D04 - BH FY2021 (West)
200513 PID - 101380
Dist 4 11/5/2020

Contract Proposal available @ www.contracts.dot.state.oh.us

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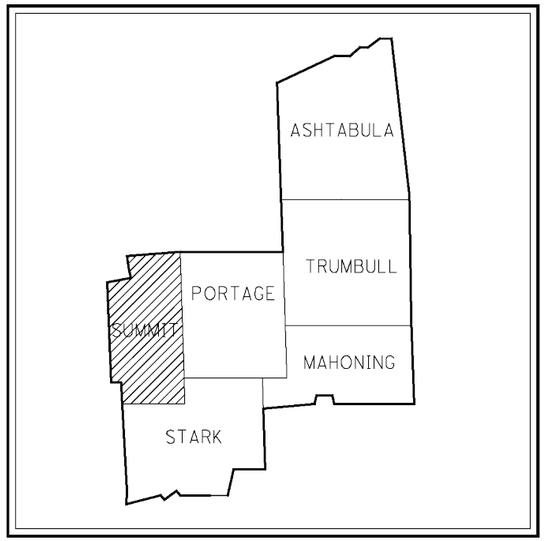

LOCATION MAP

LATITUDE: 40°55'30" LONGITUDE: 81°8'20"

STRUCTURE	NHS	FUNCTIONAL CLASSIFICATION
SUM-80-0774F	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-176-0105	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0293	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0350B	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0354R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0355L	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0374L	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0374R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-303-0503	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0914	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-0967	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1116R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1117L	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1122L	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1122R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1186R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1265L	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1265R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1413R	NO	URBAN FREEWAYS AND EXPRESSWAYS
SUM-271-1415L	NO	URBAN FREEWAYS AND EXPRESSWAYS

STRUCTURE	NHS	FUNCTIONAL CLASSIFICATION
SUM-480-0011L	NO	URBAN FREEWAY & EXPRESSWAY
SUM-8-0556K1	YES	URBAN FREEWAY & EXPRESSWAY
SUM-8-0616	YES	URBAN FREEWAY & EXPRESSWAY
SUM-8-0643	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0019L	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0039R	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0043L	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0088	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0115J	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0126	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0167	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0176	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0208	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0234	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0239	YES	URBAN FREEWAY & EXPRESSWAY
SUM-59-0803L	YES	URBAN PRINNCIPAL ARTERAL
SUM-82-0000	NO	RURAL MINOR ARTERIAL
SUM-82-0802	NO	URBAN MINOR ARTERIAL
SUM-303-1028	NO	URBAN MAJOR COLLECTOR

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
ODOT - DISTRICT 4
2088 SOUTH ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:
FOR VANDAL FENCE
STATE OF OHIO · GREGORY D. JOHNSON · E-66952 · REGISTERED PROFESSIONAL ENGINEER
SIGNED: Gregory D Johnson
DATE: 07-29-2020

ENGINEERS SEAL:
FOR ENTIRE PLAN EXCEPT VANDAL FENCE
STATE OF OHIO · MARK J. ANDRASIK · E-80194 · REGISTERED PROFESSIONAL ENGINEER
SIGNED: Mark J Andrasik
DATE: 7/30/20

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

D04-BH-FY2021 (WEST)

CITIES OF AKRON, CUYAHOGA FALLS, MACEDONIA, AND TWINSBURG

VILLAGES OF BOSTON HEIGHTS AND RICHFIELD

BOSTON, NORTHFIELD CENTER, AND RICHFIELD TOWNSHIPS

SUMMIT COUNTY

PROJECT DESCRIPTION

DECK SEALING OF 39 STRUCTURES IN SUM COUNTY.

EARTH DISTURBED AREAS

PROJECT EDA:	*N/A (MAINTENANCE ONLY)*
ESTIMATED CONTRACTOR EDA:	*N/A (MAINTENANCE ONLY)*
NOTICE OF INTENT EDA:	*N/A (MAINTENANCE ONLY)*

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

INDEX OF SHEETS:

CONFORMED SET

STANDARD CONSTRUCTION DRAWINGS								*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*
DM-4.3	*1/15/16*	*TC-41.20*	*10/18/13*					*800-2020*	*7/17/20*	
DM-4.4	*1/15/16*	*TC-52.10*	*10/18/13*					*809*	*1/17/20*	
		TC-52.20	*7/20/18*					*821*	*4/20/12*	
HL-50.21	*4/17/20*	*TC-71.10*	*1/19/18*					*832*	*10/19/18*	
								921	*4/20/12*	
MT-95.30	*7/19/19*	*VPF-1-90*	*7/20/18*							
MT-95.31	*7/19/19*									
MT-95.32	*4/19/19*									
MT-95.50	*7/21/17*									
MT-97.10	*4/19/19*									
MT-98.10	*1/20/17*									
MT-98.11	*4/19/19*									
MT-98.20	*4/19/19*									
MT-105.10	*7/19/13*									

APPROVED AJ Noirot Jr.
DATE 07/30/2020 *DISTRICT DEPUTY DIRECTOR*

APPROVED _____
DATE _____ *DIRECTOR, DEPARTMENT OF TRANSPORTATION*

Digitally signed by Tom Pannett
Date: 2020.09.25 09:25:26-04'00'

FEDERAL PROJECT NO. E190(745)
PID NO. 101380
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT CUYAHOGA VALLEY SCENIC RAILROAD
D04-BH-FY2021 (WEST)
1 / 26

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

ODOT ITS IS A UTILITY IN THE AREA AND IS NOT A MEMBER OF OUPS. REQUESTS SHOULD BE SENT TO CEN.ITS.LAB@DOT.OHIO.GOV AND REFER TO SS 809 FOR OTHER INFORMATION AND DOWNTIME REQUIREMENTS SHOULD ANY UNFORSEEN CIRCUMSTANCES ARISE.

PAVEMENT MARKINGS

THIS WORK WILL CONSIST OF REPLACING THE EXISITNG PAVEMENT MARKINGS THAT ARE REMOVED DURING THE SURFACE PREPARTION OF ITEM 512, TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

GUARDRAIL REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING GUARDRAIL REFLECTORS ON ALL EXISTING GUARDRAIL RUNS WITHIN THE PROJECT LIMITS.

REF NO.	STRUCTURE	642 EDGE LINE, 6", TYPE 1	642 LANE LINE, 6", TYPE 1	642 CENTER LINE, TYPE 1	642 CHANNELIZING LINE, 8", TYPE 1	642 CHANNELIZING LINE, 12", TYPE 1	642 CHEVRON MARKING, TYPE 1	642 TRANSVERSE/DIAGONAL LINE, TYPE 1	642 LANE ARROW, TYPE 1	626 BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	626 BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	626 BARRIER REFLECTOR, TYPE 2, ONE WAY
		MILE	MILE	MILE	FT	FT	FT	FT	EACH	EACH	EACH	EACH
	SUM-80-0774F	0.11		0.06						6		12
	SUM-176-0105	0.15		0.08						10		12
	SUM-271-0293	0.14		0.07						8		12
	SUM-271-0350B	0.14								8		12
	SUM-271-0354R	0.15	0.15							8		12
	SUM-271-0355L	0.15	0.07			640	132			8		12
	SUM-271-0374L	0.07	0.03							6		12
	SUM-271-0374R	0.10	0.03			190				6		12
	SUM-303-0503	0.14		0.07						8		12
	SUM-271-0914	0.13		0.06						8		12
	SUM-271-0967	0.12		0.06						8		12
	SUM-271-1116R	0.07	0.04							6		12
	SUM-271-1117L	0.07	0.04							6		12
	SUM-271-1122L	0.08	0.04							6		12
	SUM-271-1122R	0.08	0.04							6		12
	SUM-271-1186R	0.37	0.07					94		8		12
	SUM-271-1265L	0.07	0.07							6		12
	SUM-271-1265R	0.07	0.07							6		12
	SUM-271-1413R	0.31	0.10							10		12
	SUM-271-1415L	0.21	0.21							10		12
	SUM-480-0011L	0.07	0.04							6		12
	SUM-8-0556K1	0.16								10		12
	SUM-8-0616			0.08	353				6	10		12
	SUM-8-0643			0.05						6		12
	SUM-59-0019L	0.23	0.12	0.12						10		12
	SUM-59-0039R	0.32	0.16							10		12
	SUM-59-0043L	0.35	0.17							10		12
	SUM-59-0088	0.10	0.15	0.05	68				6	6		12
	SUM-59-0115J		0.04							6		12
	SUM-59-0126		0.15	0.08					7	10		12
	SUM-59-0167	0.17	0.08							6		12
	SUM-59-0176	0.17	0.08							6		12
	SUM-59-0208	0.11	0.06	0.06					4	8		12
	SUM-59-0234	0.15	0.08		70					8		12
	SUM-59-0239	0.25	0.12		330					10		12
	SUM-59-0803L		0.05							6		12
	SUM-82-0802	0.03									6	12
	SUM-303-1028	0.09		0.05						6		12
TOTALS CARRIED TO GENERAL SUMMARY		4.92	2.26	0.87	821	830	132	94	23	282	6.00	456.00

CALCULATED AJS
CHECKED MJA

GENERAL NOTES

D04-BH-FY2021 (WEST)

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. ON ROADS WITH 3 OR LESS LANES: A MINIMUM OF ONE BIDIRECTIONAL TEN FOOT LANE SHALL BE MAINTAINED ON THE EXISTING AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

ON ROADS WITH 3 OR MORE LANES: A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

4. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE [1] MILE.

5. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

6. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH PERMANENT MARKINGS) ALL LANE LINES THAT WERE REMOVED OR COVERED DURING THE SURFACE PREPARATION.

7. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:
614, WORK ZONE MARKING SIGN,(ALL PHASES) 50 EACH

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REP- RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS- ING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

LANE CLOSURES (IR-271, IR-480, SR-8, SR-59)

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIRE- MENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT SUM 77/VAR-24.28/VAR (PID 81632), PROJECT SUM 76/VAR-6.90/VAR SIGNS (PID 105080), PROJECT SUM 76/77-8.42/9.77 (PID 102329), PROJECT SUM 93/VAR-9.10/VAR (PID 102742), PROJECT SUM 18/VAR-13.19/VAR (PID 98475), PROJECT SUM MAIN STREET CORRIDOR PHASE 2 (PID 108164), PROJECT STA/SUM-SIGN-FY2021 (SYSTEMATIC) (PID 103277), AND PROJECT SUM-261-8.19 (PID 111012) MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD & RAMP CLOSURES	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

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 PER- MITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 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 ENFORCE- MENT 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).
- 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).

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSI- BILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CON- SIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

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 ZONE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COM- MUNICATING 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 RE- TURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINT- ENANCE 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 CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 300 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) IN- CURRED 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.

CALCULATED AJS CHECKED MJA

MAINTENANCE OF TRAFFIC GENERAL NOTES

D04-BH-FY2021 (WEST)

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00AM WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE CHANGEABLE MESSAGE SIGN, THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCE OF 800 FEET AND 650 FEET RESPECTIVELY.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHALL BE LOCATED. IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF. ADDITIONALLY WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE LINE PRESENTATION FORMATS WITH UP TO OF SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.07. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN, 9 SIGN MONTH

PROTECTION FROM DEBRIS (SUM-82-0000)

PRIOR TO STARTING ANY WORK ON SUM-82-0000, THE CONTRCTOR SHALL INSTALL A NET OR SOME OTHER SYSTEM TO CATCH FALLING DEBRIS, EQUIPMENT, ETC FROM IMPACTING THE PARK TRAILS, PARK LANDS, CANAL, RAILROAD, AND ALL OTHER PROPERTIES LOCATED UNDER THE STRUCTURE. SHOP DRAWINGS SHALL BE SUBMITTED TO THE PROJECT ENGINEER AS PER CMS 501. ALL WORK INVOLVED WITH THIS NOTE SHALL BE INCIDENTAL TO ITEM 614 - MAINTAINING TRAFFIC.

CUYAHOGA VALLEY NATIONAL PARK & CUYAHOGA RIVER PROTECTION (SUM-82-0000)

THE SUM-82-0000 BRIDGE SPANS THE CUYAHOGA RIVER AND CUYAHOGA VALLEY NATIONAL PARK. THE CONTRACTOR SHALL MAINTAIN A SAFE OPEN PARK, TRAIL AND RIVER CHANNEL AT ALL TIMES DURING PROJECT CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO ENSURE PUBLIC SAFETY BELOW THE SUM-82-0000 BRIDGE WITHIN THE PROJECT CONSTRUCTION LIMITS. THE CONTRACTOR SHALL CONTACT AND PROVIDE OPERATION AND CONSTRUCTION SCHEDULE INFORMATION TO THE CUYAHOGA VALLEY NATIONAL PARK A MINIMUM 14 DAYS IN ADVANCE OF PERFORMING ANY WORK ON THE SUM-82-0000 BRIDGE.

CUYAHOGA VALLEY NATIONAL PARK COMMUNICATION CENTER: 440-546-5945

EMERGENCY PARK DISPATCH: 440-546-5945

CALCULATED AJS CHECKED MJA

MAINTENANCE OF TRAFFIC GENERAL NOTES

D04-BH-FY2021 (WEST)

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							2	3	4	23	01/IMS/BR	02/NHS/BR	03/S>2/BR						
																		EROSION CONTROL	
											3,000			832	30000	3,000	EACH	EROSION CONTROL	
																		TRAFFIC CONTROL	
							282				154	122	6	626	00102	282	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
							6						6	626	00110	6	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
							456				252	180	24	626	00110	456	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
							4.92				2.8	2	0.12	642	00104	4.92	MILE	EDGE LINE, 6", TYPE 1	
							2.26				1	1.26		642	00204	2.26	MILE	LANE LINE, 6", TYPE 1	
							0.87				0.4	0.42	0.05	642	00300	0.87	MILE	CENTER LINE, TYPE 1	
							821					821		642	00400	821	FT	CHANNELIZING LINE, 8", TYPE 1	
							830				830			642	00404	830	FT	CHANNELIZING LINE, 12", TYPE 1	
							94				94			642	00700	94	FT	TRANSVERSE/DIAGONAL LINE, TYPE 1	
							132				132			642	00720	132	FT	CHEVRON MARKING, TYPE 1	
							23					23		642	01300	23	EACH	LANE ARROW, TYPE 1	
																		STRUCTURE REPAIR (SUM-82-0000)	
										LS			LS	201	11000	LS		CLEARING AND GRUBBING	
										2,258			2,258	607	39901	2,258	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	23
										2			2	625	33001	2	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN	23
																		STRUCTURE REPAIRS	
																		FOR SUM-176-0105 ESTIMATED QUANTITIES	6
																		FOR SUM-271-0293 ESTIMATED QUANTITIES	6
																		FOR SUM-271-0350B ESTIMATED QUANTITIES	6
																		FOR SUM-271-0354R ESTIMATED QUANTITIES	6
																		FOR SUM-271-0355L ESTIMATED QUANTITIES	6
																		FOR SUM-271-0374L ESTIMATED QUANTITIES	6
																		FOR SUM-271-0374L ESTIMATED QUANTITIES	6
																		FOR SUM-271-0374R ESTIMATED QUANTITIES	6
																		FOR SUM-271-0914 ESTIMATED QUANTITIES	7
																		FOR SUM-271-0967 ESTIMATED QUANTITIES	7
																		FOR SUM-271-1116R ESTIMATED QUANTITIES	7
																		FOR SUM-271-1117L ESTIMATED QUANTITIES	7
																		FOR SUM-271-1122L ESTIMATED QUANTITIES	7
																		FOR SUM-271-1122R ESTIMATED QUANTITIES	7
																		FOR SUM-271-1186R ESTIMATED QUANTITIES	7
																		FOR SUM-271-1265L ESTIMATED QUANTITIES	8
																		FOR SUM-271-1265R ESTIMATED QUANTITIES	8
																		FOR SUM-271-1413R ESTIMATED QUANTITIES	8
																		FOR SUM-271-1415L ESTIMATED QUANTITIES	8
																		FOR SUM-303-0503 ESTIMATED QUANTITIES	7
																		FOR SUM-303-1028 ESTIMATED QUANTITIES	10
																		FOR SUM-480-0011L ESTIMATED QUANTITIES	8
																		FOR SUM-59-0019L ESTIMATED QUANTITIES	9
																		FOR SUM-59-0039R ESTIMATED QUANTITIES	9
																		FOR SUM-59-0043L ESTIMATED QUANTITIES	9
																		FOR SUM-59-0088 ESTIMATED QUANTITIES	9
																		FOR SUM-59-0115J ESTIMATED QUANTITIES	9
																		FOR SUM-59-0126 ESTIMATED QUANTITIES	9
																		FOR SUM-59-0167 ESTIMATED QUANTITIES	9
																		FOR SUM-59-0176 ESTIMATED QUANTITIES	9
																		FOR SUM-59-0208 ESTIMATED QUANTITIES	10
																		FOR SUM-59-0234 ESTIMATED QUANTITIES	10
																		FOR SUM-59-0239 ESTIMATED QUANTITIES	10
																		FOR SUM-59-0803L ESTIMATED QUANTITIES	10
																		FOR SUM-80-0774F ESTIMATED QUANTITIES	6
																		FOR SUM-8-0556K1 ESTIMATED QUANTITIES	8
																		FOR SUM-8-0616 ESTIMATED QUANTITIES	8
																		FOR SUM-8-0643 ESTIMATED QUANTITIES	8
																		FOR SUM-82-0802 ESTIMATED QUANTITIES	10

CALCULATED AJS
CHECKED MJA

GENERAL SUMMARY

D04-BH-FY2021 (WEST)

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							2	3	4	23	01/IMS/BR	02/NHS/BR	03/S>2/BR						
																		MAINTENANCE OF TRAFFIC	
									300		150	120	30	614	11110	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
								50			25	20	5	614	12460	50	EACH	WORK ZONE MARKING SIGN	
									9		3	3	3	614	18601	9	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
																		INCIDENTALS	
											LS			614	11000	LS		MAINTAINING TRAFFIC	
											12			619	16010	12	MNTH	FIELD OFFICE, TYPE B	
											LS			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LS			624	10000	LS		MOBILIZATION	

CALCULATED AJS CHECKED MJA

GENERAL SUMMARY

D04-BH-FY2021 (WEST)

STRUCTURE PROPOSED WORK TABLE

Bridge Name	SFN	Feature Intersected	Deck Sealing	Deck Patching	Clearing & Grubbing	New Structure Identification Signs	Fence Installation
SUM-80-0774F	7700741	FRONTAGE RD OVER TURNPIKE	X		X	X	
SUM-176-0105	7707746	OVER SUM-IR 271-2.75	X		X	X	
SUM-271-0293	7708858	UNDER BRECKSVILLE RD CR17	X		X	X	
SUM-271-0350B	7708882	RAMP B I271 NB TO I77 NB	X		X	X	
SUM-271-0354R	7708890	271NB OVER SUM-IR 77-30.16	X		X	X	
SUM-271-0355L	7708815	271SB OVER SUM-IR 77-30.18	X		X	X	
SUM-271-0374L	7708912	I-271SB OVER I-77NB RAMP	X		X	X	
SUM-271-0374R	7708947	I-271NB OVER I-77NB RAMP	X		X	X	
SUM-303-0503	7709900	OVER SUM-IR 271-6.01	X		X	X	
SUM-271-0914	7709153	UNDER HINES HILL RD TR115	X		X	X	
SUM-271-0967	7709188	UNDER BRANDYWINE RD CR40	X		X	X	
SUM-271-1116R	7709242	OVER AKRON CLEV RD CR16	X		X	X	
SUM-271-1117L	7709218	OVER AKRON CLEV RD CR16	X		X	X	
SUM-271-1122L	7709277	BRANDYWINE CREEK	X		X	X	
SUM-271-1122R	7709307	BRANDYWINE CREEK	X		X	X	
SUM-271-1186R	7709366	I 271 NB OVER SR 8	X		X	X	
SUM-271-1265L	7710002	I 271 SB OVER SR 82	X		X	X	
SUM-271-1265R	7710003	I 271 NB OVER SR 82	X		X	X	
SUM-271-1413R	7710001	OVER NS RR & LEDGE RD	X		X	X	
SUM-271-1415L	7710000	OVER NS RR & LEDGE RD	X		X	X	
SUM-480-0011L	7710143	OVER BEDFORD RD CR679	X		X	X	
SUM-8-0556K1	7700733	RELIEF SIDEHILL STRUCT	X		X	X	
SUM-8-0616	7710798	UNDER REL FRONT ST CR614	X		X	X	
SUM-8-0643	7710828	UNDER BAILEY RD CR610	X		X	X	
SUM-59-0019L	7701802	OVER LAKESHORE & RUSSELL	X		X	X	
SUM-59-0039R	7701829	LAKESHORE OH CAN THORNTON	X	X	X	X	
SUM-59-0043L	7701810	LAKESHORE OH CAN THORNTON	X		X	X	
SUM-59-0088	7701977	UNDER BARTGES ST CR646	X		X	X	
SUM-59-0115J	7701993	RAMP TO OPPURT PRKW	X		X	X	
SUM-59-0126	7702000	UNDER EUCLID AVE CR707	X		X	X	
SUM-59-0167	7702043	OVER CEDAR ST CR634	X	X	X	X	
SUM-59-0176	7701853	OVER W EXCHANGE ST CR627	X	X	X	X	
SUM-59-0208	7701896	UNDER LOCUST ST	X		X	X	
SUM-59-0234	7701918	RMP (WB59 TO MILL ST)	X		X	X	
SUM-59-0239	7701934	CONN RMP (MILL ST-RAND AV)	X	X	X	X	
SUM-59-0803L	7710887	OVER SR 8 & RAMP N	X	X	X	X	
SUM-82-0000	7706871	OVER CUYAHOGA RIVER					X
SUM-82-0802	7707002	TINKERS CREEK	X		X	X	
SUM-303-1028	7709994	OVER BIKE & HIKE TRAIL	X		X	X	

PROPOSED WORK DESCRIPTION

DECK SEALING
- SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN CONCRETE TREATMENT.

DECK PATCHING
- REPAIR UNSOUND OR PREVIOUSLY PATCHED AREAS OF THE EXISTING DECK AND APPROACH SLABS.

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS

ALTHOUGH NO TREES OR STUMPS ARE SPECIFICALLY MARKED FOR REMOVAL WITHIN THE PLANS, A LUMP SUM QUANTITY IS INCLUDED IN THE STRUCTURE GENERAL SUMMARY FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS. SCALPING IS NOT REQUIRED FOR THIS ITEM OF WORK. ALL VEGETATION SHALL BE REMOVED WITHIN 15 FEET (OR TO THE R/W LIMITS, WHICHEVER IS CLOSER) OF THE HEADWALLS, ABUTMENTS AND/OR PIERS.

ALL OTHER PROVISIONS AS SET FORTH IN THE CMS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, AROUND BRIDGES/STRUCTURES/CULVERTS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS:

SUM-80-0774F	(SFN: 7700741)
SUM-176-0105	(SFN: 7707746)
SUM-271-0293	(SFN: 7708858)
SUM-271-0350B	(SFN: 7708882)
SUM-271-0354R	(SFN: 7708890)
SUM-271-0355L	(SFN: 7708815)
SUM-271-0374L	(SFN: 7708912)
SUM-271-0374R	(SFN: 7708947)
SUM-303-0503	(SFN: 7709900)
SUM-271-0914	(SFN: 7709153)
SUM-271-0967	(SFN: 7709188)
SUM-271-1116R	(SFN: 7709242)
SUM-271-1117L	(SFN: 7709218)
SUM-271-1122L	(SFN: 7709277)
SUM-271-1122R	(SFN: 7709307)
SUM-271-1186R	(SFN: 7709366)
SUM-271-1265L	(SFN: 7710002)
SUM-271-1265R	(SFN: 7710003)
SUM-271-1413R	(SFN: 7710001)
SUM-271-1415L	(SFN: 7710000)
SUM-480-0011L	(SFN: 7710143)
SUM-8-0556K1	(SFN: 7700733)
SUM-8-0616	(SFN: 7710798)
SUM-8-0643	(SFN: 7710828)
SUM-59-0019L	(SFN: 7701802)
SUM-59-0039R	(SFN: 7701829)
SUM-59-0043L	(SFN: 7701810)
SUM-59-0088	(SFN: 7701977)
SUM-59-0115J	(SFN: 7701993)
SUM-59-0126	(SFN: 7702000)
SUM-59-0167	(SFN: 7702043)
SUM-59-0176	(SFN: 7701853)
SUM-59-0208	(SFN: 7701896)
SUM-59-0234	(SFN: 7701934)
SUM-59-0239	(SFN: 7701918)
SUM-59-0803L	(SFN: 7710887)
SUM-82-0802	(SFN: 7707002)
SUM-303-1028	(SFN: 7709994)

OBJECT MARKERS AND STRUCTURE/CULVERT IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25b) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

SUM-80-0774F	(2 APPROACHES)
SUM-176-0105	(2 APPROACHES)
SUM-271-0293	(2 APPROACHES)
SUM-271-0350B	(1 APPROACH)
SUM-271-0354R	(1 APPROACH)
SUM-271-0355L	(1 APPROACH)
SUM-271-0374L	(1 APPROACH)
SUM-271-0374R	(1 APPROACH)
SUM-303-0503	(2 APPROACHES)
SUM-271-0914	(2 APPROACHES)
SUM-271-0967	(2 APPROACHES)
SUM-271-1116R	(1 APPROACH)
SUM-271-1117L	(1 APPROACH)
SUM-271-1122L	(1 APPROACH)
SUM-271-1122R	(1 APPROACH)
SUM-271-1186R	(1 APPROACH)
SUM-271-1265L	(1 APPROACH)
SUM-271-1265R	(1 APPROACH)
SUM-271-1413R	(1 APPROACH)
SUM-271-1415L	(1 APPROACH)
SUM-480-0011L	(1 APPROACH)
SUM-8-0556K1	(1 APPROACH)
SUM-8-0616	(2 APPROACHES)
SUM-8-0643	(2 APPROACHES)
SUM-59-0019L	(1 APPROACH)
SUM-59-0039R	(1 APPROACH)
SUM-59-0043L	(1 APPROACH)
SUM-59-0088	(2 APPROACHES)
SUM-59-0115J	(1 APPROACH)
SUM-59-0126	(2 APPROACHES)
SUM-59-0167	(2 APPROACHES)
SUM-59-0176	(2 APPROACHES)
SUM-59-0208	(2 APPROACHES)
SUM-59-0234	(1 APPROACH)
SUM-59-0239	(1 APPROACH)
SUM-59-0803L	(1 APPROACH)
SUM-82-0802	(2 APPROACHES)
SUM-303-1028	(2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 2 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED AJS | DRAWN AJS | REVIEWED MJA | DATE 07/31/20
CHECKED MJA | REVISED AJS | STRUCTURE FILE NUMBER 00000

STRUCTURE GENERAL NOTES

IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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TREE CUTTING/REMOVAL PROHIBITED

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. TREE CUTTING AND TRIMMING IS PERMITTED FOR THIS PROJECT AS DIRECTED BY THE PROJECT ENGINEER. HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT/REMOVE ANY TREES AT THE FOLLOWING BRIDGE LOCATIONS

SUM-82-0000
SUM-271-1117L
SUM-271-1116R
SUM-8-0556K1
SUM-59-0039R
SUM-59-0043L
SUM-82-0802
SUM-303-1028

THIS REQUIREMENT IS NECESSARY TO AVOID IMPACT TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SUM-82-0000 HISTORIC BRIDGE

THE SUM-82-0000 BRIDGE (SFN:7706871) IS LISTED IN THE NATIONAL REGISTER OF HISTORIC PLACES (NRHP). THE CONTRACTOR SHALL PERFORM WORK ON THE SUM-82-0000 BRIDGE AS PER PLAN. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE SUM-82-0000 BRIDGE STRUCTURE BEYOND THE SCOPE OF WORK WORK INDICATED IN THE CONSTRUCTION PLAN.

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED	DRAWN	REVIEWED	DATE
AJS	AJS	MJA	07/31/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	AJS	00000	

STRUCTURE GENERAL NOTES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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CALC:	AJS	DATE:	6/5/2019
CHECKED:	MJA	DATE:	7/31/2020

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-80-0774F 7700741 01/IMS/BR	SUM-176-0105 7707746 01/IMS/BR	SUM-271-0293 7708858 01/IMS/BR	SUM-271-0350B 7708882 01/IMS/BR	SUM-271-0354R 7708890 01/IMS/BR	SUM-271-0355L 7708815 01/IMS/BR	SUM-271-0374L 7708912 01/IMS/BR	SUM-271-0374R 7708947 01/IMS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11001		CLEARING AND GRUBBING, AS PER PLAN	
1734	1612	1396	1158	1792	2987	836	1336	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
								519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
12	12	12	6	6	6	6	6	630	80100	SF	SIGN, FLAT SHEET	
2	2	2	1	1	1	1	1	630	80100	SF	SIGN, FLAT SHEET, 730.20	
42	42	42	21	21	21	21	21	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2	2	2	2	2	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2	2	2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED AJS | DRAWN AJS | REVIEWED MJA | DATE 07/31/20
CHECKED MJA | REVISED AJS | STRUCTURE FILE NUMBER 00000

STRUCTURE ESTIMATED QUANTITIES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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CALC:	AJS	DATE:	6/5/2019
CHECKED:	MJA	DATE:	7/31/2020

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-303-0503 7709900 01/IMS/BR	SUM-271-0914 7709153 01/IMS/BR	SUM-271-0967 7709188 01/IMS/BR	SUM-271-1116R 7709242 01/IMS/BR	SUM-271-1117L 7709218 01/IMS/BR	SUM-271-1122L 7709277 01/IMS/BR	SUM-271-1122R 7709307 01/IMS/BR	SUM-271-1186R 7709366 01/IMS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11001		CLEARING AND GRUBBING, AS PER PLAN	
1863	899	974	823	882	1032	938	3977	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
								519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
12	12	12	6	6	6	6	6	630	80100	SF	SIGN, FLAT SHEET	
2	2	2	1	1	1	1	1	630	80100	SF	SIGN, FLAT SHEET, 730.20	
42	42	42	21	21	21	21	21	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2	2	2	2	2	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2	2	2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED	DRAWN	REVIEWED	DATE
AJS	AJS	MJA	07/31/20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MJA	AJS	00000	

STRUCTURE ESTIMATED QUANTITIES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

CALC:	AJS	DATE:	6/5/2019
CHECKED:	MJA	DATE:	7/31/2020

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-271-1265L 7710002 01/IMS/BR	SUM-271-1265R 7710003 01/IMS/BR	SUM-271-1413R 7710001 01/IMS/BR	SUM-271-1415L 7710000 01/IMS/BR	SUM-480-0011L 7710143 01/IMS/BR	SUM-8-0556K1 7700733 02/NHS/BR	SUM-8-0616 7710798 02/NHS/BR	SUM-8-0643 7710828 02/NHS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11001		CLEARING AND GRUBBING, AS PER PLAN	
1147	1200	3647	3720	1081	1301	1778	834	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
								519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
6	6	6	6	6	6	12	12	630	80100	SF	SIGN, FLAT SHEET	
1	1	1	1	1	1	2	2	630	80100	SF	SIGN, FLAT SHEET, 730.20	
21	21	21	21	21	21	42	42	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2	2	2	2	2	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2	2	2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

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STRUCTURE ESTIMATED QUANTITIES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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CALC:	AJS	DATE:	6/5/2019
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ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-59-0019L 7701802 02/NHS/BR	SUM-59-0039R 7701829 02/NHS/BR	SUM-59-0043L 7701810 02/NHS/BR	SUM-59-0088 7701977 02/NHS/BR	SUM-59-0115J 7701993 02/NHS/BR	SUM-59-0126 7702000 02/NHS/BR	SUM-59-0167 7702043 02/NHS/BR	SUM-59-0176 7701853 02/NHS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11001		CLEARING AND GRUBBING, AS PER PLAN	
2729	3783	4063	1906	648	2000	3528	4344	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
	18					30	36	519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
6	6	6	12	6	12	12	12	630	80100	SF	SIGN, FLAT SHEET	
1	1	1	2	1	2	2	2	630	80100	SF	SIGN, FLAT SHEET, 730.20	
21	21	21	42	21	42	42	42	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2	2	2	2	2	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2	2	2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

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STRUCTURE ESTIMATED QUANTITIES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-303

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CALC:	AJS	DATE:	6/5/2019
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ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
SUM-59-0208 7701896 02/NHS/BR	SUM-59-0234 7701918 02/NHS/BR	SUM-59-0239 7701934 02/NHS/BR	SUM-59-0803L 7710887 02/NHS/BR	SUM-82-0802 7707002 03/S>2/BR	SUM-303-1028 7709994 03/S>2/BR							
LS	LS	LS	LS	LS	LS			201	11001		CLEARING AND GRUBBING, AS PER PLAN	
1544	2106	2989	838	851	1164			512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
		14	8					519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
12	6	6	6	12	12			630	80100	SF	SIGN, FLAT SHEET	
2	1	1	1	2	2			630	80100	SF	SIGN, FLAT SHEET, 730.20	
42	21	21	21	42	42			630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2	2	2			630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2			630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

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STRUCTURE ESTIMATED QUANTITIES
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY								
SUM-80-0774F	250.00	52.00	1444.44	1444.44								25.00	52.00	144.44	REAR	144.44								
												25.00	52.00	144.44	FWD	144.44								
SUM-176-0105	353.00	36.00	1412.00	1412.00								25.00	36.00	100.00	REAR	100.00								
												25.00	36.00	100.00	FWD	100.00								
SUM-271-0293	326.00	33.00	1195.33	1195.33								25.00	36.00	100.00	REAR	100.00								
												25.00	36.00	100.00	FWD	100.00								
SUM-271-0350B	322.00	28.00	1001.78	1001.78								25.00	28.00	77.78	REAR	77.78								
												25.00	28.00	77.78	FWD	77.78								
SUM-271-0354R	343.00	40.00	1524.44	1524.44								30.00	40.00	133.33	REAR	133.33								
												30.00	40.00	133.33	FWD	133.33								
SUM-271-0355L	343.00	67.00	2553.44	2553.44								30.00	80.00	266.67	REAR	266.67			*WIDTH VARIES FROM 50 FT AT NORTH END TO 80 FT AT SOUTH END					
												30.00	50.00	166.67	FWD	166.67								
SUM-271-0374L	128.00	40.00	568.89	568.89								30.00	40.00	133.33	REAR	133.33								
												30.00	40.00	133.33	FWD	133.33								
			TOTALS	9701											TOTALS	1812								

BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY								
SUM-271-0374R	128.00	63.00	896.00	896.00								30.00	66.00	220.00	REAR	220.00								
												30.00	66.00	220.00	FWD	220.00								
SUM-303-0503	331.00	44.00	1618.22	1618.22								25.00	44.00	122.22	REAR	122.22								
												25.00	44.00	122.22	FWD	122.22								
SUM-271-0914	287.00	24.00	765.33	765.33								25.00	24.00	66.67	REAR	66.67								
												25.00	24.00	66.67	FWD	66.67								
SUM-271-0967	263.00	28.00	818.22	818.22								25.00	28.00	77.78	REAR	77.78								
												25.00	28.00	77.78	FWD	77.78								
SUM-271-1116R	135.00	40.00	600.00	600.00								25.00	40.00	111.11	REAR	111.11								
												25.00	40.00	111.11	FWD	111.11								
SUM-271-1117L	135.00	44.00	660.00	660.00								25.00	44.00	122.22	REAR	122.22								
												25.00	44.00	122.22	FWD	122.22								
SUM-271-1122L	161.00	44.00	787.11	787.11								25.00	44.00	122.22	REAR	122.22								
												25.00	44.00	122.22	FWD	122.22								
			TOTALS	6145											TOTALS	1685								

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DATE
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STRUCTURE DETAILS
IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS										
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN							
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY						
SUM-271-1122R	161.00	40.00	715.56	715.56								25.00	40.00	111.11	REAR	111.11						
												25.00	40.00	111.11	FWD	111.11						
SUM-271-1186R	339.00	92.00	3465.33	3465.33								25.00	92.00	255.56	REAR	255.56						
												25.00	92.00	255.56	FWD	255.56						
SUM-271-1265L	112.00	60.00	746.67	746.67								30.00	60.00	200.00	REAR	200.00						
												30.00	60.00	200.00	FWD	200.00						
SUM-271-1265R	120.00	60.00	800.00	800.00								30.00	60.00	200.00	REAR	200.00						
												30.00	60.00	200.00	FWD	200.00						
SUM-271-1413R	487.00	60.00	3246.67	3246.67								30.00	60.00	200.00	REAR	200.00						
												30.00	60.00	200.00	FWD	200.00						
SUM-271-1415L	498.00	60.00	3320.00	3320.00								30.00	60.00	200.00	REAR	200.00						
												30.00	60.00	200.00	FWD	200.00						
SUM-480-0011L	147.00	52.00	849.33	849.33								20.00	52.00	115.56	REAR	115.56						
												20.00	52.00	115.56	FWD	115.56						
			TOTALS	13144											TOTALS	2565						

BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS										
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN							
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY						
SUM-8-0556K1	358.00	28.00	1113.78	1113.78								30.00	28.00	93.33	REAR	93.33						
												30.00	28.00	93.33	FWD	93.33						
SUM-8-0616	350.00	40.00	1555.56	1555.56								20.00	40.00	88.89	REAR	88.89						
												30.00	40.00	133.33	FWD	133.33						
SUM-8-0643	210.00	30.00	700.00	700.00								20.00	30.00	66.67	REAR	66.67						
												20.00	30.00	66.67	FWD	66.67						
SUM-59-0019L	564.00	40.00	2506.67	2506.67								25.00	40.00	111.11	REAR	111.11						
												25.00	40.00	111.11	FWD	111.11						
SUM-59-0039R	801.00	40.00	3560.00	3560.00								25.00	40.00	111.11	REAR	111.11						
												25.00	40.00	111.11	FWD	111.11						
SUM-59-0043L	864.00	40.00	3840.00	3840.00								25.00	40.00	111.11	REAR	111.11						
												25.00	40.00	111.11	FWD	111.11						
SUM-59-0088	196.00	67.00	1459.11	1459.11								30.00	67.00	223.33	REAR	223.33						
												30.00	67.00	223.33	FWD	223.33						
			TOTALS	14736											TOTALS	1656						

DESIGN AGENCY
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STRUCTURE DETAILS

IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-82, SR-303

D04-BH-FY2021 (WEST)
PID No. 101380

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BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY								
SUM-59-0115J	158.00	28.00	491.56	491.56								25.00	28.00	77.78	REAR	77.78								
												25.00	28.00	77.78	FWD	77.78								
SUM-59-0126	354.00	44.00	1730.67	1730.67								25.00	44.00	122.22	REAR	122.22								
												30.00	44.00	146.67	FWD	146.67								
SUM-59-0167	172.00	143.00	2732.89	2732.89								25.00	143.00	397.22	REAR	397.22								
												25.00	143.00	397.22	FWD	397.22								
SUM-59-0176	176.00	171.00	3344.00	3344.00								25.00	165.00	458.33	REAR	458.33	*WIDTH VARIES FROM 175 FT AT WEST END TO 205 FT AT EAST END							
												25.00	195.00	541.67	FWD	541.67								
SUM-59-0208	242.00	46.00	1236.89	1236.89								30.00	46.00	153.33	REAR	153.33								
												30.00	46.00	153.33	FWD	153.33								
SUM-59-0234	362.00	46.00	1850.22	1850.22								25.00	46.00	127.78	REAR	127.78								
												25.00	46.00	127.78	FWD	127.78								
SUM-59-0239	682.00	36.50	2765.89	2765.89								25.00	36.50	101.39	REAR	101.39								
												30.00	36.50	121.67	FWD	121.67								
			TOTALS	14153											TOTALS	3005								

BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN								
	FT	FT	SQ YD	SY								FT	FT	SQ YD		SY								
SUM-59-0803L	221.00	29.00	712.11	712.11								20.00	25.00	55.56	REAR	55.56								
												25.00	25.00	69.44	FWD	69.44								
SUM-82-0802	102.00	58.00	657.33	657.33								15.00	63.25	105.42	REAR	105.42								
												15.00	52.75	87.92	FWD	87.92								
SUM-303-1028	188.00	44.00	919.11	919.11								25.00	44.00	122.22	REAR	122.22								
												25.00	44.00	122.22	FWD	122.22								
			TOTALS	2289											TOTALS	563								

DESIGN AGENCY
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STRUCTURE DETAILS

IR-80, IR-271, IR-480, SR-8, SR-59, SR-82, SR-303

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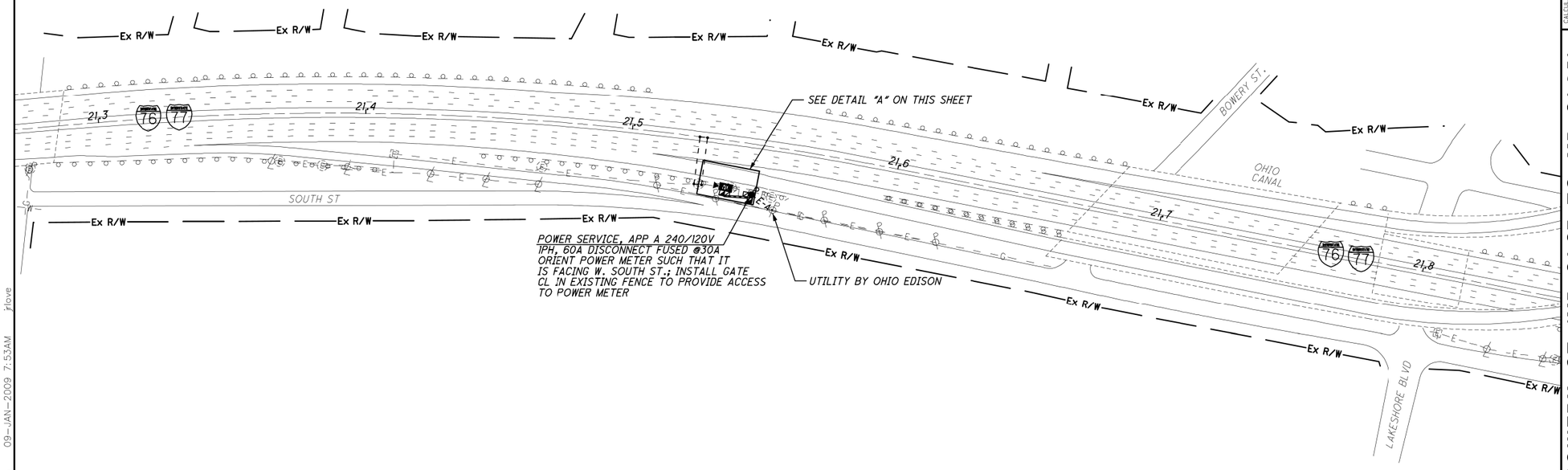
PB1 - PROP. PULL BOX, 725.08: 18", S.L.M. 21.45, 97' RT.

PB2 - PROP. PULL BOX, 725.08: 18", S.L.M. 21.55, 97' RT.

PB3 - PROP. PULL BOX, 725.08: 18", S.L.M. 21.56, 105' RT.

PB4 - PROP. PULL BOX, 725.08: 18", S.L.M. 21.56, 105' RT.



HORIZONTAL SCALE IN FEET: 0, 50, 100, 200

CALCULATED: STS

CHECKED: JDG

DESIGN AGENCY: ODOT---DISTRICT 4 CAPITAL PLANNING

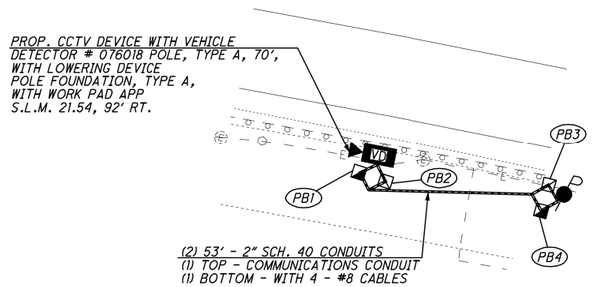
DESIGNED: AJS | DRAWN: AJS | REVIEWED: MJA | DATE: 07/31/20

CHECKED: MJA | REVISED: AJS | STRUCTURE FILE NUMBER: 00000

I-76 AT BOWERY ST. (MP 21.27 TO MP 21.85)
CITY OF AKRON, SUMMIT COUNTY

STA-SUM ITS

DETAIL "A" - NOT TO SCALE



REFER TO SHEET 11 FOR CONDUIT DETAILS

REFER TO SHEET 12 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS

REFER TO SHEET 13 FOR TYPICAL POWER SERVICE AS PER PLAN A DETAILS

REFER TO SHEET 22 FOR TYPICAL CCTV CAMERA WITH SMART JACK DETAILS

REFER TO SHEET 41 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 133 FOR TYPICAL COMMUNICATIONS PLANS

REFER TO SHEET 143 FOR TYPICAL CCTV T-1 COMMUNICATIONS PLANS

CCTV 076018

62
154

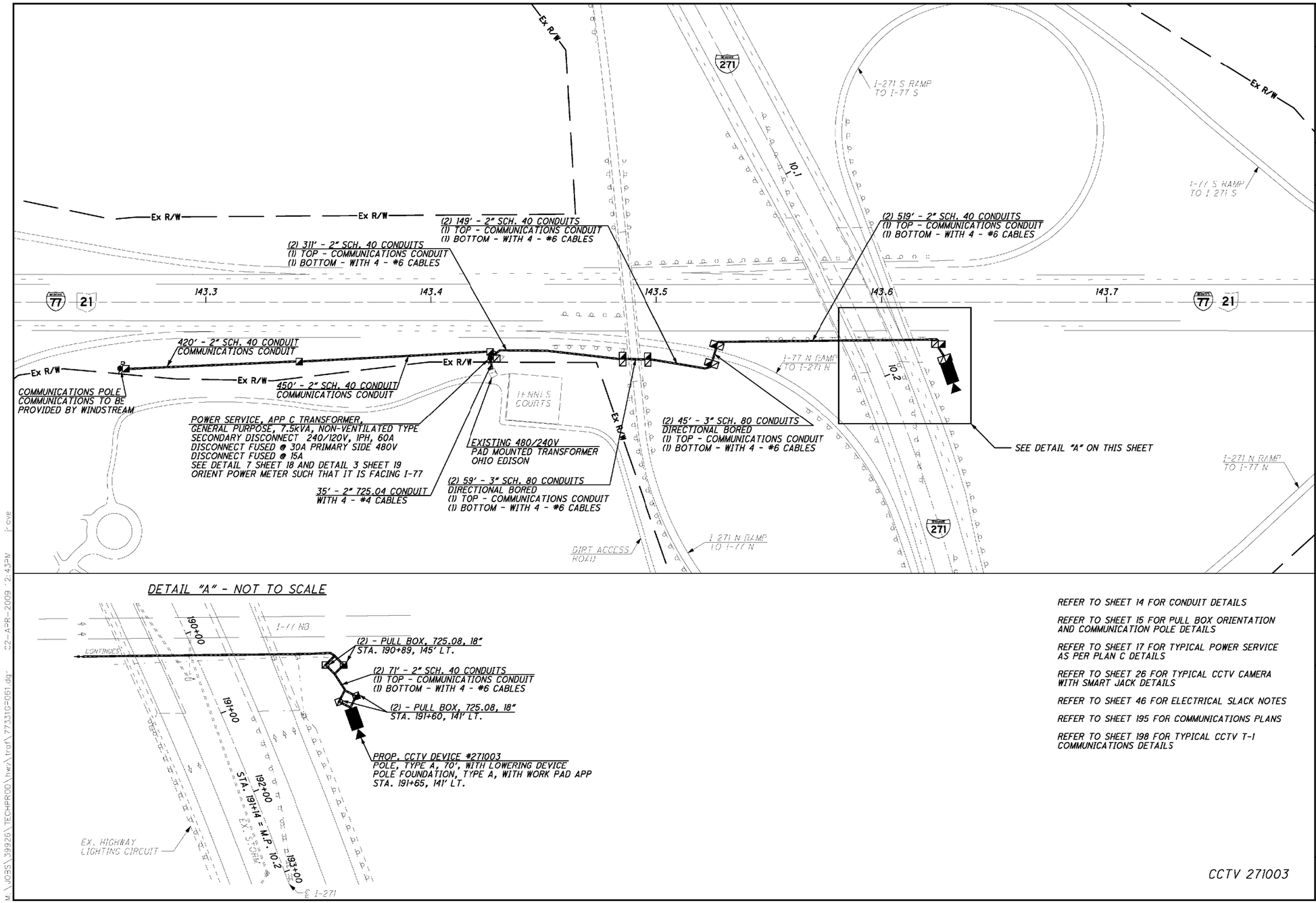
ITS SITE PLAN
SUM-59-0019L
OVER LAKESHORE & RUSSELL

D04-BH-FY2021 (WEST)
PID No. 101380

11 / 16

17
26

FOR REFERENCE ONLY



DETAIL "A" - NOT TO SCALE

REFER TO SHEET 14 FOR CONDUIT DETAILS

REFER TO SHEET 15 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS

REFER TO SHEET 17 FOR TYPICAL POWER SERVICE AS PER PLAN C DETAILS

REFER TO SHEET 26 FOR TYPICAL CCTV CAMERA WITH SMART JACK DETAILS

REFER TO SHEET 46 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 195 FOR COMMUNICATIONS PLANS

REFER TO SHEET 198 FOR TYPICAL CCTV T-1 COMMUNICATIONS DETAILS

CCTV 271003

I-77 AT I-271 (MP 143.21 TO MP 143.79)
RICHFIELD TOWNSHIP, SUMMIT COUNTY

VAR-CLEVELAND FREEWAY MANAGEMENT SYSTEM

87 / 207

SCALE: AS FILL STS
DETAIL JDG
HORIZONTAL SCALE IN FEET 0 100 200

DESIGNED AJS
DRAWN AJS
CHECKED MJA
REVISED AJS
REVIEWED MJA DATE 07/31/20
STRUCTURE FILE NUMBER 00000

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

ITS SITE PLAN
SUM-271-0350B, SUM-271-0354R, SUM-271-0355L
OVER I-77, OVER I-77, OVER I-77

D04-BH-FY2021 (WEST)
PID No. 101380

12 / 16

18 / 26

M:\JOBS\39926\TECHPROD\hwy\traf\77331P061.dgn 22-APR-2009 12:43PM jr ove

I:\ProjectData\D04\101380_D04-BH-FY202\Design\Structures\D04000_0000C\Sheets\000_0000C_SM001.dgn Sheet 2 8/5/2020 3:00:12 PM ostrub

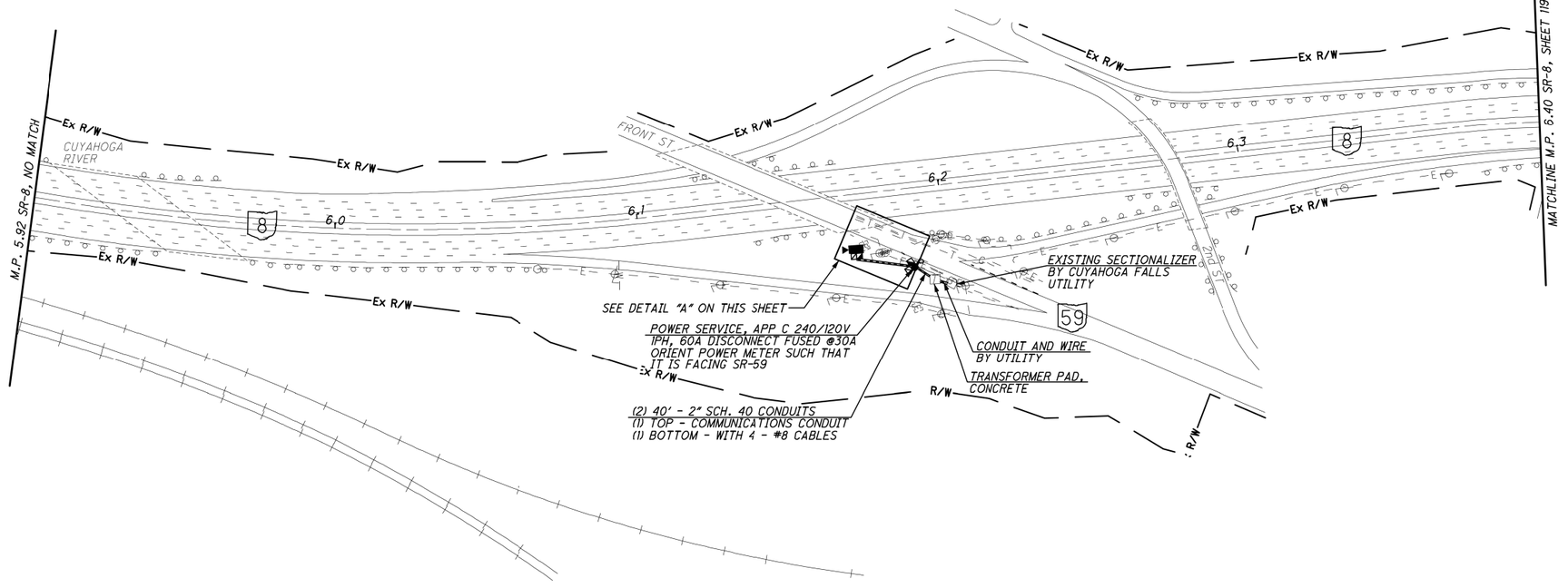
FOR REFERENCE ONLY

(PB1) - PROP. PULL BOX, 725.08: 18", S.L.M. 6.17, 100' RT.

(PB2) - PROP. PULL BOX, 725.08: 18", S.L.M. 6.17, 100' RT.

(PB3) - PROP. PULL BOX, 725.08: 18", S.L.M. 6.19, 135' RT.

(PB4) - PROP. PULL BOX, 725.08: 18", S.L.M. 6.19, 135' RT.



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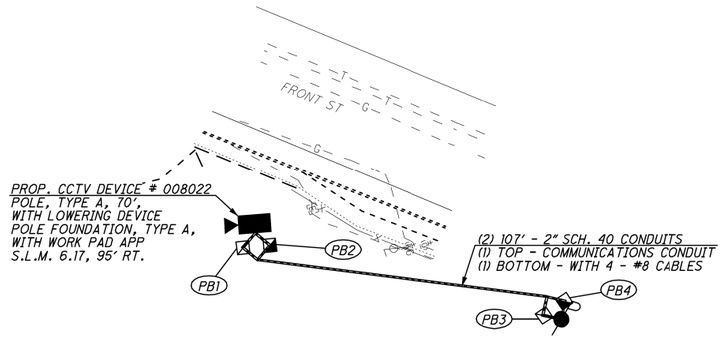

REFER TO SHEET 11 FOR CONDUIT DETAILS

REFER TO SHEET 12 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS

REFER TO SHEET 13 FOR TYPICAL POWER SERVICE AS PER PLAN C DETAILS

REFER TO SHEET 20 FOR TYPICAL CCTV CAMERA DETAILS

REFER TO SHEET 41 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 140 FOR TYPICAL COMMUNICATIONS PLANS

REFER TO SHEET 145 FOR TYPICAL CCTV EOC COMMUNICATIONS DETAILS

CCTV 008022

SR-8 AT FRONT ST.(MP 5.92 TO MP 6.40)
CITY OF CUYAHOGA FALLS, SUMMIT COUNTY

STA-SUM ITS

118/154

CALCULATED STS
CHECKED JDG

HORIZONTAL SCALE IN FEET
0 50 100 200

DESIGNED AJS
DRAWN AJS
CHECKED MJA
REVISED AJS
REVIEWED MJA
DATE 07/31/20
STRUCTURE FILE NUMBER 00000

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

ITS SITE PLAN
SUM-8-0616, SUM-59-0803L
UNDER FRONT ST., OVER SR-8

D04-BH-FY2021 (WEST)
PID No. 101380

13/16

19/26

\\Clew00\PWWork\JOBS\42430\TECHPROD\13311\traffic\sheets\13311GP126.dgn 09-JAN-2009 8:09AM jrlove

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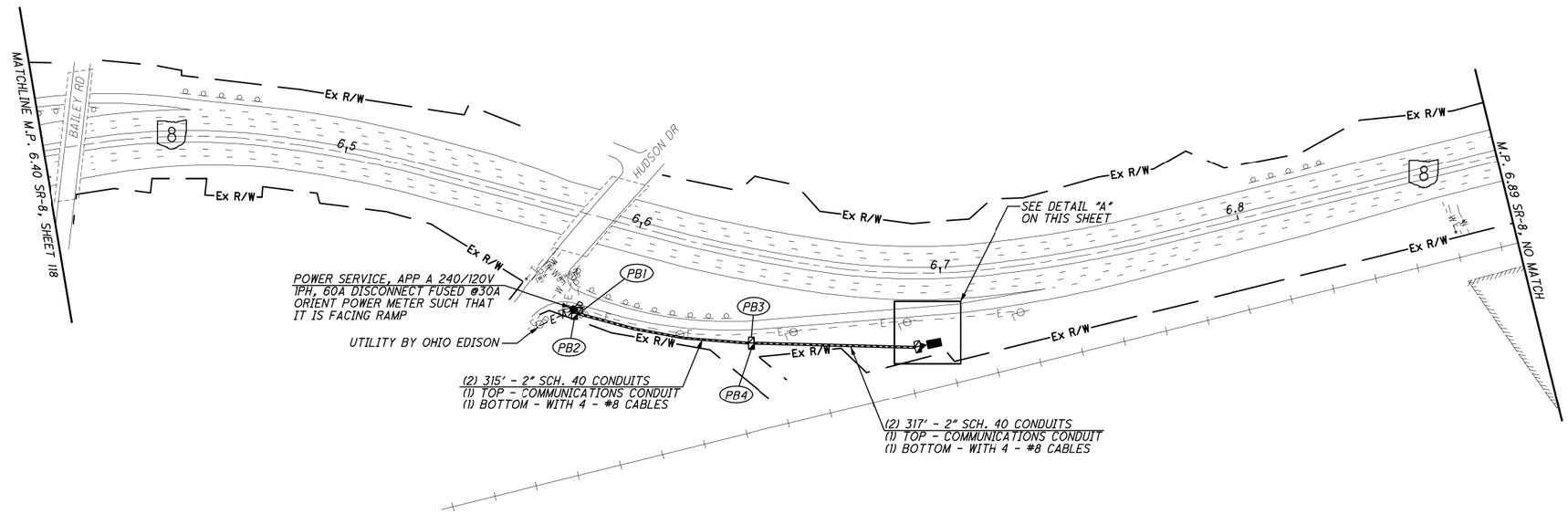
PB2 - PROP. PULL BOX, 725.08: 18", S.L.M. 6.59, 171' RT.
PB3 - PROP. PULL BOX, 725.08: 18", S.L.M. 6.64, 151' RT.
PB4 - PROP. PULL BOX, 725.08: 18", S.L.M. 6.64, 151' RT.
PB5 - PROP. PULL BOX, 725.08: 18", S.L.M. 6.69, 122' RT.
PB6 - PROP. PULL BOX, 725.08: 18", S.L.M. 6.69, 122' RT.



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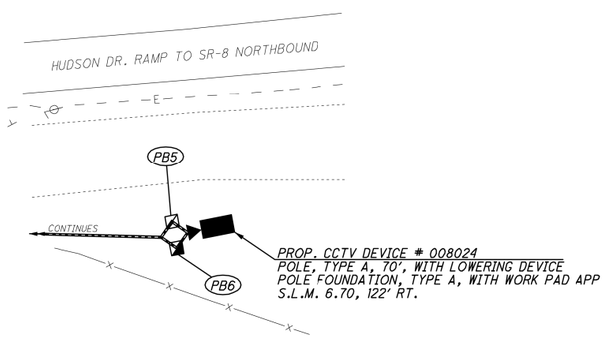

REFER TO SHEET 11 FOR CONDUIT DETAILS

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REFER TO SHEET 13 FOR TYPICAL POWER SERVICE AS PER PLAN A DETAILS

REFER TO SHEET 20 FOR TYPICAL CCTV CAMERA DETAILS

REFER TO SHEET 41 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 140 FOR TYPICAL COMMUNICATIONS PLANS

REFER TO SHEET 145 FOR TYPICAL CCTV EOC COMMUNICATIONS DETAILS

CCTV 008024

HORIZONTAL SCALE IN FEET
0 50 100 200

CALCULATED STS
CHECKED JDG

SR-8 AT HUDSON DR. (MP 6.40 TO MP 6.89)
CITY OF CUYAHOGA FALLS, SUMMIT COUNTY

STA-SUM ITS

119
154

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED AJS
DRAWN AJS
CHECKED MJA
REVIEWED MJA
DATE 07/31/20
REVISED AJS
STRUCTURE FILE NUMBER 00000

ITS SITE PLAN
SUM-8-0643
UNDER BAILEY RD

D04-BH-FY2021 (WEST)
PID No. 101380

14 / 16

20
26

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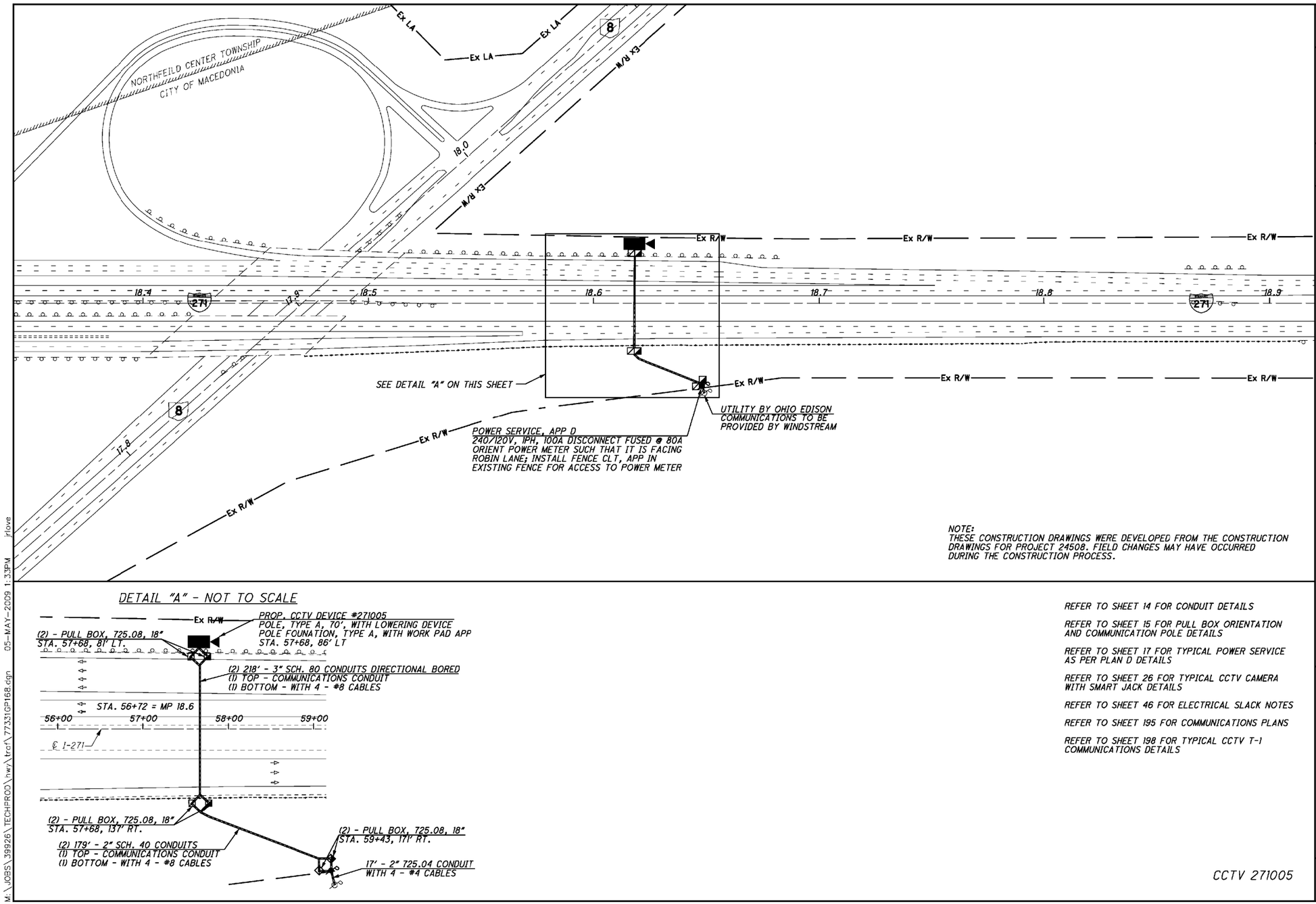

NOTE:
THESE CONSTRUCTION DRAWINGS WERE DEVELOPED FROM THE CONSTRUCTION DRAWINGS FOR PROJECT 24508. FIELD CHANGES MAY HAVE OCCURRED DURING THE CONSTRUCTION PROCESS.

DETAIL "A" - NOT TO SCALE

REFER TO SHEET 14 FOR CONDUIT DETAILS

REFER TO SHEET 15 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS

REFER TO SHEET 17 FOR TYPICAL POWER SERVICE AS PER PLAN D DETAILS

REFER TO SHEET 26 FOR TYPICAL CCTV CAMERA WITH SMART JACK DETAILS

REFER TO SHEET 46 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 195 FOR COMMUNICATIONS PLANS

REFER TO SHEET 198 FOR TYPICAL CCTV T-1 COMMUNICATIONS DETAILS

CCTV 271005

I-271 AT SR-8 (MP 18.34 TO MP 18.92)
CITY OF MACEDONIA, SUMMIT COUNTY

VAR-CLEVELAND FREEWAY MANAGEMENT SYSTEM

138
207

CALCULATED STS
CHECKED JDG

HORIZONTAL SCALE IN FEET
0 100 200

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED AJS
DRAWN AJS
CHECKED MJA
REVIEWED MJA
DATE 07/31/20
REVISED AJS
STRUCTURE FILE NUMBER 00000

ITS SITE PLAN
SUM-271-1186R
OVER SR-8

D04-BH-FY2021 (WEST)
PID No. 101380

15 / 16

21
26

05-MAY-2009 1:33PM jrlove
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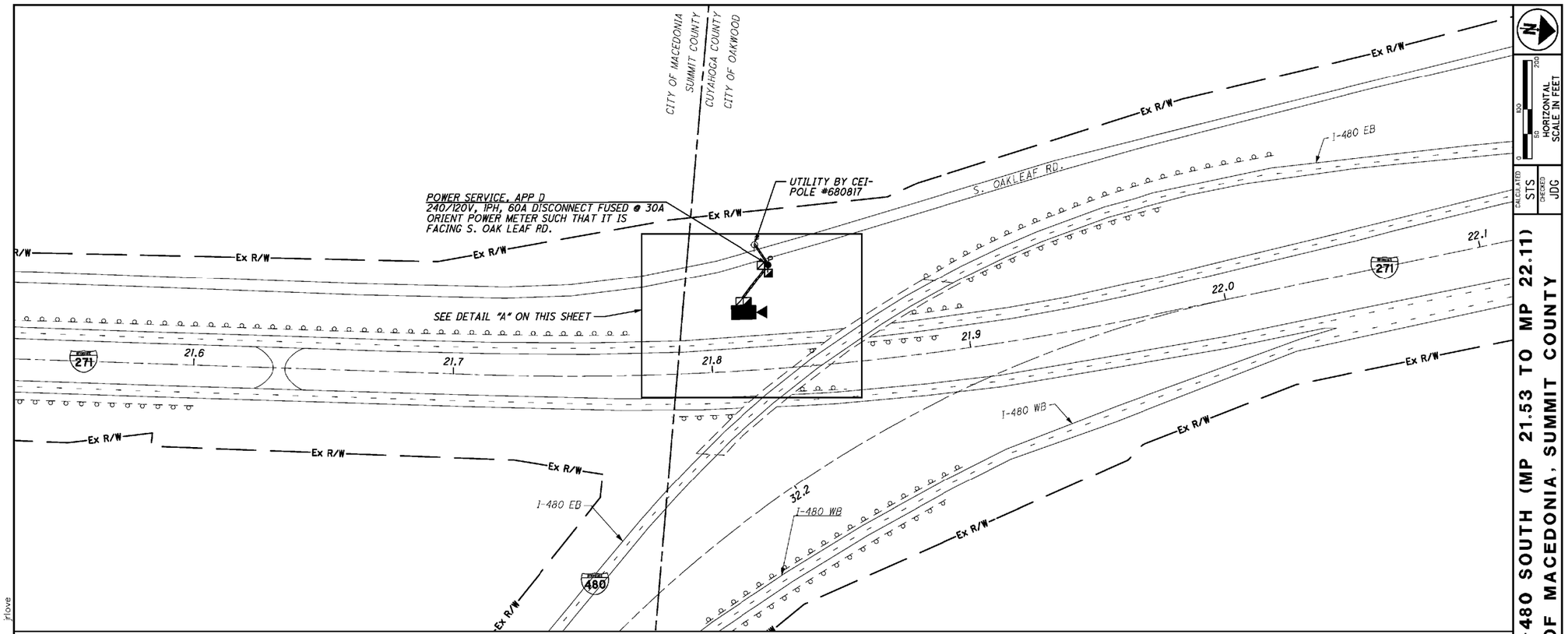
i:\ProjectData\D04\101380_D04-BH-FY202\Design\Structures\D04000_0000C\Sheets\000_0000C_SM001.dgn Sheet 5 8/5/2020 3:01:45 PM astrub

FOR REFERENCE ONLY



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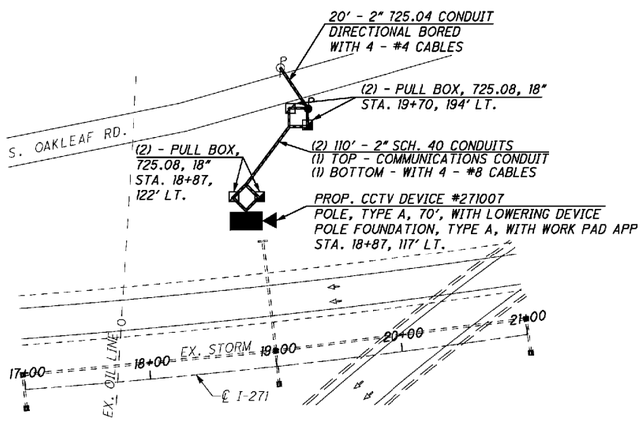

REFER TO SHEET 14 FOR CONDUIT DETAILS

REFER TO SHEET 15 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS

REFER TO SHEET 17 FOR TYPICAL POWER SERVICE AS PER PLAN D DETAILS

REFER TO SHEET 23 FOR TYPICAL CCTV CAMERA DETAILS

REFER TO SHEET 46 FOR ELECTRICAL SLACK NOTES

REFER TO SHEET 195 FOR COMMUNICATIONS PLANS

REFER TO SHEET 200 FOR TYPICAL CCTV EOC COMMUNICATIONS DETAILS

CCTV 271007

N

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED STS
CHECKED JDG

I-271 AT I-480 SOUTH (MP 21.53 TO MP 22.11)
CITY OF MACEDONIA, SUMMIT COUNTY

VAR-CLEVELAND FREEWAY MANAGEMENT SYSTEM

139/207

DESIGN AGENCY
ODOT---DISTRICT 4
CAPITAL PLANNING

DESIGNED AJS | DRAWN AJS | REVIEWED MJA | DATE 07/31/20
CHECKED MJA | REVISED AJS | STRUCTURE FILE NUMBER 00000

ITS SITE PLAN
SUM-480-0009L
OVER BEDFORD RD

D04-BH-FY2021 (WEST)
PID No. 101380

16/16

22/26

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ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

DESCRIPTION:
THIS ITEM CONSISTS OF FURNISHING AND INSTALLING VANDAL PROTECTION FENCING ON THE EXISTING CONCRETE PARAPETS. CONSTRUCT IN A MANNER THAT PROVIDES A RIGID, TAUT FENCE CLOSELY CONFORMING TO THE TOP SURFACE OF THE CONCRETE PARAPET. INSTALL POSTS AND POST SLEEVES PLUMB. REFER TO STD. DWG. VPF-1-90 GENERAL NOTES SHEET 1 OF 7 EXCEPT AS NOTED HEREIN.

DESIGN SPECIFICATION:
AASHTO LRFD BRIDGE DESIGN MANUAL, 8TH EDITION AND THE 2020 ODOT BRIDGE DESIGN MANUAL

ADHESIVE ANCHORS:
THE ½ INCH DIA. THREADED ROD FOR ADHESIVE ANCHORS SHALL BE ASTM F1554, GRADE 36, WITH ASTM A563 NUTS AND ASTM F436 WASHERS. MECHANICALLY GALVANIZE ALL HARDWARE ACCORDING TO ASTM B695, CLASS 65.

USE AN ADHESIVE ANCHOR EVALUATED ACCORDING TO ICCES REPORT AC308, "ACCEPTANCE CRITERIA FOR POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS. PUBLISHED ICCES REPORTS FOR ACCEPTABLE PRODUCTS ARE AVAILABLE AT:

WWW.ICC-ES.ORG/EVALUATION_REPORTS

SELECT FROM ONE OF THE FOLLOWING APPROVED PRODUCTS:

- HILTI HIT-HY 200 ADHESIVE ANCHORS (ICCES REPORT ESR-3187)
- DEWALT PURE110+ EPOXY ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-3298)
- SIMPSON STRONG-TIE SET-3G EPOXY ADHESIVE ANCHORS (ICCES REPORT ESR-4057)
- ATC ULTRABOND HS-ICC ADHESIVE ANCHOR SYSTEM (ICCES REPORT ESR-4094)

INSTALL ADHESIVE ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PUBLISHED IN THE ICCES REPORTS LISTED ABOVE.

THE CONTRACTOR MAY USE A SUBSTITUTE ADHESIVE ANCHOR EVALUATED BY ICCES. THE SUBSTITUTE ANCHORS SHALL HAVE SUFFICIENT CAPACITY TO WITHSTAND THE FACTORED LOADING FOR EACH ANCHOR. THE ANCHOR SHALL BE EVALUATED ACCORDING TO ACI 318 CHAPTER 17, "ANCHORING TO CONCRETE", FOR CRACKED AND UNCRACKED CONCRETE APPLICATIONS.

THE CONTRACTOR SHALL SUPPLY DOCUMENTATION SEALED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER ENSURING THAT THE SELECTED ADHESIVE ANCHORAGE PROVIDES SUFFICIENT CAPACITY FOR THIS APPLICATION IN ACCORDANCE WITH ACI 318. INSTALL THE SELECTED ANCHORS ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTION PUBLISHED IN THE ICCES REPORT.

THE EFFECTIVE EMBEDMENT DEPTH (H_{EF}) FOR ½ INCH DIAMETER ANCHORS INSTALLED IN THE TOP OF THE PARAPET SHALL BE SEVEN INCHES. THE FACTORED LOADING ON THE TOP ANCHOR GROUP IS 2.20 KIPS OF TENSION.

THE EFFECTIVE EMBEDMENT DEPTH (H_{EF}) FOR ½ INCH DIAMETER ANCHORS INSTALLED IN THE BACK OF THE PARAPET SHALL BE 4 INCHES. THE FACTORED LOADING ON THE SIDE MOUNTED ANCHOR IS 1.68 KIPS OF SHEAR.

FENCE LINE POSTS AND END POSTS:
FENCE LINE POST AND END POST SHALL BE 2.875 INCH OUTSIDE DIAMETER GRADE 2 PIPE, 710.03 (TYPE I) Fy = 50,000 PSI, 4.64 LB/FT. THE PROTECTIVE COATING SHALL BE ACCORDING TO AASHTO M181 FOR GRADE 2 POSTS.

BASE PLATES:
ALL PLATES SHALL BE ASTM A709 GRADE 36 OR 50, GALVANIZED ACCORDING TO C&MS 711.02.

POST SLEEVES:
POST SLEEVES SHALL BE 3.500 INCH OUTSIDE DIAMETER PIPE, ASTM A53, 25,000 PSI MINIMUM YIELD STRENGTH, 7.58 LB/FT, GALVANIZED ACCORDING TO C&MS 711.02. HEXAGON SOCKET SET SCREWS SHALL BE SAE 4140 ALLOY STEEL, HEAT TREATED, WITH FLAT OR OVAL POINT.

FABRIC:
1" DIAMOND MESH SHALL EXTEND 3" ABOVE THE TOP RAIL FOR THE FULL LENGTH OF THE FENCE.

COLOR:
THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK (FEDERAL COLOR NO. 27038).

CONSTRUCTION PROCEDURE:
1. FIELD VERIFY THE LOCATIONS OF ALL PARAPET SAWCUT JOINTS WITHIN THE LIMITS OF THE PROPOSED VANDAL PROTECTION FENCING.
2. PREPARE A WORKING DRAWING SHOWING THE POST LOCATIONS AND FIELD VERIFIED SAWCUT JOINTS FOR APPROVAL BY THE PROJECT ENGINEERING PRIOR TO FABRICATION. ALLOW FIVE WORKING DAYS FOR REVIEW.
3. MARK AND DRILL HOLES FOR THE ½ INCH HIGH STRENGTH THREADED ANCHORS USING A BASE PLATE OR TEMPLATE.
4. INSTALL ½ INCH DIAMETER HIGH STRENGTH THREADED ANCHORS.
5. INSTALL POSTS AND BASE PLATES AND SHIM WHERE REQUIRED.
6. CAULK EDGES OF BASE PLATES, SHIMS AND SLEEVES.
7. COMPLETE INSTALLATION OF FENCE.

* FENCE INSTALLATION SHALL BE COMPLETED BY 4/15/2021. CONTRACTOR SHALL MAKE NOTE OF THE MINIMUM ALLOWABLE APPLICATION TEMPERATURE OF THE SELECTED ADHESIVE AND PLAN ACCORDINGLY TO ENSURE NO DELAYS.

METHOD OF MEASUREMENT:
THE DEPARTMENT WILL MEASURE THE QUANTITY BY THE FOOT. THE DEPARTMENT WILL MEASURE ALONG THE BOTTOM OF THE FENCE FROM CENTER TO CENTER OF END POSTS.

BASIS OF PAYMENT:
THE DEPARTMENT WILL MAKE PAYMENT FOR THE COMPLETED AND ACCEPTED QUANTITIES OF VANDAL FENCE AS FOLLOWS:

ITEM	UNIT	DESCRIPTION
607	FOOT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

ITEM 202 - CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE ESTIMATED QUANTITIES FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN:

PROVIDE A STRUCTURAL GROUND TO THE EXISTING LIGHTING SYSTEM FOR EACH FENCE. ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE PAID FOR UNDER ITEM 625, STRUCTURE GROUNDING SYSTEM, AS PER PLAN.

ITEM	UNIT	DESCRIPTION
625	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN

ESTIMATED QUANTITIES

DESIGN: AMR
DATE: 7/16/20

CHECK: GDJ
DATE: 7/16/20

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
201	11000	LS	-	CLEARING AND GRUBBING				LS	
607	39901	2258	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN			2258		1
625	33001	2	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN			2		1

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
(614)882-1008 CARPENTERMARTY.COM

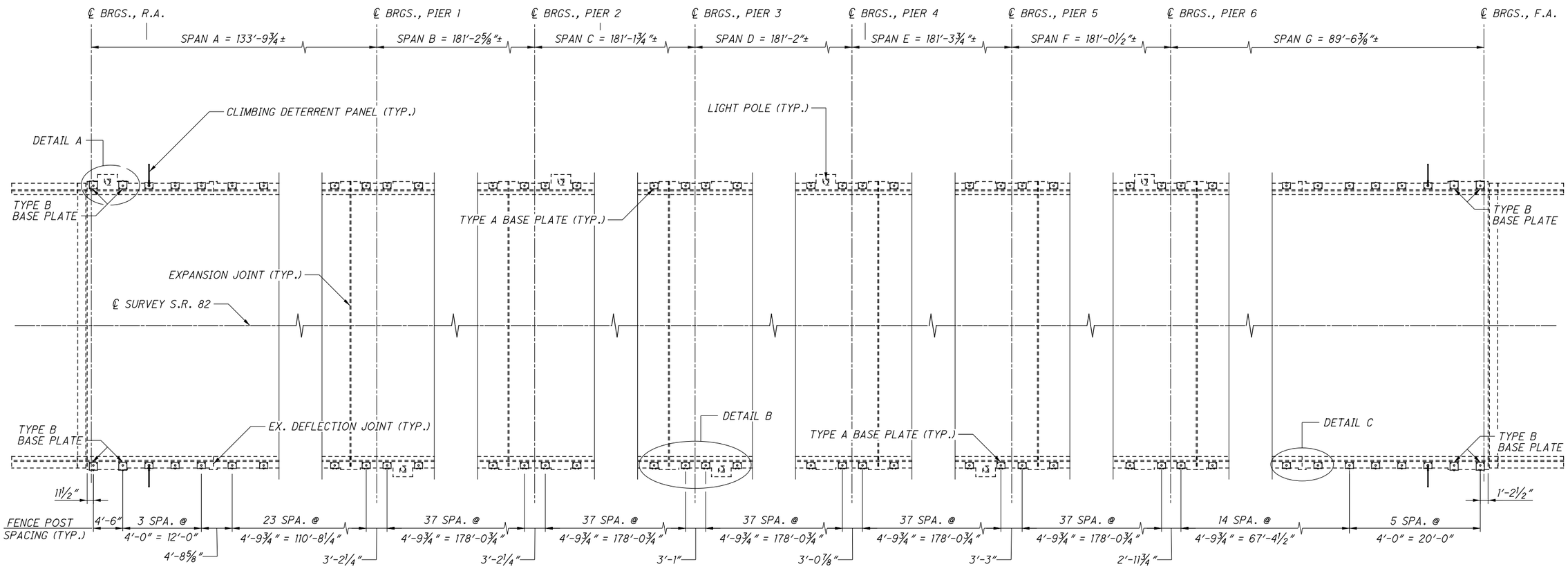
DESIGNED	DRAWN	REVIEWED	DATE
AMR	AMR	STK	7-21-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GDJ		7706871	

VANDAL PROTECTION FENCE NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. SUM-82-0000
S.R. 82 OVER CUYAHOGA RIVER, B&O RAILROAD, AND BIKE PATH

D04 BH FY2021 (WEST)
PID No. 101380

1 / 4

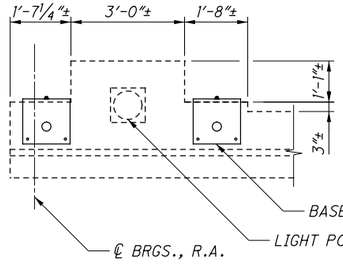
23 / 26



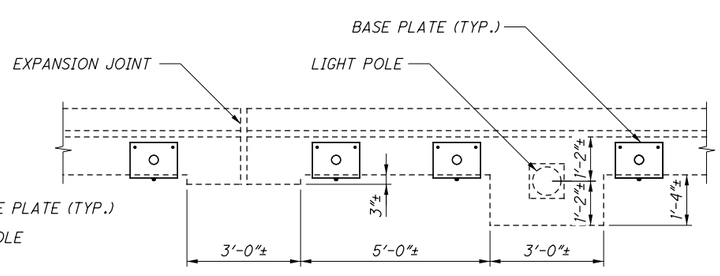
PLAN

NOTES

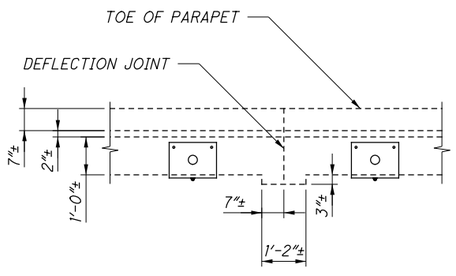
1. CONTRACTOR TO VERIFY FENCE POST SPACING DOES NOT CONFLICT WITH EXISTING DEFLECTION JOINTS, LIGHT PILASTERS AND EXPANSION JOINTS PRIOR TO ORDERING MATERIALS. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO SPACING SPECIFIED AS NECESSARY TO ENSURE NO CONFLICTS. THE POST SPACING SHALL NOT EXCEED 5'-0".
2. REFER TO STD. DWG. VPF-1-90 FOR ADDITIONAL NOTES AND DETAILS.
3. PROVIDE ACCESS OPENING AT EACH LIGHT POLE LOCATION.
4. PROVIDE EXPANSION SLEEVES AT EACH EXPANSION JOINT LOCATION.



DETAIL A



DETAIL B



DETAIL C

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
(614)847-0444 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
AMR	AMR	STK	7-21-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GDJ		7706871	

VANDAL PROTECTION FENCE PLAN
BRIDGE NO. SUM-82-0000
S.R. 82 OVER CUYAHOGA RIVER, B&O RAILROAD, AND BIKE PATH

D04 BH FY2021 (WEST)
PID No. 101380

2 / 4

24 / 26

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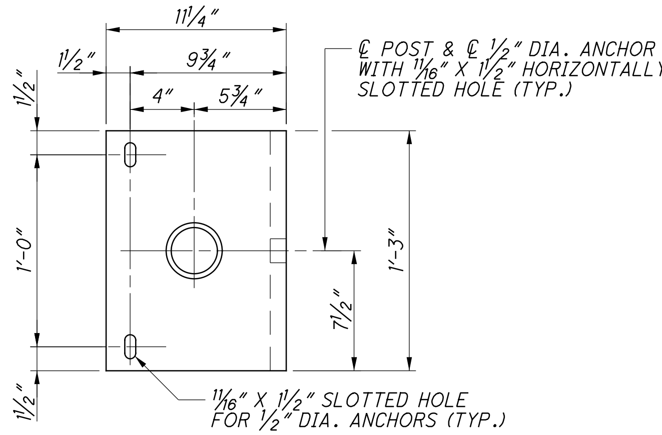
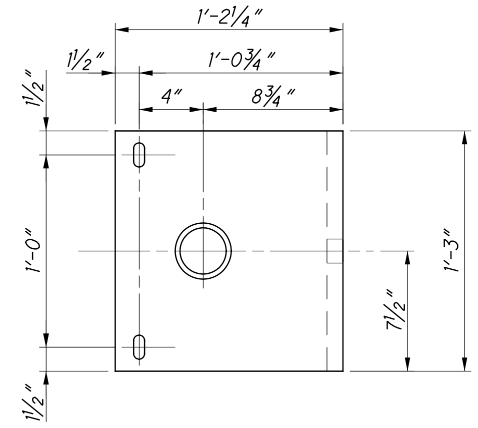
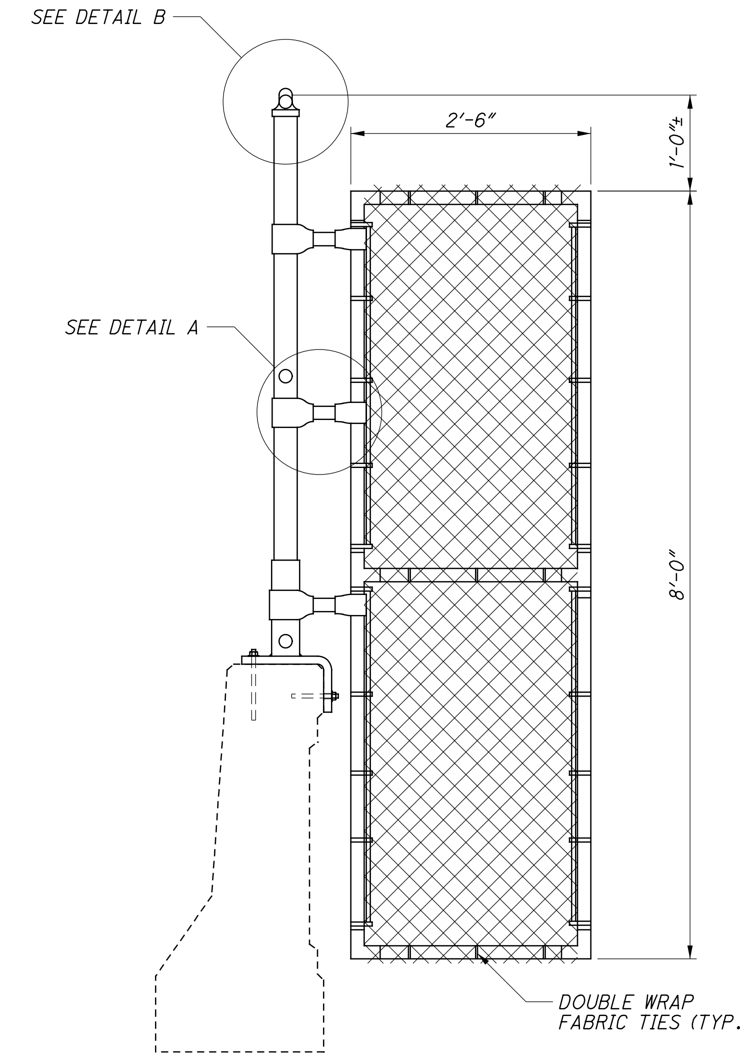


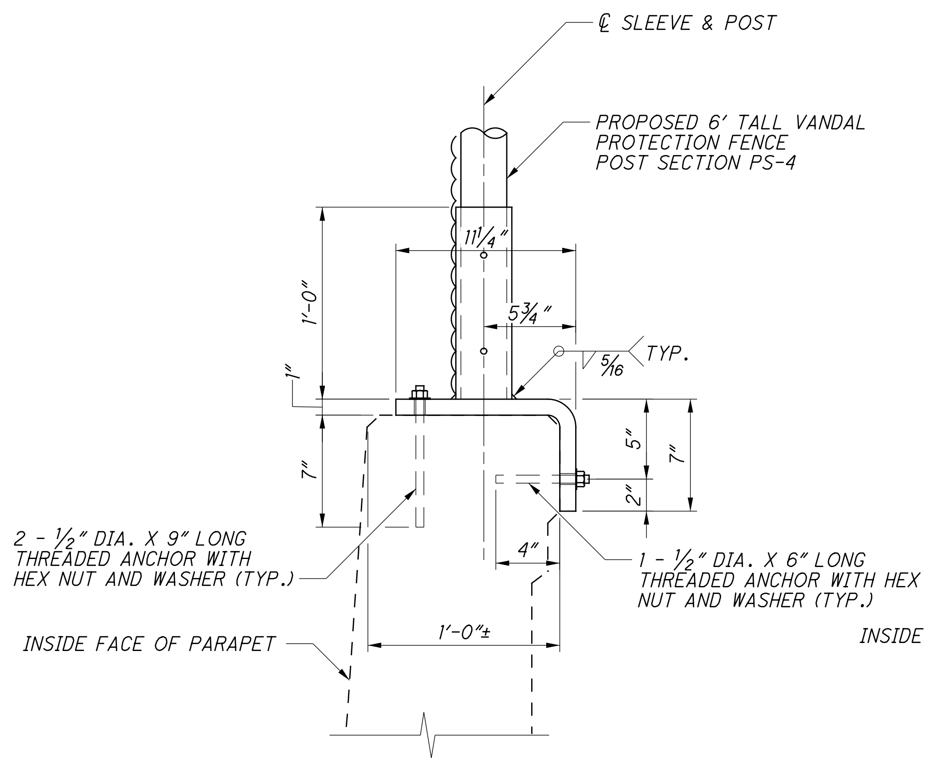
PLAN (BASE PLATE A)



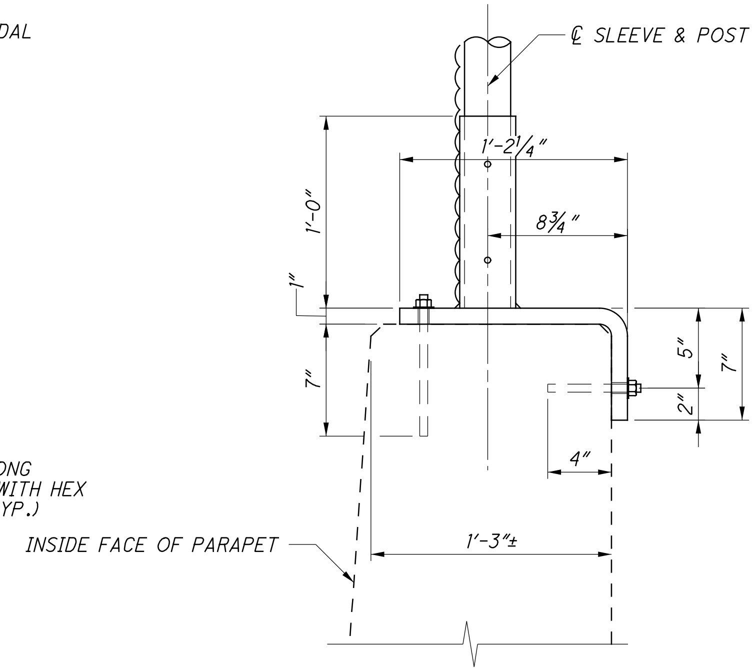
PLAN (BASE PLATE B)



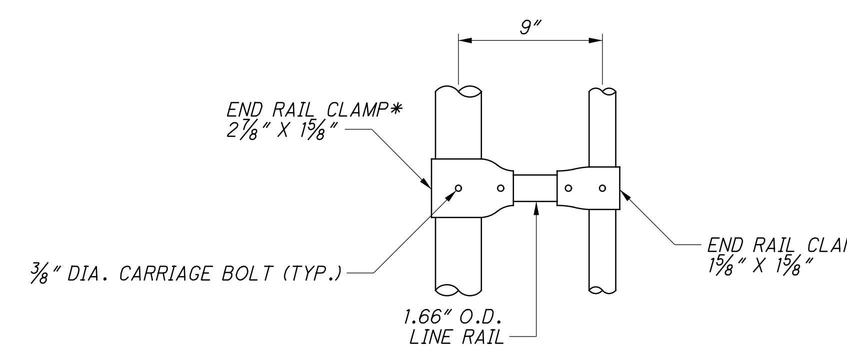
CLIMBING DETERRENT PANEL DETAIL



SECTION (BASE PLATE A)

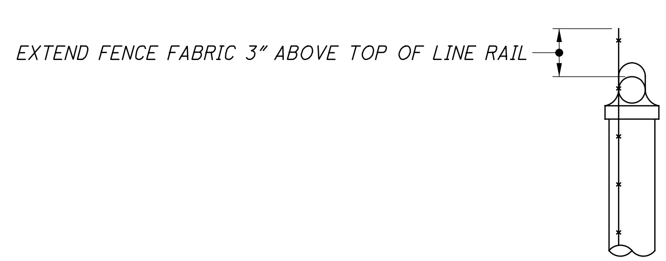


SECTION (BASE PLATE B)



DETAIL A

* - USE 3½″ X 1⅝″ END RAIL CLAMP IF LOCATED ON THE POST SLEEVE



DETAIL B

NOTES

1. INSTALL VANDAL PROTECTION FENCE PER STD. DWG. VPF-1-90 EXCEPT WHERE MODIFIED IN THESE PLANS.
2. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING STRUCTURE DURING VANDAL PROTECTION FENCE INSTALLATION. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.
3. PLACE A CLIMBING DETERRENT PANEL ON THE THIRD POST FROM THE BEGINNING AND END OF THE FENCE, RESULTING IN FOUR PANELS TOTAL. SEE SHEET 2/4 FOR LOCATIONS.
4. PRIOR TO DRILLING THE HOLES FOR THE BASE PLATES, THE LOCATIONS OF THE FENCE POSTS SHALL BE CAREFULLY LAID OUT AND ADJUSTED AS NECESSARY TO ACHIEVE THE REQUIRED CLEARANCES TO THE PARAPET DEFLECTION JOINTS.

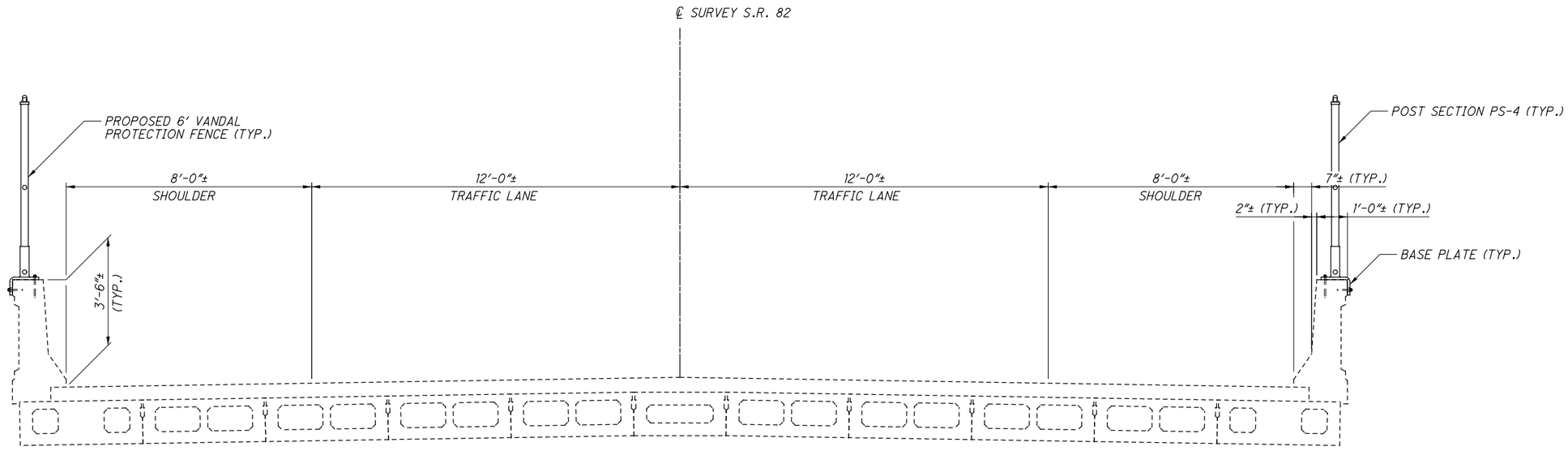
DESIGN AGENCY
CARPENTER MARTY transportation

DESIGNED	DRAWN	REVIEWED	DATE
AMR	AMR	STK	7-21-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
GDJ		7706871	

VANDAL PROTECTION FENCE DETAILS
BRIDGE NO. SUM-82-0000
S.R. 82 OVER CUYAHOGA RIVER, B&O RAILROAD, AND BIKE PATH

D04 BH FY2021 (WEST)
PID No. 101380

3/4



TRANSVERSE SECTION

NOTE

REFER TO STD. DWG. VPF-1-90 FOR ADDITIONAL NOTES AND DETAILS.

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
(614)846-4744 CERTIFICATE

DESIGNED	DRAWN	REVIEWED	DATE
AMR	AMR	STK	7-21-20
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TRANSVERSE SECTION
BRIDGE NO. SUM-82-0000
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