UNIVERSITY OF LOUISVILLE

PROCUREMENT SERVICES
ADDENDUM

Date of Notice:	3/28/2025
Solicitation No.:	IB-018-25
Title:	Belknap Pedway Structural Repairs
Addendum No.:	2

The following pages shall clarify and/or modify the original bid document(s) as issued by the University of Louisville.

Proposer must acknowledge receipt of this and any addenda either with proposal or by separate letter. Acknowledgement must be received in the Department of Procurement Services, Service Complex Building, University of Louisville no later than **4/4/2025 at 2:00PM, EST.** If by separate letter, the following information must be placed in the lower left-hand corner of the envelope:

Solicitation No.:	**IB-018-25**
Title:	**Belknap Pedway Structural Repairs**
Due Date:	**4/4/2025 at 2:00PM, EST.**

Authorized By:

Procurement Services	Evan Riddell Digitally signed by Evan Riddell Date: 2025.03.28 13:56:28 -04'00'

Receipt Acknowledged:

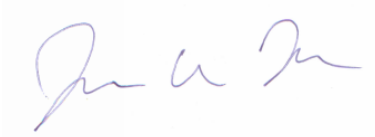
Company	
Signature	
Name (print)	
Date	

BROWN+KUBICAN
STRUCTURAL ENGINEERS

Addendum 2
IB-018-25 Belknap Pedway Structural Repairs

The addendum includes the following written description; reissued drawings S1.3 dated 3/28/25, reissued Allowance Specification 01 21 00 dated 3/28/25, and reissued Form Proposal.

1. Sheet S1.3.
   a. Revise “Concrete Repair Allowance Schedule” from quantity allowance to lump sum amount of $25,000.00.
2. Specification 01 21 00 Allowances.
   a. Revised the §2.1 Schedule of Allowances from individual quantity allowances to a single Lump Sum Allowance of $25,000.00.
3. Form Proposal
   a. Replace the Itemized Pricing Schedule with attached.
   b. Replace the Unit Pricing Schedule with attached.



Jason Bush, P.E.

Copy: Project file

PROPOSAL FORM

ITEMIZED PRICING SCHEDULE

THE LIST OF PROPOSED ITEMS BELOW IS TO BE CONSIDERED THE FORM OF PROPOSAL. The itemized prices shall include the furnishing of all labor and materials (for preparation, shoring, forming, cleaning, etc), the cost of all items and overhead and profit for the Contractor, as well as any subcontractors involved for the Work. These itemized prices shall be listed in the respective pricing schedules.

ITEMIZED PRICING SCHEDULE		
	WORK	LUMP SUM PRICE
1.	Complete Surface Coating (Tag Note 1)	$
2.	Top Coated Surface Coating (Tag Note 2)	$
3.	Not Used (Tag Note 3)	N/A
4.	Exposed Reinforcing Steel (Tag Note 4)	$
5.	Polyurethane Crack-Injection (Tag Note 5)	$
6.	Polyurethane Crack-Injection (Tag Note 6)	$
7.	Polyurethane Crack-Injection (Tag Note 7)	$
8.	Epoxy Crack-Injection (Tag Note 8)	$
9.	Epoxy Crack-Injection (Tag Note 9)	$
10.	Epoxy Crack-Injection (Tag Note 10)	$
11.	Vertical Surface Patch (Tag Note 11)	$
12.	Vertical Elevated Surface Patch (Tag Note 12)	$
13.	Vertical Elevated Surface Patch (Tag Note 13)	$
14.	Horizontal Surface Patch (Tag Note 14)	$
15.	Horizontal Overhead Surface Patch (Tag Note 15)	$
16.	Horizontal Overhead Surface Patch (Tag Note 16)	$
17.	Horizontal Overhead Corner Surface Patch (Tag Note 17)	$
18.	Horizontal Overhead Corner Surface Patch (Tag Note 18)	$
19.	Grout Infill (Tag Note 19)	$
20.	Full-Depth Concrete Infill (Tag Note 20)	$
21.	Expansion Joint Replacement (Tag Note 21)	$
22.	Preformed Expansion Joint Replacement (Tag Note 22)	$
23.	Anti-Slip Tape Replacement (Tag Note 23)	$
24.	Handrail Base Coating (Tag Note 24)	$
25.	Fence Base Replacement (Tag Note 25)	$
26.	Fence Cap Coating (Tag Note 26)	$
27.	Deck Cage Base Coating (Tag Note 27)	$
28.	Replace Traffic Plate Anchors (Tag Note 28)	$
29.	Light Fixture Sealant (Tag Note 29)	$
30.	Storefront Sealant (Tag Note 30)	$

31.	Louver Sealant (Tag Note 31)	$
32.	Replace Slide Plate (Tag Note 32)	$
33.	Replace Bearing Plate & Anchors (Tag Note 33)	$
34.	General Conditions/Mobilization/Demobilization	$
35.	Pedestrian Traffic Control	$
36.	Allowance	$ 25,000.00
	TOTAL LUMP SUM BID:	**$**

UNIT PRICING SCHEDULE

NOTE: *Adjustment of quantities in the "Schedule of Repairs" on sheet S1.2 may be either decreased or increased. Payments to or credits from the Contractor will be based on the unit prices furnished below, therefore the unit prices indicated below must be equal to those used to calculate lump sum prices given in the Proposal Form.*

	WORK	PRICE	UNIT
1.	Complete Surface Coating (Tag Note 1)	$	SF
2.	Top Coated Surface Coating (Tag Note 2)	$	SF
3.	Not Used (Tag Note 3)	N/A	N/A
4.	Exposed Reinforcing Steel (Tag Note 4)	$	LF
5.	Polyurethane Crack-Injection (Tag Note 5)	$	LF
6.	Polyurethane Crack-Injection (Tag Note 6)	$	LF
7.	Polyurethane Crack-Injection (Tag Note 7)	$	LF
8.	Epoxy Crack-Injection (Tag Note 8)	$	LF
9.	Epoxy Crack-Injection (Tag Note 9)	$	LF
10.	Epoxy Crack-Injection (Tag Note 10)	$	LF
11.	Vertical Surface Patch (Tag Note 11)	$	SF
12.	Vertical Elevated Surface Patch (Tag Note 12)	$	SF
13.	Vertical Elevated Surface Patch (Tag Note 13)	$	SF
14.	Horizontal Surface Patch (Tag Note 14)	$	SF
15.	Horizontal Overhead Surface Patch (Tag Note 15)	$	SF
16.	Horizontal Overhead Surface Patch (Tag Note 16)	$	SF
17.	Horizontal Overhead Corner Surface Patch (Tag Note 17)	$	SF
18.	Horizontal Overhead Corner Surface Patch (Tag Note 18)	$	SF
19.	Grout Infill (Tag Note 19)	$	SF
20.	Full-Depth Concrete Infill (Tag Note 20)	$	SF
21.	Expansion Joint Replacement (Tag Note 21)	$	LF
22.	Preformed Expansion Joint Replacement (Tag Note 22)	$	LF
23.	Anti-Slip Tape Replacement (Tag Note 23)	$	LF
24.	Handrail Base Coating (Tag Note 24)	$	EA
25.	Fence Base Replacement (Tag Note 25)	$	EA

26.	Fence Cap Coating (Tag Note 26)	$	EA
27.	Deck Cage Base Coating (Tag Note 27)	$	EA
28.	Replace Traffic Plate Anchors (Tag Note 28)	$	EA
29.	Light Fixture Sealant (Tag Note 29)	$	EA
30.	Storefront Sealant (Tag Note 30)	$	LF
31.	Louver Sealant (Tag Note 31)	$	LF
32.	Replace Slide Plate (Tag Note 32)	$	EA
33.	Replace Bearing Plate & Anchors (Tag Note 33)	$	EA
34.	General Conditions/Mobilization/Demobilization	$	EA
35.	Pedestrian Traffic Control	$	EA

ADDITION WORK PRICING

Additional work without applicable unit prices shall be paid for on a time and materials basis per the Contract Documents. Indicate the hourly rates(s) for trades as shown below. Rates to include all charges for wages, benefits, profit, etc.

Laborer Hourly Rate = $_____

Other (Specify_____) Hourly Rate = $_____

Other (Specify_____) Hourly Rate = $_____

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. An Allowance has been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

B. Types of allowances include the following:

1. Lump sum allowances.

C. Related Requirements:

1. Section 012200 "Unit Prices" for procedures for using unit prices.

PART 2 - EXECUTION

2.1 SCHEDULE OF ALLOWANCES

A. Lump Sum Allowance: Total Allowance for Work is $25,000.00

1. Basis for Payment: Payment for Allowance be made on a lump sum basis with adjustments made for net variation of total quantities based on contract allowance and unit prices included with the base bid. The actual quantities charged to Allowance will be tracked by the contractor and approved by the Engineer.

a. No additional compensation will be made for Allowance without approval of the Engineer.
b. No payment will be made for rejected Work.
c. Unit Prices include labor, materials, tools, equipment and incidentals for each item. Unit prices for additive and deductive adjustments shall be the same.

2. Coordinate quantity allowance adjustment with unit-price requirements in Section 012200 "Unit Prices."

END OF SECTION 012100

UNIVERSITY OF LOUISVILLE
BELKNAP PEDESTRIAN BRIDGE REPAIR

BROWN+KUBICAN
STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

INDEX TO DRAWINGS	
Sheet Number	Sheet Name
S1.0	COVER SHEET
S1.1	GENERAL NOTES
S1.2	SPECIAL INSPECTIONS
S1.3	BRIDGE REPAIR QUANTITIES
S2.1	LEVEL 1 & 2 FRAMING PLAN
S2.2	LEVEL 1,2, & 3 RCP
S2.3	WEST TOWER ELEVATIONS
S2.4	ELEVATOR TOWER ELEVATIONS
S2.5	EAST TOWER ELEVATIONS
S2.6	RAILROAD SECTION
S3.1	TYPICAL REPAIR DETAILS
S3.2	TYPICAL REPAIR DETAILS
S4.1	TYPICAL FRAMING DETAILS

A S1.0 SITE MAP
NOT TO SCALE

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN BUSH
27320
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE -	COVER SHEET	DRAWING NO. S1.0
DRAWN BY MDA	**UNIVERSITY OF LOUISVILLE** DEPARTMENT OF PHYSICAL PLANT BELKNAP CAMPUS LOUISVILLE, KENTUCKY	
CHECKED BY JST/JAB		
DATE 2/21/25	BROWN+KUBICAN STRUCTURAL ENGINEERS 8900 Greeneway Commons Pl #201 Louisville, KY 40220 502-749-2061 www.brownkubican.com	BK PROJECT # 24252
		ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ DATE _____
APPROVED FOR PROGRAM CONCEPT ONLY

2/20/2025 9:25:52 AM

GENERAL NOTES

DESIGN LOADS

STRUCTURAL RISK CATEGORY ..... CATEGORY II

FLOOR LIVE LOAD

STAIRS/BRIDGE DECK ..... 100 PSF

ROOF SNOW LOAD (PER ASCE 7-10)

GROUND SNOW LOAD ..... P_g = 15 PSF
IMPORTANCE FACTOR ..... Is = 1.0
SNOW EXPOSURE FACTOR ..... Ce = 1.0
THERMAL FACTOR
(BRIDGE/STAIRS) ..... Ct = 1.2
FLAT-ROOF SNOW LOAD* (Pf = 0.7CeCtIsPg)
(BRIDGE/STAIRS) ..... Pf = 12.6 PSF
MINIMUM-ROOF SNOW LOAD (IsPg) ..... Pm = 15 PSF
SLOPED-ROOF SNOW LOAD* (Ps = Cs Pf)
(BRIDGE/STAIRS) ..... Ps = 12.6 PSF

WIND LOAD (PER ASCE 7-10)

ULTIMATE DESIGN WIND SPEED ..... V_{ULT}= 115 MPH
NOMINAL DESIGN WIND SPEED ..... V_{ASD}= 89 MPH
WIND EXPOSURE ..... EXPOSURE C
ENCLOSURE ..... OPEN STRUCTURE

EARTHQUAKE DESIGN DATA

COUNTY / STATE ..... JEFFERSON / KENTUCKY
IMPORTANCE FACTOR ..... Ie = 1.0
MAPPED SHORT PERIOD RESPONSE ACCELERATION ..... Ss = 0.207
MAPPED 1 SECOND PERIOD RESPONSE ACCELERATION ..... S1 = 0.107
SITE CLASS (ASSUMED) ..... CLASS D
DESIGN SHORT PERIOD SPECTRAL RESPONSE COEFFICIENT ..... Sds = 0.221
DESIGN 1 SECOND PERIOD SPECTRAL RESPONSE COEFFICIENT ..... Sd1 = 0.169
SEISMIC DESIGN CATEGORY ..... CATEGORY C
BASIC STRUCTURAL SYSTEM ..... BUILDING FRAME SYSTEM
SEISMIC RESISTING SYSTEM ..... ORDINARY REINFORCED CONCRETE SHEAR WALLS
RESPONSE MODIFICATION FACTOR ..... R = 5.0
SEISMIC RESPONSE COEFFICIENT ..... Cs = 0.100
METHOD OF ANALYSIS ..... EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC BASE SHEAR ..... = 42.0 KIPS

DESIGN STRESSES

CONCRETE & REPAIR MORTAR (STRENGTH DESIGN) MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS:
CONCRETE EXPOSED TO FREEZE/THAW ..... f'c = 5,000 PSI
REINFORCING BARS (ASTM A615 GRADE 60) ..... fy = 60,000 PSI
WIDE FLANGE AND TEE SHAPES DESIGNATED AS W AND WT (ASTM A992) ..... fy = 50,000 PSI
CHANNELS, ANGLES, PLATES AND BARS (ASTM A572) ..... fy = 50,000 PSI
WEATHERING STEEL (ASTM 242 OR A588) ..... fy = 50,000 PSI

DESIGN CRITERIA

1. STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2018 KENTUCKY BUILDING CODE, 3rd EDITION (2015 IBC).
2. NO PROVISION HAS BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION.

GENERAL

1. THE REQUIREMENTS OF THESE GENERAL NOTES APPLY UNLESS NOTED OTHERWISE ON PLANS OR IN SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONTRACT DOCUMENTS, ADDENDA, AND SUPPLEMENTARY INFORMATION AND DISTRIBUTING SUCH TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE PREPARATION AND SUBMITTAL OF SHOP DRAWINGS, FABRICATION, AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES THAT MAY EXIST.
4. ANY DISCREPANCIES BETWEEN STRUCTURAL AND EXISTING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
5. DO NOT SCALE DRAWINGS.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS TO CONSTRUCT THE STRUCTURE, INCLUDING VERIFICATION OF LOAD CAPACITY OF THE STRUCTURE, NEW OR EXISTING, TO SUPPORT CONSTRUCTION ACTIVITIES, EQUIPMENT, ETC. AND FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED. DAMAGE TO THE STRUCTURE CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE CORRECTED BY THE RESPONSIBLE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. SHOP DRAWINGS MUST BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION.
8. WALL OPENINGS AND TERMINATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE DIAGRAMMATIC ONLY.
9. EXISTING CONSTRUCTION SHOWN IS BASED ON EXISTING CONSTRUCTION DOCUMENTS AND/OR GENERAL CONSTRUCTION PRACTICE AND IS NOT GUARANTEED TO BE TRUE OR EXACT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS RELEVANT TO THEIR WORK PRIOR TO CONSTRUCTION.
10. DETAILS LABELED TYPICAL ON THESE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR AND SHALL APPLY REGARDLESS OF WHETHER THEY ARE KEYED ON THE PLANS. CONSTRUCTION NOT SPECIFICALLY INDICATED BY DETAIL OR SECTION SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS.

CONCRETE CONSTRUCTION

1. ALL CONCRETE CONSTRUCTION TO BE IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 301, ACI 318 AND ACI DETAILING MANUAL, EXCEPT THAT CONSTRUCTION AND REMOVAL OF FORMS AND RESHORING SHALL BE INSPECTED BY THE CONTRACTOR'S ENGINEER.
2. FURNISH BAR SUPPORTS WHERE NECESSARY DURING CONSTRUCTION.
3. PROVIDE PLASTIC, PLASTIC-COATED (NOT PLASTIC-TIPPED) OR STAINLESS STEEL CHAIRS IN ALL CONCRETE EXPOSED TO VIEW IN COMPLETED STRUCTURE.
4. OBTAIN APPROVAL OF STRUCTURAL ENGINEER BEFORE LOCATING SLEEVES, HOLES, OR INSERTS IN SLABS WITHIN 2'-0" OF FACE OF COLUMNS OR ANYWHERE IN BEAMS OR COLUMNS.
5. WELDING OF REINFORCING BARS (INCLUDING TACK WELDING) IS NOT PERMITTED.
6. ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 45 DEGREES. MINIMUM CHAMFER TO BE 1/2". CURVE THE LEADING EDGE OF STAIR TREADS TO 1/2" RADIUS.
7. ALL EXPOSED CONCRETE SUBJECTED TO FREEZING AND THAWING TO HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.40 AND 6% +/- 1% OF ENTRAINED AIR.
8. SPLICES: ALL REINFORCING SPLICES SHALL BE AS TENSION LAP, U.N.O.
   A. LAP ALL COMPRESSION SPLICES 30 BAR DIAMETERS OF THE LARGER BAR.
   B. LAP ALL TENSION SPLICES (ALL SPLICES EXCEPT COLUMN SPLICES, U.N.O.) IN ACCORDANCE WITH THE FOLLOWING TABLE. MODIFY LENGTHS AS NOTED:

BAR SIZE	CONCRETE COMPRESSIVE STRENGTH 5,000 PSI	
		1. INCREASE SPLICE LENGTH BY THE FOLLOWING:
		2. NOTE: INCREASED LENGTHS ARE ACCUMULATIVE
#3	17"	1. HORIZONTAL TOP BARS WITH GREATER THAN 12" OF CONCRETE BELOW +30 % 2. BAR SPACING LESS THAN 2 BAR DIAMETERS +50 %
#4	22"	
#5	28"	
#6	33"	

9. CONCRETE PROTECTION FOR REINFORCEMENT: COVER
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER
      NO. 6 THROUGH NO. 18 BARS ..... 2"
      NO. 5 BAR, W31 OR D31 WIRE AND SMALLER ..... 1 ½"

STEEL CONSTRUCTION

1. STEEL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE, AND THE AWS STRUCTURAL WELDING CODE.
2. CONNECTIONS - WELDED OR HIGH-STRENGTH BOLTED:
   A. A325-N WITH HARDENED WASHERS - USE FOR ALL CONNECTIONS OTHER THAN SLIP CRITICAL CONNECTIONS.
   B. UNLESS SNUG-TIGHT CONNECTIONS ARE NOTED ON THE DRAWINGS AS BEING PERMITTED, ALL BOLTS SHALL BE TIGHTENED TO FULL PRETENSIONING LOAD.
   C. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR WITHOUT WRITTEN PERMISSION FROM THE ENGINEER, ALL BOLTS FOR THE PROJECT SHALL BE OF ONE ASTM TYPE AND ONE DIAMETER.
   D. USE STANDARD HOLES WITH THE FOLLOWING EXCEPTIONS: OVERSIZE HOLES ARE PERMITTED WHEN BOLTS ARE LOADED IN TENSION; SHORT-SLOTTED HOLES ARE PERMITTED FOR SHEAR LOADING PERPENDICULAR TO THE SLOT IN ANY ONE PLY AT EACH FAYING SURFACE.
   E. HARDENED WASHERS SHALL BE USED OVER ALL OVERSIZED OR SHORT-SLOTTED HOLES IN AN OUTER PLY. WHERE LONG-SLOTTED HOLES ARE USED IN AN OUTER PLY, 5/16" THICK A36 PLATE WASHERS OR CONTINUOUS BAR WITH STANDARD HOLES SHALL BE PROVIDED.
   F. WHERE REACTION IS NOTED, DEVELOP SAME. WHERE NOT NOTED, FOR NON-COMPOSITE BEAMS, CONNECTIONS SHALL DEVELOP ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM; FOR COMPOSITE BEAMS, SEE TABLE.
   G. WHEREVER POSSIBLE, USE FRAMED BEAM CONNECTIONS AS LISTED IN TABLES 10-1, 10-2, 10-3,10-4, 10-10, 10-11 AND 10-12 OF THE AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION. THE LENGTH OF CONNECTION ANGLES AND PLATES SHALL BE NOT LESS THAN ONE-HALF OF THE T DISTANCE OF THE BEAM WEB.
   H. PREAPPROVED CONNECTION DETAILS ARE SHOWN ON THE TYPICAL FRAMING DETAILS DRAWING SHEET/S.
3. WELDING ELECTRODES SHALL BE E70XX EXCEPT WHERE OTHER ELECTRODES ARE REQUIRED FOR COMPATIBILITY WITH MATERIAL BEING WELDED.
4. SHOP DRAWINGS ARE REQUIRED AND SHALL NOTE TYPE OF ELECTRODES, SIZE OF ALL WELDS, AND TYPE AND SIZE OF ALL BOLTS.
5. SEE SPECIFICATIONS FOR ALL PRIMING REQUIREMENTS.
6. ALL SHOP AND FIELD WELDING SHALL BE DONE BY A CERTIFIED WELDER.
7. FOR CONNECTIONS TO EXISTING CONCRETE, LOCATE THE REINFORCING BY MEANS OF A REBAR DETECTOR PRIOR TO DRILLING. ADJUST THE CONNECTION AS REQUIRED TO AVOID CUTTING ANY REINFORCING.
8. DO NOT WELD TO EXISTING STEEL WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

DEMOLITION AND RECONSTRUCTION NOTES

1. REPAIR OF ANY DAMAGE CAUSED TO THE BUILDING DURING DEMOLITION AND CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
2. CONTRACTOR SHALL IDENTIFY ANY WORK THAT IS NOT POSSIBLE (I.E. BRIDGE JACKING) DUE TO EXISTING CONDITIONS (I.E. PIPING, CONDUITS, ETC), AND INCLUDE A LIST WITH THEIR BID.

> NOTE:
> THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DESIGNING, SUPPLYING, AND INSTALLING ALL TEMPORARY SHORING NECESSARY TO INSTALL NEW STRUCTURAL ELEMENTS. THE DESIGN OF THE SHORING SHALL BE DONE BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF KENTUCKY. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT (FOR THEIR RECORDS): TEMPORARY SHORING DRAWINGS (PLANS AND ANY NECESSARY DETAILS) THAT ARE SEALED, SIGNED AND DATED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.

SHORING / BRACING DESIGN AND INSTALLATION

1. THE GENERAL TRADES CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENGINEERING, SUPPLYING, AND INSTALLING ALL TEMPORARY SHORING AND BRACING NECESSARY TO RESIST GRAVITY AND LATERAL LOADS AS THE EXISTING BUILDING IS SELECTIVELY DEMOLISHED AND RECONSTRUCTED WITH NEW STRUCTURAL ELEMENTS. THE DESIGN OF SHORING SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF KENTUCKY IN CONSIDERATION OF APPLIED, POTENTIAL AND CONSTRUCTION LOADING; CONSTRUCTION METHODS, TECHNIQUES AND SEQUENCE; LOADING AND ANALYSIS OF THE EXISTING STRUCTURE AND ITS ABILITY TO TRANSFER LOADS TO THE SHORING AND BRACING SYSTEM; AND SCHEDULE. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT (FOR THEIR RECORDS) TEMPORARY SHORING DRAWINGS (PLANS AND ALL NECESSARY DETAILS) THAT ARE SEALED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION. SHORING SUBMITTAL SHALL ALSO INCLUDE A WRITTEN DESCRIPTION OF THE INTENDED CONSTRUCTION SEQUENCE, PREPARED BY THE SHORING ENGINEER, AND REVIEWED AND APPROVED BY THE CONSTRUCTION MANAGER PRIOR TO SUBMITTAL TO THE ARCHITECT FOR THEIR RECORDS. SHORING SUBMITTAL SHALL INCLUDE WRITTEN DESCRIPTION OF LOADS AND LOAD COMBINATIONS CONSIDERED. SUBMITTALS SHALL BE RECEIVED FOR RECORD AND ARE NOT CONSIDERED AN ACTION SUBMITTAL BY BROWN & KUBICAN, PSC.
2. SUGGESTED SHORING DETAILS HAVE BEEN INCORPORATED INTO THE CONSTRUCTION DOCUMENTS IN SOME INSTANCES. WHERE PROVIDED, THEY SHALL BE CONSTRUED AS SUGGESTIONS ONLY WHEREIN IF SUCH SCHEME IS USED, THE DESIGN AND DETAILS MUST STILL BE VERIFIED BY (AND FULL RESPONSIBILITY TAKEN BY) THE SHORING ENGINEER.
3. CEASE DEMOLITION OPERATIONS AND NOTIFY ENGINEER IF ANY EXISTING STRUCTURAL ELEMENT TO REMAIN IN SERVICE DEVELOPS CRACK, BOW, DEFLECTION, ETC. OR IF ANY COMPONENT OF THE EXISTING STRUCTURE APPEARS DAMAGED, CORRODED OR OTHERWISE COMPROMISED.

ROOF, FLOOR, OR WALL OPENINGS

1. NO STRUCTURAL ELEMENTS ARE TO BE CUT UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.

OPENINGS / PENETRATIONS / ATTACHMENTS TO STRUCTURE BY OTHER TRADES

1. THE CONTRACTOR SHALL COORDINATE AND VERIFY THE NUMBER, SIZE, AND LOCATION OF ALL SLEEVES AND OPENINGS REQUIRED FOR OTHER TRADES IN STRUCTURAL ELEMENTS.

TO STRUCTURAL ELEMENTS (WALLS, ELEVATED SLABS, BEAMS, ETC):

1. NO PENETRATIONS LARGER THAN 12" IN DIAMETER / SQUARE SHALL BE FIELD CUT IN THE STRUCTURAL MEMBER WITHOUT APPROVAL OF THE ENGINEER OF RECORD FOR THAT ELEMENT.

SITE OBSERVATION BY THE STRUCTURAL ENGINEER

1. THE ENGINEER HAS NO CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES; FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK; FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK; OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ACTS OR OMISSIONS OF THE CONTRACTOR, ANY SUBCONTRACTOR, MATERIAL SUPPLIER, OR AGENTS THEREOF. THE ENGINEER DOES NOT GUARANTEE THE PERFORMANCE OF THE CONTRACTOR AND SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM ITS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR APPLICABLE LAWS, CODES, RULES, OR REGULATIONS. THE CONTRACTOR SHALL MAINTAIN SOLE RESPONSIBILITY FOR DEFECTS AND DEFICIENCIES, INCLUDING PROVIDING TESTING AND INSPECTION ONCE SUCH ARE DISCOVERED, AND FOR PROVIDING ENGINEERED CORRECTIVE ACTION FOR DESIGN TEAM REVIEW.
3. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF BROWN+KUBICAN, PSC IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY, QUANTITY, OR ACCURACY OF THE CONSTRUCTION WORK, BUT RATHER PERIODIC IN EFFORT TO INFORM THE CLIENT ABOUT GENERAL PROGRESS AND TO ADVISE THE CLIENT ABOUT OBSERVED DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

RENOVATION AND REUSE OF EXISTING STRUCTURES

1. THE OWNER SHALL UNDERSTAND THAT EXISTING STRUCTURES MAY HAVE BEEN CONSTRUCTED PRIOR TO BUILDING CODE ADOPTION, TO A PREVIOUS CODE EDITION, OR NONCOMPLIANT TO CODE AND THAT THE ENGINEER SHALL NOT BE RESPONSIBLE FOR DISCOVERY OF CONSTRUCTION TECHNIQUES, CONDITION, OR ADEQUACY OF EXISTING STRUCTURE TO REMAIN STRUCTURALLY UNMODIFIED AS PART OF THIS WORK.
2. IN ELECTING TO REUSE AN EXISTING STRUCTURE THE OWNER SHALL REMAIN SOLELY RESPONSIBLE FOR THE CONDITION AND ADEQUACY OF THE EXISTING STRUCTURE, EXCEPT WHERE MODIFIED BY THE CONSTRUCTION PROJECT.
3. DISCOVERY OF AND PROVISION FOR DEFERRED MAINTENANCE AND REPAIR OF THE STRUCTURE ARE NOT INCLUDED IN THE SCOPE OF THE ENGINEER OR CONSTRUCTION DOCUMENTS EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS.
4. IN KEEPING WITH CURRENT CODE PROVISIONS, EXISTING LOAD-CARRYING STRUCTURAL ELEMENTS MAY HAVE NOT BEEN STRENGTHENED, SUPPLEMENTED, REPLACED, OR OTHERWISE ALTERED IF CALCULATIONS SHOWED:
   a. NO MORE THAN 5% INCREASE IN DESIGN GRAVITY LOAD APPLIED TO THAT EXISTING STRUCTURAL ELEMENT AS A RESULT OF THE INTENDED ALTERATIONS.
   b. NO MORE THAN 10% INCREASE IN DEMAND-CAPACITY RATIO OF AN EXISTING LATERAL LOAD-CARRYING ELEMENT OR ALTERATION RESULTING IN A STRUCTURAL IRREGULARITY.

MAINTENANCE STATEMENT AND STRUCTURE LIFESPAN

1. THE ENGINEER MAKES NO CLAIM OR AGREEMENT AS TO THE LIFESPAN OF THE BUILDING STRUCTURE. THE CLIENT AND OWNER SHALL UNDERSTAND THAT STRUCTURAL TYPES DO HAVE LIFESPAN RELATIVE TO INITIAL COST AND MAINTENANCE AND THAT BY REQUESTING OR ACCEPTING A STRUCTURAL SYSTEM OF LOWER INITIAL COST THAT THE USEABLE LIFESPAN WILL DECREASE AND MAINTENANCE INCREASE.
2. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND LIFESPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. THE ENGINEER SHALL NOT BE HELD LIABLE FOR MAINTENANCE REQUIREMENTS OR DETERIORATION RESULTING FROM LACK OF BUILDING MAINTENANCE.
3. A PLANNED PROGRAM OF MAINTENANCE SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO: PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, TIMELY REPAIR OF SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF STRUCTURAL ELEMENTS EXPOSED TO A SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.

GENERAL PHASING NOTES

1. WHERE WORK REQUIRES DISRUPTION OF THE NORMAL, SAFE & EFFICIENT FLOW OF PEDESTRIAN TRAFFIC, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY SIGNAGE, SAFETY, AND DUST & DEBRIS PROTECTION TO PROPERLY AND COMPLETELY EXECUTE THE WORK WHILE ALLOWING FOR CONTINUED USE OF THE REMAINING PORTIONS OF THE STRUCTURE.
2. IF REQUIRED, THE LEVEL BELOW WORK BEING UNDERTAKEN SHALL BE RESERVED FOR THE CONTRACTOR TO PROVIDE A SHORING SYSTEM.
3. THE CONTRACTOR SHALL SUBMIT A SEQUENCED PHASING PLAN BASED ON THE CONSTRUCTION SCHEDULE, OTHER INFORMATION, AND REQUIREMENTS GIVEN IN THE CONSTRUCTION DOCUMENTS, PRIOR TO PROJECT MOBILIZATION. THE CONTRACTOR SHALL FOLLOW THE APPROVED SCHEDULE. REVISIONS MAY BE MADE DURING CONSTRUCTION ONLY WITH COORDINATION AND APPROVAL WITH THE CONSULTANT AND THE OWNER. ALL WORK EXECUTED DURING A PHASE (INCLUDING, BUT NOT LIMITED TO, CONCRETE POURING, DEBRIS REMOVAL AND COLLECTION, SHORING, SCAFFOLDING, ETC) SHALL BE CONFINED TO THE DESIGNATED WORK AREA FOR THAT PHASE.
4. AREAS OPEN TO FOOT TRAFFIC UNDER PHASED WORK SHALL HAVE PROPER OVERHEAD PROTECTION INSTALLED. THE CONTRACTOR SHALL SUBMIT A METHOD TO MAINTAIN THE TRAFFIC FLOW THROUGH THIS AREA FOR APPROVAL PRIOR TO THE INSTALLATION OF ANY TEMPORARY PARTITIONS.
5. WHERE REQUIRED, THE DESIGN, INSTALLATION AND MAINTENANCE OF ALL TEMPORARY PARTITIONS IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT PEDESTRIANS.

GENERAL/SPECIAL CONDITIONS

1. **THE CONTRACTOR SHALL COORDINATE STREET & PEDESTRIAN BRIDGE CLOSURES WITH THE OWNER PRIOR TO WORK. IT IS THE INTENT FOR PEDESTRIAN BRIDGE TO BE CLOSED TO PEDESTRIAN TRAFFIC DURING PORTION OF WORK RELATED TO BRIDGE STEEL BEARING PLATE REPAIR. THE CONTRACTOR SHALL COORDINATE WITH UNIVERSITY OF LOUISVILLE'S DEPARTEMENT OF PUBLIC SAFTEY BEFORE CLOSING PEDESTRIAN BRIDGE. IT IS THE PREFERENCE OF THE OWNER THAT ANY WORK REQUIRING CLOSURE OF PEDESTRIAN BRIDGE TO OCCUR BETWEEN 5/12/2025-5/30/2025. CONTRACTOR TO INCLUDE WRITTEN CONFIRMATION OF BRIDGE REPAIR TIMELINE IN BID FORM.**
2. **CONTRACTOR SHALL INCLUDE QUALIFICATIONS AND DOCUMENTATION OF REFERENCE PROJECTS FOR VERIFICATION OF QUALIFICATIONS. REFER TO SPECIFICATIONS FOR WORK ITEMS REQUIRING CONTRACTOR QUALIFICATIONS, INCLUDING BUT NOT LIMITED TO:**
   A. 07 57 00 TRAFFIC COATINGS §1.4E1
   B. 03 01 30 MAINTENANCE OF CAST-IN-PLACE CONCRETE §1.7C1
   C. 07 95 00 EXPANSION CONTROL §1.4A
3. **CONTRACTOR SHALL FENCE THE PERIMETER OF THE CONSTRUCTION SITE (10 FEET PAST EDGE OF WORK ON BOTH SIDES) DURING WORK REQUIRING FULL BRIDGE CLOSURE.**
4. **DURING PORTION OF THE WORK REQUIRING FULL BRIDGE CLOSURE, THE CONTRACTOR SHALL ENSURE THAT ANY ACCESS TO THE PEDESTRIAN BRIDGE IS SECURED AT THE END OF EVERY DAY.THIS INCLUDES BUT NOT LIMITED TO: CONSTRUCTION FENCE GATES, STAIR/BRIDGE ACCESS, ELEVATOR ACCESS, ETC.**

MATERIAL LEGEND

NATIVE EARTH / ENGINEERED FILL

DENSE GRADED AGGREGATE (DGA)

CONCRETE

GROUT/REPAIR MORTAR "IN SECTION"

STRUCTURAL ABBREVIATIONS

APA	AMERICAN PLYWOOD ASSOCIATION	GLULAM	GLUED-LAMINATED TIMBER
ARCH	ARCHITECTURAL	HORIZ	HORIZONTAL
B.L.E.	BRICK LEDGE ELEVATION	HSS	HOLLOW STRUCTURAL SECTION
BOT	BOTTOM	I.C.F.	INSULATED CONCRETE FORM
BTWN	BETWEEN	LBS	POUNDS
CANT	CANTILEVER BEAM	L.D.H.	LONG DIMENSION HORIZONTAL
C.F.S.	COLD-FORMED STEEL	L.D.V.	LONG DIMENSION VERTICAL
C.I.P.	CAST-IN-PLACE	LVL	LAMINATED VENEER LUMBER
CJP	COMPLETE JOINT PENETRATION	MANUF	MANUFACTURER
CLR	CLEAR	MAX	MAXIMUM
C.L.T.	CROSS-LAMINATED TIMBER	MECH	MECHANICAL
C.M.U.	CONCRETE MASONRY UNIT	M.E.P.	MECHANICAL/ELECTRICAL/PLUMBING
COL	COLUMN	MIN	MINIMUM
CONC	CONCRETE	N.I.C.	NOT IN CONTRACT
CONT	CONTINUOUS	N.S.	NEAR SIDE
D	DEEP	N.T.S.	NOT TO SCALE
DET	DETAIL	O.C.	ON CENTER
D.G.A.	DENSE GRADED AGGREGATE	O.P.H.	OPPOSITE HAND
DWGS	DRAWINGS	P.A.F.	POWDER ACTUATED FASTENER
EA	EACH	P.E.M.B.	PRE-ENGINEERED METAL BUILDING
E.F.	EACH FACE	PJP	PARTIAL JOINT PENETRATION
ELEV	ELEVATION	PL	PLATE
EMBED	MINIMUM EMBEDMENT DEPTH INTO SUBSTRATE	P.T.	PRESERVATIVE-TREATED
E.O.R.	ENGINEER OF RECORD	R	RADIUS
E.O.S.	EDGE OF SLAB	REINF	REINFORCEMENT
E.W.	EACH WAY	R.T.U.	ROOF TOP UNIT (MECHANICAL)
EX	EXISTING	S.C.	SLIP CRITICAL
EXP	EXPANSION	SIM	SIMILAR
F.F.E.	FINISHED FLOOR ELEVATION	S.O.G.	SLAB ON GRADE
F.R.C.	FIBER REINFORCED CONCRETE	SP	COLUMN SPLICE
F.R.P.	FIBER REINFORCED POLYMER	S.S.	STAINLESS STEEL
F.R.T.	FIRE RESISTANCE TREATED	STD	STANDARD
F.S.	FAR SIDE	TYP	TYPICAL
FTG	FOOTING	U.N.O.	UNLESS NOTED OTHERWISE
F.V.	FIELD VERIFY	VERT	VERTICAL
GA	GAUGE	W	WIDE
GALV	GALVANIZED	W.W.F.	WELDED WIRE FABRIC
		Z.R.P.	ZINC-RICH PRIMED

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN BUSH
21320
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE -

DRAWN BY MDA

CHECKED BY JST/JAB

DATE 2/21/25

GENERAL NOTES

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

DRAWING NO. S1.1

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

BK PROJECT # 24252

ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ DATE _____
APPROVED FOR PROGRAM CONCEPT ONLY

2/20/2025 9:25:53 AM

STRUCTURAL SPECIAL INSPECTIONS CHART

COMPONENT	TEST OR SPECIAL INSPECTION	PERIODIC OR CONTINUOUS	ACCEPTABLE QUALIFICATIONS
FABRICATORS (IBC 1704.2.5)	INSPECT THE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS WHERE SUCH WORK IS BEING PERFORMED ON THE PREMISES OF THE FABRICATOR'S SHOP. 1. FABRICATORS SHALL BE EXEMPT FROM SPECIAL INSPECTION WHEN A QUALIFIED CERTIFICATION AUTHORITY HAS PERIODICALLY REVIEWED AND APPROVED FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND FABRICATION PRACTICES. SUBJECT TO COMPLIANCE WITH KENTUCKY BUILDING CODE REQUIREMENTS, QUALIFIED CERTIFICATION AUTHORITIES PROVIDING CERTIFICATION WHICH MAY BE APPLICABLE TO PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: a. STRUCTURAL STEEL FABRICATORS – AISC CERTIFIED.	PERIODIC	COMPLY WITH SECTIONS BELOW WHEN REQUIRED
	VERIFY THAT THE FABRICATOR MAINTAINS AND REVIEW FOR COMPLETENESS FABRICATOR'S DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES, WHICH PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND ABILITY TO CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCE STANDARDS. REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.	PERIODIC	QUALIFIED CERTIFICATION AUTHORITY
	PERFORM SPECIAL INSPECTIONS AT FABRICATOR'S SHOP AS OUTLINED IN THIS CHART FOR EACH TYPE OF CONSTRUCTION.	----	
STEEL (AND OTHER METAL) CONSTRUCTION (IBC 1705.2)	PROVIDE SPECIAL INSPECTION OF THE FABRICATION OF STEEL STRUCTURAL ELEMENTS AND ASSEMBLIES IN ACCORDANCE WITH THE FABRICATORS SECTION IN THIS CHART.	----	
	VERIFY THAT CERTIFICATION NUMBERS ON BOLT, NUT, AND WASHER CONTAINERS CORRESPOND TO THE IDENTIFICATION NUMBERS ON MILL TEST REPORTS AND THAT MANUFACTURER'S SYMBOL AND GRADE MARKINGS APPEAR ON ALL BOLTS AND NUTS. ALSO VERIFY THAT BOLTS, NUTS, AND WASHERS ARE BEING PROPERLY CARED FOR AT THE SITE.	PERIODIC	CWI, SSSI, SWSI
	VERIFY THAT IDENTIFICATION MARKINGS ON STRUCTURAL STEEL MEMBERS CONFORM TO ASTM STANDARDS SPECIFIED ON THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	CWI, SSSI, SWSI
	VERIFY THAT IDENTIFICATION MARKINGS ON WELD FILLER MATERIALS CONFORM TO ASTM STANDARDS SPECIFIED ON THE APPROVED CONSTRUCTION DOCUMENTS. ALSO VERIFY THAT WELD FILLER MATERIAL IS BEING PROPERLY CARED FOR.	PERIODIC	CWI, SSSI, SWSI
	VERIFY THAT ANCHOR RODS AND OTHER EMBEDMENTS THAT ARE TO SUPPORT STRUCTURAL STEEL ARE OF PROPER DIAMETER, GRADE, TYPE, LENGTH, AND EXTENT OF EMBEDMENT PRIOR TO PLACEMENT OF CONCRETE.	PERIODIC	CWI, SSSI, SWSI
	TEST AND INSPECT HIGH-STRENGTH BOLTED CONNECTIONS ACCORDING TO RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." 1. VERIFY THAT FASTENERS ARE OF CORRECT GRADE, TYPE, DIAMETER, LENGTH, AND SHEAR PLANE LOCATIONS FOR THE JOINT DETAIL. 2. VERIFY THAT CONNECTING ELEMENTS MEET REQUIREMENTS FOR FAYING SURFACE AND HOLE PREPARATION. 3. PROVIDE PRE-INSTALLATION VERIFICATION TESTING OF FASTENER ASSEMBLIES AND METHODS. TESTING/INSPECTION METHODS FOR BOLTS SHALL BE DETERMINED, APPROVED, AND CALIBRATED AS NECESSARY PRIOR TO THE START OF STEEL ERECTION. a. UTILIZE A TENSION CALIBRATOR TO CONFIRM THE SUITABILITY OF THE COMPLETE FASTENER ASSEMBLY FOR PRETENSIONED INSTALLATION AND CONFIRM THE PROCEDURE AND PROPER USE BY THE BOLTING CREW OF THE PRETENSIONING METHOD TO BE USED. b. ENSURE THAT JOINT PLIES ARE BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION. c. CONFIRM FASTENER COMPONENT IS NOT TURNED BY THE WRENCH PREVENTING ROTATION. d. CONFIRM THAT FASTENERS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID PART TOWARDS THE FREE EDGES. 4. VERIFY THAT FASTENER ASSEMBLIES WITH REQUIRED WASHERS ARE PLACED IN ALL HOLES AND ARE POSITIONED AS REQUIRED. a. VERIFY THAT DIRECT-TENSION INDICATOR GAPS COMPLY WITH ASTM F 959, TABLE 2. b. VERIFY THAT TWIST-OFF-TYPE TENSION-CONTROL ASSEMBLIES HAVE BEEN PROPERLY TIGHTENED. 5. PERFORM PERIODIC INSPECTION OF BEARING TYPE CONNECTIONS.	PERIODIC, U.N.O.	CWI, SSSI, SWSI
	INSPECT AND TEST WELDS DURING FABRICATION (WHERE APPLICABLE) AND ERECTION OF STRUCTURAL STEEL, STEEL DECK, AND STUDS/ANCHORS AS FOLLOWS: 1. CERTIFY WELDERS AND CONDUCT INSPECTIONS AND TESTS AS REQUIRED. RECORD TYPES AND LOCATIONS OF DEFECTS FOUND IN WORK. RECORD WORK REQUIRED AND PERFORMED TO CORRECT DEFICIENCIES. a. CONFIRM THAT WELDING PROCEDURE SPECIFICATIONS ARE AVAILABLE. b. CONFIRM THAT CONTRACTOR HAS INSTITUTED A *WELDER IDENTIFICATION SYSTEM*.	PERIODIC	CWI, SWSI
	2. INSPECT WELD PROCEDURES AND WELDERS ACCORDING TO THE REQUIREMENTS OF AWS D1.1 AND AISC 360. a. CONFIRM THAT THERE IS NO WELDING OVER CRACKED TACK WELDS. b. CONFIRM THAT ENVIRONMENTAL CONDITIONS ARE BEING PROPERLY CONSIDERED (WIND SPEED, PRECIPITATION, AND TEMPERATURE). c. CONFIRM THAT WELDING PROCEDURE SPECIFICATIONS ARE BEING FOLLOWED (EQUIPMENT SETTINGS, TRAVEL SPEED, MATERIAL USAGE, SHIELDING TYPE AND FLOW RATE, PREHEATING REQUIREMENTS, MAINTENANCE OF INTERPASS TEMPERATURE, AND PROPER WELDER POSITIONING). d. CONFIRM WELDING TECHNIQUES (INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, AND THAT EACH PASS MEETS QUALITY REQUIREMENTS).	PERIODIC	CWI, SWSI
	3. USE NON-DESTRUCTIVE TESTING ACCORDING TO AWS D1.1 ON ALL WELDS THAT APPEAR TO HAVE EXCESSIVE INCLUSIONS, POROSITIES, CRACKS, AND INCOMPLETE PENETRATIONS AS DESCRIBED BY AWS D1.1 OR HAVE THE QUESTIONABLE WELD REMOVED AND REWELDED.	PERIODIC	AWS-UT-2
	4. OBSERVE AND DOCUMENT REPAIR ACTIVITIES.	PERIODIC	CWI, SWSI
	INSPECT ALL STEEL FRAME CONNECTION DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS AND APPROVED STEEL ERECTION SHOP DRAWINGS. 1. VERIFY COMPLETENESS AND CONSTRUCTION OF ALL MEMBERS. 2. VERIFY LOCATION, COMPLETENESS, ACCURACY, AND JOINT DETAILS OF ALL MEMBERS.	PERIODIC	PE
STRUCTURAL ANCHORS	WHERE PERIODIC ANCHOR INSPECTION IS PERMITTED, THE SPECIAL INSPECTOR SHALL VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE OF ANCHOR BY CONSTRUCTION PERSONNEL ON SITE. SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL ARE PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD, GREATER THAN THREE MONTHS, THE SPECIAL INSPECTOR MUST MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION OF THE ANCHORS.	----	
	ADDITIONAL TO REQUIREMENTS LISTED BELOW, INSPECT ALL POST-INSTALLED ANCHORS AS FOLLOWS: VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANING PROCEDURE, EMBEDMENT DEPTH, SUBSTRATE TYPE (MATERIAL), SUBSTRATE THICKNESS, DRILL BIT TYPE AND SIZE, HOLE DIMENSIONS, ANCHOR SPACING, MINIMUM EDGE DISTANCE, ANCHOR PLUMBNESS (RELATIVE TO HORIZONTAL OR VERTICAL AS APPLICABLE), AND ADHERENCE TO THE ANCHOR MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.	PERIODIC	RCSI, SMSI
	INSPECT 100% OF EXPANSION TYPE MECHANICAL ANCHORS AS FOLLOWS: VERIFY INSTALLED TORQUE OF ANCHORS WITH A CALIBRATED TORQUE WRENCH. COORDINATE MINIMUM INSTALLED TORQUE WITH MANUFACTURER OF ANCHORS INSTALLED.	PERIODIC	RCSI, SMSI
	INSPECT 100% OF CONCRETE SCREW TYPE ANCHORS AS FOLLOWS: VERIFY INSTALLATION TORQUE (DO NOT EXCEED ANCHOR MANUFACTURER PUBLISHED MAXIMUM INSTALLATION TORQUE), MAXIMUM IMPACT WRENCH TORQUE RATING, AND ANCHOR TIGHTNESS TO SUPPORTED COMPONENT.	PERIODIC	RCSI, SMSI

COMPONENT	TEST OR SPECIAL INSPECTION	PERIODIC OR CONTINUOUS	ACCEPTABLE QUALIFICATIONS
CONCRETE CONSTRUCTION (IBC 1705.3)	PROVIDE SPECIAL INSPECTION OF THE FABRICATION OF CONCRETE STRUCTURAL ELEMENTS AND ASSEMBLIES IN ACCORDANCE WITH THE FABRICATORS SECTION IN THIS CHART.	----	
	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	RCSI, ACI-2, NICET-2C
	VERIFY THE USE OF THE PROPER DESIGN MIX.	PERIODIC	RCSI, ACI-2, NICET-2C
	VERIFY USE OF PROPER GRADE AND ASTM DESIGNATION OF REINFORCING STEEL.	PERIODIC	RCSI, ACI-2, NICET-2C
	PERFORM INSPECTION ON PLACEMENT, SPACING, CLEAR COVER, NUMBER, AND SPLICE LAP LENGTHS OF REINFORCING STEEL.	PERIODIC	RCSI, NICET-2C
	MONITOR CONCRETE QUALITY BY MEANS OF SITE AND LABORATORY TESTS. THE INSPECTION AGENCY IS AUTHORIZED TO REJECT PLASTIC CONCRETE NOT CONFORMING TO SPECIFICATIONS. IMMEDIATELY INFORM THE CONTRACTOR AND THE STRUCTURAL ENGINEER OF INADEQUACIES IN CONCRETE QUALITY. SAMPLING AND TESTING FOR QUALITY CONTROL DURING CONCRETE PLACEMENT SHALL INCLUDE THE FOLLOWING: t. TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS: a. TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. b. SLUMP: ASTM C 143; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE. c. AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. **d.** CONCRETE TEMPERATURE: ASTM C 1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW OR 80 DEG F AND ABOVE, AND ONE TEST FOR EACH SET OF COMPOSITE SAMPLE. e. COMPRESSION TEST SPECIMEN: ASTM C 31; ONE SET OF SIX STANDARD 4" DIAMETER BY 8" CYLINDERS FOR EACH COMPRESSIVE-STRENGTH TEST, UNLESS OTHERWISE DIRECTED. MOLD AND STORE CYLINDERS FOR LABORATORY-CURED TEST SPECIMENS EXCEPT WHEN FIELD-CURED TEST SPECIMENS ARE REQUIRED. f. COMPRESSIVE-STRENGTH TESTS: ASTM C 39; TEST TWO SPECIMENS AT 3 DAYS, ONE SPECIMEN AT 7 DAYS,THREE SPECIMENS TESTED AT 28 DAYS, AND ONE SPECIMEN RETAINED IN RESERVE FOR LATER TESTING IF REQUIRED. ADDITIONAL CYLINDER TESTS (SUCH AS AT 14 DAYS) FOR CONTRACTOR CONVENIENCE AND SCHEDULING SHALL BE PAID FOR BY THE CONTRACTOR. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF SPECIFIED NUMBER SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED. g. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE STRENGTH TESTS FOR A GIVEN CLASS OF CONCRETE, CONDUCT TESTING FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED. h. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING THE IN-PLACE CONCRETE. i. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI. 2. TEST RESULTS SHALL BE REPORTED IN WRITING TO STRUCTURAL ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN STRUCTURE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.	CONTINUOUS	RCSI, ACI-2, NICET-1
	PERFORM INSPECTION OF CONCRETE PLACEMENT TO VERIFY PROPER APPLICATION TECHNIQUES, INCLUDING BUT NOT LIMITED TO SLABS ON DECK, SLABS ON GRADE, WALLS, AND BEAMS.	CONTINUOUS	RCSI, ACI-2, NICET-1
	PERFORM INSPECTION OF CONCRETE CURING PROCEDURES TO VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE, PROTECTION, AND TECHNIQUES.	PERIODIC	RCSI, ACI-2, NICET-1
	NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BUT SHALL NOT BE USED AS THE SOLE BASIS FOR ACCEPTANCE OR REJECTION.	----	
	ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ARCHITECT. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C 42 OR BY OTHER METHODS AS DIRECTED BY STRUCTURAL ENGINEER. 1. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.	----	

NOTES ON SPECIAL INSPECTIONS CHART:

1. REFER TO 014110 SPECIFICATION FOR ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES.
2. SPECIAL INSPECTIONS AS DEFINED IN SECTIONS 1704 AND 1705 OF THE KENTUCKY BUILDING CODE ARE REQUIRED. ALL REFERENCES SHOWN ARE TO THE KBC 2018 / IBC 2015.
3. SPECIAL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY APPROVED THE STRUCTURAL ENGINEER AND PAID FOR BY THE OWNER.
4. THE INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED STRUCTURAL DRAWINGS AND SPECIFICATIONS AND PREPARE INSPECTION REPORTS STATING THEIR OBSERVATIONS. COPIES OF THE INSPECTION REPORTS SHALL BE SUBMITTED TO THE CONTRACTOR AND THE STRUCTURAL ENGINEER.
5. ALL DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE WORK BEING PERFORMED SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.
6. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT OF INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS.

DESIGNATION	REQUIRED CERTIFICATION
ACI-2	ACI CERTIFIED CONCRETE FIELD TESTING TECHNICIAN LEVEL 2, PLUS 2-YEARS' RELATED EXPERIENCE
AWS-1	AWS LEVEL 1
AWS-UT-2	AWS ULTRAGRAPHIC TESTING LEVEL II IN ACCORDANCE WITH CURRENT ASNT-TC-1A STANDARDS
CWI	AWS CERTIFIED WELD INSPECTOR
NICET-1	NICET LEVEL 1, MINIMUM 2-YEARS' RELATED EXPERIENCE
NICET-2C	CURRENT NICET CONCRETE LEVEL II CERTIFICATION PLUS 4-YEARS' RELATED EXPERIENCE
NICET-2S	CURRENT NICET SOILS LEVEL II CERTIFICATION PLUS 4-YEARS' RELATED EXPERIENCE
PE	PROFESSIONAL ENGINEER WITH MINIMUM OF 8-YEARS' EXPERIENCE, LICENSED IN THE PROJECT STATE, WHOSE PRINCIPAL WORK EXPERIENCE HAS BEEN IN THE DESIGN OF BUILDING STRUCTURES
RCSI	ICC CERTIFIED REINFORCED CONCRETE SPECIAL INSPECTOR
SFSI	ICC CERTIFIED SPRAY-APPLIED FIREPROOFING SPECIAL INSPECTOR
SMSI	ICC CERTIFIED STRUCTURAL MASONRY SPECIAL INSPECTOR
SSI	ICC CERTIFIED SOILS SPECIAL INSPECTOR
SSSI	ICC CERTIFIED STRUCTURAL STEEL & BOLTING SPECIAL INSPECTOR
SWSI	ICC CERTIFIED STRUCTURAL WELDING SPECIAL INSPECTOR

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
21320
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE: -
DRAWN BY: MDA
CHECKED BY: JST/JAB
DATE: 2/21/25

SPECIAL INSPECTIONS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

DRAWING NO. S1.2

BK PROJECT # 24252

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greenway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ DATE _____
APPROVED FOR PROGRAM CONCEPT ONLY

2/20/2025 9:25:54 AM

CONCRETE REPAIR SCHEDULE

MARK	REPAIR TYPE	EXISTING ELEMENT TO BE REPAIRED	DESCRIPTION OF EXISTING DEFICIENCY	REPAIR DETAIL	TOTAL QUANTITY/ESTIMATE
1	COMPLETE SURFACE COATING	REINFORCED CONCRETE STAIRS	DETERIORATION OF EXISTING SURFACE COATING	SEE SPECS	1240 SF
2	TOP COATED SURFACE COATING	REINFORCED CONCRETE SLAB	DETERIORATION OF EXISTING SURFACE COATING	SEE SPECS	750 SF
3	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
4	EXPOSED REINFORCING STEEL	REINFORCED CONCRETE BEAM	EXPOSED REINFORCEMENT AT BOTTOM OF BEAM	SEE NOTE 2	50 SF
5	POLYURETHANE CRACK-INJECTION	REINFORCED CONCRETE STAIRS	HAIRLINE CRACKING AT UNDERSIDE OF STAIRS	G/S3.1	15 LF
6	POLYURETHANE CRACK-INJECTION	REINFORCED CONCRETE STAIRS	HAIRLINE CRACKING AT SURFACE OF STAIRS	G/S3.1 SIM	6 LF
7	POLYURETHANE CRACK-INJECTION	REINFORCED CONCRETE WALL	HAIRLINE CRACKING AT SURFACE OF WALL	G/S3.1 SIM	19 LF
8	EPOXY CRACK-INJECTION	REINFORCED CONCRETE BEAM	LONGITUDINAL CRACK AT BOTTOM OF BEAM	F/S3.1	2 LF
9	EPOXY CRACK-INJECTION	REINFORCED CONCRETE WALL	LONGITUDINAL CRACK AT SURFACE OF WALL	F/S3.1 SIM	55 LF
10	EPOXY CRACK-INJECTION	REINFORCED CONCRETE STAIRS	LONGITUDINAL CRACK AT UNDERSIDE OF STAIRS	F/S3.1	6 LF
11	VERTICAL SURFACE PATCH	REINFORCED CONCRETE WALL	SPALL/DELAMINATION AT SURFACE OF WALL	C/S3.1	74 SF
12	VERTICAL ELEVATED SURFACE PATCH	REINFORCED CONCRETE WALL	SPALL/DELAMINATION AT SURFACE OF WALL	C/S3.1	69 SF
13	VERTICAL ELEVATED SURFACE PATCH	REINFORCED CONCRETE BEAM	SPALL/DELAMINATION AT SIDE OF BEAM	C/S3.1 SIM	43 SF
14	HORIZONTAL SURFACE PATCH	REINFORCED CONCRETE SLAB	SPALL/DELAMINATION AT TOP OF SLAB	D/S3.1	12 SF
15	HORIZONTAL OVERHEAD SURFACE PATCH	REINFORCED CONCRETE BEAM	SPALL/DELAMINATION AT BOTTOM OF BEAM	E/S3.1	12 SF
16	HORIZONTAL OVERHEAD SURFACE PATCH	REINFORCED CONCRETE STAIRS	SPALL/DELAMINATION AT UNDERSIDE OF STAIRS	A/S3.1	61 SF
17	HORIZONTAL OVERHEAD CORNER SURFACE PATCH	REINFORCED CONCRETE SLAB	SPALL/DELAMINATION AT BOTTOM OF SLAB AT CORNER	B/S3.1	16 SF
18	HORIZONTAL OVERHEAD CORNER SURFACE PATCH	REINFORCED CONCRETE STAIRS	SPALL/DELAMINATION AT UNDERSIDE OF STAIRS AT CORNER	B/S3.1 SIM	82 SF
19	GROUT INFILL	REINFORCED CONCRETE SLAB	CONCRETE SEPARATION FROM STRUCTURE	J/S3.1	8 SF
20	FULL-DEPTH CONCRETE INFILL	REINFORCED CONCRETE WALL	CONCRETE SEPARATION FROM STRUCTURE	K/S3.1	20 SF
21	EXPANSION JOINT REPLACEMENT	REINFORCED CONCRETE	DETERIORATION OF EXISTING EXPANSION JOINT	SEE DET A/S3.2	93 LF
22	PREFORMED EXPANSION JOINT REPLACEMENT	REINFORCED CONCRETE	DETERIORATION OF EXISTING EXPANSION JOINT	SEE DET B/S3.2	12 LF
23	ANTI-SLIP TAPE REPLACEMENT	REINFORCED CONCRETE STAIRS	DETERIORATION OF EXISTING ANTI-SLIP TAPE	SEE NOTE 4	500 LF
24	HANDRAIL BASE COATING	REINFORCED CONCRETE STAIRS	DETERIORATION OF EXISTING HANDRAIL BASE	SEE NOTE 3	46 EA
25	FENCE BASE REPLACEMENT	REINFORCED CONCRETE SLAB	DETERIORATION OF EXISTING FENCE BASE	M/S3.1	3 EA
26	FENCE CAP COATING	REINFORCED CONCRETE BEAM	DETERIORATION OF EXISTING FENCE CAP	SEE NOTE 3 SIM	3 EA
27	DECK CAGE BASE COATING	REINFORCED CONCRETE SLAB	DETERIORATION OF EXISTING DECK CAGE BASE	SEE NOTE 3	1 EA
28	REPLACE TRAFFIC PLATE ANCHORS	REINFORCED CONCRETE SLAB	DETERIORATION OF EXISTING TRAFFIC PLATE ANCHORS	N/S3.1	21 EA
29	LIGHT FIXTURE SEALANT	REINFORCED CONCRETE WALL	DETERIORATION OF EXISTING LIGHT FIXTURE SEALANT	SEE NOTE 5	24 EA
30	STOREFRONT SEALANT	REINFORCED CONCRETE WALL	DETERIORATION OF EXISTING STOREFRONT SEALANT	SEE NOTE 5	85 LF
31	LOUVER SEALANT	REINFORCED CONCRETE WALL	DETERIORATION OF EXISTING LOUVER SEALANT	SEE NOTE 5	10 LF
32	REPLACE SLIDE PLATE	REINFORCED CONCRETE BEAM	DETERIORATION OF EXISTING SLIDE PLATE	A/S4.1	1 EA
33	REPLACE BEARING PLATE & ANCHORS	REINFORCED CONCRETE BEAM	DETERIORATION OF EXISTING BEARING PLATE	B/S4.1	2 EA

PEDESTRIAN BRIDGE REPAIR NOTES:

1. QUANTITIES LISTED IN SCHEDULE ARE TOTAL QUANTITIES FOR ENTIRE PROJECT.
2. AT NOTED LOCATIONS WHERE EXISTING REINFORCING IS EXPOSED, BUT THERE IS NO APPARENT DELAMINATION, REPAIR OPERATIONS ARE AS FOLLOWS:
   A. REMOVE RUST AND DEBRIS FROM EXISTING STEEL REINFORCING WITH THE USE OF A WIRE BRUSH.
   B. MECHANICALLY ROUGHEN SURFACE AND APPLY CONCRETE BONDING AGENT.
3. AT NOTED LOCATIONS WHERE EXISTING HANDRAIL BASES ARE CORRODED, CONTRACTOR SHALL CLEAN STEEL TO SSPC SP-2 "HAND TOOL CLEANING" AND APPLY HIGH PERFORMANCE COATING SYSTEM PER STRUCTURAL STEEL FRAMING SPECIFICATION UP 4" ON HANDRAIL POST. CONTRACTOR SHALL APPLY PROTECTIVE COATING SYSTEM 2" BEYOND BDGE OF BASE PLATE ONTO CLEAN/UNCOATED CONCRETE SURFACE AND UP 6" ONTO HANDRAIL POST. AT SIM, PROVIDE HIGH PERFORMANCE COATING ONLY.
4. AT NOTED LOCATIONS WHERE EXISTING ANTI-SLIP TAPE REQUIRES REPLACEMENT, REPAIR OPERATIONS ARE AS FOLLOW:
   A. REMOVE EXISTING ANTI-SLIP TAPE AND CLEAN EXISTING SURFACE OF ANY RESIDUAL ADHESIVE, DIRT, DEBRIS, ETC.
   B. INSTALL ANTI-SLIP TAPE. ADHESIVE SHALL BE MCMASTER-CARR PRODUCT NUMBER 68205T441 OR ANOTHER ENGINEER APPROVED EQUAL. SUBMIT ALTERNATE PRODUCT DATA FOR APPROVAL, IF PREFERRED.
5. AT NOTED LOCATIONS WHERE EXISTING LIGHT FIXTURE/STOREFRONT/LOUVER SEALANT REQUIRES REPLACEMENT, REPAIR OPERATIONS ARE AS FOLLOWS:
   A. MECHANICALLY REMOVE EXISTING SEALANT AND CLEAN EXISTING SURFACE OF ANY RESIDUAL ADHESIVE, DIRT, DEBRIS, ETC.
   B. INSTALL SPECIFIED SEALANT PER MANUFACTURER'S INSTRUCTIONS.
      1. CONTRACTOR TO VERIFY WIDTH OF SEALANT TO MATCH WIDTH OF EXISTING SEALANT.
      2. IF NECESSARY DUE TO JOINT WIDTH, CONTRACTOR TO PROVIDE SEALANT WITH BACKER ROD.
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING UNIT COSTS AND/OR ALLOWANCES.

CONCRETE REPAIR ALLOWANCE SCHEDULE

CONCRETE REPAIR ALLOWANCE FOR PROJECT IS $25,000.00.

PEDESTRIAN BRIDGE ALLOWANCE NOTES:

1. VALUE PROVIDED ON "CONCRETE REPAIR ALLOWANCE SCHEDULE" IS ADDITIONAL DOLLAR ALLOWANCE AWARDED TO THE CONTRACTOR IF WORK PERFORMED EXCEEDS THE ENGINEERS ESTIMATE, SUBJECT TO APPROVAL FROM THE ENGINEER OF RECORD. ALLOWANCE IS IN ADDITION TO THE BASE BID QUANTITIES LISTED IN THE "CONCRETE REPAIR SCHEDULE."
2. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING UNIT COSTS AND ALLOWANCE.

1

NO.	DESCRIPTION	DATE
1	LUMP SUM ALLOWANCE	3/28/2025

STATE OF KENTUCKY
JASON ALLEN BUSH
27920
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE
-

DRAWN BY
MDA

CHECKED BY
JST/JAB

DATE
2/21/25

BRIDGE REPAIR QUANTITIES

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

DRAWING NO.
S1.3

BK PROJECT #
24252

ENGR. FILE NO.
-

AGENCY AUTHORIZED AGENT _____ DATE _____
APPROVED FOR PROGRAM CONCEPT ONLY

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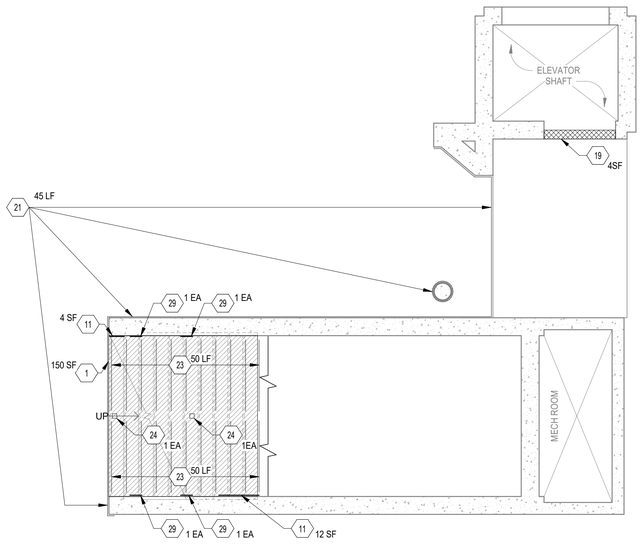
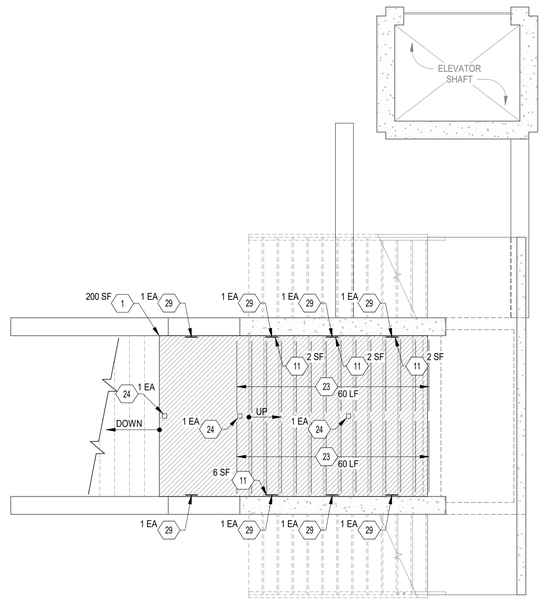
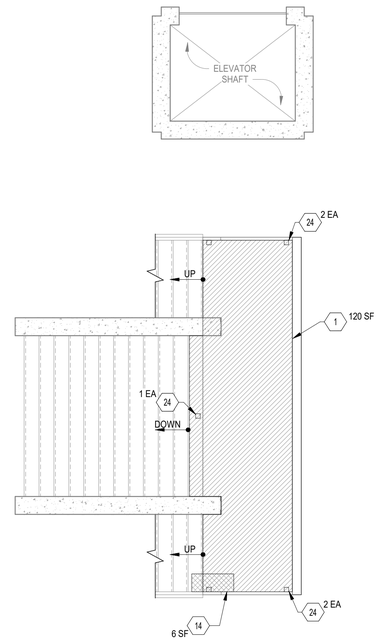


A S2.1 LEVEL 1 FRAMING PLAN (WEST TOWER)
1/4" = 1'-0"



B S2.1 LEVEL 1 LANDING FRAMING PLAN (WEST TOWER)
1/4" = 1'-0"



C S2.1 LEVEL 2 LANDING FRAMING PLAN (WEST TOWER)
1/4" = 1'-0"

D S2.1 LEVEL 3 & 4 FRAMING PLAN
1/4" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

DISCLAIMER:
EXISTING PLAN BACKGROUNDS ARE TAKEN FROM SENLER, CAMPBELL, AND ASSOCIATES DRAWINGS DATED 1/9/86 [PEDESTRIAN OVERPASS REBUILD].
EXISTING PLANS HAVE NOT BEEN CONFIRMED TO REPRESENT ACTUAL FIELD CONDITIONS.

CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

PROJECT N W E S

TRUE N W E S

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
LICENSED PROFESSIONAL ENGINEER
2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE: -

DRAWN BY: MDA

CHECKED BY: JST/JAB

DATE: 2/21/25

LEVEL 1 & 2 FRAMING PLAN

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

DRAWING NO. S2.1

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

BK PROJECT # 24252

ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ APPROVED FOR PROGRAM CONCEPT ONLY DATE _____

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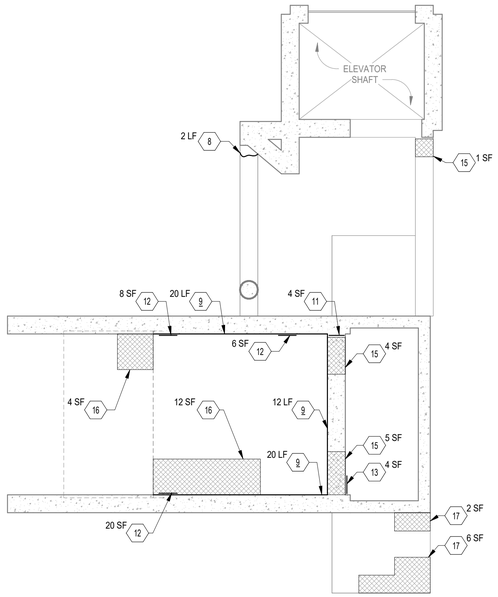
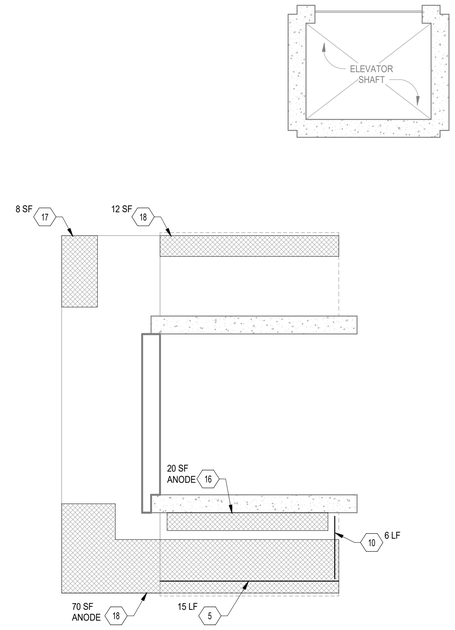


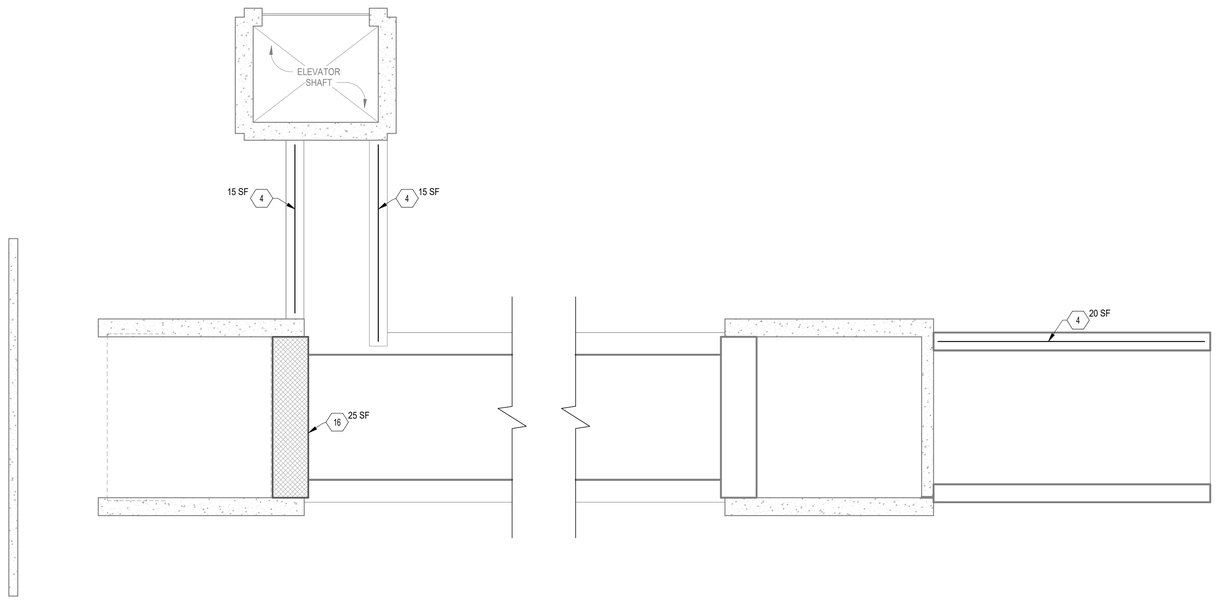
LEVEL 1 LANDING REFLECTED CEILING PLAN (WEST TOWER)

A S2.2 — 1/4" = 1'-0"



LEVEL 2 LANDING REFLECTED CEILING PLAN (WEST TOWER)

B S2.2 — 1/4" = 1'-0"



LEVEL 3 REFLECTED CEILING PLAN

E S2.2 — 1/4" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

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CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

PROJECT N W E S

TRUE N W E S

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY — JASON ALLEN BUSH — 32420 — LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE -	LEVEL 1,2, & 3 RCP	DRAWING NO. S2.2
DRAWN BY MDA	**UNIVERSITY OF LOUISVILLE** DEPARTMENT OF PHYSICAL PLANT BELKNAP CAMPUS LOUISVILLE, KENTUCKY	
CHECKED BY JST/JAB		
DATE 2/21/25	BROWN+KUBICAN STRUCTURAL ENGINEERS 8900 Greeneway Commons Pl #201 Louisville, KY 40220 502-749-2061 www.brownkubican.com	BK PROJECT # 24252
		ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ APPROVED FOR PROGRAM CONCEPT ONLY DATE _____

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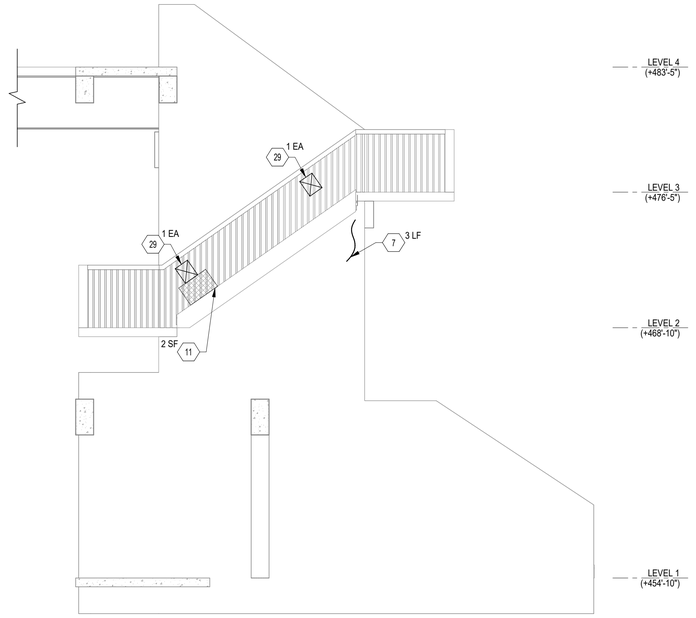
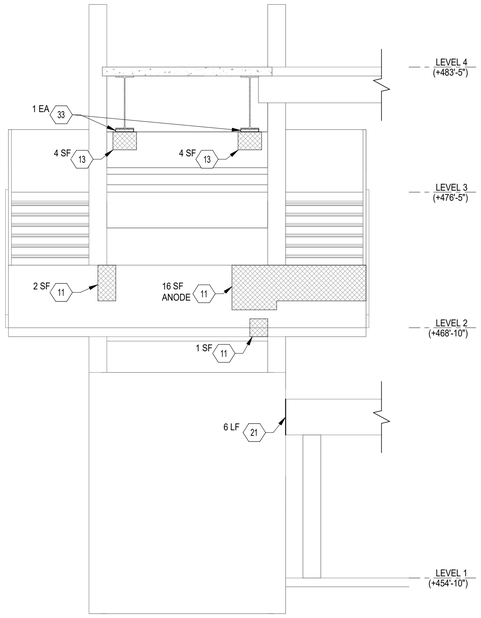


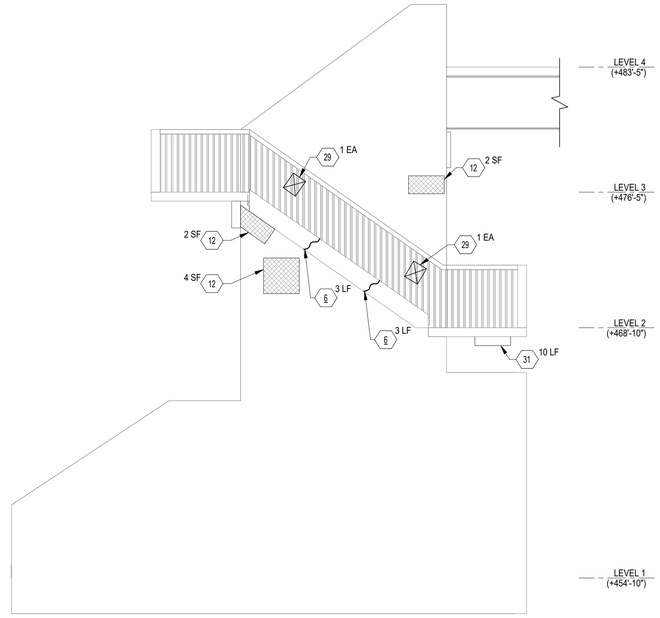
A S2.3 NORTH ELEVATION (WEST TOWER) - LOOKING SOUTH

1/4" = 1'-0"



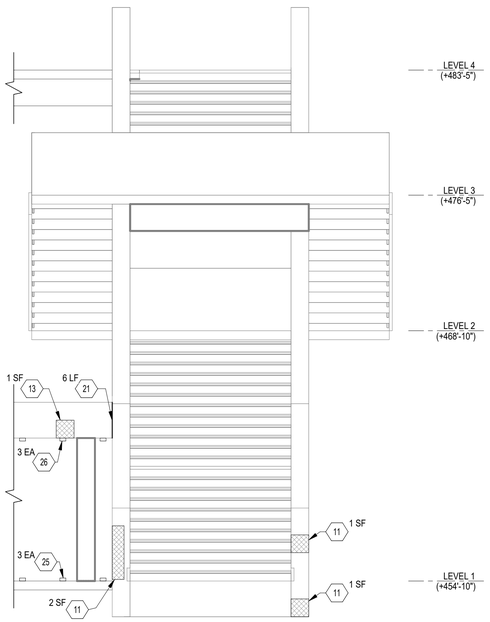
B S2.3 EAST ELEVATION (WEST TOWER) - LOOKING WEST

1/4" = 1'-0"



C S2.3 SOUTH ELEVATION (WEST TOWER) - LOOKING NORTH

1/4" = 1'-0"



D S2.3 WEST ELEVATION (WEST TOWER) - LOOKING EAST

1/4" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

DISCLAIMER:
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EXISTING PLANS HAVE NOT BEEN CONFIRMED TO REPRESENT ACTUAL FIELD CONDITIONS.

CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
19220
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE -	WEST TOWER ELEVATIONS	DRAWING NO. S2.3
DRAWN BY MDA	**UNIVERSITY OF LOUISVILLE** DEPARTMENT OF PHYSICAL PLANT BELKNAP CAMPUS LOUISVILLE, KENTUCKY	
CHECKED BY JST/JAB		
DATE 2/21/25	BROWN+KUBICAN STRUCTURAL ENGINEERS 8900 Greeneway Commons Pl #201 Louisville, KY 40220 502-749-2061 www.brownkubican.com	BK PROJECT # 24252
		ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ APPROVED FOR PROGRAM CONCEPT ONLY DATE _____

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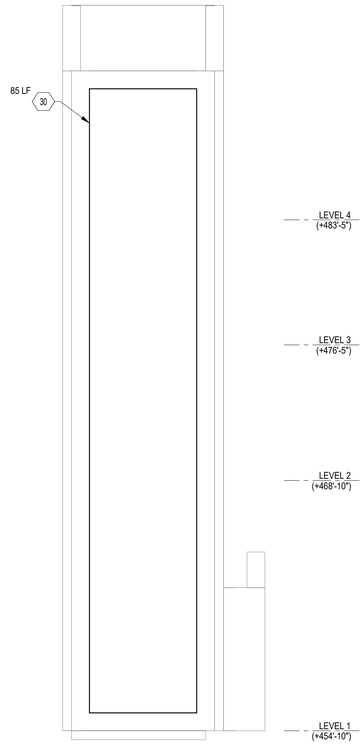
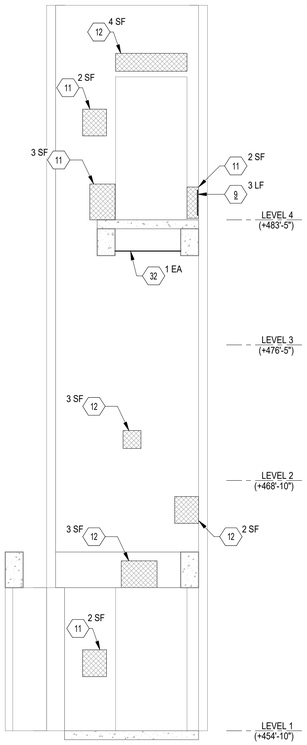


NORTH ELEVATION (ELEVATOR TOWER)
LOOKING SOUTH

A S2.4

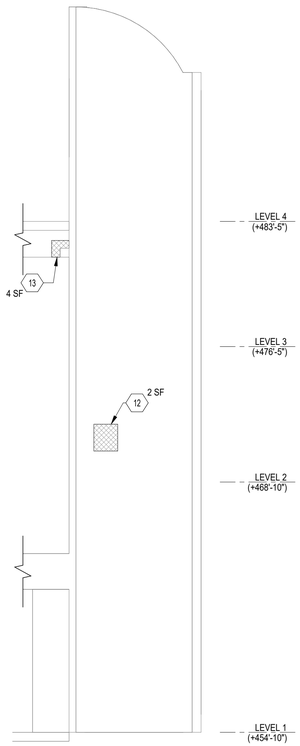
1/4" = 1'-0"



SOUTH ELEVATION (ELEVATOR TOWER)
LOOKING NORTH

B S2.4

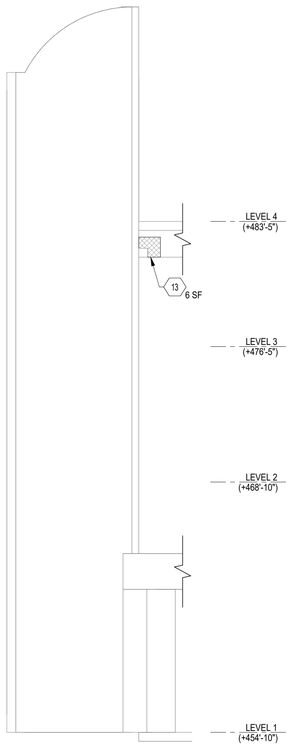
1/4" = 1'-0"



EAST ELEVATION (ELEVATOR TOWER)
LOOKING WEST

C S2.4

1/4" = 1'-0"



WEST ELEVATION (ELEVATOR TOWER)
LOOKING EAST

D S2.4

1/4" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

DISCLAIMER:
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CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
LICENSED PROFESSIONAL ENGINEER
#32201

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE -

DRAWN BY MDA

CHECKED BY JST/JAB

DATE 2/21/25

ELEVATOR TOWER ELEVATIONS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

DRAWING NO. S2.4

BK PROJECT # 24252

ENGR. FILE NO. -

AGENCY AUTHORIZED AGENT _____ APPROVED FOR PROGRAM CONCEPT ONLY DATE _____

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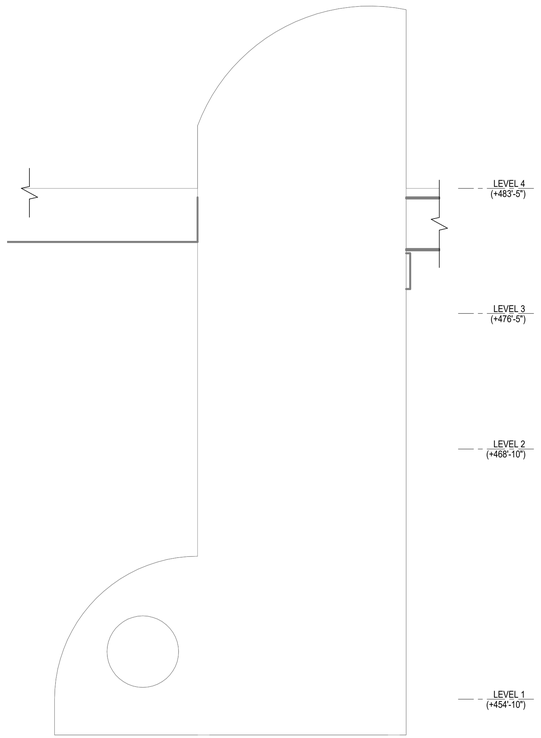
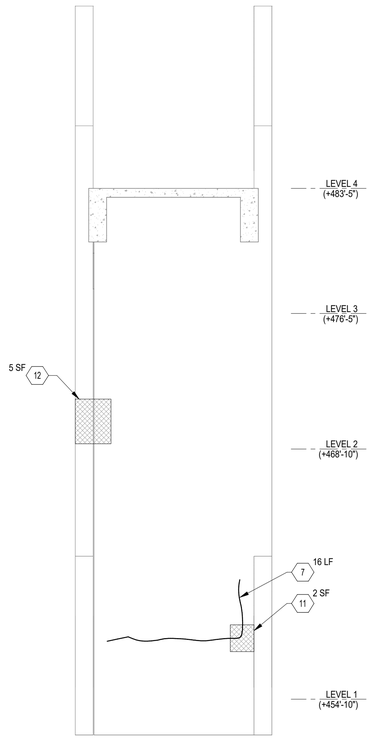


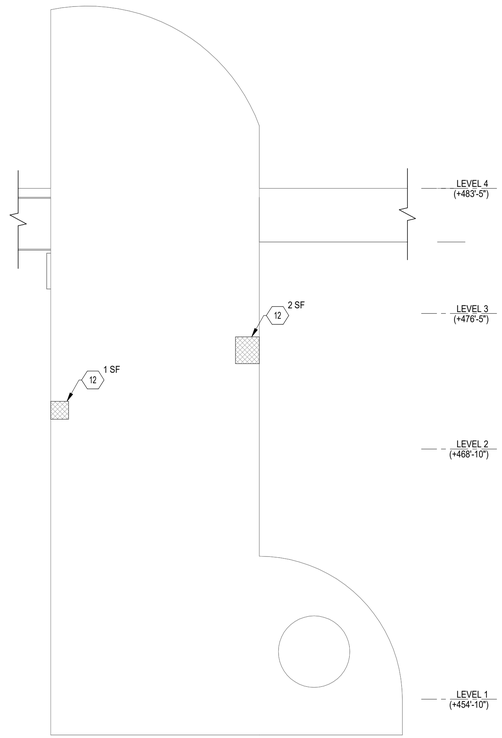
A S2.5 NORTH ELEVATION (EAST TOWER) - LOOKING SOUTH

1/4" = 1'-0"



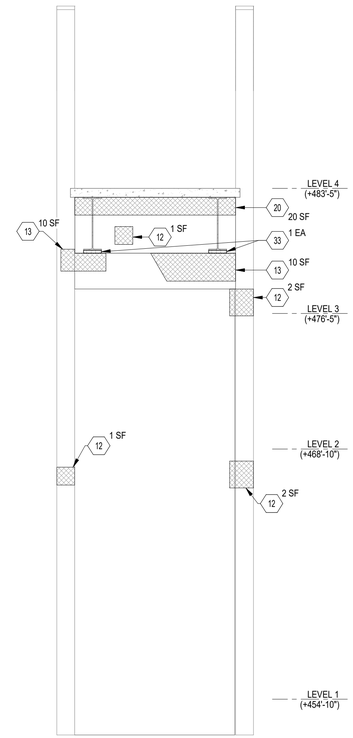
B S2.5 EAST ELEVATION (EAST TOWER) - LOOKING WEST

1/4" = 1'-0"



C S2.5 SOUTH ELEVATION (EAST TOWER) - LOOKING NORTH

1/4" = 1'-0"



D S2.5 WEST ELEVATION (EAST TOWER) - LOOKING EAST

1/4" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

DISCLAIMER:
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CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN BUSH
21320
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE
-

DRAWN BY
MDA

CHECKED BY
JST/JAB

DATE
2/21/25

EAST TOWER ELEVATIONS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

BROWN+KUBICAN
STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
502-749-2061 www.brownkubican.com

DRAWING NO.
S2.5

BK PROJECT #
24252

ENGR. FILE NO.
-

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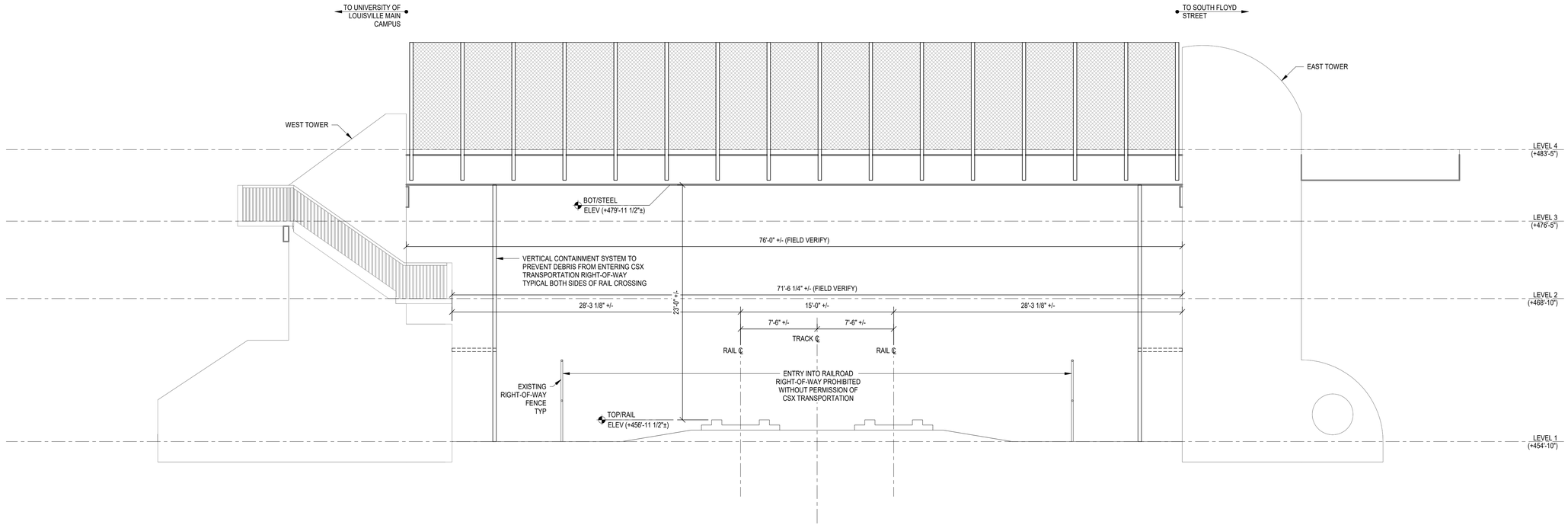
DATE _____

2/20/2025 9:25:56 AM



A S2.6 SOUTH ELEVATION (LOOKING NORTH)

3/16" = 1'-0"

LEGEND

= COMPLETE SURFACE COATING (STAIRS)

= COMPLETE SURFACE COATING (SLAB)

= CONCRETE PATCH REPAIR

DISCLAIMER:
EXISTING PLAN BACKGROUNDS ARE TAKEN FROM SENLER, CAMPBELL, AND ASSOCIATES DRAWINGS DATED 1/9/86 [PEDESTRIAN OVERPASS REBUILD].
EXISTING PLANS HAVE NOT BEEN CONFIRMED TO REPRESENT ACTUAL FIELD CONDITIONS.

CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
LICENSED PROFESSIONAL ENGINEER
2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE: -

DRAWN BY: MDA

CHECKED BY: JST/JAB

DATE: 2/21/25

RAILROAD SECTION

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

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DRAWING NO. S2.6

BK PROJECT # 24252

ENGR. FILE NO. -

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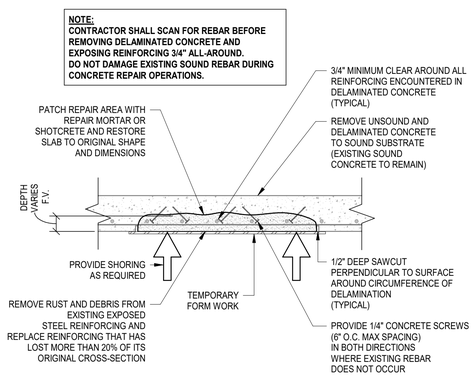
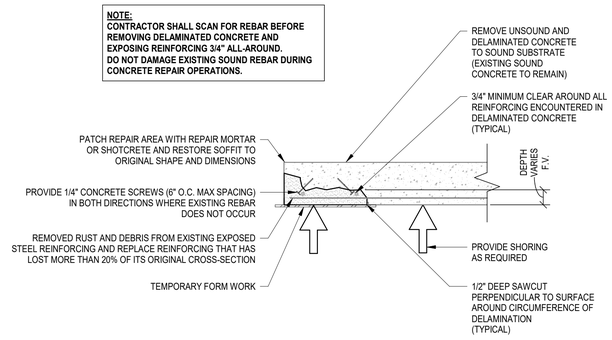


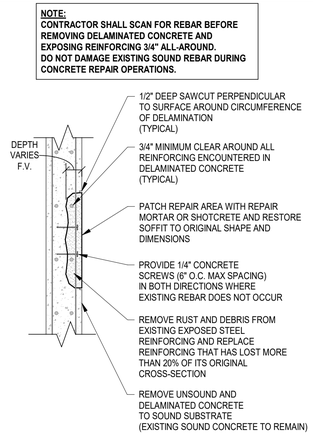
TYPICAL CONCRETE OVERHEAD SLAB REPAIR DETAIL

A S3.1 NOT TO SCALE



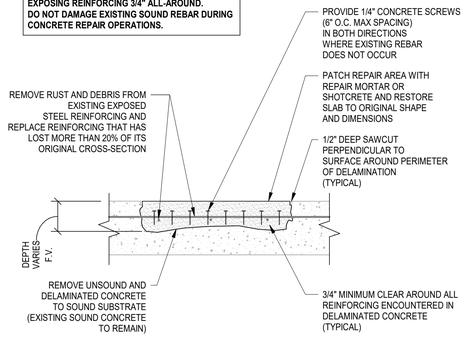
TYPICAL CONCRETE OVERHEAD SLAB W/ CORNER REPAIR DETAIL

B S3.1 NOT TO SCALE



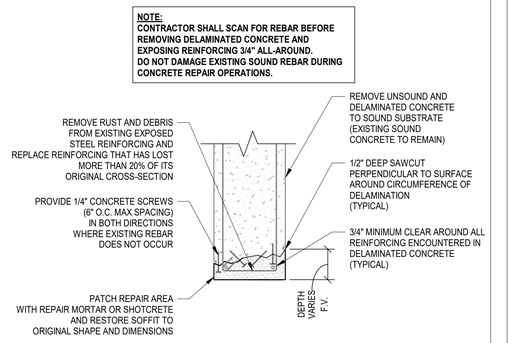
TYPICAL VERTICAL CONCRETE REPAIR DETAIL

C S3.1 NOT TO SCALE



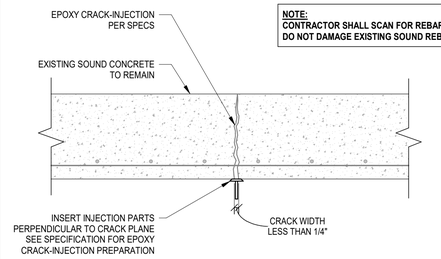
TYPICAL CONCRETE SURFACE REPAIR DETAIL

D S3.1 NOT TO SCALE



TYPICAL CONCRETE OVERHEAD BEAM W/ CORNER REPAIR DETAIL

E S3.1 NOT TO SCALE

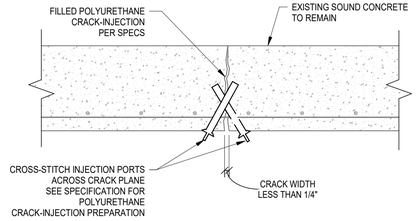


NOTE:
CONTRACTOR SHALL SCAN FOR REBAR BEFORE INSTALLING INJECTION PARTS.
DO NOT DAMAGE EXISTING SOUND REBAR DURING CONCRETE REPAIR OPERATIONS.

NOTES:
1. EPOXY CRACK-INJECTION IS FOR STRUCTURAL REPAIR OF CRACKS AND SHALL NOT BE USED FOR REPAIR OF ACTIVELY LEAKING CRACKS.
2. SEE SPECIFICATION FOR EPOXY CRACK-INJECTION MATERIALS AND REQUIRED SURFACE PREPARATION.
3. CRACKS REVEALED DURING SELECTIVE DEMOLITION ARE TO BE REPORTED TO THE ENGINEER FOR EVALUATION. SUCH CRACKS DETERMINED AS CRITICAL SHALL BE INJECTED WITH EPOXY RESIN PER SPECIFICATIONS. CONTRACTOR IS TO BE PAID FOR INJECTION BASED ON UNIT PRICES INCLUDED IN CONTRACTOR'S FORM OF PROPOSAL .
4. REMOVE INJECTION PORTS AND EXCESS EPOXY AFTER INJECTION IS COMPLETE.

TYPICAL EPOXY CONCRETE CRACK INJECTION REPAIR DETAIL

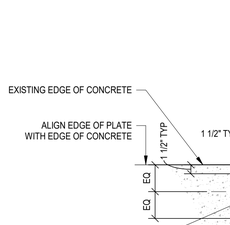
F S3.1 NOT TO SCALE



NOTES:
1. POLYURETHANE CRACK-INJECTION SHALL BE USED FOR REPAIR OF ACTIVELY OR SUSPECTED LEAKING CRACKS.
2. SEE SPECIFICATION FOR POLYURETHANE CRACK-INJECTION MATERIALS AND REQUIRED SURFACE PREPARATION.
3. CRACKS REVEALED DURING SELECTIVE DEMOLITION ARE TO BE REPORTED TO THE ENGINEER FOR EVALUATION. SUCH CRACKS DETERMINED AS ACTING OR SUSPECTED LEAKING CRACKS SHALL BE INJECTED WITH POLYURETHANE PER SPECIFICATIONS. CONTRACTOR IS TO BE PAID FOR INJECTION BASED ON UNIT PRICES INCLUDED IN CONTRACTOR'S FORM OF PROPOSAL.
4. REMOVE INJECTION PORTS AND EXCESS POLYURETHANE AFTER INJECTION IS COMPLETE.

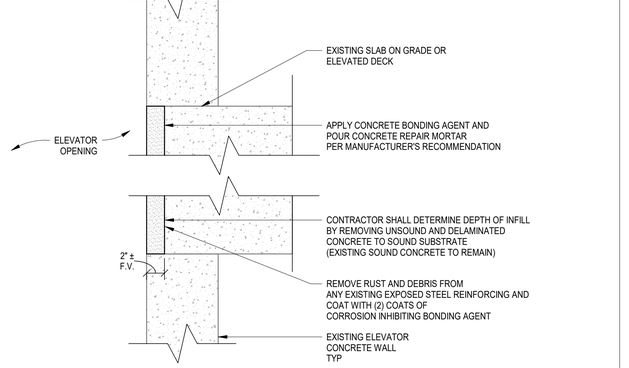
TYPICAL POLYURETHANE CONCRETE CRACK INJECTION REPAIR DETAIL

G S3.1 NOT TO SCALE



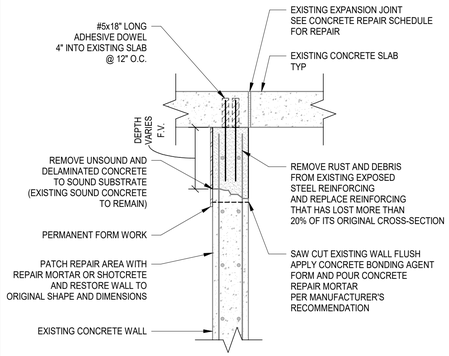
TYPICAL POST RAILING BASE PLATE DETAIL

H S3.1 NOT TO SCALE



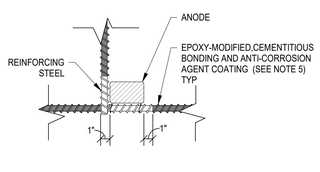
TYPICAL GROUT INFILL AT ELEVATOR THRESHOLD DETAIL

J S3.1 NOT TO SCALE

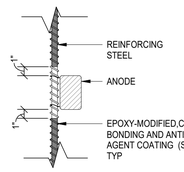


TYPICAL WALL INFILL AT BRIDGE BEARING DETAIL

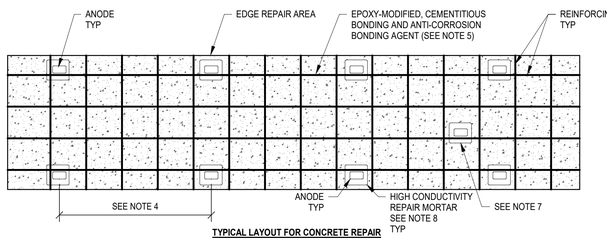
K S3.1 NOT TO SCALE



TYPICAL INSTALL AT INTERSECTION



TYPICAL INSTALL BESIDE BAR

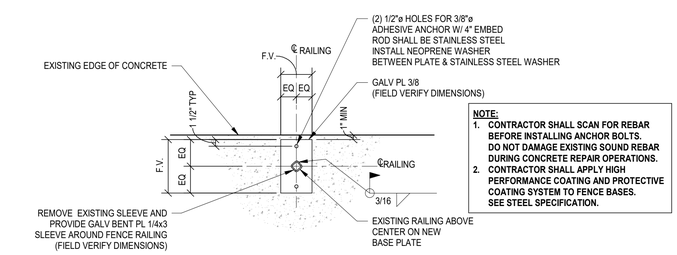


TYPICAL LAYOUT FOR CONCRETE REPAIR

NOTES:
1. REMOVE DAMAGED CONCRETE USING STANDARD REPAIR METHODS.
2. REPLACE/CLEAN CORRODED REINFORCING STEEL.
3. ENSURE ALL EXPOSED REINFORCING STEEL IS SECURELY FASTENED TOGETHER WITH TIE WIRE TO PROVIDE GOOD CONTINUITY.
4. ATTACH ANODES TO CLEAN REINFORCING STEEL AT 24" O.C. WITHIN THE PATCH AREA.
5. WHEN EPOXY-MODIFIED, CEMENTITIOUS BONDING AND ANTI-CORROSION AGENT IS USED AS A BONDING AGENT OR STEEL COATING, DO NOT APPLY THE MATERIAL TO THE CONCRETE NOR STEEL WITHIN 1" OF THE TIE WIRES NOR ANODES.
6. POUR BACK REPAIR AREA WITH REPAIR MATERIAL AS PER CONTRACT SPECIFICATIONS.
7. ANODES ARE GENERALLY ONLY INSTALLED ALONG THE PERIMETER OF THE REPAIR AREA WHERE ALL CHLORIDE CONTAMINATED CONCRETE HAS BEEN REMOVED. ANODES SHOULD BE PLACED ON A GRID PATTERN WITHIN THE INTERIOR OF THE REPAIR AREA WHEN CHLORIDE CONTAMINATED CONCRETE EXISTS IN CONTACT WITH THE REINFORCING STEEL.
8. ENCASE ANODE WITH HIGH CONDUCTIVITY REPAIR MORTAR PER ANODE RECOMMENDATIONS.
9. BASIS OF DESIGN AND SPACING OF ANODES IS SIKA FERROGARD 650.

TYPICAL SACRIFICIAL ANODE INSTALLATION DETAIL

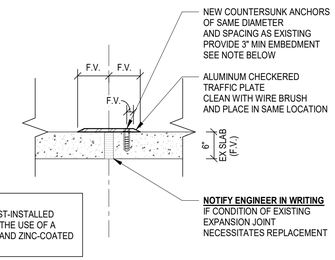
L S3.1 NOT TO SCALE



NOTE:
1. CONTRACTOR SHALL SCAN FOR REBAR BEFORE INSTALLING ANCHOR BOLTS. DO NOT DAMAGE EXISTING SOUND REBAR DURING CONCRETE REPAIR OPERATIONS.
2. CONTRACTOR SHALL APPLY HIGH PERFORMANCE COATING AND PROTECTIVE COATING SYSTEM TO FENCE BASES. SEE STEEL SPECIFICATION.

FENCE BASE REPLACEMENT

M S3.1 NOT TO SCALE



NOTE:
COUNTERSUNK REMOVABLE POST-INSTALLED ANCHOR BOLTS SHALL INCLUDE THE USE OF A ZINC-COATED DROP-IN ANCHOR AND ZINC-COATED COUNTERSUNK BOLT.

TYPICAL TRAFFIC PLATE ANCHOR REPAIR DETAIL

N S3.1 NOT TO SCALE

NOTES FOR DETAILS A, B, C, D, E, AND K/S3.1

1. EXTENT OF DELAMINATION IS TO BE DETERMINED IN THE FIELD BY SOUNDING THE SURFACE.
2. SEE SPECIFICATION FOR STRUCTURAL REPAIR MORTAR AND REQUIRED SURFACE PREPARATION.
3. CRACKS REVEALED DURING SELECTIVE DEMOLITION ARE TO BE REPORTED TO THE ENGINEER FOR EVALUATION. SUCH CRACKS DETERMINED AS CRITICAL SHALL BE PRESSURE INJECTED WITH EPOXY ADHESIVE PER SPECIFICATIONS. CONTRACTOR IS TO BE PAID FOR INJECTION BASED ON UNIT PRICES INCLUDED IN CONTRACTORS FORM OF PROPOSAL.
4. REMOVE RUST AND DEBRIS FROM EXPOSED STEEL COMPONENTS AND SUPPLEMENT EXISTING STEEL REINFORCING WHICH EXHIBITS GREATER THAN 20% SECTION LOSS WITH NEW BARS COATED WITH CORROSION INHIBITING BONDING AGENT, LAPPED WITH EXISTING REINFORCING BARS. SEE GENERAL NOTES FOR LAP LENGTH SCHEDULE.
5. PRIOR TO PLACING REPAIR MORTAR, COAT EXISTING CONCRETE SURFACE TO RECEIVE REPAIR MORTAR WITH ONE (1) COAT OF EPOXY-MODIFIED CEMENTITIOUS BONDING AND ANTI-CORROSION AGENT. APPLY TWO (2) COATS TO EXISTING REINFORCING STEEL.
6. FINISHED CONCRETE TO PROVIDE A SMOOTH & UNIFORM APPEARANCE. SEE SPECIFICATION.
7. SEE SPECIFICATIONS FOR CONCRETE / REPAIR MORTAR PLACEMENT AND FINISHING REQUIREMENTS.
8. NOTIFY ENGINEER IF REPAIR GOES THROUGH SLAB/WALL/STAIRS/CONCRETE ELEMENT.
9. IF REPAIR PATCH IS GREATER THAN 16 SF IN SURFACE AREA, INSTALL SACRIFICIAL ANODES PER DET L/S3.1.

NO.	DESCRIPTION	DATE

STATE OF KENTUCKY
JASON ALLEN RUSH
21320
LICENSED PROFESSIONAL ENGINEER

2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

AS BUILT DATE: -
DRAWN BY: MDA
CHECKED BY: JST/JAB
DATE: 2/21/25

TYPICAL REPAIR DETAILS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

DRAWING NO. S3.1

BK PROJECT # 24252

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BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
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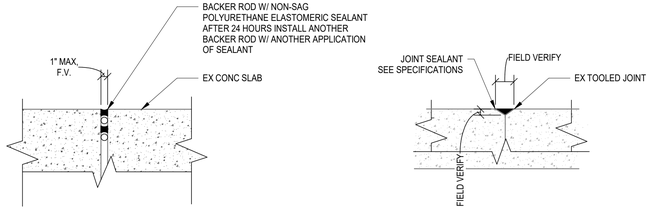
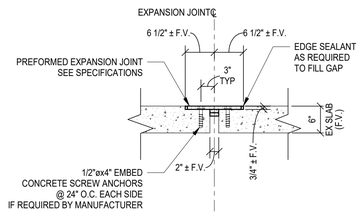


JOINT REPAIR
@ CAULK JOINT

JOINT REPAIR
@ TOOLED JOINT

A S3.2 TYPICAL JOINT REPAIR & SEALANT DETAIL

NOT TO SCALE



B S3.2 TYPICAL EXPANSION JOINT REPAIR DETAIL

NOT TO SCALE

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JASON ALLEN RUSH
LICENSED PROFESSIONAL ENGINEER
2-21-25

BELKNAP PEDESTRIAN BRIDGE REPAIR

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TYPICAL REPAIR DETAILS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
BELKNAP CAMPUS
LOUISVILLE, KENTUCKY

BROWN+KUBICAN STRUCTURAL ENGINEERS
8900 Greeneway Commons Pl #201 Louisville, KY 40220
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BK PROJECT # 24252

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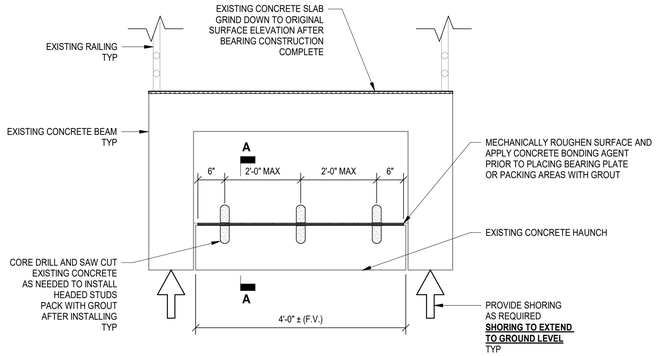
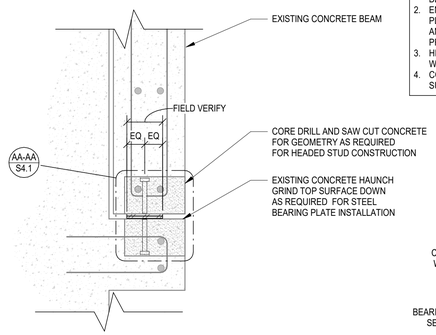
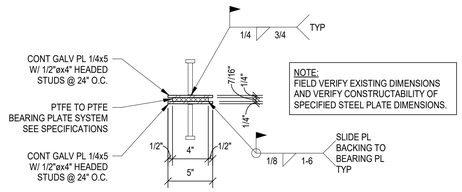


SECTION A-A



NOTES:
1. CONTRACTOR SHALL SCAN FOR REBAR BEFORE INSTALLING HEADED STUDS AND SLIDE BEARING PLATES. DO NOT DAMAGE EXISTING SOUND REBAR DURING BEARING PLATE INSTALLATION.
2. ENTIRELY REMOVE EXISTING SLIDE BEARING PLATE AND MECHANICALLY ROUGHEN SURFACE AND APPLY CONCRETE BONDING AGENT PRIOR TO INSTALLING NEW SLIDE BEARING PLATE
3. HEADED SHEAR STUDS SHALL BE INSTALLED PRIOR TO WELDING TO PLATE.
4. CONTRACTOR SHALL SUBMIT SLIDE BEARING ASSEMBLY SUBMITTAL TO ENGINEER PRIOR TO INSTALLATION .

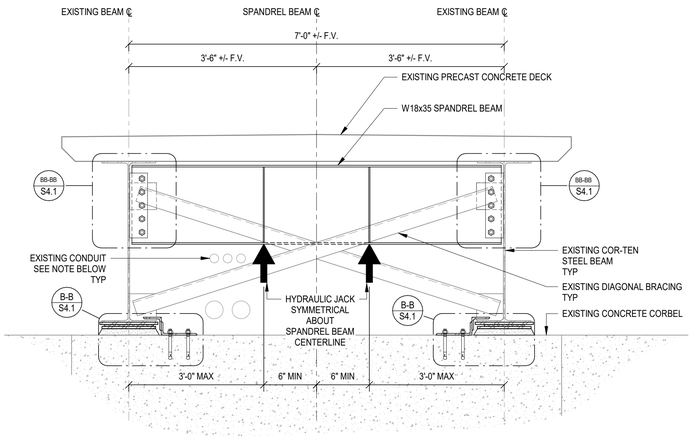


NOTE:
FIELD VERIFY EXISTING DIMENSIONS AND VERIFY CONSTRUCTABILITY OF SPECIFIED STEEL PLATE DIMENSIONS.

DETAIL AA-AA

A S4.1 TYPICAL SLIDE BEARING PLATE REPAIR AT ELEVATOR DETAIL

NOT TO SCALE

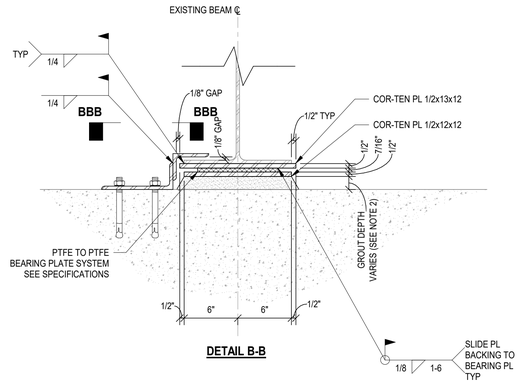


NOTES:
1. CONTRACTOR SHALL COORDINATE WITH CSX TRANSPORTATION PRIOR TO BEARING PLATE REPAIR EFFORTS.
2. CONTRACTOR SHALL REMOVE ALL NETTING BELOW DELAMINATED AREA TO ACCESS BEARING PLATES AND, ONCE COMPLETED, SHALL REINSTALL IN LIKE AND KIND.
3. CONTRACTOR SHALL SCAN FOR REBAR BEFORE INSTALLING STEEL BEARING PLATE SYSTEM
4. ENTIRELY REMOVE EXISTING STEEL BEARING PLATE SYSTEM (CUT ANCHOR BOLT FLUSH WITH TOP OF EXISTING CONCRETE AND GRIND DOWN AS REQUIRED). MECHANICALLY ROUGHEN EXISTING SURFACE, APPLY CONCRETE BONDING AGENT AND RESTORE CONCRETE CORBEL TO ORIGINAL SHAPE/DIMENSIONS.
5. SELECT HYDRAULIC JACK TO SUPPORT A SHORING DESIGN LOAD OF 30,000 LBS AT EACH JACK. PLACE TEMPORARY METAL BEARING SHIMS BETWEEN HYDRAULIC JACK AND CONCRETE CORBEL. CONTRACTOR TO REPAIR ANY DAMAGE TO EXISTING CONCRETE/ STEEL ELEMENTS THAT OCCUR AS A RESULT OF REPAIR OPERATIONS.
6. CONTRACTOR TO REMOVE EXISTING DIAGONAL BRACING TO FACILITATE ACCESS TO REPAIR AREA AND RETURN TO ORIGINAL LOCATION ONCE REPAIR OPERATIONS COMPLETED.
7. ANY EXISTING CONDUIT MUST REMAIN OPERATIONAL DURING REPAIR ACTIVITIES. CONTRACTOR TO NOTIFY ENGINEER IF EXISTING CONDUIT LOCATION HINDERS ABILITY TO REPAIR BEARING LOCATIONS.

B S4.1 TYPICAL MAIN BRIDGE BEARING PLATE REPAIR DETAIL

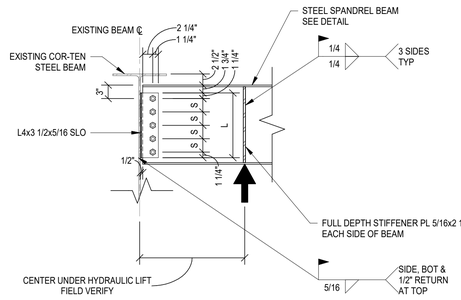
NOT TO SCALE

NOTES:
1. FIELD VERIFY EXISTING DIMENSIONS AND VERIFY CONSTRUCTABILITY OF SPECIFIED STEEL PLATE DIMENSIONS.
2. EXISTING DIMENSION BETWEEN CONCRETE CORBEL AND BOTTOM OF EXISTING STEEL BEAM FLANGE MAY VARY. CONTRACTOR TO FIELD VERIFY DIMENSION AT EACH BEARING LOCATION, AND MODIFY GROUT DEPTH AS NEEDED. EXISTING BOTTOM OF STEEL ELEVATION TO REMAIN UNMODIFIED AFTER REPAIR OPERATIONS COMPLETE.

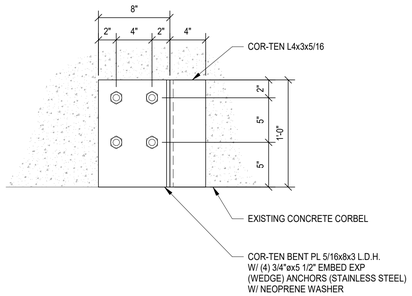


DETAIL B-B

NOTES:
1. ALL BOLTS ASTM 325-N, 3/4"ø.
2. ALL WELDS E70XX.
3. BOLT SPACING (S) =3".
4. SHORT HORIZONTAL SLOTTED HOLES MAY BE USED.



DETAIL BB-BB



DETAIL BBB-BBB

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STATE OF KENTUCKY
JASON ALLEN BUSH
21320
LICENSED PROFESSIONAL ENGINEER

2-21-25

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TYPICAL FRAMING DETAILS

UNIVERSITY OF LOUISVILLE
DEPARTMENT OF PHYSICAL PLANT
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LOUISVILLE, KENTUCKY

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