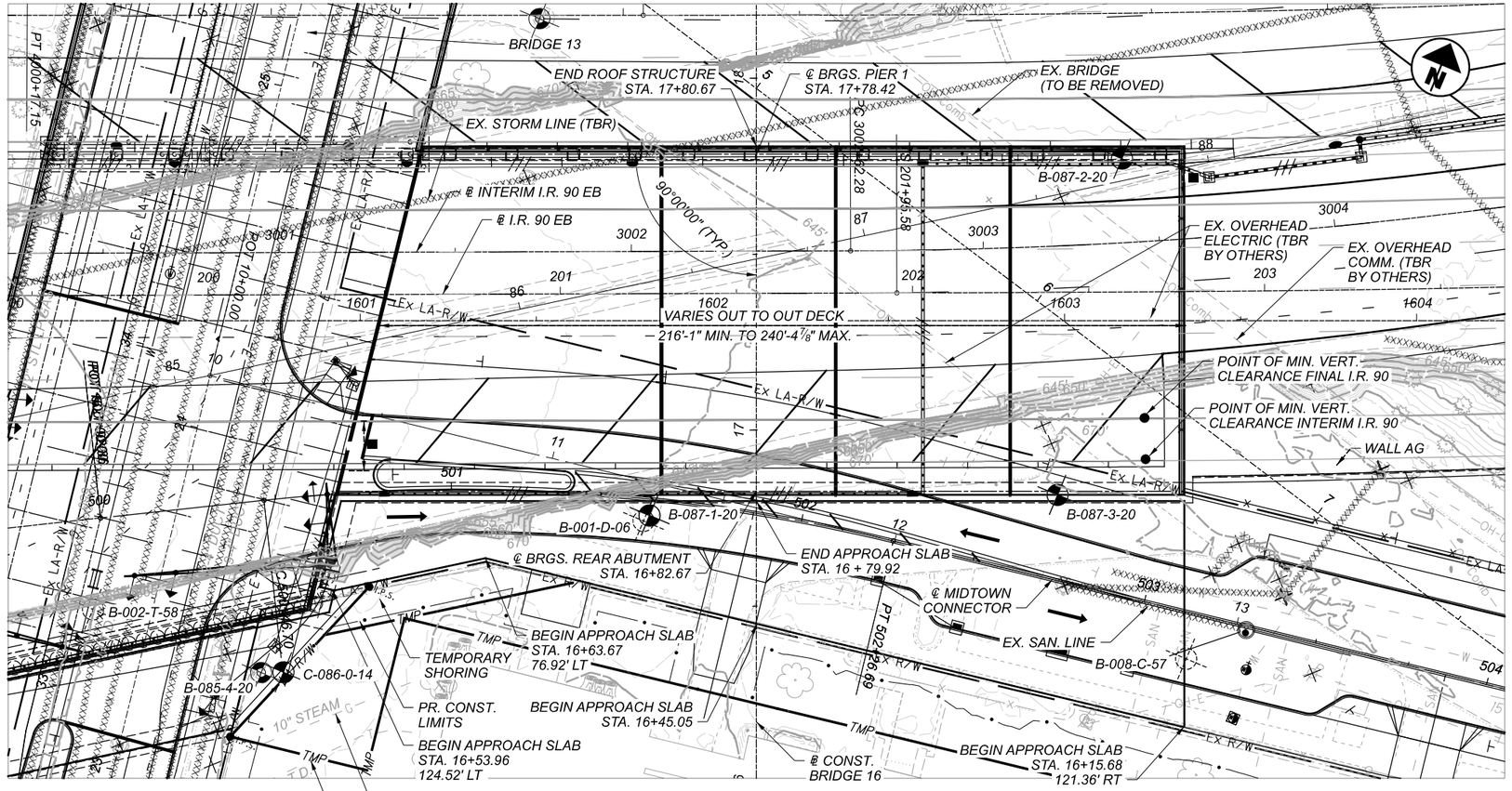
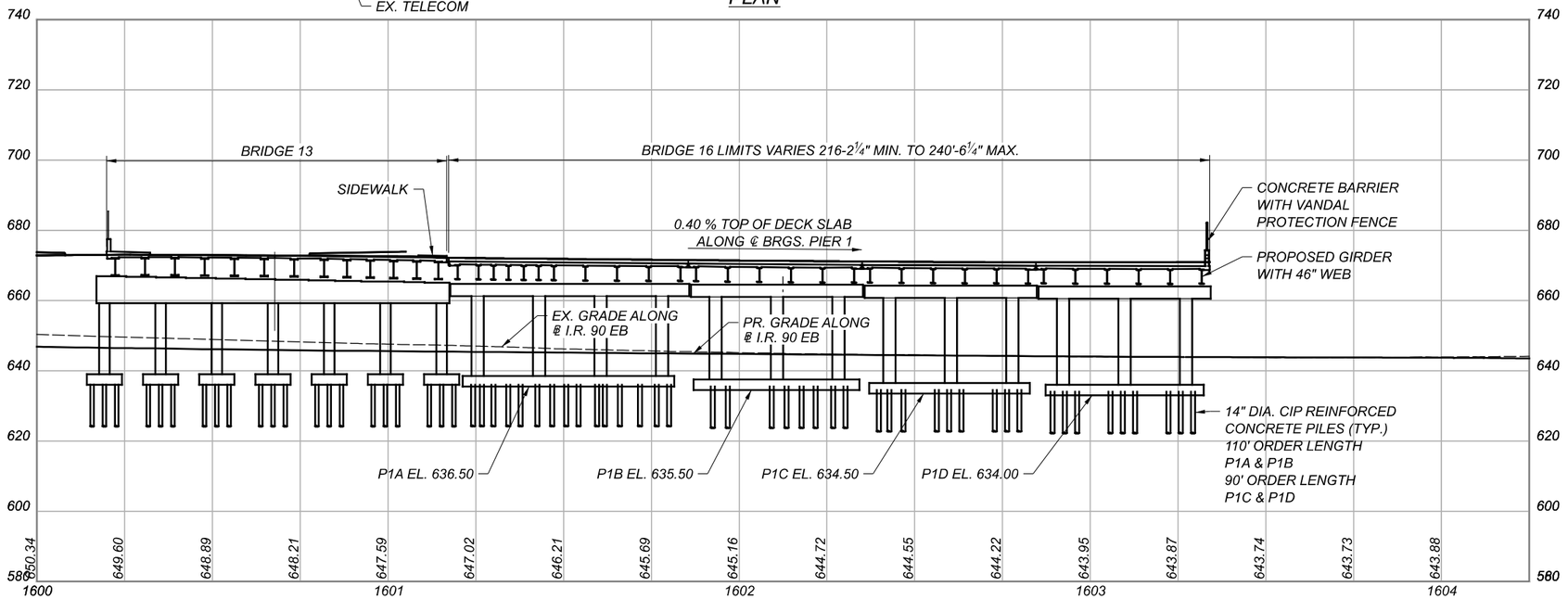


PLAN



PROFILE ALONG ℄ CONST. BRIDGE 16

BENCHMARK DATA

BM #54 STA. 33+01.73	ELEV. 672.54	OFFSET 46.13 RT.	CUT CROSS
BM #62 STA. 35+23.59	ELEV. 672.11	OFFSET 1165.82 LT.	RR SPIKE
BM #72 STA. 23+49.63	ELEV. 674.06	OFFSET 52.19 LT.	CUT CROSS
BM #73 STA. 37+10.17	ELEV. 671.90	OFFSET 403.44' LT.	CUT CROSS

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. ℄ CONST. BRIDGE 16 IS PERPENDICULAR TO ℄ I.R. 90 WB. SEE GENERAL PLAN FOR LAYOUT.
3. EXISTING CEDAR AVE. BRIDGE TO BE REMOVED TO EXTENTS DETAILED IN PLANS.
4. EXISTING RETAINING WALLS BETWEEN EXISTING E22ND ST. AND EXISTING CEDAR AVE. BRIDGES TO BE REMOVED TO EXTENTS DETAILED IN PLANS.
5. PILES FOR EXISTING RETAINING WALLS TO BE REMOVED AS NECESSARY TO ALLOW CONSTRUCTION OF PROPOSED STRUCTURE DEEP FOUNDATION ELEMENTS. 96 PILES ESTIMATED FOR REMOVAL.
6. A BRACED TEMPORARY SHORING SYSTEM IS REQUIRED FOR REMOVAL OF THE EXISTING RETAINING WALL ALONG I.R.90 EB.

DESIGN TRAFFIC:

2015 ADT = 8,300 2015 ADTT = TBD
2035 ADT = 8,700 2035 ADTT = TBD
DIRECTIONAL DISTRIBUTION = 75%

LEGEND

- HISTORIC BORING LOCATION
- INSTRUMENTED BORING LOCATION
- PROJECT BORING LOCATION
- MINIMUM VERTICAL CLEARANCE
- MINIMUM HORIZONTAL CLEARANCE

HORIZONTAL CLEARANCE		
LOCATION	ABUTMENT	PIER
REQUIRED CLEAR ZONE	30'-0"	30'-0"
PROVIDED MIN. INTERIM	13'-10" *	10'-4" *
PROVIDED MIN. FINAL	13'-10" *	12'-5" *

* BARRIER PROTECTION PROVIDED

VERTICAL CLEARANCE		
LOCATION	INTERIM I.R. 90 EB	I.R. 90 EB
REQUIRED MIN.	16'-0"	16'-0"
PROVIDED MIN.	20'-6"	22'-0"

PROPOSED STRUCTURE

TYPE: SIMPLE SPAN STEEL PLATE GIRDER WITH COMPOSITE REINFORCED CONCRETE DECK SUPPORTED ON TANGENT DRILLED SHAFT ABUTMENT AND REINFORCED CONCRETE PIER.

SPANS: 95'-9" C/C BEARING

ROADWAY: VARIES

LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE
1' CONCRETE INFILL AND 75 PSF SIDEWALK LOAD

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: LENGTH VARIES (AS-1-15)

ALIGNMENT: TANGENT

CROWN: VARIES

DECK AREA: 22,087 SF

COORDINATES: LATITUDE N 41° 29' 53.99"
LONGITUDE W 81°40' 22.23"

FOR INFORMATION ONLY - NOT FOR REVIEW

SITE PLAN
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER MKB
REVIEWER LPC 06-23-22
PROJECT ID 82382
SUBSET 1 | TOTAL 63
SHEET 1893 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: BL2_Bridge_16 - Bridge 16 Plan [Sheet] PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:31:30 AM USER: Mala.Gallagher
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END ROOF STRUCTURE
STA. 17+80.67

℄ BRGS. PIER
STA. 17+78.42

STRAIGHT GRADE

103°48'28"

90°00'00"

90°00'00"

EXPANSION
JOINT

℄ INTERIM I.R. 90 EB

1

3002

3003

℄ I.R. 90 EB STA 201+55.68
℄ CONST. NS B16 STA. 17+38.91

86.757' FEET TO I.R. 90 WB

℄ I.R. 90 EB

℄ CONST. EW B16 STA 1602+12.50
℄ CONST. NS B16 STA. 17+31.17

201

202

203

℄ CONST.
EW B16

N67°20'0.72"E

STRUCTURE NO. 13
CUY-90-1678

89°49'25"

90°00'00"

EXPANSION
JOINT

EXPANSION
JOINT

95'-9"

99'-0"

STRAIGHT GRADE

N22°39'52.8"E

℄ CONST.
NS B16
(SEE NOTE 1)

76°11'32"

11

℄ MIDTOWN CONNECTOR STA. 501+87.00
℄ CONST. NS B16 STA. 16+76.42

90°00'00"

90°00'00"

501

502

℄ BRGS. REAR ABUTMENT
STA. 16+82.67

END APPROACH
SLAB STA. 16+79.92

12

℄ MIDTOWN
CONNECTOR

BEGIN APPROACH
SLAB STA. 16+53.96
124.52' LT

VARIES

503

13

BEGIN APPROACH
SLAB STA. 16+53.96
124.52' LT

BEGIN APPROACH SLBA
STA. 16+15.68, 121.36' RT

JUVENILLE
JUSTICE
CENTER

GENERAL PLAN

NOTES

1. ℄ CONST. NS B16 IS PERPENDICULAR TO ℄ I.R. 90 WB.
2. ℄ BRGS. PIER AND ℄ BRGS. REAR ABUTMENT ARE PARALLEL TO ℄ I.R. 90 WB.
3. SEE MIDTOWN CONNECTOR DETAILS FOR ADDITIONAL INFORMATION.
4. GEOMETRIC INFORMATION ON THIS SHEET SHALL GOVERN THE LAYOUT AND CONSTRUCTION OF THIS STRUCTURE. SHOULD GEOMETRIC LAYOUT OF ANY ELEMENTS REQUIRE CLARIFICATION, OBTAIN DIRECTION FROM THE ENGINEER PRIOR TO CONSTRUCTING AFFECTED ELEMENTS.

FOR INFORMATION ONLY - NOT FOR REVIEW

GENERAL PLAN
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER: CDC
REVIEWER: — —
PROJECT ID: 82382
SUBSET: 2 TOTAL: 63
SHEET: 1894 TOTAL: 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:49:15 AM USER: Malia.Gallagher
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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15 DATED (REVISED) 7/17/2015
AS-2-15 DATED (REVISED) 1/18/2019
BR-2-15 DATED (REVISED) 1/21/2022
GSD-1-19 DATED (REVISED) 1/15/2021
VPF-1-90 DATED (REVISED) 7/20/2018

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

800 DATED 1/21/2022
869 DATED 10/17/2014

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

SPECIAL DESIGN SPECIFICATIONS

THIS BRIDGE REQUIRED THE USE OF A TWO DIMENSIONAL MODEL USING THE GRILLAGE DESIGN METHOD TO ANALYZE THE STRUCTURE. THE COMPUTER PROGRAMS USED FOR STRUCTURAL ANALYSIS WERE MDX AND MIDAS. THE BRIDGE COMPONENTS DESIGNED BY THIS METHOD AND THE LIVE LOAD DISTRIBUTION FACTORS USED WERE:

DEAD LOAD DISTRIBUTION: WITHIN MDX, THE TRIBUTARY WEIGHTS OF THE DECK, INFILL SLAB, AND PARAPETS WERE APPLIED AS LINE LOADS TO EACH OF THE GIRDERS. WITHIN MIDAS CIVIL, SELFWEIGHT WAS APPLIED TO THE STRUCTURAL STEEL MEMBERS. THE WEIGHT OF THE DECK WAS APPLIED AS A LINE LOAD TO EACH GIRDER. THE WEIGHT OF THE PARAPETS AND BENCHES/PERIMETER PLANTERS WERE APPLIED AS LINE LOADS AROUND THE PERIMETER OF THE BRIDGE IN THEIR ACTUAL LOCATIONS. THE WEIGHT OF THE INFILL AND SIDEWALK WAS APPLIED AS A PRESSURE LOAD ON THE DECK. IT WAS ASSUMED 3 29 KIP OVAL PLANTERS COULD BE PLACED ON A SINGLE DECK PANEL AT ONE TIME. THESE WERE APPLIED AS DISTRIBUTED LOADS WITHIN A LANE ADJACENT TO DESIGN LIVE LOAD LANES TO FLOAT FOR THEIR MAXIMUM EFFECT.

LIVE LOAD DISTRIBUTION FACTORS:

EXTERIOR MEMBERS - 0.730 FOR WHEEL (OR AXLE) LOAD
& 0.730 FOR LANE LOAD MOMENTS.
- 0.730 FOR WHEEL (OR AXLE) LOAD
& 0.730 FOR LANE LOAD SHEARS

INTERIOR MEMBERS - 0.884 FOR WHEEL (OR AXLE) LOAD
& 0.884 FOR LANE LOAD MOMENTS.
- 0.717 FOR WHEEL (OR AXLE) LOAD
& 0.717 FOR LANE LOAD SHEARS

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93
SIDEWALK PEDESTRIAN LIVE LOAD: 0.090 KIPS/SQ.FT
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT
UP TO THREE 29 KIP PLANTERS WITHIN A SINGLE DECK PANEL

DESIGN DATA

CONCRETE CLASS QC2:
COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1:
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC5, WITH $\frac{3}{8}$ IN MAX AGGREGATE SIZE:
COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

REINFORCING STEEL MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50:
YIELD STRENGTH = 50 KSI

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

REMOVE ABUTMENTS TO ELEV. _____. REMOVE PIERS TO ELEV. _____.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS _(1)_ KIPS PER PILE FOR THE _(2)_ ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 267.65 KIPS PER PILE FOR THE 72 PIER PILES.

ABUTMENT PILES:
_(3)_ PILES _(4)_ FEET LONG, ORDER LENGTH
_(5)_ DYNAMIC LOAD TESTING ITEMS

PIER 1A AND 1B PILES:
37 PILES 110 FEET LONG, ORDER LENGTH
_(5)_ DYNAMIC LOAD TESTING ITEMS

PIER 1C AND 1D PILES:
35 PILES 90 FEET LONG, ORDER LENGTH
_(5)_ DYNAMIC LOAD TESTING ITEMS

ITEM SPECIAL - STRUCTURE MISC.: VIBRATION MONITORING

MONITOR GROUND VIBRATIONS CAUSED BY PILE DRIVING TO MINIMIZE THE POTENTIAL DAMAGE TO EXISTING STRUCTURES.

RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO ESTABLISH THE ACCEPTABLE VIBRATION LIMITS AND TO PERFORM THE VIBRATION MONITORING. USE A VIBRATION SPECIALIST THAT IS AN EXPERT IN THE INTERPRETATION OF VIBRATION DATA, AND WHO MEETS ONE OF THE FOLLOWING CRITERIA: 1) IS A REGISTERED ENGINEER WITH AT LEAST TWO YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS, OR 2) HAS AT LEAST FIVE YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS. DO NOT USE A VIBRATION SPECIALIST THAT IS AN EMPLOYEE OF THE CONTRACTOR.

SUBMIT A RESUME OF THE CREDENTIALS OF THE PROPOSED VIBRATION SPECIALIST AT, OR BEFORE, THE PRECONSTRUCTION MEETING. INCLUDE IN THE RESUME A LIST OF CONSTRUCTION PROJECTS ON WHICH THE VIBRATION SPECIALIST WAS RESPONSIBLY IN CHARGE OF MONITORING THE VIBRATIONS. LIST A DESCRIPTION OF THE PROJECTS, WITH DETAILS OF THE VIBRATION INTERPRETATIONS MADE ON THE PROJECT. LIST THE NAMES AND TELEPHONE NUMBERS OF PROJECT OWNERS WITH SUFFICIENT KNOWLEDGE OF THE PROJECTS TO VERIFY THE SUBMITTED INFORMATION. OBTAIN THE ENGINEER'S ACCEPTANCE OF THE VIBRATION SPECIALIST BEFORE BEGINNING ANY PILE DRIVING WORK. ALLOW 30 DAYS FOR THE REVIEW OF THIS DOCUMENTATION.

USE SEISMOGRAPHS CAPABLE OF CONTINUOUSLY RECORDING THE PEAK PARTICLE VELOCITY FOR THREE MUTUALLY PERPENDICULAR COMPONENTS OF VIBRATION, AND OF PROVIDING A PERMANENT RECORD OF THE ENTIRE VIBRATION EVENT. USE A SUFFICIENT NUMBER OF SEISMOGRAPHS TO PROVIDE REDUNDANCY IN CASE ONE DEVICE SHOULD FAIL. SUBMIT A PLAN OF THE PROPOSED SEISMOGRAPH LOCATIONS TO THE ENGINEER FOR REVIEW.

THE VIBRATION SPECIALIST SHALL PERFORM THE FOLLOWING:

1. MEASURE THE AMBIENT GROUND VIBRATIONS NEAR EXISTING STRUCTURES BEFORE PILE DRIVING BEGINS.

2. ESTABLISH VIBRATION LIMITS TO MINIMIZE POTENTIAL DAMAGE TO EXISTING STRUCTURES AND EXPLAIN WHY THEY ARE BEING USED TO THE ENGINEER BEFORE DRIVING PILES NEAR EXISTING STRUCTURES.

3. MONITOR GROUND VIBRATIONS DURING PILE DRIVING.

4. IMMEDIATELY INFORM THE CONTRACTOR AND ENGINEER IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED.

5. FURNISH THE DATA RECORDED AND INCLUDE THE FOLLOWING:

A. IDENTIFICATION OF SEISMOGRAPH.
B. DISTANCE AND DIRECTION OF SEISMOGRAPH FROM PILE DRIVING.
C. START TIME AND DURATION OF PILE DRIVING.
D. LIST OF PILES DRIVEN DURING EACH MONITORING INTERVAL.

IMMEDIATELY SUSPEND ALL PILE DRIVING IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED. EVALUATE ALTERNATIVE CONSTRUCTION PROCEDURES, SUCH AS PREBORED HOLES, TO REDUCE THE VIBRATIONS.

SUBMIT THREE COPIES OF THE FINAL REPORT WHICH CONTAINS ALL MEASUREMENTS, INTERPRETATIONS, AND RECOMMENDATIONS TO THE ENGINEER.

THE DEPARTMENT WILL PAY FOR THIS ITEM AT THE CONTRACT LUMP SUM PRICE FOR ITEM SPECIAL - STRUCTURE MISC.: VIBRATION MONITORING. THE DEPARTMENT WILL PAY THE FINAL TWENTY PERCENT AFTER THE ENGINEER RECEIVES THE FINAL REPORT.

THE DEPARTMENT WILL PAY ACCORDING TO C&MS 109.05 FOR ALTERNATIVE CONSTRUCTION PROCEDURES THAT THE ENGINEER DETERMINES ARE NECESSARY TO REDUCE VIBRATIONS.

ITEM SPECIAL - STRUCTURE MISC.: PRECONSTRUCTION CONDITION SURVEY

BEFORE PILE DRIVING BEGINS, CONDUCT A CONDITION SURVEY OF ALL EXISTING BUILDINGS, STRUCTURES, AND UTILITIES WITHIN 200-FT OF THE PILE DRIVING WORK. THE PURPOSE OF THE SURVEY IS TO DOCUMENT THE CONDITION OF THE BUILDINGS, STRUCTURES, OR UTILITIES PRIOR TO PILE DRIVING, SO THAT CLAIMS OF DAMAGE CAUSED BY THE PILE DRIVING CAN BE VERIFIED.

RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO PERFORM OR SUPERVISE THE CONDITION SURVEY. USE A VIBRATION SPECIALIST THAT MEETS THE QUALIFICATION REQUIREMENTS FOR VIBRATION MONITORING.

RECORD THE CONDITION OF EXISTING STRUCTURES AND BUILDING MATERIALS, USING WRITTEN TEXT, PHOTOGRAPHS, AND VIDEO RECORDINGS. INSPECT INTERIOR WALLS, CEILINGS, AND FLOORS THAT ARE ACCESSIBLE. INSPECT THE EXTERIOR OF THE BUILDING THAT IS VISIBLE FROM GROUND LEVEL. ALSO RECORD THE LOCATION, SIZE, AND TYPE OF ALL CRACKS AND OTHER STRUCTURAL DEFICIENCIES.

IF OWNERS, OR OCCUPANTS, FAIL TO ALLOW ACCESS TO THE PROPERTY FOR THE PRECONSTRUCTION CONDITION SURVEY, SEND A CERTIFIED LETTER TO THE OWNER OR OCCUPANT. DOCUMENT THE NOTIFICATION EFFORT AND THE CERTIFIED LETTER IN THE REPORT.

SUBMIT THREE COPIES OF THE REPORT TO THE ENGINEER THAT SUMMARIZES THE PRECONSTRUCTION CONDITION OF THE BUILDINGS, STRUCTURES, AND UTILITIES, AND THAT IDENTIFIES AREAS OF CONCERN.

THE DEPARTMENT WILL PAY FOR THIS ITEM AT THE CONTRACT LUMP SUM PRICE FOR ITEM SPECIAL - STRUCTURE MISC.: PRECONSTRUCTION CONDITION SURVEY.

GENERAL NOTES (1 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 3 | TOTAL 63
SHEET 1895 | TOTAL 2339

CUY-90-16.28 (CCG3A)
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:49:26 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400>Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SN001.dgn

FRICTION DRILLED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS * KIPS AT THE ABUTMENTs AND * KIPS AT THE PIERS. THE LOAD IS RESISTED BY FRICTIONAL SIDE RESISTANCE ALONG THE LENGTH OF THE DRILLED SHAFT AND BY TIP RESISTANCE. AT THE ABUTMENTS, THE FACTORED SIDE RESISTANCE IS * KIPS, ASSUMED TO ACT ALONG THE BOTTOM * FEET OF THE DRILLED SHAFT, AND THE FACTORED TIP RESISTANCE IS * KIPS. AT THE PIERS, THE FACTORED SIDE RESISTANCE IS * KIPS, ASSUMED TO ACT ALONG THE BOTTOM * FEET OF THE DRILLED SHAFT, AND THE FACTORED TIP RESISTANCE IS * KIPS.

LATERALLY LOADED DRILLED SHAFTS

THE MAXIMUM FACTORED INTERNAL LOAD AND BENDING MOMENT TO BE SUPPORTED BY EACH DRILLED SHAFT ARE * KIPS, AND * KIP-FEET, RESPECTIVELY. THESE LOADS PRODUCE A MAXIMUM FACTORED BENDING MOMENT OF * KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF * KIPS, WITHIN THE DRILLED SHAFT.

ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN

GENERAL:

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL DRILLED SHAFTS AS DETAILED IN THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT C&MS SECTION 524, AND WITH THE ADDITIONAL REQUIREMENTS DEFINED BELOW.

ANTICIPATED DRILLED SHAFT DEFLECTIONS:

TANGENT DRILLED SHAFTS ("SHAFT", "SHAFTS") ARE INCORPORATED AS WALLS IN VARIOUS STRUCTURAL ELEMENTS FOR THIS BRIDGE. AS DESIGNED AND DETAILED THE SHAFTS ARE EXPECTED TO DEFLECT UNDER THE APPLIED PERMANENT LOADS (DC, DW, EP, WA) AND TRANSIENT LOADS (LL, LS, TU) AT THE SERVICE LIMIT STATE. MEASURES FOR ACCOMODATING THESE DEFLECTIONS ARE DETAILED BELOW.

THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN BEAM SEAT ELEVATION FOR SHAFTS INCORPORATED IN ABUTMENTS. THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN TOP OF CAP ELEVATION FOR SHAFTS INCORPORATED IN RETAINING WALLS. IN BOTH CASES THE FINISHED TOP OF SHAFT IS LOWER THAN THE SHAFT HEAD ELEVATION.

THE ANTICIPATED DEFLECTION AT THE SHAFT HEAD ELEVATION RELATIVE TO THE SHAFT TIP ELEVATION DUE TO PERMANENT LOADS ARE AS FOLLOWS:

REAR ABUTMENT	XX INCHES
FORWARD ABUTMENT	XX INCHES
RETAINING WALL YY	XX INCHES

ANTICIPATED DRILLED SHAFT DEFLECTIONS (CONT.):

TO MITIGATE THE EFFECTS OF ANTICIPATED PERMANENT LOAD DEFLECTIONS THE INSTALLED LOCATION OF THE SHAFTS MUST BE ADJUSTED BY OFFSETTING THE CENTERLINE OF SHAFT LOCATION DURING INSTALLATION. THE REQUIRED OFFSET IS DETAILED IN THE FOUNDATION PLANS FOR EACH STRUCTURAL ELEMENT.

ANTICIPATED TRANSIENT LOAD DEFLECTIONS ARE ACCOMODATED BY ADDITIONAL MOVEMENT CAPACITY IN THE ABUTMENT EXPANSION JOINTS AND BEARINGS.

DESIGN ASSUMPTIONS:

BEHAVIOR OF THE DRILLED SHAFTS AS DESCRIBED ABOVE IS PREDICATED UPON THE FOLOWING DESIGN ASSUMPTIONS:

1. DESIGN HEIGHT OF DRILLED SHAFT IS THE DISTANCE FROM THE SHAFT HEAD ELEVATION TO THE DREDGE LINE ELEVATION

2. PERMANENT LOAD DEFLECTIONS ARE ASSUMED TO OCCUR FOLLOWING REMOVAL OF SOIL IN FRONT OF THE TANGENT SHAFT WALLS

3. ADDITIONAL ASSUMPTIONS AND CONSTRAINTS ARE DETAILED IN THE PLANS.

DREDGE LINE ELEVATIONS:

REAR ABUTMENT	ELEV. XXX.XX	INCLUDE LOCATION
FORWARD ABUTMENT	ELEV. XXX.XX	INCLUDE LOCATION
RETAINING WALL YY	ELEV. XXX.XX	INCLUDE LOCATION

DRILLED SHAFT LOCATION SURVEY:

THE CORRECT LOCATION OF SHAFT IS CRITICAL TO ESTABLISHING AND MAINTAINING THE STRUCTURE GEOMETRY. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A OHIO REGISTERED PROFESSIONAL SURVEYOR ("THE SURVEYOR") TO ESTABLISH, MAINTAIN AND VERIFY HORIZONTAL AND VERTICAL SHAFT GEOMETRY. THE SURVEYOR SHALL BE READILY AVAILABLE TO ESTABLISH GEOMETRIC CONTROL AND PERFORM THE SURVEYS REQUIRED BELOW.

THE SURVEYOR SHALL ESTABLISH THE LOCATION OF THE CENTER OF EACH DRILLED SHAFT FOR INSTALLATION AND VERIFY PLUMBNESS OF THE DRILLING RIG PRIOR TO COMMENCING DRILLING OPERATIONS. THE SURVEYOR SHALL LOCATE AND ALIGN THE DRILLING TEMPLATES USED TO ENSURE PROPER SHAFT LOCATION AND ALIGNMENT.

THE CONTRACTOR SHALL SURVEY AND DOCUMENT THE AS-INSTALLED LOCATION AND PLUMBNESS (HORIZONTAL AND VERTICAL ALIGNMENT) OF EACH SHAFT IMMEDIATELY FOLLOWING COMPLETION OF THE SHAFT INSTALLATION. THE CONTRACTOR AND SURVEYOR SHALL COMPARE AS-BUILT LOCATION TO PLAN LOCATION SO THAT THE NEED FOR REMIDIAL ACTION CAN BE ASSESSED BY THE ENGINEER. WORK ON ADDITIONAL SHAFTS IN THE INSTALLATION SHALL NOT PROCEED UNTIL THE ENGINEER HAS COMPLETED THIS ASSESSMENT.

THE CONTRACTOR SHALL PERFORM AN INITIAL SHAFT BASELINE SURVEY OF THE AS-INSTALLED LOCATION OF THE SHAFTS IMMEDIATELY FOLLOWING COMPLETION OF ALL SHAFT INSTALLATIONS. THE INITIAL SHAFT BASELINE SURVEY WILL ESTABLISH THE SHAFT LOCATION BASELINE. THE SHAFT LOCATION BASELINE WILL BE ESTABLISHED FOR ALL SHAFTS IDENTIFIED IN THE SUGGESTED SEQUENCE OF OPERATIONS.

DRILLED SHAFT LOCATION SURVEY (CONT.):

THE CONTRACTOR SHALL PERFORM A SECOND SHAFT BASELINE SURVEY AFTER INSTALLATION AND EXCAVATION TO DREDGE LINE ELEVATION TO CONFIRM THAT ANTICIPATED PERMANENT LOAD DEFLECTION HAS OCCURED. A MINIMUM PERIOD OF 30 DAYS MUST ELAPSE BETWEEN THE INITIAL AND FINAL SHAFT BASELINE SURVEY.

THE CONTRACTOR SHALL PROVIDE THE RESULTS OF THE INDIVIDUAL SHAFT LOCATION SURVEY; AND INITIAL AND SECOND SHAFT BASELINE SURVEYS IN REPORT FORM TO THE ENGINEER WITHIN TWO (2) WORKING DAYS OF COMPLETION. EACH SURVEY REPORT SHALL INCLUDE THE FOLLOWING INFORMATION PROVIDED IN ELECTRONIC FORMAT:

1. X, Y COORDINATES OF EACH SHAFT IN ODOT STATE PLANE COORDINATE SYSTEM TABULATED IN EXCEL SPREADSHEET

2. ALIGNMENT OF SHAFT LOCATION BASELINE ESTABLISHED BETWEEN SHAFTS XX AND YY

3. A NARRATIVE COMPARISON OF THE SURVEYED BASELINE TO THE PLAN BASELINE

4. LISTING OF ALL SHAFT LOCATION DEVIATIONS FROM BASELINE

THE SECOND SHAFT BASELINE SURVEY SHALL ALSO INCLUDE:

5. A NARRATIVE COMPARISON OF THE SECOND SURVEYED SHAFT BASELINE TO THE INITIAL SHAFT BASELINE

6. THE CONTRACTOR SHALL IDENTIFY THE POTENTIAL NEED FOR MITIGATION MEASURES TO MAINTAIN THE PLAN CENTERLINE OF BEARING LOCATION

THE ENGINEER WILL REVIEW THE RESULTS OF EACH SURVEY REPORT TO DETERMINE WHAT MITIGATION MEASURES, IF ANY, ARE REQUIRED TO MAINTAIN THE REQUIRED CENTERLINE OF BEARING LOCATIONS.

THE ENGINEER WILL PROVIDE APPROVAL OF THE SURVEYS AND REQUIRED MITIGATION MEASURES WITHIN THREE (3) WORKING DAYS OF RECEIPT OF THE SURVEYS. SURVEYS SHALL BE PERFORMED BY A SURVEYOR LICENSED IN THE STATE OF OHIO. CONTRACTOR'S SURVEY SUBMITTAL SHALL CONFORM TO THE SUBMITTAL REQUIREMENTS OF C&MS 105.02

CONSTRUCTION TOLERANCES:

DRILLED SHAFTS SHALL BE INSTALLED TO THE TOLERANCES SPECIFIED IN ODOT C&MS SECTION 524.14 EXCEPT AS MODIFIED BELOW. ADDITIONAL CONSTRUCTION TOLERANCE REQUIREMENTS ARE AS FOLLOWS:

POSITION EACH DRILLED SHAFT WITHIN 1" OF THE PLAN LOCATION IN THE HORIZONTAL PLANE AT THE PLAN ELEVATION FOR THE TOP OF SHAFT.

VERTICAL TOLERANCE SHALL CONFORM TO ODOT C&MS SECTION 524.14.

THE USE OF A DRILLING TEMPLATE IS REQUIRED TO ESTABLISH AND MAINTAIN DRILLED SHAFT LOCATIONS. THE CONTRACTOR'S ON-SITE SURVEYOR SHALL BE RESPONSIBLE FOR VERIFYING AND MAINTAINING ADHERENCE TO THE REQUISITE CONSTRUCTION TOLERANCES.

MITIGATION MEASURES:

IN THE EVENT THAT THE SECOND SHAFT BASELINE SURVEY INDICATES THAT THE SHAFTS HAVE NOT DEFLECTED THE ANTICIPATED AMOUNTS, THE ENGINEER WILL PROVIDE RECOMMENDED MITIGATION MEASURES TO MAINTAIN THE PLAN CENTERLINE OF BEARING LOCATION AND LOCATION. IT IS ANTICIPATED THAT THE MITIGATION MEASURES MAY CONSIST OF ADJUSTING THE PLAN DIMENSIONS OF THE ABUTMENT SEAT AND BACKWALL LOCATIONS. THE CONTRACTOR WILL CONSTRUCT THE ABUTMENT SEAT AND BACKWALL IN THE LOCATION AND WITH THE DIMENSIONS NECESSARY TO MAINTAIN THE PLAN CENTERLINE OF BEARING LOCATION AND ALIGNMENT.

ADDITIONAL CONCRETE AND REINFORCING STEEL REQUIRED BY MITIGATION WILL BE PAID FOR VIA CHANGE ORDER AT THE CONTRACT UNIT PRICE BID FOR THESE ITEMS. ADDITIONAL COMPENSATION WILL NOT BE MADE FOR THESE MITIGATION MEASURES IF THE SHAFTS WERE NOT INSTALLED WITHIN THE REQUIRED CONSTRUCTION TOLERANCES.

CONTRACTOR'S INSTALLATION PLAN:

THE CONTRACTOR SHALL PROVIDE AN INSTALLATION PLAN AS REQUIRED BY ODOT C&MS SECTION 524.03. THE INSTALLATION PLAN SHALL ALSO INCLUDE:

1. CONTRACTOR'S PROPOSED METHODS TO MAINTAIN LOCATION AND ALIGNMENT OF SHAFTS

2. CONTRACTOR'S PROPOSED METHODS FOR PERFORMING THE DRILLED SHAFT LOCATION SURVEY

CONSTRUCTION CONSTRAINTS:

THE CONTRACTOR IS ADDVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRING ADVANCING SHAFTS THROUCH EXISTING PILES. ADDITIONAL INFORMATION AND NOTES REGARDING POSSIBLE CONFLICTS ARE PROVIDED IN THE PLANS.

MATERIALS:

CONCRETE AND REINFORCING STEEL FOR DRILLED SHAFTS SHALL CONFORM TO ODOT C&MS SECTION 524.02.

A SELF-CONSOLIDATING CONCRETE MIX SHALL BE INCORPORATED

THE MAXIMUM COARSE AGGREGATE SIZE SHALL BE: XX"

PERMANENT STEEL CASINGS SHALL BE ASTM A252 GRADE 3 WITH A MINIMUM YIELD STRESS OF 45 KSI. CASING SECTION LENGTHS SHALL BE MAXIMIZED TO MINIMIZE THE NUMBER OF FIELD SPLICE LOCATIONS. FIELD SPLICE LOCATIONS SHALL BE AS REQUIRED BY THE PLAN DETAILS. THE USE OF SPIRAL WELDED PIPE IS PERMITTED.

GENERAL NOTES (2 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 4 | TOTAL 63
SHEET 1896 | TOTAL 2339

MEASUREMENT AND PAYMENT:

MEASUREMENT FOR DRILLED SHAFTS INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS WILL BE MADE IN ACCORDANCE WITH THE PROVISIONS OF ODOT C&MS SECTION 524.16.

PAYMENT FOR DRILLED SHAFTS INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS WILL BE MADE IN ACCORDANCE WITH PROVISIONS OF ODOT C&MS SECTION 524.17.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
524	FOOT	DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN
524	FOOT	DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN

ITEM 524 DRILLED SHAFTS, 48" DIAMETER, THROUGH OBSTRUCTIONS, AS PER PLAN

GENERAL:

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL DRILLED SHAFTS AS DETAILED IN THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT C&MS SECTION 524, AND WITH THE ADDITIONAL REQUIREMENTS DEFINED BELOW.

CONSTRUCTION CONSTRAINTS:

THE CONTRACTOR IS ADVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRE ADVANCING SHAFTS THROUGH OBSTRUCTIONS SUCH AS EXISTING FOUNDATIONS AND PILES. EXISTING FOUNDATION AND PILE LOCATIONS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE EXISTING PLAN INFORMATION.

THE PROPOSED DRILLED SHAFT ARRANGEMENT WAS DEVELOPED WITH THE INTENT TO ELIMINATE OR MINIMIZE CONFLICTS BETWEEN THE PROPOSED DRILLED SHAFTS AND IDENTIFIED OBSTRUCTIONS. COMPLETE ELIMINATION OF ALL CONFLICTS BETWEEN THE PROPOSED DRILLED SHAFTS AND OBSTRUCTIONS WAS NOT POSSIBLE.

THE CONTRACTOR IS ADVISED THAT THEY MUST ADAPT THEIR PROPOSED MEANS AND METHODS FOR INSTALLING DRILLED SHAFTS IN CONFLICT WITH OBSTRUCTIONS. SUCH MEANS AND METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, SPECIALIZED CUTTING HEADS, DOWN DRIVE HAMMERS, ETC.

DRILLED SHAFTS IN CONFLICT WITH EXISTING PILES ARE AS FOLLOWS:

DS-XX THROUGH DS-XX
DS-XX THROUGH DS-XX

THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING PILES FOLLOWING REMOVAL OF EXISTING PILE CAP. NO DRILLED SHAFTS SHALL BE INSTALLED UNTIL NUMBER AND LOCATION OF CONFLICTS WITH THE PROPOSED DRILLED SHAFTS IS VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL VERIFIED CONFLICTS AND IDENTIFY ANY ADDITIONAL CONFLICTS. THE CONTRACTOR SHALL PROVIDE A MARKED-UP PLAN SHEET DEPICTING ALL CONFLICTS.

BASIS FOR CLAIMS:

THE CONTRACTOR IS ADVISED THAT IDENTIFICATION OF ADDITIONAL PILES IN CONFLICT WITH PROPOSED DRILLED SHAFTS WILL NOT BE CONSIDERED AS BASIS FOR DELAY OR CHANGED CONDITION CLAIMS.

CONTRACTOR'S INSTALLATION PLAN:

THE CONTRACTOR SHALL PROVIDE AN INSTALLATION PLAN AS REQUIRED BY ODOT C&MS SECTION 524.03. THE INSTALLATION PLAN SHALL ALSO INCLUDE:

1. CONTRACTOR'S PROPOSED METHODS TO ADVANCE DRILLED SHAFTS THROUGH OBSTRUCTIONS (CONFLICTING PILES, EXISTING FOUNDATIONS, ETC.)

MEASUREMENT AND PAYMENT:

MEASUREMENT FOR DRILLED SHAFTS INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS WILL BE MADE ON A PER EACH BASIS.

PAYMENT FOR DRILLED SHAFTS INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS WILL BE CONSIDERED COMPLETE COMPENSATION FOR ADDITIONAL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO ADVANCE DRILLED SHAFTS THROUGH OBSTRUCTIONS BEYOND THAT REQUIRED FOR NORMAL INSTALLATIONS.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
524	EACH	DRILLED SHAFTS, 48" DIAMETER, THROUGH OBSTRUCTIONS, AS PER PLAN

MAINTENANCE OF TRAFFIC

MAINTENANCE OF TRAFFIC FOR THE STRUCTURE WORK SHALL BE COORDINATED WITH THE OVERALL PROJECT. REFER TO MAINTENANCE OF TRAFFIC NOTES AND DETAILS ELSEWHERE IN PLANS.

UTILITY LINES

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

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 C&MS, 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 THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATION. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH C&MS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE DEPARTMENT WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN.

ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN

LOCATE THE LOWER CONTACT POINT OF THE OVERHANG FALSEWORK AT LEAST ** INCHES (+/-) 2 INCHES ABOVE THE TOP OF THE GIRDER'S BOTTOM FLANGE. THE BRACKET CONTACT POINT LOCATION REQUIREMENTS OF C&MS 508 DO NOT APPLY.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 5 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

VANDAL PROTECTION FENCING

INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR AND/OR PEDESTRIAN TRAFFIC.

ITEM 625, LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN
ITEM 632, SIGNAL SUPPORT, MISC.: SIGNAL POLE ANCHORAGE
ITEM 632, SIGNAL SUPPORT, MISC.: PEDESTRIAN POLE ANCHORAGE

WHEN A LIGHT POLE, SIGNAL POLE, OR PEDESTRIAN POLE IS MOUNTED ON A STRUCTURE, THE REQUIRED ANCHOR BOLTS MAY DIFFER IN LENGTH AND/OR SHAPE FROM THOSE REQUIRED WHEN THE POLE IS MOUNTED ON A CAST-IN-PLACE DRILLED SHAFT FOUNDATION. THE COST DIFFERENTIAL FOR FURNISHING SUCH BOLTS IS INCLUDED HEREIN.

IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE STRUCTURE IS ALSO PART OF THIS WORK.

PAYMENT SHALL BE AT THE UNIT PRICE FOR THE ITEM INCLUDING PLATE(S), ANCHOR ASSEMBLY, LABOR, EQUIPMENT, CONNECTIONS, INSPECTIONS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

GENERAL NOTES (3 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 5 | TOTAL 63
SHEET 1897 | TOTAL 2339

CUY-90-16.28 (CCG3A)
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:49:40 AM USER: Maia.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SN003.dgn

ITEM 625, LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN
ITEM 632, SIGNAL SUPPORT, MISC.: SIGNAL POLE ANCHORAGE
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IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE STRUCTURE IS ALSO PART OF THIS WORK.

PAYMENT SHALL BE AT THE UNIT PRICE FOR THE ITEM INCLUDING PLATE(S), ANCHOR ASSEMBLY, LABOR, EQUIPMENT, CONNECTIONS, INSPECTIONS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

ABBREVIATIONS

BOT.	*= BOTTOM*
BRGS.	*= BEARINGS*
C.J.	*= CONSTRUCTION JOINT*
CLR.	*= CLEAR*
CONST.	*= CONSTRUCTION*
DIA.	*= DIAMETER*
E.F.	*= EACH FACE*
ELEV.	*= ELEVATION*
EX.	*= EXISTING*
F.A.	*= FORWARD ABUTMENT*
F.F.	*= FAR FACE*
HORIZ.	*= HORIZONTAL*
I.R.	*= INTERSTATE ROUTE*
LT	*= LEFT*
MAX.	*= MAXIMUM*
MIN.	*= MINIMUM*
N.F.	*= NEAR FACE*
PR.	*= PROPOSED*
R.A.	*= REAR ABUTMENT*
RT	*= RIGHT*
SPA.	*= SPACED / SPACING / SPACES*
S.R.	*= STATE ROUTE*
TYP.	*= TYPICAL*
VERT.	*= VERTICAL*
W.W.	*= WING WALL*

SECTION / DETAIL / VIEW CALLOUTS

(SEE SECTION A ON SHEET 10)

(SECTION A CUT FROM SHEET 9)

FOR INFORMATION ONLY - NOT FOR REVIEW

GENERAL NOTES (4 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 6 | TOTAL 63
SHEET 1898 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:49:46 AM USER: Maia.Gallagher
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FOR INFORMATION ONLY - NOT FOR REVIEW

SHEET 1899 / TOTAL 2339	SUBSET 7 / TOTAL 63	PROJECT ID 0	REVIEWER —	DESIGNER — / CHECKER —	Michael Baker INTERNATIONAL	SFN 1807841 DESIGN AGENCY	ESTIMATED QUANTITIES CUY-90-1680 (BRIDGE 16) CR-23 (CEDAR AVE.) OVER I.R. 90 EB

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:49:58 AM USER: Maia.Gallagher
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SHEET RESERVED FOR FUTURE USE

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SHEET 1900 TOTAL 2339	SUBSET 8 TOTAL 63	PROJECT ID 82382	REVIEWER —	DESIGNER — CHECKER —	Michael Baker INTERNATIONAL	SFN 1807841 DESIGN AGENCY

TEMPORARY SHORING DETAILS (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:50:04 AM USER: Maia.Gallagher
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SHEET RESERVED FOR FUTURE USE

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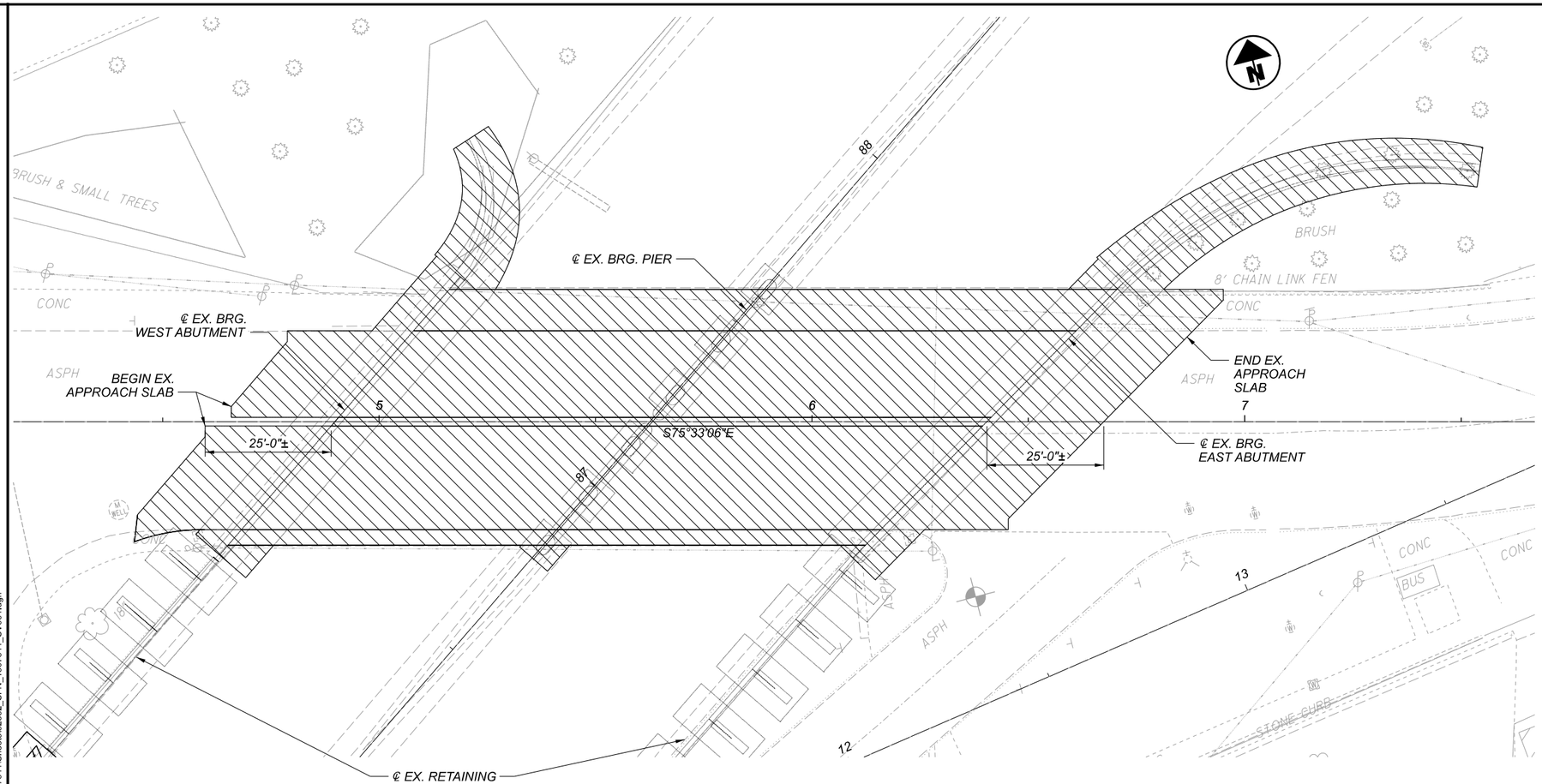
TEMPORARY SHORING DETAILS (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB



REMOVAL PLAN

LEGEND:

= REMOVAL

NOTES:

1. SEE SHEET 11/63 FOR ABUTMENT AND PIER REMOVAL DETAILS.
2. EXISTING CEDAR AVENUE BRIDGE TO BE REMOVED IN MOT PHASE 2.

STRUCTURE GENERAL NOTES:

MAINTENANCE OF TRAFFIC:
SEE THE ROADWAY PLANS FOR MAINTENANCE OF TRAFFIC REQUIREMENTS.

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 CMS SECTION 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 STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS:
CONSTRUCTION PLANS FOR EXISTING STRUCTURES ARE ON FILE AT THE DEPARTMENT OF TRANSPORTATION DISTRICT 12 OFFICE, 5500 E. 98TH ST., GARFIELD HEIGHTS, OHIO AND ARE AVAILABLE FOR REFERENCE.

SEQUENCE OF CONSTRUCTION:
SEE MOT NOTES IN ROADWAY PLANS.

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:
THIS ITEM SHALL INCLUDE THE ELEMENTS 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 THE SUBSTRUCTURE FOUNDATION PILES THAT INTERFERE WITH NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. SUBMIT WORKING DRAWINGS AND CALCULATIONS IN ACCORDANCE WITH CMS 501.55.

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.

THE USE OF EXPLOSIVES AND HEADACHE BALLS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED.

A LUMP SUM QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

EXISTING STRUCTURE

TYPE: CONTINUOUS BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 73.37'± AND VARIABLE (74.18' TO 80.57') C/C BEARINGS ALONG ℄ CONSTRUCTION

ROADWAY: 46'-0"±, F/F OF CURBS WITH 8'-0" WALK ON NORTH AND 2'-0" SAFETY CURB ON SOUTH

LOADING: CF 2000 (51)

SKEW: 40°51'00" & 44°30'00"

WEARING SURFACE: BITUMINOUS

APPROACH SLABS: AS-1-54 (25'± LONG)

ALIGNMENT: TANGENT

CROWN: 0.0156±

STRUCTURE FILE NUMBER: 1807XXX

DATE BUILT: 1958

DISPOSITION: TO BE REMOVED

FOR INFORMATION ONLY - NOT FOR REVIEW

REMOVAL DETAILS (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER CEM | CHECKER MDM
REVIEWER —
PROJECT ID 82383
SUBSET 10 | TOTAL 63
SHEET 1902 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:50:19 AM USER: Malia.Gallagher
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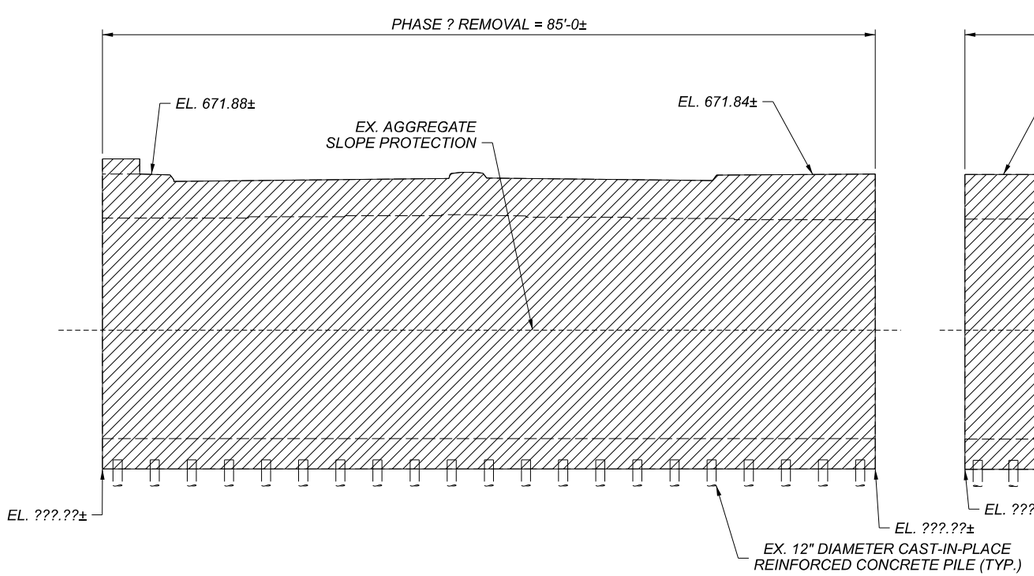
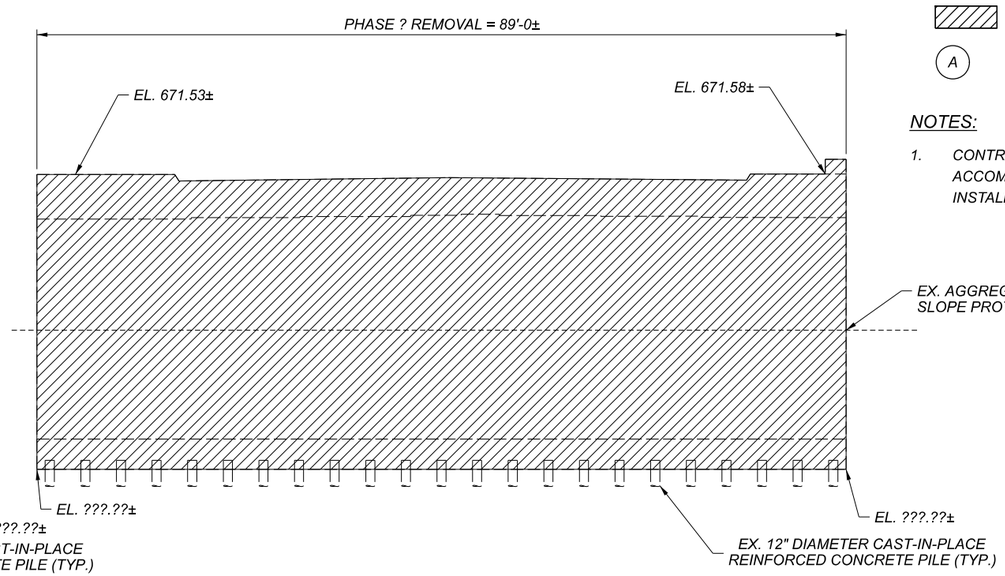


WEST ABUTMENT BREASTWALL



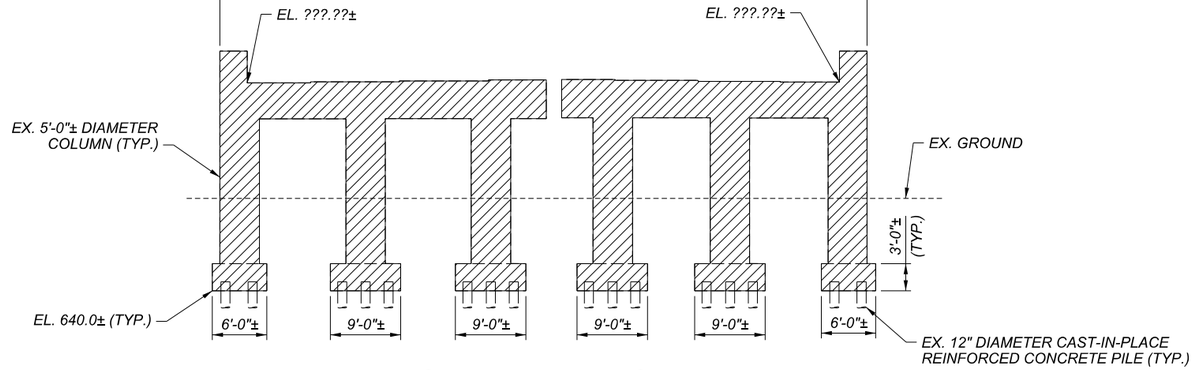
EAST ABUTMENT BREASTWALL

= PHASE 5 REMOVAL

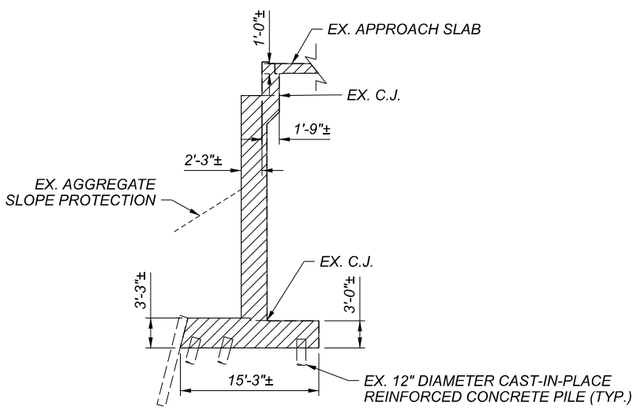
A = EXISTING BEAM LETTER

NOTES:

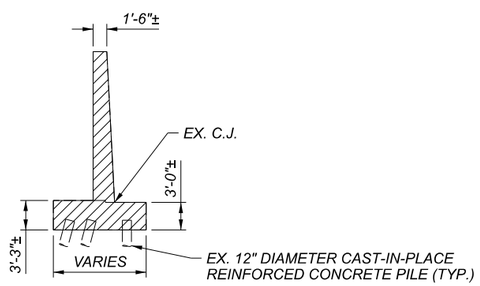
1. CONTRACTOR MAY ADJUST REMOVAL LIMITS TO ACCOMMODATE LIGHTWEIGHT FILL LIMITS AND INSTALLATION.



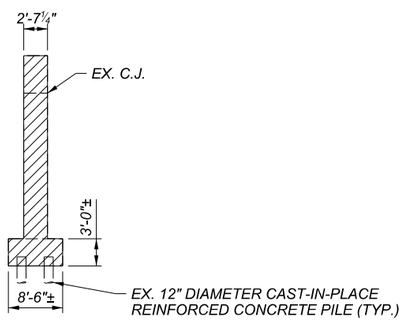
WEST ABUTMENT BREASTWALL



TYPICAL ABUTMENT SECTION



TYPICAL WINGWALL SECTION



TYPICAL PIER SECTION

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REMOVAL DETAILS (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	CEM
CHECKER	MDM
REVIEWER	—
PROJECT ID	82382
SUBSET	11
TOTAL	63
SHEET	1903
TOTAL	2339

CUY-90-16.28 (CCG3A)

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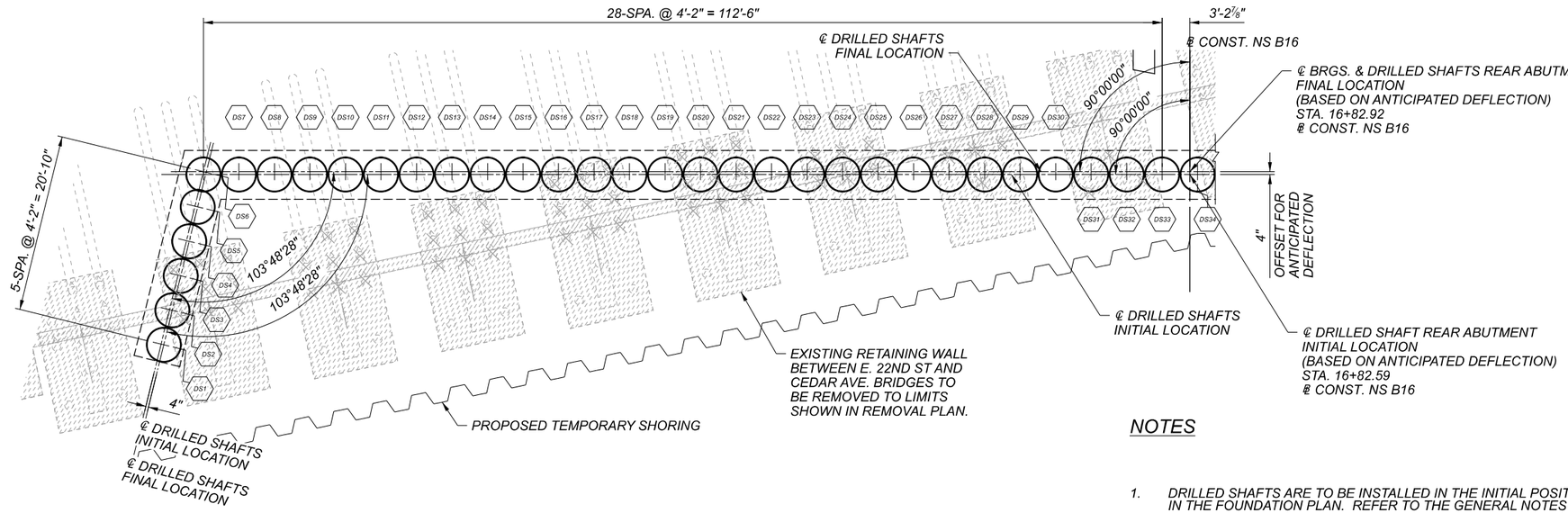


DRILLED SHAFT SCHEDULE (1 OF 2)

DESIGNATION	INITIAL NORTHING	INITIAL EASTING	DIAMETER	TOP ELEV.	TIP ELEV.	TOTAL LENGTH (FT.)	D.S. BAR MARK	NO. OF D.S. LONG. BARS	SPIRAL MARK	CASING LENGTH	CASING THICKNESS	DEFLECTED NORTHING	DEFLECTED EASTING
DS01			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1103	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS02			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1104	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS03			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1105	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS04			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1106	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS05			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1107	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS06			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1108	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS07			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1109	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS08			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1110	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS09			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1111	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS10			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1112	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS11			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1113	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS12			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1114	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS13			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1115	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS14			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1116	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS15			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1117	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS16			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1118	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS17			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1119	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS18			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1120	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS19			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1121	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS20			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1122	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS21			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1123	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS22			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1124	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS23			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1125	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS24			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1126	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS25			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1127	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS26			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1128	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS27			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1129	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS28			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1130	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS29			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1131	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS30			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1132	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS31			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1133	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS32			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1134	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS33			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1135	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS34			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1136	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		

NOTES

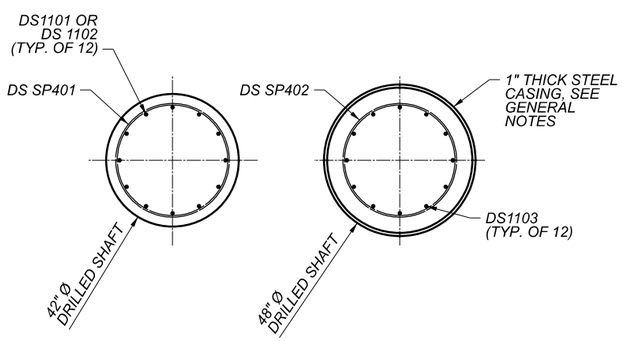
1. DRILLED SHAFTS ARE TO BE INSTALLED IN THE INITIAL POSITION INDICATED IN THE FOUNDATION PLAN. REFER TO THE GENERAL NOTES FOR DETAILS.
2. THE CONTRACTOR IS ADVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRE ADVANCING SHAFTS THROUGH OBSTRUCTIONS, SUCH AS EXISTING FOUNDATIONS AND PILES. EXISTING FOUNDATION AND PILE LOCATIONS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE EXISTING PLAN INFORMATION.
3. DRILLED SHAFTS IN CONFLICT WITH EXISTING PILES ARE AS FOLLOWS:

   DS-1 THROUGH DS-6
   DS-7 THROUGH DS-33
4. PAYMENT FOR DRILLED SHAFTS INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SHALL BE MADE UNDER ITEM 524-DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN AND ITEM 524-DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN. REFER TO GENERAL NOTES.
5. PAYMENT FOR DRILLED SHAFTS ADVANCED THROUGH OBSTRUCTIONS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SHALL BE MADE UNDER ITEM 524-DRILLED SHAFTS, 48" DIAMETER THROUGH OBSTRUCTIONS, AS PER PLAN. REFER TO GENERAL NOTES.
6. DRILLED SHAFTS DS-1 THROUGH DS-3 TO BE INSTALLED IN MOT PHASE 2. DRILLED SHAFTS DS-4 THROUGH DS-41 TO BE INSTALLED IN MOT PHASE 1C. DRILLED SHAFTS DS-42 THROUGH DS-63 TO BE INSTALLED IN MOT PHASE 2.

LEGEND

⊗ INDICATES EXISTING PILE IN CONFLICT WITH PROPOSED DRILLED SHAFT. SEE NOTES.

DSXX INDICATES PROPOSED DRILLED SHAFT NUMBER.

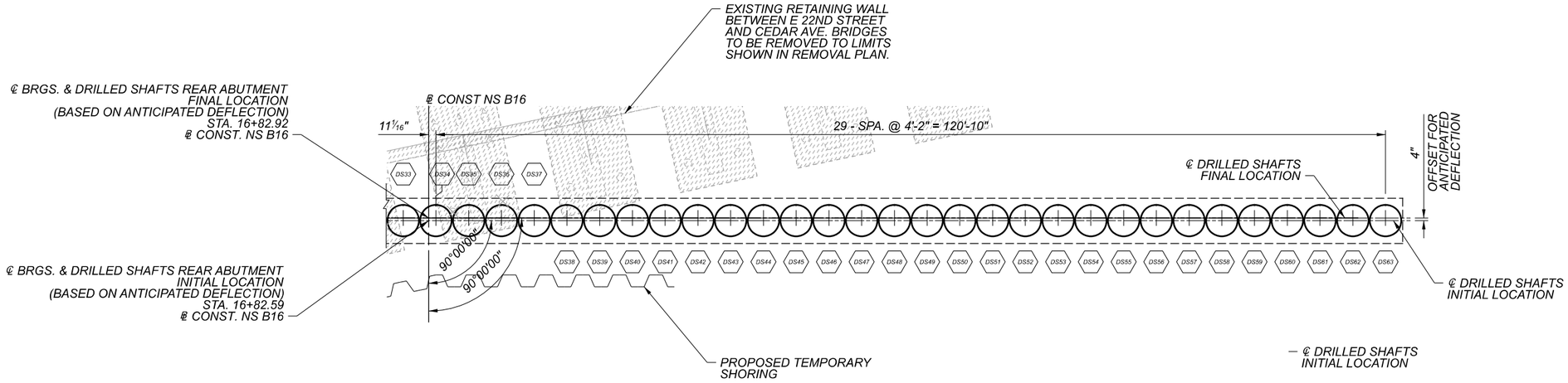


FOR INFORMATION ONLY - NOT FOR REVIEW

REAR ABUTMENT FOUNDATION PLAN (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

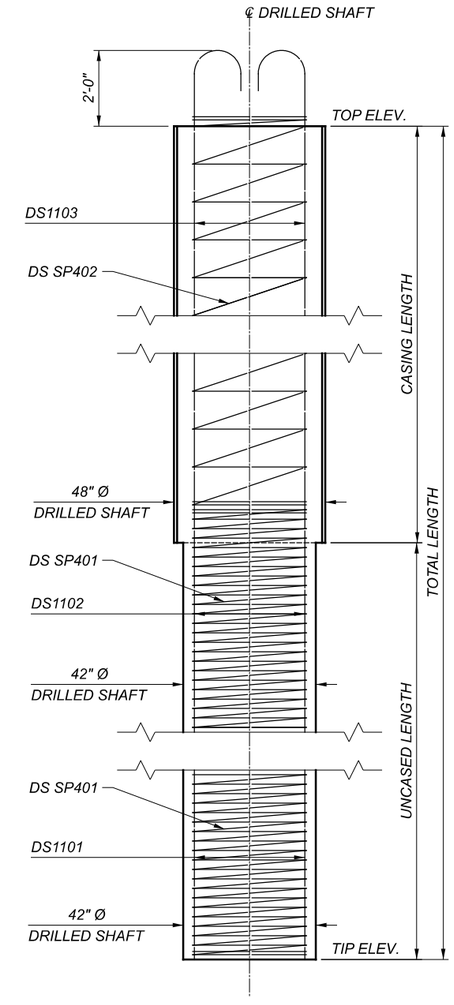
SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER GZ | CHECKER LPC
REVIEWER — | 06-23-22
PROJECT ID 82382
SUBSET 12 | TOTAL 63
SHEET 1904 | TOTAL 2339

CUY-90-16.28 (CCG3A)



REAR ABUTMENT FOUNDATION PLAN

DRILLED SHAFT SCHEDULE (2 OF 2)													
DS35			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1137	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS36			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1138	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS37			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1139	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS38			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1140	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS39			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1141	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS40			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1142	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS41			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1143	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS42			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1144	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS43			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1145	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS44			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1146	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS45			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1147	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS46			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1148	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS47			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1149	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS48			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1150	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS49			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1151	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS50			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1152	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS51			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1153	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS52			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1154	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS53			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1155	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS54			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1156	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS55			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1157	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS56			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1158	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS57			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1159	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS58			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1160	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS59			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1161	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS60			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1162	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS61			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1163	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS62			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1164	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		
DS63			48"	661.00	550.00	111.0	DS1101, DS1102 & DS1165	3-S.O. 12	DSP401 OR DSP402	80.0	1.00"		



LEGEND

⨯ INDICATES EXISTING PILE IN CONFLICT WITH PROPOSED DRILLED SHAFT. SEE NOTES.

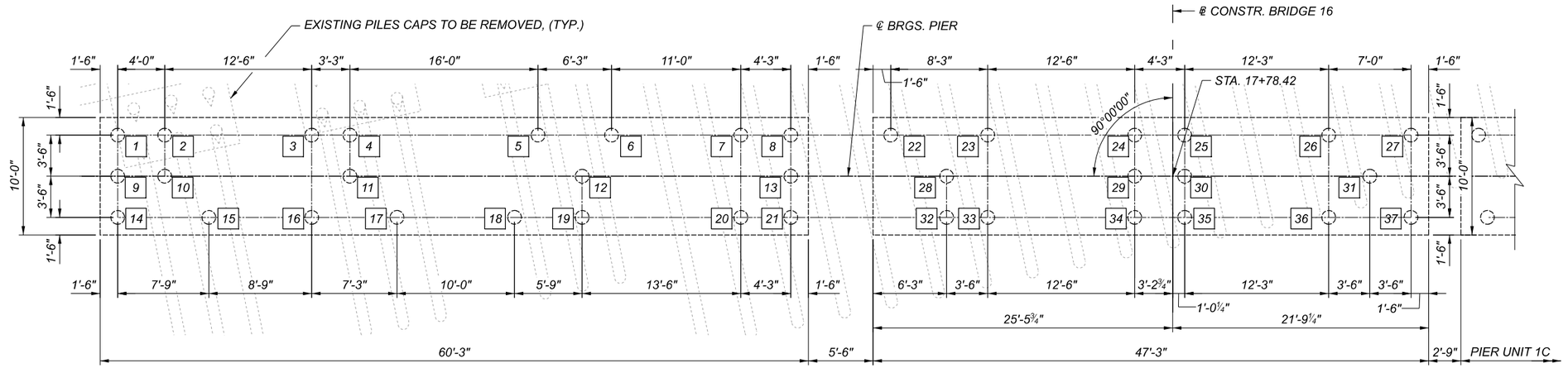
DSXX INDICATES PROPOSED DRILLED SHAFT NUMBER.

FOR INFORMATION ONLY - NOT FOR REVIEW

REAR ABUTMENT FOUNDATION PLAN (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

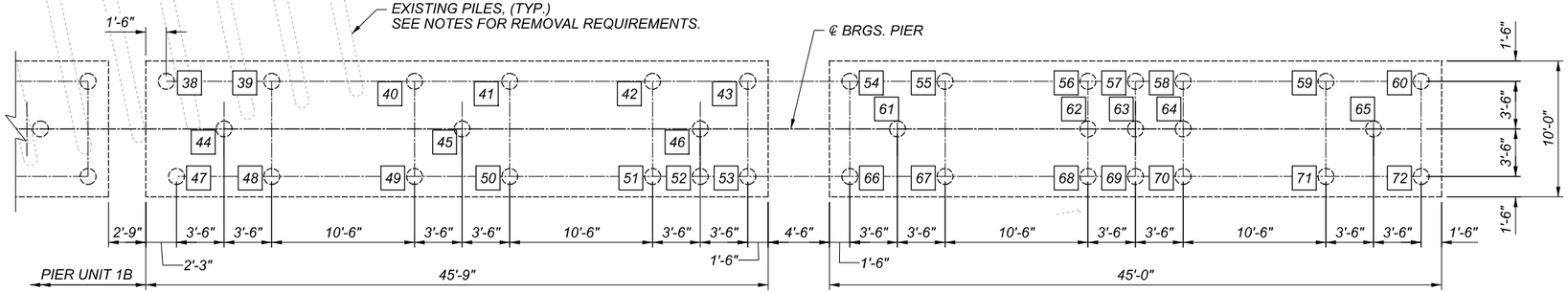
SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER GZ | CHECKER LPC
REVIEWER — 09-23-22
PROJECT ID 82382
SUBSET 13 | TOTAL 63
SHEET 1905 | TOTAL 2339

CUY-90-16.28 (CCG3A)



PIER 1A PLAN

PIER 1B PLAN



PIER 1C PLAN

PIER 1D PLAN

PILE SCHEDULE			
SUBSTRUCTURE UNIT	PILE DIAMETER	ORDER LENGTH	CUTOFF ELEVATION
PIER 1A PILES 1 THRU 21	14"	110.00	638.00
PIER 1B PILES 22-37	14"	110.00	637.00
PIER 1C PILES 38-53	14"	90.00	636.00
PIER 1D PILES 54-72	14"	90.00	635.50

NOTES

SEE GENERAL PLAN SHEET 2 FOR COMPLETE LAYOUT.

SEE PIER PLAN AND ELEVATION SHEETS 19 THRU 22 FOR ADDITIONAL INFORMATION.

THE PROPOSED PILE ARRANGEMENT WAS DEVELOPED WITH THE INTENTION TO ELIMINATE CONFLICTS BETWEEN THE PROPOSED AND EXISTING PILES.

EXISTING PILE LOCATIONS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE EXISTING PLAN INFORMATION. CONTRACTOR TO VERIFY LOCATION OF EXISTING PILES FOLLOWING REMOVAL OF EXISTING PILE CAP. NO PILES SHALL BE DRIVEN UNTIL CLEARANCE BETWEEN EXISTING AND PROPOSED PILES IS VERIFIED. THE CONTRACTOR SHALL NOTIFY THE STATE/ENGINEER OF ANY CONFLICTS AND PROVIDE FIELD SKETCHES OF THE CONFLICT SO THE PROPOSED PILE ARRANGEMENT AND PILE CAP REINFORCING MAY BE ADJUSTED AS NECESSARY TO MITIGATE CONFLICTS.

REMOVE EXISTING PILES UNDER PROPOSED PILE CAP LIMITS TO DREDGE LINE ELEVATION FOR PROPOSED PILE CAP.

REMOVE EXISTING PILES OUTSIDE OF PROPOSED PILE CAP LIMITS TO 1' BELOW PROPOSED SUBGRADE ELEVATION.

LEGEND

[#] INDICATES PROPOSED PILE NUMBER

FOR INFORMATION ONLY - NOT FOR REVIEW

PIER FOUNDATION PLAN
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER ABP | CHECKER TJN
REVIEWER JRS 06-04-22
PROJECT ID 82382
SUBSET 14 | TOTAL 63
SHEET 1906 | TOTAL 2339

CUY-90-16.28 (CCG3A)

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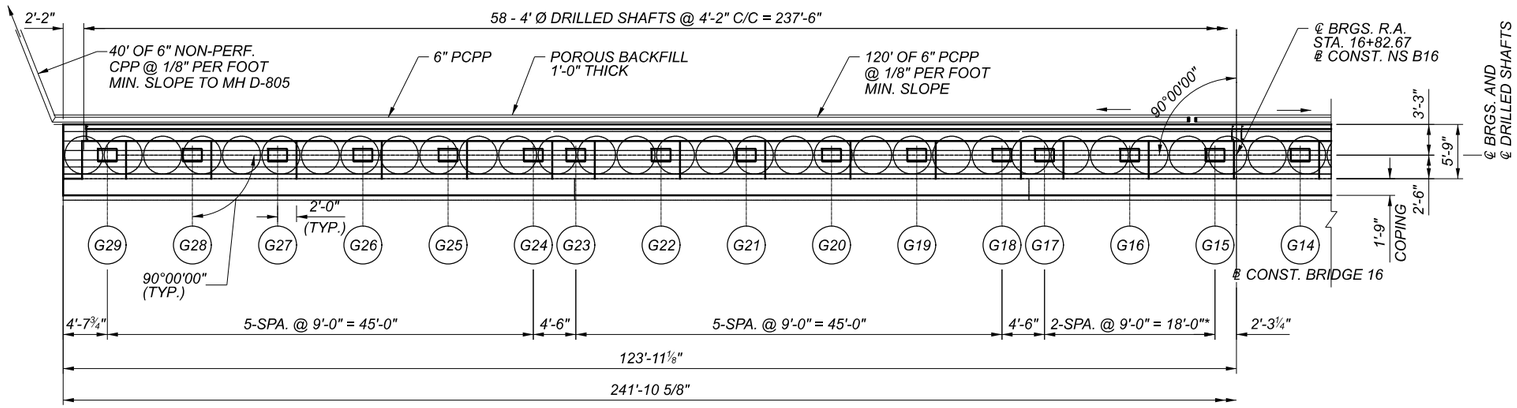
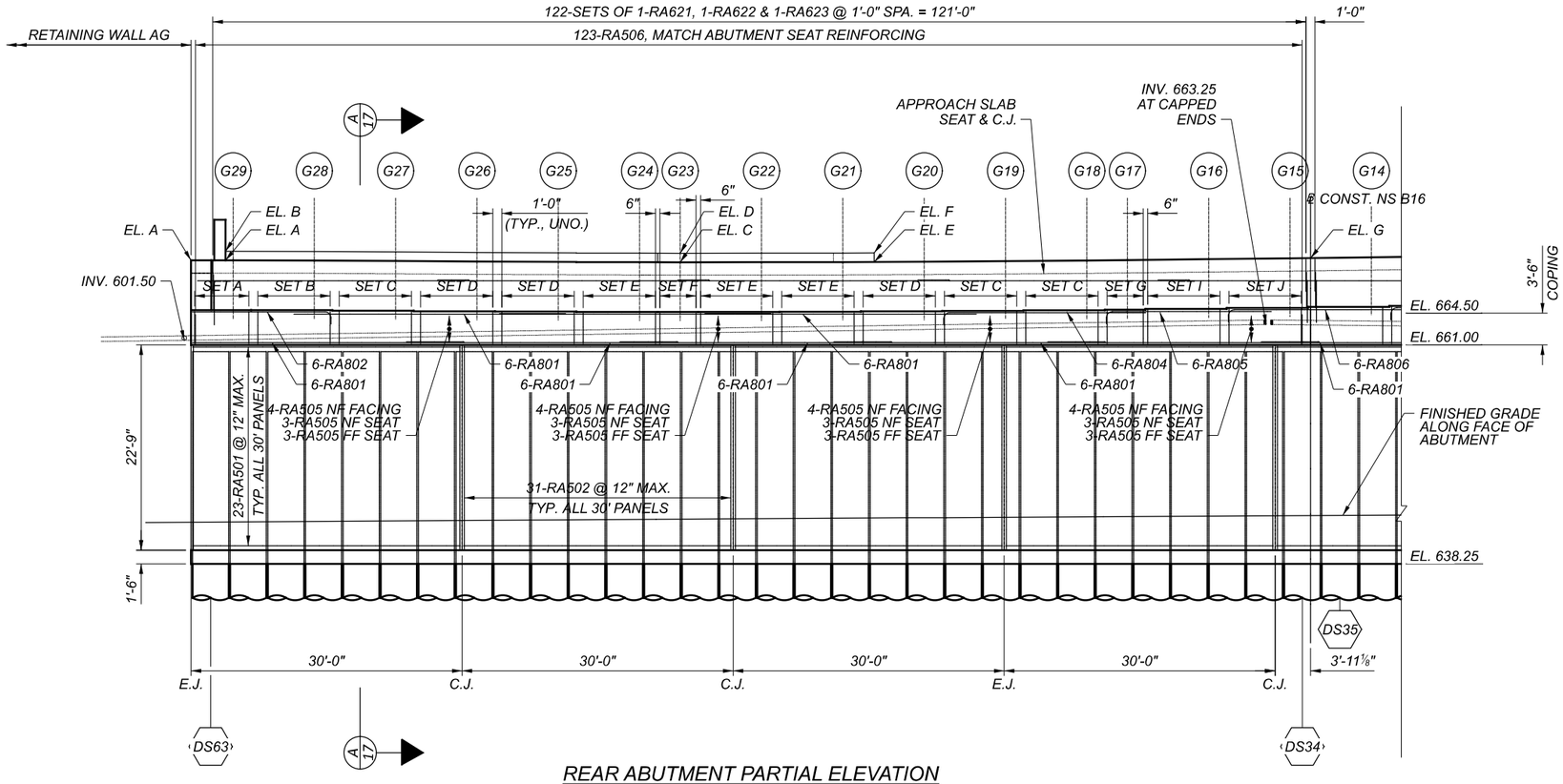


REAR ABUTMENT PARTIAL PLAN



REAR ABUTMENT PARTIAL ELEVATION

ABUTMENT BACKWALL ELEVATIONS (FT.)	
LOCATION	ELEVATION
A	TBD
B	TBD
C	TBD
D	TBD
E	TBD
F	TBD
G	TBD

ABUTMENT BEAM SEAT ELEVATIONS (FT.)	
LOCATION	ELEVATION
G29	665.07
G28	665.03
G27	664.96
G26	664.90
G25	664.86
G24	664.83
G23	664.84
G22	664.88
G21	664.94
G19	665.01
G18	665.06
G17	665.16
G16	665.26
G15	665.37

ABUTMENT SEAT REINFORCING	
SET	BARS
A	7-RA601
B	9-RA601
C	9-RA602
D	9-RA603
E	9-RA604
F	5-RA604
G	5-RA601
H	9-RA605
I	9-RA606
J	9-RA607
ALL BARS IN SETS SPA. @ 1'-0" C/C	

REQUIRED MINIMUM LAP LENGTHS	
#5	3'-5"
#6	3'-0"
#8 TOP	7'-3"
#8 BOT.	6'-4"

NOTES

1. ***BRIDGE SEAT REINFORCING, SETTING ANCHORS***

   ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE SETTING OF BEARING ANCHORS.

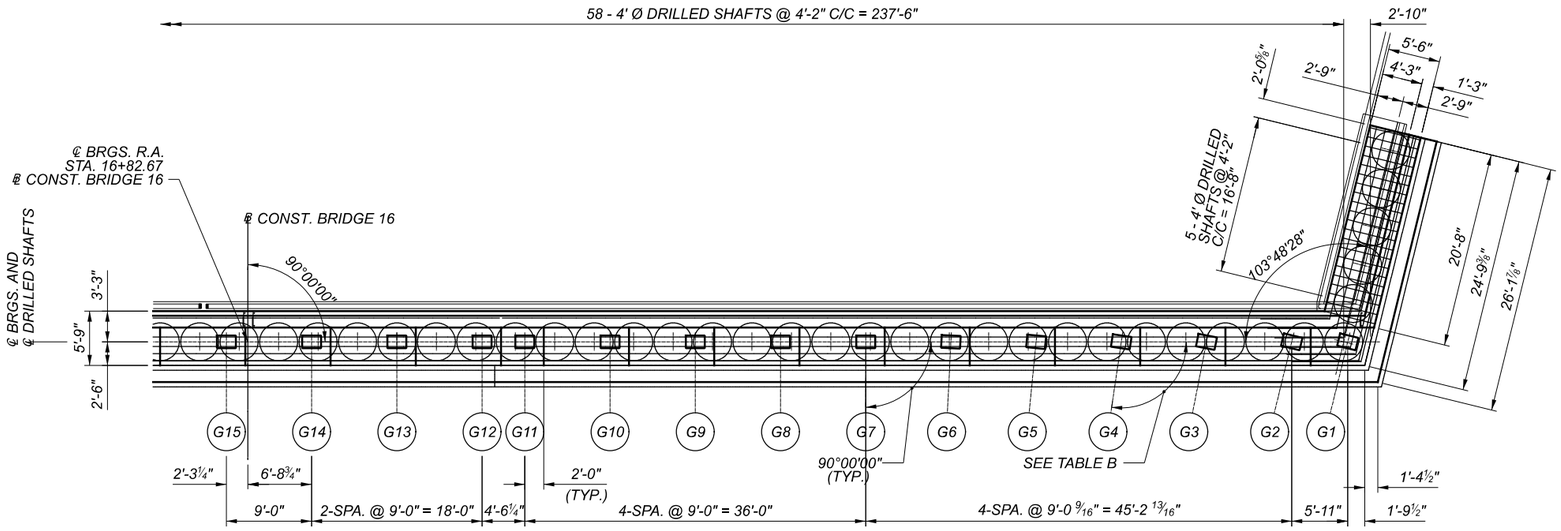
2. *SEE SHEET XX OF XX FOR ADDITIONAL NOTES.*
3. *SEE FOUNDATION PLAN FOR DRILLED SHAFT LAYOUT AND REINFORCING.*

FOR INFORMATION ONLY - NOT FOR REVIEW

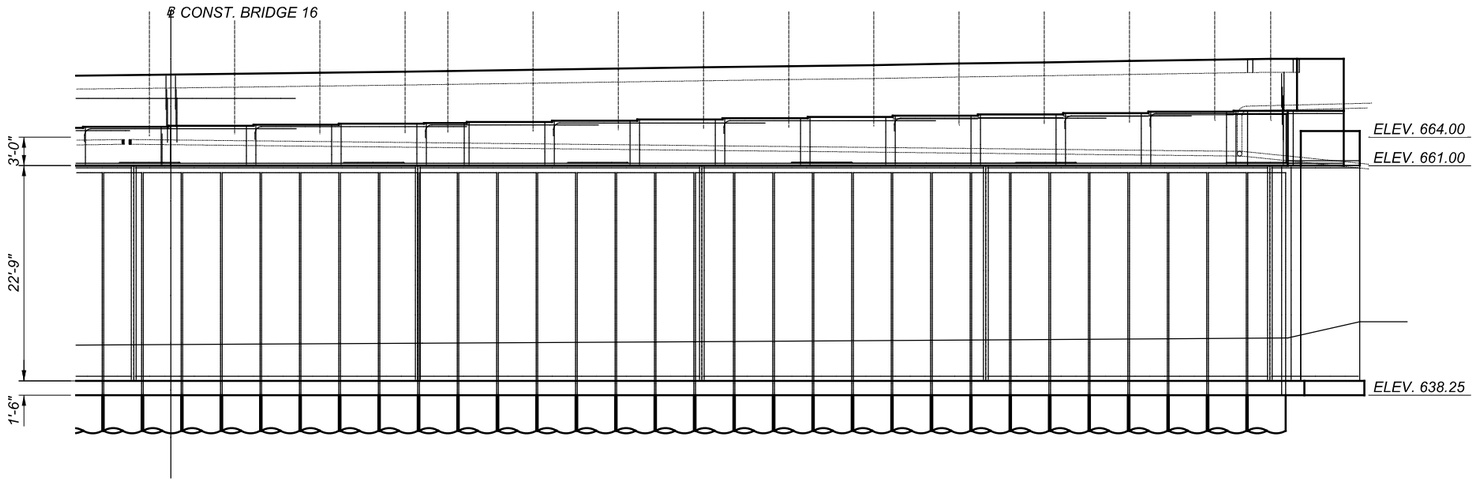
REAR ABUTMENT PLAN & ELEVATION (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER LPC | CHECKER GZ
REVIEWER — | 06-25-22
PROJECT ID 82382
SUBSET 15 | TOTAL 63
SHEET 1907 | TOTAL 2339

CUY-90-16.28 (CCG3A)



REAR ABUTMENT PARTIAL PLAN



REAR ABUTMENT PARTIAL ELEVATION

TABLE A BEAM SEAT ELEVATIONS

TABLE B BEAM CL ANGLES

NOTES

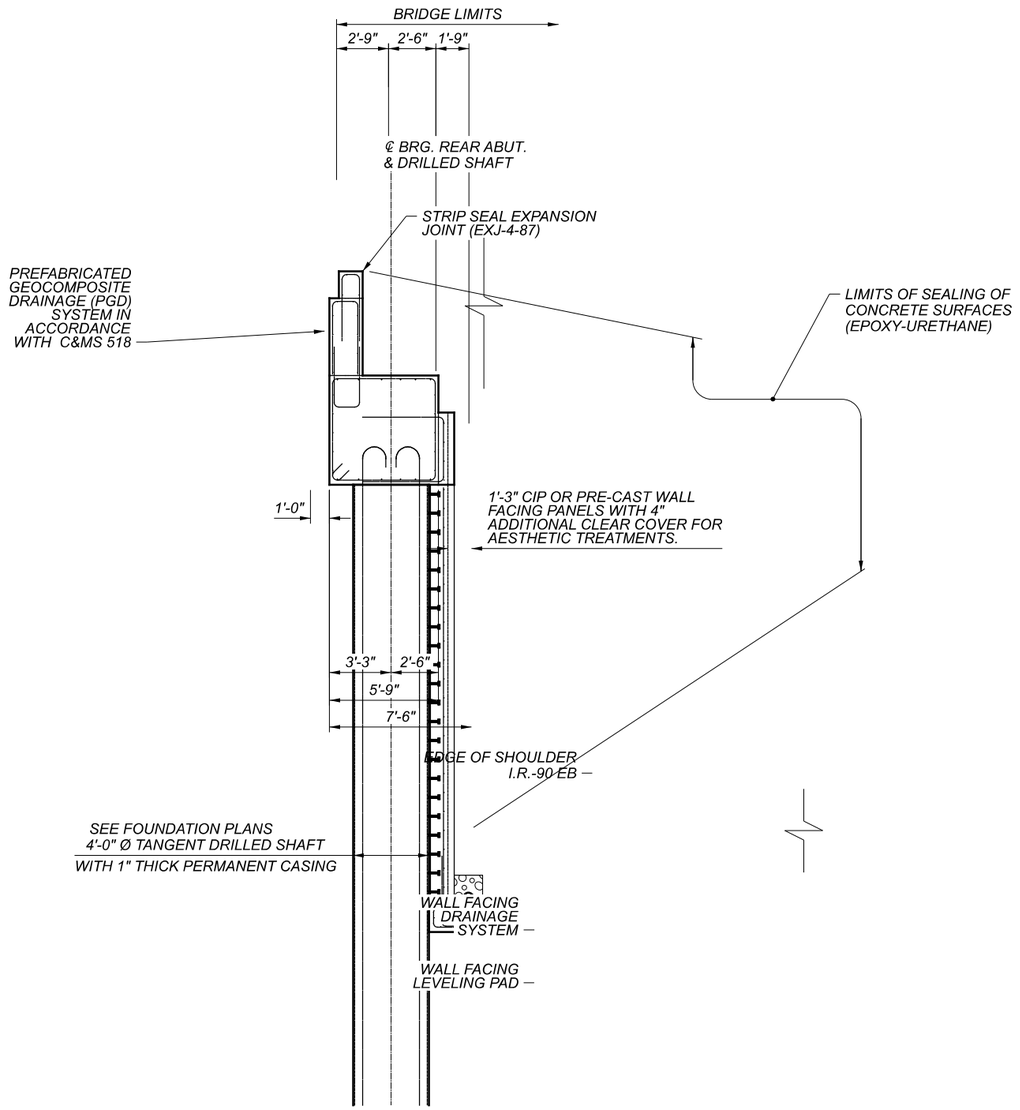
1. SEE SHEET XX OF XX FOR ADDITIONAL NOTES.
2. SEE FOUNDATION PLAN FOR DRILLED SHAFT LAYOUT.

FOR INFORMATION ONLY - NOT FOR REVIEW

REAR ABUTMENT PLAN & ELEVATION (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	XXX
CHECKER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SUBSET	16
TOTAL	63
SHEET	1908
TOTAL	2339

CUY-90-16.28 (CCG3A)



REAR ABUTMENT SECTION

NOTES:

FOR INFORMATION ONLY - NOT FOR REVIEW

REAR ABUTMENT SECTION
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER	CHECKER
LPC	MKB

REVIEWER
—

PROJECT ID 82382

SUBSET	TOTAL
17	63

SHEET	TOTAL
1909	2339

CUY-90-16.28 (CCG3A)

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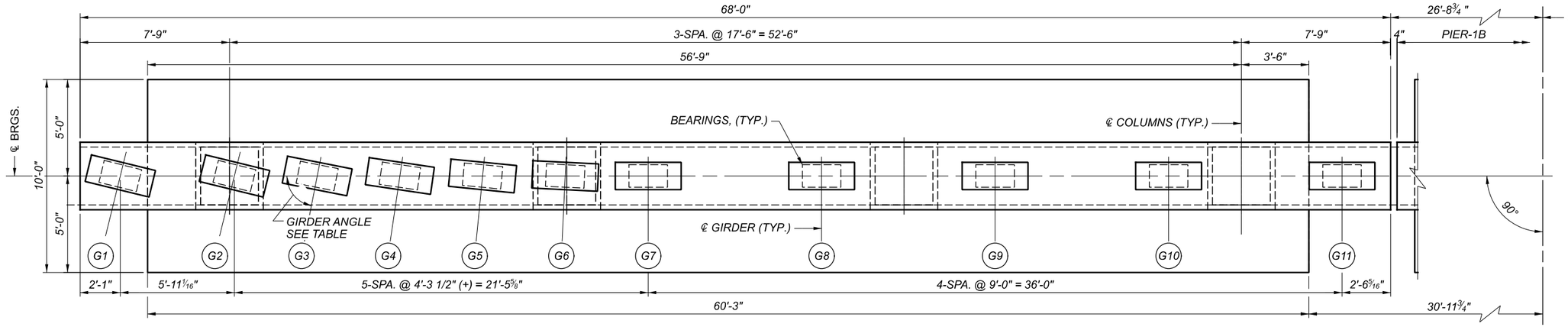
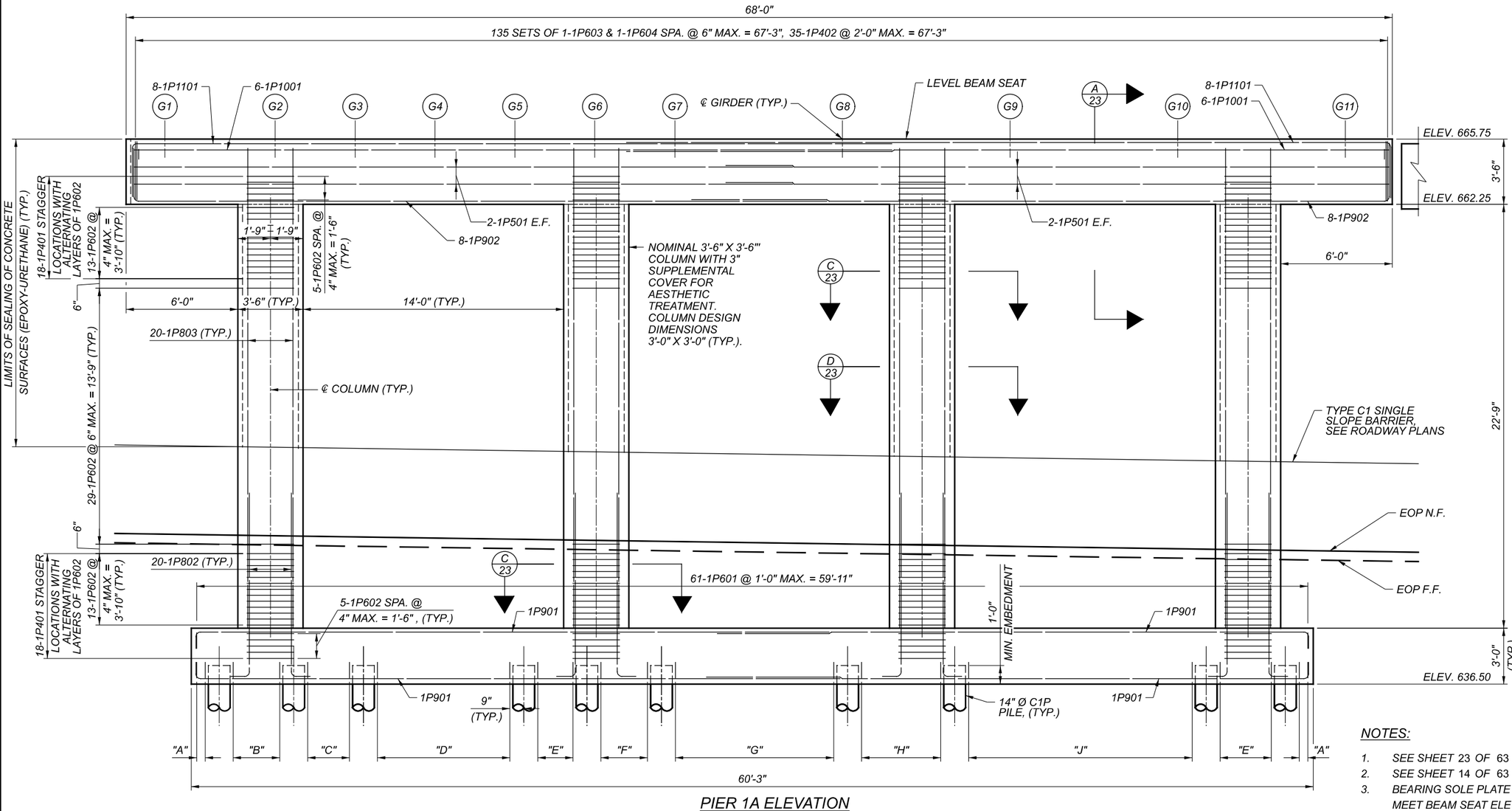
SHEET RESERVED FOR FUTURE USE

FOR INFORMATION ONLY - NOT FOR REVIEW



PIER 1A PLAN



PIER 1A ELEVATION

LOOKING UPSTATION

MIN. SPLICE LENGTHS	
BAR	LENGTH
5	3'-7"
6 HORIZ.	4'-4"
6 VERT.	3'-10"
8	7'-3"
10	11'-7"
11	14'-3"

PIER FOOTING REBAR SETS:

SET "A" = 2-1P801 =7"

SET "B" = 4-1P801 SPA. @ 1'-0" MAX. = 2'-6"

SET "C" = 4-1P801 SPA. @ 1'-0" MAX. = 2'-3"

SET "D" = 9-1P801 SPA. @ 1'-0" MAX. = 7'-3"

SET "E" = 3-1P801 SPA. @ 1'-0" MAX. = 1'-9"

SET "F" = 4-1P801 SPA. @ 1'-0" MAX. = 2'-6"

SET "G" = 11-1P801 SPA. @ 1'-0" MAX. = 8'-6"

SET "H" = 6-1P801 SPA. @ 1'-0" MAX. = 4'-3"

SET "J" = 15-1P801 SPA. @ 1'-0" MAX. = 12'-0"

NOTES:

1. SEE SHEET 23 OF 63 FOR TYPICAL END ELEVATION.
2. SEE SHEET 14 OF 63 FOR FOUNDATION PLANS.
3. BEARING SOLE PLATE THICKNESS WILL VARY TO MEET BEAM SEAT ELEVATION.

FOR INFORMATION ONLY - NOT FOR REVIEW

PIER PLAN & ELEVATION (1 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER	CHECKER
ABP	TJN

REVIEWER JRS 06-04-22
PROJECT ID 82382
SUBSET 19 TOTAL 63
SHEET 1911 TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:51:41 AM USER: Maia.Gallagher
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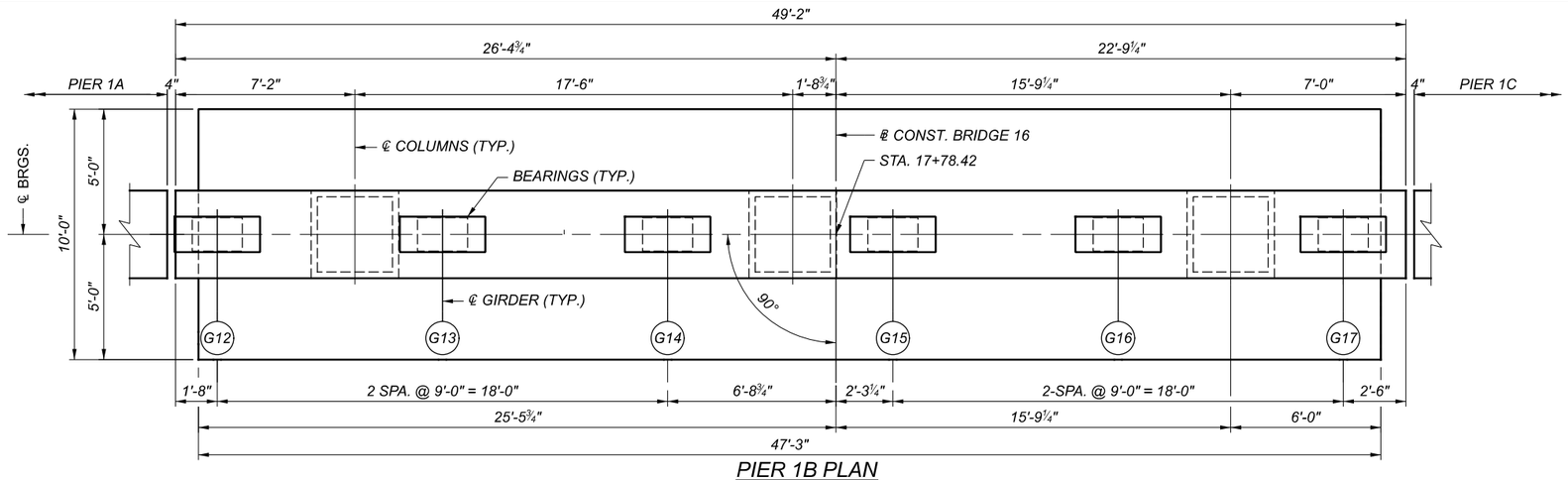
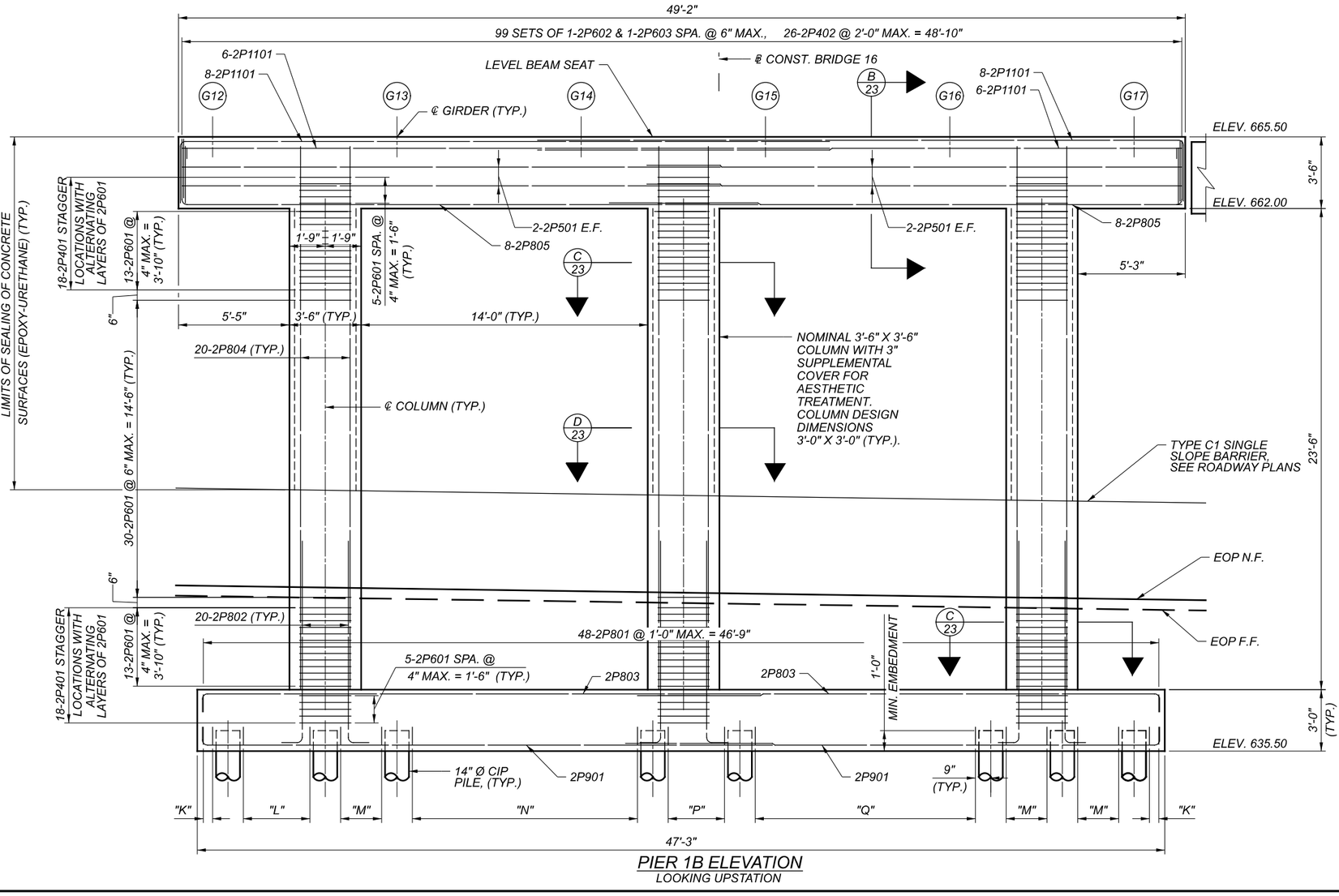


PIER 1B PLAN



PIER 1B ELEVATION
LOOKING UPSTATION

MIN. SPLICE LENGTHS	
BAR	LENGTH
5	3'-7"
6 HORIZ.	4'-4"
6 VERT.	3'-10"
8	7'-3"
10	11'-7"
11	14'-3"

PIER FOOTING REBAR SETS:

SET "K" = 2-2P801 = 7"

SET "L" = 5-2P801 SPA. @ 1'-0" MAX. = 3'-3"

SET "M" = 4-2P801 SPA. @ 1'-0" MAX. = 2'-0"

SET "N" = 13-2P801 SPA. @ 1'-0" MAX. = 11'-0"

SET "P" = 4-2P801 SPA. @ 1'-0" MAX. = 2'-9"

SET "Q" = 12-2P801 SPA. @ 1'-0" MAX. = 10'-9"

NOTES:

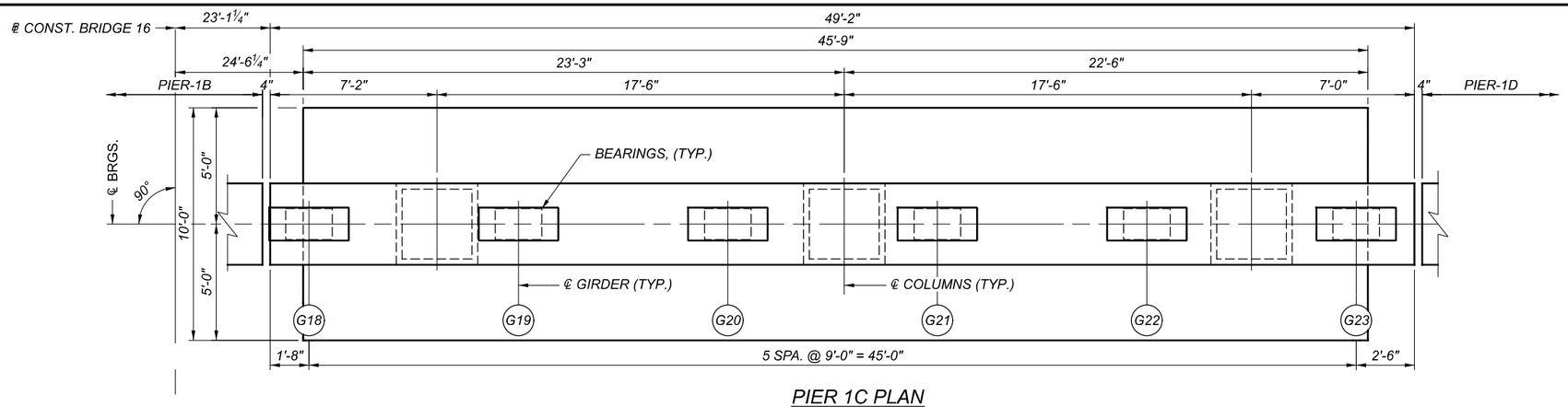
1. SEE SHEET 23 OF 63 FOR TYPICAL END ELEVATION.
2. SEE SHEET 14 OF 63 FOR FOUNDATION PLANS.
3. BEARING SOLE PLATE THICKNESS WILL VARY TO MEET BEAM SEAT ELEVATION.

FOR INFORMATION ONLY - NOT FOR REVIEW

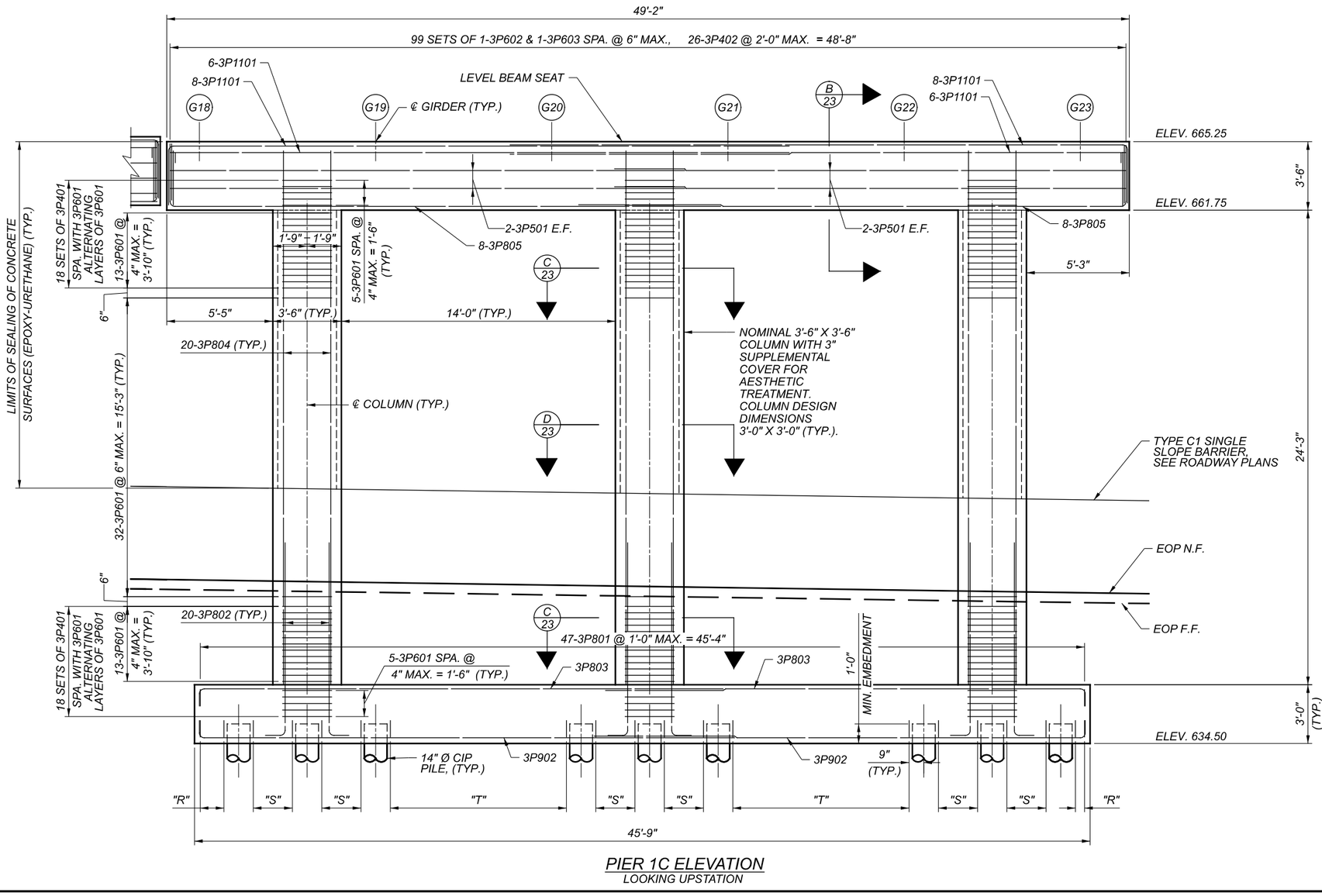
PIER PLAN & ELEVATION (2 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY Michael Baker INTERNATIONAL
DESIGNER ABP | CHECKER TJN
REVIEWER JRS 06-04-22
PROJECT ID 82382
SUBSET 20 | TOTAL 63
SHEET 1912 | TOTAL 2339

CUY-90-16.28



PIER 1C PLAN



PIER 1C ELEVATION
LOOKING UPSTATION

MIN. SPLICE LENGTHS	
BAR	LENGTH
5	3'-7"
6 HORIZ.	4'-4"
6 VERT.	3'-10"
8	7'-3"
10	11'-7"
11	14'-3"

PIER FOOTING REBAR SETS:

SET "R" = 3-3P801 = 7"

SET "S" = 4-3P801 SPA. @ 1'-0" MAX. = 2'-0"

SET "T" = 11-3P801 SPA. @ 1'-0" MAX. = 9'-0"

NOTES:

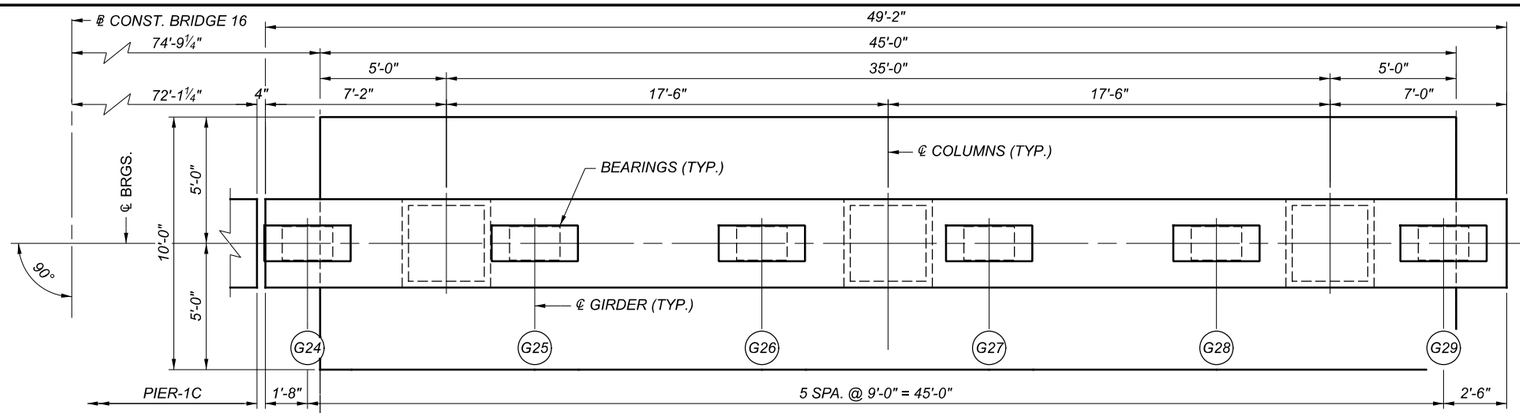
1. SEE SHEET 23 OF 63 FOR TYPICAL END ELEVATION.
2. SEE SHEET 14 OF 63 FOR FOUNDATION PLANS.
3. BEARING SOLE PLATE THICKNESS WILL VARY TO MEET BEAM SEAT ELEVATION.

FOR INFORMATION ONLY - NOT FOR REVIEW

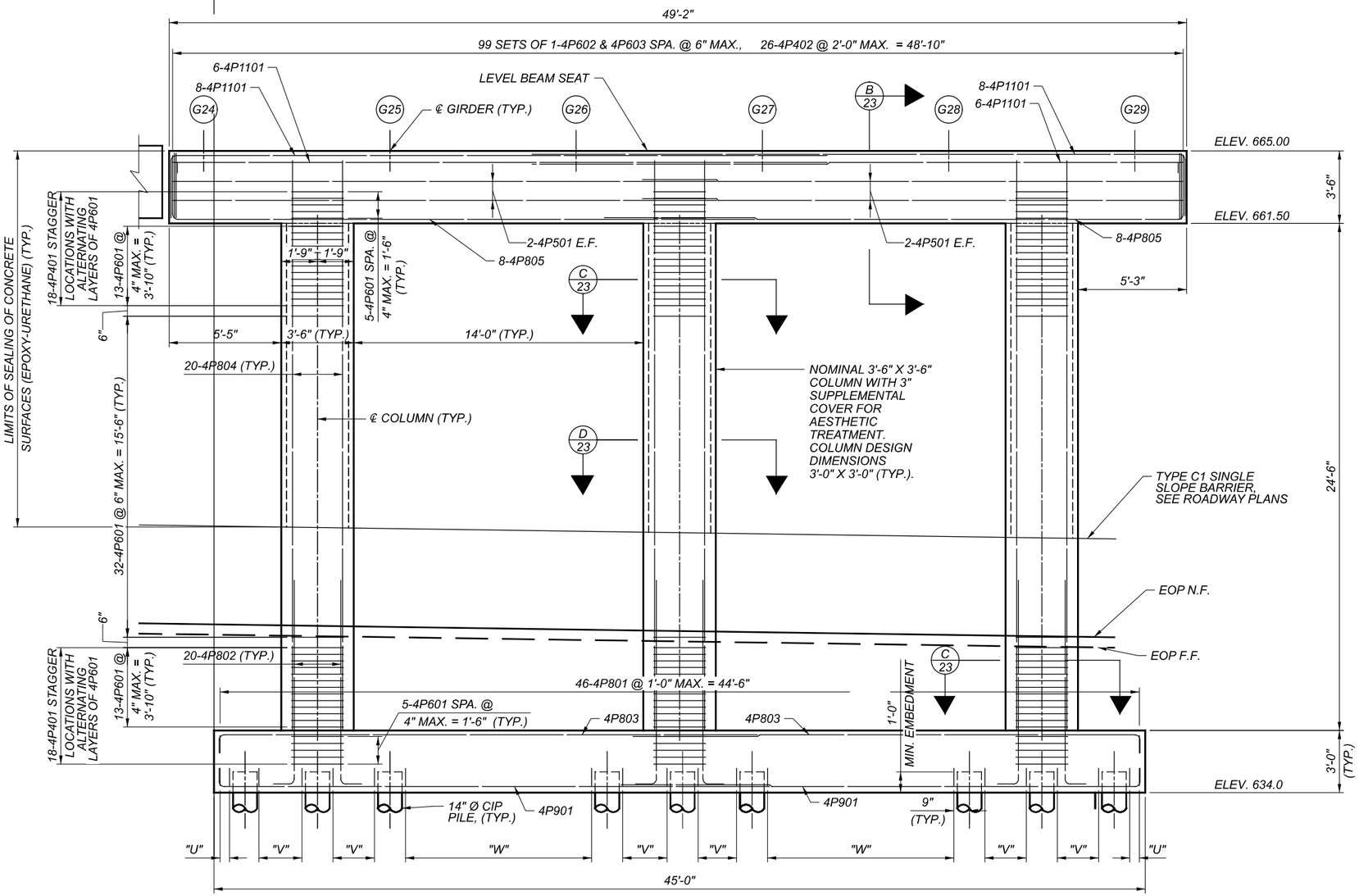
PIER PLAN & ELEVATION (3 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	ABP
CHECKER	TJN
REVIEWER	JRS 06-04-22
PROJECT ID	82382
SUBSET	21
TOTAL	63
SHEET	1913
TOTAL	2339

CUY-90-16.28



PIER 1D PLAN



PIER 1D ELEVATION

LOOKING UPSTATION

MIN. SPLICE LENGTHS	
BAR	LENGTH
5	3'-7"
6 HORIZ.	4'-4"
6 VERT.	3'-10"
8	7'-3"
10	11'-7"
11	14'-3"

PIER FOOTING REBAR SETS:

SET "U" = 2-4P801 = 7"

SET "V" = 4-4P801 SPA. @ 1'-0" MAX. = 2'-0"

SET "W" = 11-4P801 SPA. @ 1'-0" MAX. = 9'-0"

NOTES:

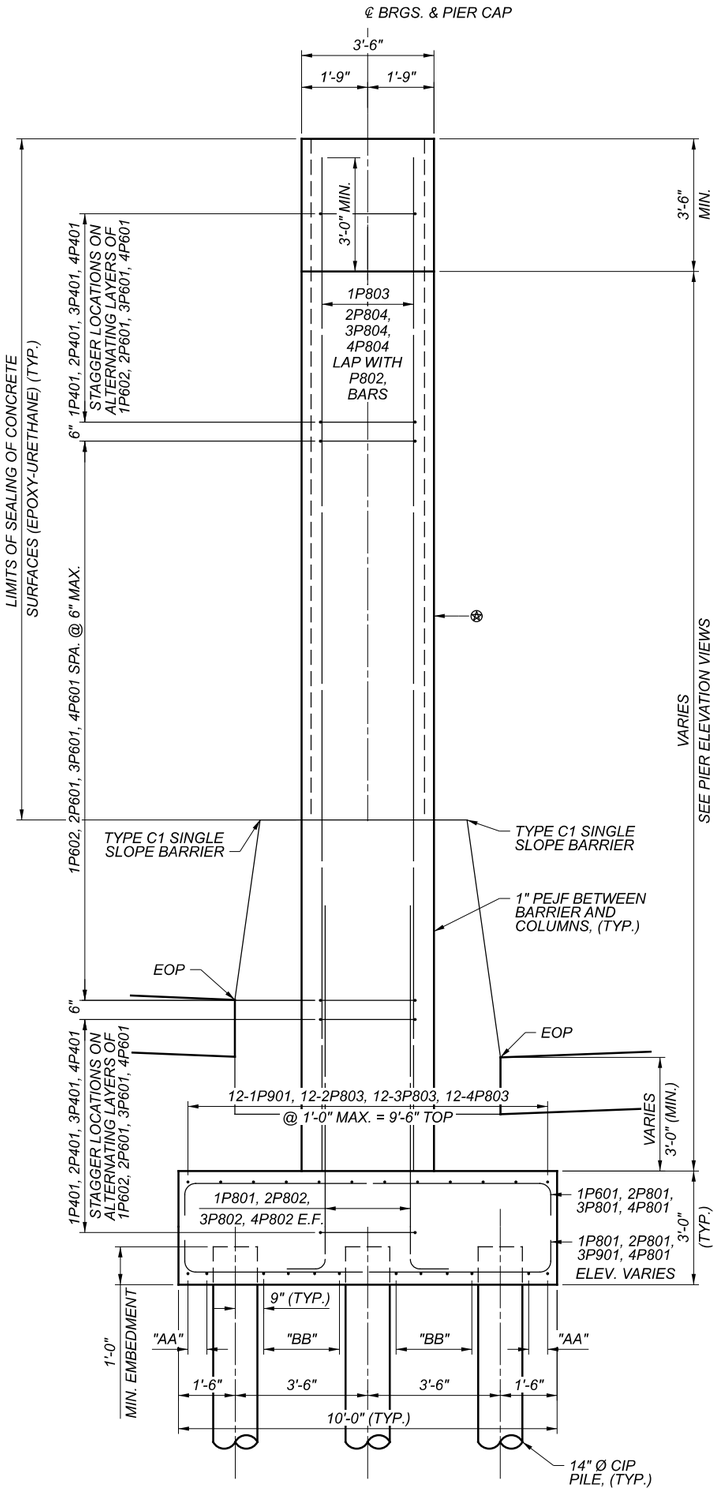
1. *SEE SHEET 23 OF 63 FOR TYPICAL END ELEVATION.*
2. *SEE SHEET 14 OF 63 FOR FOUNDATION PLANS.*
3. *BEARING SOLE PLATE THICKNESS WILL VARY TO MEET BEAM SEAT ELEVATION.*

FOR INFORMATION ONLY - NOT FOR REVIEW

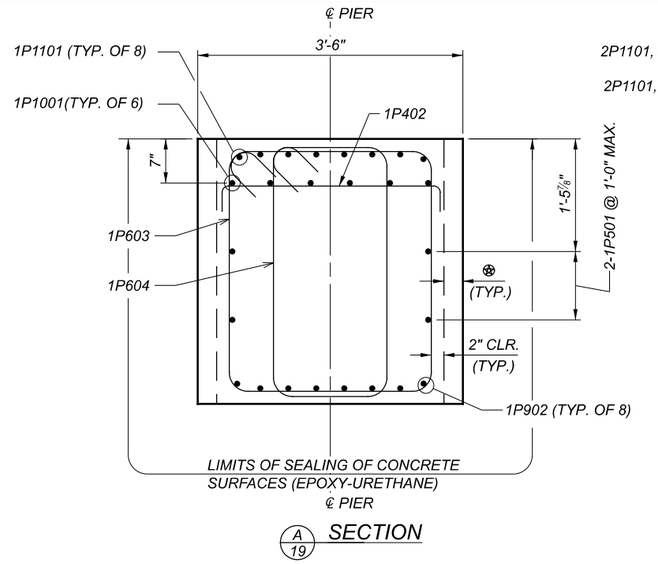
PIER PLAN & ELEVATION (4 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	ABP
CHECKER	TJN
REVIEWER	JRS 06-04-22
PROJECT ID	82382
SUBSET	22
TOTAL	63
SHEET	1914
TOTAL	2339

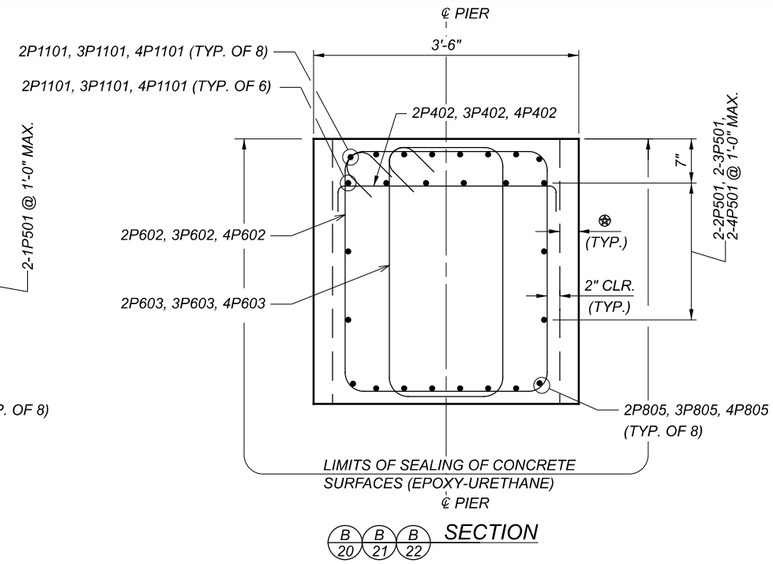
CUY-90-16.28



PIER END ELEVATION



A 19 SECTION



B 20 B 21 B 22 SECTION

C 19 C 20 C 21 C 22 SECTION

D 19 D 20 D 21 D 22 SECTION

PIER FOOTING REBAR SETS:

SET "AA" = 2-1P901 OR 2-2P901 OR 2-3P902 OR 2-4P901 = 7"

SET "BB" = 4-1P901 OR 4-2P901 OR 5-3P902 OR 5-4P901 SPA. @ 1'-0" MAX. = 2'-0"

LEGEND

℗ NOMINAL 3'-6" X 3'-6"' COLUMN WITH 3" SUPPLEMENTAL COVER FOR AESTHETIC TREATMENT. COLUMN DESIGN DIMENSIONS 3'-0" X 3'-0" (TYP.).

NOTES:

1. SEE SHEET 22 FOR ADDITIONAL NOTES.

FOR INFORMATION ONLY - NOT FOR REVIEW

PIER SECTIONS & DETAILS
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	ABP
CHECKER	TJN
REVIEWER	JRS 06-04-22
PROJECT ID	82382
SUBSET	23
TOTAL	63
SHEET	1915
TOTAL	2339

CUY-90-16.28

MODEL: Sheet 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:52:29 AM USER: Maia.Gallagher
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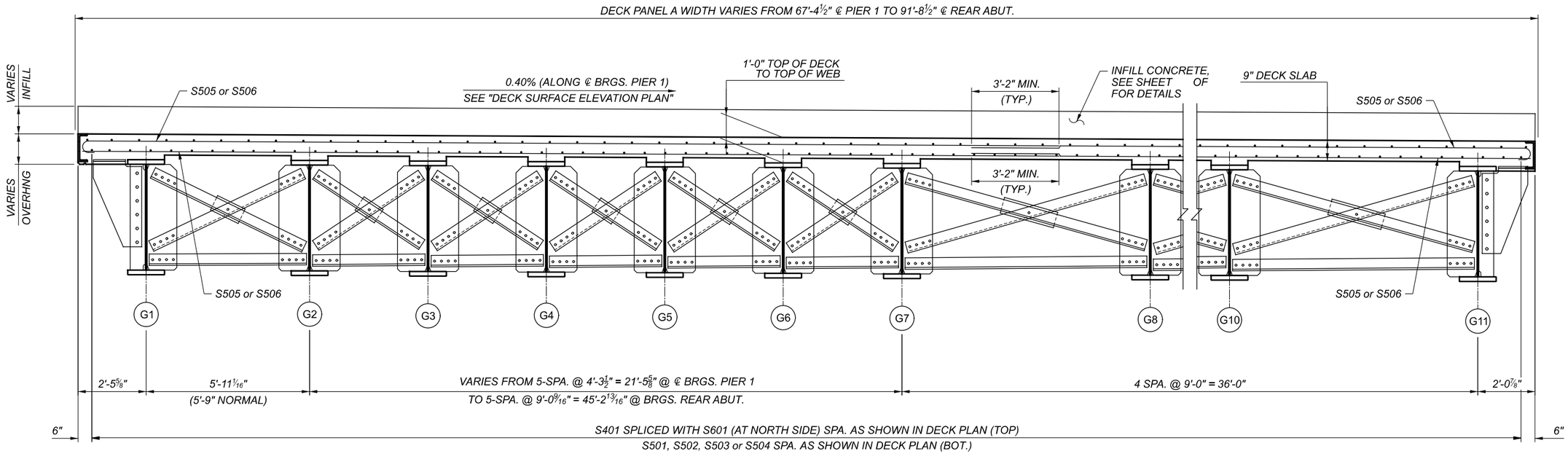

SECTION A-A
DECK PANEL A (TRANSVERSE)

NOTES:

1. FOR DECK PLANS, SEE SHEETS 38/63 - 40/63.
2. FOR RAILING DETAILS, SEE SHEETS 51/63 - 52/63.
3. FOR FENCE DETAILS, SEE SHEET 57/63 - 58/63.
4. FOR FRAMING PLANS, SEE SHEET 58/63.
5. REINFORCING MAY BE FIELD-BENT OR SHOP-BENT TO CONFORM TO DECK CROSS SLOPES. PAYMENT SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL.
6. FOR GIRDER CAMBER DEFLECTION TABLES, SEE SHEET31/63.
7. FOR SIDEWALK DETAILS, SEE SHEETS 43/63 - 44/63.
8. ADJUST DECK REINFORCING TO CLEAR DECK SCUPPERS AND SHEAR STUDS. MAINTAIN A MINIMUM OF 2" CLEAR TO DECK OBSTRUCTIONS.
9. HAUNCH THICKNESSES ARE MEASURED AT THE GIRDER CENTERLINES, FROM THE DECK SOFFIT TO TOP OF GIRDER WEB (THICKNESS INCLUDES THE VARIABLE TOP FLANGE THICKNESSES.
10. FOR ADDITIONAL DECK PLACEMENT NOTES, SEE GENERAL NOTES AND DECK PLANS.
11. INTERMEDIATE CROSSFRAME MEMBERS VARY BY GIRDER BAY. SEE CROSSFRAME AND UTILITY SUPPORT DETAILS ON SHEETS 33/63 - 34/63.

FOR INFORMATION ONLY - NOT FOR REVIEW

TRANSVERSE SECTION (1 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 24 | TOTAL 63
SHEET 1916 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:52:36 AM USER: Maia.Gallagher
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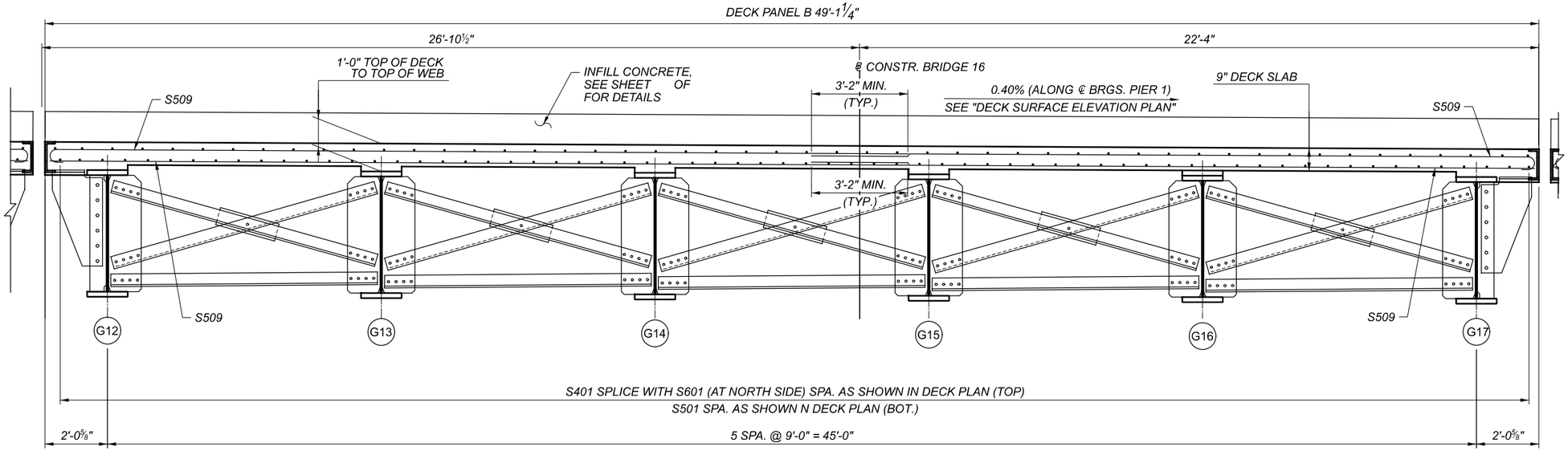

SECTION B-B
DECK PANEL B (TRANSVERSE)

NOTES:

1. FOR DECK PLANS, SEE SHEETS 38/63 - 40/63.
2. FOR RAILING DETAILS, SEE SHEETS 51/63 - 52/63.
3. FOR FENCE DETAILS, SEE SHEET 57/63 - 58/63.
4. FOR FRAMING PLANS, SEE SHEET 58/63.
5. REINFORCING MAY BE FIELD-BENT OR SHOP-BENT TO CONFORM TO DECK CROSS SLOPES. PAYMENT SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL.
6. FOR GIRDER CAMBER DEFLECTION TABLES, SEE SHEET31/63.
7. FOR SIDEWALK DETAILS, SEE SHEETS 43/63 - 44/63.
8. ADJUST DECK REINFORCING TO CLEAR DECK SCUPPERS AND SHEAR STUDS. MAINTAIN A MINIMUM OF 2" CLEAR TO DECK OBSTRUCTIONS.
9. HAUNCH THICKNESSES ARE MEASURED AT THE GIRDER CENTERLINES, FROM THE DECK SOFFIT TO TOP OF GIRDER WEB (THICKNESS INCLUDES THE VARIABLE TOP FLANGE THICKNESSES.
10. FOR ADDITIONAL DECK PLACEMENT NOTES, SEE GENERAL NOTES AND DECK PLANS.
11. INTERMEDIATE CROSSFRAME MEMBERS VARY BY GIRDER BAY. SEE CROSSFRAME AND UTILITY SUPPORT DETAILS ON SHEETS 33/63 - 34/63.

FOR INFORMATION ONLY - NOT FOR REVIEW

TRANSVERSE SECTION (2 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 25 | TOTAL 63
SHEET 1917 | TOTAL 2339

CUY-90-16.28 (CCG3A)

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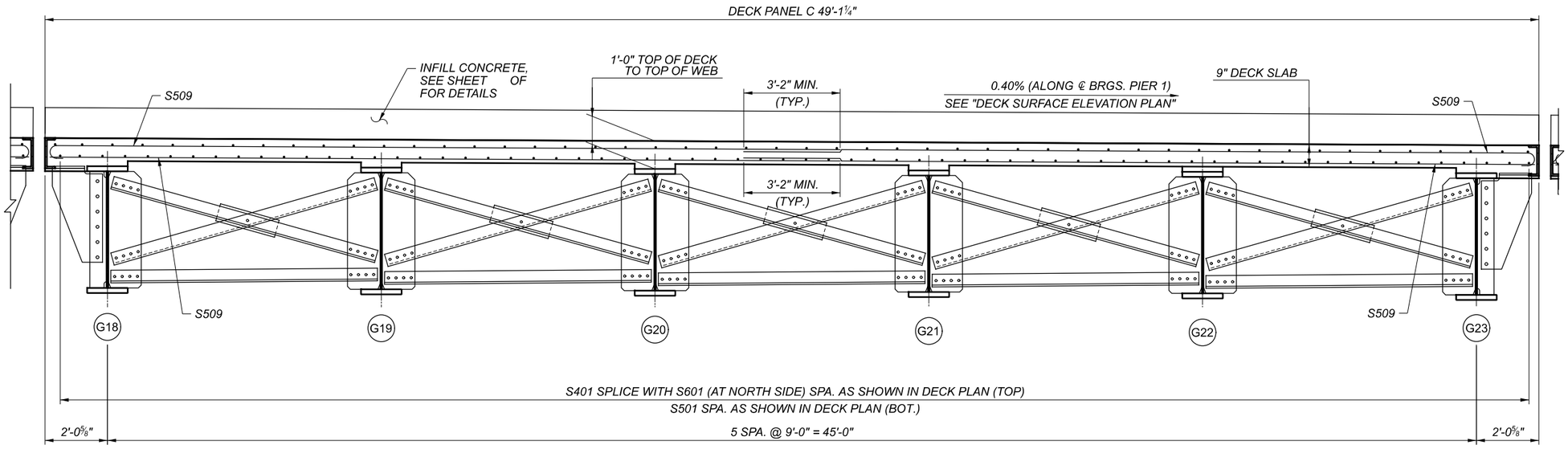

SECTION C-C
DECK PANEL C (TRANSVERSE)

NOTES:

1. FOR DECK PLANS, SEE SHEETS 38/63 - 40/63.
2. FOR RAILING DETAILS, SEE SHEETS 51/63 - 52/63.
3. FOR FENCE DETAILS, SEE SHEET 57/63 - 58/63.
4. FOR FRAMING PLANS, SEE SHEET 58/63.
5. REINFORCING MAY BE FIELD-BENT OR SHOP-BENT TO CONFORM TO DECK CROSS SLOPES. PAYMENT SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL.
6. FOR GIRDER CAMBER DEFLECTION TABLES, SEE SHEET31/63.
7. FOR SIDEWALK DETAILS, SEE SHEETS 43/63 - 44/63.
8. ADJUST DECK REINFORCING TO CLEAR DECK SCUPPERS AND SHEAR STUDS. MAINTAIN A MINIMUM OF 2" CLEAR TO DECK OBSTRUCTIONS.
9. HAUNCH THICKNESSES ARE MEASURED AT THE GIRDER CENTERLINES, FROM THE DECK SOFFIT TO TOP OF GIRDER WEB (THICKNESS INCLUDES THE VARIABLE TOP FLANGE THICKNESSES.
10. FOR ADDITIONAL DECK PLACEMENT NOTES, SEE GENERAL NOTES AND DECK PLANS.
11. INTERMEDIATE CROSSFRAME MEMBERS VARY BY GIRDER BAY. SEE CROSSFRAME AND UTILITY SUPPORT DETAILS ON SHEETS 33/63 - 34/63.

FOR INFORMATION ONLY - NOT FOR REVIEW

TRANSVERSE SECTION (3 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	26
TOTAL	63
SHEET	1918
TOTAL	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:52:49 AM USER: Mala.Gallagher
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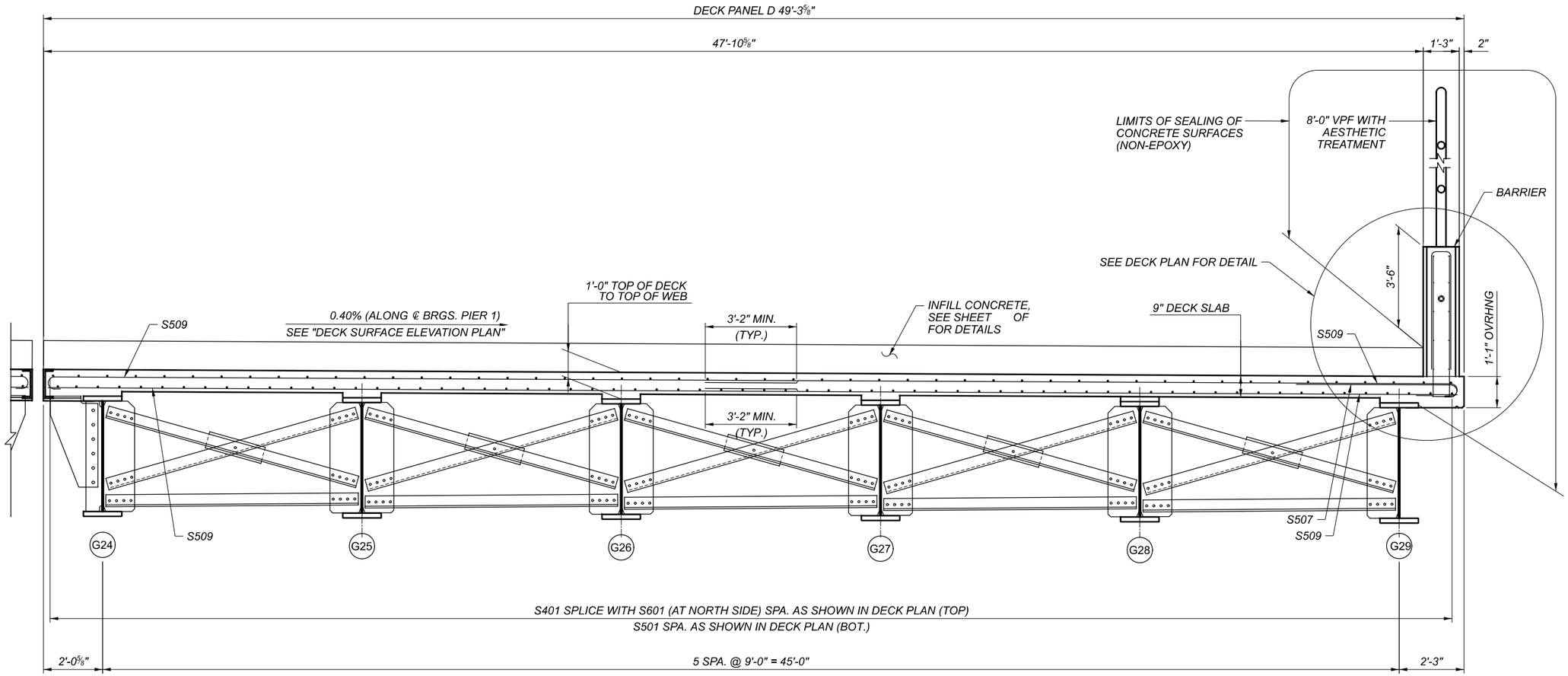


SECTION D-D
DECK PANEL D (TRANSVERSE)

NOTES:

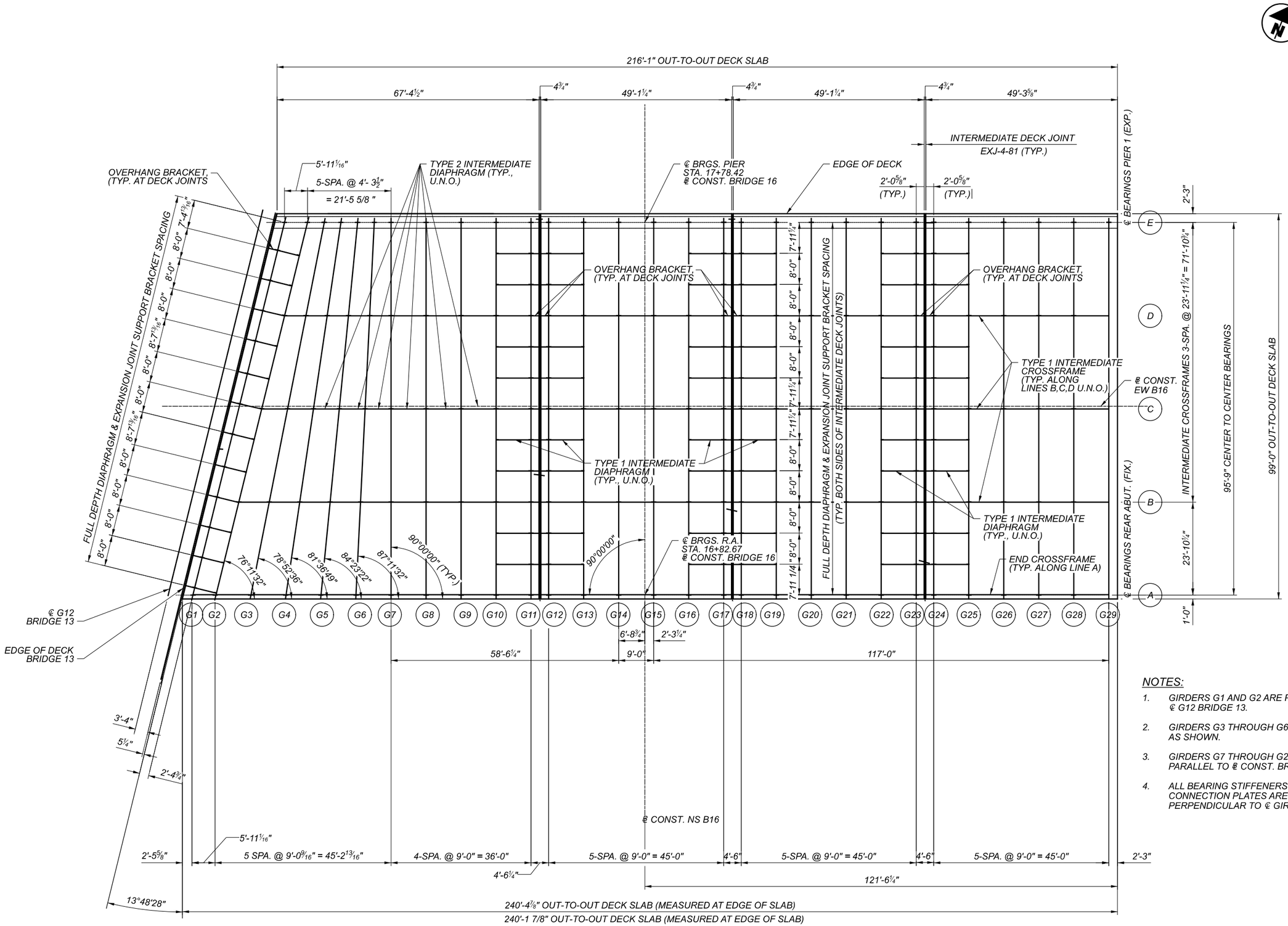
1. FOR DECK PLANS, SEE SHEETS 38/63 - 40/63.
2. FOR RAILING DETAILS, SEE SHEETS 51/63 - 52/63.
3. FOR FENCE DETAILS, SEE SHEET 57/63 - 58/63.
4. FOR FRAMING PLANS, SEE SHEET 58/63.
5. REINFORCING MAY BE FIELD-BENT OR SHOP-BENT TO CONFORM TO DECK CROSS SLOPES. PAYMENT SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL.
6. FOR GIRDER CAMBER DEFLECTION TABLES, SEE SHEET31/63.
7. FOR SIDEWALK DETAILS, SEE SHEETS 43/63 - 44/63.
8. ADJUST DECK REINFORCING TO CLEAR DECK SCUPPERS AND SHEAR STUDS. MAINTAIN A MINIMUM OF 2" CLEAR TO DECK OBSTRUCTIONS.
9. HAUNCH THICKNESSES ARE MEASURED AT THE GIRDER CENTERLINES, FROM THE DECK SOFFIT TO TOP OF GIRDER WEB (THICKNESS INCLUDES THE VARIABLE TOP FLANGE THICKNESSES.
10. FOR ADDITIONAL DECK PLACEMENT NOTES, SEE GENERAL NOTES AND DECK PLANS.
11. INTERMEDIATE CROSSFRAME MEMBERS VARY BY GIRDER BAY. SEE CROSSFRAME AND UTILITY SUPPORT DETAILS ON SHEETS 33/63 - 34/63.

FOR INFORMATION ONLY - NOT FOR REVIEW

TRANSVERSE SECTION (4 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	27
TOTAL	63
SHEET	1919
TOTAL	2339

CUY-90-16.28 (CCG3A)



NOTES:

1. GIRDERS G1 AND G2 ARE PARALLEL TO ℄ G12 BRIDGE 13.
2. GIRDERS G3 THROUGH G6 ARE SPLAYED AS SHOWN.
3. GIRDERS G7 THROUGH G29 ARE PARALLEL TO ℄ CONST. BRIDGE 16.
4. ALL BEARING STIFFENERS AND CONNECTION PLATES ARE PERPENDICULAR TO ℄ GIRDERS.

FOR INFORMATION ONLY - NOT FOR REVIEW

FRAMING PLAN
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:53:10 AM USER: Mata,Gallagher
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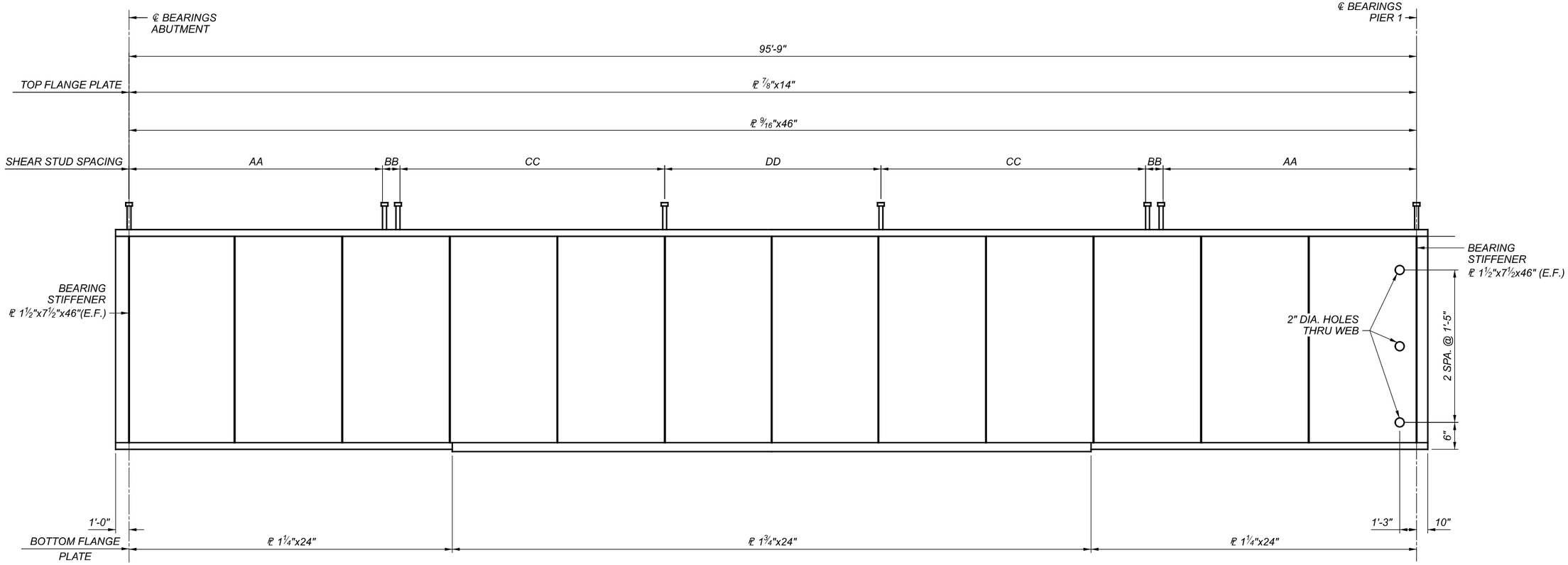
SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	28
TOTAL	63
SHEET	1920
TOTAL	2339



GIRDER DATA TABLE								
GIRDER	SPAN	A	B	C	AA	BB	CC	DD
G1	98'-7 1/4"	26'-6 5/8"	45'-6"	26'-6 5/8"	19 SPA @ 1'-0"	1 SPA @ 1'-1 1/8"	17 SPA @ 1'-2"	15 SPA @ 1'-3"
G2	98'-7 1/4"	26'-6 5/8"	45'-6"	26'-6 5/8"	19 SPA @ 1'-0"	1 SPA @ 1'-1 1/8"	17 SPA @ 1'-2"	15 SPA @ 1'-3"
G3	97'-7"	26'-0 1/2"	45'-6"	26'-0 1/2"	19 SPA @ 1'-0"	1 SPA @ 7"	17 SPA @ 1'-2"	15 SPA @ 1'-3"
G4	96'-9 3/8"	25'-7 11/16"	45'-6"	25'-7 11/16"	19 SPA @ 1'-0"	1 SPA @ 9 11/16"	17 SPA @ 1'-2"	14 SPA @ 1'-3"
G5	96'-2 1/2"	25'-4 1/4"	45'-6"	25'-4 1/4"	19 SPA @ 1'-0"	1 SPA @ 1'-1 3/4"	17 SPA @ 1'-2"	13 SPA @ 1'-3"
G6	95'-10 3/8"	25'-2 3/16"	45'-6"	25'-2 3/16"	19 SPA @ 1'-0"	1 SPA @ 11 11/16"	17 SPA @ 1'-2"	13 SPA @ 1'-3"
G7 - G29	95'-9"	25'-1 1/2"	45'-6"	25'-1 1/2"	19 SPA @ 1'-0"	1 SPA @ 11"	17 SPA @ 1'-2"	13 SPA @ 1'-3"

NOTES:

1. WORK THIS SHEET WITH SHEET XX.
2. ALL GIRDER MATERIAL SHALL CONFORM TO ASTM A709 GRADE 50, UNLESS NOTED OTHERWISE.
3. CROSSFRAME CONNECTION PLATES NOT SHOWN FOR CLARITY. SEE FRAMING PLAN FOR CROSSFRAME LOCATIONS.
4. GIRDER INSPECTION HARDWARE NOT SHOWN FOR CLARITY. SEE SHEET XX FOR MISCELLANEOUS GIRDER DETAILS.
5. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
6. FOR FRAMING PLAN, SEE SHEET XX.
7. FOR DEFLECTION AND CAMBER TABLES, SEE SHEET XX-XX.
8. FOR FIELD SPLICE DETAILS, SEE SHEETS XX-XX.
9. FOR STIFFENER DETAILS, SEE SHEETXX.
10. DO NOT WELD ATTACHMENTS TO GIRDER FLANGES MARKED "TENSION". FILLET WELDS ON COMPRESSION FLANGES SHALL BE AT LEAST 1 INCH FROM THE EDGE OF THE FLANGE,BE NO MORE THAN 2 INCHES LONG AND BE A MINIMUM OF ¼ INCH FOR FLANGES UP TO ¾ INCH THICK AND A MINIMUM OF 5/16 INCH FOR FLANGES GREATER THAN ¾ INCH THICK.

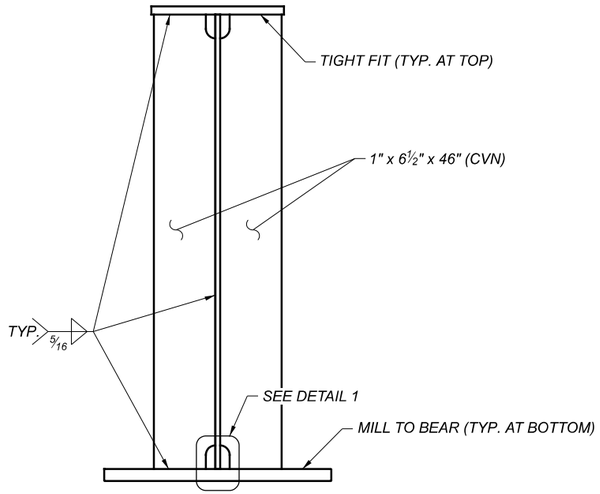
FOR INFORMATION ONLY - NOT FOR REVIEW

GIRDER ELEVATION
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

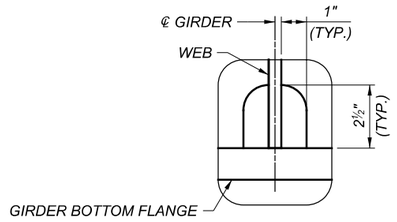
SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 29 | TOTAL 63
SHEET 1921 | TOTAL 2339

CUY-90-16.28 (CCG3A)

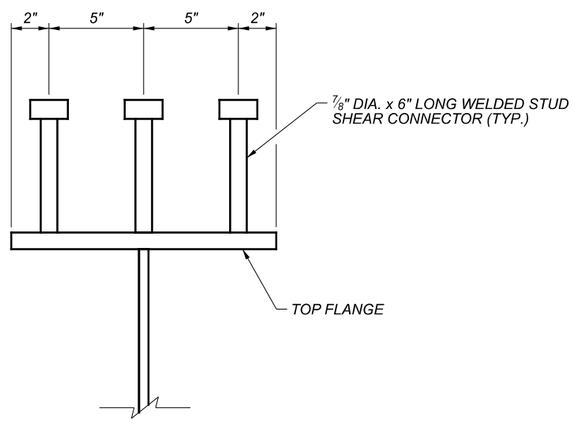
MODEL: girder elevation 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:53:27 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SS002.dgn



BEARING STIFFENER DETAIL



DETAIL 1



SHEAR CONNECTOR DETAIL

NOTES:

1. FOR GIRDER ELEVATIONS, SEE SHEETS XX & XX.
2. FOR CROSSFRAME AND UTILITY SUPPORT DETAILS, SEE SHEETS XX-XX.
3. STIFFENER MATERIAL SHALL CONFORM TO ASTM A709 GRADE 50.
4. BAR AND PLATE MATERIAL FOR INSPECTION HARDWARE SHALL CONFORM TO ASTM A709 GRADE 50.
5. WIRE ROPE FOR INSPECTION SAFETY CABLES SHALL BE IMPROVED PLOW STEEL (IPS), 6 X 19 CONSTRUCTION, INDEPENDENT WIRE ROPE CORE (IWRC) WIRE ROPE, GALVANIZED. PROVIDE WIRE ROPE HARDWARE, INCLUDING TERMINATIONS, SPLICES, WIRE ROPE SLEEVES, WIRE ROPE CLIPS, ETC., CAPABLE OF DEVELOPING THE BREAKING LOAD OF THE INSPECTION SAFETY CABLE.
6. PROVIDE WIRE ROPE SUPPORTS AT A MAXIMUM OF 6'-3" CENTERS ALONG EACH GIRDER.

FOR INFORMATION ONLY - NOT FOR REVIEW

GIRDER DETAILS
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	30
TOTAL	63
SHEET	1922
TOTAL	2339

CUY-90-16.28 (CCG3A)
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:53:34 AM USER: Maia.Gallagher
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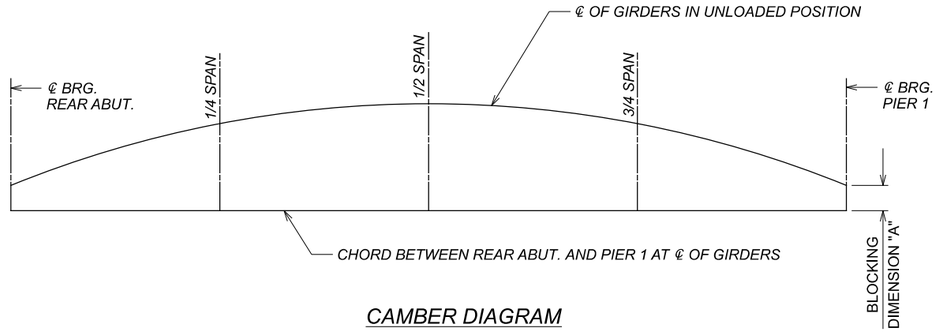

CAMBER DIAGRAM

DEFLECTION & CAMBER TABLE - G1, G11, G12, G17, G18, G23, G24					
DEFLECTION COMPONENT	CL BRG. R.A.	CL BRG. R.A.	1/2 SPAN	1/2 SPAN	CL BRG. PIER 1
STEEL DEAD LOAD ONLY	0	0	13/16	13/16	0
SLAB AND HAUNCH DEAD LOA	0	0	2 1/4	2 1/4	0
COMPOSITE DEAD LOAD	0	0	15/16	15/16	0
GEOMETRIC CORRECTION	0	0	0	0	0
TOTAL CAMBER	0	0	4	4	0

DEFLECTION & CAMBER TABLE - G2 - G7					
DEFLECTION COMPONENT	CL BRG. R.A.	CL BRG. R.A.	1/2 SPAN	1/2 SPAN	CL BRG. PIER 1
STEEL DEAD LOAD ONLY	0	0	3/4	3/4	0
SLAB AND HAUNCH DEAD LOA	0	0	2 1/16	2 1/16	0
COMPOSITE DEAD LOAD	0	0	15/16	15/16	0
GEOMETRIC CORRECTION	0	0	0	0	0
TOTAL CAMBER	0	0	3 3/4	3 3/4	0

DEFLECTION & CAMBER TABLE - G8-10, G13-G16, G19-G22, G25-G29					
DEFLECTION COMPONENT	CL BRG. R.A.	CL BRG. R.A.	1/2 SPAN	1/2 SPAN	CL BRG. PIER 1
STEEL DEAD LOAD ONLY	0	0	3/4	3/4	0
SLAB AND HAUNCH DEAD LOA	0	0	2 7/16	2 7/16	0
COMPOSITE DEAD LOAD	0	0	1 1/8	1 1/8	0
GEOMETRIC CORRECTION	0	0	0	0	0
TOTAL CAMBER	0	0	4 5/16	4 5/16	0

BLOCKING DIMENSIONS															
GIRDER	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15
DIMENSION "A"	1/16	1/8	1/4	3/8	1/2	5/8	3/4	13/16	15/16	1	1 1/8	1 1/8	1 1/4	15/16	13/8

BLOCKING DIMENSIONS														
GIRDER	G16	G17	G18	G19	G20	G21	G22	G23	G24	G25	G26	G27	G28	G29
DIMENSION "A"	17/16	1 1/2	19/16	19/16	15/8	15/8	19/16	19/16	1 1/2	17/16	13/8	15/16	13/16	1 1/8

NOTES:

1. BLOCKING DIMENSION "A" IS MEASURED FROM THE BOTTOM OF BOTTOM FLANGE AT EACH SUPPORT.
2. POSITIVE VALUES INDICATE DOWNWARD DEFLECTION AND UPWARD CAMBER.

FOR INFORMATION ONLY - NOT FOR REVIEW

DEFLECTION AND CAMBER TABLE (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 31 | TOTAL 63
SHEET 1923 | TOTAL 2339

CUY-90-16.28 (CCG3A)

SHEET NOT USED

FOR INFORMATION ONLY - NOT FOR REVIEW

DEFLECTION AND CAMBER TABLE (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER	CHECKER
—	—

REVIEWER
—

PROJECT ID 82382

SUBSET	TOTAL
32	63

SHEET	TOTAL
1924	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:53:46 AM USER: Mala.Gallagher
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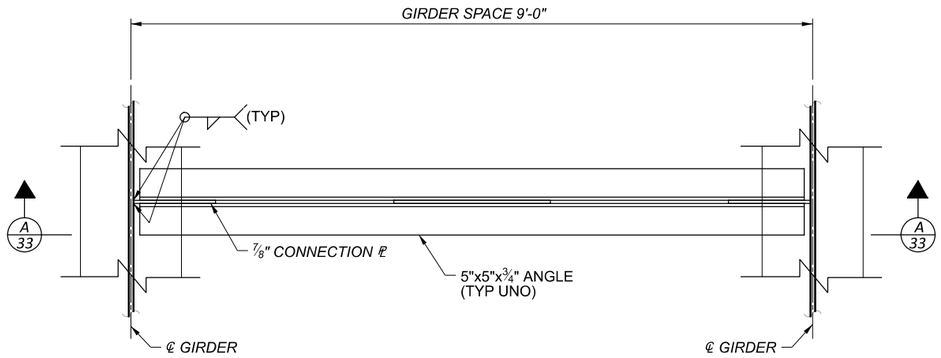
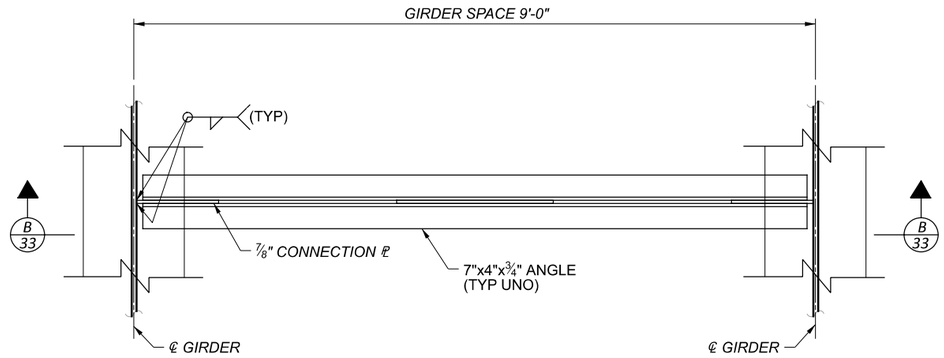
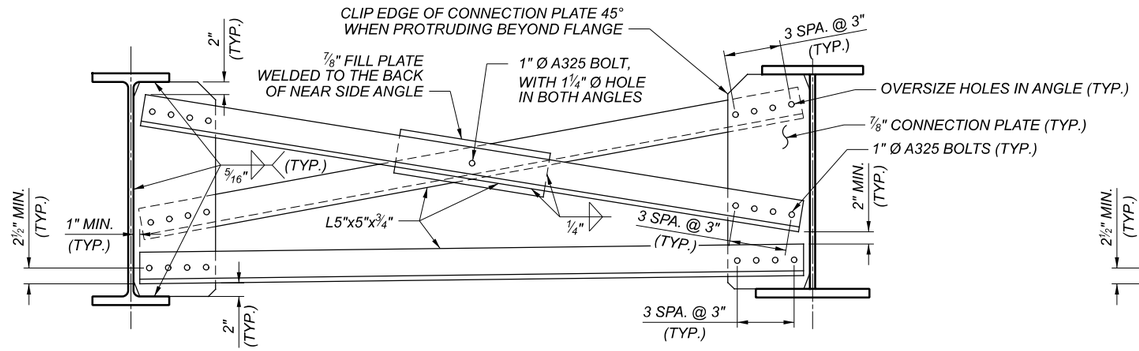


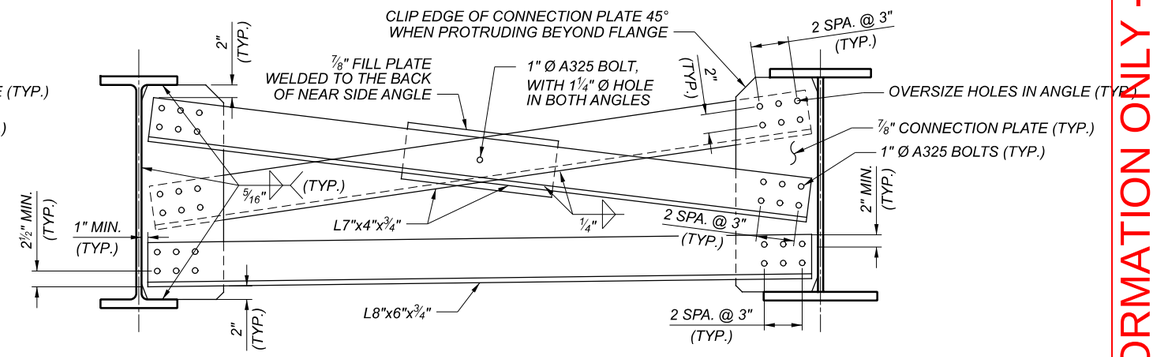
TYPE 1 INTERMEDIATE CROSSFRAME



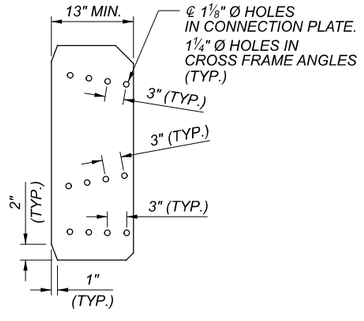
TYPE 2 INTERMEDIATE CROSSFRAME



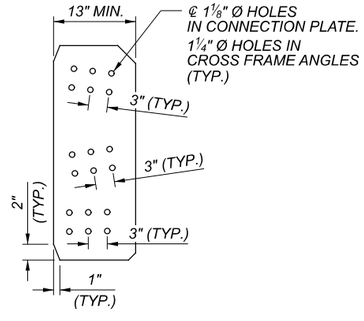
SECTION A-A



SECTION B-B



TYPE 1 CROSSFRAME CONNECTION PLATE



TYPE 2 CROSSFRAME CONNECTION PLATE

INTERMEDIATE CROSSFRAME NOTES

GENERAL:

THE FABRICATOR SHALL CHECK LONGITUDINAL CROSSFRAME SPACING SO THAT INTERFERENCE WITH BOLTED SPLICES, ANCHOR BOLTS, COMPLETE PENETRATION WEB OR FLANGE WELDED SPLICES AND BEARING STIFFENERS IS AVOIDED. SPACING SHALL BE ADJUSTED TO PROVIDE AT LEAST SIX (6) INCHES OF LONGITUDINAL CLEARANCE.

THE THICKNESS OF THE 7/8" TYPE 1 CONNECTION PLATES SHALL BE INCREASED TO 1" IF THE FABRICATOR DETERMINES THE WIDTH OF THE TYPE 1 CONNECTION PLATE EXCEEDS 14" TO ACCOMMODATE THE GEOMETRY OF THE CONNECTION.

WHERE A PLATE OR SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.

INSTALL STIFFENERS ACCORDING TO CMS 513.13.

MATERIAL:

ALL INTERMEDIATE CROSSFRAME MATERIAL SHALL BE A709 GRADE 50.

FASTENERS:

ALL BOLTS SHALL BE 1"Ø ASTM F3125, GRADE A325, WITH THREADS EXCLUDED FROM THE SHEAR PLANE.

TYPE 1 BOLTS SHALL BE USED. EACH ANCHOR ASSEMBLY SHALL INCLUDE A BOLT, NUT AND TWO (2) WASHERS, TIGHTENED ACCORDING TO CMS 513 PRIOR TO DECK PLACEMENT.

MINIMUM EDGE DISTANCES FOR BOLTS SHALL BE 1½".

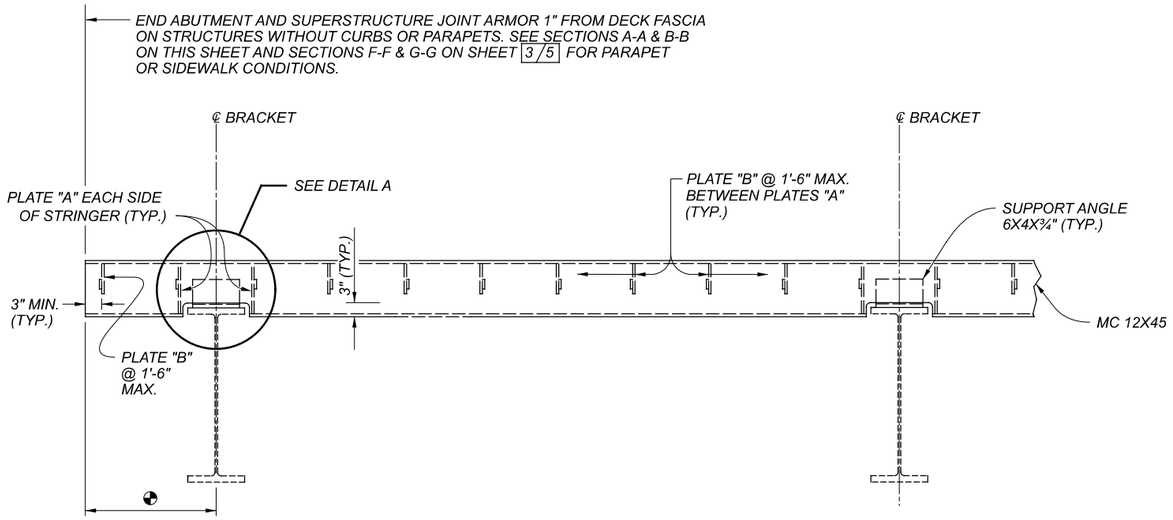
ALL FAYING SURFACES FOR BOLTED CONNECTIONS SHALL BE CLASS B.

FOR INFORMATION ONLY - NOT FOR REVIEW

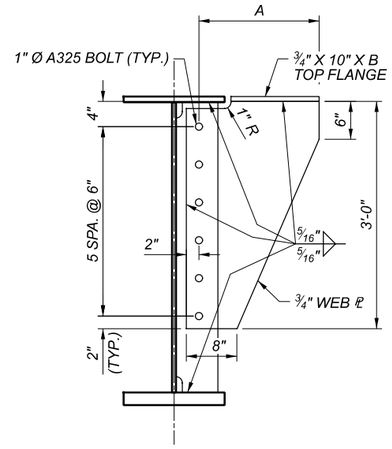
CROSS FRAME DETAILS (1 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	33
TOTAL	63
SHEET	1925
TOTAL	2339

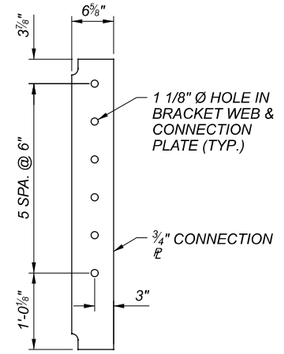
CUY-90-16.28 (CCG3A)



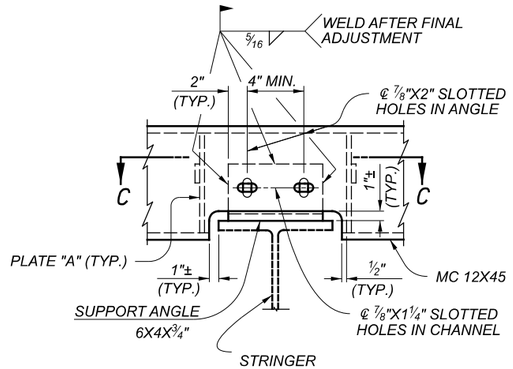
PART TRANSVERSE SECTION



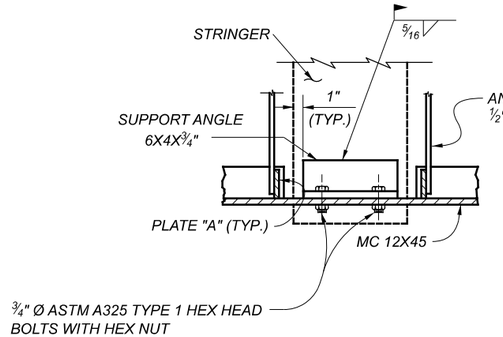
OVERHANG BRACKET DETAIL



CONNECTION PLATE DETAIL



DETAIL A



SECTION C-C

BRACKET DIMENSIONS		
GIRDER	A	B
G1	2'-1"	1'-8¾"
G11	1'-8"	1'-3¾"
G12, G17, G18, G23, G24	1'-8"	1'-3¾"

BENT PLATE AND OVERHANG BRACKET NOTES

GENERAL:

THE FABRICATOR SHALL CHECK LONGITUDINAL CROSSFRAME SPACING SO THAT INTERFERENCE WITH BOLTED SPLICES, ANCHOR BOLTS, COMPLETE PENETRATION WEB OR FLANGE WELDED SPLICES AND BEARING STIFFENERS IS AVOIDED. SPACING SHALL BE ADJUSTED TO PROVIDE AT LEAST SIX (6) INCHES OF LONGITUDINAL CLEARANCE.

THE THICKNESS OF THE ⅞" TYPE 1 CONNECTION PLATES SHALL BE INCREASED TO 1" AT NO ADDITIONAL COST IF THE FABRICATOR DETERMINES THE WIDTH OF THE TYPE 1 CONNECTION PLATE EXCEEDS 14" TO ACCOMMODATE THE GEOMETRY OF THE CONNECTION.

WHERE A PLATE OR SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.

INSTALL STIFFENERS ACCORDING TO CMS 513.13.

MATERIAL:

ALL INTERMEDIATE CROSSFRAME AND BRACKET MATERIAL SHALL BE A709 GRADE 50.

FASTENERS:

ALL BOLTS SHALL BE 1"Ø ASTM F3125, GRADE A325, WITH THREADS EXCLUDED FROM THE SHEAR PLANE.

TYPE 1 BOLTS SHALL BE USED. EACH ANCHOR ASSEMBLY SHALL INCLUDE A BOLT, NUT AND TWO (2) WASHERS, TIGHTENED ACCORDING TO CMS 513 PRIOR TO DECK PLACEMENT.

MINIMUM EDGE DISTANCES FOR BOLTS SHALL BE 1½".

ALL FAYING SURFACES FOR BOLTED CONNECTIONS SHALL BE CLASS B.

FOR INFORMATION ONLY - NOT FOR REVIEW

CROSS FRAME DETAILS (2 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER — | —
PROJECT ID 82382
SUBSET 34 | TOTAL 63
SHEET 1926 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:53:58 AM USER: Mala.Gallagher
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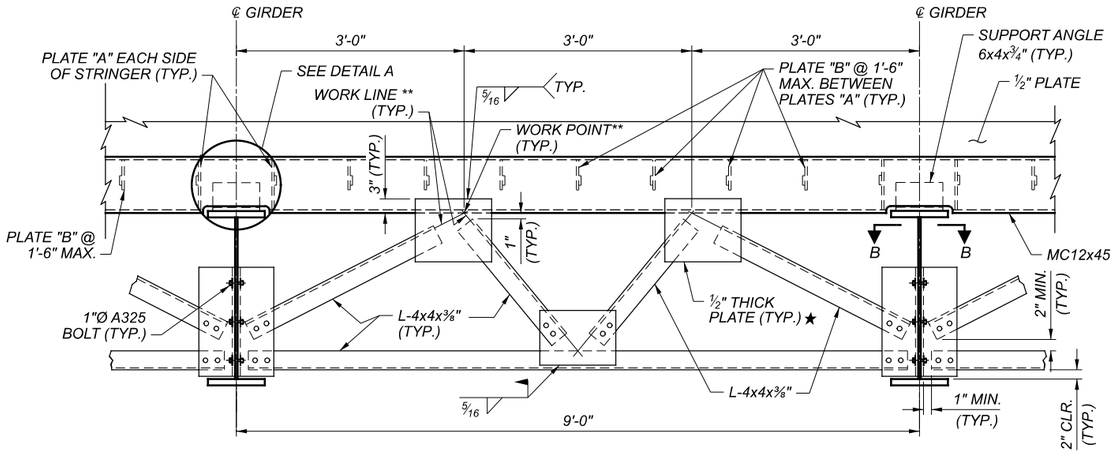
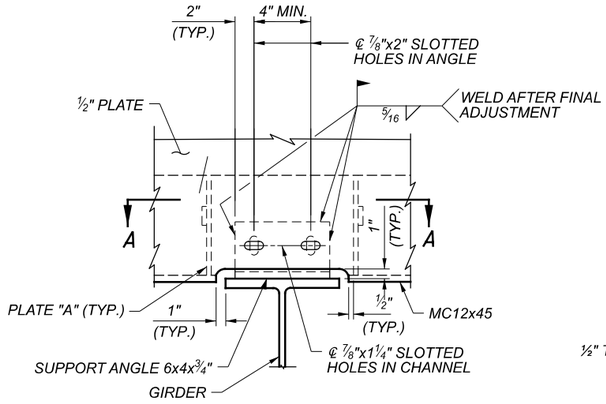
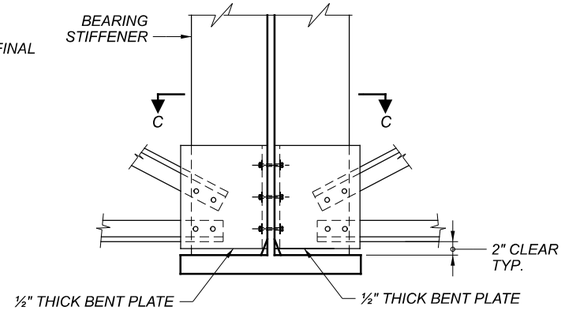


END CROSS FRAME TYPE 1

★ - INCLUDED WITH EXPANSION JOINT FOR COATING & PAYMENT.

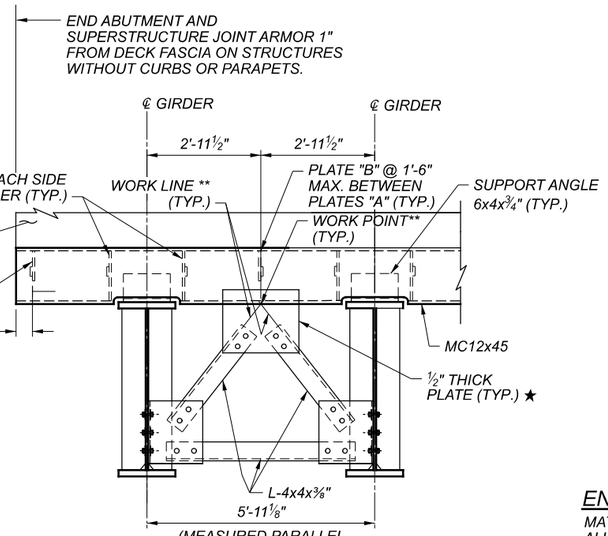


DETAIL "A"

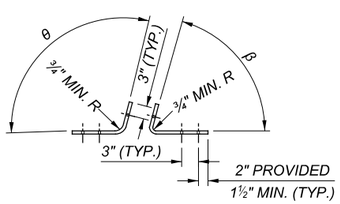


BEAM/GIRDER END

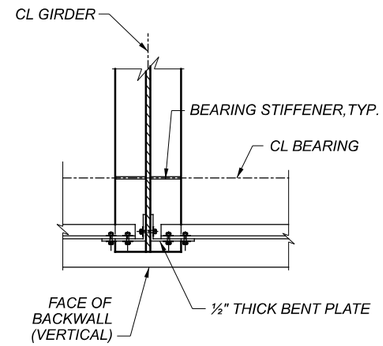
END CROSSFRAME TYPE 1 FOR SKEWED BRIDGES WHERE BEARING STIFFENERS INTERFERE WITH END CROSSFRAMES.



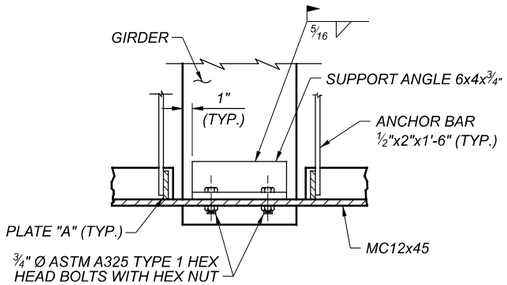
END CROSS FRAME TYPE 2



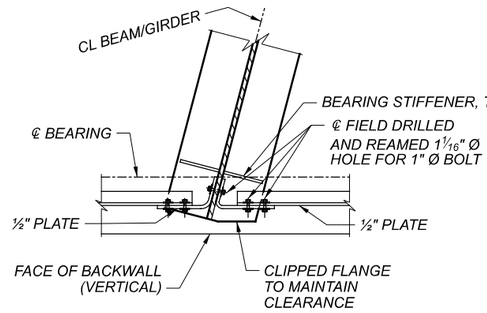
BENT PLATE DETAIL PLAN



SECTION B-B



SECTION A-A



SECTION C-C

END CROSSFRAME NOTES:

MATERIAL:
ALL END CROSSFRAME MATERIAL SHALL BE A709 GRADE 50.

BEAM/GIRDER ENDS:
THE BEAM/GIRDER ENDS SHALL BE FABRICATED TO BE VERTICAL AFTER ERECTION. A THREE (3) INCH MINIMUM CLEARANCE AT 60°F SHALL BE MAINTAINED BETWEEN THE VERTICAL ENDS OF THE BEAMS/GIRDERS AND THE VERTICAL FACE OF THE BACKWALL UNLESS THE CONTRACT CRITERIA/PLANS SHOW OTHERWISE.

WORK POINTS:
WORK POINTS SHALL BE COORDINATED BETWEEN EXPANSION JOINT AND STRUCTURAL STEEL SUPPLIERS TO ASSURE FIT UP AT ALL DESIGN LOCATIONS.

STIFFENER NOTES:
NOTES FOR STIFFENER DETAILS:
INSTALL STIFFENERS ACCORDING TO 513. UNLESS THE CONTRACT DOCUMENTS REQUIRE LARGER WELDS, PROVIDE A 1/4" WELD WHEN THE THICKER PLATE IS 3/4" OR LESS AND A 5/16" WELD WHEN THE THICKER PLATE IS GREATER THAN 3/4".

BENT PLATE AND OVERHANG BRACKET NOTES

GENERAL:

THE FABRICATOR SHALL CHECK LONGITUDINAL CROSSFRAME SPACING SO THAT INTERFERENCE WITH BOLTED SPLICES, ANCHOR BOLTS, COMPLETE PENETRATION WEB OR FLANGE WELDED SPLICES AND BEARING STIFFENERS IS AVOIDED. SPACING SHALL BE ADJUSTED TO PROVIDE AT LEAST SIX (6) INCHES OF LONGITUDINAL CLEARANCE.

THE THICKNESS OF THE 7/8" TYPE 1 CONNECTION PLATES SHALL BE INCREASED TO 1" IF THE FABRICATOR DETERMINES THE WIDTH OF THE TYPE 1 CONNECTION PLATE EXCEEDS 14" TO ACCOMMODATE THE GEOMETRY OF THE CONNECTION.

WHERE A PLATE OR SHAPE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.

INSTALL STIFFENERS ACCORDING TO CMS 513.13.

MATERIAL:

ALL INTERMEDIATE CROSSFRAME MATERIAL SHALL BE A709 GRADE 50.

FASTENERS:

ALL BOLTS SHALL BE 1"Ø ASTM F3125, GRADE A325, WITH THREADS EXCLUDED FROM THE SHEAR PLANE.

TYPE 1 BOLTS SHALL BE USED. EACH ANCHOR ASSEMBLY SHALL INCLUDE A BOLT, NUT AND TWO (2) WASHERS, TIGHTENED ACCORDING TO CMS 513 PRIOR TO DECK PLACEMENT.

MINIMUM EDGE DISTANCES FOR BOLTS SHALL BE 1½".

ALL FAYING SURFACES FOR BOLTED CONNECTIONS SHALL BE CLASS B.

FOR INFORMATION ONLY - NOT FOR REVIEW

CROSS FRAME DETAILS (3 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	— —
PROJECT ID	82382
SUBSET	35
TOTAL	63
SHEET	1927
TOTAL	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:05 AM USER: Maia.Gallagher
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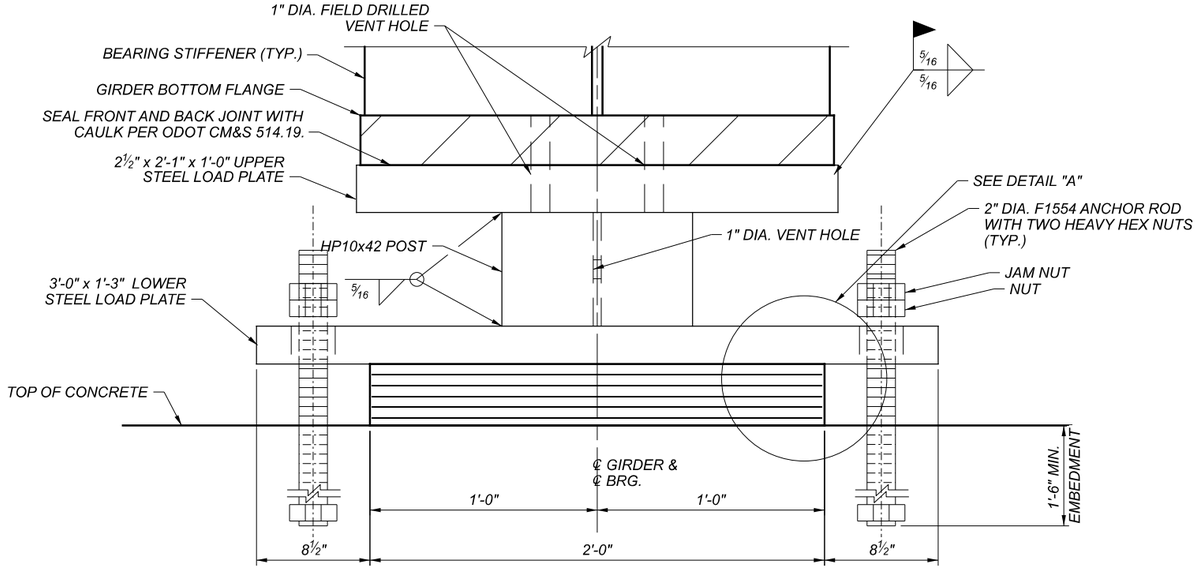
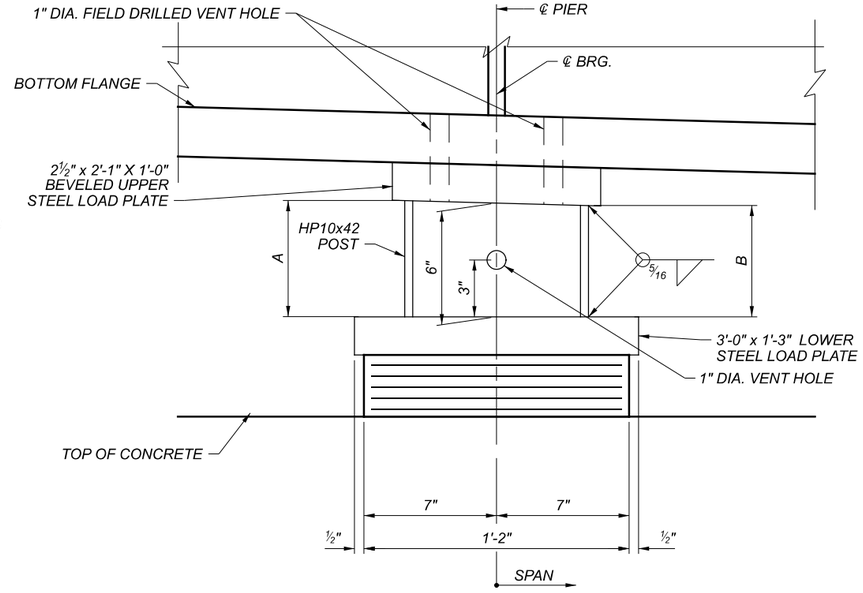
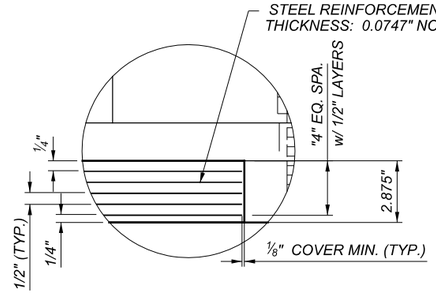


PIER BEARING ELEVATION

HP10X42 POST HEIGHTS															
GIRDER	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15
A	1'-0 1/2"	1'-0 3/16"	1'-0"	11 13/16"	11 5/8"	11 3/8"	11 3/16"	10 3/4"	10 5/16"	10"	9 9/16"	1'-0 3/8"	11 15/16"	11 1/2"	11 1/16"
B	1'-0 1/2"	1'-0 3/16"	1'-0"	11 13/16"	11 5/8"	11 3/8"	11 3/16"	10 3/4"	10 5/16"	9 3/4"	9 5/16"	1'-0 1/8"	11 11/16"	11 1/4"	10 13/16"
GIRDER	G16	G17	G18	G19	G20	G21	G22	G23	G24	G25	G26	G27	G28	G29	
A	10 5/8"	10 3/16"	1'-1 1/16"	1'-0 5/8"	1'-0 3/16"	11 3/4"	11 5/16"	10 7/8"	1'-1 5/8"	1'-1 3/16"	1'-0 3/4"	1'-0 5/16"	11 7/8"	11 7/16"	
B	10 3/8"	9 15/16"	1'-0 11/16"	1'-0 1/4"	11 13/16"	11 3/8"	10 15/16"	10 1/2"	1'-1 3/8"	1'-0 15/16"	1'-0 1/2"	1'-0 1/16"	11 5/8"	11 3/16"	

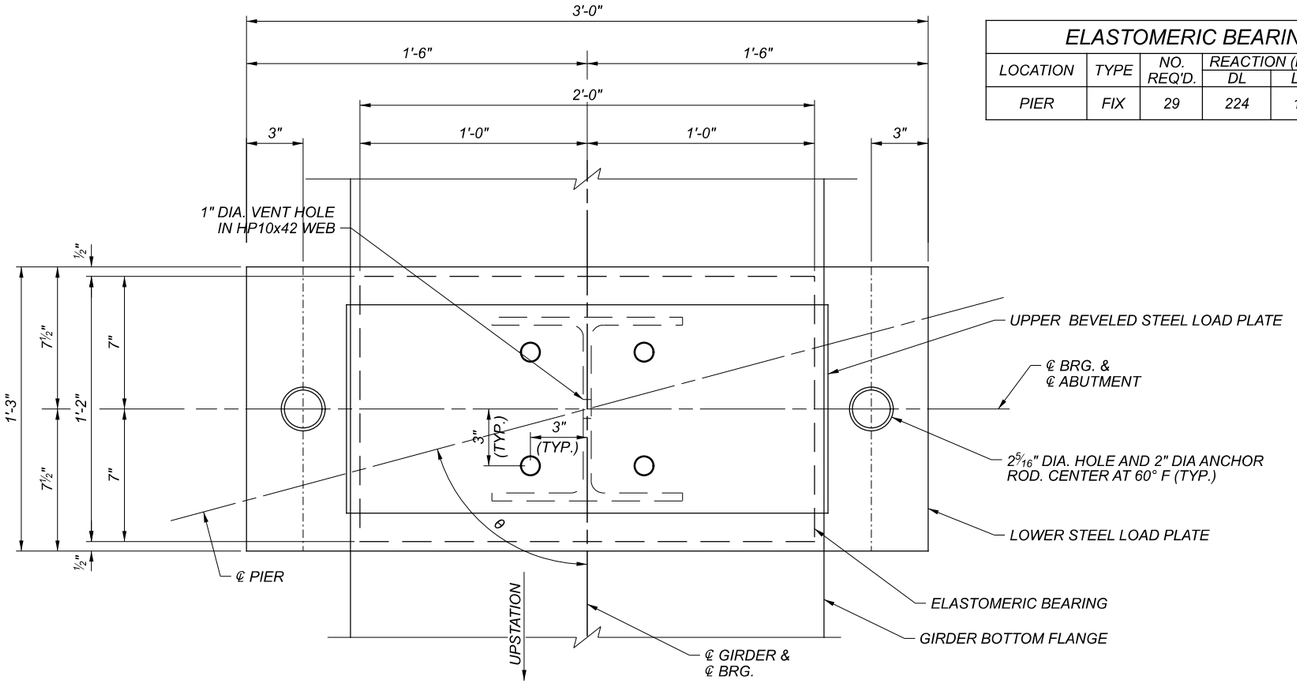


PIER BEARING SIDE ELEVATION



DETAIL "A"

ELASTOMERIC BEARING DATA					
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS) DL	REACTION (KIPS) LL**	DESIGN LOAD (KIPS)
PIER	FIX	29	224	126	350



PIER BEARING PLAN

(BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

LEGEND:

** = LIVE LOAD WITHOUT IMPACT

NOTES:

1. PRIOR TO SHIPPING EACH BEARING ASSEMBLY SHALL BE SHOP MARKED WITH THE FOLLOWING INFORMATION: TOP, SPAN DIRECTION, LOCATION, AND GIRDER NUMBER. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
2. STEEL LOAD PLATES, HP POSTS SHALL BE ASTM A709 GRADE 50 STEEL. THE STEEL LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. CONTROL WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SO THAT THE PLATE TEMPARATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPARATURE MONITORING DEVICES.
3. ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
4. INSTALL LOWER ANCHOR NUT IN CONTACT WITH LOWER LOAD PLATE AND THEN BACK OFF 1/2 TURN, THEN INSTALL JAM NUT SNUG TIGHT TO PREVENT LOWER NUTS FROM LOOSENING.
5. FURNISH AND INSTALL ELASTOMERIC BEARINGS PER ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE.
6. ANCHOR RODS SHALL BE ASTM F1554, GRADE 105. NUTS SHALL CONFORM TO ASTM A563 FOR APPROPRIATE GRADE AND SIZE OF ANCHOR ROD. WASHERS SHALL CONFORM TO ASTM F436.
7. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS, INCLUDING LOAD PLATES, AND MISC. HARDWARE. PAYMENT WILL BE AT THE UNIT PRICE FOR ITEM 516 - EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.
8. SEE FRAMING PLAN FOR ANGLE θ BETWEEN ℄ GIRDER AND ℄ PIER.

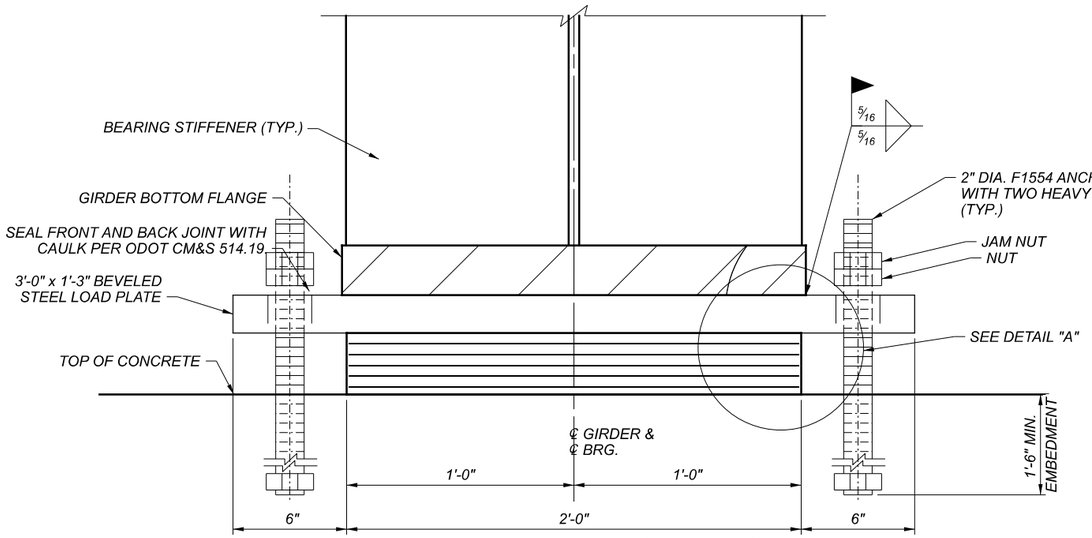
FOR INFORMATION ONLY - NOT FOR REVIEW

BEARING DETAILS (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

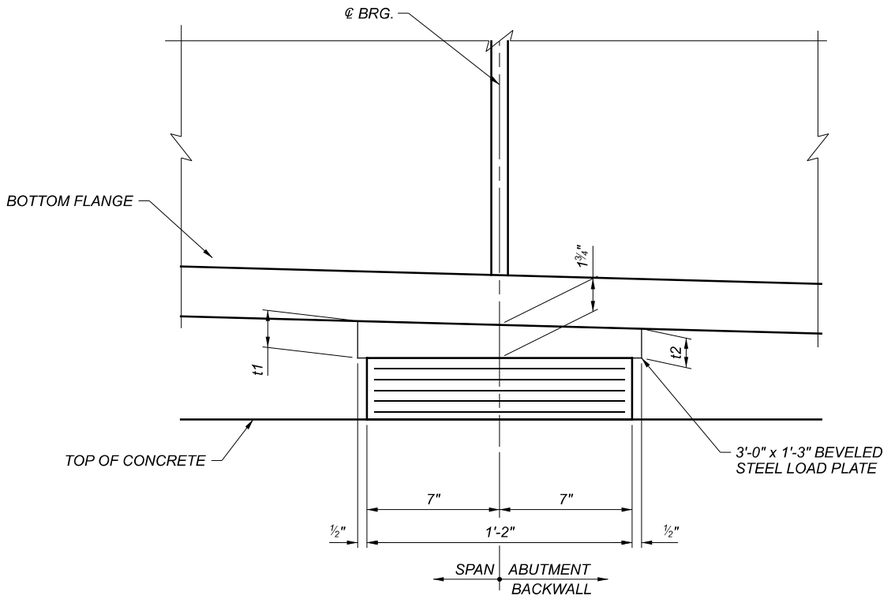
SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 36 | TOTAL 63
SHEET 1928 | TOTAL 2339

CUY-90-16.28 (CCG3A)

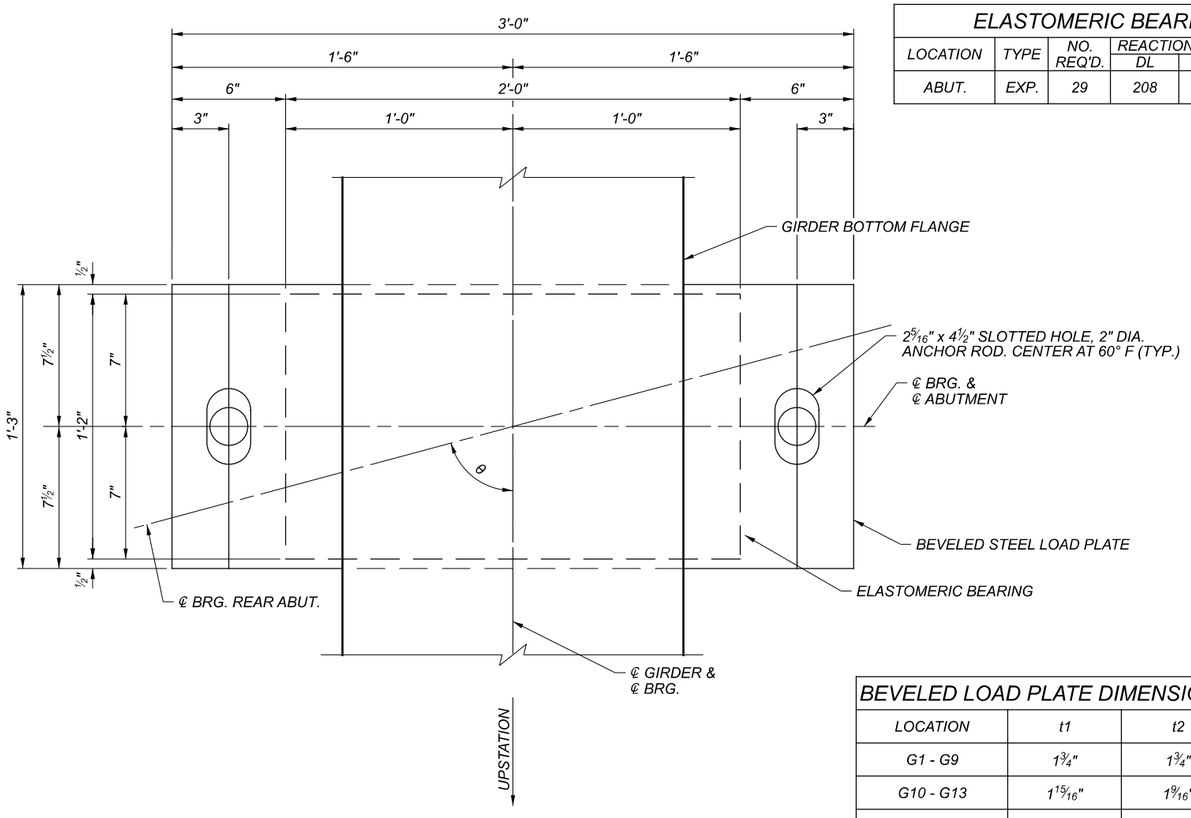
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:13 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SB001.dgn



REAR ABUTMENT BEARING ELEVATION



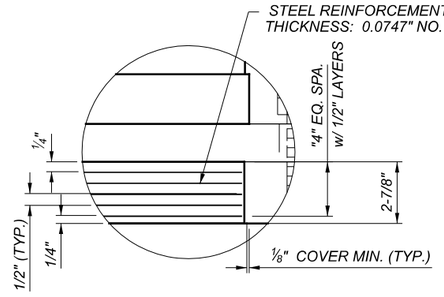
REAR ABUTMENT BEARING SIDE ELEVATION



REAR ABUTMENT BEARING PLAN

(BEARING STIFFENER AND GIRDER WEB NOT SHOWN FOR CLARITY)

ELASTOMERIC BEARING DATA					
LOCATION	TYPE	NO. REQ'D.	REACTION (KIPS) DL	REACTION (KIPS) LL**	DESIGN LOAD (KIPS)
ABUT.	EXP.	29	208	126	334



DETAIL "A"

LEGEND:

** = LIVE LOAD WITHOUT IMPACT

NOTES:

1. SEE SHEET SB001 FOR NOTES AND ADDITIONAL DETAILS.
2. SEE FRAMING PLAN FOR ANGLE θ BETWEEN ℄ GIRDER AND ℄ REAR ABUTMENT.

BEVELED LOAD PLATE DIMENSIONS		
LOCATION	t1	t2
G1 - G9	1¾"	1¾"
G10 - G13	1 15/16"	1 9/16"
G14 - G27	2"	1½"
G28 - G29	1 15/16"	1 9/16"

FOR INFORMATION ONLY - NOT FOR REVIEW

BEARING DETAILS (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 37 | TOTAL 63
SHEET 1929 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:19 AM USER: Mala.Gallagher
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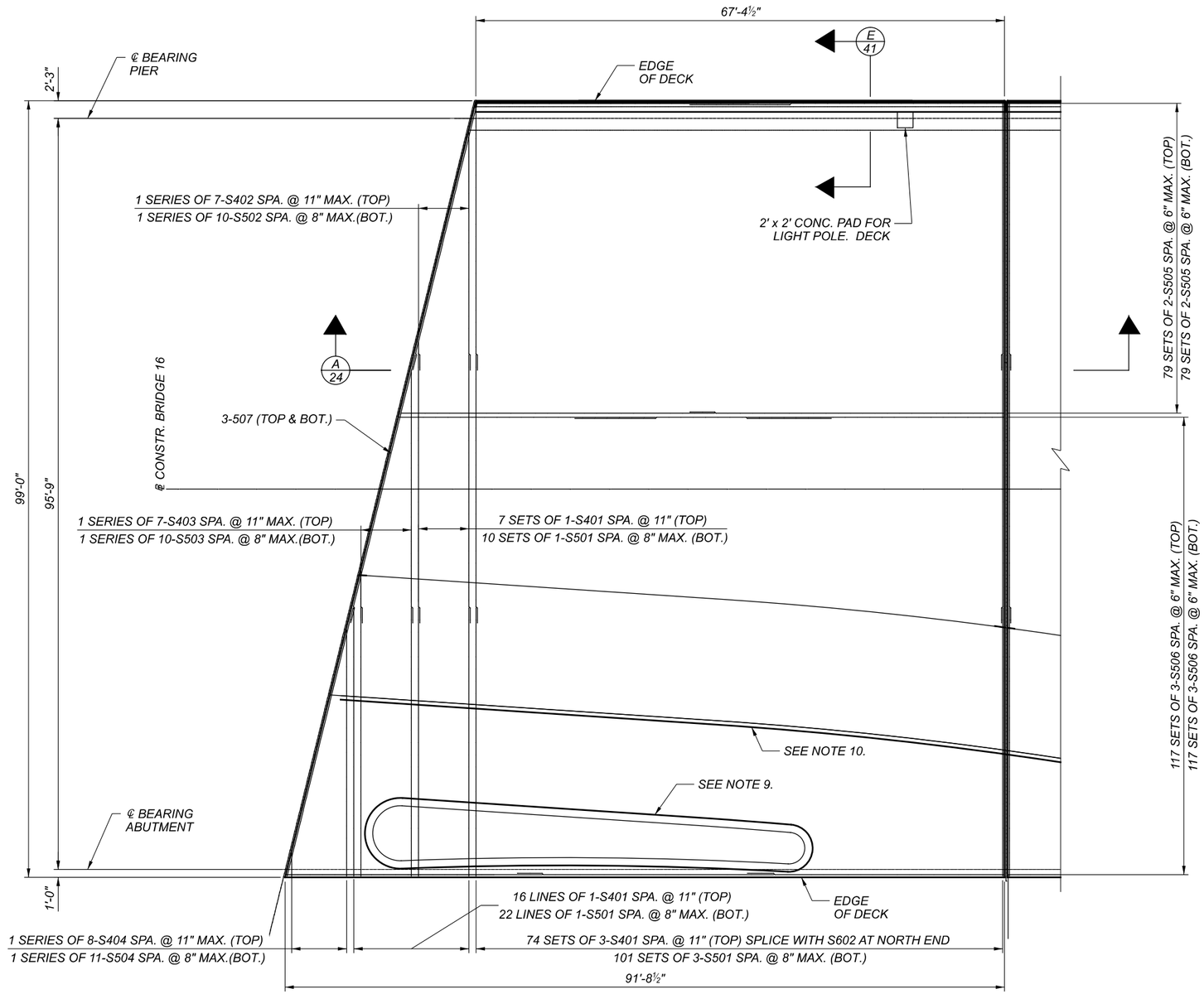


DECK PANEL "A"

REQUIRED MINIMUM LAP LENGTHS	
#4	1'-11"
#5	3'-2"
#6	3'-5"

NOTES:

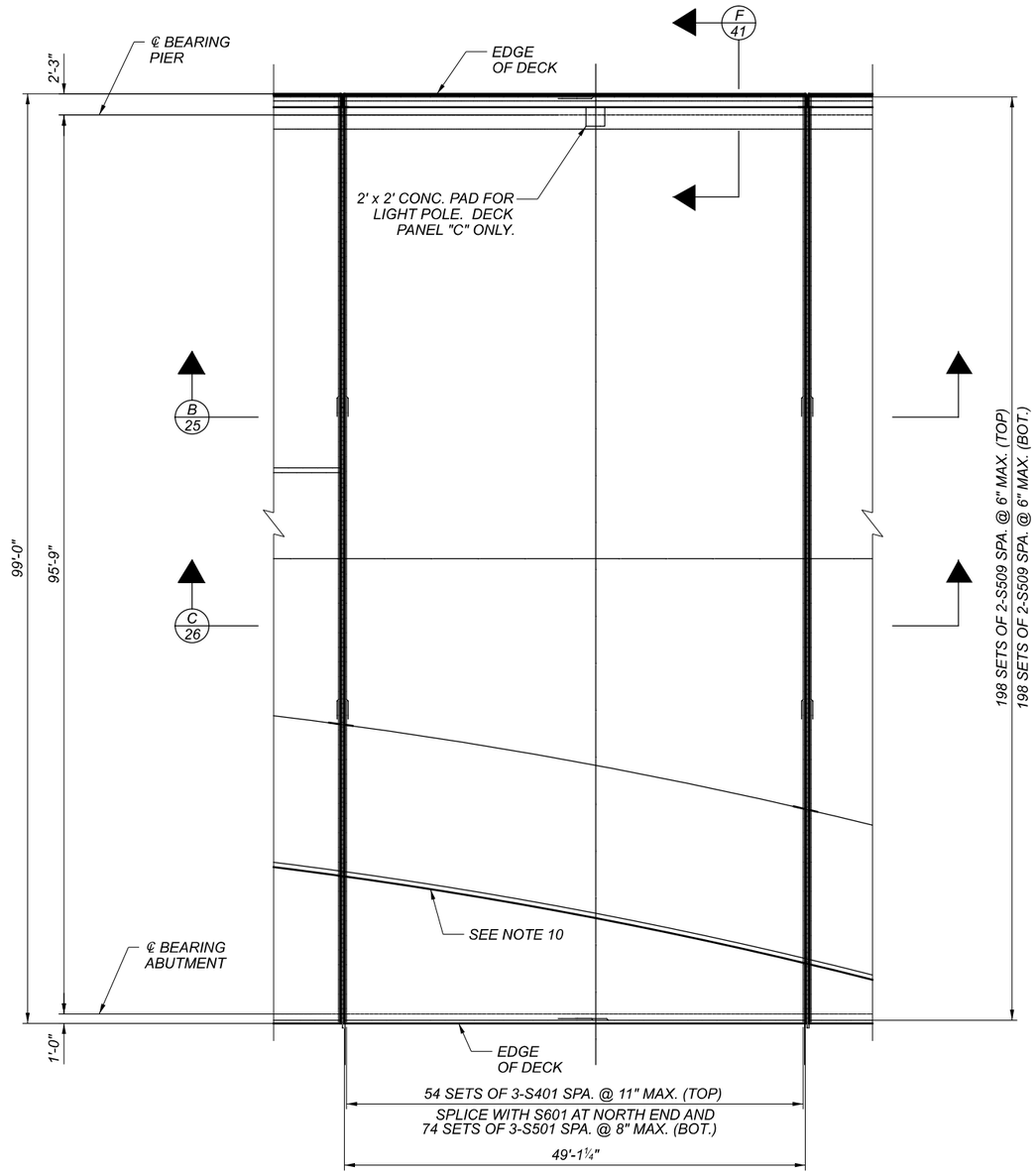
1. FOR FRAMING PLAN AND BEAM ELEVATION, SEE SHEET 28 AND 29 .
2. FOR SCREED, TOP OF HAUNCH, AND FINAL DECK ELEVATIONS, SEE SHEET ET6SD005 THRU ET6SA001
3. FOR TRANSVERE SECTIONS, SEE SHEETS 24 THRU 27 .
4. FOR RAILING PLAN AND ELEVATION, SEE SHEETS ET6SA003 THRU ET6SA002
5. FOR REINFORCING STEEL LIST, SEE SHEETS 61 THRU 63 .
6. DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF THE ABUTMENT END DIAPHRAGMS.
7. FOR END DIAPHRAGM DETAIL, SEE SHEET 41
8. FOR DOWELS INTO PARAPET, SEE SHEETS ET6SA003 AND ET6SA001
9. FOR DOWELS INTO CURB AND MEDIAN, SEE SHEET 42 .
10. FOR DOWELS INTO SIDEWALK, SEE SHEET ET6SD004

FOR INFORMATION ONLY - NOT FOR REVIEW

BRIDGE DECK PLAN (1 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 38 | TOTAL 63
SHEET 1930 | TOTAL 2339

CUY-90-16.28 (CCG3A)



DECK PANEL "B"
DECK PANEL "C" SAME

REQUIRED MINIMUM LAP LENGTHS	
#4	1'-11"
#5	3'-2"
#6	3'-5"

NOTES:

1. FOR FRAMING PLAN AND BEAM ELEVATION, SEE SHEET 28 AND 29 .
2. FOR SCREED, TOP OF HAUNCH, AND FINAL DECK ELEVATIONS, SEE SHEET ET6SD005 & ET6SA001
3. FOR TRANSVERSE SECTIONS, SEE SHEETS 24 THRU 27 .
4. FOR RAILING PLAN AND ELEVATION, SEE SHEETS ET6SA003 & ET6SA002
5. FOR REINFORCING STEEL LIST, SEE SHEETS 61 THRU 63 .
6. DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF THE ABUTMENT END DIAPHRAGMS.
7. FOR END DIAPHRAGM DETAIL, SEE SHEET 41
8. FOR DOWELS INTO PARAPET, SEE SHEETS ET6SA003 & ET6SA001
9. FOR DOWELS INTO CURB AND MEDIAN, SEE SHEET 42 .
10. FOR DOWELS INTO SIDEWALK, SEE SHEET ET6SD004

FOR INFORMATION ONLY - NOT FOR REVIEW

BRIDGE DECK PLAN (2 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 39 | TOTAL 63
SHEET 1931 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:36 AM USER: Maia.Gallagher
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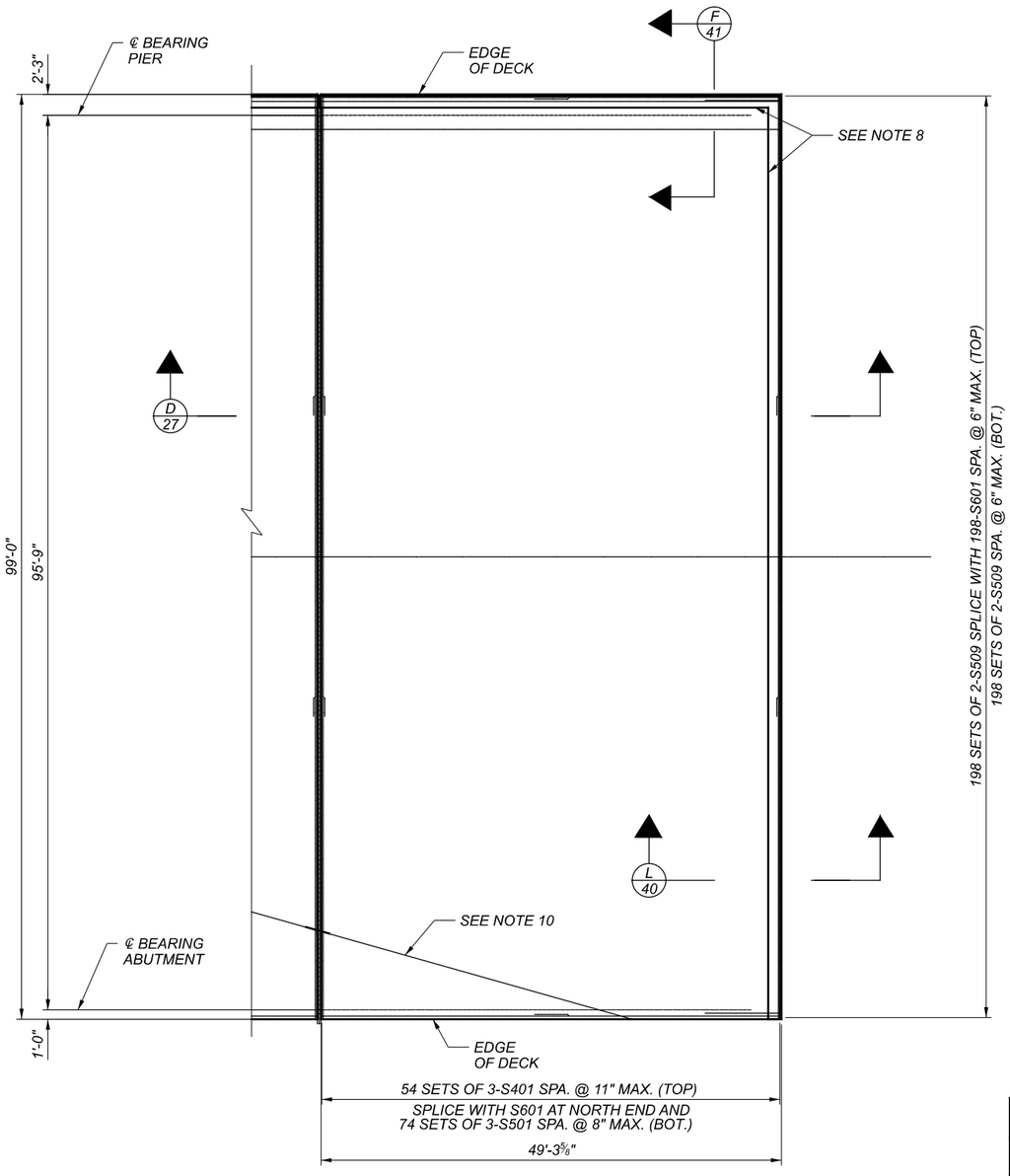
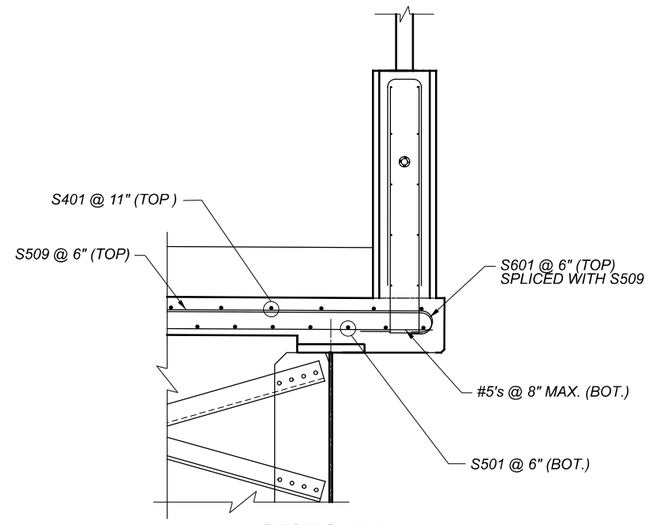


DECK PANEL "D"

REQUIRED MINIMUM LAP LENGTHS	
#4	1'-11"
#5	3'-2"
#6	3'-5"



SECTION L-L

NOTES:

1. FOR FRAMING PLAN AND BEAM ELEVATION, SEE SHEET 28 AND 29 .
2. FOR SCREED, TOP OF HAUNCH, AND FINAL DECK ELEVATIONS, SEE SHEET BT16SD005 THRU BT16SA001
3. FOR TRANSVERE SECTIONS, SEE SHEETS 24 THRU 27 .
4. FOR RAILING PLAN AND ELEVATION, SEE SHEETS BT16SA003 AND BT16SA002
5. FOR REINFORCING STEEL LIST, SEE SHEETS 61 THRU 63 .
6. DRIP GROOVES SHALL TERMINATE 2'-0" FROM THE FACE OF THE ABUTMENT END DIAPHRAGMS.
7. FOR END DIAPHRAGM DETAIL, SEE SHEET 41
8. FOR DOWELS INTO PARAPET, SEE SHEETS BT16SA003 AND BT16SA001
9. FOR DOWELS INTO CURB AND MEDIAN, SEE SHEET 42 .
10. FOR DOWELS INTO SIDEWALK, SEE SHEET BT16SD004

FOR INFORMATION ONLY - NOT FOR REVIEW

BRIDGE DECK PLAN (3 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 40 | TOTAL 63
SHEET 1932 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:44 AM USER: Maia.Gallagher
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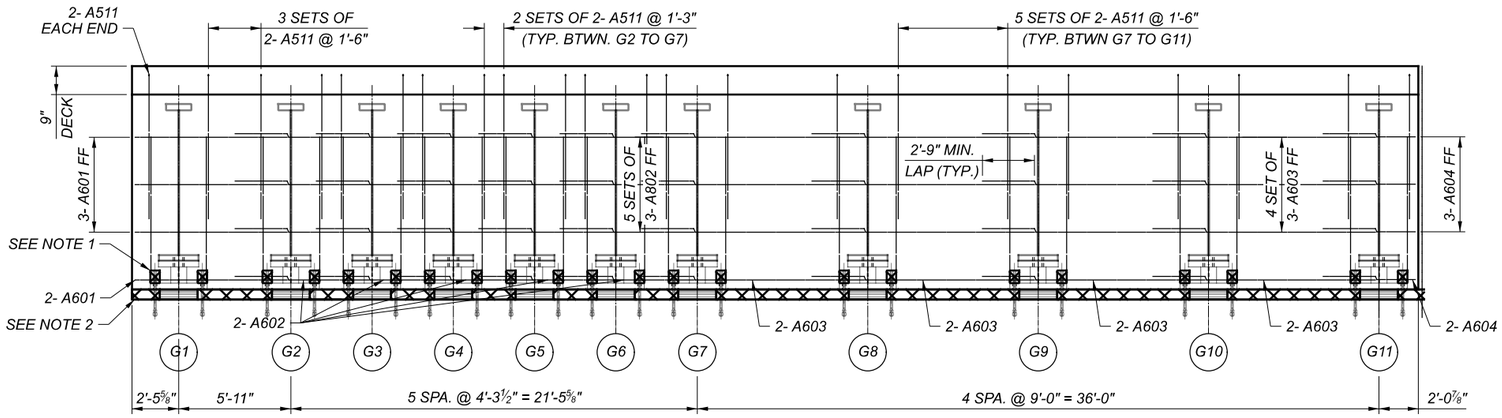
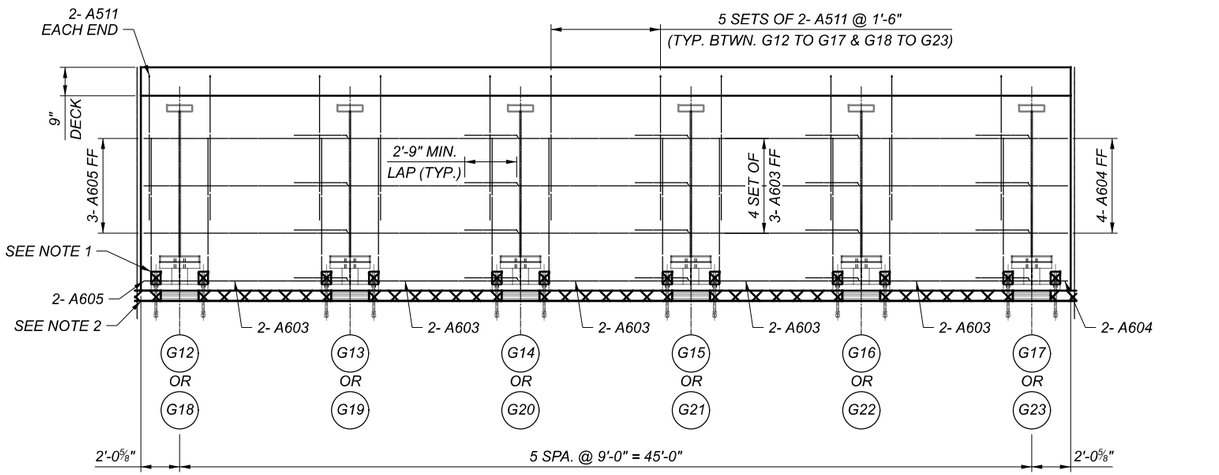
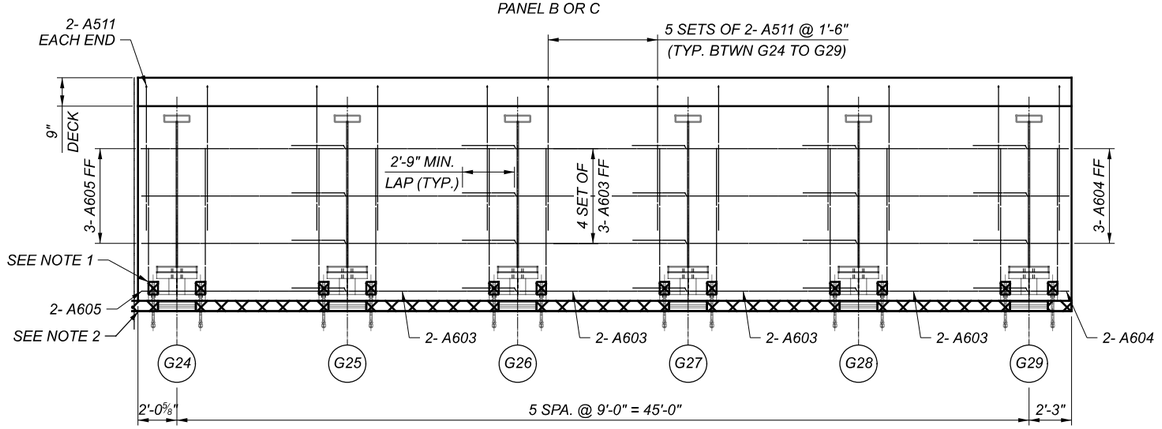


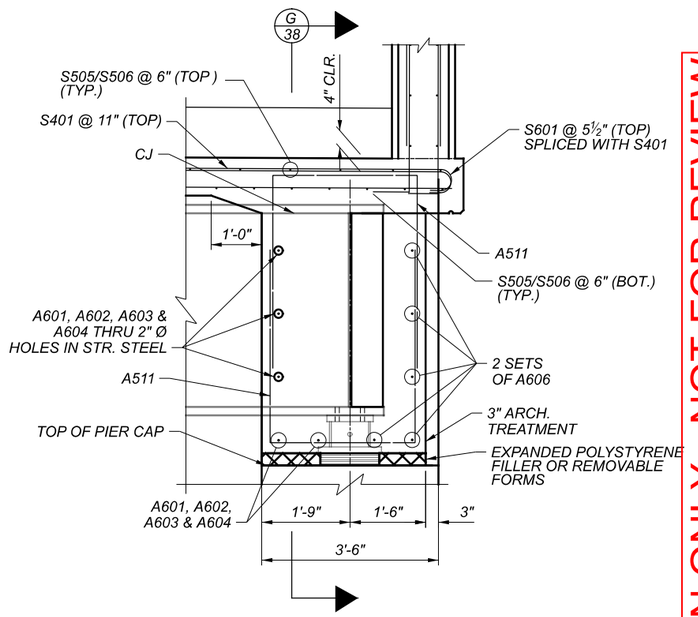
SECTION G-G
PANEL A



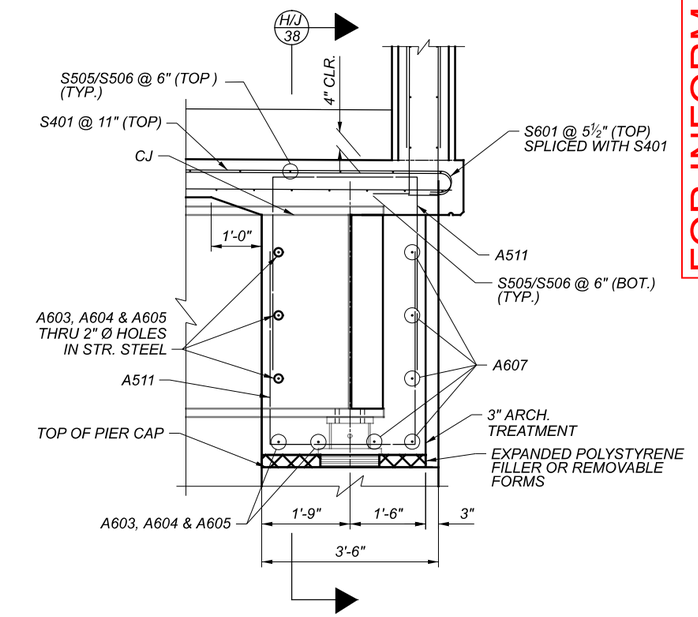
SECTION H-H
PANEL B OR C



SECTION J-J
PANEL D



SECTION E-E



SECTION F-F

NOTES:

1. PLACE 2" EXPANDED POLYSTYRENE FILLER AROUND SIDES AND TOP OF ANCHOR RODS AT BEARINGS. SECURE IN PLACE WITH ADHESIVE PRIOR TO CONCRETE POUR.
2. EXPANDED POLYSTYRENE FILLER OR REMOVABLE FORMS.

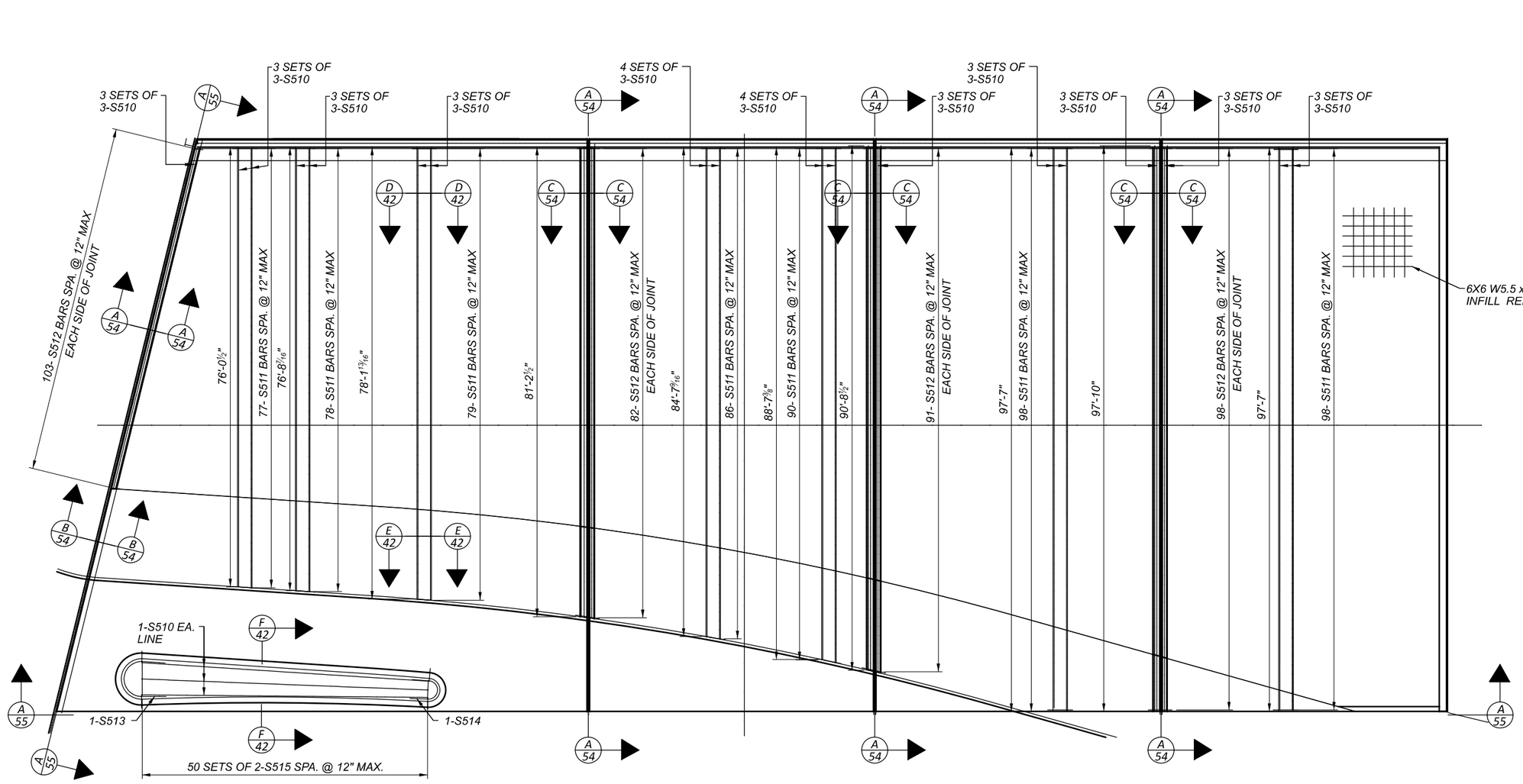
FOR INFORMATION ONLY - NOT FOR REVIEW

BRIDGE DECK SECTIONS
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

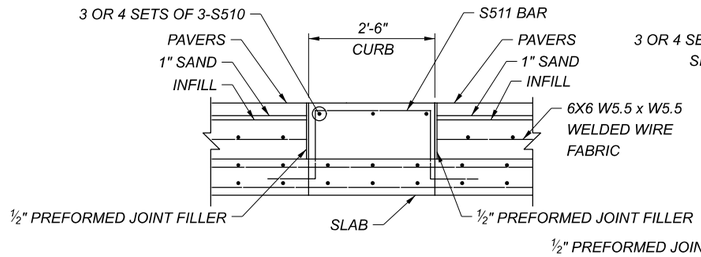
SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SUBSET	41
TOTAL	63
SHEET	1933
TOTAL	2339

CUY-90-16.28 (CCG3A)

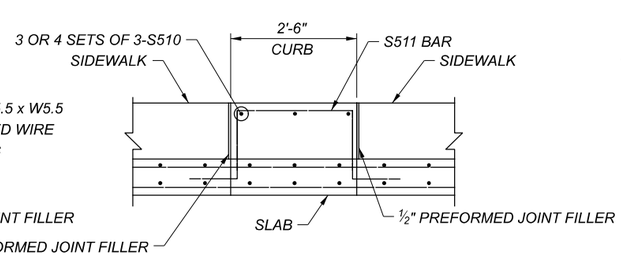
MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:54:51 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SS006B.dgn



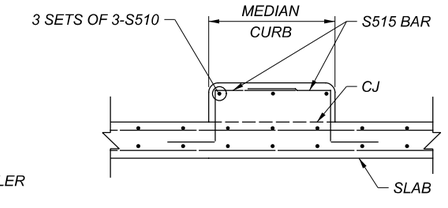
DECK INFILL PLAN



SECTION D-D



SECTION E-E



SECTION F-F

REQUIRED MINIMUM LAP LENGTHS	
5	2'-11"

NOTES:

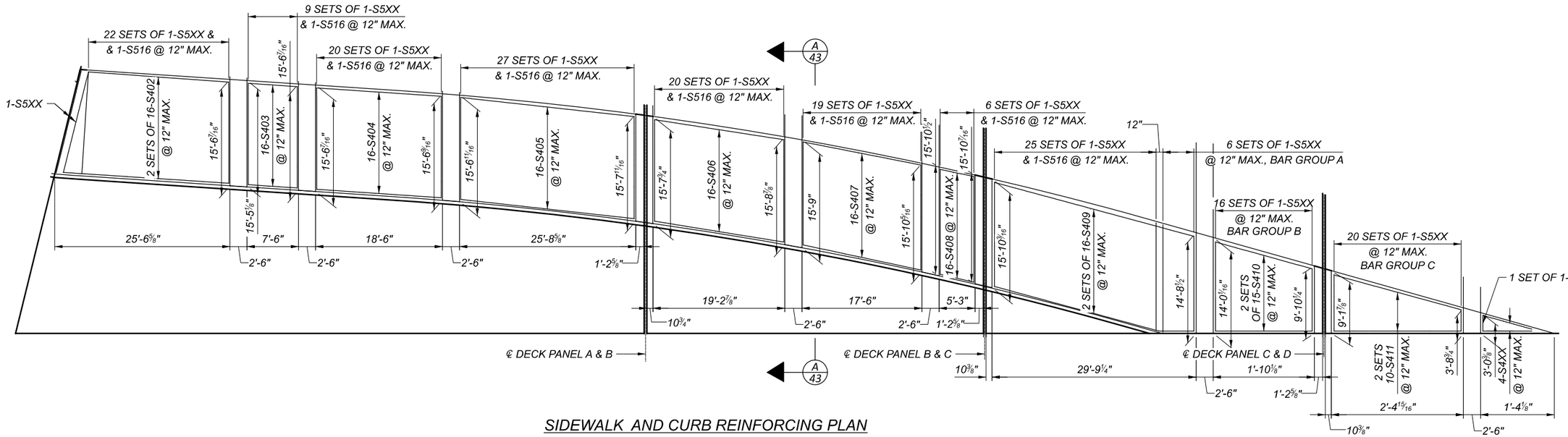
1. S511 AND S515 DOWELS TO BE PLACED WITH DECK.

FOR INFORMATION ONLY - NOT FOR REVIEW

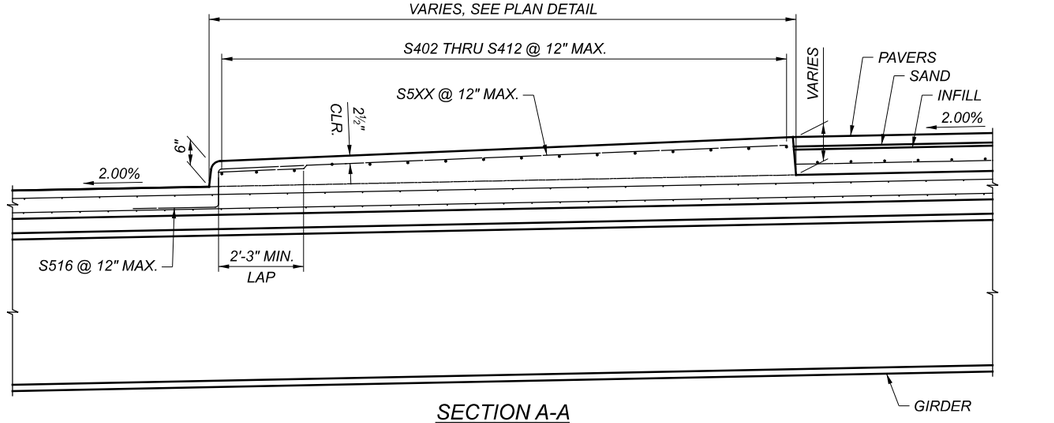
BRIDGE DECK INFILL PLAN
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 42 | TOTAL 63
SHEET 1934 | TOTAL 2339

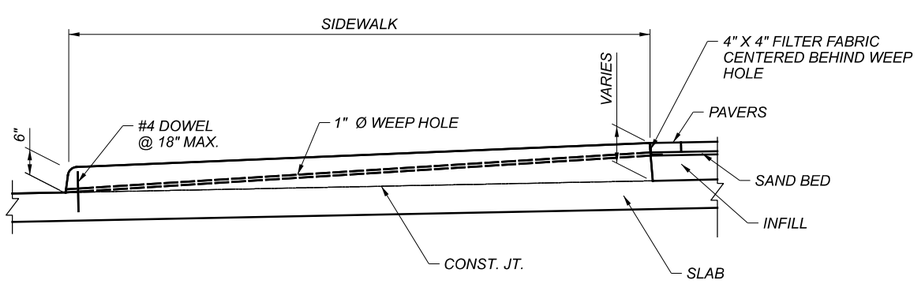
CUY-90-16.28 (CCG3A)



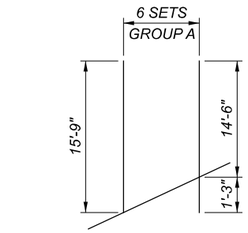
SIDEWALK AND CURB REINFORCING PLAN



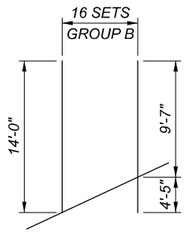
SECTION A-A



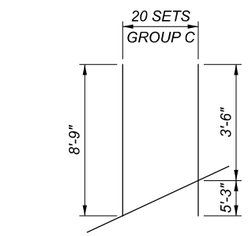
WEEP HOLE DETAIL



BAR CUT DIAGRAM, GROUP A



BAR CUT DIAGRAM, GROUP B



BAR CUT DIAGRAM, GROUP C

REQUIRED MINIMUM LAP LENGTHS	
#4	2'-0"

FOR INFORMATION ONLY - NOT FOR REVIEW

SIDEWALK PLAN & DETAILS (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	43
TOTAL	63
SHEET	1935
TOTAL	2339

CUY-90-16.28 (CCG3A)

MODEL: sidewalk plan and details 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:55:55 AM USER: Mata,Gallagher
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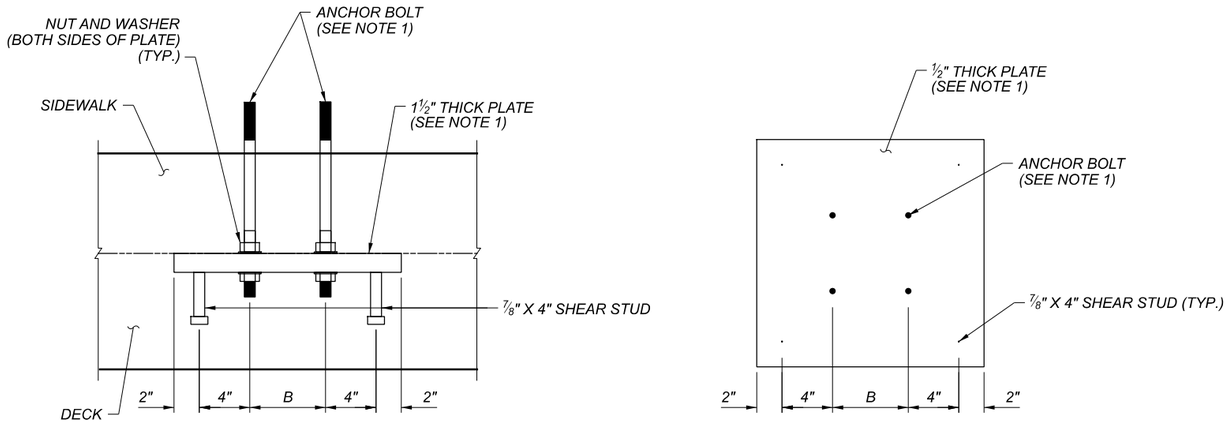


(B = ANCHOR BOLT SPACING, SEE NOTE 1)

BRIDGE MOUNTED LIGHT POLE ANCHORAGE DETAIL &
BRIDGE MOUNTED PEDESTRIAN POLE ANCHORAGE DETAIL

NOTES:

1. *FOR ANCHORAGE OF PEDESTRIAN POLES AND LIGHT POLES, COORDINATE WITH MANUFACTURER FOR ANCHOR BOLT MATERIAL SPECIFICATIONS, STRENGTH, DIAMETER, LENGTH AND SPACING.*
2. *PAYMENT FOR LIGHT POLE ANCHORAGE, INCLUDING ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LIGHT POLE ANCHORAGE ASSEMBLY AS SHOWN ON THE PLANS, SHALL BE PAID FOR UNDER ITEM 625 - LIGHT POLE ANCHOR BOLTS ON STRUCTURE, AS PER PLAN. FOR PAYMENTS ASSOCIATED WITH LIGHT POLE, SEE LIGHTING PLANS.*
3. *PAYMENT FOR PEDESTRIAN POLE ANCHORAGE, INCLUDING ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL PEDESTRIAN POLE ANCHORAGE ASSEMBLY AS SHOWN ON THE PLANS, SHALL BE PAID FOR UNDER ITEM 632 - SIGNAL SUPPORT, MISC.: PEDESTRIAN POLE ANCHORAGE. FOR PAYMENTS ASSOCIATED WITH PEDESTRIAN POLE, SEE TRAFFIC PLANS.*
4. *2" DIA. LIGHTING CONDUITS ARE INCLUDED WITH LIGHTING ITEMS FOR PAYMENT.*
5. *FOR LIGHT POLE DETAILS, REFER TO LIGHTING PLANS.*
6. *FOR PEDESTRIAN POLE DETAILS, REFER TO TRAFFIC PLANS.*

FOR INFORMATION ONLY - NOT FOR REVIEW

SIDEWALK PLAN & DETAILS (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 44 | TOTAL 63
SHEET 1936 | TOTAL 2339

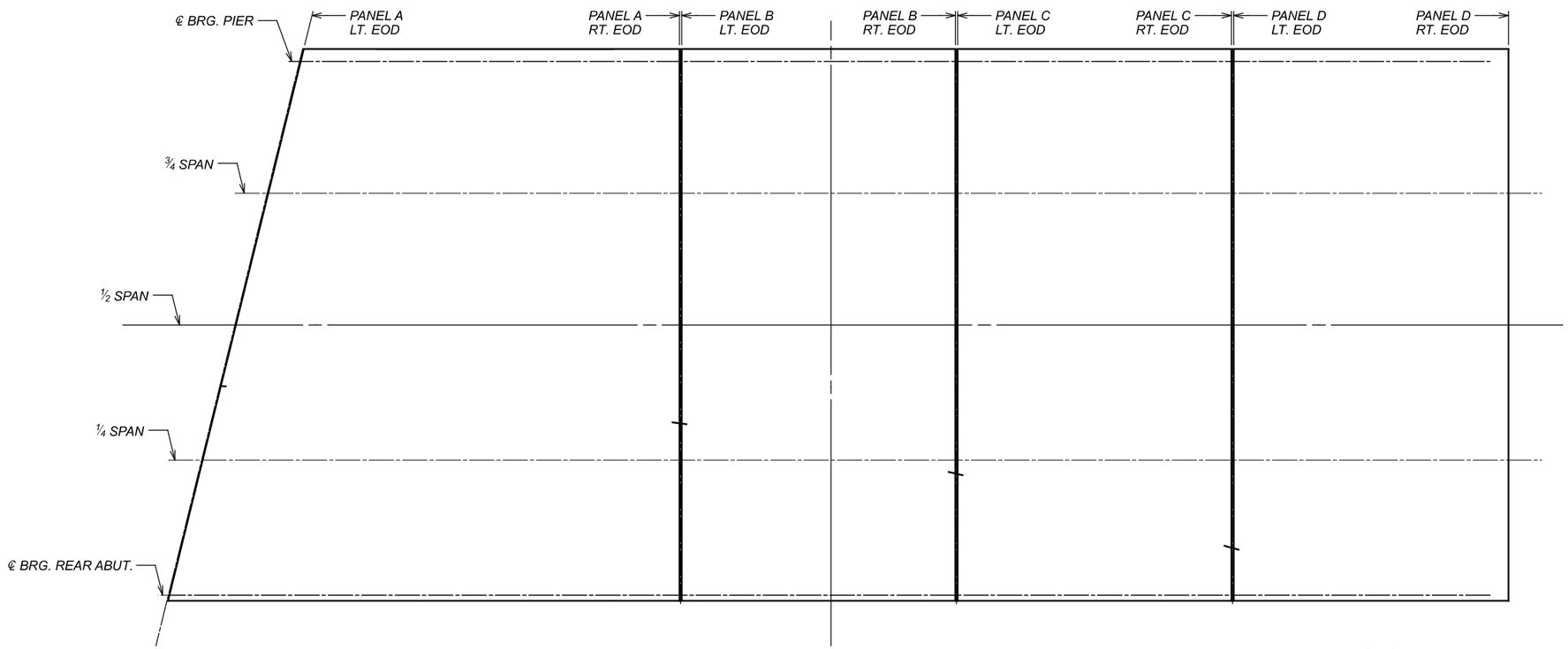
CUY-90-16.28 (CCG3A)

FINAL TOP OF DECK ELEVATION TABLE - PANEL A													
ELEVATION LINE	PANEL A LT EOD	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	PANEL A RT EOD
CL BEARINGS PIER	672.36	672.34	672.32	672.30	672.29	672.27	672.25	672.23	672.20	672.16	672.13	672.09	672.08
3/4 SPAN	672.34	672.33	672.30	672.21	672.17	672.13	672.09	672.05	671.99	671.93	671.87	671.81	671.80
1/2 SPAN	672.33	672.31	672.27	672.12	672.06	671.99	671.92	671.86	671.78	671.69	671.61	671.53	671.51
1/4 SPAN	672.31	672.29	672.23	672.08	671.98	671.88	671.78	671.68	671.58	671.47	671.36	671.26	671.23
CL BEARINGS ABUTMENT	672.29	672.27	672.18	672.04	671.90	671.77	671.63	671.50	671.37	671.24	671.11	670.99	670.96

FINAL TOP OF DECK ELEVATION TABLE - PANEL B								
ELEVATION LINE	PANEL B LT EOD	G12	G13	G14	G15	G16	G17	PANEL B RT EOD
CL BEARINGS PIER	672.08	672.07	672.04	672.00	671.96	671.93	671.89	671.88
3/4 SPAN	671.79	671.78	671.72	671.67	671.61	671.56	671.51	671.49
1/2 SPAN	671.51	671.49	671.41	671.34	671.26	671.19	671.12	671.11
1/4 SPAN	671.23	671.21	671.11	671.02	670.92	670.84	670.75	670.73
CL BEARINGS ABUTMENT	670.95	670.92	670.81	670.69	670.58	670.48	670.38	670.36

FINAL TOP OF DECK ELEVATION TABLE - PANEL C								
ELEVATION LINE	PANEL C LT EOD	G18	G19	G20	G21	G22	G23	PANEL C RT EOD
CL BEARINGS PIER	671.87	671.87	671.84	671.80	671.77	671.73	671.69	671.69
3/4 SPAN	671.49	671.48	671.44	671.40	671.36	671.33	671.30	671.30
1/2 SPAN	671.10	671.09	671.04	670.99	670.95	670.92	670.91	670.91
1/4 SPAN	670.73	670.71	670.65	670.60	670.56	670.54	670.53	670.53
CL BEARINGS ABUTMENT	670.35	670.33	670.26	670.20	670.16	670.15	670.14	670.14

FINAL TOP OF DECK ELEVATION TABLE - PANEL D								
ELEVATION LINE	PANEL D LT EOD	G24	G25	G26	G27	G28	G29	FACE OF PARAPET /
CL BEARINGS PIER	671.68	671.64	671.60	671.57	671.53	671.50	671.49	
3/4 SPAN	671.29	671.29	671.27	671.25	671.24	671.23	671.22	671.22
1/2 SPAN	670.90	670.90	670.90	670.90	670.92	670.93	670.95	670.96
1/4 SPAN	670.53	670.53	670.54	670.56	670.60	670.64	670.68	670.69
CL BEARINGS ABUTMENT	670.15	670.15	670.18	670.22	670.28	670.35	670.40	670.42



NOTES:

1. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE TOP OF DECK AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.

FOR INFORMATION ONLY - NOT FOR REVIEW

FINAL DECK SURFACE ELEVATION TABLE (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 45 | TOTAL 63
SHEET 1937 | TOTAL 2339

CUY-90-16.28 (CCG3A)

MODEL: final deck surface elev 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:04 AM USER: Mata,Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SD005.dgn

SHEET NOT USED

FOR INFORMATION ONLY - NOT FOR REVIEW

FINAL DECK SURFACE ELEVATION TABLE (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER	CHECKER
—	—

REVIEWER
—

PROJECT ID 82382

SUBSET	TOTAL
46	63

SHEET	TOTAL
1938	2339

CUY-90-16.28 (CCG3A)

MODEL: final deck surface elev 2 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:05 AM USER: Maia.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw~03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SD005.dgn

DECK SCREED ELEVATION TABLE - PANEL A													
ELEVATION LINE	PANEL A LT EOD	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	PANEL A RT EOD
CL BEARINGS PIER	672.36	672.34	672.32	672.30	672.29	672.27	672.25	672.23	672.20	672.16	672.13	672.09	672.08
3/4 SPAN	672.98	673.05	672.89	672.78	672.71	672.66	672.61	672.57	672.52	672.45	672.39	672.39	672.38
1/2 SPAN	673.22	673.20	673.12	672.92	672.82	672.73	672.65	672.59	672.52	672.43	672.35	672.35	672.34
1/4 SPAN	672.94	673.01	672.83	672.65	672.52	672.41	672.29	672.20	672.10	671.99	671.88	671.85	671.82
CL BEARINGS ABUTMENT	672.29	672.27	672.18	672.04	671.90	671.77	671.63	671.50	671.37	671.24	671.11	670.99	670.96

DECK SCREED ELEVATION TABLE - PANEL B								
ELEVATION LINE	PANEL B LT EOD	G12	G13	G14	G15	G16	G17	PANEL B RT EOD
CL BEARINGS PIER	672.08	672.07	672.04	672.00	671.96	671.93	671.89	671.88
3/4 SPAN	672.37	672.36	672.25	672.20	672.14	672.09	672.09	672.07
1/2 SPAN	672.33	672.31	672.15	672.08	672.00	671.93	671.94	671.93
1/4 SPAN	671.82	671.79	671.64	671.54	671.45	671.36	671.34	671.32
CL BEARINGS ABUTMENT	670.95	670.92	670.81	670.69	670.58	670.48	670.38	670.36

DECK SCREED ELEVATION TABLE - PANEL C								
ELEVATION LINE	PANEL C LT EOD	G18	G19	G20	G21	G22	G23	PANEL C RT EOD
CL BEARINGS PIER	671.87	671.87	671.84	671.80	671.77	671.73	671.69	671.69
3/4 SPAN	672.07	672.06	671.97	671.92	671.89	671.85	671.88	671.88
1/2 SPAN	671.93	671.91	671.78	671.73	671.69	671.66	671.73	671.73
1/4 SPAN	671.31	671.30	671.18	671.12	671.08	671.06	671.11	671.11
CL BEARINGS ABUTMENT	670.35	670.33	670.26	670.20	670.16	670.15	670.14	670.14

DECK SCREED ELEVATION TABLE - PANEL D								
ELEVATION LINE	PANEL D LT EOD	G24	G25	G26	G27	G28	G29	PANEL D RT EOD
CL BEARINGS PIER	671.68	671.68	671.64	671.60	671.57	671.53	671.50	671.49
3/4 SPAN	671.88	671.87	671.80	671.78	671.77	671.74	671.80	671.80
1/2 SPAN	671.73	671.72	671.64	671.64	671.66	671.64	671.66	671.67
1/4 SPAN	671.11	671.11	671.07	671.09	671.13	671.14	671.18	671.19
CL BEARINGS ABUTMENT	670.15	670.15	670.18	670.22	670.28	670.35	670.40	670.42

NOTES:

1. SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

FOR INFORMATION ONLY - NOT FOR REVIEW

DECK SCREED ELEVATION TABLE (1 OF 2)

CUY-90-1680 (BRIDGE 16)

CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
PAT	XW

REVIEWER —

PROJECT ID 82382

SUBSET	TOTAL
47	63

SHEET	TOTAL
1939	2339

CUY-90-16.28 (CCG3A)

MODEL: deck screed elev table 1 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:11 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SD006.dgn

SHEET NOT USED

FOR INFORMATION ONLY - NOT FOR REVIEW

DECK SCREED ELEVATION TABLE (2 OF 2)

CUY-90-1680 (BRIDGE 16)

CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
—	—

REVIEWER

—

PROJECT ID 82382

SUBSET	TOTAL
48	63

SHEET	TOTAL
1940	2339

CUY-90-16.28 (CCG3A)

MODEL: deck screed elev table 2 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:12 AM USER: Mala.Gallagher
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TOP OF HAUNCH - PANEL A											
ELEVATION LINE	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11
CL BEARINGS PIER	671.59	671.57	671.55	671.54	671.52	671.50	671.48	671.45	671.41	671.38	671.34
3/4 SPAN	672.30	672.14	672.03	671.96	671.91	671.86	671.82	671.77	671.70	671.64	671.64
1/2 SPAN	672.45	672.37	672.17	672.07	671.98	671.90	671.84	671.77	671.68	671.60	671.60
1/4 SPAN	672.26	672.08	671.90	671.77	671.66	671.54	671.45	671.35	671.24	671.13	671.10
CL BEARINGS ABUTMENT	671.52	671.43	671.29	671.15	671.02	670.88	670.75	670.62	670.49	670.36	670.24

TOP OF HAUNCH - PANEL B						
ELEVATION LINE	G12	G13	G14	G15	G16	G17
CL BEARINGS PIER	671.33	671.32	671.29	671.25	671.21	671.18
3/4 SPAN	671.62	671.61	671.50	671.45	671.39	671.34
1/2 SPAN	671.58	671.56	671.40	671.33	671.25	671.18
1/4 SPAN	671.07	671.04	670.89	670.79	670.70	670.61
CL BEARINGS ABUTMENT	670.20	670.17	670.06	669.94	669.83	669.73

TOP OF HAUNCH - PANEL C						
ELEVATION LINE	G18	G19	G20	G21	G22	G23
CL BEARINGS PIER	671.12	671.12	671.09	671.05	671.02	670.98
3/4 SPAN	671.32	671.31	671.22	671.17	671.14	671.10
1/2 SPAN	671.18	671.16	671.03	670.98	670.94	670.91
1/4 SPAN	670.56	670.55	670.43	670.37	670.33	670.31
CL BEARINGS ABUTMENT	669.60	669.58	669.51	669.45	669.41	669.40

TOP OF HAUNCH - PANEL D						
ELEVATION LINE	G24	G25	G26	G27	G28	G29
CL BEARINGS PIER	670.93	670.93	670.89	670.85	670.82	670.78
3/4 SPAN	671.13	671.12	671.05	671.03	671.02	670.99
1/2 SPAN	670.98	670.97	670.89	670.89	670.91	670.89
1/4 SPAN	670.36	670.36	670.32	670.34	670.38	670.39
CL BEARINGS ABUTMENT	669.40	669.40	669.43	669.47	669.53	669.60

NOTES:

1. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

FOR INFORMATION ONLY - NOT FOR REVIEW

TOP OF HAUNCH ELEVATION TABLE (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER —
CHECKER —
REVIEWER —
PROJECT ID 82382
SUBSET 49
TOTAL 63
SHEET 1941
TOTAL 2339

CUY-90-16.28 (CCG3A)

SHEET NOT USED

FOR INFORMATION ONLY - NOT FOR REVIEW

TOP OF HAUNCH ELEVATION TABLE (2 OF 2)

CUY-90-1680 (BRIDGE 16)

CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
—	—

REVIEWER

—

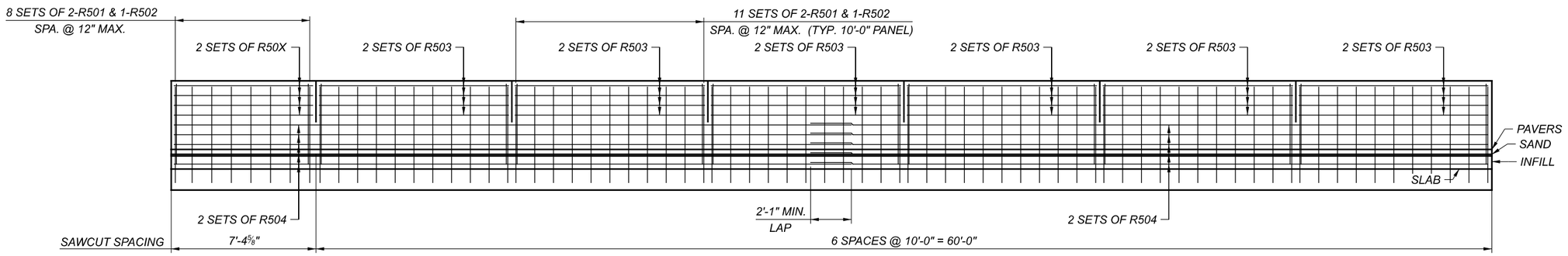
PROJECT ID 82382

SUBSET	TOTAL
50	63

SHEET	TOTAL
1942	2339

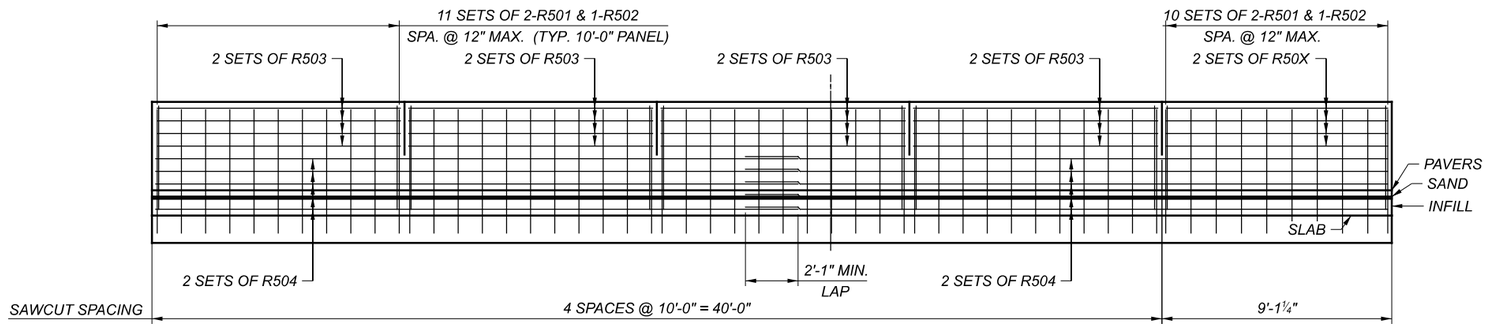
CUY-90-16.28 (CCG3A)

MODEL: top of haunch elev table 2 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:19 AM USER: Mats.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SD007.dgn



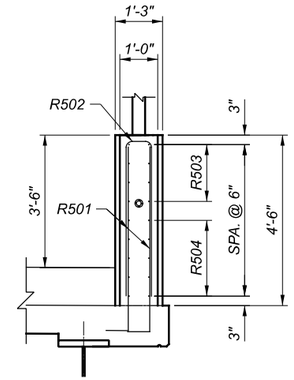
TYPICAL PARAPET ELEVATION - PANEL "A"

VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY

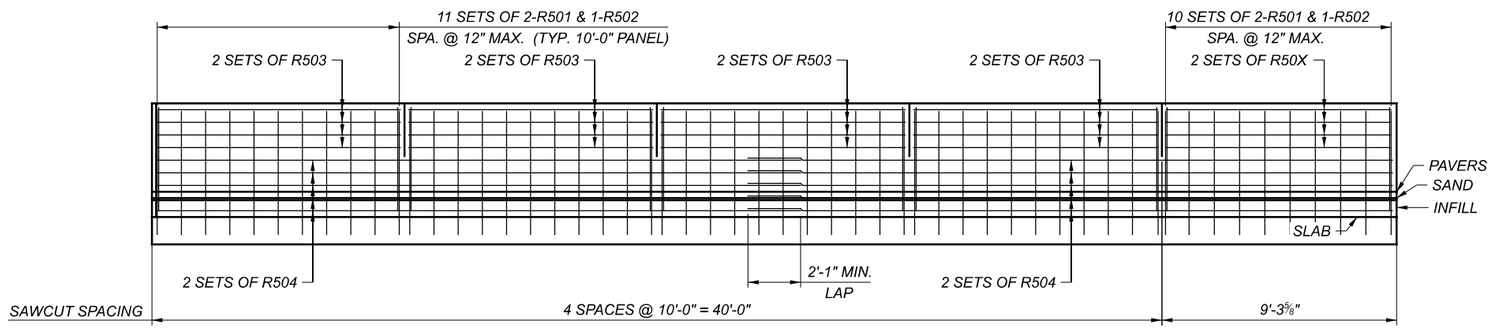


TYPICAL PARAPET ELEVATION - PANEL "B" & "C"

VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY



TYPICAL PARAPET SECTION



TYPICAL PARAPET ELEVATION - PANEL "D"

VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY

NOTES:

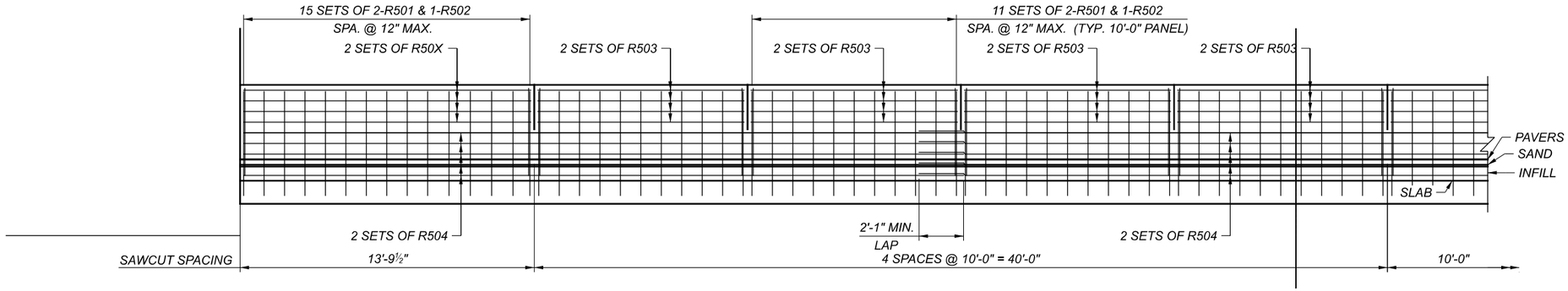
1. FOR ADDITIONAL RAILING SAWCUT DETAILS, SEE ODOT STANDARD.
2. FOR REINFORCING DETAILS, SEE SHEET THRU .
3. FOR ADDITIONAL REINFORCING DETAILS, SEE SHEET THRU .

FOR INFORMATION ONLY - NOT FOR REVIEW

RAILING PLAN & ELEVATION (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

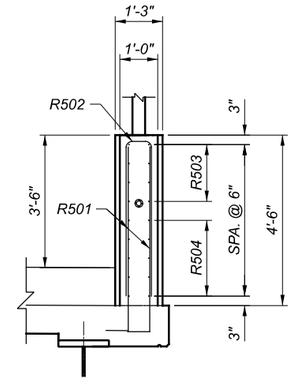
SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER —
PROJECT ID 82382
SUBSET 51 | TOTAL 63
SHEET 1943 | TOTAL 2339

CUY-90-16.28 (CCG3A)

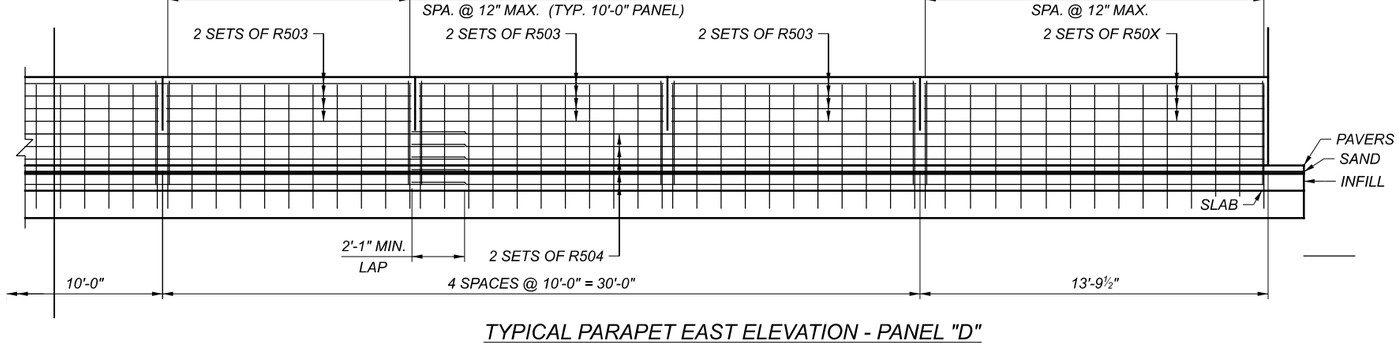


TYPICAL PARAPET EAST ELEVATION - PANEL "D"

VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY



TYPICAL PARAPET SECTION



TYPICAL PARAPET EAST ELEVATION - PANEL "D"

VANDAL PROTECTION FENCE NOT SHOWN FOR CLARITY

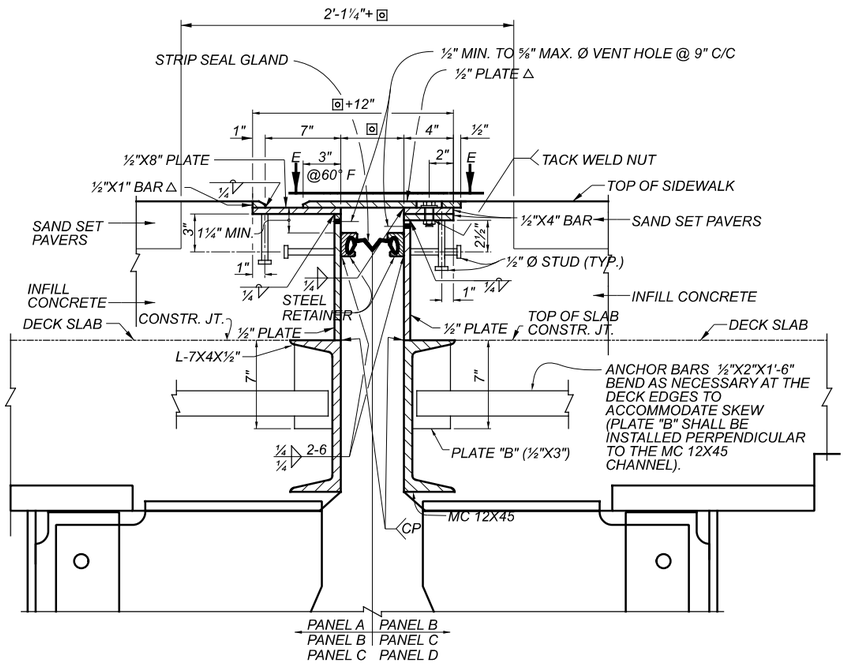
FOR INFORMATION ONLY - NOT FOR REVIEW

RAILING PLAN & ELEVATION (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	52
TOTAL	63
SHEET	1944
TOTAL	2339

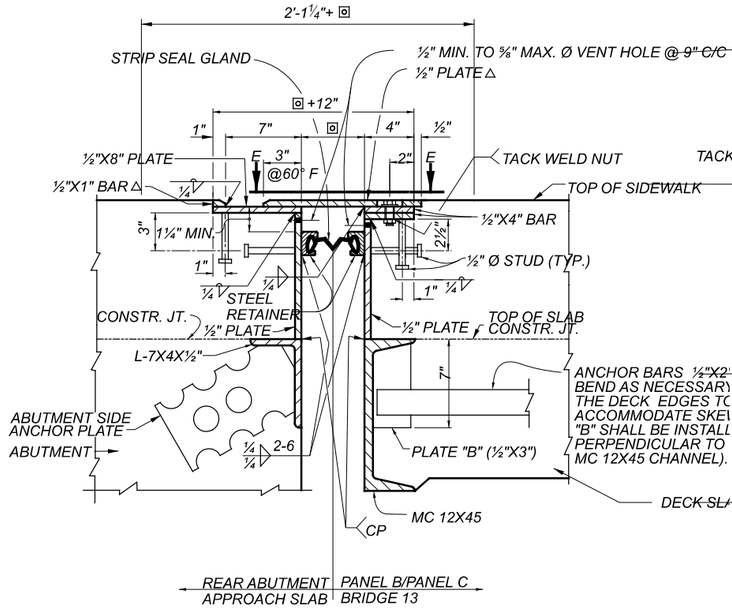
CUY-90-16.28 (CCG3A)

MODEL: railing plan and elevation 2 PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:56:27 AM USER: Mala.Gallagher
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807841\Sheets\82382_SFN_1807841_SA001.dgn

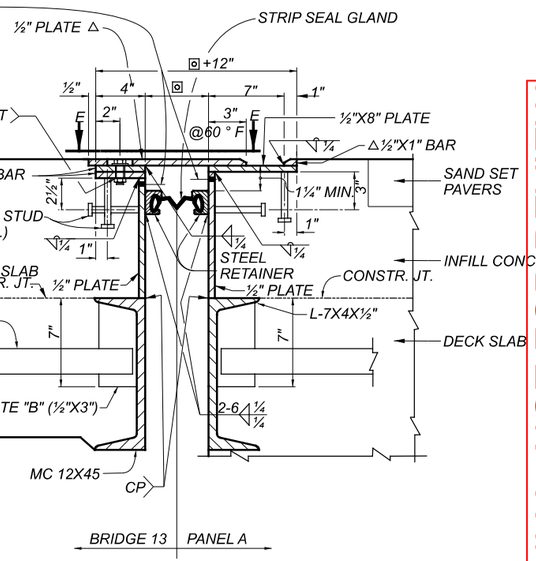


SECTION A-A

SECTION THRU SAND SET PAVERS AND INFILL SHOWN, SECTION THRU SIDEWALK SIMILAR

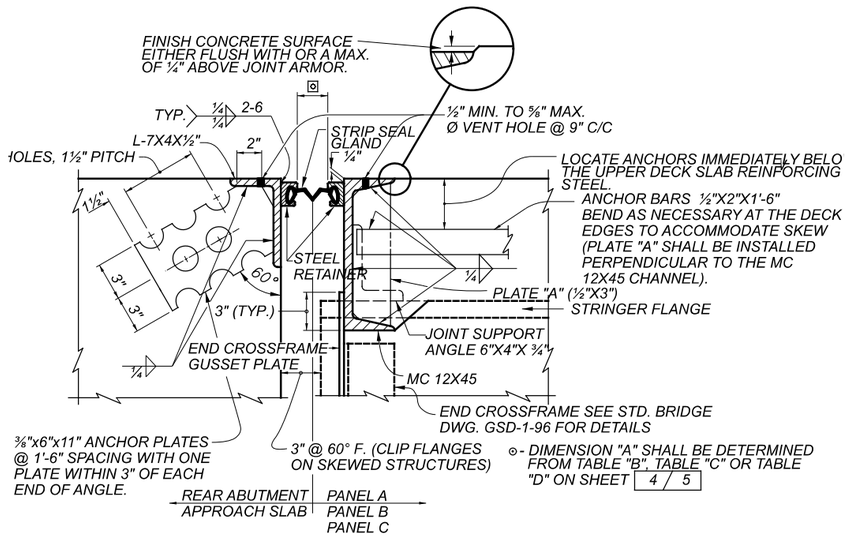


SECTION B-B

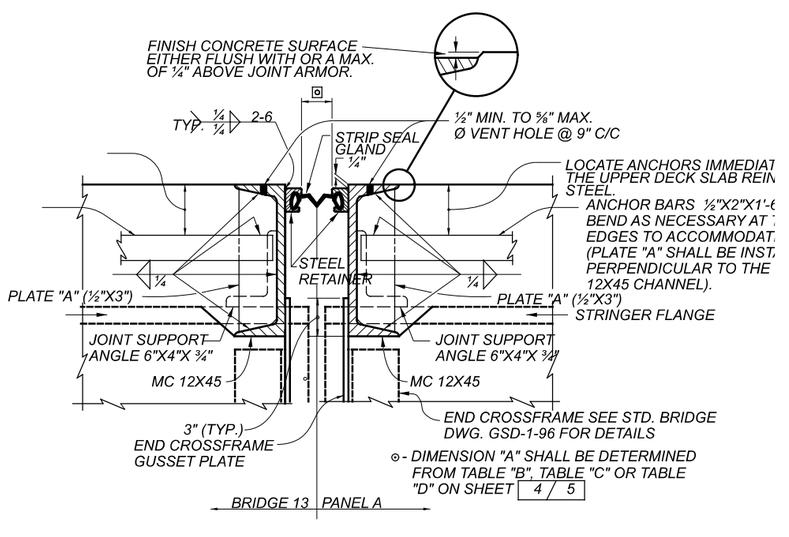


SECTION C-C

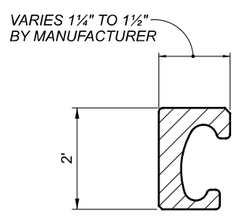
SECTION THRU SAND SET PAVERS AND INFILL SHOWN, SECTION THRU SIDEWALK SIMILAR



SECTION D-D



SECTION E-E



RETAINER DETAIL

LEGEND

△ - PROVIDE A 1/2" HORIZONTAL X 1/4" VERTICAL BEVEL AT THE EXPOSED EDGE OF THE 1/2" COVER PLATE AND 1/2" X 1" BAR.

⊡ - THIS DIMENSION IS THE SUM OF (2 X 1 1/4" STEEL RETAINER + WIDTH DIM. "A").

NOTES:

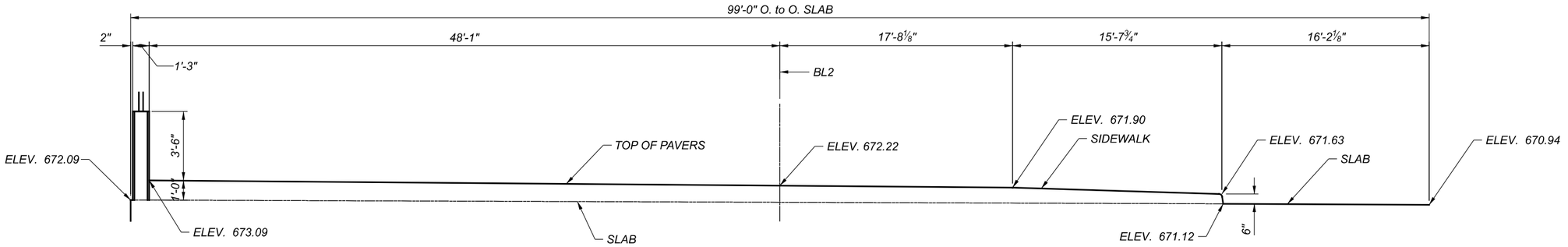
1. SEE EXPANSION JOINT DETAILS (4 OF 4) FOR GENERAL NOTES.
2. SEE EXPANSION JOINT DETAILS (3 OF 4) FOR JOINT LOCATIONS PLAN.
3. COORDINATE ADJUSTMENTS TO DECK DIMENSION IF JOINT MANUFACTURER USES A DIFFERENT SIZE RETAINER.
4. SEE EXPANSION JOINT DETAILS (3 OF 4) FOR JOINT OPENINNG TABLE.

FOR INFORMATION ONLY - NOT FOR REVIEW

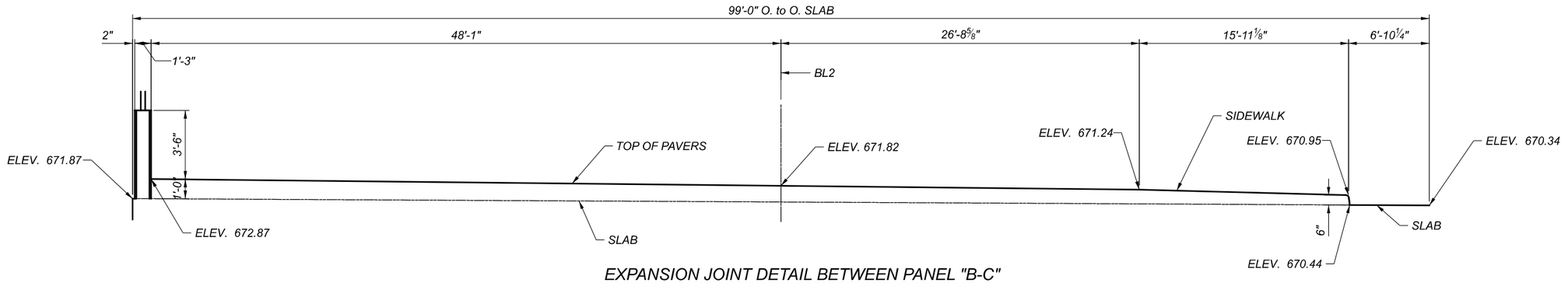
EXPANSION JOINT DETAILS (1 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER — | —
PROJECT ID 82382
SUBSET 53 | TOTAL 63
SHEET 1945 | TOTAL 2339

CUY-90-16.28 (CCG3A)

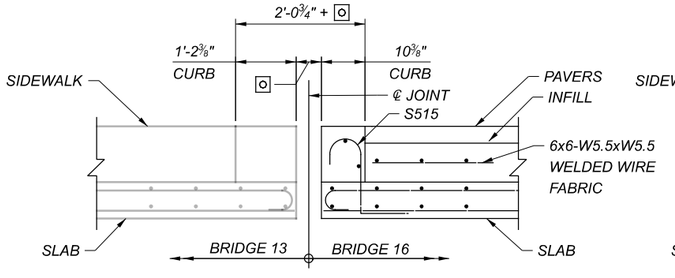


EXPANSION JOINT DETAIL BETWEEN PANEL "A-B"

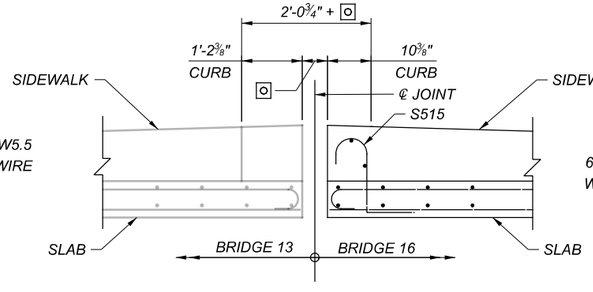


EXPANSION JOINT DETAIL BETWEEN PANEL "B-C"

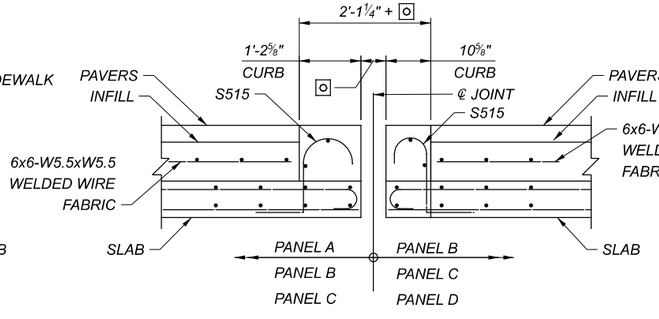
EXPANSION JOINT DETAIL BETWEEN PANEL "C-D"



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

◻ ACCOUNTS FOR 2¾" OPENING AT 60° F BETWEEN BRIDGE 13 AND 16 AND 2¼" JOINT OPENING AT 60° F BETWEEN PANELS A/B, B/C AND C/D PLUS (2)- 1¼" STEEL RETAINERS. COORDINATE ADJUSTMENTS TO DECK DIMENISONS IF JOINT MANUFACTURER USES A DIFFERENT SIZE RETAINER AND AS NEEDED FOR AMBIENT TEMPERATURE AT TIME OF DECK POUR.

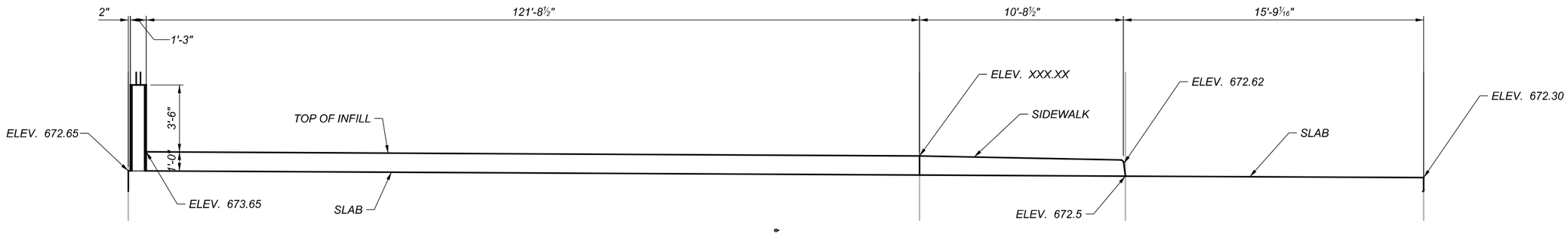
SEE EXPANSION JOINT DETAILS (3 OF 4) FOR JOINT OPENING TABLE.

FOR INFORMATION ONLY - NOT FOR REVIEW

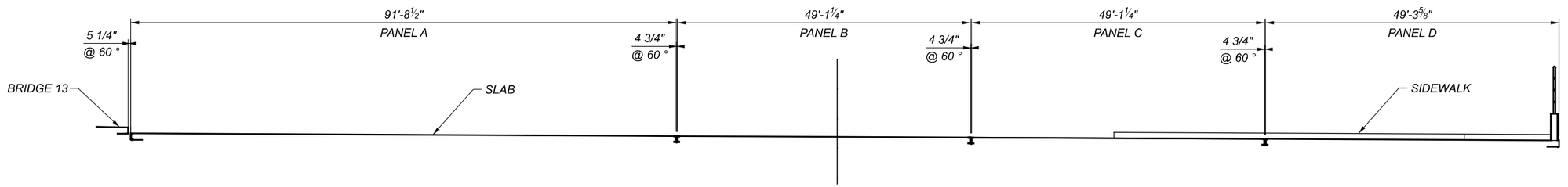
EXPANSION JOINT DETAILS (2 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER - —
PROJECT ID 82382
SUBSET 54 | TOTAL 63
SHEET 1946 | TOTAL 2339

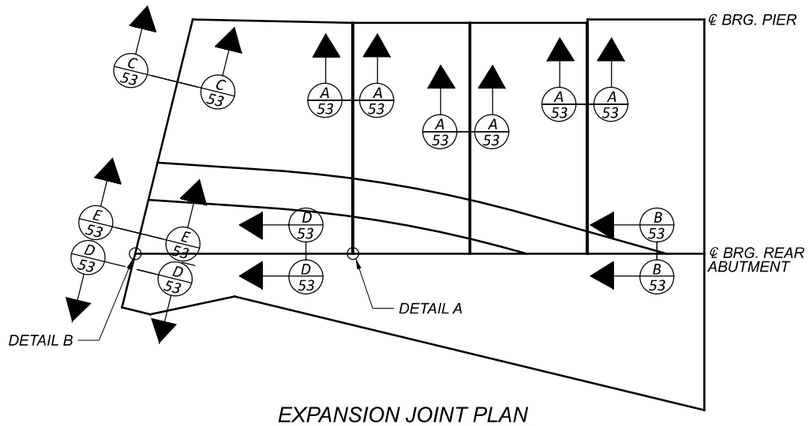
CUY-90-16.28 (CCG3A)



EXPANSION JOINT DETAIL BETWEEN "BRIDGE 13 & BRIDGE 16"



EXPANSION JOINT DETAIL @ ABUTMENT



EXPANSION JOINT PLAN

TEMPERATURE	SECTION A-A		SECTION B-B		SECTION C-C		SECTION D-D		SECTION E-E	
	4" STRIP SEAL		4" STRIP SEAL		5" STRIP SEAL		4" STRIP SEAL		5" STRIP SEAL	
	LEFT SID	RIGHT SIDE	LEFT SIDE	RIGHT SIDE	LEFT SIDE	RIGHT SIDE	LEFT SIDE	RIGHT SIDE	LEFT SIDE	RIGHT SIDE
	PANEL A	PANEL B								
	PANEL B	PANEL C	R.A APP. SLAB	PANEL B / C	BRIDGE 13	PANEL A	R.A APP. SLAB	PANEL A / B / C	BRIDGE 13	PANEL A
	PANEL C	PANEL D								
30	2 1/16		2		2 9/16		2		2 9/16	
40	2 1/8		2 1/8		2 5/8		2 1/8		2 5/8	
50	2 3/16		2 3/16		2 11/16		2 3/16		2 11/16	
60	2 1/4		2 1/4		2 3/4		2 1/4		2 3/4	
70	2 5/16		2 5/16		2 13/16		2 5/16		2 13/16	
80	2 3/8		2 3/8		2 7/8		2 3/8		2 7/8	
90	2 7/16		2 1/2		2 15/16		2 1/2		2 15/16	

NOTES:

1. SEE EXPANSION JOINT DETAILS (4 OF 4) FOR GENERAL NOTES AND DETAILS A AND B.
2. SEE EXPANSION JOINT DETAILS (1 OF 4) FOR SECTIONS A-A, B-B, C-C, D-D, AND E-E

FOR INFORMATION ONLY - NOT FOR REVIEW

EXPANSION JOINT DETAILS (3 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER PAT | CHECKER XW
REVIEWER — | —
PROJECT ID 82382
SUBSET 55 | TOTAL 63
SHEET 1947 | TOTAL 2339

CUY-90-16.28 (CCG3A)

GENERAL NOTES:

STRIP SEAL: *FURNISH EXTRUDED POLYCHLOROPRENE MATERIAL CONFORMING TO ASTM D2628. DUE TO THE CONFIGURATION OF THE SEAL, THE RECOVERY TEST IS NOT APPLICABLE. THE PHYSICAL PROPERTIES OF THE STRIP SEAL SHALL CONFORM TO TABLE "E".*

THE MANUFACTURER OR AN ACCREDITED LABORATORY SHALL TEST EACH LOT AS SPECIFIED AND SUBMIT TWO COPIES OF CERTIFIED TEST DATA SHOWING COMPLIANCE TO THE ODOT OFFICE OF MATERIALS MANAGEMENT. THE SEAL AND RETAINER ARE AN INTEGRAL SYSTEM DESIGNED AND SUPPLIED BY THE SAME MANUFACTURER. SEE "CONSTRUCTION PROCEDURE" FOR INSTALLATION.

TABLE E

(PHYSICAL PROPERTIES OF SEAL ELEMENT)

PROPERTY	REQUIREMENT	ASTM METHOD
TENSILE STRENGTH, MIN. PSI	2000	D412
ELONGATION @ BREAK, MIN. (PERCENT)	250	D412
HARDNESS, TYPE A DUROMETER, POINTS	60± 5	MODIFIED D2240
OVEN AGING, 70 HR @ 212 ° F TENSILE STRENGTH, LOSS, MAX. ELONGATION, LOSS, MAX. HARDNESS, TYPE A DUROMETER, POINTS CHANGE	 20 PERCENT 20 PERCENT 0 TO +10	D573 MODIFIED D2240
OIL SWELL, ASTM OIL 3 70 HR @ 212 ° F, WEIGHT CHANGE MAX	45 PERCENT	D471
OZONE RESISTANCE 20 PERCENT STRAIN, 300 PPHM IN AIR, 70 HR @ 104 ° F (WIPED WITH TOLUENE TO REMOVE SURFACE CONTAMINATION)	NO CRACKS	D1149
LOW TEMPERATURE STIFFENING 7 DAYS @ 14 ° F HARDNESS, TYPE A DUROMETER, POINTS CHANGE COMPRESSION SET, 70 HR @ 212 ° F MAX.	 0 TO +15 40 PERCENT	D2240 MODIFIED D2240 D395 METHOD B

LUBRICANT-ADHESIVE: *FURNISH A ONE PART MOISTURE CURING POLYURETHANE COMPOUND MEETING THE REQUIREMENTS OF ASTM D4070 AND AS SPECIFIED BY THE SEAL MANUFACTURER. SEE "CONSTRUCTION PROCEDURE" FOR APPLICATION.*

JOINTS IN STRIP SEALS: *FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS OTHERWISE APPROVED BY THE ENGINEER.*

SEAL RETAINERS: *FURNISH SOLID SHAPE STEEL RETAINERS, AS DIMENSIONED ON SHEET 2 OF 5 "RETAINER DETAIL", THAT ARE EXTRUDED, HOT ROLLED OR MACHINED. RETAINERS MANUFACTURED FROM BENT PLATE OR BUILT UP PIECES ARE NOT ACCEPTABLE. THE MANUFACTURER SHALL SPECIFY THE INTERNAL DIMENSIONS OF THE RETAINER TO ACHIEVE A POSITIVE SEAL AND ANCHORAGE.*

AT JOINT UPTURNS, ESPECIALLY ON SKEWED BRIDGE DECKS, THE USE OF SPLIT RETAINERS MAY BE NECESSARY TO ENSURE PROPER SEAL GLAND INSTALLATION. WHERE THE SPLIT RETAINERS ARE REQUIRED, THE MANUFACTURER SHALL OBTAIN THE ENGINEER'S APPROVAL FOR THE DESIGN.

BEFORE THE GLAND IS INSTALLED, CORRECT ANY DEFECTS IN THE STEEL RETAINER OR THE ACTUAL EXPANSION JOINT THAT COULD CAUSE DAMAGE TO THE GLAND.

JOINTS IN RETAINERS: *WELDS SHALL BE WATER TIGHT, PARTIAL PENETRATION WELDS AROUND THE OUTER PERIPHERY OF THE ABUTTING SURFACES. GRIND FLUSH ALL WELDS IN CONTACT WITH*

THE SEAL AND JOINT ARMOR. DO NOT USE SHORT PIECES OF RETAINERS LESS THAN 6'-0" LONG, UNLESS REQUIRED AT CURBS OR SIDEWALKS. DO NOT PROVIDE ADDITIONAL SPLICES IN RETAINERS AT CURB OR SIDEWALK SECTIONS OTHER THAN THOSE DETAILED IN THE STANDARD BRIDGE DRAWINGS.

ARMOR STEEL: *ALL CHANNEL SHAPES, ANGLE SHAPES AND ALL CROSS FRAME CONNECTION GUSSET PLATES, SHALL BE ASTM 709, GRADE 50 OR 50W. ALL OTHER STEEL PARTS INCLUDING RETAINERS, SHALL BE ASTM A709, GRADE 36, 50 OR 50W.*

JOINTS IN ARMOR STEEL: *SHOP OR FIELD JOINTS IN THE ARMOR SHALL BE COMPLETE PENETRATION WELDS GROUND FLUSH WHERE IN CONTACT WITH THE RETAINER.*

ARMOR COATING: *COAT ALL STEEL PARTS OF THE JOINT ASSEMBLY ACCORDING TO 516.*

DO NOT FIELD PAINT METALIZED SURFACES EXCEPT AS NOTED. CLEAN AND PAINT THE AREAS ON THE ½" GUSSET PLATES DAMAGED DURING CROSSFRAME INSTALLATION IN CONFORMANCE WITH THE STRUCTURE'S PAINT SYSTEM. PROTECT THE METALIZED COATING WHEN BLASTING OR COATING ADJACENT STEEL MEMBERS. OVERSPRAY NEED NOT BE REMOVED.

TEMPORARY SUPPORTS: *THE FABRICATOR SHALL DESIGN AND INSTALL TEMPORARY SUPPORTS TO RESIST SHIPPING, ERECTION AND CONSTRUCTION FORCES WITHOUT DAMAGE TO THE STEEL ARMOR OR COATING. THESE SUPPORTS SHALL BE ADJUSTABLE IN THE FIELD TO ACCOUNT FOR VARIABLE TEMPERATURE SETTINGS. INSTALL THE SUPPORTS AFTER THE FABRICATION AND COATING IS COMPLETE.*

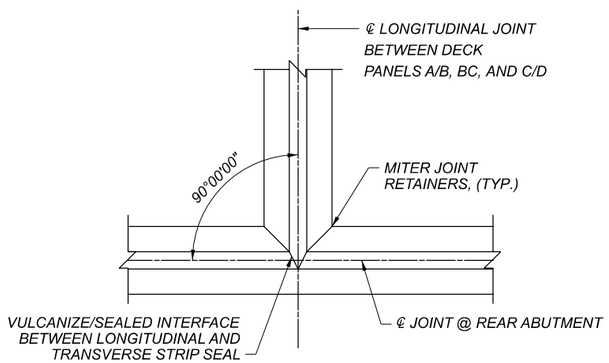
CONSTRUCTION PROCEDURE:

ARMOR INSTALLATION:

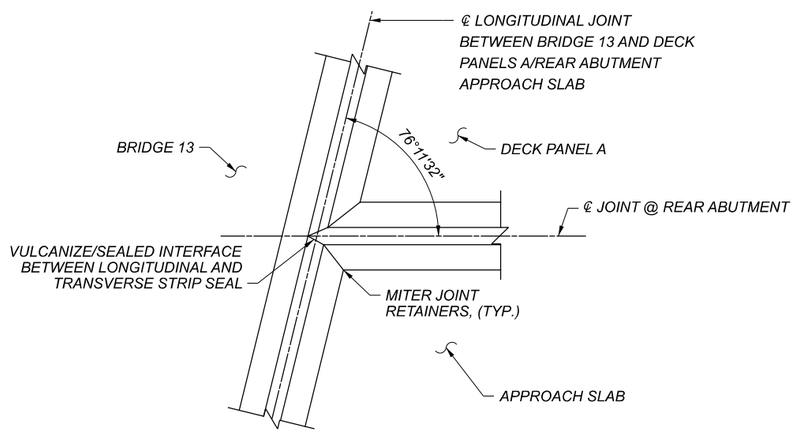
1. *PLACE JOINT ASSEMBLY SO THE CHANNEL AND ANGLE REMAIN PARALLEL TO EACH OTHER AND PERPENDICULAR TO THE ROADWAY GRADIENT.*
2. *PLACE ABUTMENT BACKWALL CONCRETE AFTER THE SUPERSTRUCTURE CONCRETE IS PLACED IN THE SPAN ADJACENT TO THE ABUTMENT.*
3. *SET ABUTMENT EXPANSION JOINT WIDTH TO DIMENSION "A" NO MORE THAN FOUR HOURS PRIOR TO THE DAY'S PEAK AMBIENT TEMPERATURE. SEE PROJECT PLANS FOR DIMENSION "A".*
4. *PLACE THE BACKWALL CONCRETE DURING STABLE OR RISING AMBIENT TEMPERATURES. CONCLUDE PLACEMENT AT OR IMMEDIATELY BEFORE THE DAY'S PEAK AMBIENT TEMPERATURE.*
5. *HAND PLACE AND VIBRATE CONCRETE UNDER JOINT ARMOR TO ACHIEVE COMPLETE CONSOLIDATION.*
6. *LOOSEN ANY TEMPORARY JOINT ARMOR SUPPORTS AFTER INITIAL SET OF THE CONCRETE, PREFERABLY NOT LATER THAN TWO HOURS AFTER CONCLUSION OF THE CONCRETE PLACEMENT.*

SEAL INSTALLATION:

1. *EXAMINE THE RETAINER FOR SOILAGE OR DEFECTS THAT CAN DAMAGE THE SEAL PRIOR TO SEAL INSTALLATION. REPAIR DEFECTS.*
2. *NOT MORE THAN 24 HOURS PRIOR TO SEAL INSTALLATION, BLAST THE RETAINER INTERIOR PER SSPC SP6 "COMMERCIAL BLAST CLEANING", WITHOUT DAMAGING ADJACENT COATINGS. REMOVE ALL BLASTING MEDIA FROM THE RETAINER.*
3. *CLEAN ALL SURFACES OF THE SEAL WITH METHYL ETHYL KETONE (MEK), TOLUENE (T) OR OTHER MANUFACTURER SPECIFIED SOLVENT USING CLEAN DISPOSABLE CLOTHS. MAINTAIN THE SURFACE CLEANLINESS UNTIL INSTALLATION.*
4. *IMMEDIATELY BEFORE APPLYING THE LUBRICANT-ADHESIVE, BONDING SURFACES MUST BE CLEAN, DRY AND WARMER THAN $45^{33}/_{64}$F. BONDING SURFACES MUST BE MAINTAINED IN THIS CONDITION UNTIL THE SEAL IS INSTALLED. LIBERALLY APPLY THE LUBRICANT-ADHESIVE TO BOTH THE RETAINER AND THE SEAL USING THE MANUFACTURER'S SPECIFIED METHODS FOR COMPLETE AND UNIFORM COVERAGE.*
5. *INSTALL THE SEAL WITH EQUIPMENT AND PROCEDURE SPECIFIED BY THE MANUFACTURER. ELONGATION OF THE SEAL OR STRUCTURAL DAMAGE TO THE SEAL CAUSED BY INSTALLATION METHODS WILL BE CAUSE FOR REJECTION.*
6. *REMOVE EXCESS LUBRICANT-ADHESIVE AFTER INSTALLATION.*



DETAIL A



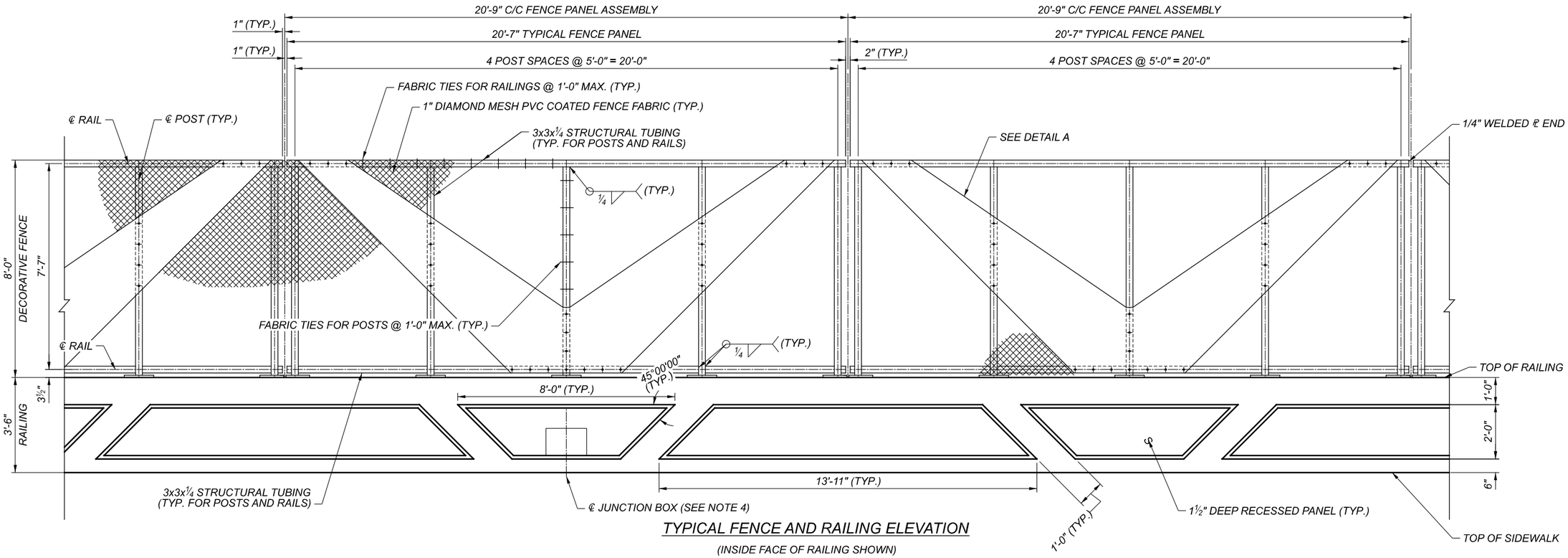
DETAIL B

FOR INFORMATION ONLY - NOT FOR REVIEW

EXPANSION JOINT DETAILS (4 OF 4)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

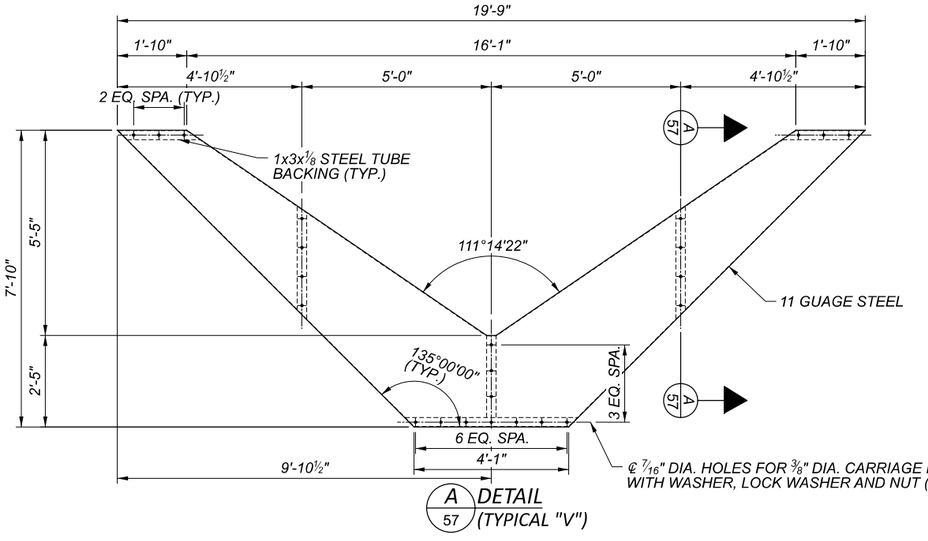
SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	PAT
CHECKER	XW
REVIEWER	—
PROJECT ID	82382
SUBSET	56
TOTAL	63
SHEET	1948
TOTAL	2339

CUY-90-16.28 (CCG3A)

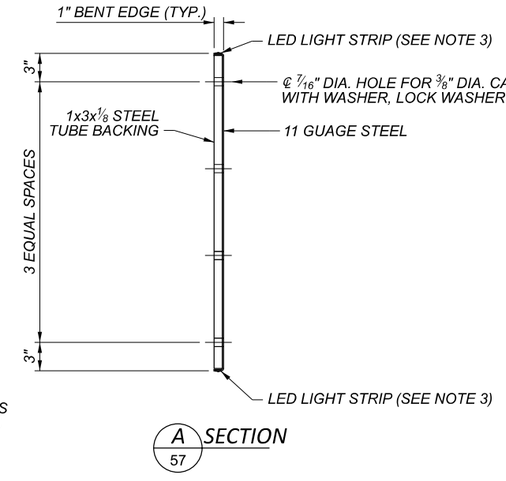


TYPICAL FENCE AND RAILING ELEVATION

(INSIDE FACE OF RAILING SHOWN)



A 57 DETAIL (TYPICAL "V")



A 57 SECTION

NOTES:

1. FENCE POSTS SHALL BE PLUMB.
2. SEE ODOT STANDARD CONSTRUCTION DRAWING VPF-1-90 FOR FENCE FABRIC, FABRIC TIES, AND DOUBLE WRAP FABRIC TIES.
3. SEE LIGHTING PLANS FOR LED STRIP LIGHT SPECIFICATIONS AND ADDITIONAL INFORMATION.
4. SEE ODOT STANDARD CONSTRUCTION DRAWING HL-20.14 FOR JUNCTION BOX DETAILS.
5. PLACE FENCE FABRIC BETWEEN POST AND RAIL ASSEMBLIES AND DECORATIVE "V's" ON SIDEWALK SIDE.
6. SEE ADDITIONAL FENCE DETAIL SHEETS FOR BASEPLATE AND NON-TYPICAL FENCE PANEL DETAILS.

FOR INFORMATION ONLY - NOT FOR REVIEW

FENCE DETAILS (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	MKB
CHECKER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SUBSET	57
TOTAL	63
SHEET	1949
TOTAL	2339

CUY-90-16.28 (CCG3A)

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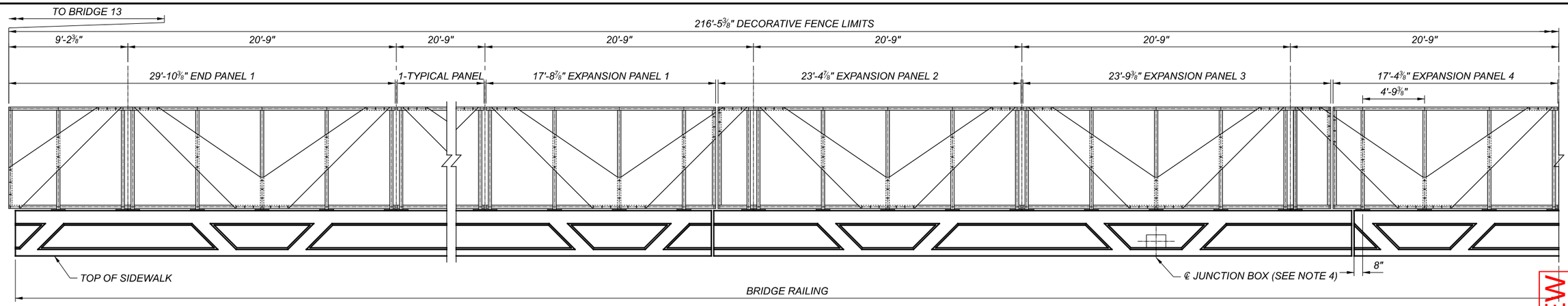
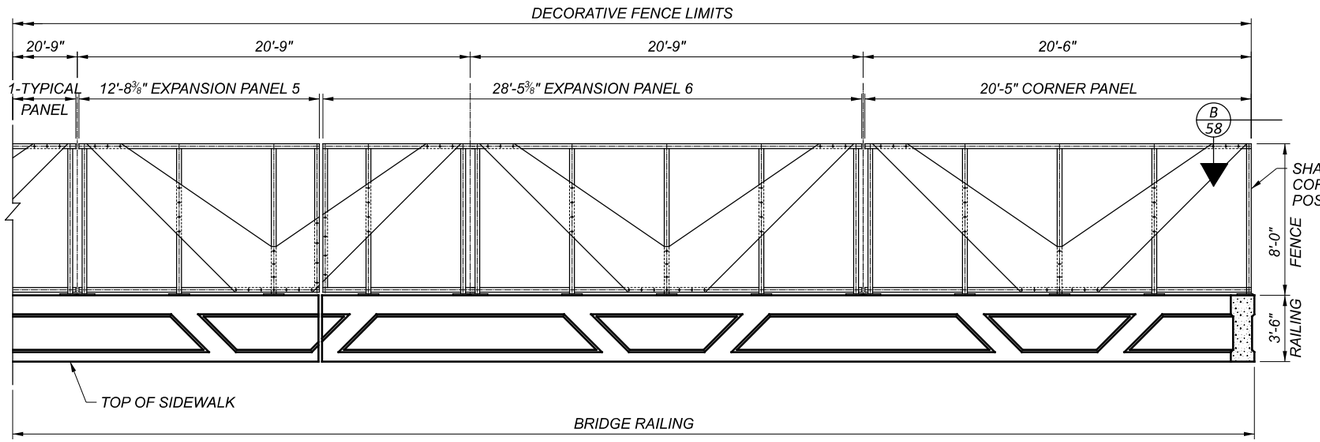


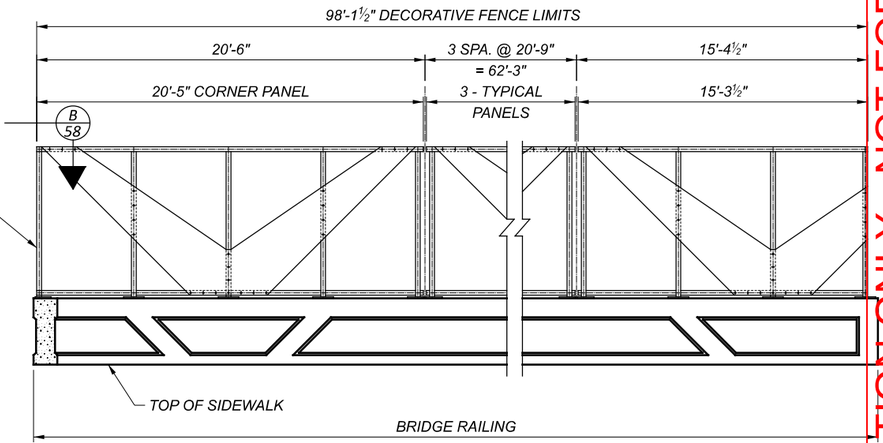
BRIDGE 16 NORTH RAILING ELEVATION

(SIDEWALK FACE LOOKING NORTH)



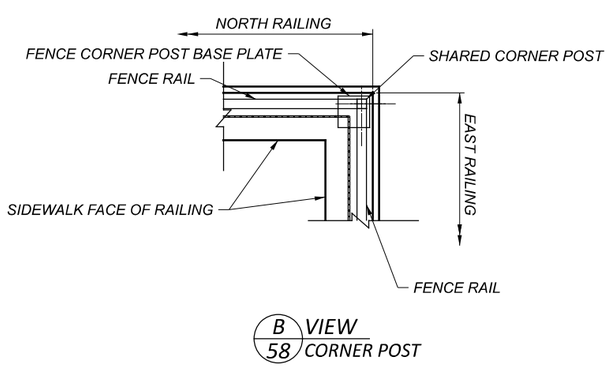
BRIDGE 16 NORTH RAILING ELEVATION (CONTINUED)

(SIDEWALK FACE LOOKING NORTH)



BRIDGE 16 EAST RAILING ELEVATION

(SIDEWALK FACE LOOKING EAST)



B / 58 VIEW CORNER POST

NOTES:

1. FENCE POSTS SHALL BE PLUMB.
2. SEE ODOT STANDARD CONSTRUCTION DRAWING VPF-1-90 FOR FENCE FABRIC, FABRIC TIES, AND DOUBLE WRAP FABRIC TIES.
3. SEE LIGHTING PLANS FOR LED STRIP LIGHT SPECIFICATIONS AND ADDITIONAL INFORMATION.
4. SEE ODOT STANDARD CONSTRUCTION DRAWING HL-20.14 FOR JUNCTION BOX DETAILS.
5. PLACE FENCE FABRIC BETWEEN POST AND RAIL ASSEMBLIES AND DECORATIVE "V's" ON SIDEWALK SIDE.
6. SEE ADDITIONAL FENCE DETAIL SHEETS FOR BASEPLATE AND TYPICAL FENCE PANEL DETAILS.
7. NOT ALL LIGHTING JUNCTION BOXES SHOWN. SEE TYPICAL FENCE PANEL DETAILS.

FOR INFORMATION ONLY - NOT FOR REVIEW

FENCE DETAILS (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN 1807841
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER MKB | CHECKER —
REVIEWER — | —
PROJECT ID 82382
SUBSET 58 | TOTAL 63
SHEET 1950 | TOTAL 2339

CUY-90-16.28 (CCG3A)

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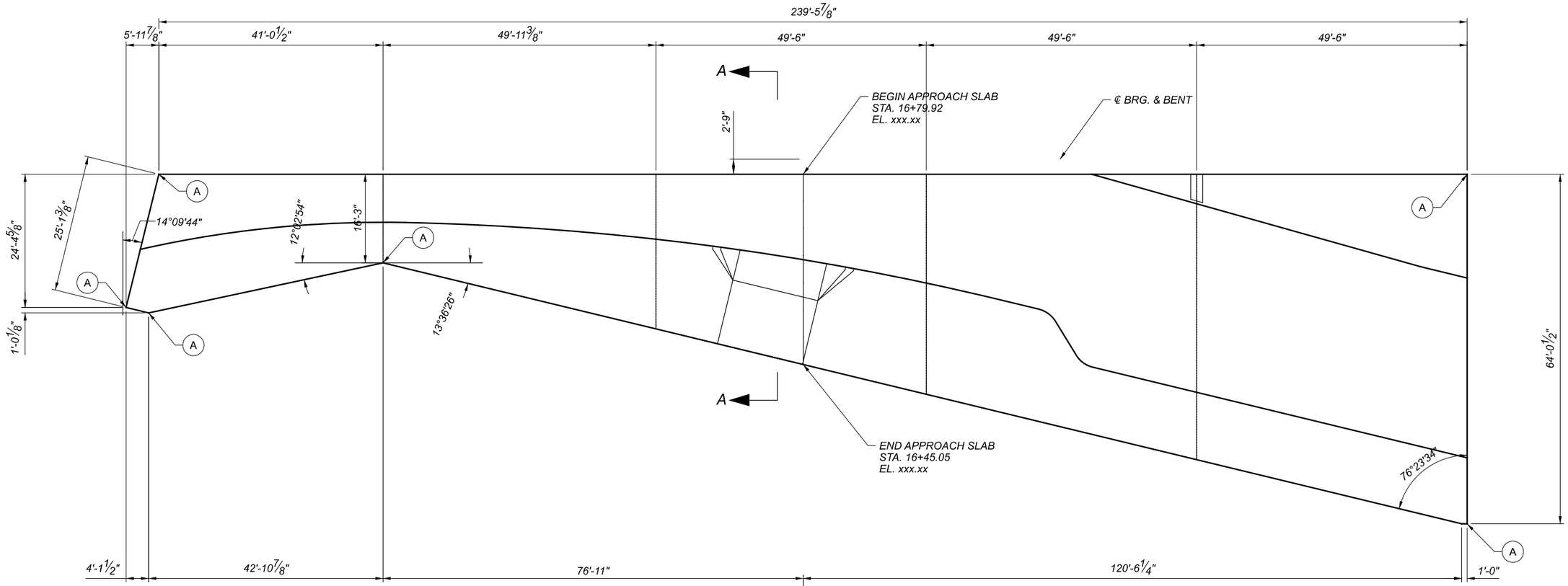
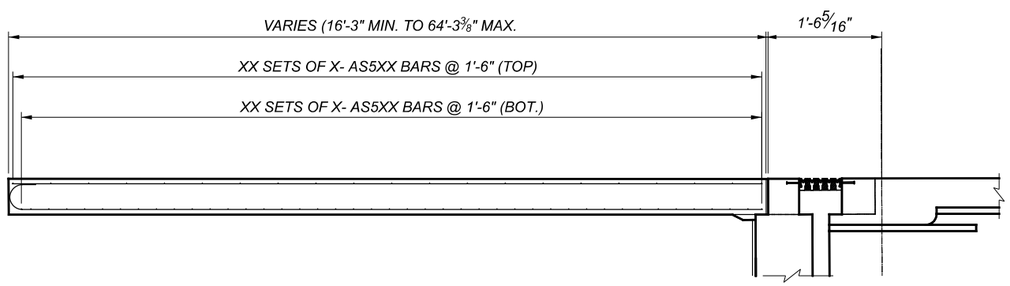


APPROACH SLAB PLAN



SECTION A-A

NOTES:

1. SEE SHEET X/X FOR SECTIONS A-A,B-B, AND TYPE C INSTALLATION, AS PER PLAN DETAILS.
2. SEE BRIDGE STANDARD DRAWINGS AS-1-15 AND AS-2-15 FOR STANDARD REINFORCING AND INFORMATION NOT SHOWN.
3. SEE SHEETS X/X THROUGH X/X FOR BARRIER DETAILS.
4. SEE SHEET X/X FOR SUPERELEVATION TRANSITION DIAGRAM.

FOR INFORMATION ONLY - NOT FOR REVIEW

APPROACH SLAB PLAN (1 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SFN	1807841
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
CHECKER	—
REVIEWER	—
PROJECT ID	82382
SUBSET	59
TOTAL	63
SHEET	1951
TOTAL	2339

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:57:41 AM USER: Mala.Gallagher
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MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:57:56 AM USER: Maia.Gallagher
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SHEET RESERVED FOR FUTURE USE

FOR INFORMATION ONLY - NOT FOR REVIEW

APPROACH SLAB PLAN (2 OF 2)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SHEET	1952
TOTAL	2339
SUBSET	60
TOTAL	63
PROJECT ID	82382
REVIEWER	—
DESIGNER	CC
CHECKER	MB
	Michael Baker INTERNATIONAL
SFN	1807841
DESIGN AGENCY	

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:58:03 AM USER: Maia.Gallagher
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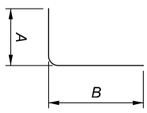
FOR INFORMATION ONLY - NOT FOR REVIEW

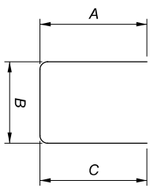
REINFORCING SCHEDULE (1 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SHEET	1953
TOTAL	2339
SUBSET	61
TOTAL	63
PROJECT ID	82382
REVIEWER	—
DESIGNER	—
CHECKER	—
	Michael Baker INTERNATIONAL
SFN	1807841
DESIGN AGENCY	

TYPE-1



TYPE-2



FOR INFORMATION ONLY - NOT FOR REVIEW

REINFORCING SCHEDULE (2 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB

SHEET 1954 / TOTAL 2339	SUBSET 62 / TOTAL 63	PROJECT ID 82382	REVIEWER —	DESIGNER — / CHECKER —NA—	Michael Baker INTERNATIONAL	SFN 1807841 DESIGN AGENCY

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 6/24/2022 TIME: 8:58:17 AM USER: Maia.Gallagher
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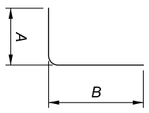
TYPE-1



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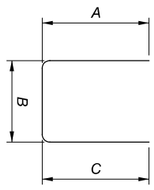

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SHEET 1955 / TOTAL 2339	SUBSET 63 / TOTAL 63	PROJECT ID 82382	— REVIEWER
DESIGNER —	CHECKER —NA—	Michael Baker INTERNATIONAL	SFN 1807841 DESIGN AGENCY

REINFORCING SCHEDULE (3 OF 3)
CUY-90-1680 (BRIDGE 16)
CR-23 (CEDAR AVE.) OVER I.R. 90 EB