LATITUDE: N 39'-56'-53" LONGITUDE: W 84'-11'-56"



ENGINEER'S SEAL:

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DATE

OUTS OF THEE OUTS CTANDARD

PORTION TO BE IMPROVED STATE & FEDERAL ROUTES. OTHER ROADS.

## VICINITY MAP

CURRENT ADT (2017) 7,660  DESIGN YEAR ADT (2037) 8,300  DESIGN HOURLY VOLUME (2037) 830  DIRECTIONAL DISTRIBUTION 55%  TRUCKS (24 HOUR B&C) 4%  DESIGN SPEED 45 MPH  LEGAL SPEED 45 MPH	DESIGN DESIGNATION	MIA TIPP CITY 25A RECONSTRUCTION, PH. 2
	DESIGN YEAR ADT (2037) DESIGN HOURLY VOLUME (2037) DIRECTIONAL DISTRIBUTION TRUCKS (24 HOUR B&C) DESIGN SPEED	_ 8,300 _ 830 _ 55% _ 4% _ 45 MPH

DESIGN FUNCTIONAL CLASSIFICATION -URBAN MINOR ARTERIAL DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES OHO CALL SEFORE YOU DE 1-800 362-2764 (Non-mombers must be nailed erroptiv) OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE 1-800-925-0988

PLAN PREPARED BY:



IDEWISHER ROAD 1 SIDNEY, OHIO 45365 1 937.497.0200 ELAND AVENUE 4 LOVELAND, OHIO 45140 4 513.239.8554 DIAN STREET 8 PORTLAND, INDIANA 47371 8 260.766.2500 www.CHOICEONEENGINEERING.com

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

# MIA TIPP CITY 25A RECONSTRUCTION, PH. 2 PID #93245

# **SOUTH CR 25-A RECONSTRUCTION, PH. 2** CITY OF TIPP CITY

MIAMI COUNTY, OHIO

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Addendum No.1 Revisions **Sheets Added** 

### **DECEMBER 19. 2016**

	CITY OF CONS		NIY SIAN N DRAWIN				ODOT STA	NDARD	CONSTRUC	TION D	RAWINGS		PECIFICATIONS
	300-4	06-01-15	8007	06-01-15				HL-20.11	01-16-15			800	10-21-16
	300-5	06-01-15	800-8	06-01-15	BP 3	3.1	07-18-14	HL-30.11	01-16-15			809	04-15-16
	300-6	06-01-15	800-10	06-01-15	BP :	7.1	07-18-14	HL-30.21	01-17-14			821	04-20-12
	300-8	06-01-15	800-11	06-01-15				HL-30.22	01–17–14			832	01-17-14
	300-9	06-01-15	800-13	06-01-15				HL-60.11	01-15-16				
	300-10	06-01-15			HW.	2.2	01-15-16	HL-60.12	07-15-16				
	300-12	06-01-15						MT-95.31	07-18-14				
	500-4	06-01-15						MT-95.32	2 07-18-14				
	600-2	06-01-15						MT-95.50	10-16-15	TC-41.20	10-18-13		
١	•	_						MT-95.60	07-19-13	TC-42.20	10-18-13		
	600-8	06-01-15						MT-97.10	07-18-14	TC-52.10	10-18-13		SPECIAL
	600-10	06-01-15						MT-97.12	07-18-14	TC-52.20	07-18-14	١.	
	800-1	06-01-15						MT-99.20	07-19-13	TC-71.10	01-17-14	- 1	PROVISIONS
	800-2	06-01-15						MT-101.60	0 07-19-13	TC-82.10	10-18-13		
٠.	800-5	06-01-15						MT-101.9	0 07-17-15	TC-84.20	10-18-13		
	800-6	06-01-15						MT-105.10	0 07-19-13	TC-84.21	<u>10</u> —18—13		

### PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF C.R. 25-A FROM MICHAELS RD. TO EVANSTON RD. CONSTRUCTION CONSISTS OF SIDEWALK, PAVEMENT, CURBING, THE INSTALLATION OF A NEW STORM SEWER SYSTEM, UTILITY RELOCATIONS, STREET LIGHTS AND RESTORATION OF TRAFFIC SIGNAGE. ALSO SIDEWALK WILL BE INSTALLED ALONG THE WEST ONLY FROM MICHAELS RD. TO MAIN ST. (SR 571).

2016 SPECIFICATIONS

THE CONSTRUCTION STANDARDS AND DRAWINGS OF THE CITY OF TIPP CITY AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL

## EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA

**ESTIMATED CONTRACTOR** EARTH DISTURBED AREA

= 0.50 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA

SLIPPI EMENTAL

= 5.89 ACRES

OEPA, WATER:

SUBMITTED\_11/07/16\_APPROVED\_11/29/16 SUBMITTED\_11/16/16\_APPROVED\_11/30/16

OEPA, SANITARY: SUBMITTED N/A APPROVED N/A

ChoiceOne

93245

FEDERAL NO. E120733

> STATE NO. N/A

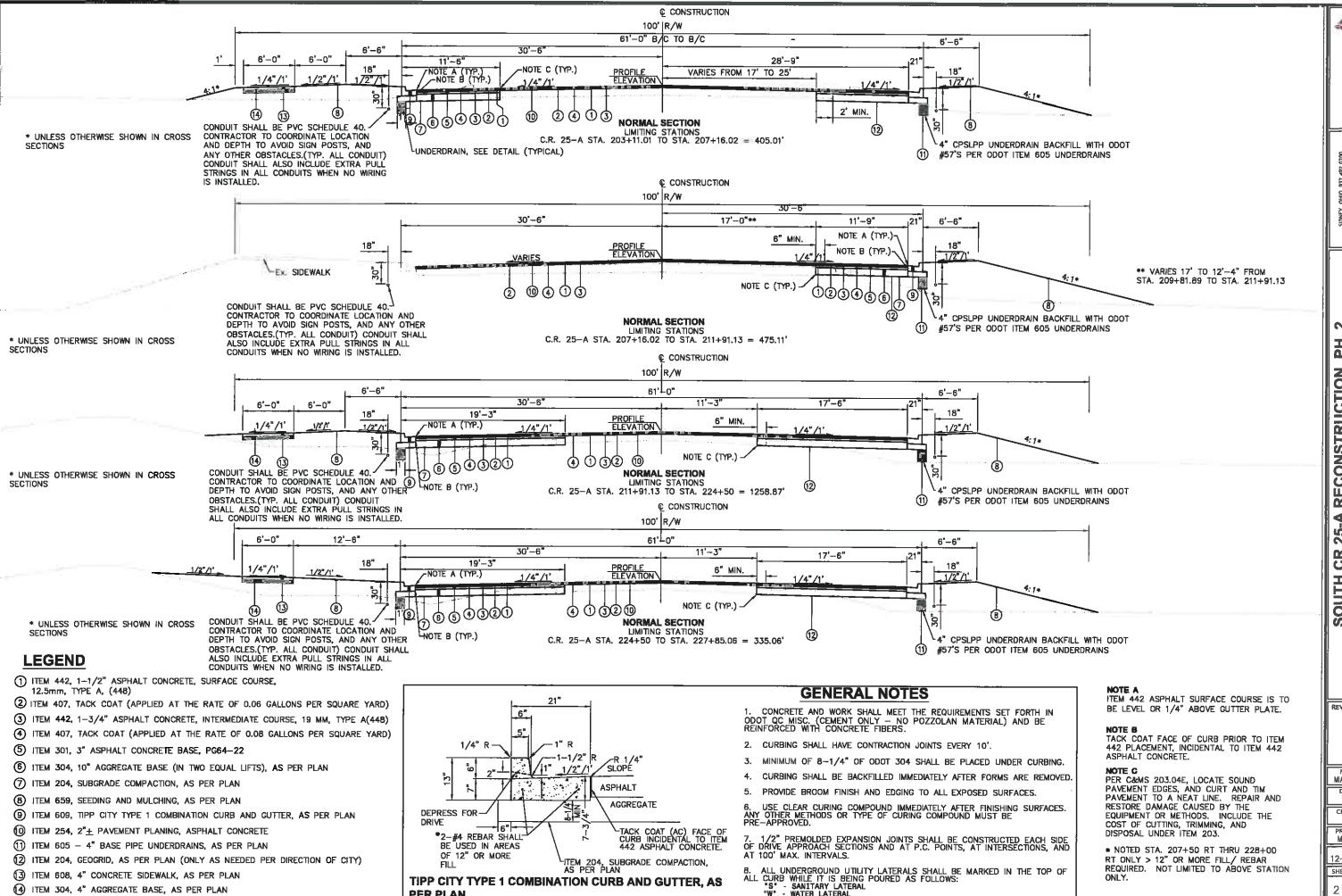
SOUTH CR 25-A RECONSTRUCTION, PH.

MIA TIPP CITY 25A Reconstruction, PH. 2

DRAWN BY BHB

CHECKED BY CITY OF: TIPP CITY

COUNTY SHEET NUMBER



"W" - WATER LATERAL

**PER PLAN** 

On Choice

CONSTRUCTION, TIPP CITY E TIPI D G RE ō 25 ට ට  $\overline{\mathbf{o}}$ SE

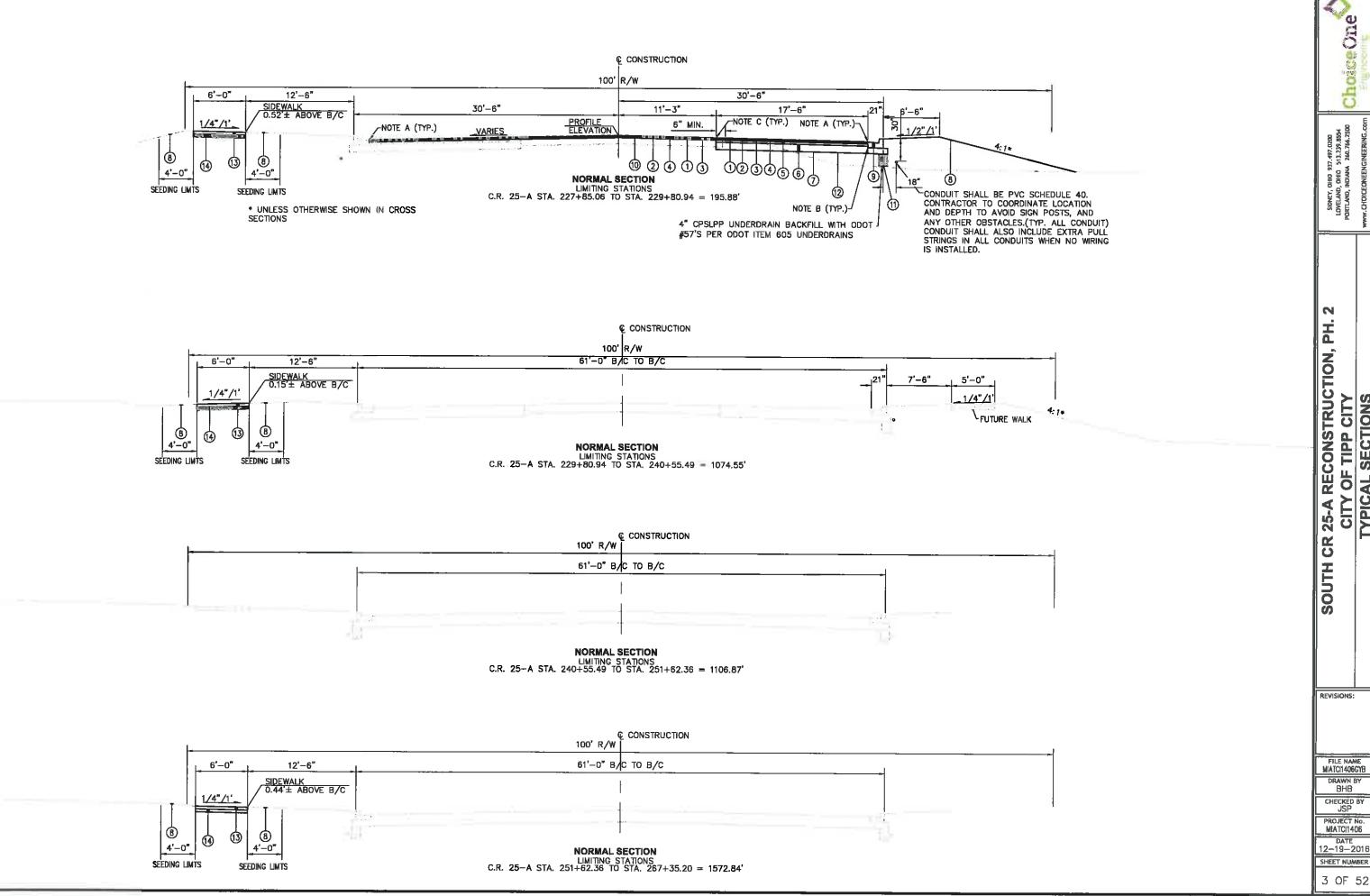
REVISIONS:

FILE NAME MIATCH 406GYA

BHB CHECKED BY

PROJECT No. MIATCI1406 12-19-2010

SHEET NUMBER



ChoiceOne

CITY OF TIPP CITY

TYPICAL SECTIONS

REVISIONS:

CHECKED BY

PROJECT No. MIATCI1406

SHEET NUMBER

ChoiceOne

CR 25-A RECONSTRUCTION, CITY OF TIPP CITY TYPICAL SECTIONS

FILE NAME MIATCI1406GYC

CHECKED BY JSP

PROJECT No. MIATCI1406

DATE 12-19-2016

#### **GENERAL NOTES AND DETAILS**

ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF TIPP CITY ENGINEERING STANDARDS AND SPECIFICATIONS OR OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY.

#### UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.
NON-MEMBERS MUST BE CALLED DIRECTLY.

**UTILITY OWNERSHIP** LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STORM & SANITARY MUNICIPAL BLDG.

GAS

TELEPHONE

MUNICIPAL BLDG. 260 S. GARBER ST. TIPP CITY, OHIO 45371 937-667-6305

VECTREN 6500 CLYO RD. CENTERVILLE OHIO, 45459 937-312-2533

FRONTIER COMMUNICATIONS 6464 WESTBROOK RD CLAYTON, OHIO 45315 541-390-3910

DAYTON, OHIO 45439 WILLIAM GOURLEY CONTACT: DON SPECHT 937-331-4521 DP&L TRANSMISSION 1900 DRYDEN ROAD DAYTON, OHIO 45439 GREG TOKAR 937-331-4647 CONTACT: CHUCK BARNACCHI

OHIO UTILITIES PROTECTION SERVICE 2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE 800-362-2764

TIME WARNER

3691 TURNER RD

937-425-8850

DAYTON, OH 45415

CONTACT: TIM KUSS

1900 DRYDEN ROAD

DAYTON POWER AND LIGHT CO

#### UTILITY INTERFERENCE

IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS, THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. THERE WILL BE NO DELAYS ALLOWED FOR UTILITY INTERFERENCES.

#### **EXISTING TILE HOOKUPS**

THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION, ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY. THE CITY WILL ASSIST IN ANY NECESSARY INVESTIGATION OR DYE TESTING PRIOR TO APPROVING PLUGGING A FIELD OR STORM TILE. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY. COST OF ALL THE ITEMS ABOVE SHALL BE INCLUDED IN THE COST OF ITEM 611 STORM SEWERS.

#### **CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES**

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE CITY SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT ANY EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE CITY SHALL
BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

## **GRAFFITI AND VANDALISM**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER PAY ITEM UNDER THIS CONTRACT WHICH IS DEEMED UNACCEPTABLE BY THE CITY DUE TO GRAFFITI OR VANDALISM DAMAGE.

#### SUBCONTRACTOR SUPERVISION

THE CONTRACTOR IS REQUIRED TO HAVE A PROJECT SUPERVISOR ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK.

COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF RELATED PAY ITEMS OF THIS PROJECT.

#### **TESTING AND CERTIFICATION**

CONTRACTOR TO PROVIDE TESTING OF OR CERTIFICATION THAT MATERIAL SUPPLIED FOR THIS PROJECT MEETS THE PROJECT SPECIFICATIONS, IF REQUIRED.

POTENTIAL ITEMS FOR TESTING CONSIST OF TRENCH BACKFILL, EMBANKMENT, AND CONCRETE, WHICH MAY BE PERFORMED BY THE CITY IF THEY SUSPECT DEFECTIVE WORK OR

PAYMENT FOR CERTIFICATION OF WORK SHALL BE INCIDENTAL TO THE VARIOUS ITEMS IT IS RELATED TO AND SHALL INCLUDE ALL COST RELATED TO PROVIDING THE CERTIFICATION AS REQUIRED. COST OF ANY TESTING BY A TESTING LAB CONTRACTED BY THE CITY SHALL BE BORNE BY THE CITY, UNLESS THE TEST DOES NOT MEET PROJECT SPECIFICATIONS OR WORK IS FOUND TO BE DEFECTIVE, AT WHICH, THE CONTRACTOR SHALL PAY THE EXPENSES FOR

#### PROPERTY POINTS AND SURVEY MONUMENTS

CARE SHALL BE TAKEN BY THE CONTRACTOR TO SAFEGUARD ANY PROPERTY POINTS OR OTHER SURVEY REFERENCE MARKS ENCOUNTERED DURING CONSTRUCTION OF THIS PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESET ANY PROPERTY POINT OR SURVEY MONUMENT WHICH IS DISTURBED AS A RESULT OF CONSTRUCTION OF THIS PROJECT. THE PROPERTY POINTS AND SURVEY MONUMENTS SHALL BE RESET UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL SURVEYOR.

PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

#### **REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY, REPRESENTATIVES OF THE CITY, AND THE CONTRACTOR, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

#### **MISCELLANEOUS**

COMPENSATION FOR THE WORK AS SHOWN ON THE PLANS SHALL BE AT THE UNIT PRICES INCLUDED IN THE BID PROPOSAL. NO SEPARATE PAYMENT WILL BE MADE FOR TASKS (NOT ALL INCLUSIVE) INCLUDING SUCH ITEMS AS MOBILIZATION, RECORD DRAWINGS AND CONNECTIONS TO EXISTING FACILITIES.

#### **WORK LIMITS**

ALL WORK SHALL BE WITHIN EXISTING RIGHT-OF-WAY AND/OR CONSTRUCTION LIMITS UNLESS OTHERWISE INSTRUCTED BY THE CITY.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

### RECORD DRAWINGS

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF RECORD DRAWINGS TO THE CITY WITHIN 30 DAYS OF PROJECT COMPLETION. THESE DRAWINGS SHALL SHOW ALL CHANGES TO THE ORIGINAL DRAWINGS, ALL MANHOLE AND CATCH BASIN LOCATIONS AND INVERTS, ALL LATERAL LOCATIONS AND DEPTHS, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION AND ALL OTHER PERTINENT DATA TO THE IMPROVEMENTS. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT

#### **SPECIAL CONDITIONS**

ALL CONCRETE WORK MUST BE FINISHED TO THE SATISFACTION OF THE CITY. CONCRETE CURBING PLACED BY MACHINE MUST BE HAND TROWELED PRIOR TO BROOMING. NO WATER MAY BE USED TO ASSIST TROWELING.

ASPHALT MAY NOT OVERLAP CURBING. ANY EXCESS ASPHALT MUST BE REMOVED FROM CURBING BEFORE FINAL ROLLING.

THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON CITY STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

#### SAWCUT PAVEMENT JOINTS

SAWCUT PAVEMENT JOINTS SHALL BE INCLUDED IN THE PAYMENT OF ITEM 202, REMOVED, AS PER PLAN. MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT. ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT. THE JOINT PREPARATION AND SEALING SHALL BE INCLUDED IN THE PAYMENT FOR ASPHALT CONCRETE.

#### DEWATERING

ANY DEWATERING OR PUMPING NECESSARY FOR THE CONSTRUCTION OF ANY ITEMS SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS.

#### NOTE

ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

#### **OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3" BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. CONTRACTOR SHALL HAVE ON SITE STEEL PLATES FOR MAINTENANCE OF TRAFFIC AS DEEMED NECESSARY BY THE CITY IF THE 3" TOLERANCE IS NOT MET. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25' OR LESS) BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE CITY. CONTRACTOR SHALL ALSO PROVIDE ANY DRIVEWAY RAMPING NEEDED DURING PAVEMENT REMOVAL.

#### MASONRY COLLAR

A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR THE NEW CONDUIT.

DUE TO FUNDING, THE OWNER RESERVES THE RIGHT TO INCREASE, DECREASE, OR OMIT ANY ITEMS LISTED IN THE BID SCHEDULE.

NO FINAL UNIT PRICE ADJUSTMENTS PER ODOT 104.02 WILL BE MADE AT CONTRACT FINALIZATION.

#### SAFETY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE. AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

#### MODIFICATIONS

ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY.

#### WATER MAIN CROSSING SEPARATION

WHENEVER A SANITARY SEWER OR STORM SEWER AND WATERLINE MUST CROSS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE BOTTOM OF THE WATERLINE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED WITH WATERLINE TYPE MATERIALS WHICH WILL WITHSTAND A 150 PSI PRESSURE TEST. THESE REQUIREMENTS WILL EXTEND FOR A DISTANCE OF 10', MEASURED PERPENDICULAR, ON BOTH SIDES OF THE

CITY DOES NOT PERMIT CHANGES IN MATERIALS MID SPAN. ENTIRE SPAN MUST BE CHANGED.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM OR SANITARY SEWERS AS POSSIBLE.

### RESIDENTIAL, COMMERCIAL, STORM **DRAINAGE AND SEWER FACILITIES**

EXISTING ROOF DRAINS, FOOTER DRAINS, STORM DRAINS, SANITARY LATERALS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY

ALL CLEAN WATER CONNECTIONS (ROOF DRAINS, SUMP PUMPS, ETC.) ENCOUNTERED SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ALL SANITARY LATERALS SHALL BE RECONNECTED TO SANITARY SEWER PER THE CITY'S DIRECTION, THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE OWNER DURING CONSTRUCTION, AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS AND INCLUDE ALL MATERIALS NECESSARY SUCH AS GRANULAR BEDDING, PROPER FITTINGS AND CONNECTIONS, AND PIPE. PERMISSION FROM PROPERTY OWNERS SHALL BE GRANTED TO THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ON PRIVATE

THE FOLLOWING CONTINGENT ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS FOR THE WORK NOTED ABOVE:

ITEM 611 4" PVC SDR-35 CONDUIT, TYPE B ITEM 611 6" PVC SDR-35 CONDUIT, TYPE B 100 FEET ITEM 611 8" PVC SDR-35 CONDUIT, TYPE B

#### CONCURRENT ACTIVITY

THE CONTRACTOR IS HEREBY ADVISED THAT ALL UTILITY COMPANIES AFFECTED BY THIS PROJECT MAY BE WORKING CONCURRENTLY WITHIN THE PROJECT LIMITS.

#### UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. FURTHER, CHOICE ONE ENGINEERING CORPORATION DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH CHOICE ONE ENGINEERING CORPORATION DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

### **ASPHALT**

ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT.

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET. ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT.

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REVISIONS:

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FILE NAME MIATCI1406GNA

DRAWN BY BHB CHECKED BY JSP

PROJECT No MIATCI1406

12-19-2016 SHEET NUMBER

CONTRACT WORK PERFORMED BY THE CITY

IF THE CONTRACTOR REFUSES IR FAILS TO PERFORM WORK OF ANY IMMEDIATE NATURE SUCH
AS THE PLACEMENT OF BARRICADES REPLACEMENT OF SIGNS, OR OTHER DEVICES REQUIRED
BY THIS CONTRACT IN A REASONABLE TIME, THE CITY WILL PERFORM THE NECESSARY WORK.
THE CONTRACTOR SHALL REIMBURSE THE CITY AT THE RATE OF 2.5 TIMES THE ACTUAL COST
OF LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE CITY
SHALL NOTIFY OR ATTEMPT TO NOTIFY THE CONTRACTOR OF THE NECESSITY TO PERFORM
SUCH WORK. THE CITY SHALL BE REIMBURSED BY A DEDUCTION FROM THE CONTRACTOR'S
NEXT PAYMENT UNDER THE CONTRACT. REASONABLE THE FOR ALL STREETS INVOLVED ON
THIS CONTRACT IS 1 HOUR FROM THE TIME OF NOTIFICATION BY THE CITY.

#### NONRUBBER TIRE VEHICLES

NO NONRUBBER TIRE VEHICLES SHALL BE MOVED ON CITY STREETS. LYCEPTIONS MAY BE GRANTED BY THE CITY WHERE SHORT DISTANCES AND SPECIAL CIRCUMS INCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL USE EXTREME CARE WHEN OPERATING NONRUBBER TIRE VEHICLES ON STREETS OR DRIVEWAYS TO AVOID MARKING OR DAMAGING THE PAVEMENT. PROTECTION OF THE PAVEMENT FROM DAMAGE RESULTING FROM THE TRACKS OF NONRUBBER TIRE VEHICLES UTILIZED IN TRENCH EXCAVATION SHALL BE REQUIRED. A WOOD PLANK SYSTEM, USED TIRES, RUBBER MATS, OR OTHER MEANS AS APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE USED TO PROTECT THE PAVEMENT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

#### **CONSTRUCTION NOISE**

IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION—TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH

#### **DEMOLITION NOTES**

1. THE CONTRACTOR SHALL SAWCUT ALL EXISTING PAVEMENT, SIDEWALK AND CURB AGAINST WHICH ALL IMPROVEMENTS ARE PROPOSED. PAVEMENT, WALK, AND CURB SHALL BE SAWCUT IN NEAT, STRAIGHT LINES. COST FOR SAWCUTTING SHALL BE INCLUDED IN ITEM 202 REMOVED, AS PER PLAN.

2. THE EXISTING SIDEWALK IS EXPECTED TO HAVE LOW LOAD BEARING CAPACITY. EXERCISE

## **CONCRETE FIBERS**

ALL CURB, DRIVEWAYS, WALKS, AND CURB RAMPS SHALL HAVE 3 LBS, OF 2.25" IN LENGTH FIBRILLATED MACROFIBERS.

CONTRACTOR IS TO NOTIFY THE FIBER MANUFACTURER'S SUPPLIER REPRESENTATIVE 48 HOURS PRIOR TO THE FIRST POUR OF THE CONCRETE UTILIZING EACH DIFFERENT FIBER TYPE TO ENSURE FIBERS ARE MIXED CORRECTLY, PLACEMENT, AND FINISHING. FIBER REPRESENTATIVE MUST BE ON SITE FOR THE FIRST POUR OF EACH FIBER TYPE.

#### **CONTROL OF SPILLS**

THIS PROJECT IS LOCATED WITHIN THE BOUNDARIES OF A DESIGNATED SOLE SOURCE AQUIFER. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETROCHEMICALS, AND TOXIC/HAZARDUOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING SHALL NOT BE UNDERTAKEN NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS. OILS, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE TIPP CITY FIRE DEPARTMENT (937-669-8477) IS TO BE CONTACTED.

#### ENDANGERED SPECIES HABITAT

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY-LISTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVALS MUST OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVING, DYING, OR DEAD WOODLY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE GROUND SURFACE AND WITH A MINIMUM HEIGHT OF 13 FEET.

#### **NEPA ASSIGNMENT LANGUAGE**

THE ENVIRONMENTAL REVIEW, CONSULTATION AND OTHER ACTIONS REQUIRED BY APPLICABLE FEDERAL ENVIRONMENTAL LAWS FOR THIS PROJECT ARE BEING, OR HAVE BEEN, CARRIED OUT BY ODOT PURSUANT TO 23 U.S.C. 327 AND A MEMORANDUM OF UNDERSTANDING DATED 12/11/2015, AND EXECUTED BY FHWA AND ODOT.

### ITEM 201 CLEARING AND GRUBBING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 201 CLEARING AND GRUBBING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL CONSIST OF REMOVING AND TRIMMING TREES, REMOVING STUMPS. TRIMMING AND/OR REMOVING BUSHES, REMOVING LANDSCAPE TIMBERS, ETC. AS NOTED ON THE PLANS, WORK SHALL BE COORDINATED WITH THE INDIVIDUAL PROPERTY OWNERS TO ENHANCE MAXIMUM

ALL STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE EACH BID ITEM LISTED BELOW. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED, QUANTITIES MAY BE ADJUSTED IN FIELD:

SIZE	No. TREES	No. STUMPS	TOTAL
12"-24"	0	0	0
24"-36"	0	0	0
36"60"	0	0	0

PAYMENT FOR ITEM 201 CLEARING AND GRUBBING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT LUMP SUM BID PRICE EXCEPT FOR ITEMS PAID FOR AS EACH AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 202 REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS, EXCEPT AS HEREIN

TEM 202 REMOVED, AS PER PLAN CONSISTS OF SUCH ITEMS AS GUARDRAIL, CONCRETE PARTMENT, HEADWALLS, ASPHALT PAVEMENT, CATCH BASINS, EXISTING PAVEMENT, ROCKS, HANDRAYS, LANDSCAPE TIMBERS/PAVERS, BRICK PAVERS, PULL BOXES, TRAFFIC SIGNAL CONDUIT, DITECTOR LOOPS, ETC., AS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT, INCLUDING SAL CUTTING PAVEMENT.

THE REMOVAL OF EXITING SIDEWALK, EXISTING PIPE, AND EXISTING CURB SHALL BE PAID UNDER THEIR RESPECTIVE ITEMS.

ANY ITEM THAT IS REMOVED DISER OR WITHIN 5' OF PROPOSED CURB, PAVEMENT, SIDEWALKS, OR DRIVEWAY SHALL BE BACKFILLED AND COMPACTED USING ITEM 611 TYPE 1 OR 2 STRUCTURAL MATERIAL.

ANY PRIVATE PROPERTY SHALL BE REMOVED CAREFULLY AND STORED FOR THE PROPERTY OWNER AT A PLACE DESIGNATED BY THE OWNER ON THAT PARTICULAR PROPERTY, ANY SALVAGED PUBLIC ITEMS SHALL REMAIN CITY PROPERTY AND SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND STORED AT A DESIGNATED CONTRACTOR AND STORED AT A DESIGNATED CONTRACTOR OF THE PROJECT SITE FOR

PAYMENT FOR ITEM 202 REMOVED, AS PER PLAN, FOR ALL OPENATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WOR

#### **ITEM 203 EXCAVATION, AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT TRANSPORTATION ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT, EXCEPT AS HEREIN

ALL SURFACE MATERIAL, EXCAVATED UNSUITABLE MATERIAL AND ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY AND EXPENSE OUTSIDE OF THE RIGHT-OF-WAY AT A SITE APPROVED BY THE CITY, THIS ITEM SHALL ALSO INCLUDE THE PLACING OF A MINIMUM OF 6" OF TOPSOIL ON ALL DISTURBED AREAS DURING FINAL GRADING.

PAYMENT FOR ITEM 203 EXCAVATION, INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS

#### **ITEM 204 EXCAVATION OF SUBGRADE AND** STRUCTURAL EMBANKMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL INCLUDE THE EXCAVATING OF UNSUITABLE SUBGRADE AND REPLACING WITH ODOT ITEM 304 AGGREGATE BASE, ODOT #1, ODOT #2, OR ANY COMBINATION AS DIRECTED BY THE CITY. LOCATION AND AMOUNT OF THIS ITEM SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION ONLY AFTER THE CONTRACTOR HAS SATISFACTORILY ATTEMPTED TO DRY OUT AND WORK THE SUBGRADE. THIS ITEM INCLUDES EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL, SUBGRADE COMPACTION, AND THE SUPPLY AND PLACEMENT OF THE ABOVE MENTIONED GRANULAR MATERIAL. THE ESTIMATED QUANTITY IS 4700 CUBIC YARDS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEEDS THE ESTIMATED QUANTITY, IF NECESSARY.

PAYMENT FOR ITEM 204 EXCAVATION OF SUBGRADE AND GRANULAR EMBANKMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 204 SUBGRADE COMPACTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH A LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN SUBGRADE IS PRESENT.

PAYMENT FOR ITEM 204 SUBGRADE COMPACTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 GEOGRID, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF
TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN

THE WORK SHALL INCLUDE SUBGRADE STABILIZATION BY UTILIZING TENSAR TX5 GEOGRID, NAUE SECUGRID 60/20, COLBOND ENKAGRID PRO 40, OR AN APPROVED EQUIVALENT. LOCATION AND AMOUNT SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION. TENSAR TX5 GEOGRID SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. THIS WORK SHALL INCLUDE THE ADDITIONAL LABOR AND EQUIPMENT TO PROPERLY PLACE 304 AGGREGATE BASE OVER TENSAR AS RECOMMENDED BY THE

THE ESTIMATED QUANTITY IS 9300 SQUARE YARDS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEED THE ESTIMATED QUANTITY, IF NECESSARY. THE METHOD OF MEASUREMENT SHALL BE THE SURFACE AREA COVERED BY STABILIZATION MEMBRANE, NOT INCLUDING OVERLAP OR WASTE.

PAYMENT FOR ITEM 204 GEOGRID, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF

ITEM 304 AGGREGATE BASE, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 304 AGGREGATE BASE, EXCEPT AS HEREIN MODIFIED.

THIS ITEM SHALL ALSO INCLUDE SATURATING THE AGGREGATE BASE WITH WATER DURING PLACEMENT OF EACH LIFT PRIOR TO COMPACTING.

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE AGGREGATE BASE IS PRESENT.

PAYMENT FOR ITEM 304 AGGREGATE BASE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### **ITEM 452 NON-REINFORCED CONCRETE** PAVEMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 452 NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. EXCEPT AS HEREIN MODIFIED.

CONCRETE DRIVE APPROACHES SHALL HAVE A MINIMUM THICKNESS OF 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVES. 6" AGGREGATE BASE SATURATED W/ WATER PRIOR TO COMPACTION, THIS SHALL BE PAID UNDER THE RESPECTIVE ITEM. CONCRETE SHALL BE ODOT MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCED WITH CONCRETE PERFORM A BROOM FINISH AND TOOLED EDGES ON ALL SURFACES AND APPLY CURING COMPOUND IMMEDIATELY. PROVIDE 1/2" PREMOLDED EXPANSION JOINT TO ISOLATE APPROACHES AND WALKS.

DRIVES SHALL BE INSTALLED TO MATCH INTO EXISTING.

PAYMENT FOR ITEM 452 CN-REINFORCED CONCRETE PAVEMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL MATERIAL, ABOR, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF

Old Bid sheet, see next with Addendum No.1 Revisions

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REVISIONS:

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FILE NAME MIATCI1406GNB DRAWN BY BHB

CHECKED BY JSP PROJECT No.

MIATCI1406 DATE 12-19-2016

HEET NUMBER

**CONTRACT WORK PERFORMED BY THE CITY** 

IF THE CONTRACTOR REFUSES OR FAILS TO PERFORM WORK OF ANY IMMEDIATE NATURE SUCH AS THE PLACEMENT OF BARRICADES, REPLACEMENT OF SIGNS, OR OTHER DEVICES REQUIRED BY THIS CONTRACT IN A REASONABLE TIME, THE CITY WILL PERFORM THE NECESSARY WORK. THE CONTRACTOR SHALL REIMBURSE THE CITY AT THE RATE OF 2.5 TIMES THE ACTUAL COST OF LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE CITY SHALL NOTIFY OR ATTEMPT TO NOTIFY THE CONTRACTOR OF THE NECESSITY TO PERFORM SUCH WORK. THE CITY SHALL BE REIMBURSED BY A DEDUCTION FROM THE CONTRACTOR'S NEXT PAYMENT UNDER THE CONTRACT. REASONABLE TIME FOR ALL STREETS INVOLVED ON THIS CONTRACT IS 1 HOUR FROM THE TIME OF NOTIFICATION BY THE CITY.

#### NONRUBBER TIRE VEHICLES

NO NONRUBBER TIRE VEHICLES SHALL BE MOVED ON CITY STREETS. EXCEPTIONS MAY BE GRANTED BY THE CITY WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL USE EXTREME CARE WHEN OPERATING NONRUBBER TIRE VEHICLES ON STREETS OR DRIVEWAYS TO AVOID MARKING OR DAMAGING THE PAVEMENT. PROTECTION OF THE PAVEMENT FROM DAMAGE RESULTING FROM THE TRACKS OF NONRUBBER TIRE VEHICLES UTILIZED IN TRENCH EXCAVATION SHALL BE REQUIRED. A WOOD PLANK SYSTEM, USED TIRES, RUBBER MATS, OR OTHER MEANS AS APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE USED TO PROTECT THE PAVEMENT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

#### **CONSTRUCTION NOISE**

IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

**DEMOLITION NOTES** 

1. THE CONTRACTOR SHALL SAWCUT ALL EXISTING PAVEMENT, SIDEWALK AND CURB AGAINST WHICH ALL IMPROVEMENTS ARE PROPOSED. PAVEMENT, WALK, AND CURB SHALL BE SAWCUT IN NEAT, STRAIGHT LINES. COST FOR SAWCUTTING SHALL BE INCLUDED IN ITEM 202 REMOVED, AS

2. THE EXISTING SIDEWALK IS EXPECTED TO HAVE LOW LOAD BEARING CAPACITY, EXERCISE

**CONCRETE FIBERS** 

ALL CURB, DRIVEWAYS, WALKS, AND CURB RAMPS SHALL HAVE 3 LBS, OF 2.25" IN LENGTH FIBRILLATED MACROFIBERS.

CONTRACTOR IS TO NOTIFY THE FIBER MANUFACTURER'S SUPPLIER REPRESENTATIVE 48 HOURS PRIOR TO THE FIRST POUR OF THE CONCRETE UTILIZING EACH DIFFERENT FIBER TYPE TO ENSURE FIBERS ARE MIXED CORRECTLY, PLACEMENT, AND FINISHING. FIBER REPRESENTATIVE MUST BE ON SITE FOR THE FIRST POUR OF EACH FIBER TYPE.

#### **CONTROL OF SPILLS**

THIS PROJECT IS LOCATED WITHIN THE BOUNDARIES OF A DESIGNATED SOLE SOURCE AQUIFER. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETROCHEMICALS, AND TOXIC/HAZARDUOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING SHALL NOT BE UNDERTAKEN NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE TIPP CITY FIRE DEPARTMENT (937-669-8477) IS TO BE CONTACTED.

#### **ENDANGERED SPECIES HABITAT**

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY-LISTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVALS MUST OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVING, DYING, OR DEAD WOODLY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE GROUND SURFACE AND WITH A MINIMUM HEIGHT OF 13 FEET.

#### **NEPA ASSIGNMENT LANGUAGE**

THE ENVIRONMENTAL REVIEW, CONSULTATION AND OTHER ACTIONS REQUIRED BY APPLICABLE FEDERAL ENVIRONMENTAL LAWS FOR THIS PROJECT ARE BEING, OR HAVE BEEN, CARRIED OUT BY ODOT PURSUANT TO 23 U.S.C. 327 AND A MEMORANDUM OF UNDERSTANDING DATED 12/11/2015, AND EXECUTED BY FHWA AND ODOT.

#### ITEM 201 CLEARING AND GRUBBING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 201 CLEARING AND GRUBBING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL CONSIST OF REMOVING AND TRIMMING TREES, REMOVING STUMPS, TRIMMING AND/OR REMOVING BUSHES, REMOVING LANDSCAPE TIMBERS, ETC. AS NOTED ON THE PLANS. WORK SHALL BE COORDINATED WITH THE INDIVIDUAL PROPERTY OWNERS TO ENHANCE MAXIMUM POSSIBLE SATISFACTION.

ALL STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE EACH BID ITEM LISTED BELOW. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED. QUANTITIES MAY BE ADJUSTED IN FIELD:

SIZE	No. TREES	No. STUMPS	TOTA
12"-24"	0	0	0
24"-36"	0	0	0
36"-60"	0	0	0

PAYMENT FOR ITEM 201 CLEARING AND GRUBBING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT LUMP SUM BID PRICE EXCEPT FOR ITEMS PAID FOR AS EACH AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 202 REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS, EXCEPT AS HEREIN

ITEM 202 REMOVED, AS PER PLAN CONSISTS OF SUCH ITEMS AS GUARDRAIL, CONCRETE PAVEMENT, HEADWALLS, ASPHALT PAVEMENT, CATCH BASINS, EXISTING PAVEMENT, ROCKS, HANDRAILS, LANDSCAPE TIMBERS/PAVERS, BRICK PAVERS, PULL BOXES, TRAFFIC SIGNAL CONDUIT, DETECTOR LOOPS, ETC., AS NECESSARY FOR THE CONSTRUCTION OF THE PROJECT, INCLUDING SAW CUTTING PAVEMENT.

THE REMOVAL OF EXISTING SIDEWALK, EXISTING PIPE, AND EXISTING CURB SHALL BE PAID UNDER THEIR RESPECTIVE ITEMS.

ANY ITEM THAT IS REMOVED UNDER OR WITHIN 5' OF PROPOSED CURB, PAVEMENT, SIDEWALKS, OR DRIVEWAY SHALL BE BACKFILLED AND COMPACTED USING ITEM 611 TYPE 1 OR 2 STRUCTURAL MATERIAL.

ANY PRIVATE PROPERTY SHALL BE REMOVED CAREFULLY AND STORED FOR THE PROPERTY OWNER AT A PLACE DESIGNATED BY THE OWNER ON THAT PARTICULAR PROPERTY, ANY SALVAGED PUBLIC ITEMS SHALL REMAIN CITY PROPERTY AND SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND STORED AT A DESIGNATED LOCATION ON THE PROJECT SITE FOR CITY PICKUP

PAYMENT FOR ITEM 202 REMOVED, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### **▲ ITEM 203 EXCAVATION, AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT, EXCEPT AS HEREIN

ALL SURFACE MATERIAL, EXCAVATED UNSUITABLE MATERIAL AND ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY AND EXPENSE OUTSIDE OF THE RIGHT-OF-WAY AT A SITE APPROVED BY THE CITY. THIS ITEM SHALL ALSO INCLUDE THE PLACING OF A MINIMUM OF 6" OF TOPSOIL ON ALL DISTURBED AREAS DURING FINAL GRADING.

PAYMENT FOR ITEM 203 EXCAVATION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN

THIS WORK SHALL INCLUDE THE EXCAVATING OF UNSUITABLE SUBGRADE AND REPLACING WITH ODOT ITEM 304 AGGREGATE BASE, ODOT #1, ODOT #2, OR ANY COMBINATION AS DIRECTED BY THE CITY. LOCATION AND AMOUNT OF THIS ITEM SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION ONLY AFTER THE CONTRACTOR HAS SATISFACTORILY ATTEMPTED TO DRY OUT AND WORK THE SUBGRADE. THIS ITEM INCLUDES EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL, SUBGRADE COMPACTION, AND THE SUPPLY AND PLACEMENT OF THE ABOVE MENTIONED GRANULAR MATERIAL. THE ESTIMATED QUANTITY IS 4700 CUBIC YARDS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEEDS THE ESTIMATED QUANTITY, IF NECESSARY,

PAYMENT FOR ITEM 204 EXCAVATION OF SUBGRADE AND GRANULAR EMBANKMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 204 SUBGRADE COMPACTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH A LOADED TANDEM DUMP TRUCK AS DIRECTED. BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN SUBGRADE IS PRESENT.

PAYMENT FOR ITEM 204 SUBGRADE COMPACTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 GEOGRID, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF
TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN

THE WORK SHALL INCLUDE SUBGRADE STABILIZATION BY UTILIZING TENSAR TX5 GEOGRID, NAUE SECUGRID 60/20, COLBOND ENKAGRID PRO 40, OR AN APPROVED EQUIVALENT. LOCATION AND AMOUNT SHALL BE LOCATED BY THE CITY AT THE TIME OF CONSTRUCTION. TENSAR TX5 GEOGRID SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. THIS WORK SHALL INCLUDE THE ADDITIONAL LABOR AND EQUIPMENT TO PROPERLY PLACE 304 AGGREGATE BASE OVER TENSAR AS RECOMMENDED BY THE

THE ESTIMATED QUANTITY IS 9300 SQUARE YARDS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEED THE ESTIMATED QUANTITY, IF NECESSARY. THE METHOD OF MEASUREMENT SHALL BE THE SURFACE AREA COVERED BY STABILIZATION MEMBRANE, NOT INCLUDING OVERLAP OR WASTE.

PAYMENT FOR ITEM 204 GEOGRID, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE (REGARDLESS OF QUANTITY) AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF

ITEM 304 AGGREGATE BASE, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 304 AGGREGATE BASE, EXCEPT AS HEREIN MODIFIED.

THIS ITEM SHALL ALSO INCLUDE SATURATING THE AGGREGATE BASE WITH WATER DURING PLACEMENT OF EACH LIFT PRIOR TO COMPACTING.

THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE CITY UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE AGGREGATE BASE IS PRESENT.

PAYMENT FOR ITEM 304 AGGREGATE BASE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### **ITEM 452 NON-REINFORCED CONCRETE** PAVEMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 452 NON-REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, EXCEPT AS HEREIN MODIFIED

CONCRETE DRIVE APPROACHES SHALL HAVE A MINIMUM THICKNESS OF 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVES. 6" AGGREGATE BASE SATURATED W/ WATER PRIOR TO COMPACTION, THIS SHALL BE PAID UNDER THE RESPECTIVE ITEM. CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCED WITH CONCRETE FIBERS. PERFORM A BROOM FINISH AND TOOLED EDGES ON ALL SURFACES AND APPLY CURING COMPOUND IMMEDIATELY. PROVIDE 1/2" PREMOLDED EXPANSION JOINT TO ISOLATE APPROACHES AND WALKS.

DRIVES SHALL BE INSTALLED TO MATCH INTO EXISTING.

PAYMENT FOR ITEM 452 NON-REINFORCED CONCRETE PAYEMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF

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BHB CHECKED BY

PROJECT No. MIATCI1406

DATE 12-19-201 SHEET NUMBER

#### ITEM 608 CURB RAMPS. AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 608 WALKS, CURB RAMPS, AND STEPS, EXCEPT AS HEREIN MODIFIED.

TRUNCATED DOME SPECIFICATIONS:

INSTALL DETECTABLE WARNINGS (TRUNCATED DOMES) FOR A DISTANCE OF 24" FROM THE BACK OF CURB FOR THE ENTIRE WIDTH OF THE RAMP OPENING WHERE IT IS FLUSH WITH THE

4" OF 304 AGGREGATE BASE SATURATED W/ WATER PRIOR TO COMPACTION SHALL BE PLACED UNDER ALL PROPOSED CURB RAMPS.

ALL CONCRETE SHALL BE ODOT QC MISC. (CEMENT ONLY - NO POZZOLAN MATERIAL) AND REINFORCE WITH CONCRETE FIBERS. EXPANSION JOINT MATERIAL, AND CURING AND SEALING COMPOUND SHALL ALSO BE INCLUDED IN THIS ITEM.

THE PANELS SHALL BE CAST IRON PRODUCT PANELS MOLDED IN THE SQUARE PATTERN. COLOR OF THE PANEL SHALL BE APPROVED BY THE CITY PRIOR TO ORDERING.

PAYMENT FOR ITEM 608 CURB RAMPS, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL. AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK PER RAMP.

#### ITEM 611 PIPING/CONDUITS AND RELATED WORK, **AS PER PLAN**

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE INSTALLATION OF ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK, CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS, CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE BY THE OWNER.

ITEM 611 STORM SEWER, RCP, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF
TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES EXCEPT AS

THE PIPE SHALL BE REINFORCED CONCRETE PIPE WITH THE CLASS BEING SPECIFIED ON THE PLANS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER. STRUCTURES AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER, AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION AND IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PRECAST TEES OR HOLES INSTALLED USING A CORING MACHINE.

PAYMENT FOR ITEM 611 STORM SEWER, RCP, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### **ITEM 623 CONSTRUCTION LAYOUT STAKES** AND SURVEYING. AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, EXCEPT AS HEREIN

THE VERTICAL CONTROL IS LISTED ON THE PLANS WITH THE BENCHMARKS. TRAVERSE POINTS ARE SHOWN BELOW FOR HORIZONTAL CONTROL. THE BEARINGS ARE LISTED FOR THE CENTERLINE

PAYMENT FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT, REQUIRED TO COMPLETE THIS ITEM OF WORK.

	1 .				
TRAVERSE POINT #	STATION	OFFSET	NORTH	EAST	TYPE
115	202+80.51	33.19' LT	712751.7280	1492129,4230	MAG NAIL
114	207+37.98	19.89° LT	713209.0070	1492150.1890	MAG NAIL
113	212+17.65	16.88° RT	713688.0150	1492194.8350	IRON PIN
112	217+53.75	16.15' LT	714224.5810	1492170.6280	IRON PIN
111	222+80.92	16.60' LT	714751.6900	1492178.8380	IRON PIN
C/L STATIONING	230+00	O'	715470.3995	1492207.028	MAG NAIL
C/L STATIONING	235+00	0,	715970.3945	1492209,2620	MAG NAIL
C/L STATIONING	240+00	O,	716470.3896	1492211,4911	MAG NAIL
C/L STATIONING	245+00	O,	716970.3848	1492213.7201	MAG NAIL
C/L STATIONING	250+00	ď		1492215.9492	MAG NAIL
C/L STATIONING	255+00	O'		1492218.1782	
C/L STATIONING	260+00	0'		1492216.1827	MAG NAIL
C/L STATIONING	265+00	0,		1492211.6218	
					2012

ITEM 638 WATER MAIN, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF
TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES, EXCEPT AS HEREIN

ALL MATERIALS, PROCEDURES, AND TESTING USED SHALL CONFORM WITH THE CITY OF TIPP CITY ENGINEERING STANDARDS AND SPECIFICATIONS.

PAVEMENT RESTORATION, CURB AND GUTTER AND PLAIN CONCRETE PAVEMENT AND SIDEWALK REPLACEMENT SHALL BE PAID UNDER THEIR RESPECTIVE ITEM NUMBER. HOWEVER STRUCTURAL BEDDING AND ANY REQUIRED STRUCTURAL BACKFILL SHALL BE INCLUDED WITH THIS ITEM.

HYDROSTATIC PRESSURE TEST SHALL INCLUDE ALL WATER MAIN, FH BRANCHES, AND COPPER WATER SERVICES TO THE CURB BOX

CONTRACTOR TO USE ONLY DOMESTIC PIPE AND FITTINGS.

CONTRACTOR TO USE ALL STAINLESS STEEL BANDS FOR ALL TAPPING SLEEVE AND VALVES.

PAYMENT FOR ITEM 638 WATER MAIN, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED (INCLUDING TESTING AND PURITIES) ABOVE SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF

### ITEM 659 SEEDING AND MULCHING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659 SEEDING AND MULCHING. EXCEPT AS HEREIN MODIFIED.

ALL AREAS DESIGNATED FOR SEEDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. THE AREA SHALL BE HAND RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED.

COMMERCIAL FERTILIZER 12-12-12 SHALL BE INCLUDED IN ITEM 659 SEEDING AND MULCHING. AS PER PLAN AND SHALL BE APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQUARE FEET.

SEEDING APPLICATION SHALL BE AT THE RATE OF 6 POUNDS PER 1000 SQUARE FEET. THE FOLLOWING SEED MIXTURE OR EQUIVALENT SHALL BE USED IN LIEU OF THE MIXTURES LISTED IN 659.09

30% KENTUCKY BLUE(VNS)

23% PALMER II PERENNIAL RYE 22% YORKTOWN III PERENNIAL RYE

15% CREEPING RED FESCUE(VNS)

10% BARON KENTUCKY BLUÈGRÁSS

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE CONSTRUCTION LIMITS EXCLUDING THE CURB LAWN, QUANTITY CALCULATIONS FOR ITEM 659 SEEDING AND MULCHING, AS PER PLAN ARE BASED ON THESE LIMITS.

ALL FINAL SEEDING AND MULCHING SHALL BE COMPLETED BY THE SUBSTANTIAL COMPLETION DATE. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT THE SEEDING AND MULCHING IS NOT COMPLETE.

IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE CITY, WHICH MAY REQUIRE WATERING AND RESEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REGRADING AND RESEEDING ANY AREAS THAT HAVE ERODED OR AREAS THAT NEW GRASS DID NOT GERMINATE UNTIL THE ENTIRE SEEDED AREAS ARE STABILIZED, SHAPED AND DRAINED, AS PER PLAN.

CONTRACTOR IS RESPONSIBLE TO RESTORE ANY LAWN AREA, OUTSIDE OF THE CONSTRUCTION LIMITS, CAUSED BY HIS WORK, WHETHER ACCEPTABLE TO PROPERTY OWNER OR NOT, TO THE SATISFACTION OF THE PROPERTY OWNER AND THE CITY, AT THE CONTRACTORS SOLE EXPENSE.

THE TECHNICAL SPECIFICATIONS MOST RESTRICTIVE SHALL APPLY AS DETERMINED BY THE CITY.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

#### ITEM 661 DECIDUOUS TREE, AS PER PLAN

CONTRACTOR TO INSTALL TREES PER THE TREE PLANTING AND GUYING DETAIL. THE CONTRACTOR SHALL INSTALL THE TREES AS SHOWN ON THE LANDSCAPE PLAN, OR AS ADJUSTED BY THE CITY. TREES ARE TO BE PLANTED 5' OFF THE BACK OF CURB.

PAYMENT FOR ITEM 661 DECIDUOUS TREE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

- PLANTING SOIL BACKFILL

TREE PLANTING AND GUYING TURNBUCKLE BARK MULCH FINISH GRADE SECURE WIRE IN 1" NOTCH

- EXISTING SOIL

1. PROVIDE GUYING OF DECIDUOUS TREES OVER 2" CALIPER AND EVERGREEN TREES OVER 8'-0". 2. PROVIDE & INSTALL 3 STAKES & GUY WIRES-EQUALLY SPACED. 3. TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISH GRADE. 4. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. REMOVE WIRE BASKET FROM ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM

NOTES:

LIMBS.

LUNDISTURBED SOIL OR COMPACTED BACKELL

		BACKFILL
LOCA		SPECIES
(STATION,	OFFSET)	
204+11		ZELKOVA, MUSASHINO
204+61	35.50' RT	
205+11	35.50' LT	
205+61	35.50' RT	ZELKOVA, MUSASHINO
206+61		ZELKOVA, MUSASHINO
206+91		ZELKOVA, MUSASHINO
207+61	35.50' RT	
208+11	35.50° LT	
208+61		MAPLE, SCARLET SENTINEL
209+61	35.50' RT	MAPLE, SCARLET SENTINEL
210+61	35.50' RT	OAK, CRIMSON SPIRE
211+11	35.50' LT	
211+61	35.50' RT	OAK, CRIMSON SPIRE
212+61		OAK, CRIMSON SPIRE
213+11	35.50' LT	
213+61	35.50' RT	
214+11	35.50' LT	OAK, CRIMSON SPIRE
214+61	35.50' RT	
215+11	35.50' LT	
215+61		HORNBEAM, FRANS FONTAINE
216+11	35.50' LT	HORNBEAM, FRANS FONTAINE
216+61	35.50' RT	
217+11	35.50' LT	HORNBEAM, FRANS FONTAINE
217+61	35.50' RT	FILBERT, TURKISH
218+11	35.50° LT	HORNBEAM, FRANS FONTAINE
218+61	35.50' RT	
219+11	35.50' LT	FILBERT, TURKISH
219+61	35.50' RT	ZELKOVA, MUSASHINO
220+11	35.50' LT	FILBERT, TURKISH
220+61	35.50' RT	ZELKOVA, MÜSASHINO
221+11	35.50' LT	FILBERT, TURKISH

LOCAT		SPECIES
		- <u> </u>
221+61	35.50' RT	ZELKOVA, MUSASHINO
222+11	35.50' LT	ZELKOVA, MUSASHINO
222+61	35.50' RT	MAPLE, SCARLET SENTINEL
223+11	35.50' LT	ZELKOVA, MUSASHINO
223+61	35.50' RT	MAPLE, SCARLET SENTINEL
224+11	35.50' LT	ZELKOVA, MUSASHINO
224+61	35.50' RT	MAPLE, SCARLET SENTINEL
225+11	35.50' LT	MAPLE, SCARLET SENTINEL
225+61	35.50' RT	OAK, CRIMSON SPIRE
226+11	35.50' LT	MAPLE, SCARLET SENTINEL
226+61	35.50' RT	OAK, CRIMSON SPIRE
227+11	35.50' LT	MAPLE, SCARLET SENTINEL
227+61	35.50' RT	OAK, CRIMSON SPIRE
228+11	35.50' LT	ZELKOVA, MUSASHINO
228+61	35.50' RT	ZELKOVA, MUSASHINO

#### ITEM SPECIAL ROCK EXCAVATION

THIS ITEM OF WORK SHALL CONSIST OF THE EXCAVATION OF BEDROCK, IT SHALL INCLUDE ANY ROCK NOT EXCAVATABLE BY CONVENTIONAL EXCAVATION METHODS. EXCAVATION THROUGH ROCK SHALL BE ATTEMPTED WITH CONVENTIONAL HEAVY TRACKED BACKHOE EQUIPMENT (i.e. KOMATSU 200). ANY MATERIAL EXCAVATABLE WITH CONVENTIONAL EQUIPMENT SHALL BE CONSIDERED INCIDENTAL TO RELATED ITEMS.

ANY MATERIAL UNEXCAVATABLE WITH CONVENTIONAL EQUIPMENT SHALL BE REMOVED BY JACKHAMMERS, ROCK RIPPERS, ETC. NO BLASTING ALLOWED. THIS MATERIAL SHALL BE APPROVED. VERIFIED. AND MEASURED BY CITY PERSONNEL AND PAID FOR UNDER THIS ITEM. NO PAYMENT FOR OVER EXCAVATION WILL BE ALLOWED. REFER TO TRENCH DETAIL

THE ESTIMATED QUANTITY IS 400 CUBIC YARDS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY OR EXCEEDS THE ESTIMATED QUANTITY.

PAYMENT FOR ITEM SPECIAL ROCK EXCAVATION, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE AND SHALL INCLUDE ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

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PP CITY
VOTES RECONS OF TIPP ERAL NO Æ GEN 25-A Ö

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REVISIONS:

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MIATC#1406GNC DRAWN BY ВНВ

CHECKED BY

MIATCI1406

12-19-2016 SHEET NUMBER

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE CITY.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL—GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE CITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS.
TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

#### **HYDROSTATIC TEST**

- A. AFTER THE PIPE HAS BEEN LAID AND BACKFILLED, ALL NEWLY LAID PIPE OR VALVED SECTION, INCLUDING COPPER WATER SERVICES, SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE AND LEAKAGE TEST. ALL WATER MAINS MUST BE HYDROSTATICALLY TESTED (AWWA C-600). THE TESTS MUST BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY OF TIPP CITY. THE LEAKAGE TEST PRESSURE SHALL BE NOT LESS THAN 150 PSI. THE DURATION OF THE LEAKAGE TEST SHALL NOT BE LESS THAN 2 HOURS. HYDROSTATIC PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP TAKING WATER FROM AN AUXILIARY SUPPLY. ALL PIPING MUST BE PROPERLY FILLED AND FLUSHED TO DISPEL ALL AIR BEFORE THE TEST IS MADE USING POTABLE WATER.
- **B.** LEAKAGE IS DEFINED AS THE QUANTITY OF WATER TO BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVED SECTION THEREOF, NECESSARY TO MAINTAIN THE SPECIFIED LEAKAGE TEST PRESSURE AFTER THE PIPE HAS BEEN FILLED WITH WATER AND THE AIR EXPELLED.
- C. No pipe installation will be accepted if the leakage exceeds the leakage determined by the following formula:

Where: S = length of pipe tested, in ft.

D = pipe diameter, in inches
P = average test pressure
L = allowable leakage per hour

During the hydrostatic test, a thorough examination of all piping, fittings, valves, hydrants, etc. shall be performed. Leaking joints shall be tightened and cracked or otherwise defective material shall be removed and replaced and the test shall be repeated until satisfactory results are obtained

Below is a table which represents the allowable leakage in gallons per hour.  $\,$ 

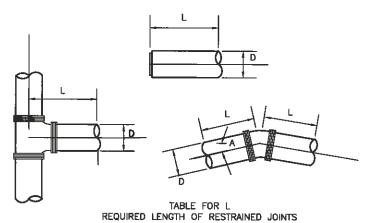
# AVG. TEST PRESSURE (PSI) BAR ALLOWABLE LEAKAGE PER 1000 FT. (305M) OF PIPELINE (GPH+) NOMINAL PIPE DIAMETER— INCHES

(FOI) DAN												
(, -, -, -,	3	4	6	8	10	12	14	16	18	20	24	30
250(17)	0.32	0.43	0.64	0.85	1.07	1.28	1.50	1.71	1.92	2.14	2.56	3.21
225(16)	0.30	0.41	0.61	0.81	1.01	1.22	1.42	1.62	1.82	2.03	2.43	3.04
200(14)		0.38	0.57	0.76	0.95	1.15	1.34	1.53	1.72	1.91	2.29	2.87
175(12)	0.27	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15	2.68
150(10)	0.25	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99	2.48
125(9)	0.23	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81	2.27

#### DISINFECTION

A. AFTER SATISFACTORY HYDROSTATIC TESTING, THE COMPLETED WATER WORK SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C-651.

- B. MAINTAIN PIPES FREE OF DIRT AND FOREIGN MATTER DURING CONSTRUCTION BY DEWATERING TRENCH AND SEALING OPEN PIPE BARRELS. SWAB EACH LENGTH OF PIPE AS IT IS INSTALLED. UPON COMPLETION OF MAIN, ISOLATE MAIN SEGMENTS AND FLUSH PIPE AT 2 FPS VELOCITY.
- C. STERILIZE MAIN IN ACCORDANCE WITH AWWA C-651. INJECT 3% TO 5% HYPO-CHLORITE SOLUTION TO PROVIDE 50 TO 60 MG PER LITER CONCENTRATION IN MAIN. CHLORINE MAY BE PLACED IN EACH SECTION OF PIPE AT THE TIME OF INSTALLATION. SAMPLE WATER AT EACH HYDRANT OR IF NO HYDRANT IS AVAILABLE, AT A TAP IN THE PROPOSED LINE. ANALYZE SAMPLE USING ORTHOTOLIDINE REAGENT TO VERIFY FREE CHLORINE CONCENTRATION. MAINTAIN CONCENTRATION IN MAIN FOR 24 HOURS. SAMPLE HYDRANTS AT COMPLETION OF STERILIZATION VERIFYING MINIMUM CHLORINE RESIDUAL (SEE CITY WATER DEPARTMENT FOR MINIMUM REQUIREMENTS).
- D. FLUSH CHLORINE SOLUTION TO WASTE INTO SANITARY SEWER AT A CONTROLLED RATE, NOT TO EXCEED 25 GPM. IF CHLORINE RESIDUAL DROPS IN 10 MG PER LITER, FLUSH MAIN AT 2 FPS AND REPEAT STERILIZATION PROCEDURE.
- E. WATER SAMPLES PERFORM BACTERIOLOGICAL TEST PER AWWA C-651. SAMPLE MAIN AT HYDRANT OR IF HYDRANT IS NOT AVAILABLE, AT A TAP IN THE PROPOSED LINE. DELIVER SAMPLE TO STATE-CERTIFIED LABORATORY. DELIVER COPIES OF LABORATORY REPORT TO THE CITY IN THE EVENT OF DETECTION OF COLIFORM ORGANISM, REPEAT FLUSHINGS, STERILIZATION, AND SAMPLING OF MAINS UNTIL ACCEPTABLE TEST RESULTS ARE ACHIEVED. THIS IS TO BE PERFORMED PRIOR TO TRANSFER OF SERVICE AT CONTRACTOR'S EXPENSE. CITY PERSONNEL WILL PERFORM BACTERIA SAMPLES.



REQUIRED LENGTH OF RESTRAINED
JOINTS FOR WATER MAINS

			D-(	DIAMETI	ER OF	PIPE			
		4 <sup>8</sup>	6"	8"	10"	12"	16"	20"	24"
	11 1/4	*	*	*	*	*	5	5	6
卢	22 1/2"	*	2	3	5	6	8	10	12
滋	45'	4	8	12	14	20	30	36	45
DEGREE (FLECTION	90°	12	26	38	48	66	98	125	145
2 ⊟	TEE	12	26	38	48	66	98	125	145
<	END	12	26	38	48	66	98	125	145

\*REQUIRED RESTRAINED JOINT AT FITTING ONLY

USE MEGALUG MECHANICAL JOINT RESTRAINT OR EQUAL.

FIRE HYDRANT BRANCHES MUST BE ANCHOR PIPE

#### FIRE HYDRANT NOTES

A.ALL WATER MAINS SHALL BE CONSTRUCTED USING DUCTILE IRON CEMENT MORTAR LINED PIPE.

B. PIPE SHALL CONFORM TO SPECIFICATIONS ANSI A21.51, AWWA C 151 CLASS 53, PUSH ON TYPE

C. CEMENT MORTAR LINING SHALL CONFORM TO AWWA C 104, ANSI 21.4 SPECIFICATIONS.

D. ALL FITTINGS SHALL CONFORM TO THE LATEST AWWA OR ASA SPECIFICATIONS AS MAY BE APPLICABLE. ALL PIPE & FITTINGS TO BE AMERICAN MADE.

E ALL JOINTS SHALL BE CLOW "BELL-TITE" JOINTS OR EQUAL.

F. MINIMUM DEPTH OF COVER OVER THE TYPE OF PIPE SHALL BE 4'-6" AS MEASURED TO THE FINISH GRADE OF THE STREET OVER THE PIPE.

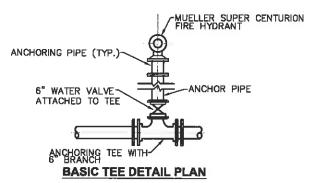
**G.** ALL FIRE HYDRANTS SHALL BE MANUFACTURED BY THE MUELLER COMPANY (MUELLER SUPER CENTURION 250) AND SHALL BE A "BREAK FLANGE" MODEL HYDRANT. HYDRANTS SHALL BE FURNISHED WITH ONE (1) FOUR AND HALF INCH (OPEN LEFT) STEAMER NOZZLE AND TWO 2-1/2 INCH HOSE NOZZLES WITH MALE NATIONAL STANDARD THREADS TO FIT COUPLINGS USED BY MUNICIPAL FIRE DEPARTMENT.

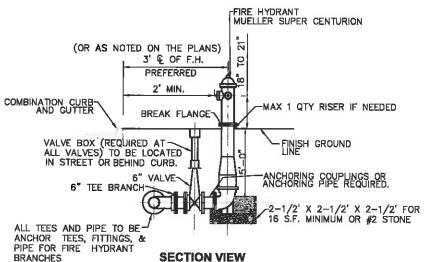
M. ALL VALVES SHALL BE MANUFACTURED BY THE MUELLER CO. (OR EQUAL) VALVES SHALL BE IRON BODY, RESILIENT WEDGE, BRONZE MOUNTED AND SHALL CONFORM TO LATEST AWWA SPECIFICATIONS. ALL VALVES SHALL BE DESIGNED FOR WORKING PRESSURE OF 150 P.S.I. AND SHALL OPEN BY TURNING COUNTER-CLOCKWISE. VALVES SHALL BE PROVIDED WITH EITHER BELL OR MECHANICAL JOINT. ALL VALVES AT DEAD ENDS OF MAINS ARE TO BE SECURELY STRAPPED TO THE MAIN.

ONLY CITY OF TIPP CITY EMPLOYEES MAY OPERATE WATER VALVES, COORDINATE WITH CITY.

I. ALL VALVE BOXES SHALL BE HEAVY DUTY BUFFALO TYPE TWO PIECE 5-1/4" SHAFT, WITH COVER MARKED "WATER." THE BOX SHALL BE OF SUCH LENGTH SO AS TO EXTEND UPWARD TO THE FINISH GRADE OF THE GROUND OR STREET.

J. ALL FIRE HYDRANTS SHALL BE PAINTED A COLOR CONSISTENT WITH TIPP CITY'S STANDARDS.





Choice One

LOYELAND, OHIO 513.239.8554
DRTLAND, INDIANA 260.766.2500

SOUTH CR 25-A RECONSTRUCTION, PH. 2
CITY OF TIPP CITY
GENERAL NOTES AND WATER MAIN NOTES AND DETAILS

REVISIONS:

FILE NAME MIATC/1406GND DRAWN BY BHB CHECKED BY JSP

PROJECT No MIATCI1406

DATE 12-19-2016 SHEET NUMBER

# **C.R. 25-A EARTHWORK QUANTITIES**

EAR	TH WOR	K VOLU	ME TAE	BLE
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL
203+00.0	<b>D.</b> 2	0.0	0	0
203+31.3	69.8	19.3	40	11
203+70.3	32.7	410	74	46
204+50.0	75.2	79.6	159	182
205+00.0	72.1	85.2	176	153
205+22.0	75.4	78.6	60	67
205+52.4	76.1	70.3	85	δ
206+00.0	88.5	33.5	145	91
206+50.0	70.7	91.4	147	116
207+12.2	46.4	75.6	135	192
207+50.0	13.8	108.8	42	129
207+57.0	13.4	125.3	4	30
208+00.0	12.0	121.4	20	196
208+50.0	12.1	85.7	22	192
209+00.0	14.0	66.8	24	141
209+50.0	17.9	62.0	30	119
210+00.0	20.9	41.8	36	96
210+57.8	24.9	24.1	49	71
211+00.0	20.1	45.9	35	55
211+50.0	16.3	57.0	34	95
212+00.0	47.9	84.0	59	131
212+13.3	64.2	68.0	28	37
213+00.0	42.0	117.9	171	298
213+30.3	43.5	123.1	48	135
213+50.0	40.1	122.0	30	89
214+00.0	41.2	124.7	75	228
214+50.0	43.7	117.7	79	224
215+00.0	39.8	121.1	77	221
215+50.0	33.6	137.3	68	239
216+00.0	29.7	145.6	59	262
216+50.0	32.0	142.3	57	267
217+00.0	37.3	138.2	64	260
217+50.0	39.3	127.1	71	246
218+00.0	40.4	125.7	74	234
218+50.0	41.7	118.6	76	226
219+00.0	42.2	124.5	78	225
219+50.0	41.2	119.6	77	226
220+00.0	39.6	116.4	75	218
220+50.0	37.6	121.1	71	220
221+00.0	40.4	117.0	72	220
221+50.0	43.2	112.5	77	212
222+00.0	45.2	108.1	82	204

EAR	EARTH WORK VOLUME TABLE											
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL								
222+50.0	44.1	106.0	83	198								
223+00.0	42.1	98.7	80	190								
223+50.0	41.2	103.3	77	187								
223+75.0	41.7	100.4	38	94								
224+00.0	42.5	99.6	39	93								
224+50.0	46.5	96.1	82	181								
225+00.0	51.7	94.4	91	176								
225+50.0	46.9	103.4	91	183								
226+00.0	38.8	119.1	79	206								
226+50 0	29.5	135.0	63	235								
227+00.0	22.0	157.2	48	271								
227+50.0	22.0	155.0	41	289								
227+75.1	23.9	142.9	22	138								
228+00.0	13.4	78.	17	102								
228+50.0	13.0	79.2	24	146								
229+18.9	7.2	81.2	26	205								
229+49.7	0.0	0.0	4	46								

# **EVANSTON RD. EARTHWORK QUANTITIES**

EAR	TH WOR	k VOLU	ME TAE	BLE
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL
324+00.0	0.0	0.0	0	0
324+35.1	0.0	0.0	0	. 0
324+50.0	0.0	0.0	0	0
324+85.1	0.0	0.0	0	0
325+00.0	11.5	6.7	3	2
325+21.6	12.2	5.3	10	5
325+50.0	13.7	5.0	14	5
326+00.0	20.7	3.8	32	8
326+29.3	36.7	14.6	31	10
326+54.7	15.3	0.0	24	7
327+00.0	35.8	7.7	43	6
327+50.0	5.9	14.8	39	21
327+76.5	0.0	0.0	3	7
328+00.0	0.0	0.0	0	0

## **ESTIMATED QUANTITIES**

200	DESCRIPÇION	10101	APPRO
	ROADWAY	MEASI RE	OL.
201	Charles and the control of the contr	LUMP	1
	2F30475 (8F1) P AN O 59PP30030	LUMP Fr.	F Fg.4
	PLA PS MARTIN LC N. D. F. S. M.	YT.	172
	2004 Rt MG 37 5, Gr 200 24"	FT.	6.5
	#75LK P**10+1 D L*X A** (*TRON, A 5774*) 5/4 E	5.F.	317,
	I SECTION OF THE PARTY OF THE P	C.Y.	31.20
	SCB1/2017, 2003; ACROS. 7 S. St. 17 S. 7.	5.Y.	950)
	TAC CATON OF MURICIPAL TO A LOT AND SECTION OF THE	C.Y.	-730
	CECK RIP. AND STOCKS P. CONCRETE STOCKS AND AND SERVICES.	S.Y. S.F.	Yank
	CORP AND APPLIES AN	a.f.	14.0
2.9	HPP CITY FAF DOM: ANTONIA RESENTABLE AS FOR WALL	ξΨ.	1736
111	CONHOLE ADDISORDED COM	E. CH	1
1413 SPECT	OF STATE CHECK UNION STANDS AND A CATABLE OF WEIPPEN SOUND BONG A THON	LT MP C.Y.	1/ abov
	SELFEON OF BART SHAFTS FAMILY LANGE FROM	TACH	z
	ROADWAY TOTAL		
	FROSION CONTROL		
	\$14205 G (N.C.M.) (CCCC) A \$42.00 (CCC)	3.77	34
	STORY OF A LEFT PORTUTION IN THE PROPERTY OF T	LUMP	160 0
	PROSION CONTROL TOTAL	LVCH	1,54,00
48.3	DRAINAGE  ED. K.CH. MALL MOTEUTION TYPEB	C.Y.	c
€92	CINC AT MADRIAN	C.Y.	12.5
	FBASI PPE NO FOARD TO HOO MAINGULTED ASTERNAL	F	200
495 511	4"B SW PG FT DDD "RAND, T.T. T. N. OTAT DO, ASK ROLLOS THE CORRECT OF TYPE B	F1.	, s , s I
	TY CSDP-35 CANADUT. TYPE L	FT.	1.70
60.1	F CSDs-38 G DOTT, TV & B	FT.	8.76
	C CP-UPSCORM SECURE (SPECIFICAL)  L. RCP C HV STOCKE (SPECIFICAL)  A PERCH C C.	Fr.	25
511	LE REPORT OF STORY OF THE PROPERTY OF THE PROP	Ff.	76.2
411	LORGINATION OF THE ASSETS OF	FT.	575
611	DARTECT AND STORES AND FILES HER HIGH	FT.	20
521 511	A6" ROP CLAH STORE: REVER AS PER PLAT. 24" X DY CLAUTE FERGY, AS PER PLATE	FT.	•
	TYPE1C: TCCHAS; - MIERIPA"	FACH	5 1
611	TUPE IN CATCO BASIN, AS (6 ) PLAN	EACH	6
611 ⊴11	TYPE 2-IB CATCULARY A TYPE 3 STOR*1 "-CUND" ANHOLE, AS PER 1A	EACH	-
- 14	DRAINAGE TOTAL	ELCH	11
	PAVEMENT		
	1-1/2" PANTYIEST PLANING, AS PHALT CONTRACTE	S.Y.	2549
254 314	8: PAVIMENT FLANING DEPRALT CONCRETE ANYHALT CONCRETE PAGE FOR CL.	S.Y C.Y	8316 6:14
2 1	AGCREGOTE BASE, AS PER PLATA	CY	40.0
	TACK C MT	GAL.	2***
441	APACT CONCRETE SI REACE COURSE TYPE 1. (44) LANGEWARDS) APACT CONCRETE SI TERRILOIATE COURSE TYPE 1. (41)	C.Y.	14. 825
46Z	AG. HAD. TOP CRETE WETACE COURSE, 12.1-m, TIPEA 44.	C.Y.	814
452	5" NON-REIN, DOED CONCENTETALEMENT AS DEFILIAN	8.1	110
452	IF NOW-PET IF VR. CONCRETE PAVE AUTOR, AS DESCRIBANO PAVEMENT TOTAL	5.1	63
J1 1	MAINTENANCE OF TRAFFR. MAINTENANCE OF TRAFFR. AS MERTA.	11 MP	1
.14	WOFK TONIFICE UP GLASS I	MILE	2
	WORK FORE FOUND IN COMME	MILE	2.5
	WORK TOTAT STORMAN CLASS IN DEFOUND RESPONSE	II.	100
	LAY BUDGEMENT CERROLOVITHE LAPOLIC LAPOR AND TARGE	TC. J.	,
	DUSTING CONSTRUCTION, CAMES AT 1888	HOT R	14.
e1é	WALTE MAINTENANCE OF TRAFFIC TOTAL	81. G.1.	45
625	TRAFFIC CONTROL CONDUCTI CACKE JOP DE 22 (D. C. P. C. 22	Fi	6
	T.J. CH	FT.	pi -
	GLO' NAMO' NATURATE FORT, NARADO PORT SIC CHI AT SIRRET ANY REGIONS	Fr.	a.
	WGN DOUBLE FACEUR STUDY FOR TO ME	S.F. FACH	66.2
41		MCH	20
60.	<b>型性の 自らいのにつめの XLのWe A いとませが能</b>	12.46.77	4.2
e :	AMO THE OF CONTINUES IN THE STATE OF CHARLES	EACH	
67. 63.	RANGER OF CONTROLLED SIGNED A TREASURED STOCKED CONTROLLED AND STOCKED CONTROLLED CONTROLLED AND STOCKED AND STOCKED CONTROLLED AND STOCKED AND STOCKE	EACH FACH	1
676 en 832 943	AMO THE OF CONTINUES IN THE STATE OF CHARLES	EACH	
670 en en en en en en en en en en en en en	AMOUNT OF CHARTOMORY NITH OR A THIRD MADE REMOUNT OF CHARTOM MAD WITH DROST AS AROUS ARREST CLACE.  COMES IN TORSY AREA OF CHARTOM RELIGIOUS ARREST CLACE.  TO AND THE THORY AREA OF CHARTOM RELIGIOUS AREA.  CONTROLLED TO THE ASSOCIATION OF THE ACCOUNTY OF THE CONTROLLED WERE ASSOCIATED.	EACH FACH LUCKL	1
670 en en en en en en en en en en en en en	MANO ALO, CONTO MONTO CONTACE A TRACEPACE  FEMOLIA OL CASARDA MONTO POSTA POR LA RESTOLACIÓ  COME EL ESPEZ DA VERA LA LA RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLA	EACH FACH LIMP FACH FACH	1 1 1 1
676 en 832 or 3 633 643 514	AND ALO GEORGOMO NIDEGO A PERENCE ENDOUGHO CORRESPONDE MIDEGO SERVICE AND STOLIC CORP IT NEST L'EDITO (LE SE ANY STROY LIBER UN ASSESSIVE EL SE MESONANTE RA FONDIGUELLE TETTOPE ASSESSIVE EL SE MESONANTE RA CONTIGUELLE TETTOPE ASSESSIVE AND PORTE S CONTIGUELLE TETTOPE ASSESSIVE AND PORTE S CONTIGUELLE PRO-	EACH PACH LIMP FACH TACH MILT PT.	1 1 1 1 1 ***
680 632 643 643 641 511	MANO ALO, CONTO MONTO CONTACE A TRACEPACE  FEMOLIA OL CASARDA MONTO POSTA POR LA RESTOLACIÓ  COME EL ESPEZ DA VERA LA LA RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DEL RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLACIÓN DE LA RESTOLA	EACH FACH LIMP FACH FACH	1 1 1 1
676 613 613 641 641 614 614	AND ALO GEORGOMO NIDEGO A TRABAGE ENDOTA O CASARDA MARIA DE SE PODE AND STOLAC, COMBETT RESP. 2-DEAN TEL SON THE LEFT AND AND STOLACE AND STOLACE THE CONTROLLE THE TATA THE AND AND STOLACE CONTROLLE THE TATA THE AND AND STOLACE CONTROLLE TO THE PROPERTY OF THE CONTROLLE THE CONTROLLE TO THE CONTROLLE THE CONT	EAGH PACH LIMP FACH FACH MILE FT. FT. MEE	1 1 1 1 1 1 6 20 4 0 0
676 613 613 613 614 614 614 614	AMOUNT OF CHARD MOUNT OF A THE MANAGE  FROM THE OFFICE AND MOUNT DESIGN AND ADDRESS OF THE  COME IT THESE ADDRESS OF THE  AND A THE THOSE AND ADDRESS OF THE ASSESSMENT OF THE  CONTROLLED ADDRESS OF THE ADDRESS OF THE ASSESSMENT OF THE  CONTROLLED ADDRESS OF THE ADDRESS OF THE ASSESSMENT OF THE  CHARD ADDRESS OF THE ADDR	EACH PACH LIMP FACH FACH MILE VI. FT. MEE FACH	1 1 1 1 1 1 1 2 2 4 0 0 7
676 613 613 613 614 614 614 614 614 614	ANOUNCE CONTONO NOT SENT A TRANSPER ENDOUGH OF CHAPTER AND POST A TRANSPER COME IT KNOT I DE THAT THE NO AND ATHOR THAT THE AND AND A DE THAT CONTONIES AT THE AND AND AND A DE THAT CONTONIES AND AND A DE THAT CONTONIES AND C	EACH PACH LISSIP FACH FACH DILL PT. FA. MEE FACH MEE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
67G 613 613 613 614 614 614 614 614 714 714	AMOUNT OF CHARD MOUNT OF A THE MANAGE  FROM THE OFFICE AND MOUNT DESIGN AND ADDRESS OF THE  COME IT THESE ADDRESS OF THE  AND A THE THOSE AND ADDRESS OF THE ASSESSMENT OF THE  CONTROLLED ADDRESS OF THE ADDRESS OF THE ASSESSMENT OF THE  CONTROLLED ADDRESS OF THE ADDRESS OF THE ASSESSMENT OF THE  CHARD ADDRESS OF THE ADDR	EACH PACH LIMP FACH FACH MILE VI. FT. MEE FACH	1 1 1 1 1 1 1 2 2 4 0 0 7
676 613 613 613 614 614 614 614 614 614 614 614 614 614	EMOCALO, CENTOMONIO NIDEGEA ANALAMENTE ELEMONIO, COMPANIO NIDEGEA ANALAMENTE ELEMONIO DE CONTRATE ANALAMENTE ELEMONIO DE COMPANIO NIDEGEA ANALAMENTE ELEMONIO DE CONTRATE NIDEGEA ANALAMENTE	EACH PACH LTMP FACH FACH MILT FT. FT. MEE FACH MELE EACH EACH EACH EACH EACH EACH EACH EAC	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
676 6132 6132 6133 6134 614 614 614 614 614 614 614 614 614 61	AMO ALO, GEORGOMO NIDEGO A TRANSPER EMMOUNT OF CREATION WITH POST SERVICE AND STOLEN. CORDER TOSSE A DE ANTELE SOUTH ATTERNA AND ALOS MADERIA SERVICE AND STOLEN. CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER AND ALOS AND ALOS MADERIA SE CONSERVATA AND ALOS AND ALO	EAGH PACH LINEP FACH PALIT FA. H MILT FT. FF. MEE FACH MELE LAUF FT. HATH HACH HACH HACH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
666 600 600 600 600 600 600 600 600 600	ANOTHER CONTROLLER TORK  ENDOUGH OF CONTROLLER  SENSON OF CONTROLLER  SENSON OF CONTROLLER  SENSON OF CONTROLLER  SENSON OF CONTROLLER  CO	EACH PACH LINE PACH PACH PACH PACH PACH PACH PACH PACH	1 1 1 1 1 1 1 1 2 2 1 0 1 1 1 1 1 2 2 1 1 1 1
600 (1) 2 (1	AMO ALO, GEORGOMO NIDEGO A TRANSPER EMMOUNT OF CREATION WITH POST SERVICE AND STOLEN. CORDER TOSSE A DE ANTELE SOUTH ATTERNA AND ALOS MADERIA SERVICE AND STOLEN. CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER ATTERNA AND ALOS MADERIA SE CONTROLLER AND ALOS AND ALOS MADERIA SE CONSERVATA AND ALOS AND ALO	EAGH PACH LINEP FACH PALIT FA. H MILT FT. FF. MEE FACH MELE LAUF FT. HATH HACH HACH HACH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
600 000 000 000 000 000 000 000 000 000	EMOCALO CENTOMO NIDERO A TRANSPER EMOCALO CONSTRUMO NIDEROS SERVILA MIDEROLA CONSTRUMO NIDEROS SERVILA MIDEROLA CONSTRUMO NIDEROS SERVILA MIDEROLA CONSTRUMO NIDERO CONSTRUMO NIDERO SERVILA CONTROLA DE CONTROLA	EAGH FAGH LIVEN FALE FALE FEL MEE FALE MEE FACH MEE FACH MEE FACH FACH FACH FACH FACH FACH FACH FACH	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
600 00 00 00 00 00 00 00 00 00 00 00 00	AMO ALO, CREATOMO NIDERO A TRANSPER EMOUND OF CREATOM WE WILD FOR A POOR AND STOLAY, COME IT ISSUED DO NOT THE SOUTH THOSE AND A VERY MEDICAL AND STOLAY, COMPOSITE THE TOP ASSOCIATED AND STOLAY, CONTROLLED THE STOLAY CONTROLLED A VERY PLACE CROSSIVATE TO EMPLOYEE A VERY PLACE CROSSIVATE TO A VERY PLACE LOOK COME A VERY PLACE LOOK A VERY	EACH PACH PACH PACH PACH PACH PACH PACH P	1 1 1 1 1 1 1 1 1 2 2 1 0 1 1 1 1 1 2 2 1 1 1 1

	HIGHWAY LIGHTING		
5	LIGHT POLE FOR DATION	EACH	17
525	DESTRIBUTION CARLE 17 °C. 15 / STRATLAD TRICEX AS PET PLAY	FT.	4015
:25	FOLTAND DEACKET CARLE NO. 5 AWG 10 AS PET PLAN	FT.	2 91
. 15	FOR DICCONPUTOR, AND PLAN	EACH	34
25	CONTENTAL 2", "15 (6)	YT	1643
1.3	Pl _1 BOX, 725.65 10.	LACH	4
62"	G1011 (J111) (D	FACH	JT
15	LIGHT POLT AS PLANT	EACH	17
	HIVEW AY LIGHTING TOTAL		
	LANDSCAPING		
E1	DOCTOR TENER 2-12 COLUMN / 78 B COLUMN / 78 DO	ULCH	10
4:10	DECIDE OUR COMPLETE LEGISLE DE CREAR NOTANT.	1303	- 01
4	DOCUMENT OF SUPER CALIFORNIC IN CONSIDER	ZACS	9
6.4	DPCLOUGHS TREES, 2012 CALLIS TROUNG A COPPOSITION OF ALL ST	5.301	100
<b>K</b> 1	DECIDUOLATELES 2-12 CALE FOR BURET TO SIMH	EACH	
	LANDSCAPING TOTAL		
	WATER WORKS		
6.1	AUTOSPOSIS, ATHEN AND AND AT AN	5 F.	7
h:	42° ( 4TE* [42, 17	EACH	
14.	GUIC TERM MATERIAL	I-ACH	Y
18	TIRETIMERATURE TOUR DESCRIPTION OF THE PROPERTY OF THE PROPERT	FACT.	1
614	VALUEDOU DE SEDIO CADE	1 LCE.	11
	WATER WORKS TOTAL		

Old Bid sheet, see next with Addendum No.1 Revisions

ChoiceOne

SIDNEY, OHIO 937.497.0200 VYELAND, OHIO 513.239.8554 KTLAND, INDIANA 260.766.2500

SOUTH CR 25-A RECONSTRUCTION, PH. 2 CITY OF TIPP CITY EARTH WORK AND ESTIMATED QUANTITIES

EVISIONS:

FILE NAME EST QUANT. DRAWN BY

BHB CHECKED BY JSP

PROJECT No. MIATCI1406 DATE

2-19-2016 HEET NUMBER

## **C.R. 25-A EARTHWORK QUANTITIES**

EAR	TH WOR	k volu	ME TAE	BLE
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL
203+00.0	0.0	0.0	0	0
203+31.3	69.8	19.3	40	11
203+70.3	32.7	44.0	74	46
204+50.0	75.2	79.6	159	182
205+00.0	72.1	85.2	136	153
205+22.0	75.4	78.6	60	67
205+52.4	76.1	70.3	85	84
206+00.0	88.5	33.5	145	91
206+50.0	70.7	91.4	147	116
207+12.2	46.4	75.6	135	192
207+50.0	13.8	108.8	42	129
207+57.0	13.4	125.3	4	30
208+00.0	12.0	121.4	20	196
208+50.0	12.1	85.7	22	192
209+00.0	14.0	66.8	24	141
209+50.0	17.9	62.0	30	119
210+00.0	20.9	41.8	36	96
210+57.8	24.9	24.1	49	71
211+00.0	20.1	45.9	35	55
211+50.0	16.3	57.0	34	95
212+00.0	47.9	84.0	59	131
212+13.3	64.2	68.0	28	37
213+00.0	42.0	117.9	171	298
213+30.3	43.5	123.1	48	135
213+50.0	40.1	122.0	30	89
214+00.0	41.2	124.7	75	228
214+50.0	43.7	117.7	79	224
215+00.0	39.8	121.1	77	221
215+50.0	33.6	137.3	68	239
216+00.0	29.7	145.6	59	262
216+50.0	32.0	142.3	57	267
217+00.0	37.3	138.2	64	260
217+50.0	39.3	127.1	71	246
218+00.0	40.4	125.7	74	234
218+50.0	41.7	118.6	76	226
219+00.0	42.2	124.5	78	225
219+50.0	41.2	119.6	77	226
220+00.0	39.6	116.4	75	218
220+50.0	37.6	121.1	71	220
221+00.0	40.4	117.0	72	220
221+50.0	43.2	112.5	77	212
222+00.0	45.2	108.1	82	204

EAR	TH WOR	k volu	ME TAI	BLE
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL
222+50.0	44.1	106.0	83	198
223+00.0	42.1	98.7	80	190
223+50.0	41.2	103.3	77	187
223+75.0	41.7	100.4	38	94
224+00.0	42.5	99.6	39	93
224+50.0	46.5	96.1	82	181
225+00.0	51.7	94.4	91	176
225+50.0	46.9	103.4	91	183
226+00.0	38.8	119.1	79	206
226+50.0	29.5	135.0	63	235
227+00.0	22.0	157.2	48	271
227+50.0	22.8	155.0	41	289
227+75.1	23.9	142.9	22	138
228+00.0	13.4	78.1	17	102
228+50.0	13.0	79.2	24	146
229+18.9	7.2	81.2	26	205
229+49.7	0.0	0.0	4	46

## **EVANSTON RD. EARTHWORK QUANTITIES**

EAR	TH WOR	k volu	ME TAI	BLE
STATION	CUT AREA	FILL AREA	CUT VOL	FILL VOL
324+00.0	0.0	0.0	0	0
324+35.1	0.0	0.0	0	0
324+50.0	0.0	0.0	0	0
324+85.1	0.0	0.0	0	0
325+00.0	11.5	6.7	3	2
325+21.6	12.2	5.3	10	5
325+50.0	13.7	5.0	14	5
326+00.0	20.7	3.8	32	8
326+29.3	36.7	14.6	31	10
326+54.7	15.3	0.0	24	7
327+00.0	35.8	7.7	43	6
327+50.0	5.9	14.8	39	21
327+76.5	0.0	0.0	3	7
328+00.0	0.0	0.0	0	0

		EST	TAMIT	ED QI	JANTITIES
	DESCRIPTIVE	UNIT OF	APPPGA OTI		HIGHWAY LIGHTING
	ROADWAY			<	25 DESCRIPTION CARTIST
	CLEARING AND GUIBBOAR AS PER FLAN REMOVED, AS PER PLAN	LUMEP	1 1		22 POST NEPSER SELECTES 25 PURE FORST UNION ST
	CLRS FD (CAD)	ST.	914		\$45 COSTANDO, 21/1258/H
	PIPEREZ (OTLD), 24 AND LOCAL SERVICES (SERVICES) (SERVI	FI.	172 8		NS PUBBON, 1250 A AND SESSO OF
	W.LKKEMOTED	ı.F.	810		3 DEALPOOLAS PLOSAS
	EMPADROUNA FOR PLAN  EMPADROUNA	C.Y	35.		MICHWAY TO THE TOTAL
	SU GALA OFFIACIDES, A SE FEAT	S.Y.	2530		LANDSCAPING
	EACANATION O. STRUCTURE AND STRUCTURE ANALYSIA PROJECT AND OCCUPIED, AND DEPARTMENT	C.Y.	57 H-4		81 - <mark>የተመረመ</mark> ው በተመረፉ እንደ
	4" COLCUELDSEDET, MIR. AS PER LAND	8 F.	7187		AFCIOTO ATTESCARIO."  AL ACCIOCONITEM S. 2-1.2"
A	CUPPRANTS, AND SEPTEMENT OF SERVICE OF THE CORE BURN AS PERSONAL.	S	(امدا) الإراث		VI DOPPOCATES BUDGE
太	TIPE CITY (LLF) COMES, THY COTE TYES THE COTES AS FARE N	F1	_050	(4	<ul> <li>DECIDMOUNTERES, 2-1 2*</li> </ul>
	MAN, OLE ADD STFS TO GRADE.  CONSTRUCTION I AND STATE OF STATES OF ASSISTANCE.	LUMP	1		LANDSCAPINGTOTAL
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Choice One

MEY, OHIO 937,497,0200 SLAND, OHIO 513,239,8554 AND, NDIANA 260,766,2500

SOUTH CR 25-A RECONSTRUCTION, PH. 2 CITY OF TIPP CITY EARTH WORK AND ESTIMATED QUANTITIES

REVISIONS:

**△** 02-09-2017 Addendum No. 1

EST QUANT.

DRAWN BY
BHB

CHECKED BY
JSP

PROJECT No. MIATC1406 DATE 12-19-2016

12-19-2016 SHEET NUMBER 9 OF 52 REQUIREMENTS FOR MAINTAINING TRAFFIC AS SPECIFIED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION, LATEST REVISION), PERTINENT PROVISIONS OF THE "OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS" (INCLUDING SUPPLEMENTAL SPECIFICATIONS) AND APPLICABLE STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS PROJECT IN ADDITION TO THE FOLLOWING NOTES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE AND EFFECTIVE VEHICULAR TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. THIS WILL INCLUDE PROVIDING, PLACING, MAINTAINING AND SUBSEQUENTLY REMOVING ALL NECESSARY TRAFFIC CONTROL DEVICES FOR ALL PROPOSED CONSTRUCTION OPERATIONS.

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE CITY THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE CITY, OR ANY OTHER INTERESTED POLICE AGENCY.

THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN THE SAFETY OF THE TRAVELED PAVEMENT FOR THE DURATION OF THIS PROJECT. THIS PERSON SHALL HAVE AVAILABLE ALL MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED REPAIRS WITHIN A REASONABLE PERIOD OF TIME AS PER C.M.S. 614.14.

THE CONTRACTOR SHALL ALSO SUBMIT A CONSTRUCTION SEQUENCING SCHEDULE PRIOR TO WORK BEGINNING FOR APPROVAL BY THE CITY. THE CONSTRUCTION SEQUENCING SCHEDULE SHALL TAKE INTO CONSIDERATION ALL ASPECTS OF THE PROJECT INCLUDING HOW LOCAL TRAFFIC TO THE BUSINESSES WILL BE MAINTAINED. THE CONSTRUCTION SEQUENCE WILL NEED TO BE APPROVED BY THE CITY PRIOR TO ANY COMMENCEMENT OF WORK.

ACCESS TO AND FROM ALL LOCAL RESIDENTIAL AND BUSINESS DRIVES WITHIN THE LIMITS OF THIS PROJECT SHALL BE MAINTAINED AT ALL TIMES (24 HOURS A DAY) BY USING THE EXISTING PAVEMENT, TEMPORARY PAVEMENT, AND THE PROPOSED PAVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEQUENCE HIS WORK TO HELP MINIMIZE THE NEED FOR TEMPORARY AGGREGATE PAVEMENT. TEMPORARY AGGREGATE PAVEMENT CAN BE ASPHALT GRINDINGS OR OTHER AGGREGATE APPROVED BY THE CITY. THE COST OF INSTALLATION, MATERIAL, AND REMOVAL OF THE TEMPORARY AGGREGATE PAVEMENT IS TO BE PART OF THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN.

WHERE MORE THAN ONE ACCESS TO A BUSINESS OR RESIDENCE EXISTS, ONLY ONE ACCESS NEEDS TO BE MAINTAINED AT A TIME. WHERE ONLY ONE DRIVE EXISTS, ACCESS SHALL BE MAINTAINED AT ALL TIMES BY CONSTRUCTION OF ONE—HALF OF THE DRIVEWAY AT ONE TIME SUBJECT TO THE APPROVAL OF THE CITY.

TEMPORARY ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS AND ALLEYS WITH A CHANGE IN ELEVATION FROM DRIVEWAY ACCESS TO TEMPORARY DRIVE RAMP NOT TO EXCEED  $1-1/2^\circ$ .

THE CONTRACTOR SHALL NOTIFY THE CITY 14 DAYS PRIOR TO THE START OF ANY DETOUR OR LANE RESTRICTIONS. THE CITY IS REQUIRED TO PROVIDE A 14 DAY NOTIFICATION PRIOR TO THE START OF DETOUR/LANE RESTRICTIONS TO ODOT. THIS DETOUR/LANE RESTRICTION COMMUNICATION MUST STATE DATE OF CLOSURE AND LENGTH OF CLOSURE. ALL LOCAL SCHOOLS AND EMERGENCY SERVICES WHICH ARE LIKELY TO UTILIZE THIS SECTION OF CR 25—A AND EVANSTON RODAD ARE TO BE NOTIFIED OF THE DETOUR NOT LESS THAN 14 DAYS PRIOR TO ROAD CLOSURE.

THE CONTRACTOR SHALL GIVE THE CITY AND ODOT DISTRICT 7 ROADWAY SERVICE MANAGER A MINIMUM OF 14 CALENDAR DAYS NOTICE PRIOR TO CLOSING ANY ROAD OR MOVEMENT TO TRAFFIC.

CITY OF TIPP CITY ENGINEERING 260 S. GARBER DRIVE TIPP CITY, OHIO 45371 (937) 667-6305 ODOT ROADWAY SERVICES MANAGER 1001 ST. MARYS AVE. P.O. BOX 969 SIDNEY, OHIO 45365 (937) 497-6891

ANY DAMAGE TO MAINTENANCE OF TRAFFIC EQUIPMENT SUCH AS SIGNS, DRUMS, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL ADJUST THE LOCATION AND/OR SPACING OF ALL TRAFFIC CONTROL CHANNELING DEVICES AS DICTATED BY THE PROGRESS OF THE REQUIRED WORK TO ALLOW CONSTRUCTION ACCESS TO WORK AREAS WHILE MAINTAINING SAFE AND EFFECTIVE TRAFFIC CONTROL DURING ALL CONSTRUCTION OPERATIONS. THE ORIGINAL LOCATION, PLACEMENT, SPACING AND SUBSEQUENT RELOCATION OR REMOVAL OF ALL TRAFFIC CONTROL DEVICES SHALL BE SUBJECT TO THE CITY'S APPROVAL.

IT IS INTENDED THAT THE LOCAL TRAFFIC NOT BE SUBJECTED TO ANY LANE CLOSURES UNLESS ACTIVE WORK IS BEING PERFORMED IN OR IMMEDIATELY ADJACENT TO THE CLOSED LANE. THE ROADWAY SHALL NOT BE RESTRICTED TO ANY LANE CLOSURE DURING PERIODS OF INTERMITTENT OR IRREGULAR WORK, NOR CLOSED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR. THE CITY SHALL MAKE THE FINAL DETERMINATION AS TO WHAT CONSTITUTES ACTIVE WORK AND WHETHER OR NOT THE LANE CLOSURE IS JUSTIFIED.

IF, IN THE OPINION OF THE CITY, THE LANE CLOSURE IS NOT JUSTIFIED, THEY MAY ORDER ALL OR PART OF THE LANE CLOSURE REOPENED TO LOCAL TRAFFIC (UNTIL SUCH TIME THIS CONDITION IS CORRECTED.)

THE CONTRACTOR SHALL NOTIFY THE CITY OF ANY INTENDED CHANGES TO ANY EXISTING OR TEMPORARY TRAFFIC CONTROL DEVICES AND SHALL OBTAIN THE CITY'S APPROVAL PRIOR TO MAKING THE CHANGES. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY AND LOCAL NEWSPAPER 48 HOURS IN ADVANCE OF ANY INTENDED LANE CLOSURES.

NOTICES OF THE DETOURS WILL BE POSTED IN THE LOCAL MEDIA PRIOR TO THE ROAD CLOSURES AND EMERGENCY SERVICES WILL ALSO BE NOTIFIED. ACCESS FOR LOCAL TRAFFIC WILL BE PROVIDED AT ALL TIMES DURING THE ROAD CLOSURES. ROAD CLOSURE PERIOD SHALL NOT EXCEED THE PHASE DAYS LISTED BELOW. NORMAL C&MS DISINCENTIVE WILL APPLY.

THE CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS PER STANDARD DRAWING MT-101.60.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**CONSTRUCTION SEQUENCE** 

THE CONTRACTOR SHALL FURNISH AND INSTALL ADVANCE WARNING "ROAD WORK AHEAD" (W20-1) SIGNS AND "END ROAD WORK" (G20-2) SIGNS AS WELL AS OTHER NECESSARY MAINTENANCE OF TRAFFIC SIGNS AT THE BEGINNING AND END OF THE PROJECT AND ALSO ON ALL CROSSROADS.

THE WORK SHALL CONSIST OF:

PHASE 1 THIS PHASE IS TO CONSIST OF THE INSTALLATION OF ALL PROPOSED PAVEMENT, CURBING, DRIVEWAYS, CURB RAMPS, WATERLINE AND STORM SEWER UP TO AND INCLUDING ITEM 301, ASPHALT CONCRETE BASE FROM MICHAELS ROAD TO EVANSTON ROAD (STA. 326+28.1). EVANSTON ROAD MUST REMAIN OPEN TO TWO—WAY TRAFFIC DURING THIS PHASE. CR 25—A WILL BE CLOSED TO THRU TRAFFIC. ALSO, ALL PROPOSED TRAFFIC SIGNAL AND FIBER INTERCONNECT WORK SHALL BE COMPLETED DURING THIS PHASE. THIS PHASE SHALL BE COMPLETED BEFORE NOVEMBER 15TH. CR 25—A SHALL REMAIN OPEN TO THRU—TRAFFIC FROM NOVEMBER 15TH THRU MARCH 15TH, UNLESS OTHERWISE APPROVED BY THE CITY. SEE SHEET 12 FOR DETOUR PLAN AND SHEET 13 FOR MOT PLAN.

THIS PHASE IS TO BE COMPLETED WITHIN A 90 CALENDAR DAY PERIOD.

PHASE 2. THIS PHASE IS TO CONSIST OF THE INSTALLATION OF ALL PROPOSED PAVEMENT, CURBING, AND DRIVEWAY'S UP TO AND INCLUDING ITEM 442, INTERMEDIATE COURSE ON EVANSTON ROAD. CR 25-A SHALL BE OPEN TO FULL TRAFFIC. EVANSTON ROAD WILL BE CLOSED TO THRU TRAFFIC. SEE SHEET 14 FOR DETOUR PLAN AND SHEET 15-16 FOR MOT PLAN.

THIS PHASE IS TO BE COMPLETED WITHIN A 30 CALENDAR DAY PERIOD.

PHASE 3: THIS PHASE IS TO CONSIST OF PAVEMENT PLANING, PLACEMENT OF ITEM 442 INTERMEDIATE COURSE AND 442 SURFACE COURSE, AND PAVEMENT MARKINGS. ALL NON-APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE REMOVED. CONTRACTOR SHALL FOLLOW ODOT STANDARD DRAWING MT-97.12

PHASE 4. THIS PHASE IS TO CONSIST OF THE INSTALLATION OF SIDEWALK, MINOR GRADING, AND SEEDING & MULCHING FROM ALONG CR 25-A FROM MICHAELS ROAD TO MAIN STREET (SR 571). CR 25-A SHALL BE OPEN TO TRAFFIC AT ALL TIMES. CONTRACTOR SHALL FOLLOW ODOT STANDARD DRAWING MT-95.31 FOR MAINTAINING TRAFFIC.

THIS PHASE IS TO BE COMPLETED WITHIN A 45 CALENDAR DAY PERIOD (THIS PHASE CAN ONLY START WHEN THE FINISH DATE WILL BE DURING OPTIMAL SEEDING TIME.)

THIS PHASE CAN BE INSTALLED IN CONJUNCTION WITH ANY PHASE OF CONSTRUCTION, HOWEVER WILL NOT ADD ANY ADDITIONAL DAYS OF CONSTRUCTION TO THEIR RESPECTIVE PHASE OF THE PROJECT.

THE PROPOSED STREET LIGHTING CAN BE INSTALLED DURING ANY OF THE ABOVE MENTIONED PHASES. HOWEVER, THIS WORK SHALL NOT ADD ANY ADDITIONAL DAYS OF CONSTRUCTION TO THE RESPECTED PHASE'S TIMELINE FOR WORK TO BE COMPLETED.

THE SEQUENCE OF CONSTRUCTION NEEDS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING AND PEDESTRIAN PUBLIC.

FOR MAINTENANCE OF LOCAL, BUSINESS, AND EMERGENCY VEHICLE TRAFFIC PURPOSES LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES. MINIMUM LANE WIDTHS OF 11 FEET SHALL BE PROVIDED AT ALL TIMES, ALONG WITH ADEQUATE RADII AT INTERSECTIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIAL NEEDED FOR MAINTAINING TRAFFIC THROUGH ALL STAGES OF CONSTRUCTION IN ACCORDANCE WITH ITEM 614, INCLUDING STIPULATIONS STATED ELSEWHERE ON THESE PLANS, SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

#### MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

- 1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
- 2. NEW OR REUSED SIGNAL INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READLY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN TWO HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF TIPP CITY FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 7 TO 9 AM AND 4 TO 6 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- 1. TIME OF NOTIFICATION OF MALFUNCTION;
- 2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
- ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
- 4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
- 5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ChoiceOne

SIDNEY, OHIO 937.497.0200
VELAND, OHIO 913.298.854
TLAND, INDIANA 260.766.2500
CHOICEONEENGINEERING.COM

SOUTH CR 25-A RECONSTRUCTION, PH. 2 CITY OF TIPP CITY MAINTENANCE OF TRAFFIC GENERAL NOT

REVISIONS

FILE NAME MIATCI1406MNA DRAWN BY

BHB CHECKED BY JSP

PROJECT No. MIATCI1406

DATE 12-19-2016 SHEET NUMBER

# ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOs) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST, LEOS SHOULD NOT BE USED WHERE THE OMUTCO INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

 FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOs SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO—WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOs SHALL BE USED DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE OF PHASE 1. THE LEOS SHOULD BE LOCATED AT THE INTERSECTIONS OF S. CR 25-A & MICHAELS ROAD AND S. CR 25-A & EVANSTON ROAD. LEES SHALL BE USED DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE OF PHASE 2. LEOS SHOULD BE LOCATED AT THE INTERSECTION OF S. CR 25-A & EVANSTON ROAD.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE ENGINEER'S ESTIMATE.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE......10 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

#### **CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE ENGINEER'S ESTIMATE TO BE USED AS DIRECTED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC:

ITEM	614	WORK	ZONE	EDGE	LINE,	CLASS	1		2	MIL	E
ITEM	614	WORK	ZONE	CENTE	R LIN	E, CLAS	SS	5 1	0.	5	MILE
ITEM	614	WORK	ZONE	STOP	LINE,	CLASS	1		100	0	FEET

ACCESS TO BUILDINGS, COMMERCIAL FACILITIES, AND EVENT INFORMATION

ACCESS TO BUSINESSES IN OPERATION SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AT ALL TIMES. ACCESS SHALL BE MAINTAINED BY MINIMIZING THE AMOUNT OF TIME OF CONSTRUCTION ACTIVITY DIRECTLY IN FRONT OF ENTRY WAYS INTO BUILDINGS AND REMOVING EQUIPMENT NOT IN USE.

#### NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 7 CONSTRUCTION ADMINISTRATOR AND THE MIAMI COUNTY ENGINEER 14 DAYS PRIOR TO BEGINNING WORK:

ODOT: 937-497-6722

MIAMI COUNTY: 937-440-5656

#### **ALTERNATE METHODS**

THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, AND/OR CONSTRUCTION SEQUENCE PROVIDED THE INTENT OF THE ABOVE PLAN PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC AND MERCHANTS RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE CITY.

#### TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

#### **OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE FINGINFER

# OVERNIGHT AND WEEKEND ACCESS TO DRIVES DURING BASE PREPARATION AND OTHER CONSTRUCTION ACTIVITIES

ACCESS TO DRIVEWAYS DURING OVERNIGHT AND WEEKEND HOURS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. TEMPORARY ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS AND ALLEYS WITH A CHANGE IN ELEVATION FROM DRIVEWAY ACCESS TO TEMPORARY DRIVE RAMP NOT TO EXCEED 1-1/2".

ACCESS TO ALL INTERSECTIONS SHALL BE MAINTAINED 24 HOURS A DAY. DURING CONSTRUCTION OF UTILITY CROSSINGS, ONE—WAY TRAFFIC SHALL BE MAINTAINED WITH FLAGGER PER THE REQUIREMENTS OF THE OHIO UNIFORM MANUAL OF TRAFFIC CONTROL DEVICES WITH THE APPROVAL OF THE ENGINEER WITH A MINIMUM OF A 11 FOOT WIDE LANE WITH ADEQUATE (30 FOOT) RADII FOR TURNING.

#### **HAUL ROADS**

WHEN PICKING A DUMP SITE, CONTRACTOR IS TO TAKE INTO CONSIDERATION THE HAUL ROAD ROUTE AND ANY NECESSARY ROADWAY REPAIR CAUSED BY HAULING TO THE DUMP SITE.

PRIOR TO HAULING EQUIPMENT OR MATERIALS THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE CITY OF THE SPECIFIC ROADS OR STREETS ON THE HAUL ROUTE. IF THE HAUL ROUTE INCLUDES ROADS AND STREETS THAT ARE NOT UNDER THE JURISDICTION AND CONTROL OF THE CITY OR OF THE STATE, THE CONTRACTOR MUST USE LOCAL ROADS AND STREETS THAT ARE NOT RESTRICTED BY LOCAL AUTHORITIES. IF IT IS DETERMINED BY THE CITY THAT THE HAUL ROADS USED TO HAUL EQUIPMENT AND MATERIALS TO THE DUMP SITE WERE DAMAGED FROM THIS OPERATION, THE CITY WILL ORDER THE CONTRACTOR TO PERFORM IMMEDIATE AND PRACTICAL REPAIRS TO ENSURE REASONABLY NORMAL TRAVELING CONDITIONS AND BRING PAVEMENT CONDITIONS BACK TO WHAT THEY WERE PRIOR TO CONTRACTOR'S OPERATION AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL TAKE ALL THIS INTO CONSIDERATION WHEN PICKING A DUMP SITE.

THE CONTRACTOR SHALL NOT FILE A CLAIM FOR DELAYS OR OTHER IMPACTS TO THE WORK CAUSED BY DISPUTE WITH THE LOCAL AUTHORITIES REGARDING THE USE OF LOCAL ROADS OR STREETS AS HAUL ROADS. THE CONTRACTOR SHALL HOLD THE CITY AND THE STATE HARMLESS FOR ANY CLOSURES OR HAULING RESTRICTION OUTSIDE THE PROJECT LIMITS BEYOND THE CONTROL OF THE CITY OR ODOT.



SIDNEY, OHIO 937,497,0200
LOVELAND, OHIO 513,239,8554
PORTLAND, INDIANA 260,766,2500
ww.CHOICEONEENGINEERING.CDI

SOUTH CR 25-A RECONSTRUCTION, PH. 2
CITY OF TIPP CITY
MAINTENANCE OF TRAFFIC GENERAL NOTES

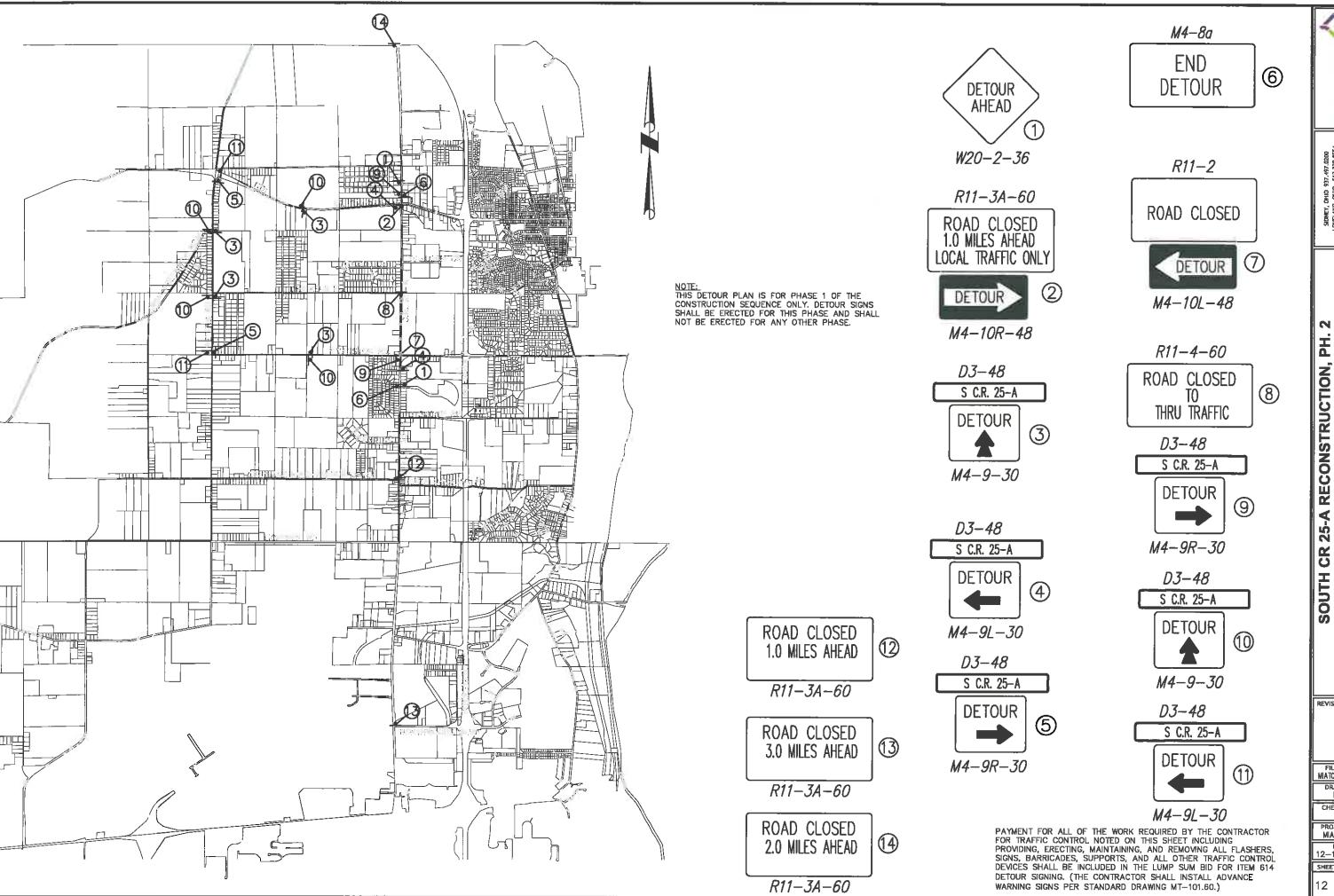
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FILE NAME OT - MIATCI1406M DRAWN BY

BHB CHECKED BY JSP

MIATCI1406 DATE 2-19-2016

sheet number



Choice One

H CR 25-A RECONSTRUCTION, CITY OF TIPP CITY DETOUR PLAN FOR PHASE 1 SOUTH

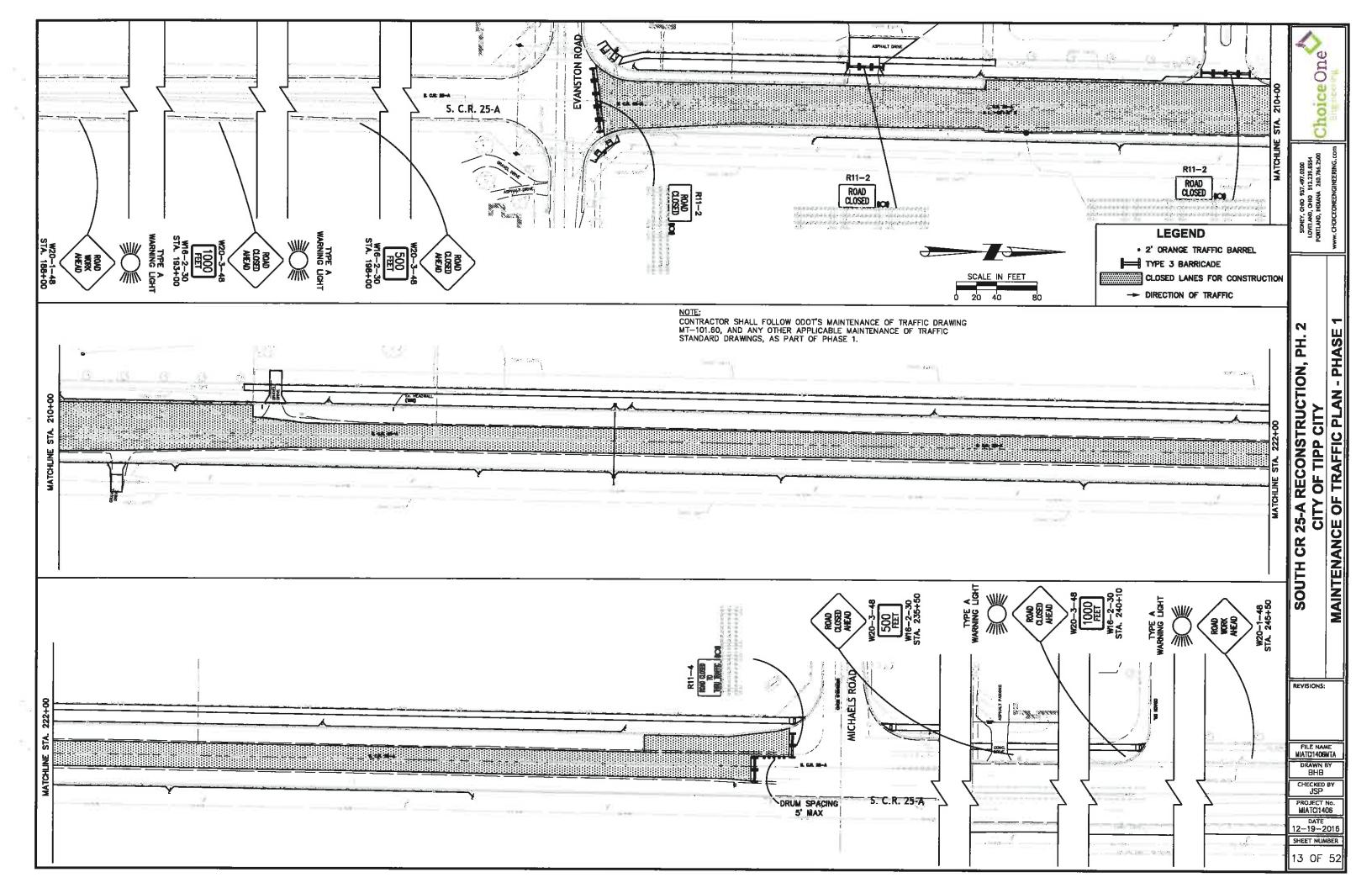
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FILE NAME MIATCI1406DETA

CHECKED BY JSP

PROJECT No. MIATCI1406

DATE 12-19-2016 SHEET NUMBER 12 OF 52



R11-3A-60

ROAD CLOSED 0.6 MILES AHEAD LOCAL TRAFFIC ONLY

ONLY



M4-10L-48

D3-48
EVANSTON ROAD

DETOUR 2

M4-9-30

D3-48
EVANSTON ROAD

DETOUR 3

M4-9R-30

D3-48 Evanston road

4

DETOUR

M4-9L-30

M4-8a

END DETOUR

**(5)** 

R11-3A

ROAD CLOSED 1.2 MILES AHEAD LOCAL TRAFFIC ONLY



M4-10R-48

R11-3A-60

ROAD CLOSED

LOCAL TRAFFIC ONLY



W20-2-36

PAYMENT FOR ALL OF THE WORK REQUIRED BY THE CONTRACTOR FOR TRAFFIC CONTROL NOTED ON THIS SHEET INCLUDING PROVIDING, ERECTING, MAINTAINING, AND REMOVING ALL FLASHERS, SIGNS, BARRICADES, SUPPORTS, AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 DETOUR SIGNING. (THE CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS PER STANDARD DRAWING MT—101.60.)

FLAND, OHIO 517.238.8554

LAND, INDIANA 260.756.2500

HOICEONEENGINE-RING.com

SOUTH CR 25-A RECONSTRUCTION, CITY OF TIPP CITY DETOUR PLAN FOR PHASE 2

PH.

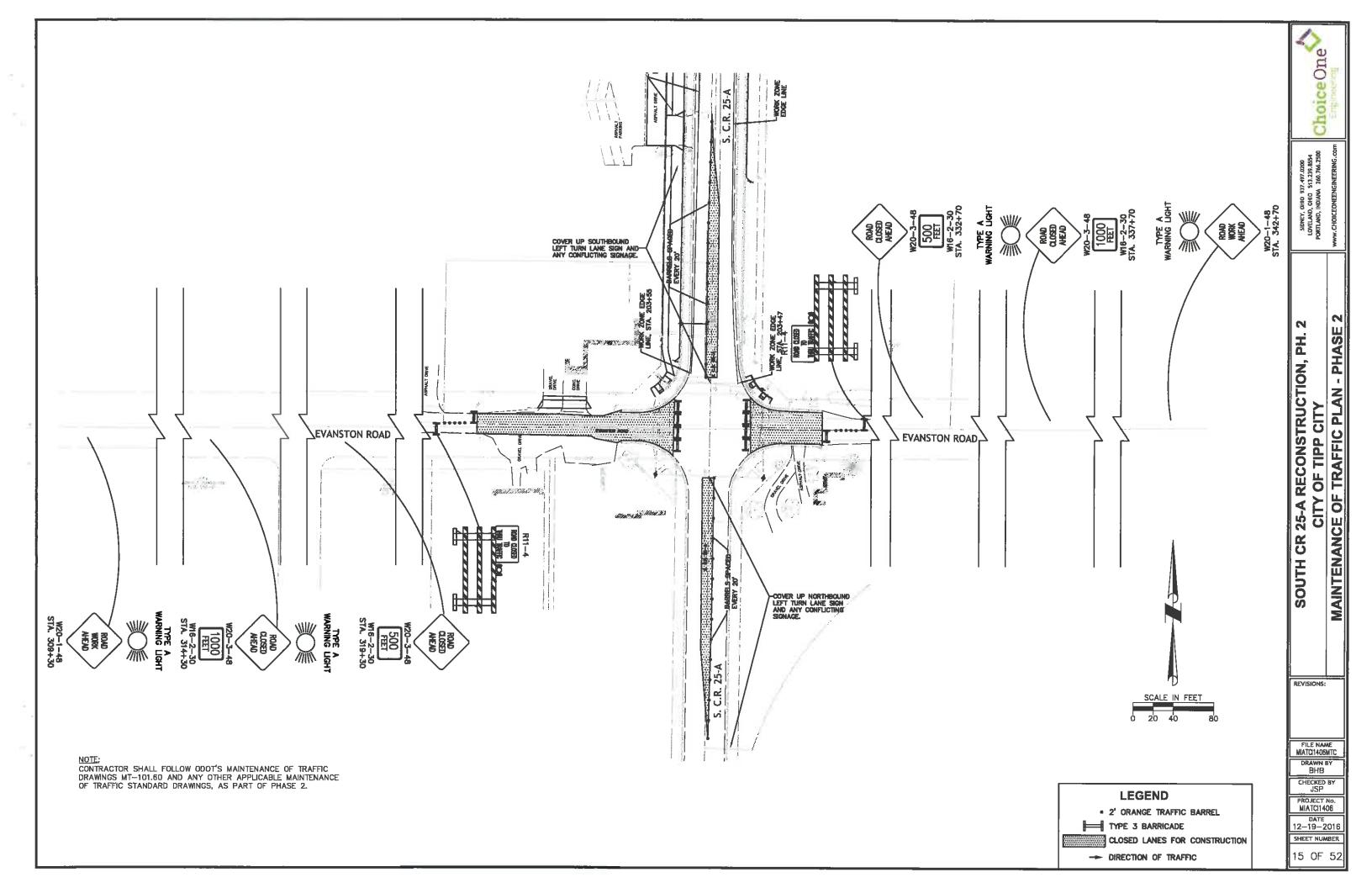
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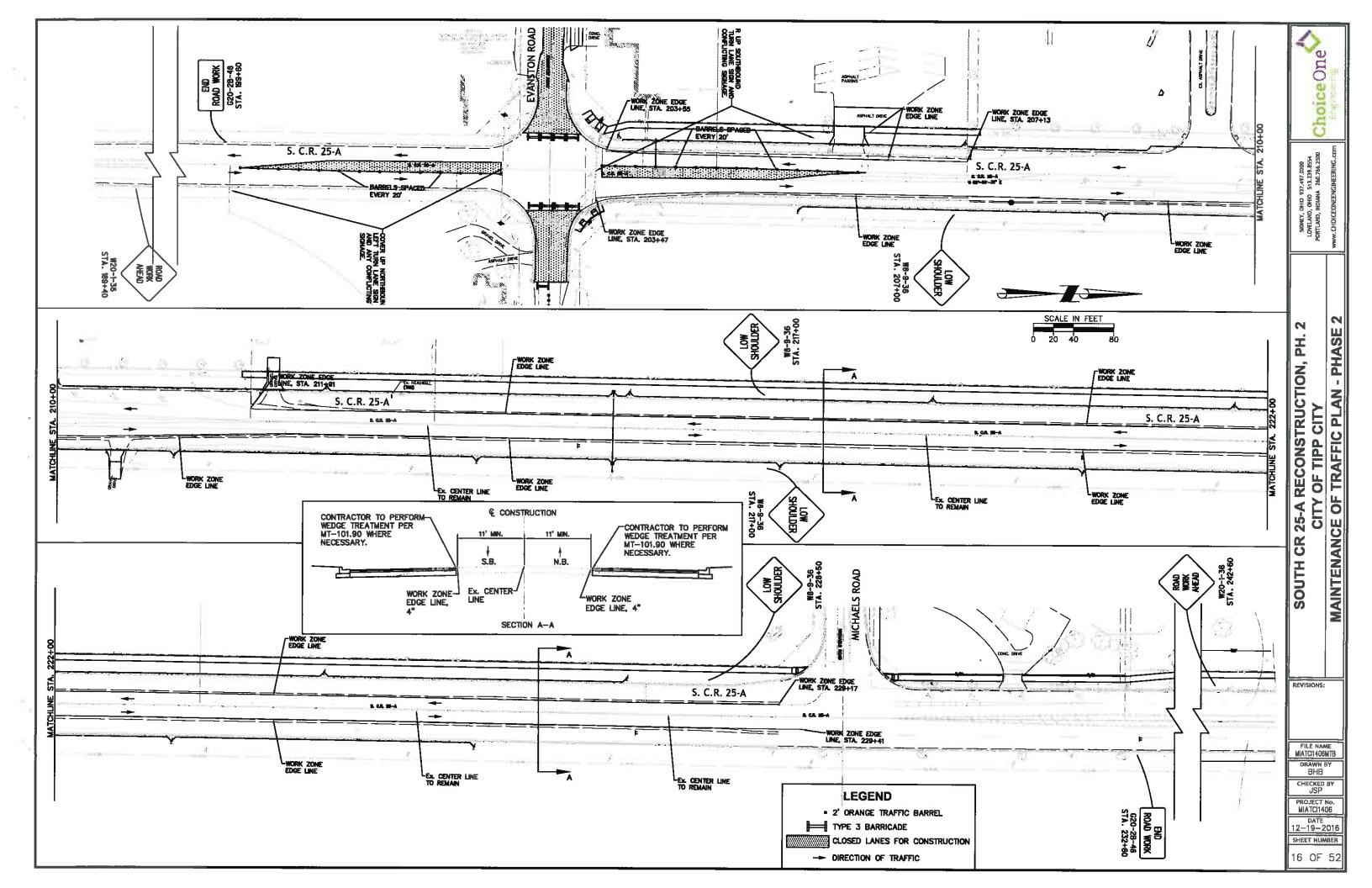
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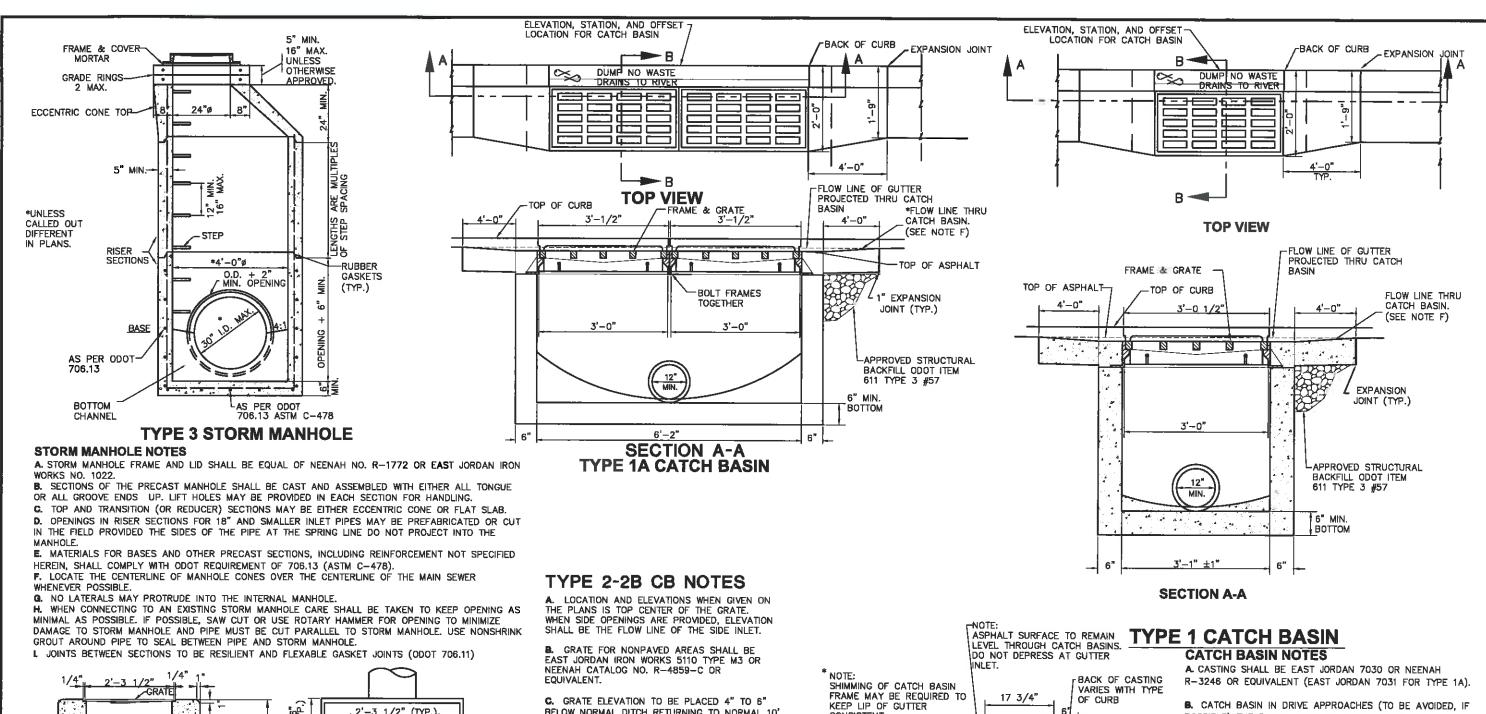
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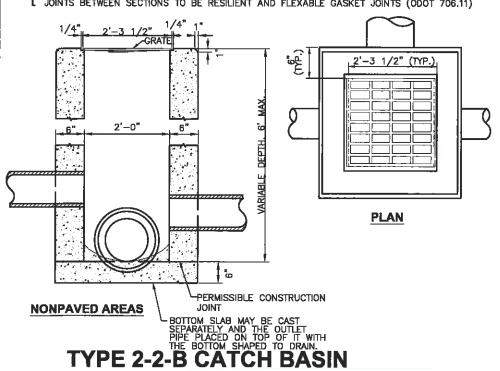
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DATE 12-19-2016 SHEET NUMBER









C. GRATE ELEVATION TO BE PLACED 4" TO 6" BELOW NORMAL DITCH RETURNING TO NORMAL 10' EACH SIDE OF BASIN.

D. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. KNOCKOUTS SHALL BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT

E. CATCH BASINS NOT PERMITTED IN PAVEMENT AREAS UNLESS USING A FRAME AND GRATE EQUIVALENT OF NEENAH CATALOG NO. R-3405 OR EAST JORDAN IRON WORKS NO. 5250.

F. FOR PIPES OVER 18" REFER TO ODOT CATCH BASIN 2-3 AND 2-4. FOR SIDE INLETS REFER TO ODOT CATCH BASIN 2-2A.

G. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF POSSIBLE, SAWCUT OR USE ROTARY HAMMER FOR OPENING TO MINIMIZE DAMAGE TO CATCH BASIN. PIPE TO INTRUDE INTO CATCH BASIN 1" ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NONSHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND

B. CATCH BASIN IN DRIVE APPROACHES (TO BE AVOIDED, IF POSSIBLE) THE BACKS SHALL BE EAST JORDAN TYPE T3 OR NEENAH (R-3246-A) WITH CURB PLATE.

 ${f C}.$  STANDARD GRATE SHALL BE EAST JORDAN TYPE M2, NEENAH TYPE C, OR EQUIVALENT. ALL BAR EDGES TO BE ROUNDED 1/8" RADIUS.

TOP OF CURB

ASPHALT

PAVEMENT

SHAPE

BOTTOM

TO DRAIN

2'-1" +1'

**SECTION B-B** 

2

2'-0"

D. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC MISC. (NO POZZOLAN MATERIAL) KNOCKOUTS MAY BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

POSSIBLE, SAWCUT OR USE ROTARY HAMMER FOR OPENING TO

CURB AND GUTTER WHILE KEEPING LIP OF GUTTER CONSISTENT WITH TOP OF CURB.

E. CARE SHALL BE TAKEN WHEN CONNECTING TO AN EXISTING CATCH BASIN TO KEEP OPENING AS MINIMAL AS POSSIBLE. IF MINIMIZE DAMAGE TO CATCH BASIN. PIPE TO INTRUDE INTO CATCH BASIN 1" ONLY AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. USE NONSHRINK GROUT AROUND PIPE TO SEAL BETWEEN PIPE AND CATCH BASIN. F. DROP FLOW LINE 1/2" WITHIN BLOCK OUT OF COMBINED

On Choice

H.

HON, TRUC CITY CONST F TIPP ( CITY OF T 25-A S

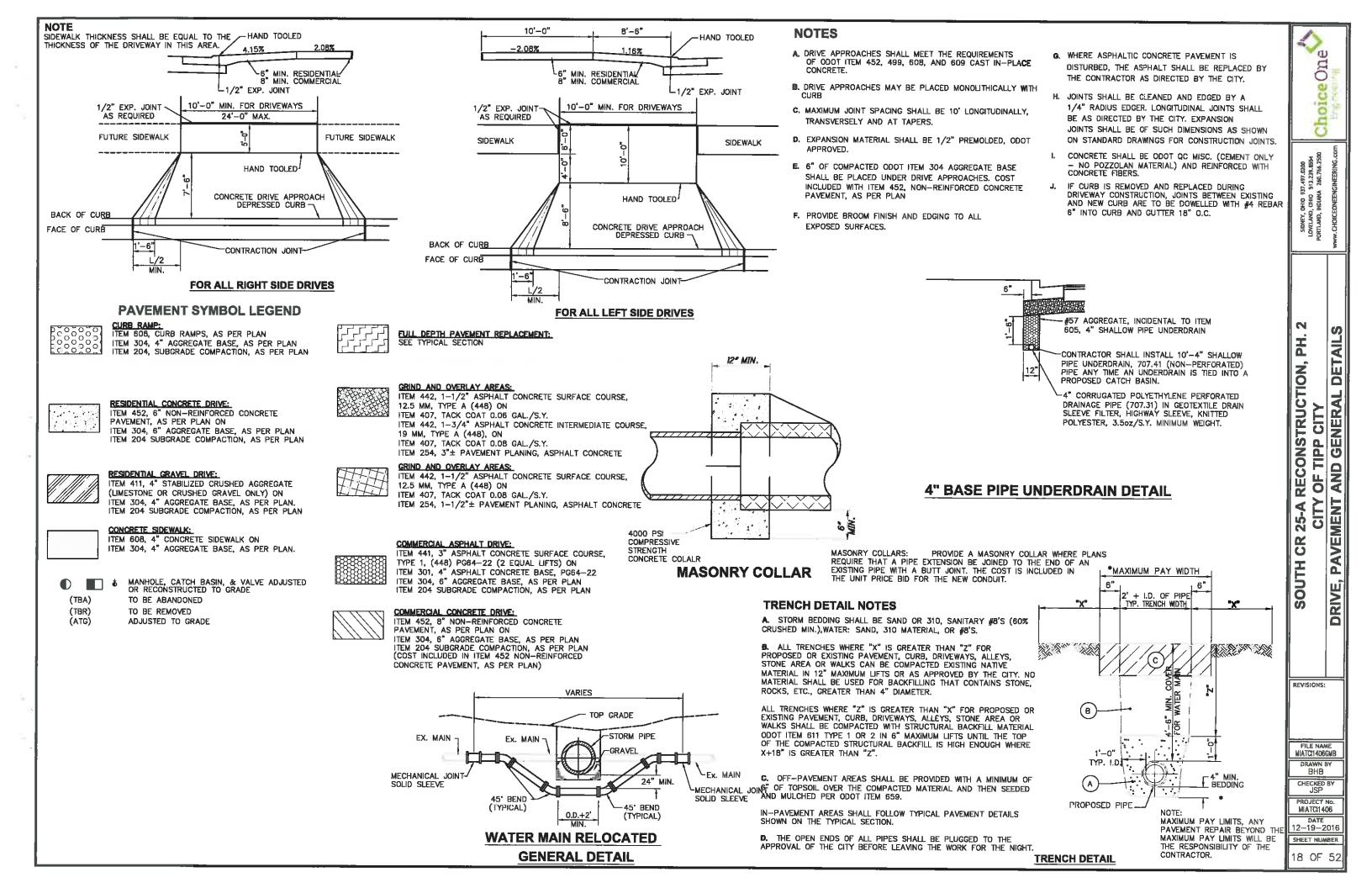
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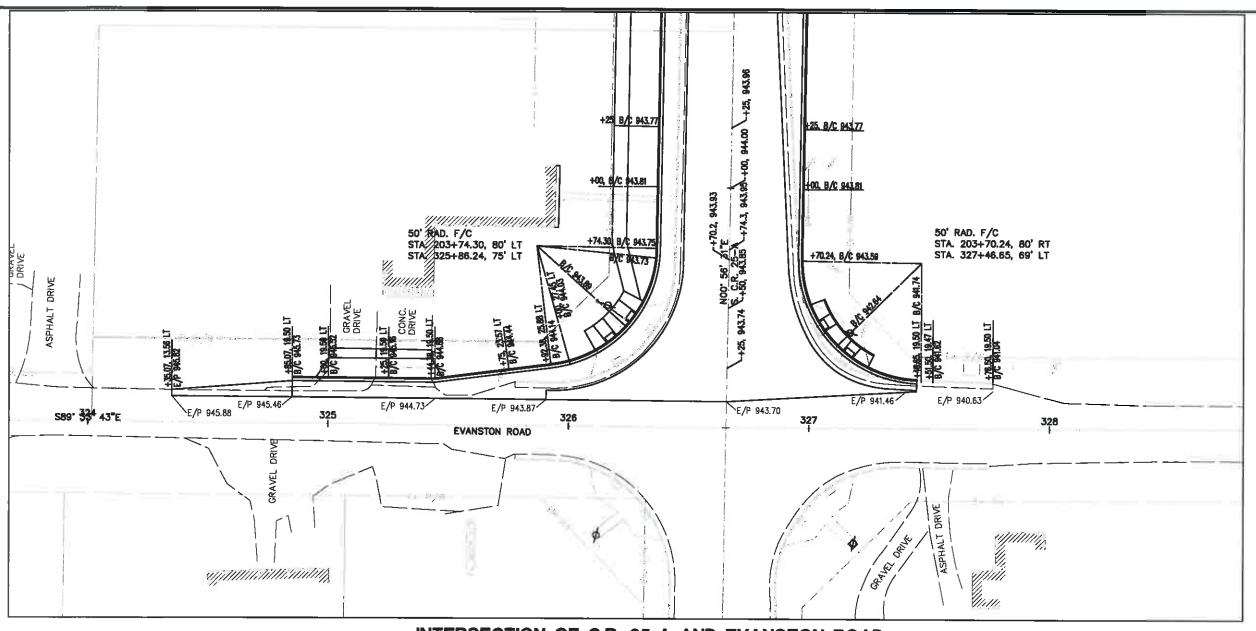
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PROJECT No. DATE 12-19-2010

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INTERSECTION OF C.R. 25-A AND EVANSTON ROAD

LEGEND

ALL ELEVATIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED

Ex. B/C — Ex. BACK OF CURB
Ex. F/L — Ex. FLOWLINE OF GUTTER
F/C — FACE OF CURB
E/P — EDGE OF PAVEMENT
B/C — PROP. BACK OF CURB
€ — Ex. CENTERLINE OF ROAD



ChoiceOne

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품 CITY OF TIPP CITY
INTERSECTION DETAILS CH

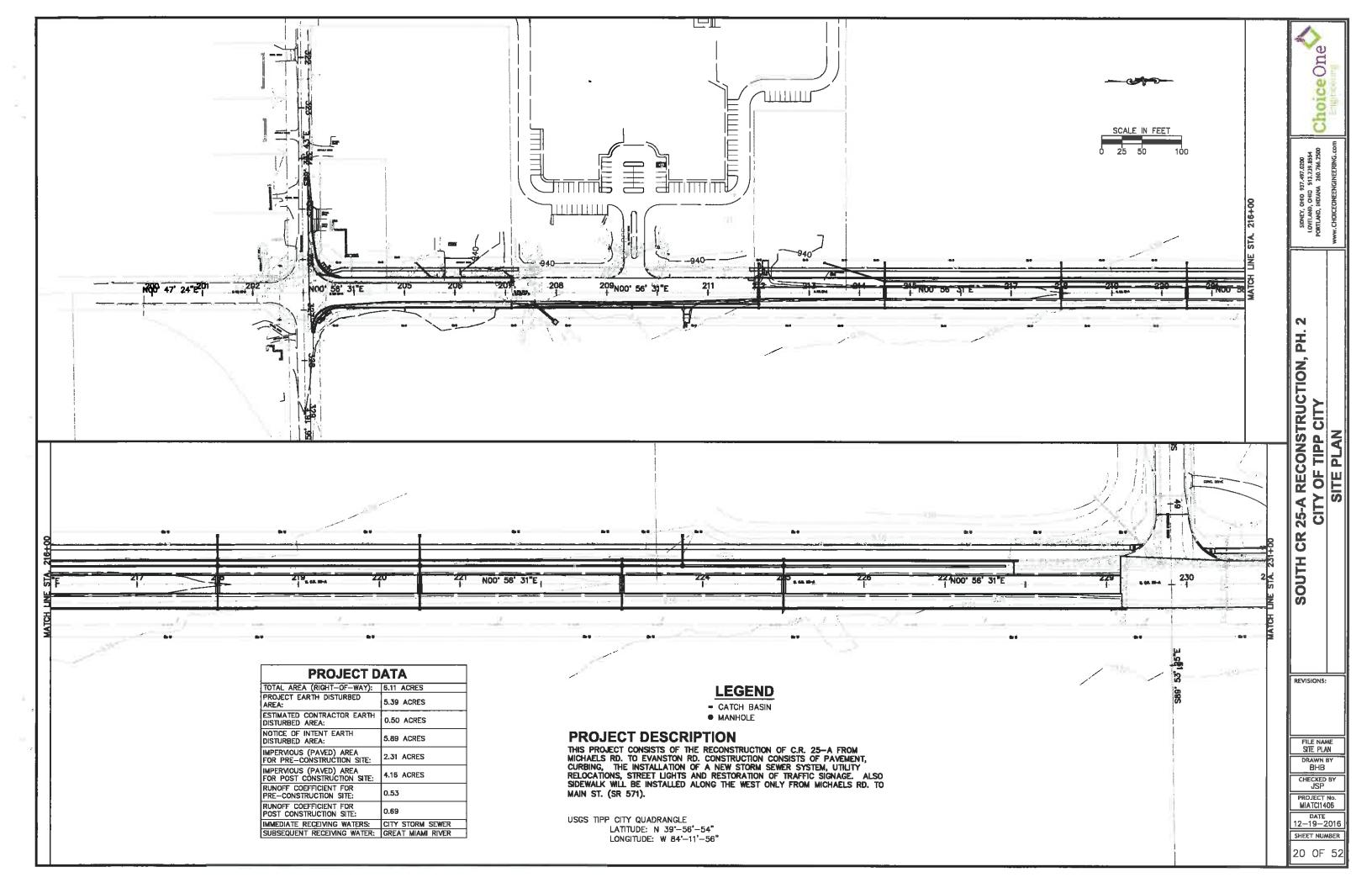
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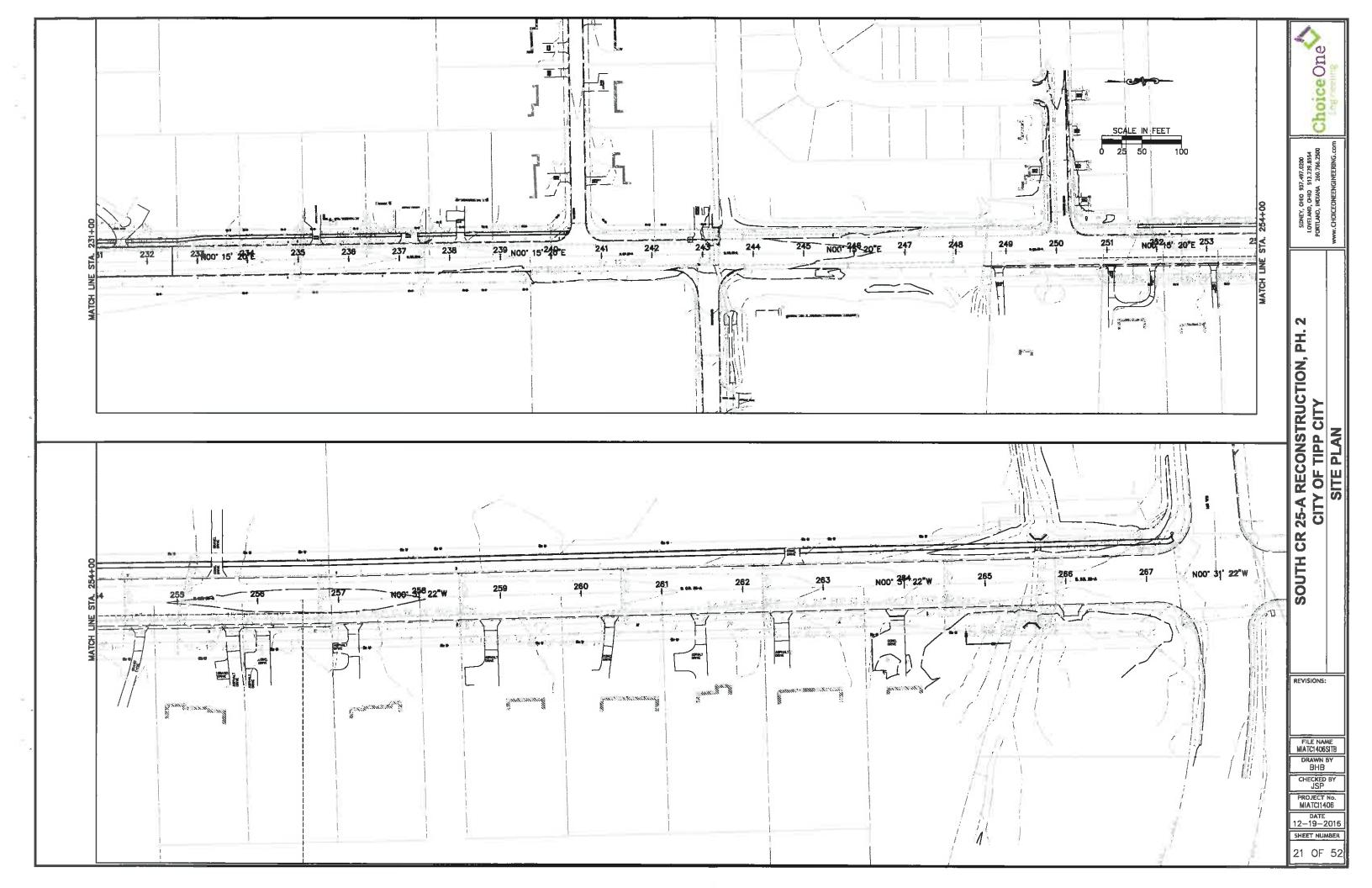
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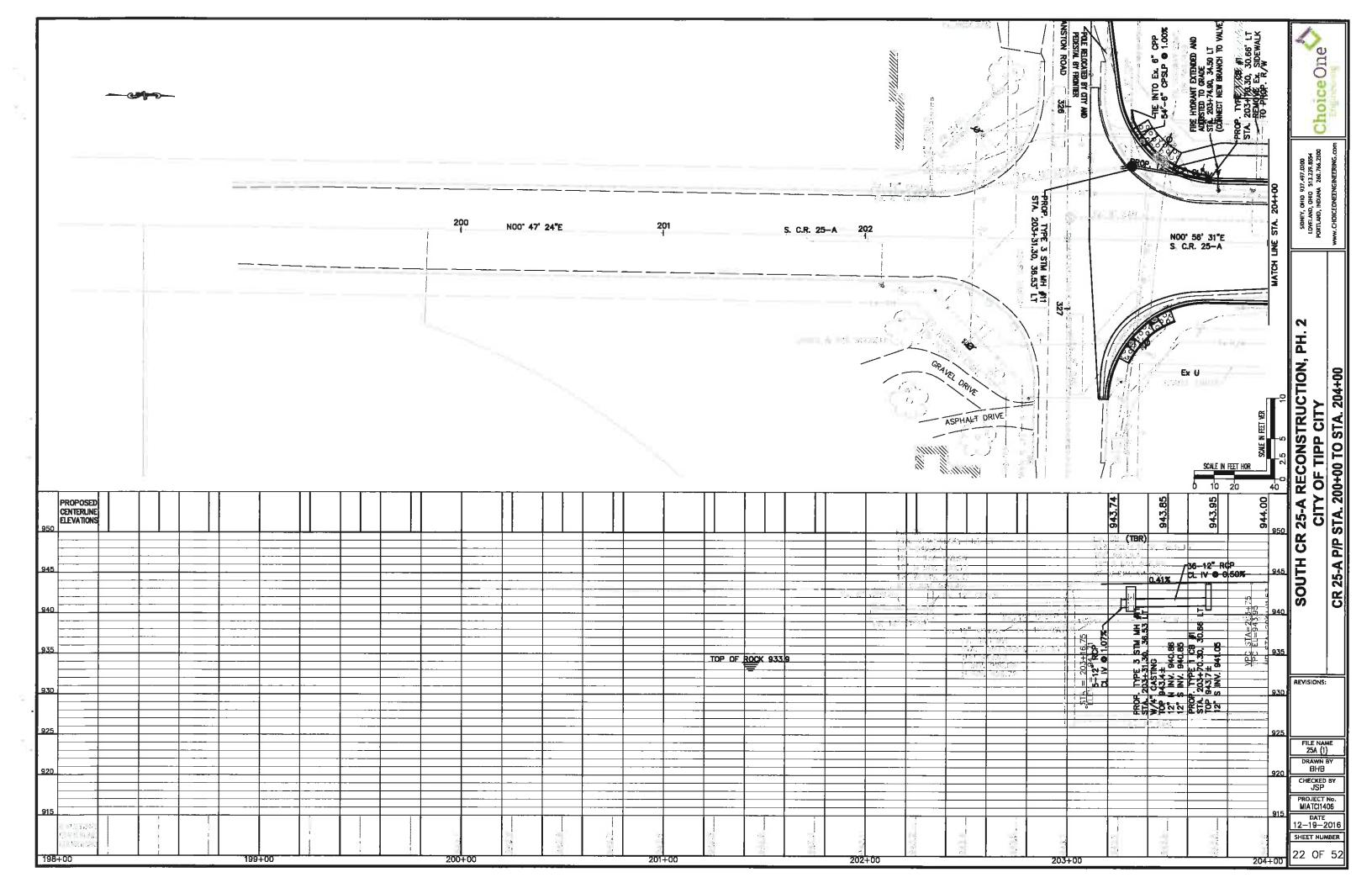
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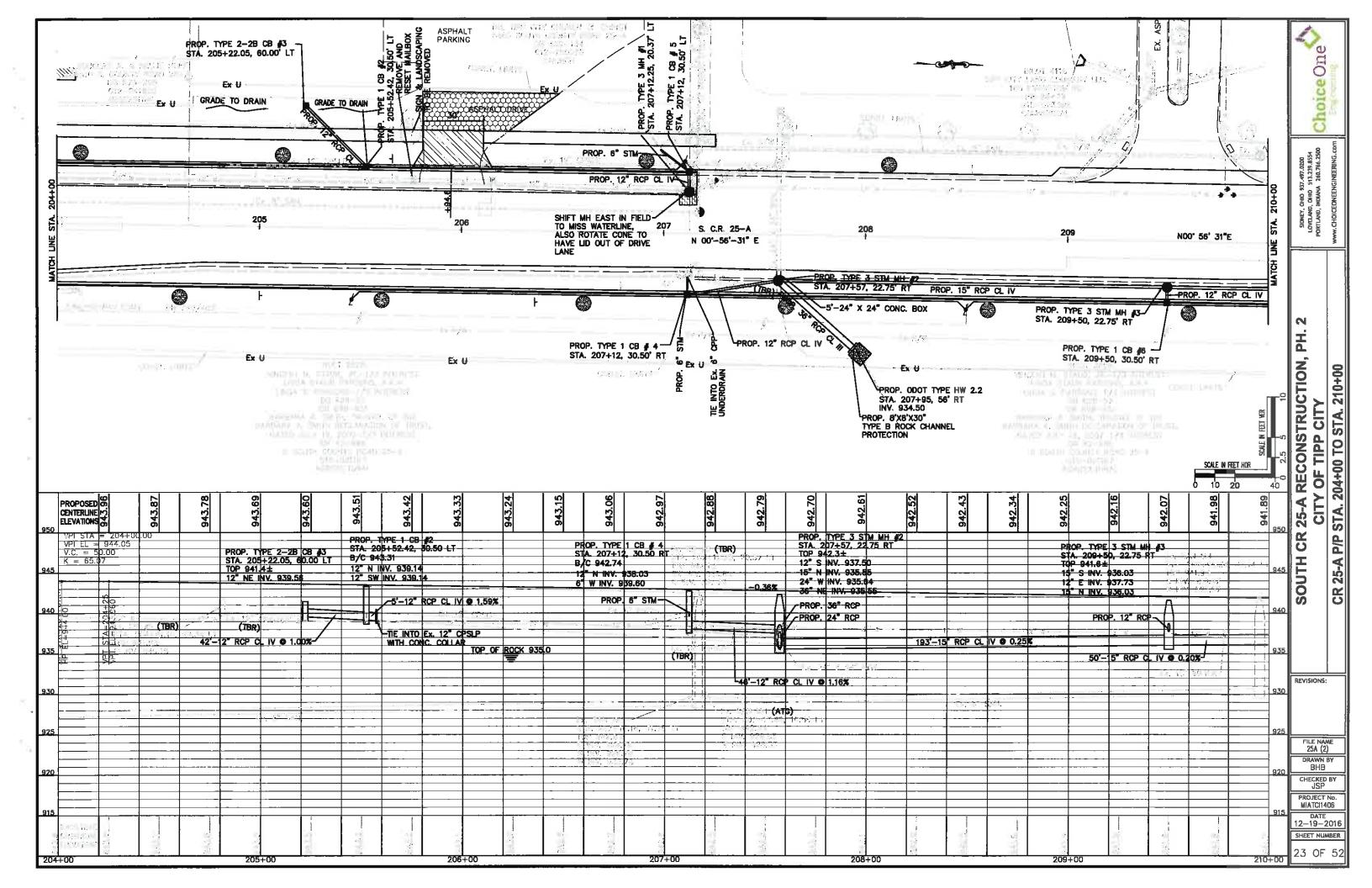
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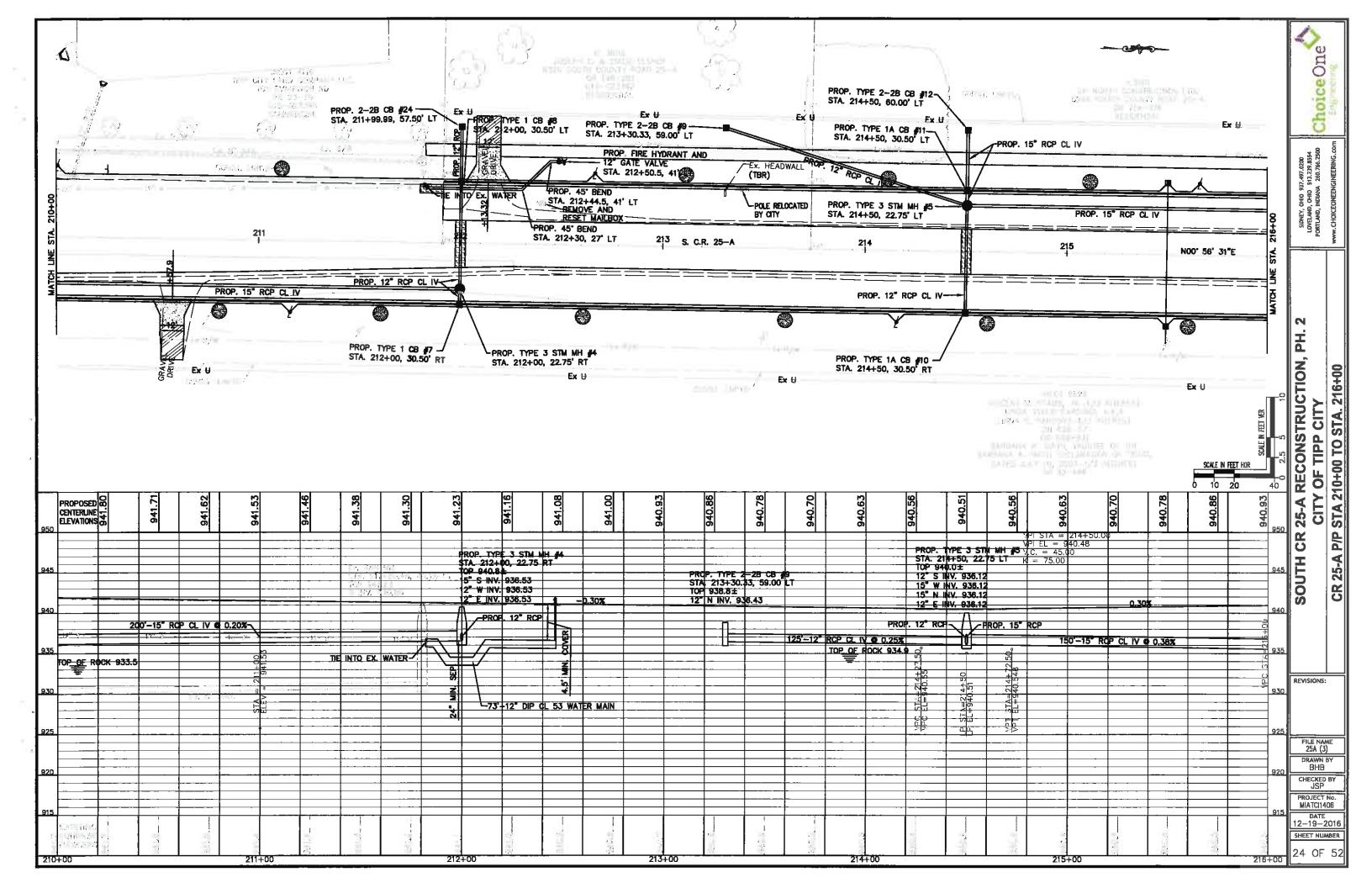
PROJECT No. DATE 12-19-2016 SHEET NUMBER

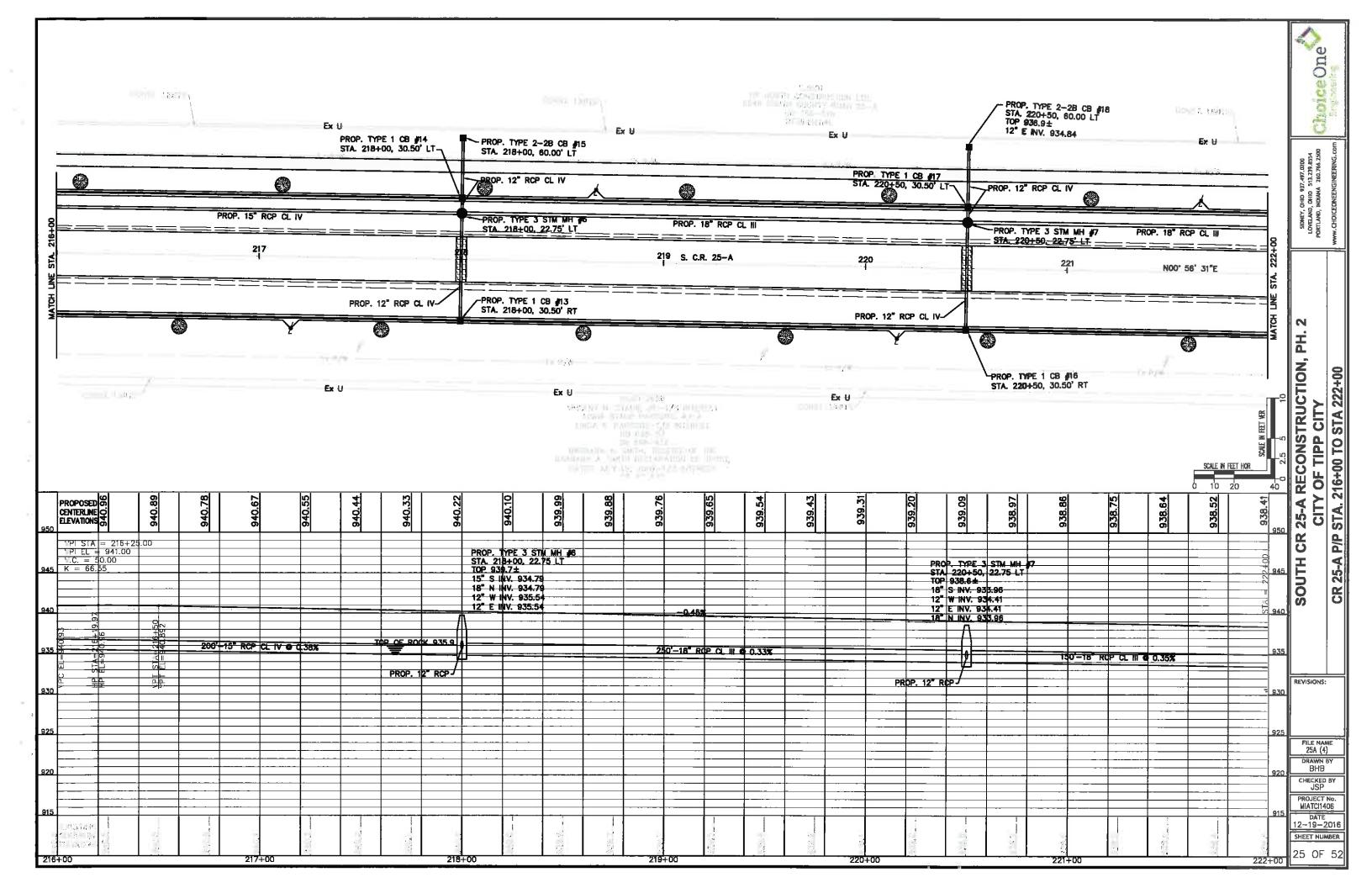


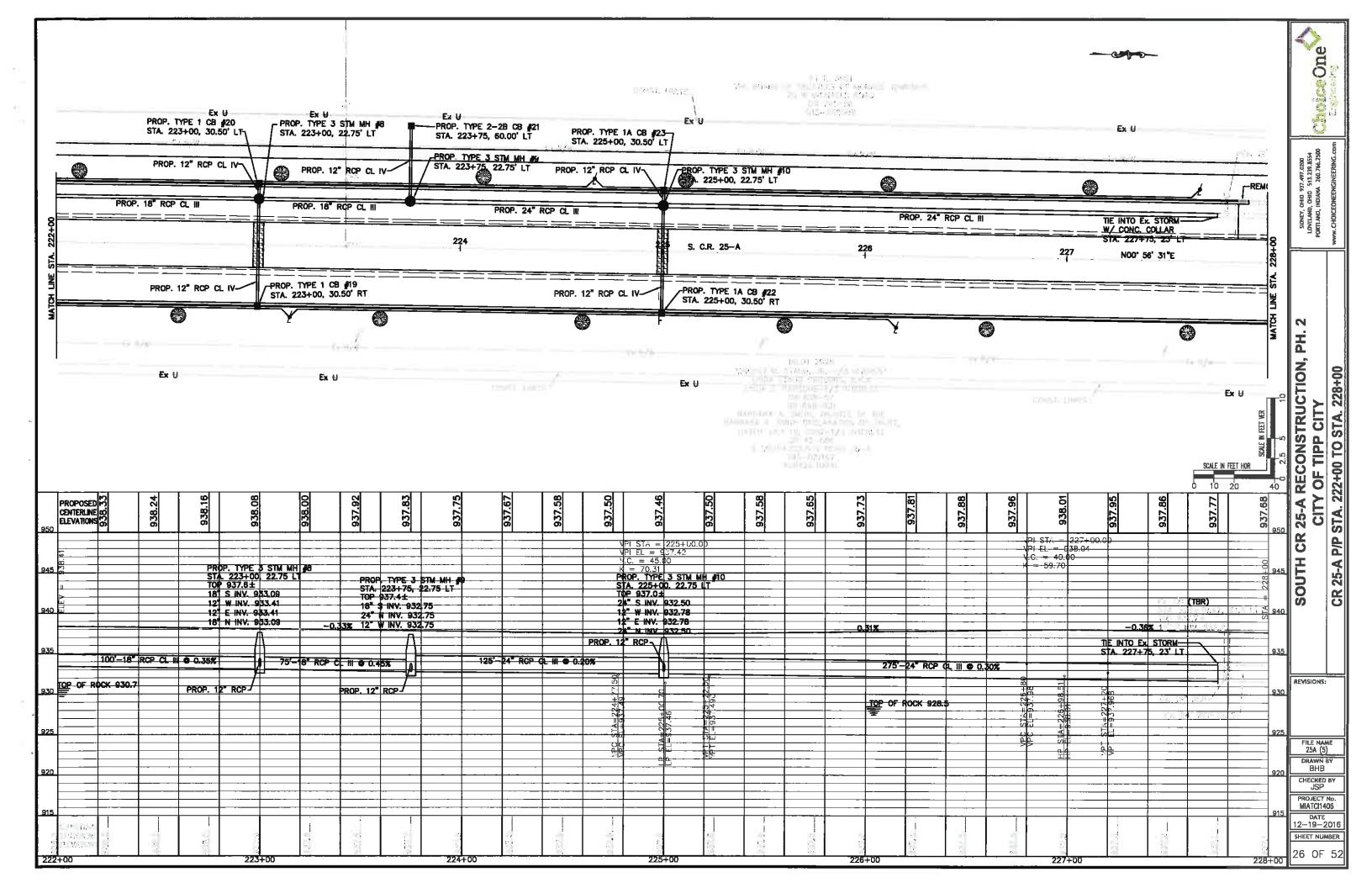


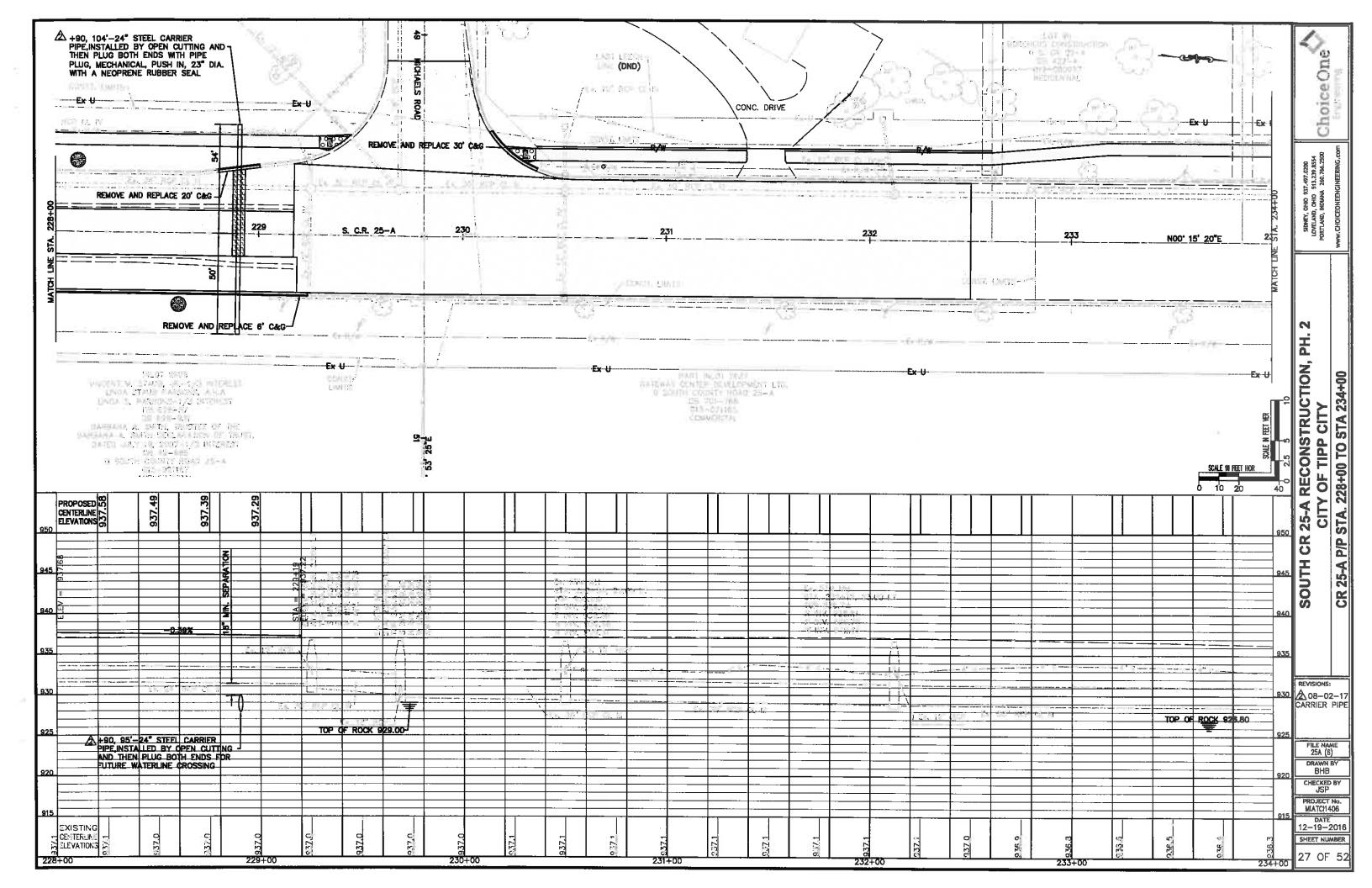


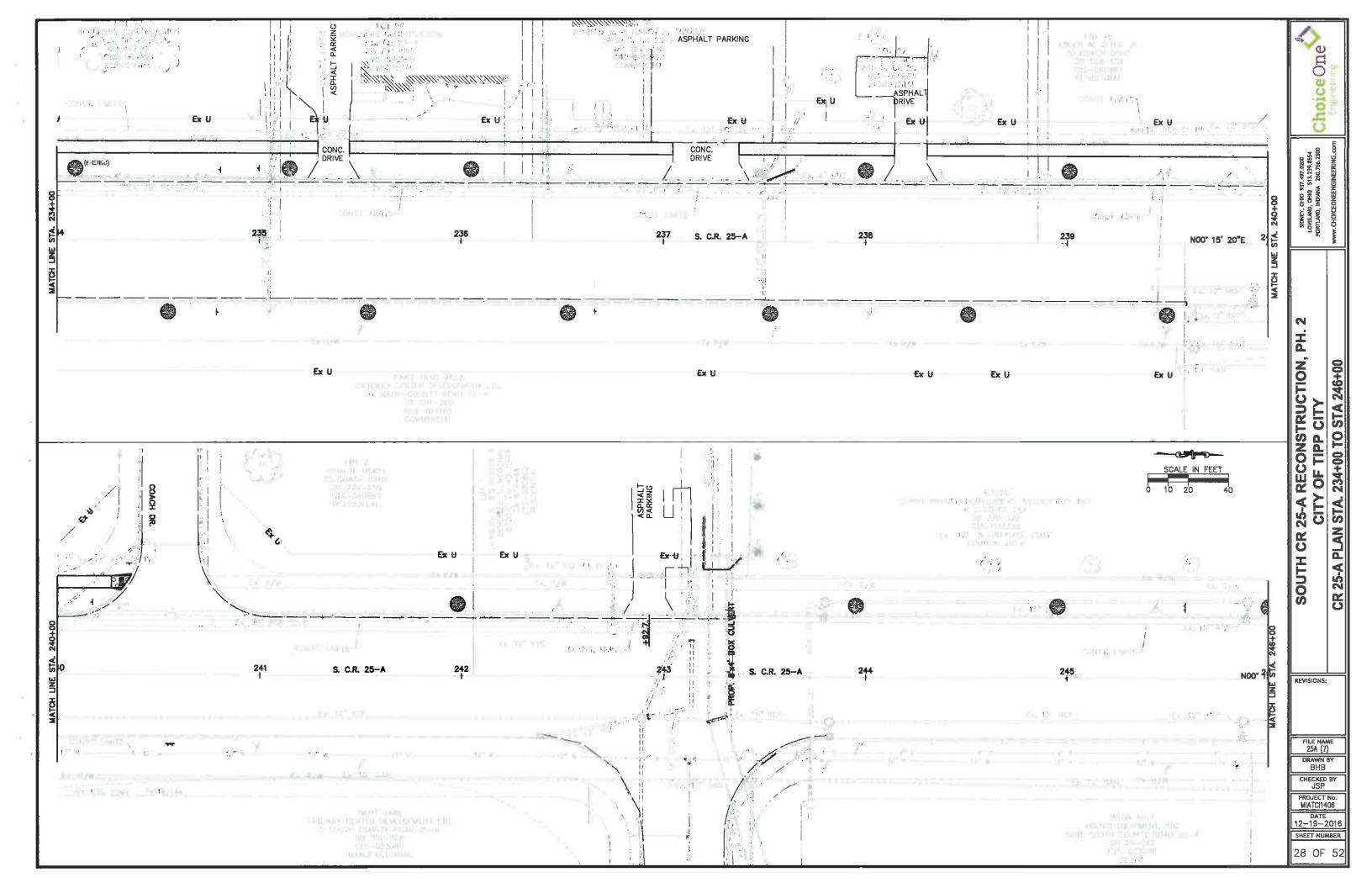


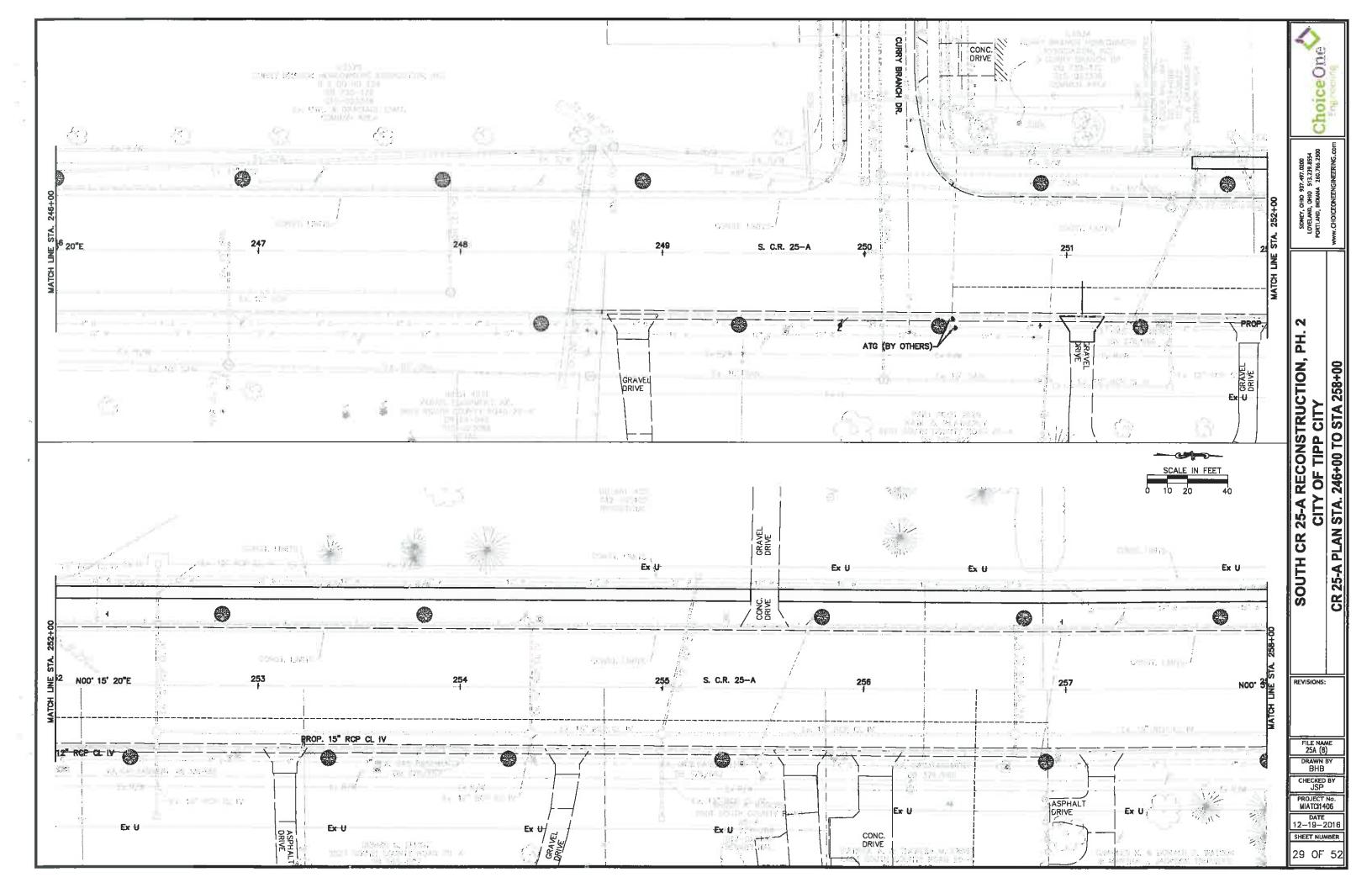


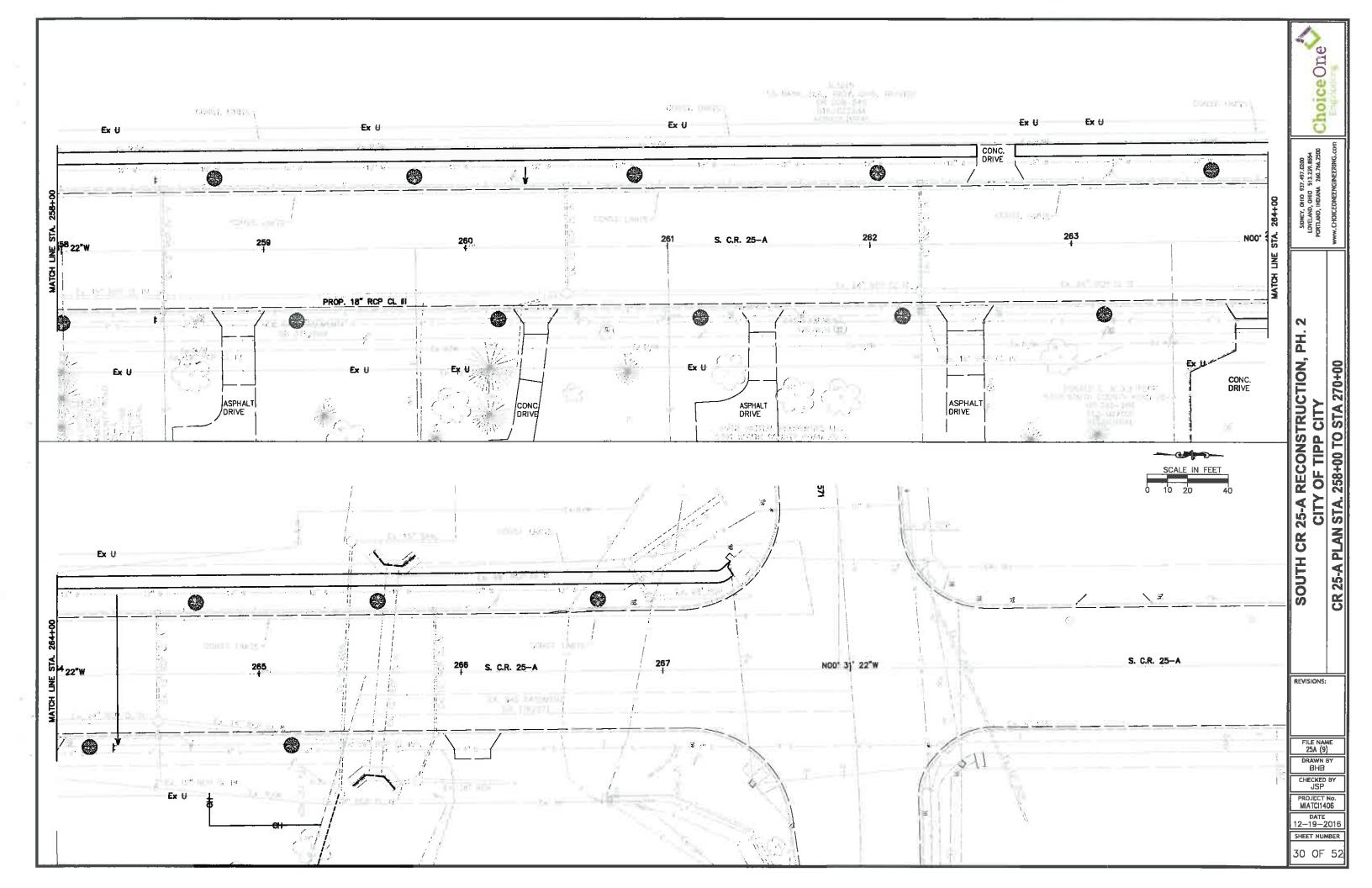


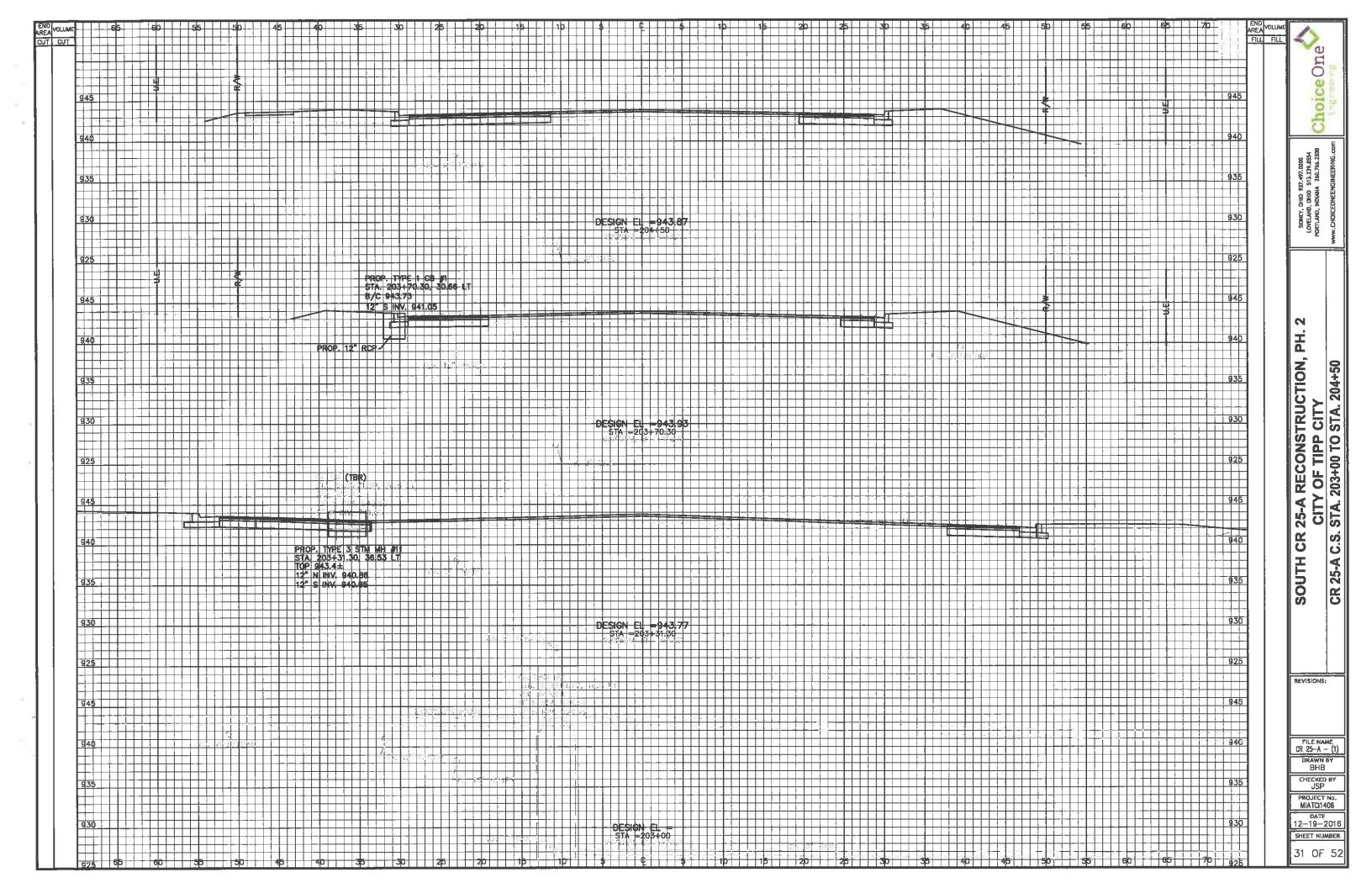


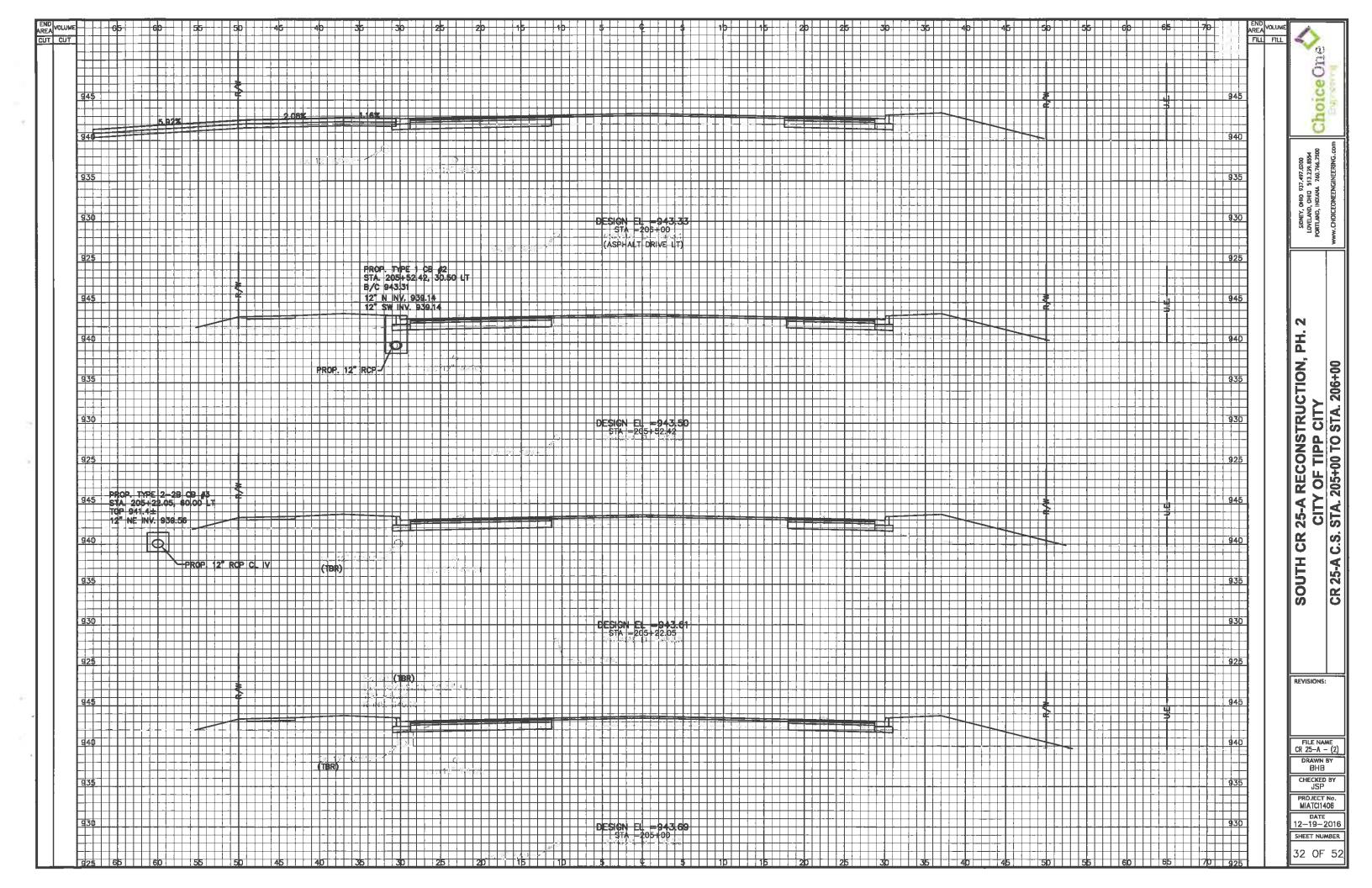


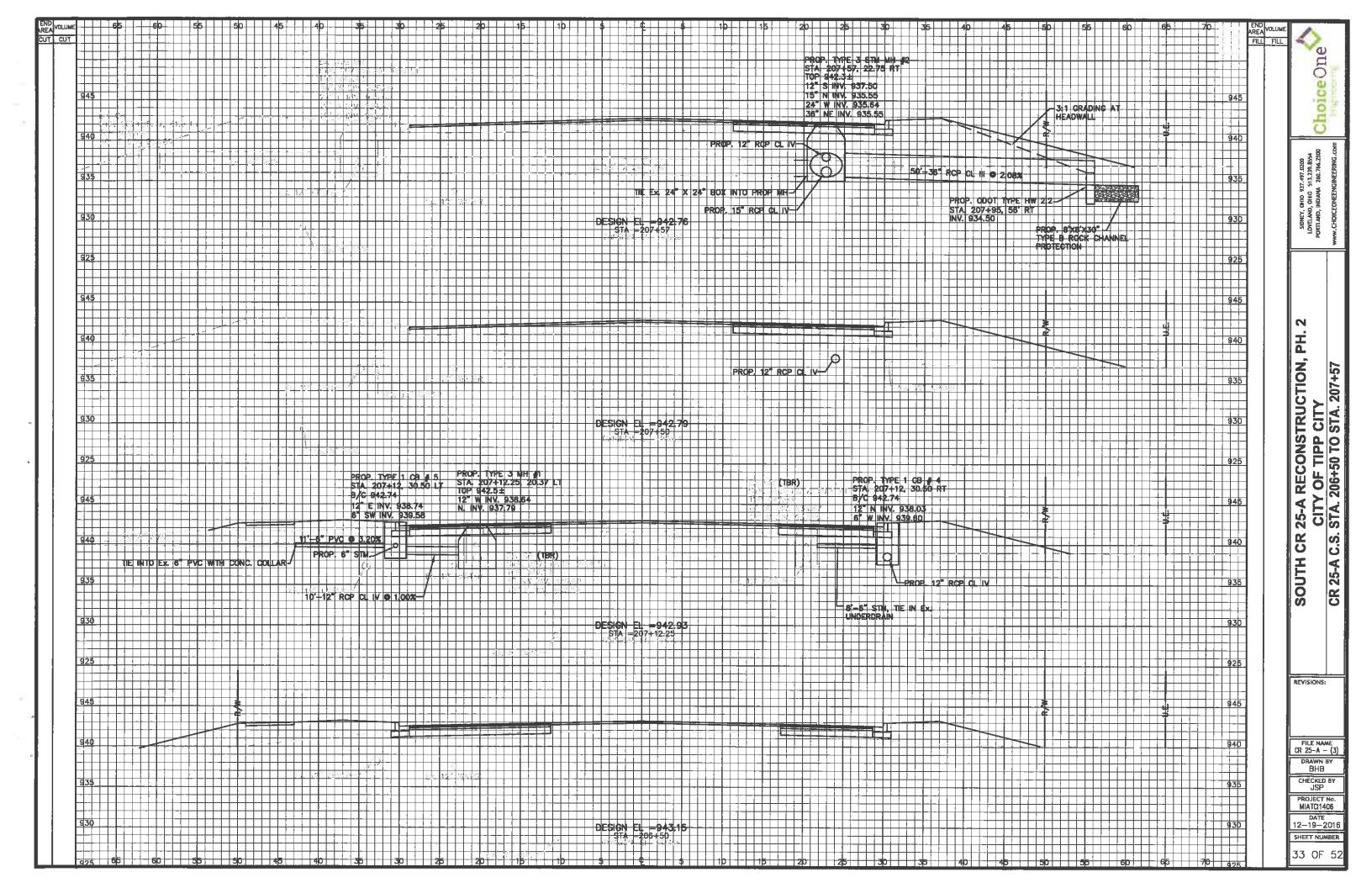


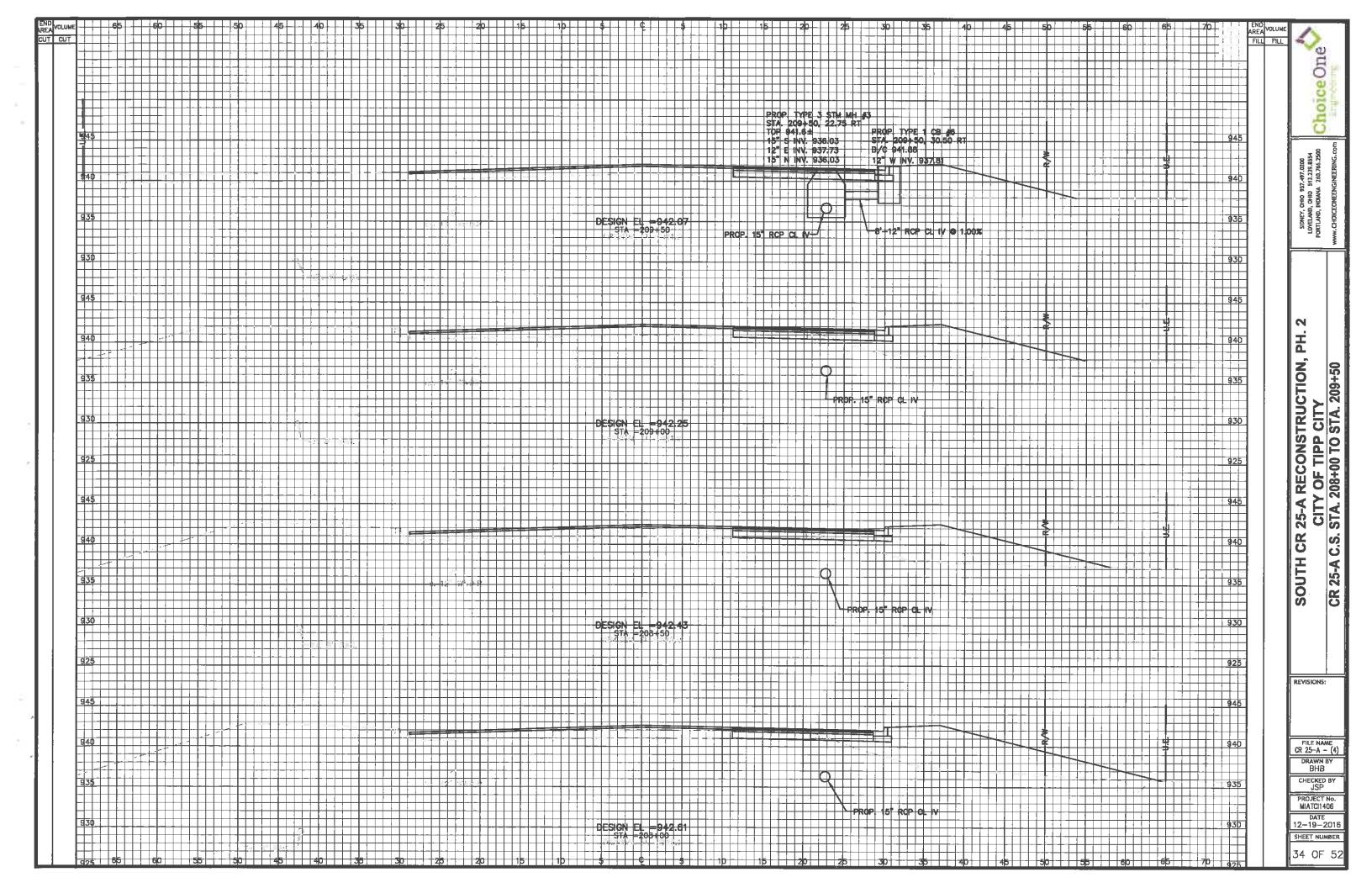


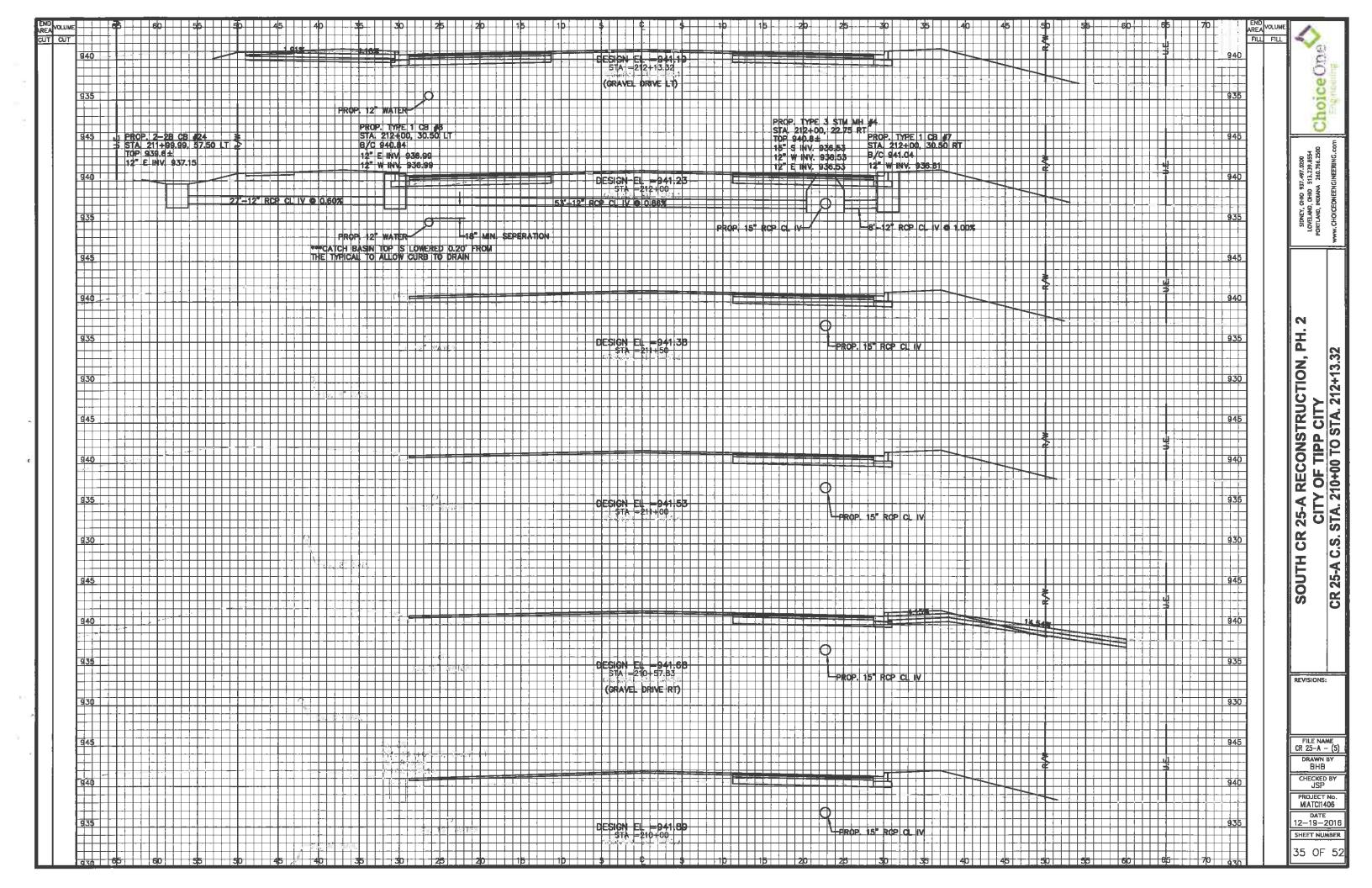


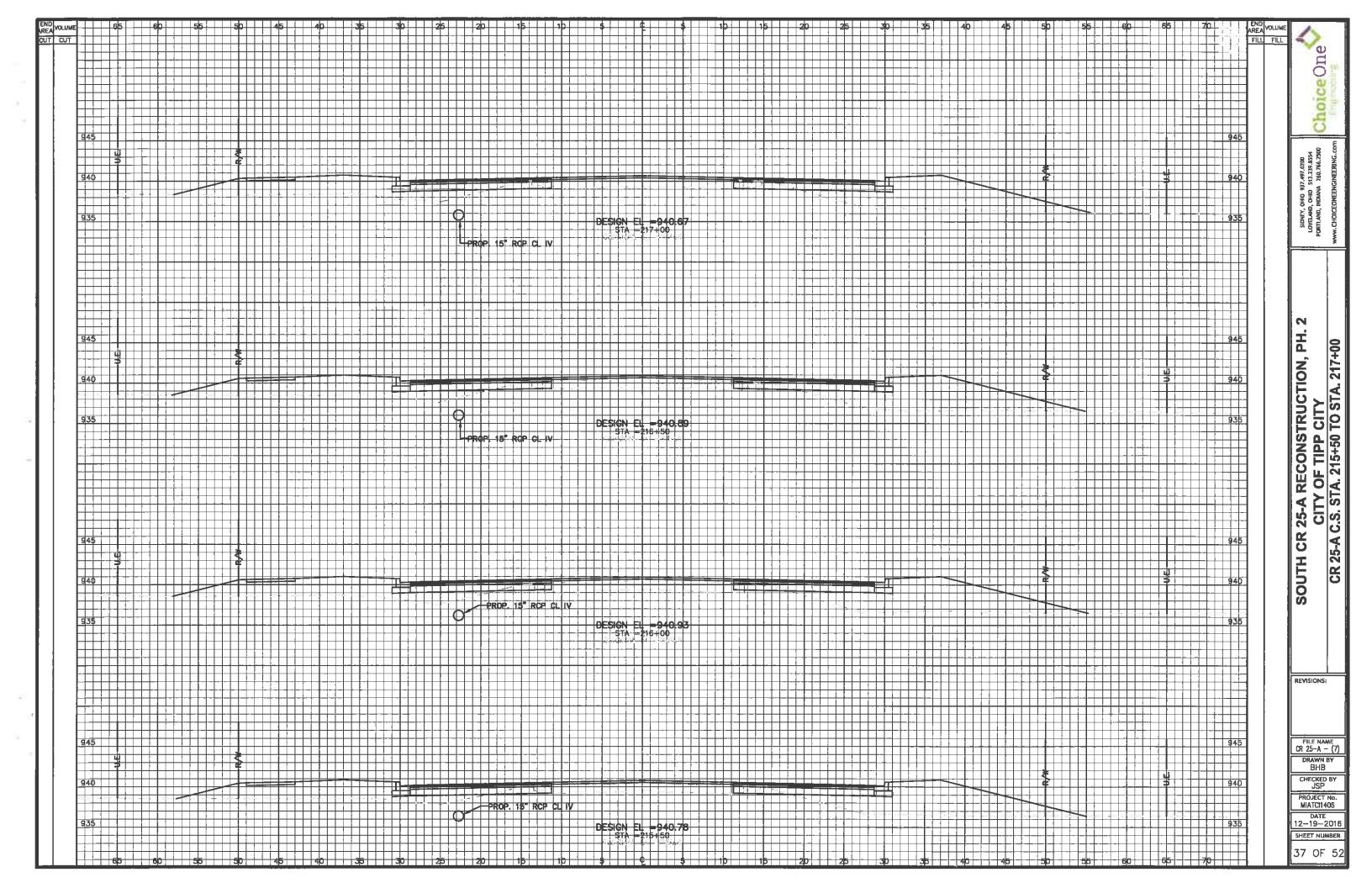


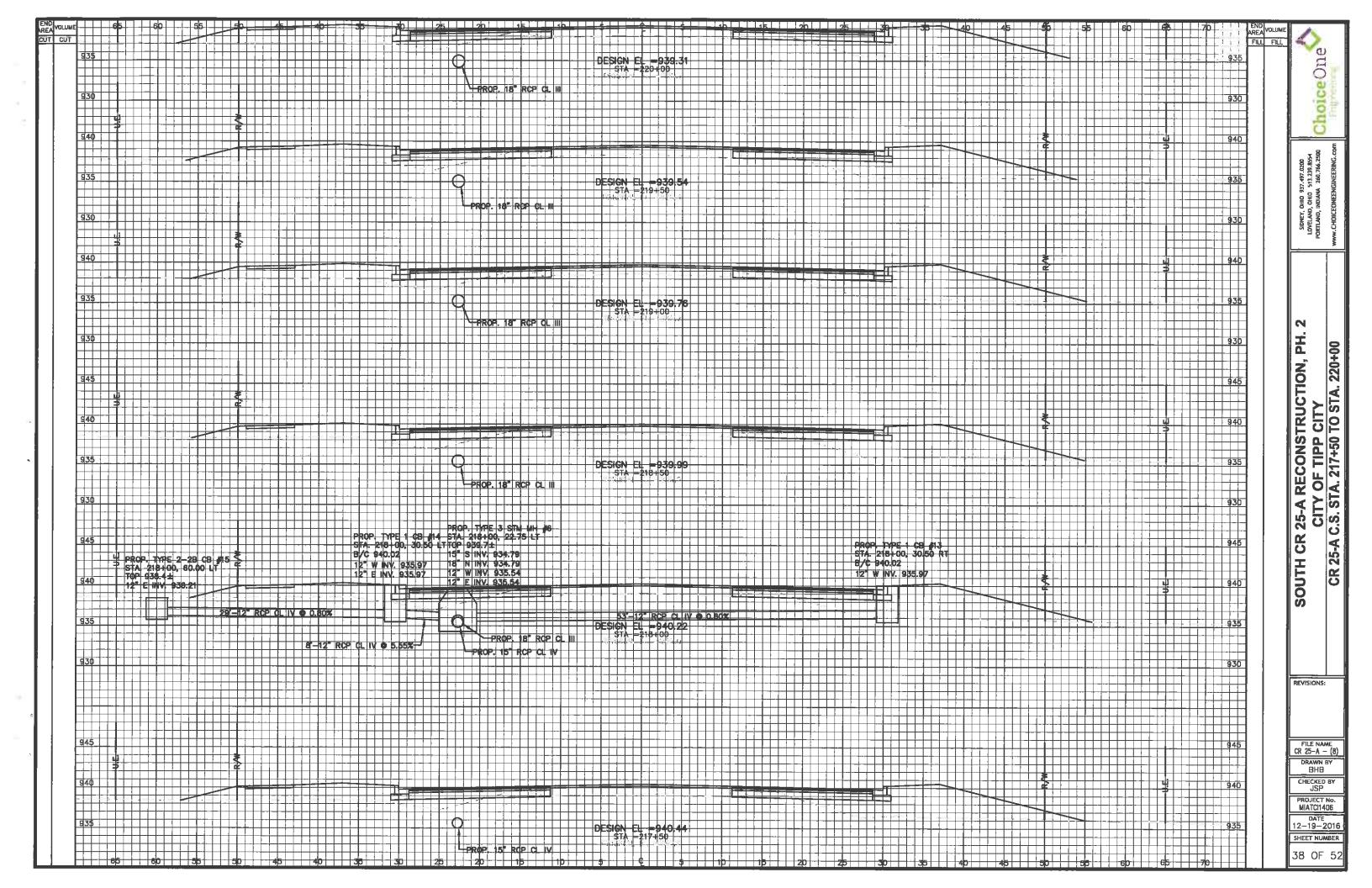


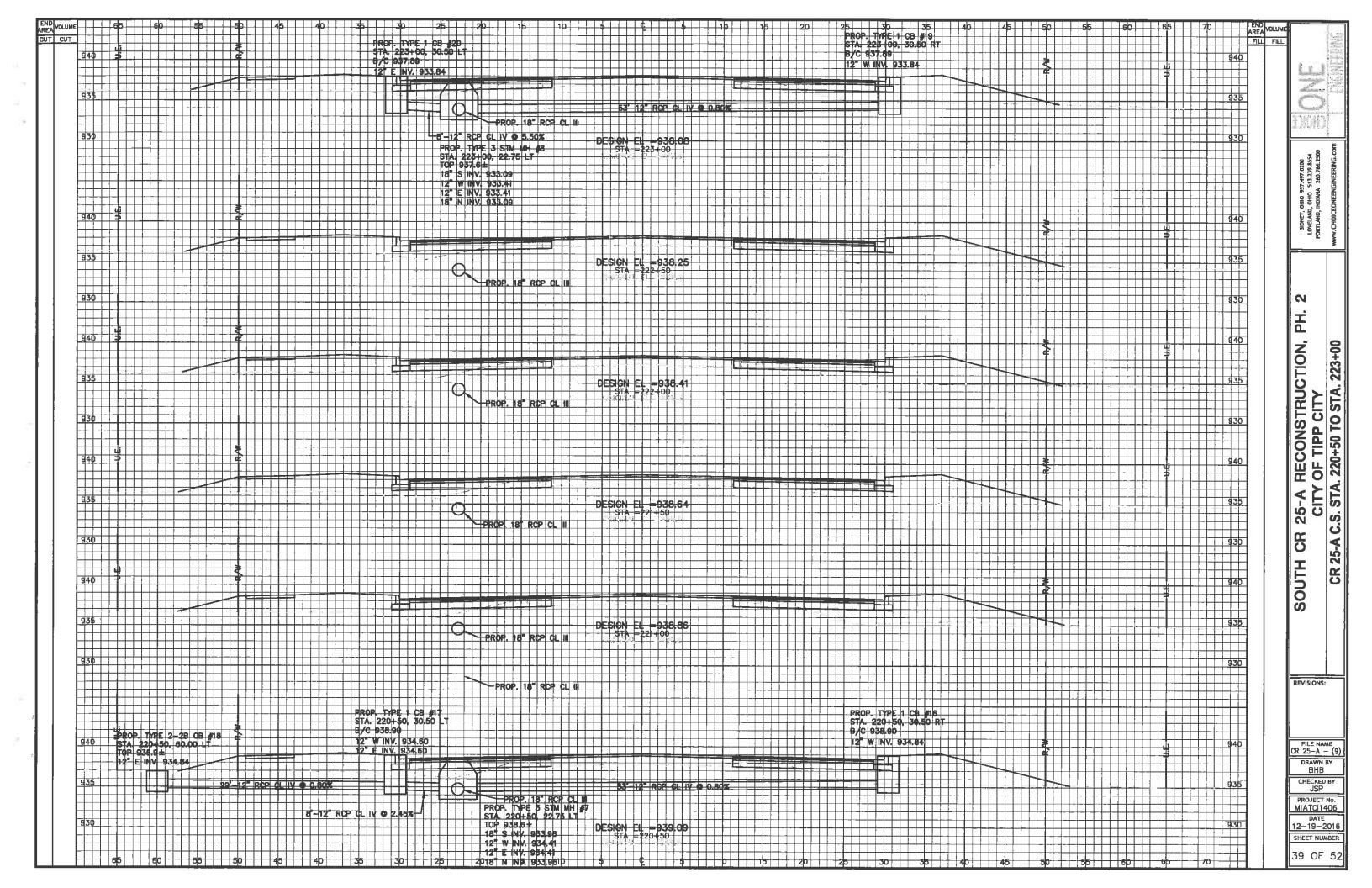


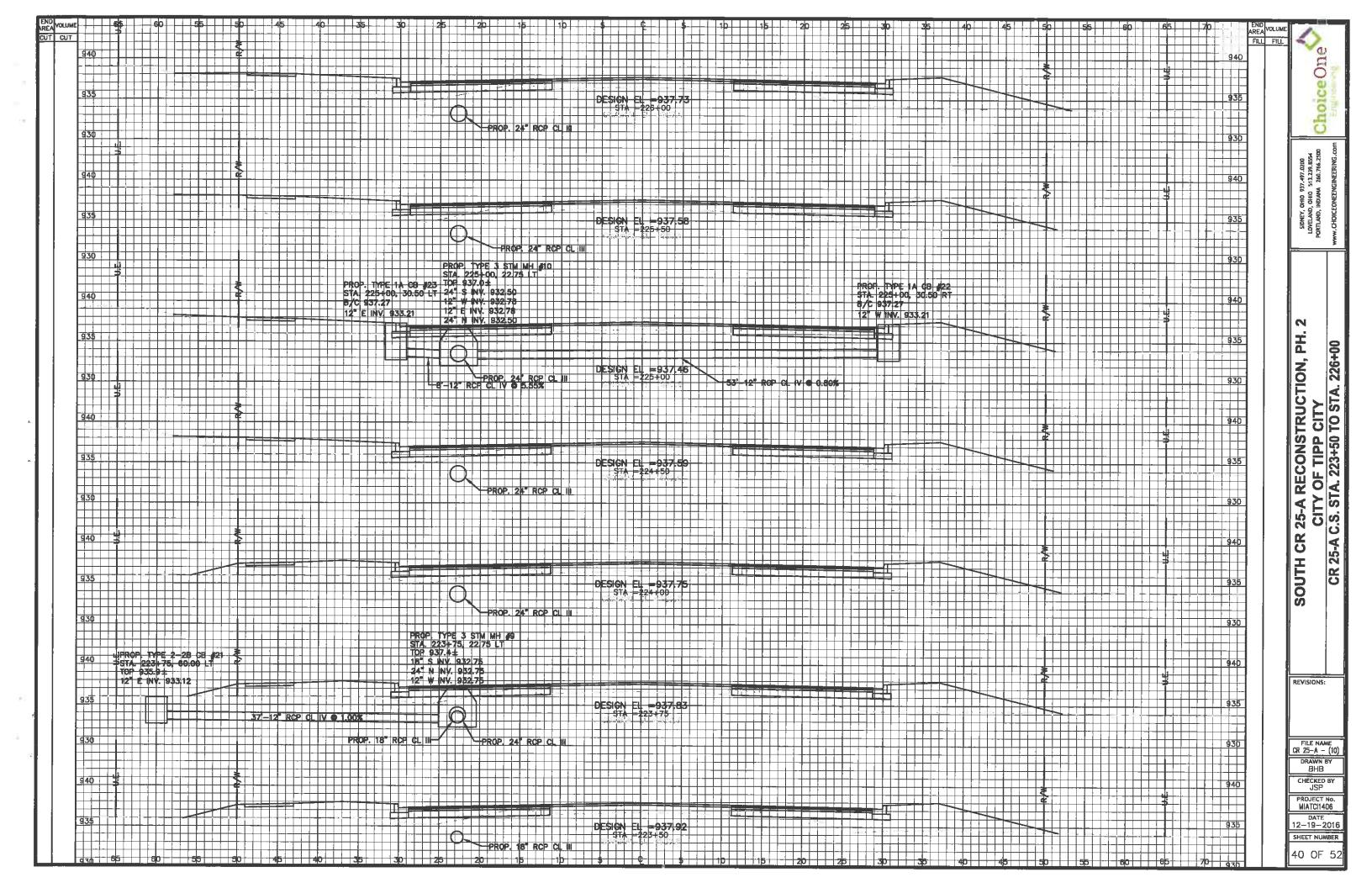


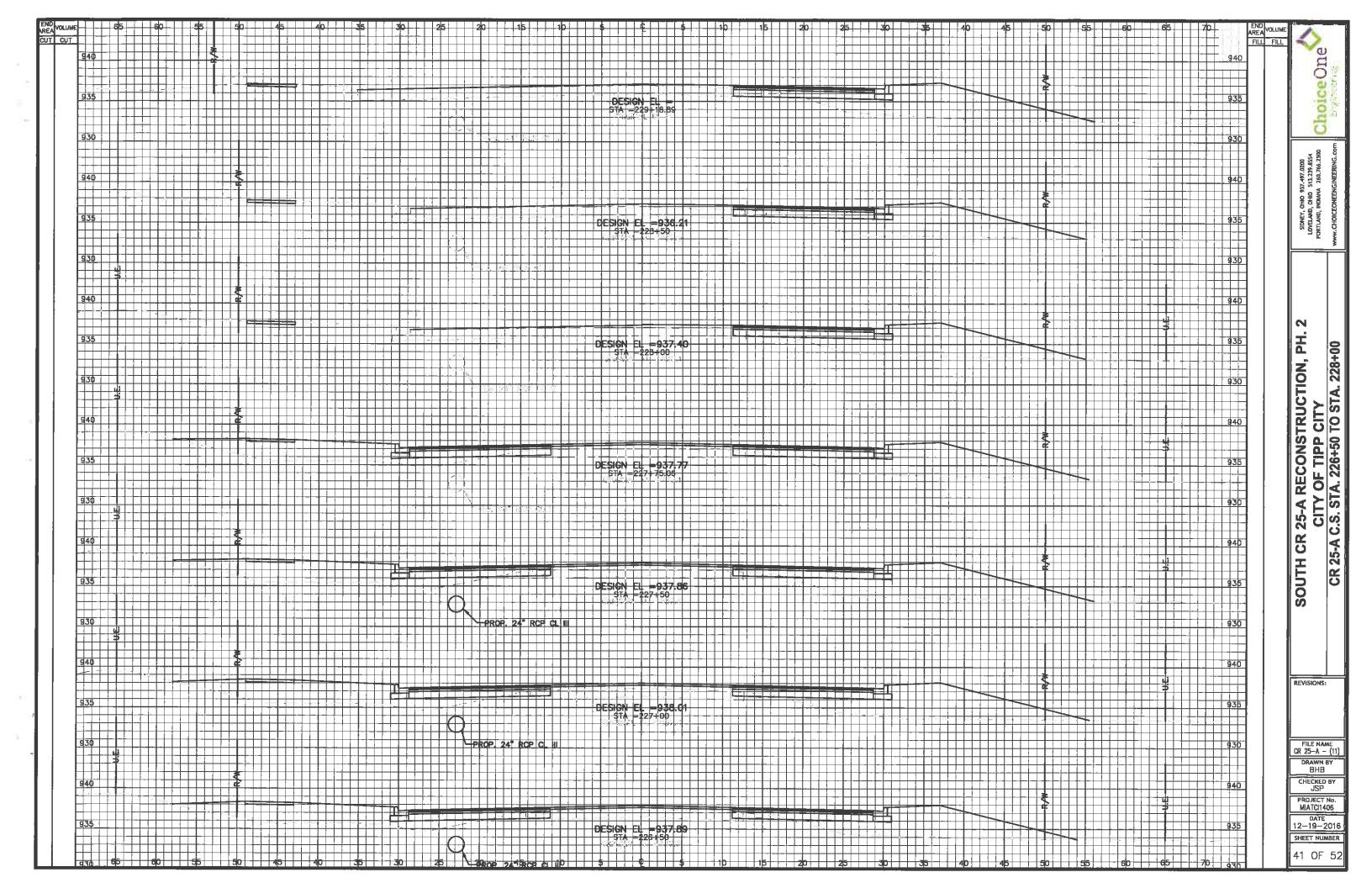


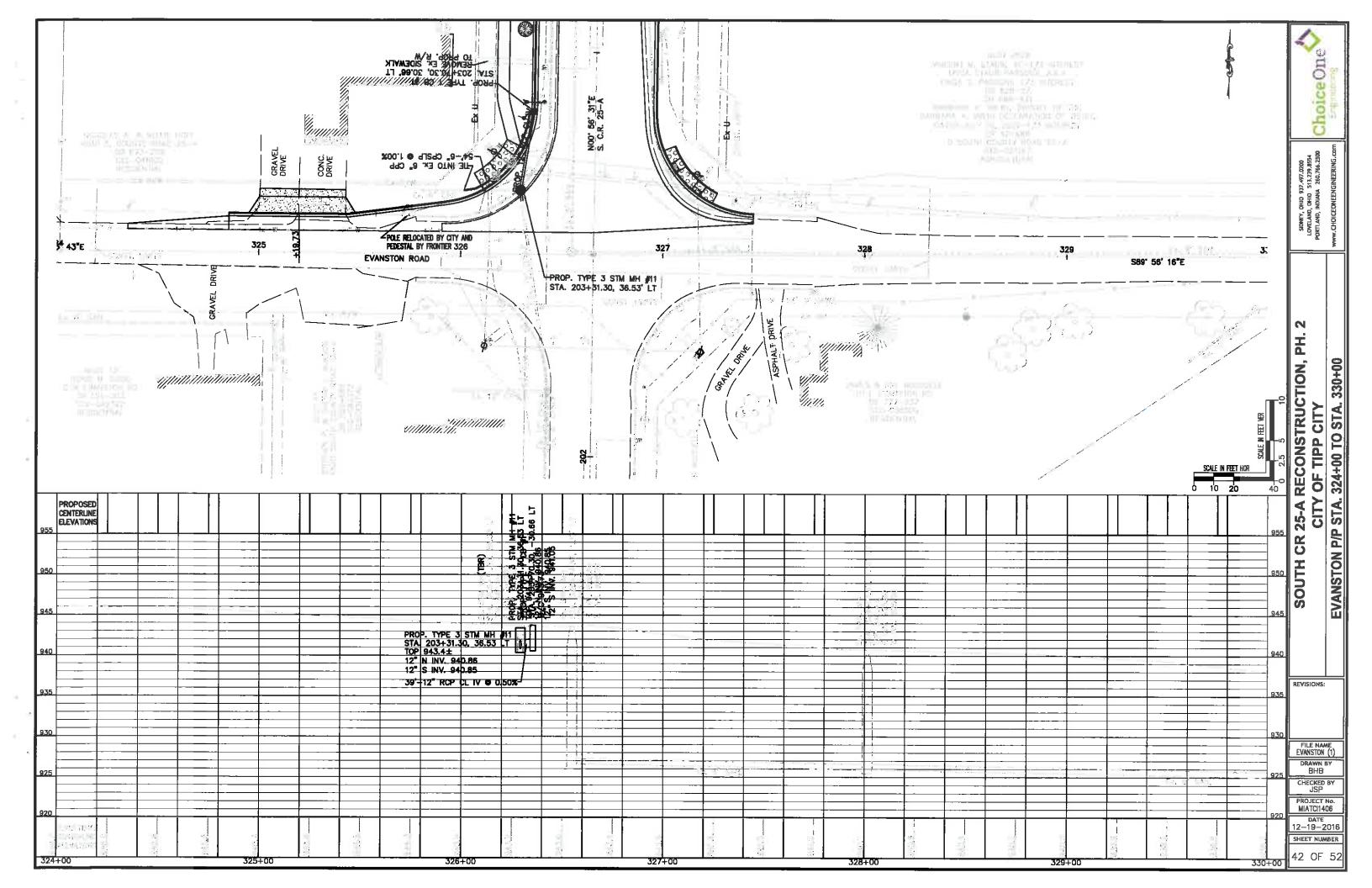


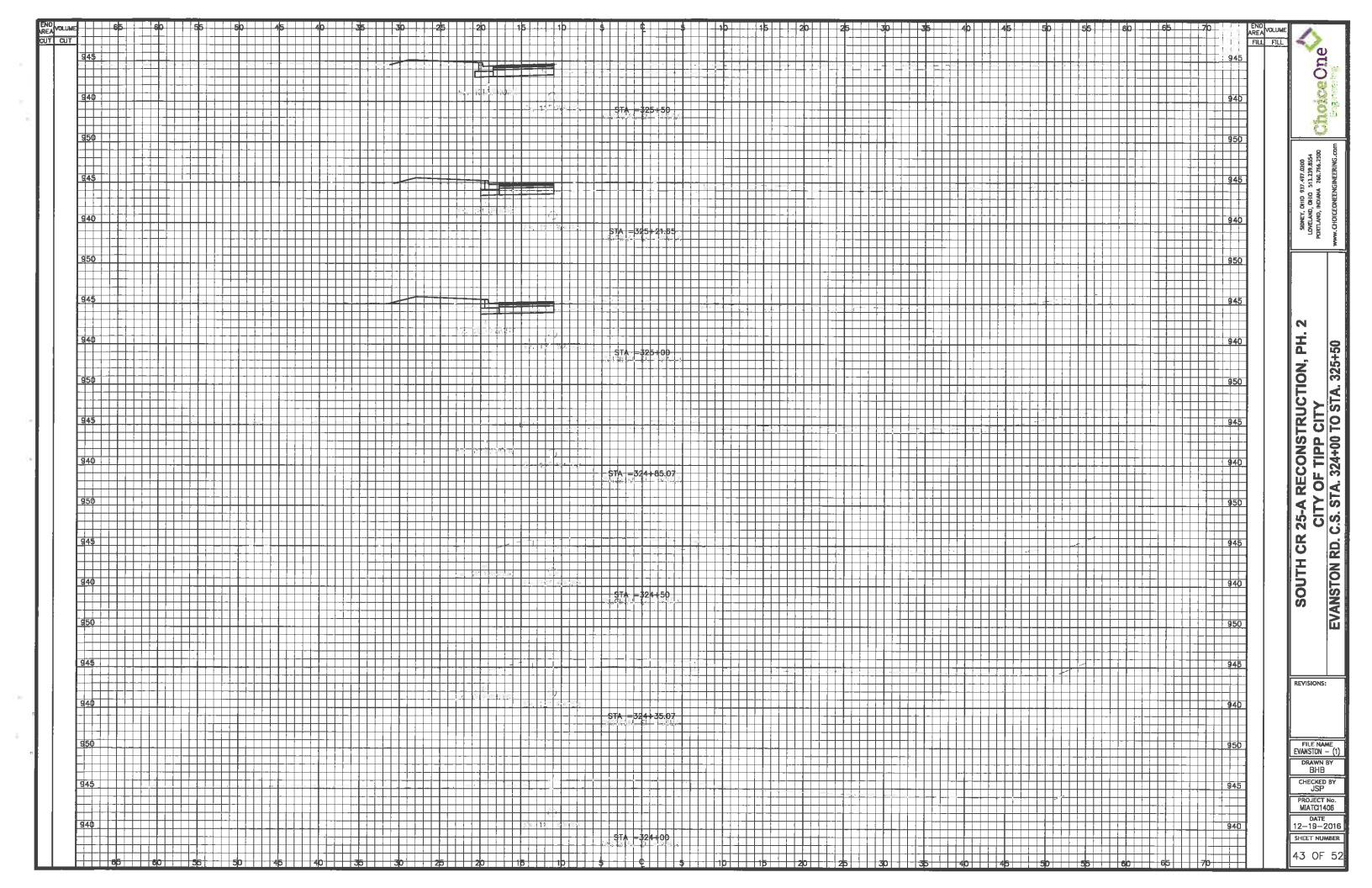


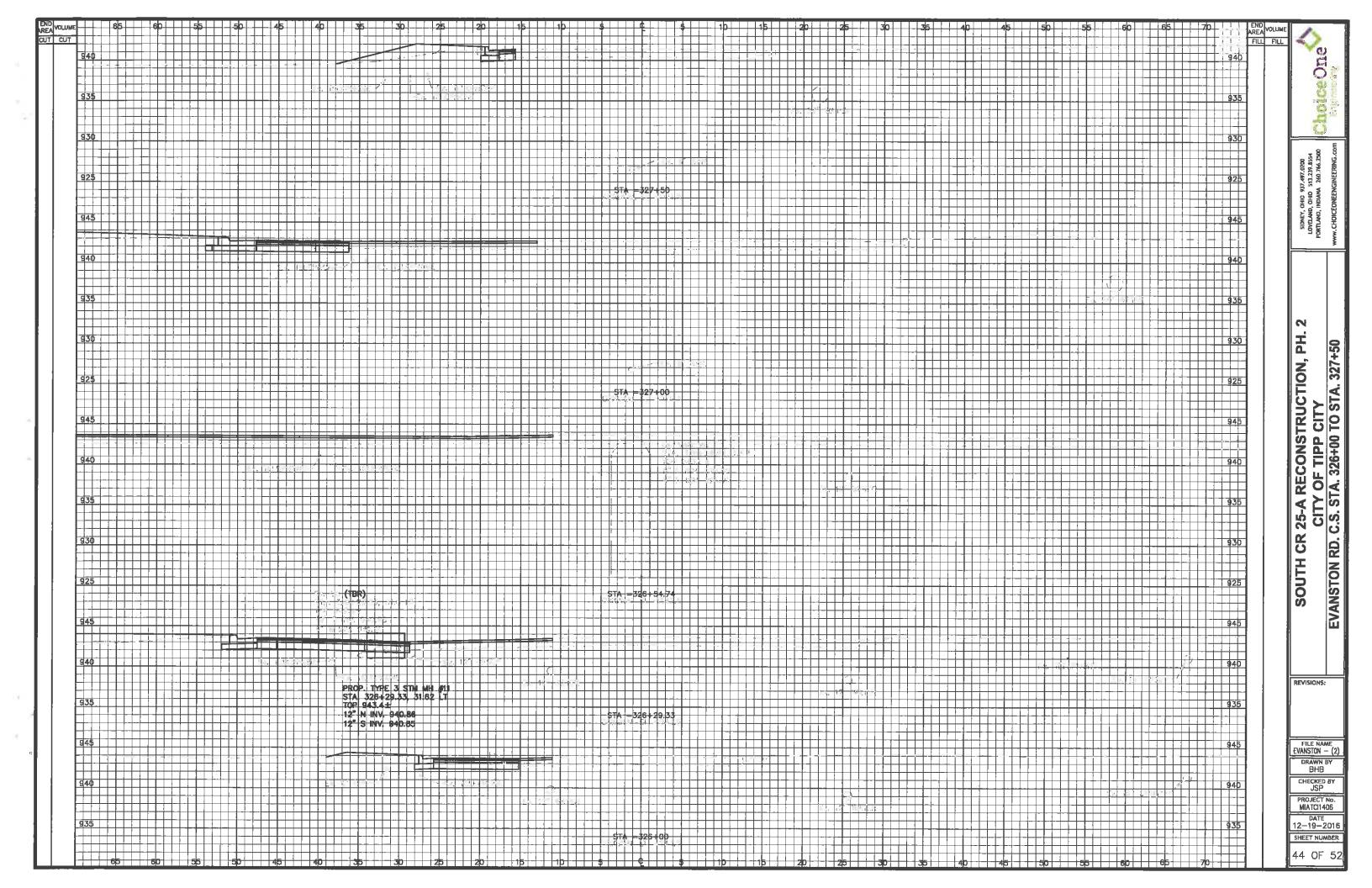


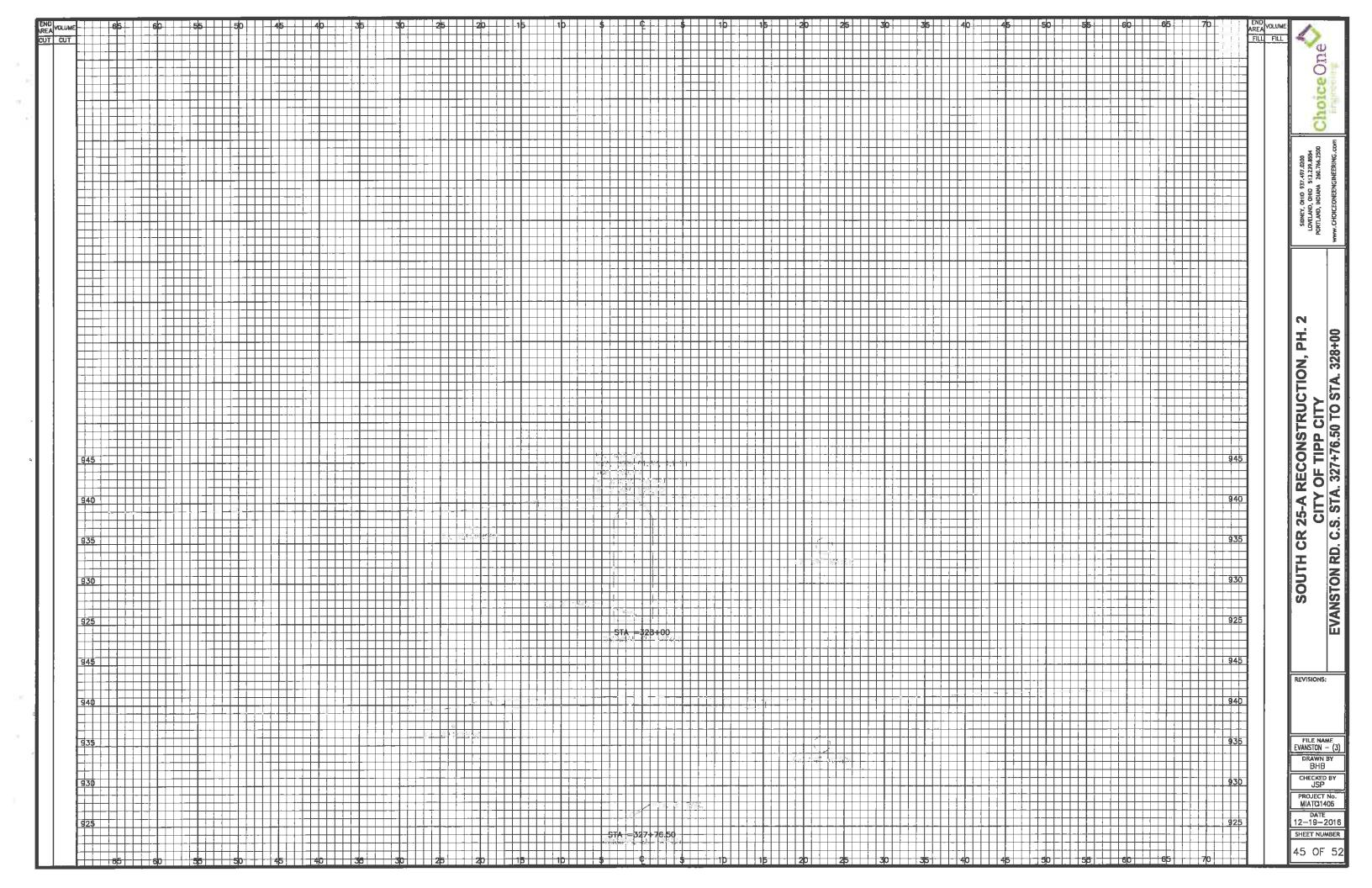












**GENERAL NOTES** 

1) THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND MISCELLANEOUS CONDUIT AND PIPES PRIOR TO ANY DIGGING, ANY DAMAGE TO ABOVE MENTIONED ITEMS SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR. NOTE: ALL REPAIRS AND MODIFICATIONS TO UTILITIES SHALL BE CLOSELY COORDINATED WITH OWNING LITHLITIES OFFICIALS.

2) COORDINATE EXACT CONDUIT ROUTES WITH THE CITY OF TIPP CITY TO AVOID CONFLICT WITH SIGNAGE, CURBS, TREES, AND OTHER LANDSCAPING.

3) PROVIDE 18" FLUSH GRADE PULL BOX, NEMA 3R, NO BASE AND LOCKING COVER RATED FOR OCCASIONAL HEAVY TRAFFIC. COORDINATE FRAME COVER COLOR WITH THE CITY, COVER LOGO "ELECTRIC". INSTALL PER MANUFACTURER'S RECOMMENDATION. STUB CONDUIT THOROUGH PULL BOX SIDE WALLS. USE A MANUFACTURER'S RECOMMENDED WALL PUNCH AS NECESSARY FOR CONDUIT KNOCKOUTS. SIZE KNOCKOUT ONE TRADE SIZE LARGER THAN CONDUIT TO ALLOW FOR CONDUIT MOVEMENT. COORDINATE WITH THE CITY FOR LOCATIONS. MOUNT BOX SUCH THAT TOP OF BOX WILL BE FLUSH WITH TOP OF FINISH SURFACE.

4) CITY TO CONNECT WIRING AND PROVIDE POWER TO THE SYSTEM. CONTRACTOR TO SUPPLY/INSTALL CONDUITS, GROUND ROD, LIGHT POLES, POLE FOUNDATIONS, AND WIRE. 5) UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE CITY. CONTRACTOR TO USE ITEM 611, 4" TYPE E CONDUIT, WILL BE NECESSARY FOR EVERY PULL BOX. COST OF UNDERDRAINS TO BE CONSIDERED INCIDENTAL TO RELATED ITEMS. 6) THE LOCATION OF UNDERGROUND DUCT CABLE ON NON-METALLIC CONDUIT, WHEN INSTALLED IN LOCATIONS OTHER THAN THE NORMAL OR ALTERNATE TRENCH ALIGNMENT SHOWN ON STANDARD CONSTRUCTION DRAWING HL-20.11, SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6" WIDE, COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACID OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT YELLOW WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS. ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPES SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP PLACED APPROXIMATELY DOWN THE CENTERLINE AND LOCATED APPROXIMATELY 8" TO 12" BELOW THE FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH THE PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT THE TAPE IS NOT PULLED, DISTORTED OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. TAPE SHALL BE ALLEN SYSTEM'S, TERRA TAPE, TECTA TAPE OR EQUAL AS APPROVED BY THE CITY. THE COST OF SUPPLYING AND INSTALLING TAPE SHALL BE CONSIDERED INCIDENTAL TO RELATED ITEMS.

7) QUESTIONS OR COMMENTS REGARDING CHANGES, ALTERATIONS, RECOMMENDATIONS, AND/OR ADDITIONS TO THE LIGHTING PLAN TO BE DIRECTED TO GARY GARVEY-CITY OF TIPP CITY, 937-667-0519.

B) ALL POLE FOUNDATIONS SHALL BE AS SHOWN ON STD. CONST. DWG. HL-20.11. CONTRACTOR TO GET ANCHOR BOLT PATTERN FROM POLE MANUFACTURER. 9) PRIOR TO THE CONTRACTOR ORDERING ANY POLES OR ANCHOR PLATE, SHOP

10) THE COST OF ALL TRENCHING ASSOCIATED WITH THE INSTALLATION OF CONDUIT CALLED FOR IN THE PLANS SHALL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 625 CONDUIT.

DRAWINGS MUST BE APPROVED BY THE ENGINEER.

ITEM 625 LIGHT POLE, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 625 HIGHWAY LIGHTING, EXCEPT AS HEREIN MODIFIED.

THIS ITEM WILL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO BE CONSTRUCTED AS SHOWN ON THIS SHEET.

THE POLE WILL BE AS MANUFACTURED BY HAPCO #RTA35F8B4M18, ROUND TAPERED ALUMINUM POLE, SATIN GROUND FINISH, INCLUDING PHILIPS HADCO Rx2 1200, TYPE II ROADWAY DISTRIBUTION LED, WITH 120V PHOTO CELL.

CONTRACTOR TO SUPPLY A POINT BY POINT FOOT CANDLE LIGHT LAYOUT.

PAYMENT FOR ITEM 625, LIGHT POLE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 625 DISTRIBUTION CABLE, Misc. 8 STRANDED TRIPLEX, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 625 HIGHWAY LIGHTING, EXCEPT AS HEREIN MODIFIED.

CABLE SHALL BE NUMBER 8 AWG, 3 CONDUCTOR, USE-2, RHH, OR RHW-2 600 VOLT COPPER TWISTED CABLE. EACH CONDUCTOR SHALL BE STRANDED, INSULATED WITH MOISTURE AND HEAT RESISTANT, CHEMICALLY CROSSLINKED POLYETHYLENE CABLE SHEATH, AND TWISTED TOGETHER TO FORM A SINGLE CABLE. THE CABLE SHALL BE CAPABLE OF BEING INSTALLED IN RACEWAY, CONDUIT, DIRECT BURIAL, AND AERIAL INSTALLATIONS. THE CABLE SHALL HAVE A SUPERIOR FLAME RETARDANT PROPERTY

PAYMENT FOR ITEM 625, DISTRIBUTION CABLE, Misc. 8 STRANDED TRIPLEX, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 625 FUSED CONNECTOR, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 625 HIGHWAY LIGHTING, EXCEPT AS HEREIN MODIFIED.

FUSED "Y" CONNECTIONS SHALL BE INSTALLED IN THE BAS OF EACH POLE. A FUSED CONNECTOR WILL BE REQUIRED FOR EACH HOT LINE CONDUCTOR. EACH CONNECTOR SHALL BE INSTALLED BASED ON MANUFACTURERS RECOMMENDATION.

PAYMENT FOR ITEM 625, FUSED CONNECTOR, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 625 POLE AND BRACKET CABLE, #10 AWG, 600V. AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 625 HIGHWAY LIGHTING, EXCEPT AS HEREIN MODIFIED.

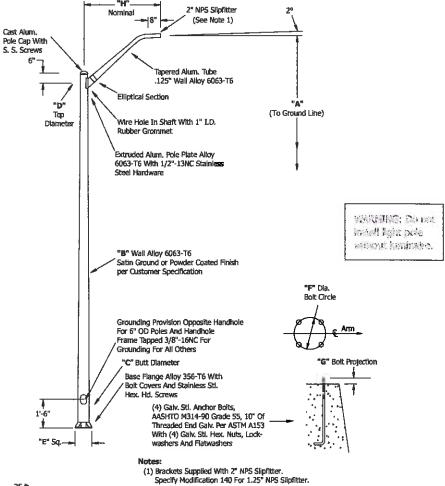
POLE AND BRACKET CABLE SHALL BE SUPPLIED FROM THE CONNECTION TO THE FIXTURE. ADEQUATE SLACK SHALL BE PROVIDED AT THE CONNECTION AND LUMINARIES

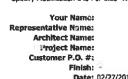
PAYMENT FOR ITEM 625, POLE AND BRACKET CABLE, #10 AWG, 600V, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE



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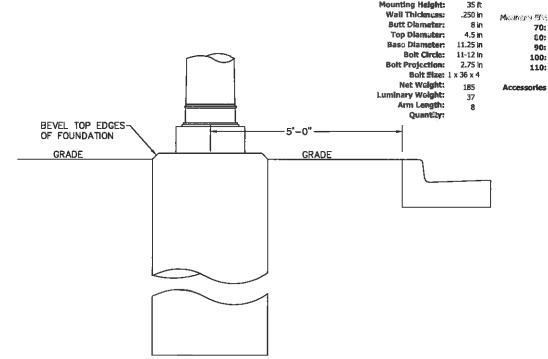
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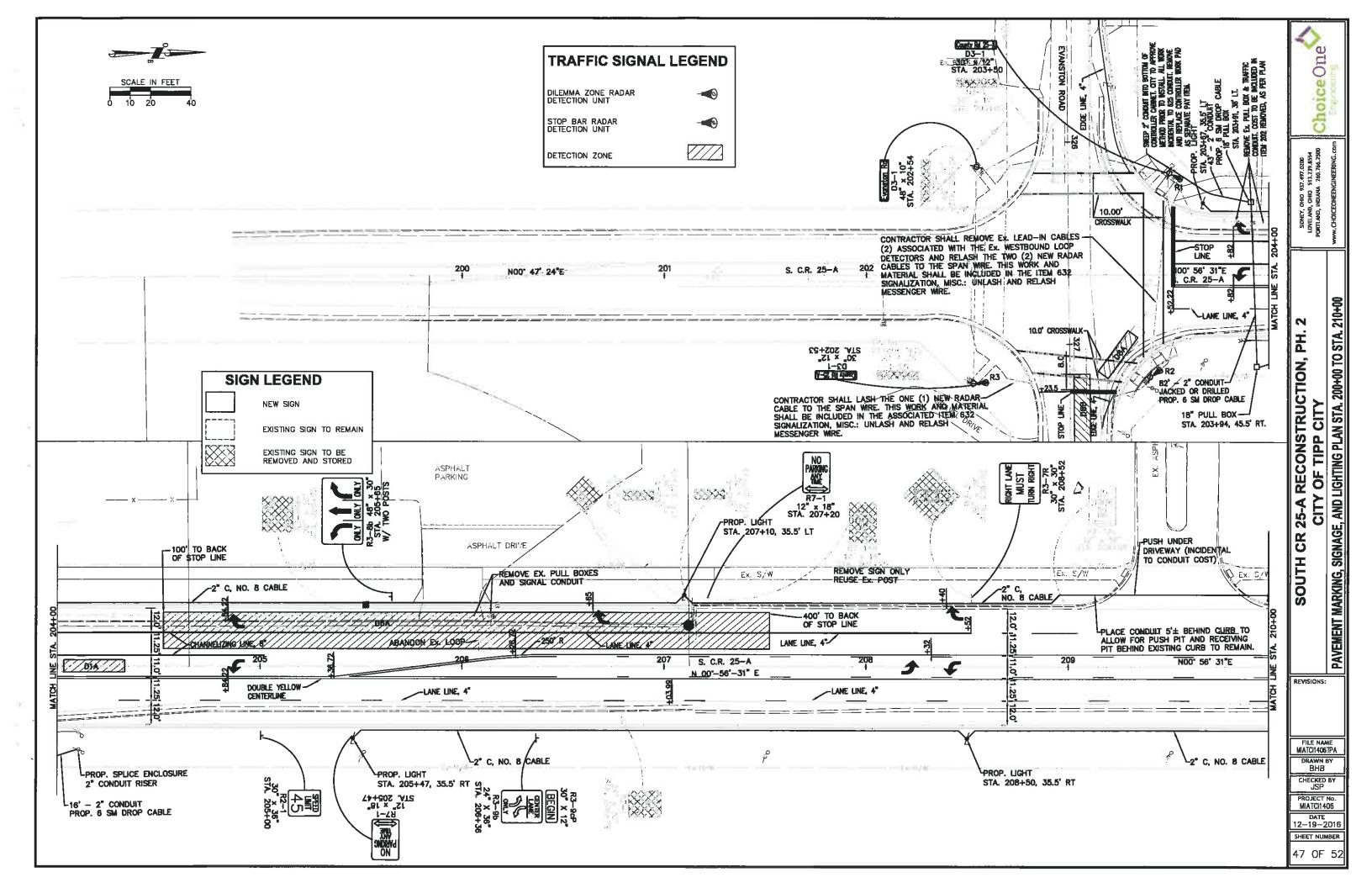
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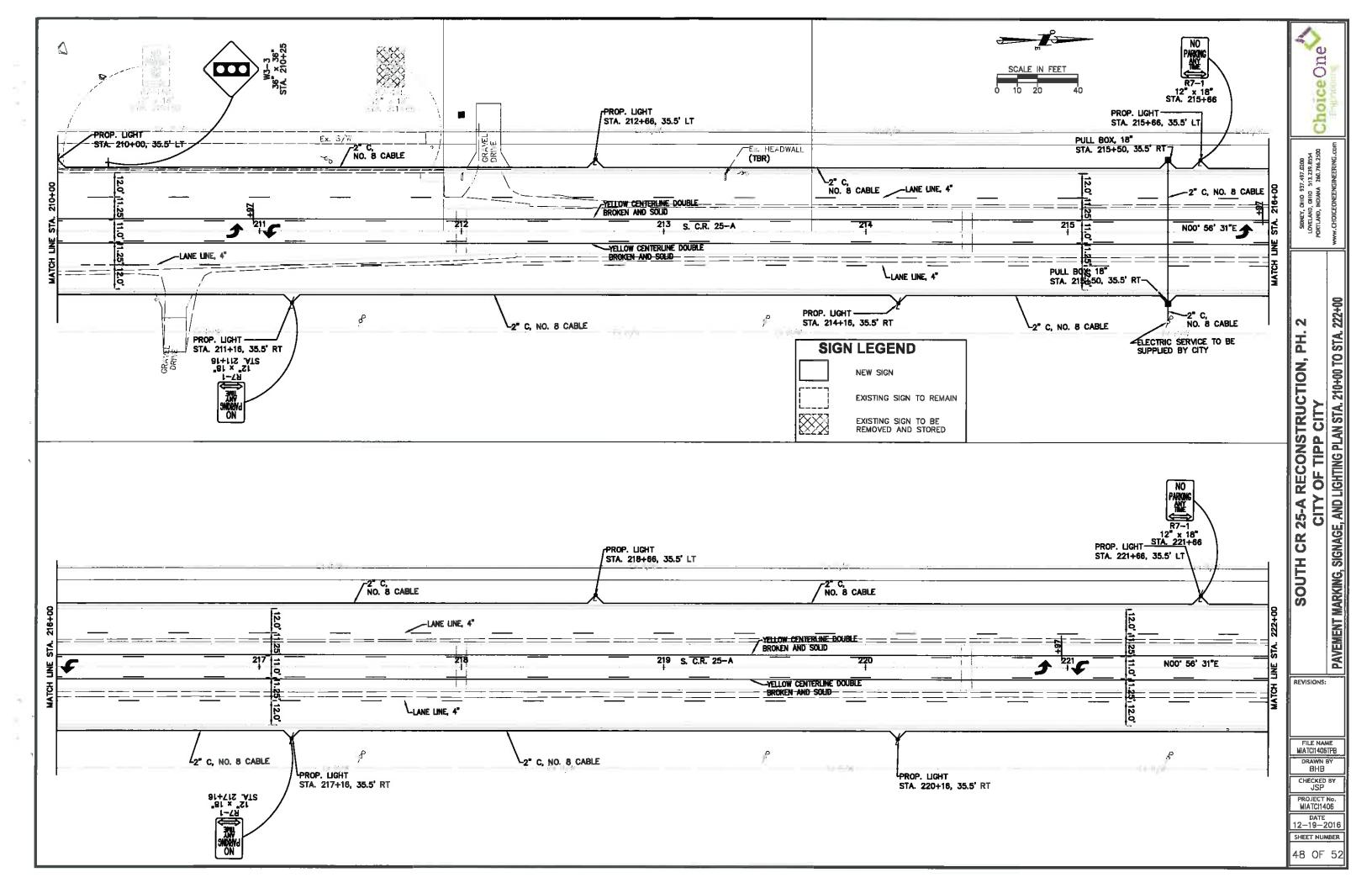
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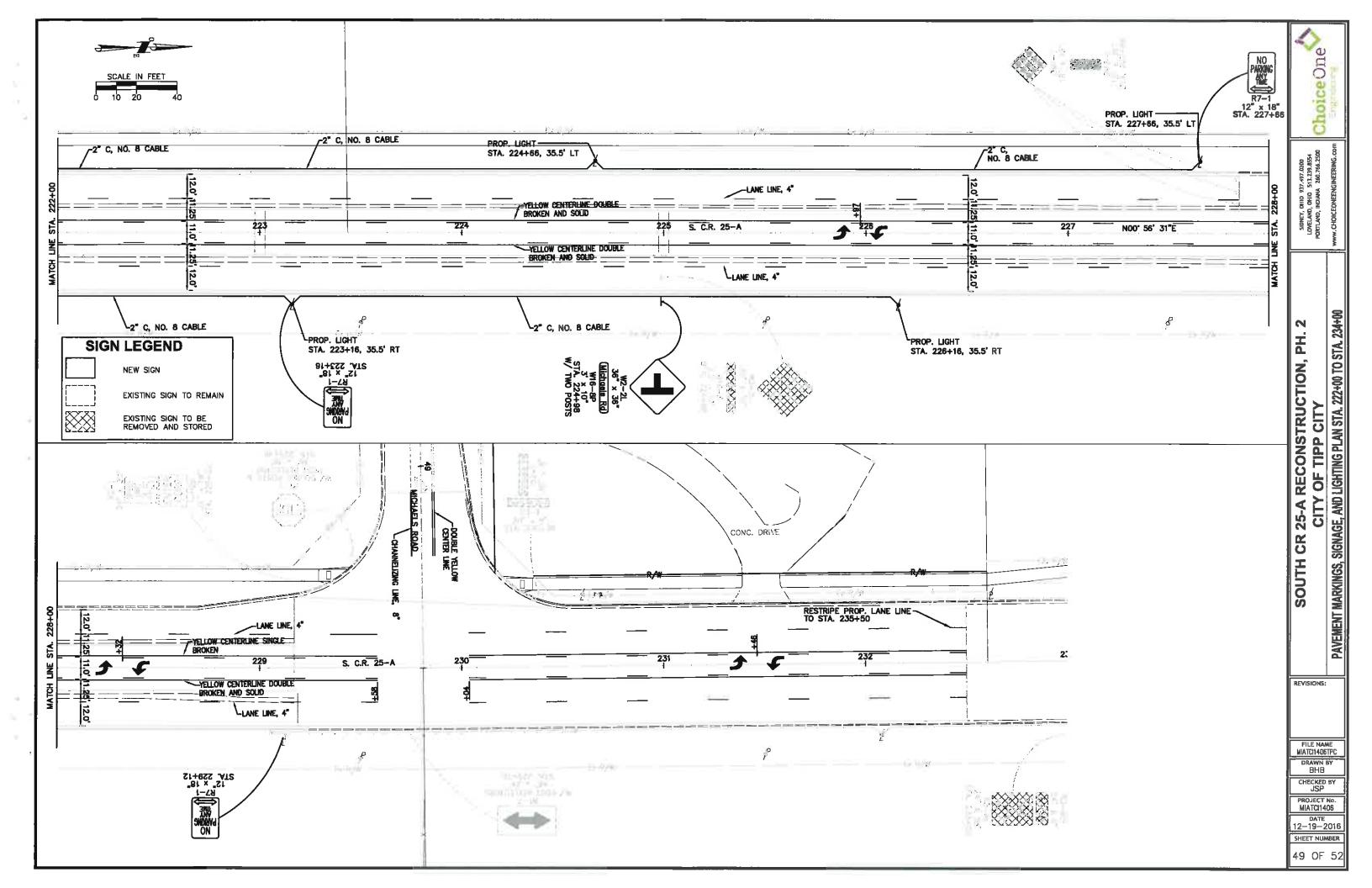
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## ODOT STANDARD CONSTRUCTION DRAWINGS

WINGS IN THESE PLANS SHALL BE CONSIDERED AS REFERENCE TO ITEMS 625, 0, 31, 632, 633, 725, 730, 731, 732, AND 733 RESPECTIVELY.

ALL MATERIA S MUST BE IN COMPLIANCE WITH CONTRACT SPECIFICATIONS UNLESS OTHERWISE APPLICATED BY THE ENGINEER. ALL WORK AND MATERIALS NOT SPECIFICALLY REFE. NCED IN THE CONTRACT SHALL MEET OR EXCEED THE REQUIREMENTS OF

OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS (2016)

THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (2012)

# DETECTOR LOOP DEACTIVATION AND ACTIVATION

THE CONTRACTOR SHALL DEACTIVATE THE SOUTHBOUND OOP DETECTORS ON CR-25A DURING THE CONSTRUCTION PHASE 1 OF THIS PROJECT. DURING CONSTRUCTION PHASE 2, THE EASTBOUND AND WESTBOUND LOOP DETECTORS SHALL BE DEACTIVATED AND THE NEW RADAR UNIT FOR THE SOUTHBOUND CR-25A TRAFFIC SHALL BE TURNED ON, TESTED AND ACTIVATED. BEFORE EVANSTON ROAD IN OPENED TO TRAFFIC DURING CONSTRUCTION PHASE 2, THE EASTBOUND AND WESTBOUND RADAR UNITS SHALL BE TURNED ON, TESTED AND ACTIVATED. ALL LOOP DETECTOR EQUIPMENT TO BE REMOVED SHALL BE GIVEN UNDAMAGED TO THE CITY. THIS COST SHALL BE INCIDENTAL. 2 AND INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

### REMOVAL OF EX. PULL BOXES AND ELECTRICAL CONDUIT

THE CONTRACTOR SHALL REMOVE ALL PULL BOXES AND ELECTRICAL CONDUIT AT THE S. CR25-A AND EVANSTON ROAD TRAFFIC SIGNAL THAT ARE ABANDONED DUE TO THE REMOVAL OF THE ASSOCIATED LOOP DETECTORS. THIS COST SHALL BE INCLUDED IN ITEM 202, REMOVED, AS PER PLAN BID ITEM.

### GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEMS INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 120 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: RADAR SENSORS AND ASSOCIATED EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE

### VEHICLE DETECTION LOCATION

THE LOCATION OF THE RADAR UNITS SHOWN IN THE PLANS ARE FOR REPRESENTATIONAL PURPOSES ONLY. THE FINAL LOCATION OF THE VEHICLE DETECTION UNITS WILL BE DETERMINED IN THE FIELD BY THE MANUFACTURER. TRAFFIC ENGINEER.

### **DETECTION MAINTENANCE**

IF VEHICLE DETECTION BECOMES DISABLED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE CITY SHALL ADVISE THE CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NONINTRUSIVE DETECTION (I.E. VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION (RADAR) IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDONED, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED, INSPECTED BY THE CITY, AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

### WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE CITY WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

## ITEM 632 SIGNALIZATION, MISC.: UNLASH AND **RELASH MESSENGER WIRE**

THE CONTRACTOR SHALL REMOVE EXISTING MESSENGER WIRE LASHING RODS AND REINSTALL THEM AS NECESSARY FOR THE INSTALLATION OF ANY NEW CABLES ON THE EXISTING INTERSECTION SIGNAL SPANS. THE CABLES SHALL ENTER THE EXISTING STRAIN POLE THROUGH THE POLE CABLE ENTRANCE FITTING AND USE THE EXISTING CONDUIT SYSTEM TO GET TO THE CONTROLLER CABINET. THE NEW CABLES SHALL BE SUPPORTED BY A NEW CABLE SUPPORT ASSEMBLY AT THE TOP OF THE STRAIN POLE.

THE NEW SIGNAL CABLES SHALL BE BID BY SEPARATE BID ITEMS SPECIFIED IN THESE

PAYMENT FOR ITEM 632 SIGNALIZATION MISC.: UNLASH AND RELASH MESSENGER WIRE, SHALL BE MADE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIALS, CABLE SUPPORT ASSEMBLIES AND EQUIPMENT TO INSTALL NEW CABLES ON EXISTING SIGNAL SPAN WIRE INSTALLATIONS.

# ITEM 633 CONTROLLER UNIT, TYPE ASC/3-2100,

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 633 AND 733, THE CONTROLLER EQUIPMENT SHALL BE AN **ECONOLITE ASC/3-2100** WITH INTERNAL TRANSCEIVER MODULE. THE CONTROLLER SHALL BE FURNISHED WITH THE MOST RECENT SOFTWARE AND PROVIDE ALL FEATURES OF THE LATEST MODEL AVAILABLE.

THE CONTROLLER UNITS SHALL BE FURNISHED IN ACCORDANCE WITH NEMA TS2 TYPE 2 (1992) STANDARDS, AND SHALL BE CONNECTED TO AND MADE FULLY FUNCTIONAL WITH ALL PROPOSED EQUIPMENT (INCLUDING BUT NOT LIMITED TO RADAR DETECTION UNITS, CONFLICT MONITOR OR MALFUNCTION MANAGEMENT UNIT (MMU), AND ALL OTHER CABINET EQUIPMENT, COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER TO MATCH THE EXISTING CONTROLLER'S SETTINGS.

CONTROLLER UNIT SHALL INCLUDE ALL NECESSARY ETHERNET COMMUNICATION AND TELENSTRY MODULES REQUIRED FOR PROPER COMMUNICATION AND OPERATION IN A TRAFFIC RESPONSIVE CLOSED LOOP SYSTEM.

THE CONTRACTOR SHALL FURNISH AND INSTALL A FULLY MANAGED ETHERNET SWITCH THAT PROVIDES DUAL NORTH OPTICAL ETHERNET (10/100/1000 BASE T) PORTS USING INDUSTRY STANDARD FIBER OPTIC CONNECTORS AND FAST ETHERNET (10/100/1000BASE—TX) PORTS. THE TRANSCEIVER SHALL OPERATE ON 120VAC, 10 WATTS AND SHALL MEET OR EXCEED NEMA TS2 ENVIRONMENTAL SEQUIREMENTS.

THE CONTROLLER TO BE INSTALL O SHALL BE PRE-TESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER FOR INSTALLATION AT THE DESIGNATED INTERSECTION.

REPAIRS/CORRECTIONS, IF REQUIRED, SHALL BE MADE BY THE CONTRACTOR AND RECORDED BEFORE DELIVERY. THE ENGINEER SHALL ALSO BE NOTIFIED OF ANY PROBLEMS. THE CONTROLLER IS TO OPERATE WITHOUT PROBLEMS ON MINIMUM RECALL OF ALL MINOR PHASES FOR 4B HOURS WITH FULL LOAD ON EACH PUTPUT (NOTE THAT TESTING ALSO REQUIRES OPERATION WITH DETECTORS IN A NO CALL TAN CALL TO MAXIMUM

A WRITTEN REPORT STATING THE CONTROLLER INTERSECTION NAME, DATE AND TIME OF TEST, SIGNED OFF BY THE TECHNICIAN WHO PERFORMED THE TEST, SHALL BE SUBMITTED TO THE ENGINEER UPON SUCCESSFUL COMPLETION OF THE ABOVE TEST, THE SUCCESSFUL TESTING SHALL BE DEMONSTRATED TO THE ENGINEER PRIOR TO INSTALL TON IF REQUESTED. THE COST FOR THE CONTROLLER TESTING SHALL BE INCLUDED IN THE PRICE OF THE

THE CONTROLLER AND ALL RELATED COMPONENTS SHALL BE IN PERFECT WORKING AND READY FOR INSTALLATION/OPERATION AT THE SPECIFIED INTERSECTION(S) AS A RESULT OF THE WORK DESCRIBED IN THIS ITEM.

THE CONTROLLER SHALL BE WARRANTED FOR DEFECTS IN MATERIAL AND WORKMANSHIP FOR A MINIMUM OF FIVE (5) YEARS. THE WARRANTY SHALL INCLUDE SOFTWARE UPDATES AND SUPPORT FOR THE ENTIRE WARRANTY PERIOD.

### DOCUMENTATION

TWO (2) COMPLETE SETS OF THE FOLLOWING SHALL BE PROVIDED IN THE CABINET:

• USERS MANUALS

- DEVICE PROGRAMMING MANUALS
  WIRING DIAGRAMS AND PARTS LISTS
  INSTALLATION AND DIAGNOSTICS MANUALS
  SOFTWARE AND FIRMWARE UPDATES SHALL BE ACCOMPANIED BY COMPLETE DOCUMENTATION THAT REFERENCES AN UPGRADE VERSION, AND PROVIDES A LIST OF PROBLEMS RESOLVED WITH THE UPGRADE (IF APPLICABLE). ALL FUNCTIONS, FEATURES, AND CAPABILITIES NOT ADDRESSED SHALL OPERATE AS INTENDED BEFORE THE UPGRADE WAS IMPLEMENTED.

PAYMENT FOR ITEM 633 CONTROLLER UNIT, TYPE ASC/3-2100, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK, SO AS TO MAKE THE WHOLE INTERSECTION FUNCTION AND WORK AS INTENDED BY DESIGN.

> Old Bid sheet, see next with Addendum No.1 Revisions

### ITEM 804 SPLICE ENCLOSURE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATION 804, THE FOLLOWING REQUIREMENTS SHALL APPLY:

A RING CUT METHODOLOGY SHALL BE USED. THE CONTRACTOR IS TO CONTACT TIPP CITY I.T. DEPARTMENT FOR VERIFICATION OF FIBER TUBES/COLORS IN USE ON THE EXISTING FIBER OPTIC AERIAL SPAN AT THE POINT OF CONNECTION FOR THE SPLICE ENCLOSURE. EXISTING FIBER TUBES/COLORS ALREADY IN USE ARE NOT TO BE CUT OR DAMAGED DURING THE RING CUT AND SPLICE ENCLOSURE PLACEMENT. THE CONTRACTOR IS TO PAY FOR ANY DAMAGES TO THE EXISTING FIBER THAT OCCURS DURING THE PROPOSED WORK.

THE SPLICE KIT ENCLOSURE SHALL BE TE CONNECTIVITY FOSC 600 OR CITY APPROVED

ADDITIONALLY, THIS BID ITEM SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO REMOVE THE EXISTING FIBER LINE AT THE NEAREST SLACK SPAN AND REPLACE WITH NEW EQUIPMENT OR EXISTING EQUIPMENT, AS APPROVED BY THE CITY (i.e. SNOW-SHOES, ETC.)

THE CITY IS TO RECEIVE COPIES OF ALL FIBER OPTIC TESTING.

PAYMENT FOR ITEM 804 SPLICE ENCLOSURE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 804 FIBER OPTIC CABLE TESTING. **AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATION 804, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF "AS-BUILT" DRAWINGS TO THE CITY WITHIN 30 DAYS OF PROJECT COMPLETION. WHILE INSTALLING AND TESTING THE INSTALLATION, THE CONTRACTOR IS TO MARK PLANS WITH ANY FIELD CHANGES THAT WERE INITIATED DURING CONSTRUCTION. THESE ARE COMMONLY REFERRED TO AS "AS-BUILTS".

AS-BUILT DOCUMENTATION SHALL INCLUDE THE FOLLOWING INFORMATION:

- PLAN SHEETS WITH THE LOCATION OF CONDUIT IN ROADWAY HAND MARKED.
  PLAN SHEETS WITH THE SIZES OF CONDUIT HAND MARKED.
  PLAN SHEETS WITH THE LOCATIONS OF ALL PULL BOXES AND SPLICES HAND MARKED.
  PLAN SHEETS WITH THE SIZES OF FIBER OPTIC CABLES HAND MARKED.
  THE PRE—INSTALLATION ON—REEL ATTENUATION LOSS OTDR TRACES OF EACH CABLE
- FIBER IN db/km SHOWING CABLE/SHEATH LENGTH (NOT OPTICAL FIBER LENGTH), 2-POINT db LOSS, ATTENUATION IN db/km, FIBER TYPE, WAVELENGTH USED, PULSE WIDTH SELECTION, AND FIBER/CABLE IDENTIFICATION. OTDR TRACES SHALL BE HARD COPY AND ELECTRONIC.
  THE INSTALLED ATTENUATION LOSS OTDR TRACES OF EACH CABLE FIBER IN db.km
- SHOWING CALBE. SHEATH LENGTH (NOT OPTICAL FIBER LENGTH), 2-POINT db LOSS, ATTENUATION IN db/km, FIBER TYPE, WAVELENGTH USED, PULSE WIDTH SELECTION, AND FIBER/CABLE IDENTIFICATION. OTDR TRACES SHALL BE HARD COPY AND ELECTRONIC.

ANY LINK THAT FAILS THE ABOVE TESTS SHALL BE RESPLICED OR REPLACED UNTIL THESE REQUIREMENTS ARE MET. THE COST OF RESPLICING, REPLACING, AND RETESTING CABLE SHALL BE AT THE CONTRACTOR'S EXPENSE

PAYMENT FOR ITEM 804 FIBER OPTIC CABLE TESTING, AS PER PLAN FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 804 FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN

A FIBER OPTIC SPLICE KIT SHALL INCLUDE EQUIPMENT AND LABOR TO INSTALL ANY AND ALL NECESSARY ITEMS REQUIRED FOR THE CONNECTIVITY OF A DEVICE TO THE FIBER NETWORK VIA CORE-ALIGNED FUSION SPLICE OF A DROP CABLE TO THE NETWORK TRUNK FUSION SPLICE OF A DROP CABLE TO THE NETWORK TRUNK FUSION TRUNK CABLE. THE DROP KIT IS AN AGGREGATION OF ANY AND ALL PARTS AND LABOR NEEDED FOR THIS CONNECTION INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- INSTALLING FIBER OPTIC SPLICE ENCLOSURE (AERIAL OR UNDERGROUND) SPLICE TRAY OR TRAIL GROUND MECHANISM DEVICES NECESTARY TO STORE EXCESS CABLE SLACK CORE ALIGNED FOR SPLICING AS SPECIFIED AERIAL MOUNTING AERIAL MOUNTING FITTING DROP CABLES WITH APPROPRIATE CONNECTORS CONNECTING CONTROL DEVICE TO FIBER OPTIC NETWORK STORING CABLE SLACK 6 FIBER TERMINATION PANEL

THE DROP CABLE IS A SEPARATE BID QUALITY ITEM WHICH IS ALSO NECESSARY FOR COMPLETION OF A DROP KIT INSTALLATION BUT IS LISTED SEPARATELY FOR BETTER ESTIMATING. DROP KITS ARE NOT NECESSARY WITTE NO TRUNK CABLE OPENING IS

PAYMENT FOR ITEM 804 FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT RESURED TO COMPLETE THIS ITEM OF WORK.

# FIBER OPTIC INSTALLATION NOTE

CONTRACTOR SHALL COORDINATE ALL FIBER INSTALLATION WITH THE CITY PRIOR TO INSTALLATION. ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION AND PROVE TO THE CITY THAT THE SIGNAL IS COMMUNICATING WITH THE CITY'S CENTRAL SERVER PROPERLY SHALL BE INCLUDED IN ALL ITEM 804 BID ITEMS LISTED



MODIFICATION PH. TION, RECONSTRUCT Y OF TIPP CITY TRAFFIC SIGNAL MC 25-A F CITY ROAD **EVANSTON** ď  $\overline{\mathbf{c}}$ OUTH AND S **CR-25A** 

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FILE NAME MIATCI1406TNA

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PROJECT No. MIATCI1406

DATE 2-19-2016 SHEL NUMBER

## **ODOT STANDARD CONSTRUCTION DRAWINGS**

DRAWINGS IN THESE PLANS SHALL BE CONSIDERED AS REFERENCE TO ITEMS 625, 630, 631, 632, 633, 725, 730, 731, 732, AND 733 RESPECTIVELY.

ALL MATERIALS MUST BE IN COMPLIANCE WITH CONTRACT SPECIFICATIONS UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL WORK AND MATERIALS NOT SPECIFICALLY REFERENCED IN THE CONTRACT SHALL MEET OR EXCEED THE REQUIREMENTS OF

OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS (2016)

THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

### **DETECTOR LOOP DEACTIVATION AND ACTIVATION**

THE CONTRACTOR SHALL DEACTIVATE THE SOUTHBOUND LOOP DETECTORS ON CR-25A DURING THE CONSTRUCTION PHASE 1 OF THIS PROJECT. DURING CONSTRUCTION PHASE 2, THE EASTBOUND AND WESTBOUND LOOP DETECTORS SHALL BE DEACTIVATED AND THE NEW RADAR UNIT FOR THE SOUTHBOUND CR-25A TRAFFIC SHALL BE TURNED ON, TESTED AND ACTIVATED. BEFORE EVANSTON ROAD IN OPENED TO TRAFFIC DURING CONSTRUCTION PHASE 2, THE EASTBOUND AND WESTBOUND RADAR UNITS SHALL BE TURNED ON, TESTED AND ACTIVATED. ALL LOOP DETECTOR EQUIPMENT TO BE REMOVED SHALL BE GIVEN UNDAMAGED TO THE CITY. THIS COST SHALL BE INCIDENTAL TO AND INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

### REMOVAL OF EX. PULL BOXES AND ELECTRICAL CONDUIT

THE CONTRACTOR SHALL REMOVE ALL PULL BOXES AND ELECTRICAL CONDUIT AT THE S. CR25-A AND EVANSTON ROAD TRAFFIC SIGNAL THAT ARE ABANDONED DUE TO THE REMOVAL OF THE ASSOCIATED LOOP DETECTORS. THIS COST SHALL BE INCLUDED IN ITEM 202, REMOVED, AS PER PLAN BID ITEM.

### **GUARANTEE**

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEMS INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 120 DAYS FOLLOWING COMPLETION OF THE 1D-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: RADAR SENSORS AND ASSOCIATED EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE

### VEHICLE DETECTION LOCATION

THE LOCATION OF THE RADAR UNITS SHOWN IN THE PLANS ARE FOR REPRESENTATIONAL PURPOSES ONLY. THE FINAL LOCATION OF THE VEHICLE DETECTION UNITS WILL BE DETERMINED IN THE FIELD BY THE MANUFACTURER, TRAFFIC ENGINEER,

### **DETECTION MAINTENANCE**

IF VEHICLE DETECTION BECOMES DISABLED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING, AT SUCH TIME, THE CITY SHALL ADVISE THE CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NONINTRUSIVE DETECTION (I.E. VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION (RADAR) IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDONED, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED, INSPECTED BY THE CITY, AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

### **WORK INSPECTION**

THE CONTRACTOR SHALL PROVIDE THE CITY WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

# ITEM 632 SIGNALIZATION, MISC.: UNLASH AND RELASH MESSENGER WIRE

THE CONTRACTOR SHALL REMOVE EXISTING MESSENGER WIRE LASHING RODS AND REINSTALL THEM AS NECESSARY FOR THE INSTALLATION OF ANY NEW CABLES ON THE EXISTING INTERSECTION SIGNAL SPANS. THE CABLES SHALL ENTER THE EXISTING STRAIN POLE THROUGH THE POLE CABLE ENTRANCE FITTING AND USE THE EXISTING CONDUIT SYSTEM TO GET TO THE CONTROLLER CABINET. THE NEW CABLES SHALL BE SUPPORTED BY A NEW CABLE SUPPORT ASSEMBLY AT THE TOP OF THE STRAIN POLE.

THE NEW SIGNAL CABLES SHALL BE BID BY SEPARATE BID ITEMS SPECIFIED IN THESE

PAYMENT FOR ITEM 632 SIGNALIZATION MISC.: UNLASH AND RELASH MESSENGER WIRE, SHALL BE MADE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIALS, CABLE SUPPORT ASSEMBLIES AND EQUIPMENT TO INSTALL NEW CABLES ON EXISTING SIGNAL SPAN WIRE INSTALLATIONS.

# ITEM 633 CONTROLLER UNIT, TYPE COBALT, AS

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 633 AND 733, THE CONTROLLER EQUIPMENT SHALL BE AN **ECONOLITE COBALT** WITH INTERNAL TRANSCEIVER MODULE. THE CONTROLLER SHALL BE FURNISHED WITH THE MOST RECENT SOFTWARE AND PROVIDE ALL FEATURES OF THE LATEST MODEL AVAILABLE.

THE CONTROLLER UNITS SHALL BE FURNISHED IN ACCORDANCE WITH NEMA TS2 TYPE 2 (1992) STANDARDS, AND SHALL BE CONNECTED TO AND MADE FULLY FUNCTIONAL WITH ALL PROPÓSED EQUIPMENT (INCLUDING BUT NOT LIMITED TO RADAR DETECTION UNITS, CONFLICT MONITOR OR MALFUNCTION MANAGEMENT UNIT (MMU), AND ALL OTHER CABINET EQUIPMENT, COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER TO MATCH THE EXISTING CONTROLLER'S SETTINGS.

THE CONTROLLER UNIT SHALL INCLUDE ALL NECESSARY ETHERNET COMMUNICATION AND TELEMETRY MODULES REQUIRED FOR PROPER COMMUNICATION AND OPERATION IN A TRAFFIC RESPONSIVE CLOSED LOOP SYSTEM.

THE CONTRACTOR SHALL FURNISH AND INSTALL A FULLY MANAGED ETHERNET SWITCH THAT PROVIDES DUAL FIBER OPTICAL ETHERNET (10/100/1000 BASE T) PORTS USING INDUSTRY STANDARD FIBER OPTIC CONNECTORS AND FAST ETHERNET (10/100/1000BASE—TX) PORTS. THE TRANSCEIVER SHALL OPERATE ON 120VAC, 10 WATTS AND SHALL MEET OR EXCEED NEMA TS2 ENVIRONMENTAL REQUIREMENTS.

THE CONTROLLER TO BE INSTALLED SHALL BE PRE—TESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER FOR INSTALLATION AT THE DESIGNATED INTERSECTION.

REPAIRS/CORRECTIONS, IF REQUIRED, SHALL BE MADE BY THE CONTRACTOR AND RECORDED BEFORE DELIVERY. THE ENGINEER SHALL ALSO BE NOTIFIED OF ANY PROBLEMS. THE CONTROLLER IS TO OPERATE WITHOUT PROBLEMS ON MINIMUM RECALL OF ALL MINOR PHASES FOR 48 HOURS WITH FULL LOAD ON EACH OUTPUT (NOTE THAT TESTING ALSO REQUIRES OPERATION WITH DETECTORS IN A NO CALL CAN CALL TO MAXIMUM CONFIGURATION).

A WRITTEN REPORT STATING THE CONTROLLER INTERSECTION NAME, DATE AND TIME OF TEST, SIGNED OFF BY THE TECHNICIAN WHO PERFORMED THE TESTS, SHALL BE SUBMITTED TO THE ENGINEER UPON SUCCESSFUL COMPLETION OF THE ABOVE TESTS. THE SUCCESSFUL TESTING SHALL BE DEMONSTRATED TO THE ENGINEER PRIOR TO INSTALLATION IF REQUESTED. THE COST FOR THE CONTROLLER TESTING SHALL BE INCLUDED IN THE PRICE OF THE CONTROLLER FURNISHED COMPLETE

THE CONTROLLER AND ALL RELATED COMPONENTS SHALL BE IN PERFECT WORKING ORDER AND READY FOR INSTALLATION/OPERATION AT THE SPECIFIED INTERSECTION(S) AS A RESULT OF THE WORK DESCRIBED IN THIS ITEM.

THE CONTROLLER SHALL BE WARRANTED FOR DEFECTS IN MATERIAL AND WORKMANSHIP FOR A MINIMUM OF FIVE (5) YEARS. THE WARRANTY SHALL INCLUDE SOFTWARE UPDATES AND SUPPORT FOR THE ENTIRE WARRANTY PERIOD.

TWO (2) COMPLETE SETS OF THE FOLLOWING SHALL BE PROVIDED IN THE CABINET:

- USERS MANUALS
  DEVICE PROGRAMMING MANUALS
- WIRING DIAGRAMS AND PARTS LISTS INSTALLATION AND DIAGNOSTICS MANUALS
- INSTALLATION AND DIAGNOSTICS MANUALS
  SOFTWARE AND FIRMWARE UPDATES SHALL BE ACCOMPANIED BY COMPLETE
  DOCUMENTATION THAT REFERENCES AN UPGRADE VERSION, AND PROVIDES A LIST OF
  PROBLEMS RESOLVED WITH THE UPGRADE (IF APPLICABLE). ALL FUNCTIONS, FEATURES,
  AND CAPABILITIES NOT ADDRESSED SHALL OPERATE AS INTENDED BEFORE THE UPGRADE WAS IMPLEMENTED.

PAYMENT FOR ITEM 633 CONTROLLER UNIT, TYPE COBALT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK, SO AS TO MAKE THE WHOLE INTERSECTION FUNCTION AND WORK AS INTENDED BY

### ITEM 804 SPLICE ENCLOSURE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATION 804. THE FOLLOWING

A RING CUT METHODOLOGY SHALL BE USED. THE CONTRACTOR IS TO CONTACT TIPP CITY I.T. DEPARTMENT FOR VERIFICATION OF FIBER TUBES/COLORS IN USE ON THE EXISTING FIBER OPTIC AERIAL SPAN AT THE POINT OF CONNECTION FOR THE SPLICE ENCLOSURE. EXISTING FIBER TUBES/COLORS ALREADY IN USE ARE NOT TO BE CUT OR DAMAGED DURING THE RING CUT AND SPLICE ENCLOSURE PLACEMENT. THE CONTRACTOR IS TO PAY FOR ANY DAMAGES TO THE EXISTING FIBER THAT OCCURS DURING THE PROPOSED WORK.

THE SPLICE KIT ENCLOSURE SHALL BE TE CONNECTIVITY FOSC 600 OR CITY APPROVED

ADDITIONALLY, THIS BID ITEM SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO REMOVE THE EXISTING FIBER LINE AT THE NEAREST SLACK SPAN AND REPLACE WITH NEW EQUIPMENT OR EXISTING EQUIPMENT, AS APPROVED BY THE CITY (i.e. SNOW-SHOES, ETC.).

THE CITY IS TO RECEIVE COPIES OF ALL FIBER OPTIC TESTING.

PAYMENT FOR ITEM 804 SPLICE ENCLOSURE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 804 FIBER OPTIC CABLE TESTING. **AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATION 804, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL PROVIDE 2 COMPLETE SETS OF "AS-BUILT" DRAWINGS TO THE CITY WITHIN 30 DAYS OF PROJECT COMPLETION. WHILE INSTALLING AND TESTING THE INSTALLATION, THE CONTRACTOR IS TO MARK PLANS WITH ANY FIELD CHANGES THAT WERE INITIATED DURING CONSTRUCTION. THESE ARE COMMONLY REFERRED TO AS "AS-BUILTS".

AS-BUILT DOCUMENTATION SHALL INCLUDE THE FOLLOWING INFORMATION:

- PLAN SHEETS WITH THE LOCATION OF CONDUIT IN ROADWAY HAND MARKED.

- PLAN SHEETS WITH THE LOCATION OF CONDUIT IN ROADWAY HAND MARKED.
  PLAN SHEETS WITH THE SIZES OF CONDUIT HAND MARKED.
  PLAN SHEETS WITH THE LOCATIONS OF ALL PULL BOXES AND SPLICES HAND MARKED.
  PLAN SHEETS WITH THE SIZES OF FIBER OPTIC CABLES HAND MARKED.
  THE PRE-INSTALLATION ON-REEL ATTENUATION LOSS OTDR TRACES OF EACH CABLE
  FIBER IN db/km SHOWING CABLE/SHEATH LENGTH (NOT OPTICAL FIBER LENGTH),
  2-POINT db LOSS, ATTENUATION IN db/km, FIBER TYPE, WAVELENGTH USED, PULSE WIDTH SELECTION, AND FIBER/CABLE IDENTIFICATION. OTDR TRACES SHALL BE HARD COPY AND ELECTRONIC.
- THE INSTALLED ATTENUATION LOSS OTDR TRACES OF EACH CABLE FIBER IN db.km SHOWING CALBE. SHEATH LENGTH (NOT OPTICAL FIBER LENGTH), 2-POINT db LOSS, ATTENUATION IN db/km, FIBER TYPE, WAVELENGTH USED, PULSE WIDTH SELECTION, AND FIBER/CABLE IDENTIFICATION. OTDR TRACES SHALL BE HARD COPY AND ELECTRONIC.

ANY LINK THAT FAILS THE ABOVE TESTS SHALL BE RESPLICED OR REPLACED UNTIL THESE REQUIREMENTS ARE MET. THE COST OF RESPLICING, REPLACING, AND RETESTING CABLE SHALL BE AT THE CONTRACTOR'S EXPENSE.

PAYMENT FOR ITEM 804 FIBER OPTIC CABLE TESTING, AS PER PLAN FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

# ITEM 804 FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN

A FIBER OPTIC SPLICE KIT SHALL INCLUDE EQUIPMENT AND LABOR TO INSTALL ANY AND ALL NECESSARY ITEMS REQUIRED FOR THE CONNECTIVITY OF A DEVICE TO THE FIBER NETWORK VIA CORE-ALIGNED FUSION SPLICE OF A DROP CABLE TO THE NETWORK TRUNK OF SUB-TRUNK CABLE. THE DROP KIT IS AN AGGREGATION OF ANY AND ALL PARTS AND LABOR NEEDED FOR THIS CONNECTION INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- INSTALLING FIBER OPTIC SPLICE ENCLOSURE (AERIAL OR UNDERGROUND) SPLICE TRAY OR TRAYS
  GROUND MECHANISM
  DEVICES NECESSARY TO STORE EXCESS CABLE SLACK
  CORE ALIGNED FUSION SPLICING AS SPECIFIED
  AERIAL MOUNTING
  FITTING DROP CABLES WITH APPROPRIATE CONNECTORS
  CONNECTING CONTROL DEVICE TO FIBER OPTIC NETWORK
  STORING CABLE SLACK
  6 FIBER TERMINATION PANEL

- 6 FIBER TERMINATION PANEL

THE DROP CABLE IS A SEPARATE BID QUANTITY ITEM WHICH IS ALSO NECESSARY FOR COMPLETION OF A DROP KIT INSTALLATION BUT IS LISTED SEPARATELY FOR BETTER ESTIMATING. DROP KITS ARE NOT NECESSARY WHERE NO TRUNK CABLE OPENING IS

PAYMENT FOR ITEM 804 FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS

### FIBER OPTIC INSTALLATION NOTE

CONTRACTOR SHALL COORDINATE ALL FIBER INSTALLATION WITH THE CITY PRIOR TO INSTALLATION. ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION AND PROVE TO THE CITY THAT THE SIGNAL IS COMMUNICATING WITH THE CITY'S CENTRAL SERVER PROPERLY SHALL BE INCLUDED IN ALL ITEM 804 BID ITEMS LISTED

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2 MODIFICATION F. ECONSTRUCTION, I F TIPP CITY AFFIC SIGNAL MODIFICA OF RE CITY ROAD 25-EVANSTON K O OUTH AND Ō **CR-25A** 

**公 02-09-2017** ACCENDUM No.

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FILE NAME MIATCI1406TNA

BHB CHECKED BY

PROJECT NO MIATCI1406

12-19-2016 SHEET NUMBER

50 OF 52

# ITEM 809 STOP-BAR RADAR DETECTION, AS PER

THIS ITEM T WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSON MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE

- 1. POWER SHALL BE ROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE IN UP PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, AS RECOMMENDED BY THE MANUFACTURER, CABLE(S) SHALL BE PROTDED AS REQUIRED AND RECOMMENDED BY
- SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LO ATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET FLECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DUTING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, DIFFRATION AND MAINTENANCE OF THE UNIT.
- 6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE TINIMUM 7
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR—PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD—WIRED TO THE COMMUNICATION MODULES, AS
- CONTRACTOR SHALL REMOVE THE EXISTING 4—SLOT DETECTOR RACK AND REPLACE IT WITH A NEW 8 SLOP DETECTOR RACK, COST SHALL BE INCLUDED IN THIS PAY ITEM.
- ALL WORK AND REPROGRAMMING TO BE COMPLETED IN THE CONTROLLER CABINET INCLUDED IN THESE PLANS SHALL BE INCLUDED IN THIS PAY ITEM.

PAYMENT FOR ITEM 809 STOP—BAR RADAR DETECTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

### ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- 1. DETECTION ZONES SHALL BE ESTABLISHED PER MANUFACTURES RECOMMENDATIONS.
- 2. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUT CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY
- 5. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- 6. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- 7. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET).
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN, SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

### RADAR DETECTION CHART

DETECTION ZONE (ASSOCIATED RADAR UNIT)	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY (SEC)	EXTENSION (SEC)	PURPOSE	DETECTION ZONE LENGTH (FT)
D1A (R2)	SB LT	PRESENCE	1	3	2	THIRD CAR FROM STOP BAR	30
D6A (R1)	SB	PRESENCE	6	_		ADVANCE	*
D8A (R3)	WB	PRESENCE	8	12	_	STOP BAR	25
D8B (R3)	WB	PRESENCE	8	3	3	STOP BAR	40

NOTE: ALL DETECTION ZONES SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE SHOWN.

\* SET ADVANCE DETECTION ZONE 400 FT. FROM STOP BAR TO 100' TO STOP BAR.

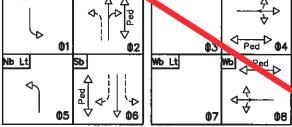
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	DETECTION ZONE DISTANCE FOR
	SOUTHBOUND (D6A)
FROM STOP LINE TO BEGINNING OF ZONE	400'
FROM STOP LINE TO END OF ZONE	100'
MINIMUM DETECTION VELOCITY	7 MPH

### SOUTH CR-25A AND EVANSTON RD. TRAFFIC SIGNAL SUMMARY ITEM QUAN. UNIT DESCRIPTION 625 59 FT. CONDUIT, 2", 725.051 625 82 FT. CONDUIT, JACKED OR DRILLED, 725.052, 2" 625 59 FT. TRENCH 625 2 EACH PULL BOX, 725.08, 18" 632 1 EACH CONDUIT RISER, 2" DIAMETER 1 LUMP SIGNALIZATION, MSC.: UNLASH AND RELASH MESSENGER WIRE 633 1 EACH CONTROLLER UNIT, TYPE ASC/3-2100, AS PER PLAN 633 1 EACH CONTROLLER WORK PAD 804 1 EACH FAN-OUT KIT, 6 FIBER 804 192 FT. DROP CABLE, 6 FIBER 804 2 EACH FIBER OPTIC PATCH CORD, 1 FIBER 804 1 EACH FIBER TERMINATION PANEL, 6 FIBER 804 12 EACH FUSION SPLICE 804 1 EACH SPLICE ENCLOSURE, AS PER PLAN 804 6 EACH FIBER OPTIC CONNECTOR 804 1 LS FIBER OPTIC CABLE TESTING, AS PER PLAN 804 1 LS FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN 809 1 EACH ADVANCE RADAR DETECTION, AS PER PLAN 809 2 EACH STOP-BAR RADAR DETECTION, AS PER PLAN

Old Bid sheet, see next with Addendum No.1 Revisions





NOTE: FOLLOWS DEFINITIONS IN NEMA TS-1-1994 INCLUDING ALL REVISIONS THERETO.

CONTRACTOR SHALL USE EXISTING CONTROLLER TIMING

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MODIFICATION 5-A RECONSTRUCTION, F ITY OF TIPP CITY N ROAD TRAFFIC SIGNAL MODIFI **EVANST** œ  $\overline{\mathbf{c}}$ OUTH AND

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PROJECT No.

12-19-2016 FET NUMBER

# ITEM 809 STOP-BAR RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- 1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- 2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- 4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- 5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).
- 7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
- CONTRACTOR SHALL REMOVE THE EXISTING 4-SLOT DETECTOR RACK AND REPLACE IT WITH A NEW 8 SLOP DETECTOR RACK. COST SHALL BE INCLUDED IN THIS PAY ITEM.
- ALL WORK AND REPROGRAMMING TO BE COMPLETED IN THE CONTROLLER CABINET INCLUDED IN THESE PLANS SHALL BE INCLUDED IN THIS PAY ITEM.

PAYMENT FOR ITEM 809 STOP—BAR RADAR DETECTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

## ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- 1. DETECTION ZONES SHALL BE ESTABLISHED PER MANUFACTURES RECOMMENDATIONS.
- 2. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- 3. ALL REQUIRED INPUT CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TST AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- 4. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- 5. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- 6. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- 7. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET).
- B. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN, SHALL 8E MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

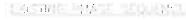
### RADAR DETECTION CHART

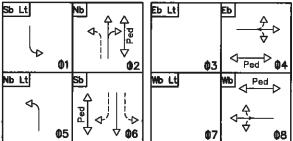
DETECTION ZONE (ASSOCIATED RADAR UNIT)	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY (SEC)	EXTENSION (SEC)	PURPOSE	DETECTION ZONE LENGTH (FT)
D1A (R2)	SB LT	PRESENCE	1	3	_ 2	THIRD CAR FROM STOP BAR	. 30
D6A (R1)	SB	PRESENCE	6	-	_	ADVANCE	*
D8A (R3)	WB	PRESENCE	8	12	_	STOP BAR	25
D8B (R3)	WB	PRESENCE	8	3	3	STOP BAR	40

NOTE: ALL DETECTION ZONES SHALL BE CENTERED IN THEIR RESPECTIVE LANES UNLESS OTHERWISE SHOWN.

\* SET ADVANCE DETECTION ZONE 400 FT. FROM STOP BAR TO 100' TO STOP BAR.

	DETECTION ZONE DISTANCE FOR
	SOUTHBOUND (D6A
FROM STOP LINE TO BEGINNING OF ZONE	400'
FROM STOP LINE TO END OF ZONE	100'
MINIMUM DETECTION VELOCITY	7 MPH





NOTE: FOLLOWS DEFINITIONS IN NEMA TS-1-1994 INCLUDING ALL REVISIONS THERETO.

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CONTRACTOR SHALL USE EXISTING CONTROLLER TIMING

		SOUTI	H CR-	-25A AND EVANSTON RD. TRAFFIC SIGNAL SUMMARY
	HEM	QUAN.	UNIT	DESCRIPTION
	625	59	FT.	CONDUIT, 2", 725.051
	625	82	FT.	CONDUIT, JACKED OR DRILLED, 725.052, 2"
	625	59	FT.	TRENCH
	625	2	EACH	PULL BOX, 725.08, 18"
	632	1	EACH	CONDUIT RISER, 2" DIAMETER
	632	1	LUMP	SIGNALIZATION, MSC.: UNLASH AND RELASH MESSENGER WIRE
◮▮	633	1	EACH	CONTROLLER UNIT, TYPE COBALT, AS PER PLAN
	633	1	EACH	CONTROLLER WORK PAD
	804	1	EACH	FAN-OUT KIT, 6 FIBER
	804	192	FT.	DROP CABLE, 6 FIBER
	804	_ 2	EACH	FIBER OPTIC PATCH CORD, 1 FIBER
	804	. 1	EACH	FIBER TERMINATION PANEL, 6 FIBER
	804	12	EACH	FUSION SPLICE
	804	1	EACH	SPLICE ENCLOSURE, AS PER PLAN
	804	6	EACH	FIBER OPTIC CONNECTOR
	804	1	LS	FIBER OPTIC CABLE TESTING, AS PER PLAN
	804	1	LS	FIBER OPTIC CABLE, MISC.: FIBER OPTIC SPLICE KITS, AS PER PLAN
				I ADMINISTRAÇÃO DE DESCRIPTO DE DE DESCRIPTO

809 1 EACH ADVANCE RADAR DETECTION, AS PER PLAN

809 2 EACH STOP-BAR RADAR DETECTION, AS PER PLAN

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SIDNEY, OHIO 937,497,0200
LOVELAND, OHIO 513,239,8554
PORTLAND, INDIANA 260,766,2500

PLAN

SOUTH CR 25-A RECONSTRUCTION, PH. 2
CITY OF TIPP CITY
CR-25A AND EVANSTON ROAD TRAFFIC SIGNAL MODIFICATION

REVISIONS: 12-09-2017 ADDENDUM No.

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DRAWN BY BHB

CHECKED BY JSP

PROJECT No. MIATCI1406 DATE 12-19-2016

51 OF 52

UTILITY OWNERS					
TYPE	NAME AND ADDRESS				
ELECTRIC, WATER, STORM & SANITARY	CITY OF TIPP CITY MUNICIPAL BLDG, 260 S. GARBER ST. TIPP CITY, OHIO 45371 937-667-6305				
TELEPHONE	FRONTIER COMMUNICATIONS 6484 WESTBROOK RD. CLAYTON, OHID 45315 937-833-0468				
CABLE	TIME WARNER 3691 TURNER RD. DAYTON, DH 45415 937-440-6656 CONTACT: CHRIS GRAVES				
GAS	VECTREN 6500 CLYO RD. CENTERVILLE OHIO, 45459 937-312-2533 CONTACT: DON SPECHT				
ELECTRIC	DAYTON POWER AND LIGHT CO 1900 DRYDEN ROAD DAYTON, OHIO 45439 JOHN KENTON 937-331-4132 DP&L TRANSMISSION 1900 DRYDEN ROAD DAYTON, OHIO 45439 GREG TÖKAR				

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NOTE: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

I, Wesley D. Goubeaux, P.S. 8254, have conducted a survey of the existing conditions for the City of Tipp City in February, 2012. The results of that survey are contained herein.

The horizontal coordinates expressed herein are based on the Ohio State Pione Coordinate system NAD 83, South Zone using CORS 95 adjustment, The Project Adjustment Factor used for this project is 1.0000545970 and applied to Control Point #109.

I have determined the locations of the existing property lines for property takes contained herein. I have calculated the proposed property lines, Gross Take, Present Roadway Occupied (PRO), Net Take and Net Residues, as well as prepared the legal descriptions necessary to acquire these parcels as

As a part of this project. I have set monuments at the proposed Property Corners, Section Corners and other points as shown herein. However, Item 604 Monument Assemblies, Item 604 Reference Monuments an Centerline Monuments shall be installed by the construction contractor as specified in the plans. All Centerline Monuments and Right-of-Way Monuments set and/or reset by the contractor's surveyor will include a cap as per Standard Construction Drawing RM-1.1 and bear the surveyor's Ohio registraction number and/or name or company name. This work will be done in accordance with OAC 4733-37 as cited below.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733—37 commonly known as Minimum Standards for Boundary Survey in the State of Ohio unless so noted.

The words I and my as used herein are to mean either myself or someone working for me under my direct control or supervision.

Wesley D. Goubeaux Surveyor No. 8254

# MIA-TIPP CITY 25A **RECONSTRUCTION, PH. 2**

CITY OF TIPP CITY MIAMI COUNTY, OHIO SEC. 21, T 4 N, R 6 E

### PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RECONSTRUCTION OF C.R. 25-A FROM MICHAELS RD. TO EVANSTON RD. CONSTRUCTION CONSISTS OF PAVEMENT, CURBING, THE INSTALLATION OF A NEW STORM SEWER SYSTEM,
UTILITY RELOCATIONS, STREET LIGHTS AND
RESTORATION OF TRAFFIC SIGNAGE.

### BASIS FOR EX. R/W

THE EXISTING RIGHT-OF-WAY WIDTH WERE DETERMINED USING VARIOUS LAND SURVEYS AND SUBDIVISION PLATS AND LISTED AS FOLLOWS.

THE PROPOSED RIGHT-OF-WAY SHALL BE REFERENCED TO THE CENTERLINE OF SURVEY.

### BASIS FOR BEARINGS

THE BEARING OF N 00'-15'-20" E ALONG THE CENTERLINE OF COUNTY ROAD 25A AND BEING THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 21 WAS BASED ON NAD 83 CORS 96 ADJUSTMENT, GEOID 2003, OHIO SOUTH ZONE, ODOT VRS CORS NETWORK

### PERTINENT INFORMATION

REC. P.B. 9, PG. 146 MIA-TIPP CITY 25A RECONSTRUCTION, PH 1

DEEDS AS SHOWN ON R/W DETAIL SHEETS

LINE CHART				
LINE	BEARING	DIST.		
L1	S 00"-56"-31" W	5.20'		
L2	N 89'-44'-40" W	5.00'		
L3	N 00"-15"-20" E	10.00*		
L4	S 89'-44'-40" E	5.00'		
L5	N 00"-15"-20" E	48.92"		

STATION/OFFSET CHART					
POINT	STATION	OFFSET			
Α	232+01.42	60.00' LT			
В	232+01.42	65.00' LT			
С	232+11.42	65.00' LT			
D	232+11.42	60.00' LT			
E	232+60.34	60.00' LT			
F	232+60.36	50.00' LT			

### **BUCKINGHAM COURT** COMMERCIAL SECTION PB 9/146 89'53'; 9 PT. LOT 95 CONC. DRIVE RAY & DANIELLE HENDRIX 25 W MICHAELS RD 20160R-05954 G12-080956 RESIDENTIAL TAST CITIES (DND) BEGIN ACQUISTION STA. 230+35.92 END ACQUISTION STA 232+60.40 **B** 230+35.92 \45.00' LT. (9-U, EX. UTIL ESMT) CONC. DRIVE 20160R-00781 180.20 10.00 EX. R/W N00"15'20"E 1.5 12.4 224.45 9-WD1) Ex R/W Ex R/W S45'50'25"W (9-WD) CITY OF TIPP CITY, OHIO S0015'20"W 232 S 00'15'20" W 279.55' SECTION 21 COUNTY RD. 25A SECTION 22 229+80.94/ 0.00' RT. MIA-TIPP CITY 25A RECONSTRUCTION, PH SE COR. SE 1/4 1. MONUMENT LEGEND o<sup>LP.F.</sup> IRON PIN FOUND ST RAILROAD SPIKE FOUND o<sup>P.K.F.</sup> P.K. NAIL FOUND LEGEND .I.P.S. 5/8" IRON PIN WITH CAP SET WD = WARRANTY DEED

93245

PLAN

-OF-WAY

RIGHT

S

52

52

LOT 94 LORI M. SMITH

65 W MICHAELS RD 20140R-05503

G12-080955 RESIDENTIAL

47+49.96 30.00' LT.

30.00

N 00'07'00" E

THIS R/W PLAN IS IN COORDINATION WITH PREVIOUS VERSION OF MIA-TIPP CITY 25A. PHASE 1, RECONSTRUCTION R/W PLANS ORIGINALLY APPROVED BY ODOT AND DATED 6/05/2014.

### SUMMARY OF ADDITIONAL RIGHT-OF-WAY REQUIRED

NO. OF STRUCTURES = 0, NO. OF PROPERTY OWNERS = 1, NO. OF TOTAL TAKES = 0, NO. OF PARCELS = 2, P.I.D. NO. 93245

ALL RIGHT-OF-WAY ACQUIRED IN THE NAME OF THE CITY OF TIPP CITY, OHIO UNLESS OTHERWISE SHOWN.

OWNERS RECORD ALDITOR'S **GROSS** P.R.O. IN RECORD TOTAL

M MONUMENT BOX W/IP FOUND PARCE NET STRUC-NET RESIDUE TYPE AS ACQUIRED OWNER REMARKS AND PERSONALTY NO. BOOK PAGE AREA TAKE TAKE TAKE PARCEL P.R.O. TURE LEFT RIGHT **FUND** BOOK PAGE RAY HENDRIX & DANIELLE HENDRIX 9-WD1 20160R-05954 ALL 0.050 ACRES OVERLAPS EXISTING UTIL. EASEMEN' G12-080956 1.213 0.000 0.050 0.000 0.050 1.163 00% LOCAL REVISE PARCEL 9-WD1 WDG 1/17/1 REV. DATE DESCRIPTION DATE OF COMPLETION SEPTEMBER 9, 2016