

Index Of Sheets

SEE SHEET NO. 1A

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

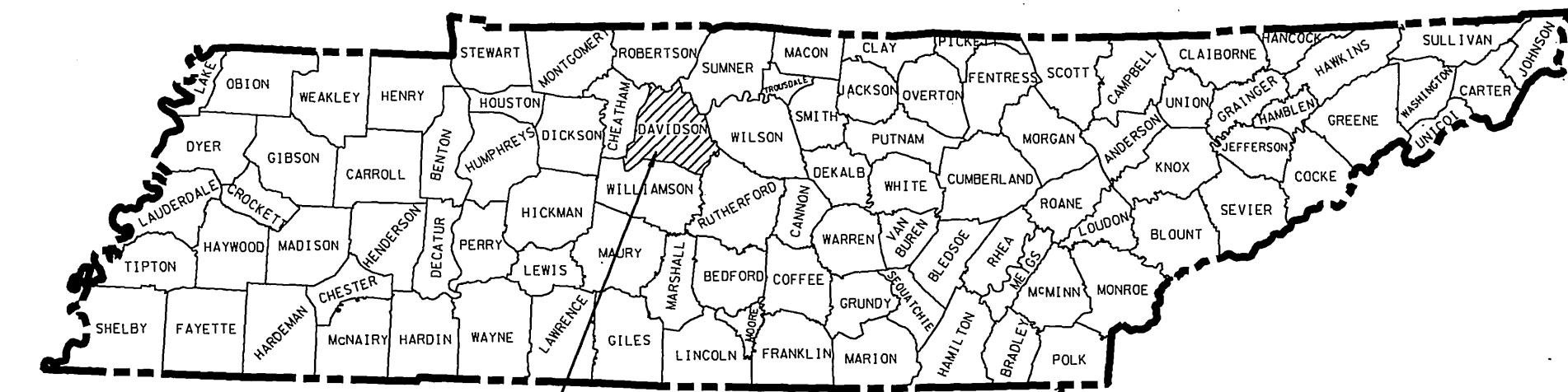
DAVIDSON COUNTY

SIGNALIZATION AND RAMP WIDENING
I-24 OFF RAMP WITH SPRING STREET
AND SPRING STREET WITH DICKERSON PIKE

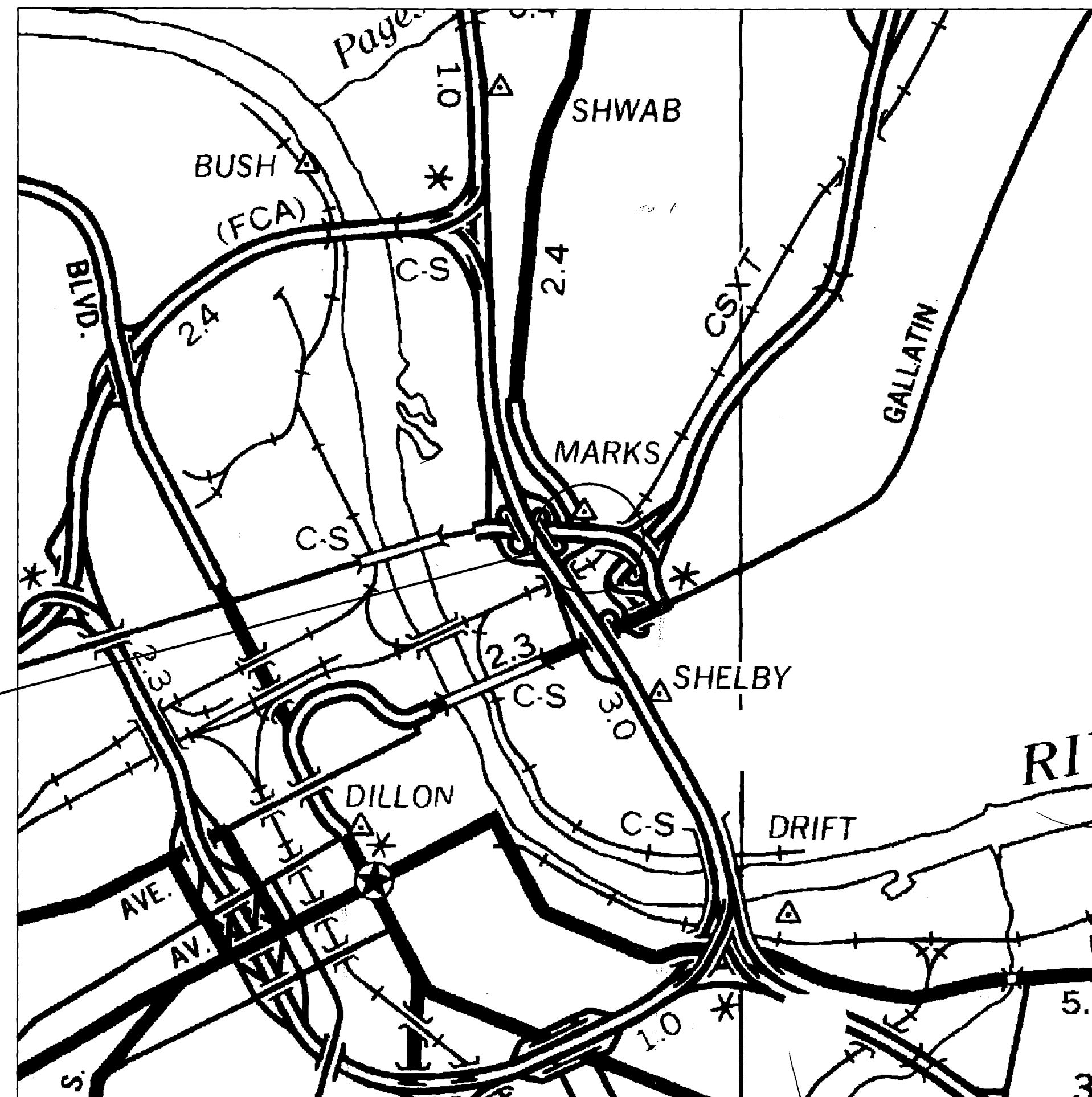
CONSTRUCTION

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

TENN.	YEAR	SHEET NO.
	2005	1
FED. AID PROJ. NO.	STP-H-IE-24-1(91)	
STATE PROJ. NO.	19001-3132-94	



PROJ. NO. STP-H-IE-24-1(91)



PROJECT LOCATION

NO R.O.W. REQUIRED

NO EXCLUSIONS

NO EQUATIONS



APPROVED: Paul D. Haggard
CHIEF ENGINEER

DATE: _____

APPROVED: Donna F. Kelly
COMMISSIONER

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, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT C.E. MANAGER 1 PETE HIETT

DESIGNED BY NEEL-SCHAFFER, INC.

DESIGNER CRAIG HANCHEY CHECKED BY BILL WHITE

P.E. NO. 98034-1278-94

ROADWAY LENGTH 0.062 MILE
BRIDGE LENGTH 0.000 MILE
BOX BRIDGE LENGTH 0.000 MILE
PROJECT LENGTH 0.062 MILE
(ROADWAY AND PROJECT LENGTH MEASURED
ALONG RAMP SE)

SPRING STREET

TRAFFIC DATA

ADT (2005)	42,399
ADT (2025)	68,144
DHV (2025)	6,815
D	70 - 30
T (ADT)	4 %
T (DHV)	3 %
V	35 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

6-3-05 CEN

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DWG. NO. M-470-34	14B
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STANDARD ROADWAY DRAWINGS TO
BE PRINTED WITH PLANS

DWG. NO.	REV.	DESCRIPTION
EC-STR- 3A	07-29-04	TEMPORARY FILTER BARRIER
RP-H- 1	12-31-04	HANDICAP RAMP (SECTIONAL VIEW)
RP-H- 2		HANDICAP RAMP (PLAN VIEW)
RP-H- 3		HANDICAP RAMP FOR TANGENT SECTION WITH OR WITHOUT GRASS STRIP
RP-H- 4		HANDICAP RAMP (PLAN VIEW) FOR 10' THRU 30' RADIUS WITHOUT GRASS STRIP
RP-H- 5		HANDICAP RAMP (PLAN VIEW) FOR 35' AND 40' RADIUS WITHOUT GRASS STRIP
T-SG- 2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG- 3	07-29-04	NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG- 5	07-29-04	CONTROLLER CABINET DETAILS
T-SG- 7	07-29-04	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG- 7A	07-29-04	TYPICAL SIGN HEAD PLACEMENT
T-SG- 9	07-29-04	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG- 9A		MISCELLANEOUS SIGNAL DETAILS
T-SG- 12	07-29-04	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS

STANDARD ROADWAY DRAWINGS

DWG NO.	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A- 1	12-18-99	STANDARD ABBREVIATIONS
RD-L- 1	10-26-94	STANDARD LEGEND
RD-L- 2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L- 3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L- 4	04-15-04	STANDARD LEGEND FOR EROSION 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-S- 12	10-15-02	CLEAR ZONE CRITERIA
RD01-TS- 4	10-15-02	DESIGN STANDARDS 1 AND 2 LANE RAMPS

DRAINAGE-CATCH BASINS AND MANHOLES

D-CBB- 12A	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16, AND 17 TYPE CATCH BASINS
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ROADWAY AND PAVEMENT APPURTENANCES

RP-J- 1	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J- 3	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J- 5	07-01-01	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS
RP-J- 7	10-26-00	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J- 9	01-19-02	CONTRACTION AND CONSTRUCTION JOINTS FOR CONCRETE PAVEMENT
RP-J- 11	07-29-96	3/4" AND 1-3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J- 13	03-20-91	3/4" AND 1-3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J- 15	01-19-02	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-J- 17	10-26-00	DOWEL ASSEMBLY DEVICES
RP-J- 18	10-26-00	DOWEL ASSEMBLY DEVICES
RP-J- 19	10-26-00	DOWEL ASSEMBLY DEVICES
RP-J- 23	01-19-02	CONCRETE PAVEMENT REPAIR DETAILS
RP-J- 24	05-27-01	CONCRETE PAVEMENT SPALL AND RANDOM CRACK REPAIR DETAILS
RP-J- 25	05-27-01	CONCRETE PAVEMENT JOINT REPAIR DETAILS
RP-MC- 2	02-28-02	STANDARD 6" SLOPING (MOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC- 10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

DWG NO.	REV.	DESCRIPTION
RP-S- 7	07-29-96	DETAILS FOR STANDARD CONCRETE SIDEWALKS
SAFETY APPURTENANCES AND FENCE		
S-GR- 11	09-05-03	W-BEAM & THRIE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR- 12	05-27-03	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS
S-GR- 13	05-27-03	BARRIER RAIL MOUNTING, POST BLOCK-OUTS
S-GR- 13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR- 15	09-05-03	W-BEAM BARRIER TERMINAL ELEMENT DETAILS
S-GR- 19	10-26-03	GUARDRAIL TERMINAL ANCHORS, TYPE 12 AND TYPE 13
S-GR- 21	04-15-04	LENGTH OF NEED AND TERMINAL REQUIREMENTS IN FILLS
S-GR- 24	05-27-01	MINIMUM INSTALLATION LENGTH FOR PROTECTIVE GUARDRAIL AT BRIDGE ENDS
S-GR- 26	09-05-01	GUARDRAIL TERMINAL ANCHOR (TYPE 21) POST LAYOUT AND ERECTION DETAILS
S-GR- 27	05-27-03	GUARDRAIL TERMINAL ANCHOR (TYPE 21) ELEMENT ASSEMBLY DETAILS
S-GR- 28	12-18-98	GUARDRAIL TERMINAL ANCHOR (TYPE 21) POST AND ASSEMBLY DETAILS
S-GR- 39	05-27-01	DETAILS FOR CONSTRUCTION OF EARTH PAD FOR TYPE 21 GUARDRAIL END TERMINALS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-1E-24-1(91)	1A

REV. 5-13-05; UPDATED REV. DATES FOR STD. DWG. NO.'S S-GR-11, S-GR-12, S-GR-13, S-GR-13A, S-GR-15, S-GR-19, S-GR-21 AND S-GR-27.



STATE OF TENNESSEE
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AND
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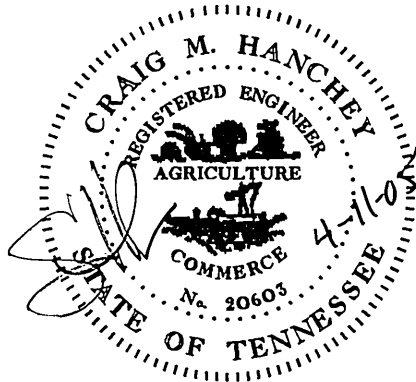
STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	1B

DWG NO.	REV.	DESCRIPTION
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	04-15-04	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-3	09-19-91	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	09-05-01	INTERSECTION PAVEMENT MARKINGS
T-M-9	12-12-00	MARKING DETAILS FOR RAMP INTERSECTIONS
T-PBR-1	02-22-04	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2		DETAIL FOR VERTICAL PANELS
T-S-6	02-12-91	MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE ROUTES AND ARROWS
T-S-9	05-27-03	LAYOUT - GROUND MOUNTED SIGNS
T-S-10	05-27-03	MOUNTING DETAILS - FLAT SHEET SIGNS, ALUMINUM-STEEL DESIGN
T-S-12	05-27-03	STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-15	12-07-90	CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	05-27-01	GROUND MOUNTED SIGN AND DETAILS
T-S-17	10-26-96	GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-WZ-40	04-15-04	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	04-15-04	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-42	04-15-04	CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS

EROSION CONTROL AND LANDSCAPING

EC-STR-1	03-15-04	PAY ITEMS, GENERAL NOTES &TEMPORARY DEWATERING STRUCTURE
EC-STR-3E		EROSION CONTROL FABRIC JOINING DETAILS
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2 SLIPCOVER DETAILS
EC-STR-46		CATCH BASIN FILTER ASSEMBLY (TYPE 6)
EC-STR-46A		CATCH BASIN FILTER ASSEMBLY (TYPE 6 SLIPCOVER DETAILS



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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AND
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ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201-01	CLEARING AND GRUBBING	LS	1
202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	386
202-08.10	REMOVAL OF CURB (ALONG RAMP SE)	L.F.	772
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	928
203-06	WATER	M.G.	1
209-05	SEDIMENT REMOVAL	C.Y.	110
209-08.01	TEMPORARY FILTER BARRIER	L.F.	2850
209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	5
209-40.46	CATCH BASIN FILTER ASSEMBLY(TYPE 6)	EACH	4
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1094
307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A	TON	323
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	122
313-03	TREATED PERMEABLE BASE	S.Y.	976
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	9
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	36
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	2
411-02.10	ACS MIX(PG70-22) GRADING D	TON	643
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	3690
501-01.02	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 9"	S.Y.	976
502-08.02	RESEALING JOINTS (SILICONE SEALANT)	L.F.	1012
611-01.20	ADJUSTMENT OF EXISTING MANHOLE	EACH	2
611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	3
611-09.03	CAPPING EXISTING CATCHBASIN	EACH	1
701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	5800
701-02.01	CONCRETE HANDICAP RAMP (RETROFIT)	S.F.	467
701-02.03	CONCRETE HANDICAP RAMP	S.F.	759
701-03	CONCRETE MEDIAN PAVEMENT	C.Y.	44
702-01	CONCRETE CURB	C.Y.	46
702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	65
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	57
705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	1
705-04.04	GUARDRAIL TERMINAL (TYPE 21)	EACH	1
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	350
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	85
712-05.03	WARNING LIGHTS (TYPE C)	EACH	32
712-06	SIGNS (CONSTRUCTION)	S.F.	379
712-06.01	VERTICAL PANELS	S.F.	16
712-08.03	ARROW BOARD (TYPE C)	EACH	1
713-09.01	STEEL OVERHEAD SIGN STRUCTURE (SPAN = 69'-0")	EACH	1
713-11.01	"U" SECTION STEEL POSTS	LB.	231
713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	609
713-11.03	2 1/2" DIA ROUND STEEL TUBE SIGN POST	LB.	136
713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	188
713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	36
713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	531
713-15.36	REMOVE SIGN, SUPPORT & FOOTING	EACH	11
716-02.03	PLASTIC PAVEMENT MARKING (CROSS-WALK)	L.F.	480
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	10
716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	2
716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	EACH	1
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0.200
716-10.01	PREFORMED PLASTIC PAVEMENT MARKING (4" LINE)	L.M.	0.788
716-10.02	PREFORMED PLASTIC PAVEMENT MARKING (8" BARRIER LINE)	L.F.	634
716-10.06	PREFORMED PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	242
716-10.07	PREFORMED PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	166
716-10.08	PREFORMED PLASTIC PAVEMENT MARKING (4" DOTTED LINE)	L.F.	225
717-01	MOBILIZATION	LS	1

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ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	6
730-02.30	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE, OPTICALLY PROGRAMED)	EACH	1
730-02.31	SIGNAL HEAD ASSEMBLY (130A3 WITH BACKPLATE)	EACH	4
730-02.32	SIGNAL HEAD ASSEMBLY (150A2 WITH BACKPLATE, OPTICALLY PROGRAMED)	EACH	1
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	20
730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
730-05.02	SERVICE CABLE (2 CONDUCTOR, # 8 AWG)	L.F.	306
730-08.01	SIGNAL CABLE - 3 CONDUCTOR	L.F.	1223
730-08.02	SIGNAL CABLE - 5 CONDUCTOR	L.F.	1990
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	1550
730-08.30	INTERCONNECT CABLE (COPPER-TWISTED PAIR)	L.F.	1982
730-11.01	STEEL CONDUIT RISER ASSEMBLY	EACH	1
730-12.08	CONDUIT 2" DIAMETER (RGS)	L.F.	1999
730-12.09	CONDUIT 3" DIAMETER (RGS)	L.F.	62
730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	1112
730-12.14	CONDUIT 3" DIAMETER (JACK AND BORE)	L.F.	197
730-12.16	CONDUIT (1.5" RGS)	L.F.	85
730-12.17	CONDUIT (1.5" DIAMETER, JACK AND BORE)	L.F.	198
730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	EACH	4
730-14.01	SHIELDED DETECTOR CABLE	L.F.	1231
730-14.02	SAW SLOT	L.F.	575
730-14.03	LOOP WIRE	L.F.	1150
730-15.11	MODIFY CABINET (INSTALL INTERCONNECT EQUIPMENT)	EACH	1
730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
730-23.30	PEDESTAL POLE (PED SIGNAL POLE)	EACH	5
730-23.80	CANTILEVER SIGNAL SUPPORT (1 ARM @ 40')	EACH	1
730-23.86	CANTILEVER SIGNAL SUPPORT (2 @ 40' & 40')	EACH	1
730-23.88	CANTILEVER SIGNAL SUPPORT (1 ARM @ 45')	EACH	1
730-23.96	CANTILEVER SIGNAL SUPPORT (2 @ 50' AND 60')	EACH	1
730-26.03	PEDESTRIAN SIGNAL HEAD, PUSHBUTTON & 12" SIGN	EACH	6
801-03	WATER (SEEDING & SODDING)	M.G.	4
803-01	SODDING (NEW SOD)	S.Y.	400
806-03.01	TREE CUTTING	LS	1

1. SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
2. THIS ITEM INCLUDES ALL HARDWARE AND APPURTENANCES REQUIRED TO INSTALL CONDUIT ON THE EXISTING BRIDGE.
3. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 730-05.01 FOR PAYMENT BY THE CONTRACTOR.
4. ALL SIGNAL EQUIPMENT MUST BE COMPATIBLE WITH METRO PUBLIC WORKS SMARTWAYS CLOSED LOOP SYSTEM (PEEK 3000 CONTROLLERS AND MASTERS). CABINET MUST BE COMPATIBLE WITH SMARTWAYS SYSTEM AND PEEK COMM. PANELS.
5. SEE POLE SCHEDULE ON SIGNAL LAYOUT SHEET.
6. "PO2-LOC SLIP BASE SYSTEM", "NORTHWEST PIPE CO., TRAFFIC SYSTEMS" OR EQUIVALENT, SEE SIGN SCHEDULE SHEET FOR DETAILS.
7. SIGN NO.'S. 1 THRU 10 AND 8A.
8. PANELS TO BE 24"x12" (TYPE VP-1L), AS SHOWN ON STANDARD DRAWING T-PBR-2.
9. FOR MAINTENANCE OF TRAFFIC.
10. LOCATED LT. STA. 74+50 (RAMP SE), SPRING ST. MEDIAN AT STA. 23+50, AND LT. SPRING ST. STA. 21+00.
11. ALSO INCLUDES SPRING ST. MEDIAN.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-1E-24-1(91)	2

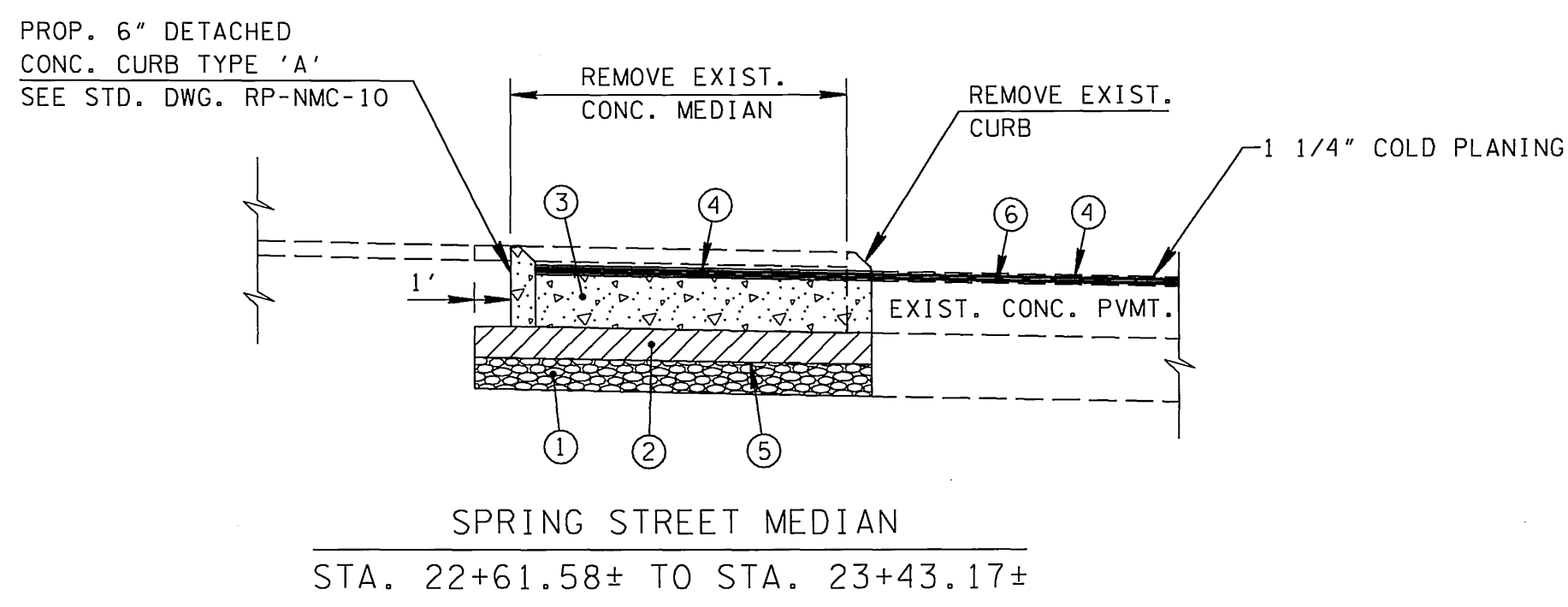
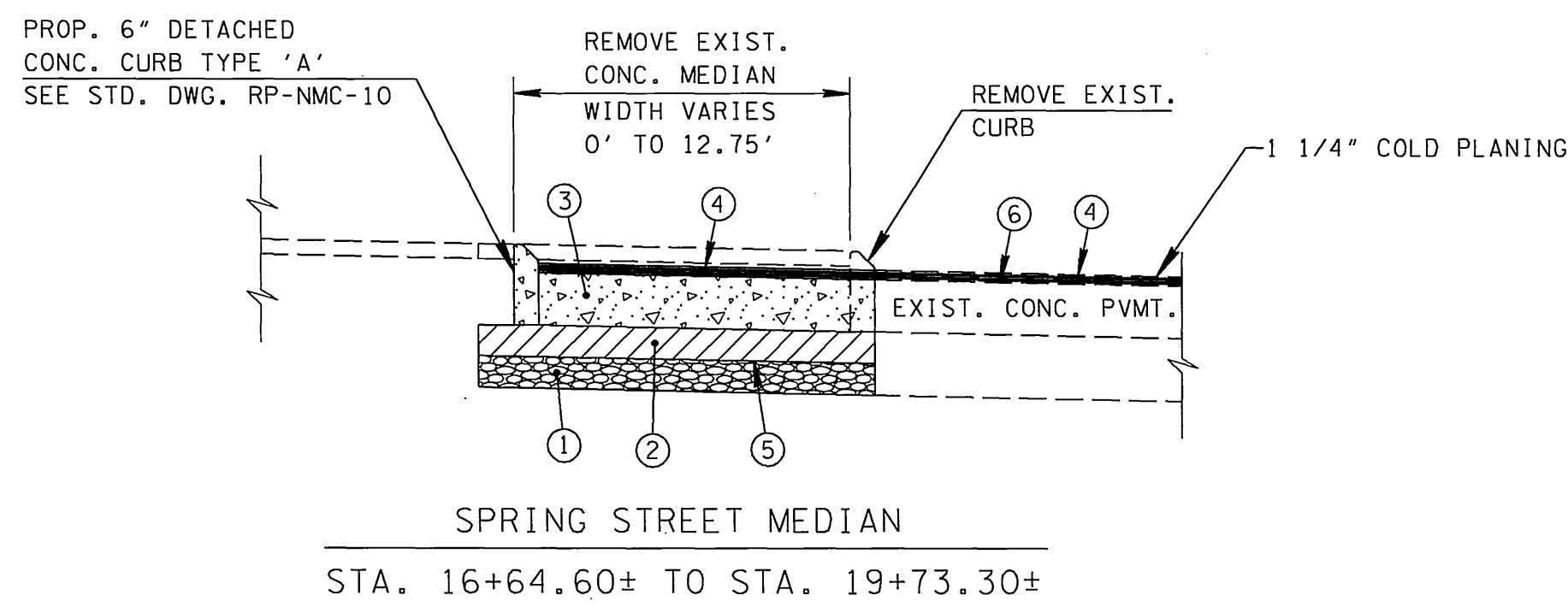
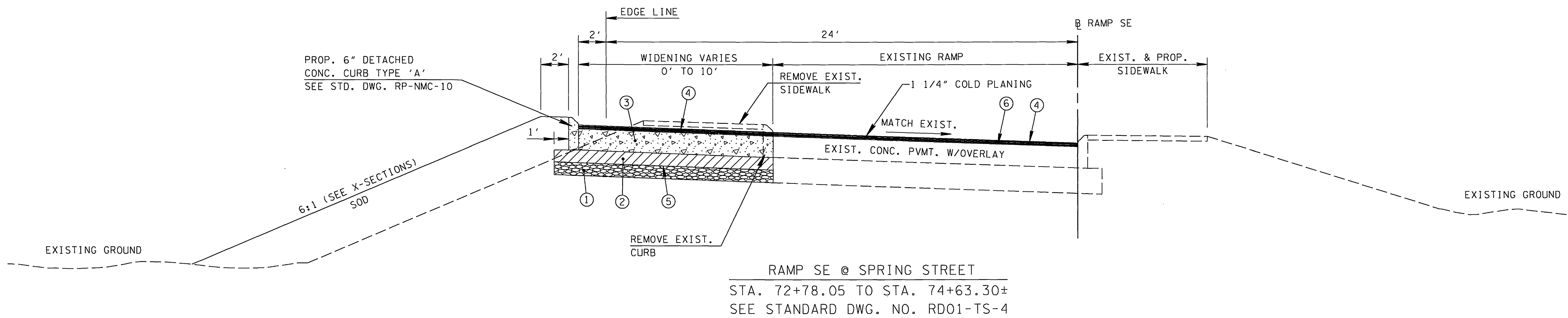
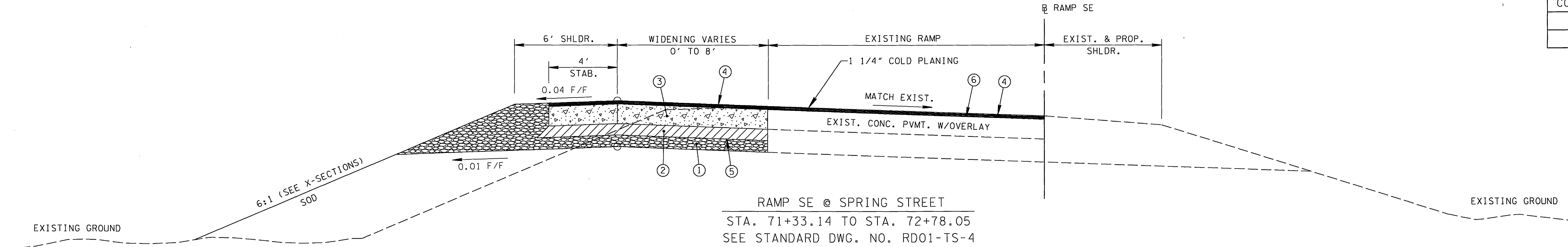
REV. 5-11-05: DELETED ITEM NO. 202-03.02. REVISED QUANTITY FOR ITEM NO. 202-03 AND 202-08.10. ADDED FOOTNOTES 10 AND 11.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2003	STP-H-NHE-REG3(5)	2
CONST.	2005	STP-H-IE-24-1(91)	2A



PROPOSED PAVEMENT SCHEDULE

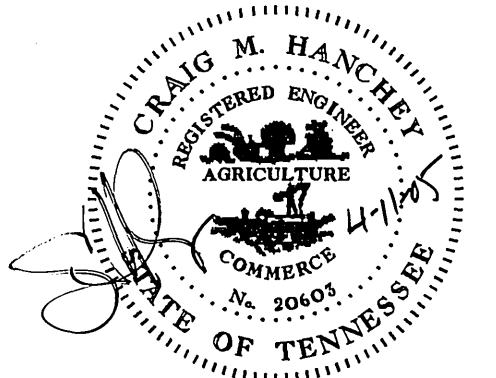
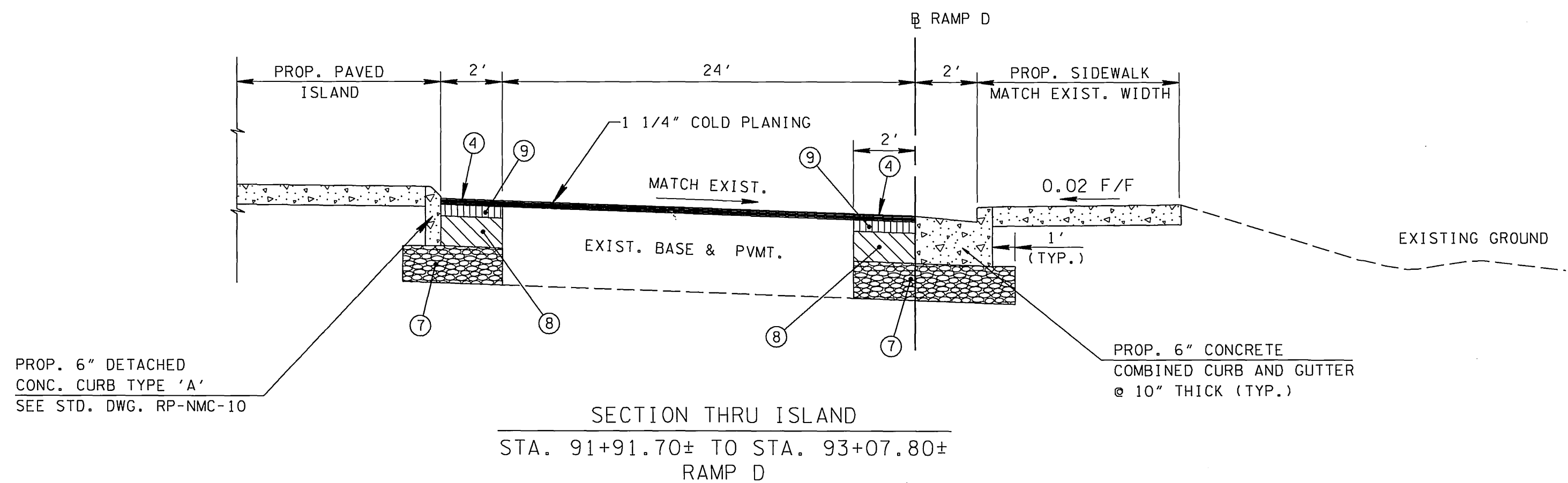
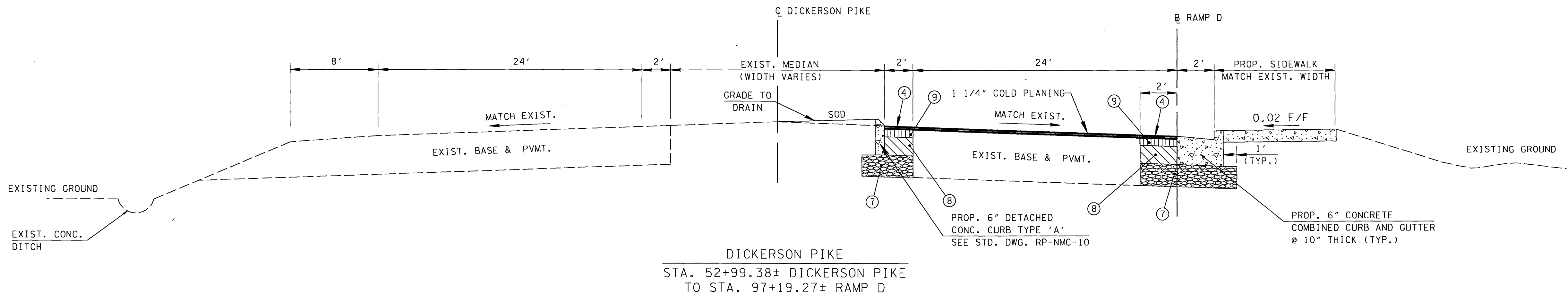
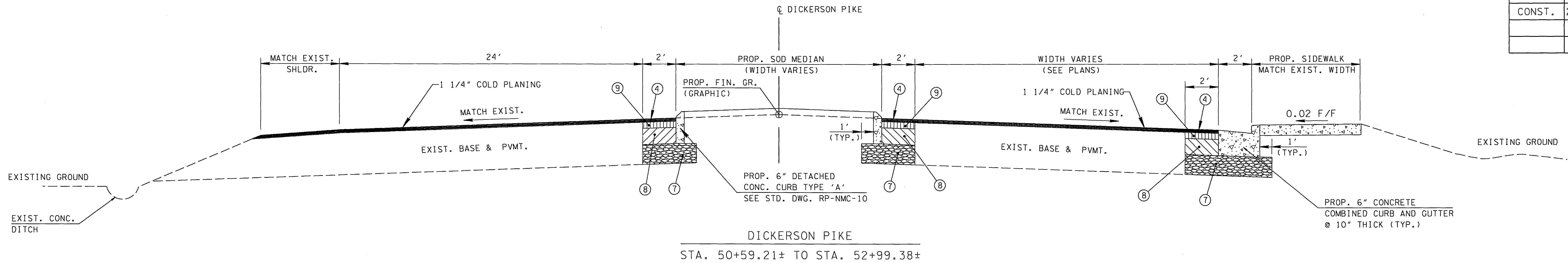
① MINERAL AGGREGATE BASE (4"± THICK) ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D	⑥ TACK COAT @ 0.02 GAL./S.Y. ITEM NO. 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC)
② TREATED BASE (4"± THICK) ITEM NO. 313-03 TREATED PERMEABLE BASE	⑦ MINERAL AGGREGATE BASE (8"± THICK) ITEM NO. 303-01 MINERAL AGGREGATE, TYPE A BASE, GRADING D
③ CONCRETE PAVEMENT (9"± THICK) ITEM NO. 501-01.02 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 9"	⑧ BITUMINOUS PLANT MIX BASE @ 6 1/2"± THICK (APPROX. 747.5 LBS./S.Y.) ITEM NO. 307-02.01 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING A
④ BITUMINOUS SURFACE @ 1 1/4"± THICK (APPROX. 132.5 LB./S.Y.) ITEM NO. 411-02.10 ACS MIX (PG70-22) GRADING D	⑨ BITUMINOUS BINDER @ 2 1/2"± THICK (APPROX. 282.5 LBS./S.Y.) ITEM NO. 307-02.08 ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2
⑤ PRIME COAT @ 0.30-0.35 GAL./S.Y. ITEM NO. 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) ITEM NO. 402-02 AGGREGATE FOR COVER MATERIAL (PC) @ 8-12 LB./S.Y.	



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS
AND
PAVEMENT
SCHEDULE

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2003	STP-H-NHE-REG3(5)	2
CONST.	2005	STP-H-IE-24-1(91)	2B



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
SECTIONS

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- (2) 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

- (3) 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

- (4) 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.

DRAINAGE

- (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

- (6) 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.
- (7) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- (8) 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.
- (9) 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.
- (10) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY

OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

MISCELLANEOUS

- (11) 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

- (12) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS BEFORE DARK HOURS. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01 PAINTED PAVEMENT MARKING (4" LINE), LIN. MI.
- (13) IF THERMOPLASTIC IS USED ON THE FINAL SURFACE, 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 MARKING AFTER THE PAVING OPERATION IS COMPLETED. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. 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. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-02.01 PLASTIC PAVEMENT MARKING (4" LINE), LIN. MI.

PAVEMENT - RESURFACING

- (14) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (15) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (16) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.
- (17) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.
- (18) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

SIGNING NOTES

- (19) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUTOUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND. THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL EXTRUDED PANEL SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS. ALL SHIELDS ON GUIDE SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.
- (20) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (21) 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.
- (22) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE

SENT TO THE DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1000, J. K. POLK BUILDING, NASHVILLE, TN 37243-0350.

- (23) 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.
- (24) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (25) 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.

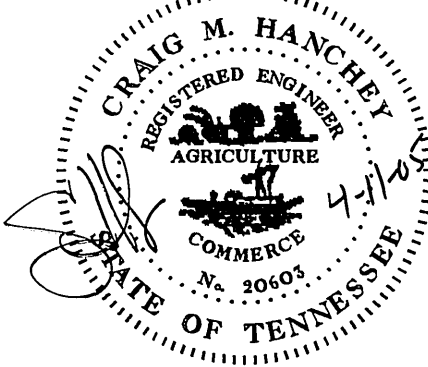
SIGNALIZATION

- (26) EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730N-TRAFFIC SIGNALS."
- (27) IF RESURFACING IS INCLUDED IN THE PROJECT, SIGNAL DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.
- (28) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (29) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.
- (30) THE CONTRACTOR SHALL CONTACT DEVIN DOYLE, METRO PUBLIC WORKS AT (615)880-3262 A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION OF THE SIGNAL TO OBTAIN THE INITIAL SIGNAL TIMINGS.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL NOTES

- (31) 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.
- (32) 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.
- (33) 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.
- (34) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (35) 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. 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 30-FOOT SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (36) 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. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS 30-FOOT SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (37) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-1E-24-1(91)	2C



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL
NOTES

GENERAL NOTES

EROSION CONTROL NOTES

- (38) CLEARING AND GRUBBING SHALL NOT BE INITIATED MORE THAN 20 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS TEMPORARILY SEEDED AND MULCHED.
- (39) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE.
- (40) EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED CONCURRENT WITH CLEARING OPERATIONS, AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.
- (41) INSPECTION AND MAINTENANCE OF STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS AND SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EROSION CONTROL STRUCTURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR’S OWN EXPENSE.
- (42) 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 PER CUBIC YARD.
- (43) 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.
- (44) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE / U.S. EROSION AND SEDIMENTATION CONTROL MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. HAY BALES AND/OR SILT FENCE 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. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (45) PERMANENT EROSION CONTROL MEASURES SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING.
- (46) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE ON-SITE AND MAINTAIN IT IN GOOD WORKING CONDITION. THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION ON THE PROJECT AND PROVIDE THIS INFORMATION TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGE IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS.
- (47) INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DONE BEFORE ANTICIPATED STORM EVENTS (OR SERIES OF STORM EVENTS SUCH AS INTERMITTENT SHOWERS OVER ONE OR MORE DAYS) AND WITHIN 24 HOURS AFTER THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, AND AT LEAST ONCE PER WEEK.
- (48) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO SURROUNDING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- (49) THE CONTRACTOR SHALL MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN ON-SITE (OR AT A NEARBY OFFICE) AND SHALL PLACE COPIES OF ANY PROJECT-RELATED PERMITS ON THE PROJECT BULLETIN BOARD.
- (50) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS FROM ENTERING WATERS OF THE STATE / U.S.

- (51) 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 UTILIZED. 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.
- (52) BORROW AND WASTE DISPOSAL 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.
- (53) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED AND THE PERMIT OR PERMITS ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE ENVIRONMENTAL PLANNING AND PERMITS DIVISION SHALL DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.

SPECIAL SIGNAL NOTES

- (54) LOOP LEAD-IN AND SIGNAL CIRCUIT CABLE SHALL BE A CONTINUOUS RUN BETWEEN TH CONTROLLER AND THE TERMINATING ELEMENT. SPLICES SHALL NOT BE PERMITTED IN ANY INTERMEDIATE PULL BOXES, POLE BASES OR CONDUIT.
- (55) ALL LED SIGNAL DISPLAYS SHALL MEET THE MINIMUM STANDARDS AS OUTLINED IN CHAPTER 2A, INCLUDING PROVISIONS OF THE TECHNICAL NOTES IN THE CHAPTER APPENDIX OF THE PUBLICATION “EQUIPMENT AND MATERIAL STANDARDS OF THE INSTITUTE OF TRANSPORTATION ENGINEERS” (PUBLISHED BY ITE, NOVEMBER 1997) OR MOST CURRENT PUBLICATION.
- (56) INCANDESCENT OR SCREW-IN LED SIGNAL DISPLAY MODULES ARE NOT ACCEPTABLE.
- (57) COMPATIBILITY OF LED DISPLAYS WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.
- (58) MANUFACTURER SHALL PROVIDE A ONE-YEAR WARRANTY FOR OPERATION OF THE LED SIGNAL HEAD UNIT.
- (59) NO GROUT SHALL BE PLACED AT THE BASE OF THE STEEL POLE BETWEEN THE POLE BASE AND FOUNDATION. BASE OF POLE SHALL REMAIN OPEN TO PERMIT DRAINAGE AND AIR CIRCULATION.

SPECIAL EROSION CONTROL NOTE

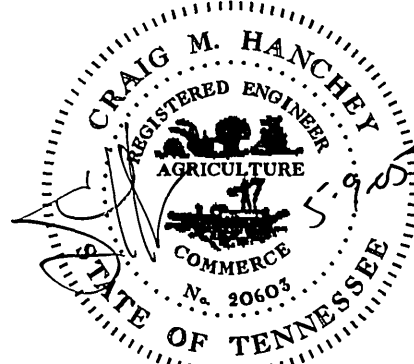
- (60) UPON CONCLUSION OF THE INSPECTIONS, EROSION AND SEDIMENT CONTROL MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE CONDITION IS IDENTIFIED.

SPECIAL WORK RESTRICTION NOTES

- (61) NO LANE CLOSURES SHALL BE ALLOWED DURING THE TIME PERIODS OF 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM MONDAY THRU FRIDAY.
- (62) THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC ON ALL RAMPS AT ALL TIMES.
- (63) ALL LANE CLOSURES MUST BE APPROVED BY THE DEPARTMENT.

REV. 5-11-05: ADDED SPECIAL WORK RESTRICTION NOTES NO’S. 61 THRU 63.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-1E-24-1(91)	2D



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL
NOTES

REV. 5-13-05: IN PAVEMENT
QUANTITIES BLOCK - DELETED ITEM
NO.'S 411-02.01 & 411-02.02.
ADDED ITEM NO. 411-02.10.

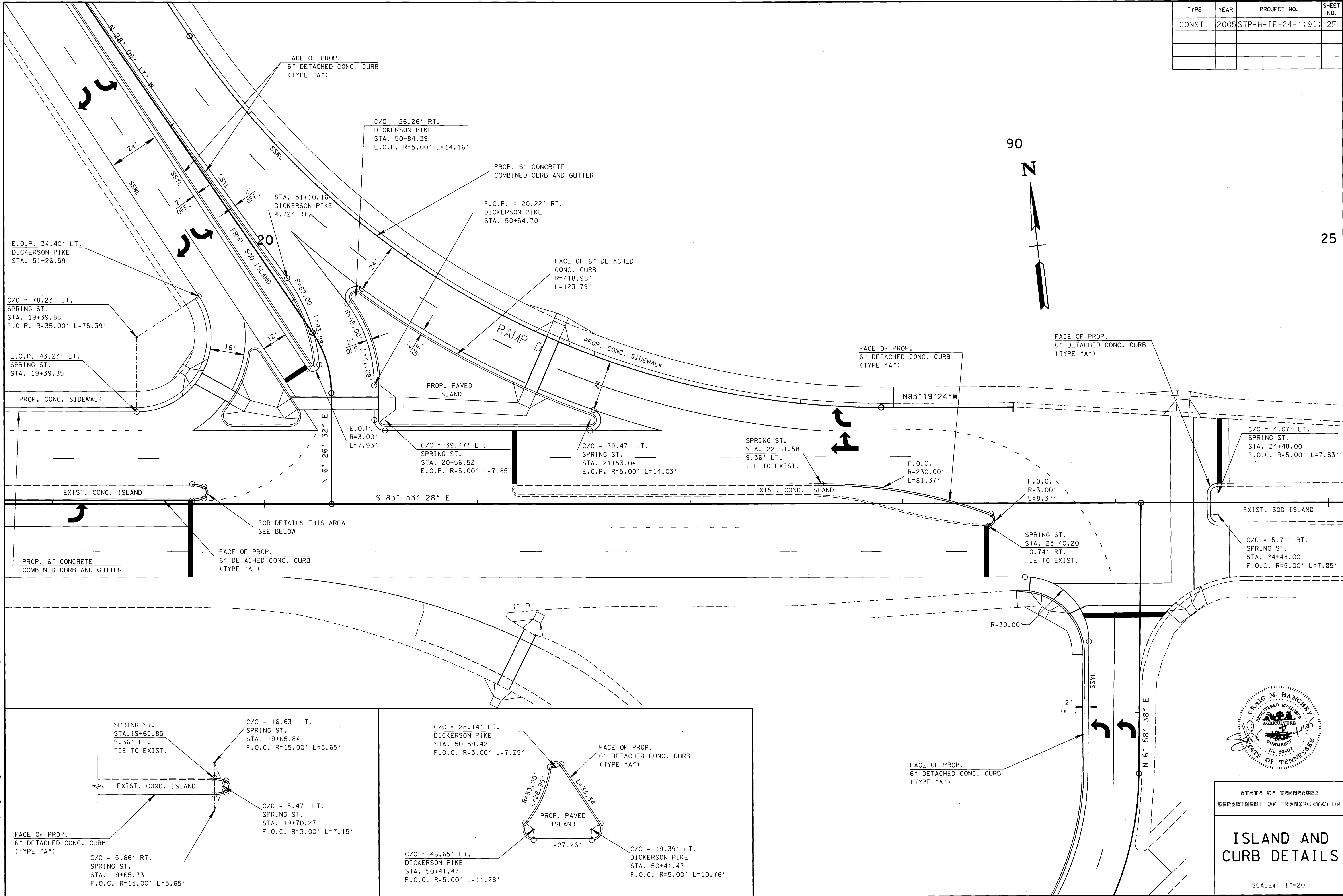
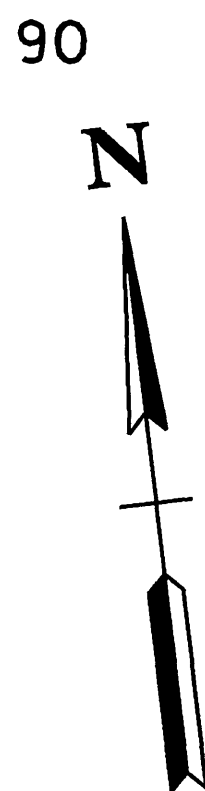
SHRINKAGE FACTOR = 20%

1. AS REQUIRED BY PAVEMENT EDGE DROP-OFF NOTES.
2. FOR USE DURING RIGHT LANE CLOSURE.
3. FOR USE DURING LEFT LANE CLOSURE.
4. FOR USE DURING CENTER LANE CLOSURE.

1. QUANTITIES INCLUDE RAMP D AT DICKERSON PIKE.



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-1E-24-1(91)	2F



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ISLAND AND CURB DETAILS

SCALE: 1"=20'

04/11/2005
R:\4662\13 - I-24 at Spring St\Dgn\4662-13_ISLAND.DETAIL\$5904.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	3
CONST.	2005	STP-H-IE-24-1(91)	3

DICKERSON PIKE
PI 50+67.64
N 671,967.1308
E 1,741,057.1702
Δ 34° 31' 49" (LT)
D 114° 35' 30"
R 50.00
L 30.13
T 15.54
P.C. 50+52.10
P.T. 50+82.24

POT STA. 52+99.38
N=672,172.4055
E=1,740,947.6184

RAMP D POT STA. 98+34.78
N=672,452.1400
E=1,740,800.5300

RAMP D
PI 92+70.80
N 671,940.0015
E 1,741,104.0530
Δ 56° 01' 14" (RT)
D 14° 35' 27"
R 392.68
L 383.94
T 208.88
SE MATCH EXIST.
P.C. 90+61.92
P.T. 94+45.86
PI 97+08.81
N 672,359.2695
E 1,740,887.6278
Δ 15° 51' 35" (LT)
D 7° 31' 34"
R 761.29
L 210.73
T 106.04
SE MATCH EXIST.
P.C. 96+02.77
P.T. 98+13.50

RAMP D @ STA. 90+00.00 =
44.84' LT. SPRING ST. STA. 23+51.83
N=671,908.5160
E=1,741,373.0210

STA. 24+11.78 SPRING STREET =
STA. 74+98.39 RAMP SE
N=671,857.2351
E=1,741,427.5605

STA. 20+31.39 SPRING STREET =
STA. 50+00.00 DICKERSON PIKE
N=671,899.9140
E=1,741,049.5800

STA. 70+00.00
N=671,474.0040
E=1,741,156.6990

UTILITY OWNERS

FIBER OPTICS:

ADELPHIA BUSINESS SOLUTIONS
2530 PERIMETER PLACE DRIVE
NASHVILLE, TN 37214
MR. LUKE WINGO
(615)533-8525

WILLIAMS COMMUNICATIONS, INC.
2208 9th AVENUE NORTH
NASHVILLE, TN 37208
MR. JEFFREY CANNON
(615)742-0595

TELEPHONE:

BELLSOUTH
333 COMMERCE STREET, 12D38
NASHVILLE, TN 37201-1800
MR. CHRIS KELLEY
(615)214-4886

AT&T
360 GEES MILL BUSINESS PARKWAY
CONYERS, GA 30013
MR. GENE GEREN
(770)602-2121

WATER & SEWER:

METRO WATER & SEWER
1600 SECOND AVENUE NORTH
NASHVILLE, TN 37203
MR. MICHAEL MORRIS
(615)862-4577

CABLE TV:

COMCAST
660 MAINSTREAM DRIVE
NASHVILLE, TN 37228
MR. JEFF BRAKE
(615)244-7462

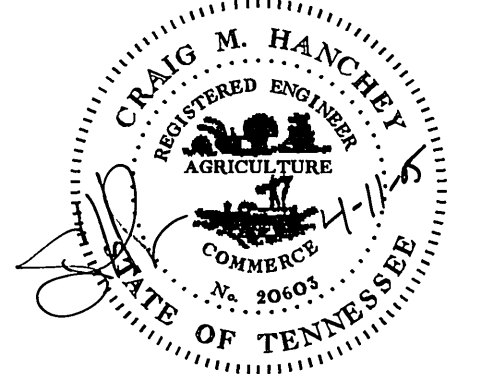
ELECTRIC:

NASHVILLE ELECTRIC SERVICE
1214 CHURCH STREET RM 343
NASHVILLE, TN 37023
MR. HANK DUNNING
(615)747-3530

TENNESSEE VALLEY AUTHORITY
1101 MARKET STREET, MR-3H
CHATTANOOGA, TN 37402
MARY L. BAULKMON
(423)751-7118

GAS:

NASHVILLE GAS COMPANY
665 MAINSTREAM DRIVE
NASHVILLE, TN 37228
MR. JAMES M. THWEATT
(615)734-1760



COORDINATE VALUES ARE NAD(83)995)
AND ARE DATUM ADJUSTED BY THE
FACTOR 1.00006 & TIED TO THE TGRN.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT
LAYOUT

STA.15+00 TO END PROJ.

SCALE: 1"=50'

CONTROL POINT DATA					
#	NORTHING	EASTING	ELEV.	STA.	OFF.
7	671954.21	1741198.00	436.00	21+72.77	70.59 LT
8	671830.87	1741185.92	436.44	21+74.60	53.23 RT
9	671875.92	1741631.61	444.17	26+12.43	41.45 LT
10	671779.37	1741622.68	444.11	26+14.38	55.49 RT

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	3A
CONST.	2005	STP-H-IE-24-1(91)	3A

RAMP D			
PI	92+70.80	PI	97+08.81
N	671,940.0015	N	672,359.2695
E	1,741,104.0530	E	1,740,887.6278
Δ	56° 01' 14" (RT)	Δ	15° 51' 35" (LT)
D	14' 35' 27"	D	7' 31' 34"
R	392.68	R	761.29
L	383.94	L	210.73
T	208.88	T	106.04
SE MATCH EXIST.		SE MATCH EXIST.	
P.C. 90+61.92		P.C. 96+02.77	
P.T. 94+45.86		P.T. 98+13.50	

RAMP D @ STA. 90+00.00 =
44.84' LT. SPRING ST. STA. 23+51.83
N=671,908.5160
E=1,741,373.0210

STA. 24+11.78 SPRING STREET =
STA. 74+98.39 RAMP SE
N=671,857.2351
E=1,741,427.5605

POLE NO. 7 (PED. POLE)
STA. 24+33.86
OFFSET = 54.25' LT.
SPRING STREET

LIMIT OF PAVING AND OVERLAY
SPRING ST. EAST AND WEST BOUND
STA. 24+53.30

POLE NO. 8 (PED. POLE)
STA. 24+45.18
OFFSET = 48.42' RT.
SPRING STREET

POLE NO. 6
STA. 24+54.20
OFFSET = 54.73' RT.
SPRING STREET

LIMIT OF PAVING
AND OVERLAY
RAMP RSE

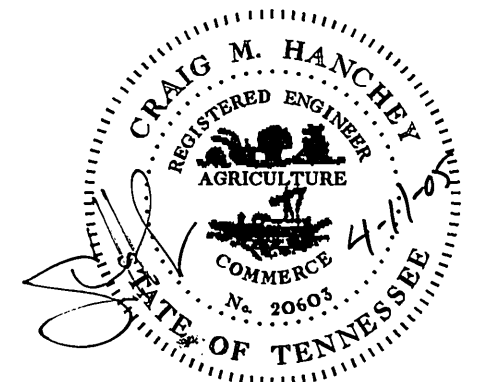
G.R. END TERMINAL
TYPE 13

POLE NO. 11
STA. 73+14.07
OFFSET 24.57' RT.
RAMP SE

G.R. END TERMINAL
TYPE 21

RAMP SE			
PI	73+16.00		
N	671,669.9220		
E	1,741,404.6372		
Δ	44° 42' 27" (LT)		
D	38' 11' 50"		
R	150.00		
L	117.04		
T	61.68		
SE MATCH EXIST.			
P.C. 72+54.32			
P.T. 73+71.36			

SEE SHEET NO. 2H FOR DETAILS
NOT SHOWN THIS SHEET.



COORDINATE VALUES ARE NAD(83)(995)
AND ARE DATUM ADJUSTED BY THE
FACTOR 1.00006 & TIED TO THE TGRN.

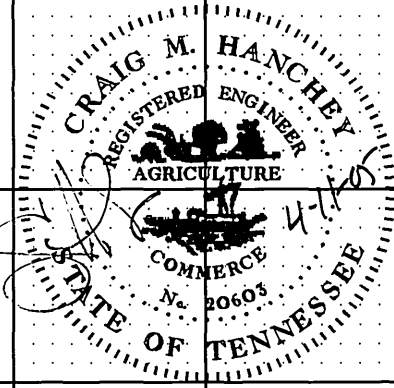
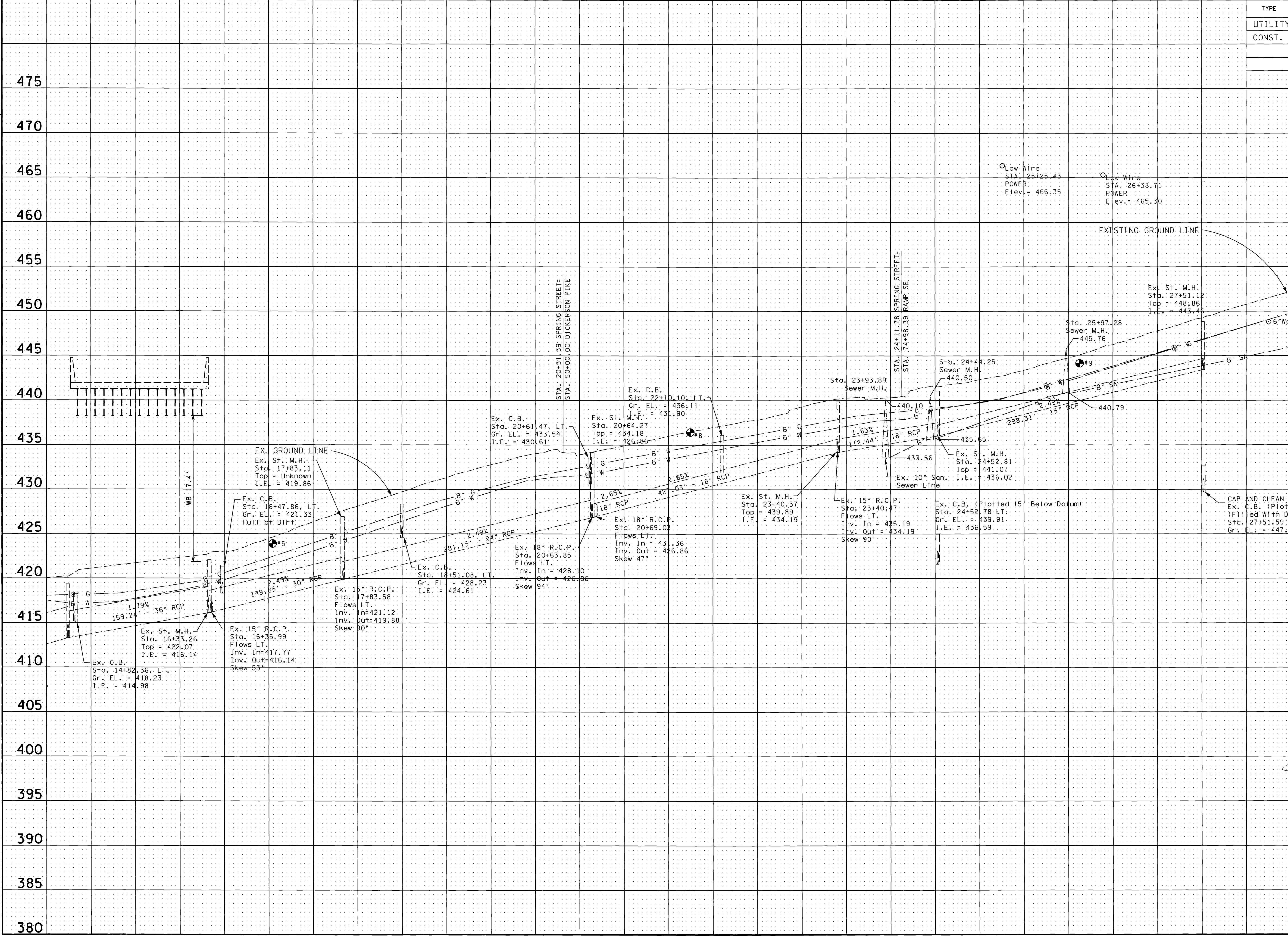
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED
LAYOUT

STA. 15+00 TO END PROJ.

SCALE: 1"=50'

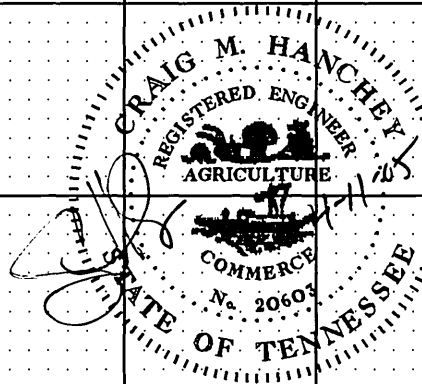
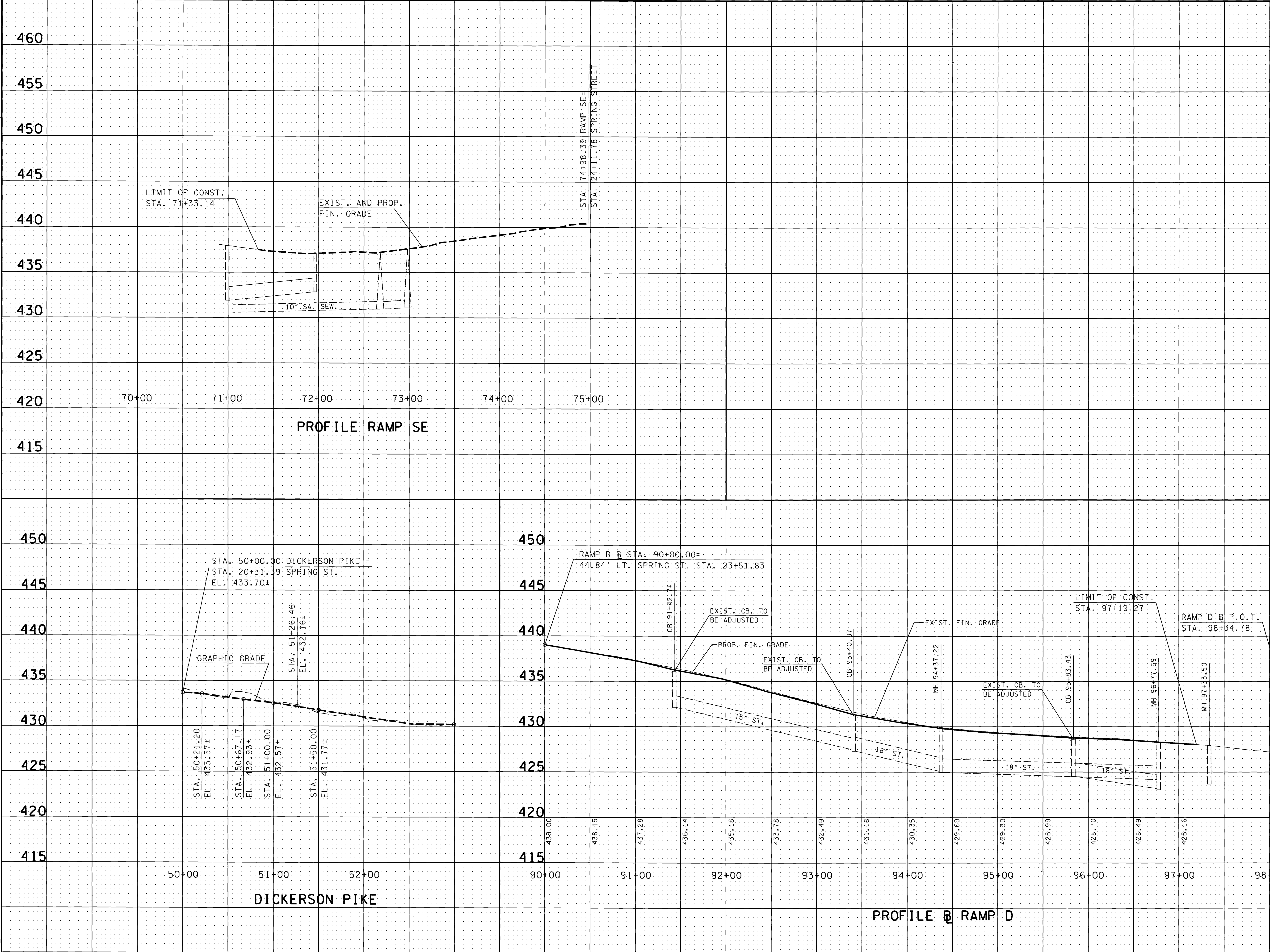
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	3B
CONST.	2005	STP-H-IE-24-1(91)	3B



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE
SPRING STREET
STA. 15+00 TO END PROJ.
SCALE: 1"=50' HORIZ.
1"=5' VERT.

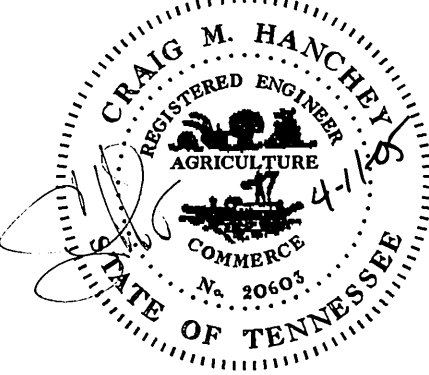
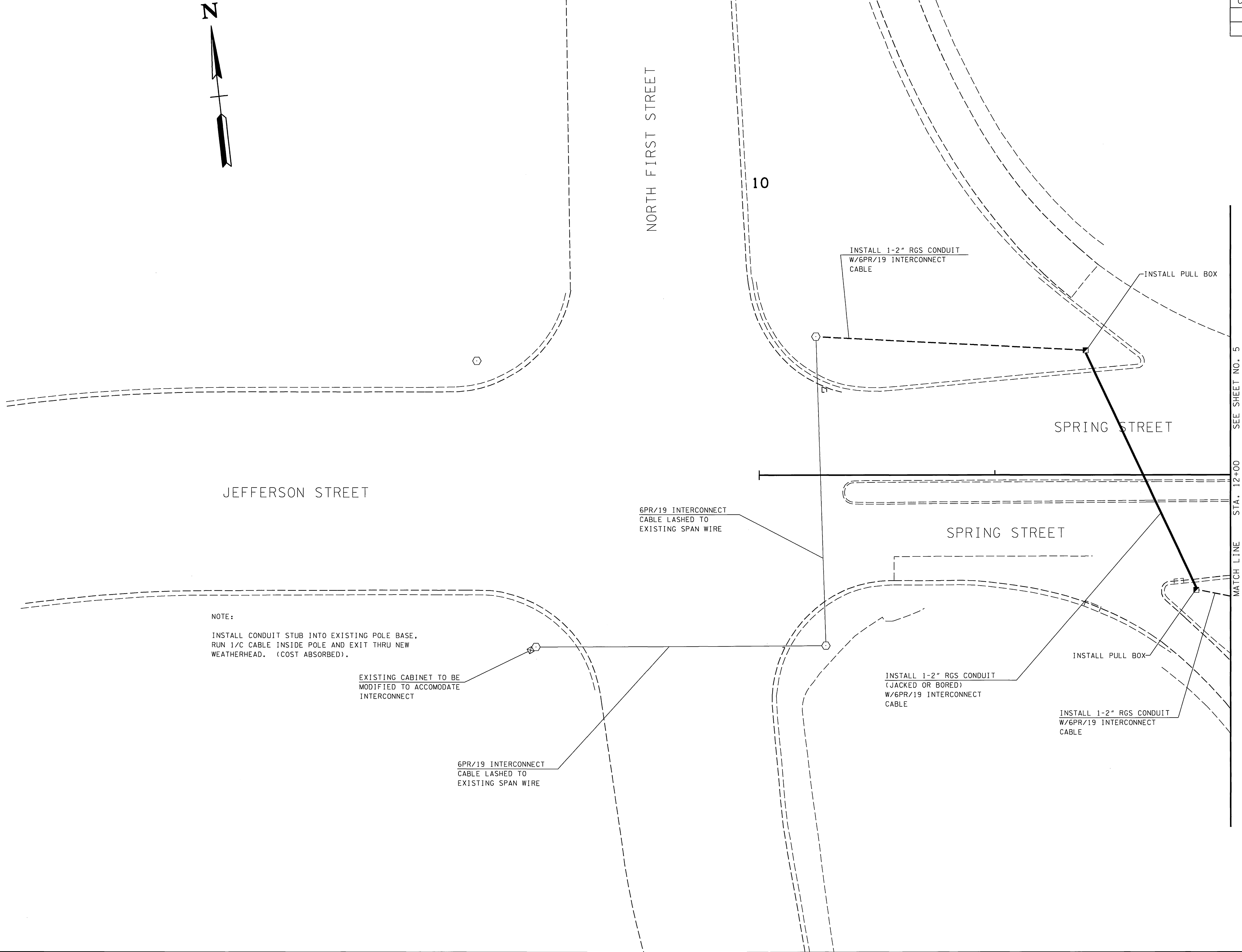
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	3C
CONST.	2005	STP-H-1E-24-1(91)	3C



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILES
RAMP SE, RAMP D
AND DICKERSON PIKE
SCALE: 1"=50' HORIZ.
1"=5' VERT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	4
CONST.	2005	STP-H-IE-24-1(91)	4



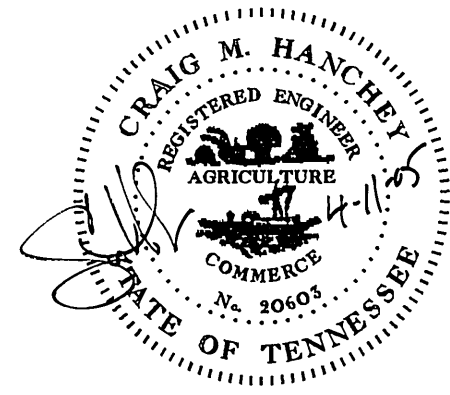
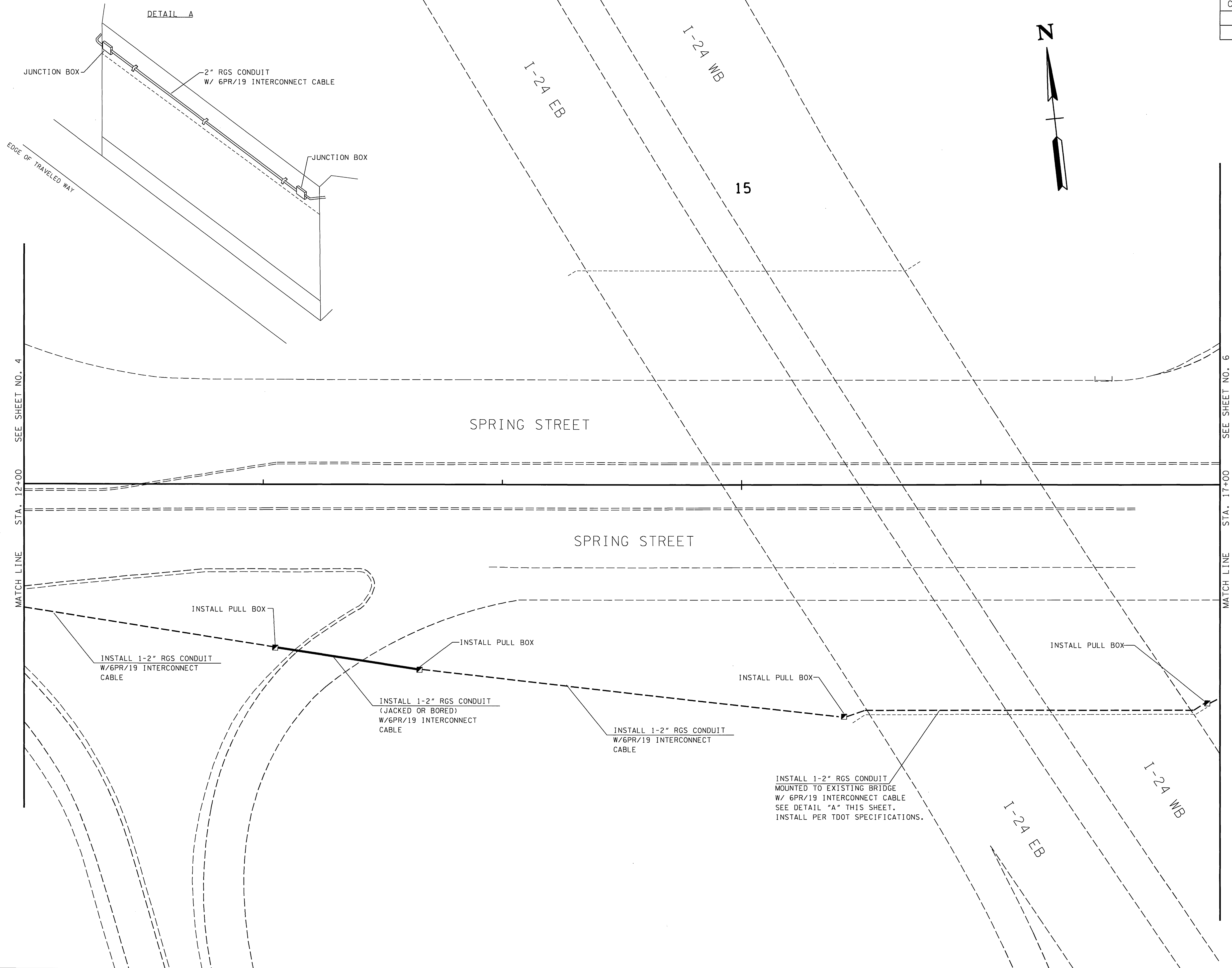
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED
SIGNAL LAYOUT

SPRING STREET
10+00 TO 12+00

SCALE: 1"=20'

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	5
CONST.	2005	STP-H-IE-24-1(91)	5

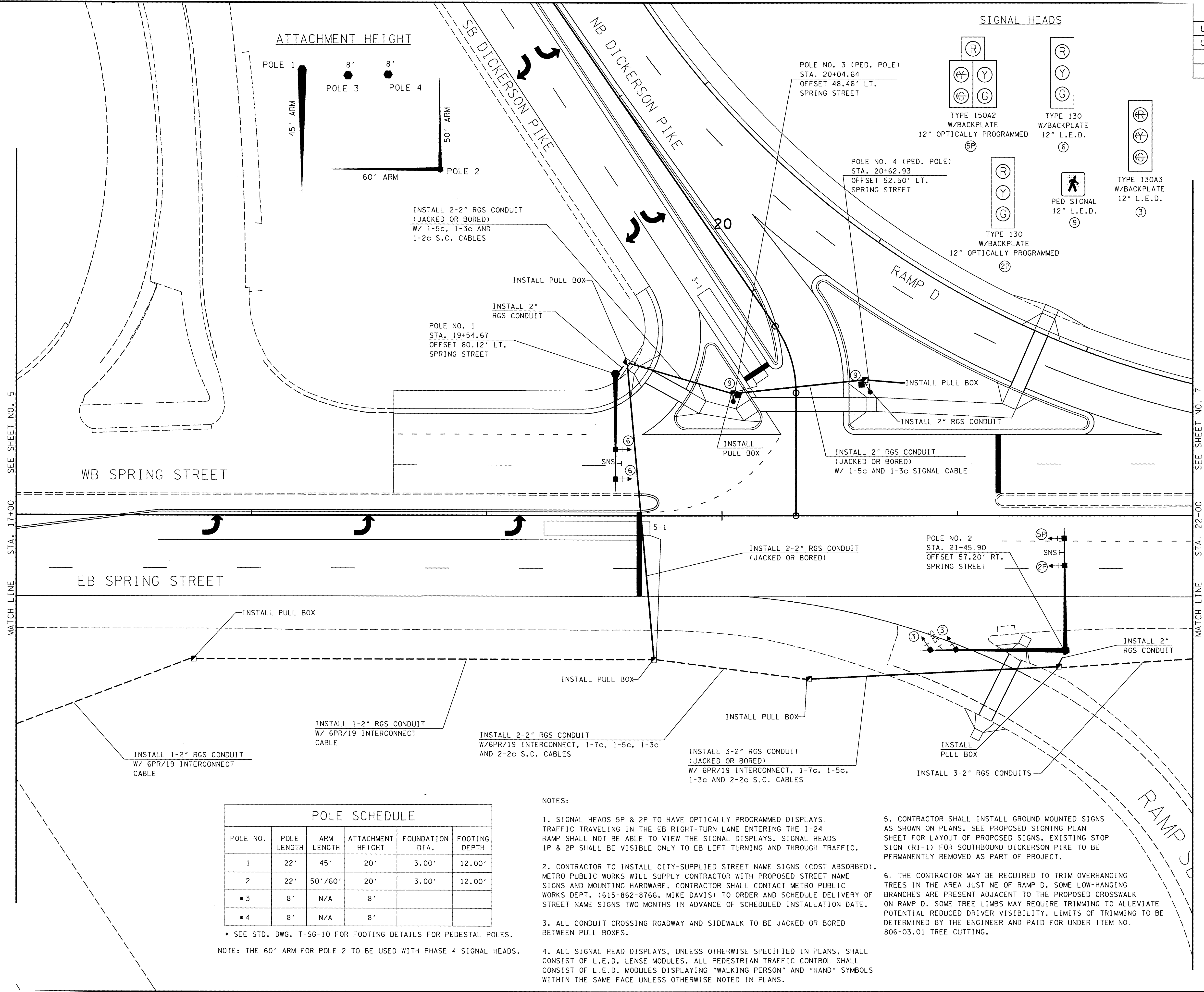
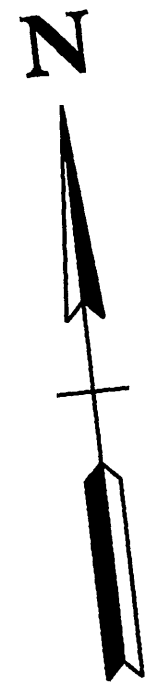


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED
SIGNAL LAYOUT**

SPRING STREET
12+00 TO 17+00

SCALE: 1"=20'



TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	6
CONST.	2005	STP-H-IE-24-1(91)	6

POLE SCHEDULE					
POLE NO.	POLE LENGTH	ARM LENGTH	ATTACHMENT HEIGHT	FOUNDATION DIA.	FOOTING DEPTH
1	22'	45'	20'	3.00'	12.00'
2	22'	50'/60'	20'	3.00'	12.00'
* 3	8'	N/A	8'		
* 4	8'	N/A	8'		

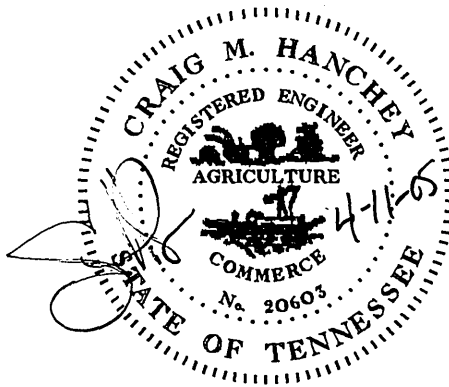
* SEE STD. DWG. T-SG-10 FOR FOOTING DETAILS FOR PEDESTAL POLES.

NOTE: THE 60' ARM FOR POLE 2 TO BE USED WITH PHASE 4 SIGNAL HEADS.

NOTES:

1. SIGNAL HEADS 5P & 2P TO HAVE OPTICALLY PROGRAMMED DISPLAYS. TRAFFIC TRAVELING IN THE EB RIGHT-TURN LANE ENTERING THE I-24 RAMP SHALL NOT BE ABLE TO VIEW THE SIGNAL DISPLAYS. SIGNAL HEADS 1P & 2P SHALL BE VISIBLE ONLY TO EB LEFT-TURNING AND THROUGH TRAFFIC.
2. CONTRACTOR TO INSTALL CITY-SUPPLIED STREET NAME SIGNS (COST ABSORBED). METRO PUBLIC WORKS WILL SUPPLY CONTRACTOR WITH PROPOSED STREET NAME SIGNS AND MOUNTING HARDWARE. CONTRACTOR SHALL CONTACT METRO PUBLIC WORKS DEPT. (615-862-8766, MIKE DAVIS) TO ORDER AND SCHEDULE DELIVERY OF STREET NAME SIGNS TWO MONTHS IN ADVANCE OF SCHEDULED INSTALLATION DATE.
3. ALL CONDUIT CROSSING ROADWAY AND SIDEWALK TO BE JACKED OR BORED BETWEEN PULL BOXES.
4. ALL SIGNAL HEAD DISPLAYS, UNLESS OTHERWISE SPECIFIED IN PLANS, SHALL CONSIST OF L.E.D. LENSE MODULES. ALL PEDESTRIAN TRAFFIC CONTROL SHALL CONSIST OF L.E.D. MODULES DISPLAYING "WALKING PERSON" AND "HAND" SYMBOLS WITHIN THE SAME FACE UNLESS OTHERWISE NOTED IN PLANS.

5. CONTRACTOR SHALL INSTALL GROUND MOUNTED SIGNS AS SHOWN ON PLANS. SEE PROPOSED SIGNING PLAN SHEET FOR LAYOUT OF PROPOSED SIGNS. EXISTING STOP SIGN (R1-1) FOR SOUTHBOUND DICKERSON PIKE TO BE PERMANENTLY REMOVED AS PART OF PROJECT.
6. THE CONTRACTOR MAY BE REQUIRED TO TRIM OVERHANGING TREES IN THE AREA JUST NE OF RAMP D. SOME LOW-HANGING BRANCHES ARE PRESENT ADJACENT TO THE PROPOSED CROSSWALK ON RAMP D. SOME TREE LIMBS MAY REQUIRE TRIMMING TO ALLEVIATE POTENTIAL REDUCED DRIVER VISIBILITY. LIMITS OF TRIMMING TO BE DETERMINED BY THE ENGINEER AND PAID FOR UNDER ITEM NO. 806-03.01 TREE CUTTING.

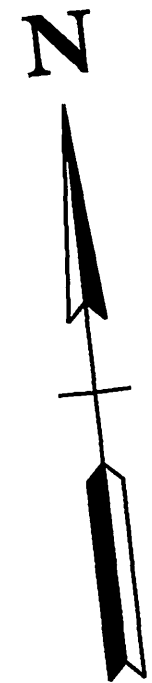


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PROPOSED
SIGNAL LAYOUT**

SPRING STREET
17+00 TO 22+00

SCALE: 1"=20'



ATTACHMENT HEIGHT

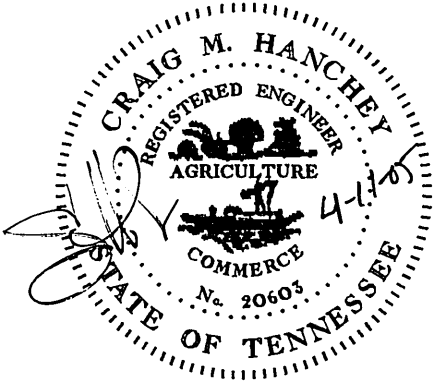
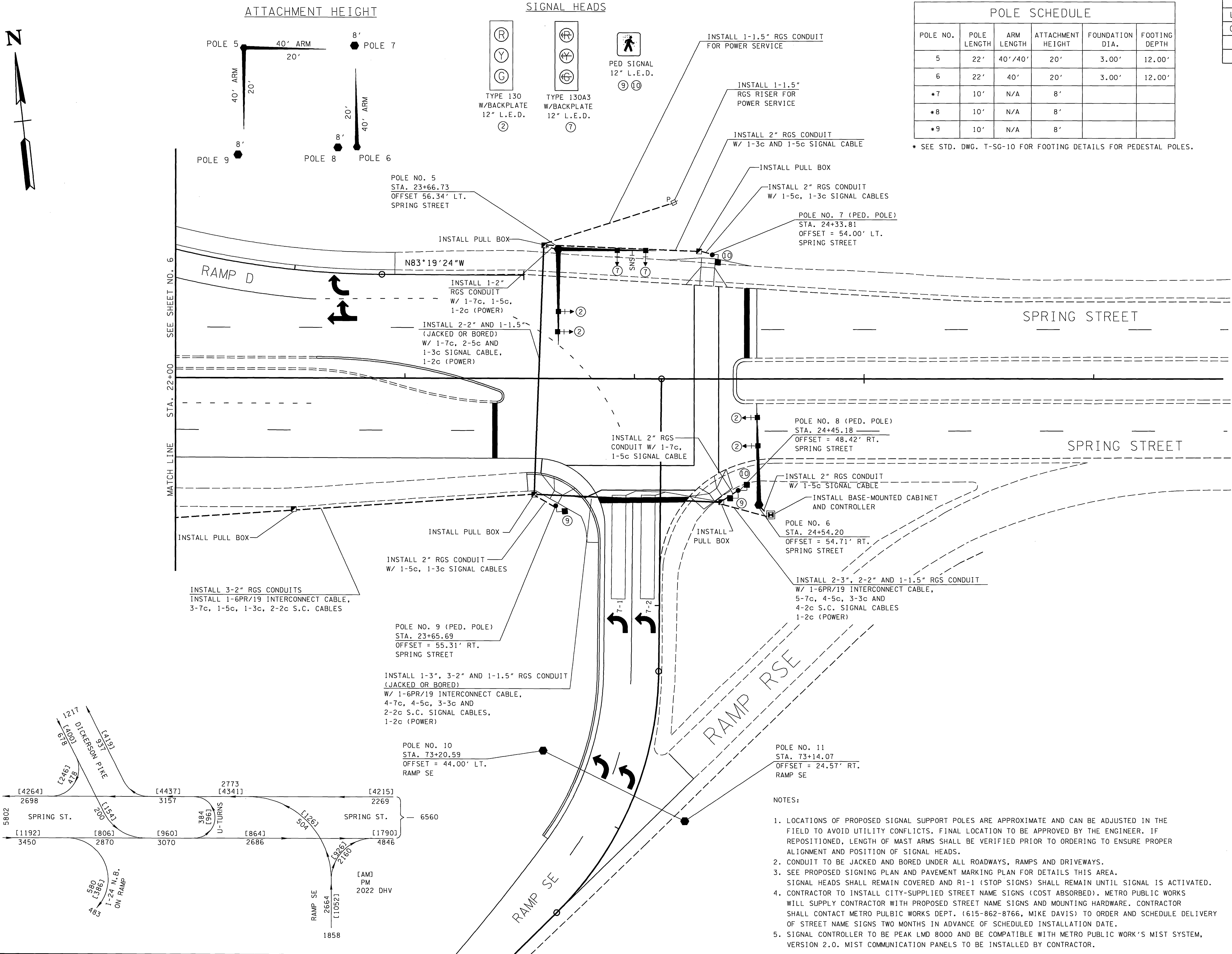
SIGNAL HEADS

POLE SCHEDULE

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	7
CONST.	2005	STP-H-IE-24-1(91)	7

POLE NO.	POLE LENGTH	ARM LENGTH	ATTACHMENT HEIGHT	FOUNDATION DIA.	FOOTING DEPTH
5	22'	40' / 40'	20'	3.00'	12.00'
6	22'	40'	20'	3.00'	12.00'
*7	10'	N/A	8'		
*8	10'	N/A	8'		
*9	10'	N/A	8'		

* SEE STD. DWG. T-SG-10 FOR FOOTING DETAILS FOR PEDESTAL POLES.



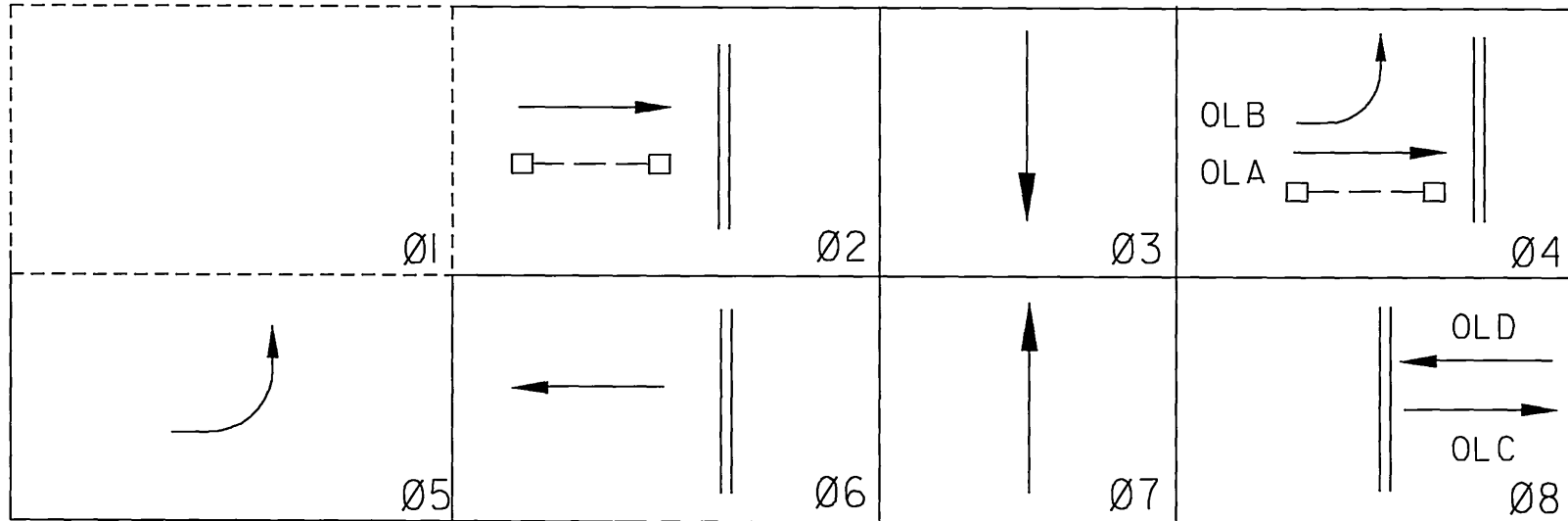
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED
SIGNAL LAYOUT

SPRING STREET
22+00 TO END PROJ.

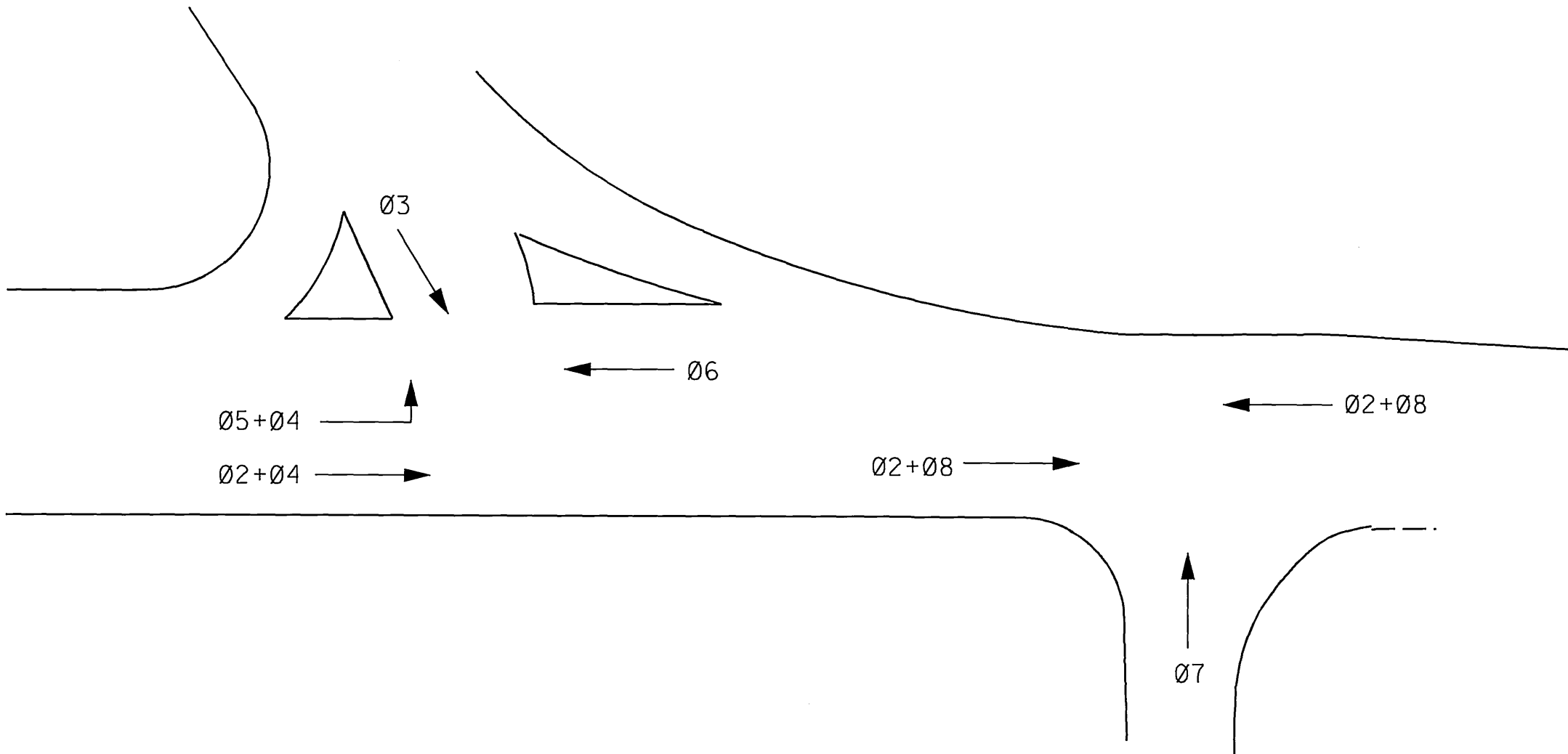
SCALE: 1"=20'

SIGNAL PHASING DIAGRAM



EIGHT PHASE SEQUENCING

- ACTIVE PHASE
- INACTIVE PHASE (NOT USED)
- MIN RECALL: Ø2,Ø6
- PROTECTED/PERMITTED LEFT-TURN: Ø5
- OLA: Ø2+Ø4, OLB:Ø5+Ø4, OLC/D:Ø2+Ø8
- Ø3 CALLS Ø8; Ø7 CALLS Ø4
- ALL SIGNAL DISPLAYS AND CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- FULL SKIP CAPABILITY



LOOP AND DETECTOR ASSIGNMENTS

LOOP NO.	DETECTOR /CHANNEL	TURNS	LOOP LENGTH	MODE	TIMING	ASSOCIATED PHASE	COMMENTS
5-1	1	2	50 FT	PRES	2.0sec DELAY	5	
3-1	2	2	50 FT	PRES		3	PLACES CALL TO PHASE 8
7-1	3	2	50 FT	PRES		7	PLACES CALL TO PHASE 4
7-2	4	2	50 FT	PRES		7	PLACES CALL TO PHASE 4

- ALL LOOPS ARE 6 FT IN WIDTH, CENTERED IN TRAFFIC LANE. 6' X 6' LOOPS HAVE 4 TURNS OF LOOP WIRE. ALL OTHERS HAVE 2 TURNS OF LOOP WIRE.
- LOOP WIRE CONNECTIONS SHALL BE WIRED TO PROVIDE THE APPROPRIATE INDUCTANCE AS REQUIRED BY STD. DWG. T-SG-3.

BASIC OR SEMI-ACTUATED TIMINGS (SECS)

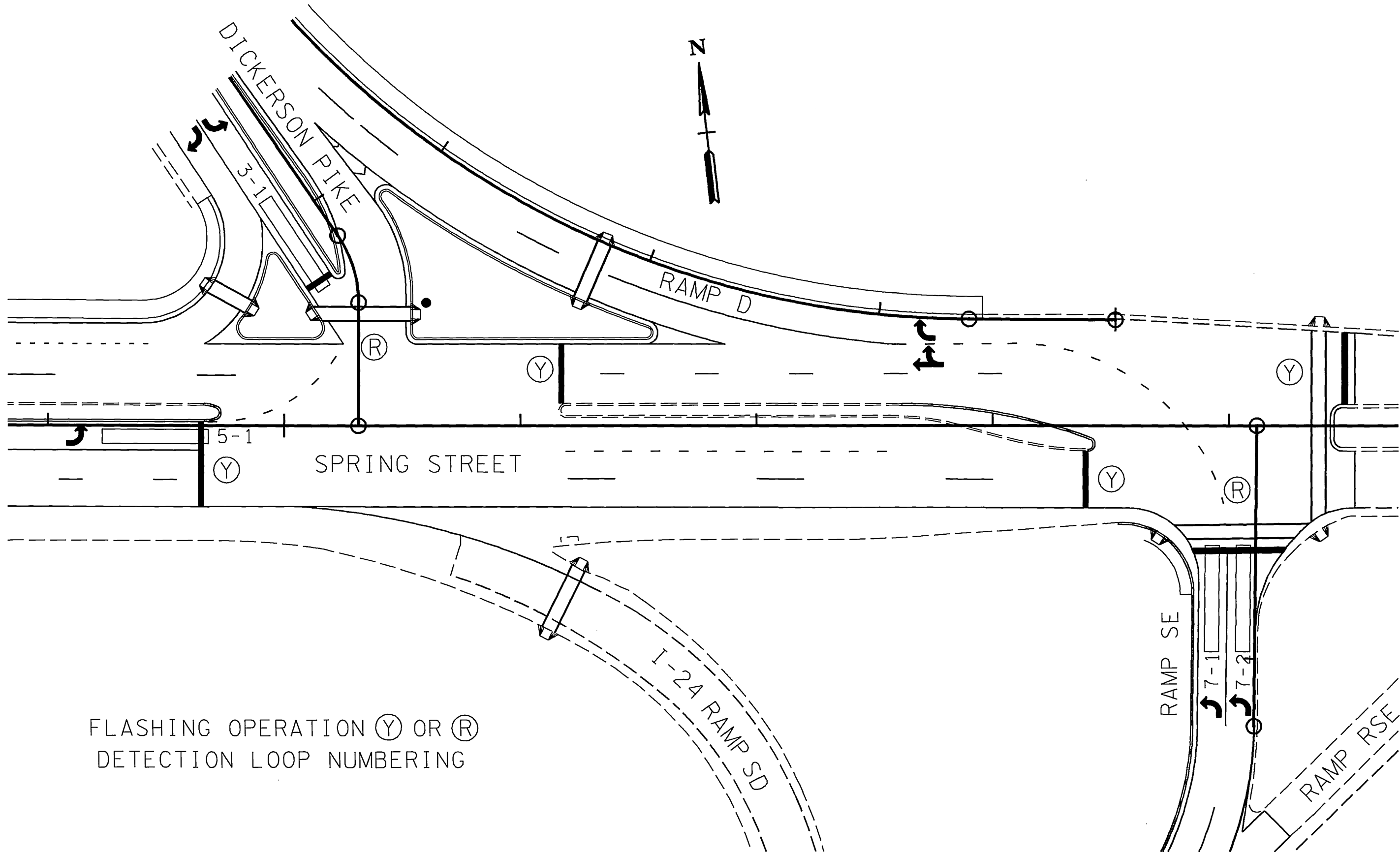
PHASE	INITIAL INTERVAL	VEHICLE INTERVAL	MAX I	MAX II	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION (I)	LEFT TURN OPERATION (2)
					YELLOW	ALL RED	WALK	FLASHING DON'T WALK			
1										NL	PROT
2									MIN		PERM
3											
4											

SIGNAL TIMING INPUTS TO BE PROVIDED BY METRO PUBLIC WORKS TRAFFIC ENGINEER.

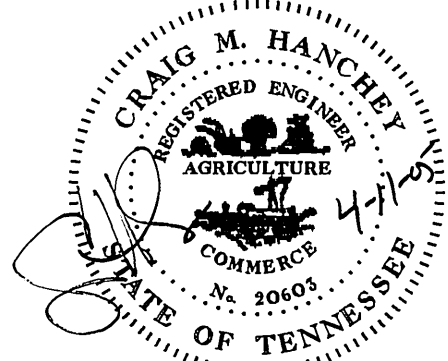
- (1) NL = NONLOCK
L = LOCK
- (2) PERM = PERMITTED
PROT = PROTECTED

VOLUME - DENSITY TIMINGS (SECS)

PHASE	INITIAL INTERVAL	ADDED INITIAL PER ACTUATION	PASSAGE TIME	MINIMUM GAP	TIME BEFORE REDUCTION	TIME TO REDUCE	MAX	MAX II	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION (I)
									YELLOW	ALL RED	WALK	FLASHING DON'T		



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

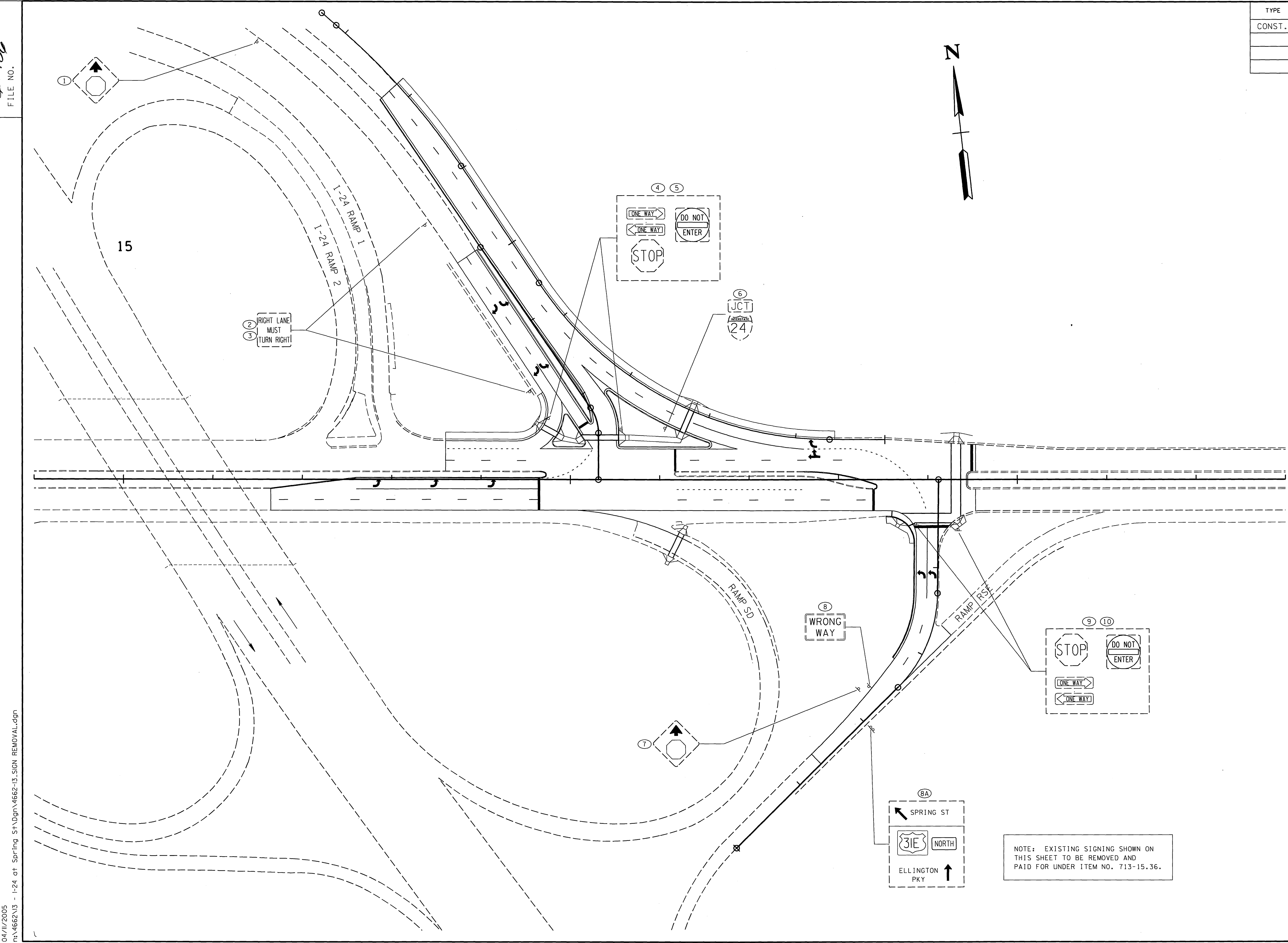


INTERSECTION OF :
DICKERSON PIKE AT
SPRING STREET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

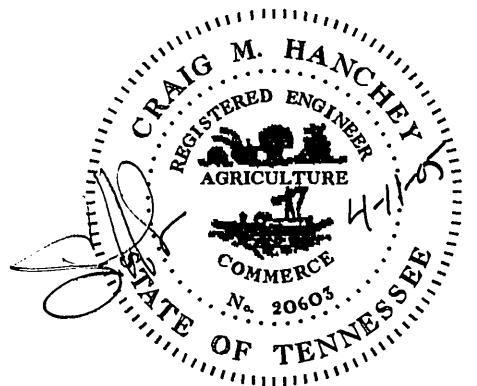
PHASING,
TIMING,
& DETECTOR
ASSIGNMENT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	9

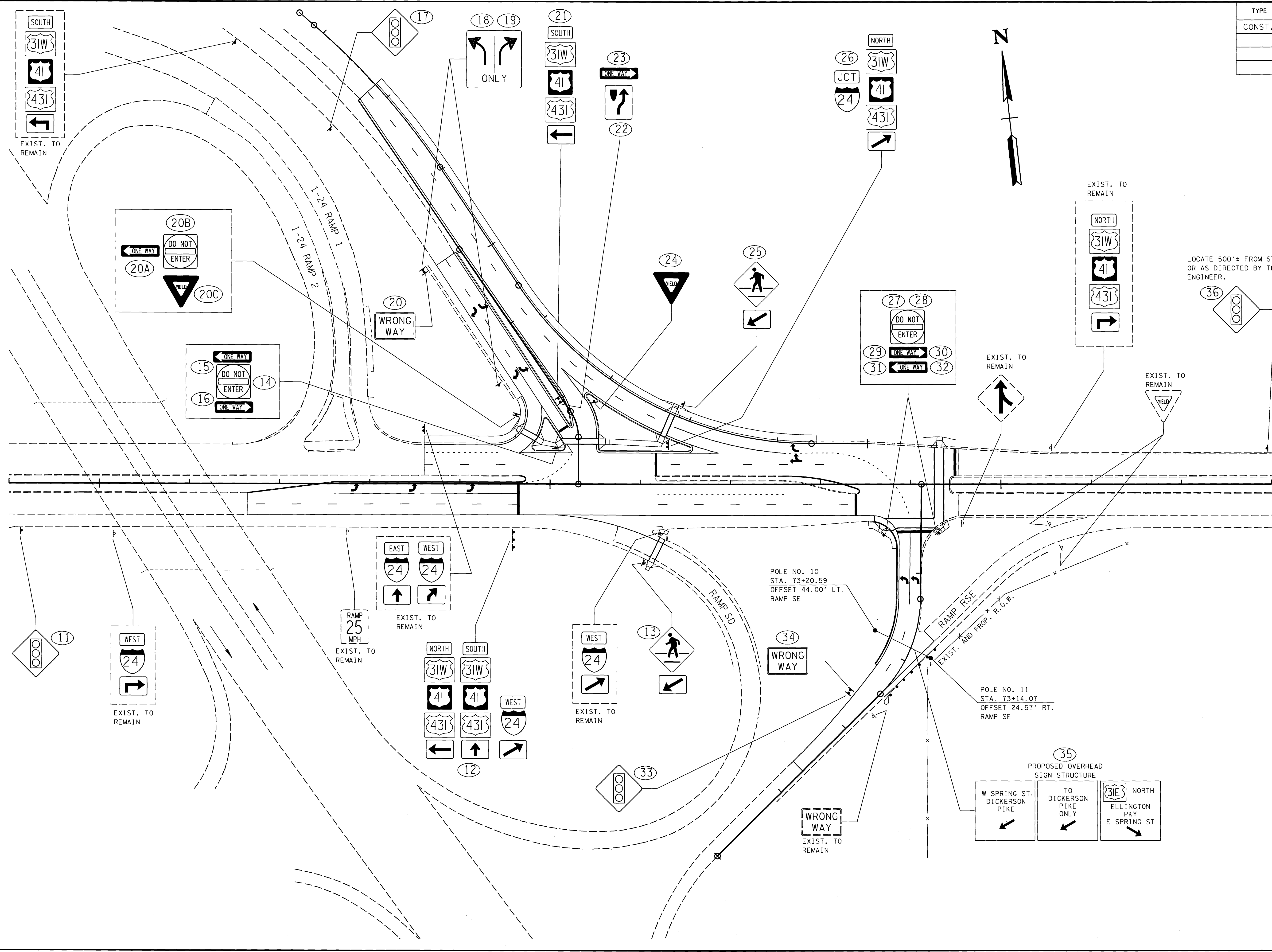


04/11/2005
n:\4662\13 - I-24 at Spring St.dgn\4662-13.SIGN REMOVAL.dgn

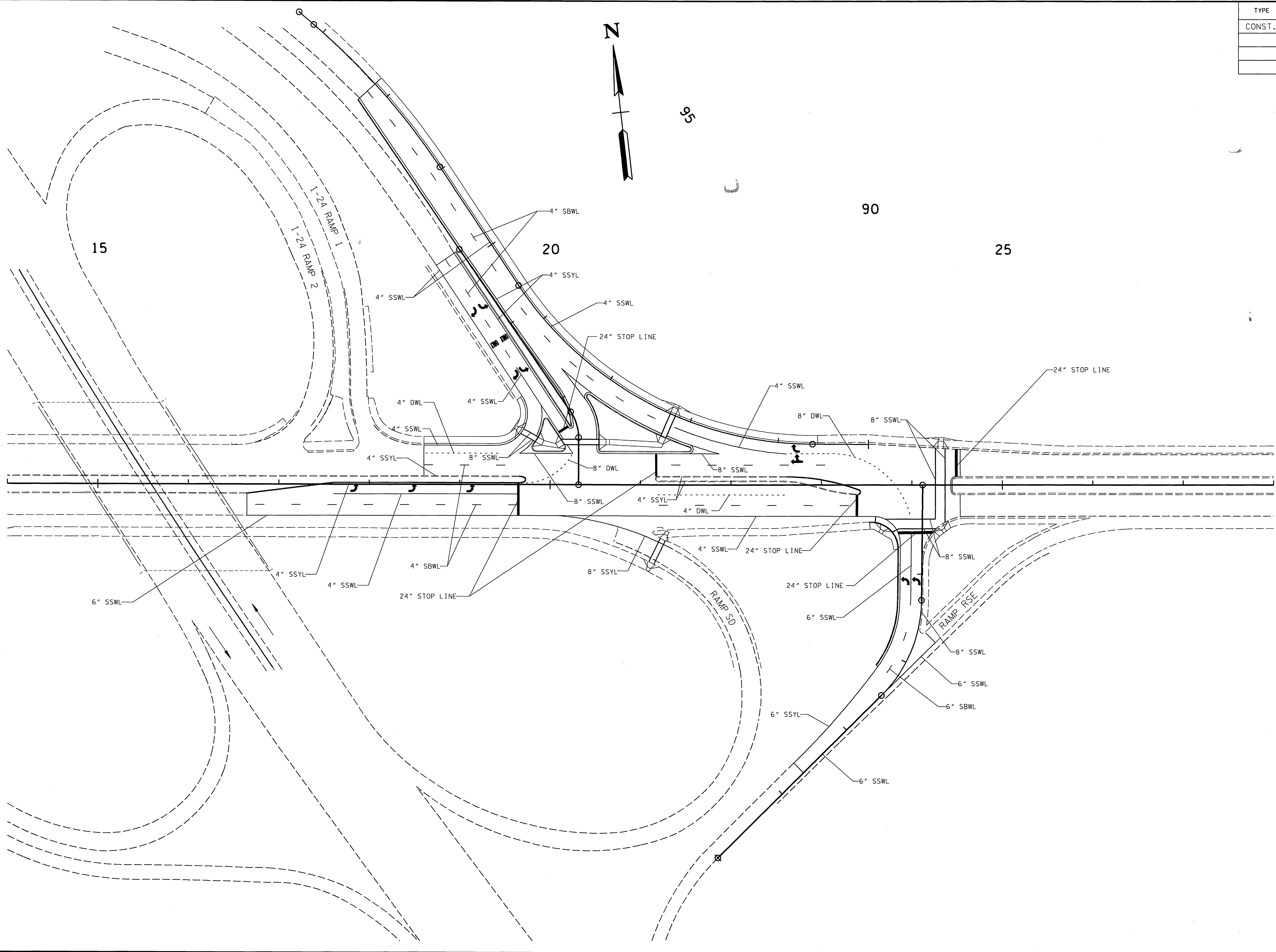
NOTE: EXISTING SIGNING SHOWN ON
THIS SHEET TO BE REMOVED AND
PAID FOR UNDER ITEM NO. 713-15.36.



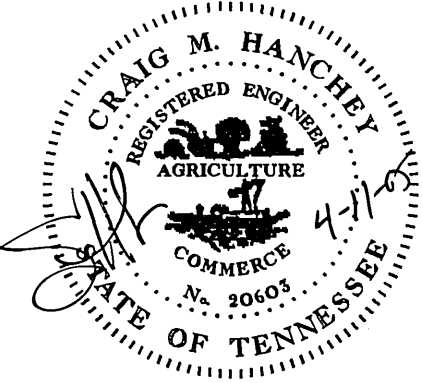
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	10



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	11



04/11/2005
n:\4662\13 - I-24 at Spring St\Dgn\4662-13.PWT MARKING.dgn



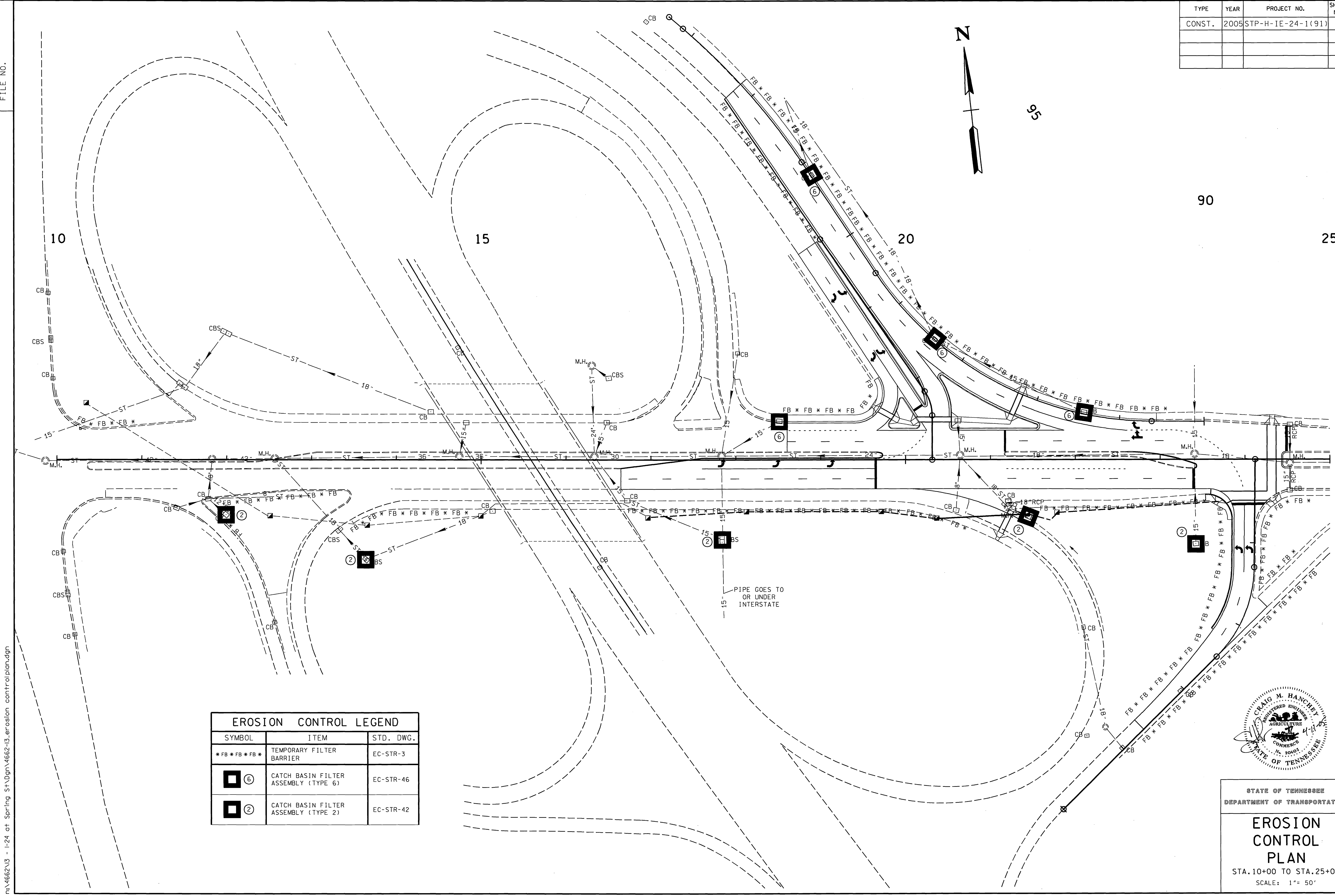
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PAVEMENT
MARKING
PLAN

STA. 14+00 TO STA. 28+00

SCALE: 1"=50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	12



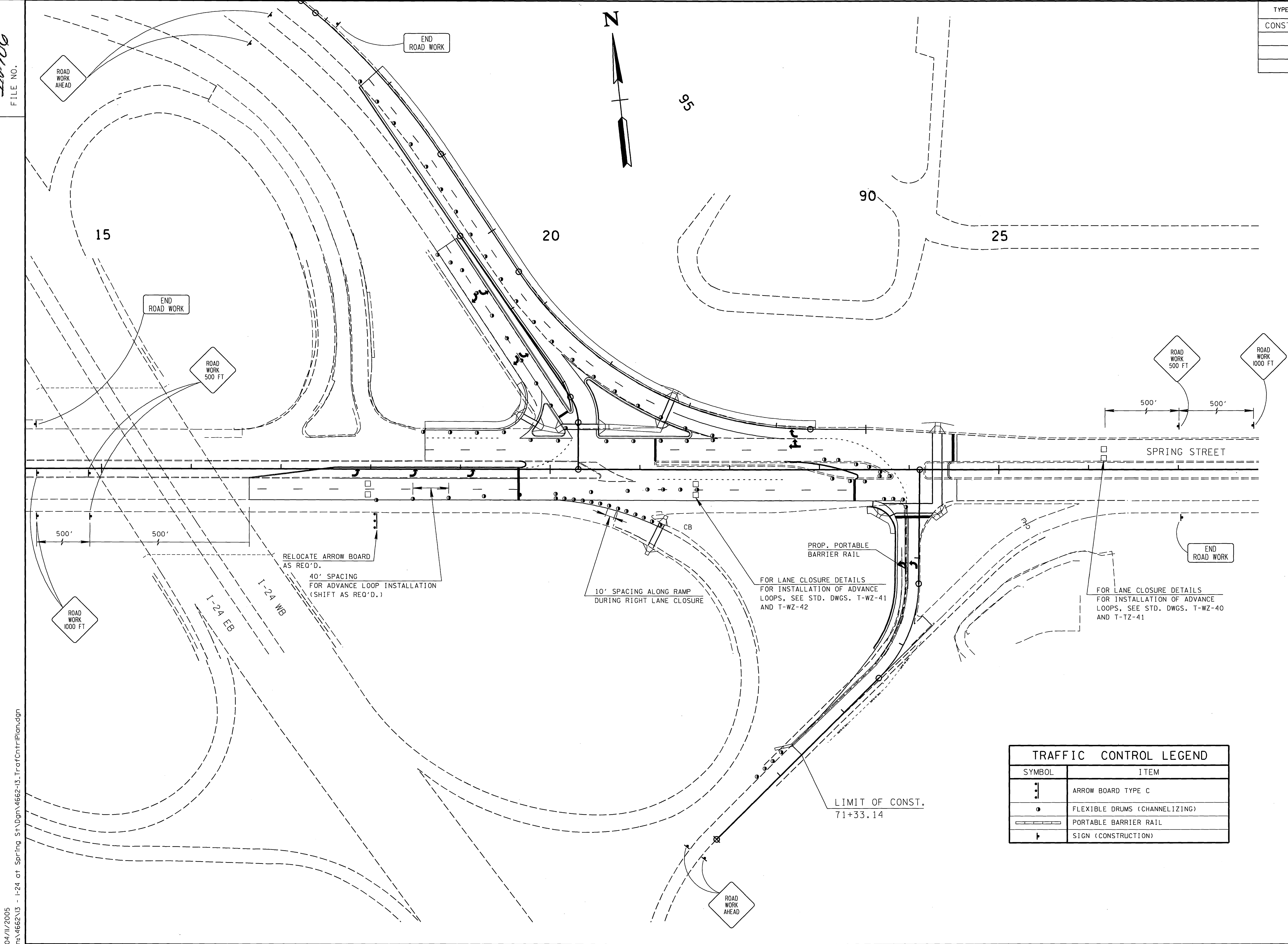
EROSION CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
*FB*FB*FB*	TEMPORARY FILTER BARRIER	EC-STR-3
 ⑥	CATCH BASIN FILTER ASSEMBLY (TYPE 6)	EC-STR-46
 ②	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

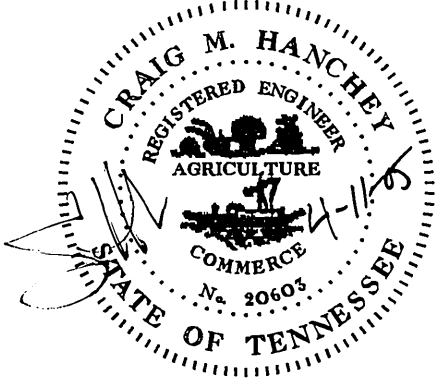
**EROSION
CONTROL
PLAN**
STA. 10+00 TO STA. 25+00
SCALE: 1" = 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-IE-24-1(91)	13



04/11/2005
n:\4662\13 - I-24 at Spring St\Dgn\4662-13.TrafficControlPlan.dgn

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	ARROW BOARD TYPE C
	FLEXIBLE DRUMS (CHANNELIZING)
	PORTABLE BARRIER RAIL
	SIGN (CONSTRUCTION)



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STA. 15+00 TO END PROJ.
SCALE: 1"=50'

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

- (1) DIFFERENCE 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:

(2) DIFFERENCE IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

A. WARNING SIGNS, UNEVEN PAVEMENT (W8-11) AND/OR SHOULDER DROP-OFF (W8-9A), 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 7 WORKDAYS AFTER THE CONDITION IS CREATED.

(3) DIFFERENCE 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 DAY'S WORK, 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 PAVEMENT AND/OR LOW SHOULDER) 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 THRU TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3-1/2 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 PAVEMENT AND/OR LOW SHOULDER) 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 TWO MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS 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.

(4) DIFFERENCE 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 WORK DAY 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 (W8-9A). 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 ONE 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.
- (5) DIFFERENCE 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 ONE 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.
- (6) 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.:
- (7) DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 1/4 INCH AND NOT EXCEEDING 2 INCHES:
- WARNING SIGNS (UNEVEN PAVEMENT AND/OR LOW SHOULDER) 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.
- (8) 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.
- (9) 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.
- (10) 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.
- | TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|-------------------|-----------|
| CONST. | 2005 | STP-H-1E-24-1(91) | 13A |
| | | | |
| | | | |
| | | | |
-
- STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
- PAVEMENT EDGE
DROP-OFF
TRAFFIC CONTROL
NOTES
- 05/03/2005
r:\4662\13 - L24 of Spring St\Dgn\4662-13.DROP-OFF NOTES.dgn

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

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2005	STP-H-NHE-REG3(5)	14

① 2 1/2" DIA. SUPPORT (ITEM NO.713-11.03) TO BE AS SPECIFIED ON THE "QUALIFIED PRODUCT LISTS", LIST 33, "PDZLOC SLIPBASE SYSTEM", NORTHWEST PIPE CO., TRAFFIC SYSTEMS OR EQUIVALENT. ITEM TO INCLUDE CONCRETE FOOTING AND ALL HARDWARE TO ATTACH SIGNS TO POST.

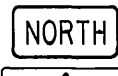
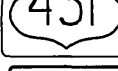
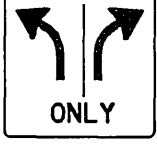
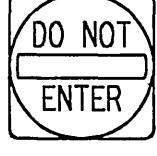
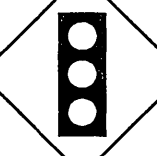
② R5-1 SIGNS TO BE MOUNTED AT AN ANGLE AS DESCRIBED IN THE M.U.T.C.D. SECTION 2E-50 "WRONG WAY CONTROL AT INTERCHANGE RAMPS" OR AS DIRECTED BY THE ENGINEER.

U-POST SUBSTITUTION TABLE	
BID ITEM	SUBSTITUTION ALLOWED
713-11.01	
2*/FT. U1	2*/FT. MUI 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.

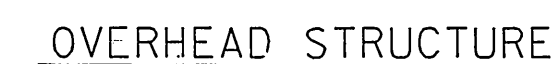
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN
SCHEDULE

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.									
21	 SOUTH	M3-3	24"	12"									BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h=18'-6"				5'-0"								
	 31W	M1-4	30"	24"																									
	 41	M1-4	24"	24"																									
	 431	M1-4	30"	24"																									
	 ←	M6-1	21"	15"																									
26	 NORTH	M3-1	24"	12"									U. S. ROUTE ASSEMBLY	BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P8	h ₁ =14'-6"			5'-0"								
	 31W	M1-4	30"	24"																									
	M2-1 21"x15"	 JCT 24	M1-4	24"	24"							INTERSTATE ASSEMBLY					WHITE (REF)	BLUE (REF)					P6	h ₂ =18'-6"					
	M1-1 24"x24"	 431	M1-4	30"	24"																								
	 ↗	M6-2	21"	15"																									
12	 NORTH	M1-1	24"	12"									U. S. ROUTE ASSEMBLY	BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P6	h ₁ =18'-6"	h ₂ =18'-6"			5'-0"							
	 31W	M4-1	30"	24"																									
	 41	M4-1	24"	24"								INTERSTATE ASSEMBLY					WHITE (REF)	BLUE (REF)	P8					h ₃ =14'-6"					
	 431	M4-1	30"	24"																									
	 ←	M6-1	21"	15"																									
24	 YIELD	R1-2	36"x36"x36"										RED (REF)	WHITE (REF)	0.080" SHEET ALUMINUM	U3	h=12'-6"				5'-0"								
20C																P8	h=13'-6"				6'-3"								
18	 ONLY	R3-8 (MOD)	30"	30"									BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	U6	h=12'-6"				5'-0"								
19												h=12'-6"																	
22	 ↗	R4-7	24"	30"									BLACK	WHITE (REF)	0.080" SHEET ALUMINUM	P8	h=12'-0"				5'-0"								
14	 DO NOT ENTER	R5-1	30"	30"									WHITE (REF)	WHITE(REF) RED(REF)	0.080" SHEET ALUMINUM	2½" Ø @ SCHEDULE 10 3.35#/Ft	h=13'-6"	*	*	*	6'-3"	* SEE NOTE							
27																	h=13'-6"												
28																	h=13'-6"												
20	 WRONG WAY	R5-1a	36"	24"									WHITE (REF)	RED (REF)	0.080" SHEET ALUMINUM	U6	h=12'-6"				5'-0"								
34																										SIGN #34 MOUNTED ON BACK OF SIGN #33			
16	 ONE WAY	R6-1(R)	36"	12"									BLACK	WHITE(REF) BLACK	0.080" SHEET ALUMINUM								SIGN #16 MOUNTED UNDER SIGN #14						
23																							SIGN #23 MOUNTED UNDER SIGN #22						
29																							SIGN #29 MOUNTED UNDER SIGN #27						
30																							SIGN #30 MOUNTED UNDER SIGN #28						
15	 ← ONE WAY	R6-1(L)	36"	12"									BLACK	WHITE(REF) BLACK	0.080" SHEET ALUMINUM								SIGN #15 MOUNTED UNDER SIGN #14						
31																							SIGN #31 MOUNTED UNDER SIGN #27						
32																							SIGN #32 MOUNTED UNDER SIGN #28						
11		W3-3	36"	36"									BLACK RED(REF) GREEN (REF)	YELLOW (REF)	0.100" SHEET ALUMINUM	P8	h=13'-6"				5'-0"								
17																	h=13'-6"												
33																	h=13'-6"												
36																	h=13'-6"												
13		W11-2	30"	30"									BLACK	YELLOW GREEN FLORESENT	0.080" SHEET ALUMINUM	U6	h=14'-6"				5'-0"								
25	 ↙	W16-7p	24"	12"								h=14'-6"																	

NOTES

THE COST OF THE FOOTINGS ARE INCLUDED IN THE BID ITEM FOR THE OVERHEAD OR CANTILEVER SIGN STRUCTURE.



DESIGN DATA

SIGN DESIGN AREA = 576 sq.ft.

SIGN STRUCTURE
ID. NUMBER
19SNM4700343



OVERHEAD SIGN STRUCTURE
DAVIDSON CO.

CORRECT

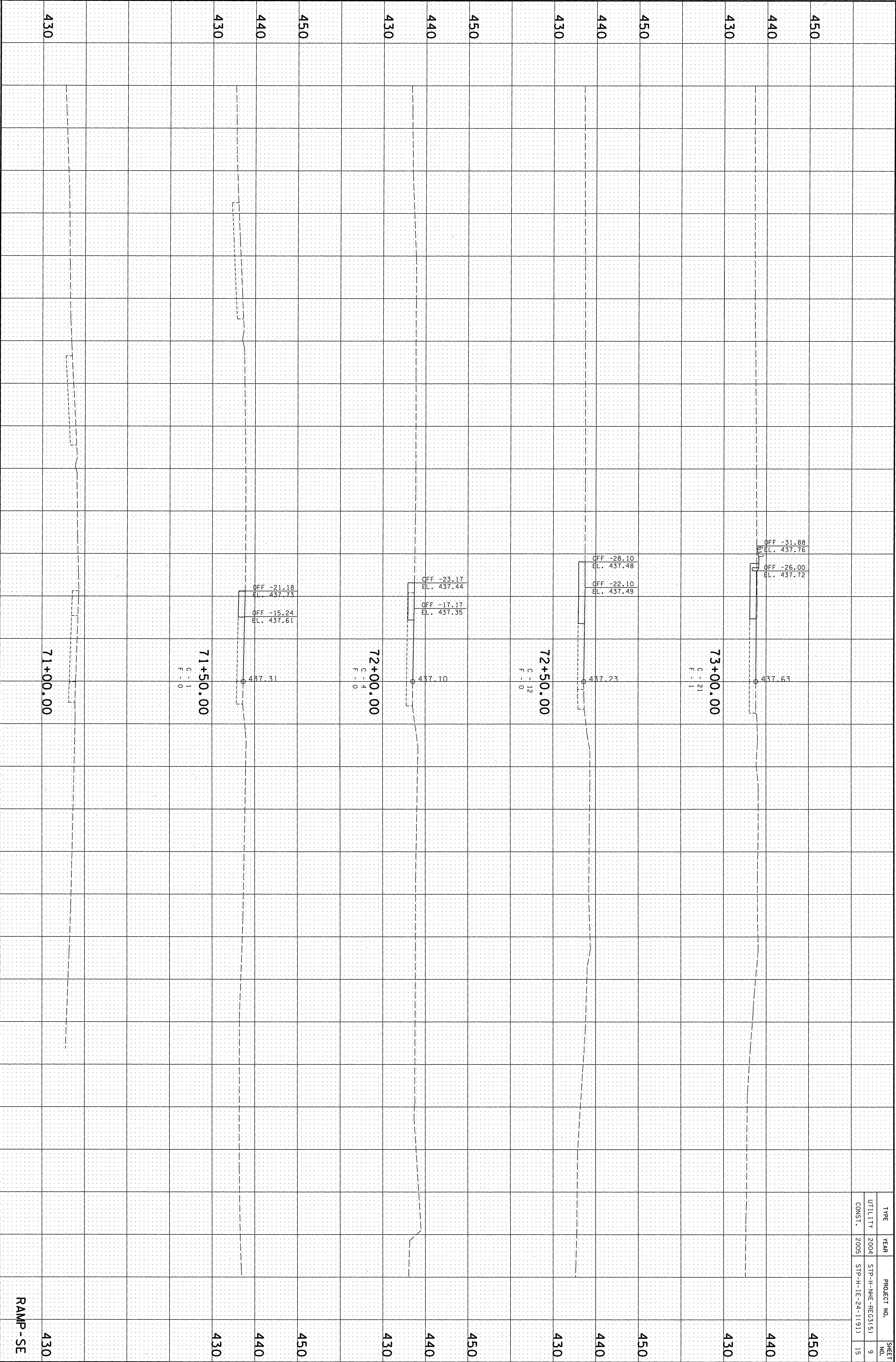
ENGINEER OF STRUCTURES

APPROVED

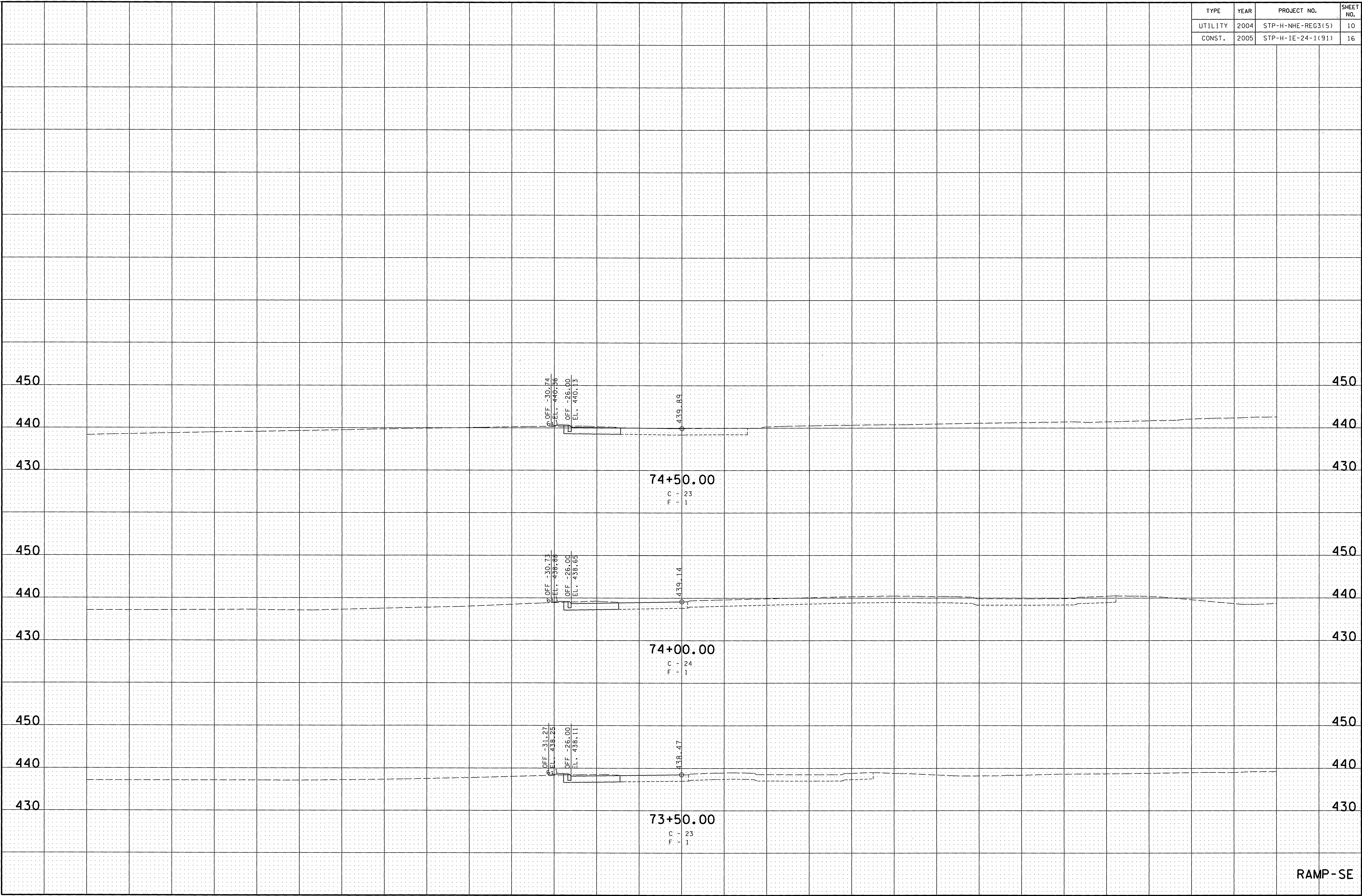
DIRECTOR OF HIGHWAYS

M-470-34

04/11/2005
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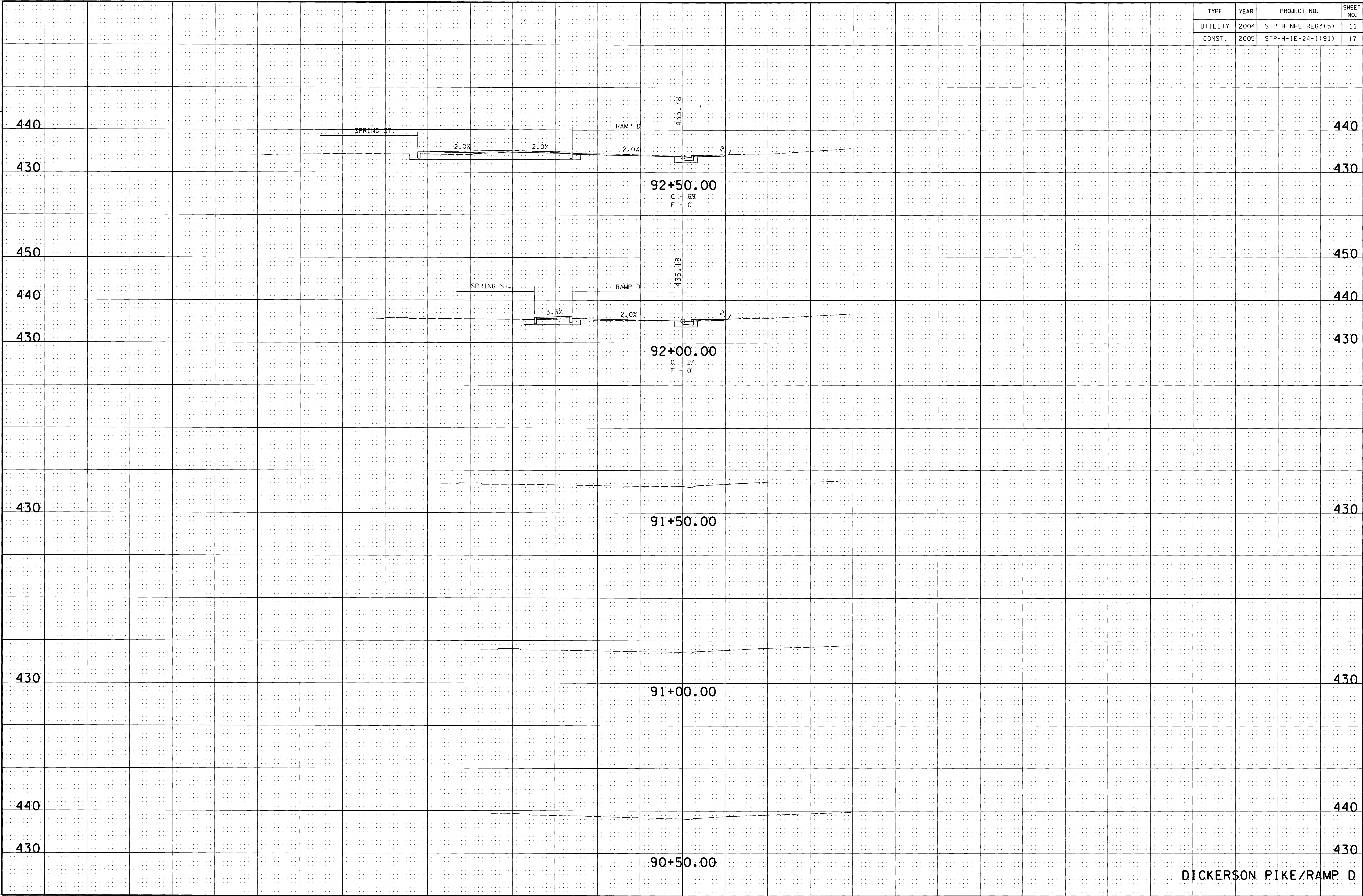


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nt466213 - I-24 at Spring St\Dgn\Xs-1ay.dgn

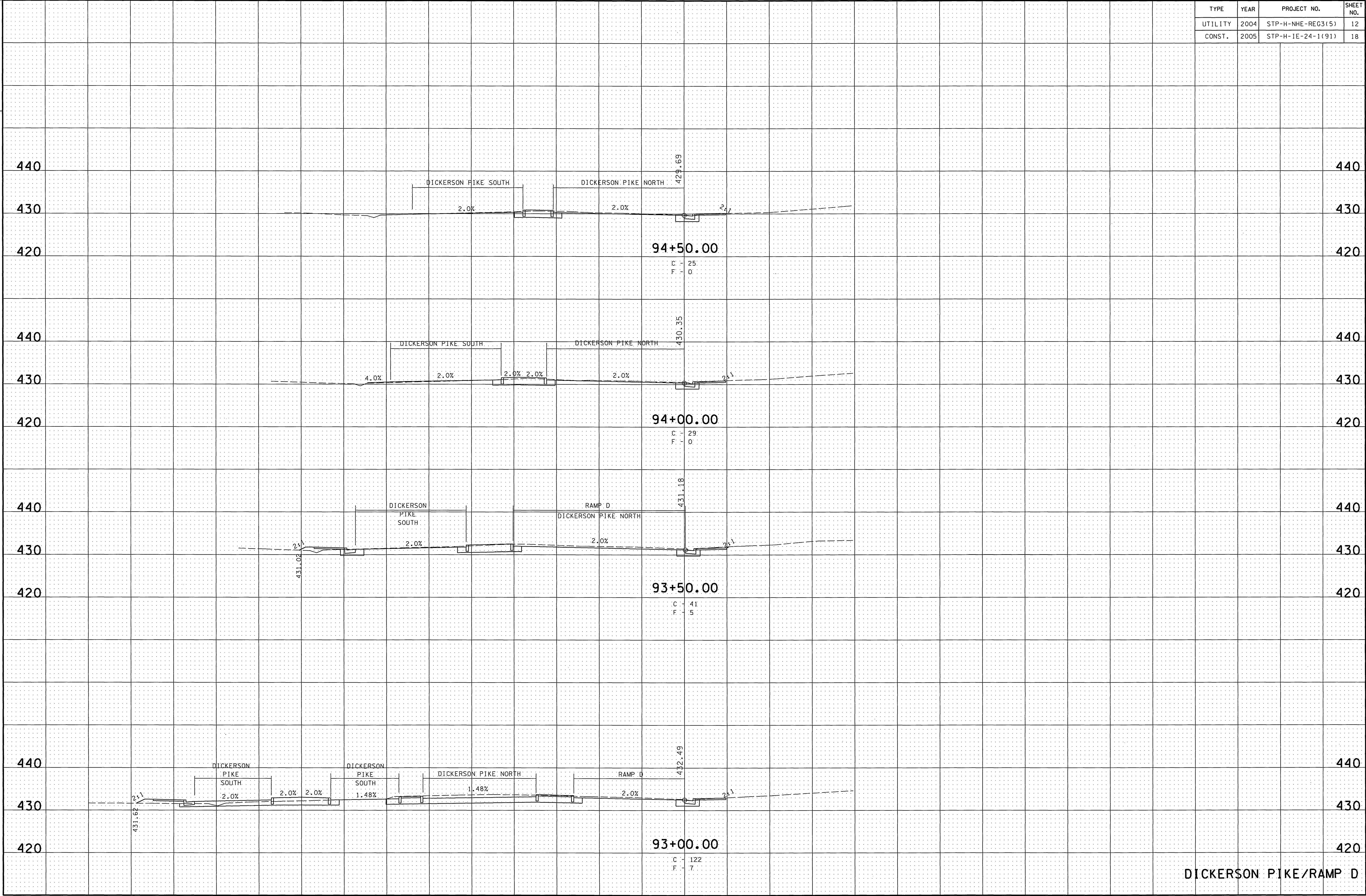


TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	11
CONST.	2005	STP-H-1E-24-1(91)	17

04/11/2005
nt466213 - I-24 at Spring St\Dgn\Xs-lay.dgn



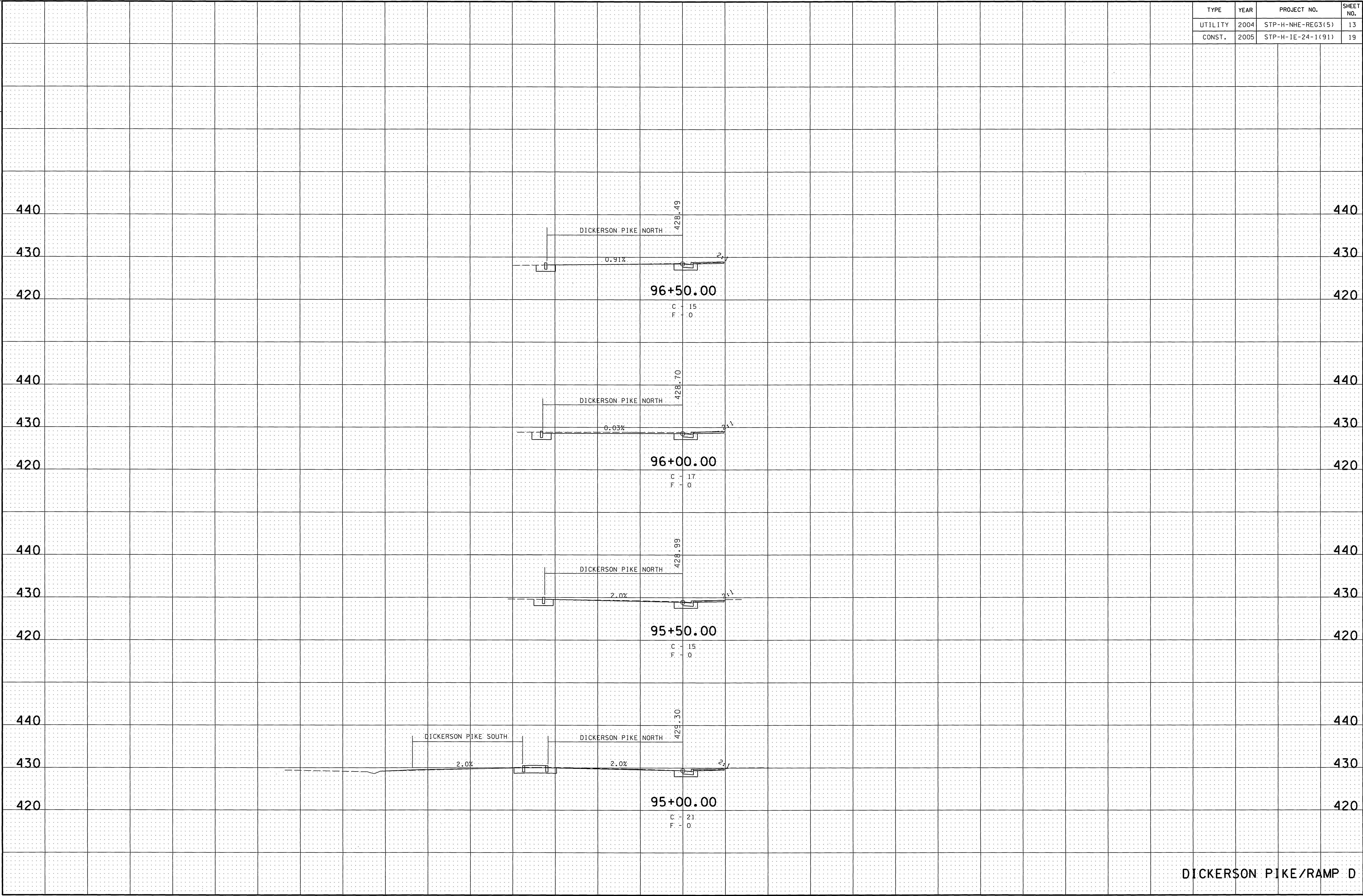
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DICKERSON PIKE/RAMP D

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	13
CONST.	2005	STP-H-1E-24-1(91)	19

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nt466213 - I-24 at Spring St\Dgn\Xs-10y.dgn



TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2004	STP-H-NHE-REG3(5)	14
CONST.	2005	STP-H-IE-24-1(91)	20

04/11/2005
nt4662\13 - I-24 at Spring St\Dgn\ss-1ay.dgn

