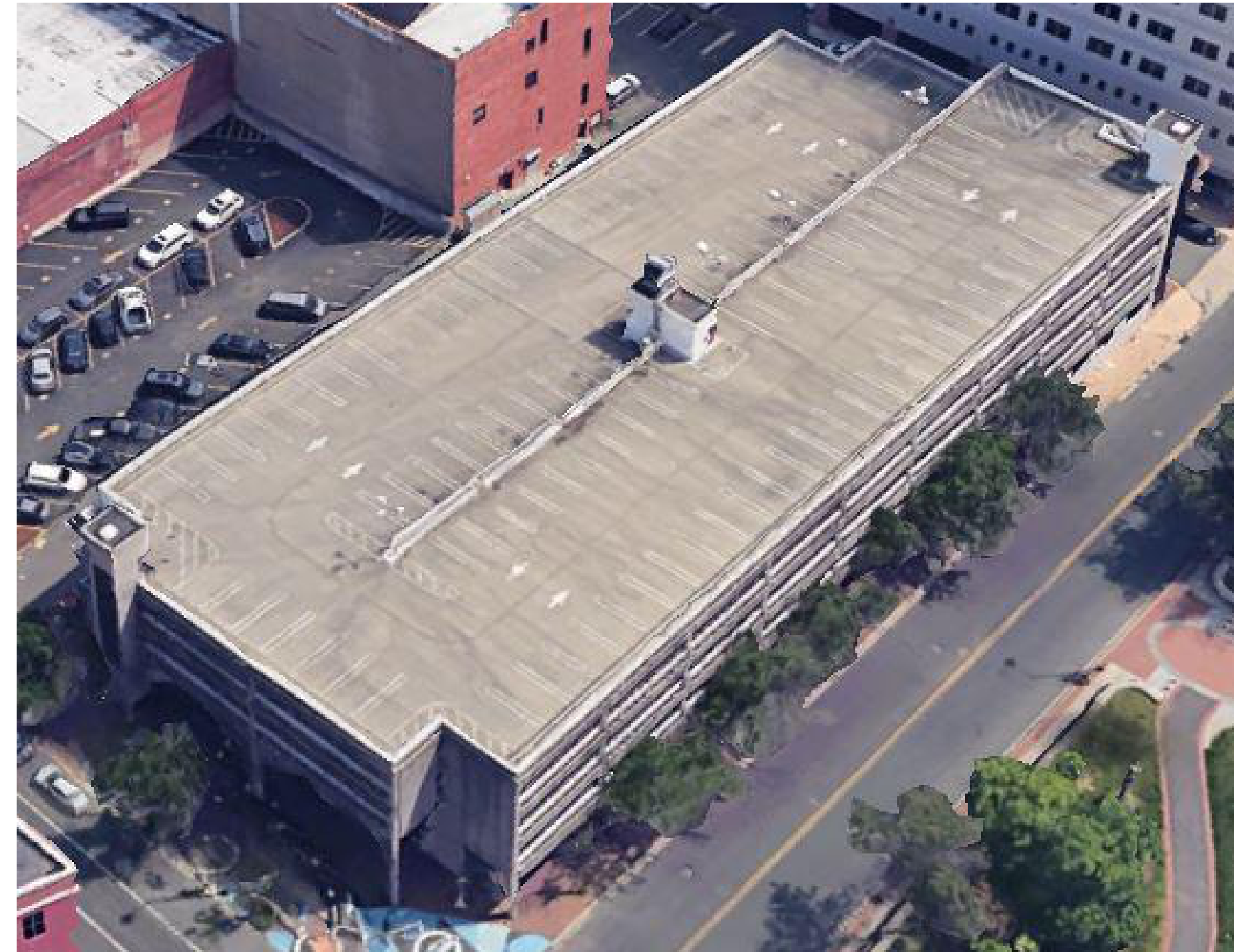


120 EAST FRONT ST PARKING GARAGE STABILIZATION



Owner :

Louis Garlatti
Trenton Parking Authority
16 East Hanover St, Trenton, NJ 08608
lgarlatti@garlatticonstruction.com

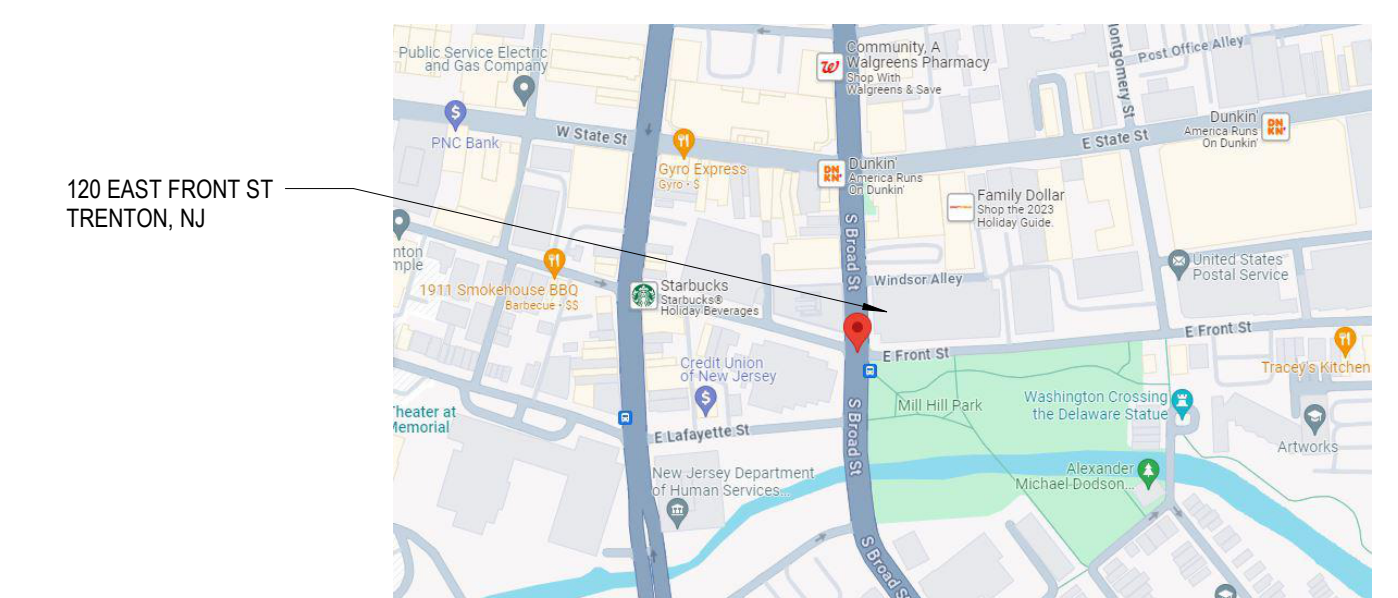
STRUCTURAL CONSULTANT

THA Consulting, Inc.
470 Norristown Road
Suite 200
Blue Bell, PA 19422
T: (484) 744-7227
Contact: Sun-Hee Hwang, PE

DRAWING LIST

SHEET NO.	SHEET NAME	12/26/2023 ISSUED FOR BID SET
R0.0	COVER SHEET	•
R0.1	RESTORATION GENERAL NOTES	•
R1.1	FIRST & SECOND LEVEL RESTORATION PLAN	•
R1.2	THIRD & FOURTH LEVEL RESTORATION PLAN	•
R2.1	REPAIR DETAILS	•
R2.2	REPAIR DETAILS	•

Street Map



BID SET
DECEMBER 26,
2023

120 EAST FRONT ST

PARKING GARAGE STABILIZATION

DECEMBER 26, 2023
BID SET

NO.	DESCRIPTION	DATE

<p>NORTH SHEET TITLE:</p>	DRAWN: NJG
	REVIEWED: SHH
	DATE: 12/8/23

RESTORATION GENERAL NOTES

R0.1

GENERAL NOTES

A. GENERAL CONDITIONS

- IT IS THE INTENT OF THE PLANS TO ADEQUATELY DESCRIBE AND INDICATE AREAS THAT REQUIRE RESTORATION/RE-STABILIZATION WORK. IN THE EVENT IT BECOMES NECESSARY TO ALTER THE PLANS FOR THE BEST INTEREST OF THE PROJECT DUE TO CIRCUMSTANCES NOT KNOWN AT THE TIME OF SURVEY, WORK QUANTITIES MAY BE ADJUSTED IN ACCORDANCE WITH THE ENGINEER AND OWNER'S APPROVAL.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND SHALL REPORT IN WRITING TO THE ENGINEER ALL DISCREPANCIES WITH RESPECT TO DRAWINGS & SPECIFICATIONS.
- CONDUCT A PRECONSTRUCTION MEETING PRIOR TO COMMENCING WORK AND HOLD REGULAR COORDINATION MEETINGS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONDITION WHICH MAY ENDANGER THE STABILITY AND STRUCTURAL INTEGRITY OF, OR CAUSE DISTRESS TO THE DURABILITY OF THE STRUCTURE.
- CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THE DRAWINGS. IN CASE OF CONFLICT BETWEEN DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
- ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS, AND STANDARDS OF ALL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.

B. MEASUREMENT AND RECORD DRAWINGS

- DO NOT SCALE DRAWINGS. VERIFY ALL DRAWING DIMENSIONS IN THE FIELD.
- ELECTRONIC COPIES OF THE DRAWINGS SHOWING THE ACTUAL SHAPE, LOCATION, AND SIZE OF THE REPAIRS AND A REPAIR TABULATION SPREADSHEET SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER AT THE END OF EACH PHASE OF THE PROJECT.
- AT THE PROJECT CONCLUSION, SUBMIT ONE SET OF REPRODUCIBLE RECORD DRAWINGS IN A NEAT AND ORDERLY FASHION TO THE OWNER & ENGINEER SHOWING ALL STABILIZATION WORK PERFORMED. PROVIDE ONE HARD COPY AND AN ELECTRONIC COPY IN CAD OR PDF FORMAT.

C. ADHESIVE ANCHORS / DOWEL AND MECHANICAL ANCHORS INSTALLED IN CONCRETE OR MASONRY AS REQUIRED

- MECHANICAL ANCHORS SHALL BE HILTI KWIK BOLT TZ OR EQUAL, U.N.O.
- ADHESIVE ANCHORS / DOWELS SHALL BE HILTI HIT HY 200 OR EQUAL, U.N.O.
- ANCHORS, WASHERS, AND NUTS SHALL BE HOT DIP GALVANIZED OR TYPE 316 STAINLESS STEEL AND MUST BE SELECTED TO ASSURE COMPATIBILITY WITH THE BASE MATERIAL AND PREVENT CORROSION DUE TO DISSIMILAR METALS.
- WHEN INSTALLING ANCHORS / DOWELS IN EXISTING CONCRETE OR MASONRY, EXERCISE CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING.
- PREPARATION AND INSTALLATION OF THE ANCHORS / DOWELS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS. INCLUDE COST OF MANUFACTURER REPRESENTATIVE'S SUPERVISION DURING PREPARATION, INSTALLATION, AND PULL TESTS. THE MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE A REPORT OF THEIR OBSERVATIONS, ANY CORRECTIVE ACTIONS THAT WERE REQUIRED AND IF THE PREPARATION, INSTALLATION, AND PULL TESTS ARE IN CONFORMANCE WITH THE MANUFACTURER'S WRITTEN REQUIREMENTS.
- FIELD QUALITY CONTROL
 - OWNER WILL ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM THE FIELD TESTS AND INSPECTIONS.
 - ANCHORS AND DOWELS INSTALLED HORIZONTALLY, IN OVERHEAD, OR UPWARDLY INCLINED ORIENTATIONS, OR ANY ANCHOR OR DOWEL THAT RESISTS SUSTAINED TENSION LOADS.
 - PROVIDE CONTINUOUS SPECIAL INSPECTIONS.
 - PERFORM PROOF PULL TESTS ON 50% OF ANCHORS AND DOWELS.
 - PROOF PULL TEST LOAD SHALL BE THE MEAN ULTIMATE ANCHOR TENSION STRENGTH. COORDINATE TESTING REQUIREMENTS WITH MANUFACTURER'S REPRESENTATIVE.

D. STRUCTURAL STEEL

- MATERIAL PROPERTIES - STRUCTURAL STEEL: (U.N.O.)

TYPE	F _y , PSI	ASTM NO.
W-SHAPE	50,000	A992
CONNECTION STEEL	36,000	A36
STEEL PIPES	35,000	A53, GRADE B
COLD FORMED STEEL	33,000	A924
WELDING ELECTRODES	E70XX	AWS D1.1, D1.6 OR D19.0
HIGH STRENGTH BOLTS	120,000 (F _u , PSI)	A325

- STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC 'STEEL CONSTRUCTION MANUAL', LATEST EDITION.
- SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY FABRICATION.
- ALL EXTERIOR STEEL MEMBERS AND CONNECTIONS SHALL BE PAINTED WITH RUST-INHIBITING PRIMER OR HOT-DIP GALVANIZED, AND PAINTED PER SPECIFICATIONS. DO NOT GALVANIZE OR PAINT SURFACES TO BE FIELD WELDED. TOUCH UP ALL FIELD WELDS WITH RUST-INHIBITING PRIMER OR GALVANIZING REPAIR PAINT AND PAINT PER SPECIFICATIONS. REFER TO AWS D19.0 FOR ADDITIONAL INFO.
- BOLTED CONNECTIONS:
 - ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA. ASTM A325 BOLTS WITH ASTM F436 WASHERS AND ASTM A563 NUTS, U.N.O.
 - ALL HIGH-STRENGTH BOLT CONNECTIONS SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL JOINT USING ASTM A325 BOLTS" AS ENDORSED BY AISC.
 - HIGH-STRENGTH BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH THREADS ALLOWED IN THE SHEAR PLANE, U.N.O.
 - HIGH-STRENGTH BOLTS SHALL BE SNUG-TIGHTENED, UNLESS REQUIRED BY AISC SPECIFICATIONS TO BE FULLY PRETENSIONED OR NOTED AS PRETENSIONED ON THE DRAWINGS. PRETENSION BOLTS WITH A CALIBRATED TORQUE WRENCH OR BY THE "TURN OF THE NUT" METHOD.
- ALL WELDING SHALL CONFORM TO AWS D1.1 OR AWS D19.0 (GALVANIZED STEEL), LATEST EDITION.
- ALL STEEL MEMBERS OF SUPPLEMENTAL CONNECTIONS/REMEDIAL PROVISIONS SHALL BE GALVANIZED.

E. EXAMINATION PRIOR TO CUTTING, DRILLING, AND CORING THROUGH STRUCTURE

- DO NOT CUT, DRILL, OR CORE THROUGH ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER, U.N.O.
- THE CONTRACTOR SHALL SCAN THE CONCRETE AT ALL LOCATIONS OF PROPOSED CUTS AND PENETRATIONS TO LOCATE AND MARK ALL EMBEDDED OBJECTS INCLUDING, BUT NOT LIMITED TO, REINFORCING, PRESTRESS OR POST-TENSION STRANDS, CONNECTIONS, ELECTRICAL CONDUIT, AND ANY OTHER HARDWARE/EQUIPMENT. SCANNING SHALL BE PERFORMED BY A CERTIFIED TECHNICIAN USING A PACHOMETER OR GROUND PENETRATING RADAR TYPE SCANNER. CALIBRATE THE SCANNER AT THE BEGINNING OF EACH SHIFT AND WHEN CONDITIONS CHANGE. LOCATE AT LEAST THREE REINFORCING BARS USING THE SCANNER, AND HAMMER DRILL TEST HOLES TO DETERMINE DEPTH OF COVER. CALIBRATE SCANNER USING THE DEPTH OF COVER MEASUREMENTS.
- ADJUST LOCATIONS OF CUTS AND PENETRATIONS AS REQUIRED TO AVOID EMBEDDED OBJECTS.
- SUBMIT SCANNING REPORT(S), INCLUDING PHOTOGRAPHS AND SCALED DRAWINGS AND/OR SKETCHES TO ENGINEER FOR APPROVAL. ALLOW SEVEN DAYS FOR ENGINEER TO REVIEW AND APPROVE OR COMMENTS ON THE PROPOSED CUTS AND PENETRATIONS. ADJUST THE LOCATIONS AS DIRECTED BY THE ENGINEER.
- USE HAMMER DRILLS WHEN POSSIBLE. DO NOT CORE DRILL UNLESS THE SCANNING OPERATION HAS CLEARLY SHOWN THAT THE AREA IS FREE OF EMBEDDED OBJECTS.
- DO NOT CUT THROUGH OR DAMAGE THE EMBEDDED OBJECTS INCLUDING, BUT NOT LIMITED TO, REINFORCING, PRESTRESS OR POST-TENSION STRANDS, CONNECTIONS, ELECTRICAL CONDUIT, AND ANY OTHER HARDWARE/EQUIPMENT.

SCOPE OF WORK AND BIDDING QUANTITIES

THE FOLLOWING INFORMATION SHALL BE USED BY THE BIDDER FOR ASSISTANCE IN PREPARING THE BID. THE ITEMS NOTED AS UNIT PRICE WORK SHALL BE BID IN ACCORDANCE WITH THE QUANTITIES SHOWN FOR THE BASE BID. THE CONTRACT PRICE WILL BE ADJUSTED TO REFLECT THE ACTUAL QUANTITY OF WORK PERFORMED. THE UNIT PRICES WILL BE USED TO INCREASE OR DECREASE THE CONTRACT SUM.

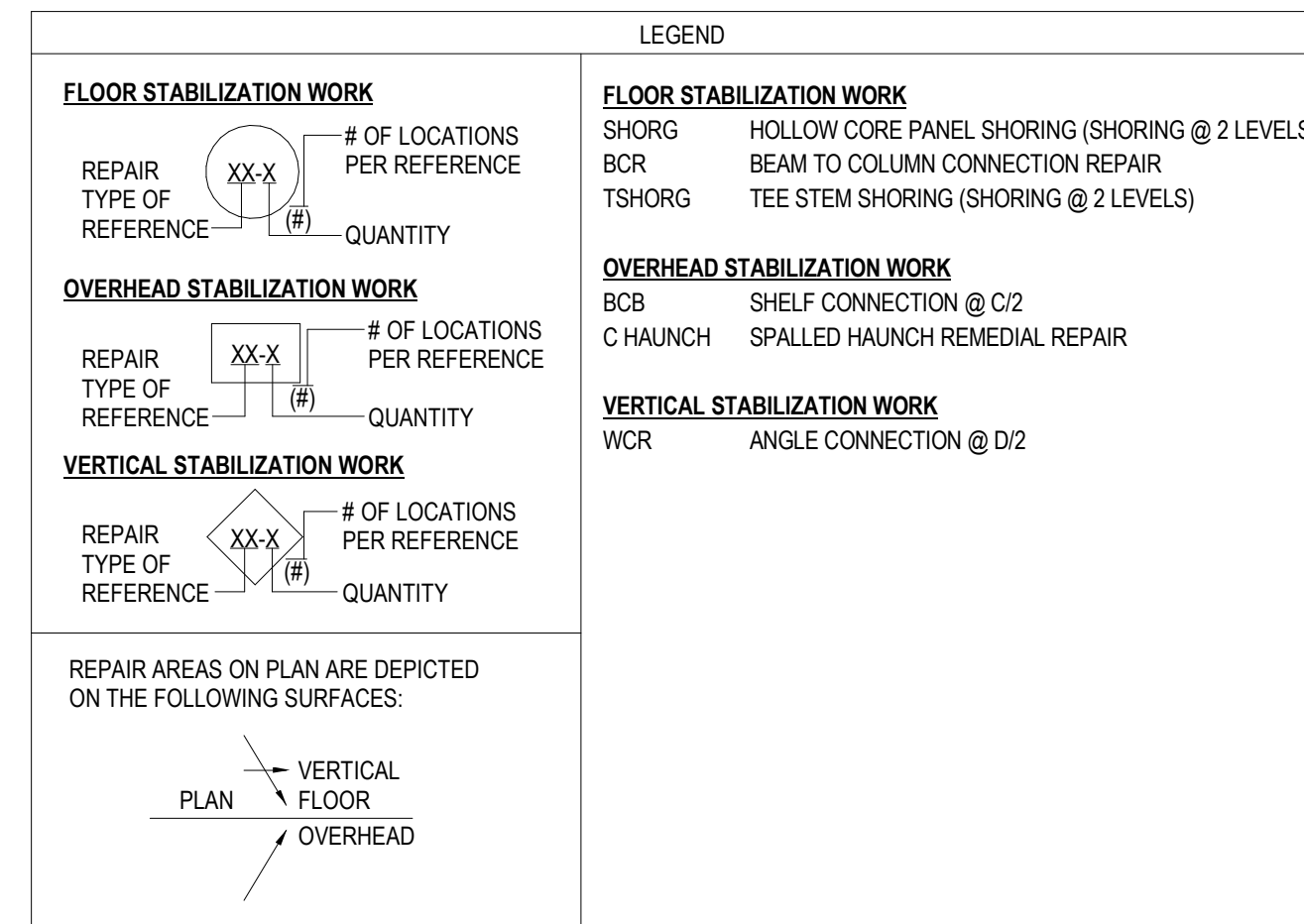
THE REPAIR AREAS INDICATED ON THE DRAWINGS ARE A GENERAL INDICATION OF WHERE THE ENGINEER'S SURVEYS HAVE NOTED POSSIBLE REPAIR LOCATIONS. THE CONTRACTOR SHALL NOT MAKE ANY ASSUMPTIONS OF REPAIR LOCATIONS, SIZES, OR OVERALL QUANTITIES BASED UPON THE INFORMATION ON PLANS. THE PROCEDURE FOR DETERMINING THE REPAIR LOCATIONS ARE EXPLAINED IN THE GENERAL NOTES AND SPECIFICATIONS. ALL WORK SHALL BE PERFORMED BASED ON THE GENERAL CONDITIONS SET FORTH IN THE PROJECT SPECIFICATIONS.

BID QUANTITY TABLE

REMEDIAL ITEM TYPE	REPAIR ITEM	UNIT OF MEASURE	BASE BID QUANTITIES	REPAIR REFERENCE	UNIT PRICE NUMBER
WCR	ANGLE CONNECTION @ D/2	EA	4	1 & 2/R2.1	1
BCB	SHELF CONNECTION @ C/2	EA	1	3 & 4/R2.1	2
C HAUNCH	SPALLED HAUNCH REMEDIAL REPAIR	EA	2	5/R2.1	3
SHORG	HOLLOW CORE PANEL SHORING (SHORING @ 2 LEVELS)	EA	4	1/R2.2	4
BCR	BEAM TO COLUMN CONNECTION REPAIR	EA	3	6/R2.1	5
TSHORG	TEE STEM SHORING (SHORING @ 2 LEVELS)	EA	1	2/R2.2	6

NOTES:

- FOR BID PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE UNIT PRICES FOR ALL REMEDIAL ITEMS.
- LUMP SUM WORK ITEMS: (GC TO INCLUDE THE COST OF ALL LUMP SUM ITEMS IN THE BASE BID COST)
 - GENERAL CONDITIONS (REFER TO PROJECT SPECIFICATIONS)
 - ALL OTHER MISCELLANEOUS ITEMS SPECIFIED IN PROJECT SPECIFICATIONS, GENERAL NOTES SHEET R0.1 AND ALL REMEDIAL DETAILS.



ABBREVIATIONS

A.B.	ANCHOR BOLTS	H.A.S.	HEADED ANCHOR STUDS
A.F.F.	ABOVE FINISHED FLOOR	H.M.	HOLLOW METAL
ALT.	ALTERNATE	HOR.	HORIZONTAL
ARCH.	ARCHITECT	HT.	HEIGHT
BET.	BETWEEN	H.V.A.C.	HEATING, VENTILATION & AIR CONDITIONING
BIT.	BITUMINOUS	I.D.	INSIDE DIAMETER
BOTT.	BOTTOM	INFO.	INFORMATION
BRG.	BEARING	INSUL.	INSULATION
BRG.	BEARING	INT.	INTERIOR
C.I.P.	CAST-IN-PLACE	INV.	INVERT
C.J.	CONTROL JOINT / CONSTRUCTION JOINT	JT.	JOINT
CL./CLR.	CLEAR	LBS.	POUNDS
C.M.	CONSTRUCTION MANAGER	LN.	LINEAL
C.M.U.	CONCRETE MASONRY UNIT	MAX.	MAXIMUM
COL.	COLUMN	MECH.	MECHANICAL
CONC.	CONCRETE	MFR.	MANUFACTURER
CONN.	CONNECTION	MIN.	MINIMUM
CONT.	CONTINUOUS	MISC.	MISCELLANEOUS
CONTR.	CONTRACTOR	MSB	MEDIUM SAND BLAST METAL
D.B.A.	DEFORMED BAR ANCHOR	MTL.	METAL
DET.	DETAIL	(N)	NEW
DIA.	DIAMETER	N.F.	NEAR FACE
DIM.	DIMENSION	N.I.C.	NOT IN CONTRACT
DN.	DOWN	NOM.	NOMINAL
D.O.	DOOR OPENING	N.S./N.S.	NON-SHRINK, NON-STAIN
DWG(S).	DRAWING(S)	N.T.S.	NOT TO SCALE
(E)	EXISTING	O.C./O/C	ON CENTERS
EA.	EACH	O.D.	OUTSIDE DIAMETER
E.B.F.	ELEVATION BOTTOM OF FOOTING	O.H.	OPPOSITE HAND
E.B.P.	ELEVATION BOTTOM OF PIER	P/C	PRECAST CONCRETE
E.F.	EACH FACE	PL.	PLATE
E.F.G.	ELEVATION FINISHED GRADE	PSI	POUNDS PER SQUARE INCH
E.J.	EXPANSION JOINT	PSF	POUNDS PER SQUARE FOOT
EL./ELEV.	ELEVATION	P/T	POST-TENSIONED
ELEC.	ELECTRICAL	R.D.	ROOF DRAIN
E.T.B.	ELEVATION TOP OF BEAM	REINF.	REINFORCEMENT/REINFORCING
E.T.C.	ELEVATION TOP OF PILE OR DRILLED PIER CAP	REQ'D	REQUIRED
E.T.F.	ELEVATION TOP OF FOOTING	RM.	ROOM
E.T.L.	ELEVATION TOP OF LEDGE	R.O.	ROUGH OPENING
E.T.P.	ELEVATION TOP OF PIER	SCHED.	SCHEDULE
E.T.P/C.	ELEVATION TOP OF PRECAST	SECT.	SECTION
E.T.S.	ELEVATION TOP OF SLAB	SHT.	SHEET
E.T.W.	ELEVATION TOP OF WALL	SIM.	SIMILAR
E.W.	EACH WAY	S.O.G.	SLAB-ON-GRADE
E.W.E.F.	EACH WAY, EACH FACE	SPECS.	SPECIFICATIONS
E.W.P.	ELEVATION WORKING POINT	SQ.	SQUARE
EXIST.	EXISTING	S.S.	STAINLESS STEEL
EXT.	EXTERIOR	STD.	STANDARD
F.D.	FLOOR DRAIN	STL.	STEEL
F.E.	FIRE EXTINGUISHER	T & B	TOP AND BOTTOM
F.F.	FAR FACE	T.B.D.	TO BE DETERMINED
FDN.	FOUNDATION	TYP.	TYPICAL
FIN.	FINISH	U.N.	UNLESS NOTED
FL./FLR.	FLOOR	VERT.	VERTICAL
FTG.	FOOTING	V.I.F.	VERIFY IN FIELD
GA.	GAUGE	W/	WITH
GALV.	GALVANIZED	W/O	WITHOUT
G.B.	GRADE BEAM	W.P.	WORKING POINT
G.C.	GENERAL CONTRACTOR	WT.	WEIGHT
GR.	GRADE	WWF	WELDED WIRE FABRIC
G.W.B.	GYP SUM WALL BOARD	WWR	WELDED WIRE REINFORCEMENT

**120 EAST
FRONT ST**

**PARKING GARAGE
STABILIZATION**

SUBMISSIONS / REVISIONS
**DECEMBER 26, 2023
BID SET**

NO.	DESCRIPTION	DATE

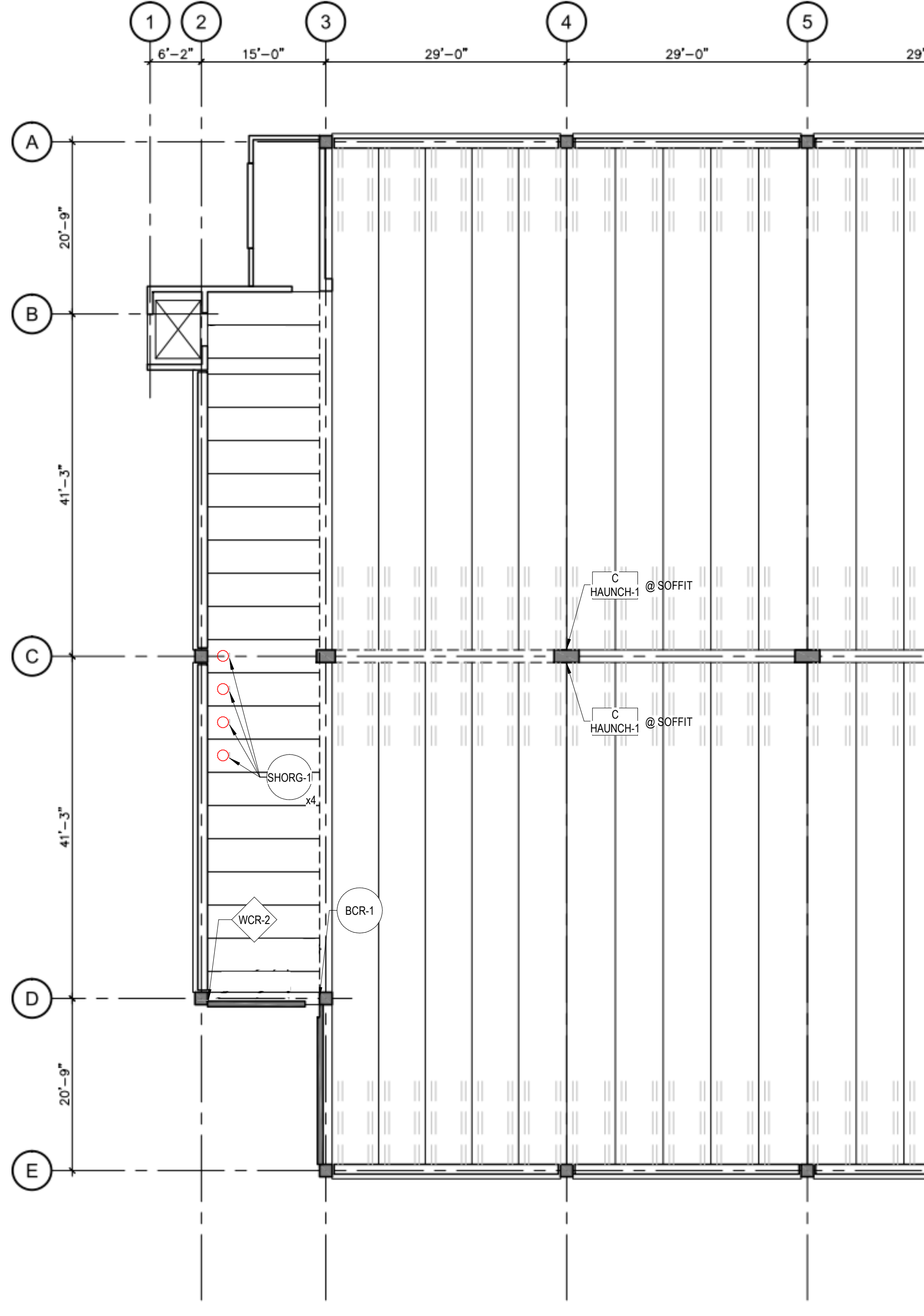
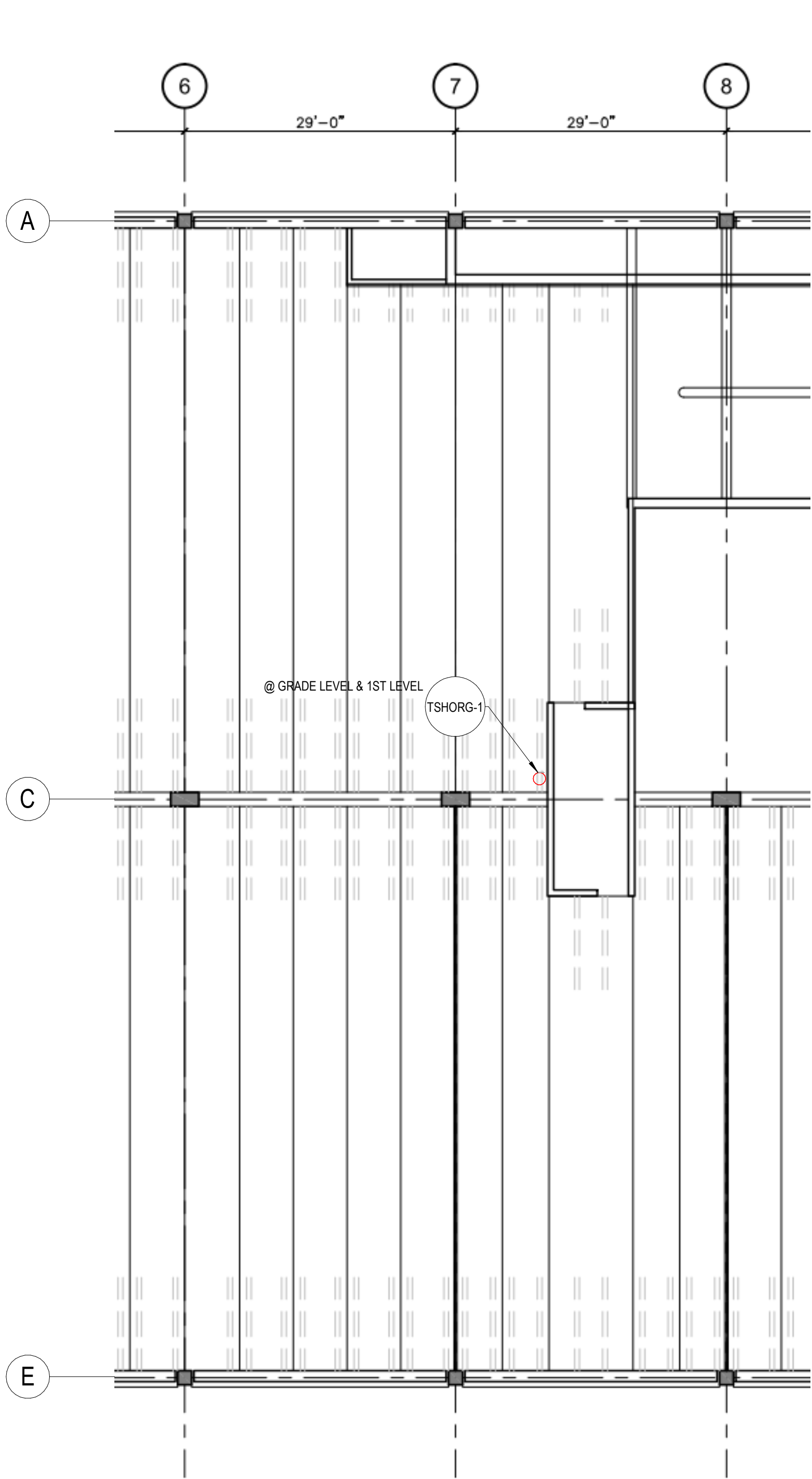
DRAWN: NJG
REVIEWED: SHH
DATE: 12/8/23
SHEET TITLE:

**FIRST & SECOND LEVEL
RESTORATION PLAN**

SHEET NO.

R1.1

LEGEND	
FLOOR STABILIZATION WORK	
REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE
XX-X (#)	QUANTITY
OVERHEAD STABILIZATION WORK	
REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE
XX-X (#)	QUANTITY
VERTICAL STABILIZATION WORK	
REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE
XX-X (#)	QUANTITY
REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:	
PLAN	VERTICAL FLOOR OVERHEAD
FLOOR STABILIZATION WORK	
SHORG	HOLLOW CORE PANEL SHORING (SHORING @ 2 LEVELS)
BCR	BEAM TO COLUMN CONNECTION REPAIR
TSHORG	TEE STEM SHORING (SHORING @ 2 LEVELS)
OVERHEAD STABILIZATION WORK	
BCB	SHELF CONNECTION @ C/2
C HAUNCH	SPALLED HAUNCH REMEDIAL REPAIR
VERTICAL STABILIZATION WORK	
WCR	ANGLE CONNECTION @ D/2



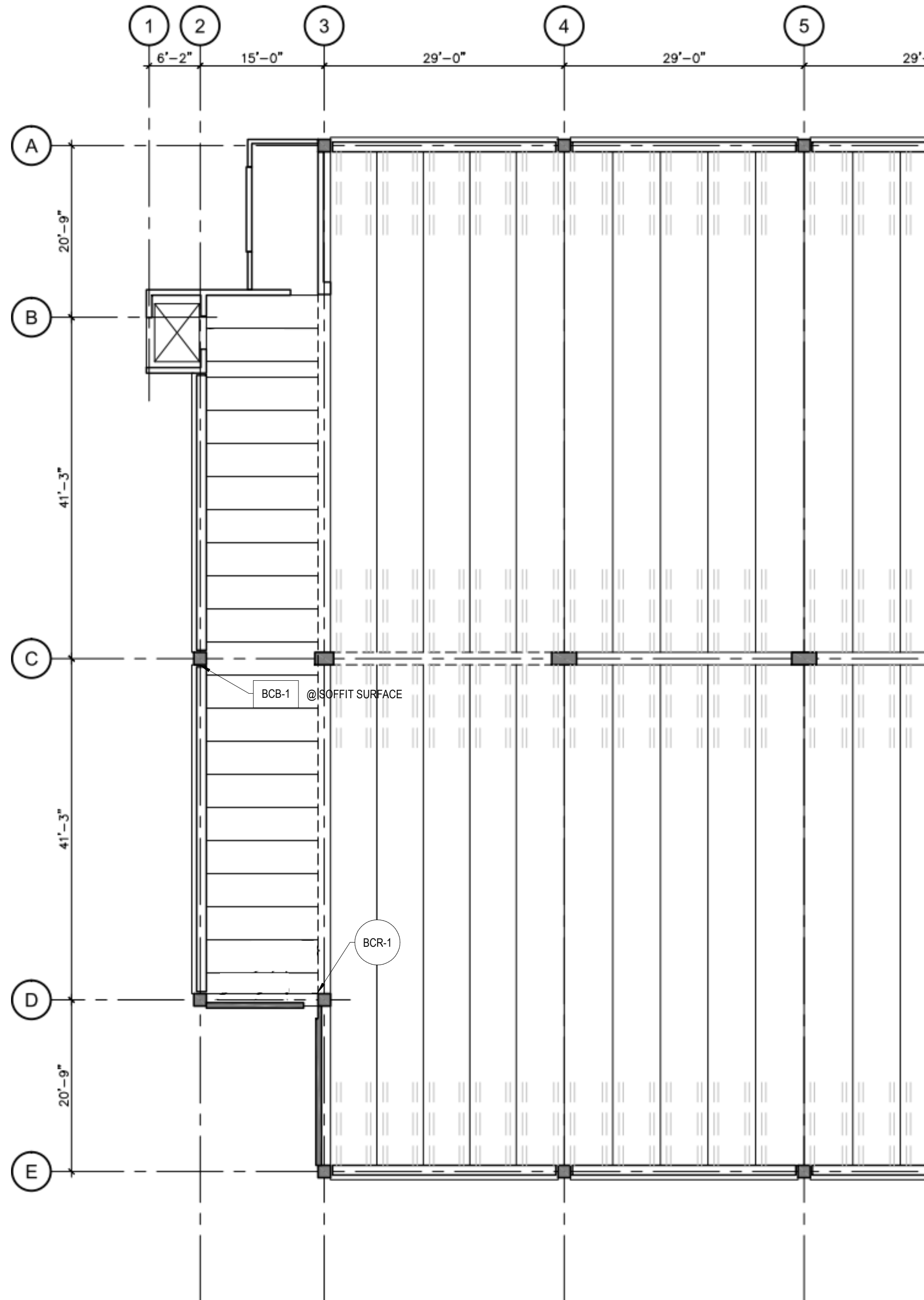
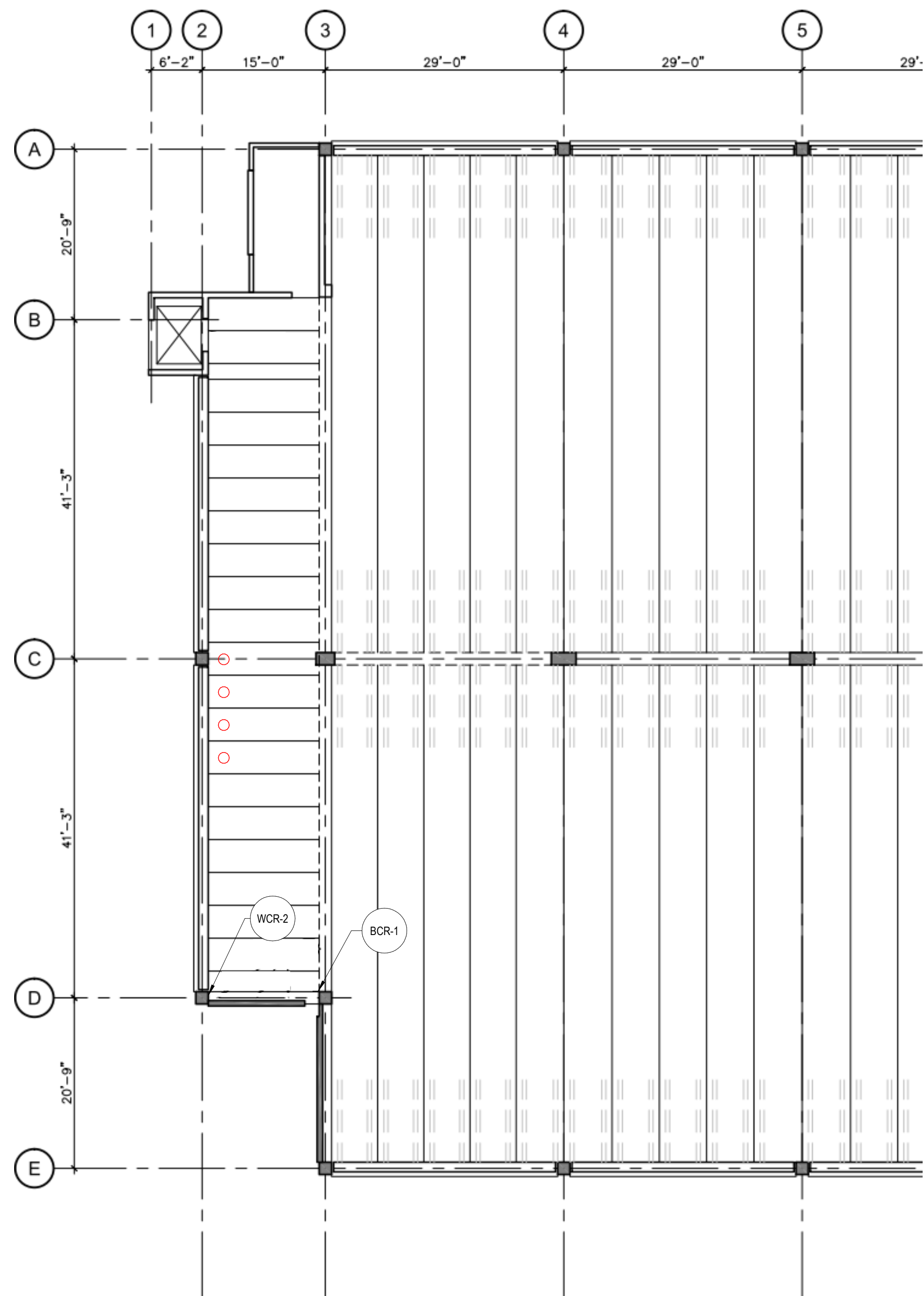
1 FIRST LEVEL RESTORATION PLAN
R1.1 1/16" = 1'-0"

2 SECOND LEVEL RESTORATION PLAN
R1.1 1/16" = 1'-0"

FLOOR STABILIZATION WORK		LEGEND	
REPAIR TYPE OF REFERENCE	XX-X (#)	# OF LOCATIONS PER REFERENCE QUANTITY	
OVERHEAD STABILIZATION WORK		FLOOR STABILIZATION WORK	
REPAIR TYPE OF REFERENCE	XX-X (#)	SHORG HOLLOW CORE PANEL SHORING (SHORING @ 2 LEVELS)	
VERTICAL STABILIZATION WORK		BCR BEAM TO COLUMN CONNECTION REPAIR	
REPAIR TYPE OF REFERENCE	XX-X (#)	TSHORG TEE STEM SHORING (SHORING @ 2 LEVELS)	
		OVERHEAD STABILIZATION WORK	
		BCB SHELF CONNECTION @ C/2	
		C HAUNCH SPALLED HAUNCH REMEDIAL REPAIR	
		VERTICAL STABILIZATION WORK	
		WCR ANGLE CONNECTION @ D/2	

REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:

- PLAN
- FLOOR
- OVERHEAD



1 THIRD LEVEL RESTORATION PLAN
R1.2 1/16\" = 1'-0\"

2 FOURTH LEVEL RESTORATION PLAN
R1.2 1/16\" = 1'-0\"

PROJECT NO.
NBR23142.00
PROJECT

120 EAST FRONT ST

PARKING GARAGE STABILIZATION

SUBMISSIONS / REVISIONS
DECEMBER 26, 2023
BID SET

NO.	DESCRIPTION	DATE

DRAWN: NJG
REVIEWED: SHH
DATE: 12/8/23

SHEET TITLE:
THIRD & FOURTH LEVEL RESTORATION PLAN

SHEET NO.

R1.2

120 EAST FRONT ST

PARKING GARAGE STABILIZATION

SUBMISSIONS / REVISIONS

**DECEMBER 26, 2023
 BID SET**

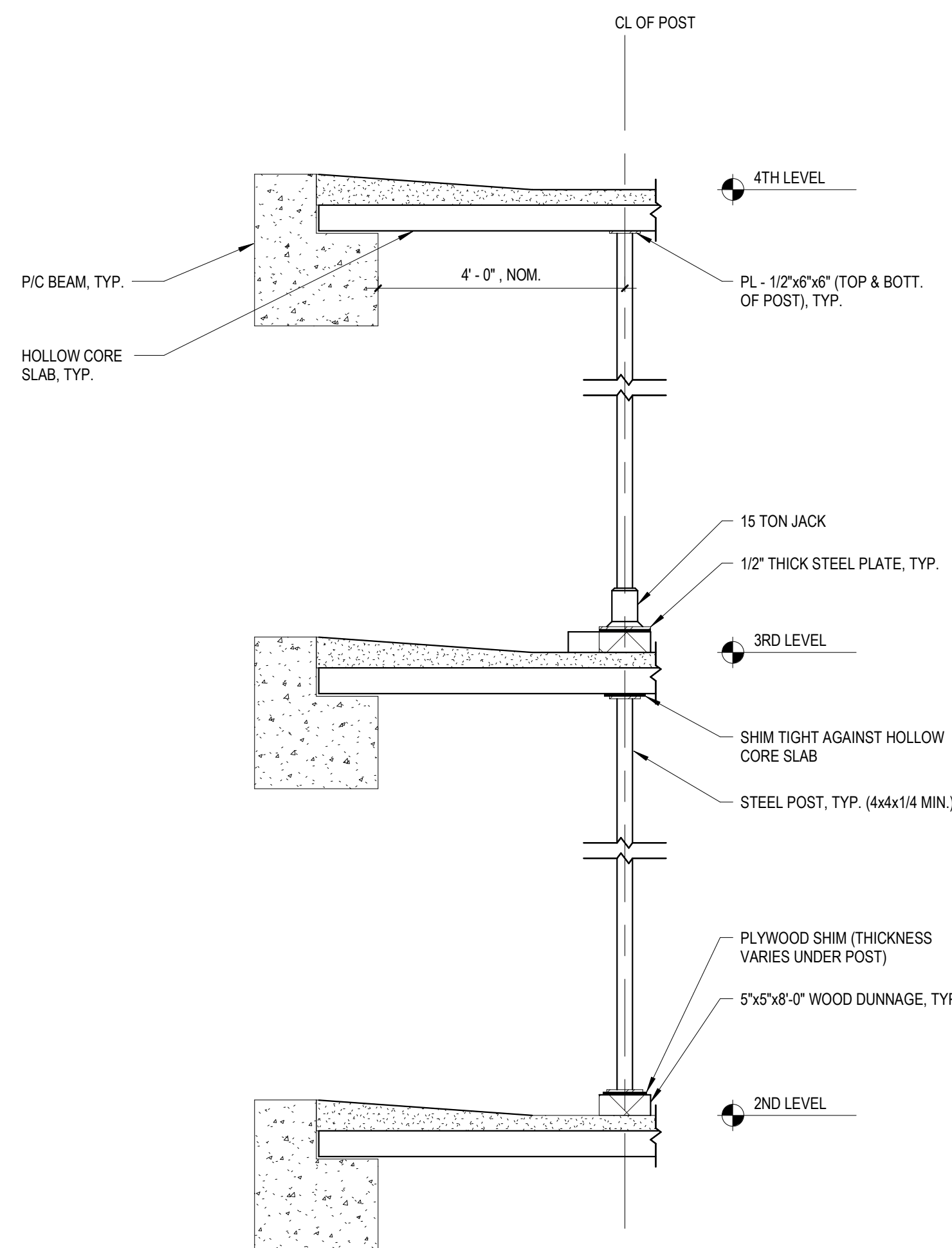
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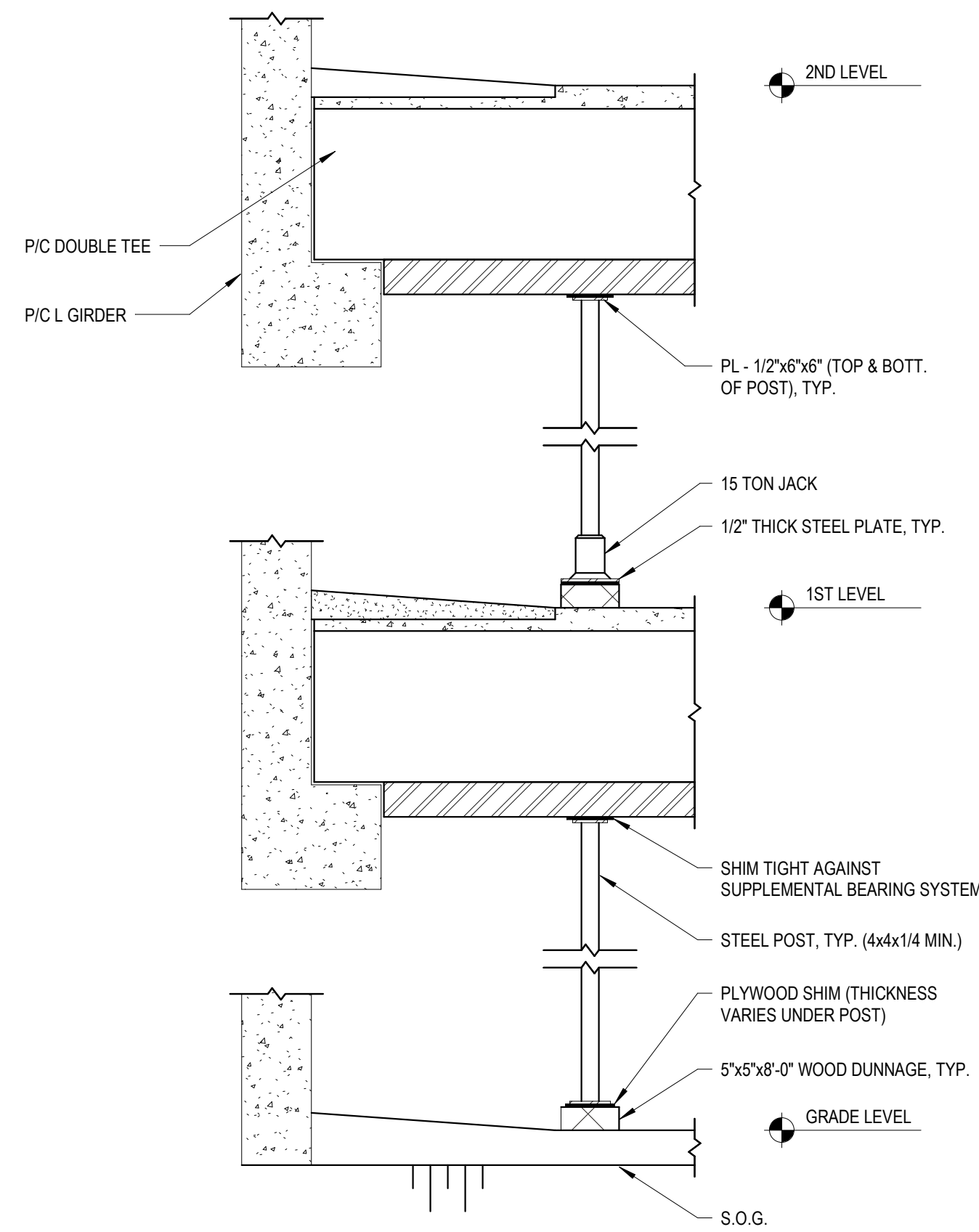
SHEET TITLE:
REPAIR DETAILS

SHEET NO.

R2.2



1 HOLLOW CORE SHORING DETAIL (REPAIR TYPE SHORG)
 R2.2 1/2" = 1'-0"



2 TEE STEM SHORING DETAIL (REPAIR TYPE TSHORG)
 R2.2 1/2" = 1'-0"