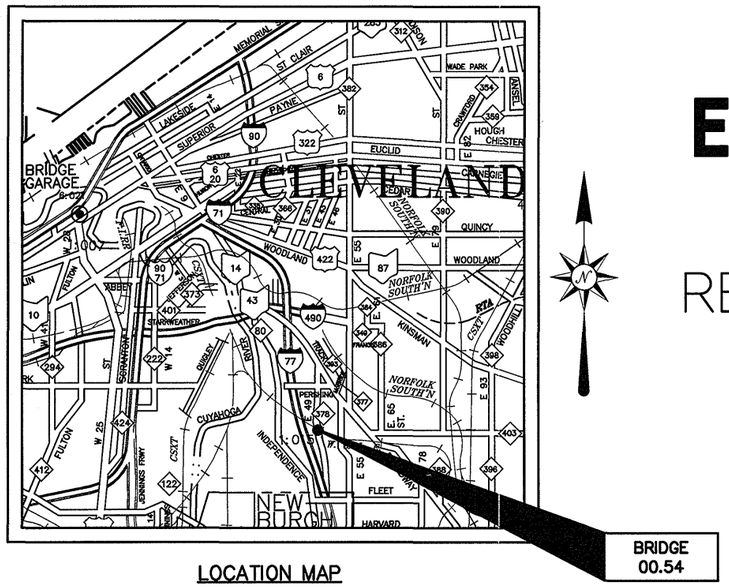


LOCATION MAP

LATITUDE: 41° 27' 49" LONGITUDE: 81° 39' 26"

0 0.5 1 2

SCALE IN MILES

PROJECT LOCATION

INTERSTATE, U.S. AND STATE ROUTES

COUNTY AND OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2014) 4472
DESIGN YEAR ADT (2034) 4871
DESIGN HOURLY VOLUME (DHV) 536
DIRECTIONAL DISTRIBUTION (D) 60%
TRUCKS (T) (24 HOUR B&C) 1.0%
DESIGN SPEED .....30 MPH
LEGAL SPEED .....25 MPH
DESIGN FUNCTIONAL CLASSIFICATION: .....URBAN LOCAL
NHS PROJECT .....NO

DESIGN EXCEPTIONS

(NONE REQUIRED)

UNDERGROUND UTILITIES

TWO (2) WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON MEMBERS
MUST BE CALLED DIRECTLY
- AND -
CALL 1-800-925-0988 (TOLL FREE)
OHIO OIL & GAS PRODUCERS
UNDERGROUND PROTECTION SERVICE

PLAN PREPARED BY:

DLZ OHIO, INC.
614 SUPERIOR AVE. NW
CLEVELAND, OHIO 44113

ENGINEER'S SEAL

STATE OF OHIO
MATTHEW J. LAWLER
60508
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: Matt J. Lawler
DATE: 11 - 06 - 2013

CUYAHOGA COUNTY
EAST 49TH STREET (C.R. 378) BRIDGE 00.54
REHABILITATION OF EXISTING BRIDGE OVER ABANDONED RAILROAD
CITY OF CLEVELAND
STATE OF OHIO

INDEX OF SHEETS

APPROVED IN THE CITY OF CLEVELAND

ORDINANCE OF CONSENT NO. 242-13

PASSED MARCH 25, 2013

PROJECT DESCRIPTION

BRIDGE REHABILITATION INCLUDING REPLACEMENT OF THE EXISTING STEEL SUPER STRUCTURE WITH A NEW PRESTRESSED CONCRETE I-BEAM SUPER STRUCTURE AND REINFORCED CONCRETE DECK, CONSTRUCTING NEW REINFORCED CONCRETE ABUTMENT SEATS AND NEW APPROACH SLABS, REPAIRING SMALL PORTIONS OF THE APPROACH ROADWAYS INCLUDING GUARDRAILS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA ..... 0.43 ACRE

ESTIMATED CONTRACTOR
EARTH DISTURBED AREA ..... 0.25 ACRE

NOTICE OF INTENT
EARTH DISTURBED AREA ..... N/A ACRE
(NOTICE OF INTENT NOT REQUIRED)

2013 SPECIFICATIONS

THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, SHALL GOVERN THIS IMPROVEMENT EXCEPT WHEN MODIFIED BY THE PLANS, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS OR PROPOSAL NOTES.

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 SHEET 6 OF 37.

BONITA G. TEEUWEN, P.E.
DIRECTOR OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS 11/12/13 DATE

EDWARD FITZGERALD
CUYAHOGA COUNTY EXECUTIVE

CUYAHOGA COUNTY EXECUTIVE 12-2-13 DATE

OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS						CUYAHOGA COUNTY ENGINEER CONSTRUCTION DRAWINGS				O.D.O.T. SUPPLEMENTAL SPECIFICATIONS		CITY OF CLEVELAND STANDARD CONSTRUCTION DRAWINGS			
NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	NUMBER	DATE
BP-2.1	7/19/13	HL-50.21	7/20/12	AS-1-81	1/18/13	AS-1C	9/6/11			800-2013	10/18/13	CR-2	8/03/09		
BP-5.1	7/19/13			BR-2-98	7/20/12	BP-2.4C	10/10/08					PR-1	8/03/09		
BP-7.1	10/15/10	MT-101.60	7/19/13	PSID-1-13	10/18/13	CP-1C	2/13/13			832	10/18/13				
		MT-101.70	7/19/13	SBR-1-13	7/19/13	PRF-1C	2/8/12								
MGS-1.1	7/19/13														
MGS-2.1	7/19/13	TC-42.20	10/18/13												
MGS-3.1	7/19/13	TC-52.10	10/18/13												
MGS-4.1	7/19/13	TC-52.20	1/18/13												
RM-4.5	10/16/09														
RM-4.6	7/19/13														
RM-5.1	4/18/03														

SPECIAL PROVISIONS

SEE SECTION 200 OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET IN THE BID PACKAGE

JOURNAL NO. CC009 DATE 1/22/2013

RESOLUTION NO. R2013-0004

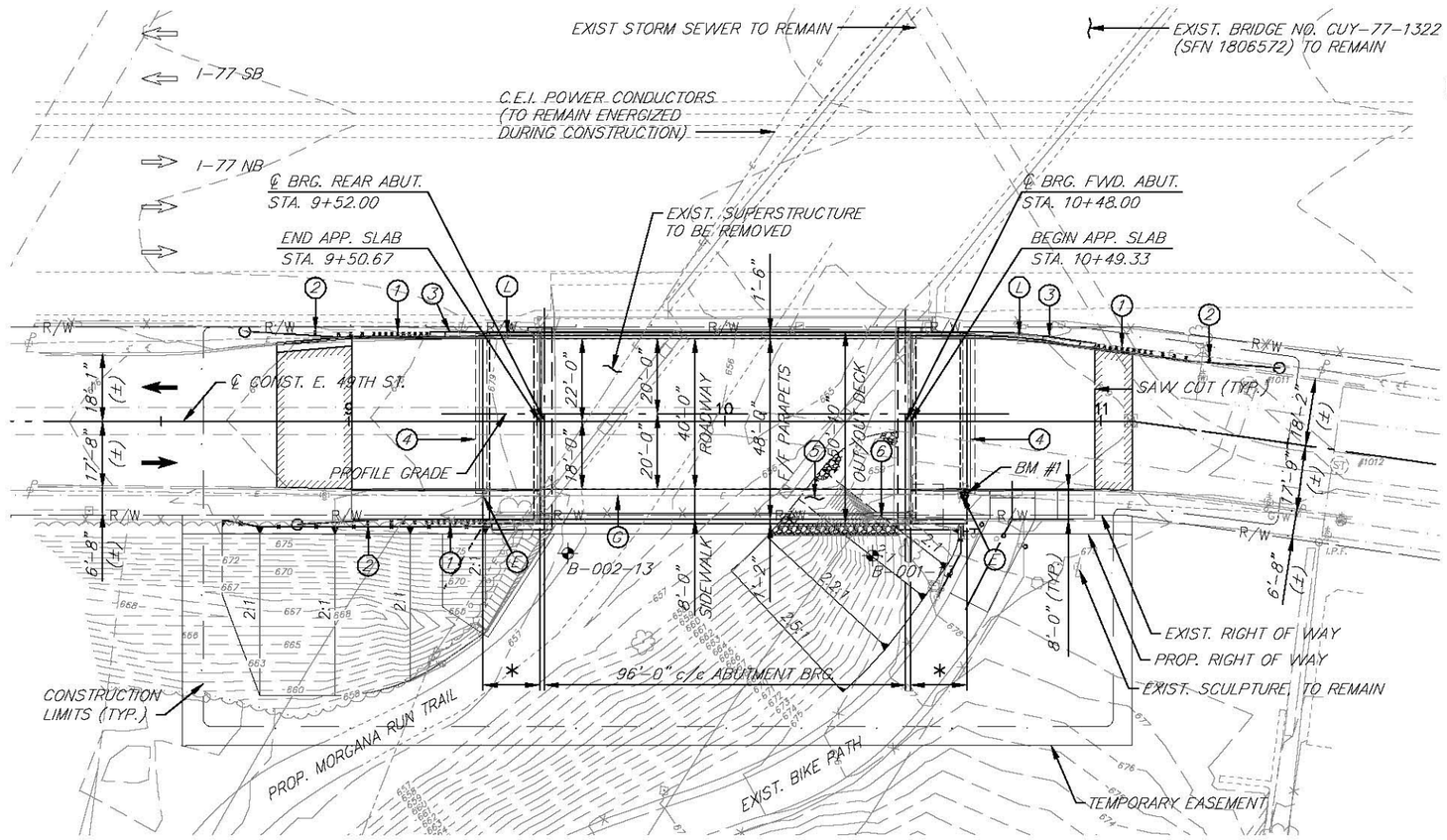
FEDERAL PROJECT NO. N/A

PID NO. N/A

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

EAST 49TH STREET (C.R. 378)



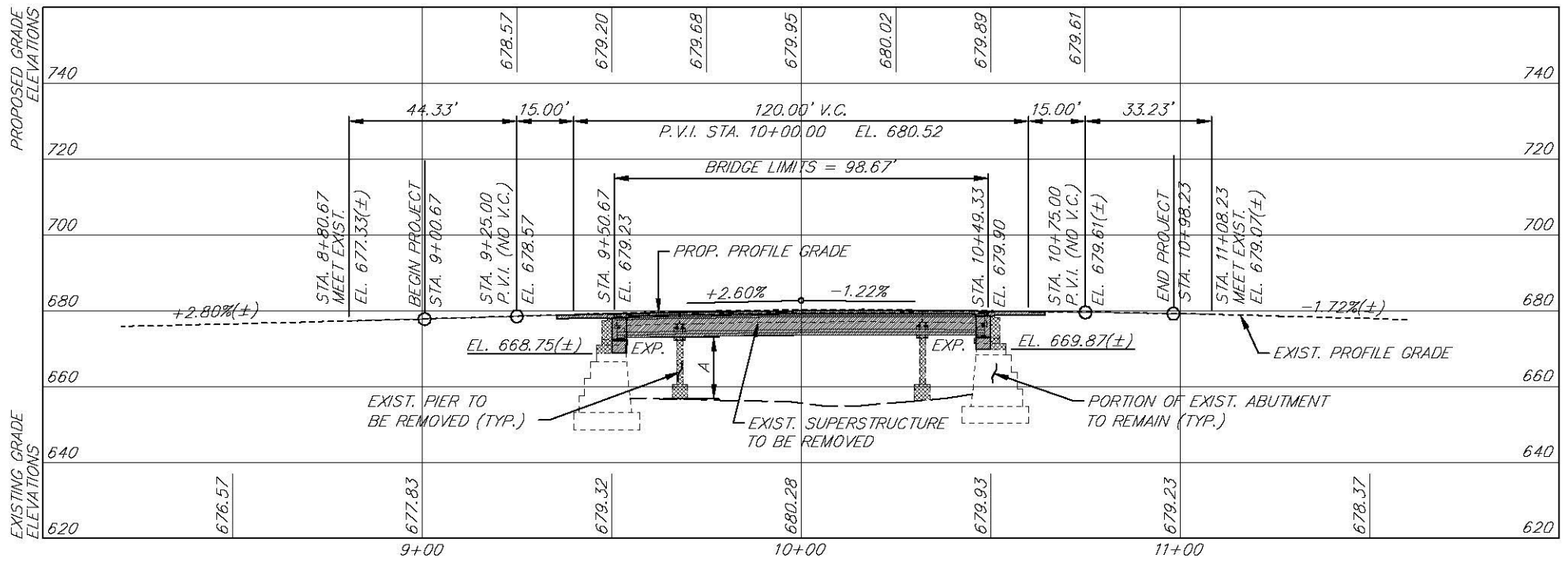
PLAN

VERTICAL CLEARANCES

POINT	EXISTING	PROPOSED	REQUIRED
A	21.00'	16.25'	14.50'

NOTES

1. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS NOTED OTHERWISE.



PROFILE ALONG ℄ CONSTRUCTION EAST 49TH STREET

BENCHMARKS

TBM #1: CHISELED 'X' ON TOP OF I-77 RETAINING WALL STA. 8+06.29, 24.55' LT, EL. 679.70'

TBM #2: CHISELED 'X' ON TOP OF CONCRETE CURB STA. 12+00.50, 17.25' LT, EL. 678.09'

LEGEND

1. MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
2. ANCHOR ASSEMBLY, MGS TYPE A
3. CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
4. ITEM SPECIAL – PRESSURE RELIEF JOINT, CUYAHOGA COUNTY, TYPE B (TYP.)
5. CRUSHED AGGREGATE SLOPE PROTECTION
6. EXIST. BRICK WALL, TO BE REMOVED, SEE SHEET 14/36
G. EXIST. 20"ø GAS LINE, TO BE RELOCATED BY DOMINION EAST OHIO
L. EXIST. POWER & LIGHT POLE, TO BE RELOCATED BY C.P.P.
E. EXIST. POWER & LIGHT POLE, TO BE RELOCATED BY FIRST ENERGY

SOIL BORING LOCATION

LIMITS OF PAVEMENT PLANING AND RESURFACING

* 15'-0" APPROACH SLAB

TRAFFIC DATA

CURRENT ADT (2014):	4472	DESIGN YEAR ADT (2034):	4871
CURRENT ADTT (2014):	45	DESIGN YEAR ADTT (2034):	49

EXISTING STRUCTURE

TYPE: THREE SPAN SIMPLE STEEL BEAM SUPERSTRUCTURE WITH REINFORCED CONCRETE BEAM SEATS, FULL HEIGHT STONE ABUTMENTS, AND STEEL BENT PIER SUBSTRUCTURES.

SPANS: 16'-0"(±), 64'-0"(±), 16'-0"(±) c/c BEARING MEASURED ALONG ℄ OF ROADWAY

ROADWAY: 40'-0"(±) CURB-TO-CURB, 48-0"(±) OUT-TO-OUT OF DECK

LOADING: HS15

SKEW: NONE (ABUTMENTS), 38°11'33" LF (PIERS)

WEARING SURFACE: VARIES, 4"(±) MAX. ASPHALT CONCRETE

APPROACH SLABS: 20'-0"(±) LONG

ALIGNMENT: TANGENT

CROWN: 0.0156(±) FT/FT

DATE BUILT: 1894 REHABILITATION: 1963

STRUCTURE FILE NUMBER: 1833812

PROPOSED STRUCTURE

PROPOSED WORK: REMOVE EXISTING SUPERSTRUCTURE AND PIERS IN THEIR ENTIRETY. REMOVE PORTIONS OF EXISTING ABUTMENTS. CONSTRUCT NEW ABUTMENT SEATS, SUPERSTRUCTURE, AND APPROACH SLABS.

TYPE: SINGLE SPAN PRESTRESSED CONCRETE I-BEAM BRIDGE WITH SEMI-INTEGRAL ABUTMENT SUBSTRUCTURE.

SPANS: 96'-0" c/c BEARING

ROADWAY: 40'-0" CURB-TO-CURB, 50'-6" OUT-TO-OUT OF DECK

LOADING: HS25 AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE = 30 PSF

DESIGN METHOD: LOAD FACTOR DESIGN (LFD)

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81 (15'-0" LONG)

ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT LATITUDE: N 41°27'49"

STRUCTURE FILE NUMBER: 1835246 LONGITUDE: W 81°39'26"

DLZ
3300 Rockefeller Bldg. • 614 W. Superior Ave. Cleveland, OH 44113

REVIEWED M.JL DATE 10/15/13
STRUCTURE FILE No. 1835246
DRAWN BPS REVISED
DESIGNED BPS CHECKED PAT

SITE PLAN
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

1 / 36
2 / 37

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GENERAL

UTILITIES

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

AT&T OHIO
13630 LORAIN AVE., 3RD FLOOR
CLEVELAND, OH 44111
ATTN: TOM FOGARTY
PHONE: (216) 476-6142
E-MAIL: tf2791@att.com

DOMINION EAST OHIO
320 SPRINGSIDE DR., SUITE 320
AKRON, OH 44333
ATTN: MARY LONG
PHONE: (330) 664-2409
E-MAIL: mary.j.long@dom.com

CLEVELAND PUBLIC POWER
1300 LAKESIDE AVENUE
CLEVELAND, OH 44114
ATTN: CHRISTOPHER HIRZEL
PHONE: (216) 664-3922 x115
E-MAIL: chirzel@cpp.org

FIRST ENERGY
6896 MILLER ROAD
BRECKSVILLE, OH 44141
ATTN: MARK ROBINSON
PHONE: (440) 717-6845
E-MAIL: robinsonme@firstenergycorp.com

CLEVELAND WATER DEPARTMENT
1201 LAKESIDE AVENUE
CLEVELAND, OH 44114
ATTN: TINA GOSHA
PHONE: (216) 664-2444 EXT. 5526
E-MAIL: tina_gosha@clevelandwater.com

NORTHEAST OHIO REGIONAL SEWER DISTRICT
4747 EAST 49TH STREET
CUYAHOGA HEIGHTS, OH 44125
ATTN: ERIC PARHAM
PHONE: (216) 641-6000
E-MAIL: parhame@neorsd.org

CLEVELAND WATER POLLUTION CONTROL
12302 KIRBY AVENUE
CLEVELAND, OH 44108
ATTN: ALAN SCHIELY
PHONE: (216) 664-3638
E-MAIL: aschiely@ClevelandWPC.com

TIME WARNER CABLE
8179 DOW CIRCLE
STRONGSVILLE, OH 44136
ATTN: PAUL SILVESTRO
PHONE: (216) 575-8016 EXT. 5034
E-MAIL: paul.silvestro@twcable.com

CALL OHIO UTILITIES PROTECTION SERVICE TWO (2) WORKING DAYS BEFORE YOU DIG, TOLL FREE NO. 1-800-362-2764 (NON-MEMBERS MUST BE CALLED DIRECTLY).

CALL OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS), TOLL FREE NO. 1-800-925-0988.

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.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ELEVATIONS SHOWN ARE BASED ON CLEVELAND REGIONAL GEODETIC SURVEY (C.R.G.S.) DATA. MONUMENTS ARE DESCRIBED ON THE PLANS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION, AND OPERATION (INCLUDING ERECTION, MAINTENANCE AND REMOVAL) OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS, EXCEPT WHERE OTHERWISE NOTED, SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

EXISTING TYPICAL SECTIONS

EXISTING TYPICAL SECTIONS HAVE BEEN DEVELOPED FROM SITE MEASUREMENTS, PAVEMENT CORES, AND RECORD PLANS AND ARE BELIEVED TO REPRESENT THE WIDTH AND COMPOSITION OF THE EXISTING PAVEMENT, BUT THE COUNTY DOES NOT GUARANTEE THE ACCURACY OF SAME.

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, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. 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.

PROGRESS SCHEDULE

SEE THE PROPOSAL NOTES FOR THE PROGRESS SCHEDULE REQUIREMENTS.

LOCAL LAWS, ORDINANCES AND REGULATIONS

IN ACCORDANCE WITH SECTION 107.01 OF THE GENERAL PROVISIONS, THE CONTRACTOR SHALL STAY FULLY INFORMED OF ALL LOCAL LAWS, ORDINANCES, REGULATIONS, ORDERS AND DECREES THAT AFFECT THE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBSERVE AND COMPLY WITH ALL SUCH LAWS, ORDINANCES, REGULATIONS, ORDERS AND DECREES AT NO ADDITIONAL COST TO THE PROJECT/COUNTY.

ADJUSTMENTS IN CONTRACT TIME

TIME EXTENSIONS WILL ONLY BE CONSIDERED WHEN CONTROLLING ITEMS OF WORK ON THE APPROVED PROGRESS SCHEDULE ARE AFFECTED DUE TO NO FAULT OF THE CONTRACTOR.

WHEN ADDITIONAL WORK IS REQUIRED, TIME EXTENSIONS WILL ONLY BE GRANTED FOR CONTROLLING ITEMS ON THE PROGRESS SCHEDULE (SEE SECTION 108.06 OF THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS)

PROJECT PROGRESS MEETINGS

PROGRESS MEETINGS WILL BE HELD EVERY FOUR (4) WEEKS AT THE PROJECT OFFICE OR OTHER LOCATION DESIGNATED BY THE AREA CONSTRUCTION ENGINEER, AND WILL BE ATTENDED BY COUNTY AND CONTRACTOR DECISION-MAKING PERSONNEL.

THE PURPOSE OF THESE MEETINGS IS TO DISCUSS CRITICAL OPERATIONS AND POTENTIAL PROBLEMS. ALSO, THE CONTRACTOR WILL CONFIRM THE NUMBER AND DURATION OF WORK SHIFTS, NUMBER OF WORK CREWS, AND SPECIFIC PORTIONS OF THE WORK TO BE PERFORMED DURING THE FOLLOWING WEEKS.

THESE MEETINGS CAN ONLY BE WAIVED BY THE AREA CONSTRUCTION ENGINEER

DEFINITIONS AND TERMS

WHEREVER THERE APPEARS, IN THE STANDARD SPECIFICATIONS (ODOT ITEMIZED CMS), SUPPLEMENTAL SPECIFICATIONS OR PROPOSAL NOTES, THE TERM "THE STATE", "DIRECTOR OF "TRANSPORTATION", "DEPARTMENT", "DISTRICT CONSTRUCTION ENGINEER/ DISTRICT CONSTRUCTION ADMINISTRATOR (DCA)", "ENGINEER", OR ANY OTHER TERM DESIGNATING ANY REPRESENTATIVE OR EMPLOYEE OF THE STATE OR ITS DEPARTMENT OF TRANSPORTATION, SUCH TERM SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING AND DESIGNATING THE RESPECTIVE OFFICER OR EMPLOYEE OF CUYAHOGA COUNTY WHOSE DUTY OR FUNCTION IT IS TO DEAL WITH THE SUBJECT MATTER IN CONNECTION WITH WHICH SUCH TERM IS USED AND SPECIFICALLY:

THE STATE	– MEANS CUYAHOGA COUNTY.
DEPARTMENT	– MEANS THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR	– MEANS THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS, HIS/HER DEPUTIES, OR ANY ENGINEER DESIGNATED AS THE DIRECTOR'S REPRESENTATIVE.
DISTRICT CONSTRUCTION ENGINEER/DISTRICT CONSTRUCTION ADMINISTRATOR OR ENGINEER	– MEANS THE AREA CONSTRUCTION ENGINEER, OR THE DULY AUTHORIZED AGENT OR REPRESENTATIVE OF THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS, ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR THE PURPOSES OF CONSTRUCTION ENGINEERING AND ADMINISTRATION OF THE CONTRACT.
LABORATORY	– MEANS ANY LABORATORY DESIGNATED BY THE COUNTY.

GENERAL PROVISIONS

ALL REFERENCES TO THE GENERAL PROVISIONS (SECTION 100) OF THE OHIO DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS) THAT ARE CITED IN THE ITEMIZED SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, PROPOSAL NOTES, PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS AS CONTAINED IN THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET". THE SUBSECTION NUMBERS AND TOPICS USED IN THE COUNTY'S GENERAL PROVISIONS CORRESPOND TO THOSE CONTAINED IN THE ODOT CMS.

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

THE FIELD OFFICE SHALL, IN ADDITION TO THE ITEMS LISTED IN ITEM 619, BE FURNISHED WITH TWO CELLULAR TELEPHONES.

THE CONTRACTOR'S INSURANCE SHALL INCLUDE A RIDER FOR COVERAGE OVER ANY CUYAHOGA COUNTY PROPERTY INSIDE THE FIELD OFFICE WHICH MAY BECOME DAMAGED OR STOLEN.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THIS ITEM:

ITEM 619 – FIELD OFFICE, TYPE B, AS PER PLAN	6 MONTH

ROADWAY

ITEM 623 – CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

623.08 – CONSTRUCTION LAYOUT STAKING.

1. ALL HORIZONTAL CONTROL AND, IF NECESSARY, VERTICAL CONTROL REQUIRED FOR THE COMPLETE LAYOUT AND PERFORMANCE OF THE WORK UNDER THIS CONTRACT SHALL BE DONE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND MAY BE PERIODICALLY REVIEWED BY THE ENGINEER. ANY INSPECTION OR REVIEWING OF THE CONTRACTOR'S LAYOUT BY THE ENGINEER AND THE ACCEPTANCE OF ALL OR ANY PART OF IT SHALL NOT RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO PRODUCE THE PROPER WORK DIMENSIONS, GRADES AND ELEVATIONS. THE REQUIREMENTS OF SECTION 107.10 OF THE GENERAL PROVISIONS ALSO APPLY.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND, IF APPLICABLE, ALL GRADES, LINES AND LEVELS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS, AND HE/SHE SHALL REPORT ANY ERRORS OR INCONSISTENCIES IN THE ABOVE TO THE ENGINEER BEFORE COMMENCING WORK OR ORDERING ANY MATERIAL.
3. THE CONTRACTOR SHALL MARK (PAINT) OR STAKE THE PROJECT STATION NUMBERS AT INTERVALS OF 50 FEET (OR LESS AS DIRECTED OR APPROVED BY THE ENGINEER) BEFORE COMMENCING THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL STAKES AND MARKS AND SHALL REPLACE THEM AT HIS/HER EXPENSE IF THEY ARE DAMAGED, LOST, DISPLACED OR REMOVED. THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT IS DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR.

623.11 – BASIS OF PAYMENT.

PAYMENT WILL BE MADE UNDER: ITEM 623 – CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN (LUMP SUM).

LOCATION OF GUARDRAIL

THE LOCATION OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, IS SUBJECT TO ADJUSTMENT BY THE ENGINEER TO ASSURE THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM 201 – CLEARING AND GRUBBING

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

ITEM 203 – EMBANKMENT, AS PER PLAN

THE USE OF SLAG, IN ANY FORM, IS NOT PERMITTED.

ITEM 204 – SUBGRADE COMPACTION

ALL SUBGRADE MATERIAL SHALL BE COMPACTED PER CMS 204.03 AND PROOF ROLLED PER CMS 204.06. ALL COSTS ASSOCIATED WITH PROOF ROLLING THE SUBGRADE SHALL BE CONSIDERED INCIDENTAL TO ITEM 204 – SUBGRADE COMPACTION.

DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED PAT | DRAWN ARA | REVIEWED MJL | DATE 10/15/13
CHECKED BPS | REVISED | STRUCTURE FILE No. 1835246

GENERAL NOTES – 1
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

ROADWAY (CONT.)

ITEM 607 – FENCE, TYPE CL

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO REMOVE AND REPLACE THE EXISTING CHAIN LINK FENCE AT THE BACK OF THE SIDEWALK FROM STA. 8+65.25 TO STA. 9+55.20, RT:

ITEM 202 – FENCE REMOVED	89 FT
ITEM 607 – FENCE, TYPE CL	71 FT

ITEM 607 – FENCE REMOVED AND REBUILT, AS PER PLAN

THIS ITEM CONSISTS OF REMOVING, STORING, AND REBUILDING THE PORTION OF THE EXISTING TIMBER FENCE ALONG MORGANA RUN TRAIL THAT IS LOCATED WITHIN THE CONSTRUCTION LIMITS FROM STA. 10+49.80 TO STA. 10+62.67, RT. REMOVE THE ONE (1) EXISTING FENCE PANEL RUNNING PARALLEL TO E. 49TH ST. THAT IS ATTACHED TO THE EXISTING BRIDGE ABUTMENT. REMOVE, STORE, AND REBUILD THE FIRST TWO (2) EXISTING FENCE PANELS RUNNING PARALLEL TO THE SOUTH EDGE OF THE TRAIL. PERFORM ALL WORK IN ACCORDANCE WITH CMS 607.

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED FOR THIS WORK:

ITEM 607 – FENCE REMOVED AND REBUILT, AS PER PLAN	20 FT

ITEM 608 – 4" CONCRETE WALK, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 608, THE FOLLOWING SHALL APPLY:

THE "CLASS QC1" CONCRETE USED FOR SIDEWALK (608) SHALL CONFORM TO THE "MODIFICATIONS TO ITEM 499 CONCRETE – GENERAL" AS CONTAINED IN THE "SECTION 400 PROPOSAL NOTES" OF THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET."

ALL CONCRETE WALK SHALL BE A MINIMUM OF 4" THICK AND HAVE A 2" COMPACTED SCREENINGS BED WHICH MEETS THE REQUIREMENTS OF 703.10 (LIMITED TO CRUSHED STONE). THE COST FOR FURNISHING AND PLACING THE 2" COMPACTED SCREENINGS BED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 608 – 4" CONCRETE WALK, AS PER PLAN.

PER 608.03(C), IT IS REQUIRED THAT 1/2 INCH THICK EXPANSION JOINT MATERIAL (705.03) BE INSTALLED BETWEEN THE WALK AND THE BACK OF CURB OR ANY OTHER FIXED OBJECT. IN ADDITION TO THE LOCATIONS SPECIFIED UNDER 608.03(C), TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT INTERVALS OF NOT MORE THAN 25 TO 30 FEET UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE EXPANSION JOINT FILLER (705.03) SHALL BE PLACED AT THE TRANSVERSE EXPANSION JOINTS FOR THE FULL DEPTH/WIDTH OF THE CONCRETE WALK AND SHALL BE TRULY NORMAL TO GRADE. THE TOP 1/2 INCH OF THE EXPANSION JOINT PLACED BETWEEN THE WALK AND BACK OF CURB SHALL BE SEALED WITH 705.04 JOINT SEALER.

UNLESS OTHERWISE REQUIRED BY MUNICIPAL STANDARDS/ORDINANCES, THE FINAL SURFACE SHALL BE TEXTURED BY USE OF AN ACCEPTED BROOM SO AS TO PRODUCE A UNIFORM, GRITTY, TRANSVERSE TEXTURE, AFTER WHICH, THE CONTRACTOR IS REQUIRED TO RETRACE THE PREVIOUSLY FORMED JOINTS AND OUTSIDE EDGES OF THE WALK.

FINAL FINISH SHALL BE IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL STANDARDS/ORDINANCES.

THE COST OF THE MATERIAL AND LABOR ASSOCIATED WITH THE ABOVE WORK IS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 608 – 4" CONCRETE WALK, AS PER PLAN.

ITEM 626 – BARRIER REFLECTOR

BARRIER REFLECTORS AND THEIR INSTALLATION SHALL CONFORM TO ITEM 626 EXCEPT THAT THE SPACING SHALL BE 25 FEET.

CONTINGENCY QUANTITIES FOR SIDEWALK

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE "AS DIRECTED BY THE ENGINEER" TO REMOVE AND REPLACE EXISTING SIDEWALK THAT THE ENGINEER DETERMINES TO BE IN POOR CONDITION OR THAT BECOMES DAMAGED DURING CONSTRUCTION:

ITEM 202 – WALK REMOVED	150 SQ FT
ITEM 608 – 4" CONCRETE WALK, AS PER PLAN	150 SQ FT

PAVEMENT

ITEM 304 – AGGREGATE BASE, AS PER PLAN

MATERIAL FURNISHED FOR THIS ITEM SHALL BE LIMITED TO CRUSHED CARBONATE STONE.

ITEM 407 – TACK COAT

THE RATE OF APPLICATION OF THE TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

ITEM 411 – STABLIZED CRUSHED AGGREGATE, AS PER PLAN

MATERIAL FURNISHED FOR THIS ITEM SHALL BE LIMITED TO CRUSHED CARBONATE STONE.

ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN
ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, AS PER PLAN

USE OF RECLAIMED ASPHALT CONCRETE PAVEMENT AND RECLAIMED ASPHALT SHINGLES ARE NOT PERMITTED FOR SURFACE COURSES.

THE COURSE AGGREGATE FOR THE SURFACE COURSE SHALL BE A BLEND OF FIFTY PERCENT (50%) MINIMUM CRUSHED AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH THE REMAINING PERCENTAGE COMPRISED OF CRUSHED CARBONATE STONE (CCS). THE COARSE AGGREGATE FOR ANY OTHER COURSE SHALL BE CRUSHED CARBONATE STONE (CCS) AND/OR CRUSHED AIR COOLED BLAST FURNACE SLAG (ACBFS).

PRIOR TO PRODUCING THE ASPHALT CONCRETE FOR THIS CONTRACT, SUBMIT A JOB MIX FORMULA (JMF) FOR APPROVAL BY THE ENGINEER. USE A JMF THAT MEETS ALL REQUIREMENTS ESTABLISHED IN THE CONTRACT AND HAS PREVIOUSLY BEEN APPROVED FOR USE ON ODOT WORK. WHERE NO PREVIOUSLY APPROVED (BY ODOT) JMF IS AVAILABLE, DEVELOP A JMF MEETING ALL CRITERIA ESTABLISHED IN THE CONTRACT AND HAVE IT REVIEWED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY PRIOR TO SUBMISSION TO THE ENGINEER. THE INDEPENDENT TESTING LABORATORY SHALL HAVE APPROPRIATELY APPROVED PERSONNEL AND TESTING EQUIPMENT PER ODOT SUPPLEMENT 1041. ALL COST ASSOCIATED WITH THE ABOVE SHALL BE INCLUDED IN THE CUBIC YARD COST OF THE ASPHALT CONCRETE BID ITEMS.

SAMPLING FOR VERIFICATION ACCEPTANCE (403.06.A) SHALL BE PERFORMED IN ACCORDANCE WITH ODOT SUPPLEMENT 1035 FOR ALL ITEM 448 MIXES.

UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, CONDUCT DENSITY GAUGE QUALITY CONTROL TESTING ON BOTH THE ITEM 448 ASPHALT CONCRETE SURFACE COURSE AND INTERMEDIATE COURSE MATS ACCORDING TO ODOT SUPPLEMENT 1055 REGARDLESS OF THE NUMBER OF LANES OR LENGTH OF CONTINUOUS PAVING.

ITEM 451 – REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN

WHEN THE ABOVE ITEM IS CALLED FOR ON THE PLANS OR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 451, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY EXCEPT AS MODIFIED HEREIN.

451.02 – MATERIALS.

THE "CLASS QC1" CONCRETE SHALL CONFORM TO THE "MODIFICATIONS TO ITEM 499 CONCRETE – GENERAL" AS CONTAINED IN THE "SECTION 400 PROPOSAL NOTES" OF THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET".

CURING MATERIAL SHALL BE 705.07 (TYPE 2). THE REINFORCING MESH FABRIC SHALL BE 6" X 12" (W8.5 X W4), CONFORMING TO 709.10 AND BP-1.1.

ITEM 451 – REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN (CONT.)

451.09 – JOINTS.

(A) LONGITUDINAL JOINT. A 5/16 +/– 1/16 INCH JOINT WIDTH SHALL BE PROVIDED IN ALL CASES.

LONGITUDINAL BUTT (CONSTRUCTION) JOINTS SHALL BE TIED AS FOLLOWS:

(1) FOR FORMED CONSTRUCTION, SECURELY FASTEN HOOK BOLTS (OR WIGGLE BOLT ALTERNATES) WITH COUPLINGS TO THE FORM AT THE LONGITUDINAL CONSTRUCTION JOINT AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-2.1.

(2) FOR SLIP FORMED CONSTRUCTION, THE METHODS DETAILED/DESCRIBED ON BP-2.1 (TYPE D JOINT) SHALL BE USED UNLESS OTHERWISE DIRECTED / APPROVED BY THE ENGINEER.

(B) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT DOWEL BASKET ASSEMBLIES ARE STABLE AND HELD FIRMLY IN PLACE.

(C) CONTRACTION JOINTS. UNLESS OTHERWISE SHOWN ON THE PLANS, CONTRACTION JOINTS SHALL BE TYPICALLY SPACED AT 20'-0" CENTERS. MINOR ADJUSTMENTS IN JOINT SPACING MAY BE REQUIRED TO MEET DRAINAGE STRUCTURE BLOCKOUTS, OTHER SIMILAR PAVEMENT BLOCKOUTS, INTERSECTION JOINT SPACING, ETC. HOWEVER, IN NO CASE SHALL THE SPACING EXCEED 21'-0" OR TYPICALLY BE LESS THAN 15'-0" (10'-0" MINIMUM). A 5/16 +/– 1/16 INCH JOINT WIDTH SHALL BE PROVIDED IN ALL CASES.

(D) CONSTRUCTION JOINTS. PROVIDE A 5/16 +/– 1/16 INCH WIDE BY 1-5/8 INCH DEEP KERFED JOINT OPENING FOR ALL CONSTRUCTION JOINTS.

451.10 – FINISHING.

THE SURFACE SHALL BE CONTINUALLY CHECKED FOR TRUENESS WITH LONG-HANDLED TEN (10) FOOT STRAIGHTEDGES TO ENSURE A SMOOTH RIDING SURFACE. THE STRAIGHTEDGE SHALL BE OPERATED PARALLEL TO THE CENTERLINE AND SHALL BE MOVED FORWARD NO MORE THAN ONE-HALF ITS LENGTH AFTER EACH PASS. IRREGULARITIES SHALL BE CORRECTED BY USING THE STRAIGHTEDGE WITH A SCRAPING MOTION TO REMOVE BUMPS AND EXCESS MORTAR FROM THE SURFACE WHILE THE CONCRETE IS PLASTIC. ALL DISTURBED AREAS SHALL BE STRAIGHTEDGED AGAIN. IF NOT SUITABLY CORRECTED AT THIS TIME (WHILE THE CONCRETE IS PLASTIC), THE CONTRACTOR WILL BE REQUIRED TO SUBSEQUENTLY CORRECT ALL REMAINING SURFACE VARIATIONS FOUND TO BE OUT OF TOLERANCE PER 451.13 AND 451.14, AS DIRECTED BY THE ENGINEER.

UNLESS OTHERWISE SPECIFIED, THE FINAL (TRANSVERSE) SURFACE TEXTURE OF THE PAVEMENT SHALL BE BROOM FINISHED, USING A BROOM OF APPROVED TYPE, NOT LESS THAN 18" IN WIDTH OF BASS OR BASSINE FIBER, NOT MORE THAN FIVE (5) INCHES IN LENGTH. THE STROKES SHALL BE EDGE TO EDGE OF THE SLAB, ONE STROKE PER WIDTH OF BROOM, WITH ADJACENT STROKES SLIGHTLY OVERLAPPED AND CORRUGATIONS APPROXIMATELY 1/16" IN DEPTH. BROOMS SHALL BE WASHED THOROUGHLY AT FREQUENT INTERVALS DURING EACH DAY. ANY COARSE OR LONG BRISTLES THAT CAUSE IRREGULARITIES SHALL BE TRIMMED OR REMOVED.

451.111 – PROTECTION AGAINST RAIN.

IN ORDER THAT THE CONCRETE MAY BE PROPERLY PROTECTED AGAINST THE EFFECTS OF RAIN BEFORE THE CONCRETE IS SUFFICIENTLY HARDENED, THE CONTRACTOR WILL BE REQUIRED TO HAVE AVAILABLE AT ALL TIMES MATERIALS FOR THE PROTECTION OF THE UNHARDENED CONCRETE SURFACE. SUCH PROTECTIVE MATERIALS SHALL CONSIST OF STANDARD COVERING MATERIAL SUCH AS BURLAP OR COTTON MATS, CURING PAPER OR PLASTIC SHEETING FOR THE PROTECTION OF THE PAVEMENT SURFACE. WHEN RAIN APPEARS IMMINENT, ALL PAVING OPERATIONS SHALL STOP, AND ALL AVAILABLE PERSONNEL SHALL BEGIN COVERING THE SURFACE OF UNHARDENED CONCRETE WITH THE PROTECTIVE COVERING.

451.13 – SURFACE SMOOTHNESS.

PAVEMENT SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH IN TEN (10) FEET.

PAVEMENT (CONT.)

ITEM 451 – REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN (CONT.)

451.161 – SEALING CONTRACTION, CONSTRUCTION, AND LONGITUDINAL JOINTS.

PRIOR TO SEALING, THE CONTRACTOR SHALL BEVEL THE EDGES OF ALL CONTRACTION JOINTS USING EITHER A CUTTING OR GRINDING DEVICE ATTACHED TO A SECOND-STAGE SAWING BLADE OR A SEPARATE CUTTING OR GRINDING DEVICE. MODIFY OR CHANGE THE METHOD OF PRODUCING BEVELS WHEN UNSATISFACTORY RESULTS ARE BEING OBTAINED.

AS SOON AS FEASIBLE AFTER COMPLETING SAWING, BUT BEFORE THE PAVEMENT IS OPEN TO CONSTRUCTION EQUIPMENT AND TRAFFIC, SEAL ALL CONTRACTION, CONSTRUCTION AND LONGITUDINAL JOINTS. JUST BEFORE SEALING, THOROUGHLY CLEAN EACH JOINT OF ALL FOREIGN MATERIAL, USING APPROVED EQUIPMENT. ENSURE THE JOINT FACES ARE CLEAN AND DRY WHEN THE SEAL IS INSTALLED.

(A) CONTRACTION JOINTS AND CONSTRUCTION JOINTS. CONTRACTION AND CONSTRUCTION JOINTS SHALL BE SEALED WITH 705.04 JOINT SEALER IN AN ACCEPTABLY NEAT MANNER TO APPROXIMATELY 1/8" TO 1/4" BELOW THE PAVEMENT SURFACE. PLACE THE JOINT SEALER WITH PROPER EQUIPMENT TO OBTAIN A NEAT WORKMANLIKE JOINT, FREE FROM EXCESS AND UNSIGHTLY FILLER.

(B) LONGITUDINAL JOINTS. LONGITUDINAL JOINTS SHALL BE NEATLY FILLED FLUSH TO THE SURFACE USING 705.04 JOINT SEALER. PLACE THE JOINT SEALER WITH PROPER EQUIPMENT TO OBTAIN A NEAT WORKMANLIKE JOINT, FREE FROM EXCESS AND UNSIGHTLY FILLER.

451.19 – PRICE ADJUSTMENTS.

THE "C. PAVEMENT SMOOTHNESS" ADJUSTMENT IS NOT APPLICABLE TO COUNTY PROJECTS.

ITEM 609 – CURB, TYPE 2-A, AS PER PLAN
ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
ITEM 609 – CURB, TYPE 6, AS PER PLAN

THE "CLASS QC1" CONCRETE SHALL CONFORM TO THE "MODIFICATIONS TO ITEM 499 CONCRETE – GENERAL" AS CONTAINED IN THE "SECTION 400 PROPOSAL NOTES" OF THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET".

ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

THIS ITEM CONSISTS OF FURNISHING AND PLACING PORTLAND CEMENT CONCRETE CURB IN ACCORDANCE WITH CMS 609 AND ODOT STANDARD DRAWING BP-5.1, MODIFIED AS FOLLOWS:

1. WHERE THE CURB AND GUTTER IS TO BE CONSTRUCTED, SAW CUT THE EXISTING PAVEMENT 2-FEET IN FRONT OF THE PROPOSED FACE OF CURB, REMOVE THE EXISTING CURB, AND REMOVE THE EXISTING PAVEMENT. PERFORM THIS REMOVAL IN ACCORDANCE WITH CMS 202. INCLUDE THIS REMOVAL FOR PAYMENT WITH THE CURB.

2. CONSTRUCT THE CURB AND GUTTER WITH A RIGID BASE CONSISTING OF TWELVE (12) INCHES OF REINFORCED CONCRETE PAVEMENT AS PER CMS 451. SEE THE DETAIL ON SHEET 34/36. INCLUDE THIS PAVEMENT FOR PAYMENT WITH THE CURB.

3. CONSTRUCT THE CURB TO FOLLOW THE PROFILE OF THE EXISTING ADJACENT PAVEMENT.

BASIS OF PAYMENT: THE COUNTY WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE BID PER FOOT FOR ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN.

ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

THIS ITEM CONSISTS OF FURNISHING AND PLACING PORTLAND CEMENT CONCRETE BARRIER IN ACCORDANCE WITH CMS 622 AND ODOT STANDARD DRAWING RM-4.5, MODIFIED AS FOLLOWS:

1. CONSTRUCT THE BARRIER ON THE REINFORCED CONCRETE PAVEMENT AS SHOWN IN THE DETAIL ON SHEET 34/36. INCLUDE THE DOWELS FOR PAYMENT WITH THE BARRIER.

BASIS OF PAYMENT: THE COUNTY WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE BID PER FOOT FOR ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

CONTINGENCY QUANTITIES FOR CURB

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE "AS DIRECTED BY THE ENGINEER" TO REMOVE AND REPLACE EXISTING CURB THAT THE ENGINEER DETERMINES TO BE IN POOR CONDITION OR THAT BECOMES DAMAGED DURING CONSTRUCTION:

ITEM 202 – CURB REMOVED	50 FT
ITEM 609 – CURB, TYPE 6, AS PER PLAN	50 FT

EROSION CONTROL

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN

WHEN THE ABOVE ITEM IS CALLED FOR IN THE PLANS OR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 659, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY UNLESS MODIFIED HEREIN.

659.07 SEEDS. UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, HIGH QUALITY GERMINATION RATES ARE REQUIRED.

659.09 NATIVE GRASSES AND WILDFLOWERS. UNLESS OTHERWISE DIRECTED AND/OR APPROVED BY THE ENGINEER, THE FOLLOWING SEED MIXTURE CLASS SHALL BE USED: CLASS 3B.

659.10 SITE PREPARATION. IN ADDITION TO "AREAS IN FRONT OF RESIDENCES, COMMERCIAL PROPERTIES, ETC." REFERRED TO IN 659.10(A), THE SPECIAL PREPARATION SHALL BE EXTENDED TO ENCOMPASS ALL LAWNS AND/OR LAWN-LIKE AREAS AS DETERMINED BY THE ENGINEER. REMOVE ALL STONES 1-INCH OR GREATER BY APPROVED METHODS/EQUIPMENT SUCH AS "ROCK HOUNDING", RAKING, ETC.

659.11 PLACING TOPSOIL. TOPSOIL SHALL BE PLACED AND SPREAD TO A MINIMUM COMPACTED DEPTH OF TWO (2) INCHES. THE FINISHED TOPSOIL SURFACES SHALL BE SEEDED AND MULCHED WITHIN SEVENTY-TWO (72) HOURS OF THEIR ACCEPTED COMPLETION.

659.13 MULCHING OPERATION. UNLESS OTHERWISE DIRECTED OR APPROVED BY THE ENGINEER, STRAW MULCH (PER 659.14) OR COMPOST MULCH (PER 659.16) SHALL BE USED.

659.17 WATERING. IN ADDITION TO THE REQUIREMENTS OF 659.17, THE SEED BED SHALL BE KEPT ACCEPTABLY MOIST UNTIL THE SEED HAS GERMINATED; ALL AT THE DIRECTION OR APPROVAL OF THE ENGINEER.

659.23 PERFORMANCE. THE COUNTY WILL INSPECT ALL SEEDED AREAS NO EARLIER THAN ONE (1) MONTH AND NO LATER THAN NINE (9) MONTHS AFTER FINAL/COMPLETED SEEDING; ALL AT THE DISCRETION/DETERMINATION OF THE ENGINEER.

659.24 METHOD OF MEASUREMENT. 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 ITEM 659 – SEEDING AND MULCHING, AS PER PLAN ARE BASED ON THESE LIMITS.

659.25 BASIS OF PAYMENT. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR THE ACTUALLY COMPLETED AND ACCEPTED QUANTITIES OF:

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN	SQ YD
ITEM 659 – SOIL ANALYSIS TEST	EACH
ITEM 659 – TOPSOIL	CU YD
ITEM 659 – COMMERCIAL FERTILIZER	TON
ITEM 659 – LIME	ACRE
ITEM 659 – WATER	M GAL

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS IN ACCORDANCE WITH THE SPECIFICATIONS:

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN	618 SQ YD
ITEM 659 – SOIL ANALYSIS TEST	2 EACH
ITEM 659 – TOPSOIL	34 CU YD
ITEM 659 – COMMERCIAL FERTILIZER	0.08 TON
ITEM 659 – LIME	0.13 ACRE
ITEM 659 – WATER	3.3 M GAL

ITEM 832 – EROSION CONTROL

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED FOR TEMPORARY SEDIMENT AND EROSION CONTROL (TSEC) IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 832:

ITEM 832 – EROSION CONTROL	2000 EACH

TRAFFIC CONTROL

OBJECT MARKERS AND BRIDGE IDENTIFICATION SIGNS

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO REMOVE THE EXISTING OBJECT MARKERS LOCATED NEAR THE ENDS OF THE EXISTING BRIDGE RAILING:

ITEM 630 – REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	4 EACH
ITEM 630 – REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	3 EACH

ONE (1) EXISTING OBJECT MARKER IS ATTACHED TO A UTILITY POLE. INCIDENTAL TO THE ABOVE, SAVE AND STORE THE EXISTING BRIDGE IDENTIFICATION SIGNS FOR RE-USE.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO INSTALL NEW OBJECT MARKERS (TWO (2) EACH OF OM-6L AND OM-6R) AT LOCATIONS AS DIRECTED BY THE ENGINEER:

ITEM 630 – GROUND MOUNTED SUPPORT, NO. 3 POST	4 x 9 FT =	36 FT
ITEM 630 – SIGN, FLAT SHEET, TYPE H	4 x 3.0 SF =	12.0 SQ FT

INCIDENTAL TO THE ABOVE, REINSTALL THE EXISTING BRIDGE IDENTIFICATION SIGNS ON THE OBJECT MARKER POSTS (BELOW OM-6R), ONE AT EACH END OF THE BRIDGE.

RESTORATION OF PAVEMENT MARKINGS

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED TO RESTORE PAVEMENT MARKINGS WITHIN THE CONSTRUCTION LIMITS UPON COMPLETION OF THE PAVEMENT AND BRIDGE CONSTRUCTION:

ITEM 642 – CENTER LINE, TYPE 1	0.06 MILE

DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED PAT | DRAWN BPS | CHECKED BPS | REVIEWED MJL | DATE 10/15/13 | REVISED | STRUCTURE FILE No. 1835246

GENERAL NOTES – 3
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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MAINTENANCE OF TRAFFIC

ITEM 614 – MAINTAINING TRAFFIC (ROAD CLOSED)

E. 49TH ST. IS CURRENTLY CLOSED AND WILL REMAIN CLOSED AT THE BRIDGE THROUGHOUT CONSTRUCTION. THE COUNTY WILL CONTINUE TO MAINTAIN THE CURRENTLY SIGNED DETOUR ROUTE. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN STANDARD "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS AS DETAILED IN ODOT STANDARD DRAWING MT–101.60 AT BOTH ENDS OF THE PROJECT DURING THE PERIOD IN WHICH THE ROAD IS CLOSED TO TRAFFIC. THE CONTRACTOR SHALL ALSO PLACE THE THREE SIGNS LEADING IN TO BOTH ENDS OF THE PROJECT PER ODOT STANDARD DRAWING MT–101.60. THIS CLOSURE SHALL BE IN PLACE PRIOR TO BEGINNING ANY REMOVAL OPERATIONS. THE CONTRACTOR SHALL ADVISE THE COUNTY A MINIMUM OF TEN (10) CALENDAR DAYS IN ADVANCE OF WHEN SETUP OF THE CONSTRUCTION CLOSURE WILL OCCUR AND COORDINATE WITH THE COUNTY THE SALVAGE AND REMOVAL OF THE EXISTING PORTABLE CONCRETE BARRIER AND TEMPORARY BARRICADES.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST 72 HOURS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING MORGANA RUN TRAIL TO TRAFFIC:

- THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS – PUBLIC INFORMATION OFFICE
- THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 12 – PUBLIC INFORMATION OFFICE
- THE CITY OF CLEVELAND – CITY COUNCIL OFFICE, WARD 5
- THE CITY OF CLEVELAND – POLICE, FIRE, AND SERVICE DEPARTMENTS
- THE SLAVIC VILLAGE DEVELOPMENT CORPORATION

BIKE PATH CLOSURE

THE MAKING OF THIS IMPROVEMENT REQUIRES THAT MORGANA RUN TRAIL BE CLOSED TO BICYCLE AND PEDESTRIAN TRAFFIC FOR THE DURATION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, ERECTING, MAINTAINING, AND SUBSEQUENTLY REMOVING THE FOLLOWING IN ORDER TO CLOSE THE TRAIL:

1. AT THE WORK LIMITS TO THE WEST OF E. 49TH STREET, SIGN (A) AS SHOWN BELOW AND SUFFICIENT BARRICADES PLACED BETWEEN THE EXISTING TIMBER FENCES TO CLOSE THE TRAIL.

2. AT THE INTERSECTION OF THE TRAIL AND ACKLEY AVENUE, SIGN (B) AS SHOWN BELOW.

3. AT THE INTERSECTION OF THE TRAIL AND E. 72ND STREET, SIGN (C) AS SHOWN BELOW.

FOR ALL SIGNS, THE MODIFIED TEXT MAY BE ACCOMPLISHED BY ATTACHING CUSTOM OVERLAYS TO STANDARD SIGNS. FOR EXAMPLE, AN OVERLAY WITH THE WORD "TRAIL" MAY BE USED TO REPLACE THE WORD "ROAD". IF USED, OVERLAYS SHALL HAVE ORANGE BACKGROUND WITH BLACK LETTERING OF THE SAME STYLE AND HEIGHT AS THE STANDARD SIGN LETTERING.

(A)	(B)	(C)
TRAIL CLOSED	TRAIL CLOSED 0.6 MILES AHEAD NO ACCESS TO E. 49TH ST.	TRAIL CLOSED 1.2 MILES AHEAD NO ACCESS TO E. 49TH ST.
R11–2–48 (MODIFIED) ON TYPE III BARRICADE	R11–3a–60 (MODIFIED) ON TYPE III BARRICADE	R11–3a–60 (MODIFIED) ON TYPE III BARRICADE

ALL COSTS RELATED TO THE BIKE PATH CLOSURE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN.

SHOULDER CLOSURES ON I–77

THE CONTRACTOR IS ALLOWED TO TEMPORARILY CLOSE THE RIGHT SHOULDER OF I–77 NORTHBOUND ADJACENT TO THE PROJECT IF ACCESS TO THE ODOT RIGHT–OF–WAY AT THE ROADWAY / BRIDGE DECK LEVEL IS REQUIRED TO SAFELY PERFORM WORK. TEMPORARY SHOULDER CLOSURES MUST BE REQUESTED BY COMPLETING ODOT PERMIT APPLICATION MR505 AND SUBMITTING IT TO THE ODOT DISTRICT 12 OFFICE FOR APPROVAL. THE CONTRACTOR SHALL NOT OCCUPY OR ENCROACH UPON THE ODOT RIGHT–OF–WAY AT THE ROADWAY / BRIDGE DECK LEVEL WITHOUT PRIOR APPROVAL FROM ODOT OR WITHOUT A TEMPORARY SHOULDER CLOSURE IN PLACE.

TEMPORARY SHOULDER CLOSURES SHALL COMPLY FULLY WITH THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) AND ALL APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, ERECTING, MAINTAINING, AND SUBSEQUENTLY REMOVING ALL REQUIRED WORK ZONE TRAFFIC CONTROL DEVICES AND ADVANCE WARNING SIGNAGE.

LONG–TERM SHOULDER CLOSURES ARE NOT PERMITTED FOR THIS PROJECT. TEMPORARY SHOULDER CLOSURES WILL BE PERMITTED ONLY DURING THE TIMES AS DEFINED BY THE LATEST REVISION OF THE ODOT DISTRICT 12 "PERMITTED LANE CLOSURE TIMES" DOCUMENT, WHICH CAN BE DOWNLOADED AT:

http://www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx

REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION RIGHT–OF–WAY USER PERMITS INSTRUCTIONS IN SECTION 200, SPECIAL PROVISIONS, OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET, INCLUDED FOR INFORMATION ONLY.

ALL COSTS RELATED TO THE TEMPORARY SHOULDER CLOSURES, IF UTILIZED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 – WATER	1.5 M GAL
ITEM 616 – CALCIUM CHLORIDE	0.15 TON

CITY OF CLEVELAND PERMITS

IN THE CITY OF CLEVELAND, ALL PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. PERMITS INCLUDE, BUT ARE NOT LIMITED TO, STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT, AND/OR SIDEWALK PERMIT AND MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

TRAVIS EVANS
DEPARTMENT OF FINANCE
DIVISION OF ASSESSMENTS AND LICENSES
601 LAKESIDE AVENUE, ROOM 122
CLEVELAND, OHIO 44114
PHONE: (216) 664–2174
E–MAIL: dalpermits@city.cleveland.oh.us

ALL STREET OPENING REPAIRS, CURB REPAIRS, AND/OR SIDEWALK REPAIRS, EITHER INCIDENTAL TO THE PROJECT OR PART OF THE PROJECT, MUST BE PERFORMED IN ACCORDANCE WITH CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED FROM THE DIVISION OF ENGINEERING AND CONSTRUCTION BY CALLING (216) 664–2381.

ALL PERMITS, FEES, AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT WORK ITEMS. FOR BIDDING PURPOSES, FEES AND CHARGES MAY BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES AT (216) 664–2174.

ADDITIONAL CONTACTS

LISTED BELOW IS THE CONTACT INFORMATION FOR THE CITY OF CLEVELAND'S REAL ESTATE COMMISSIONER:

JAMES DEROSA, COMMISSIONER OF REAL ESTATE
CITY OF CLEVELAND
PHONE: (216) 664–4052
E–MAIL: jderosa@city.cleveland.oh.us

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DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED	DRAWN	REVIEWED	DATE
PAT	BPS	MJL	10/15/13
CHECKED	REVISED	STRUCTURE FILE No.	
BPS		1835246	

GENERAL NOTES – 4
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

5 / 36

6
37

STANDARD DRAWINGS AND SPECIFICATIONS

REFER TO THE FOLLOWING ODOT STANDARD BRIDGE DRAWINGS:

AS-1-81	REVISED	1/18/13
BR-2-98	REVISED	7/20/12
PSID-1-13	REVISED	7/19/13
SBR-1-13	DATED	7/19/13

AND TO THE FOLLOWING CUYAHOGA COUNTY ENGINEER CONSTRUCTION DRAWINGS:

AS-1C	REVISED	9/06/11
CP-1C	REVISED	2/13/13
PRF-1C	REVISED	2/08/12

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, AND THE ODOT 2004 BRIDGE DESIGN MANUAL.

DESIGN LOADING

HS25 AND THE ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 30 PSF

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

EPOXY COATED REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) = 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) = 5.0 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ. IN PER STRAND
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

STRUCTURAL STEEL - ASTM A709 GRADE 50, MINIMUM YIELD STRENGTH 50 KSI
(CURB PLATE, CROSS FRAMES, AND UTILITY SUPPORTS)

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
3" CONCRETE COVER

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1¼" INCH THICK.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FIELD MEASUREMENTS. THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05 AND 105.02 OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET.

BASE CONTRACT BID PRICES UPON THE RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. ALL PROJECT WORK, HOWEVER, SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

PLANS OF THE EXISTING STRUCTURE ARE ON FILE AT THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS, 2100 SUPERIOR VIADUCT, CLEVELAND, OHIO 44113. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH ALL PERTINENT EXISTING DRAWINGS AND DETAILS RELEVANT TO THIS PROJECT.

ADDITIONAL SOILS INFORMATION

IN ADDITION TO THE SOIL BORING INFORMATION GIVEN IN THE PLANS, THE REPORT OF STRUCTURE FOUNDATION EXPLORATION PREPARED BY DLZ OHIO, INC. DATED AUGUST 13, 2013 HAS BEEN INCLUDED IN SECTION 200 OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET FOR REFERENCE.

CONCRETE COVER FOR REINFORCING STEEL

MINIMUM CONCRETE COVER FOR ALL REINFORCING BARS SHALL BE TWO INCHES (2") UNLESS SHOWN OTHERWISE IN THE PLANS.

UTILITY LINES

THE UTILITY(IES) SHALL BEAR ALL EXPENSES INVOLVED IN RELOCATING THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

DOMINION EAST OHIO UTILITY COORDINATION

DOMINION EAST OHIO PLANS TO REPLACE A PORTION OF THE EXISTING 20" DIAMETER GAS LINE WITH A NEW 20" DIAMETER GAS LINE IN COORDINATION WITH THIS PROJECT. THE CONTRACTOR SHALL WORK CLOSELY WITH DOMINION EAST OHIO TO SCHEDULE THE DEACTIVATION OF THE EXISTING GAS LINE AND THE SUBSEQUENT INSTALLATION OF THE NEW GAS LINE ON THE PROPOSED SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

- REMOVAL OF THE EXISTING GAS LINE WITHIN THE LIMITS OF THE EXISTING STRUCTURE AFTER DOMINION EAST OHIO HAS DEACTIVATED AND CUT OFF THE THE LINE AT EACH END, INCIDENTAL TO ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
- PROVISION AND INSTALLATION OF PVC SLEEVES THROUGH THE SEMI-INTEGRAL END DIAPHRAGM AS SHOWN IN THE PLANS ON SHEET 29/36.
- PROVISION AND INSTALLATION OF STRUCTURAL STEEL GAS LINE SUPPORTS, INCLUDING ROLLER HANGER AND NON-CONDUCTIVE ROLLER ASSEMBLY, AS SHOWN IN THE PLANS ON SHEET 26/36.

DOMINION EAST OHIO WILL SUPPLY THE NEW GAS LINE PIPE, REQUIRED SEALS AND SPACERS, AND LABOR TO PUSH THE NEW PIPE ACROSS THE BRIDGE THROUGH THE INSTALLED PVC CASING AND GAS LINE SUPPORTS. INSTALLATION OF THE NEW GAS LINE MUST OCCUR AFTER COMPLETION OF THE BRIDGE DECK CONCRETE POUR AND BEFORE PLACEMENT OF THE BACKFILL BEHIND THE SEMI-INTERGRAL END DIAPHRAGMS AND CONSTRUCTION OF THE APPROACH SLABS. THE CONTRACTOR SHALL WORK CLOSELY WITH DOMINION EAST OHIO TO SCHEDULE THE WORK.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DOMINION'S PIPELINE IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P (SAFE EXCAVATION AND SHORING). ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DOMINION EAST OHIO'S (DEO) EXISTING PIPELINE AND ALL OTHER IMPROVEMENTS. EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION TEST STATION WIRES AND DEVICES, VALVE BOXES, ETC.). DEO FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL DEO EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE, AND IN WORKING ORDER. THE CROSSING OF DEO'S PIPELINE WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING DEO FACILITY. PLEASE CONTACT DOMINION'S CORROSION DEPARTMENT: DAVE CUTLIP (330-266-2121), RICK MCDONALD (330-266-2122) OR AL HUMRICHOUSER (330-478-3757).

FIRST ENERGY (CEI) UTILITY COORDINATION

FIRST ENERGY PLANS TO PERFORM THE FOLLOWING WORK TO FACILITATE THE CONSTRUCTION OF THIS PROJECT: EXISTING CEI POLE #528907 WILL BE REPLACED WITH A NEW POLE LOCATED 22' NORTH OF THE EXISTING POLE LOCATION. EXISTING CEI POLE #528908 WILL BE REPLACED WITH A NEW POLE LOCATED 8' SOUTH OF THE EXISTING POLE LOCATION. EXISTING CEI POWER CONDUCTORS LOCATED ON THE EAST SIDE OF E. 49TH ST. WITHIN THE PROJECT LIMITS BETWEEN EXISTING POLES #528907 AND #528908 WILL BE TEMPORARILY REMOVED PRIOR TO CRANE ACTIVITIES. THE CONTRACTOR SHALL WORK CLOSELY WITH FIRST ENERGY TO SCHEDULE THE WORK AND LIMIT THE AMOUNT OF DOWN TIME REQUIRED.

THE EXISTING CEI CONDUCTORS CROSSING E. 49TH ST. DIAGONALLY BETWEEN STA. 9+00 AND STA. 10+00 WILL REMAIN ENERGIZED DURING CONSTRUCTION. FOR THE PURPOSES OF 29 CFR 1926 SUBPART CC, THE CEI ELECTRIC DISTRIBUTION FACILITIES PROXIMATE TO THE STRUCTURE ARE ENERGIZED AT LESS THAN 50,000-VOLTS. ALL CONTRACTORS/OWNERS MUST KNOW AND COMPLY WITH OCCUPATIONAL SAFETY HEALTH ADMINISTRATION (OSHA) SAFE-WORKING CLEARANCES BETWEEN PERSONS OR ANY CONDUCTIVE OBJECT AND ENERGIZED BARE WIRES.

CLEVELAND PUBLIC POWER (CPP) UTILITY COORDINATION

CLEVELAND PUBLIC POWER PLANS TO PERFORM THE FOLLOWING WORK TO FACILITATE THE CONSTRUCTION OF THIS PROJECT: EXISTING CPP POLE SOUTH OF THE BRIDGE WILL BE REPLACED BY A NEW POLE LOCATED SOUTH OF THE EXISTING POLE LOCATION. EXISTING CPP POLE NORTH OF THE BRIDGE WILL BE REPLACED BY A NEW POLE LOCATED NORTH OF THE EXISTING POLE LOCATION. EXISTING CPP POWER CONDUCTORS LOCATED ON THE WEST SIDE OF E. 49TH ST. WITHIN THE PROJECT LIMITS WILL REMAIN ENERGIZED UNLESS OTHERWISE COORDINATED BY THE CONTRACTOR WITH CPP. THE CONTRACTOR SHALL WORK CLOSELY WITH CLEVELAND PUBLIC POWER TO SCHEDULE THE WORK AND LIMIT THE AMOUNT OF DOWN TIME REQUIRED.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL OF THE DESIGNATED PORTIONS OF THE STRUCTURE INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. LIMITS OF REMOVAL SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE REMOVAL SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:

1. THE EXISTING SUPERSTRUCTURE IN ITS ENTIRETY, INCLUDING EXISTING ASPHALT CONCRETE WEARING COURSE.
2. THE EXISTING PIERS IN THEIR ENTIRETY, INCLUDING FOOTINGS TO THE LIMITS DEFINED IN CMS 202.
3. PORTIONS OF THE EXISTING ABUTMENTS AS DETAILED IN THE PLANS. REMOVE EXISTING REINFORCED CONCRETE BACKWALLS AND BEAM SEATS IN THEIR ENTIRETY. REMOVE EXISTING STONE MASONRY ABUTMENT WALLS TO THE LOCATIONS SHOWN IN THE PLANS.

SUBMIT WORKING DRAWINGS AND CALCULATIONS IN ACCORDANCE WITH CMS 501.05. THE USE OF EXPLOSIVES AND/OR HEADACHE BALLS WILL NOT BE PERMITTED.

ABUTMENT CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS DOWELED INTO EXISTING STONE COURSES THAT ARE TO REMAIN OR TO BE REMOVED FOR SALVAGE. AFTER CAREFULLY REMOVING CONCRETE WITHIN THESE AREAS, CUT OFF THE EXISTING DOWEL BARS FLUSH WITH THE TOP OF STONE.

ABUTMENT STONE REMOVAL: CAREFULLY REMOVE STONE IN FULL PIECES TO EXISTING MORTAR JOINTS WHEREVER POSSIBLE. WHERE A SAW CUT IS CALLED FOR IN THE PLANS, SAW CUT BOUNDARIES OF PROPOSED STONE REMOVAL A MINIMUM OF 1 INCH DEEP AND CAREFULLY REMOVE STONE TO A FLAT PLANE. ALL STONES REMOVED SHALL BE SALVAGED FOR STORAGE.

ALL CONCRETE, REINFORCING STEEL ASPHALT, ETC. REMOVED FROM THE STRUCTURE AND NOT REUSED SHALL, UNLESS OTHERWISE SPECIFIED, BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM/HER FROM THE SITE. THE MATERIALS SHALL NOT BE PERMITTED TO REMAIN ON SITE, WITHIN THE RIGHT-OF-WAY OR ELSEWHERE UNLESS SPECIFIED BY THE ENGINEER.

REMOVAL AND SALVAGE OF PORTIONS OF EXISTING STRUCTURE

CAREFULLY REMOVE EXISTING ABUTMENT STONE BLOCKS AND STORE WITHIN THE RIGHT-OF-WAY BELOW THE BRIDGE FOR FUTURE SALVAGE AND REUSE BY SLAVIC VILLAGE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE CONTRACTOR SHALL DESIGN ALL COFFERDAMS, CRIBS, SHEETING, SHORING, BRACING, OR OTHER MEANS NECESSARY TO SAFELY SUPPORT THE SIDES OF EXCAVATIONS, EMBANKMENTS, ADJACENT BUILDINGS, TRACKS OR OTHER PREMISES IMPACTED BY THE PROPOSED CONSTRUCTION WORK. THE CONTRACTOR SHALL PREPARE AND PROVIDE DETAILED PLANS IN ACCORDANCE WITH CMS 501.05. PAYMENT FOR THE DESIGN, CONSTRUCTION AND REMOVAL OF ALL MEANS OF TEMPORARY SUPPORT SHALL BE AT THE CONTRACT LUMP SUM BID PRICE FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

ALL PROVISIONS OF CMS 503 SHALL APPLY EXCEPT THAT THE USE OF SLAG, IN ANY FORM, IS NOT PERMITTED AS BACKFILL MATERIAL PER 503.08.

ITEM SPECIAL - SEALING, MISC: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING

THIS ITEM SHALL CONFORM TO "ITEM SPECIAL - SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING" AS CONTAINED IN SECTION 400, "PROPOSAL NOTES", OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET. THE COLOR OF THE PROPOSED SEALER SHALL BE FEDERAL STANDARD COLOR NO. 595B-27778 (LIGHT-NEUTRAL, SEMI-GLOSS) ON ALL CONCRETE SURFACES SPECIFIED TO BE COATED EXCEPT FOR THE EXTERIOR PRESTRESSED CONCRETE I-BEAMS. THE COLOR OF THE PROPOSED SEALER ON THE EXTERIOR PRESTRESSED CONCRETE I-BEAMS SHALL BE GREEN MATCHING THE COLOR OF THE STEM OF THE "ROTOFLORA" SCULPTURE LOCATED ADJACENT TO THE MORGANA RUN TRAILHEAD AT THE NORTHEAST CORNER OF THE BRIDGE.

DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED PAT | DRAWN AFA | CHECKED BPS | REVISED | REVIEWED MJL 10/15/13 | DATE | STRUCTURE FILE No. 1835246

STRUCTURE GENERAL NOTES - 1
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

6 / 36

7 / 37

ITEM 516 – 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN
ITEM 516 – 2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

INCIDENTAL TO THESE ITEMS, SEAL THE TOP HORIZONTAL SURFACES OF ALL PREFORMED EXPANSION JOINT FILLER WITH AN APPROVED POLYURETHANE JOINT SEALANT OR CAULKING. LOCATIONS TO BE SEALED INCLUDE THE JOINTS BETWEEN PROPOSED WINGWALLS AND EXISTING STONE OR CONCRETE WALLS AND THE JOINTS BETWEEN THE PROPOSED WINGWALLS AND THE SEMI-INTEGRAL END DIAPHRAGM. SUBMIT PRODUCT NAME, MANUFACTURER'S SPECIFICATION, AND OTHER PERTINENT DOCUMENTATION TO THE ENGINEER FOR APPROVAL BEFORE ORDERING MATERIAL.

ITEM 518 – POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN

PLACE POROUS BACKFILL WITH FILTER FABRIC AS DETAILED IN THE PLANS AND PER CMS 518.05 EXCEPT THAT THE USE OF SLAG, IN ANY FORM, IS NOT PERMITTED.

ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN

THIS ITEM CONSISTS OF CONSTRUCTING REINFORCED CONCRETE APPROACH SLABS WITH SIDEWALKS AND PARAPETS IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS, ODOT STANDARD DRAWINGS AS-1-81, BR-2-98, AND SBR-1-13, AND CUYAHOGA COUNTY STANDARD DRAWINGS AS-1C AND CP-1C.

METHOD OF MEASUREMENT: THE AREA MEASURED WILL BE THE NUMBER OF SQUARE YARDS, COMPLETED IN PLACE.

BASIS OF PAYMENT: ACCEPTED QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD, COMPLETED IN PLACE. THIS PRICE SHALL BE FULL COMPENSATION FOR ALL CONCRETE, EPOXY COATED REINFORCING STEEL, PREFORMED EXPANSION JOINT FILLER, AND OTHER INCIDENTAL MATERIALS, LABOR AND EQUIPMENT. PAYMENT WILL BE MADE UNDER ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN.

ITEM SPECIAL – FORM LINER

THIS ITEM INCLUDES THE FURNISHING OF ALL MATERIALS AND THE NECESSARY LABOR TO PROVIDE AN ARCHITECTURAL TREATMENT ON THE FACE OF THE ABUTMENT SEAT. ALL WORK SHALL CONFORM TO APPLICABLE PROVISIONS OF CMS 511 EXCEPT AS MODIFIED AND ADDED HEREIN.

ARCHITECTURAL TREATMENT OF THE ABUTMENT SEAT SHALL BE AS FOLLOWS:

GENERAL: THE WORK SHALL INCLUDE:

1. CONSTRUCTION OF TEXTURED CONCRETE SURFACES USING FORM LINERS DESIGNED TO DUPLICATE CLOSELY THE APPEARANCE OF NATURAL STONE.
2. DESIGN AND PATTERN OF THE CONCRETE SURFACES SHALL FOLLOW THE MANUFACTURER'S STANDARD DRAWING SELECTED.
3. PATTERN SHALL BE: CUSTOM ROCK #T135, NATURAL LIMESTONE; FITZGERALD FORMLINERS #17030, HEAVY GRANITE; OR APPROVED EQUAL.
4. SHOP DRAWINGS: PLAN, ELEVATION, AND DETAILS TO SHOW OVERALL PATTERN, JOINT LOCATIONS, FORM TIE LOCATIONS, AND END, EDGE, AND OTHER SPECIAL CONSIDERATIONS.
5. SAMPLES: FORM TIES, SAMPLE AND DESCRIPTION, SHOWING METHOD OF SEPARATION WHEN FORMS ARE REMOVED.
6. MANUFACTURER OF FORM LINERS MUST HAVE A MINIMUM OF FIVE YEARS EXPERIENCE MAKING CUSTOM FORM LINERS AND COLOR STAINS TO CREATE FORMED CONCRETE SURFACES TO MATCH NATURAL STONE SHAPES AND SURFACE TEXTURES.
7. PRE-INSTALLATION MEETING: SCHEDULE CONFERENCE WITH MANUFACTURER'S REPRESENTATIVE TO ASSURE UNDERSTANDING OF FORM LINER USE, REQUIREMENTS FOR CONSTRUCTION OF MOCK-UP, AND TO COORDINATE THE WORK.

PRODUCTS:

1. FORM LINERS AS MANUFACTURED BY:

CUSTOM ROCK FORMLINER
2020 WEST 7TH STREET
ST. PAUL, MN 55116
(651) 699-1345
www.customrock.com

FITZGERALD FORMLINERS
1500 EAST CHESTNUT AVENUE
SANTA ANA, CA 92701
(714) 547-6710
www.formliners.com

FORM LINERS: REUSABLE, MADE OF HIGH STRENGTH URETHANE, EASILY ATTACHABLE TO FORMS. FORM LINERS SHALL NOT COMPRESS MORE THAN 1/4 INCH WHEN CONCRETE IS POURED AT THE RATE OF 10 VERTICAL FEET PER HOUR. FORM LINERS SHALL BE REMOVABLE WITHOUT CAUSING DETERIORATION OF SURFACE OF UNDERLYING CONCRETE.

ITEM SPECIAL – FORM LINER (CONT.)

2. RELEASE AGENT: COMPATIBLE WITH FORM LINER. CONSULT MANUFACTURER.
3. FORM TIES: DESIGNED TO SEPARATE AT LEAST 1 INCH BACK FROM THE FINISHED SURFACE, LEAVING ONLY A NEAT HOLE THAT CAN BE PLUGGED WITH PATCHING MATERIAL.

EXECUTION:

1. FORMED CONCRETE CONSTRUCTION: INSTALLER SHALL HAVE A MINIMUM FIVE YEARS OF EXPERIENCE WITH VERTICALLY FORMED ARCHITECTURAL CONCRETE. INSTALLER SHALL BE TRAINED IN MANUFACTURER'S SPECIAL TECHNIQUES IN ORDER TO ACHIEVE REALISTIC SURFACES.
2. FORM LINER PREPARATION: CLEAN AND MAKE FREE OF BUILDUP PRIOR TO EACH POUR. INSPECT FOR BLEMISHES OR TEARS. REPAIR IF NEEDED FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
3. FORM LINER ATTACHMENT: PLACE ADJACENT LINERS WITH LESS THAN 1/4 INCH SEPARATION BETWEEN LINERS. ATTACH LINERS TO FORMS SECURELY, FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
4. FORM RELEASE AGENT: APPLY FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
5. FORM STRIPPING AND RELATED CONSTRUCTION SHALL AVOID CREATING DEFECTS IN THE FINISHED SURFACE.
6. WHERE FORM LINERS ABUT, CAREFULLY BLEND TO MATCH THE BALANCE OF THE STONE PATTERN, AVOIDING VISIBLE SEAMS OR FORM MARKS.
7. PLACE FORM TIES AT THE THINNEST POINTS OF LINER (HIGHER POINTS OF FINISHED SURFACE). NEATLY PATCH THE HOLE THAT REMAINS AFTER DISENGAGING THE PROTRUDING PORTION OF THE TIE SO THAT IT WILL NOT BE VISIBLE AFTER SEALING THE CONCRETE SURFACE.
8. WHERE AN EXPANSION JOINT MUST OCCUR AT A POINT OTHER THAN AT MORTAR OR RUSTICATION JOINTS, SUCH AS THE FACE OF CONCRETE TEXTURE WHICH IS TO HAVE THE APPEARANCE OF STONE, CONSULT MANUFACTURER FOR PROPER TREATMENT OF EXPANSION MATERIAL.

BASIS OF PAYMENT: ACCEPTED QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER SQUARE FOOT, COMPLETED IN PLACE. THIS PRICE SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SPECIFIED. PAYMENT WILL BE MADE UNDER ITEM SPECIAL – FORM LINER.

ITEM 601 – CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN

PLACE CRUSHED AGGREGATE SLOPE PROTECTION AS DETAILED IN THE PLANS AND AS PER CMS 601.06 EXCEPT THAT THE USE OF SLAG IN ANY FORM IS NOT PERMITTED.

ITEM 607 – FENCE, MISC.: ARCHITECTURAL FENCE

THIS ITEM CONSISTS OF FURNISHING AND INSTALLING METAL FENCE IN REASONABLY CLOSE CONFORMANCE WITH THE LINES, GRADES, LOCATIONS, DETAILS AND NOTES SHOWN IN THE PLANS.

THE ARCHITECTURAL STEEL FENCE SYSTEM SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS FOR AEGIS II MAJESTIC STYLE FENCE, AS MANUFACTURED BY AMERISTAR FENCE, P.O. BOX 581000, TULSA, OK 74158, PHONE: (918) 853-0898, FAX: (877) 926-3747, BRONZE FINISH. THE AMERISTAR AEGIS II FENCE HAS BEEN SELECTED FOR THE SUPERIOR DURABILITY OF ITS PERMACOAT POLYESTER POWDER COATING SYSTEM IN THE HARSH SALT SPRAY ENVIRONMENT OF THIS APPLICATION. ALTERNATE FENCE SYSTEMS WILL NOT BE CONSIDERED.

REFER TO THE ARCHITECTURAL FENCE SYSTEM SPECIFICATION IN SECTION 200, "SPECIAL PROVISIONS" OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET FOR ADDITIONAL SPECIAL PROVISIONS FOR THE AEGIS II MAJESTIC STYLE FENCE, AS MANUFACTURED BY AMERISTAR FENCE.

THE FENCE SYSTEM SHALL INCLUDE ALL APPLICABLE COMPONENTS INCLUDING POSTS, POST ANCHORS, BASE PLATES, PICKETS, RAILS, RAIL SUPPORT BRACKETS, RINGS, MESH, AND ANY ASSOCIATED HARDWARE.

METHOD OF MEASUREMENT AND PAYMENT: THE QUANTITY WILL BE MEASURED AS THE ACTUAL LINEAR FEET OF STEEL FENCE INSTALLED AS SPECIFIED. THE QUANTITY SO MEASURED SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO SATISFACTORLY PERFORM THIS WORK. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR ITEM 607 – FENCE, MISC.: ARCHITECTURAL FENCE.

ITEM SPECIAL – ASBESTOS ABATEMENT
ITEM SPECIAL – ASBESTOS INSPECTION

AN ASBESTOS SURVEY WAS CONDUCTED ON THIS STRUCTURE. A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST COMPLETED THE SURVEY ON MARCH 13, 2013. THE SURVEY DID NOT IDENTIFY ASBESTOS CONTAINING HAZARDOUS MATERIALS ON THE BRIDGE. A COPY OF THE ASBESTOS SURVEY REPORT IS PROVIDED IN SECTION 200 OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET.

THE REMOVAL AND DISPOSAL OF ANY ASBESTOS CONTAINING MATERIAL (ACM) DURING CONSTRUCTION MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) STANDARDS FOR ASBESTOS. THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHAP THAT WILL BE ON-SITE TO MONITOR THE REMOVAL OF ALL ACM.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM WITH SECTIONS I, II, IV, VI, VII, AND XVI COMPLETED IS INCLUDED IN SECTION 200 OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET. THE CONTRACTOR WILL COMPLETE SECTIONS III, V, VIII, IX, X, XII, XVII, AND XVIII OF THE SIGNED FORM AND SUBMIT THE COMPLETED FORM TO THE ENGINEER AND THE LOCAL AIR AUTHORITY AT LEAST TEN (10) DAYS PRIOR TO COMMENCEMENT OF DEMOLITION WORK. THE LOCAL AIR AUTHORITY FOR CUYAHOGA COUNTY IS:

MR. GEORGE BAKER, COMMISSIONER OF AIR QUALITY DIVISION
CITY OF CLEVELAND, DEPARTMENT OF PUBLIC HEALTH, DIVISION OF AIR QUALITY
75 ERIEVIEW PLAZA, 2ND FLOOR
CLEVELAND, OHIO 44114-1839
PHONE: (216) 664-4010
FAX: (216) 664-2197
www.clevelandhealth.org
E-MAIL: gbaker@city.cleveland.oh.us

IT IS POSSIBLE THAT THERE MAY BE NON-VISIBLE OR PREVIOUSLY UNIDENTIFIED ACM ENCOUNTERED DURING CONSTRUCTION. ANY MATERIAL SUSPECTED OF CONTAINING ASBESTOS SHALL BE EVALUATED BY A CERTIFIED ASBESTOS EVALUATION SPECIALIST TO DETERMINE WHETHER THE MATERIAL ACTUALLY CONTAINS ASBESTOS. IF IT DOES, THEN THE ACM SHALL BE REMOVED AS DESCRIBED ABOVE.

BASIS OF PAYMENT:

THE CONTRACTOR SHALL FURNISH ALL LABOR (INCLUDING THE CERTIFIED ASBESTOS EVALUATION SPECIALIST), EQUIPMENT AND MATERIALS NECESSARY TO EVALUATE ALL SUSPECTED ACM DISCOVERED DURING CONSTRUCTION. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT UNIT BID PRICE FOR ITEM SPECIAL – ASBESTOS INSPECTION.

THE CONTRACTOR SHALL FURNISH ALL LABOR (INCLUDING THE CERTIFIED ASBESTOS ABATEMENT SPECIALIST), EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE, SUBMIT AND COMPLY WITH THE OEPA NOTIFICATION FORM AND TO REMOVE, TRANSPORT AND DISPOSE OF ALL KNOWN AND/OR PREVIOUSLY UNIDENTIFIED ACM IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY OEPA) SOLID WASTE FACILITY. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT LUMP SUM BID FOR ITEM SPECIAL – ASBESTOS ABATEMENT.

PLAN ABBREVIATIONS

ABUT.	– ABUTMENT
BRG.	– BEARING
c/c	– CENTER TO CENTER
C.J.	– CONSTRUCTION JOINT
CLR.	– CLEAR COVER
CONC.	– CONCRETE
E.F.	– EACH FACE
EL.	– ELEVATION
EXIST.	– EXISTING
F.A.	– FORWARD ABUTMENT
F.F.	– FAR FACE
INV.	– INVERT
MAX.	– MAXIMUM
MIN.	– MINIMUM
N.F.	– NEAR FACE
PEJF	– PREFORMED EXPANSION JOINT FILLER
PROP.	– PROPOSED
R.A.	– REAR ABUTMENT
REINF.	– REINFORCED, REINFORCING
SPA.	– SPACED, SPLACES
TYP.	– TYPICAL

DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED PAT | DRAWN AFA | CHECKED BPS | REVISED | REVIEWED MJL 10/15/13 | DATE | STRUCTURE FILE No. 1835246

STRUCTURE GENERAL NOTES – 2
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

M:\Proj\1322\1003\02\structures\sheets\008_CR378SN002.dwg

ESTIMATED QUANTITIES

CALCULATED BY: PAT 10/12/13
CHECKED BY: BPS 10/14/13

REF. NO.	ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION			GENERAL	OTHER *	REFERENCE SHEET NO.
					ROADWAY					
1	201	11000	LUMP	–	CLEARING AND GRUBBING			LUMP		
2	202	23000	247	SQ YD	PAVEMENT REMOVED			247		
3	202	30000	799	SQ FT	WALK REMOVED			649	150	
4	202	32000	161	FT	CURB REMOVED			111	50	
5	202	38000	51	FT	GUARDRAIL REMOVED			51		
6	202	75000	89	FT	FENCE REMOVED			89		
7	202	98100	3	EACH	REMOVAL MISC.: BOLLARD REMOVED				3	
8	203	10000	95	CU YD	EXCAVATION			87	8	
9	203	20001	277	CU YD	EMBANKMENT, AS PER PLAN			277		2/36
10	204	10000	520	SQ YD	SUBGRADE COMPACTION			487	33	
11	606	25550	3	EACH	ANCHOR ASSEMBLY, MGS TYPE A			3		
12	606	35050	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1			3		
13	607	20000	71	FT	FENCE, TYPE CL			71		
14	607	35001	20	FT	FENCE REMOVED AND REBUILT, AS PER PLAN			20		3/36
15	608	10001	487	SQ FT	4" CONCRETE WALK, AS PER PLAN			337	150	3/36
16	608	52041	192	SQ FT	CURB RAMP, TYPE B2, AS PER PLAN			192		35/36
17	622	10161	48	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN			48		4/36
18	626	00100	18	EACH	BARRIER REFLECTOR			18		
					EROSION CONTROL					
19	659	00100	2	EACH	SOIL ANALYSIS TEST			2		
20	659	00300	34	CU YD	TOPSOIL			34		
21	659	10001	618	SQ YD	SEEDING AND MULCHING, AS PER PLAN			618		4/36
22	659	20000	0.08	TON	COMMERCIAL FERTILIZER			0.08		
23	659	31000	0.13	ACRE	LIME			0.13		
24	659	35000	3.3	M GAL	WATER			3.3		
25	832	30000	2000	EACH	EROSION CONTROL			2000		
					PAVEMENT					
26	254	01000	123	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE			123		
27	304	20001	87	CU YD	AGGREGATE BASE, AS PER PLAN			81	6	3/36
28	407	10000	15	GALLON	TACK COAT			12	3	
29	408	10000	12	GALLON	PRIME COAT				12	
30	411	10001	5	CU YD	STABILIZED CRUSHED AGGREGATE, AS PER PLAN			5		3/36

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

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DESIGNED PAT
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CHECKED BPS
REVIEWED MJL DATE 10/15/13
REVISED
STRUCTURE FILE No. 1835246

ESTIMATED QUANTITIES – 1
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

8 / 36

9
37

ESTIMATED QUANTITIES

CALCULATED BY: PAT 10/12/13
CHECKED BY: BPS 10/14/13

REF. NO.	ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION			GENERAL	OTHER *	REFERENCE SHEET NO.
					PAVEMENT (CONTINUED)					
31	448	46051	2	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, AS PER PLAN				2	3/36
32	448	47021	5	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN			4	1	3/36
33	451	16011	312	SQ YD	12" REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN			312		3/36
34	SPECIAL	45134000	84	FT	PRESSURE RELIEF JOINT, CUYAHOGA COUNTY, TYPE B			84		
35	609	12001	20	FT	COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN			20		4/36
36	609	14001	90	FT	CURB, TYPE 2-A, AS PER PLAN			90		4/36
37	609	26001	50	FT	CURB, TYPE 6, AS PER PLAN				50	4/36
					TRAFFIC CONTROL					
38	630	03100	54	FT	GROUND MOUNTED SUPPORT, NO. 3 POST			54		
39	630	80100	12	SQ FT	SIGN, FLAT SHEET, TYPE H			12		
40	630	84900	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL			4		
41	630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION			4		
42	630	86002	5	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			5		
43	642	00300	0.06	MILE	CENTER LINE, TYPE 1			0.06		
44	SPECIAL	69050600	3	EACH	BOLLARD				3	
					STRUCTURES (OVER 20')					
					FOR STRUCTURES ESTIMATED QUANTITIES, SEE SHEET 10/36					
					MAINTENANCE OF TRAFFIC					
76	614	11001	LUMP	–	MAINTAINING TRAFFIC, AS PER PLAN			LUMP		5/36
77	616	10000	1.5	M GAL	WATER			1.5		
78	616	20000	0.15	TON	CALCIUM CHLORIDE			0.15		
					MISCELLANEOUS					
79	614	11000	LUMP	–	MAINTAINING TRAFFIC			LUMP		
80	619	16011	6	MONTH	FIELD OFFICE, TYPE B, AS PER PLAN			6		2/36
81	623	10001	LUMP	–	CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN			LUMP		2/36
82	624	10000	LUMP	–	MOBILIZATION			LUMP		
83	SPECIAL	–	LUMP	–	PRECONSTRUCTION PHOTOGRAPHIC PROJECT DOCUMENTATION (SEE PROPOSAL NOTE)			LUMP		P.N.

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

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ESTIMATED QUANTITIES - 2
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

9 / 36

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ESTIMATED QUANTITIES

CALCULATED BY: PAT 10/12/13
CHECKED BY: BPS 10/14/13

REF. NO.	ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	SUPER STRUCTURE	GENERAL	REFERENCE SHEET NO.
					STRUCTURES (OVER 20')					
45	202	11203	LUMP	–	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	6/36
46	202	22900	182	SQ YD	APPROACH SLAB REMOVED				182	
47	503	11101	LUMP	–	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LUMP	6/36
48	503	21101	80	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN	40	40			6/36
49	509	10000	59820	POUND	EPOXY COATED REINFORCING STEEL	2722	3115	53983		
50	510	10000	196	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	104	92			
51	511	34444	257	CU YD	CLASS QC2 CONCRETE, BRIDGE DECK			257		
52	511	34448	26	CU YD	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			26		
53	511	45510	70	CU YD	CLASS QC1 CONCRETE, ABUTMENT	33	37			
54	512	10050	112	SQ YD	SEALING OF CONCRETE SURFACES (NON EPOXY)			86	26	
55	512	33300	137	SQ YD	TYPE A WATERPROOFING	31	40	66		
56	512	44400	7	SQ YD	TYPE B WATERPROOFING	3	4			
57	SPECIAL	51275500	599	SQ YD	SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING	31	40	476	52	6/36
58	513	10000	LUMP	–	STRUCTURAL STEEL MEMBERS, LEVEL UF			LUMP		
59	513	95030	8 *	EACH	STRUCTURAL STEEL, MISC.: UTILITY SUPPORT, LEVEL UF			8		26/36
60	515	15040	6	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (66")			6		
61	515	20000	12	EACH	INTERMEDIATE DIAPHRAGMS			12		
62	515	20001	3 **	EACH	INTERMEDIATE DIAPHRAGMS, AS PER PLAN			3		26/36
63	516	13601	83	SQ FT	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	83				7/36
64	516	13901	30	SQ FT	2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN			30		7/36
65	516	14020	137	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			137		
66	516	44101	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN			12		24/36
					(LOAD PLATE 11" x 19" x 1.50", NEOPRENE 10" x 18" x 2.50")					
67	518	21201	77	CU YD	POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	42	35			7/36
68	518	40000	117	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	61	56			
69	518	40010	46	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	29	17			
70	526	10001	169	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN				169	7/36
71	SPECIAL	53013000	251	SQ FT	FORM LINER	138	113			7/36
72	601	20011	68	CU YD	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN				68	7/36
73	607	98000	255	FT	FENCE, MISC.: ARCHITECTURAL FENCE			197	58	7/36
74	SPECIAL	69071000	LUMP	–	ASBESTOS ABATEMENT				LUMP	7/36
75	SPECIAL	69071050	1	EACH	ASBESTOS INSPECTION				1	7/36

* THE FULL COST OF THIS ITEM IS TO BE PAID BY DOMINION EAST OHIO, SEE SHEET 26/36
** A PORTION OF THE COST OF THIS ITEM IS TO BE PAID BY DOMINION EAST OHIO, SEE SHEET 26/36

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ESTIMATED QUANTITIES – 3
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

10 / 36

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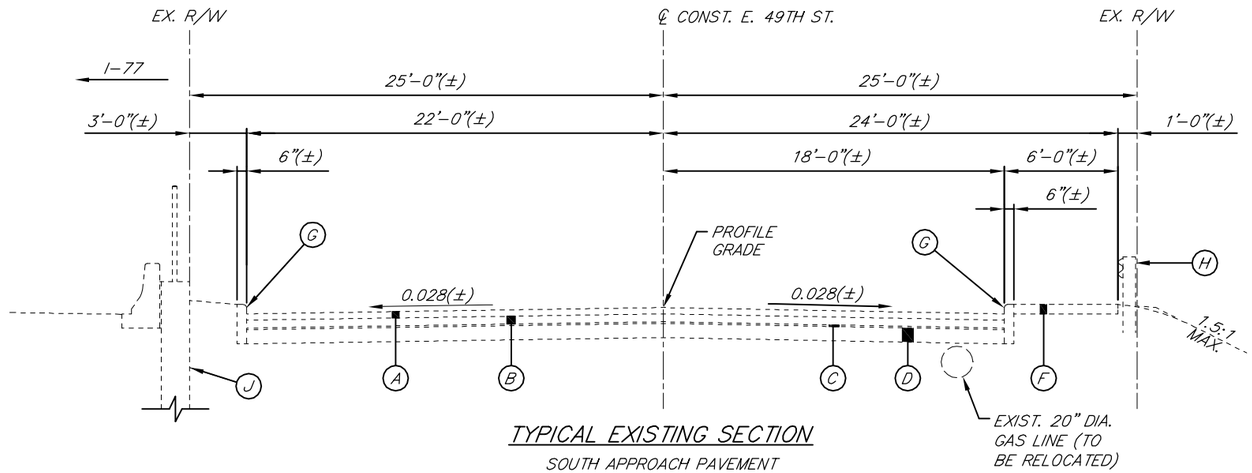
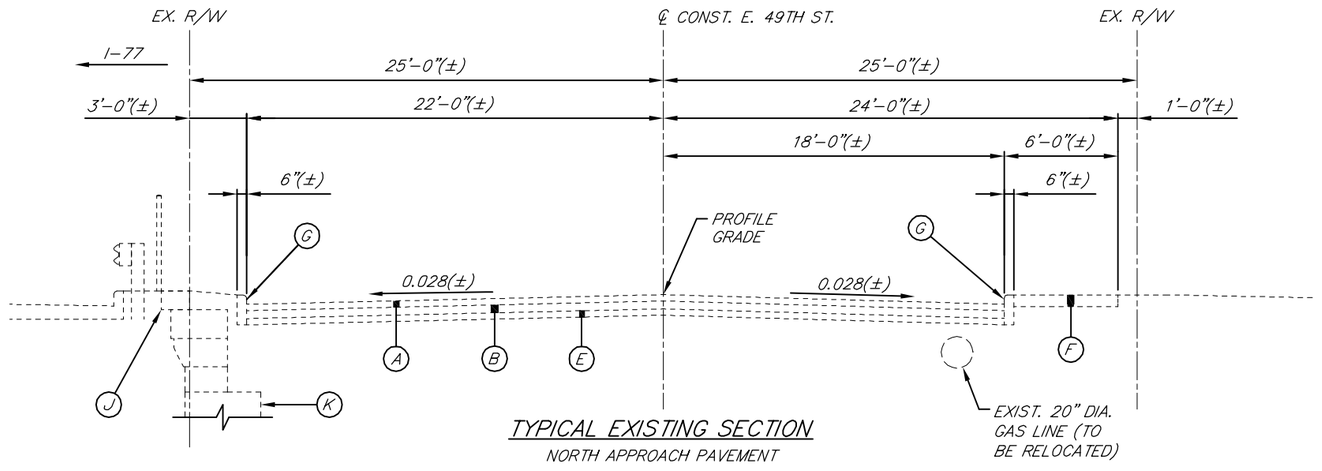


TYPICAL EXISTING SECTION

SOUTH APPROACH PAVEMENT



TYPICAL EXISTING SECTION

NORTH APPROACH PAVEMENT

LEGEND

- (A) ASPHALT CONCRETE – 4"(±)
- (B) STONE PAVERS – 5"(±)
- (C) FINE GRAVEL BEDDING – 1"(±)
- (D) PORTLAND CEMENT CONCRETE – 9"(±)
- (E) PORTLAND CEMENT CONCRETE – 4"(±)
- (F) 6"(±) CONCRETE WALK
- (G) 6"(±) CONCRETE CURB
- (H) EXISTING GUARDRAIL
- (J) EXISTING I-77 RETAINING WALL
- (K) EXISTING E. 49TH ST. BRIDGE WINGWALL

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EXISTING TYPICAL SECTIONS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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37

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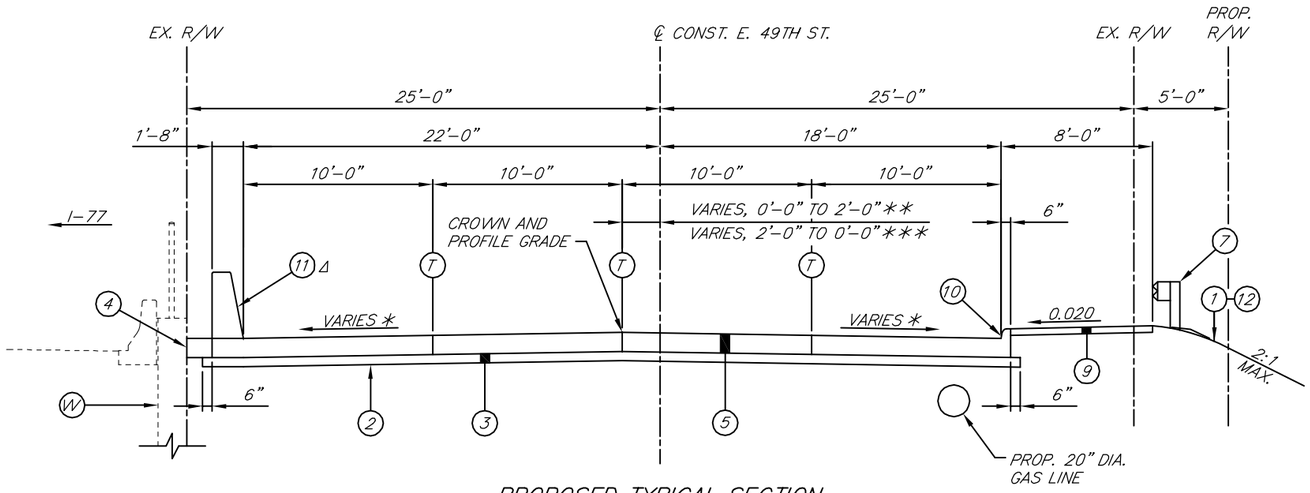
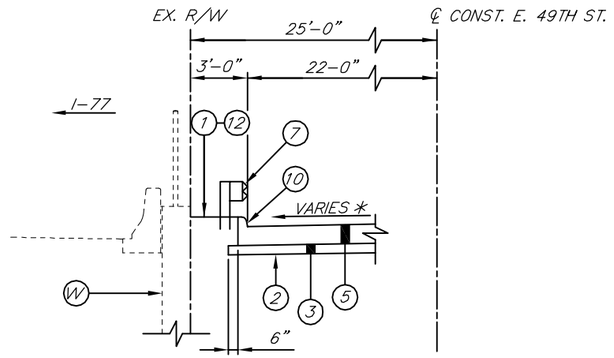


PROPOSED TYPICAL SECTION

** STA. 9+00.67 TO STA. 9+35.67 = 35.00'
*** STA. 10+64.33 TO STA. 10+98.23 = 33.90'

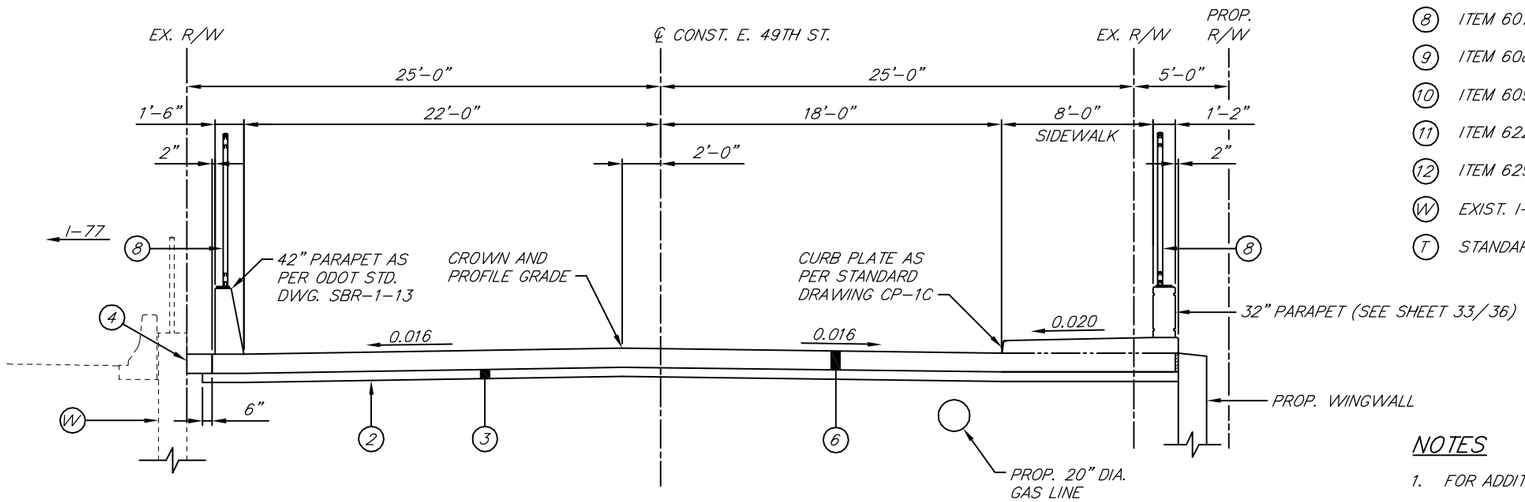
* VARY CROSS-SLOPE FROM 0.016 AT APPROACH SLAB TO MATCH EXISTING AT BUTT JOINT

Δ SEE CURB DETAIL FOR LEFT EDGE FROM STA. 9+00.67 TO STA. 9+21.67



CURB DETAIL

STA. 9+00.67 TO STA. 9+21.67 = 21.00'



APPROACH SLAB TYPICAL SECTION

STA. 9+35.67 TO STA. 9+50.67 = 15.00'
STA. 10+49.33 TO STA. 10+64.33 = 15.00'

LEGEND

(1) ITEM 203 – EMBANKMENT, AS PER PLAN
(2) ITEM 204 – SUBGRADE COMPACTION
(3) ITEM 304 – 6" AGGREGATE BASE, AS PER PLAN
(4) ITEM 411 – 12" STABILIZED CRUSHED AGGREGATE, AS PER PLAN
(5) ITEM 451 – 12" REINFORCED CONCRETE PAVEMENT, CLASS QC1
(6) ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T = 12"), AS PER PLAN
(7) ITEM 606 – MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
(8) ITEM 607 – FENCE, MISC.: ARCHITECTURAL FENCE
(9) ITEM 608 – 4" CONCRETE WALK, AS PER PLAN
(10) ITEM 609 – CURB, TYPE 2-A, AS PER PLAN
(11) ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(12) ITEM 629 – SEEDING AND MULCHING, AS PER PLAN
(W) EXIST. I-77 RETAINING WALL
(T) STANDARD LONGITUDINAL JOINT

NOTES

1. FOR ADDITIONAL DETAILS OF APPROACH SLAB, SEE SHEET 33/36.
2. FOR ARCHITECTURAL FENCE DETAILS, SEE SHEET 32/36.
3. FOR ADDITIONAL DETAILS OF APPROACH CURB & BARRIER, SEE SHEET 34/36.

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PROPOSED TYPICAL SECTIONS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

12 / 36

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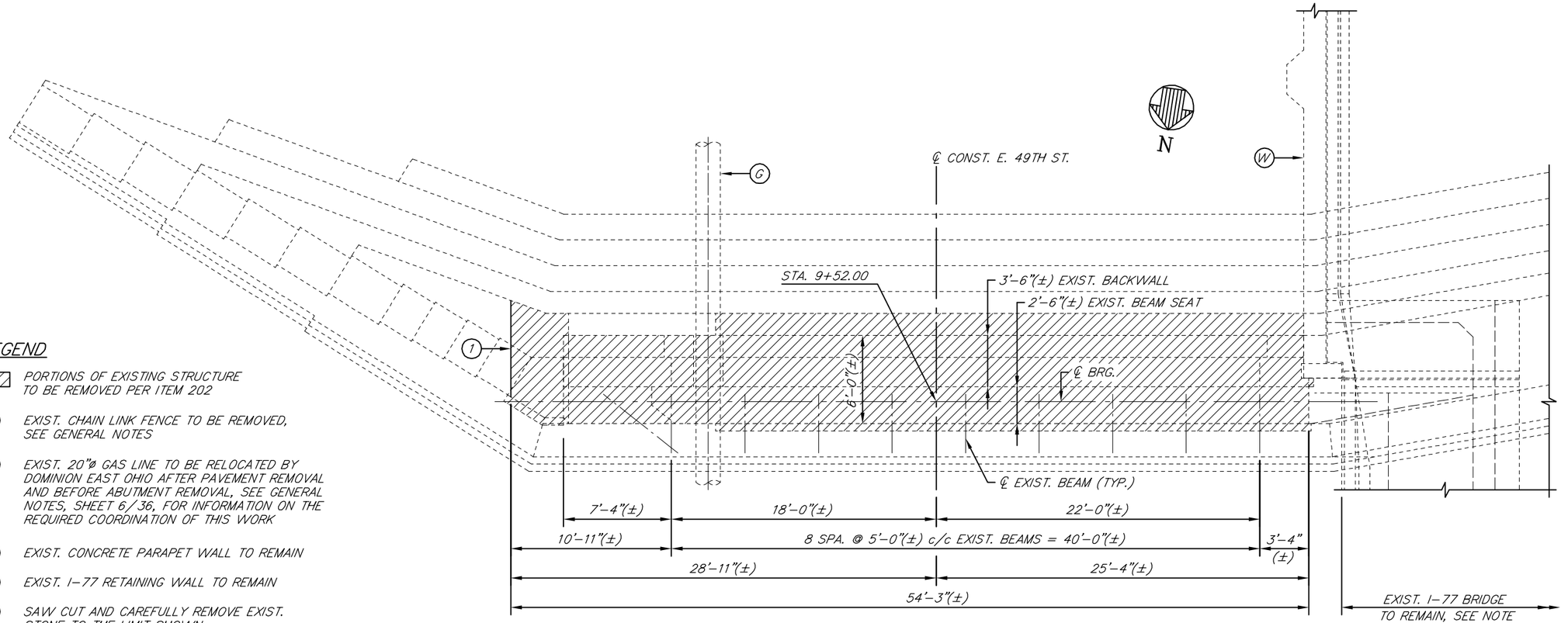
LEGEND

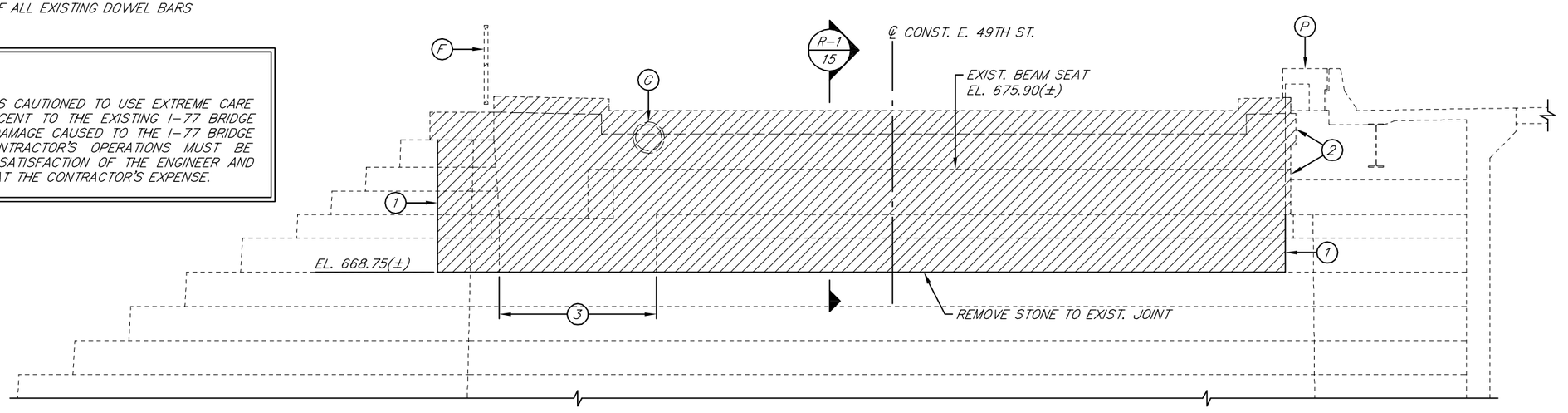
- PORTIONS OF EXISTING STRUCTURE TO BE REMOVED PER ITEM 202
- (F) EXIST. CHAIN LINK FENCE TO BE REMOVED, SEE GENERAL NOTES
- (G) EXIST. 20"ø GAS LINE TO BE RELOCATED BY DOMINION EAST OHIO AFTER PAVEMENT REMOVAL AND BEFORE ABUTMENT REMOVAL, SEE GENERAL NOTES, SHEET 6/36, FOR INFORMATION ON THE REQUIRED COORDINATION OF THIS WORK
- (P) EXIST. CONCRETE PARAPET WALL TO REMAIN
- (W) EXIST. I-77 RETAINING WALL TO REMAIN
- (1) SAW CUT AND CAREFULLY REMOVE EXIST. STONE TO THE LIMIT SHOWN
- (2) CAREFULLY REMOVE EXIST. CONCRETE AT EXIST. JOINT BETWEEN BACKWALLS
- (3) REMOVE EXIST. CONCRETE TO EXIST. STONE AND CUT OFF ALL EXISTING DOWEL BARS

NOTE:

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN WORKING ADJACENT TO THE EXISTING I-77 BRIDGE TO REMAIN. ANY DAMAGE CAUSED TO THE I-77 BRIDGE DUE TO THE CONTRACTOR'S OPERATIONS MUST BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND ODOT DISTRICT 12 AT THE CONTRACTOR'S EXPENSE.



PLAN



ELEVATION

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REAR ABUTMENT REMOVAL PLAN & ELEVATION
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

13 | 36

14
37

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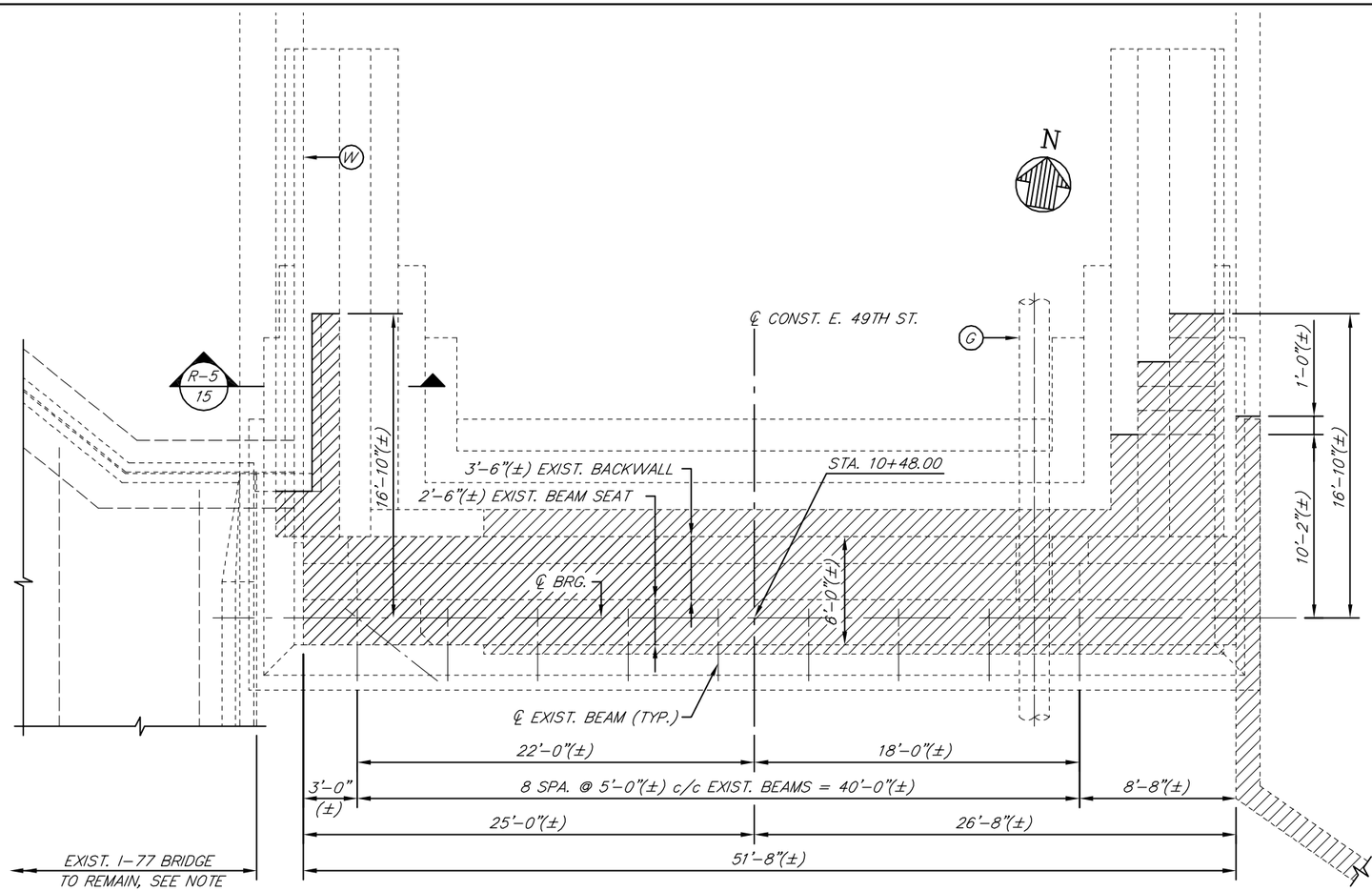
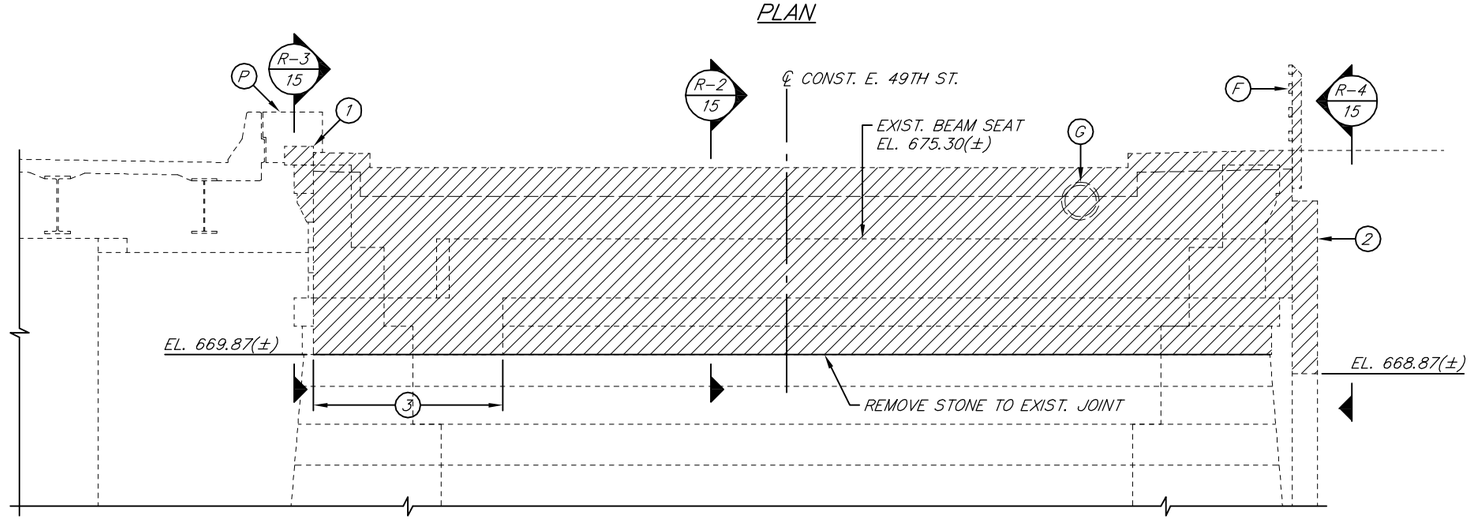


PLAN



ELEVATION

LEGEND

- PORTIONS OF EXISTING STRUCTURE TO BE REMOVED PER ITEM 202
- (F) EXIST. TIMBER FENCE TO BE REMOVED, SEE GENERAL NOTES
- (G) EXIST. 20"Ø GAS LINE TO BE RELOCATED BY DOMINION EAST OHIO AFTER PAVEMENT REMOVAL AND BEFORE ABUTMENT REMOVAL, SEE GENERAL NOTES, SHEET 6/36, FOR INFORMATION ON THE REQUIRED COORDINATION OF THIS WORK
- (P) EXIST. CONCRETE PARAPET WALL TO REMAIN
- (W) EXIST. I-77 RETAINING WALL TO REMAIN
- (1) SAW CUT AT FRONT FACE OF PARAPET AND CAREFULLY REMOVE EXIST. CONCRETE AND FIRST TWO COURSES OF EXIST. STONE
- (2) EXIST. BRICK WALL, REMOVE WITHIN THE LIMITS SHOWN TO EL. 668.87(±) OR BELOW
- (3) REMOVE EXIST. CONCRETE TO EXIST. STONE AND CUT OFF ALL EXISTING DOWEL BARS

NOTE:

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN WORKING ADJACENT TO THE EXISTING I-77 BRIDGE TO REMAIN. ANY DAMAGE CAUSED TO THE I-77 BRIDGE DUE TO THE CONTRACTOR'S OPERATIONS MUST BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND ODOT DISTRICT 12 AT THE CONTRACTOR'S EXPENSE.

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FORWARD ABUTMENT REMOVAL PLAN & ELEVATION
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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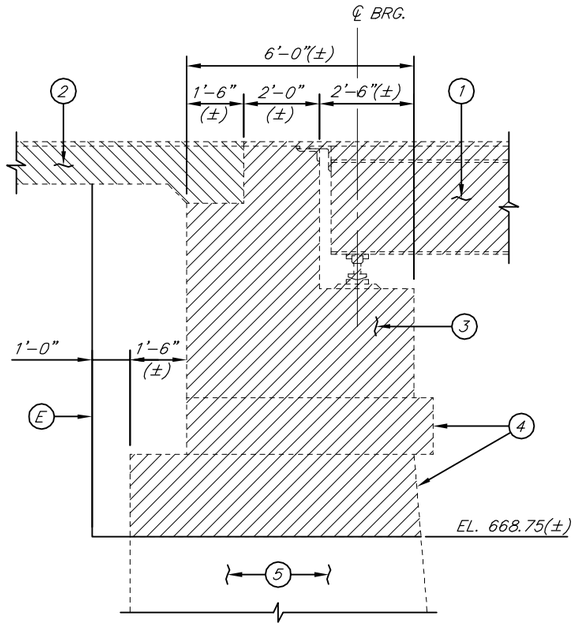
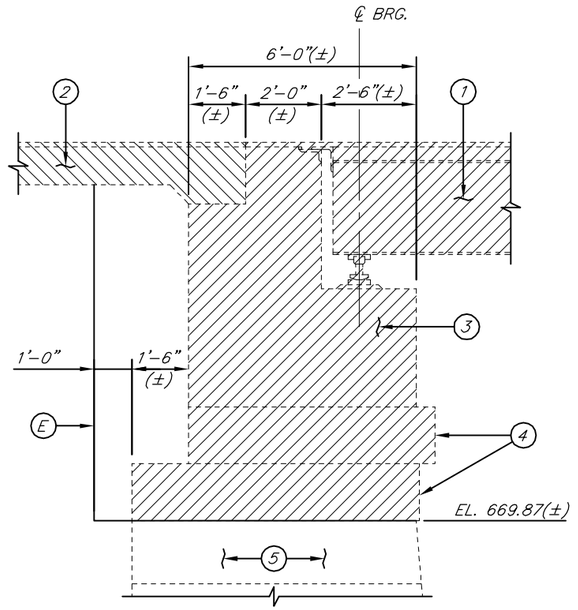
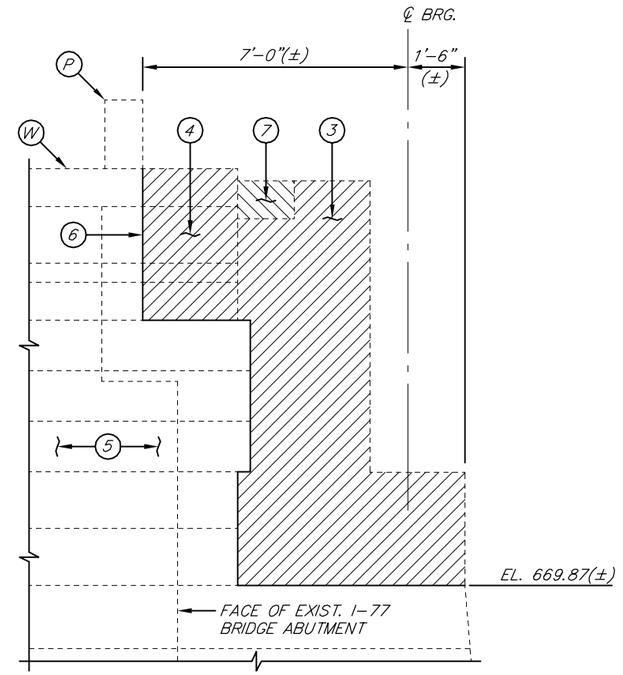
37



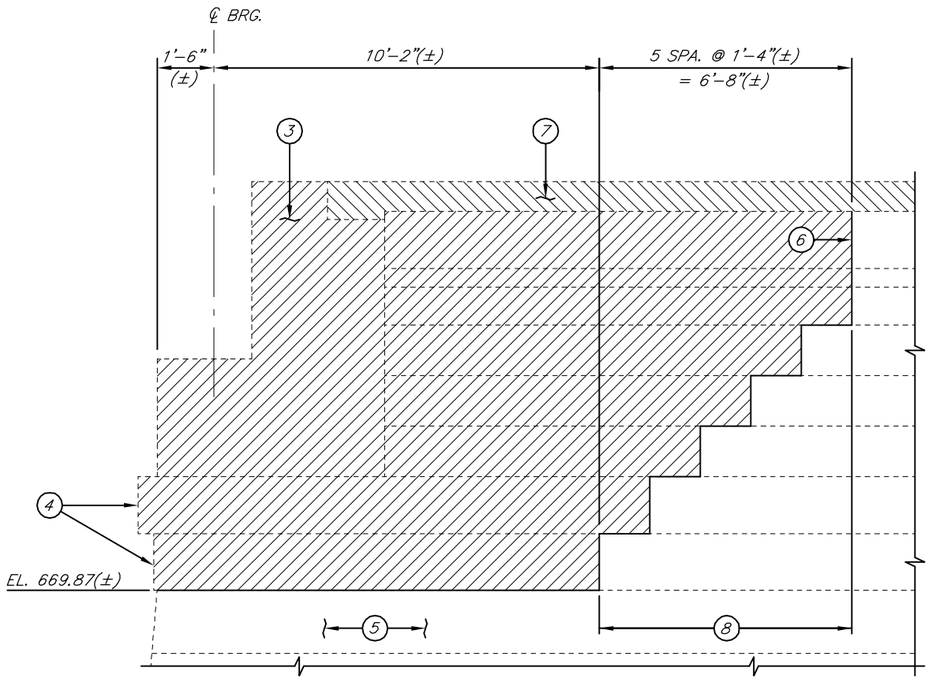
SECTION R-1 / 13



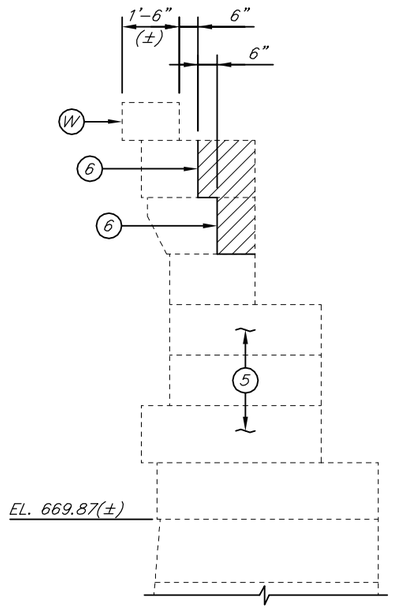
SECTION R-2 / 14



ELEVATION R-3 / 14



ELEVATION R-4 / 14



SECTION R-5 / 14

LEGEND

- PORTIONS OF EXISTING STRUCTURE TO BE REMOVED PER ITEM 202
- EXISTING APPROACH SLAB OR SIDEWALK TO BE REMOVED PER ITEM 202
- (E) PAY LIMITS OF UNCLASSIFIED EXCAVATION
- (P) EXIST. CONCRETE PARAPET WALL TO REMAIN
- (W) EXIST. I-77 RETAINING WALL ATTACHED TO TOP OF EXIST. STONE WINGWALL TO REMAIN
- (1) EXIST. SUPERSTRUCTURE TO BE REMOVED
- (2) EXIST. APPROACH SLAB TO BE REMOVED
- (3) EXIST. REINFORCED CONCRETE BEAM SEAT AND BACKWALL TO BE REMOVED
- (4) EXIST. STONE COURSES TO BE REMOVED
- (5) PORTION OF EXIST. STONE ABUTMENT WALL OR EXIST. STONE WINGWALL TO REMAIN
- (6) SAW CUT EXISTING CONCRETE OR STONE AND CAREFULLY REMOVE TO THIS LINE
- (7) EXIST. CONCRETE WALK TO BE REMOVED
- (8) REMOVE EXIST. STONE COURSES IN STEPPED FASHION APPROXIMATELY AS SHOWN

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ABUTMENT REMOVAL DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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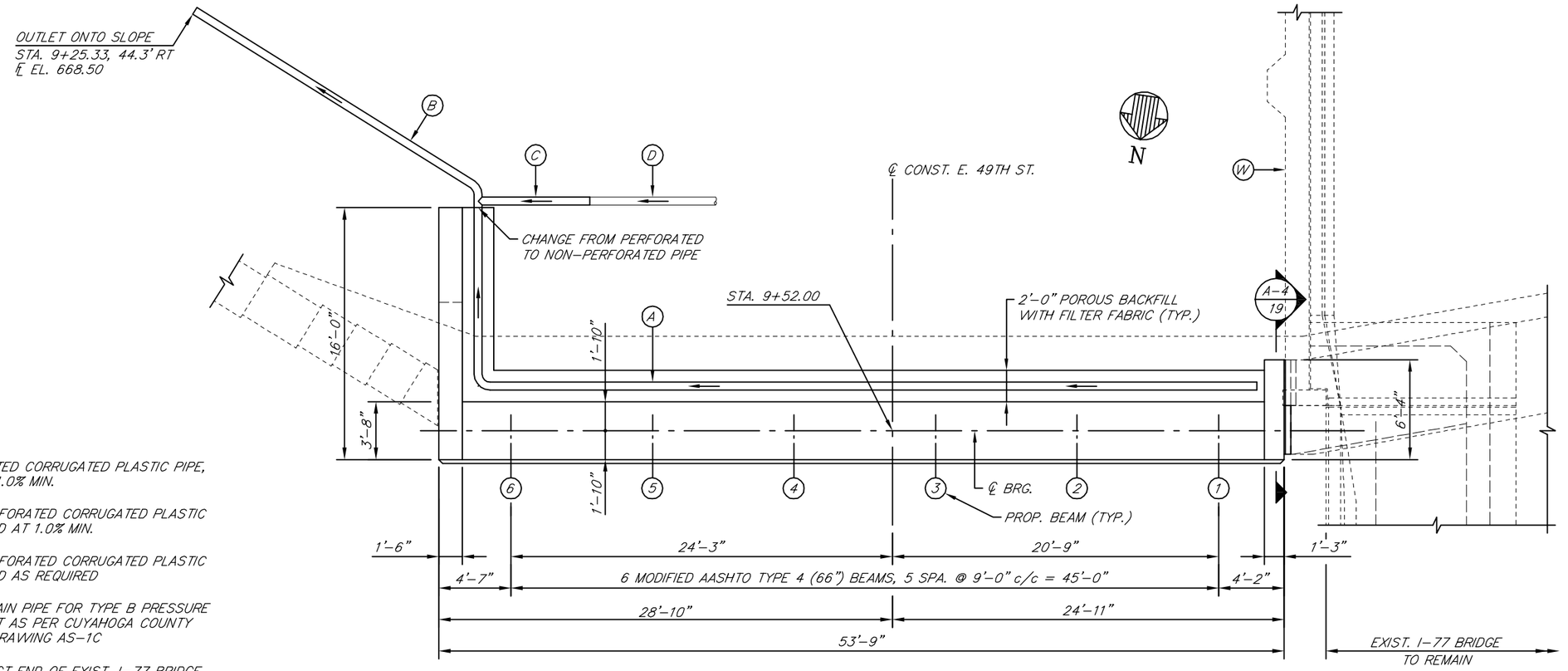
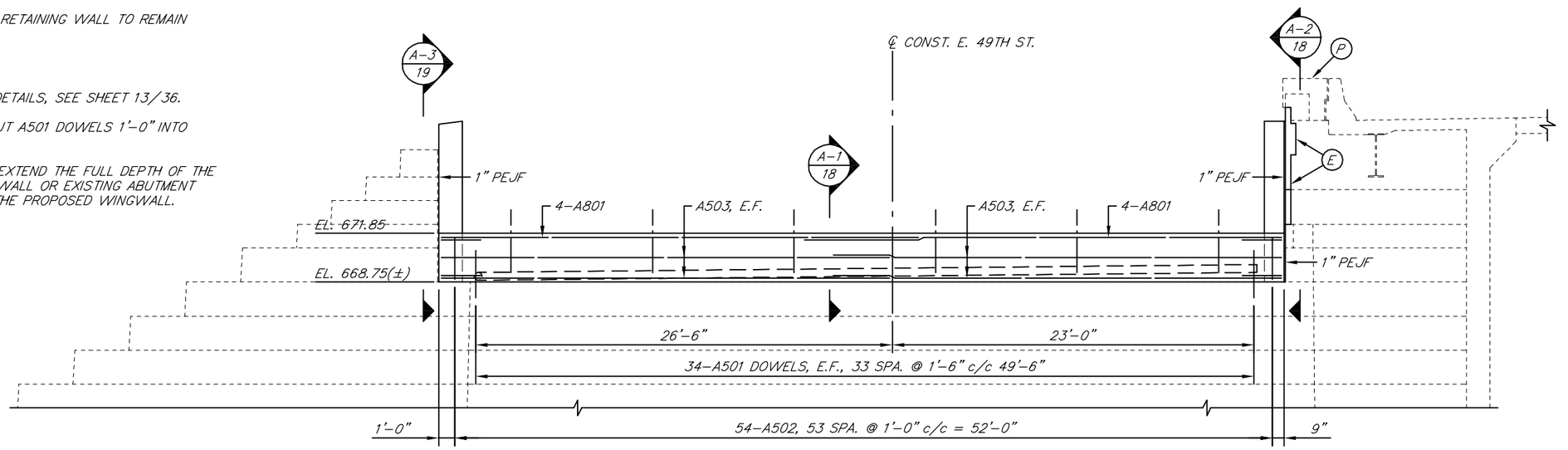


PLAN

EXIST. STONE BELOW EL. 668.75(±) NOT SHOWN



ELEVATION

LEGEND

- (A) 6" PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AT 1.0% MIN.
- (B) 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AT 1.0% MIN.
- (C) 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AS REQUIRED
- (D) 6" UNDERDRAIN PIPE FOR TYPE B PRESSURE RELIEF JOINT AS PER CUYAHOGA COUNTY STANDARD DRAWING AS-1C
- (E) RECONSTRUCT END OF EXIST. I-77 BRIDGE BACKWALL AND SEAT TO THE R/W LINE USING CLASS QC1 CONCRETE
- (P) EXIST. PARAPET WALL TO REMAIN
- (W) EXIST. I-77 RETAINING WALL TO REMAIN

NOTES

1. FOR REMOVAL DETAILS, SEE SHEET 13/36.
2. DRILL AND GROUT A501 DOWELS 1'-0" INTO EXIST. STONE.
3. 1" PEJF SHALL EXTEND THE FULL DEPTH OF THE EXISTING WINGWALL OR EXISTING ABUTMENT ADJACENT TO THE PROPOSED WINGWALL.

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PAT	ARA	MJL	10/15/13
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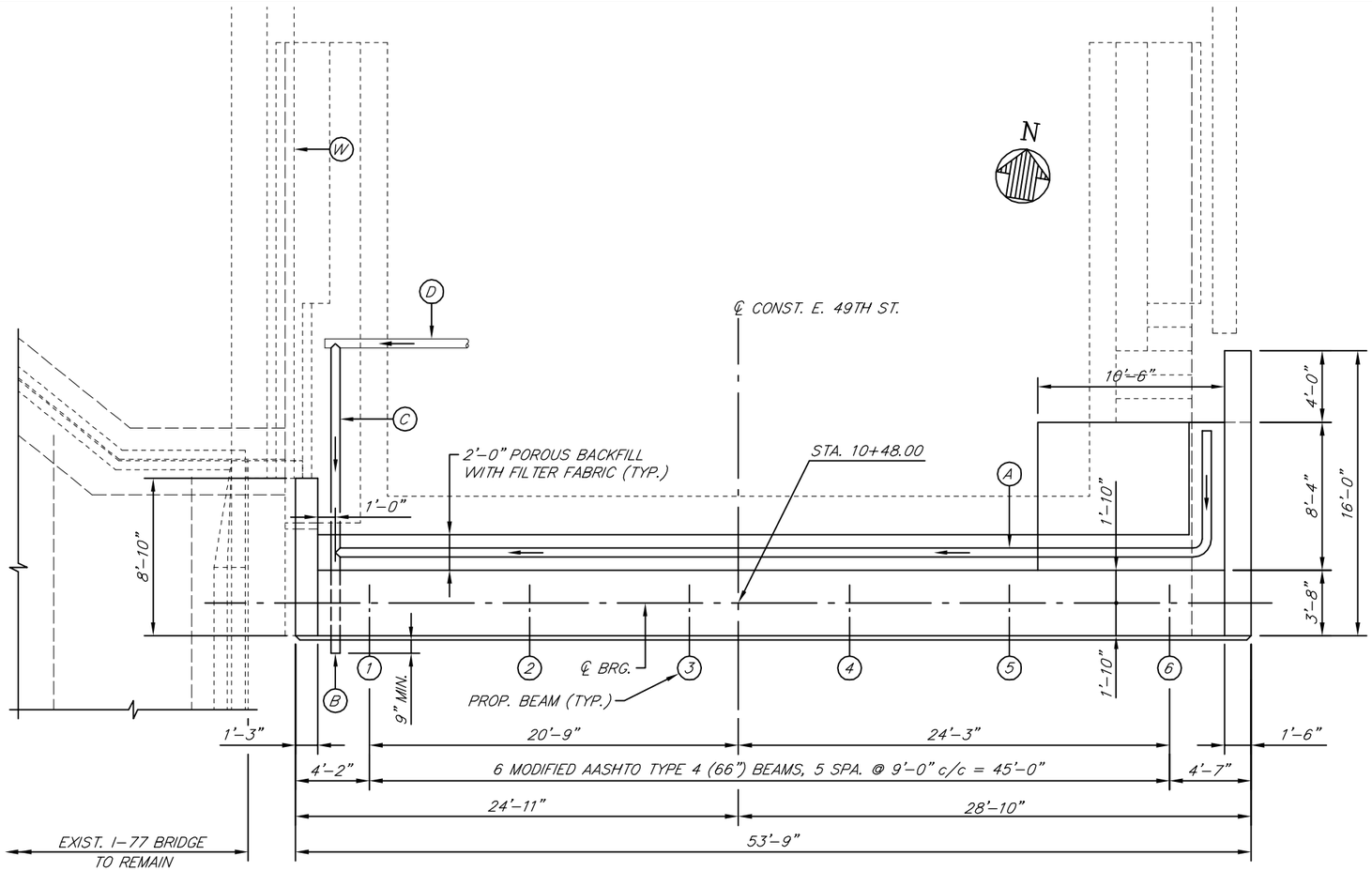
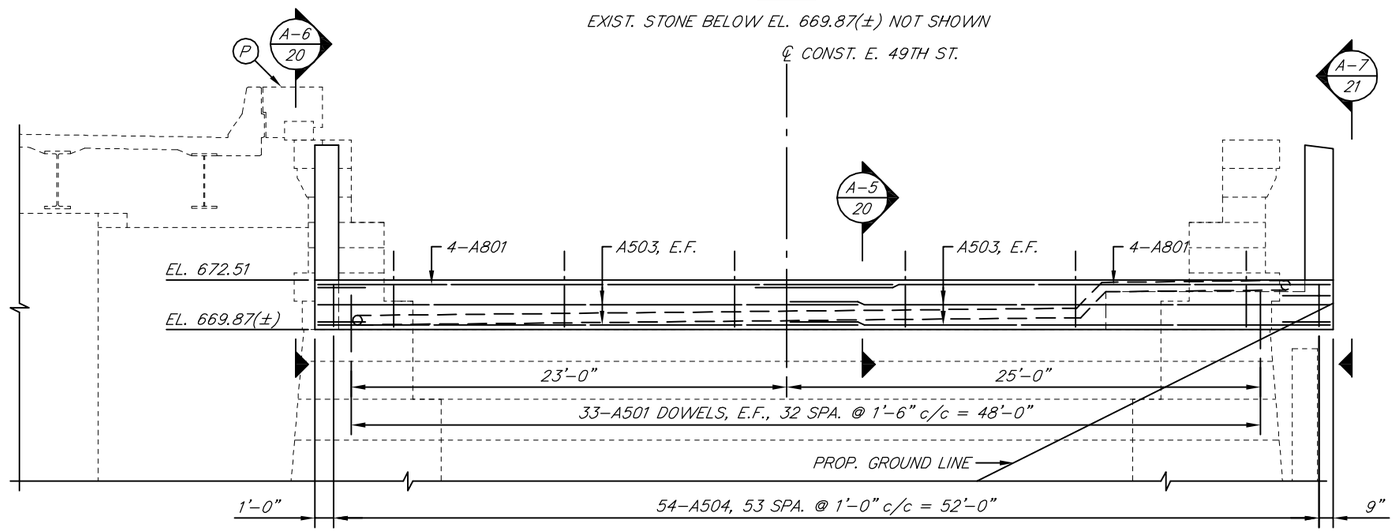
BPS		1835246	

REAR ABUTMENT PLAN & ELEVATION
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378



PLAN



ELEVATION

LEGEND

- (A) 6" PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AT 1.0% MIN.
- (B) 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AT 1.0% MIN., INSTALL ABOVE BOTTOM LAYER OF BEAM SEAT REINFORCING STEEL BEFORE PLACING CONCRETE
- (C) 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, SLOPED AS REQUIRED
- (D) 6" UNDERDRAIN PIPE FOR TYPE B PRESSURE RELIEF JOINT AS PER CUYAHOGA COUNTY STANDARD DRAWING AS-1C
- (P) EXIST. PARAPET WALL TO REMAIN
- (W) EXIST. I-77 RETAINING WALL TO REMAIN

NOTES

1. FOR REMOVAL DETAILS, SEE SHEET 14/36.
2. DRILL AND GROUT A501 DOWELS 1'-0" INTO EXIST. STONE.

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FORWARD ABUTMENT PLAN & ELEVATION
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

17 / 36

18
37

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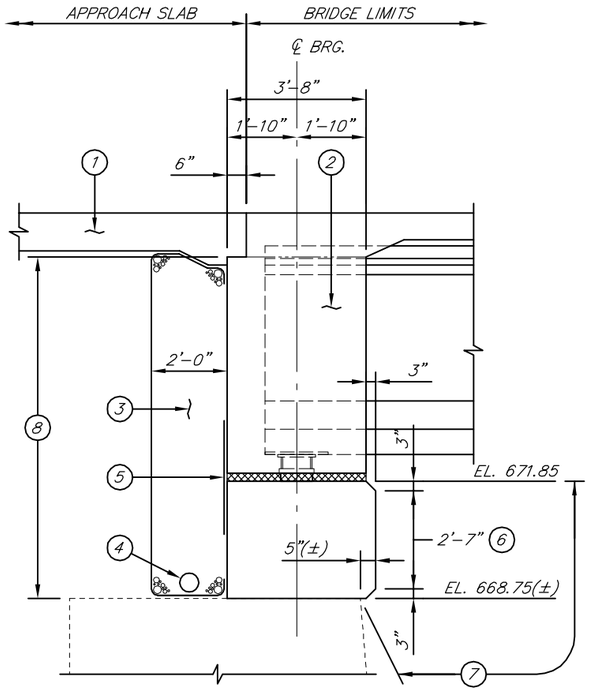
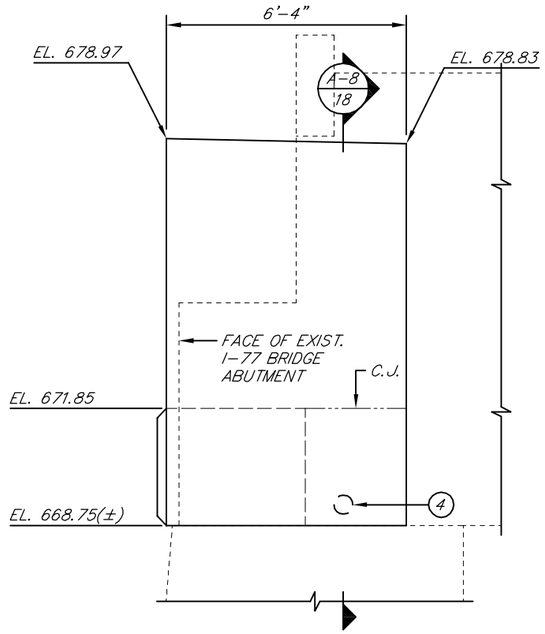


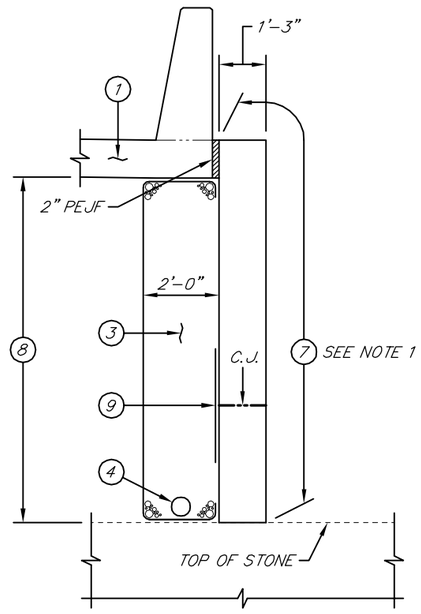
SECTION A-1 / 16

SHOWING DIMENSIONS



ELEVATION A-2 / 16

SHOWING DIMENSIONS



SECTION A-8 / 18

SHOWING DIMENSIONS

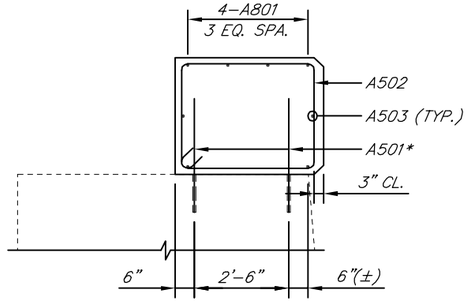
LEGEND

1. PROPOSED APPROACH SLAB
2. PROPOSED END DIAPHRAGM, FOR DETAILS SEE SHEET 29/36
3. POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN
4. 6" PERFORATED CORRUGATED PLASTIC PIPE
5. SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL CONSISTING OF NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON JOINT
6. LIMITS OF ITEM SPECIAL - FORM LINER
7. LIMITS OF ITEM SPECIAL - SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING
8. LIMITS OF ITEM 512 - TYPE A WATERPROOFING
9. ITEM 512 - TYPE B WATERPROOFING, 3'-0" WIDE, CENTERED ON JOINT

* DOWEL BAR TO BE DRILLED AND GROUTED 1'-0" INTO EXIST. STONE

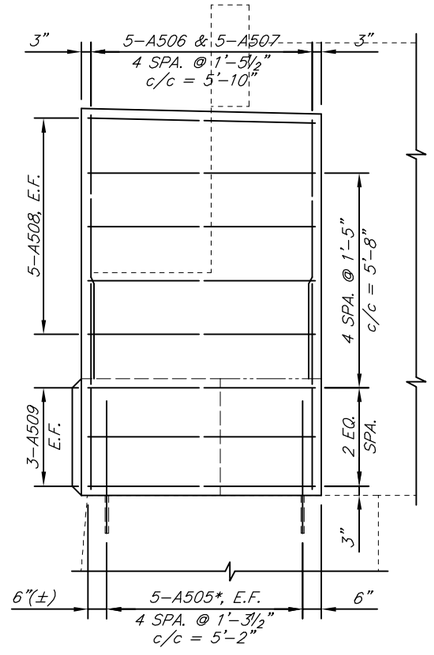
NOTES

1. LOWER LIMIT OF SEALING IS THE TOP OF EXISTING STONE OR TOP OF EXISTING CONCRETE OF THE ADJACENT ABUTMENT.



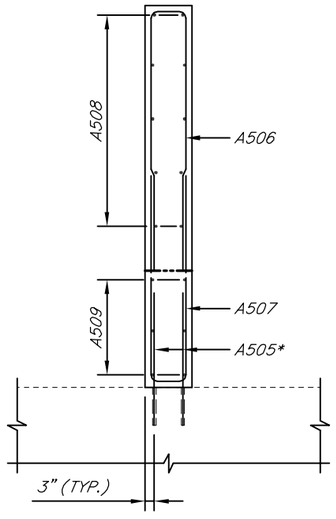
SECTION A-1 / 16

SHOWING REINFORCING



ELEVATION A-2 / 16

SHOWING REINFORCING



SECTION A-8 / 18

SHOWING REINFORCING

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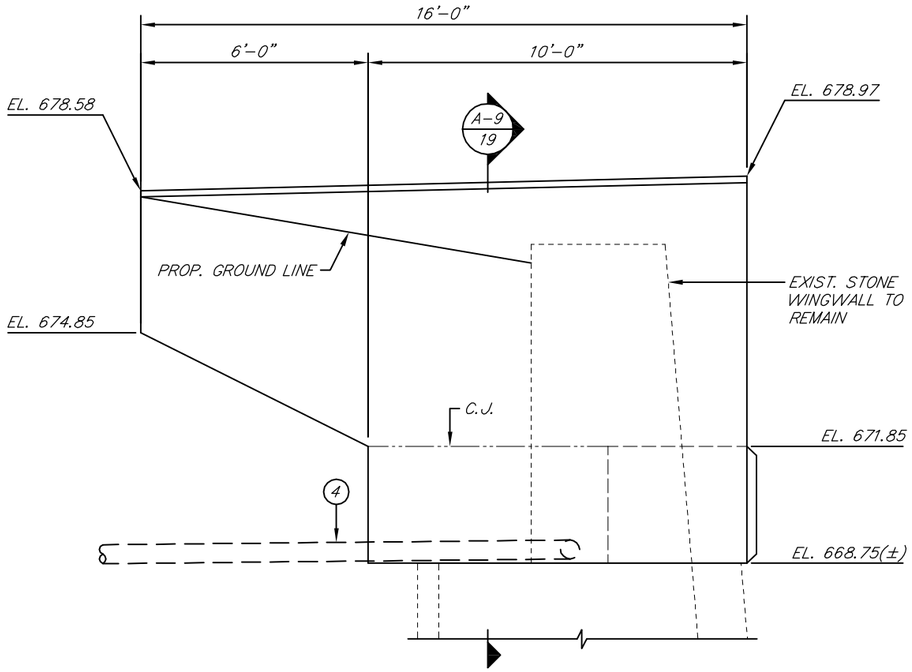
BPS		1835246	

REAR ABUTMENT DETAILS - 1
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

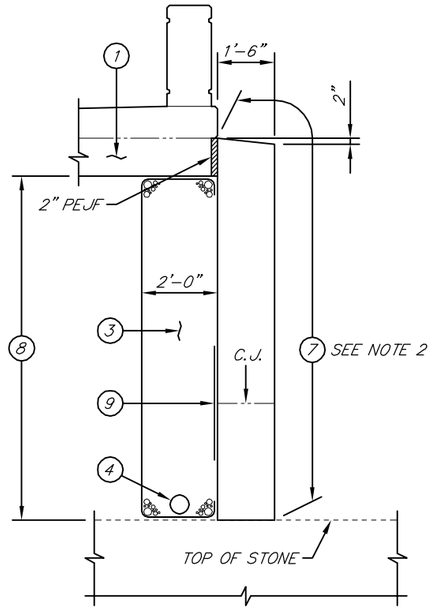
18 / 36

19 / 37



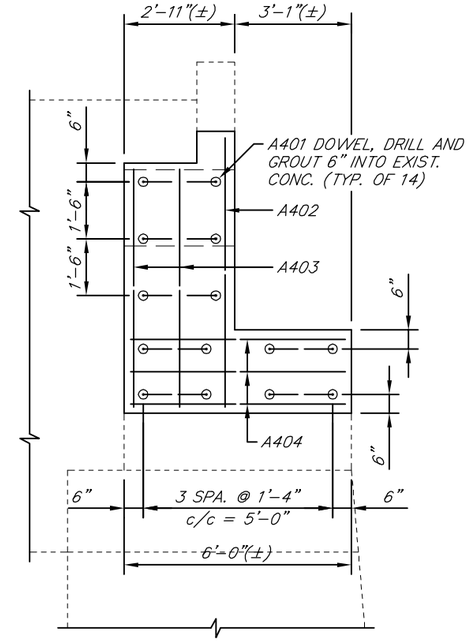
ELEVATION A-3 / 16

SHOWING DIMENSIONS



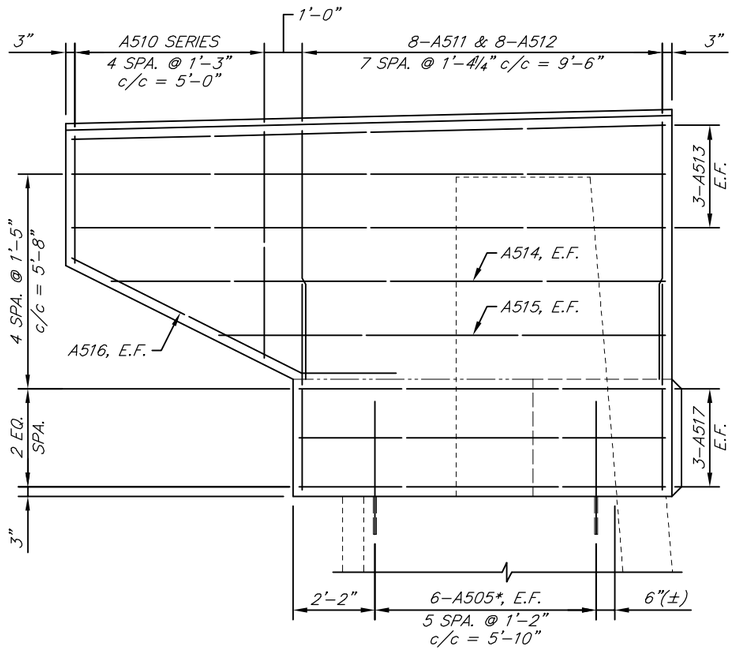
SECTION A-9 / 19

SHOWING DIMENSIONS



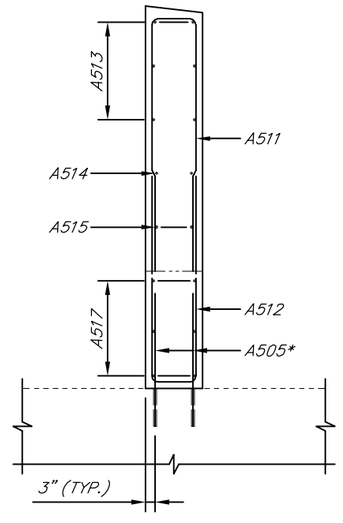
SECTION A-4 / 16

SIDE OF EXIST. I-77 BRIDGE SEAT AND BACKWALL AT THE R/W LINE SEE NOTE 1



ELEVATION A-3 / 16

SHOWING REINFORCING



SECTION A-9 / 19

SHOWING REINFORCING

LEGEND

FOR LEGEND, SEE SHEET 18/36.

NOTES

1. EXISTING I-77 BRIDGE SEAT AND BACKWALL: AFTER REMOVAL OF THE EXISTING E. 49TH ST. BRIDGE REAR ABUTMENT BRIDGE SEAT AND BACKWALL IS COMPLETE, THE SIDE OF THE EXISTING I-77 BRIDGE SEAT AND BACKWALL THAT WAS CAST AGAINST IT WILL BE EXPOSED. THE INTENT OF THE WORK SHOWN IS TO EXTEND THE EXISTING I-77 BRIDGE SEAT AND BACKWALL TO THE RIGHT-OF-WAY LINE TO AVOID LEAVING AN IRREGULAR GAP BETWEEN THE TWO STRUCTURES. INSTALL DOWEL BARS AS SHOWN AND FORM THE PROPOSED EXTENSION TO MATCH ALL EXISTING DIMENSIONS. THE ESTIMATED QUANTITIES INCLUDE THE CONCRETE AND REINFORCING STEEL REQUIRED FOR THIS WORK.
2. LOWER LIMIT OF SEALING IS THE TOP OF EXISTING STONE OR THE GROUND LINE BEHIND THE EXISTING STONE WINGWALL TO REMAIN.

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REAR ABUTMENT DETAILS - 2
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

19 / 36

20 / 37

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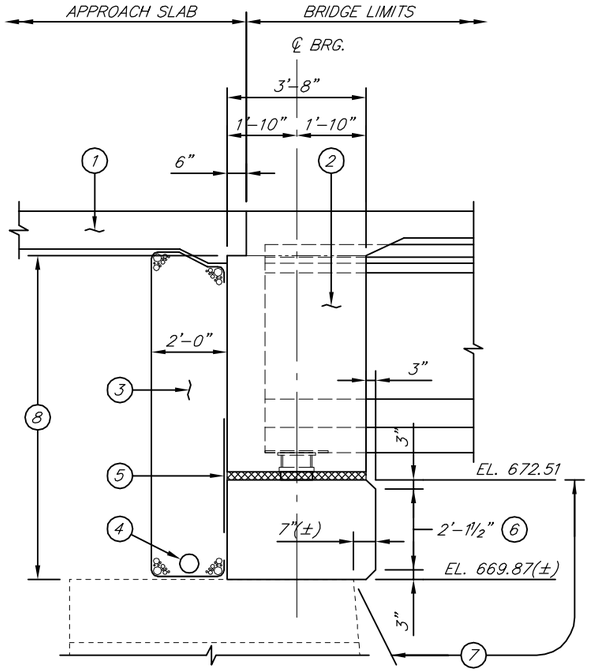
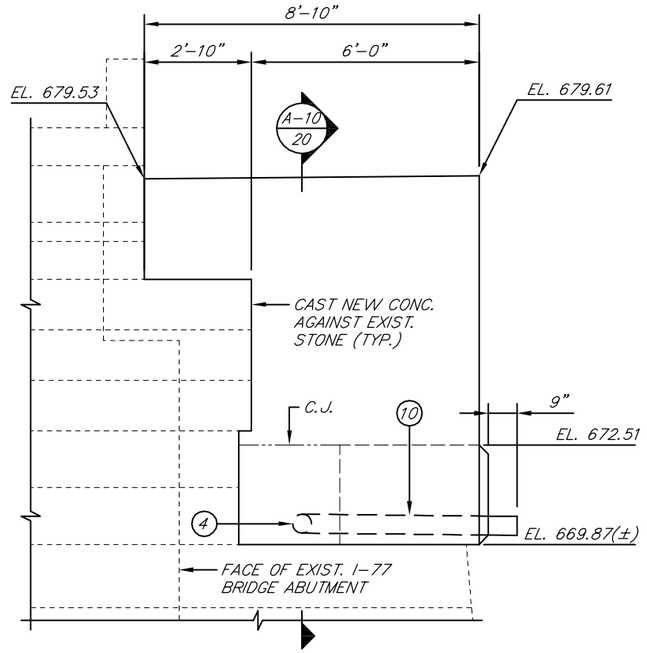


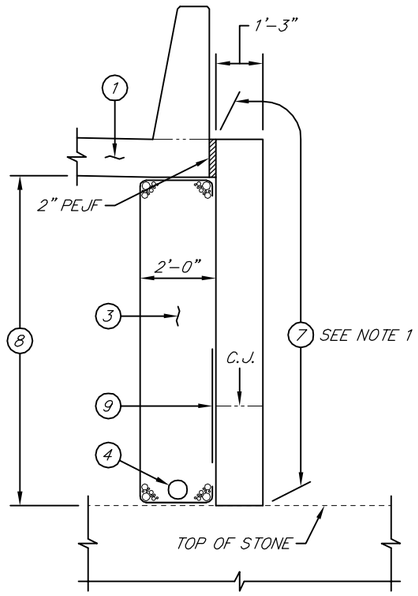
SECTION A-5 / 17

SHOWING DIMENSIONS



ELEVATION A-6 / 17

SHOWING DIMENSIONS



SECTION A-10 / 20

SHOWING DIMENSIONS

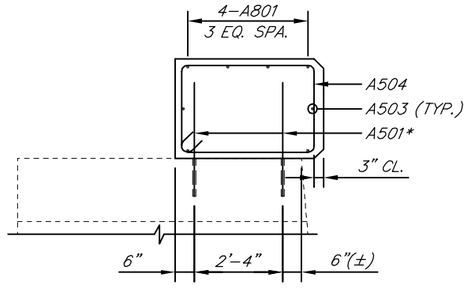
LEGEND

1. PROPOSED APPROACH SLAB
2. PROPOSED END DIAPHRAGM, FOR DETAILS SEE SHEET 29/36
3. POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN
4. 6" PERFORATED CORRUGATED PLASTIC PIPE
5. SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL CONSISTING OF NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON JOINT
6. LIMITS OF ITEM SPECIAL – FORM LINER
7. LIMITS OF ITEM SPECIAL – SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING
8. LIMITS OF ITEM 512 – TYPE A WATERPROOFING
9. ITEM 512 – TYPE B WATERPROOFING, 3'-0" WIDE, CENTERED ON JOINT
10. 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INSTALL BEFORE PLACING CONCRETE

* DOWEL BAR TO BE DRILLED AND GROUTED 1'-0" INTO EXIST. STONE

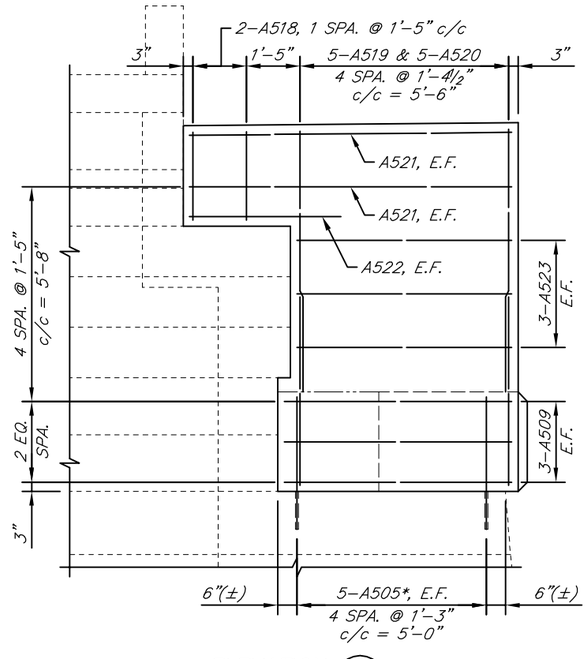
NOTES

1. LOWER LIMIT OF SEALING IS THE TOP OF EXISTING STONE OR TOP OF EXISTING CONCRETE OF THE ADJACENT ABUTMENT.



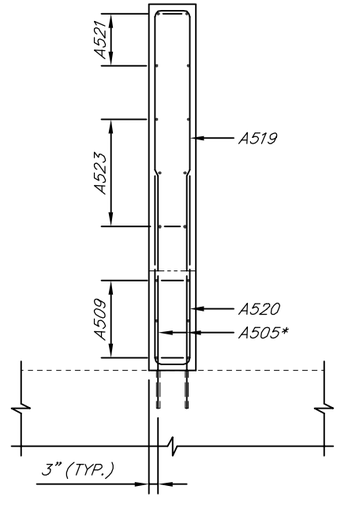
SECTION A-5 / 17

SHOWING REINFORCING



ELEVATION A-6 / 17

SHOWING REINFORCING



SECTION A-10 / 20

SHOWING REINFORCING

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FORWARD ABUTMENT DETAILS – 1
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

20 | 36

21 / 37

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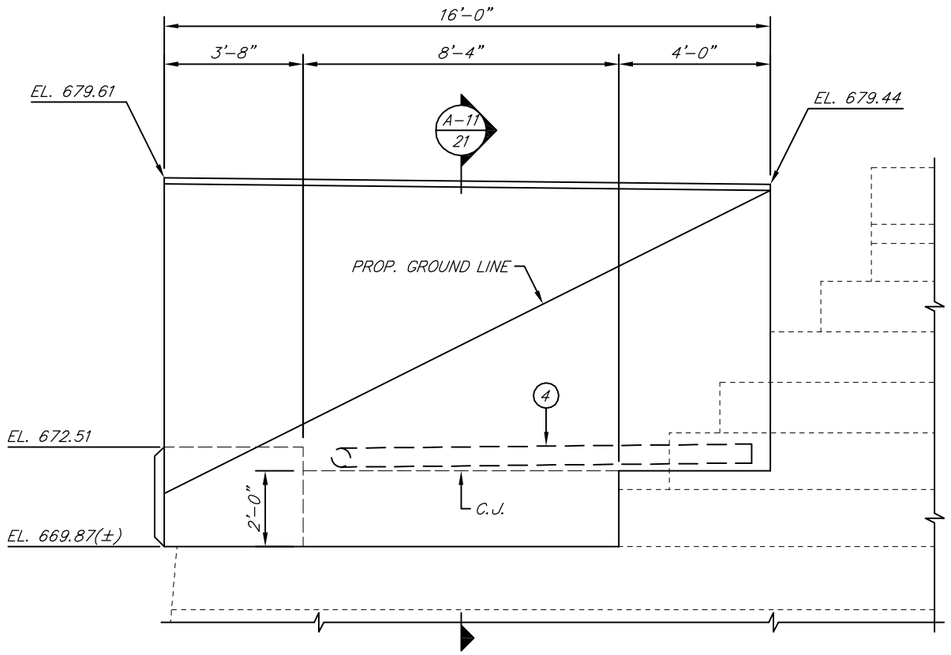
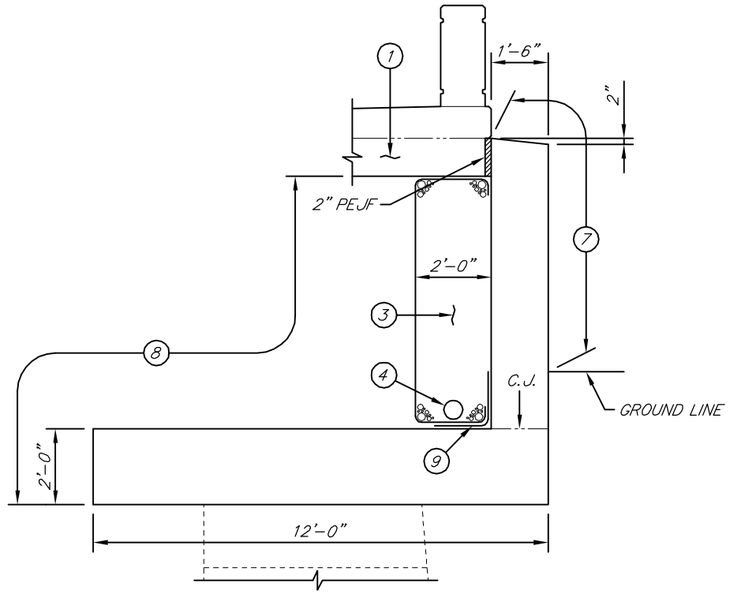


ELEVATION (A-7 / 17)

SHOWING DIMENSIONS

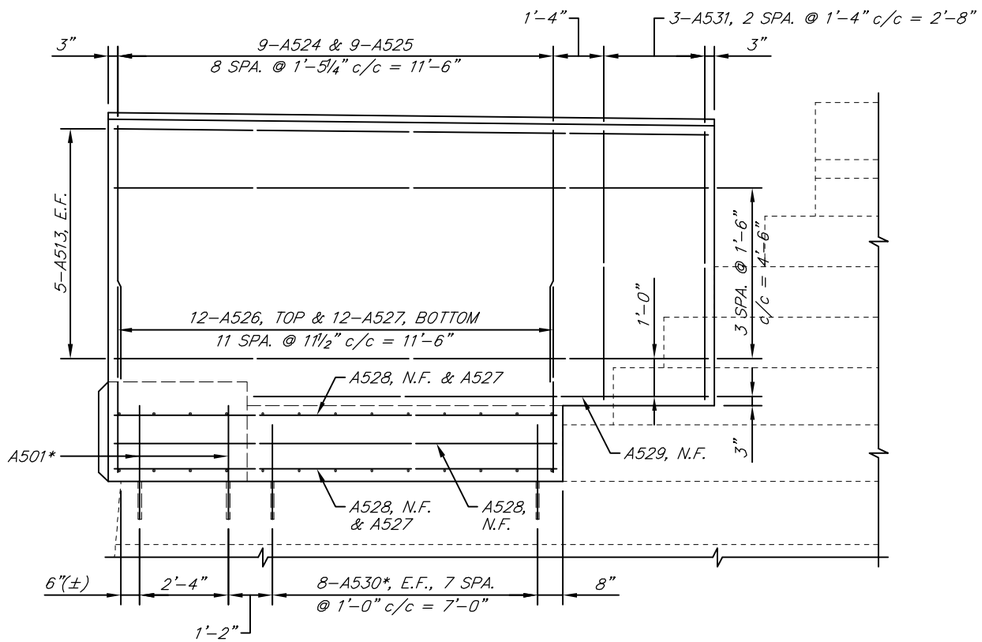


SECTION (A-11 / 21)

SHOWING DIMENSIONS

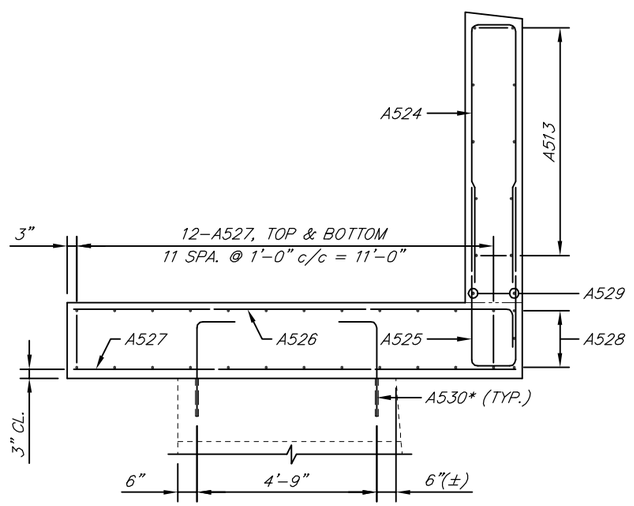
LEGEND

FOR LEGEND, SEE SHEET 20/36.



ELEVATION (A-7 / 17)

SHOWING REINFORCING



SECTION (A-11 / 21)

SHOWING REINFORCING

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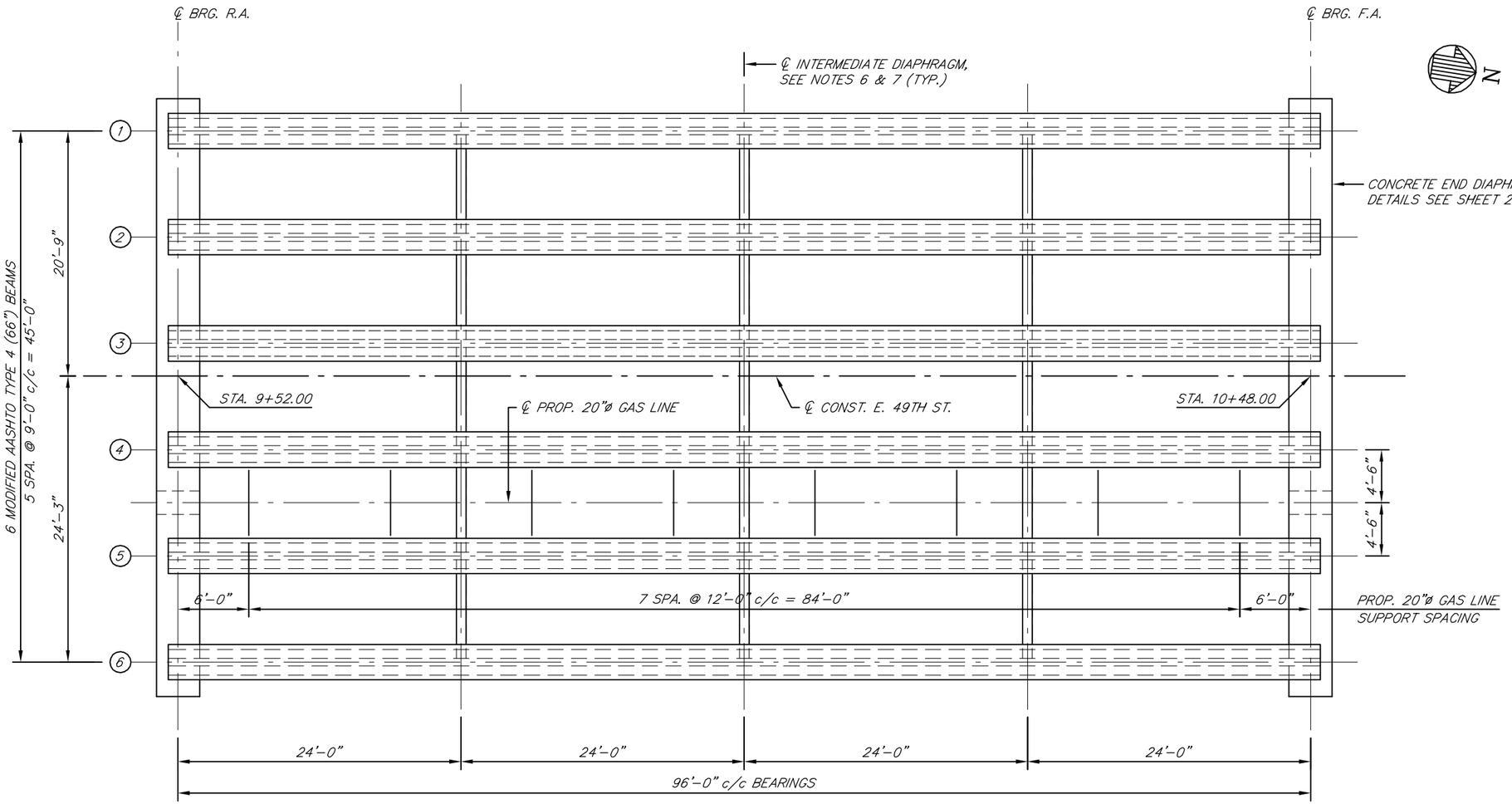
FORWARD ABUTMENT DETAILS - 2
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

21 / 36

22 / 37



FRAMING PLAN

NOTES

1. CALCULATED CAMBER AT TIME OF RELEASE IS 1 1/2 INCHES.
2. CALCULATED CAMBER AT TIME OF ERECTION IS 2 5/8 INCHES.
3. LONG TERM CAMBER IS 3 5/8 INCHES.
4. FOR BEAM DETAILS, SEE SHEET 23/36.
5. FOR TRANSVERSE SECTION, SEE SHEET 25/36.
6. PROVIDE STEEL INTERMEDIATE DIAPHRAGMS AS PER ODOT STANDARD DRAWING PSID-1-13 AT ALL LOCATIONS EXCEPT THOSE BETWEEN BEAMS 4 AND 5.
7. PROVIDE STEEL INTERMEDIATE DIAPHRAGMS AS PER DETAILS ON SHEET 26/36 FOR ALL LOCATIONS BETWEEN BEAMS 4 AND 5.
8. FOR DETAILS OF PROP. 20"ø GAS LINE SUPPORT, SEE SHEET 26/36.

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FRAMING PLAN
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

22 / 36

23 / 37

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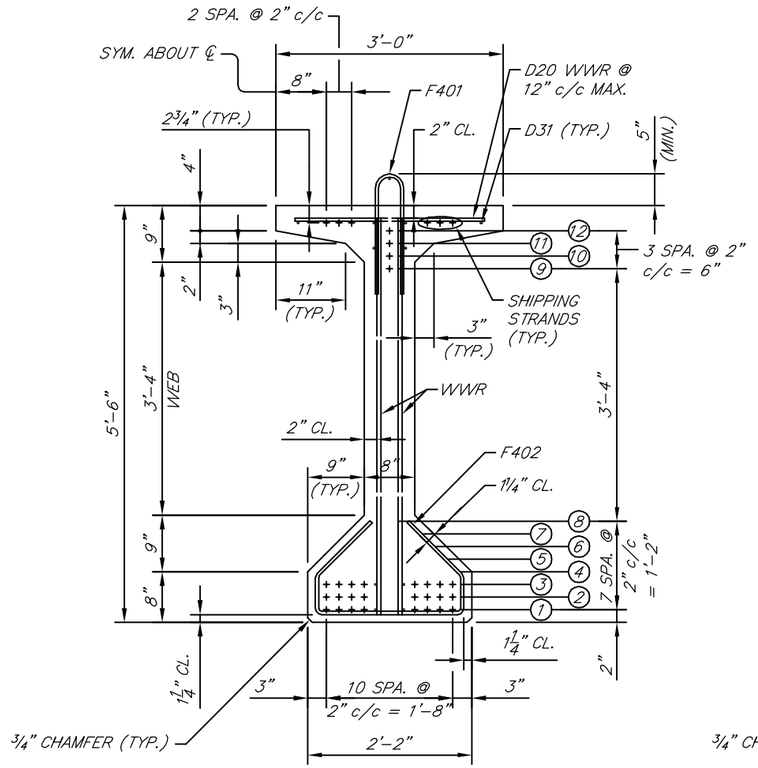
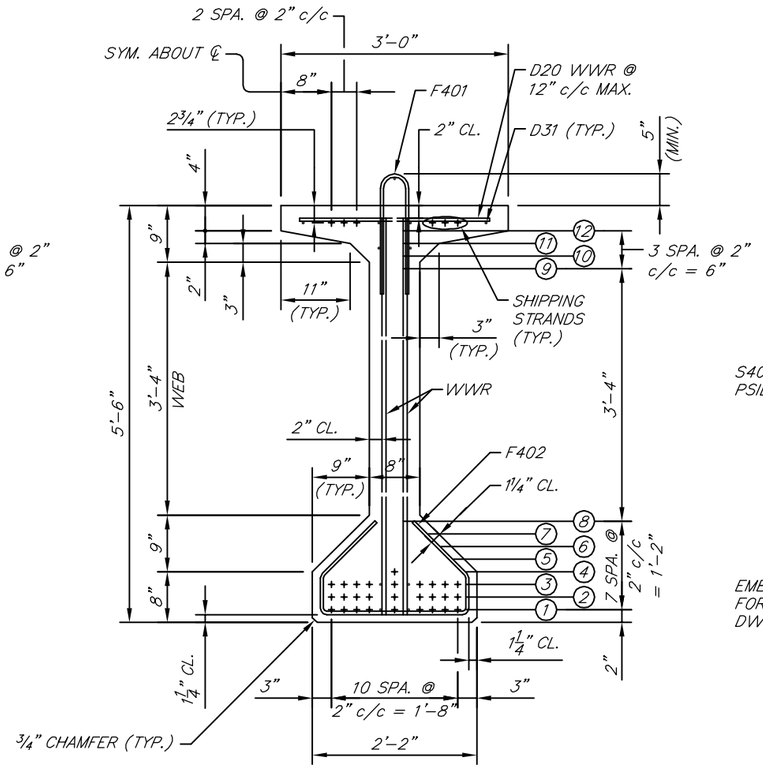
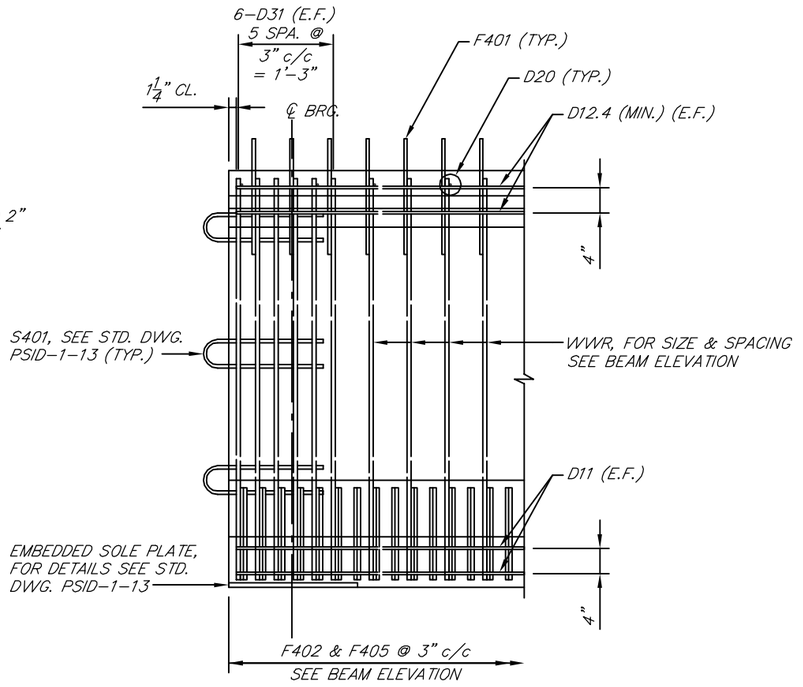


MODIFIED AASHTO TYPE 4 (66")
END SECTION

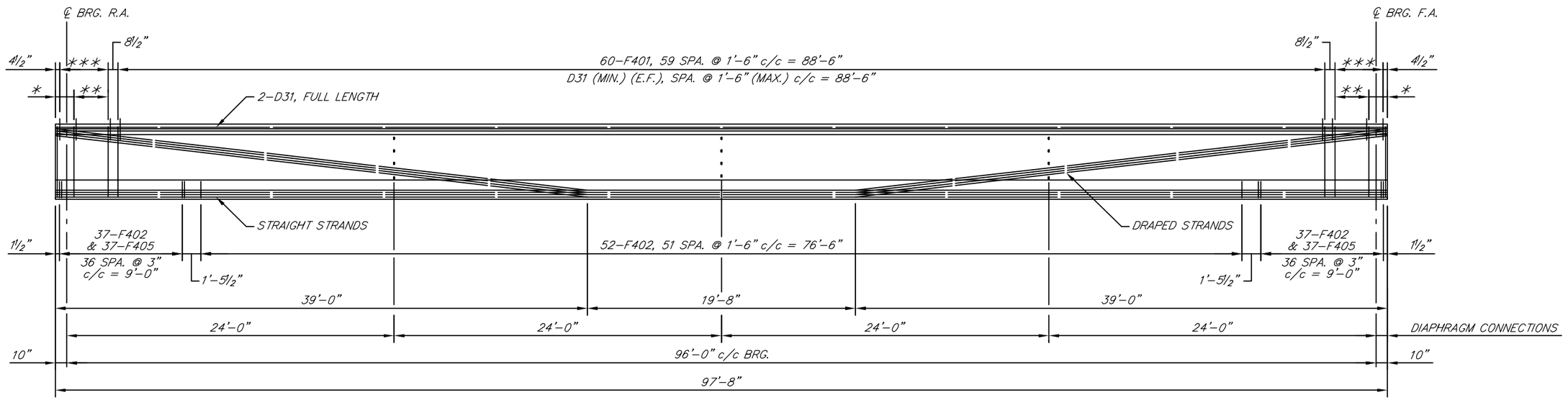


MODIFIED AASHTO TYPE 4 (66")
MID SECTION



ANCHORAGE ZONE REINFORCING DETAIL
STRANDS NOT SHOWN FOR CLARITY

NUMBER OF STRANDS PER ROW																								TOTAL STRANDS	CONCRETE STRENGTHS (PSI)	
END SECTION – ROW NUMBER												MID SECTION – ROW NUMBER														
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫		f'ci	f'c
8	8	8	0	0	0	0	0	1	1	1	1	9	9	9	1	0	0	0	0	0	0	0	0	28	5,000	7,000



* = SEE ANCHORAGE ZONE REINFORCING DETAIL
** = D31 (MIN.) (E.F.), SPA. @ 6" (MAX.) c/c = 2'-6"
*** = 8-F401, 7 SPA. @ 6" c/c = 3'-6"

BEAM ELEVATION

NOTES
1. FOR ADDITIONAL NOTES AND DETAILS, SEE ODOT STD. DWG. PSID-1-13.

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PAT		1835246	

PRESTRESSED CONCRETE I-BEAM DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

23 | 36

24
37

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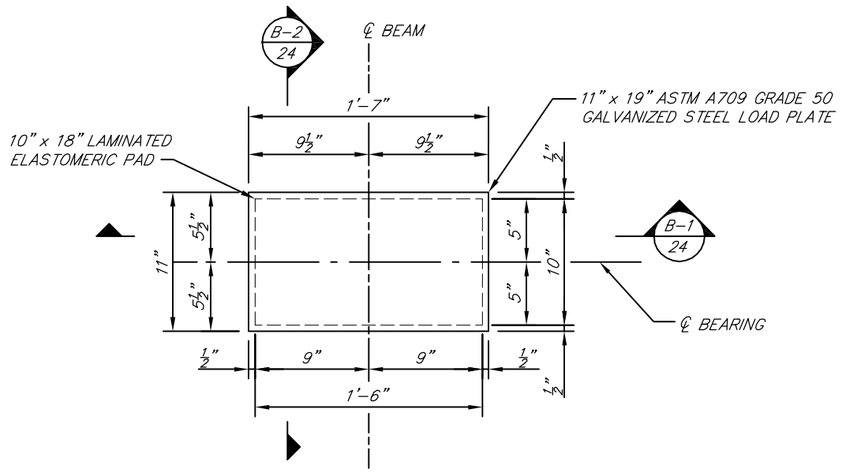
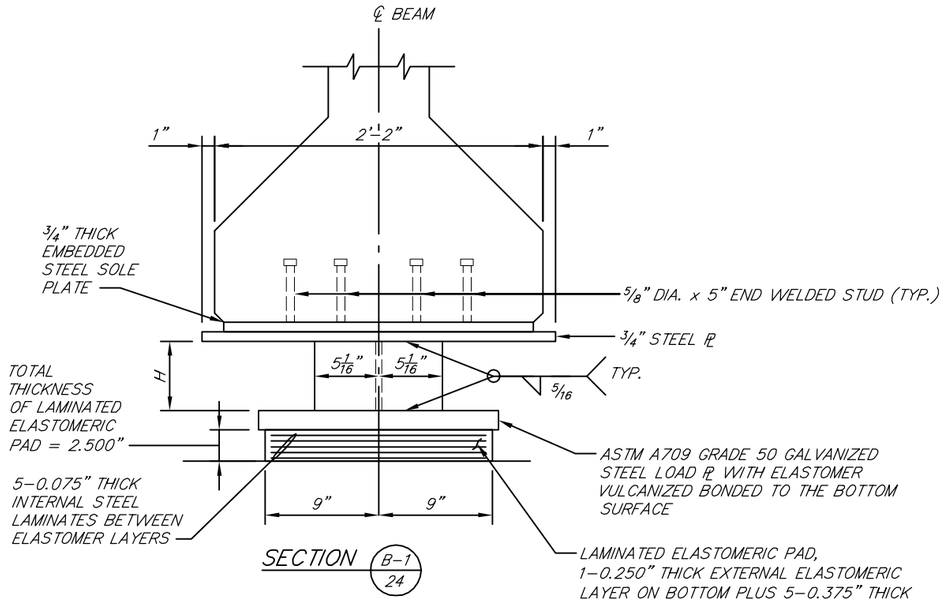


PLAN

(BEAM NOT SHOWN)



SECTION B-1 / 24

EXPANSION BEARING

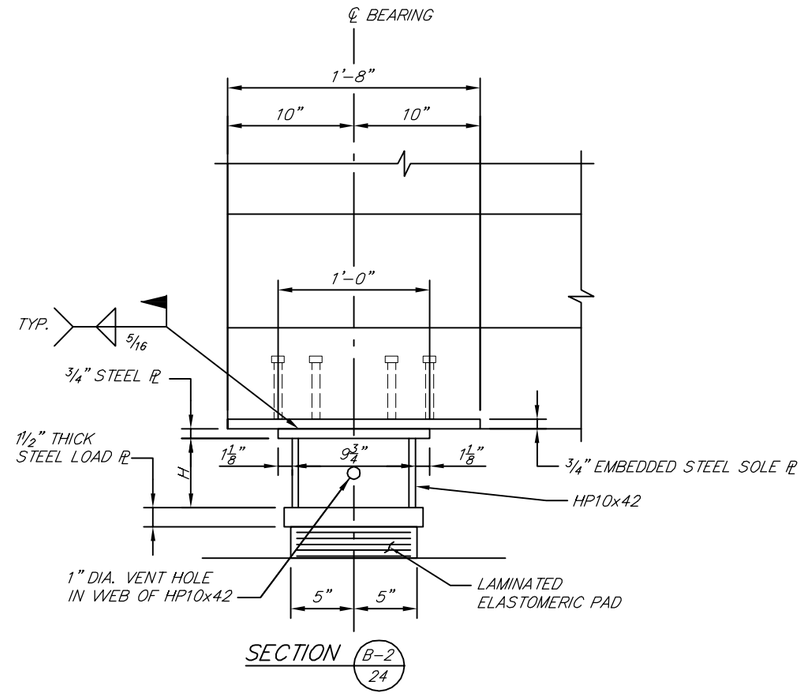
(ABUTMENTS, 12 REQUIRED)

NOTES

1. BEARING DESIGN LOADS: EXPANSION BEARING (ABUTMENTS)

DEAD LOADS	127.9 K
LIVE LOADS	43.0 K
TOTAL DESIGN LOAD	170.9 K

2. THE LOAD PLATE SHALL BE VULCANIZED BONDED TO THE LAMINATED ELASTOMERIC PAD DURING THE MOLDING PROCESS.
3. ALL DAMAGED GALVANIZING MUST BE REPAIRED IN ACCORDANCE WITH ASTM A780, METHOD A1 OR A3. THE DEPARTMENT WILL NOT ALLOW AEROSOL SPRAY APPLICATIONS OF PAINTS CONTAINING ZINC DUST PER CMS 711.02.
4. ELASTOMERIC BEARINGS SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
5. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UPSTATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
6. BASIS OF PAYMENT: THE UNIT PRICE BID SHALL INCLUDE ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO GALVANIZE, FURNISH, AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS AND STEEL LOAD PLATES. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 – ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.



SECTION B-2 / 24

TABLE OF HP10x42 HEIGHT, "H"						
LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
REAR ABUTMENT	4"	5 11/16"	7 9/16"	6"	4 1/4"	3 3/4"
FORWARD ABUTMENT	4"	5 11/16"	7 9/16"	6"	4 1/4"	3 3/4"

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BEARING DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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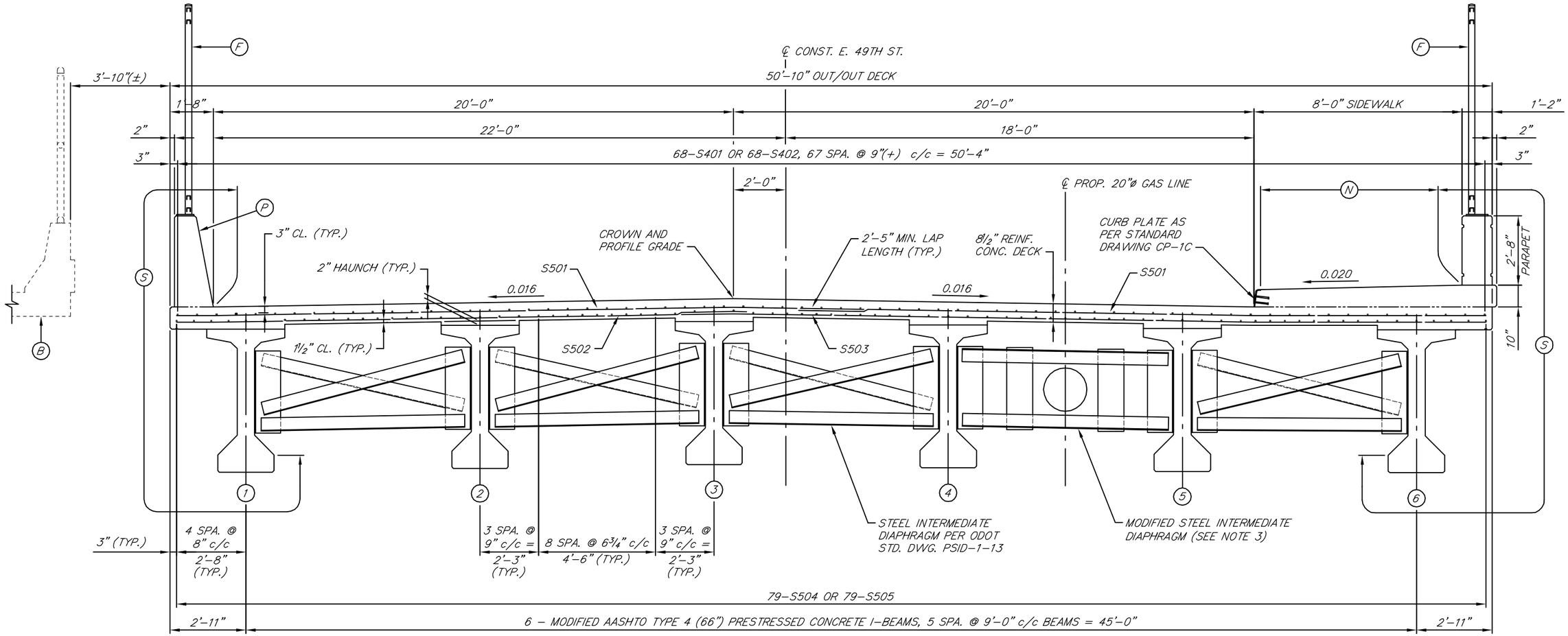

TRANSVERSE SECTION

LEGEND

- (B) EXISTING I-77 BRIDGE TO REMAIN
- (F) 8'-0" ARCHITECTURAL FENCE, FOR DETAILS SEE SHEET 32/36.
- (P) 42" PARAPET AS PER ODOT STANDARD DRAWING SBR-1-13
- (N) LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY)
- (S) LIMITS OF ITEM SPECIAL - SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING

NOTES

1. FOR FRAMING PLAN, SEE SHEET 22/36.
2. FOR DECK SLAB PLAN, SEE SHEET 27/36.
3. FOR MODIFIED STEEL INTERMEDIATE DIAPHRAGM DETAILS, SEE SHEET 26/36.
4. SEE GENERAL NOTES, SHEET 6/36, FOR INFORMATION ON REQUIRED COORDINATION WITH DOMINION EAST OHIO FOR GAS LINE INSTALLATION.

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TRANSVERSE SECTION
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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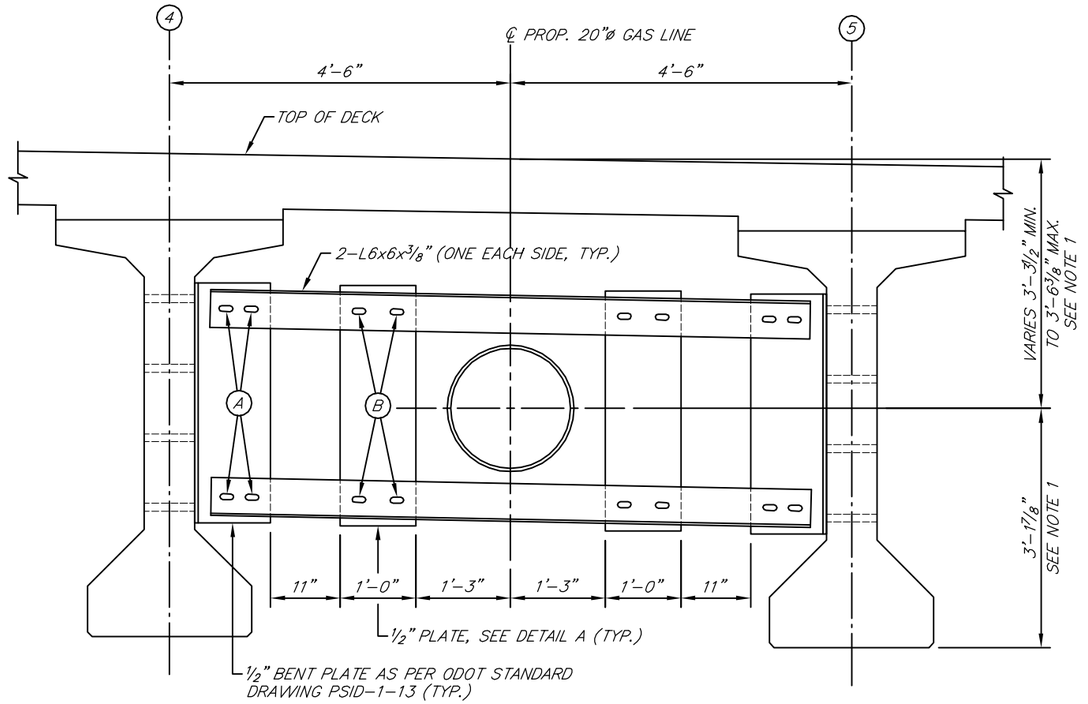
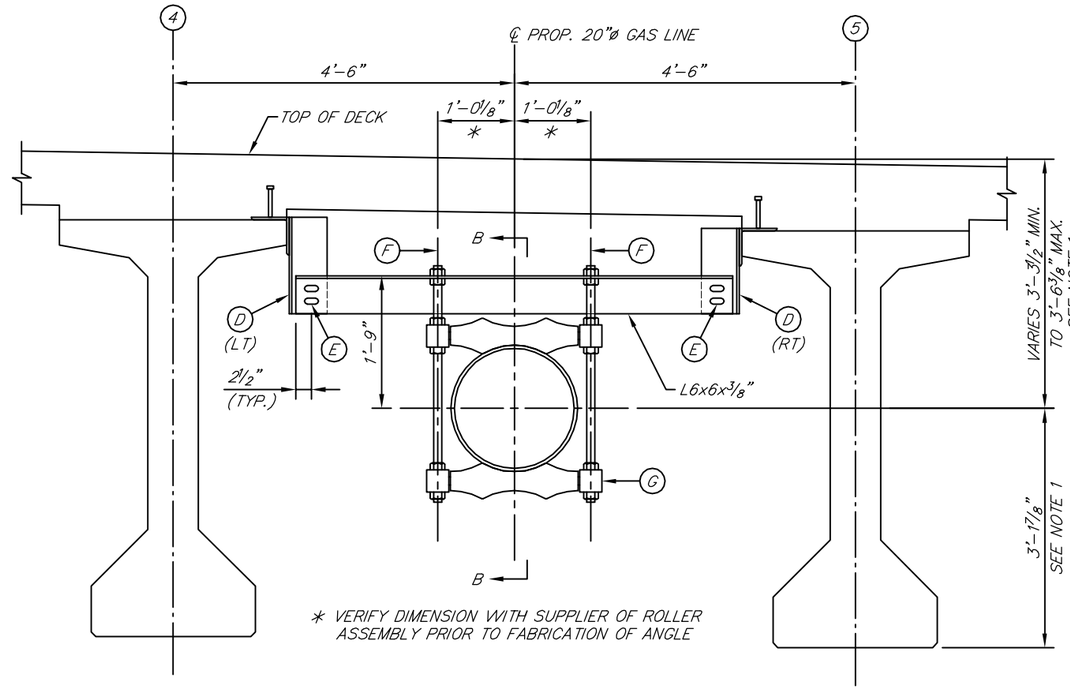
37



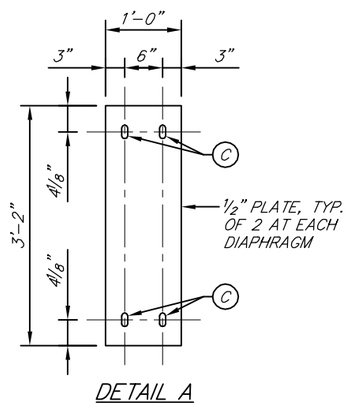
MODIFIED INTERMEDIATE DIAPHRAGM

3 REQUIRED, SEE NOTE 6

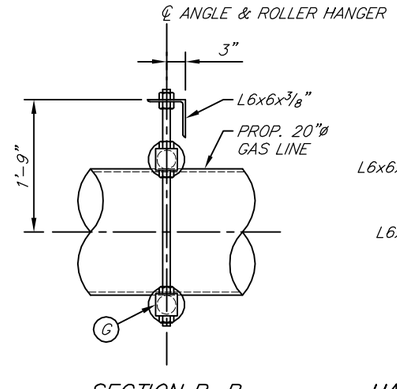


GAS LINE SUPPORT

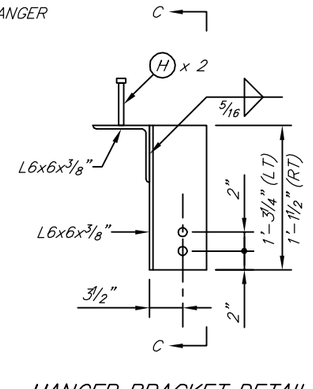
8 REQUIRED, SEE NOTE 7



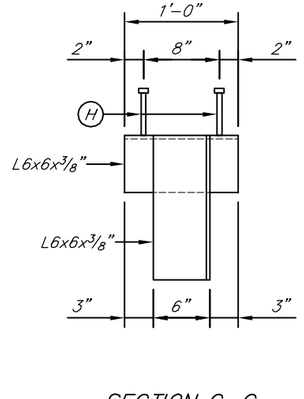
DETAIL A



SECTION B-B



HANGER BRACKET DETAIL



SECTION C-C

LEGEND

- (A) 15/16" x 2 3/16" LONG SLOTTED HOLES, LOCATED AS PER ODOT STANDARD DRAWING PSID-1-13 (TYP.)
- (B) 15/16" x 2 3/16" LONG SLOTTED HOLES, LOCATED TO MATCH THE HOLES IN PLATE (TYP.)
- (C) 15/16" x 2 3/16" LONG SLOTTED HOLES, LONG DIRECTION ALIGNED VERTICAL
- (D) HANGER BRACKET, SEE DETAIL (TYP.)
- (E) 15/16" x 2 3/16" LONG SLOTTED HOLES, LOCATED TO MATCH THE HOLES IN HANGER BRACKET (TYP.)
- (F) ℄ 1 3/8"ø HOLE IN HORIZONTAL LEG OF L6x6x3/8" FOR 1 1/4"ø THREADED ROD
- (G) ROLLER HANGER AND NON-CONDUCTIVE ROLLER ASSEMBLY, SEE NOTE 5
- (H) 1/2"ø x 5" END WELDED STUD

NOTES

1. GAS LINE TO BE PARALLEL TO PRESTRESSED CONCRETE I-BEAMS. MINIMUM AND MAXIMUM DIMENSIONS SHOWN FROM TOP OF DECK TAKE INTO ACCOUNT THE ADDITIONAL HAUNCH DEPTH REQUIRED AT MIDSPAN AS PER THE DECK THICKNESS DIAGRAM ON SHEET 27/36.
2. ALL DETAILS AND REQUIREMENTS FOR STEEL INTERMEDIATE DIAPHRAGMS SHOWN ON ODOT STANDARD DRAWING PSID-1-13 APPLY TO THE MODIFIED INTERMEDIATE DIAPHRAGM UNLESS OTHERWISE SHOWN. SEE THE STANDARD DRAWING FOR DETAILS OF BENT PLATE, ANGLES, AND BOLTED CONNECTION OF ANGLES TO PLATES.
3. ALL BOLTS ARE 7/8" DIA. ASTM A325, TYPE 1. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED ACCORDING TO ODOT CMS 711.02. ALL SLOTTED HOLE BOLTED CONNECTIONS SHALL INCLUDE BOLT, HEX NUT, TWO HARDENED WASHERS, AND TWO 3"x3"x5/16" PLATE WASHERS.
4. ALL STRUCTURAL STEEL COMPONENTS OF THE GAS LINE SUPPORT SHALL BE GALVANIZED ACCORDING TO CMS 711.02. COMPLETE ALL WELDING REQUIRED FOR HANGER BRACKET FABRICATION, INCLUDING END WELDED STUD ATTACHMENT, PRIOR TO GALVANIZING.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ROLLER HANGER AND NON-CONDUCTIVE ROLLER ASSEMBLY AS SHOWN FOR 20" DIAMETER PIPE. SUPPLIER OF MATERIALS SHALL BE LB&A, INC., AS SPECIFIED BY DOMINION EAST OHIO.
6. PAYMENT FOR THE MODIFIED INTERMEDIATE DIAPHRAGM AS DETAILED ON THIS SHEET WILL BE MADE UNDER ITEM 515 - INTERMEDIATE DIAPHRAGMS, AS PER PLAN. THE DIFFERENCE IN COST BETWEEN THE MODIFIED INTERMEDIATE DIAPHRAGM AND THE STANDARD INTERMEDIATE DIAPHRAGM SHALL BE PAID BY DOMINION EAST OHIO.
7. PAYMENT FOR THE GAS LINE SUPPORT AS DETAILED ON THIS SHEET, INCLUDING ROLLER HANGER AND NON-CONDUCTIVE ROLLER ASSEMBLY, WILL BE MADE UNDER ITEM 513 - STRUCTURAL STEEL, MISC.: UTILITY SUPPORT, LEVEL UF. THE FULL COST OF THE SUPPORTS SHALL BE PAID BY DOMINION EAST OHIO.
8. FOR LOCATIONS OF MODIFIED INTERMEDIATE DIAPHRAGMS AND GAS LINE SUPPORTS, SEE FRAMING PLAN, SHEET 22/36.

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INTERMEDIATE DIAPHRAGM AND GAS LINE SUPPORT DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
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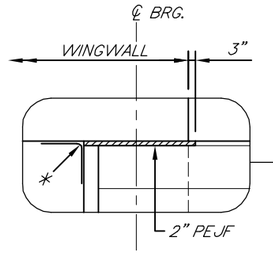
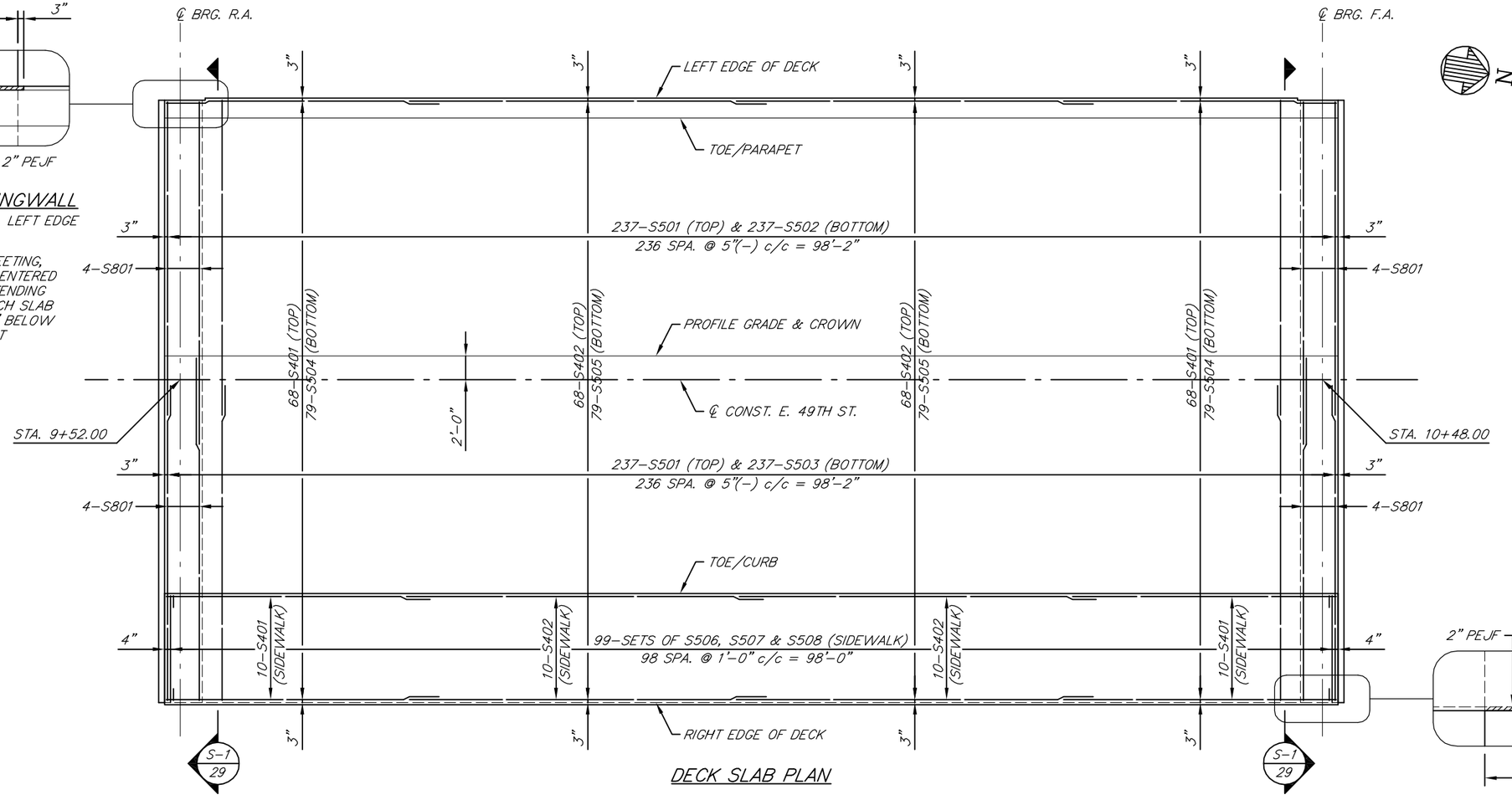


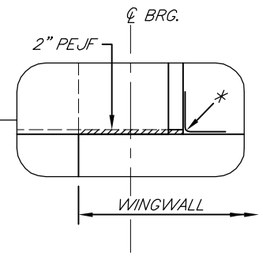
DETAIL AT WINGWALL

TYPICAL BOTH ENDS, LEFT EDGE

* NEOPRENE SHEETING, 3'-0" WIDE, CENTERED ON JOINT, EXTENDING FROM APPROACH SLAB SEAT TO 1'-6" BELOW THE BEAM SEAT

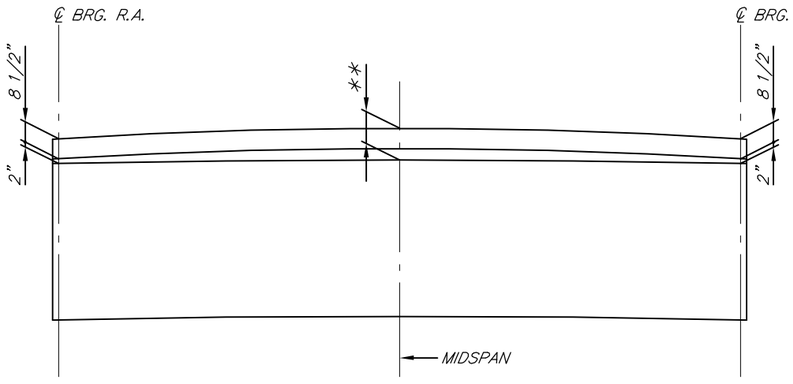


DECK SLAB PLAN



DETAIL AT WINGWALL

TYPICAL BOTH ENDS, RIGHT EDGE



DECK THICKNESS DIAGRAM

ANTICIPATED DECK THICKNESSES **			
LOCATION	℄ BRG. R.A.	MIDSPAN	℄ BRG. F.A.
BEAMS 1 & 6	10 1/2"	13 1/4"	10 1/2"
BEAMS 2 – 5	10 1/2"	13 3/8"	10 1/2"

** SEE NOTE 1

NOTES

1. DECK SLAB THICKNESS FOR CONCRETE QUANTITY: THE TOPPING THICKNESSES SHOWN FROM THE TOP OF THE DECK SLAB TO THE TOP OF THE TOP FLANGE ALONG THE CENTERLINE OF THE I-BEAM ARE THEORETICAL DIMENSIONS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. THE DEPARTMENT WILL PAY FOR SUPERSTRUCTURE CONCRETE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE THEORETICAL HAUNCH DEPTHS AT MID-SPAN AND AT EACH BEAM BEARING EVEN THOUGH DEVIATION FROM THE DIMENSIONS SHOWN MAY BE NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE ACTUAL CAMBER FOR EACH MEMBER WILL BE THE TOP OF BEAM ELEVATION AT MID-SPAN MINUS THE AVERAGE TOP OF BEAM ELEVATION AT EACH BEARING. THE ACTUAL TOPPING THICKNESS AT MID-SPAN WILL BE THE THEORETICAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.
2. FOR TRANSVERSE SECTION, SEE SHEET 25/36.
3. FOR SIDEWALK AND PARAPET DETAILS, SEE SHEET 30/36.

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DECK SLAB PLAN
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
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DECK SCREED ELEVATION TABLE

LOCATION	OFFSET	DESCRIPTION	℄ BRG. R.A.	0.25 SPAN	0.50 SPAN	0.75 SPAN	℄ BRG. F.A.
			STA. 9+52.00	STA. 9+76.00	STA. 10+00.00	STA. 10+24.00	STA. 10+48.00
LEFT EDGE OF DECK	23.67' LT	DECK SCREED ELEVATION	678.93	679.42	679.70	679.75	679.59
		FINAL DECK SURFACE ELEVATION	678.93	679.37	679.63	679.70	679.59
TOE OF PARAPET	22.00' LT	DECK SCREED ELEVATION	678.93	679.42	679.70	679.75	679.59
		FINAL DECK SURFACE ELEVATION	678.93	679.37	679.63	679.70	679.59
BEAM 1	20.75' LT	TOP OF HAUNCH ELEVATION	678.24	678.73	679.01	679.06	678.90
		FINAL DECK SURFACE ELEVATION	678.95	679.39	679.65	679.72	679.61
BEAM 2	11.75' LT	TOP OF HAUNCH ELEVATION	678.38	678.89	679.17	679.22	679.05
		FINAL DECK SURFACE ELEVATION	679.09	679.53	679.79	679.86	679.76
BEAM 3	2.75' LT	TOP OF HAUNCH ELEVATION	678.53	679.03	679.31	679.36	679.19
		FINAL DECK SURFACE ELEVATION	679.24	679.68	679.94	680.01	679.90
PROFILE GRADE & CROWN	2.00' LT	DECK SCREED ELEVATION	679.25	679.75	680.04	680.08	679.91
		FINAL DECK SURFACE ELEVATION	679.25	679.69	679.95	680.02	679.91
℄ CONST. E. 49TH ST.	0.00' ℄	DECK SCREED ELEVATION	679.22	679.72	680.00	680.05	679.88
		FINAL DECK SURFACE ELEVATION	679.22	679.66	679.92	679.99	679.88
BEAM 4	6.25' RT	TOP OF HAUNCH ELEVATION	678.41	678.91	679.19	679.24	679.07
		FINAL DECK SURFACE ELEVATION	679.12	679.56	679.82	679.89	679.78
BEAM 5	15.25' RT	TOP OF HAUNCH ELEVATION	678.26	678.77	679.05	679.10	678.93
		FINAL DECK SURFACE ELEVATION	678.97	679.41	679.67	679.74	679.64
TOE OF CURB	18.00' RT	DECK SCREED ELEVATION	678.93	679.43	679.72	679.76	679.59
		FINAL DECK SURFACE ELEVATION	678.93	679.37	679.63	679.70	679.59
BEAM 6	24.25' RT	TOP OF HAUNCH ELEVATION	678.22	678.71	678.99	679.04	678.88
		FINAL DECK SURFACE ELEVATION	678.93	679.37	679.63	679.70	679.59
RIGHT EDGE OF DECK	27.17' RT	DECK SCREED ELEVATION	678.93	679.42	679.70	679.75	679.59
		FINAL DECK SURFACE ELEVATION	678.93	679.37	679.63	679.70	679.59

NOTES

1. DECK SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
2. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
3. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

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DECK SCREED ELEVATIONS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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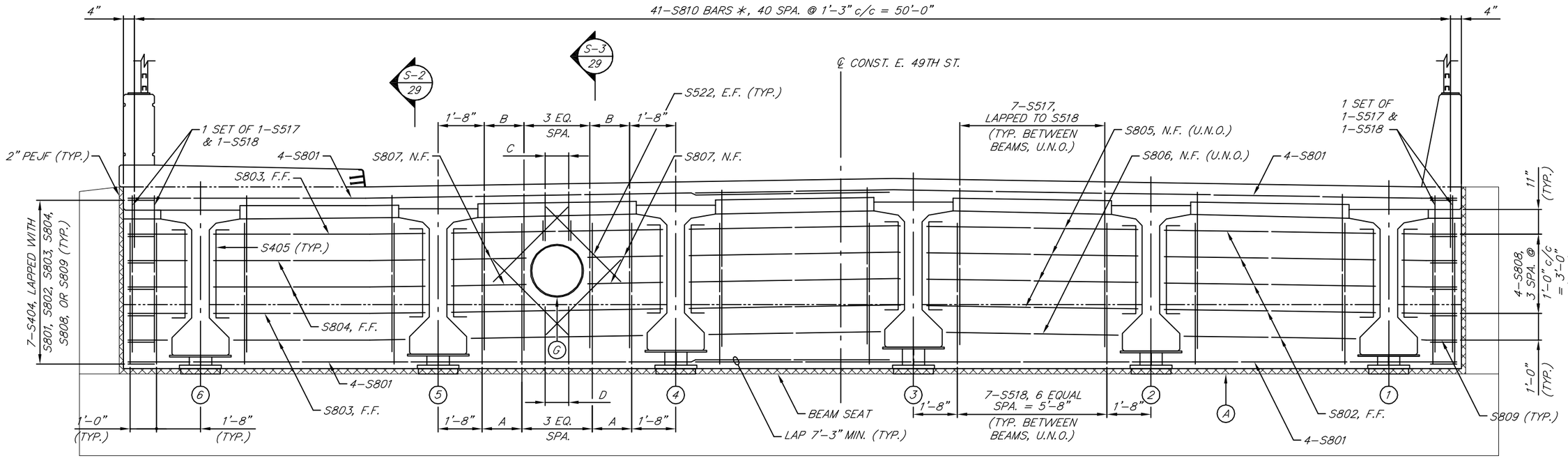
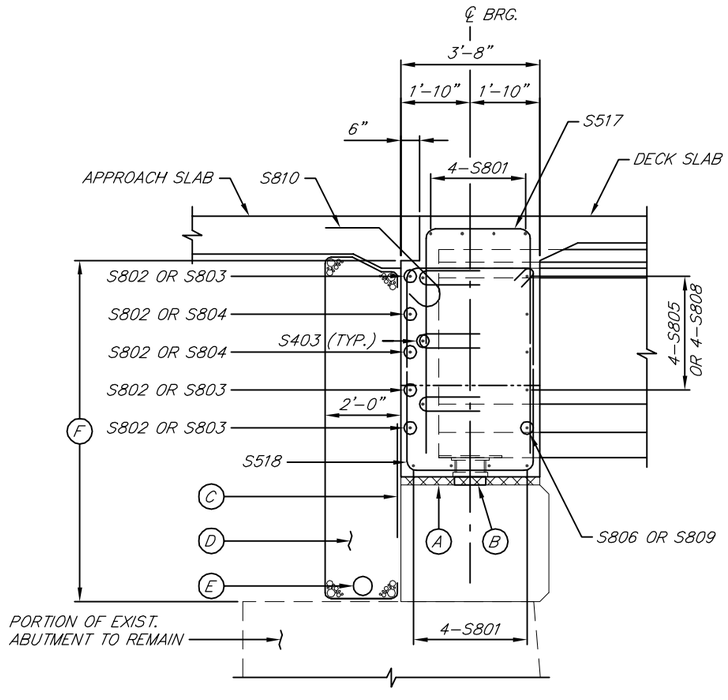


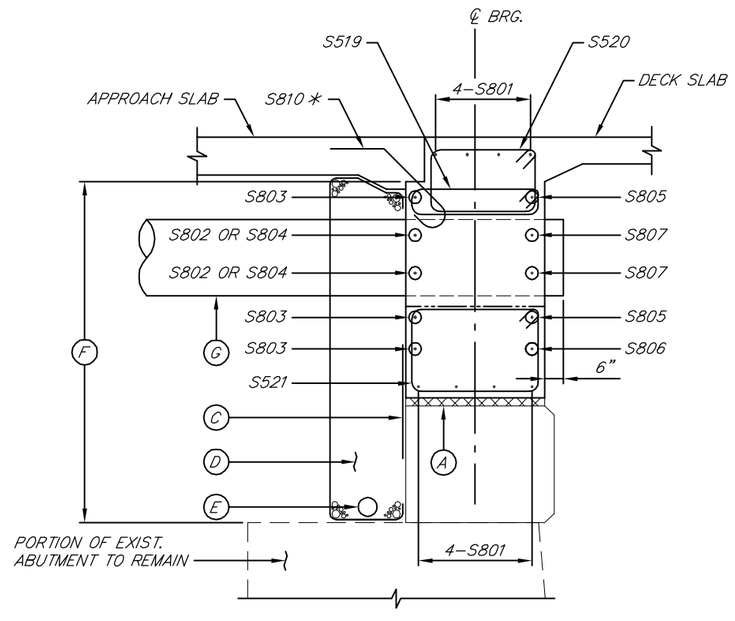


SECTION S–2 / 29

SHOWING DIMENSIONS AND REINFORCING

SECTION S–1 / 27

REAR ABUTMENT SHOWN
FORWARD ABUTMENT OPPOSITE HAND



SECTION S–3 / 29

SHOWING REINFORCING

REINFORCING STEEL LEGEND

A = 3–S518, 2 SPA. @ 9" c/c = 1'–6"

B = 3–S517, LAPPED TO S518

C = 2 SETS OF 1–S519 & 1–S520

D = S521

LEGEND

(A) EXPANDED POLYSTYRENE OR REMOVABLE FORMS, INCLUDE FOR PAYMENT WITH ITEM 511 – CLASS QC2 CONCRETE, BRIDGE DECK

(B) ELASTOMERIC BEARING, FOR DETAILS SEE SHEET 24/36.

(C) NEOPRENE SHEETING, 3'–0" WIDE, CENTERED ON JOINT

(D) POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN

(E) 6" PERFORATED CORRUGATED PLASTIC PIPE

(F) LIMITS OF ITEM 512 – TYPE A WATERPROOFING

(G) 24"ø PVC SLEEVE PIPE FOR PROP. 20"ø GAS LINE, 20'–0" LONG. INCLUDE FOR PAYMENT WITH ITEM 511 – CLASS QC2 CONCRETE, BRIDGE DECK.

* ADJUST S810 BARS AS NECESSARY TO AVOID CONFLICT WITH 24"ø PVC SLEEVE PIPE, WITH SPACING NOT TO EXCEED 1'–6" c/c MAX.

NOTES

1. FOR FRAMING PLAN, SEE SHEET 22/36.
2. FOR DECK SLAB PLAN, SEE SHEET 27/36.

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SUPERSTRUCTURE DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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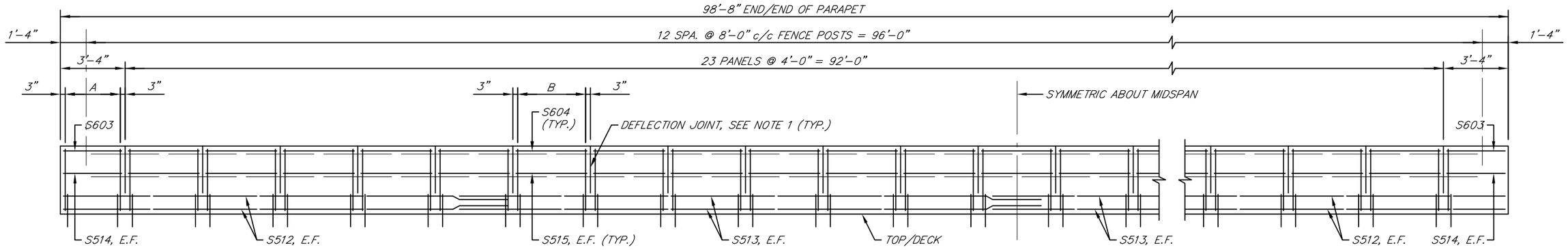
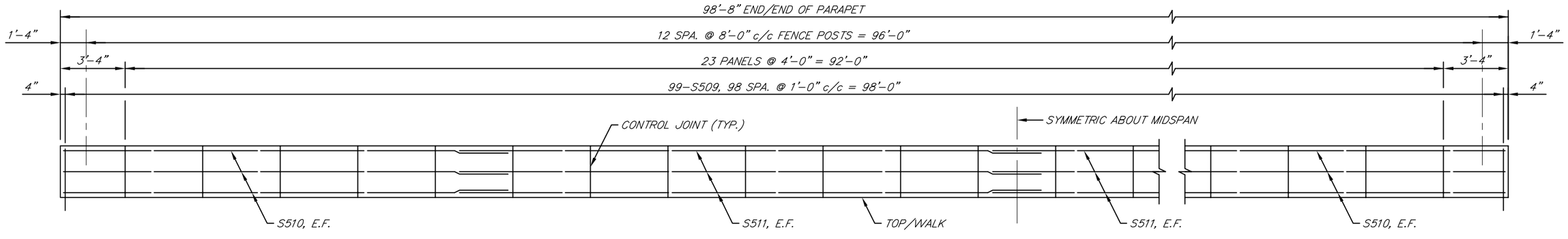


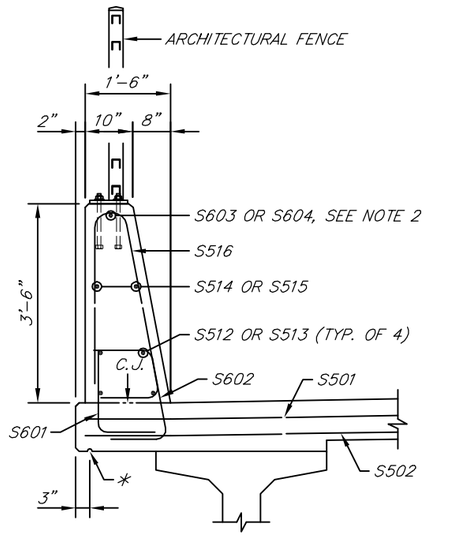
A = 4 SETS OF S601, S602 & S516, 3 SPA. @ 11½"(–) c/c = 2'-10" (TYP. FOR 3'-4" PANELS)

B = 5 SETS OF S601, S602 & S516, 4 SPA. @ 10½" c/c = 3'-6" (TYP. FOR 4'-0" PANELS)

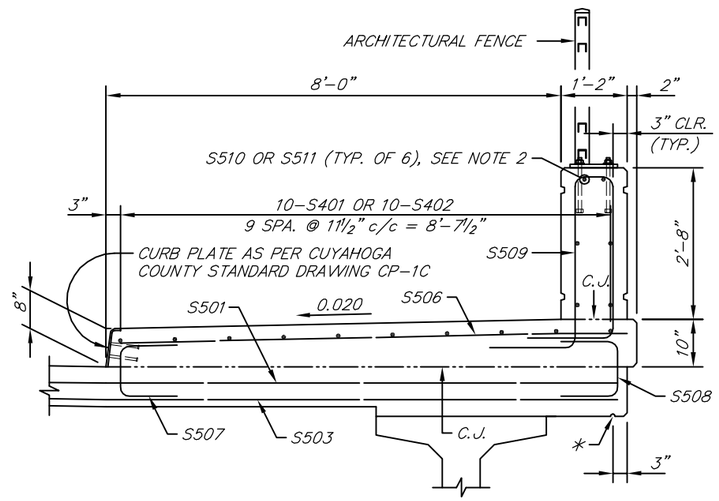
ELEVATION – LEFT PARAPET



ELEVATION – RIGHT PARAPET



LEFT PARAPET DETAIL



RIGHT SIDEWALK AND PARAPET DETAIL

NOTES

1. PROVIDE 1/2" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENTS, 3'-6" LONG, CENTERED ON DEFLECTION JOINT, LAPPED TO S603, S604, S514, AND S515 BARS AS PER THE DETAILS SHOWN ON ODOT STANDARD DRAWING SBR–1–13. PAYMENT IS INCLUDED WITH CONTRACT PRICE FOR ITEM 509 – EPOXY COATED REINFORCING STEEL.
2. ACCURATELY PLACE THE LONGITUDINAL BARS AT THE TOP OF PARAPETS TO AVOID INTERFERENCE WITH THE SETTING OF THE ARCHITECTURAL FENCE ANCHOR BOLTS.
3. FOR PARAPET AND SIDEWALK SEALING LIMITS, SEE TRANSVERSE SECTION, SHEET 25/36.
4. FOR SIDEWALK PARAPET AESTHETIC DETAILS, SEE SHEET 31/36.
5. FOR ADDITIONAL DETAILS, SEE CUYAHOGA COUNTY STANDARD DRAWING PRF–1C.

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SIDEWALK AND PARAPET DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
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31 / 37

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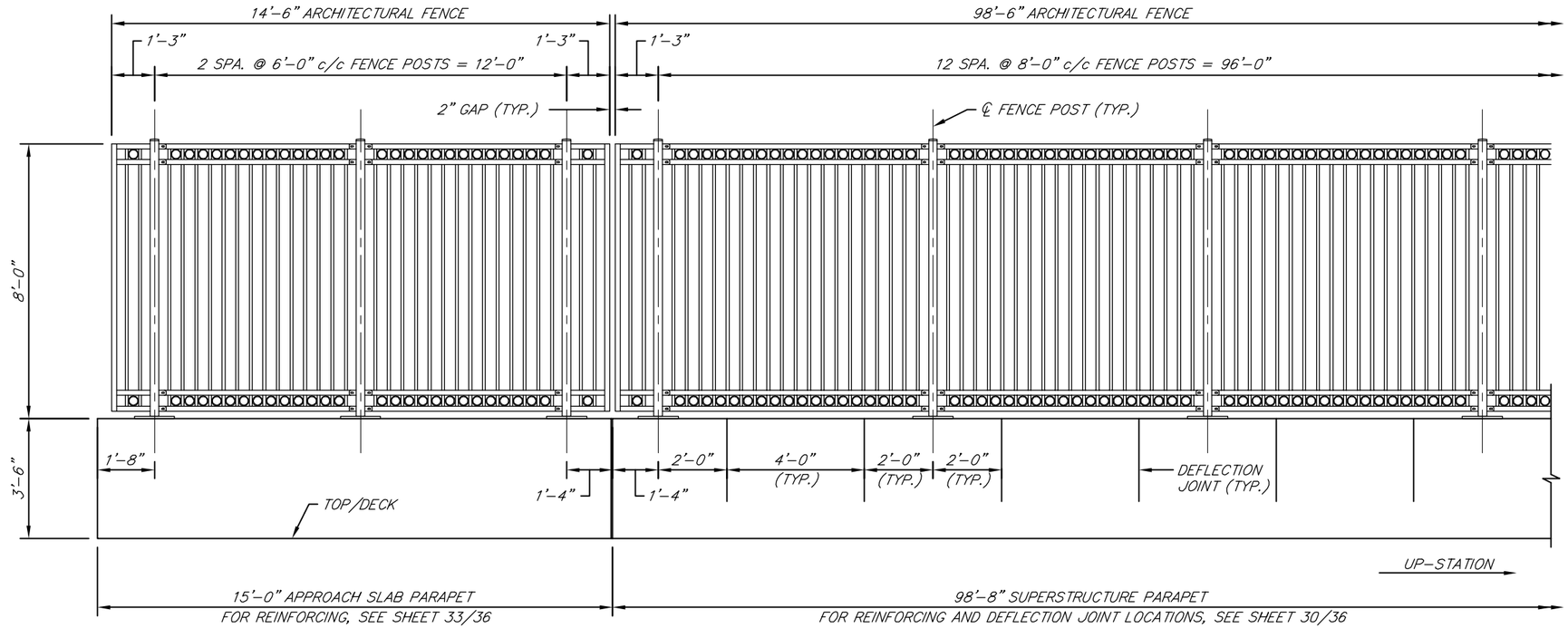
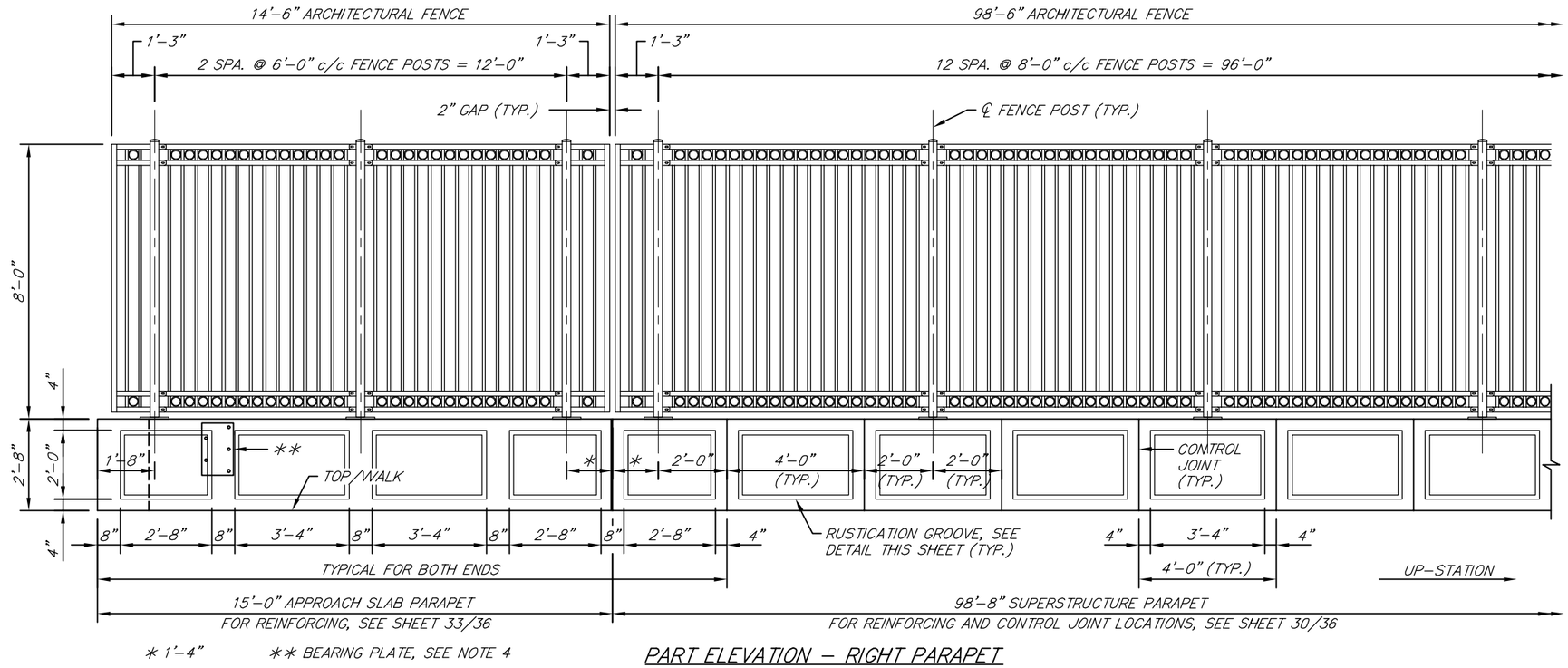


PART ELEVATION – LEFT PARAPET

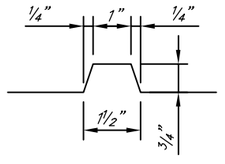
INTERIOR FACE SHOWN, SYMMETRIC ABOUT MIDSPAN



* 1'-4" ** BEARING PLATE, SEE NOTE 4

PART ELEVATION – RIGHT PARAPET

EXTERIOR FACE SHOWN, SYMMETRIC ABOUT MIDSPAN



RUSTICATION GROOVE DETAIL

NOTES

1. LEFT PARAPET DEFLECTION JOINTS: FOR DETAILS, REFER TO ODOT STANDARD DRAWING SBR-1-13.
2. RIGHT PARAPET CONTROL JOINTS: FOR DETAILS, REFER TO ODOT STANDARD DRAWING BR-2-98.
3. ARCHITECTURAL FENCE: FOR DETAILS AND NOTES, SEE SHEET 32/36.
4. WHERE BRIDGE TERMINAL ASSEMBLY CONNECTION IS REQUIRED AT THE REAR END OF THE RIGHT PARAPET, OMIT THE PORTION OF THE RUSTICATION GROOVE ON THE EXTERIOR OF THE PARAPET THAT FALLS WITHIN THE LIMITS OF THE BEARING PLATE.
5. FOR ADDITIONAL DETAILS, SEE CUYAHOGA COUNTY STANDARD DRAWING PRF-1C.

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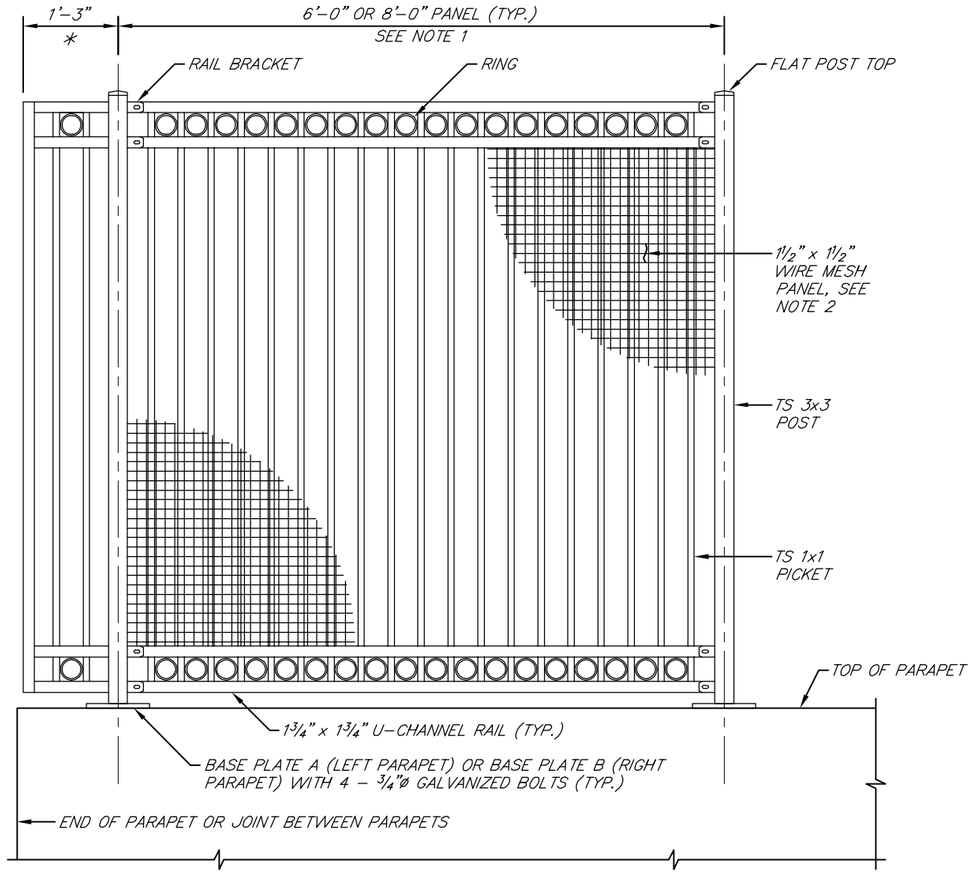
CHECKED	REVISED	STRUCTURE FILE No.	
BPS		1835246	

PARAPET AESTHETIC DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD
EAST 49TH STREET
C.R. 378

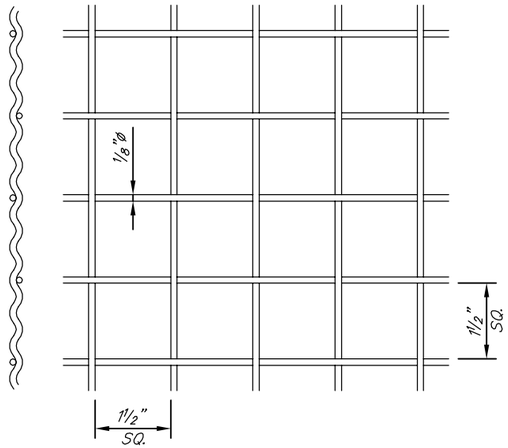
31 | 36

32
37

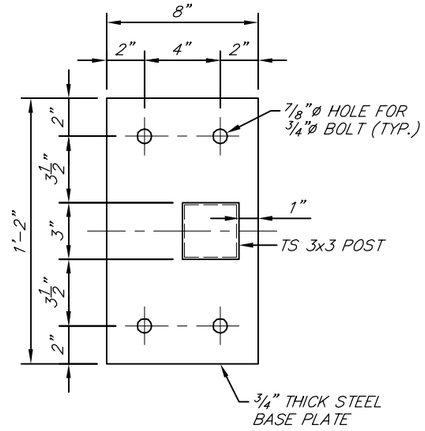


* WELD END PANEL FRAME TO POST PRIOR TO COATING

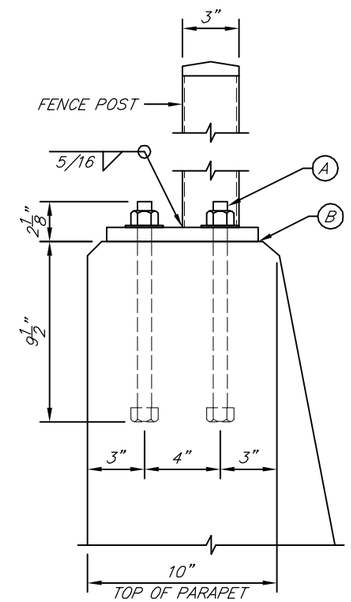
ARCHITECTURAL FENCE ELEVATION



SQUARE MESH DETAIL



PLAN



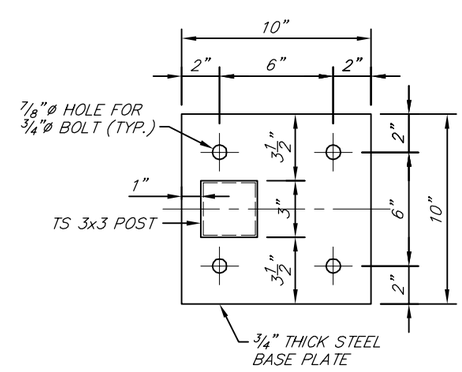
SECTION

BASE PLATE A DETAIL

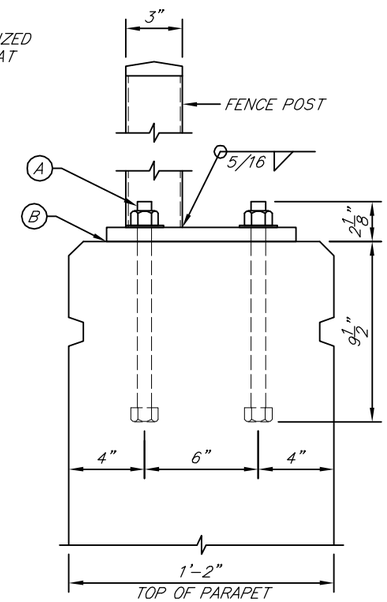
LEGEND

(A) ¾"ø HOT-DIP GALVANIZED BOLT WITH NUT & FLAT WASHER (TYP.)

(B) CAULK BASE PLATES, SEE NOTE 4



PLAN



SECTION

BASE PLATE B DETAIL

NOTES

1. PANELS, POSTS, BASE PLATES AND ALL HARDWARE SHALL BE BRONZE IN COLOR.
2. MESH SHALL BE 10 GA. TYPE 304 STAINLESS INTERCRIMP WOVEN WITH 1 1/2" SQUARE OPENINGS. MESH PANELS SHALL HAVE CRIMPED EDGE BARS WITH GROUND WELDED CORNERS AND NO SHARP EDGES. ATTACH MESH PANEL TO THE OUTSIDE FACE OF THE FENCE PANEL WITH A MINIMUM OF NINE (9) HAT CHANNEL TYPE CLAMPS PER PANEL.
3. SHIMS USED FOR PLUMBING OF POSTS SHALL BE MADE FROM ANY MULTI-POLYMER PLASTIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
4. BASE PLATES SHALL BE 3/4" A36 STEEL, HOT-DIP GALVANIZED. WELD BASE PLATES TO POSTS PRIOR TO HOT-DIP GALVANIZING.
5. BASE PLATE CAULKING SHALL BE BRONZE IN COLOR. CAULK BASE PLATES IN ACCORDANCE WITH CUYAHOGA COUNTY STANDARD DRAWING PRF-1C.
6. ANCHORS: 3/4" DIAMETER ASTM A193 GRADE B7 HOT-DIP GALVANIZED BOLTS WITH MINIMUM 3" THREADED LENGTH AND 3/4" DIAMETER ASTM A194 GRADE 2H HOT-DIP GALVANIZED HEX HEAD NUTS WITH 3/4" DIAMETER ASTM F436 HOT-DIP GALVANIZED WASHERS.
7. ANCHORAGE: ANCHORS SHALL BE CAST INTO THE PARAPET CONCRETE. THE MINIMUM EMBEDMENT DEPTH SHALL BE 9 1/2".
8. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SHOP DRAWINGS PROVIDING ALL NECESSARY DETAILS FOR ACCEPTANCE PRIOR TO FABRICATION AND INSTALLATION OF FENCE.
9. SEE SHEET 31/36 FOR FENCE POST SPACING.
10. GROUND FENCE PER DETAILS ON STANDARD DRAWING HL-50.21.

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BPS		1835246	

ARCHITECTURAL FENCE DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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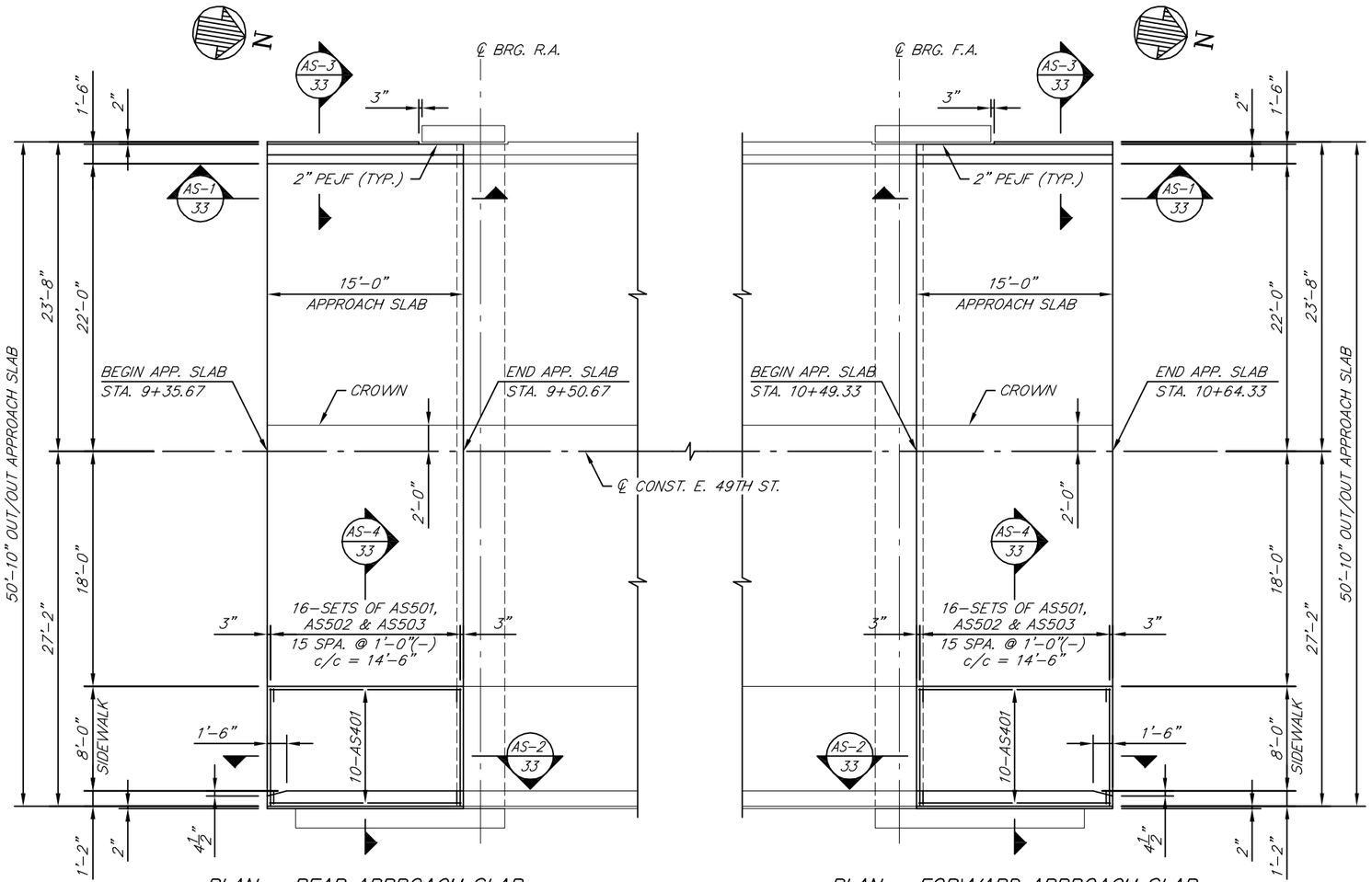
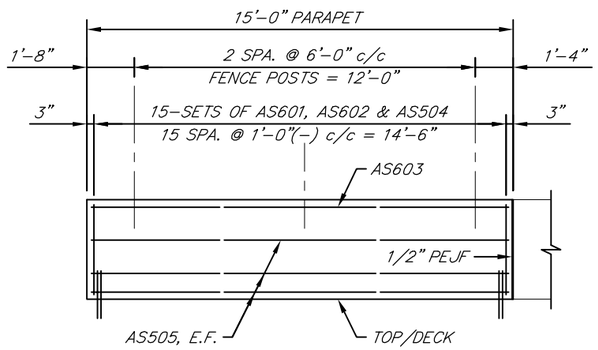


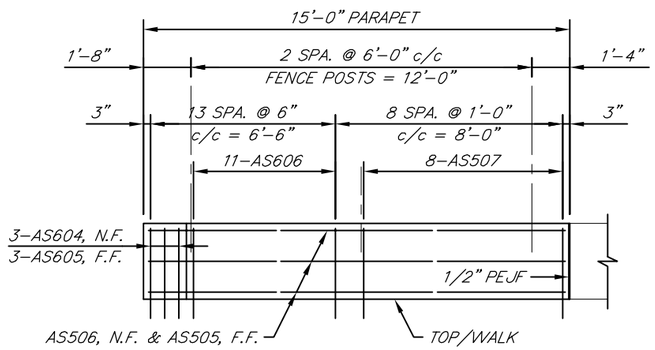
PLAN – REAR APPROACH SLAB

PLAN – FORWARD APPROACH SLAB



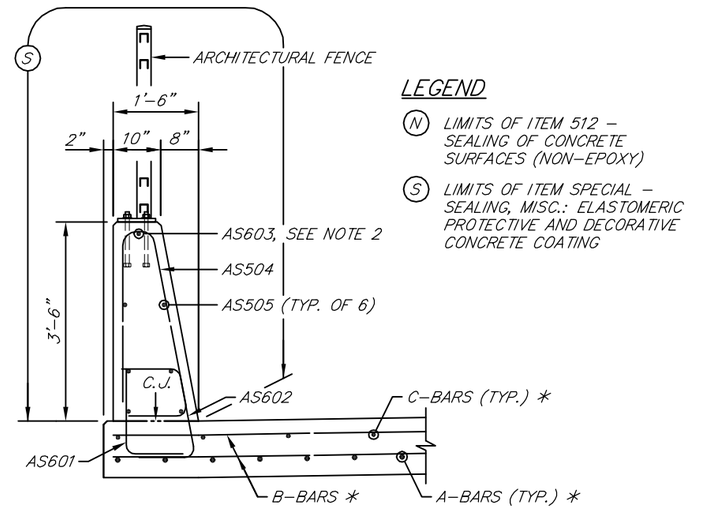
ELEVATION – PARAPET (AS-1 / 33)

REAR SHOWN, FORWARD OPPOSITE HAND



ELEVATION – PARAPET (AS-2 / 33)

FORWARD SHOWN, REAR OPPOSITE HAND



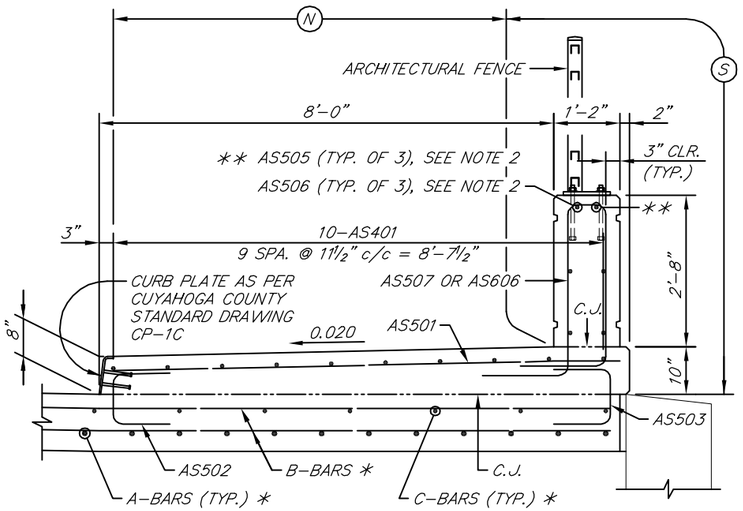
LEGEND

(N) LIMITS OF ITEM 512 – SEALING OF CONCRETE SURFACES (NON-EPOXY)

(S) LIMITS OF ITEM SPECIAL – SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING

SECTION (AS-3 / 33)

* SEE ODOT STANDARD DRAWING AS-1-81



SECTION (AS-4 / 33)

* SEE ODOT STANDARD DRAWING AS-1-81

NOTES

1. THIS DRAWING PROVIDES DETAILS TO SUPPLEMENT THE STANDARD DRAWINGS. FOR APPROACH SLAB REINFORCING STEEL AND DETAILS NOT SHOWN, REFER TO ODOT STANDARD DRAWING AS-1-81 AND CUYAHOGA COUNTY STANDARD DRAWING AS-1C.
2. ACCURATELY PLACE THE LONGITUDINAL BARS AT THE TOP OF PARAPETS TO AVOID INTERFERENCE WITH THE SETTING OF THE ARCHITECTURAL FENCE ANCHOR BOLTS.
3. INCLUDE PREFORMED EXPANSION JOINT FILLER SHOWN ON THIS SHEET FOR PAYMENT WITH ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN.
4. FOR SIDEWALK PARAPET AESTHETIC DETAILS, SEE SHEET 31/36.
5. ARCHITECTURAL FENCE IS NOT SHOWN. FOR DETAILS, SEE SHEET 32/36.
6. FOR REINFORCING STEEL LIST, SEE SHEET 36/36.

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APPROACH SLAB DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

33 | 36

34
37

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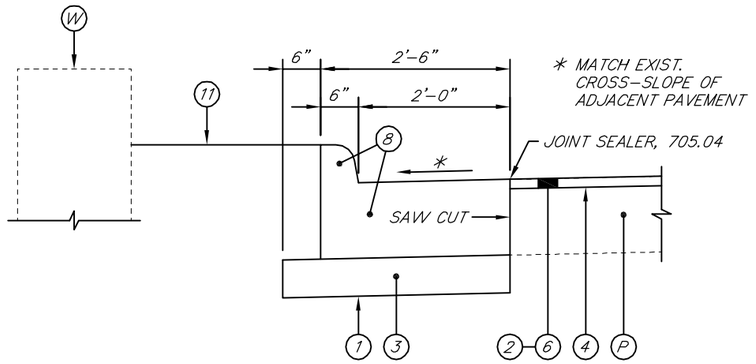
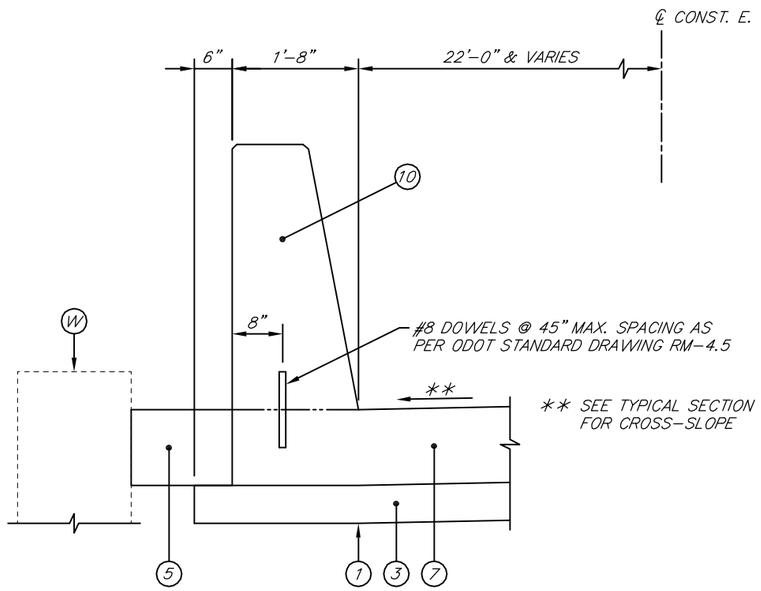


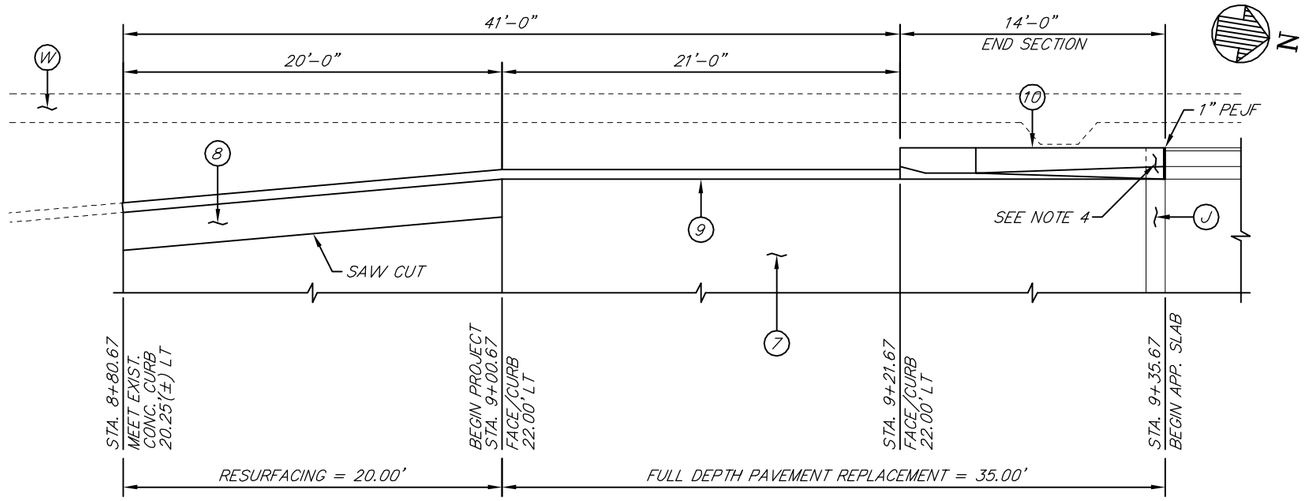
CURB AND GUTTER DETAIL

STA. 8+80.67 TO STA. 9+00.67, LT



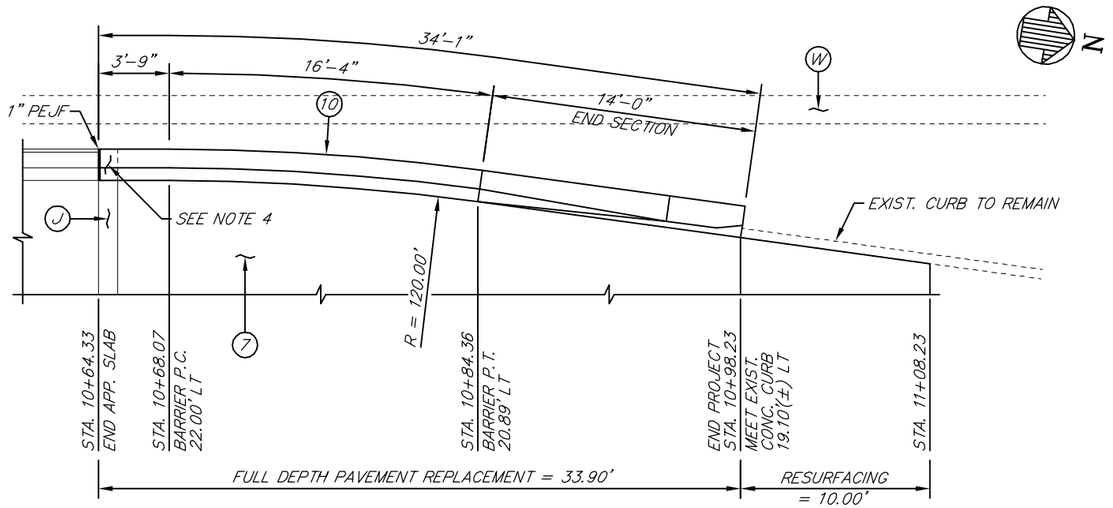
CONCRETE BARRIER DETAIL

STA. 9+21.67 TO STA. 9+35.67, LT
STA. 10+64.33 TO STA. 10+98.23, LT



PART PLAN – LEFT REAR CURB & BARRIER

GUARDRAIL NOT SHOWN, SEE NOTE 3



PART PLAN – LEFT FORWARD BARRIER

GUARDRAIL NOT SHOWN, SEE NOTE 3

LEGEND

(1) ITEM 204 – SUBGRADE COMPACTION

(2) ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (T = 1 1/4")

(3) ITEM 304 – 6" AGGREGATE BASE, AS PER PLAN

(4) ITEM 407 – TACK COAT (ESTIMATED AT 0.10 GAL/SY)

(5) ITEM 411 – 12" STABILIZED CRUSHED AGGREGATE, AS PER PLAN

(6) ITEM 448 – 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN

(7) ITEM 451 – 12" REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN

(8) ITEM 609 – COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

(9) ITEM 609 – CURB, TYPE 2A, AS PER PLAN

(10) ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

(11) ITEM 659 – SEEDING AND MULCHING, AS PER PLAN

(J) ITEM SPECIAL – PRESSURE RELIEF JOINT, CUYAHOGA COUNTY, TYPE B

(P) EXIST. PAVEMENT (SEE EXISTING TYPICAL SECTIONS)

(W) EXIST. I-77 RETAINING WALL

NOTES

1. COMBINATION CURB AND GUTTER: FOR ADDITIONAL DETAILS, SEE ODOT STANDARD DRAWING BP-5.1.
2. CONCRETE BARRIER: FOR ADDITIONAL DETAILS, SEE ODOT STANDARD DRAWINGS RM-4.5 AND RM-4.6.
3. GUARDRAIL: PROVIDE MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 AND ANCHOR ASSEMBLY, MGS TYPE A AT LEFT REAR, LEFT FORWARD, AND RIGHT REAR CORNERS. FOR DETAILS, SEE ODOT STANDARD DRAWINGS MGS-3.1 AND MGS-4.1.
4. PRESSURE RELIEF JOINT SHALL EXTEND FROM BACK OF CURB ON RIGHT TO BACK OF BARRIER ON LEFT. CONSTRUCT THE BARRIER TO EXTEND OVER THE PRESSURE RELIEF JOINT AND PROVIDE 1" PEJF AS SHOWN, INCLUDED FOR PAYMENT WITH ITEM 622 – CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.
5. FOR ADDITIONAL DETAILS, SEE CUYAHOGA COUNTY STANDARD DRAWING AS-1C.

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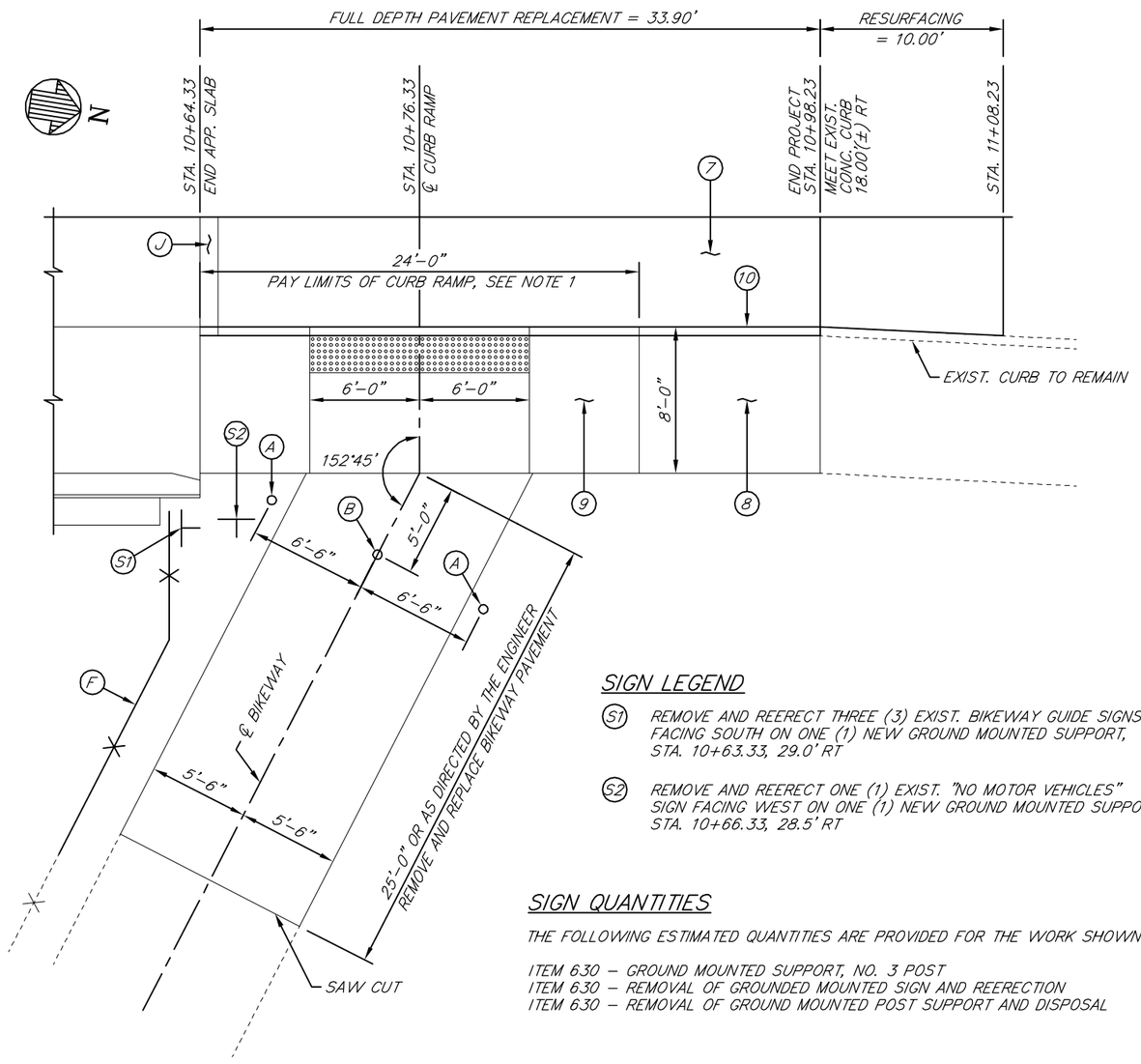
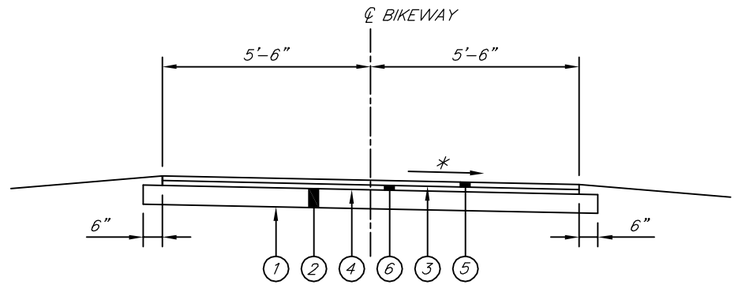
APPROACH CURB & BARRIER DETAILS
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378





BIKEWAY TYPICAL SECTION

* VARIES, TRANSITION FROM EXISTING CROSS-SLOPE TO MATCH THE LONGITUDINAL GRADE OF THE SIDEWALK

SIGN LEGEND

(S1) REMOVE AND REERECT THREE (3) EXIST. BIKEWAY GUIDE SIGNS FACING SOUTH ON ONE (1) NEW GROUND MOUNTED SUPPORT, STA. 10+63.33, 29.0' RT

(S2) REMOVE AND REERECT ONE (1) EXIST. "NO MOTOR VEHICLES" SIGN FACING WEST ON ONE (1) NEW GROUND MOUNTED SUPPORT, STA. 10+66.33, 28.5' RT

SIGN QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR THE WORK SHOWN ABOVE:

ITEM 630 – GROUND MOUNTED SUPPORT, NO. 3 POST	18 FT
ITEM 630 – REMOVAL OF GROUNDED MOUNTED SIGN AND REERECTION	4 EACH
ITEM 630 – REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	2 EACH

BIKEWAY CONTINGENCY QUANTITIES

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO REMOVE AND REPLACE THE BIKEWAY PAVEMENT AS REQUIRED TO ACCOMMODATE THE ADJACENT BRIDGE, PAVEMENT, AND SIDEWALK CONSTRUCTION.

ITEM 202 – REMOVAL MISC.: BOLLARD REMOVED	3 EACH
ITEM 203 – EXCAVATION	8 CU YD
ITEM 204 – SUBGRADE COMPACTION	33 SQ YD
ITEM 304 – AGGREGATE BASE, AS PER PLAN	6 CU YD
ITEM 407 – TACK COAT	3 GALLON
ITEM 408 – PRIME COAT	12 GALLON
ITEM 448 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN	1 CU YD
ITEM 448 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, AS PER PLAN	2 CU YD
ITEM SPECIAL – BOLLARD	3 EACH

THE LENGTH USED TO ESTIMATE THE QUANTITIES ABOVE IS 25'-0". THESE QUANTITIES ARE CARRIED TO THE ESTIMATED QUANTITIES SUMMARY TABLE ON SHEETS 8/36 AND 9/36.

PART PLAN – INCIDENTAL WORK AT BIKEWAY

LEGEND

(1) ITEM 204 – SUBGRADE COMPACTION

(2) ITEM 304 – 6" AGGREGATE BASE, AS PER PLAN

(3) ITEM 407 – TACK COAT (ESTIMATED AT 0.10 GAL/SY)

(4) ITEM 408 – PRIME COAT (ESTIMATED AT 0.40 GAL/SY)

(5) ITEM 448 – 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 PG64-22, AS PER PLAN

(6) ITEM 448 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 PG64-22, AS PER PLAN

(7) ITEM 451 – 12" REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN

(8) ITEM 608 – 4" CONCRETE WALK, AS PER PLAN

(9) ITEM 608 – CURB RAMP, TYPE B2, AS PER PLAN (SEE NOTE 1)

(10) ITEM 609 – CURB, TYPE 2A, AS PER PLAN

(A) ITEM SPECIAL – BOLLARD (PERMANENT, SEE NOTE 2)

(B) ITEM SPECIAL – BOLLARD (REMOVABLE, SEE NOTE 2)

(F) ITEM 607 – FENCE REMOVED AND REBUILT, AS PER PLAN (SEE NOTE 3)

(J) ITEM SPECIAL – PRESSURE RELIEF JOINT, CUYAHOGA COUNTY, TYPE B

NOTES

1. CURB RAMP: FOR ADDITIONAL DETAILS, SEE ODOT STANDARD DRAWING BP-7.1. THE 6" CURB SHOWN AT THE BACK OF THE CURB RAMP IN THE STANDARD DRAWING IS NOT REQUIRED AT THIS LOCATION.
2. BOLLARDS: PLACEMENT SHALL BE AS SHOWN ON THIS SHEET. FOR DETAILS OF PERMANENT AND REMOVABLE BOLLARDS, SEE ODOT STANDARD DRAWING RM-5.1.
3. FENCE REMOVED AND REBUILT: FOR ADDITIONAL INFORMATION, SEE THE GENERAL NOTES.
4. FOR ADDITIONAL DETAILS, SEE CUYAHOGA COUNTY STANDARD DRAWING AS-1C.

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INCIDENTAL WORK AT BIKEWAY
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

35 | 36

36
37

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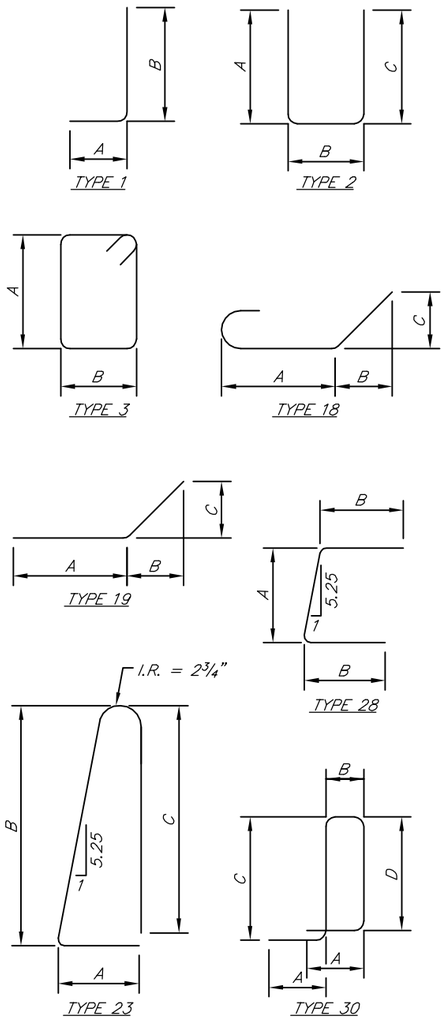
REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	SERIES INC.
REAR ABUTMENT										
A401	14	1'-5"	13	1	0'-9"	0'-9"				
A402	1	7'-1"	5	STR						
A403	2	6'-3"	8	STR						
A404	3	5'-8"	11	STR						
A501	68	3'-0"	213	STR						
A502	54	13'-0"	732	3	2'-9"	3'-6"				
A503	8	28'-6"	238	STR						
A505	22	3'-6"	80	STR						
A506	5	14'-2"	74	2	6'-9"	0'-11"	6'-9"			
A507	5	11'-6"	60	2	5'-5"	0'-11"	5'-5"			
A508	10	6'-0"	63	STR						
A509	6	8'-4"	52	1	2'-6"	6'-0"				
	1	9'-6"			3'-4"					
A510	SER OF	TO	63	3	TO	1'-2"				7 3/4"
	5	14'-8"			5'-11"					
A511	8	13'-11"	116	2	6'-6"	1'-2"	6'-6"			
A512	8	11'-9"	98	2	5'-5"	1'-2"	5'-5"			
A513	6	15'-8"	98	STR						
A514	2	14'-7"	30	STR						
A515	2	11'-9"	25	STR						
A516	2	9'-9"	20	19	6'-9"	2'-9"	1'-3"			
A517	6	12'-0"	75	1	2'-6"	9'-8"				
A801	8	30'-4"	648	STR						
		TOTAL	2722	LBS						
FWD. ABUTMENT										
A501	66	3'-0"	207	STR						
A503	8	28'-6"	238	STR						
A504	54	12'-0"	676	3	2'-3"	3'-6"				
A505	10	3'-6"	37	STR						
A509	6	8'-4"	52	1	2'-6"	6'-0"				
A513	10	15'-8"	163	STR						
A518	2	6'-10"	14	3	0'-11"	2'-3"				
A519	5	14'-4"	75	2	6'-10"	0'-11"	6'-10"			
A520	5	5'-8"	30	2	5'-0"	0'-11"				
A521	4	8'-6"	35	STR						
A522	2	4'-0"	8	STR						
A523	6	5'-8"	35	STR						
A524	9	7'-7"	71	2	1'-2"	6'-8"				
A525	9	5'-9"	54	2	1'-2"	4'-10"				
A526	12	12'-6"	156	1	1'-0"	11'-8"				
A527	36	11'-8"	438	STR						
A528	3	14'-0"	44	1	2'-6"	11'-8"				
A529	2	12'-0"	25	STR						
A530	16	3'-4"	56	1	1'-0"	2'-6"				
A531	3	16'-10"	53	3	1'-2"	7'-0"				
A801	8	30'-4"	648	STR						
		TOTAL	3115	LBS						
SUPERSTRUCTURE										
S401	156	22'-2"	2310	STR						
S402	156	30'-0"	3126	STR						
S403	36	4'-0"	96	STR						
S404	28	5'-2"	97	2	1'-0"	3'-4"	1'-0"			
S405	24	4'-2"	67	2	0'-6"	3'-4"	0'-6"			

REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	SERIES INC.
SUPERSTRUCTURE										
S501	474	26'-6"	13101	STR						
S502	237	22'-0"	5438	STR						
S503	237	31'-0"	7663	STR						
S504	158	22'-11"	3777	STR						
S505	158	30'-0"	4944	STR						
S506	99	9'-0"	929	STR						
S507	99	2'-9"	284	2	1'-0"	1'-0"	1'-0"			
S508	99	2'-11"	301	2	1'-0"	1'-2"	1'-0"			
S509	99	9'-0"	929	30	1'-6"	0'-8"	3'-0"	2'-10"		
S510	12	22'-11"	287	STR						
S511	12	30'-0"	375	STR						
S512	8	22'-11"	191	STR						
S513	8	30'-0"	250	STR						
S514	4	3'-0"	13	STR						
S515	46	3'-8"	176	STR						
S516	123	7'-5"	951	23	1'-0"	3'-3"	3'-0"			
S517	76	13'-11"	1103	2	5'-8"	2'-10"	5'-8"			
S518	76	17'-10"	1414	3	3'-4"	5'-4"				
S519	4	8'-6"	35	3	3'-4"	0'-8"				
S520	4	9'-6"	40	3	2'-10"	1'-8"				
S521	4	11'-6"	48	3	3'-4"	2'-2"				
S522	16	4'-0"	67	STR						
S601	123	2'-4"	431	1	1'-6"	1'-0"				
S602	123	3'-6"	647	28	1'-6"	1'-0"				
S603	2	3'-0"	9	STR						
S604	23	3'-8"	127	STR						
S801	32	28'-10"	2464	STR						
S802	10	32'-11"	879	STR						
S803	6	24'-8"	395	STR						
S804	4	15'-1"	161	STR						
S805	32	8'-0"	684	STR						
S806	10	6'-6"	174	STR						
S807	8	2'-10"	61	STR						
S808	16	2'-1"	89	STR						
S809	4	1'-4"	14	STR						
S810	82	4'-9"	1040	18	2'-6"	1'-0"	1'-0"			
		TOTAL	53983	LBS						
APPROACH SLAB										
AS401	20	14'-6"	194	STR						
AS501	32	9'-0"	300	STR						
AS502	32	2'-9"	92	2	1'-0"	1'-0"	1'-0"			
AS503	32	2'-11"	97	2	1'-0"	1'-2"	1'-0"			
AS504	30	7'-5"	232	23	1'-0"	3'-3"	3'-0"			
AS505	18	14'-6"	272	STR						
AS506	6	14'-6"	91	19	13'-2"	1'-4"	0'-4"			
AS507	16	9'-4"	156	30	1'-6"	0'-8"	3'-0"	3'-2"		
AS601	30	2'-4"	105	1	1'-6"	1'-0"				
AS602	30	3'-6"	158	28	1'-6"	1'-0"				
AS603	2	14'-6"	44	STR						
AS604	6	4'-10"	44	1	1'-10"	3'-2"				
AS605	6	4'-8"	42	1	1'-10"	3'-0"				
AS606	22	9'-10"	325	30	1'-10"	0'-8"	3'-0"	3'-2"		
		TOTAL	2152	LBS						

BENDING DIAGRAMS



REINFORCING STEEL NOTES

1. SERIES BARS – EACH BAR VARIES BY TABULATED AMOUNT.
2. ALL DIMENSIONS ARE OUT TO OUT.
3. TYPE 'STR' INDICATES A STRAIGHT BAR.
4. THE BAR SIZE NUMBER IS INDICATED IN THE 'MARK' COLUMN. THE FIRST DIGIT OF EACH MARK INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A501 IS A #5 BAR SIZE.
5. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
6. APPROACH SLAB REINFORCING STEEL LIST IS PROVIDED FOR INFORMATION ONLY. ALL REINFORCING STEEL REQUIRED FOR APPROACH SLABS IS TO BE INCLUDED FOR PAYMENT UNDER ITEM 526 – REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN.

DLZ
1000 Rockefeller Bldg. • 614 W. Superior Ave. • Cleveland, OH 44113

DESIGNED ARA | DRAWN ARA | CHECKED PAT | REVIEWED MJL | DATE 10/15/13 | REVISED | STRUCTURE FILE No. 1835246

REINFORCING STEEL LIST
BRIDGE 00.54
OVER ABANDONED RAILROAD

EAST 49TH STREET
C.R. 378

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