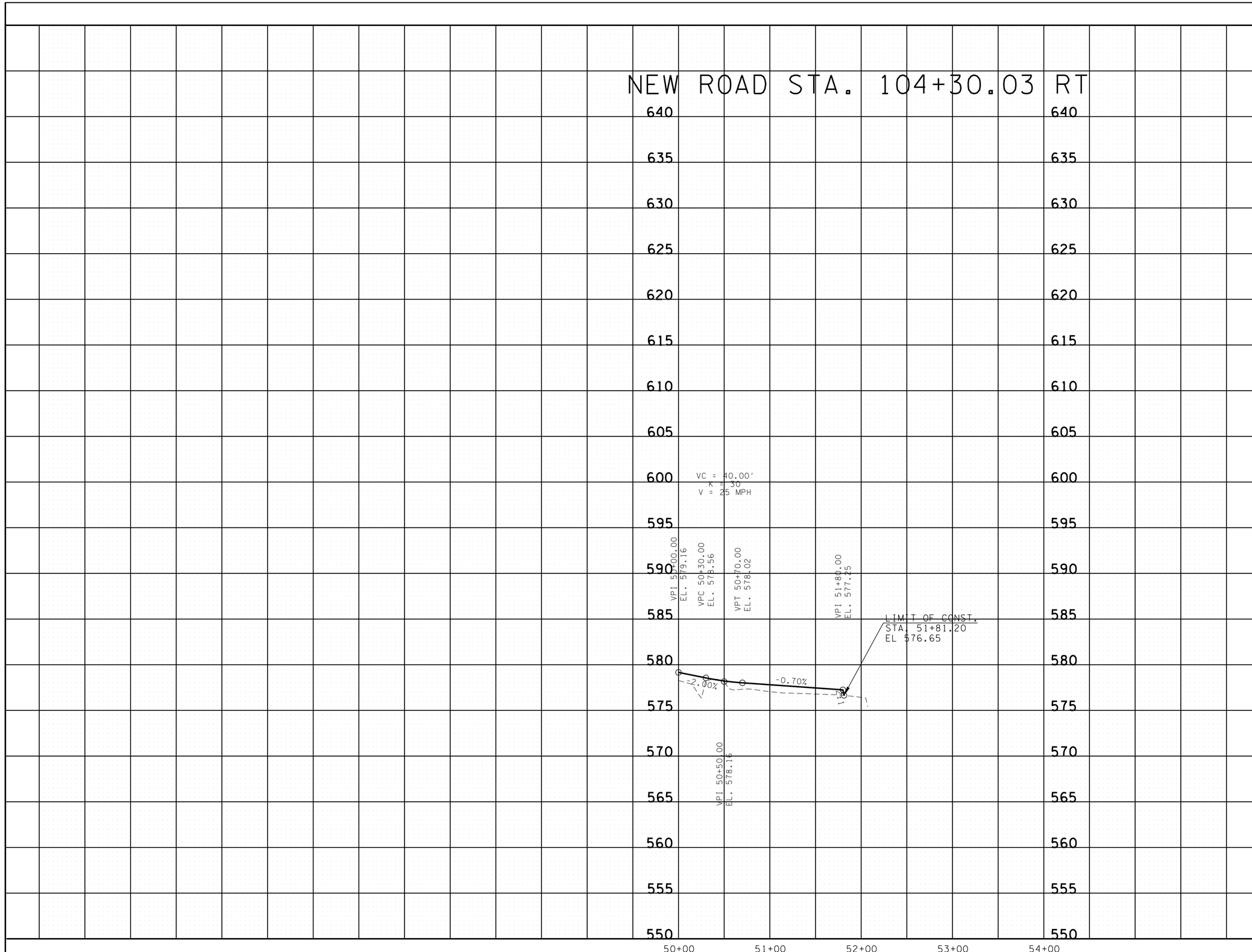
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	6C

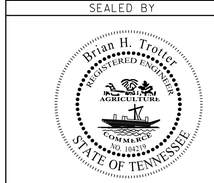
REV. 06-23-14: ADDED SHEET



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

NEW ROAD AT
STA. 104+30.03 RT.

SCALE: 1"= ' HORIZ.
1"= ' VERT.

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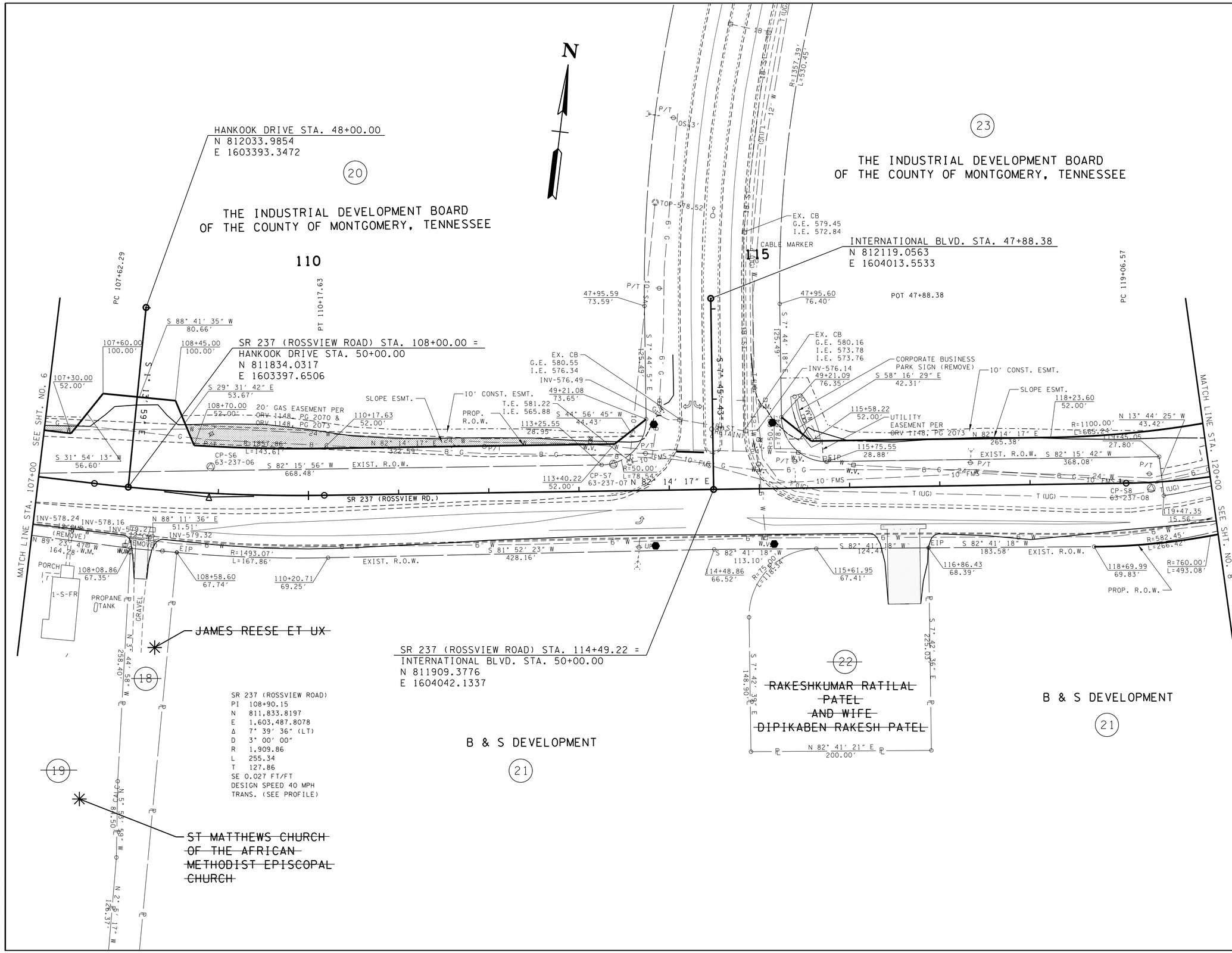
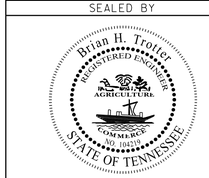
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	7
CONST.	2014	NH/STP-I-24-9(76)	7



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50′

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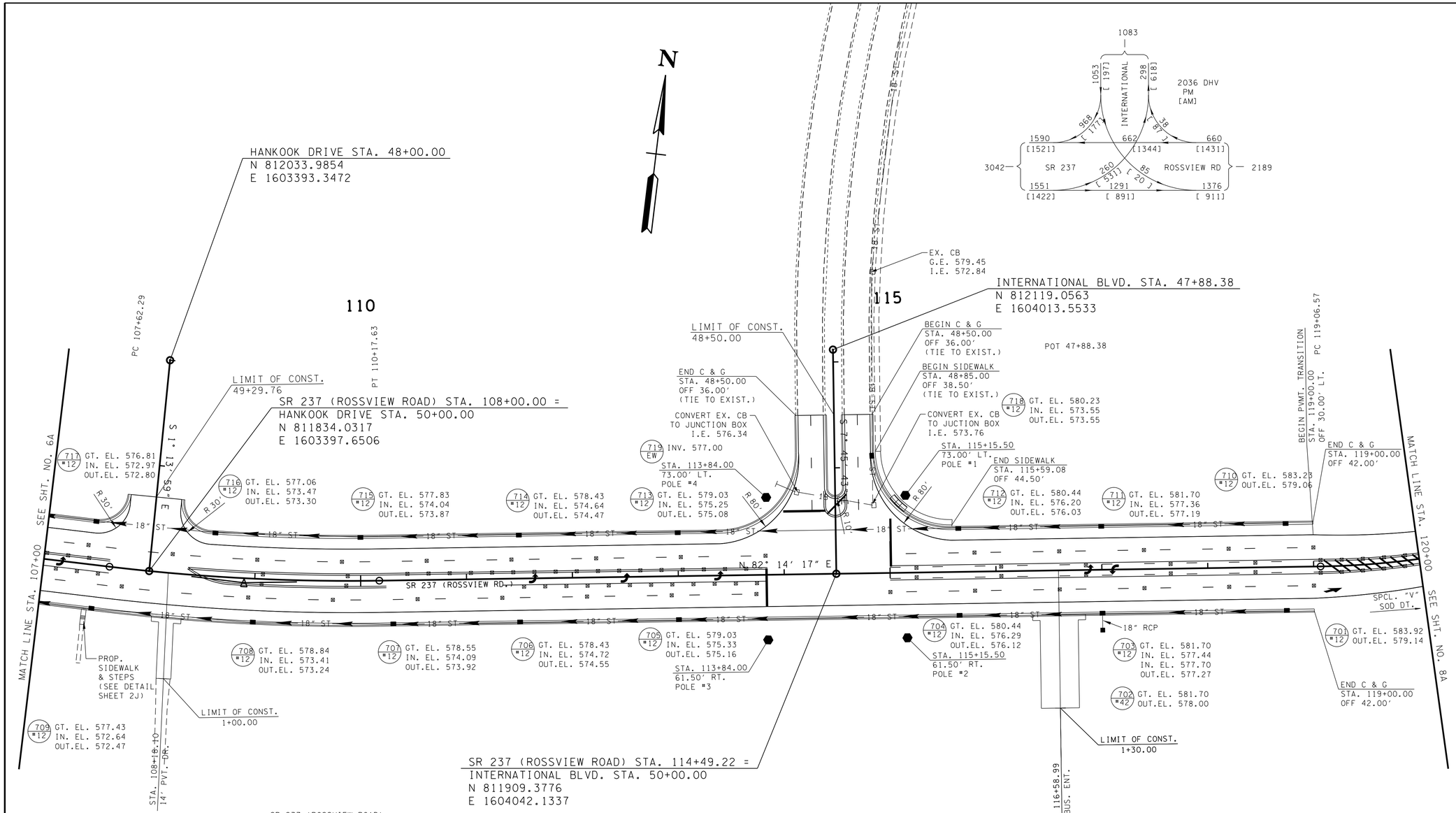
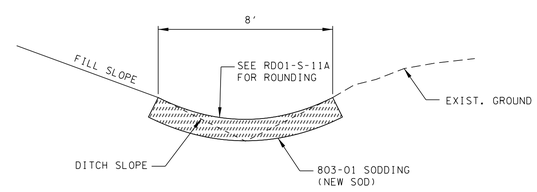
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	7A
CONST.	2014	NH/STP-I-24-9(76)	7A



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39′ 36″ (LT)
D 3° 00′ 00″
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

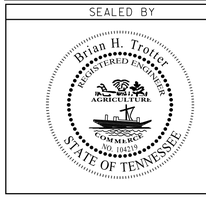


SPCL. "V" SOD DT.
SR 237 STA. 119+50.00 TO STA. 124+13.00 RT.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50′

8/5/2014 7:52:42 PM
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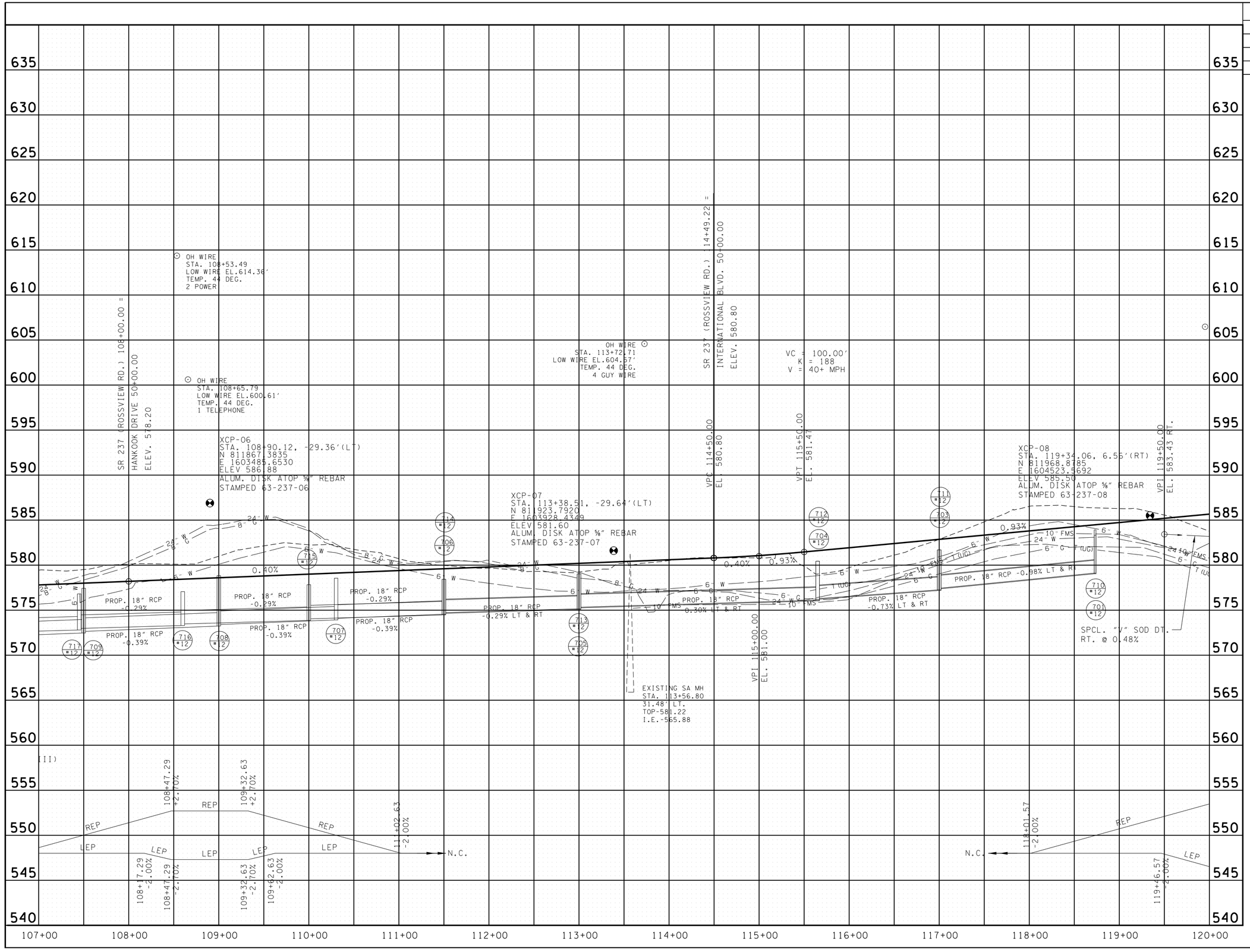
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	7B
CONST.	2014	NH/STP-I-24-9(76)	7B



UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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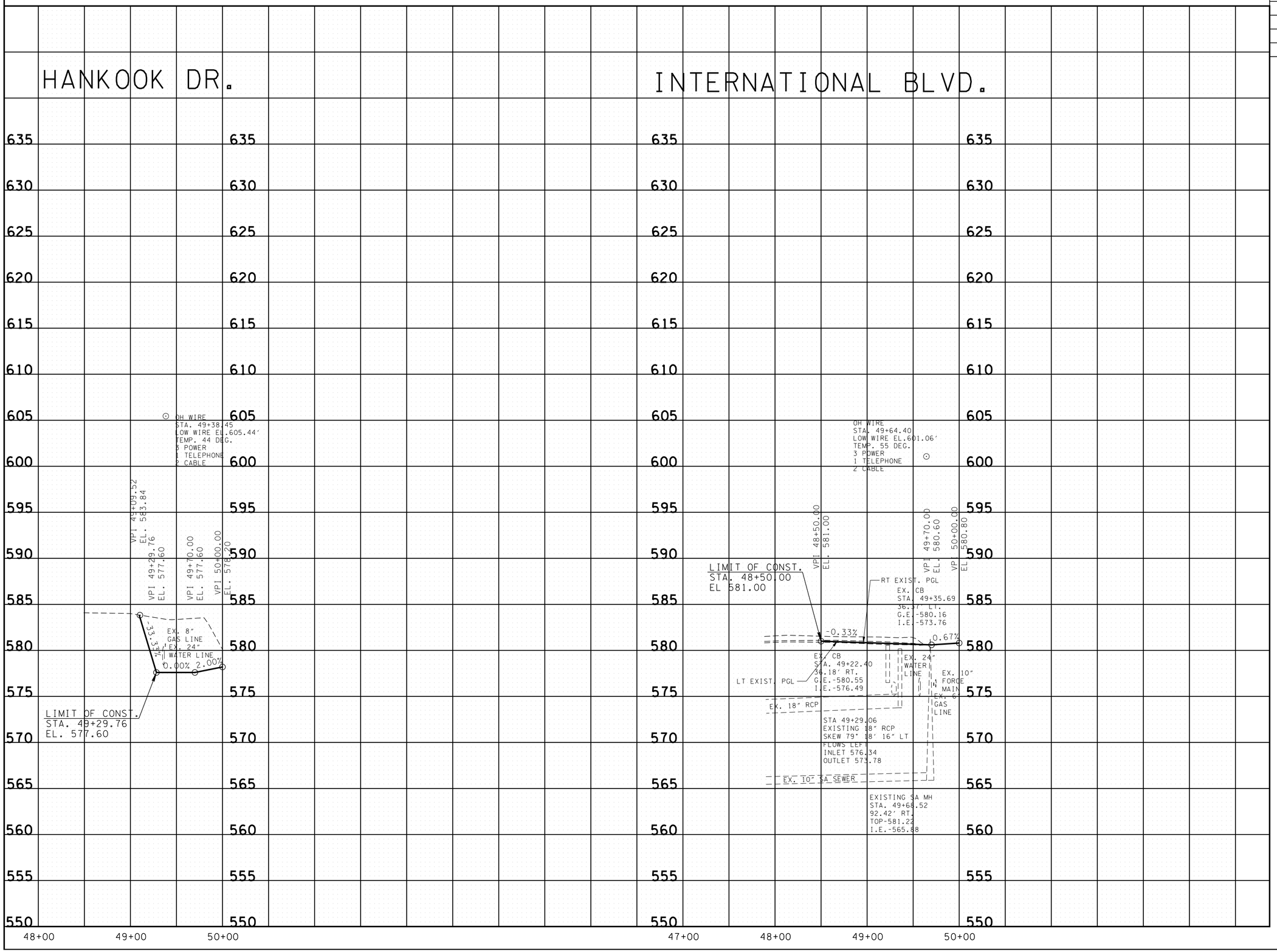
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	7C
CONST.	2014	NH/STP-I-24-9(76)	7C



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104570
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

HANKOOK DR. &
INTERNATIONAL BLVD.

SCALE: 1"= ' HORIZ.
1"= ' VERT.

8/5/2014 7:52:43 PM
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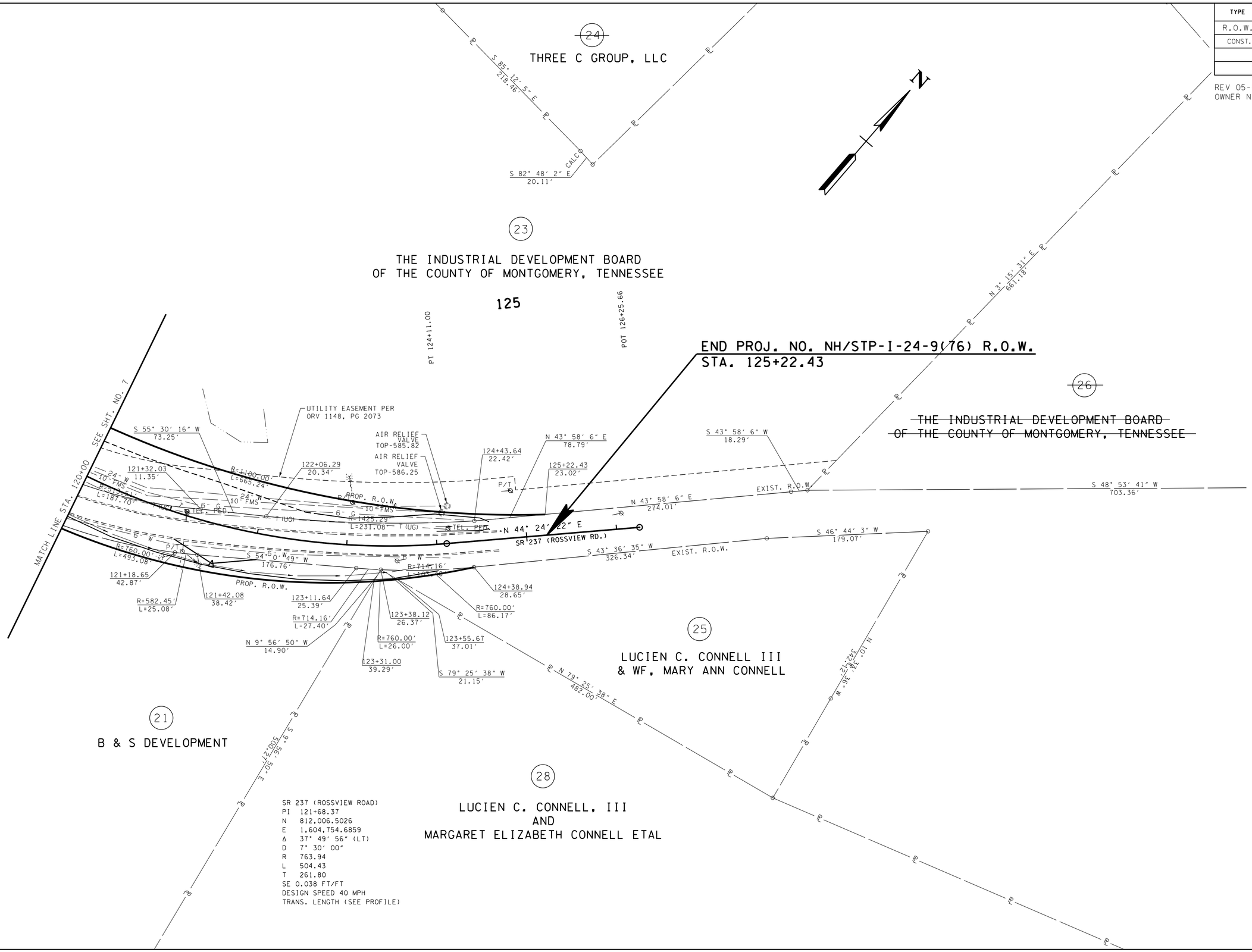
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	8
CONST.	2014	NH/STP-I-24-9(76)	8

REV 05-09-14: REVISED PROPERTY OWNER NAME TRACT 25



SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 120+00 TO END. PROJ.

SCALE: 1"= 50'

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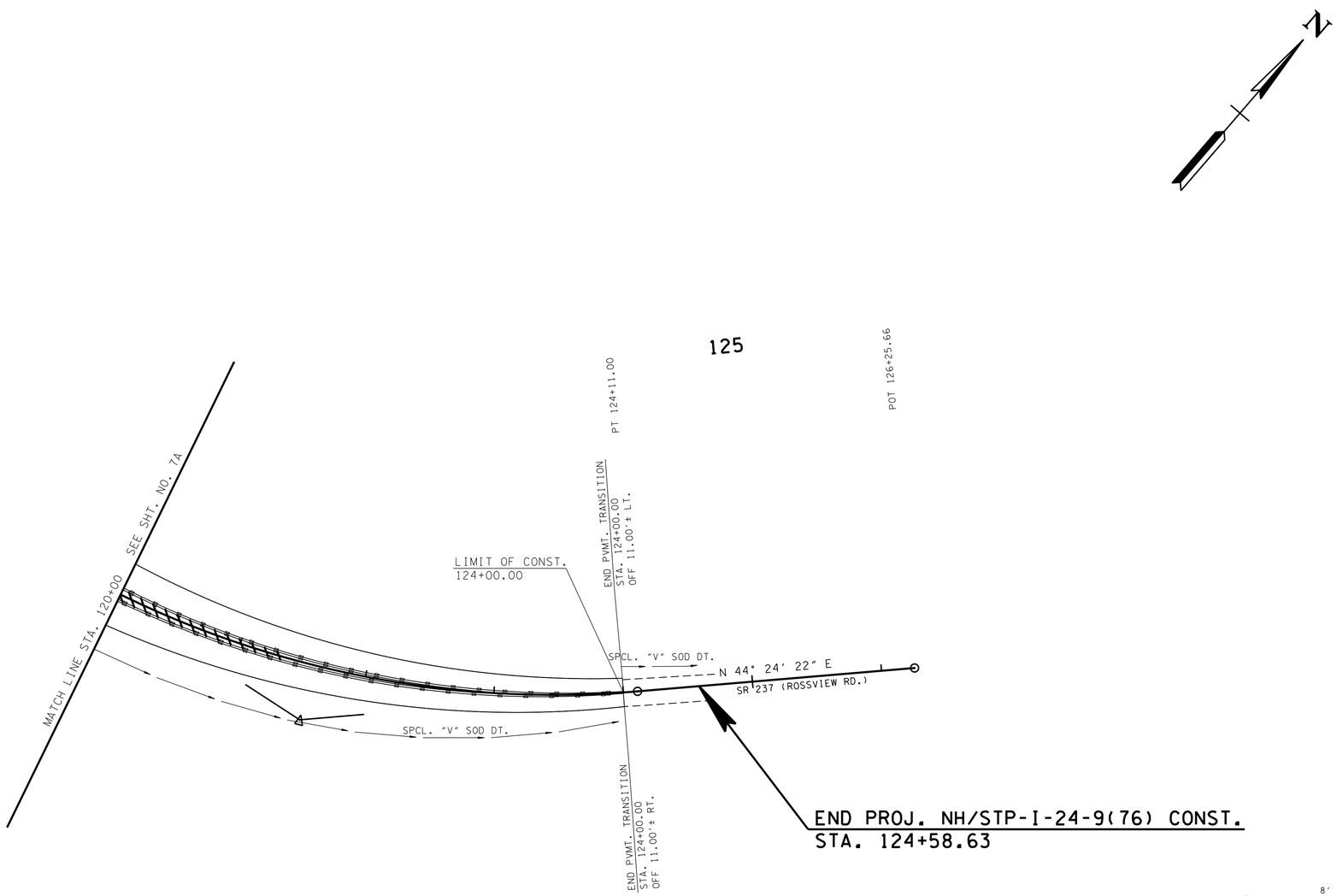
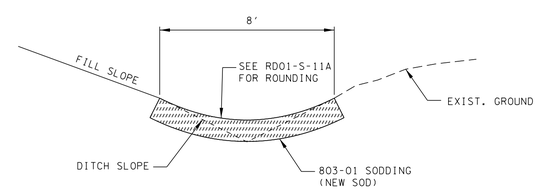
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	8A
CONST.	2014	NH/STP-I-24-9(76)	8A





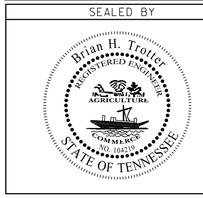
SPCL. "V" SOD DT.
SR 237 STA. 119+50.00 TO STA. 124+13.00 RT.
SR 237 STA. 124+00.00 TO STA. 124+58.63 LT.

SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA. 120+00 TO END. PROJ.

SCALE: 1"= 50'

8/5/2014 1:52:44 PM
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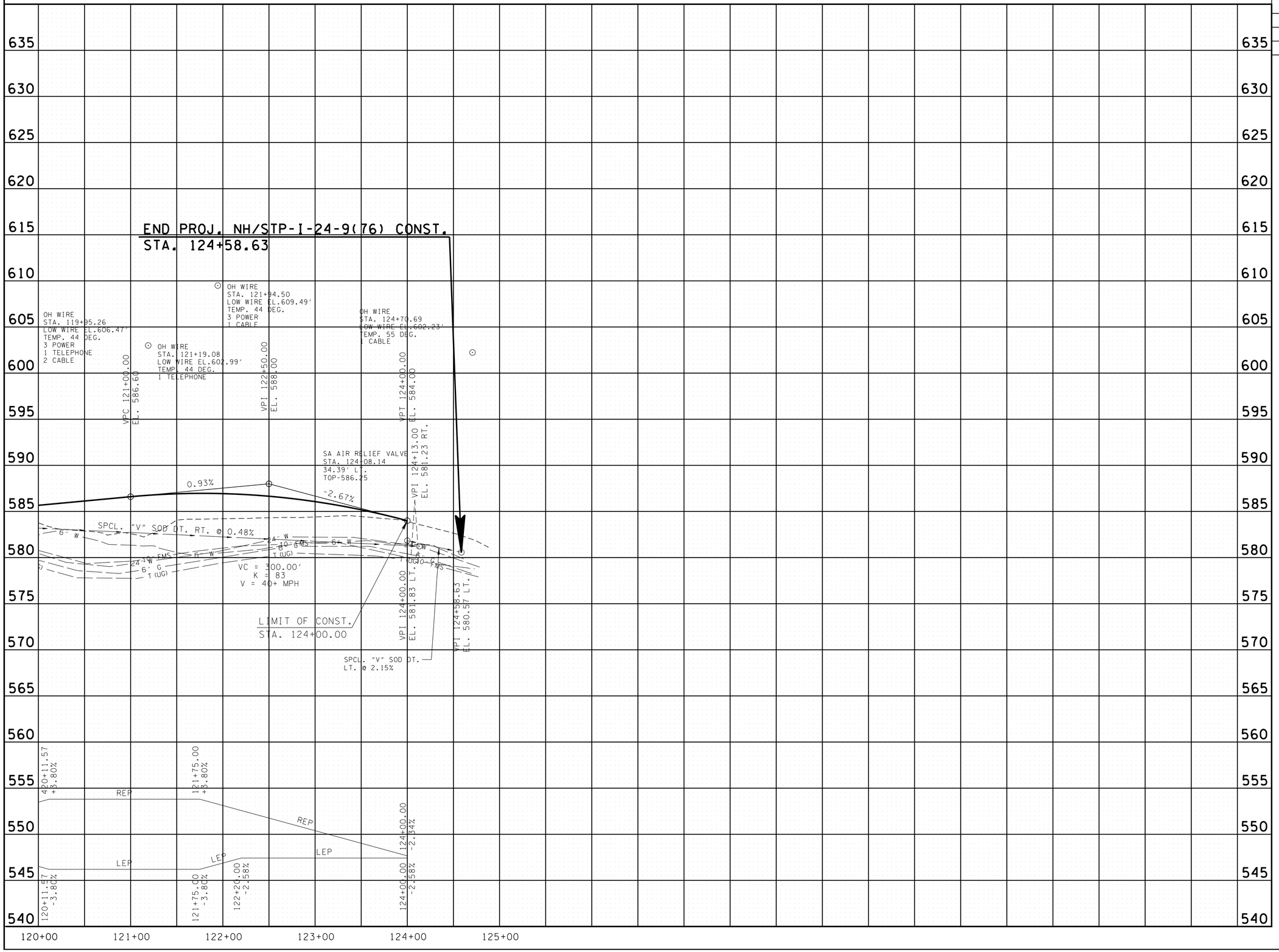
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	8B
CONST.	2014	NH/STP-I-24-9(76)	8B



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
GOING FORTH
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 120+00 TO STA. 125+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

8/5/2014 7:52:44 PM
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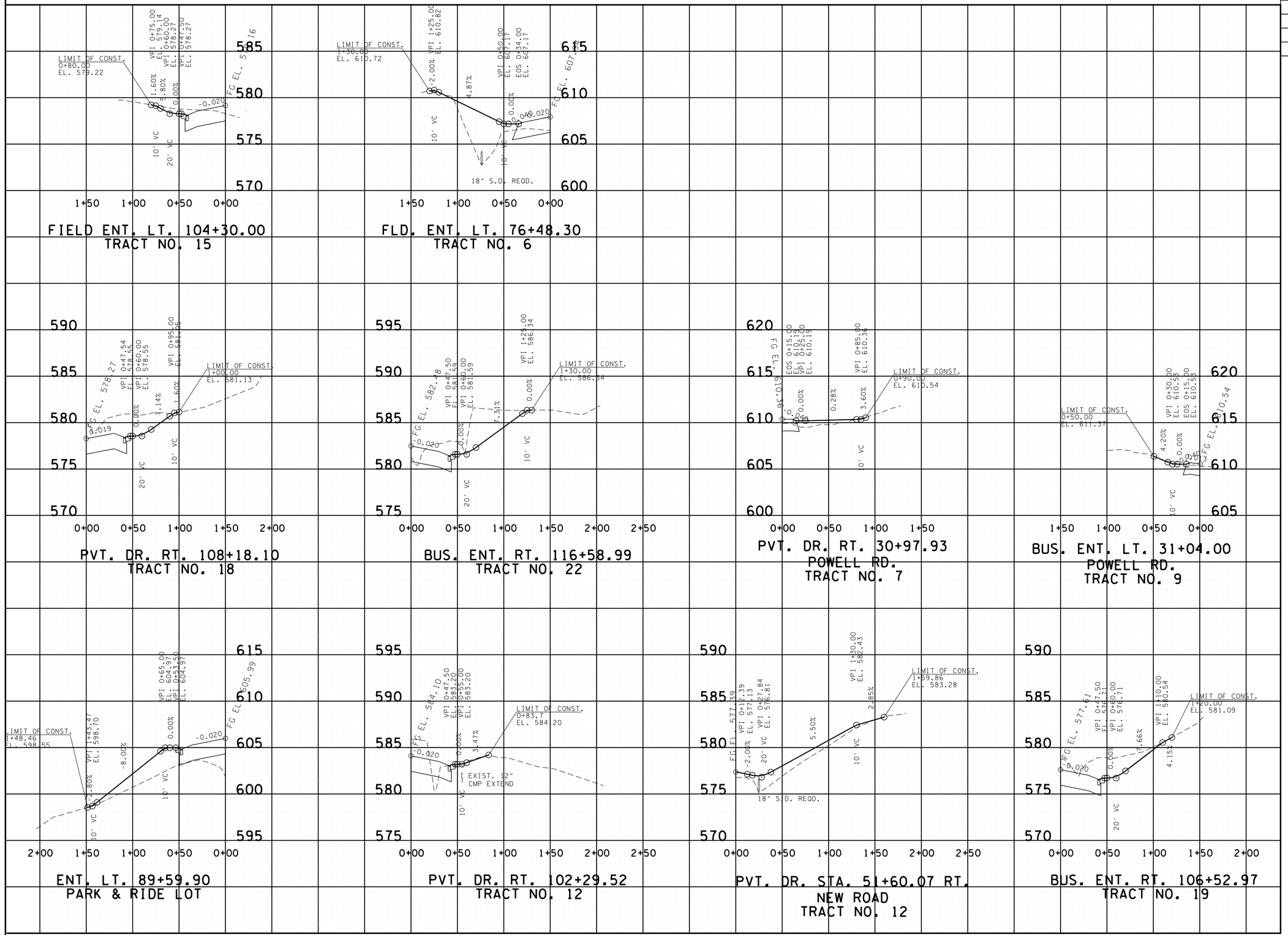
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	9
CONST.	2014	NH/STP-I-24-9(76)	9

REV. 06-23-14: REMOVED FIELD ENTRANCE STA. 104+30 RT.

REV. 07-02-14: ADDED PVT. DRIVE STA. 102+29.52

REV. 07-21-14: ADDED FIELD ENT. STA. 76+48.30 LT.



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF PRIVATE DRIVES

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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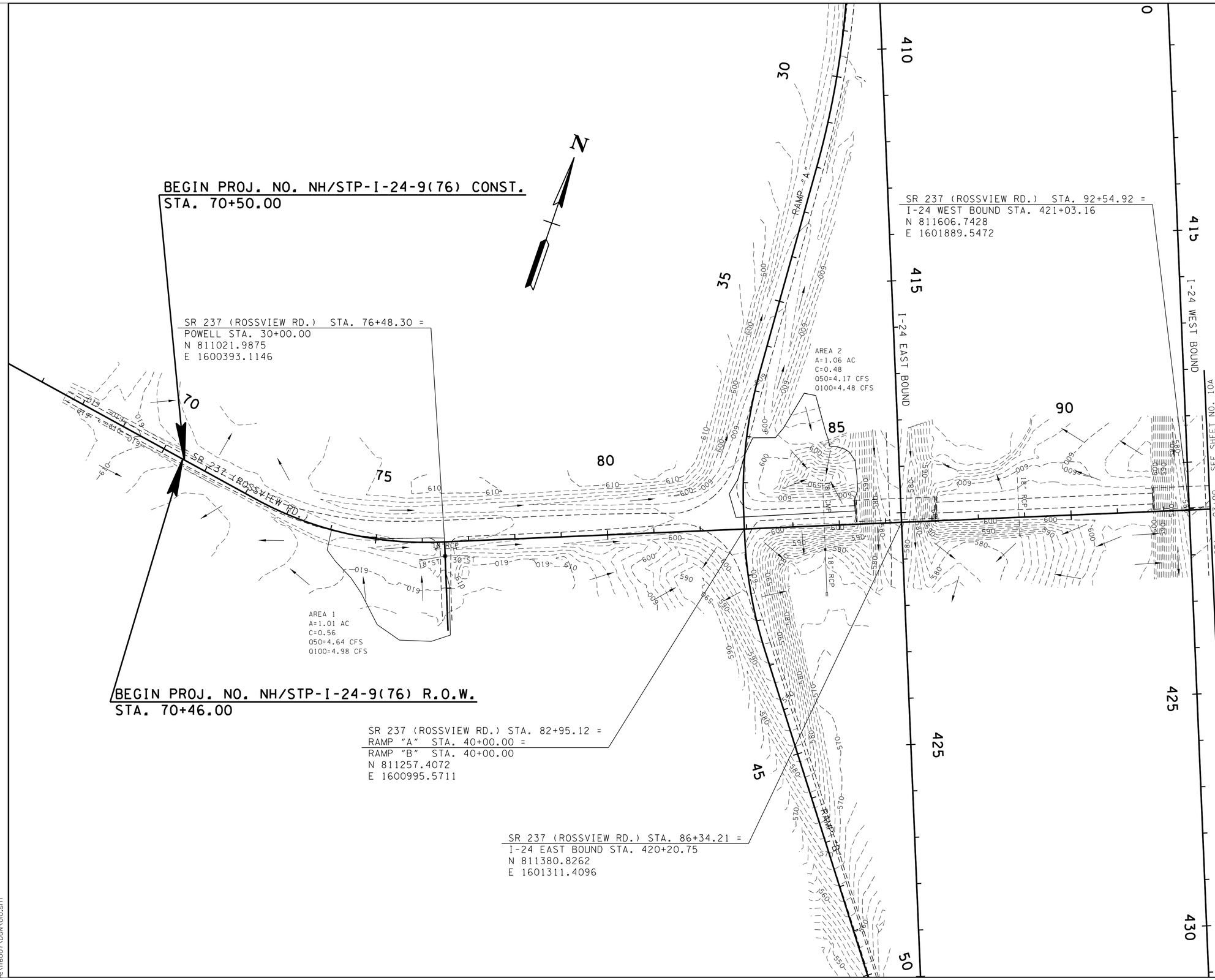
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	10
CONST.	2014	NH/STP-I-24-9(76)	10



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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 102210
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

BEGIN PROJ. TO STA. 93+00

SCALE: 1"=100'

8/5/2014 7:52:46 PM
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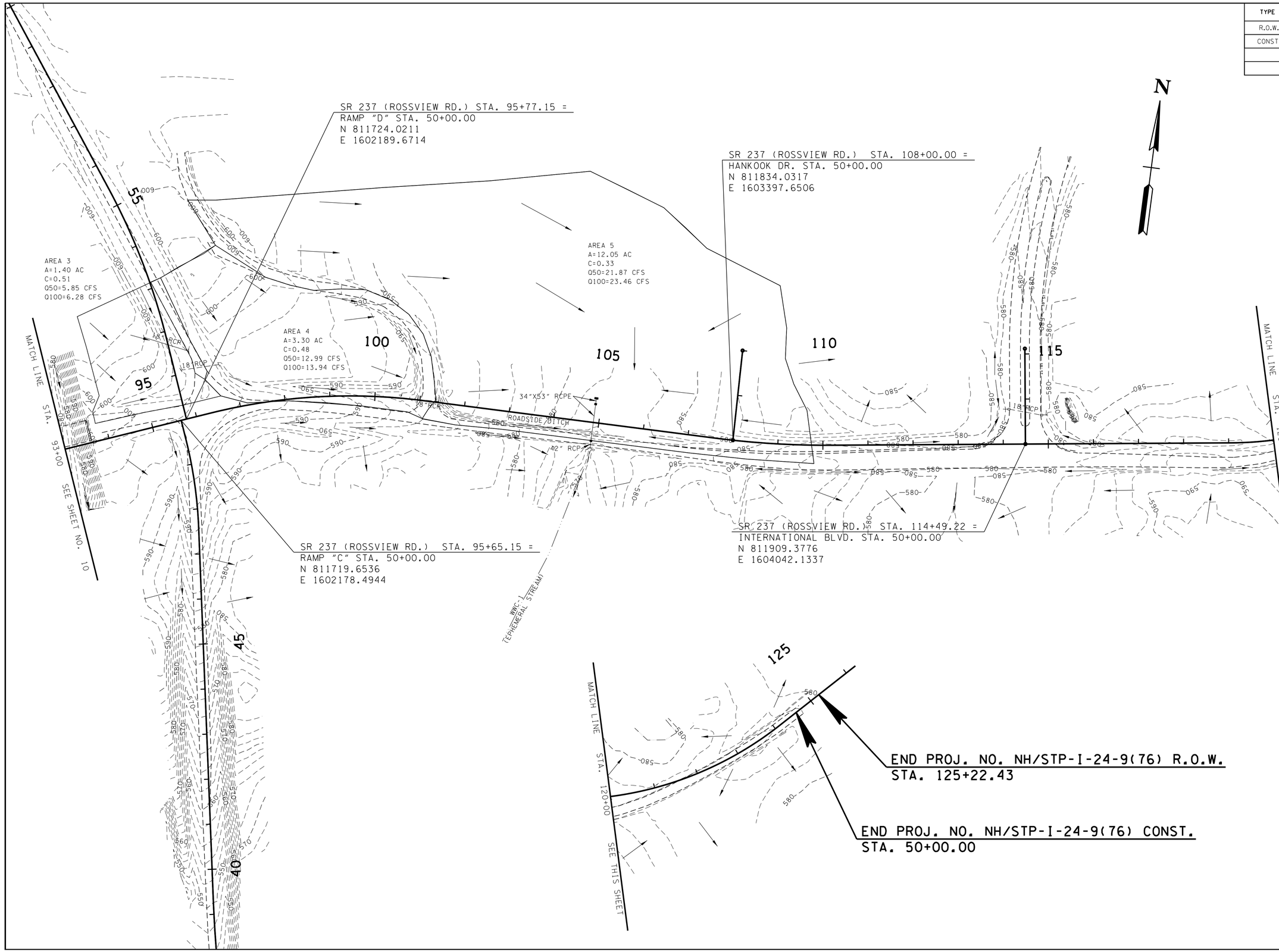
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	10A
CONST.	2014	NH/STP-I-24-9(76)	10A



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 93+00 TO END PROJ.

SCALE: 1"=100'

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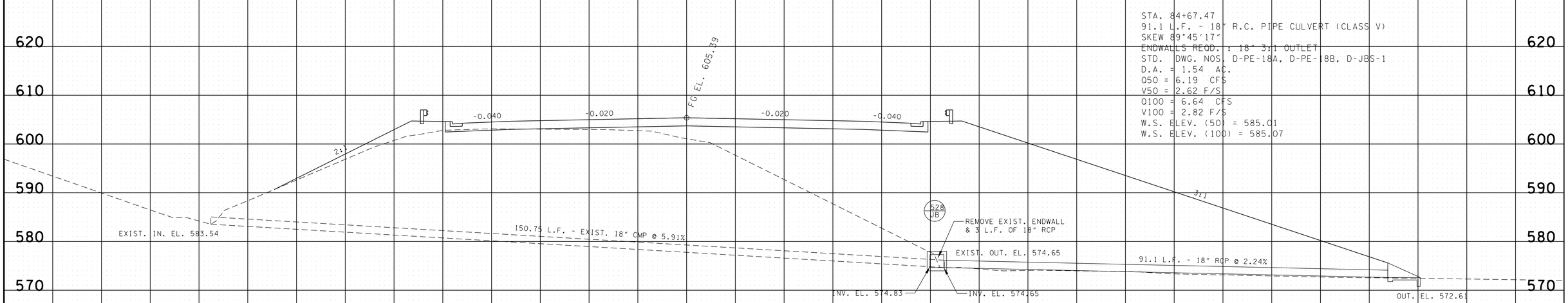
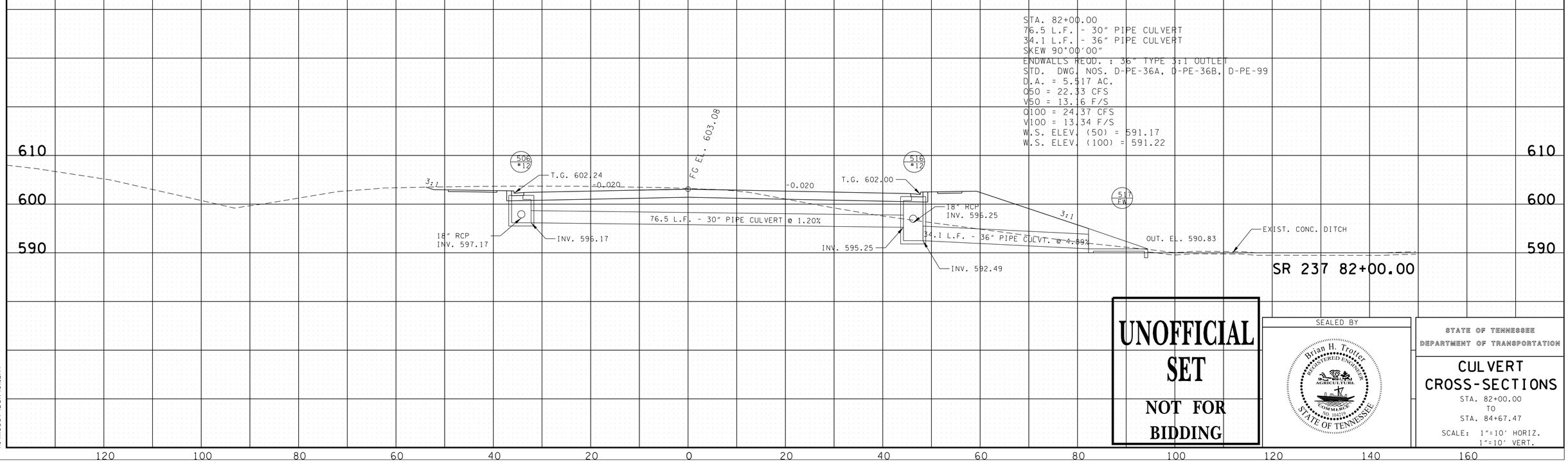
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	11
CONST.	2014	NH/STP-I-24-9(76)	11





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Brian H. Trotter
REGISTERED ENGINEER
No. 112818
AGRICULTURE
COMMERCE
GOD HAS THE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

STA. 82+00.00
TO
STA. 84+67.47

SCALE: 1"=10' HORIZ.
1"=10' VERT.

120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

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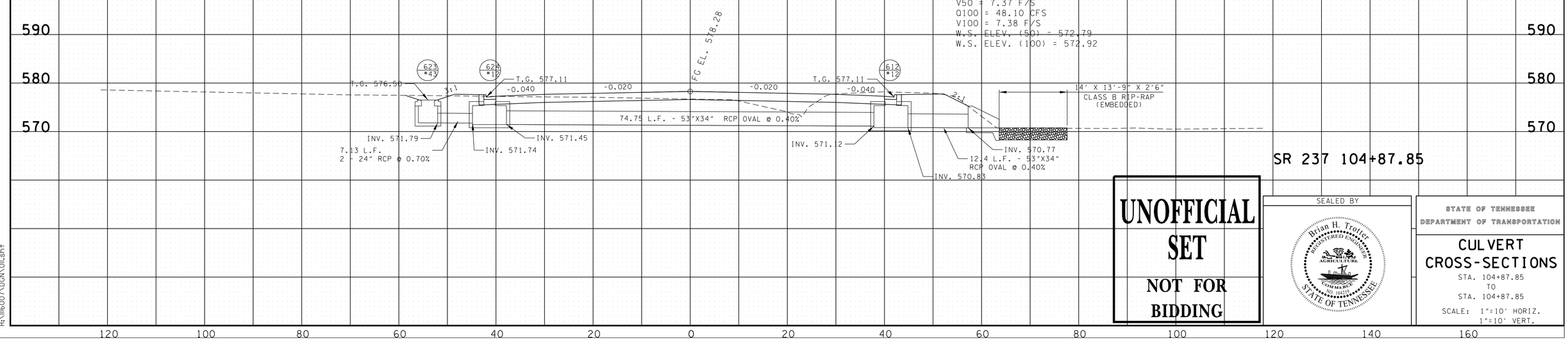
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	11A
CONST.	2014	NH/STP-I-24-9(76)	11A

STA. 104+87.85
7.13 L.F. - 2@24" R.C. PIPE CULVERT (CLASS III)
87.15 L.F. - 53"X34" HORIZONTAL OVAL CONCRETE PIPE CULVERT (CLASS III)
SKEW 90°00'00"
ENDWALLS REQD. : 54" TYPE A OUTLET
STD. DWG. NOS. D-PE-1
D.A. = 21.15 AC.
Q50 = 42.95 CFS
V50 = 7.37 F/S
Q100 = 48.10 CFS
V100 = 7.38 F/S
W.S. ELEV. (50) = 572.79
W.S. ELEV. (100) = 572.92



SR 237 104+87.85

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

STA. 104+87.85
TO
STA. 104+87.85

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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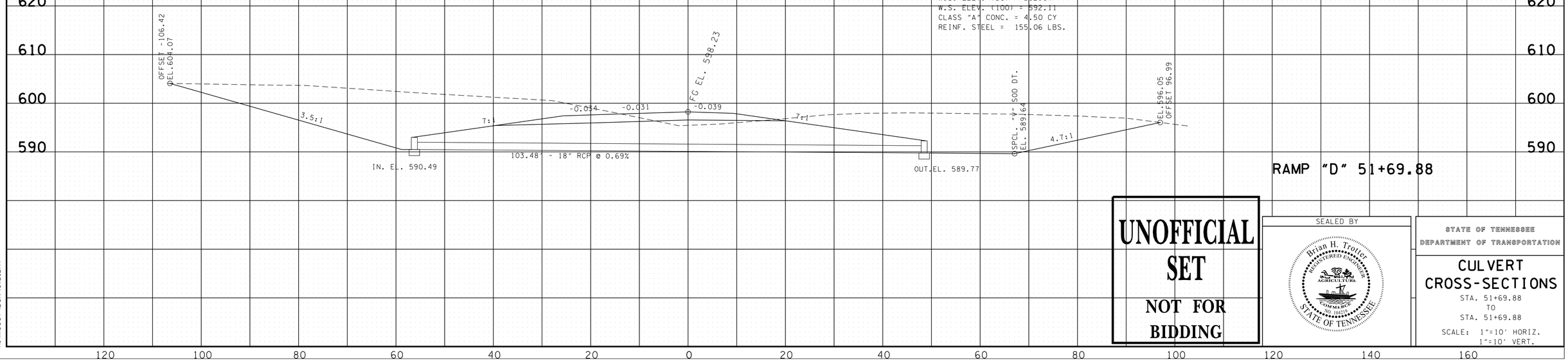
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	11B
CONST.	2014	NH/STP-I-24-9(76)	11B

STA. 51+69.88 RAMP D
103.48 L.F. - 18" R.C. PIPE CULVERT (CLASS III)
SKEW 58°56'24" LT
ENDWALLS REQD. : TYPE STRAIGHT INLET & OUTLET
STD. DWG. NOS. D-PB-1, D-PE-4
D.A. = 1.97 AC.
Q50 = 7.27 CFS
Q100 = 7.80 CFS
W.S. ELEV. (50) = 592.04
W.S. ELEV. (100) = 592.11
CLASS "A" CONC. = 4.50 CY
REINF. STEEL = 155.06 LBS.



RAMP "D" 51+69.88

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

STA. 51+69.88
TO
STA. 51+69.88

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	12
CONST.	2014	NH/STP-I-24-9(76)	12

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

NPDES

(1) 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.

(2) 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.

(3) 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.

(4) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL 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.

(5) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H: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.

(6) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(7) 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.

UTILITY RELOCATION

(8) RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.

(9) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY

(10) UTILITY CROSSINGS FOR PERENNIAL STREAMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO UTILITIES IN THIS PROJECT IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC). THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLANS (SWPPP).

(11) IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.

(12) FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.

(13) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK.

(14) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.

(15) FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.

(16) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).

(17) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT PROJECT ENGINEER BEFORE COMMENCING WORK.

GEOTECHNICAL

(1) INSTALLATION OF EROSION CONTROL MATTING AND ESTABLISHMENT OF VEGETATION SHALL BE CONDUCTED AS SOON AS PRACTICAL TO PREVENT EROSION OF THE CUT AND FILL SLOPES.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	12A
CONST.	2014	NH/STP-I-24-9(76)	12A

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.	SYMBOL	ITEM	STD. DWG.
	WORK ZONE		TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	TEMPORARY PIPE				
* SF * SF * SF *	SILT FENCE	EC-STR-3B		TEMPORARY SLOPE DRAIN	EC-STR-27
	ROCK CHECK DAM (V-DITCH)	EC-STR-6		TEMPORARY DIVERSION CHANNEL (SEE SHEET 2A2)	EC-STR-31
	ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6	** TUBE ** TUBE **	SEDIMENT TUBE	EC-STR-37
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A	2	CURB INLET PROTECTION (TYPE 2)	EC-STR-39
	ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A	2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42
	CULVERT PROTECTION (TYPE 1)	EC-STR-11	8	CATCH BASIN FILTER ASSEMBLY (TYPE 8)	EC-STR-48

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

	ITEM NO.	DESCRIPTION	CLEARING & GRUBBING	CONSTRUCTION - STAGE 1 & STAGE 2	CONSTRUCTION - STAGE 3	FINAL STABILIZATION	TOTAL	UNIT
	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	36	36	36		108	C.Y.
	209-02.05	12" TEMPORARY SLOPE DRAIN	96	101	101		298	L.F.
	209-05	SEDIMENT REMOVAL	20	30	30		80	C.Y.
	209-08.03	TEMPORARY SILT FENCE (WITHOUT BACKING)	1150	1150	1150		3450	L.F.
	209-08.07	ROCK CHECK DAM PER	30	28	33		91	EACH
	209-08.08	ENHANCED ROCK CHECK DAM	19	15	16		50	EACH
	209-09.41	CURB INLET PROTECTION (TYPE 2)		26	53		79	EACH
(1)	209-40.41	CATCH BASIN FILTER ASSEMBLY (TYPE1)		1	1		2	EACH
(1)	209-40.42	CATCH BASIN FILTER ASSEMBLY (TYPE 2)		15	21		36	EACH
(1)	209-40.44	CATCH BASIN FILTER ASSEMBLY (TYPE 4)		1	1		2	EACH
(1)	209-40.46	CATCH BASIN FILTER ASSEMBLY (TYPE 6)		4	6		10	EACH
(1)	209-40.47	CATCH BASIN FILTER ASSEMBLY (TYPE 7)		2			2	EACH
(1)	209-40.48	CATCH BASIN FILTER ASSEMBLY (TYPE 8)		4	3		7	EACH
	209-65.03	TEMPORARY DIVERSION CHANNEL		1678			1678	L.F.
	303-10.01	MINERAL AGGREGATE (SIZE 57)	38	29	8		75	TON
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	216	159	45		420	TON
	709-05.05	MACHINED RIP-RAP (CLASS A-3)	250	250	250		750	TON
	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	913	806	537		2255	S.Y.
	740-11.02	TEMPORARY SEDIMENT TUBE 12IN (EROSION CONTROL)	11085	11701	9197		31983	L.F.
	740-11.03	TEMPORARY SEDIMENT TUBE 18IN (EROSION CONTROL)	543	473	283		1299	L.F.
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	400	425	275		1100	UNIT
	801-02	SEEDING (WITHOUT MULCH)				111	111	UNIT
	801-03	WATER (SEEDING AND SODDING)	40	43	28	404	515	M.G.
	801-07	SEED (SUPPLEMENTAL APPLICATION)				100	100	LB
	801-08	FERTILIZER (SUPPLEMENTAL APPLICATION)				1	1	TON
	803-01	SODDING (NEW SOD)				39340	39340	S.Y.
	805-12.03	EROSION CONTROL BLANKET (TYPE III)				9835	9835	S.Y.

NOTES: ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER
ALL TEMPORARY CONSTRUCTION EXIT LOCATIONS TO BE DETERMINED BY THE ENGINEER
(1) APROPRIATE CATCH BASIN FILTER ASSEMBLY PROTECTION TO BE UTILIZED DURING GRADING OPERATIONS AND REPLACED WITH TYPE 2 CURB INLET PROTECTION WHEN APPLICABLE

CLEARING & GRUBBING			CONSTRUCTION - STAGE 1 & STAGE 2			CONSTRUCTION - STAGE 3		
OUTFALL	SUB-OUTFALL	AREA	OUTFALL	SUB-OUTFALL	AREA	OUTFALL	SUB-OUTFALL	AREA
OUT-1		5.26 AC	OUT-1		5.49 AC	OUT-1		8.26 AC
OUT-1A	2.03 AC		OUT-1A	1.10 AC		OUT-1A	2.49 AC	
			OUT-1B	1.52 AC		OUT-1B	2.96 AC	
OUT-2		1.05 AC	OUT-2		1.05 AC	OUT-2		1.58 AC
OUT-3		3.58 AC	OUT-3		3.58 AC	OUT-3		4.23 AC
OUT-4		0.67 AC	OUT-4		0.67 AC			
OUT-5		3.34 AC	OUT-5		3.34 AC	OUT-5		3.39 AC
OUT-6		0.19 AC	OUT-6		0.19 AC	OUT-6		0.19 AC
OUT-7		0.46 AC	OUT-7		0.46 AC	OUT-7		0.46 AC
OUT-8		0.97 AC	OUT-8		0.97 AC	OUT-8		0.97 AC
OUT-9		1.34 AC	OUT-9		1.34 AC	OUT-9		1.34 AC
OUT-10		2.54 AC	OUT-10		2.58 AC	OUT-10		2.51 AC
OUT-11		1.75 AC	OUT-11		1.75 AC	OUT-11		1.62 AC
○ OUT-12		16.54 AC	OUT-12		18.62 AC	OUT-12		23.85 AC
OUT-12A	1.45 AC		OUT-12A	2.09 AC		OUT-12A	3.71 AC	
OUT-12B	3.84 AC		OUT-12B	2.93 AC		OUT-12B	2.51 AC	
OUT-12C	0.25 AC		OUT-12C	0.14 AC		OUT-12C	0.18 AC	
OUT-12D	5.76 AC		OUT-12D	1.04 AC		OUT-12D	0.19 AC	
OUT-12E	4.82 AC		OUT-12E	5.21 AC		OUT-12E	5.21 AC	
			OUT-12E-1	0.23 AC		OUT-12E-1	0.14 AC	
						OUT-12-E2	0.23 AC	
OUT-12F	0.42 AC		OUT-12F	4.33 AC		OUT-12F	4.33 AC	
			OUT-12G	0.62 AC		OUT-12G	0.60 AC	
			OUT-12H	0.33 AC		OUT-12H	0.35 AC	
			OUT-12I	0.18 AC		OUT-12I	0.22 AC	
			OUT-12J	0.26 AC		OUT-12J	0.32 AC	
			OUT-12K	0.21 AC		OUT-12K	0.21 AC	
			OUT-12L	0.21 AC		OUT-12L	0.21 AC	
			OUT-12M	0.42 AC		OUT-12M	0.42 AC	
			OUT-12N	0.15 AC		OUT-12N	0.15 AC	
			OUT-12P	0.23 AC		OUT-12P	0.23 AC	
			OUT-12Q	0.04 AC		OUT-12Q	0.04 AC	
						OUT-12R	0.17 AC	
						OUT-12S	0.46 AC	
						OUT-12T	0.09 AC	
						OUT-12U	0.04 AC	
						OUT-12V	0.12 AC	
						OUT-12W	0.31 AC	
						OUT-12X	0.28 AC	
						OUT-12Y	0.25 AC	
						OUT-12Z	0.22 AC	
						OUT-12AA	0.64 AC	
						OUT-12AB	0.34 AC	
						OUT-12AC	0.16 AC	
						OUT-12AD	0.19 AC	
						OUT-12AE	0.30 AC	
						OUT-12AF	0.41 AC	
						OUT-12AG	0.39 AC	
						OUT-12AH	0.21 AC	
						OUT-12AI	0.02 AC	
OUT-13		0.48 AC	OUT-13		0.48 AC	OUT-13		0.07 AC
OUT-14		1.34 AC	OUT-14		1.19 AC	OUT-14		0.30 AC
OUT-15		0.99 AC	OUT-15			OUT-15		
OUT-16		0.48 AC	OUT-16			OUT-16		
OUT-17		0.06 AC	OUT-17		0.27 AC	OUT-17		0.62 AC
OUT-18		0.06 AC	OUT-18		0.14 AC	OUT-18		0.30 AC

○ OFF-SITE STORMWATER RUNOFF IS DIVERTED THROUGH THE SITE BY WAY OF SLOPE DRAINS, TEMPORARY DIVERSION DITCHES AND EXISTING PIPES.

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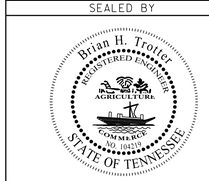

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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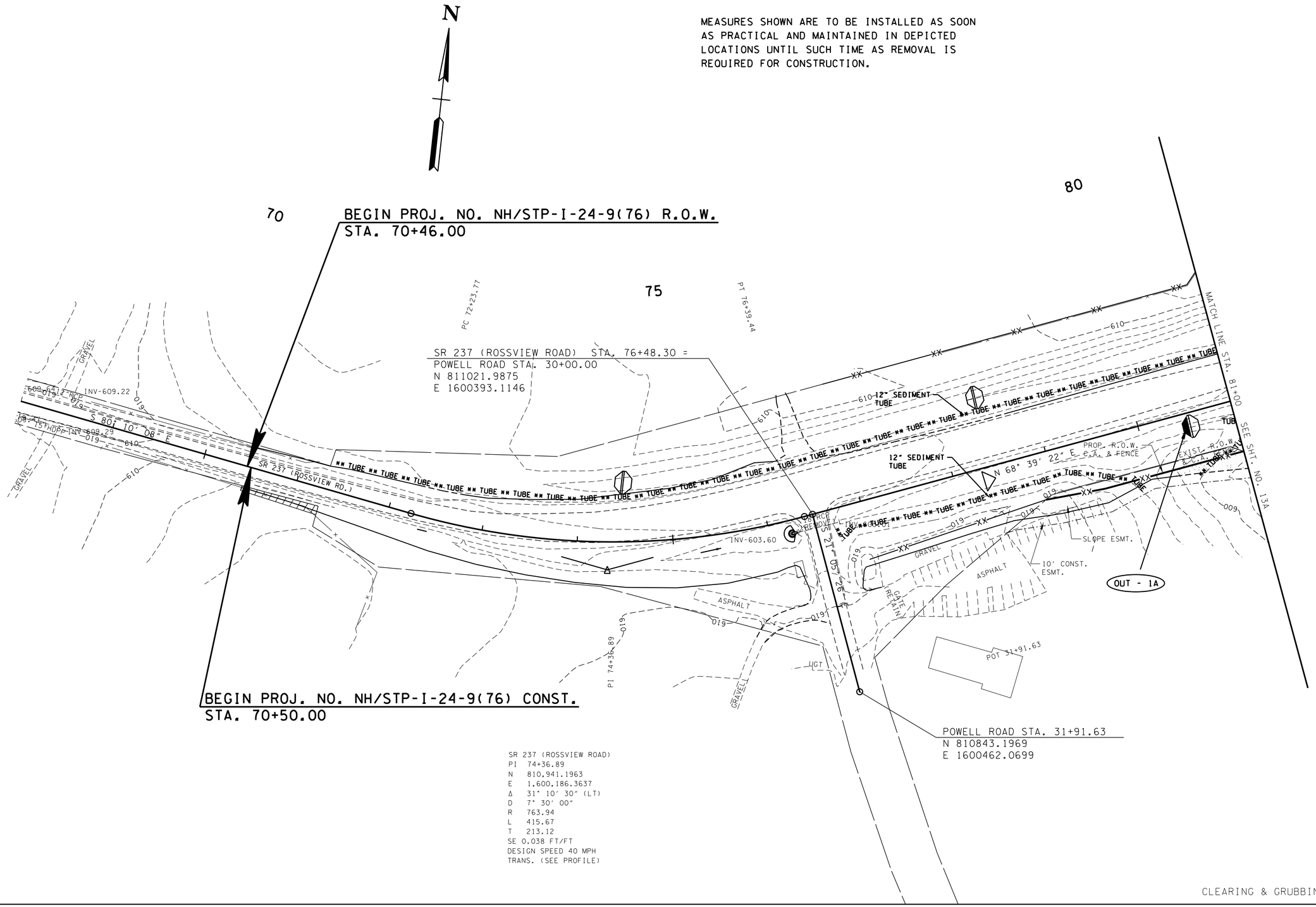
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13
CONST.	2014	NH/STP-I-24-9(76)	13

NOTE:

MEASURES SHOWN ARE TO BE INSTALLED AS SOON AS PRACTICAL AND MAINTAINED IN DEPICTED LOCATIONS UNTIL SUCH TIME AS REMOVAL IS REQUIRED FOR CONSTRUCTION.



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T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

CLEARING & GRUBBING

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

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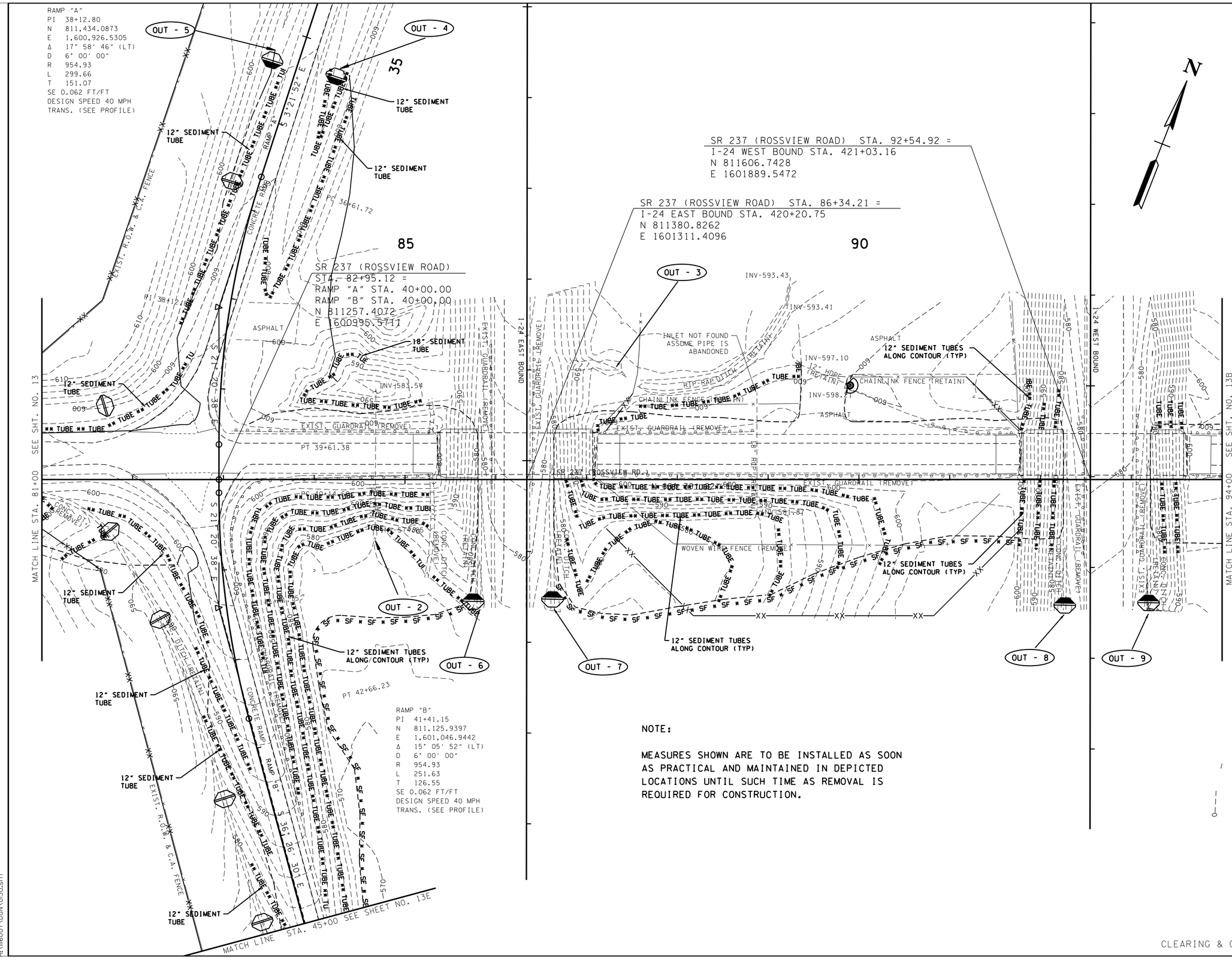
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13A
CONST.	2014	NH/STP-I-24-9(76)	13A



NOTE:

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CLEARING & GRUBBING

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108259
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50'

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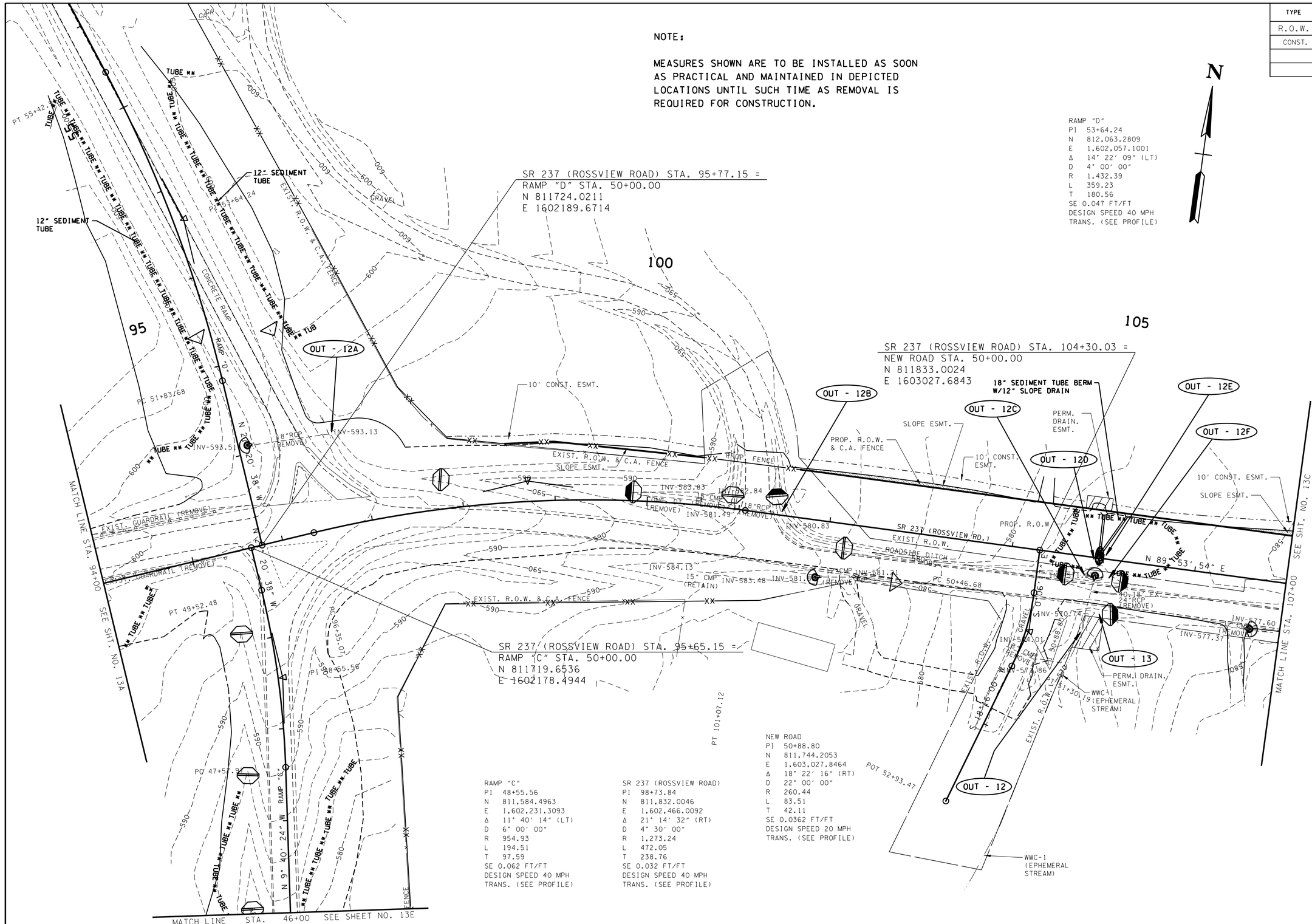
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13B
CONST.	2014	NH/STP-I-24-9(76)	13B

NOTE:

MEASURES SHOWN ARE TO BE INSTALLED AS SOON AS PRACTICAL AND MAINTAINED IN DEPICTED LOCATIONS UNTIL SUCH TIME AS REMOVAL IS REQUIRED FOR CONSTRUCTION.



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TRANS. (SEE PROFILE)

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TRANS. (SEE PROFILE)

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L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

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Brian H. Trotter
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COMMERCE
NO. 104219
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

CLEARING & GRUBBING

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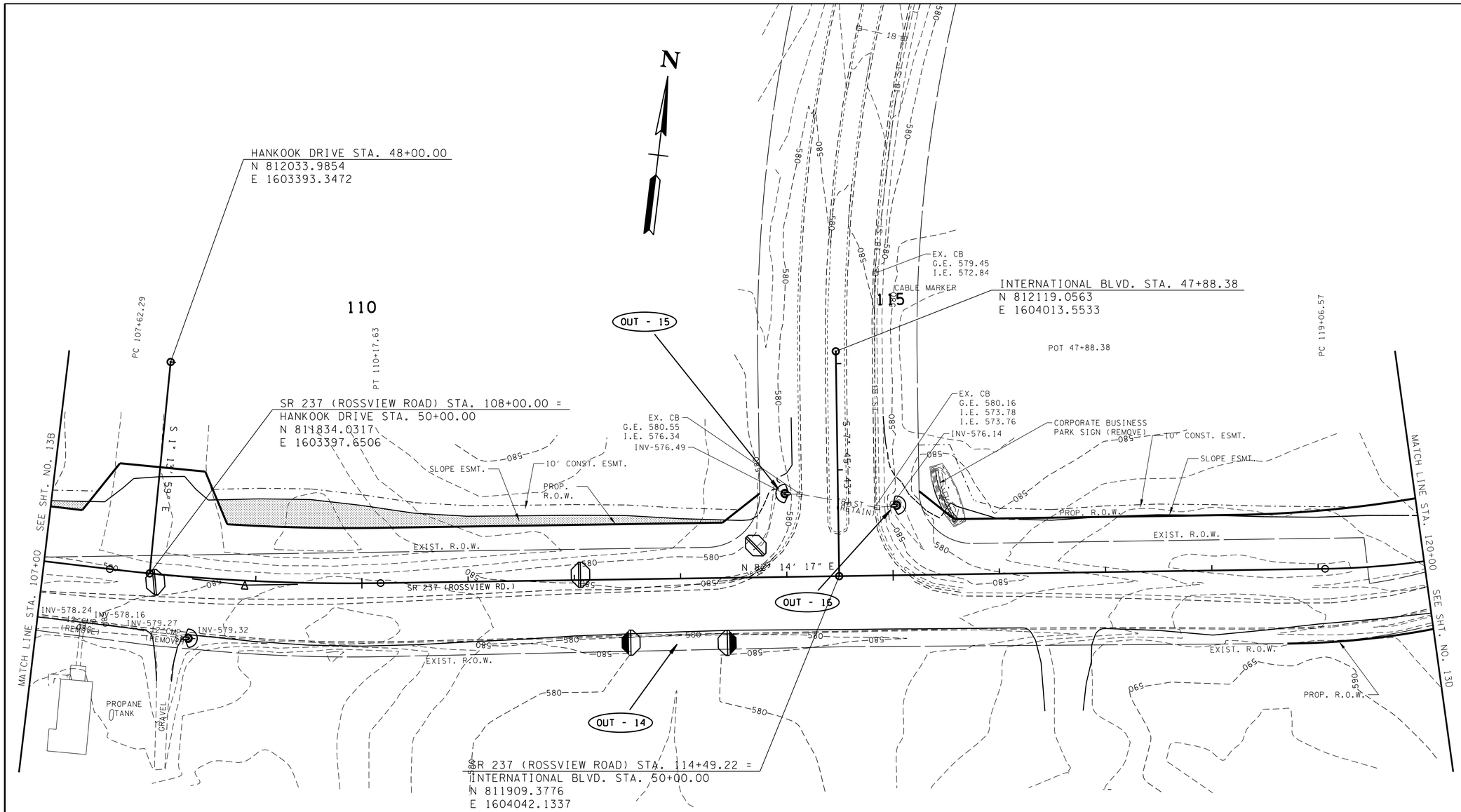
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13C
CONST.	2014	NH/STP-I-24-9(76)	13C



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T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NOTE:

MEASURES SHOWN ARE TO BE INSTALLED AS SOON AS PRACTICAL AND MAINTAINED IN DEPICTED LOCATIONS UNTIL SUCH TIME AS REMOVAL IS REQUIRED FOR CONSTRUCTION.

CLEARING & GRUBBING

UNOFFICIAL SET

NOT FOR BIDDING

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50'

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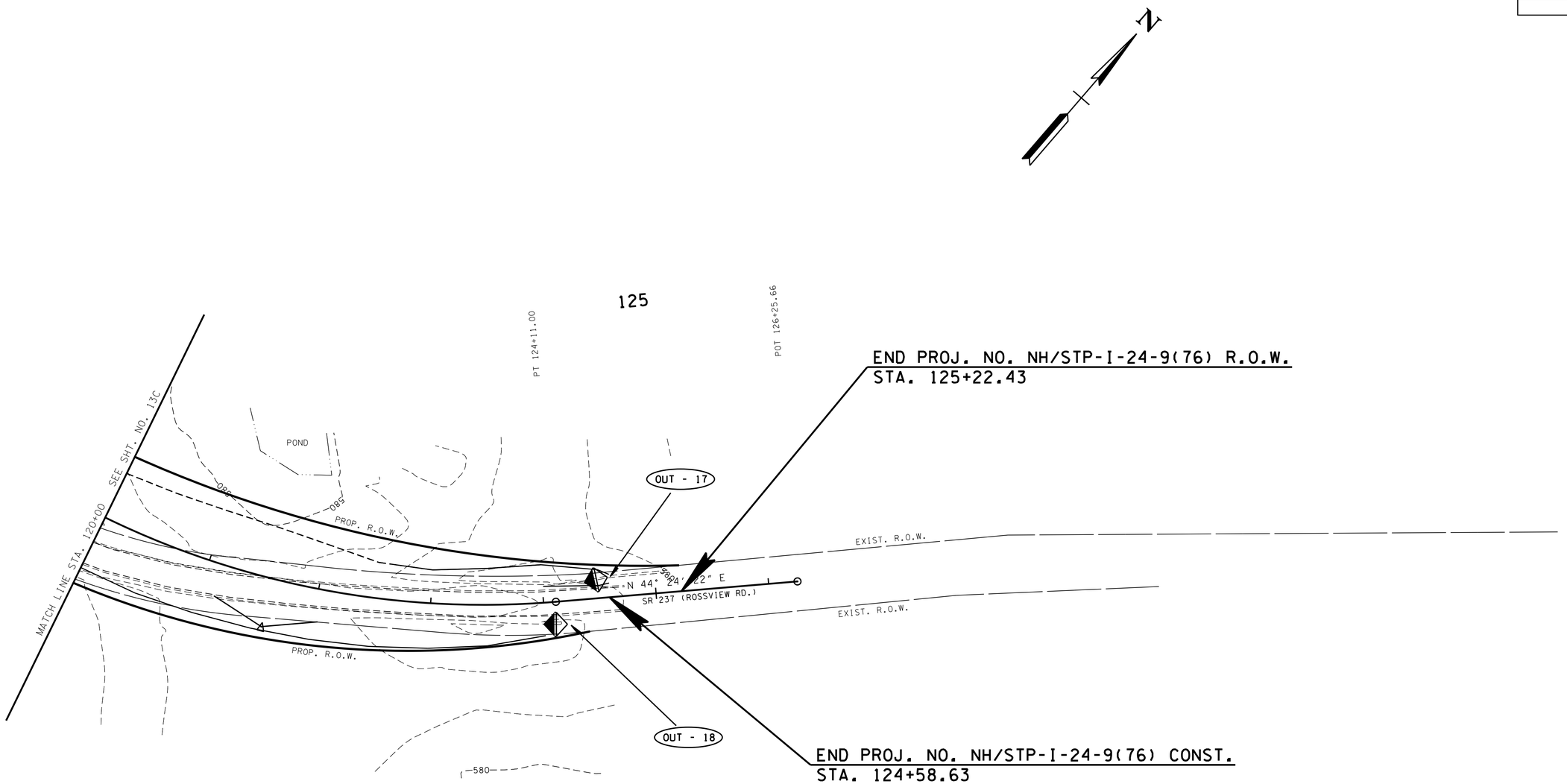
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13D
CONST.	2014	NH/STP-I-24-9(76)	13D



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E 1,604,754.6859
Δ 37° 49′ 56″ (LT)
D 7° 30′ 00″
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

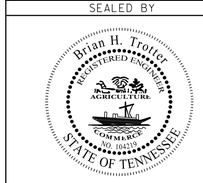
NOTE:

MEASURES SHOWN ARE TO BE INSTALLED AS SOON AS PRACTICAL AND MAINTAINED IN DEPICTED LOCATIONS UNTIL SUCH TIME AS REMOVAL IS REQUIRED FOR CONSTRUCTION.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 120+00 TO END PROJ.

SCALE: 1"= 50'

CLEARING & GRUBBING

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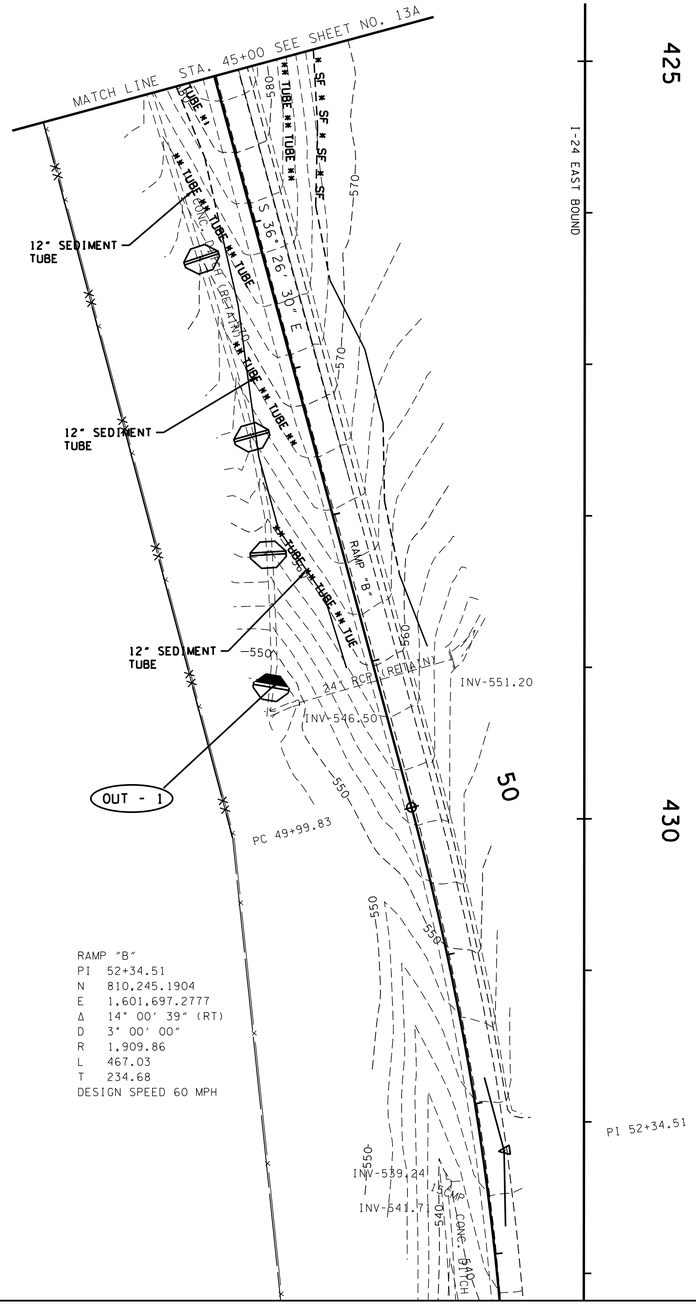
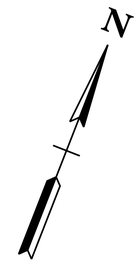
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	13E
CONST.	2014	NH/STP-I-24-9(76)	13E

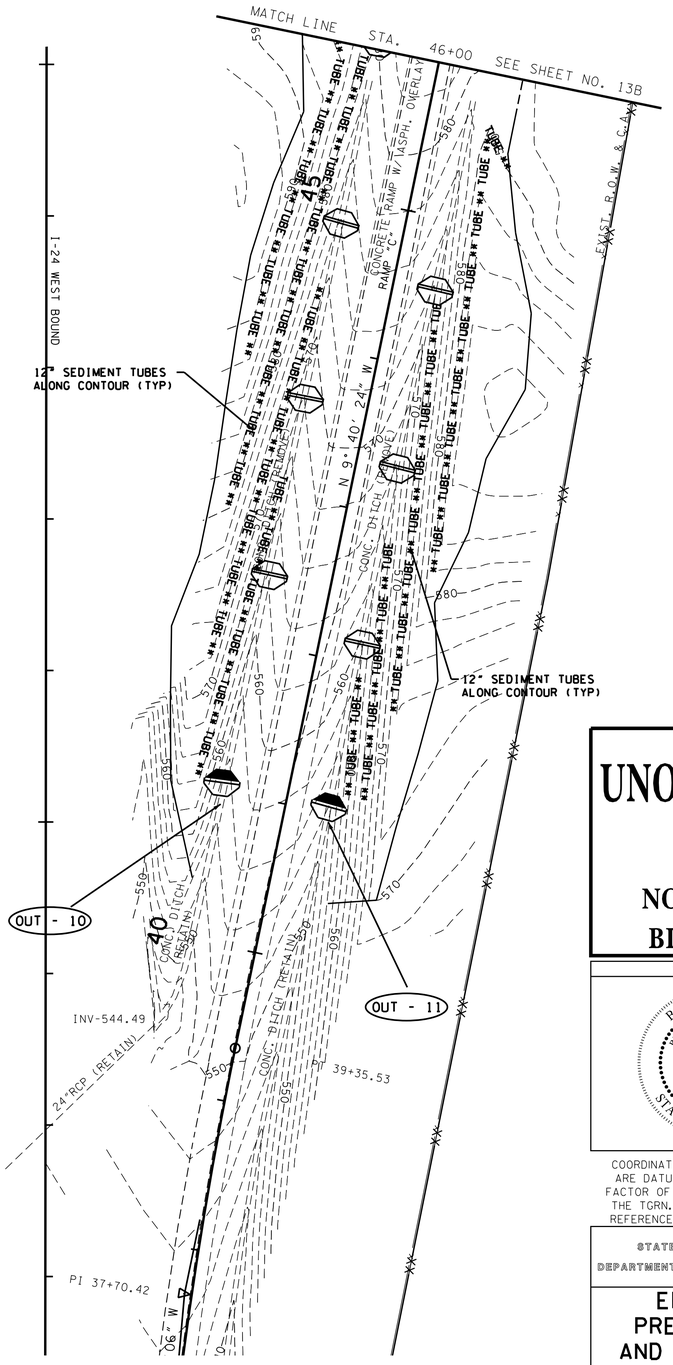
NOTE:

MEASURES SHOWN ARE TO BE INSTALLED AS SOON AS PRACTICAL AND MAINTAINED IN DEPICTED LOCATIONS UNTIL SUCH TIME AS REMOVAL IS REQUIRED FOR CONSTRUCTION.



RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH





RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

CLEARING & GRUBBING

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

RAMP B & RAMP C

SCALE: 1"= 50'

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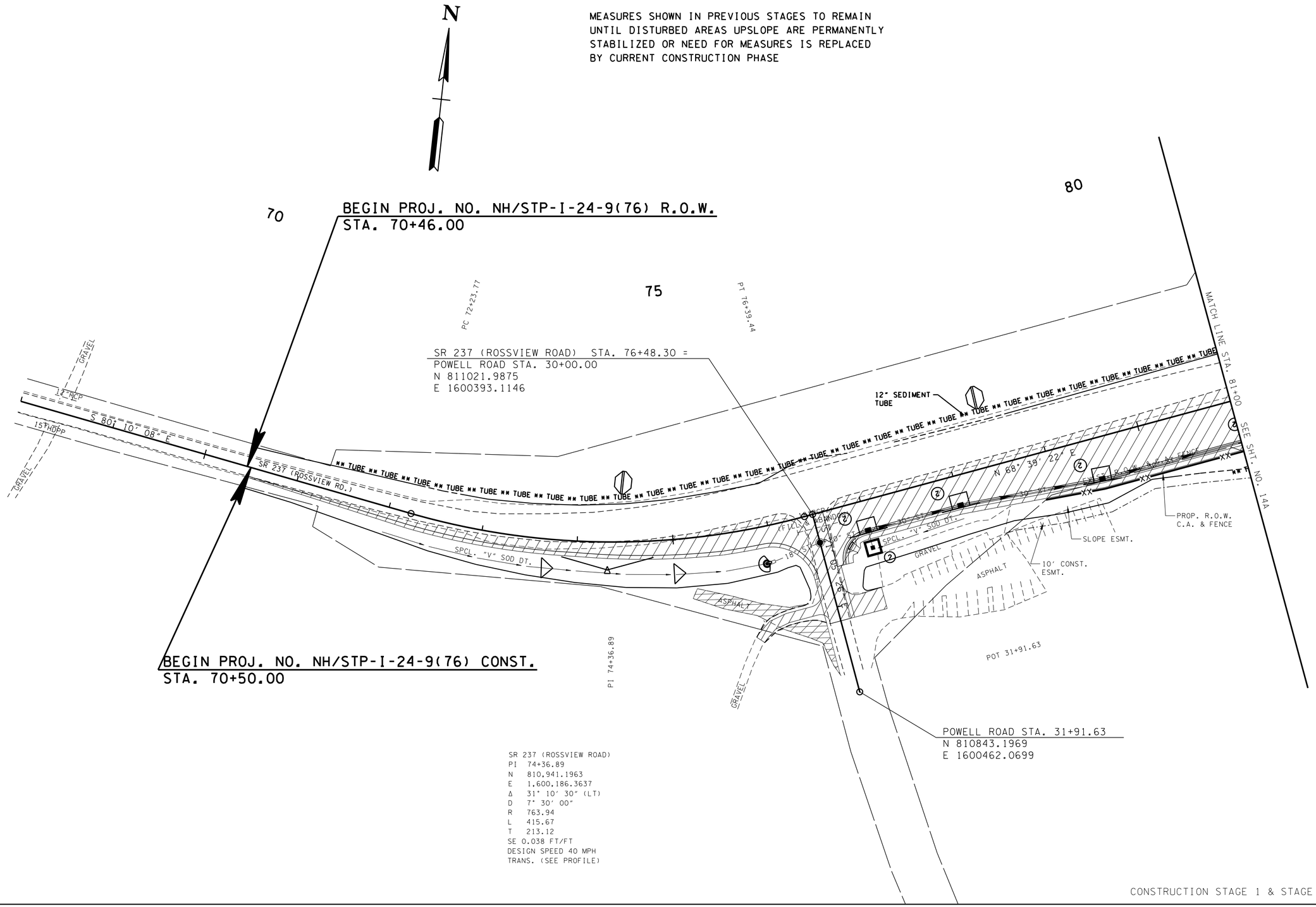
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14
CONST.	2014	NH/STP-I-24-9(76)	14

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

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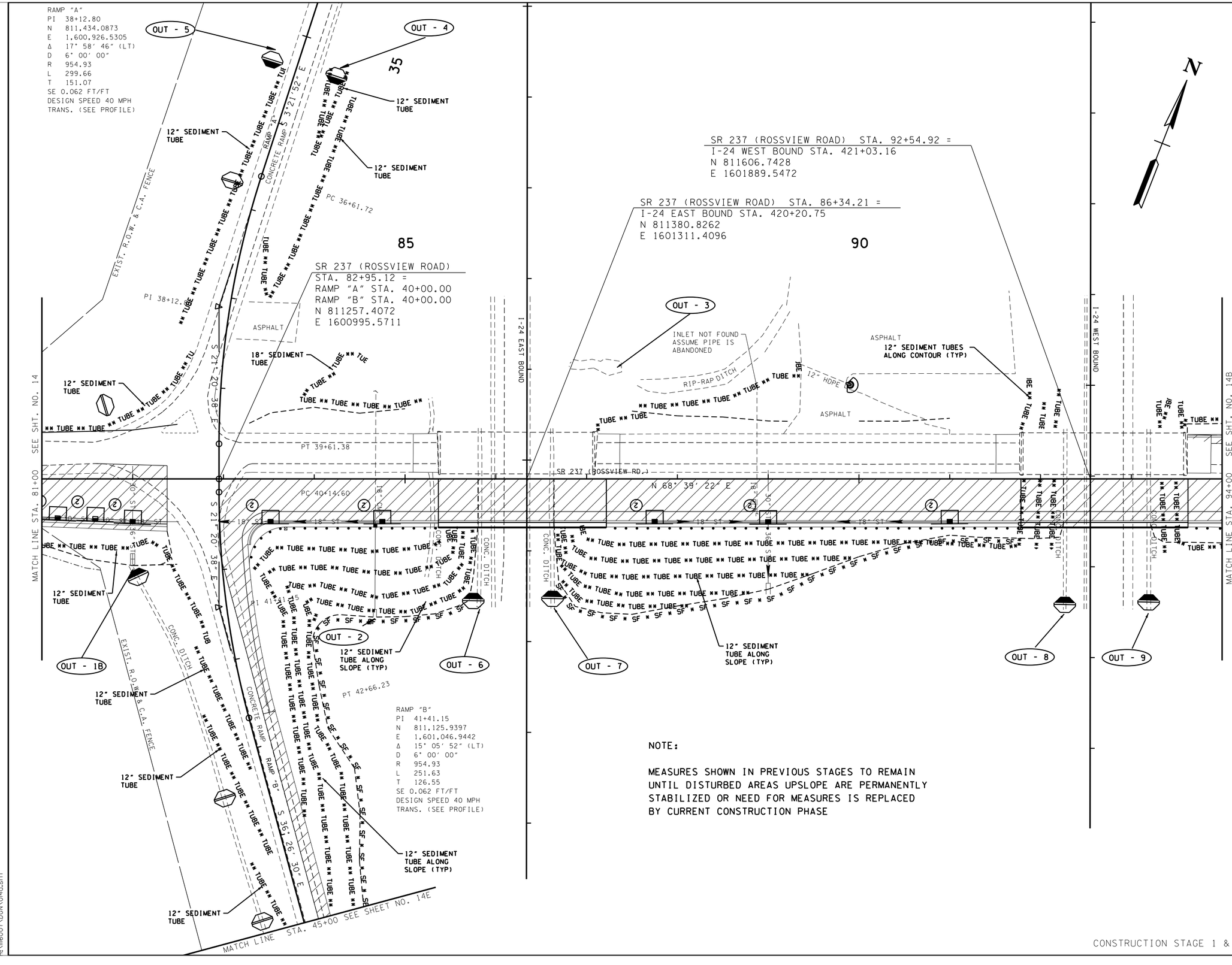
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14A
CONST.	2014	NH/STP-I-24-9(76)	14A



NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE

CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50'

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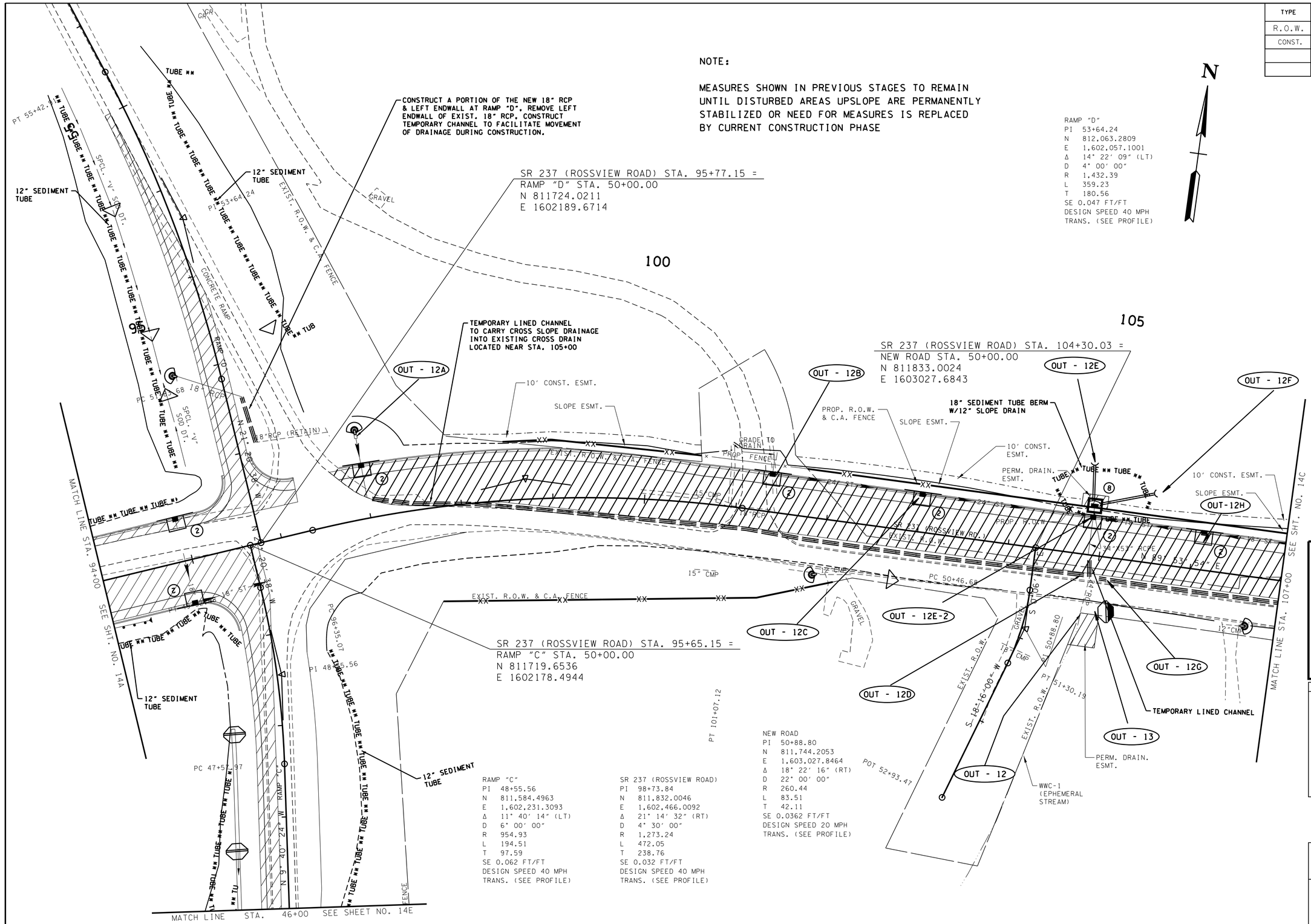
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14B
CONST.	2014	NH/STP-I-24-9(76)	14B

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 104370
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 94+00 TO STA. 107+00

SCALE: 1"= 50'

8/5/2014 7:55:44 PM
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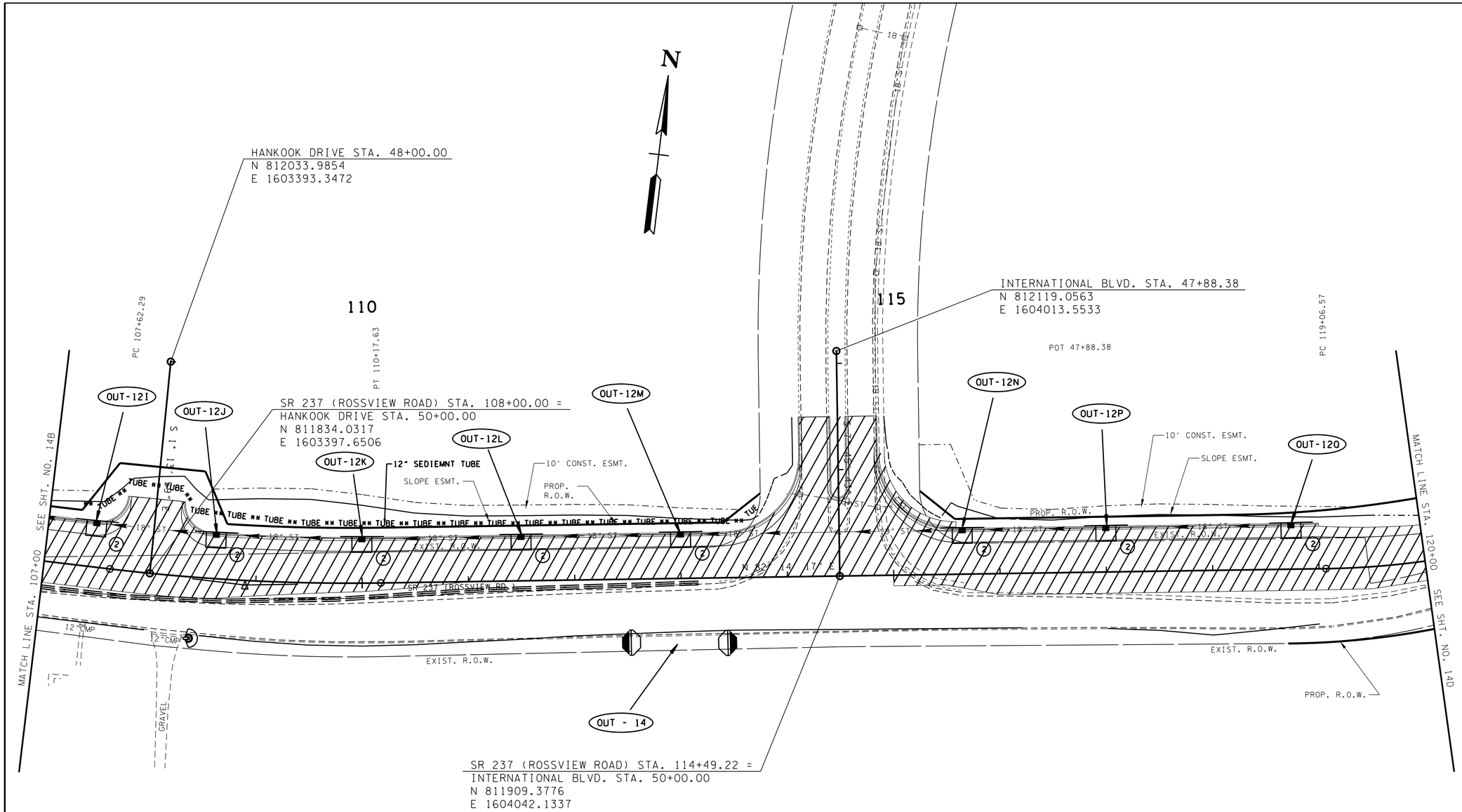
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14C
CONST.	2014	NH/STP-I-24-9(76)	14C



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39′ 36″ (LT)
D 3° 00′ 00″
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE

CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104210
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50'

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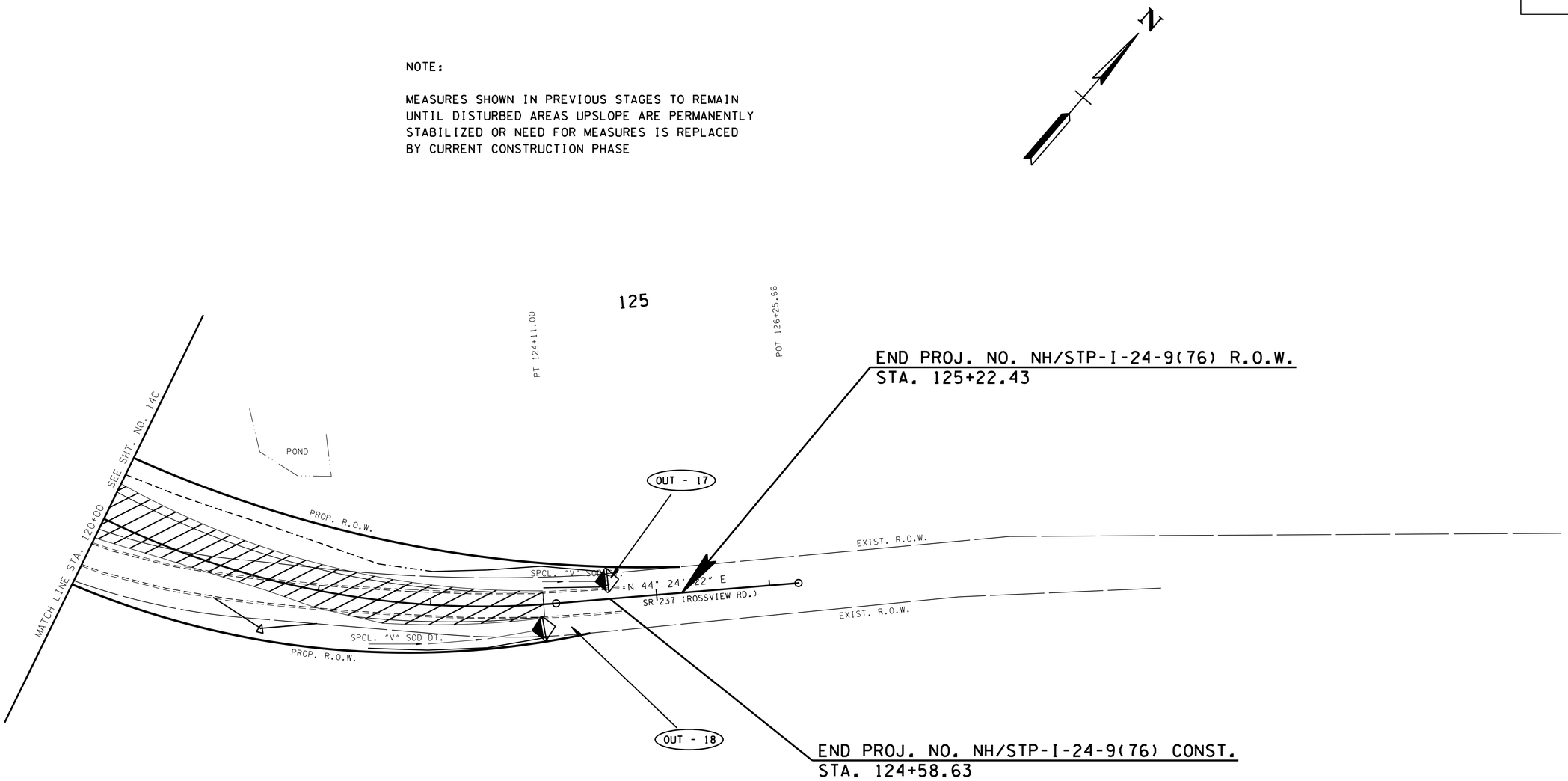
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14D
CONST.	2014	NH/STP-I-24-9(76)	14D

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49′ 56″ (LT)
D 7° 30′ 00″
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 120+00 TO END PROJ.

SCALE: 1"= 50'

8/5/2014 7:55:45 PM
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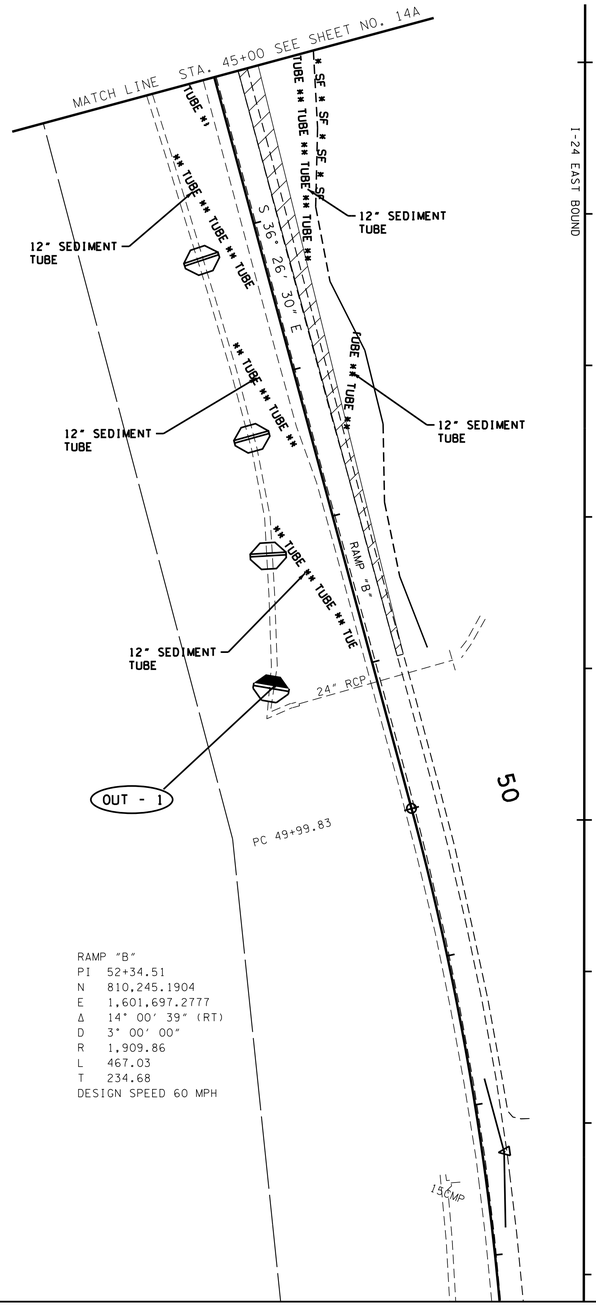
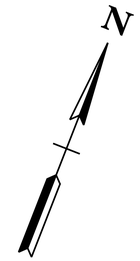
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	14E
CONST.	2014	NH/STP-I-24-9(76)	14E

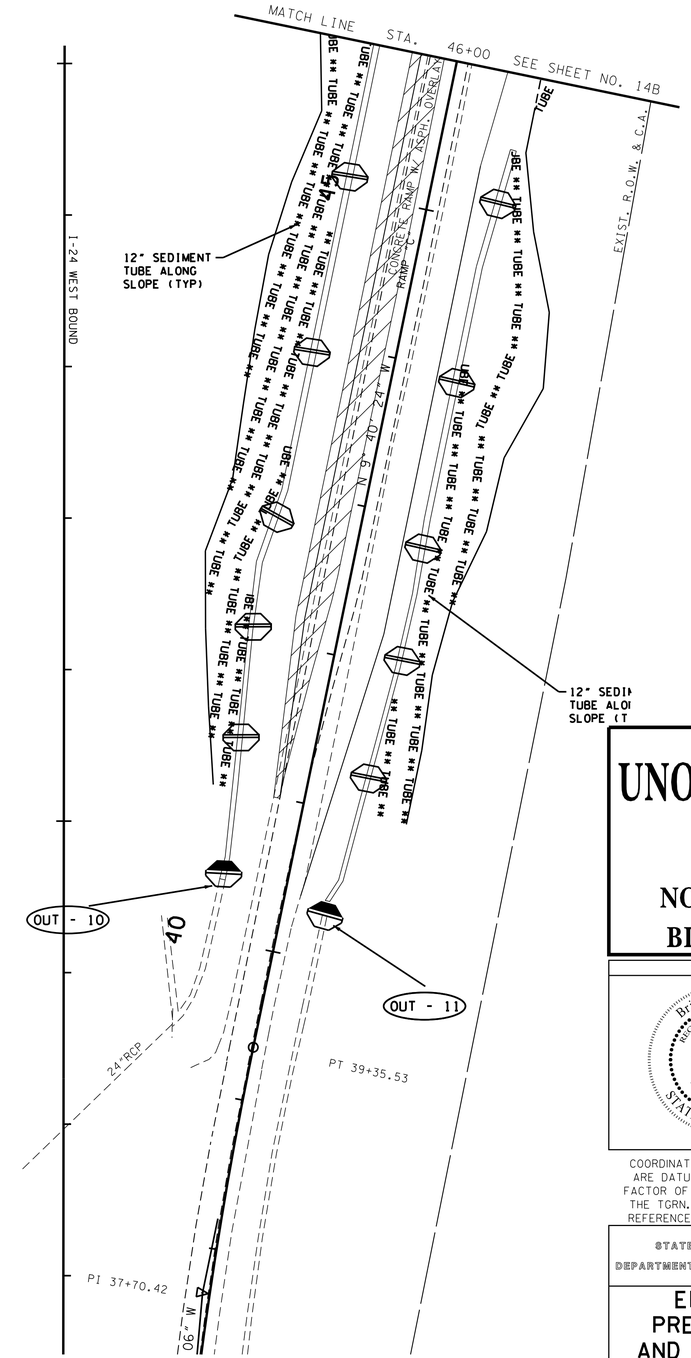
NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH





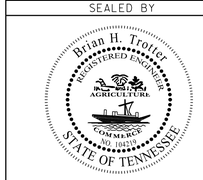
RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

CONSTRUCTION STAGE 1 & STAGE 2

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

RAMP B & RAMP C

SCALE: 1"= 50'

8/5/2014 7:55:45 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15
CONST.	2014	NH/STP-I-24-9(76)	15

NOTE:

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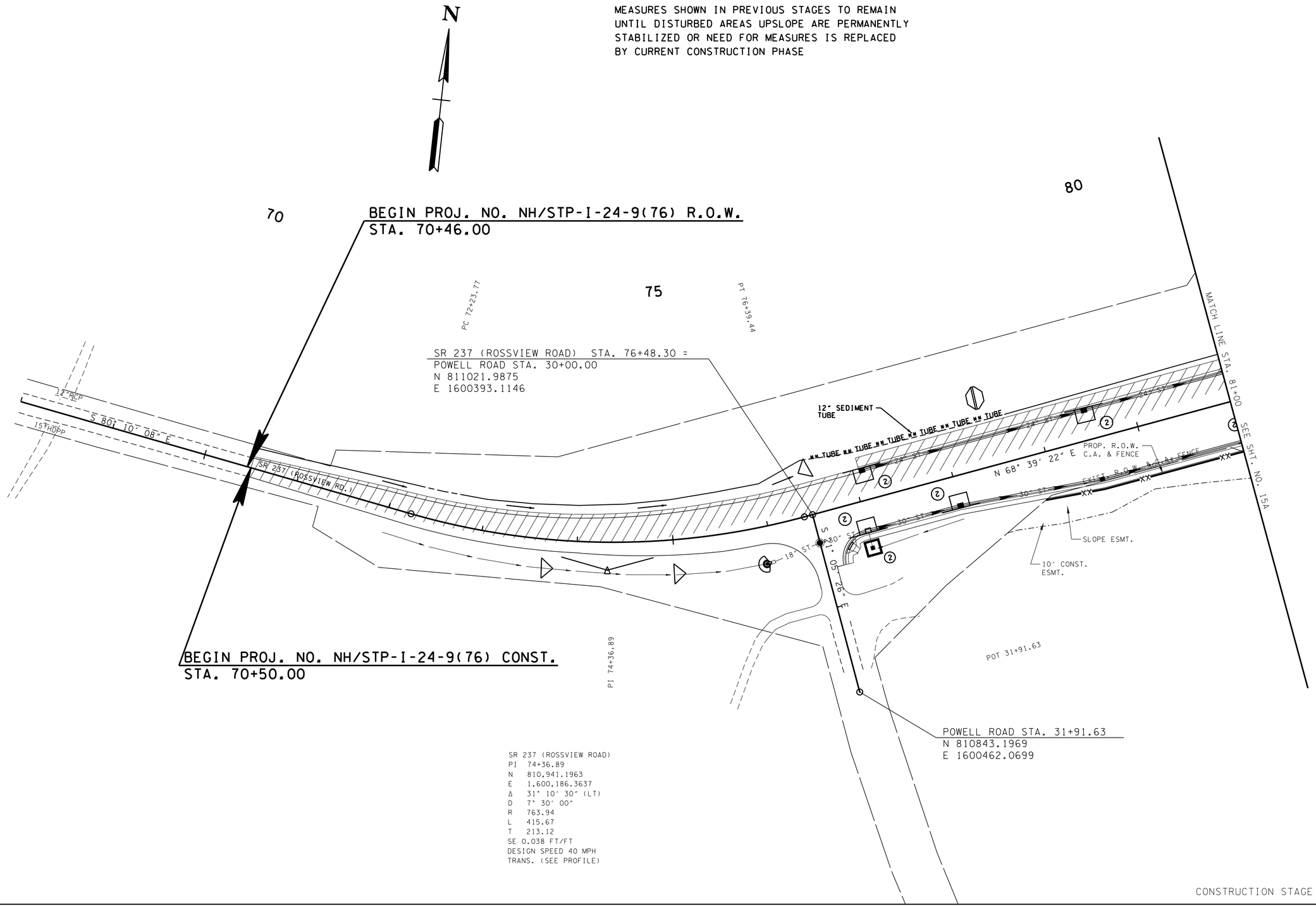

SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

8/5/2014 7:55:46 PM
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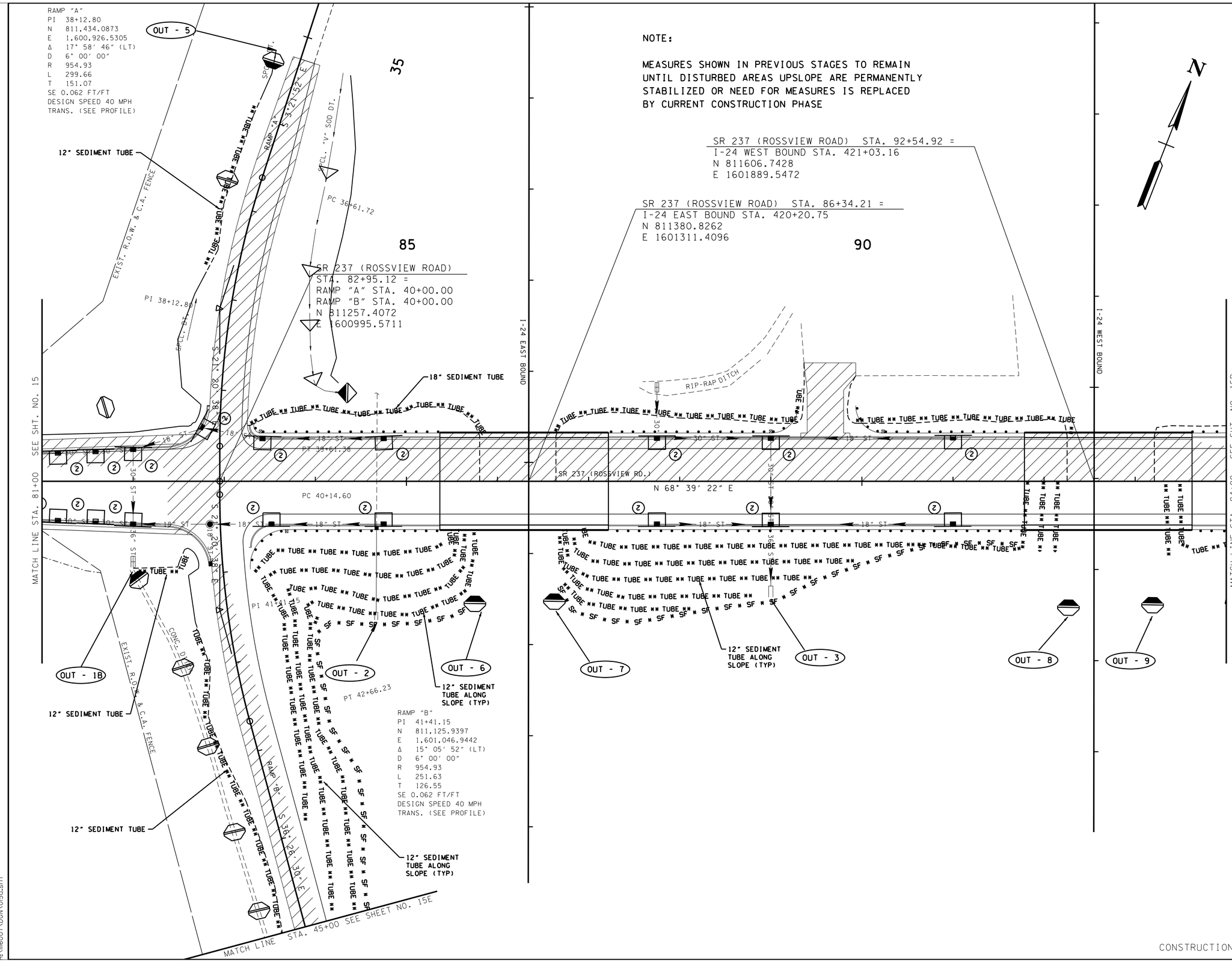
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15A
CONST.	2014	NH/STP-I-24-9(76)	15A

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50'

3/5/2014 7:55:46 PM
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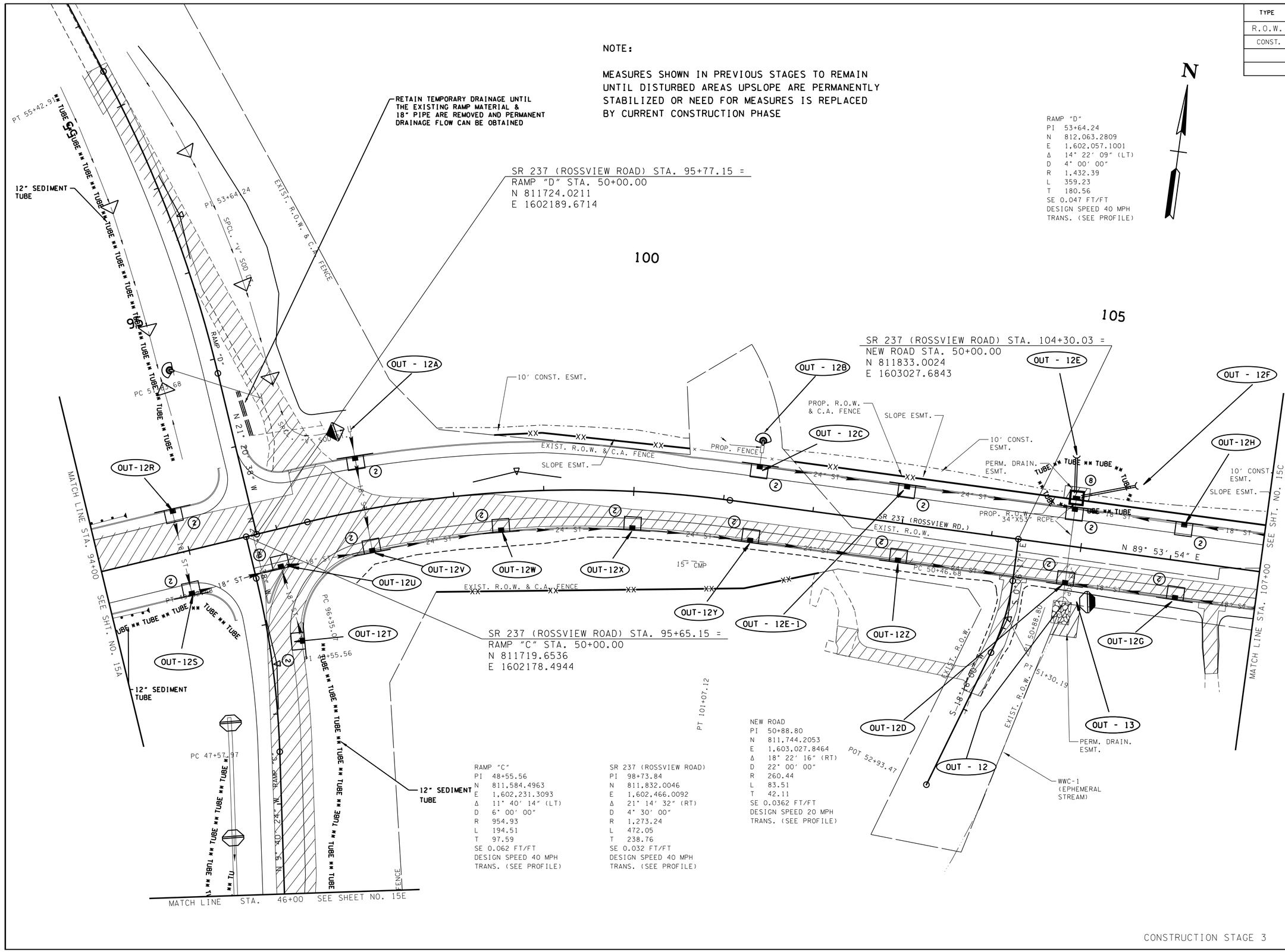
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15B
CONST.	2014	NH/STP-I-24-9(76)	15B

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22' 09" (LT)
D 4° 00' 00"
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE COMMERCE AND INSTITUTE
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 94+00 TO STA. 107+00

SCALE: 1"= 50'

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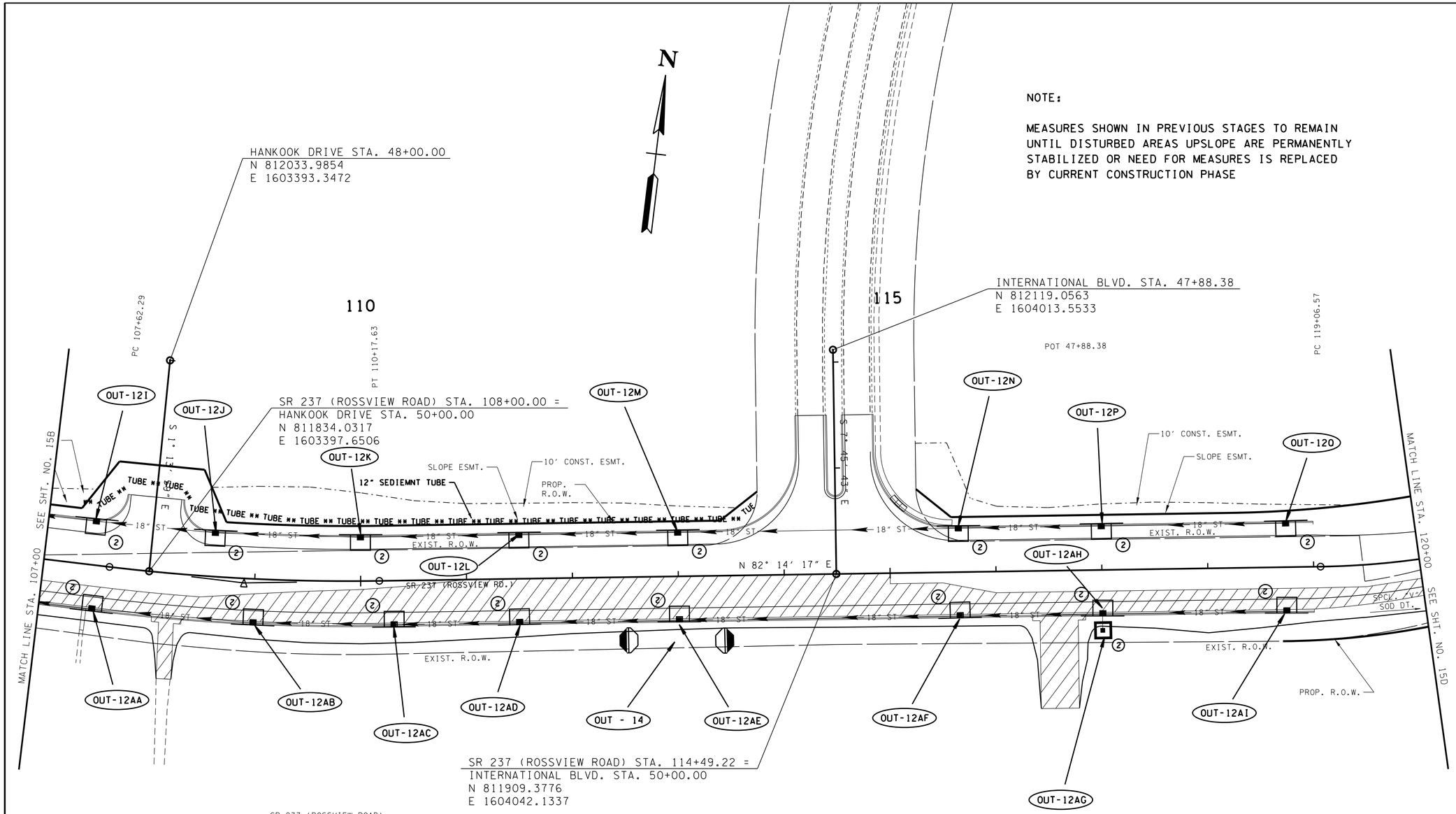
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15C
CONST.	2014	NH/STP-I-24-9(76)	15C

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39' 36" (LT)
D 3° 00' 00"
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104519
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50'

8/5/2014 7:55:47 PM
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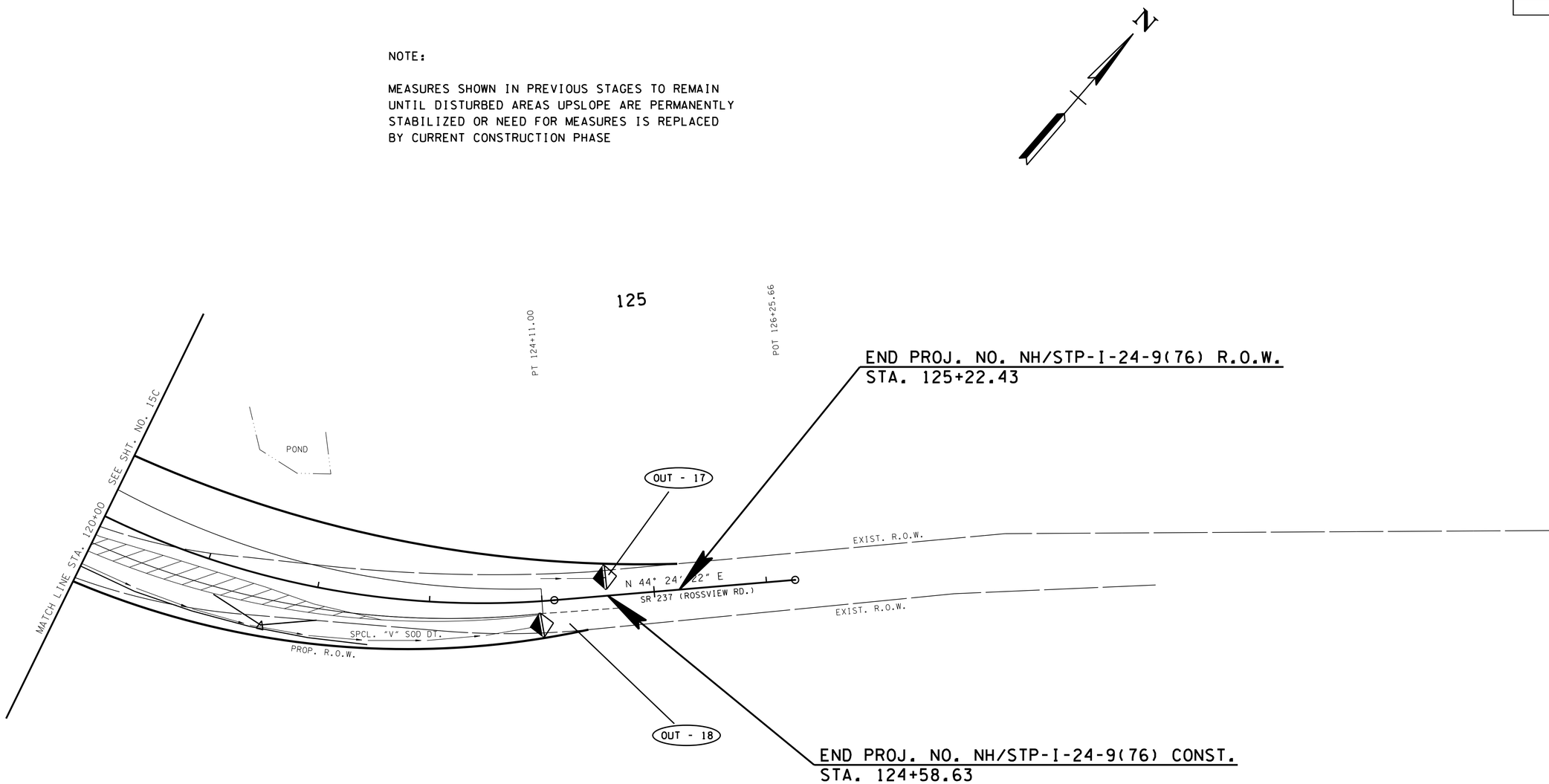
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15D
CONST.	2014	NH/STP-I-24-9(76)	15D

NOTE:

MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



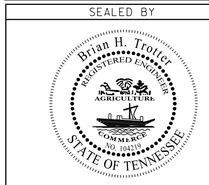
SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 120+00 TO END PROJ.

SCALE: 1"= 50'

8/5/2014 7:55:47 PM
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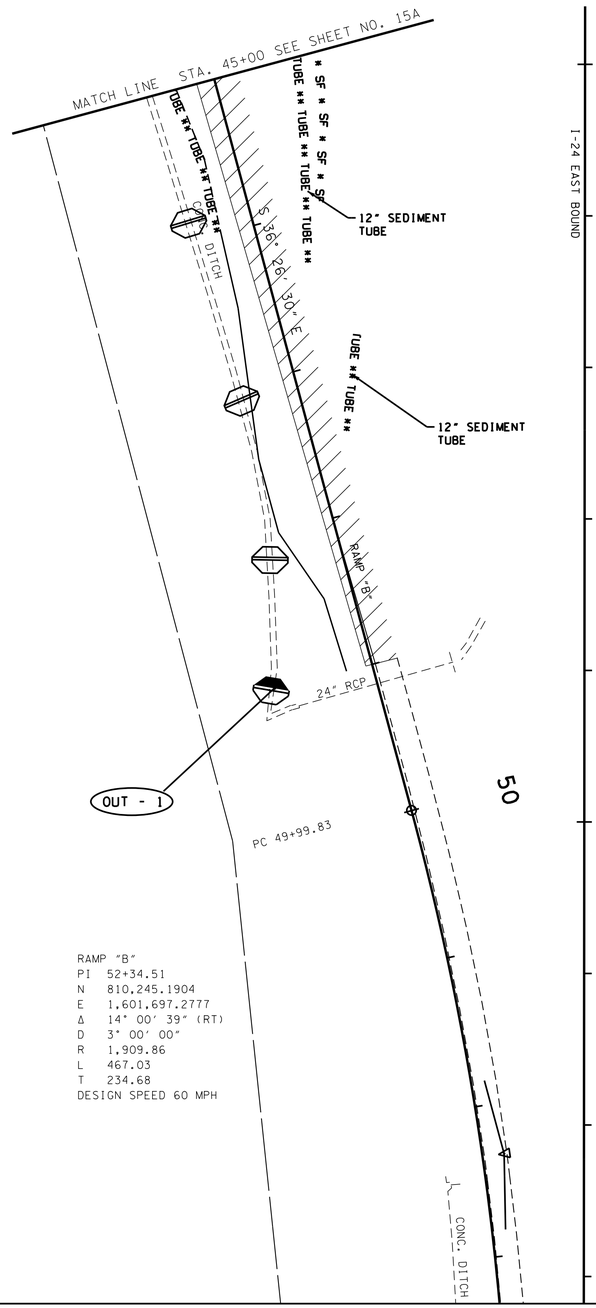
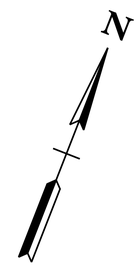
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	15E
CONST.	2014	NH/STP-I-24-9(76)	15E

NOTE:

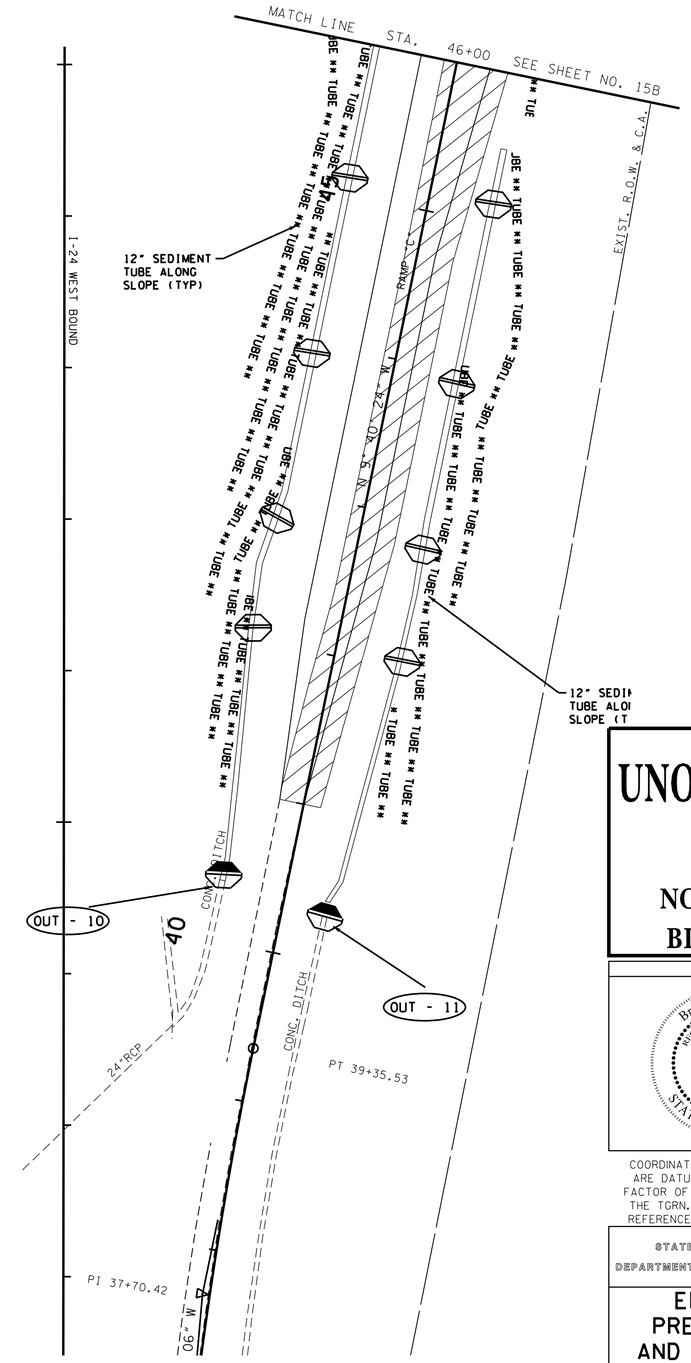
MEASURES SHOWN IN PREVIOUS STAGES TO REMAIN UNTIL DISTURBED AREAS UPSLOPE ARE PERMANENTLY STABILIZED OR NEED FOR MEASURES IS REPLACED BY CURRENT CONSTRUCTION PHASE



RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH



CONSTRUCTION STAGE 3

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

RAMP B & RAMP C

SCALE: 1"= 50'

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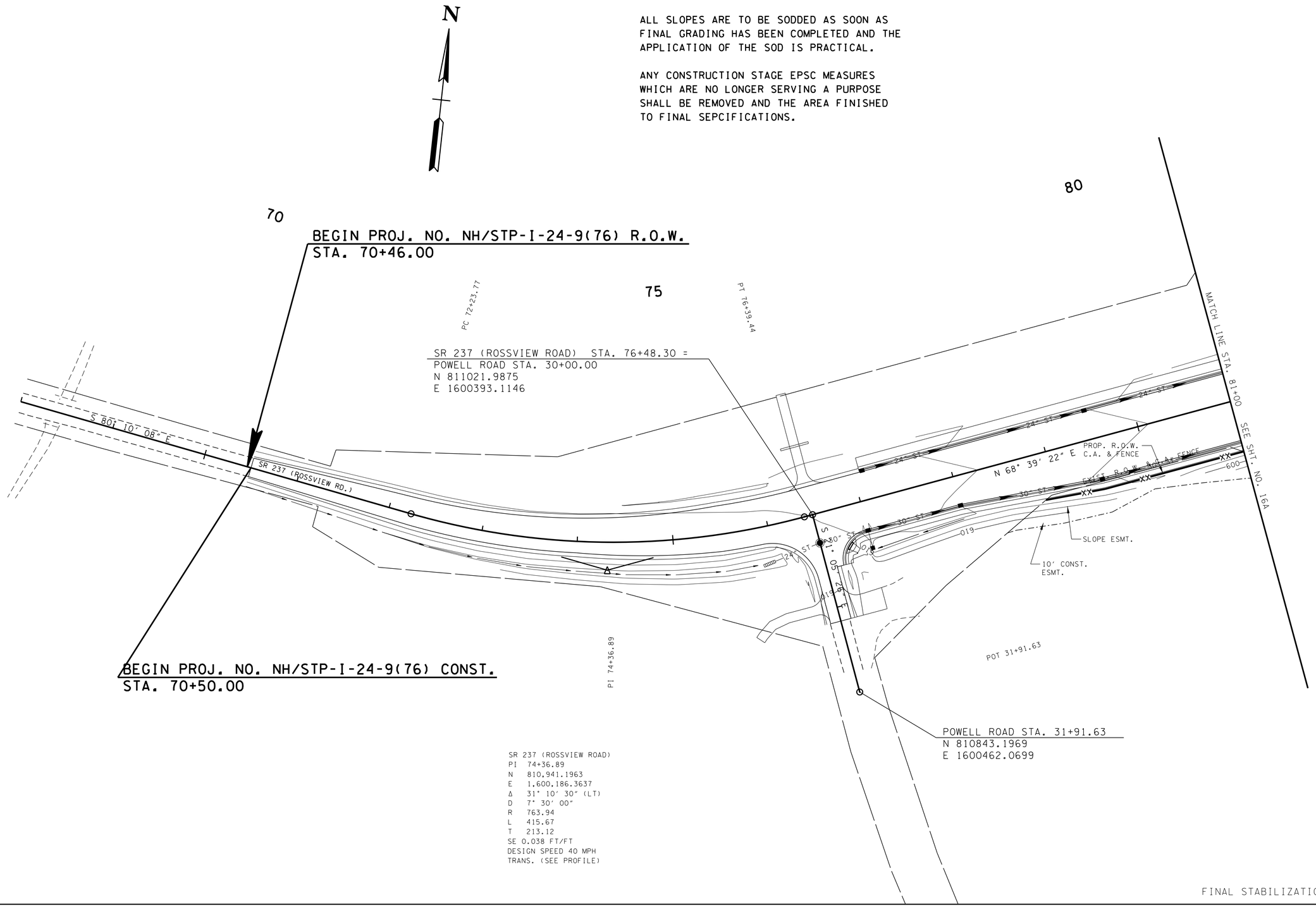
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16
CONST.	2014	NH/STP-I-24-9(76)	16

NOTE:

ALL SLOPES ARE TO BE SODDED AS SOON AS FINAL GRADING HAS BEEN COMPLETED AND THE APPLICATION OF THE SOD IS PRACTICAL.

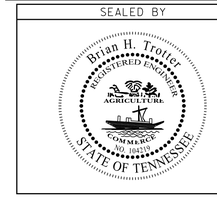
ANY CONSTRUCTION STAGE EPSC MEASURES WHICH ARE NO LONGER SERVING A PURPOSE SHALL BE REMOVED AND THE AREA FINISHED TO FINAL SEPCIFICATIONS.



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

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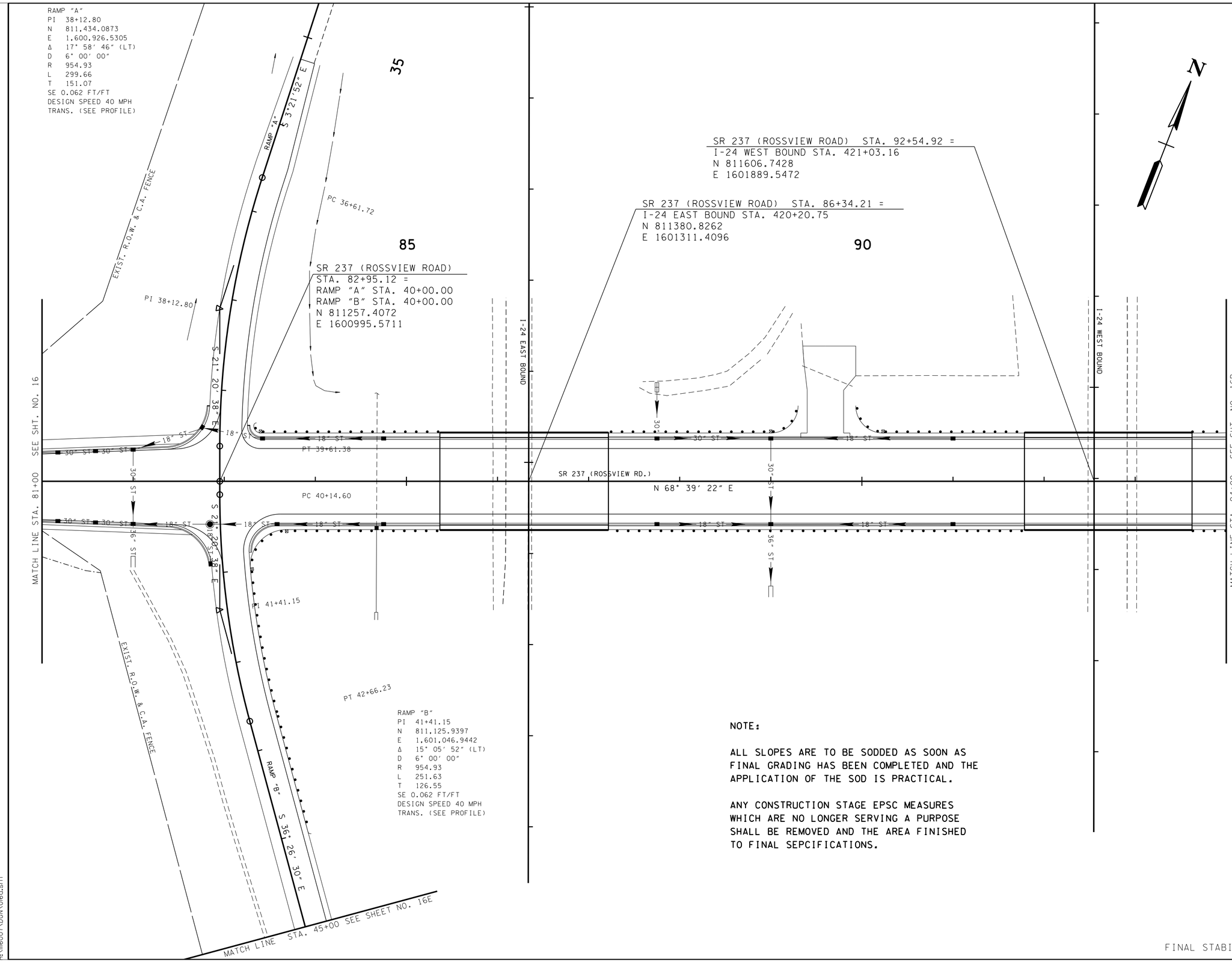
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16A
CONST.	2014	NH/STP-I-24-9(76)	16A



NOTE:

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ANY CONSTRUCTION STAGE EPSC MEASURES WHICH ARE NO LONGER SERVING A PURPOSE SHALL BE REMOVED AND THE AREA FINISHED TO FINAL SEPCIFICATIONS.

FINAL STABILIZATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50'

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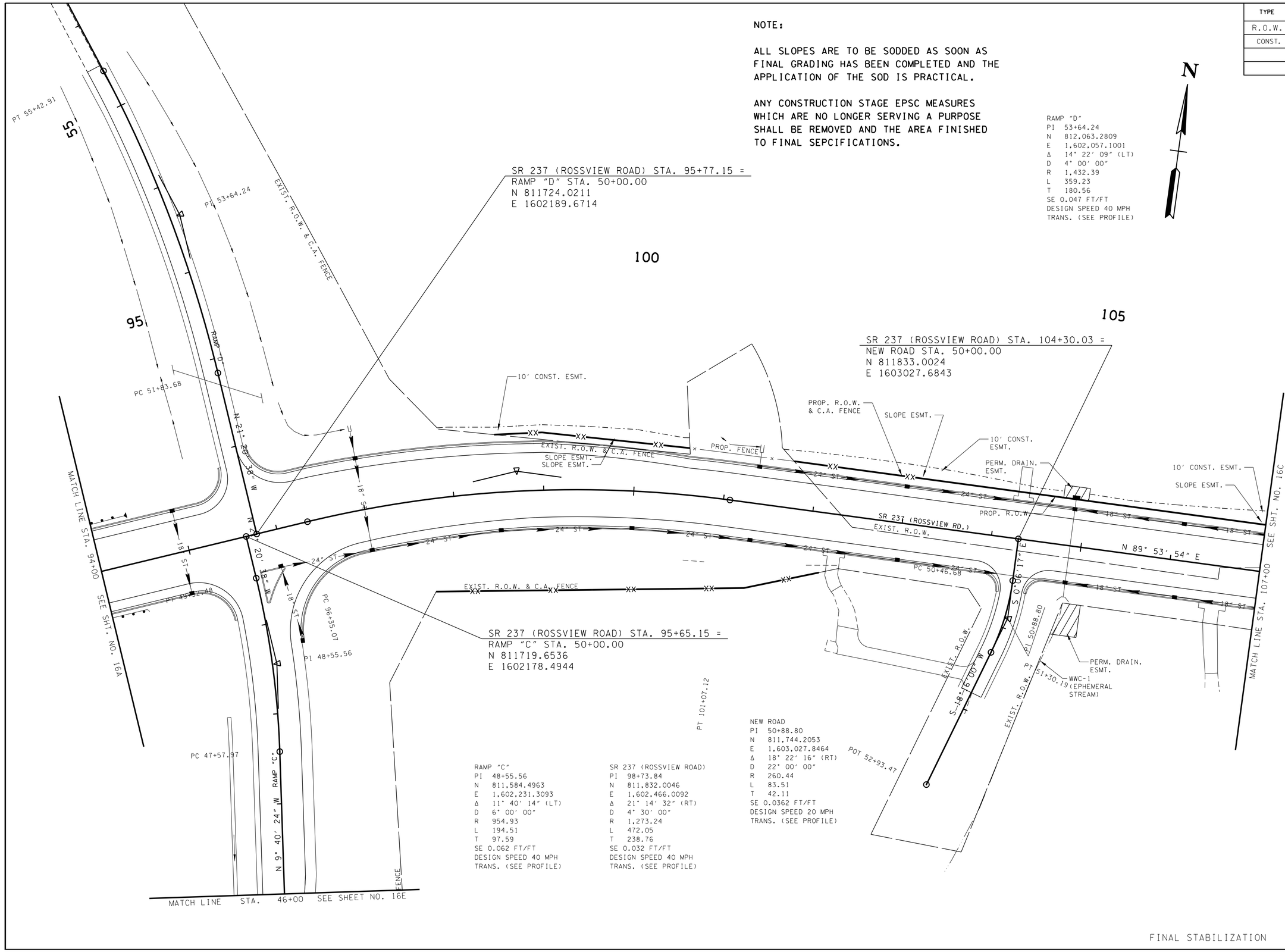
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16B
CONST.	2014	NH/STP-I-24-9(76)	16B

NOTE:

ALL SLOPES ARE TO BE SODDED AS SOON AS FINAL GRADING HAS BEEN COMPLETED AND THE APPLICATION OF THE SOD IS PRACTICAL.

ANY CONSTRUCTION STAGE EPSC MEASURES WHICH ARE NO LONGER SERVING A PURPOSE SHALL BE REMOVED AND THE AREA FINISHED TO FINAL SEPCIFICATIONS.

RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22' 09" (LT)
D 4° 00' 00"
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)



RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

FINAL STABILIZATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
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AGRICULTURE
COMMERCE
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STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

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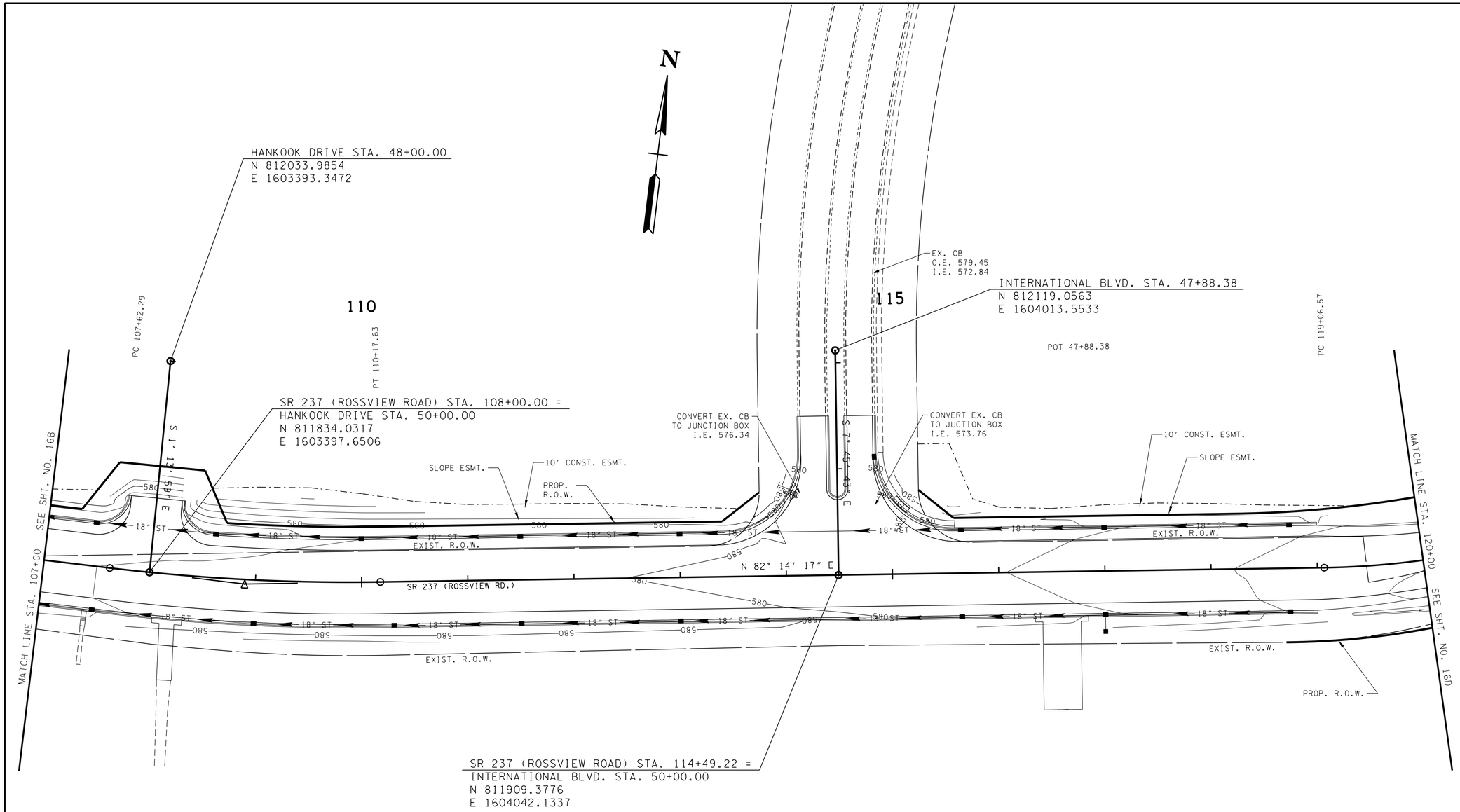
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16C
CONST.	2014	NH/STP-I-24-9(76)	16C



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39' 36" (LT)
D 3° 00' 00"
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NOTE:

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FINAL STABILIZATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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REGISTERED ENGINEER
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STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 107+00 TO STA. 120+00
SCALE: 1"= 50'

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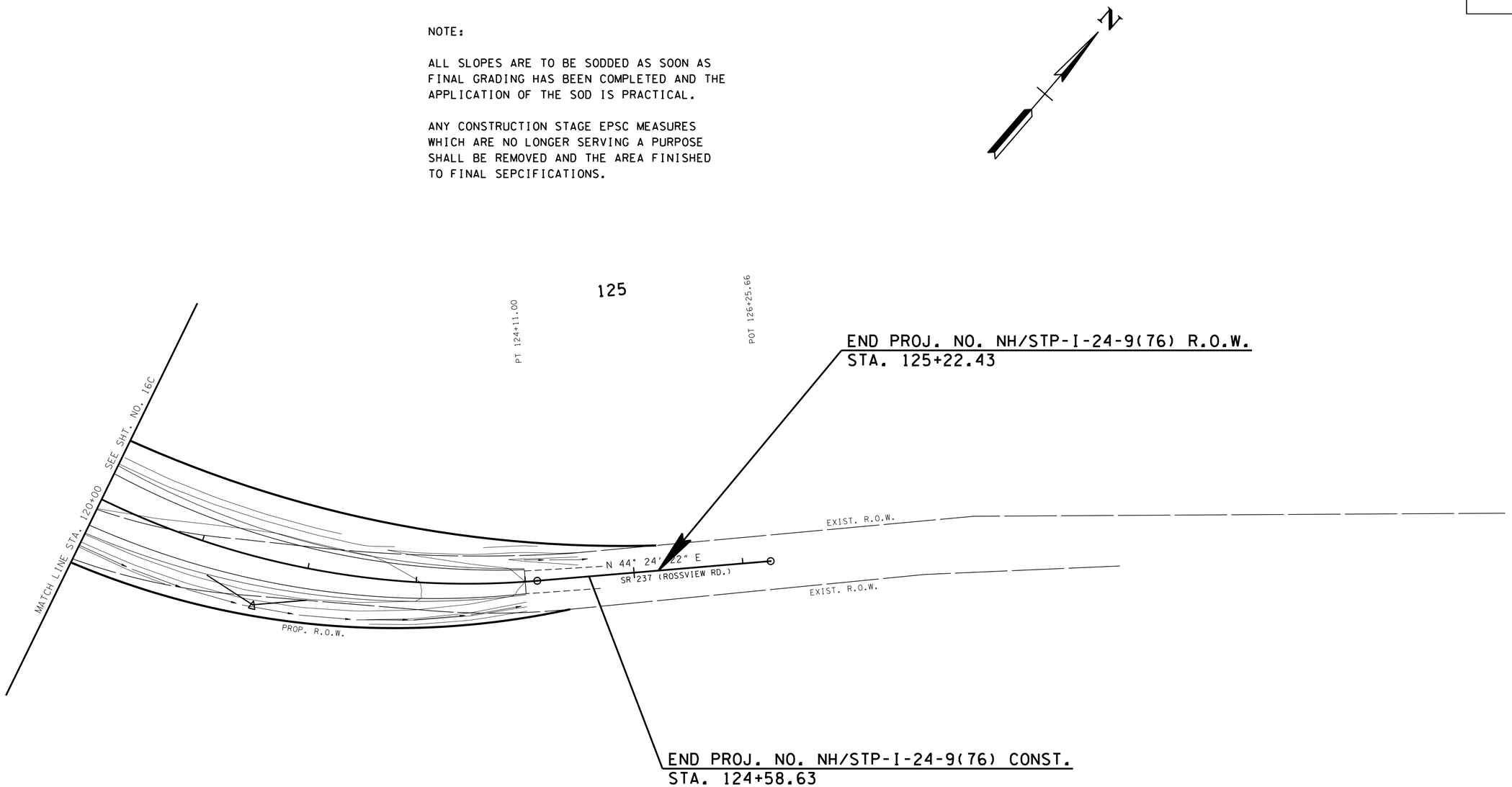
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16D
CONST.	2014	NH/STP-I-24-9(76)	16D

NOTE:

ALL SLOPES ARE TO BE SODDED AS SOON AS FINAL GRADING HAS BEEN COMPLETED AND THE APPLICATION OF THE SOD IS PRACTICAL.

ANY CONSTRUCTION STAGE EPSC MEASURES WHICH ARE NO LONGER SERVING A PURPOSE SHALL BE REMOVED AND THE AREA FINISHED TO FINAL SEPCIFICATIONS.



SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

FINAL STABILIZATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

STA. 120+00 TO END PROJ.
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	16E
CONST.	2014	NH/STP-I-24-9(76)	16E

NOTE:

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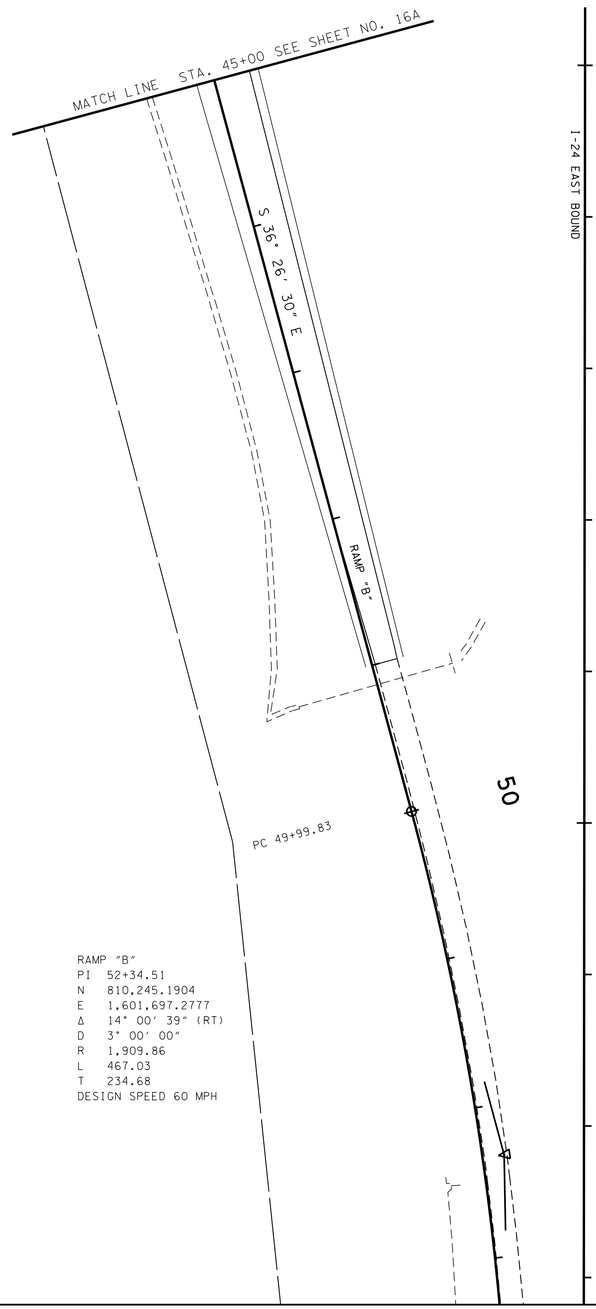
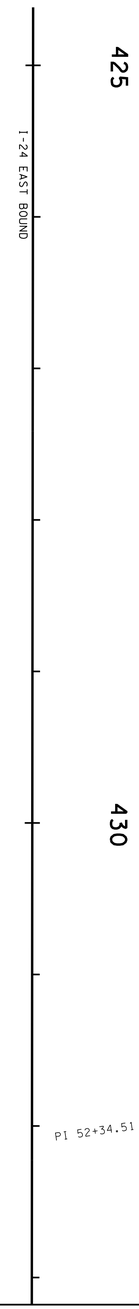
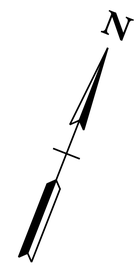
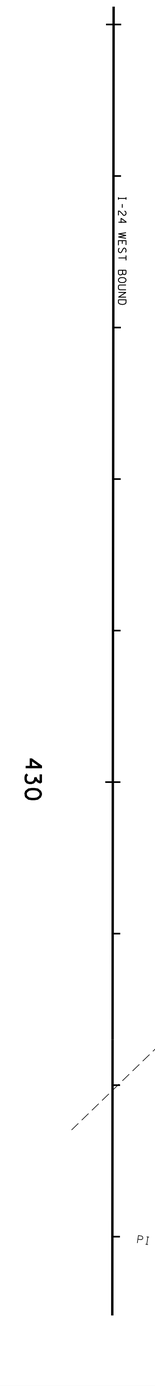


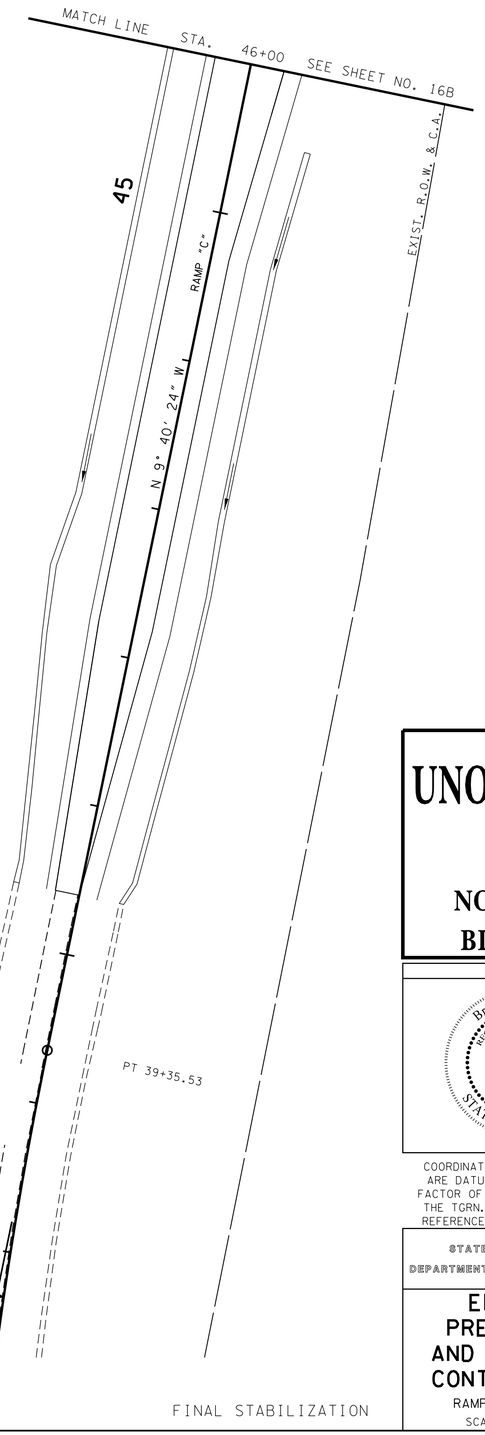
RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH







RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH



FINAL STABILIZATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

RAMP B & RAMP C

SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17

TRAFFIC CONTROL NOTES AND STAGING

GENERAL NOTES

STAGING GUIDELINES

- THE CONSTRUCTION SIGNING PLAN IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS STAGES OF CONSTRUCTION.
- THE TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- PORTABLE SIGNS MAY BE USED AT SOME LOCATIONS WITH THE ENGINEER'S APPROVAL. THE CONTRACTOR SHALL REFER TO SECTION 6 OF THE MUTCD REGARDING PORTABLE SIGNS.
- PRIOR TO COMMENCEMENT OF ANY WORK, ALL NECESSARY ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE ERECTED AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH THE MUTCD AND TDOT STANDARD DRAWINGS.
- DURING CONSTRUCTION PHASING NO CONSTRUCTION SIGN OR PERMANENT SIGN SHALL BE LEFT UNCOVERED OR IN PLACE WHICH MAY GIVE CONFLICTING DIRECTION OR INFORMATION TO MOTORISTS.
- ANY AND ALL NECESSARY EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN IN THE EROSION AND SEDIMENT CONTROL PLANS AND IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, TDOT DRAINAGE MANUAL CHAPTER 10 AND ANY PERMIT REQUIREMENTS MUST BE IN PLACE AND PROPERLY MAINTAINED AND INSPECTED AT ALL TIMES.
- ACCESS TO PROPERTIES MUST BE MAINTAINED AT ALL TIMES.
- NO LONGITUDINAL CONCRETE CONSTRUCTION JOINT SHALL BE LOCATED IN A PERMANENT WHEEL PATH LOCATION.

LANE CLOSURE & TRAFFIC DIVERSION GUIDELINES

- CONTRACTOR SHALL REFER TO SPECIAL PROVISION 108B OF THE CONTRACT FOR ALL RESTRICTIONS PERTAINING TO LANE CLOSURES.
- ANY TEMPORARY LANE CLOSURES OR DIVERSIONS OF ANY TRAFFIC FLOW AT ANY LOCATION ALONG THE PROJECT MUST BE APPROVED IN ADVANCE BY THE ENGINEER.

STAGING FOR SR 237 (ROSSVIEW RD.)

STAGE 1

- SEE RAMP STAGING NOTES FOR RAMP INTERSECTION WORK
- WIDEN SR 237 ON THE RIGHT NEAR THE INTERSECTION WITH RAMP "C" FROM STA. 96+50 +/- TO STA. 98+00 +/-. SEE SHEET 17D FOR TEMPORARY WIDENING DETAILS.
- WIDEN SR 237 ON THE RIGHT FROM STA. 120+50 +/- TO STA. 124+00 +/- AND CONSTRUCT THE FINAL PROPOSED DITCH AND BACKSLOPE. CONSTRUCT A 2:1 FORESLOPE FROM THE DITCH BOTTOM TO PROVIDE ADDITIONAL ROOM FOR STAGE 2 TRAFFIC.

STAGE 2

- TRAFFIC ALONG SR 237 WILL MAINTAIN THE EXISTING TRAFFIC PATTERN WITH THE EXCEPTION OF A SHIFT NEAR STA. 120+50 TO 124+00 ONTO THE TEMPORARY WIDENING.
- WIDENING AND EARTHWORK OPERATIONS WILL BE PERFORMED FROM STA. 70+50 TO APPROX. STA. 73+50 UNDER TRAFFIC.
- WIDENING, DRAINAGE STRUCTURES, CURB & GUTTER, SIDEWALKS, GUARDRAIL, ETC. WILL BE COMPLETED ON THE SOUTH SIDE FROM STA. 73+50 TO THE INTERSECTION WITH RAMP "C".
- WIDENING THRU THE RAMP "C" INTERSECTION WILL BE PERFORMED UNDER TRAFFIC AS NECESSARY & APPROVED BY THE ENGINEER.
- WIDENING, DRAINAGE STRUCTURES, CURB & GUTTER, SIDEWALKS, GUARDRAIL, ETC. WILL BE COMPLETED ON THE NORTH SIDE FROM THE INTERSECTION WITH RAMP "D" TO STA. 123+00.
- WIDENING AND EARTHWORK OPERATIONS WILL BE PERFORMED FROM STA. 123+00 TO 124+58.63 UNDER TRAFFIC.
- ALL PAVING OPERATIONS WILL BE COMPLETED UP THRU B-M LAYER AND TEMPORARY PAINTED PAVEMENT MARKING WILL BE INSTALLED FOR STAGE 3 TRAFFIC.

STAGE 2A

- CONTINUE STAGE 2 CONSTRUCTION ACTIVITIES WHILE RAMP CONSTRUCTION IS COMPLETED.

STAGE 3

- SHIFT TRAFFIC TO THE SOUTH THRU APPROX. STA. 98+00 THEN TO THE NORTH FOR THE REMAINDER OF THE PROJECT LENGTH.
- WIDENING AND EARTHWORK OPERATIONS WILL BE COMPLETED FROM STA. 70+50 TO APPROX. STA. 73+50 UNDER TRAFFIC.
- WIDENING, DRAINAGE STRUCTURES, CURB & GUTTER, SIDEWALKS, GUARDRAIL, ETC. WILL BE COMPLETED ON THE NORTH SIDE FROM STA. 73+50 TO APPROX. STA. 97+00.
- WIDENING, DRAINAGE STRUCTURES, CURB & GUTTER, SIDEWALKS, GUARDRAIL, ETC. WILL BE COMPLETED ON THE SOUTH SIDE FROM APPROX. STA. 99+50 TO STA. 120+50.
- WIDENING AND EARTHWORK OPERATIONS WILL BE COMPLETED FROM STA. 123+00 TO STA. 124+58.63 & THE TEMPORARY WIDENING FROM STA. 120+50 TO STA. 124+00 WILL BE REMOVED AND FINISHED TO FINAL CROSS SECTIONS UNDER TRAFFIC.
- ALL PAVING OPERATIONS WILL BE COMPLETED THRU THE B-M LAYER AND TEMPORARY PAVEMENT MARKINGS WILL BE INSTALLED AS PAINTED PAVEMENT MARKINGS.

STAGE 3A (OPTIONAL)

- THE CLOSING OF I-24 AS SHOWN ON PLAN SHEETS 20G AND 20H SHALL BE IMPLEMENTED IN ACCORDANCE WITH SPECIAL PROVISION 108B. IF REQUIRED, THE CONTRACTOR MAY ELECT TO USE THIS PHASE FOR THE DEMOLITION OF THE EXISTING BRIDGE STRUCTURES AND/OR THE ASBESTOS ABATEMENT.
- THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT TO THE ENGINEER A BRIDGE DEMOLITION/ERECTION PLAN PREPARED BY A LICENSED TENNESSEE ENGINEER WHICH MAY INCLUDE THE UTILIZATION OF STAGE 3A IN ACCORDANCE WITH ALL RESTRICTIONS SPECIFIED IN SPECIAL PROVISION 108B.

STAGE 4

- FINAL PAVING AND MARKING OPERATIONS WILL BE COMPLETED UNDER TRAFFIC USING TEMPORARY LANE CLOSURES AND FLAGGING OPERATIONS AS APPROVED BY THE ENGINEER.

STAGING FOR RAMPS & RAMP INTERSECTIONS

RAMP "A"

STAGE 1

- REINFORCE EXISTING OUTSIDE SHOULDER FROM STA. 34+75 +/- TO STA. 39+00 +/-. SEE SHEET 17D FOR SHOULDER REINFORCING DETAILS.
- REMOVE EXISTING CONCRETE ISLAND.
- INSTALL TEMPORARY SIGNAL AS SHOWN IN THE TEMPORARY SIGNAL LAYOUT SHEET 18G.

STAGE 2

- SHIFT TRAFFIC TO THE REINFORCED OUTSIDE SHOULDER AND A PORTION OF THE EXISTING LANE & INSTALL PORTABLE BARRIER RAIL.
- CONSTRUCT A PORTION OF THE PROPOSED RAMP, LEFT SHOULDER, TEMPORARY WIDENING, LEFT CUT DITCH AND SLOPES. SEE SHEET 17D FOR TEMPORARY WIDENING DETAILS.

STAGE 2A

- SHIFT TRAFFIC TO THE TEMPORARY WIDENING/NEW CONSTRUCTION, INSTALL THE PORTABLE BARRIER RAIL & COMPLETE THE CONSTRUCTION ON THE PROPOSED RAMP & SIGNAL.

- **STAGE 3**
  - NO RAMP WORK TO BE CONDUCTED DURING THIS STAGE.
- **STAGE 4**
  - WITH TRAFFIC ON THE PROPOSED RAMP, REMOVE ANY TEMPORARY WIDENING, COMPLETE THE CONSTRUCTION TO THE PLANS SPECIFICATIONS AND INSTALL FINAL PAVEMENT MARKING.

RAMP "B"

STAGE 1

- REINFORCE EXISTING OUTSIDE SHOULDER FROM APPROX. STA. 45+00 TO APPROX. STA. 52+00. SEE SHEET 17D FOR SHOULDER REINFORCING DETAILS.
- REMOVE EXISTING CONCRETE ISLAND.
- INSTALL TEMPORARY SIGNAL AS SHOWN IN THE TEMPORARY SIGNAL LAYOUT SHEET 18G.

STAGE 2

- SHIFT TRAFFIC TO THE OUTSIDE USING THE REINFORCED SHOULDER & INSTALL PORTABLE BARRIER RAIL.
- CONSTRUCT A PORTION OF THE PROPOSED RAMP & INSIDE SHOULDER & INSTALL THE GUARDRAIL.
- SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE INFORMATION.

STAGE 2A

- SHIFT TRAFFIC TO THE NEW CONSTRUCTION, INSTALL PORTABLE BARRIER RAIL & COMPLETE RAMP CONSTRUCTION ON THE LEFT.
- SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE INFORMATION.

STAGE 3

- NO RAMP WORK TO BE CONDUCTED DURING THIS STAGE.

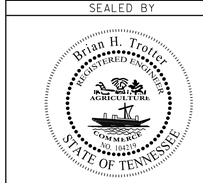
STAGE 4

- INSTALL FINAL PAVEMENT MARKING.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17A

TRAFFIC CONTROL NOTES AND STAGING

RAMP "C"

STAGE 1

- CONSTRUCT THE PROPOSED DITCH, BACKSLOPE AND SUBGRADE ON THE OUTSIDE AS SHOWN ON DETAIL SHEET 17E.
- REMOVE EXISTING CONCRETE ISLAND.
- INSTALL TEMPORARY SIGNAL AS SHOWN IN THE TEMPORARY SIGNAL LAYOUT SHEET 18H.

STAGE 2

- SHIFT TRAFFIC TO THE RIGHT, MAINTAINING TWO LANES (DURING PEAK TRAFFIC HOURS).
- INSTALL PORTABLE BARRIER RAIL.
- CONSTRUCT THE PROPOSED LANES, SHOULDER, DITCHES & DRAINAGE STRUCTURES ON THE LEFT.

STAGE 2 (NIGHT & WEEKEND CONSTRUCTION)

- SOME CONSTRUCTION MAY REQUIRE THE RAMP TO BE REDUCED TO A SINGLE LANE DURING LOW TRAFFIC VOLUMES, AS APPROVED BY THE ENGINEER. SEE SHEETS 17E & 19G FOR ADDITIONAL INFORMATION.

STAGE 2A

- SHIFT TRAFFIC TO THE LEFT
- REMOVE TEMPORARY CONSTRUCTION AND COMPLETE RAMP CONSTRUCTION TO PLANS SPECIFICATIONS.

STAGE 3

- NO RAMP WORK TO BE CONDUCTED DURING THIS STAGE

STAGE 4

- INSTALL FINAL PAVEMENT MARKING

RAMP "D"

STAGE 1

- CONSTRUCT OUTSIDE SHOULDER REINFORCEMENT AND TEMPORARY WIDENING. SEE SHEET 17D FOR TEMPORARY WIDENING & SHOULDER REINFORCEMENT DETAILS.
- REMOVE EXISTING CONCRETE ISLAND
- INSTALL TEMPORARY SIGNAL AS SHOWN IN THE TEMPORARY SIGNAL LAYOUT SHEET 18H.

STAGE 2

- SHIFT TRAFFIC TO THE REINFORCED SHOULDER AND TEMPORARY WIDENING
- INSTALL PORTABLE BARRIER RAIL
- CONSTRUCT THE PROPOSED LANES, SHOULDERS, DITCHES & DRAINAGE STRUCTURES & TEMPORARY WIDENING ON THE LEFT.
- SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE INFORMATION.

STAGE 2A

- SHIFT TRAFFIC TO THE LEFT
- REMOVE TEMPORARY CONSTRUCTION AND COMPLETE RAMP CONSTRUCTION TO PLANS SPECIFICATIONS

STAGE 3

- NO RAMP WORK TO BE CONDUCTED DURING THIS STAGE

STAGE 4

- INSTALL FINAL PAVEMENT MARKING.

STAGING FOR SIDE ROADS

POWELL ROAD & SR 237 INTERSECTION

POWELL ROAD WILL BE CONSTRUCTED DURING STAGE 2 OF SR 237

STAGE 1

- NO WORK WILL BE PERFORMED ON POWELL ROAD IN THIS STAGE.

STAGE 2

- CONSTRUCT WIDENING AND RADIUS AREA ON BOTH SIDES OF THE ROADWAY TO A MINIMUM OF TRAVERSABLE BASE STONE AT SUBGRADE ELEVATION.
- USING A FLAGGER AND CONDUCTING OPERATIONS DURING THE WORKDAY OR AT NIGHT SO AS NOT TO INTERFERE WITH COMMUTER TRAFFIC, REDUCE TRAFFIC TO ONE LANE/TWO WAY TRAFFIC AND INSTALL THE 30" STORM SEWER PIPE AND MANHOLE. RETURN THE CONDITION TO A MINIMUM OF TRAVERSABLE BASE STONE PRIOR TO OPENING THIS SIDE TO TRAFFIC.
- USING A FLAGGER AND CONDUCTING OPERATIONS DURING THE WORKDAY OR AT NIGHT SO AS NOT TO INTERFERE WITH COMMUTER TRAFFIC, SWITCH ONE LANE/TWO WAY TRAFFIC TO THE LEFT SIDE OF THE ROADWAY USING A FLAGGER. CONSTRUCT THE 18" STORM SEWER AND RETURN THE CONDITION TO A MINIMUM OF TRAVERSABLE BASE STONE PRIOR TO OPENING THE ROADWAY TO TWO WAY TRAFFIC AGAIN.

STAGE 3

- NO WORK WILL BE PERFORMED ON POWELL ROAD IN THIS STAGE.

STAGE 4

- FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS WILL BE INSTALLED IN CONJUNCTION WITH THOSE OPERATIONS ON THE MAIN LANES.

INTERNATIONAL BOULEVARD & SR 237 INTERSECTION

- CONSTRUCTION OF INTERNATIONAL BOULEVARD WILL BE CONDUCTED UNDER TRAFFIC USING TEMPORARY LANE CLOSURES AND FLAGGING OPERATIONS AS NECESSARY AND SHALL BEGIN WITH STAGE 2 OF SR 237 AND CONTINUE THRU THE LIFE OF THE PROJECT AS REQUIRED FOR COMPLETION.

FINAL SURFACE COURSE & PAVEMENT MARKING:

UPON COMPLETION OF ALL OTHER CONSTRUCTION ACTIVITIES, ALL ASPHALT ROADWAYS WILL BE FINISHED WITH FINAL SURFACE COURSE MATERIAL & STRIPED WITH PERMANENT PAVEMENT MARKING.

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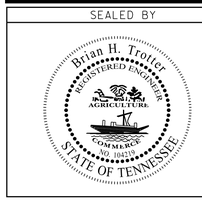

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17B

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

a. 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.

b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

d. 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.

2. 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.

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) 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.

b. 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.

c. 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.

3. 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:

a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) 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.

b. 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.

c. 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.

d. 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.

4. 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.:

1. 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.

2. 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:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) 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.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) 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.

b. 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:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. 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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PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17C

CONSTRUCTION SIGNS

	DESCRIPTION	STAGE 1	STAGE 2	STAGE 2A	STAGE 3	STAGE 3A (FOR I-24 CLOSURE) (2)	NO. REQ'D.	SIZE	SIGN I.D. NO.	QTY.	UNIT
	END ROAD WORK	4	4	4	4		4	48 X 24	G20-2	32	S.F.
	END ROAD WORK	5	5	4	5		5	36 X 18	G20-2	22.5	S.F.
	ROAD CLOSED	1	8	8	6		8	48 X 30	R11-2	80	S.F.
	LANE SHIFT AHEAD		2				2	48 X 48	W1-4B (MOD)	32	S.F.
	ROAD WORK XX FT (MILE)	12	12	12	12	4	16	48 X 48	W20-1	256	S.F.
	ROAD WORK XX FT (MILE)	6	6	6	6		6	36 X 36	W20-1	54	S.F.
	ROAD WORK AHEAD	3	3	3	3		3	36 X 36	W20-1	27	S.F.
(1)	FLAGGER SYMBOL		8	8	4		8	36 X 36	W20-7	72	S.F.
(1)	FLAGGER AHEAD		8	8	4		8	36 X 36	W20-7A	72	S.F.
(1)	LEFT SHOULDER CLOSED XX FT				4		4	48 X 48	W21-5L	64	S.F.
(1)	RIGHT SHOULDER CLOSED XX FT				4		4	48 X 48	W21-5R	64	S.F.
	RIGHT SHOULDER CLOSED AHEAD	6					6	48 X 48	W21-5BR	96	S.F.
	RIGHT SHOULDER CLOSED AHEAD	1					1	36 X 36	W21-5BR	9	S.F.
	RIGHT LANE CLOSED XX FT (MILE)					12	12	48 X 48	W20-5R	192	S.F.
	REDUCED SPEED AHEAD SYMBOL					4	4	48 X 48	W3-5	64	S.F.
	SPEED ADVISORY PLATE					4	4	48 X 60	R2-1	80	S.F.
	MERGE NOW W/ARROW					4	4	48 X 48	SP-1	64	S.F.
	DO NOT PASS IN RIGHT LANE					4	4	120 X 42	R4-1 (MOD)	140	S.F.
	RIGHT LANE CLOSED SYMBOL					4	4	48 X 48	W4-2R	64	S.F.
	RIGHT LANE SHIFT ARROW					4	4	48 X 48	W1-4AR	64	S.F.
	ITEM 712-06 SIGNS (CONSTRUCTION)									**1548.5**	**S.F.**

(1) TO BE USED WHERE AND AS APPROVED BY THE ENGINEER
(2) SIGNS WILL BE IN ADDITION TO THOSE IN PLACE IN STAGE 3 & ALLOW FOR I-24 TO BE CLOSED IN BOTH DIRECTIONS SIMULTANEOUSLY

ITEMIZED TRAFFIC CONTROL DEVICES

			STAGE 1	STAGE 2	STAGE 2A	STAGE 3	STAGE 3A (FOR I-24 CLOSURE) (3)	TOTAL REQUIRED	UNITS
(1)(2)	705-08.51	PORTABLE IMACT ATTENUATOR NCHRP350 TL-3		4				4	EACH
(2)	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL		3900	500	600		5000	L.F.
	712-04.01	FLEXIBLE DRUMS(CHANNELIZING)	136	67	43	66	172	238	EACH
(2)	712-04.50	PORTABLE BARRIER RAIL DELINEATOR		195	25	30		250	EACH
(1)	712-05.01	WARNING LIGHTS (TYPE A)	3	5	5	5		5	EACH
(1)	712-05.03	WARNING LIGHTS (TYPE C)	3	5	5	5		5	EACH
	712-06	SIGNS (CONSTRUCTION)						1549	S.F.
	712-07.03	TEMPORARY BARRICADES (TYPE III)	16	192	180	144		192	L.F.
(1)	712-08.03	ARROW BOARD (TYPE C)	2	4	4	4	2	6	EACH
	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)			7644	550		8194	L.F.
	712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)			89			89	L.F.
	712-09.05	REMOVABLE PAVEMENT MARKING (ARROW)			6			6	EACH
(1)	713-16.01	CHANGEABLE MESSAGE SIGN UNIT		4	4	4	2	6	EACH
	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)		1.53				1.53	L.M.
	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)		141	58	103		302	L.F.
	716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)		6		1		7	EACH
	716-05.20	PAINTED PAVEMENT MARKING (6" LINE)		0.27	0.11	3.78		4.16	L.M.
	716-08.20	REMOVAL OF PAVEMENT MARKING (LINE)		0.57	0.14			0.71	L.M.

(1) TO BE USED WHERE AND AS DIRECTED BY THE ENGINEER
(2) ITEMS LISTED FOR STAGE 2A ARE TABULATED IN ADDITION TO THOSE ON SR 237 STAGE 2 WHICH WILL REMAIN IN PLACE
(3) ITEMS LISTED FOR STAGE 3A ARE TABULATED IN ADDITION TO THOSE FOR STAGE 3 AND ALLOW FOR I-24 TO BE CLOSED IN BOTH DIRECTIONS SIMULTANEOUSLY

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TRAFFIC CONTROL QUANTITIES

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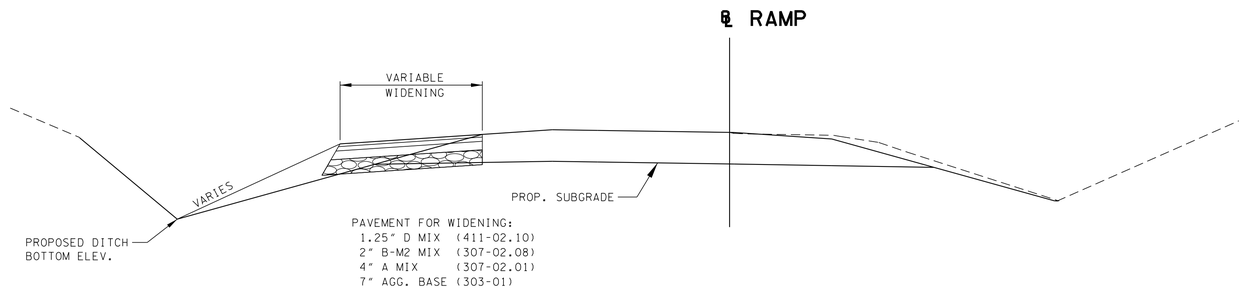
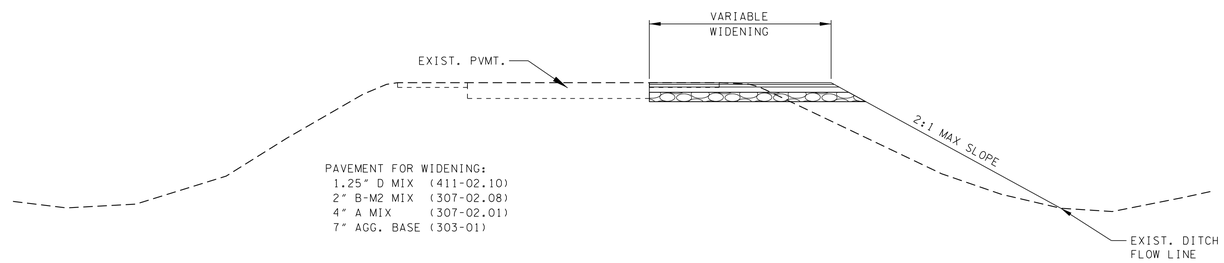
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17D



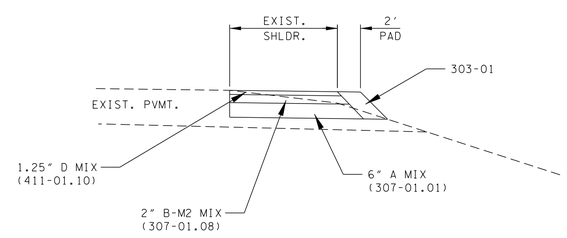
TEMPORARY SHOULDER WIDENING DETAIL

STAGE 2 - RAMP "A" STA. 38+00± TO STA. 34+15± 0'-11.6'
STAGE 2 - RAMP "D" STA. 53+44± TO STA. 57+49± 0'-12.7'



TEMPORARY WIDENING DETAIL

STAGE 1 - SR 237 STA. 96+50± TO STA. 98+00± 0'-20.6'
STAGE 1 - SR 237 STA. 120+50± TO STA. 124+00± 0'-11'
STAGE 1 - RAMP "B" STA. 45+00± TO STA. 52+00± 0'-19.3'
STAGE 1 - RAMP "D" STA. 53+00± TO STA. 57+00± 0'-17.7'



NOTE:
EXCAVATION OF EXISTING SHOULDER MATERIAL TO A DEPTH OF 9.25"± SHALL BE PAID FOR AS 203-01, ROAD & DRAINAGE EXCAVATION, C.Y.

DETAIL FOR STAGE 1
SHOULDER REINFORCEMENT
(AS DIRECTED BY THE ENGINEER)

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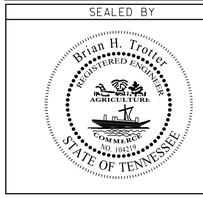

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DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS

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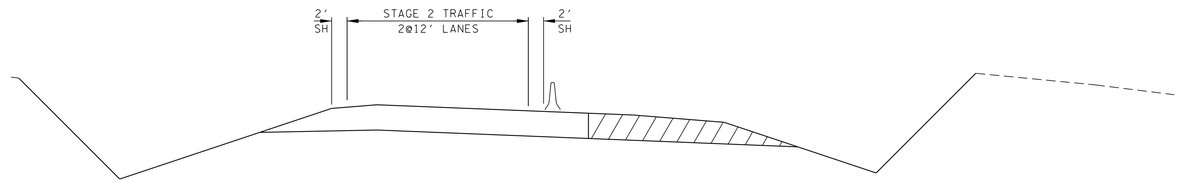
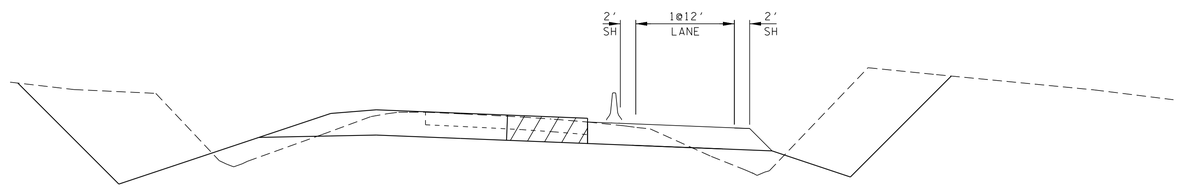
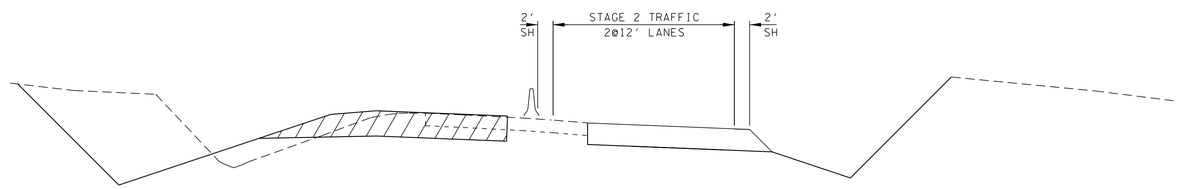
CONST.	2014	NH/STP-I-24-9(76)	17E



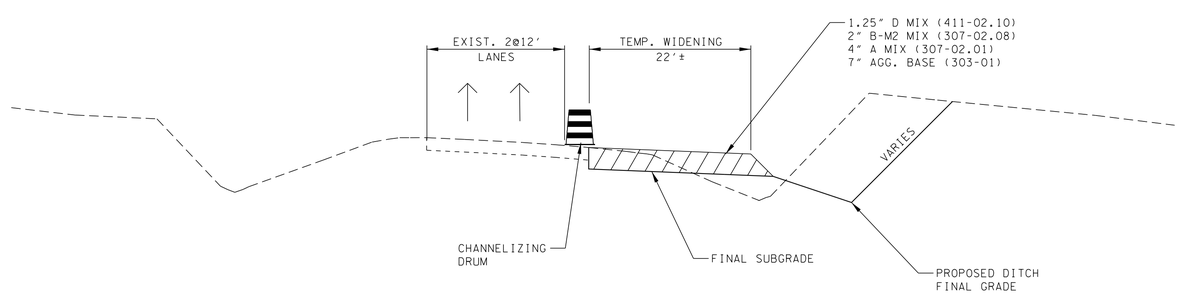
STAGE 2A



STAGE 2 - RAMP "C" NIGHT & WEEKEND



STAGE 2



STAGE 1

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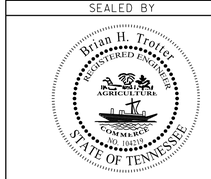

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RAMP "C"
CONSTRUCTION
DETAILS

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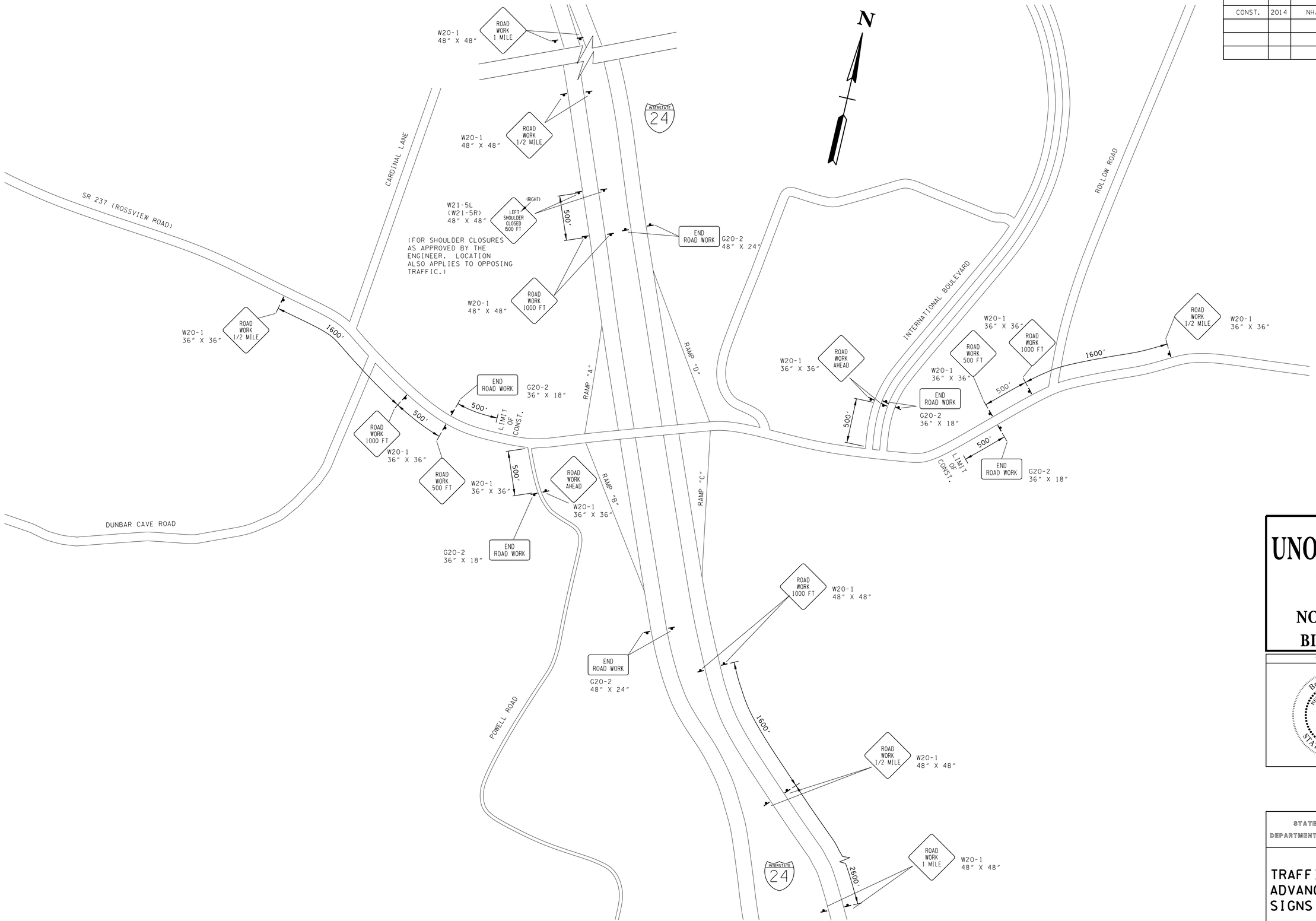
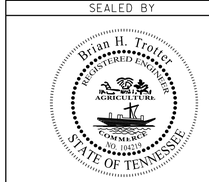
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17F



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
ADVANCE WARNING
SIGNS & DEVICES

N.T.S.

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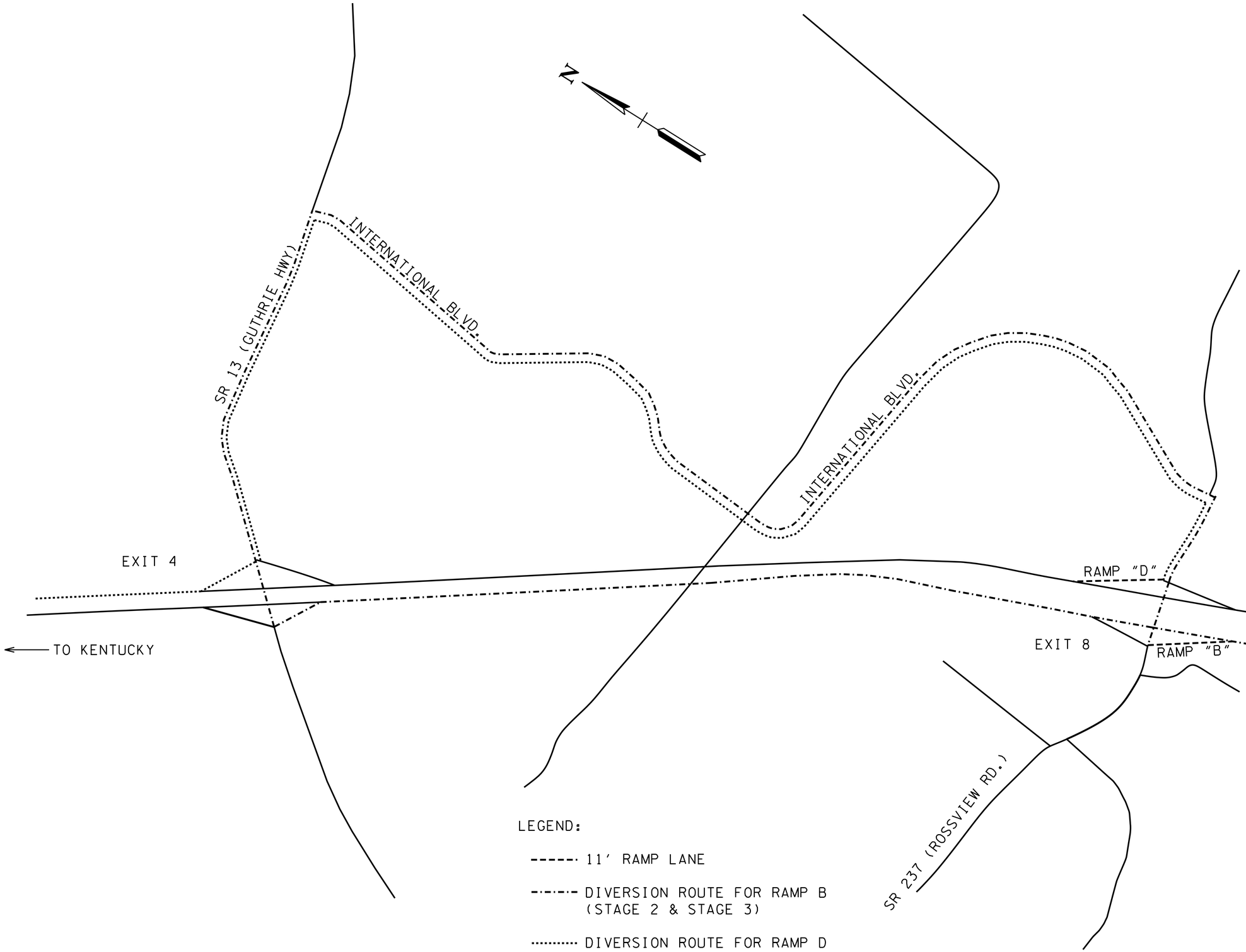
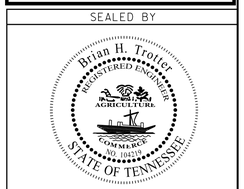
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	17G



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

OVERSIZED LOAD DIVERSION ROUTE

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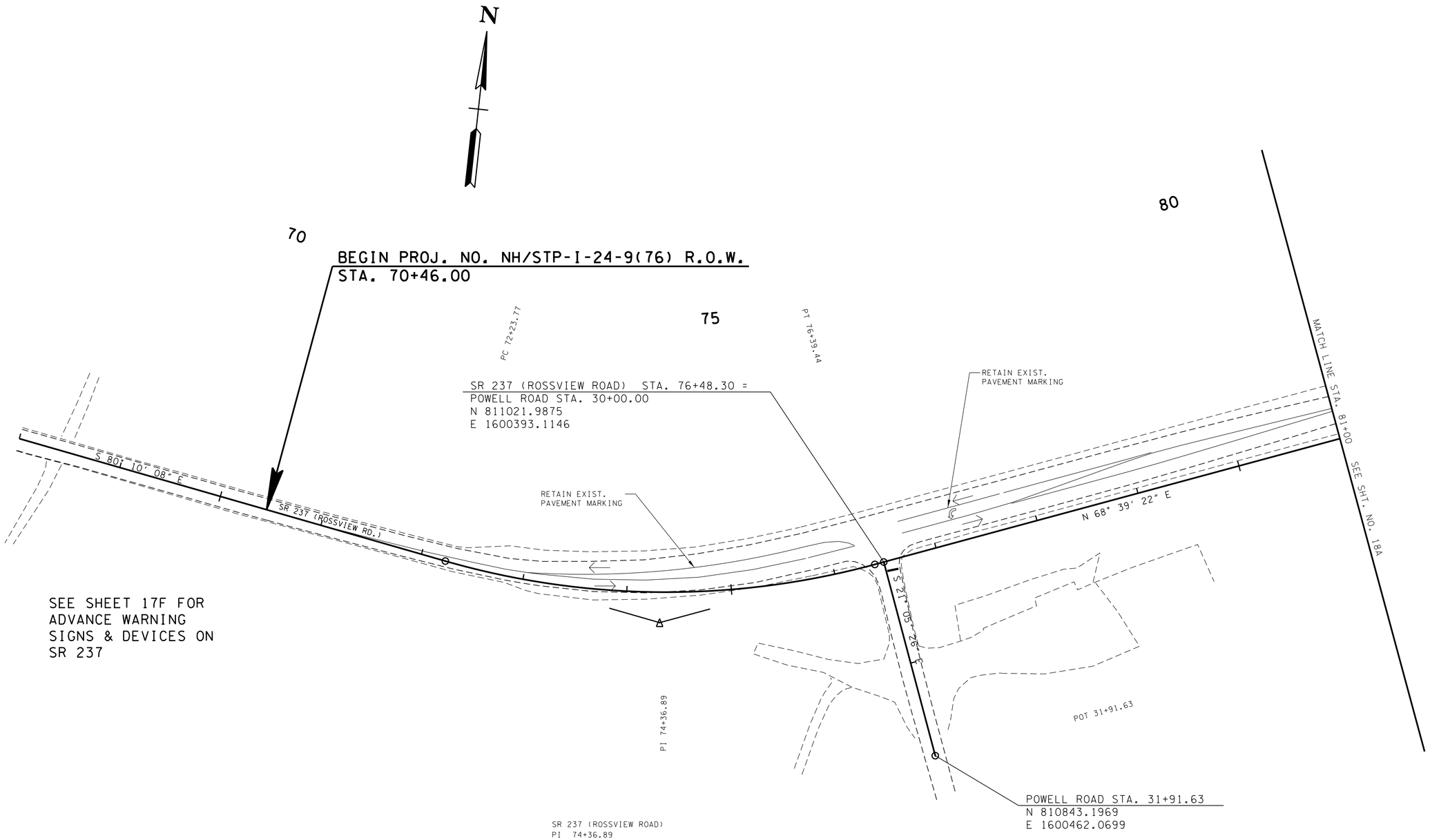
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18

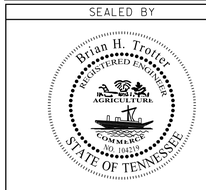


STAGE 1 - TEMPORARY WIDENING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

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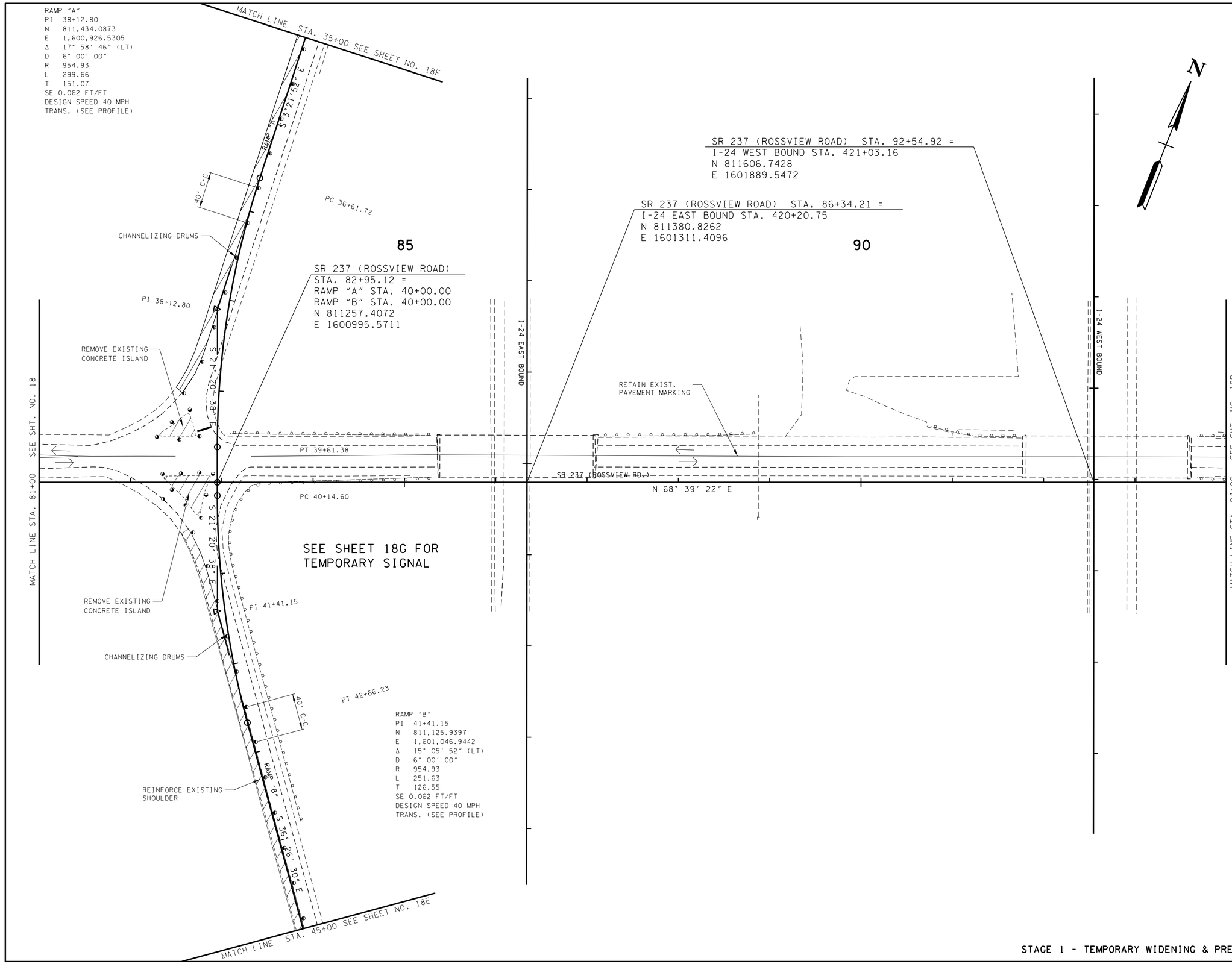
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18A



STAGE 1 - TEMPORARY WIDENING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108218
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 81+00 TO STA. 94+00

SCALE: 1"= 50′

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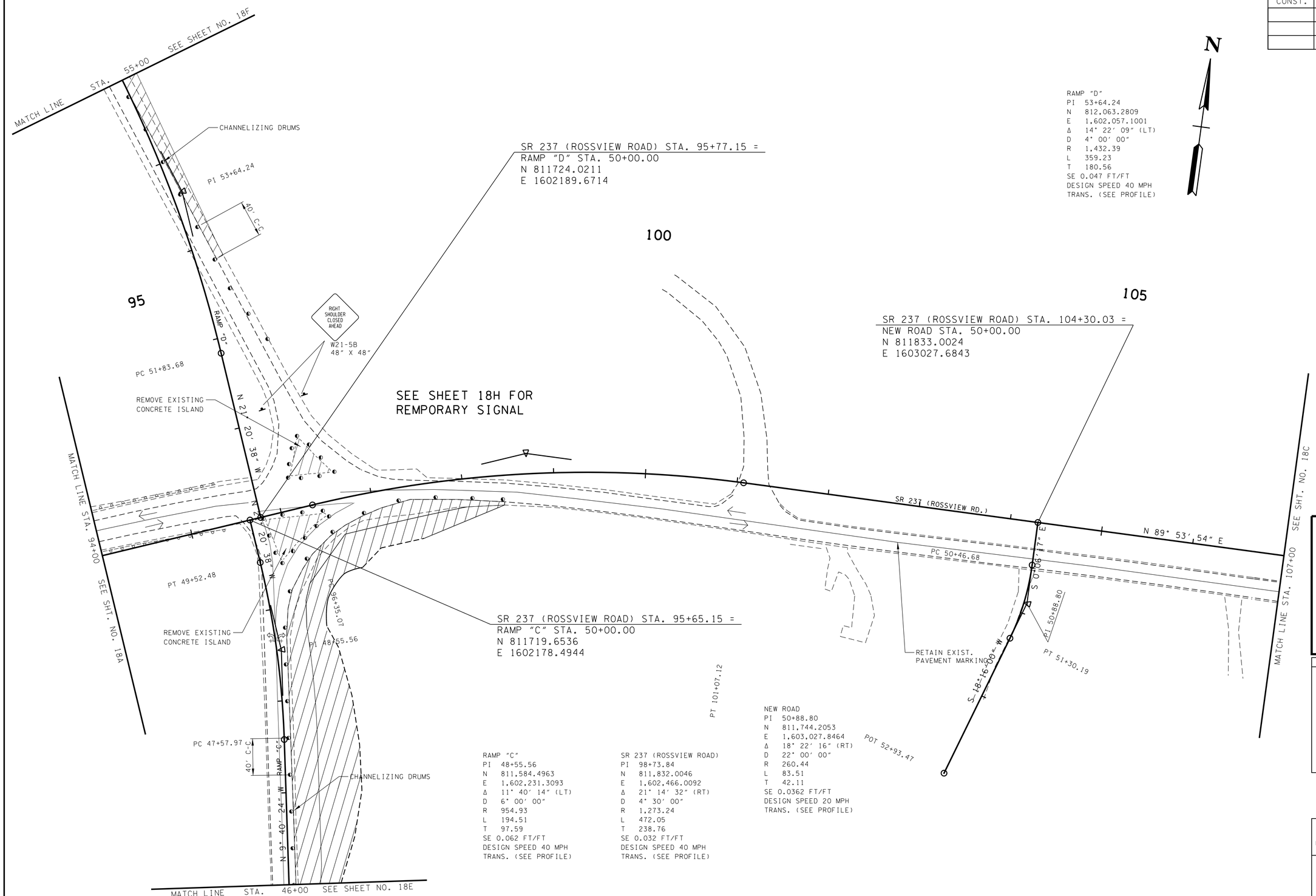
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18B



RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22' 09" (LT)
D 4° 00' 00"
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

STAGE 1 - TEMPORARY WIDENING & PREPARATION

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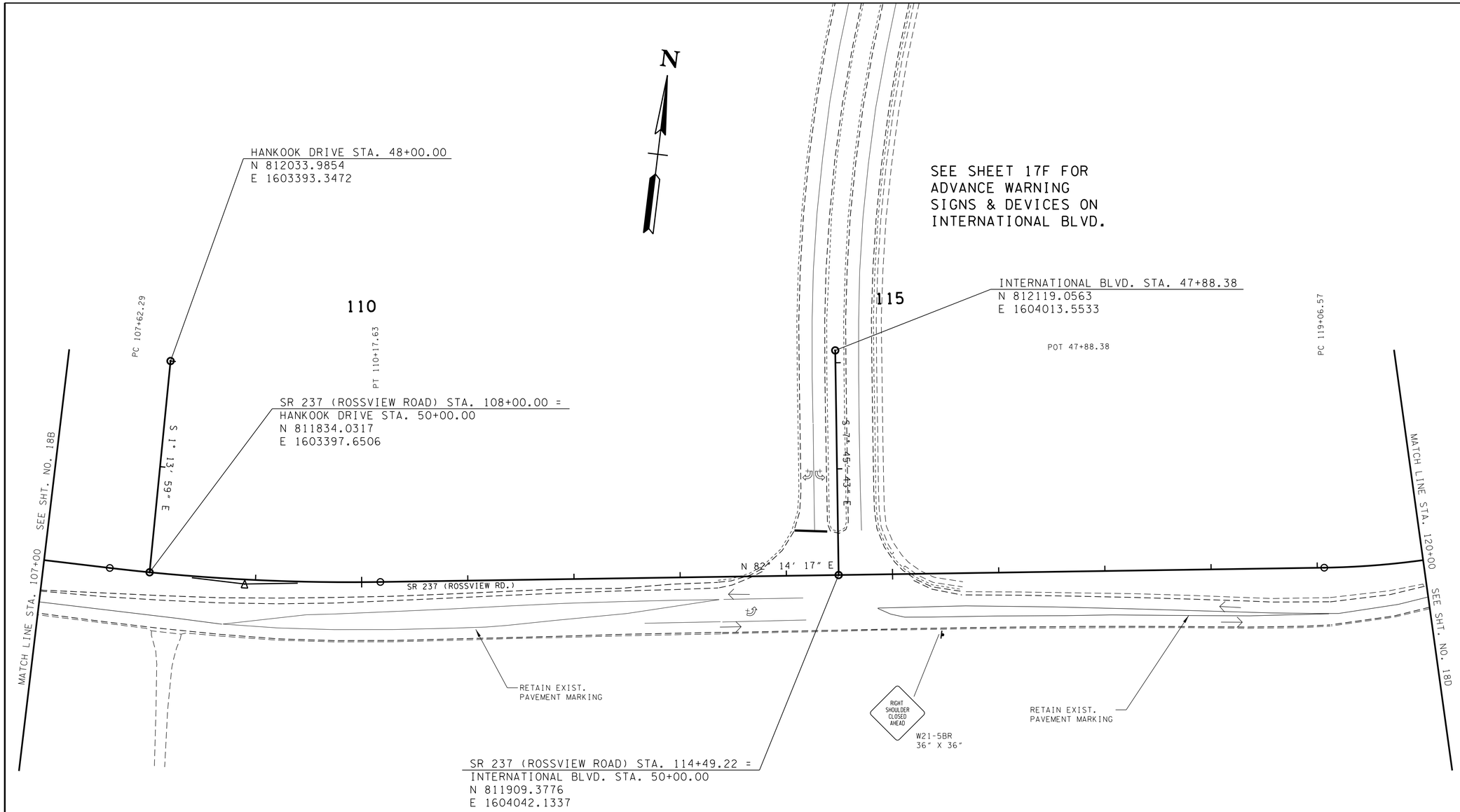
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18C



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39′ 36″ (LT)
D 3° 00′ 00″
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

STAGE 1 - TEMPORARY WIDEINING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108331
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 107+00 TO STA. 120+00
SCALE: 1"= 50′

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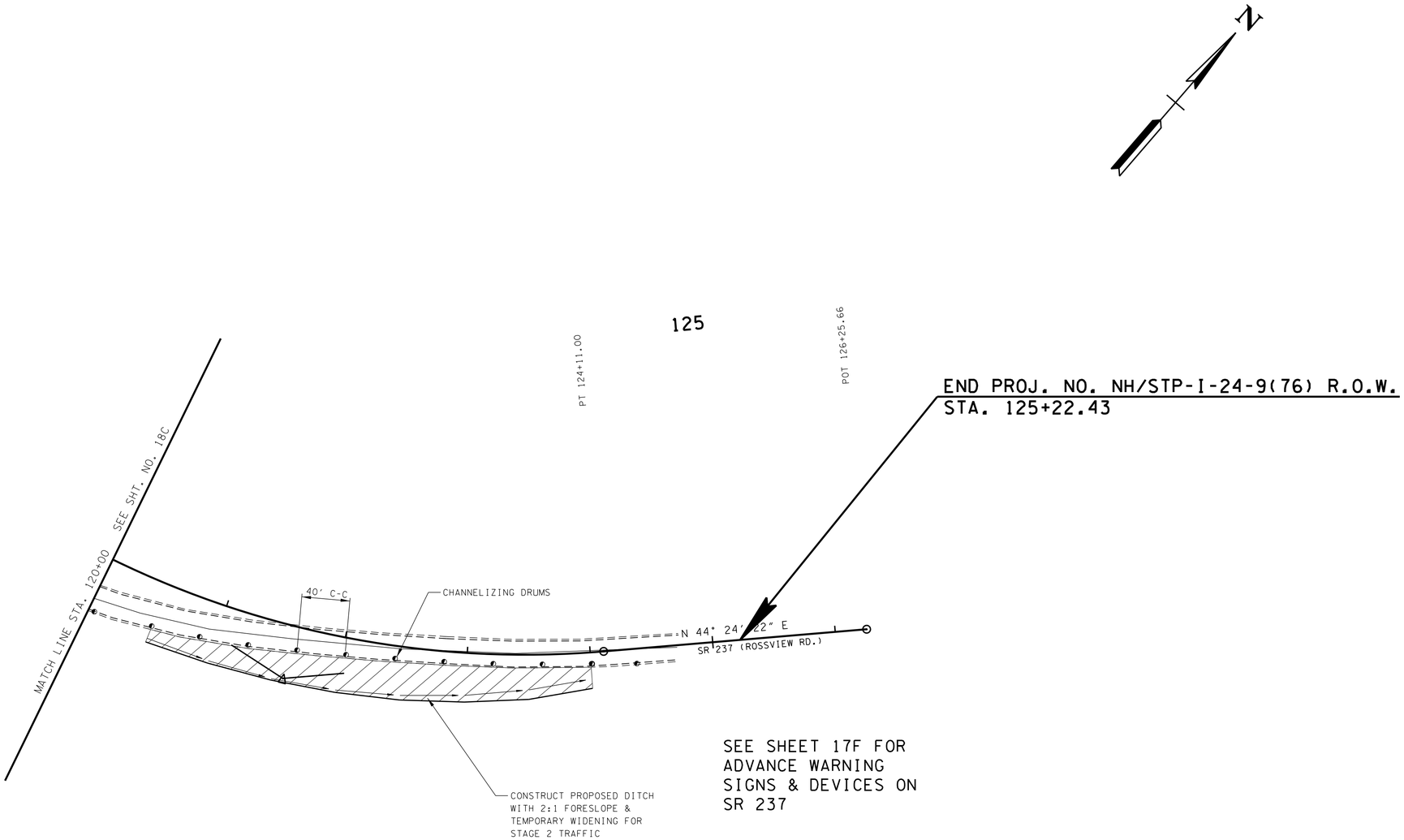
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18D



SEE SHEET 17F FOR ADVANCE WARNING SIGNS & DEVICES ON SR 237

SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

STAGE 1 - TEMPORARY WIDENING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 120+00 TO END PROJ.
SCALE: 1"= 50'

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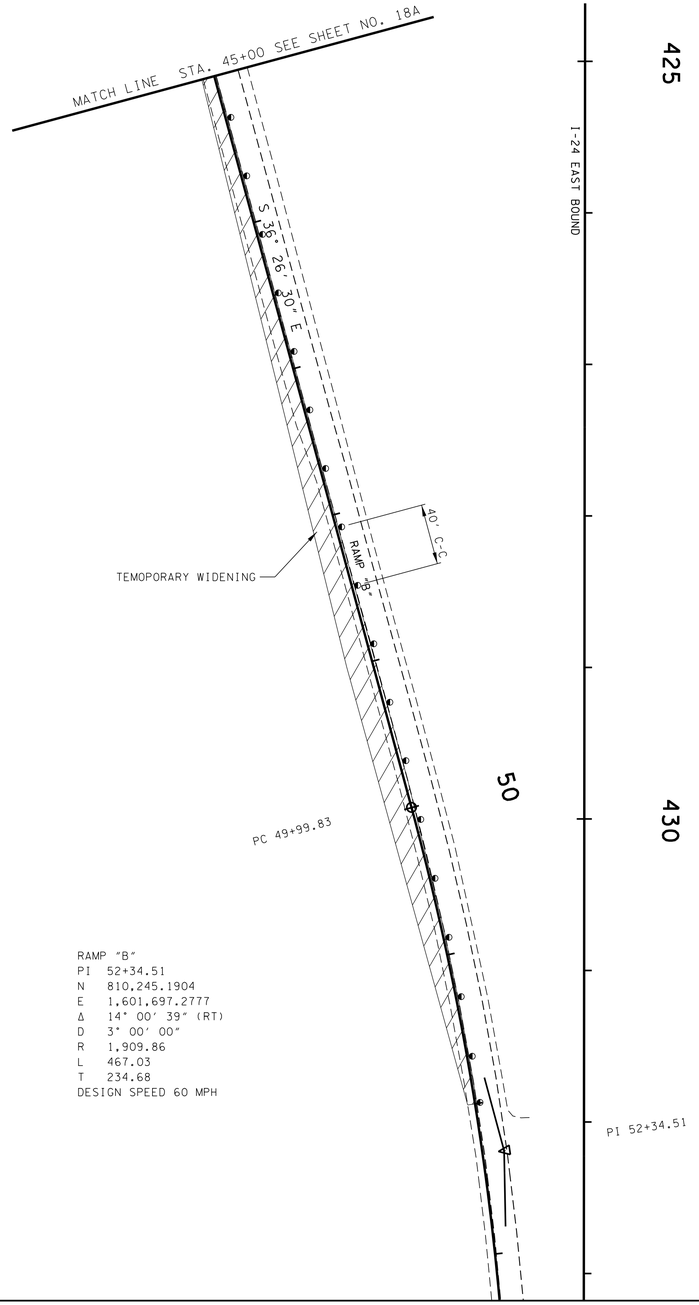
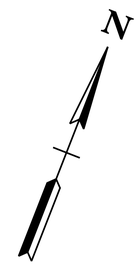
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18E

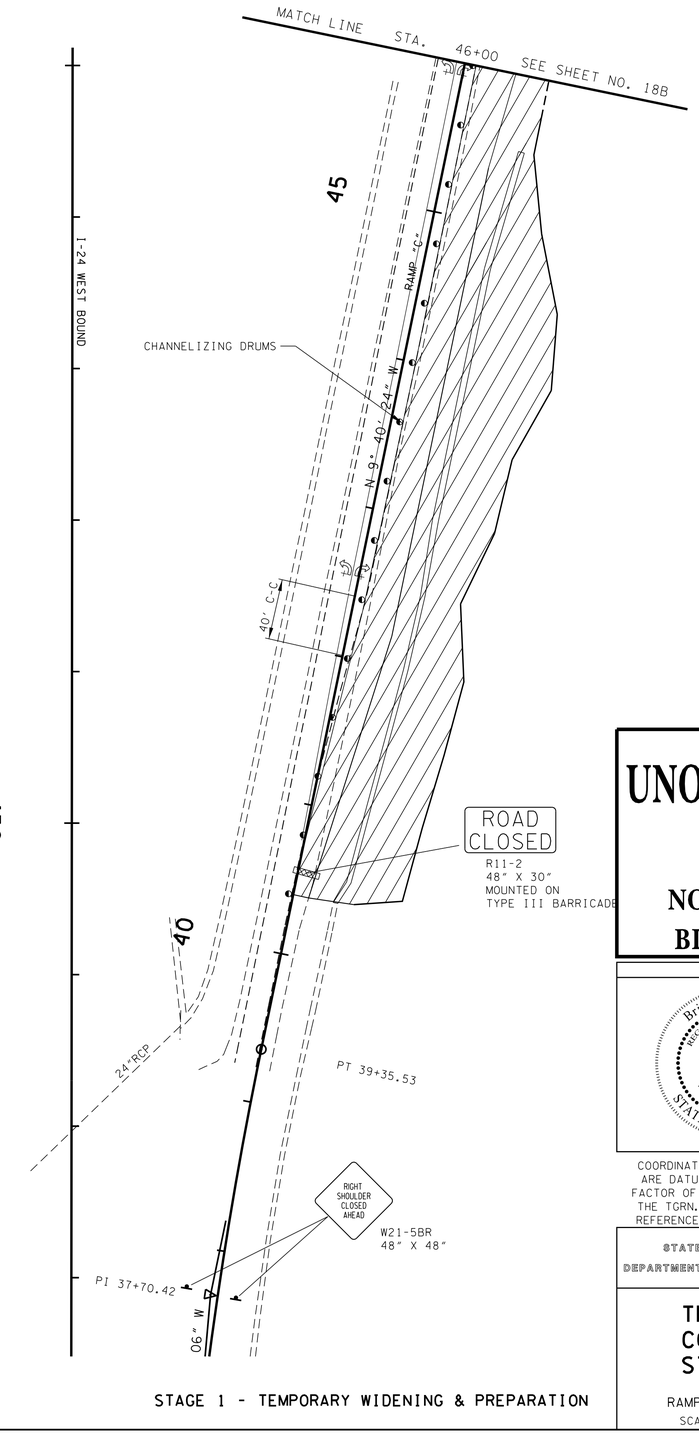


RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

SEE SHEET 17F FOR ADVANCE WARNING SIGNS & DEVICES ON I-24



STAGE 1 - TEMPORARY WIDENING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
No. 108435
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP B & RAMP C

SCALE: 1"= 50'

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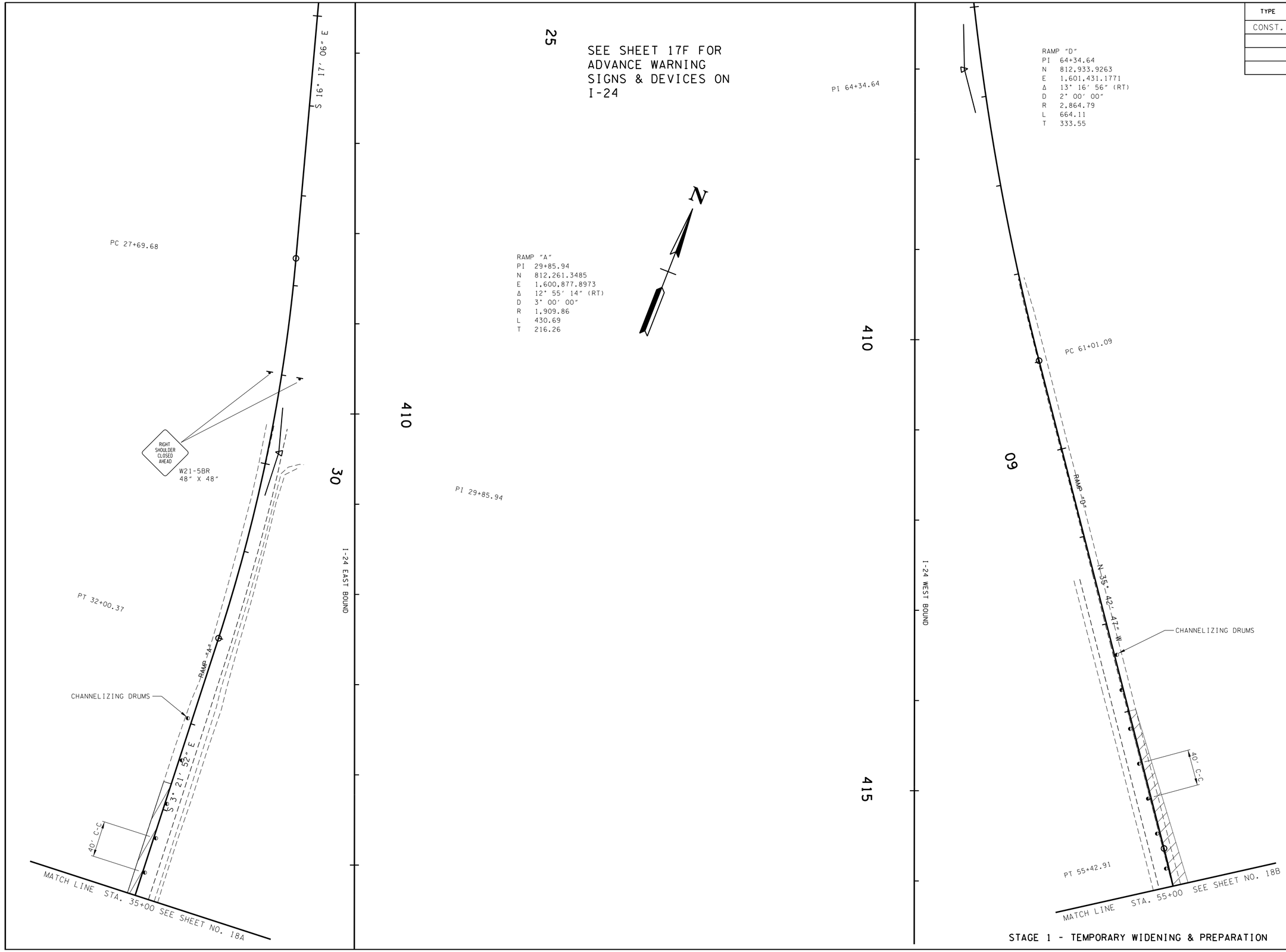
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18F



STAGE 1 - TEMPORARY WIDENING & PREPARATION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP A & RAMP D

SCALE: 1"= 50′

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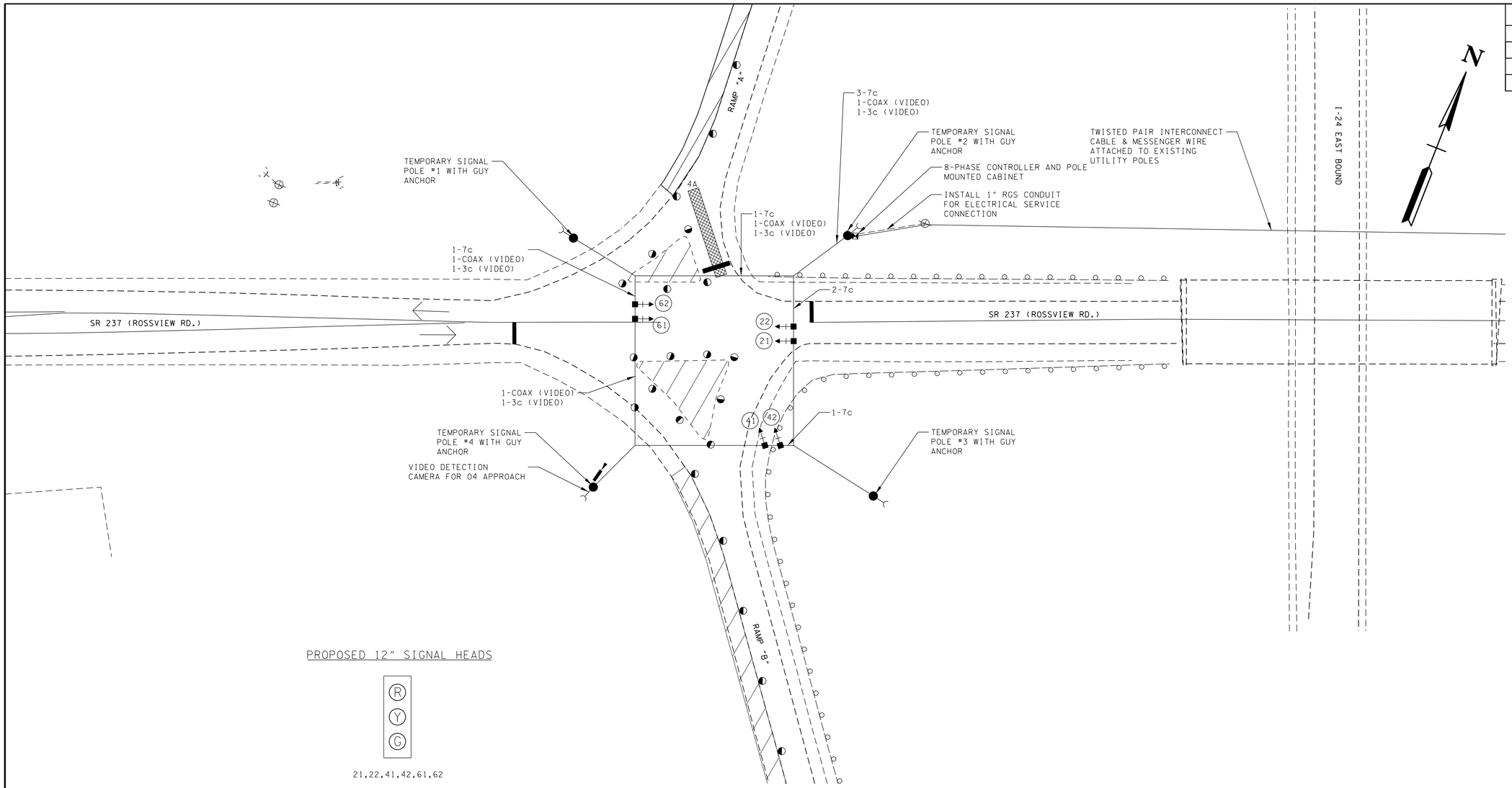
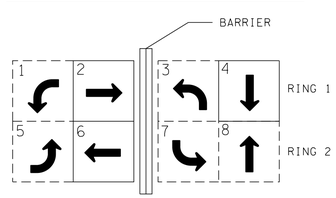
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18G



PROPOSED 12" SIGNAL HEADS

21,22,41,42,61,62

NEMA EIGHT PHASE DESIGNATIONS



ACTIVE PHASE

INACTIVE PHASE

* OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
* SINGLE DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
* ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

TEMPORARY SIGNAL NOTES

1. ALL ADJUSTMENTS TO SIGNAL EQUIPMENT NECESSARY TO MAINTAIN PROPER SIGNAL OPERATION DURING ALL PHASES OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST ASSOCIATED WITH ANY ADJUSTMENT TO THE TEMPORARY SIGNAL WILL NOT BE PAID FOR DIRECTLY BUT INCLUDED IN THE COST OF THE TEMPORARY SIGNAL SYSTEM.

2. ALL TEMPORARY SIGNAL APPURTENANCES ARE TO BE FULLY REMOVED FROM THE PROJECT SITE AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR. COSTS ASSOCIATED WITH THIS WILL NOT BE PAID DIRECTLY BUT INCLUDED IN THE COST OF THE TEMPORARY SIGNAL SYSTEM.

SIGNAL SUPPORT DATA

POLE NO.	NORTHING	EASTING	WOOD POLE CLASS	POLE HEIGHT (FT)
1	811293.13	1600881.61	3	35
2	811357.36	1601026.54	3	40
3	811221.04	1601086.71	3	50
4	811169.59	1600941.68	3	35

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TEMPORARY SIGNAL LAYOUT STAGE 1

SR 237 (ROSSVIEW RD) AND RAMPS A & B

SCALE: 1"=30 '

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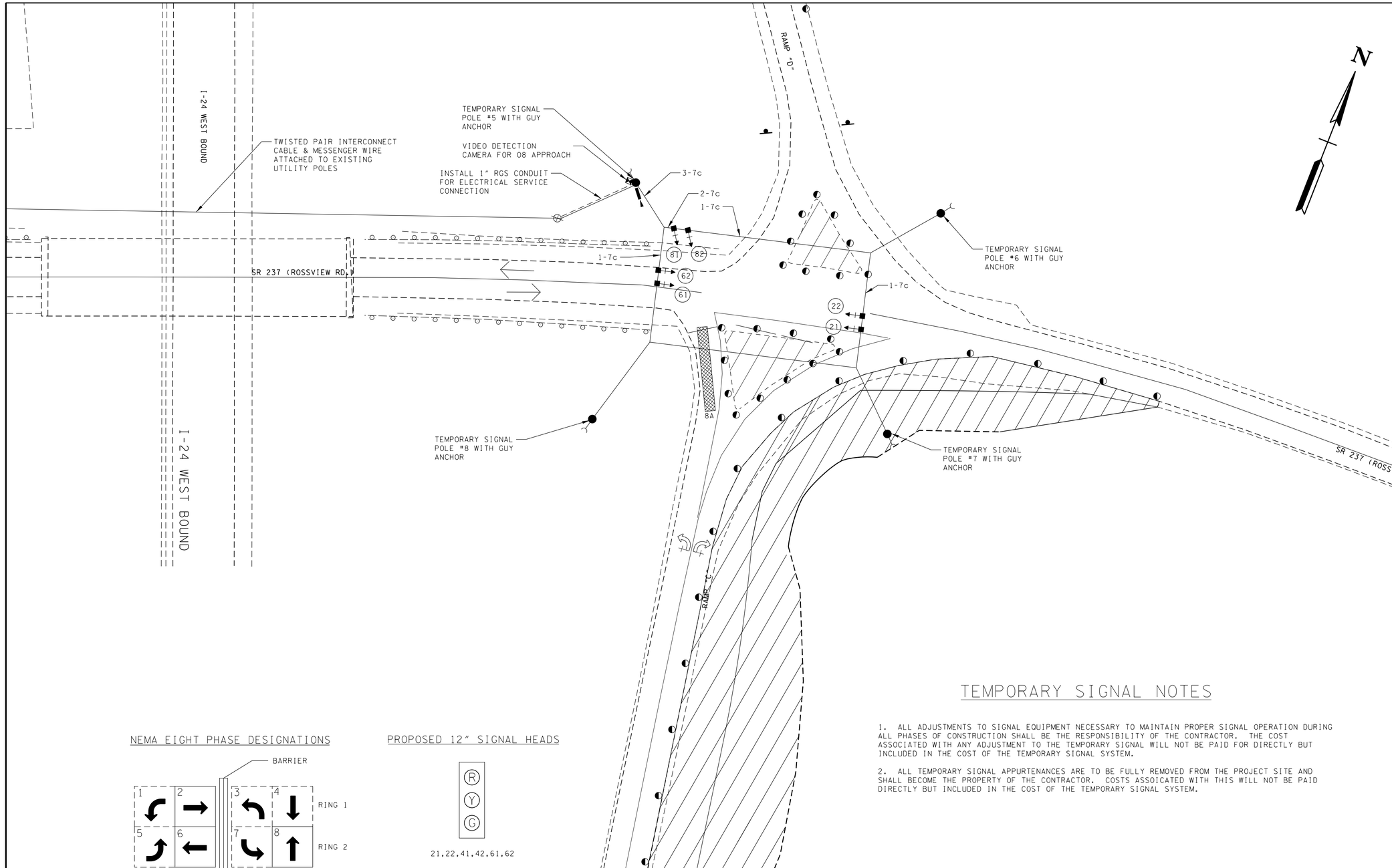
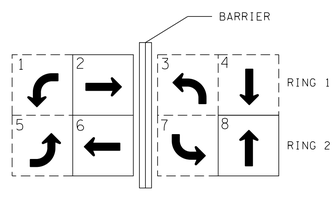
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	18H



NEMA EIGHT PHASE DESIGNATIONS



ACTIVE PHASE

INACTIVE PHASE

- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SINGLE DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

PROPOSED 12" SIGNAL HEADS

21,22,41,42,61,62

TEMPORARY SIGNAL NOTES

1. ALL ADJUSTMENTS TO SIGNAL EQUIPMENT NECESSARY TO MAINTAIN PROPER SIGNAL OPERATION DURING ALL PHASES OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST ASSOCIATED WITH ANY ADJUSTMENT TO THE TEMPORARY SIGNAL WILL NOT BE PAID FOR DIRECTLY BUT INCLUDED IN THE COST OF THE TEMPORARY SIGNAL SYSTEM.

2. ALL TEMPORARY SIGNAL APPURTENANCES ARE TO BE FULLY REMOVED FROM THE PROJECT SITE AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR. COSTS ASSOICATED WITH THIS WILL NOT BE PAID DIRECTLY BUT INCLUDED IN THE COST OF THE TEMPORARY SIGNAL SYSTEM.

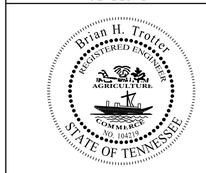
SIGNAL SUPPORT DATA

POLE NO.	NORTHING	EASTING	WOOD POLE CLASS	POLE HEIGHT (FT)
5	811784.66	1602114.27	3	35
6	811833.46	1602289.12	3	35
7	811700.16	1602307.24	3	35
8	811644.78	1602141.27	3	35

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TEMPORARY SIGNAL LAYOUT STAGE 1

SR 237 (ROSSVIEW RD) AND RAMPS C & D

SCALE: 1"=30 '

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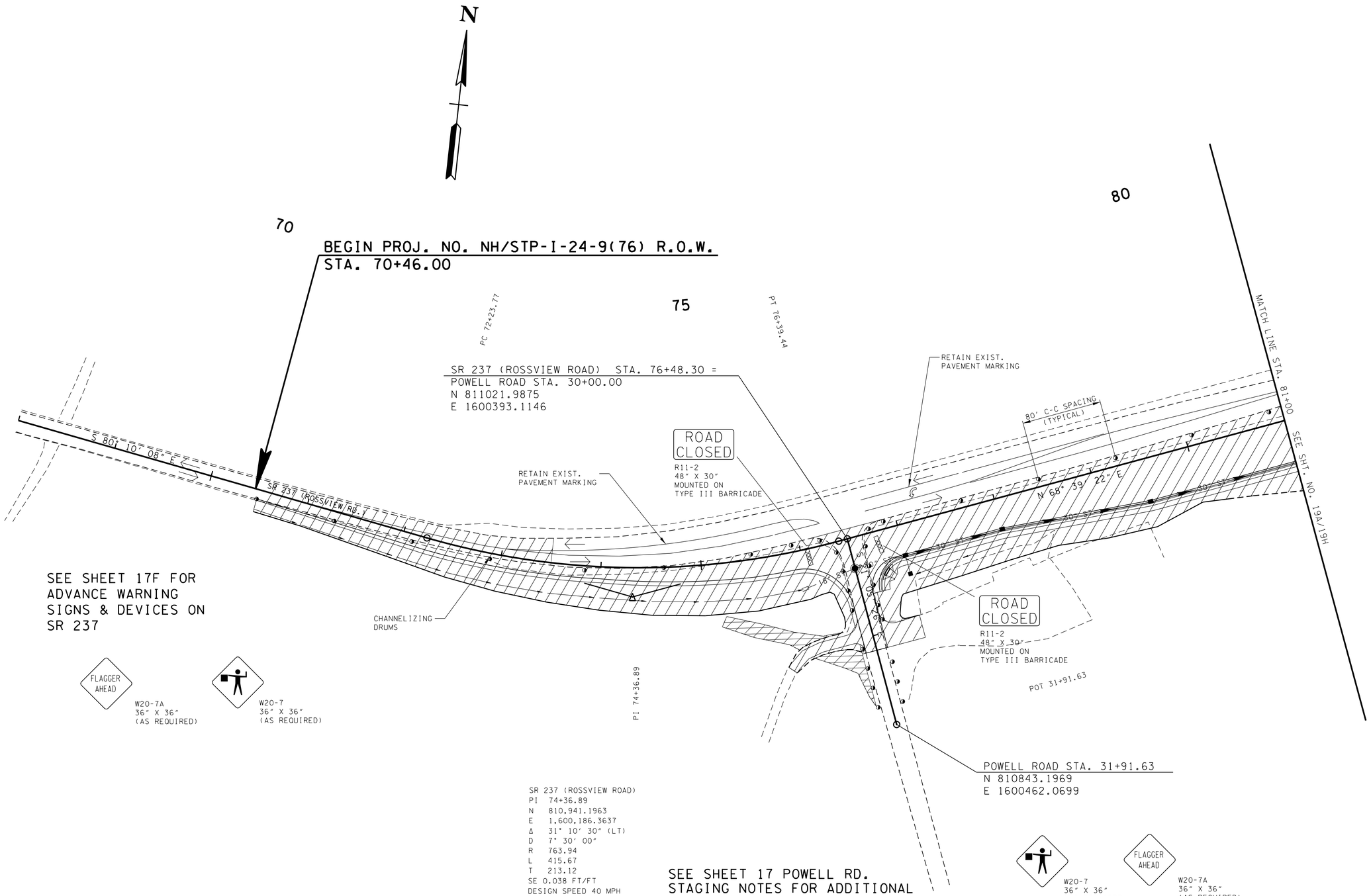
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19



SEE SHEET 17F FOR
ADVANCE WARNING
SIGNS & DEVICES ON
SR 237

SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SEE SHEET 17 POWELL RD.
STAGING NOTES FOR ADDITIONAL
INFORMATION

STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL
STAGING

BEGIN PROJ. TO STA. 81+00
SCALE: 1"= 50'

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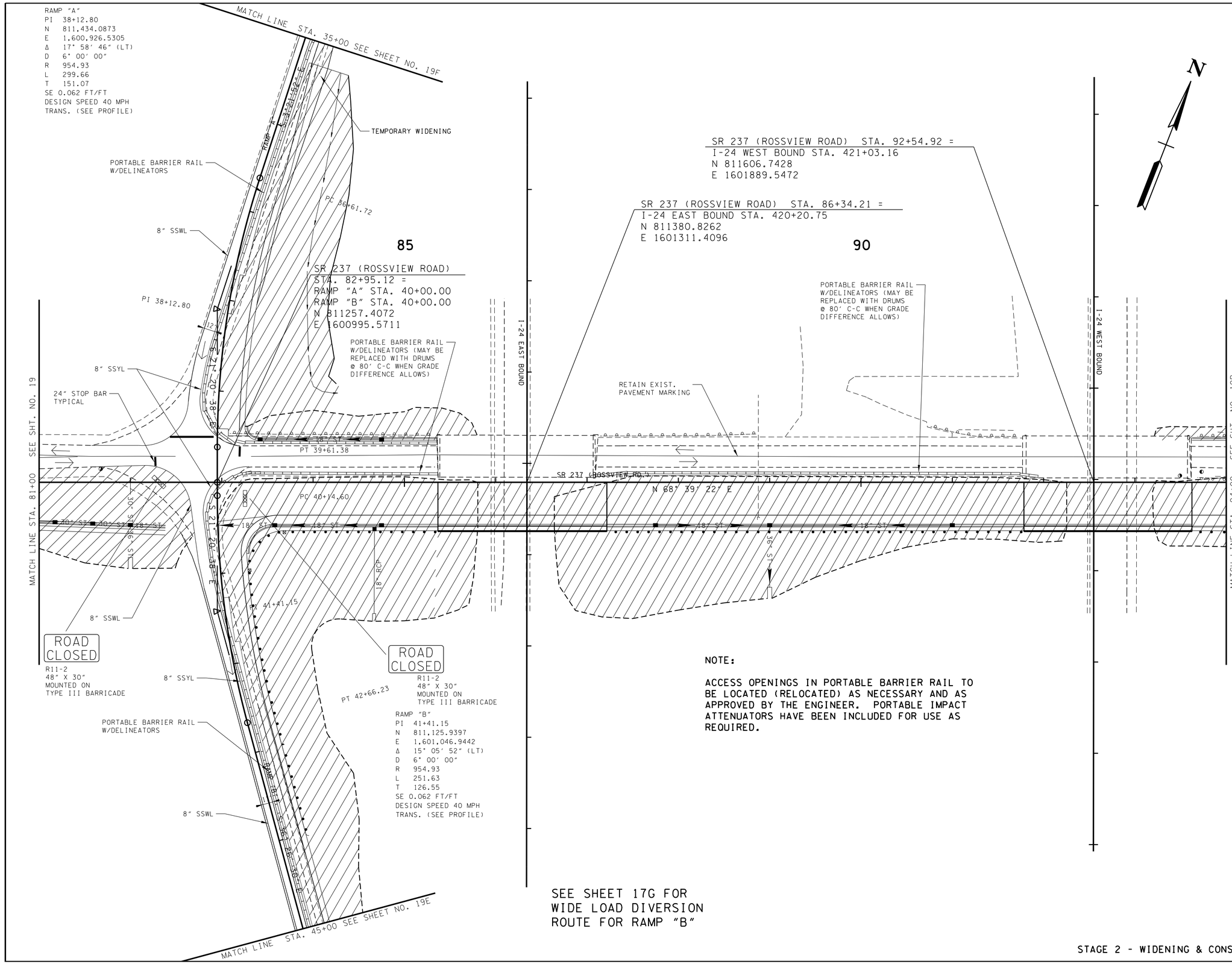
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19A

RAMP "A"
PI 38+12.80
N 811,434.0873
E 1,600,926.5305
Δ 17° 58′ 46″ (LT)
D 6° 00′ 00″
R 954.93
L 299.66
T 151.07
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)



NOTE:

ACCESS OPENINGS IN PORTABLE BARRIER RAIL TO BE LOCATED (RELOCATED) AS NECESSARY AND AS APPROVED BY THE ENGINEER. PORTABLE IMPACT ATTENUATORS HAVE BEEN INCLUDED FOR USE AS REQUIRED.

SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE FOR RAMP "B"

STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
DEPARTMENT OF AGRICULTURE
COMMISSION NO. 104319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 81+00 TO STA. 94+00
SCALE: 1"= 50′

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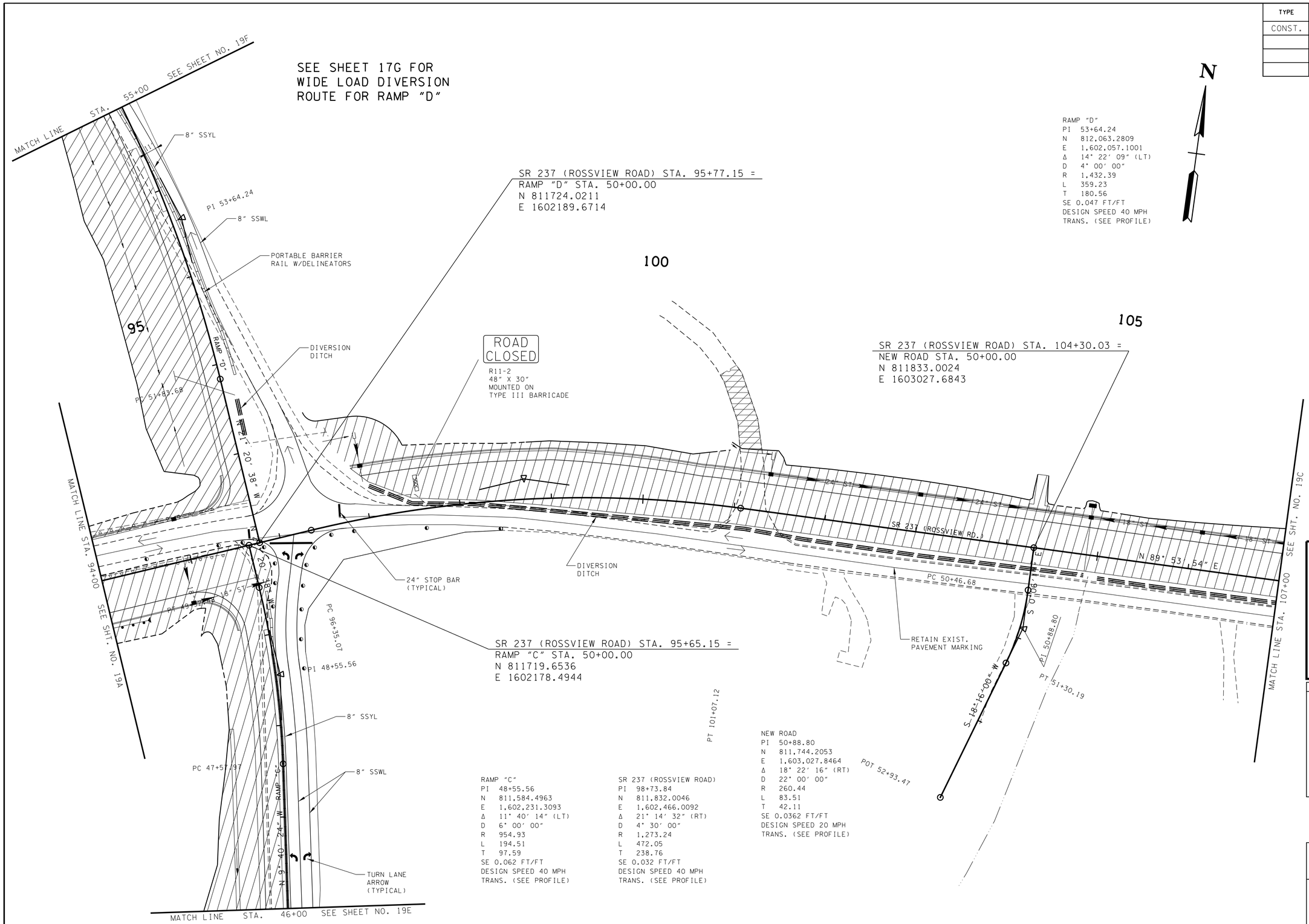
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19B



STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

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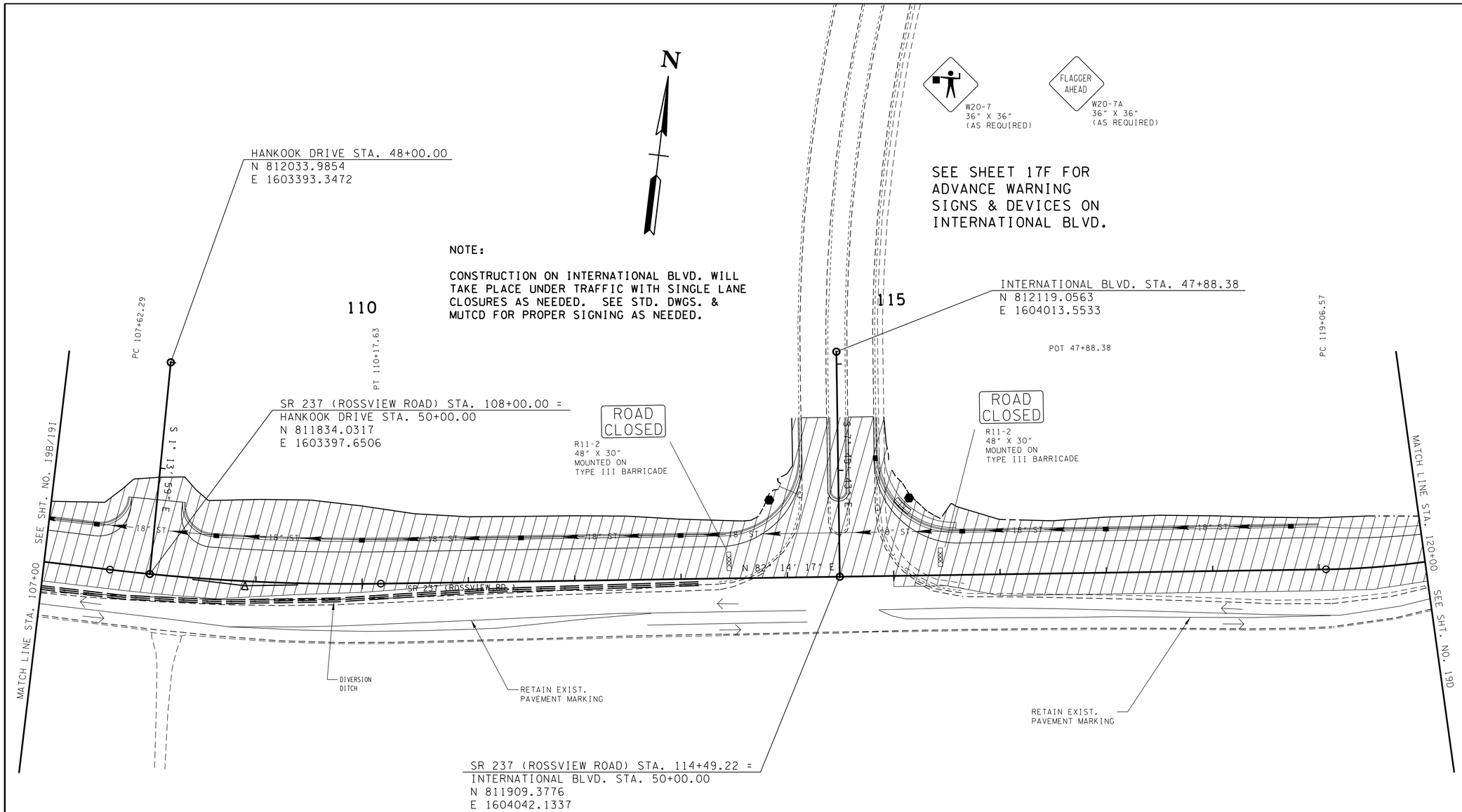
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19C



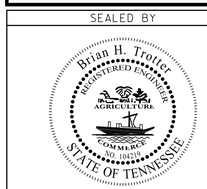
SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39' 36" (LT)
D 3° 00' 00"
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 107+00 TO STA. 120+00
SCALE: 1"= 50'

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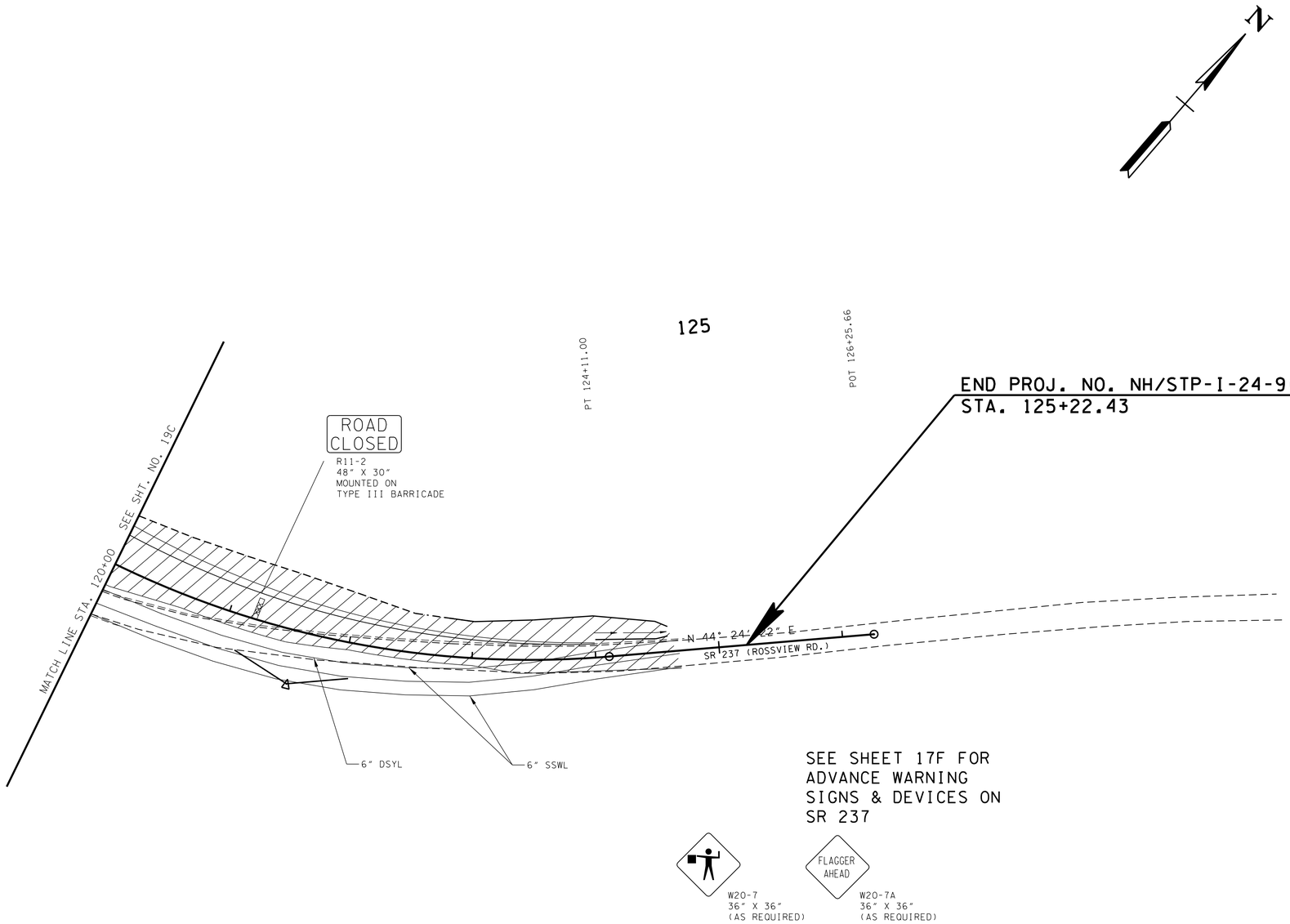
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19D



SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 120+00 TO END PROJ.
SCALE: 1"= 50'

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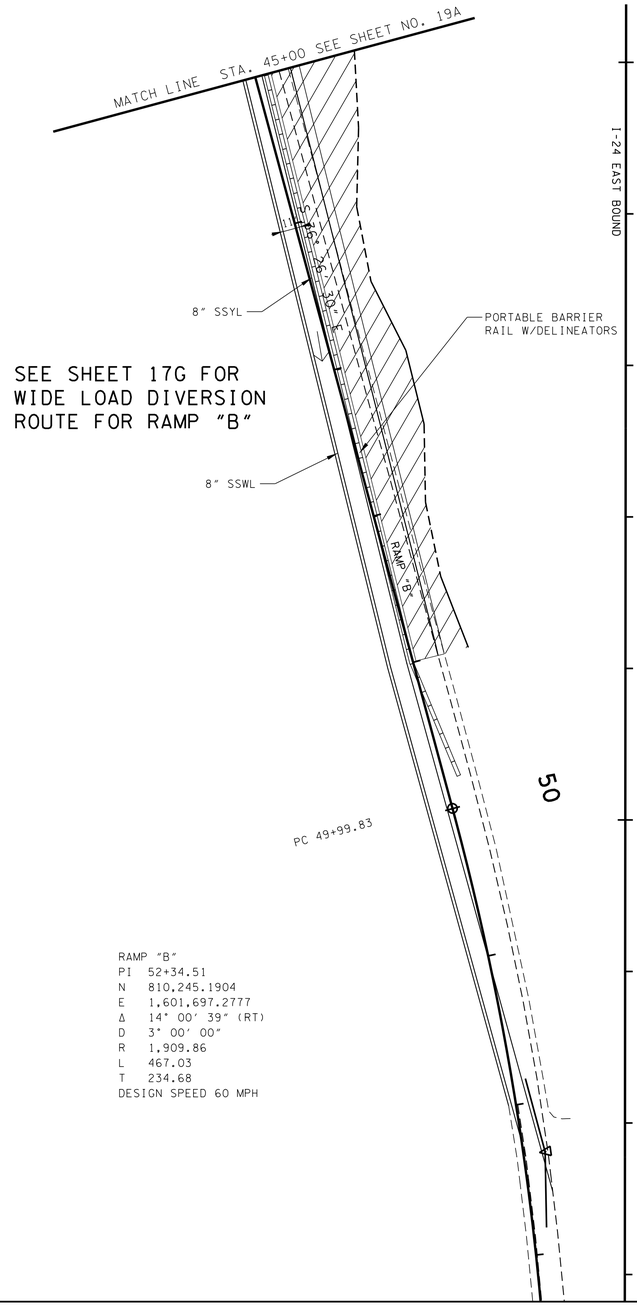
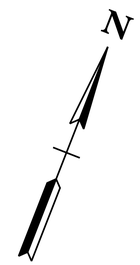
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19E

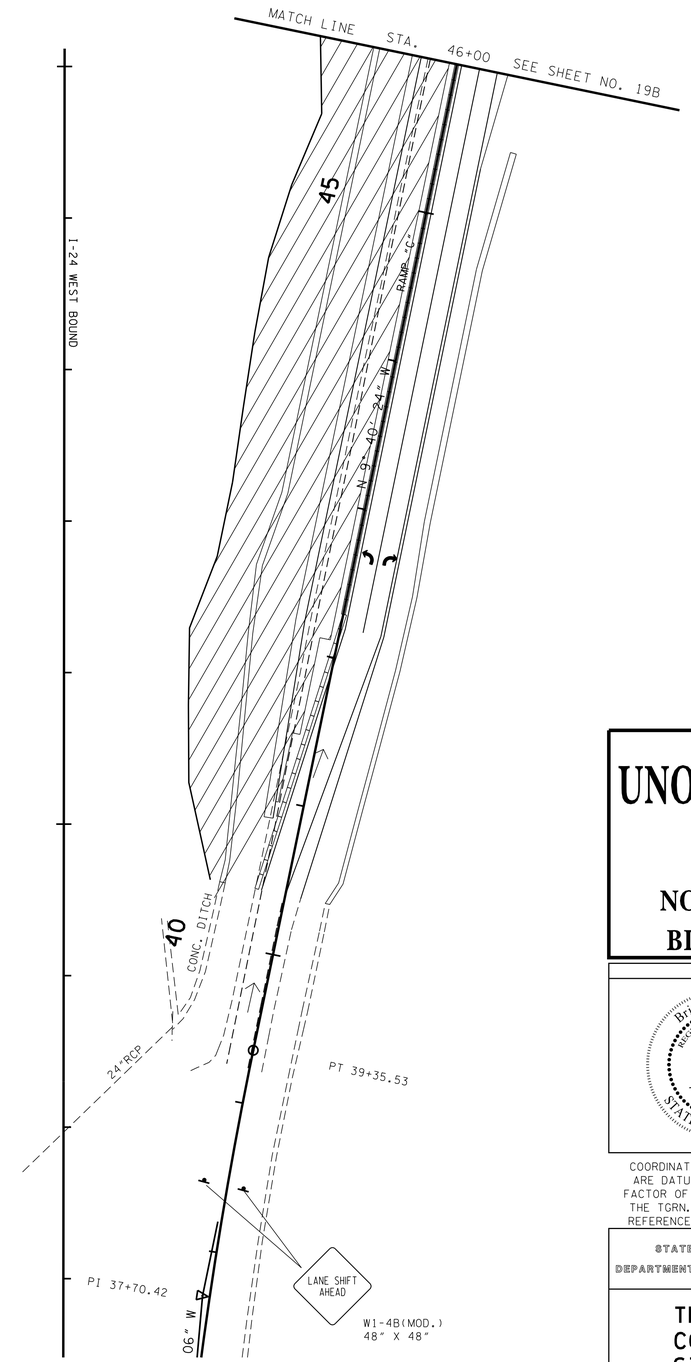


RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00′ 39″ (RT)
D 3° 00′ 00″
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36′ 42″ (RT)
D 2° 00′ 00″
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

SEE SHEET 17F FOR ADVANCE WARNING SINGS & DEVICES ON I-24



STAGE 2 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP B & RAMP C

SCALE: 1"= 50′

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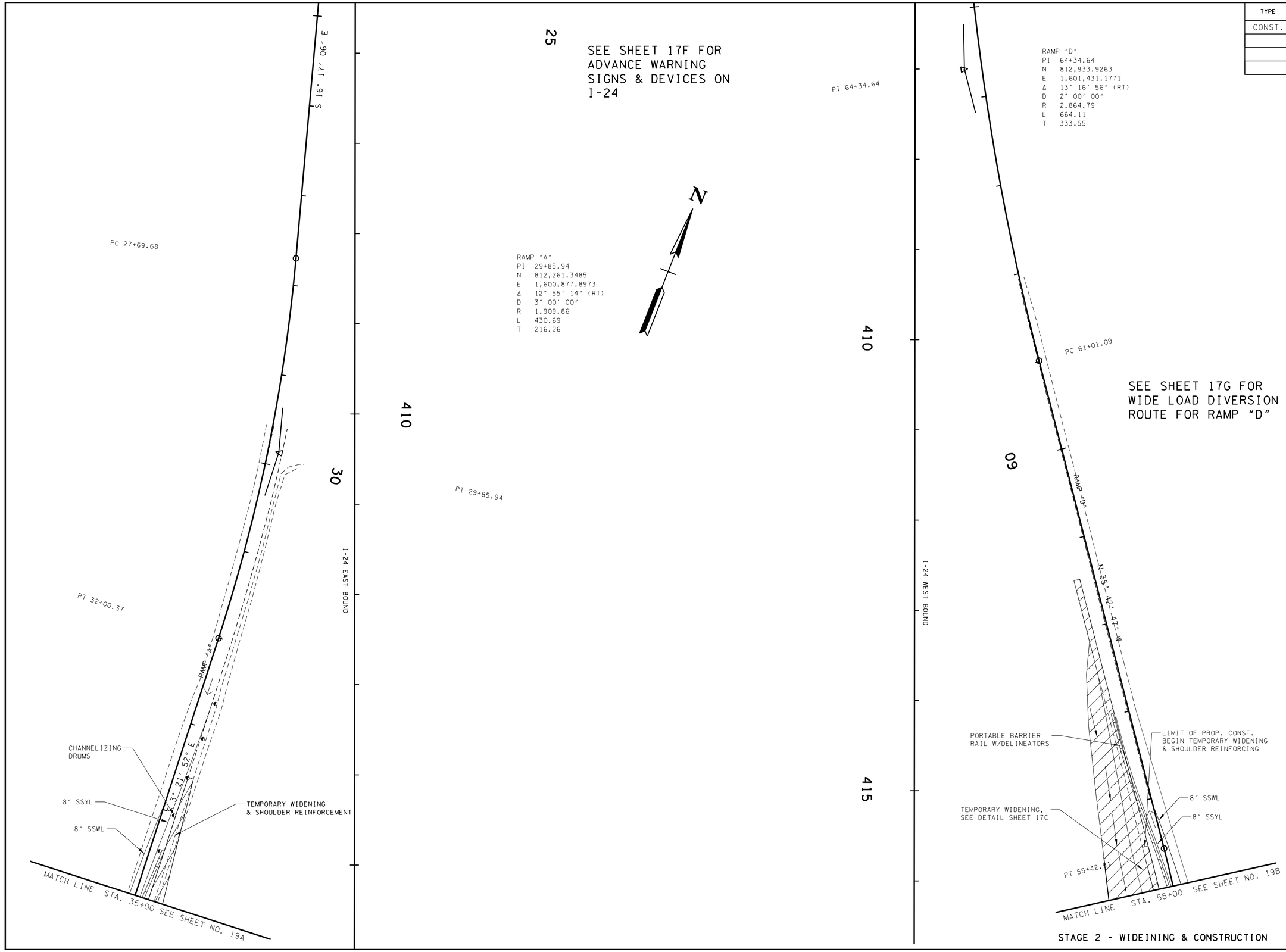
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19F

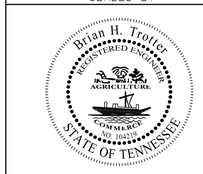


STAGE 2 - WIDEINING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP A & RAMP D

SCALE: 1"= 50'

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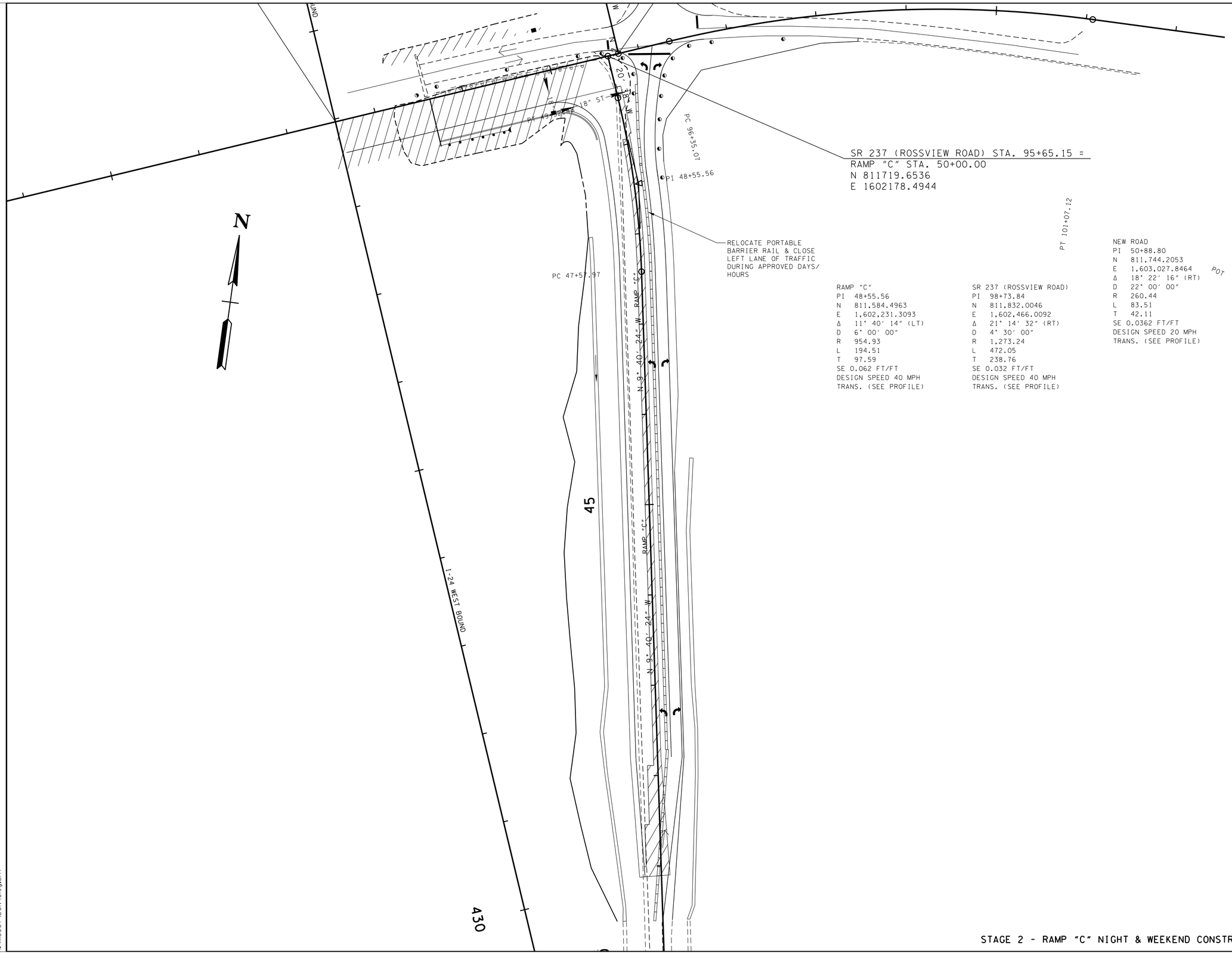
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19G



SR 237 (ROSSVIEW ROAD) STA. 95+65.15 =
RAMP "C" STA. 50+00.00
N 811719.6536
E 1602178.4944

RELOCATE PORTABLE BARRIER RAIL & CLOSE LEFT LANE OF TRAFFIC DURING APPROVED DAYS/ HOURS

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

POT

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP C
SCALE: 1"= 50'

STAGE 2 - RAMP "C" NIGHT & WEEKEND CONSTRUCTION

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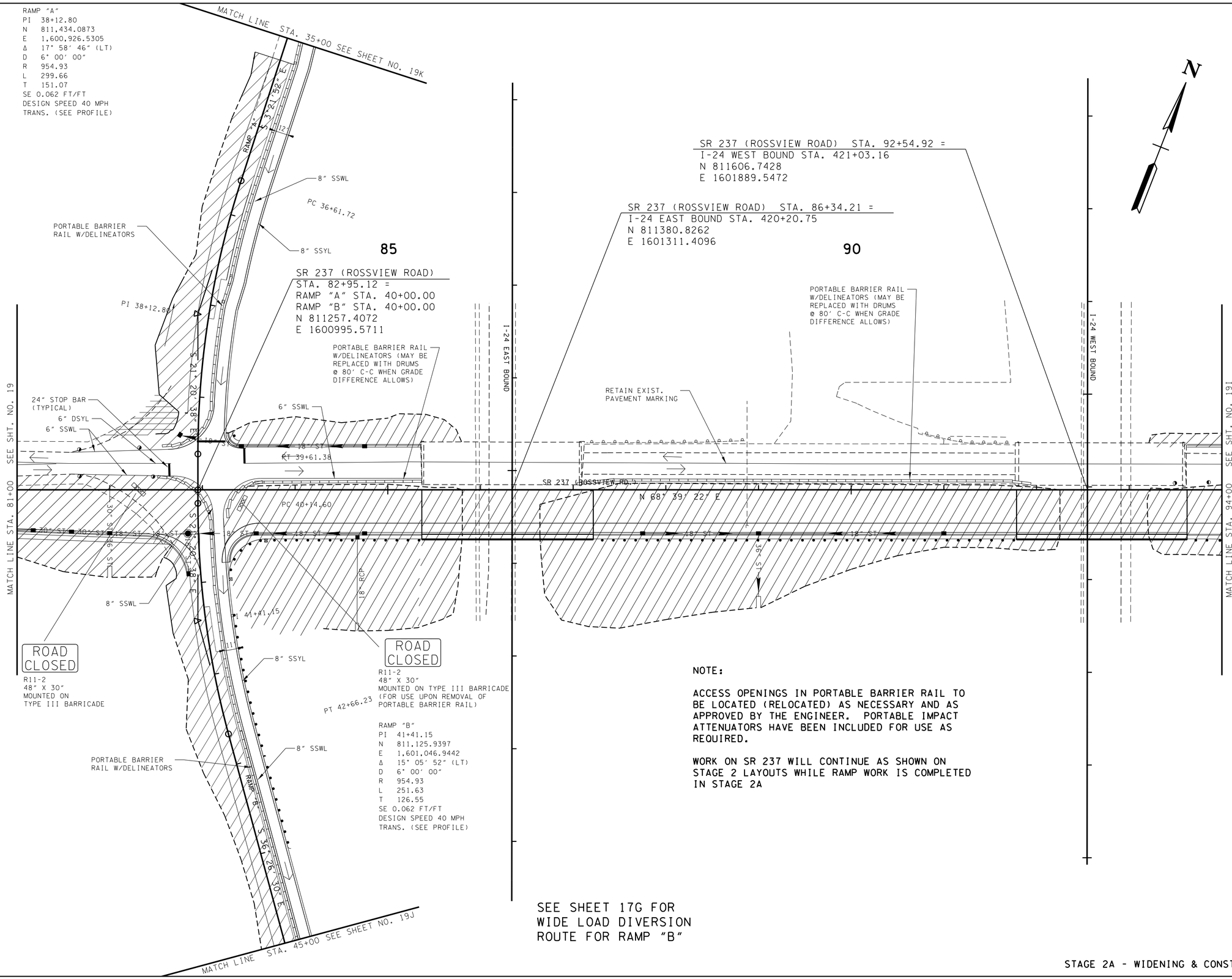
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19H



NOTE:

ACCESS OPENINGS IN PORTABLE BARRIER RAIL TO BE LOCATED (RELOCATED) AS NECESSARY AND AS APPROVED BY THE ENGINEER. PORTABLE IMPACT ATTENUATORS HAVE BEEN INCLUDED FOR USE AS REQUIRED.

WORK ON SR 237 WILL CONTINUE AS SHOWN ON STAGE 2 LAYOUTS WHILE RAMP WORK IS COMPLETED IN STAGE 2A

SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE FOR RAMP "B"

STAGE 2A - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 106219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 81+00 TO STA. 94+00
SCALE: 1"= 50'

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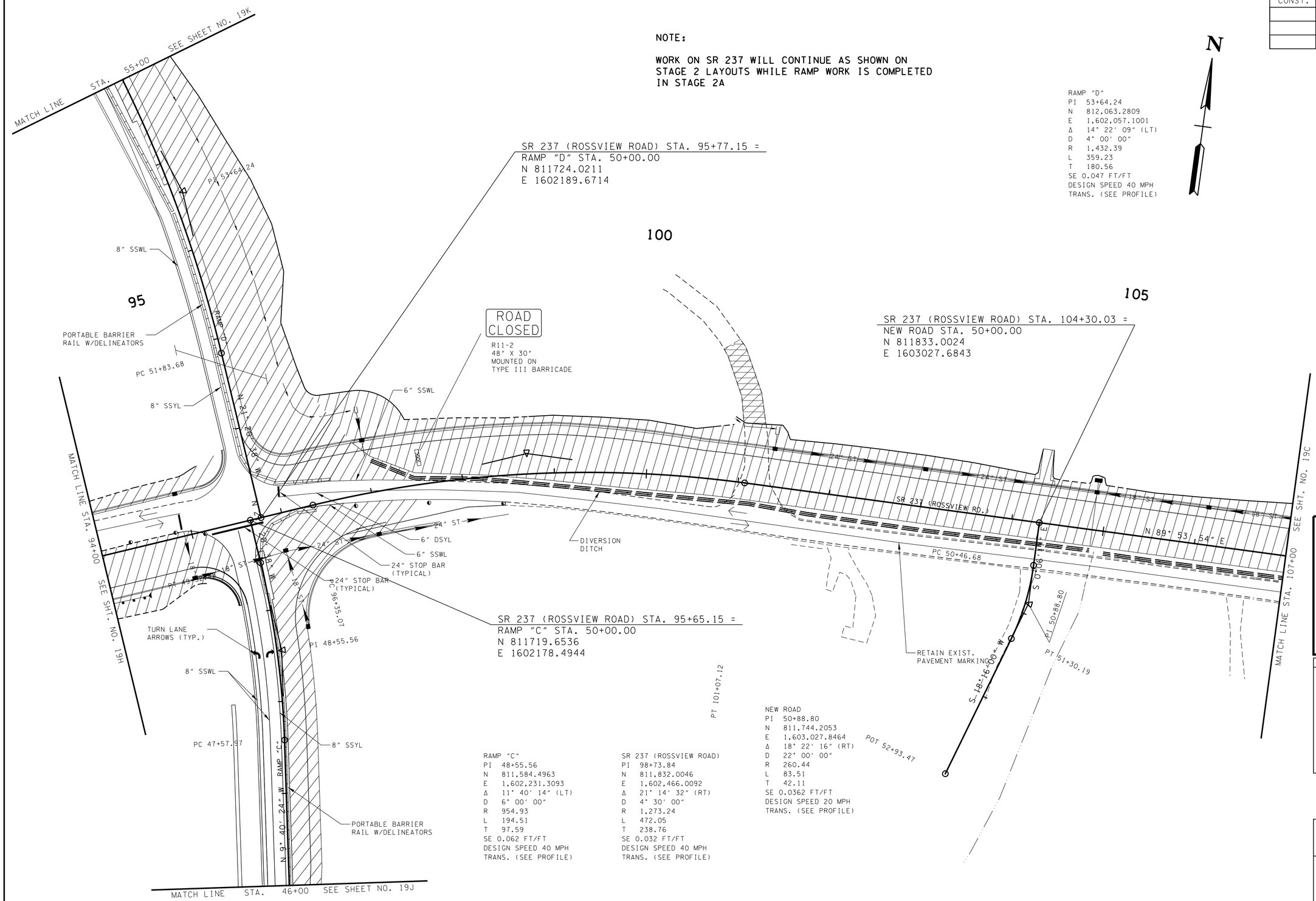
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19I

NOTE:

WORK ON SR 237 WILL CONTINUE AS SHOWN ON STAGE 2 LAYOUTS WHILE RAMP WORK IS COMPLETED IN STAGE 2A



RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22' 09" (LT)
D 4° 00' 00"
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 101310
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

STAGE 2A - WIDENING & CONSTRUCTION

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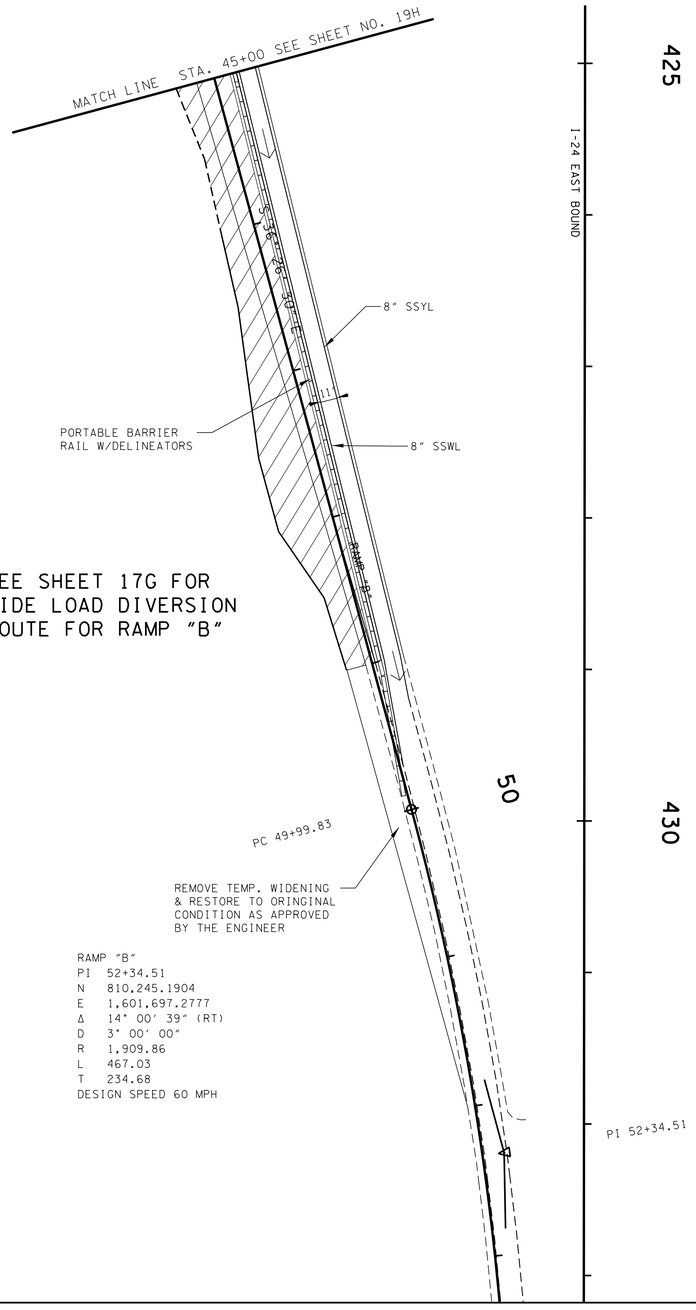
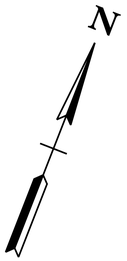
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19J



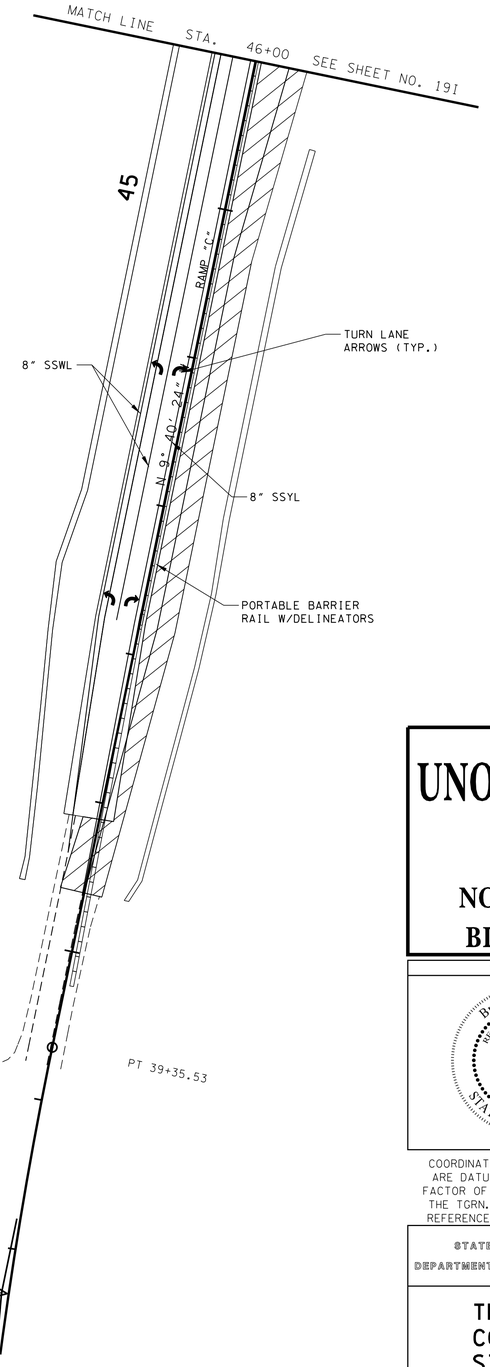
SEE SHEET 17G FOR WIDE LOAD DIVERSION ROUTE FOR RAMP "B"

RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



SEE SHEET 17F FOR ADVANCE WARNING SINGS & DEVICES ON I-24

RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

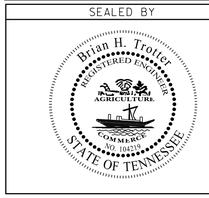


STAGE 2A - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP B & RAMP C
SCALE: 1"= 50'

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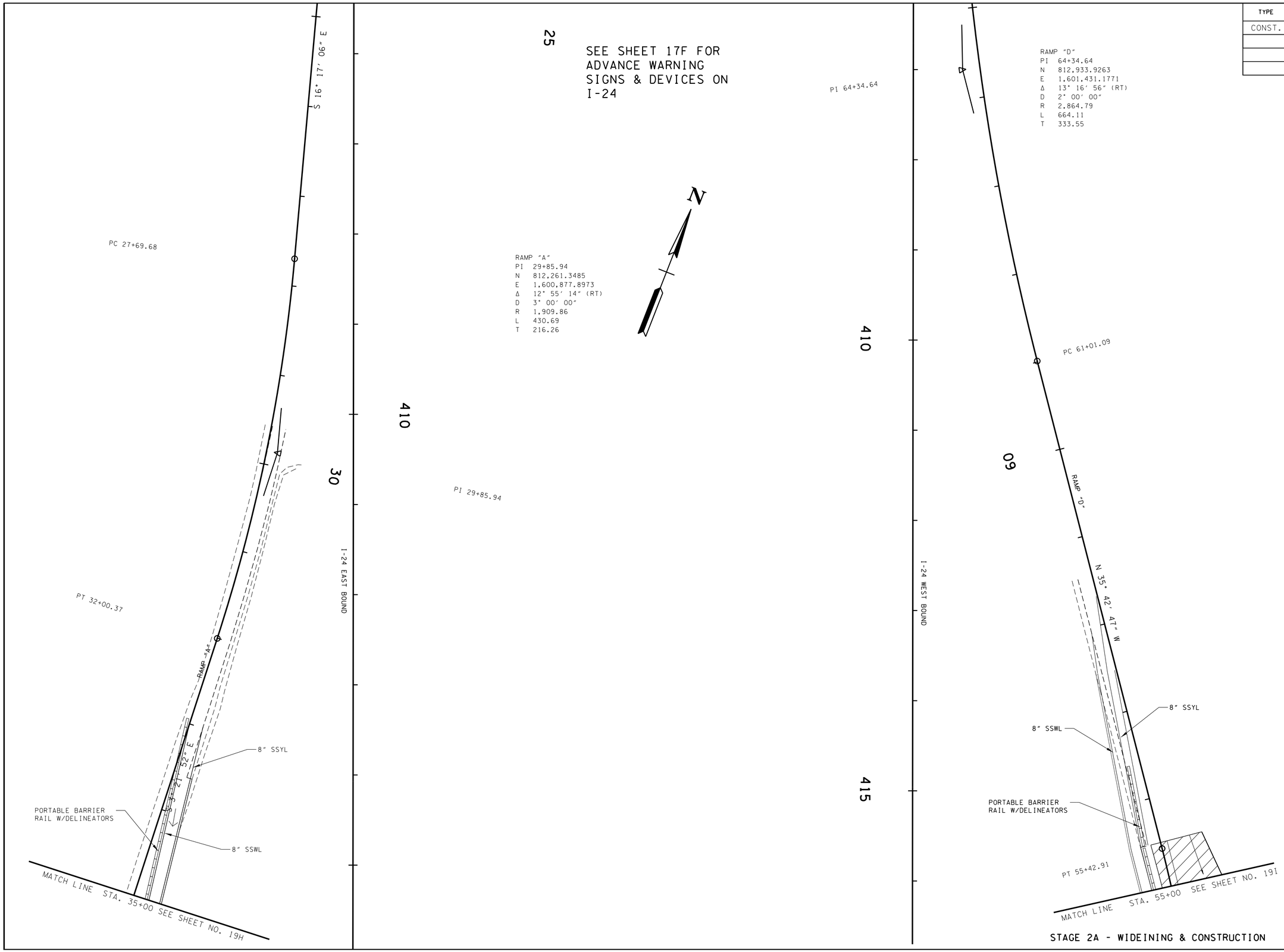
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	19K



STAGE 2A - WIDEINING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108319
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP A & RAMP D

SCALE: 1"= 50′

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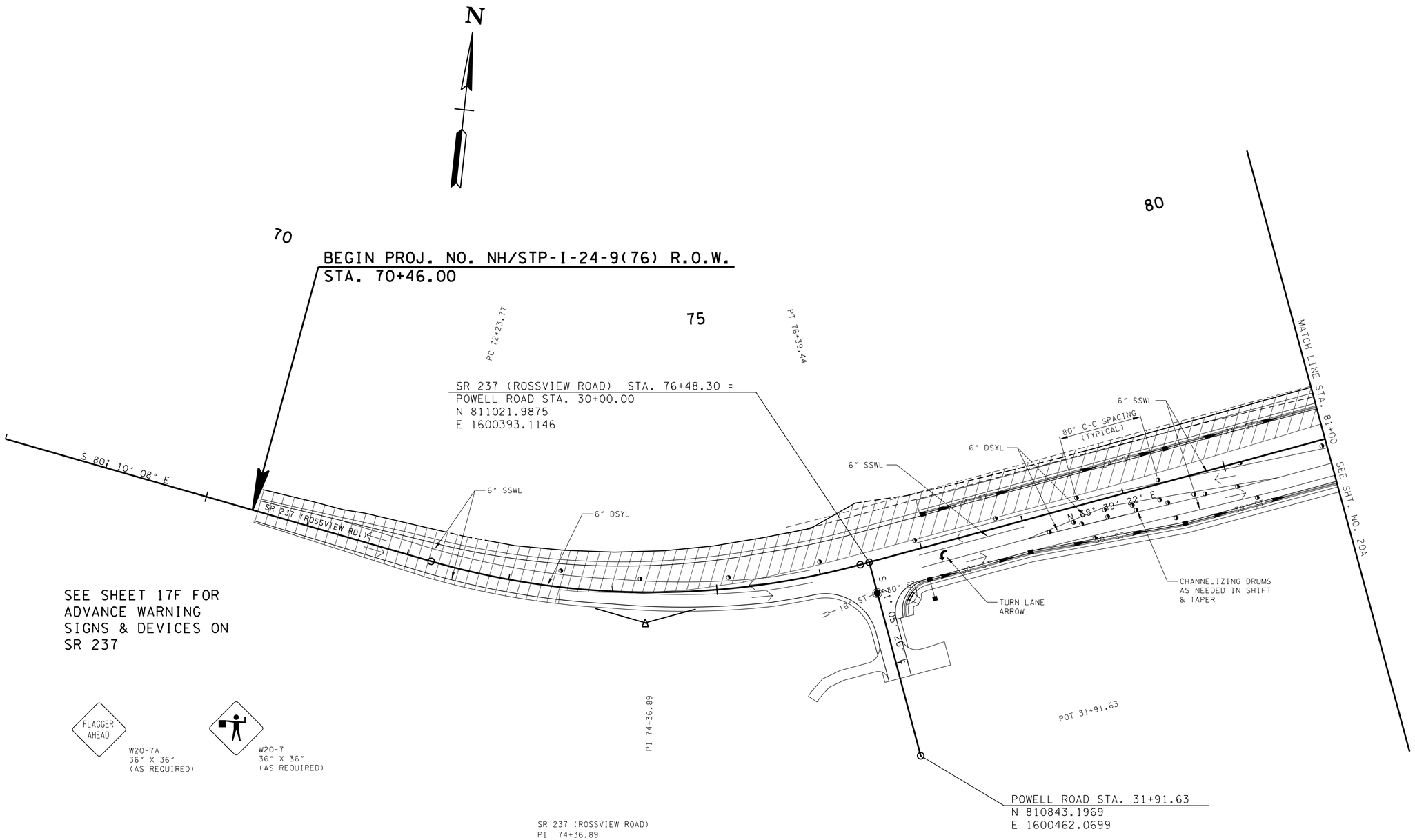
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20



SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

STAGE 3 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE COMMERCE
NO. 108270
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

BEGIN PROJ. TO STA. 81+00
SCALE: 1"= 50'

8/5/2014 8:01:38 PM
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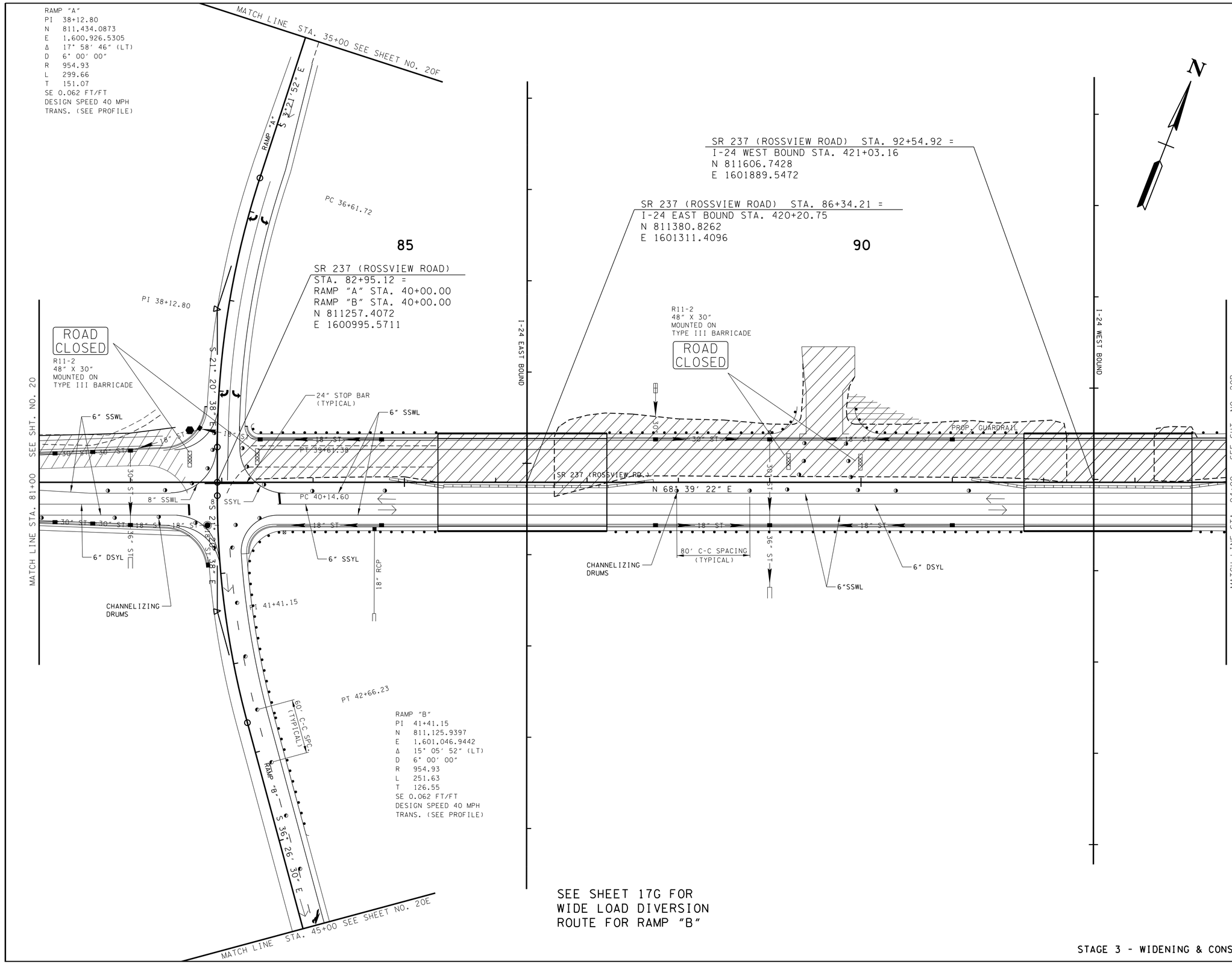
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20A

RAMP "A"
PI 38+12.80
N 811,434.0873
E 1,600,926.5305
Δ 17° 58' 46" (LT)
D 6° 00' 00"
R 954.93
L 299.66
T 151.07
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)



RAMP "B"
PI 41+41.15
N 811,125.9397
E 1,601,046.9442
Δ 15° 05' 52" (LT)
D 6° 00' 00"
R 954.93
L 251.63
T 126.55
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SEE SHEET 17G FOR
WIDE LOAD DIVERSION
ROUTE FOR RAMP "B"

STAGE 3 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 108320
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 81+00 TO STA. 94+00
SCALE: 1"= 50'

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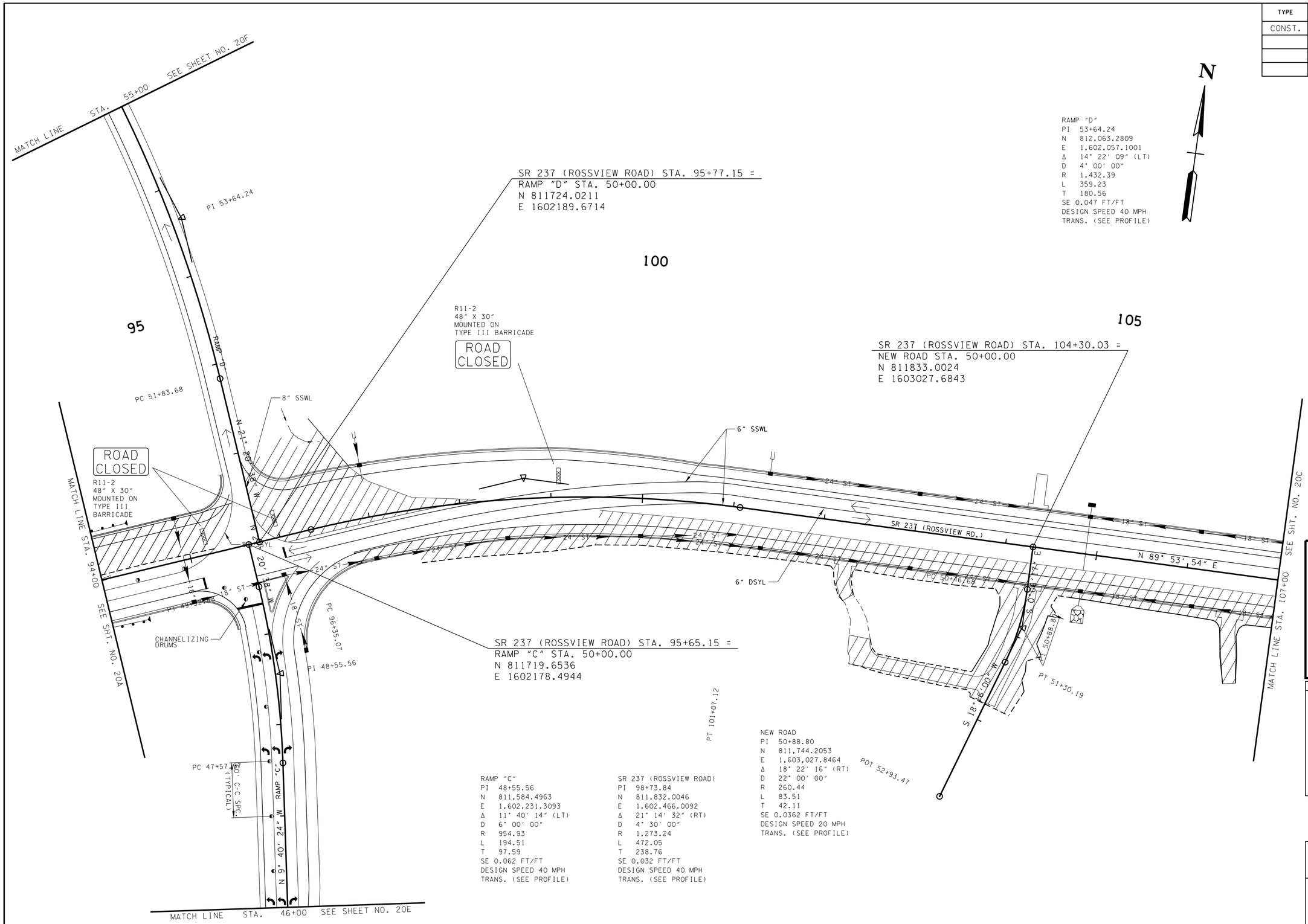
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20B



RAMP "D"
PI 53+64.24
N 812,063.2809
E 1,602,057.1001
Δ 14° 22' 09" (LT)
D 4° 00' 00"
R 1,432.39
L 359.23
T 180.56
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40' 14" (LT)
D 6° 00' 00"
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14' 32" (RT)
D 4° 30' 00"
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22' 16" (RT)
D 22° 00' 00"
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 94+00 TO STA. 107+00
SCALE: 1"= 50'

STAGE 3 - WIDENING & CONSTRUCTION

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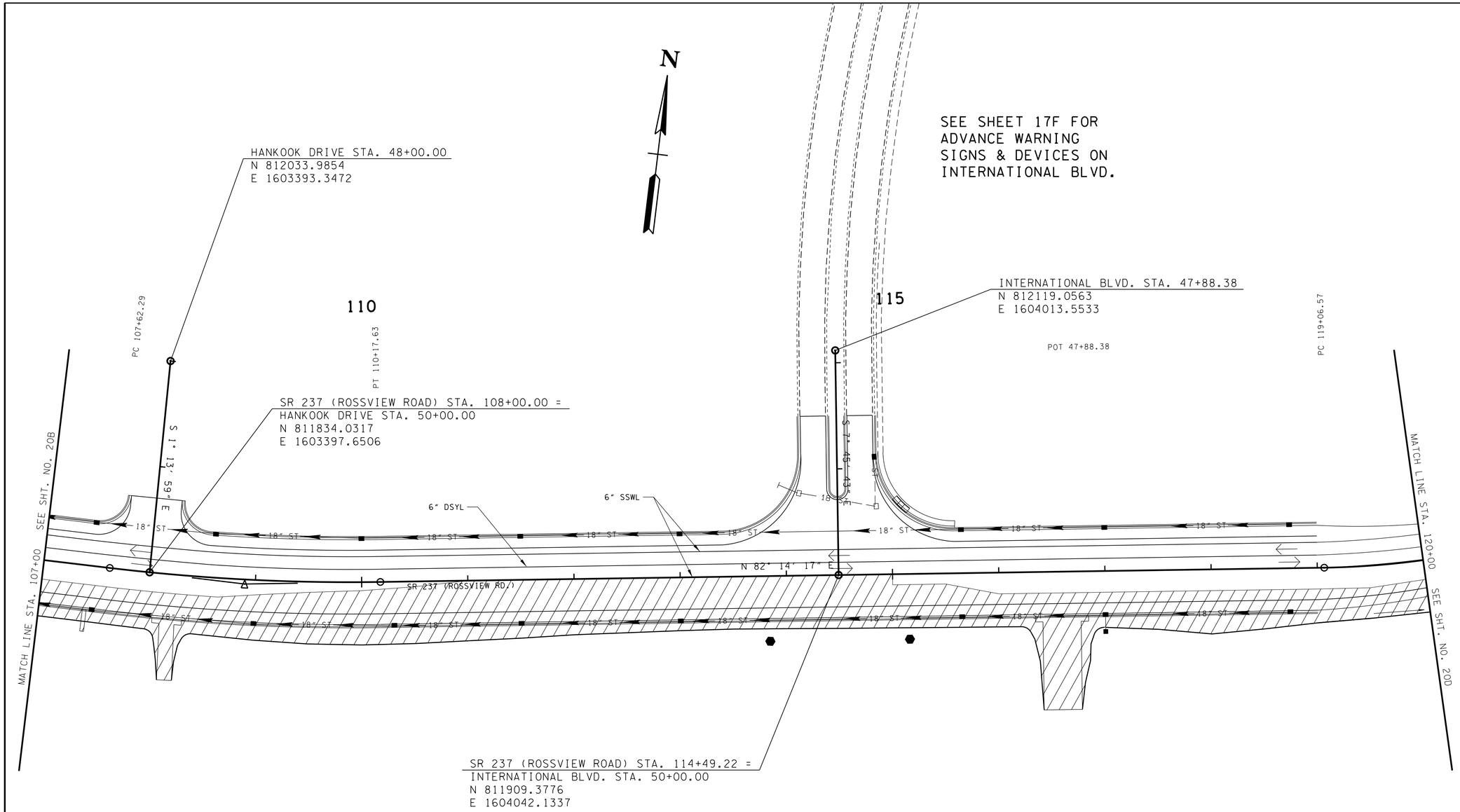
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20C



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39' 36" (LT)
D 3° 00' 00"
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

STAGE 3 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104319
STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 107+00 TO STA. 120+00
SCALE: 1"= 50'

8/5/2014 8:01:39 PM
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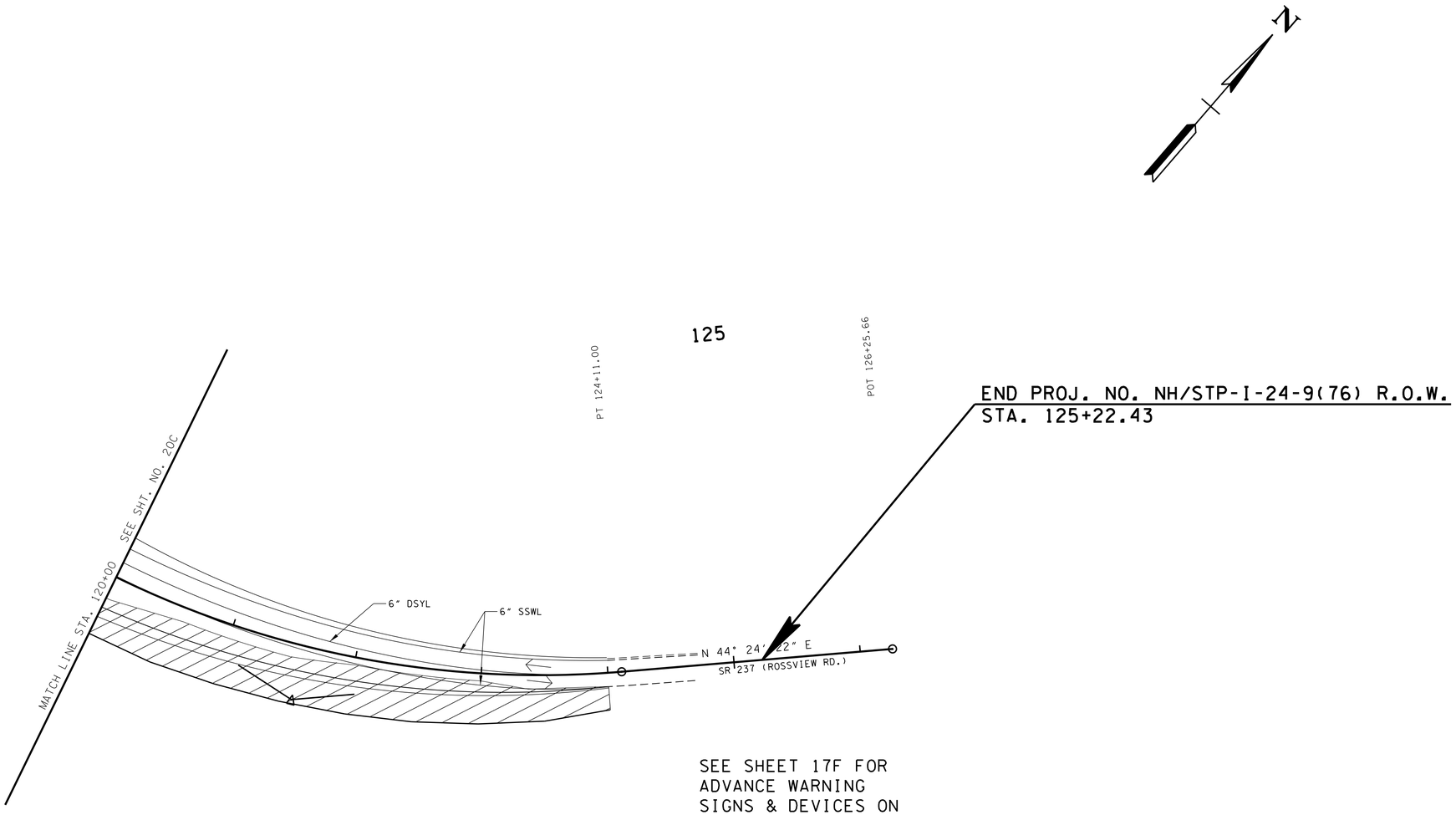
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20D



SEE SHEET 17F FOR ADVANCE WARNING SIGNS & DEVICES ON SR 237

W20-7
36" X 36"
(AS REQUIRED)

W20-7A
36" X 36"
(AS REQUIRED)

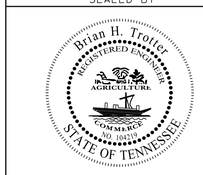
SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

STAGE 3 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

STA. 120+00 TO END PROJ.
SCALE: 1"= 50'

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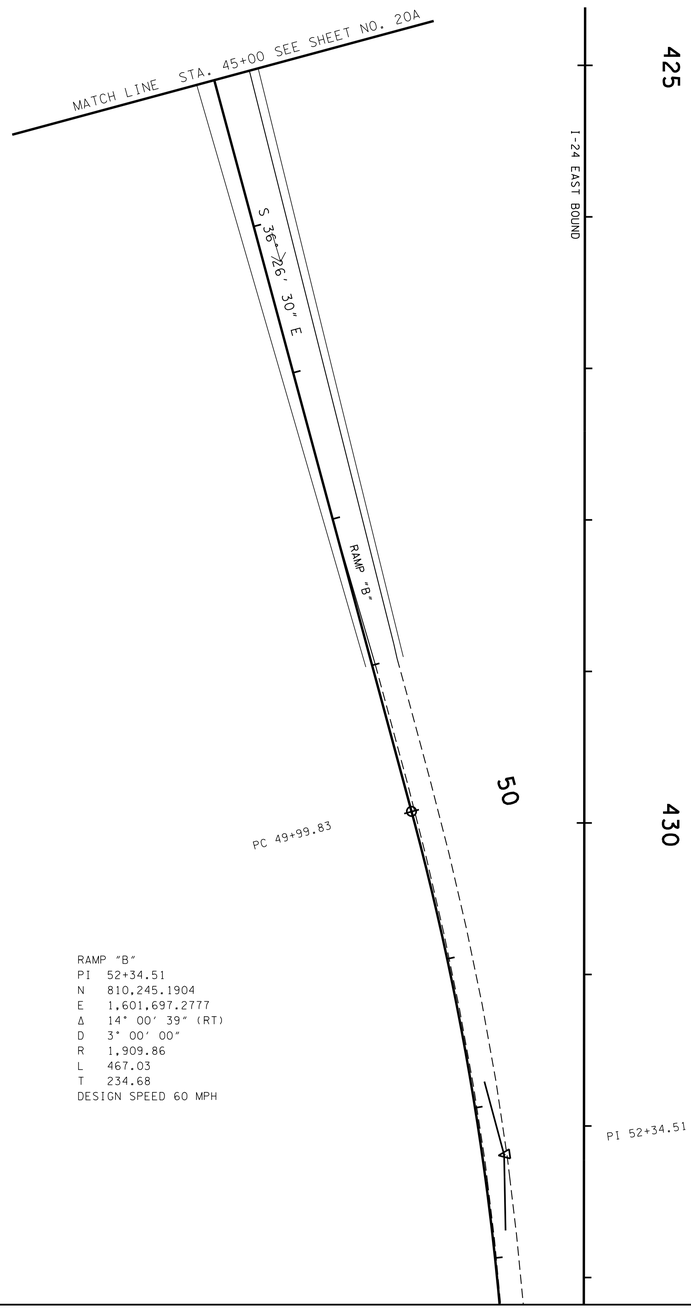
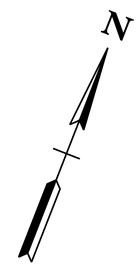
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20E

SEE SHEET 17G FOR
WIDE LOAD DIVERSION
ROUTE FOR RAMP "B"

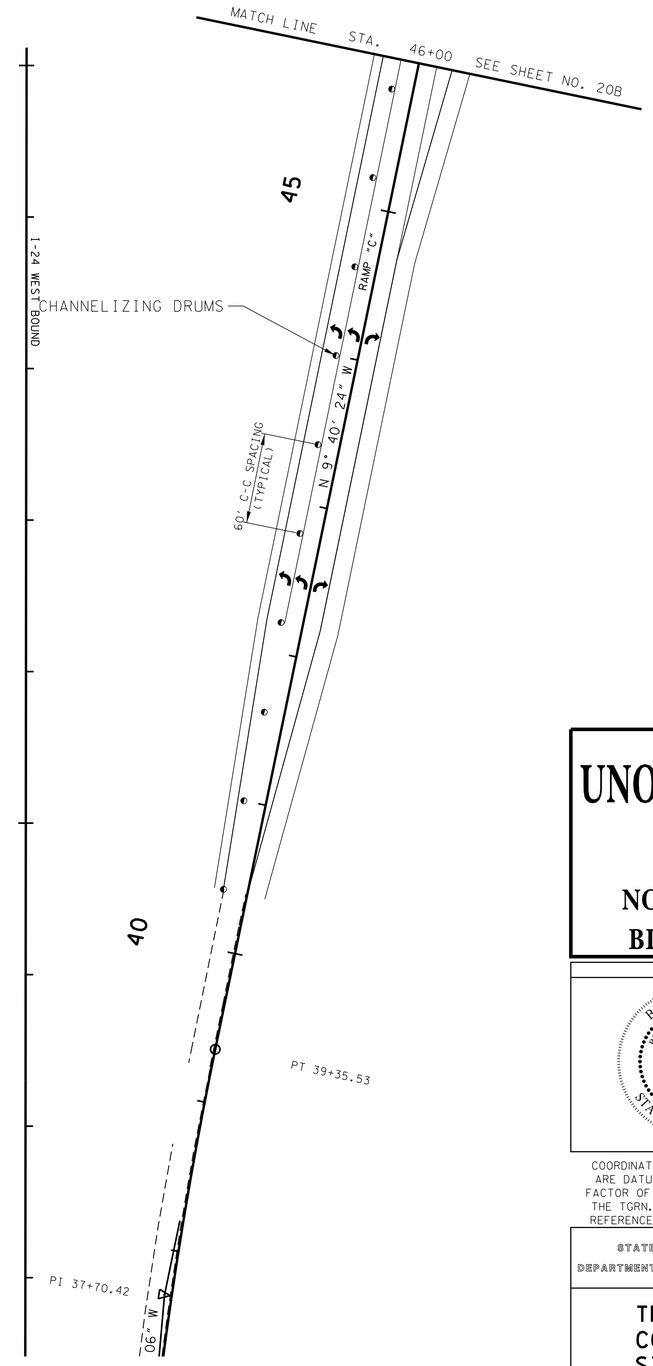


RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



SEE SHEET 17F FOR
ADVANCE WARNING
SINGS & DEVICES
ON I-24

RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH

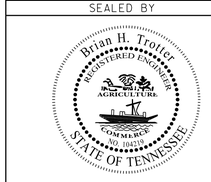


STAGE 3 - WIDENING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP B & RAMP C

SCALE: 1"= 50'

3/5/2014 8:01:40 PM
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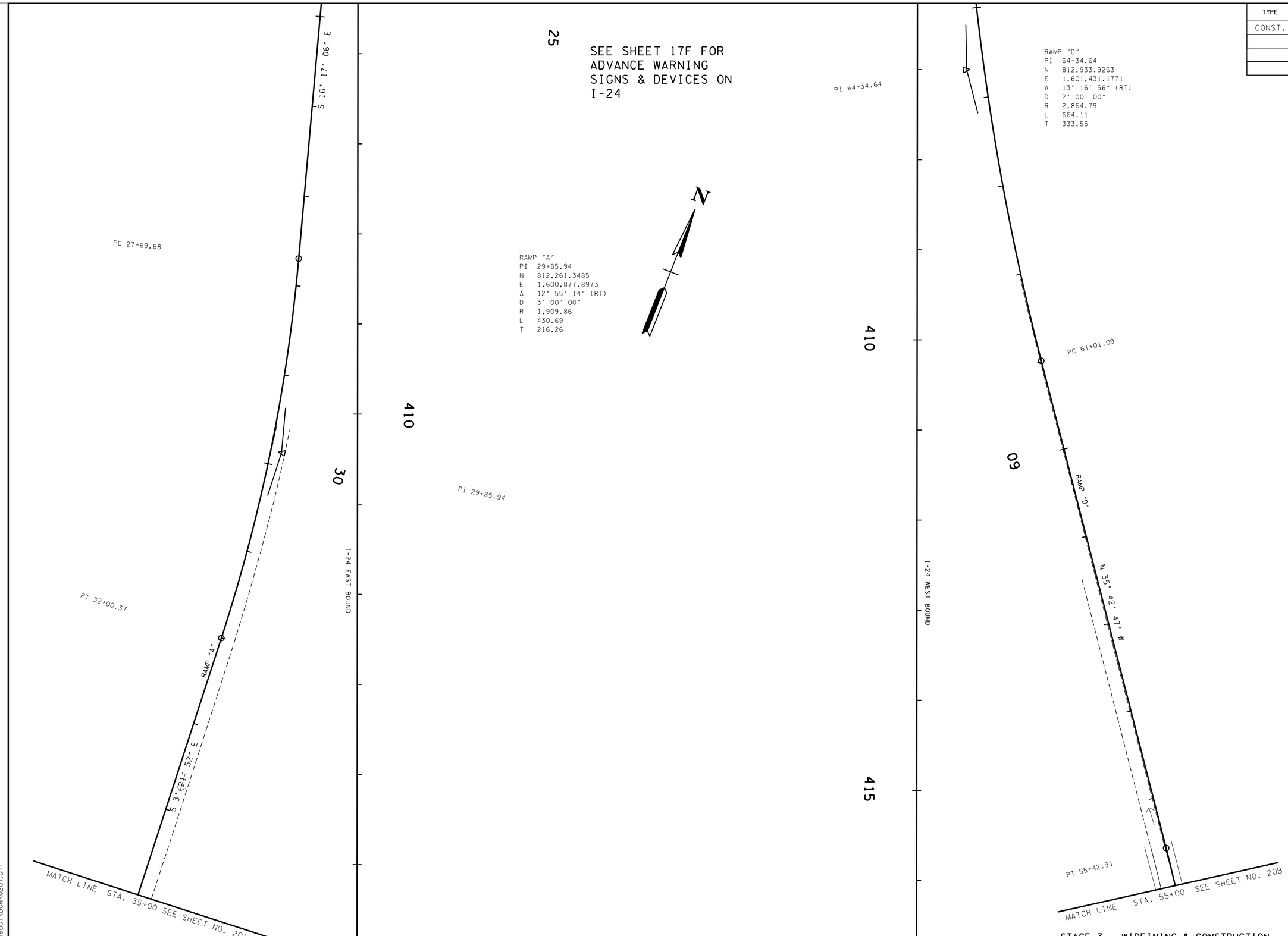
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20F



STAGE 3 - WIDEINING & CONSTRUCTION

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

RAMP A & RAMP D

SCALE: 1"= 50′

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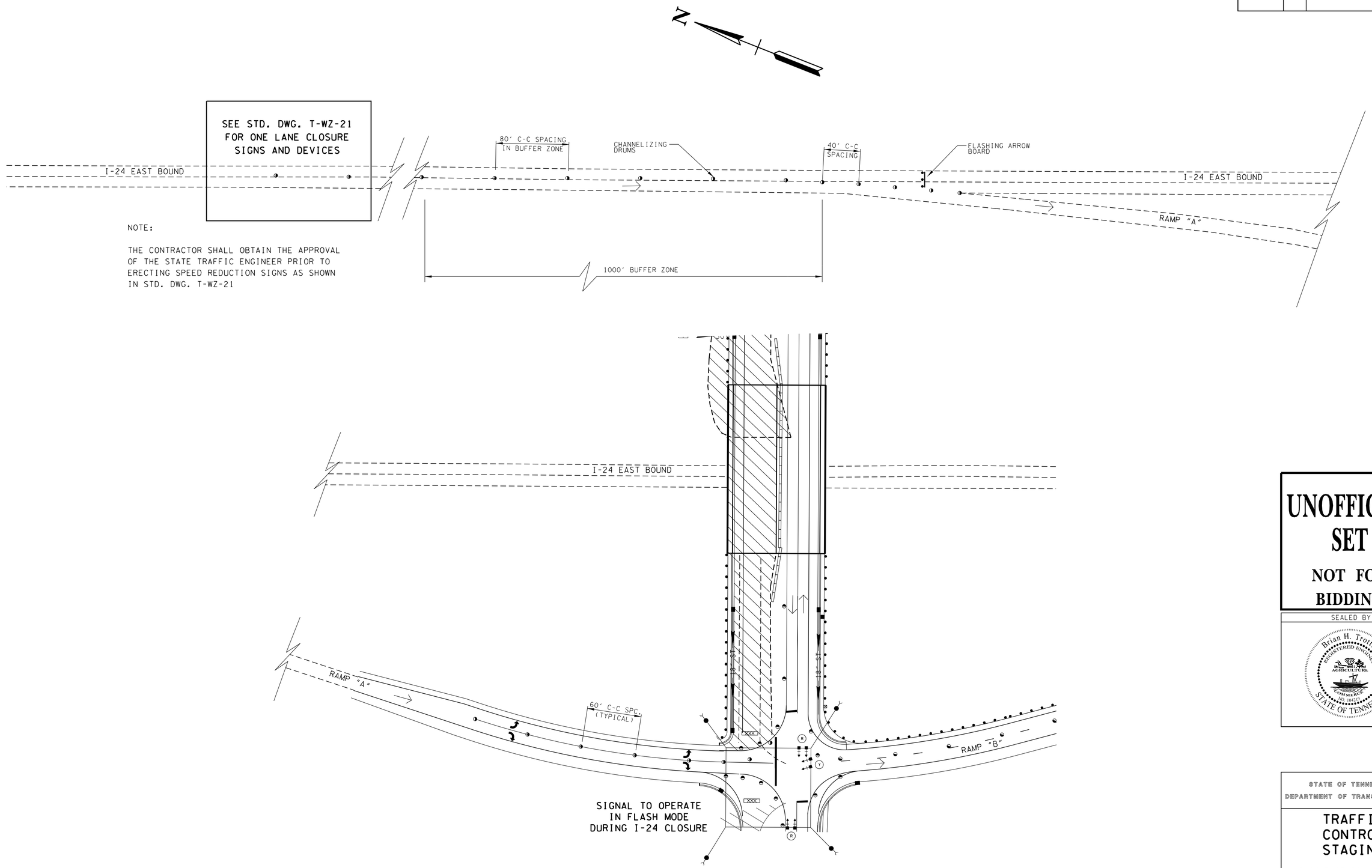
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20G



NOTE:

THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE STATE TRAFFIC ENGINEER PRIOR TO ERECTING SPEED REDUCTION SIGNS AS SHOWN IN STD. DWG. T-WZ-21

STAGE 3A - I-24 CLOSURE (OPTIONAL)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104239
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL
STAGING

I-24 EAST BOUND LANES
SCALE: 1"= 50'

8/5/2014 8:01:40 PM
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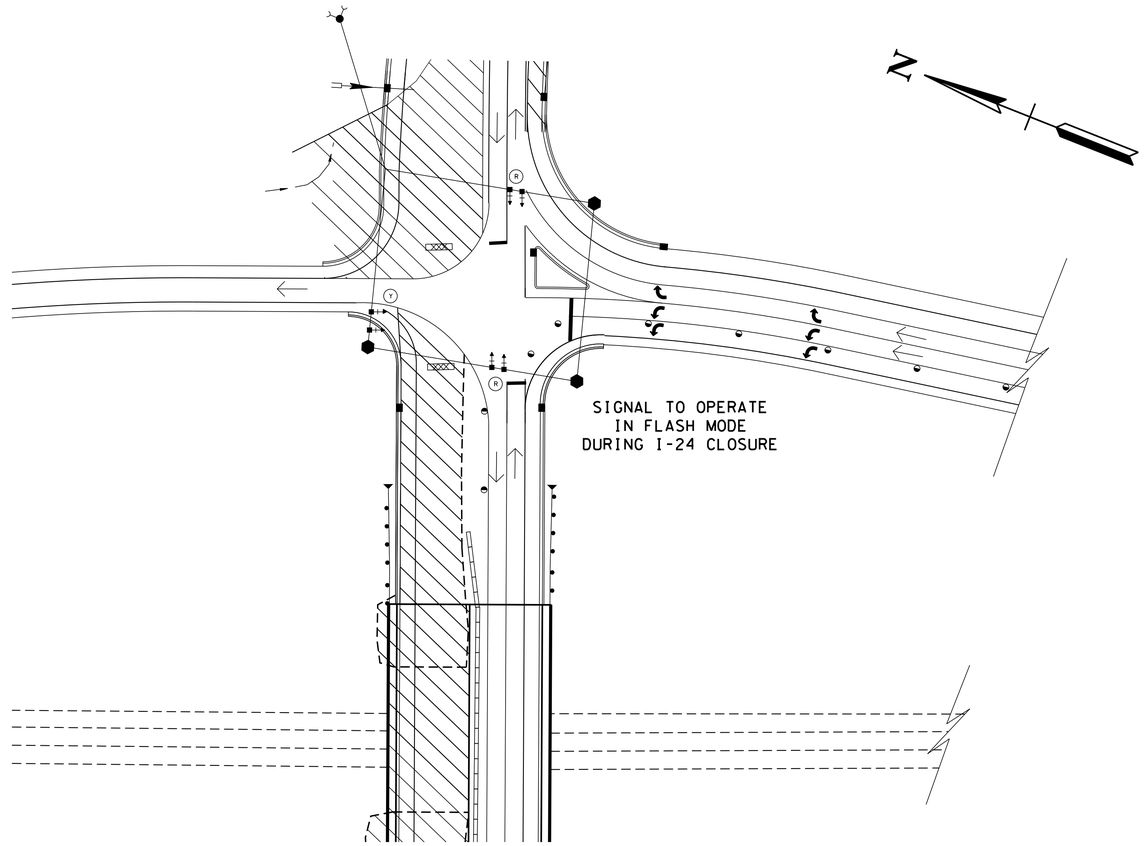
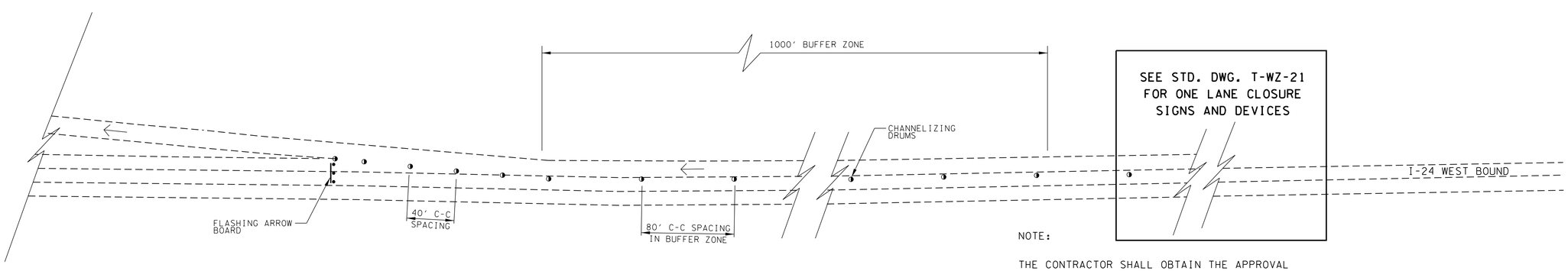
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	20H





NOTE:

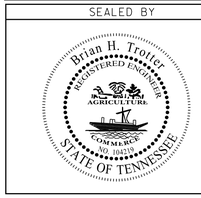
THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE STATE TRAFFIC ENGINEER PRIOR TO ERECTING SPEED REDUCTION SIGNS AS SHOWN IN STD. DWG. T-WZ-21

STAGE 3A - I-24 CLOSURE (OPTIONAL)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING

I-24 WEST BOUND LANES

SCALE: 1"= 50'

8/6/2014 11:34:05 AM
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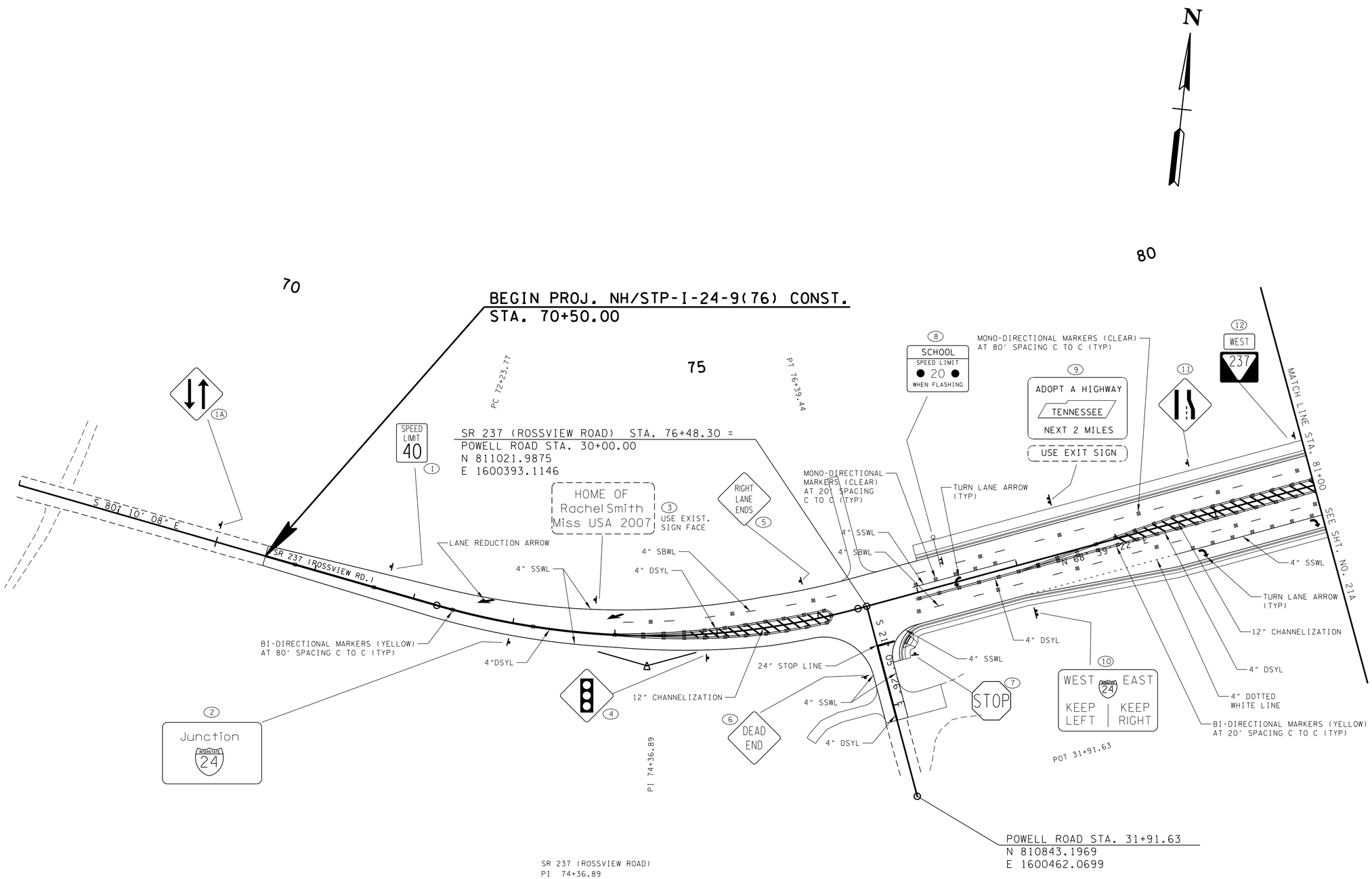
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21



SR 237 (ROSSVIEW ROAD)
PI 74+36.89
N 810,941.1963
E 1,600,186.3637
Δ 31° 10' 30" (LT)
D 7° 30' 00"
R 763.94
L 415.67
T 213.12
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

BEGIN PROJ. TO STA. 81+00

SCALE: 1"= 50'

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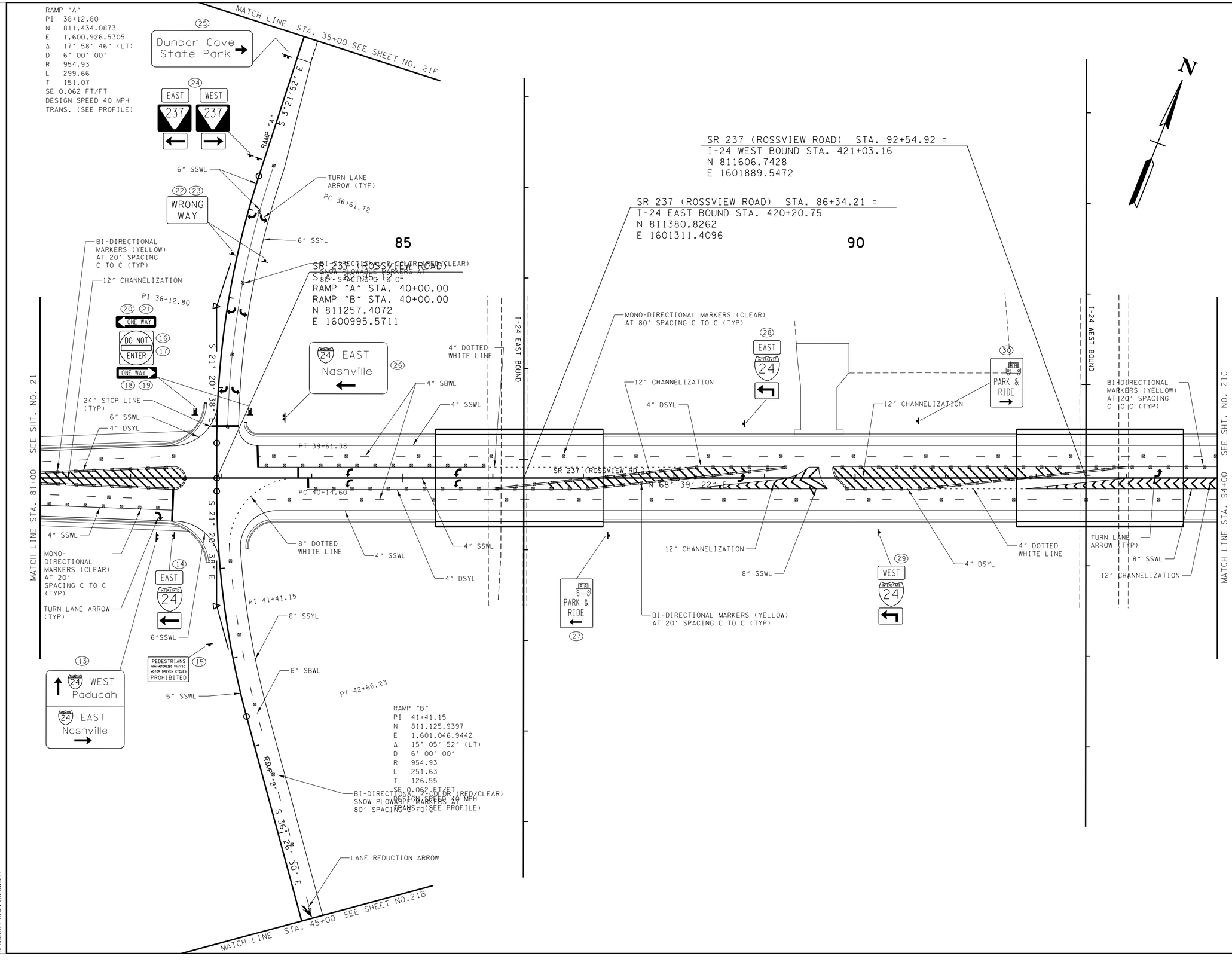
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21A



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

STA. 81+00 TO STA. 94+00

SCALE: 1″= 50′

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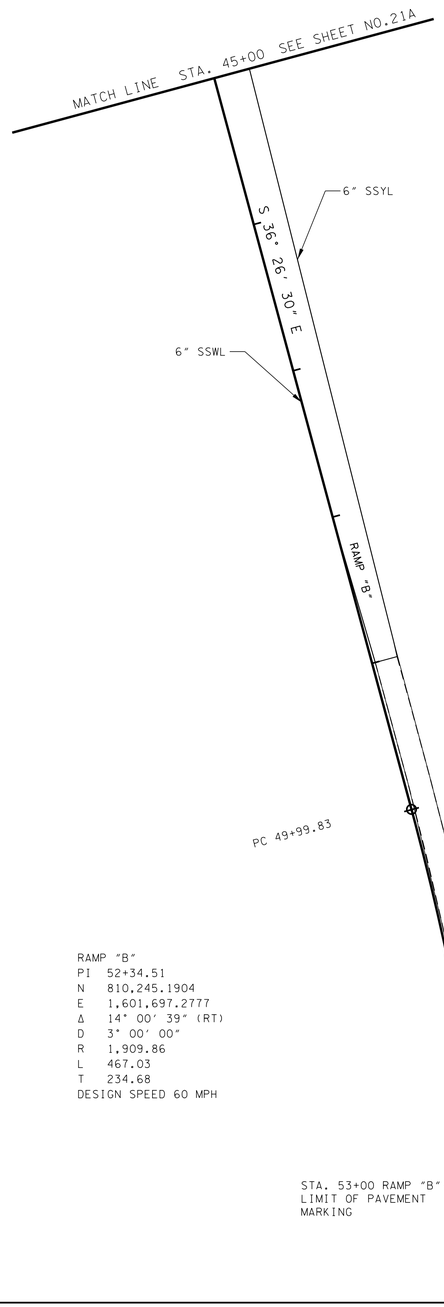
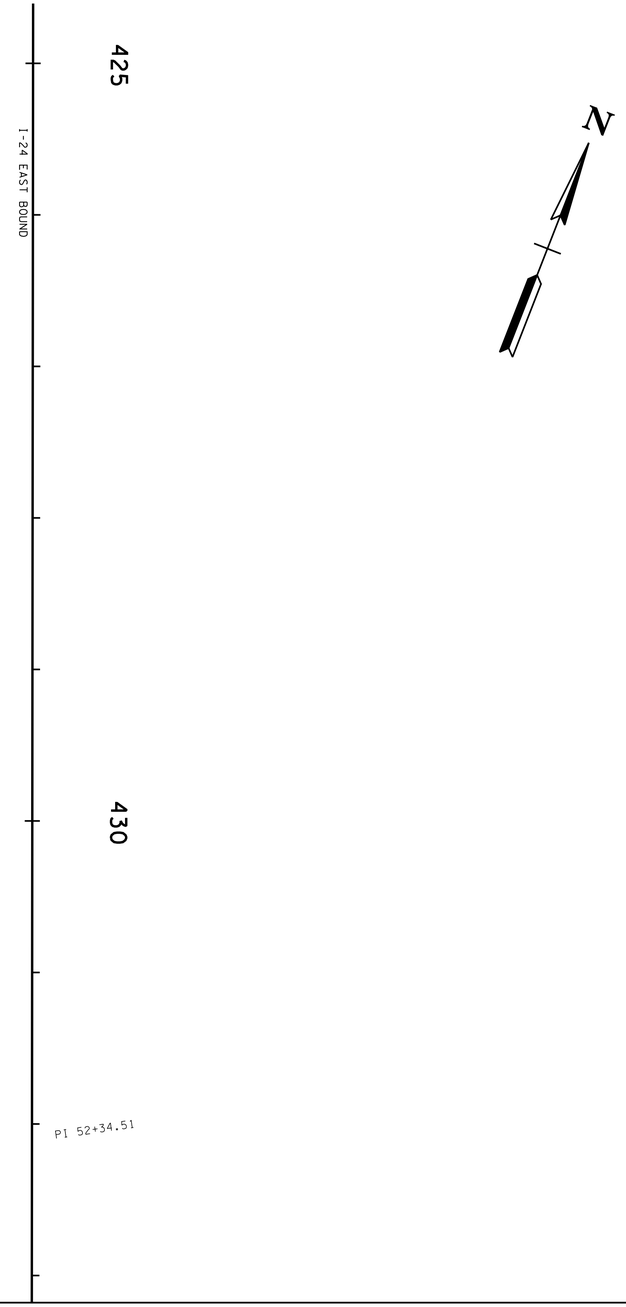
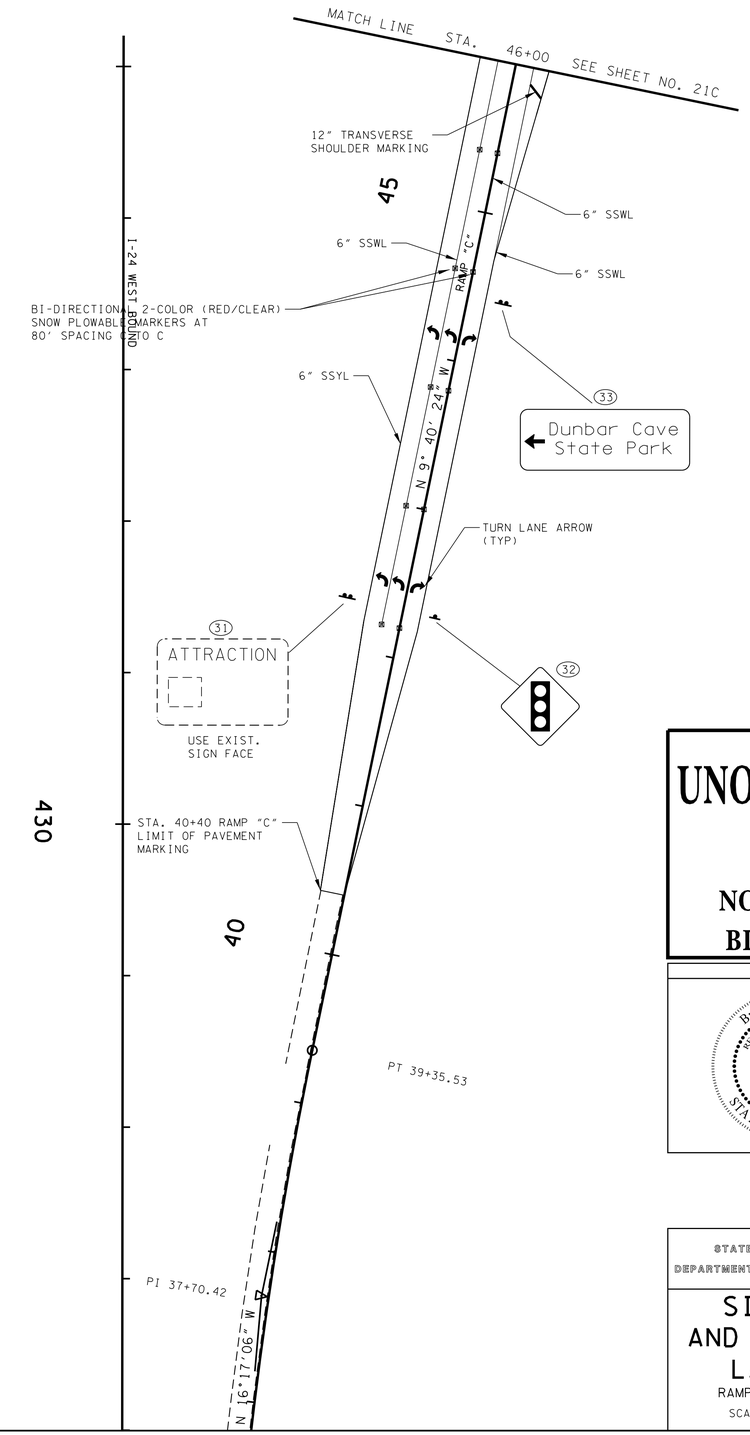
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21B



RAMP "B"
PI 52+34.51
N 810,245.1904
E 1,601,697.2777
Δ 14° 00' 39" (RT)
D 3° 00' 00"
R 1,909.86
L 467.03
T 234.68
DESIGN SPEED 60 MPH



RAMP "C"
PI 37+70.42
N 810,514.4213
E 1,602,413.7069
Δ 6° 36' 42" (RT)
D 2° 00' 00"
R 2,864.79
L 330.59
T 165.48
DESIGN SPEED 60 MPH



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SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

RAMP B & RAMP C

SCALE: 1"= 50'

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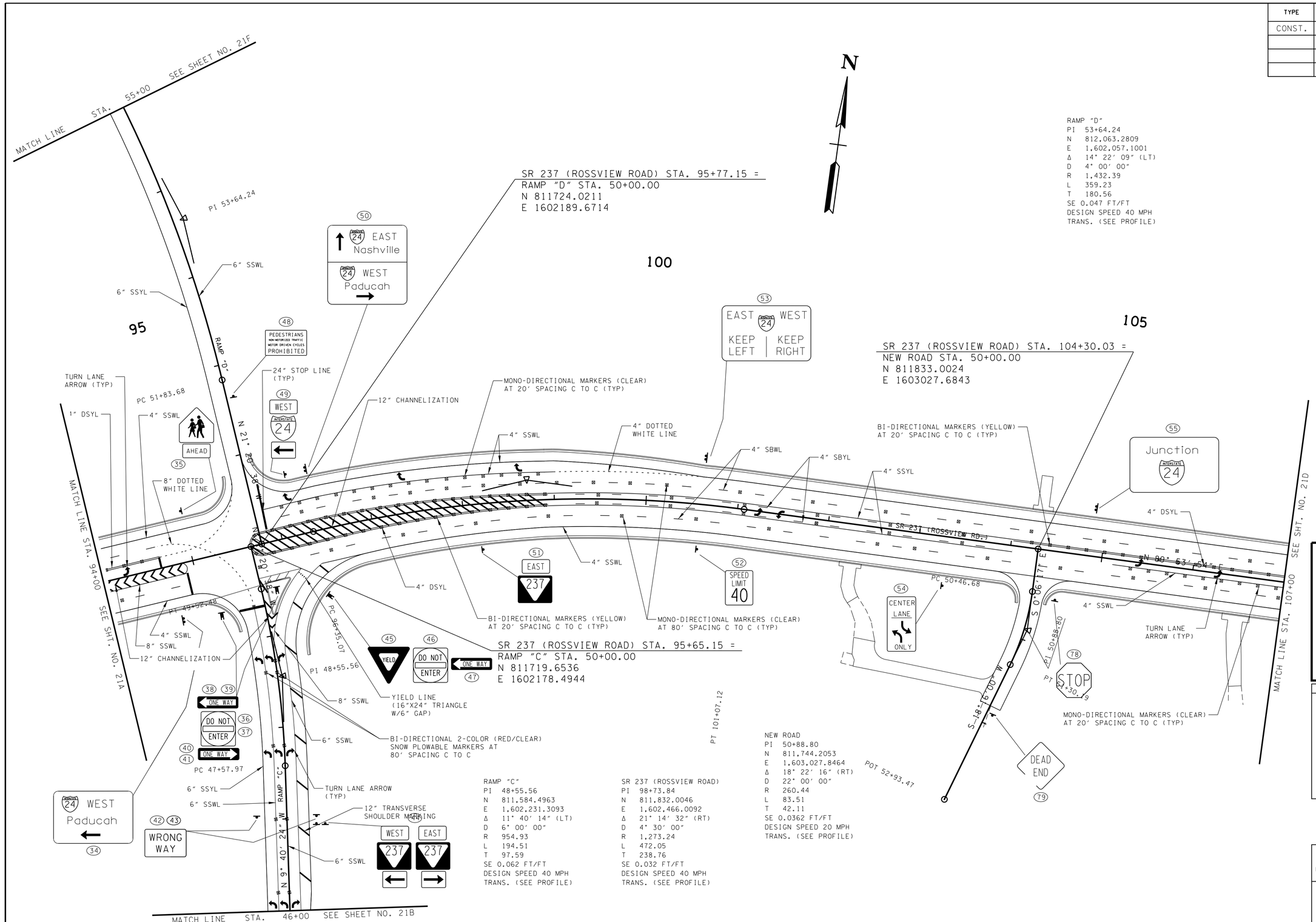
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21C



RAMP "C"
PI 48+55.56
N 811,584.4963
E 1,602,231.3093
Δ 11° 40′ 14″ (LT)
D 6° 00′ 00″
R 954.93
L 194.51
T 97.59
SE 0.062 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

SR 237 (ROSSVIEW ROAD)
PI 98+73.84
N 811,832.0046
E 1,602,466.0092
Δ 21° 14′ 32″ (RT)
D 4° 30′ 00″
R 1,273.24
L 472.05
T 238.76
SE 0.032 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

NEW ROAD
PI 50+88.80
N 811,744.2053
E 1,603,027.8464
Δ 18° 22′ 16″ (RT)
D 22° 00′ 00″
R 260.44
L 83.51
T 42.11
SE 0.0362 FT/FT
DESIGN SPEED 20 MPH
TRANS. (SEE PROFILE)

UNOFFICIAL SET

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SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

STA. 94+00 TO STA. 107+00

SCALE: 1″= 50′

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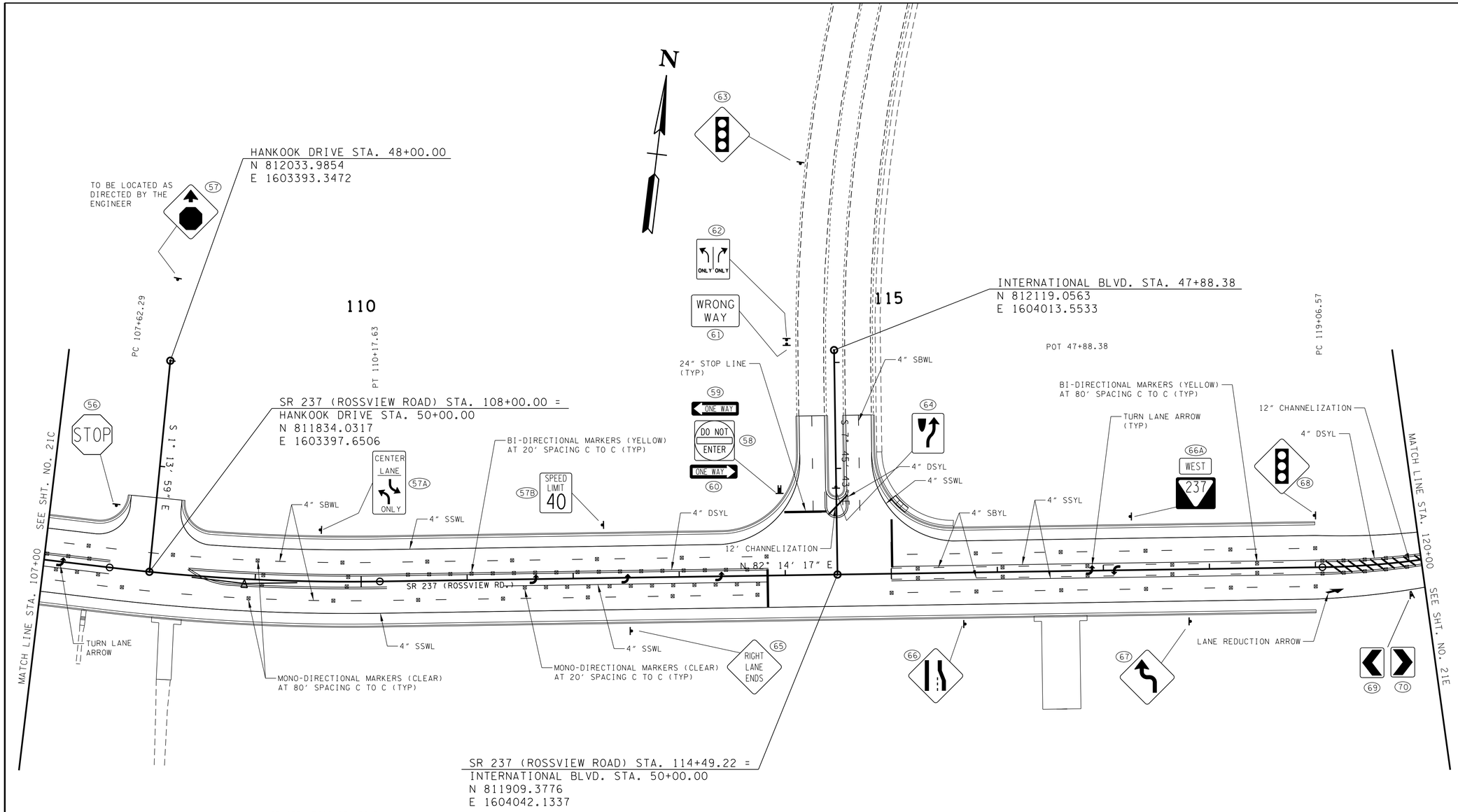
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21D



SR 237 (ROSSVIEW ROAD)
PI 108+90.15
N 811,833.8197
E 1,603,487.8078
Δ 7° 39' 36" (LT)
D 3° 00' 00"
R 1,909.86
L 255.34
T 127.86
SE 0.027 FT/FT
DESIGN SPEED 40 MPH
TRANS. (SEE PROFILE)

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DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

STA. 107+00 TO STA. 120+00

SCALE: 1"= 50'

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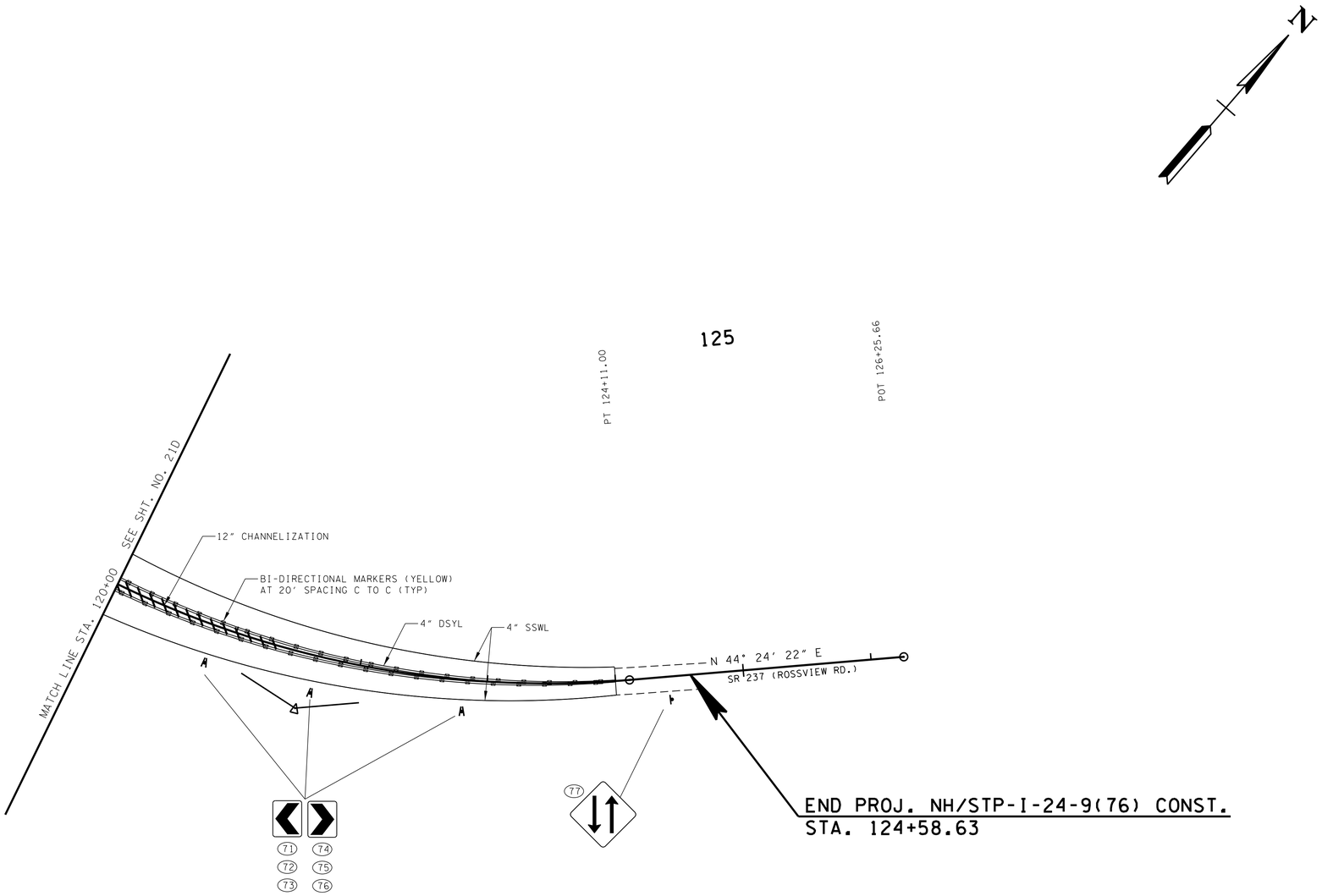
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	21E

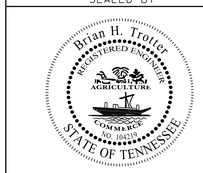


SR 237 (ROSSVIEW ROAD)
PI 121+68.37
N 812,006.5026
E 1,604,754.6859
Δ 37° 49' 56" (LT)
D 7° 30' 00"
R 763.94
L 504.43
T 261.80
SE 0.038 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH (SEE PROFILE)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

STA. 120+00 TO END PROJ.

SCALE: 1"= 50'

8/5/2014 8:01:43 PM
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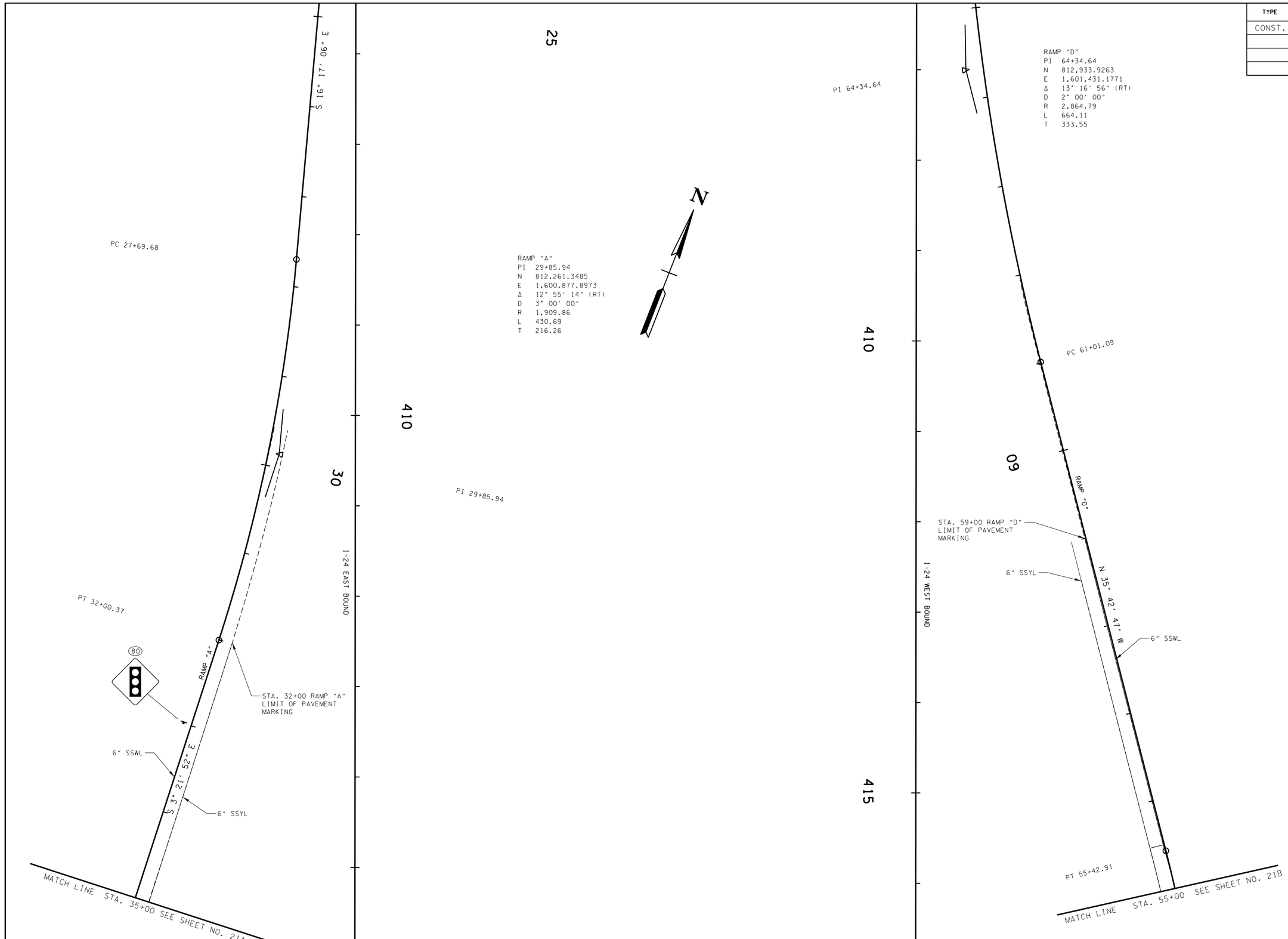
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.		NH/STP-I-24-9(76)	21F



UNOFFICIAL SET

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Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND MARKING LAYOUT

RAMP A & RAMP D

SCALE: 1"= 50'

8/5/2014 8:01:43 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	22

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

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		R2-1		30"	36"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
52																		h =12'-6"					
57B																		h =12'-6"					
4		W3-3		36"	36"									BLACK RED (REF.) GREEN (REF.)	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				7'-0"	
32																		h =13'-6"					
63																		h =13'-6"					
68																		h =13'-6"					
80																		h =13'-6"					
67		W1-3		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				7'-0"	
69		W1-8L		18"	24"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM	U1	h =12'-0"				5'-0"	
71																		h =12'-0"					
72																		h =12'-0"					
73																		h =12'-0"					
70		W1-8R		18"	24"									BLACK	WHITE (REF.) BLACK	0.080" SHEET ALUMINUM	U1	h =12'-0"				5'-0"	
74																		h =12'-0"					
75																		h =12'-0"					
76																		h =12'-0"					
1A		W6-3		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				5'-0"	
77																		h =13'-6"					
7		R1-1		36"	36"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
56																		h =12'-6"					
78																		h =12'-6"					
45		R1-2		36"X36"	X36"									RED (REF.)	WHITE (REF.)	0.080" SHEET ALUMINUM						7'-0"	MOUNTED BEHIND SIGN NO. 46
57		W3-1		36"	36"									(ARROW) BLACK (STOP) RED (REF.)	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				7'-0"	
64		R4-7		24"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	U3	h =12'-6"				7'-0"	
11		W4-2		36"	36"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				7'-0"	
66																		h =13'-6"					
16		R5-1		36"	36"									WHITE (REF.)	WHITE (REF.) RED (REF.)	0.100" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
17																		h =12'-6"					
36																		h =12'-6"					
37																		h =12'-6"					
46																		h =12'-6"					
58																		h =12'-6"					

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

8/5/2014 8:25:48 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	228

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

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.		
18	ONE WAY	R6-1R		36"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM							MOUNT UNDER SIGN NO. 16
19																							MOUNT UNDER SIGN NO. 17
38																							MOUNT UNDER SIGN NO. 36
39																							MOUNT UNDER SIGN NO. 37
60																							MOUNT UNDER SIGN NO. 58
20	ONE WAY	R6-1L		36"	12"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM							MOUNT UNDER SIGN NO. 16
21																							MOUNT UNDER SIGN NO. 17
40																							MOUNT UNDER SIGN NO. 36
41																							MOUNT UNDER SIGN NO. 37
47																							MOUNT UNDER SIGN NO. 46
59																							MOUNT UNDER SIGN NO. 58
22	WRONG WAY	R5-1A		36"	24"									WHITE (REF.)	RED (REF.)	0.080" SHEET ALUMINUM	P8	h =11'-6"				7'-0"	
23																		h =11'-6"					
42																		h =11'-6"					
43																		h =11'-6"					
61																		h =11'-6"					
5	RIGHT LANE ENDS	W9-1		48"	48"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h_1=14'-6" h_2=15'-0"				7'-0"	
65																		h_1=14'-6" h_2=15'-0"					
54	CENTER LANE ONLY	R3-9B		24"	36"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
57A																		h =12'-6"					
62	ONLY ONLY	R3-8		36"	36"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
27	PARK & RIDE	D4-2L		30"	36"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
30	PARK & RIDE	D4-2R		30"	36"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-6"				7'-0"	
35		S1-1		36"	36"									BLACK	YELLOW GREEN (FLOR.)	0.080" SHEET ALUMINUM	P5	h =11'-6"					SLIP BASE REQUIRED USE ITEM NO. 713-11.21. SEE STD. DRAWING T-S-23A
	AHEAD	W16-9P		24"	12"																		
15	PEDESTRIANS NON-MOTORIZED TRAFFIC MOTOR DRIVEN CYCLES PROHIBITED	TN-21		36"	30"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h =12'-0"				7'-0"	
48																		h =12'-0"					
6	DEAD END	W14-1		30"	30"									BLACK	YELLOW (REF.)	0.080" SHEET ALUMINUM	P8	h =13'-0"				5'-0"	
79																		h =13'-0"					
8	SCHOOL SPEED LIMIT ● 20 ● WHEN FLASHING	TN-8-OH		48"	36"									BLACK	YELLOW GREEN (FLOR.) WHITE	0.100" SHEET ALUMINUM							TO BE PAID FOR UNDER ITEM NO. 730-01.08 15'-0" MAST-ARM ITEM NO. 730-23.40

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DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	22B

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

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.		
9	ADOPT A HIGHWAY Tennessee NEXT 2 MILES USE EXIT SIGN TN-43		48" 48"	24" 18"									WHITE (REF.)	GREEN (REF.)	0.100" SHEET ALUMINUM	U3	h_1=14'-6" h_2=15'-0"				7'-0"	USE EXISTING LOWER SIGN
14	EAST M3-2 INTERSTATE 24 M1-1 M6-1		24" 24" 21"	12" 24" 15"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h =14'-0"				7'-0"	
28	EAST M3-2 INTERSTATE 24 M1-1 M5-1		24" 24" 21"	12" 24" 15"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h =14'-0"				7'-0"	
49	WEST M3-4 INTERSTATE 24 M1-1 M6-1		24" 24" 21"	12" 24" 15"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h =14'-0"				7'-0"	
29	WEST M3-4 INTERSTATE 24 M1-1 M5-1		24" 24" 21"	12" 24" 15"									WHITE (REF.)	BLUE (REF.)	0.080" SHEET ALUMINUM	P8	h =14'-0"				7'-0"	
12	WEST M3-4 237 TN-6B		24" 30"	12" 24"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h =13'-0"				7'-0"	
66A																	h =13'-0"					
51	EAST M3-2 237 TN-6B		24" 30"	12" 24"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	h =13'-0"				7'-0"	
44	M3-4 WEST 237 TN-6B EAST 237 M3-2 TN-6B M6-1 ← → M6-1		24" 30" 21"	12" 24" 15"									BLACK	(REF.) WHITE	0.080" SHEET ALUMINUM	P8	h_1=14'-0" h_2=14'-6"				7'-0"	
24	M3-2 EAST 237 TN-6B WEST 237 M3-4 TN-6B M6-1 ← → M6-1		24" 30" 21"	12" 24" 15"									BLACK	(REF.) WHITE	0.080" SHEET ALUMINUM	P8	h_1=14'-0" h_2=14'-6"				7'-0"	
2	Junction INTERSTATE 24		6'-0"	5'-0"	6"	1"	8"	6"		EMOD	24"X24"	TYPE "A"	WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSIONS	S4X7.7	h_1=14'-9" h_2=15'-3"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
55																	h_1=14'-9" h_2=15'-3"					

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SIGN SCHEDULE

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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

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.		
26	INTERSTATE 24 EAST Nashville ←		7'-0"	5'-0"	6"	1"	6" 8"	6"		EMOD	24"X24"	TYPE "A"	WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSIONS	S4X7.7	h_1 = 15'-9" h_2 = 16'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
34	INTERSTATE 24 WEST Paducah ←		7'-0"	5'-0"	6"	1"	6" 8"	6"		EMOD	24"X24"	TYPE "A"	WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSIONS	S4X7.7	h_1 = 15'-9" h_2 = 16'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
13	↑ INTERSTATE 24 WEST Paducah INTERSTATE 24 EAST Nashville →		9'-0"	8'-0"	6"	1"	6" 8" 6" 8"	6" 6"		EMOD	24"X24" 24"X24"	TYPE "A"	WHITE (REF.)	GREEN (REF.)	8-12" ALUMINUM EXTRUSIONS	S6X12.5	h_1 = 18'-3" h_2 = 18'-9"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
50	↑ INTERSTATE 24 EAST Nashville INTERSTATE 24 WEST Paducah →		9'-0"	8'-0"	6"	1"	6" 8" 6" 8"	6" 6"		EMOD	24"X24" 24"X24"	TYPE "A"	WHITE (REF.)	GREEN (REF.)	8-12" ALUMINUM EXTRUSIONS	S6X12.5	h_1 = 18'-3" h_2 = 18'-9"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
10	WEST INTERSTATE 24 EAST KEEP LEFT | KEEP RIGHT		7'-0"	5'-0"	6"	1"	6" 8" 8"			EMOD	24"X24"		WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSIONS	S4X7.7	h_1 = 15'-9" h_2 = 16'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
53	EAST INTERSTATE 24 WEST KEEP LEFT | KEEP RIGHT		7'-0"	5'-0"	6"		6" 8" 8"			EMOD	24"X24"		WHITE (REF.)	GREEN (REF.)	5-12" ALUMINUM EXTRUSIONS	S4X7.7	h_1 = 15'-9" h_2 = 16'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
33	← Dunbar Cave State Park		8'-0"	3-0"			8"	6"		"EMOD"		TYPE "A"	WHITE (REF.)	BROWN (REF.)	3-12" ALUMINUM EXTRUSIONS	S3X5.7	h_1 = 13'-9" h_2 = 14'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
25	Dunbar Cave State Park →		8'-0"	3-0"			8"	6"		"EMOD"		TYPE "A"	WHITE (REF.)	BROWN (REF.)	3-12" ALUMINUM EXTRUSIONS	S3X5.7	h_1 = 13'-9" h_2 = 14'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONSI.	2014	NH/STP-I-24-9(76)	22C

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U-POST SUBSTITUTION TABLE

BID ITEM 713-11.01	SUBSTITUTION ALLOWED
2#/FT. U1	2#/FT. MU1 OR 2#/FT. R1
2.5#/FT. U3	2.5#/FT. MU3 OR 3#/FT. R2*
3#/FT. U6	
4#/FT. U7	NO SUBSTITUTES

* PAID AT A RATE OF 2.5#/FT.

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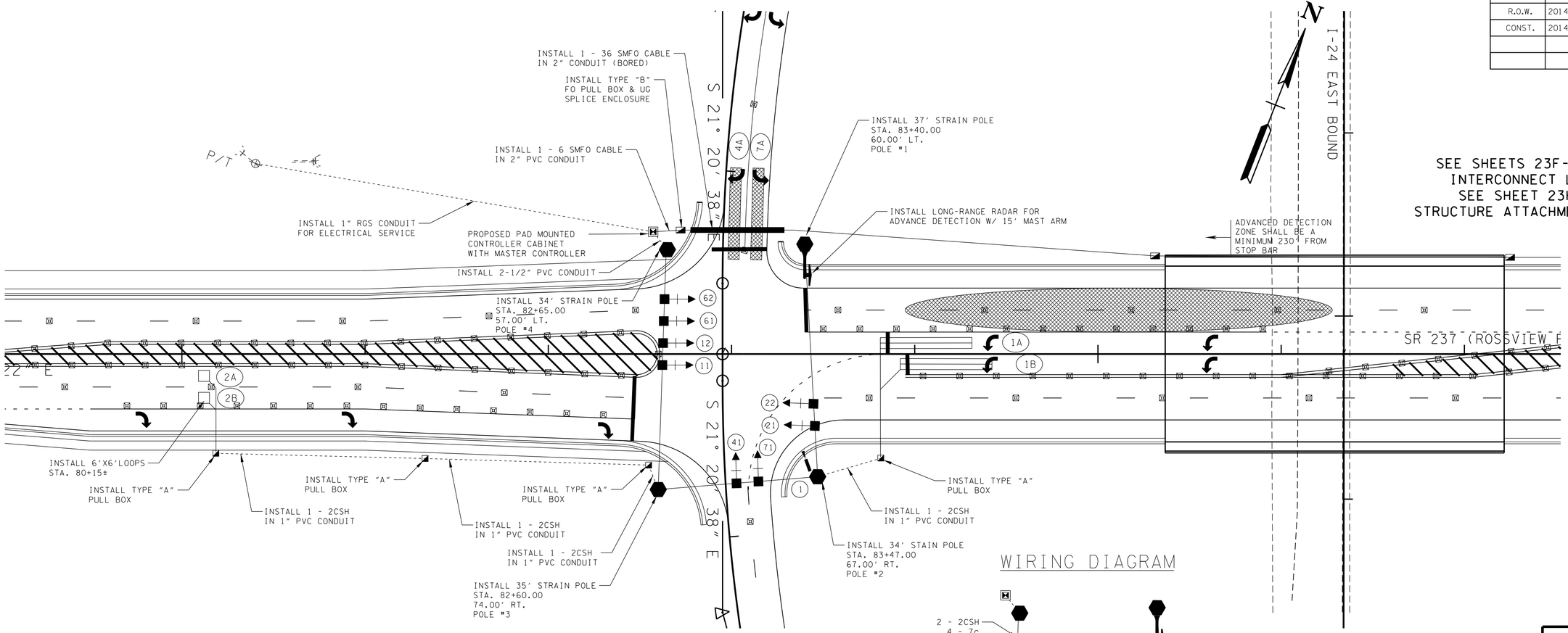
DEPARTMENT OF TRANSPORTATION

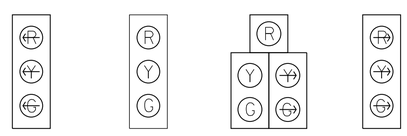
SIGN SCHEDULE

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17
CONST.	2014	NH/STP-I-24-9(76)	23

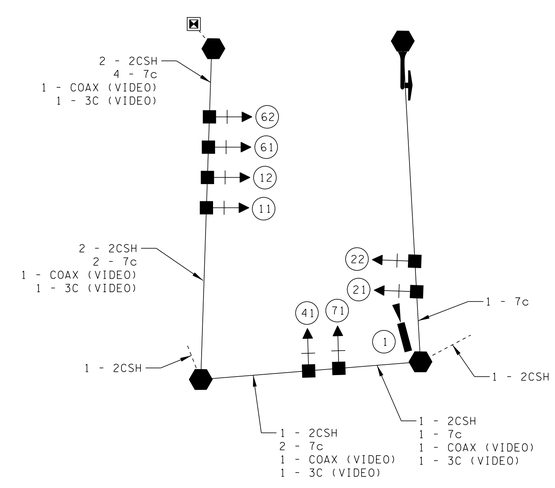


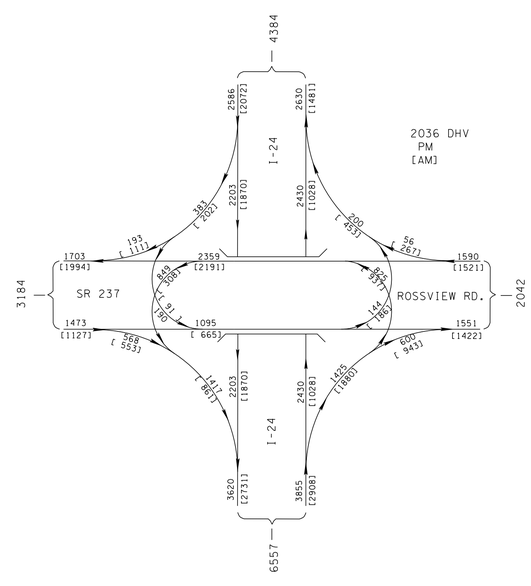
SEE SHEETS 23F-23G FOR INTERCONNECT LAYOUT
SEE SHEET 23H FOR STRUCTURE ATTACHMENT DETAIL

PROPOSED 12" SIGNAL HEADS



WIRING DIAGRAM





SPECIAL NOTES REGARDING SIGNAL HEADS

1. ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSISTS OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

   CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.

2. INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

3. THE CONTRACTOR SHALL ENSURE LED SIGNAL MODULES ARE COMPATIBLE WITH CONFLICT MONITORS AND LOAD SWITCHES.

4. MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTY FOR OPERATION OF THE LED SIGNAL MODULE.

5. ALL SIGNAL HEADS SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY.

6. THE ATTACHMENT OF THE TETHER WIRE TO THE POLE SHALL BE LOCATED BELOW THE LOWEST ELEVATION OF THE SIGNAL HEADS.

SIGNAL SUPPORT POLE DATA

POLE #	STATION SR 237	OFFSET FT.	NORTHING	EASTING	GRND. ELEV. @ POLE	ATTACHMENT ELEV.	MOMENT CAPACITY FT-LBS	FOOTING DEPTH FT.
1	83+40.00	60.00 LT	811329.63	1601015.54	602.90	634.53	123,003	14
2	83+45.00	65.90 RT	811214.18	1601066.02	602.60	634.57	174,217	17
3	82+60.00	74.00 RT	811175.70	1600989.79	601.00	634.06	259,796	21
4	82+65.00	57.00 LT	811299.54	1600946.77	602.75	634.11	214,498	19

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Brian H. Trotter
REGISTERED ENGINEER
No. 108170
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL LAYOUT

SR 237 (ROSSVIEW RD) AND RAMPS A & B

SCALE: 1"=30 '

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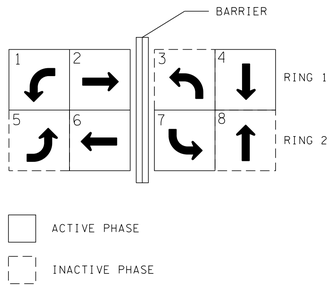
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17A
CONST.	2014	NH/STP-I-24-9(76)	23A

NEMA EIGHT PHASE DESIGNATIONS



* OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
* SINGLE DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
* ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

CONTROLLER PROGRAMMING DATA

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MOVEMENT	WBL	EB		SBL		WB		
PHASE DATA								
MIN GREEN	6.0	15.0		6.0		15.0		
PASSAGE TIME	2.5	3.9		2.5		3.9		
MAXIMUM I	13.5	39.5		13.5		59.5		
MAXIMUM II								
YELLOW	4.0	3.9		4.0		3.9		
RED	2.5	1.6		2.5		1.6		
WALK								
PED CLEAR								
ADDED INITIAL								
MAX INITIAL								
TIME BEFORE REDUC								
TIME TO REDUCE								
MIN GAP								
UNIT DATA								
NON-LOCK MEMORY	NO	NO		YES		NO		
DUAL ENTRY								
LAST CAR PASSAGE								
COND SERVICE								
NO SIMULT GAP								
GENERAL CONTROLS								
INITIALIZATION	INACTIVE	GREEN		INACTIVE		GREEN		
VEHICLE RECALL	NONE	MAX		NONE		MAX		
PEDESTRIAN RECALL								

DAY PLAN	TIME	PLAN	CYCLE LENGTH
1	12:00 AM	FREE	90
	6:00 AM	1/1/1	130
	8:00 AM	FREE	90
	4:00 PM	2/1/2	120
	6:00 PM	FREE	90
2	12:00 AM	FREE	90

PLAN ID			PHASE SPLIT TIMES (SEC)								CYCLE LENGTH (SEC.)	OFFSET (SEC.)
CYCLE	OFFSET	SPLIT	1	2	3	4	5	6	7	8		
1	1	1	25	75		30		100			130	0
2	1	2	40	50		30		90			120	0

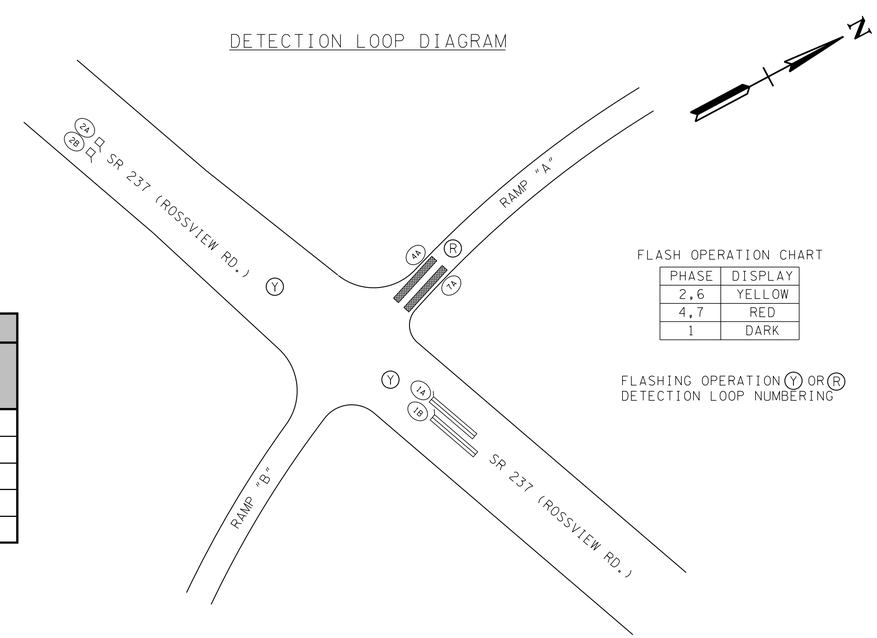
WEEK PLAN ASSIGNMENT

WEEK PLAN	SUN	MON	TUES	WED	THU	FRI	SAT
1	2	1	1	1	1	1	2

VIDEO DETECTOR TARGET ASSIGNMENTS

DETECTION ZONE NO.	CAMERA NO.	ASSOCIATED PHASE	TIMING		DELAY INHIBIT ON GREEN	TARGET AREA	COMMENTS
			EXTEND	DELAY			
4A, 7A	1	4, 7				6' X 50'	

DETECTION LOOP DIAGRAM



FLASH OPERATION CHART

PHASE	DISPLAY
2,6	YELLOW
4,7	RED
1	DARK

FLASHING OPERATION (Y) OR (R)
DETECTION LOOP NUMBERING

LOOP AND DETECTOR ASSIGNMENTS

DETECTOR CHANNEL	ASSOCIATED PHASE	MODE	TIMING		DELAY INHIBIT ON GREEN	LOOP NO.	LENGTH	TURNS	COMMENTS
			EXTEND	DELAY					
1	1	PRES.				1A	50	2-4-2	IN SERIES WITH 1B
1	1	PRES.				1B	50	2-4-2	IN SERIES WITH 1A
2	2	PULSE				2A	6	3	IN SERIES WITH 2B
2	2	PULSE				2B	6	3	IN SERIES WITH 2A

- ALL LOOPS ARE 6' IN WIDTH, CENTERED IN TRAFFIC LANE.

- LOOP WIRE CONNECTIONS SHALL BE WIRED TO PROVIDE THE APPROXIMATE INDUCTANCE AS REQURED BY STD. DWG T-SG-3.

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PHASING, TIMING & DETECTOR ASSIGNMENT

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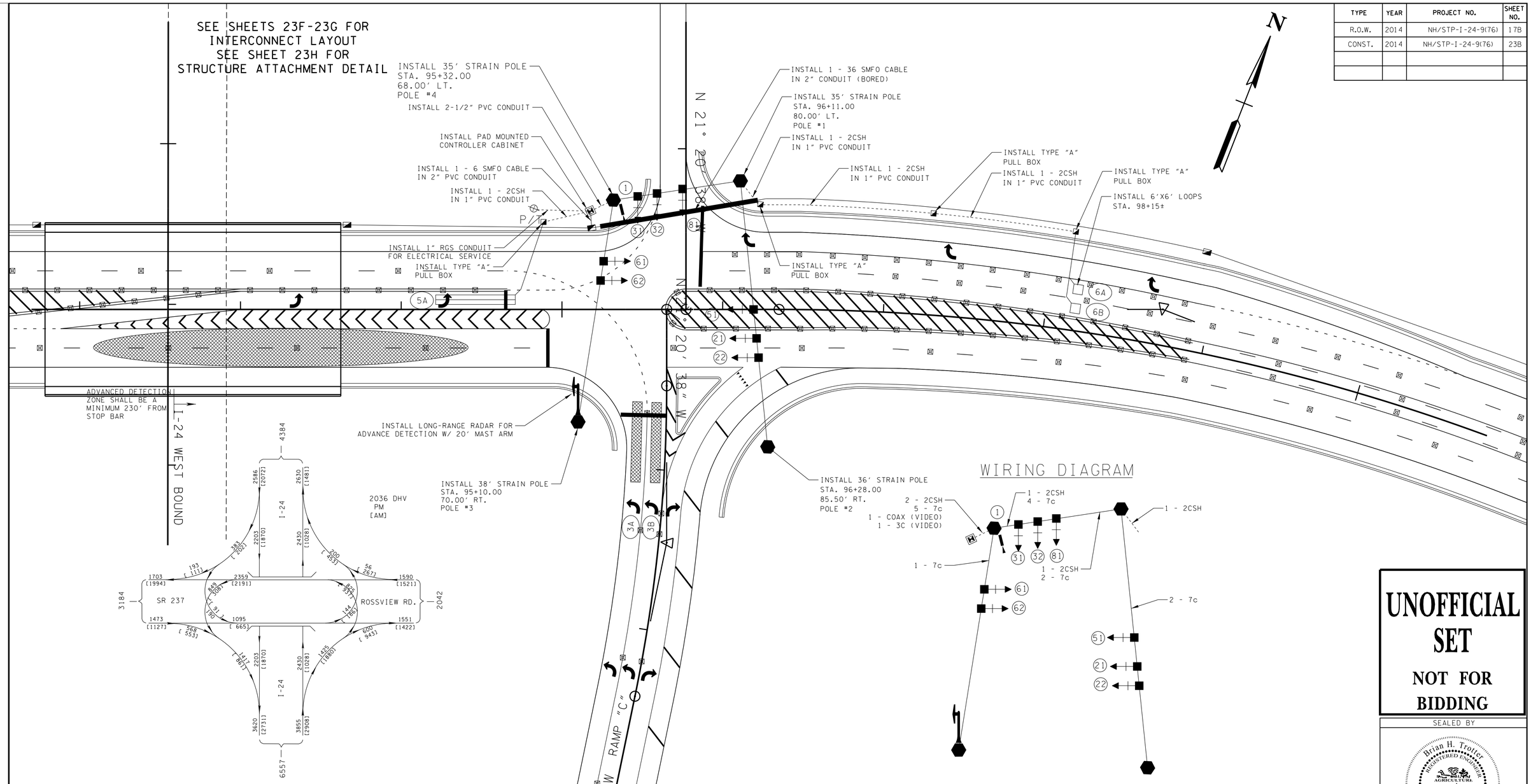
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17B
CONST.	2014	NH/STP-I-24-9(76)	23B



WIRING DIAGRAM

SPECIAL NOTES REGARDING SIGNAL HEADS

1. ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSISTS OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

   CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.

2. INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

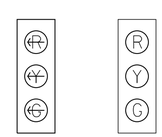
3. THE CONTRACTOR SHALL ENSURE LED SIGNAL MODULES ARE COMPATIBLE WITH CONFLICT MONITORS AND LOAD SWITCHES.

4. MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTY FOR OPERATION OF THE LED SIGNAL MODULE.

5. ALL SIGNAL HEADS SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY.

6. THE ATTACHMENT OF THE TETHER WIRE TO THE POLE SHALL BE LOCATED BELOW THE LOWEST ELEVATION OF THE SIGNAL HEADS.

PROPOSED 12" SIGNAL HEADS



31,32,51 21,22,61,62,81

SIGNAL SUPPORT POLE DATA

POLE #	STATION SR 237	OFFSET FT.	NORTHING	EASTING	GRND. ELEV. @ POLE	ATTACHMENT ELEV.	MOMENT CAPACITY FT-LBS	FOOTING DEPTH FT.
1	96+11.00	80.00 LT	811810.85	1602192.08	597.50	630.29	251,195	21
2	96+27.50	81.00 RT	811666.90	1602266.05	595.75	629.98	209,164	19
3	95+10.00	70.00 RT	811634.38	1602152.61	597.25	631.09	143,738	16
4	95+32.00	68.00 LT	811770.92	1602122.87	597.50	630.68	163,575	17

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DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL LAYOUT

SR 237 (ROSSVIEW RD) AND RAMPS C & D

SCALE: 1"=30 '

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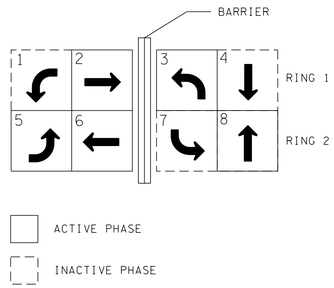
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17C
CONST.	2014	NH/STP-I-24-9(76)	23C

NEMA EIGHT PHASE DESIGNATIONS



- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SINGLE DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

CONTROLLER PROGRAMMING DATA

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MOVEMENT		EB			EBL	WB		NBL
PHASE DATA								
MIN GREEN		15.0			6.0	15.0		6.0
PASSAGE TIME		3.9			2.5	3.9		2.5
MAXIMUM I		49.3			18.5	24.3		28.5
MAXIMUM II								
YELLOW		3.9			4.0	3.9		4.0
RED		1.8			2.5	1.8		2.5
WALK								
PED CLEAR								
ADDED INITIAL								
MAX INITIAL								
TIME BEFORE REDUC								
TIME TO REDUCE								
MIN GAP								
UNIT DATA								
NON-LOCK MEMORY		NO			NO	NO		YES
DUAL ENTRY								
LAST CAR PASSAGE								
COND SERVICE								
NO SIMULT GAP								
GENERAL CONTROLS								
INITIALIZATION		GREEN			INACTIVE	GREEN		INACTIVE
VEHICLE RECALL		MAX			NONE	MAX		NONE
PEDESTRIAN RECALL								

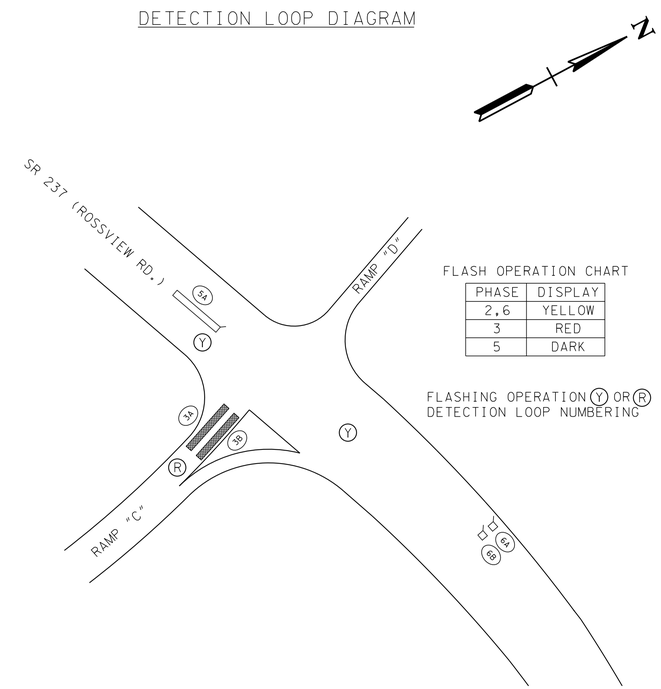
DAY PLAN	TIME	PLAN	CYCLE LENGTH
1	12:00 AM	FREE	90
	6:00 AM	1/1/1	130
	8:00 AM	FREE	90
	4:00 PM	2/1/2	120
	6:00 PM	FREE	90
2	12:00 AM	FREE	90

PLAN ID			PHASE SPLIT TIMES (SEC)								CYCLE LENGTH (SEC.)	OFFSET (SEC.)
CYCLE	OFFSET	SPLIT	1	2	3	4	5	6	7	8		
1	1	1		80			35	45		50	130	56
2	2	2		80			30	50		40	120	111

WEEK PLAN ASSIGNMENT

WEEK PLAN	SUN	MON	TUES	WED	THU	FRI	SAT
1	2	1	1	1	1	1	2

DETECTION LOOP DIAGRAM



VIDEO DETECTOR TARGET ASSIGNMENTS

DETECTION ZONE NO.	CAMERA NO.	ASSOCIATED PHASE	TIMING		DELAY INHIBIT ON GREEN	TARGET AREA	COMMENTS
			EXTEND	DELAY			
3A, 3B	1	3				6' X 50'	

LOOP AND DETECTOR ASSIGNMENTS

DETECTOR CHANNEL	ASSOCIATED PHASE	MODE	TIMING		DELAY INHIBIT ON GREEN	LOOP NO.	LENGTH	TURNS	COMMENTS
			EXTEND	DELAY					
1	2	PRES.				5A	50	2-4-2	
2	6	PULSE				6A	6	3	IN SERIES WITH 6B
2	6	PULSE				6B	6	3	IN SERIES WITH 6A

- ALL LOOPS ARE 6' IN WIDTH, CENTERED IN TRAFFIC LANE.

- LOOP WIRE CONNECTIONS SHALL BE WIRED TO PROVIDE THE APPROXIMATE INDUCTANCE AS REQURED BY STD. DWG. T-SG-3.

UNOFFICIAL SET

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SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
No. 108570
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PHASING, TIMING & DETECTOR ASSIGNMENT

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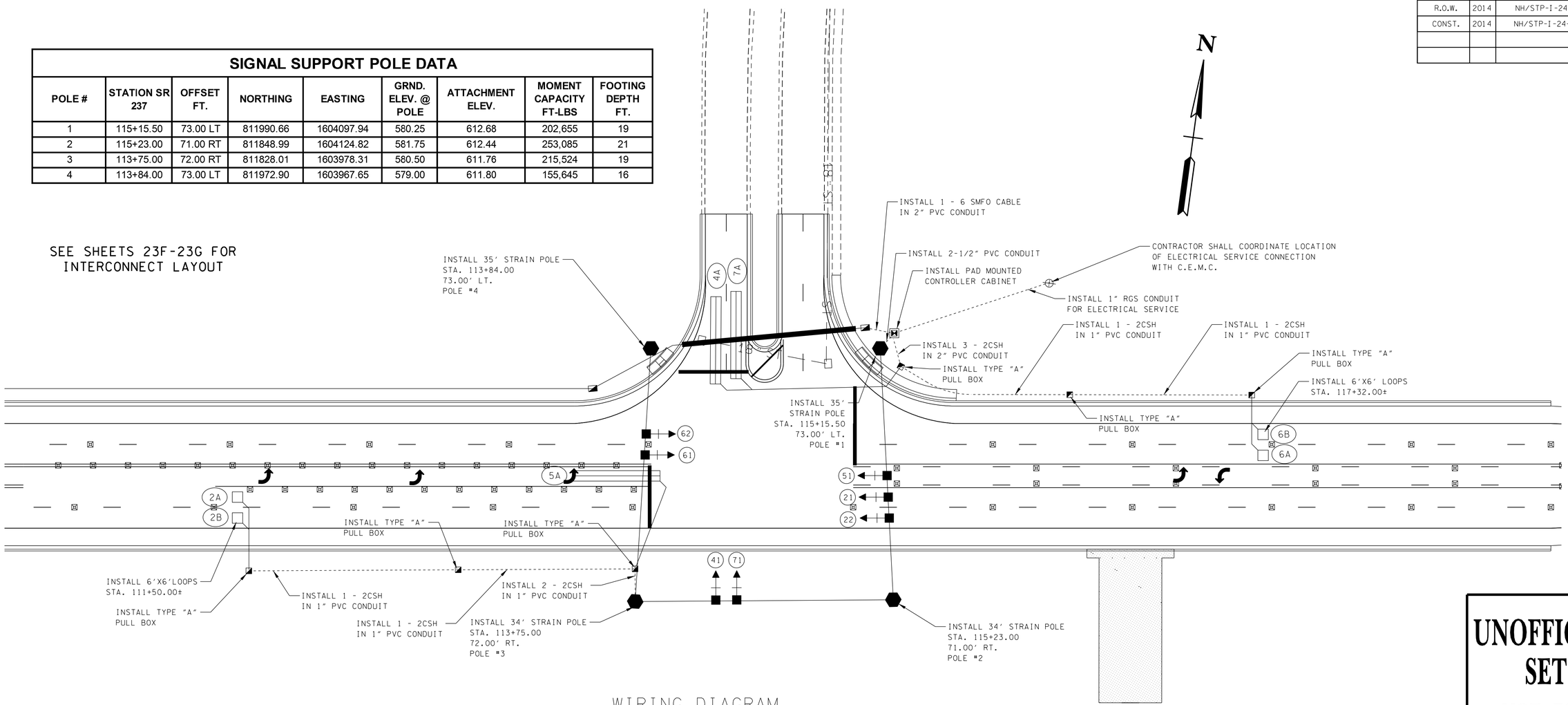
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17D
CONST.	2014	NH/STP-I-24-9(76)	23D

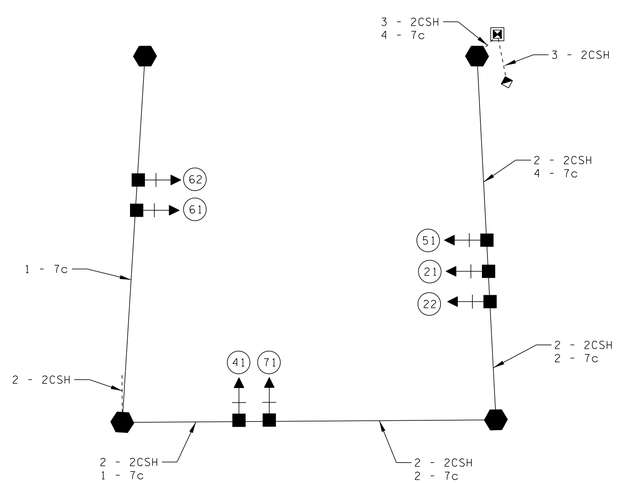
SIGNAL SUPPORT POLE DATA

POLE #	STATION SR 237	OFFSET FT.	NORTHING	EASTING	GRND. ELEV. @ POLE	ATTACHMENT ELEV.	MOMENT CAPACITY FT-LBS	FOOTING DEPTH FT.
1	115+15.50	73.00 LT	811990.66	1604097.94	580.25	612.68	202,655	19
2	115+23.00	71.00 RT	811848.99	1604124.82	581.75	612.44	253,085	21
3	113+75.00	72.00 RT	811828.01	1603978.31	580.50	611.76	215,524	19
4	113+84.00	73.00 LT	811972.90	1603967.65	579.00	611.80	155,645	16

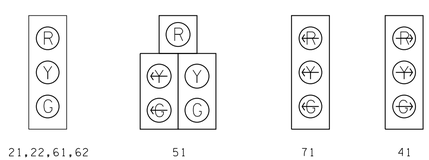
SEE SHEETS 23F-23G FOR INTERCONNECT LAYOUT



WIRING DIAGRAM



PROPOSED 12" SIGNAL HEADS



SPECIAL NOTES REGARDING SIGNAL HEADS

1. ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSISTS OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

   CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.

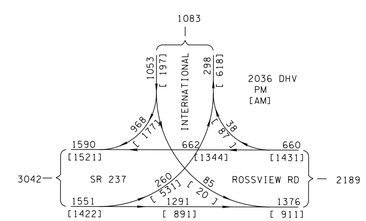
2. INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

3. THE CONTRACTOR SHALL ENSURE LED SIGNAL MODULES ARE COMPATIBLE WITH CONFLICT MONITORS AND LOAD SWITCHES.

4. MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTY FOR OPERATION OF THE LED SIGNAL MODULE.

5. ALL SIGNAL HEADS SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY.

6. THE ATTACHMENT OF THE TETHER WIRE TO THE POLE SHALL BE LOCATED BELOW THE LOWEST ELEVATION OF THE SIGNAL HEADS.



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PROPOSED SIGNAL LAYOUT

SR 237 (ROSSVIEW RD) & INTERNATIONAL BLVD

SCALE: 1"=30 '

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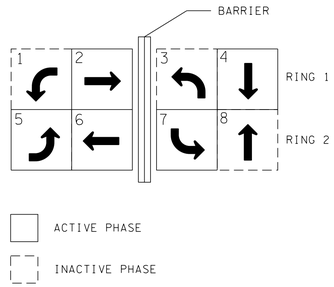
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	17E
CONST.	2014	NH/STP-I-24-9(76)	23E

NEMA EIGHT PHASE DESIGNATIONS



- OPERATION IS DUAL ENTRY MODE, FULL SKIP CAPABILITY
- SINGLE DIRECTION, LAGGING LEFT TURN PHASES ARE NOT ALLOWED
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

CONTROLLER PROGRAMMING DATA

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8
MOVEMENT		EB		SBL	EBL	WB		
PHASE DATA								
MIN GREEN		15.0		6.0	6.0	15.0		
PASSAGE TIME		3.9		2.5	2.5	3.9		
MAXIMUM I		54.3		23.5	23.5	24.3		
MAXIMUM II								
YELLOW		3.9		4.0	4.0	3.9		
RED		1.8		2.5	2.5	1.8		
WALK								
PED CLEAR								
ADDED INITIAL								
MAX INITIAL								
TIME BEFORE REDUC								
TIME TO REDUCE								
MIN GAP								
UNIT DATA								
NON-LOCK MEMORY		NO		YES	NO	NO		
DUAL ENTRY								
LAST CAR PASSAGE								
COND SERVICE								
NO SIMULT GAP								
GENERAL CONTROLS								
INITIALIZATION		GREEN		INACTIVE	INACTIVE	GREEN		
VEHICLE RECALL		MAX		NONE	NONE	MAX		
PEDESTRIAN RECALL								

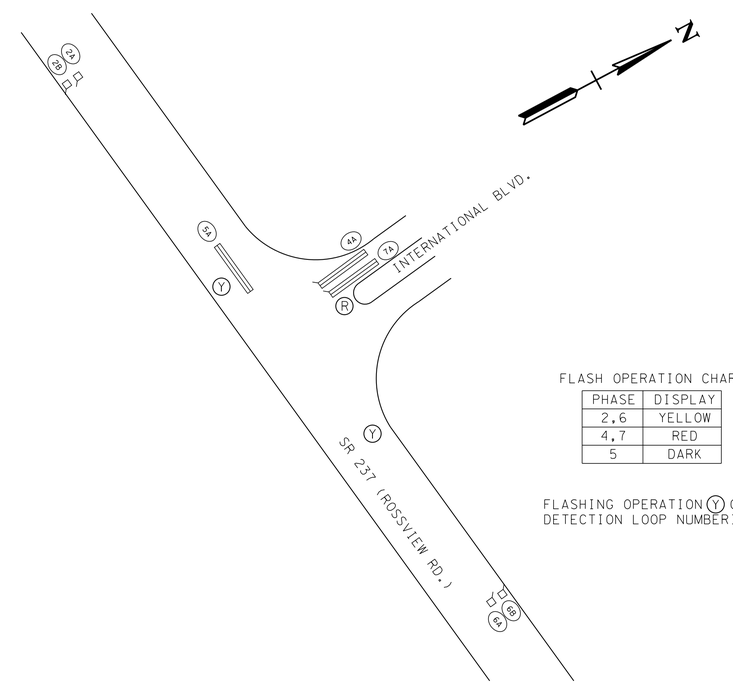
DAY PLAN	TIME	PLAN	CYCLE LENGTH
1	12:00 AM	FREE	90
	6:00 AM	1/1/1	130
	8:00 AM	FREE	90
	4:00 PM	2/2/2	120
	6:00 PM	FREE	90
2	12:00 AM	FREE	90

PLAN ID			PHASE SPLIT TIMES (SEC)								CYCLE LENGTH (SEC.)	OFFSET (SEC.)
CYCLE	OFFSET	SPLIT	1	2	3	4	5	6	7	8		
1	1	1		105		25	60	45			130	46
2	2	2		85		35	50	35			120	7

WEEK PLAN ASSIGNMENT

WEEK PLAN	SUN	MON	TUES	WED	THU	FRI	SAT
1	2	1	1	1	1	1	2

DETECTION LOOP DIAGRAM



FLASH OPERATION CHART

PHASE	DISPLAY
2,6	YELLOW
4,7	RED
5	DARK

FLASHING OPERATION (Y) OR (R)
DETECTION LOOP NUMBERING

LOOP AND DETECTOR ASSIGNMENTS

DETECTOR CHANNEL	ASSOCIATED PHASE	MODE	TIMING EXTEND	TIMING DELAY	DELAY INHIBIT ON GREEN	LOOP NO.	LENGTH	TURNS	COMMENTS
1	2	PULSE				2A	6	3	IN SERIES WITH 2B
1	2	PULSE				2B	6	3	IN SERIES WITH 2A
2	4	PRES.		8 SEC.	YES	4A	50	2-4-2	
3	5	PRES.				5A	50	2-4-2	
4	6	PULSE				6A	6	3	IN SERIES WITH 6B
4	6	PULSE				6B	6	3	IN SERIES WITH 6A
5	7	PRES.				7A	50	2-4-2	

- ALL LOOPS ARE 6' IN WIDTH, CENTERED IN TRAFFIC LANE.
- LOOP WIRE CONNECTIONS SHALL BE WIRED TO PROVIDE THE APPROXIMATE INDUCTANCE AS REQURED BY STD. DWG. T-SG-3.

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PHASING, TIMING & DETECTOR ASSIGNMENT

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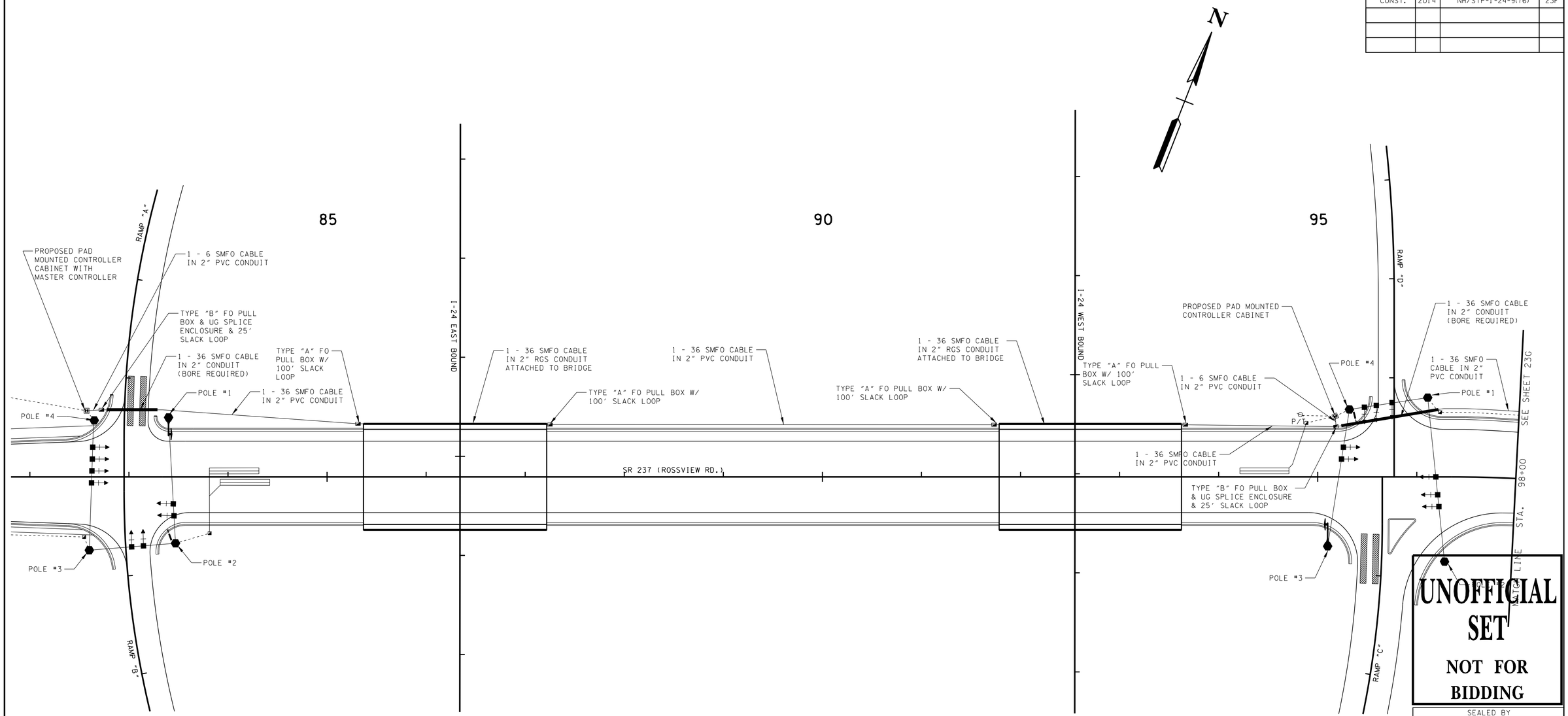
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	23F



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DEPARTMENT OF TRANSPORTATION

INTERCONNECT LAYOUT

SHEET 1 OF 2

SCALE: 1" = 50'

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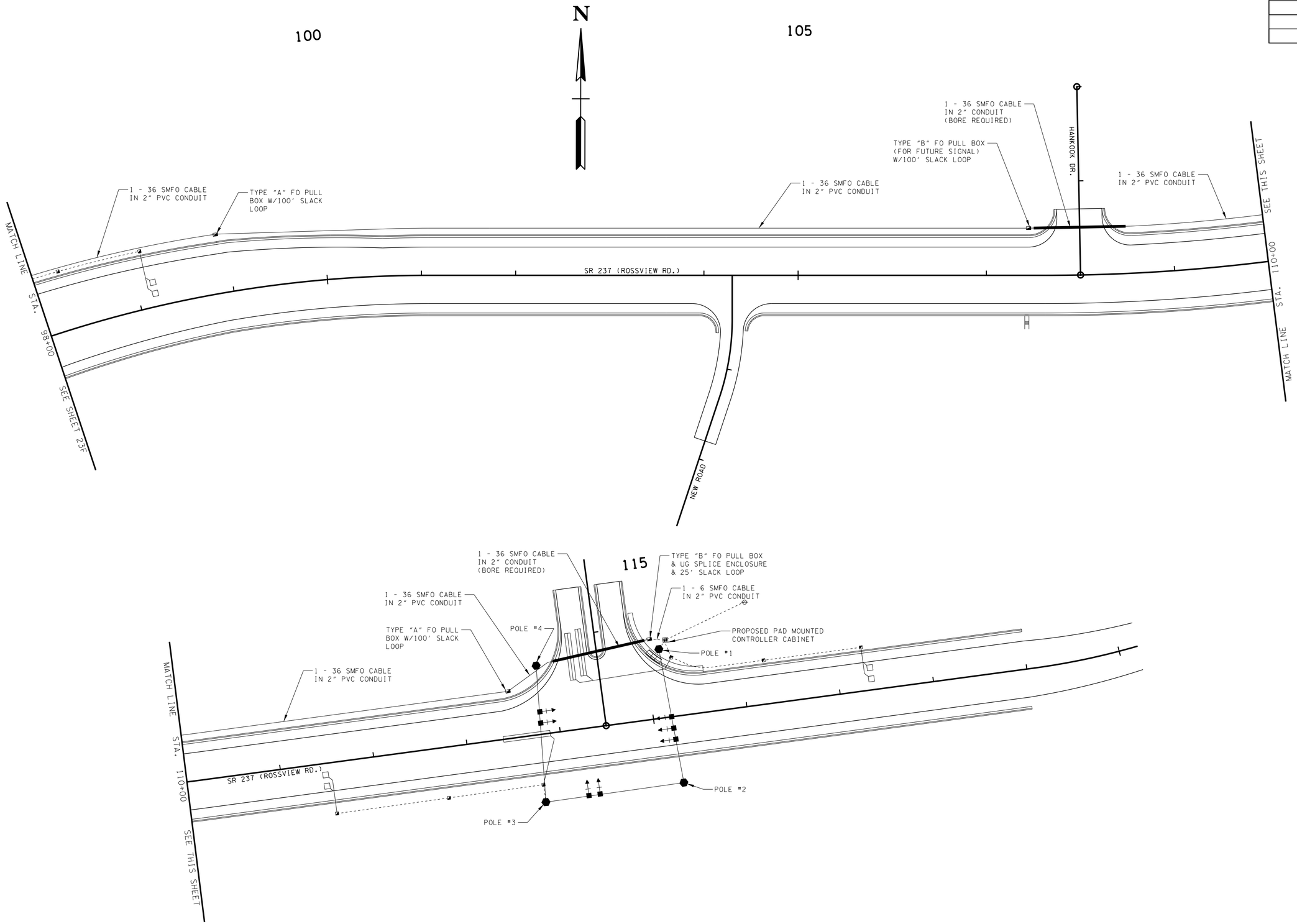
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	23G



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SEALED BY

Brian H. Trotter
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 104219
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INTERCONNECT LAYOUT

SHEET 2 OF 2

SCALE: 1" = 50'

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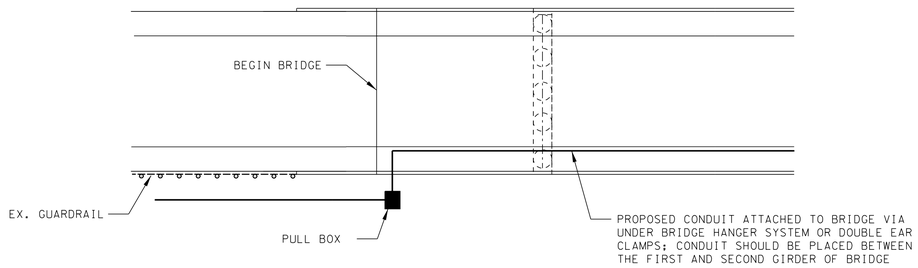
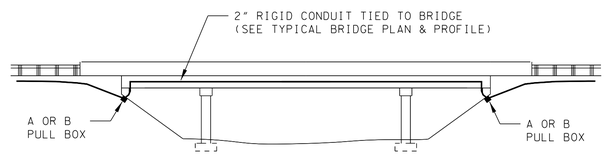
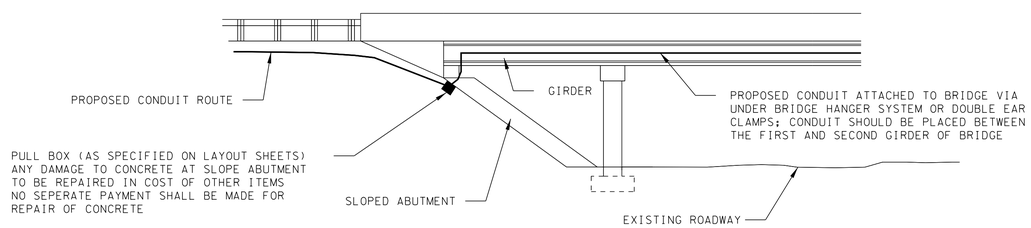
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	23H



PLAN





PROFILE

NOTES:

1. SEE LAYOUT SHEETS FOR BRIDGE CROSSING LOCATIONS.
2. THESE TYPICAL SECTIONS SHOULD BE APPLIED TO EACH BRIDGE CROSSING AS NECESSARY. IF VARIATIONS FROM THESE TYPICALS ARE NECESSARY, CONTRACTOR SHALL SUBMIT PROPOSED DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. ATTACHMENTS TO BE APPROXIMATELY CENTERED IN AN EXTERIOR GIRDER BAY EXCEPT FOR REINFORCED CONCRETE HOLLOW BOX STRUCTURES.
4. ALL UTILITY CONDUIT, HANGERS, BRACKETS, ETC. MUST BE ABOVE THE LOW POINT OF EACH SUPERSTRUCTURE.
5. NO WELDING OR ATTACHMENTS TO STRUCTURAL STEEL ARE PERMITTED.
6. THE HANGER SYSTEM SUPPORT SPACING SHALL BE 10'-0" MAXIMUM. SPACINGS LESS THAN 10'-0" MAY BE REQUIRED TO AVOID CONFLICTS WITH DIAPHRAGMS, BRACINGS, AND/OR STIFFENERS. DIAPHRAGMS AND ABUTMENT WALLS ARE NOT CONSIDERED "SUPPORTS" FOR CONDUIT.
7. ALL OPENINGS IN DIAPHRAGMS AND ABUTMENT WALLS SHALL BE SEALED WITH EXPANDABLE MATERIAL (i.e. RUBBERIZED OR FLOWABLE FILL EPOXY) THAT PREVENTS WATER LEAKAGE.
8. INTERMEDIATE DIAPHRAGMS:

   IF INTERMEDIATE DIAPHRAGMS ARE STRUCTURAL STEEL, CARE SHOULD BE TAKEN TO AVOID CONFLICTS BETWEEN THE DIAPHRAGMS AND THE CONDUIT OR SUPPORT BRACKETS.

   IN NO CASE SHALL ANY PORTION OF THE CONDUIT OR SUPPORT BRACKETS BE LOWER THAN THE BOTTOM OF ANY ADJACENT GIRDER.
9. ALL BRIDGE ATTACHMENTS SHALL BE APPROVED BY TDOT DIVISION OF STRUCTURES AND SHOWN ON EXISTING AS-BUILT BRIDGE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING BRIDGE DRAWINGS FROM TDOT DIVISION OF STRUCTURES.
10. IN NO CASE SHALL CONDUIT BE ATTACHED TO THE OUTSIDE OF THE EXTERIOR GIRDER WITHOUT APPROVAL FROM TDOT DIVISION OF STRUCTURES. APPROVAL WILL ONLY BE GIVEN IN UNUSUAL CIRCUMSTANCES.
11. THE DETAILS SHOWING THE PULL BOXES AND CONDUIT LOCATIONS SHOULD BE USED AT ALL LOCATIONS. PULL BOXES AND BRIDGE CONDUIT SHOULD BE LOCATED IN THE FIELD BY CONTRACTOR AND LOCAL AGENCY (CITY OF HENDERSONVILLE ENGINEERING DEPARTMENT). BRIDGE PULL BOXES AND CONDUIT LOCATIONS ON THE PLAN SHEETS ARE FOR SCHEMATIC PURPOSES ONLY. IF THERE IS A DIFFERENCE BETWEEN WHAT IS SHOWN ON THE PLAN SHEETS AND WHAT IS SHOWN ON THESE DETAILS, THESE DETAILS SHALL TAKE PRECEDENCE.
12. ALL COSTS FOR RIGID CONDUIT, HANGER SYSTEMS, BRACKETS, AS-BUILT DRAWINGS, ETC. SHALL BE INCLUDED IN ITEM NO. 725-22.61 STRUCTURE CONDUIT BANK (TYPE 1).

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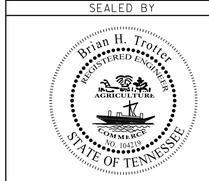

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE CROSSING DETAIL

N.T.S.

TYPICAL BRIDGE CROSSING DETAIL

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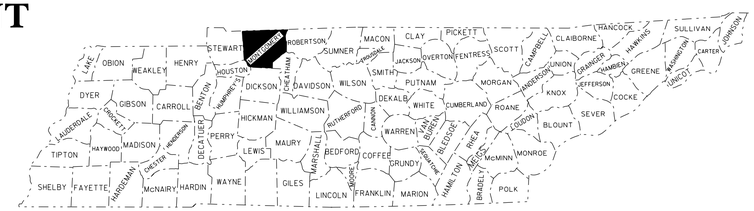
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND DEVELOPMENT

GEOTECHNICAL OPERATIONS SECTION

GEOLOGIC SYMBOLS



S.R. 237 FROM WEST OF I-24 TO INTERNATIONAL BOULEVARD, SERVING HANKOOK TIRE

MONTGOMERY COUNTY, TENNESSEE

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1,A-2 A-3	A-4,A-5 A-6,A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6			
SYMBOL														
% PASSING #10	50 MX											GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
#40	30 MX	50 MX	51 MN											
#200	15 MX	25 MX	10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN			
(PASSING #40) LL	6 MX		N.P.	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PI				10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN			
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	NO MX			
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL & SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS				

* PI OF A-7-5 <(LL-30); PI OF A-7-6 > (LL-30)

ADDITIONAL ROCK SYMBOLS

SYMBOL	SHALE	LIMESTONE	SILTSTONE	WEATHERED SHALE	EXISTING ROADWAY FILL	RANDOM BACKFILL	WEATHERED LIMESTONE	GRADED SOLID ROCK

AI	Activity Index
LI	Liquidity Index
S+C	Silt + Clay (% finer than No.200 Sieve)
○	Rockline Soundings
◐	Disturbed Sample Boring
◎	Undisturbed Sample Boring
⊙	Undisturbed Sample Boring & Rock Core
●	Rock Core
	Slope Inclinometer Installation typical applications:
△	Cone Penetration Test Boring
OW	Observation Well
➡	Approximate Footing Elevation
▼(Date)	Water Elevation
VS (psf)	Field Vane Shear Strength
N	Penetration Resistance
Qu (psf)	Unconfined Compressive Strength
UU (psf)	Unconsolidated Undrained Triaxial Strength
w%	Moisture Content
RQD	Rock Quality Designation
REC	Core Recovery
ϕ	Angle of Internal Friction (Total Stress)
$\bar{\phi}$	Angle of Internal Friction (Effective Stress)
c (psf)	Cohesion (Total Stress)
$\bar{c}$ (psf)	Cohesion (Effective Stress)
γ (pcf)	Total Unit Weight
R	Refusal
NR	Refusal Not Encountered
(HA)	Hand Auger

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GEOTECHNICAL CONSULTANT ICA ENGINEERING
ENGINEER DEVIN L. CHITTENDEN
P.E. NO. 63030-1209-04
GEOTECHNICAL ENGINEERING FILE NO. _____

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24A

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

GEOTECHNICAL NOTES

1. The natural moisture contents of the overburden soils at the time of drilling are typically near or above the upper limit of the 95% compaction moisture range. Drying, handling and manipulation of the soils is likely to be required in order to achieve the proper moisture content required to satisfy the compaction requirement.

2. Installation of erosion control matting and establishment of vegetation shall be conducted as soon as practical to prevent erosion of the cut and fill slopes.

3. Limestone seams should be anticipated, within the soil mass overlying bedrock, at variable depths and with variable thickness throughout the project alignment. Specialized equipment may be required to excavate these seams and reach finished grade.

4. The Interpreted Rock Line is provided for informational purposes only. Rock coring operations recovered weathered materials and/or deep soils within some areas along the project. Portions of the material may be excavated with conventional earthmoving equipment within the interval. Bedrock within some areas is weathered and exists at shallow elevations. Bedrock in some areas may be “pinnacled” or slightly weathered to unweathered and visible at the existing ground surface. Rock may be encountered at elevations above the Interpreted Rock Line. Additionally, soils may be located below this line. The bidder’s attention is directed to the highly variable nature of the Interpreted Rock Line.

5. Use of pre-benching will be required to construct embankments in some locations along the proposed SR 237 alignment. Pre-benching shall be in accordance with Section 205 of the Standard Specifications for Road and Bridge Construction for the following intervals:

SR 237 Widening from Station 84+00 to Station 85+36±

SR 237 Widening from Station 87+21± to Station 91+78±

Ramp B Widening from Station 40+00 to Station 49+05

Ramp C Widening from Station 47+00 to Station 49+00

6. Subsurface conditions indicate the potential settlement for the SR 237 embankment intervals from Station 84+00 to Station 85+36± and from Station 87+21± to Station 89+50 will range from 4 to 5 inches. The time estimated for approximately 90% of the settlement to dissipate ranges from 250 to 300 days. Longer time frames will be required for estimated settlements of 0.5 inch or less to dissipate. Paving operations shall not commence until approved by the Engineer or TDOT Geotechnical Section.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GEOTECHNICAL NOTES

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Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24B

Sample No.	Description	Maximum Density, (pcf)	Moisture Range, (%)	L.L.	P.I.	AASHTO Class.	USCS Class	C.B.R.
1	Brown, Red & White Lean Clay	-	25.8	34	14	A-6 (13)	CL	-
2	Brown, Red & White Lean Clay with Sand	-	19.1	33	14	A-6 (10)	CL	-
3	Brown, Red & White Silty Gravel with Sand	-	11.9	15	0	A-2-4 (0)	GM	-
4	Brown & Gray Lean Clay with Gravel	-	39.8	46	20	A-7-6 (15)	CL	-
5	Red & White Lean Clay with Gravel	-	20.7 - 24.2	31	11	A-6 (7)	CL	-
6	Red & White Lean Clay	-	23.8 - 25.7	43	21	A-7-6 (21)	CL	-
7	Brown & Gray Lean Clay	-	25.0 - 27.9	45	19	A-7-6 (18)	CL	-
8	Red & White Fat Clay	93.9	29.2 - 30.5	50	23	A-7-6 (23)	CH	6.7
9	Red & White Lean Clay	100.3	29.8 - 32.0	45	21	A-7-6 (20)	CL	6.4
10	Red & White Sandy Lean Clay	105.6	19.4 - 25.2	42	21	A-7-6 (11)	CL	6.0
11	Red & White Lean Clay with Sand	107.8	20.2 - 21.2	34	14	A-6 (10)	CL	6.4
12	Brown & White Sandy Lean Clay	110.4	19.6	31	14	A-6 (8)	CL	3.7
13	Red & White Lean Clay	102.2	23.4 - 25.3	40	20	A-6 (19)	CL	6.7
14	Red & White Fat Clay with Sand	96.9	30.0 - 26.3	50	24	A-7-6 (21)	CH	4.4

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOIL DESCRIPTION SHEET

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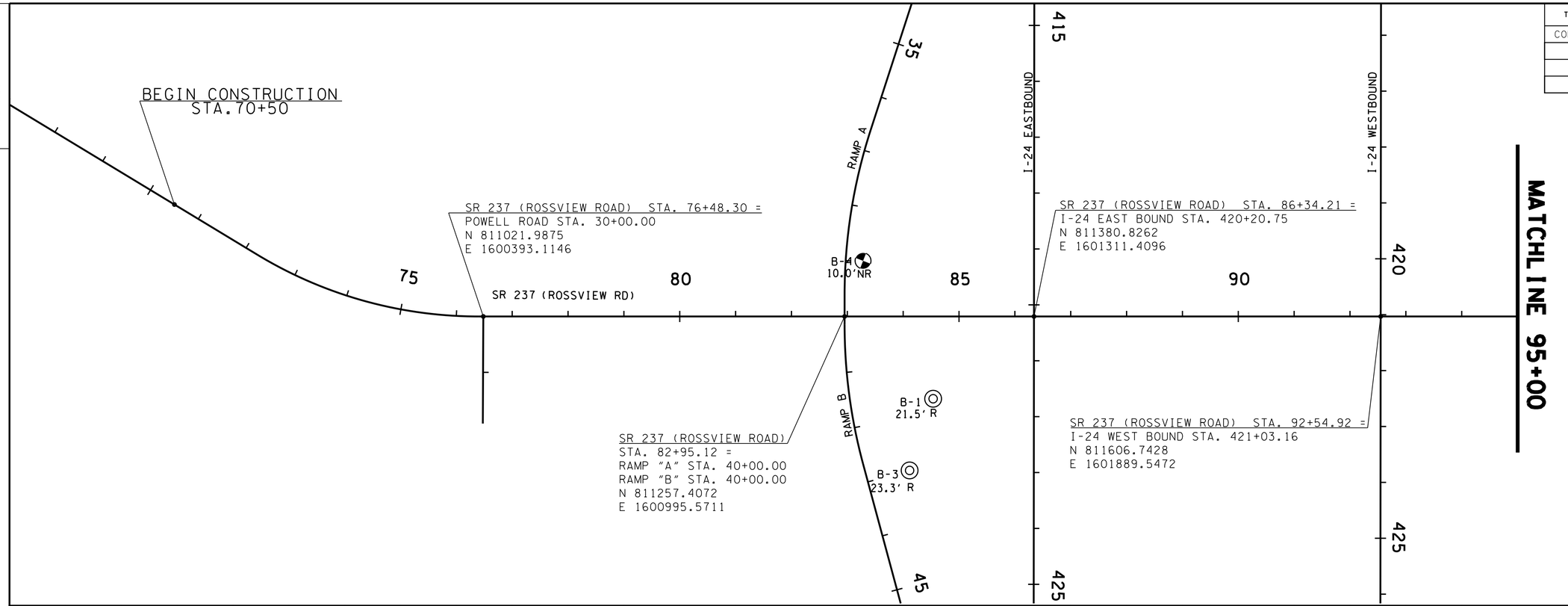
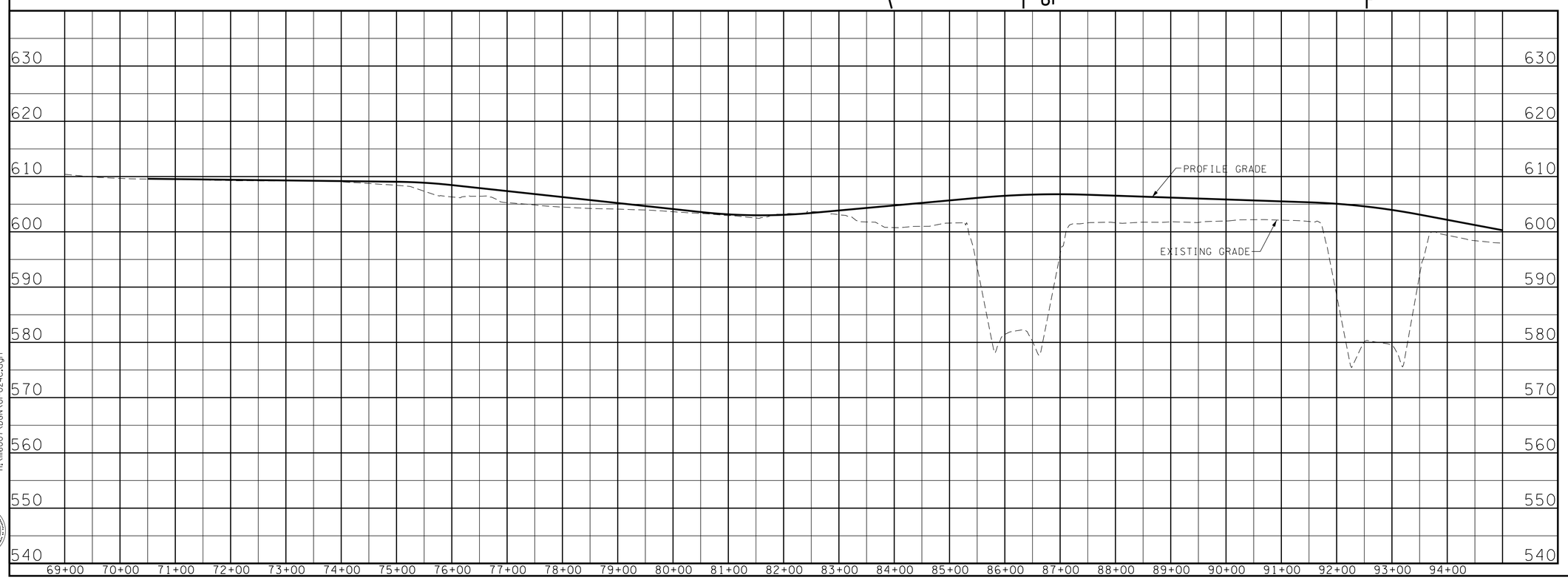
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24C





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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT AND PROFILE
SR 237

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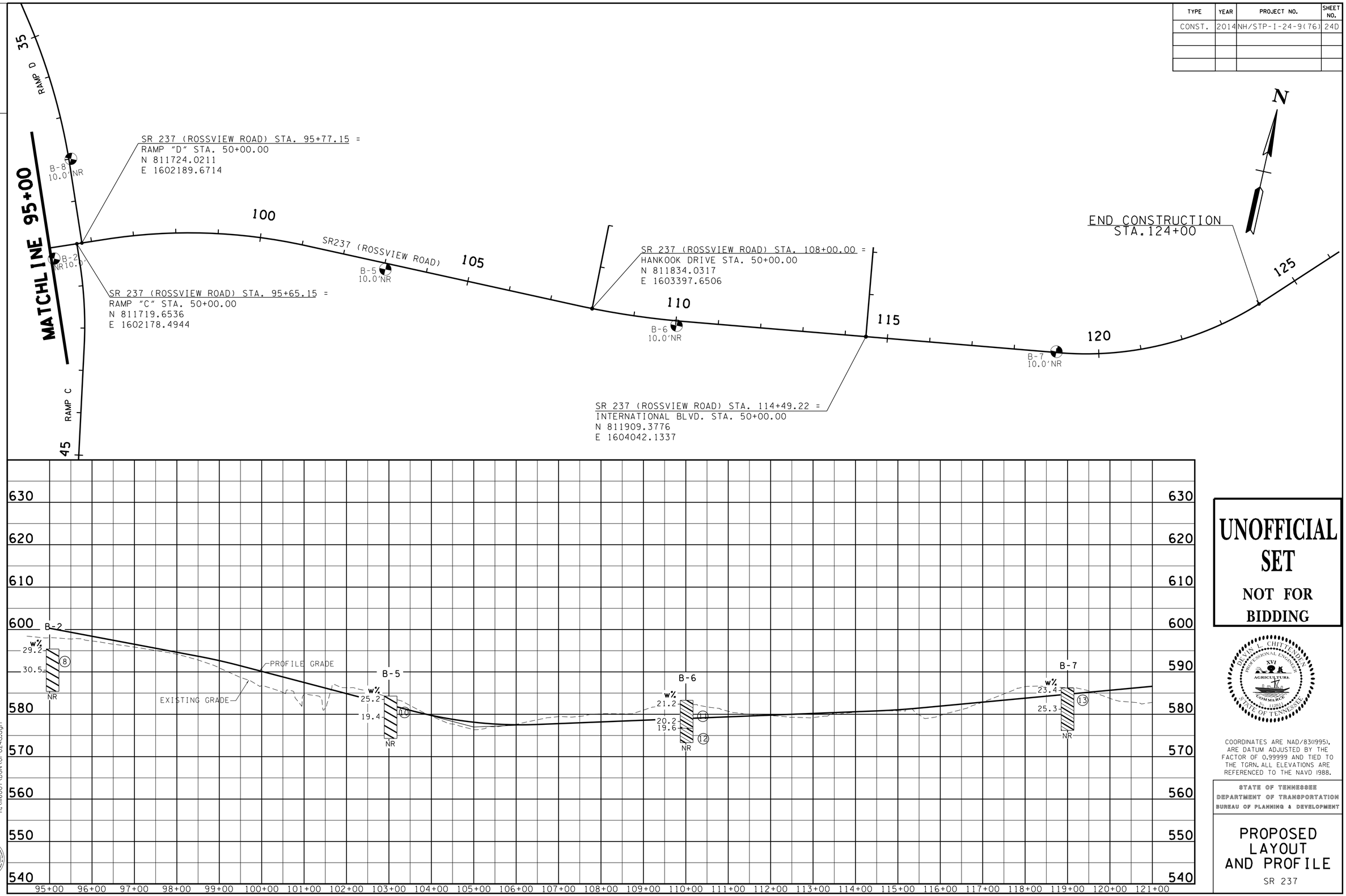
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24D

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



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DEVIN L. CHITTENDEN
PROFESSIONAL ENGINEER
XVI
AGRICULTURE
COMMERCE
No. 112811
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

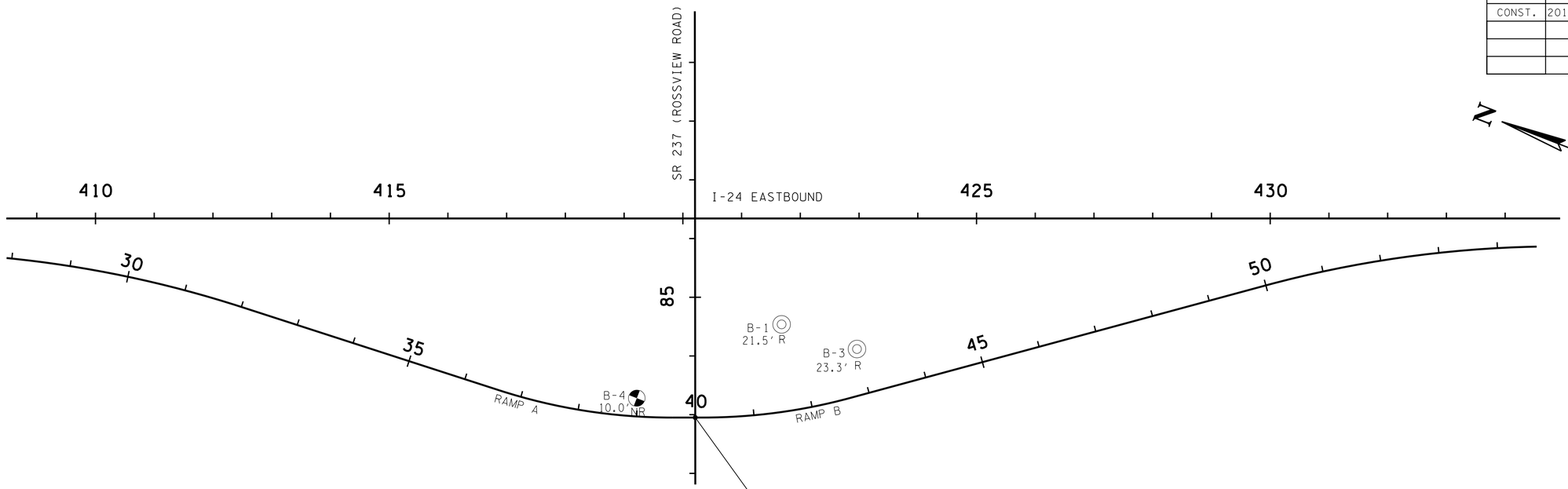
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT AND PROFILE

SR 237

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24E



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RAMP "B" STA. 40+00.00
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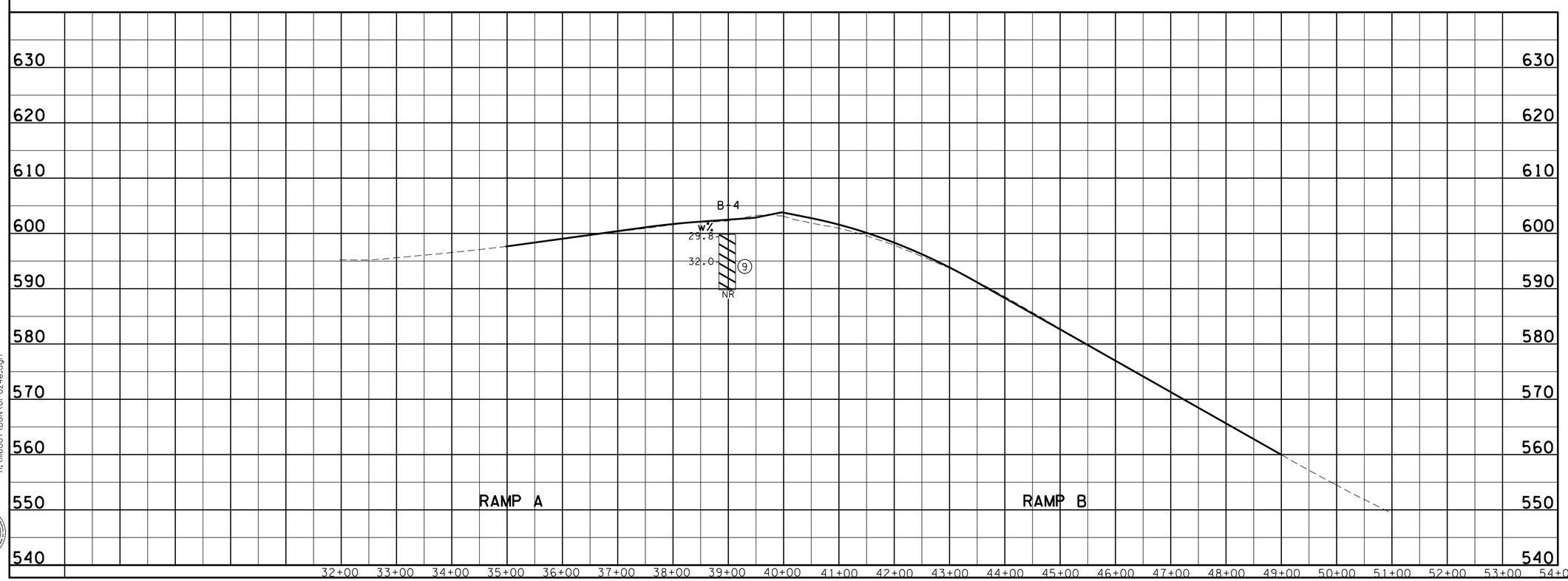

UNOFFICIAL SET

NOT FOR BIDDING

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT AND PROFILE
Ramp A & B

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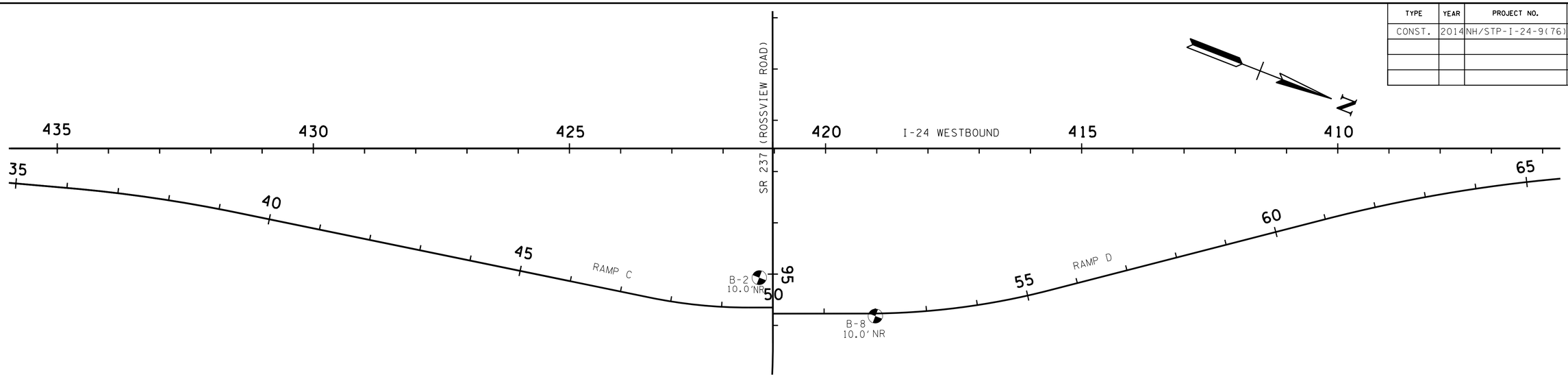
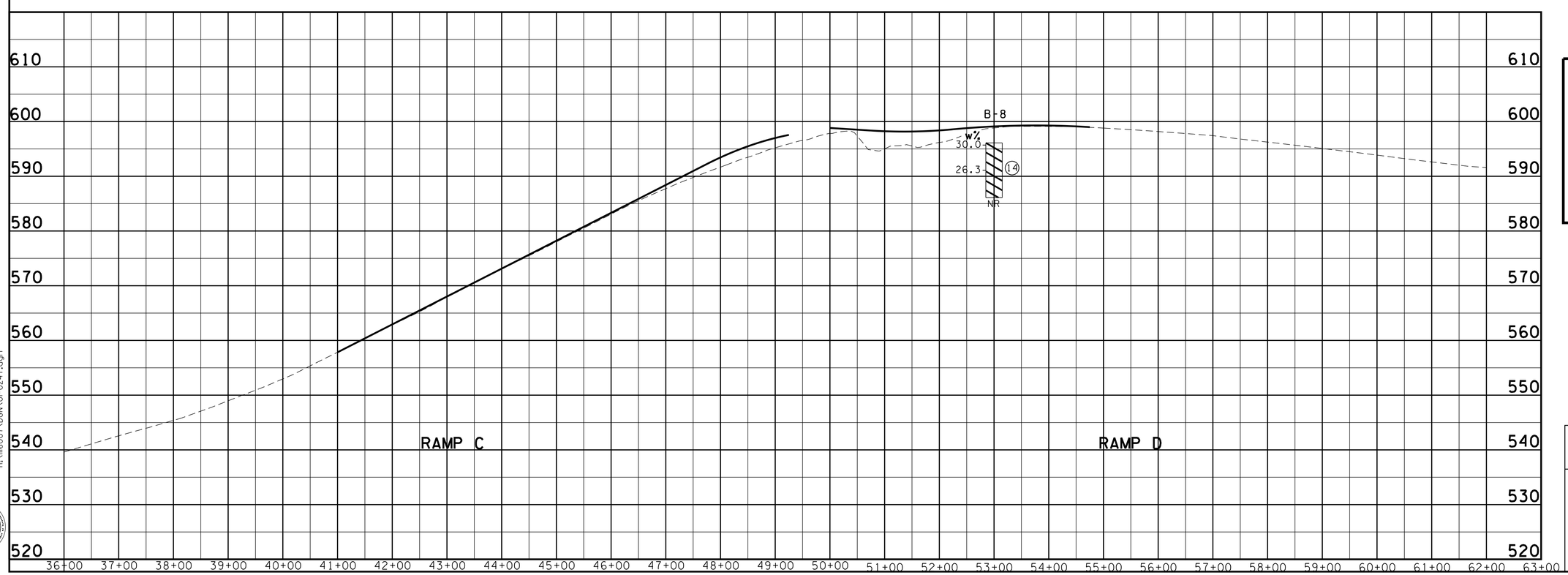
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24F

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





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Survey & Design Division

UNOFFICIAL SET

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DEVIN L. CHITTENDEN
PROFESSIONAL ENGINEER
XVI
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No. 112811
STATE OF TENNESSEE

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT AND PROFILE

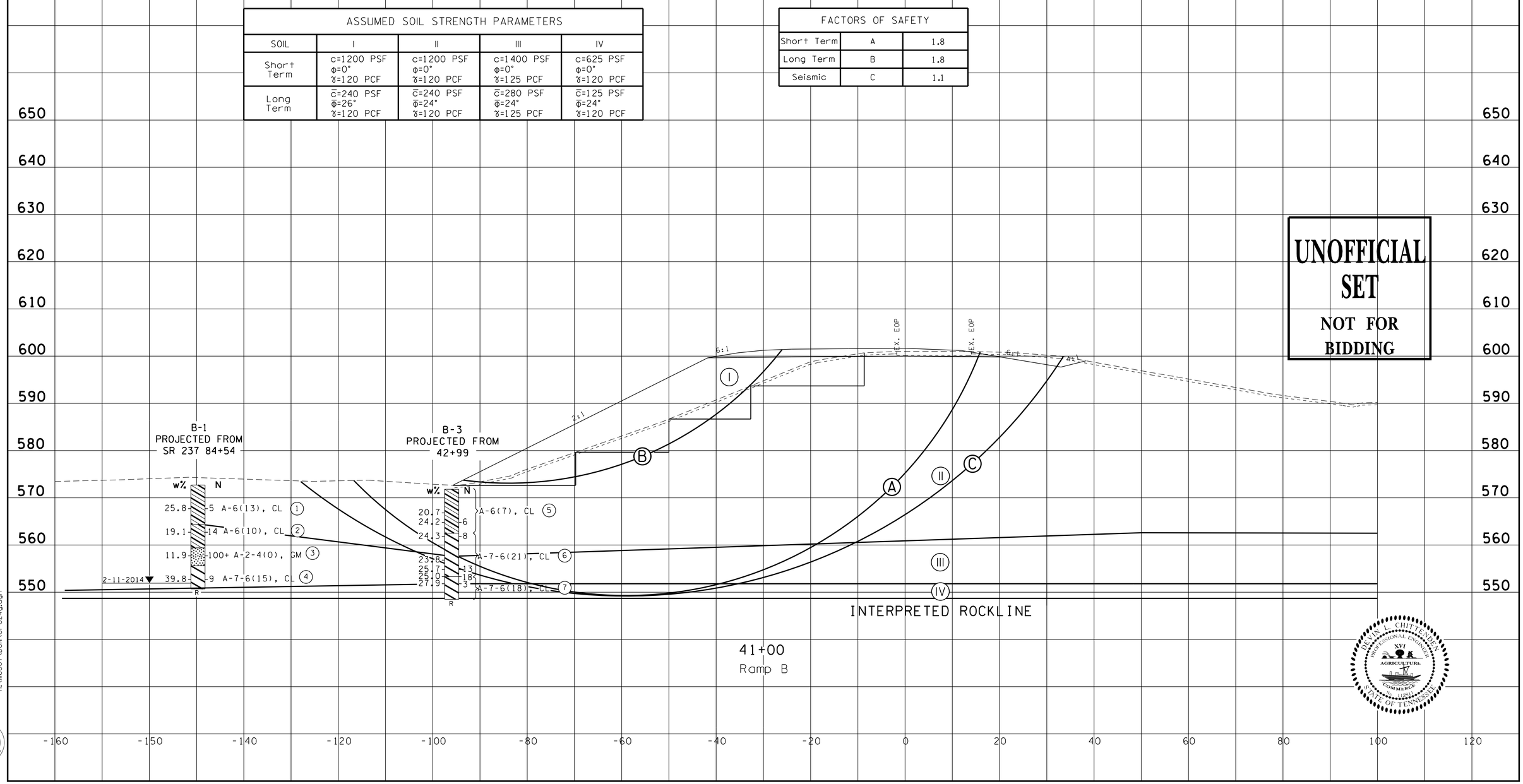
Ramp C & D

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24G

ASSUMED SOIL STRENGTH PARAMETERS				
SOIL	I	II	III	IV
Short Term	c=1200 PSF Φ=0° γ=120 PCF	c=1200 PSF Φ=0° γ=120 PCF	c=1400 PSF Φ=0° γ=125 PCF	c=625 PSF Φ=0° γ=120 PCF
Long Term	$\bar{c}$=240 PSF $\bar{\Phi}$=26° γ=120 PCF	$\bar{c}$=240 PSF $\bar{\Phi}$=24° γ=120 PCF	$\bar{c}$=280 PSF $\bar{\Phi}$=24° γ=125 PCF	$\bar{c}$=125 PSF $\bar{\Phi}$=24° γ=120 PCF

FACTORS OF SAFETY		
Short Term	A	1.8
Long Term	B	1.8
Seismic	C	1.1



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DENIS L. CHITTENDEN
PROFESSIONAL ENGINEER
XVI
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

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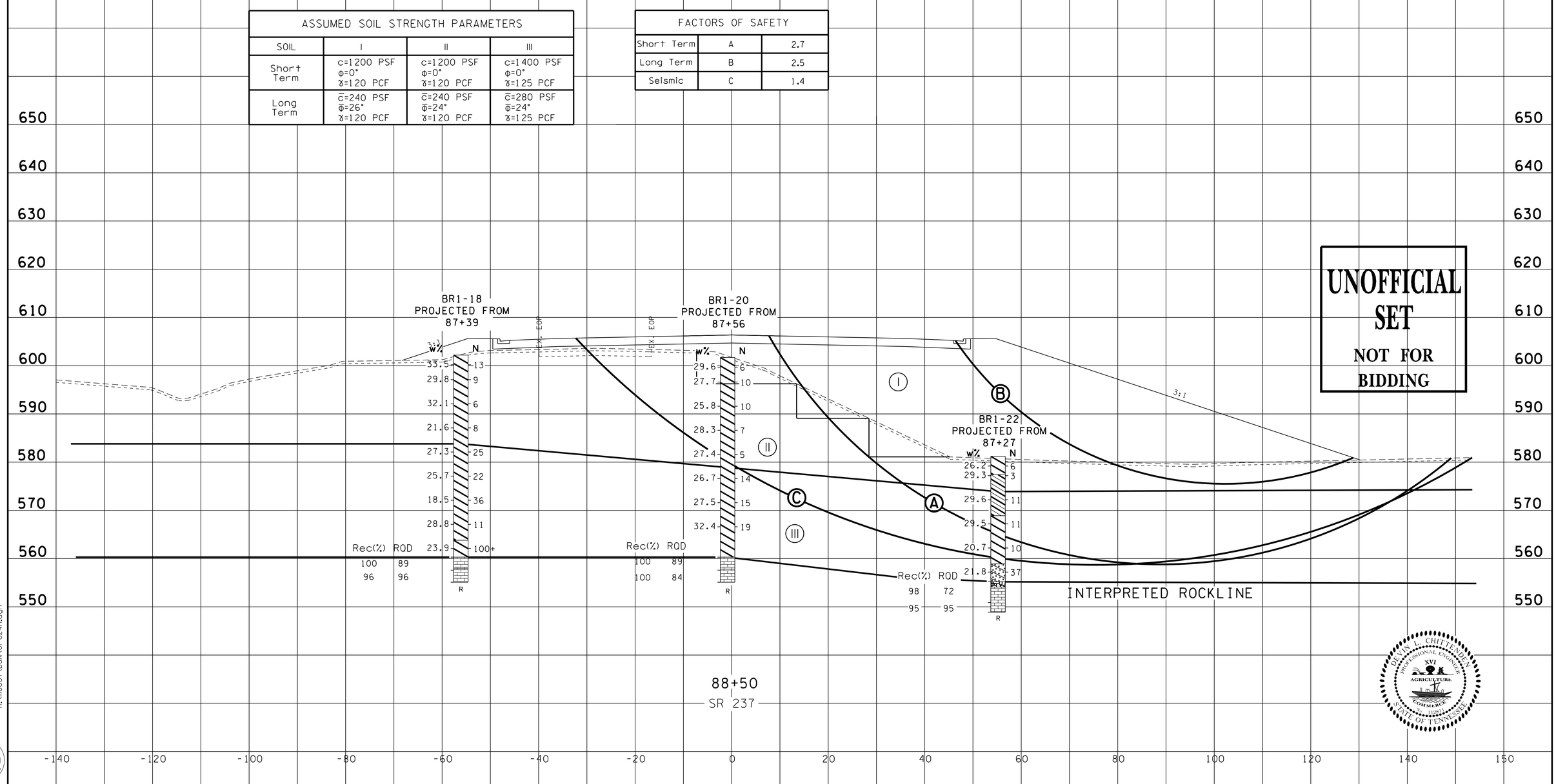
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24H

ASSUMED SOIL STRENGTH PARAMETERS			
SOIL	I	II	III
Short Term	c=1200 PSF Φ=0° γ=120 PCF	c=1200 PSF Φ=0° γ=120 PCF	c=1400 PSF Φ=0° γ=125 PCF
Long Term	c̄=240 PSF φ̄=26° γ=120 PCF	c̄=240 PSF φ̄=24° γ=120 PCF	c̄=280 PSF φ̄=24° γ=125 PCF

FACTORS OF SAFETY		
Short Term	A	2.7
Long Term	B	2.5
Seismic	C	1.4



UNOFFICIAL SET
NOT FOR BIDDING

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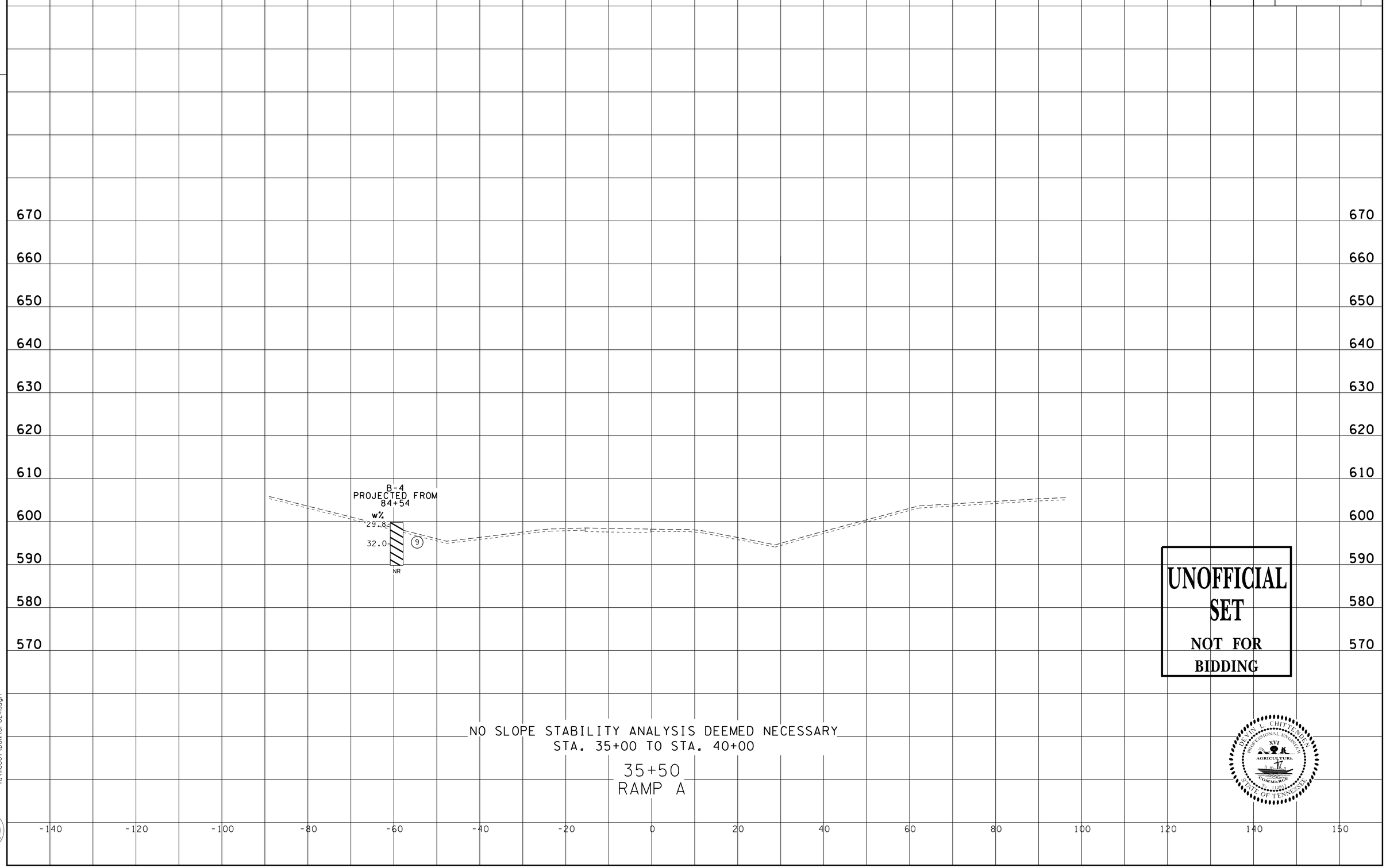
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24I



UNOFFICIAL SET
NOT FOR BIDDING

NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 35+00 TO STA. 40+00

35+50
RAMP A

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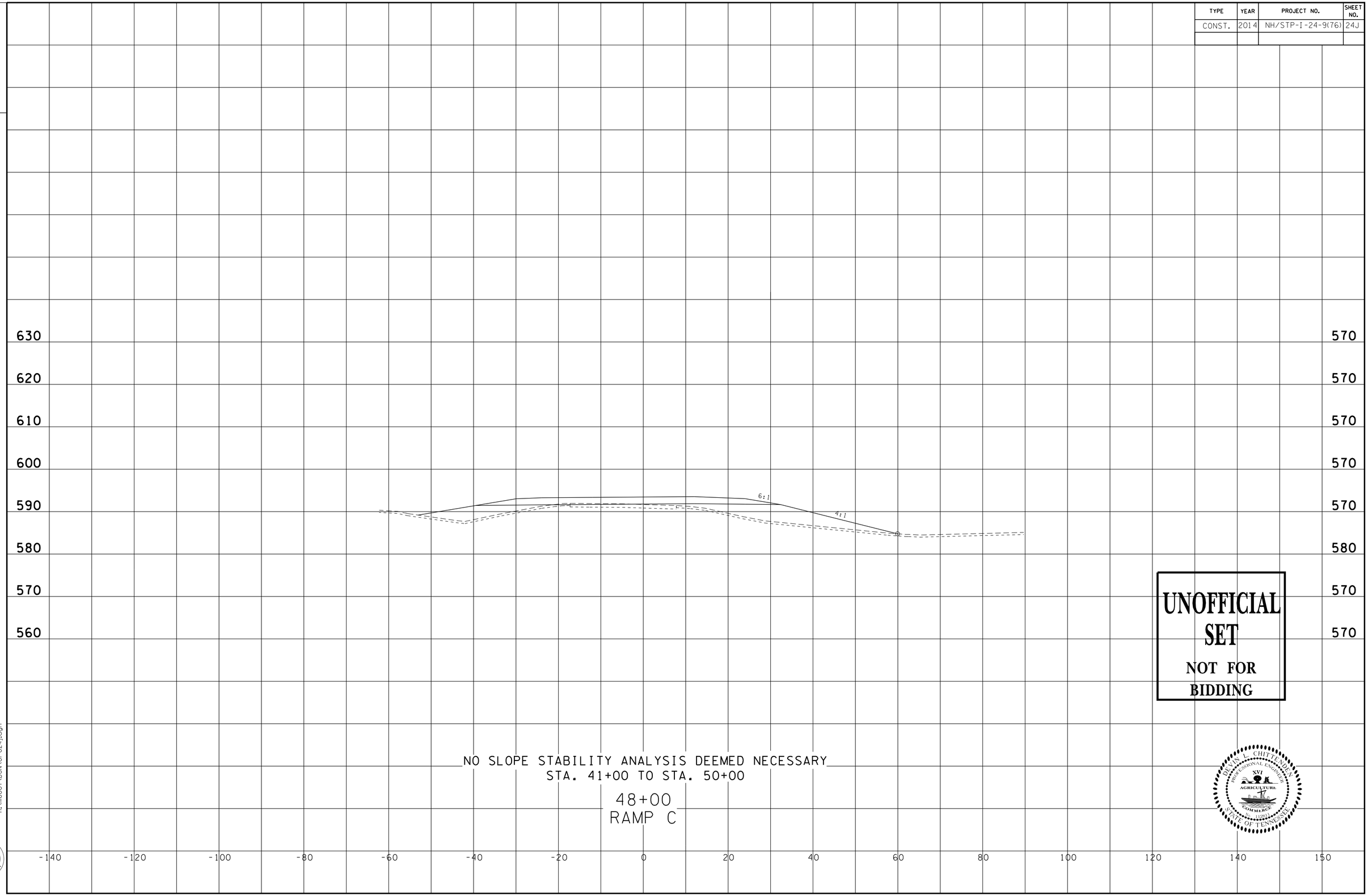
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24J



NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 41+00 TO STA. 50+00

48+00
RAMP C

UNOFFICIAL SET
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DEVIN L. CHITTENDEN
PROFESSIONAL ENGINEER
XVI
AGRICULTURE
COMMERCE
STATE OF TENNESSEE

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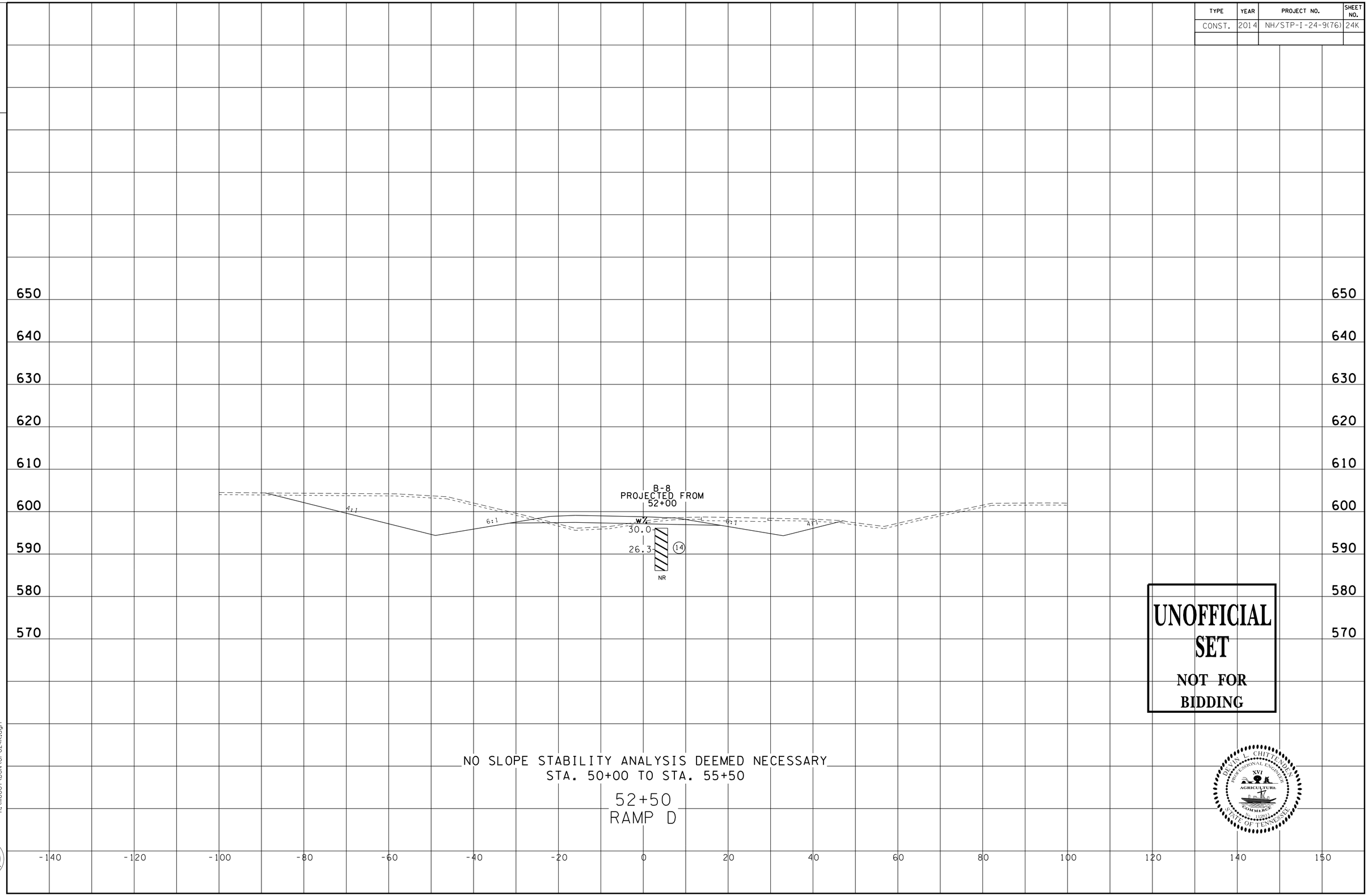
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24K



UNOFFICIAL SET
NOT FOR BIDDING

NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 50+00 TO STA. 55+50

52+50
RAMP D

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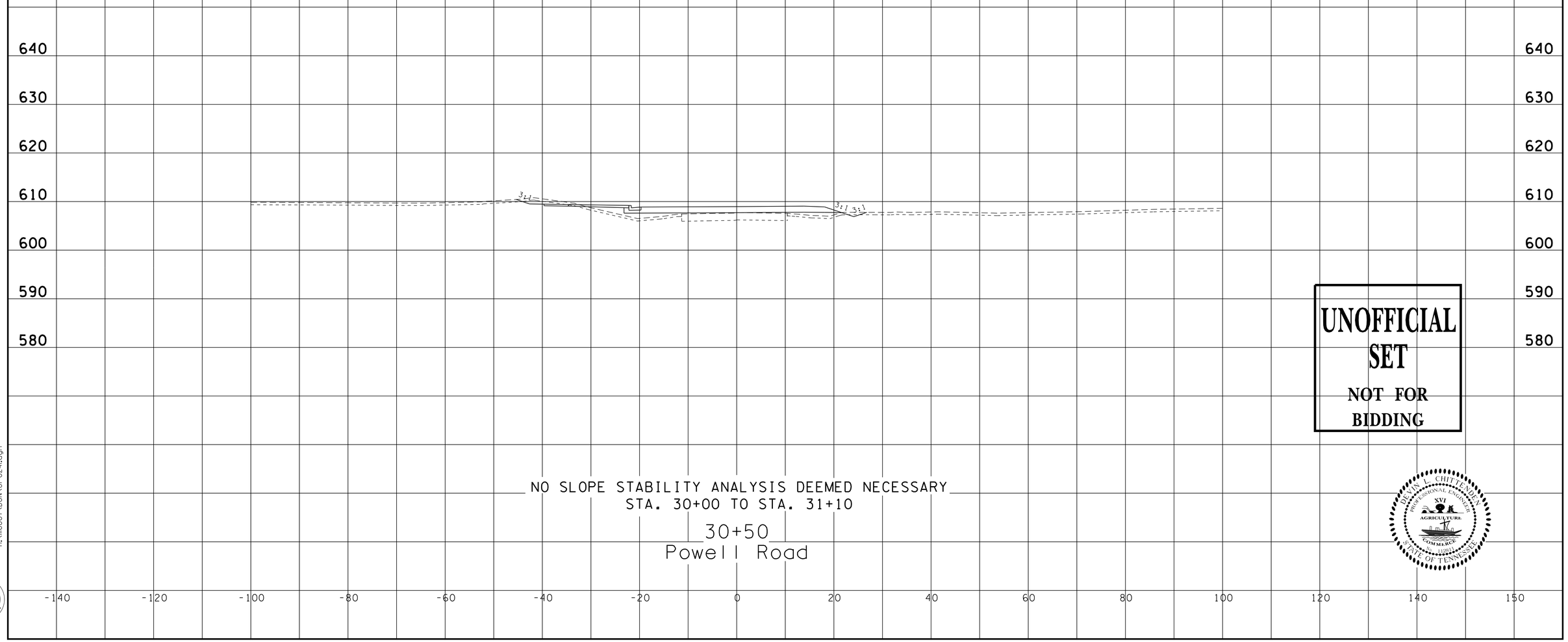
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24L



UNOFFICIAL SET
NOT FOR BIDDING

NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 30+00 TO STA. 31+10

30+50
Powell Road

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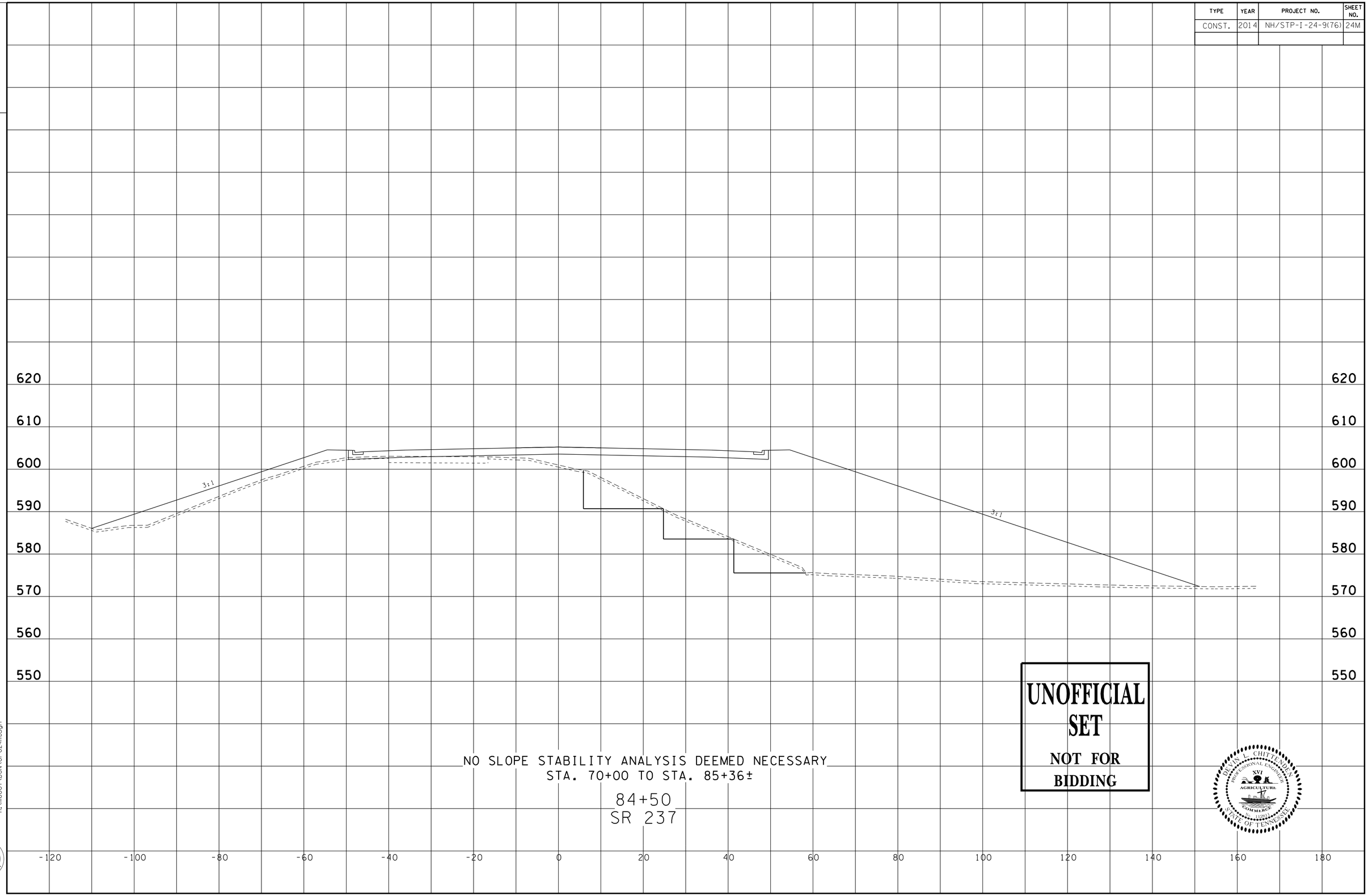
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH/STP-I-24-9(76)	24M



NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 70+00 TO STA. 85+36±

84+50
SR 237

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DEVIN L. CHITTENDEN
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XVI
AGRICULTURE
COMMERCE
No. 112811
STATE OF TENNESSEE

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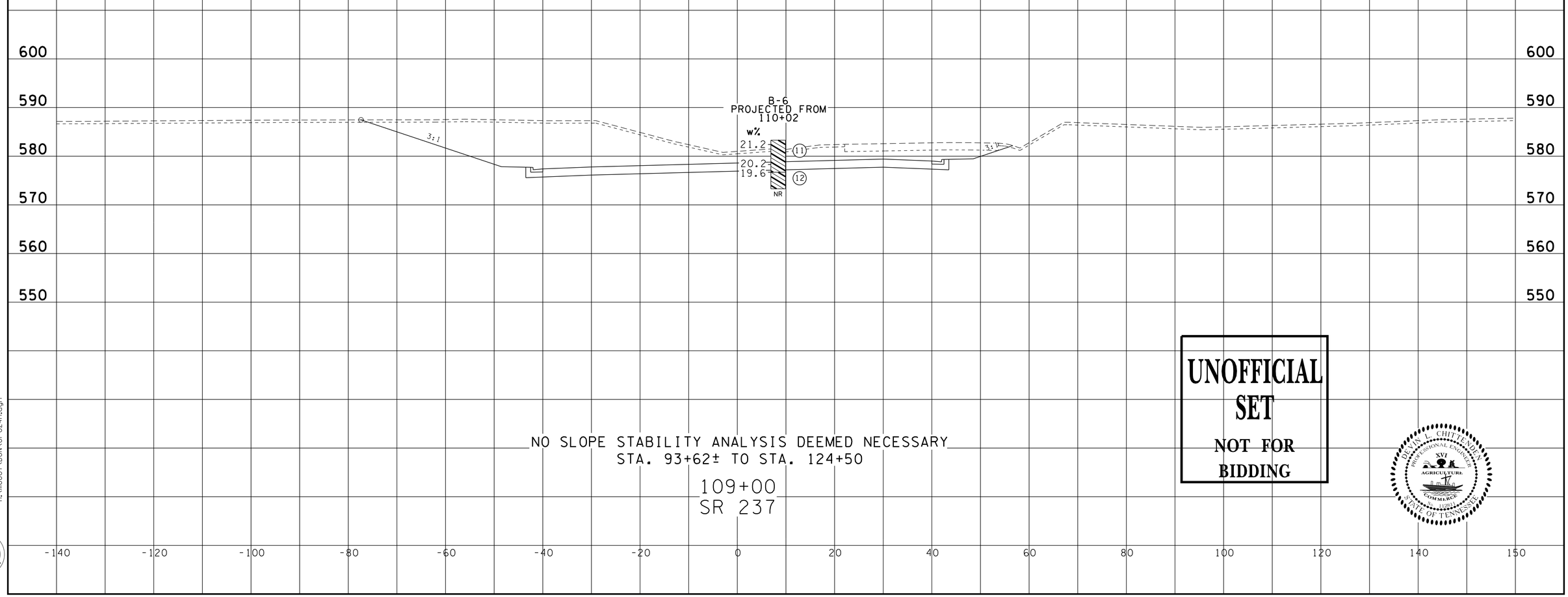
Survey & Design Division

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-STP-I-24-9(76)	24N



NO SLOPE STABILITY ANALYSIS DEEMED NECESSARY
STA. 93+62± TO STA. 124+50

109+00
SR 237

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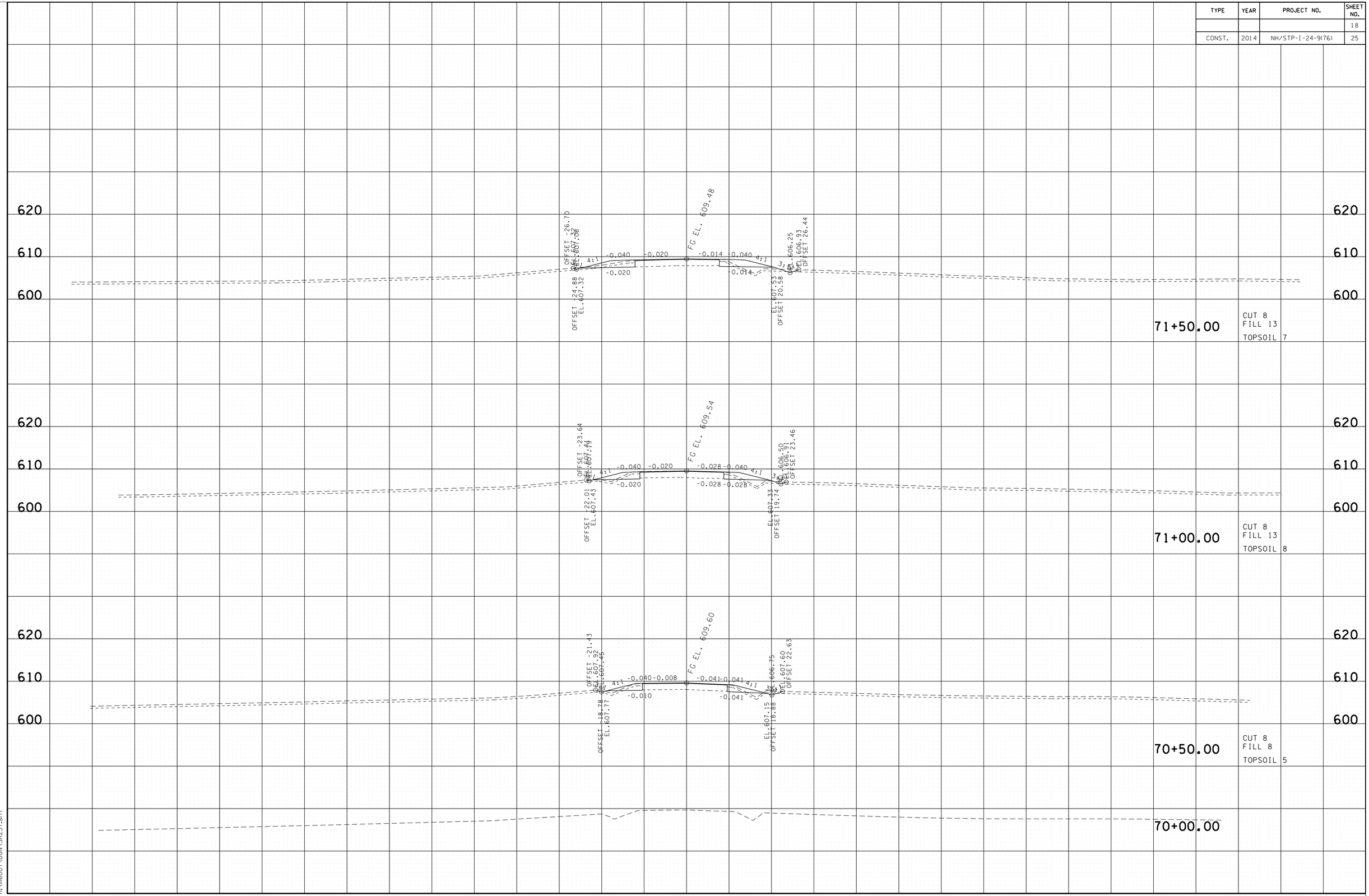
Survey & Design Division

TYPE	YEAR	PROJECT NO.	SHEET NO.
			18
CONST.	2014	NH/STP-I-24-9(76)	25



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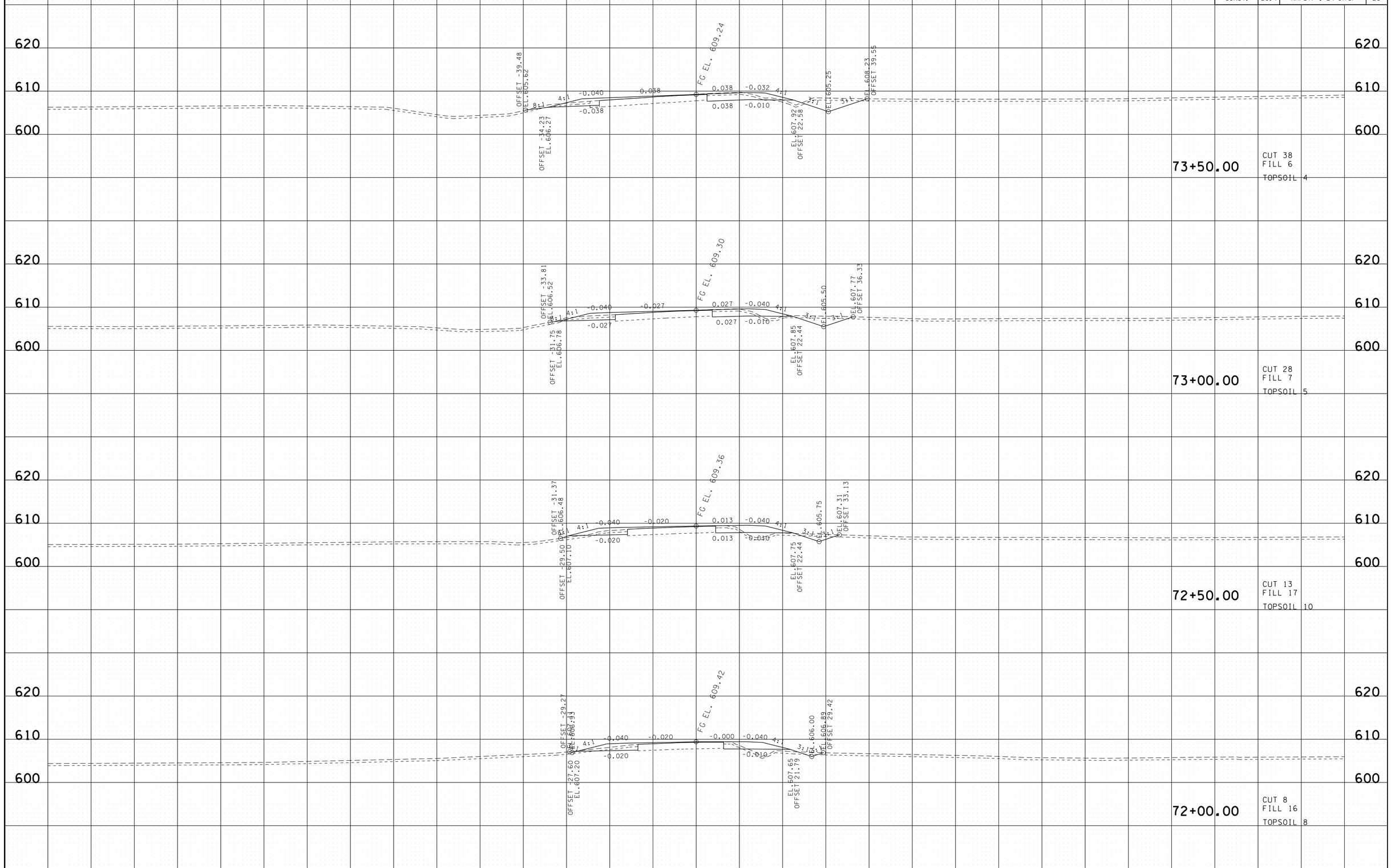
TYPE	YEAR	PROJECT NO.	SHEET NO.
			19
CONST.	2014	NH/STP-I-24-9(76)	26



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TYPE	YEAR	PROJECT NO.	SHEET NO.
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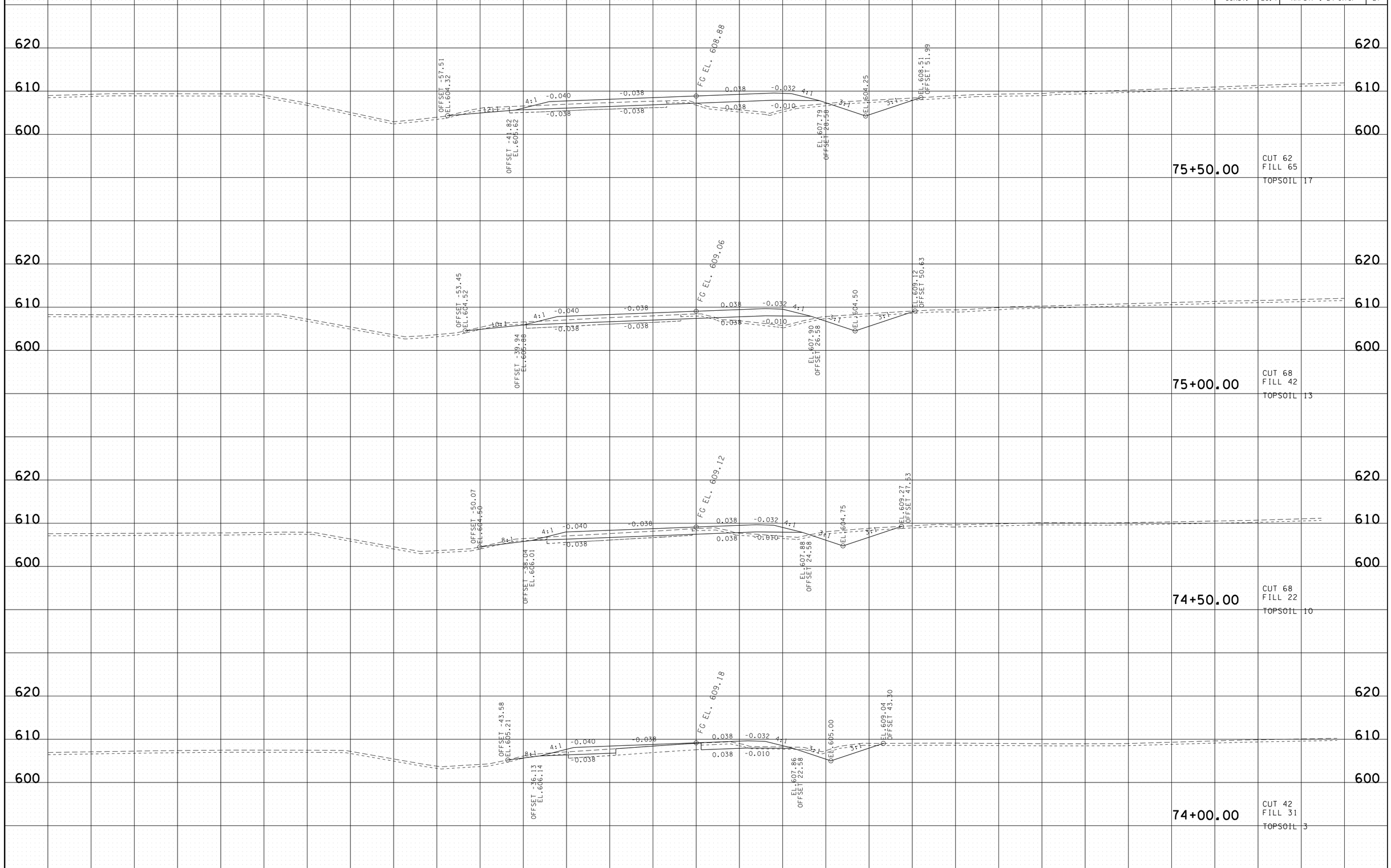
CONST.	2014	NH/STP-I-24-9(76)	27



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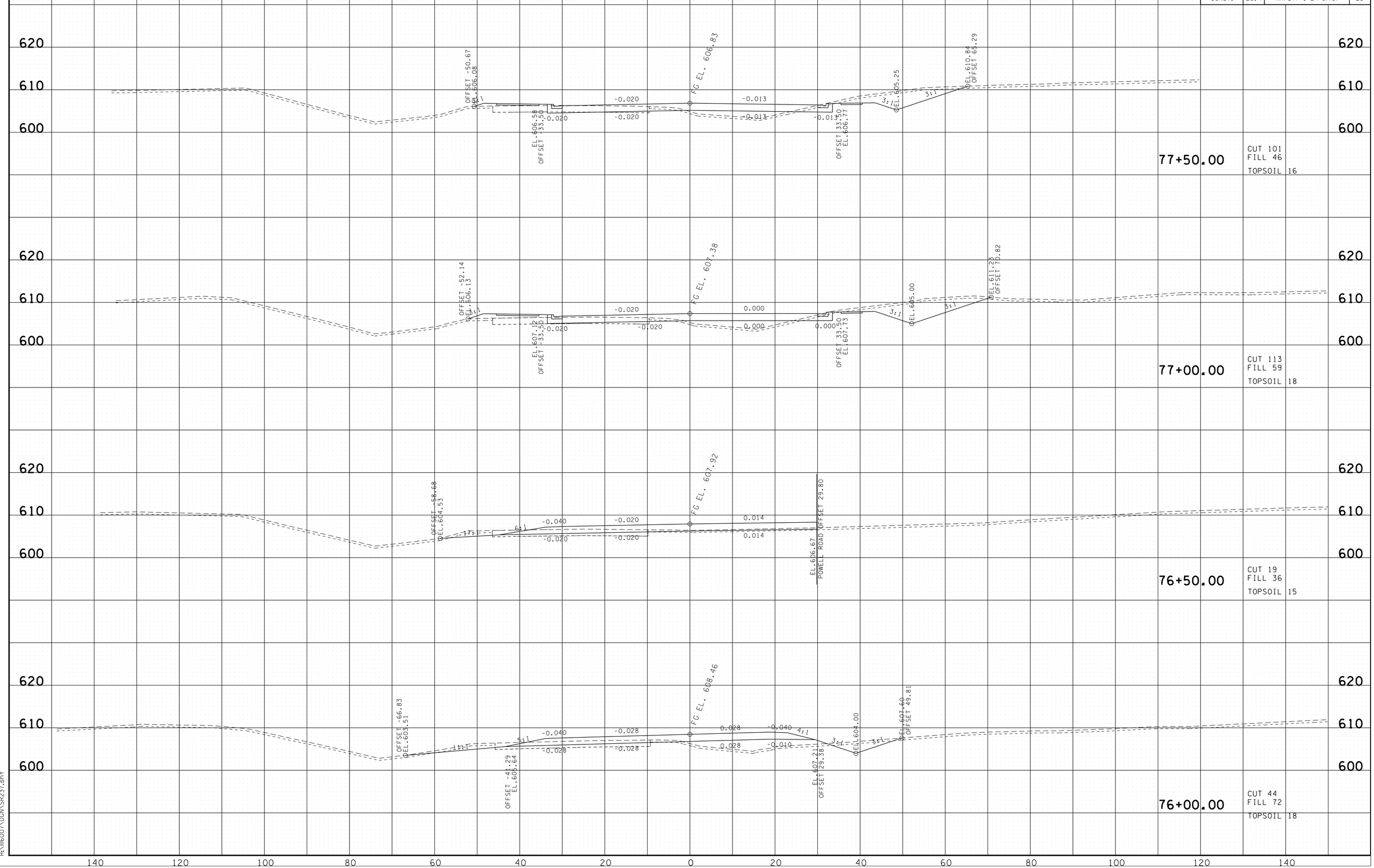
TYPE	YEAR	PROJECT NO.	SHEET NO.
			21
CONST.	2014	NH/STP-I-24-9(76)	28



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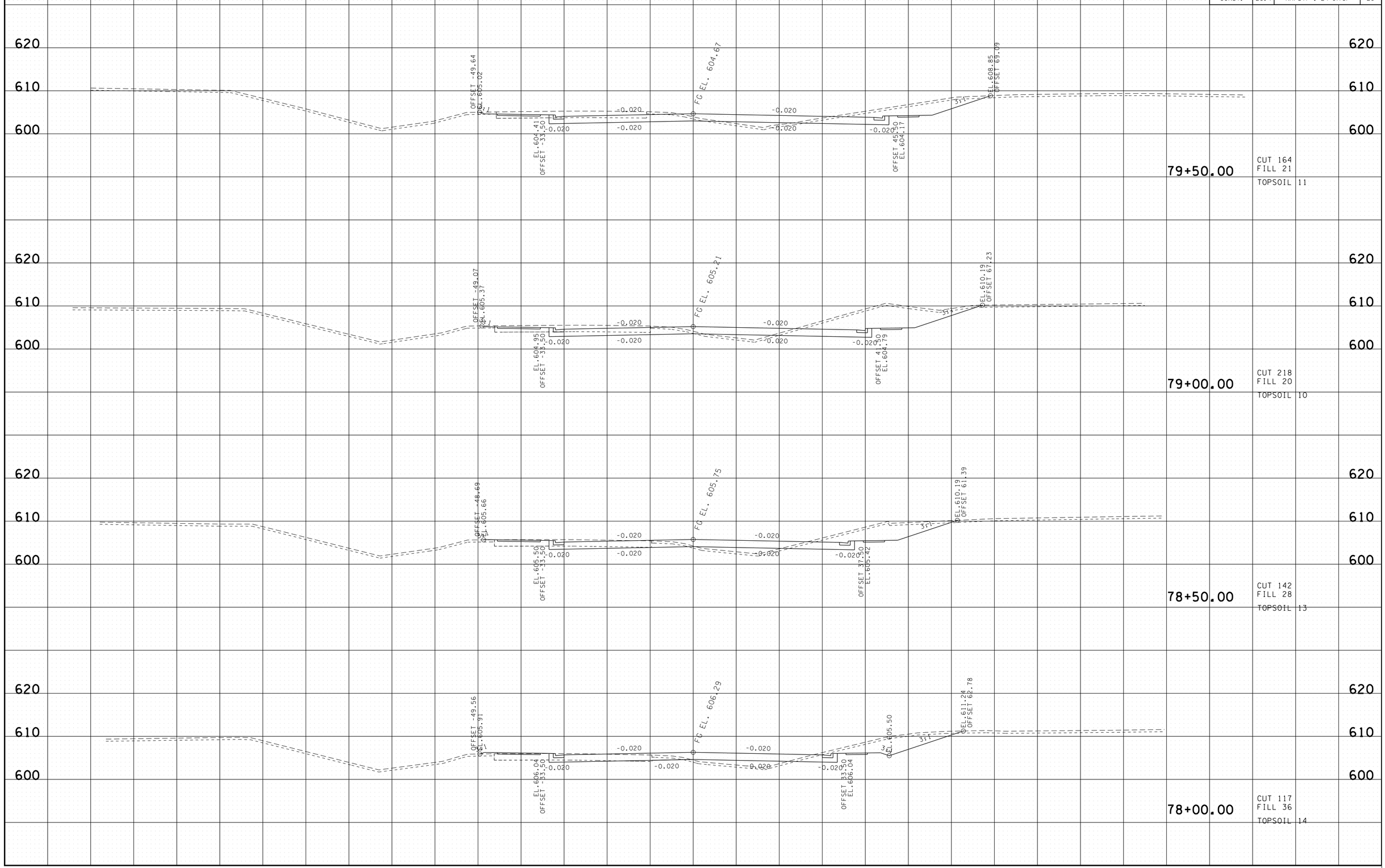
TYPE	YEAR	PROJECT NO.	SHEET NO.
			22
CONST.	2014	NH/STP-I-24-9(76)	29



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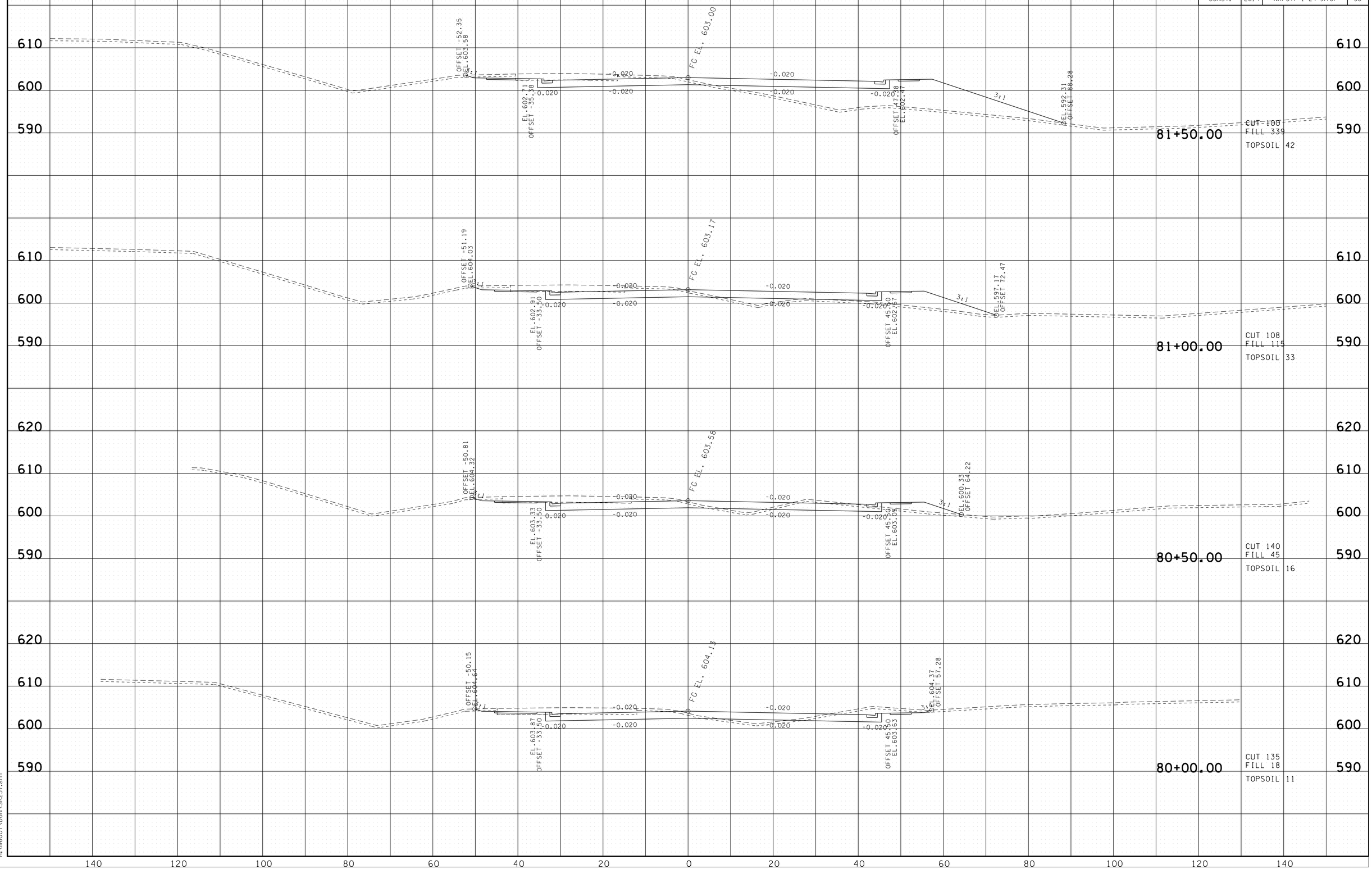
TYPE	YEAR	PROJECT NO.	SHEET NO.
			23
CONST.	2014	NH/STP-I-24-9(76)	30



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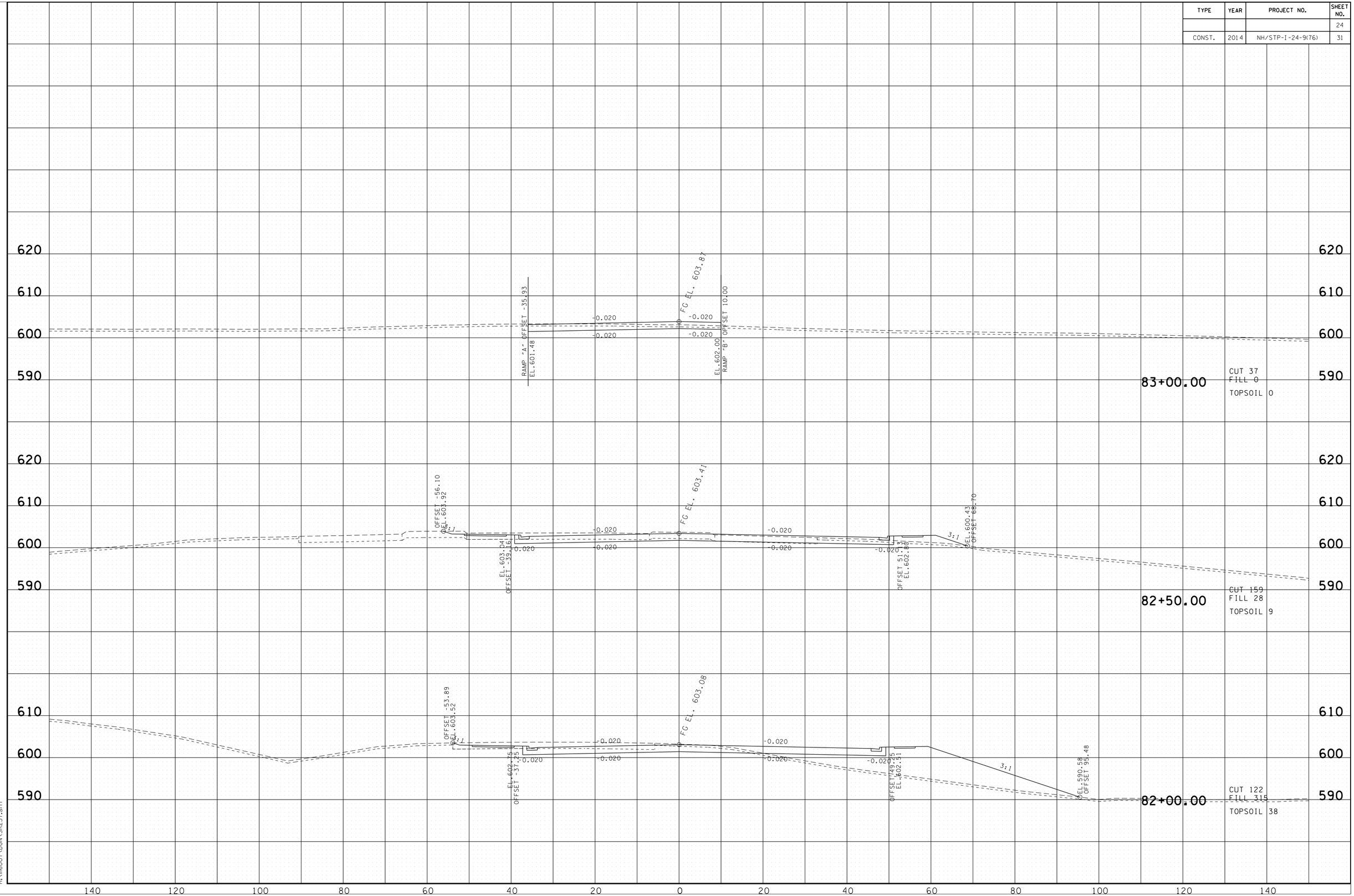
TYPE	YEAR	PROJECT NO.	SHEET NO.
			24
CONST.	2014	NH/STP-I-24-9(76)	31



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TYPE	YEAR	PROJECT NO.	SHEET NO.
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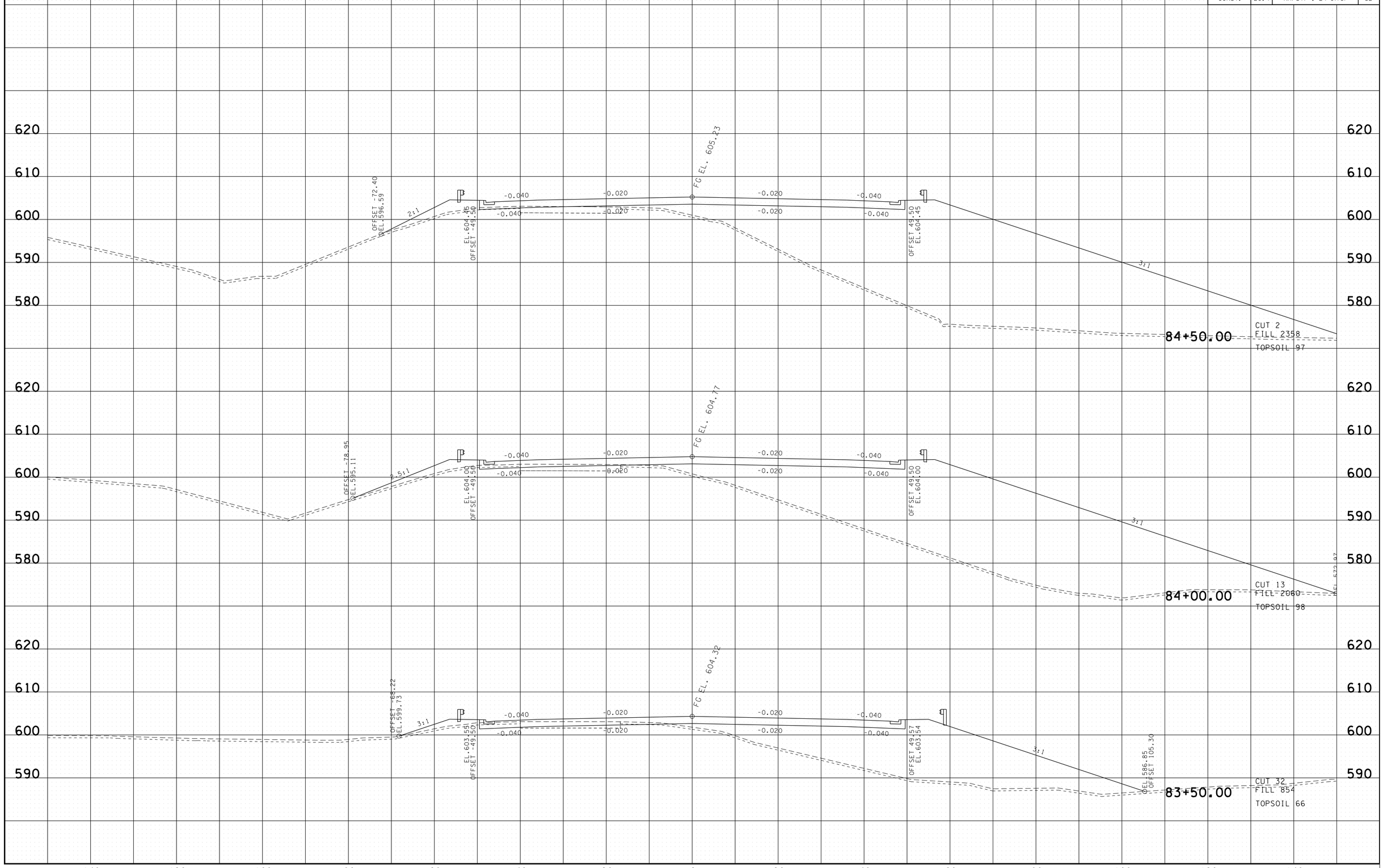
CONST.	2014	NH/STP-I-24-9(76)	32



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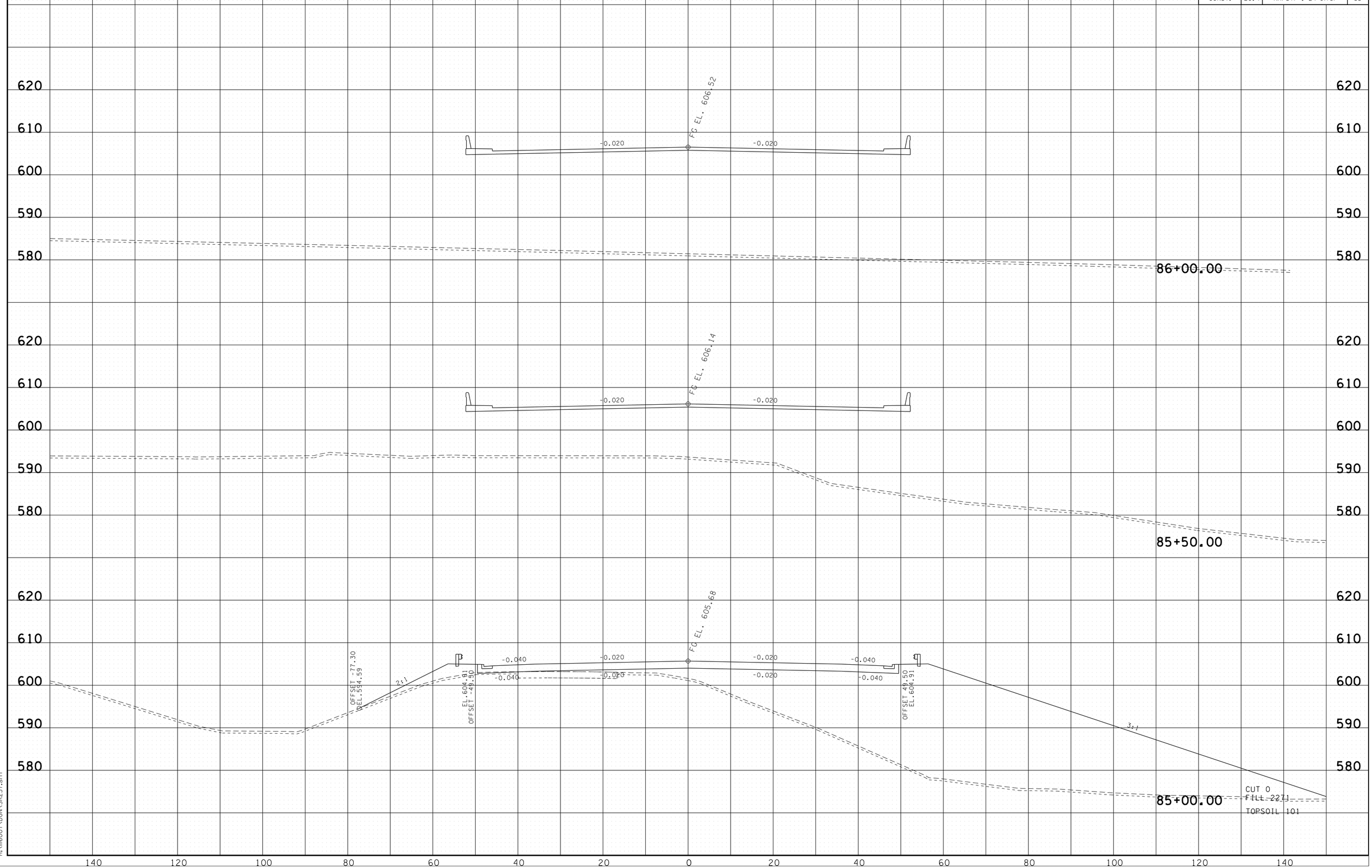
TYPE	YEAR	PROJECT NO.	SHEET NO.
			26
CONST.	2014	NH/STP-I-24-9(76)	33



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TYPE	YEAR	PROJECT NO.	SHEET NO.
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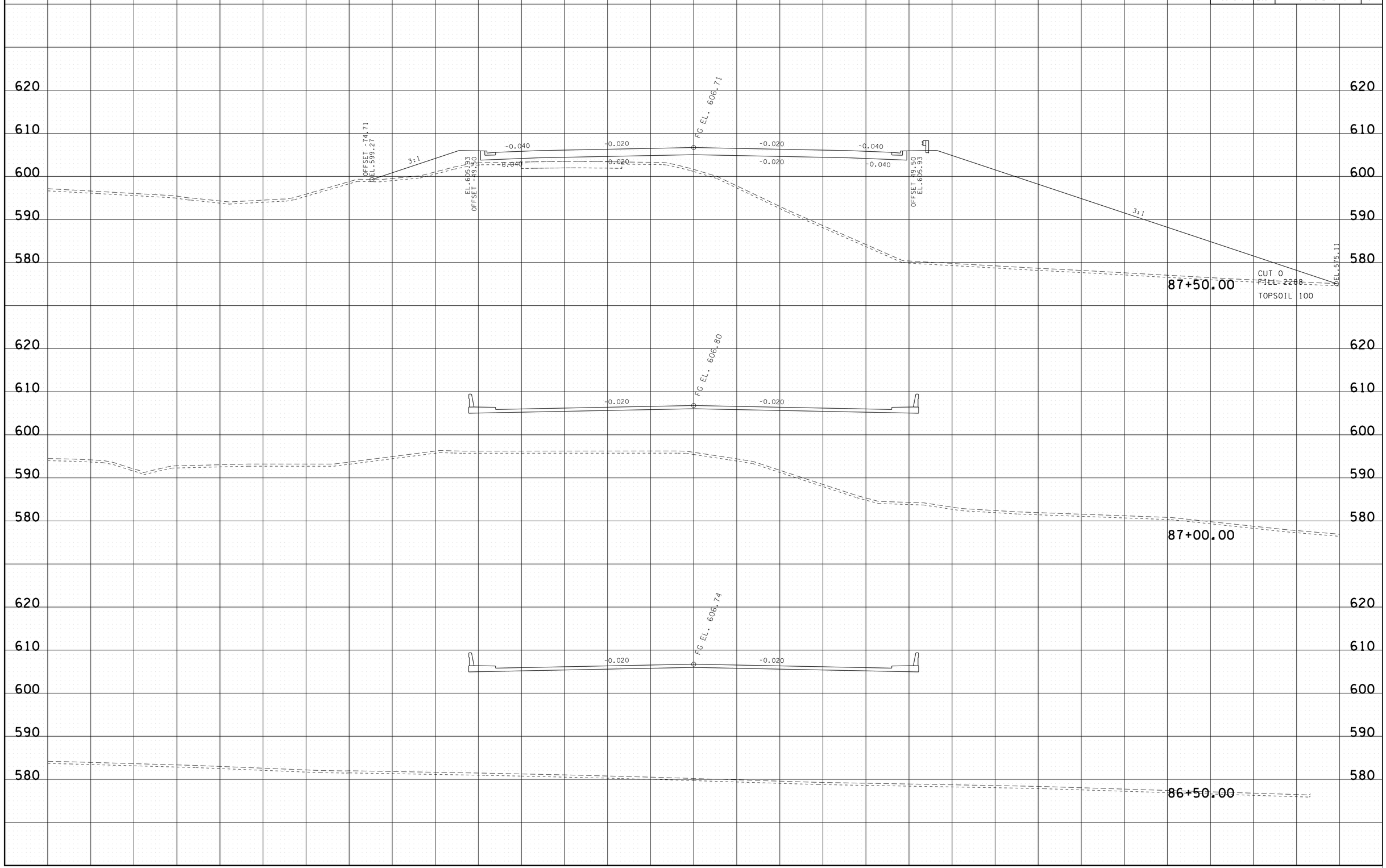
CONST.	2014	NH/STP-I-24-9(76)	34



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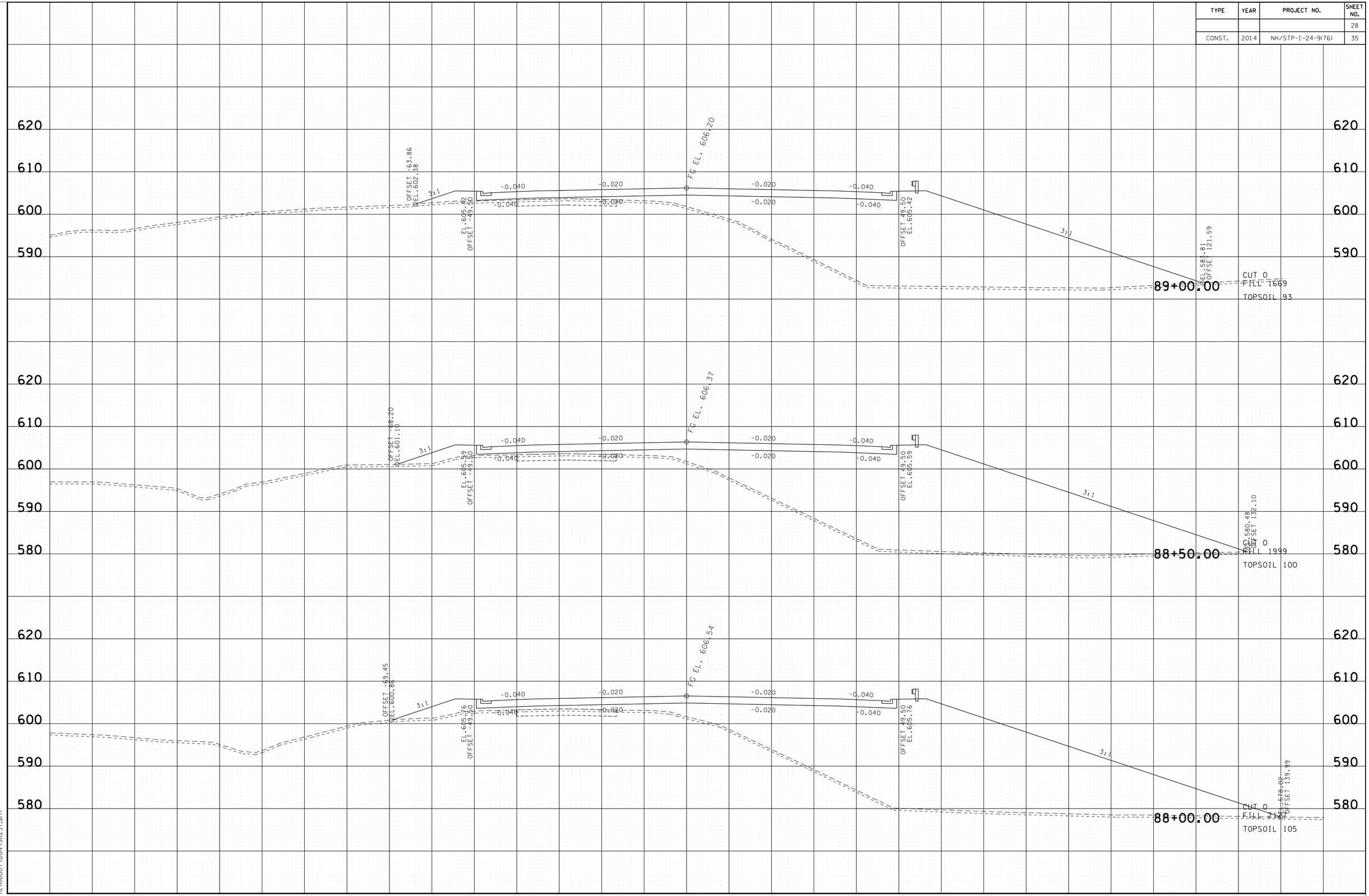
TYPE	YEAR	PROJECT NO.	SHEET NO.
			28
CONST.	2014	NH/STP-I-24-9(76)	35



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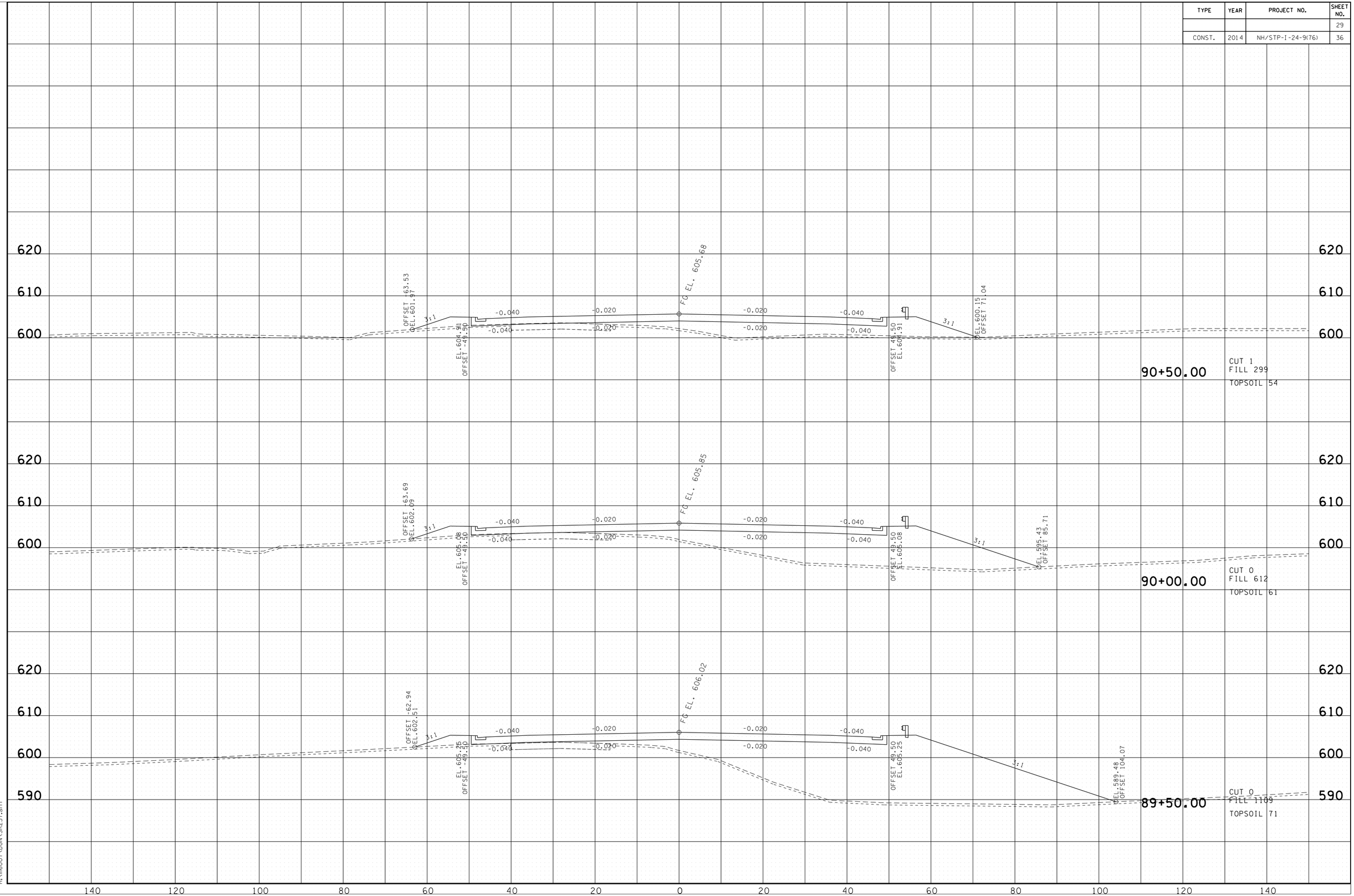
TYPE	YEAR	PROJECT NO.	SHEET NO.
			29
CONST.	2014	NH/STP-I-24-9(76)	36



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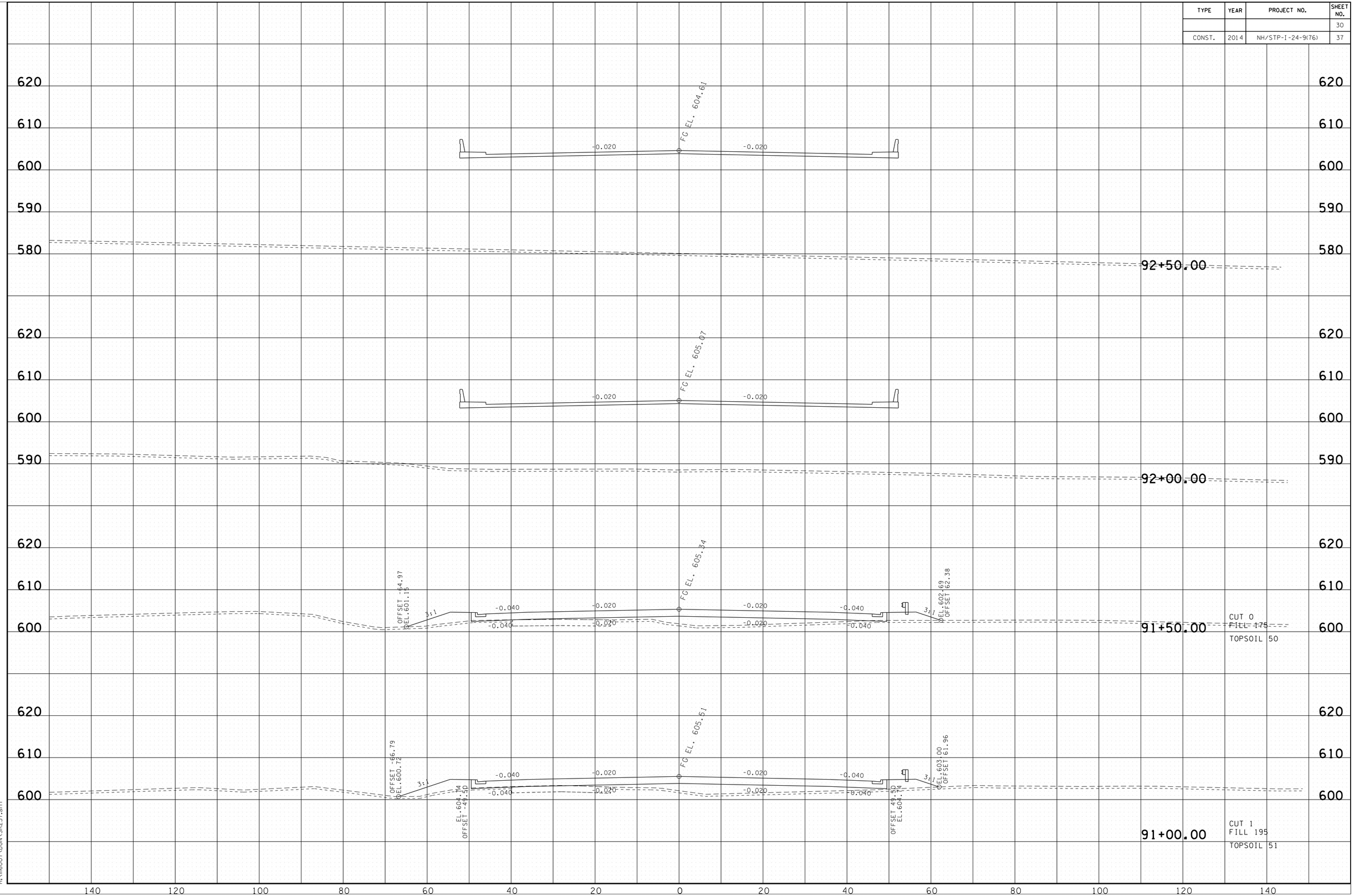
TYPE	YEAR	PROJECT NO.	SHEET NO.
			30
CONST.	2014	NH/STP-I-24-9(76)	37



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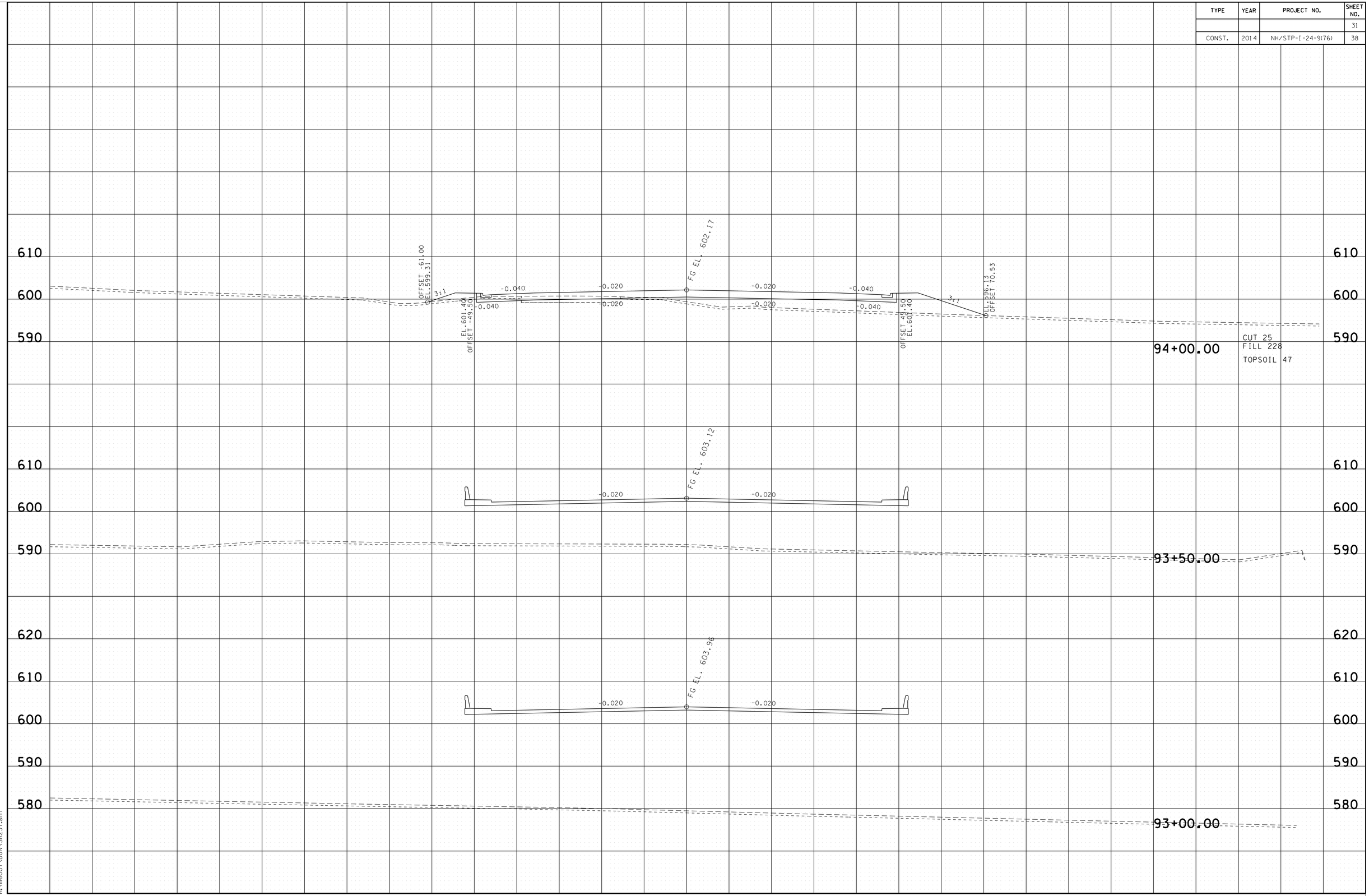
TYPE	YEAR	PROJECT NO.	SHEET NO.
			31
CONST.	2014	NH/STP-I-24-9(76)	38



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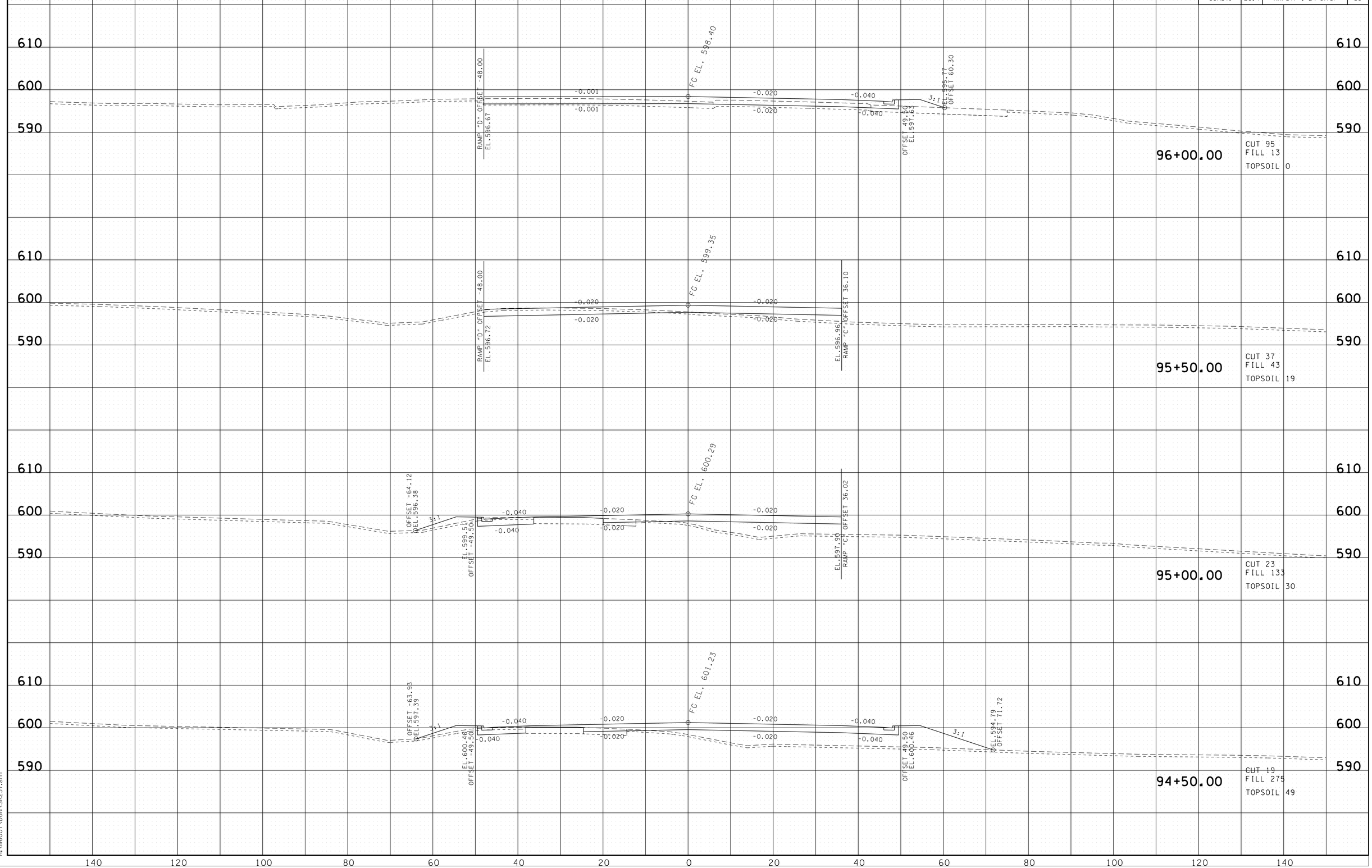
TYPE	YEAR	PROJECT NO.	SHEET NO.
			32
CONST.	2014	NH/STP-I-24-9(76)	39



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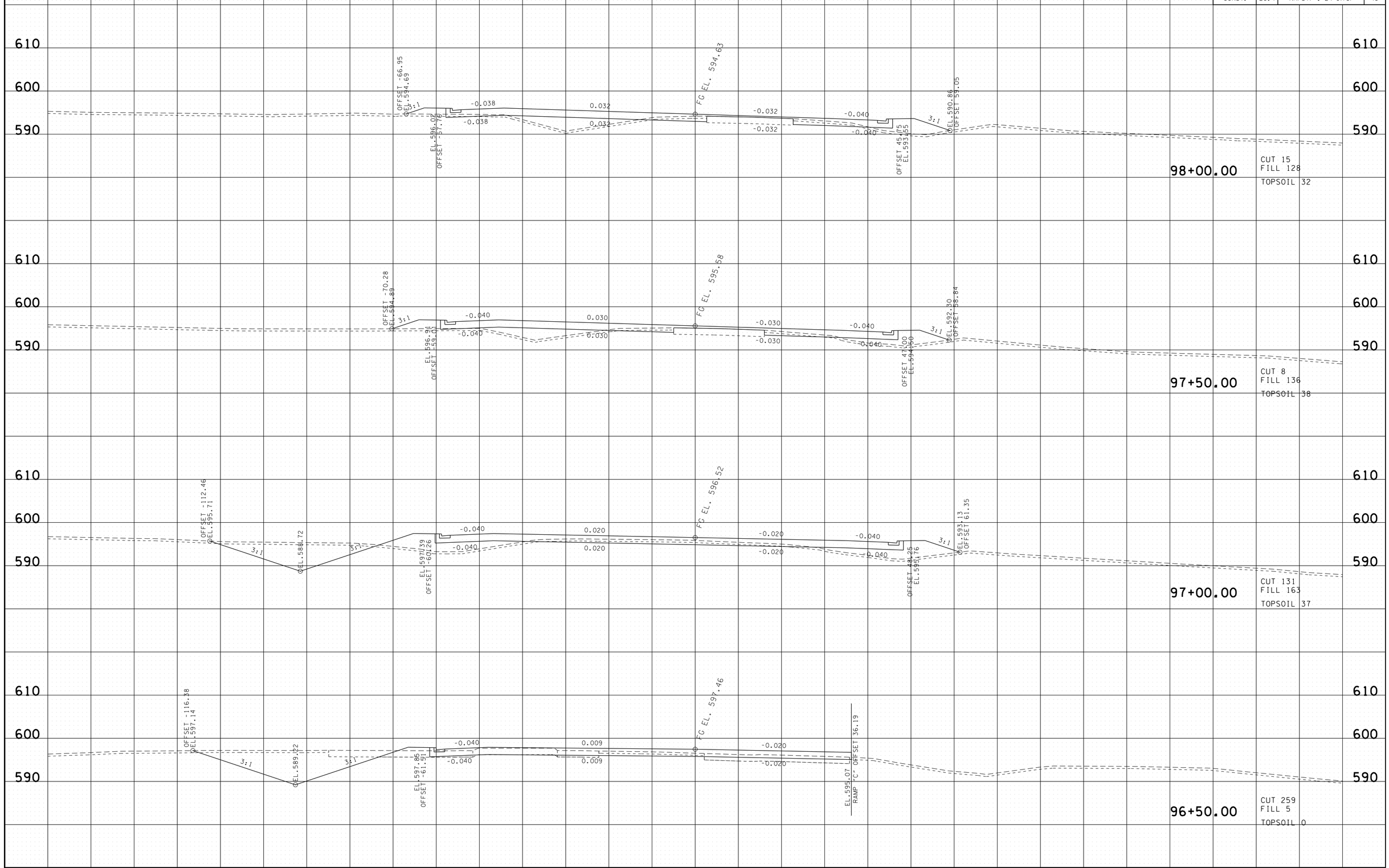
TYPE	YEAR	PROJECT NO.	SHEET NO.
			33
CONST.	2014	NH/STP-I-24-9(76)	40



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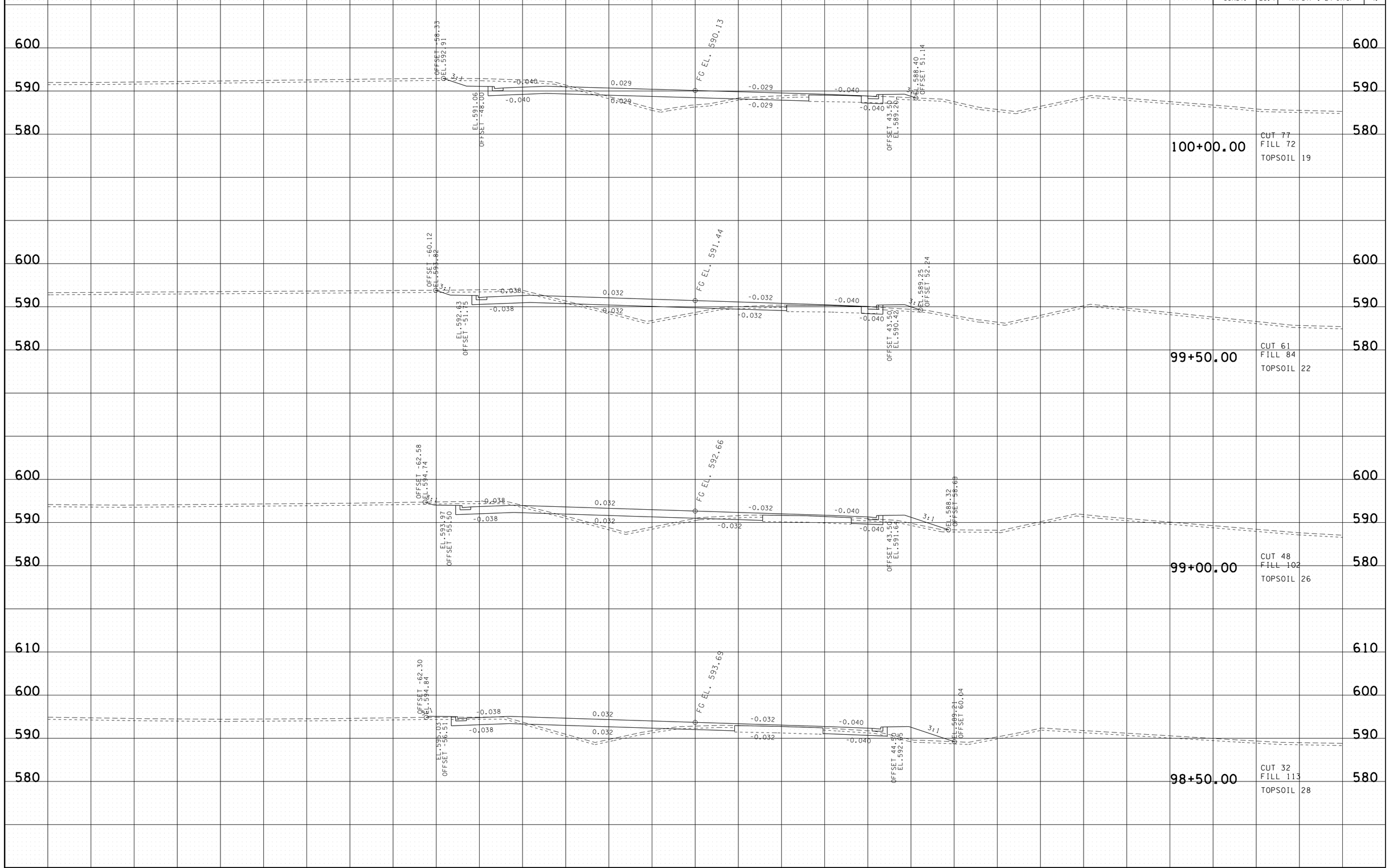
TYPE	YEAR	PROJECT NO.	SHEET NO.
			34
CONST.	2014	NH/STP-I-24-9(76)	41



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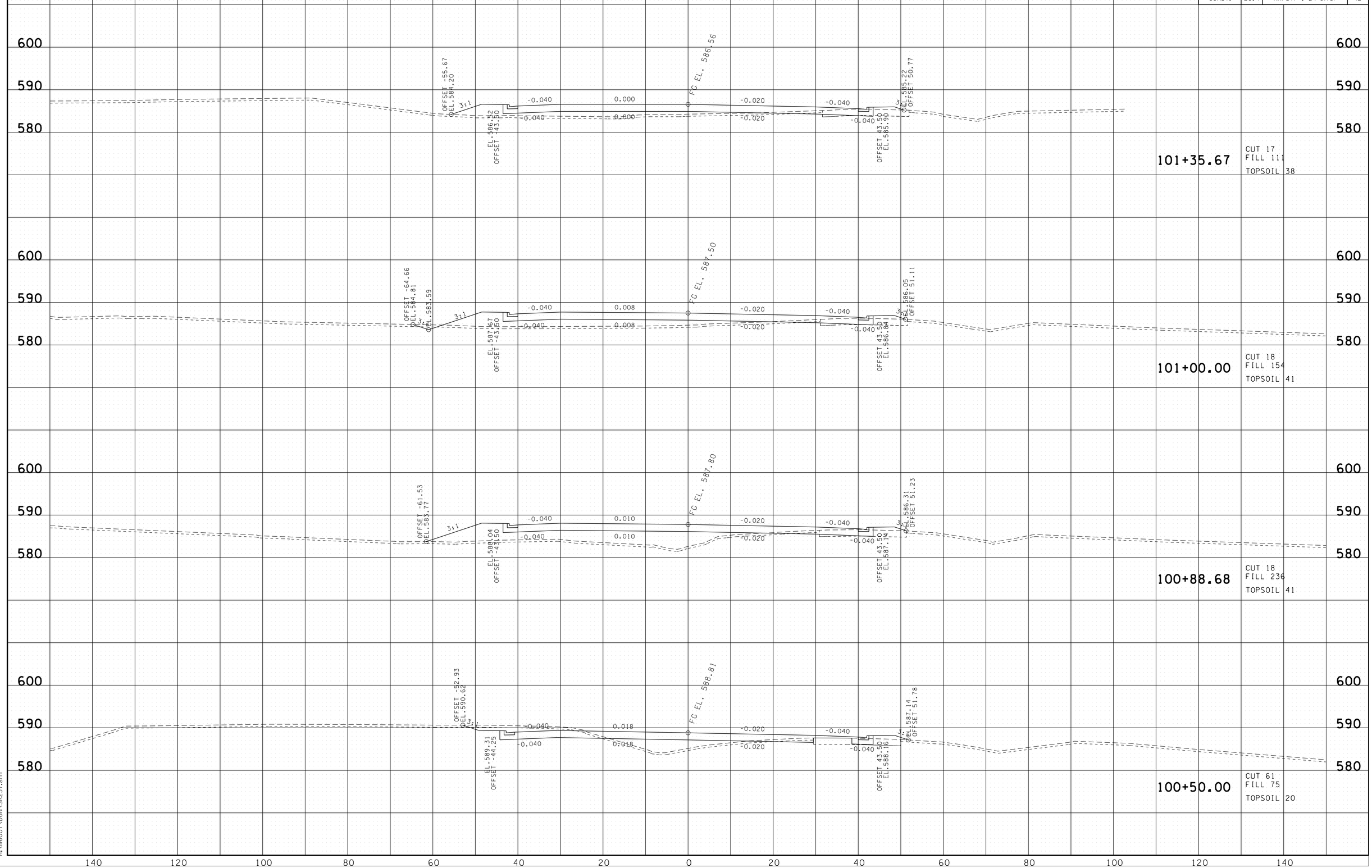
TYPE	YEAR	PROJECT NO.	SHEET NO.
			35
CONST.	2014	NH/STP-I-24-9(76)	42



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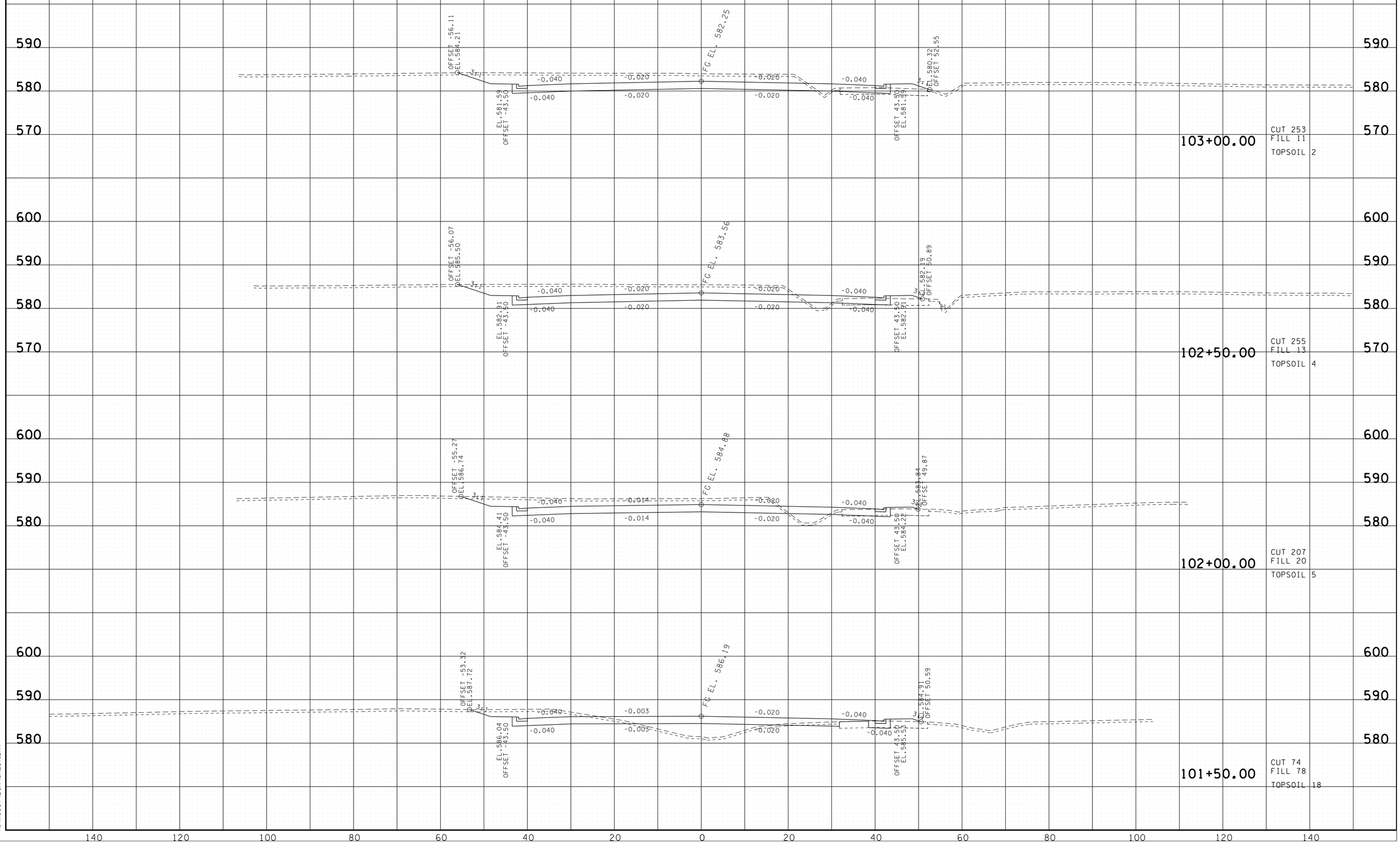
TYPE	YEAR	PROJECT NO.	SHEET NO.
			36
CONST.	2014	NH/STP-I-24-9(76)	43



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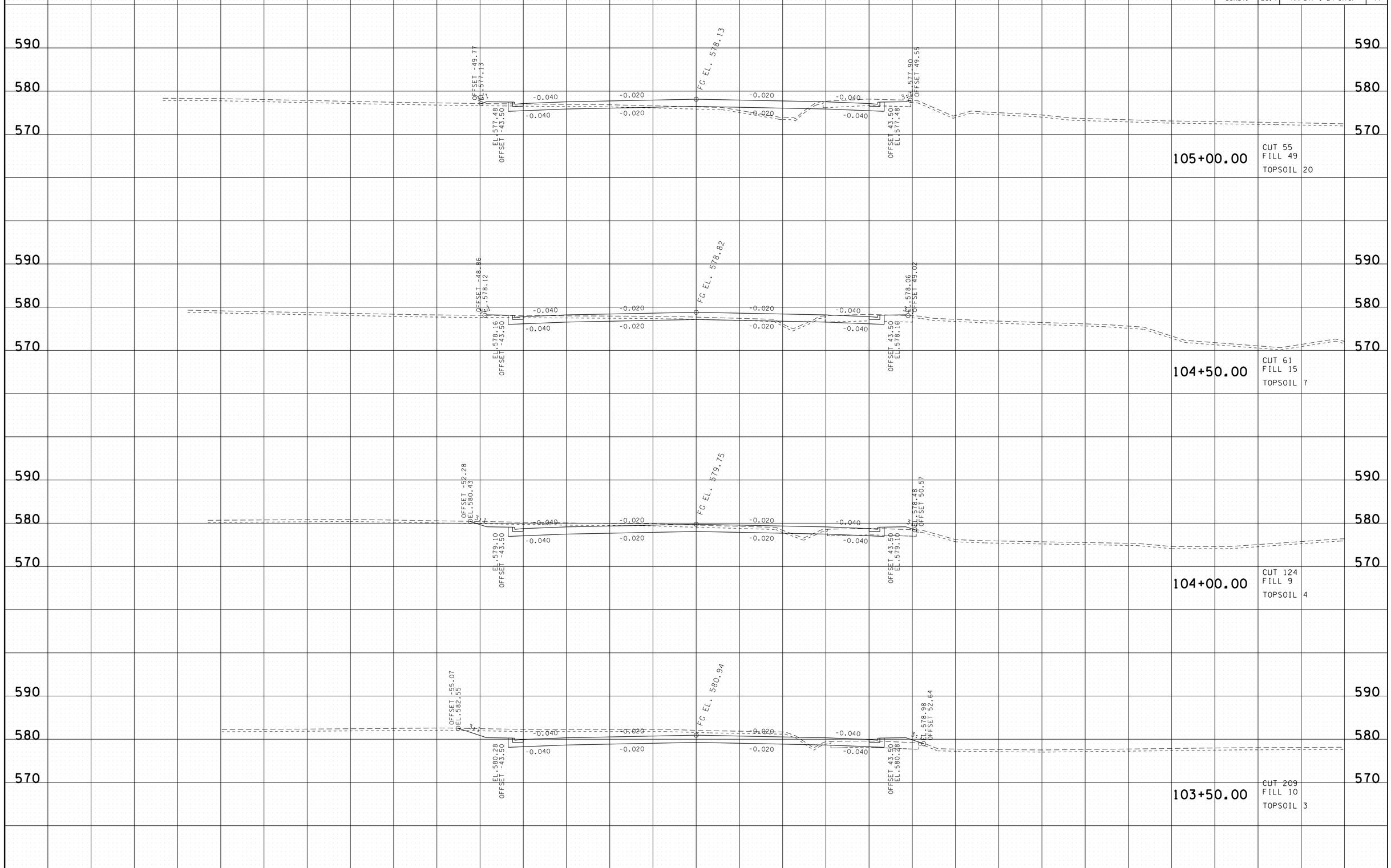
TYPE	YEAR	PROJECT NO.	SHEET NO.
			37
CONST.	2014	NH/STP-I-24-9(76)	44



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TYPE	YEAR	PROJECT NO.	SHEET NO.
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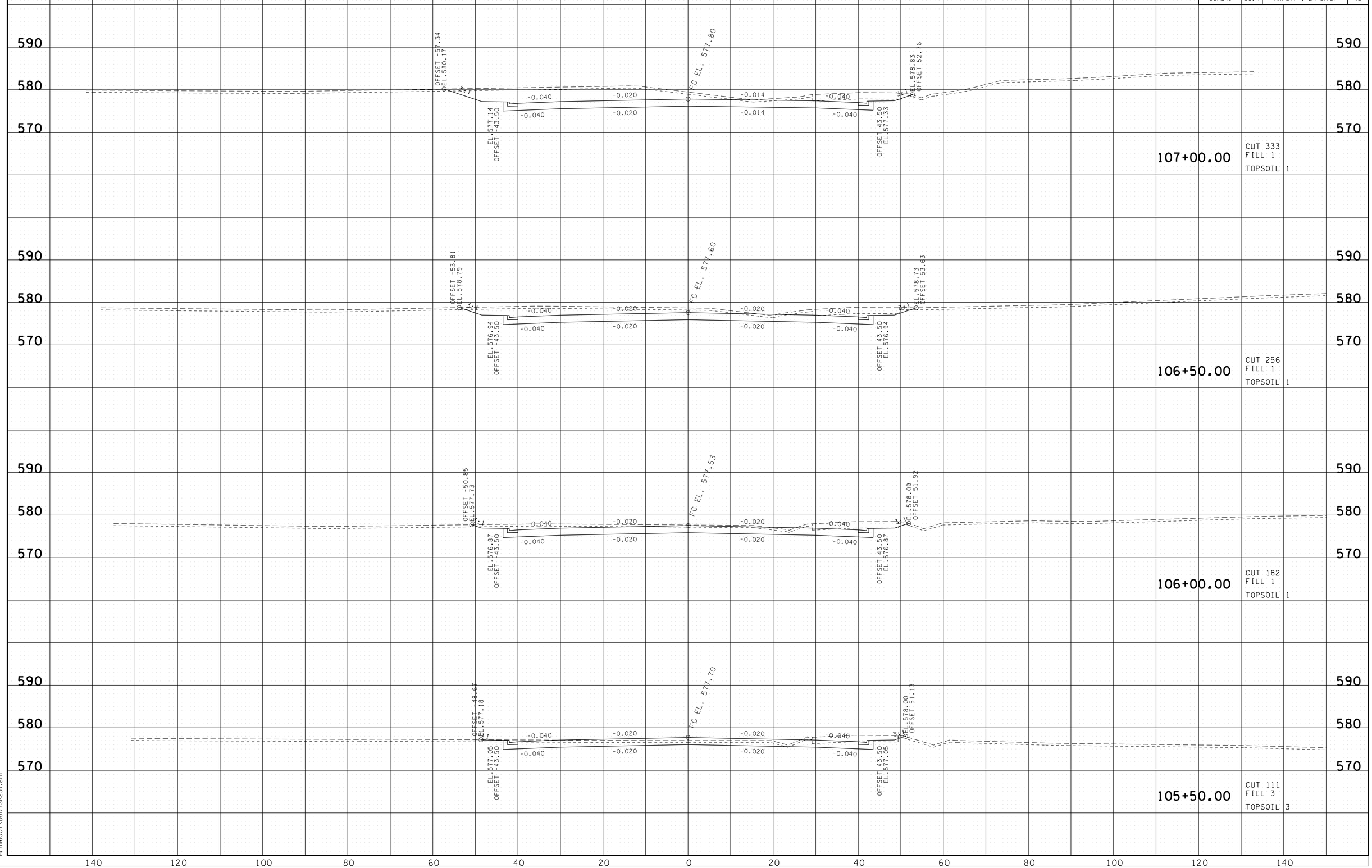
CONST.	2014	NH/STP-I-24-9(76)	45



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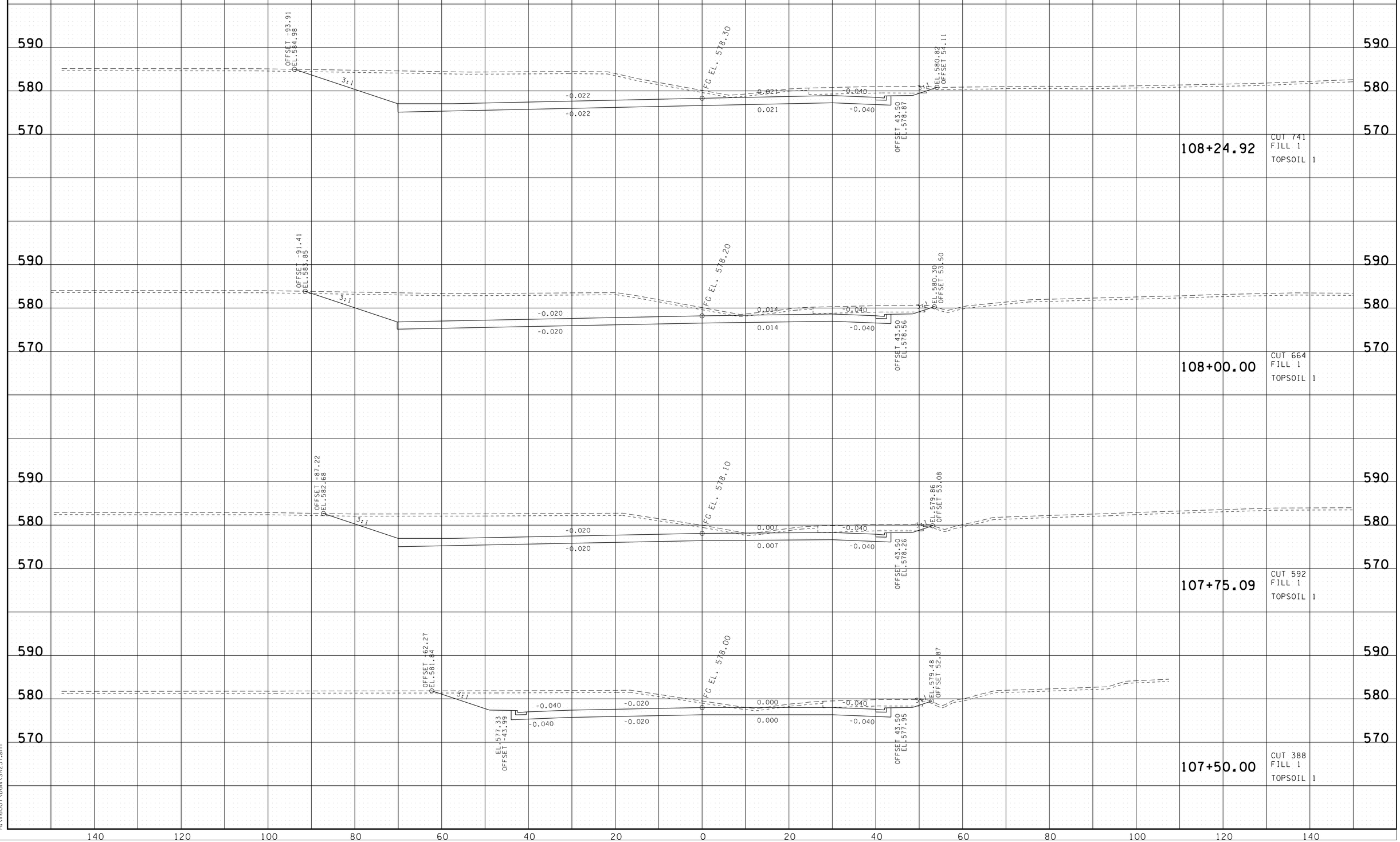
TYPE	YEAR	PROJECT NO.	SHEET NO.
			39
CONST.	2014	NH/STP-I-24-9(76)	46



8/5/2014 8:06:06 PM
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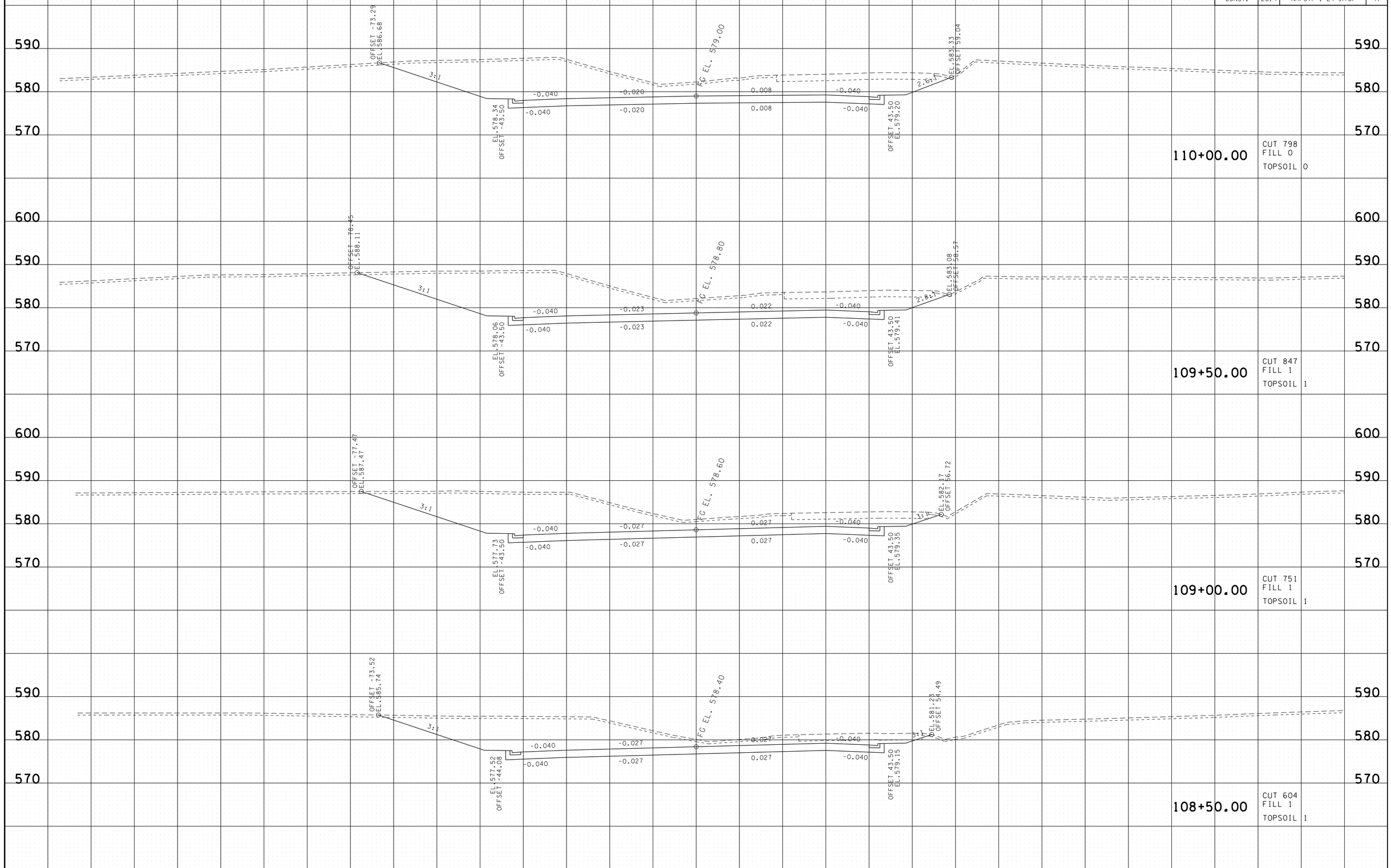
TYPE	YEAR	PROJECT NO.	SHEET NO.
			40
CONST.	2014	NH/STP-I-24-9(76)	47



8/5/2014 8:06:07 PM
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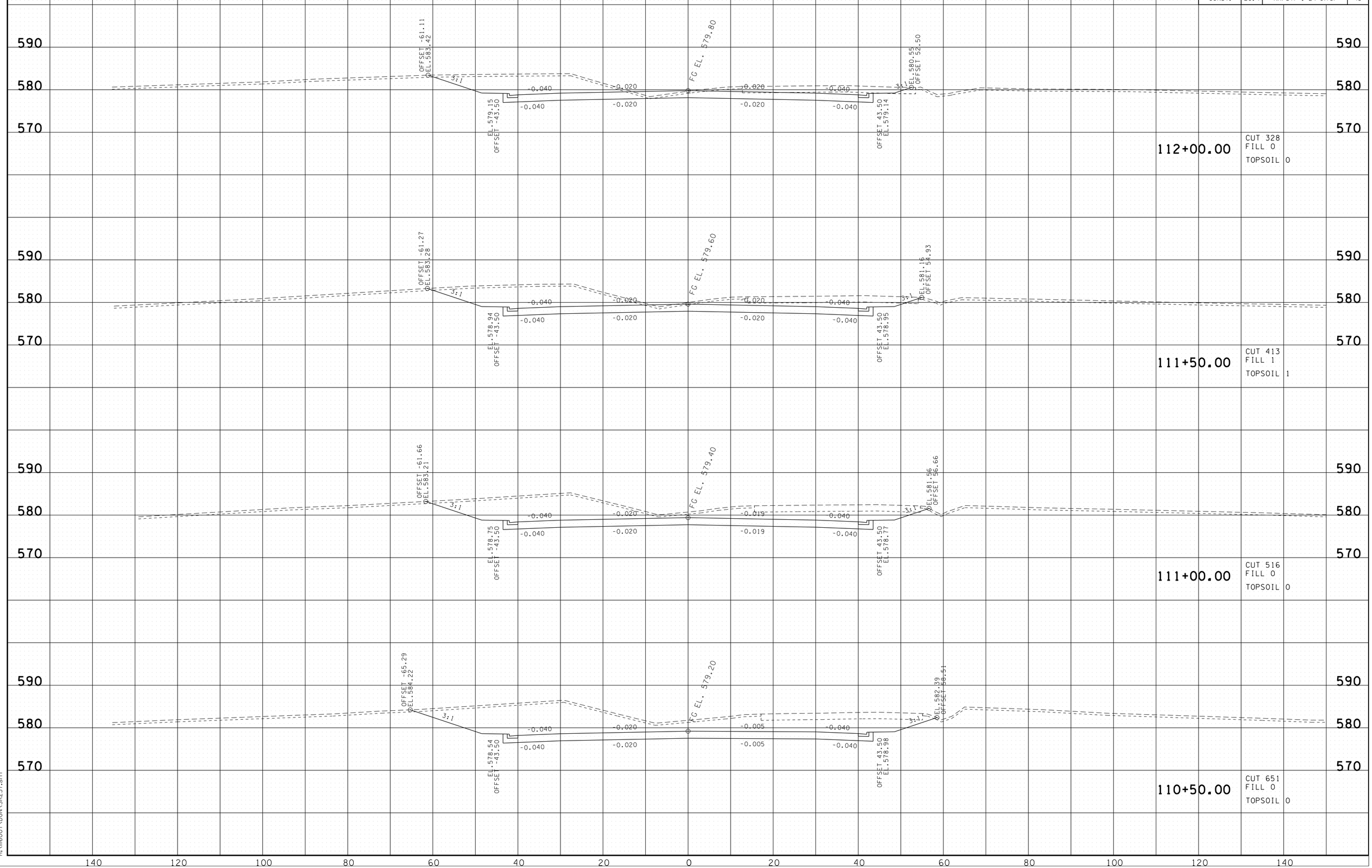
TYPE	YEAR	PROJECT NO.	SHEET NO.
			41
CONST.	2014	NH/STP-I-24-9(76)	48



8/5/2014 8:06:08 PM
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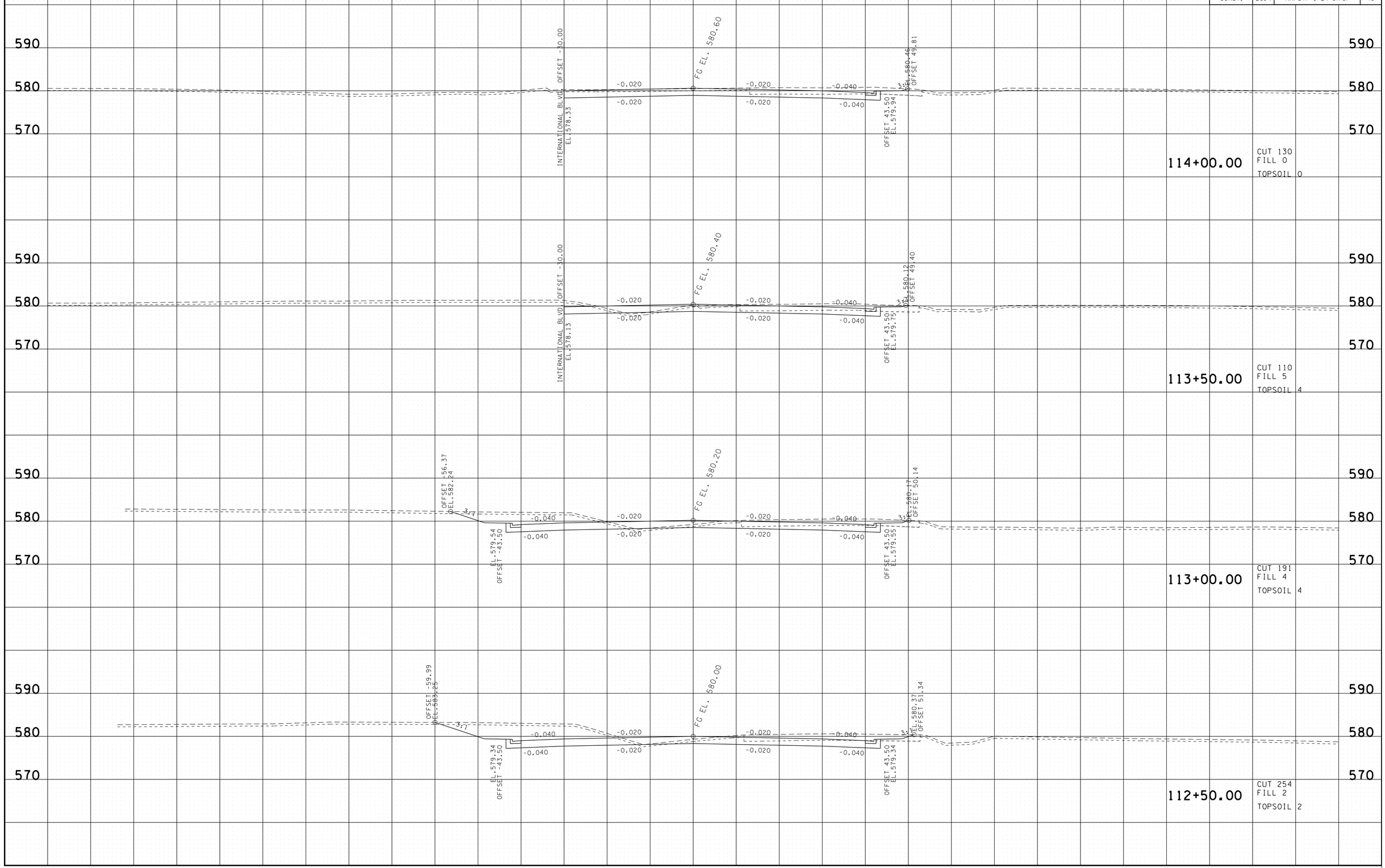
TYPE	YEAR	PROJECT NO.	SHEET NO.
			42
CONST.	2014	NH/STP-I-24-9(76)	49



8/5/2014 8:06:10 PM
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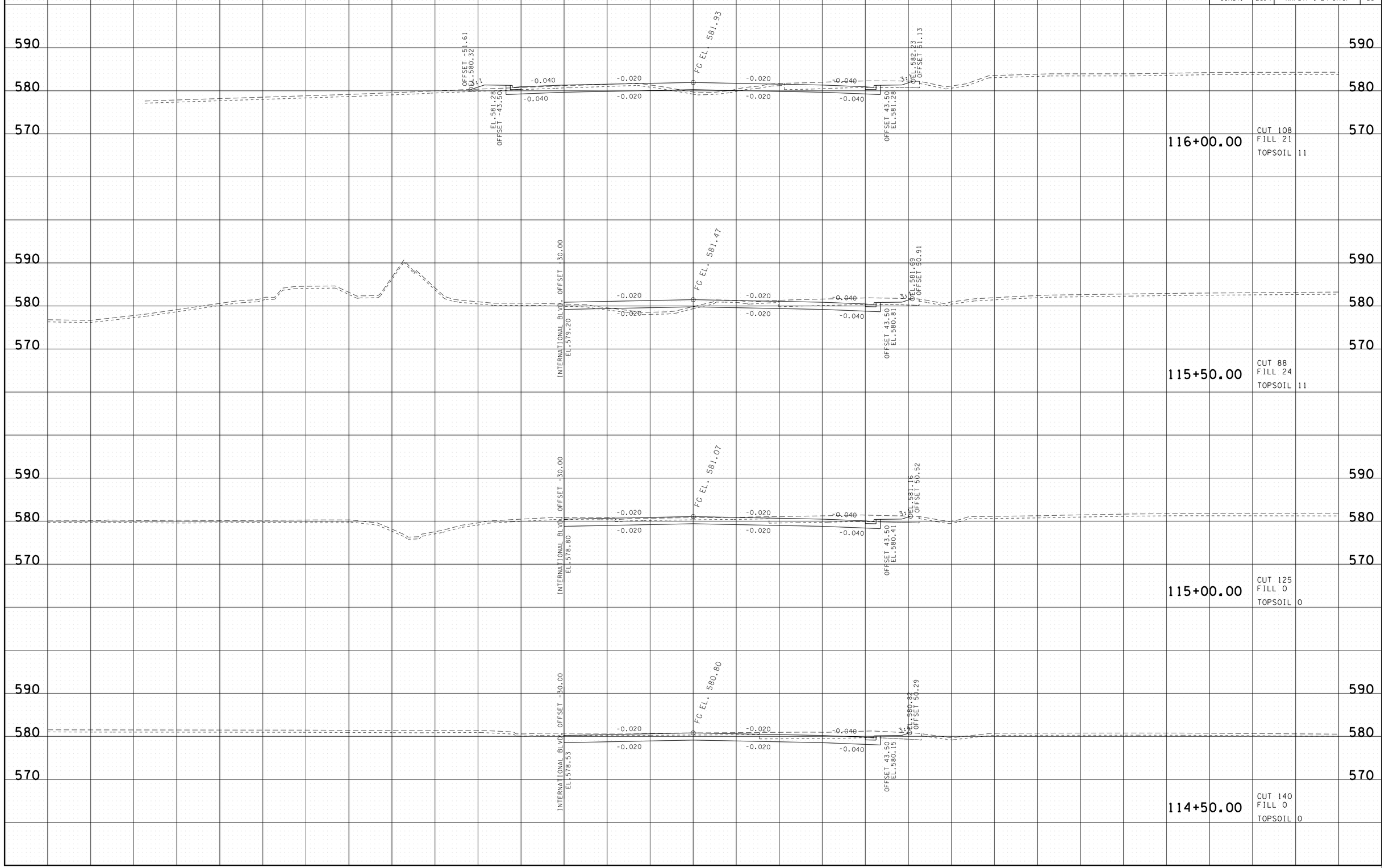
TYPE	YEAR	PROJECT NO.	SHEET NO.
			43
CONST.	2014	NH/STP-I-24-9(76)	50



8/5/2014 8:06:11 PM
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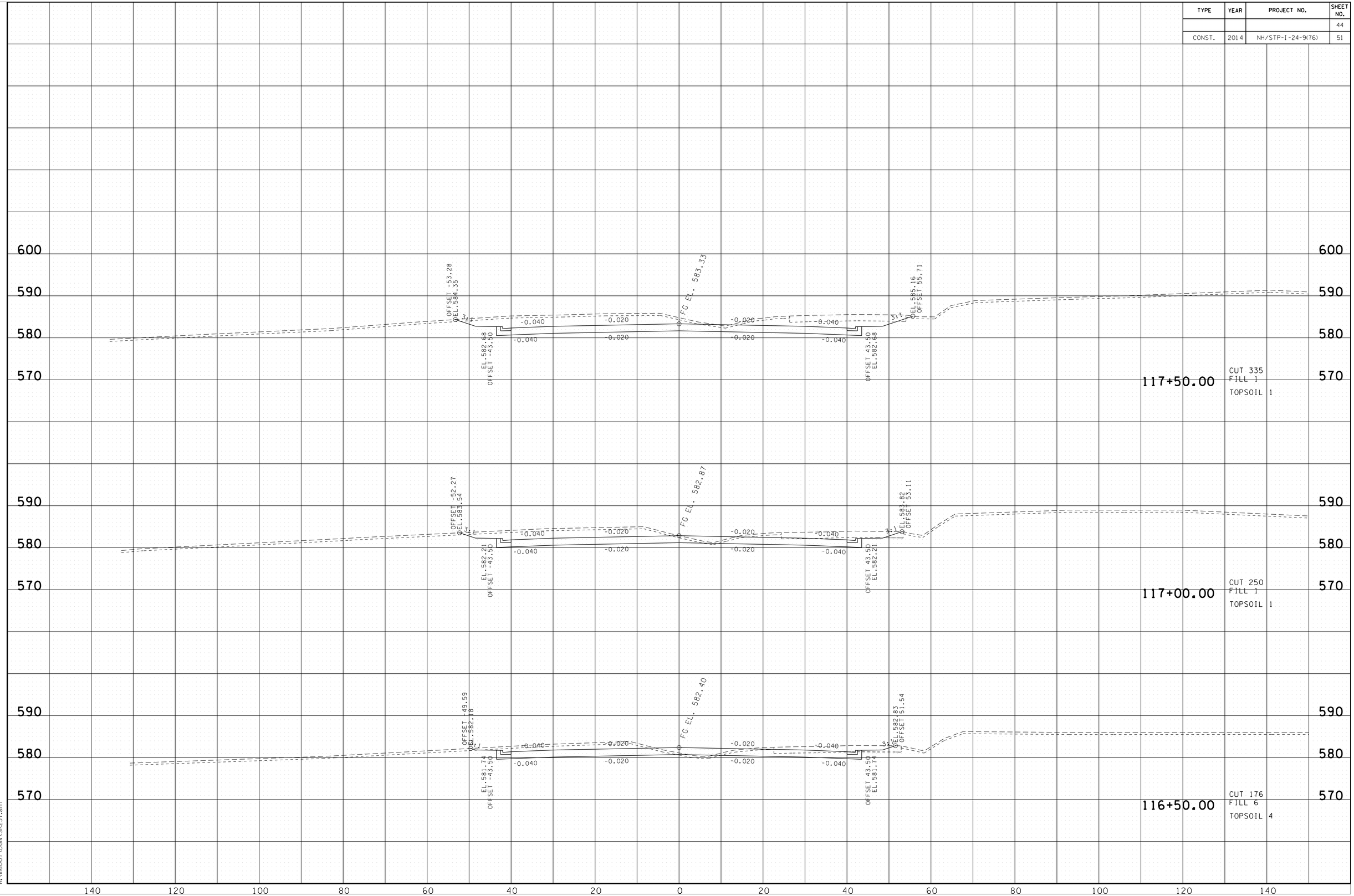
TYPE	YEAR	PROJECT NO.	SHEET NO.
			44
CONST.	2014	NH/STP-I-24-9(76)	51



8/5/2014 8:06:12 PM
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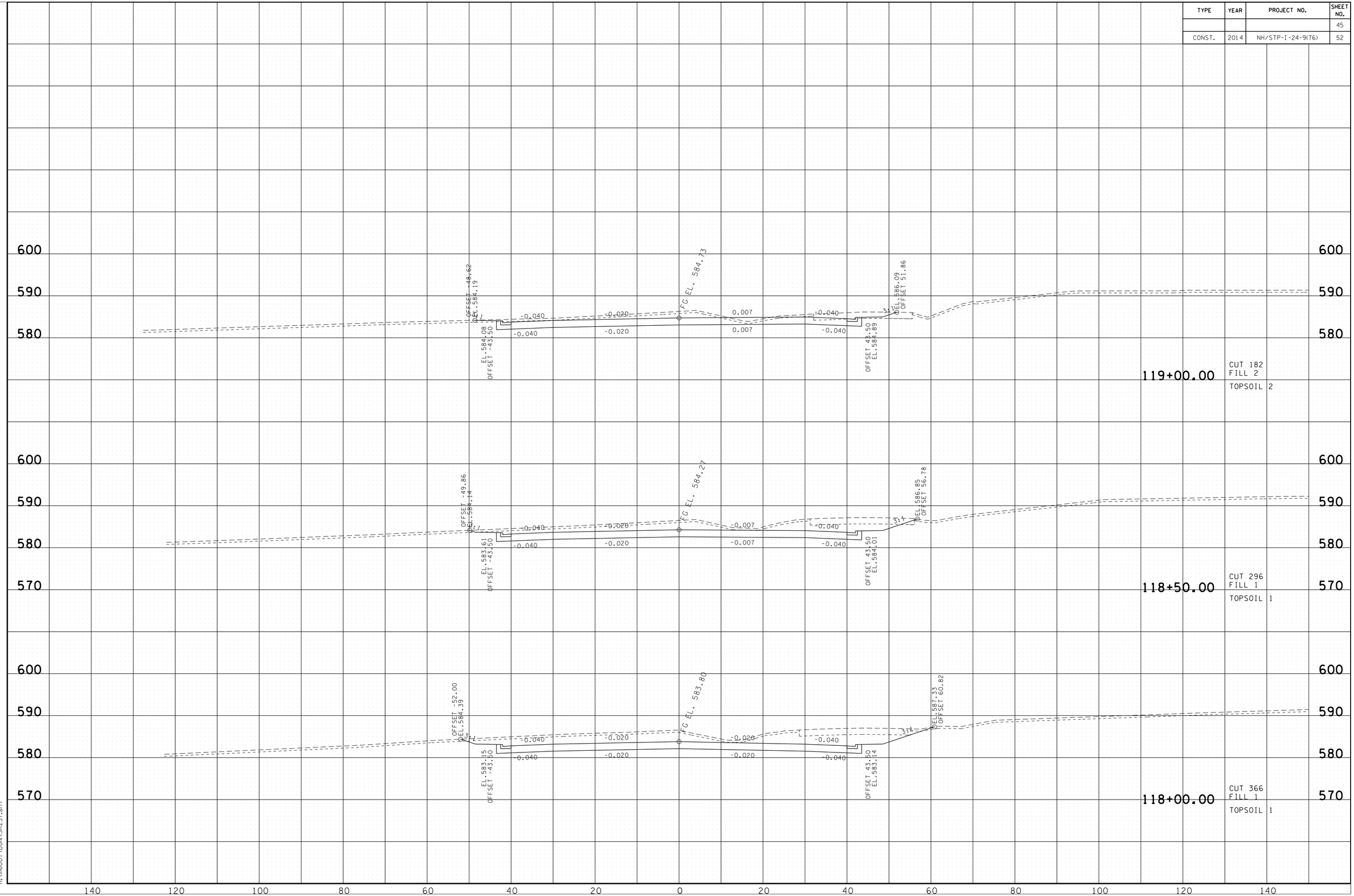
TYPE	YEAR	PROJECT NO.	SHEET NO.
			45
CONST.	2014	NH/STP-I-24-9(76)	52



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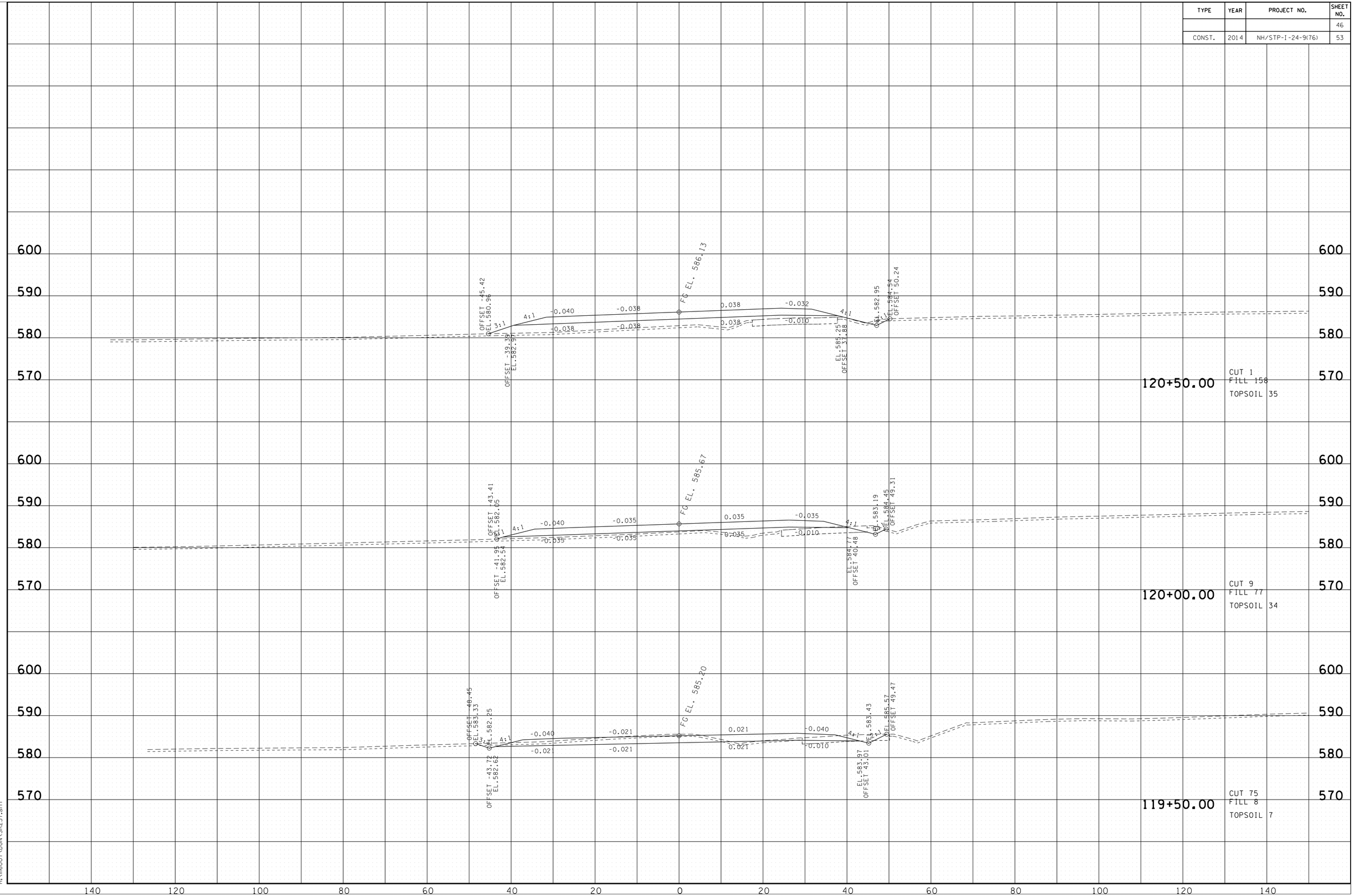
TYPE	YEAR	PROJECT NO.	SHEET NO.
			46
CONST.	2014	NH/STP-I-24-9(76)	53



8/5/2014 8:06:15 PM
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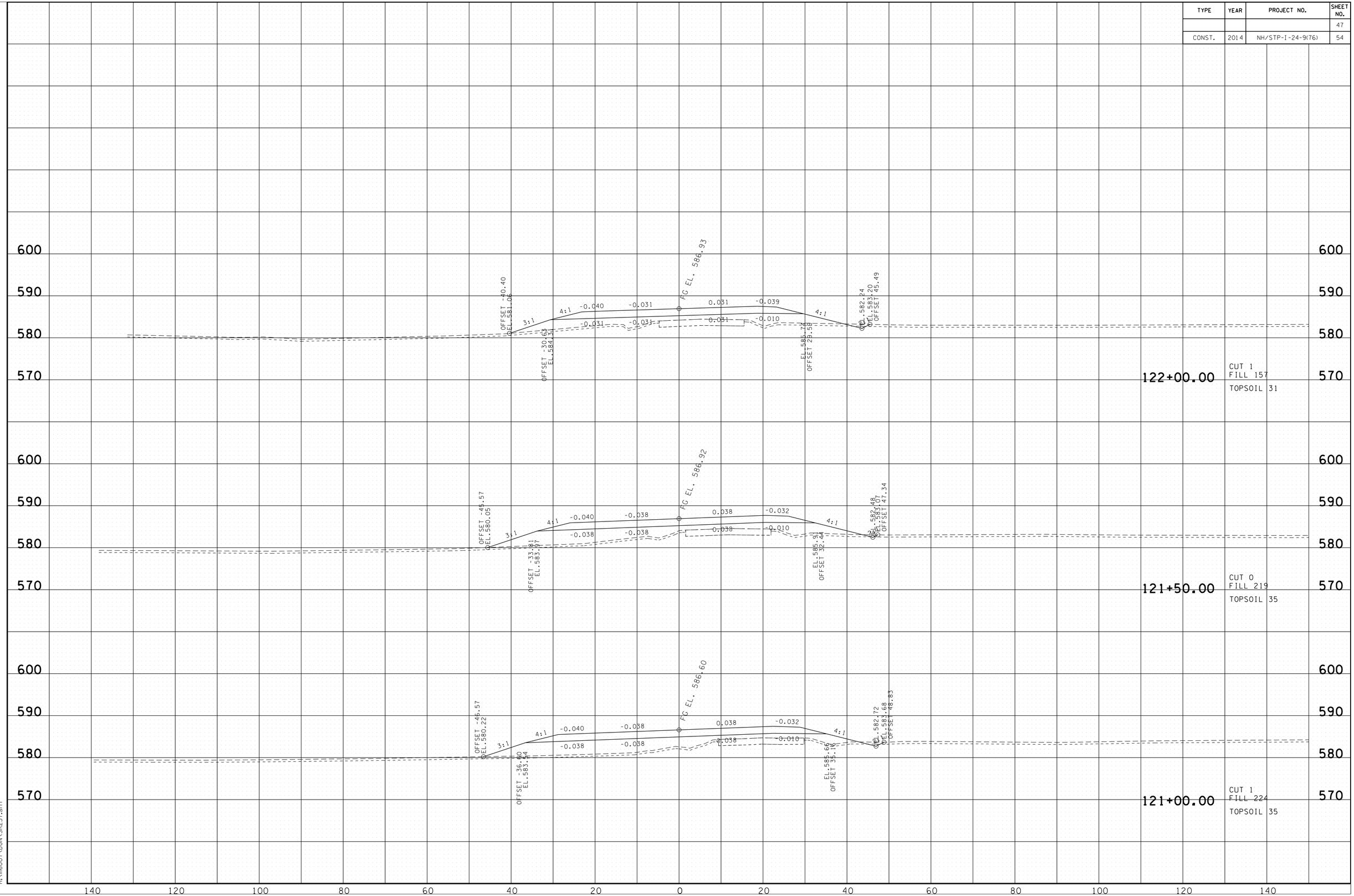
TYPE	YEAR	PROJECT NO.	SHEET NO.
			47
CONST.	2014	NH/STP-I-24-9(76)	54



8/5/2014 8:06:16 PM
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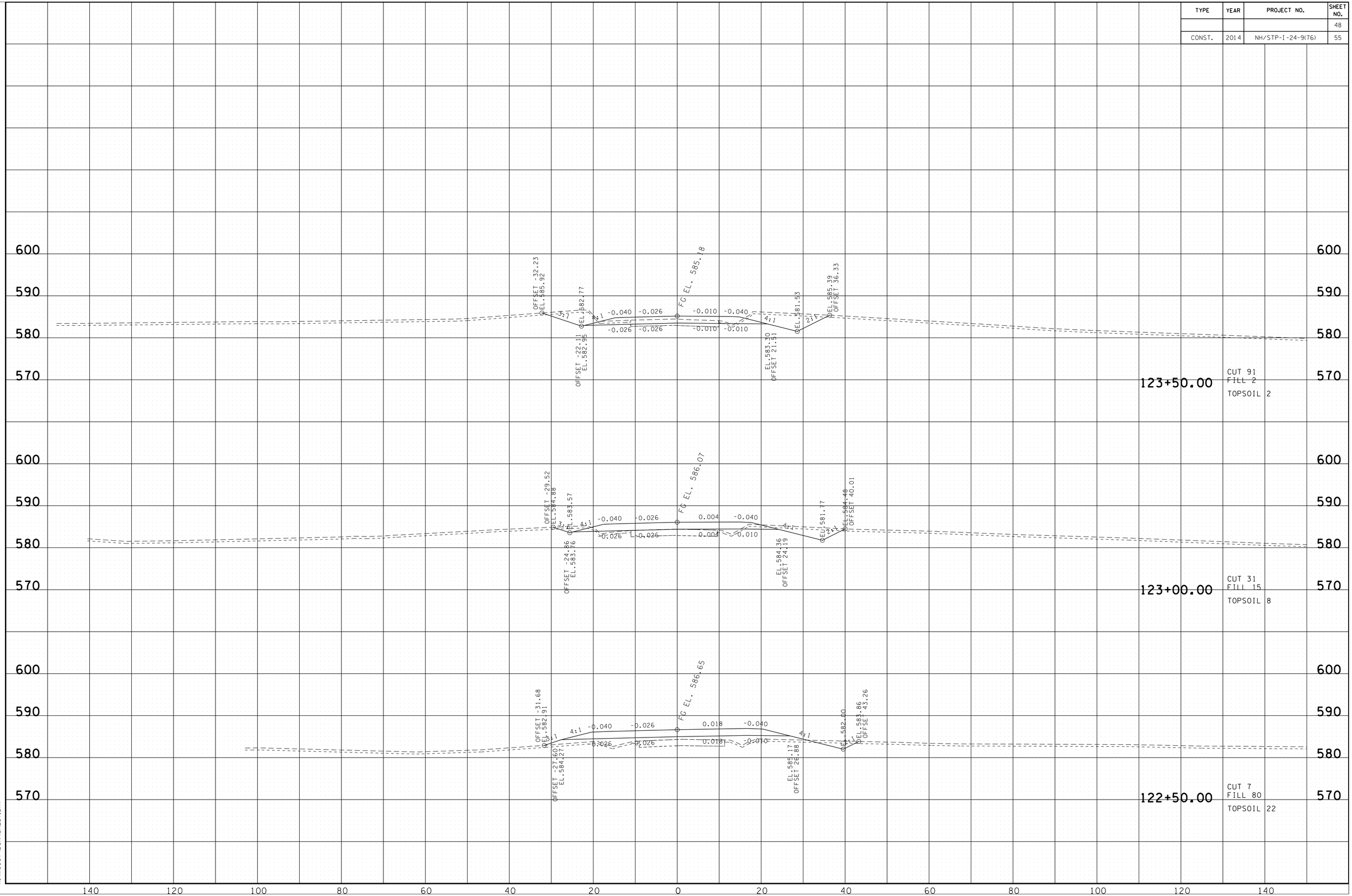
TYPE	YEAR	PROJECT NO.	SHEET NO.
			48
CONST.	2014	NH/STP-I-24-9(76)	55



8/5/2014 8:06:18 PM
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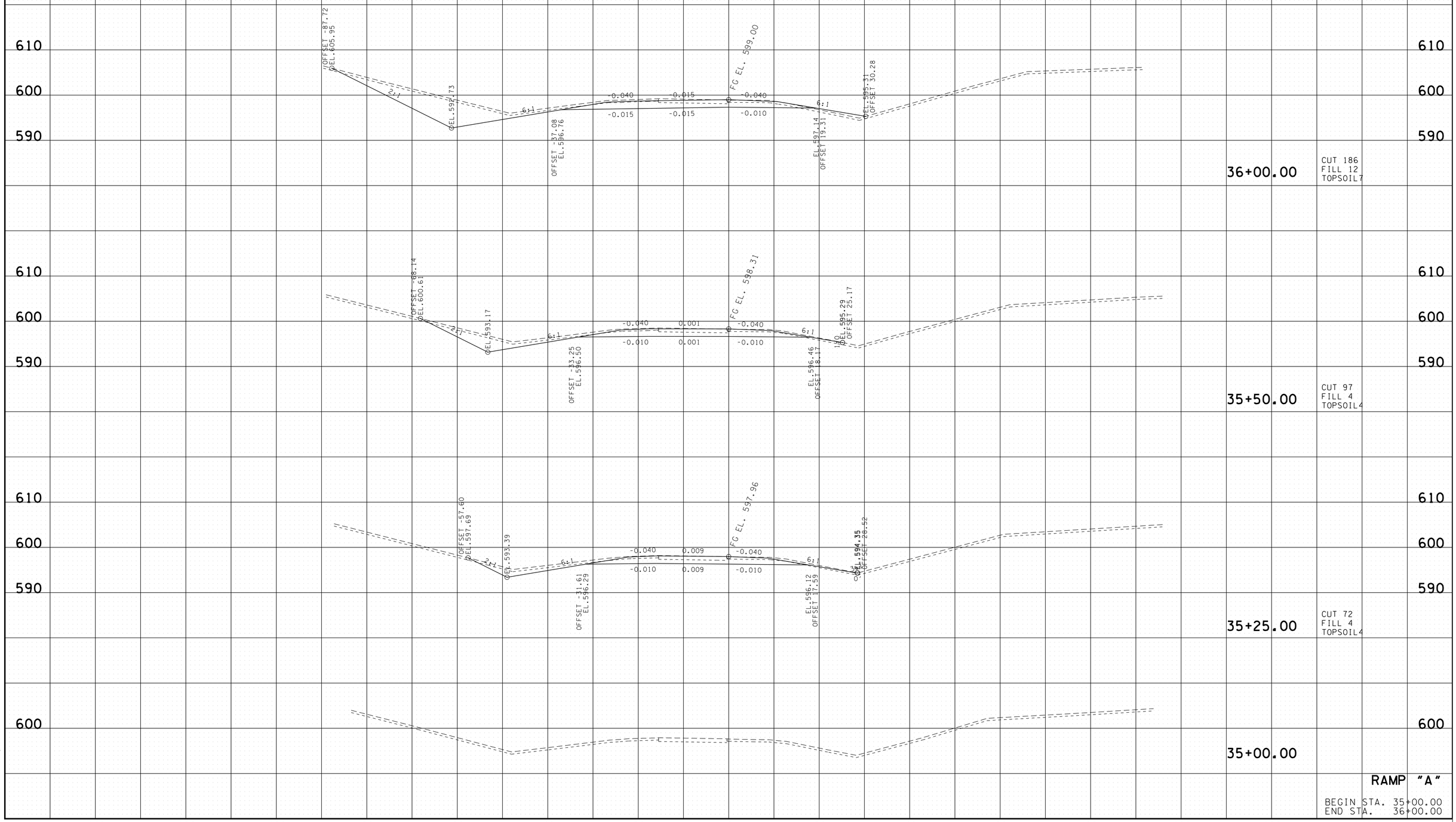
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	49
CONST.	2014	NH/STP-I-24-9(76)	56



RAMP "A"

BEGIN STA. 35+00.00
END STA. 36+00.00

8/5/2014 8:06:19 PM
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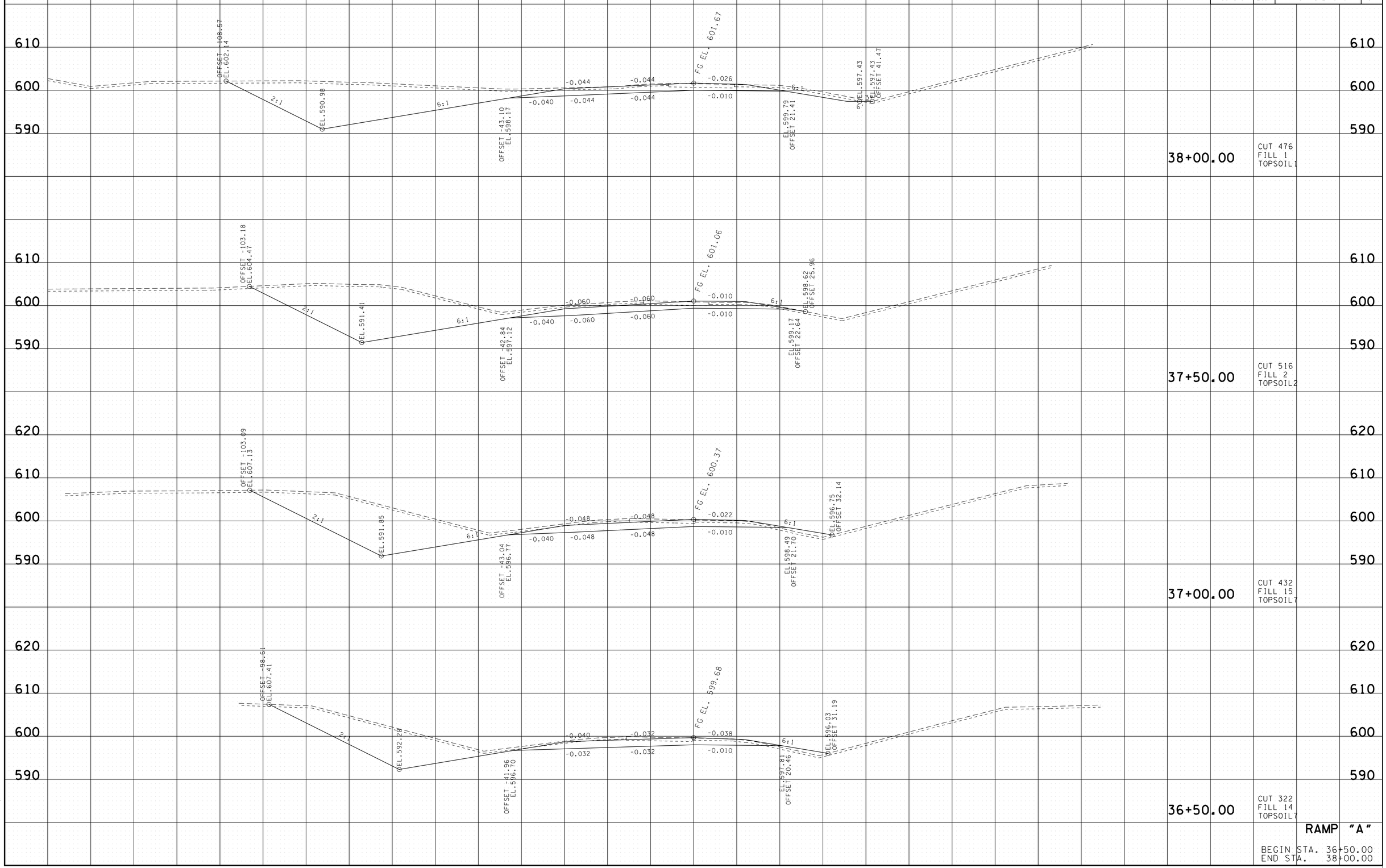
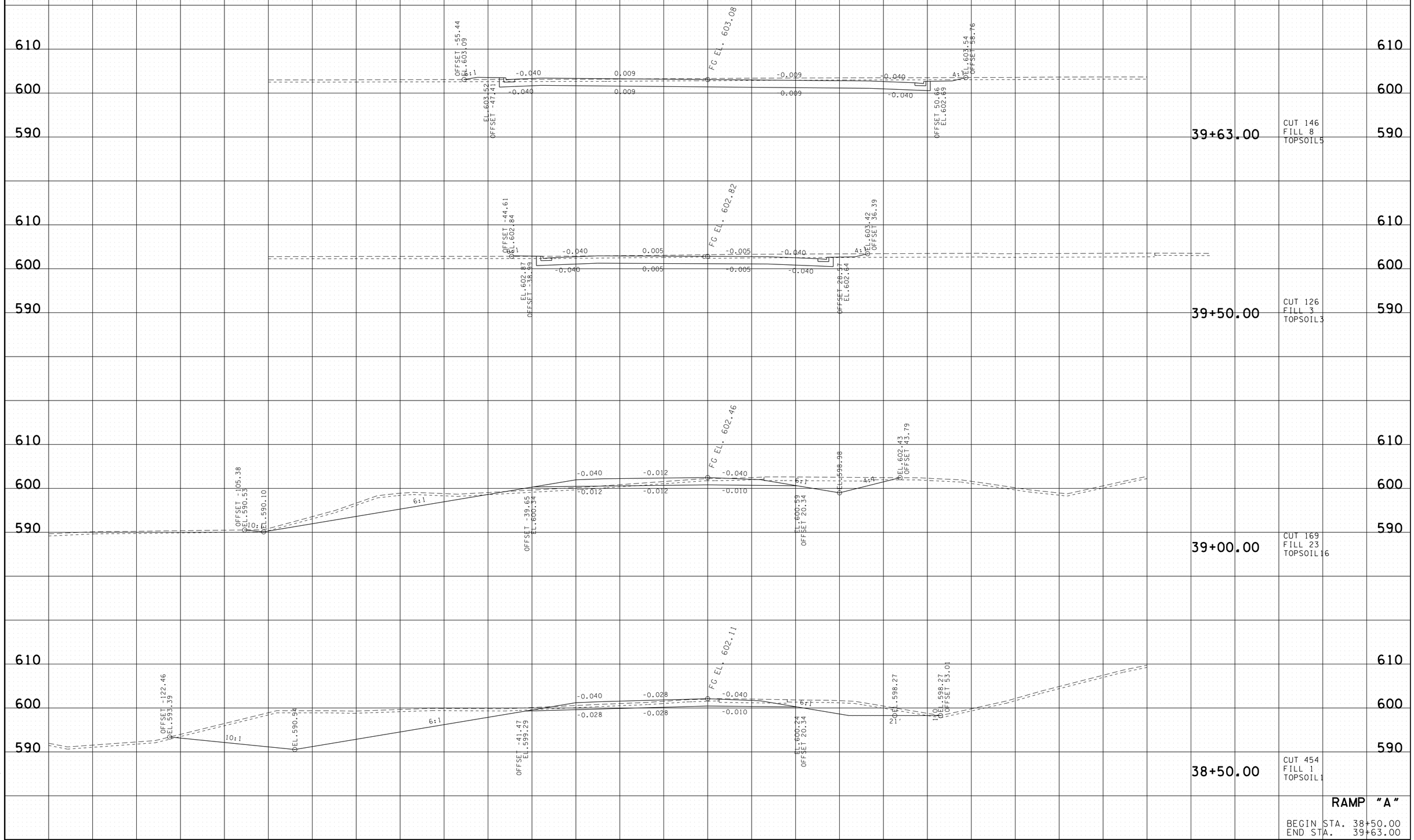
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	50
CONST.	2014	NH/STP-I-24-9(76)	57



8/5/2014 8:06:18 PM
H:\116007\DGN\RampA.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	51
CONST.	2014	NH/STP-I-24-9(76)	58



8/5/2014 8:06:20 PM
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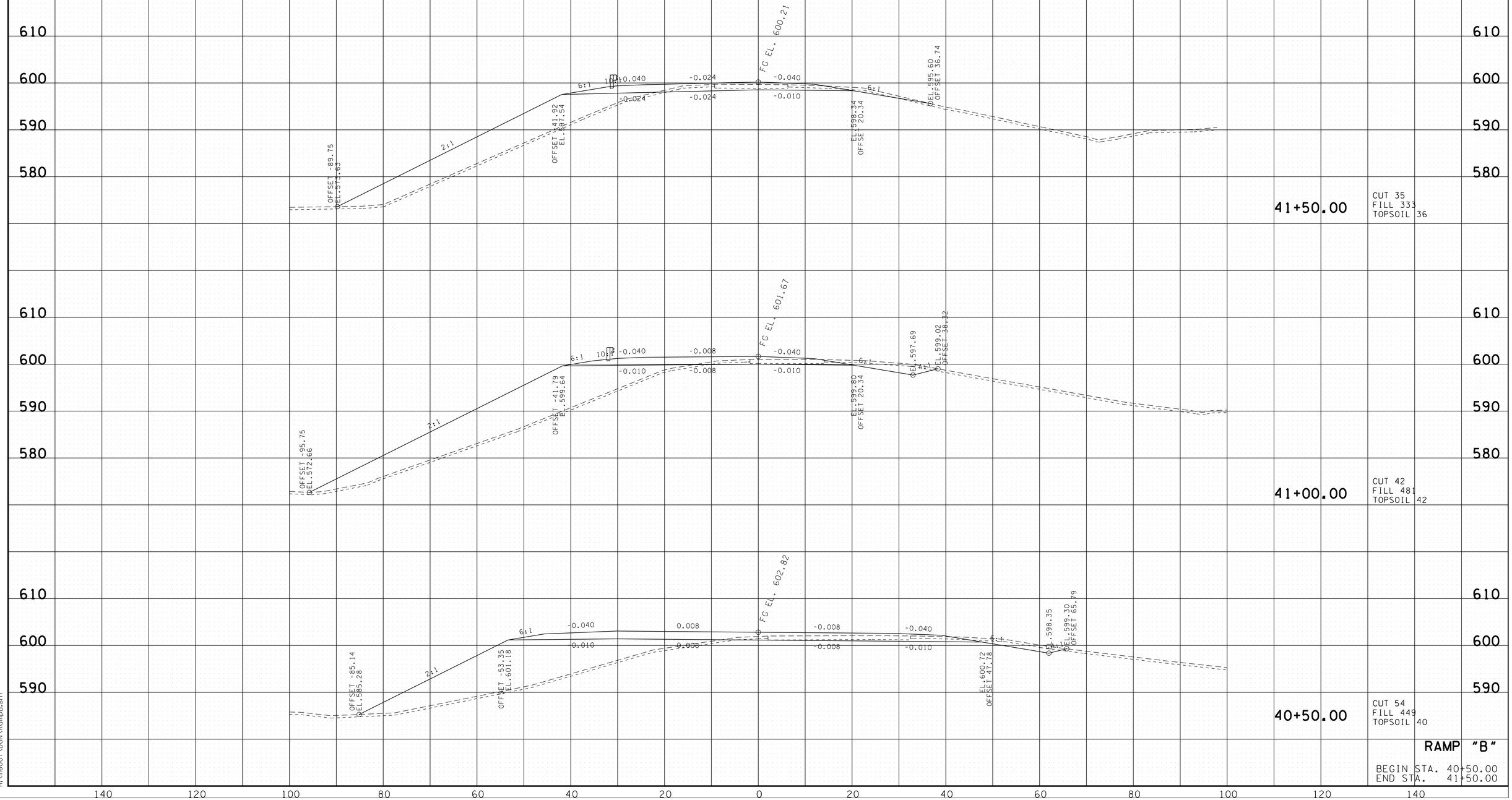
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	52
CONST.	2014	NH/STP-I-24-9(76)	59



RAMP "B"

BEGIN STA. 40+50.00
END STA. 41+50.00

8/5/2014 8:06:20 PM
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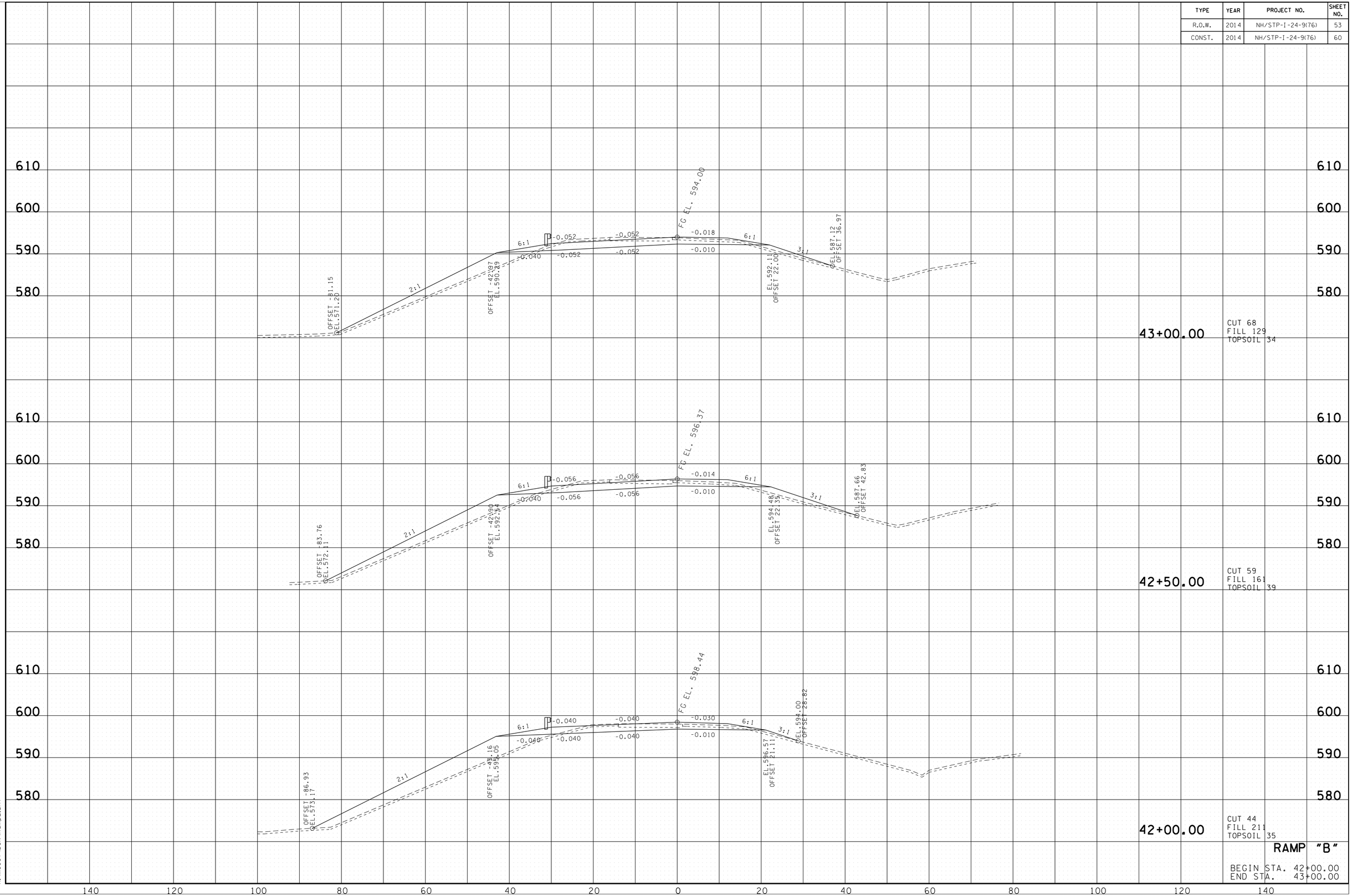
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	53
CONST.	2014	NH/STP-I-24-9(76)	60



RAMP "B"

BEGIN STA. 42+00.00
END STA. 43+00.00

8/5/2014 8:06:21 PM
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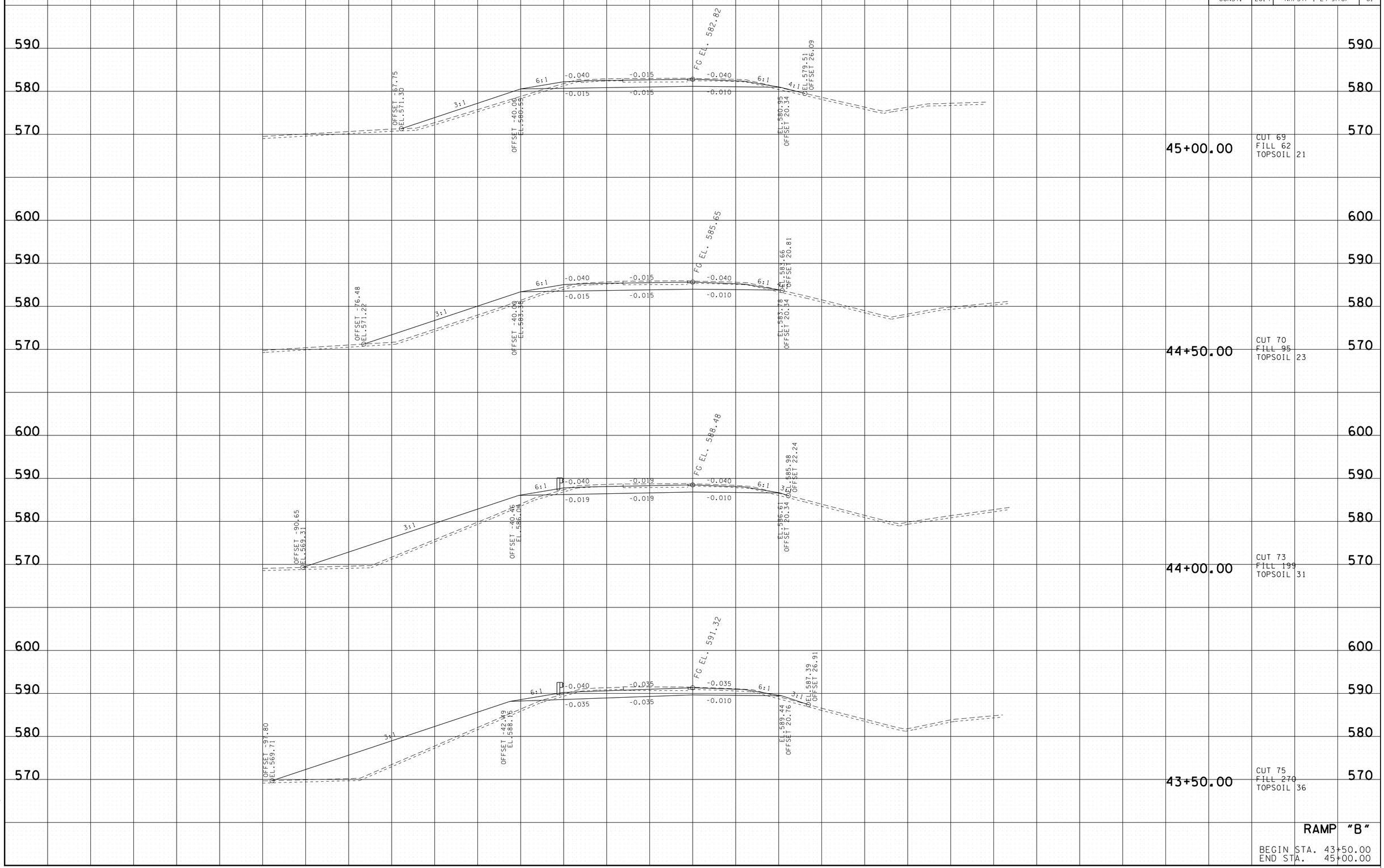
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	54
CONST.	2014	NH/STP-I-24-9(76)	61

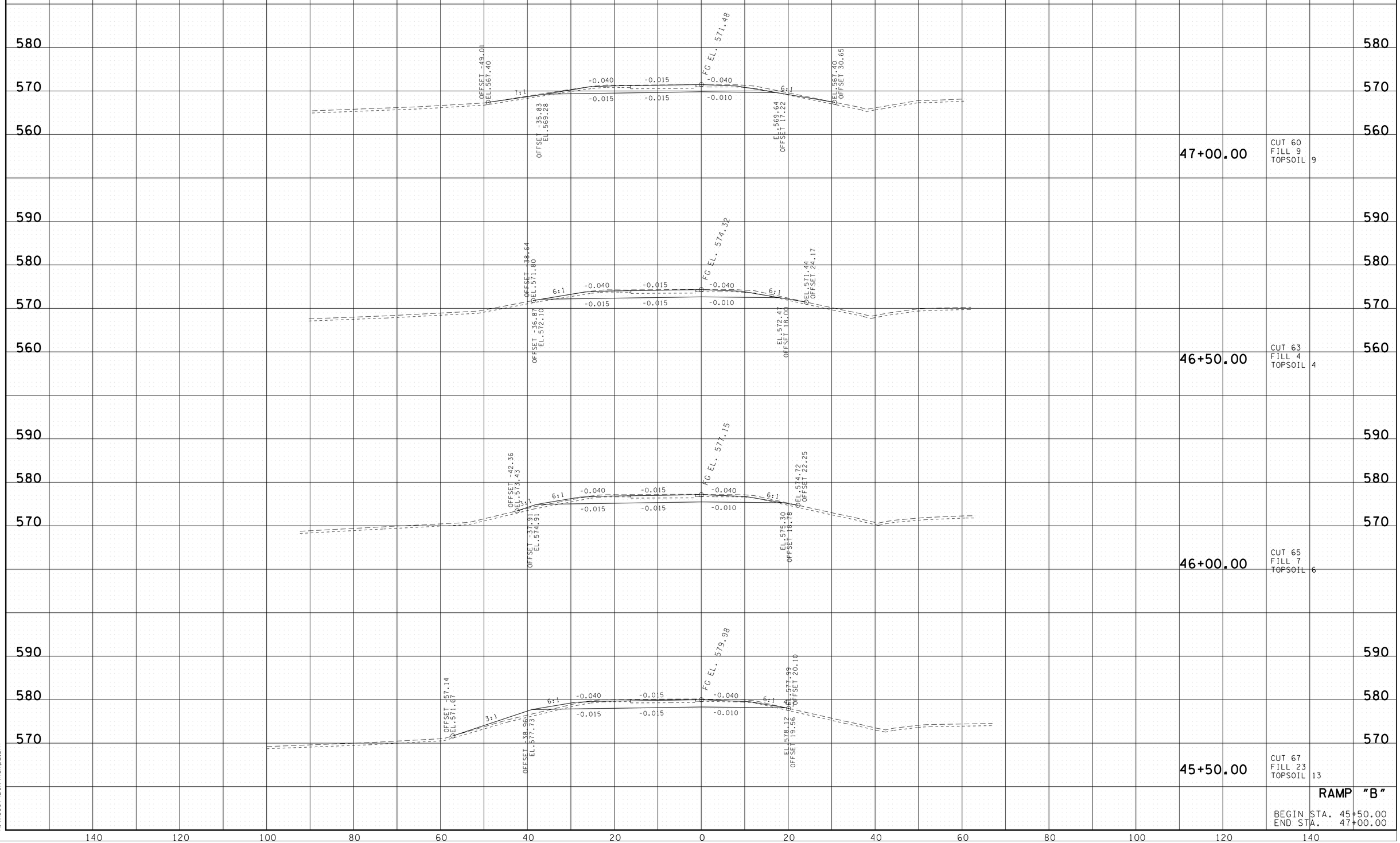


RAMP "B"

BEGIN STA. 43+50.00
END STA. 45+00.00

8/5/2014 8:06:22 PM
H:\II6007\DGN\RampB.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	55
CONST.	2014	NH/STP-I-24-9(76)	62



8/5/2014 8:06:22 PM
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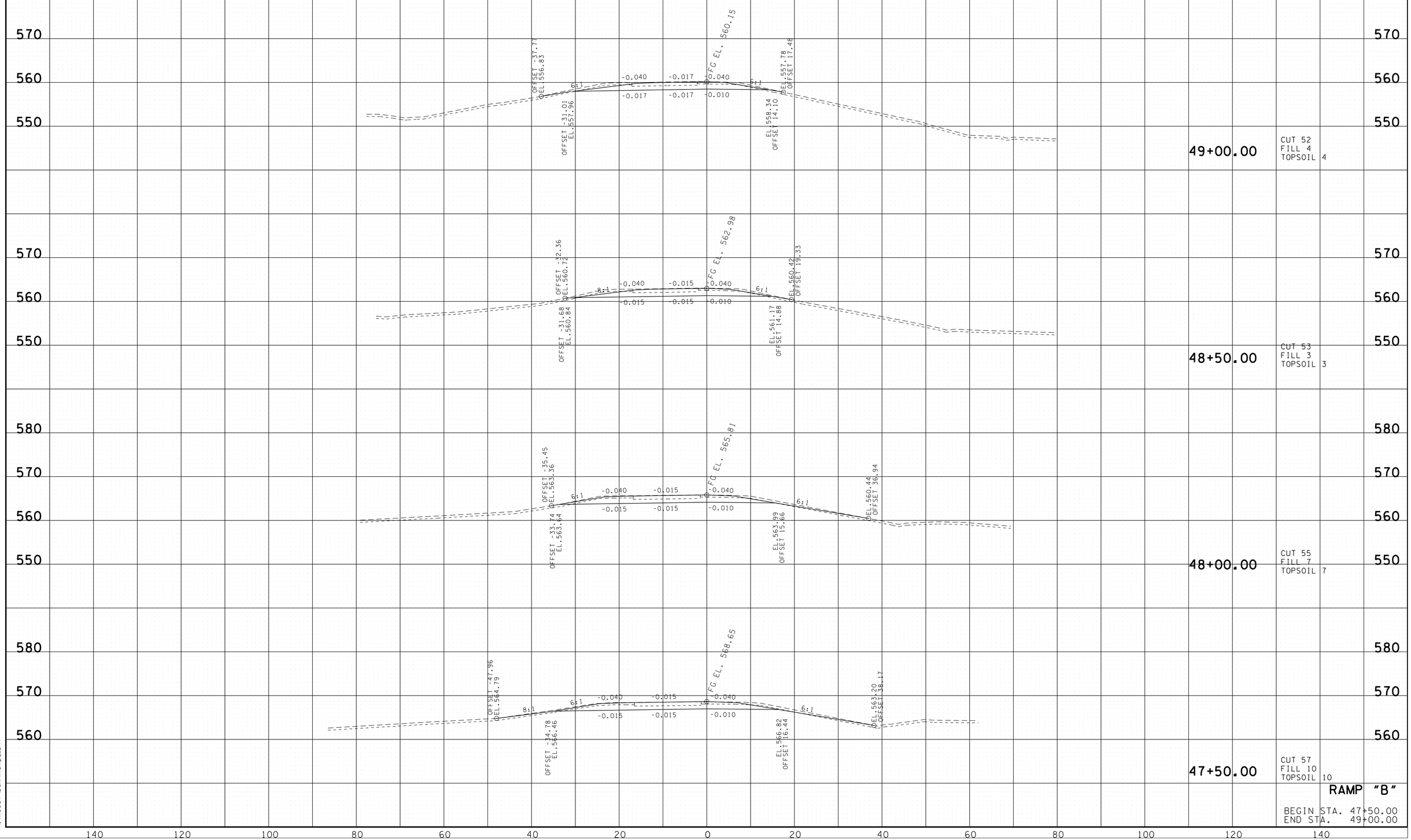
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	56
CONST.	2014	NH/STP-I-24-9(76)	63

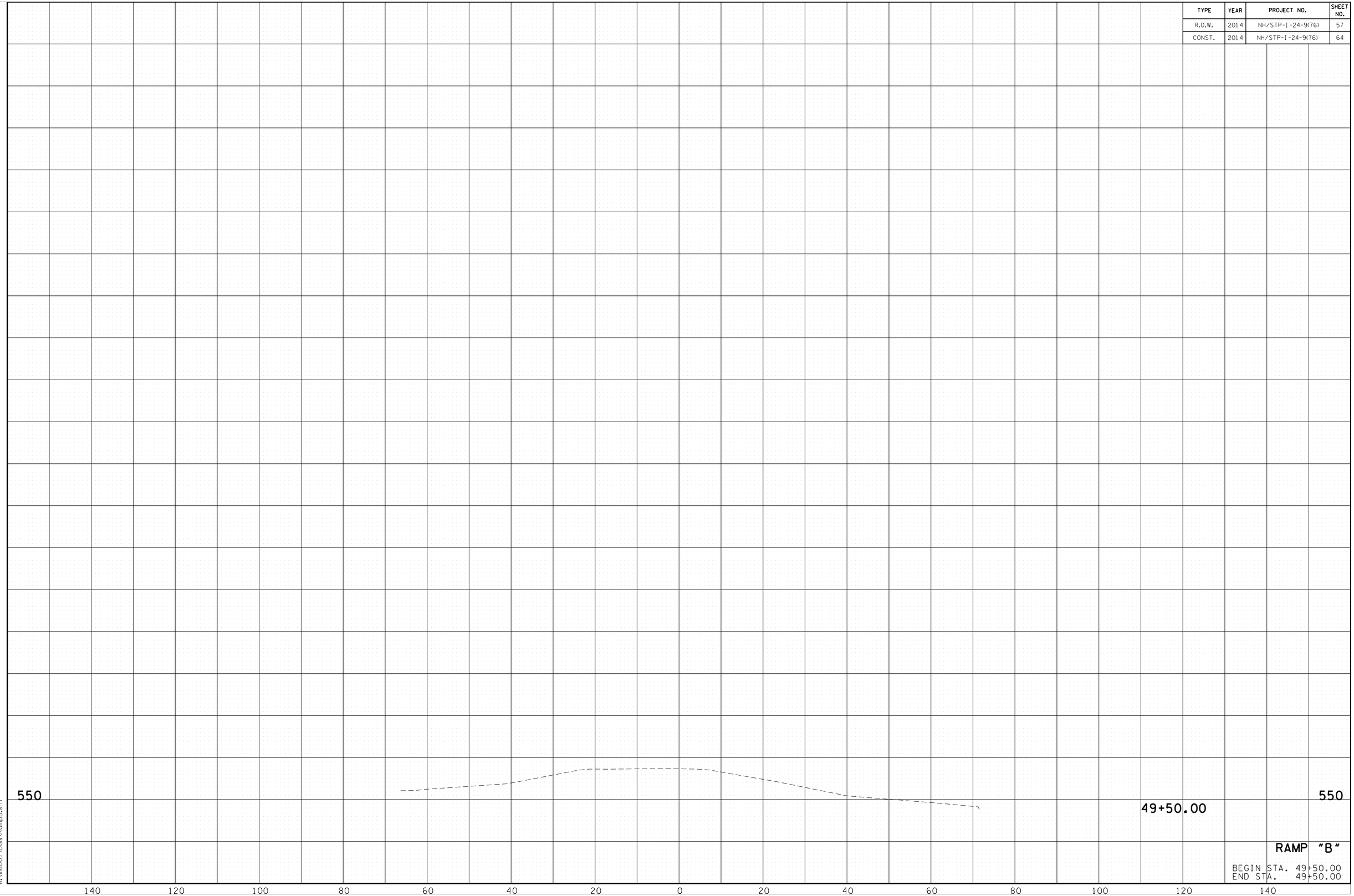


RAMP "B"

BEGIN STA. 47+50.00
END STA. 49+00.00

8/5/2014 8:06:23 PM
H:\116007\DGN\RampB.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	57
CONST.	2014	NH/STP-I-24-9(76)	64



RAMP "B"

BEGIN STA. 49+50.00
END STA. 49+50.00

8/5/2014 8:06:23 PM
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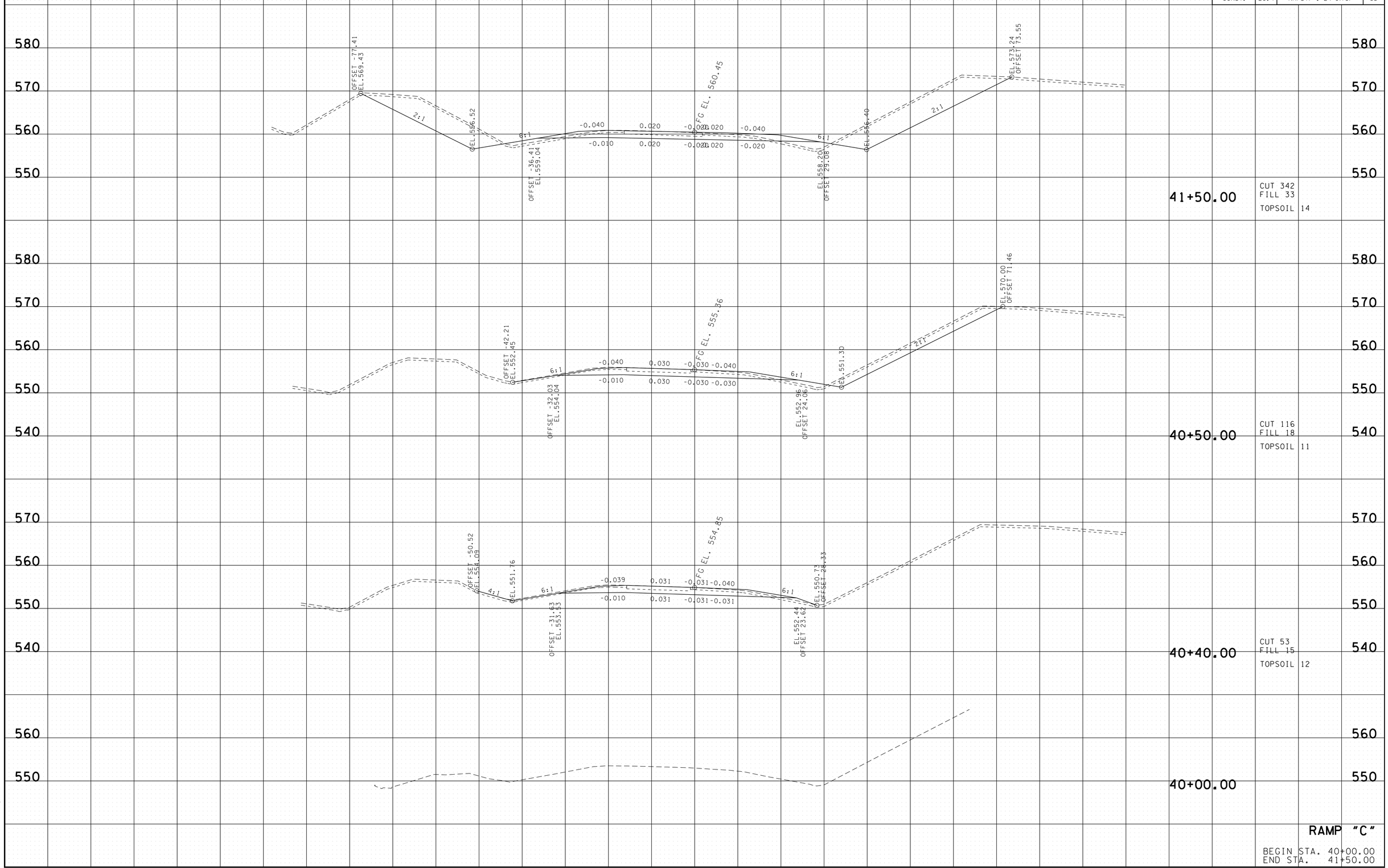
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	58
CONST.	2014	NH/STP-I-24-9(76)	65

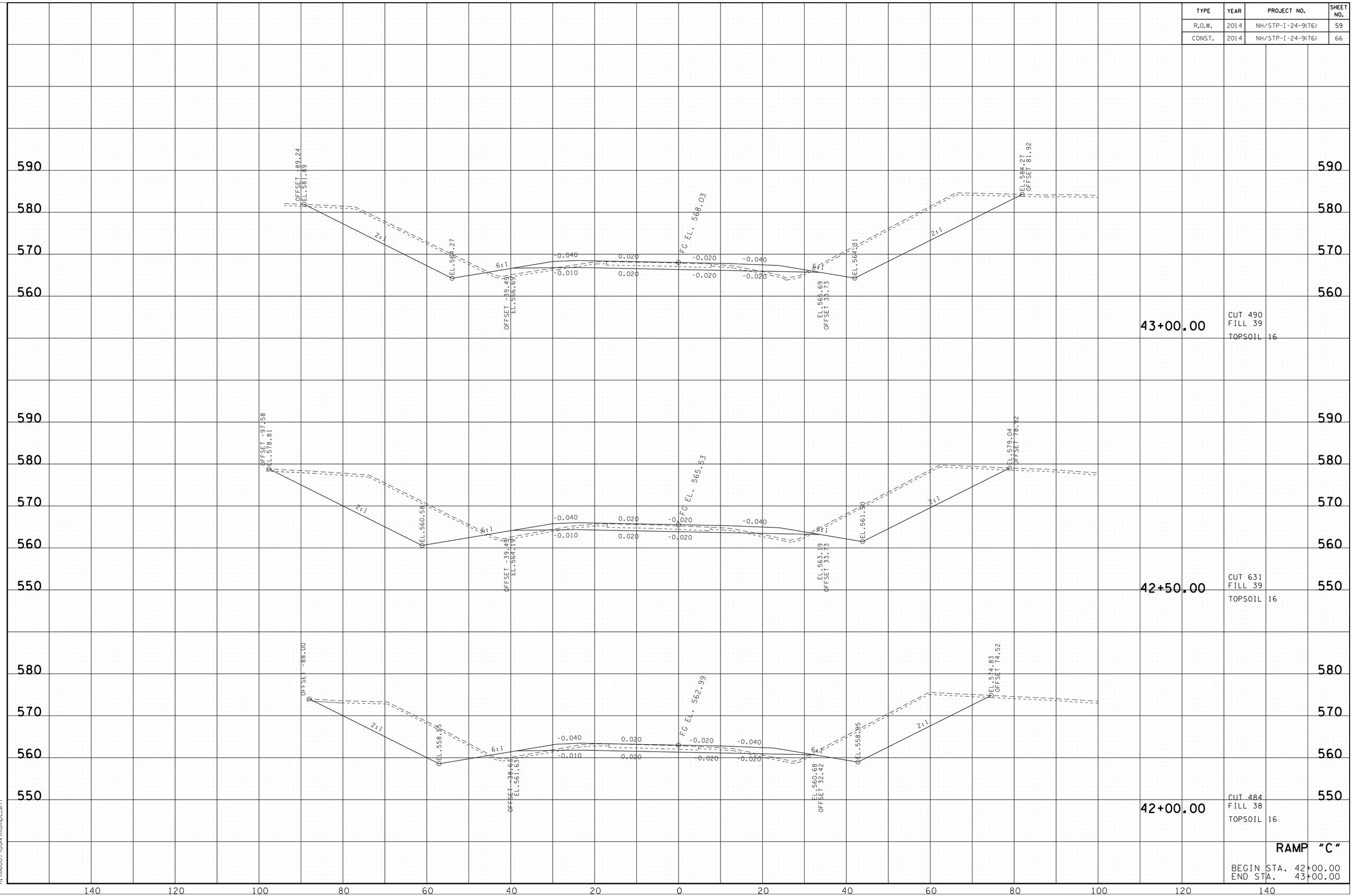


RAMP "C"

BEGIN STA. 40+00.00
END STA. 41+50.00

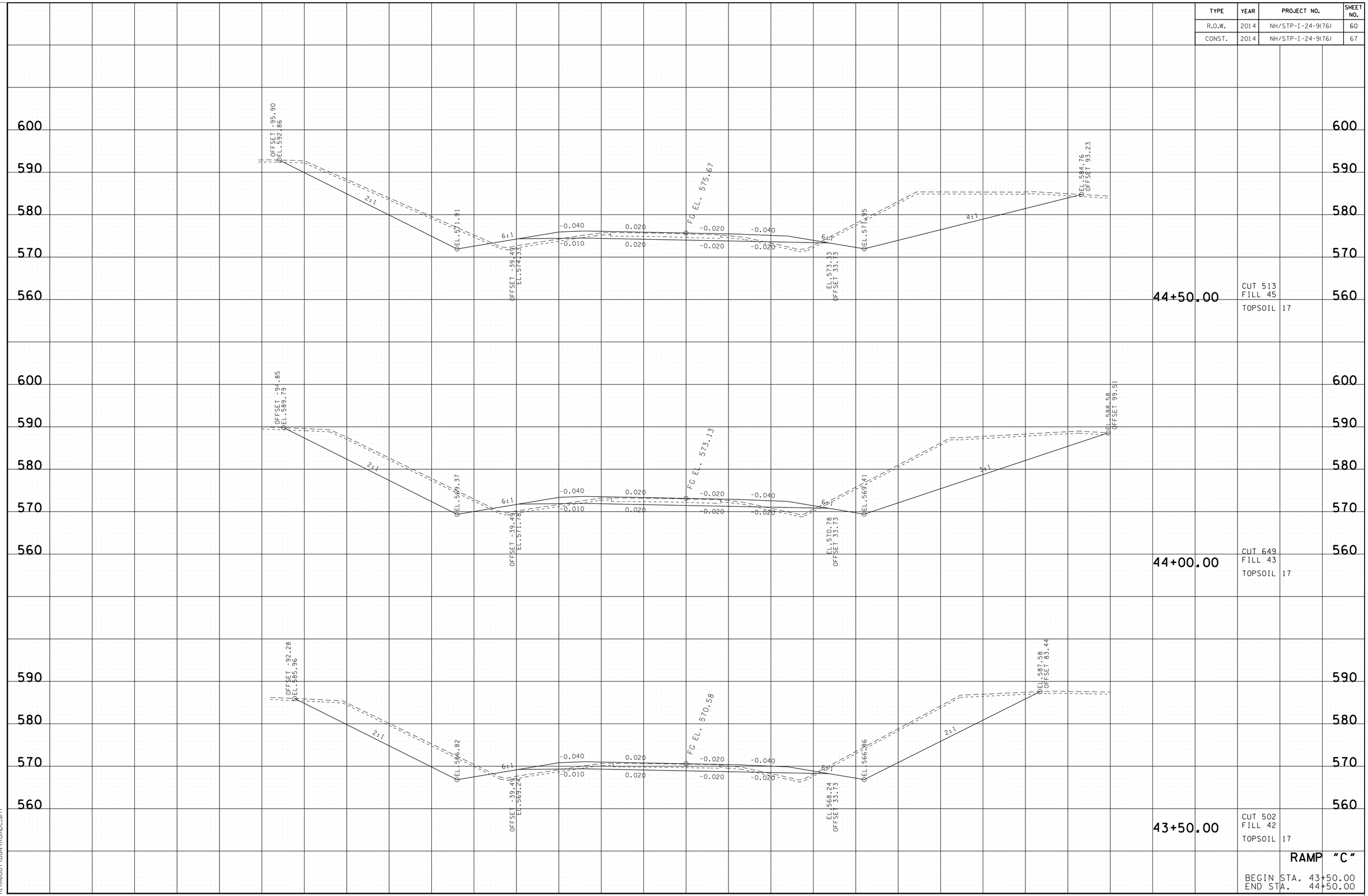
8/5/2014 8:06:24 PM
H:\II6007\DGN\Ramp C.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	59
CONST.	2014	NH/STP-I-24-9(76)	66



8/5/2014 8:06:25 PM
H:\116007\DGN\RampC.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	60
CONST.	2014	NH/STP-I-24-9(76)	67

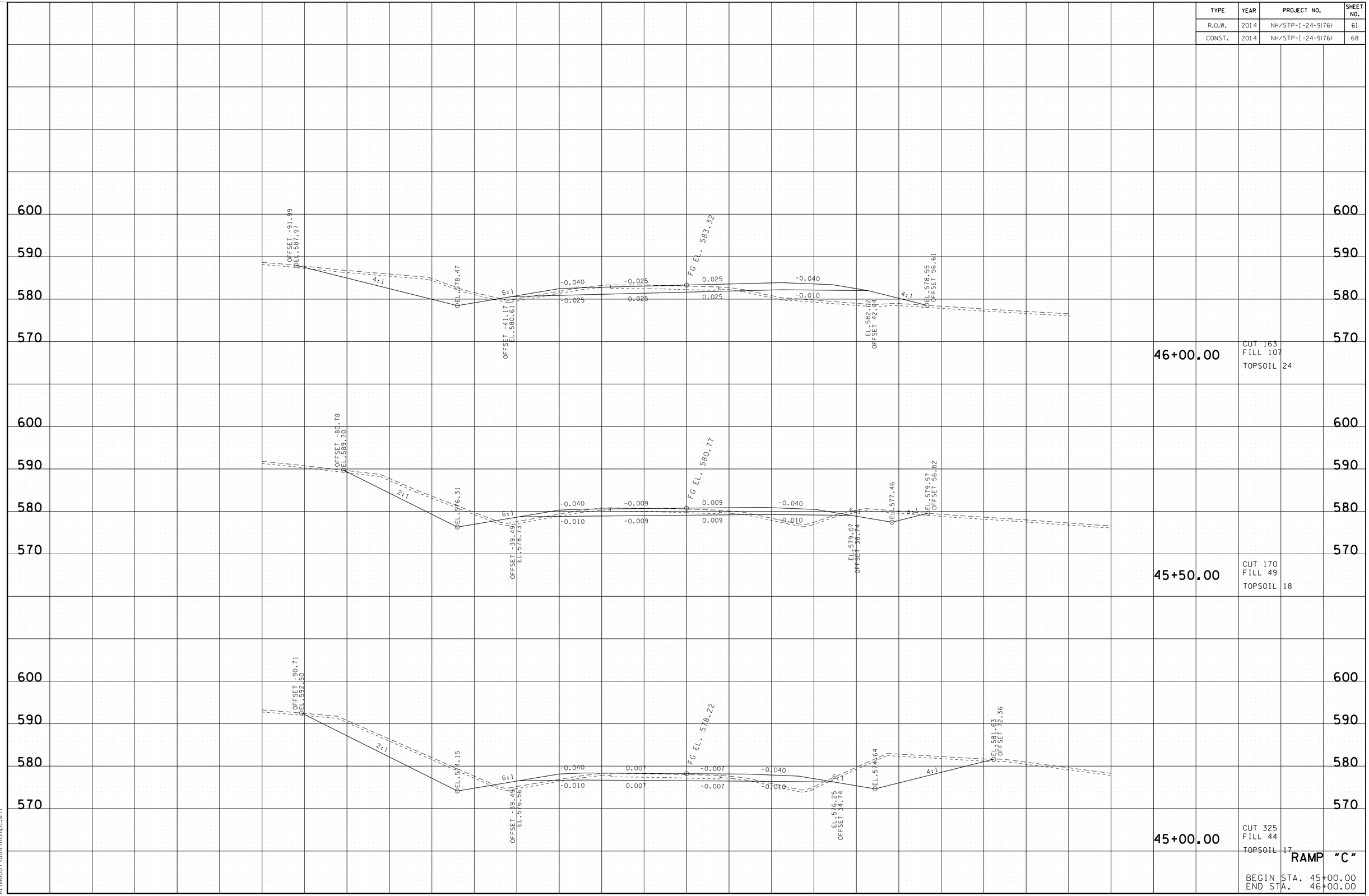


RAMP "C"

BEGIN STA. 43+50.00
END STA. 44+50.00

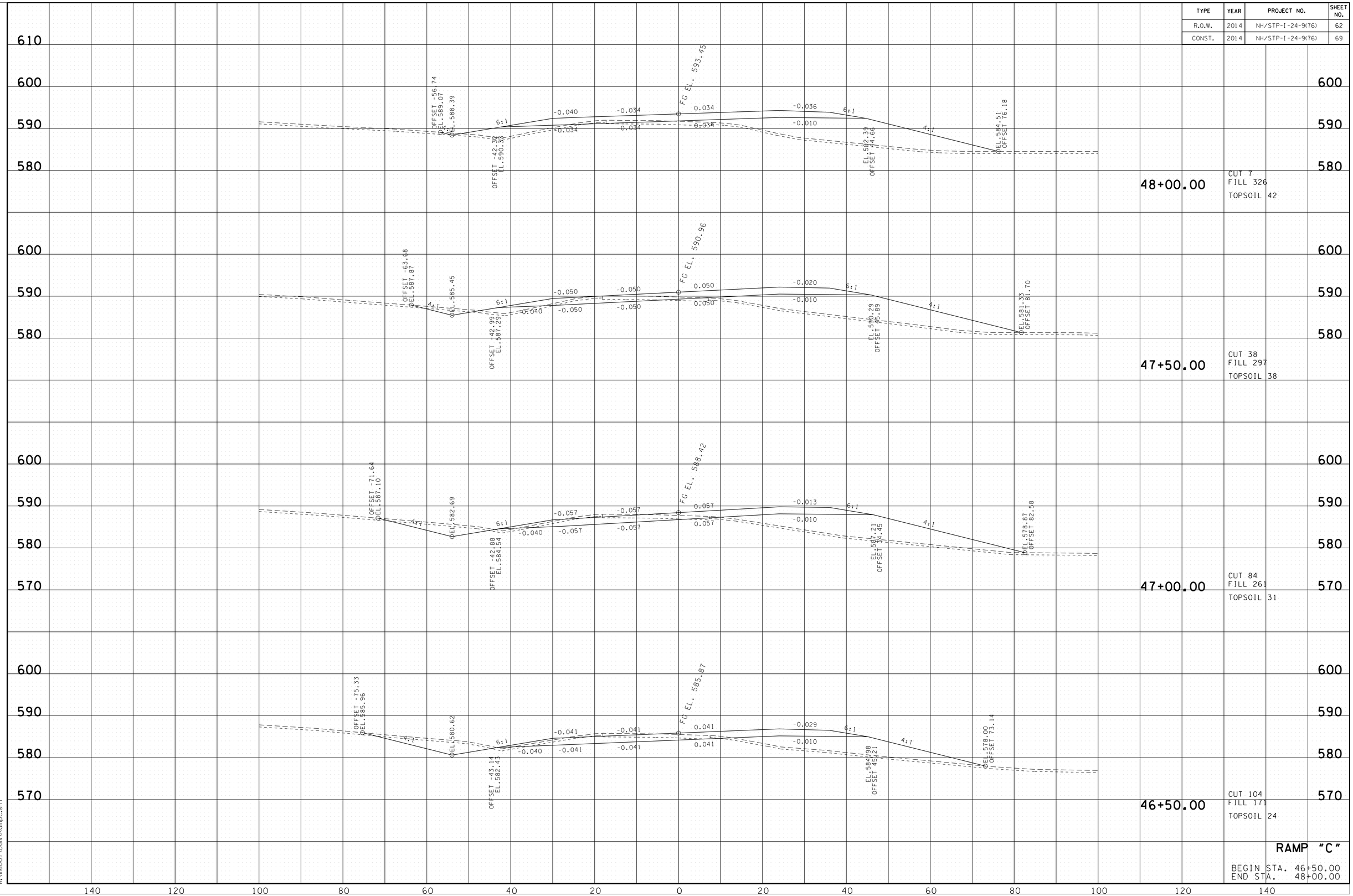
8/5/2014 8:06:25 PM
H:\II6007\DGN\RampC.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	61
CONST.	2014	NH/STP-I-24-9(76)	68



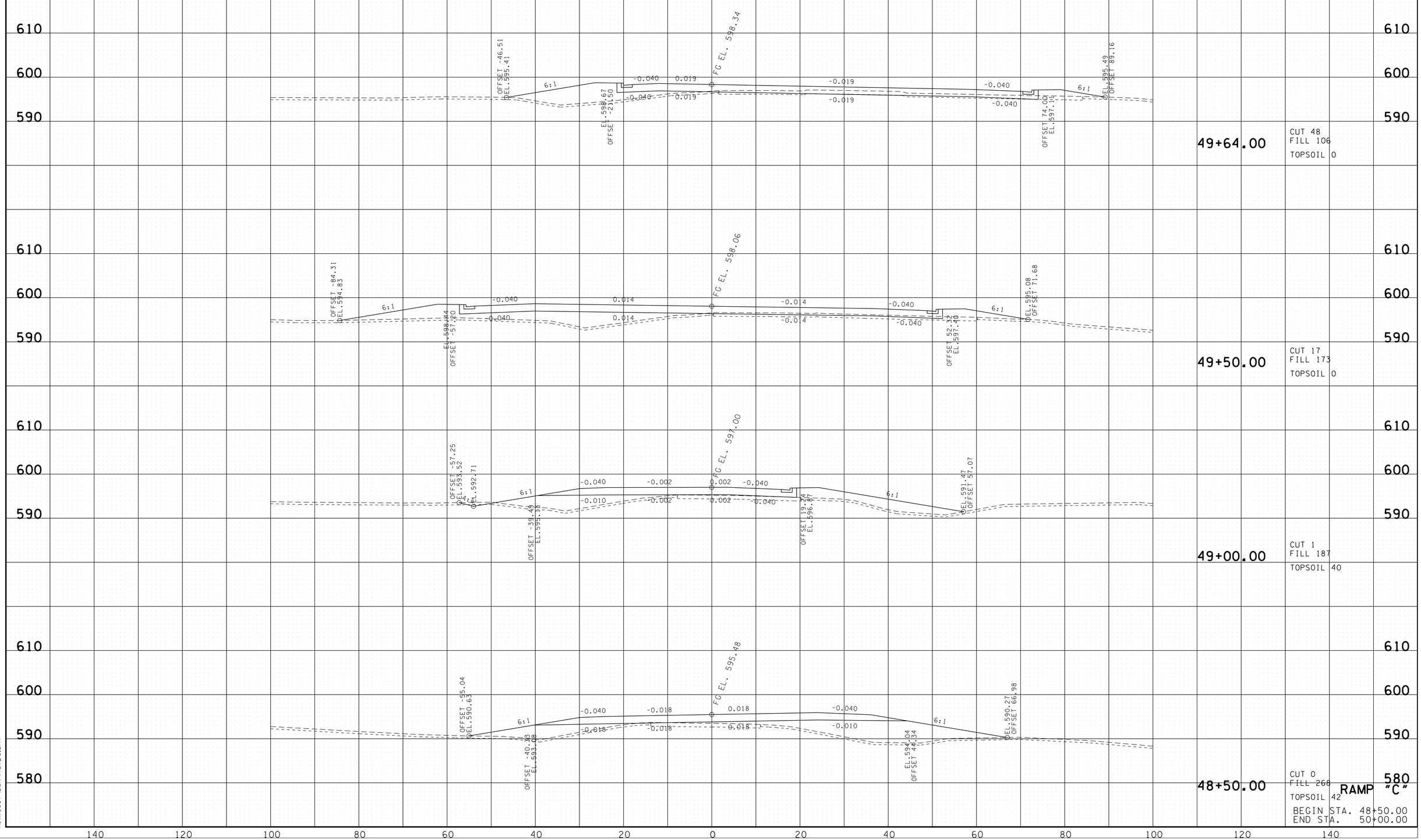
8/5/2014 8:06:26 PM
H:\11600710GN\RampC.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	62
CONST.	2014	NH/STP-I-24-9(76)	69



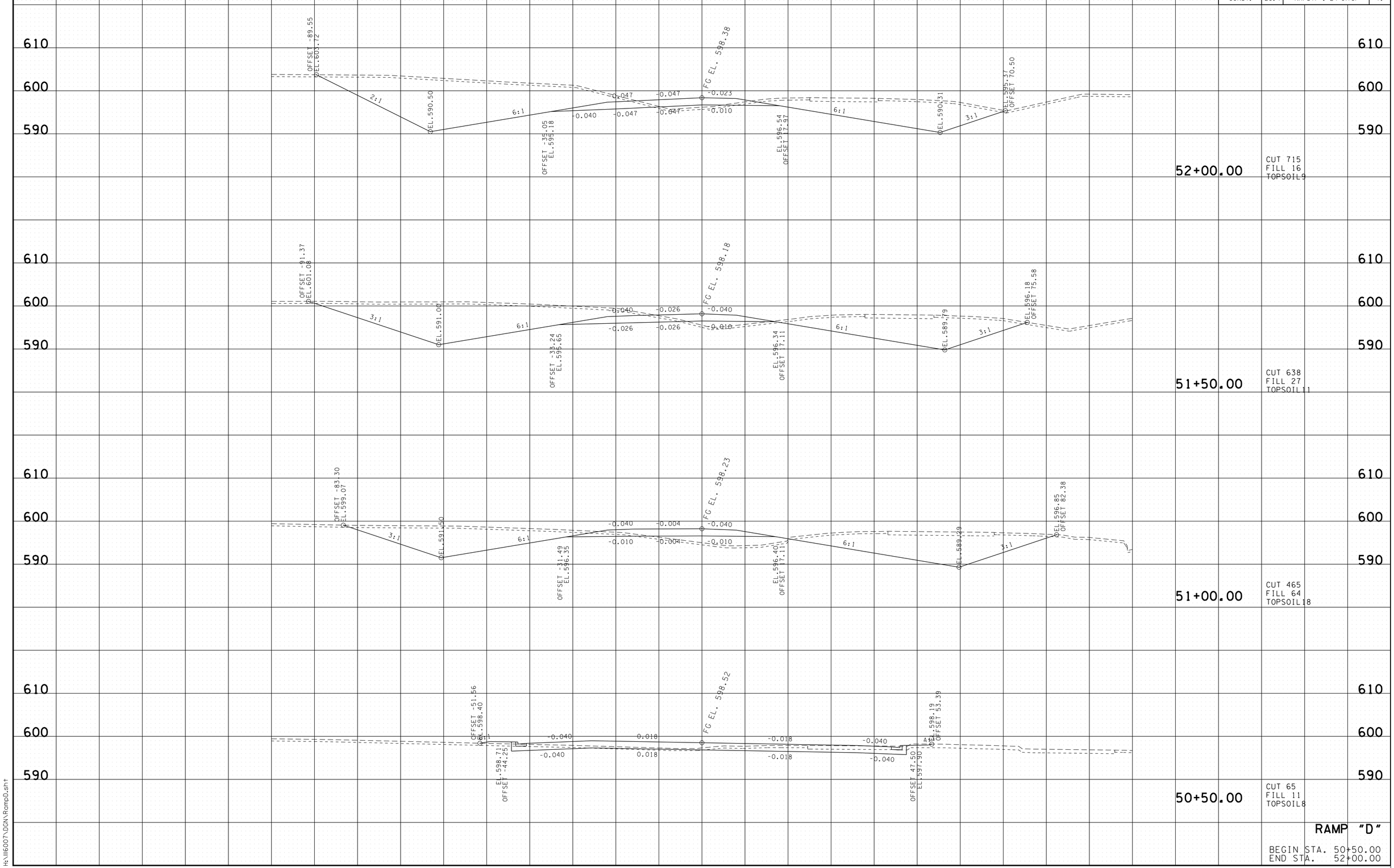
8/5/2014 8:06:27 PM
H:\II6007\DGN\Rampc.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	63
CONST.	2014	NH/STP-I-24-9(76)	70



8/5/2014 8:06:27 PM
H:\II6007\DGN\RampC.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	64
CONST.	2014	NH/STP-I-24-9(76)	71

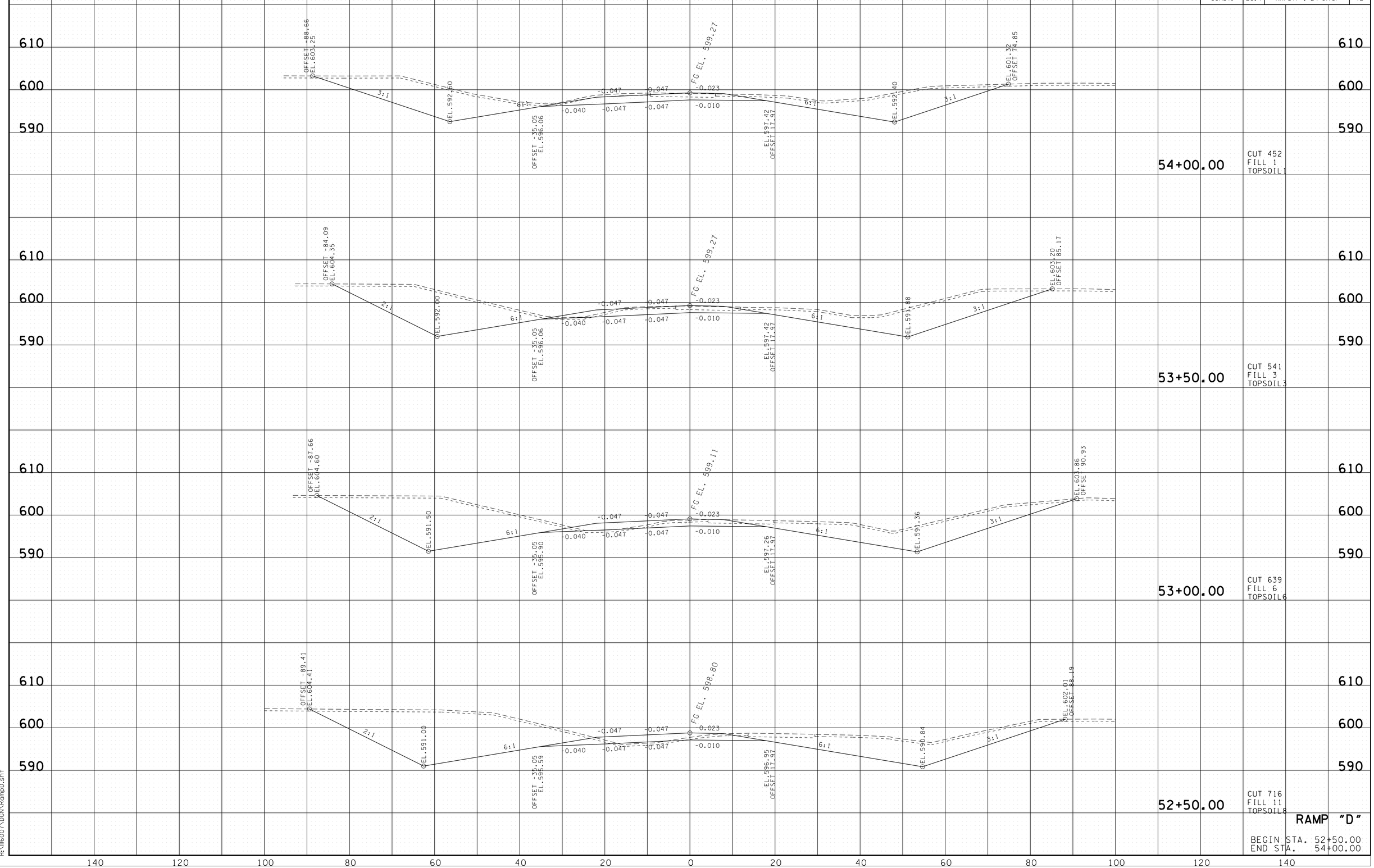


RAMP "D"

BEGIN STA. 50+50.00
END STA. 52+00.00

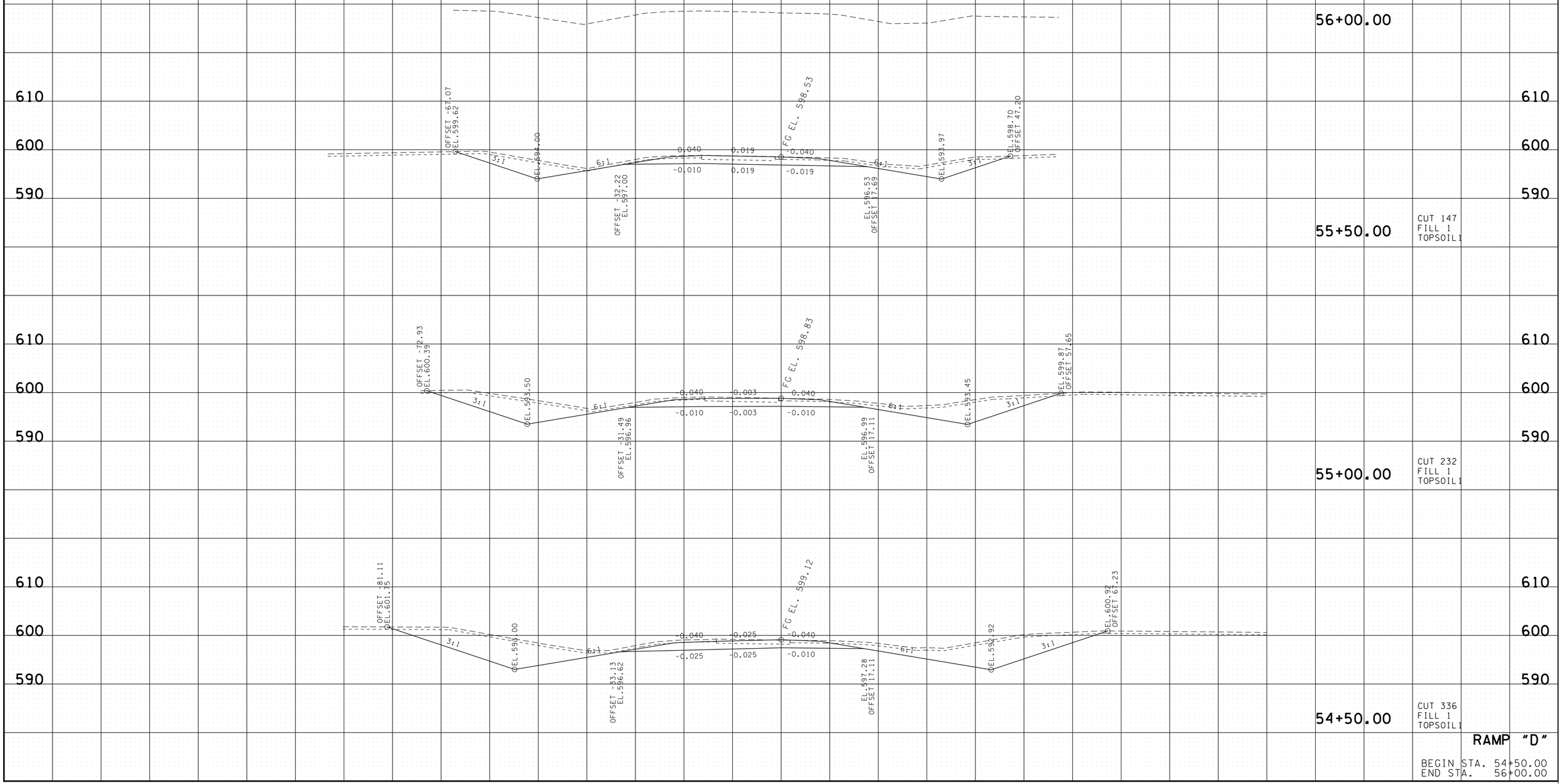
8/5/2014 8:06:28 PM
H:\1116007\DGN\RampD.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	65
CONST.	2014	NH/STP-I-24-9(76)	72



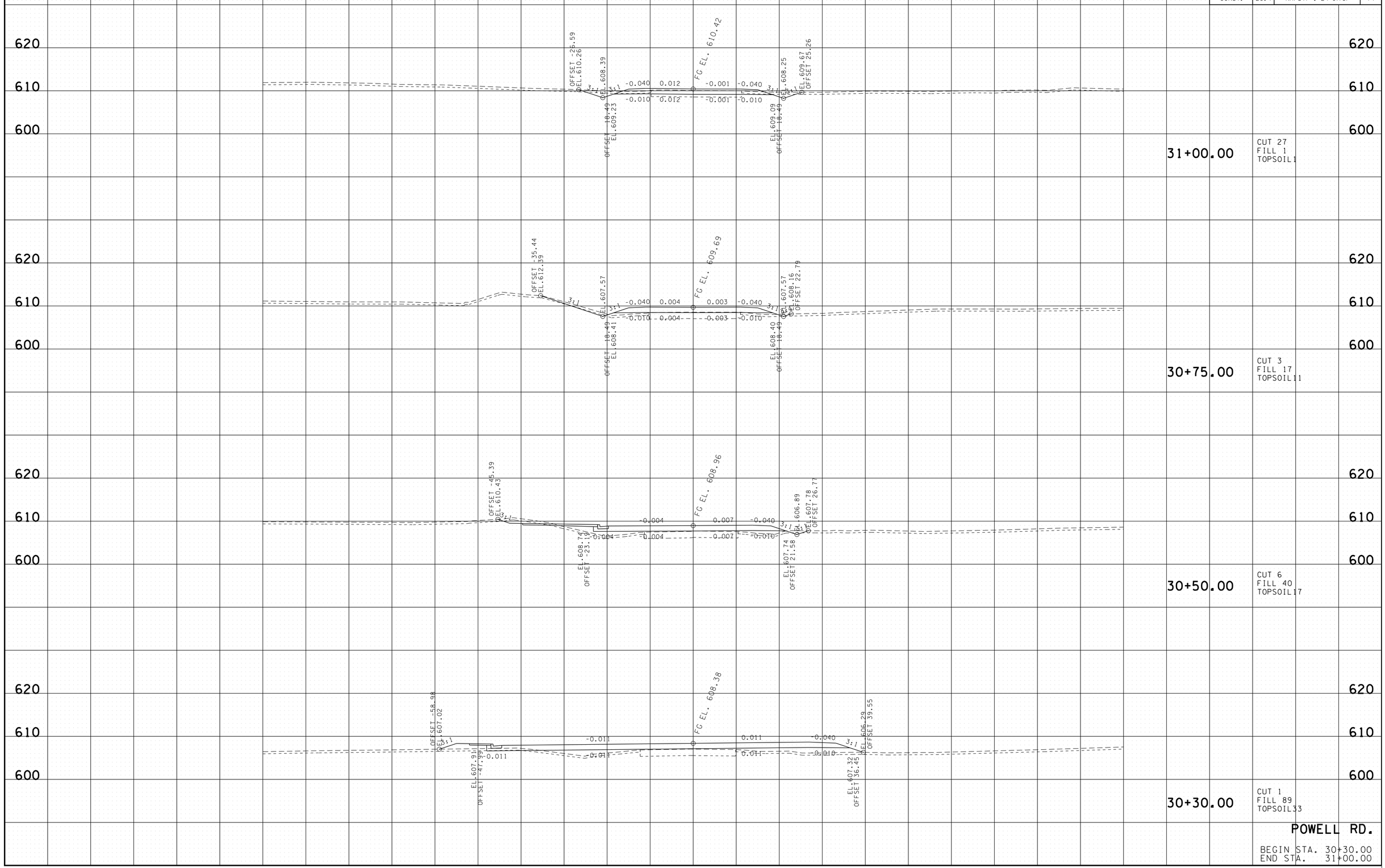
8/5/2014 8:06:28 PM
H:\II6007\DGN\RampD.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	66
CONST.	2014	NH/STP-I-24-9(76)	73



8/5/2014 8:06:29 PM
H:\116007\DGN\RampD.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	67
CONST.	2014	NH/STP-I-24-9(76)	74

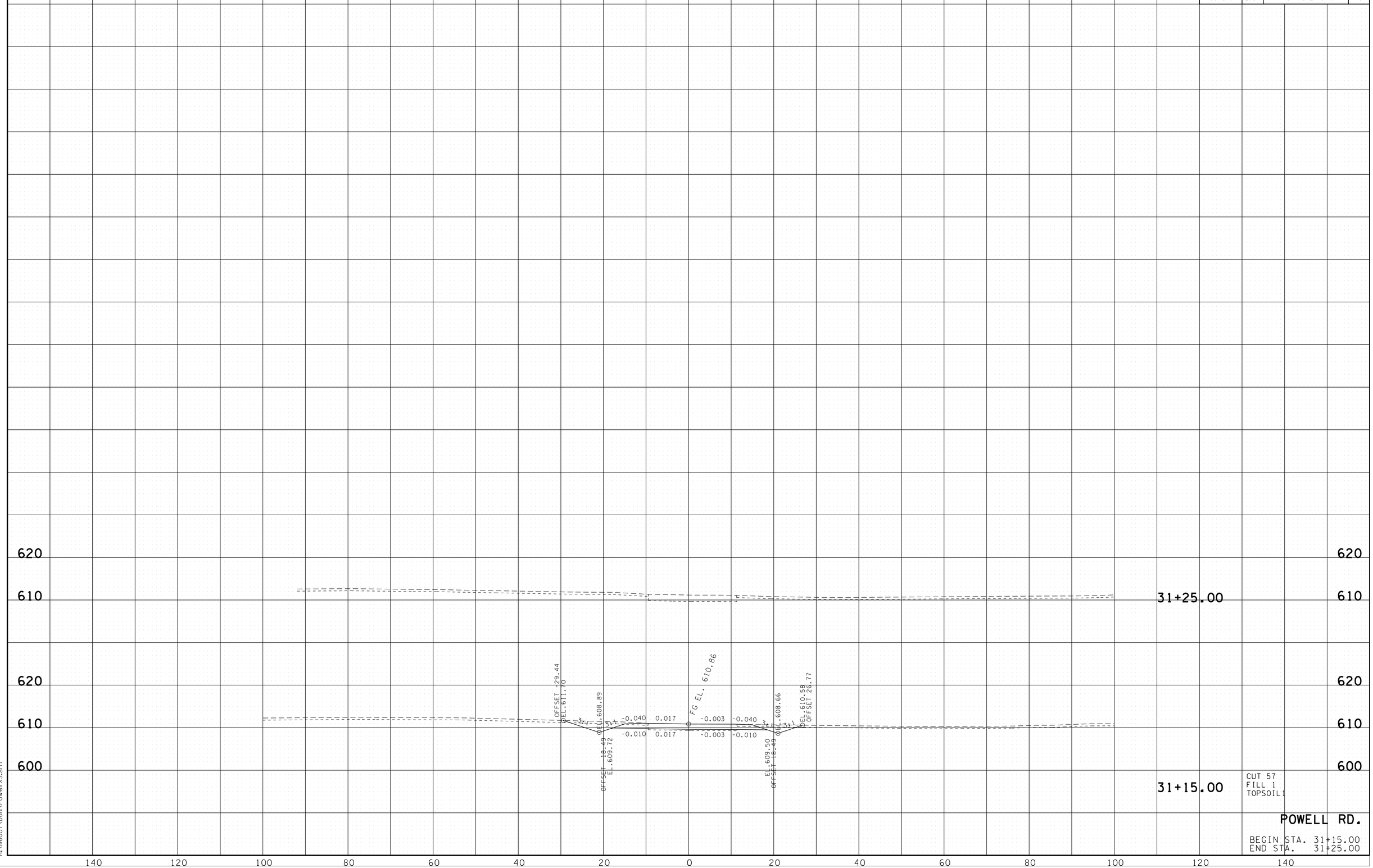


POWELL RD.

BEGIN STA. 30+30.00
END STA. 31+00.00

8/5/2014 8:06:30 PM
H:\II6007\DGN\Powell XS.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	68
CONST.	2014	NH/STP-I-24-9(76)	75



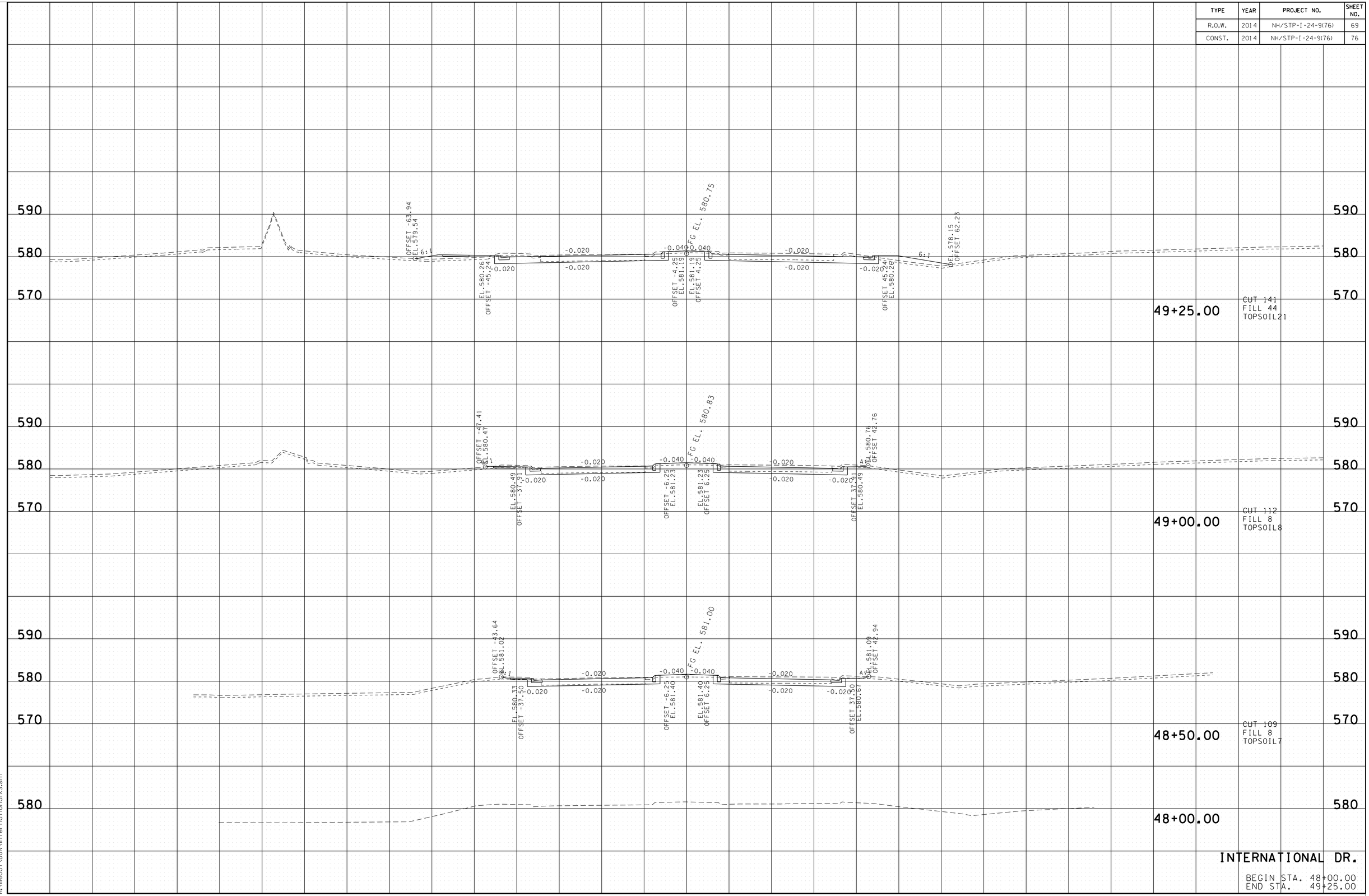
CUT 57
FILL 1
TOPSOIL1

POWELL RD.

BEGIN STA. 31+15.00
END STA. 31+25.00

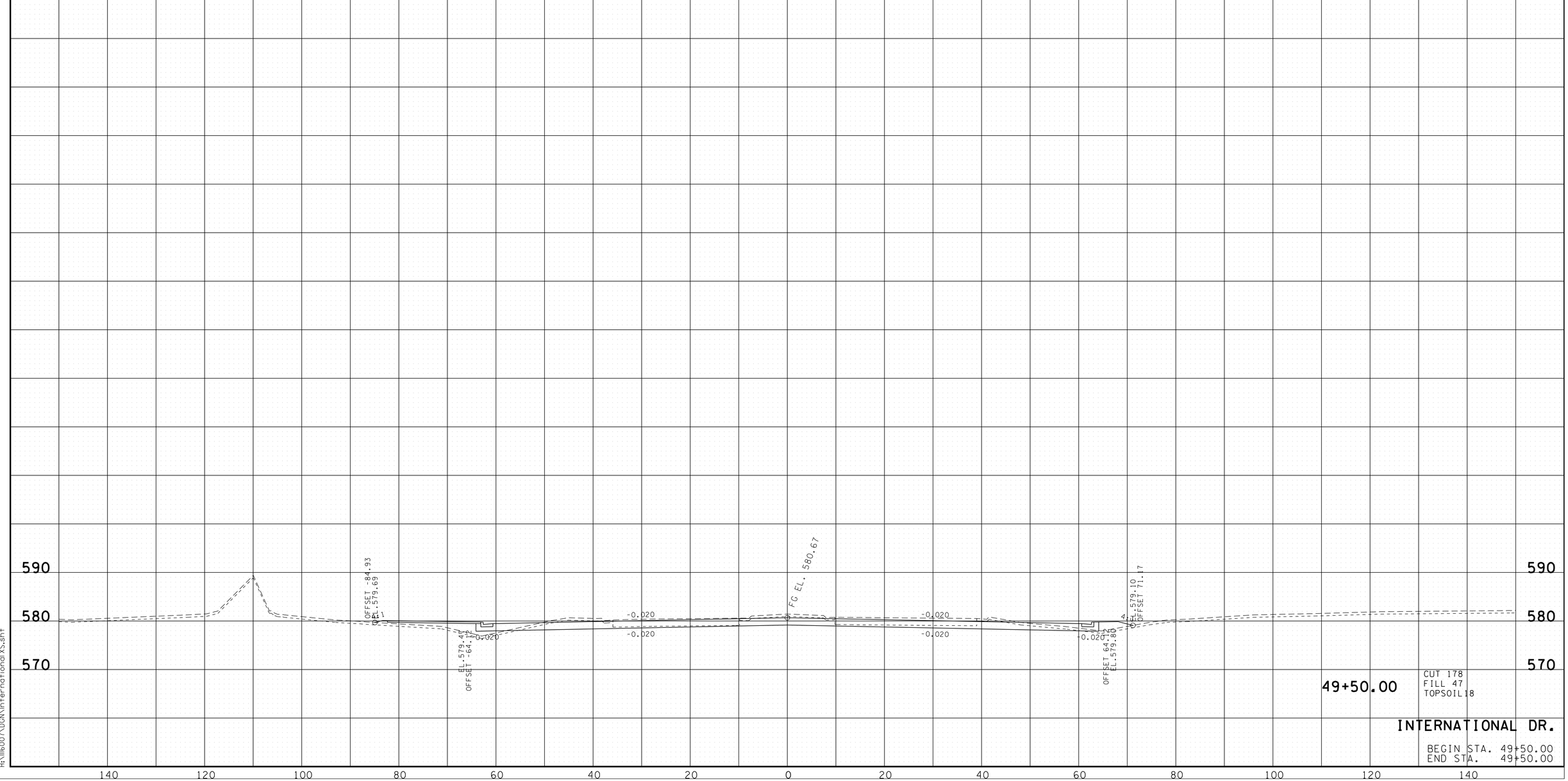
8/5/2014 8:06:30 PM
H:\1116007\DGN\Powell XS.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	69
CONST.	2014	NH/STP-I-24-9(76)	76



8/5/2014 8:06:31 PM
H:\II6007\DGN\InternationalXS.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	70
CONST.	2014	NH/STP-I-24-9(76)	77



49+50.00

CUT 178
FILL 47
TOPSOIL 18

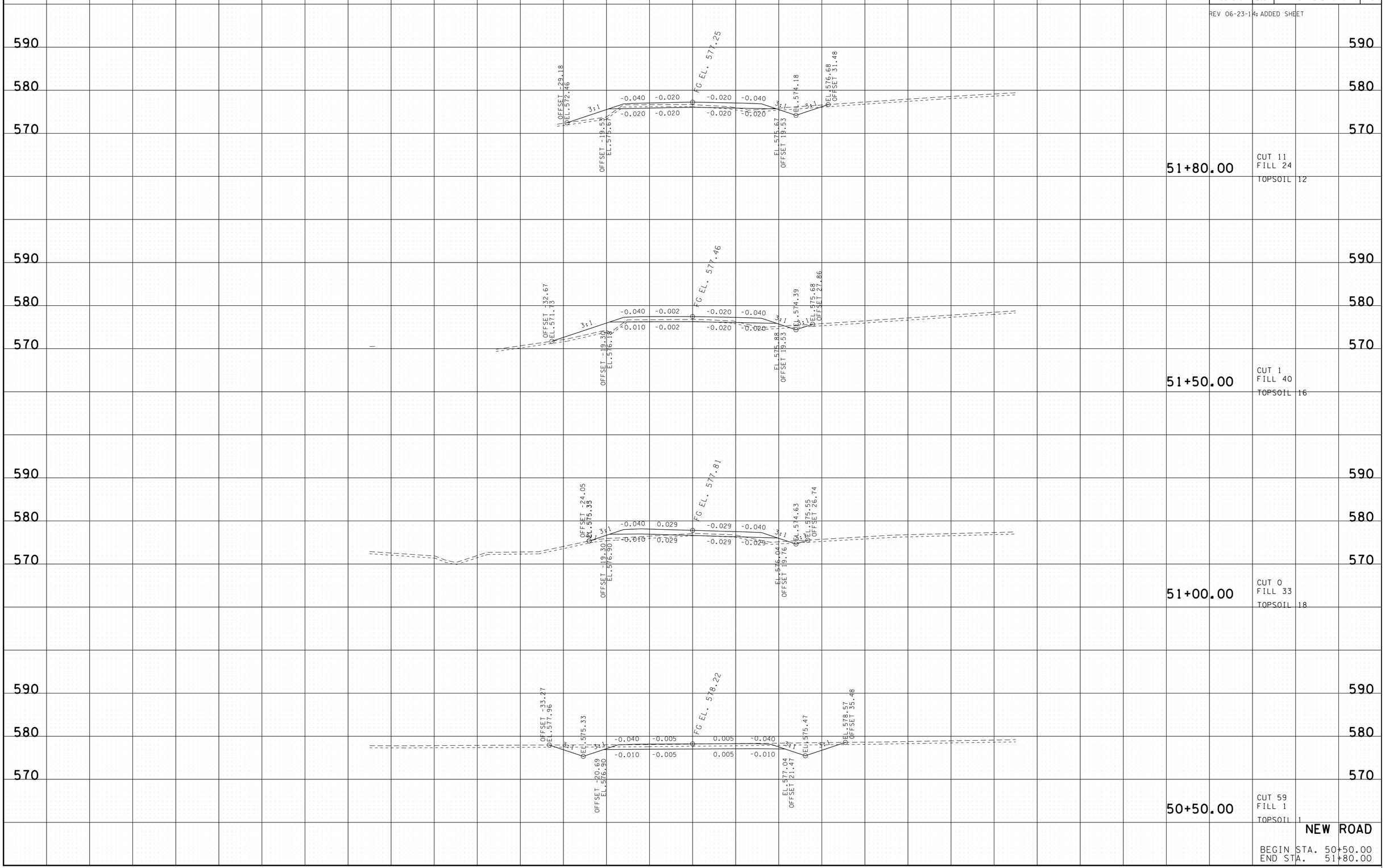
INTERNATIONAL DR.

BEGIN STA. 49+50.00
END STA. 49+50.00

8/5/2014 8:06:31 PM
H:\116007\DGN\InternationalXS.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2014	NH/STP-I-24-9(76)	71
CONST.	2014	NH/STP-I-24-9(76)	78

REV 06-23-14: ADDED SHEET



NEW ROAD

BEGIN STA. 50+50.00
END STA. 51+80.00

8/6/2014 9:11:58 AM
H:\IIG007\DGN\New Rd XS.sht