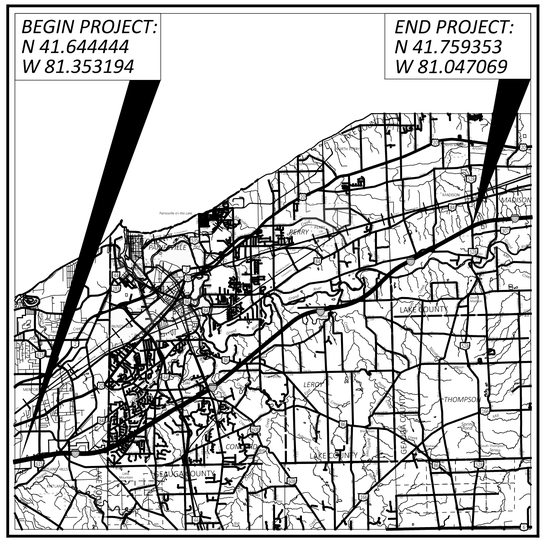
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

LAK-90-8.77 VSL SIGNS

CITIES OF WILLOUGHBY, MENTOR, KIRTLAND HILLS, AND CONCORD TOWNSHIP
LAKE COUNTY



LOCATION MAP

LATITUDE: N 41°40'14" LONGITUDE: W 81°14'47"

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	IR 90
CURRENT ADT (2027)	65,000
DESIGN YEAR ADT (2047)	67,000
DESIGN HOURLY VOLUME (2047)	6,700
DIRECTIONAL DISTRIBUTION	0.59
TRUCKS (24 HOUR B&C)	11%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION: PRINCIPAL ARTERIAL INTERSTATE	
NHS PROJECT	YES

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E240 (848)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

IMPROVEMENTS INCLUDE THE INSTALLATION OF VARIABLE SPEED LIMIT (VSL) SIGNS AND ITS DEVICES AND THE CONSTRUCTION OF ONE FULLY FUNCTIONAL UNDERGROUND FIBER OPTIC LINE CONNECTING ITS DEVICES ALONG IR 90 BETWEEN THE KIRTLAND ROAD OVERPASS AND THE SR 44 INTERCHANGE. IMPROVEMENTS ALSO INCLUDE INSTALLING BEACONS ON THE EXISTING VSL SIGNS AND INSTALLING AN ADDITIONAL VSL SIGN WITH BEACONS NEXT TO THE EXISTING IR 90 VSL SIGNS BETWEEN THE SR 44 AND SR 528 INTERCHANGES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.9 ACRES
~~ESTIMATED CONTRACTOR EARTH DISTURBED AREA:~~	~~0.3 ACRES~~
NOTICE OF INTENT EARTH DISTURBED AREA:	1.2 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY, OR FREEWAY, BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

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

John Picuri, P.E., P.S.
District 12 Deputy Director

Pamela Boratyn
Director, Department of Transportation

ADA DESIGN WAIVERS

NONE

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:
AECOM
1300 E. 9TH STREET, SUITE 500 CLEVELAND, OHIO 44114
(216) 622-2300

STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-4.1	7/19/13	MGS-2.1	7/18/25	MT-95.30	7/18/25	HL-30.21	4/17/20	ITS-10.10	1/17/25	800	7/18/25	
		MGS-3.1	7/18/25	MT-95.45	7/21/23	HL-30.22	1/17/25	ITS-10.11	7/18/25	804	7/18/25	
DM-4.3	1/15/16	MGS-4.2	7/18/25					ITS-12.10	7/18/25	809	7/18/25	
DM-4.4	1/15/16	MGS-5.3	7/15/16					ITS-12.50	1/17/25	832	7/18/25	
		MGS-6.2	7/18/25					ITS-13.10	7/19/24	904	7/15/22	
								ITS-14.10	1/17/25	909	7/18/25	
								ITS-14.11	7/18/25			
								ITS-14.60	1/17/25			
								ITS-15.11	7/18/25			
								ITS-18.00	7/16/21			
								ITS-50.10	7/15/22			
								ITS-50.12	7/19/24			

ENGINEER'S SEAL

STATE OF OHIO
MICHAEL ALAN WOODRING
E-67521
REGISTERED
PROFESSIONAL ENGINEER

Woodring, Mike

Digitally signed by Woodring, Mike
DN: CN="Woodring, Mike", OU=USAKR3, OU=US, OU=AMER, OU=AECOM.Mers, DC=ms, DC=aecomnet, DC=com
Date: 2026.01.07 15:27:30-06'00'

TITLE SHEET

DESIGN AGENCY
AECOM

DESIGNER
HMP

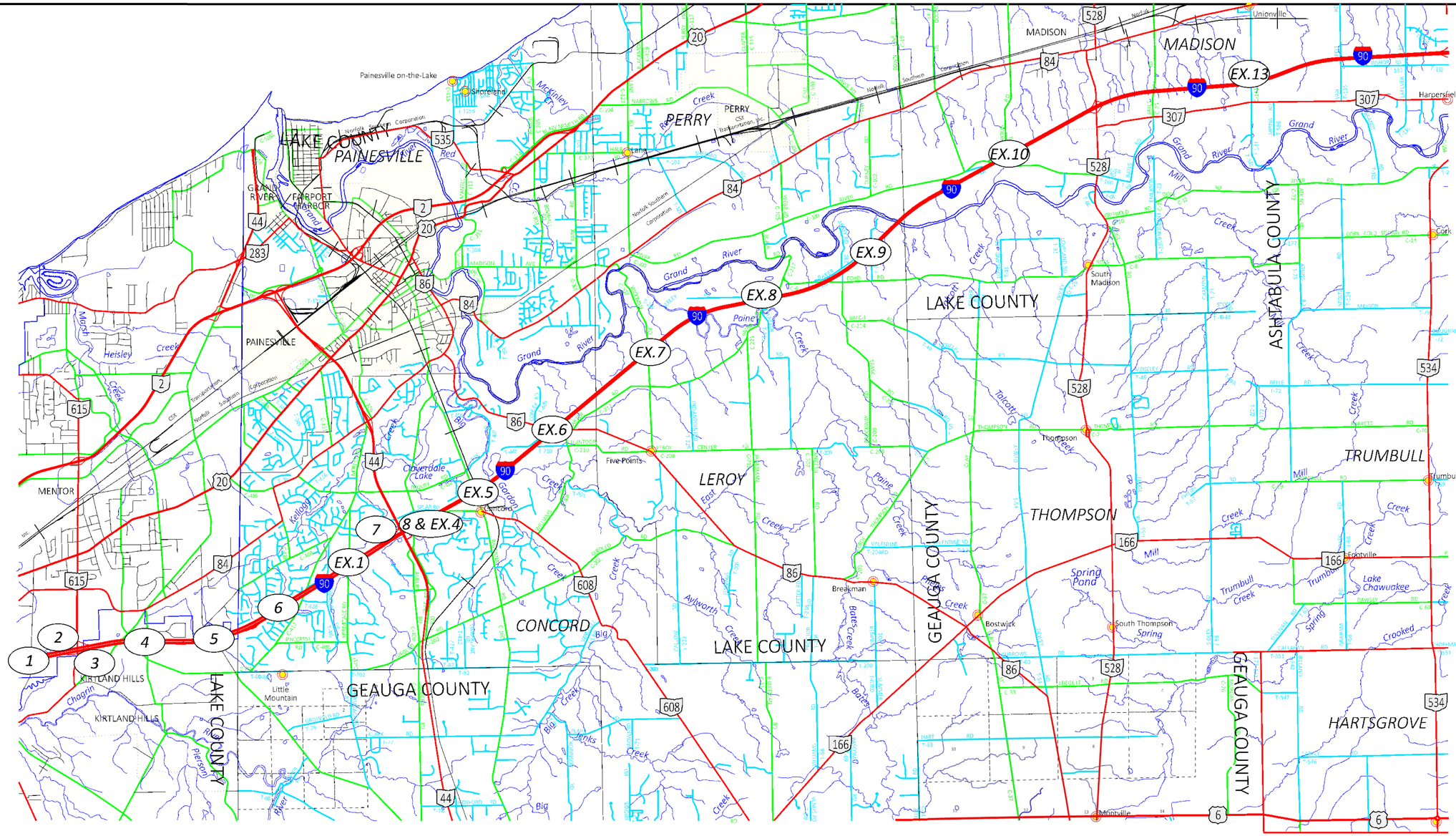
REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.1 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/7/2026 TIME: 3:17:13 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GT001.dgn



Site #	Sheet #	ODOT District	County	Location	Mile Marker	Latitude	Longitude
1	P.33	12	LAKE	I-90 AT GARFIELD ROAD	194.8	N 41.644444	W 81.353194
2	P.34			SR 615 WB ON RAMP TO I-90	N/A	N 41.647139	W 81.342389
3	P.35			SR 615 EB ON RAMP TO I-90	N/A	N 41.645639	W 81.339306
4	P.36			I-90 AT HART ROAD	196.5	N 41.647833	W 81.320222
5	P.37			I-90 AT KING MEMORIAL ROAD	197.5	N 41.648306	W 81.301000
6	P.38			I-90 AT LAKE REST AREA	198.6	N 41.654389	W 81.282694
7	P.39			SR 44 WB ON RAMP TO I-90	N/A	N 41.669917	W 81.249250

Site #	Sheet #	ODOT District	County	Location	Mile Marker	Latitude	Longitude
EX.1	P.3	12	LAKE	I-90 AT HERMITAGE RD	199.8	N 41.662553	W 81.263731
8 & EX.4	P.40 ,P.43			I-90 AT AUBURN ROAD	201.0	N 41.671564	W 81.243458
EX.5	P.43			I-90 AT RAVENNA ROAD	202.0	N 41.6787	W 81.226333
EX.6	P.43			I-90 AT PAINESVILLE-WARREN RD	203.6	N 41.691697	W 81.203614
EX.7	P.43			I-90 AT VROOMAN RD	205.4	N 41.708303	W 81.176369
EX.8	P.43			I-90 AT PAINE RD	207.2	N 41.718931	W 81.143939
EX.9	P.43			I-90 AT MM 208.8 CROSSOVER	208.8	N 41.728111	W 81.114331
EX.10	P.43			I-90 AT RIVER RD	211.2	N 41.748519	W 81.074069
EX.11	P.43			I-90 AT SR 528	213.0	N 41.759353	W 81.047069
EX.13	P.5			I-90 AT S COUNTY LINE RD	215.3	N 41.763878	W 81.00275

DMS AND VSL SIGNS SITE PLANS LOCATION MAP

LAK-90-8.77 VSL SIGNS

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DESIGN AGENCY
AECOM

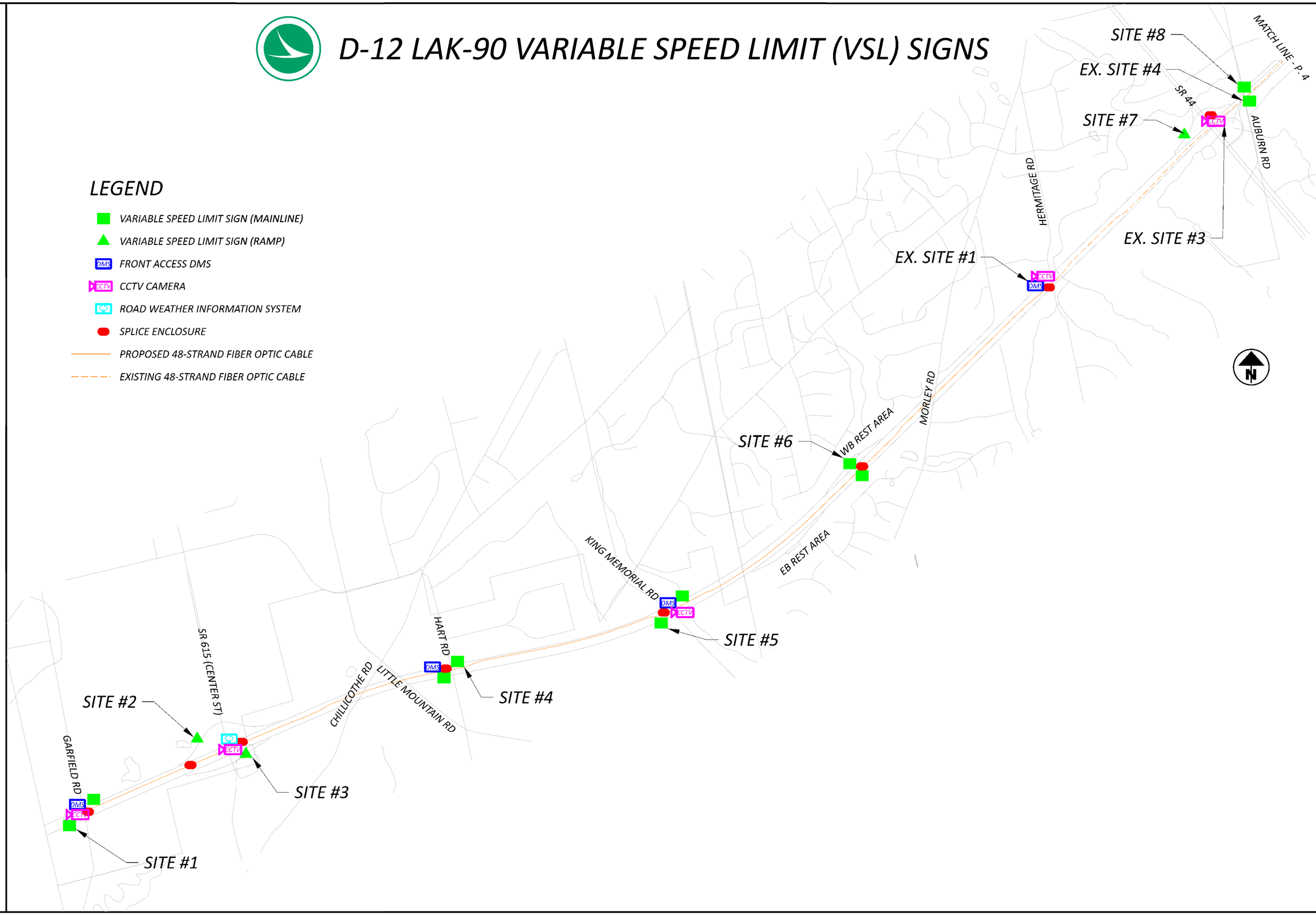
DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.2 TOTAL P.66

D-12 LAK-90 VARIABLE SPEED LIMIT (VSL) SIGNS



COMMUNICATION PLAN

LAK-90-8.77 VSL SIGNS

DESIGN AGENCY
AECOM

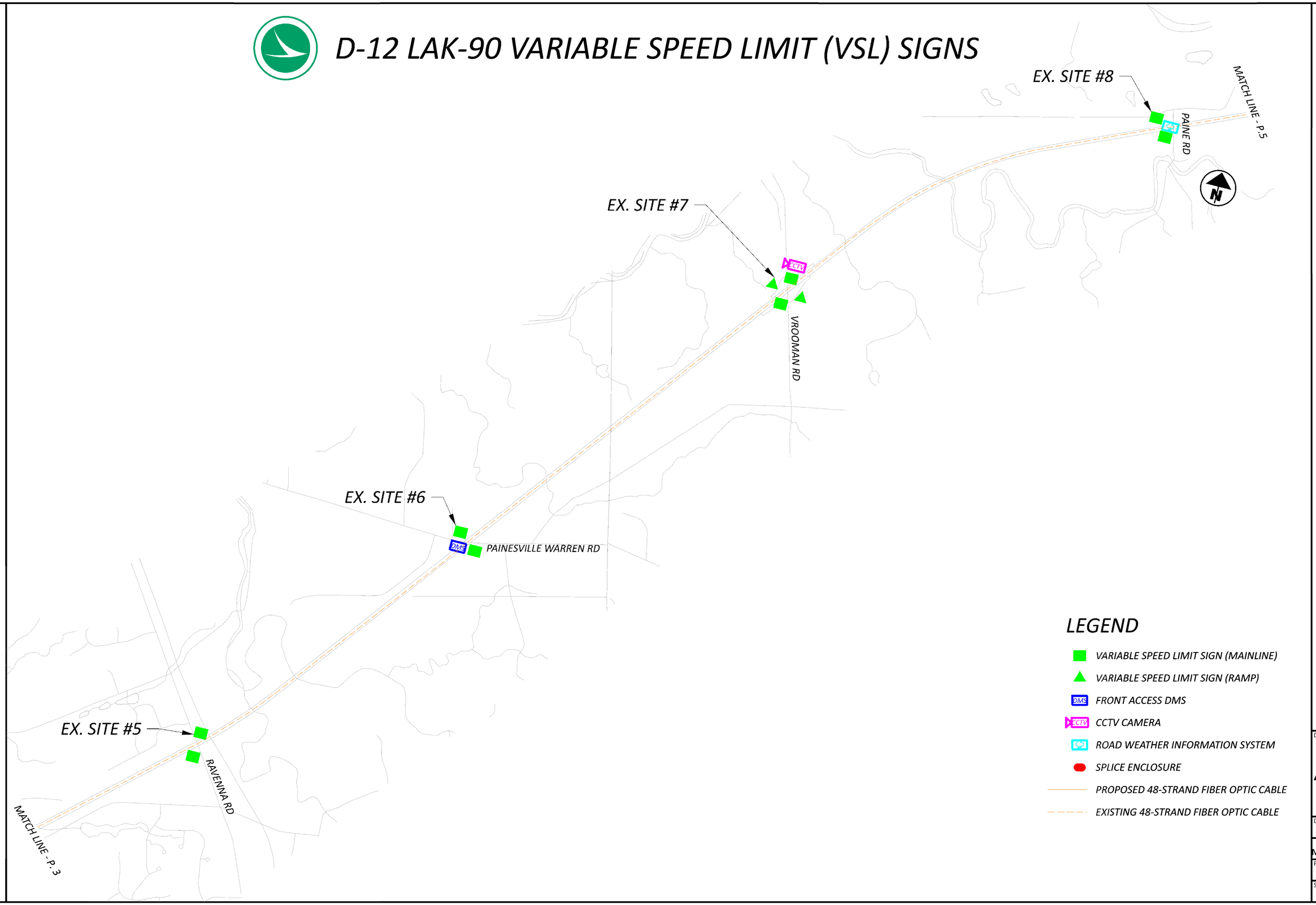
DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.3 | TOTAL P.66

D-12 LAK-90 VARIABLE SPEED LIMIT (VSL) SIGNS



COMMUNICATION PLAN

LAK-90-8.77 VSL SIGNS

DESIGN AGENCY
AECOM

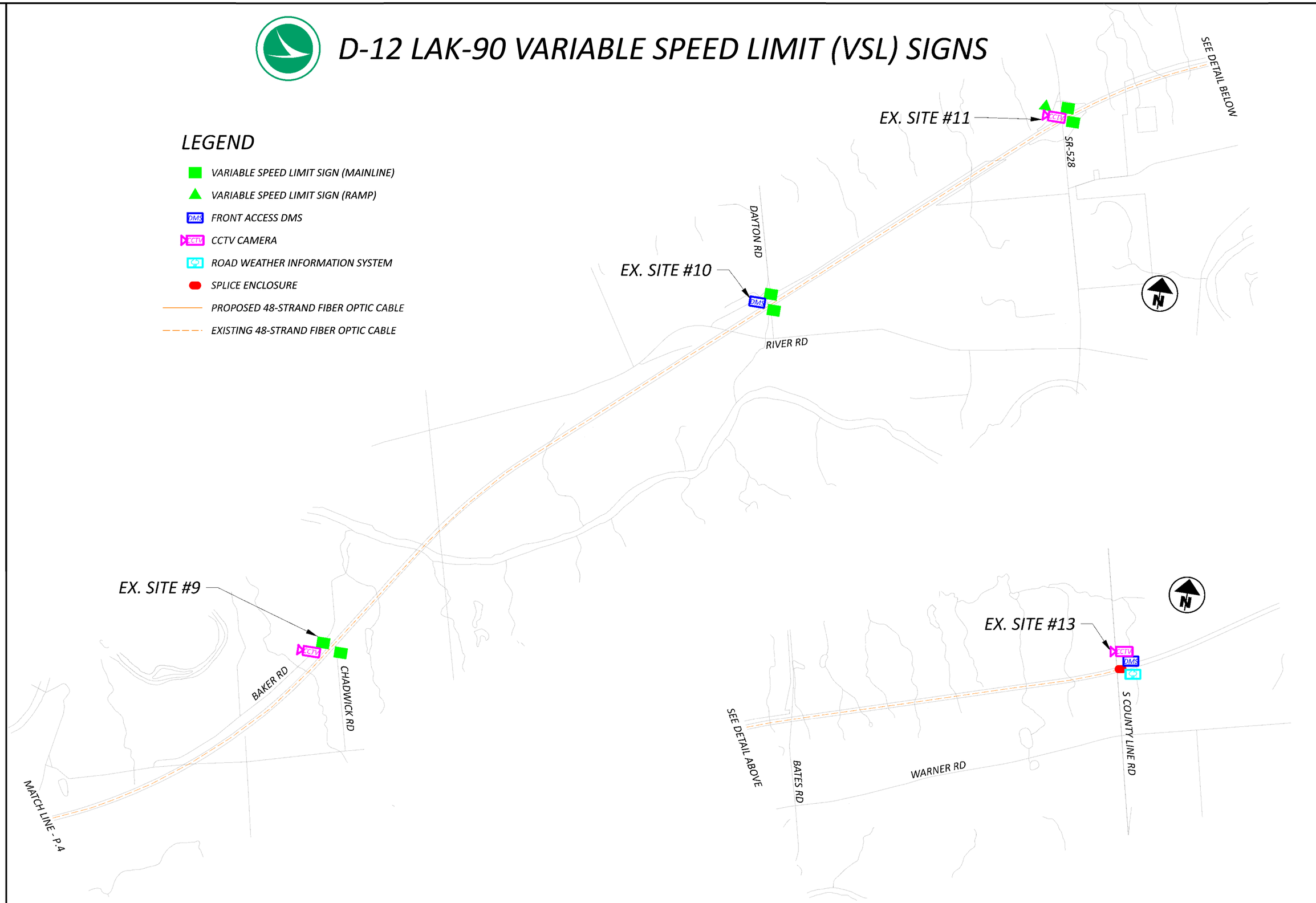
DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.4 | TOTAL P.66

D-12 LAK-90 VARIABLE SPEED LIMIT (VSL) SIGNS



COMMUNICATION PLAN

LAK-90-8.77 VSL SIGNS

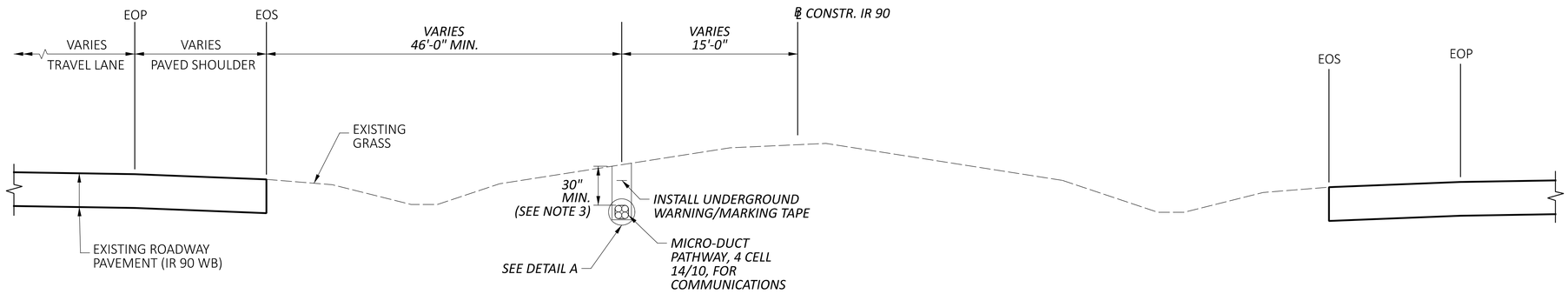
DESIGN AGENCY
AECOM

DESIGNER
HMP

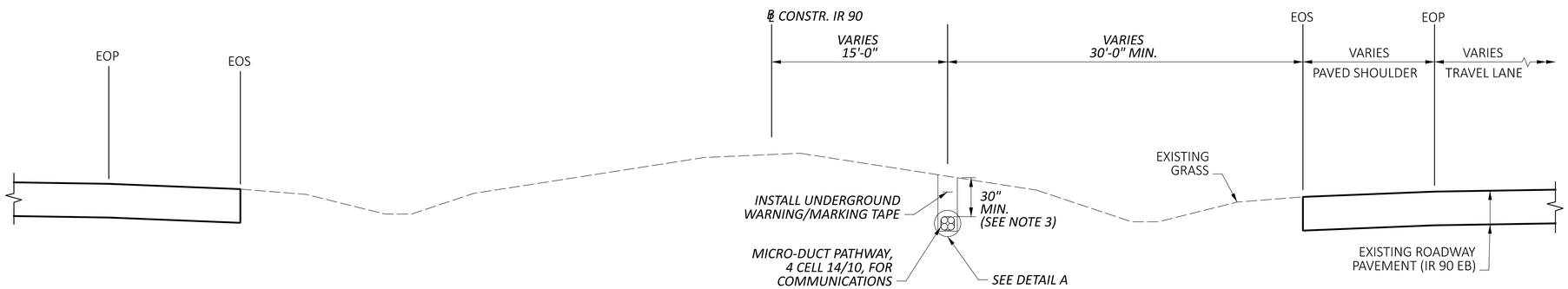
REVIEWER
MAW 10-23-25

PROJECT ID
122092

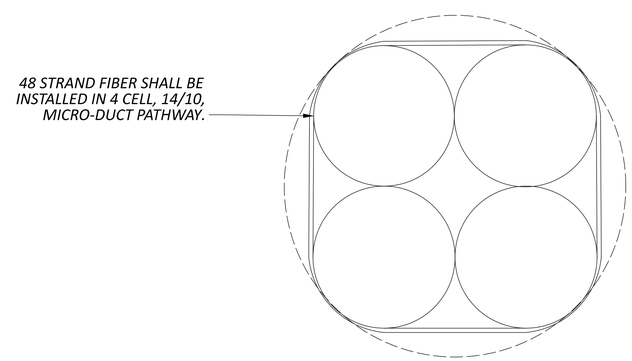
SHEET P.5 | TOTAL P.66



IR 90 - TYPICAL SECTION - PLOWING/TRENCHING (LEFT)



IR 90 - TYPICAL SECTION - PLOWING/TRENCHING (RIGHT)



DETAIL A

NOTES:

1. TYPICAL SECTIONS ARE NOT REPRESENTATIVE OF CULVERT PIPE AND ROADWAY CROSSINGS, AND OTHER NON-TYPICAL LOCATIONS.

2. MICRO-DUCT PATHWAY AND 48 STRAND FIBER SHALL MEET MATERIAL AND INSTALLATION SPECIFICATIONS PER SUPPLEMENTAL SPECS 804 AND 904.

3. PLEASE BE AWARE THAT THERE ARE FUTURE CHANGES ASSOCIATED WITH THE UPCOMING LAK-90-6.99 PID 116955 PROJECT THAT WILL RESULT IN A CHANGE IN THE GROUND DEPTH DUE TO THE FUTURE CROSSOVER AND MEDIAN U-TURN. PLEASE PAY SPECIAL ATTENTION TO THE PROPOSED DEPTH OF BURY CALLOUTS THROUGHOUT THIS PLAN SET.

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:09:37 PM USER: PetersonH
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TYPICAL SECTIONS

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.6 TOTAL P.66

GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

COMMUNICATION/TELEPHONE
AT&T
13630 LORAIN AVENUE,
2ND FLOOR
CLEVELAND, OHIO 44111
ATTN.: JAMES JANIS
PHONE: 216-534-7285
FAX: 216-476-6013
pj8191@att.com

EVERSTREAM
1228 EUCLID AVENUE, SUITE 250
CLEVELAND, OHIO 44115
ATTN.: GIO REILLO
OFFICE: 216-905-0780
greillo@everstream.net

MCI (VERIZON)
12300 RIDGE ROAD
NORTH ROYALTON, OHIO 44133
ATTN.: DAVID M. GROSS
PHONE: 216-347-7661
vzfiber-northernohio@verizon.com
david.gross1@verizon.com

CABLE
CHARTER COMMUNICATIONS/
SPECTRUM
7820 DIVISION DRIVE
MENTOR, OHIO 44060
ATTN.: EMIL SYMISTER
OFFICE: 216-575-8016 OPT. 1
EXT. 12165551158
CELL: 440-343-1530
Emil.Symister@charter.com

GAS
DOMINION ENERGY ENBRIDGE
RELOCATION DEPARTMENT
320 SPRINGSIDE DRIVE
AKRON, OHIO 44333
ATTN.: ED GOUBEAUX
PHONE: 330-664-2494
PHONE: 330-664-2409
relocation@dominionenergy.com
Kyle.J.McCall@dominionenergy.com

DOMINION ENERGY TRANSMISSION
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OHIO 44333
ATTN.: BRYAN D. DAYTON
PHONE: 330-664-2409
relocation@dominionenergy.com

NORTHEAST OHIO NATURAL GAS
8470 STATION STREET
MENTOR, OHIO 44060
ATTN.: TIM REILLY
OFFICE: 440-701-5115
CELL: 440-728-0575
FAX: 440-205-8669
treilly@egas.net

9081 STATE ROUTE 250
STRASBURG, OH 44680
ATTN.: MARK WETZEL
OFFICE: 330-878-4303
EMERGENCY: 800-848-5589
FAX: 330-878-5614
CELL: 330-204-3008
mwetzel@egas.net

WATER
AQUA OHIO
8644 STATION STREET
MENTOR, OHIO 44060-4316
ATTN.: BILL BOWERS
OFFICE: 440-255-7280 EXT. 50611
CELL: 216-905-8362
wmbowers@aquaamerica.com

ALSO ATTN: JAMES WATSON
OFFICE: 440-255-3984 EXT. 50614
JAWatson@aquaamerica.com

ELECTRIC
ILLUMINATING CO (FIRST ENERGY)
6896 MILLER ROAD
BRECKSVILLE, OHIO 44141
ATTN.: JOHN ZASSICK
PHONE: 440-546-8706
jmzassick@firstenergycorp.com

LAKE COUNTY
LAKE COUNTY DEPARTMENT
OF UTILITIES
ADMINISTRATION BUILDING
105 MAIN STREET
PAINESVILLE, OHIO 44077

DEPUTY SANITARY ENGINEER
ATTN.: SARAH A. CEROVSKI
PHONE: 440-350-2652
FAX: 440-350-5784
sarah.cerovski@lakecountyohio.gov

LAKE COUNTY WATER
LAKE COUNTY WATER
ADMINISTRATION BUILDING
105 MAIN STREET
PAINESVILLE, OHIO 44077

DEPUTY SANITARY ENGINEER
ATTN.: SARAH A. CEROVSKI
PHONE: 440-350-2652
FAX: 440-350-5784
sarah.cerovski@lakecountyohio.gov

LAKE COUNTY
CONCORD TOWNSHIP
7229 RAVENNA ROAD
CONCORD TWP, OHIO 44077
ATTN.: ANDY ROSE
PHONE: 440-354-7513
arose@concordtwp.com

CITY OF WILLOUGHBY
CITY OF WILLOUGHBY (SERVICES - SEWER & TRAFFIC)
ONE PUBLIC SQUARE
WILLOUGHBY, OHIO 44094
ATTN.: RICK PALMISANO
OFFICE: 440-953-4308
CELL: 440-221-8732
rpalmisano@willoughbyohio.com

CITY OF KIRTLAND
CITY OF KIRTLAND
9301 CHILLICOTHE ROAD
KIRTLAND, OHIO 44094
ATTN.: DOUGLAS G. COURTNEY, P.E., CITY ENGINEER
OFFICE: 440-449-4005 EXT. 5745
dcourtney@cwcourtney.com

ODOT DISTRICT 12
ODOT DISTRICT 12 (TRAFFIC)
5500 TRANSPOSTATION BOULEVARD
GARFIELD HEIGHTS, OHIO 44125
PHONE: 216-584-2296

ODOT CENTRAL OFFICE
ODOT CO ITS
1606 W BROAD ST
COLUMBUS, OHIO 43223
PHONE: 614-387-4113
CEN.ITS.LAB@DOT.OHIO.GOV

EXISTING BASE MAPPING

THE EXISTING BASE MAP WAS CREATED USING A COMBINATION OF RECORD PLANS, AND SITE -SPECIFIC PHOTOGRAPHS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES AND UTILITY LOCATIONS BEFORE AN INSTALLATION IS PERFORMED.

SURVEYING PARAMETERS - OHIO COUNTY COORDINATE SYSTEM (OCCS)

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEETS - OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING ON THIS PROJECT:

PROJECT CONTROL POSITIONING METHOD:	ODOT REAL TIME NETWORK (2011), STATIC GNSS, AND DIFFERENTIAL LEVELING
MONUMENT TYPE:	TYPE A ALONG CORRIDOR AND FOR GEODETIC POINTS
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	12A/B 18
HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD83(2011 ADJ, 2010.0)
ELLIPSOID:	GRS80
MAP PROJECTION:	LAMBERT CONFROMAL CONIC
COORDINATE SYSTEM:	OHIO COUNTY COORDINATE SYSTEM LAKE COUNTY
LDP PROJECTION PARAMETERS:	PROJECTION: LLC 1 PARALLEL CENTRAL LATITUDE: N 41°48'00" CENTRAL LONGITUDE: E 278°45'00" FALSE NORTHING: 100,000 METERS FALSE EASTING: 50,000 METERS PROJECTION SCALE FACTOR: 1.000031

UNITS ARE IN U.S. SURVEY FEET.
USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.280833333 U.S. SURVEY FEET

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

BASIS OF BEARINGS:
BEARINGS ARE BASED ON GRID NORTH OF THE O.D.O.T.
LOW DISTORTION PROJECTION – LAKE COUNTY

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 619, FIELD OFFICE, TYPE B, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 619, THE CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11 AC FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN 9 MONTHS

ROADWAY

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING (CONT'D)

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

ITEM 201 - 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 GENERAL SUMMARY 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 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENETIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2' OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ROADWAY (CONTINUED)

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.
THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (448), UNDER GUARDRAIL, AS PER PLAN.

EROSION CONTROL

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	477 CY
659, SEEDING AND MULCHING	4500 SY
659, REPAIR SEEDING AND MULCHING	230 SY
659, INTER-SEEDING	230 SY
659, COMMERCIAL FERTILIZER	0.63 TON
659, LIME	0.93 ACRES
659, WATER	25 MGAL
659, MOWING	10 MSF

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 832 - EROSION CONTROL

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR EROSION CONTROL IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 832 AND HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 832 - EROSION CONTROL	35,000 EACH

TRAFFIC SIGNALS

ITEM 625 - PULL BOX, MISC.: CORE DRILL FOR MICRO-DUCT, 4 CELL $^{14}/_{10}$ PATHWAY

THE CONTRACTOR SHALL CORE DRILL INTO THE EXISTING PULL BOX AND TIE IN THE PROPOSED FIBER OPTIC LINE.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCIDENTAL TO THE UNIT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE ITEM.

ITEM 633 - CONTROLLER WORK PAD, AS PER PLAN

THE CONTRACTOR SHALL INSTALL A 5'X5' WORK PAD ADJACENT TO THE MOW PAD OF THE 32" PULL BOX AT EACH VARIABLE SPEED LIMIT (VSL) SIGN PER C&MS 633.13. IN GENERAL, THE 32" PULL BOX AND WORK PAD SHALL BE PLACED BEHIND THE VSL TO ALLOW FOR MAINTENANCE ACCESS. THE CONTRACTOR SHALL GRADE THE SURROUNDING AREA SLIGHTLY IN ORDER TO INSTALL A LEVEL WORK PAD AND RESTORE SITE CONDITIONS AS APPROVED BY THE PROJECT ENGINEER.

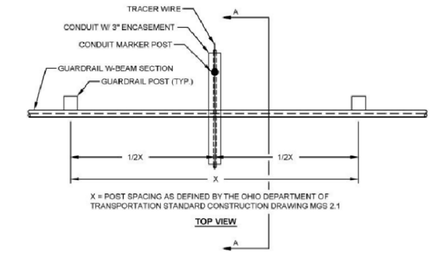
PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 633 - CONTROLLER WORK PAD, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE ITEM.

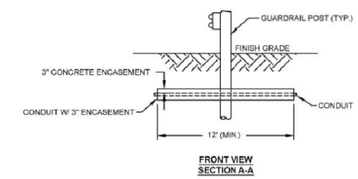
TRAFFIC CONTROL

MICRO-DUCT PATHWAY CONCRETE ENCASEMENT UNDER EXISTING GUARDRAIL

ANY DUCT THAT IS WITHIN 6' OF EXISTING GUARDRAIL SHALL BE TRENCHED AND ENCASED WITH CONCRETE.

NO DUCT SHALL CROSS UNDERNEATH GUARDRAIL AT ANY POINT WITHIN THE PROJECT WITHOUT PRIOR APPROVAL FROM THE ENGINEER.





MAINTAINING ITS DURING CONSTRUCTION

THE CONTRACTOR SHALL MAINTAIN ALL PREEXISTING OR NEWLY INSTALLED PERMANENT ITS/TRAFFIC DEVICES AND INFRASTRUCTURE DURING CONSTRUCTION ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809.

TRENCH IN PAVED AREAS - JACKING AND BORING

WHEN CIRCUITS REQUIRE CROSSING UNDER EXISTING RAMP, MAINLINE OR ARTERIAL PAVEMENT OPEN TO TRAFFIC, STEEL CONDUIT (3-INCH DIAMETER) IS OFTEN JACKED OR BORED UNDER THE PAVEMENT TO MINIMIZE DISRUPTION TO TRAFFIC AND THE PAVEMENT ITSELF. PUSH PITS MUST BE DUG BEHIND GUARDRAIL OR BEYOND THE BACK OF THE PAVED BERM, AS SHOWN ON TRAFFIC SCD HL-30.22. CONCRETE PULL BOXES ARE USUALLY INSTALLED AT THE ENDS OF THE JACKED CONDUIT FOR CABLE SPLICING PURPOSES.

TRAFFIC CONTROL (CONTINUED)

SLACK CABLES - ITS

AS PER SS-809, INSTALL CABLE AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER, LEAVING 10 FT OF SLACK FOR ETHERNET CABLE, OUTDOOR-RATED, IN EACH PULL BOX.

SLACK CABLES - FIBER OPTIC

AS PER SS-804, IN UNDERGROUND INSTALLATIONS, COIL 150 FT OF FIBER SLACK IN EACH 48 IN OR 32 IN PULL BOX. THE SLACK COIL SHOULD BE EASILY REMOVED FROM THE PULL BOX AND NOT HAVE OTHER CABLES PASSING THROUGH THE COIL. IF THE ENGINEER DETERMINES THE SLACK IS NOT STORED PROPERLY, REMOVE AND REINSTALL THE FIBER, OTHER CABLES, OR BOTH IN CONFLICT TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE DEPARTMENT. NOTIFY THE ENGINEER IF THIS AMOUNT OF SLACK IS NOT CAPABLE OF BEING STORED AND THE ENGINEER WILL PROVIDE DIRECTION.

CCTV INSTALLATIONS

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

UNDERGROUND WARNING/MARKING TAPE

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO CMS 725.22.

COMMUNICATION CABLE MARKER

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATIONS 809.

DYNAMIC MESSAGE SIGN INSTALLATIONS

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

DMS & DDMS SUPPORT STRUCTURES

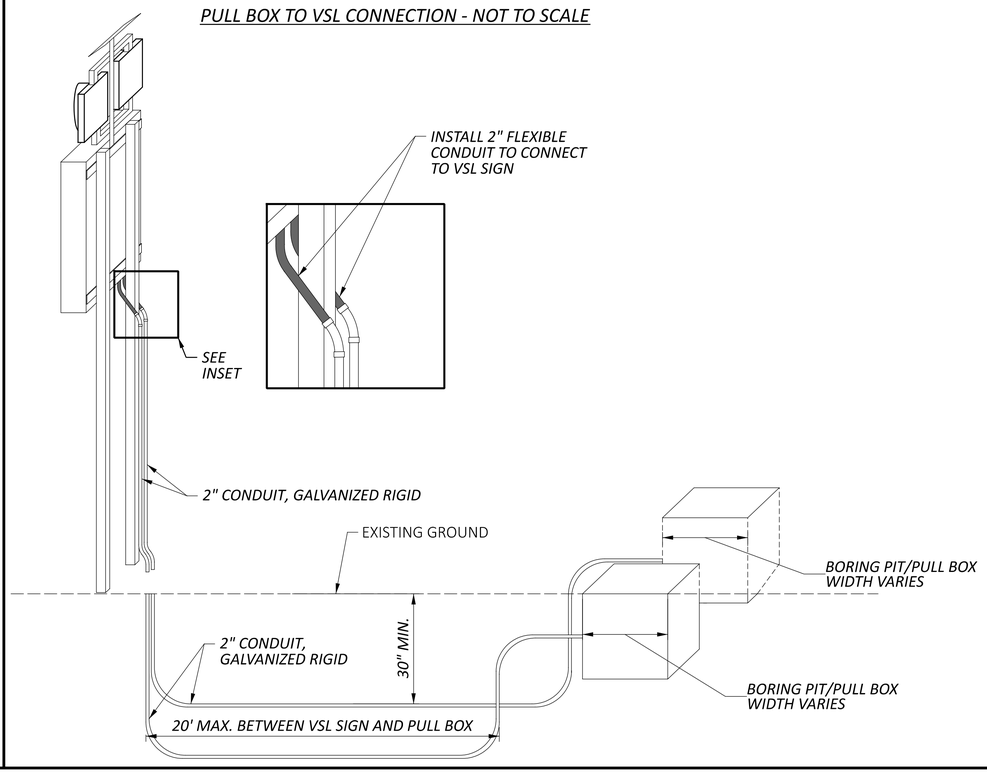
THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS TO THE PROJECT ENGINEER FOR APPROVAL. THE DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER FROM THE MANUFACTURER. THE ITEM SHALL NOT BE RELEASED FOR CONSTRUCTION UNTIL APPROVED BY THE OFFICE OF TRAFFIC OPERATIONS.

TRACER WIRE

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, THE MANUFACTURER'S RECOMMENDATIONS, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS. THE CONTRACTOR SHALL INSTALL TRACER WIRE WITH THE INNERDUCT IN ALL CONDUIT RACEWAYS EXCLUDING THOSE IN THE MEDIAN CONCRETE BARRIER. APPROXIMATELY 20 FT OF SLACK OF THE TRACER WIRE SHALL BE LEFT INSIDE THE PULL BOXES.

PULL BOX TO VSL CONNECTION - NOT TO SCALE



ITEM 809E25000: CONDUIT, MULTICELL, MISC.: 4",
ITEM 809E24000: CONDUIT, MULTICELL, MISC.: 4", JACKED OR DRILLED

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROADSIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMPMETER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE CONDUIT SHALL ADHERE TO 909.14 AND BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR 80, HIGH DENSITY POLYETHYLENE (HDPE), OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE A MINIMUM OF 1.10 INCH INSIDE DIAMETER. THE OUTER DUCT SHALL BE NOMINAL 4 INCH INSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH.

WHERE COUPLINGS ARE NEEDED, THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED, AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM. WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE ¼-INCH NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO, EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION, THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM. FOR MULTI-CELL DUCT INSTALLED IN MEDIAN WALLS, ALL ROPES AND PLUGS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.

ITEM 809E25000: CONDUIT, MULTICELL, MISC.: 4",
ITEM 809E24000: CONDUIT, MULTICELL, MISC.: 4", JACKED OR DRILLED (CONTINUED)

INSTALLATION

FOR PVC CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS. PVC CONDUITS SHALL NOT BE INSTALLED INSIDE CONCRETE BARRIER WALL. ALL PVC MULTI-CELL CONDUIT INSTALLED OUTSIDE OF THE ROADWAY IN TRENCH SHALL BE SCHEDULE 40 UNLESS DIRECTED BY THE PROJECT ENGINEER.

FOR INSTALLATIONS UNDER ROADWAYS, INSTALLATION WILL BE AT LEAST 30 INCHES DEEP, JACKED OR DRILLED UNDER PAVEMENT, EXCEPT AS NOTED ON THE PLANS. ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED UNDER THE ROADWAY SHALL BE SCHEDULE 80.

FOR HDPE CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30" DEEP, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS. THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS OR COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

INSTALLATION WITHIN 6 FEET OF GUARDRAIL WILL BE AT LEAST 30 INCHES DEEP TRENCH AND ENCASED IN CONCRETE.

WHEN ENTERING A PULL BOX, CONDUIT SHALL BE BROUGHT IN 3 INCHES MINIMUM AND A MAXIMUM OF 6 INCHES FROM THE EDGE OF THE PULL BOX WALL KNOCKOUT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED OF EACH TYPE SCHEDULE 40 OR 80 MEASURED FROM CENTER-TO-CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTINGS AND APPURTENANCES, JOINTS, BENDS, GROUNDS AND CONCRETE ENCASEMENT WHERE SPECIFIED.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINER FOOT QUANTITIES AT THE CONTRACT BID PRICE.

ITEM 809E24500: CONDUIT, 4", MULTICELL, HDPE WITH 4-1" INNERDUCTS
ITEM 809E24000: CONDUIT, 4", MULTICELL, HDPE, JACKED OR DRILLED

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

GENERAL NOTES

TRAFFIC CONTROL (CONTINUED)

ITEM 809 - CCTV POLE, 70' TALL

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ONE COMPLETE LOWERING UNIT TOOL ASSEMBLY PER CAMERA FOR LOWERING CAMERAS PER SUPPLEMENTAL SPECIFICATION 809 (PAID SEPARATELY).

FOR THIS SITE, LOCATED AT STA. 372+33.20, THE POLE HEIGHT SHALL BE 70 FT ABOVE GROUND. THE EMBEDMENT DEPTH FOR A CONCRETE POLE SHALL BE 12 FT. A SPECIAL FOUNDATION DESIGN IS NOT REQUIRED FOR A STEEL POLE.

FOR THIS SITE, LOCATED AT STA. 408+83.82, THE POLE HEIGHT SHALL BE 70 FT ABOVE GROUND. THE EMBEDMENT DEPTH FOR A CONCRETE POLE SHALL BE 12 FT. A SPECIAL FOUNDATION DESIGN IS NOT REQUIRED FOR A STEEL POLE.

FOR THIS SITE, LOCATED AT STA. 516+42.86, THE POLE HEIGHT SHALL BE 70 FT ABOVE GROUND. THE EMBEDMENT DEPTH FOR A CONCRETE POLE SHALL BE 12 FT. A SPECIAL FOUNDATION DESIGN IS NOT REQUIRED FOR A STEEL POLE.

THE CONTRACTOR SHALL FURNISH/ INSTALL POLES WITH THE CORRECT LENGTH/EMBEDMENT AND ALL COUPLINGS, HANDHOLES, ETC., IN THE APPROPRIATE LOCATION ABOVE GROUND ACCORDING TO SCD ITS-12.10 OR ITS 12.11.

THE CONTRACTOR SHALL SUBMIT ALL POLE MANUFACTURER FABRICATION DRAWING SUBMITTALS AS WELL AS INSTALLATION PROCEDURES AND BACKFILL MATERIAL TO THE ENGINEER FOR ACCEPTANCE BEFORE ORDERING.

PAYMENT FOR EACH POLE COMPLETE, INSTALLED, AND ACCEPTED SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 809, CCTV POLE, 70' TALL.

ITEM 809 - ITS DEVICE, MISC.: ROAD WEATHER INFORMATION SYSTEM

THIS ITEM SHALL INCLUDE THE INSTALLATION OF THE ODOT FURNISHED RWIS CABINET WITH RPU, NON-INVASIVE PAVEMENT SENSORS AND PRESENT WEATHER VISIBILITY SENSOR AS DETAILED IN THE PLANS.

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, THE MANUFACTURER'S RECOMMENDATIONS, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

ITEM 809 - PULL BOX, 32" TRAFFIC

THIS ITEM SHALL BE INSTALLED WITH "TRAFFIC" MARKED ON THE LID. THE CONTRACTOR SHALL INSTALL THIS ITEM ACCORDING TO ODOT C&MS AND SUPPLEMENTAL SPECIFICATIONS, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS AND PER THE MANUFACTURER'S RECOMMENDATIONS.

ITEM 809 - PULL BOX, 24" ELECTRIC

THIS ITEM SHALL BE INSTALLED WITH "ELECTRIC" MARKED ON THE LID. THE CONTRACTOR SHALL INSTALL THIS ITEM ACCORDING TO ODOT C&MS, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS AND PER THE MANUFACTURER'S RECOMMENDATIONS.

ITEM 809 - ITS CABINET - GROUND MOUNTED

THE CONTRACTOR SHALL INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATIONS 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS AND PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL INSTALL WORK PADS IN ACCORDANCE WITH C&MS 633.11.

A CONCRETE WORK PAD IN ACCORDANCE WITH ITS-10.11 IS INCIDENTAL TO THE CABINET. PROVIDE CONDUITS ENTERING THE CABINET PER 809.09.A OR 809.09.B. REFER TO STANDARD CONSTRUCTION DRAWING ITS-10.11.

ITEM 809 - ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR POWER SERVICE PER ODOT SCD ITS-15.11 AND ODOT SUPPLEMENTAL SPECIFICATIONS 809 AND 909.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE ELECTRICAL SERVICE TO EACH SIGNAL INSTALLATION AS SHOWN ON THE PLANS. MAKE ALL NECESSARY ARRANGEMENTS WITH THE LOCAL ELECTRICAL POWER COMPANY FOR CONNECTIONS TO ESTABLISH ELECTRICAL SERVICE. CHARGES MADE BY THE POWER COMPANY FOR ESTABLISHING OF THE ACCOUNT, EXTENSION OF THE COMPANY FACILITIES, CONNECTION OF CUSTOMER EQUIPMENT TO THE POWER COMPANY FACILITIES AND ENERGY WILL BE BORNE BY THE MAINTAINING AGENCY. THE COMPENSATION IS FOR INVOICED COST WITHOUT MARK-UP.

ITEM 809 - VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN

AT LOCATIONS SHOWN IN THE PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL VARIABLE SPEED LIMIT (VSL) SIGNS ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATIONS 809.04 AND 909.17. VSL SIGN EQUIPMENT SHALL BE LISTED IN THE ODOT TRAFFIC AUTHORIZED PRODUCT LIST.

SPEED LIMIT SIGN BEACONS SHALL BE INSTALLED WITH EACH VSL SIGN LOCATION FOR ADDITIONAL WARNING TO DRIVERS TO INDICATE THAT THE SPEED LIMIT SHOWN IS IN EFFECT.

A SPEED LIMIT SIGN BEACON SHALL CONSIST OF TWO SIGNAL SECTIONS OF A STANDARD TRAFFIC CONTROL SIGNAL FACE, WITH A FLASHING CIRCULAR YELLOW SIGNAL INDICATION IN EACH SIGNAL SECTION. THE SIGNAL LENSES SHALL HAVE A NOMINAL DIAMETER OF 12 INCHES. SIGNAL SECTIONS SHALL BE VERTICALLY ALIGNED, ONE ABOVE AND ONE BELOW THE VSL, AND SHALL BE ALTERNATELY FLASHED WHEN THE BEACON IS ACTIVATED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INTEGRATING THE SPEED LIMIT SIGN BEACON INTO THE VSL SIGN TO ESTABLISH NETWORK COMMUNICATIONS FOR ACTIVATION CONTROL.

THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE SPEED LIMIT BEACON PORTION OF WORK TO THE ENGINEER AND ODOT AND MUST OBTAIN WRITTEN APPROVAL PRIOR TO ORDERING SAID SPEED LIMIT BEACON.

THE DEPARTMENT WILL MEASURE VARIABLE SPEED LIMIT SIGNS WITH BEACONS, AS PER PLAN, BY THE NUMBER OF EACH, COMPLETE AND IN PLACE, AND WILL INCLUDE THE COSTS FOR EQUIPMENT, LABOR, INTERGRATION, SPEED LIMIT SIGN BEACON, AND MISCELLANEOUS MATERIALS.

ITEM 809 - ITS DEVICE, MISC.: BEACONS, AS PER PLAN

AT LOCATIONS SHOWN IN THE PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL SPEED LIMIT SIGN BEACONS WITH EACH EXISTING VSL SIGN LOCATION FOR ADDITIONAL WARNING TO DRIVERS TO INDICATE THAT THE SPEED LIMIT SHOWN IS IN EFFECT.

A SPEED LIMIT SIGN BEACON SHALL CONSIST OF TWO SIGNAL SECTIONS OF A STANDARD TRAFFIC CONTROL SIGNAL FACE, WITH A FLASHING CIRCULAR YELLOW SIGNAL INDICATION IN EACH SIGNAL SECTION. THE SIGNAL LENSES SHALL HAVE A NOMINAL DIAMETER OF 12 INCHES. SIGNAL SECTIONS SHALL BE VERTICALLY ALIGNED, ONE ABOVE AND ONE BELOW THE VSL, AND SHALL BE ALTERNATELY FLASHED WHEN THE BEACON IS ACTIVATED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INTEGRATING THE SPEED LIMIT SIGN BEACON INTO THE EXISTING VSL SIGN TO ESTABLISH NETWORK COMMUNICATIONS FOR ACTIVATION CONTROL.

THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE SPEED LIMIT BEACON PORTION OF WORK TO THE ENGINEER AND ODOT AND MUST OBTAIN WRITTEN APPROVAL PRIOR TO ORDERING SAID SPEED LIMIT BEACON.

THE DEPARTMENT WILL MEASURE BEACONS, AS PER PLAN, BY THE NUMBER OF EACH, COMPLETE AND IN PLACE, AND WILL INCLUDE THE COSTS FOR EQUIPMENT, LABOR, INTERGRATION, SPEED LIMIT SIGN BEACON, AND MISCELLANEOUS MATERIALS.

ITEM 614, MAINTAINING 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. 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.

MAINTAINING TRAFFIC GENERAL

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS, FLAGGERS, WATCHERS, BARRICADES, SIGNS, SIGN SUPPORTS AND INCIDENTALS RELATED TO TRAFFIC CONTROL.

SIGNS FURNISHED SHALL BE IN NEW OR LIKE NEW CONDITIONS. LIKE NEW SIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING LIGHTS, SIGNS, AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF HIS/HER WORK AT THE LOCATIONS SHOWN ON THESE PLANS AS DIRECTED BY THE ENGINEER.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS AND PROVISIONS OF THE OMUTCD AND THE FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

NOTIFICATION OF TRAFFIC RESTRICTIONS (CONTINUED)

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 OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 CALENDAR DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN 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.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

PERMITTED LANE CLOSURE SCHEDULE (PLCS) (CONTINUED)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. [EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.]

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

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 SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)
TOTAL SOLAR ECLIPSE (4/8/24)
MEMORIAL DAY
FOURTH OF JULY (OBSERVED)
LABOR DAY
GENERAL/REGULAR ELECTION DAY ((NOV)
THANKSGIVING
CHRISTMAS (OBSERVED)
(OTHER HOLIDAY OR SPECIAL EVENT)

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

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	(GEN./REG. ELECTION) 5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY	(THANKSGIVING ONLY) 6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

[NEWLY CONSTRUCTED LANE ADDITIONS, ONCE COMPLETED AND INITIALLY OPENED TO TRAFFIC, SHALL BE OPEN TO TRAFFIC DURING ALL SUBSEQUENT DESIGNATED HOLIDAYS AND SPECIAL EVENTS, AND RELATED PERIODS OF TIME, SPECIFIED ABOVE.]

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

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 THE 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.

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT PER LANE
SR-306 TO SR-615 (EAST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$340
SR-306 TO SR-615 (WEST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$340
SR-615 TO SR-44 (EAST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$280
SR-615 TO SR-44 (WEST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$280
SR-44 TO VROOMAN RD (EAST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$255
SR-44 TO VROOMAN RD (WEST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$255
VROOMAN RD TO SR-528 (EAST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$215
VROOMAN RD TO SR-528 (WEST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$215
SR-528 TO SR-11 (EAST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$265
SR-528 TO SR-11 (WEST)	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$265

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF THE SUM TOTAL OF THOSE SECTIONS IMPACTED BY THE PHYSICAL LANE RESTRICTIONS, INCLUDING THE TRANSITION AREA, ACTIVITY AREA, AND TERMINATION AREA AS DEFINED BY THE OMUTCD. HOLIDAY DISINCENTIVES SHALL BE APPLIED PER SECTION PER LANE PER TIME UNIT.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
AECOM

DESIGNER HMP
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.11 TOTAL P.66

SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.7	P.8	P.28	P.29	P.30	P.31	P.43	P.48						01/IMS						
																		ROADWAY	
LS													LS	201	11000	LS		CLEARING AND GRUBBING	
					422	233							655	202	38000	655	FT	GUARDRAIL REMOVED	
					15	8							23	202	42206	23	EACH	ANCHOR ASSEMBLY REMOVED	
				170									170	203	10000	170	CY	EXCAVATION	
				748									748	204	10000	748	SY	SUBGRADE COMPACTION	
				748									748	204	51000	748	SY	GEOGRID	
					34	15							49	209	60201	49	STA	LINEAR GRADING, AS PER PLAN	P.8
					1,562.5	325							1,887.5	606	15050	1,887.5	FT	GUARDRAIL, TYPE MGS	
					887.5	700							1,587.5	606	15550	1,587.5	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
					5.0	4							9	606	26000	9	EACH	ANCHOR ASSEMBLY, TYPE B	
					14	4							18	606	26150	18	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
					10	9							19	606	26550	19	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
					2	1							3	606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
																		EROSION CONTROL	
	2												2	659	00100	2	EACH	SOIL ANALYSIS TEST	
	477												477	659	00300	477	CY	TOPSOIL	
	4,500												4,500	659	10000	4,500	SY	SEEDING AND MULCHING	
	230												230	659	14000	230	SY	REPAIR SEEDING AND MULCHING	
	230												230	659	15000	230	SY	INTER-SEEDING	
	0.63												0.63	659	20000	0.63	TON	COMMERCIAL FERTILIZER	
	0.93												0.93	659	31000	0.93	ACRE	LIME	
	25												25	659	35000	25	MGAL	WATER	
	10												10	659	40000	10	MSF	MOWING	
	35,000												35,000	832	30000	35,000	EACH	EROSION CONTROL	
																		PAVEMENT	
				170									170	304	20000	170	CY	AGGREGATE BASE	
					80	29							109	441	50201	109	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN, (UNDER GUARDRAIL)	P.8
																		TRAFFIC CONTROL	
					11								11	626	00110	11	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
					37	18							55	626	00110	55	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
		630				360							990	630	06400	990	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
		135											135	630	07000	135	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
		51				28							79	630	09000	79	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
		51				28							79	630	84500	79	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
		1											1	630	84900	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						2							2	630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
		2											2	630	86102	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
						4							4	630	86250	4	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND REERECTION	
																		TRAFFIC SIGNALS	
		28,988				4,860							33,848	625	22990	33,848	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
		1,314				720							2,034	625	25400	2,034	FT	CONDUIT, 2", 725.04	
		3,050											3,050	625	25408	3,050	FT	CONDUIT, 2", 725.051	
		210											210	625	25500	210	FT	CONDUIT, 3", 725.04	
		106											106	625	25504	106	FT	CONDUIT, 3", 725.051	
		2,340				1,020							3,360	625	25906	3,360	FT	CONDUIT, JACKED OR DRILLED, 725.051, 2"	
		4,930				480	20,810						26,220	625	29010	26,220	FT	TRENCH, 30" DEEP	
		41				12							53	625	30706	53	EACH	PULL BOX, 725.08, 24"	
		113				36	30						179	625	32000	179	EACH	GROUND ROD	
		5,072				480	20,810						26,362	625	36010	26,362	FT	UNDERGROUND WARNING/MARKING TAPE	
		21				12							33	633	67201	33	EACH	CONTROLLER WORK PAD, AS PER PLAN	P.8
							35,773						35,773	804	15020	35,773	FT	FIBER OPTIC CABLE, 48 FIBER	
			1,706				100						1,806	804	32070	1,806	FT	DROP CABLE, 48 FIBER	

GENERAL SUMMARY

LAK-90-8.77 VSL SIGNS

MODEL: Plan 18 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:10:28 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.12 TOTAL P.66

SHEET NUMBER													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.11	P.29	P.43	P.48										01/IMS						
																		TRAFFIC SIGNALS (CONT'D)	
			2										2	804	34030	2	EACH	FIBER TERMINATION PANEL, 48 FIBER	
			96										96	804	35000	96	EACH	FUSION SPLICE	
			8										8	804	37000	8	EACH	SPLICE ENCLOSURE, BUTT STYLE	
	23	12	28										63	809	01900	63	EACH	ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	
	3												3	809	01920	3	EACH	ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	
			20,810										20,810	809	20020	20,810	FT	MICRO-DUCT PATHWAY, 4 CELL $^{14}/_{10}$	
			5,830										5,830	809	22000	5,830	FT	MICRO-DUCT PATHWAY, JACKED OR DRILLED, 4 CELL $^{14}/_{10}$	
	1,406	1,020											2,426	809	24000	2,426	FT	CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	
	1,999												1,999	809	24500	1,999	FT	CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	
	7												7	809	55100	7	EACH	ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	P.9
	3												3	809	60000	3	EACH	CCTV IP-CAMERA SYSTEM, PTZ	
	3												3	809	61040	3	EACH	CCTV POLE, 70' TALL	
	3												3	809	61090	3	EACH	CCTV LOWERING UNIT	
	3												3	809	63010	3	EACH	DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	
	21	12											33	809	64000	33	EACH	VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	P.9
	5,901	1,620	230										7,751	809	64550	7,751	FT	ETHERNET CABLE, OUTDOOR-RATED	
	8												8	809	65000	8	EACH	ITS CABINET - GROUND MOUNTED	
	3												3	809	65020	3	EACH	ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	
	1												1	809	65990	1	EACH	ITS DEVICE, MISC.: ROAD WEATHER INFORMATION SYSTEM	P.9
		19											19	809	65990	19	EACH	ITS DEVICE, MISC.: BEACONS, AS PER PLAN	P.9
													LS	809	70050	LS		AS-BUILT CONSTRUCTION PLANS	
																		INCIDENTALS	
													LS	614	11000	LS		MAINTAINING TRAFFIC	
9													9	619	16011	9	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	P.7
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.13 TOTAL P.66

LAK-90-8.77 VSL SIGNS

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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-101	1	P.33	370+63.51	RT				30	20							1		30		2	2			1
ITS-102	1	P.33	370+58.65	RT	TO	370+63.51	RT		16					16			16							
ITS-103	1	P.33	370+63.51	RT	TO	370+64.19	RT	45	15					15			15							
ITS-104	1	P.33	370+60.78	RT				30	20							1		30		2	2			1
ITS-105	1	P.33	370+58.50	RT	TO	370+60.78	RT		8					8			8							
ITS-106	1	P.33	370+60.78	RT	TO	370+64.16	RT	27	9					9			9							
ITS-107	1	P.33	370+50.38	RT				36	9							1								
ITS-108	1	P.33	370+50.38	RT	TO	370+55.39	RT	20		5				5			5							
PB-101	1	P.33	370+55.39	RT				80							1	1								
ITS-109	1	P.33	370+55.39	RT	TO	370+64.16	RT	132		33				33			33							
PB-102	1	P.33	370+58.50	RT												1								
ITS-110	1	P.33	370+58.50	RT	TO	370+58.65	RT																	
PB-103	1	P.33	370+58.65	RT												1								
ITS-111	1	P.33	370+58.65	RT	TO	372+53.77	LT																	
PB-104	1	P.33	370+64.19	RT				170							1	1								
ITS-112	1	P.33	370+64.16	RT	TO	370+64.19	RT	546					78											
ITS-113	1	P.33	370+64.19	RT	TO	372+53.34	LT	1582					452											
PB-105	1	P.33	370+64.16	RT				140							1	1								
ITS-114	1	P.33	372+35.72	LT							70					1								
ITS-115	1	P.33	372+35.72	LT	TO	372+53.46	RT					36		18			18							
ITS-116	1	P.33	372+43.21	LT												1								
ITS-117	1	P.33	372+43.21	LT	TO	372+53.34	LT	221		39				13			13							
ITS-118	1	P.33	372+46.71	LT												1								
ITS-119	1	P.33	372+46.71	LT	TO	372+53.46	LT			32				8			8							
ITS-120	1	P.33	372+46.71	LT	TO	372+53.34	LT	80		8				8			8							
PB-106	1	P.33	372+49.05	LT				170							1	1								
ITS-121	1	P.33	372+54.84	LT	TO	372+54.58	LT	225					75											
ITS-122	1	P.33	372+49.05	LT	TO	372+53.34	LT	469		134				67			67							
ITS-123	1	P.33	372+49.05	LT	TO	372+63.38	LT	57	19					19			19							
ITS-124	1	P.33	372+49.05	LT	TO	372+66.88	LT	108	27					27			27							
PB-107	1	P.33	372+49.01	LT				60							1	1								
ITS-125	1	P.33	372+49.01	LT	TO	372+63.33	LT	54	18					18			18							
ITS-126	1	P.33	372+53.46	RT	TO	372+54.84	LT							85			85							
PB-108	1	P.33	372+53.34	LT				410							1	1								
PB-109	1	P.33	372+54.58	LT												1								
ITS-127	1	P.33	372+54.84	LT	TO	372+54.58	LT																	
ITS-128	1	P.33	372+54.58	LT	TO	372+63.38	LT		10					10			10							
PB-110	1	P.33	372+54.84	LT												1								
ITS-129	1	P.33	372+54.84	LT	TO	372+63.38	LT		9					9			9							
ITS-130	1	P.33	372+54.84	LT	TO	372+66.51	LT		25					25			25							
ITS-131	1	P.33	372+63.38	LT				30	20							1		30		2	2			1
ITS-132	1	P.33	372+63.38	LT				30	20							1		30		2	2			1
ITS-133	1	P.33	372+66.88	LT				40	20							1			45	3	3			
ITS-134	1	P.33	370+71.40	RT																		1	2	
SUBTOTALS (CARRIED TO P.26)								4792	265	251	70	36	605	393	6	19	393	120	45	11	11	1	2	4

LAK-90-8.77 VSL SIGNS

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ITS SUBSUMMARY
SITE 1 - GARFIELD ROAD OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.14 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804	809	809	809	809	809	809	809	809	809	809	809	809	809						
								DROP CABLE, 48 FIBER	ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	CCTV IP-CAMERA SYSTEM, PTZ	CCTV POLE, 70' TALL	CCTV LOWERING UNIT	DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	ETHERNET CABLE, OUTDOOR-RATED	ITS CABINET - GROUND MOUNTED	ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	ITS DEVICE, MISC.;ROAD WEATHER INFORMATION SYSTEM						
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH						
ITS-101	1	P.33	370+63.51	RT														1	10								
ITS-102	1	P.33	370+58.65	RT	TO	370+63.51	RT												16								
ITS-103	1	P.33	370+63.51	RT	TO	370+64.19	RT																				
ITS-104	1	P.33	370+60.78	RT														1	10								
ITS-105	1	P.33	370+58.50	RT	TO	370+60.78	RT												8								
ITS-106	1	P.33	370+60.78	RT	TO	370+64.16	RT																				
ITS-107	1	P.33	370+50.38	RT									1														
ITS-108	1	P.33	370+50.38	RT	TO	370+55.39	RT																				
PB-101	1	P.33	370+55.39	RT																							
ITS-109	1	P.33	370+55.39	RT	TO	370+64.16	RT																				
PB-102	1	P.33	370+58.50	RT					1										20								
ITS-110	1	P.33	370+58.50	RT	TO	370+58.65	RT				78								78								
PB-103	1	P.33	370+58.65	RT					1										40								
ITS-111	1	P.33	370+58.65	RT	TO	372+53.77	LT				216								432								
PB-104	1	P.33	370+64.19	RT																							
ITS-112	1	P.33	370+64.16	RT	TO	370+64.19	RT																				
ITS-113	1	P.33	370+64.19	RT	TO	372+53.34	LT																				
PB-105	1	P.33	370+64.16	RT																							
ITS-114	1	P.33	372+35.72	LT										1	1	1			70								
ITS-115	1	P.33	372+35.72	LT	TO	372+53.46	RT												18								
ITS-116	1	P.33	372+43.21	LT																	1						
ITS-117	1	P.33	372+43.21	LT	TO	372+53.34	LT																				
ITS-118	1	P.33	372+46.71	LT																1							
ITS-119	1	P.33	372+46.71	LT	TO	372+53.46	LT	8											48								
ITS-120	1	P.33	372+46.71	LT	TO	372+53.34	LT																				
PB-106	1	P.33	372+49.05	LT																							
ITS-121	1	P.33	372+54.84	LT	TO	372+54.58	LT																				
ITS-122	1	P.33	372+49.05	LT	TO	372+53.34	LT																				
ITS-123	1	P.33	372+49.05	LT	TO	372+63.38	LT																				
ITS-124	1	P.33	372+49.05	LT	TO	372+66.88	LT																				
PB-107	1	P.33	372+49.01	LT																							
ITS-125	1	P.33	372+49.01	LT	TO	372+63.33	LT																				
ITS-126	1	P.33	372+53.46	RT	TO	372+54.84	LT					85							255								
PB-108	1	P.33	372+53.34	LT																							
PB-109	1	P.33	372+54.58	LT					1										20								
ITS-127	1	P.33	372+54.84	LT	TO	372+54.58	LT				75								75								
ITS-128	1	P.33	372+54.58	LT	TO	372+63.38	LT												10								
PB-110	1	P.33	372+54.84	LT					1										60								
ITS-129	1	P.33	372+54.84	LT	TO	372+63.38	LT												9								
ITS-130	1	P.33	372+54.84	LT	TO	372+66.51	LT												25								
ITS-131	1	P.33	372+63.38	LT														1	10								
ITS-132	1	P.33	372+63.38	LT														1	10								
ITS-133	1	P.33	372+66.88	LT													1		10								
ITS-134	1	P.33	370+71.40	RT																							
SUBTOTALS (CARRIED TO P.27)								8	4		369	85	1	1	1	1	1	4	1234	1	1						

ITS SUBSUMMARY
SITE 1 - GARFIELD ROAD OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.15 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Plan 2 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:10:53 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 2 - SR 615 WB ON RAMP

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE (FT)	625 CONDUIT, 2", 725.04 (FT)	625 CONDUIT, 2", 725.051 (FT)	625 CONDUIT, 3", 725.04 (FT)	625 CONDUIT, 3", 725.051 (FT)	625 CONDUIT, JACKED OR DRILLED, 725.051, 2" (FT)	625 TRENCH, 30" DEEP (FT)	625 PULL BOX, 725.08, 24" (EACH)	625 GROUND ROD (EACH)	625 UNDERGROUND WARNING/MARKING TAPE (FT)	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7 (FT)	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18 (FT)	630 BREAKAWAY STRUCTURAL BEAM CONNECTION (EACH)	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION (EACH)	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL (EACH)	633 CONTROLLER WORK PAD, AS PER PLAN (EACH)
ITS-201	2	P.34	398+83.90	LT	TO	401+83.97	LT																	
PB-201	2	P.34	401+83.97	LT												1								
ITS-202	2	P.34	401+83.97	LT	TO	403+14.75	LT							160			160							
ITS-203	2	P.34	403+05.70	LT												1								
ITS-204	2	P.34	403+05.70	LT	TO	403+11.51	LT	28		7				7			7							
ITS-205	2	P.34	403+05.70	LT	TO	403+14.75	LT							9			9							
PB-202	2	P.34	403+11.51	LT				110							1	1								
ITS-206	2	P.34	403+11.63	LT	TO	403+22.19	LT	36	12					12			12							
ITS-207	2	P.34	403+11.51	LT	TO	404+82.64	LT	800					200											
PB-203	2	P.34	403+14.74	LT												1								
ITS-208	2	P.34	403+14.74	LT	TO	403+22.19	LT		12					12			12							
ITS-209	2	P.34	403+22.19	LT				30	20							1		30		2	2			1
PB-204	2	P.34	404+82.64	LT				80							1	1								
ITS-210	2	P.34	404+82.64	LT	TO	406+45.42	LT	668		167				167			167							
PB-205	2	P.34	406+45.42	LT				80							1	1								
ITS-211	2	P.34	406+45.42	LT	TO	408+01.69	LT	640		160				160			160							
PB-206	2	P.34	408+01.69	LT				80							1	1								
ITS-212	2	P.34	408+01.69	LT	TO	408+06.97	LT	20		5				5			5							
ITS-213	2	P.34	408+06.97	LT				36	9							1								
SUBTOTALS (CARRIED TO P.26)								2608	53	339			200	532	4	9	532	30		2	2			1

LAK-90-8.77 VSL SIGNS

MODEL: Plan 3 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:02 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.16 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.;ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH
ITS-201	2	P.34	398+83.90	LT	TO	401+83.97	LT	350			350										
PB-201	2	P.34	401+83.97	LT				20		1											
ITS-202	2	P.34	401+83.97	LT	TO	403+14.75	LT	160				160									
ITS-203	2	P.34	403+05.70	LT															1		
ITS-204	2	P.34	403+05.70	LT	TO	403+11.51	LT														
ITS-205	2	P.34	403+05.70	LT	TO	403+14.75	LT	9				9						9			
PB-202	2	P.34	403+11.51	LT																	
ITS-206	2	P.34	403+11.63	LT	TO	403+22.19	LT														
ITS-207	2	P.34	403+11.51	LT	TO	404+82.64	LT														
PB-203	2	P.34	403+14.74	LT				20		1								20			
ITS-208	2	P.34	403+14.74	LT	TO	403+22.19	LT											12			
ITS-209	2	P.34	403+22.19	LT													1	10			
PB-204	2	P.34	404+82.64	LT																	
ITS-210	2	P.34	404+82.64	LT	TO	406+45.42	LT														
PB-205	2	P.34	406+45.42	LT																	
ITS-211	2	P.34	406+45.42	LT	TO	408+01.69	LT														
PB-206	2	P.34	408+01.69	LT																	
ITS-212	2	P.34	408+01.69	LT	TO	408+06.97	LT														
ITS-213	2	P.34	408+06.97	LT									1								
SUBTOTALS (CARRIED TO P.27)								559		2	350	169	1				1	51	1		

ITS SUBSUMMARY
SITE 2 - SR 615 WB ON RAMP

LAK-90-8.77 VSL SIGNS

MODEL: Plan 4 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:10 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.17 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-301	3	P.35	408+16.97	RT				36	9							1								
ITS-302	3	P.35	408+16.97	RT	TO	408+17.90	RT	20		5				5			5							
PB-301	3	P.35	408+17.90	RT				80							1	1								
ITS-303	3	P.35	408+17.90	RT	TO	408+60.58	RT	220		55				55			55							
PB-302	3	P.35	408+54.04	RT				80							1	1								
ITS-304	3	P.35	408+54.04	RT	TO	408+60.58	RT	212					53	53			53							
ITS-305	3	P.35	408+54.04	RT	TO	410+23.91	RT	704		176				176			176							
PB-303	3	P.35	408+60.58	RT				80							1	1								
ITS-306	3	P.35	408+54.95	LT							70					1								
ITS-307	3	P.35	408+54.95	LT	TO	408+67.93	LT					34		17			17							
ITS-308	3	P.35	408+59.05	LT												1								
ITS-309	3	P.35	408+59.05	LT	TO	408+69.40	LT			40				10			10							
ITS-310	3	P.35	408+59.05	LT	TO	408+67.94	LT	60		10				10			10							
ITS-311	3	P.35	408+67.20	LT				210	70							1								
ITS-312	3	P.35	408+69.40	LT	TO	408+67.20	LT							21			21							
ITS-313	3	P.35	408+67.94	RT	TO	408+67.20	RT	126		42				42			42							
PB-304	3	P.35	480+67.94	RT				130							1	1								
ITS-314	3	P.35	480+67.94	RT	TO	410+51.98	RT	776		194				194			194							
PB-305	3	P.35	408+69.40	LT												1								
ITS-315	3	P.35	408+69.40	LT	TO	410+57.71	RT							202			202							
ITS-316	3	P.35	410+12.64	RT				30	20							1		30		2	2			1
ITS-317	3	P.35	410+12.64	RT	TO	410+23.91	RT	36	12					12			12							
ITS-318	3	P.35	410+12.64	RT	TO	410+24.80	RT		13					13			13							
PB-306	3	P.35	410+23.91	RT				140							1	1								
ITS-319	3	P.35	410+23.91	RT	TO	410+35.36	RT	48		12				12			12							
ITS-320	3	P.35	410+23.91	RT	TO	410+52.02	RT	303		101				101			101							
PB-307	3	P.35	410+24.80	RT												1								
ITS-321	3	P.35	410+24.80	RT	TO	410+35.36	RT							11			11							
ITS-322	3	P.35	410+24.80	RT	TO	410+59.72	RT							81			81							
ITS-323	3	P.35	410+35.36	RT												1								
PB-308	3	P.35	410+52.02	RT				80							1	1								
ITS-324	3	P.35	410+51.98	RT	TO	410+52.02	RT	436					109											
PB-309	3	P.35	410+52.02	RT				70							1	1								
SUBTOTALS (CARRIED TO P.26)								3877	124	635	70	34	162	1015	7	15	1015	30		2	2			1

LAK-90-8.77 VSL SIGNS

MODEL: Plan 5 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:18 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 3 - SR 615 EB ON RAMP

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.18 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.:ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH
ITS-301	3	P.35	408+16.97	RT									1								
ITS-302	3	P.35	408+16.97	RT	TO	408+17.90	RT														
PB-301	3	P.35	408+17.90	RT																	
ITS-303	3	P.35	408+17.90	RT	TO	408+60.58	RT														
PB-302	3	P.35	408+54.04	RT																	
ITS-304	3	P.35	408+54.04	RT	TO	408+60.58	RT														
ITS-305	3	P.35	408+54.04	RT	TO	410+23.91	RT														
PB-303	3	P.35	408+60.58	RT																	
ITS-306	3	P.35	408+54.95	LT										1	1	1			70			
ITS-307	3	P.35	408+54.95	LT	TO	408+67.93	LT												17			
ITS-308	3	P.35	408+59.05	LT																1		
ITS-309	3	P.35	408+59.05	LT	TO	408+69.40	LT	10											20			
ITS-310	3	P.35	408+59.05	LT	TO	408+67.94	LT															
ITS-311	3	P.35	408+67.20	LT								70							70			1
ITS-312	3	P.35	408+69.40	LT	TO	408+67.20	LT					21							21			
ITS-313	3	P.35	408+67.94	RT	TO	408+67.20	RT															
PB-304	3	P.35	480+67.94	RT																		
ITS-314	3	P.35	480+67.94	RT	TO	410+51.98	RT															
PB-305	3	P.35	408+69.40	LT				20	1										50			
ITS-315	3	P.35	408+69.40	LT	TO	410+57.71	RT	202				202							202			
ITS-316	3	P.35	410+12.64	RT														1	10			
ITS-317	3	P.35	410+12.64	RT	TO	410+23.91	RT															
ITS-318	3	P.35	410+12.64	RT	TO	410+24.80	RT												13			
PB-306	3	P.35	410+23.91	RT																		
ITS-319	3	P.35	410+23.91	RT	TO	410+35.36	RT															
ITS-320	3	P.35	410+23.91	RT	TO	410+52.02	RT															
PB-307	3	P.35	410+24.80	RT				20		1									20			
ITS-321	3	P.35	410+24.80	RT	TO	410+35.36	RT	11				11							11			
ITS-322	3	P.35	410+24.80	RT	TO	410+59.72	RT	81				81										
ITS-323	3	P.35	410+35.36	RT																1		
PB-308	3	P.35	410+52.02	RT																		
ITS-324	3	P.35	410+51.98	RT	TO	410+52.02	RT															
PB-309	3	P.35	410+52.02	RT																		
SUBTOTALS (CARRIED TO P.27)								344	1	1		385	1	1	1	1		1	504	2		1

LAK-90-8.77 VSL SIGNS

MODEL: Plan 6 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:27 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 3 - SR 615 EB ON RAMP

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.19 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-401	4	P.36	463+62.77	LT												1								
ITS-402	4	P.36	463+62.77	LT	TO	463+73.03	LT	221		39				13			13							
ITS-403	4	P.36	462+41.18	RT				40	20							1			45	3	3			
ITS-404	4	P.36	462+41.18	RT	TO	462+50.20	RT		20					20			20							
ITS-405	4	P.36	462+41.18	RT	TO	462+57.13	RT	100	25					25			25							
ITS-406	4	P.36	462+41.70	RT				30	20							1		30		2	2			1
ITS-407	4	P.36	462+41.70	RT	TO	462+50.20	RT		10					10			10							
ITS-408	4	P.36	462+41.70	RT	TO	462+57.13	RT	57	19					19			19							
ITS-409	4	P.36	463+66.27	LT												1								
ITS-410	4	P.36	463+66.27	LT	TO	463+73.02	LT	80		8				8			8							
ITS-411	4	P.36	463+66.27	LT	TO	463+73.03	LT							8			8							
ITS-412	4	P.36	462+43.84	RT				30	20							1		30		2	2			1
ITS-413	4	P.36	462+43.84	RT	TO	462+51.80	RT		9					9			9							
ITS-414	4	P.36	462+43.84	RT	TO	462+57.28	RT	51	17					17			17							
ITS-415	4	P.36	463+72.82	RT	TO	463+72.23	RT							13			13							
ITS-416	4	P.36	462+50.20	RT	TO	463+72.82	RT							150			150							
PB-401	4	P.36	463+73.02	LT				410							1	1								
ITS-417	4	P.36	463+72.90	LT	TO	462+57.13	RT	1232		352				176			176							
ITS-418	4	P.36	463+72.90	LT	TO	463+63.25	LT	413					118											
PB-402	4	P.36	463+73.03	LT												1								
ITS-419	4	P.36	463+72.97	RT	TO	463+68.76	LT																	
PB-403	4	P.36	462+50.20	RT												1								
ITS-420	4	P.36	462+51.65	RT	TO	462+51.80	RT																	
PB-404	4	P.36	462+51.80	RT												1								
PB-405	4	P.36	462+57.13	RT				170							1	1								
ITS-421	4	P.36	462+57.11	RT	TO	462+57.28	RT	243					81											
PB-406	4	P.36	462+57.28	RT				60							1	1								
ITS-422	4	P.36	463+58.05	LT				36	9							1								
ITS-423	4	P.36	463+58.05	LT	TO	463+63.05	LT	20		5				5			5							
PB-407	4	P.36	463+63.05	LT				80							1	1								
ITS-424	4	P.36	463+63.09	LT	TO	463+63.05	LT	84		21				21			21							
PB-408	4	P.36	463+63.09	LT				140							1	1								
ITS-425	4	P.36	463+63.09	LT	TO	463+63.25	LT	602					86											
ITS-426	4	P.36	463+63.09	LT	TO	463+75.97	LT	54	18					18			18							
PB-409	4	P.36	463+63.25	LT				170							1	1								
ITS-427	4	P.36	463+63.25	LT	TO	463+77.19	LT	57	19					19			19							
PB-410	4	P.36	463+69.76	LT												1								
ITS-428	4	P.36	463+68.59	LT	TO	463+68.76	LT																	
ITS-429	4	P.36	463+68.59	LT	TO	463+75.97	LT		7					7			7							
PB-411	4	P.36	463+66.68	LT												1								
ITS-430	4	P.36	463+68.76	LT	TO	463+77.19	LT		8					8			8							
ITS-431	4	P.36	463+75.98	LT				30	20							1		30		2	2			1
ITS-432	4	P.36	463+77.19	LT				30	20							1		30		2	2			1
SUBTOTALS (CARRIED TO P.26)								4440	261	425			285	546	6	19	546	120	45	11	11			4

ITS SUBSUMMARY
SITE 4 - HART ROAD OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.20 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Plan 7 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:35 PM USER: PetersonH
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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.;ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
ITS-401	4	P.36	463+62.77	LT																1	
ITS-402	4	P.36	463+62.77	LT	TO	463+73.03	LT														
ITS-403	4	P.36	462+41.18	RT													1		10		
ITS-404	4	P.36	462+41.18	RT	TO	462+50.20	RT												20		
ITS-405	4	P.36	462+41.18	RT	TO	462+57.13	RT														
ITS-406	4	P.36	462+41.70	RT														1	10		
ITS-407	4	P.36	462+41.70	RT	TO	462+50.20	RT												10		
ITS-408	4	P.36	462+41.70	RT	TO	462+57.13	RT														
ITS-409	4	P.36	463+66.27	LT																1	
ITS-410	4	P.36	463+66.27	LT	TO	463+73.02	LT														
ITS-411	4	P.36	463+66.27	LT	TO	463+73.03	LT	8				16							40		
ITS-412	4	P.36	462+43.84	RT														1	10		
ITS-413	4	P.36	462+43.84	RT	TO	462+51.80	RT												9		
ITS-414	4	P.36	462+43.84	RT	TO	462+57.28	RT														
ITS-415	4	P.36	463+72.82	RT	TO	463+72.23	RT	13				26							39		
ITS-416	4	P.36	462+50.20	RT	TO	463+72.82	RT					150							450		
PB-401	4	P.36	463+73.02	LT																	
ITS-417	4	P.36	463+72.90	LT	TO	462+57.13	RT														
ITS-418	4	P.36	463+72.90	LT	TO	463+63.25	LT														
PB-402	4	P.36	463+73.03	LT				20	1										100		
ITS-419	4	P.36	463+72.97	RT	TO	463+68.76	LT					74							148		
PB-403	4	P.36	462+50.20	RT					1										60		
ITS-420	4	P.36	462+51.65	RT	TO	462+51.80	RT				81								81		
PB-404	4	P.36	462+51.80	RT					1										20		
PB-405	4	P.36	462+57.13	RT																	
ITS-421	4	P.36	462+57.11	RT	TO	462+57.28	RT														
PB-406	4	P.36	462+57.28	RT																	
ITS-422	4	P.36	463+58.05	LT									1								
ITS-423	4	P.36	463+58.05	LT	TO	463+63.05	LT														
PB-407	4	P.36	463+63.05	LT																	
ITS-424	4	P.36	463+63.09	LT	TO	463+63.05	LT														
PB-408	4	P.36	463+63.09	LT																	
ITS-425	4	P.36	463+63.09	LT	TO	463+63.25	LT														
ITS-426	4	P.36	463+63.09	LT	TO	463+75.97	LT														
PB-409	4	P.36	463+63.25	LT																	
ITS-427	4	P.36	463+63.25	LT	TO	463+77.19	LT														
PB-410	4	P.36	463+69.76	LT					1										20		
ITS-428	4	P.36	463+68.59	LT	TO	463+68.76	LT				86								86		
ITS-429	4	P.36	463+68.59	LT	TO	463+75.97	LT												7		
PB-411	4	P.36	463+66.68	LT					1										40		
ITS-430	4	P.36	463+68.76	LT	TO	463+77.19	LT												8		
ITS-431	4	P.36	463+75.98	LT														1	10		
ITS-432	4	P.36	463+77.19	LT														1	10		
SUBTOTALS (CARRIED TO P.27)								41	5		167	266	1				1	4	1188	1	1

ITS SUBSUMMARY
SITE 4 - HART ROAD OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.21 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Plan 8 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:43 PM USER: PetersonH
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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
PB-501	6	P.37	515+42.62	LT				80							1	1								
ITS-501	6	P.37	515+42.30	LT	TO	515+42.62	LT	20		5				5			5							
ITS-502	6	P.37	515+42.62	LT	TO	516+00.53	LT	260		65				65			65							
ITS-503	6	P.37	515+42.30	LT				36	9							1								
ITS-504	6	P.37	515+15.13	RT				30	20							1		30		2	2			1
ITS-505	6	P.37	515+15.13	RT	TO	515+23.39	RT		8					8			8							
ITS-506	6	P.37	515+15.13	RT	TO	515+29.13	RT	57	19					19			19							
ITS-507	6	P.37	515+14.18	RT				30	20							1		30		2	2			1
ITS-508	6	P.37	515+14.18	RT	TO	515+23.64	RT		10					10			10							
ITS-509	6	P.37	515+14.18	RT	TO	515+29.25	RT	60	20					20			20							
PB-502	6	P.37	515+23.39	RT												1								
ITS-510	6	P.37	515+23.39	RT	TO	515+23.64	RT																	
PB-503	6	P.37	515+23.64	RT												1								
ITS-511	6	P.37	515+23.64	RT	TO	516+65.44	RT							160			160							
ITS-512	6	P.37	516+65.44	RT	TO	516+65.94	LT																	
PB-504	6	P.37	515+29.13	RT				60							1	1								
ITS-513	6	P.37	515+29.13	RT	TO	515+29.25	RT	255					85											
PB-505	6	P.37	515+29.25	RT				90							1	1								
ITS-514	6	P.37	515+29.25	RT	TO	516+65.44	RT	603					201											
PB-506	6	P.37	515+94.95	LT												1								
ITS-515	6	P.37	515+94.95	LT	TO	515+95.44	LT																	
ITS-516	6	P.37	515+94.95	LT	TO	516+09.31	LT		19					19			19							
PB-507	6	P.37	515+95.44	LT												1								
ITS-517	6	P.37	515+95.44	LT	TO	516+09.21	LT		20					20			20							
ITS-518	6	P.37	515+95.44	LT	TO	516+09.40	LT		28					28			28							
ITS-519	6	P.37	515+95.44	LT	TO	516+65.94	LT							136			136							
PB-508	6	P.37	516+00.53	LT				140							1	1								
ITS-520	6	P.37	516+00.53	LT	TO	516+01.05	LT	532					152											
ITS-521	6	P.37	516+00.53	LT	TO	516+09.31	LT	27	9					9			9							
PB-509	6	P.37	516+01.05	LT				210							1	1								
ITS-522	6	P.37	516+01.05	LT	TO	516+09.21	LT	24	8					8			8							
ITS-523	6	P.37	516+01.05	LT	TO	516+09.40	LT	96	24					24			24							
ITS-524	6	P.37	516+01.05	LT	TO	516+67.75	LT	805		345				115			115							
ITS-525	6	P.37	516+09.21	LT				30	20							1		30		2	2			1
ITS-526	6	P.37	516+09.31	LT				30	20							1		30		2	2			1
ITS-527	6	P.37	516+09.40	LT				40	20							1			45	3	3			
PB-510	6	P.37	516+67.75	LT				370							1	1								
ITS-528	6	P.37	516+59.34	LT	TO	516+67.75	LT	80		8				8			8							
ITS-529	6	P.37	516+55.84	LT	TO	516+67.74	RT	221		39				13			13							
PB-511	6	P.37	516+65.94	LT												1								
ITS-530	6	P.37	516+59.34	LT	TO	516+65.94	LT			32				8			8							
ITS-531	6	P.37	516+48.18	LT	TO	516+65.94	LT					36		18			18							
ITS-532	6	P.37	516+59.34	LT												1								
ITS-533	6	P.37	516+55.84	LT												1								
ITS-534	6	P.37	516+48.18	LT							70					1								
SUBTOTALS (CARRIED TO P.26)								4186	274	494	70	36	438	693	6	20	693	120	45	11	11			4

ITS SUBSUMMARY
SITE 5 - KING MEMORIAL OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.22 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Plan 9 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:11:51 PM USER: PetersonH
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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.;ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
PB-501	6	P.37	515+42.62	LT																	
ITS-501	6	P.37	515+42.30	LT	TO	515+42.62	LT														
ITS-502	6	P.37	515+42.62	LT	TO	516+00.53	LT														
ITS-503	6	P.37	515+42.30	LT									1								
ITS-504	6	P.37	515+15.13	RT													1	10			
ITS-505	6	P.37	515+15.13	RT	TO	515+23.39	RT											8			
ITS-506	6	P.37	515+15.13	RT	TO	515+29.13	RT														
ITS-507	6	P.37	515+14.18	RT													1	10			
ITS-508	6	P.37	515+14.18	RT	TO	515+23.64	RT											10			
ITS-509	6	P.37	515+14.18	RT	TO	515+29.25	RT														
PB-502	6	P.37	515+23.39	RT					1									20			
ITS-510	6	P.37	515+23.39	RT	TO	515+23.64	RT				84							84			
PB-503	6	P.37	515+23.64	RT					1									10			
ITS-511	6	P.37	515+23.64	RT	TO	516+65.44	RT					160						320			
ITS-512	6	P.37	516+65.44	RT	TO	516+65.94	LT	26			52							52			
PB-504	6	P.37	515+29.13	RT																	
ITS-513	6	P.37	515+29.13	RT	TO	515+29.25	RT														
PB-505	6	P.37	515+29.25	RT																	
ITS-514	6	P.37	515+29.25	RT	TO	516+65.44	RT														
PB-506	6	P.37	515+94.95	LT					1									20			
ITS-515	6	P.37	515+94.95	LT	TO	515+95.44	LT				76							76			
ITS-516	6	P.37	515+94.95	LT	TO	516+09.31	LT											19			
PB-507	6	P.37	515+95.44	LT					1									60			
ITS-517	6	P.37	515+95.44	LT	TO	516+09.21	LT											20			
ITS-518	6	P.37	515+95.44	LT	TO	516+09.40	LT											28			
ITS-519	6	P.37	515+95.44	LT	TO	516+65.94	LT					136						408			
PB-508	6	P.37	516+00.53	LT																	
ITS-520	6	P.37	516+00.53	LT	TO	516+01.05	LT														
ITS-521	6	P.37	516+00.53	LT	TO	516+09.31	LT														
PB-509	6	P.37	516+01.05	LT																	
ITS-522	6	P.37	516+01.05	LT	TO	516+09.21	LT														
ITS-523	6	P.37	516+01.05	LT	TO	516+09.40	LT														
ITS-524	6	P.37	516+01.05	LT	TO	516+67.75	LT														
ITS-525	6	P.37	516+09.21	LT													1	10			
ITS-526	6	P.37	516+09.31	LT													1	10			
ITS-527	6	P.37	516+09.40	LT												1		10			
PB-510	6	P.37	516+67.75	LT																	
ITS-528	6	P.37	516+59.34	LT	TO	516+67.75	LT														
ITS-529	6	P.37	516+55.84	LT	TO	516+67.74	RT														
PB-511	6	P.37	516+65.94	LT				20	1									110			
ITS-530	6	P.37	516+59.34	LT	TO	516+65.94	LT	8										48			
ITS-531	6	P.37	516+48.18	LT	TO	516+65.94	LT											18			
ITS-532	6	P.37	516+59.34	LT															1		
ITS-533	6	P.37	516+55.84	LT																1	
ITS-534	6	P.37	516+48.18	LT										1	1	1		70			
SUBTOTALS (CARRIED TO P.27)								54	5		212	296	1	1	1	1	1	4	1431	1	1

LAK-90-8.77 VSL SIGNS

MODEL: Plan 10 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:12:00 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 5 - KING MEMORIAL OVERPASS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.23 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-601	6	P.38	571+10.15	LT												1								
ITS-602	6	P.38	571+10.15	LT	TO	571+16.90	LT	54		9				9			9							
ITS-603	6	P.38	571+10.15	LT	TO	571+22.43	LT							13			13							
ITS-604	6	P.38	571+08.75	RT				30	20							1		30		2	2			1
ITS-605	6	P.38	571+08.75	RT	TO	571+17.25	RT	27	9					9			9							
ITS-606	6	P.38	571+08.75	RT	TO	571+22.93	RT		19					19			19							
ITS-607	6	P.38	571+08.97	RT				30	20							1		30		2	2			1
ITS-608	6	P.38	571+08.97	RT	TO	571+17.29	RT	24	8					8			8							
ITS-609	6	P.38	571+08.97	RT	TO	571+22.77	RT		19					19			19							
PB-601	6	P.38	571+16.78	LT				140							1	1								
ITS-610	6	P.38	571+16.90	LT	TO	571+16.78	LT	560					160											
ITS-611	6	P.38	571+16.78	LT	TO	571+29.79	LT	51	17					17			17							
ITS-612	6	P.38	571+16.78	LT	TO	573+01.68	LT	784		196				196			196							
PB-602	6	P.38	571+16.90	LT				190							1	1								
ITS-613	6	P.38	571+16.90	LT	TO	571+17.25	RT	426		142				142			142							
ITS-614	6	P.38	571+16.90	LT	TO	571+30.39	LT	42	14					14			14							
PB-603	6	P.38	571+17.25	RT				90							1	1								
ITS-615	6	P.38	571+17.25	RT	TO	571+17.29	RT	231					77											
PB-604	6	P.38	571+17.29	RT				60							1	1								
PB-605	6	P.38	571+22.26	LT												1								
ITS-616	6	P.38	571+22.26	LT	TO	571+22.43	LT																	
ITS-617	6	P.38	571+22.26	LT	TO	571+29.79	LT		9					9			9							
PB-606	6	P.38	571+22.43	LT												1								
ITS-618	6	P.38	571+22.43	LT	TO	571+22.57	RT							101			101							
ITS-619	6	P.38	571+22.43	LT	TO	571+30.39	LT		10					10			10							
ITS-620	6	P.38	571+22.57	RT	TO	571+22.93	RT							35			35							
PB-607	6	P.38	571+22.93	RT												1								
ITS-621	6	P.38	571+22.93	RT	TO	571+22.77	RT																	
PB-608	6	P.38	571+22.77	RT												1								
ITS-622	6	P.38	571+29.79	LT				30	20							1		30		2	2			1
ITS-623	6	P.38	571+30.39	LT				30	20							1		30		2	2			1
PB-609	6	P.38	573+01.68	LT				80							1	1								
ITS-624	6	P.38	573+01.68	LT	TO	573+03.55	LT	300					75											
PB-610	6	P.38	573+03.55	LT				80							1	1								
ITS-625	6	P.38	573+03.55	LT	TO	573+03.66	LT	20		5				5			5							
ITS-626	6	P.38	573+03.66	LT				36	9							1								
SUBTOTALS (CARRIED TO P.26)								3315	194	352			312	606	6	16	606	120		8	8			4

LAK-90-8.77 VSL SIGNS

MODEL: Plan 11 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:12:08 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 6 - LAKE AND CONCORD REST AREAS

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.24 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.:ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
ITS-601	6	P.38	571+10.15	LT															1			
ITS-602	6	P.38	571+10.15	LT	TO	571+16.90	LT															
ITS-603	6	P.38	571+10.15	LT	TO	571+22.43	LT	13				26							52			
ITS-604	6	P.38	571+08.75	RT													1		10			
ITS-605	6	P.38	571+08.75	RT	TO	571+17.25	RT															
ITS-606	6	P.38	571+08.75	RT	TO	571+22.93	RT												19			
ITS-607	6	P.38	571+08.97	RT													1		10			
ITS-608	6	P.38	571+08.97	RT	TO	571+17.29	RT															
ITS-609	6	P.38	571+08.97	RT	TO	571+22.77	RT												19			
PB-601	6	P.38	571+16.78	LT																		
ITS-610	6	P.38	571+16.90	LT	TO	571+16.78	LT															
ITS-611	6	P.38	571+16.78	LT	TO	571+29.79	LT															
ITS-612	6	P.38	571+16.78	LT	TO	573+01.68	LT															
PB-602	6	P.38	571+16.90	LT																		
ITS-613	6	P.38	571+16.90	LT	TO	571+17.25	RT															
ITS-614	6	P.38	571+16.90	LT	TO	571+30.39	LT															
PB-603	6	P.38	571+17.25	RT																		
ITS-615	6	P.38	571+17.25	RT	TO	571+17.29	RT															
PB-604	6	P.38	571+17.29	RT																		
PB-605	6	P.38	571+22.26	LT					1										20			
ITS-616	6	P.38	571+22.26	LT	TO	571+22.43	LT				86								86			
ITS-617	6	P.38	571+22.26	LT	TO	571+29.79	LT												9			
PB-606	6	P.38	571+22.43	LT				20	1										80			
ITS-618	6	P.38	571+22.43	LT	TO	571+22.57	RT	101				202							202			
ITS-619	6	P.38	571+22.43	LT	TO	571+30.39	LT												10			
ITS-620	6	P.38	571+22.57	RT	TO	571+22.93	RT					35							70			
PB-607	6	P.38	571+22.93	RT					1										40			
ITS-621	6	P.38	571+22.93	RT	TO	571+22.77	RT				77								77			
PB-608	6	P.38	571+22.77	RT					1										20			
ITS-622	6	P.38	571+29.79	LT													1		10			
ITS-623	6	P.38	571+30.39	LT													1		10			
PB-609	6	P.38	573+01.68	LT																		
ITS-624	6	P.38	573+01.68	LT	TO	573+03.55	LT															
PB-610	6	P.38	573+03.55	LT																		
ITS-625	6	P.38	573+03.55	LT	TO	573+03.66	LT															
ITS-626	6	P.38	573+03.66	LT									1									
SUBTOTALS (CARRIED TO P.27)								134	4		163	263	1				4	744	1			

ITS SUBSUMMARY
SITE 6 - LAKE AND CONCORD REST AREAS

LAK-90-8.77 VSL SIGNS

MODEL: Plan 12 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:12:17 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.25 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-701	7	P.39	678+66.30	LT												1								
ITS-702	7	P.39	678+66.30	LT	TO	678+73.02	LT							9			9							
ITS-703	7	P.39	678+66.30	LT	TO	678+74.25	LT	36		18				9			9							
PB-701	7	P.39	678+73.02	LT												1								
ITS-704	7	P.39	678+73.02	LT	TO	678+85.39	LT		13					13			13							
ITS-705	7	P.39	678+73.02	LT		681+05.57	LT							238			238							
PB-702	7	P.39	678+74.25	LT				110							1	1								
ITS-706	7	P.39	678+74.25	LT	TO	678+85.39	LT	39	13					13			13							
ITS-707	7	P.39	678+74.25	LT	TO	681+08.63	LT	960		240				240			240							
ITS-708	7	P.39	678+85.39	LT				30	20							1		30		2	2			1
PB-703	7	P.39	681+08.63	LT				80							1	1								
ITS-709	7	P.39	681+08.48	LT	TO	683+47.48	LT	1104		276				276			276							
PB-704	7	P.39	683+47.48	LT				80							1	1								
ITS-710	7	P.39	683+49.11	LT	TO	685+30.17	LT	732					183											
PB-705	7	P.39	685+30.17	LT				80							1	1								
ITS-711	7	P.39	685+30.17	LT	TO	685+32.47	LT	80		20				20			20							
ITS-712	7	P.39	685+32.47	LT				36	9							1								
PB-706	7	P.39	681+05.57	LT												1								
ITS-713	7	P.39	681+05.57	LT	TO	683+47.98	LT							279			279							
SUBTOTALS (CARRIED TO P.26)								3367	55	554			183	1097	4	9	1097	30		2	2			1

LAK-90-8.77 VSL SIGNS

MODEL: Plan 13 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:12:25 PM USER: PetersonH
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ITS SUBSUMMARY
SITE 7 - SR 44 INTERCHANGE ON RAMP FOR WB I-90

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.26 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION						804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.:ROAD WEATHER INFORMATION SYSTEM
									FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH
ITS-701	7	P.39	678+66.30	LT																	1		
ITS-702	7	P.39	678+66.30	LT	TO	678+73.02	LT		9				18							9			
ITS-703	7	P.39	678+66.30	LT	TO	678+74.25	LT																
PB-701	7	P.39	678+73.02	LT					20	1										20			
ITS-704	7	P.39	678+73.02	LT	TO	678+85.39	LT													13			
ITS-705	7	P.39	678+73.02	LT		681+05.57	LT		238				238										
PB-702	7	P.39	678+74.25	LT																			
ITS-706	7	P.39	678+74.25	LT	TO	678+85.39	LT																
ITS-707	7	P.39	678+74.25	LT	TO	681+08.63	LT																
ITS-708	7	P.39	678+85.39	LT														1		10			
PB-703	7	P.39	681+08.63	LT																			
ITS-709	7	P.39	681+08.48	LT	TO	683+47.48	LT																
PB-704	7	P.39	683+47.48	LT																			
ITS-710	7	P.39	683+49.11	LT	TO	685+30.17	LT																
PB-705	7	P.39	685+30.17	LT																			
ITS-711	7	P.39	685+30.17	LT	TO	685+32.47	LT																
ITS-712	7	P.39	685+32.47	LT										1									
PB-706	7	P.39	681+05.57	LT					20	1													
ITS-713	7	P.39	681+05.57	LT	TO	683+47.98	LT		279				279										
SUBTOTALS (CARRIED TO P.27)									566	2			535	1					1	52	1		

LAK-90-8.77 VSL SIGNS

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ITS SUBSUMMARY
SITE 7 - SR 44 INTERCHANGE ON RAMP FOR WB I-90

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.27 TOTAL P.66

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.04	625 CONDUIT, 3", 725.051	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	633 CONTROLLER WORK PAD, AS PER PLAN
								FT	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH
ITS-801	8	P.40	694+09.12	RT	TO	695+14.82	RT	748																
ITS-802	8	P.40	695+14.82	RT	TO	695+25.62	RT	48																
ITS-803	8	P.40	695+25.62	RT	TO	695+77.15	RT																	
ITS-804	8	P.40	695+25.62	RT	TO	695+70.58	RT	192																
ITS-805	8	P.40	695+70.58	RT	TO	695+68.67	RT	336																
ITS-806	8	P.40	695+77.15	RT	TO	695+74.43	RT																	
ITS-807	8	P.40	695+74.43	RT	TO	696+25.37	LT										66							
ITS-808	8	P.40	695+68.67	RT	TO	696+19.84	LT	228					76				76							
PB-801	8	P.40	696+25.37	LT												1								
PB-802	8	P.40	696+19.84	LT				90							1	1								
ITS-809	8	P.40	696+25.37	LT	TO	696+33.32	LT		10					10			10							
ITS-810	8	P.40	696+19.84	LT	TO	696+33.32	LT	42	14					14			14							
ITS-811	8	P.40	696+33.32	LT				30	20							1		30		2	2			1
ITS-812	8	P.40	696+19.84	LT	TO	696+19.81	LT	237					79											
ITS-813	8	P.40	696+25.37	LT	TO	696+25.34	LT																	
PB-803	8	P.40	696+25.34	LT												1								
PB-804	8	P.40	696+19.81	LT				60							1	1								
ITS-814	8	P.40	696+25.34	LT	TO	696+33.30	LT		10					10			10							
ITS-815	8	P.40	696+33.30	LT				30	20							1		30		2	2			1
ITS-816	8	P.40	696+19.81	LT	TO	696+33.30	LT	42	14					14			14							
EXPB-801	8	P.40	695+14.82	RT				80																
EXITS-801	8	P.40	695+25.62	RT				80																
EXPB-802	8	P.40						80																
EXPB-803	8	P.40																						
EXPB-804	8	P.40						80																
EXPB-805	8	P.40																						
SUBTOTALS (THIS SHEET)								2403	88				155	48	2	6	190	60		4	4			2
SUBTOTALS (CARRIED FROM P.14)								4792	265	251	70	36	605	393	6	19	393	120	45	11	11	1	2	4
SUBTOTALS (CARRIED FROM P.16)								2608	53	339			200	532	4	9	532	30		2	2			1
SUBTOTALS (CARRIED FROM P.18)								3877	124	635	70	34	162	1015	7	15	1015	30		2	2			1
SUBTOTALS (CARRIED FROM P.20)								4440	261	425			285	546	6	19	546	120	45	11	11			4
SUBTOTALS (CARRIED FROM P.22)								4186	274	494	70	36	438	693	6	20	693	120	45	11	11			4
SUBTOTALS (CARRIED FROM P.24)								3315	194	352			312	606	6	16	606	120		8	8			4
SUBTOTALS (CARRIED FROM P.26)								3367	55	554			183	1097	4	9	1097	30		2	2			1
TOTALS CARRIED TO GENERAL SUMMARY								28988	1314	3050	210	106	2340	4930	41	113	5072	630	135	51	51	1	2	21

ITS SUBSUMMARY
SITE 8 - AUBURN RD

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.28 TOTAL P.66

LAK-90-8.77 VSL SIGNS

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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					804 DROP CABLE, 48 FIBER	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 ITS PULL BOX WITH PAD AND HINGED LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	809 ITS POWER SERVICE, POLE MOUNTED, 120/240V, 100 AMP, AS PER PLAN	809 CCTV IP-CAMERA SYSTEM, PTZ	809 CCTV POLE, 70' TALL	809 CCTV LOWERING UNIT	809 DYNAMIC MESSAGE SIGN (DMS), FRONT-ACCESS	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS CABINET - GROUND MOUNTED	809 ITS CABINET - POWER DISTRIBUTION CABINET (PDC)	809 ITS DEVICE, MISC.;ROAD WEATHER INFORMATION SYSTEM
								FT	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH
ITS-801	8	P.40	694+09.12	RT	TO	695+14.82	RT														
ITS-802	8	P.40	695+14.82	RT	TO	695+25.62	RT														
ITS-803	8	P.40	695+25.62	RT	TO	695+77.15	RT											106			
ITS-804	8	P.40	695+25.62	RT	TO	695+70.58	RT														
ITS-805	8	P.40	695+70.58	RT	TO	695+68.67	RT														
ITS-806	8	P.40	695+77.15	RT	TO	695+74.43	RT											180			
ITS-807	8	P.40	695+74.43	RT	TO	696+25.37	LT				66							132			
ITS-808	8	P.40	695+68.67	RT	TO	696+19.84	LT														
PB-801	8	P.40	696+25.37	LT					1									40			
PB-802	8	P.40	696+19.84	LT																	
ITS-809	8	P.40	696+25.37	LT	TO	696+33.32	LT											10			
ITS-810	8	P.40	696+19.84	LT	TO	696+33.32	LT														
ITS-811	8	P.40	696+33.32	LT													1	10			
ITS-812	8	P.40	696+19.84	LT	TO	696+19.81	LT														
ITS-813	8	P.40	696+25.37	LT	TO	696+25.34	LT				79							79			
PB-803	8	P.40	696+25.34	LT					1									20			
PB-804	8	P.40	696+19.81	LT																	
ITS-814	8	P.40	696+25.34	LT	TO	696+33.30	LT											10			
ITS-815	8	P.40	696+33.30	LT													1	10			
ITS-816	8	P.40	696+19.81	LT	TO	696+33.30	LT														
EXPB-801	8	P.40	695+14.82	RT																	
EXITS-801	8	P.40	695+25.62	RT														20			
EXPB-802	8	P.40																			
EXPB-803	8	P.40																40			
EXPB-804	8	P.40																			
EXPB-805	8	P.40																40			
SUBTOTALS (THIS SHEET)									2		145						2	697			
SUBTOTALS (CARRIED FROM P.15)								8	4		369	85	1	1	1	1	4	1234	1	1	
SUBTOTALS (CARRIED FROM P.17)								559		2	350	169	1				1	51	1		
SUBTOTALS (CARRIED FROM P.19)								344	1	1		385	1	1	1	1	1	504	2		1
SUBTOTALS (CARRIED FROM P.21)								41	5		167	266	1				4	1188	1	1	
SUBTOTALS (CARRIED FROM P.23)								54	5		212	296	1	1	1	1	4	1431	1	1	
SUBTOTALS (CARRIED FROM P.25)								134	4		163	263	1				4	744	1		
SUBTOTALS (CARRIED FROM P.27)								566	2			535	1				1	52	1		
TOTALS CARRIED TO GENERAL SUMMARY								1706	23	3	1406	1999	7	3	3	3	3	21	5901	8	3	1

ITS SUBSUMMARY
SITE 8 - AUBURN RD

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.29 TOTAL P.66

LAK-90-8.77 VSL SIGNS

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REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					LENGTH	WIDTH	THICKNESS	203 EXCAVATION		204 SUBGRADE COMPACTION	204 GEOGRID	304 AGGREGATE BASE, 8"
								FT	FT	IN	CY		SY	SY	CY
AP-1	1	P.33	367+90.40	RT	TO	368+40.40	RT	50	8	8	10		44	44	10
AP-2	1	P.33	370+93.30	LT	TO	371+43.30	LT	50	8	8	10		44	44	10
AP-3	1	P.33	372+67.13	RT	TO	373+17.18	RT	50	8	8	10		44	44	10
AP-4	2	P.34	402+09.14	LT	TO	402+50.85	LT	50	8	8	10		44	44	10
AP-5	2	P.34	398+98.11	LT	TO	399+48.11	LT	50	8	8	10		44	44	10
AP-6	3	P.35	410+70.49	RT	TO	411+19.67	RT	50	8	8	10		44	44	10
AP-7	4	P.36	462+13.99	LT	TO	462+63.99	LT	50	8	8	10		44	44	10
AP-8	4	P.36	463+34.22	RT	TO	463+84.22	RT	50	8	8	10		44	44	10
AP-9	5	P.37	512+86.45	RT	TO	513+35.89	RT	50	8	8	10		44	44	10
AP-10	5	P.37	513+73.58	LT	TO	514+24.18	LT	50	8	8	10		44	44	10
AP-11	6	P.38	571+85.52	RT	TO	572+35.52	RT	50	8	8	10		44	44	10
AP-12		P.41	627+055.70	RT	TO	627+55.69	RT	50	8	8	10		44	44	10
AP-13	7	P.39	677+86.32	LT	TO	678+35.28	LT	50	8	8	10		44	44	10
AP-14	7	P.39	687+29.26	LT	TO	687+79.26	LT	50	8	8	10		44	44	10
AP-15	8	P.40	696+08.82	RT	TO	696+58.82	RT	50	8	8	10		44	44	10
AP-16	8	P.40	697+92.16	RT	TO	698+42.16	RT	50	8	8	10		44	44	10
AP-17	8	P.40	700+53.40	LT	TO	701+03.40	LT	50	8	8	10		44	44	10
TOTALS CARRIED TO GENERAL SUMMARY											170		748	748	170

PAVEMENT SUBSUMMARY

LAK-90-8.77 VSL SIGNS

MODEL: Plan 15 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:12:58 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.30 TOTAL P.66

GUARDRAIL SUBSUMMARY

REF NO.	SITE NO.	SHEET NO.	STATION TO STATION					LENGTH OF NEED (FOR FIXED OBJECTS)	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED	209 LINEAR GRADING, AS PER PLAN		441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN, (UNDER GUARDRAIL)		606 GUARDRAIL, TYPE MGS	606 GUARDRAIL, BARRIER DESIGN, TYPE MGS	606 ANCHOR ASSEMBLY, TYPE B	606 ANCHOR ASSEMBLY, MGS TYPE E	606 ANCHOR ASSEMBLY, MGS TYPE T	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	626 BARRIER REFLECTOR, TYPE 2, ONE WAY	626 BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL
									FT	EACH	STA		CY		FT	FT	EACH	EACH	EACH	EACH	EACH	EACH
GR-1	1	P.33	368+12.01	RT	TO	369+76.26	RT	251.5	3.2	1	1.6		3.6		112.5			1				3
GR-2	1	P.33	368+42.28	RT	TO	369+81.53	RT	218.5	2.2	1	1.4		3.2		87.5			1			3	
GR-3	1	P.33	371+50.77	RT	TO	372+63.87	RT	316.2			1.1		3.8		112.5				1	1		2
GR-4	1	P.33	373+79.85	LT	TO	374+44.10	LT	180.7	2.8	1	0.6		1.1		12.5			1			1	
GR-5	1	P.33	373+04.82	LT	TO	375+19.07	LT	250.7	11.2	1	2.1		5.6		162.5			1				3
GR-6	2	P.34	403+78.64	LT	TO	404+18.75	LT	129.2			0.4		2.9		100			1	1			3
GR-7	3	P.35	408+03.81	RT	TO	408+79.40	RT	315.5			0.8		3.1		75				1	1		1
GR-8	3	P.35	408+78.86	LT	TO	410+67.92	LT	1957.0	35.3	1	1.9		4.1			150	1					2
GR-9	3	P.35	409+18.11	RT	TO	410+68.82	RT	97.6			1.5		2.7		87.5			1	1			2
GR-10	4	P.36	461+24.66	RT	TO	462+38.46	RT	115.0	33.4	1	1.1		2.5			75	1					1
GR-11	4	P.36	460+62.35	RT	TO	461+76.60	RT	181.5	6.5	1	1.1		2.4		62.5			1			1	
GR-12	4	P.36	463+57.95	LT	TO	465+71.76	LT	194.5	35.3	1	2.1		4.6			175	1					3
GR-13	5	P.37	514+59.91	RT	TO	516+72.66	RT	65.0	88.8	2	2.1		4.6			162.5	1		1			3
GR-14	5	P.37	513+54.62	RT	TO	515+17.02	RT	162.2	2.1	1	1.6		3.1		112.5			1			2	
GR-15	5	P.37	514+91.09	LT	TO	518+70.05	LT		148.9	2	3.8		8.1			325	1		1			5
GR-16	5	P.37	516+38.58	LT	TO	518+04.57	LT	193.3	49.3	1	1.7		3.8		112.5			1			2	
GR-17	6	P.38	569+91.67	RT	TO	571+31.53	RT	117.1			1.4		2.7		75			1	1			2
GR-18	6	P.38	569+49.64	RT	TO	571+26.97	RT	159.3			1.8		5.6		112.5			1	1		2	
GR-19	6	P.38	571+07.07	LT	TO	573+33.82	LT	204.0	2.5	1	2.3		5.9		175			1				3
GR-20	6	P.38	571+00.01	LT	TO	572+52.36	LT	122.0			1.5		3.0		87.5			1	1			2
GR-21	7	P.39	678+53.43	LT	TO	679+89.30	LT	102.5			1.4		3.4		75			1	1			2
SUBTOTALS									421.5	15	33.4		79.9		1562.5	887.5	5	14	10	2	11	37
TOTALS CARRIED TO GENERAL SUMMARY									422	15	34		80		1562.5	887.5	5	14	10	2	11	37

LAK-90-8.77 VSL SIGNS

MODEL: Plan 16 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:13:06 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.31 TOTAL P.66

PROPOSED VSL SIGN

PROPOSED PULL BOX, 32", ITS OR TRAFFIC

PROPOSED PULL BOX, 24", ELECTRIC

FO — PROPOSED FIBER OPTIC MICRO-DUCT PATHWAY

T — PROPOSED TRAFFIC CONDUIT (OPEN CUT)

T — PROPOSED TRAFFIC CONDUIT (JACKED OR DRILLED)

E — PROPOSED POWER CONDUIT (OPEN-CUT)

E — PROPOSED POWER CONDUIT (JACKED OR DRILLED)

EXISTING GUARDRAIL

PROPOSED GUARDRAIL

PROPOSED CCTV CAMERA, CONCRETE POLE, ELECTRIC PULL BOX, TRAFFIC PULL BOX, ITS CABINET, PDC CABINET AND WORK PAD

PROPOSED ITS CABINET AND WORK PAD

EXISTING POWER POLE

PROPOSED POWER POLE

PROPOSED FRONT-ACCESS DMS

PROPOSED RWIS

PROPOSED SOIL BORING

PROPOSED SITE ACCESS PARKING

FUTURE TEMPORARY PAVEMENT ASSOCIATED WITH FUTURE LAK-90-6.99, PID 116955 PROJECT

ITS -XX — ITS ITEM

PB-XX — PULLBOX ITEM

AP-XX — ACCESS PARKING ITEM

GR-XX — GUARDRAIL ITEM

NOTES:

EXISTING UTILITY LOCATIONS ARE FOR REFERENCE ONLY AND MAY NOT BE EXACT. CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES MARKED BEFORE DIGGING. AERIAL/OVERHEAD UTILITY LINES ARE NOT SHOWN. SEE UTILITY NOTE IN PLAN GENERAL NOTES FOR MORE INFO.

HORIZONTAL SCALE IN FEET
0 20 40 80

VSL SIGNS SITE PLANS LEGEND

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.32 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Legend - Plan 13 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:13:14 PM USER: PetersonH
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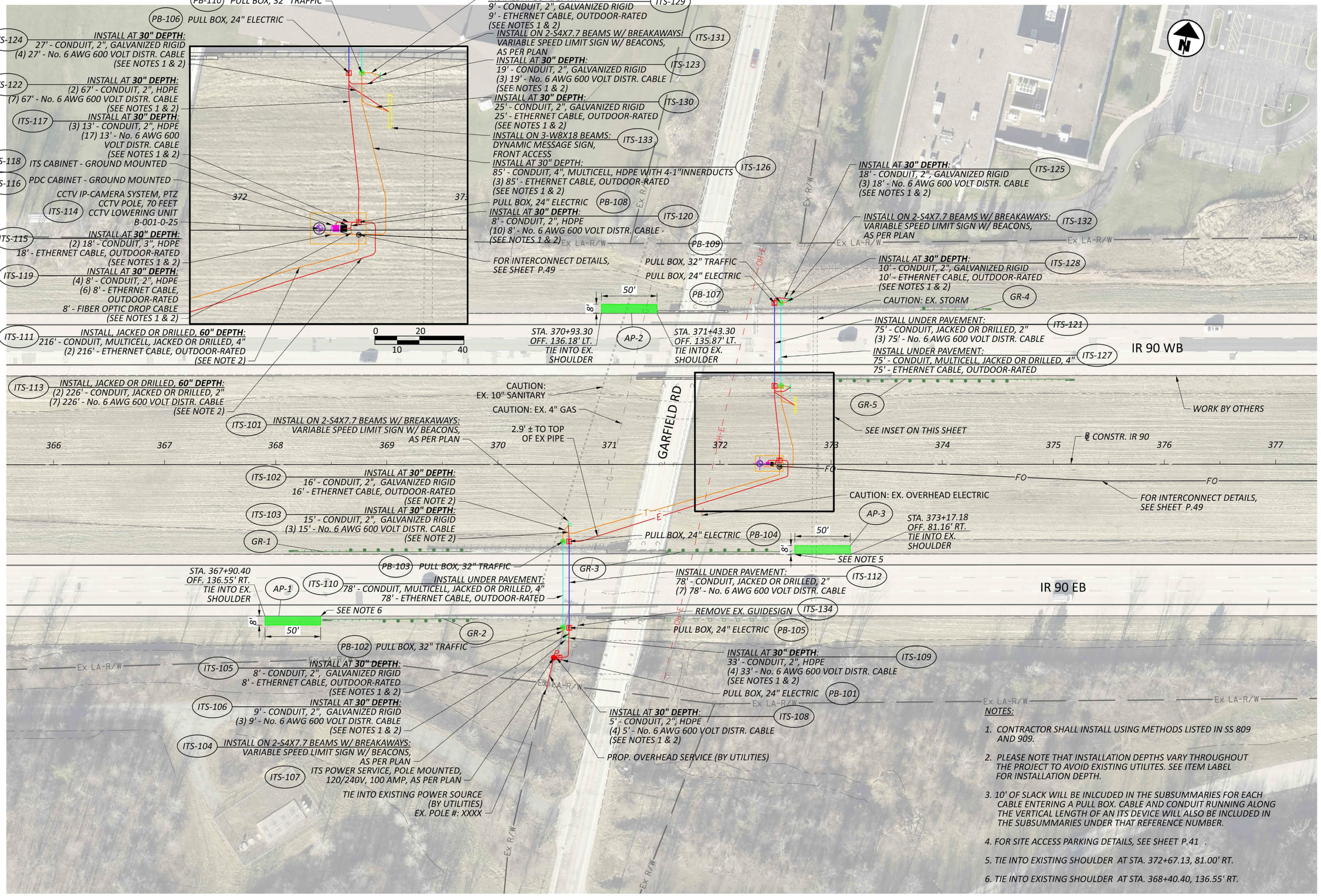

NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 909.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
4. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 .
5. TIE INTO EXISTING SHOULDER AT STA. 372+67.13, 81.00' RT.
6. TIE INTO EXISTING SHOULDER AT STA. 368+40.40, 136.55' RT.

HORIZONTAL SCALE IN FEET 0 20 40 80

SITE 1 GARFIELD ROAD OVERPASS

DESIGN AGENCY
AECOM

DESIGNER SMS
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.33 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Site 6 - Plan 7 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:13:34 PM USER: PetersonH
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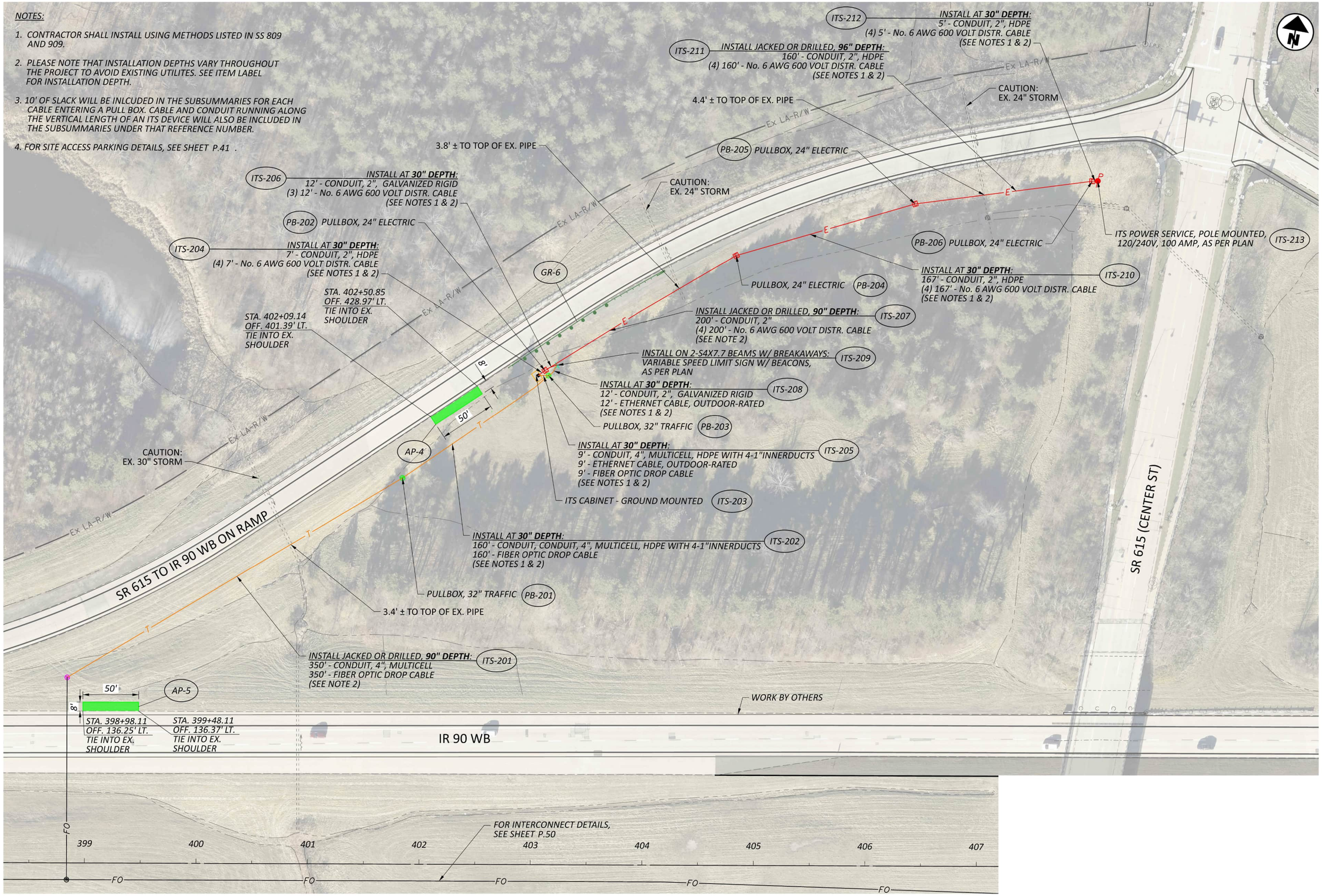
NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 909.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
4. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 .



HORIZONTAL SCALE IN FEET
0 20 40 80

SITE 2
SR615 WB ON RAMP

LAK-90-8.77 VSL SIGNS

MODEL: Site 7A - Plan 8 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:14:11 PM USER: PetersonH
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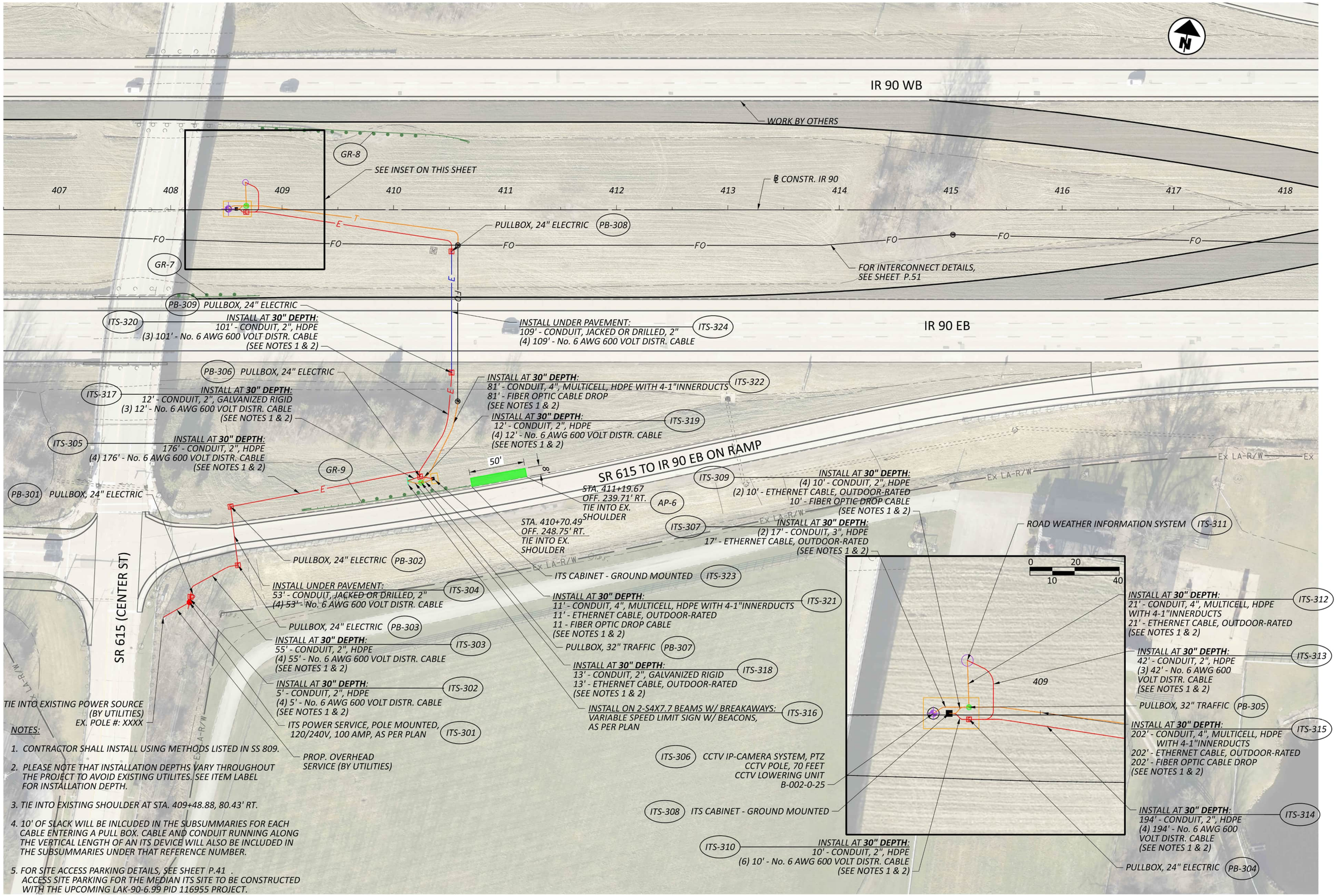
DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.34 TOTAL P.66



NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. TIE INTO EXISTING SHOULDER AT STA. 409+48.88, 80.43' RT.
4. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
5. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 . ACCESS SITE PARKING FOR THE MEDIAN ITS SITE TO BE CONSTRUCTED WITH THE UPCOMING LAK-90-6.99 PID 116955 PROJECT.

HORIZONTAL SCALE IN FEET
0 20 40 80

SITE 3
SR615 EB ON RAMP

DESIGN AGENCY
AECOM

DESIGNER SMS
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.35 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Site 7B - Plan 14 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:14:39 PM USER: PetersonH
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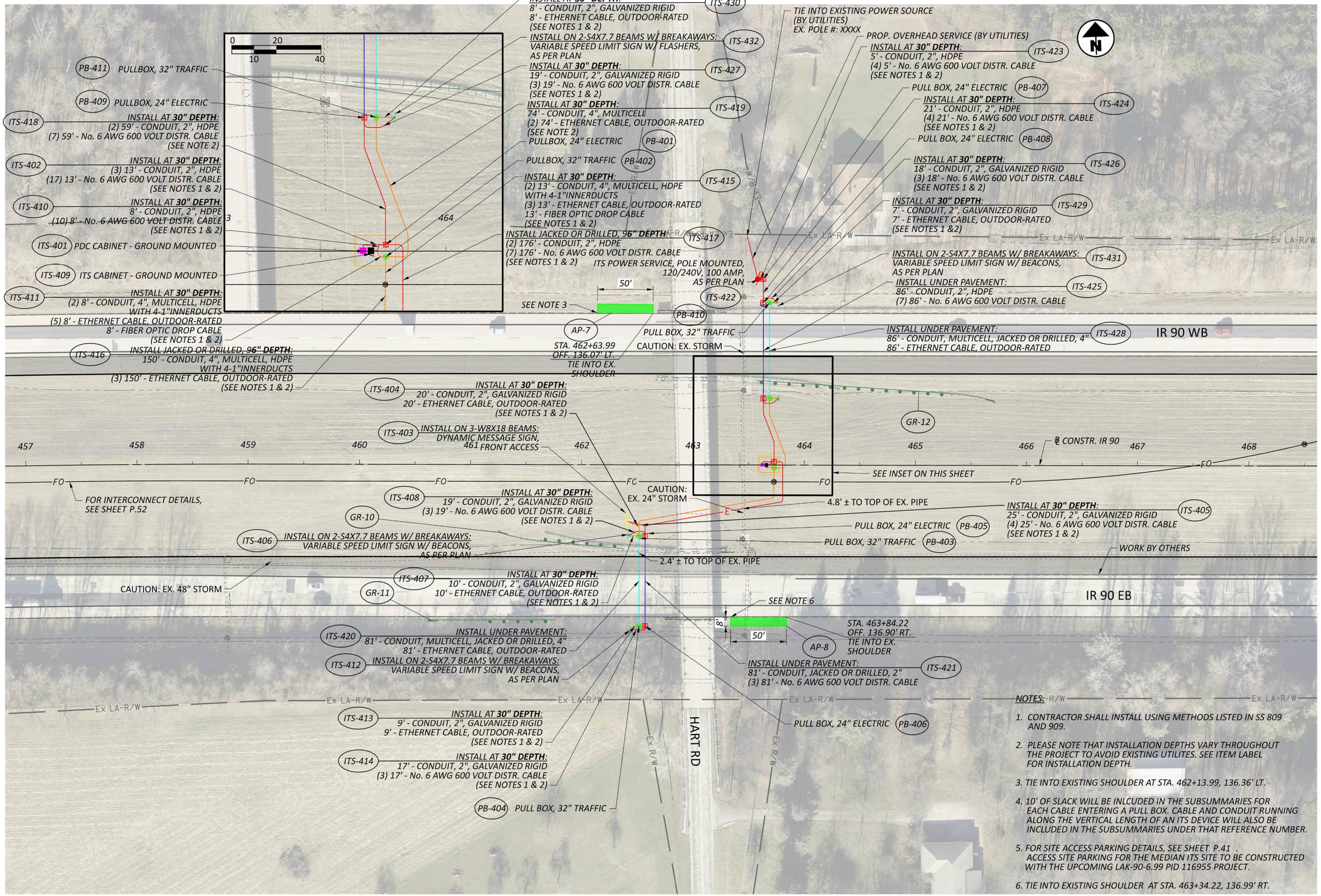

HORIZONTAL SCALE IN FEET 0 20 40 80

SITE 4 HART ROAD OVERPASS

LAK-90-8.77 VSL SIGNS

MODEL: Site 8 - Plan 9 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:15:12 PM USER: PetersonH
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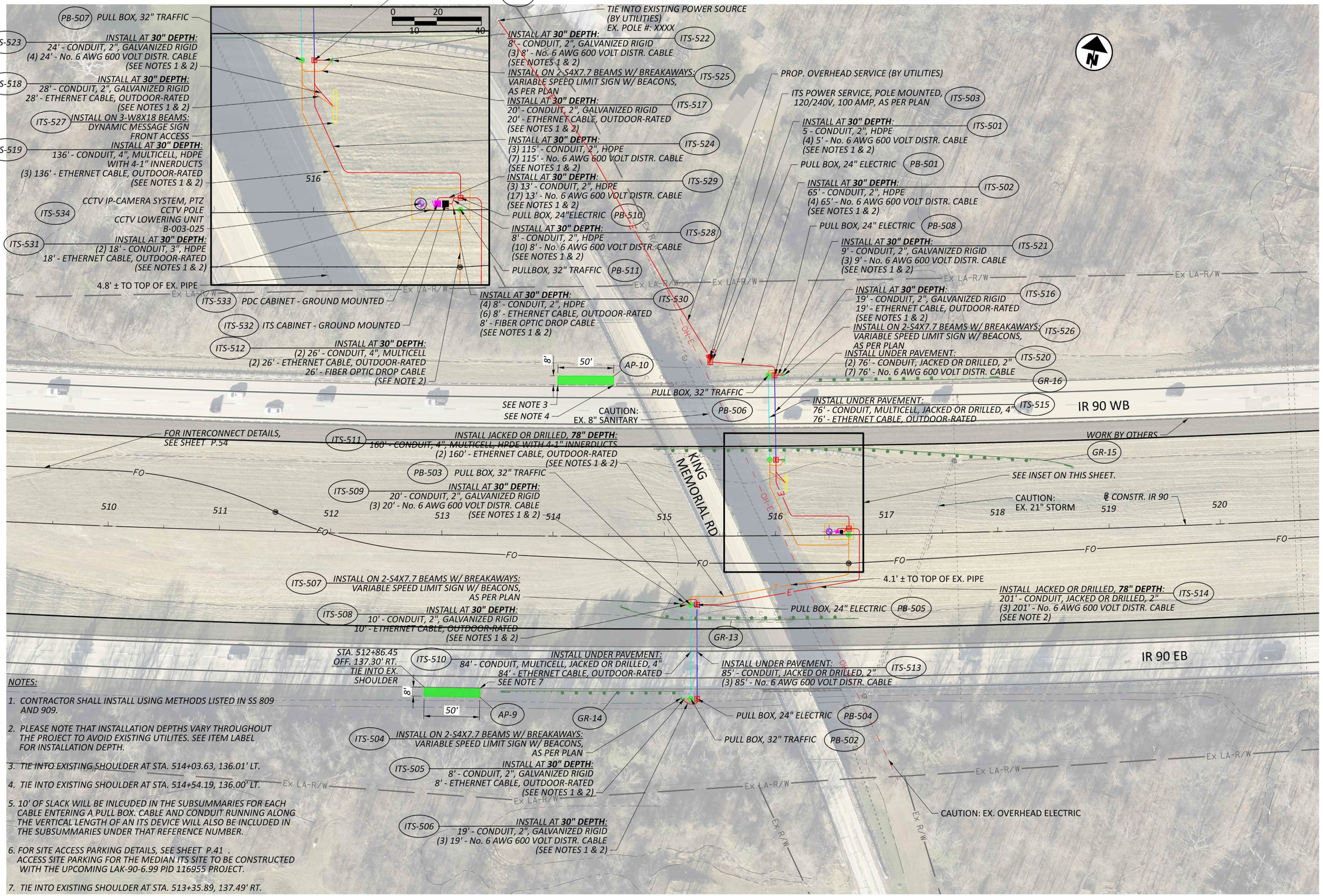
DESIGN AGENCY
AECOM

DESIGNER SMS
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.36 TOTAL P.66



NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 909.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. TIE INTO EXISTING SHOULDER AT STA. 514+03.63, 136.01' LT.
4. TIE INTO EXISTING SHOULDER AT STA. 514+54.19, 136.00' LT.
5. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
6. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 . ACCESS SITE PARKING FOR THE MEDIAN ITS SITE TO BE CONSTRUCTED WITH THE UPCOMING LAK-90-6.99 PID 116955 PROJECT.
7. TIE INTO EXISTING SHOULDER AT STA. 513+35.89, 137.49' RT.

LAK-90-8.77 VSL SIGNS

MODEL: Site 9 - Plan 10 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:15:44 PM USER: PetersonH
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SITE 5
KING MEMORIAL OVERPASS

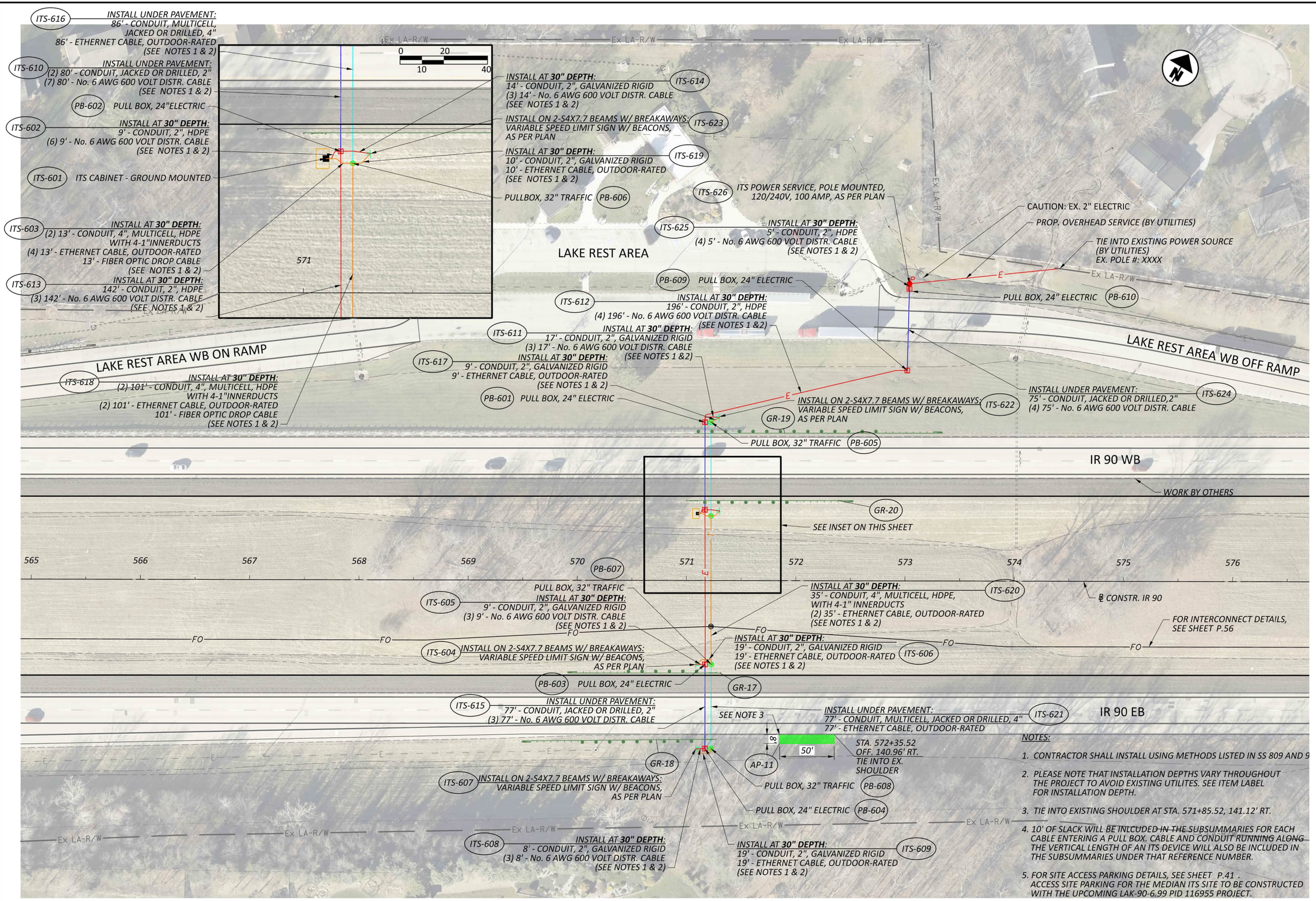
DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.37 TOTAL P.66



NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 9
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. TIE INTO EXISTING SHOULDER AT STA. 571+85.52, 141.12' RT.
4. 10' OF SLACK WILL BE INCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
5. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 . ACCESS SITE PARKING FOR THE MEDIAN ITS SITE TO BE CONSTRUCTED WITH THE UPCOMING LAK-90-6.99 PID 116955 PROJECT.

HORIZONTAL SCALE IN FEET 0 20 40 80

SITE 6
LAKE AND CONCORD REST AREAS

DESIGN AGENCY
AECOM

DESIGNER SMS
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.38 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Site 10 - Plan 11 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:16:16 PM USER: PetersonH
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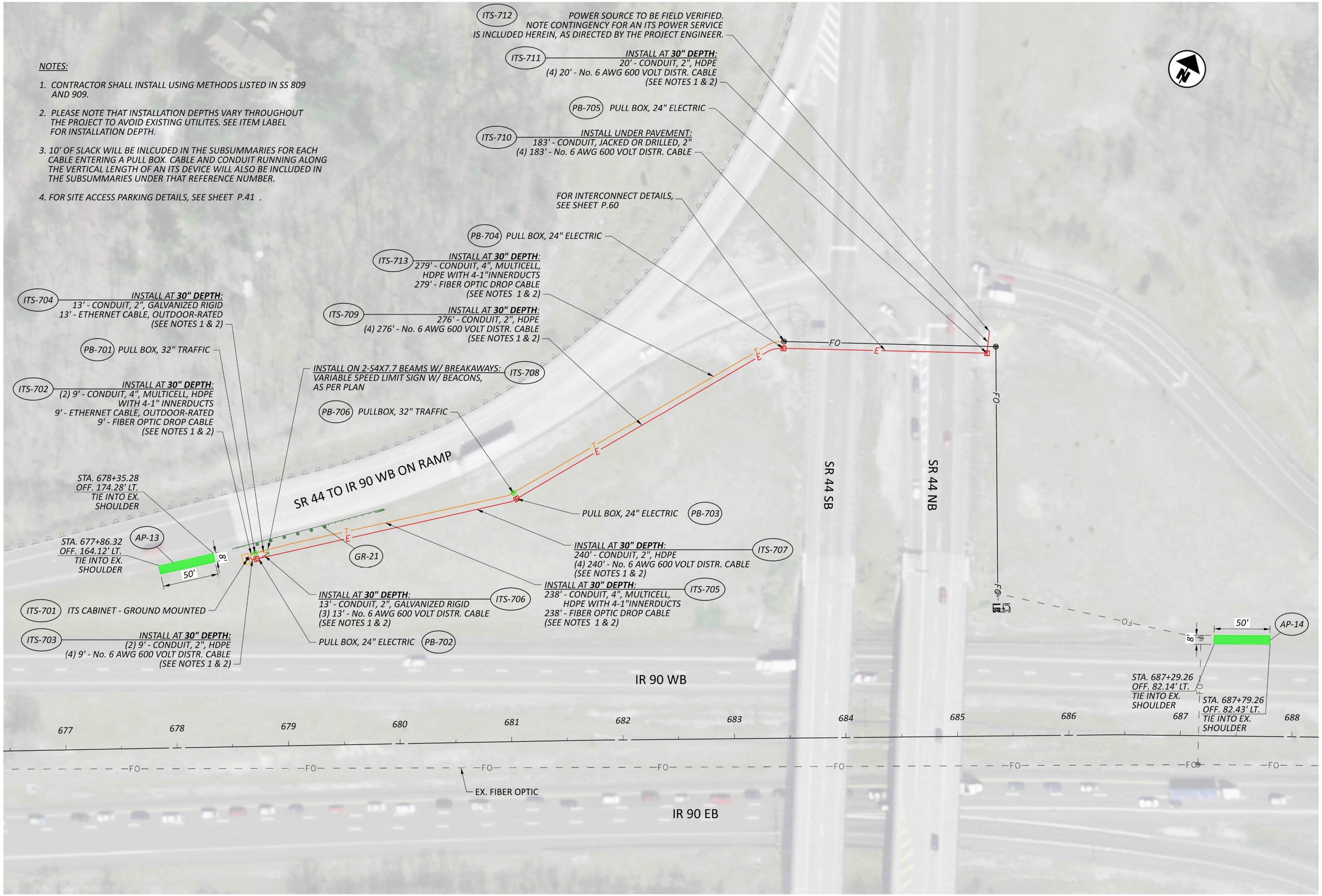
NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 909.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
4. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 .



HORIZONTAL SCALE IN FEET
0 20 40 80

SITE 7
SR 44 INTERCHANGE ON-RAMP FOR WB I-90

DESIGN AGENCY
AECOM

DESIGNER SMS
REVIEWER MAW 10-23-25
PROJECT ID 122092
SHEET P.39 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Site 11 - Plan 12 PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:16:47 PM USER: PetersonH
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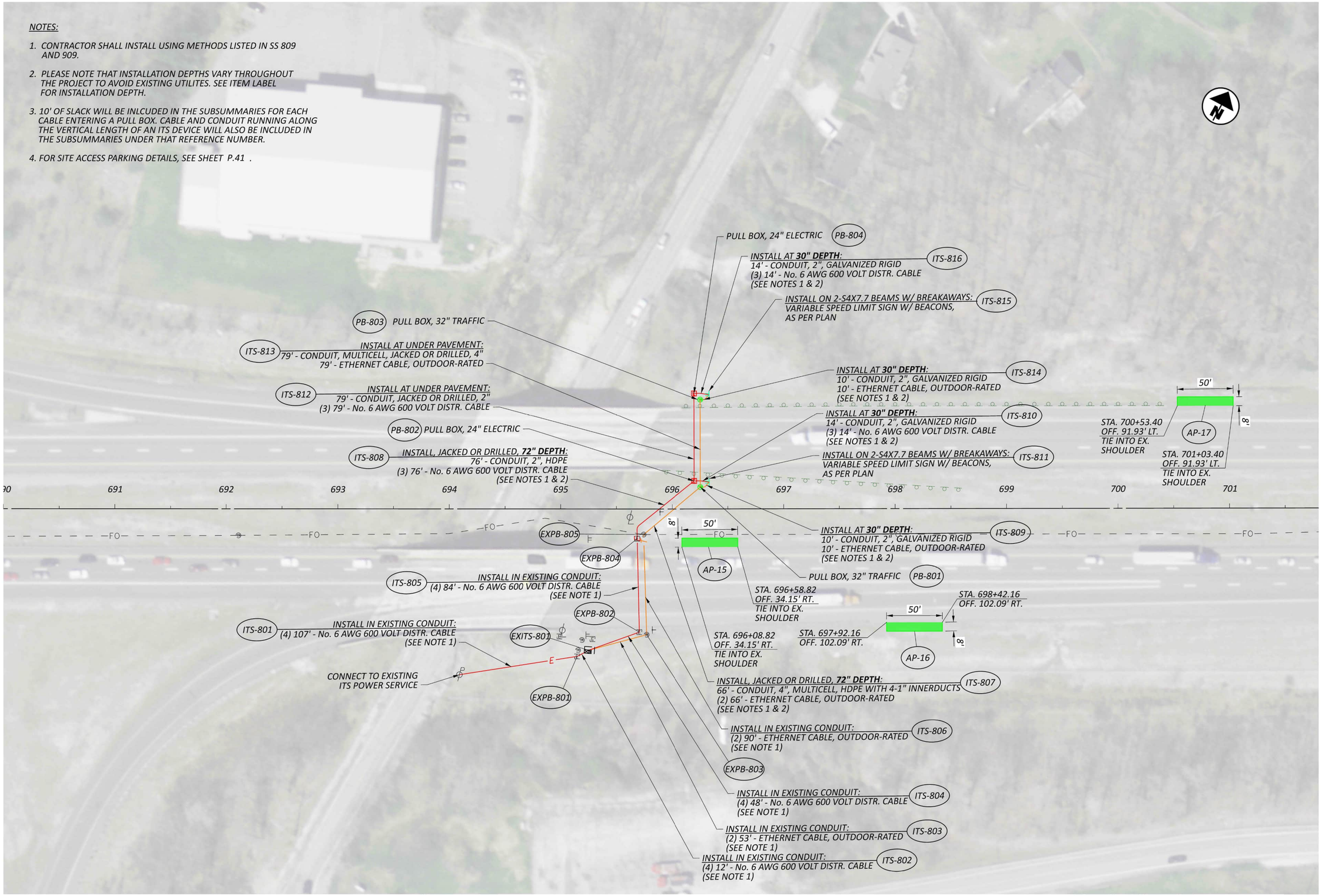
NOTES:

1. CONTRACTOR SHALL INSTALL USING METHODS LISTED IN SS 809 AND 909.
2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.
3. 10' OF SLACK WILL BE INLCUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX. CABLE AND CONDUIT RUNNING ALONG THE VERTICAL LENGTH OF AN ITS DEVICE WILL ALSO BE INCLUDED IN THE SUBSUMMARIES UNDER THAT REFERENCE NUMBER.
4. FOR SITE ACCESS PARKING DETAILS, SEE SHEET P.41 .



HORIZONTAL SCALE IN FEET
0 20 40 80

SITE 8
AUBURN RD

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.40 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Site 8 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:37:17 PM USER: PetersonH
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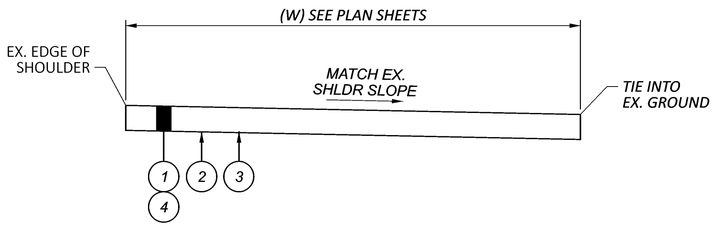
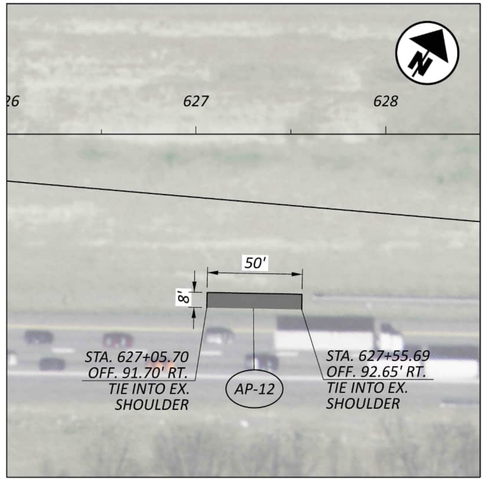
LEGEND

1. ITEM 203 - EXCAVATION
2. ITEM 204 - SUBGRADE COMPACTION
3. ITEM 204 - GEOGRID
4. ITEM 304 - AGGREGATE BASE [T=8" GRAVEL DRIVE]



SITE ACCESS PARKING AGGREGATE DETAIL



SPLICE ENCLOSURE ACCESS PARKING DETAIL

HORIZONTAL SCALE IN FEET
0 20 40 80

SITE ACCESS PARKING DETAILS

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.41 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:17:19 PM USER: PetersonH
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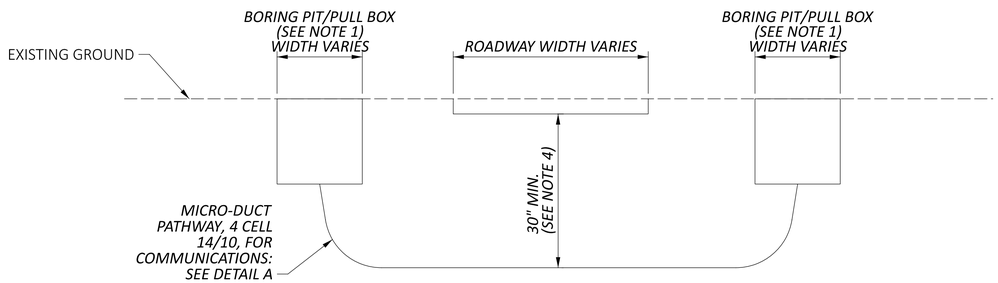
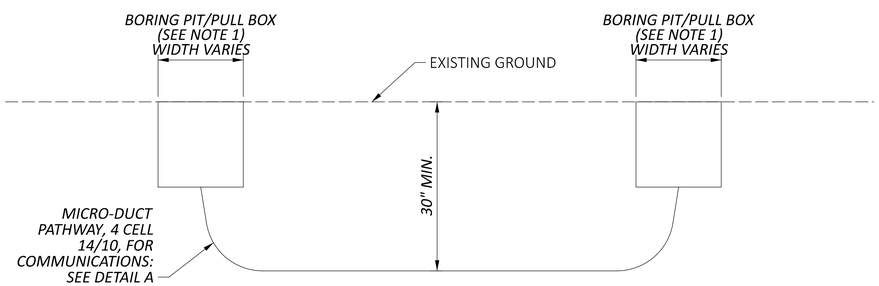
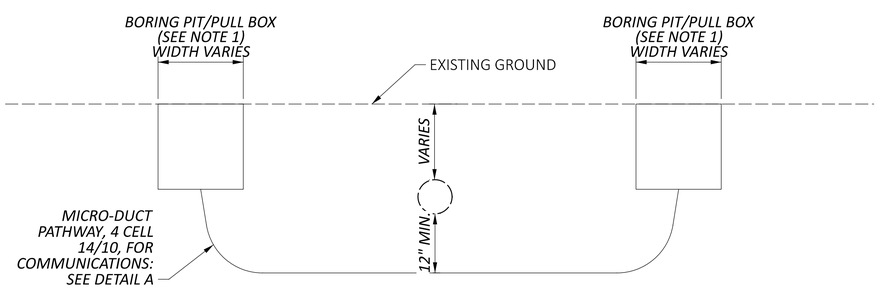


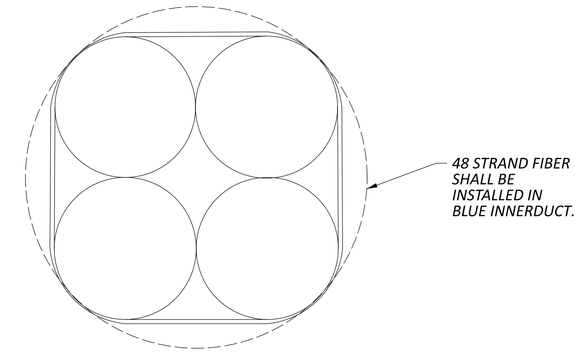
DIRECTIONAL BORE (UNDER ROADWAY) - NOT TO SCALE



DIRECTIONAL BORE (UNPAVED AREAS) - NOT TO SCALE



DIRECTIONAL BORE (UNPAVED AREAS) - NOT TO SCALE



DETAIL A

NOTES:

1. BORE PIT INCLUDES PULL BOX AT LOCATIONS SPECIFIED IN PLAN SHEETS.
2. IN THE EVENT OF A FRAC OUT, SEE CONTRACTOR PREPARED SWPPP FOR DETAILS.
3. BORE DETAILS ARE FOR INFOMATION ONLY AND DO NOT RESTRICT FINAL BORING MEANS AND METHODS.
4. ANY LOCATIONS WHERE DUCT CROSSES UNDER GUARDRAIL IS REQUIRED TO BE A MINIMUM 10 FEET BELOW EXISTING GRADE.

DIRECTIONAL BORE DETAILS

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.42 TOTAL P.66

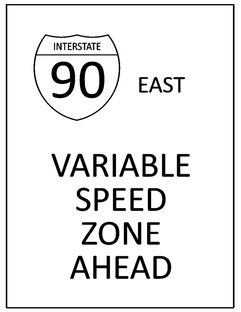
LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:17:40 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GM003.dgn

ADVANCED WARNING SIGN:

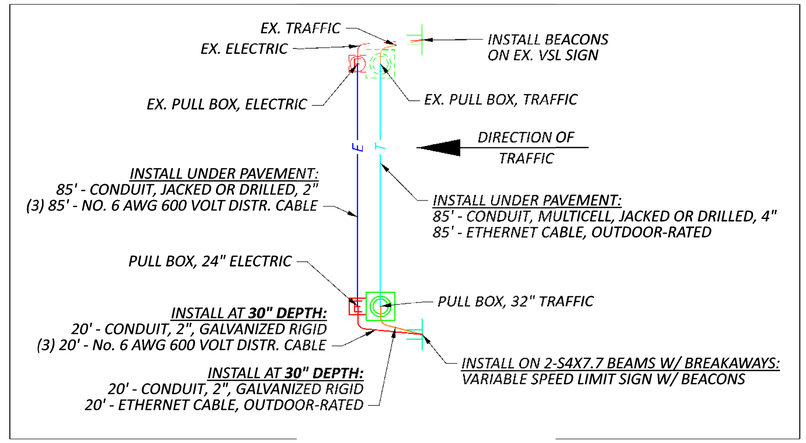
THE REMOVAL AND SALVAGING OF THE TWO EXISTING I-90 EB ADVANCE WARNING NOTIFICATION SIGNS AT APPROX. STA. 644+82.00 SHALL BE RELOCATED IN FRONT OF THE BROADMOOR RD OVERPASS, APPROX. ONE MILE AHEAD OF THE SITE #6 VSL SIGNS AT STA. 370+80. SIGNS SHALL BE INSTALLED ON BOTH THE I-90 EB INTERIOR MEDIAN AND I-90 EB EXTERIOR. GUARDRAIL PROTECTION MAY BE REQUIRED FOR THE PROPOSED WORK.

THE ADVANCED WARNING SIGNAGE SHALL BE INSTALLED ON 2-W10 X 12 BEAMS WITH BREAKAWAYS.



ADVANCED WARNING SIGN

REMOVE AND SALVAGE AT STA. 644+82.00
RELOCATE TO ONE MILE AHEAD OF SITE #1 VSL SIGNS.



PROPOSED MEDIAN VSL ADJACENT TO EXISTING VSL TYPICAL DETAIL

THIS ITEM WILL BE PAID FOR UNDER:

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION ..... 2 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND REERECTION ..... 4 EACH

ITEM 630 - BREAKAWAY STRUCTURAL BEAM CONNECTION ..... 4 EACH

ITEM 630 - GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION ..... 4 EACH

SITE NO.	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED	209 LINEAR GRADING, AS PER PLAN	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN, (UNDER GUARDRAIL)	606 GUARDRAIL, TYPE MGS	606 GUARDRAIL, BARRIER DESIGN, TYPE MGS	606 ANCHOR ASSEMBLY, TYPE B	606 ANCHOR ASSEMBLY, MGS TYPE E	606 ANCHOR ASSEMBLY, MGS TYPE T	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	625 CONDUIT, 2", 725.04	625 CONDUIT, JACKED OR DRILLED, 725.051, 2"	625 TRENCH, 30" DEEP	625 PULL BOX, 725.08, 24"	625 GROUND ROD	625 UNDERGROUND WARNING/MARKING TAPE	626 BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	633 CONTROLLER WORK PAD, AS PER PLAN	809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	809 CONDUIT, MULTICELL, JACKED OR DRILLED, 4"	809 VARIABLE SPEED LIMIT SIGN WITH BEACONS, AS PER PLAN	809 ETHERNET CABLE, OUTDOOR-RATED	809 ITS DEVICE, MISC.: BEACONS, AS PER PLAN
	FT	EACH	STA	CY	FT	FT	EACH	EACH	EACH	EACH	FT	FT	FT	FT	EACH	EACH	FT	EACH	FT	EACH	EACH	EACH	EACH	FT	EACH	FT	EACH
EX.4 - I-90 EB AT AUBURN ROAD																											2
EX.5 - I-90 AT OLD SR 44	146.0	4	3.5	7.6		250.0	2		2		810	120	170	80	2	6	80	4	60	4	4	2	2	170	2	270	2
EX.6 - I-90 AT PAINESVILLE-WARREN ROAD											810	120	170	80	2	6	80		60	4	4	2	2	170	2	270	2
EX.7 - I-90 AT VROOMAN ROAD	86.8	4	5.5	11.9		450.0	2		2		810	120	170	80	2	6	80	7	60	4	4	2	2	170	2	270	4
EX.8 - I-90 AT PAINE ROAD			1.4	2.2	87.5				1	1	810	120	170	80	2	6	80	2	60	4	4	2	2	170	2	270	2
EX.9 - I-90 AT BAKER ROAD			2.1	3.4	112.5			2	2		810	120	170	80	2	6	80	3	60	4	4	2	2	170	2	270	2
EX.10 - I-90 AT DAYTON ROAD			2.3	3.6	125.0			2	2		810	120	170	80	2	6	80	2	60	4	4	2	2	170	2	270	2
EX.11 - I-90 AT SR 528																											3
SUBTOTALS	232.8	8	14.8	28.7	325.0	700	4	4	9	1	4860	720	1020	480	12	36	480	18	360	24	24	12	12	1020	12	1620	19
TOTALS CARRIED TO GENERAL SUMMARY	233	8	15	29	325.0	700	4	4	9	1	4860	720	1020	480	12	36	480	18	360	24	24	12	12	1020	12	1620	19

LAK-90-8.77 VSL SIGNS

MODEL: GM001 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:17:48 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GM001.dgn

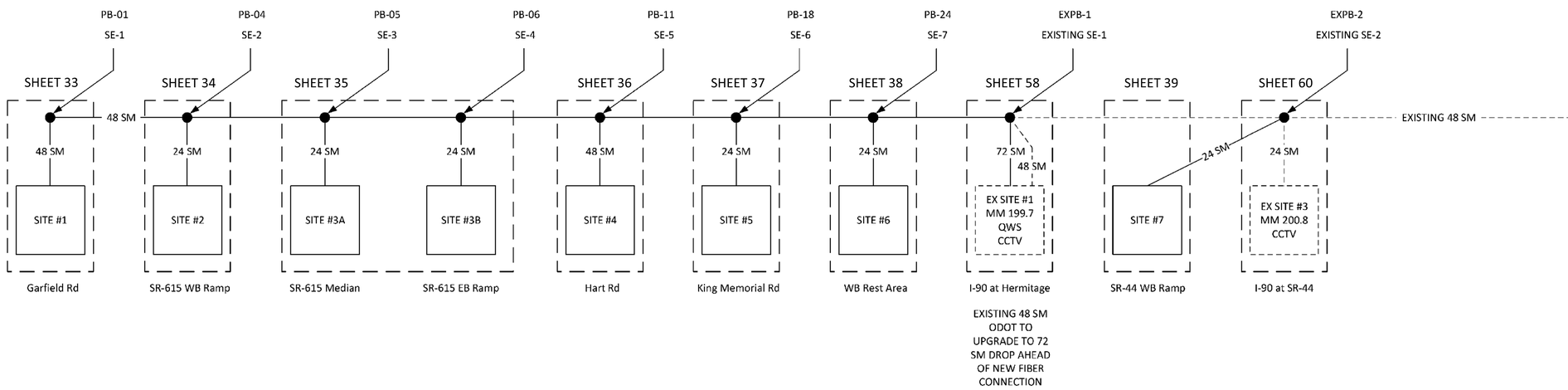
MISCELLANEOUS DETAILS
ADVANCED WARNING SIGN AND EXISTING SIGN UPGRADES

DESIGN AGENCY
AECOM

DESIGNER
SMS

REVIEWER
MAW 10-23-25

PROJECT ID
122092



ODOT FIBER SPLICING DETAILS

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:18:12 PM USER: PetersonH
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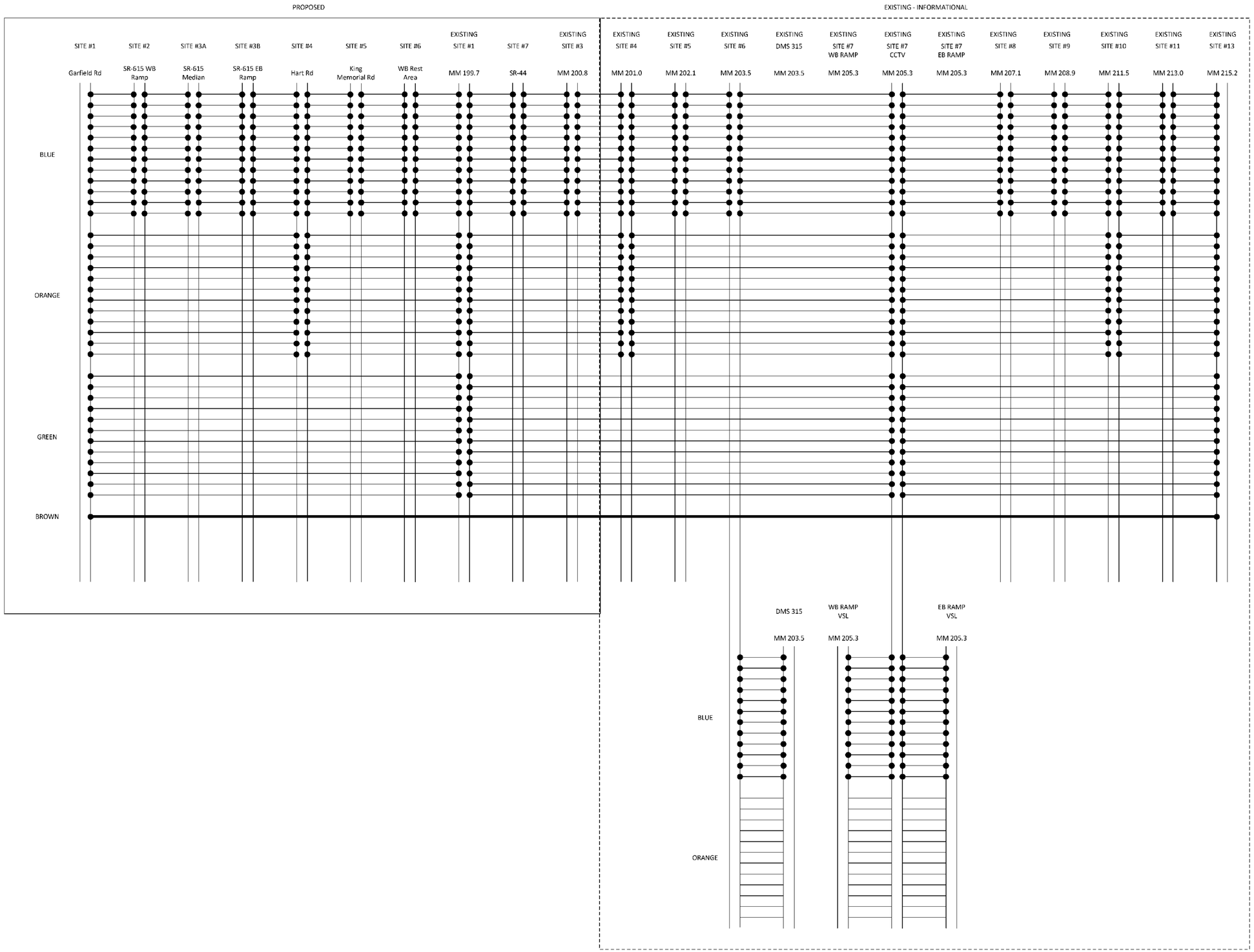
DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.44 TOTAL P.66



ODOT FIBER TERMINATION DETAILS

LAK-90-8.77 VSL SIGNS

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DESIGN AGENCY
AECOM

DESIGNER
HMP

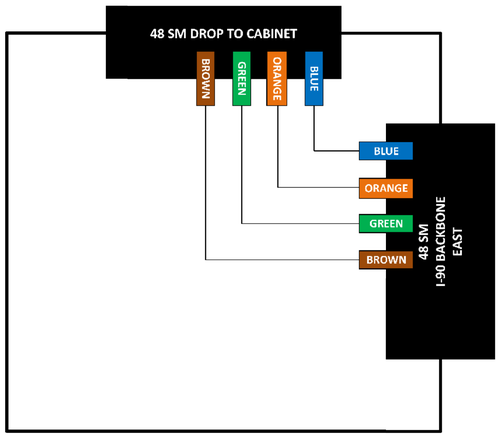
REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.45 TOTAL P.66

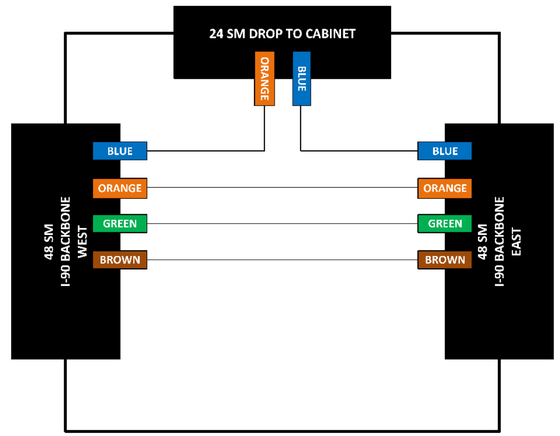
TYPICAL FOR:

SE-1



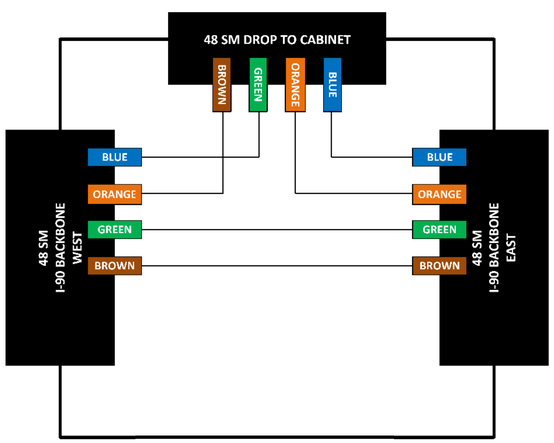
TYPICAL FOR:

SE-2
SE-3
SE-4
SE-6
SE-7



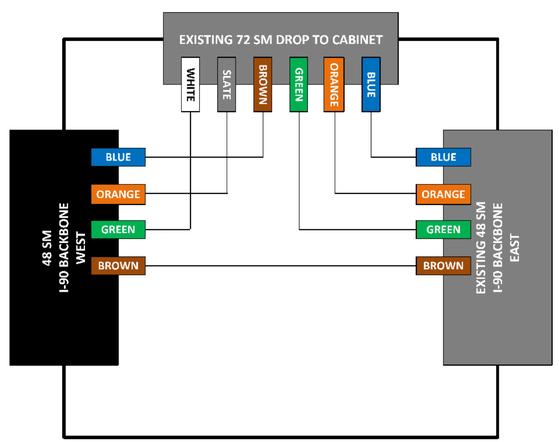
TYPICAL FOR:

SE-5



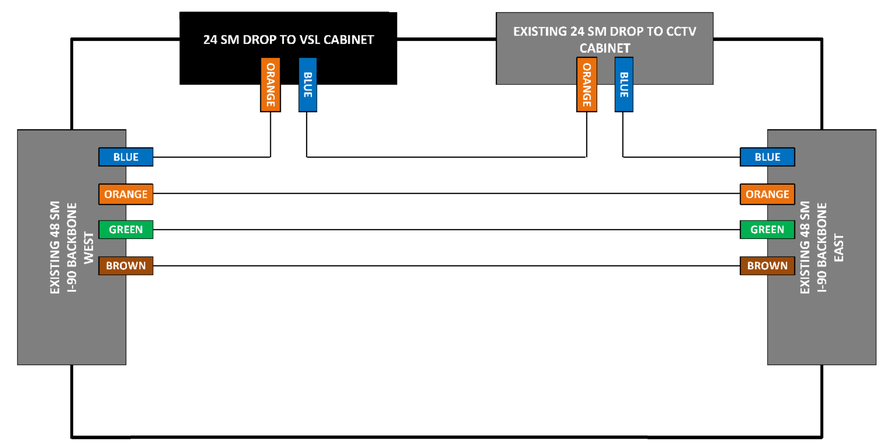
TYPICAL FOR:

EXISTING SE-1



TYPICAL FOR:

EXISTING SE-2



ODOT FIBER SPICE ENCLOSURE TYPICALS

LAK-90-8.77 VSL SIGNS

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DESIGN AGENCY

AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.46 TOTAL P.66

REF NO.	SHEET NO.	STATION TO STATION					625 TRENCH, 30" DEEP FT	625 GROUND ROD EACH	SPECIAL ND WARNING/MARKING TAPE FT		804 FIBER OPTIC CABLE, 48 FIBER FT	804 DROP CABLE, 48 FIBER FT	804 FIBER TERMINATION PANEL, 48 FIBER EACH	804 FUSION SPLICE EACH	804 SPLICE ENCLOSURE, BUTT STYLE EACH		809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1 EACH	809 MICRO-DUCT PATHWAY, 4 CELL 14/10 FT	809 MICRO-DUCT PATHWAY, JACKED OR DRILLED, 4 CELL 14/10 FT	809 ETHERNET CABLE, OUTDOOR-RATED FT
PB-01	P.49	372+53.46	RT					1			150	10		12	1		1			90
IC-01	P.49	372+53.46	RT	TO	380+00.00	RT	747		747		747							747		
PB-02	P.49	380+00.00	RT					1			300						1			
IC-02	P.49 P.50	380+00.00	RT	TO	398+83.90	RT	1884		1884		1884							1884		
PB-03	P.50	398+83.90	RT					1			450						1			
IC-03	P.50	398+83.90	RT	TO	398+83.90	LT					362								181	
PB-04	P.50	398+83.90	LT					1			150	10		12	1		1			
IC-04	P.50 P.51	398+83.90	RT	TO	410+57.72	RT	1175		1175		1175							1175		
PB-05	P.51	410+57.72	RT					1			450	10		12	1		1			10
IC-05	P.51	410+57.72	RT	TO	410+57.48	RT					280								140	
PB-06	P.51	410+57.48	RT					1			150	10		12	1		1			
IC-06	P.51	410+57.72	RT	TO	415+01.82	RT	445		445		445							445		
PB-07	P.51	415+01.82	RT					1			300						1			
IC-07	P.51	415+01.82	RT	TO	427+00.00	RT					1198								1198	
PB-08	P.51	427+00.00	RT					1			300						1			
IC-08	P.51	427+00.00	RT	TO	432+24.10	RT	526		526		526							526		
PB-09	P.51	432+24.10	RT					1			300						1			
IC-09	P.51 P.52	432+24.10	RT	TO	446+50.11	RT	1425		1425		1425							1425		
PB-10	P.52	446+50.11	RT					1			300						1			
IC-10	P.52	446+50.11	RT	TO	463+72.82	RT	1721		1721		1721							1721		
PB-11	P.52	463+72.82	RT					1			300	10		12	1		1			60
IC-11	P.52 P.53	463+72.82	RT	TO	468+50.00	LT	480		480		480							480		
PB-12	P.53	468+50.00	LT					1			300						1			
IC-12	P.53	468+50.00	LT	TO	478+47.64	LT					1000								1000	
PB-13	P.53	478+47.64	LT					1			300						1			
IC-13	P.53 P.54	478+47.64	LT	TO	495+52.98	LT	1701		1701		1701							1701		
PB-14	P.54	495+52.98	LT					1			300						1			
IC-14	P.54	495+52.98	LT	TO	499+59.86	LT	405		405		405							405		
PB-15	P.54	499+59.86	LT					1			300						1			
IC-15	P.54	499+59.86	LT	TO	504+61.85	LT					500								500	
PB-16	P.54	504+61.85	LT					1			300						1			
IC-16	P.54	504+61.85	LT	TO	511+50.00	LT	690		690		690							690		
PB-17	P.54	511+50.00	LT					1			300						1			
IC-17	P.54	511+50.00	LT	TO	516+65.44	RT					521								521	
PB-18	P.54	516+65.44	RT					1			300	10		12	1		1			30
IC-18	P.54 P.55	516+65.44	RT	TO	526+00.00	RT	938		938		938							938		
PB-19	NOT USED																			
IC-19	NOT USED																			
PB-20	P.55	526+00.00	RT					1			300						1			
IC-20	P.55	526+00.00	RT	TO	538+00.64	RT	1208		1208		1208							1208		
PB-21	P.55	538+00.64	RT					1			300						1			
IC-21	P.55 P.56	538+00.64	RT	TO	550+93.15	RT	1298		1298		1298							1298		
PB-22	P.56	550+93.15	RT		.			1			300						1			
IC-22	P.56	550+93.15	RT	TO	560+90.63	RT					1000								1000	
PB-23	P.56	560+90.63	RT					1			300						1			
SUBTOTALS (CARRIED TO P.48)							14643	22	14643		25954	60		72	6		22	14643	4540	190

INTERCONNECT SUBSUMMARY

LAK-90-8.77 VSL SIGNS

MODEL: Plan 17 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:19:52 PM USER: PetersonH
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DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.47 TOTAL P.66

INTERCONNECT SUBSUMMARY

REF NO.	SHEET NO.	STATION TO STATION					625 TRENCH, 30" DEEP (FT)	625 GROUND ROD (EACH)	SPECIAL ND WARNING/MARKING TAPE (FT)		804 FIBER OPTIC CABLE, 48 FIBER (FT)	804 DROP CABLE, 48 FIBER (FT)	804 FIBER TERMINATION PANEL, 48 FIBER (EACH)	804 FUSION SPLICE (EACH)	804 SPLICE ENCLOSURE, BUTT STYLE (EACH)		809 ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1 (EACH)	809 MICRO-DUCT PATHWAY, 4 CELL 14/10 (FT)	809 MICRO-DUCT PATHWAY, JACKED OR DRILLED, 4 CELL 14/10 (FT)	809 ETHERNET CABLE, OUTDOOR-RATED (FT)
IC-23	P.56	560+90.63	RT	TO	571+22.57	RT	1032		1032		1032							1032		
PB-24	P.56	571+22.57	RT					1			300	10		12	1		1			40
IC-24	P.56 P.57	571+22.57	RT	TO	583+49.32	RT	1230		1230		1230							1230		
PB-25	P.57	583+49.32	RT					1			300						1			
IC-25	P.57	583+49.32	RT	TO	601+00.16	RT	1752		1752		1752							1752		
PB-26	P.57	601+00.16	RT					1			300						1			
IC-26	P.57 P.58	601+00.16	RT	TO	611+99.92	RT					1100								1100	
PB-27	P.58	611+99.92	RT					1			300						1			
IC-27	P.58	611+99.92	RT	TO	631+29.71	RT	1931		1931		1931							1931		
EXPB-1	P.58	631+29.71	RT					1			150	10	1							
PB-28	P.60	683+47.98	LT					1			150	10		12	1		1			
IC-28	P.60	683+47.98	LT	TO	685+38.11	LT					380								190	
PB-29	P.60	685+38.11	LT					1			300						1			
IC-29	P.60	685+38.11	LT	TO	685+37.60	LT	222		222		444							222		
EXPB-2	P.60	685+37.60	LT					1			150	10	1							
SUBTOTALS (THIS SHEET)							6167	8	6167		9819	40	2	24	2		6	6167	1290	40
SUBTOTALS (CARRIED FROM P.47)							14643	22	14643		25954	60		72	6		22	14643	4540	190
TOTALS CARRIED TO GENERAL SUMMARY							20810	30	20810		35773	100	2	96	8		28	20810	5830	230

LAK-90-8.77 VSL SIGNS

MODEL: Plan 17 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:20:00 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GS018.dgn

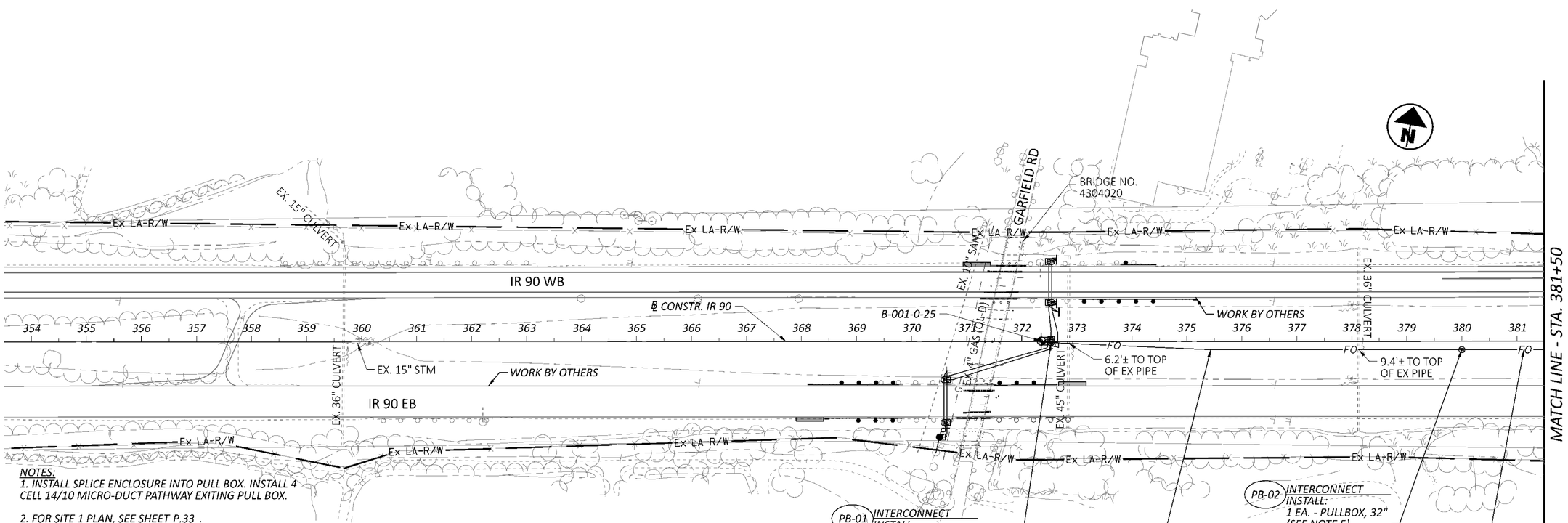
DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.48 TOTAL P.66



NOTES:

1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY EXITING PULL BOX.

2. FOR SITE 1 PLAN, SEE SHEET P.33 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.

HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
BEGINNING TO STA. 381+50.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.49 TOTAL P.66

LAK-90-8.77 VSL SIGNS

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GP104.dgn

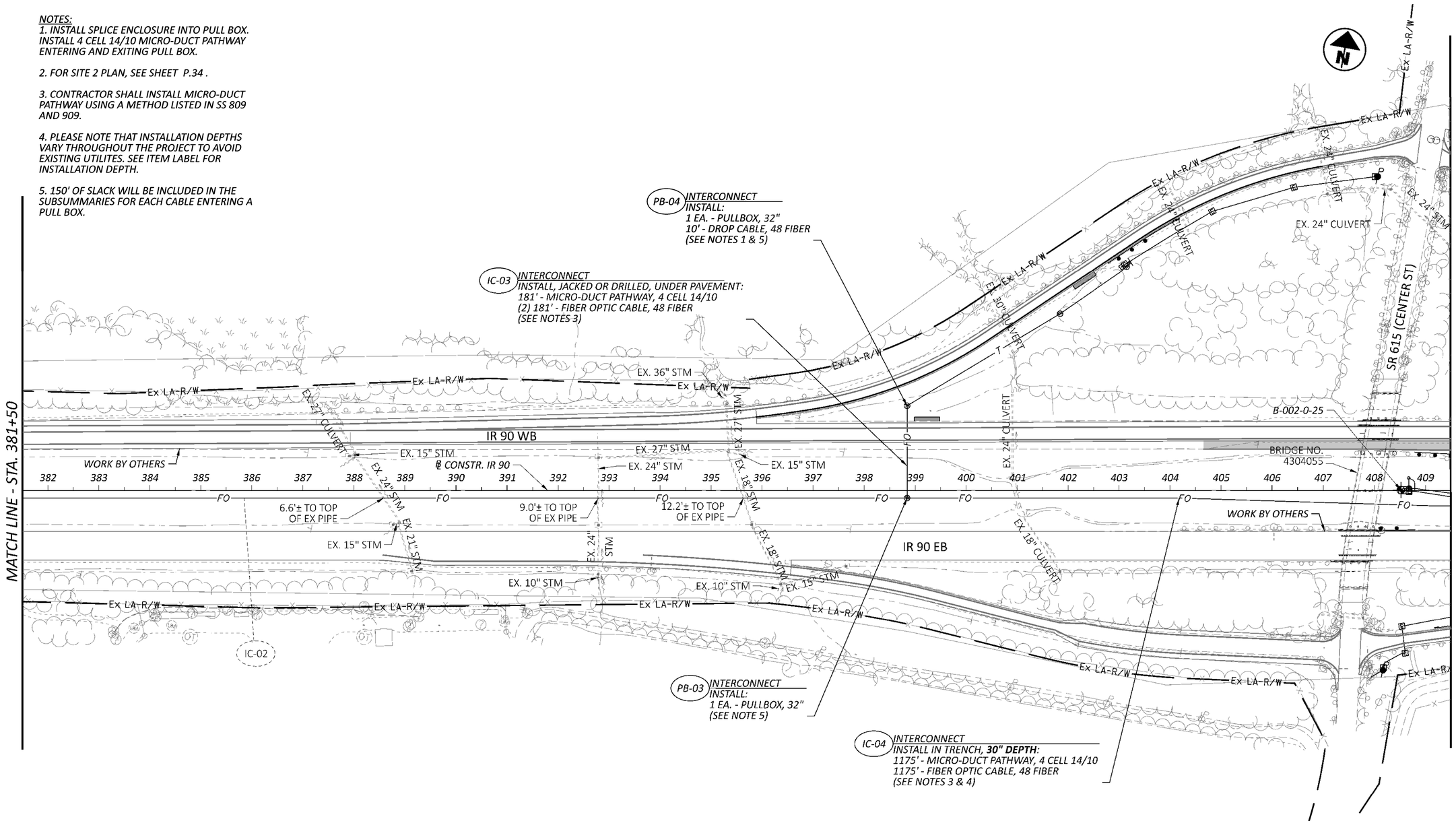
NOTES:
1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

2. FOR SITE 2 PLAN, SEE SHEET P.34 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.



HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 381+50.00 TO STA. 409+50.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.50 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:20:48 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GP105.dgn

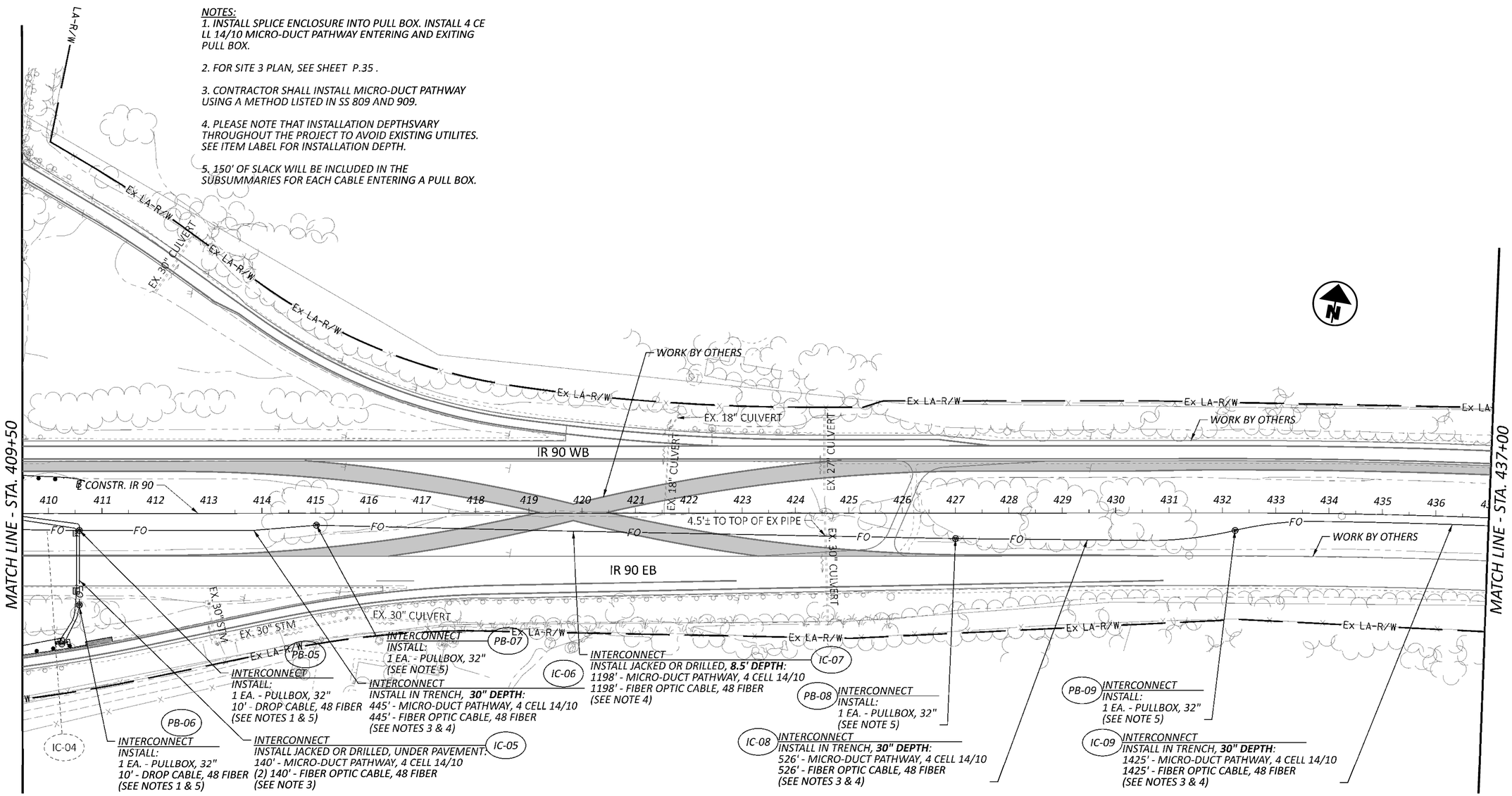
NOTES:
1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CE LL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

2. FOR SITE 3 PLAN, SEE SHEET P.35 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHSVARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.



HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 409+50.00 TO STA. 437+00.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.51 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:21:23 PM USER: PetersonH
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LAK-90-8.77 VSL SIGNS

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NOTES:

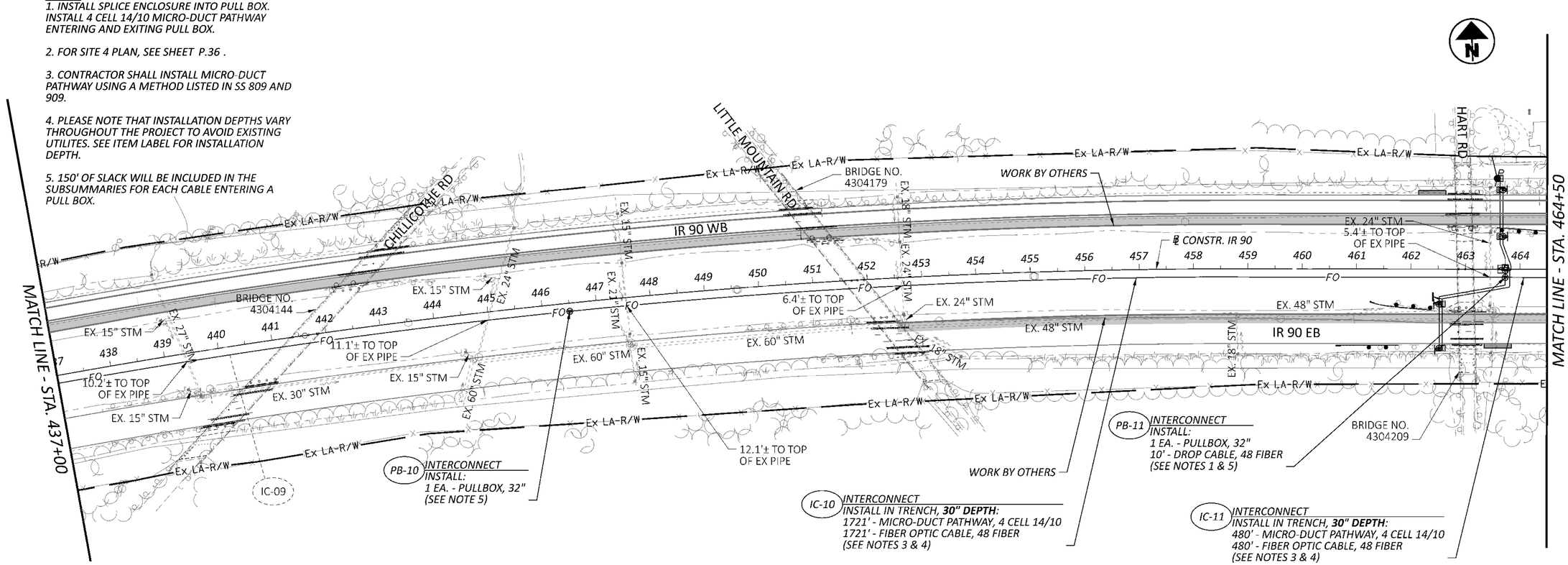
1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

2. FOR SITE 4 PLAN, SEE SHEET P.36 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.



HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 437+00.00 TO STA. 464+50.00

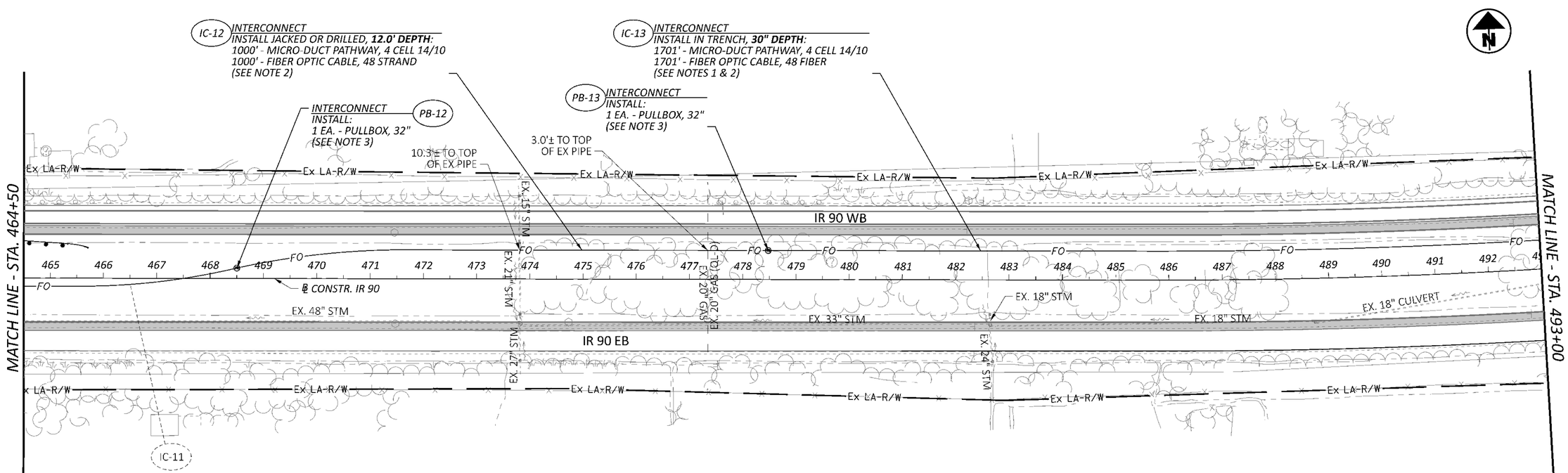
DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.52 TOTAL P.66



NOTES:

1. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

3. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.

HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 464+50.00 TO STA. 493+00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.53 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:22:29 PM USER: PetersonH
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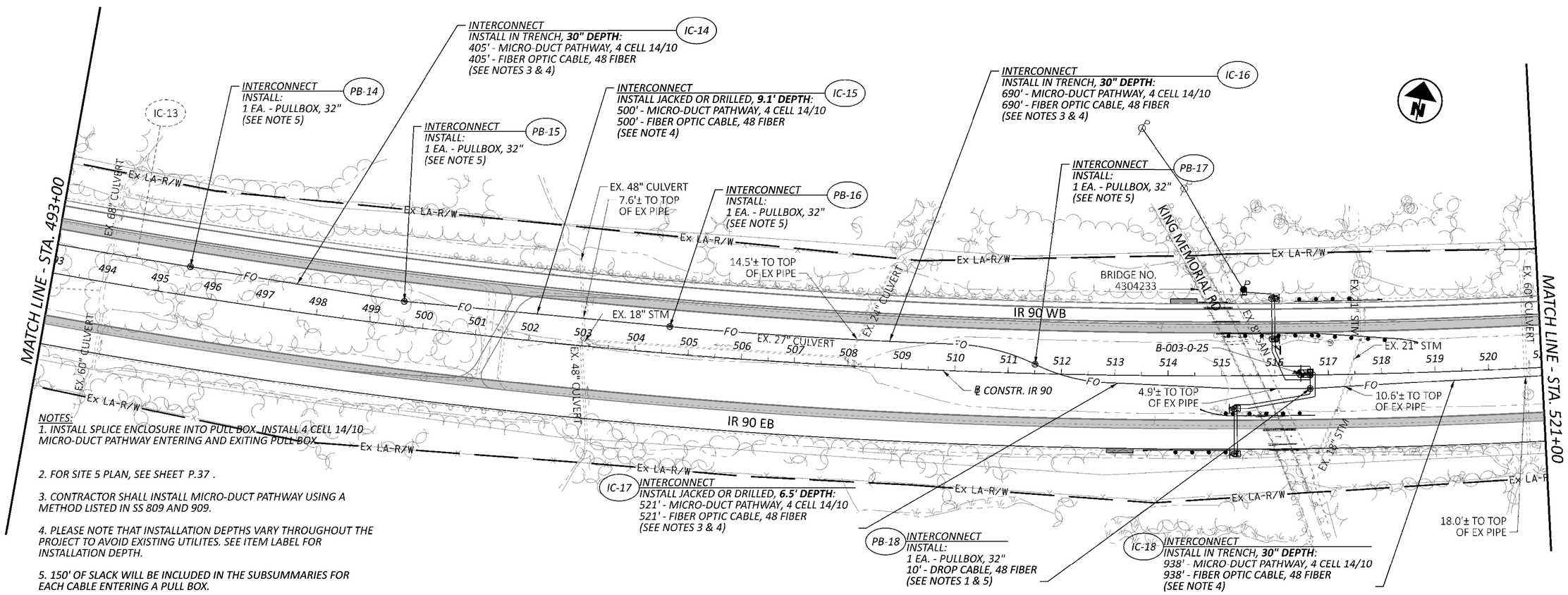


NOTES:

1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

2. FOR SITE 5 PLAN, SEE SHEET P.37 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.

HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 493+00.00 TO STA. 521+00.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.54 TOTAL P.66

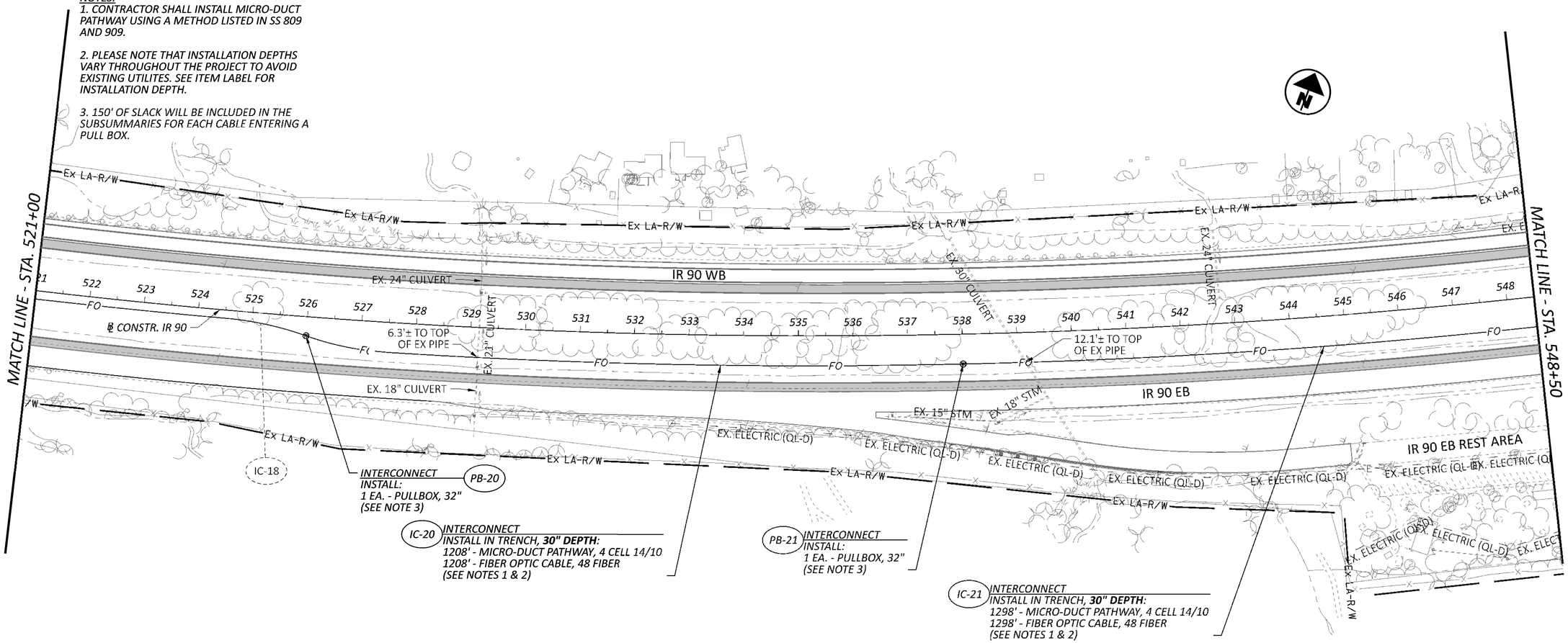
LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:22:59 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GP109.dgn

NOTES:
1. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

3. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.



HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 521+00.00 TO STA. 548+50.00

DESIGN AGENCY
AECOM

DESIGNER	HMP
REVIEWER	MAW 10-23-25
PROJECT ID	122092
SHEET	P.55
TOTAL	P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:23:32 PM USER: PetersonH
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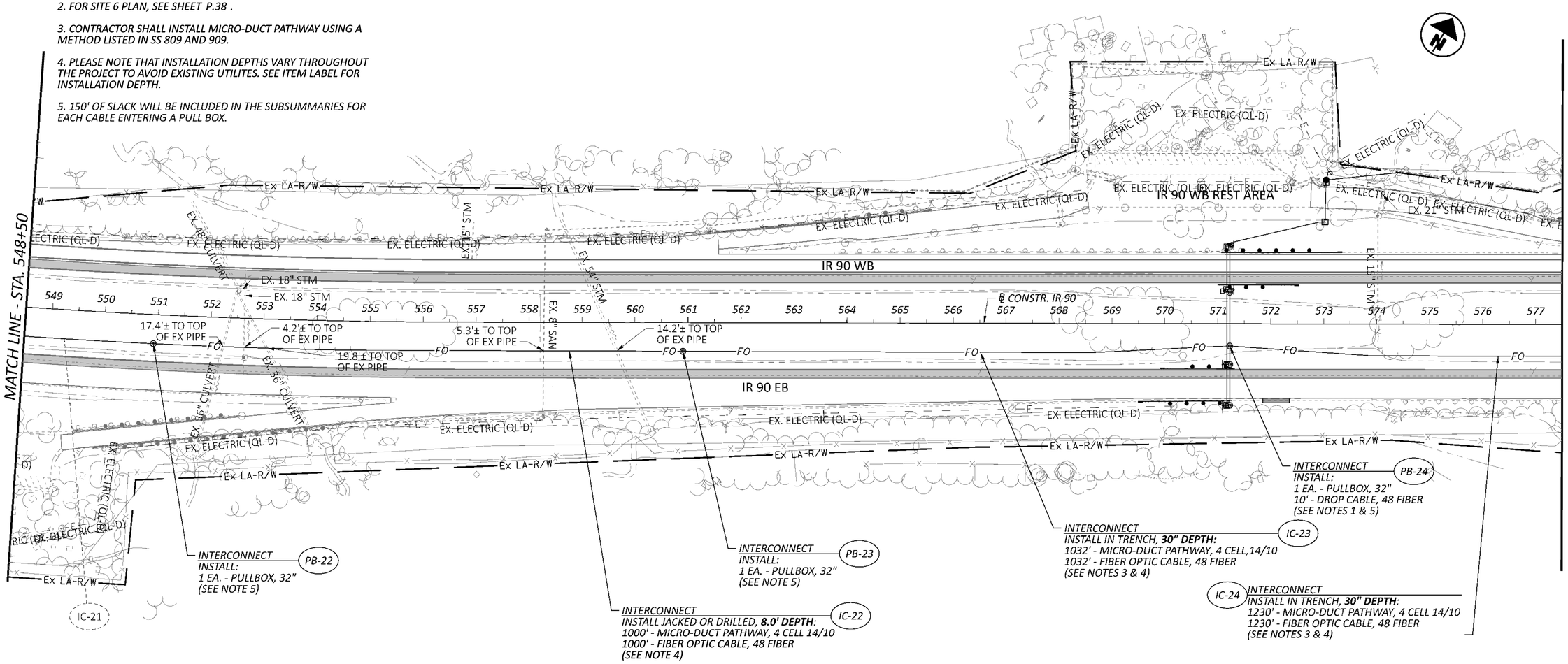
NOTES:
1. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

2. FOR SITE 6 PLAN, SEE SHEET P.38 .

3. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

4. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

5. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.



HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 548+50.00 TO STA. 577+50.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

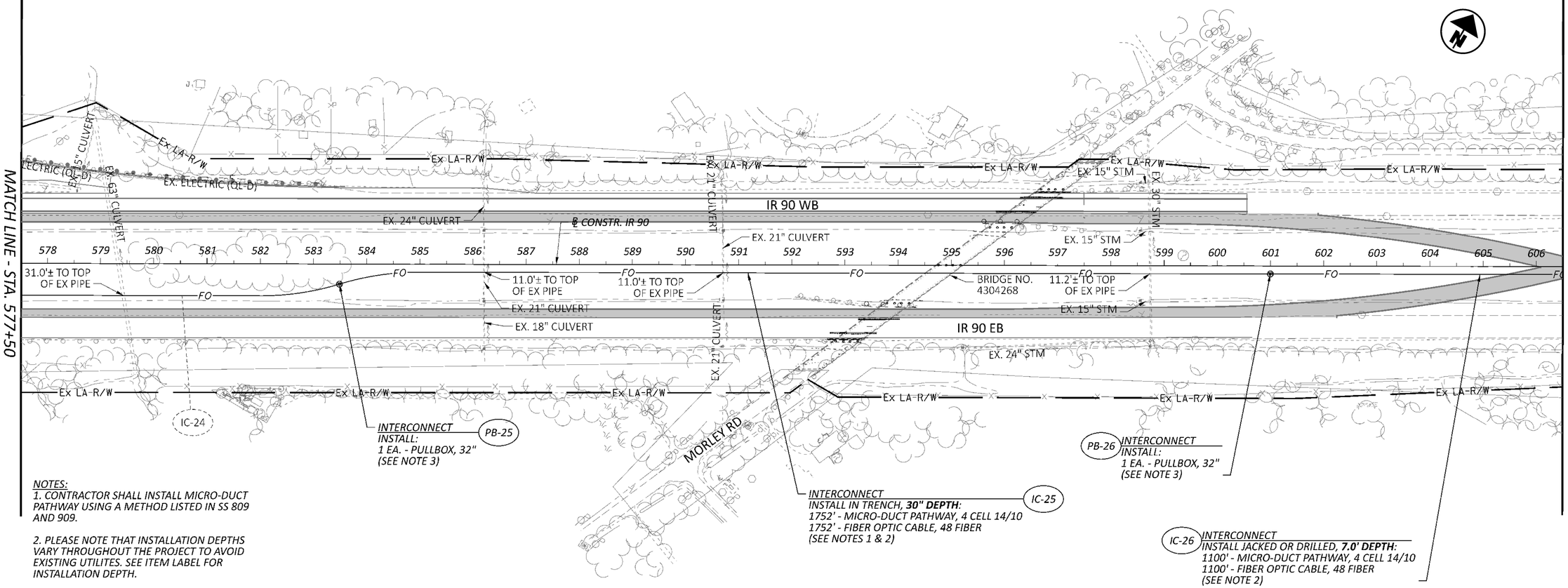
REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.56 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:24:06 PM USER: PetersonH
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\122092\401-Engineering_AECOM\Roadway\Sheets\122092_GP111.dgn



NOTES:

1. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

2. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

3. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.

HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 577+50.00 TO STA. 606+50.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.57 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:24:40 PM USER: PetersonH
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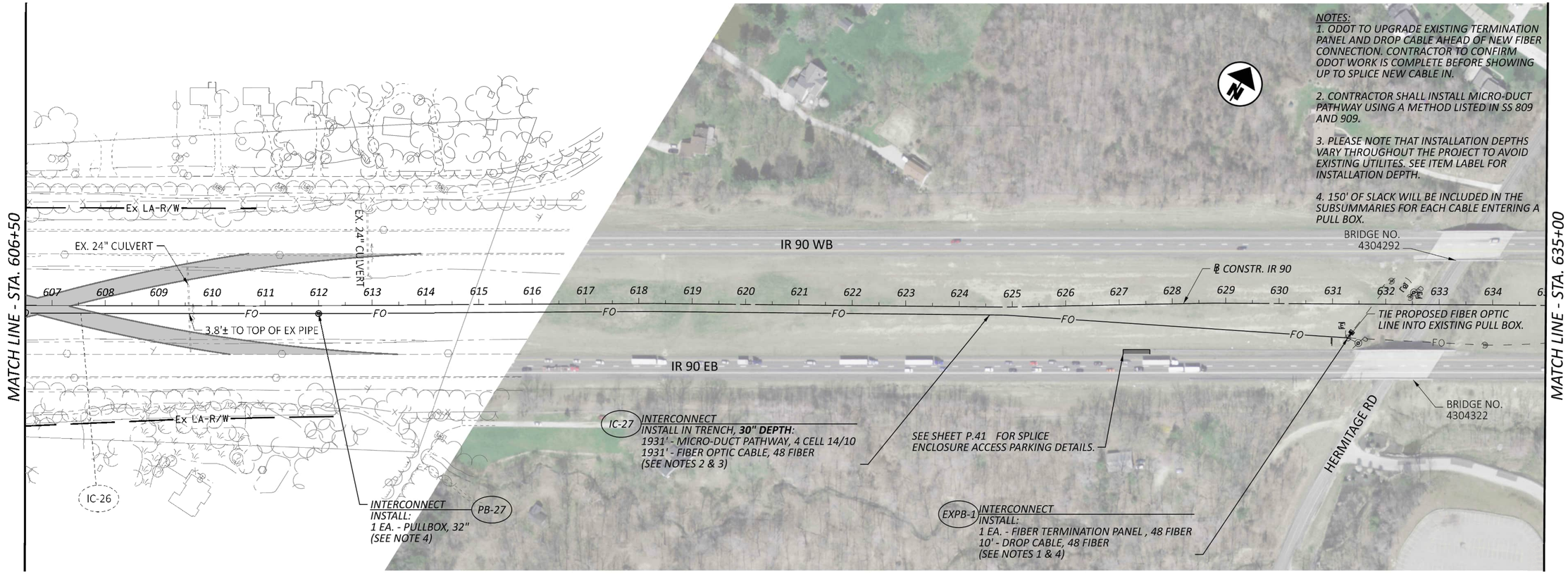

LAK-90-8.77 VSL SIGNS

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VSL EXTENSION ITS PLAN SHEET
STA. 606+50.00 TO STA. 635+00.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.58 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:25:37 PM USER: PetersonH
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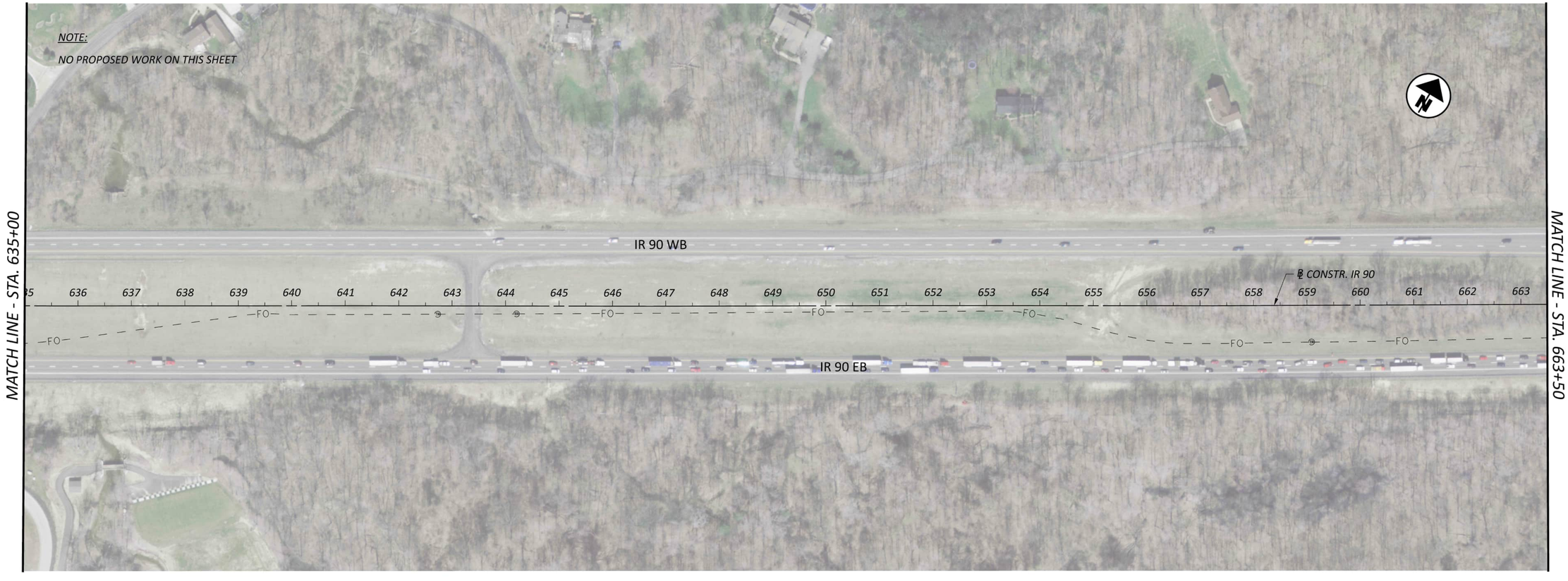

HORIZONTAL SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 635+00.00 TO STA. 663+50.00

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.59 TOTAL P.66

LAK-90-8.77 VSL SIGNS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/23/2025 TIME: 4:26:01 PM USER: PetersonH
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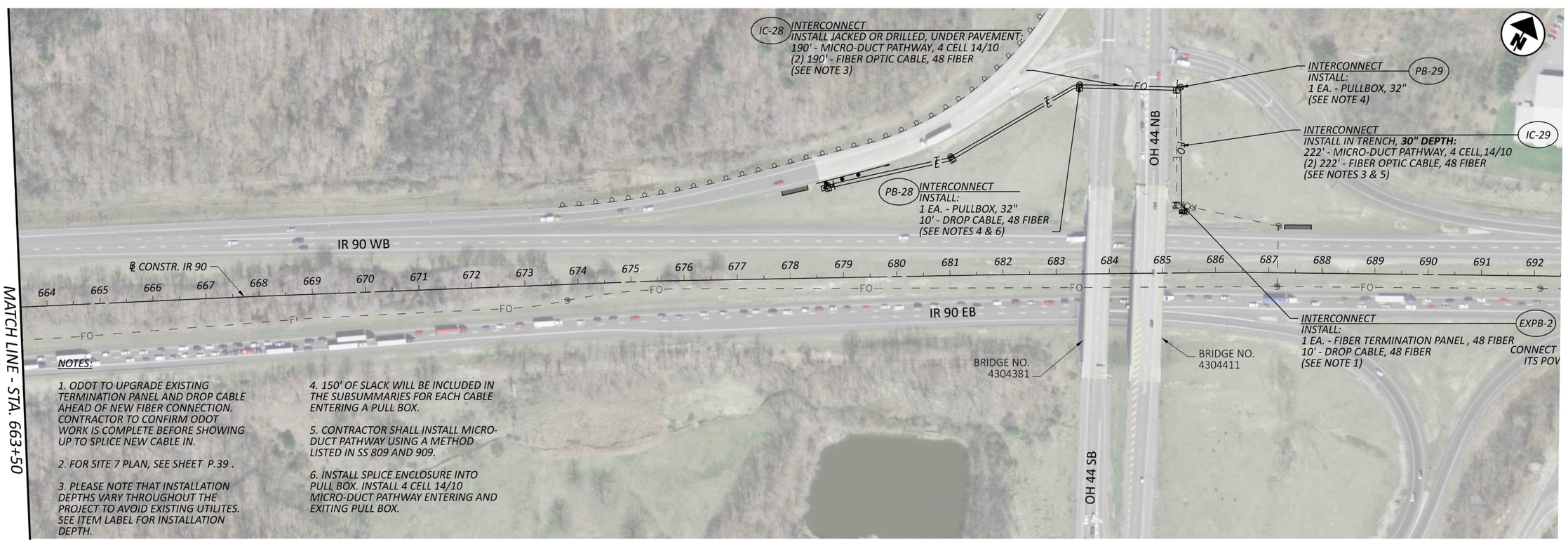
MATCH LINE - STA. 663+50



NOTES:

1. ODOT TO UPGRADE EXISTING TERMINATION PANEL AND DROP CABLE AHEAD OF NEW FIBER CONNECTION. CONTRACTOR TO CONFIRM ODOT WORK IS COMPLETE BEFORE SHOWING UP TO SPLICE NEW CABLE IN.

2. FOR SITE 7 PLAN, SEE SHEET P.39 .

3. PLEASE NOTE THAT INSTALLATION DEPTHS VARY THROUGHOUT THE PROJECT TO AVOID EXISTING UTILITES. SEE ITEM LABEL FOR INSTALLATION DEPTH.

4. 150' OF SLACK WILL BE INCLUDED IN THE SUBSUMMARIES FOR EACH CABLE ENTERING A PULL BOX.

5. CONTRACTOR SHALL INSTALL MICRO-DUCT PATHWAY USING A METHOD LISTED IN SS 809 AND 909.

6. INSTALL SPLICE ENCLOSURE INTO PULL BOX. INSTALL 4 CELL 14/10 MICRO-DUCT PATHWAY ENTERING AND EXITING PULL BOX.

HORIZONTAL
SCALE IN FEET
0 50 100 200

VSL EXTENSION ITS PLAN SHEET
STA. 663+50.00 TO END

DESIGN AGENCY
AECOM

DESIGNER
HMP

REVIEWER
MAW 10-23-25

PROJECT ID
122092

SHEET P.60 TOTAL P.66

PROJECT DESCRIPTION

THE LAK-90-8.77 ITS TOWER PROJECT INCLUDES THE CONSTRUCTION OF ITS (CCTV) TOWERS IMMEDIATELY EAST OF THE OVERPASS STRUCTURES CARRYING GARFIELD ROAD, SR 615 (CENTER STREET) AND KING MEMORIAL ROAD OVER IR 90 IN LAKE COUNTY. THE ITS TOWERS ARE ANTICIPATED TO CONSIST OF 70-FOOT-TALL (ABOVE GROUND) PRECAST FIBER-REINFORCED SPUN CONCRETE POLES.

HISTORIC RECORDS

HISTORIC GEOTECHNICAL INFORMATION WAS AVAILABLE FOR THIS SITE AND INDICATED THAT SOILS AT THE GARFIELD ROAD AND SR 615 SITES WOULD GENERALLY CONSIST OF COHESIVE SOILS (A-4A, A-6a, A-6a) WITH OCCASIONAL, DISCONTINUOUS LAYERS OF GRANULAR SOILS (A-1-b, A-3a, A-4b). AT THE KING MEMORIAL ROAD SITE, EXISTING HISTORIC BORING INFORMATION INDICATED A RELATIVELY THIN COVERING OF COHESIVE SOIL (A-4a, A-6a) OVER SHALE BEDROCK NEAR EL. 852.0. NONE OF THE HISTORIC BORINGS MET CURRENT ODOT STANDARDS AND WERE THEREFORE NOT INCLUDED IN OUR EXPLORATION PROGRAM.

GEOLOGY

TWO OF THE BORINGS FOR THIS PROJECT (B-001-0-25 AND B-002-0-25) ARE LOCATED WITHIN THE ERIE LAKE PLAINS PHYSIOGRAPHIC REGION WHILE THE FINAL BORING (B-003-0-25) IS LOCATED WITHIN THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU PHYSIOGRAPHIC REGION. BEDROCK TOPOGRAPHY MAPPING INDICATES BEDROCK ON THE WEST END OF THE PROJECT MAY BE ENCOUNTERED NEAR EL. 700 AT THE GARFIELD ROAD LOCATION AND NEAR EL. 675 AT THE SR 615 LOCATION. THESE ELEVATIONS ARE APPROXIMATELY 70 TO 100 FEET BELOW THE EXISTING GROUND SURFACE. AT THE KING MEMORIAL ROAD LOCATION, BEDROCK MAPPING INDICATES THAT BEDROCK MAY BE ENCOUNTERED NEAR EL. 840, OR WITHIN 10 FEET OF THE GROUND SURFACE. BEDROCK WAS NOT ENCOUNTERED AT THE GARFIELD ROAD AND SR 615 LOCATIONS BUT WAS ENCOUNTERED AT EL. 846.8 AT THE KING MEMORIAL ROAD LOCATION.

BASED ON ODNR MAPS, THIS PROJECT IS NOT LOCATED IN AN AREA OF OHIO SUBJECT TO SEVERE SLOPE FAILURES, AND NO KARST OR MAPPED ABANDONED UNDERGROUND MINES ARE REPORTED IN THIS AREA.

THE HYDROGEOLOGIC SETTING FOR THE WEST AND EAST ENDS OF THE PROJECT (BORINGS B-001-0-25 AND B-003-0-25) CONSISTS OF A PRIMARY GROUNDWATER AQUIFER WITHIN THE DEVONIAN-AGE SHALE BEDROCK WITH RELATIVELY LOW YIELDS OF 3 TO 10 GALLONS PER MINUTE (GPM). AT BORING B-002-0-25, THE PRIMARY AQUIFER IS FOUND WITHIN OVERBURDEN GLACIAL SOILS WITH HIGHER YIELDS OF 25 TO 50 GPM. GROUNDWATER POTENTIOMETRIC MAPPING INDICATES PRIMARY AQUIFERS MAY BE ENCOUNTERED 80 TO 100 FEET BELOW THE GROUND SURFACE.

RECONNAISSANCE

S&ME VISITED THE SITE ON JUNE 24, 2025, TO OBSERVE THE PROJECT SITE WITH RESPECT TO DRILLING ACCESS AND SAFETY, AND FIELD MARK THE PLANNED BORING LOCATIONS. THE GARFIELD ROAD AND SR 615 (CENTER STREET) LOCATIONS WERE ACCESSED USING AN EMERGENCY TURNAROUND APPROXIMATELY 1,400 FEET WEST OF THE GARFIELD ROAD OVERPASS. THE KING MEMORIAL ROAD LOCATION WAS ACCESSED FROM ANOTHER EMERGENCY TURNAROUND APPROXIMATELY 1,400 FEET WEST OF KING MEMORIAL ROAD. THE MEDIAN WAS GENERALLY GRASS COVERED WITH GENTLE SLOPES GRADED DOWNWARD FROM THE INSIDE SHOULDERS OF BOTH DIRECTIONS OF IR 90. A RAISED MOUND WAS PRESENT IN THE CENTER OF THE MEDIAN FOR MOST OF CENTERLINE; HOWEVER, THE GROUND SURFACE WAS GENERALLY FLAT AT THE GARFIELD ROAD AND SR 615 LOCATIONS. OVERHEAD UTILITY WIRES WERE LOCATED JUST EAST OF AND PARALLEL TO THE GARFIELD ROAD AND KING MEMORIAL DRIVE OVERPASS BRIDGES. OCCASIONAL STORM SEWER INLET STRUCTURES WERE OBSERVED IN A LOW POINTS WITHIN THE MEDIAN, BUT NOT IN IMMEDIATE PROXIMITY TO THE BORING LOCATIONS.

SUBSURFACE EXPLORATION

ON JULY 23, 2025, THE THREE (3) SOIL BORINGS (IDENTIFIED AS B-001-0-25 THROUGH B-003-0-25 AND HEREAFTER REFERRED TO AS B-001 THROUGH B-003) WERE PERFORMED TO EXPLORE THE EXISTING SUBSURFACE SOILS NEAR PROPOSED ITS TOWER LOCATION. BORINGS B-001 AND B-002 WERE TERMINATED A DEPTH OF 25 FEET IN ACCORDANCE WITH THE ODOT SGE AND BORING B-003, WAS TERMINATED AT A DEPTH OF 14 FEET AFTER PENETRATING 11 FEET INTO SHALE BEDROCK.

THE BORINGS WERE ADVANCED BY AN ATV-MOUNTED DRILL RIG USING A 3¼-INCH I.D. HOLLOW-STEM AUGER. DISTURBED, BUT REPRESENTATIVE, SOIL SAMPLES WERE PROCURED BY LOWERING A 2-INCH O.D. SPLIT-BARREL SAMPLER TO THE BOTTOM OF THE BORING, AND THEN DRIVING THE SAMPLER INTO THE SOIL WITH BLOWS FROM A 140-POUND HAMMER FREELY FALLING 30 INCHES (AASHTO T206 – STANDARD PENETRATION TEST, SPT). IN ACCORDANCE WITH THE ODOT SGE, THE HAMMER SYSTEM ON THE DRILL RIG WAS CALIBRATED IN ACCORDANCE WITH ASTM D4633 ON DECEMBER 30, 2024, AND A DRILL ROD ENERGY RATIO OF 91% WAS MEASURED. THE DRILL ROD ENERGY RATIO WAS LIMITED TO 90% PER SECTION 404.3 OF THE ODOT SGE. SPT SAMPLES WERE EXAMINED IMMEDIATELY AFTER RECOVERY AND REPRESENTATIVE PORTIONS WERE PRESERVED IN AIRTIGHT GLASS JARS. UPON COMPLETION OF EACH BORING, GROUNDWATER OBSERVATIONS WERE RECORDED, THE BORING WAS BACKFILLED USING SOIL CUTTINGS MIXED WITH BENTONITE GRAVEL.

EXPLORATION FINDINGS

EACH BORING ENCOUNTERED 4 TO 6 INCHES OF TOPSOIL AT THE SURFACE FOLLOWED BY EXISTING FILL EXTENDING TO DEPTHS RANGING FROM 3 TO 6.5 FEET BELOW EXISTING GRADE. THE EXISTING FILL CONSISTED OF VERY STIFF TO HARD BROWN, GRAY AND RED SANDY SILT (A-4a) OR SILT AND CLAY (A-6a). BELOW THE FILL, BORINGS B-001 AND B-002 ENCOUNTERED NATURAL SOIL DESCRIBED AS STIFF TO HARD BROWN AND/OR GRAY SANDY SILT (A-4a) OR SILT AND CLAY (A-6a) TO A TERMINATION DEPTH OF 25 FEET.

IN BORING B-003, HIGHLY TO SEVERELY WEATHERED GRAY SHALE BEDROCK WAS ENCOUNTERED IMMEDIATELY BENEATH THE FILL AT A DEPTH OF 3 FEET (EL. 846.8). THE BORING WAS TERMINATED IN THE VERY WEAK TO WEAK SHALE AT A DEPTH OF 14 FEET.

DURING DRILLING, SLIGHT GROUNDWATER SEEPAGE WAS ENCOUNTERED AT A DEPTH OF 8.5 FEET IN BORING B-001, WITH A MORE SIGNIFICANT QUANTITY OF WATER ENCOUNTERED AT A DEPTH OF 21.5 FEET. NO GROUNDWATER/SEEPAGE WAS OBSERVED DURING DRILLING IN BORINGS B-002 AND B-003. EXTENDED GROUNDWATER READINGS WERE NOT OBTAINED.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2025.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
SANDY SILT	A-4a	5	5
SILT AND CLAY	A-6a	5	10
	TOTAL	10	15
SHALE	VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC — INDICATES WATER CONTENT IN PERCENT.

N_{60} — INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

W— — INDICATES FREE WATER ELEVATION.

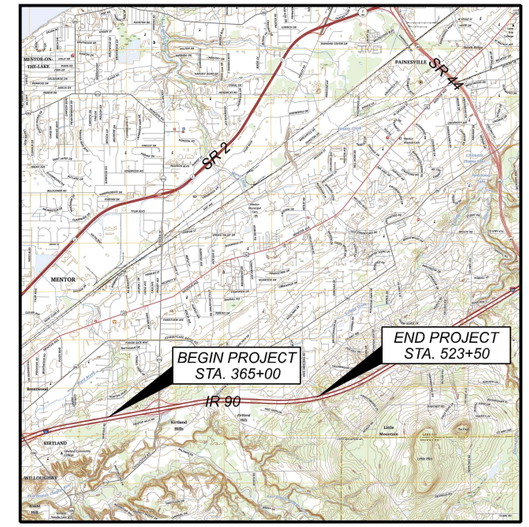
X/D" — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X/D"= NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.

X/Y/D" — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR FIRST 6 INCHES (UNCORRECTED). Y/D"= NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.

SS — INDICATES A SPLIT SPOON SAMPLE.

NP — INDICATES A NON-PLASTIC SAMPLE.

TR— — INDICATES TOP OF ROCK ELEVATION.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

PARTICLE SIZE DEFINITIONS

BOULDERS	12"	COBBLES	3"	GRAVEL	2.0 mm (No. 10 SIEVE)	COARSE SAND	0.42 mm (No. 40 SIEVE)	FINE SAND	0.074 mm (No. 200 SIEVE)	SILT	0.005 mm	CLAY

INDEX OF SHEETS

LOCATION FROM STA.	TO STA.	PLAN	PROFILE	CROSS SECTION
IR 90 365+00	379+50	2	2	--
IR 90 401+00	415+50	3	3	--
IR 90 509+00	523+50	4	4	--
LOGS OF BORINGS, SHEETS 5 - 6				

RECON. - S&ME 6/24/25

DRILLING - S&ME/OTB 7/23/25

DRAWN - KAH 9/25/25 - 9/30/25, 10/14/25

REVIEWED - BKS 10/15/25

GEOTECHNICAL PROFILE - STRUCTURE

DESIGN AGENCY

DESIGNER KAH

REVIEWER BKS

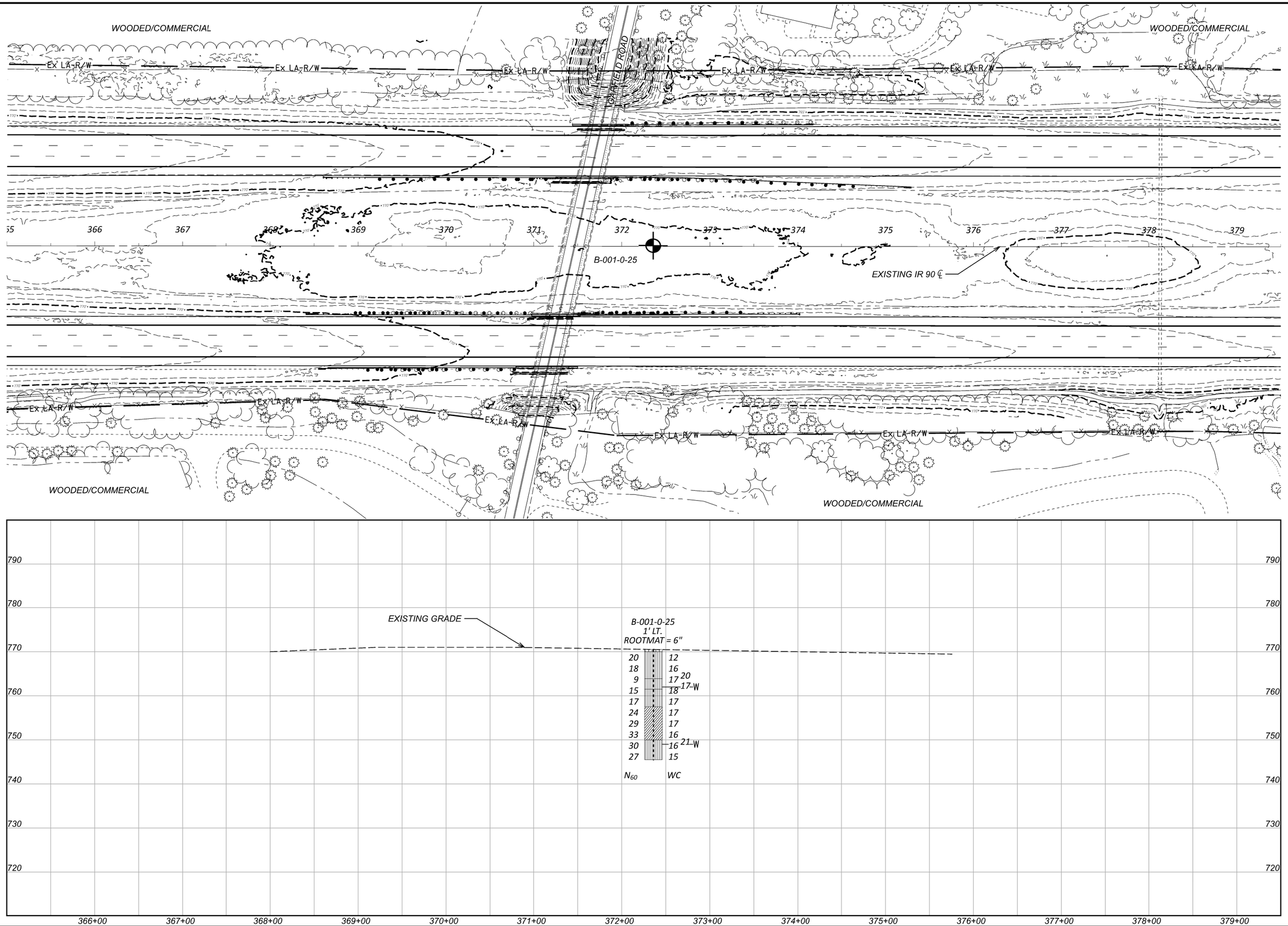
PROJECT ID 122092

SUBSET 1 TOTAL 6

SHEET P. 61 TOTAL 66

LAK-90-8.77

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/16/2025 TIME: 10:48:15 AM USER: kharper
\\EgnyteDrive\Ops\Columbus-1170\Projects\20241241701400_ODOT D12_LAK-90-8.77 ITS Towers\GEO\CAD\122092\400-Engineering\Geotechnical\Sheets\122092_YC001 - Cover Sheet.dgn



HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - STRUCTURE
LAK-90-8.77 ITS TOWERS
STA. 365+00 TO STA. 379+50

DESIGNER	KAH
REVIEWER	BKS
PROJECT ID	122092
SUBSET	2
TOTAL	6
SHEET	P.-62
TOTAL	66

LAK-90-8.77

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/22/2025 TIME: 12:27:47 PM USER: kharper
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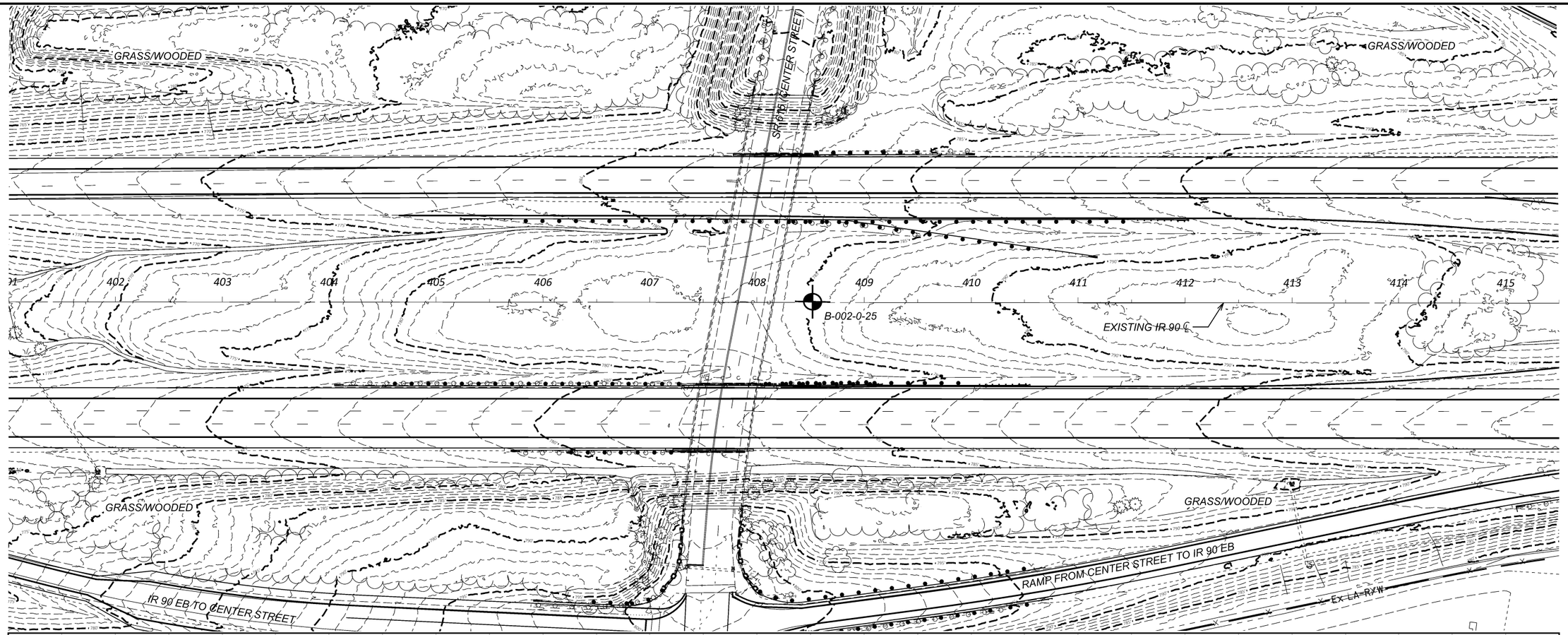

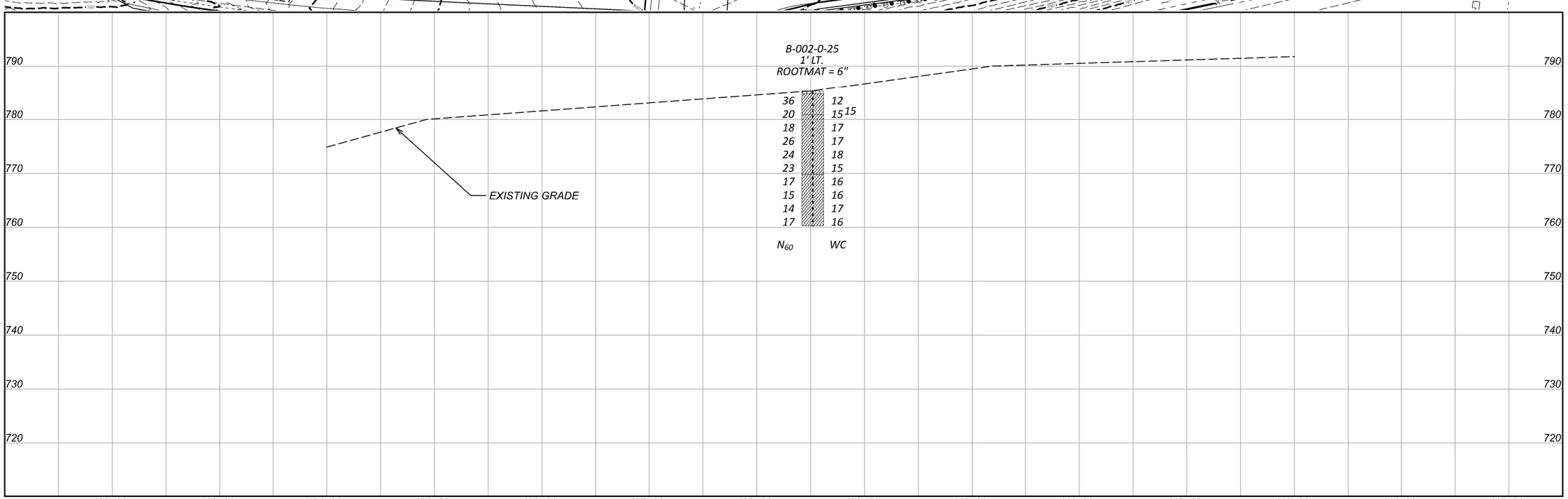

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - STRUCTURE
LAK-90-8.77 ITS TOWERS
STA. 401+00 TO STA. 415+50

DESIGNER: KAH
REVIEWER: BKS
PROJECT ID: 122092
SUBSET: 3 TOTAL: 6
SHEET: P.-63 TOTAL: 66

LAK-90-8.77

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/22/2025 TIME: 11:49:55 AM USER: kharper
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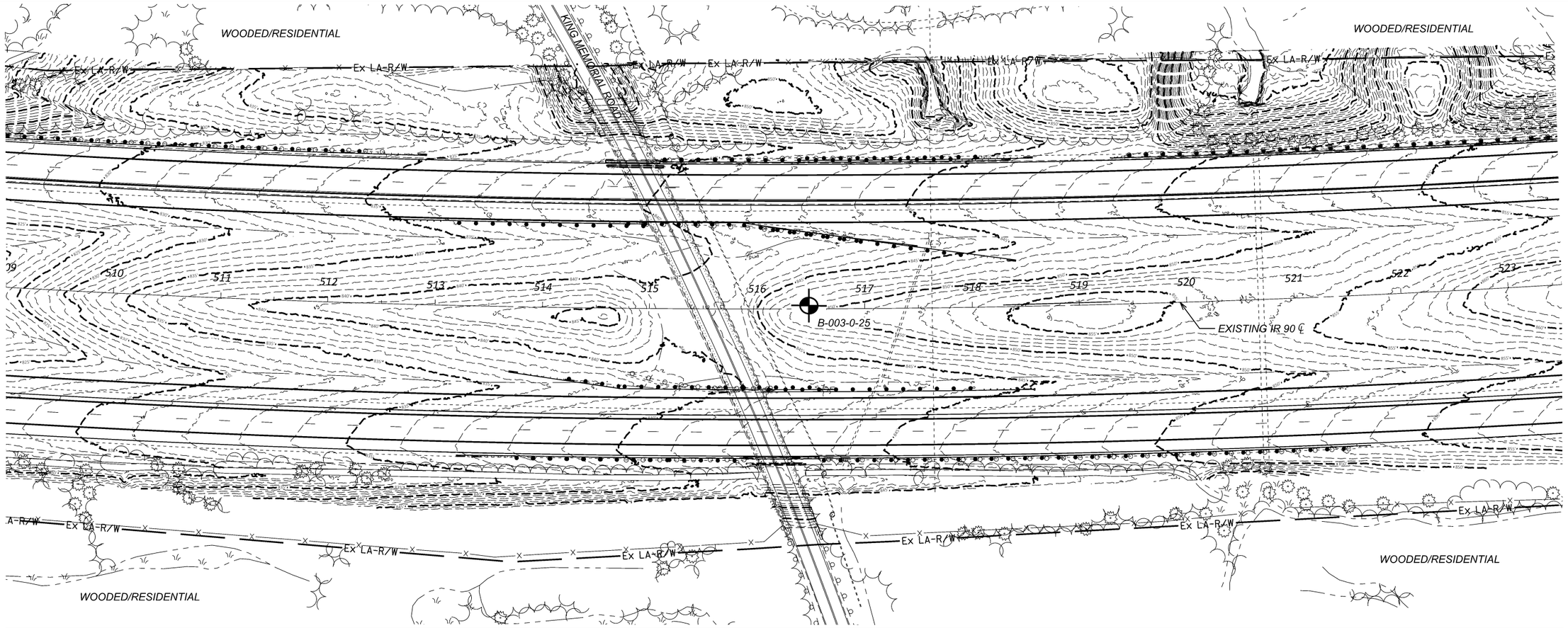

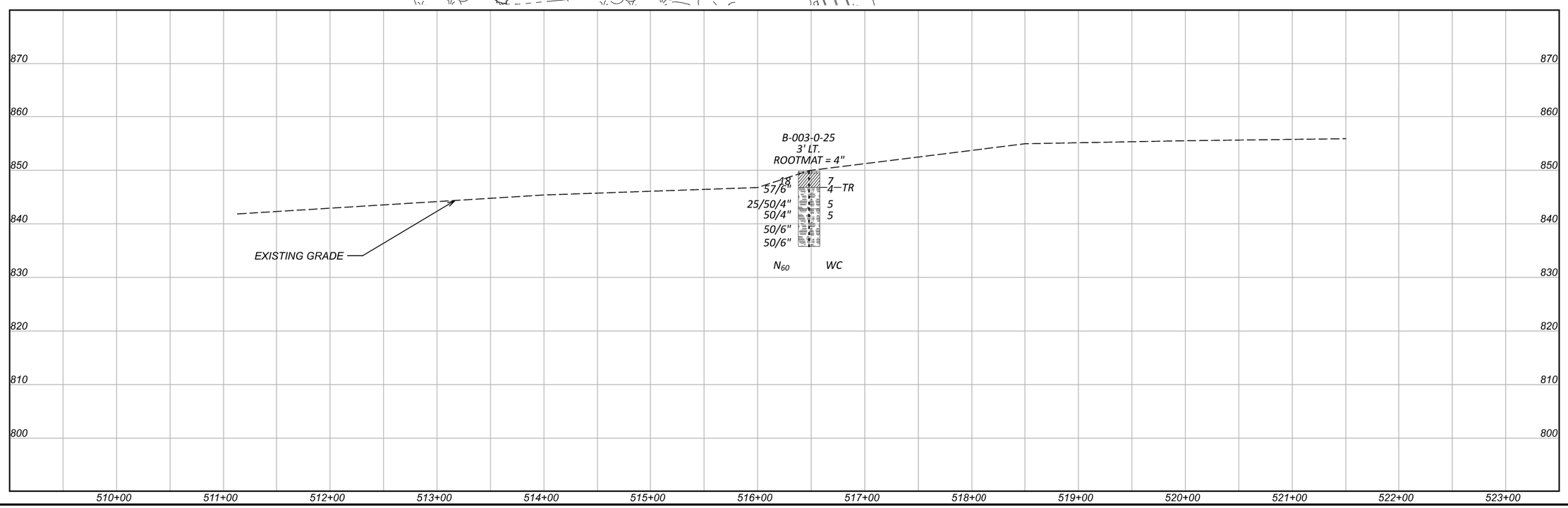

HORIZONTAL SCALE IN FEET
0 25 50 100

GEOTECHNICAL PROFILE - STRUCTURE
LAK-90-8.77 ITS TOWERS
STA. 509+00 TO STA. 523+50

DESIGNER: KAH
REVIEWER: BKS
PROJECT ID: 122092
SUBSET: 4 TOTAL: 6
SHEET: P.-64 TOTAL: 66

LAK-90-8.77

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/22/2025 TIME: 12:22:07 PM USER: kharper
\\EgnyteDrive\Ops\Columbus-1170\Projects\2024\241701400_ODOT D12_LAK-90-8.77 ITS Towers\GEO\CAD\122092\400-Engineering\Geotechnical\Sheets\122092_YP003 - Plan and Profile (05-scale).dgn

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/16/2025 TIME: 10:57:00 AM USER: kharper
\\EgnyteDrive\Ops\Columbus-1170\Projects\2024\24170140C_ODOT D12_LAK-90-8.77 ITS Towers\GEO\CAD\122092\400-Engineering\Geotechnical\Sheets\122092_YL001 (8.5x11 log).dgn

PROJECT: LAK-90-8.77 ITS TOWERS	DRILLING FIRM / OPERATOR: OTB / D. HEPNER	DRILL RIG: OTB ATV B-57	STATION / OFFSET: 372+36, 1' LT	EXPLORATION ID B-001-0-25
TYPE: ITS TOWER	SAMPLING FIRM / LOGGER: S&ME / S. SMITH	HAMMER: SAFETY HAMMER	ALIGNMENT: IR 90 CL	
PID: 122092 BR ID: N/A	DRILLING METHOD: 3-1/4" HSA	CALIBRATION DATE: 12/30/24	ELEVATION: 770.5 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 7/23/25 END: 7/23/25	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 41.644443 N, 81.353134 W	

MATERIAL DESCRIPTION AND NOTES	ELEV. 770.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
ROOTMAT - 6 INCHES	770.0																	
FILL: Very stiff to hard brown with red and gray **SANDY SILT**, "and" clay, trace fine gravel, damp to moist.		1	6 6 7	20	89	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		2																
		3																
		4	4 6 6	18	56	SS-2	2.0-4.5	1	3	6	37	53	28	19	9	16	A-4a (8)	
		5																
@ 6.0'; stiff	763.9	6	1 3 3	9	89	SS-3A	1.0-1.5	-	-	-	-	-	-	-	-	20	A-4a (V)	
Stiff reddish-brown **SANDY SILT**, some clay, trace fine gravel, moist.		7				SS-3B	2.0	4	15	24	32	25	24	16	8	17	A-4a (4)	
	W 762.0	8																
	761.5	9	2 4 6	15	100	SS-4A	1.5-2.0	-	-	-	-	-	-	-	-	17	A-4a (V)	
Very stiff brown mottled with gray **SANDY SILT**, "and" clay, trace fine gravel, damp to moist.		10				SS-4B	2.0-3.0	-	-	-	-	-	-	-	-	18	A-4a (V)	
		11	3 5 6	17	100	SS-5	3.0-3.5	5	8	11	35	41	29	19	10	17	A-4a (8)	
	757.5	12																
Very stiff to hard **SILT AND CLAY**, little fine to coarse sand, trace fine gravel, damp.		13																
		14	4 6 10	24	100	SS-6	3.5-4.5	-	-	-	-	-	-	-	-	17	A-6a (V)	
		15																
		16																
		17	5 8 11	29	100	SS-7	4.0-4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		18																
		19	6 9 13	33	89	SS-8	4.5+	5	8	12	34	41	31	19	12	16	A-6a (9)	
	750.0	20																
Very stiff brown mottled with gray **SANDY SILT**, some to "and" clay, trace fine gravel, moist.	W 749.0	21	5 9 11	30	78	SS-9A	3.5	3	6	9	48	34	27	20	7	21	A-4a (8)	
		22				SS-9B	4.5+	-	-	-	-	-	-	-	-	16	A-4a (V)	
		23																
	745.5	24	4 8 10	27	67	SS-10	3.0-4.0	4	5	8	34	49	27	17	10	15	A-4a (8)	
		EOB 25																

NOTES:
- Seepage encountered at 8.5' during drilling.
- Water encountered at 21.5' during drilling.
- Borehole caved at 22.0' after removing augers and was dry.

NOTES: SEE ABOVE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS MIXED WITH BENTONITE

S&ME ODOT LOG (8.5X11) - SGE 01/2019 - OH DOT.GDT - 9/26/25 07:47 - R:\SERVICE LINES\CS-2557\COLUMBUS\GINTW\PROJECTS\24170140C-LAK-90 ITS.GPJ

PLATE 1

PROJECT: LAK-90-8.77 ITS TOWERS	DRILLING FIRM / OPERATOR: OTB / D. HEPNER	DRILL RIG: OTB ATV B-57	STATION / OFFSET: 408+52, 1' LT	EXPLORATION ID B-002-0-25
TYPE: ITS TOWER	SAMPLING FIRM / LOGGER: S&ME / S. SMITH	HAMMER: SAFETY HAMMER	ALIGNMENT: IR 90 CL	
PID: 122092 BR ID: N/A	DRILLING METHOD: 3-1/4" HSA	CALIBRATION DATE: 12/30/24	ELEVATION: 785.3 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 7/23/25 END: 7/23/25	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 41.646217 N, 81.340117 W	

MATERIAL DESCRIPTION AND NOTES	ELEV. 785.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
ROOTMAT - 6 INCHES	784.8																	
FILL: Hard brown **SILT AND CLAY**, little fine to coarse sand, trace fine gravel, few roots, dry to damp.		1	7 14 10	36	78	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		2																
		3																
	780.9	4	5 7 6	20	94	SS-2A	4.5+	5	7	11	29	48	33	19	14	15	A-6a (10)	
Very stiff to hard brown mottled with gray **SILT AND CLAY**, little fine to coarse sand, trace fine gravel, damp.		5				SS-2B	2.8-3.2	-	-	-	-	-	-	-	-	15	A-6a (V)	
		6																
		7	3 5 7	18	89	SS-3	3.5-4.5	-	-	-	-	-	-	-	-	17	A-6a (V)	
		8																
		9	4 7 10	26	100	SS-4	2.25-4.5	4	7	9	32	48	33	20	13	17	A-6a (9)	
		10																
		11	4 7 9	24	100	SS-5	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
		12																
		13																
		14	4 7 8	23	100	SS-6	3.0-4.5	-	-	-	-	-	-	-	-	15	A-6a (V)	
	769.8	15																
Stiff to very stiff gray **SILT AND CLAY**, little fine to coarse sand, trace fine gravel, damp.		16																
		17	3 5 6	17	78	SS-7	2.25-3.5	-	-	-	-	-	-	-	-	16	A-6a (V)	
		18																
		19	3 4 6	15	89	SS-8	1.75-2.5	3	6	9	35	47	27	16	11	16	A-6a (8)	
		20																
		21	2 4 5	14	89	SS-9	2.0-3.0	-	-	-	-	-	-	-	-	17	A-6a (V)	
		22																
		23																
	760.3	24	3 5 6	17	89	SS-10	2.0-2.5	-	-	-	-	-	-	-	-	16	A-6a (V)	
		EOB 25																

NOTES:
- No water was encountered during drilling.
- Borehole caved at 21.7' after removing augers and was dry.

NOTES: SEE ABOVE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS MIXED WITH BENTONITE

S&ME ODOT LOG (8.5X11) - SGE 01/2019 - OH DOT.GDT - 9/26/25 07:47 - R:\SERVICE LINES\CS-2557\COLUMBUS\GINTW\PROJECTS\24170140C-LAK-90 ITS.GPJ

PLATE 1

GEOTECHNICAL PROFILE - STRUCTURE

BORING LOGS B-001-0-25 & B-002-0-25

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 10/16/2025 TIME: 10:58:32 AM USER: kharper
\\EgnyteDrive\Ops\Columbus-1170\Projects\2024\24170140C_ODOT D12_LAK-90-8.77 ITS Towers\GEO\CAD\122092\400-Engineering\Geotechnical\Sheets\122092_YL002 (8.5x11 log).dgn

PROJECT: LAK-90-8.77 ITS TOWERS	DRILLING FIRM / OPERATOR: OTB / D. HEPNER	DRILL RIG: OTB ATV B-57	STATION / OFFSET: 516+48, 3' LT
TYPE: ITS TOWER	SAMPLING FIRM / LOGGER: S&ME / S. SMITH	HAMMER: SAFETY HAMMER	ALIGNMENT: IR 90 CL
PID: 122092 BR ID: N/A	DRILLING METHOD: 3-1/4" HSA	CALIBRATION DATE: 12/30/24	ELEVATION: 849.8 (MSL) EOB: 14.0 ft.
START: 7/23/25 END: 7/23/25	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 41.648328 N, 81.300881 W

EXPLORATION ID **B-003-0-25**

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 849.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
ROOTMAT - 4 INCHES	849.5																	
FILL: Very stiff (est.) brown and gray **SILT AND CLAY**, little fine to coarse sand, little fine gravel (shale fragments), dry.	846.8	1 2	4 5 7	18	94	SS-1	-	16	13	6	32	33	33	21	12	7	A-6a (7)	
SHALE, gray, highly to severely weathered, very weak, few limestone fragments and pockets of silty clay.	842.8	TR 3 4 5 6 7	57	-	100	SS-2	-	-	-	-	-	-	-	-	-	4	Rock (V)	
			25 50/4"	-	100	SS-3	-	-	-	-	-	-	-	-	-	5	Rock (V)	
SHALE, gray, highly weathered, very weak to weak.		8 9 10 11 12 13 14	50/4"	-	100	SS-4	-	-	-	-	-	-	-	-	-	5	Rock (V)	
			50	-	83	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	835.8	EOB	50	-	100	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES:
- No water was encountered during drilling.
- Borehole caved at 11.4' after removing augers and was dry.

NOTES: SEE ABOVE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS MIXED WITH BENTONITE

S&ME ODOT LOG (8.5X11) - SGE 01/2019 - OH DOT.GDT - 9/26/25 07:48 - R:\SERVICE LINES\CS-2557\COLUMBUS\GINTW\PROJECTS\24170140C-LAK-90 ITS.GPJ

PLATE 1

SHEET	TOTAL	SUBSET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P. 66	66	6	6	122092	BKS	KAH	

GEOTECHNICAL PROFILE - STRUCTURE

BORING LOG B-003-0-25