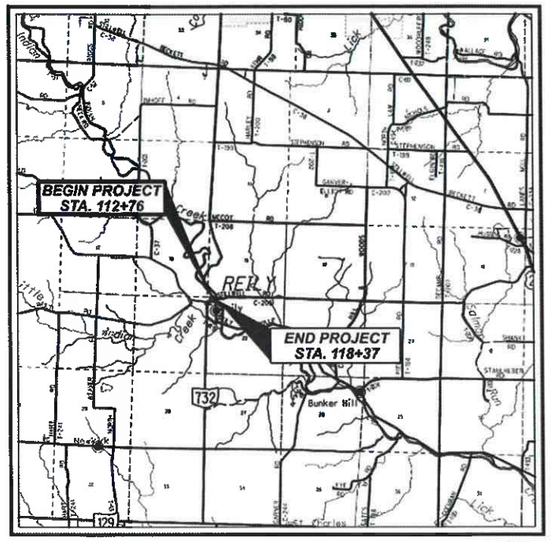
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT-732-3.04

REILY TOWNSHIP

BUTLER COUNTY



LOCATION MAP

LATITUDE: 39 °26'2.8" LONGITUDE: 84 °45' 33.7"

SCALE IN MILES

0 1 2 3 4

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

DESIGN DESIGNATION

CURRENT ADT (2021)	2,000
DESIGN YEAR ADT (2041)	2,600
DESIGN HOURLY VOLUME (2041)	340
DIRECTIONAL DISTRIBUTION	0.13
TRUCKS (24 HOUR B&C)	7%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
05 - MAJOR COLLECTOR (RURAL)

NHS PROJECT ..... NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

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

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 PRODUCTION - BRIDGE OFFICE
505 SOUTH S.R. 741 LEBANON, OH 45036

ENGINEER'S SEAL:

STATE OF OHIO
GARRET T. FREEMAN
E-83489
REGISTERED PROFESSIONAL ENGINEER

SIGNED:
DATE: 6/17/2021

INDEX OF SHEETS:

STANDARD CONSTRUCTION DRAWINGS

MGS-2.1	1/19/18	DM-1.1	7/17/20				
MGS-4.3	1/18/13	DM-1.2	1/18/13				
		DM-4.3	1/15/16				
BP-3.1	1/17/20	DM-4.4	1/15/16				
AS-1-15	7/17/15	TC-61.10	1/17/20				
AS-2-15	1/18/19	TC-61.30	7/19/19				
DBR-2-73	7/19/02	TC-65.10	1/17/14				
DBR-3-11	7/15/11	TC-65.11	7/21/17				
DS-1-92	7/18/03						
EXJ-4-87	1/19/18	MT-97.10	4/19/19				
GSD-1-19	1/18/19						
		MT-101.60	1/17/20				
		MT-101.90	7/17/20				
		MT-105.10	1/17/20				

SUPPLEMENTAL SPECIFICATIONS

800-2019	7/16/21
832	10/19/18
846	4/17/15
878	1/17/20

SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS BUT-SR 732-3.04 DATE: 7/28/21

FEDERAL PROJECT NUMBER

E161 (445)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REHABILITATION OF A BRIDGE CARRYING STATE ROUTE 732 OVER INDIAN CREEK IN REILY TOWNSHIP BY REMOVING AND REPLACING EXISTING REINFORCED CONCRETE DECK ,REPLACING APPROACH SLABS, PROVIDING NEW BEARINGS AND PAINTING ALL STRUCTURAL STEEL.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.14 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.13 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

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 REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY, AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE PLANS.

APPROVED Tammy K Campbell
DATE 6/21/2021 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY

DESIGNER GTF
REVIEWER CAH 05/28/21
PROJECT ID 100829
SHEET 1 TOTAL 28

BUT-732-3.04

MODEL: Sheet PAPERSIZE: ANSI D DATE: 6/21/2021 TIME: 5:49:04 AM USER: gfreeman
DWG: \\ohiodot-pw.bentley.com\ohiodot-pw-02\Documents\Of Active Projects\District 08\Butler\100829\400-Engineering\Roadway\Sheets\100829_GT00t.dgn

UTILITIES

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

BUTLER RURAL ELECTRIC COOPERATIVE, INC.
3888 STILLWELL-BECKETT ROAD
OXFORD, OH 45056
513-867-4438 (RAY BRUNNER)
RAYB@BUTLERRURAL.COOP

DUKE ENERGY - ELECTRIC (DISTRIBUTION)
2010 DANA AVE
CINCINNATI, OH 45207
513-514-8211 (AARON WRIGHT)
AARON.WRIGHT@DUKE-ENERGY.COM

CINCINNATI BELL - AERIAL & PLACING
221 E. 4TH ST., BLDG. 121-900
CINCINNATI, OH 45201
513-565-6014 (ROB STROCHINSKY)
ROBERT.STROCHINSKY@CINBELL.COM
ROADPROJECTS@CINBELL.COM

CINCINNATI BELL - UNDERGROUND STRUCTURES
221 E. 4TH ST., BLDG. 121-900
CINCINNATI, OH 45201
513-565-7187 (OFFICE)
BRECK.COWAN@CINBELL.COM
ROADPROJECTS@CINBELL.COM

SOUTHWEST REGIONAL WATER DISTRICT
3640 OLD OXFORD HIGHWAY
HAMILTON, OH 45013
513-863-0828 (TOM PUCKETT)
PUCKETTT@SWWATER.ORG

CHARTER COMMUNICATIONS
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM
513-386-5499 (KENT RIEGER)
KENT.RIEGER@CHARTER.COM

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, FOLLOW ALL LOCAL NOISE ORDINANCE RESTRICTIONS.
IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

SOLE SOURCE AQUIFER

THIS PROJECT IS LOCATED WITHIN THE GREAT MIAMI SOLE SOURCE AQUIFER. USE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. DO NOT STORE FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. MAINTAIN A SPILL KIT ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. REPORT ALL SPILLS OR EVENTS TO BUTLER COUNTY WATER AND SEWER, (513) 887-3066. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), CONTACT REILY TOWNSHIP FIRE DEPARTMENT & EMS (STATION 131), (513) 756-0814 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL.

INDIANA BAT HABITAT

ENSURE IMPACTS TO THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT AND THE STATE LISTED AND PROTECTED LITTLE BROWN BAT AND TRICOLORED BAT ARE AVOIDED AND MINIMIZED. DO NOT REMOVE TREES FROM APRIL 1 THROUGH SEPTEMBER 30. PERFORM ALL NECESSARY TREE REMOVAL FROM OCTOBER 1 THROUGH MARCH 31. 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.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 7 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.
USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: IRON PINS
VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAV 88
GEOID: 18
HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (2011)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE SOUTH ZONE (3402)
COMBINED SCALE FACTOR: 1.00000000
ORIGIN OF COORDINATE SYSTEM: N=0 E=0

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

UNITS ARE IN U.S. SURVEY FEET.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

CLEARING AND GRUBBING, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING. WORK TO BE INCLUDED IN THIS PAY ITEM IS TO INCLUDE THE REMOVAL OF ALL DEBRIS WITHIN THE VICINITY OF THE PIER.

WORK LIMITS

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

SEEDING AND MULCHING

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

659, SEEDING AND MULCHING 500 SQ. YD.
659, COMMERCIAL FERTILIZER 0.05 TON
659, LIME 0.1 ACRES
659, WATER 1.4 M. GAL.

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

A+B BIDDING CONTRACT TABLE

USE THE FOLLOWING INFORMATION IN COMBINATION WITH THE PROPOSAL NOT 124 A+B BIDDING:

THE CONTRACTOR WILL BID THE NUMBER OF CALENDER DAYS TO COMPLETE THE PROJECT AS LISTED IN THE PROPOSAL.

LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE $
COMPLETE BRIDGE DECK REPLACEMENT, APPROACH PAVEMENT WORK, FIELD PAINTING OF STRUCTURAL STEEL AND OPEN TRAFFIC UP TO THE ORIGINAL CONFIGURATION (STRUCTURE NO. BUT-732-0304)	60	80	$3,000	$30,000

ENVIRONMENTAL EXCLUSIONARY DATES (AQUATIC SPECIES)

TEMPORARY ACCESS FILLS PLACING FILL MATERIAL IN THE STREAM AS PART OF ITEM 503 - COFFERDAMS AND EXCAVATION BRACING SHALL NOT BE CONSTRUCTED FROM THE DATES BEGINNING 4/15 TO 7/1 AND ANY TEMPORARY ACCESS FILLS THAT FULLY SPAN THE ENTIRE WIDTH OF THE STREAM SHALL NOT BE CONSTRUCTED FROM THE DATES BEGINNING 9/15 TO 7/1. TEMPORARY ACCESS FILLS CONSTRUCTED OUTSIDE OF THESE EXCLUSIONARY DATES ARE PERMITTED TO STAY IN PLACE DURING THE EXLCUSIONARY PERIODS SET FORTH ABOVE. ANY WORK INVOLVING PLACEMENT OF FILL MATERIAL IN THE STREAM SHALL BE PERFORMED WITHIN THE DATES PROVIDED IN THE TABLE BELOW AND OUTSIDE OF THE EXCLUSIONARY DATES.

DESCRIPTION OF WORK	CALENDER DAYS TO COMPLETE	WORK WINDOW	
		START	END
CONSTRUCTION OF PART-WIDTH TEMPORARY ACCESS FILLS IN STREAM.	137	3/1/2022	10/1/2022

PETROLEUM CONTAMINATED SOILS NOTES

ENVIRONMENTAL WORK

ENVIRONMENTAL STUDIES HAVE SHOWN THAT THERE IS THE POTENTIAL FOR ENCOUNTERING PETROLEUM CONTAMINATED MATERIALS WITHIN THE PROJECT LIMITS. IN THE EVENT PETROLEUM-CONTAMINATED MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL MANAGE THIS MATERIAL ACCORDING TO THE FOLLOWING NOTES. THE ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS WORK. ALL EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS SHALL BE PAID FOR UNDER THE ORIGINAL PLAN BID ITEMS.

PETROLEUM CONTAMINATED SOILS NOTES (CONT.)

MATERIAL SAMPLING

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH TEN (10) DAYS NOTICE PRIOR TO BEGINNING ANY EXCAVATION WITHIN THE AFOREMENTIONED LIMITS TO ARRANGE FOR THE NECESSARY SCREENING AND SEGREGATION OPERATIONS. ALL MATERIAL EXCAVATED BY THE CONTRACTOR BY DURING CONSTRUCTION AND WITHIN THE SPECIFIED LIMITS SHALL BE SCREENED, SEGREGATED AND TESTED BY AN INSPECTOR PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

MATERIAL EVALUATION

THE ENGINEER SHALL DETERMINE THE REGULATORY CLASSIFICATION OF THE SPECIFIED EXCAVATED MATERIALS BASED ON TEST RESULTS PROVIDED BY THE CONTRACTOR. THE EXCAVATED MATERIALS MAY BE CLASSIFIED INTO PCS OR INTO MATERIALS WHICH MAY BE USED AS BACKFILL OR OTHER PROJECT PURPOSES, PROVIDED IT MEETS THE APPROPRIATE ODOT SPECIFICATIONS.

ITEM SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOIL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS AND TO TRANSPORT THE MATERIALS TO A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY) SOLID WASTE DISPOSAL FACILITY OR A PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY (PCSRF) FOR PROPER DISPOSAL OR REMEDIATION. PRIOR TO DISPOSAL, THE CONTRACTOR SHALL CONTACT THE PROPOSED FACILITY TO DETERMINE THE ADDITIONAL TESTING REQUIRED FOR DISPOSAL OR REMEDIATION AT THAT FACILITY. THE PRICES FOR THESE TESTS ARE TO BE INCLUDED IN THE ABOVE PAY ITEM. THE WORK INVOLVED WITH THIS PAY ITEM INCLUDES HANDLING, STORAGE, TESTING (FOR DISPOSAL OR REMEDIATION) AND DISPOSAL OR REMEDIATION OF PCS. WHEN DIRECTED BY THE PROPOSED FACILITY, THE CONTRACTOR SHALL HAVE AN INDEPENDENT LABORATORY COLLECT SAMPLES AND TEST THE EXCAVATED OR STORED MATERIALS FOR PCS DISPOSAL OR REMEDIATION APPROVAL.

AS AN ALTERNATIVE, THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED MATERIALS FROM THE AFOREMENTIONED LIMITS INTO TRUCKS FOR SUBSEQUENT DISPOSAL APPROPRIATE FOR PETROLEUM CONTAMINATED SOILS AS DETAILED ABOVE.

TEMPORARY STORAGE OF CONTAMINATED SOILS

ALL MATERIALS EXCAVATED BY THE CONTRACTOR BETWEEN THESE LIMITS MAY BE STOCKPILED IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL IN A LINED AND COVERED ROLL OFF BOX. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL ON AN IMPERMEABLE MEMBRANE. THE MEMBRANE SHALL BE SURROUNDED BY BALES OF STRAW TO PREVENT THE SUSPECTED SOILS FROM COMING IN CONTACT WITH PRECIPITATION AND/OR SURFACE RUNOFF. AN IMPERMEABLE MEMBRANE SHALL BE PLACED OVER THE STOCKPILE TO PREVENT CONTACT WITH PRECIPITATION AND/OR SURFACE RUN-OFF. THE ENGINEER MAY ALSO PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED CONTAMINATED MATERIAL INTO TRUCKS UNTIL A DETERMINATION OF PROPOSED USE IS MADE BY THE ENGINEER.

GENERAL NOTES

ALL TRANSPORT VEHICLES USED FOR THE MOVEMENT OF REGULATED SOILS AND/OR WATER SHALL MEET APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL MAINTAIN RECORDS (SUCH AS DAILY LOGS, LANDFILL TICKETS, MANIFESTS, ETC.) THAT DOCUMENT THE SOURCE, MOVEMENT AND DESTINATION OF EACH TRUCK LOAD OF CONTAMINATED MATERIAL. ONE COPY OF EACH OF THESE RECORDS SHALL BE SUBMITTED TO THE ENGINEER.

BASIS OF PAYMENT

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY EXCAVATE, STORE, TEST (FOR DISPOSAL), TRANSPORT AND DISPOSE OF CONTAMINATED MATERIALS, INCLUDING ANY REQUIRED APPROVALS OR FEES WITHIN THE SPECIFIED LIMITS. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE PER TON AND PER GALLON. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED HEREIN. A CONVERSION FACTOR OF 1.5 TONS PER CUBIC YARD SHALL BE USED TO CONVERT CUBIC YARDS TO TONS:

690E65016 ITEM SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOIL 9 TON

GENERAL NOTES

DESIGN AGENCY

DESIGNER GTF
REVIEWER CAH 05/28/21
PROJECT ID 100829
SHEET 2 TOTAL 28

BUT-732-3.04

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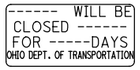
ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 80 CONSECUTIVE CALENDAR DAYS BEGINNING NO EARLIER THAN 4/1/2022, WHEN TRAFFIC IS TO BE DETOURED. MAINTAIN ACCESS TO ALL ADJACENT DRIVES AT ALL TIMES. MAINTAIN TRAFFIC ON REILY-MILLVILLE RD. AT ALL TIMES, EXCEPT ONE LANE OF TWO -WAY TRAFFIC MAY BE MAINTAINED BY THE USE OF FLAGGERS DURING PAVING OPERATIONS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]



W20-H14

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	> 2 WEEKS	14 CALENDER DAYS PRIOR TO CLOSURE
	> 12 HOURS < 2 WEEKS	7 CALENDER DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

S.R. 732 JUST NORTH OF STILLWELL RD. INTERSECTION
S.R. 732 JUST NORTHEAST OF REILY-MILLVILE RD. INTERSECTION
STILLWELL RD. JUST EAST OF THE S.R. 732 INTERSECTION

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614, DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL DETOUR SIGNING AND SUPPORTS AS SHOWN ON SHEET 4 AND ON STANDARD CONSTRUCTION DRAWING MT-101.60. ALL WORK SHALL BE PAID FOR UNDER ITEM 614, DETOUR SIGNING.

NOTIFICATION OF TRAFFIC RESTRICTIONS

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

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

NOTIFICATION TIME TABLE		
ITEM	*DURATION OF CLOSURE*	*NOTICE DUE TO LISTED CONTACTS*
RAMP & ROAD CLOSURES	*>= 2 WEEKS*	*21 CALENDAR DAYS PRIOR TO CLOSURE*
	> 12 HOURS & < 2 WEEKS	*14 CALENDAR DAYS PRIOR TO CLOSURE*
	< 12 HOURS	*4 BUSINESS DAYS PRIOR TO CLOSURE*
LANE CLOSURES & RESTRICTIONS	*>= 2 WEEKS*	*14 CALENDAR DAYS PRIOR TO CLOSURE*
	< 2 WEEKS	*5 BUSINESS DAYS PRIOR TO CLOSURE*
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	*N/A*	*14 CALENDAR DAYS PRIOR TO IMPLEMENTATION*

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

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER GTF

REVIEWER CAH 05/28/21

PROJECT ID 100829

SHEET 3 TOTAL 28

BUT-732-3.04

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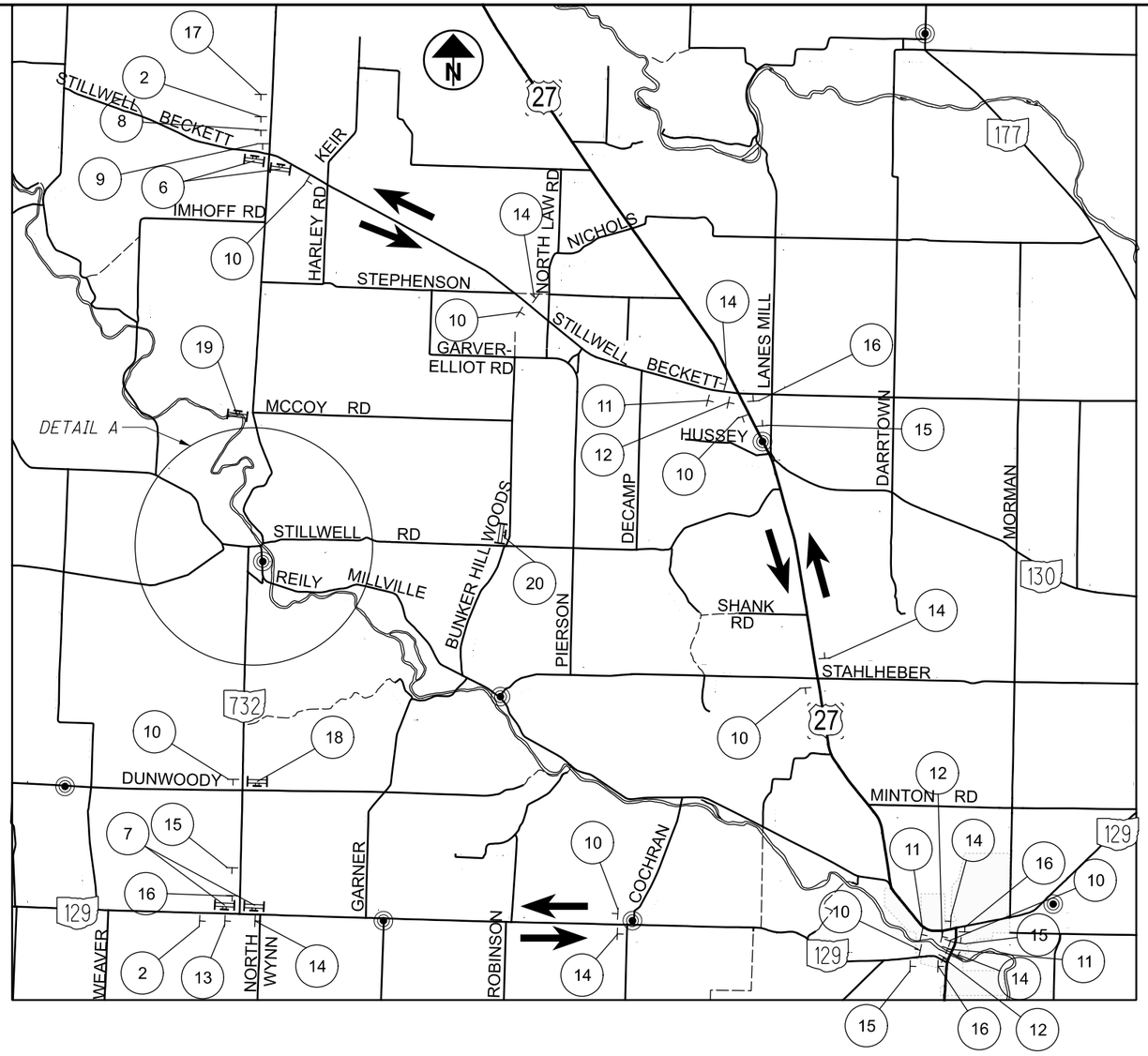


1 — ROAD WORK AHEAD
W20-1-36
WITH TYPE A WARNING LIGHT

2 — DETOUR 1500 FT
W20-2-36

3 — ROAD CLOSED 500 FT
W20-3-36

4 — ROAD CLOSED 1000 FT
W20-3-36
WITH TYPE A WARNING LIGHT

5 — ROAD CLOSED
R11-2-48
2 SIGNS PER DIRECTION ON TYPE III BARRICADES W/TYPE B FLASHING WARNING LIGHT PER SIGN

6 — ROAD CLOSED 3.3 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR
R11-3A-60
M4-10L-48
ON TYPE III BARRICADES

7 — ROAD CLOSED 3.0 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR
R11-3A-60
M4-10R-48
ON TYPE III BARRICADES

8 — DETOUR SOUTH 732
M4-8-24
M3-3-24
M1-5-30-3
M5-1-21

9 — DETOUR SOUTH 732
M4-8-24
M3-3-24
M1-5-30-3
M6-1-21

10 — DETOUR SOUTH 732
M4-8-24
M3-3-24
M1-5-30-3

11 — DETOUR SOUTH 732
M4-8-24
M3-3-24
M1-5-30-3
M5-1-21

12 — DETOUR SOUTH 732
M4-8-24
M3-3-24
M1-5-30-3
M6-1-21

13 — DETOUR NORTH 732
M4-8-24
M3-1-24
M1-5-30-3
M6-3-21

14 — DETOUR NORTH 732
M4-8-24
M3-1-24
M1-5-30-3

15 — DETOUR NORTH 732
M4-8-24
M3-1-24
M1-5-30-3
M5-1-21

16 — DETOUR NORTH 732
M4-8-24
M3-1-24
M1-5-30-3
M6-1-21

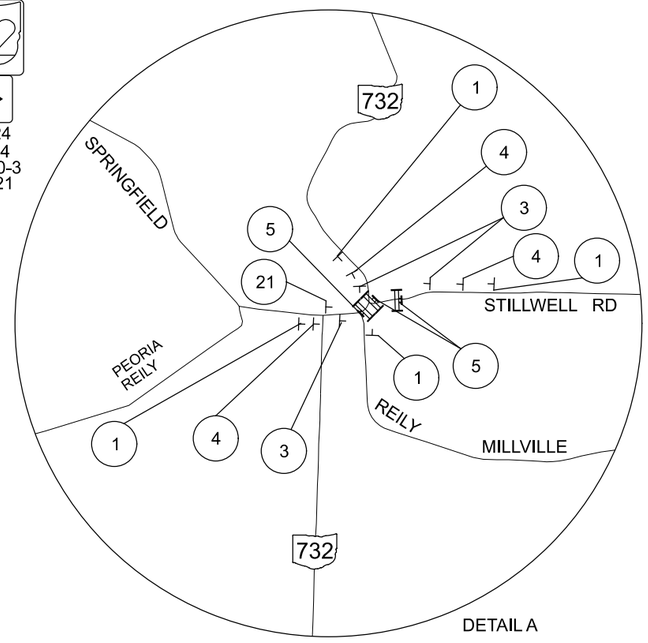
17 — ROAD CLOSED AHEAD
W20-3-36

18 — ROAD CLOSED 2.0 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3A-60

19 — ROAD CLOSED 1.3 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3A-60

20 — BECKETT RD CLOSED AT SR 732 LOCAL TRAFFIC ONLY
R11-3A-60
(MODIFIED)

21 — ROAD CLOSED LOCAL TRAFFIC ONLY / DETOUR
R11-3A-60



HORIZONTAL SCALE IN FEET
0 10 20 40

DETOUR PLAN

DESIGN AGENCY

DESIGNER GTF
REVIEWER CAH 05/28/21
PROJECT ID 100829
SHEET 4 TOTAL 28

BUT-732-3.04

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	6												01/STR/BR						
																		ROADWAY	
LUMP													LUMP	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	2
	184												184	202	22900	184	SY	APPROACH SLAB REMOVED	
	243												243	202	23000	243	SY	PAVEMENT REMOVED	
													50	202	38000	50	FT	GUARDRAIL REMOVED	
													1	202	42040	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
													4	202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
	178												178	204	30020	178	CY	GRANULAR MATERIAL, TYPE C	
	534												534	204	10000	534	SY	SUBGRADE COMPACTION	
	178												178	204	13000	178	CY	EXCAVATION OF SUBGRADE 12" DEPTH	
	534												534	204	50000	534	SY	GEOTEXTILE FABRIC	
	0.09												0.09	209	15050	0.09	MILE	RESHAPING UNDER GUARDRAIL	
													50	606	15050	50	FT	GUARDRAIL, TYPE MGS	
													1	606	26550	1	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
													4	606	35140	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
													LUMP	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																		EROSION CONTROL	
500													500	659	10000	500	SY	SEEDING AND MULCHING	
0.05													0.05	659	20000	0.05	TON	COMMERCIAL FERTILIZER	
0.1													0.1	659	31000	0.1	ACRE	LIME	
1.4													1.4	659	35000	1.4	MGAL	WATER	
													1,000	832	30000	1,000	EACH	EROSION CONTROL	
																		ENVIRONMENTAL / REMEDIATION	
													1	202	66500	1	EACH	UNDERGROUND STORAGE TANK REMOVED	
													9	SPECIAL	69065016	9	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	2
																		PAVEMENT	
	479												479	254	01000	479	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.25")	
	57												57	301	46000	57	CY	ASPHALT CONCRETE BASE, PG64-22	
	83												83	304	20000	83	CY	AGGREGATE BASE	
	265												265	407	20000	265	GAL	NON-TRACKING TACK COAT	
	26												26	441	50000	26	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	53												53	441	50300	53	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
																		TRAFFIC CONTROL	
													3	621	00100	3	EACH	RPM	
													3	621	54000	3	EACH	RAISED PAVEMENT MARKER REMOVED	
													6	626	00110	6	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
													0.1	644	00104	0.1	MILE	EDGE LINE, 6"	
													0.05	644	00300	0.05	MILE	CENTER LINE	
													0.1	646	10010	0.1	MILE	EDGE LINE, 6"	
													0.05	646	10200	0.05	MILE	CENTER LINE	
																		MAINTENANCE OF TRAFFIC	
													LUMP	614	12420	LS		DETOUR SIGNING	
																		INCIDENTALS	
													LUMP	614	11000	LS		MAINTAINING TRAFFIC	
													LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER GTF

REVIEWER CAH 05/28/21

PROJECT ID 100829

SHEET 5 TOTAL 28

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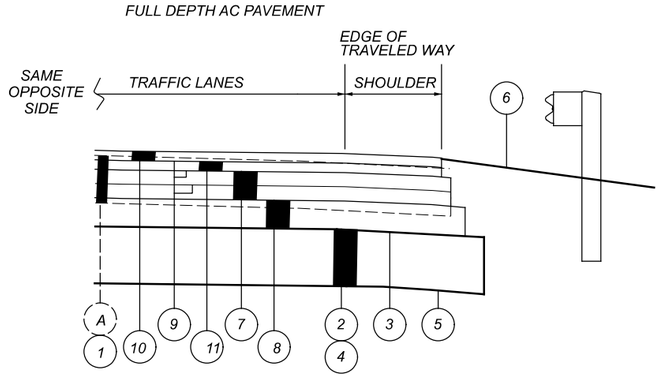
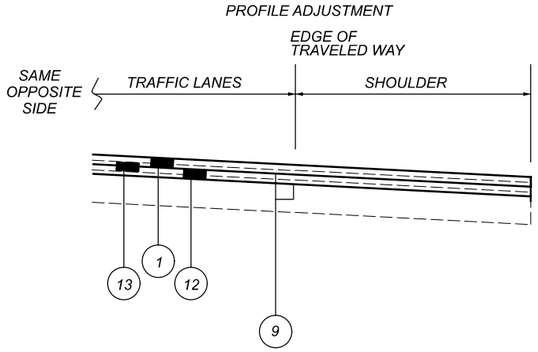
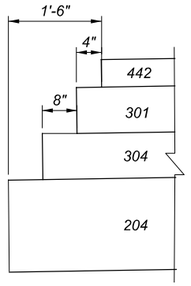
FULL DEPTH AC PAVEMENT



PROFILE ADJUSTMENT





BASE STEP DETAIL
(NTS)

LEGEND

1	ITEM 202	-	PAVEMENT REMOVED
2	ITEM 204	-	GRANULAR MATERIAL, TYPE C
3	ITEM 204	-	SUBGRADE COMPACTION
4	ITEM 204	-	EXCAVATION OF SUBGRADE, 12" DEPTH
5	ITEM 204	-	GEOTEXTILE FABRIC
6	ITEM 209	-	GRADING UNDER GUARDRAIL
7	ITEM 301	-	8" ASPHALT CONCRETE BASE, PG64-22
8	ITEM 304	-	6" AGGREGATE BASE
9	ITEM 407	-	NON-TRACKING TACK COAT
10	ITEM 441	-	1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
11	ITEM 441	-	1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
12	ITEM 441	-	VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
13	ITEM 254	-	PAVEMENT PLANING (T=1.25")
A	EXISTING PAVEMENT		(AC SURFACE/INT.THICKNESS = `3") (AC BASE THICKNESS = `8") (AGGREGATE THICKNESS = `7")

PAVEMENT CALCULATIONS

ROUTE	STATION FROM	STATION TO	LENGTH	PAVEMENT AREA	202 PAVEMENT REMOVED	202 APPROACH SLAB REMOVED	204 GRANULAR MATERIAL, TYPE C	204 SUBGRADE COMPACTION	204 EXCAVATION OF SUBGRADE, 12" DEPTH	204 GEOTEXTILE FABRIC	209 RESHAPING UNDER GUARDRAIL	254 PAVEMENT PLANING ASPHALT CONCRETE DEPTH	254 PAVEMENT PLANING ASPHALT CONCRETE	301 8" ASPHALT CONCRETE BASE, PG64-22	304 6" AGGREGATE BASE	407 NON TRACKING TACK COAT @ 0.09 GAL/SQ YD	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 THICK-NESS	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) THICK-NESS	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICK.) AVE. THICK-NESS	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (VARIABLE THICK.)	NOTES
			FT	SQ YD	SQ YD	SQ YD	CU YD	SQ YD	CU YD	SQ YD	MILE	INCHES	SQ YD	CU YD	CU YD	GAL	INCHES	CU YD	INCHES	CU YD	INCHES	CU YD	
BUT SR 732	11+28.20	11+89.42	61	181							0.02	1.25	181			32.5	1.25	6			4.25	21	PROFILE ADJUSTMENT
BUT SR 732	11+89.42	12+11.41	22	78	78		33	98	33	98	0.01			18	15	21.0	1.25	3	1.75	4			FULL DEPTH AC PAVEMENT
BUT SR 732	12+11.41	12+36.39	25	89		89	37	110	37	110	0.01				17								REAR APPROACH SLAB
BUT SR 732	12+36.39	13+40.61	104	0																			
BUT SR 732	13+40.61	13+61.32	21	95		95	39	117	39	117	0.01				18								FORWARD APPROACH SLAB
BUT SR 732	13+61.32	13+91.85	31	90	90		37	111	37	111	0.01			21	17	24.2	1.25	3	1.75	4			FULL DEPTH AC PAVEMENT
BUT SR 732	13+91.85	14+20.00	28	103							0.01	1.25	103				1.25	4			1.00	3	PROFILE ADJUSTMENT
REILLY-MILLVILLE	00+10.35	00+40.00	30	183							0.01	1.25	183			32.9	1.25	6			3.00	15	PROFILE ADJUSTMENT
DRIVE	00+16.79	00+25.00	8	12							0.01	1.25	12			2.2	1.25	1			3.00	1	PROFILE ADJUSTMENT
STILLWELL	00+13.57	00+40.00	26	75	75		32	97	32	97	0.01			18	15	20.3	1.25	3	1.75	4			FULL DEPTH AC PAVEMENT
TOTALS CARRIED TO GENERAL SUMMARY					243	184	178	534	178	534	0.10		479	57	83	265		26		12		41	

DESIGN AGENCY

DESIGNER GTF

REVIEWER CAH 05/28/21

PROJECT ID 100829

SHEET 6 TOTAL 28

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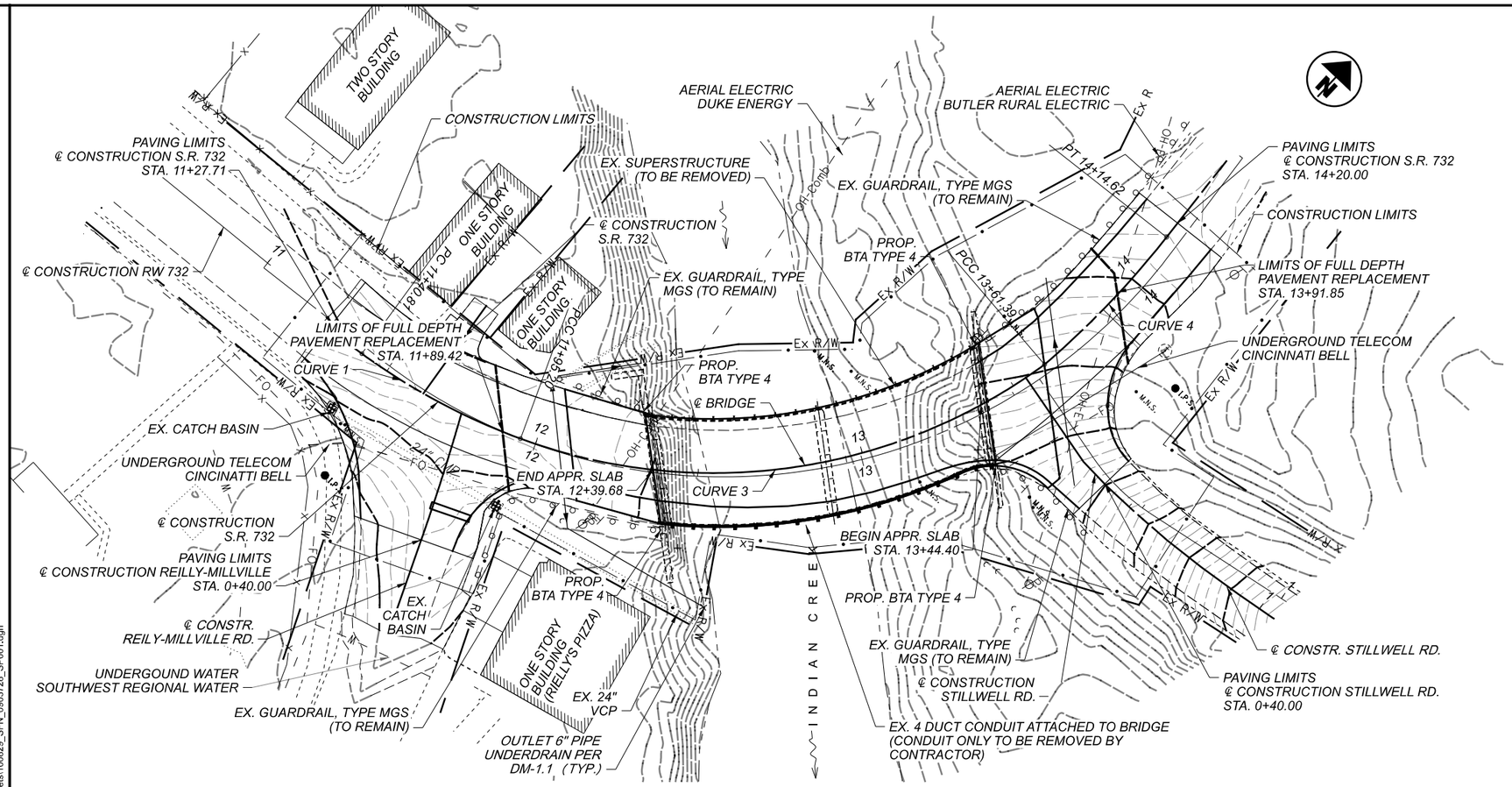
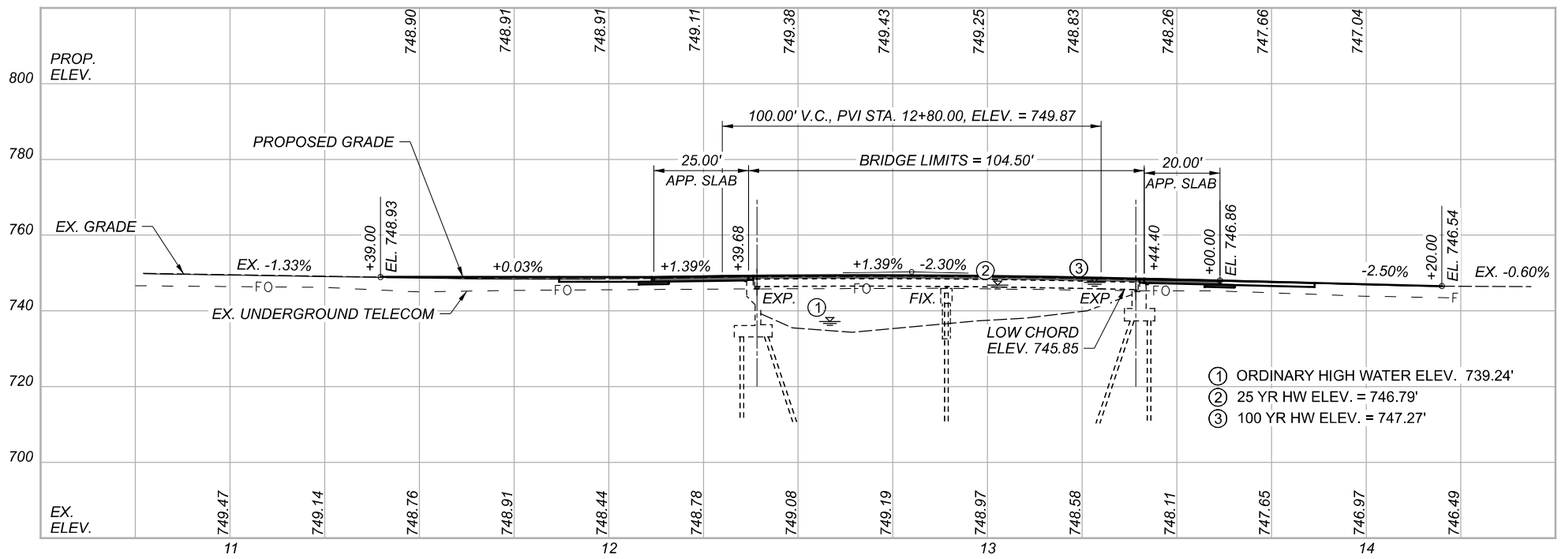


PLAN



PROFILE ALONG ℄ CONSTRUCTION

BENCHMARK DATA

BM #1 STA.	11+53.25	ELEV.	747.63	OFFSET	38.07' RT.	IPIN
BM #2 STA.	13+49.41	ELEV.	747.41	OFFSET	20.44' LT.	MON
BM #3 STA.	13+86.78	ELEV.	747.86	OFFSET	28.10' RT.	IPIN

HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN TRAFFIC:

2021 ADT = 2000 2041 ADTT = 2600
2021 ADT = 140 2041 ADTT = 182
DIRECTIONAL DISTRIBUTION = 0.13

HYDRAULIC DATA

DRAINAGE AREA = 56.6 SQ. MILES
Q (25) = 8060 CFS V (25) = 11.7 FT/S
Q (100) = 10430 CFS V (100) = 14.21 FT/S
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 0.0 FEET.

CURVE DATA

CURVE 1 ℄ CONSTR. S.R. 732	CURVE 3 ℄ CONSTR. S.R. 732	CURVE 4 ℄ CONSTR. S.R. 732
P.I. = Sta. 11+68.18	P.I. = Sta. 12+85.76	P.I. = Sta. 13+88.09
Δ = 15°56'57" LT	Δ = 56°30'13" LT	Δ = 11°18'05" LT
Dc = 29°19'20"	Dc = 33°59'58"	Dc = 21°13'56"
R = 195.40'	R = 168.52'	R = 269.85'
T = 27.37'	T = 90.56'	T = 26.70'
L = 54.39'	L = 166.19'	L = 53.23'
E = 1.91'	E = 22.79'	E = 1.32'

EXISTING STRUCTURE

TYPE: CONTINUOUS COMPOSITE STEEL BEAM WITH REINF. CONCRETE DECK AND SUBSTRUCTURE

SPANS: 50'-0"±, 50'-0"± C/C BEARINGS ALONG ℄ BRIDGE
ROADWAY: 32'-0" F/F RAILING
LOADING: HS-20-44 CASE II AND ALT. MILITARY LOADING
SKEW: 3°-30'-00" LT. FWD. TO REF. CHORD
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-81 (20' LONG)
ALIGNMENT: 34° CURVE LT.
CROWN: SUPERELEVATED (0.048 FT/FT MAX.)
STRUCTURE FILE NUMBER: 0903736
DATE BUILT: 1991
DISPOSITION: EXISTING CONCRETE DECK TO BE REPLACED

PROPOSED STRUCTURE

PROPOSED WORK:
REPLACE CONCRETE DECK WITH NEW 8.5" THICK REINFORCED CONCRETE DECK. REPLACE APPROACH SLABS. PROVIDE NEW ELASTOMERIC BEARINGS. FIELD PAINT ALL STRUCTURAL STEEL. SEAL DECK EDGES AND SUBSTRUCTURE CONCRETE.
SPANS: 50'-0"±, 50'-0"± C/C BEARINGS ALONG ℄ BRIDGE
ROADWAY: 32'-0" F/F RAILING
LOADING: HL93
SKEW: 3°-30'-00" LT. FWD. TO REF. CHORD
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: AS-1-15 (20' LONG)
ALIGNMENT: 34° CURVE LT.
CROWN: SUPERELEVATED (0.04 FT/FT MAX)
DECK AREA: 3200 SF
COORDINATES: LATITUDE N39° 26' 2.76"
LONGITUDE W84° 45' 33.66"

SITE PLAN
BRIDGE No.: BUT-732-0304
S.R. 732 OVER INDIAN CREEK

SFN 0903728
DESIGN AGENCY
DESIGNER GTF | CHECKER
REVIEWER CAH 05/28/21
PROJECT ID 100829
SUBSET 1 | TOTAL 17
SHEET 12 | TOTAL 28

BUT-732-3.04

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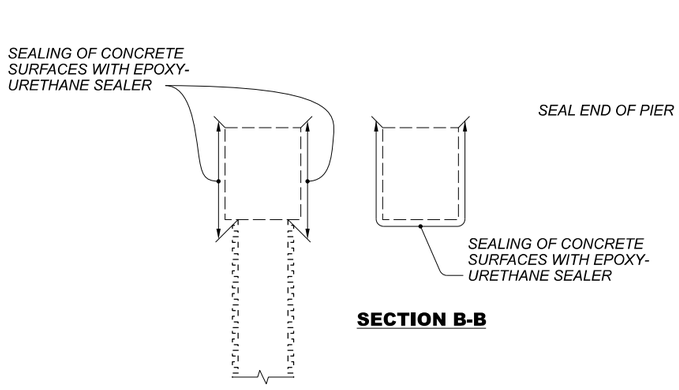
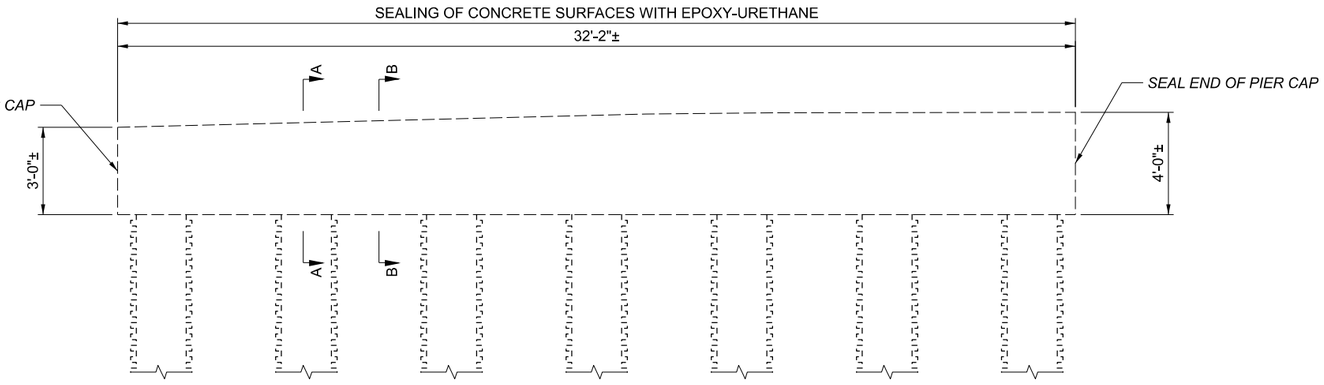
ESTIMATED QUANTITIES - STRUCTURE No.: BUT-732-0304 (01/STR/BR FUNDING SPLIT)								
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING				LUMP
509	10000	35977	LB	EPOXY COATED REINFORCING STEEL	765		35212	
509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	100			
510	10001	59	EACH	DOWEL HOLES, AS PER PLAN	59			
511	53014	93	CY	CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN			**93**	
511	53014	4	CY	CLASS QC3 CONCRETE, MISC.: SUBSTRUCTURE CONCRETE WITH QC/QA, AS PER PLAN	4			
512	10101	208	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	137	29	42	
512	74000	50	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	50			
513	10200	1812	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF			1812	
513	20000	480	EACH	WELDED STUD SHEAR CONNECTORS			480	
514	00050	5052	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			5052	
514	00056	5066	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			5,066	
514	00060	5066	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			5,066	
514	00066	5066	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			5,066	
514	00504	8	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			8	
514	10000	5	EACH	FINAL INSPECTION REPAIR			5	
516	11210	70	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			70	
516	13600	4	SF	1" PREFORMED EXPANSION JOINT FILLER	4			
516	44300	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (T=4.073")	5			
516	47001	LS	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP
518	22300	195	FT	SPECIAL - STEEL DRIP STRIP			195	
517	72200	206.25	FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 1 STEEL POSTS AND ANCHOR BOLTS)			206.25	
526	15011	95	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN				95
526	25011	89	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				89
526	90010	90	FT	TYPE A INSTALLATION				90
846	00110	26	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				26



SECTION B-B

SECTION A-A



PIER CAP SEALING LIMITS ELEVATION

STRUCTURE ESTIMATED QUANTITIES
BRIDGE No.: BUT-732-0304
S.R. 732 OVER INDIAN CREEK

SFN 0903728
DESIGN AGENCY
DESIGNER GTF | CHECKER
REVIEWER CAH 05/28/21
PROJECT ID 100829
SUBSET 4 | TOTAL 17
SHEET 15 | TOTAL 28

BUT-732-3.04

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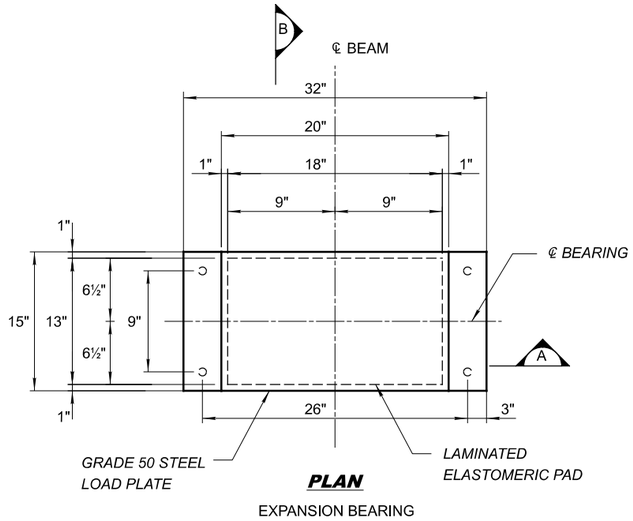
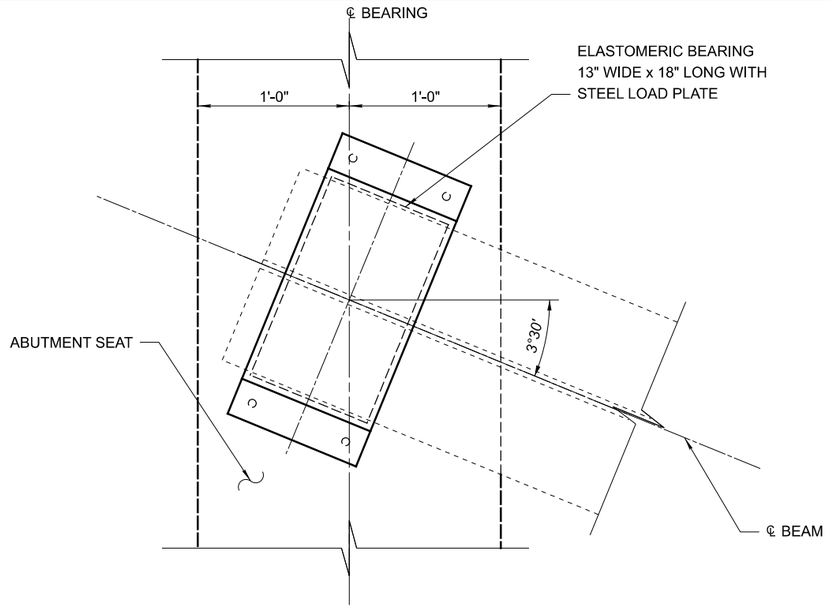


PLAN

EXPANSION BEARING



FORWARD ABUTMENT BEARING DETAIL

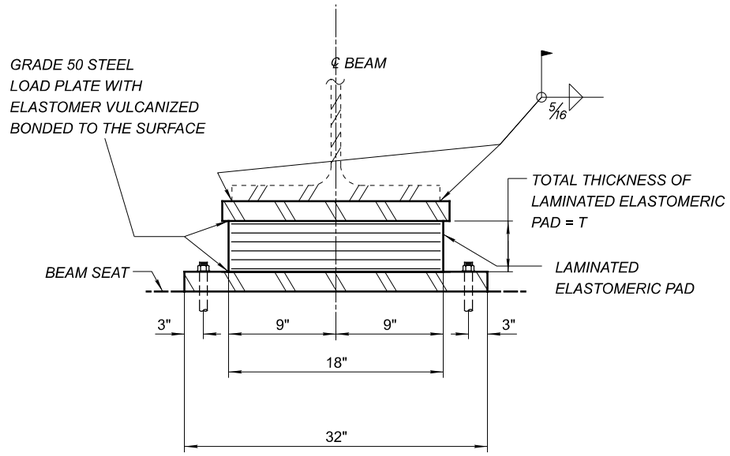
FORWARD ELASTOMERIC PAD DATA FOR EXISTING BEAMS

	SUB-STRUCTURE	ELASTOMERIC PAD							REACTIONS		
		T	NO. OF INTER. LAYERS	ti	te	STEEL LAMINATES NO.	STEEL LAMINATES THICK.	TYPE	DEAD LOAD (KIPS)	LIVE* LOAD (KIPS)	MAXIMUM DESIGN LOAD (K)
BUT-732-0304	FWD. ABUT.	4.073"	5	0.625"	0.250"	6	0.0747"	EXP.	24.01	31.51	55.52

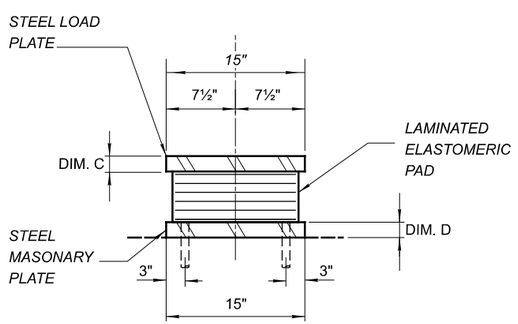
ti = THICKNESS OF INTERNAL ELASTOMER LAYER
te = THICKNESS OF EXTERNAL ELASTOMER LAYER

* W/O IMPACT

FORWARD ABUTMENT ELASTOMERIC BEARING PAD DATA				
BEAM No.	A FIELD MEASURED BEARING HEIGHT	B PROPOSED BEARING THICKNESS	C REQ'D LOAD ℙ THICKNESS AT ℄ BEARING (TOP)	D REQ'D MASONARY ℙ THICKNESS AT ℄ BEARING
1	±6.50"	4.073"	1.25"	.875"
2	±6.25"	4.073"	1.00"	.875"
3	±6.25"	4.073"	1.00"	.875"
4	±6.25"	4.073"	1.00"	.875"
5	±6.00"	4.073"	1.00"	.875"



SECTION A-A



SECTION B-B

ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATES (NEOPRENE), AS PER PLAN

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60° F (±) 10° F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F.

STRUCTURAL STEEL FOR BEARING LOAD PLATE, MASONRY PLATE, AND SHIMS SHALL BE A709 GRADE 50 AND INCLUDED ITEM 516 FOR PAYMENT. ALL STRUCTURAL STEEL USED FOR THE PROPOSED BEARING SHALL BE FIELD PAINTED PER OZEU. PAINT COLOR SHALL BE FEDERAL COLOR 14277 AND BE INCLUDED IN ITEM 514 FOR PAYMENT.

THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS PRIOR TO JACKING OPERATIONS. THE CONTRACTOR IS TO SUBMIT THE VERIFIED ELEVATIONS TO THE DISTRICT 8 BRIDGE ENGINEER PRIOR TO JACKING. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED.

ANY BEARING HP-SECTION HEIGHTS OR DIMENSIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE SHOWN FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE HEIGHT OF REQUIRED BEARING ASSEMBLY AND THICKNESS OF ANY ADDITIONAL SHIMS BY MEASURING THE DISTANCE BETWEEN THE BEAM SEAT ELEVATION AND THE BOTTOM OF THE EXISTING BEAM FLANGE AND THEN SUBTRACTING FROM THAT DISTANCE THE THICKNESS OF THE BEARING AND LOAD PLATES. EACH BEARING ASSEMBLY SHALL HAVE A MAXIMUM OF ONE SHIM. STACKING OF MULTIPLE SHIMS ARE NOT PERMITTED.

ANY PLATE THICKNESS ADJUSTMENTS AND/OR SHIMS REQUIRED TO COMPLETE THE BEARINGS INSTALLATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A MAXIMUM OF ONE SHIM PLATE SHALL BE ALLOWED PER BEARING.

IN ADDITION TO THE REQUIREMENTS OF 516 AND THE DETAILS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL ASSURE THAT THERE IS A SNUG FIT BETWEEN THE BEARING DEVICE AND BEARING SEAT. THE CONTRACTOR SHALL ASSURE THAT NO BEAMS OR BEARING DEVICES ARE FLOATING.

SET MASONARY PLATES ON BRIDGE SEATS THAT ARE FLAT AND SMOOTHLY FINISHED. IF THE BRIDGE SEAT AREA IS UNEVEN, USE A BUSHHAMMER OR GRINDER FOLLOWED BY A THIN FILM OF PORTLAND CEMENT MORTAR OR PASTE TO FILL THE PITTED SURFACE TO BRING THE SEAT AREA TO THE PROPER ELEVATION AND PROVIDE A LEVEL, EVEN SURFACE.

BASIS OF PAYMENT: THE UNIT PRICE BIDS SHALL INCLUDE ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS WITH STEEL LOAD PLATES INCLUDING GRINDING OF WELDS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

ELASTOMERIC BEARING DETAIL
BRIDGE No.: BUT-732-0304
S.R. 732 OVER INDIAN CREEK

SFN 0903728
DESIGN AGENCY
DESIGNER GTF | CHECKER
REVIEWER CAH 05/28/21
PROJECT ID 100829
SUBSET 10 | TOTAL 17
SHEET 21 | TOTAL 28

BUT-732-3.04

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