

# REPLACE FREEZERS - CENTRAL SERVICES BUILDING TIPTON CORRECTIONAL CENTER TIPTON, MO

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## APPLICABLE CODES/DESIGN CONSIDERATIONS

- INTERNATIONAL BUILDING CODE (IBC) 2021
- THE AMERICAN WITH DISABILITIES ACT (ADAAG) 2010
- INTERNATIONAL MECHANICAL CODE (IMC) 2021
- INTERNATIONAL PLUMBING CODE (IPC) 2021
- ASHRAE 90.1 - 2016 ENERGY STANDARD FOR BUILDINGS
- NATIONAL ELECTRIC CODE (NEC) 2020

**OWNER:** STATE OF MISSOURI  
MICHAEL L. PARSON, GOVERNOR  
  
DEPARTMENT OF CORRECTIONS



CROSSED SWORDS ENGINEERING  
1619 NE OAK TREE DRIVE  
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(816) 309-0099 ROBERT7721@AOL.COM  
MO CERTIFICATE OF AUTHORITY #2016003099

**DESIGNER:** CROSSED SWORDS ENGINEERING

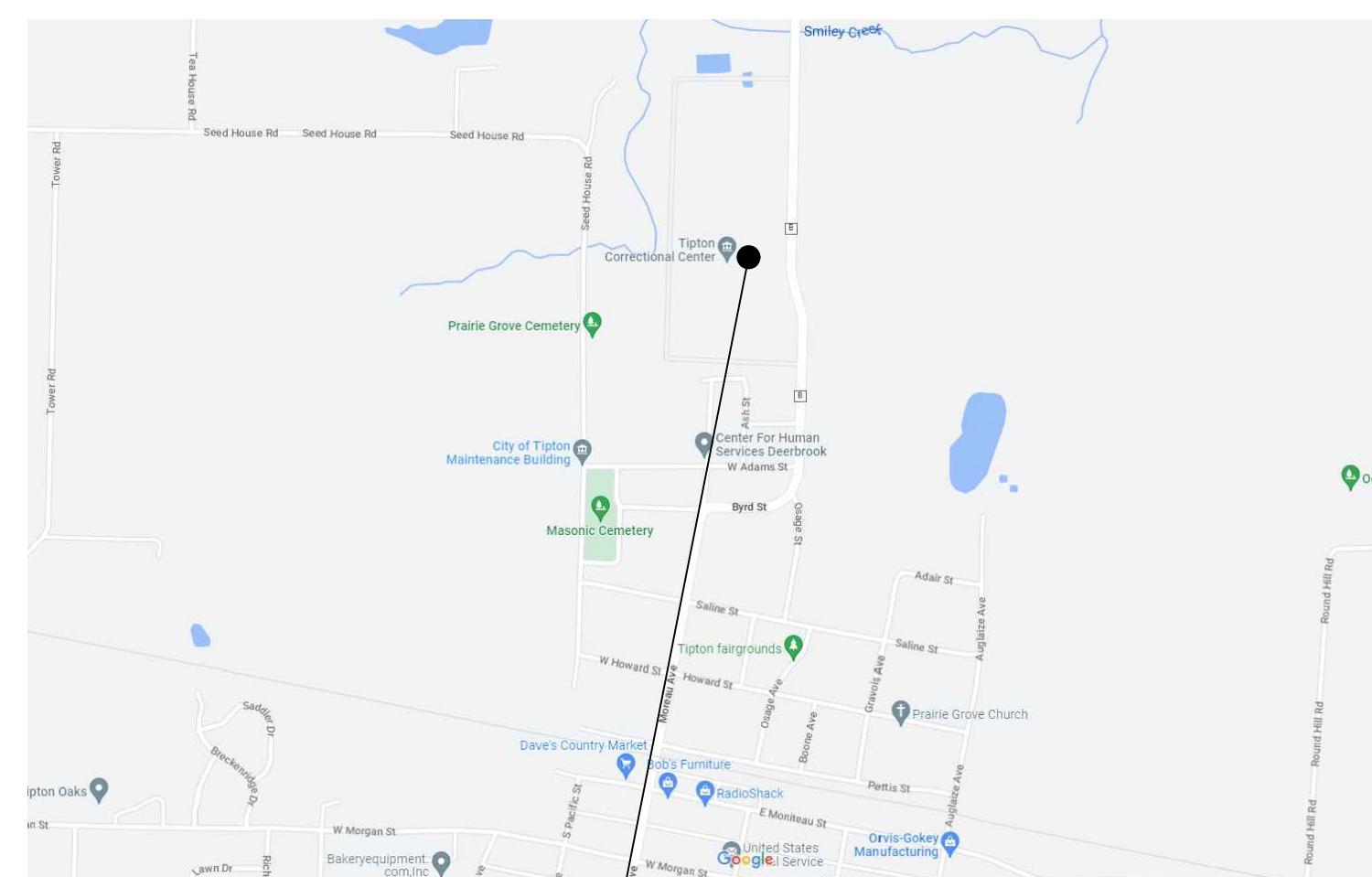
**PROJECT NUMBER:** C2008-01

**SITE NUMBER:** 7004

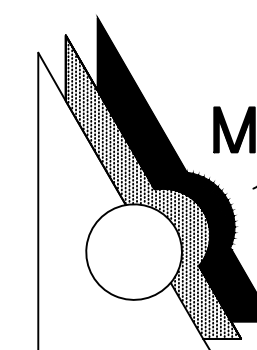
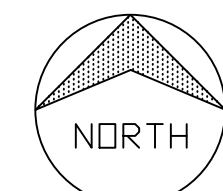
**ASSET NUMBER:** 9327004030

**PROJECT MANAGEMENT:** OFFICE OF ADMINISTRATION DIVISION  
OF FACILITIES MANAGEMENT DESIGN  
AND CONSTRUCTION

**SITE LOCATION MAP**



TIPTON CORRECTIONAL CENTER  
619 N Osage Ave,  
Tipton, MO 65081  
SITE: 7004

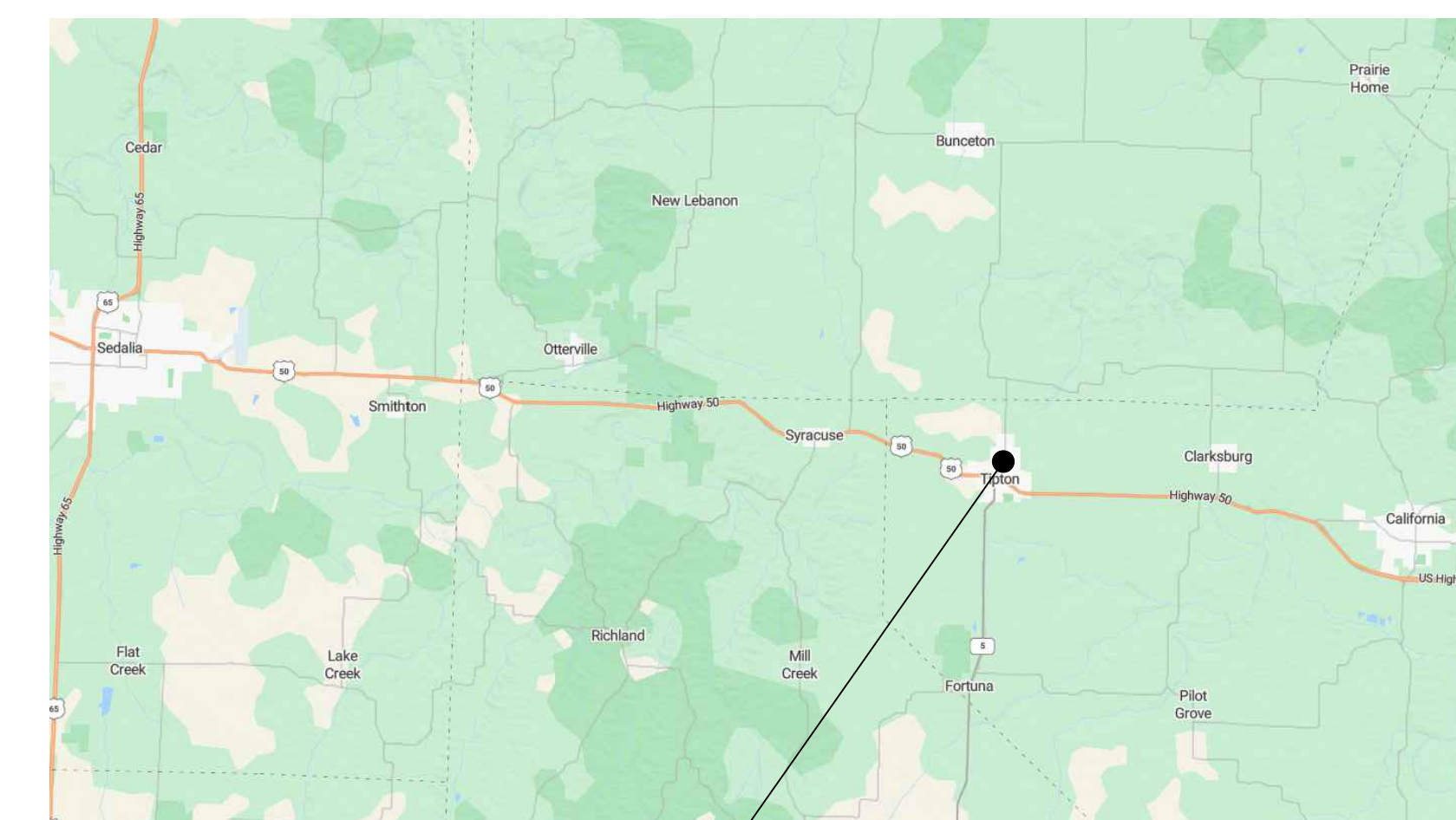


**MDRS ARCHITECTS, L.L.C.**  
12344 W. 79TH TERRACE  
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MO STATE CERTIFICATE OF AUTHORITY #2016005104



KH ENGINEERING GROUP, P.A.  
PROFESSIONAL ENGINEERING CORP  
CERTIFICATE OF AUTHORITY #: 2004032065

**REGIONAL LOCATION MAP**



TIPTON CORRECTIONAL CENTER  
619 N Osage Ave,  
Tipton, MO 65081  
SITE: 7004



SHEET NUMBER:

**G-001**

1 OF 10 SHEETS  
JUNE 2, 2023



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REPLACE FREEZERS  
CENTRAL SERVICES BUILDING

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PROJECT # C2008-01  
SITE # 7004  
ASSET # 9327004030

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DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 6/2/2023

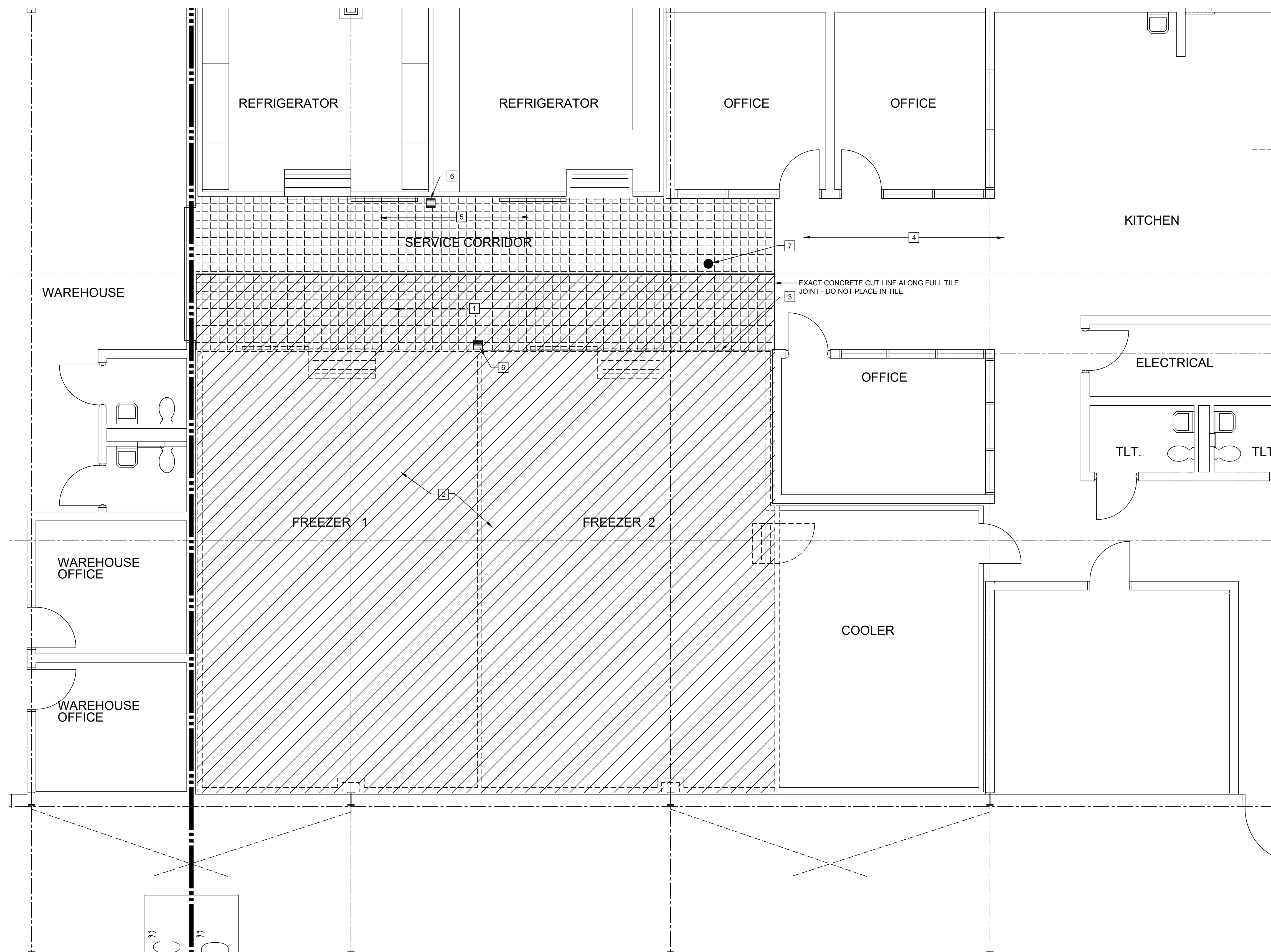
CAD DWG FILE: A-101.DWG  
DRAWN BY: MWR  
CHECKED BY: RFS  
DESIGNED BY: MWR

SHEET TITLE:  
DEMOLITION PLAN  
AREA D  
SUPPORT BUILDING

SHEET NUMBER:

**A-101**

2 OF 10 SHEETS  
JUNE 2, 2023

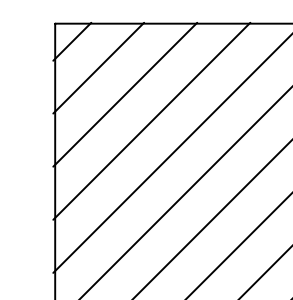
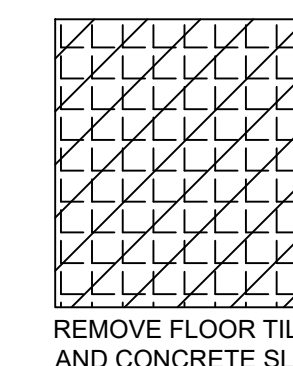
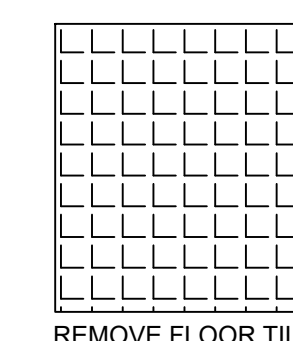


**GENERAL DEMOLITION NOTES**

REMOVE EXISTING FLOOR TILE, FREEZER AND FREEZER FLOOR PANELS FIRST AND THEN CONDUCT GPR (GROUND PENETRATING RADAR) SURVEY OF SLAB AREA TO BE REMOVED. EXISTING SEWER LINES EXIST BELOW THE SLAB AND EXISTING ELECTRICAL LINES MAY EXIST WITHIN AND BELOW THE SLAB. PROVIDE FULL SURVEY AND REPORT INCLUDING PROPOSED REMOVAL PROCEDURES TO ENGINEER PRIOR TO PROCEEDING WITH ANY SLAB CUTTING OR REMOVAL.

**DEMOLITION PLAN NOTES**

- 1 REMOVE EXISTING FLOOR TILE AND EXISTING CONCRETE SLAB IN THIS AREA TO APPROXIMATE CENTER LINE OF CORRIDOR WHERE HEAVING OF THE EXISTING SLAB CAUSED SEPARATION AND EDGE DAMAGING OF EXISTING FLOOR TILE. BETWEEN OLD AND NEW SECTIONS OF TILE. EXACT CUTTING EDGE TO OCCUR IN LINE WITH FULL TILE JOINT. DO NOT PLACE CUTTING EDGE ALONG PARTIAL TILE LINE.
- 2 REMOVE EXISTING INSULATED FREEZER WALLS, CEILING, FLOOR PANELS AND CONCRETE SLAB IN THIS AREA. CUT SLAB AS CLOSE AS POSSIBLE TO ADJACENT CONCRETE MASONRY UNIT WALLS AND GRADE BEAMS. REFER STRUCTURAL DRAWINGS FOR EXACT CUTTING PROCEDURES AROUND EXISTING FOUNDATION MEMBERS, STRUCTURE AND RIGID FRAME MEMBERS.
- 3 REMOVE EXISTING DIAMOND PLATE WALL GUARDS AND TURN OVER TO OWNER FOR FUTURE USE. REMOVE EXISTING BENT METAL PLATE CONDENSATE LINE GUARDS. KEEP AND REINSTALL AS PART OF NEW WORK.
- 4 EXISTING QUARRY TILE AND CONCRETE FLOOR TO REMAIN IN PLACE.
- 5 REMOVE EXISTING FLOOR TILE DOWN TO EXISTING CONCRETE SLAB IN THIS AREA FROM APPROXIMATE CENTER LINE OF CORRIDOR TO REFRIGERATOR WALLS. EXISTING CONCRETE SLAB TO REMAIN.
- 6 EXISTING DRAIN TO BE REPLACED, SEE DRAWING M-101.
- 7 EXISTING CLEAN OUT TO REMAIN.



REMOVE FREEZER PANELS  
AND CONCRETE SLAB  
**SYMBOL KEY**

**ARCHITECTURAL DEMOLITION FLOOR PLAN**  
SCALE: 1/4" = 1' - 0"



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ASSET # 9327004030

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ISSUE DATE: 6/2/2023

CAD DWG FILE: A-102.DWG  
DRAWN BY: MWR  
CHECKED BY: RFS  
DESIGNED BY: MWR

SHEET TITLE:  
NEW WORK PLAN  
AREA D  
SUPPORT BUILDING

SHEET NUMBER:

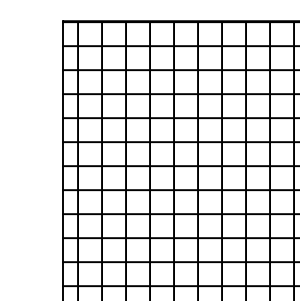
**A-102**

**GENERAL NEW WORK NOTES**

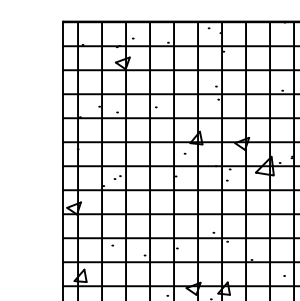
ALL NEW PENETRATIONS IN BOTH NEW AND EXISTING WALLS, FLOORS, AND CEILINGS, SHALL BE FIRESTOPPED. REFER SPECIFICATION SECTION, 078413 - PENETRATION FIRESTOPPING.

**NEW WORK PLAN NOTES**

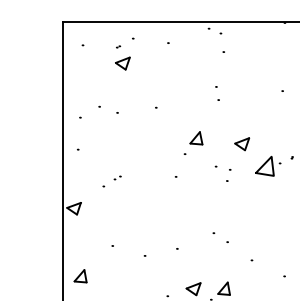
- 1) PROVIDE AND INSTALL NEW QUARRY TILE FLOOR FINISH OVER NEW CONCRETE FLOOR SLAB - SPECIFICATION SECTION 093000 - TILING.
- 2) PROVIDE AND INSTALL NEW CONCRETE FLOOR SLABS. REFER BOTH STRUCTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR INSTALLATION DETAILS FOR ALL SLABS, UNDERFLOOR INSULATION AND NEW SLAB HEATING SYSTEM.
- 3) CONTROL JOINT BETWEEN NEW AND EXISTING TILE AND BETWEEN NEW AND EXISTING CONCRETE SLABS. REPLACE EXISTING TILES AS MAY BE REQUIRED OUTSIDE OF NEW TILE AREA.
- 4) INSTALL NEW DIAMOND PLATE WALL GUARDS OVER AREAS PREVIOUSLY PROTECTED BY EXISTING WALL GUARDS. SPECIFICATION SECTION 102823 - PROTECTIVE WALL COVERING. REINSTALL EXISTING BENT METAL PLATE CONDENSATE LINE GUARDS.
- 5) PROVIDE AND INSTALL NEW FREEZER ENCLOSURE (ENCLOSURES) ALONG WITH SPECIFIED EQUIPMENT. REFER MECHANICAL DRAWINGS AND SPECIFICATIONS.
- 6) PROVIDE AND INSTALL NEW QUARRY TILE FLOOR FINISH OVER EXISTING CONCRETE FLOOR SLAB. - SPECIFICATION SECTION 093000 - TILING.
- 7) EXISTING DRAIN.
- 8) EXISTING CLEAN OUT.
- 9) NEW GROUT LINE BETWEEN NEW AND EXISTING FLOOR TILE. CLEAN AND REPLACE FLOOR TILE OUTSIDE OF REMOVAL AREA AS MAY BE REQUIRED.



NEW FLOOR TILE  
ON EXISTING CONCRETE  
SLAB



NEW FLOOR TILE  
AND NEW CONCRETE SLAB



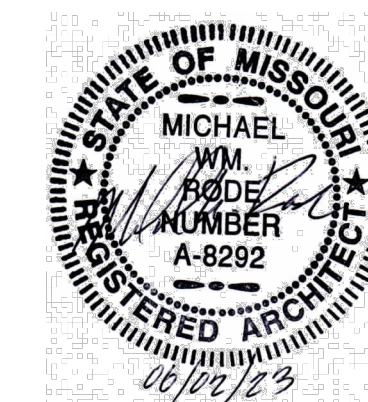
NEW CONCRETE SLAB FOR  
FREEZER ENCLOSURES

**SYMBOL KEY**



**ARCHITECTURAL NEW WORK FLOOR PLAN**

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



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ISSUE DATE: 6/2/2023

CAD DWG FILE: A-103.DWG  
DRAWN BY: MWR  
CHECKED BY: RFS  
DESIGNED BY: MWR

SHEET TITLE:  
ARCHITECTURAL  
DETAILS  
AREA D  
SUPPORT BUILDING

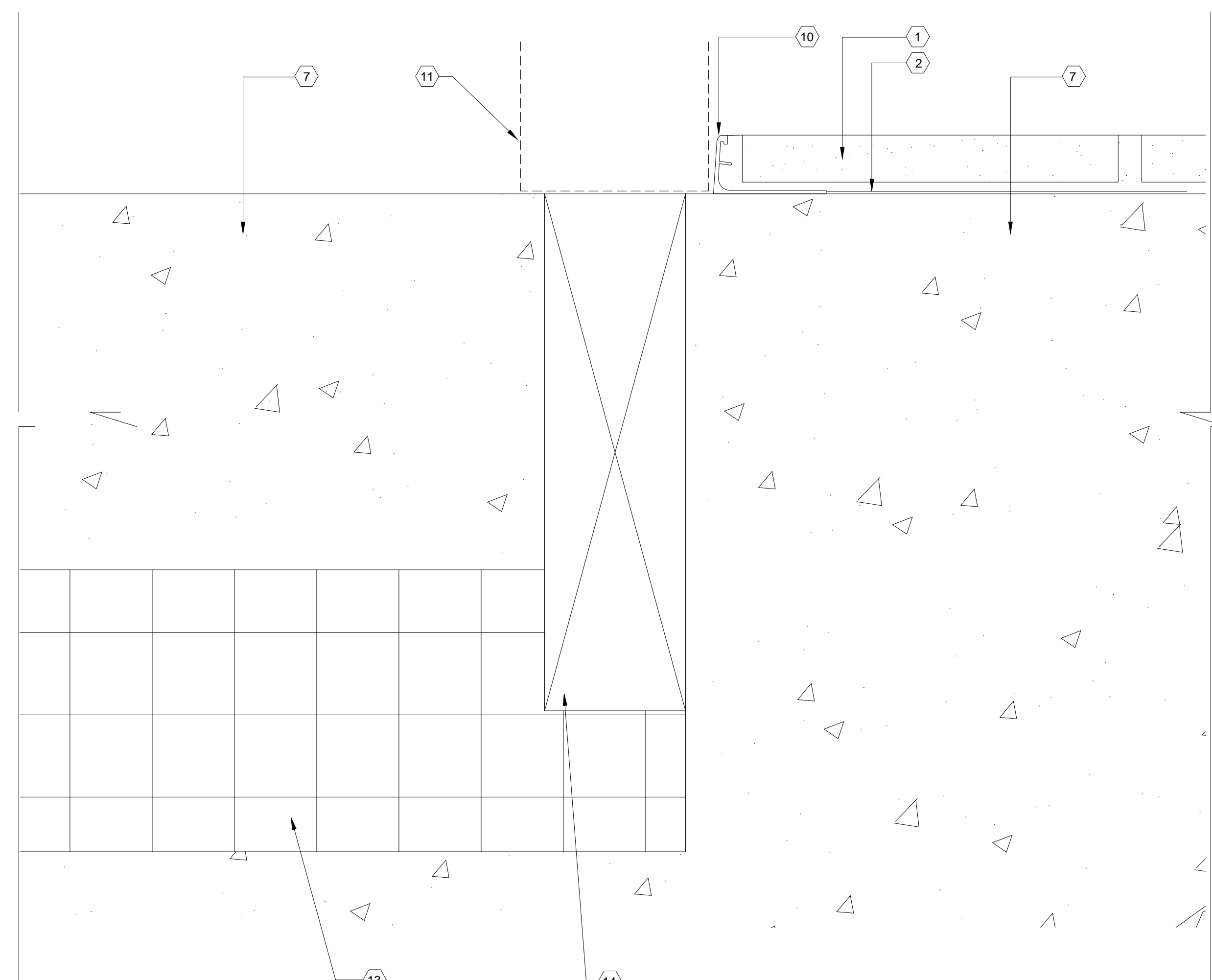
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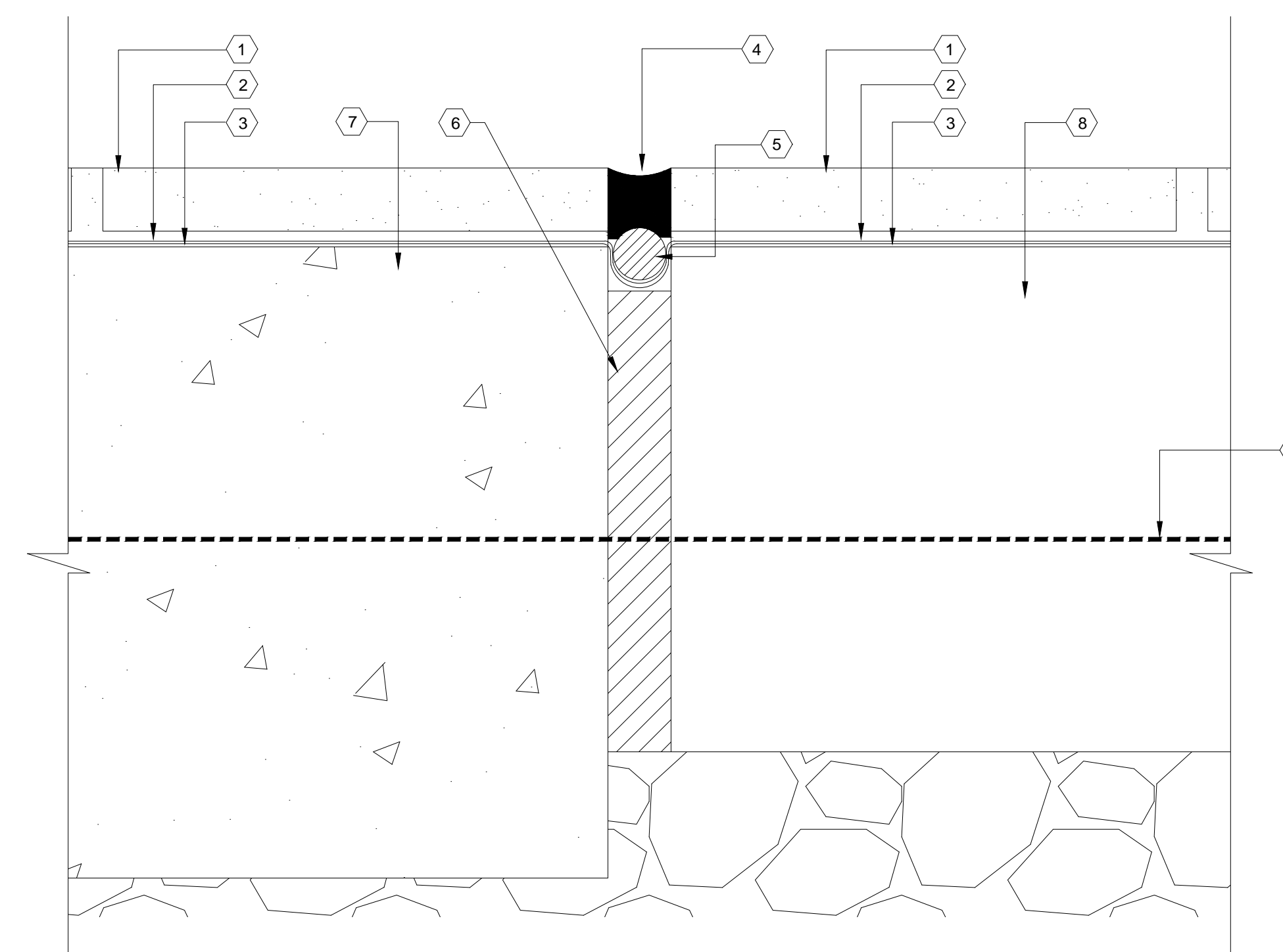
4 OF 10 SHEETS  
JUNE 2, 2023

NEW WORK PLAN NOTES

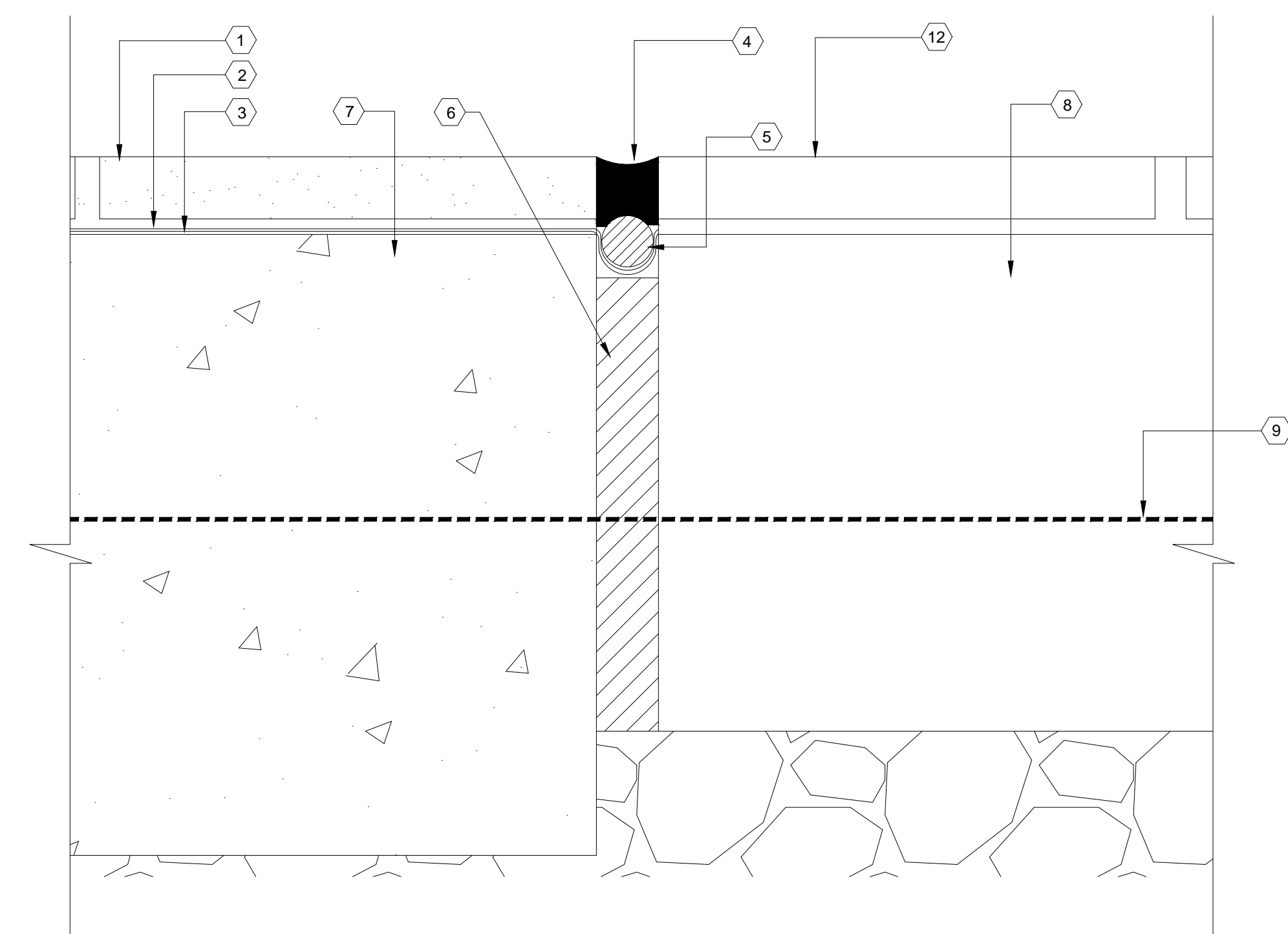
- 1 NEW CERAMIC TILE - REFER SPECIFICATION SECTION 09300 - TILING.
- 2 WATERPROOFING MEMBRANE CONTINUE OVER JOINT.
- 3 REINFORCING FIBER MESH OVER JOINT.
- 4 SEALANT
- 5 ROUNDED BACK-UP WITH NO BOND TO SEALANT.
- 6 COMPRESSIBLE BACK-UP.
- 7 NEW CONCRETE SLAB REFER STRUCTURAL DRAWINGS.
- 8 EXISTING CONCRETE SLAB
- 9 DOWELING - REFER STRUCTURAL DRAWINGS.
- 10 END PROFILE EXTRUSION AT CONCRETE FLOOR ELEVATION TRANSITION. COORDINATE EXACT LOCATION WITH FREEZER INSTALLER.
- 11 NEW FREEZER ENCLOSURE COORDINATE EDGE DETAILING WITH FREEZER INSTALLER.
- 12 EXISTING CERAMIC TILE FLOORING REPAIR AS NEEDED FROM ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
- 13 4" RIGID INSULATION - REFER SPECIFICATIONS SECTION 072100 - THERMAL INSULATION.
- 14 2X REDWOOD - REFER STRUCTURAL DETAILS.



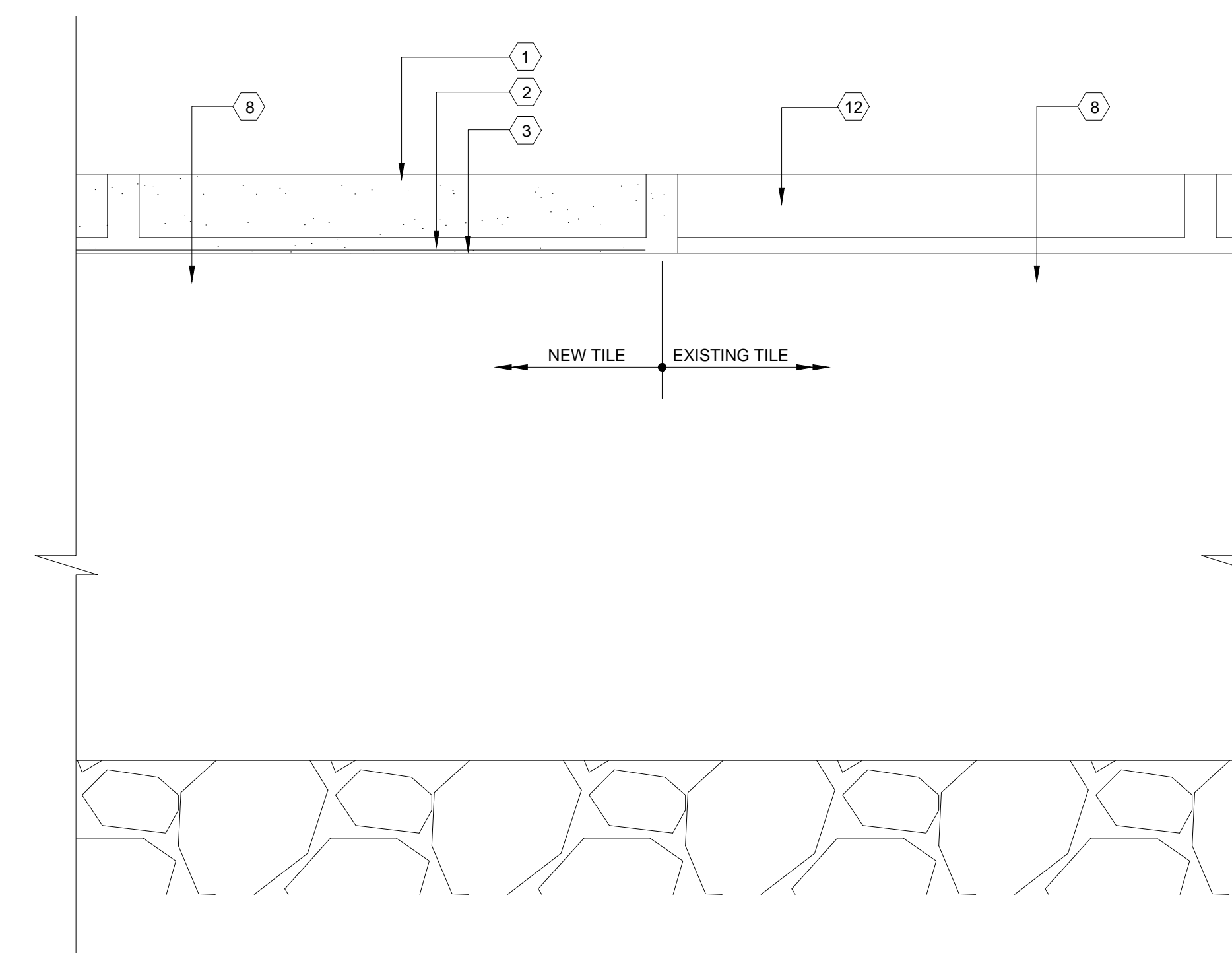
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SCALE: NTS



ARCHITECTURAL NEW WORK DETAIL A-103/2  
SCALE: NTS



ARCHITECTURAL NEW WORK DETAIL A-103/3  
SCALE: NTS



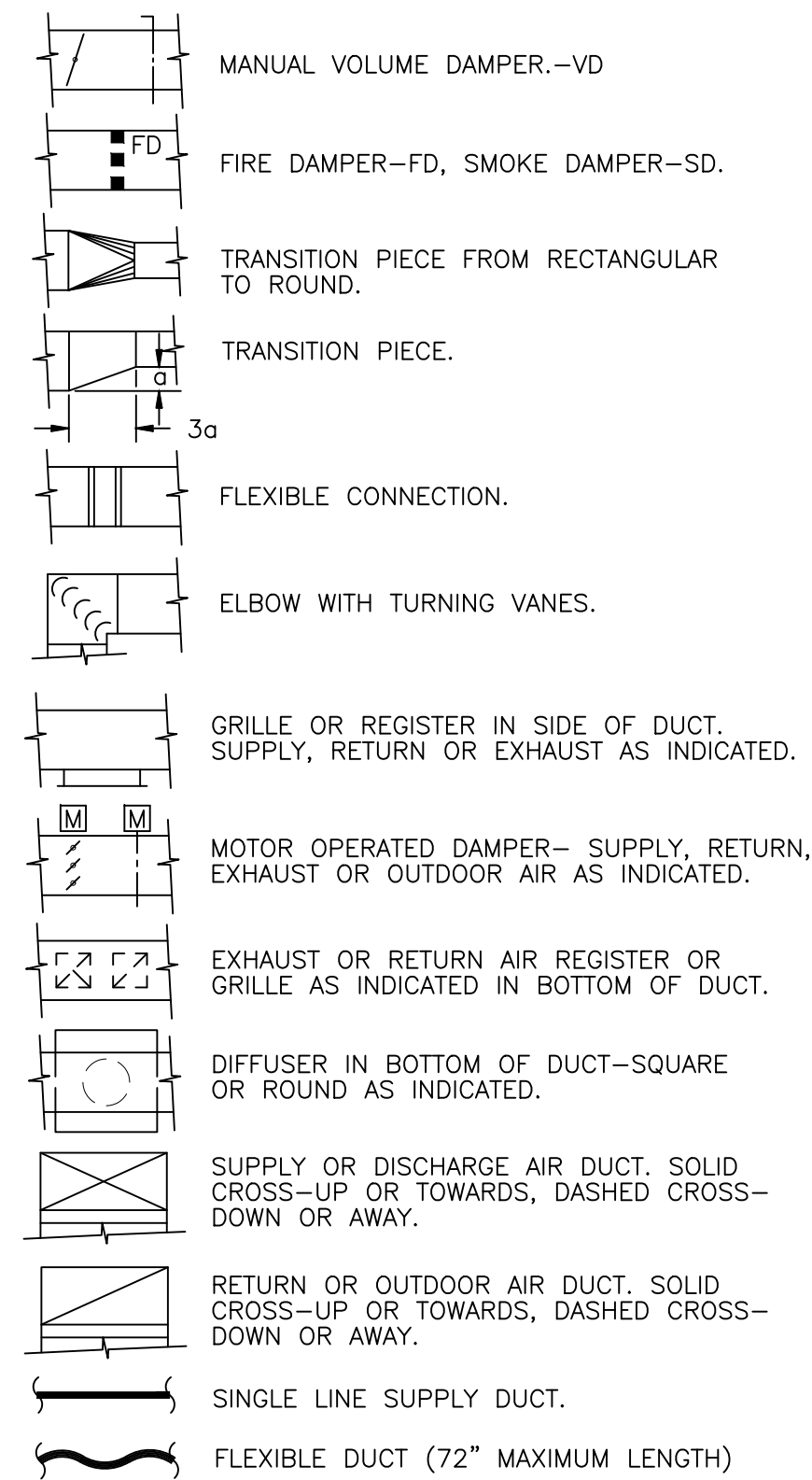
ARCHITECTURAL NEW WORK DETAIL A-103/4  
SCALE: NTS

GENERAL SCOPE OF WORK REQUIREMENTS:

SCOPE OF WORK INCLUDES THE REPLACEMENT OF THE FREEZERS, THEIR UNDER FLOOR SLABS, AND THEIR SUPPORT SYSTEMS AT THE TIPTON CORRECTIONAL CENTER.

1. ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE (IMC) 2021 AND ASHRAE 90.1 2016 ENERGY STANDARD FOR BUILDINGS.
2. CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF HVAC AND PLUMBING EQUIPMENT WITH THE EXISTING BUILDINGS LAYOUTS, EQUIPMENT PADS, STRUCTURES, PIPING, ETC.
3. PERFORM ALL PLUMBING WORK IN ACCORDANCE INTERNATIONAL PLUMBING CODE (IPC) 2021 AND LOCAL CODES.
4. ALL ELECTRICAL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH NFPA 70, 2020 NATIONAL ELECTRICAL CODE AND AND SUPPLEMENTARY STATE AND LOCAL CODES.

MECHANICAL SYMBOLS SHEETMETAL



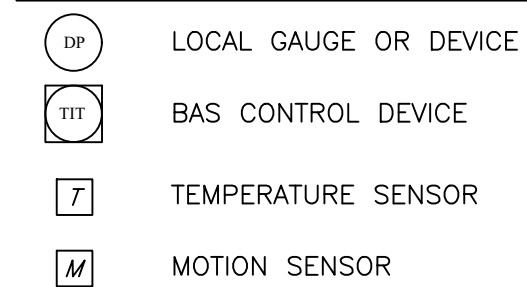
DUCT SIZES IN INCHES (CLEAR INTERIOR OPENING)

- RECTANGULAR DUCT HORIZONTAL WIDTH BY VERTICAL HEIGHT
- ROUND DUCT =  $\phi$
- OVAL DUCT =  $\ominus$

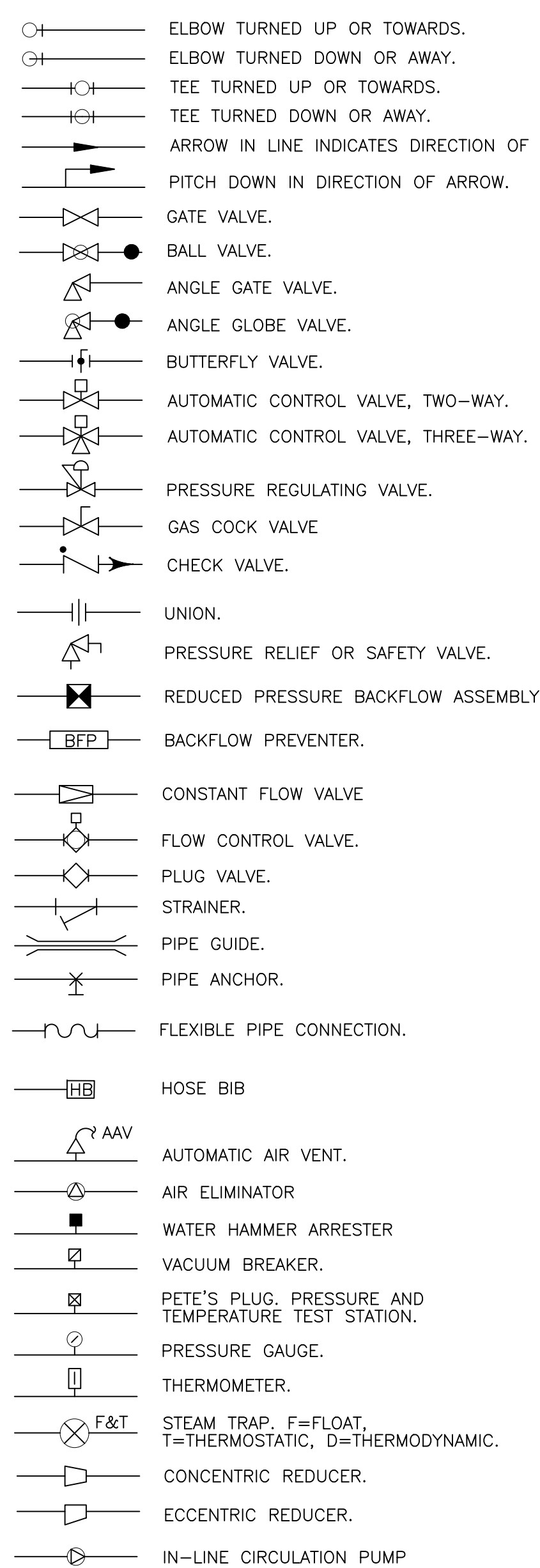
ABBREVIATIONS

F - EVAPORATOR FAN	CU - CONDENSING UNIT
ER - EXHAUST REGISTER	EF - EXHAUST FAN
SG - SUPPLY GRILLE	BDD - BACK DRAFT DAMPER
OA - OUTSIDE AIR	AHU - AIR HANDLING UNIT
B - BOILER	MSB - MAIN SWITCH BOARD
CH - CHILLER	WWF - WELDED WIRE FABRIC
WH - WATER HEATER	ELP - ELECTRICAL LIGHTING PANEL
LP - LIGHTING PANEL	CF - CHEMICAL FEED SHOT FEEDER
ET - EXPANSION TANK	RH - RELIEF HOOD
AS - AIR SEPARATOR	RPZ - REDUCED PRESSURE ZONE

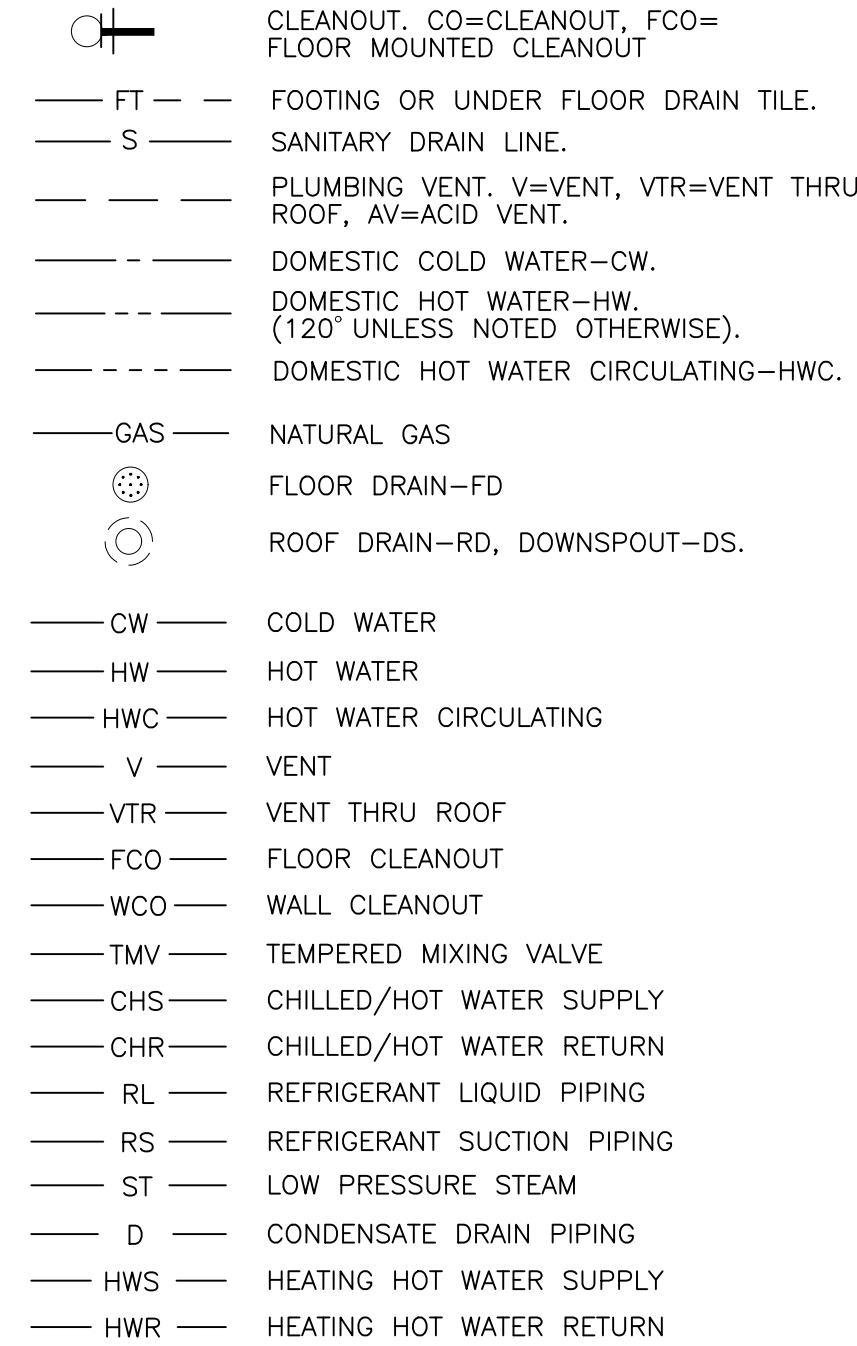
CONTROLS DEVICE SYMBOLS



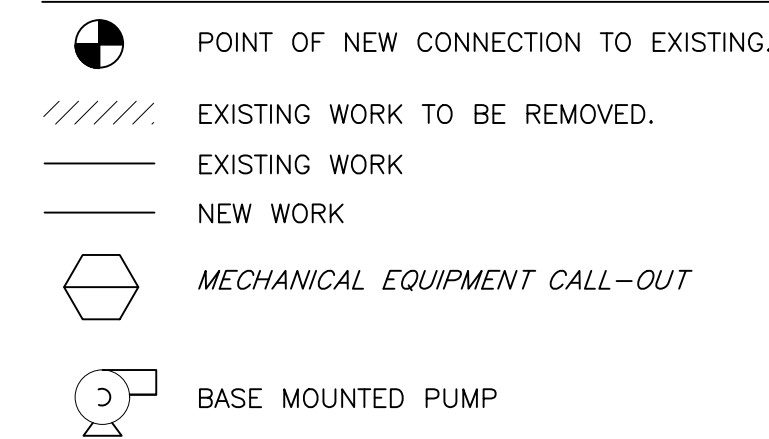
MECHANICAL SYMBOLS PIPING SPECIALTIES



MECHANICAL SYMBOLS PLUMBING



MISCELLANEOUS



GENERAL HVAC NOTES:

1. COORDINATE FINAL LOCATIONS OF DUCTWORK, AND MECHANICAL EQUIPMENT WITH LIGHTING, STRUCTURE, PIPING, SPRINKLER, DUCTWORK, ETC. PROVIDE OFFSETS, EASEMENTS OR RELOCATE DUCT AS REQUIRED TO AVOID CONFLICTS WITH WORK OF ALL TRADES.
2. SUPPORT ALL DUCTWORK, EQUIPMENT, ETC. FROM TOP CHORD OF JOISTS OR STEEL FRAMING BEAMS.
3. UNLESS OTHERWISE INDICATED NO MECHANICAL SERVICES OR EQUIPMENT SHALL BE LOCATED OVER ELECTRICAL EQUIPMENT OR TELEPHONE EQUIPMENT ROOMS.
4. SPRAY WASH ALL COOLING AND HEATING COILS TO REMOVE ALGAE, OIL, FILM, DUST, ETC. USE CHEMICALS AS REQUIRED TO PROVIDE COMPLETE CLEANING.

STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR



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ISSUE DATE: 6/2/2023

CAD DWG FILE: M-001.DWG  
DRAWN BY: PFS  
CHECKED BY: RFS  
DESIGNED BY: RFS

SHEET TITLE:  
MECHANICAL LEGEND  
AND NOTES

SHEET NUMBER:

M-001

5 OF 10 SHEETS  
JUNE 2, 2023



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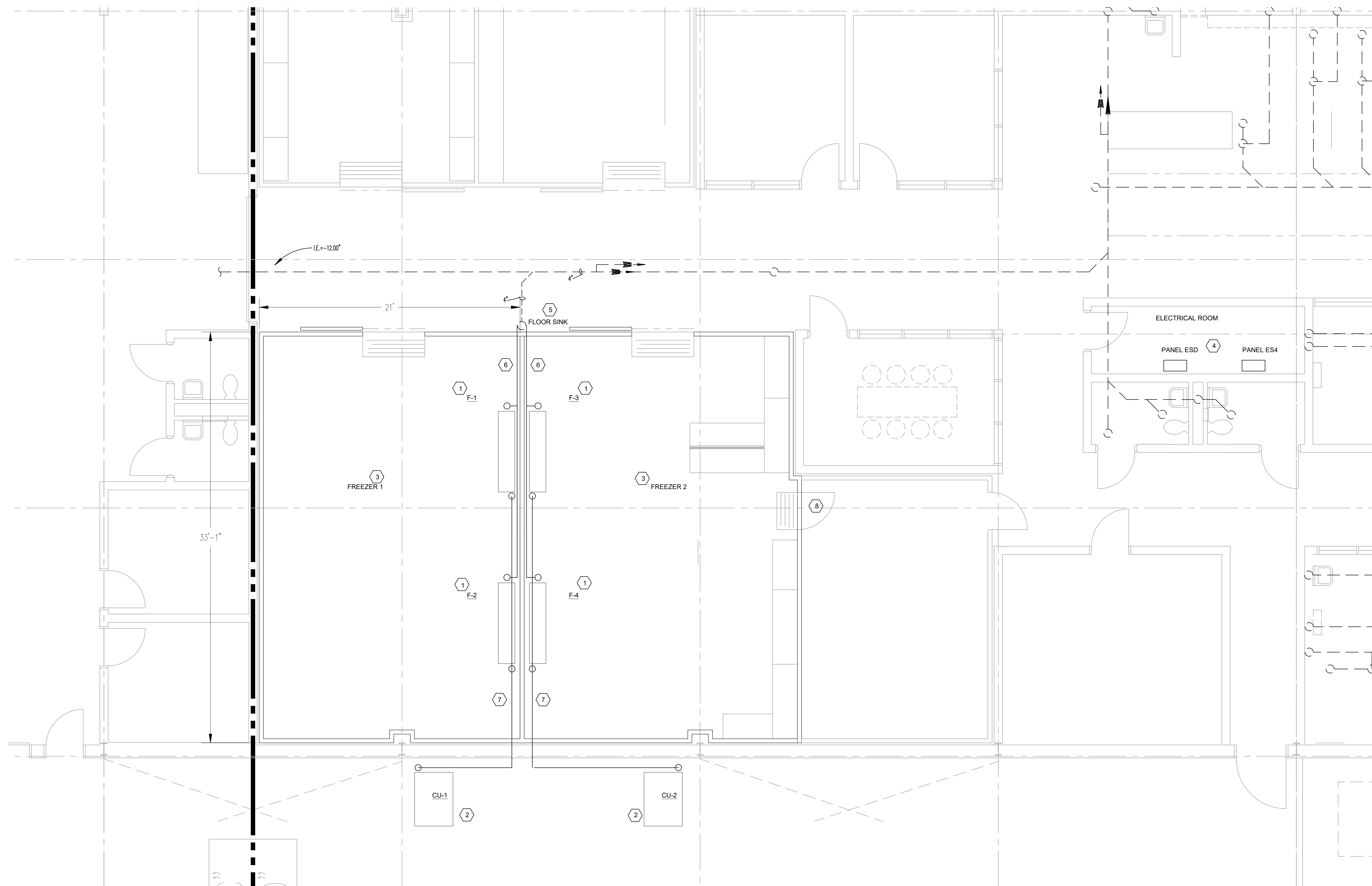
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DRAWN BY: RFS  
CHECKED BY: RFS  
DESIGNED BY: RFS

SHEET TITLE:  
**MECHANICAL PLAN  
AREA D  
SUPPORT BUILDING**

SHEET NUMBER:

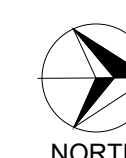
**M-101**

6 OF 10 SHEETS  
JUNE 2, 2023



**MECHANICAL FLOOR PLAN**

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



**GENERAL NOTES**

1. PIPING AND EQUIPMENT IS SHOWN IN SCHEMATIC FORM. ROUTE PIPING AS REQUIRED FOR CLEARANCE WITH STRUCTURAL CONDITIONS. COORDINATE WITH OTHER TRADES AS REQUIRED.
2. ROUGH-IN AND CONNECT ALL PIPING REQUIRED TO EQUIPMENT.
3. SANITARY WASTE PIPING SHALL BE SLOPED AT 1/8" PER FT. MINIMUM SLOPE.
4. SEE DRAWING M-601 FOR NEW MECHANICAL EQUIPMENT SCHEDULES.
5. SEE SPECIFICATION 114121 FOR WALK-IN FREEZER REQUIREMENTS.

**PLAN NOTES**

- |   |  |   |
|---|--|---|
| <ol style="list-style-type: none"> <li>1. EXISTING INDOOR EVAPORATOR FAN UNIT TO BE REMOVED AND REPLACED.</li> <li>2. EXTERIOR CONDENSING UNIT TO BE REMOVED AND REPLACED.</li> <li>3. FREEZER COMPARTMENT TO BE REMOVED AND REPLACED.</li> <li>4. LOCATION OF ELECTRICAL PANELS FOR FREEZER EQUIPMENT. USE PANEL ESD FOR CONDENSING UNITS, ESD FOR LIGHTING AND NEW UNDERFLOOR HEATING CIRCUITS. SEE DRAWING E-101.</li> </ol> | <ol style="list-style-type: none"> <li>5. REMOVE EXISTING FLOOR SINK DURING FLOOR DEMOLITION. REPLACE WITH NEW FLOOR SINK PER SPECIFICATION 221316. PRESERVE AND PROTECT UNDERFLOOR SANITARY WASTE SYSTEM DURING DEMOLITION AND FLOOR SLAB REPLACEMENT.</li> <li>6. COPPER TUBE EVAPORATOR DRAINS WITH INSULATION AND HEAT TAPE FROM UNIT TO FLOOR SINK.</li> <li>7. COPPER TUBE RS&amp;L LINES WITH INSULATION FROM CONDENSING UNITS TO EVAPORATORS.</li> </ol> | <ol style="list-style-type: none"> <li>8. EXISTING DOOR FROM COOLER TO FREEZER 2 TO BE REMOVED AND NOT BE REPLACED IN NEW FREEZER COMPARTMENT.</li> </ol> |
|---|--|---|



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ISSUE DATE: 6/2/2023

CAD DWG FILE: M-601.DWG  
DRAWN BY: RFS  
CHECKED BY: RFS  
DESIGNED BY: RFS

SHEET TITLE:

MECHANICAL  
SCHEDULES

SHEET NUMBER:

M-601

**FREEZER PACKAGED UNIT SCHEDULE (BASIS OF DESIGN)**

UNIT IDENTIFICATION							SUPPLY FAN										DEFROST		
PLAN MARK	LOCATION / AREA SERVED	UNIT TYPE	UNIT ARRANGEMENT	BASIS OF DESIGN			FAN (CFM)	CAPACITY (BTU/HR)	DESIGN TEMPERATURE		FAN DATA				MOTOR DATA			WATTS	AMPS
				MANU	MODEL SERIES	REFRIGERANT			TD	SST	NO	SPEED	DIA (IN.)	RPM	HP	BHP	VOLTS/PH/Hz		
F-1,2,3,4	FREEZER ENCLOSURE	FAN COIL	HORIZONTAL COIL	CLIMATE CONTROL	CEL0205BS6EMAB0200	R448A	2562	20100	7.9	-19.9	4	2 SPEED	12"	BY MANU	0.1	0.1	208-230/1/60	4200	18

UNIT IDENTIFICATION							DX COOLING CAPACITY				COMPRESSORS		ELECTRICAL DATA		AIR DEFROST	
PLAN MARK	LOCATION / AREA SERVED	UNIT TYPE	UNIT ARRANGEMENT	BASIS OF DESIGN			COOLING CAPACITY		TEMPERSTURES		RLA	LRA	FAN MOTORS QTY - HP	FLA	MCA	MOPD
				MANU	MODEL SERIES	REFRIGERANT	COMPRESSOR HP	TOTAL (BTU/HR)	AWEF	AMB TEMP (DEG. F)	SST (DEG. F)					
CU-1,2	OUTDOOR UNIT	COND UNIT	CLIMATE CONTROL	CCH0075LDACDA0000	R448A	7.5	31879	3.15	95.0	-19.9	14.1	83	1 - 1/3 HP	1.9	20	30

REMARKS:  
1. PROVIDE WITH "KEY2THERM" DEFROST TEMPERATURE CONTROL SYSTEM OR APPROVED EQUAL.  
2. ACCEPTABLE MANUFACTURERS CLIMATE CONTROL, KOLPAK, THERMAL COOL, HEATCRAFT, TECUMSEH, EVAPCO.



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AND CONSTRUCTION

REPLACE FREEZERS  
CENTRAL SERVICES BUILDING

TIPTON CORRECTIONAL  
CENTER  
619 N OSAGE AVE  
TIPTON, MO 65081

PROJECT # C2008-01  
SITE # 7004  
ASSET # 9327004030

REVISION: \_\_\_\_\_  
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ISSUE DATE: 6/2/2023

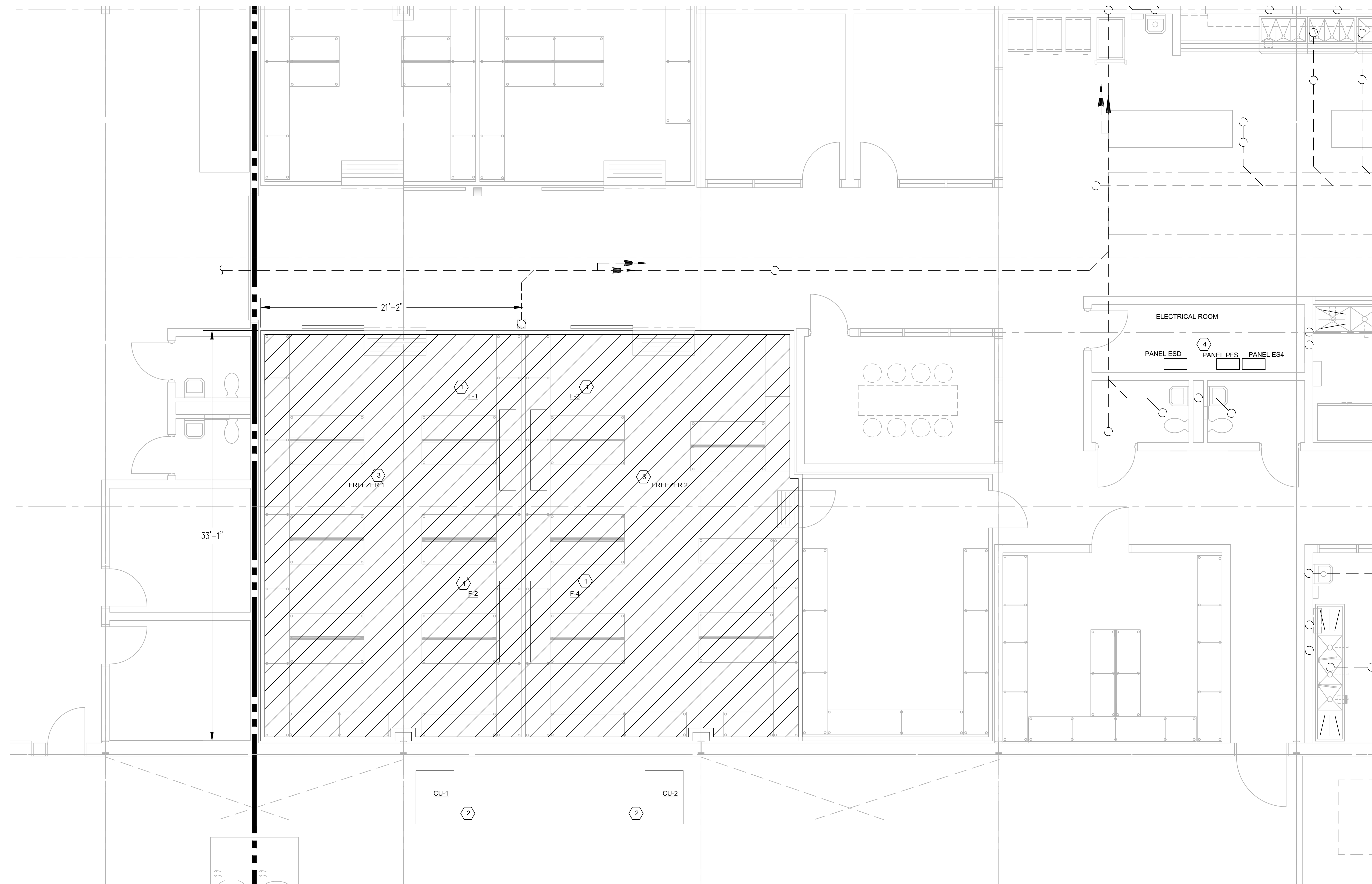
CAD DWG FILE: E-101.DWG  
DRAWN BY: RFS  
CHECKED BY: RFS  
DESIGNED BY: RFS

SHEET TITLE:  
**ELECTRICAL PLAN  
AREA D  
SUPPORT BUILDING**

SHEET NUMBER:

**E-101**

8 OF 10 SHEETS  
JUNE 2, 2023



**ELECTRICAL FLOOR PLAN**

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



**GENERAL NOTES**

1. ALL ELECTRICAL WORK SHALL BE COMPLETED IAW NFPA 70 NATIONAL ELECTRICAL CODE (NEC) AND ALL SUPPLEMENTAL REQUIREMENTS OF STATE AND LOCAL AUTHORITIES.
2. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM. CONTRACTOR TO FURNISH ALL LABOR, MATERIALS, AND SERVICES NECESSARY OR REQUIRED.
3. ALL ELECTRICAL CONDUCTORS ARE TO BE INSTALLED IN METAL RACEWAYS, UNLESS SPECIFIED OR NOTED OTHERWISE. CONDUIT MAY BE GALVANIZED STEEL OR RIGID ALUMINUM. NO CONDUIT SMALL THAN 1/2" SHALL BE USED.
4. FIRE SEAL ANY ELECTRICAL PENETRATIONS THRU WALLS PER SPECIFICATION 078413.
5. TERMINATE ANY ELECTRICAL WIRING OF REMOVED ELECTRICAL DEVICES TO NEAREST JUNCTION BOX DURING DEMOLITION.
6. EXTEND ELECTRICAL FEED IN COMPLIANCE WITH CODE TO ANY DEVICES THAT ARE RELOCATED DURING DEMOLITION PHASE.

**PLAN NOTES**

1. DISCONNECT ELECTRICAL SERVICE FROM EXISTING EVAPORATOR FAN UNIT AND RECONNECT TO NEW FAN UNIT. VERIFY MINIMUM (2) #8 CU CONDUCTORS & (1) #12 CU GROUND. PROVIDE NEW 20 AMP DISCONNECT SWITCH. VERIFY 30 AMP CB AT PANEL.
2. DISCONNECT ELECTRICAL SERVICE FROM EXISTING CONDENSING UNIT AND RECONNECT TO NEW CONDENSING UNIT. VERIFY MINIMUM (3) #12 CU CONDUCTORS & (1) #12 CU GROUND. PROVIDE NEW 30 AMP DISCONNECT SWITCH.
3. PROVIDE NEW ELECTRIC UNDERFLOOR IN SLAB HEATING SYSTEM PER SPECIFICATION 263000. CONNECT TO PANEL ESD IN ELECTRICAL ROOM. PROVIDE 120V/1" CIRCUIT WITH 20AMP CB. #12 CU IN 1/2" CONDUIT.
4. LOCATION OF ELECTRICAL PANELS FOR FREEZER EQUIPMENT. USE PANEL ES4 FOR CONDENSING UNITS, PSF AND ESD FOR FREEZER LIGHTING AND NEW UNDERFLOOR HEATING CIRCUITS.





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CHECKED BY: RFS  
DESIGNED BY: JLT

SHEET TITLE:  
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PLAN AREA D  
SUPPORT  
BUILDING**

SHEET NUMBER:

**S-101**

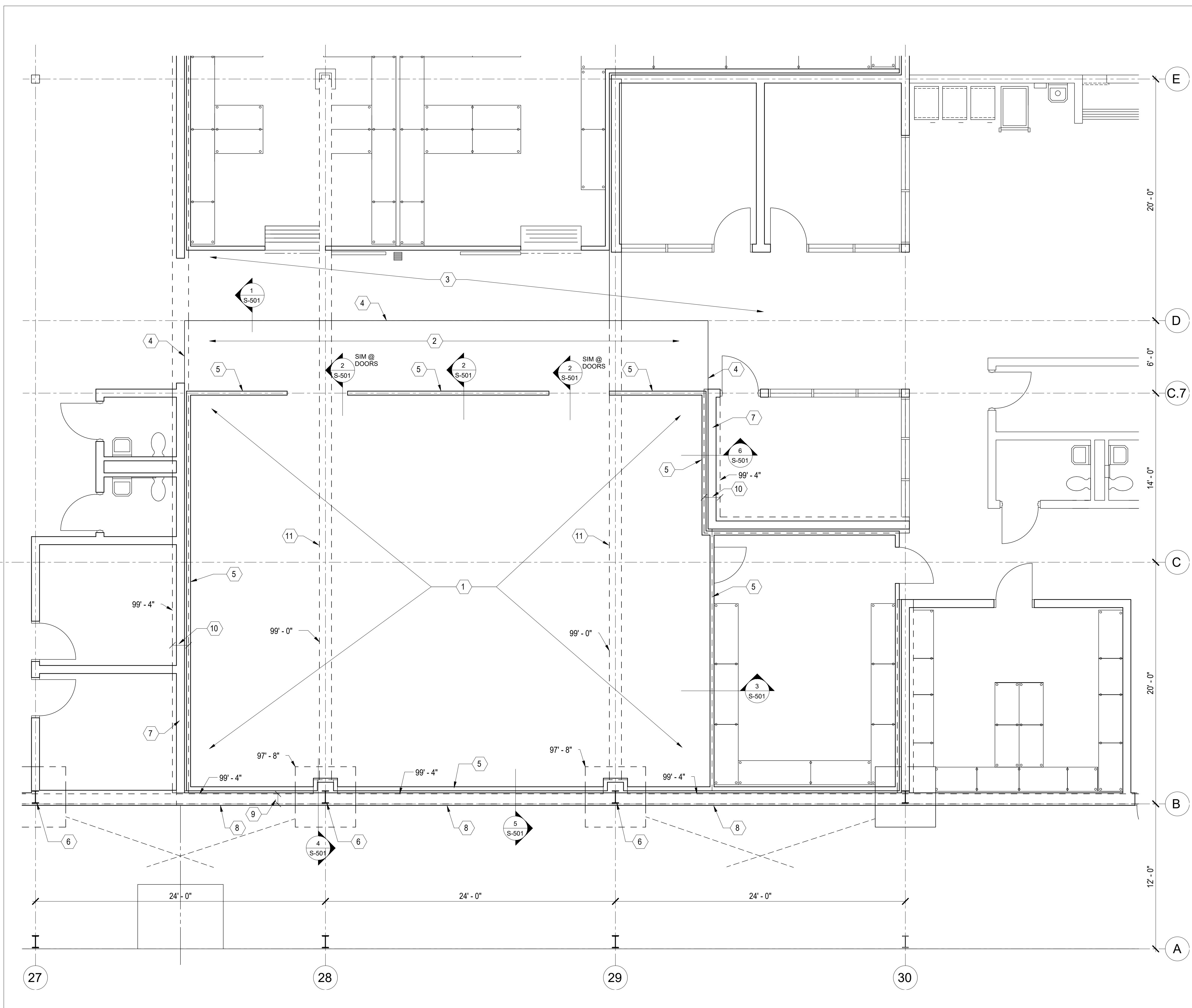
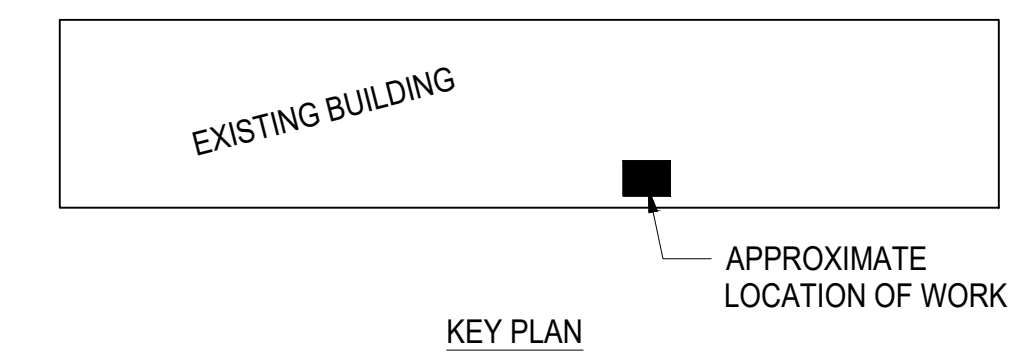
9 OF 10 SHEETS  
JUNE 2, 2023

PLAN NOTES:

- 1 5" CONCRETE SLAB-ON-GRADE WITH #4 @ 18" ON CENTER, EACH WAY CENTERED IN SLAB ON 4" INSULATION (40 PSI MINIMUM) PER ARCH ON 15 MIL VAPOR BARRIER ON 4" (MINIMUM) CLEAN GRAVEL FILL PER SPECIFICATION 312000 EARTHMOVING, SECTION 2.1 w/ SLAB HEATING SYSTEM PER SPECIFICATION 263000 ON PROPERLY COMPACTED SUB-GRADE PER SPECIFICATION 312000 EARTHMOVING, SECTION 3.9 AND DETAIL 8/S-501. TOP OF CONCRETE SLAB = MATCH EXISTING AND REFERENCE ARCHITECTURAL DRAWINGS.
- 2 5" CONCRETE SLAB-ON-GRADE WITH #4 @ 18" ON CENTER, EACH WAY CENTERED IN SLAB ON 15 MIL VAPOR BARRIER ON 4" (MINIMUM) CLEAN GRAVEL FILL PER SPECIFICATION 312000 EARTHMOVING, SECTION 2.1 ON PROPERLY COMPACTED SUB-GRADE PER SPECIFICATION 312000 EARTHMOVING, SECTION 3.9 AND DETAIL 8/S-501. TOP OF CONCRETE SLAB = MATCH EXISTING AND REFERENCE ARCHITECTURAL DRAWINGS.
- 3 EXISTING 5" SLAB ON GRADE. EXISTING SLAB ELEVATION = +/- 100'-0". VERIFY IN FIELD.
- 4 NEW SLAB EDGE TO ADJOIN EXISTING SLAB, COORDINATE FINAL LOCATION WITH ARCHITECTURAL DRAWINGS.
- 5 NEW FREEZER WALL PANEL SHOWN FOR REPRESENTATION ONLY. REFERENCE ARCHITECTURAL AND FREEZER PANEL SUPPLIER DRAWINGS FOR ADDITIONAL INFORMATION.
- 6 EXISTING COLUMN, BASEPLATE, PILASTER AND ISOLATED FOOTING BELOW TO REMAIN UNDISTURBED.
- 7 EXISTING CMU WALL TO REMAIN UNDISTURBED. CONTRACTOR TO PROVIDE SHORING AND BRACING DURING CONSTRUCTION AS REQUIRED.
- 8 EXISTING EXTERIOR METAL BUILDING WALL & GIRTS TO REMAIN UNDISTURBED.
- 9 EXISTING EXTERIOR FOUNDATION WALL TO REMAIN UNDISTURBED. TOP OF FOOTING ELEVATIONS SHOWN ON PLAN. VERIFY IN FIELD.
- 10 EXISTING INTERIOR CONTINUOUS WALL FOOTING TO REMAIN UNDISTURBED. TOP OF FOOTING ELEVATIONS SHOWN ON PLAN. VERIFY IN FIELD.
- 11 EXISTING TIE BEAM TO REMAIN UNDISTURBED. TOP OF TIE BEAM ELEVATIONS SHOWN ON PLAN. VERIFY IN FIELD.

GENERAL NOTES:

1. THE EXISTING CONDITIONS INDICATED ON THE DRAWINGS ARE BASED ON SURVEYS MADE BY THE CONSULTANT(S) AS WELL AS MATERIAL PROVIDED BY THE OWNER AND NO CLAIM IS MADE TO ITS ABSOLUTE COMPLETENESS AND/OR ACCURACY.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO FABRICATION/CONSTRUCTION. CONTRACTOR SHALL REPORT ANY INCONSISTENCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTROL ELEVATION IS 100' FOR FINISHED FLOOR.
3. BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE
4. FLOOR LIVE LOADS:  
FREEZER STORAGE (NON-REDUCED) 150 PSF  
CONCENTRATED LOAD ON FLOORS 2000 LBS
5. CONCRETE:  
A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST AMERICAN CONCRETE INSTITUTE DOCUMENTS, ACI-301, 305, 306, 315, 318 AND 347 AND CONCRETE REINFORCING STEEL INSTITUTE MANUAL OF STANDARD PRACTICE UNLESS OTHERWISE NOTED IN THESE CONTRACT DOCUMENTS.  
B. ALL CONCRETE, UNLESS OTHERWISE NOTED, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI AND HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45. SLUMP LIMIT 4" +/- 1".
6. REINFORCING STEEL:  
A. REINFORCING SHALL BE DETAILED, FABRICATED, PLACED, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST EDITION.  
B. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60



**1** STRUCTURAL PLAN AREA D  
SUPPORT BUILDING  
1/4" = 1'-0"

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DRAWN BY: JLT  
CHECKED BY: RFS  
DESIGNED BY: JLT

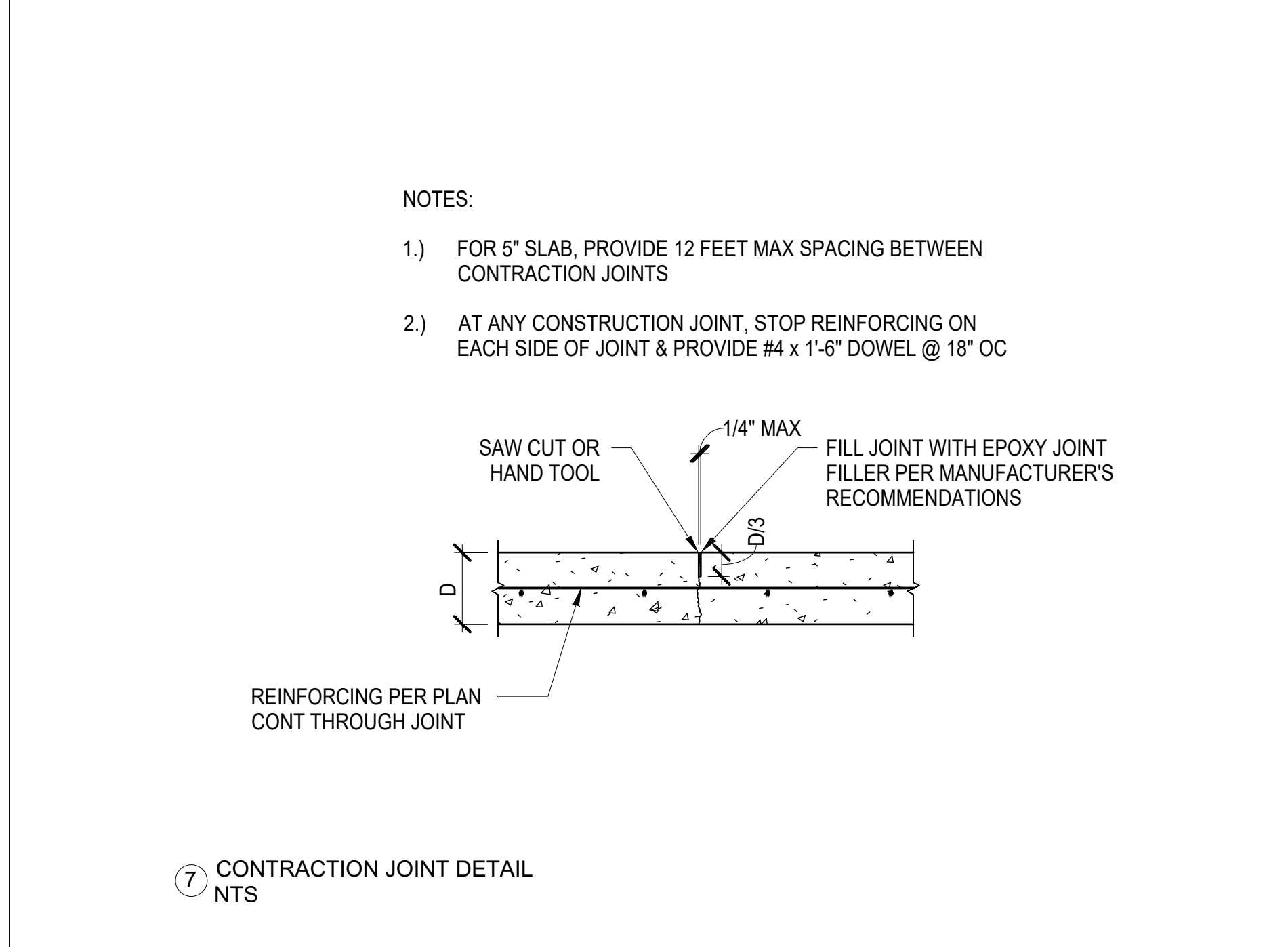
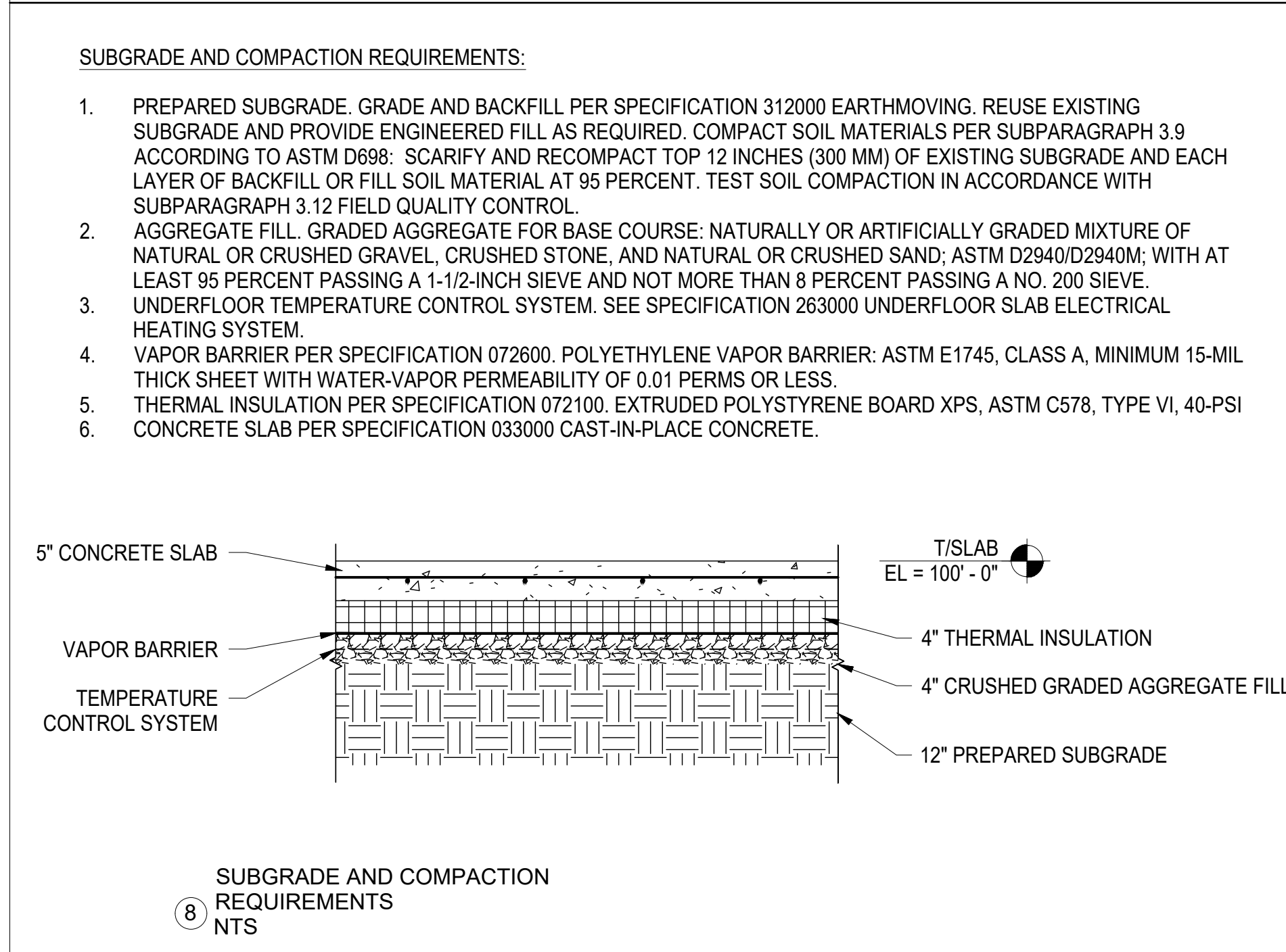
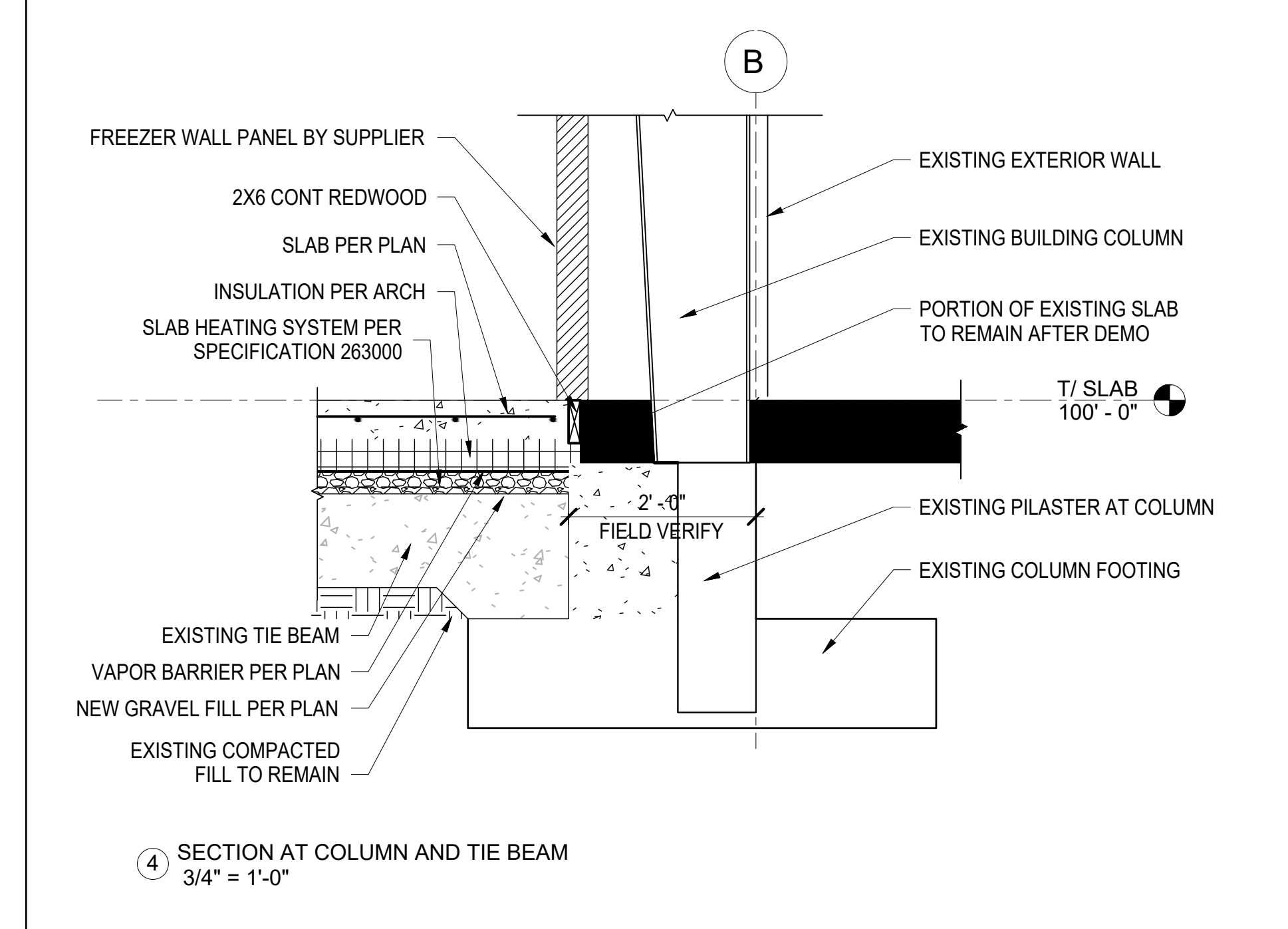
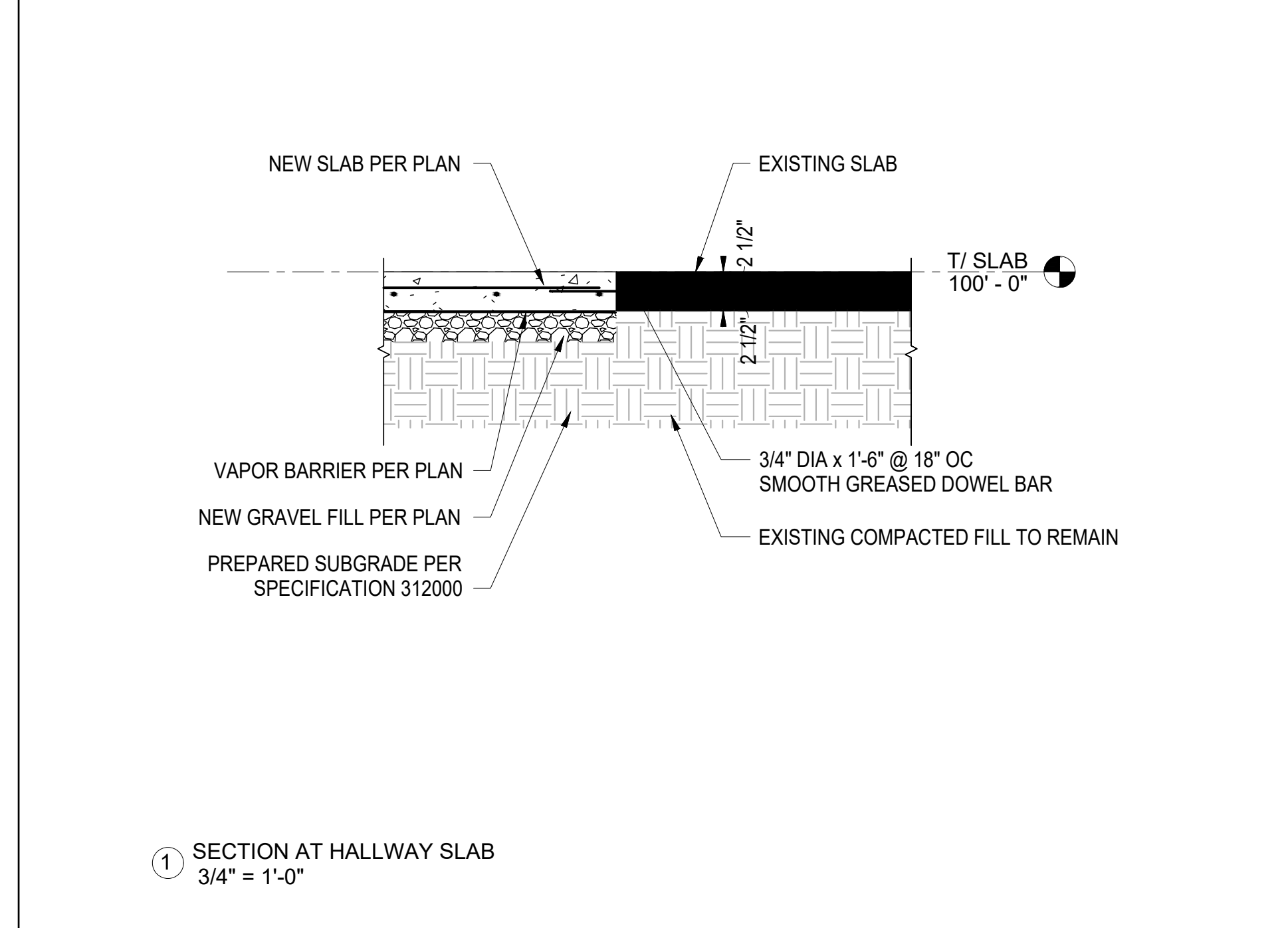
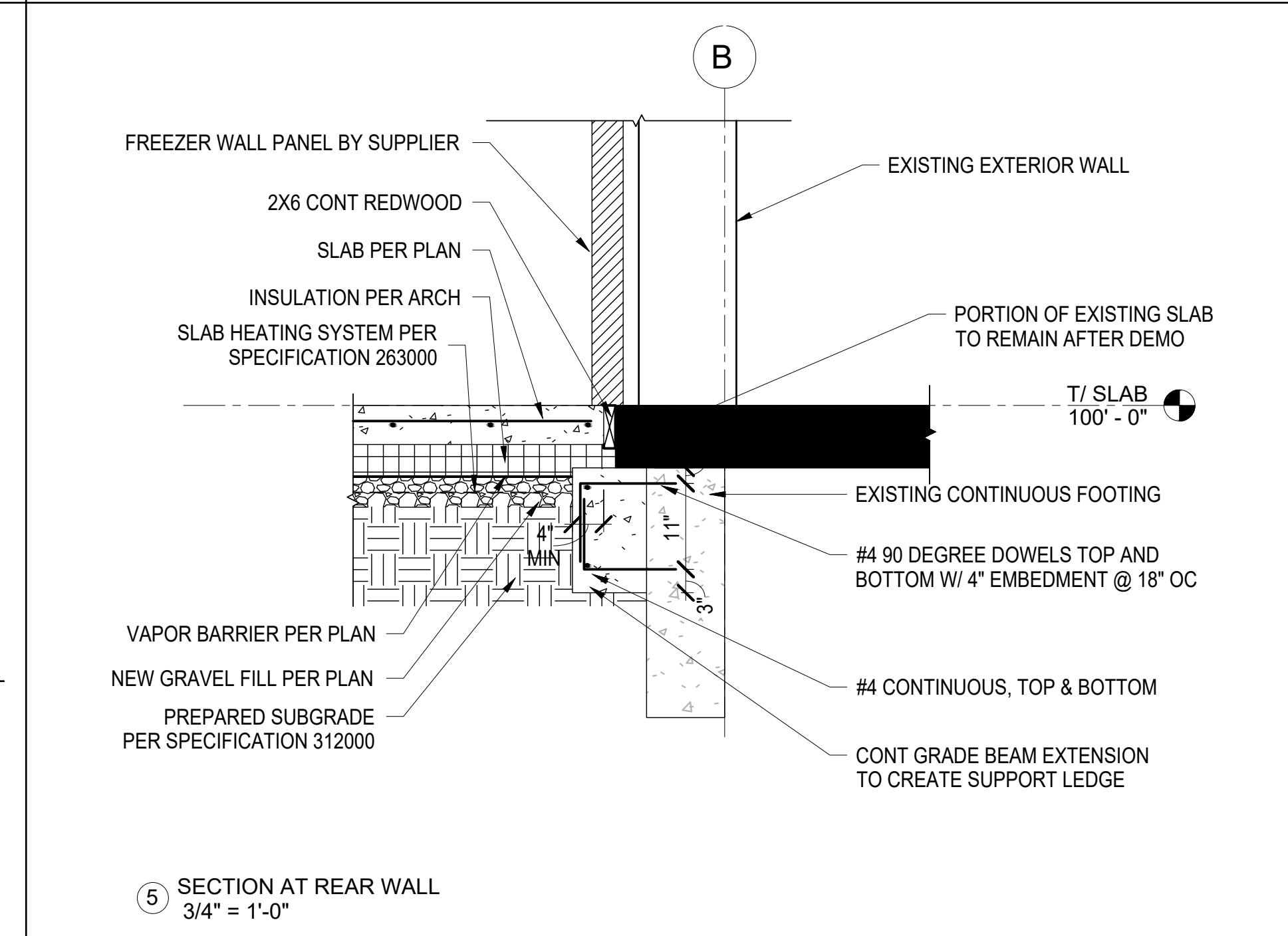
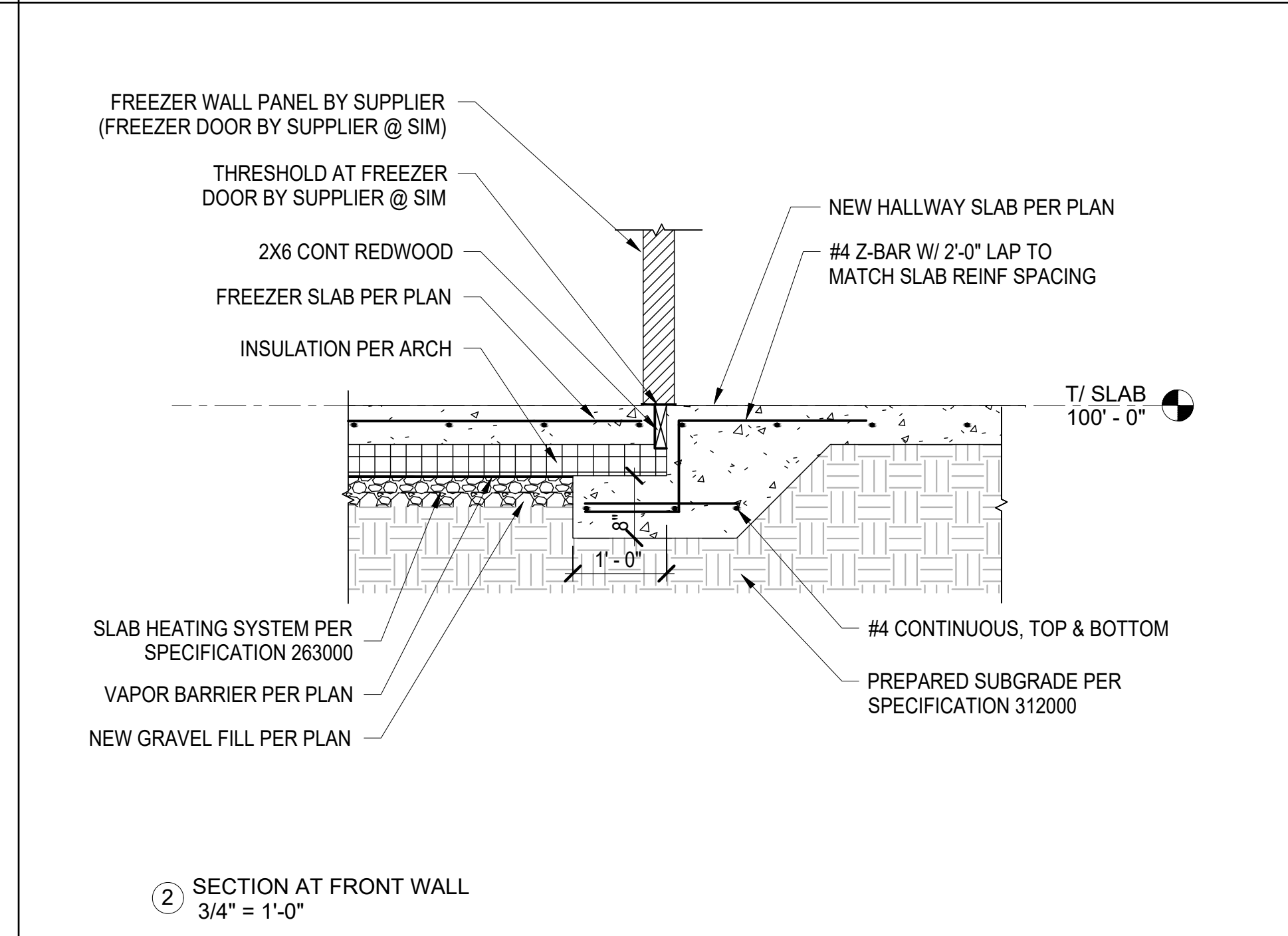
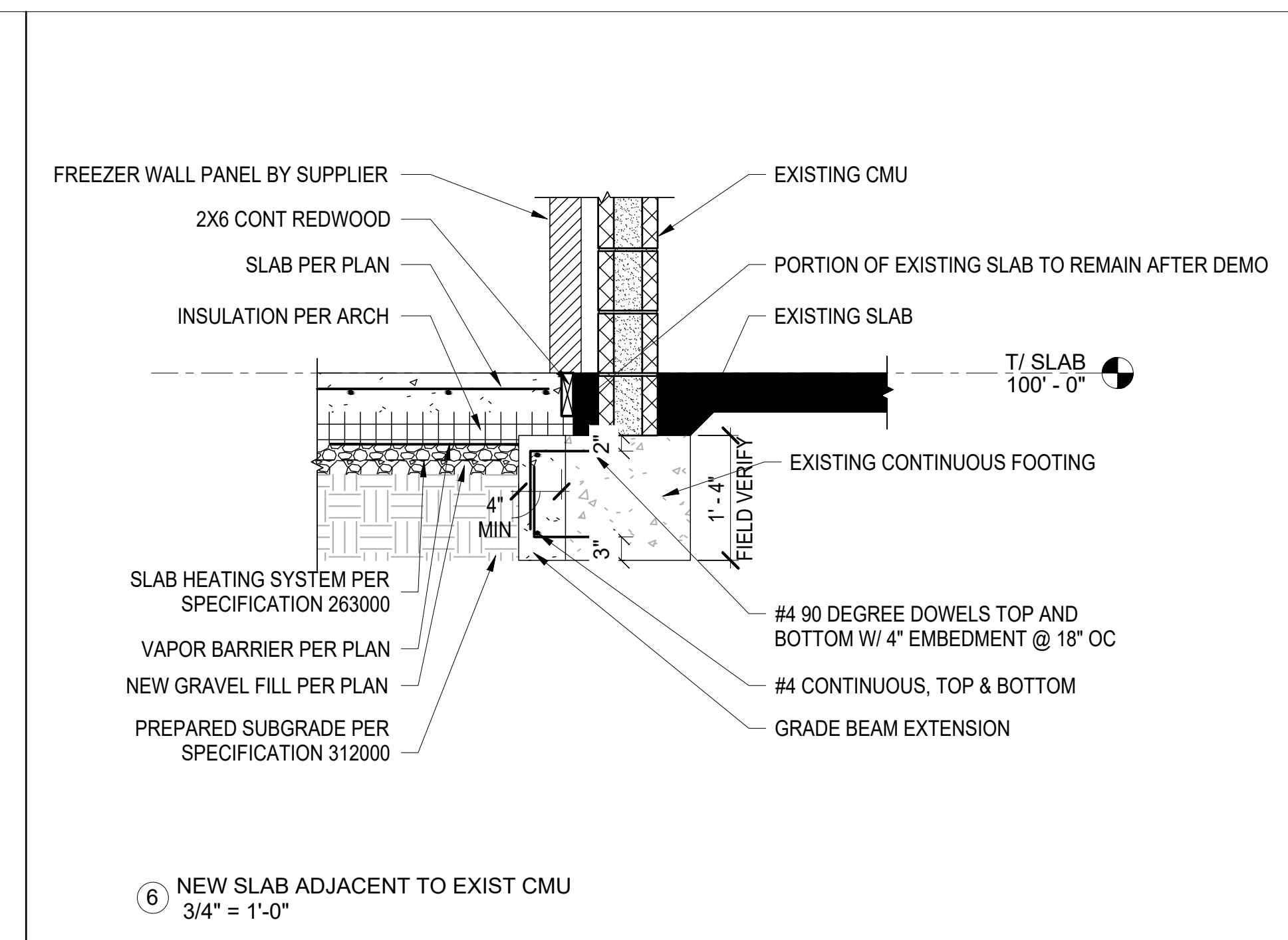
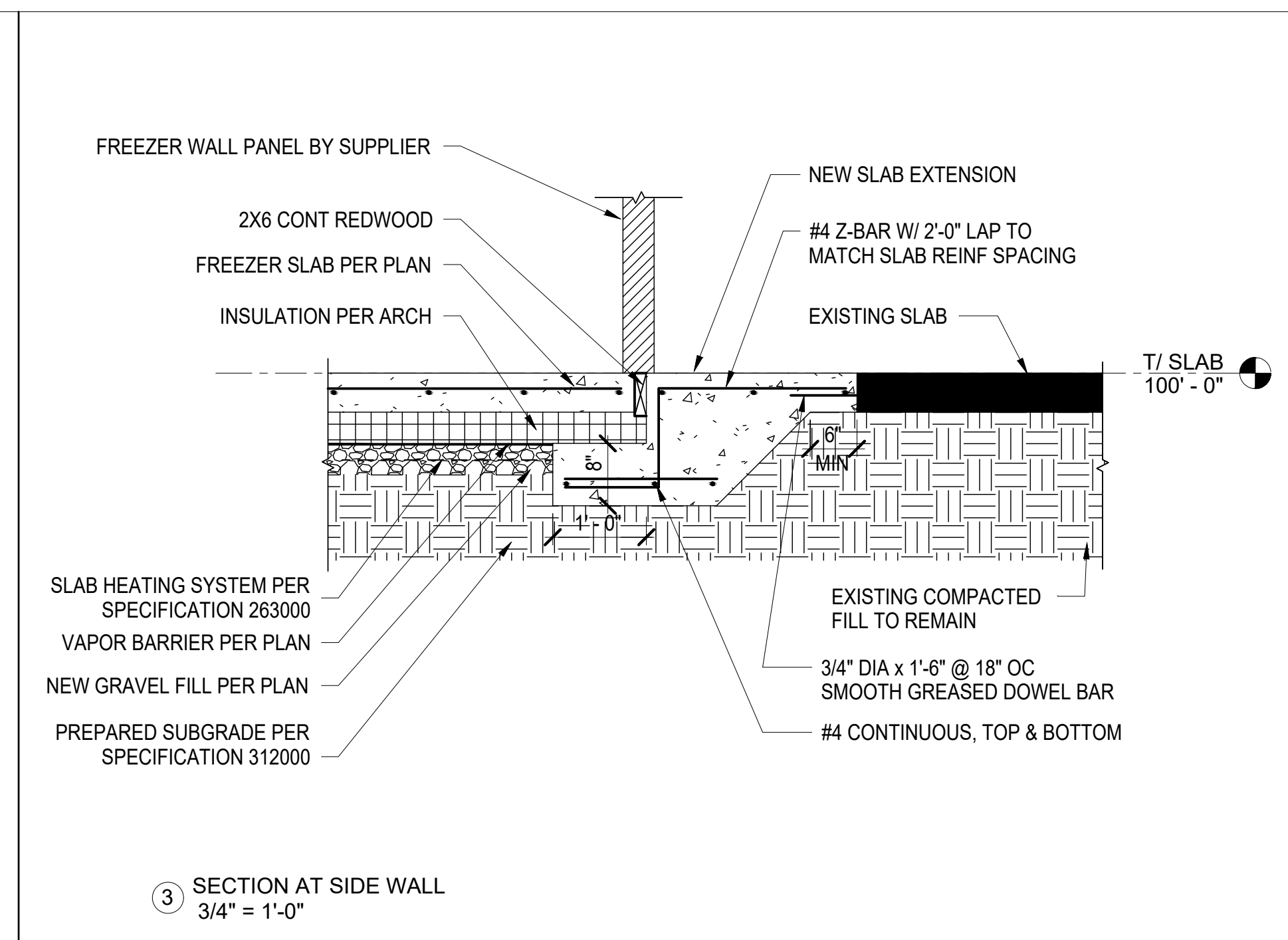
SHEET TITLE:

STRUCTURAL  
DETAILS

SHEET NUMBER:

**S-501**

10 OF 10 SHEETS  
JUNE 2, 2023



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