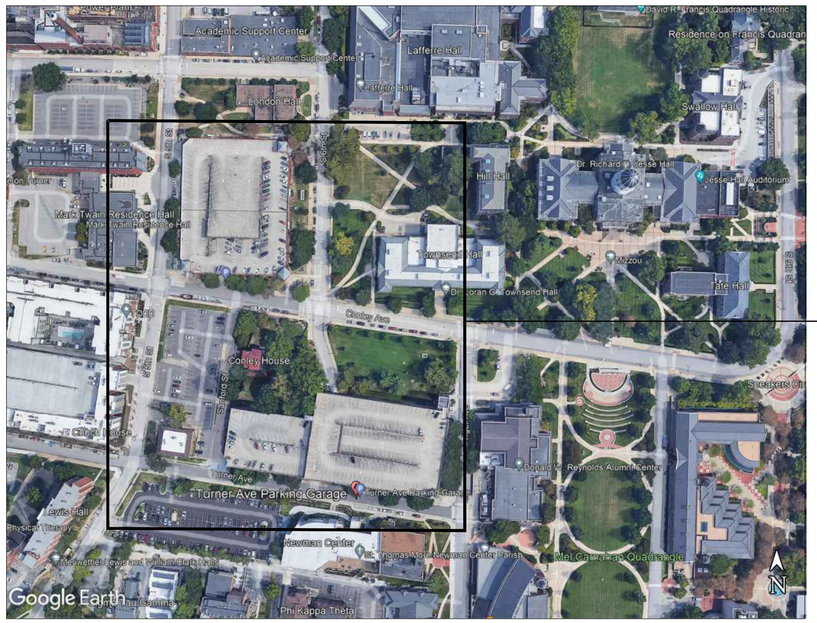
DRAWING INDEX:

UNIVERSITY OF MISSOURI
TURNER AVENUE
PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS

MU Project No. CP212202
University of Missouri
Columbia, Missouri

Issued For Bids
March 28, 2022

Prepared for the Curators of
The University of Missouri



RE: 1/S001

SITE REFERENCE PLAN N

PREPARED BY:

STRUCTURAL ENGINEERING ASSOCIATES

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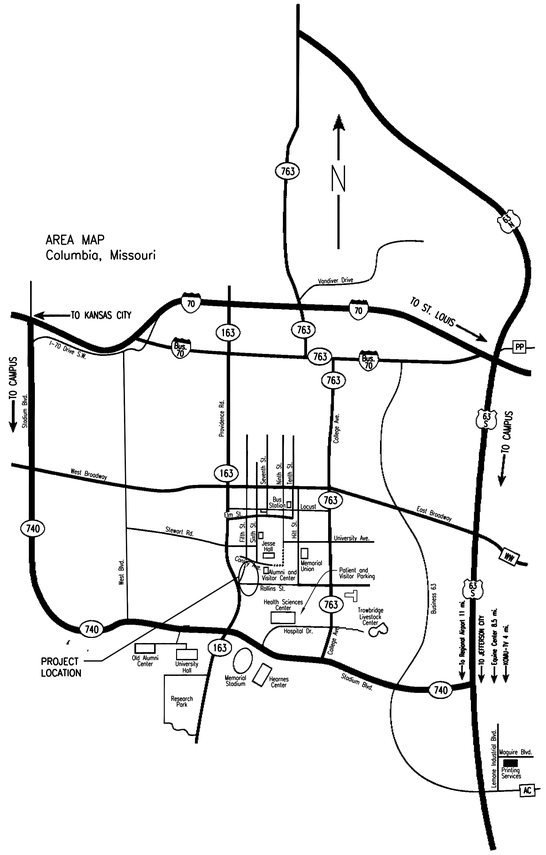
Missouri Certificate of Authority
Number: 000396

"I hereby certify these drawings and/or specifications have been prepared by me, or under my supervision. I further certify that to the best of my knowledge these drawings and/or specifications are as required by and in compliance with the Building Codes of the University of Missouri".

Signature



LOCATION MAP N

GENERAL NOTES

A. GENERAL

1. Any condition encountered in the existing structural system which is different from that indicated in Drawings or which might create a failure or hazard shall be brought to the immediate attention of the Engineer.
2. The existing conditions indicated on the Drawings are based on surveys made by the consultant(s) as well as on material provided by the Owner and no claim is made as to its absolute completeness and/or accuracy. Prior to the start of construction operations, field-verify existing conditions and dimensions pertaining to this Contract. Notify the Engineer immediately of any discrepancies found at the site in relation to the information provided on the Drawings.
3. The Owner or his Representative reserves the right to inspect any material, fabrication, or workmanship at any time in field or shop for conformance to the Specifications, General Notes, and Drawings.
4. All details and sections are intended to be typical and shall be construed to apply to any similar situation elsewhere, except where a different detail is shown.
5. The adjacent facilities will remain in operation throughout the duration of the project. Contractor shall take all precautions necessary to ensure the safety of pedestrians around the jobsite.
6. Contractor is responsible for jobsite safety.
7. Contractor will schedule work in such a manner to minimize impact on Owner's operations.

B. DESIGN

1. Codes, specifications and standards (latest editions, U.N.O.)
   a. All design and construction shall conform to the International Building Code (2021).
   b. Concrete damage/deterioration shall be repaired to it's predamged condition in accordance with IEBC 2021 section 405.2.1.
   c. All construction shall comply with the provisions of the following codes, specifications and standards, except where noted to the contrary on drawings and specifications or where more stringent requirements are specified or shown:
      ACI 117 "Standard Specifications for Tolerance for Concrete Construction and Materials"
      ACI 301 "Specifications for Structural Concrete for Buildings"
      ACI 318 "Building Code Requirements for Reinforced Concrete"
      AISC "Load and Resistance Factor Design (LRFD) Specification for Structural Steel Buildings"
      AWS D1.1 "Structural Welding Code – Steel"
   d. Code information:
      1. Construction type: I A
      2. Occupancy: S-2
      3. Risk category: 2
      4. Building height:
         a. Turner Ave. 54 feet
         b. Conley Ave. 32 feet
      5. Building square feet:
         a. Turner Ave. 419,406 square feet
         b. Conley Ave.. 185,000 square feet
      6. Area of repair square feet:
         a. Turner Ave. 419,406 square feet
         b. Conley Ave.. 60 lin.feet

C. CONCRETE

1. All concrete shall have a minimum 28-day ultimate compressive strength of 5000 psi.
   a. Minimum Cementitious Content: 611 lbs
   b. Silica Fume: 4 percent by weight of cement
   c. Air Entrainment: 6.5 percent +/- 1.5 percent
   d. Max w/c Ratio: .38
   e. Slump: 3" +/- 1"
   f. Synthetic Fibers: Re Specs.
2. Portland Cement: ASTM C 150, Type 1.
3. Water-reducing admixtures: ASTM C 494.
4. Normal Weight Aggregates: ASTM C 33.
   a. Use aggregates that are non-reactive with ASR or provide SCMs to mitigate ASR to maximum of 0.10 percent at an age of 16 days when tested in accordance with ASTM C1567 Modified (RE: Specs).
5. Air entrain all concrete (admixture: ASTM C 260).
6. Do not use calcium chloride admixtures under any circumstances.
7. Reinforcing bars: ASTM A 615 Specifications, Grade 60, deformed. Bend bars cold.
8. Epoxy-coated reinforcing bars: ASTM A 775. All new reinforcing to be to epoxy coated.
9. Epoxy-coated steel wire and welded wire fabric: ASTM A 884, Class A.
10. Welded wire fabric (WWR): ASTM A 1064.
11. Maintain minimum concrete coverage for reinforcing as indicated, unless noted otherwise.
    a. 3 in. clear where concrete is deposited directly against earth.
    b. 2 in. clear where concrete is exposed to earth or weather but poured against forms for bars larger than #5.
    c. 1-1/2 in. clear where concrete is exposed to earth or weather, but poured against forms for bars #5 or smaller.
    d. 3/4 in. clear for slabs and walls formed above grade not exposed to weather.
    e. 1-1/2 in. clear for beam and columns formed above grade and not exposed to weather.
12. Lap all bars at splices in accordance with ACI 318, but not less than 40 bar diameters not less than 18 inches unless noted otherwise. All horizontal wall bars shall be developed at corners either by bending not less than 18 inches around corners or with properly placed hooked and lapped corner bars.
13. All bar steel and WWR shall be properly supported and held accurately in place as recommended by the Concrete Reinforcing Steel Institute, except that maximum spacing of any bar or welded wire fabric support shall be 3 feet.
    a. Support top slab bars with continuous high chairs.
    b. Support WWR properly supported at the mid-depth of the slab. Hooking and pulling up mesh after concrete has started to take its initial set is prohibited.
    c. Supports for reinforcement for exposed-to-view concrete surfaces shall have legs that are in contact with forms plastic protected (CRSI, Class 1) or stainless steel (CRSI, Class 2).
14. Construction joints, other than those shown, shall be held to a minimum but where necessary shall be at points of minimum shear.
15. All reinforcing shall be epoxy coated.
16. Horizontal construction joints are not permitted unless shown on the drawings. Deviations are not allowed unless approved by the Engineer in writing.
17. Cold-Weather Placement: Comply with ACI-318 reference ACI 306R-10 and as follows.
    a. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
    b. When average high and low temperature is expected to fall below 40 deg F (4.4 deg C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 306R-10 but in no case less than 50 degrees F.
    c. Do not use frozen materials or materials containing ice or snow.
    d. Do not place concrete in contact with surfaces less than 45 deg F (1.7 deg C), other than reintarcing steel.
    e Maintain substrate and concrete temperature to a minimum of 45 deg for a minimum of 48 hours.
    f. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
    g. Contractor to submit a placement plan prior to concrete installation when temperatures fall below 40 degrees Fahrenheit during the protection period as defined in ACI 306R-10.
18. Hot Weather Placement: Comply with ACI 318 reference ACI 305R-1 and as follows:
    a. Protect concrete work from physical damage or reduced strength that could be caused by high ambient temperature, high concrete temperature, low relative humidity, and wind speed.
    b. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
    c. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

D. SHOTCRETE

1. Contractor has the option to use shotcrete for over head and vertical repairs.
2. Prepare repair areas as noted on details. Sawcut along perimeter of repair area to create a clean, straight joint for the edges of the shotcrete repair. Do not damage existing reinforcing steel.
3. Form sides of shotcrete repair area. Do not damage existing reinforcing.
4. Shotcrete repair using approved mix design. Surface shall be saturated surface dry (SSD) immediately prior to shooting. Apply shotcrete in such a fashion to ensure specified compressive strengths and to eliminate rebound or seams in shotcrete.

E. CONSTRUCTION

1. Provide adequate shoring or bracing during construction to resist forces such as wind and unbalanced loading due to construction.
2. Protect existing building as required until all new construction is complete.
3. Verify all dimensions of or to existing construction. Any variation from that shown on plans shall be brought to the attention of the Engineer before proceeding.
4. Haul off and properly dispose of all material demolished from the site unless specifically directed otherwise by the Owner.
5. Field verify the location and depth (or height) of all utilities prior to beginning construction in order to provide adequate clearances and to minimize interruption of service.
6. To accomplish the work, temporarily relocate electrical conduit, wire, associated attachments, brackets, or other utility components as required and re-install or replace in-kind.
7. Contractor shall provide fire watch person for a minimum of 1 hour after welding is terminated each day.
8. Contractor shall provide fire watch person whenever heaters are being utilized.
9. Jobsite shall be provided with an ample number of fire extinguishers to assure that any fires can be rapidly extinguished.
10. For items to be reinstalled, contractor shall mark and store items in a safe environment to protect them from theft, damage, or deterioration until reinstalled.
11. Contractor shall keep a set of drawings on site to be used for creating a record set of documents. Contractor shall record any changes to the plans, any changes in routing of electrical, plumbing, etc. Contractor shall submit record set of drawings to Engineer at time of substantial completion.

F. DEMOLITION AND SITE WORK

1. Contractor shall remove and dispose of all existing concrete curbs (washes) @ drains & demolition materials, waterproofing membrane, etc., so as to expose the existing 3" structural topping slab over the precast double tees for cleaning, required slab delamination repairs and surface preparation for new waterproofing membrane.
2. Contractor shall not stockpile large/deep areas of construction debris on any framed levels. Large construction equipment and materials shall be stored in designated "slab-on-grade" areas and coordinated with Owner and Engineer.

G. GARAGE REPAIR SCHEDULE

1. The Contractor shall sequence garage repairs so as to minimize disruption to medical building operations.
2. The Contractor shall provide temp. vehicular and pedestrian routing signage (including accessibility to medical building) during work.

H. SPECIAL INSPECTION

1. The following tests and inspection shall be performed by an independent inspection agency employed by the owner and approved by the structural engineer and the building official. Test and inspection reports shall be submitted to the owner, architect, structural engineer, and building official. Special inspection shall conform to Chapter 17 of the 2021 International Building Code, as well as conforming to the items listed below.

Special Inspection requirements:	Continuous	Periodic
2. Reinforced concrete – 2021 IBC Table 1705.3		
a. Verification of required mix design.		X
b. Sampling concrete, compressive strength cylinders, slump, air content.		X
c. Inspection of concrete placement.	X	
d. Inspection of curing techniques.		X
3. Post-Installed Anchors		
a. Epoxy adhesive anchors in continuous tension	X	
b. Epoxy adhesive anchors not in continuous tension		X
c. Mechanical post-installed anchors		X

I. DEFERRED SUBMITTALS

1. No deferred submittals are anticipated.

CONCRETE REPAIR NOTES

IDENTIFYING REPAIR AREAS

a. Contractor shall sound concrete and mark limits of delamination/debonding in accordance with ASTM D4580. Extend repair margins 4 inches beyond limits of sounding perimeter or larger as required to expose non-corroded reinforcing steel or confirm that there is no visible evidence of delamination cracking in concrete perimeter.
b. Expand limits of concrete removal to avoid irregular patch geometry such as re-entrant corners and long, narrow patches. Provide general geometry in accordance with ICRI 310.1R.

PREPARATION

a. Remove all unsound concrete and sound concrete as required to maintain minimum depths and adequate cover around reinforcing steel.
b. Saw-cut around the perimeter of the patch area 3/4 inches deep. Determine depth of reinforcing steel prior to sawcutting. Adjust depth as required to avoid cutting of or damage to reinforcing steel or other embedded items.
c. Where half or more of the perimeter of reinforcing bar is exposed, bond is broken around reinforcing steel, or the reinforcing steel bar is corroded, remove concrete from the entire perimeter of the bar to provide at least 3/4 inches clear.
d. Roughen concrete surface in patch area to achieve a minimum concrete surface profile in accordance with ICRI CSP-7 as described in the latest edition of ICRI 310.2.R.
e. Remove bruised concrete substrate weakened by microcraking by abrasive blasting or high-pressure water blasting with or without abrasive. When water blasting, provide 5000 psi water pressure or higher if required to satisfy the tensile bond requirements. Keep nozzle not less than 6 inches and no more than 12 inches away from the surface.
f. Remove concrete fragments, corrosion product, mill scale, and other contaminants from reinforcing bars by commercial blast cleaning in accordance with SSPC-SP6 until a bare metal finish has been achieved on the reinforcing.
g. Where section loss of reinforcing bars is more than 20% of the cross-sectional area, splice replacement bars to existing bars as directed by the Engineer. Remove additional concrete as necessary to provide at least 3/4 inches clearance beyond existing and replacement or supplemental bars. Splice replacement bars to existing bars according to ACI 301 or in accordance with General Notes by lapping or using non corrosive mechanical couplings.
h. At areas around the repair perimeters where the development length cannot be achieved with the repair, drill in sound concrete as shown on the drawings or as directed by the Engineer to provide the required bar development and splice length, or remove additional concrete to allow for the splice.
i. Clean repair area with high pressure, oil free air.
j. Verify limits of concrete removal with Engineer prior to placing repair material.
k. Repairs will be paid on a unit price basis. Repair areas will be measured to the nearest 1 square foot.

SACRIFICIAL ANODES

a. Install sacriticial anodes at stem repairs in strict accordance with Manufacturer's Printed Installation Instructions. Install anodes at 12 inches on center around the perimeter of the repair area. All reinforcement passing between the repair material and the existing concrete shall be electrically continuous with the anodes.
b. Remove concrete as required to provide the Manufacturer's written recommended clearance around and coverage over the anodes.
c. Clean exposed reinforcing steel of corrosion, mortar, coating, etc. to provide a bright metal surface that will provide sufficient electrical connection. Place the anodes as close as practical to the edge of repair (within 6 inches).
d. Embed anodes in specified conductive mortar prior to placing repair material.
e. Repair areas less than 2 square feet shall not require installation of anodes.

BONDING

a. Saturated Surface Dry Substrate: For ready mixed concrete, pre-dampen concrete substrate surfaces to saturated surface-dry (SSD) condition prior to placement of patch material. Apply water to the surface of the patch area for a minimum of 2 hours prior to placement of repair material, or longer as required to achieve SSD. Remove excess water immediately prior to placement of patch material by high pressure, oil free air.
b. Bonding for Pre-packaged Concrete Mix: Prepare substrates and apply bonding agents in strict accordance with Manufacturer's Printed Installation Instructions.

PLACEMENT OF PATCH MATERIAL

a. Refer to specifications or General Notes for ready mixed concrete mix design requirements, or requirements for prepackaged concrete repair materials.
b. Mixing, conveying and placement of ready mixed concrete shall conform to the requirement of ACI 301, except as modified within these general notes or specifications.
c. Place repair material within open time of any mortar scrub coat or bonding agent.
d. Mix and place pre-packaged repair material in strict accordance with Manufacturer's Printed Installation Instructions.
e. Ready mixed concrete shall be batched, mixed and delivered in accordance with the requirements of ASTM C94.
f. Fully consolidate all concrete using mechanical vibrators except in the case of self-consolidating concrete.
g. Three days after completion of repairs, sound repair areas in the presence of the design professional or Special Inspector to verify patch is bonded and there are no additional delaminations present in or around repair area. If delaminations are present in the repair area, repair additional delaminations at no additional cost to the owner.

CURING

a. Wet cure all ready-mixed concrete repair locations with water or water soaked absorptive cover or moisture retaining cover curing.
b. Cure all repair locations for a minimum of 72 hours.
c. Cure pre-packaged concrete repair materials in strict accordance with Manufacturer's Printed Installation Instructions.
d. If cracking occurs in repair areas, modify preparation, placement and curing procedures as required to eliminate cracking and perform repairs again at no additional cost to owner.

MOCK-UPS

a. Provide mock-ups of typical repair prior to beginning work.
b. Provide mock-ups to exhibit each of the stages for repair identified above and each repair material and surface prep to be used.
c. Provide Engineer sufficient notice to allow Engineer to observe each stage of mock-up.
d. Refer to specifications for mock-up requirements.

PRECAUTIONS

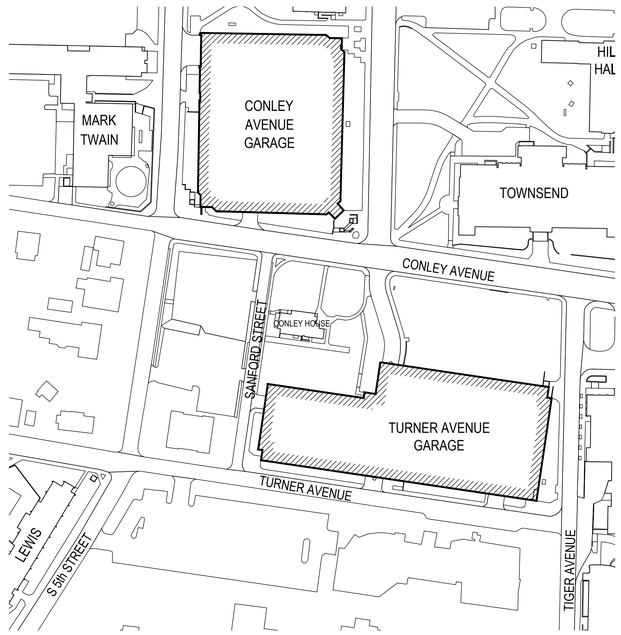
a. Provide dust partitions or plywood enclosures as required to protect surrounding pedestrians, motor vehicles, mechanical, electrical and plumbing equipment, surrounding construction, project site, landscaping and surrounding buildings from damage or injury resulting from concrete rehabilitation work.
b. Perform all work in accordance with OSHA guidelines and regulations and all other city, state and federal regulations.

STRUCTURAL LEGEND

= CONCRETE MASONRY UNIT (CMU) (CMU) WALL
= CONCRETE WALL
= PRECAST DOUBLE TEE
= OPENING
= STRUCTURAL STEEL BEAM
= STRUCTURAL STEEL JOIST
= SLAB SPAN DIRECTION
= ELEVATION
DET NUMBER (TOP) SHT NUMBER (BOT)
COL GRID LINE
CONC GRADE BM/WALL
COL/FTG/PED
KEYED NOTE
SIM.DIA. CONC DRILLED PIER DIA AND TOP EL
SPOT EL
CONSTRUCTION FENCE

STRUCTURAL ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	NIC	NOT IN CONTRACT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	NTS	NOT TO SCALE
		NWT	NORMAL WEIGHT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	o.c.	ON CENTER
		OPNG	OPENING
AB	ANCHOR BOLT	OPP	OPPOSITE HAND
ADJ	ADJACENT	P.C.	PRECAST CONCRETE
AFF	ABOVE FINISHED FLOOR	PL	PLATE
AHU	AIR HANDLING UNIT	plf	POUNDS PER FOOT
ALT	ALTERNATE	PROJ	PROJECTION
L	ANGLE	psf	POUNDS PER SQUARE FOOT
ARCH	ARCHITECT	psi	POUNDS PER SQUARE INCH
BFF	BELOW FINISHED FLOOR	R	RADIUS
BLDG	BUILDING	RD	ROOF DRAIN
BLKG	BLOCKING	RE	REFERENCE
BM	BEAM	REINF	REINFORCEMENT
BOC	BOTTOM OF CAISSON	REQD	REQUIRED
BOT	BOTTOM	REV	REVISION
BRG	BEARING	RTU	ROOF TOP UNIT
BTWN	BETWEEN	RXN	REACTION
C	COMPRESSION	SAH	STRONG AXIS HORIZONTAL
CNTR	CENTER	SCHED	SCHEDULE
CNTRD	CENTERED	SECT	SECTION
CL	CENTER LINE	SHT	SHEET
CJ	CONTROL/CONST JOINT	SIM	SIMILAR
CLR	CLEAR	SJI	STEEL JOIST INSTITUTE
CMU	CONCRETE MASONRY UNIT	SOG	SLAB ON GRADE
COL	COLUMN	SPA	SPACING
CONC	CONCRETE	SPECS	SPECIFICATIONS
CONN	CONNECTION	STD	STANDARD
CONT	CONTINUOUS	STIFF	STIFFENER
DBA	DEFORMED BAR ANCHOR	STL	STEEL
Dia or Ø	DIAMETER	SQ	SQUARE
DIM	DIMENSION	SYM	SYMMETRICAL
DET	DETAIL	T	TENSION
DN	DOWN	T&B	TOP AND BOTTOM
DWG	DRAWING	THK	THICK OR THICKNESS
DWL	DOWEL	T.O.	TOP OF
EA	EACH	TOBL	TOP OF BRICK LEDGE
EE	EXTENDED ENDS	TOC	TOP OF CONCRETE
EF	EACH FACE	TOF	TOP OF FOOTING
EL	ELEVATION	TOM	TOP OF MASONRY
ELEV	ELEVATION	TOS/TOB	TOP OF STEEL/BEAM
EMBED	EMBEDMENT LENGTH	TOSS	TOP OF STRUCTURAL STEEL
EQ	EQUAL/EQUIVALENT	TOW	TOP OF WALL
EW	EACH WAY	TRS	TRUSS
EXIST	EXISTING	TYP	TYPICAL
EXP	EXPANSION	UNO	UNLESS NOTED OTHERWISE
EXT	EXTERIOR	VERT	VERTICAL
FIN	FINISH	VIF	VERIFY IN FIELD
FD	FLOOR DRAIN	W	WITH
FLG	FLANGE	WP	WORKING POINT
FLR	FLOOR	WWF	WELDED WIRE FABRIC
FND	FOUNDATION	WWR	WELDED WIRE REINFORCING
F.O.	FACE OF		
FTG	FOOTING		
GA	GAGE		
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR		
GDR	GIRDER		
GYP	GYPSUM		
H.A.S.	HEADED ANCHOR STUD		
HK	HOOK		
HOR	HORIZONTAL		
INCL	INCLUDING		
INSUL	INSULATION		
INT	INTERIOR		
JST	JOIST		
JT	JOINT		
K	KIP = 1000 LBS		
K-FT	KIP-FEET (Moment)		
LOC	LOCATION		
LLH	LONG LEG HORIZONTAL		
LLV	LONG LEG VERTICAL		
MAX	MAXIMUM		
MECH	MECHANICAL		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
MFR	MANUFACTURER		
MO	MASONRY OPENING		
MTL	METAL		
#	NUMBER OR POUND		



1 OVERALL SITE PLAN
NTS

STATE OF MISSOURI
RALPH C. JONES
NUMBER PE-22413
6-26-22
PROFESSIONAL ENGINEER

RALPH C. JONES
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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure General Notes

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022
REVISIONS:	

S001

SEA 2022091

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STRUCTURAL REPAIRS SCHEDULE

REPAIR MARK	REPAIR TYPE	REPAIR DETAILS	UNIT PRICE
R-1	**SHALLOW DEPTH CONCRETE SLAB REPAIR:** a. Contractor to mark out areas of repair and confirm with EOR prior to performing repairs. b. Perform repairs in accordance with "Concrete Repair Notes" and specifications. c. Add galvanic anodes and test for continuity. d. After completion of patched areas, in locations of existing traffic membrane contractor to prep concrete and apply specified traffic membrane system in accordance to manufacturers recommendations.	1/S300 1/S301 2/S301 4/S301	2,303 SF
R-2	**VERTICAL REPAIRS TO CONCRETE WALLS AND/OR COLUMNS** a. Contractor to mark out areas of repair and confirm with EOR prior to performing repairs. b. Perform repairs in accordance with "Concrete Repair Notes" and specifications. c. Add galvanic anodes and test for continuity.	4/S300 5/S300 1/S301 2/S301 4/S301	289 SF
R-3	**PARTIAL DEPTH REPAIRS ON SOFFIT AREAS:** a. Contractor to mark out areas of repair and confirm with EOR prior to performing repairs. b. Perform repairs in accordance with "Concrete Repair Notes" and specifications. c. If contractor chooses to use shotcrete material, applicator must have minimum 5 years experience on similar applications, and be ACI certified nozzelman	2/S300 3/S300	35 SF
R-4	**PRESSURE INJECTION OF CRACKS WITH EPOXY:** a. Install manufacturers recommended ports at specified locations. b. Apply epoxy cap seal between ports. c. Inject concrete using recommended pumps from manufacturer. d. Remove cap seal after epoxy has hardened	8/S300	12 LF
R-5	**HORIZONTAL EXPANSION JOINT REMOVAL AND REPLACEMENT:** a. The size of the opening measured at a 70†f temperature. b. The joint interface walls must be constructed equidistant from one another, straight, parallel to one another and plumb. Concrete saws and diamond grinding disks should be used to correct any deviations. c. Edge spalling, sharp projections and concrete voids shall also be repaired prior to proceeding with the joint installation. All repair materials used should have reached full cure conditions as specified by the repair material manufacturer before installation of the joint system begins. d. Comply with manufacturers recommendations for installation procedures.	11/S300	950 LF
R-6	**VERTICAL EXPANSION JOINT REMOVAL AND REPLACEMENT:** a. The size of the opening measured at a 70†f temperature. b. Edge spalling, sharp projections and concrete voids shall also be repaired prior to proceeding with the joint installation. All repair materials used should have reached full cure conditions as specified by the repair material manufacturer before installation of the joint system begins. c. Comply with manufacturers recommendations for installation procedures.	12/S300	150 LF
R-7	**NEW MEMBRANE SYSTEMS AT STAIRS:** a. Contractor to prep existing concrete per manufacturers recommendations. b. Contractor to perform bond tests per manufacturers recommendations prior to placing traffic coating membrane materials. c. Install specified primer, base coat, intermediate coats, and top coat. (RE: specifications for mileage requirements.) d. All horizontal cracks found in these areas are incidental to deck coating installation.	8/S301 9/S301 10/S301 11/S301 12/S301 13/S301	LS
R-8	**STAIR NOSING REPAIR:** a. Contractor to remove existing metal tread nosing and anchors, materials should be disposed of at approved location. b. Perform repairs in accordance with "Concrete Repair Notes" and specifications. c. After completion of patched areas, install pedestrian traffic membrane contractor to prep concreteand apply specified traffic membrane system in accordance to manufacturers recommendations.	9/S300	297 EA
R-9	**CONCRETE REPAIR AT STAIRS:** a. Contractor to mark out areas of repair and confirm with EOR prior to performing repairs. b. Perform repairs in accordance with "Concrete Repair Notes" and specifications. c. After completion of patched areas, in locations of existing traffic membrane contractor to prep concrete and apply specified traffic membrane system in accordance to manufacturers recommendations.	6/S300	301 SF
R-10	**HANDRAIL POST REPAIR AT STAIRS:** a. Contractor to remove portion of degraded post to 1/2" above corrosion. b. Contractor to core out remaining steel section in concrete stairs and infill with approved non-shrink patch material. c. Install new bracket with minimum lap of 3" over existing post. d. Install screw type anchors with three chuck hammer drill.	10/S300	110 EA
R-11	**WINDOW GLAZING REPAIRS AT STAIRS:** a. Provide mockups until an acceptable match is achieved. b. Do not proceed with work until mockup is accepted by Engineer and Owner's Representative. c. Remove existing gasket or sealant from metal frame to glass on exterior perimeter of windows by cutting gasket/ sealant flush with mullions. d. Prepare substrates in accordance to manufacturer's recommendations. e. Install approved silicone sealant in accordance with manufacturer's written instructions. f. Protect and clean adjacent surfaces to remain.	-	LS
R-12	**WINDOW CAULKING REPAIRS AT STAIRS:** a. Provide mockups until an acceptable match is achieved. b. Do not proceed with work until mockup is accepted by Engineer and Owner's Representative. c. Remove existing sealant, prepare substrates to receive sealant by cleaning, and other methods in strict accordance with manufacturer's written instructions. d. Install approved silicone sealant in accordance with manufacturer's written instructions. e. Protect and clean adjacent surfaces to remain.	-	LS
R-13	**DOOR FRAME REPAIRS AT STAIRS:** a. Prime with Tnemec 135 4 to 6 mil thickness. b. Apply two top coats of Tnemec 1029 at 2 to 3 dry mil thickness each. c. Color to match color of door frame at stair 3 located at north east corner of Turner parking structure.	-	LS
R-14	**PAINT STAIR TOWER WALLS:** a. High pressure water blast all areas min 3,000–5,000 psi at tip, rate of flow 3–5 gal/min using orbital tip and TSP detergent. b. Apply TNEMEC TNEME-CRETE at 88 ft² per gallon for base coat. (8–10 dft per coat as required to provide complete coverage) c. Apply TNEMEC TNEME-CRETE at 88 ft² per gallon for top coat. (8–10 dft per coat as required to provide complete coverage) d. Color to match existing color at stair 3, located at northeast corner of Turner parking structure.	-	LS
R-15	**PAINT HANDRAIL/GUARDRAIL AT STAIRS:** a. Clean metal to A SSPC–SP3 clean. b. Prime with tnemec 530 to 2.5 dry mil thickness c. Apply two coats of tnemec 161 at 2 to 4 dry mils each. Color to match handrail color at stair 3, located at northeast corner of the Turner parking structure.	-	LS
R-16	**PAINT STEEL HAUNCH AT FIRST LEVEL:** a. Remove all fireproofing, coating and corrosion with SSPC–SP6/NACE 3 Commercial Blast Cleaning. Notify EOR after completion for approval prior to coating. b. Prime with Tnemec Series 90–97 Tnemec–Zinc, 2.5–3.0 dry mils. c. Apply intermediate coat with Tnemec Series 27F.C. Typoxy, 3.0 to 5.0 dry mils. d. Apply finish coat with Tnemec Series 740 UVX, 3.0 to 4.0 dry mils. e. Re–apply fireproofing to match existing thickness. Use bonding agents required for adhesion. f. Color to match existing.	1/S302	LS

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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Repair Schedule

DRAWN BY: LGC
CHECKED BY: RCJ
MU PROJECT NO.: CP212202
DATE: ISSUED FOR BIDS March 28, 2022

REVISIONS:

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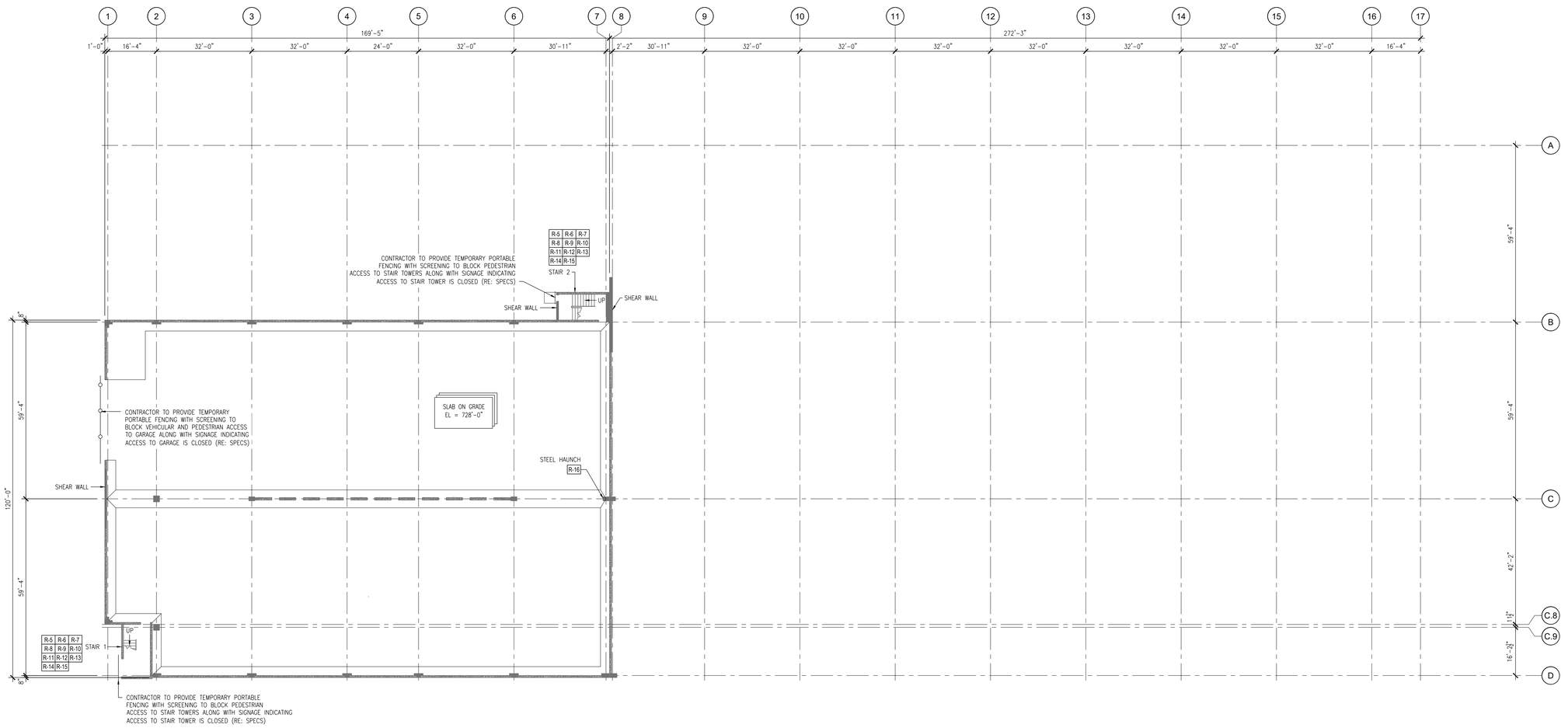
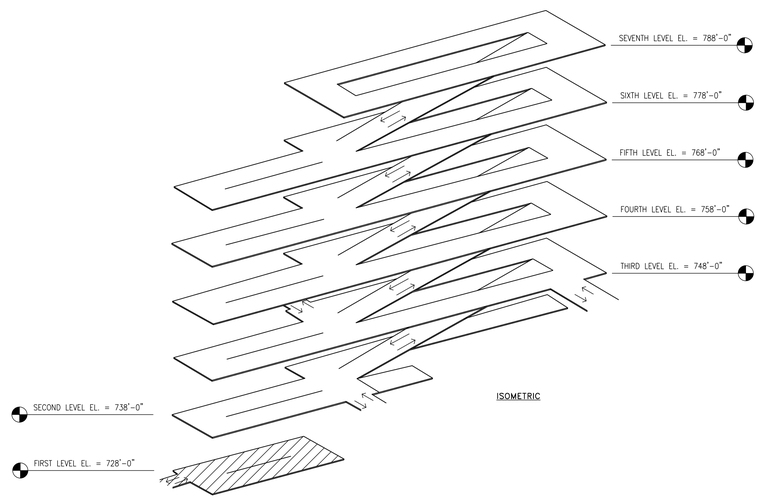


1 EXISTING TURNER AVENUE PARKING STRUCTURE FIRST LEVEL PLAN

1/16" = 1'-0"



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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure First Level Plan

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022
REVISIONS:	

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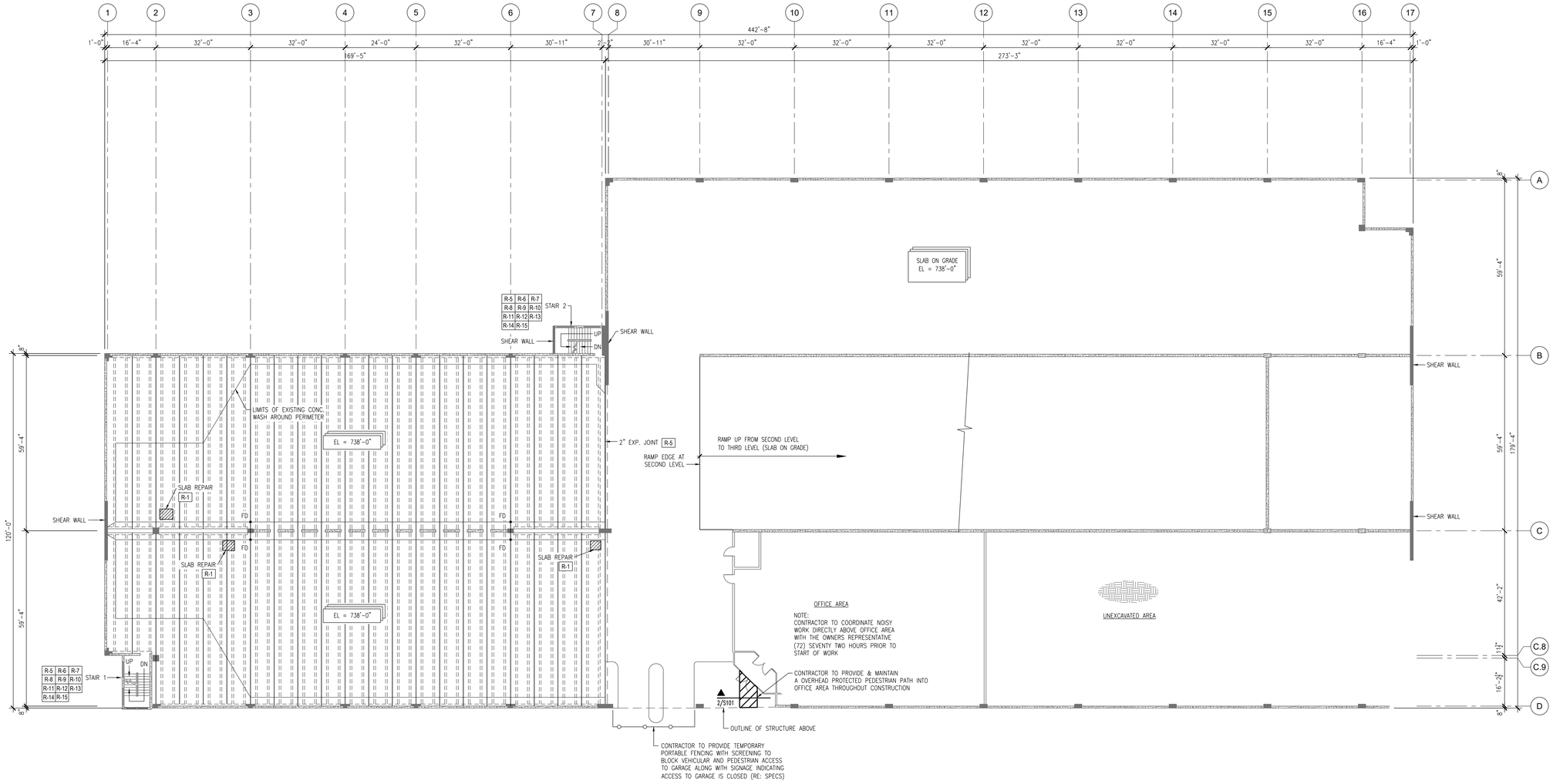
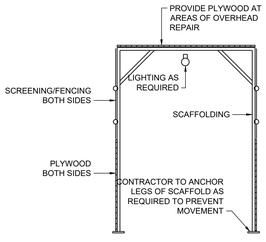
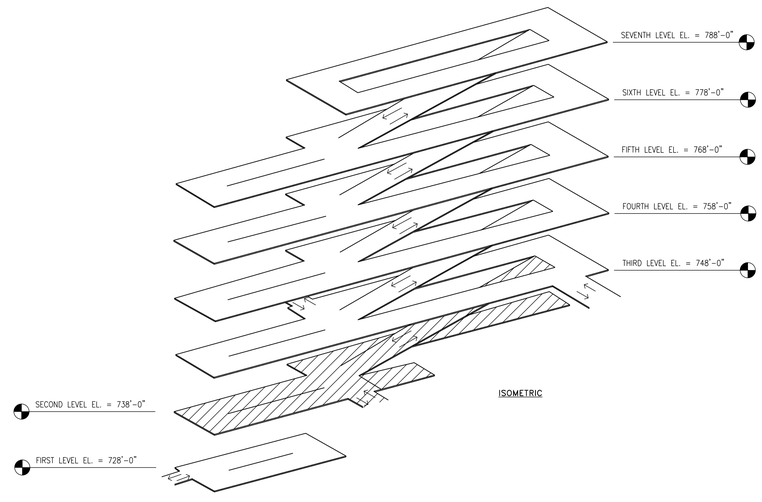


1 EXISTING TURNER AVENUE PARKING STRUCTURE SECOND LEVEL PLAN
1/16" = 1'-0"

N



2 TYPICAL PEDESTRIAN ACCESS
NTS



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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Second Level Plan

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022

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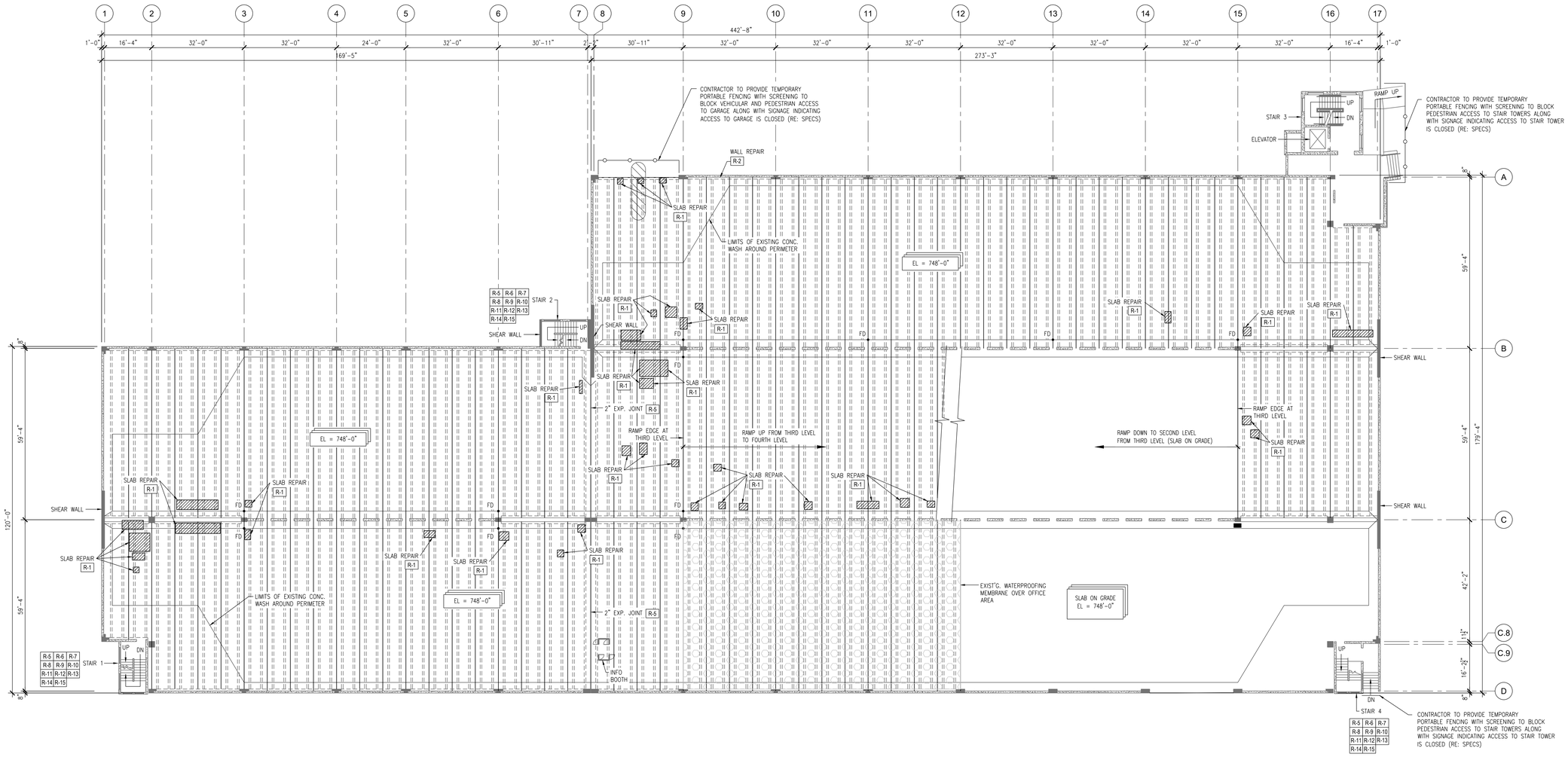
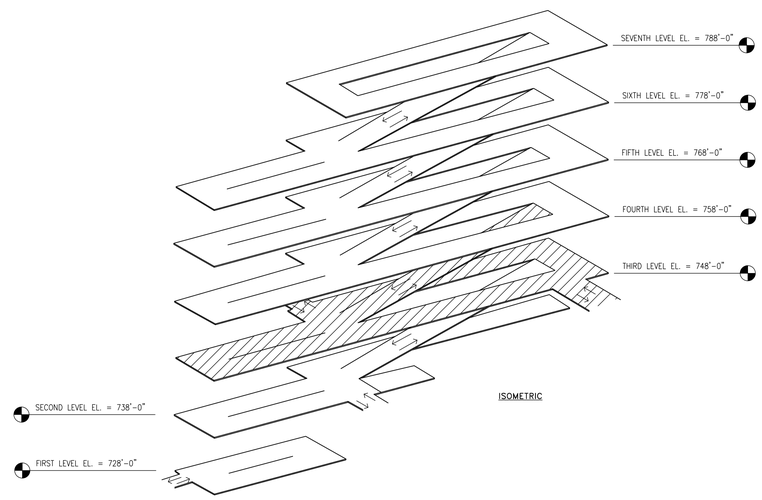


1 EXISTING TURNER AVENUE PARKING STRUCTURE THIRD LEVEL PLAN
1/16" = 1'-0"



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UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Third Level Plan

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MU PROJECT NO.	CP212202
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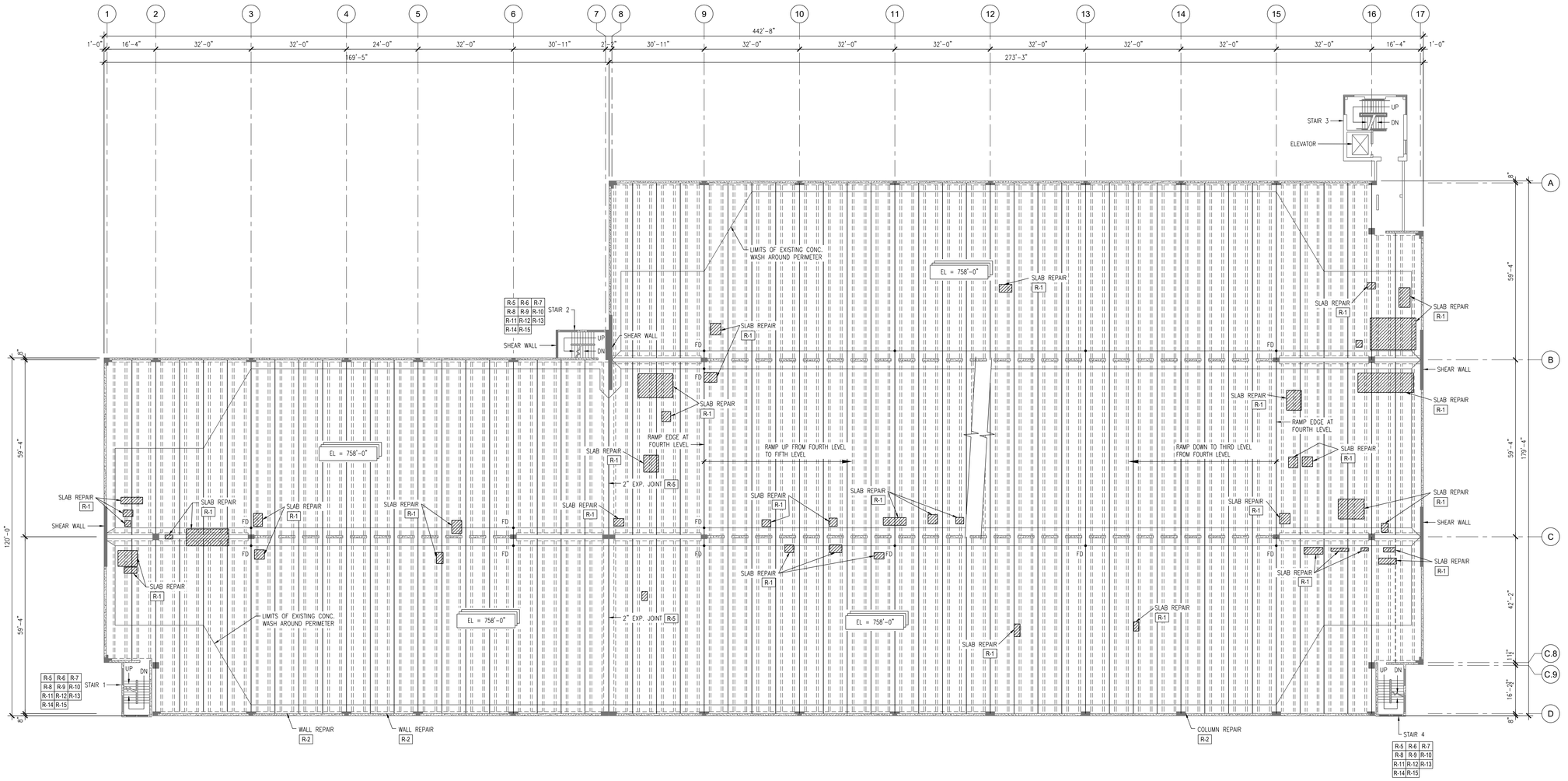
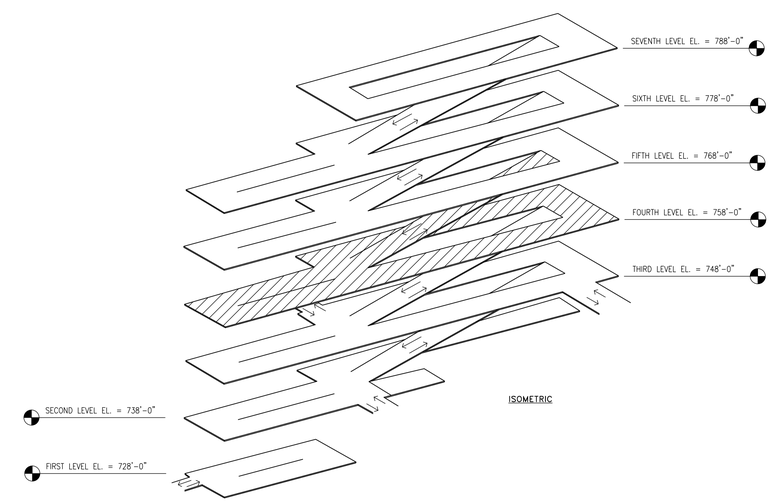


1 EXISTING TURNER AVENUE PARKING STRUCTURE FOURTH LEVEL PLAN

1/16" = 1'-0"



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COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Fourth Level Plan

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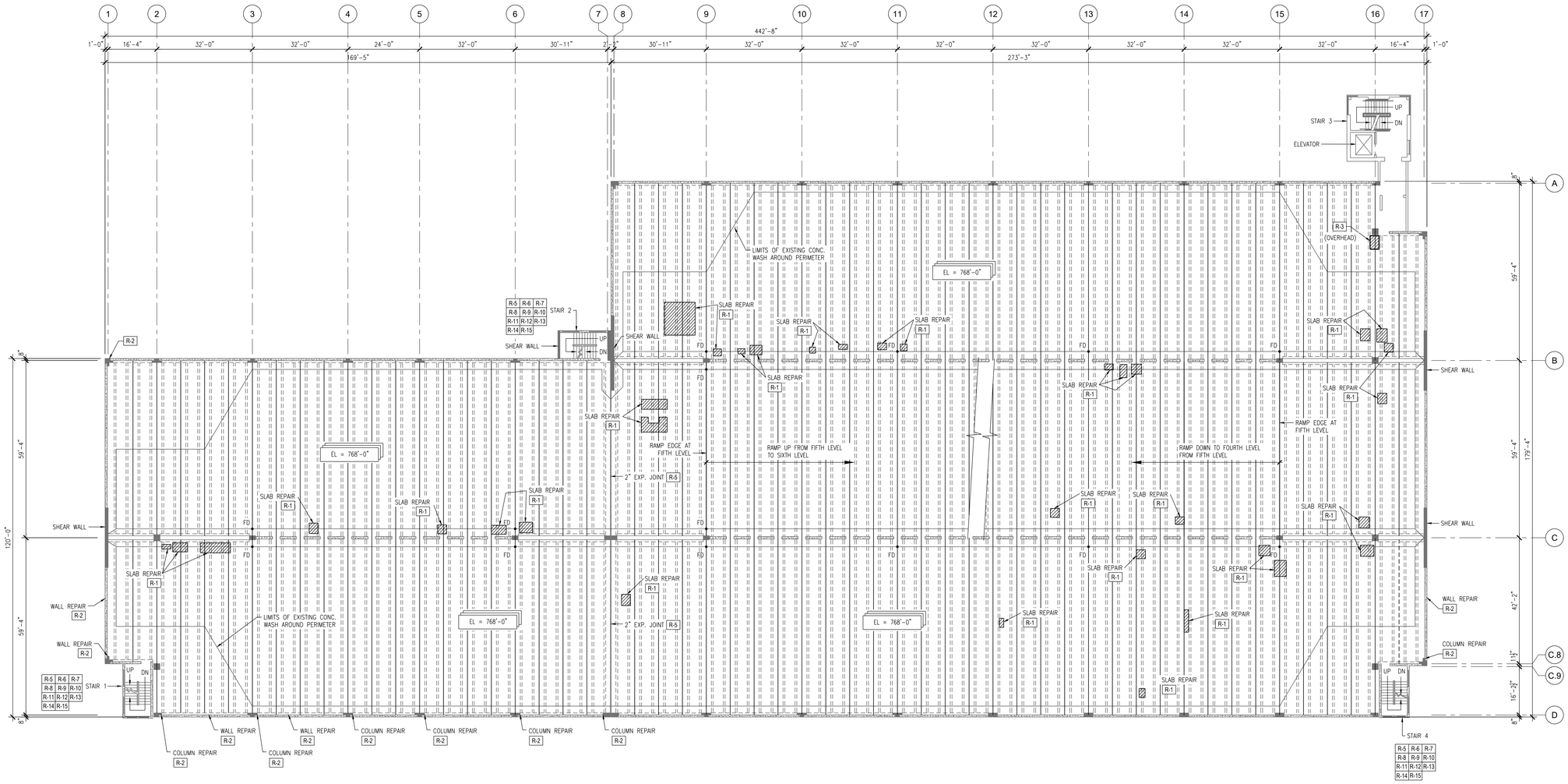
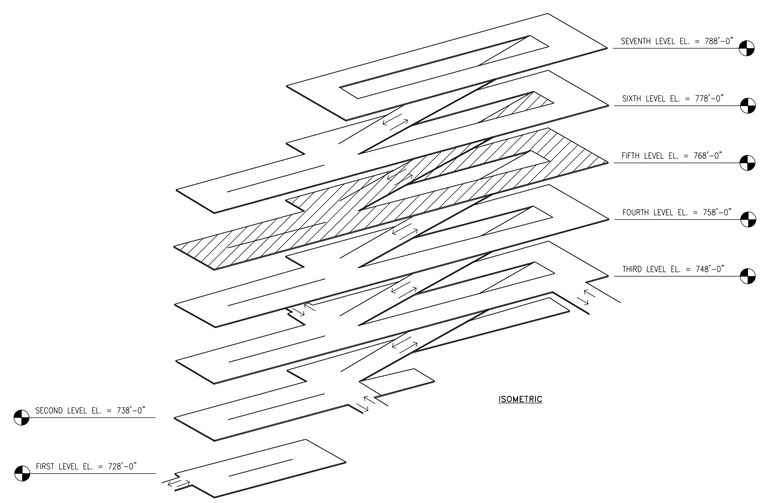


1 EXISTING TURNER AVENUE PARKING STRUCTURE FIFTH LEVEL PLAN
1/16" = 1'-0"



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UNIVERSITY OF MISSOURI
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Parking Structure Fifth Level Plan

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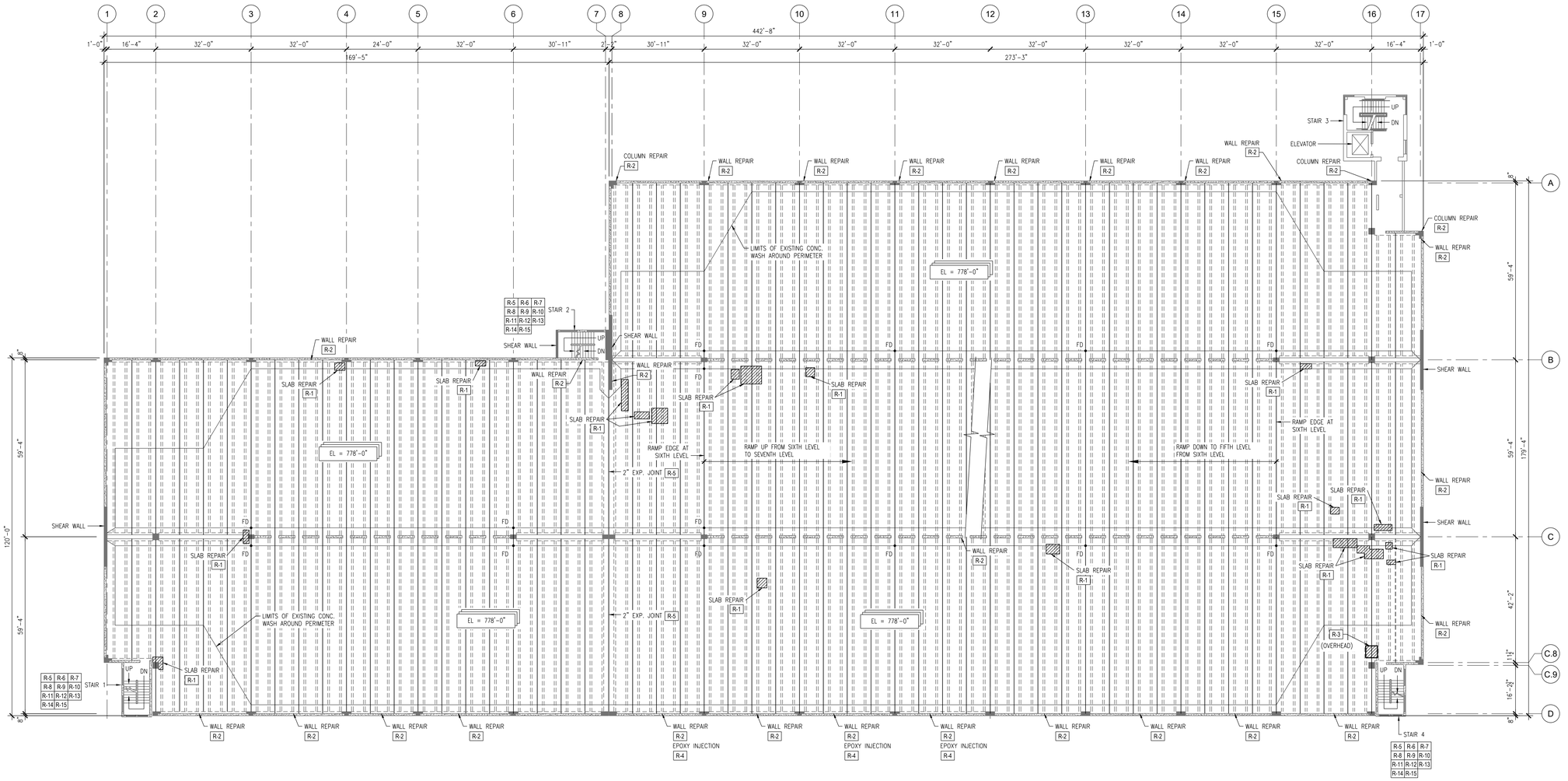
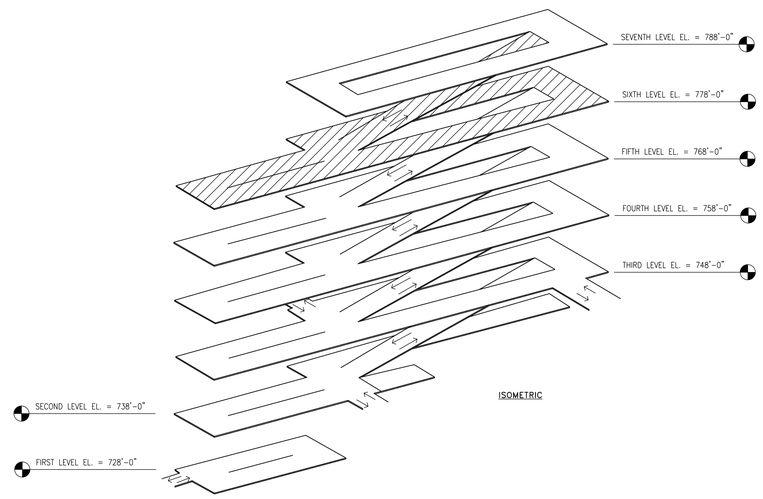


1 EXISTING TURNER AVENUE PARKING STRUCTURE SIXTH LEVEL PLAN

1/16" = 1'-0"



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TURNER AVENUE PARKING STRUCTURE
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UNIVERSITY OF MISSOURI
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Parking Structure Sixth Level Plan

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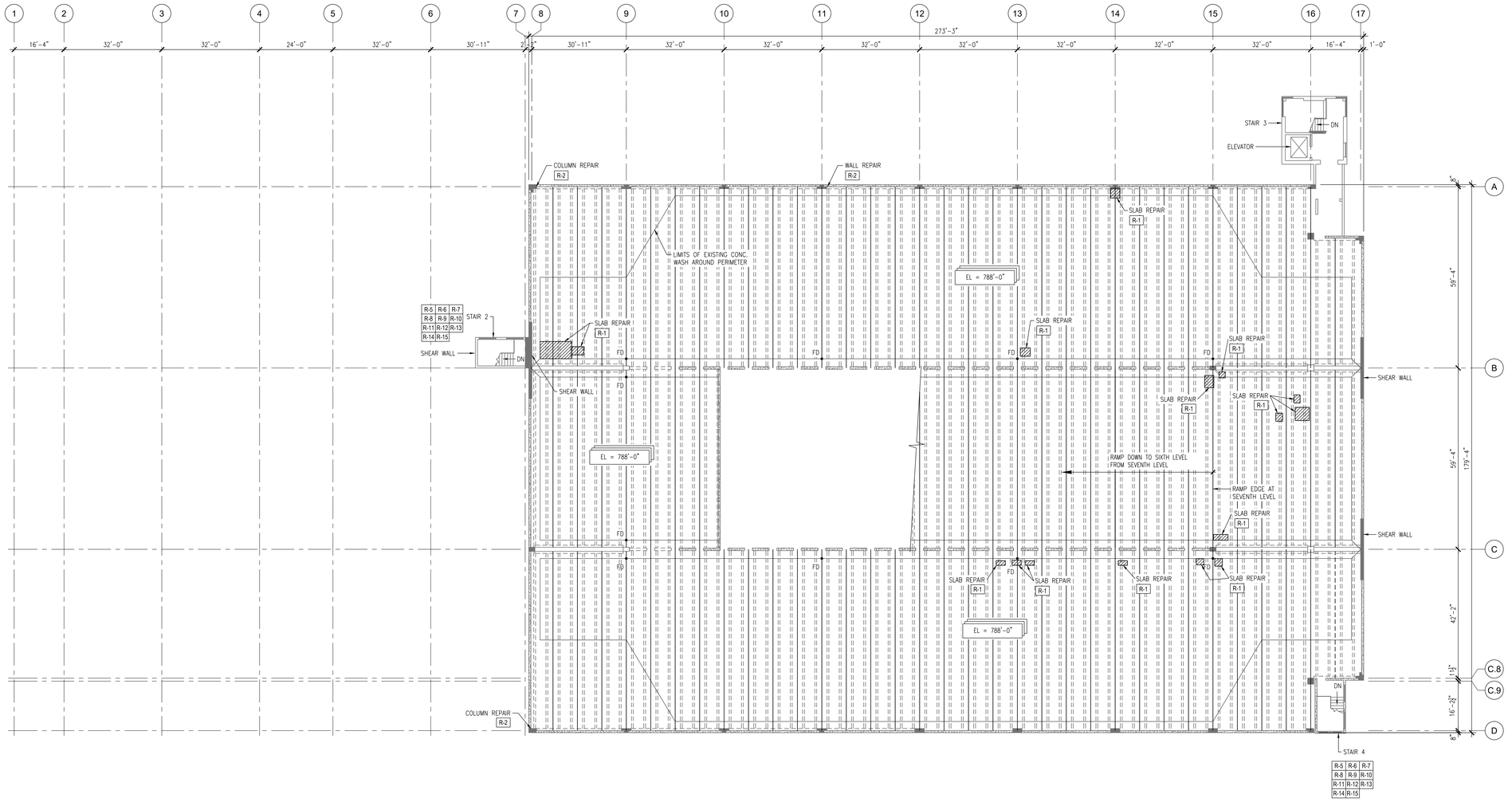
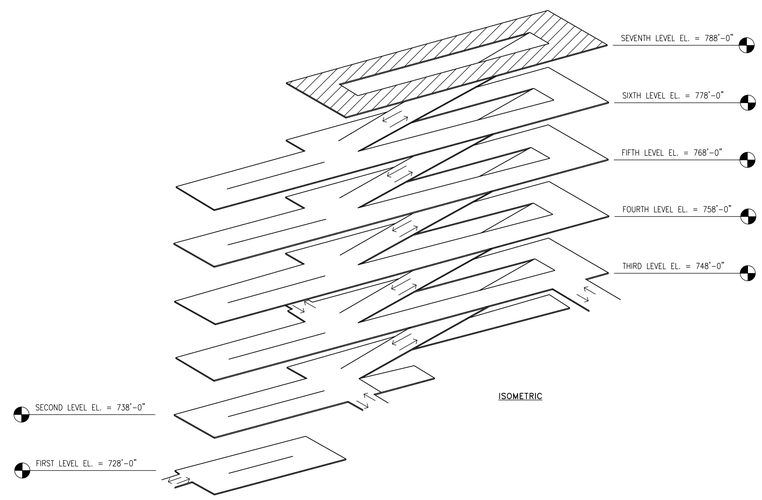


1 EXISTING TURNER AVENUE PARKING STRUCTURE SEVENTH LEVEL PLAN

1/16" = 1'-0"



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UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
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Parking Structure Seventh Level Plan

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DATE: ISSUED FOR BIDS March 28, 2022

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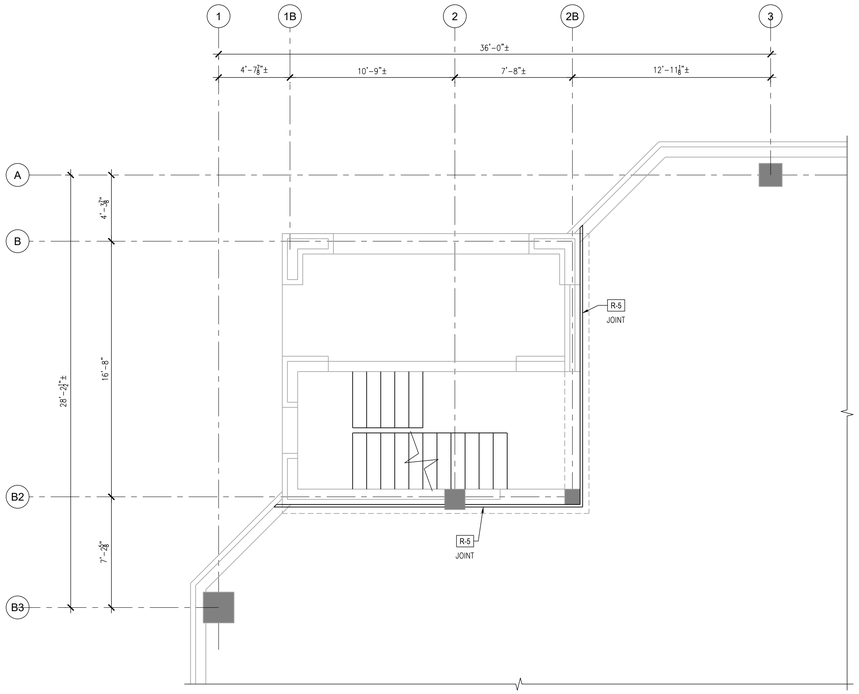
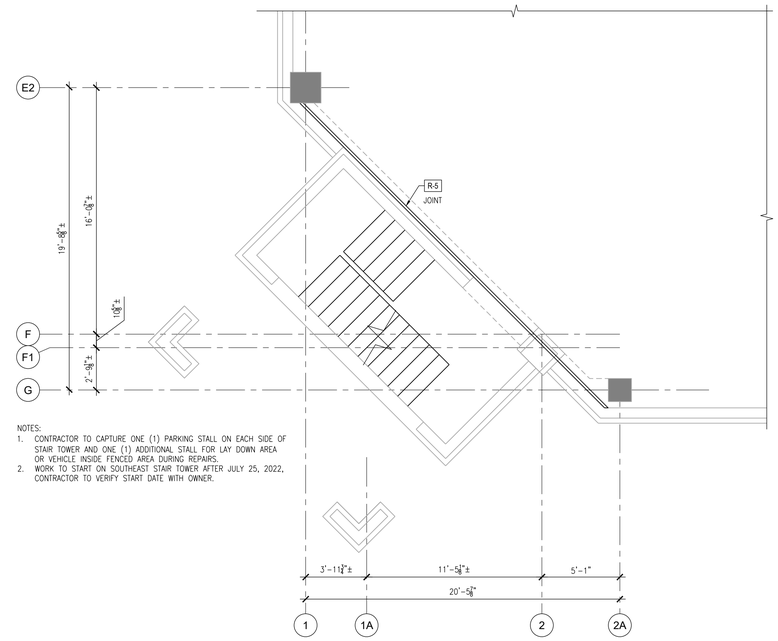


NOTE:
CONTRACTOR TO CAPTURE ONE (1) PARKING STALL ON EACH SIDE OF STAIR TOWER AND ONE (1) ADDITIONAL STALL FOR LAY DOWN AREA OR VEHICLE INSIDE FENCED AREA DURING REPAIRS

4 STAIR SECOND LEVEL
1/4" = 1'-0"



NOTES:
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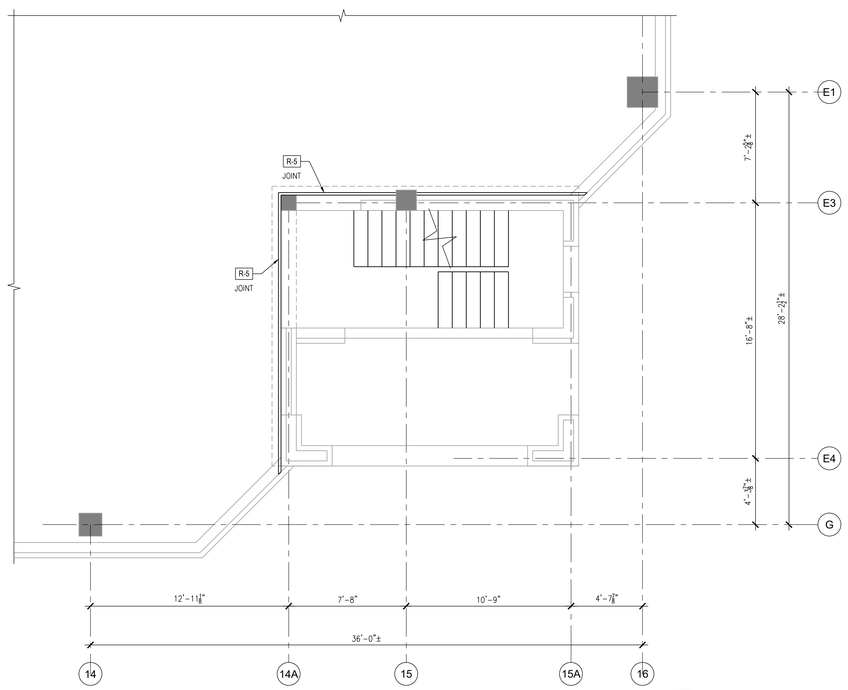
2. WORK TO START ON SOUTHEAST STAIR TOWER AFTER JULY 25, 2022, CONTRACTOR TO VERIFY START DATE WITH OWNER.

2 STAIR SECOND LEVEL
1/4" = 1'-0"



NOTE:
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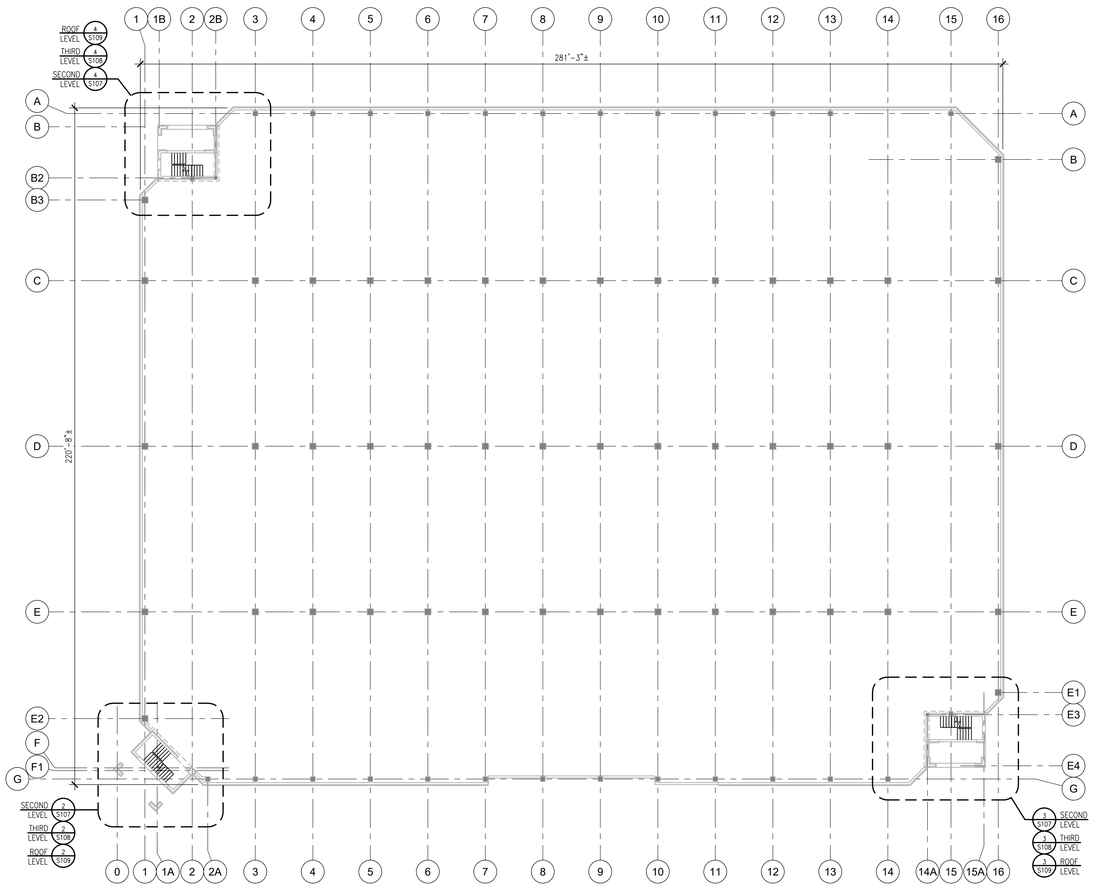
3 STAIR SECOND LEVEL
1/4" = 1'-0"

NOTE:
1. CONTRACTOR SHALL ONLY WORK ON ONE STAIR TOWER AT A TIME
2. CONTRACTOR TO PROVIDE PEDESTRIAN BARRICADE W/ EMERGENCY EGRESS TO ALL LEVELS OF STAIR TOWER UNDER CONSTRUCTION ALONG WITH SIGNAGE INDICATING ACCESS TO STAIR TOWER IS CLOSED. (RE: SPECS)



1 EXISTING CONLEY AVENUE PARKING STRUCTURE – SECOND LEVEL PLAN
3/32" = 1'-0"

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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure
Second Level Plan

DRAWN BY	LGC
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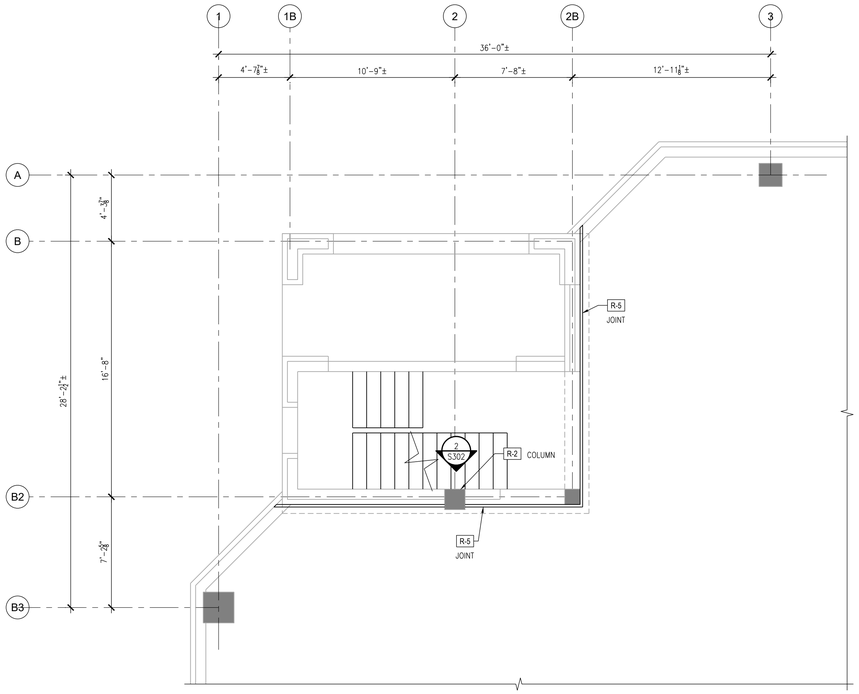
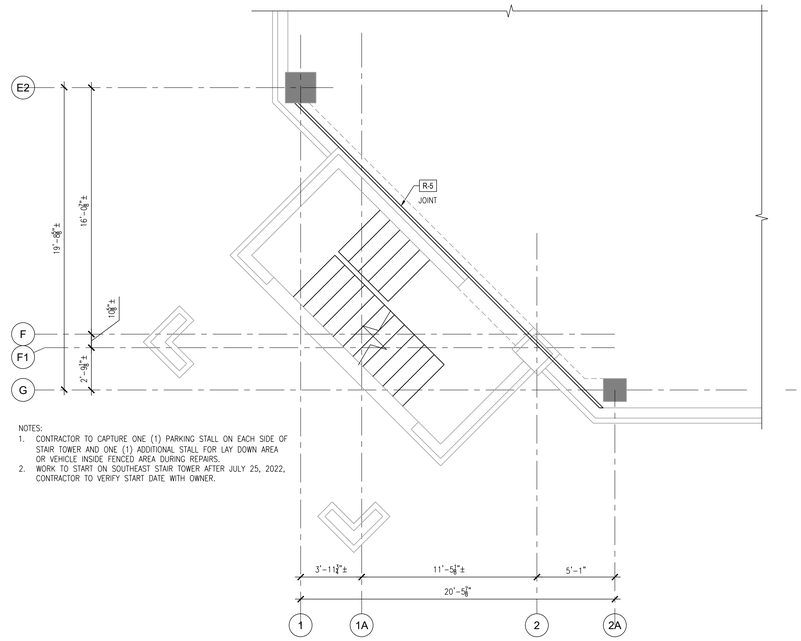


NOTE:
CONTRACTOR TO CAPTURE ONE (1) PARKING STALL ON EACH SIDE OF STAIR TOWER AND ONE (1) ADDITIONAL STALL FOR LAY DOWN AREA OR VEHICLE INSIDE FENCED AREA DURING REPAIRS

4 STAIR THIRD LEVEL
1/4" = 1'-0"



NOTES:
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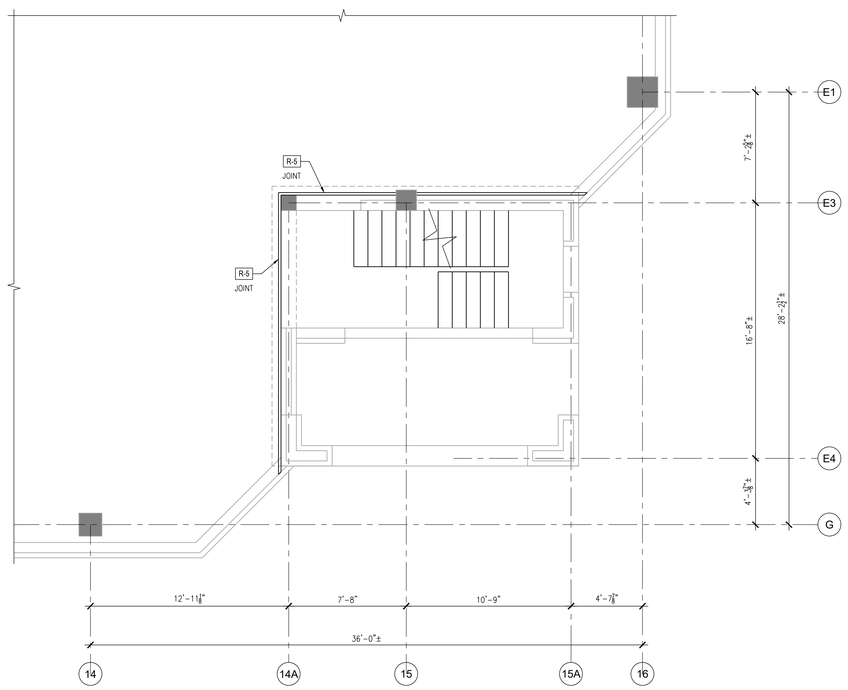
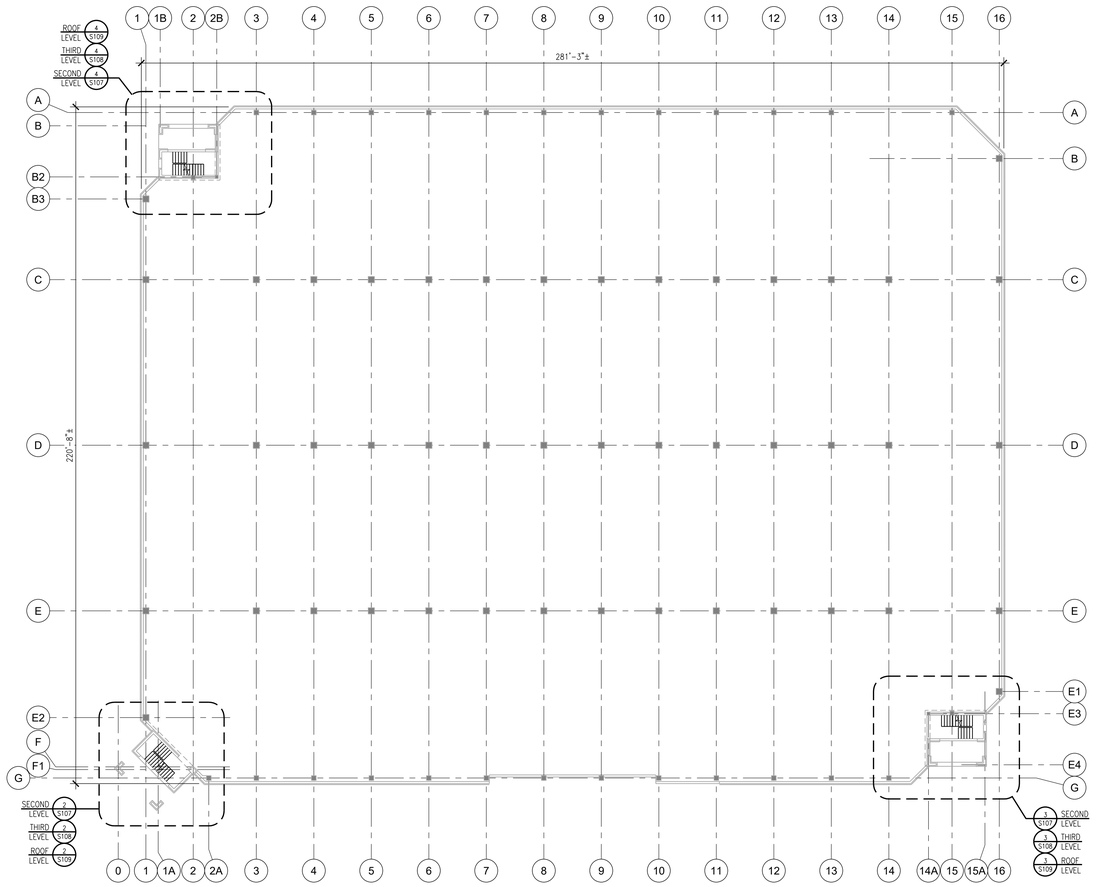
2. WORK TO START ON SOUTHEAST STAIR TOWER AFTER JULY 25, 2022, CONTRACTOR TO VERIFY START DATE WITH OWNER.

2 STAIR THIRD LEVEL
1/4" = 1'-0"



NOTE:
CONTRACTOR TO CAPTURE ONE (1) PARKING STALL ON EACH SIDE OF STAIR TOWER AND ONE (1) ADDITIONAL STALL FOR LAY DOWN AREA OR VEHICLE INSIDE FENCED AREA DURING REPAIRS

3 STAIR THIRD LEVEL
1/4" = 1'-0"



NOTE:
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1 EXISTING CONLEY AVENUE PARKING STRUCTURE – THIRD LEVEL PLAN
3/32" = 1'-0"

STATE OF MISSOURI
RALPH C. JONES
NUMBER PE-22413
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5.26.22

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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure
Third Level Plan

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022

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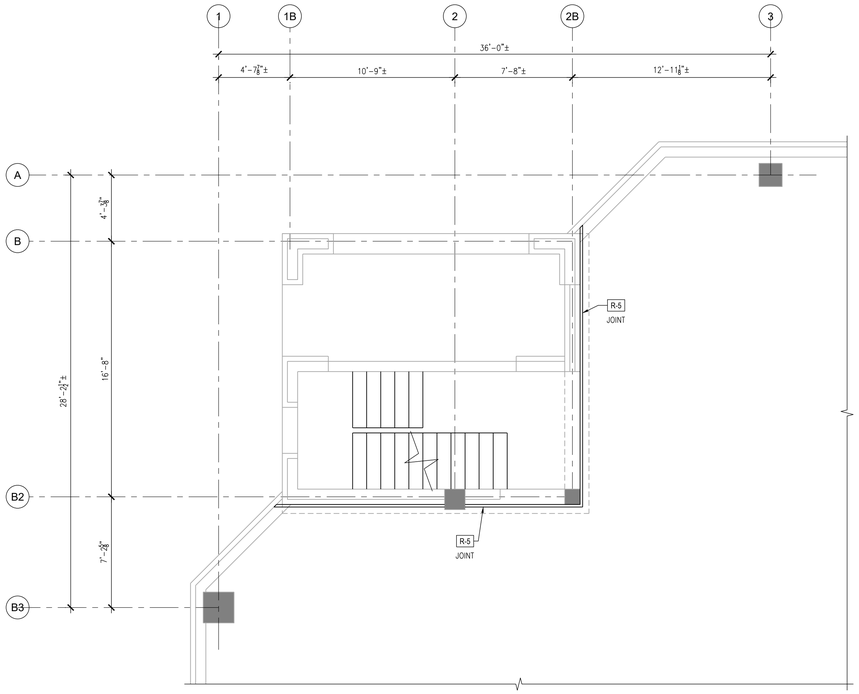

NOTE:
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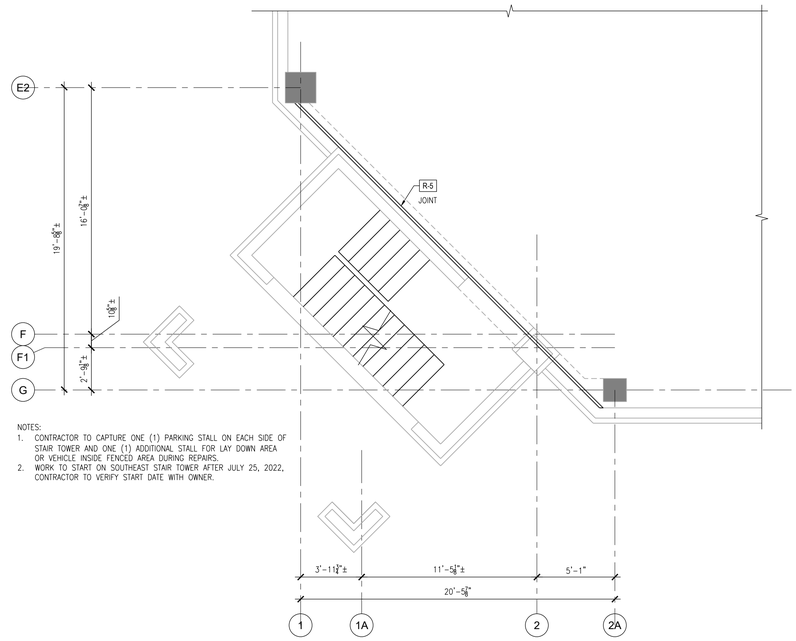
4 STAIR ROOF LEVEL
1/4" = 1'-0"



NOTES:
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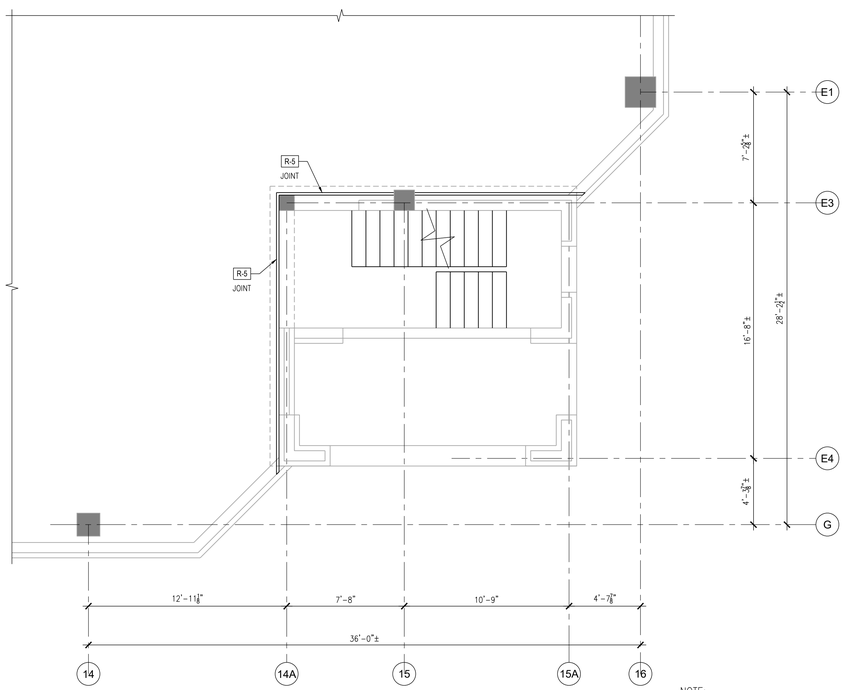
1/4" = 1'-0"



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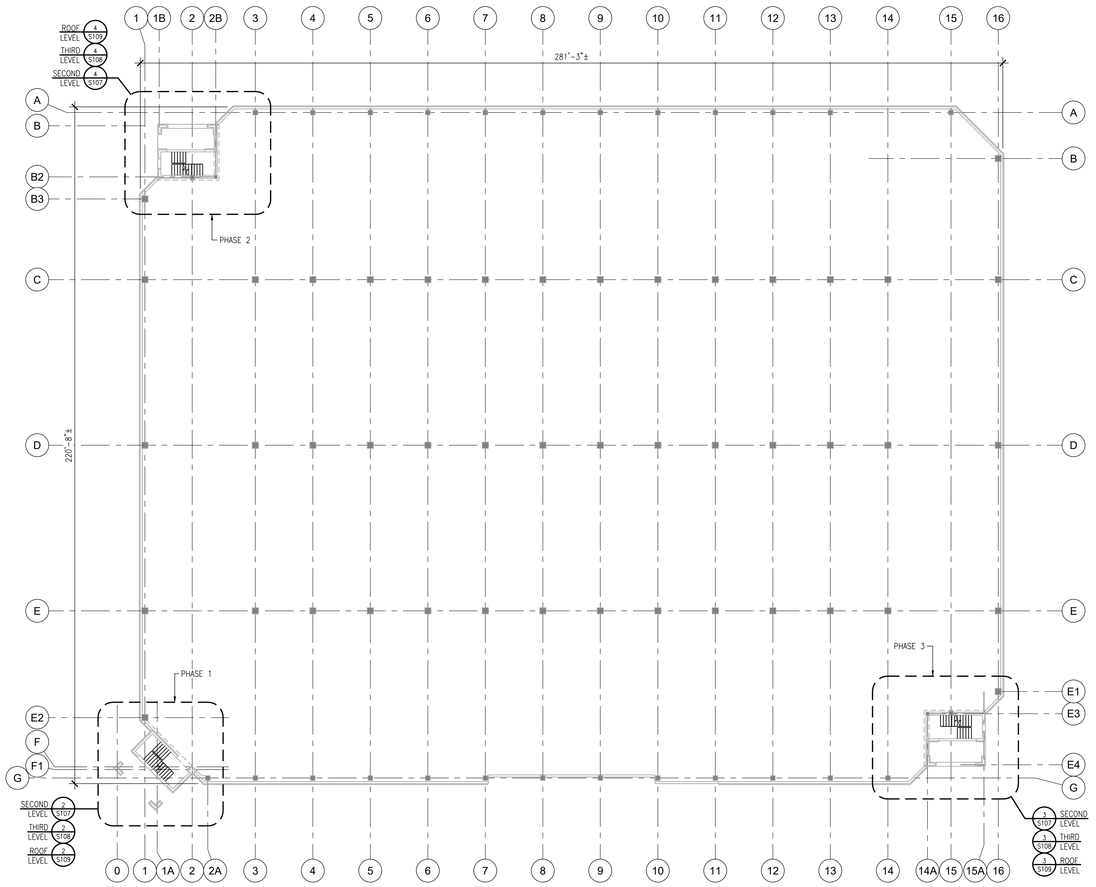

1 EXISTING CONLEY AVENUE PARKING STRUCTURE – ROOF LEVEL PLAN
3/32" = 1'-0"

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Missouri Certificate of Authority Number: 000396

TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Roof Level Plan

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022

REVISIONS:

S109

SEA 2022091

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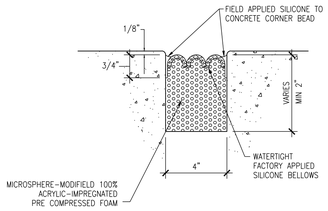
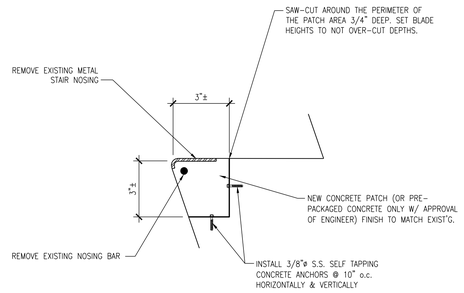
NOTES
1. THE JOINT INTERFACE WALLS MUST BE CONSTRUCTED EQUIDISTANT FROM ONE ONE ANOTHER, STRAIGHT, PARALLEL TO ONE ANOTHER AND PLUMB. CONCRETE SAWS AND DIAMOND GRINDING DISKS SHOULD BE USED TO CORRECT ANY DEVIATIONS.
2. EDGE SPALLING, SHARD PROJECTIONS AND CONCRETE VOIDS (BUG HOLES) SHALL ALSO BE REPAIRED PRIOR TO PROCEEDING WITH THE JOINT INSTALLATION. (RE: SPECS FOR PATCH MATERIAL)
3. MEASURE THE STEM OPENING AND CORRELATE WITH THE WALL TEMPERATURE. VERIFY THAT THE OPENING WIDTH IS SYNCHRONIZED WITH THE VALUES IN THE TEMPERATURE-ADJUSTMENT TABLE SUPPLIED BY MANUFACTURER
4. SANDBLAST THE INTERFACE WALLS TO EXPOSE THE AGGREGATE AND REMOVE ANY SURFACE CONTAMINANTS. IF SANDBLASTING IS NOT POSSIBLE, THE JOINT FACES MUST BE GROUND WITH A COARSE DISC GRINDER TO PRODUCE AND ABRADED SURFACE. BE CAREFUL NO TO POLISH THE CONCRETE SURFACE AS THIS COULD CAUSE FAILURE OF THE ADHESIVE. AFTER SANDBLASTING, OR ABRADING, BLOW OUT THE AREA WITH AN AIR COMPRESSOR FITTED WITH AN OIL TRAP; THIS WILL ELIMINATE THE POSSIBILITY OF RECONTAMINATION FROM OIL AND MOISTURE IN THE LINES. FOLLOW MANUFACTURERS RECOMMENDATION TO INSTALL COMPRESSION JOINT.



12 VERTICAL COMPRESSION SEAL
NTS

NOTES:
1. SANDBLAST CLEAN ALL EXPOSED REINF. AND OTHER EMBEDDED METAL, COAT ALL EXPOSED REINF. WITH CORROSION INHIBITING COATING. COAT FACES OF CONCRETE WHERE REINF. ENTERS EXISTING CONCRETE
2. IF EXISTING CONCRETE COVER OVER REINFORCING IS LESS THAN 1", CONTRACTOR TO ADJUST PATCHED AREA TO MAINTAIN MINIMUM OF 1" COVERAGE TYP.
3. ALL REPAIR AREAS TO BE APPROVED BY ENGINEER OF RECORD PRIOR TO INSTALLING CONCRETE.



EXIST. REINF. SHOWN IS ILLUSTRATIVE ONLY. ACTUAL COND. MAY VARY

9 TYPICAL STAIR NOSING REPAIR
NTS

NOTES:
1. SANDBLAST CLEAN ALL EXPOSED REINF. AND OTHER EMBEDDED METAL, COAT ALL EXPOSED REINF. WITH CORROSION INHIBITING COATING. COAT FACES OF CONCRETE WHERE REINF. ENTERS EXISTING CONCRETE
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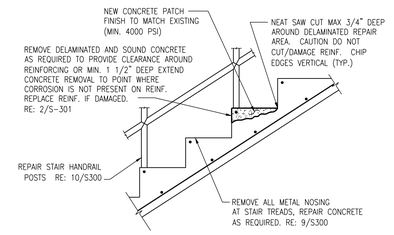

NOTE:
EXISTING REINFORCING SHOWN IS ILLUSTRATIVE ONLY. ACTUAL CONDITIONS MAY VARY.

6 PARTIAL DEPTH STAIRS DELAMINATION REPAIRS
NTS

NOTES:
1. SANDBLAST CLEAN ALL EXPOSED REINF. AND OTHER EMBEDDED METAL, COAT ALL EXPOSED REINF. WITH CORROSION INHIBITING COATING. COAT FACES OF CONCRETE WHERE REINF. ENTERS EXISTING CONCRETE
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3. IF WWR IS DAMAGED CONTRACTOR TO ADD #3 REINFORCING BARS EPOXY COATED EA. WAY @ 12" o.c. EPOXY BARS INTO CONCRETE 4 1/2"
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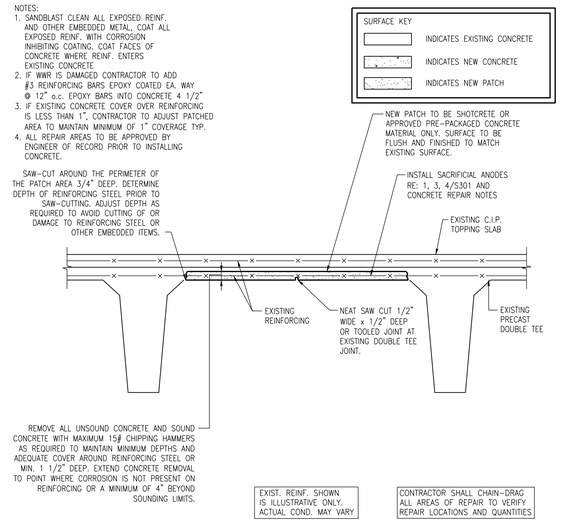
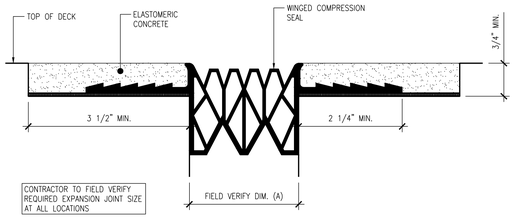


EXIST. REINF. SHOWN IS ILLUSTRATIVE ONLY. ACTUAL COND. MAY VARY

CONTRACTOR SHALL CHAIN-DRAG ALL AREAS OF REPAIR TO VERIFY REPAIR LOCATIONS AND QUANTITIES

3 PARTIAL DEPTH PRE-CAST SOFFIT DELAMINATION REPAIR
NTS

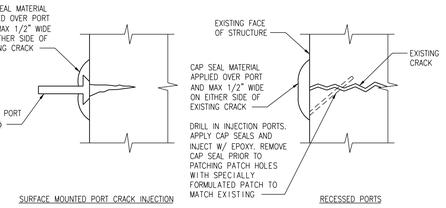


CONTRACTOR TO FIELD VERIFY REQUIRED EXPANSION JOINT SIZE AT ALL LOCATIONS

TOTAL	JOINT OPENING			INSTALLATION SIZE	
MOVEMENT	NOMINAL (A)	MIN (A)	MAX (A)	MIN.	MAX.
2" (51mm)	2" (51mm)	1 1/4" (32mm)	3 1/4" (83mm)	1 3/4" (44mm)	2 3/4" (70mm)

NOTE:
COORDINATE REQUIRED JOINT TERMINATIONS WITH TRAFFIC MEMBRANE MANUFACTURER

11 HORIZONTAL EXPANSION JOINTS
NTS



8 TYPICAL CRACK INJECTION
NTS

NOTES:
1. SANDBLAST CLEAN ALL EXPOSED REINF. AND OTHER EMBEDDED METAL, COAT ALL EXPOSED REINF. WITH CORROSION INHIBITING COATING. COAT FACES OF CONCRETE WHERE REINF. ENTERS EXISTING CONCRETE
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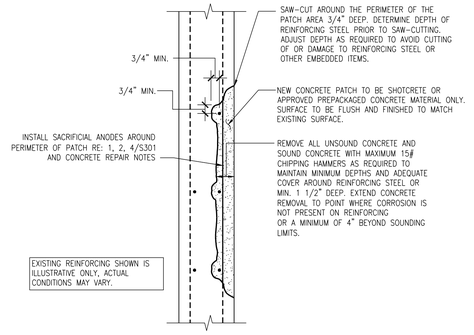

EXISTING REINFORCING SHOWN IS ILLUSTRATIVE ONLY. ACTUAL CONDITIONS MAY VARY.

5 CONCRETE WALL/VERTICAL REPAIR
NTS

NOTES:
1. SANDBLAST CLEAN ALL EXPOSED REINF. AND OTHER EMBEDDED METAL, COAT ALL EXPOSED REINF. WITH CORROSION INHIBITING COATING. COAT FACES OF CONCRETE WHERE REINF. ENTERS EXISTING CONCRETE
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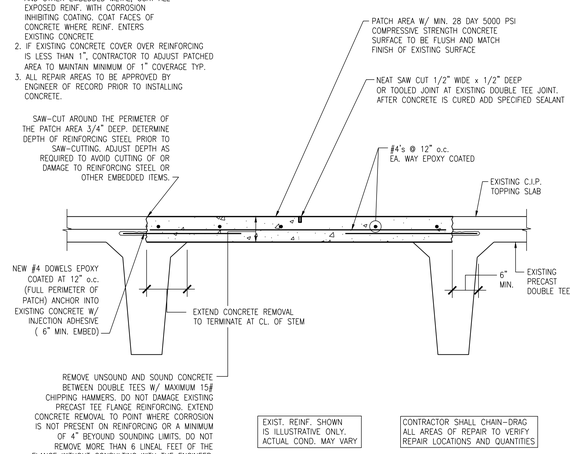
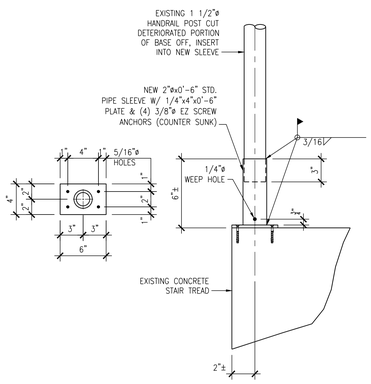


EXIST. REINF. SHOWN IS ILLUSTRATIVE ONLY. ACTUAL COND. MAY VARY

CONTRACTOR SHALL CHAIN-DRAG ALL AREAS OF REPAIR TO VERIFY REPAIR LOCATIONS AND QUANTITIES

2 FULL DEPTH PRECAST TEE TO TEE FLANGE REPAIR
NTS



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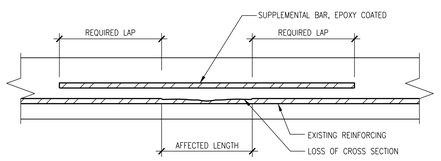
10 STAIR HANDRAIL POST REPAIR
NTS



NOTE: WHERE A LOSS OF 10% OR MORE OF EXISTING REINFORCING SECTION IS IDENTIFIED, NOTIFY ENGINEER FOR ANALYSIS OF EXISTING CONDITIONS. FOR REPAIR, SPLICE EXISTING BAR WITH NEW EPOXY COATED BAR AT DETERIORATED OR DAMAGED LOCATION, TYING NEW BAR DIRECTLY TO EXISTING AND MAINTAIN EXISTING CONCRETE COVER. ADDITIONAL CONCRETE REMOVAL MAY BE NECESSARY TO PROPERLY SPLICE THE NEW REINFORCING BAR.

REQUIRED LAP, IN INCHES			
BAR SIZE	3" COVER	1 1/2" COVER	2" COVER
#3	13	13	13
#4	22	17	17
#5	32	22	22
#6	43	26	26
#7	69	42	38
#8	86	54	43
#9	104	66	53
#10	125	81	66
#11	146	97	79

7 TYPICAL REINFORCING REPAIR DETAIL
NTS

NOTES:
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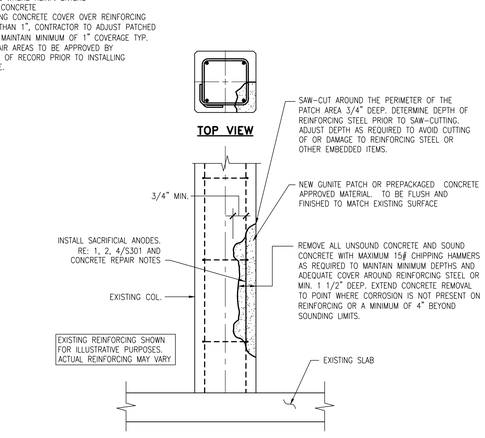

4 TYPICAL COLUMN REPAIR
NTS

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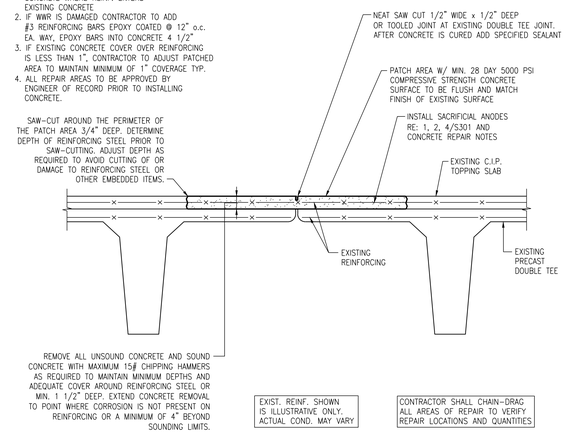

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CONTRACTOR SHALL CHAIN-DRAG ALL AREAS OF REPAIR TO VERIFY REPAIR LOCATIONS AND QUANTITIES

1 PARTIAL DEPTH SLAB DELAMINATION REPAIR
NTS

SEA 2022091

STATE OF MISSOURI 5-26-22
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NUMBER PE-22413
PROFESSIONAL ENGINEER
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Parking Structure Repair Details

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022
REVISIONS:	

S300

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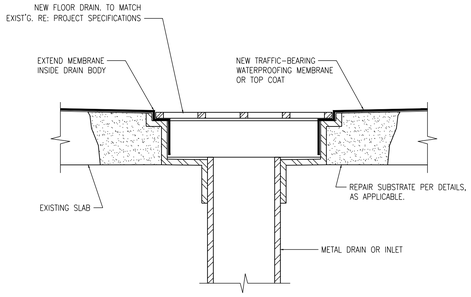
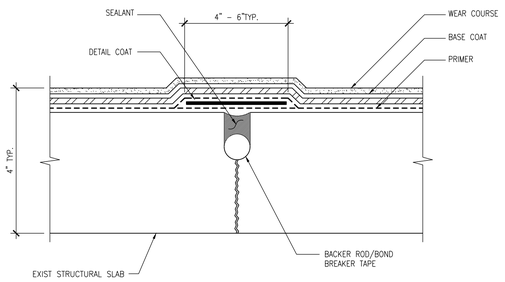
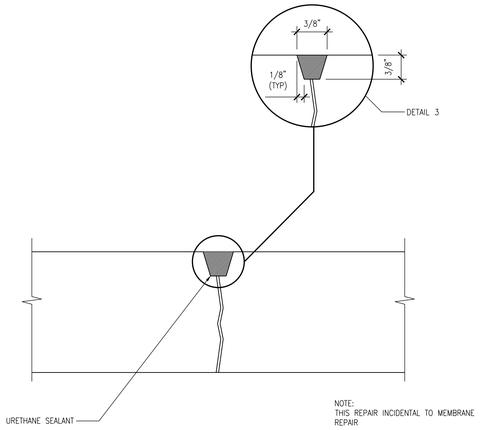


13 TRAFFIC-BEARING WATERPROOFING MEMBRANE FLOOR DRAIN DETAIL (TYP. ALL)
NTS

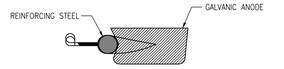


10 DECK COATING CONTROL JOINT DETAIL
NTS



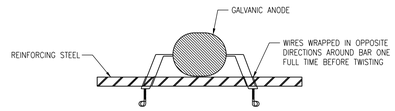
7 SEALANT DETAIL AT CRACK (TYP.)
NTS

GALVANIC ANODE PROPERTIES	
MINIMUM WEIGHT OF ZINC CORE	100g
OVERALL LENGTH OF TIE WIRES	350mm
NOMINAL DIMENSIONS OF ANODE	80mm x 65mm x 30mm
ANODE TYPE/CLASS	1A/C
ALKALI ACTIVATED CORROSION CONTROL	

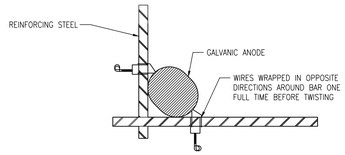


SURFACE KEY
- INDICATES EXISTING CONCRETE
- INDICATES NEW CONCRETE
- INDICATES NEW PATCH

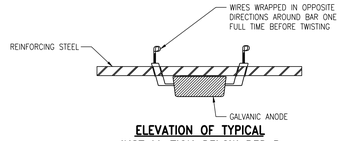
SECTION OF TYPICAL CONNECTION TO SIDE OF REBAR



PLAN OF TYPICAL INSTALLATION TO SIDE OF REBAR

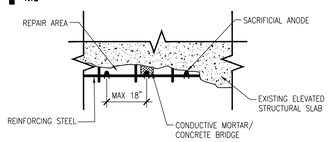


PLAN OF TYPICAL INSTALLATION AT REBAR INTERSECTION

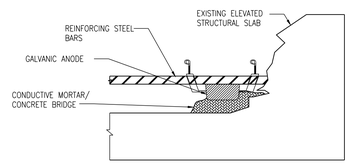


ELEVATION OF TYPICAL INSTALLATION BELOW REBAR

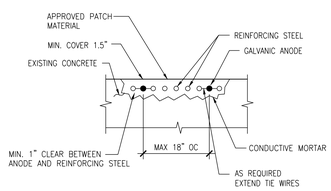
4 TYPICAL GALVANIC ANODE INSTALLATION DETAILS @ 18" MAX. o.c.
NTS



3 ANODE DETAIL SOFFIT DELAMINATION (TYP.)
NTS

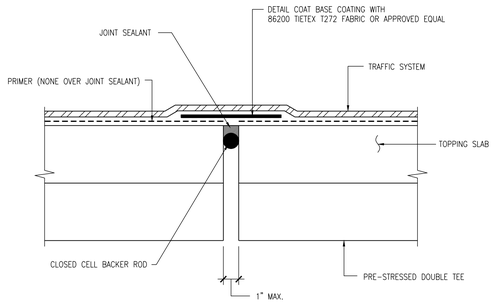


2 ANODE DETAIL FOR PARTIAL DEPTH FLOOR DELAMINATION (TYP.)
NTS

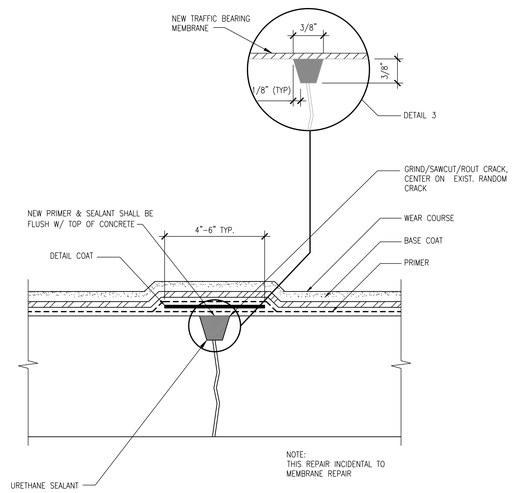


GALVANIC ANODE NOTES:
1. REMOVE DAMAGED CONCRETE AS WITH STANDARD REPAIR METHODS.
2. REPLACE/CLEAN CORRODED REINFORCING STEEL.
3. ENSURE ALL EXPOSED REINFORCING STEEL IS SECURELY FASTENED TOGETHER WITH TIE WIRE TO PROVIDE GOOD CONTINUITY.
4. ATTACH GALVANIC ANODES TO CLEAN REINFORCING STEEL AT SPACING OUTLINED IN CONTRACT SPECIFICATION. ATTACH EACH END OF GALVANIC ANODE TO ADJACENT PARALLEL REINFORCING STEEL BARS EXTEND TIE WIRES WITH REBAR WIRE AS REQUIRED. ENSURE MINIMUM SPACING OF 1" BETWEEN ANODES AND ANY REINFORCING STEEL, MINIMUM SPACING OF 2" BETWEEN ANODES AND ANY EXISTING CONCRETE AND PROVIDE A MINIMUM OF 1.5" CONCRETE COVER.
5. IF DEPTH OF PATCH IS LESS THAN MIN REQUIRED, CONTRACTOR TO REMOVE ADDITIONAL CONCRETE AS REQUIRED TO ACCOMMODATE ANODES.
6. CONTRACTOR TO INSTALL NON-CONDUCTIVE MORTAR MATERIAL AS SPECIFIED BY ANODE MANUFACTURER.

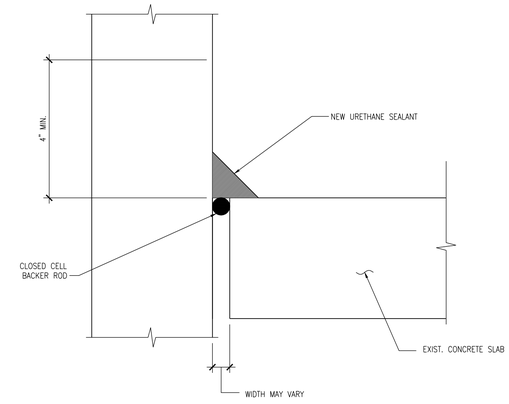
1 ANODE INSTALLATION
NTS



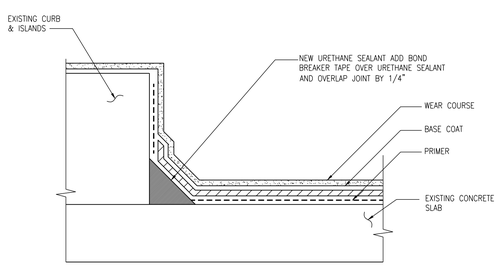
12 DECK COATING TEE TO TEE JOINT DETAIL
NTS



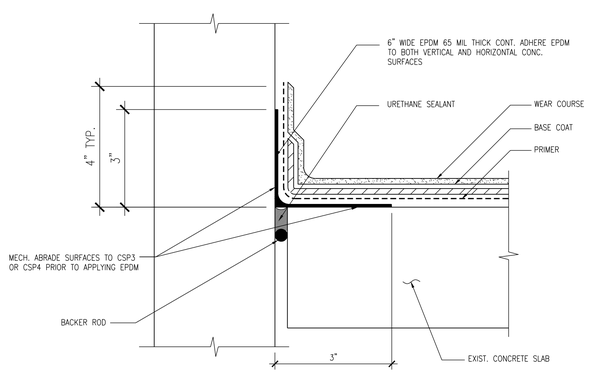
9 DECK COATING CRACK TREATMENT DETAIL
NTS



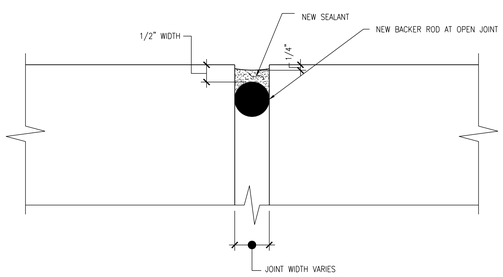
6 SEALANT DETAIL AT SLAB EDGE (TYP.)
NTS



11 DECK COATING VERTICAL TERMINATION DETAIL
NTS



8 DECK COATING VERTICAL TERMINATION AT JOINT
NTS



INSTALLATION NOTES:
1. REMOVE EXISTING SEALANT AND BACKER ROD.
2. PREP AND PRIME SURFACES TO RECEIVE NEW SEALANT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. INSTALL NEW BACKER RODS AT OPEN JOINTS (HORIZONTALLY) OR BOND BREAKER TAPE AT CLOSED JOINTS (HORIZONTALLY AND VERTICALLY), AND APPLY PRIMER IF REQUIRED BY MANUFACTURER.
4. INSTALL NEW SEALANT

5 TYPICAL SEALANT JOINT AT FLANGE CONNECTIONS
NTS

STATE OF MISSOURI 5-26-22
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NUMBER PE-22413
PROFESSIONAL ENGINEER

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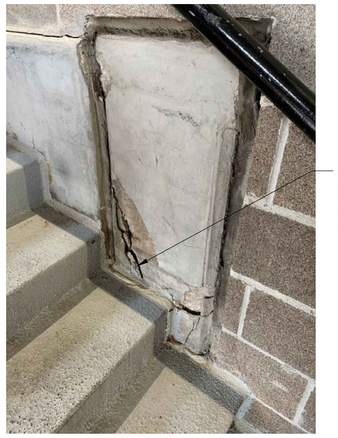
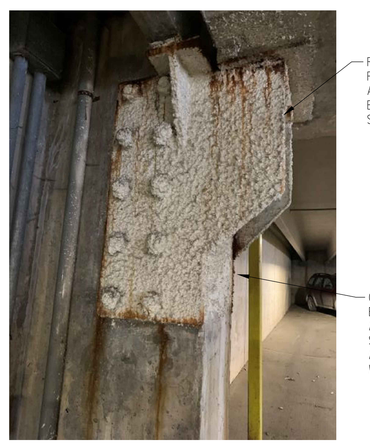


REMOVE EXISTING DELAMINATED CONCRETE. NOTIFY EOR IF AFTER REMOVAL OF CONCRETE TWO OR MORE VERTICAL BARS ARE EXPOSED. RE: R-2

2 CONLEY AVENUE GARAGE COLUMN REPAIR

NOTE:
WORK TO BE PERFORMED AFTER NEW EXPANSION JOINT IS INSTALLED ABOVE



REMOVE EXISTING FIRE PROOFING AND COATING TO EXPOSE EXISTING STEEL

CONTRACTOR TO ENCLOSE AREA AND SANDBLAST STEEL IN ACCORDANCE WITH R-16

1 TURNER AVE. PAINT STEEL HAUNCH AT FIRST LEVEL

STATE OF MISSOURI
RALPH C. JONES
NUMBER PE-22413
PROFESSIONAL ENGINEER
5.26.22

RALPH C. JONES
Professional Engineer
MO PE NO. 22413

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TURNER AVENUE PARKING STRUCTURE
VARIOUS STRUCTURE REPAIRS
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
FOR THE CURATORS OF THE UNIVERSITY OF MISSOURI

Parking Structure Repair Photos

DRAWN BY	LGC
CHECKED BY	RCJ
MU PROJECT NO.	CP212202
DATE	ISSUED FOR BIDS March 28, 2022
REVISIONS:	

S302

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