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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS.	

STANDARD ROADWAY DRAWINGS

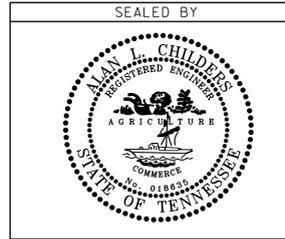
DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-8		STANDARD LEGEND FOR NATURAL STREAM DESIGN
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS
T-S-16A	11-01-11	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-19-13	STANDARD STEEL SIGN SUPPORTS
T-S-20	11-01-11	SIGN DETAILS
T-S-23C	07-19-13	BREAKAWAY U-POST SIGN SUPPORTS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
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-9A	12-04-13	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	12-04-13	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-WZ-50	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 2 OR 3 LANE MAJOR ROUTES
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-8	08-01-12	FILTER SOCK
EC-STR-37	08-01-12	SEDIMENT TUBE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	STP-H-416(9)	1A

S.R. 416

SEVIER COUNTY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**INDEX
AND
STANDARD
DRAWINGS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	STP-H-416(9)	2

S.R. 416

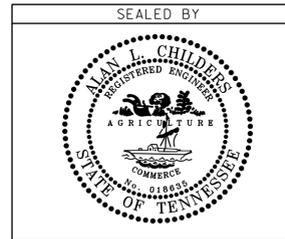
SEVIER COUNTY

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01 CONSTRUCTION STAKES, LINES AND GRADES	LS	1
(1)	209-01.10 EROSION AND SILTATION CONTROL (EPSC)	LS	1
	712-01 TRAFFIC CONTROL	LS	1
	712-04.01 FLEXIBLE DRUMS (CHANNELIZING)	EACH	50
	712-05.03 WARNING LIGHTS (TYPE C)	EACH	50
	712-06 SIGNS (CONSTRUCTION)	S.F.	296
	713-15.36 REMOVE SIGN, SUPPORT & FOOTING	EACH	1
(2)	713-15.41 SIGN REMOVAL (STOP AHEAD)	LS	1
	713-16.20 SIGNS (R10-27 MODIFIED)	EACH	1
(3)	713-16.23 SIGNS (W3-3)	EACH	1
(4)	713-16.22 SIGNS (W3-3)	EACH	2
	713-16.23 SIGNS (W16-15P)	EACH	2
(5)	716-02.05 PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	36
	717-01 MOBILIZATION	LS	1
(6)	730-02.08 SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED)	EACH	2
(6)	730-02.09 SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	6
(6)	730-02.30 SIGNAL HEAD ASSEMBLY (FLASHING YELLOW ARROW)	EACH	1
	730-03.21 INSTALL PULL BOX (TYPE B)	EACH	1
(7)	730-05.01 ELECTRICAL SERVICE CONNECTION	EACH	1
	730-08.03 SIGNAL CABLE - 7 CONDUCTOR	L.F.	800
	730-09.01 SPAN WIRE ASSEMBLY(23,000 LBS.MIN.BRK STRENGTH)	L.F.	250
	730-10.01 TETHER WIRE ASSEMBLY - 1/4" DIAMETER	L.F.	250
	730-12.02 CONDUIT 2" DIAMETER (PVC)	L.F.	25
(8)	730-13.07 VEHICLE DETECTOR (SIREN ACTIVATED PRIORITY CONTROL)	EACH	3
(9)	730-13.08 VEHICLE DETECTOR (INTERSECTION RADAR DETECTION)	EACH	1
(10)	730-15.32 CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1
	730-16.02 EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(11)	730-23.01 STEEL STRAIN POLE (SIGNAL SUPPORT)	EACH	4
	801-01 SEEDING (WITH MULCH)	UNIT	0.5
	801-03 WATER (SEEDING & SODDING)	M.G.	0.1

FOOTNOTES:

- (1) INCLUDES SILT FENCE AND OTHER ITEMS AS REQUIRED TO PROVIDE EROSION CONTROL IN AREAS OF EXCAVATION.
- (2) INCLUDES REMOVAL OF EXISTING "STOP AHEAD" SIGN ON ERNEST MCMAHAN ROAD. EXISTING SIGN POST TO REMAIN.
- (3) SIGN TO BE PLACED ON EXISTING POST ON ERNEST MCMAHAN ROAD AFTER REMOVAL OF "STOP AHEAD" SIGN.
- (4) INCLUDES SIGN, SUPPORT (TYPE P5), AND INCIDENTALS NECESSARY FOR COMPLETE INSTALLATION.
- (5) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
- (6) SIGNAL HEADS SHALL INCLUDE LOUVERED BACKPLATES WITH A 1" MINIMUM YELLOW RETROREFLECTIVE BORDER AROUND THE PERIMETER OF THE FACE OF THE BACKPLATE. THE RETROREFLECTIVE BORDER TO BE MADE OF A TYPE III PRISMATIC OR BETTER MATERIAL.
- (7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 730-05.01 FOR PAYMENT BY THE CONTRACTOR. ITEM ALSO INCLUDES ALL CONDUIT, CABLE, RISERS, AND ALL OTHER ITEMS NECESSARY FOR ELECTRICAL CONNECTION TO SIGNAL.
- (8) ITEM INCLUDES PREEMPTION CABLE.
- (9) INCLUDES ALL DETECTOR UNITS, WIRING, AND INCIDENTALS REQUIRED FOR FULLY FUNCTIONAL INTERSECTION DETECTION AS SHOWN ON THE PLANS. RADAR DETECTION SHALL BE WAVETRONIX BRAND.
- (10) CABINET SHALL BE TS-2, TYPE 2.
- (11) INCLUDES FOUNDATION.

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COORDINATES ARE NAD/83 (1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00009 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ESTIMATED
ROADWAY
QUANTITIES
AND TABULATED
QUANTITIES**

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.

UTILITIES

- (3) 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.
- (4) 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.
- (5) 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.
- (6) 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.
- (7) 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

- (8) 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

SIGNING

- (9) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (10) 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.

SIGNALIZATION

- (11) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.
- (12) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.
- (13) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (14) 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.
- (15) 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.
- (16) 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.
- (17) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (18) 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.
- (19) 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.
- (20) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIAL NOTES

SIGNAL AND LIGHTING EROSION PREVENTION AND SEDIMENT CONTROL

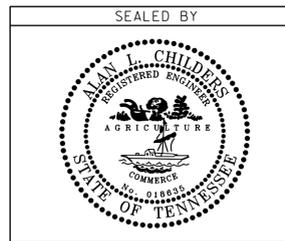
- (1) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT FROM EROSION ANY EXPOSED EARTH RESULTING FROM TRENCHING AND EXCAVATION, AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THIS WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THE WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THESE OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- (2) SILT FENCE OR OTHER BARRIERS OF THE SPECIFIED TYPE SHALL BE INSTALLED ON THE DOWNHILL SIDE OF STOCKPILED SOIL. POLYETHYLENE SHEETING MAY BE USED TO COVER SPOILS FROM EXCAVATION. NO SEPARATE PAYMENT FOR POLYETHYLENE SHEETING.
- (3) TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.
- (4) THE CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS INDICATED BY THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL PLAN OR THE TDOT PROJECT ENGINEER).
- (5) FOR THE INSTALLATION OF CONDUITS 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, OR IMMEDIATELY AFTER ANY INSPECTION. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (6) RAIN WATER WHICH COLLECTS IN THE OPEN EXCAVATIONS (TRENCHES OR FOUNDATION EXCAVATIONS) SHALL BE PUMPED INTO A TEMPORARY DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED. NO SEPARATE PAYMENT FOR THIS REQUIREMENT.
- (7) SPOILS FROM FOUNDATION EXCAVATIONS SHALL BE PICKED UP AS BORING PROGRESSES, OR CONTAINED WITHIN APPROPRIATE EROSION CONTROL DEVICES.

SIGNALIZATION

- (8) 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.
- (9) LOCATIONS OF SIGNAL POLES AND PULL BOXES ARE APPROXIMATE AND CAN BE ADJUSTED UP TO 5 FEET IN THE FIELD TO AVOID UTILITY CONFLICT, SUBJECT TO APPROVAL OF THE TDOT INSPECTOR. CONTRACTOR TO VERIFY SIGNAL SPAN LENGTHS IF POLE LOCATION IS ADJUSTED.
- (10) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.
- (11) CIRCULAR INDICATIONS SHALL MEET "ITE VTC SH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.
- (12) ARROW INDICATIONS SHALL MEET "ITE VTC SH-3 LED ARROW SPECIFICATION" FOR EXPANDED/EXTENDED VIEW.
- (13) SIGNAL HEADS SHALL HAVE ITE COMPLIANT INCANDESCENT-LOOK LED MODULES.
- (14) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.
- (15) COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	STP-H-416(9)	2A

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES
AND
SPECIAL NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	STP-H-416(9)	2B

SPECIAL NOTES (CON'T.)

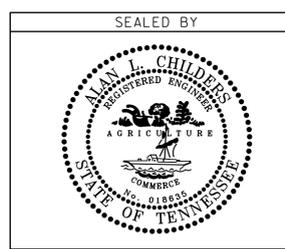
SIGNALIZATION (CON'T.)

- (16) MANUFACTURER SHALL PROVIDE A MINIMUM FIVE YEAR WARRANTY FOR OPERATION OF THE UNIT.
- (17) ALL SIGNAL HEADS SHALL INCLUDE SWIVEL BALANCE ADJUSTERS TO MAINTAIN THE PROPER VISIBILITY. COSTS OF ADJUSTERS TO BE INCLUDED IN COSTS OF SIGNAL HEADS.
- (18) THE ATTACHMENT OF THE TETHER WIRE TO THE POLE SHALL BE LOCATED BELOW THE LOWEST ELEVATION OF THE SIGNAL HEADS.
- (19) EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN, EXCEPT AS OTHERWISE INDICATED.
- (20) CONDUIT UNDER EXISTING ROADWAY PAVEMENT, SIDEWALK, AND PAVED DRIVEWAYS SHALL BE JACKED AND BORED INSTALLATION.
- (21) DETECTION ZONES SHALL BE POSITIONED TEN FEET IN FRONT OF STOP BAR, UNLESS OTHERWISE NOTED.
- (22) DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX AND SMARTSENDOR ADVANCE RADAR DETECTION. RADAR DETECTION SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
- (23) ALL STATION AND OFFSETS ARE TO CENTERLINE OF S.R. 416.

S.R. 416

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

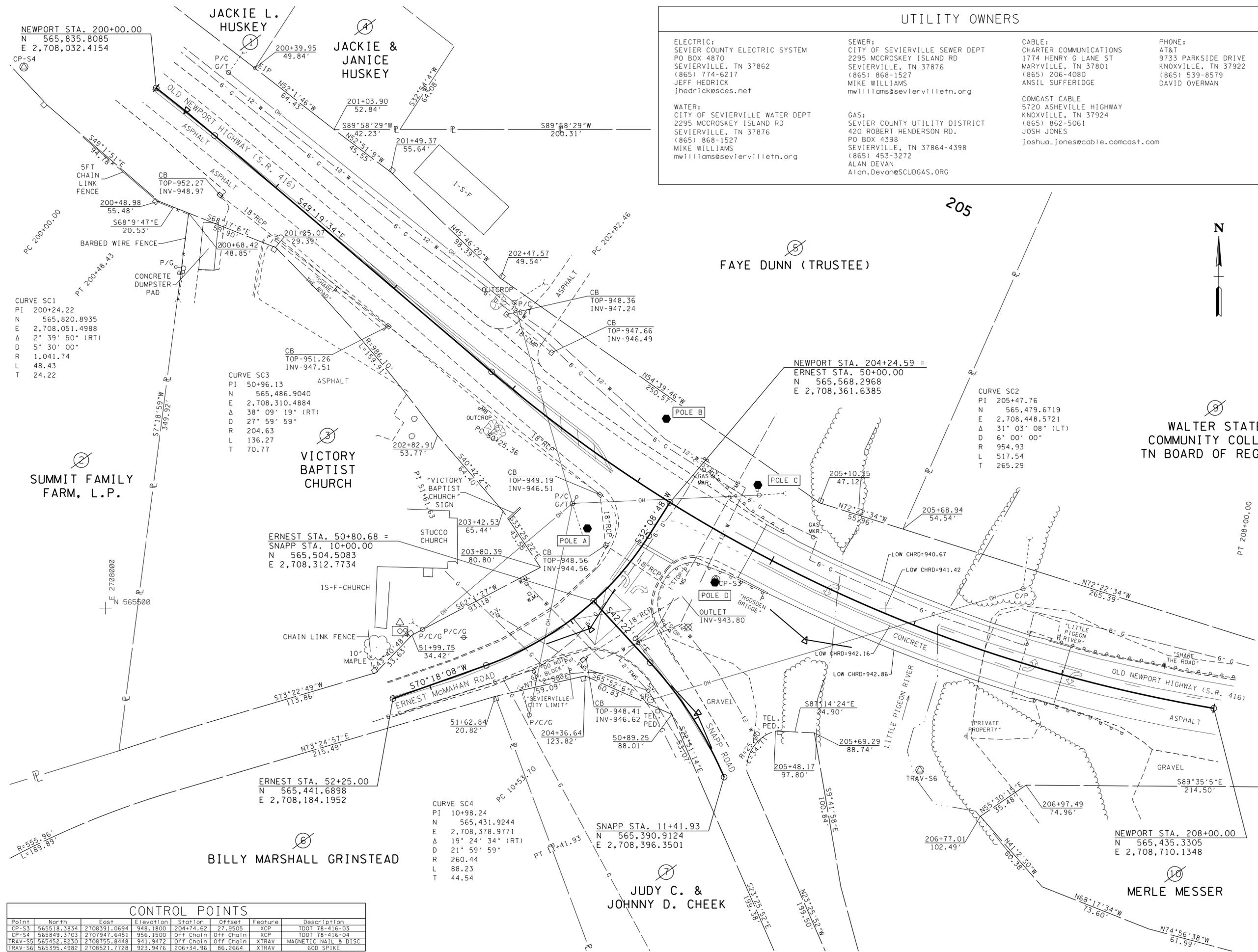
**SPECIAL
 NOTES**

UTILITY OWNERS

ELECTRIC: SEVIER COUNTY ELECTRIC SYSTEM PO BOX 4870 SEVIERVILLE, TN 37862 (865) 774-6217 JEFF HEDRICK jhedrick@scses.net	SEWER: CITY OF SEVIERVILLE SEWER DEPT 2295 MCCROSKEY ISLAND RD SEVIERVILLE, TN 37876 (865) 868-1527 MIKE WILLIAMS mwilliams@seviervilletn.org	CABLE: CHARTER COMMUNICATIONS 1774 HENRY G LANE ST MARYVILLE, TN 37801 (865) 206-4080 MIKE WILLIAMS ANSIL SUFFERIDGE	PHONE: AT&T 9733 PARKSIDE DRIVE KNOXVILLE, TN 37922 (865) 539-8579 DAVID OVERMAN
WATER: CITY OF SEVIERVILLE WATER DEPT 2295 MCCROSKEY ISLAND RD SEVIERVILLE, TN 37876 (865) 868-1527 MIKE WILLIAMS mwilliams@seviervilletn.org	GAS: SEVIER COUNTY UTILITY DISTRICT 420 ROBERT HENDERSON RD. PO BOX 4398 SEVIERVILLE, TN 37864-4398 (865) 453-3272 ALAN DEVAN Alan.Devan@SCUDGAS.ORG	COMCAST CABLE 5720 ASHEVILLE HIGHWAY KNOXVILLE, TN 37924 (865) 862-5061 JOSH JONES joshua_jones@cable.comcast.com	

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2014	STP-H-416(9)	2
CONST.	2014	STP-H-416(9)	3

S.R. 416 SEVIER COUNTY



CURVE SC1
PI 200+24.22
N 565,820.8935
E 2,708,051.4988
Δ 2° 39' 50" (RT)
D 5° 30' 00"
R 1,041.74
L 48.43
T 24.22

CURVE SC3
PI 50+96.13
N 565,486.9040
E 2,708,310.4884
Δ 38° 09' 19" (RT)
D 27° 59' 59"
R 204.63
L 136.27
T 70.77

CURVE SC2
PI 205+47.76
N 565,479.6719
E 2,708,448.5721
Δ 31° 03' 08" (LT)
D 6° 00' 00"
R 954.93
L 517.54
T 265.29

CURVE SC4
PI 10+98.24
N 565,431.9244
E 2,708,378.9771
Δ 19° 24' 34" (RT)
D 21° 59' 59"
R 260.44
L 88.23
T 44.54

CONTROL POINTS

Point	North	East	Elevation	Station	Offset	Feature	Description
CP-S3	565518.3834	2708391.0694	948.1800	204+74.62	27.9505	XCP	TDOT T8-416-03
CP-S4	565849.3703	2707947.6451	956.1500	Off Chain	Off Chain	XCP	TDOT T8-416-04
TRAV-S5	565452.8230	2708755.8448	941.9472	Off Chain	Off Chain	XTRAV	MAGNETIC NAIL & DISC
TRAV-S6	565395.4982	2708521.7728	923.9476	206+34.96	86.2664	XTRAV	60D SPIKE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**PRESENT
LAYOUT**

SCALE: 1" = 30'

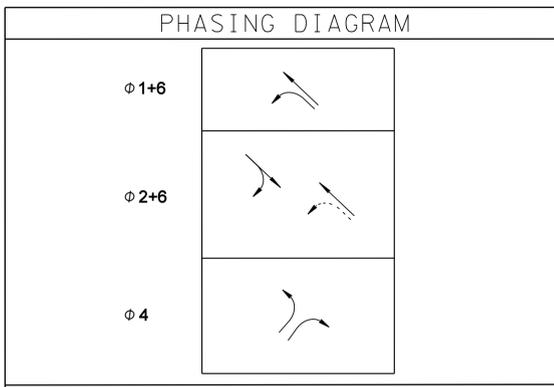
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITY	2014	STP-H-416(9)	2A
CONST.	2014	STP-H-416(9)	3A

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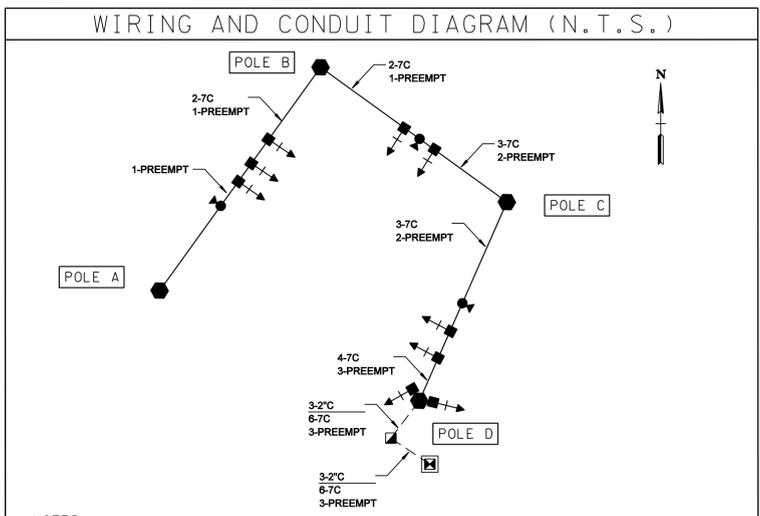
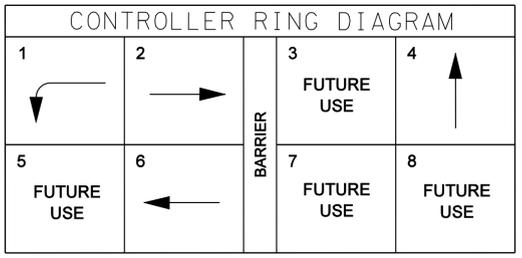
SIGNAL SUPPORT POLE DATA								
POLE NO.	STATION	OFFSET (FT.)	NORTHING	EASTING	GROUND ELEV. @ POLE	ATTACHMENT ELEV.	MOMENT CAPACITY (FT.-LBS.)	FOOTING DEPTH (FT.)
A	203+90.50	43' R	565551.4737	2708308.7269	949.62	976.62	217,947	20
B	203+92.50	44' L	565622.2640	2708359.3597	946.45	976.45	268,114	22
C	204+68.00	38.5' L	565579.5338	2708417.9956	944.64	974.64	159,933	16
D	204+75.00	30' R	565516.5574	2708390.4330	948.07	975.07	116,414	15

BASIC TIMING (SECS)										
PHASE	MINIMUM INITIAL	VEHICLE INTERVAL	MAX I	MAX II	CLEARANCE		PEDESTRIAN		RECALL TO	MEMORY POSITION
					YELLOW	ALL RED	WALK	FLASHING DONT WALK		
1	6.0	1.0	25	15	4.0	1.5			MIN	OFF
2	12.0	4.0	45	60	4.0	1.5			MIN	OFF
4	8.0	3.0	25	25	4.0	1.5			MIN	OFF
6	12.0	4.0	45	60	4.0	1.5			MIN	OFF

DETECTION ZONE SCHEDULE				
ZONE NO.	APPROX. ZONE SIZE (FT.)	ASSOC. PHASE	MODE	COMMENTS
Z1-1	6 x 100	1	PRES.	NORMAL
Z2-1	6 x 50	2	PRES.	DELAY W/ 5 SEC. DELAY
Z2-2	6 x 6	2	PRES.	NORMAL
Z4-1	6 x 45	4	PRES.	DELAY/NORMAL W/ 3 SEC. DELAY
Z4-2	6 x 45	4	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY
Z4-3	6 x 50	4	PRES.	DELAY/NORMAL W/ 10 SEC. DELAY
Z4-4	6 x 30	4	PRES.	DELAY W/ 10 SEC. DELAY
Z6-1	6 x 50	6	PRES.	DELAY W/ 5 SEC. DELAY
Z6-2	6 x 6	6	PRES.	NORMAL



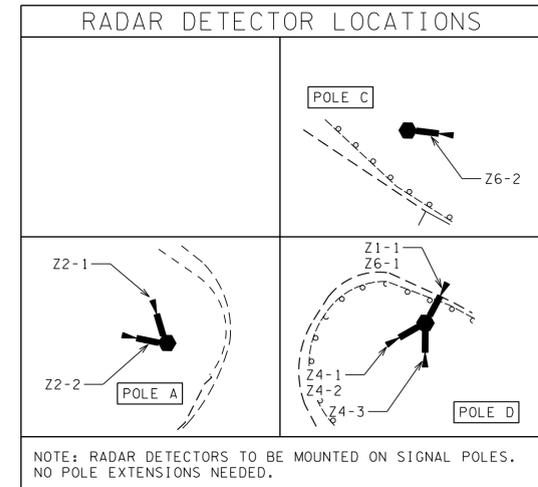
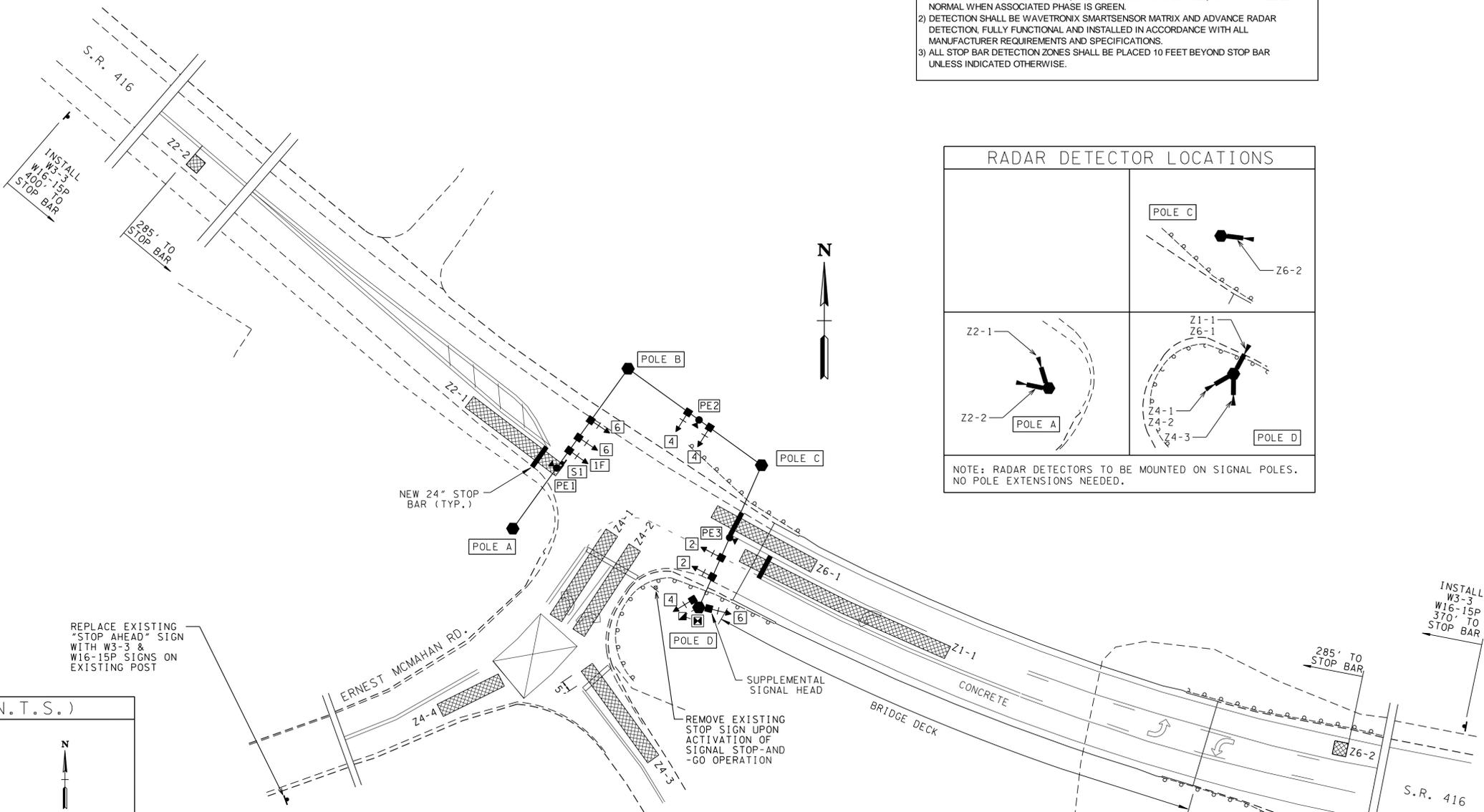
- NOTES:
- PERMITTED, BUT NOT PROTECTED VEHICULAR MOVEMENT.
 - ALL CLEARANCES SHALL BE IN ACCORDANCE WITH THE MUTCD.
 - FLASHING OPERATION: RED BALL FOR HEADS 4, YELLOW BALL FOR HEADS 2 AND 6, YELLOW ARROW FOR HEAD 1F.
 - PREEMPTION OPERATION:
 - PE1 ACTIVATION CALLS PLAN 1 (PHASE 2)
 - PE2 ACTIVATION CALLS PLAN 2 (PHASE 4)
 - PE3 ACTIVATION CALLS PLAN 3 (PHASES 1 AND 6)



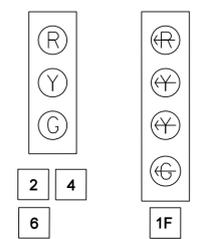
- NOTES:
- INSTALL ETHERNET CABLE (SHIELDED CAT 5E, OUTDOOR RATED) FROM CONTROLLER CABINET TO TOP OF POLE D FOR FUTURE COMMUNICATIONS TO BE PLACED BY CITY.
 - RADAR DETECTION SERVICE CABLE NOT SHOWN AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

- NOTES:
- CONTROLLER SHALL BE 8 PHASE PEEK ATC 1000.
 - PASSAGE SEQUENTIAL SHALL BE PROGRAMMED INACTIVE ('N').
 - PROGRAM OMIT PHASE 1 BY PHASE 2 ON.
 - MAX II SETTING TO RUN FROM 2PM - 7PM WEEKDAYS, MAX I SETTINGS TO RUN ALL OTHER TIMES.
 - OTHER REQUIRED SETTINGS AND FUNCTIONS SHALL BE APPROPRIATE VALUES AS RECOMMENDED BY THE CONTROLLER MANUFACTURER.

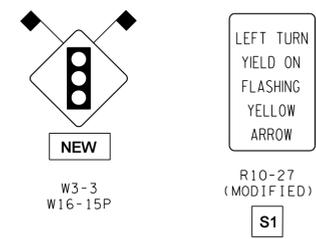
- NOTES:
- DETECTORS SPECIFIED AS DELAY/NORMAL SHALL HAVE A TIME DELAYED OUTPUT WHEN ASSOCIATED PHASE NOT GREEN (DELAY SETTINGS AS SPECIFIED). OUTPUT SHALL BE NORMAL WHEN ASSOCIATED PHASE IS GREEN.
 - DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX AND ADVANCE RADAR DETECTION. FULLY FUNCTIONAL AND INSTALLED IN ACCORDANCE WITH ALL MANUFACTURER REQUIREMENTS AND SPECIFICATIONS.
 - ALL STOP BAR DETECTION ZONES SHALL BE PLACED 10 FEET BEYOND STOP BAR UNLESS INDICATED OTHERWISE.



SIGNAL HEAD DETAILS

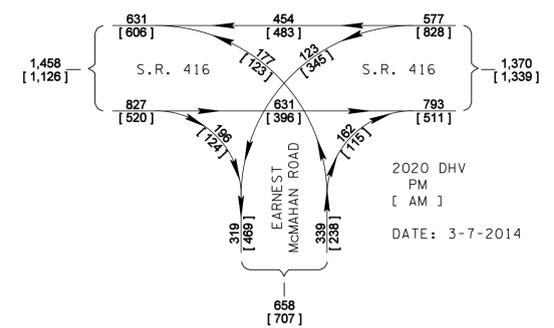


SIGN DETAILS

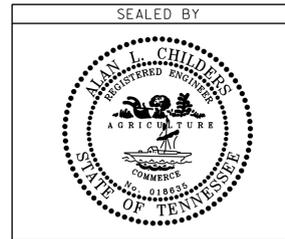


ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH WITH BLACK ALUMINUM HOUSINGS AND 5-INCH LOUVERED SAFETY BACKPLATES WITH QUICK DISCONNECTS. DISPLAYS SHALL BE LED TYPE CONFORMING TO CURRENT ITE STANDARDS.

SIGNAL HEAD 1F SHALL FULLY COMPLY WITH MUTCD SECTION 4D.20 FOR FLASHING YELLOW ARROW TYPE PROTECTED/PERMISSIVE LEFT-TURN OPERATION.



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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

SCALE: 1" = 30'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	STP-H-416(9)	4

S.R. 416 SEVIER COUNTY

TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY, OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

THIS 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 OF UNIFORM TRAFFIC CONTROL DEVICES."

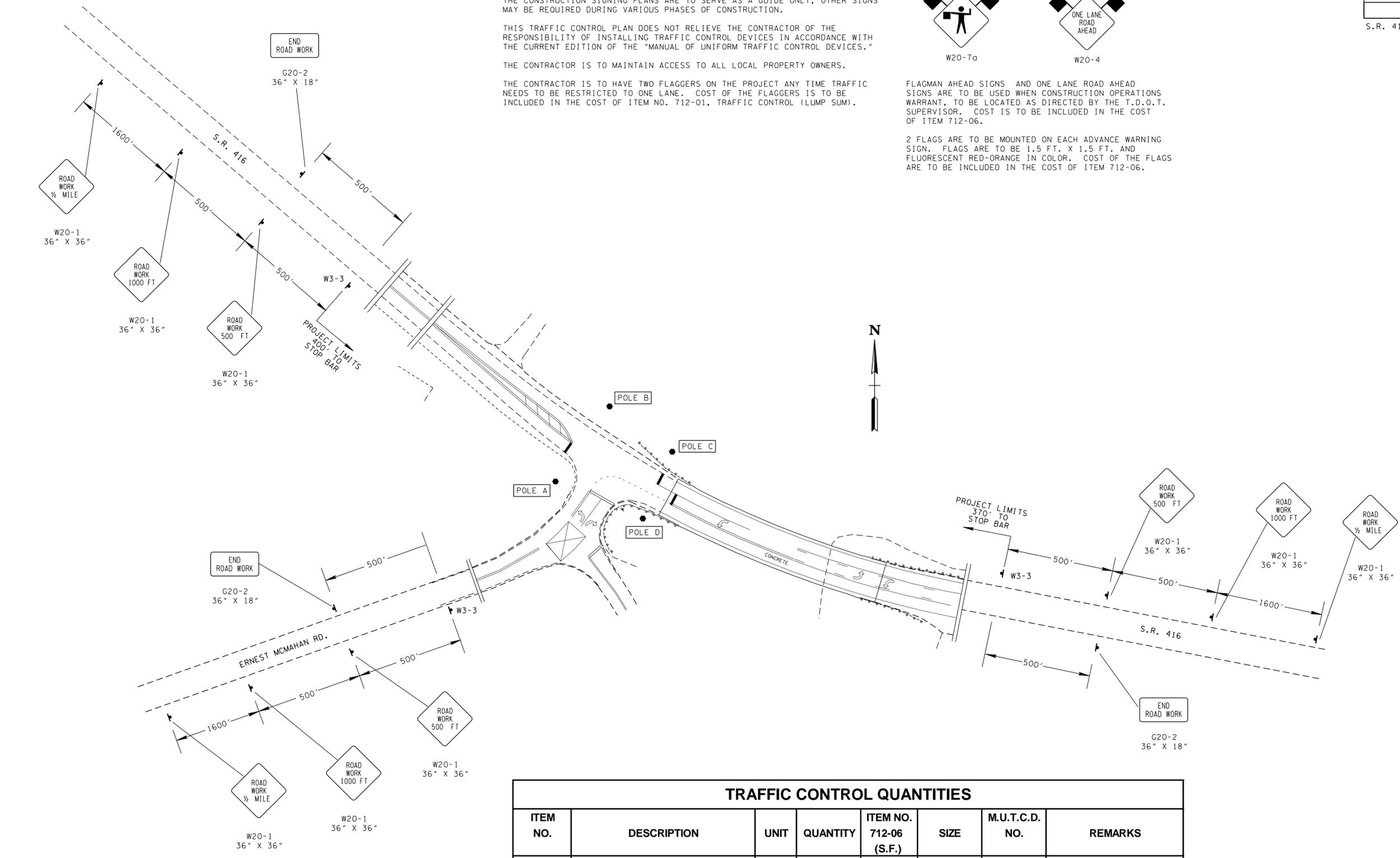
THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

THE CONTRACTOR IS TO HAVE TWO FLAGGERS ON THE PROJECT ANY TIME TRAFFIC NEEDS TO BE RESTRICTED TO ONE LANE. COST OF THE FLAGGERS IS TO BE INCLUDED IN THE COST OF ITEM NO. 712-01, TRAFFIC CONTROL (LUMP SUM).



FLAGMAN AHEAD SIGNS AND ONE LANE ROAD AHEAD SIGNS ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT, TO BE LOCATED AS DIRECTED BY THE T.D.O.T. SUPERVISOR. COST IS TO BE INCLUDED IN THE COST OF ITEM 712-06.

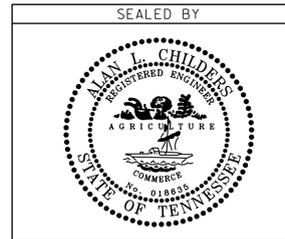
2 FLAGS ARE TO BE MOUNTED ON EACH ADVANCE WARNING SIGN. FLAGS ARE TO BE 1.5 FT. X 1.5 FT. AND FLUORESCENT RED-ORANGE IN COLOR. COST OF THE FLAGS ARE TO BE INCLUDED IN THE COST OF ITEM 712-06.



SYMBOL	ITEM
●	FLEXIBLE DRUMS (CHANNELIZING)
┆	SIGN (CONSTRUCTION)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	ITEM NO. 712-06 (S.F.)	SIZE	M.U.T.C.D. NO.	REMARKS
712-01	TRAFFIC CONTROL	L.S.	1				
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	50				
712-05.03	WARNING LIGHTS (TYPE C)	EACH	50				
712-06	SIGNS (END ROAD WORK)	S.F.	3	24	48" x 24"	G20-2	
712-06	SIGNS (ROAD WORK 1/2 MILE)	S.F.	3	48	48" x 48"	W20-1	
712-06	SIGNS (ROAD WORK 1000 FEET)	S.F.	3	48	48" x 48"	W20-1	
712-06	SIGNS (ROAD WORK 500 FEET)	S.F.	3	48	48" x 48"	W20-1	
712-06	SIGNS (ONE LANE ROAD AHEAD)	S.F.	4	64	48" x 48"	W20-4	TO BE USED AS NEEDED
712-06	SIGNS (FLAGGER (SYMBOL))	S.F.	4	64	48" x 48"	W20-7A	TO BE USED AS NEEDED
712-08.03	FLASHING ARROW BOARD (TYPE C)	EACH	2				TO BE USED AS NEEDED
TOTAL				296			

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TRAFFIC CONTROL PLAN
SCALE: 1" = 50'