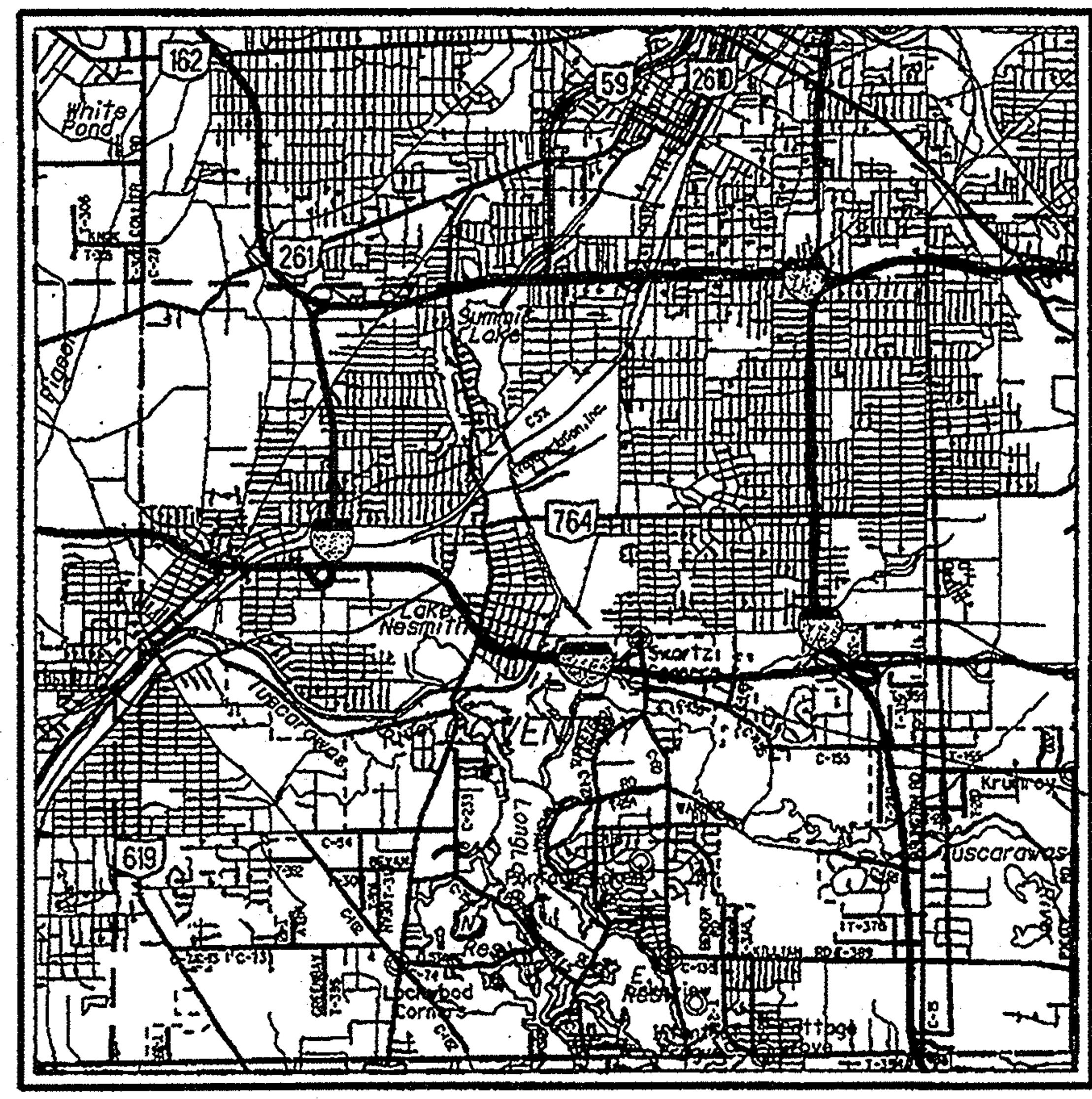
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

SUM-277-1.61 PART 2

CITY OF AKRON
SUMMIT COUNTY

FOR PART 1, SEE SUM-76/77/277/224-VAR.

FOR PART 3, SEE SUM-76-6.72



PROJECT LOCATION
SUM-277-0161

LOCATION MAP

LATITUDE: N41°04'55" LONGITUDE: W81°34'36"

SCALE IN MILES
0 1 2 3 4

N

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

PROJECT DESCRIPTION

REHABILITATION OF THE EXISTING EDWIN AVENUE PEDESTRIAN BRIDGE OVER I.R. 277 INCLUDING NEW CONCRETE DECK, STRUCTURE PAINTING, STRUCTURE REPAIRS, AND APPROACH IMPROVEMENTS.

PROJECT EARTH DISTURBED AREA: 0 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: 0 ACRES
NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2010 SPECIFICATIONS

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

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

INDEX OF SHEETS:

DESIGN EXCEPTIONS

VERTICAL CLEARANCE (SEPTEMBER 9, 2010)

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

PLAN PREPARED BY:
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING
2088 SOUTH ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:
STATE OF OHIO
THOMAS J. POWELL
E-61151
REGISTERED PROFESSIONAL ENGINEER
SIGNED: T J Powell
DATE: 09-01-11

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
SEE PART 1	SEE PART 1
	SPECIAL PROVISIONS
	SEE PART 1

APPROVED [signature]
DATE 9-14-11 DISTRICT DEPUTY DIRECTOR

APPROVED Jerry Wray
DATE 9-14-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. **E050(259)**

PID NO. **76351**

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT **NONE**

SUM-277-1.61

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

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CALCULATED LMP
CHECKED TJP

GENERAL NOTES

SUM-271-1.61

PEDESTRIAN BRIDGE CLOSURE NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-2211) AND THE CITY OF AKRON (330-375-2355) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE CLOSURE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A CLOSURE)

THE PEDESTRIAN BRIDGE (STRUCTURE SUM-277-0161) OVER IR-277 MAY BE CLOSED FOR A MAXIMUM OF 60 CONSECUTIVE CALENDAR DAYS BETWEEN THE DATES OF JUNE 15 TO AUGUST 15, 2012. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000.00 FOR EACH CALENDAR DAY THAT THE BRIDGE REMAINS CLOSED TO PEDESTRIANS BEYOND THE SPECIFIED LIMITS.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED BRIDGE CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE BRIDGE FACING PEDESTRIANS. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THEY SHOULD BE ERECTED AT THE POINTS OF CLOSURE.

WILL BE
CLOSED
FOR DAYS
INFO: 330-786-2211

W20-H13-60

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

IN ORDER TO CLOSE THE BRIDGE, THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THIS WILL INCLUDE TYPE III BARRICADES WITH R9-9-30 "SIDEWALK CLOSED" SIGNS AT EACH END OF THE BRIDGE.

ITEM 614, MAINTAINING TRAFFIC

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

LANE CLOSURES ON IR-277

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $5000.00 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

COMPLETION DATE

THE PEDESTRIAN BRIDGE PAINTING WORK AND ALL OTHER REMAINING BRIDGE WORK SHALL BE COMPLETED BY SEPTEMBER 30, 2012. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT THE CONTRACTOR WILL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2000.00 PER DAY THAT THE WORK REMAINS UNCOMPLETED.

TRAFFIC CONTROL INSPECTOR FOR IR-277

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

BRIDGE PAINTING EQUIPMENT ON SHOULDERS

IF BRIDGE PAINTING EQUIPMENT IS TO REMAIN ON THE SHOULDERS WHEN THE CONTRACTOR IS NOT WORKING, IT SHALL BE PLACED BEHIND PORTABLE CONCRETE BARRIER (PCB) AND A WORK ZONE IMPACT ATTENUATOR (WZIA) SHALL PROTECT THE LEADING BLUNT END OF THE PCB (SEE OMUTCD, FIGURE 6H-5 "SHOULDER CLOSURE ON FREEWAY" (TYPICAL APPLICATION 5)). IF THE CONTRACTOR CHOOSES TO PROTECT PAINTING EQUIPMENT WITH PCB AND A WZIA, THE COST SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

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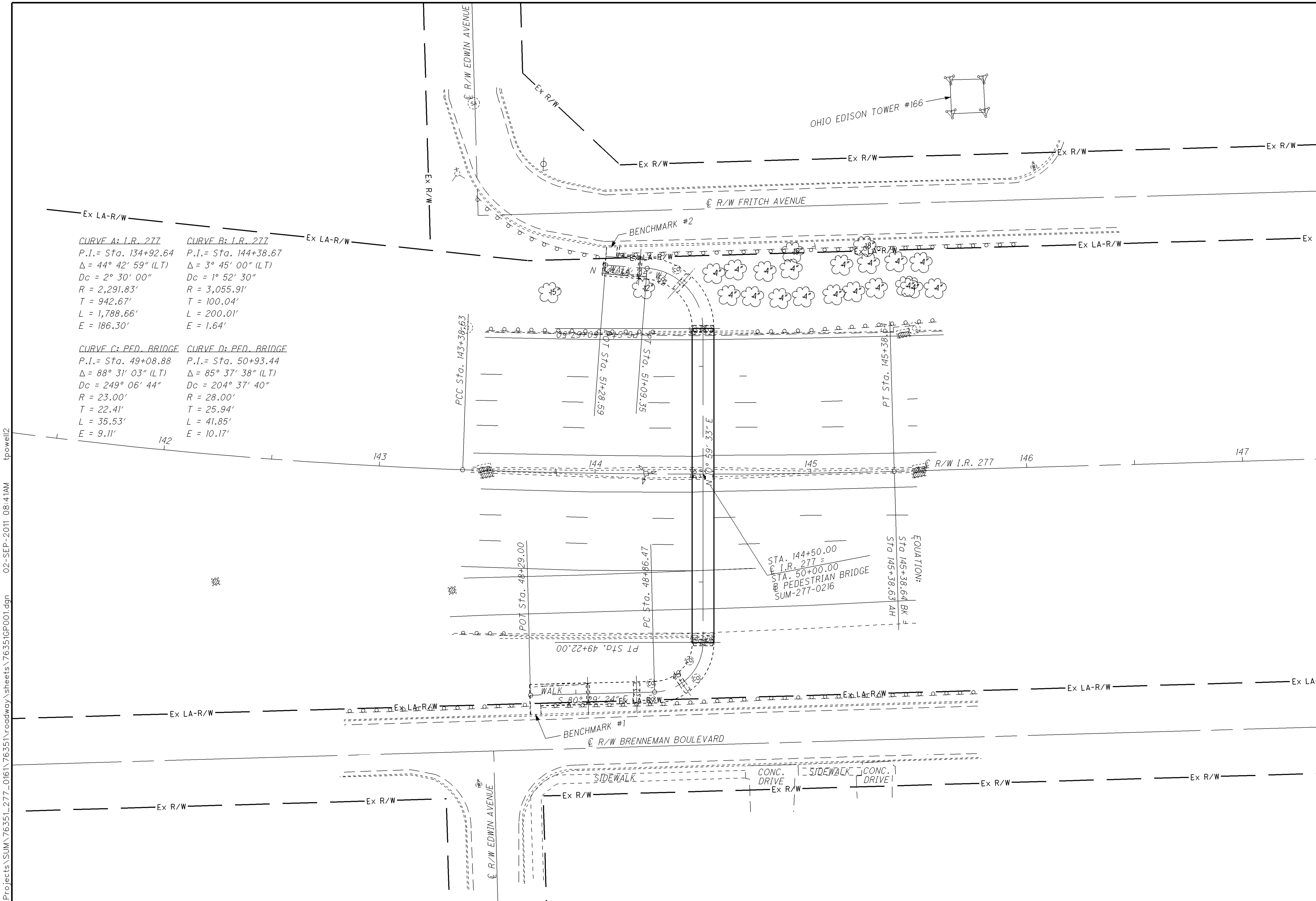
SHEET NUMBER														ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																		STRUCTURES	
																		FOR STRUCTURE SUM-277-0161 ESTIMATED EQUANTITIES	9
														614	11000	LUMP		MAINTAINING TRAFFIC	
														623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
														624	10000	LUMP		MOBILIZATION	

CALCULATED LMP
CHECKED TJP

GENERAL SUMMARY

SUM-271-1.61



CURVE A: I.R. 277
P.I.= Sta. 134+92.64
Δ = 44° 42′ 59″ (LT)
Dc = 2° 30′ 00″
R = 2,291.83′
T = 942.67′
L = 1,788.66′
E = 186.30′

CURVE B: I.R. 277
P.I.= Sta. 144+38.67
Δ = 3° 45′ 00″ (LT)
Dc = 1° 52′ 30″
R = 3,055.91′
T = 100.04′
L = 200.01′
E = 1.64′

CURVE C: PED. BRIDGE
P.I.= Sta. 49+08.88
Δ = 88° 31′ 03″ (LT)
Dc = 249° 06′ 44″
R = 23.00′
T = 22.41′
L = 35.53′
E = 9.11′

CURVE D: PED. BRIDGE
P.I.= Sta. 50+93.44
Δ = 85° 37′ 38″ (LT)
Dc = 204° 37′ 40″
R = 28.00′
T = 25.94′
L = 41.85′
E = 10.17′

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LMP
CHECKED TJP

PLAN (SUM-277-0161)
PEDESTRIAN BRIDGE OVER I.R. 277

SUM-277-1.61

EXISTING STRUCTURE

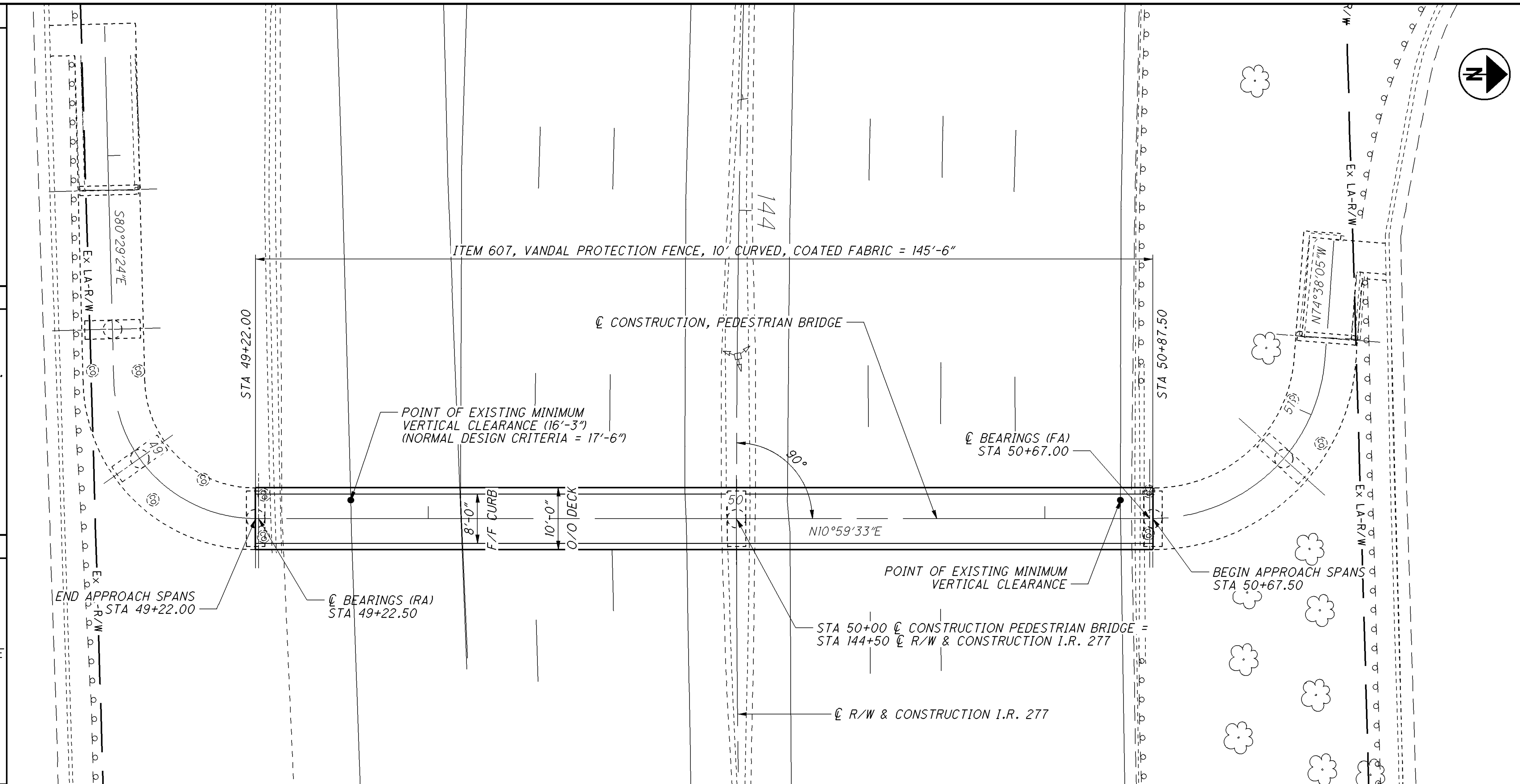
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE SLAB AND SUBSTRUCTURE. CONTINUOUS REINFORCED CONCRETE SLAB RAMP APPROACHES.
SPANS: 3 @ 22'-0"±; 78'-0"±; 67'-6"±; 2 @ 22'-0"±
WALK: 8'-0"± F/F CURB
LOADING: 85 P.S.F. LIVE LOAD
SKEW: 00°00'00"±
ALIGNMENT: TANGENT; TAIL SPANS CURVED
STRUCTURAL FILE NUMBER: 7709668
DATE BUILT: 1966
DISPOSITION: REPLACE MAIN SPAN DECK

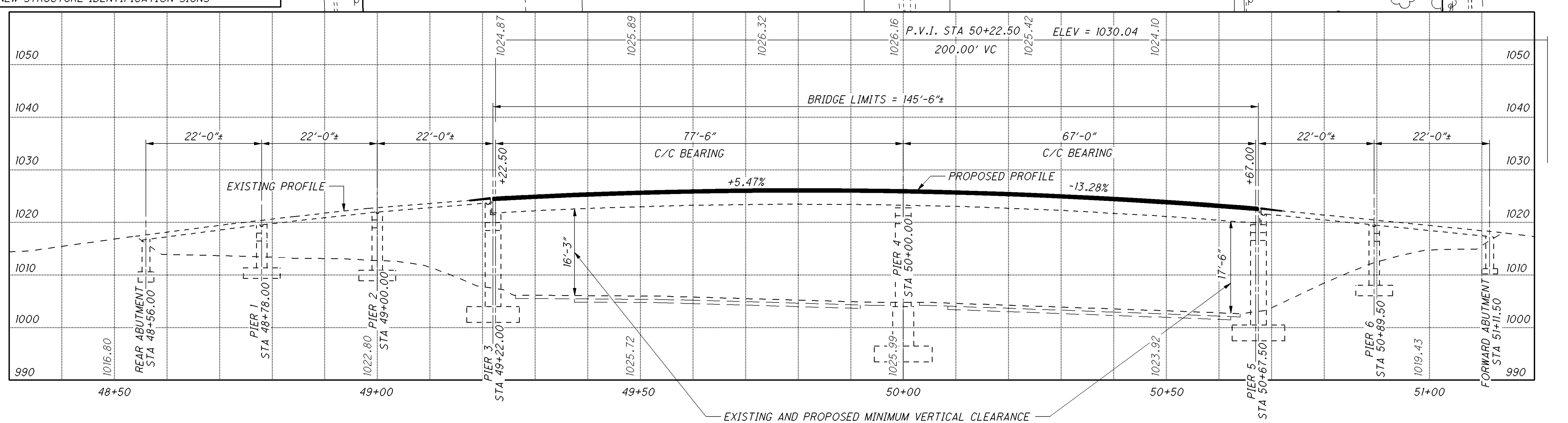
PROPOSED STRUCTURE

PROPOSED WORK: NEW COMPOSITE CONCRETE DECK FOR SPANS 4 & 5. PATCHING OF PIERS AND APPROACH SPAN DECK. PAINT EXISTING STEEL BEAMS AND SEAL EXPOSED CONCRETE.
SPANS: 3 @ 22'-0"±; 78'-0"±; 67'-6"±; 2 @ 22'-0"±
WALK: 8'-0" F/F CURB
LOADING: 85 P.S.F. LIVE LOAD (NO FWS)
SKEW: 00°00'00"±
WEARING SURFACE: MONOLITHIC CONCRETE
ALIGNMENT: TANGENT (SPANS 4 & 5)
CROWN: 0.016 FT/FT

PROPOSED WORK

- REDECK THE MAIN SPANS 4 & 5
- NEW VANDAL PROTECTION FENCE
- NEW COMPRESSION SEAL JOINTS AT PIERS 3 & 5
- PAINT THE STRUCTURAL STEEL
- REFURBISH ALL BEARINGS AT PIERS 3, 4, AND 5
- PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND EXISTING PARAPETS
- ENCASE ALL PIER COLUMNS
- SEAL ALL EXPOSED CONCRETE SURFACES OF THE DECK EDGES, ABUTMENTS, PIERS, AND BACKWALLS
- CLEARING AND GRUBBING 10' AROUND EXISTING SUBSTRUCTURE FOR SEALING OPERATIONS
- NEW STRUCTURE IDENTIFICATION SIGNS





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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		7709668	

SUMMIT COUNTY
STA. 49+22.00
STA. 50+67.50

SITE PLAN
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351

1/13

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

EXJ-2-81 DATED/REVISED 7-19-02

VPF-1-90 DATED/REVISED 4-15-11

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4-18-03

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

85 LB/SF LIVE LOAD

DESIGN DATA

CONCRETE HP - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE S - COMPRESSIVE STRENGTH 4500 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 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 FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

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

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2-INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER, ETC), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

DECK REMOVALS - COMPOSITE DECK DESIGNS - STEEL SUPERSTRUCTURES: DUE TO THE PRESENCE OF WELDED STUDS TO THE EXISTING STRUCTURAL STEEL, SUBMIT A DETAILED PROCEDURE OF THE DECK REMOVAL TO THE ENGINEER AT LEAST 7 DAYS BEFORE CONSTRUCTION BEGINS. THE PROCEDURE SHALL INCLUDE ALL DETAILS, EQUIPMENT AND METHODS TO BE USED FOR REMOVAL OF THE CONCRETE OVER THE FLANGES AND AROUND THE STUDS. REPLACE OR REPAIR MAIN STEEL AND STUDS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 511 - CLASS HP CONCRETE, AS PER PLAN

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
ALL SUPERSTRUCTURE, BRIDGE DECK, SIDEWALK, APPROACH SLABS AND PARAPET CONCRETE SHALL BE THIS MIX (HP4, AS PER PLAN). THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)
MIX 4, AS PER PLAN (GGBF SLAG + MICROSILICA)

AGG TYPE	FINE AGG (LB)	#8 COARSE AGG (LB) *	#57 COARSE AGG (LB) *	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO SILICA (LB)	MAX WATER TO CEMENTITIOUS RATIO	AIR CONTENT +/- 2%
GRAVEL	1370	650	790	2810	440	190	30	0.42	6
LIME-STONE	1370	655	800	2820	440	190	30	0.42	6
SLAG	1370	570	695	2635	440	190	30	0.42	6

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

BASIS OF PAYMENT:
PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:
ITEM 511 - CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN, 39 CU YD

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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		7709668	

STRUCTURE GENERAL NOTES
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351

ITEM 514 - PAINTING OF STRUCTURAL STEEL

THE COLOR FOR THE FINISHED COAT OF STRUCTURE(S) SUM-277-0161 WILL CONFORM TO FEDERAL COLOR NUMBER 10080 (BROWN).

ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEAR-ING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DE-SCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CON-TRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPER-STRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CON-CRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATIS-FACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUB-MIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CON-TACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM 607 - VANDAL PROTECTION FENCE, 10' CURVED, COATED FABRIC

THE VANDAL PROTECTION FENCE TO BE PLACED ON STRUCTURE SUM-277-0161 WILL BE 10' CURVED SECTION FENCE, POST SECTION PS-2, WITH BASE PLATE BP-2 AS DETAILED IN STANDARD CONSTRUCTION DRAWING VPF-1-90.

PRIOR TO ORDERING MATERIALS THE CONTRACTOR WILL LAYOUT THE POST LOCATIONS AND THE PROJECT ENGINEER WILL APPROVE THE POST SPACING TO BE USED. THE POST SPACING WILL BE AS PER STANDARD DRAWING VPF-1-90.

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
SUM-277-0161 (2 APPROACHES BELOW ALONG IR277)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LECENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES: SUM-277-0161

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL - MISC.: VERTICAL CLEARANCE, 1 EACH

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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED LMP | DRAWN LMP | REVIEWED TJP | DATE 05-17-11
CHECKED | REVISED | STRUCTURE FILE NUMBER 7709668

STRUCTURE GENERAL NOTES
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351

CALC:	LMP	DATE:	5/17/2011
CHECKED:		DATE:	

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
201	11000	LUMP		CLEARING AND GRUBBING					
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/13
202	38500	291	FT	BRIDGE RAILING REMOVED			291		
503	21300	LUMP		UNCLASSIFIED EXCAVATION					
509	10000	10308	POUND	EPOXY COATED REINFORCING STEEL		1498	8810		
509	20001	100	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				100	2/13
511	34450	21	CU YD	CLASS S CONCRETE, MISC.: PIER ENCASEMENT		21			6/13
511	50001	39	CU YD	CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN			39		2/13
512	10100	430	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	49	154	227		
513	20000	384	EACH	WELDED STUD SHEAR CONNECTORS			384		
514	00100	LUMP		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL					
514	00200	LUMP		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT					
514	00300	LUMP		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT					
514	00400	LUMP		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT					
514	00504	5	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			5		
514	10000	2	EACH	FINAL INSPECTION REPAIR			2		
516	10501	20	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC COMPRESSION SEAL, AS PER PLAN			20		10/13
516	45305	4	EACH	REFURBISH BEARING DEVICE, AS PER PLAN			4		3/13
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					3/13
518	12200	4	EACH	SCUPPERS, INCLUDING SUPPORTS			4		
518	43301	60	FT	6" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN			60		11/13
SPEC	51910000	20	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO- SILICA MODIFIED CONCRETE				20	
519	11101	200	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN				200	2/13
SPEC	53000400	1	EACH	STRUCTURE, MISC.: VERTICAL CLEARANCE				1	2/13
607	39920	291	FT	VANDAL PROTECTION FENCE, 10' CURVED, COATED FABRIC			291		
630	02100	15	FT	GROUND MOUNTED SUPPORT, NO. 2 POST				15	
630	80100	2	SQ FT	SIGN, FLAT SHEET, 730.20				2	
630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL				2	
630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL				2	
843	50000	100	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR				100	

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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

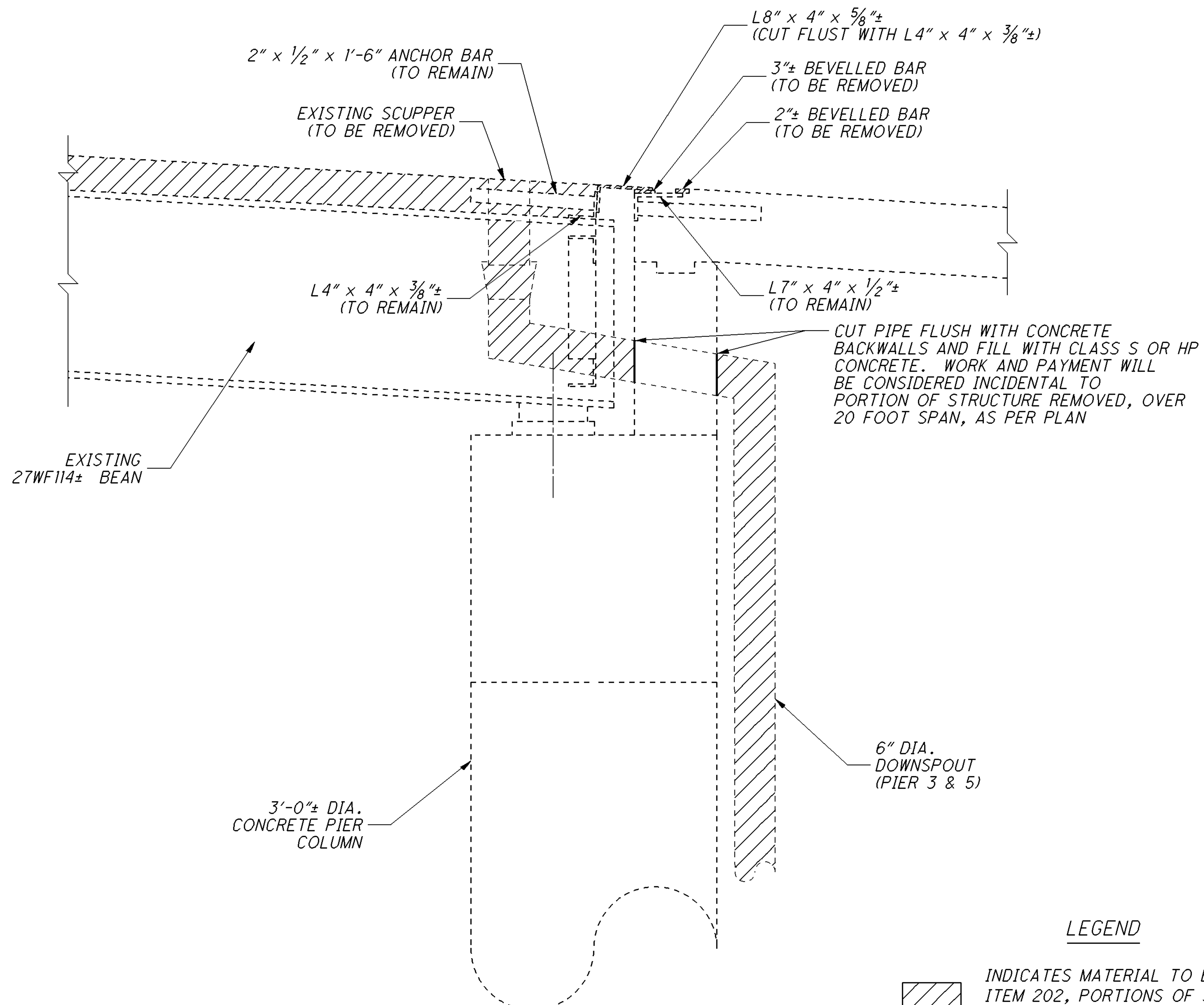
REVIEWED TJP DATE 05-17-11
STRUCTURE FILE NUMBER 7709668

DRAWN LMP REVISED

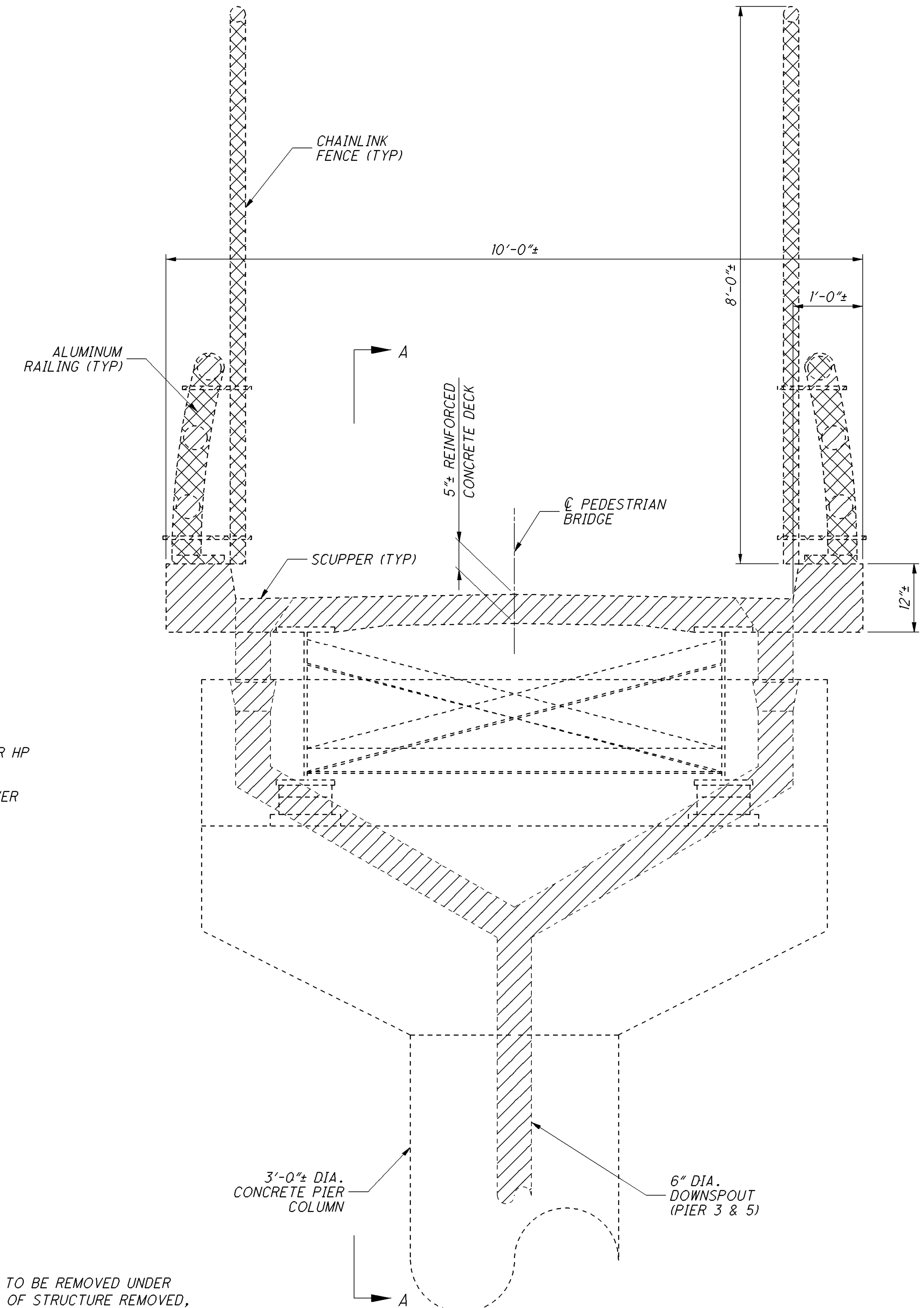
DESIGNED LMP CHECKED

STRUCTURE ESTIMATED QUANTITIES
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351



SECTION A-A



MAIN SPAN (SPANS 4 & 5) ELEVATION VIEW

LEGEND

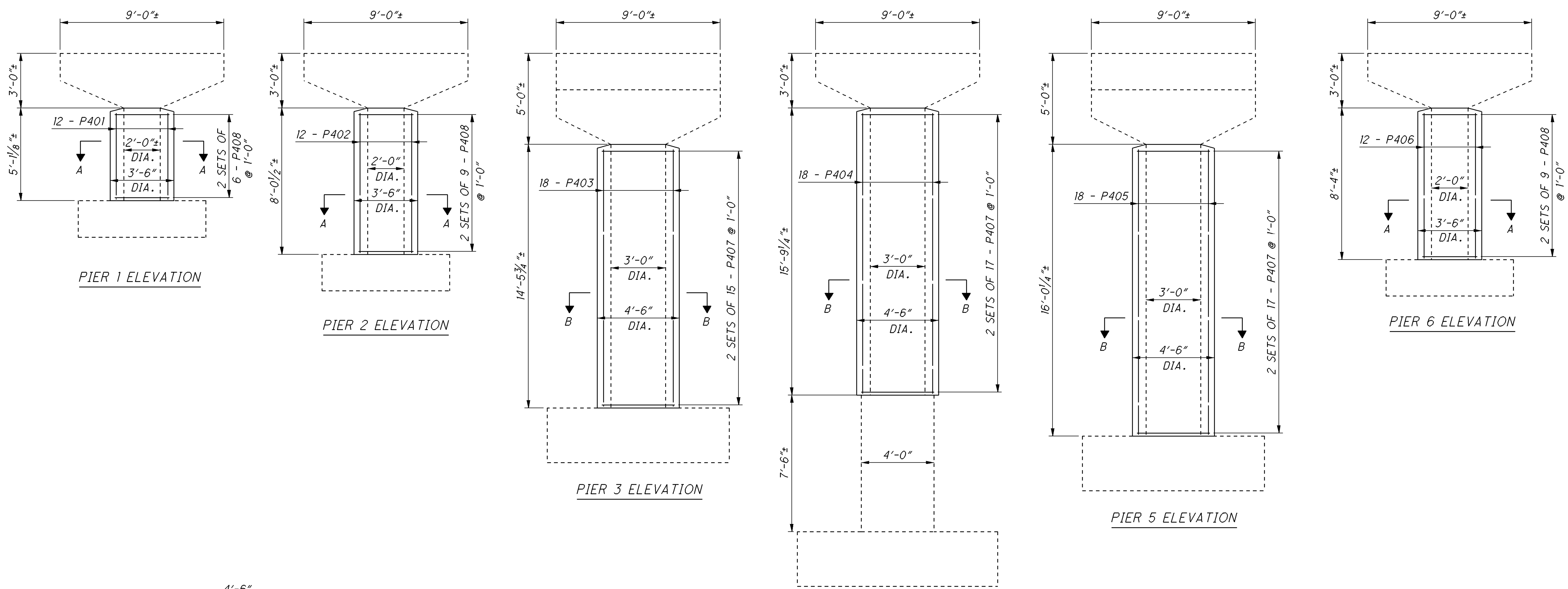
- INDICATES MATERIAL TO BE REMOVED UNDER ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN
- INDICATES MATERIAL TO BE REMOVED UNDER ITEM 202, BRIDGE RAILING REMOVED

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	7709668

REMOVAL DETAILS
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351



PIER 1 ELEVATION

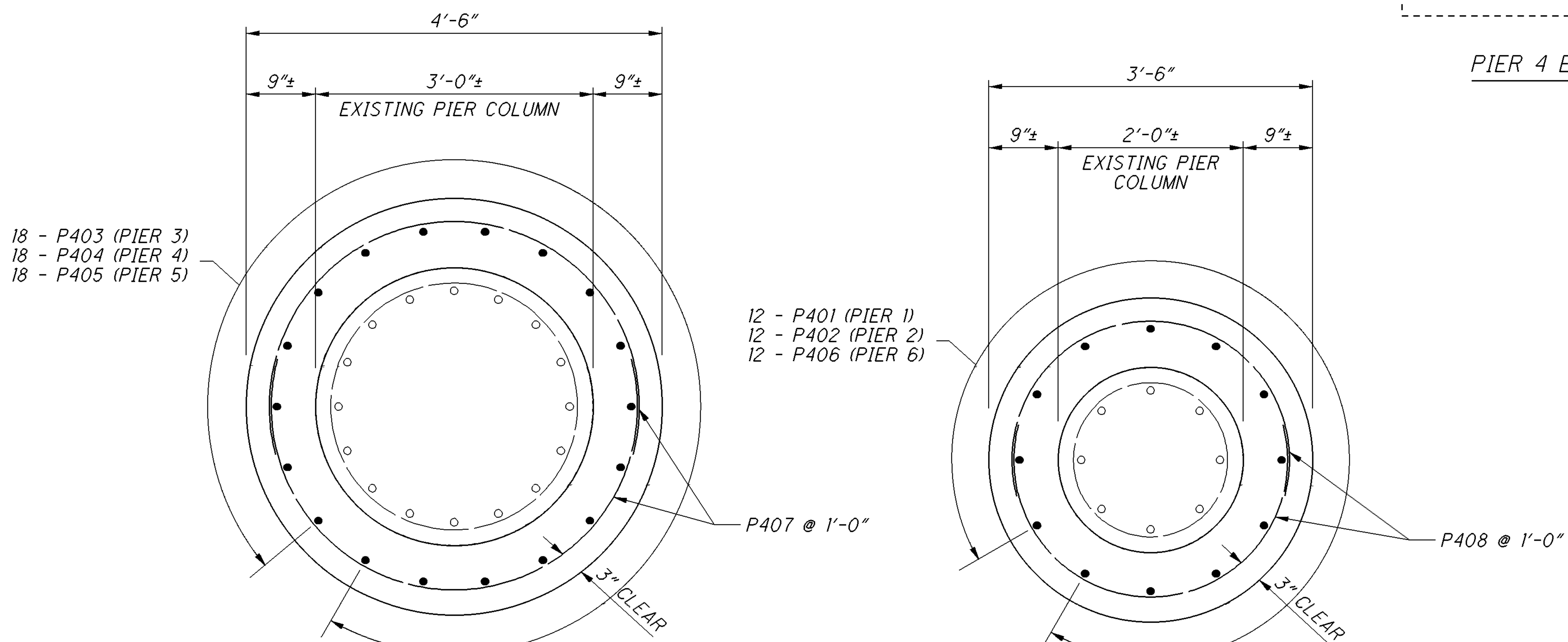
PIER 2 ELEVATION

PIER 3 ELEVATION

PIER 4 ELEVATION

PIER 5 ELEVATION

PIER 6 ELEVATION



SECTION B-B

SECTION A-A

NOTES:

1. ALL DELAMINATED CONCRETE OF THE EXISTING CONCRETE PIER COLUMNS AND SURFACE PREPARATION WILL BE PER CMS 519.04.

2. PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS PIER ENCASEMENT OPERATIONS, BLAST CLEAN ALL SURFACES TO BE ENCASED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUSED HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

3. ALL WORK TO COMPLETE THIS ITEM, INCLUDING THE REMOVAL OF DELAMINATION CONCRETE, SURFACE PREPARATION, FORMS, CONCRETE PLACEMENT, AND ALL OTHER INCIDENTIALS WILL BE INCLUDED IN ITEM 511, CLASS S CONCRETE, MISC.: PIER ENCASEMENT.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
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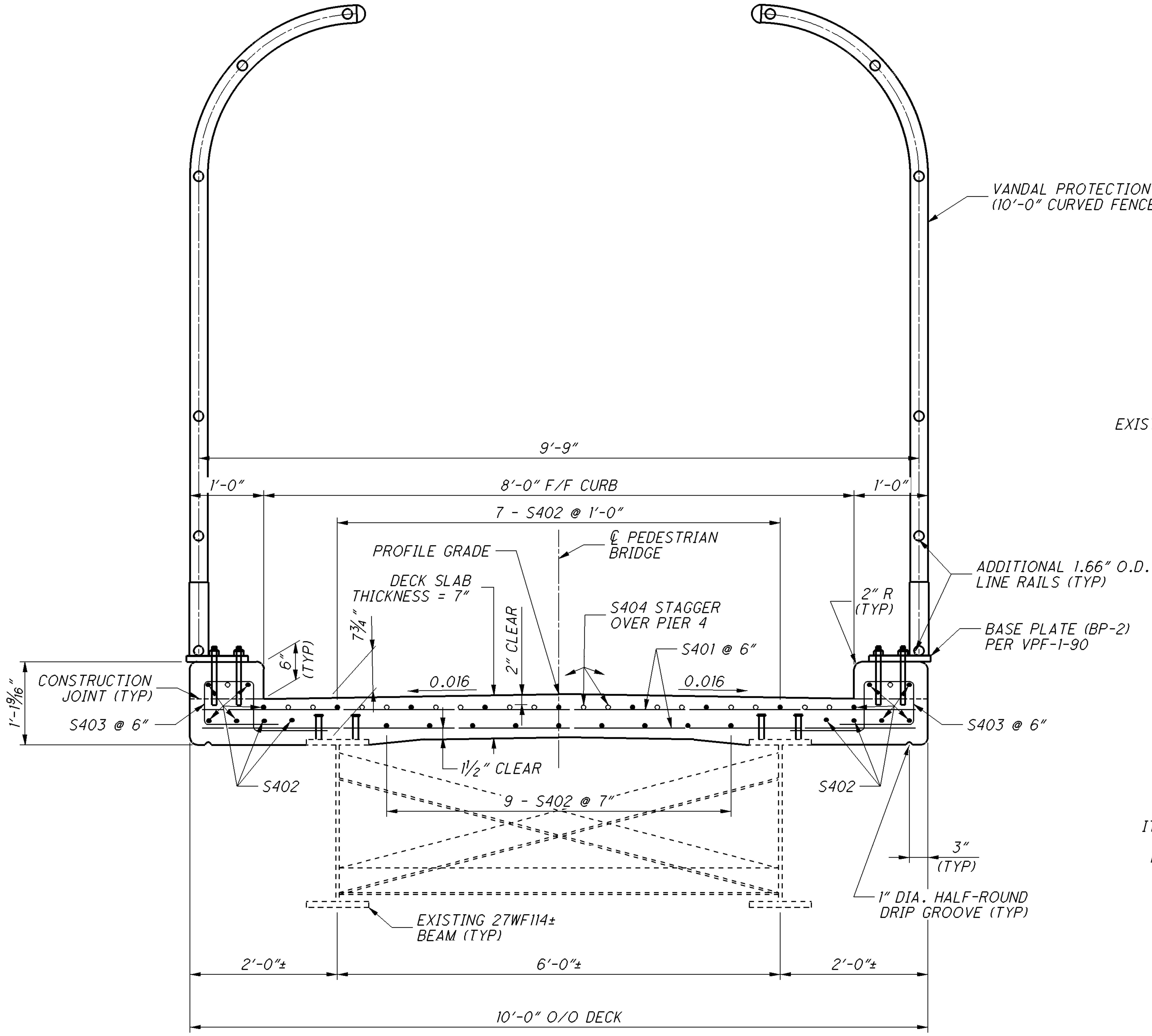
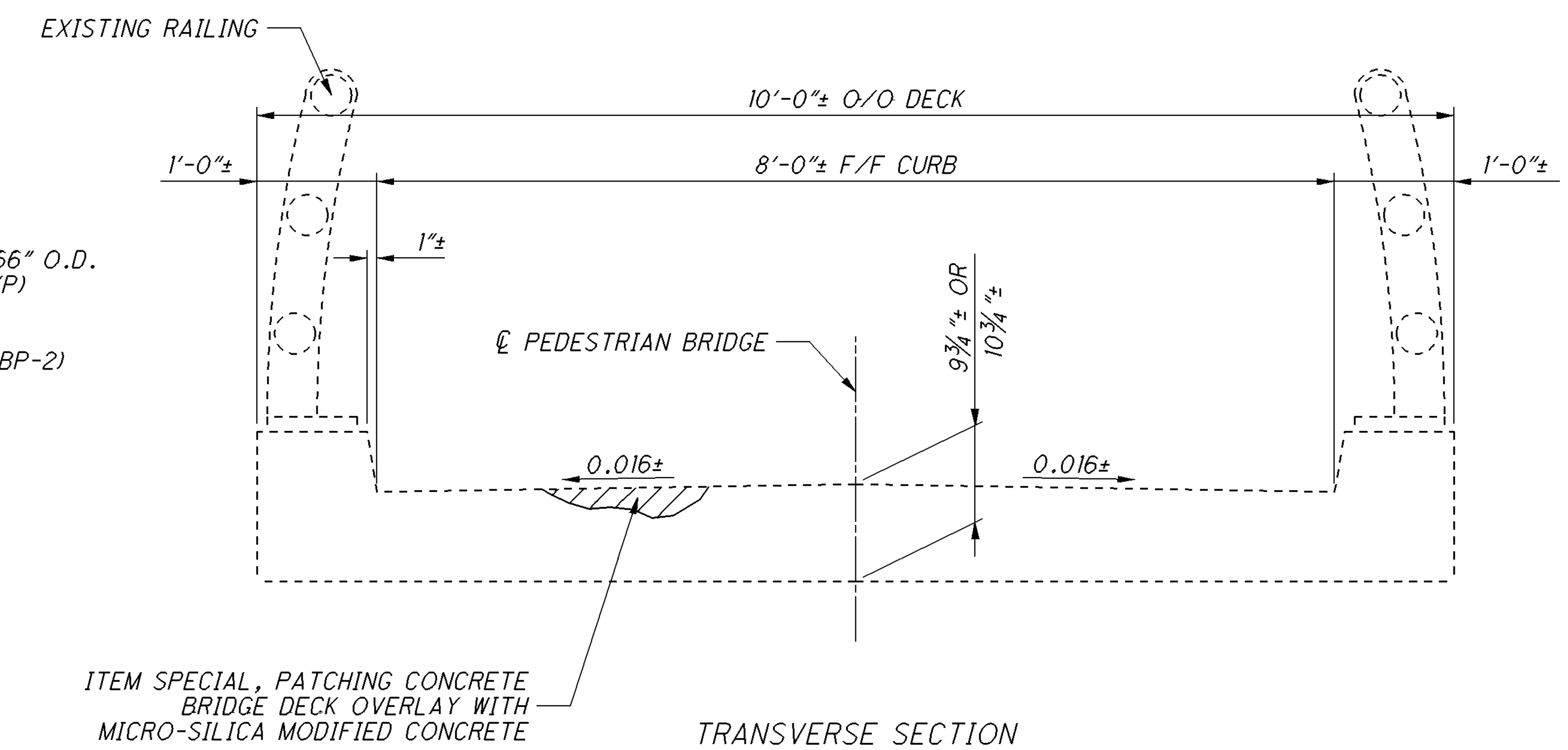
PIER REPAIRS
PEDESTRIAN BRIDGE NO.: SUM-271-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351



TRANSVERSE SECTION AT PIERS 3 THRU 5

MAIN SPANS (4 & 5)



TRANSVERSE SECTION

APPROACH SPANS

DECK SLAB CONCRETE QUANTITY

THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM/GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3/4 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM/GIRDER FLANGE IS +/- 3 INCHES.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM/GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

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TRANSVERSE SECTIONS

PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61

PID No. 76351

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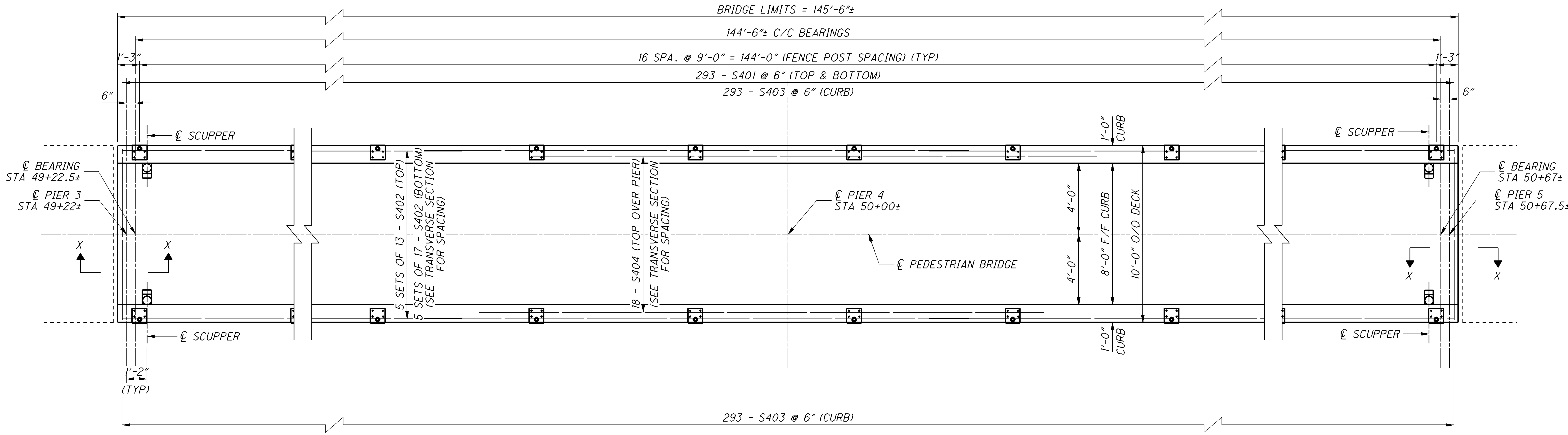
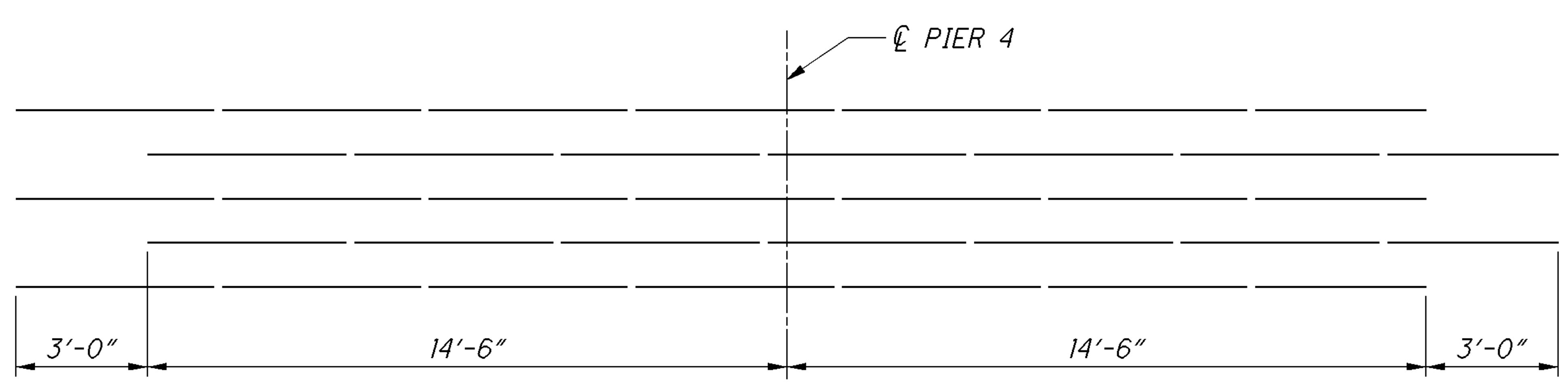
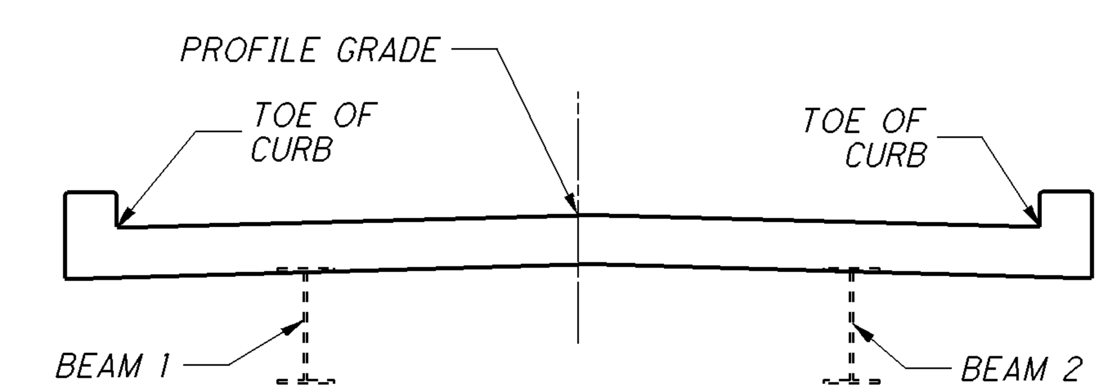


SLAB PLAN



STAGGER OF S404 OVER PIER 4



NOTES

1. SECTION X-X: SEE SHEET 10
2. THESE ELEVATIONS ARE BASED ON THE EXISTING TOP OF DECK ELEVATIONS PLUS 2" TO ACCOUNT FOR THE CHANGE IN PROPOSED DECK THICKNESS FROM 5" TO 7"±.
3. DUE TO UNCERTAINTIES WITH THE REBOUND OF EXISTING BEAMS, ALL SCREED ELEVATIONS ARE FINAL ELEVATIONS.
4. DEFLECTIONS ARE GIVEN FOR REFERENCE ONLY.

		PIER 3	SPAN No. 4				PIER 4	SPAN No. 5			PIER 5
		A	1/4 POINT B	1/2 POINT C	3/4 POINT D	SPLICE POINT E	F	1/4 POINT G	1/2 POINT H	3/4 POINT J	K
EXISTING DECK ELEVATION	PROFILE GRADE	1024.57	1025.45	1025.99	1026.17	1026.15	1025.99	1025.56	1024.87	1023.91	1022.69
	BEAM 1 & 2	1024.02	1025.40	1025.94	1026.12	1026.10	1025.94	1025.51	1024.82	1023.86	1022.64
	TOE OF CURBS	1024.01	1025.39	1025.93	1026.11	1026.09	1025.93	1025.50	1024.81	1023.85	1022.63
DEFLECTION DUE TO EXISTING (5") DEAD LOAD		0	1.125"	1.438"	0.688"	0.500"	0	0.125"	0.500"	0.438"	0
DEFLECTION DUE TO PROPOSED (7") DEAD LOAD		0	1.358"	1.678"	0.851"	0.503"	0	0.139"	0.540"	0.511"	0
DIFFERENCE IN DEFLECTIONS		0	0.233"	0.240"	0.163"	.003"	0	0.014"	0.040"	0.073"	0
PROPOSED DECK ELEVATION	PROFILE GRADE	1024.74	1025.62	1026.16	1026.34	1026.32	1026.16	1025.73	1025.04	1024.08	1022.86
	BEAM 1 & 2	1024.69	1025.57	1026.11	1026.29	1026.27	1026.11	1025.68	1024.99	1024.03	1022.81
	TOE OF CURBS	1024.68	1025.56	1026.10	1026.28	1026.26	1026.10	1025.67	1024.98	1024.02	1022.80

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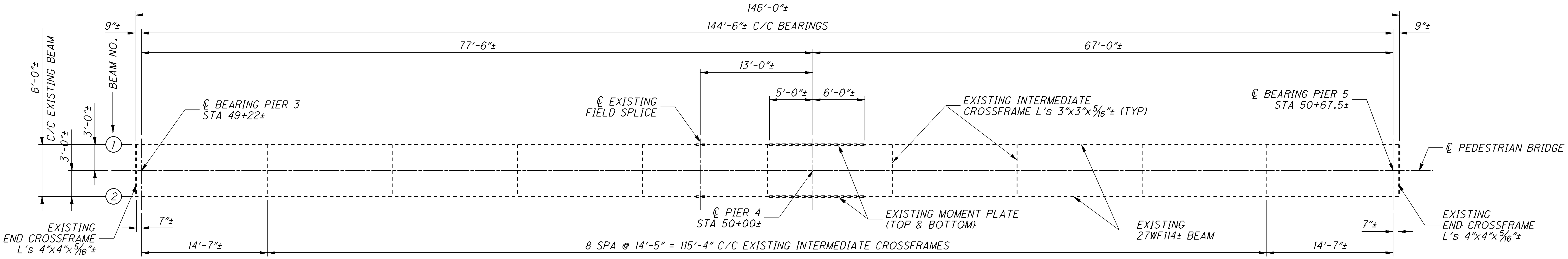
DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

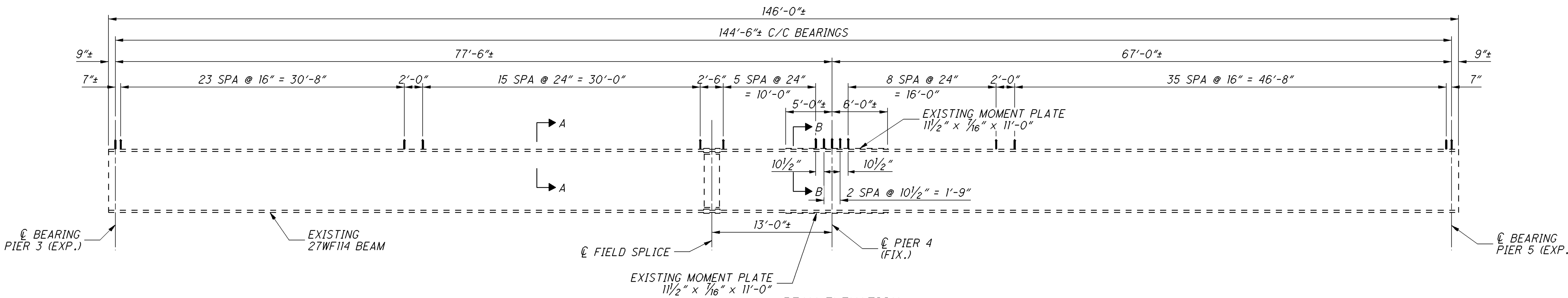
DATE 05-17-11
STRUCTURE FILE NUMBER 7709668
REVIEWED TJP
DRAWN LMP
REVISED
DESIGNED LMP
CHECKED

DECK PLAN
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

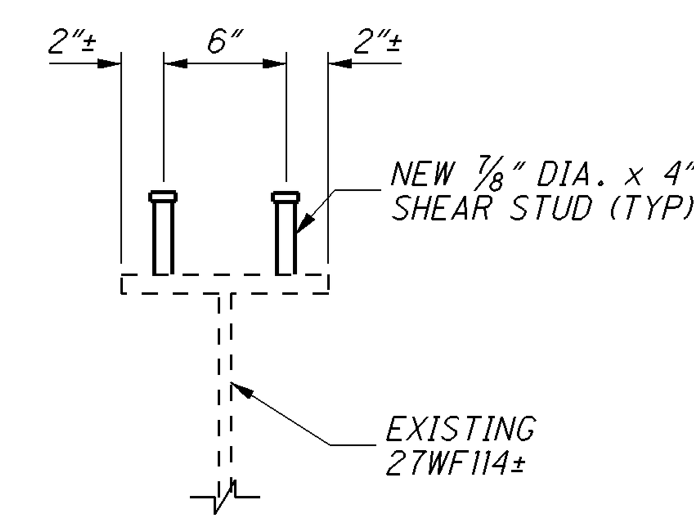
SUM-277-1.61
PID No. 76351



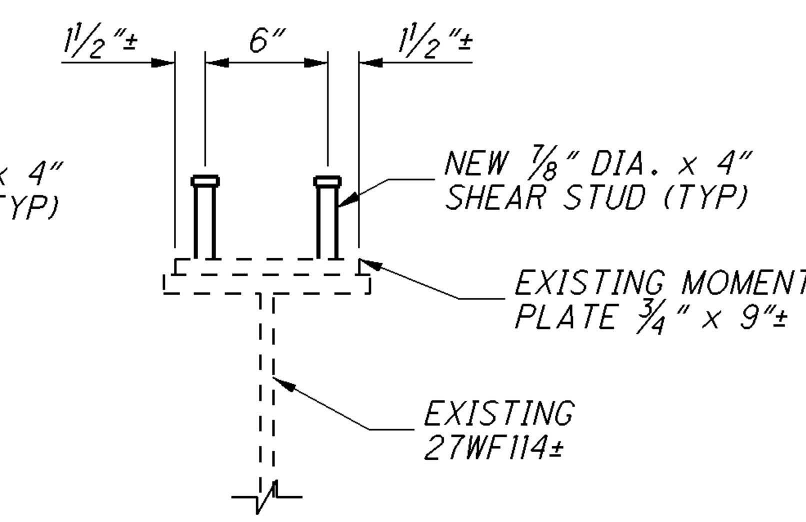
FRAMING PLAN



BEAM ELEVATION



SECTION A-A



SECTION B-B

NOTES:

1. SHEAR STUDS: SHALL NOT BE PLACED ON THE EXISTING FIELD SPLICES OR WITHIN 2" OF THE END OF THE EXISTING MOMENT PLATE.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

REVIEWED TJP
DATE 05-17-11
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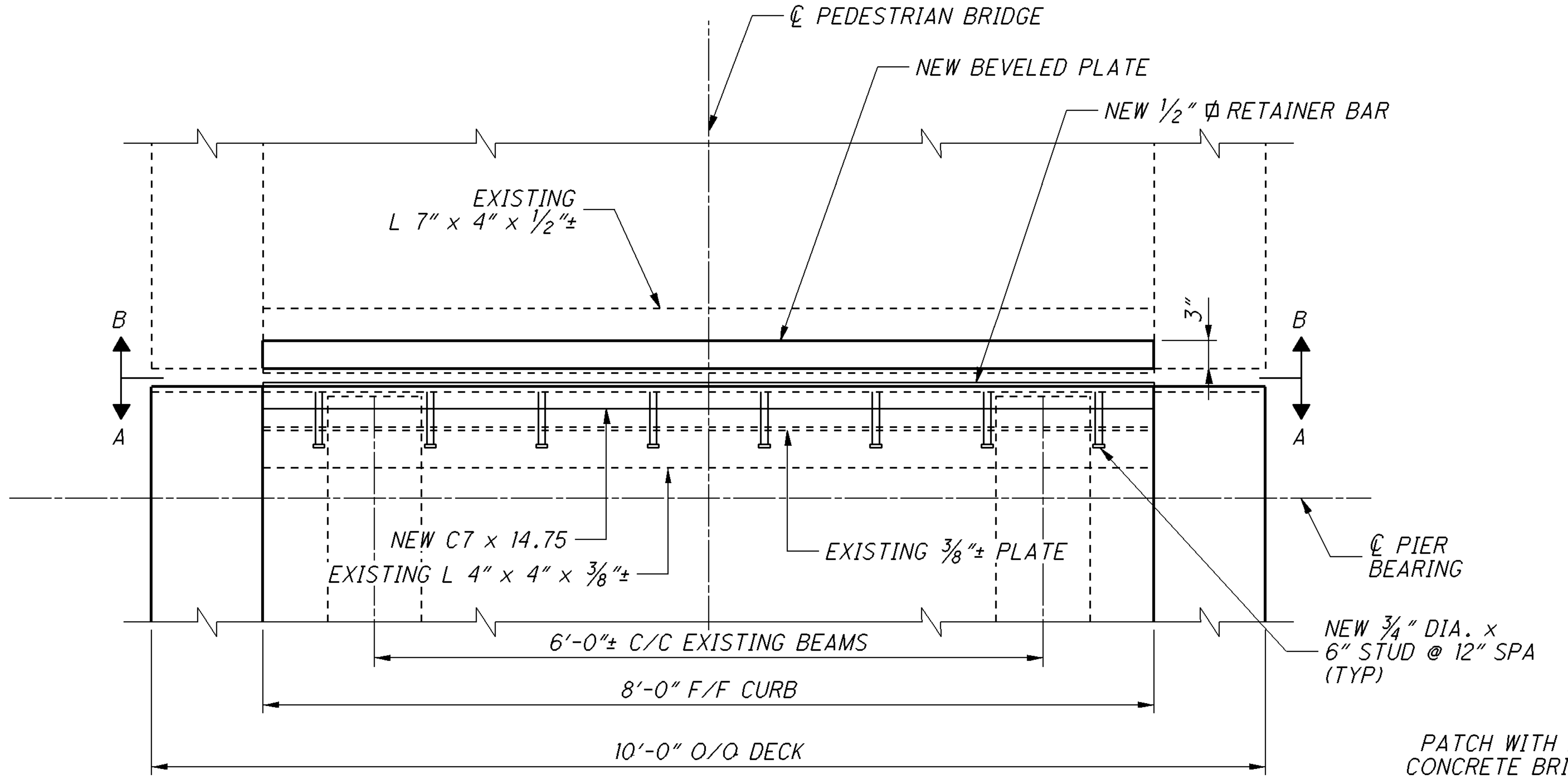
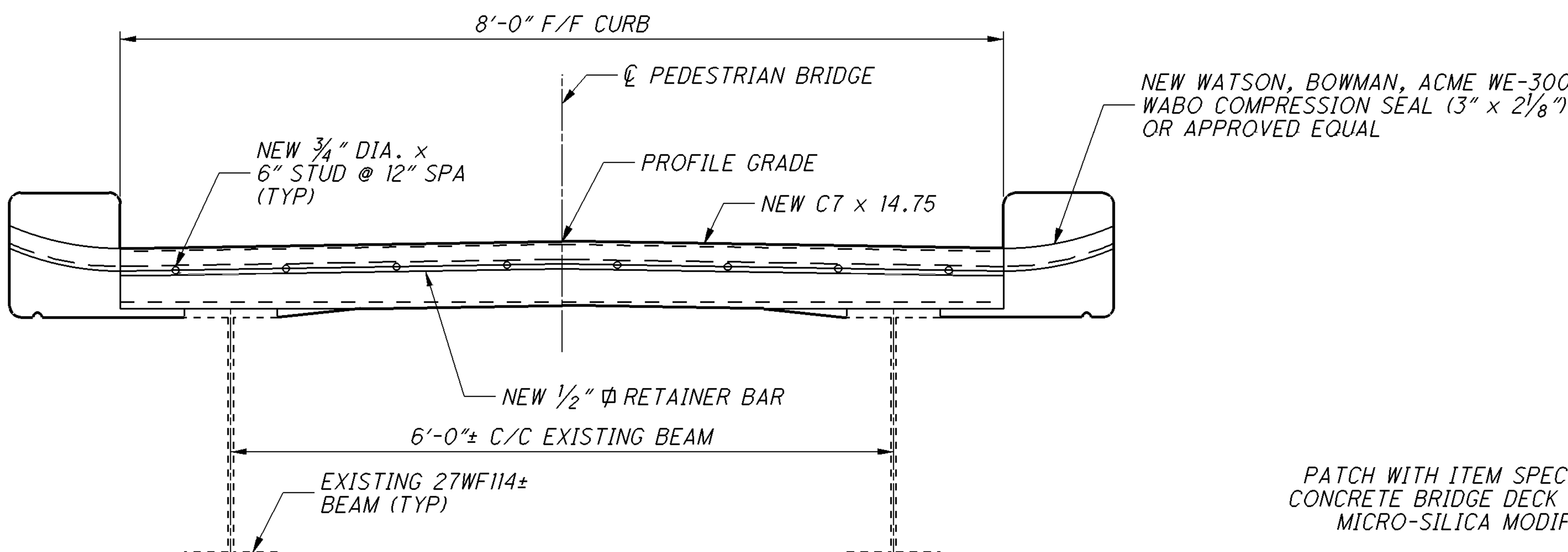
DRAWN LMP
REVISED
DESIGNED LMP
CHECKED

FRAMING PLAN
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

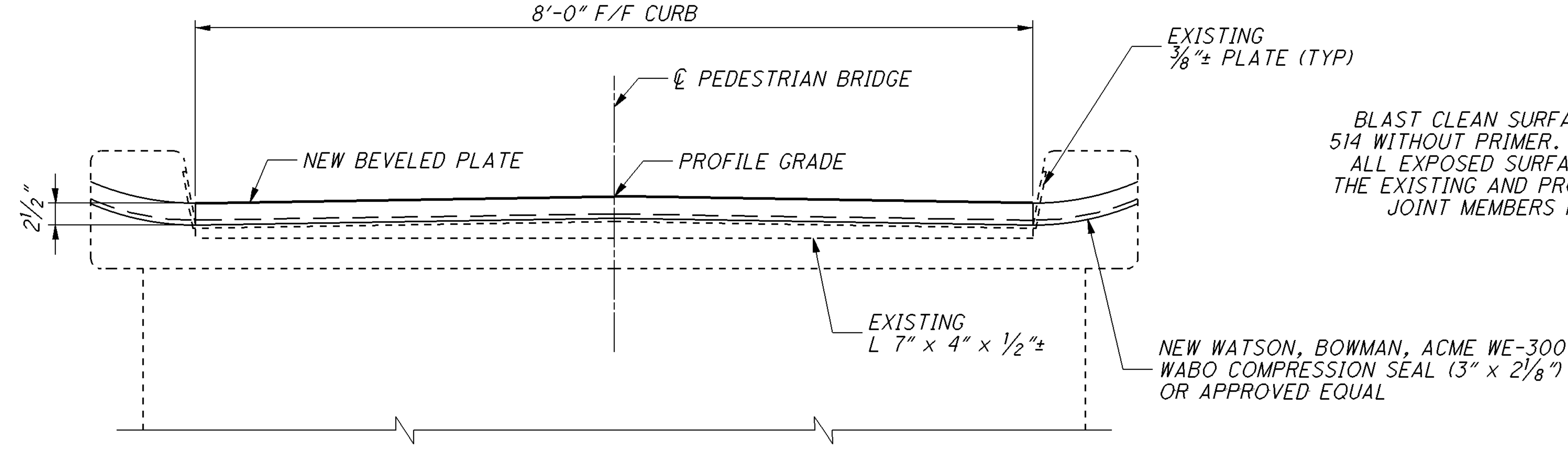
SUM-277-1.61
PID No. 76351



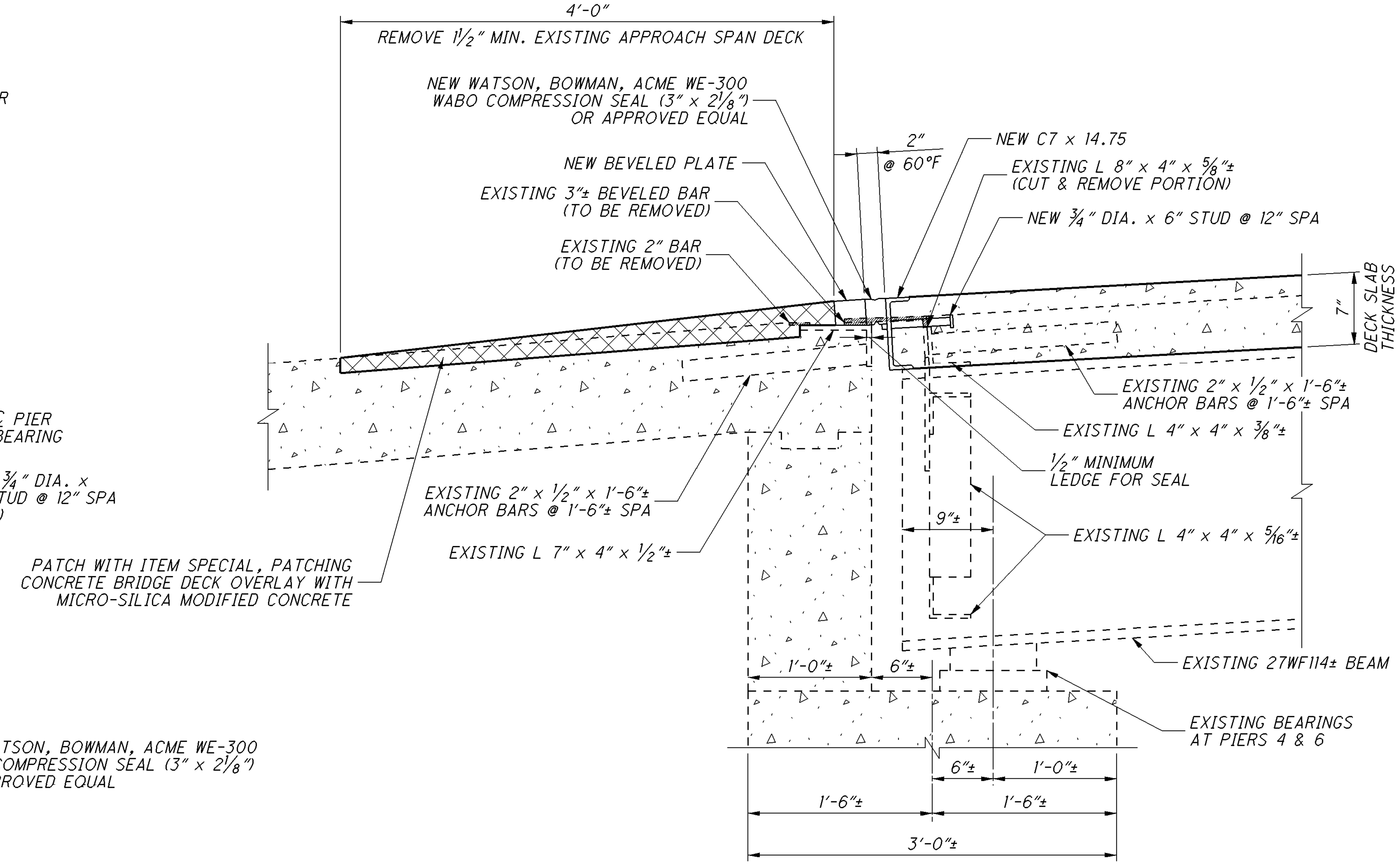
PLAN



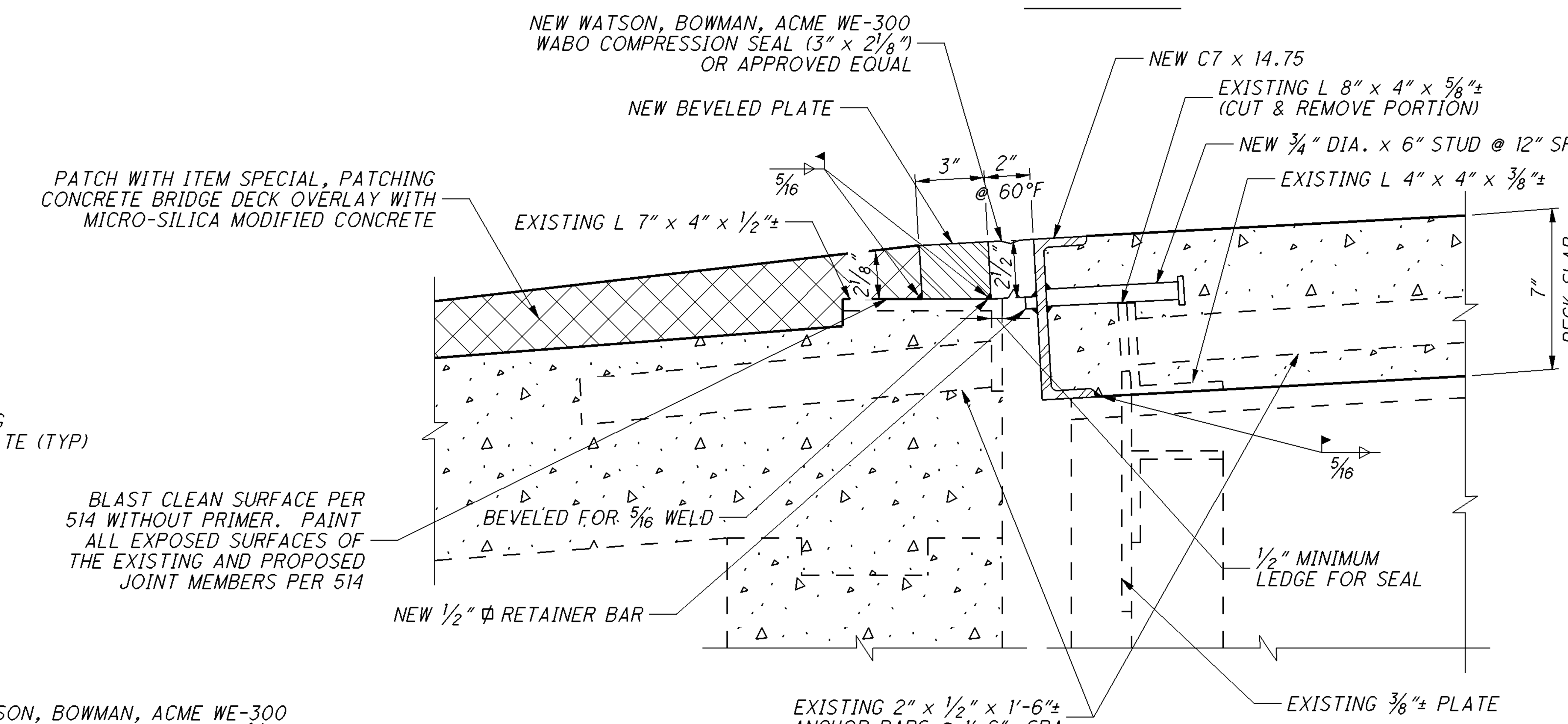
SECTION A-A



SECTION B-B



SECTION X-X



JOINT DETAILS

NOTES:

FOR ADDITIONAL DETAILS SEE
STANDARD DRAWING EXJ-2-81

DESIGN AGENCY
ODOT --- DISTRICT 4
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		7709668	

EXPANSION JOINT DETAILS

PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351

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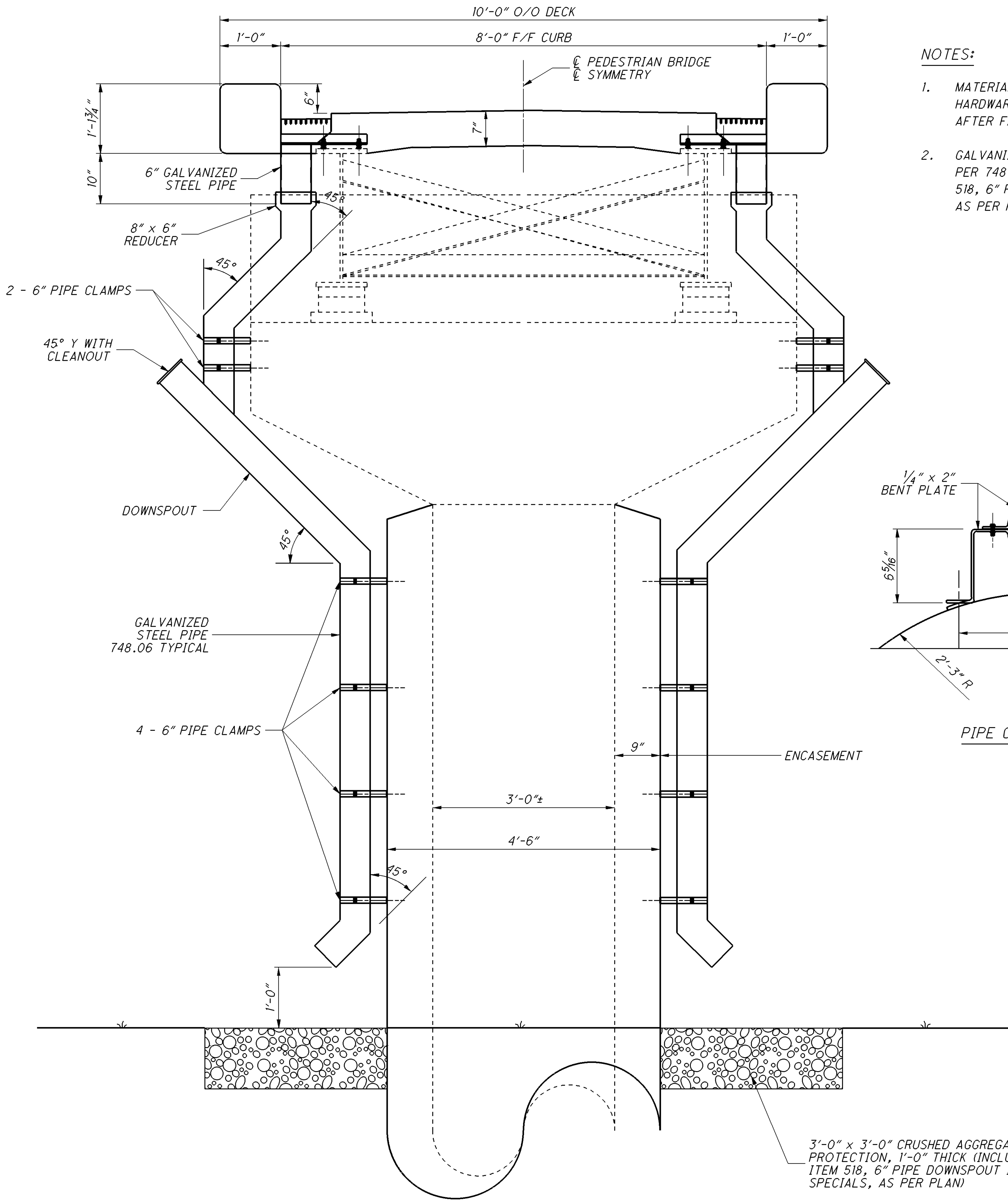
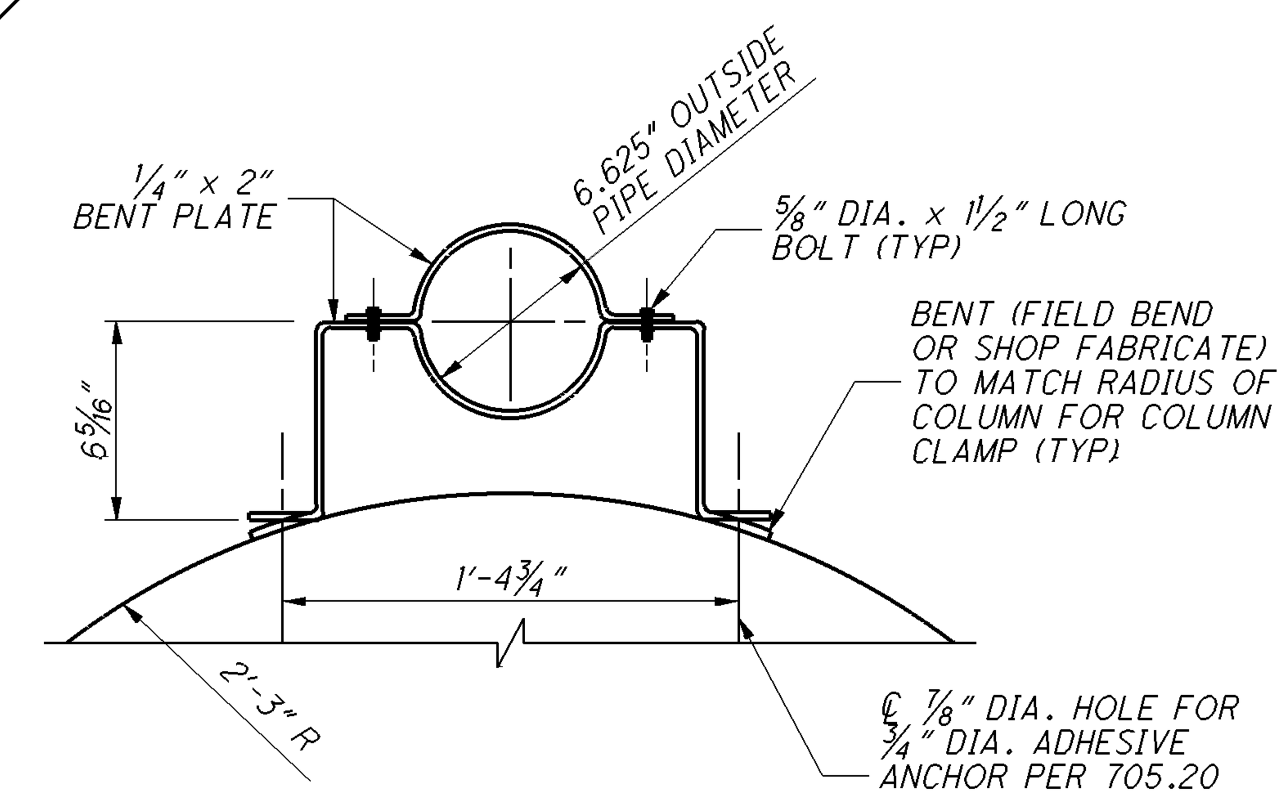


TRANSVERSE SECTION
AT PIERS 3 & 5

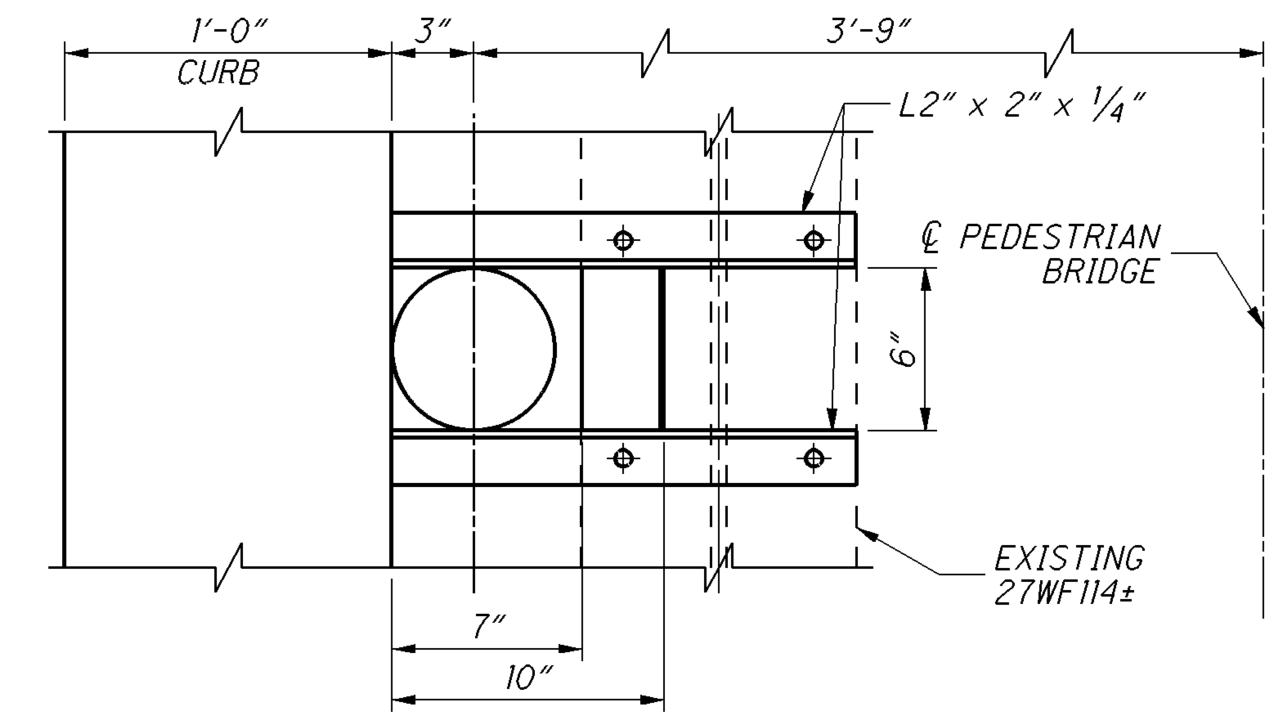
NOTES:

1. MATERIAL FOR DOWNSPOUT BRACKETS AND ALL HARDWARE WILL BE GALVANIZED PER 711.02, AFTER FABRICATION, UNLESS OTHERWISE NOTED.

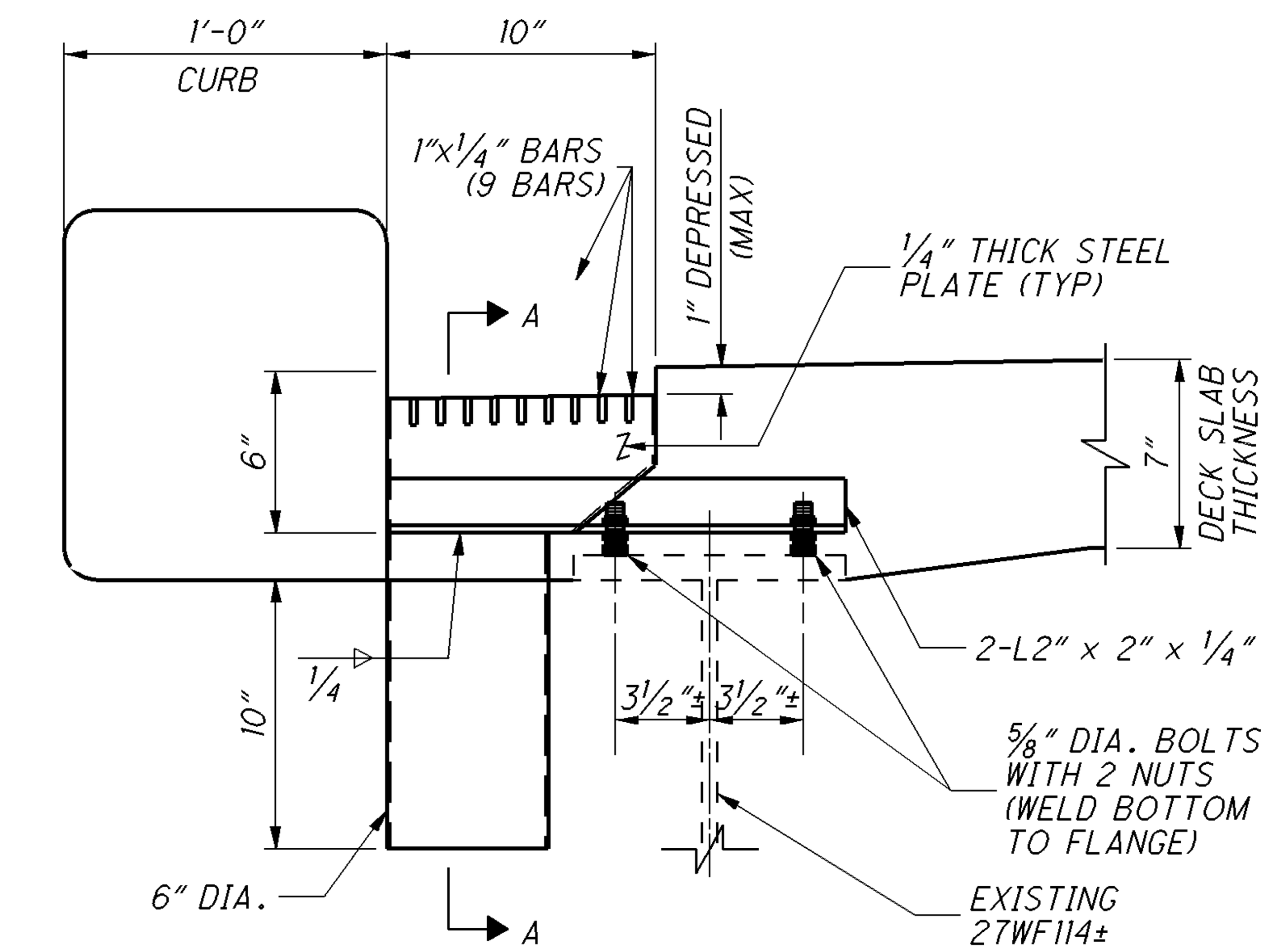
2. GALVANIZED STEEL PIPE AND FITTINGS WILL BE PER 748.06, INCLUDE FOR PAYMENT UNDER ITEM 518, 6" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN.



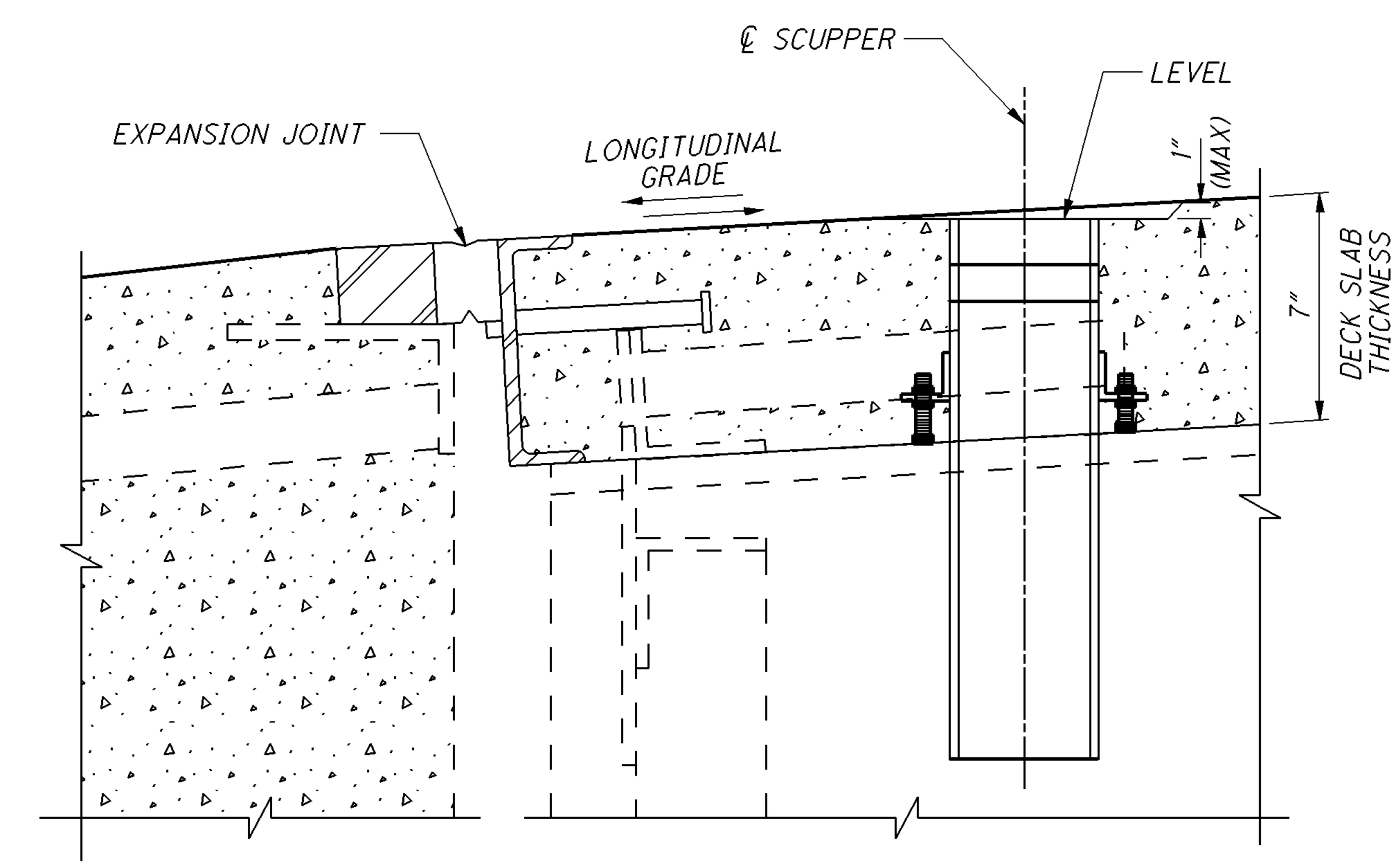
PIPE CLAMP DETAILS



PARTIAL PLAN



ELEVATION



SECTION A-A
DEPRESSED SCUPPER DETAILS

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
LMP	LMP	TJP	05-17-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		7709668	

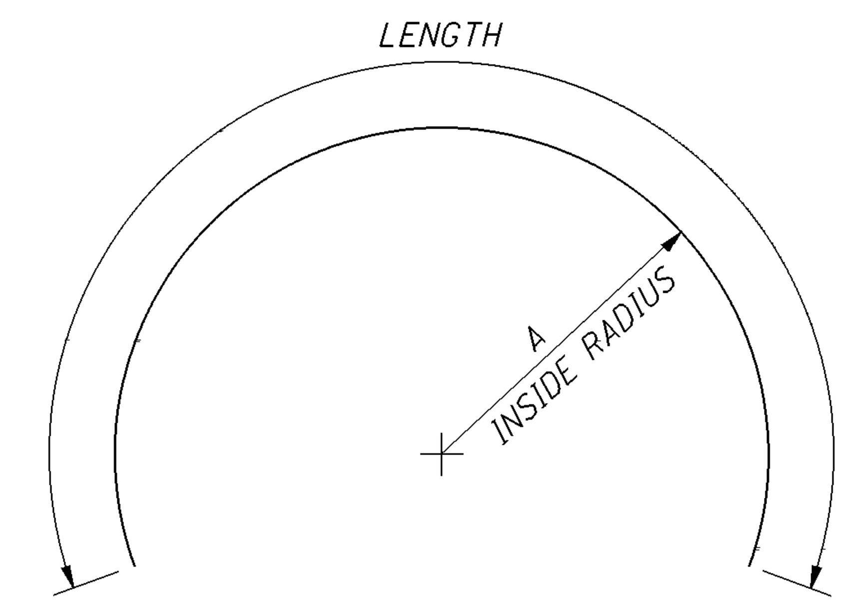
DRAINAGE DETAILS
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351

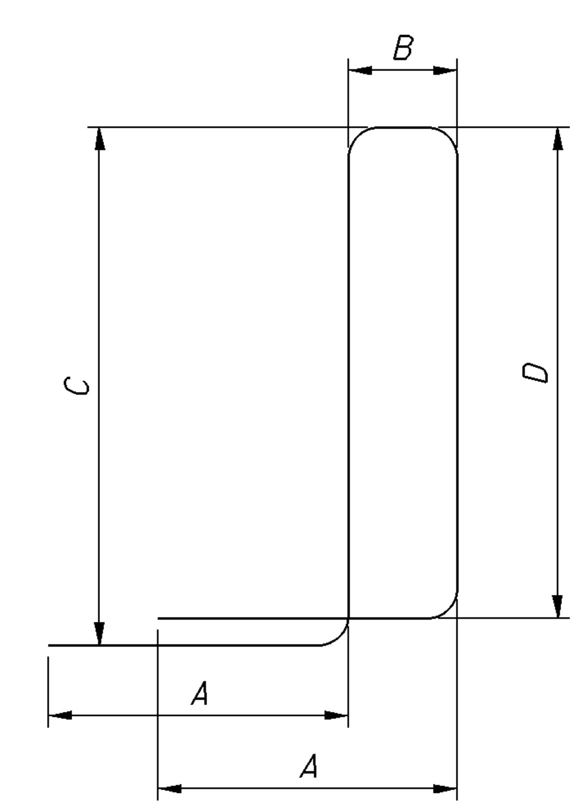
MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS				
	REAR ABUT	FWD ABUT	SUPER	TOTAL		(LBS)		A	B	C	D	E
S401			586	586	9'-8"	3784	STR					
S402			150	150	31'-0"	3107	STR					
S403			586	586	3'-11"	1534	30	1'-0"	8"	8"	7"	
S404			18	18	32'-0"	385	STR					
	SUPERSTRUCTURE SUB-TOTAL					8810						
P401			12	12	4'-9"	39	STR					
P402			12	12	7'-8"	62	STR					
P403			18	18	14'-1"	170	STR					
P404			18	18	15'-5"	186	STR					
P405			18	18	15'-8"	189	STR					
P406			12	12	8'-0"	65	STR					
P407			98	98	8'-7"	562	1	1'-11 1/2"				
P408			48	48	7'-0"	225	1	1'-5 1/2"				
	PIER SUB-TOTAL					1498						
	GRAND TOTAL					10308						

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TOOUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORNCING STEEL TO BE EPOXY COATED



TYPE-1



TYPE-30

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

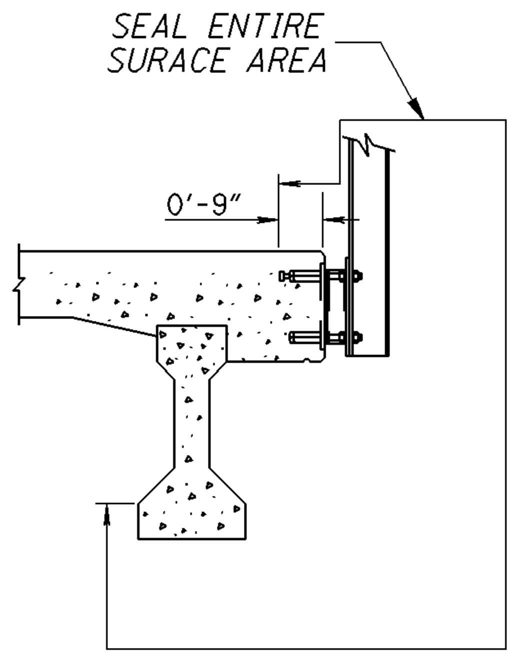
REVIEWED TJP
DATE 05-17-11
STRUCTURE FILE NUMBER 7709668

DRAWN LMP
REVISED

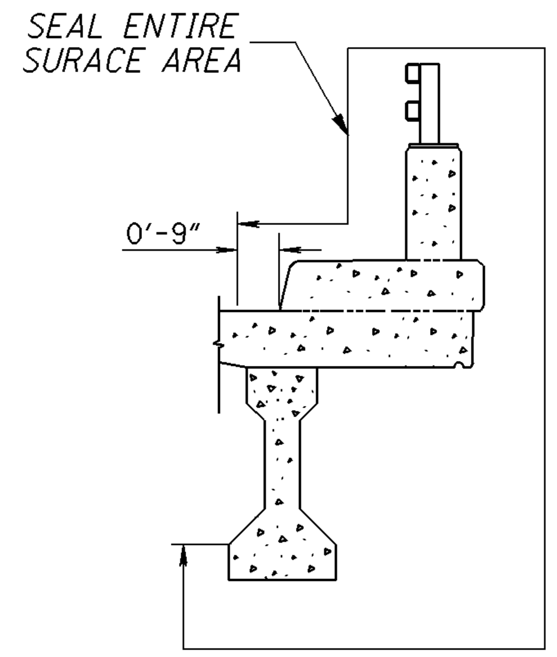
DESIGNED LMP
CHECKED

REINFORCING STEEL LIST
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

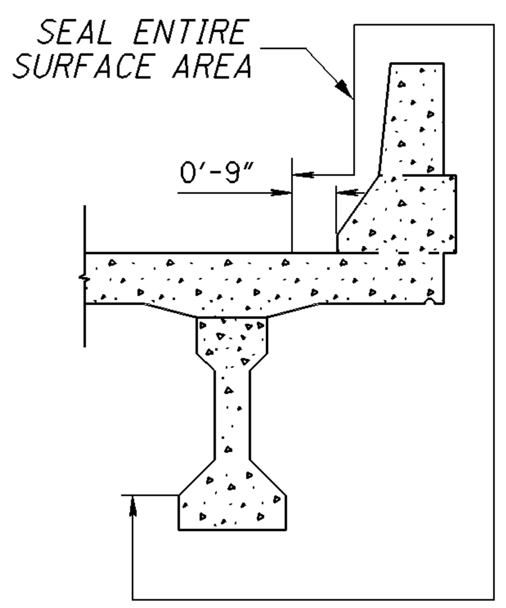
SUM-277-1.61
PID No. 76351



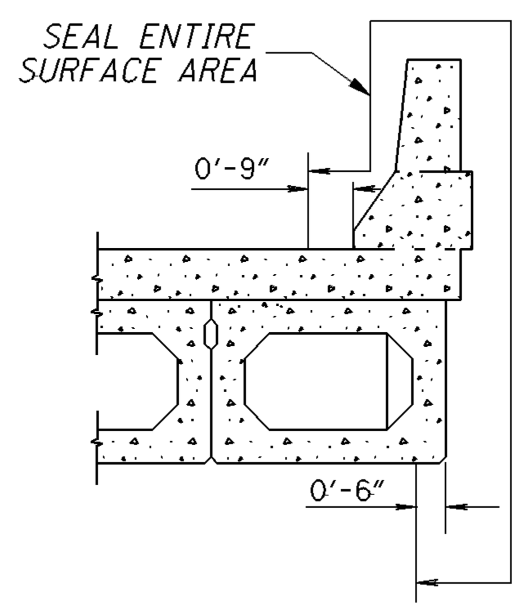
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



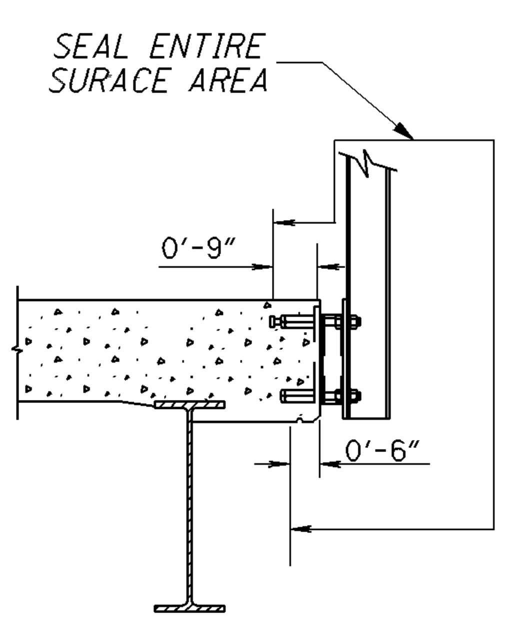
DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



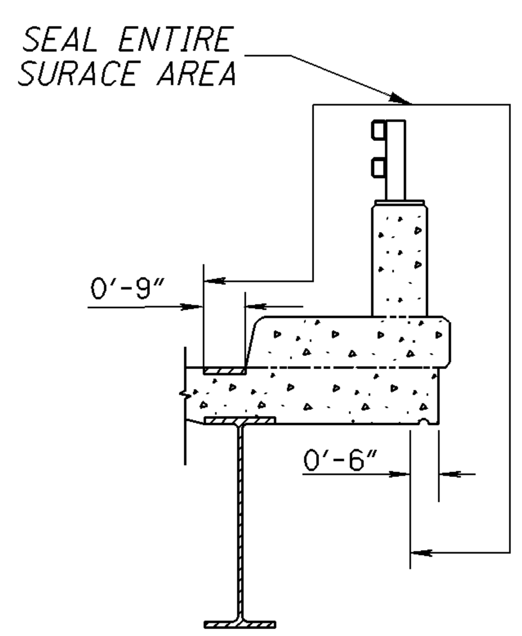
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET



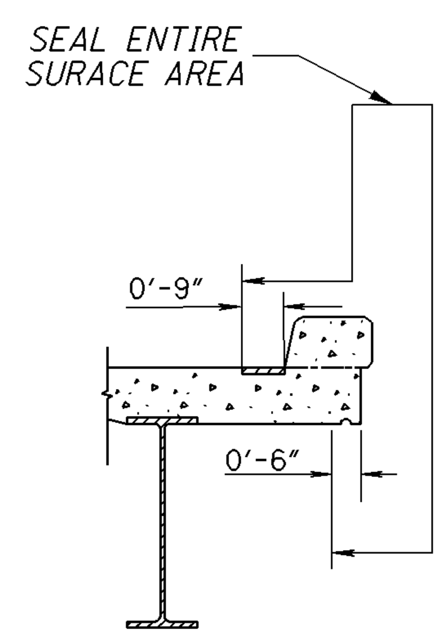
DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



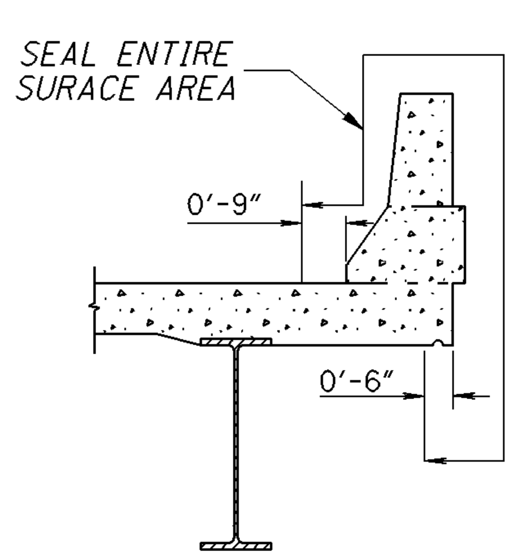
DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



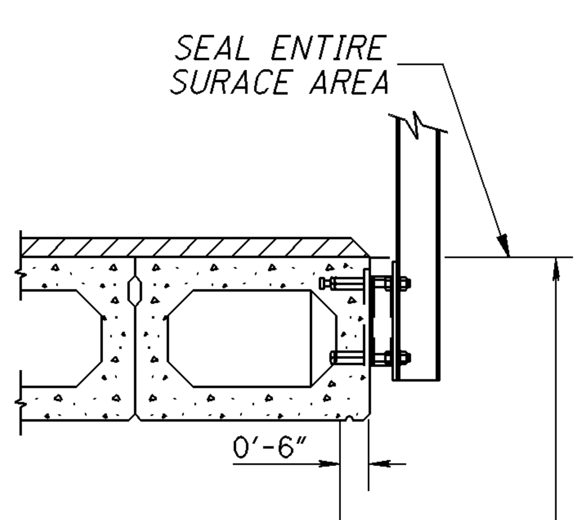
DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



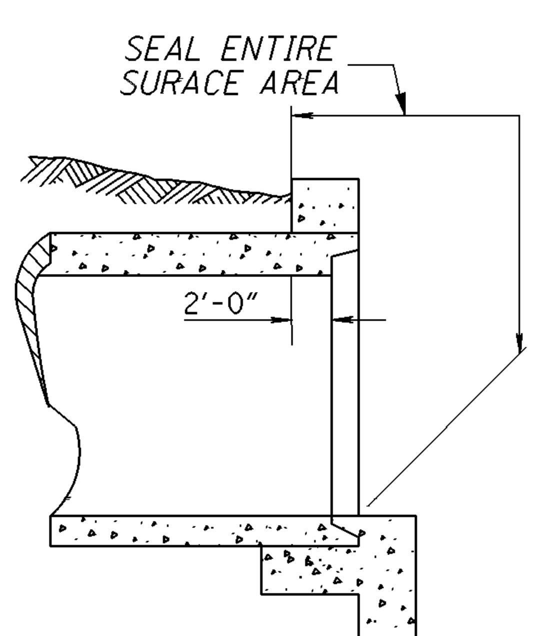
DETAIL G
CONCRETE DECKS WITH CURBS



DETAIL H
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL J
PRESTRESSED BOX BEAM DECK
WITH OVER THE SIDE DRAINAGE



DETAIL K
PRECAST REINFORCED
CONCRETE BOX CULVERT

BRIDGE NO.	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES ABUT	PIER	SUPER	GEN	TOTAL
				SQ YD	SQ YD	SQ YD	SQ YD	SQ YD
SUM-277-0161	7 SPAN CONTINUOUS STEEL BEAM & CONCRETE SLAB RAMPS	SEAL CURBS AND DECK EDGES PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS 1 THRU 6	13522 (BUFF)	49	154	227		430

NOTES:
- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE
- DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES

SEALING OF BEAM SEATS

SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED LMP | CHECKED | DRAWN LMP | REVISED | REVIEWED TJP | DATE 05-17-11 | STRUCTURE FILE NUMBER 7709668

SEALING CONCRETE SURFACE DETAILS
PEDESTRIAN BRIDGE NO.: SUM-277-0161
OVER I.R. 277

SUM-277-1.61
PID No. 76351