

CITY OF FRANKLIN	YEAR	SHEET NO.
	2019	1
CITY OF FRANKLIN PROJ. NO.		COF#2018-0062

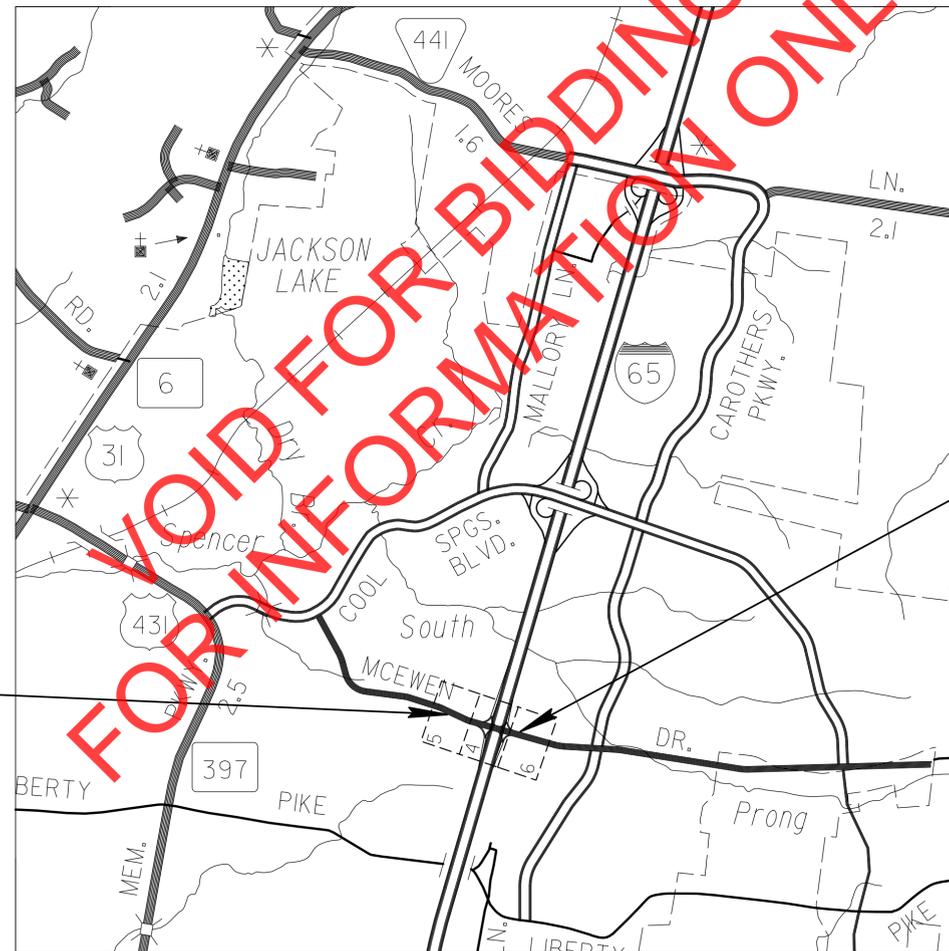


CITY OF FRANKLIN, TENNESSEE

WILLIAMSON COUNTY

MCEWEN DRIVE / I-65
RAMP MODIFICATION FROM MCEWEN DRIVE TO I-65 SOUTH BOUND ON RAMP

CONSTRUCTION



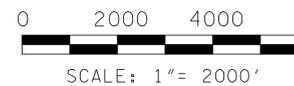
END PROJECT: COF#2018-0062
STA. 120+92.48
N 583476.7829
E 1726882.4547

BEGIN PROJECT: COF #2018-0062
STA. 106+38.58
N 583965.1313
E 1725304.3609

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE CITY OF FRANKLIN 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 JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT



ROADWAY LENGTH

0.275 MILES



APPROVED: Paul P. Holzen
PAUL HOLZEN, P.E. DATE
DIRECTOR / CITY ENGINEER

CITY OF FRANKLIN ENGINEERING DEPARTMENT PAUL HOLZEN, P.E.
DIRECTOR OF ENGINEERING

DESIGNED BY ALFRED BENESCH & COMPANY

DESIGNER BRIAN RALSTIN, PE

ROADWAY INDEX

STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	1A

SHEET NAME	SHEET NO.
TITLE SHEET	1
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
STANDARD TRAFFIC OPERATIONS DRAWINGS	1A1
ESTIMATED ROADWAY QUANTITIES	2A
SIGNAL NOTES.....	2A1
SIGNAL QUANTITIES	2A2
TYPICAL SECTIONS AND PAVEMENT SCHEDULE	2B – 2B1
GENERAL NOTES.....	2C – 2C3
TABULATED QUANTITIES	2D
DETAIL SHEETS	2E
RIGHT-OF-WAY NOTES, UTILITY NOTES and UTILITY OWNERS.....	3
PRESENT LAYOUT(S).....	4 – 6
PROPOSED LAYOUT(S)	4A – 6A
RIGHT OF WAY DETAIL(S).....	4B – 5B
RAMP PROFILE(S).....	7 – 8
EROSION PREVENTION & SEDIMENT CONTROL PLANS	9 – 9G
TRAFFIC CONTROL PLANS	10 – 10J
SIGN SCHEDULE SHEET(S).....	11
ROADWAY CROSS SECTIONS	12 – 16
PROPOSED SIGNAL LAYOUT(S).....	T-1 – T-2

NOTE: THE ALPHABETICAL LETTERS "I", "O" & "Q" ARE NOT USED IN NUMBERING OF SHEETS.

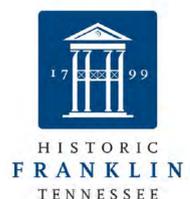
NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS.

NO UTILITY SHEETS.

DWG.	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	03-16-17	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	03-16-17	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
RD11-TS-3A		DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)
RD11-TS-3B		DESIGN STANDARDS FOR ARTERIAL HIGHWAYS WITH FLUSH MEDIAN (4 AND 6 LANE)
RD11-TS-4		DESIGN STANDARDS FOR ARTERIAL AND FREEWAY RAMP (1, 2 AND 3 LANE)
RD11-TS-5A		DESIGN STANDARDS FOR FREEWAYS WITH INDEPENDENT ROADWAYS (4 AND 6 LANE)
RD11-TS-5B		DESIGN STANDARDS FOR FREEWAYS WITH MEDIAN BARRIER (4 AND 6 LANE)
RD11-TS-6A		TYPICAL CURB & GUTTER SECTIONS WITHOUT SHOULDERS AND WITH GRASS STRIPS
RD11-SE-1		TRANSITION AND CROSS SLOPE DETAILS
RD11-SE-3		SUPERELEVATION TRANSITION DETAILS FOR DIVIDED ROADWAYS
RD11-SE-3A		SUPERELEVATION TRANSITION SECTIONS FOR DIVIDED ROADWAYS
RD11-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD11-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD11-SD-5		INTERSECTION SIGHT DISTANCE 4-LANE DIVIDED HIGHWAYS
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
ROADWAY AND PAVEMENT APPURTENANCES		
RP-J-7	07-14-14	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-9	02-02-12	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	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-18	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-19	02-02-12	DOWEL ASSEMBLY DEVICES
RP-VC-10		VERTICAL CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS

DWG.	REV.	DESCRIPTION
MULTIMODAL		
MM-CR-1		DETECTABLE WARNING SURFACE PLACEMENT ON CURB RAMPS
MM-CR-2		PERPENDICULAR CURB RAMP
MM-PM-2		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANE OR ROUTES
MM-PM-3		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES ON URBAN ROADWAYS
MM-PM-4		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES
MM-PM-5		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AT INTERSECTIONS
MM-SW-1		DETAILS FOR CONCRETE SIDEWALKS
MM-SW-2		ALTERNATE DETAILS FOR CONCRETE SIDEWALK (REHABILITATION)
MM-TS-1	01-07-19	BIKE ACCOMMODATION DESIGN GUIDANCE
MM-TS-2	01-07-19	LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH
MM-TS-3		SEPARATED SHARED USE PATH TYPICAL SECTIONS
SAFETY DESIGN AND FENCES		
S-CZ-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-2	10-10-16	SAFETY PLAN AT SIDEROADS OR PRIVATE DRIVES
S-PL-6	10-10-16	SAFETY PLAN SAFETY HARDWARE PLACEMENT ON OUTSIDE EDGE
S-PL-6A	07-05-17	SAFETY PLAN SAFETY HARDWARE PLACEMENT IN MEDIAN
S-RP-2	02-08-16	STANDARD CONCRETE RIGHT-OF-WAY MARKERS
DESIGN - TRAFFIC CONTROL		
T-M-1	07-05-17	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	07-05-17	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-3	07-24-14	MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
T-M-4	10-10-16	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-9	11-01-11	PAVEMENT MARKING AND SIGNING DETAILS FOR RAMP INTERSECTIONS
T-PBR-2	03-16-17	DETAIL FOR FLEXIBLE DELINEATORS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-55	10-10-16	SIDEWALK TRAFFIC CONTROL
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-8	06-10-14	FILTER SOCK
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4

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**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**ROADWAY INDEX
AND
STANDARD
ROADWAY
DRAWINGS**

STANDARD TRAFFIC OPERATIONS DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	1A1

SHEET NO. DWG. REV. DESCRIPTION

SIGNS

T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-20	07-11-17	SIGN DETAILS
T-S-24	08-02-13	DETAILS OF SIGN WITH SOLAR FLASHING ASSEMBLY

SIGNALS

T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	07-11-17	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-5	06-27-16	CONTROLLER CABINET DETAILS
T-SG-6		PEDESTRIAN SIGNAL DETAILS
T-SG-7	07-11-17	SIGNAL HEAD ASSEMBLIES
T-SG-7C		TYPICAL SIGNAL HEAD PLACEMENT ONE-LANE AND TWO-LANE APPROACHES
T-SG-7D		TYPICAL SIGNAL HEAD PLACEMENT TWO-LANE APPROACHES
T-SG-7NN	07-13-17	TYPICAL SIGNAL HEAD PLACEMENT FIVE-LANE APPROACHES
T-SG-9	07-11-17	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	07-12-17	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	07-11-17	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-12-17	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	07-12-17	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-SG-13	06-27-16	FLASHING BEACON DETAIL

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**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**



**STANDARD
TRAFFIC
OPERATIONS
DRAWINGS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2A

ESTIMATED ROADWAY QUANTITIES

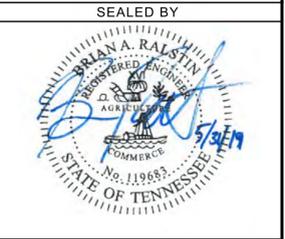
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1	
201-01	CLEARING AND GRUBBING	LS	1	
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	171	
(3)	202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	160
(3)	202-08.15	REMOVAL OF CURB AND GUTTER	L.F.	266
	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	57
(3)	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	60
(1)(2)	209-03.22	FILTER SOCK (18 INCH)	L.F.	1272
(1)(2)	209-05	SEDIMENT REMOVAL	C.Y.	10
(1)(2)	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	7
(1)(2)	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	1
(10)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	140
(10)	313-03	TREATED PERMEABLE BASE	S.Y.	392
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	3
	406-04.03	HIGH FRICTION SURFACE TREATMENT (SINGLE LIFT)	S.Y.	1845
	406-04.04	HIGH FRICTION SURFACE TREATMENT (DOUBLE LIFT)	S.Y.	492
(3)	407-20.05	SAW CUTTING ASPHALT PAVEMENT	L.F.	200
	411-03.10	ACS MIX(PG76-22) GRADING D	TON	400
(3)	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	5442
(10)	501-01.02	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 9"	S.Y.	241
(3)	502-04.01	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L.F.	500
(6)	611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	1
	701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	4700
(9)	701-02.03	CONCRETE CURB RAMP	S.F.	158
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	30
	708-02.01	MARKERS (CONCRETE R.O.W. POSTS	EACH	2
	712-01	TRAFFIC CONTROL	LS	1
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	75
	712-06	SIGNS (CONSTRUCTION)	S.F.	340
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	120
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	163
	713-11.21	P POST SLIP BASE	EACH	6
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	19
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	10
(11)	713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	24
(8)	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	6
	713-16.41	RELOCATE SIGN	LS	1
(5)	714-08.29	REMOVE & RELOCATE LIGHT STANDARD	LS	1
(3)(4)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	218
(3)(4)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	14
(3)(4)	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	925
(3)(4)	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	254

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
(3)(4)	716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	9
(3)(4)	716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	EACH	3
(3)(4)	716-04.13	PLASTIC PAVEMENT MARKING (BIKELANE SYMBOL & ARROW)	EACH	1
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0.15
(3)	716-08.30	HYDROBLAST REMOVAL OF PAVEMENT MARKING (LINE)	L.M.	0.18
(3)	716-08.32	HYDROBLAST REMOVAL OF PAVEMENT MARKING (STOP BAR)	L.F.	193
(3)	716.08.34	HYDROBLAST REMOVAL OF PAVEMENT MARKING (X-WALK)	S.Y.	40
(3)(4)	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	0.08
(3)(4)	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	0.17
(3)(4)	716-12.03	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE)	L.F.	2650
	717-01	MOBILIZATION	LS	1
(7)	730-01.04	MODIFICATION OF EXISTING TRAFFIC SIGNAL EQUIPMENT	LS	1
	801-03	WATER (SEEDING & SODDING)	M.G.	5
(12)	802-01.10	TREES (3-4" CAL. B&B)	EACH	9
	803-01	SODDING (NEW SOD)	S.Y.	500

- (1) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATION FOR MAINTENACE REPLACEMENT.
- (2) ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
- (3) QUANTITY MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- (4) CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC. ON CONCRETE PAVEMENT SURFACES, CONTRACTOR TO UTILIZE 3M'S ST MARK HIGH PERFORMANCE EXTENDED SEASON TAPE WITH BLACK CONTRAST OR APPROVED EQUAL.
- (5) INCLUDES THE COST OF REMOVING THE FOUNDATION 6 INCHES BELOW GRADE. ALSO, INCLUDES THE COST OF ALL APPURTENANCES NECESSARY TO MAINTAIN EXISTING ELECTRICAL CIRCUITRY ALONG MCEWEN DRIVE. SEE SHEET NO. 2D FOR TABULATION OF LIGHT STANDARD RELOCATIONS.
- (6) STA. 501+70, 58' RT. MCEWEN DRIVE.
- (7) SEE SHEET NO. 2A2 FOR TABULATION OF SIGNAL QUANTITIES.
- (8) PAY ITEM TO INCLUDE COST FOR ALL ASPECTS OF REMOVAL OF THE EXISTING SIGNS.
- (9) PAY ITEM TO INCLUDE COST FOR INSTALLING ADDITIONAL DETECTABLE WARNING MATS.
- (10) INCLUDES CONCRETE AREA FOR FULL DEPTH PATCHES.
- (11) PAY ITEM TO INCLUDE THE COST OF INSTALLATION AND ALL NECESSARY INCIDENTALS REQUIRED TO CONNECT THE PROPOSED SIGN TO THE EXISTING OVERHEAD SUPPORT STRUCTURE
- (12) THE SPECIFIC TREE VARIETY WILL BE SELECTED BY THE CITY DURING CONSTRUCTION.

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**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**ESTIMATED
ROADWAY
QUANTITIES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	2018-0062	2A1

CITY OF FRANKLIN GENERAL NOTES FOR TRAFFIC SIGNAL CONSTRUCTION

WORKMANSHIP:

- ALL CONSTRUCTION, EQUIPMENT AND INSTALLATION PROCEDURES SHALL COMPLY WITH CURRENT T.D.O.T. AND CITY OF FRANKLIN STANDARDS AND SPECIFICATIONS, WHERE APPLICABLE.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CURRENT T.D.O.T. AND CITY OF FRANKLIN STANDARDS AND SPECIFICATIONS, WHERE APPLICABLE.
- ALL TRAFFIC SIGNAL, SIGN, PAVEMENT MARKINGS AND TEMPORARY TRAFFIC CONTROL APPARATUS INSTALLATION, MAINTENANCE PROCEDURES, AND EQUIPMENT SHALL MEET THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
- ALL TRAFFIC CONTROL DURING THROUGHOUT THE PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE M.U.T.C.D. AND IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF FRANKLIN'S ENGINEERING DEPARTMENT.
- THE CONTRACTOR SHALL, AS DETERMINED BY THE CITY OF FRANKLIN EITHER:
 - CONSTRUCT THE CONTROLLER CABINET AND FOUNDATION IN ACCORDANCE WITH TDOT TYPE IV CONTROLLER CABINET; OR
 - CONSTRUCT THE TDOT TYPE IV CONTROLLER CABINET AND FOUNDATION IN ACCORDANCE WITH CITY OF FRANKLIN TOC-04, A TDOT TYPE IV CABINET WITH BACKUP POWER SUPPLY AND FOUNDATION.
- ANY NON-OPERATIONAL SIGNAL HEADS, WHEN VISIBLE TO DRIVERS, SHALL BE COMPLETELY COVERED.
- THE TRAFFIC SIGNAL, FOR NEWLY SIGNALIZED INTERSECTIONS, SHALL BE PLACED IN FLASH OPERATION FOR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE ACTIVATION OF THE SIGNAL TO NORMAL OPERATION.
- CONTRACTOR SHALL NOTIFY THE TENNESSEE ONE CALL SYSTEM, INC. AND ALL POSSIBLY EFFECTED INDIVIDUAL UTILITY OWNERS, INCLUDING THE CITY OF FRANKLIN, A MINIMUM OF THREE (3) DAYS PRIOR TO COMMENCEMENT OF OPERATIONS, AND REQUEST THEM TO PROPERLY FIELD LOCATE AND MARK RESPECTIVE UTILITIES ALONG THE GROUND.
- ALL UTILITY LOCATIONS, AS SHOWN ON PLAN SET, ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

MATERIALS & INSTALLATION:

- ALL CONDUIT SHALL BE SCHEDULE 40 P.V.C. UNLESS OTHERWISE NOTED. CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 24" BELOW FINISHED GRADE AND SHALL COMPLY WITH THE CITY OF FRANKLIN'S TRENCHING DETAILS AND CONDUIT PLACEMENT PER CITY OF FRANKLIN STANDARD DETAIL TOC-03.
- ALL SIGNAL HEADS SHALL BE FABRICATED FROM ALUMINUM. THE SIGNAL FACE SHALL BE BLACK, WHILE REMAINDER OF SIGNAL HEAD SHALL BE FEDERAL YELLOW IN COLOR. ALL SIGNAL HEADS SHALL BE LED TYPE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS OF THE CITY OF FRANKLIN.
- ALL VEHICLE SIGNAL HEADS SHALL HAVE A MULTI-PIECE, VACUUM-FORMED, BLACK PLASTIC, LOUVERED BACKPLATE.
- ALL PEDESTRIAN PHASING SHALL BE MONITORED AS PEDESTRIANS AND NOT AS CHANNELS. PEDESTRIAN SIGNALS WITH PUSHBUTTONS SHALL BE WIRED SEPARATELY. PUSHBUTTONS SHALL BE 2" ADA COMPLIANT WITH LED INDICATOR AND TWO TONE AUDIO BEEP PER THE CITY OF FRANKLIN SPECIFICATIONS
- THE TRAFFIC SIGNAL CONTROLLER FURNISHED BY THE CONTRACTOR SHALL BE COMPLETE WITH ALL INCIDENTAL AND AUXILIARY EQUIPMENT (CONFLICT MONITOR, HARDWARE AND CABINET) NECESSARY FOR INSTALLATION AND OPERATION EITHER AS A REMOTE LOCATION OR AS PART OF A SYSTEM OF INTERSECTIONS. ALL WIRING AND EQUIPMENT NECESSARY TO ACTIVATE THE SIGNAL HEADS AND OPERATE THE TRAFFIC SIGNAL AS SPECIFIED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
- DETECTOR LOOPS SHALL BE INSTALLED IN ACCORDANCE WITH T.D.O.T. STANDARD DRAWING T-SG-3 UNLESS OTHERWISE NOTED. LOOPS SHALL BE SEALED WITH APPROVED LOOP SEALANT AND INSTALLED WITHOUT FLEXIBLE TUBE OR BACKER ROD.
- STOP BAR DETECTOR LOOPS SHALL MEASURE 6' X 45" WITH TWO TURNS OF WIRE UNLESS OTHERWISE NOTED. LOOPS SHALL BE CENTERED IN PROPOSED LANES. ADVANCE DETECTOR LOOPS SHALL MEASURE 6' X 6' WITH THREE TURNS OF WIRE UNLESS OTHERWISE NOTED. LOOPS SHALL BE CENTERED IN PROPOSED LANES.

- LOOPS AND LEAD-IN CABLE SHALL BE CONTINUOUS LENGTH; SPLICES SHALL BE PERMITTED ONLY IN PULL BOXES OR CONTROLLER CABINETS.
- DETECTION WIRE SHALL BE LABELED IN THE CABINET IN ACCORDANCE WITH T.D.O.T. STANDARD DRAWING T-SG-12. ALL WIRES SHALL BE LABELED IN PULL BOXES ON MULTI-LANE APPROACHES.
- EACH RADAR DETECTION ZONE SHALL HAVE ITS OWN DISTINCT CIRCUIT (CHANNEL).
- THE SIGNAL INSTALLATION SHALL MEET NATIONAL ELECTRICAL SAFETY CODE AND LOCAL UTILITY REQUIREMENTS FOR CLEARANCES AND ATTACHMENT HEIGHTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL UTILITIES FOR ANY ADJUSTMENT OR RELOCATION WORK REQUIRED.
- TRAFFIC SIGNAL SUPPORT POLE SHALL BE T.D.O.T. STANDARD ROUND TAPERED GALVANIZED STEEL POLES IN ACCORDANCE WITH T.D.O.T. STANDARD DRAWING T-SG-10. SUPPORT POLES, MAST ARMS AND LUMINAIRE ARMS SHALL BE BLACK OR FRANKLIN GREEN IN COLOR AS INDICATED IN PLAN SET.
- THE PROPOSED LOCATIONS OF SIGNAL SUPPORT POLES AND CONTROLLER MAY BE SLIGHTLY ADJUSTED TO ACCOMMODATE FIELD CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND STAKING OPTIMUM LOCATIONS FOR POLES AND CONTROLLER. CONTRACTOR SHALL OBTAIN APPROVAL BY THE CITY OF FRANKLIN ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
- THE CONTRACTOR AND/OR THE POLE FABRICATOR SHALL DETERMINE THE SIZE AND DESIGN OF ALL STEEL SIGNAL SUPPORT POLES AND FOUNDATIONS. SHOP DRAWINGS FOR THE PROPOSED POLES SHALL BE SUBMITTED TO THE CITY OF FRANKLIN ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE STEEL SUPPORTS SHALL BE FINISHED BY THE MANUFACTURER IN A BLACK GLOSS COLOR AND SHALL BE TOUCHED UP AS NEEDED BY THE CONTRACTOR.
- THE SIGNS SHALL BE FABRICATED ACCORDING TO THE CITY OF FRANKLIN STANDARDS FOR LED INTERNALLY ILLUMINATED STREET NAME SIGNS. THE CONTRACTOR SHALL REMOVE FUSE FROM SIGN PIGTAIL AND REINSTALL ONE FUSE PER SIGN IN THE SERVICE PEDESTAL USING A DISTRIBUTION BLOCK.
- CONTRACTOR SHALL COORDINATE WITH THE CITY OF FRANKLIN FOR REMOVAL OF THE EXISTING TRAFFIC CONTROL FACILITIES UPON ACTIVATION OF THE NEW SIGNAL SYSTEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ELECTRICAL SERVICE TO THE SITE. THE CONTRACTOR SHALL OBTAIN AN ELECTRICAL PERMIT FROM THE CITY OF FRANKLIN BUILDING AND NEIGHBORHOOD SERVICES DEPARTMENT PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AC SERVICE INSTALLATION TO SUPPLY THE FOLLOWING:
 - 100 AMP MAIN BREAKER WITH ONE (1) 50 AMP BREAKER FOR THE TRAFFIC SIGNAL INSTALLATION, THREE (3) 30 AMP BREAKERS, ONE EACH FOR THE ILLUMINATED SIGNS, SAFETY LIGHTING, AND A SPARE WHICH MAY BE USED FOR PROJECT SPECIFIC ITS INFRASTRUCTURE.
 - EACH 30 AMP BREAKER SHALL BE LABELED FOR ITS USE. LOCATE PHOTOCELL FOR ILLUMINATED STREET NAME SIGNS AND SAFETY LIGHTING AT THE SERVICE DISCONNECT WITH A TEST/BYPASS SWITCH.
 - UNDERGROUND SERVICE CONNECTION SHALL BE INSTALLED PER THE CITY OF FRANKLIN'S ELECTRICAL SERVICE DRAWING TOC-05 FOR TRAFFIC SIGNAL INSTALLATION. THE SERVICE PEDESTAL SHALL BE A MILBANK MODEL NO. CP0B1140A22SL1 OR APPROVED EQUIVALENT.
- THE CONTRACTOR SHALL LABEL ALL NEW AND EXISTING CABLES IN THE CABINET, POLE/PEDESTAL BASES AND PULL BOXES USING THE CONVENTION OF DRAWING T-SG-12. EACH WIRE SHALL BE IDENTIFIED BY A CIRCULAR PLASTIC TAG, 1 3/8" DIAMETER WITH PREPRINTED LETTERING DIES OF MINIMUM 1/4" HEIGHT. TAGS SHALL BE PERMANENTLY FASTENED TO WIRE BY MEANS OF NYLON SELF CLINCHING STRAPS. MARKING SHALL INDICATE "GRD" FOR ALL GROUND AND GROUNDED NEUTRAL CONDUCTORS. COMPANION CIRCUIT CONDUCTORS SHALL BE MARKED "CKT" FOLLOWED BY THE DESIGNATED CHARACTERS AS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL SEAL ALL OPEN CONDUIT ENTRANCE HOLES, WITH OR WITHOUT CABLES, WITH CONDUIT DUCT SEAL PUTTY. WHERE CABLES ENTER THE CONDUIT, THE SEALANT SHALL BE APPLIED AFTER INSTALLING THE CABLE. THESE LOCATIONS SHALL CONSIST OF CONDUIT ENDS IN PULL BOXES, CABINET BASES AND WEATHERHEADS.
- THE TRAFFIC SIGNAL CONTROLLER AND CABINET SHALL BE AN 8-PHASED SIEMENS SEPAC M60 WITH BOTH ACTUATED AND COORDINATED CAPABILITY AND SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF T.D.O.T. AND THE CITY OF FRANKLIN. THE CABINET SHALL PROVIDE FOR A MINIMUM OF 16 SIGNAL CIRCUITS AND LOAD BAY POSITIONS.
- THE CONTRACTOR SHALL SUPPLY ALL APPURTENANCES REQUIRED TO HAVE A COMPLETE AND OPERATING INTERCONNECTED SYSTEM TRAFFIC SIGNAL IF REQUIRED FOR THE CITY OF FRANKLIN COMPATIBILITY. THE EQUIPMENT SHALL BE A SIEMENS SEPAC M52. A FIBER CONNECTIONS INC. "GATOR PATCH" PART NUMBER G420U008FRB-XX-0 FIBER OPTIC

DISTRIBUTION PANEL AND DROP CABLE SHALL BE INSTALLED IN THE CABINET (XX IS THE CABLE LENGTH IN METERS). ITEM SHOULD BE ORDERED TO ALLOW FOR AN EXCESS OF 50 FEET OF CABLE INSIDE CONNECTING PULL BOX WHERE CABLE IS TO BE SPLICED.

- THE CONTRACTOR SHALL INSTALL A DUAL RECEIVER OPTICOM EMERGENCY VEHICLE PRIORITY CONTROL SYSTEM IN CONJUNCTION WITH THE TRAFFIC SIGNAL INSTALLATION. PRIORITY CONTROL SHALL BE PROVIDED ON THE DESIGNATED APPROACHES OF THE INTERSECTION AS INDICATED ON THE PLANS. INTERSECTION DETECTION EQUIPMENT WILL CONSIST OF A GPS RECEIVER AND RADIO TRANSCEIVER ALL CONNECTED TO A GTT GPS PHASE SELECTOR LOCATED IN THE INTERSECTION CONTROL CABINET. SHIELDED 10 CONDUCTOR DATA CABLE SHALL BE PROVIDED BY THE CONTRACTOR FOR WIRING THE GPS/RADIO UNIT TO THE GTT GPS PHASE SELECTOR; THE USE OF COAX CABLE IS NOT PERMITTED. THE GTT GPS PHASE SELECTOR UNIT IS TO BE WIRED INTO THE SAME CARD RACK AS THE VEHICLE DETECTORS. AN AUXILIARY INTERFACE PANEL DESIGN SPECIFICALLY FOR THE PHASE SELECTOR BEING SUPPLIED SHALL BE PROVIDED AND WIRED IN THE CABINET.
- AT A MINIMUM OF SEVEN (7) DAYS PRIOR TO TURN ON, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF FRANKLIN TRAFFIC OPERATIONS CENTER (615) 550-6672 FOR THE OPERATIONAL TESTING OF ALL FIELD AND CABINET WIRING. UPON SUCCESSFUL COMPLETION OF THE OPERATIONAL TESTING THE CONTRACTOR WILL BE PROVIDED WITH THE APPROPRIATE TIMING PLAN TO BE PROGRAMMED INTO THE CONTROLLER. THESE TESTS SHALL OCCUR PRIOR TO THE FINAL OVERLAY COURSE ON THE PROJECT.
- THE CONTRACTOR IS REQUIRED TO ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY OF FRANKLIN ENGINEERING AND STREETS DEPARTMENTS PRIOR TO THE COMMENCEMENT OF THE PROJECT. CALL (615) 791-3218 FOR MEETING SCHEDULE.
- INSPECTIONS OF ALL ASPECTS OF THE TRAFFIC SIGNAL INSTALLATION AND OF THE INTELLIGENT TRANSPORTATION SYSTEMS (ITS) WILL BE PERFORMED. THE CONTRACTOR SHALL NOTIFY THE CITY DAILY OF THEIR INTENDED ACTIVITIES.

PAVEMENT MARKINGS:

- ALL STOP LINES AND PAVEMENT ARROWS SHALL BE A PREFORMED PLIANT POLYMER MATERIAL OR THERMOPLASTIC MATERIAL. STOP LINES SHALL BE 24 INCHES WIDE.
- NEW PAVEMENT MARKINGS SHALL BE OF A PREFORMED PLIANT POLYMER MATERIAL OR THERMOPLASTIC MATERIAL AND APPLIED TO AREAS NOT ALREADY MARKED. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED USING AN ACCEPTABLE METHOD AS SPECIFIED BY T.D.O.T. STANDARD SPECIFICATION SECTION 712 - TEMPORARY TRAFFIC CONTROL. EXISTING PAVEMENT SHALL BE REAPPLIED AS NEEDED.

SPECIAL NOTES:

- TRAFFIC SIGNAL DESIGN SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD, TDOT STANDARDS SPECIFICATIONS, SPECIAL PROVISION REGARDING SECTION 730F - TRAFFIC SIGNALS CITY OF FRANKLIN 730 GENERAL REQUIREMENTS, AND FRANKLIN TRANSPORTATION AND STREET TECHNICAL STANDARDS.
- RADAR DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX, ADVANCE, AND HD. RADAR DETECTION UNITS ON PLANS ARE SUGGESTED PLACEMENT. FINAL PLACEMENT SHALL BE BASED ON MANUFACTURER RECOMMENDATIONS.
- EMERGENCY VEHICLE PRIORITY UNITS ON PLANS ARE SUGGESTED PLACEMENT. FINAL PLACEMENT SHALL BE BASED ON MANUFACTURER RECOMMENDATIONS.
- LUMINAIRES SHALL BE INSTALLED ON CANTILEVER POLES AS SHOWN ON PLANS. FINAL PLACEMENT SHALL BE PARALLEL TO THE CANTILEVER SIGNAL SUPPORT.
- LIGHT POLES AND FOUNDATIONS TO BE REMOVED SHALL BE REMOVED 6 INCHES BELOW GROUND LINE. THE AREA SHALL THEN BE BACKFILLED WITH FILL MATERIAL THAT IS CONSISTENT WITH THE ADJACENT SURROUNDINGS. SODDING SHALL BE REQUIRED IN GRASSED AREAS.

COORDINATES ARE NAD/83 (1995), AND TIED TO THE TORN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

SIGNAL
NOTES

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DONS P E C O S\$\$\$\$\$

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	2018-0062	2A2

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	713-15 REMOVAL OF SIGNS, POSTS, AND FOOTINGS	LS	1
(2)	713-16.20 SIGNS (W3-3, 36" X 36")	EACH	1
(3)	713-16.21 SIGNS (R10-10, 30" X 36")	EACH	1
(3)	713-16.22 SIGNS (R10-11a, 30"X36")	EACH	2
(3)	713-16.23 SIGNS (R10-27 (MOD), 30"X36")	EACH	2
(2)	713-16.24 SIGNS (W6-7P), 24"x12")	EACH	1
	725-21.92 RADAR DET. SYS. (WAVETRONIX SMARTSENSOR MATRIX)	EACH	3
	730-02.09 SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	2
	730-02.08 SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED)	EACH	1
(4)	730-02.30 SIGNAL HEAD ASSEMBLY (130 A3 WITH BACKPLATE)	EACH	1
(5)	730-02.31 SIGNAL HEAD ASSEMBLY (140 A3 WITH BACKPLATE)	EACH	2
(5)	730-02.32 SIGNAL HEAD ASSEMBLY (140 A3V POLE MOUNTED)	EACH	1
	730-03.21 INSTALL PULL BOX (TYPE B)	EACH	7
	730-08.01 SIGNAL CABLE - 3 CONDUCTOR	L.F.	3450
	730-08.02 SIGNAL CABLE - 5 CONDUCTOR	L.F.	2660
	730-08.03 SIGNAL CABLE - 7 CONDUCTOR	L.F.	2710
	730-12.02 CONDUIT 2" DIAMETER (PVC)	L.F.	475
	730-12.13 CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	105
(6)	730-16.02 EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(7)	730-23.30 PEDESTAL POLE (GALVANIZED STEEL)	EACH	4
(7)	730-23.88 CANTILEVER SIGNAL SUPPORT (1 ARM @ 45')	EACH	1
(7)	730-23.96 CANTILEVER SIGNAL SUPPORT (1 ARM @ 50')	EACH	1
(8)	730-26.07 FLASHING WARNING BEACON (HARD WIRED)	EACH	1
	730-26.10 PEDESTRIAN SIGNAL HEAD W/PUSHBUTTON & 15IN SIGN	EACH	4

FOOTNOTES:

- (1) INCLUDES THE REMOVAL OF THE YIELD SIGN SHOWN ON SHEET T-1.
- (2) INCLUDES MOUNTING HARDWARE FOR SIGN TO BE MOUNTED ON OVERHEAD SIGN POST.
- (3) ITEM INCLUDES MOUNTING HARDWARE FOR SIGN TO BE MOUNTED ON MAST ARM.
- (4) SIGNAL HEAD CONSISTS OF LEFT TURN ARROWS.
- (5) SIGNAL HEAD CONSISTS OF THREE (3) RIGHT TURN ARROWS.
- (6) THE SIGNAL CONTROLLER SHALL BE AN 8 PHASE SIEMENS SEPAC M60 WITH BOTH ACTUATED AND COORDINATED CAPABILITY IN ACCORDANCE WITH TDOT AND CITY OF FRANKLIN SPECIFICATIONS.
- (7) INCLUDES EQUIPMENT AND INSTALLATION OF FOUNDATION, MOUNTING POLE, AND MAST ARM. SUPPORT POLES AND MAST ARMS SHALL BE BLACK.
- (8) INCLUDES COMPLETE INSTALLATION OF FLASHING ASSEMBLY MOUNTED ABOVE ITEM 713-16.20 ON CANTILEVER SIGN POLE.

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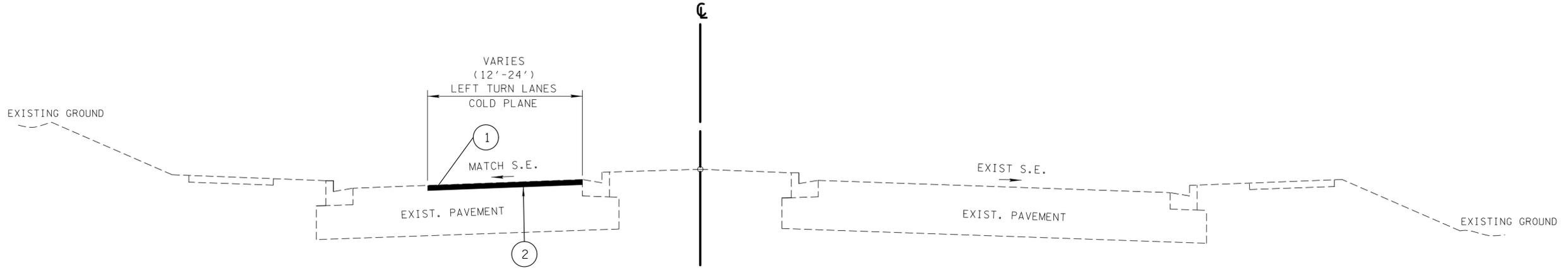


**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**SIGNAL
QUANTITIES**

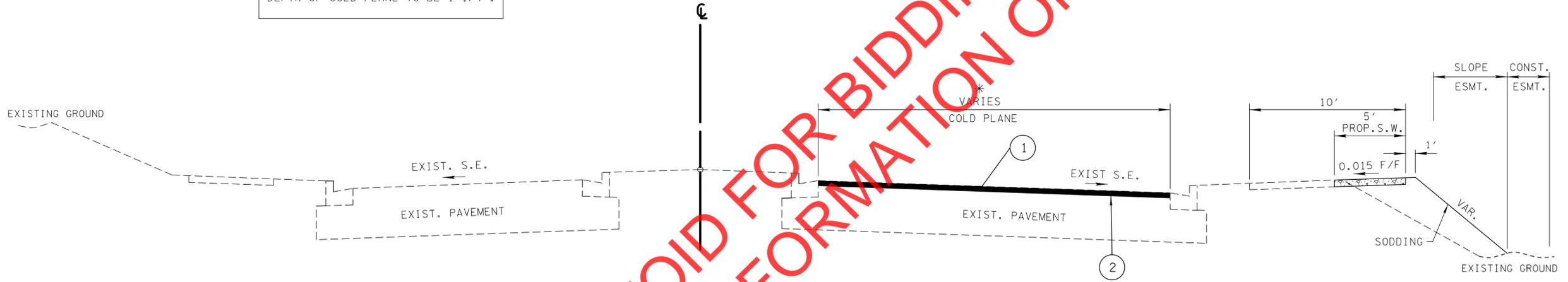
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2B



TANGENT SECTION
 (BASED ON STD. DWG. RD01-TS-6A)
 STA. 115+87.26 TO STA. 120+92.48 MCEWEN DRIVE (LT)

NOTE :
 DEPTH OF COLD PLANE TO BE 1 1/4".

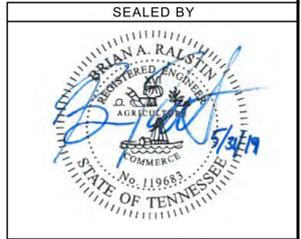


TANGENT SECTION
 (BASED ON STD. DWG. RD01-TS-6A)
 * STA. 106+85.00 TO STA. 113+38.02 MCEWEN DRIVE (RT)
 STA. 107+12.07 TO STA. 119+50.00 MCEWEN DRIVE (RT)

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PROPOSED PAVEMENT SCHEDULE	
<p>① ASPHALTIC CONCRETE SURFACE AT 1.25 IN. THICK (APPROX. 132.5 LBS /SY) ITEM NO. 411-03.10 ACS MIX (PG76-22) GRADING "D"</p>	<p>④ CONCRETE SURFACE COURSE AT 9 IN. THICK ITEM NO. 501-01.02 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 9"</p>
<p>② TACK COAT ITEM NO. 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (APPROX. 0.05 - 0.10 GAL/SY.) GENERAL USE (APPROX. 0.08 - 0.12 GAL/SY.) MILLING - COLD PLANE</p>	<p>⑤ TREATED PERMEABLE BASE COURSE 4" ITEM NO. 313-03 TREATED PERMEABLE BASE</p>
<p>③ HIGH FRICTION SURFACE TREATMENT ITEM NO. 406-04.03 HIGH FRICTION SURFACE TREATMENT (SINGLE LIFT) ** ITEM NO. 406-04.04 HIGH FRICTION SURFACE TREATMENT (DOUBLE LIFT)</p>	<p>⑥ MINERAL AGGREGATE BASE COURSE AT 6 IN THICK (ROADWAY) ITEM NO. 303-01 MINERAL AGGREGATE TYPE A BASE, GRADING "D"</p>

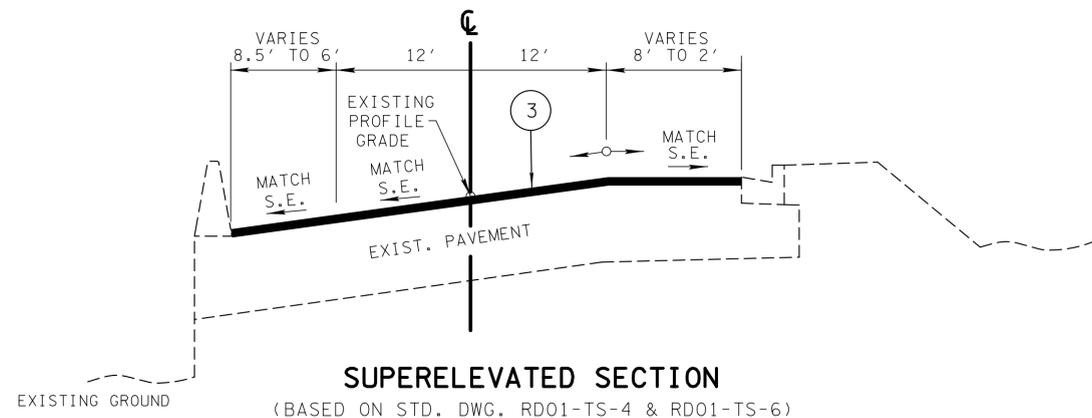
** TO BE USED ON BRIDGE



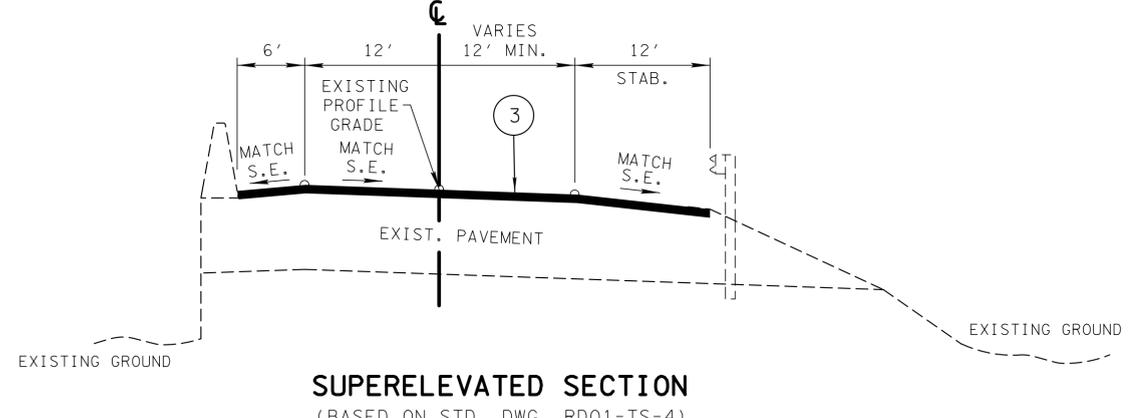
CITY OF FRANKLIN
 ENGINEERING DEPARTMENT

TYPICAL
 SECTIONS
 AND
 PAVEMENT
 SCHEDULE

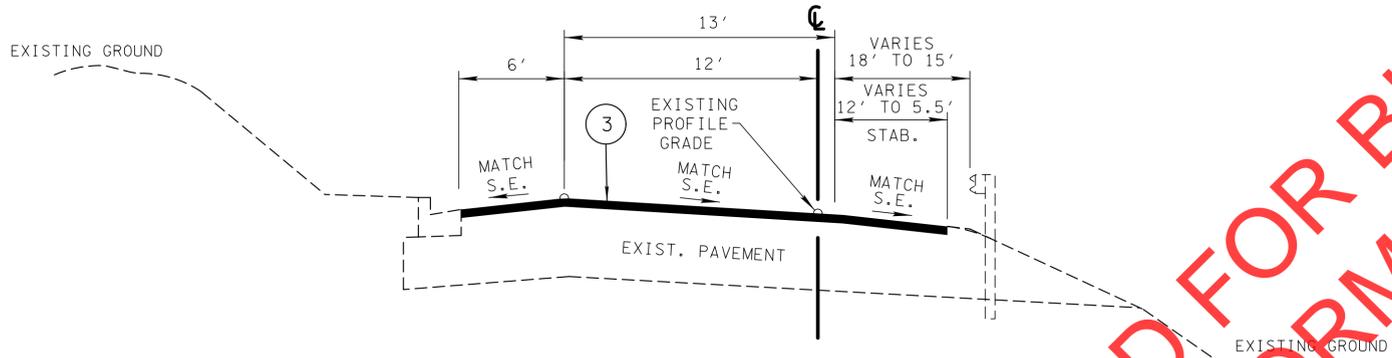
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2B1



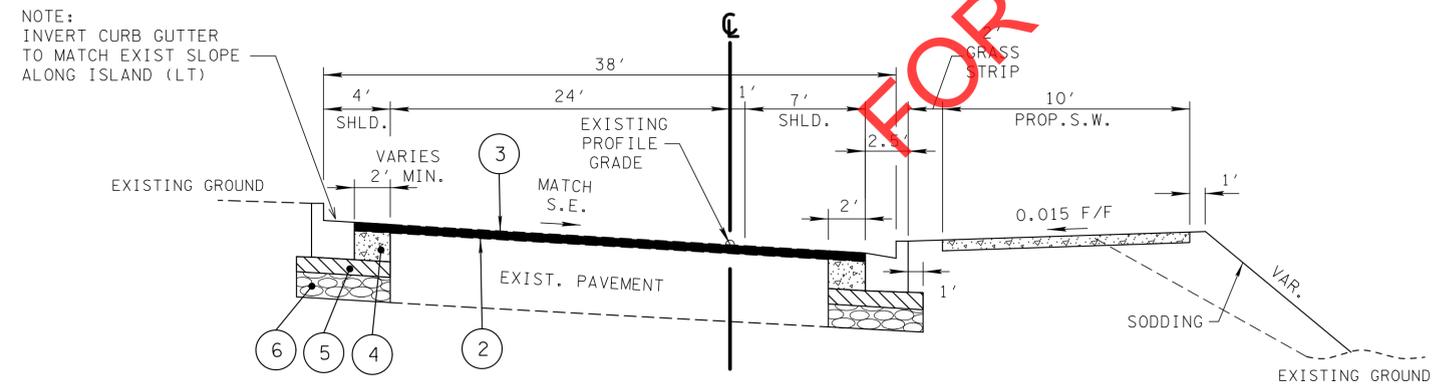
SUPERELEVATED SECTION
 (BASED ON STD. DWG. RD01-TS-4 & RD01-TS-6)
 STA. 551+98.12 TO STA. 553+69.29 RAMP "B"



SUPERELEVATED SECTION
 (BASED ON STD. DWG. RD01-TS-4)
 STA. 553+69.29 TO STA. 555+55.00 RAMP "B"

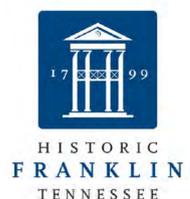
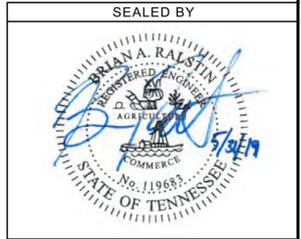


SUPERELEVATED SECTION
 (BASED ON STD. DWG. RD01-TS-4 & RD01-TS-6)
 STA. 502+61.60 TO STA. 504+67.71 RAMP "A"



TANGENT SECTION
 (BASED ON STD. DWG. RD01-TS-4 & RD01-TS-6)
 STA. 501+08.42 TO STA. 502+61.60 RAMP "A"

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**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**TYPICAL
SECTIONS
AND
PAVEMENT
SCHEDULE**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2C

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) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- (3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WITHOUT APPROVAL BY FEMA. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- (1) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.

DRAINAGE

- (1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

MISCELLANEOUS

- (1) 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.

ROAD CLOSURE

- (1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS

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

FINAL PAVEMENT MARKING

- (2) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.
- (3) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE

END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

- (4) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 8" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.03, ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE), L.F. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

PAVEMENT

PAVING

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

RESURFACING

- (2) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE ENGINEER.

SIGNING

- (1) 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.
- (2) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM THE CROSS SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE TRAFFIC OPERATIONS DIVISION, SIGNING SECTION, TELEPHONE NO. (615)-741-0802. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.
- (3) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (4) 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.
- (5) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. ONE PDF SET OF THE LAYOUT DRAWINGS SHALL BE SENT TO THE CITY OF FRANKLIN (adam.moser@franklin.tn.gov) FOR REVIEW.
- (6) 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.
- (7) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- (8) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.
- (9) 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.

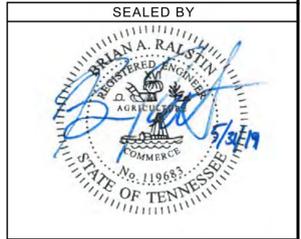
- (10) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (5) USE OF BARRICADES, PORTABLE BARRIER RAILS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (6) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.
- (9) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. COST TO BE INCLUDED IN ITEM NO. 105-01. THE CONTRACTOR SHALL CHECK WITH THE CITY OF FRANKLIN TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT SIGNS.

WORK ZONE SODDING ONLY



CITY OF FRANKLIN
ENGINEERING DEPARTMENT



GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2C1

GENERAL NOTES

LIGHTING

- INSTALLATION AND MATERIALS SHALL COMPLY WITH SECTIONS 714 AND 917 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JANUARY 1, 2015 AND WITH THE LATEST REVISIONS TO THE NATIONAL ELECTRIC CODE, NFPA 70.
- ALL WIRING SHALL BE CONCEALED UNDERGROUND IN 2-INCH SCHEDULE 40 PVC RIGID CONDUIT.
- THE GROUND WIRE SHALL BE RUN INSIDE CONDUIT WITHIN STRUCTURES, SHALL BE COLORED GREEN AND HAVE THW INSULATION.
- EXISTING FOUNDATIONS TO BE REMOVED A MINIMUM OF SIX INCHES BELOW GRADE.
- ALL INCIDENTAL EQUIPMENT AND MATERIAL REQUIRED FOR THE SUCCESSFUL EXECUTION OF THIS WORK SHALL BE FURNISHED IN 714 ITEMS WHETHER SPECIFICALLY NOTED OR NOT.
- LIGHT STANDARDS SHALL BE ROUND TAPERED POLES. LENGTH SHALL BE DETERMINED BY REQUIRED MOUNTING HEIGHT.
- STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.
- STANDARDS SHALL BE DESIGNED FOR 80-MPH WIND PRESSURE AND SHALL SUPPORT A 62-POUND LUMINAIRE ON A 15-FOOT ARM.
- ALL NEW ROADWAY LIGHT STANDARDS SHALL BE MOUNTED ON BASES WITH ACCESS DOOR. TRANSFORMER BASES SHALL MEET AASHTO SPECIFICATIONS AND HAVE FHWA APPROVAL. STANDARDS SHALL BE ALUMINUM WITH TRANSFORMER BASES.
- BRACKET ARMS SHALL BE ROUND TAPERED TRUSS TYPE WITH STRAP MOUNTING AND LENGTHS AS SCHEDULED.
- BRACKET ARM UPSWEEP SHALL BE THE SAME FOR ALL LIGHT STANDARDS OF THE SAME TYPE.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- IF DISTURBED ACREAGE IS EQUAL TO ONE ACRE OR MORE, PLEASE CONTACT THE CITY OF FRANKLIN, PERMITS SECTION AS SOON AS POSSIBLE BECAUSE AN NPDES PERMIT WILL BE REQUIRED.
- AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES.
- PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 14 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS APPLIED.
- CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

SEDIMENT CONTROL

- EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE/DURING A PRECIPITATION EVENT.
- THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS

OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE NEGOTIATED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

- OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL-VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

NATURAL RESOURCES

- SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCK PILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS, WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.
- INSTREAM EPSC DEVICES REQUIRE THE CITY OF FRANKLIN'S REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.
- THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.
- THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.
- STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS

TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

- HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.
- WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.
- THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR CITY OF FRANKLIN INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE CITY OF FRANKLIN ENGINEERING DEPARTMENT IMMEDIATELY.

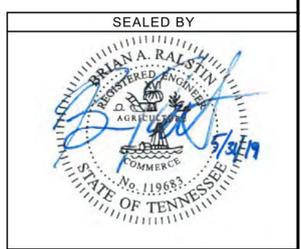
SPECIES

- NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.
- SHOULD CLIFF SWALLOW OR BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) BE PRESENT, THE CONTRACTOR SHALL CONTACT THE REGIONAL ECOLOGY OFFICE TO DETERMINE IF SEASONAL RESTRICTIONS WILL BE NECESSARY. GENERALLY, BIRDS, NESTS, AND EGGS MAY NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS CAN BE REMOVED OR DESTROYED SO LONG AS BIRDS OR EGGS ARE NOT PRESENT, AND MEASURES IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (I.E., CLOSING OFF AREA USING NETTING).
- IF THE REMOVAL OF ANY TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) GREATER THAN 3 INCHES IS DEEMED NECESSARY THE CITY OF FRANKLIN SHALL BE CONTACTED IMMEDIATELY.

INSPECTION, MAINTENANCE & REPAIR

- THE CITY OF FRANKLIN CONSTRUCTION SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S RESPONSIBLE PARTY ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CITY OF FRANKLIN CONSTRUCTION SUPERVISOR OR THEIR DESIGNEE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.
- THE CITY OF FRANKLIN CONSULTANTS AND CONTRACTOR STAFF RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. CITY OF FRANKLIN STAFF AND SUPERVISORS RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDOT "FUNDAMENTALS OF EROSION AND SEDIMENT CONTROL" CLASS AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION.
- EPSC CONTROLS SHALL BE INSPECTED ACCORDING TO PERMIT REQUIREMENTS TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT.

FOR INFORMATION ONLY



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**



**GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2C2

GENERAL NOTES

- (26) DISCHARGE POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE ROADWAY SEDIMENT TRACKING.
- (27) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24 HOUR TIMEFRAME, WRITTEN DOCUMENTATION SHALL BE PROVIDED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (28) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES SHALL BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- (29) THE EPSC PLAN SHALL BE UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.
- (30) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

EROSION PREVENTION

- (31) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (32) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (33) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE CITY OF FRANKLIN'S RESPONSIBLE PARTY. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN.
- (34) TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION MEASURES IN DISTURBED AREAS SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY PHASE OF CONSTRUCTION.
- (35) STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT.
- (36) PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (37) TEMPORARY OR PERMANENT STABILIZATION MUST BE FREE OF FINES (SILT AND CLAY SIZED PARTICLES). UNPACKED GRAVEL CONTAINING

FINES OR CRUSHER-RUN WILL NOT BE CONSIDERED SUFFICIENT STABILIZATION.

- (38) DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

PERMITS, PLANS & RECORDS

- (39) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE CITY OF FRANKLIN'S PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).
- (40) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF FRANKLIN PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (41) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION INCLUDING VALUE ENGINEERING, THE CITY OF FRANKLIN SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (42) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE CITY OF FRANKLIN PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.
- (43) ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.
- (44) THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER A CHANGE IN THE DESIGN OR CONSTRUCTION OF THE PROJECT OCCURS. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL PHASES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLANS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS PHASES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

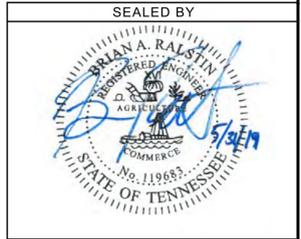
GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (45) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (46) 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. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.

- (47) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
 - (48) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.
 - (49) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
 - (50) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
 - (51) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
 - (52) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
 - (53) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
 - (54) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
 - (55) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
 - (56) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF EERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.
- ## SUPPORT ACTIVITIES
- (57) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE CITY OF FRANKLIN PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

NOT FOR CONSTRUCTION ONLY



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**



**GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2C3

GENERAL NOTES

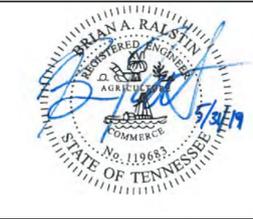
- (58) IF OFFSITE BORROW AND WASTE AREAS BECOME NECESSARY DURING THE LIFE OF THE PROJECT, THIS SUPPORT ACTIVITY SHALL BE ADDRESSED PER THE TDOT WASTE AND BORROW MANUAL.
- (59) MATERIALS AND STAGING AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN.
- (60) IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY EPSC PLANS FOR THE MATERIAL AND STAGING AREAS TO THE ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW.

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

- (61) ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (62) FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- (63) APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.
- (64) ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- (65) THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- (66) IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- (67) FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- (68) IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE CITY OF FRANKLIN PROJECT RESPONSIBLE PARTY. 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.
- (69) WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR100000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.
- (70) CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE CITY OF FRANKLIN PROJECT RESPONSIBLE PARTY PRIOR TO STORING 1320 GALLONS ON SITE.

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CITY OF FRANKLIN
ENGINEERING DEPARTMENT



HISTORIC
FRANKLIN
TENNESSEE

GENERAL
NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2D

PAVEMENT QUANTITIES							
LOCATION	PAY ITEMS						
	303-01 (TON)	313-03 (S.Y.)	403-01 (TON)	406-04.03 (S.Y.)	406-04.04 (S.Y.)	411-03.10 (S.Y.)	501-01.02 (S.Y.)
MCEWEN DRIVE			3			400	
RAMP "A"	129	380		1213			230
RAMP "B"	11	12		632	492		11
TOTALS	140	392	3	1845	492	400	241

REMOVAL OF RIGID PAVEMENT, ETC.				
SHEET NO.	STATION	LOCATION	DESCRIPTION	202-03 S.Y.
5	107+30 RT.	MCEWEN DR.	SIDEWALK	10
4	112+50 RT.	MCEWEN DR.	CURB RAMP AND SIDEWALK	112
4	112+21 RT.	RAMP A	CURB RAMP AND SIDEWALK	27
4	VARIES	RAMP B	EX. RUBMLE STRIP PAVEMENT	11
			TOTAL	160

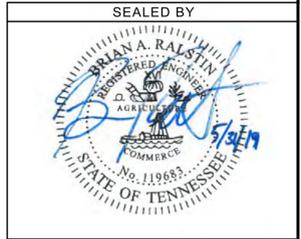
RELOCATED LIGHT STANDARDS			
SHEET NO.	STATION	LOCATION	COMMENTS
5A	108+43.35, 82.50' RT	MCEWEN DR.	REMOVE AND RELOCATE EXIST. LIGHT STANDARD
4A	110+23.53, 85.64' RT	MCEWEN DR.	REMOVE AND RELOCATE EXIST. LIGHT STANDARD
4A	501+32.94, 24.00' RT	RAMP A	REMOVE AND RELOCATE EXIST. LIGHT STANDARD

EARTHWORK	
EXC. (INCL.)	171 C.Y. COMMON EXC.
EMBANKMENT	57 C.Y.
SHRINKAGE 15%	
SWELL 15%	
$\frac{171}{1.15}$	VS 57 C.Y.
149 C.Y.	VS 57 C.Y.
92 C.Y.	EXCESS MATERIAL

NOTE:
THE EXCESS MATERIAL IS UNSUITABLE FOR EMBANKMENT UNLESS THE ENGINEER DEEMS THE MATERIAL SUITABLE.

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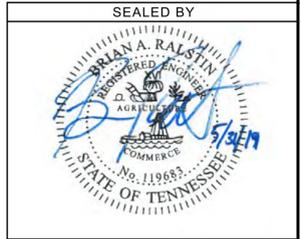
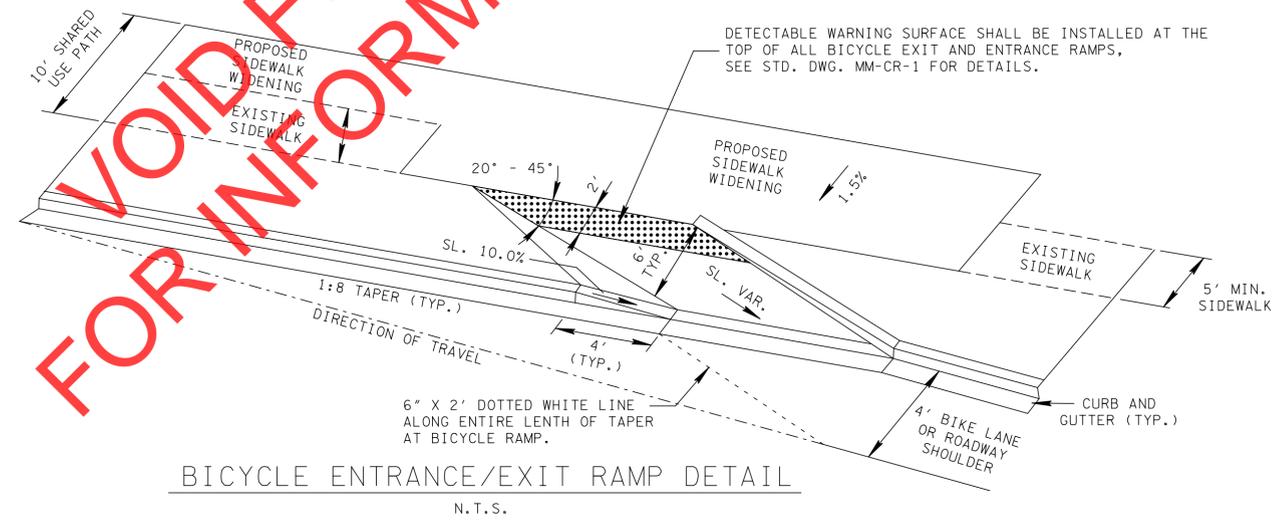
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CITY OF FRANKLIN
ENGINEERING DEPARTMENT



TABULATED
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	2E

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FOR INFORMATION ONLY



CITY OF FRANKLIN
ENGINEERING DEPARTMENT



DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	3

UTILITY OWNERS

MIDDLE TN ELECTRIC MEMBERSHIP CORP.
2156 EDWARD CURD LANE
FRANKLIN, TN 37064
ATTN: DERRICK LYNCH
PH (615) 595-4669
EMAIL: DERRICK.LYNCH@MTEMC.COM

CITY OF FRANKLIN - WATER MANAGEMENT DEPARTMENT
124 LUMBER DRIVE
FRANKLIN, TN 37064
ATTN: MICHELLE HATCHER
PH (615) 794-4554
EMAIL: MICHELLE.HATCHER@FRANKLINTN.GOV

ATMOS ENERGY - GAS
810 CRESCENT CENTRE DRIVE
SUITE 600
FRANKLIN, TN 37067
ATTN: RYAN BATES
PH (615) 771-8311
EMAIL: RYAN.BATES@ATMOSENERGY.COM

MALLORY VALLEY UTILITY
465 DUKE DRIVE
FRANKLIN, TN 37067
ATTN: JENNY CLARKE
PH (615) 628-0237
EMAIL: JCLARKE@MVUD.ORG

COMCAST CABLE COMMUNICATIONS
660 MAINSTREAM DRIVE
NASHVILLE, TN 37228
ATTN: RUSTY HOLLOWAY
PH (615) 244-7462 EXT. 1115471
EMAIL: RUSSELL_HOLLOWAY@CABLE.COMCAST.COM

AT&T - OUTSIDE PLAN ENGINEERING
333 COMMERCE STREET
NASHVILLE, TN 37201
ATTN: LEE KORNEGAY
PH (615) 214-7318
EMAIL: KK4096@ATT.COM

LEVEL 3 COMMUNICATIONS, INC
105A WILHOIT STREET
CRAWFORDSVILLE, IN 47933
ATTN: TIM HILL
PH (704) 733-3204
EMAIL: TIM.HILL@CENTURYLINK.COM

CITY OF FRANKLIN FIBER OPTICS
109 3RD AVE SOUTH
FRANKLIN, TN 37064
ATTN: MIKE PROCTOR
PH (615) 289-1036
EMAIL: MIKEP@FRANKLINTN.GOV

ZAYO BANDWIDTH
209 10TH AVENUE SOUTH
SUITE 100
NASHVILLE, TN 37203
ATTN: JUSTIN CLARY
PH (615) 430-6711
EMAIL: JUSTIN.CLARY@ZAYO.COM

TDOT ITS
505 DEADERICK STREET
JAMES K. POLK BLDG, 18TH FLOOR
NASHVILLE, TN 37243
ATTN: VEDA NGUYEN, PE
PH (615) 532-0421
EMAIL: VEDA.NGUYEN@TN.GOV

RIGHT-OF-WAY

- ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.
- EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.
- WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.
- WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.
- ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.
- TRACT REMAINDERS NOT HAVING AN EXISTING DRIVEWAY WILL BE PROVIDED ONE 50-FOOT OPENING IN THE ACCESS CONTROL FENCE AND A DRIVEWAY WILL BE CONSTRUCTED UNLESS ACCESS IS PROVIDED FROM AN INTERSECTING ROAD OR BASED ON PHYSICAL CONDITIONS AND/OR CONFLICTS WITH OTHER DESIGN CONSIDERATIONS WHICH PREVENT AN ACCESS OPENING. PAVING OF THESE NEW DRIVEWAYS WILL BE IN ACCORDANCE TO THE 7 PERCENT CRITERIA PREVIOUSLY MENTIONED FOR EXISTING DRIVEWAYS.
- NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.
- ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.
- ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.
- ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.
- EASEMENT REQUIRED FOR THE RAILROAD CROSSING IS TO BE OBTAINED BY THE UTILITIES ENGINEER BY PROVISIONS CONTAINED IN THE CROSSING AGREEMENT NEGOTIATED WITH THE RAILROAD.

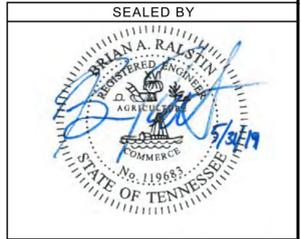
UTILITIES

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

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R.O.W. ACQUISITION TABLE

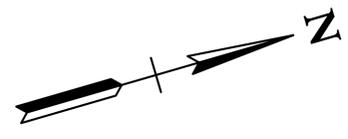
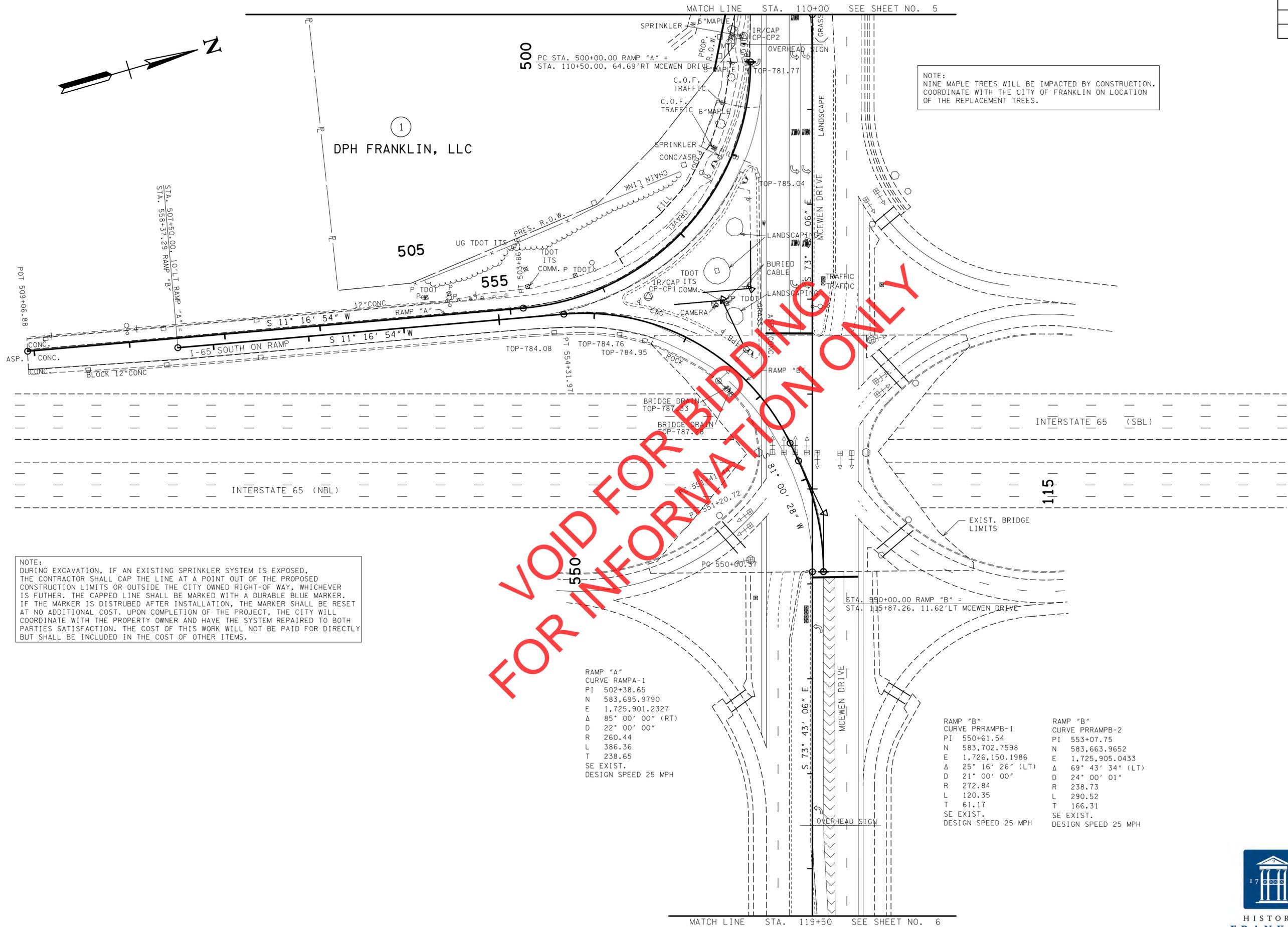
TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA (ACRES)			AREA TO BE ACQUIRED (ACRES)			AREA REMAINING (ACRES)		EASEMENT (ACRES)			
		TAX MAP NO.	PARCEL NO.	DEED DOCUMENT REFERENCE		LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	PERMANENT	SLOPE	CONSTRUCTION	AIR RIGHTS
				BOOK	PAGE												
1	DPH FRANKLIN, LLC	62	21.13	6269	979		6.702	6.702		871 S.F.	871 S.F.		6.682			2716 S.F.	



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

RIGHT-OF-WAY
NOTES,
UTILITY NOTES
AND
UTILITY OWNERS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	4



NOTE:
NINE MAPLE TREES WILL BE IMPACTED BY CONSTRUCTION.
COORDINATE WITH THE CITY OF FRANKLIN ON LOCATION
OF THE REPLACEMENT TREES.

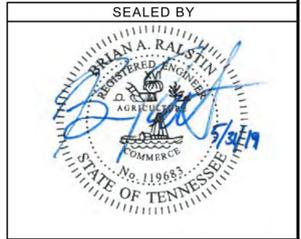
NOTE:
DURING EXCAVATION, IF AN EXISTING SPRINKLER SYSTEM IS EXPOSED,
THE CONTRACTOR SHALL CAP THE LINE AT A POINT OUT OF THE PROPOSED
CONSTRUCTION LIMITS OR OUTSIDE THE CITY OWNED RIGHT-OF WAY, WHICHEVER
IS FUTHER. THE CAPPED LINE SHALL BE MARKED WITH A DURABLE BLUE MARKER.
IF THE MARKER IS DISTURBED AFTER INSTALLATION, THE MARKER SHALL BE RESET
AT NO ADDITIONAL COST. UPON COMPLETION OF THE PROJECT, THE CITY WILL
COORDINATE WITH THE PROPERTY OWNER AND HAVE THE SYSTEM REPAIRED TO BOTH
PARTIES SATISFACTION. THE COST OF THIS WORK WILL NOT BE PAID FOR DIRECTLY
BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

COORDINATES ARE NAD/83(1995),
AND TIED TO THE TGRN. ALL
ELEVATIONS ARE REFERENCED
TO THE NAVD 1988. THERE IS
NO DATUM ADJUSTMENT
FACTOR.

RAMP "A"
CURVE RAMP A-1
PI 502+38.65
N 583,695.9790
E 1,725,901.2327
Δ 85° 00' 00" (RT)
D 22° 00' 00"
R 260.44
L 386.36
T 238.65
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMPB-1
PI 550+61.54
N 583,702.7598
E 1,726,150.1986
Δ 25° 16' 26" (LT)
D 21° 00' 00"
R 272.84
L 120.35
T 61.17
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMPB-2
PI 553+07.75
N 583,663.9652
E 1,725,905.0433
Δ 69° 43' 34" (LT)
D 24° 00' 01"
R 238.73
L 290.52
T 166.31
SE EXIST.
DESIGN SPEED 25 MPH



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

PRESENT
LAYOUT

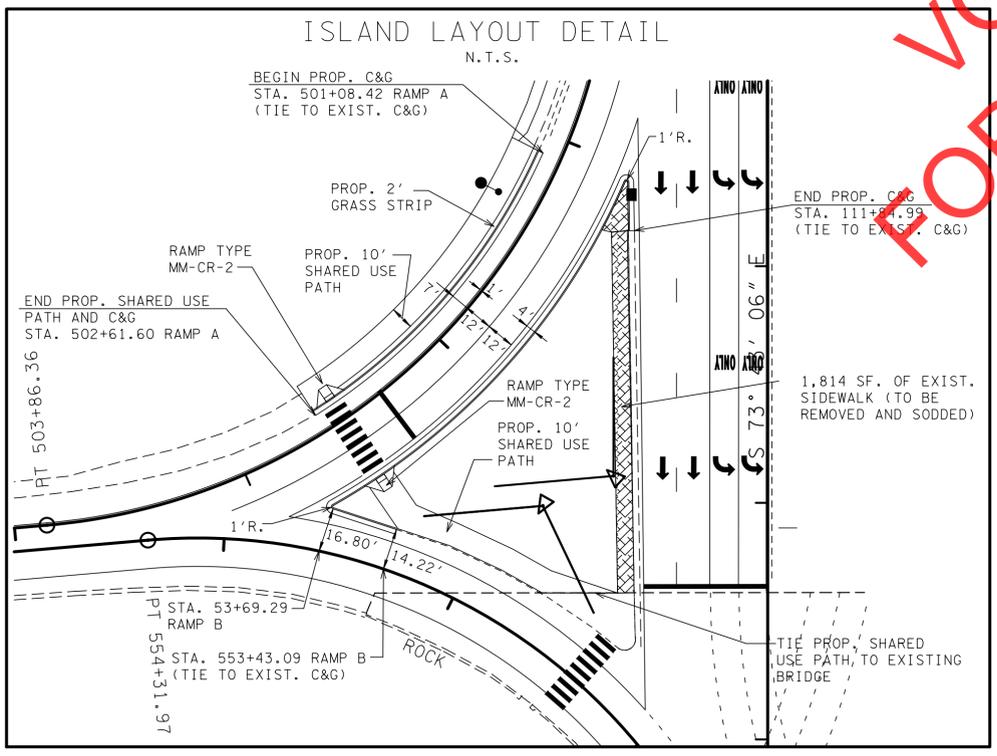
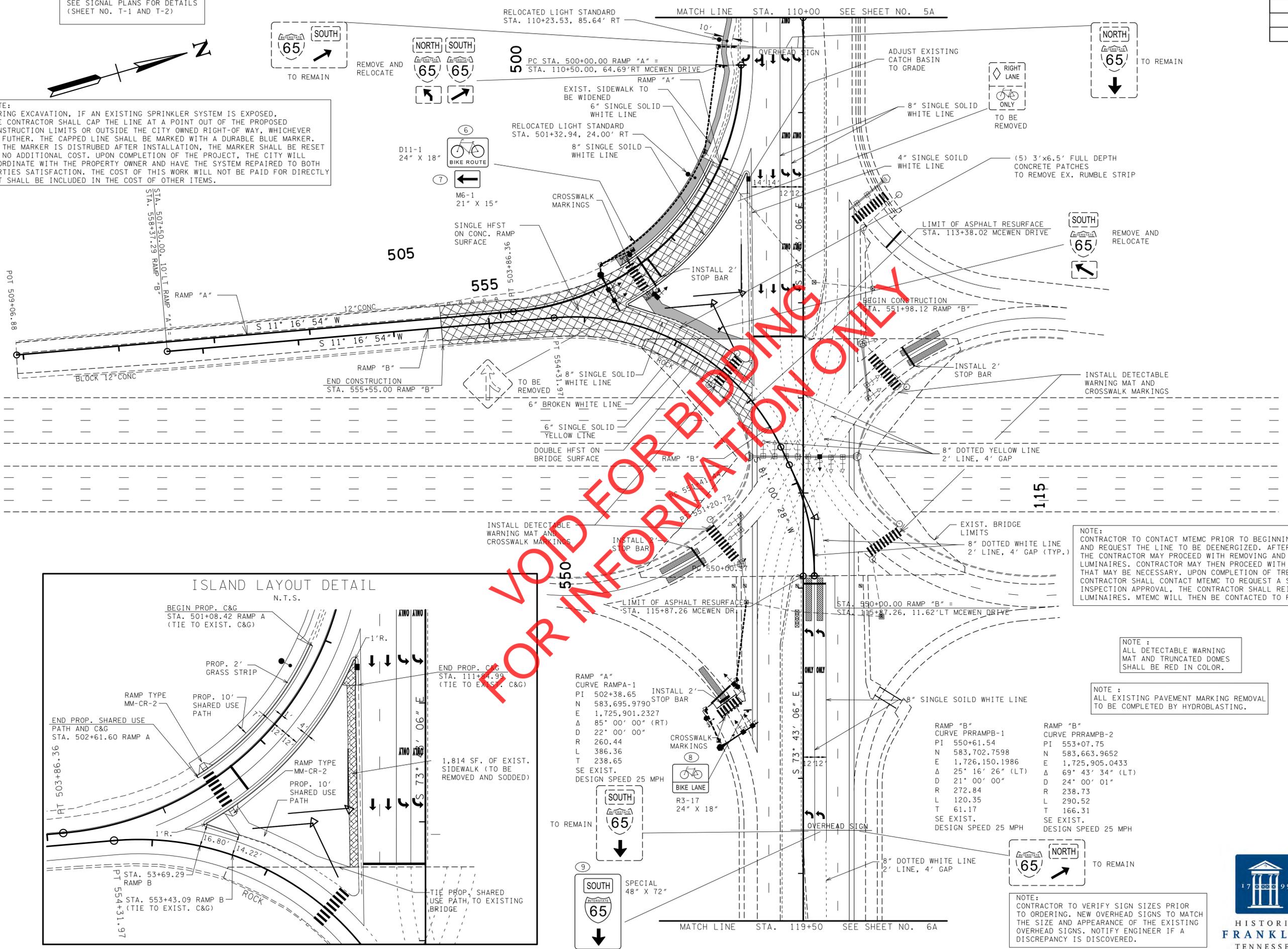
STA. 110+00 TO STA. 119+50
SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	4A

NOTE:
SEE SIGNAL PLANS FOR DETAILS
(SHEET NO. T-1 AND T-2)

NOTE:
DURING EXCAVATION, IF AN EXISTING SPRINKLER SYSTEM IS EXPOSED, THE CONTRACTOR SHALL CAP THE LINE AT A POINT OUT OF THE PROPOSED CONSTRUCTION LIMITS OR OUTSIDE THE CITY OWNED RIGHT-OF-WAY, WHICHEVER IS FURTHER. THE CAPPED LINE SHALL BE MARKED WITH A DURABLE BLUE MARKER. IF THE MARKER IS DISTURBED AFTER INSTALLATION, THE MARKER SHALL BE RESET AT NO ADDITIONAL COST. UPON COMPLETION OF THE PROJECT, THE CITY WILL COORDINATE WITH THE PROPERTY OWNER AND HAVE THE SYSTEM REPAIRED TO BOTH PARTIES SATISFACTION. THE COST OF THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.



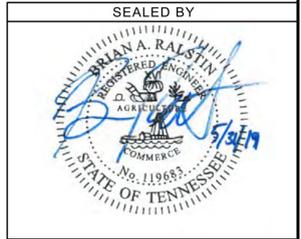
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NOTE:
CONTRACTOR TO CONTACT MTEM PRIOR TO BEGINNING ANY WORK ON LIGHTING FACILITIES AND REQUEST THE LINE TO BE DEENERGIZED. AFTER MTEM HAS DEENERGIZED THE LINE, THE CONTRACTOR MAY PROCEED WITH REMOVING AND PROTECTING THE EXISTING POLES AND LUMINAIRES. CONTRACTOR MAY THEN PROCEED WITH ANY TRENCHING AND FOUNDATION WORK THAT MAY BE NECESSARY. UPON COMPLETION OF TRENCHING AND FOUNDATION WORK, THE CONTRACTOR SHALL CONTACT MTEM TO REQUEST A SITE INSPECTION. UPON RECEIPT OF INSPECTION APPROVAL, THE CONTRACTOR SHALL REINSTALL THE EXISTING POLES AND LUMINAIRES. MTEM WILL THEN BE CONTACTED TO REENERGIZE THE LINE.

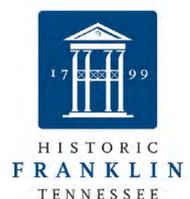
NOTE:
ALL DETECTABLE WARNING MAT AND TRUNCATED DOMES SHALL BE RED IN COLOR.

NOTE:
ALL EXISTING PAVEMENT MARKING REMOVAL TO BE COMPLETED BY HYDROBLASTING.

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



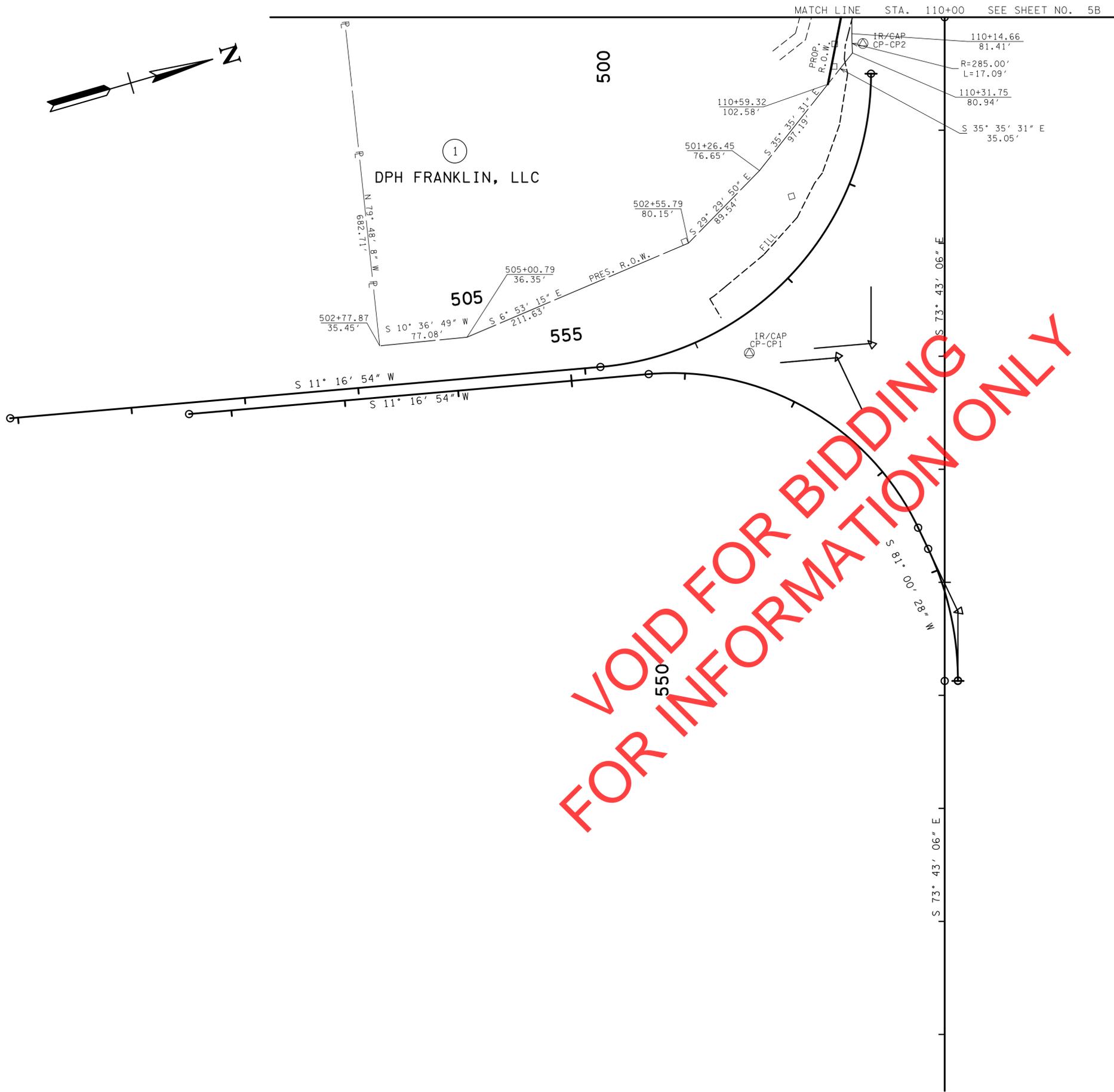
CITY OF FRANKLIN
ENGINEERING DEPARTMENT



PROPOSED LAYOUT
STA. 110+00 TO STA. 119+50
SCALE: 1"= 50'

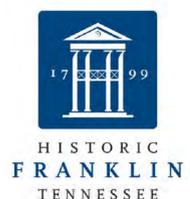
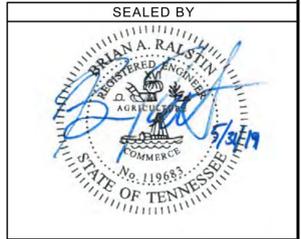
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	4B



115

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

RIGHT-OF-WAY
DETAILS

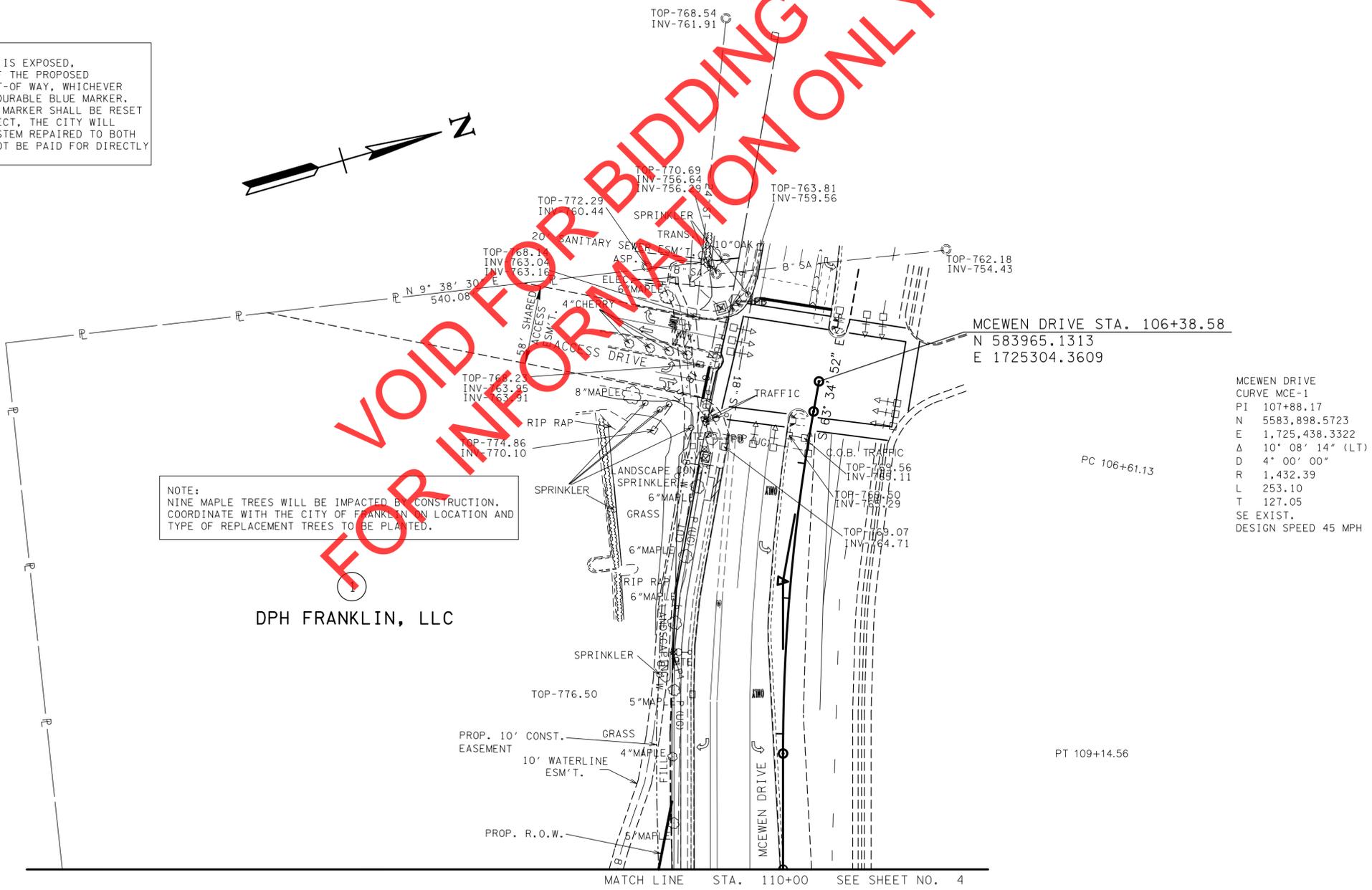
STA. 110+00 TO STA. 119+50
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	5

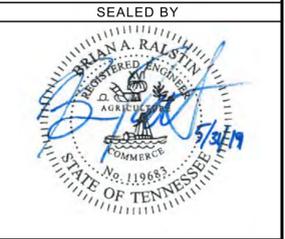
NOTE:
 DURING EXCAVATION, IF AN EXISTING SPRINKLER SYSTEM IS EXPOSED, THE CONTRACTOR SHALL CAP THE LINE AT A POINT OUT OF THE PROPOSED CONSTRUCTION LIMITS OR OUTSIDE THE CITY OWNED RIGHT-OF-WAY, WHICHEVER IS FURTHER. THE CAPPED LINE SHALL BE MARKED WITH A DURABLE BLUE MARKER. IF THE MARKER IS DISTURBED AFTER INSTALLATION, THE MARKER SHALL BE RESET AT NO ADDITIONAL COST. UPON COMPLETION OF THE PROJECT, THE CITY WILL COORDINATE WITH THE PROPERTY OWNER AND HAVE THE SYSTEM REPAIRED TO BOTH PARTIES SATISFACTION. THE COST OF THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

NOTE:
 NINE MAPLE TREES WILL BE IMPACTED BY CONSTRUCTION. COORDINATE WITH THE CITY OF FRANKLIN ON LOCATION AND TYPE OF REPLACEMENT TREES TO BE PLANTED.

VOID FOR BIDDING
 FOR INFORMATION ONLY



DPH FRANKLIN, LLC

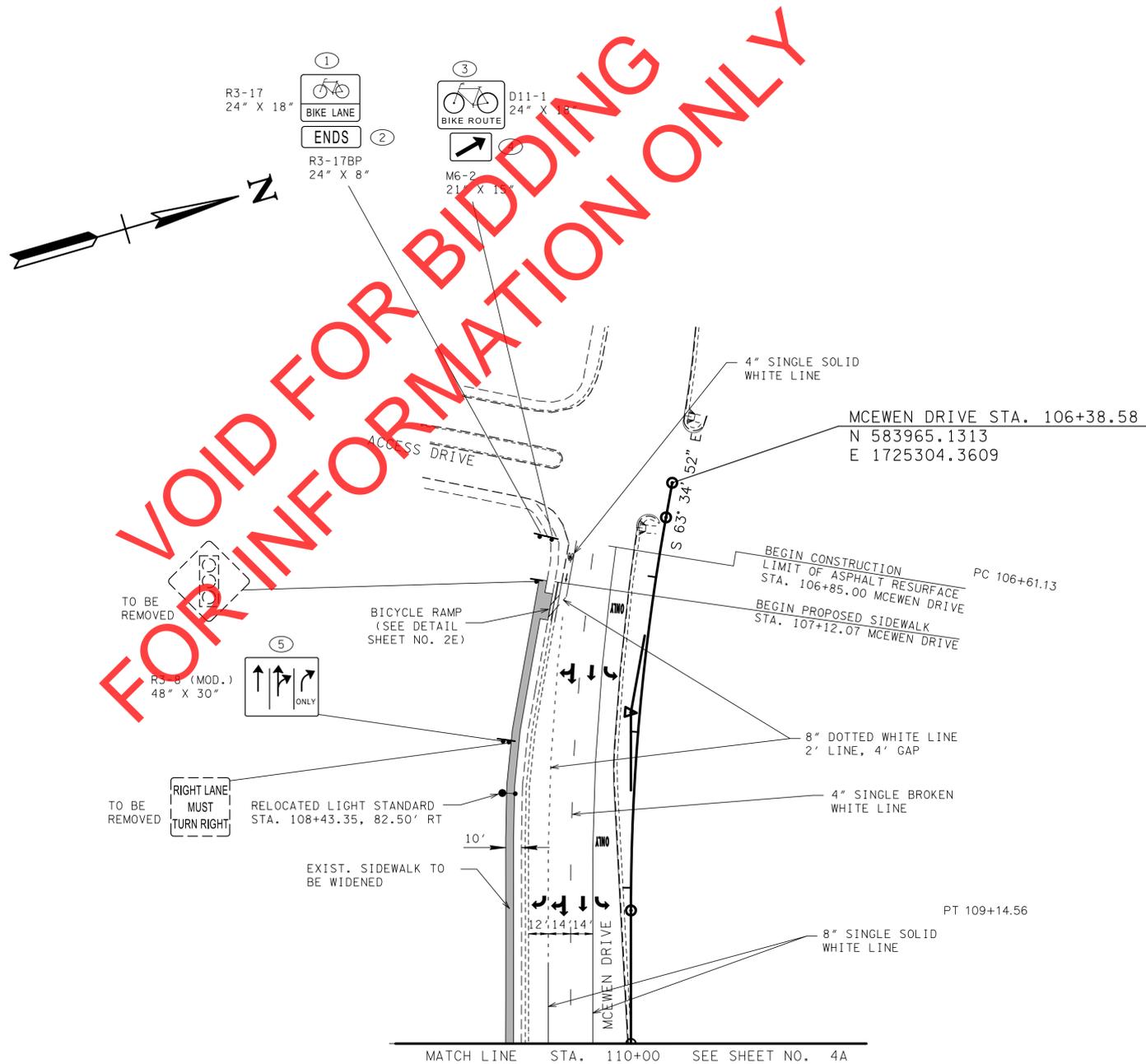


CITY OF FRANKLIN
 ENGINEERING DEPARTMENT

PRESENT LAYOUT
 STA. 106+38.58 TO STA. 110+00
 SCALE: 1"= 50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	5A

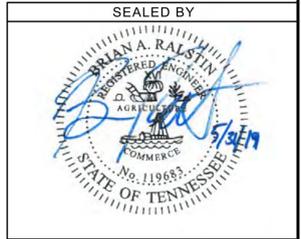


NOTE:
 DURING EXCAVATION, IF AN EXISTING SPRINKLER SYSTEM IS EXPOSED, THE CONTRACTOR SHALL CAP THE LINE AT A POINT OUT OF THE PROPOSED CONSTRUCTION LIMITS OR OUTSIDE THE CITY OWNED RIGHT-OF-WAY, WHICHEVER IS FURTHER. THE CAPPED LINE SHALL BE MARKED WITH A DURABLE BLUE MARKER. IF THE MARKER IS DISTURBED AFTER INSTALLATION, THE MARKER SHALL BE RESET AT NO ADDITIONAL COST. UPON COMPLETION OF THE PROJECT, THE CITY WILL COORDINATE WITH THE PROPERTY OWNER AND HAVE THE SYSTEM REPAIRED TO BOTH PARTIES SATISFACTION. THE COST OF THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

VOID FOR BIDDING
FOR INFORMATION ONLY

MCEWEN DRIVE
 CURVE MCE-1
 PI 107+88.17
 N 5583,898.5723
 E 1,725,438.3322
 Δ 10° 08' 14" (LT)
 D 4° 00' 00"
 R 1,432.39
 L 253.10
 T 127.05
 SE EXIST.
 DESIGN SPEED 45 MPH

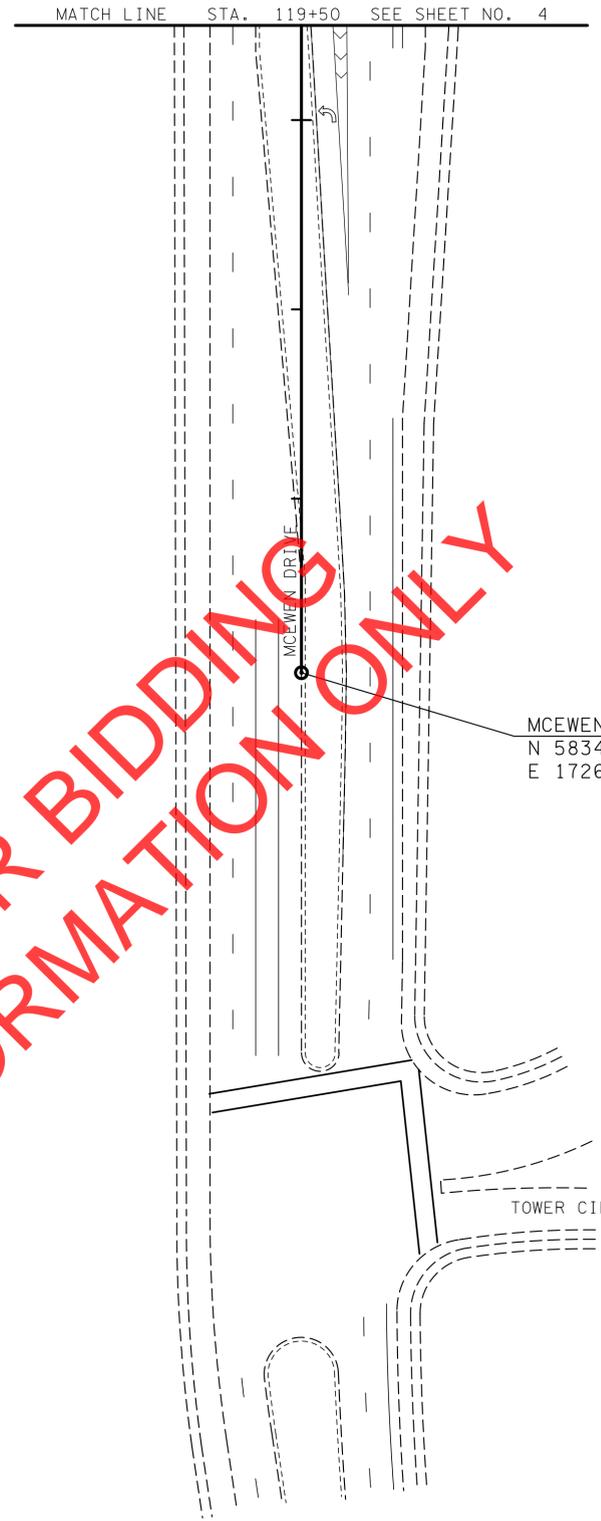
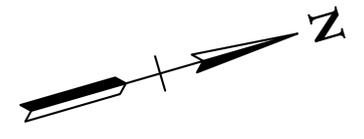
COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



CITY OF FRANKLIN
 ENGINEERING DEPARTMENT

PROPOSED LAYOUT
 STA. 106+38.58 TO STA. 110+00
 SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	6



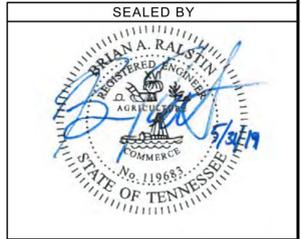
120

VOID FOR BIDDING
FOR INFORMATION ONLY

POT 122+91.97
MCEWEN DRIVE STA. 122+91.97
N 583476.7829
E 1726882.4547

TOWER CIRCLE

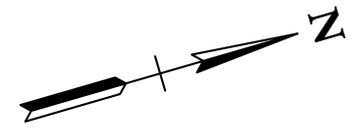
COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**PRESENT
LAYOUT**
STA. 119+50 TO STA. 122+91
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	6A



MATCH LINE STA. 119+50 SEE SHEET NO. 4A

120

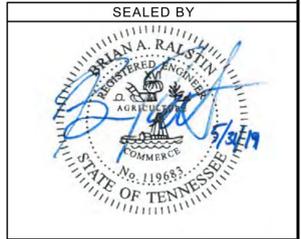
8" DOTTED WHITE LINE
2' LINE, 4' GAP

END CONSTRUCTION
LIMIT OF ASPHALT MILLING & RESURFACE
STA. 120+92.48 MCEWEN DR.

MCEWEN DRIVE STA. 122+91.97
N 583476.7829
E 1726882.4547

**VOID FOR BIDDING
FOR INFORMATION ONLY**

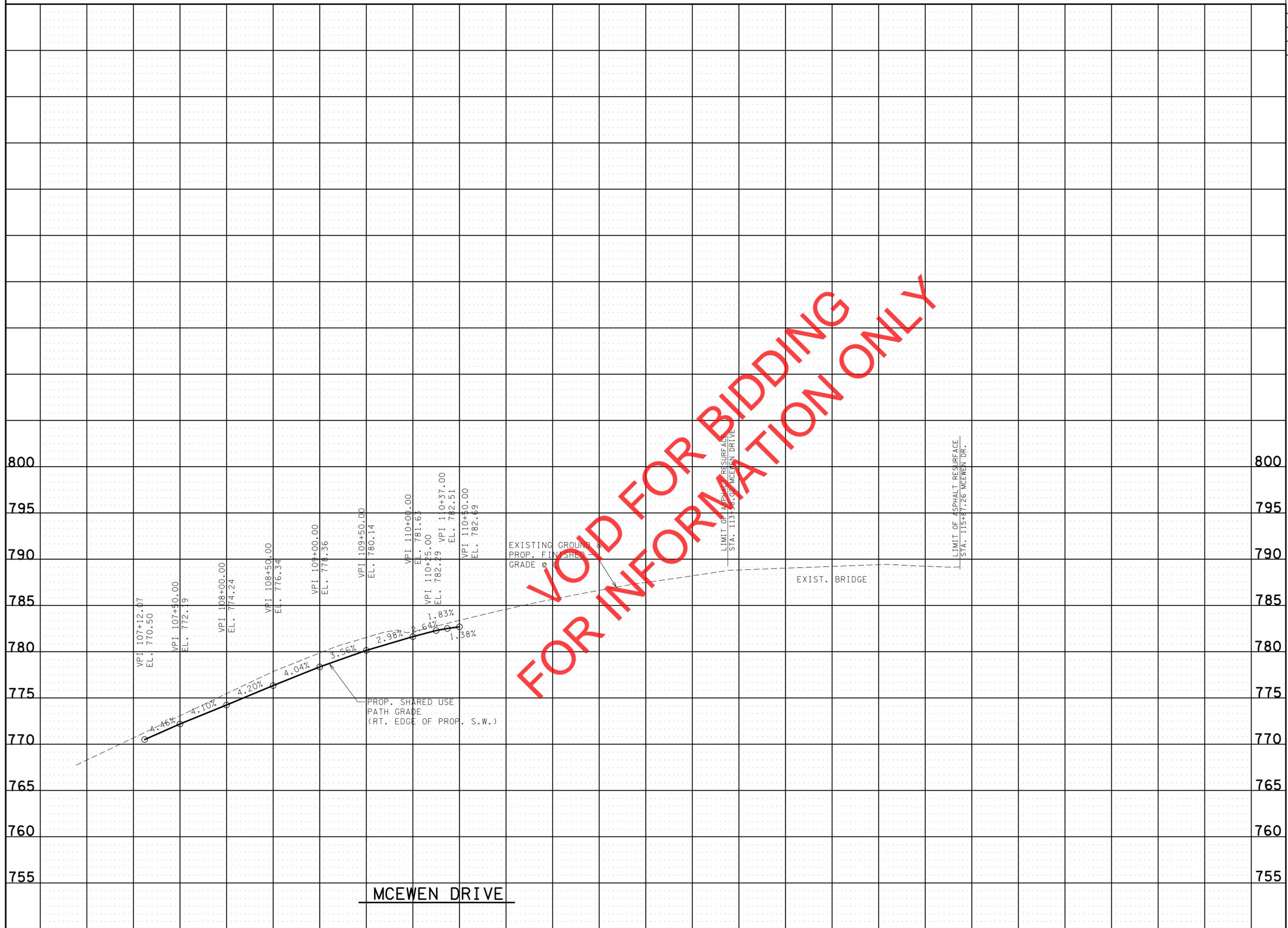
COORDINATES ARE NAD/83(1995),
AND TIED TO THE TGRN. ALL
ELEVATIONS ARE REFERENCED
TO THE NAVD 1988. THERE IS
NO DATUM ADJUSTMENT
FACTOR.



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

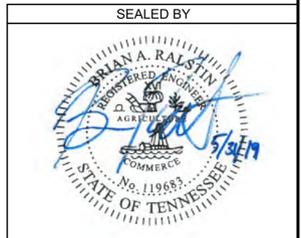
**PROPOSED
LAYOUT**
STA. 119+50 TO STA. 122+91
SCALE: 1"= 50'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	7



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FOR INFORMATION ONLY

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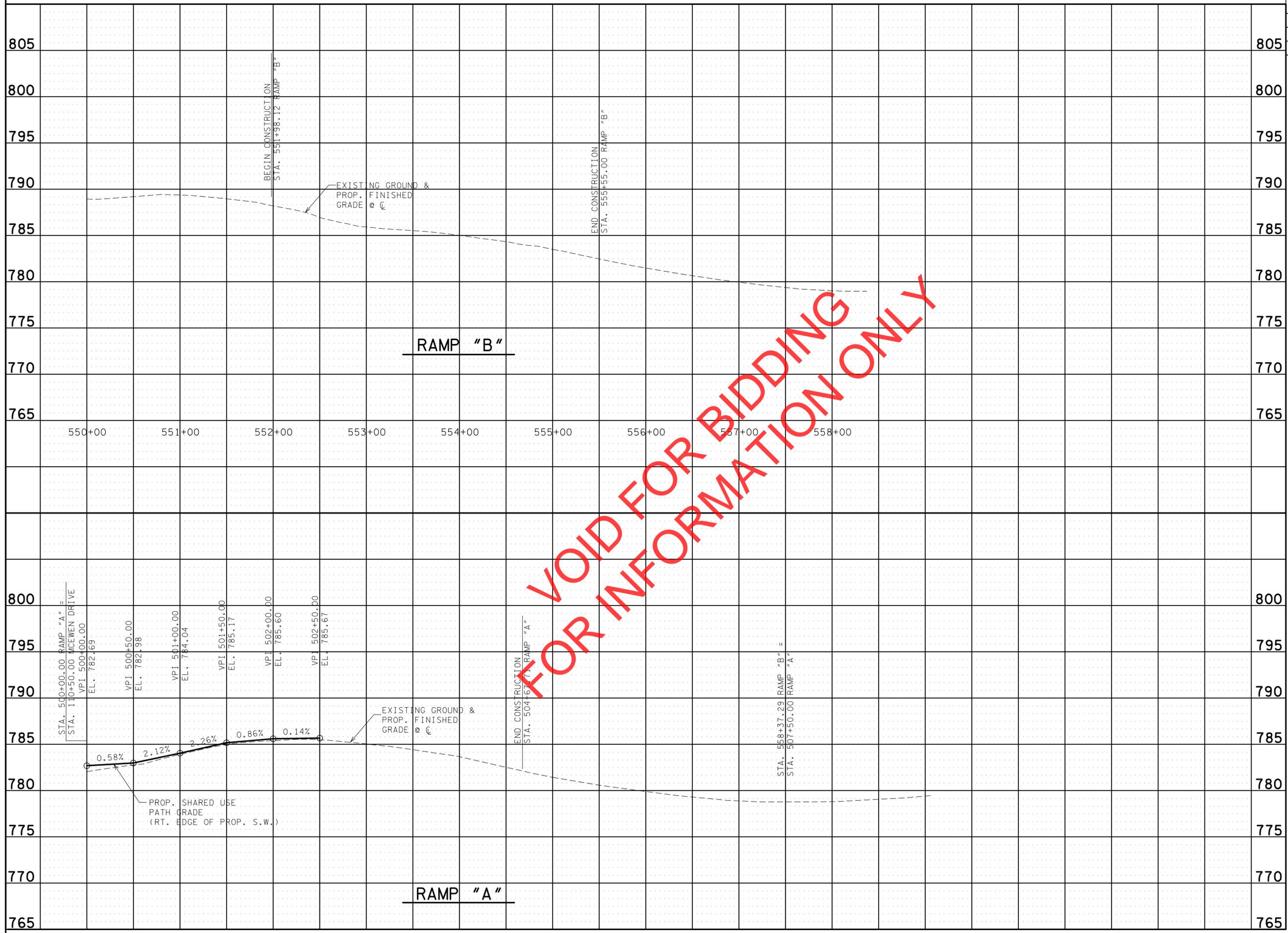


**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**MCEWEN DRIVE
PROFILE**

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	8



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**VOID FOR BIDDING
 FOR INFORMATION ONLY**



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

RAMP
PROFILES

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9

EPSC NOTES

UTILITY RELOCATION

- (1) STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.
- (2) SILT FENCE SHALL BE INSTALLED ON THE DOWNGRADIENT SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.
- (3) UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- (4) IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFFSITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFFSITE AND ENTERING WATERS OF THE STATE/U.S.
- (5) FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (6) IN REGARD TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.
- (7) TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT RESPONSIBLE PARTY.
- (8) FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.
- (9) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.
- (10) THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT RESPONSIBLE PARTY BEFORE COMMENCING WORK.

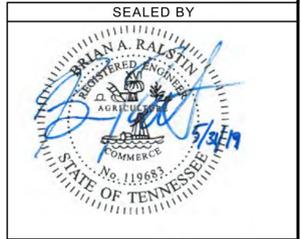
ENVIRONMENTAL

- (1) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-03.22	FILTER SOCK (18 INCH)	L.F.	1272
209-05	SEDIMENT REMOVAL	C.Y.	10
209-06.19	CURB INLET PROTECTION (TYPE 4)	EACH	7
209-10.33	CATCH BASIN PROTECTION (TYPE D)	EACH	1

VOID FOR BIDDING ONLY
FOR INFORMATION ONLY

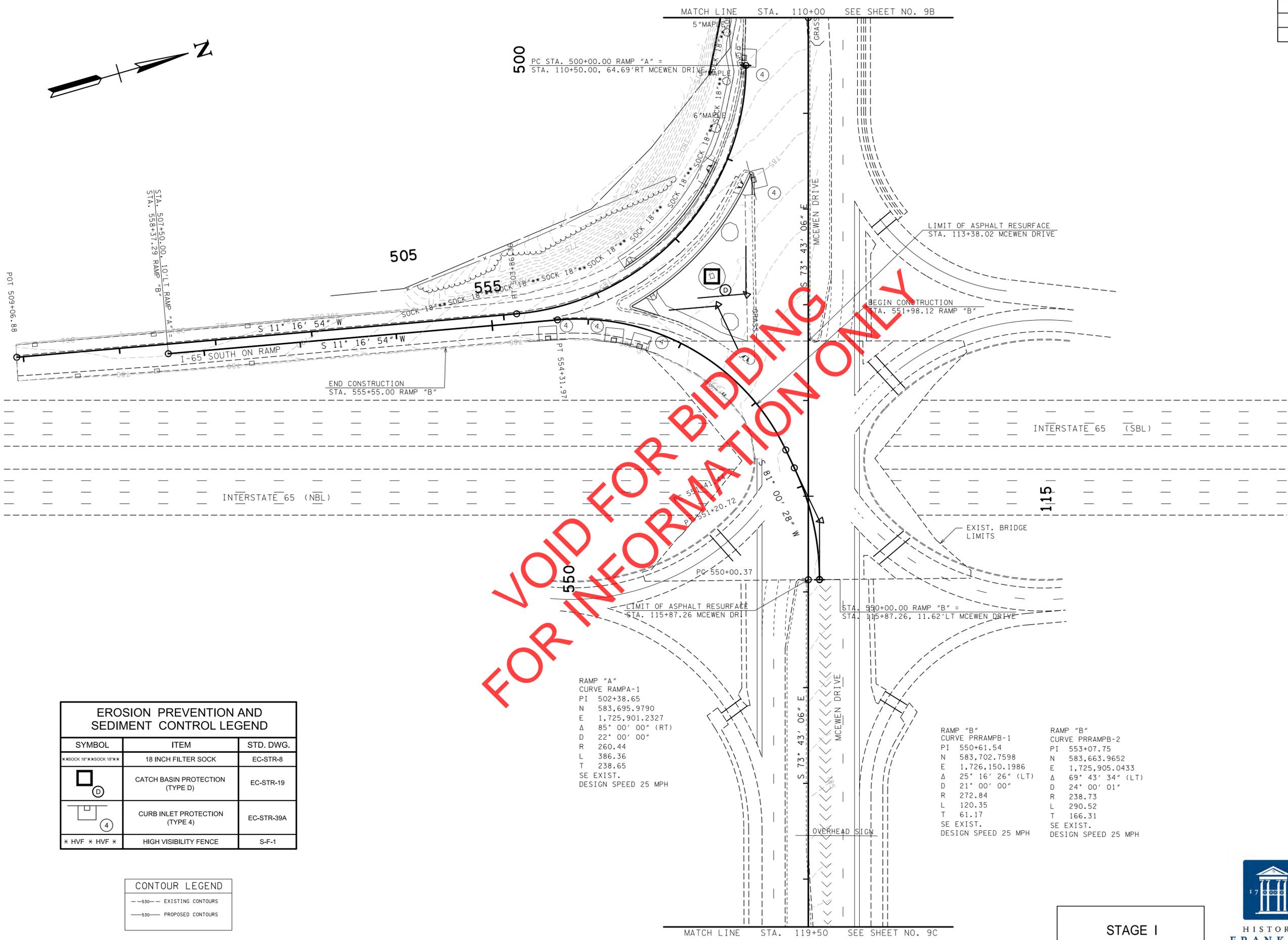
EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
**SOCK 18" ** SOCK 18" **	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**EROSION
PREVENTION &
SEDIMENT CONTROL
NOTES, LEGEND &
TABULATION**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9A



VOID FOR BIDDING
FOR INFORMATION ONLY

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SOCK 18"SOCK 18"***	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1

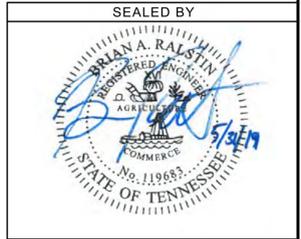
CONTOUR LEGEND	
---530---	EXISTING CONTOURS
—530—	PROPOSED CONTOURS

RAMP "A"
CURVE RAMPA-1
PI 502+38.65
N 583,695.9790
E 1,725,901.2327
D 22° 00' 00"
R 260.44
L 386.36
T 238.65
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMPB-1
PI 550+61.54
N 583,702.7598
E 1,726,150.1986
D 25° 16' 26" (LT)
D 21° 00' 00"
R 272.84
L 120.35
T 61.17
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMPB-2
PI 553+07.75
N 583,663.9652
E 1,725,905.0433
D 69° 43' 34" (LT)
D 24° 00' 01"
R 238.73
L 290.52
T 166.31
SE EXIST.
DESIGN SPEED 25 MPH

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

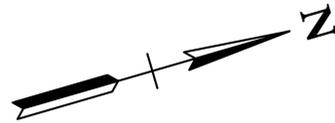
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STAGE I

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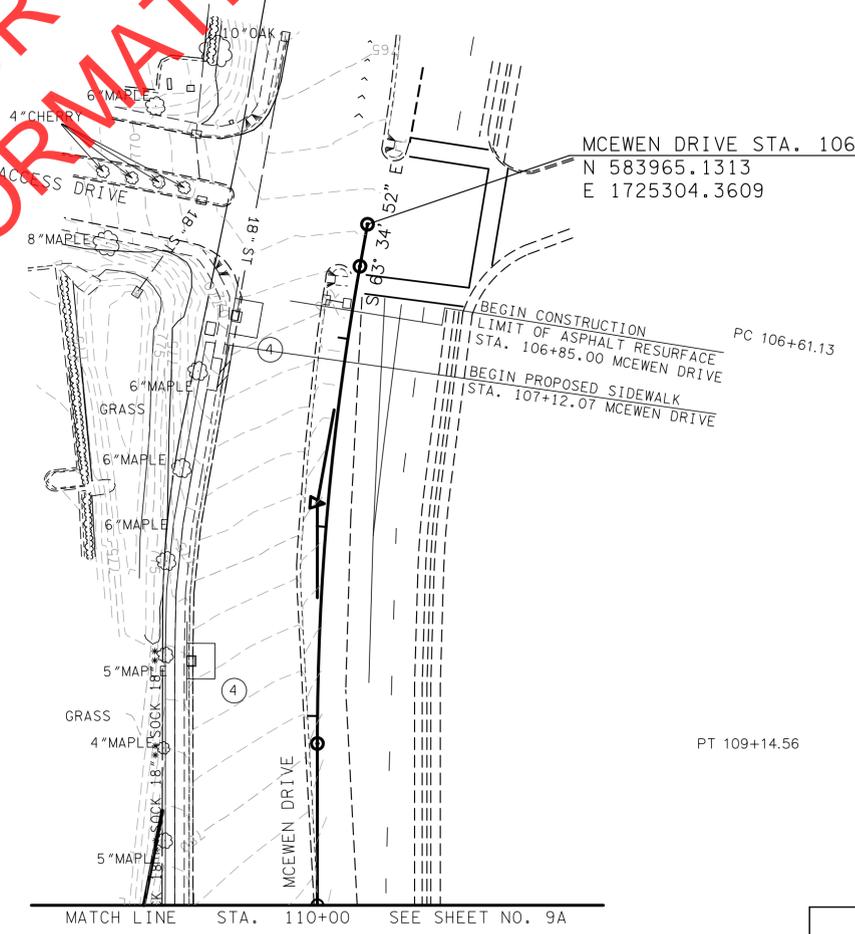
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9B

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FOR INFORMATION ONLY

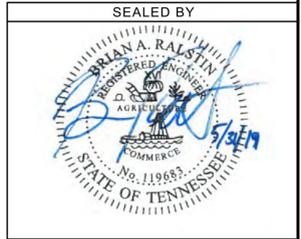


EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SOCK 18"SOCK 18"***	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1

CONTOUR LEGEND	
---530---	EXISTING CONTOURS
—530—	PROPOSED CONTOURS



COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



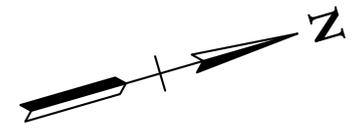
CITY OF FRANKLIN
ENGINEERING DEPARTMENT



EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STAGE I

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9C



MATCH LINE STA. 119+50 SEE SHEET NO. 9A

120

VOID FOR BIDDING
FOR INFORMATION ONLY

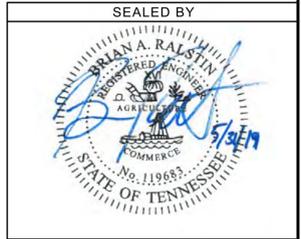
EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SOCK 18" * SOCK 18" *	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1

CONTOUR LEGEND	
- - 530 - -	EXISTING CONTOURS
— 530 —	PROPOSED CONTOURS



POT 122+91.97
MCEWEN DRIVE STA. 122+91.97
N 583476.7829
E 1726882.4547

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



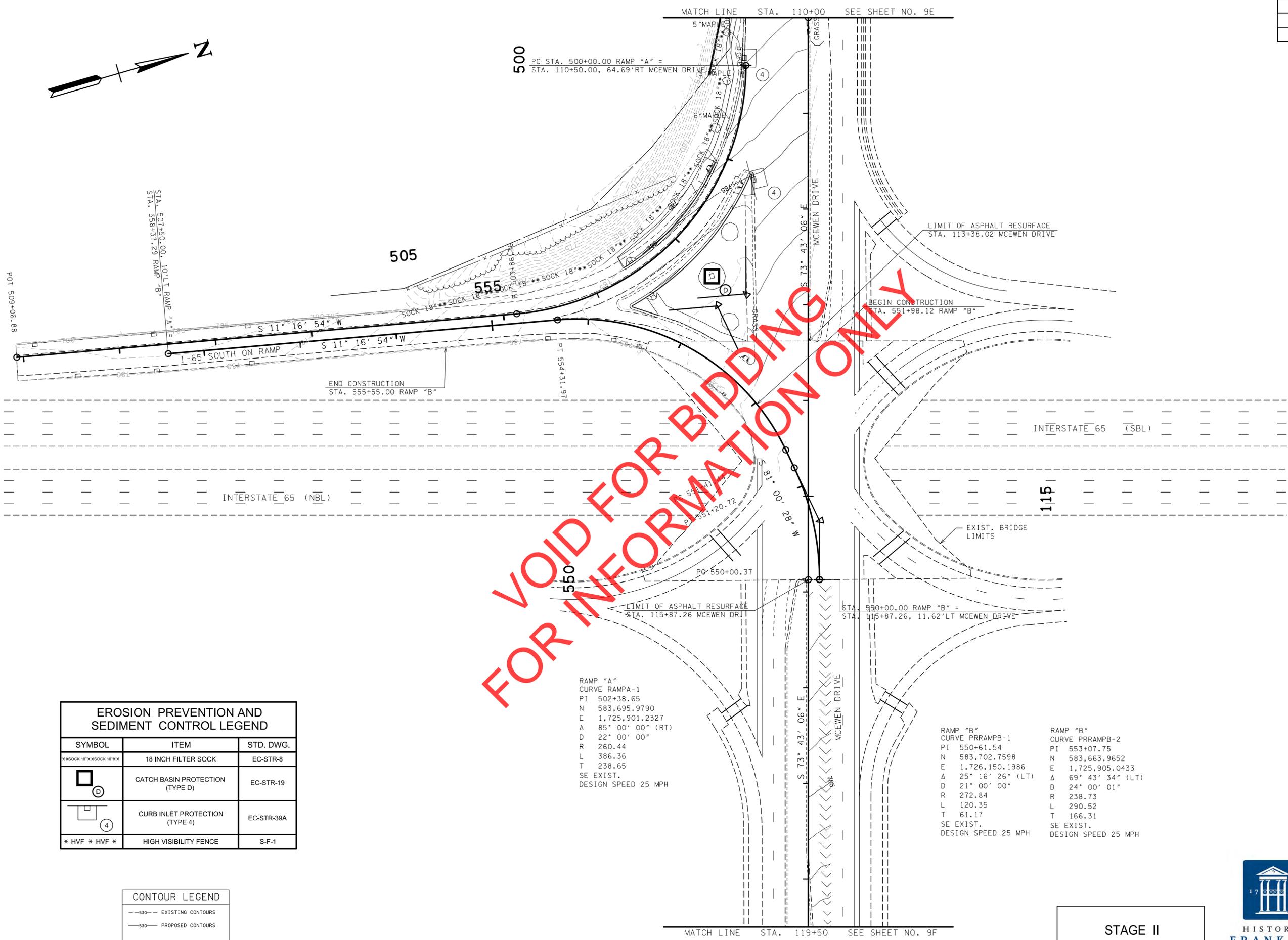
STAGE I



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**EROSION
PREVENTION &
SEDIMENT CONTROL
(EPSC) PLANS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9D



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SOCK 18"SOCK 18"***	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1

CONTOUR LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS

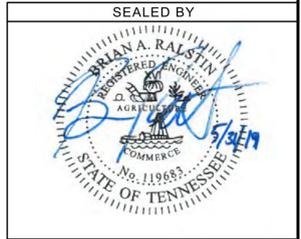
VOID FOR BIDDING
FOR INFORMATION ONLY

RAMP "A"
CURVE RAMP A-1
PI 502+38.65
N 583,695.9790
E 1,725,901.2327
D 22° 00' 00"
R 260.44
L 386.36
T 238.65
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMP B-1
PI 550+61.54
N 583,702.7598
E 1,726,150.1986
D 25° 16' 26" (LT)
D 21° 00' 00"
R 272.84
L 120.35
T 61.17
SE EXIST.
DESIGN SPEED 25 MPH

RAMP "B"
CURVE PRRAMP B-2
PI 553+07.75
N 583,663.9652
E 1,725,905.0433
D 69° 43' 34" (LT)
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R 238.73
L 290.52
T 166.31
SE EXIST.
DESIGN SPEED 25 MPH

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



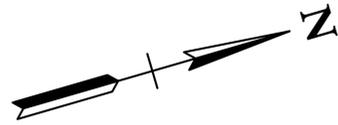
CITY OF FRANKLIN
ENGINEERING DEPARTMENT

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STAGE II

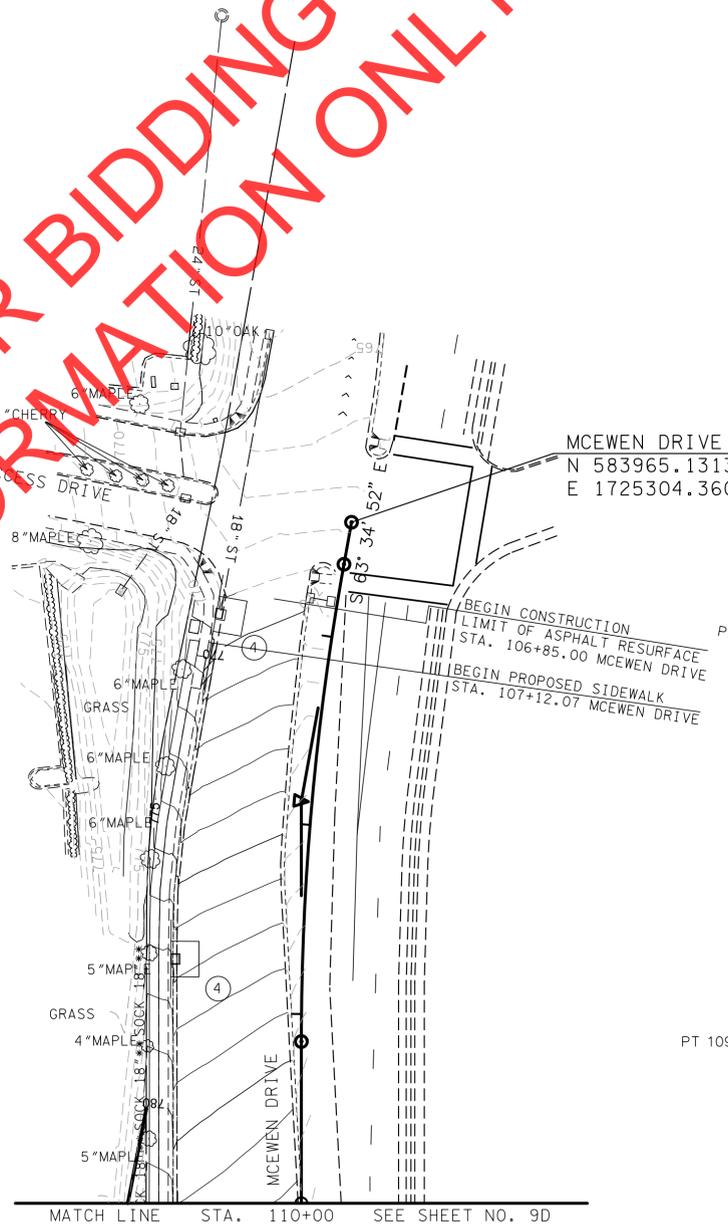
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9E

VOID FOR BIDDING
FOR INFORMATION ONLY



EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SOCK 18" WSOCK 18" W**	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A

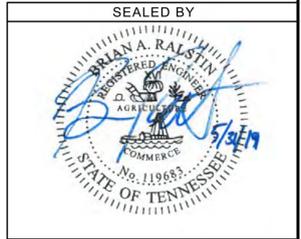
CONTOUR LEGEND	
---530---	EXISTING CONTOURS
—530—	PROPOSED CONTOURS



MCEWEN DRIVE STA. 106+38.58
N 583965.1313
E 1725304.3609

MCEWEN DRIVE
CURVE MCE-1
PI 107+88.17
N 5583,898.5723
E 1,725,438.3322
Δ 10° 08' 14" (LT)
R 1,432.39
L 253.10
T 127.05
SE EXIST.
DESIGN SPEED 45 MPH

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



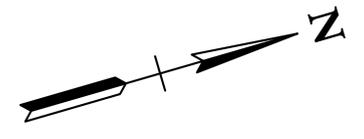
STAGE II



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	9F



MATCH LINE STA. 119+50 SEE SHEET NO. 9D

120

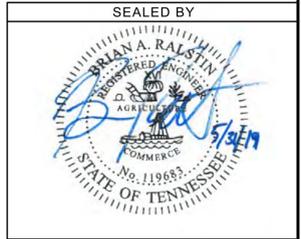
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EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
**SOCK 18" X SOCK 18" **	18 INCH FILTER SOCK	EC-STR-8
	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1



POT 122+91.97
MCEWEN DRIVE STA. 122+91.97
N 583476.7829
E 1726882.4547

COORDINATES ARE NAD/83(1995), AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.



STAGE II



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**EROSION
PREVENTION &
SEDIMENT CONTROL
(EPSC) PLANS**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 1.75 INCHES:
 - a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.
2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 1.75 INCHES AND NOT EXCEEDING 6 INCHES, TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.
 - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

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

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

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

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

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

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

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

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

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

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.
 - a. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:
 - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:
 - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

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

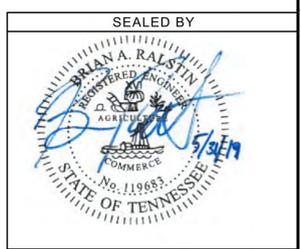
C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

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

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

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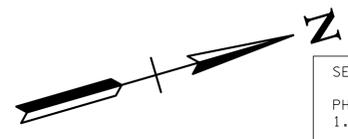
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**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

**PAVEMENT EDGE
DROP-OFF NOTES
FOR
TRAFFIC CONTROL**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10A



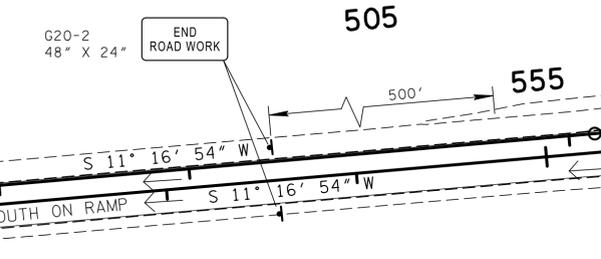
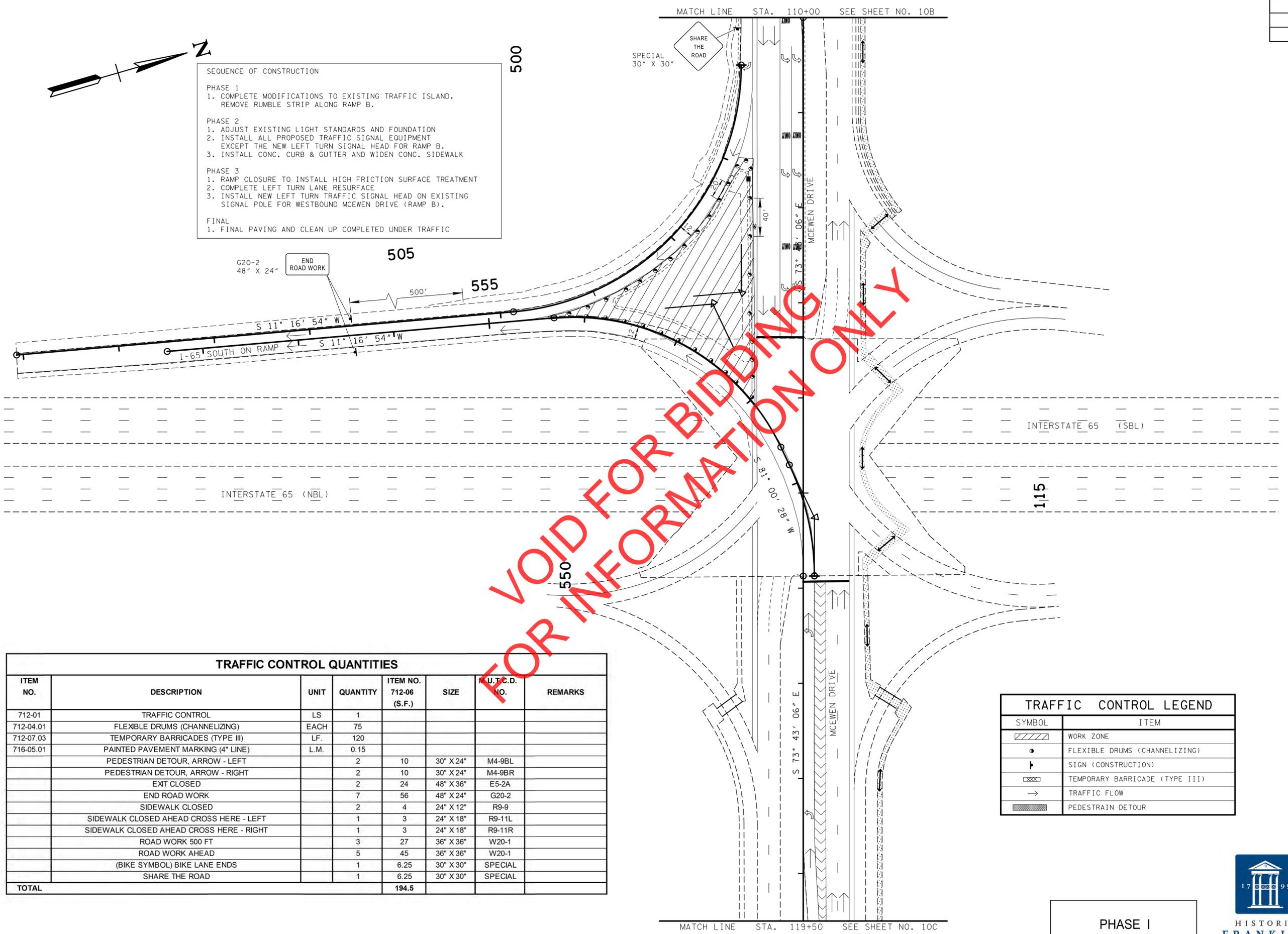
SEQUENCE OF CONSTRUCTION

PHASE 1
 1. COMPLETE MODIFICATIONS TO EXISTING TRAFFIC ISLAND.
 REMOVE RUMBLE STRIP ALONG RAMP B.

PHASE 2
 1. ADJUST EXISTING LIGHT STANDARDS AND FOUNDATION
 2. INSTALL ALL PROPOSED TRAFFIC SIGNAL EQUIPMENT EXCEPT THE NEW LEFT TURN SIGNAL HEAD FOR RAMP B.
 3. INSTALL CONC. CURB & GUTTER AND WIDEN CONC. SIDEWALK

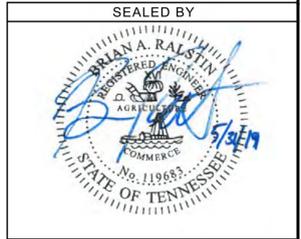
PHASE 3
 1. RAMP CLOSURE TO INSTALL HIGH FRICTION SURFACE TREATMENT
 2. COMPLETE LEFT TURN LANE RESURFACE
 3. INSTALL NEW LEFT TURN TRAFFIC SIGNAL HEAD ON EXISTING SIGNAL POLE FOR WESTBOUND MCEWEN DRIVE (RAMP B).

FINAL
 1. FINAL PAVING AND CLEAN UP COMPLETED UNDER TRAFFIC



TRAFFIC CONTROL QUANTITIES							
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	ITEM NO. 712-06 (S.F.)	SIZE	A.U.T.C.D. NO.	REMARKS
712-01	TRAFFIC CONTROL	LS	1				
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	75				
712-07.03	TEMPORARY BARRICADES (TYPE III)	LF.	120				
716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0.15				
	PEDESTRIAN DETOUR, ARROW - LEFT		2	10	30" X 24"	M4-9BL	
	PEDESTRIAN DETOUR, ARROW - RIGHT		2	10	30" X 24"	M4-9BR	
	EXIT CLOSED		2	24	48" X 36"	E5-2A	
	END ROAD WORK		7	56	48" X 24"	G20-2	
	SIDEWALK CLOSED		2	4	24" X 12"	R9-9	
	SIDEWALK CLOSED AHEAD CROSS HERE - LEFT		1	3	24" X 18"	R9-11L	
	SIDEWALK CLOSED AHEAD CROSS HERE - RIGHT		1	3	24" X 18"	R9-11R	
	ROAD WORK 500 FT		3	27	36" X 36"	W20-1	
	ROAD WORK AHEAD		5	45	36" X 36"	W20-1	
	(BIKE SYMBOL) BIKE LANE ENDS		1	6.25	30" X 30"	SPECIAL	
	SHARE THE ROAD		1	6.25	30" X 30"	SPECIAL	
TOTAL				194.5			

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRIAN DETOUR



**CITY OF FRANKLIN
 ENGINEERING DEPARTMENT**

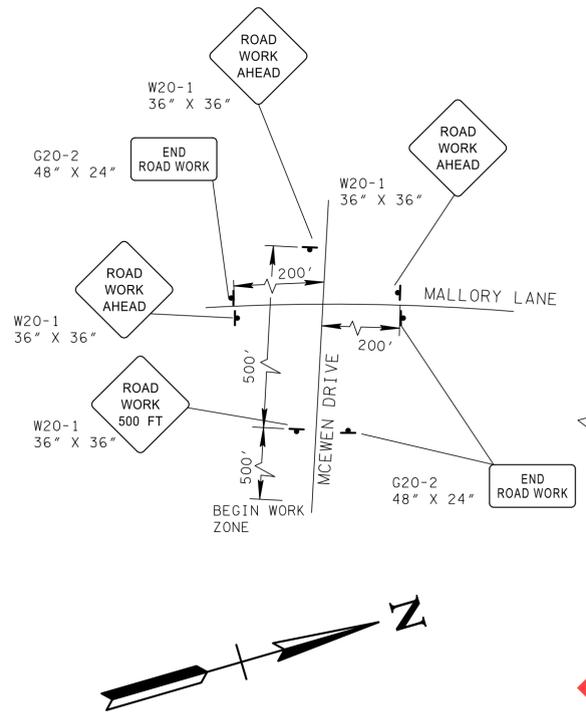


PHASE I

TRAFFIC CONTROL PLANS

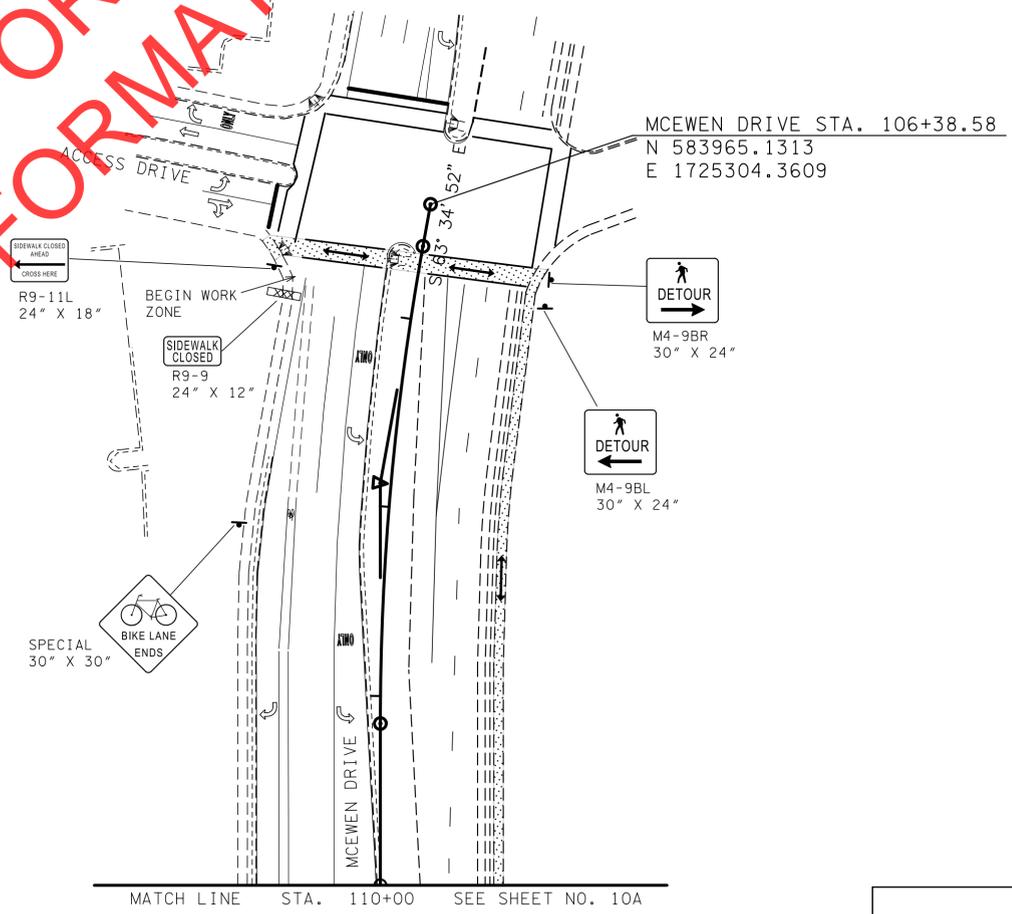
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10B

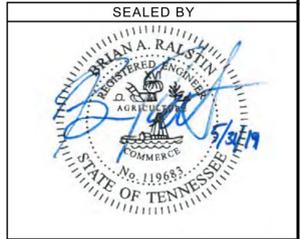


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TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR



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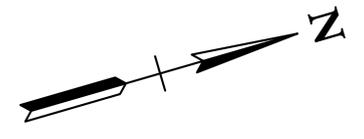
CITY OF FRANKLIN
ENGINEERING DEPARTMENT



TRAFFIC CONTROL PLANS

PHASE I

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10C

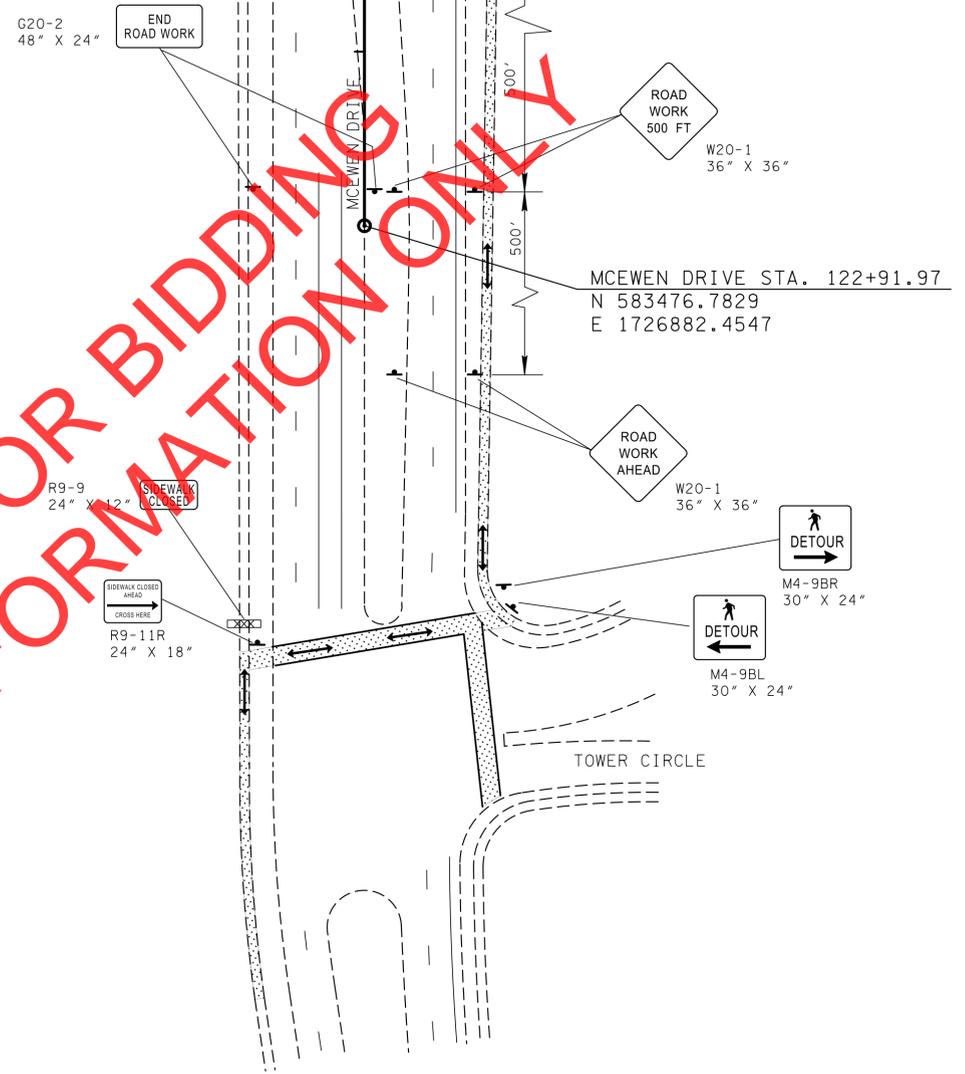


MATCH LINE STA. 119+50 SEE SHEET NO. 10A

120

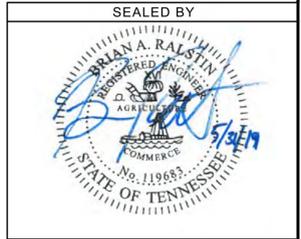
TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR

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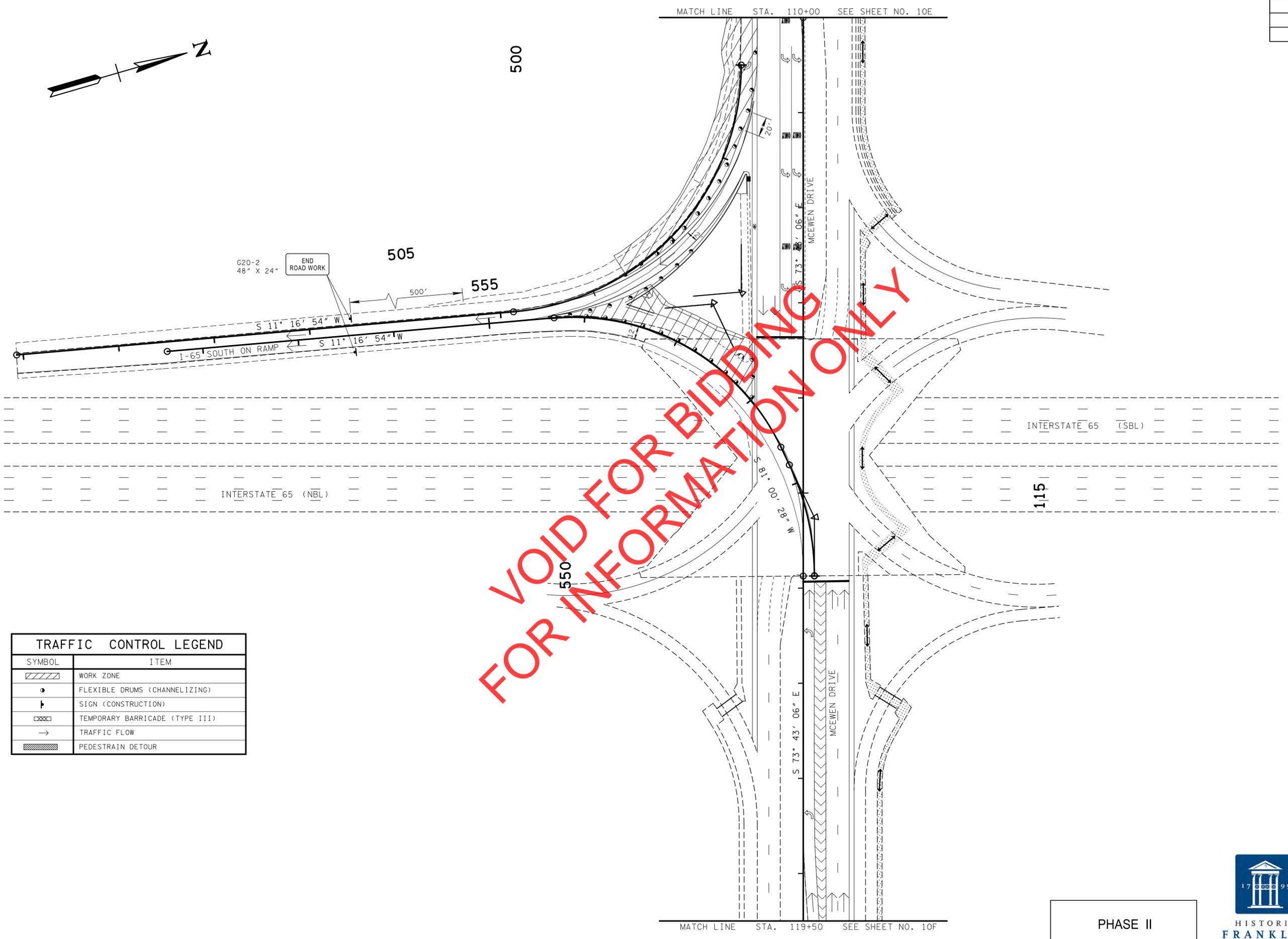
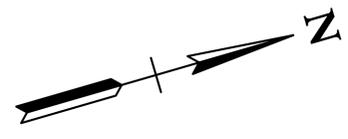
PHASE I



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10D

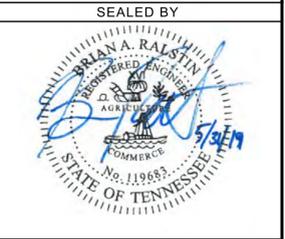


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FOR INFORMATION ONLY

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR

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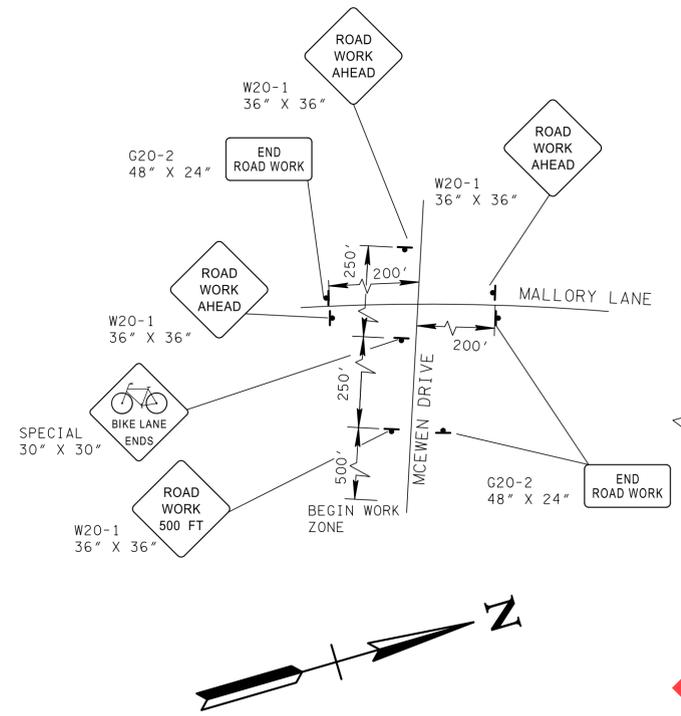
PHASE II



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

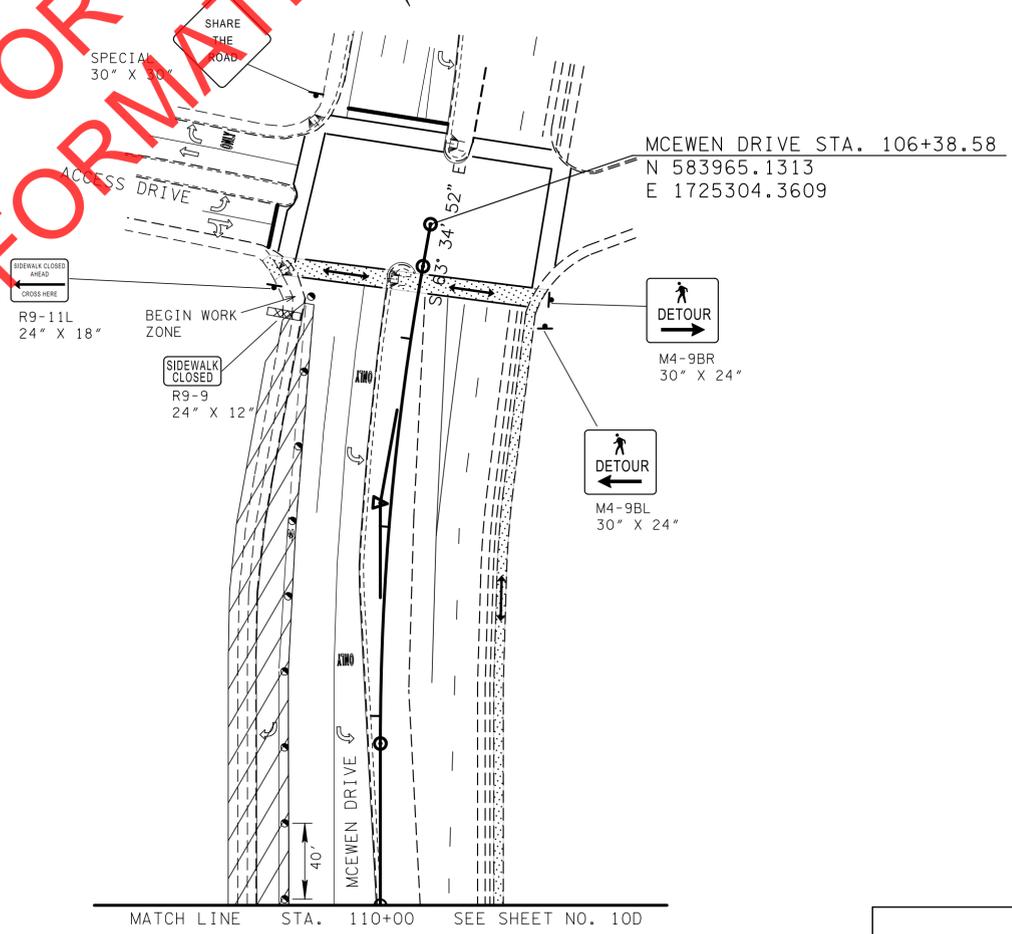
TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10E



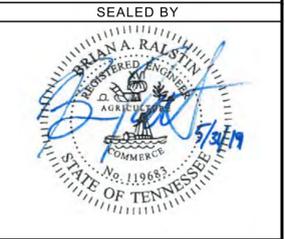
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TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR



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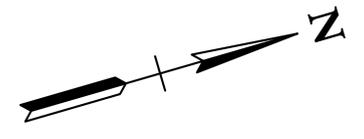
PHASE II



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10F

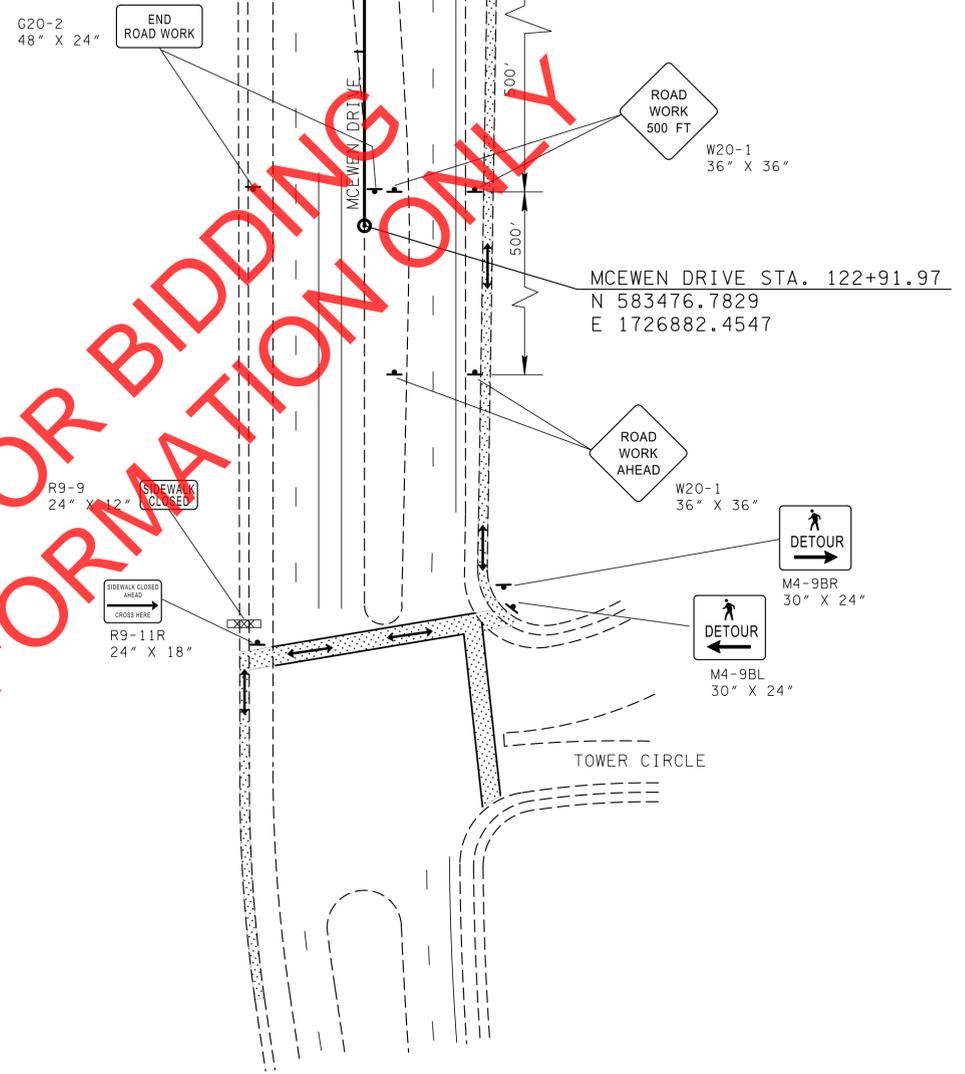


MATCH LINE STA. 119+50 SEE SHEET NO. 10D

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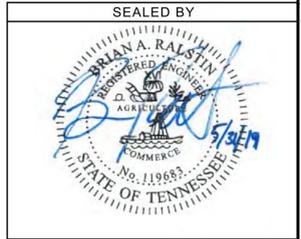
TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR

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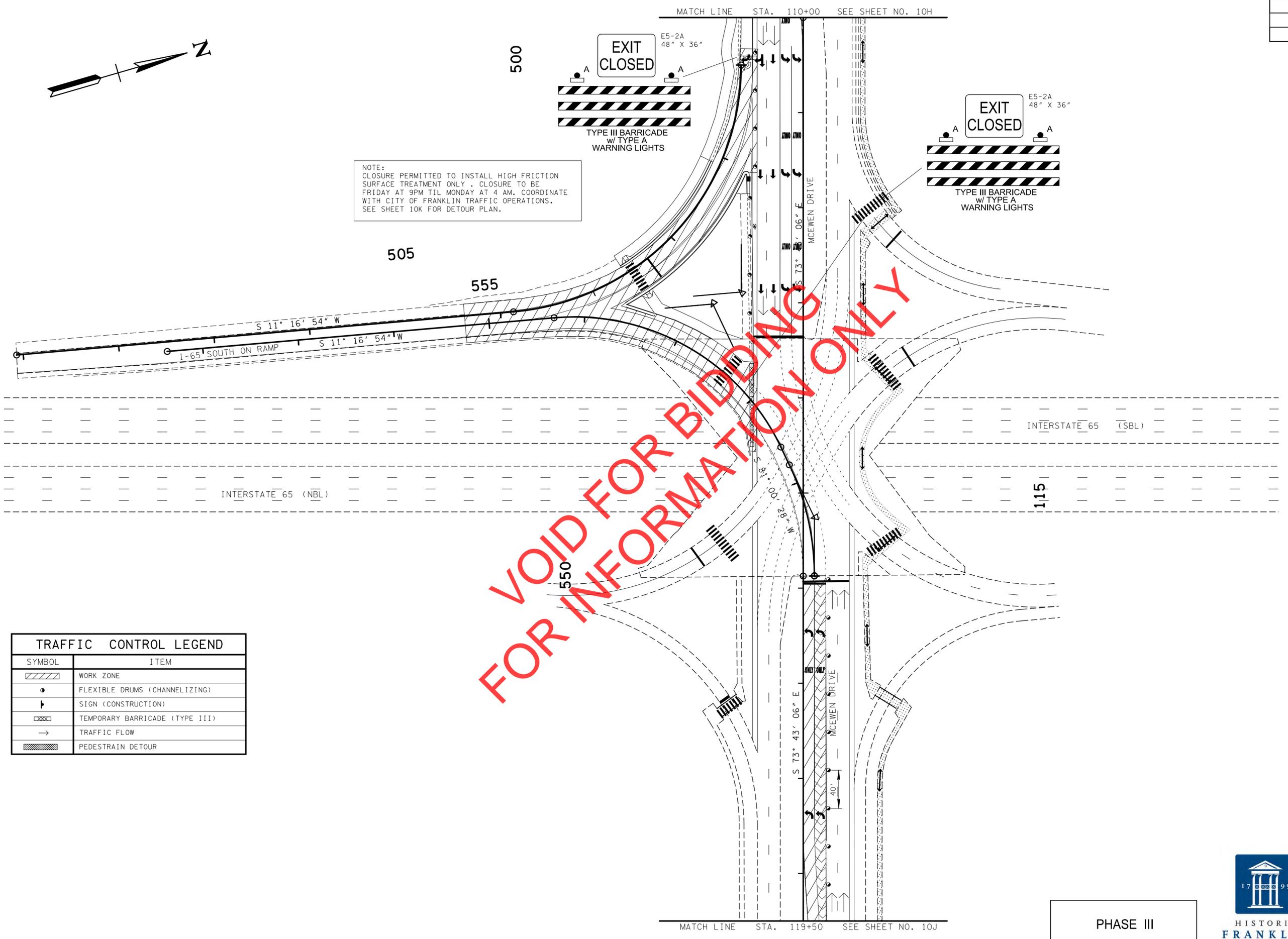
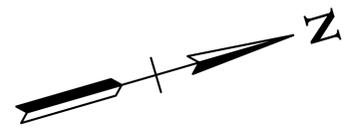
PHASE II



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10G

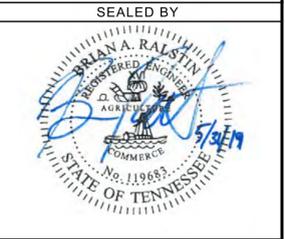


NOTE:
 CLOSURE PERMITTED TO INSTALL HIGH FRICTION SURFACE TREATMENT ONLY. CLOSURE TO BE FRIDAY AT 9PM TIL MONDAY AT 4 AM. COORDINATE WITH CITY OF FRANKLIN TRAFFIC OPERATIONS. SEE SHEET 10K FOR DETOUR PLAN.

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TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR

PHASE III

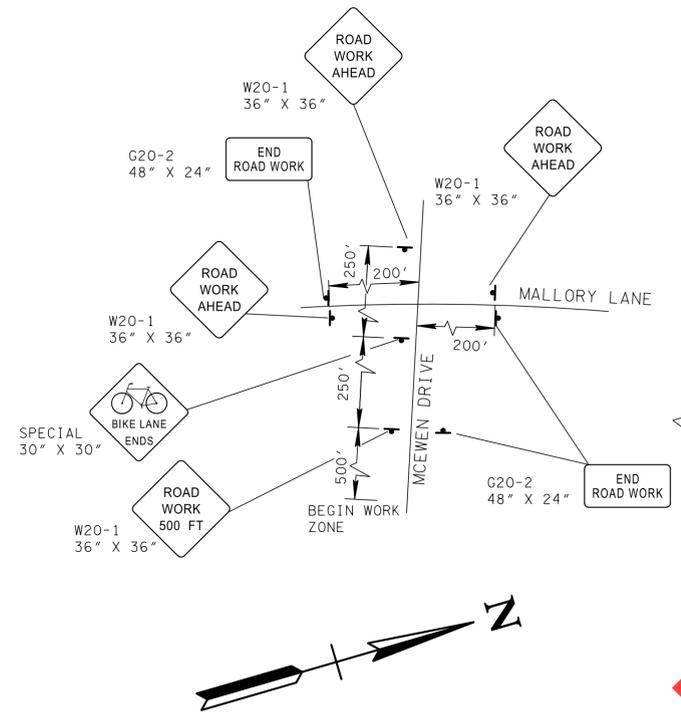


CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

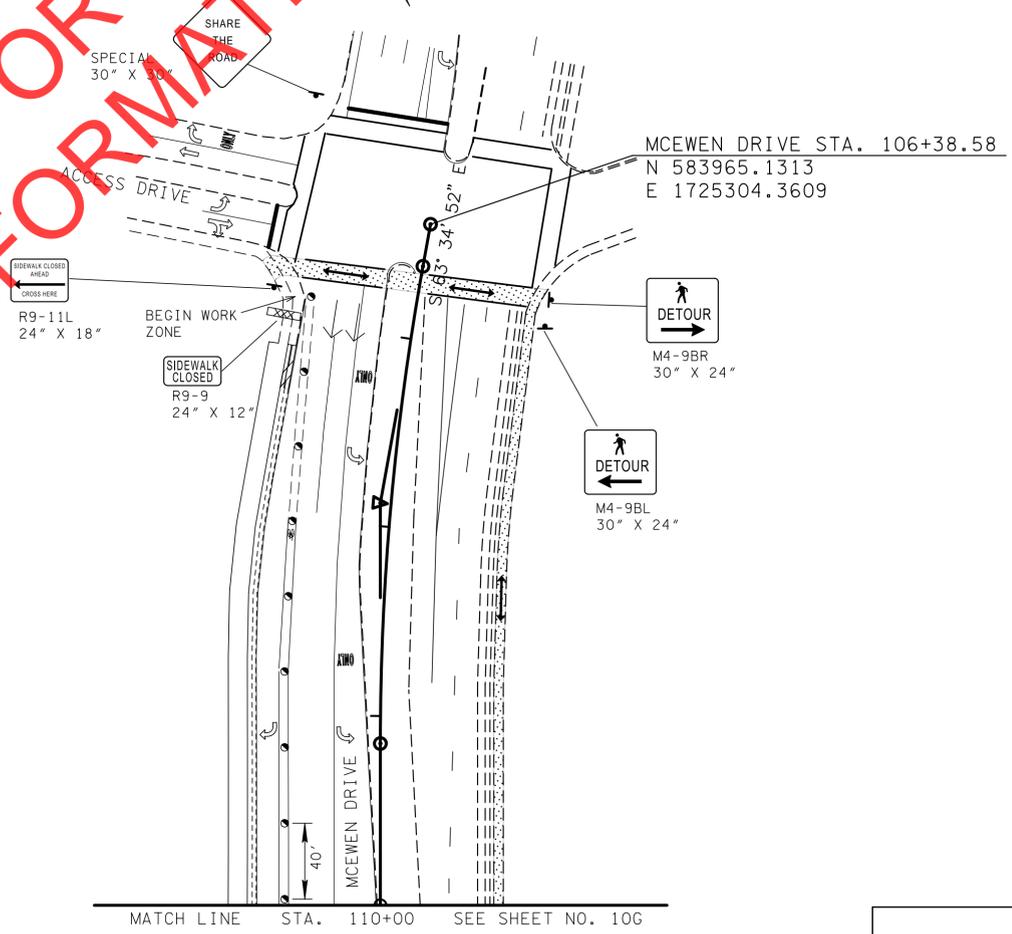
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10H



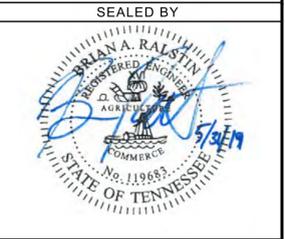
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FOR INFORMATION ONLY

TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR



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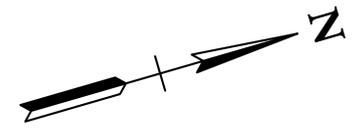
PHASE III



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10J

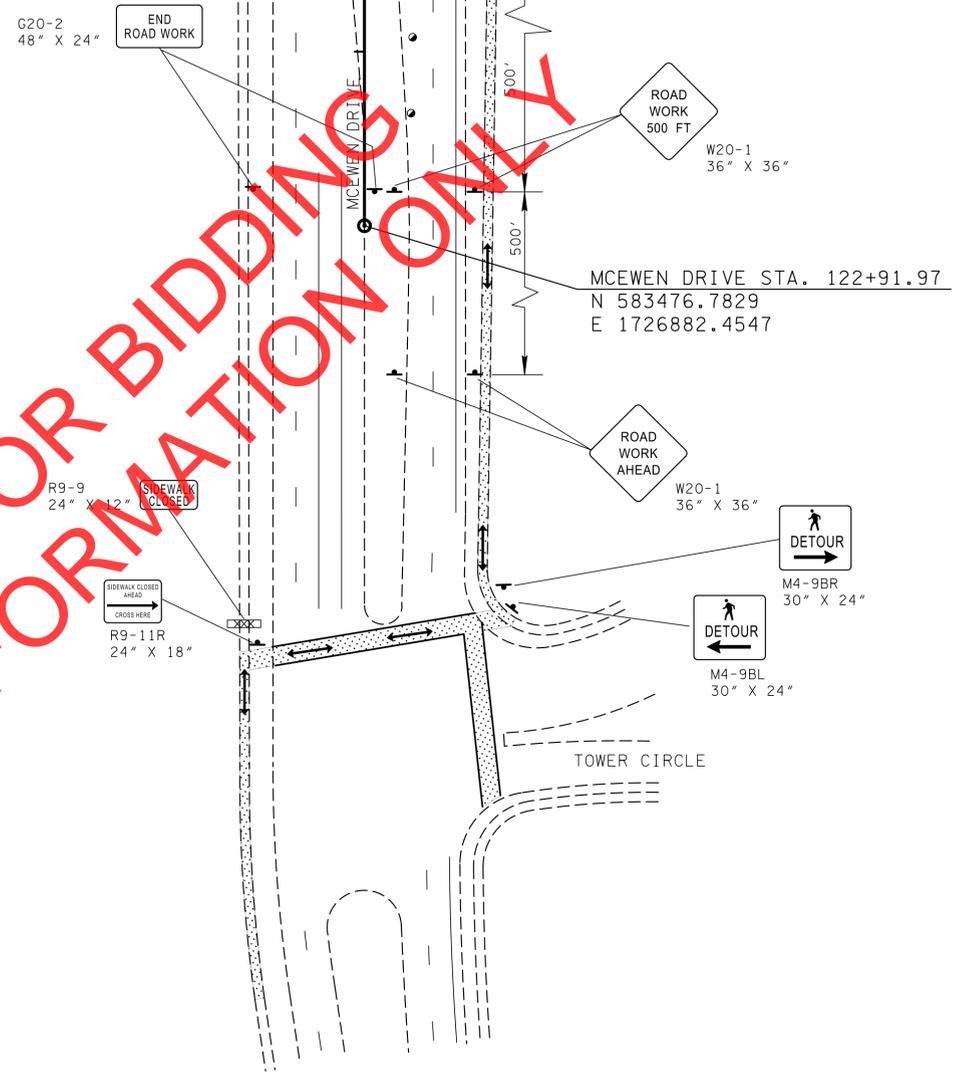


MATCH LINE STA. 119+50 SEE SHEET NO. 10G

120

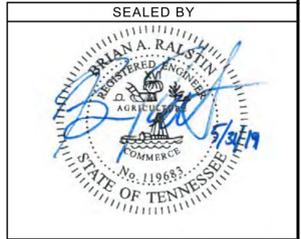
TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	WORK ZONE
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	TEMPORARY BARRICADE (TYPE III)
	TRAFFIC FLOW
	PEDESTRAIN DETOUR

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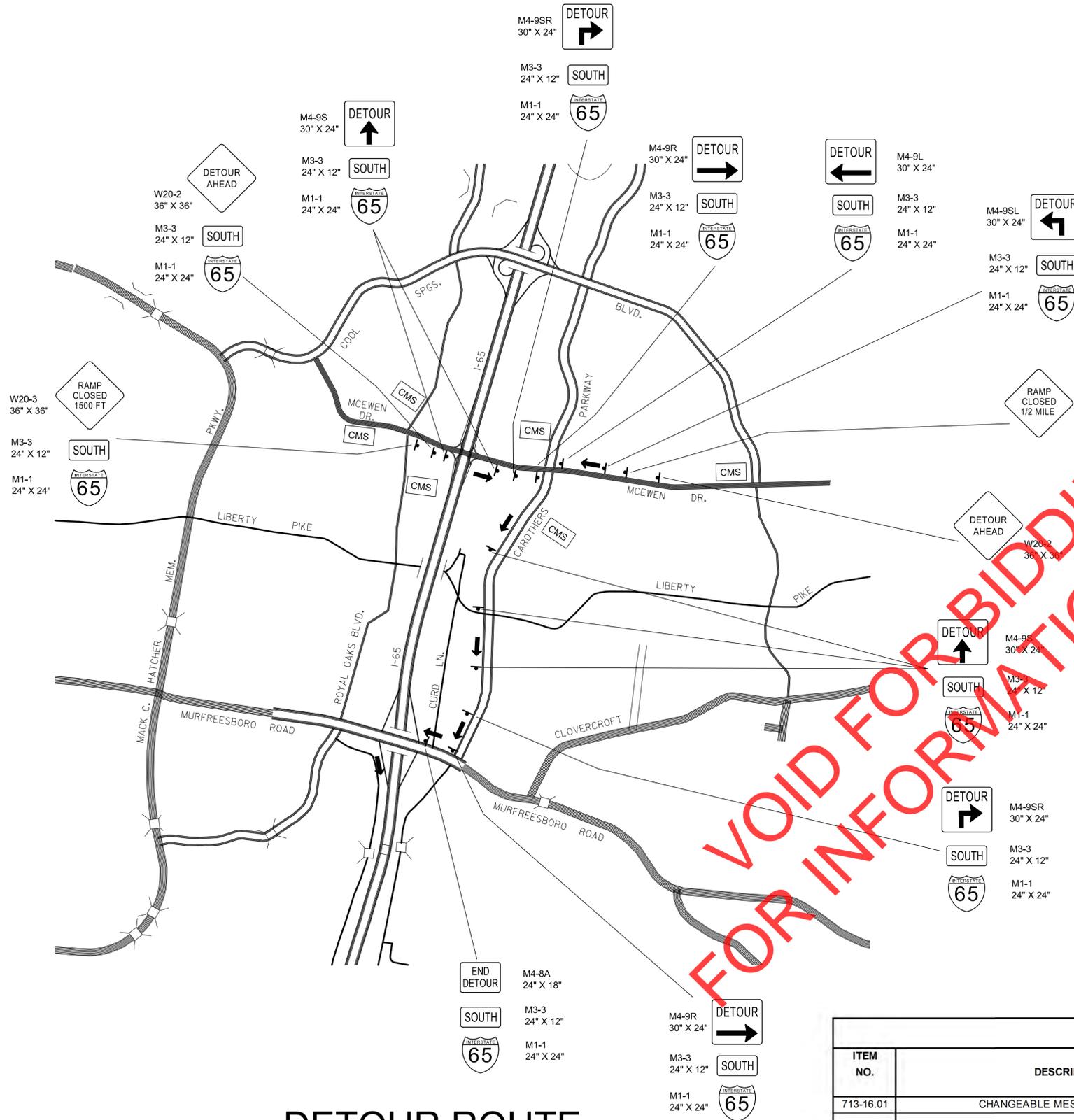
PHASE III



CITY OF FRANKLIN
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	10K



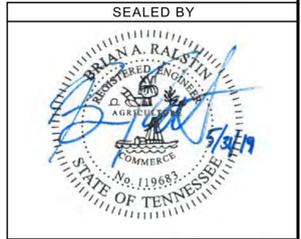
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NOTE:
THE LOCATION OF THE CONSTRUCTION SIGNS ARE CONCEPTUAL. PRIOR TO INSTALLATION, THE SIGNS SHALL BE FIELD LOCATED AND REVIEWED WITH THE CITY OF FRANKLIN CONSTRUCTION SUPERVISOR.

DETOUR ROUTE I-65 SOUTH RAMP CLOSURE N.T.S.

TRAFFIC CONTROL LEGEND	
→	TRAFFIC FLOW
CMS	CHANGEABLE MESSAGE SIGN
†	SIGN (CONSTRUCTION)

DETOUR QUANTITIES							
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	ITEM NO. 712-06 (S.F.)	SIZE	M.U.T.C.D. NO.	REMARKS
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	6				
	DETOUR, ARROW - STRAIGHT		2	10	30" X 24"	M4-9S	
	DETOUR, ARROW - LEFT		1	5	30" X 24"	M4-9L	
	DETOUR, ARROW - RIGHT		2	10	30" X 24"	M4-9R	
	DETOUR, ARROW - STRAIGHT & LEFT		1	5	30" X 24"	M4-9SL	
	DETOUR, ARROW - STRAIGHT & RIGHT		2	10	30" X 24"	M4-9SR	
	END DETOUR		1	3	24" X 18"	M4-8A	
	INTERSTATE SHIELD - 65		11	44	24" X 24"	M1-1	
	INTERSTATE CARDINAL DIRECTION - SOUTH		11	22	24" X 12"	M3-3	
	RAMP CLOSED 1500 FT		2	18	36" X 36"	W20-2	
	DETOUR AHEAD		2	18	36" X 36"	W20-3	
TOTAL				145			



**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**



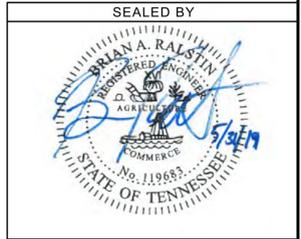
**TRAFFIC CONTROL
DETOUR**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	11

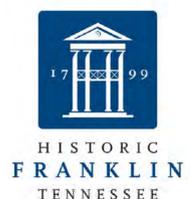
ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SIGN NO	LEGEND	SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)				MINIMUM VERTICAL CLEARANCE	REMARKS		
			LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.			REIN STEEL LBS.	
1	R3-17	5A	24"	18"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P8	H = 13'-0"				7'-0"		
2	R3-17BP	5A	24"	8"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM								
3	D11-1	5A	24"	18"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P8	H = 14'-0"					7'-0"	
4	M6-2	5A	21"	15"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM								
5	R3-8 (MOD.)	5A	48"	30"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	P2	H1 = 12'-6" H2 = 13'-0"					7'-0"	
6	D11-1	4A	24"	18"									WHITE (REF.)	GREEN (REF.)	0.080" SHEET ALUMINUM	P8	H = 14'-0"					7'-0"	
7	M6-1	4A	21"	15"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM								
8	R3-17	4A	24"	18"									BLACK	WHITE (REF.)	0.080" SHEET ALUMINUM	P1	H = 12'-6"					7'-0"	
9	SPECIAL	4A	48"	72"	3"	0.75"							WHITE (REF.)	GREEN (REF.)	6"-12" ALUMINUM EXTRUSION		EXISTING OVERHEAD STRUCTURE						EXISTING OVERHEAD STRUCTURE PROPOSED SIGN SHALL MATCH THE ADJACENT EXISTING SIGN IN SIZE AND LAYOUT

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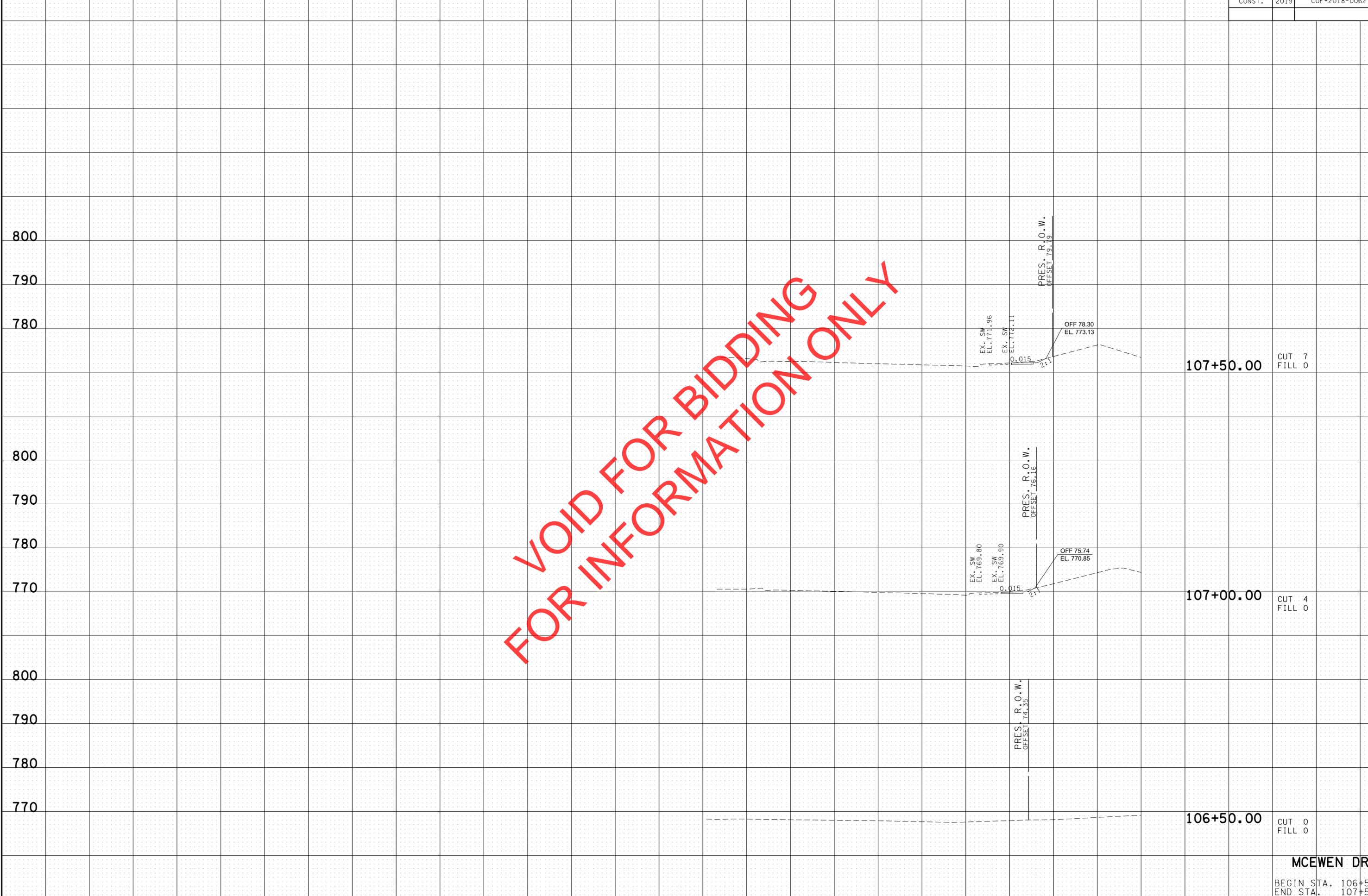


CITY OF FRANKLIN
ENGINEERING DEPARTMENT



SIGN
SCHEDULE
SHEETS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	12



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FOR INFORMATION ONLY

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MCEWEN DRIVE
 BEGIN STA. 106+50.00
 END STA. 107+50.00

107+50.00

CUT 7
FILL 0

107+00.00

CUT 4
FILL 0

106+50.00

CUT 0
FILL 0

EX. SW
EL. 771.96
EX. SW
EL. 772.11
PRES. R.O.W.
OFFSET 79.79

OFF 78.30
EL. 773.13

EX. SW
EL. 769.80
EX. SW
EL. 769.90
PRES. R.O.W.
OFFSET 76.16

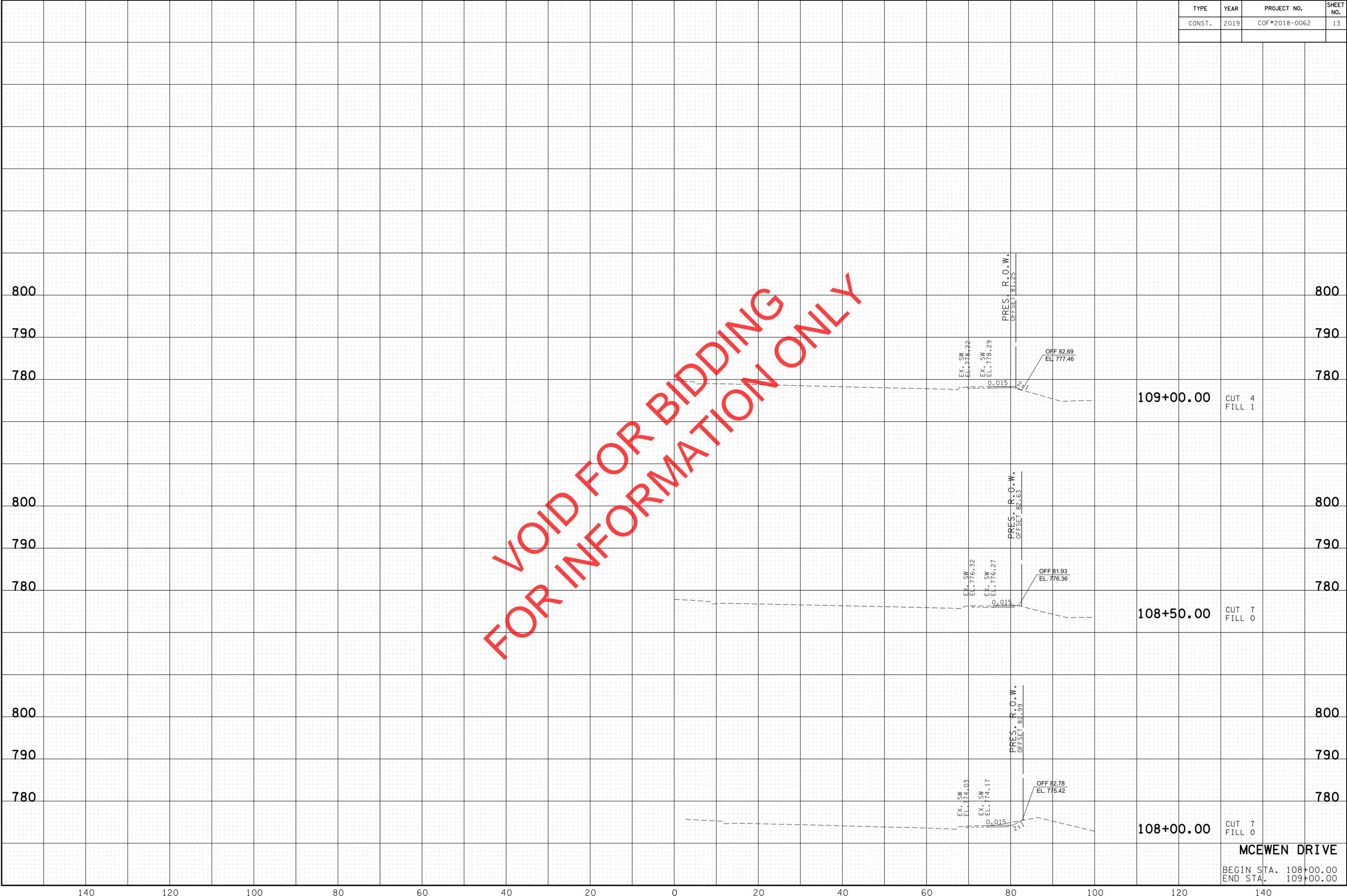
OFF 75.74
EL. 770.85

PRES. R.O.W.
OFFSET 74.35

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

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	13

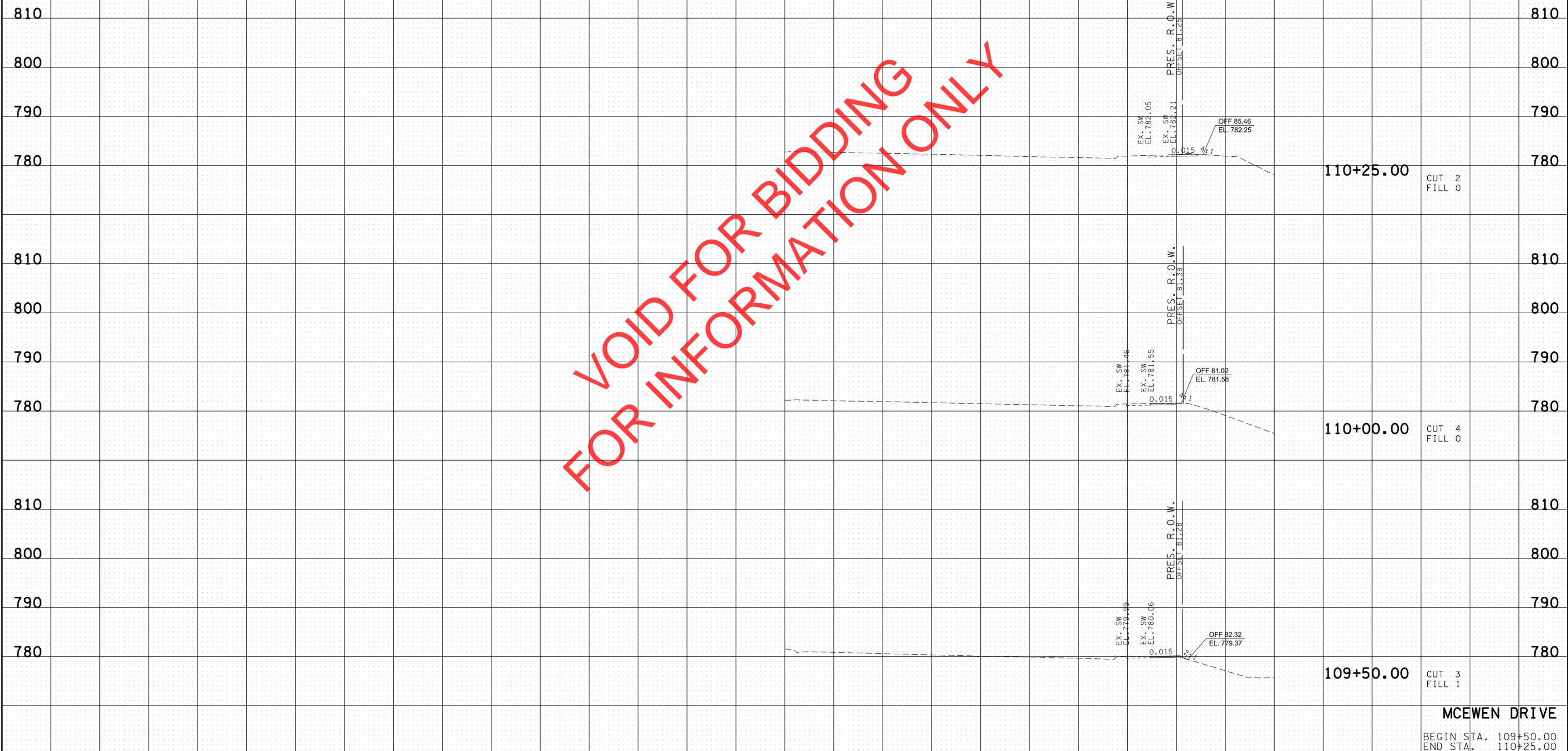
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FOR INFORMATION ONLY



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MCEWEN DRIVE
 BEGIN STA. 108+00.00
 END STA. 109+00.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	14



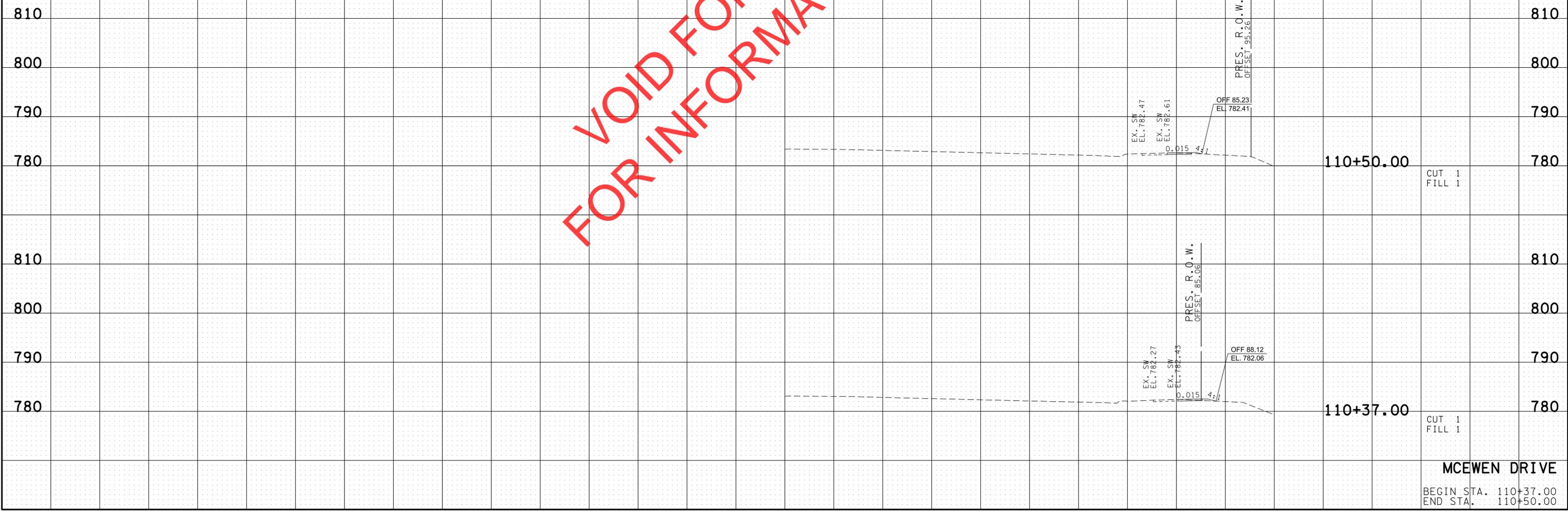
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FOR INFORMATION ONLY

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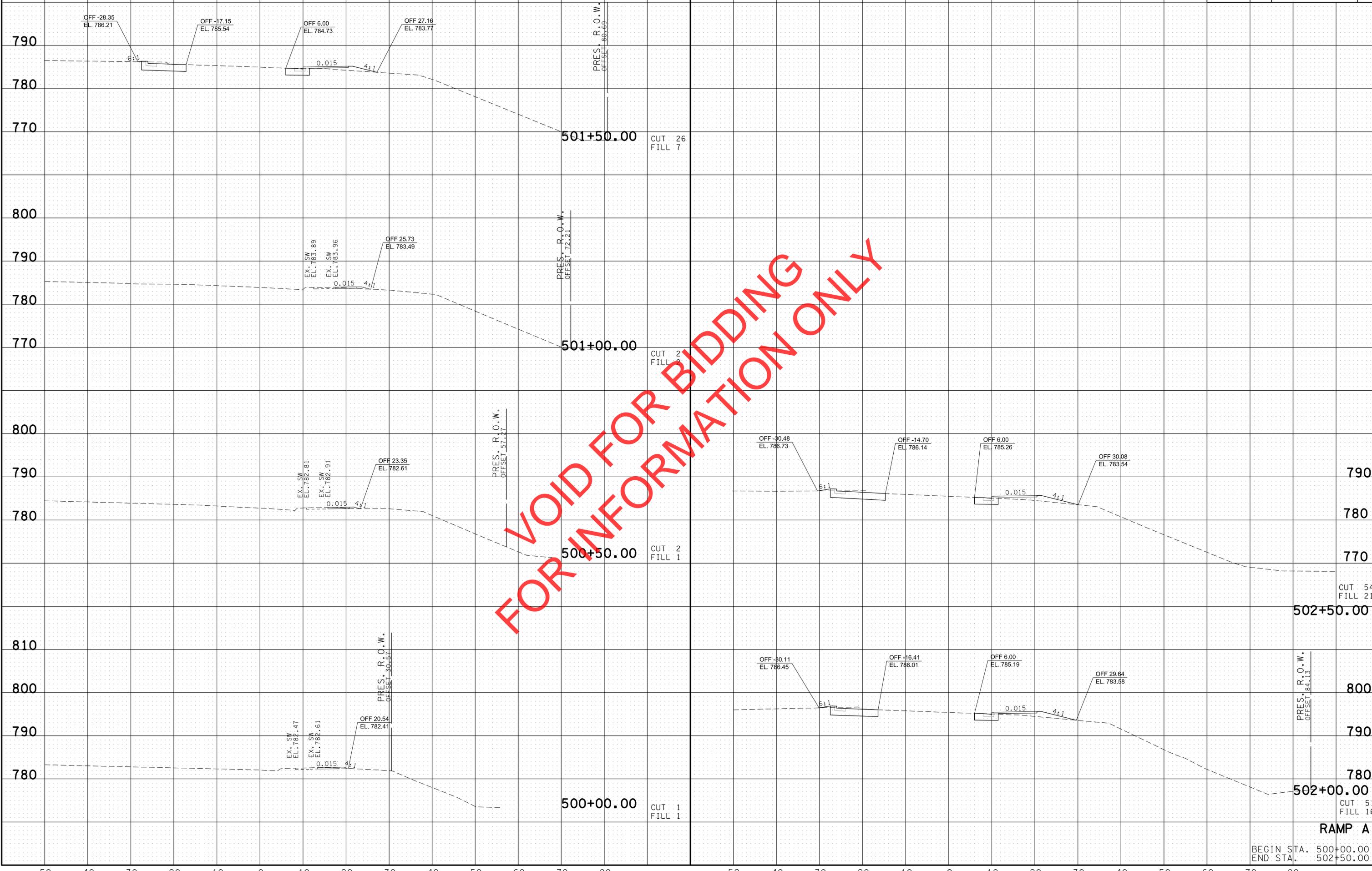
MCEWEN DRIVE
 BEGIN STA. 109+50.00
 END STA. 110+25.00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	COF#2018-0062	15

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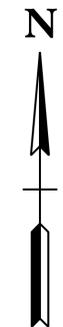


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4/26/2019 12:54:40 PM
 Y:\dashville\60180005\6018048.00\Eng_Docs\Survey\McEwen Cross Sections RAMP A.SW.sht

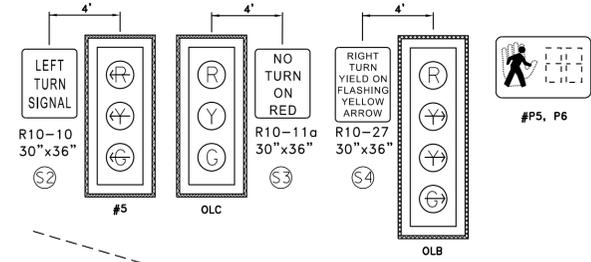
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CONST.	2019	2018-0062	T-1



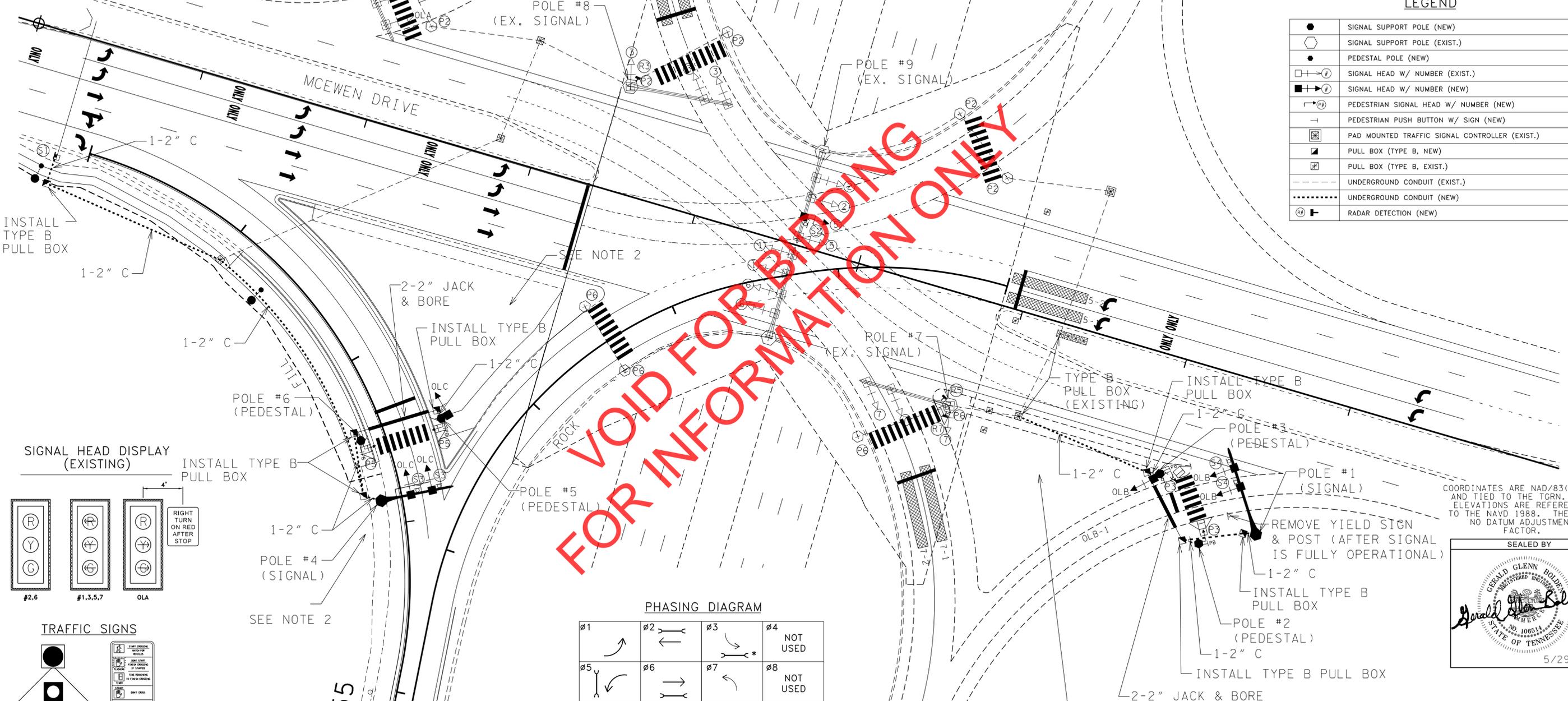
LEGEND

●	SIGNAL SUPPORT POLE (NEW)
○	SIGNAL SUPPORT POLE (EXIST.)
●	PEDESTAL POLE (NEW)
○	PEDESTAL POLE (EXIST.)
□	SIGNAL HEAD W/ NUMBER (EXIST.)
□	SIGNAL HEAD W/ NUMBER (NEW)
□	PEDESTRIAN SIGNAL HEAD W/ NUMBER (NEW)
□	PEDESTRIAN PUSH BUTTON W/ SIGN (NEW)
□	PAD MOUNTED TRAFFIC SIGNAL CONTROLLER (EXIST.)
□	PULL BOX (TYPE B, NEW)
□	PULL BOX (TYPE B, EXIST.)
---	UNDERGROUND CONDUIT (EXIST.)
---	UNDERGROUND CONDUIT (NEW)
Ⓜ	RADAR DETECTION (NEW)

SIGNAL HEAD DISPLAYS (NEW)

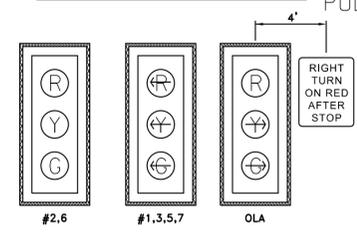


NOTE:
 1. FULL CIRCULAR RED LENSES AND LENSES FOR ALL TURN ARROWS SHALL BE L.E.D.
 2. ALL BACKPLATES SHALL HAVE A YELLOW RETROREFLECTIVE STRIP (1"-3" WIDE) AROUND THE PERIMETER.

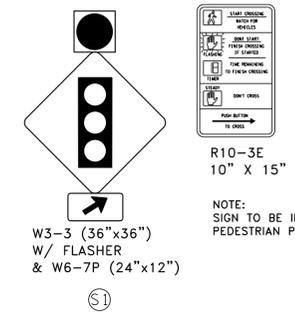


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SIGNAL HEAD DISPLAY (EXISTING)

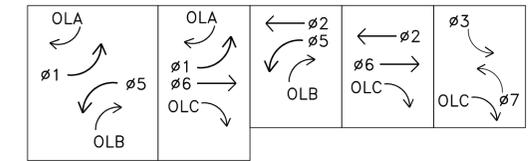
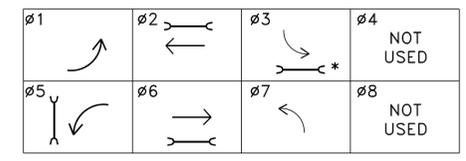


TRAFFIC SIGNS



NOTE:
SIGN TO BE INSTALLED WITH ALL NEW PEDESTRIAN PUSHBUTTONS.

PHASING DIAGRAM



COORDINATES ARE NAD/83(1995), AND TIED TO THE TORN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.

SEALED BY

5/29/2019

**CITY OF FRANKLIN
ENGINEERING DEPARTMENT**

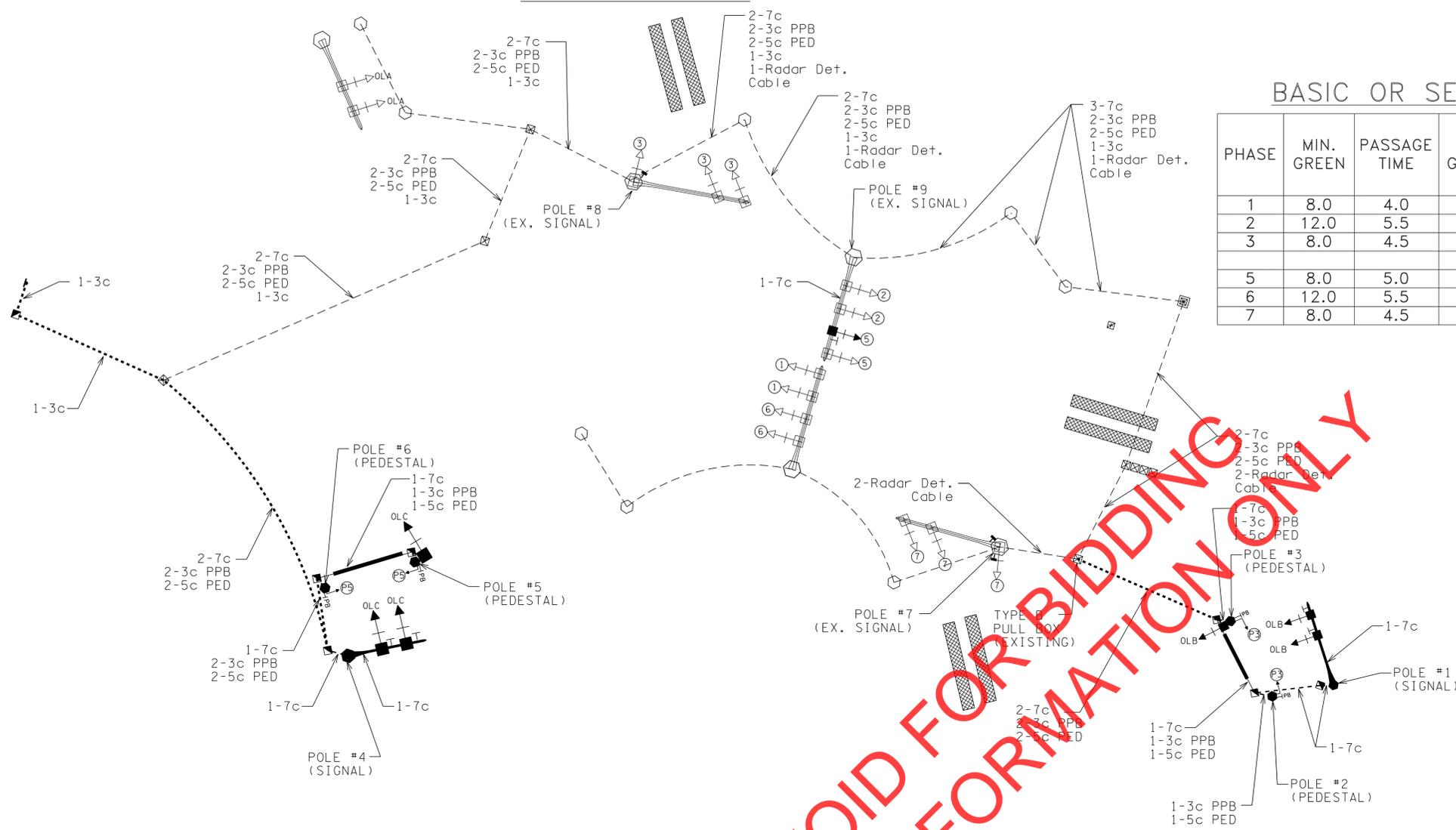
SIGNAL LAYOUT

SCALE: 1"=30'

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DONSPEC\$\$\$\$\$

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2019	2018-0062	T-2

WIRING DIAGRAM



BASIC OR SEMI-ACTUATED TIMING (SECS)

PHASE	MIN. GREEN	PASSAGE TIME	MAX. GREEN 1	MAX GREEN 2	YELLOW	RED	WALK	FLASHING DON'T WALK	RECALL TO	MEMORY POSITION	LEFT TURN OPERATION
1	8.0	4.0	35.0		4.0	4.5					PROT
2	12.0	5.5	40.0		4.0	4.0	7.0	13.0	MIN		
3	8.0	4.5	40.0		4.0	4.5					PROT
5	8.0	5.0	30.0		4.0	4.5					PROT
6	12.0	5.5	45.0		4.0	4.0	7.0	13.0	MIN		
7	8.0	4.5	40.0		4.0	4.5					PROT

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RADAR DETECTOR ASSIGNMENT CHART

ZONE	ZONE SIZE	PHASE	MODEL
R-3	6'X45'	3	WAVETRONIX MATRIX
R-5	6'X45'	5	WAVETRONIX MATRIX
R-7	6'X45'	7	WAVETRONIX MATRIX

* EXISTING LOOP DETECTION HAS NOT BEEN LOCATED AND IS NOT LISTED IN THIS TABLE.

SIGNAL SUPPORT DATA AND MAST ARM DETAILS

POLE NO.	STATION	OFFSET	ARM LENGTH	SH-1	SH-2	SH-3	RD1	RD2	S1	S2
1	117+67.22	85.98 RT.	50'	26.0'	37.5'	-	-	-	30.0'	41.5'
2	117+36.97	101.19 RT.	-	-	-	-	-	-	-	-
3	117+3.77	68.43 RT.	-	-	-	-	-	-	-	-
4	112+70.86	211.33 RT.	40'	15.0'	27.5'	-	-	-	19.0'	31.5'
5	112+90.92	155.37 RT.	-	-	-	-	-	-	-	-
6	112+49.29	181.01 RT.	-	-	-	-	-	-	-	-
7*	115+74.66'	64.69 RT.	-	-	-	-	*	*	-	-
8*	113+44.39'	61.61 LT.	-	-	-	-	*	-	-	-
9*	114+61.65	56.24 LT.	-	-	-	39.0'	-	-	43.0'	-

* RADAR DETECTION UNITS TO BE MOUNTED ON SIGNAL POLES 7 & 8.

- NOTE:
1. ALL SIGNAL POLE LENGTHS MUST BE FIELD VERIFIED PRIOR TO FABRICATION.
 2. POLES 7 & 8 ARE EXISTING SIGNAL POLES WHERE RADAR DETECTION IS BEING INSTALLED.

COORDINATES ARE NAD/83(1995), AND TIED TO THE TORN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988. THERE IS NO DATUM ADJUSTMENT FACTOR.

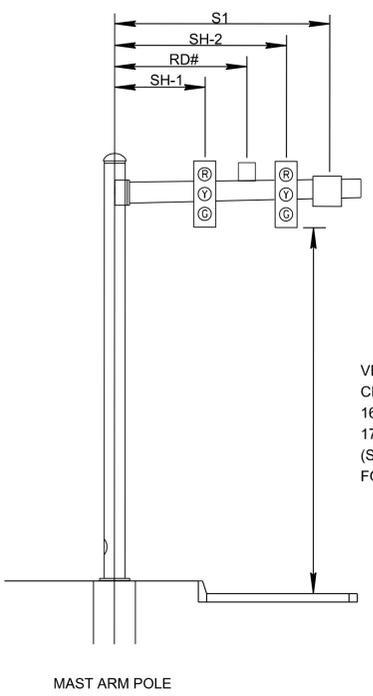
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SIGNAL
DETAILS

\$\$\$\$SYTIME\$\$\$\$
\$\$\$\$DONSPECS\$\$\$\$



S#: SIGN
SH-X: SIGNAL HEAD
RD#: RADAR DETECTION

LEGEND

- SIGNAL HEAD
- SIGN
- RADAR DETECTION

VERTICAL CLEARANCE
16'-6" MIN.
17'-6" TYP.
(SEE TDOT STD. DWG. T-SG-9 FOR ADDITIONAL DETAILS)