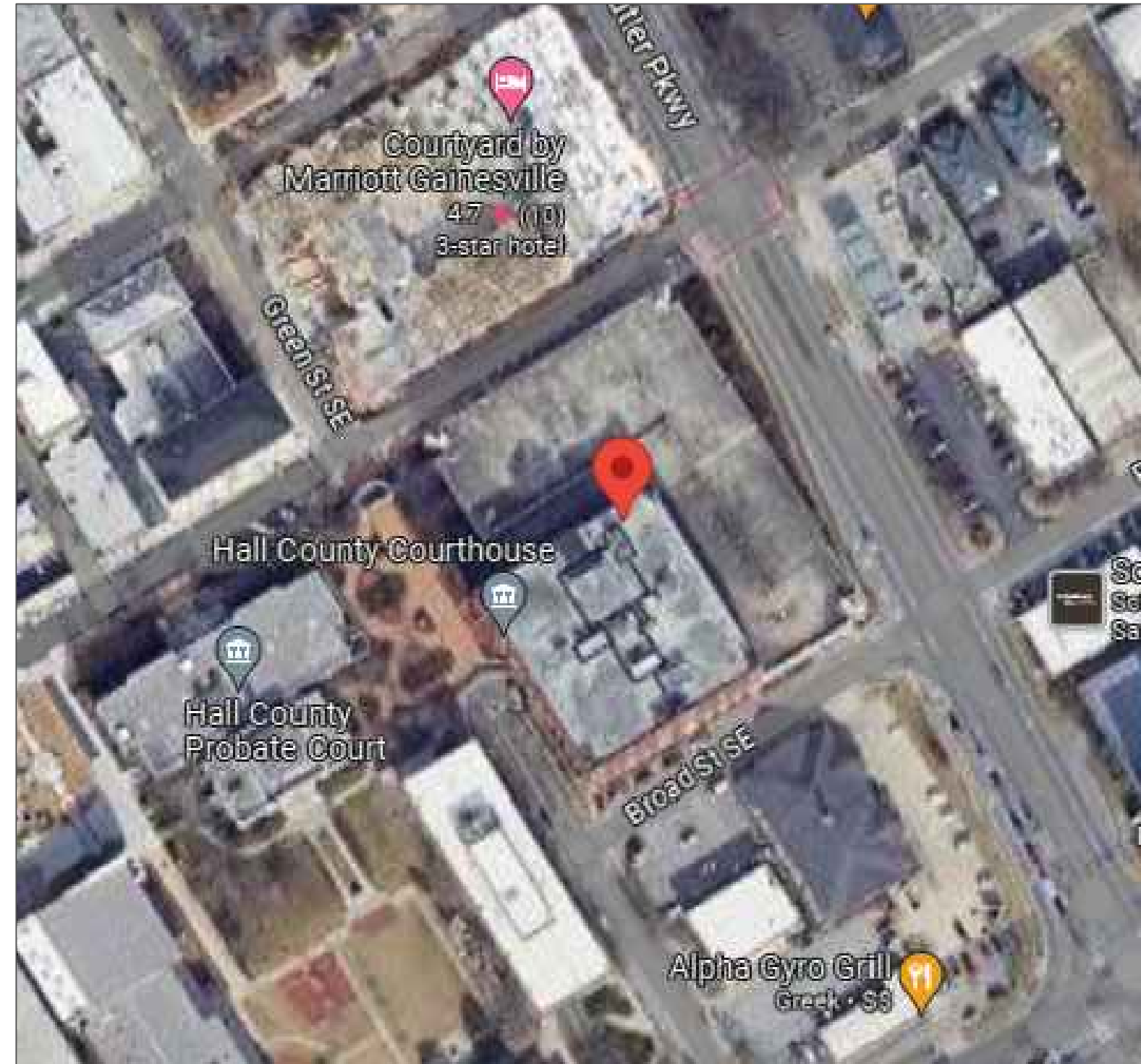


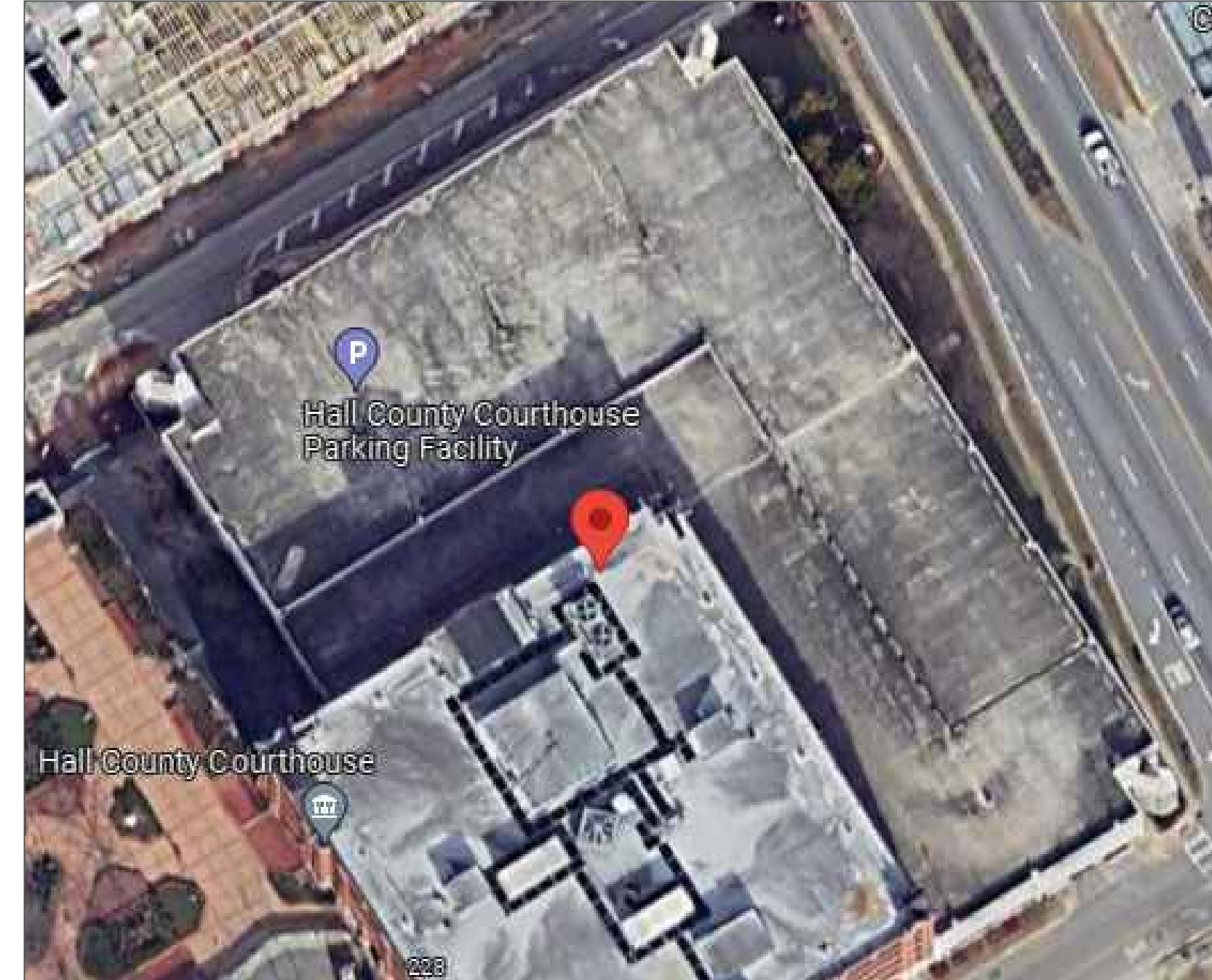
HALL COUNTY GOVERNMENT GREEN STREET PARKING GARAGE

PARKING GARAGE REPAIR DESIGN PHASE II

VICINITY MAP



LOCATION MAP



BUILDING DATA AND CODE ANALYSIS

TENANT	HALL COUNTY GOVERNMENT
PROJECT NAME	PARKING GARAGE REPAIR DESIGN PHASE II
ADDRESS	225 GREEN STREET GAINESVILLE, GA 30501
BUILDING CODES FOR REPAIR DESIGNS	IBC 2018 WITH GA AMENDMENTS

SCOPE OF WORK

PARKING GARAGE REPAIR DESIGN PHASE II: DESIGN TO INCLUDE RECOMMENDED REPAIRS PER ECS STRUCTURAL ASSESSMENT REPORT DATED AUGUST 14, 2023.

DRAWING INDEX

STRUCTURAL

S100	COVER PAGE
S101	GENERAL NOTES
S102	LEVEL 1 - PLAN VIEW
S103	LEVEL 2 - PLAN VIEW
S104	LEVEL 3 - PLAN VIEW
S105	LEVEL 4 - PLAN VIEW
S106	LEVEL 5 - PLAN VIEW
S107	REPAIR DETAILS
S108	REPAIR DETAILS
S109	REPAIR DETAILS
S110	REPAIR DETAILS



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
225 GREEN STREET

GAINESVILLE, GA 30503

SUBMISSION DATE

CONSTRUCTION 10.20.2023

DRAWN BY: EJS
CHECKED BY: LRG

ECS PROJECT NO.
48:3231-A

SHEET NAME

S100

GREEN STREET PARKING DECK REPAIRS SPECIFICATIONS

I. OVERVIEW

THE REPAIR DRAWINGS ARE PREPARED TO ADDRESS THE PHASE II PARKING DECK REPAIRS FOR THE SUBJECT SITE IN GAINESVILLE, GA.

THE EXISTING STRUCTURE IS A 5-STORY REINFORCED CONCRETE FRAMED BUILDING WITH CONCRETE SLAB-ON-GRADE AT FIRST FLOOR AND PRECAST DOUBLE-TEE ELEVATED DECKING ON FLOORS TWO THROUGH FIVE.

II. GENERAL SUMMARY OF WORK

PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SUPERVISION NECESSARY TO COMPLETE THE REPAIRS AS SPECIFIED HEREIN. IT IS TO BE NOTED THAT THE FOLLOWING GENERAL DESCRIPTION APPLIES FOR THE WORK:

- A. COMPLETE CONCRETE REPAIRS ON THE ELEVATED LEVELS AND THE SLAB ON-GRADE OF THE GARAGE AS IDENTIFIED BY VISUAL OBSERVATIONS.
- B. ROUT AND SEAL CRACKS IN CONCRETE ON THE ELEVATED LEVEL THAT ARE GREATER THAN 1/16". REMOVE AND REPLACE EXISTING SEALANTS IN CRACKS PREVIOUSLY ROUTED AND SEALED, INCLUDING COVE BASE AT THE GARAGE PERIMETER.
- C. REMOVE AND REPLACE ALL SEALANTS THROUGHOUT THE GARAGE.
- D. INJECT EPOXY AT LOCATIONS OF CRACKED DOUBLE TEE FLANGES AND WEBS.
- E. INJECT GROUT AT LOCATIONS OF LEAKING CAST-IN-PLACE CONCRETE WALLS CRACKS AT LEVEL 1.
- F. INSTALL V2 COMPOSITE BISCUITS AT FAILED SHEAR PLATES AT PLANK-TO-PLANK CONNECTIONS.
- G. REMOVAL AND REPLACEMENT OF DAMAGED NOSING ALONG EXISTING EXPANSION JOINTS.
- H. REPLACE DRAIN CAPS AS REQUIRED.
- I. CLEAN AND PAINT EXPOSED STEEL BEARING PLATES AT BEAM-TO-COLUMN AND PLANK-TO-PLANK CONNECTIONS.
- J. CLEAN AND PAINT DOUBLE TEE CONNECTORS THROUGHOUT THE GARAGE AS EXPOSED DURING THE SEALANT REPLACEMENT WORK.

PROPERLY REMOVE AND DISPOSE OF ALL DEBRIS GENERATED BY THIS WORK FROM THE PROJECT ON A REGULAR BASIS IN ORDER TO PREVENT BUILD UP IN THE GARAGE.

PROVIDE DISCONNECTION AND RECONNECTION OF DRAIN LINES OR OTHER UTILITIES AS REQUIRED TO COMPLETE THE WORK. WORK WITH THE OWNER TO CREATE A DETAILED TIMELINE FOR ANY REQUIRED DISCONNECTION (AND RECONNECTION) OF THE BUILDING'S UTILITIES.

THE OWNER SHALL SUPPLY ELECTRICAL POWER AND WATER NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SUPPLY ALL OTHER UTILITIES AS NECESSARY.

III. MATERIAL SPECIFICATIONS

GENERAL

- A. THE REPAIRS ARE DESIGNED IN ACCORDANCE WITH REFERENCE CODES: IBC 2018 WITH GEORGIA AMENDMENTS.
- B. LOADS SHALL BE IN ACCORDANCE WITH IBC 2018 SECTION 1607.1.
 - 1. LOADS SHALL NOT EXCEED A UNIFORM LIVE LOAD OF 40 PSF
 - 2. SEISMIC DESIGN CATEGORY: B, SITE CLASS: D
- C. CONSTRUCTION MEANS AND METHODS ARE TO BE DETERMINED BY THE GENERAL CONTRACTOR.
- D. DO NOT SCALE FROM DRAWINGS. FIELD CONDITIONS AND DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR. IF CONDITIONS DIFFER FROM THE INFORMATION PROVIDED, ECS MUST BE CONTACTED SO THAT, IF NECESSARY, A REVISION OF THE DESIGN CAN BE DEVELOPED AND ISSUED.

CONCRETE

- A. PATCH MATERIAL: SIKA REPAIR 222, OR APPROVED EQUAL, FOR HORIZONTAL REPAIRS. USE WITH SIKA ARMATEC 110 EPOCEM.
- B. STRUCTURAL CONCRETE: NORMAL-WEIGHT, 4,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS W/ 4% TO 6% ENTRAINED AIR CONTENT, A SLUMP BETWEEN 3"AND 5", AND A MAXIMUM WATER-CEMENT RATIO OF 0.45.
- C. CORROSION INHIBITOR ADMIXTURE TO BE SUBMITTED WITH CONCRETE MIX DESIGN.
- D. CONCRETE SHALL HAVE A SAND FINE AGGREGATE AND NORMAL WEIGHT COARSE AGGREGATE CONFORMING TO ASTM-C150.
- E. UNLESS SUBMITTED AND APPROVED OTHERWISE, ASTM C150, TYPE I CEMENT SHALL BE USED.
- F. MAXIMUM BATCH-TO-PLACEMENT TIME IS 90 MINUTES. CONCRETE SHALL BE PLACED WITH AN AMBIENT TEMPERATURE RANGE OF 55 TO 90 DEGREES FAHRENHEIT.
- G. VIBRATE CONCRETE IN ACCORDANCE WITH ACI-309.
- H. MATERIALS USED FOR FORMING SHALL BE STRAIGHT, SMOOTH, AND - WHERE POSSIBLE FROM A CONSTRUCTABILITY STANDPOINT - BE CONTINUOUS WITH THE NUMBER OF PROVIDED JOINTS AND SEAMS MINIMIZED.
- I. CONCRETE IS TO BE SELF-BONDING OR A BONDING AGENT IS REQUIRED WITH USE.

REINFORCING STEEL

- A. REINFORCING BARS SHALL CONFORM TO ASTM-A615, GRADE 60. REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED, OR THERMALLY CUT WITHOUT PRIOR APPROVAL BY ECS.
- B. DETAILING OF CONCRETE REINFORCING BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP-66, "DETAILING MANUAL". PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R, "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI, "MANUAL OF STANDARD PRACTICE".

JOINT SEALANTS

- A. SEALANT: SILICONE SEALANT CONFIRMING TO ASTM C920, GRADE NS, CLASS 25, TYPE S SEALANT COMPATIBLE WITH USE M (MORTAR).
- B. JOINT PRIMER: AS REQUIRED BY MANUFACTURERS.
- C. SOLVENT: METHYL ETHYL KETONE (MEK) OR APPROVED EQUIVALENT.
- D. BACKING ROD: CLOSED CELL, NON-GASSING, SOF-ROD OR APPROVED

EQUIVALENT. MATERIAL SHALL BE 50% COMPRESSIBLE.

ADDITIONAL NOTES

- A. GENERAL CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR THE FOLLOWING: CONCRETE MIX DESIGN AND REINFORCEMENT. PROVIDE ELECTRONIC COPIES FOR REVIEW AND APPROVAL.

IV. GENERAL REPAIR NOTES

CRACK REPAIR - ROUT AND SEAL

- A. AT LOCATIONS OF SLAB CRACKS, ROUT CRACKS TO BE 1/4" WIDE (MIN.) AND 3/8" DEEP (MIN.).
- B. CLEAN AREA WITH COMPRESSED AIR, WATER, OR OTHER INDUSTRY-ACCEPTED MEANS AND METHODS.
- C. INSTALL A POLYURETHANE-BASED SEALANT SUITABLE FOR PARKING GARAGE EXPOSURE.
- D. SEALANT COLOR TO BE CHOSEN BY OWNER.

JOINT SEALANT - REPLACEMENT

- A. REMOVE DETERIORATED SEALANT.
- B. CLEAN AREA WITH COMPRESSED AIR, WATER, OR OTHER INDUSTRY-ACCEPTED MEANS AND METHODS.
- C. INSTALL BACKER ROD IN JOINTS.
- D. INSTALL A POLYURETHANE-BASED SEALANT SUITABLE FOR PARKING GARAGE EXPOSURE.
- E. SEALANT COLOR TO BE CHOSEN BY OWNER.

CONCRETE WALL CRACK REPAIR - GROUT INJECTION

- A. CLEAN LOOSE CONCRETE AND DEBRIS FROM CRACK.
- B. DRILL HOLES FOR GROUT PLUGS ALONG THE LENGTH OF THE CRACK. STARTING AT THE LOWEST POINT OF THE CRACK, TRIANGULATE THE POSITION OF THE FIRST HOLE TO BE DRILLED SO THAT IT WILL INTERSECT THE CRACK AT A 45° ANGLE.
- C. DRILL THE NEXT HOLE IN THE SAME MANNER ON THE OPPOSITE SIDE OF THE CRACK.
- D. INSTALL 5/8" (16MM) INJECTION PLUGS INTO THE DRILLED HOLES AND TIGHTEN.
- E. FLUSH HOLES WITH WATER OR PER MANUFACTURER RECOMMENDATIONS.
- F. INJECT GROUT INTO THE PLUG UNTIL MATERIAL COMES OUT THE FACE OF THE CRACK AND STARTS TO APPROACH THE NEXT PLUG.
- G. ADHERE TO MANUFACTURER'S SPECIFICATIONS.

CORRODED CONNECTIONS PAINTING

- A. REMOVE CORROSION BY SAND-BLASTING, WATER-BLASTING, WIRE WHEEL GRINDING, WIRE BRUSH, OR BY OTHER INDUSTRY-ACCEPTED MEANS AND METHODS.
- B. CLEAN ANY MATERIAL USED TO REMOVE CORROSION (EX. SAND FROM SAND-BLASTING OPERATION).
- C. CONNECTIONS: APPLY 2-COATS OF ZINC-RICH, COLD-GALVANIZING SPRAY TO THE EXPOSED - AND CLEANED - STEEL. USE ZRC (OR OTHER SUBMITTED AND APPROVED ALTERNATE).
- D. PAINT COLORS TO BE SELECTED BY OWNER.

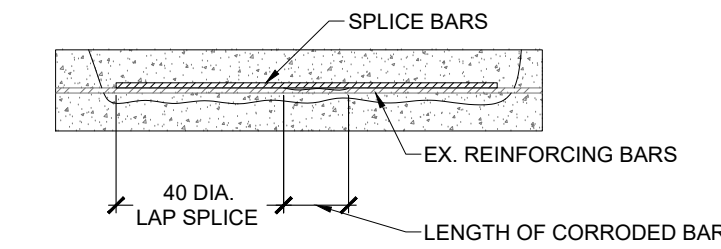
EXPANSION JOINT REPLACEMENT

- A. REMOVE EXISTING EXPANSION JOINT.
- B. REPAIR CONCRETE AS REQUIRED IN PREPARATION FOR JOINT INSTALLATION.
- C. INSTALL EXPANSION JOINT PER MANUFACTURER REQUIREMENTS.

CONCRETE DEMOLITION AND REPAIR

- A. THE CONTRACTOR SHALL SOUND THE AREA TO CONFIRM THE EXTENT OF DETERIORATION.
- B. SAW CUT AROUND PERIMETER OF DETERIORATION AREA A MINIMUM OF 2 INCHES DEEP AND MINIMUM OF 2 INCHES BEYOND EXTENT OF DETERIORATION. DO NOT CUT EXISTING REINFORCING STEEL. SQUARE ALL EDGES.
- C. REMOVE DETERIORATED CONCRETE TO SOUND CONCRETE WITH A CLEARANCE AROUND REINFORCING STEEL OF 3/4 INCHES.
- D. IF CORRODED REINFORCING STEEL EXTENDS BEYOND THE REMOVAL AREA, REMOVE ADDITIONAL CONCRETE AS NECESSARY UNTIL UNCORRODED REINFORCING IS EXPOSED FOR A MINIMUM OF 2 INCHES.
- E. SANDBLAST EXPOSED CONCRETE SUBSTRATE AND CLEAN REINFORCING STEEL WITH WIRE WHEEL BRUSH OR OTHER EQUIPMENT AS NECESSARY.
- F. REMOVE AND REPLACE REINFORCING STEEL IF SECTION LOSS RESULTING IN A MEASURED DIAMETER IS LESS THAN THE CORRDED BAR MINIMUM ALLOWABLE DIAMETER. CORRODED REINFORCING MAY BE LEFT IN-PLACE IF THE COMBINED NEW AND CORRODED BAR DOES NOT CREATE AN UNACCEPTABLE CLEARANCE FOR PROPER CONCRETE PATCHING.
- G. APPLY A BONDING AGENT AT NEW AND EXISTING REBAR (SIKA ARMATEC 110 EPOCEM, OR EQUIVALENT) PRIOR TO PATCH REPAIR.
- H. CONTRACTOR TO INSTALL CONCRETE PATCH TIES (HELIFIX PATCHPIN OR APPROVED EQUAL) INTO SOUND CONCRETE WHEN PERFORMING A VERTICAL OR OVERHEAD PATCH IF REINFORCING STEEL IS NOT EXPOSED AFTER DEMOLITION.
- I. MOISTEN PREPARED SURFACES AND ALLOW TO DRY TO SATURATE SURFACE DRY (SSD) CONDITIONS PRIOR TO REPAIR MATERIAL PLACEMENT.
- J. PLACE FORMWORK AND SHORING AS NECESSARY.
- K. PLACE CONCRETE REPAIR MATERIAL. FORM AND PATCH SURFACE OF REPAIR EVEN WITH THE ADJACENT, EXISTING CONCRETE.
- L. ALLOW CONCRETE PATCH MATERIAL TO CURE. SEAL PERIMETER OF PATCH AREA WITH APPROVED SEALANT.

UNCORRODED BAR		CORRODED BAR
REINFORCING STEEL MINIMUM ALLOWABLE DIAMETER		
BAR SIZE	NOM. DIA. (IN)	MIN. ALLOW. DIA. (IN)
#3	0.375	0.338
#4	0.500	0.450
#5	0.625	0.563
#6	0.750	0.675
#7	0.875	0.787
#8	1.000	0.900
#9	1.128	1.015
#10	1.270	1.143
#11	1.410	1.269



REINFORCING BAR REPAIR NOTES

- 1. LAP SPlice REPAIR: INSTALL ADDITIONAL REINFORCING AT LOCATIONS WHERE REBAR DIAMETER IS LESS THAN THAT INDICATED IN THE TABLE. EXTEND NEW BAR BEYOND THE DAMAGED SECTION OF THE BAR.



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
225 GREEN STREET

GAINESVILLE, GA 30503

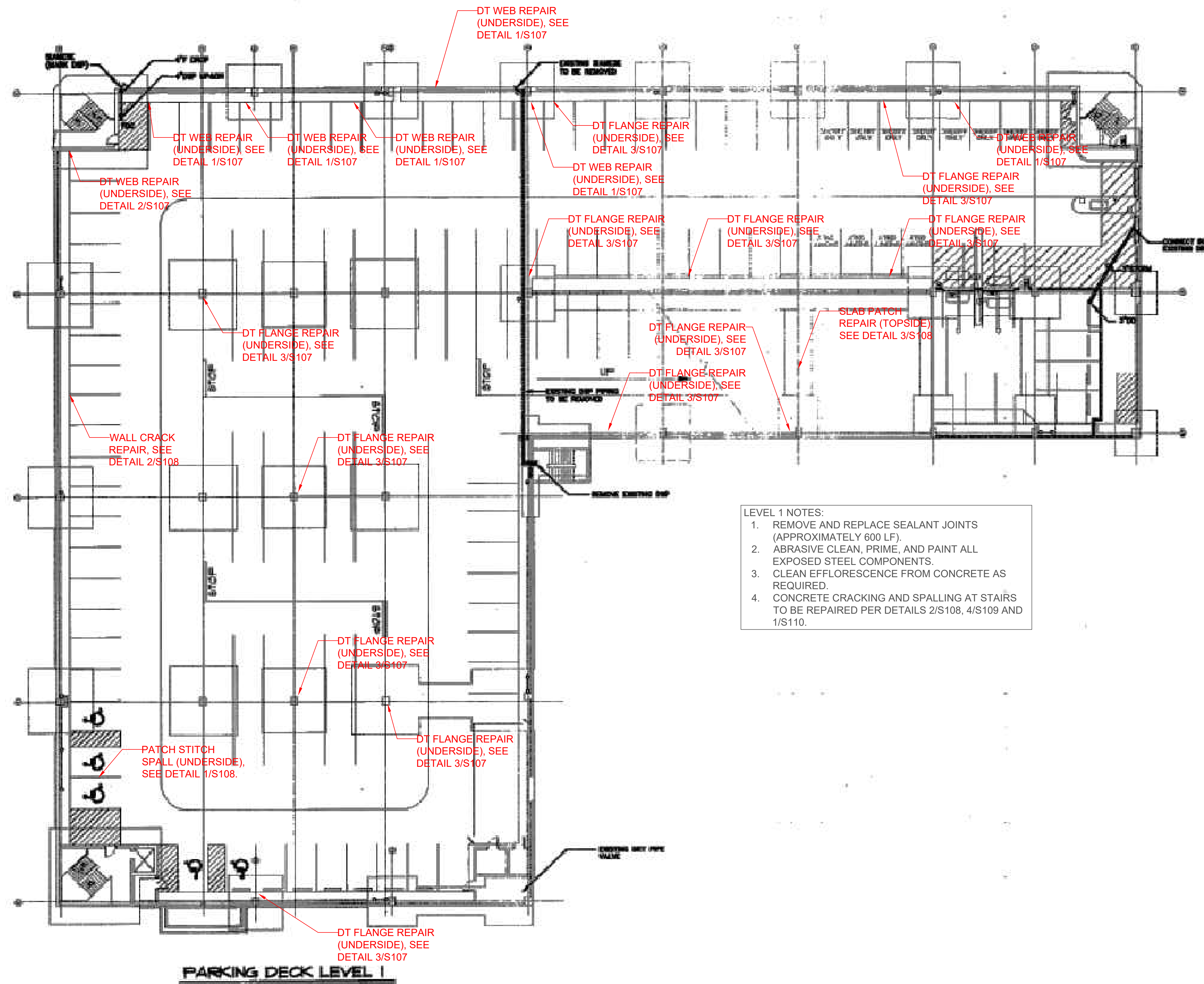
SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS CHECKED BY: LRG

ECS PROJECT NO. 48:3231-A

SHEET NAME

S101



- LEVEL 1 NOTES:
1. REMOVE AND REPLACE SEALANT JOINTS (APPROXIMATELY 600 LF).
 2. ABRASIVE CLEAN, PRIME, AND PAINT ALL EXPOSED STEEL COMPONENTS.
 3. CLEAN EFFLORESCENCE FROM CONCRETE AS REQUIRED.
 4. CONCRETE CRACKING AND SPALLING AT STAIRS TO BE REPAIRED PER DETAILS 2/S108, 4/S109 AND 1/S110.

1 LEVEL 1 - PLAN VIEW
Scale: NTS



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE
REPAIR DESIGN
225 GREEN STREET
GAINESVILLE, GA 30503

SUBMISSION	DATE
CONSTRUCTION	10/20/2023

DRAWN BY: EJS
CHECKED BY: LRG

ECS PROJECT NO. 48:3231-A

SHEET NAME

S102

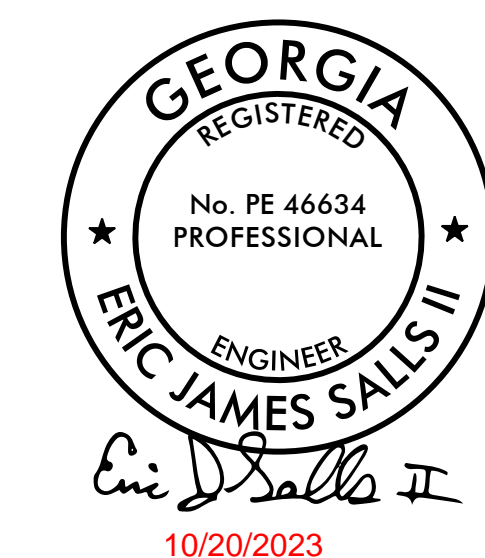


ECS Southeast, LLP
 1550 North Brown Road
 Suite 140
 Lawrenceville GA 30043
 p. 678-546-8034
 www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
 225 GREEN STREET

GAINESVILLE, GA 30503

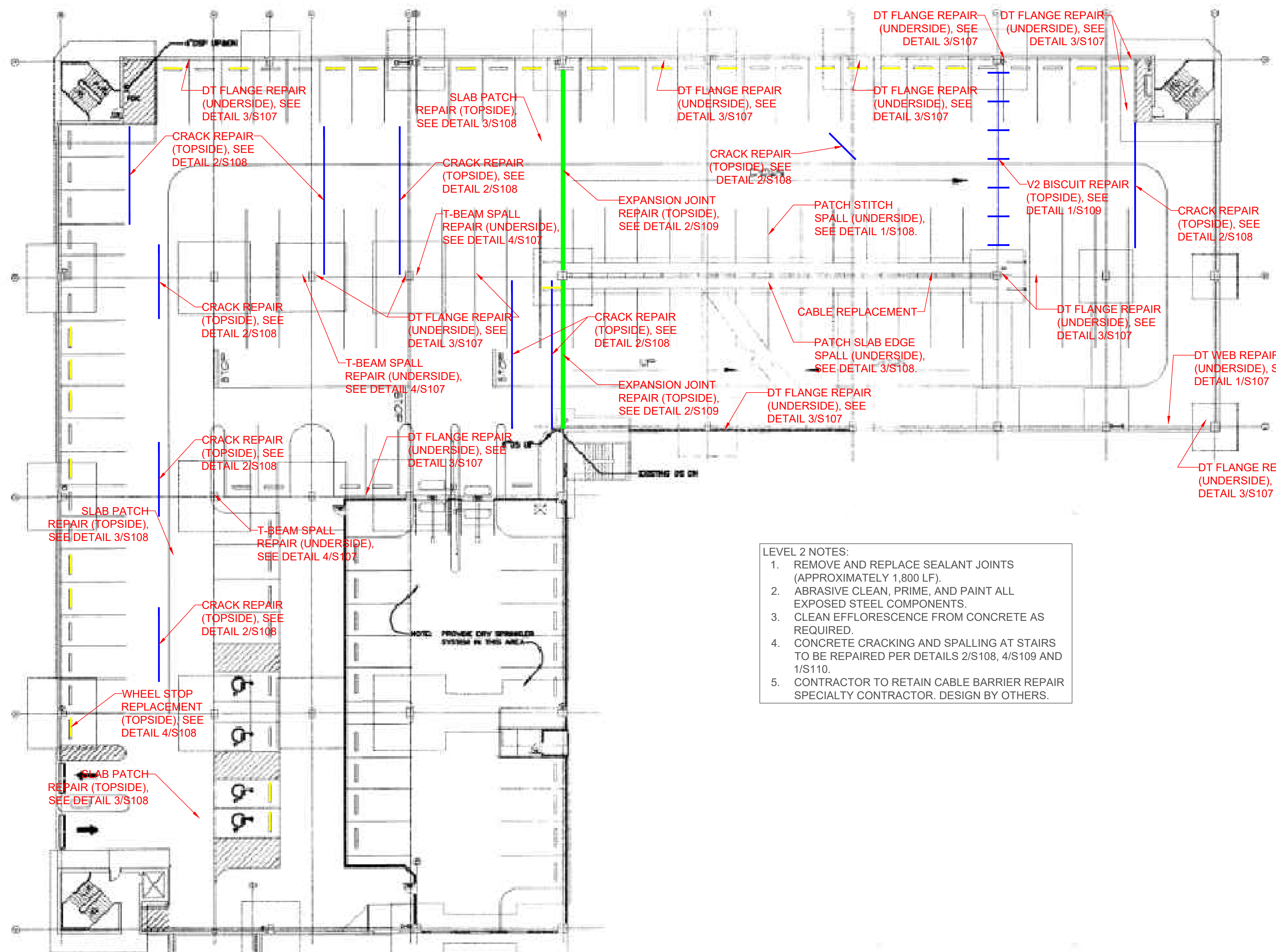
SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS
 CHECKED BY: LRG

ECS PROJECT NO.
 48:3231-A

SHEET NAME

S103



- LEVEL 2 NOTES:
1. REMOVE AND REPLACE SEALANT JOINTS (APPROXIMATELY 1,800 LF).
 2. ABRASIVE CLEAN, PRIME, AND PAINT ALL EXPOSED STEEL COMPONENTS.
 3. CLEAN EFFLORESCENCE FROM CONCRETE AS REQUIRED.
 4. CONCRETE CRACKING AND SPALLING AT STAIRS TO BE REPAIRED PER DETAILS 2/S108, 4/S109 AND 1/S110.
 5. CONTRACTOR TO RETAIN CABLE BARRIER REPAIR SPECIALTY CONTRACTOR. DESIGN BY OTHERS.

LEGEND	
	REPLACEMENT WHEEL STOP (27 TOTAL), SEE DETAIL 4/S108
	ROUTE AND SEAL CRACK REPAIR (APPROX. 410 LF), SEE DETAIL 2/S108
	EXPANSION JOINT REPAIR (APPROX. 120 LF), SEE DETAIL 2/S110

1 LEVEL 2 - PLAN VIEW
 Scale: NTS

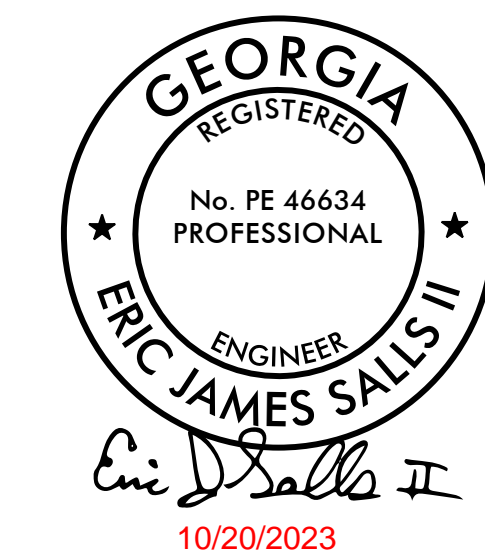


ECS Southeast, LLP
 1550 North Brown Road
 Suite 140
 Lawrenceville GA 30043
 p. 678-546-8034
 www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
 225 GREEN STREET

GAINESVILLE, GA 30503

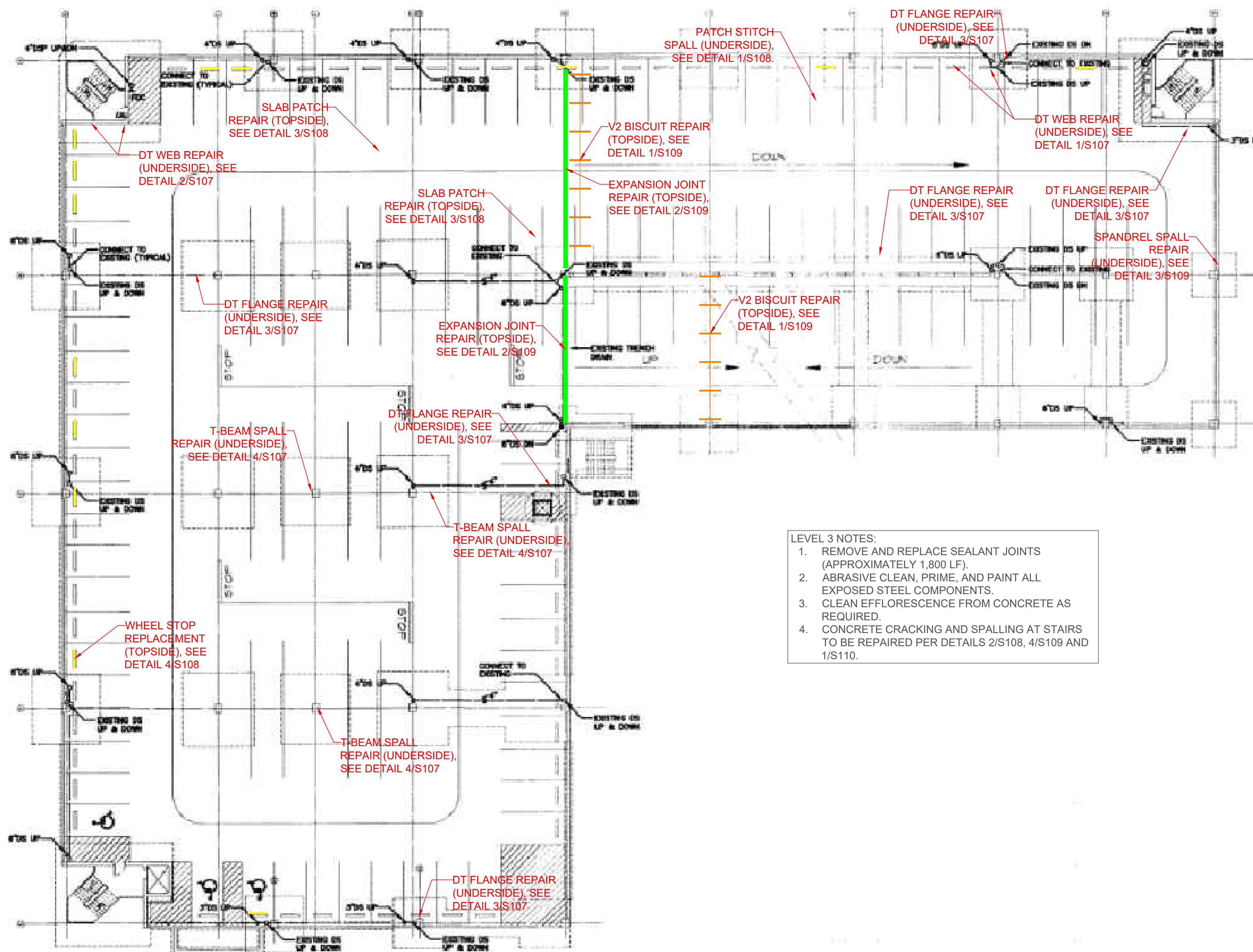
SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS
 CHECKED BY: LRG

ECS PROJECT NO.
 48:3231-A

SHEET NAME

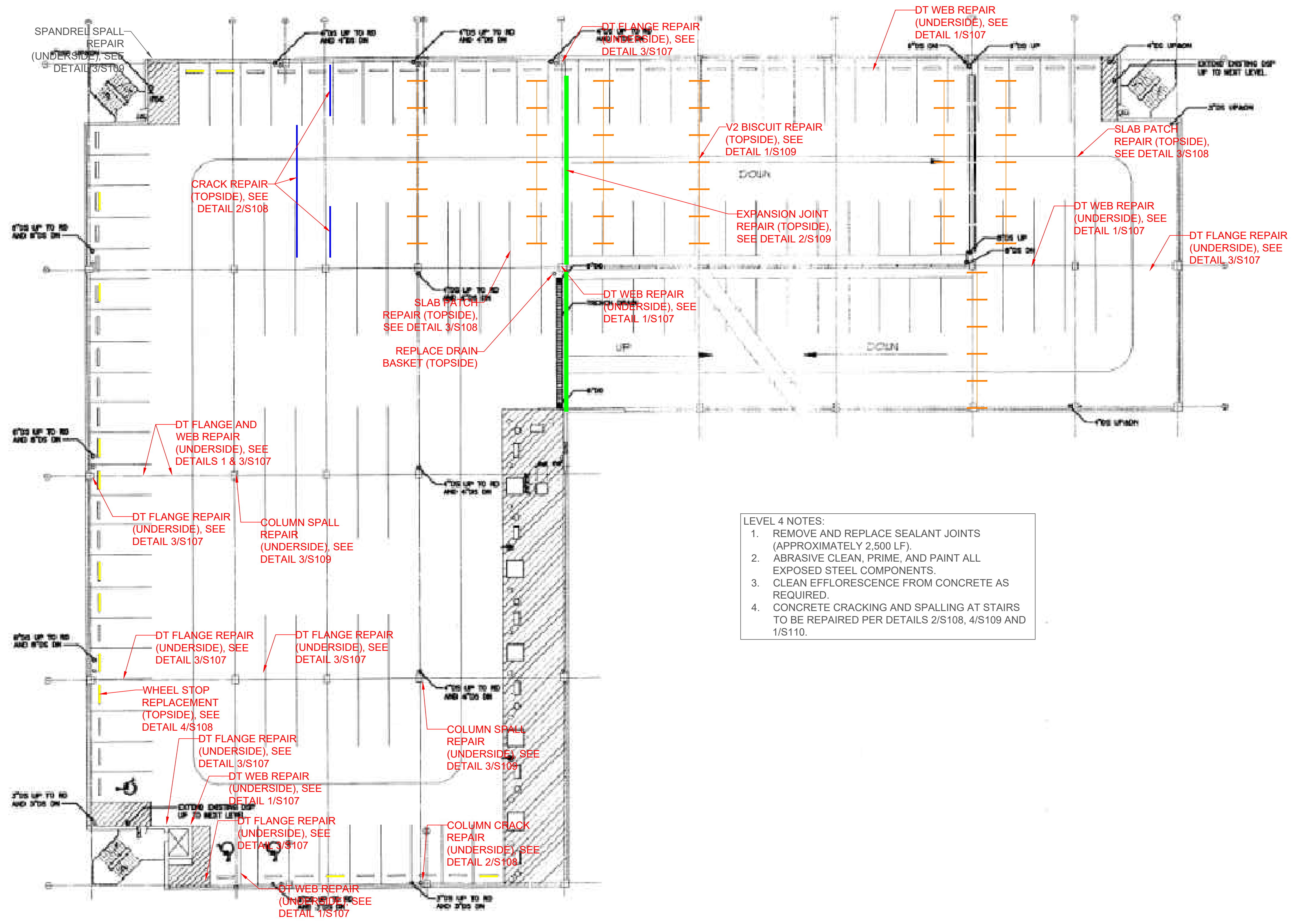
S104



- LEVEL 3 NOTES:
1. REMOVE AND REPLACE SEALANT JOINTS (APPROXIMATELY 1,800 LF).
 2. ABRASIVE CLEAN, PRIME, AND PAINT ALL EXPOSED STEEL COMPONENTS.
 3. CLEAN EFFLORESCENCE FROM CONCRETE AS REQUIRED.
 4. CONCRETE CRACKING AND SPALLING AT STAIRS TO BE REPAIRED PER DETAILS 2/S108, 4/S109 AND 1/S110.

1 LEVEL 3 - PLAN VIEW
 Scale: NTS

LEGEND	
	REPLACEMENT WHEEL STOP (13 TOTAL), SEE DETAIL 4/S108
	V2 COMPOSITE BISCUIT REPAIR (APPROX. 120 LF), SEE DETAIL 1/S110
	EXPANSION JOINT REPAIR (APPROX. 120 LF), SEE DETAIL 2/S110



- LEVEL 4 NOTES:
1. REMOVE AND REPLACE SEALANT JOINTS (APPROXIMATELY 2,500 LF).
 2. ABRASIVE CLEAN, PRIME, AND PAINT ALL EXPOSED STEEL COMPONENTS.
 3. CLEAN EFFLORESCENCE FROM CONCRETE AS REQUIRED.
 4. CONCRETE CRACKING AND SPALLING AT STAIRS TO BE REPAIRED PER DETAILS 2/S108, 4/S109 AND 1/S110.

1 LEVEL 4 - PLAN VIEW
Scale: NTS

LEGEND	
	REPLACEMENT WHEEL STOP (12 TOTAL), SEE DETAIL 4/S108
	ROUTE AND SEAL CRACK REPAIR (APPROX. 100 LF), SEE DETAIL 2/S108
	V2 COMPOSITE BISCUIT REPAIR (APPROX. 420 LF), SEE DETAIL 1/S110
	EXPANSION JOINT REPAIR (APPROX. 120 LF), SEE DETAIL 2/S110



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE
REPAIR DESIGN
225 GREEN STREET
GAINESVILLE, GA 30503

SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-
-	-

DRAWN BY EJS CHECKED BY LRG

ECS PROJECT NO. 48:3231-A

SHEET NAME

S105



ECS Southeast, LLP
 1550 North Brown Road
 Suite 140
 Lawrenceville GA 30043
 p. 678-546-8034
 www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
 225 GREEN STREET

GAINESVILLE, GA 30503

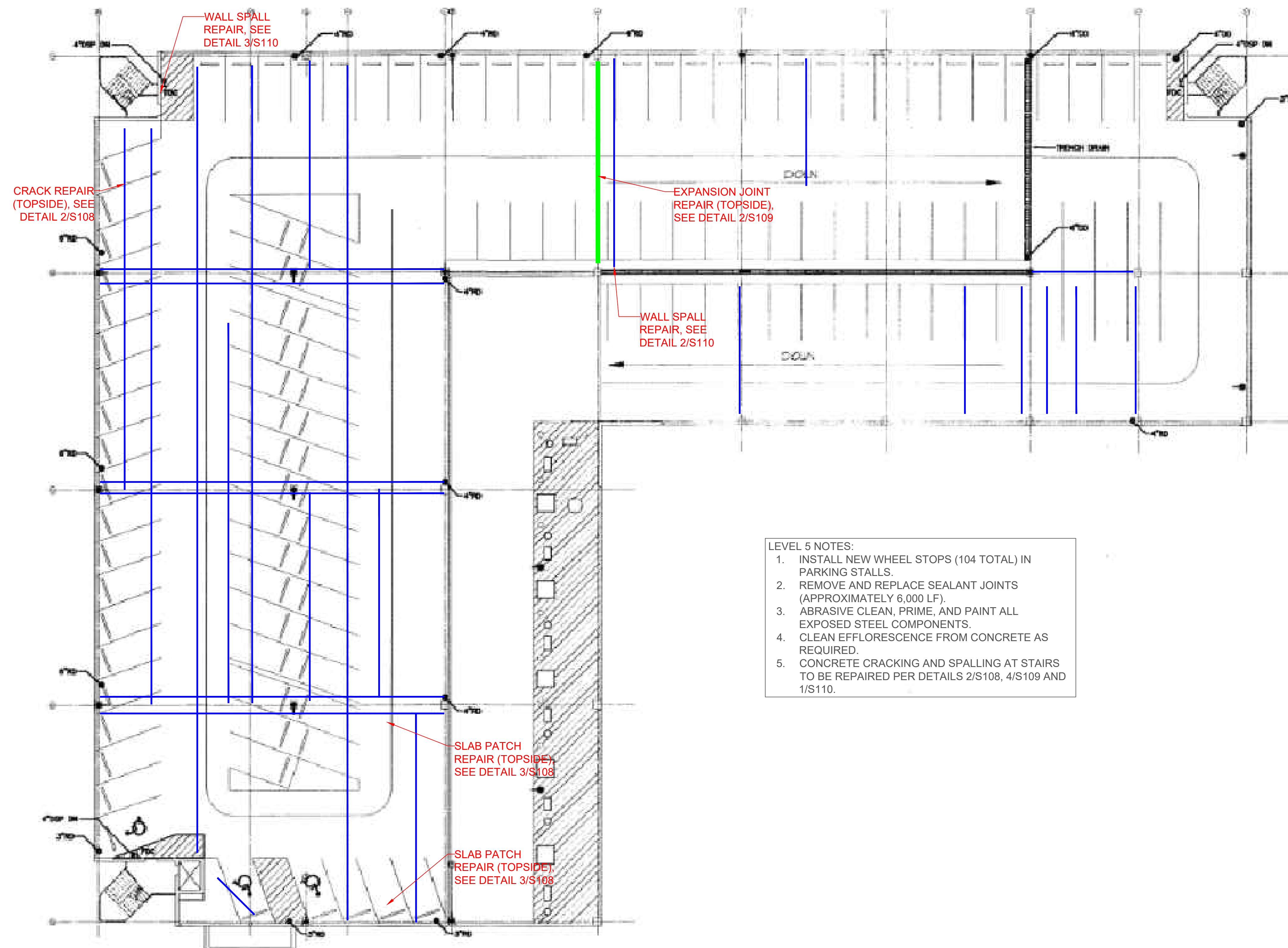
SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS
 CHECKED BY: LRG

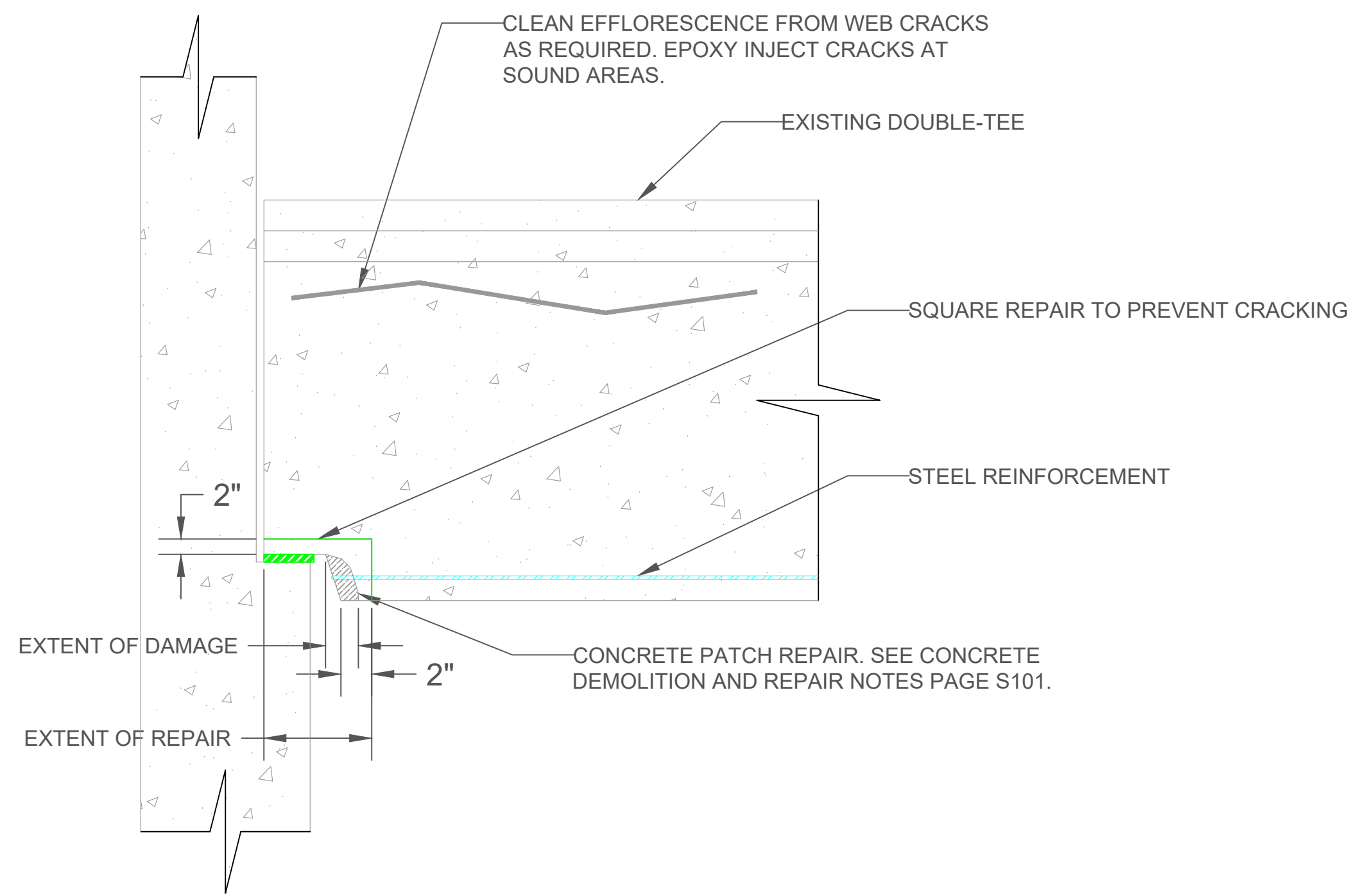
ECS PROJECT NO.
 48:3231-A

SHEET NAME

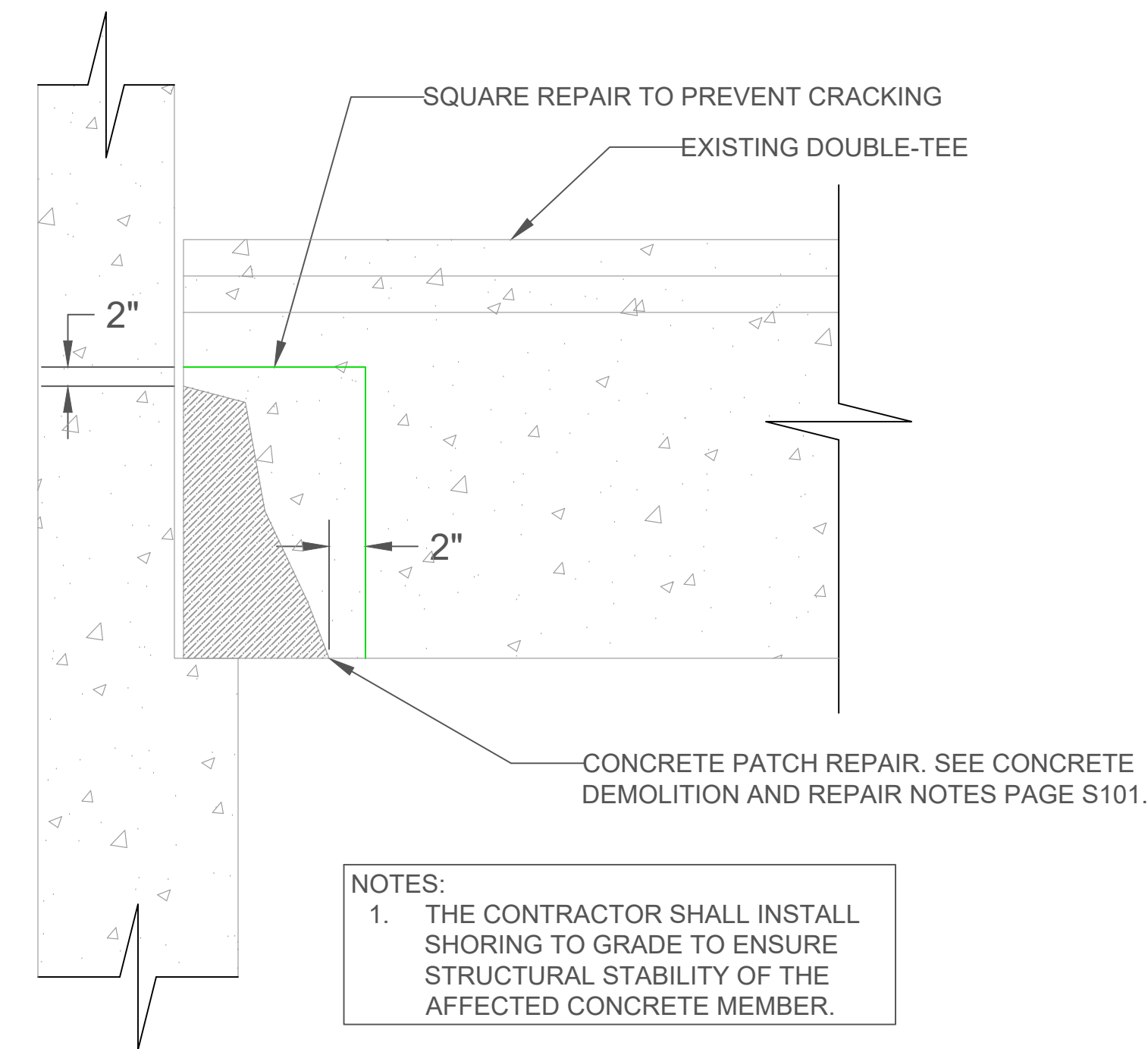
S106



1 LEVEL 5 - PLAN VIEW
 Scale: NTS

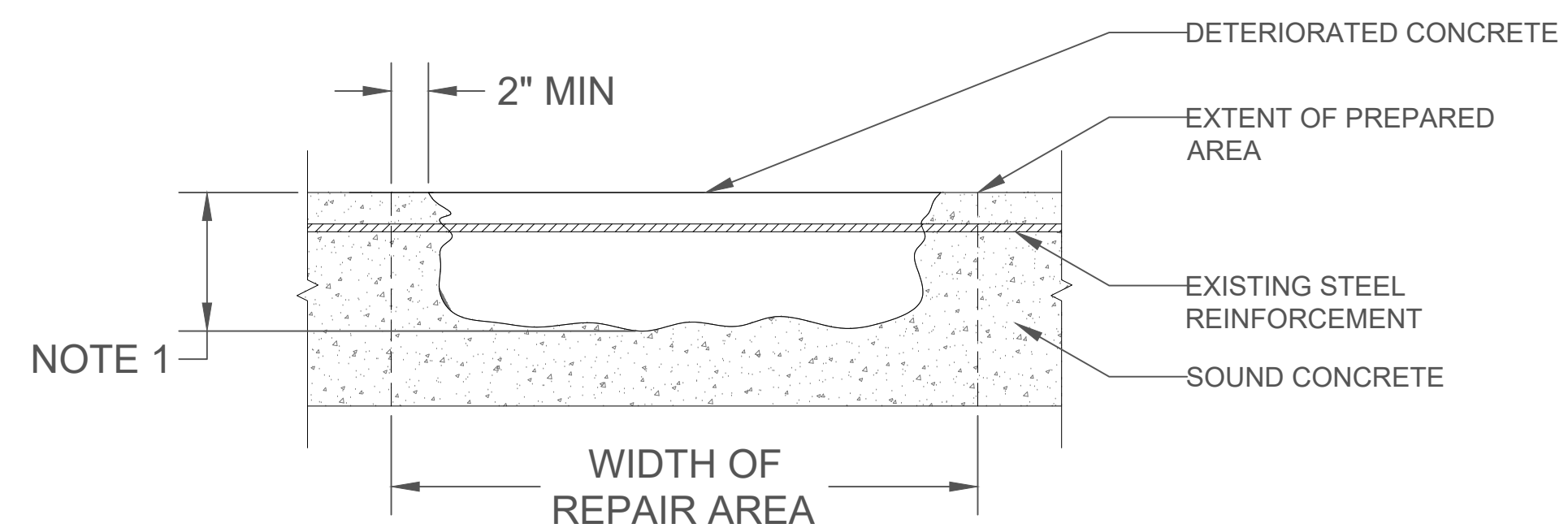


1 DOUBLE-TEE WEB REPAIR 1
Scale: NTS



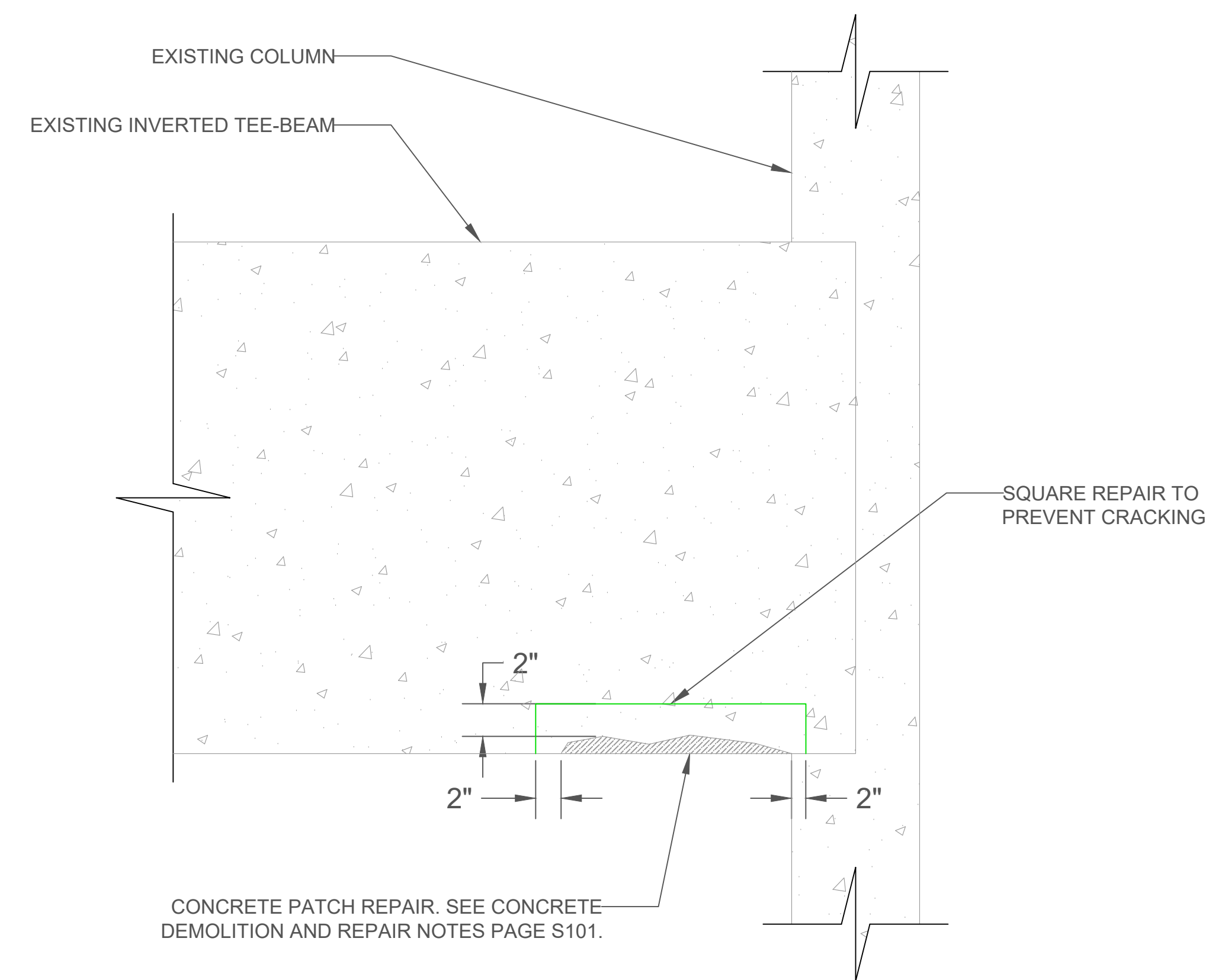
NOTES:
1. THE CONTRACTOR SHALL INSTALL SHORING TO GRADE TO ENSURE STRUCTURAL STABILITY OF THE AFFECTED CONCRETE MEMBER.

2 DOUBLE-TEE WEB REPAIR 2
Scale: NTS



FULL DEPTH CONCRETE PATCH NOTES:
1. IF THE DEPTH OF DETERIORATION IS MORE THAN $\frac{2}{3}$ THE THICKNESS OF THE CONCRETE FEATURE, FULL DEPTH REMOVAL IS REQUIRED.
2. SHORE CONCRETE FEATURE AS REQUIRED.
3. ROUT AND SEAL PERIMETER AREA AFTER CONCRETE HAS CURED A MINIMUM OF 7 DAYS.
4. NOTIFY ECS PRIOR TO FULL DEPTH REPAIR ON STAIRS.

3 FULL DEPTH CONCRETE PATCH
Scale: NTS



4 INVERTED TEE-BEAM SPALL REPAIR
Scale: NTS

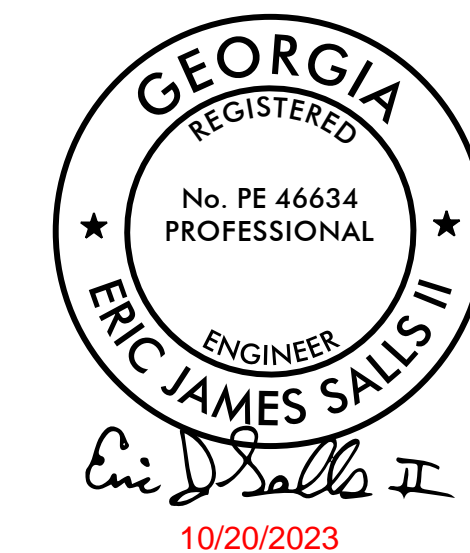


ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
225 GREEN STREET

GAINESVILLE, GA 30503

SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS
CHECKED BY: LRG

ECS PROJECT NO.
48:3231-A

SHEET NAME

S107



ECS Southeast, LLP
 1550 North Brown Road
 Suite 140
 Lawrenceville GA 30043
 p. 678-546-8034
 www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
 225 GREEN STREET

GAINESVILLE, GA 30503

SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-

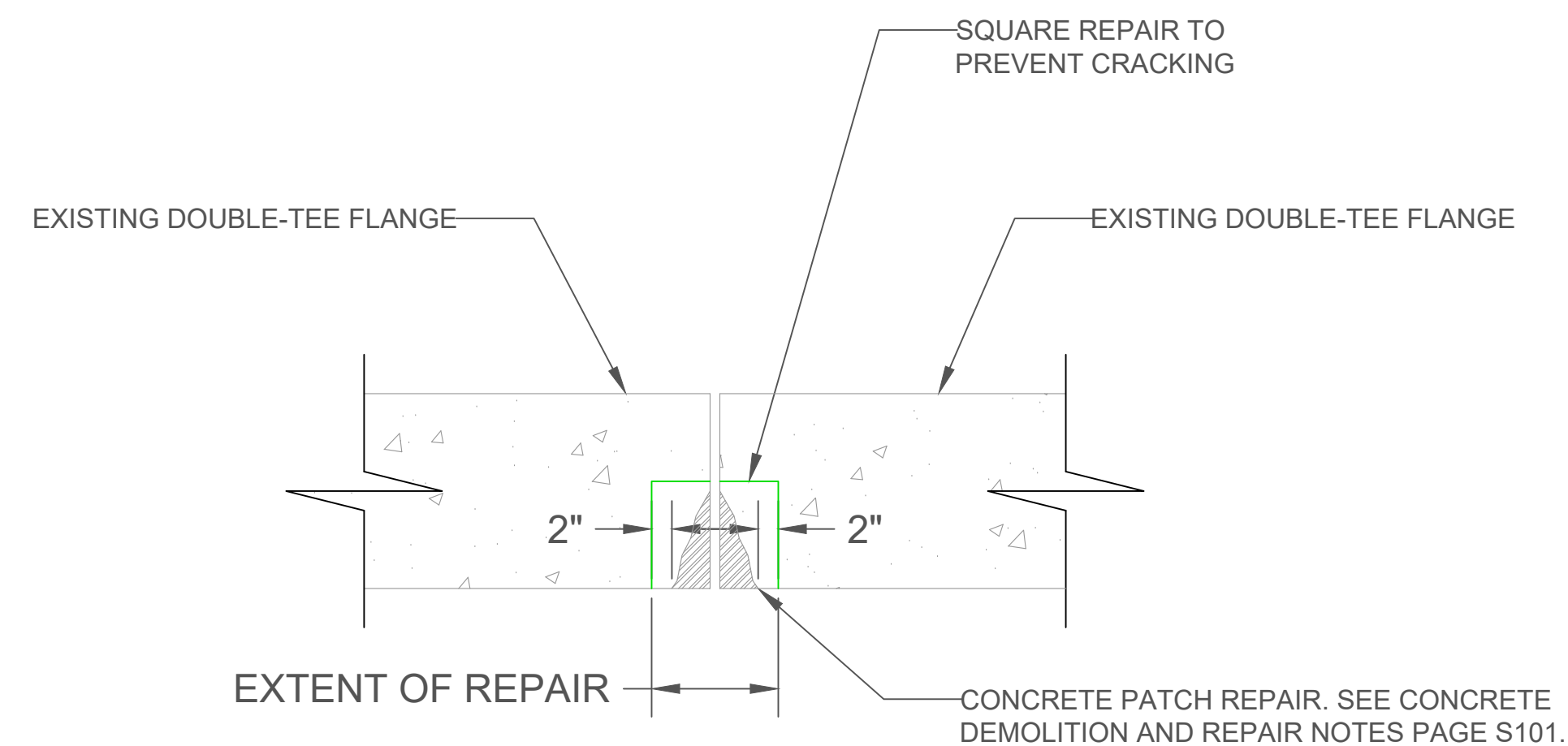
DRAWN BY
EJS

CHECKED BY
LRG

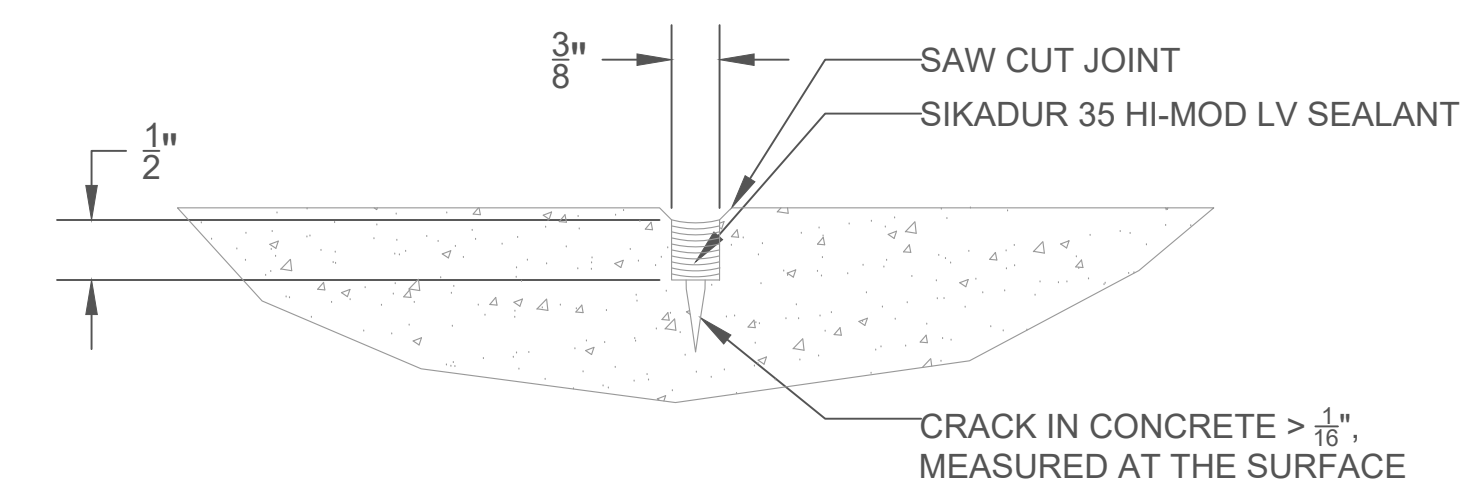
ECS PROJECT NO.
48:3231-A

SHEET NAME

S108

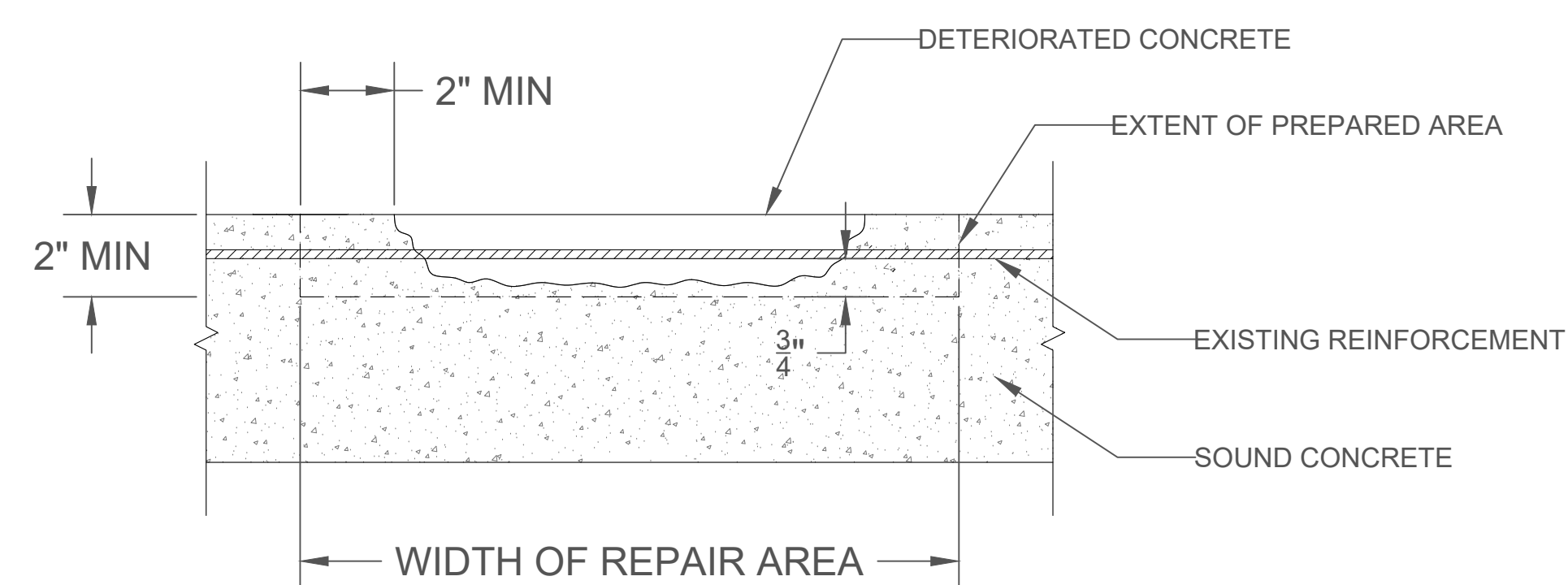


1 STITCH SPALL REPAIR
 Scale: NTS



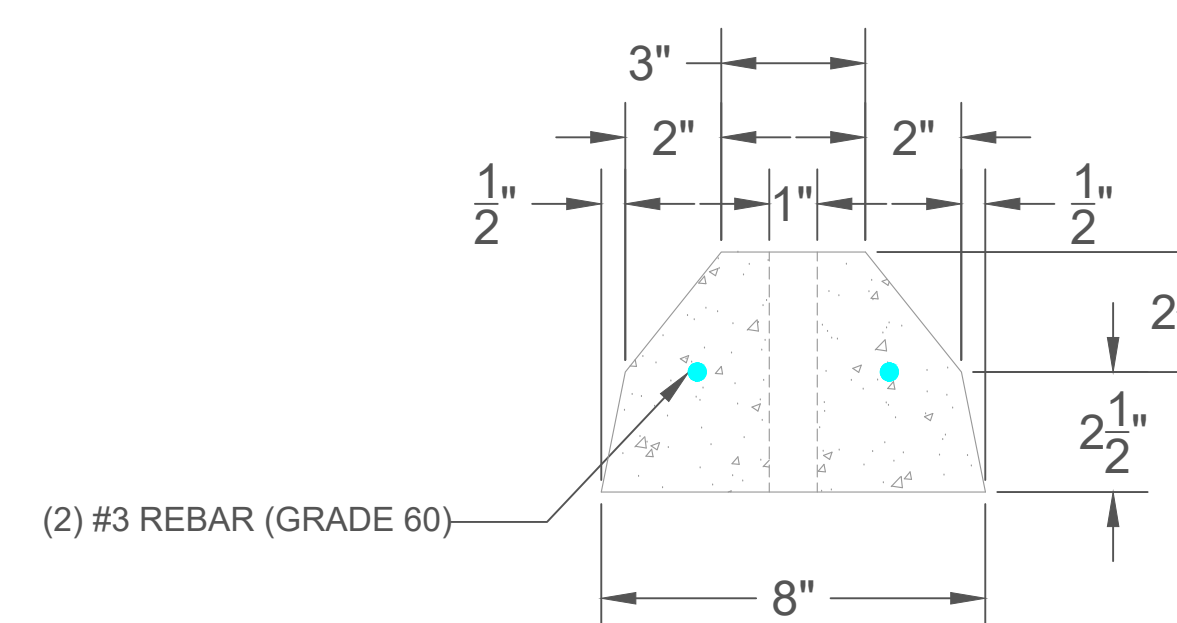
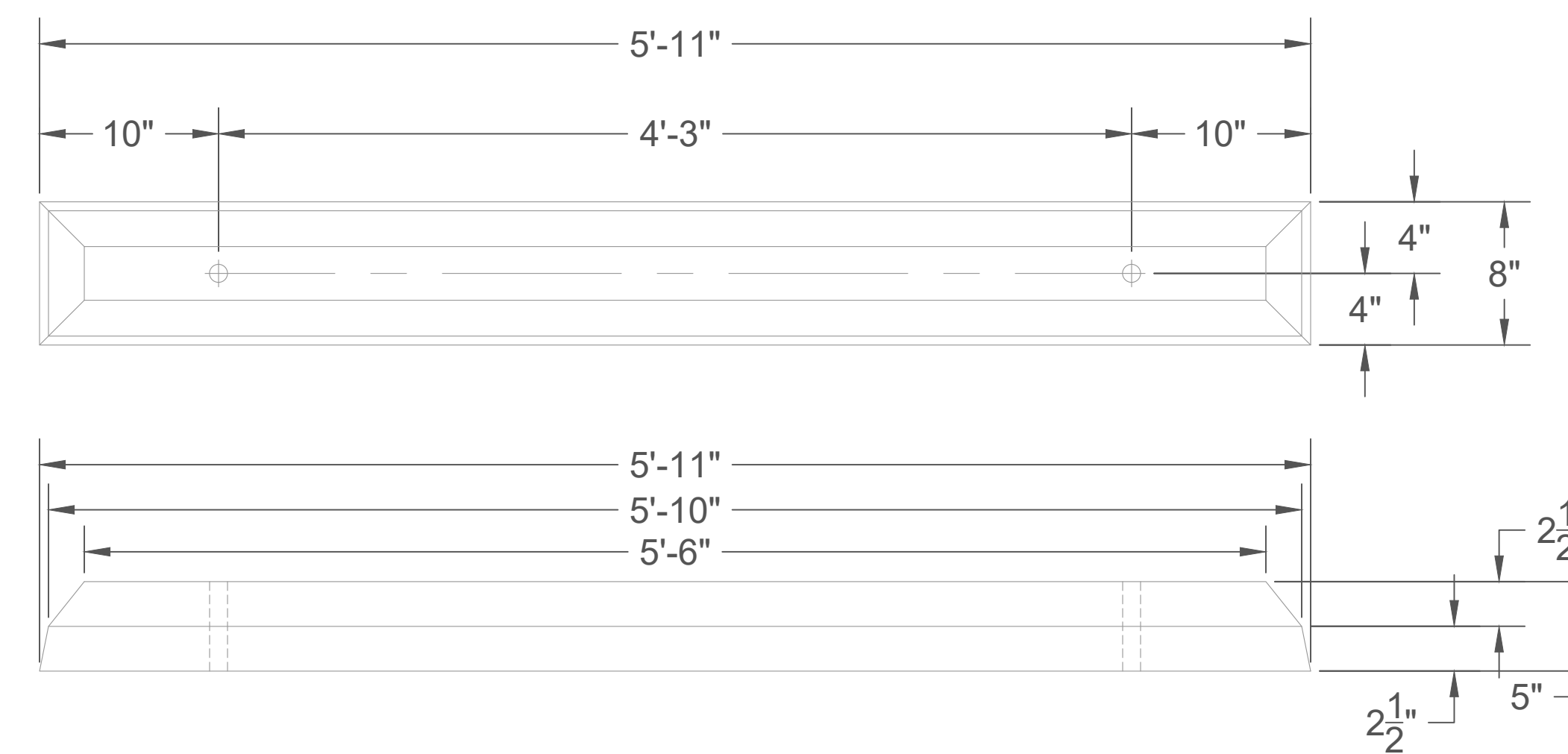
CRACK REPAIR NOTES:
 1. ROUTE AND SEAL CRACKS WITH SIKADUR 35 HI-MOD LV SEALANT.
 2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

2 CRACK REPAIR
 Scale: NTS



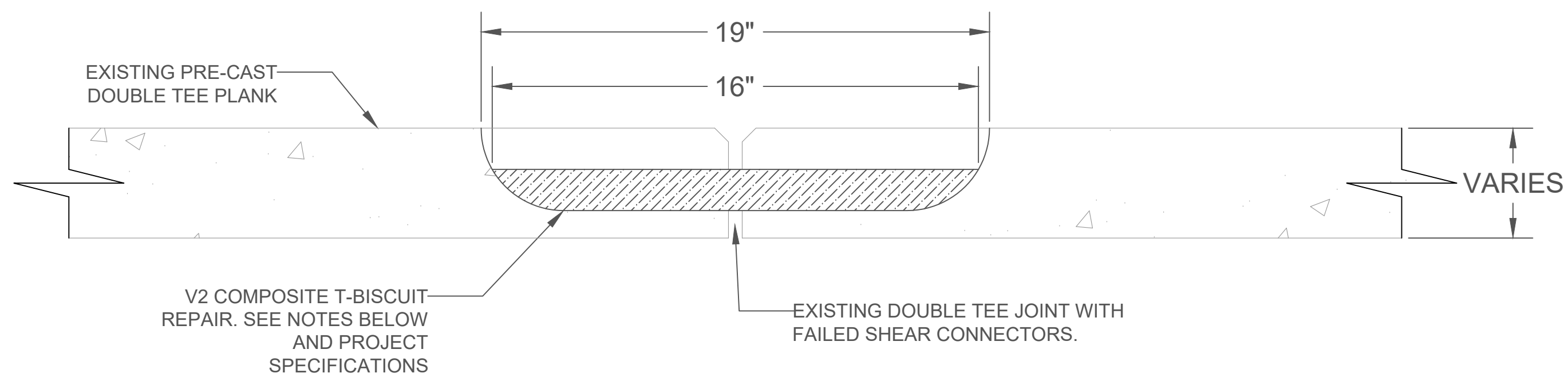
PARTIAL DEPTH PATCH REPAIR NOTES:
 1. PARTIAL DEPTH REPAIR SHOWN MAY BE APPLIED TO SLABS, STAIRS, SPANDRELS, OR OTHER SPALLS THAT HAVE FEW EXPOSED REBAR THAT ARE NOT SIGNIFICANTLY CORRODED.
 2. REPAIR MAY BE USED ON HORIZONTAL SURFACES.
 3. SOME REPAIR LOCATIONS MAY NOT HAVE VISIBLE REBAR.
 4. ROUT AND SEAL PERIMETER OR REPAIRED AREA AFTER CONCRETE HAS CURED A MINIMUM OF 7 DAYS.

3 PARTIAL DEPTH PATCH REPAIR
 Scale: NTS



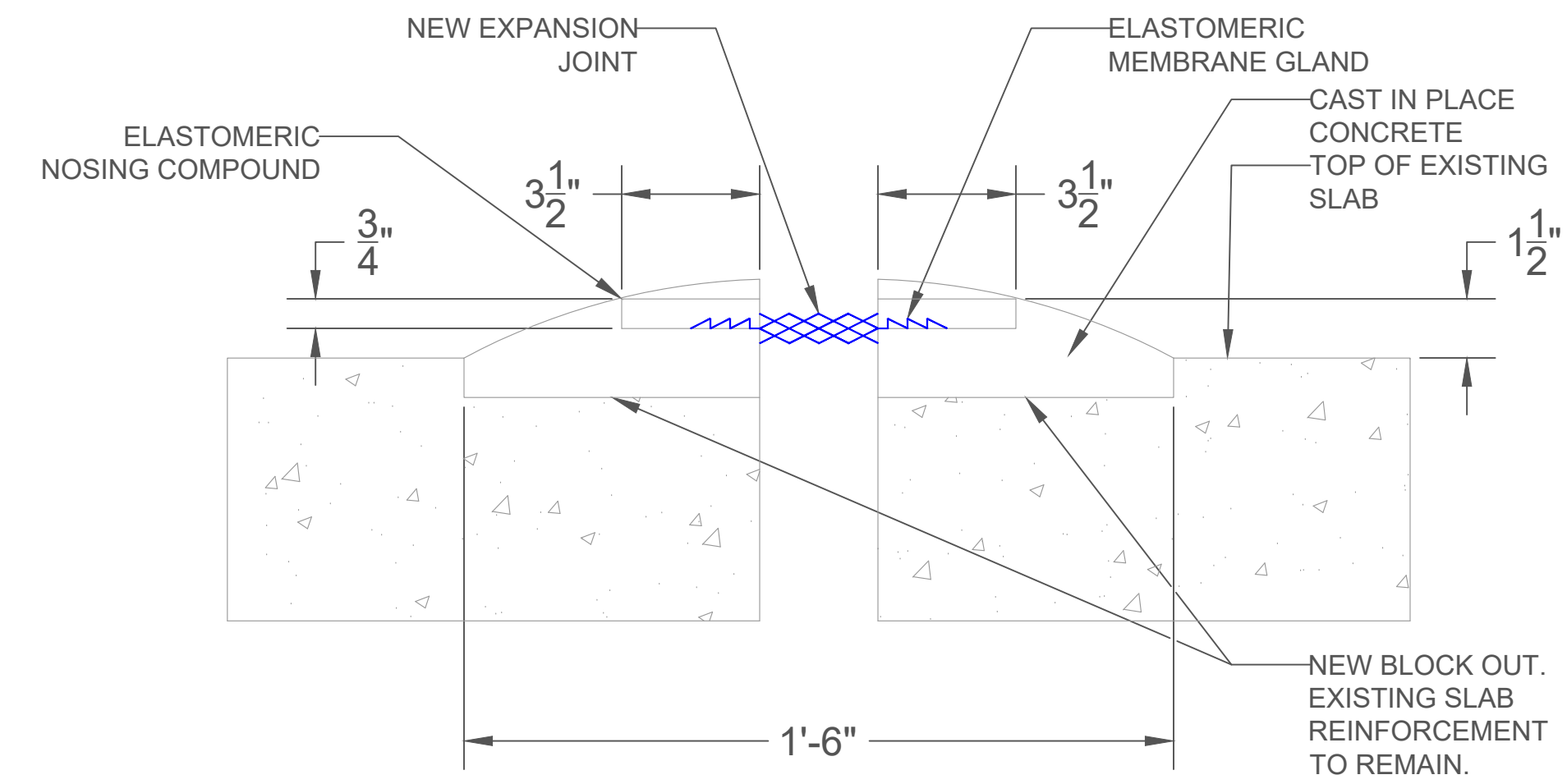
WHEEL STOP NOTES:
 1. CONCRETE: 5,500 PSI AIR ENTRAINED
 2. REMOVE DAMAGED WHEEL STOP AND CLEAN SURFACE BEFORE INSTALLATION ON NEW WHEEL STOP.
 3. INSTALL WHEEL STOP PER MANUFACTURER'S INSTRUCTIONS.

4 WHEEL STOP DETAIL
 Scale: NTS



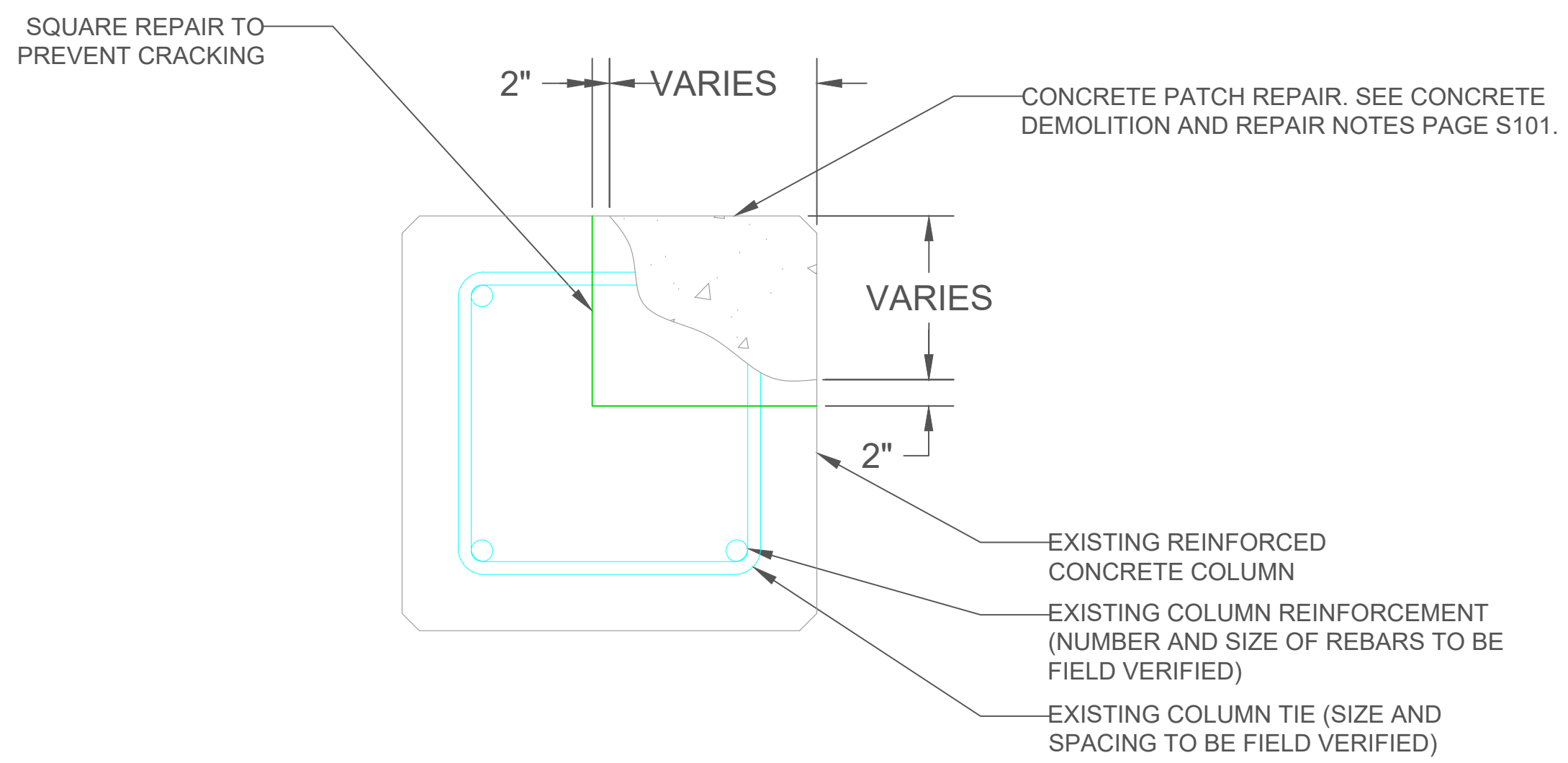
- V2 COMPOSITE T-BISCUIT REPAIR NOTES:**
1. IF JOINT IS OVER 1" WIDE CONTACT ENGINEER BEFORE PROCEEDING.
 2. INSTALL 19" LONG X 3-1/2" DEEP SAW CUT WITH MAXIMUM OF 1/2" FROM BOTTOM OF FLANGE MADE WITH 1/2" WIDE X 14" DIAMETER BLADE.
 3. IF SAW CUTS WERE MADE WITH DRY BLADE, BLOW OUT SAW CUT WITH CLEAN COMPRESSED AIR. IF WET CUTTING WAS USED, POWER WASH OUT CUTS AND ALLOW TO DRY FOR 24 HOURS AND THEN BLOW OUT WITH CLEAN COMPRESSED AIR.
 4. COMPLETELY FILL SAW CUT WITH BISCUIT BOND EPOXY PASTE BY V2 COMPOSITES.
 5. APPLY BISCUIT BOND EPOXY PASTE TO BOTH SIDES OF BISCUIT AND INSERT INTO CUT SLOT.
 6. FOLLOWING BISCUIT INSTALLATION, REPLACE SEALANT 6" MINIMUM BOTH SIDES OF SAW CUT.

1 V2 COMPOSITE BISCUIT REPAIR
Scale: NTS

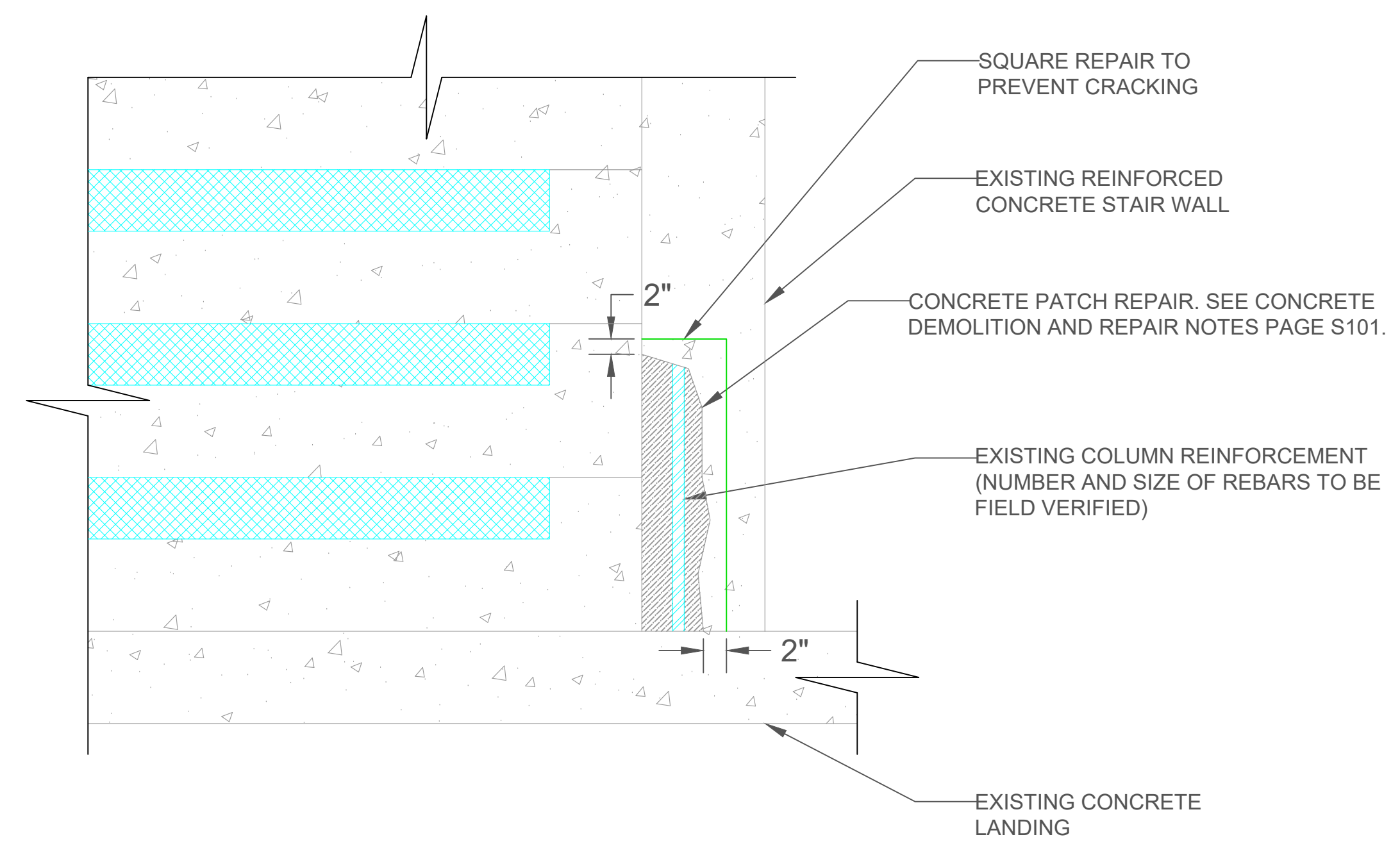


- EXPANSION JOINT NOTES:**
1. WINGED GLAND EXPANSION JOINT.
 2. THE NEW EXPANSION JOINT TO BE WABOCRETE MEMBRANE 201 SYSTEM MODEL NO. ME-400 AS MANUFACTURED BY WATSON BOWMAN.
 3. NEW BLOCK-OUT SHALL BE SIZED TO ACCOMMODATE ME-400 EXPANSION JOINT INSTALLATION. MODIFY BLOCK-OUT AS NEEDED TO ACCEPT SPECIFIED EXPANSION JOINT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2 ME-400 EXPANSION JOINT INSTALLATION
Scale: NTS



3 COLUMN SPALL REPAIR
Scale: NTS



4 STAIR CONCRETE SPALL REPAIR
Scale: NTS



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



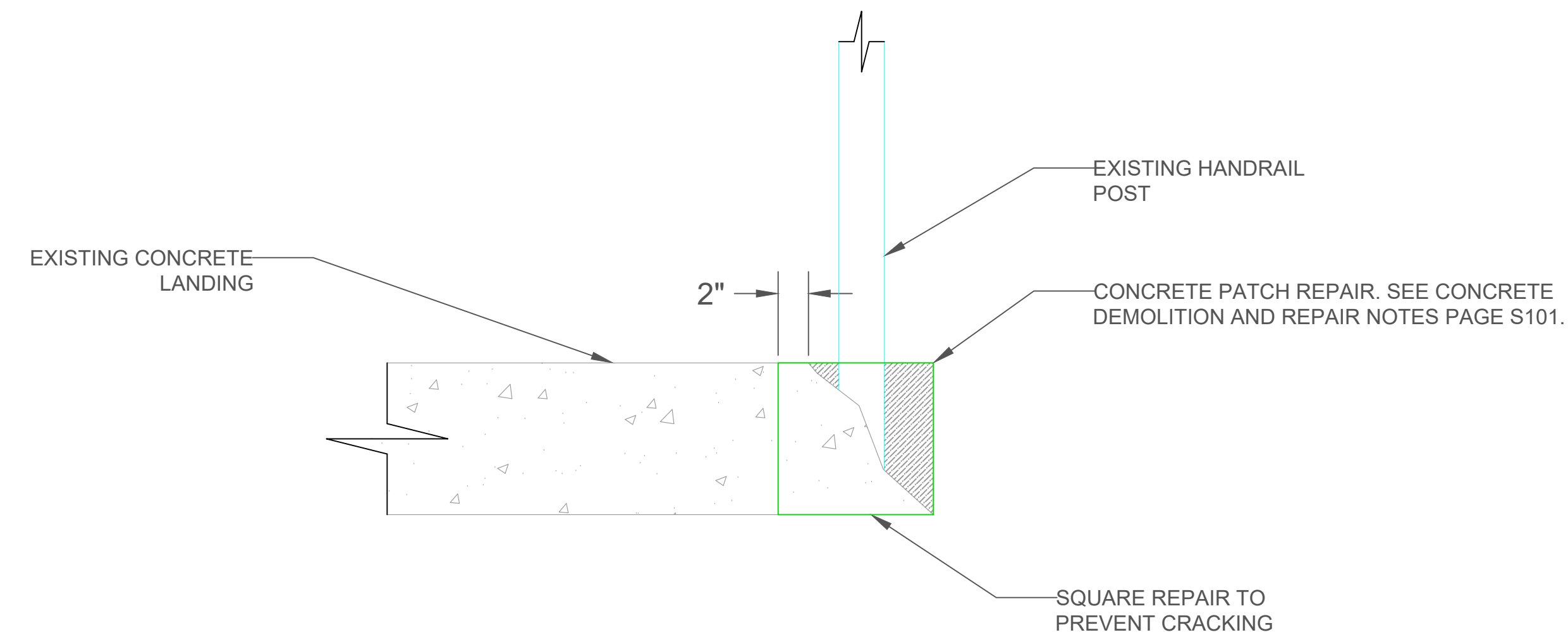
PROJECT INFORMATION

GREEN STREET PARKING GARAGE
REPAIR DESIGN
225 GREEN STREET
GAINESVILLE, GA 30503

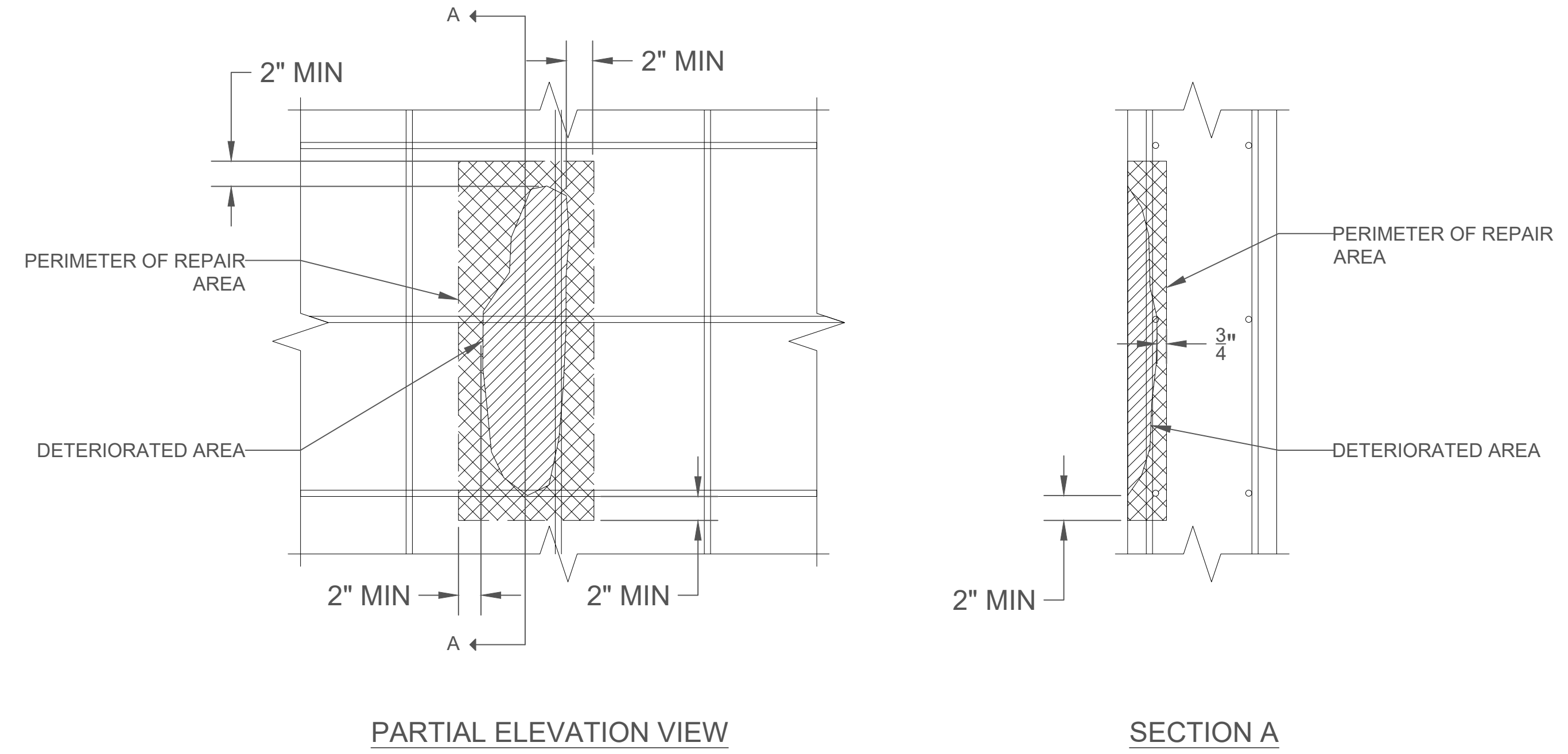
SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-
-	-
-	-
DRAWN BY EJS	CHECKED BY LRG
ECS PROJECT NO. 48:3231-A	

SHEET NAME

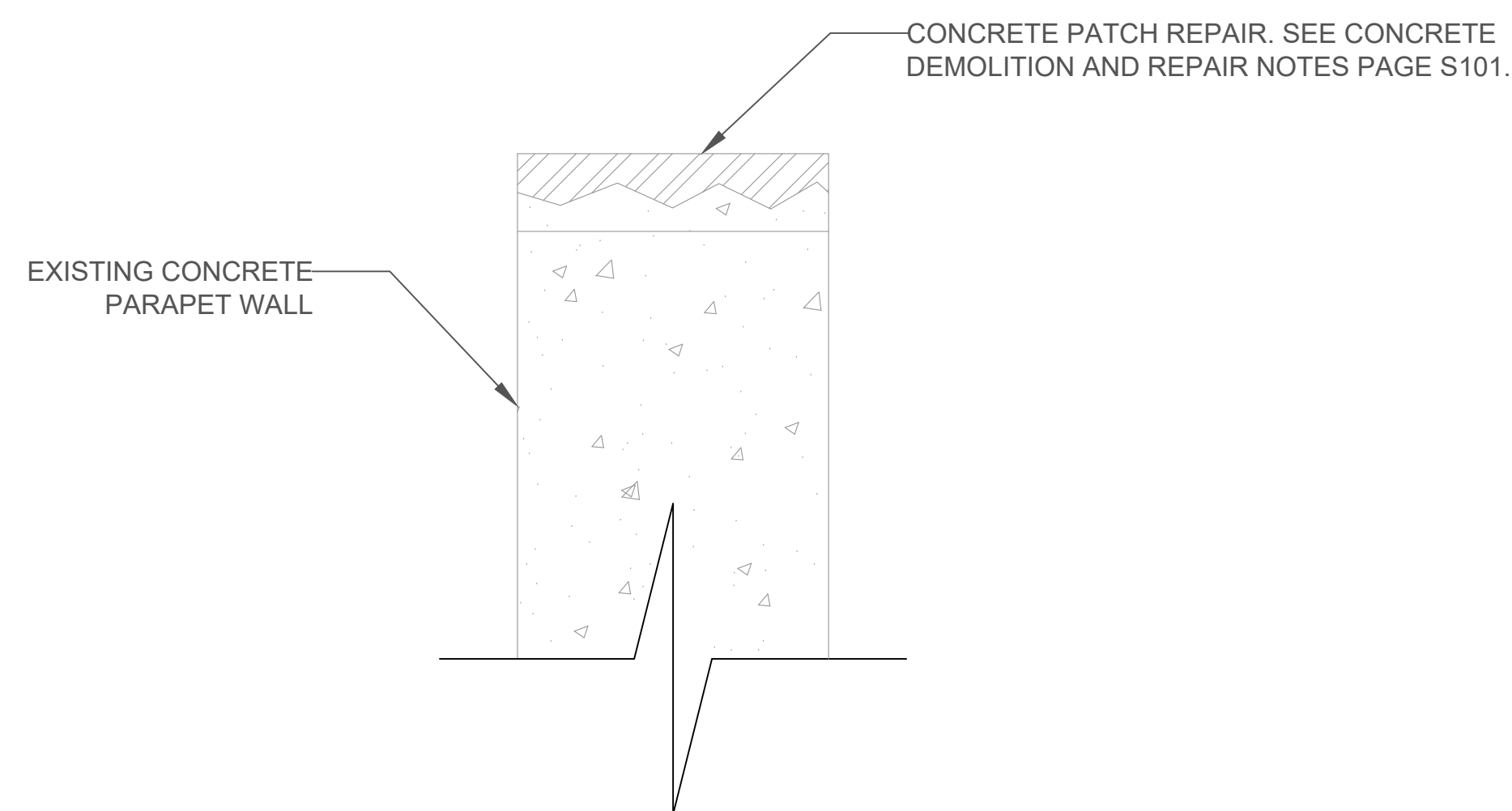
S109



1 STAIR CONCRETE SPALL REPAIR
Scale: NTS



2 VERTICAL CONCRETE REPAIR
Scale: NTS



3 WALL CONCRETE SPALL REPAIR
Scale: NTS



ECS Southeast, LLP
1550 North Brown Road
Suite 140
Lawrenceville GA 30043
p. 678-546-8034
www.ECSlimited.com

CLIENT



SEAL



PROJECT INFORMATION

GREEN STREET PARKING GARAGE

REPAIR DESIGN
225 GREEN STREET

GAINESVILLE, GA 30503

SUBMISSION	DATE
CONSTRUCTION	10/20/2023
-	-
-	-
-	-
-	-
-	-

DRAWN BY: EJS
CHECKED BY: LRG

ECS PROJECT NO.
48:3231-A

SHEET NAME

S110