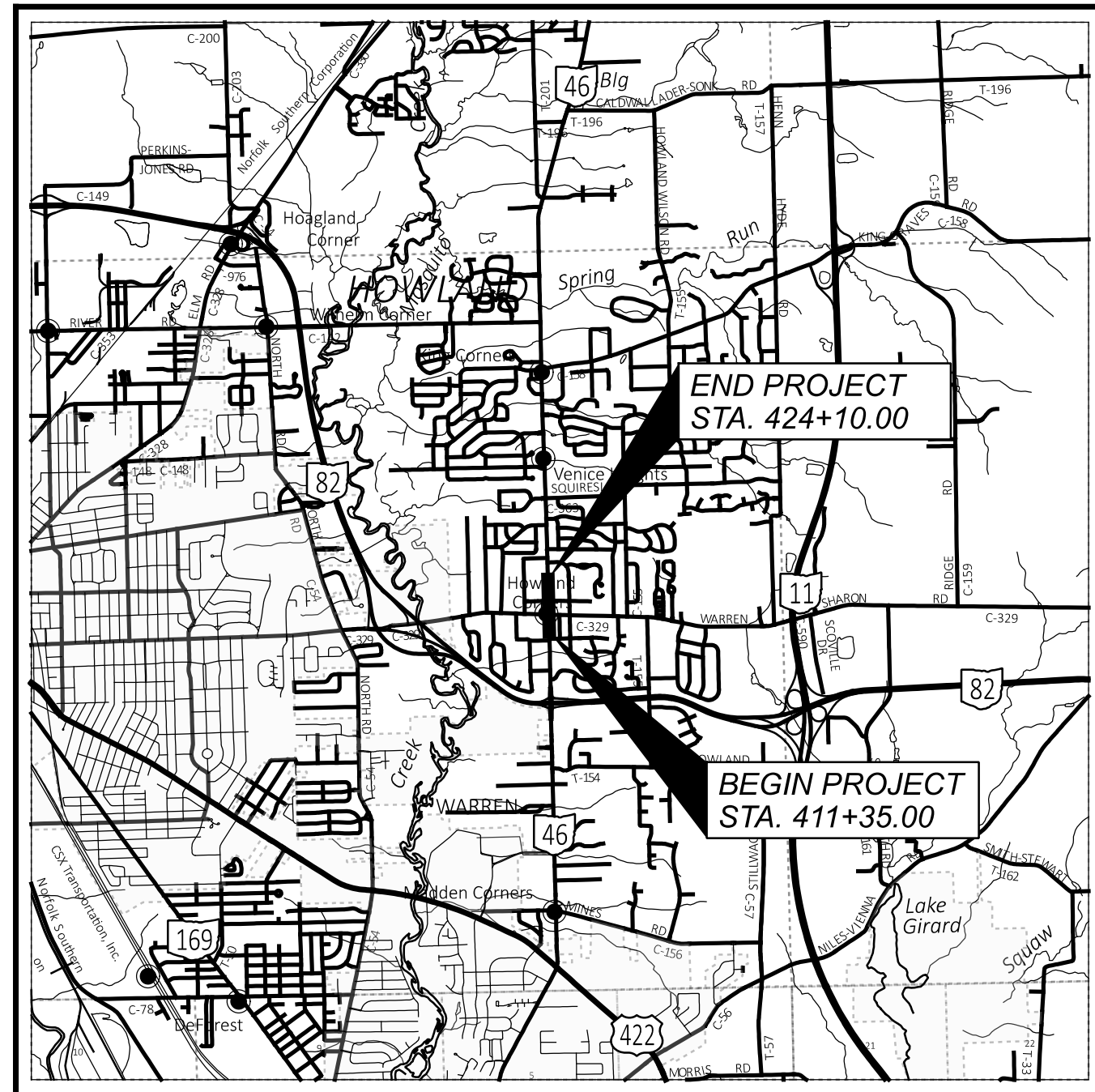


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

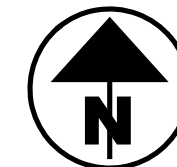
TRU-46-7.81 - PART 1

HOWLAND TOWNSHIP
TRUMBULL COUNTY
FOR PART 2, SEE TRU-82-18.64
FOR PART 3, SEE TRU-46-6.87
FOR PART 4, SEE TRU-46-7.39



LOCATION MAP

LATITUDE: 41°14'18" LONGITUDE: -80°44'26"



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

DESIGN DESIGNATION

	SR-46	CR-329
CURRENT ADT (2025)	17,080	14,280
DESIGN YEAR ADT (2040)	20,810	17,410
DESIGN HOURLY VOLUME (2040)	2,080	1,740
DIRECTIONAL DISTRIBUTION	53%	54%
TRUCKS (24 HOUR B&C)	3%	2%
DESIGN SPEED	45 MPH	40 MPH
LEGAL SPEED	40 MPH	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	MINOR ARTERIAL	MINOR ARTERIAL
NHS PROJECT	NO	

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

REQUIRED. SEE SHEET P.9

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
Michael Baker
INTERNATIONAL

INDEX OF SHEETS:

TITLE SHEET	P.1
SCHEMATIC PLAN	P.2
TYPICAL SECTIONS	P.3 - P.7
GENERAL NOTES	P.8 - P.11
MAINTENANCE OF TRAFFIC	P.12 - P.42
GENERAL SUMMARY	P.43 - P.45
SUBSUMMARIES	P.46 - P.57
PROJECT SITE PLAN	P.58
PLAN AND PROFILE:	
SR-46	P.59 - P.61
CR-329	P.62 - P.64
PAVEMENT REMOVAL PLAN	P.65 - P.68
PAVEMENT PLAN	P.69 - P.72
CROSS SECTIONS:	
SR-46	P.73 - P.98
CR-329	P.99 - P.112
INTERSECTION DETAILS	P.113 - P.117
DRIVE DETAILS	P.118 - P.130
STORM SEWER PROFILES	P.131 - P.136
DRAINAGE DETAILS	P.137
WATER WORK	P.138 - P.147
SIGNING & PAVEMENT MARKING	P.148 - P.155
TRAFFIC SIGNALS	P.156 - P.166
RIGHT-OF-WAY	

FEDERAL PROJECT NUMBER

E190 (529)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

THE PROJECT IMPROVES 0.24 MILES OF SR-46 AT THE CR-329 INTERSECTION IN HOWLAND TOWNSHIP BY WIDENING AND RESURFACING, INCLUDING NEW SIDEWALK, CURB, STORM SEWER SYSTEM, TRAFFIC SIGNS, PAVEMENT MARKINGS, AND TRAFFIC SIGNALS. THE PROJECT WILL ADD RIGHT TURN LANES ON SR-46 AND EXTEND EXISTING LEFT TURN LANES ON BOTH SR-46 AND CR-329 APPROACHING THE INTERSECTION.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 3.1 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 3.35 ACRES
NOTE: POST-CONSTRUCTION STORMWATER BMPS FOR THIS PROJECT WILL BE CONSTRUCTED WITH PART 2 (TRU-82-18.64) AND ARE NOT INCLUDED IN THESE PLANS.

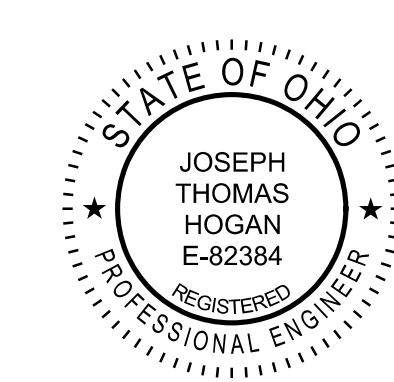
2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

Arthur G. Noiro Jr., P.E.
District 04 Deputy Director

Pamela Boratyn
Director, Department of Transportation

ENGINEER'S SEAL



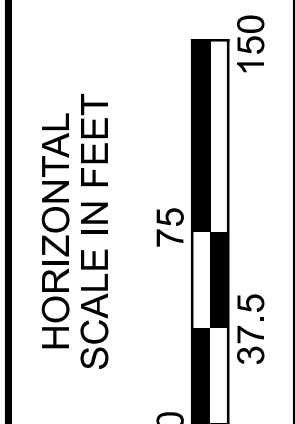
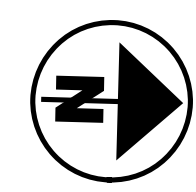
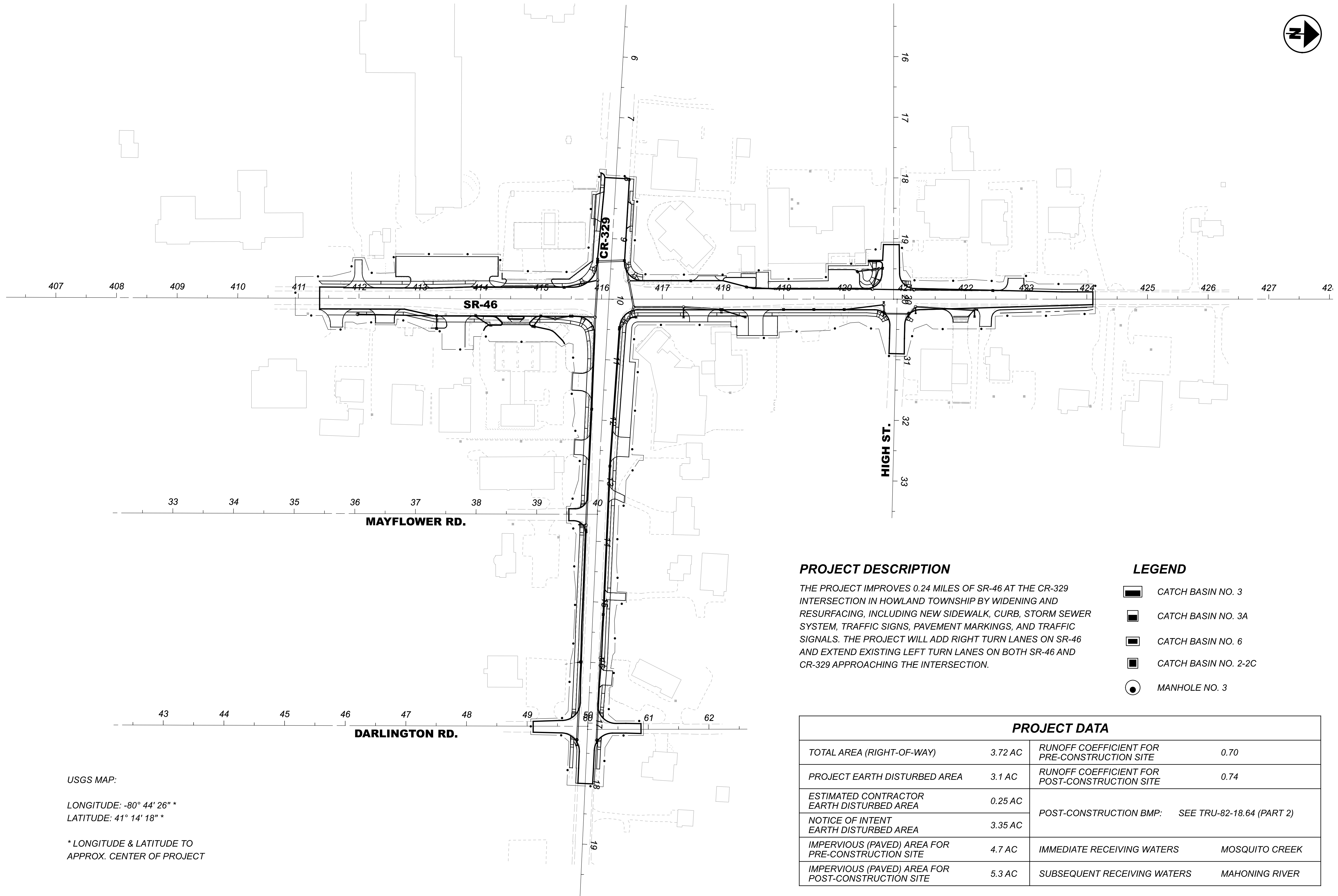
STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS		
BP-3.1	1/19/24	DM-4.4	1/15/16	MT-95.45	7/21/23	TC-17.11	1/19/24	TC-81.11	1/19/24	800-2023	7/19/24
BP-4.1	7/19/13			MT-95.50	7/21/17	TC-21.11	7/16/21	TC-81.22	7/21/23	807	1/21/22
BP-5.1	7/15/22	LA-1.1	10/15/10	MT-97.10	4/19/19	TC-21.21	1/20/23	TC-82.10	7/19/19	809	7/19/24
BP-6.1	7/19/13			MT-97.11	1/20/17	TC-41.20	10/18/13	TC-83.20	7/19/24	821	4/20/12
BP-7.1	7/19/24	MH-1	7/15/22	MT-97.12	1/20/17	TC-41.30	4/21/23	TC-84.20	1/19/24	825	7/19/24
		MH-3	7/19/24	MT-99.20	4/19/19	TC-41.40	10/18/13	TC-84.21	10/18/13	832	7/19/24
CB-2-2A, 2B, 2C	7/19/24			MT-101.60	4/21/23	TC-41.41	7/19/19	TC-85.20	4/21/23	839	7/16/21
CB-2-3, 2-4	7/19/24	RM-1.1	1/20/23	MT-101.70	7/19/24	TC-41.50	10/18/13			850	7/21/23
CB-3	7/19/24	RM-3.1	7/20/18	MT-101.75	7/21/23	TC-42.20	10/18/13			872	1/21/22
CB-3A	7/19/24			MT-101.90	7/17/20	TC-52.10	10/18/13			874	4/17/20
CB-6	7/19/24	HL-30.11	7/21/23	MT-102.20	4/19/19	TC-52.20	1/15/21			875	1/18/19
		HL-30.22	1/15/21	MT-105.10	1/17/20	TC-65.10	1/17/14			880	1/21/22
DM-1.1	7/17/20			MT-110.10	7/19/13	TC-65.11	1/19/24			905	4/17/20
DM-1.2	7/16/21	MT-95.30	7/19/19	MT-120.00	7/19/24	TC-71.10	4/21/23			909	7/19/24
DM-3.1	1/18/13	MT-95.31	7/19/19			TC-73.20	7/19/24			921	7/19/24
DM-4.3	1/15/16	MT-95.40	7/21/23	TC-16.22	7/21/23	TC-74.10	7/21/23				

TRU-46-7.81

MODEL: Sheet PAPER/SIZE: 34x22 (in.) DATE: 10/29/2024 TIME: 10:50:03 AM USER: Joseph.Hogan p:\vmb-us-pw-bentley.com\mb-us-pw-03\Documents\Cleveland_OH101_Projects\ODOT\District04\109520\400-Engineering\Roadway\Sheets\109520_GT001.dgn

TITLE SHEET

DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER
MZG
REVIEWER
JTH 10/23/24
PROJECT ID
109520
SHEET TOTAL
P.1 P.166








PROJECT SITE PLAN

PROJECT DESCRIPTION

THE PROJECT IMPROVES 0.24 MILES OF SR-46 AT THE CR-329 INTERSECTION IN HOWLAND TOWNSHIP BY WIDENING AND RESURFACING, INCLUDING NEW SIDEWALK, CURB, STORM SEWER SYSTEM, TRAFFIC SIGNS, PAVEMENT MARKINGS, AND TRAFFIC SIGNALS. THE PROJECT WILL ADD RIGHT TURN LANES ON SR-46 AND EXTEND EXISTING LEFT TURN LANES ON BOTH SR-46 AND CR-329 APPROACHING THE INTERSECTION.

LEGEND

-  CATCH BASIN NO. 3
-  CATCH BASIN NO. 3A
-  CATCH BASIN NO. 6
-  CATCH BASIN NO. 2-2C
-  MANHOLE NO. 3

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY)	3.72 AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.70
PROJECT EARTH DISTURBED AREA	3.1 AC	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.74
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25 AC	POST-CONSTRUCTION BMP: SEE TRU-82-18.64 (PART 2)	
NOTICE OF INTENT EARTH DISTURBED AREA	3.35 AC	IMMEDIATE RECEIVING WATERS	MOSQUITO CREEK
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	4.7 AC	SUBSEQUENT RECEIVING WATERS	MAHONING RIVER
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	5.3 AC		

USGS MAP:

LONGITUDE: -80° 44' 26" *
 LATITUDE: 41° 14' 18" *

* LONGITUDE & LATITUDE TO APPROX. CENTER OF PROJECT

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER
 JTH

REVIEWER
 KGJ 03/25/22

PROJECT ID
 109520

SHEET TOTAL
 P.58 | P.166