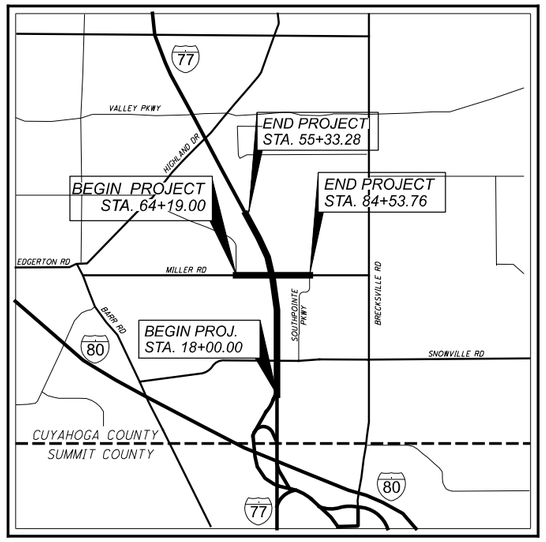
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-77-00.42
CITY OF BRECKSVILLE
CUYAHOGA COUNTY
PART 1
(FOR PART 2, SEE SUM-77-32.27)



LOCATION MAP

LATITUDE: 41°17'22" N LONGITUDE: 81°38'13" W

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

SEE SHEET P.3 FOR DESIGN DESIGNATION

DESIGN EXCEPTIONS

SHOULDER WIDTH - APPROVED 8/31/21

P.8, P.119

ADA DESIGN WAIVERS

NONE REQUIRED

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:
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44136

ENGINEER'S SEAL ROADWAY	ENGINEER'S SEAL STRUCTURE
STATE OF OHIO ALAN R. PIATAK E-62288 REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO BRANDON P. SOPKO 80782 REGISTERED PROFESSIONAL ENGINEER
SIGNED:	SIGNED:
DATE:	DATE:

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E220056

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THE PROJECT INVOLVES COMPLETING THE EXISTING PARTIAL DIAMOND INTERCHANGE AT I.R. 77 AND MILLER ROAD BY ADDING A NORTHBOUND (NB) EXIT RAMP AND A SOUTHBOUND (SB) ENTRANCE RAMP; ADDING AN AUXILIARY LANE BETWEEN NEW SB ENTRANCE RAMP AND THE I.R. 80 EXIT RAMP; WIDENING OF MILLER ROAD TO PROVIDE LEFT-TURN LANES INCLUDING STRUCTURE WIDENING; AND ADDING DUAL WESTBOUND (WB) RIGHT TURN LANES ONTO I.R. 77 NB ENTRANCE RAMP.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	17.52 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	18.52 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.

2019 SPECIFICATIONS

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

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

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

BP-1.1	07-28-00	MGS-4.1	01-20-17	WQ-1.1	01-18-13	MT-99.20	04-19-19	HL-30.33	01-21-22	TC-51.11	01-15-16	AS-1-15	07-17-15
BP-2.1	01-21-22	MGS-4.2	07-19-13	WQ-1.2	01-15-16	MT-99.30	01-17-20	HL-40.20	07-17-20	TC-52.10	10-18-13	AS-2-15	01-18-19
BP-2.2	01-15-21	MGS-5.3	07-15-16			MT-99.60	07-15-16	HL-50.11	01-16-15	TC-52.20	01-15-21	BR-2-15	01-21-22
BP-2.5	01-21-22	MGS-6.1	01-19-18	DM-1.1	07-17-20	MT-101.60	01-17-20	HL-50.21	01-15-21	TC-61.10	01-17-20	GSD-1-19	01-15-21
BP-3.1	01-21-22			DM-1.2	07-16-21	MT-101.70	01-17-20	HL-60.11	07-21-17	TC-61.30	07-19-19	PCB-91	07-17-20
BP-4.1	07-19-13	RM-1.1	01-15-21	DM-4.1	07-17-20	MT-101.75	01-17-20	HL-60.12	07-16-21	TC-65.10	01-17-14	SBR-1-20	07-17-20
BP-5.1	01-21-22	RM-3.1	07-20-18	DM-4.2	07-20-12	MT-101.90	07-17-20	HL-60.21	07-20-18	TC-65.11	07-21-17	SICD-1-21	01-21-22
BP-6.1	07-19-13	RM-4.1	01-17-20	DM-4.3	01-15-16	MT-102.10	01-17-20	HL-60.31	01-17-20	TC-71.10	07-16-21	SICD-2-14	01-15-21
BP-7.1	01-21-22	RM-4.2	04-17-20	DM-4.4	01-15-16	MT-102.20	04-19-19			TC-72.20	07-20-18	TVPF-1-18	07-20-18
BP-9.1	01-18-19	RM-4.5	07-21-17			MT-102.30	10-16-15	TC-12.31	04-15-22	TC-73.20	01-17-20	VPF-1-90	07-20-18
		RM-4.6	07-19-13	MT-95.30	07-19-19	MT-103.10	01-21-22	TC-15.116	07-16-21	TC-74.10	01-21-22		
F-1.1	07-19-13			MT-95.31	07-19-19	MT-104.10	10-16-15	TC-16.22	07-16-21	TC-81.22	07-16-21		
F-3.1	07-19-13	CB-2-2A	07-16-21	MT-95.40	01-17-20	MT-105.10	01-17-20	TC-21.11	07-16-21	TC-83.10	01-17-20		
F-3.2	07-18-14	CB-2-3	07-16-21	MT-95.41	01-17-20			TC-21.21	07-16-21	TC-83.20	07-21-17		
F-3.3	07-19-13	CB-3A	07-16-21	MT-95.45	01-17-20	HL-10.31	04-17-20	TC-22.10	04-17-20	TC-85.10	04-17-20		
F-3.4	07-19-13	CB-4	07-16-21	MT-95.70	01-17-20	HL-20.11	01-15-21	TC-22.20	01-17-14	TC-85.20	07-20-18		
		CB-5	07-16-21	MT-97.10	04-19-19	HL-20.21	01-15-21	TC-41.10	07-19-13				
MGS-1.1	07-16-21	I-3D	07-16-21	MT-98.10	01-17-20	HL-30.11	01-15-21	TC-41.20	10-18-13	ITS-14.10	01-21-22		
MGS-2.1	01-19-18	MH-3	07-16-21	MT-98.21	01-17-20	HL-30.21	04-17-20	TC-41.50	10-18-13	ITS-14.11	01-21-22		
MGS-3.1	01-19-18			MT-98.22	01-17-20	HL-30.22	01-15-21	TC-42.10	10-18-13	ITS-14.50	01-21-22		
MGS-3.2	01-18-13			MT-98.29	01-17-20	HL-30.32	04-17-20	TC-42.20	10-18-13	ITS-60.10	01-15-21		

CUYAHOGA COUNTY ENGINEER CONSTRUCTION DRAWINGS

BP-2.8C	10-10-08
CB-3C	11-15-17
CB-3C2	10-31-13
MH-10C	03-01-21

SUPPLEMENTAL SPECIFICATIONS

800-2019	07-15-22
804	04-15-22
805	07-16-10
807	01-21-22
808	01-18-19
809	04-15-22
813	10-19-18
821	04-20-12
824	01-18-19
832	10-19-18
836	01-19-18
846	04-17-15
847	01-15-21
850	04-15-22

SUPPLEMENTAL SPECIFICATIONS CONT.

872	01-21-22
874	04-17-20
875	01-18-19
895	04-18-14
904	04-15-22
905	04-17-20
908	10-20-17
909	04-15-22
921	04-20-12

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44136

DESIGNER ANC
REVIEWER DTB 03/01/22
PROJECT ID 104983
SHEET P.1 TOTAL P.445

TITLE SHEET

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (ln.) DATE: 23-Sep-22 TIME: 4:30:36 PM USER: comltrk
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\MOT Submittal 092322 - Miscellaneous\104983_GT001.dgn

ROADWAY CONT.

ITEM 608 - 4" CONCRETE WALK, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS ITEM 608, THE CONCRETE WALK SHALL HAVE 6" X 6" - W1.4x W1.4 WOVEN WIRE FABRIC.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK, INCLUDING THE WOVEN WIRE FABRIC AS WELL AS ITEM 304 - 2" AGGREGATE BASE. THIS ITEM SHALL BE PAID AT THE CONTRACT PRICE BID PER SQUARE FOOT OF ITEM 608, 4" CONCRETE WALK, AS PER PLAN.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND GEOTECHNICAL BULLETIN GB 2 AND AS DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

REMOVAL AND REPLACEMENT OF SOFT SUBGRADE

WHERE SOFT SUBGRADE IS ENCOUNTERED UNDER EXISTING PAVEMENT TO BE REMOVED AND REPLACED AND DUE TO NO FAULT OR NEGLECT OF THE CONTRACTOR, IT SHALL BE EXCAVATED, REMOVED, AND REPLACED WITH SUITABLE MATERIAL IN ACCORDANCE WITH THE FOLLOWING ITEMS:

ITEM 204 - EXCAVATION OF SUBGRADE, AS DIRECTED
ITEM 204 - GRANULAR MATERIAL, TYPE B, AS DIRECTED
ITEM 204 - GEOTEXTILE FABRIC, AS DIRECTED

LOCATION	APPROXIMATE STATION	RECOMMENDATIONS
MILLER ROAD	66+12 TO 69+19	UNDERCUT 24"
	69+19 TO 70+80	UNDERCUT 15"
	70+80 TO 74+41	UNDERCUT 12"
	74+41 TO 79+71	UNDERCUT 24"
	79+71 TO 81+73	UNDERCUT 15"
	81+73 TO 83+00	UNDERCUT 12"
IR-77	18+26 TO 21+75	UNDERCUT 18"

CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN EXCAVATING SOFT SUBGRADE IN PROXIMITY TO EXISTING UNDERGROUND UTILITIES. SUBGRADE EXCAVATION SHALL BE NON-PERFORMED WITHIN ONE (1) FOOT ON EITHER SIDE OF UTILITY.

EROSION CONTROL

SEEDING AND MULCHING

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

ITEM 659 - SOIL ANALYSIS TEST _____ 2 EACH
ITEM 659 - TOPSOIL _____ 3,539 CU. YD.
ITEM 659 - REPAIR SEEDING AND MULCHING ___ 1,594 SQ. YD.
ITEM 659 - INTER-SEEDING _____ 1,594 SQ. YD.
ITEM 659 - COMMERCIAL FERTILIZER _____ 4 TON
ITEM 659 - LIME _____ 7 ACRES
ITEM 659 - WATER _____ 176 M. GAL.
ITEM 659 - MOWING _____ 72 M. SQ.FT.

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 LIMITS IDENTIFIED AS NECESSARY IN THE CROSS-SECTIONS. ANY ADDITIONAL AREAS OUTSIDE OF THE AREAS IDENTIFIED IN THE CROSS-SECTIONS THAT ARE DISTURBED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION, MUST BE RESTORED IN ACCORDANCE WITH C&MS 107.10 AND CONSIDERED INCIDENTAL TO THE WORK. NO ADDITIONALCOMPENSATION WILL BE MADE FOR THESE AREAS.

ENVIRONMENTAL COMMITMENTS

ASBESTOS NOTIFICATION

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLTION AND/OR REHABILITATION; THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURE.

ODOT SHALL PROVIDE A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, TO THE SUCCESSFUL BIDDER.

THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO ONE OF THE ADDRESSES BELOW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049
OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. THE FORM SHALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED. COPIES OF THE OEPA FORM AND BRIDGE INSPECTION REPORT ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS, OHIO 44125.

BASIS FOR PAYMENT THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THEOEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ENDANGERED BAT SPECIES HABITAT REMOVAL

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY ENDANGERED NORTHERN LONG-EARED AND INDIANA BAT, AND THE STATE ENDANGERED LITTLE BROWN AND TRICOLORED BATS. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT AND ORC 1531.25. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

DRAINAGE

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT OF WAYS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 611 - 6" CONDUIT, TYPE B _____ 200 FT.
ITEM 611 - 6" CONDUIT, TYPE E _____ 50 FT.
ITEM 611 - 6" CONDUIT, TYPE F _____ 100 FT.
ITEM 601 - ROCK CHANNEL PROTECTION TYPE C WITH AGGREGATE FILTER 5 CU. YD.

REVIEW OF DRAINAGE FACILITIES

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

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

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

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

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT. BOTH VEGETATED FILTER STRIPS AND A MANUFACTURED WATER QUALITY STRUCTURE ARE UTILIZED ON THIS PROJECT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

GENERAL NOTES

DESIGN AGENCY
EUTHENICS
8335 Mohawk Dr. | Cleveland, OH 44138

DESIGNER ESM
REVIEWER DTB 03/01/22
PROJECT ID 104983
SHEET P.20 TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (h.) DATE: 15-Sep-22 TIME: 4:45:41 PM USER: comlirik
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\Pre-Bid Question 57-60\104983_GN003.dgn

SEQUENCE OF CONSTRUCTION

PRE-PHASE 1

A. CONSTRUCT TEMPORARY PAVEMENT SOUTH SIDE OF MILLER ROAD FROM STA. 61+44.64 TO STA. 67+03.53 AND INSTALL TEMPORARY CB-3 AND 12" STORM TO THE LIMITS SHOWN IN THE PLAN. PRIOR TO SETTING UP PHASE 1A WORKZONE.
B. CONSTRUCT TEMPORARY PAVEMENT WEST SIDE OF RAMP B-1 FROM STA. 0+25.96 TO STA. 1+16.17 TO THE LIMITS SHOWN IN THE PLAN. PRIOR TO SETTING UP PHASE 1A WORKZONE.

PHASE 1A

A. RECONSTRUCT AND WIDEN THE NORTH SIDE OF MILLER ROAD TO THE LIMITS SHOWN IN THE PLANS. MAINTAIN TWO-WAY TRAFFIC ON MILLER ROAD ON THE SOUTH SIDE OF THE EXISTING PAVEMENT USING PORTABLE BARRIER AND DRUMS. MAINTAIN ACCESS TO AFFECTED PROPERTIES AT ALL TIMES DURING CONSTRUCTION. INSTALL CONSTRUCTION SIGNING AS DETAILED IN THE PLANS AND SPECIFICATIONS.
B. WIDEN RAMP B-1 AND MAINTAIN ONE LANE ON THE EXISTING PAVEMENT AND SHOULDER USING PORTABLE BARRIER.
C. CONSTRUCT RELOCATED RAMP B-2 TO THE LIMITS SHOWN IN THE PLANS AND CONSTRUCT TEMPORARY PAVEMENT BETWEEN EXISTING AND PERMANENT PAVEMENT AS SHOWN. MAINTAIN ONE LANE OF TRAFFIC ON EXISTING RAMP PAVEMENT USING PORTABLE BARRIER.
D. CONSTRUCT NEW RAMPS B-3 AND B-4 FROM I-77 UP TO THE INTERSECTION WITH MILLER ROAD TO THE LIMITS SHOWN. INSTALL TRAFFIC CONTROL DEVICES AND SHIFT I-77 LANES TOWARD THE MEDIAN AS DETAILED IN THE PLANS. CLOSE BOTH MEDIAN SHOULDERS ALONG I-77 USING PORTABLE BARRIER TO PROTECT THE MEDIAN PIER CONSTRUCTION.
E. BEGIN BRIDGE CONSTRUCTION TO WIDEN BRIDGE ON THE NORTH SIDE OF MILLER ROAD. UTILIZE SHORT TERM FULL CLOSURES OF THE FREEWAY PER SCD MT-99.60 TO SET BEAMS OVER THE I-77 TRAVEL LANES.

PHASE 1B

A. CONTINUE CONSTRUCTION ON THE NORTH SIDE OF MILLER ROAD AS SHOWN IN THE PLANS. MAINTAIN TWO-WAY TRAFFIC ON EXISTING AND TEMPORARY PAVEMENT CONSTRUCTED IN PHASE 1A. INSTALL/MAINTAIN CONSTRUCTION SIGNING AS DETAILED IN THE PLANS AND SPECIFICATIONS. INSTALL PERMANENT MAST ARMS AND TEMPORARY SIGNAL AS DETAILED IN THE SIGNAL PLANS AND TEMPORARY SIGNAL PLANS. INSTALL/SHIFT PORTABLE PLASTIC DRUMS AND TEMPORARY BARRIER AS DETAILED IN THE PHASE 1B PLANS.
B. CONSTRUCT TEMPORARY PAVEMENT ON THE NORTH SIDE OF MILLER ROAD ON THE WEST END OF THE PROJECT.
C. SHIFT RAMP B-2 TRAFFIC ONTO THE TEMPORARY AND PERMANENT PAVEMENT CONSTRUCTED IN PHASE 1A. CONSTRUCT REMAINING PORTION OF PERMANENT RAMP PAVEMENT AND REMOVE EXISTING RAMP PAVEMENT.
D. MAINTAIN PHASE 1A LANE SHIFT ALONG I-77 TO COMPLETE RAMP AND AUXILARY LANE WORK AS DETAILED IN THE PLANS. RAMPS B-3 AND B-4 TO REMAIN CLOSED TO TRAFFIC. OPEN THE I-77 MEDIAN SHOULDERS ONCE MEDIAN PIER CONSTRUCTION IS COMPLETE.
F. COMPLETE BRIDGE CONSTRUCTION ON THE NORTH SIDE OF MILLER ROAD.

PHASE 1C

A. CONSTRUCT CENTER LANE ALONG MILLER ROAD AS SHOWN ON PHASE 1C PLAN SHEETS. CONCRETE PAVEMENT SHALL BE INSTALLED BETWEEN THE PROPOSED CONCRETE PAVEMENT PREVIOUSLY INSTALLED IN PHASE 1A & 1B AND THE CENTERLINE AND/OR CROWN OF THE PAVEMENT ALONG MILLER ROAD.

B. CONTRACTOR SHALL MAINTAIN OPENINGS IN THE BARRIERS AT THE PROPOSED RAMP INTERSECTIONS AS SHOWN ON THE PHASE 1C PLAN SHEETS.

SEQUENCE OF CONSTRUCTION (CONTINUED)

PHASE 2

A. SHIFT TRAFFIC TO THE NORTH SIDE OF MILLER ROAD ON THE PERMANENT AND TEMPORARY PAVEMENT COMPLETED IN PHASE 1B. RECONSTRUCT THE SOUTH SIDE OF MILLER ROAD AND REMOVE REMAINING TEMPORARY PAVEMENT.
B. RECONSTRUCT AND WIDEN THE INTERSECTION OF MILLER ROAD AND SOUTHPOINT DRIVE USING A SHORT TERM 30-DAY CLOSURE AND DETOUR TRAFFIC USING BRECKSVILLE ROAD AND SNOWVILLE ROAD.
C. SHIFT TRAFFIC ALONG MILLER ROAD ONTO THE COMPLETED BRIDGE AS DETAILED IN THE PLANS AND SPECIFICATIONS. RAMP B-1 AND B-2 WILL BE FULLY OPENED TO TRAFFIC USING PERMANENT PAVEMENT. REMOVE TEMPORARY PAVEMENT ALONG RAMP B-2.
D. CONSTRUCT THE INTERSECTIONS WITH MILLER ROAD AND RAMPS B-3 AND B-4 WITHIN 30 DAYS OF THE START OF PHASE 2 WORK. OPEN INTERSECTIONS AND RAMPS TO TRAFFIC WHILE COMPLETING REMAINING PHASE 2 WORK. RAMPS B-3 AND B-4 SHALL BE OPEN TO TRAFFIC BY OCTOBER 1, 2023.
E. RAMPS B-3 AND B-4 SHALL BE CLOSED TO TRAFFIC UNTIL WORK AT THE INTERSECTIONS WITH MILLER ROAD IS COMPLETE AND INTERSECTIONS ARE FULLY FUNCTIONAL AND THE WIDENING WORK FOR IR-77 SB IN PART 2 FROM THE TURNPIKE TO SR-21 HAS BEEN COMPLETED.

PHASE 3

A. UPON THE COMPLETION OF ALL RAMPS AND THE NORTH SIDE OF MILLER ROAD FROM STA. 60+04.74 TO STA. 71+40.58. REMOVE TEMPORARY PAVEMENT AND COMPLETE CONSTRUCTION/REPLACEMENT OF SIDEWALK.
B. EXISTING STEEL BEAMS RETAINED ON MILLER ROAD BRIDGE OVER I-77 WILL BE PAINTED AS PART OF THIS PROJECT. MAINTAIN ALL LANES OF TRAFFIC ON I-77 USING SHOULDER CLOSURES AND CLOSE LANES WHEN NECESSARY FOLLOWING THE PLCS. ONCE PAINTING IS COMPLETE RESTORE ALL I-77 TRAVEL LANES TO ORIGINAL CONFIGURATION.
C. COMPLETE RESURFACING FOR I-77 PAVEMENT CROWN SHIFT AS DETAILED IN THE PLANS USING TEMPORARY LANE CLOSURES.
D. COMPLETE FINAL SURFACE COURSE ALONG I-77. ONCE PAVEMENT HAS FULLY CURED INSTALL PERMANENT PAVEMENT MARKINGS AND SIGNING AS DETAILED IN THE PLANS. ALL WORK IMPACTING ALL TRAVEL LANES SHALL BE COMPLETED AND ALL LANES SHALL BE OPEN TO TRAFFIC BY SPRING OF 2024.
E. COMPLETE ALL REMAINING LIGHTING WORK, FINAL SIGNAL INSTALLATION, AND FINAL SEEDING AND MULCHING.

ITEM 614 - BUSINESS ENTRANCE (M4-H15) SIGN, AS PER PLAN

THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE PROJECT ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS, OR IS NOT, OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 36 INCH X 48 INCH IN SIZE WITH TYPE G OR TYPE H ORANGE RETROREFLECTIVE SHEETING. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK). THE SIGN SHALL HAVE THE STANDARD M4-H15 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES, THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE MOUNTED ON TWO #3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90° TO THE DIRECTION(S) OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 614, BUSINESS ENTRANCE SIGN, AS PER PLAN 1 EACH

LOCAL ACCESS

INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL RESIDENTIAL AND COMMERCIAL PROPERTIES DURING CONSTRUCTION EXCEPT AS INDICATED HEREIN. DRIVEWAY CLOSURES MAY BE NECESSARY TO ENABLE WORK ON OR IN FRONT OF A DRIVE. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING OWNERS, RESIDENTS, OR BUSINESS OPERATORS IN WRITING AT LEAST 48 HOURS BUT NOT MORE THAN 72 HOURS PRIOR TO CLOSURE. THE ENGINEER SHALL BE GIVEN A LIST OF THE PERSONS THAT WERE GIVEN NOTICES WITH THE DATE OF NOTICE INCLUDED. CLOSURE IS PERMITTED ONLY DURING WORK HOURS AND ACCESS MUST BE RETURNED AT THE END OF EACH WORKING DAY. PROPERTIES WITH MULTIPLE DRIVES MAY HAVE ONE DRIVE CLOSED AT A TIME, WHILE WORK IS PERFORMED IN THE AREA OF THE CLOSED DRIVE.

INDIVIDUAL DRIVE CLOSURES SHALL BE KEPT TO THE MINIMUM TIME NEEDED FOR CONSTRUCTION ACTIVITIES. EVERY EFFORT MUST BE MADE TO ACCOMMODATE THE OWNER'S NEED FOR ACCESS. THE CONTRACTOR MAY UTILIZE PART WIDTH CONSTRUCTION OR CREATE TEMPORARY ACCESS USING GRAVEL TO MAINTAIN ACCESS WHEN NEEDED.

TRENCH FOR WIDENING [SPEED LIMIT < 45 MPH]

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. FROM THE TIME THE EXCAVATION BEGINS ON THE TRENCH WIDENING, THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS PLACED AT TEN [10] FOOT INTERVALS. THE LENGTH OF WIDENING OPEN AT ANY ONE TIME SHALL NOT BE GREATER THAN WHICH CAN BE COMPLETED WITHIN 14 CALENDAR DAYS. ALL PROPOSED SUBBASE AND ITEM 302 ASPHALT CONCRETE BASE MATERIAL SHALL BE COMPLETED IN A CONTINUOUS OPERATION.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 11" INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

PERMITTED LANE CLOSURE TIMES

LANE CLOSURES ON IR-77 ARE THOSE WHICH ARE PERMITTED BY THE PERMITTED LANE CLOSURE POLICY. THESE TIMES SHALL NOT BE REVISED WITHOUT PRIOR APPROVAL FROM THE DISTRICT 12 WORK ZONE TRAFFIC ENGINEER. SHORT TERM LANE CLOSURES SHALL ONLY BE IMPLEMENTED WHEN WORK IS CONTINUOUSLY PERFORMED IN THE LANE. THE CLOSURE SHALL BE REMOVED AS SOON AS POSSIBLE AFTER WORK HAS STOPPED. LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY ODOT'S PERMITTED LANE CLOSURE WEB SITE, WHICH IS LOCATED ON ODOT'S WEB SITE AT: http://plcm.dot.state.oh.us/

ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THE PROJECT.

THE LATEST REVISION, 14 DAYS PRIOR TO THE BID DATE, WILL BE IN EFFECT FOR THIS JOB.

ANY ROAD NOT LISTED ON THE PERMITTED LANE CLOSURE SCHEDULE SHALL NOT HAVE ANY LANE CLOSURES WEEKDAYS FROM 6:30AM TO 9AM AND 3PM TO 6:30PM. NO TIME RESTRICTIONS WILL BE ASSIGNED ON WEEKEND LANE CLOSURES FOR ROADS NOT LISTED ON THE PERMITTED LANE CLOSURE TIMES.

IF THE CONTRACTOR FAILS TO MEET THE TIME RESTRICTIONS ON THE PERMITTED LANE CLOSURE WEB SITE A ROAD USER COST DISINCENTIVE WILL BE ASSESSED PER QUEWZ-98, A COMPUTER PROGRAM DEVELOPED BY THE TEXAS TRANSPORTATION INSTITUTE. ROAD USER COST DISINCENTIVES CAN BE ANYWHERE FROM $100 PER MINUTE TO $500 PER MINUTE DEPENDING ON THE TIME OF DAY AND NUMBER OF LANES CLOSED.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT SUM-77-28.75 (PID 111405) & SUM-77-32.27 (PID 104983) MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENET TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICTS BETWEEN CONTRACTORS SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGNER MSW
REVIEWER BBD 05/25/22
PROJECT ID 104983
SHEET P.25 TOTAL P.445

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 22-Sep-22 TIME: 4:50:57 PM USER: comtirik
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MN002.dgn

MAINTENANCE OF TRAFFIC SUBSUMMARY

REF. NO.	SHEET NO.	STATION FROM	STATION TO	LENGTH	AVERAGE WIDTH	SIDE	GRAPHICAL GENERATED AREA	609 CURB, TYPE 6	614 INCREASED BARRIER DELINEATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE ARROW, CLASS I, 642 PAINT	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 SPECIAL - WORK ZONE GUARDRAIL	614 BARRIER REFLECTOR, TYPE 1 (1WAY)	614 OBJECT MARKER, ONE WAY	614 OBJECT MARKER, TWO WAY	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE BARRIER, UNANCHORED	622 PORTABLE BARRIER, ANCHORED
				FT	FT		SF	FT	FT	EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	SY	SY	FT	FT
		PHASE 1A																															
		MILLER RD																															
PMT 1	38-39	61+44.64	67+03.53	558.89	9.53	RT	5326.22																							592			
C 1	39	63+11.70	67+03.53			RT		392																									
ELW 1	39-40	66+46.43	69+40.43			RT								0.06																			
DYL 1	39-40	66+49.48	68+59.18			RT							0.04																				
DLY 1	40	68+59.18	70+38.64			RT														180													
PMT 2	40	70+64.73	71+40.58	75.85	15.98	LT	1211.78																							135			
IA 1	40	70+00.00				CL				1																							
SL 1	40	70+38.64				RT																			11								
TR 1	40	70+31.30	71+05.49			RT&LT																				1							
PB 1	40-41	70+00.00	75+05.14			CL&LT			51																		10		10			219	291
DYL 2	40-41	70+38.64	74+72.25			RT							0.08																				
ELW 2	40-41	EX RAMP B-2 14+99.81	RAMP B-1 0+75.35			LT								0.13																			
SL 2	41	74+72.25				RT																			12								
ELW 3	41-46	RAMP B-1 0+35.58	99+31.69			RT&LT								0.46																			
TR 2	41	75+07.09	76+09.50			RT&LT																				1							
PB 2	41-43	RAMP B-1 0+35.58	84+53.76			RT&LT			92																		18		18			920	
SL 3	41	75+93.35				RT																			11								
DYL 3	41-42	75+93.35	82+93.89			RT							0.13																				
DLY 2	42-43	82+93.89	84+60.00			RT														160													
TR 3	43	83+04.10	84+30.16			RT&LT																				1							
SL 4	43	84+60.00				RT																			12								
IA 2	43	84+53.76				CL				1																							
ELY 1	43	84+60.00	86+97.52			RT&LT									0.05																		
		I-77																															
CH 11	47	9+26.75	20+00.00			LT												1073															
CH 12	47	9+26.75	20+00.00			LT												1073															
CH 13	47	11+37.30	12+80.05			LT												145															
ELY 11	47-50	12+26.38	47+94.50			LT											0.67																
DLW 11	47	12+26.94	17+00.00			LT															473												
ELW 11	47-50	13+36.68	47+94.01			LT										0.65																	
CH 14	47-48	16+93.13	27+90.00			RT												1097															
CH 15	47-48	16+93.13	27+90.00			RT												1097															
PB 11	47-49	17+00.00	45+10.20			LT			279																		56	56				2790	
ELY 12	47-49	19+92.76	42+56.82			RT											0.43																
ELW 12	47-49	19+93.32	42+56.22			RT										0.43																	
LL 11	47-49	20+00.00	39+70.00			LT						0.37																					
LL 12	47-49	20+00.00	39+70.00			LT						0.37																					
LL 13	48-49	27+90.00	34+75.00			RT						0.13																					
LL 14	48-49	27+90.00	34+75.00			RT						0.13																					
IA 11	48	28+05.00				RT					1																						
PB 12	48-49	28+05.00	44+26.12			RT			164																		33	33				1640	
CH 16	49	34+75.00	45+56.41			RT												1081															
CH 17	49	34+75.00	45+56.41			RT												1081															
CH 18	49-50	39+70.00	50+94.18			LT												1124															
CH 19	49-50	39+70.00	50+94.18			LT												1124															
IA 12	49	42+24.63				RT					1																						
PB 13	49	42+24.63	44+35.74			RT			21																		4	4				210	
SUBTOTALS THIS SHEET								392	607	2	2	1.01	0.25	0.64	0.05	1.08	1.10	8896	0	340	473	0	46	0	3	0	121	93	29	726	0.00	5779	291

CUY-77-00.42 PART 1

MODEL: Untitled Sheet PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 3:09:48 PM USER: comitirk
F:\Jobs\1162-Miller Road Interchange\104983600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MS001.dgn

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

DESIGNER HB

REVIEWER BBD 05/25/22

PROJECT ID 104983

SHEET P.30 | TOTAL P.445

MAINTENANCE OF TRAFFIC SUBSUMMARY

REF. NO.	SHEET NO.	STATION FROM	STATION TO	LENGTH	AVERAGE WIDTH	SIDE	GRAPHICAL GENERATED AREA	609 CURB, TYPE 6	614 INCREASED BARRIER DELINEATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE ARROW, CLASS I, 642 PAINT	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 SPECIAL - WORK ZONE GUARDRAIL	614 BARRIER REFLECTOR, TYPE 1 (1WAY)	614 OBJECT MARKER, ONE WAY	614 OBJECT MARKER, TWO WAY	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE BARRIER, UNANCHORED	622 PORTABLE BARRIER, ANCHORED
				FT	FT		SF	FT	FT	EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	SY	SY	FT	FT
		I-77																																
PB 14	49	43+00.93	45+14.27			LT			21																			4	4				210	
IA 13	49	45+10.20				LT					1																							
IA 14	49	45+14.27				LT					1																							
		RAMP B-1																																
PMT 11	49	00+25.96	01+16.17	90.21	5.88	LT	530.80																									59		
ELW 13	49-51	00+35.58	I-77 58+91.49			LT										0.30																		
PB 15	49-50	00+35.58	I-77 55+33.00			LT			124																			25	25				1240	
		PHASE 1A																																
		EX RAMP B-2																																
ELY 13	49	14+37.35	14+99.81			LT											0.01																	
LA 11	49	14+26.87				RT																			1									
LA 12	49	14+82.09				RT																			1									
CH 16	50	01+59.58	05+38.13			LT												380																
IA 15	50	05+38.13									1																							
ELY 15	50	05+38.13	09+33.47			LT											0.08																	
PB 16	50	05+38.13	08+73.94			LT			34																			7	7				340	
LA 13	50	12+94.02				LT																			1									
LA 14	50	13+61.61				LT																			1									
PMT 12	50	TEMP B-2 25+38.13	TEMP B-2 33+11.61	769.26	14.84	LT&RT	11413.51																										1268	
		PHASE 1B																																
		MILLER RD																																
ELW 21	54-55	60+04.82	63+19.87			LT								0.07																				
ELW 22	54-55	61+44.64	64+70.00			RT								0.06																				
DYL 21	54	61+60.97	62+81.42			RT							0.02																					
PMT 21	54-55	60+04.82	63+03.18	298.36	7.92	LT	2364.20																									263		
PMT 22	55-56	63+74.88	69+69.44	594.56	12.29	LT	7307.38																									812		
ELW 23	55-56	63+63.29	REL R B-2 14+73.46			LT								0.15																				
IA 21	55	64+34.02				LT				1																								
DYL 22	55-56	64+01.40	69+28.95			RT							0.10																					
PB 21	55-56	64+34.02	69+53.19			CL			52																			10		10			520	
SL 21	56	69+28.95				RT																		11										
IA 22	56	69+53.19				CL				1																								
ELW 24	56	REL R B-2 15+01.21	71+30.52			LT&RT								0.02																				
TR 21	56	70+31.30	71+05.49			RT&LT																			1									
IA 23	56	71+45.00				CL				1																								
SL 23	56	72+13.02				RT																		11										
DYL 23	56-57	72+13.02	75+50.00			RT								0.06																				
PB 22	56-57	71+45.00	75+41.62			CL																						8		8			397	
ELW 25	56-57	71+30.52	RAMP B-1 0+67.33			RT&LT								0.10																				
IA 24	57	75+41.62				CL				1																								
SL 24	57	75+50.00				RT																		11										
ELW 26	57	RAMP B-1 0+96.70	76+89.07			RT&LT								0.05																				
ELW 27	57	RAMP B-1 1+11.62	76+36.38			RT&LT								0.03																				
TL 1	57	RAMP B-1 0+96.70	76+36.38			RT&LT																					95							
SL 25	57	76+61.46				RT&LT																		15										
IA 25	57	77+11.21				CL				1																								
		SUBTOTALS THIS SHEET						0	231	5	3.00	0.00	0.12	0.53	0.00	0.30	0.09	380	0	0	0	95	48	4	1	0	54	36	18	1134	1268	2707	0	

CUY-77-00.42 PART 1

MODEL: Untitled Sheet PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 3:27:10 PM USER: comlirk
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MS002.dgn

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

DESIGNER
HB

REVIEWER
BBD 05/25/22

PROJECT ID
104983

SHEET P.31 | TOTAL P.445

MAINTENANCE OF TRAFFIC SUBSUMMARY

REF. NO.	SHEET NO.	STATION FROM	STATION TO	LENGTH	AVERAGE WIDTH	SIDE	GRAPHICAL GENERATED AREA	609 CURB, TYPE 6	614 INCREASED BARRIER DELINEATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE ARROW, CLASS I, 642 PAINT	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 SPECIAL - WORK ZONE GUARDRAIL	614 BARRIER REFLECTOR, TYPE 1 (1WAY)	614 OBJECT MARKER, ONE WAY	614 OBJECT MARKER, TWO WAY	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE BARRIER, UNANCHORED	622 PORTABLE BARRIER, ANCHORED
				FT	FT		SF	FT	FT	EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	SY	SY	FT	FT
		RAMP B-1																																
ELW 31	65-66	01+11.62	03+50.00			RT										0.05																		
		RAMP B-2																																
GR 31	66	TEMP R B-2 27+46.15	TEMP R B-2 32+92.26			LT																			662.5								
SL 31	65	15+03.94				RT&LT															32												
CH 31	65	14+36.85	15+03.94			LT												67																
LA 31	65	14+71.84																				1												
LA 32	65	14+71.84																				1												
		PHASE 1B																																
		RAMP B-2																																
ELY 32	65-66	REL R B-2 15+03.94	EX R B-2 5+38.13			LT											0.18																	
ELW 32	65-66	EX R B-2 4+45.34	REL R B-2 14+73.46			RT&LT										0.20																		
IA 31	66	EX R B-2 5+80.46				LT					1																							
PB 31	66	EX R B-2 5+80.46	TEMP B-2 32+13.93			RT&LT			63																		13	13				630		
		PHASE 1C																																
		MILLER ROAD																																
ELW 41	59A	60+23.60	63+03.21			LT								0.06																				
DYL 41	59A	60+39.94	63+03.82			LT							0.05																					
GR 41	59B-59C	64+69.72	68+94.70			LT																			425								
ELW 43	59B-59C	63+74.88	RAMP B-2 14+36.85			RT&LT								0.11																				
DYL 42	59B-59C	63+75.51	69+29.00			LT							0.11																					
ELW 44	59C	RAMP B-2 14+97.16	71+37.11			LT								0.02																				
SL 42	59C	71+65.09				LT															11													
DYL 43	59C-59D	71+65.09	74+74.47			LT							0.06																					
ELW 45	59D	RAMP B-1 0+86.59	76+36.07			RT											0.02																	
ELW 46	59D-59F	76+36.07	84+53.76			LT								0.15																				
SL 44	59D	76+36.07				LT															11													
DYL 44	59D-59F	76+36.07	85+08.09			LT							0.17																					
ELY 41	59F	85+08.09	87+25.00			LT									0.04				175															
DLY 41	59F-59G	87+25.00	89+00.00			LT									0.08				250															
ELY 43	59G-59H	89+00.00	93+10.00			LT									0.07																			
DLY 42	59H	93+10.00	95+60.00			LT																												
ELY 44	59H	95+60.00	99+18.81			LT																												
IA 32	59B	63+95.05				LT				1																								
IA 33	59B	64+19.54				RT					1																							
IA 33A	59C	70+57				LT					1																							
IA 34	59D	75+44				RT					1																							
IA 35	59D	75+59				LT				1																								
IA 35A	59F	86+86				LT					1																							
IA 36	59K	69+69				LT					1																							
IA 37	59K	70+75				LT				1																								
IA 38	59K	70+77				RT					1																							
IA 39	59L	75+35				LT					1																							
IA 40	59L	76+00				LT				1																								
IA 40A	59L	76+00				RT					1																							
PB 32	59B-59C	63+95.05	70+57			LT			66																		14	14				660		
PB 33	59B-59C	64+19.54	70+79			RT			66																		14	14				660		
PB 34	59D-59F	75+44	84+54			RT			91																		19	19				910		
PB 35	59D-59F	75+59	86+86			LT			114																		23	23				1140		
PB 36	59K	70+95	75+35			LT			44																		9	9				440		
PB 37	59K	70+97	75+37			RT			44																		9	9				440		
SL 43	59D	74+45				RT															12													
SUBTOTALS THIS SHEET								0	488	4	8	0	0.39	0.34	0.19	0.27	0.18	67	425	0	0	0	66	2	0	1087.5	101	101	0	0	0	4880	0

MODEL: Unfilled Sheet PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 5:07:10 PM USER: comitirk
F:\Jobs\11162-Miller Road Interchange\104983600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MS003.dgn

CUY-77-00.42 PART 1

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

DESIGNER HB

REVIEWER BBD 05/25/22

PROJECT ID 104983

REF. NO.	SHEET NO.	STATION FROM	STATION TO	LENGTH	AVERAGE WIDTH	SIDE	GRAPHICAL GENERATED AREA	609 CURB, TYPE 6	614 INCREASED BARRIER DELINEATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	614 WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (WHITE)	614 WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT (YELLOW)	614 WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT (WHITE)	614 WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE ARROW, CLASS I, 642 PAINT	614 SPECIAL - WORK ZONE TRAFFIC SIGNAL	614 SPECIAL - WORK ZONE GUARDRAIL	614 BARRIER REFLECTOR, TYPE 1 (1WAY)	614 OBJECT MARKER, ONE WAY	614 OBJECT MARKER, TWO WAY	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	622 PORTABLE BARRIER, UNANCHORED	622 PORTABLE BARRIER, ANCHORED
				FT	FT		SF	FT	FT	EACH	EACH	MILE	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	SY	SY	FT	FT
		PHASE 2																																	
		MILLER ROAD																																	
ELW 42	68-73	60+69.72	87+25.00			RT&LT								0.50																					
IA 41	68	62+33.28				RT				1																									
PB 41	68-73	62+33.28	84+53.76			RT&LT			222																					44	44			2220	
SL 41	70	69+45.00				LT																		11											
SL 43	71	74+74.47				LT																		11											
TR 41	71	75+07.09	75+96.74			RT&LT																				1									
IA 42	73	84+53.76				LT				1																									
ELY 42	73	85+08.09	87+25.00			RT&LT									0.04																				
		I-77																																	
IA 52	78	29+50.00				RT					1																								
PB 51	78-79	29+50.00	37+70.00			RT			83																					17		17		830	
SUBTOTAL THIS SHEET								0	305	2	1	0.00	0.00	0.50	0.04	0.00	0	0	0	0	0	0	0	22	0	1	0	61	44	17	0	0	3050	0
SUBTOTAL FROM SHEET 30								392	607	2	2	1.01	0.25	0.64	0.05	1.08	1.10	8896	0	340	473	0	46	0	3	0	121	93	29	726	0	5779	291
SUBTOTAL FROM SHEET 31								0	231	5	3	0.00	0.12	0.53	0.00	0.30	0.09	380	0	0	0	95	48	4	1	0	54	36	18	1134	1268	2707	0
SUBTOTAL FROM SHEET 32								0	488	4	8	0.00	0.39	0.34	0.19	0.27	0.18	67	425	0	0	0	66	2	0	1087.5	101	101	0	0	0	4880	0
TOTALS CARRIED TO GENERAL SUMMARY								392	1631	13	14	1.01	0.76	2.29		3.02		9343	765		473	95	182	6	5	1087.5	337	274	64	1860	1268	16416	291

MAINTENANCE OF TRAFFIC SUBSUMMARY

CUY-77-00.42 PART 1

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

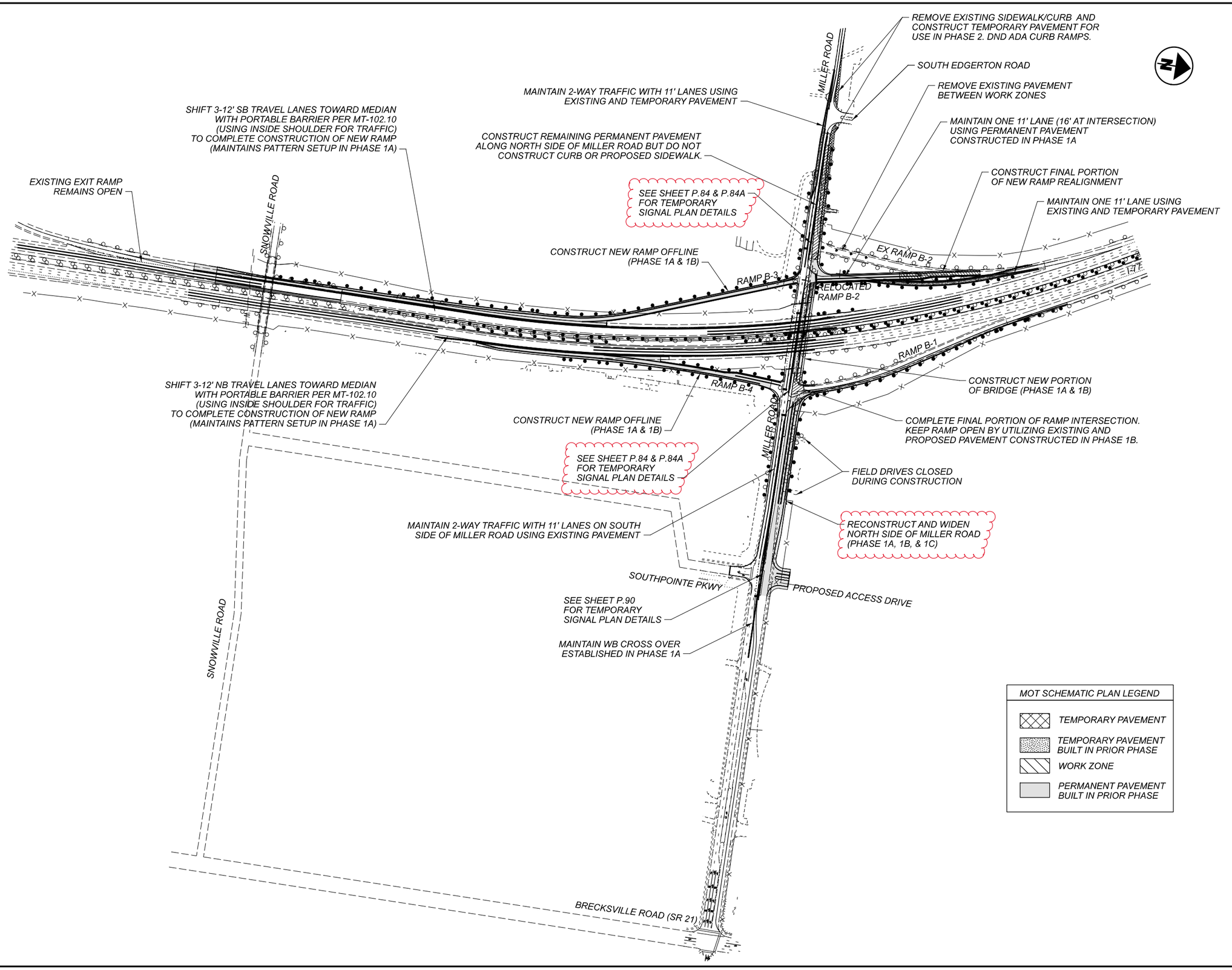
DESIGNER HB

REVIEWER BBD 05/25/22

PROJECT ID 104983

SHEET P.32A | TOTAL P.445

MODEL: Untitled Sheet PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 5:09:06 PM USER: comitirk
F:\Jobs\1162-Miller Road Interchange\104983600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MS004.dgn



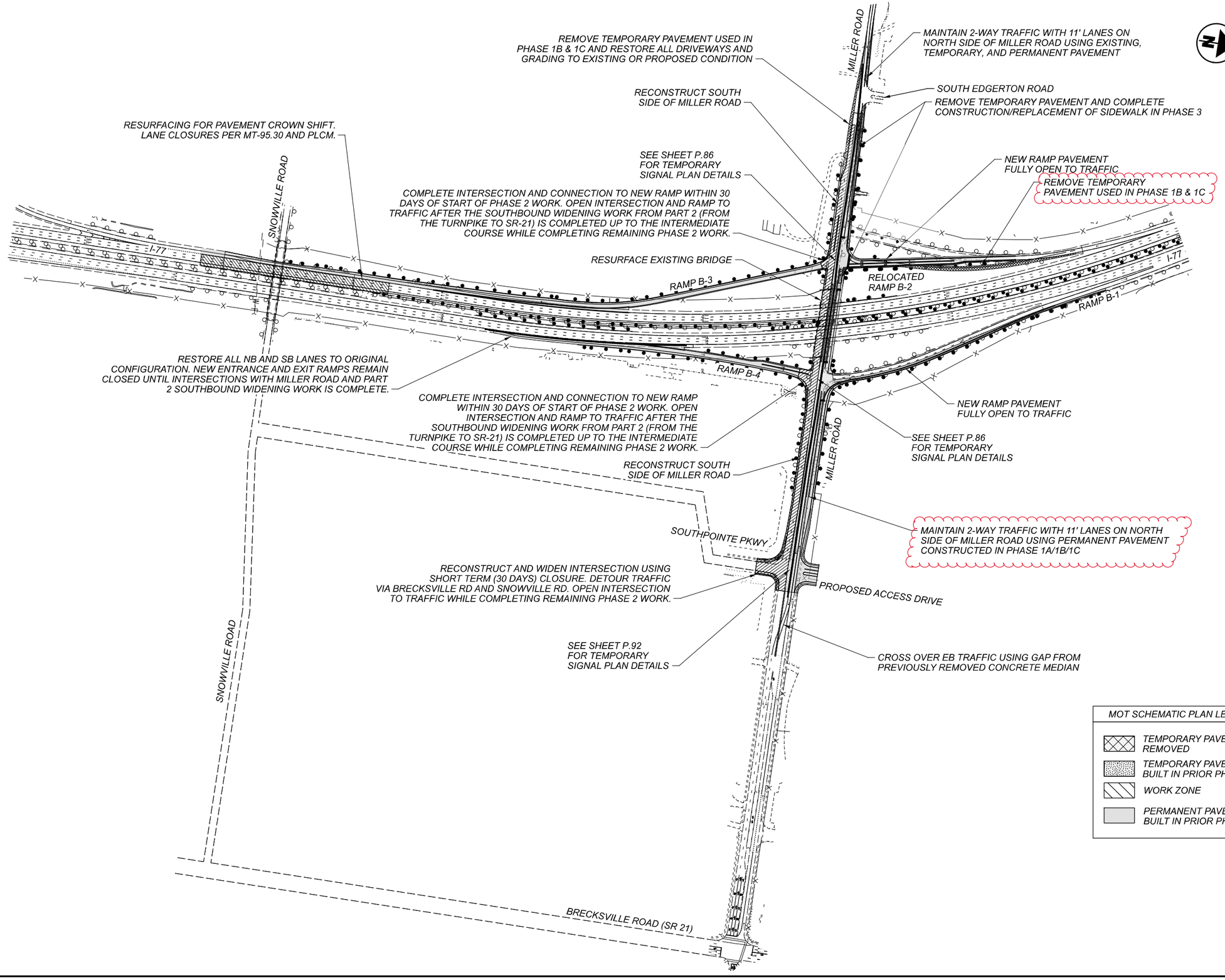
CUY-77-00.42 PART 1

MODEL: CLX_I-77 - Phase 1B Schematic [Sheet] PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 8:26:47 AM USER: comtrik
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MB002.dgn

MOT SCHEMATIC PLAN PHASE 1B & 1C

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGNER	MSW
REVIEWER	BBD 05/25/22
PROJECT ID	104983
SHEET	P.34
TOTAL	P.445



HORIZONTAL SCALE IN FEET
0 100 200 400

MOT SCHEMATIC PLAN PHASE 2

CUY-77-00.42 PART 1

MODEL: CLX_I-77 - Phase 2 Schematic (Sheet) PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 8:38:25 AM USER: comitrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MB003.dgn

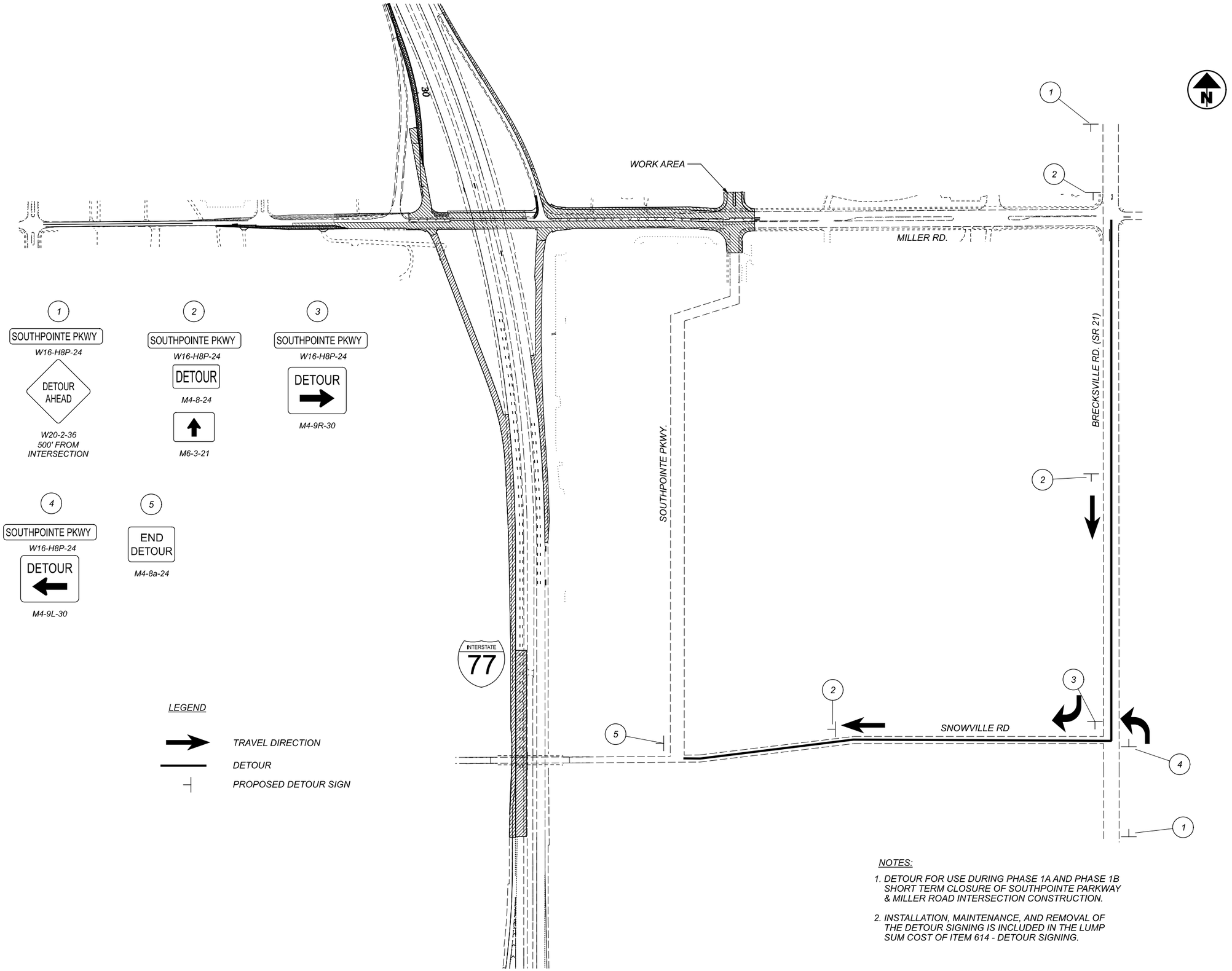
DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

DESIGNER
MSW

REVIEWER
BBD 05/25/22

PROJECT ID
104983

SHEET P.35 TOTAL P.445



NOTES:

1. DETOUR FOR USE DURING PHASE 1A AND PHASE 1B SHORT TERM CLOSURE OF SOUTHPOINTE PARKWAY & MILLER ROAD INTERSECTION CONSTRUCTION.
2. INSTALLATION, MAINTENANCE, AND REMOVAL OF THE DETOUR SIGNING IS INCLUDED IN THE LUMP SUM COST OF ITEM 614 - DETOUR SIGNING.

HORIZONTAL SCALE IN FEET
0 100 200 400

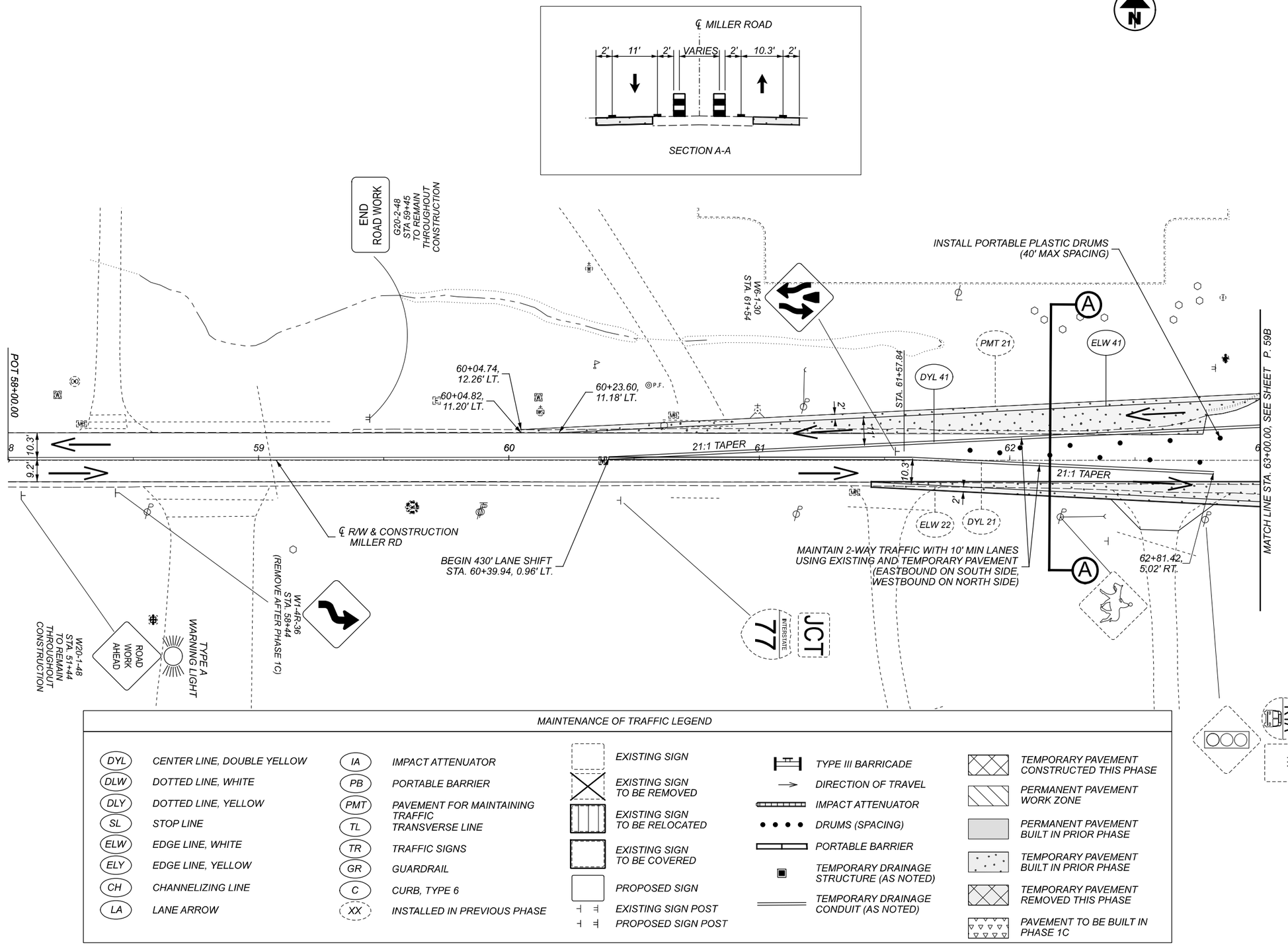
MAINTENANCE OF TRAFFIC DETOUR PLAN
SOUTHPOINTE PARKWAY (PHASE 1A,1B, & 1C)

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGNER HB
REVIEWER BBD 05/25/22
PROJECT ID 104983
SHEET P.36 TOTAL P.445

CTY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 5:20:14 PM USER: comltrlk
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_MD002.dgn



MAINTENANCE OF TRAFFIC LEGEND

DYL	CENTER LINE, DOUBLE YELLOW	IA	IMPACT ATTENUATOR		EXISTING SIGN
DLW	DOTTED LINE, WHITE	PB	PORTABLE BARRIER		EXISTING SIGN TO BE REMOVED
DLY	DOTTED LINE, YELLOW	PMT	PAVEMENT FOR MAINTAINING TRAFFIC		EXISTING SIGN TO BE RELOCATED
SL	STOP LINE	TL	TRANSVERSE LINE		EXISTING SIGN TO BE COVERED
ELW	EDGE LINE, WHITE	TR	TRAFFIC SIGNS		PROPOSED SIGN
ELY	EDGE LINE, YELLOW	GR	GUARDRAIL		EXISTING SIGN POST
CH	CHANNELIZING LINE	C	CURB, TYPE 6		PROPOSED SIGN POST
LA	LANE ARROW	XX	INSTALLED IN PREVIOUS PHASE		TYPE III BARRICADE
					DIRECTION OF TRAVEL
					IMPACT ATTENUATOR
					DRUMS (SPACING)
					PORTABLE BARRIER
					TEMPORARY DRAINAGE STRUCTURE (AS NOTED)
					TEMPORARY DRAINAGE CONDUIT (AS NOTED)
					TEMPORARY PAVEMENT CONSTRUCTED THIS PHASE
					PERMANENT PAVEMENT WORK ZONE
					PERMANENT PAVEMENT BUILT IN PRIOR PHASE
					TEMPORARY PAVEMENT BUILT IN PRIOR PHASE
					TEMPORARY PAVEMENT REMOVED THIS PHASE
					PAVEMENT TO BE BUILT IN PHASE 1C

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 58+00 TO 63+00

CUY-77-00.42 PART 1

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44125

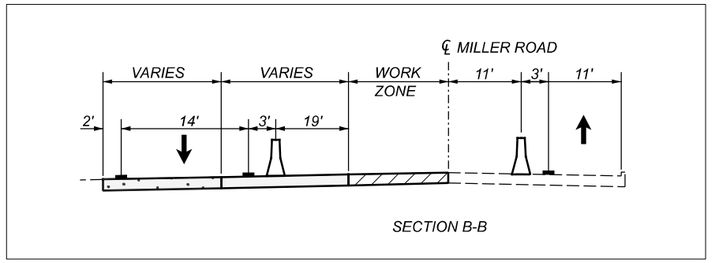
DESIGNER
COM

REVIEWER
DTB 09/21/22

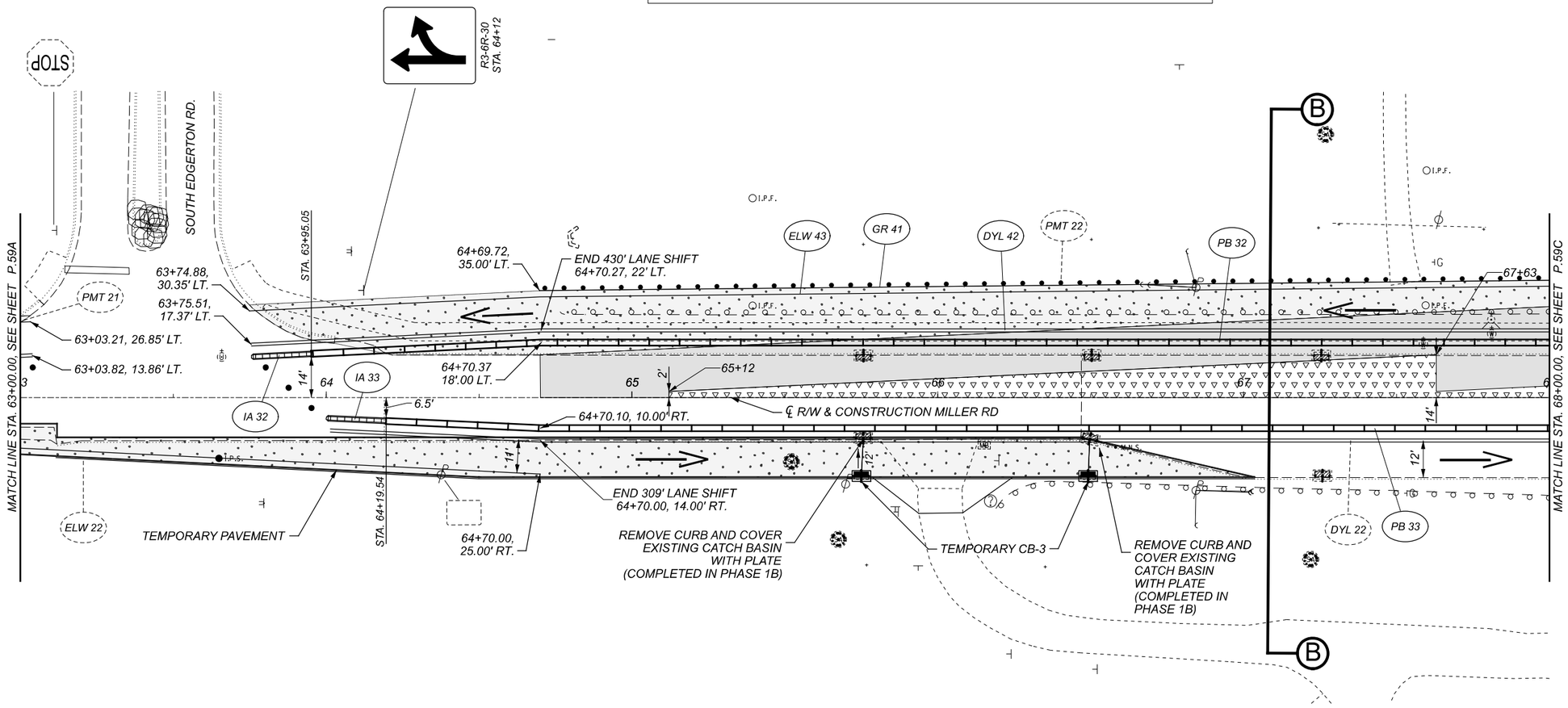
PROJECT ID
104983

SHEET P.59A | TOTAL P.445

MODEL: Miller Rd Plan - Plan (ISheet) PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 3:54:28 PM USER: comltrlk
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn



SECTION B-B



FOR LEGEND, SEE SHEET P.59A

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 63+00 TO 68+00

CUY-77-00.42 PART 1

DESIGN AGENCY
EUTHENICS
8230 Mohawk Dr. | Cleveland, OH 44125

DESIGNER COM
REVIEWER DTB 09/21/22
PROJECT ID 104983
SHEET P.59B TOTAL P.445

MODEL: Miller Rd Plan - Plan 2 [Sheet] PAPERSIZE: 17x11in) DATE: 23-Sep-22 TIME: 3:54:30 PM USER: comtrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn

REMOVE EXISTING RAMP PAVEMENT BETWEEN ACTIVE WORK ZONES THIS PHASE

℄ CONSTRUCTION RELOCATED RAMP B-2

R3-H6a-30 STA. 14+00

INSTALL PORTABLE PLASTIC DRUMS

R3-H6a-30 STA. 14+69

MAINTAIN ONE 11' LANE USING PERMANENT PAVEMENT CONSTRUCTED IN PHASE 1A

14+36.85, 0.00' LT./RT.

USE PERMANENT CONTROLLER; MAINTAIN EX POWER SOURCE AS NEEDED

EX RAMP B-2 (CLOSED)

I.P.F.

68+94.70, 39.47' LT.

ELW 44

71+05.49, 51.76' LT.

INSTALL PORTABLE PLASTIC DRUMS (40' MAX. SPACING)

R3-1-36

71+37.11, 38.00' LT.

71+65.09, 27.00' LT.

PMT 22

DYL 42

GR 41

ELW 43

SL 42

DYL 43

IA 33A

21:1 TAPER

PB 32

℄ R/W & CONSTRUCTION MILLER RD

MATCH LINE STA. 68+00.00, SEE SHEET P.55

MATCH LINE STA. 73+00.00, SEE SHEET P.57

SL 21

TR 21

DYL 22

PB 33

DYL 23

REMOVE EXISTING TRAFFIC SIGNAL

70+31.30, 42.56' RT.

RELOCATED TO STA. 70+53RT.

STOP HERE ON RED

ALL TRUCKS MUST TURN LEFT EXCEPT LOCAL DELIVERIES

RELOCATED TO STA. 70+60 RT.

Cuyahoga Valley National Park Ski Areas

RELOCATED TO STA. 70+67 RT.

Sleepy Hollow Golf Course

Brecksville Reservation

Cleveland Metroparks

RELOCATED TO STA. 70+73, RT.

AMERICA'S BYWAYS

77 INTERSTATE

OHIO TURNPIKE 21

NORTH

SPEED LIMIT 35

WATCH FOR STOPPED TRAFFIC

R3-2-36

RAMP B-3

UTILIZE WORK ZONE TRAFFIC SIGNAL (SEE P.84 FOR TEMPORARY SIGNAL PLAN DETAILS)

MAINTAIN 2-WAY TRAFFIC WITH 11' LANES ON NORTH AND SOUTH OF MILLER ROAD USING EXISTING PAVEMENT

ALL TRUCKS MUST TURN LEFT EXCEPT LOCAL DELIVERIES

FOR LEGEND, SEE SHEET P.59A

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 68+00 TO 73+00

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44130

DESIGNER COM
REVIEWER DTB 09/21/22
PROJECT ID 104983
SHEET P.59C TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Miller Rd Plan - Plan 3 [Sheet] PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 3:54:30 PM USER: comtrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn

℄ R/W & CONSTRUCTION RAMP B-1

NO PEDESTRIANS BICYCLES MOTORCYCLES

RELOCATED TO STA. 1+00, RT.

COMPLETE FINAL PORTION OF RAMP INTERSECTION. KEEP RAMP OPEN BY UTILIZING EXISTING AND PROPOSED PAVEMENT CONSTRUCTED IN PHASE 1B

I.P.F.

R3-6R-30 STA. 76+36

NORTH INTERSTATE 77

M3-1-24 M1-1-24-2 M5-1-12 STA. 76+62

0+86.59 R2, 14.15' RT.

ELW 45

R = 94.6'

75+96.74, 73.03' LT.

INSTALL PORTABLE PLASTIC DRUMS (40' MAX. SPACING)

RELOCATED TO STA. 74+63, LT.

DYL 43

+74.47

ELW 46

DYL 44

SL 44

IA 35

PB 35

+59

76+36.07, 38.00' LT.

45:1 TAPER

BEGIN 202' LANE SHIFT, 77+00.00, 27.00' LT.

MATCH LINE STA. 73+00.00, SEE SHEET P.56

MATCH LINE STA. 78+00.00, SEE SHEET P.58

74

75

76

77

78

IA 34

+44

SL 43

PB 34

12'

11'

+45

M.N.S.

DYL 23

DYL 3

I-77

R3-6L-30 STA. 74+67

MAINTAIN 2-WAY TRAFFIC WITH 11' MIN. LANES

℄ R/W & CONSTRUCTION MILLER RD

75+07.09, 40.94' RT.

UTILIZE WORK ZONE TRAFFIC SIGNAL

77 INTERSTATE NORTH

77 INTERSTATE SOUTH TO

RAMP B-4

FOR LEGEND, SEE SHEET P.59A

℄ RAMP B-1

22'

SHLDR

SECTION D-D

HORIZONTAL SCALE IN FEET

0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 73+00 TO 78+00

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44129

DESIGNER COM

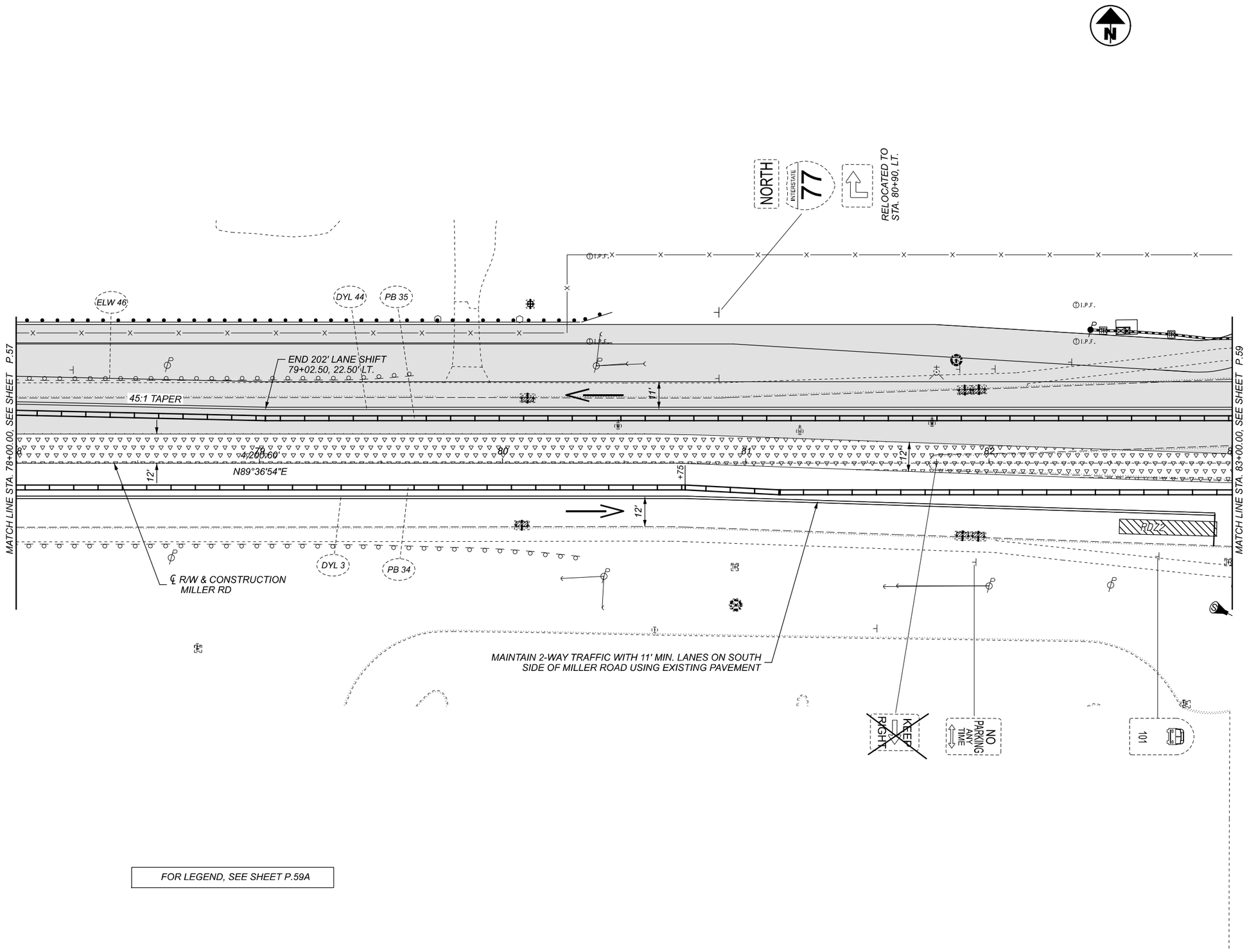
REVIEWER DTB 09/21/22

PROJECT ID 104983

SHEET P.59D TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Miller Rd Plan - Plan 4 (Sheet) PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 3:54:31PM USER: comitrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn



FOR LEGEND, SEE SHEET P.59A

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 78+00 TO 83+00

CUY-77-00.42 PART 1

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44125

DESIGNER
COM

REVIEWER
DTB 09/21/22

PROJECT ID
104983

SHEET P.59E | TOTAL P.445

MODEL: Miller Rd Plan - Plan 5 [Sheet] PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 3:54:32 PM USER: comitrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn

TO NORTH INTERSTATE 77

TO SOUTH INTERSTATE 77

RELOCATED TO STA. 83+59, LT

RELOCATED TO STA. 83+65, LT

ELW 46

DYL 44

P

R3-2-36 STA. 84+59

NO PARKING ANY TIME

R3-2-36 STA. 86+79

NO PARKING ANY TIME

BEGIN 67' LANE SHIFT 85+08.09, 22.17' LT.

84+53.76, 33.50' LT.

100:1 TAPER

END 67' LANE SHIFT 85+75.00, 21.50' LT.

ELY 41

DLY 41

13.5'

87+25.00, 21.50' LT.

IA 35A

+86

℄ R/W & CONSTRUCTION MILLER RD

PB 35

84

85

86

87

MATCH LINE STA. 83+00.00, SEE SHEET P.58

MATCH LINE STA. 88+00.00, SEE PHASE 2 MOT PLAN SHEETS

21:1 TAPER

16'

16.9'

+54

PB 34

INSTALL PORTABLE PLASTIC DRUMS (40' MAX. SPACING)

13.4'

I.P.F.

ONE WAY

R6-1-36 STA. 19+84

ONLY

R3-5R-30 STA. 19+42

NO PARKING ANY TIME

SPEED LIMIT 35

NO PARKING ANY TIME

STOP

EX. CONC. MEDIAN REMOVED AND EX. ASPHALT PAVEMENT PLACED BY OTHERS PRIOR TO CONSTRUCTION

TRUCKS NO

END ROAD WORK

G20-2-48 STA 87+94 TO REMAIN THROUGHOUT CONSTRUCTION

(SEE P.90 FOR TEMPORARY SIGNAL PLAN DETAILS.)

INSTALL PORTABLE PLASTIC DRUMS TO PREVENT LEFT TURN MOVEMENT (40' MAX. SPACING)

SOUTHPOINTE PARKWAY

R3-2-36 STA. 18+02

FOR LEGEND, SEE SHEET P.59A

① BAG SIGNAL HEADS.

② ADJUST SIGNAL TO FLASHING RED "ONLY" FOR NORTHBOUND TRAFFIC FROM SOUTHPOINTE. ADJUST SIGNAL TO FLASHING YELLOW "ONLY" FOR EASTBOUND TRAFFIC ALONG MILLER.

HORIZONTAL SCALE IN FEET 0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C MILLER ROAD STA. 83+00 TO 88+00

CUY-77-00.42 PART 1

DESIGN AGENCY EUTHENICS 8235 Mohawk Dr. | Cleveland, OH 44139

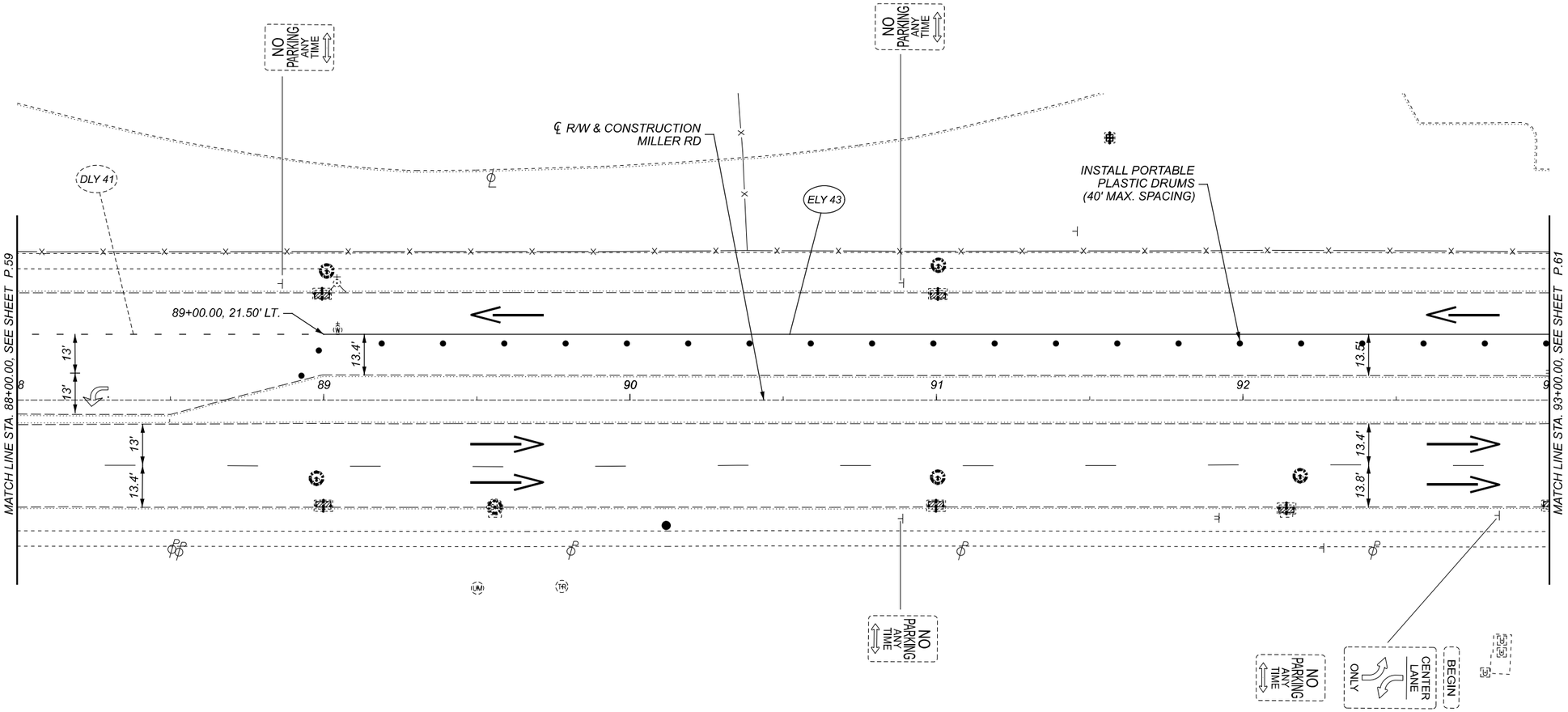
DESIGNER COM

REVIEWER DTB 09/21/22

PROJECT ID 104983

SHEET P.59F TOTAL P.445

MODEL: Miller Rd Plan - Plan 6 [Sheet] PAPERSIZE: ltxll (in.) DATE: 23-Sep-22 TIME: 3:54:33 PM USER: comfrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn



FOR LEGEND, SEE SHEET P.59A

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 88+00 TO 93+00

DESIGN AGENCY
EUTHENICS
8333 Midlevel Dr. | Cleveland, OH 44129

DESIGNER
COM

REVIEWER
DTB 09/21/22

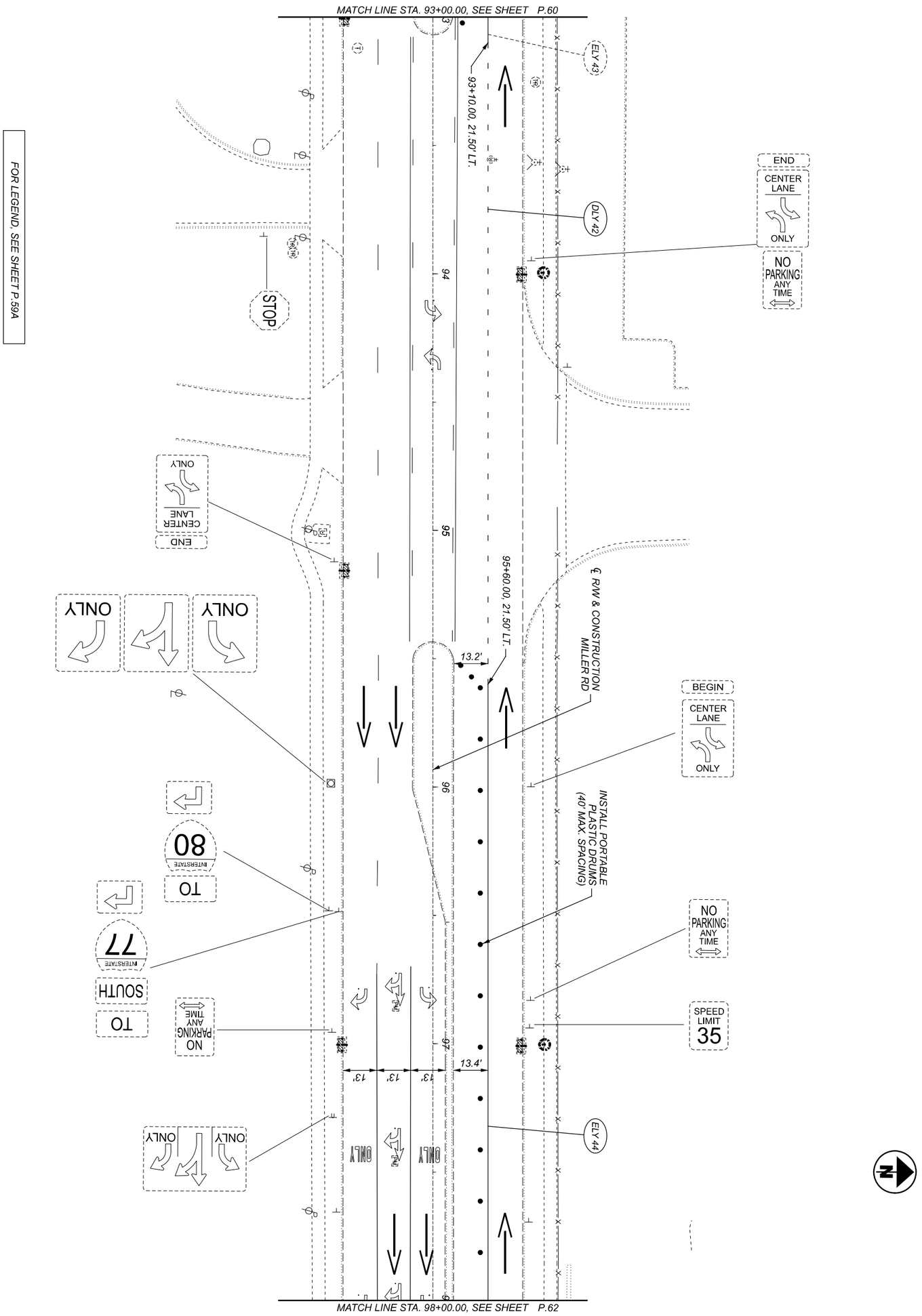
PROJECT ID
104983

SHEET P.59G TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Miller Rd Plan - Plan 7 [Sheet] PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 3:54:33 PM USER: comfrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn

MODEL: Miller Rd Plan - Plan 8 [Sheet] PAPERSIZE: 17x11 (In.) DATE: 23-Sep-22 TIME: 3:54:34 PM USER: comitrik
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn



SHEET	TOTAL
P.59H	P.445

PROJECT ID 104983

REVIEWER DTB 09/21/22

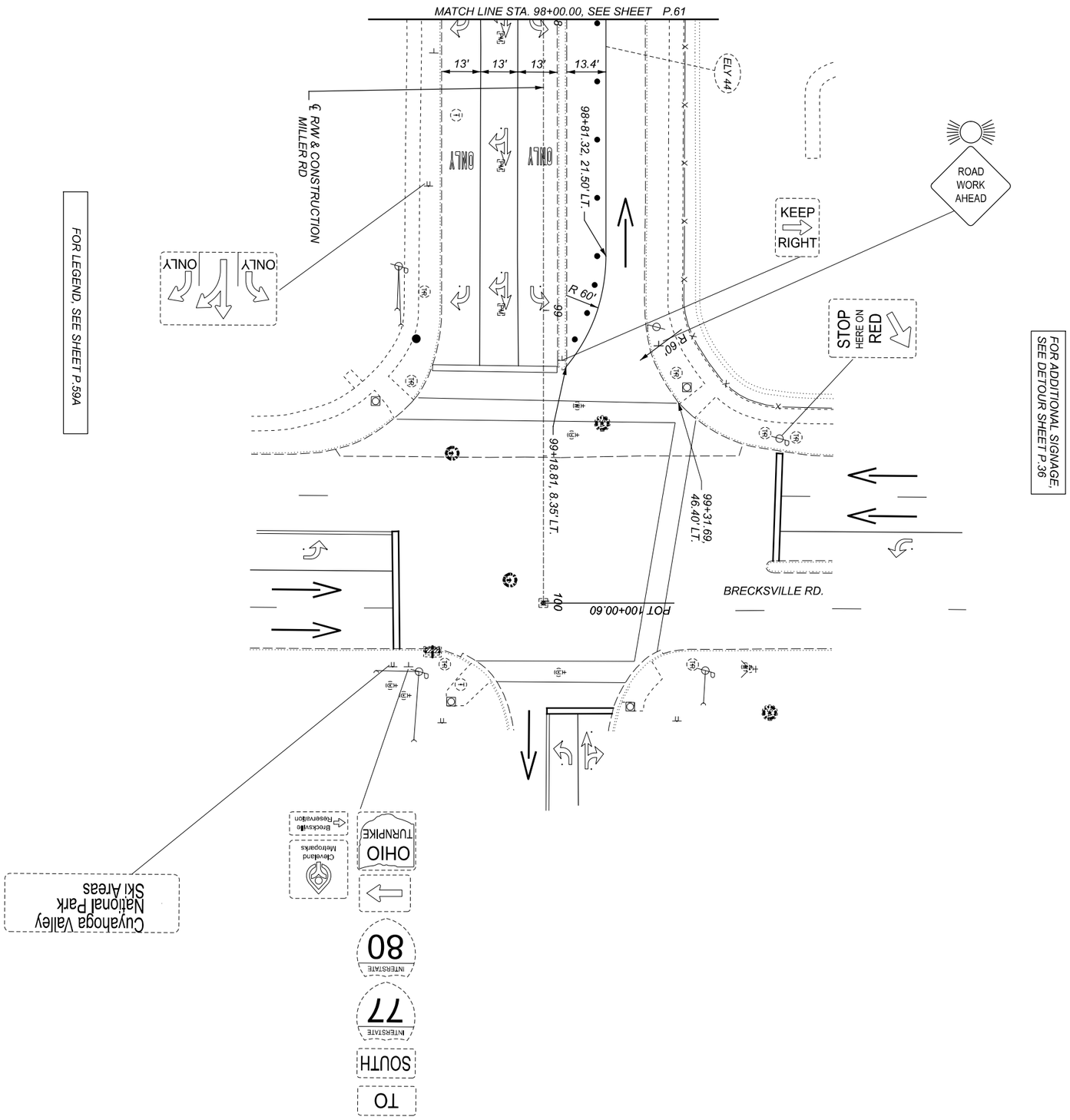
DESIGNER COM

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44130

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 93+00 TO 98+00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: Miller Rd Plan - Plan 9 [Sheet] PAPERSIZE: 17x11(In.) DATE: 23-Sep-22 TIME: 3:54:34 PM USER: comitrik
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_20scale.dgn



SHEET	TOTAL
P.59I	P.445

PROJECT ID: 104983

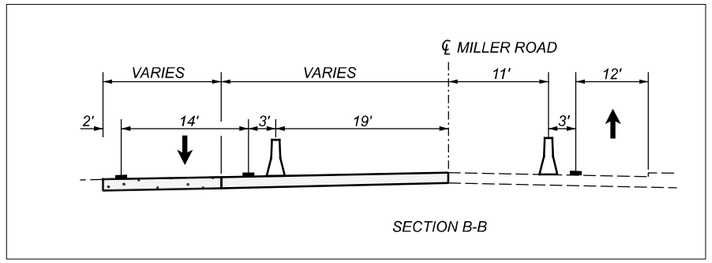
REVIEWER: DTB 09/21/22

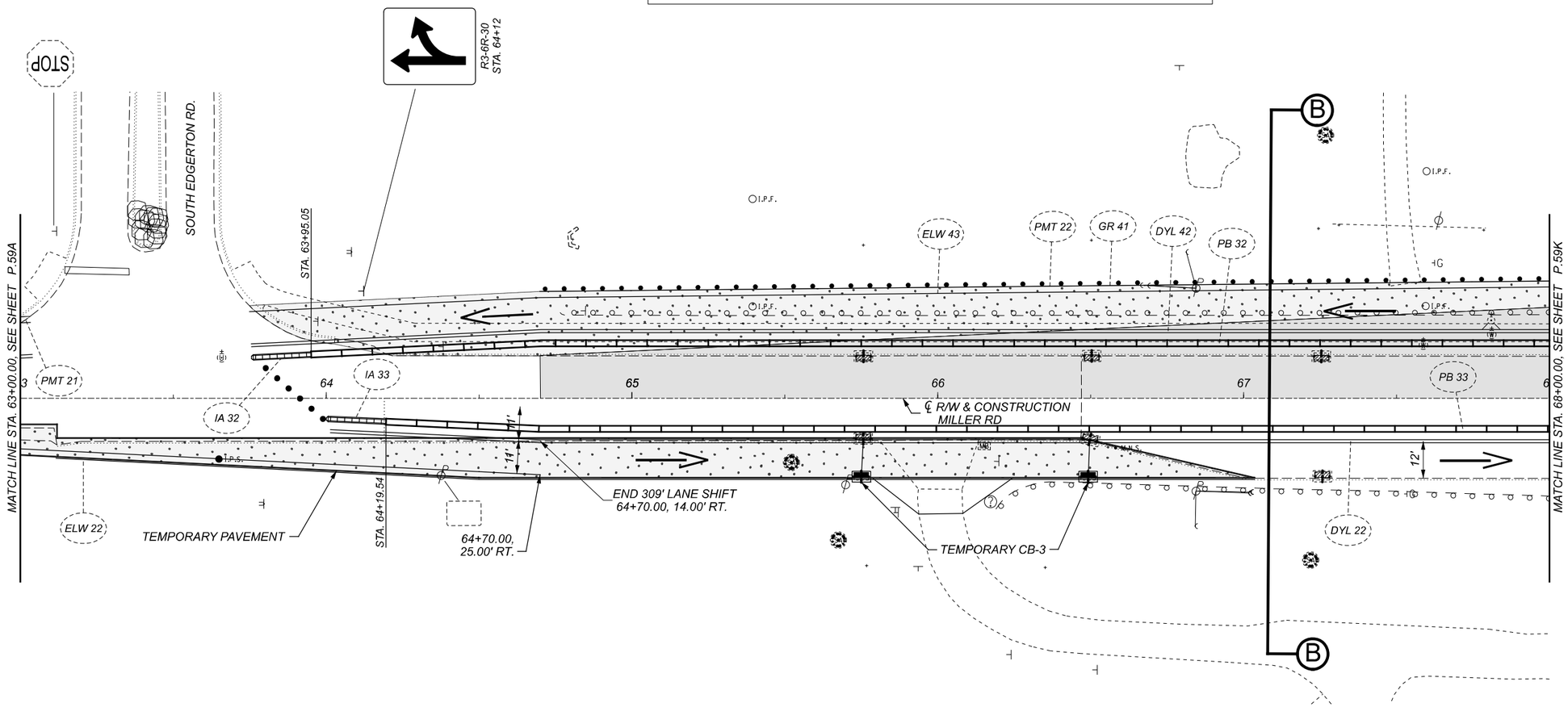
DESIGNER: COM

DESIGN AGENCY: EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44130

MAINTENANCE OF TRAFFIC - PHASE 1C
MILLER ROAD STA. 98+00 TO 100+00

HORIZONTAL SCALE IN FEET
0 20
10 40





FOR LEGEND, SEE SHEET P.59A

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 1C (SUBPHASE)
MILLER ROAD STA. 63+00 TO 68+00

CUY-77-00.42 PART 1

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44130

DESIGNER	COM
REVIEWER	DTB 09/22/22
PROJECT ID	104983
SHEET	P.59J
TOTAL	P.445

MODEL: Miller Rd Plan - Plan 2 [Sheet] PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 4:02:05 PM USER: comtrik
F:\Jobs\162-Miller Road Interchange\04983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\04983_TC_PhaseIC_SubPhaseA_20scale.dgn

REMOVE EXISTING RAMP PAVEMENT BETWEEN ACTIVE WORK ZONES THIS PHASE

℄ CONSTRUCTION RELOCATED RAMP B-2

R3-H6a-30 STA. 14+00

INSTALL PORTABLE PLASTIC DRUMS

R3-H6a-30 STA. 14+69

MAINTAIN ONE 11' LANE (2-12' LANES AT INTERSECTION) USING PERMANENT PAVEMENT CONSTRUCTED IN PHASE 1A

USE PERMANENT CONTROLLER; MAINTAIN EX POWER SOURCE AS NEEDED

EX RAMP B-2 (CLOSED)

INSTALL PORTABLE PLASTIC DRUMS (40' MAX. SPACING)

71+05.49, 51.76' LT.

R3-1-36

I-77

ELW 43 | PMT 22 | GR 41 | DYL 42 | IA 36 | IA 37 | SL 42 | DYL 43 | PB 36

21:1 TAPER

PB 32

℄ R/W & CONSTRUCTION MILLER RD

RDZ2 | SL 21 | TR 21 | IA 38

DYL 22 | PB 33

REMOVE EXISTING TRAFFIC SIGNAL

70+31.30, 42.56' RT.

DYL 23 | PB 37

MATCH LINE STA. 68+00.00, SEE SHEET P.59J

MATCH LINE STA. 73+00.00, SEE SHEET P.59L

SPEED LIMIT 35

WATCH FOR STOPPED TRAFFIC

MAINTAIN 2-WAY TRAFFIC WITH 11' LANES ON NORTH AND SOUTH OF MILLER ROAD USING EXISTING PAVEMENT

UTILIZE WORK ZONE TRAFFIC SIGNAL (SEE P.84 FOR TEMPORARY SIGNAL PLAN DETAILS)

R3-2-36

RAMP B-3

① ROAD CLOSED
R11-2-48
STA. 70+72

FOR LEGEND, SEE SHEET P.59A

ALL TRUCKS MUST TURN LEFT EXCEPT LOCAL DELIVERIES

HORIZONTAL SCALE IN FEET
0 10 20 40

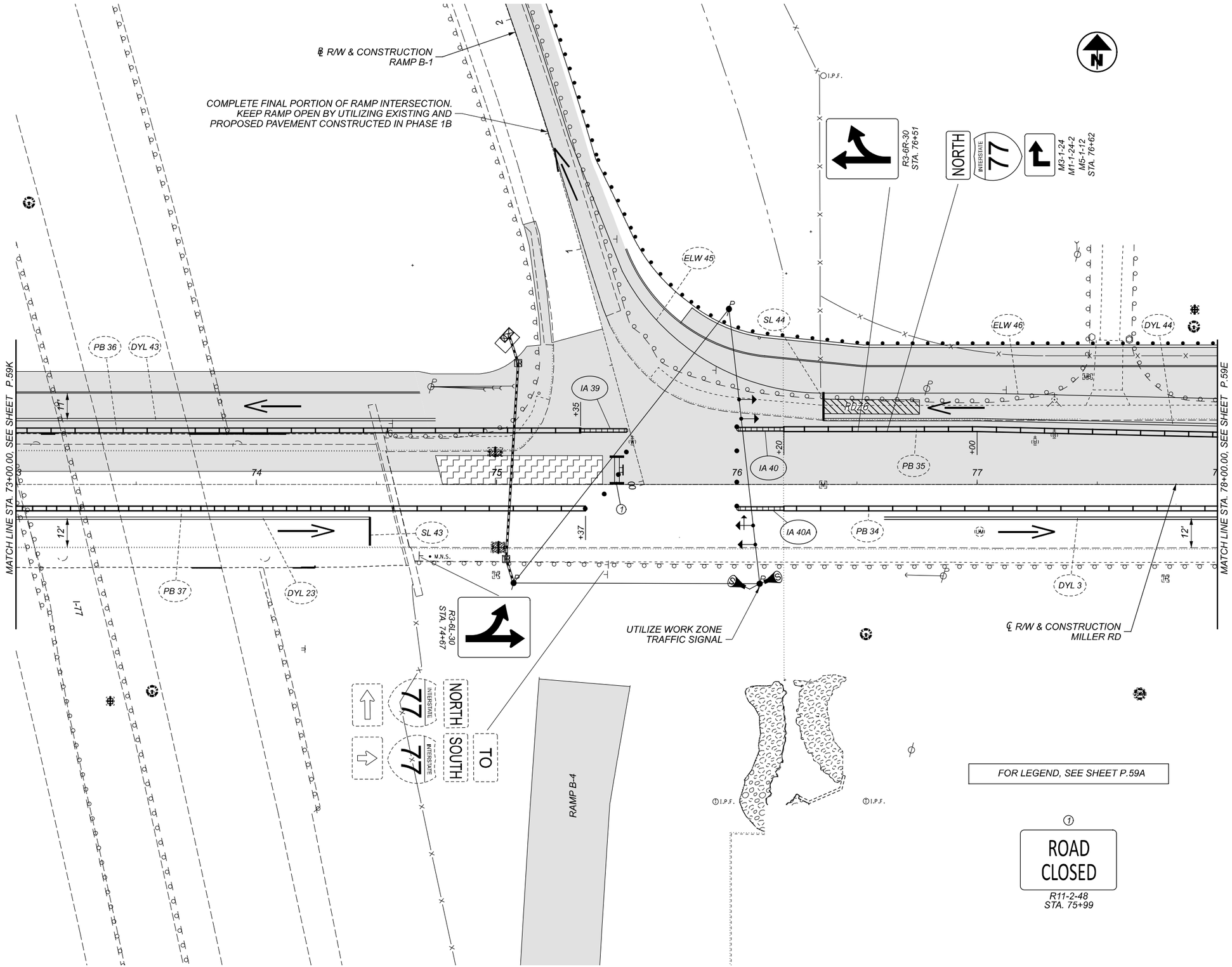
MAINTENANCE OF TRAFFIC - PHASE 1C (SUBPHASE)
MILLER ROAD STA. 68+00 TO 73+00

DESIGN AGENCY
EUTHENICS
8230 Mohawk Dr. | Cleveland, OH 44125

DESIGNER COM
REVIEWER DTB 09/22/22
PROJECT ID 104983
SHEET P.59K TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Miller Rd Plan - Plan 3 [Sheet] PAPERSIZE: 17x11(in.) DATE: 23-Sep-22 TIME: 4:02:05 PM USER: comtrk
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_SubPhaseA_20scale.dgn



HORIZONTAL
SCALE IN FEET
0 10 20 40

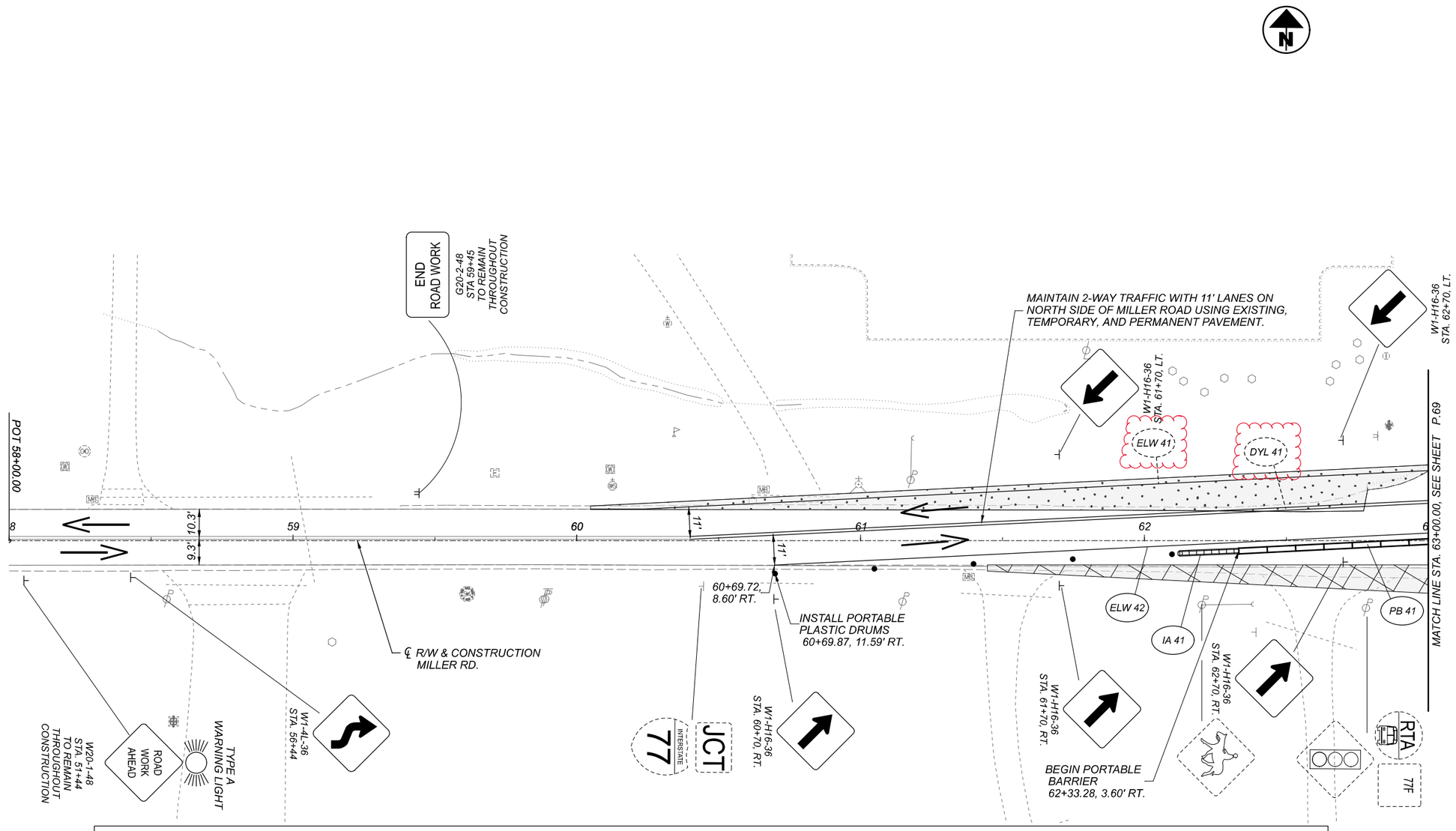
MAINTENANCE OF TRAFFIC - PHASE 1C (SUBPHASE)
MILLER ROAD STA. 73+00 TO 78+00

CUY-77-00.42 PART 1

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44129

DESIGNER	COM
REVIEWER	DTB 09/22/22
PROJECT ID	104983
SHEET	P.59L
TOTAL	P.445

MODEL: Miller Rd Plan - Plan 4 [Sheet] PAPERSIZE: ltr x ll (in.) DATE: 23-Sep-22 TIME: 4:02:06 PM USER: comirik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_PhaseIC_SubPhaseA_20scale.dgn



MAINTENANCE OF TRAFFIC LEGEND

DYL	CENTER LINE, DOUBLE YELLOW	IA	IMPACT ATTENUATOR		EXISTING SIGN
DLW	DOTTED LINE, WHITE	PB	PORTABLE BARRIER		EXISTING SIGN TO BE REMOVED
DLY	DOTTED LINE, YELLOW	PMT	PAVEMENT FOR MAINTAINING TRAFFIC		EXISTING SIGN TO BE RELOCATED
SL	STOP LINE	TL	TRANSVERSE LINE		EXISTING SIGN TO BE COVERED
ELW	EDGE LINE, WHITE	TR	TRAFFIC SIGNS		PROPOSED SIGN
ELY	EDGE LINE, YELLOW	GR	GUARDRAIL		EXISTING SIGN POST
CH	CHANNELIZING LINE	C	CURB, TYPE 6		PROPOSED SIGN POST
LA	LANE ARROW	XX	INSTALLED IN PREVIOUS PHASE		

	TYPE III BARRICADE
→	DIRECTION OF TRAVEL
	IMPACT ATTENUATOR
• • • •	DRUMS (SPACING)
	PORTABLE BARRIER
■	TEMPORARY DRAINAGE STRUCTURE (AS NOTED)
	TEMPORARY DRAINAGE CONDUIT (AS NOTED)

	TEMPORARY PAVEMENT CONSTRUCTED THIS PHASE
	PERMANENT PAVEMENT WORK ZONE
	PERMANENT PAVEMENT BUILT IN PRIOR PHASE
	TEMPORARY PAVEMENT BUILT IN PRIOR PHASE
	TEMPORARY PAVEMENT REMOVED THIS PHASE

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 58+00 TO 63+00

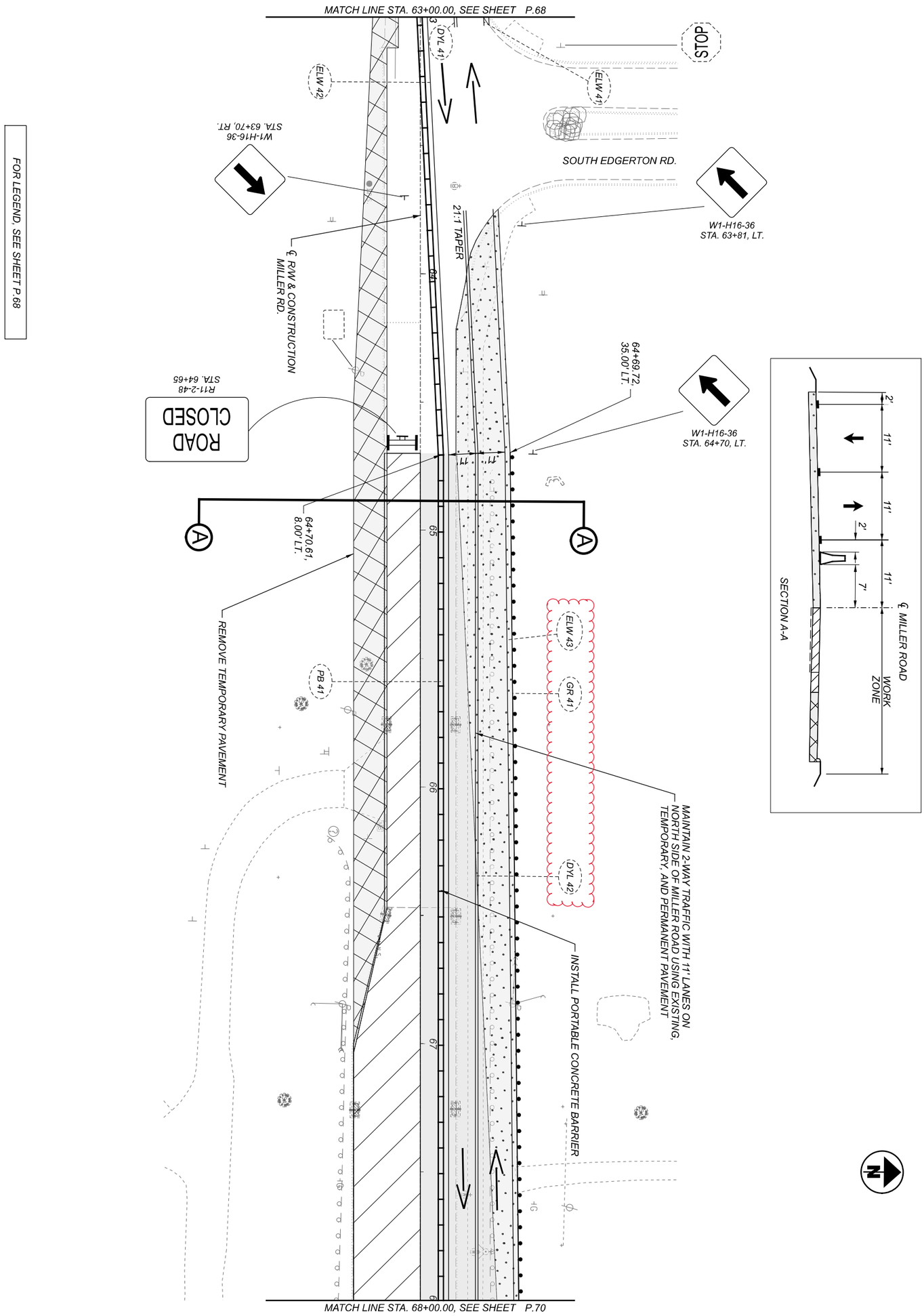
DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGNER MSW
REVIEWER BBD 05/25/22
PROJECT ID 104983
SHEET P.68 TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Miller Rd Plan - Plan (ESheet) PAPERSIZE: 34x22 (In.) DATE: 23-Sep-22 TIME: 4:04:15 PM USER: comltrlk
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn

MODEL: Miller Rd Plan - Plan 2 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 23-Sep-22 TIME: 4:05:33 PM USER: com1trlk
F:\Jobs\ll62-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn



SHEET	TOTAL
P 69	P 445

PROJECT ID 104983

REVIEWER BBD 05/25/22

DESIGNER MSW

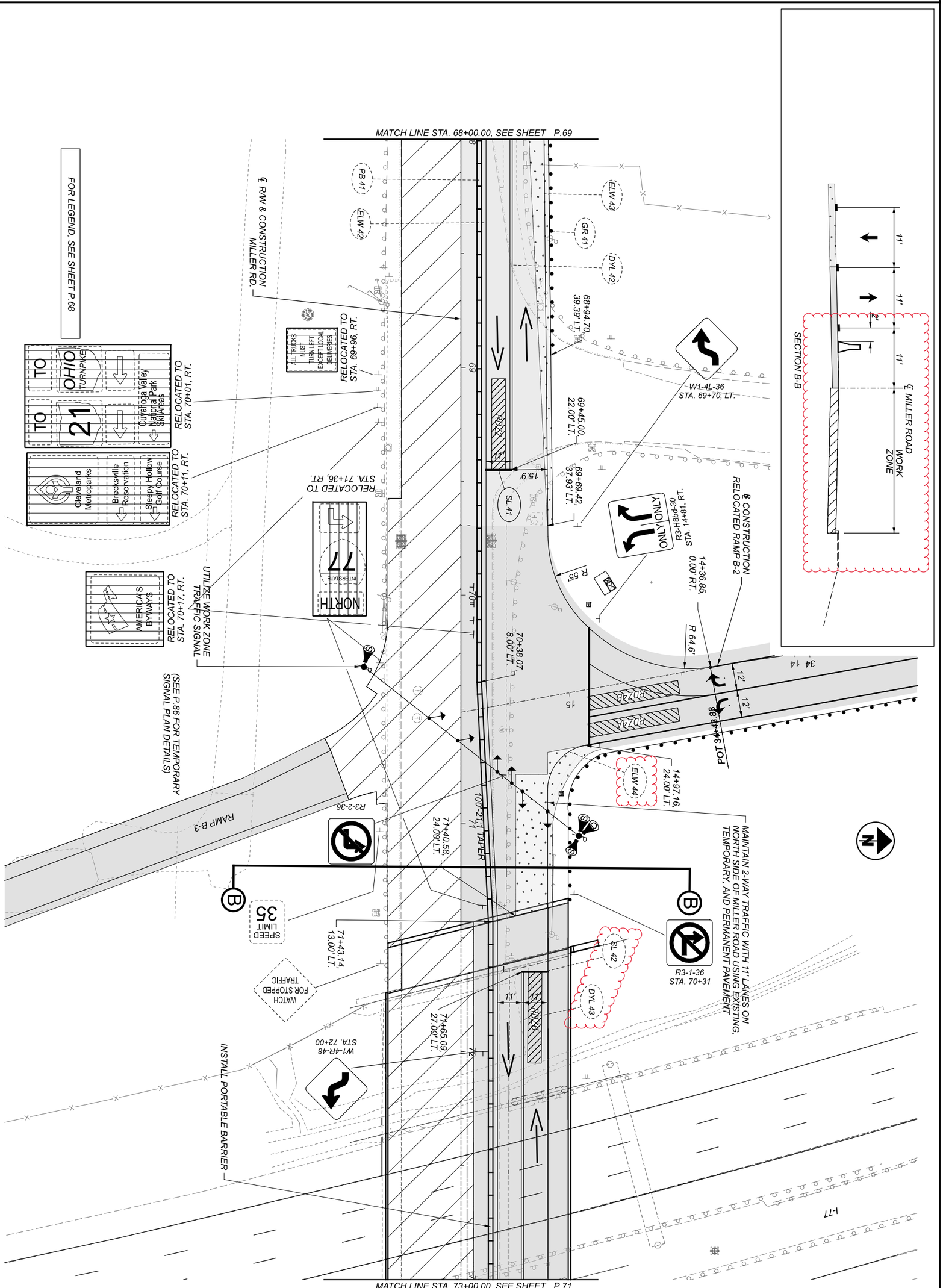
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGN AGENCY

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 63+00 TO 68+00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: Miller Rd Plan - Plan 3 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 23-Sep-22 TIME: 4:06:35 PM USER: comltrlk
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn



SHEET	TOTAL
P 70	P 445

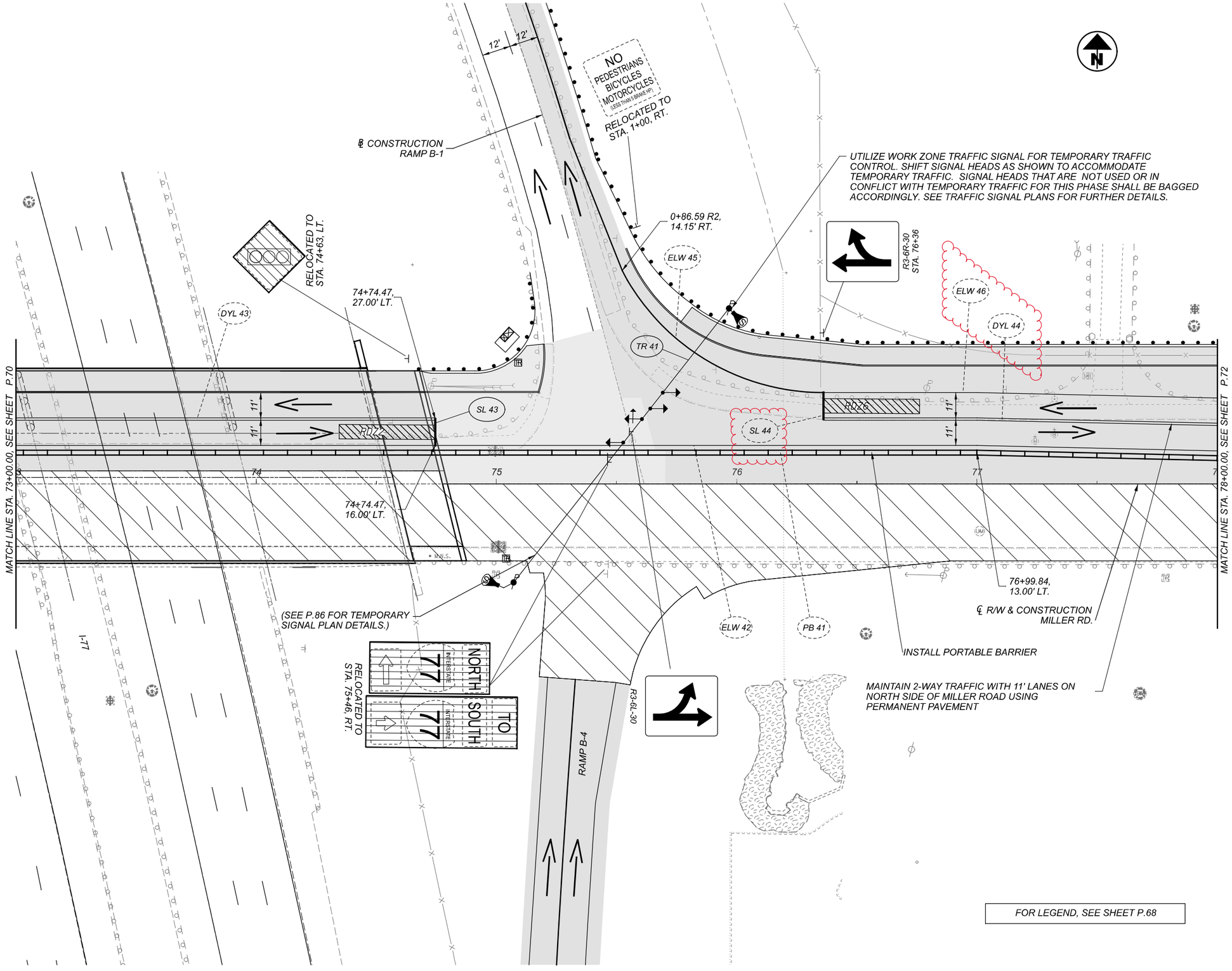
DESIGNER MSW
REVIEWER BBD 05/25/22
PROJECT ID 104983

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 68+00 TO 73+00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: Miller Rd Plan - Plan 4 [Sheet] PAPERSIZE: 34x22 (in) DATE: 23-Sep-22 TIME: 4:08:04 PM USER: comtrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

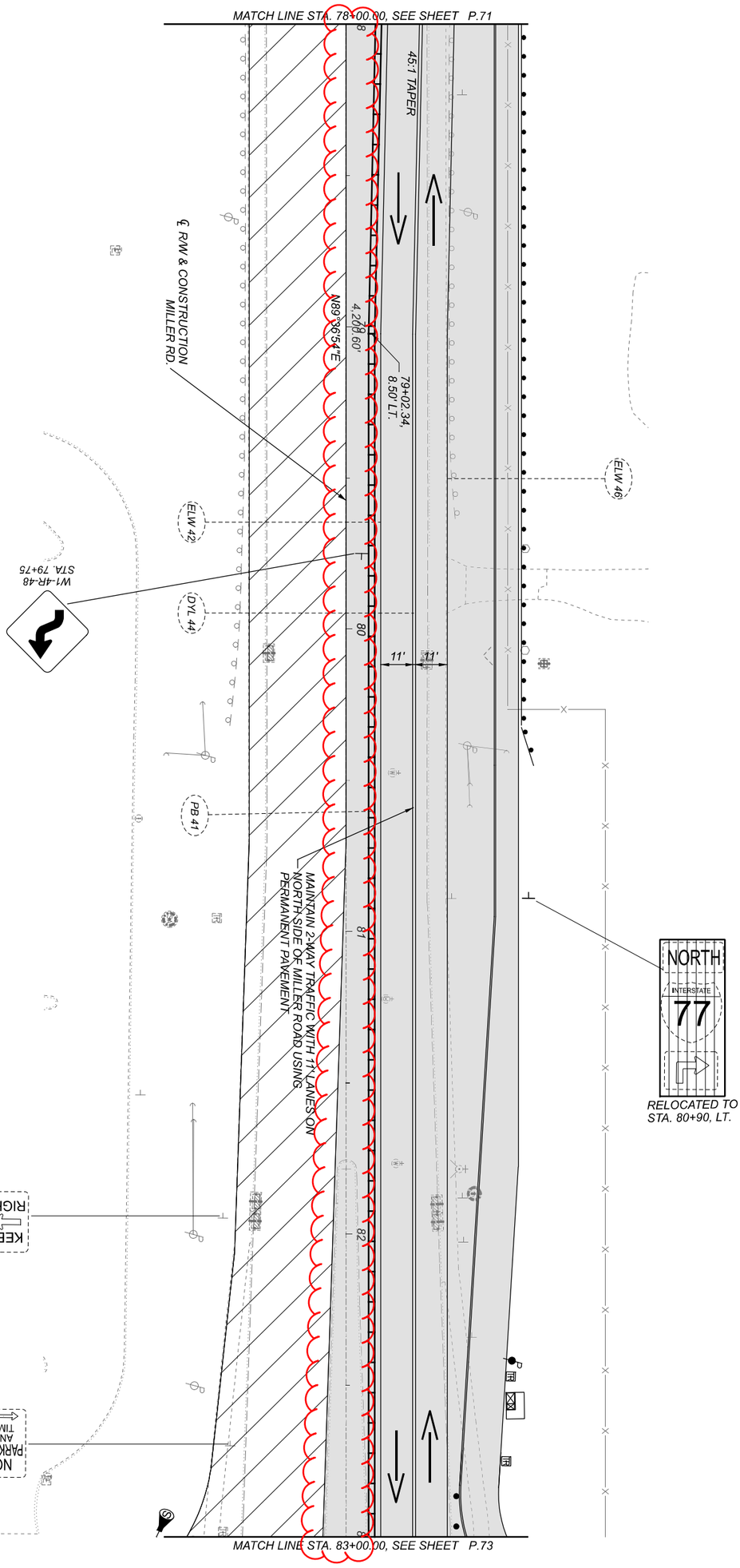
MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 73+00 TO 78+00

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 220
COLUMBUS, OHIO 43215

DESIGNER: MSW
REVIEWER: BBD 05/25/22
PROJECT ID: 104983
SHEET: P.71 TOTAL: P.445

MODEL: Miller Rd Plan - Plan 5 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 27-Sep-22 TIME: 10:14:50 AM USER: comltrlk
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn

FOR LEGEND, SEE SHEET P.68



SHEET	TOTAL
P.72	P.445

PROJECT ID 104983

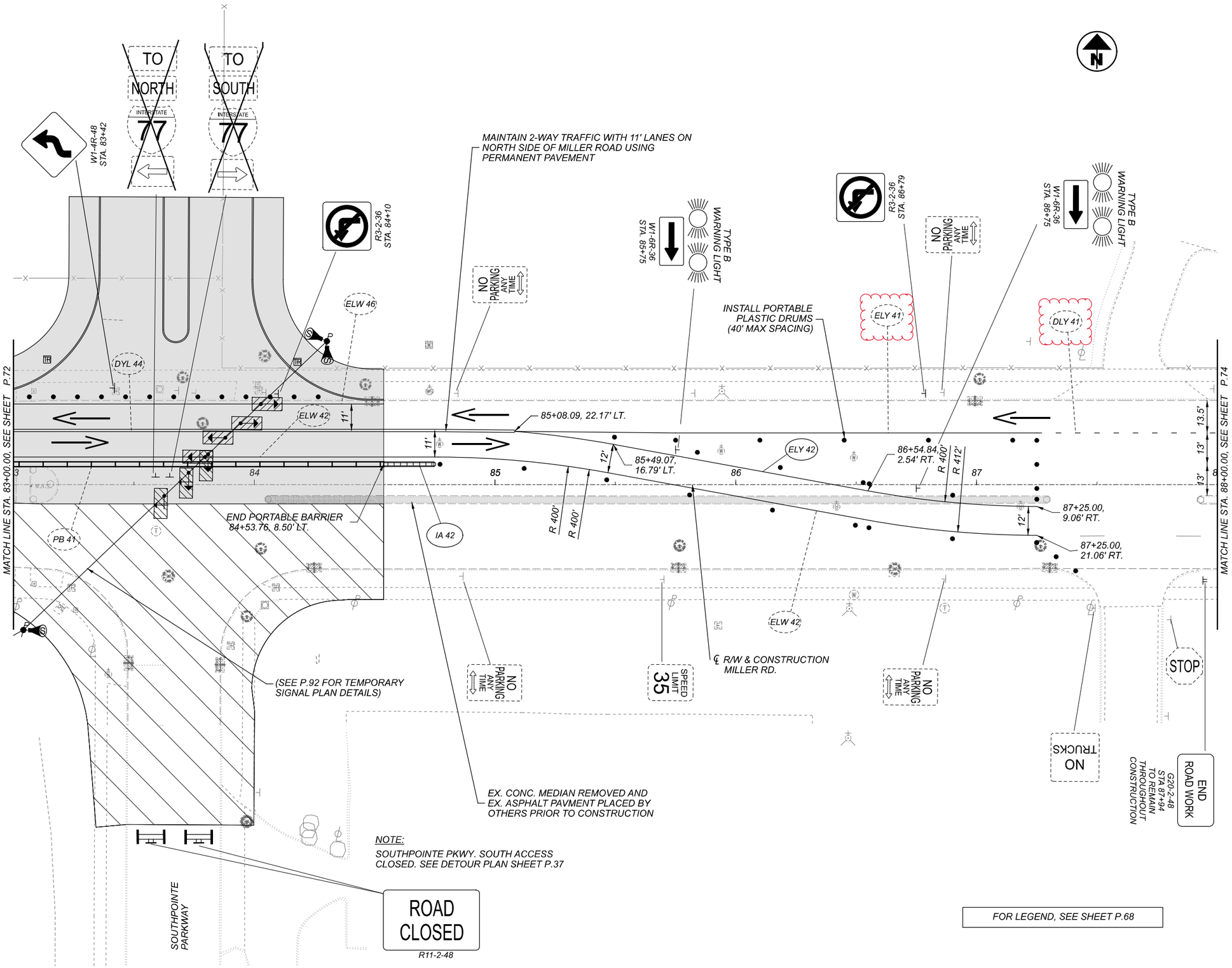
REVIEWER BBD 05/25/22

DESIGNER MSW

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 78+00 TO 83+00

HORIZONTAL SCALE IN FEET
0 20
10 40



HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 83+00 TO 88+00

CUY-77-00.42 PART 1

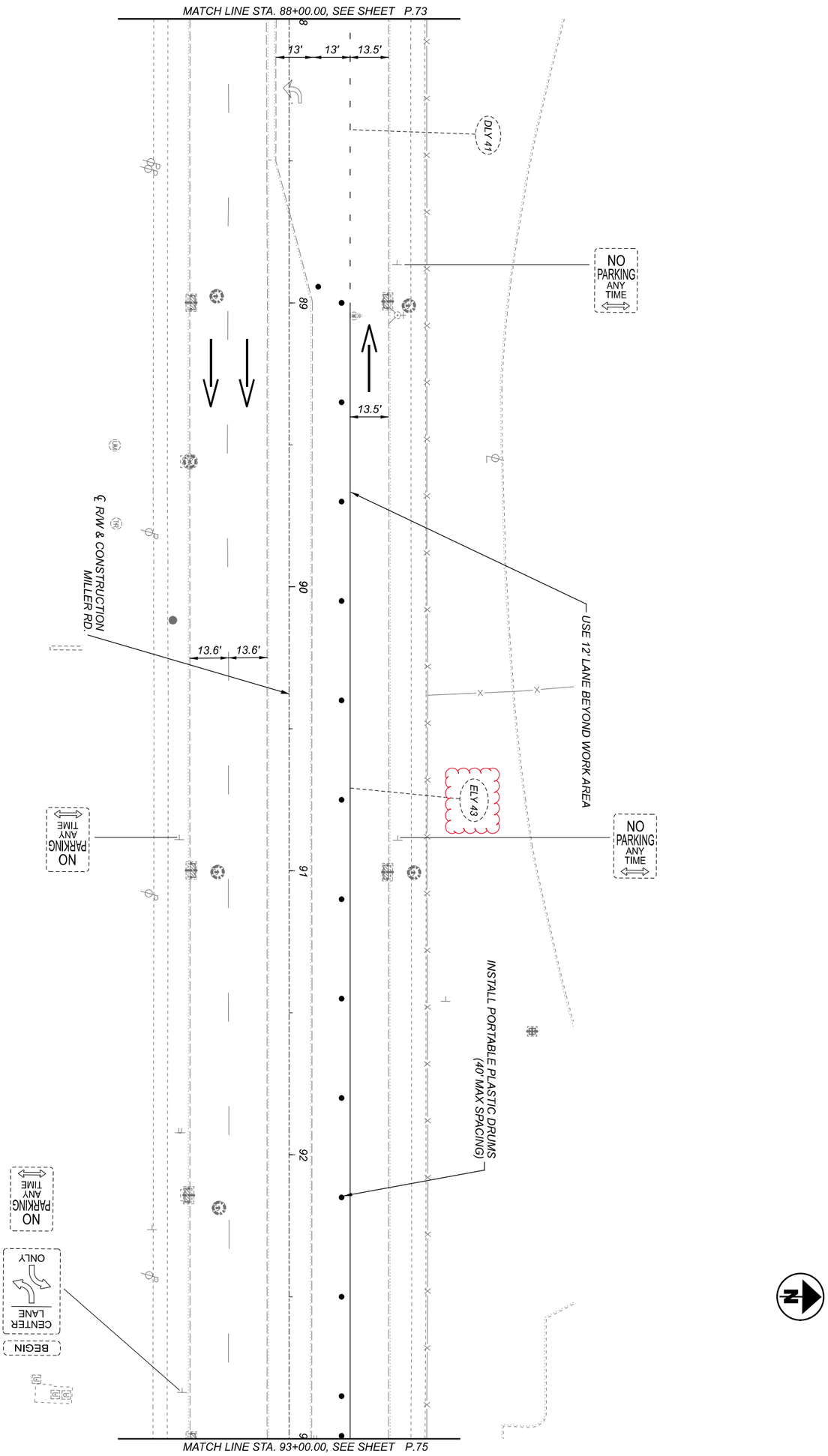
MODEL: Miller Rd Plan - Plan 6 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 23-Sep-22 TIME: 4:40:22 PM USER: comtrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn

DESIGN AGENCY
TranSystems
400 W. NATIONWIDE BLVD., STE 225
COLUMBUS, OHIO 43215

DESIGNER	
MSW	
REVIEWER	
BBD	05/25/22
PROJECT ID	
104983	
SHEET	TOTAL
P.73	P.445

MODEL: Miller Rd Plan - Plan 7 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 23-Sep-22 TIME: 4:11:27 PM USER: comltrlk
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\MOT\Sheets\104983_TC_Phase2_20scale.dgn

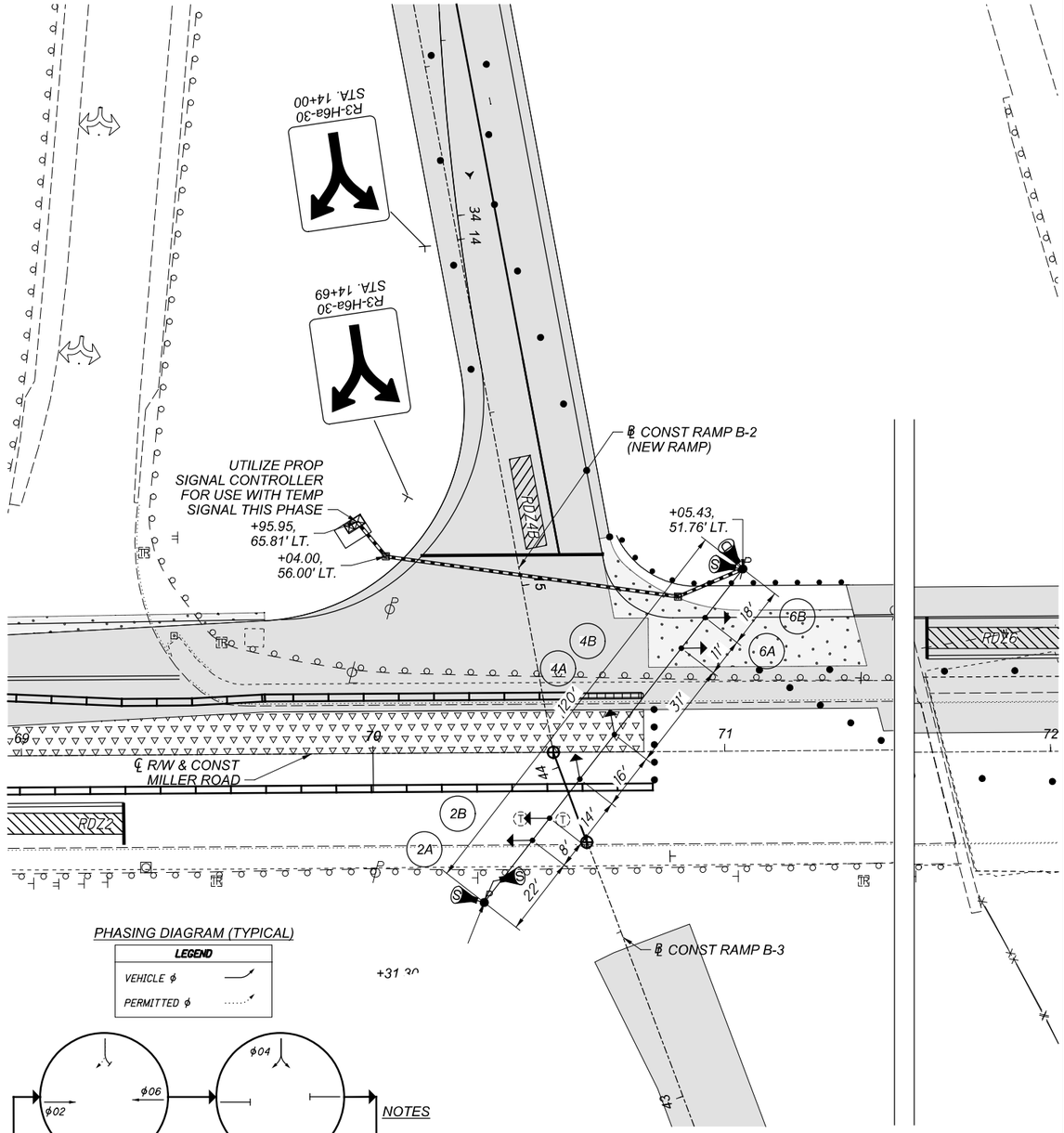
FOR LEGEND, SEE SHEET P.68



SHEET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.74	104983	BBD 05/25/22	MSW	TranSystems 400 W. NATIONWIDE BLVD., STE 225 COLUMBUS, OHIO 43215
TOTAL P.445				

MAINTENANCE OF TRAFFIC - PHASE 2
MILLER ROAD STA. 88+00 TO 93+00

HORIZONTAL SCALE IN FEET
0 20
10 40



PHASING DIAGRAM (TYPICAL)

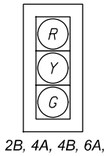
LEGEND

VEHICLE ϕ

PERMITTED ϕ

TEMPORARY PHASING DIAGRAM

PROPOSED SIGNAL HEADS



2A, 2B, 4A, 4B, 6A, 6B

VEHICULAR SIGNAL HEADS TO BE BLACK WITH 12" LED, BACKPLATE, AND CUTAWAY VISORS

NOTES

1. SIGNALIZATION SHALL BE MAINTAINED AT ALL TIMES THROUGH THE USE OF EXISTING, TEMPORARY OR PROPOSED SIGNAL POLES. THE CONTRACTOR SHALL ADJUST THE VEHICULAR SIGNAL HEADS AS INDICATED TO ACCOMMODATE LANE USAGE AND TO ENSURE ADEQUATE VISIBILITY FOR ALL APPROACH LANES. LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

2. BAG AND DISCONNECT PEDESTRIAN SIGNAL HEADS FOR APPROPRIATE CLOSED CROSSWALKS. RECONNECT AND UNBAG WHEN CROSSWALKS ARE REOPENED.

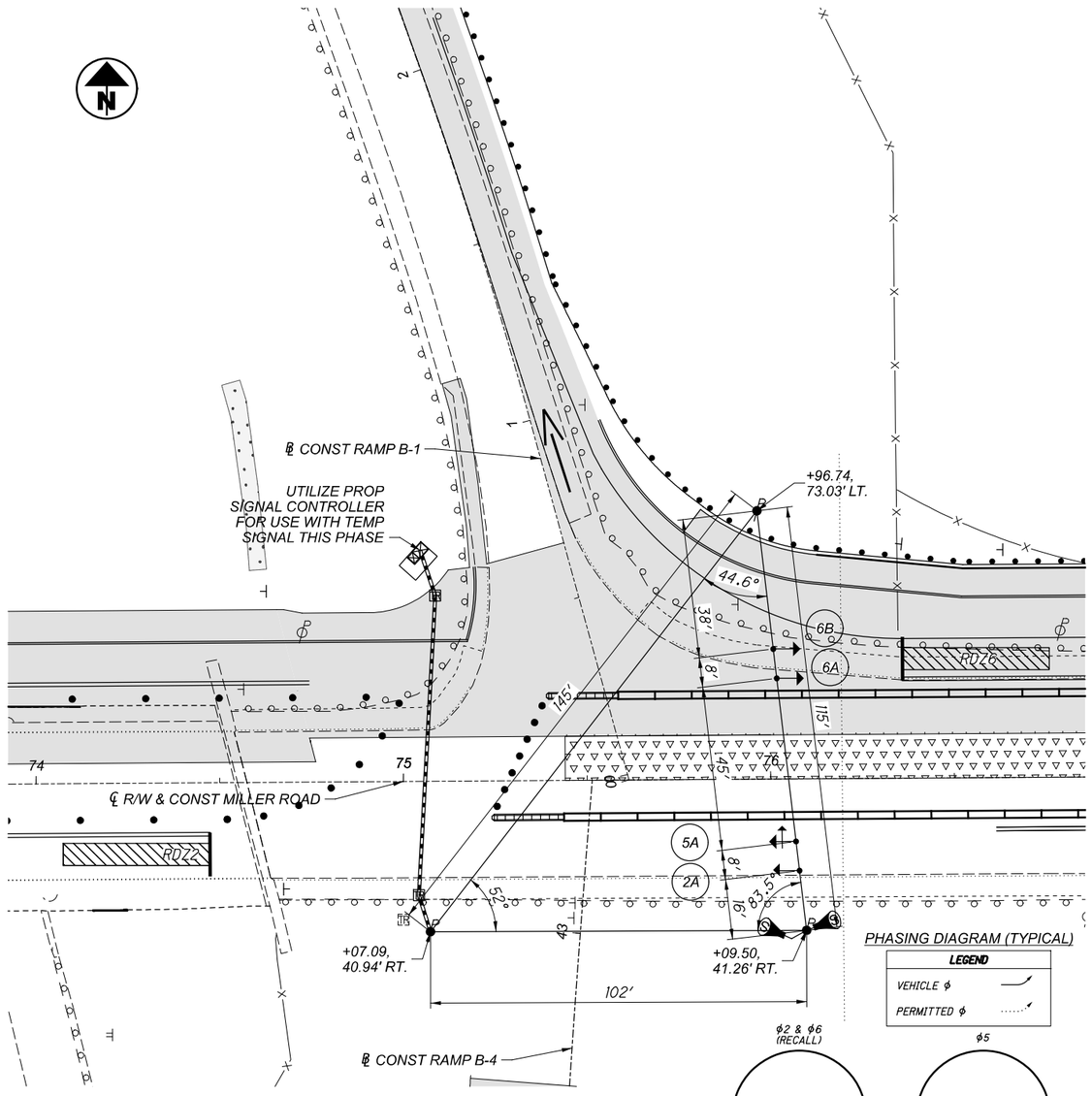
3. ADJUST PORTABLE CONCRETE BARRIER LAYOUT TO MATCH PHASE 1C (SUBPHASE) PLAN SHEETS DURING THAT SUBPHASE.

4. TEMPORARY SIGNAL TIMINGS SHALL COMPLY WITH TIMINGS ON SHEET P.87.

LEGEND

	PROP	EXIST
TEMPORARY/RELOCATED TRAFFIC SIGNAL, 3 UNIT HEAD, 12"	→	○→
TEMPORARY/RELOCATED TRAFFIC SIGNAL, 5 UNIT HEAD, 12"		
SIGNAL SUPPORT POLE	●	○
PROPOSED MAST ARM	———	·····
PROPOSED CONDUIT	———	
TEMPORARY WOOD POLE AND SPAN WIRE	P ———	

	PROP	EXIST
CONTROLLER CABINET AND WORK PAD (TS-2)	⊠	⊠
TRAFFIC PULL BOX	TR	TR
STOP BAR RADAR DETECTION UNIT	S	
DILEMMA ZONE RADAR DETECTION UNIT	D	
SIGN	⊤	
TEMPORARY DETECTION ZONE	▨	
DIRECTION OF TRAVEL	→	

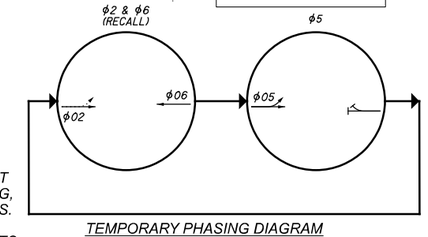


PHASING DIAGRAM (TYPICAL)

LEGEND

VEHICLE ϕ

PERMITTED ϕ



TEMPORARY PHASING DIAGRAM

NOTES

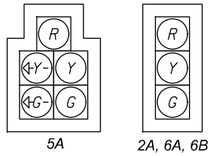
1. SIGNALIZATION SHALL BE MAINTAINED AT ALL TIMES THROUGH THE USE OF EXISTING, TEMPORARY OR PROPOSED SIGNAL POLES. THE CONTRACTOR SHALL ADJUST THE VEHICULAR SIGNAL HEADS AS INDICATED TO ACCOMMODATE LANE USAGE AND TO ENSURE ADEQUATE VISIBILITY FOR ALL APPROACH LANES. LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

2. BAG AND DISCONNECT PEDESTRIAN SIGNAL HEADS FOR APPROPRIATE CLOSED CROSSWALKS. RECONNECT AND UNBAG WHEN CROSSWALKS ARE REOPENED.

3. ADJUST PORTABLE CONCRETE BARRIER LAYOUT TO MATCH PHASE 1C (SUBPHASE) PLAN SHEETS DURING THAT SUBPHASE.

4. TEMPORARY SIGNAL TIMINGS SHALL COMPLY WITH TIMINGS ON SHEET P.87.

PROPOSED SIGNAL HEADS



5A 2A, 6A, 6B

VEHICULAR SIGNAL HEADS TO BE BLACK WITH 12" LED, BACKPLATE, AND CUTAWAY VISORS

HORIZONTAL SCALE IN FEET
0 10 20 40

TEMPORARY SIGNAL PLAN - PHASE 1C
MILLER ROAD - RAMPS B-2/B-3 AND B-1/B-4

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44125

DESIGNER COM
REVIEWER DTB 09/23/22
PROJECT ID 104983
SHEET P.84A TOTAL 445

CUY-77-00.42 PART 1

MODEL: I04983_CP001 PAPERSIZE: 34x22 (in.) DATE: 23-Sep-22 TIME: 4:19:19 PM USER: comltrlk
F:\Jobs\162-Miller Road Interchange\04983\600-Contracts\03-Addendum\TranSystems Files\400-Engineering\Signals\Sheets\I04983_MM002.dgn

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
17-19	21	102	137	220	229	253	342	377	382, 383	OFFICE CALCS	01/IMS/PV	02/NFP/BR	07/IMS/BR						
																		ROADWAY	
LS											LS			201	11000	LS		CLEARING AND GRUBBING	
		7									7			202	20010	7	EACH	HEADWALL REMOVED	
				39						15,253	15,292			202	23000	15,292	SY	PAVEMENT REMOVED	
		675								17,349	18,024			202	30000	18,024	SF	WALK REMOVED	
		60									60			202	30700	60	FT	CONCRETE BARRIER REMOVED	
										34	34			202	30800	34	SY	TRAFFIC ISLAND REMOVED	
										4,165	4,165			202	32000	4,165	FT	CURB REMOVED	
		1,425			219	310					1,954			202	35100	1,954	FT	PIPE REMOVED, 24" AND UNDER	
						1,374					625	749		202	35101	1,374	FT	PIPE REMOVED, 24" AND UNDER, AS PER PLAN	252
		965									965			202	35200	965	FT	PIPE REMOVED, OVER 24"	
		6,348									6,348			202	38000	6,348	FT	GUARDRAIL REMOVED	
		4,913									4,913			202	48000	4,913	FT	CABLE BARRIER REMOVED	
		1									1			202	53100	1	EACH	MAILBOX REMOVED	
		9			2						11			202	58000	11	EACH	MANHOLE REMOVED	
		23									23			202	58100	23	EACH	CATCH BASIN REMOVED	
					2						2			202	58700	2	EACH	MANHOLE, ABANDONED	
	50	50			529						629			SPECIAL	20270000	629	FT	FILL AND PLUG EXISTING CONDUIT (18")	21 & 227
							292				292			SPECIAL	20270000	292	FT	FILL AND PLUG EXISTING CONDUIT (3")	340
		732						2,752			3,484			202	75000	3,484	FT	FENCE REMOVED	
						2					2			202	75610	2	EACH	VALVE BOX REMOVED	
		1									1			202	98100	1	EACH	REMOVAL MISC.: CONCRETE SLAB REMOVAL	17
			19,653								19,653			203	10000	19,653	CY	EXCAVATION	
			1,971								1,971			203	10001	1,971	CY	EXCAVATION, AS PER PLAN	19
			49,793								49,793			203	20000	49,793	CY	EMBANKMENT	
6											6			SPECIAL	20365000	6	EACH	SETTLEMENT PLATFORM	18
				46						28,943	28,989			204	10000	28,989	SY	SUBGRADE COMPACTION	
			5,145								5,145			204	13000	5,145	CY	EXCAVATION OF SUBGRADE	20
			5,145								5,145			204	30010	5,145	CY	GRANULAR MATERIAL, TYPE B	20
12											12			204	45000	12	HOUR	PROOF ROLLING	
										12,563	12,563			204	50000	12,563	SY	GEOTEXTILE FABRIC	20
										42	42			209	15001	42	STA	RESHAPING UNDER GUARDRAIL, AS PER PLAN	19
152											152			209	60201	152	STA	LINEAR GRADING, AS PER PLAN	19
		12,218									12,218			606	15050	12,218	FT	GUARDRAIL, TYPE MGS	
		3,412									3,412			606	15550	3,412	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
		4									4			606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
		8									8			606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
		8									8			606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
		6									6			606	35002	6	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		1									1			SPECIAL	60655150	1	EACH	CABLE BARRIER, ANCHOR ASSEMBLY	19
		1									1			606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65MPH DESIGN SPEED, 24" WIDTH	
								2,688			2,688			607	23000	2,688	FT	FENCE, TYPE CLT	
							584						584	607	39900	584	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
							864						864	607	39994	864	FT	TEMPORARY VANDAL FENCE, TYPE B	
							LS					LS		607	98200	LS		FENCE, MISC.:ALUMINUM LETTERING	371
										14,329	14,329			608	10001	14,329	SF	4" CONCRETE WALK, AS PER PLAN	20
		2,126									2,126			608	52000	2,126	SF	CURB RAMP	
		63									63			622	10160	63	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
		2									2			622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
		1									1			622	25050	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
									2		2			623	38500	2	EACH	MONUMENT ASSEMBLY	
									17		17			623	40500	17	EACH	REFERENCE MONUMENT	
								4			4			625	32000	4	EACH	GROUND ROD	
		1									1			SPECIAL	69050350	1	EACH	MAILBOX REMOVED AND RESET	

GENERAL SUMMARY

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (In.) DATE: 26-Sep-22 TIME: 12:38:03 PM USER: comlirk
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\Pre-Bid Question 69\104983_GG001.dgn

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44129

DESIGNER
COM

REVIEWER
ANC 05/26/22

PROJECT ID
104983

SHEET P.94 | TOTAL P.445

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	21	22	28	32A	102	103	104	220	290	OFFICE CALCS	01/IMS/PV	02/NFP/BR	07/IMS/BR						
																		DRAINAGE ALTERNATES	
						1,106					1,106			611	04400	1,106	FT	12" CONDUIT, TYPE B (ALTERNATE 1)	
						356					356			611	04600	356	FT	12" CONDUIT, TYPE C (ALTERNATE 1)	
						348					348			611	05900	348	FT	15" CONDUIT, TYPE B (ALTERNATE 1)	
						14					14			611	06100	14	FT	15" CONDUIT, TYPE C (ALTERNATE 1)	
						159					159			611	07400	159	FT	18" CONDUIT, TYPE B (ALTERNATE 1)	
						24					24			611	07600	24	FT	18" CONDUIT, TYPE C (ALTERNATE 1)	
						8					8			611	09100	8	FT	21" CONDUIT, TYPE C (ALTERNATE 1)	
						50					50			611	09400	50	FT	21" CONDUIT, TYPE D (ALTERNATE 1)	
						326					326			611	10400	326	FT	24" CONDUIT, TYPE B (ALTERNATE 1)	
						5					5			611	10600	5	FT	24" CONDUIT, TYPE C (ALTERNATE 1)	
						10					10			611	11900	10	FT	27" CONDUIT, TYPE B (ALTERNATE 1)	
						176					176			611	13400	176	FT	30" CONDUIT, TYPE B (ALTERNATE 1)	
							96				96			611	16400	96	FT	36" CONDUIT, TYPE B (ALTERNATE 1)	
							247				247			611	19600	247	FT	42" CONDUIT, TYPE C (ALTERNATE 1)	
							421				421			611	21100	421	FT	48" CONDUIT, TYPE C (ALTERNATE 1)	
		1,106									1,106			611	04401	1,106	FT	12" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		356									356			611	04601	356	FT	12" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		348									348			611	05901	348	FT	15" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		14									14			611	06101	14	FT	15" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		159									159			611	07401	159	FT	18" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		24									24			611	07601	24	FT	18" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		8									8			611	09101	8	FT	21" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		50									50			611	09401	50	FT	21" CONDUIT, TYPE D, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		326									326			611	10401	326	FT	24" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		5									5			611	10601	5	FT	24" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		10									10			611	11901	10	FT	27" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		176									176			611	13401	176	FT	30" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		96									96			611	16401	96	FT	36" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		247									247			611	19601	247	FT	42" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
		421									421			611	21101	421	FT	48" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22
																		PAVEMENT	
										737	737			254	01000	737	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 3.25")	
										4,173	4,173			254	01000	4,173	SY	PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE THICKNESS)	
			23								23			254	01000	23	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	28
										1,063	1,063			302	56001	1,063	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN (PG64-22)	22
								8		4,833	4,841			304	20000	4,841	CY	AGGREGATE BASE	
										1,247	1,247			407	20000	1,247	GAL	NON-TRACKING TACK COAT	
			8								8			411	10000	8	CY	STABILIZED CRUSHED AGGREGATE	
										130	130			441	70801	130	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	22
										603	603			442	00100	603	CY	ANTI-SEGREGATION EQUIPMENT	
			4							417	421			442	10001	421	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (PG76-22M)	22
										391	391			442	10100	391	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) (T= 1.75")	
										126	126			442	10100	126	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) (VARIABLE THICKNESS)	
								46			46			451	13011	46	SY	8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	220
										13,175	13,175			451	15070	13,175	SY	11" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
					133						133			SPECIAL	45130000	133	FT	PRESSURE RELIEF JOINT, TYPE A	22
										8,972	8,972			452	15020	8,972	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
										3,242	3,242			609	14000	3,242	FT	CURB, TYPE 2-A	
				392						600	992			609	26000	992	FT	CURB, TYPE 6	
										288	288			609	72000	288	SY	CONCRETE MEDIAN	
									0.59		0.59			618	40601	0.59	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	22

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44129

DESIGNER
COM

REVIEWER
ANC 05/26/22

PROJECT ID
104983

SHEET P.96 | TOTAL P.445

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 26-Sep-22 TIME: 10:33:29 AM USER: comlirk
F:\Jobs\11692-Miller Road Interchange\104983\6000-Contracts\03-Addendum\Pre-Bid Question 6\104983_GG003.dgn

SHEET NUM.	PART. 01/IMS/PV	PART. 02/NFP/BR	PART. 07/IMS/BR	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								STRUCTURE OVER 20 FOOT SPAN (SFN 1805673)	
LS			LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	338
178			178	202	22900	178	SY	APPROACH SLAB REMOVED	
LS			LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	338
255			255	503	21100	255	CY	UNCLASSIFIED EXCAVATION	
LS			LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
3,200			3,200	507	00100	3,200	FT	STEEL PILES HP10X42, FURNISHED	
2,940			2,940	507	00150	2,940	FT	STEEL PILES HP10X42, DRIVEN	
148,598			148,598	509	10001	148,598	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	339
400			400	509	20001	400	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	339
780			780	510	10001	780	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	339
2			2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
497			497	511	34446	497	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
58			58	511	34450	58	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
76			76	511	41012	76	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
82			82	511	43512	82	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
77			77	511	46512	77	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
529			529	512	10050	529	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
1,383			1,383	512	10100	1,383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
8			8	512	33000	8	SY	TYPE 2 WATERPROOFING	
277,000			277,000	513	10240	277,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2	
20,280			20,280	514	00050	20,280	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
20,280			20,280	514	00056	20,280	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
32,330			32,330	514	00060	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
32,330			32,330	514	00066	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
34			34	514	00504	34	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
16			16	514	10000	16	EACH	FINAL INSPECTION REPAIR	
163			163	516	10010	163	FT	ARMORLESS PREFORMED JOINT SEAL	
81			81	516	13400	81	SF	3/4" PREFORMED EXPANSION JOINT FILLER	
59			59	516	13900	59	SF	2" PREFORMED EXPANSION JOINT FILLER	
68			68	516	14020	68	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
8			8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	358
								AS PER PLAN (LOAD PLATE 13" x 17" x 1.50", NEOPRENE 12" x 16" x 3.55")	
8			8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	359
								AS PER PLAN (LOAD PLATE 16" x 19" x 1.50", NEOPRENE 15" x 18" x 3.25")	
4			4	516	44201	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	359
								AS PER PLAN (LOAD PLATE 16" x 27" x 1.50", NEOPRENE 15" x 18" x 3.25")	
46			46	518	21200	46	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
88			88	518	40000	88	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
24			24	518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
17			17	519	11101	17	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	339
352			352	526	15001	352	SY	REINFORCED CONCRETE APPROACH SLABS (T=13"), AS PER PLAN	339
163			163	526	90030	163	FT	TYPE C INSTALLATION	
LS			LS	SPECIAL	53014000	LS		STRUCTURAL SURVEY AND MONITORING OF VIBRATION	339
931			931	847	10000	931	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY (1 .5" THICK)	
4			4	847	20000	4	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
LS			LS	847	30000	LS		TEST SLAB	
2			2	847	30200	2	CY	FULL DEPTH REPAIR	
56			56	847	50000	56	SY	HAND CHIPPING	

GENERAL SUMMARY

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 26-Sep-22 TIME: 1:31:14 PM USER: comlink
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\PBG Submittal 67, 69, 70\104983_GG007.dgn

DESIGN AGENCY
EUTHENICS
8235 Midwest Dr. | Cleveland, OH 44125

DESIGNER
COM

REVIEWER
ANC 05/26/22

PROJECT ID
104983

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		18	22	24	25	26	27	28	29	32A	01/IMS/PV	02/NFP/BR	07/IMS/BR						
																		MAINTENANCE OF TRAFFIC	
								1,282			1,282			254	01000	1,282	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	
								115			115			407	20000	115	GAL	NON-TRACKING TACK COAT	
								53			53			442	20001	53	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, 1-1/2"	22
								500			500			614	11110	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
										5	5			SPECIAL	61411300	5	EACH	WORK ZONE TRAFFIC SIGNAL	26
										1,631	1,631			614	11630	1,631	FT	INCREASED BARRIER DELINEATION	
										1,087.5	1,087.5			SPECIAL	61412200	1,087.5	FT	WORK ZONE GUARDRAIL	28
										14	14			614	12380	14	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) (ONE-WAY)	
										13	13			614	12384	13	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
				LS							LS			614	12420	LS		DETOUR SIGNING	
				4							4			614	12460	4	EACH	WORK ZONE MARKING SIGN	
									2		2			614	12484	2	EACH	WORK ZONE INCREASED PENALTIES SIGN	
								735			735			614	12801	735	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	28
										337	337			614	13310	337	EACH	BARRIER REFLECTOR, TYPE 1 (1WAY)	
							43				43			614	13312	43	EACH	BARRIER REFLECTOR, TYPE 2 (1WAY)	
							41			274	315			614	13350	315	EACH	OBJECT MARKER, ONE WAY	
										64	64			614	13360	64	EACH	OBJECT MARKER, TWO WAY	
						54					54			614	18601	54	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	26
										1.01	1.01			614	20110	1.01	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
										0.76	0.76			614	21100	0.76	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
										2.29	2.29			614	22100	2.29	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	
										3.02	3.02			614	22110	3.02	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
										9,343	9,343			614	23210	9,343	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
										765	765			614	24200	765	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	
										473	473			614	24202	473	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
										95	95			614	25200	95	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
										182	182			614	26200	182	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
										6	6			614	30200	6	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
					1						1			614	40051	1	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	25
								LS			LS			615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
										1,860	1,860			615	20000	1,860	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
										1,268	1,268			615	20001	1,268	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	28
						325					325			616	10000	325	MGAL	WATER	
								5			5			616	20000	5	TON	CALCIUM CHLORIDE	
								0.87			0.87			618	40601	0.87	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	28
										16,416	16,416			622	41100	16,416	FT	PORTABLE BARRIER, UNANCHORED	
										291	291			622	41110	291	FT	PORTABLE BARRIER, ANCHORED	
									48		48			808	18700	48	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																		INCIDENTALS	
											LS			614	11000	LS		MAINTAINING TRAFFIC	
			12								12			619	16021	12	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	22
			LS								LS			623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	22
											LS			624	10000	LS		MOBILIZATION	
		LS									LS			SPECIAL	69098400	LS		MISC.: RECORD DRAWINGS	18

GENERAL SUMMARY

CUY-77-00.42 PART 1

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 23-Sep-22 TIME: 4:47:02 PM USER: comlink
F:\Jobs\1162-Miller Road Interchange\104983\600-Contracts\03-Addendum\TranSystems Files\MOT Submittal 092322 - Miscellaneous\1104983_GG008.dgn

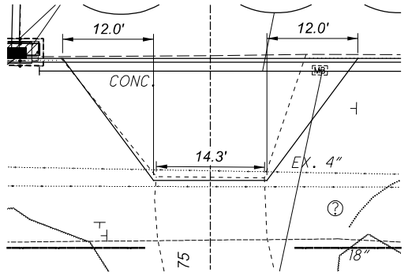
DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44129

DESIGNER
COM

REVIEWER
ANC 05/26/22

PROJECT ID
104983

SHEET P.101 | TOTAL P.445



DETAIL A

(A) ROCK CHANNEL PROTECTION TYPE C, 4' W X 9' L X 18" THICK WITH AGGREGATE FILTER

(B) STA. 64+69.50 ANCHOR ASSEMBLY, MGS TYPE T

(C) PROPOSED CEI POWER POLE

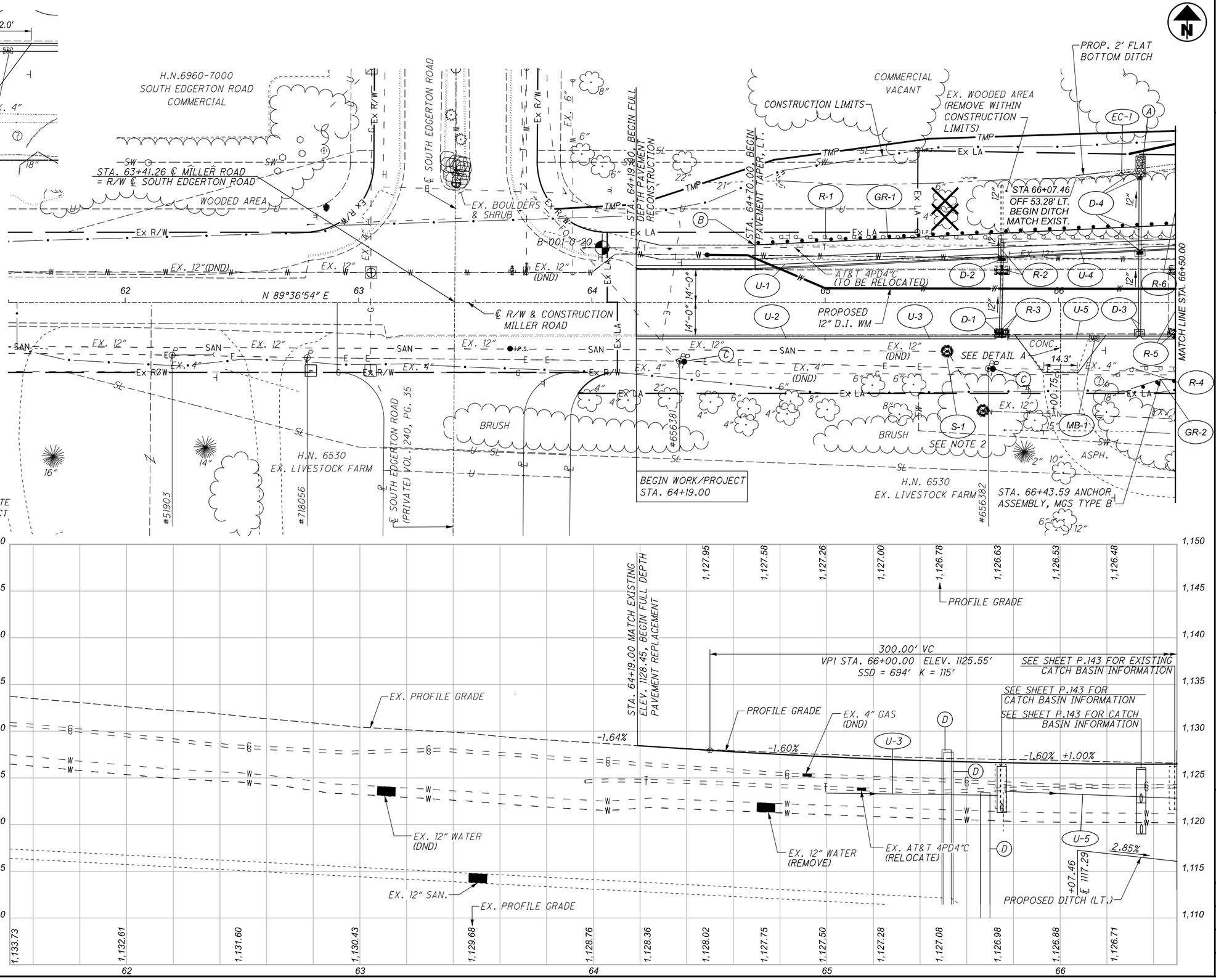
(D) FOR SANITARY MANHOLE INFORMATION, SEE SHEET P.230

LEGEND
DND - DO NOT DISTURB
H.N. - HOUSE NUMBER

NOTES:

1. REFER TO CROSS SECTIONS FOR PROPOSED DITCH LOCATIONS AND ELEVATIONS.
2. EX. SANITARY MANHOLE IS WITHIN THE LIMITS OF TEMPORARY PAVEMENT. RECONSTRUCT TO GRADE TO ACCOMODATE TEMPORARY PAVEMENT AND RECONSTRUCT TO FINAL GRADE UPON REMOVAL OF TEMPORARY PAVEMENT.
3. FOR QUANTITIES, SEE SUBSUMMARY ON SHEET P.107
4. FOR PROPOSED WATER WORK, SEE SHEET P.254
5. FOR PAVEMENT BUILDUP OF DRIVE APRON AT STA. 66+00.75, SEE SHEET P.220.

(EC-1) STA. 66+07.46 TO 67+30.00 SEEDING AND EROSION CONTROL MAT W/TURF REINFORCING MAT, TYPE 1 (W=7.5')



HORIZONTAL SCALE IN FEET
0 10 20 40

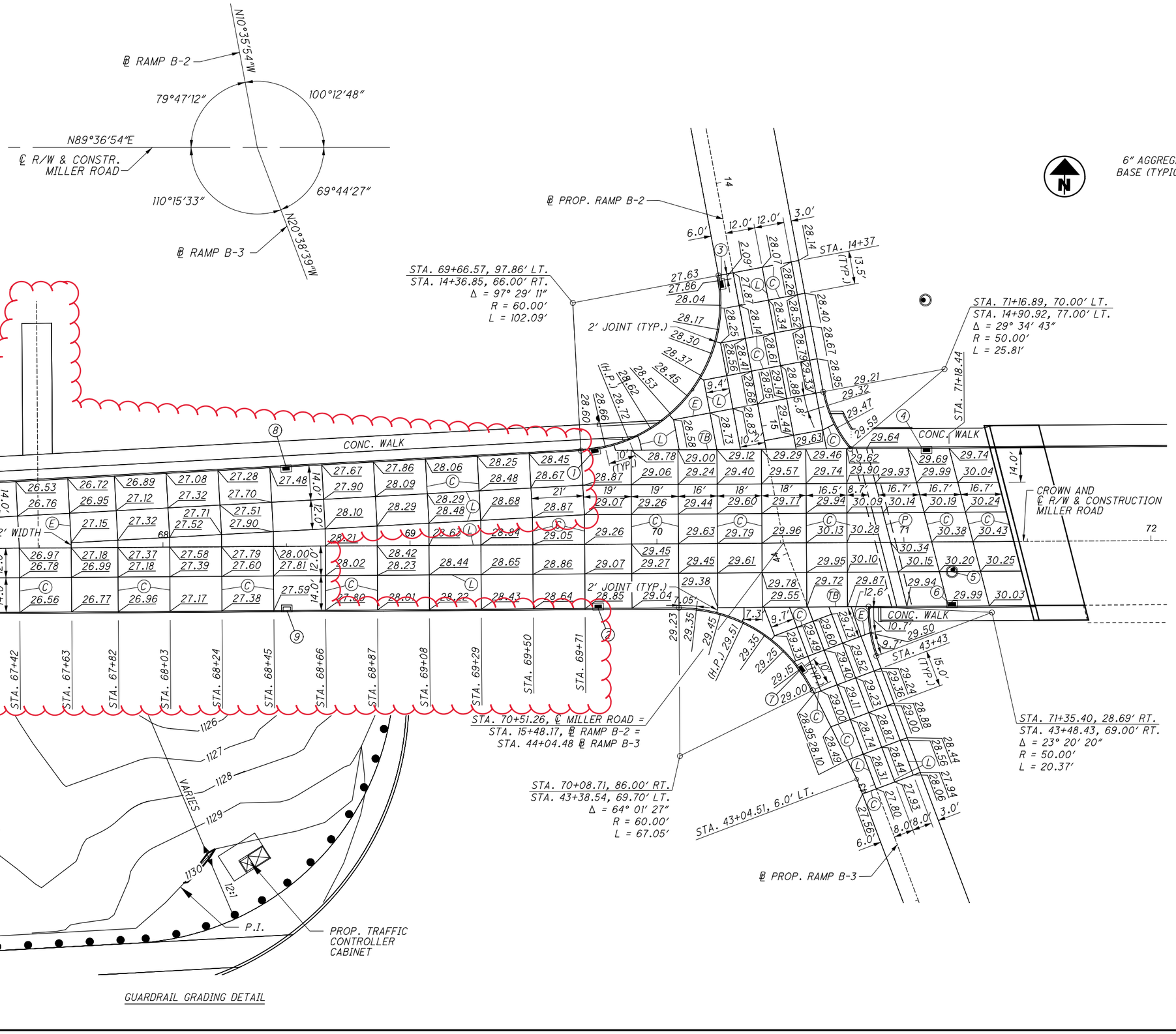
PLAN AND PROFILE - MILLER ROAD STA. 61+50 TO STA. 66+50

CUY-77-00.42 PART 1

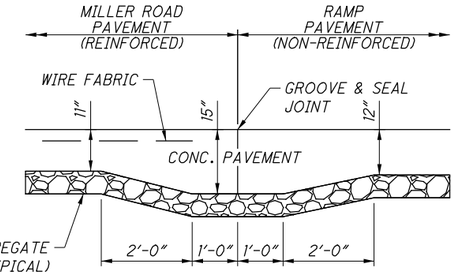
MODEL: I04983_GP001 PAPERSIZE: 17x11(in.) DATE: 15-Sep-22 TIME: 4:09:25 PM USER: comltrk
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\Pre-Bid Question 57-60\104983_GP001.dgn

DESIGN AGENCY
EUTHENICS
8335 Hickman Rd. | Cleveland, OH 44125

DESIGNER	ESM
REVIEWER	DTB 03/01/22
PROJECT ID	104983
SHEET	P.108
TOTAL	P.445



GUARDRAIL GRADING DETAIL



PAVEMENT TRANSITION DETAIL
THICKENED EDGE BUTT JOINT
(TYPICAL AT RAMP INTERSECTIONS)

HORIZONTAL SCALE IN FEET
0 10 20 40

LEGEND

- (C) CONTRACTION JOINT
- (L) LONGITUDINAL JOINT
- (TB) THICKENED EDGE BUTT JOINT
- (P) TYPE A PRESSURE RELIEF JOINT (ODOT STD. CONST. DWG. BP-2.4)
- (E) EXPANSION JOINT
- L.P. = LOW POINT
- H.P. = HIGH POINT

(1) STA. 69+75.00, 38.49' LT.
PROP. CUY. COUNTY CB 3C
T/G 28.46

(2) STA. 69+76.00, 26.00' RT.
PROP. CUY. COUNTY CB 3C
T/G 28.75

(3) STA. 14+40.50 (B-2), 6.11' RT.
PROP. CUY. COUNTY CB 3C
T/G 27.56

(4) STA. 71+09.00, 38.00' LT.
PROP. CUY. COUNTY CB 3C
T/G 29.54

(5) STA. 71+19.74, 11.31' RT.
PROP. MANHOLE NO. 3,
AS PER PLAN 5
T/C 30.23

(6) STA. 71+19.25, 26.00' RT.
PROP. CUY. COUNTY CB 3C
T/G 29.98

(7) STA. 43+54.00 (B-3), 11.73' LT.
PROP. CUY. COUNTY CB 3C
T/G 28.98

(8) STA. 68+50.00, 32.24' LT.
PROP. CUY. COUNTY CB 3C
T/G 27.31

(9) STA. 68+50.00, 26.00' RT.
PROP. CUY. COUNTY CB 3C
T/G 27.47

NOTES:
1. ALL ELEVATIONS ABBREVIATED FROM 1100.
2. SEE SHEET P.217 FOR CURB RAMP DETAILS.

INTERSECTION DETAIL
MILLER ROAD - RAMPS B-2 AND B-3

CUY-77-00.42 PART 1

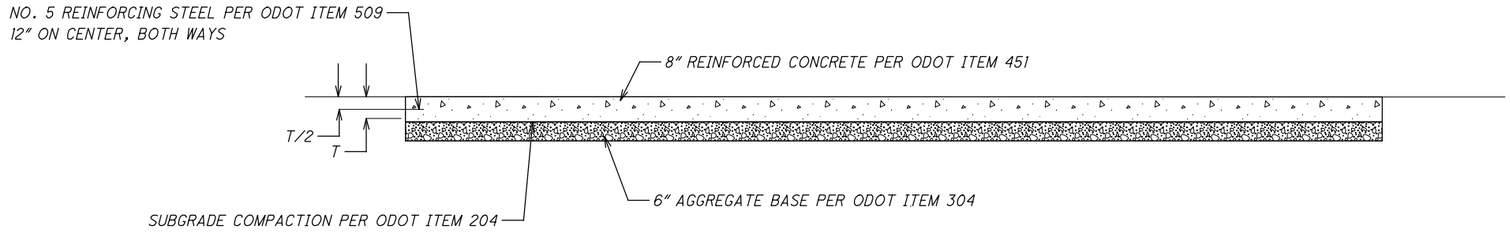
DESIGN AGENCY
EUTHENICS
2225 Midlawn Dr. | Cleveland, OH 44106
DESIGNER
COM
REVIEWER
MRC 03/01/22
PROJECT ID
104983
SHEET P.214 TOTAL P.445

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 15-Sep-22 TIME: 8:38:55 AM USER: comhrik
F:\Jobs\162-Miller Road Interchange\104983\600-Contracts\03-Addendum\Pre-Bid Question 29\Send to ODOT\104983.G1001.dgn

DRIVE APRON QUANTITIES (FOR DRIVE AT STA. 66+00.75, RT)			
202	204	304	451
PAVEMENT REMOVED	SUBGRADE COMPACTION	6" AGGREGATE BASE	8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
SY	SY	CY	SY
39	46	8	46

ALL TOTALS CARRIED TO GENERAL SUMMARY.

NOTES:
1. PAYMENT FOR 8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISIFACTION OF THE ENGINEER.
2. FOR DRIVE APRON DIMENSIONS, SEE SHEET P.108.



COMMERCIAL DRIVE APRON TYPICAL SECTION

TO BE USED FOR DRIVE APRON AT STA 66+00.75, RT (MILLER ROAD)
NOT TO SCALE

DRIVE APRON DETAIL

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44125

DESIGNER
COM

REVIEWER
MRC 03/01/22

PROJECT ID
104983

SHEET P.220 | TOTAL P.445

CUY-77-00.42 PART 1

MODEL: 104983_GM006 PAPERSIZE: 17x11 (in.) DATE: 15-Sep-22 TIME: 4:05:00 PM USER: comtrk
F:\Jobs\11162-Miller Road Interchange\104983\600-Contracts\03-Addendum\Pre-Bid Question 57-60\104983_GM006.dgn

WATER WORK NOTES

SETTING CONTINUED

(C) LOCATION REGARDING SIDEWALKS:

WHEN SET IN THE LAWN SPACE BETWEEN THE CURB AND SIDEWALK, OR BETWEEN THE SIDEWALK AND THE PROPERTY LINE, NO PORTION OF THE NOZZLE OR HYDRANT CAP SHALL BE WITHIN SIX (6) INCHES OF THE SIDEWALK.

(D) POSITION OF NOZZLES:

THE HYDRANT SHALL STAND PLUMB, WITH THE NOZZLE POINTING TOWARD THE CURB AND AT AN ANGLE OF NINETY DEGREES THEREFROM. WHERE HYDRANT BRANCH PIPING IS PARALLEL WITH, OR NOT AT RIGHT ANGLES TO THE CURB, THE CONTRACTOR SHALL RELEASE THE SWIVEL HEAD BOLTS AND ADJUST HYDRANT NOZZLES TO FACE THE CURB AT THE PROPER ANGLE. HYDRANT WITHOUT SWIVEL HEADS WILL BE ADJUSTED BY THE CITY WHERE NECESSARY TO CORRECT OF NOZZLE FACING CURBING. HEIGHT OF HYDRANT SHALL CONFORM TO THE ESTABLISHED GRADE WITH TOPS OF THE FROST CASING AT LEAST FOUR (4) INCHES ABOVE GRADE.

(E) CONNECTION TO MAIN:

THE HYDRANT SHALL BE CONNECTED TO THE DISTRIBUTION WATER MAIN WITH A DUCTILE IRON PIPE BRANCH CONTROLLED BY AN INDEPENDENT SIX (6) INCH CITY OF CLEVELAND, DIVISION OF WATER, STANDARD GATE VALVE WITH VALVE BOX COMPLETE. THE BRANCH PIPING SHALL BE SIX (6) INCH AND SHALL INCLUDE ALL NECESSARY DUCTILE IRON CEMENT LINED RETAINED MECHANICAL JOINT FITTINGS AND/OR OFFSETS REQUIRED TO BRING THE HYDRANT TO THE PROPER GRADE. THE BRANCH VALVE WITH THE VALVE BOX COMPLETE SHALL BE INSTALLED OUT OF THE WATER MAIN RETAINED MECHANICAL JOINT TEE (ALL BELL) OR SWIVEL TEE AT A DISTANCE NOT TO EXCEED THREE (3) FEET.

WHERE DISTANCE FORM BRANCH VALVE TO HYDRANT SHOE EXCEEDS ONE (1) FULL LENGTH OF DUCTILE IRON PIPE ALL PIPE JOINTS AND FITTINGS JOINTS SHALL BE RESTRAINED. WHERE HYDRANT BRANCH MUST BE HORIZONTALLY OFFSET WITH A NINETY (90) DEGREE BEND THE DISTANCE FROM THE BEND TO THE HYDRANT SHOE SHALL NOT EXCEED ONE (1) FULL LENGTH OF DUCTILE IRON PIPE.

(F) DRAINAGE OF HYDRANT:

DRAINAGE SHALL BE PROVIDED AT THE BASE OF THE HYDRANT BY FILLING AROUND THE ELBOW WITH COARSE GRAVEL OR CRUSHED STONE TO AT LEAST SIX (6) INCHES ABOVE THE WASTE OPENING. WHEREVER THE HYDRANT IS SET IN ROCK, CLAY OR OTHER IMPERVIOUS SOIL, THE TRENCH SHALL BE WIDENED AND DEEPENED ON EACH SIDE OF THE HYDRANT BASE, WHICH SPACE SHALL BE FILLED COMPACTLY WITH COARSE GRAVEL, CRUSHED STONE, OR BROKEN STONE AND MIXED WITH COARSE SAND OF SUFFICIENT QUANTITY TO ABSORB ALL WATER TO BE DRAINED FROM THE HYDRANT WHEN BRANCH VALVE IS CLOSED.

(G) ANCHORAGE FOR HYDRANT:

THE HYDRANT SHALL BE SET ON A STONE SLAB OR SIMILAR FOUNDATION AND THE BASE OF THE HYDRANT SHALL BE BRACED AGAINST UNEXCAVATED EARTH TO THE END OF THE TRENCH WITH CONCRETE BACKING AND IT SHALL BE TIED TO THE PIPE WITH SUITABLE RODS, CLAMPS OR OTHER APPROVED RESTRAINT AS APPROVED OR DIRECTED BY THE ENGINEER.

(H) CLEANING: THE INTERIOR OF THE HYDRANT SHALL BE THOROUGHLY CLEANED OF ALL DIRT AND FOREIGN MATTER BEFORE SETTING.

PAYMENT

THE UNIT PRICE STIPULATED TO BE PAID FOR EACH "ITEM 638 - WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE SHALL INCLUDE FURNISHING HYDRANT, HYDRANT BRANCH PIPE AND FITTINGS, 6" VALVE WITH VALVE BOX COMPLETE. OR 6" BRANCH TEE WITH 6" GATE VALVE AND VALVE BOX COMPLETE, SETTING, TESTING, PAINTING, EXCAVATING, SHEETING AND SHORING, BACKFILLING, CONCRETE ANCHORING AND THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS AND APPLIANCES NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN.

ITEM 638 - WATER WORK, MISC.: BY SIZE WATERMAIN UNDERPASS

IN ADDITION TO LOCATIONS DETAILED IN THE PLANS, WHENEVER IN THE EXECUTION OF THE WORK BEING DONE UNDER THIS CONTRACT, INTERFERENCE DEVELOPS BETWEEN THE WORK CONTEMPLATED AND EXISTING SEWERS (STORM AND/OR SANITARY), SEWER CONNECTIONS (STORM AND/OR SANITARY) THE CONTRACTOR SHALL INSTALL A WATERMAIN UNDERPASS TO AVOID THE INTERFERENCE AND PROVIDE THE REQUIRED PIPE CLEARANCE. PAYMENT SHALL BE PER EACH, FOR "BY SIZE WATERMAIN UNDERPASS", WHICH SHALL INCLUDE THE TOTAL ADDITIONAL COST OF LOWERING THE WATER MAIN TO MISS THE OBSTRUCTION, SAID COST SHALL INCLUDE THE ADDITIONAL LABOR AND MATERIAL COSTS TO INSTALL 4 RETAINED MECHANICAL JOINT FITTINGS, NON-STANDARD LENGTH OF WATERMAIN AND ALL ADDITIONAL EXCAVATION AND ADDITIONAL BACKFILL REQUIRED TO INSTALL THE COMPLETE LOWERING OF THE WATERLINE AS SHOWN IN THE PLANS AND CWD STANDARD DRAWINGS.

ALL ADDITIONAL LABOR AND MATERIAL EXPENSES IN CONNECTION WITH THE WATER MAIN LOWERING, AS INDICATED HEREIN, SHALL BE PAID FOR UNDER "ITEM 638 - WATER WORK, MISC.: BY SIZE WATERMAIN UNDERPASS" OR WHEN CHANGES OR MODIFICATIONS OF THE WORK ARE REQUIRED, UNDER THE PROVISIONS SET FORTH UNDER "CHANGES IN WORK" OF THESE SPECIFICATIONS; AND SHALL INCLUDE THE UNIT PRICE BID PER EACH "ITEM 638 - WATER WORK, MISC.: BY SIZE WATERMAIN UNDERPASS", AND SHALL INCLUDE ALL ADDITIONAL LABOR AND MATERIAL COSTS TO FURNISH AND INSTALL 4 RETAINED MECHANICAL JOINT FITTINGS, NON-STANDARD LENGTH OF WATERMAIN, ADDITIONAL EXCAVATION (INCLUDING EXPLORATORY EXCAVATION), ADDITIONAL BACKFILL, AND ADDITIONAL PREMIUM BACKFILL. THE COST FOR THE WATER MAIN UNDERPASS IS IN ADDITION TO THE UNIT COST BID PER LINEAR FOOT OF WATER MAIN WHICH WILL BE PAID TO THE CONTRACTOR. NO CLAIM BY THE CONTRACTOR, FOR DELAYS, ADDITIONAL WORK OR OTHERWISE, WILL BE ENTERTAINED BY THE CITY FOR WHICH CLAIM IS BASED ON THE FAILURE TO HAVE INDICATED CORRECTLY THE LOCATION OR PRESENCE OF ANY SEWER, SEWER CONNECTION, OR THEIR APPURTENANCES. THE FOLLOWING ESTIMATED QUANITITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 638-WATER WORK, MISC.: 6" WATERMAIN UNDERPASS 3 EA.
ITEM 638-WATER WORK, MISC.: 12" WATERMAIN UNDERPASS 3 EA.

ITEM 638 - WATER WORK, MISC.: CUT, FILL AND PLUG EXISTING 12" WATER MAIN

WORK INCLUDED

WHERE SHOWN ON THE CONTRACT DRAWINGS, OR WHERE ORDERED, THE CONTRACTOR, UNDER ITEM 638 - WATER WORK, MISC.: CUT, FILL AND PLUG EXISTING 12" WATER MAIN SHALL CAP OR PLUG EXISTING WATERMAIN ENDS PER CLEVELAND WATER DEPARTMENT STD. DWG. STD-004. THE CONTRACTOR SHALL DO ALL THE EXCAVATION, BACKFILLING, AND ALL OTHER WORK AS REQUIRED. THE PIPE SHALL BE FILLED WITH CEMENT MORTAR AND END CAPPED WITH A BRICK BULKHEAD.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF CUT, FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET FILLED AND PLUGGED AS DESCRIBED ABOVE.

WHERE EXISTING WATERMAIN ENDS, TO BE PLUGGED IS A LEAD JOINT FITTING, THE CONTRACTOR SHALL CUT OUT THE LEAD JOINT FITTING AND SLEEVE-IN A DUCTILE IRON SPOOL PIECE. THE SPOOL PIECE SHALL BE SLEEVED-IN USING RETAINED MECHANICAL JOINT SOLID SLEEVES (LONG PATTERN) OR APPROVED COMPRESSION COUPLINGS EQUAL TO DRESSER STYLE NOS: 38, 138, OR 162 (TRANSITION TYPE), OR SMITH-BLAIR 441 STRAIGHT AND TRANSITION COUPLINGS WITH TRACKHEAD STAINLESS STEEL BOLTS AND NUTS (ASTM A276-03, TYPE 304, AND ASTM A 193-03/ASTM A 194-03, HEAVY HEX). THE COMPRESSION COUPLING SHALL BE FURNISHED WITHOUT PIPE STOPS AND BE RATED FOR A MINIMUM WORKING PRESSURE OF 250 PSI.

PAYMENT

THE UNIT PRICE STIPULATED PER LINEAL FOOT FOR ITEM 638 - WATER WORK, MISC.: CUT, FILL AND PLUG EXISTING 12" WATER MAIN SHALL BE IN FULL COMPENSATION FOR THE FURNISHING OF ALL MATERIALS FOR AND THE SAW CUTTING, FILLING AND PLUGGING OF THE EXISTING WATER MAIN AT LOCATIONS INDICATED IN THE PLANS.

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY TO PEFORM THE WORK AT THE LOCATIONS SHOWN, OR WHERE ORDERED, INCLUDING ALL EXCAVATING, SHEETING AND SHORING, BACKFILLING, AND OTHER WORK AS REQUIRED.

ITEM 638 - WATER WORK, MISC.: - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED

WARRANTY BOND

THE CONTRACTOR SHALL FURNISH A WARRANTY BOND FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF ACCEPTANCE BY OHIO DEPARTMANT OF TRANSPORTATION AND THE CITY OF CLEVELAND GUARANTEEING THAT THE CONTRACTOR WILL PROMPTLY CORRECT, REPAIR AND REPLACE ANY DEFECTIVE WORK ARISING OUT OF THE INSTALLATION THE 12" WATERMAIN AND 20" CASING, INCLUDING, BUT NOT LIMITED TO, THE SUBSIDENCE OR FAILURE OF LATERAL AND SUBJACENT SUPPORT, WHETHER RESULTING FROM DEFECTIVE MATERIALS OR DEFECTIVE WORKMANSHIP. THE DATE OF ACCEPTANCE SHALL BE THE FINAL CHLORINATION OF THE WATER MAIN INSTALLATION. THE WARRANTY BOND SHALL BE IN A SUM EQUAL TO FIFTY PERCENT (50%) OF THE ACTUAL CONSTRUCTION COST ASSOCIATED WITH THE INSTALLATION OF THE 12" WATERMAIN AND 20" CASING, PAYABLE TO THE FISCAL OFFICER OF OHIO DEPARTMANT OF TRANSPORTATION AND EXECUTED BY A SURETY AUTHORIZED TO TRANSACT BUSINESS IN THE STATE OF OHIO. THE WARRANTY BOND SHALL NAME OHIO DEPARTMANT OF TRANSPORTATION AND THE CITY OF CLEVELAND AS OBLIGEES.

WORK INCLUDED

THE CONTRACTOR SHALL, UNDER ITEM 638 - WATER WORK, MISC.: - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED, FURNISH ALL THE MATERIALS FOR AND SHALL PROPERLY CONSTRUCT AT THE LOCATIONS SHOWN ON THE DRAWINGS, OR AS DIRECTED, ALL STEEL PIPE CASING TOGETHER WITH ALL EXCAVATIONS (INCLUDING BORING AND RECEIVING PITS), JACKING, GROUT, HAULING AWAY WASTE MATERIAL, SHEETING AND BRACING, BACKFILLING AND ALL OTHER APPURTENANCES WHICH ARE NECESSARY FOR THE PROPER INSTALLATION OF THE ENCASEMENTS WHICH ARE REQUIRED FOR THE PROPER COMPLETION OF THE WORK INCLUDED IN THIS CONTRACT.

STATE OF OHIO
DANIEL T. BENDER
62916
REGISTERED
PROFESSIONAL ENGINEER

06/01/22

STEEL PIPE CASING

THE STEEL PIPE CASING TO BE JACKED INTO POSITION WHERE SHOWN ON THE DRAWINGS, SHALL BE OF THE SIZES HEREIN SPECIFIED. THE STEEL PIPE CASING SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS A 53, GRADE B, "PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED WELDED AND SEAMLESS", WITH MINIMUM WALL THICKNESS AND NOMINAL UNCOATED WEIGHT PER FOOT AS SPECIFIED HEREIN.

BUTT-WELDED STEEL SHEETS WITH STRAIGHT OR SPIRAL SEAMS. THE ENDS OF EACH PIPE SECTION SHALL BE PROPERLY BEVELED FOR FIELD WELDING. COATING AND LINING OF THE STEEL CASING PIPE WILL NOT BE REQUIRED, BUT THE PIPE SHALL BE PROPERLY PROTECTED PRIOR TO ITS INSTALLATION. CONTRACTOR SHALL VERIFY MANUFACTURER'S OUTSIDE DIAMETER OF BELL OF PIPE AND INCREASE I.D. OF STEEL PIPE CASING IF REQUIRED.

NOM. CARRIER PIPE	CASING PIPE
12"	20" I.D. X 0.781"

JACKING OPERATION

FOR BORINGS GREATER THAN 20 FEET, A BORING MACHINE SHALL BE USED. FOR BORINGS LESS THAN 20 FEET, THE CASING MAY BE PUSHED INTO PLACE WITH THE EXCAVATOR OR OTHER SIMILAR METHOD. CASINGS SHALL BE TO THE LENGTHS AS SHOWN ON THE CONTRACT DRAWINGS AND IF NOT DESIGNATED, SHALL EXTEND 5 FEET BEYOND EACH SIDE OF THE CULVERT OR PIPE BEING CROSSED.

THE JACKING EQUIPMENT SHALL BE SET UP IN A TRENCH WITH A BACKSTOP ERECTED TO TAKE THE THRUST DEVELOPED BY THE JACKS. THE BACKSTOP SHALL BE CONSTRUCTED OF HEAVY TIMBERS, RAILS OR STRUCTURAL SHAPES AND SHALL BE SECURELY ANCHORED TO PREVENT ANY APPRECIABLE LATERAL DISPLACEMENT WHICH WILL CAUSE MISALIGNMENT OF THE PIPE DURING JACKING OPERATIONS.

THE FIRST SECTION OF CASING PIPE SHALL BE PLACED ON THE GUIDES AND THE HEADFRAME SET FOR THE REQUIRED DIRECTION OF TRAVEL. PRESSURE SHALL BE APPLIED BY THE JACKS IN SUCH A MANNER THAT THE RESULTING THRUST WILL BE COAXIAL WITH THE CASING PIPE. WHEN THE REAR OF A SECTION HAS REACHED THE FACE OF THE JACKING TRENCH, PRESSURE SHALL BE RELIEVED ON THE JACKS AND THE BLOCKING SHALL BE REMOVED.

EACH SECTION OF PIPE CASING SHALL BE JACKED IN PLACE UNTIL THE END OF THE SECTION PROTRUDES FROM THE HEADING OF THE JACKING PIT A SUFFICIENT DISTANCE TO PROPERLY CONNECT THE FOLLOWING SECTION OF PIPE CASING. THIS CONNECTION SHALL BE MADE BY FIELD WELDING AND ALL WELDING SHALL BE DONE BY QUALIFIED PERSONNEL IN ACCORDANCE WITH SUPPLEMENT 1011. INSTALLATION PROCEDURE OF THE CASING SHALL BE PERFORMED TO PERMIT THE REMOVAL OF ANY ENCOUNTERED GROUND WATER. THE JACKING OPERATION SHALL BE CARRIED ON WITHOUT DISTURBANCE OF EMBANKMENT, ROADWAY OR SUBSURFACE STRUCTURES AND MUST BE SUBORDINATE TO THE FREE AND UNOBSTRUCTED USE OF THE ROADWAY FOR THE PASSAGE OF TRAFFIC WITHOUT DELAY OR DANGER TO LIFE, EQUIPMENT OR PROPERTY.

3rd. HIGH SERVICE DISTRICT

DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER
CLEVELAND, OHIO

SUBJECT : 12" WATER MAIN ALONG MILLER ROAD AT I.R. 77
CITY OF BRECKSVILLE

SCALE: AS SHOWN | NO.

WATER WORK NOTES

SUBSET 14 | TOTAL 44

DESIGN AGENCY
EUTHENICS
8230 Midwest Dr. | Cleveland, OH 44125

DESIGNER TDP

REVIEWER DTB 03/01/22

PROJECT ID 104983

SHEET P.250 | TOTAL P.445

CUY-77-00.42 PART 1

MODEL: 104983_UN018 PAPERSIZE: 17x11 (in.) DATE: 27-Sep-22 TIME: 9:30:58 AM USER: comtirk
F:\Jobs\11624\Miller Road Interchange\104983\600-Contracts\03-Addendum\Waterline Note Revisions\104983_UN018.dgn

WATER WORK NOTES

JACKING OPERATION CONTINUED

THE JACKING- BORING METHOD SHALL CONSIST OF PUSHING THE CASING WITH A BORING AUGER ROTATING WITHIN THE CASING TO REMOVE THE SPOIL. WHEN AUGERS, OR SIMILAR DEVICES, ARE USED FOR CASING EMPLACEMENT, THE FRONT OF THE CASING SHALL BE PROVIDED WITH MECHANICAL ARRANGEMENTS OR DEVICES THAT WILL POSITIVELY PREVENT THE AUGER AND CUTTING HEAD FROM LEADING THE CASING WITH NO UNSUPPORTED EXCAVATION AHEAD OF THE CASING. ALL AUGER LEADS SHALL BE OF THE PROPER SIZE. THE AUGER AND CUTTING HEAD ARRANGEMENT SHALL BE REMOVABLE FROM WITHIN THE CASING IN THE EVENT AN OBSTRUCTION IS ENCOUNTERED. THE FACE OF THE CUTTING HEAD SHALL BE ARRANGED TO PROVIDE REASONABLE OBSTRUCTION TO THE FREE FLOW OF SOFT OR POOR MATERIAL.

AFTER THE CASING IS IN PLACE, THE PIPE SHALL BE INSERTED ON SKIDS AS REQUIRED WITH JOINTS PROPERLY MADE AND SO PULLED INTO PLACE AS TO TIGHTEN THE JOINTS WHICH ARE TO BE MADE AS SPECIFIED, AND WITH PROPER PROVISIONS FOR CONNECTING TO THE PIPE AT EACH END OF THE ENCASED SECTIONS.

AFTER THE PIPE IS IN PLACE, THE SPACE BETWEEN THE OUTSIDE OF THE PIPE AND INSIDE OF THE CASING SHALL BE COMPLETELY FILLED WITH SAND, FORCED INTO PLACE TO THE FULL SATISFACTION OF THE CITY.

WHEN THE BORED OR AUGURED HOLE IS OVERSIZED, THE CONTRACTOR SHALL CAREFULLY PRESSURE GROUT THE ENTIRE VOID AROUND THE OUTSIDE OF THE CASING PIPE. THE VOID SHALL BE COMPLETELY FILLED BY PRESSURE GROUTING WITH PORTLAND CEMENT GROUT CONSISTING OF ONE (1) PART CEMENT TO NOT MORE THAN THREE (3) PARTS FINE SAND TO THE FULL SATISFACTION OF THE CITY.

IF, IN THE OPINION OF THE ENGINEER, THE INSTALLATION OF THE CASING IS BEING CONDUCTED IN AN UNSAFE MANNER, OR IS NOT SUCH AS TO MINIMIZE SETTLEMENT OR PERMIT CLOSE ADHERENCE TO LINE AND GRADE, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REVISE HIS PROCEDURE TO COMPLY WITH METHODS WHICH ARE KNOWN TO GIVE MORE SATISFACTORY RESULTS.

THE JACKING OPERATION SHALL BE PROGRESSED ON A 24- HOUR BASIS WITHOUT STOPPAGE (EXCEPT FOR ADDING LENGTHS OF PIPE) UNTIL THE LEADING EDGE OF THE PIPE HAS REACHED THE RECEIVING PIT. HOWEVER, SHOULD THE JACKING STOP, AND FOR ANY REASON WHATEVER SHOULD NOT BE ABLE TO GET STARTED AGAIN, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, TUNNEL THE REMAINING DISTANCE USING TUNNEL PLATES. THE CASING SHALL BE INSTALLED INSIDE THE TUNNEL LINER AND THE ANNULAR SPACE BETWEEN CASING AND LINER SHALL BE PRESSURE GROUTED. IN ANY CASE, THE METHOD AND MATERIALS TO BE USED SHALL BE SUBMITTED TO THE CITY THROUGH THE ENGINEER AND APPROVED BY THE CITY BEFORE WORK PROCEEDS WITH THE INSTALLATION OF THE ENCASEMENT.

THE CONTRACTOR AND/OR ANY SUBCONTRACTOR MUST BE FULLY EQUIPPED AND EXPERIENCED IN THE INSTALLATION OF PIPES BY JACKING, SHIELD JACKING OR TUNNELING METHODS. THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL SUBMIT TO THE ENGINEER AND TO THE CITY EVIDENCE OF SUCCESSFUL INSTALLATION BY HIM OF SIMILAR PROJECTS UNDER SIMILAR CIRCUMSTANCES.

EXCAVATION

ALL MATERIAL ENCOUNTERED IN THE JACKING OR BORING AND JACKING OR THE PIPE CASING SHALL BE EXCAVATED REGARDLESS OF THE NATURE THEREOF BY APPROVED TUNNELING OR BORING METHODS. ALL PIPE CASING EXCAVATED MATERIAL MUST BE REMOVED AND DISPOSED OF AS SPECIFIED. EXCAVATION SHALL BE CONFINED WITHIN THE LIMITS OF THE CASING. IN DRY AND STABLE SOILS EXCAVATION, IF APPROVED BY THE ENGINEER AND THE CITY, MAY BE CARRIED AHEAD OF JACKING A DISTANCE NOT TO EXCEED 18- INCHES. IN SAND, GRAVEL AND ANY SOFT OR WET MATERIAL, EXCAVATION AHEAD OF THE PIPE CASING WILL NOT BE PERMITTED. OPEN CUT WILL NOT BE PERMITTED UNLESS THE CONTRACT DRAWINGS OR DETAIL DRAWINGS INDICATE OTHERWISE.

EXCAVATION BRACING SHALL BE DESIGNED AND SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF C&MS 503.

INSTALLATION OF CARRIER PIPE

CASING SPACERS/CHOCKS: THE CONTRACTOR SHALL FURNISHA ND INSTALL A BOLTED STYLE STAINLESS TEEL (TYPE 304) RUBBER OR PVC LINED SHLEL WITH SPACER/CHOCK MADE OF ULTRA-HIGH MOLECULAR WEIGHT (UHMW) POLYETHYLENE HAVING A HIGH ABRASIVE RESISTANT AND LOW FRICTION PROPERTIES. ALL BOLTS AND NUTS USED TO FASTEN THE SHELL TO THE CARRIER PIPE SHALL BE MADE OF STAINLESS STEEL, TYPE 304. THE SPACERS/CHOCKS SHALL BE EQUAL TO THAT MANUFACTURED BY CASCADE WATERWORKS MANUFACTURING, COMPANY OR POWER SEAL PIPE LINE PRODUCTS CORPORATION. THREE (3) SETS OF SPACERS/CHOCKS PER EIGHTEEN (18) FOOT LENGTHS OF PIPE OR FOUR (4) SETS OF SPACERS/CHOCKS PER TWNETY 920) FOOT LENGTHS WILL BE REQUIRED. A SET OF SPACERS/CHOCKS SHALL BE PLACED NOT MORE THAN 2-1/2 FEET FROM EACH PIPE JOINT WITH ADDITIONAL BLOCKS EVENLY SPACED. CARRIER PIPE SHALL BE INSTALLED USING THE "STANDARD CONFIGURATION" AND THE CASING VOIDS SHALL BE FILLED WITH GROUT. INSTALLATION OF THE CARRIER PIPE WITHIN THE ENCASEMENT WILL BE PAID FOR UNDER THE APROPIATE ITEM SPECIAL FOR WATER MAINS.

RUBBER END SEAL AND SAND FILLED

AFTER THE WATER MAIN HAS BEEN INSTALLED IN ITS FINAL POSITION INSIDE THE CASING AND HAS BEEN TESTED, A WRAP AROUND RUBBER END SEAL SHALL BE BUILT IN ONE END OF THE CASING. FOLLOWING THE COMPLETION OF THE RUBBER END SEAL, SAND SHALL BE PUMPED INTO THE CASING COMPLETELY FILLING THE SPACE BETWEEN IT AND THE WATER MAIN. THE METHOD USED FOR PLACING THIS SAND SHALL BE SUCH THAT IT WILL NOT DAMAGE THE COATING ON THE WATER MAIN. AFTER THE SAND FILL IS COMPLETED, ANOTHER WRAP AROUND RUBBER END SEAL SHALL BE INSTALLED AT THE OPPOSITE END OF THE CASING TO PREVENT ESCAPE OF BACKFILL MATERIAL. THE VOIDS BETWEEN THE CASING AND BORE SHALL BE PRESSURE GROUT FILLED.

BEFORE STARTING THIS BACKFILLING, THE CONTRACTOR SHALL SUBMIT FULL DETAILS OF THE METHOD OF BACKFILLING THAT HE PROPOSES TO USE TO THE CITY, AND NO WORK SHALL BE STARTED UNTIL APPROVAL OF THE METHOD HAS BEEN GRANTED.

CONTRACTOR'S RESPONSIBILITY

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT STANDARD ROADWAY CLEARANCES WILL BE MAINTAINED AT ALL TIMES. ALL WORKING OPERATIONS OF THE CONTRACTOR, OR ANY SUBCONTRACTOR MUST BE SUBORDINATE TO THE FREE AND UNOBSTRUCTED USE OF THE ROADWAY.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL COSTS OF THE INSPECTION AS WELL AS OTHER COSTS INCURRED IN CONNECTION WITH THIS WORK. SUCH COSTS WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE PRICE BID FOR JACKED ENCASEMENTS UNDER ITEM 638 - WATER WORK, MISC.: - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED.

ITEM 638 - WATER WORK, MISC.: 20" STEEL PIPE ENCASEMENT, BORED OR JACKED - CONTINUED

AGREEMENTS/PERMITS

ALL JACKED ENCASEMENTS SHALL BE BUILT IN FULL ACCORD WITH THE REQUIREMENTS OF STATE, COUNTY, AND/OR LOCAL REGULATIONS AND ORDINANCES PERTAINING TO SUCH CONSTRUCTION AND SHALL BE SUBJECT TO INSPECTION AND CONTROL BY THE VARIOUS OFFICIALS HAVING JURISDICTION OVER SAME. PERMITS FOR JACKING CASING ACROSS INTERSTATE FREEWAYS ARE MADE PART OF THESE SPECIFICATIONS, IF SO APPLICABLE, AND IF AVAILABLE. PERMITS NOT AVAILABLE AT THE TIME OF BIDDING WILL BE MADE AVAILABLE TO THE CONTRACTOR AS SOON AS POSSIBLE AFTER AWARD OF THE CONTRACT. THE PERMIT, ITS TERMS AND CONDITIONS SET FORTH IN THE PERMIT BY THE ISSUING AGENCY, SHALL HAVE THE FULL FORCE AS THOUGH BEING MADE PART OF THESE SPECIFICATIONS.

TEST BORINGS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIS OWN TEST BORINGS AND FOR DETERMINING THE MATERIALS HE WILL ENCOUNTER IN CONSTRUCTION OF THE WORK UNDER THIS ITEM.

SUBMITTED DATA

PRIOR TO THE CONSTRUCTION OF THE WORK UNDER ITEM 638 - WATER WORK, MISC.: - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED, THE CONTRACTOR SHALL SUBMIT DRAWINGS AND OTHER DATA ON MATERIALS TO BE FURNISHED HEREUNDER FOR THE APPROVAL OF THE CITY IN ACCORDANCE WITH THE SHOP DRAWING PROVISIONS OF THESE SPECIFICATIONS.

PAYMENT

THE UNIT PRICE STIPULATED PER LINEAL FOOT FOR STEEL PIPE ENCASEMENTS SPECIFIED UNDER ITEM 638 - WATER WORK, MISC.: - 20" STEEL PIPE ENCASEMENT, BORED OR JACKED SHALL BE IN FULL COMPENSATION FOR THE FURNISHING OF ALL MATERIALS FOR AND THE PROPER INSTALLATION OF THE STEEL PIPE ENCASEMENTS INCLUDING ALL EXCAVATION AND BACKFILL (INCLUDING BORING PIT AND RECEIVING PIT), BORING, JACKING, HAULING AWAY MATERIAL, SHEETING AND BRACING, WOOD BLOCKING, SKIDS AND STRAPPING, SAND, GROUT, BRICK BULKHEADS AND THE FURNISHING OF ALL LABOR, MATERIALS AND TOOLS AND APPLIANCES NECESSARY TO PROPERLY COMPLETE THE WORK AS SPECIFIED OR AS SHOWN ON THE CONTRACT DRAWINGS. THE CARRIER PIPE AND FITTINGS WILL BE PAID FOR UNDER APPROPRIATE ITEM FOR WATER MAINS.

ITEM 638 - WATER WORK, MISC.: 2" AIR RELIEF VALVE WITH VALVE BOX, COMPLETE

WORK INCLUDED

THE CONTRACTOR SHALL, UNDER "ITEM 638 - WATER WORK, MISC.: 2" AIR RELIEF VALVE WITH VALVE BOX, COMPLETE", FURNISH ALL MATERIAL INCLUDING PIPE, VALVE, VALVE BOX COMPLETE REQUIRED TO INSTALL 2" AIR RELIEF VALVE ASSEMBLY WITH VALVE BOX COMPLETE, AT THE LOCATION(S) SHOWN ON THE PLANS. THE 2" AIR RELIEF VALVE ASSEMBLY WITH VALVE BOX SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.

AIR RELIEF VALVE ASSEMBLY COMPLETE WITH VALVE BOXES COMPLETE

ALL AIR RELIEF VALVES SHALL BE 2-INCH BRONZE ANGLE VALVES WITH A 2- INCH BRONZE WATER METER AND 2- INCH IRON PIPE THREADED COMPANION FLANGE, AND A 2-INCH EXTRA HEAVY BRASS "CLOSE" (2-INCH LONG) NIPPLE. 2-INCH AIR RELIEF VALVES SHALL BE RATED FOR MINIMUM 150 PSI WORKING PRESSURE AND 225 PSI TEST PRESSURE AND BE EQUAL IN ALL RESPECTS TO THE 2-INCH ANGLE METER VALVE MANUFACTURED BY FORD METER BOX CO. NO. FV 13-777W; OR MUELLER CO. NO. H-14286. THE AIR RELIEF VALVE ASSEMBLY SHALL INCLUDE ALL 2" GALVANIZED BLACK IRON PIPE AND BRASS PIPE AS REQUIRED AND SPECIFIED HEREIN AND SHALL INCLUDE VALVE BOXES AS REQUIRED.

2" GALVANIZED BLACK IRON PIPE AND BRASS PIPE

THE CONTRACTOR SHALL ALSO UNDER "ITEM 638 - WATER WORK, MISC.: - 2" AIR RELIEF VALVE WITH VALVE BOX, COMPLETE" FURNISH ALL THE MATERIALS FOR AND SHALL PROPERLY CONNECT IN PLACE AT THE LOCATIONS SHOWN ON THE DRAWINGS OR AS ORDERED, ALL 2-INCH EXTRA STRONG BRASS PIPE AND FITTINGS AND ALL 2-INCH EXTRA HEAVY GALVANIZED BLACK IRON PIPE AND FITTINGS RESPECTIVELY, WHICH ARE NECESSARY FOR THE PROPER COMPLETION OF THE WORK INCLUDED UNDER THIS CONTRACT.

BRASS PIPE AND FITTINGS

ALL BRASS PIPE AND FITTINGS SHALL BE EXTRA STRONG 2-INCH PIPE SIZE RATED FOR MINIMUM 150 PSI WORKING PRESSURE AND 225 PSI TEST PRESSURE AND SHALL CONFORM TO ASTM B 43-88, "SPECIFICATION FOR SEAMLESS RED BRASS PIPE, STANDARD SIZES," AND BE EQUAL TO REVERE RED BRASS PIPE AS MANUFACTURED BY REVERE COPPER AND BRASS, INCORPORATED. FITTINGS SHALL BE EXTRA STRONG WEIGHT AND SHALL HAVE SOUND WELL-FITTING THREADS.

GALVANIZED BLACK IRON PIPE AND FITTINGS

ALL GALVANIZED BLACK IRON PIPE, NIPPLES AND FITTINGS SHALL BE EXTRA HEAVY BLACK IRON PIPE RATED FOR MINIMUM 150 PSI WORKING PRESSURE AND 225 PSI TEST PRESSURE AND SHALL CONFORM TO ASTM DESIGNATION A 53-89A, "SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC COATED WELDED AND SEAMLESS," OR EQUAL. THE FITTINGS SHALL BE BEADED, OR MALLEABLE IRON EXTRA HEAVY WEIGHT. ALL PIPE AND FITTINGS SHALL BE HOT- DIPPED GALVANIZED INSIDE AND OUTSIDE, AND SHALL HAVE SOUND, WELL-FITTING THREADS.

STATE OF OHIO
DANIEL T. BENDER
62916
REGISTERED
PROFESSIONAL ENGINEER

06/01/22

3rd. HIGH SERVICE DISTRICT	
DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER CLEVELAND, OHIO	
SUBJECT : 12" WATER MAIN ALONG MILLER ROAD AT I.R. 77 CITY OF BRECKSVILLE	
SCALE: AS SHOWN	NO.

WATER WORK NOTES

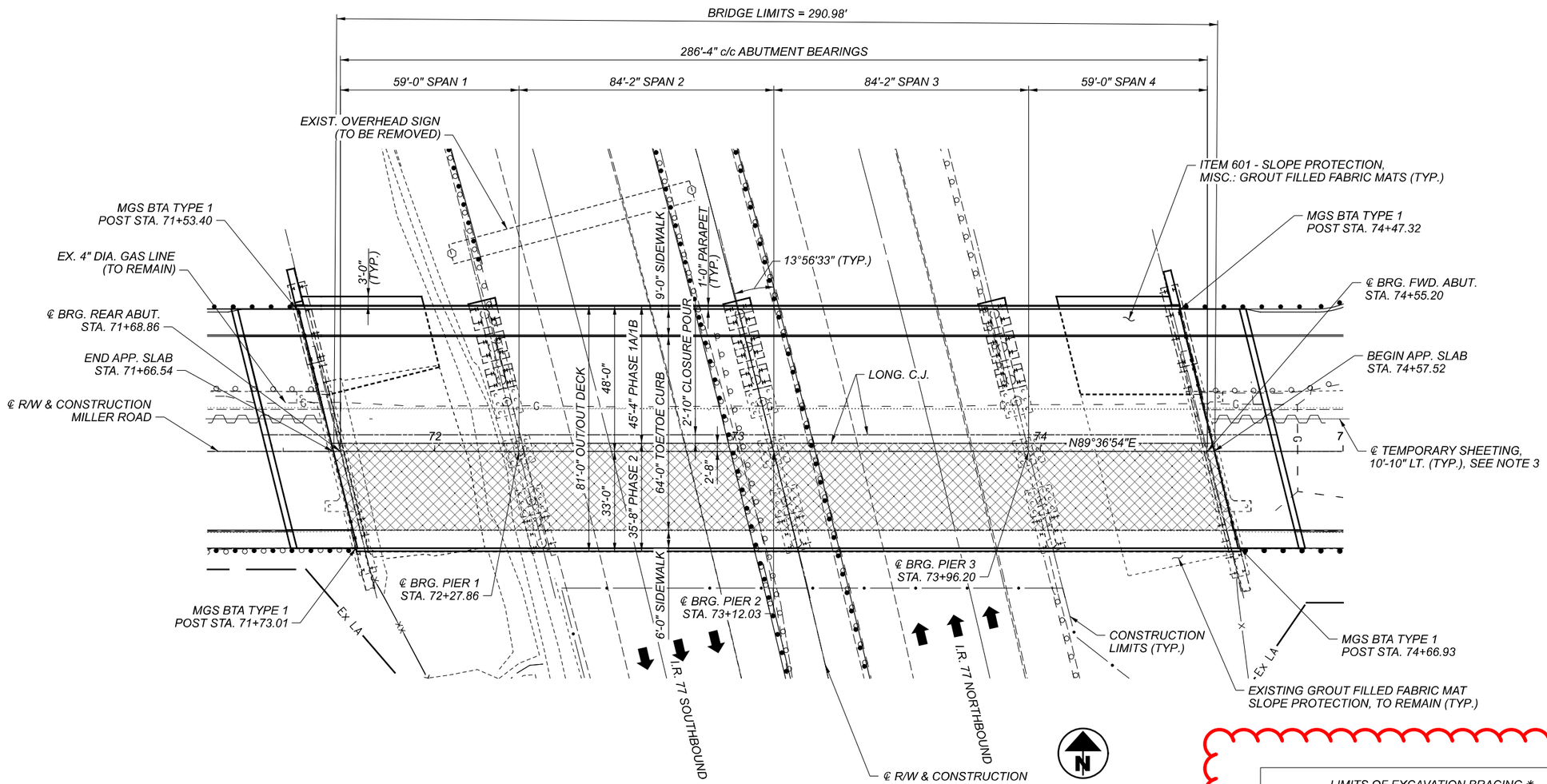
SUBSET	TOTAL
15	44

DESIGN AGENCY
EUTHENICS
8235 Mohawk Dr. | Cleveland, OH 44130

DESIGNER	TDP
REVIEWER	DTB 03/01/22
PROJECT ID	104983
SHEET	P.251
TOTAL	P.445

CUY-77-00.42 PART 1

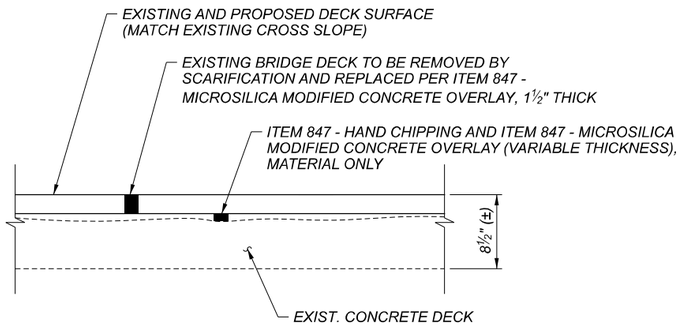
MODEL: 104983_UN019 PAPERSIZE: 17x11 (in.) DATE: 27-Sep-22 TIME: 9:34:00 AM USER: comlink
F:\Jobs\11622-Miller Road Interchange\104983\600-Contracts\03-Addendum\Waterline Note Revisions\104983_UN019.dgn



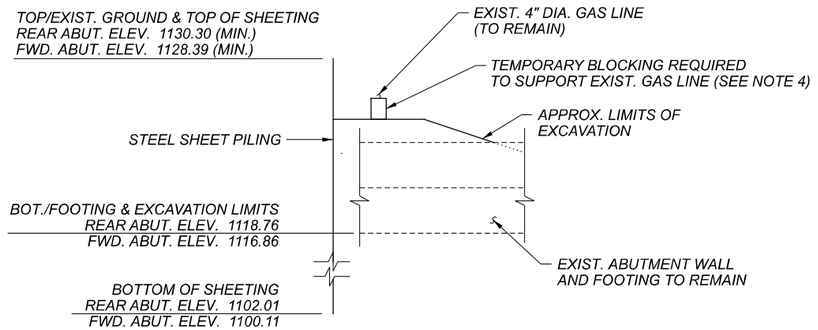
GENERAL PLAN

LIMITS OF EXCAVATION BRACING *			
LOCATION	OFFSET	BEGIN	END
REAR	10'-10" LT.	STA. 71+47.30	STA. 71+60.70
FWD.	10'-10" LT.	STA. 74+56.37	STA. 74+69.77

* LIMITS SHOWN IN GENERAL PLAN ARE GRAPHICAL AND NOT TO SCALE



BRIDGE DECK WEARING SURFACE REPLACEMENT DETAIL



SHEET PILE DETAIL

PLACE INTERLOCKING STEEL SHEET PILING WITH A MINIMUM SECTION MODULUS OF 48.50 CUBIC INCHES PER FOOT.

LEGEND

BTA = BRIDGE TERMINAL ASSEMBLY

AREAS OF THE BRIDGE DECK TO HAVE WEARING SURFACE REMOVED AND REPLACED, PER SUPPLEMENTAL SPECIFICATION 847.

NOTES

1. FINISHED TOP OF DECK ELEVATIONS SHALL MATCH EXISTING TOP OF DECK ELEVATIONS.
2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT SUPPLEMENTAL SPECIFICATION 847.
3. THE CONTRACTOR SHALL PHYSICALLY LOCATE THE EXISTING GAS LINE BEFORE INSTALLING TEMPORARY SHEETING.
4. TEMPORARY BLOCKING FOR GAS LINE IS INCLUDED FOR PAYMENT WITH ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

HORIZONTAL SCALE IN FEET
0 10 20 40

GENERAL PLAN
BRIDGE NO. CUY-CR187-00.977
MILLER ROAD OVER I.R. 77

SFN 1805673
DESIGN AGENCY
EUTHENICS 8335 Midwest Dr. | Cleveland, OH 44125
DESIGNER OOS | CHECKER BPS
REVIEWER LAB 02/24/22
PROJECT ID 104983
SUBSET 2 | TOTAL 42
SHEET P.336 | TOTAL P.445

CUY-77-00.42 PART 1

MODEL: GP001 PAPERSIZE: 17x11 (In.) DATE: 9/22/2022 TIME: 8:45:44 AM USER: bpsopko
F:\Jobs\1162-Miller Road Interchange\104983\400-Engineering\Structures\SFN_1805673\Sheets\104983_SFN_1805673_SG001.dgn

ESTIMATED QUANTITIES

CALC. BY: SRW
CHKD. BY: BPS

DATE: 02/21/22
DATE: 02/28/22

FUNDING		ESTIMATED QUANTITIES										
02/NFP/BR	07/IMS/BR	ITEM	ITEM EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FOWARD ABUTMENT	PIERS	SUPER-STRUCTURE	GENERAL	REF. SHEET NUMBER
	LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LS	4
	178	202	22900	178	SY	APPROACH SLAB REMOVED					178	
	292	SPECIAL	20270000	292	FT	FILL AND PLUG EXISTING CONDUIT (3")				292		6
	LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					LS	4
	255	503	21100	255	CY	UNCLASSIFIED EXCAVATION	53	53	149			
	LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION					LS	
	3200	507	00100	3200	FT	STEEL PILES HP10X42, FURNISHED	560	600	2040			
	2940	507	00150	2940	FT	STEEL PILES HP10X42, DRIVEN	520	560	1860			
	148,598	509	10001	148,598	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	2845	2692	23,180	119,881		5 & 16
	400	509	20001	400 *	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					400	5
	780	510	10001	780	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	29	27		724		5
	2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	1	1				
	497	511	34446	497	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK				497		
	58	511	34450	58	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)				58		
	76	511	41012	76	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS			76			
	82	511	43512	82	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	41	41				
	77	511	46512	77	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING			77			
	529	512	10050	529	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)				529		
	1383	512	10100	1383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	40	40	638	665		
	8	512	33000	8	SY	TYPE 2 WATERPROOFING	4	4				
	277,000	513	10240	277,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2				277,000		
	20,280	514	00050	20,280	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				20,280		
	20,280	514	00056	20,280	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				20,280		
	32,330	514	00060	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				32,330		
	32,330	514	00066	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT				32,330		
	34	514	00504	34	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL				34		
	16	514	10000	16	EACH	FINAL INSPECTION REPAIR				16		
	163	516	10010	163	FT	ARMORLESS PREFORMED JOINT SEAL					163	
	81	516	13400	81	SF	3/4" PREFORMED EXPANSION JOINT FILLER			81			
	59	516	13900	59	SF	2" PREFORMED EXPANSION JOINT FILLER				59		
	68	516	14020	68	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	34	34				
	8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),	4	4				24
						AS PER PLAN (LOAD PLATE 13" x 17" x 1.50", NEOPRENE 12" x 16" x 3.55")						
	8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),			8			25
						AS PER PLAN (LOAD PLATE 16" x 19" x 1.50", NEOPRENE 15" x 18" x 3.00")						
	4	516	44201	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE),			4			25
						AS PER PLAN (LOAD PLATE 16" x 27" x 1.50", NEOPRENE 15" x 18" x 3.00")						
	46	518	21200	46	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	23	23				
	88	518	40000	88	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	44	44				
	24	518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	12	12				
	17	519	11101	17 *	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	4	3	10			5
	352	526	15001	352	SY	REINFORCED CONCRETE APPROACH SLABS (T=13"), AS PER PLAN					352	5
	163	526	90030	163	FT	TYPE C INSTALLATION					163	
	LS	SPECIAL	53014000	LS		STRUCTURAL SURVEY AND MONITORING OF VIBRATION					LS	5
	270	601	21100	270	SY	SLOPE PROTECTION, MISC.: GROUT FILLED FABRIC MATS	135	135				6
	584	607	39900	584	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC				584		
	864	607	39994	864	FT	TEMPORARY VANDAL FENCE, TYPE B				664	200	
LS		607	98200	LS		FENCE, MISC.: ALUMINUM LETTERING					LS	37
	931	847	10000	931	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY				931		
	4	847	20000	4	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY				4		
	LS	847	30000	LS		TEST SLAB				LS		
	2	847	30200	2	CY	FULL DEPTH REPAIR				2		
	56	847	50000	56	SY	HAND CHIPPING				56		

* DENOTES QUANTITY TO BE USED "AS DIRECTED BY THE ENGINEER"

ESTIMATED QUANTITIES
BRIDGE NO. CUY-CR187-00.977
MILLER ROAD OVER I.R. 77

SFN 1805673

DESIGN AGENCY
EUTHENICS
8230 Mohawk Dr. | Cleveland, OH 44129

DESIGNER	CHECKER
SRW	BPS

REVIEWER
LAB 02/24/22

PROJECT ID 104983

SUBSET	TOTAL
8	42

SHEET	TOTAL
P.342	P.445

CUY-77-00.42 PART 1