

LOCATION MAP



LOGAN COUNTY
ENGINEER'S OFFICE
SCOTT C. COLEMAN, P.E., P.S.
COUNTY ENGINEER

BRIDGE 28-4.21 REPLACEMENT

MONROE TOWNSHIP
2019

PROJECT DESCRIPTION

THE REPLACEMENT OF A FORMER BRIDGE DESTROYED BY FLOODING WITH A PRECAST REINFORCED CONCRETE FOUR-SIDED STRUCTURE WITH PRECAST CONCRETE WINGWALLS AND CAST-IN-PLACE HEADWALLS. MINOR ROADWAY WORK ON C.R. 28.

CONTRACTED WORK WILL INCLUDE THE DESIGN, MANUFACTURE, AND INSTALLATION OF THE PRECAST FOUR-SIDED STRUCTURE AND THE PRECAST WINGWALLS. THE SUBSTRUCTURE, WEARING SURFACE, AND ALL REMAINING SITE WORK WILL BE BY COUNTY FORCES.

2016 SPECIFICATIONS

EXCEPT WHERE OTHERWISE NOTED, THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO, DATED JANUARY 1, 2016, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED HEREON, SHALL GOVERN THIS IMPROVEMENT.

DOMESTIC STEEL

DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN SECTION 153.011 OF THE OHIO REVISED CODE APPLY TO THIS PROJECT. COPIES OF SECTION 153.011 OF THE OHIO REVISED CODE CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES.

APPROVALS

WE, THE COMMISSIONERS OF LOGAN COUNTY, OHIO, HEREBY APPROVE THESE PLANS AND DECLARE THAT THE NECESSARY RIGHT-OF-WAY IS AVAILABLE FOR THIS IMPROVEMENT.

DATE BOARD OF LOGAN COUNTY, OHIO,
COMMISSIONERS

I HEREBY APPROVE THIS PLAN AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING OF THE HIGHWAY TO THROUGH TRAFFIC, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THESE PLANS AND ESTIMATES.

DATE LOGAN COUNTY, OHIO, ENGINEER

PORTION TO BE IMPROVED _____
STATE AND FEDERAL ROUTES _____
OTHER ROADS _____

DESIGN DESIGNATION

CURRENT A.D.T. (2019) _____ 283
DESIGN YEAR A.D.T. (2049) _____ 750
DESIGN HOURLY VOLUME (2036) _____ N/A
DIRECTIONAL DISTRIBUTION _____ 50%
TRUCKS (24 HOUR B&C) _____ 1%
DESIGN SPEED _____ 55 MPH
LEGAL SPEED _____ 55 MPH
DESIGN FUNCTIONAL CLASSIFICATION _____ LOCAL RURAL

INDEX OF SHEETS

TITLE SHEET _____ 1
SITE PLAN AND PROFILE _____ 2
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PLANS PREPARED BY:
LOGAN COUNTY ENGINEER'S OFFICE
1991 C.R. 13, P.O. BOX 427
BELLEFONTAINE, OHIO 43311

ENGINEER'S SEAL

SIGNED: _____
DATE: _____

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS

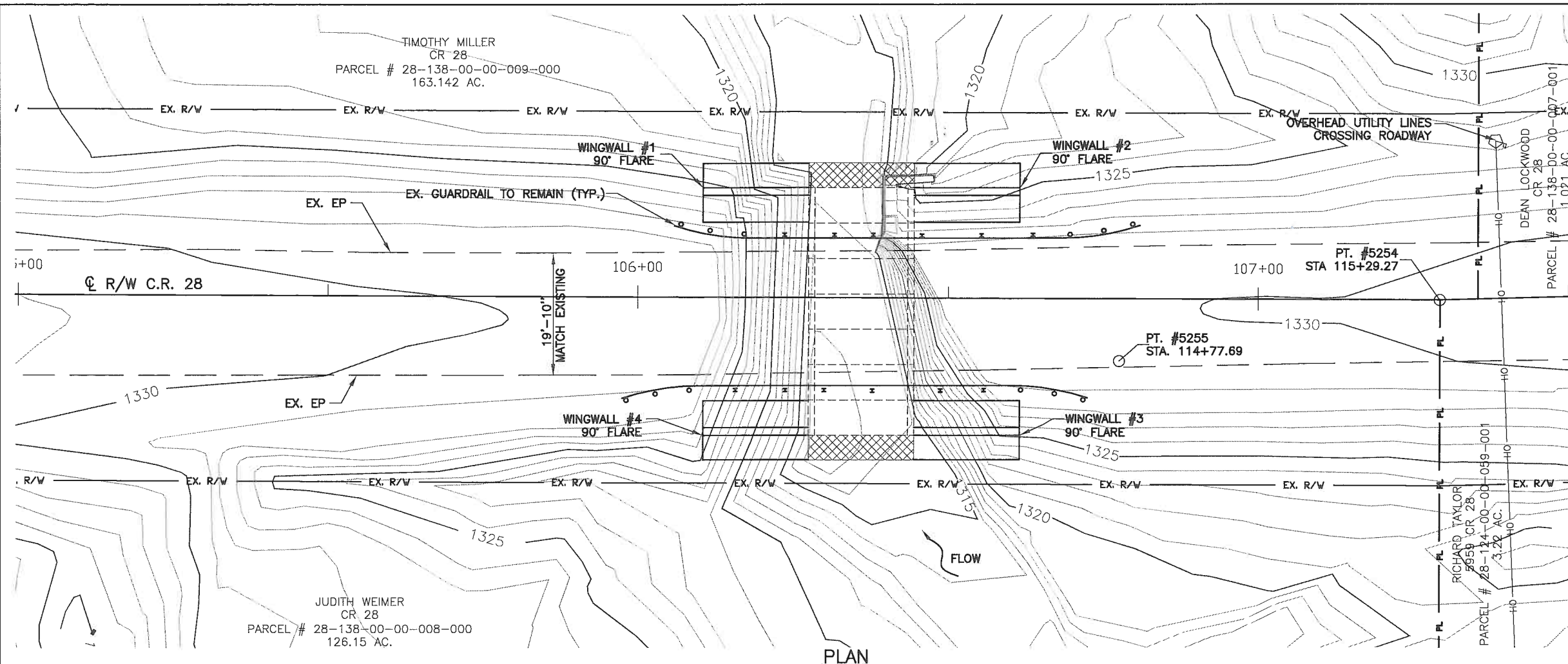
FEDERAL PROJECT NO.
NON-FEDERAL

PID NO.
NONE

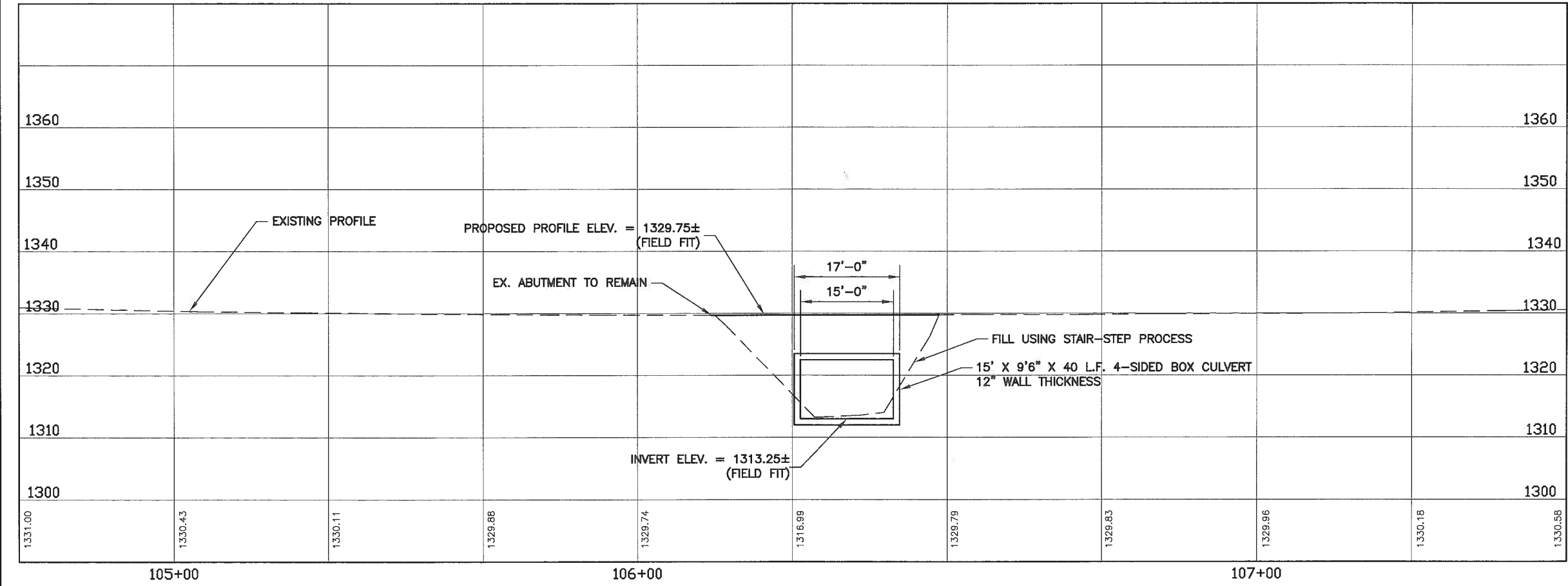
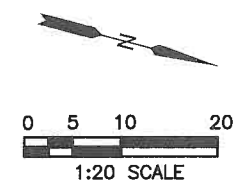
WORK ORDER NO.
11339

RAILROAD INVOLVEMENT
NONE

BRIDGE 28-4.21



PLAN



PROFILE ALONG C R/W

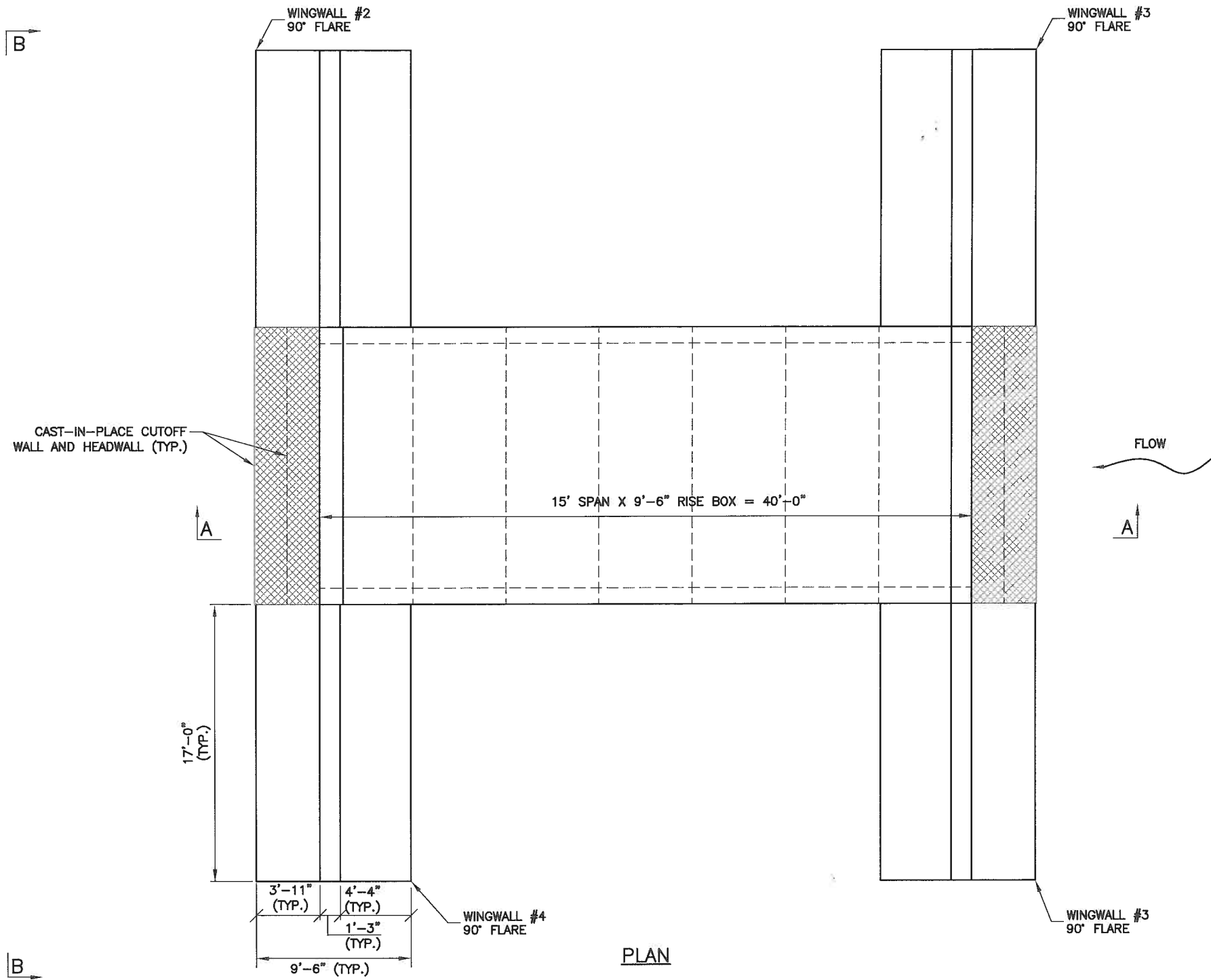
SURVEY CONTROL	
PT. #5254 P.I. 1'44'34" LT. 115+29.27	PT. #5256 TRV. PT. MNS 11.96' RT. 112+62.75 ELEVATION = 1332.03
PT. #5255 TRV. PT. MNS 10.14' RT. 114+77.69 ELEVATION = 1329.70	PT. #5257 TRV. PT. MNS 9.88' RT. 117+9.94 ELEVATION = 1335.97
EXISTING STRUCTURE	
TYPE: SIMPLE SPAN CONCRETE SLAB ON CONCRETE ABUTMENTS DESTROYED BY FLOOD SPAN: 12'-11" F/F ABUTMENTS ROADWAY: 19'-10"± LOADING: UNKNOWN SKEW: NONE WEARING SURFACE: ASPHALT CONCRETE APPROACH SLAB: NONE DATE BUILT: N/A STRUCTURAL FILE NUMBER: 4632443	
PROPOSED STRUCTURE	
TYPE: 40 L.F. PRECAST REINFORCED CONCRETE 4-SIDED BOX CULVERT SPAN: 15'-0" SPAN X 9'-6" RISE ROADWAY: 19'-10"± LOADING: HL-93 SKEW: NONE WEARING SURFACE: ASPHALT CONCRETE ALIGNMENT: TANGENT SUPERELEVATION: NONE APPROACH SLAB: NONE CROWN: 0.016 LONGITUDE: 40°17'18" LATITUDE: 83°39'24"	

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DESIGNED: MJK
CHECKED: WTB
DRAWN: MJK
REVIS: .
REVIEWED: SCC
DATE: 8/8/19
STRUCTURAL FILE NUMBER: 4632444

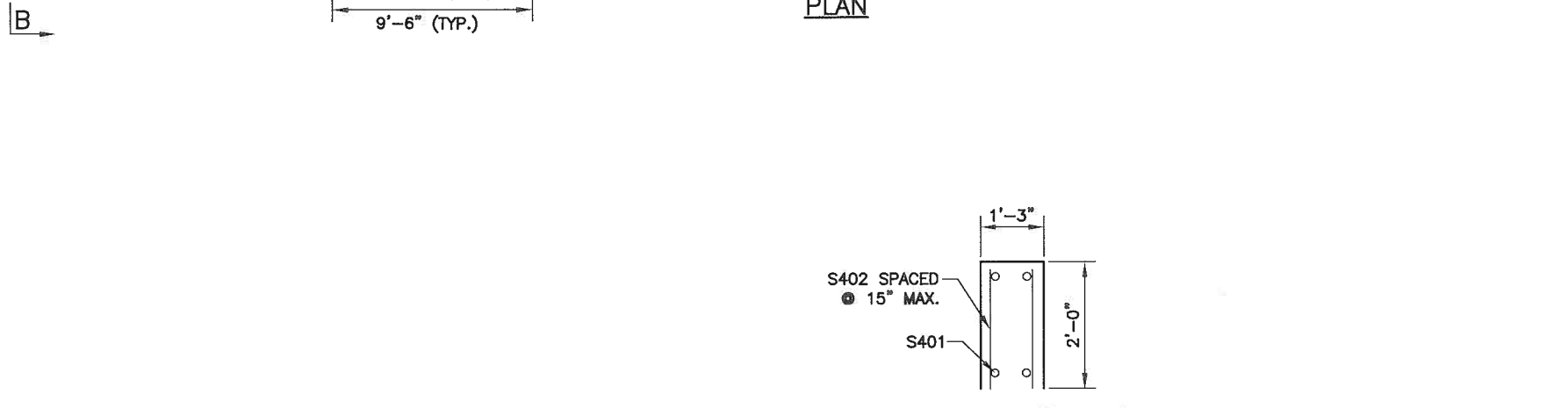
SITE PLAN

BRIDGE 28-4.21



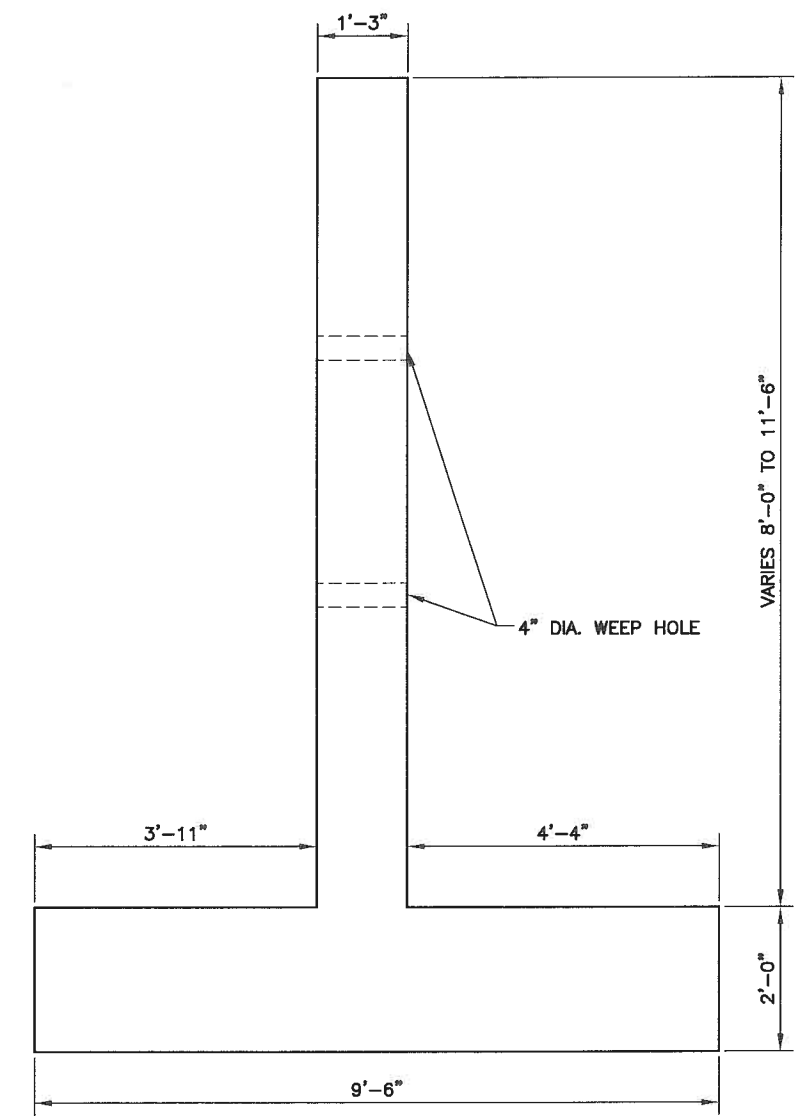
PLAN

PRE-CAST NOTES:
 -ALL REBAR SHALL BE GALVANIZED
 -ALL CONCRETE SHALL INCLUDE IPANEX
 ADMIXTURE AT A RATE OF 13.8 OZ. PER
 100 LBS. OF CEMENT



TYP. SECTION VIEW
 OF HEADWALL

-USE 3" MIN. CONCRETE COVER
 -USE 15" LAP SPLICE FOR BOTTOM ROW OF S401



SECTION @ PRE-CAST WINGWALL

CHAMFER ALL EXPOSED CORNERS

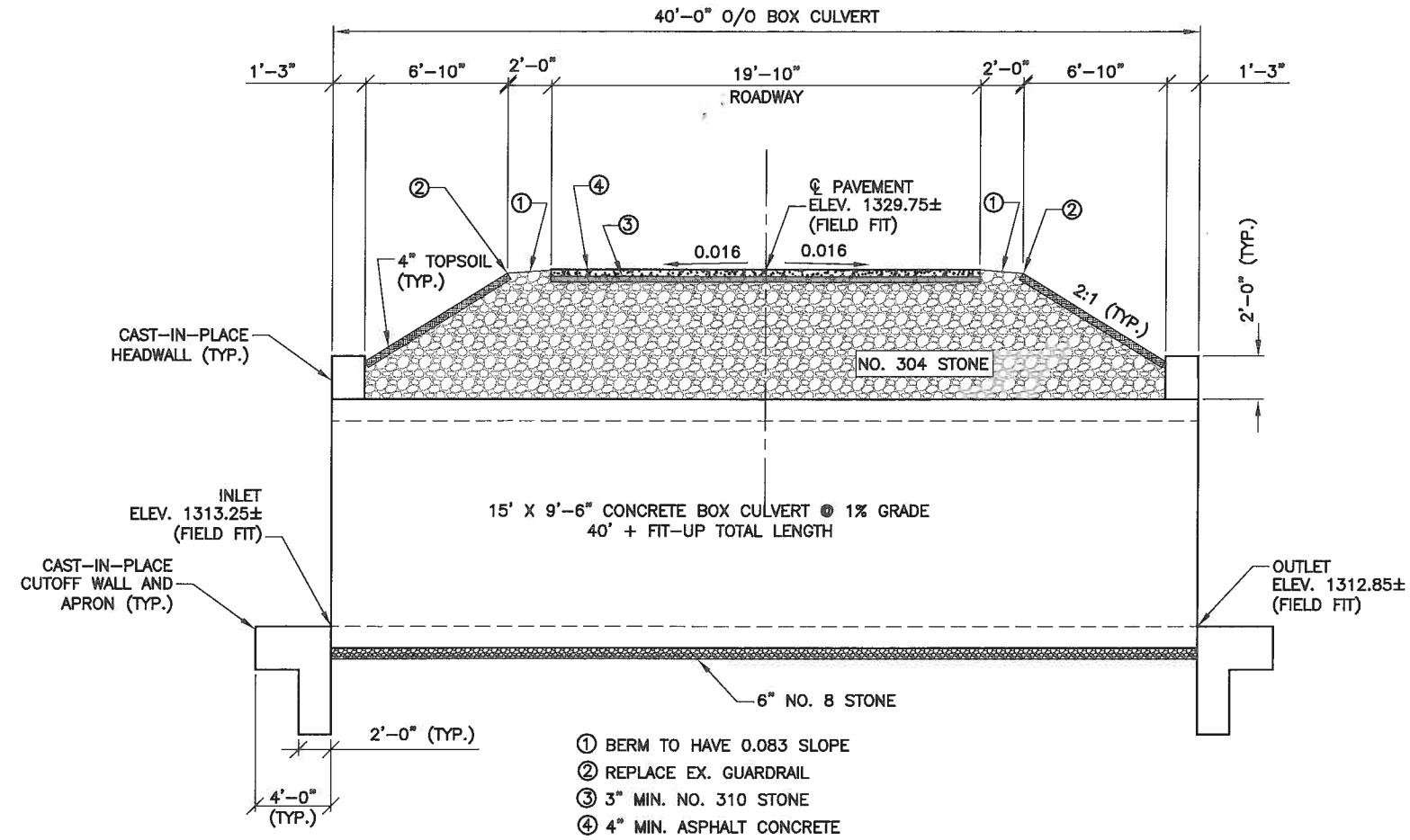
DESIGN AGENCY
 LOGAN COUNTY ENGINEER'S OFFICE
 1991 C.R. 13, P.O. BOX 427
 BELLEFONTAINE, OHIO 43311

DESIGNED	MJK	CHECKED	WTB
DRAWN	MJK	REVIS	
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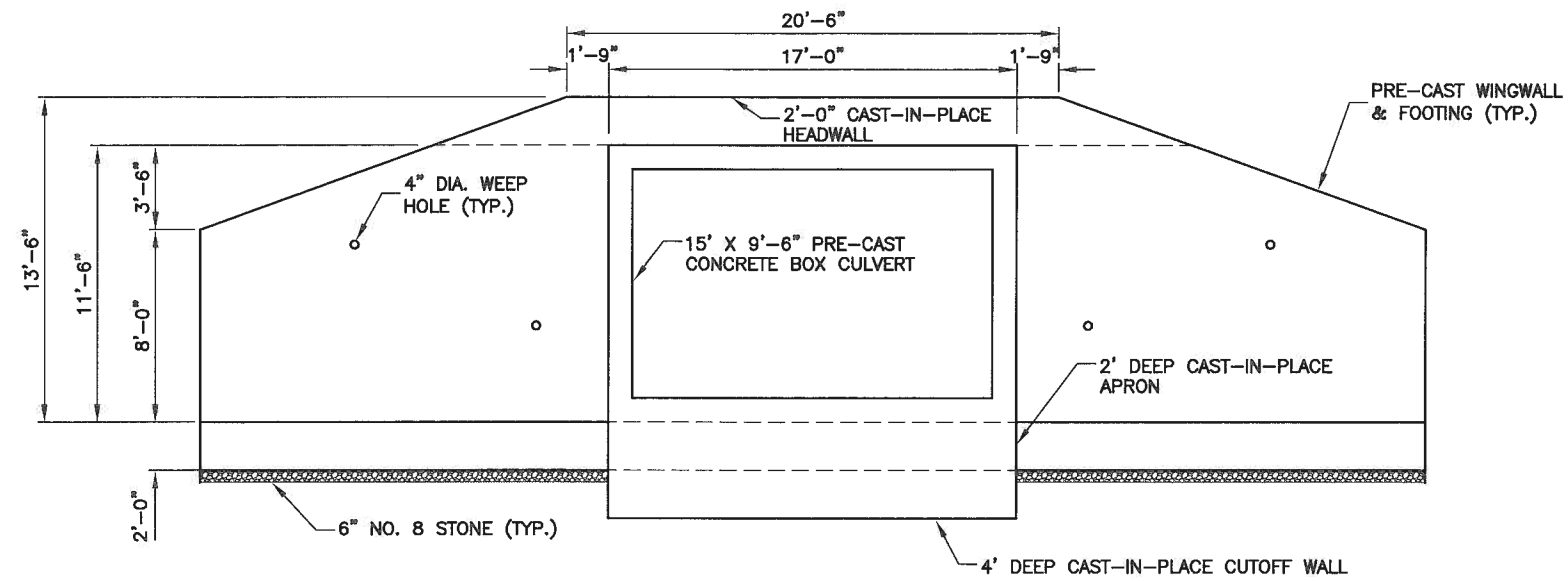
PLAN VIEW, WINGWALL SECTION AND
 HEADWALL SECTION

BRIDGE 28-4.21

NOTE:
 -PLACE 3 BARS OF GALVANIZED REBAR ACROSS BOX
 STRUCTURE DURING BACKFILL PROCESS



SECTION A-A



SECTION B-B

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 STRUCTURAL FILE NUMBER: 4632444

STRUCTURE DETAILS
 SECTION A-A AND SECTION B-B

BRIDGE 28-4.21

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