2026 REPAIR AND PREVENTATIVE MAINTENANCE
OF THE
HOWARD COMMUNITY COLLEGE – EAST EXPANSION GARAGE
COLUMBIA, MD

SCOPE OF WORK

(SUMMARY ONLY)

BASE BID

- CONCRETE FLANGE AND/OR TOPPING REPAIRS
- SHEAR CONNECTOR REPAIRS
- REPLACEMENT OF SEALANTS

SHEET INDEX

T-1 COVER SHEET
R-1 ROOF LEVEL FLOOR PLAN
R-2 REPAIR DETAILS
R-3 REPAIR DETAILS

SITE LOCATION MAP



ADDRESS: EAST EXPANSION GARAGE
5640 FACULTY DR, COLUMBIA, MD 21044

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GENERAL NOTES

THE FOLLOWING GENERAL NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON PLANS.

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT LOCAL, STATE AND NATIONAL BUILDING CODES.
2. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS SHOWN ON PLANS WITH EXISTING CONDITIONS PRIOR TO COMMENCING WORK. DO NOT SCALE DIMENSIONS FROM DRAWINGS.
3. ALL NOTES GIVEN ON THESE DRAWINGS ARE SUPPLEMENT TO THE PROJECT SPECIFICATIONS AND ARE INTENDED NOT TO REPLACE THEM. IN THE EVENT OF A CONFLICT BETWEEN THE NOTES AND PROJECT SPECIFICATIONS, CONTRACTOR TO OBTAIN CLARIFICATION IN WRITING.
4. CONTRACTOR SHALL REPORT IMMEDIATELY TO THE ARCHITECT/ENGINEER ANY DISCREPANCIES OR INCORRECT INFORMATION SHOWN ON THE DRAWINGS BASED ON EXISTING CONDITIONS. AFTER REPORTING THE DISCREPANCIES VERBALLY, A WRITTEN REPORT SHOULD THEN FOLLOW. CONTRACTOR SHALL BE DIRECTED BY THE ARCHITECT/ENGINEER REGARDING THE ABOVE MATTER.
5. THE CONTRACTOR SHALL COMPLY WITH ALL SAFETY AND HEALTH LAWS AND REGULATIONS INCLUDING, BUT NOT LIMITED TO: (I.) PROVISIONS, AND REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED, (II.) THE CONSTRUCTION SAFETY ACT OF 1969, AS AMENDED AND WITH ALL MOST RECENT APPLICABLE LAWS, (III.) ORDINANCES, RULE, REGULATIONS, AND ORDER OF ANY PUBLIC AUTHORITY HAVING JURISDICTION OVER THE WORK AND (IV.) THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE SAFEGUARDS FOR SAFETY AND PROTECTION, INCLUDING POSTING DANGER SIGNS AND OTHER WARNING AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING THE OWNER AND USERS OF ADJACENT UTILITIES. CONTRACTOR SHALL ASSURE THAT ALL OF HIS SUBCONTRACTORS ALSO CONFORM TO ALL HEALTH AND SAFETY LAWS AND REGULATIONS. THE CONTRACTOR SHALL AT ALL TIMES HAVE AN OSHA CERTIFIED "COMPETENT PERSON" ON THE JOB AND AN INDIVIDUAL TRAINED AND CERTIFIED IN FIRST AID BY THE AMERICAN RED CROSS.
6. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING AND SHEETING REQUIRED FOR SAFETY AND PROPER EXECUTION OF THE WORK.
7. CONTRACTOR IS SOLELY RESPONSIBLE TO PREPARE SHOP DRAWINGS FOR THE BRACING AND SHORING MEMBERS DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER (REGISTERED IN THE STATE OF MARYLAND) AND TO SUBMIT THEM INCLUDING SHORING CALCULATIONS TO THE ARCHITECT/ENGINEER FOR APPROVAL.
8. WHEN THE PLANS INCLUDE INFORMATION PERTAINING TO SURFACE OBSERVATION, MATERIAL TESTING AND OTHER PRELIMINARY INVESTIGATION, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ARCHITECT/ENGINEER AS TO THE LOCATION, CHARACTER, OR QUANTITY OF THE MATERIALS ENCOUNTERED AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE OWNER/ENGINEER ASSUMES NO RESPONSIBILITY WHATEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION, AND THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE EXISTING THROUGHOUT THE WORK, OR THAT UNANTICIPATED DEVELOPMENTS MAY NOT OCCUR, SAID INFORMATION SHALL NOT BE CONSIDERED BY THE PARTIES AS A BASIS FOR THE CONTRACT AWARD AMOUNT.
9. THE PLANS MAY BE SUPPLEMENTED BY STANDARD AND WORKING DRAWINGS AS ARE NECESSARY TO ADEQUATELY DESCRIBE THE WORK. IN THE EVENT, IN THE SOLE JUDGMENT OF THE ARCHITECT/ENGINEER, A CHANGE BECOMES NECESSARY IN THE BEST INTERESTS OF THE PROJECT DUE TO CIRCUMSTANCES NOT KNOWN AT THE TIME THE CONDITION SURVEY WAS PERFORMED OR ARISING THEREAFTER, THE ARCHITECT/ENGINEER MAY ALTER THE PLANS AS MAYBE NECESSARY AND INCREASE OR DECREASE THE QUANTITIES OF WORK TO BE PERFORMED IN ACCORDANCE WITH SUCH CHANGES. THE OWNER SHALL BE INFORMED WITH A COPY OF ALL SUBMITTALS AND CORRESPONDENCE AS THE CHANGES MAY OCCUR.
10. THE CONTRACTOR SHALL REVIEW ALL EXISTING CONDITIONS TO DETERMINE ALL SERVICES (ELECTRICAL AND MECHANICAL) AFFECTED BY THE REPAIR WORK. HE SHALL MAKE NECESSARY TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SERVICES TO ALL AREAS OF THE PARKING GARAGE OR OTHER AREAS (NOT IN CONTRACT) AFFECTED BY THE WORK. THE CONTRACTOR SHALL SUBMIT THE METHODS AND SCHEDULE OF CONNECTIONS FOR THE OWNER'S APPROVAL PRIOR TO COMMENCEMENT.
11. CONTRACTOR SHALL NOT ATTEMPT TO BRING ANY CONSTRUCTION EQUIPMENT INTO PARKING FACILITY PRIOR TO INSTALLATION OF PROPER SHORING MEMBERS APPROVED BY THE ENGINEER AND OF WHICH THE REQUIREMENTS ARE SHOWN ON PLANS. ANY VEHICLE AND/OR EQUIPMENT TO BE USED INSIDE THE PARKING FACILITY SHALL BE APPROVED BY THE ENGINEER.
12. PRIOR TO START OF CONSTRUCTION, EACH REPAIR AREA SHALL BE SURVEYED BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER. DURING THE SURVEY, THE CONTRACTOR'S REPRESENTATIVE SHALL MARK AND MEASURE THE AREAS TO BE REPAIRED AS DIRECTED BY THE ENGINEER. ADDITIONALLY, THE ENGINEER WILL PERFORM INSPECTION FROM TIME TO TIME TO THE REPAIR WORK IN PROGRESS. ANY DEFECTIVE WORK SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
13. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL PRODUCE "AS-BUILT" DRAWINGS IN THE INSTALLATION OF ALL REPAIR ITEMS UNDER THE CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE "AS-BUILT" DRAWINGS UPDATED ACCORDING TO THE JOB PROGRESS. FOR EACH PAY REQUEST BY THE CONTRACTOR, THE OWNER AND ENGINEER SHALL RECEIVE A COPY OF THE UPDATED "AS-BUILT" DRAWINGS IN A TIMELY MANNER. FINAL PAYMENT MAY NOT BE ISSUED BY THE OWNER PRIOR TO RECEIPT OF "AS-BUILT" DRAWINGS.
14. THE ESTIMATED QUANTITIES OF WORK TO BE DONE AND MATERIALS TO BE FURNISHED UNDER THIS CONTRACT ARE GIVEN IN THE PROPOSAL FORM. THE ACTUAL QUANTITIES MAY BE INCREASED OR DECREASED. PAYMENT TO THE CONTRACTOR WILL BE MADE FOR THE ACTUAL QUANTITY OF WORK PERFORMED AT THE CONTRACT UNIT PRICE.
15. ANY EXTRA WORK BEYOND THE SCHEDULED QUANTITIES, REQUIRING ADDITIONAL COST TO THE OWNER SHALL BE APPROVED BY THE OWNER PRIOR TO TAKING SUCH ACTION. CLAIMS FOR EXTRA WORK WHICH HAVE NOT BEEN AUTHORIZED IN WRITING BY THE OWNER AND APPROVED BY THE ENGINEER WILL BE REJECTED AND THE CONTRACTOR SHALL NOT BE ENTITLED TO PAYMENT.
16. PRIOR TO THE AWARD OF THE CONTRACT, THE CONSTRUCTION SCHEDULE PREPARED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE OWNER, AND COORDINATED WITH THE MANAGEMENT OFFICE.
17. CONTRACTOR SHALL PROVIDE ALL CAUTION/PEDESTRIAN WAY FINDING DIRECTION SIGNAGE AS REQUIRED.
18. CONCRETE REPAIRS: ALL NEW AND EXISTING REINFORCING SHALL LAP SPLICED AS PER CURRENT ACI LAPPING REQUIREMENTS.
19. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN. SPECIFIC ITEMS DESIGNATED FOR REPAIR THAT ARE NOT INDICATED/DELINEATED ON THE DRAWINGS WILL BE ADDRESSED AS SELECTED BY THE ENGINEER IN THE FIELD.

CONSTRUCTION NOTES

1. THE GENERAL CONTRACTOR SHALL APPLY AT ALL TIMES SUFFICIENT LABOR AND MATERIALS FOR PROSECUTING THE SEVERAL CLASSES OF WORK TO FULL COMPLETION IN THE MANNER REQUIRED BY THE SPECIFICATION AND THE REPAIR DETAILS SHOWN ON THE DRAWINGS.
2. THE GENERAL CONTRACTOR SHALL COMMENCE ON-SITE OPERATIONS WITHIN SEVEN CALENDAR DAYS AFTER THE DATE OF THE WRITTEN "NOTICE TO PROCEED" AND SHALL COMPLETE THE WORK WITHIN THE CONSTRUCTION TIME SPECIFIED IN THE BID PROPOSAL.
3. THE CONTRACTOR SHALL PROTECT EXISTING LIGHT FIXTURES OR HAVE FIXTURES DISCONNECTED AND REMOVED BY A LICENSED ELECTRICIAN, WITHIN WORK AREAS, PRIOR TO DEMOLITION. HE SHALL ALSO PROTECT AND MAINTAIN CONTINUITY OF ALL OTHER EXISTING SYSTEMS AND ASSOCIATED WIRING.
4. THE CONTRACTOR SHALL COMPLETE IN ITS ENTIRETY, THE SCOPE OF WORK DELINEATED ON PLANS AND IN THE BID FORM OF THE PROJECT SPECIFICATIONS. ALL LEVELS OF THE GARAGE ARE AVAILABLE AT ONE TIME.
5. THE CONTRACTOR SHALL PROVIDE ACCESS AT ALL TIMES FOR THE BUILDING MAINTENANCE PERSONNEL, TO ALL H.V.A.C. EQUIPMENT LOCATED IN THE PARKING GARAGE. THE CONTRACTOR SHALL ALSO INSTALL DUST PROOF PARTITIONS AROUND H.V.A.C. EQUIPMENT AREAS AND PROTECT THESE LOCATIONS FROM ANY DAMAGE DURING THE CONSTRUCTION PERIOD.
6. THE CONTRACTOR SHALL SUBMIT THE PROPOSED CONSTRUCTION SCHEDULE TO OBTAIN THE OWNER'S APPROVAL PRIOR TO THE START OF MOBILIZATION FOR THE PROJECT. THE CONTRACTOR SHALL STRICTLY FOLLOW THE CONSTRUCTION SCHEDULE SUBMITTED AND APPROVED UNLESS IT HAS BEEN REVISED, DURING THE CONSTRUCTION, IN COORDINATION WITH THE OWNER AND THE ENGINEER.
7. THE CONTRACTOR SHALL PROVIDE/INSTALL ALL TEMPORARY SIGNS AND DEVICES NECESSARY TO CONTROL TRAFFIC FLOW FOR THE ENTIRE REPAIR PERIOD.
8. PRIOR TO CONCRETE REMOVAL, THE CONTRACTOR SHALL ESTABLISH FLOOR ELEVATIONS AS NECESSARY FOR THE PLACEMENT OF NEW CONCRETE TO THE EXISTING ELEVATIONS.
9. THE CONTRACTOR SHALL PROVIDE PROPER MEANS SUBJECT TO ENGINEER'S APPROVAL FOR THE DISPOSAL OF WATER AND DEBRIS GENERATED BY THE WORK. ALL DEBRIS SHALL BE REMOVED TOA WASTE CONTAINER LOCATED OUTSIDE THE PARKING FACILITY, AT A LOCATION TO BE COORDINATED WITH THE OWNER OR HIS/HER REPRESENTATIVE.
10. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO PREVENT CUTTING OR OTHERWISE DAMAGING REINFORCING STEEL, INCLUDING ANY VERTICAL STIRRUPS.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY NECESSARY SHORING FOR THE DEMOLITION/REPAIR WORK. ANY SHORING WHERE REQUIRED SHALL BE DESIGNED TO SUSTAIN A LIVE LOAD OF 40 POUNDS PER SQUARE FOOT (P.S.F.) IN ADDITION TO THE EXISTING DEAD LOADS AND THE SHORING SYSTEM ITSELF AND THE OPERATION WEIGHT OF EQUIPMENT.
12. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE ERECTION AND MAINTENANCE OF THE SHORING DURING DEMOLITION/REPAIR WORK.
13. THE CONTRACTOR SHALL INSTALL THE NECESSARY FORM WORK; FORMS SHALL BE MORTAR TIGHT AND SUFFICIENTLY RIGID TO SUPPORT THE IMPOSED LOADS WITHOUT ANY SETTLEMENT DEFORMATIONS.
14. THE SHORING AND FORM WORK SHALL REMAIN IN PLACE UNTIL THE NEW CONCRETE HAS ACHIEVED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

SPECIFIED REPAIR MATERIAL PROPERTIES:

CONCRETE

COMPRESSIVE STRENGTH (28-DAY)	5000-PSI
STRUCTURAL NORMAL WEIGHT	145 PCF
W/C RATIO	0.38 MAX.
AIR CONTENT	6.0% +/- 1.0%

REINFORCING

REINFORCING BARS	ASTM A615, GRADE 60, DEFORMED
WELDED WIRE FABRIC	ASTM A82 AND ASTM A185 (EPOXY COATED)

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21576, EXPIRATION DATE: 04/29/27.

DESMAN

Repairs and Preventative Maintenance of the
HCC EAST GARAGE EXPANSION
COLUMBIA, MD

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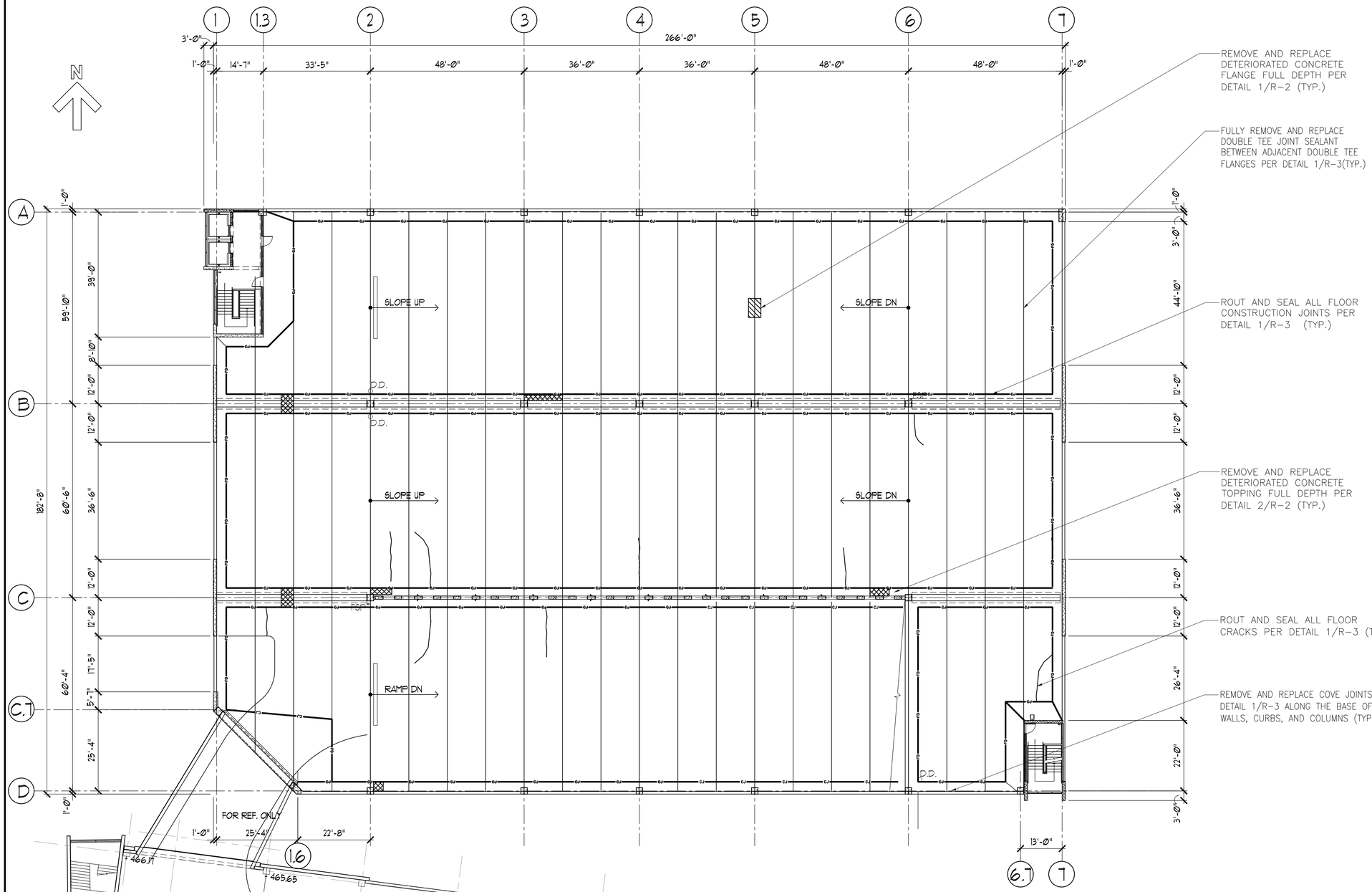
NO.	DESCRIPTION	DATE
2	100% SUBMISSION	10/9/2026
1	90% SUBMISSION	9/18/2026

DRAWING TITLE:
COVER SHEET

DRAWING NO.
T-1

SCALE:	AS NOTED
DATE:	OCTOBER 9, 2026
PROJECT NO :	30-26107.01-2

DES.	DRWN.	CK'D.
MO	MO	SB



1 / R-1 ROOF LEVEL FLOOR PLAN

SCALE: 1/16"=1'-0"

GENERAL NOTES

1. LOCATION, EXTENT, AND SIZE OF DELAMINATIONS, SPALLS AND PATCH AREAS SHOWN ON PLANS ARE APPROXIMATE. ALL AREAS SHALL BE EXACTLY LOCATED BY THE CONTRACTOR IN THE FIELD IN ACCORDANCE WITH NOTE #2 BELOW. ADDITIONALLY, AREAS OF CONCRETE REMOVAL/REPLACEMENT MAY BE INCREASED/DECREASED AS DIRECTED BY THE ENGINEER.
2. PRIOR TO THE START OF CONSTRUCTION, THE ENTIRE FLOOR SLAB AREA DESIGNATED FOR REPAIR SHALL BE SOUNDED BY THE CONTRACTOR FOR ENGINEER REVIEW. ALL DELAMINATED/SPALLED AREAS SHALL BE PAINT MARKED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. CRACKS ARE PARTIALLY SHOWN ONLY. CONTRACT QUANTITY ACCOUNTS FOR ALL ANTICIPATED CRACK REPAIRS.
4. ALL EXISTING FLOOR DRAINS THROUGHOUT THE ROOF LEVEL ARE TO BE CLEANED AND CLEARED.
5. SUBSEQUENT TO THE REPLACEMENT OF SEALANT MATERIAL FROM JOINTS, ALL EXPOSED CONNECTORS SHALL BE CLEANED AND INSPECTED BY THE ENGINEER. FAILED CONNECTORS SHALL BE REPAIRED AS DIRECTED.
6. ANY SOFFIT REPAIRS SHALL BE REPAIRED FULL DEPTH PER DETAIL 1/R-2 AND ARE SHOWN REPRESENTATIVE ON THE FLOOR PLAN AND ARE NOT SHOWN ON THE SOFFIT. ANY FULL DEPTH REPAIRS SHALL BE TRANSFERRED TO THE FLOOR PLAN.

LEGEND:

: FULL DEPTH CONCRETE TOPPING REPAIR (DETAIL 2/R-2)

: FULL DEPTH DOUBLE TEE FLANGE REPAIR (DETAIL 1/R-2)

: ROUT AND SEAL CRACKS (DETAIL 1/R-3)

: ROUT AND SEAL CONSTRUCTION JOINTS (DETAIL 1/R-3)

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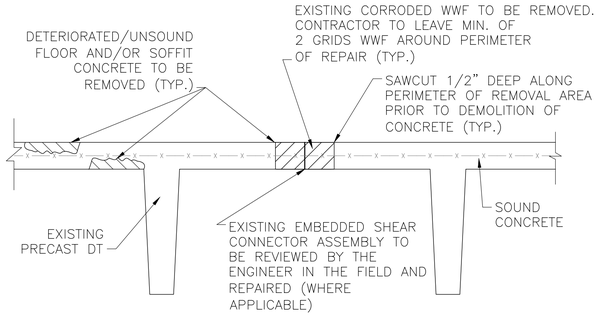
ROOF LEVEL FLOOR PLAN

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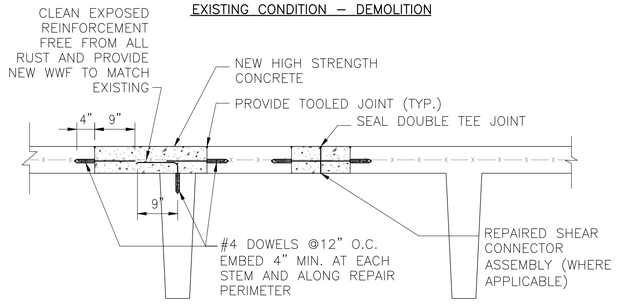
R-1

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EXISTING CONDITION – DEMOLITION



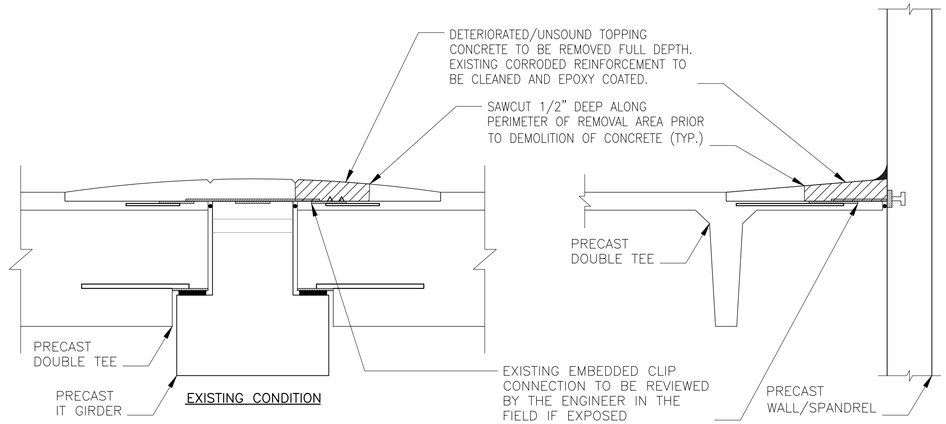
REPAIRED CONDITION

REPAIR PROCEDURE:

1. CLEAN THE REPAIR AREA OF ALL DUST AND DIRT USING COMPRESSED AIR OR BY OTHER APPROVED MEANS.
2. SAND BLAST CLEAN EXISTING EXPOSED REINFORCEMENT AND PROVIDE NEW WWF (TO MATCH EXISTING). LAP NEW REINFORCING STEEL AS PER A.C.I. REQUIREMENTS.
3. PROVIDE NEW #4 DOWELS EMBEDDED 4" MIN IN EPOXY ALONG PATCH PERIMETER AND AT EACH STEM AS SHOWN.
4. ANY EXPOSED CONNECTORS SHALL BE INSPECTED BY THE ENGINEER. CLEAN AND EPOXY PAINT ANY EXPOSED STEEL PRECAST CONNECTIONS LOCATED WITHIN REPAIR AREA.
5. PREWET SURFACE 2 HOURS PRIOR TO PLACEMENT OF CONCRETE. SURFACE MUST BE WET TO SATURATED SURFACE DRY (SSD) WITH NO FREE STANDING WATER.
6. PLACE HIGH STRENGTH CONCRETE. FINISH TO MATCH THE EXISTING SLAB SURFACE. CURE AND PROTECT FINISHED REPAIR.
7. PROVIDE A TOOLED JOINT AROUND PERIMETER OF REPAIR, SEAL WITH TWO PART POLYURETHANE SEALANT AS PER DETAIL 1/R-3.

NOTES:
1. AT FULL DEPTH PRECAST REPAIR, ANY CONCRETE TOPPING SHALL BE REMOVED AND REPLACED MONOLITHICALLY.

1 / R-2 FULL DEPTH PRECAST CONCRETE FLANGE REPAIR
SCALE: NONE

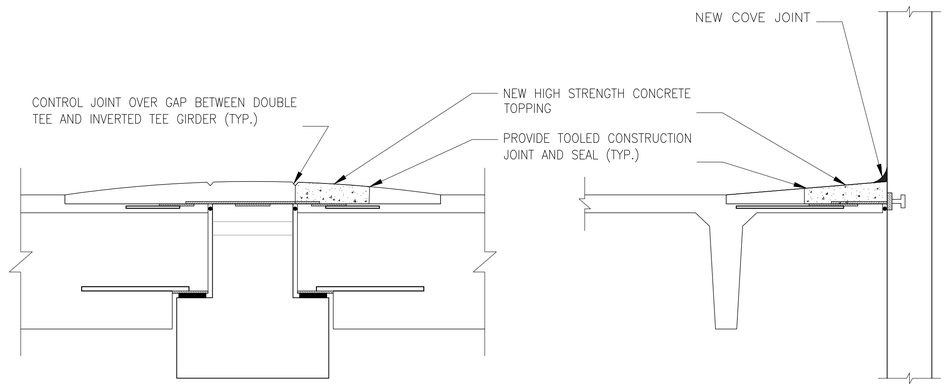


DEMOLITION PROCEDURE:

1. CONTRACTOR TO VERIFY THE DELAMINATED AREA BY SOUNDING AND MARK THE AREA FOR REPAIR.
2. ERECT NECESSARY SHORING AT THE UNDERSIDE OF DEMOLITION AREA.
3. SAW CUT PERIMETER OF AREA TO BE REPAIRED TO A MINIMUM OF 1/2" DEEP
4. REMOVE DELAMINATED/SPALLED CONCRETE FULL DEPTH USING SAWS AND CHIPPING HAMMERS.

NOTE:

1. ALL GARAGE FLOOR AREAS WITH TOPPING DESIGNATED FOR REPAIR MUST BE SOUNDED BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER USING A CHAIN AND ALL DELAMINATIONS MARKED BY THE CONTRACTOR AS DIRECTED PRIOR TO START OF DEMOLITION.



REPAIRED CONDITION

REPAIR PROCEDURE:

1. ANY EXPOSED CONNECTORS SHALL BE INSPECTED BY THE ENGINEER.
2. CLEAN THE REPAIR AREA FREE OF ALL DUST AND DIRT USING COMPRESSED AIR OR OTHER APPROVED MEANS.
3. SAND BLAST CLEAN EXISTING EXPOSED REINFORCING AND SUPPLEMENT THE WWF THAT HAVE LOST 20% OR MORE OF ITS CROSS-SECTION AS DIRECTED BY THE ENGINEER. LAP NEW WWF PER A.C.I LAPPING REQUIREMENTS.
4. ANY EXPOSED CONNECTORS SHALL BE INSPECTED BY THE ENGINEER AND REPAIRED IF REQUIRED. CLEAN AND EPOXY PAINT ANY EXPOSED STEEL PRECAST CONNECTIONS LOCATED WITHIN REPAIR AREA.
5. PREWET EXISTING CONCRETE SURFACE 2 HOURS PRIOR TO PLACEMENT OF NEW CONCRETE. SURFACE MUST BE WET TO SATURATED SURFACE DRY (SSD) WITH NO FREE STANDING WATER.
6. PLACE HIGH STRENGTH FAST SETTING CONCRETE, FINISH TO MATCH THE EXISTING SURFACE AND CURE.
7. PROVIDE A TOOLED JOINT AROUND PERIMETER OF REPAIR; AFTER 7 DAYS OF CURING ROUT AND SEAL AS IN DETAIL 1/R-3.

NOTES:
1. AT FULL DEPTH PRECAST REPAIR, ANY CONCRETE TOPPING SHALL BE REMOVED AND REPLACED MONOLITHICALLY.
2. TOPPING THICKNESS VARIES. MAXIMUM THICKNESS IS APPROXIMATELY 3".

2 / R-2 CAST IN PLACE TOPPING REPAIR
SCALE: NONE

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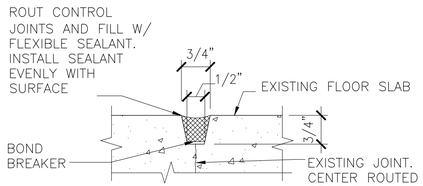
REPAIR DETAILS

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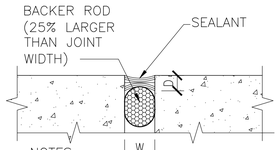
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A – CONTROL/TOOLED JOINT SEAL DETAIL

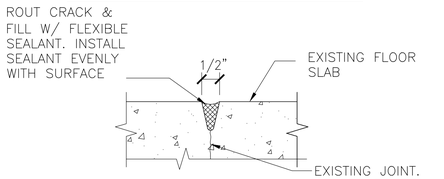


NOTES:
W = 3/8" MIN.
D = W/2 (1/4" MIN./ 1/2" MAX.)

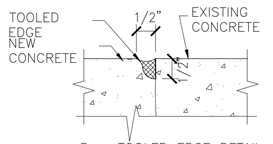
NOTES:
1. APPLICATION IS FOR UP TO 2 1/2" WIDTH IF LARGER NOTIFY ENGINEER FOR FURTHER ACTION.

2. ALL EXPOSED CONNECTIONS SHALL BE REVIEWED BY THE ENGINEER AND CLEANED AND PAINTED.

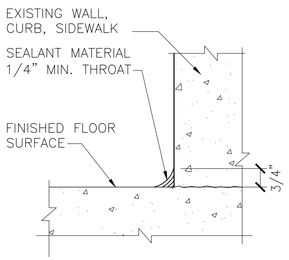
B– TYPICAL SEALANT JOINT DETAIL



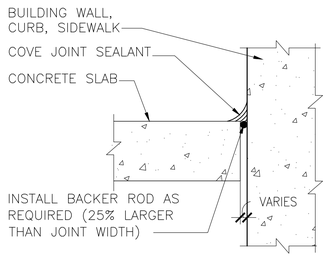
C – CRACK SEAL DETAIL



D – TOOLED EDGE DETAIL



E– PERIMETER COVE JOINT
NO BACKER ROD



E– PERIMETER COVE JOINT
WITH BACKER ROD

REPAIR PROCEDURE:

1. REMOVE EXISTING JOINT MATERIAL. ROUT AND CLEAN CRACKS/JOINTS USING COMPRESSED AIR OR OTHER APPROVED MEANS TO REMOVE DUST OR OTHER FOREIGN MATERIALS.

2. CLEAN ALL EXPOSED CONNECTORS. ENGINEER SHALL INSPECT ALL CONNECTORS. CONTRACTOR SHALL REPAIR ANY FAILED CONNECTORS AS DIRECTED.

4. INSTALL BACKER ROD/BOND BREAKER, PRIME ENTIRE SURFACE OF JOINT AND GROOVE, ALLOW FOR PRIMER TO CURE PROPERLY PRIOR TO INSTALLING SEALANT, IF SEALING CONTROL/CONSTRUCTION JOINTS, APPLY A BOND BREAKER TO BOTTOM OF JOINT BEFORE PRIMING.

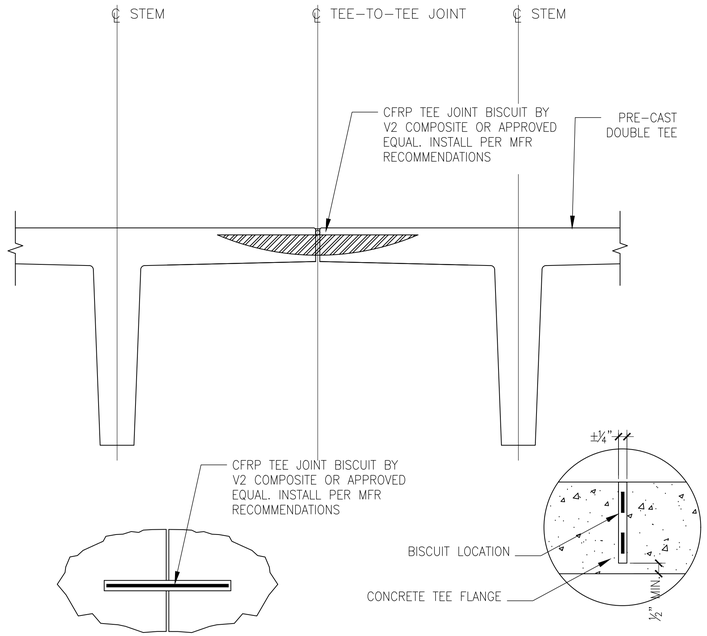
5. AFTER PRIMER HAS CURED INSTALL TWO PART POLYURETHANE JOINT SEALANT. DO NOT OVERFILL JOINT.

6. PROHIBIT VEHICULAR/PEDESTRIAN TRAFFIC ON SEALED JOINTS UNTIL SEALANT MATERIAL HAS CURED ACCORDING TO MFR'S RECOMMENDATIONS.

NOTES:

1. DO NOT OVERFILL JOINTS WITH SEALANT.
2. DOUBLE TEE JOINT REPLACEMENT INCLUDES POCKET SEALANT FOR SHEAR CONNECTORS.

1 / R-3 CRACK AND JOINT SEALANT DETAILS
SCALE: NONE



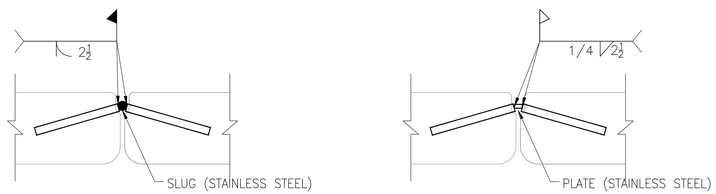
TOP VIEW

SECTION VIEW

REPAIR PROCEDURE

1. PROVIDE SHORING AS REQUIRED TO ALLOW VEHICLE TRAFFIC DURING CURING.
2. CARBON FIBER BISCUIT TO BE INSTALLED BETWEEN EXISTING SHEAR CONNECTORS. EXISTING CONNECTORS TO REMAIN.
3. MAKE A 19" LONG X 3½" DEEP SAW CUT MAXIMUM ¾" FROM BOTTOM OF FLANGE.
4. PLACE A DUCT TAPE AROUND SLOT, LEAVING ABOUT ¼" SURFACE EXPOSED.
5. WIPE BISCUITS WITH METHYL ETHYL KETONE TO REMOVE DIRT AND OILS. SET ASIDE IN CLEAN, DRY LOCATION.
6. BLOW OUT CUT SLOT WITH CLEAN COMPRESSED AIR.
7. COMPLETELY FILL CUT SLOT WITH BISCUIT BOND EPOXY PASTE.
8. APPLY BISCUIT BOND EPOXY PASTE TO BOTH SIDE OF BISCUIT.
9. PLACE BISCUIT INTO EPOXY FILLED SLOT ASSURING THE ENTIRE BISCUIT IS BELOW THE CONCRETE DECK SURFACE. USING A PUTTY KNIFE, WORK THE BISCUIT SIDE TO SIDE IN THE SLOT TO SEAT IT AND REMOVE ANY TRAPPED AIR.
10. REMOVE ANY EXCESS EPOXY USING ACETONE OR EPOXY THINNER (CURED CAN ONLY BE REMOVED BY MECHANICAL MEANS).
11. THE REPAIR NEEDS EIGHT (8) HOURS TO REACH FULL CURE.

3 / R-3 SHEAR CONNECTOR REPLACEMENT CARBON FIBER BISCUIT
SCALE: N.T.S.



REPAIR PROCEDURE:

1. EXPOSE SHEAR CONNECTOR AND REMOVE EXISTING STEEL BAR (SLUG).

2. SANDBLAST CLEAN EXISTING EXPOSED CONNECTOR BARS, PLATES, AND WELDMENTS AS REQUIRED.

3. PROVIDE NEW SLUG AND WELDED CONNECTION AS SHOWN. NEW SLUG MATERIAL SHALL MATCH EXISTING EMBEDDED PLATES. WELDING SIZE/LENGTH TO MATCH EXISTING OR MINIMUM AS SHOWN

2 / R-3 SHEAR CONNECTOR REPAIR
SCALE: NONE

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21576, EXPIRATION DATE: 04/29/27.

DESMAN

Repairs and Preventative Maintenance
of the
HCC EAST GARAGE EXPANSION
COLUMBIA, MD

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ISSUE		
2	100% SUBMISSION	10/9/2026
1	90% SUBMISSION	9/18/2026
NO.	DESCRIPTION	DATE

DRAWING TITLE:
REPAIR DETAILS

DRAWING NO.
R-3

SCALE:	AS NOTED
DATE:	OCTOBER 9, 2026
PROJECT NO :	30-26107.01-2

DES.	DRWN.	CK'D.
MO	MO	SB