

BASIS OF DESIGN

DESIGN IS IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE.

LIVE LOAD:
SLAB ON GRADE AND STAIRS: 100 PSF
RENOVATION: WITHIN 5% OF ORIGINAL LOAD PER 2021 INTERNATIONAL EXISTING BUILDING CODE

EARTHQUAKE DESIGN DATA
SEISMIC IMPORTANCE FACTOR (I): 1.0
RISK CATEGORY: II
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
S_s: 13.0%g
S₁: 4.3%g
SITE CLASS: D
DESIGN SPECTRAL RESPONSE ACCELERATIONS:
SDS: 13.9%g
SD1: 6.9%g

FOUNDATIONS

STRIP AND SPREAD FOOTINGS ARE DESIGNED FOR THE ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF. AS LISTED IN THE EXISTING DRAWINGS AS ESTABLISHED BY SCHNABEL ENGINEERING ASSOCIATES, INC. IN THEIR GEOTECHNICAL REPORT DATED NOVEMBER 10, 1999.

ALL FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.

STRUCTURAL FILL MATERIAL AND COMPACTION PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS FOUND IN THE "GEOTECHNICAL ENGINEERING REPORT" PREPARED BY ECS MID-ATLANTIC, LLC, DATED JULY 25, 2025 (ECS PROJECT NO. 059806-A).

CONCRETE

CONCRETE SHALL COMPLY WITH THE PROVISIONS OF THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS: ACI 301, ACI 318, AND ACI 308.6R. EXPOSURE CLASS F0 FOR INTERIOR.

FLY ASH AND/OR GROUND GRANULATED BLAST-FURNACE SLAB MAY BE USED AS SUPPLEMENTARY CEMENTITIOUS MATERIALS TO 25% OF TOTAL CEMENTITIOUS MATERIALS.

MAXIMUM RATIO OF WATER TO CEMENTITIOUS MATERIALS (W/C RATIO) SHALL BE 0.50.

UNIT WEIGHT: 150 PCF
COMPRESSIVE STRENGTH (f_c) AT 28 DAYS: 3000 PSI.

SUBMIT CONCRETE MIX DESIGNS FOR EACH CONCRETE MIXTURE. SUBSTANTIATE COMPRESSIVE STRENGTH BY EITHER TRIAL MIXTURE OR FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 318 AND ACI 301.

REINFORCING STEEL SHALL MEET ASTM A615, GRADE 60, DEFORMED. SUBMIT SHOP DRAWINGS SHOWING LAYOUT, FABRICATION, BENDING, MATERIAL, GRADE, SPACING, AND SUPPORTS FOR ALL REINFORCING STEEL.

MINIMUM LAP SPLICES FOR REINFORCING BARS SHALL BE CLASS B. TENSION LAP CONFORMING TO ACI 318. STAGGER LAP SPLICES, UNLESS NOTED OTHERWISE.

PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER FOR REINFORCING BARS: 3" FREQUENCY OF FIELD TESTING OF SLUMP AND CONCRETE TEMPERATURE, AND PREPARATION OF SAMPLES FOR COMPRESSIVE STRENGTH TESTING, SHALL BE AT LEAST ONE FOR EACH DAY OF CONCRETE PLACEMENT.

CONCRETE MASONRY UNITS

CONCRETE UNIT MASONRY SHALL COMPLY WITH CODES AND SPECIFICATION TMS 402/602.

MORTAR SHALL BE PROPORTIONED TO MEET ASTM C270, TYPE S

CONCRETE UNIT MASONRY SHALL DEVELOP AN INSTALLED COMPRESSIVE STRENGTH (f_m) AT 28 DAYS OF 2000 PSI.

GROUT FOR CONCRETE UNIT MASONRY SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH 2000 PSI.

PROVIDE MASONRY UNITS WHICH HAVE CORES THAT ALIGN VERTICALLY TO PROVIDE CONTINUOUS UNOBSTRUCTED CELLS FOR GROUTING AND REINFORCING STEEL PLACEMENT.

STRUCTURAL STEEL

STRUCTURAL STEEL WORK SHALL COMPLY WITH THE PROVISIONS OF AISC 303 AND AISC 360.

STEEL FABRICATION SHALL BE PERFORMED BY A FABRICATOR QUALIFIED BY THE AISI QUALITY CERTIFICATION PROGRAM AS AN AISI-CERTIFIED PLANT, CATEGORY STD.

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

"W" SHAPES: ASTM A992

COLD-FORMED STRUCTURAL STEEL TUBING: ASTM A500, GRADE C

OTHER SHAPES, PLATES, AND BARS: ASTM A572, GRADE 50

WELDING PROCEDURES AND PERSONNEL SHALL BE QUALIFIED BY AWS D1.1.

WELDING ELECTRODES SHALL BE E70XX.

MINIMUM WELDS SHALL BE 3/16" FILLET WELD ALL AROUND UNLESS INDICATED OTHERWISE.

FIELD INSPECTION OF BOLTED AND WELDED CONNECTIONS SHALL BE PERFORMED ACCORDING TO AISC 360.

SUBMIT STAIR FRAMING SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED MARYLAND PROFESSIONAL ENGINEERING RESPONSIBLE FOR THEIR PREPARATION.

COLD-FORMED METAL FRAMING

LOAD-BEARING WALL FRAMING SHALL BE DESIGNED FOR THE INDICATED FLOOR LOADS. INTERIOR WALLS SHALL BE DESIGNED FOR A SERVICE WIND PRESSURE OF 5 PSF.

EXTERIOR NON-LOAD-BEARING WALL FRAMING SHALL BE DESIGNED FOR A SERVICE WIND PRESSURE OF 10 PSF. LIMIT HORIZONTAL DEFLECTION UNDER DESIGN WIND PRESSURES TO 1/800 OF THE WALL HEIGHT, WITHOUT REGARD FOR CONTRIBUTION OF THE SHEATHING MATERIALS.

FRAMING SHALL COMPLY WITH AISI S100-16 WITH SUPPLEMENT 2-20 AND AISI S202-20.

FRAMING SHALL BE OF SHEET STEEL MEETING ASTM A1003, WITH MINIMUM YIELD POINT OF 50,000 PSI FOR 0.0426-INCH AND THINNER COMPONENTS, AND 50,000 PSI FOR 0.0538-INCH AND THICKER COMPONENTS.

ALL COMPONENTS SHALL BE GALVANIZED TO MEET ASTM A653, WITH COATING THICKNESS OF G90.

WALL STUDS SHALL BE MANUFACTURER'S STANDARD C-SHAPED STUDS, PUNCHED, WITH STIFFENED FLANGES AT LEAST 1/8" WIDE, MINIMUM THICKNESS OF 0.0426 INCHES, MAXIMUM SPACING OF 16 INCHES.

RUNNER TRACKS SHALL BE MANUFACTURER'S STANDARD U-SHAPED TRACK, WITH MINIMUM FLANGE WIDTH OF 1/4 INCHES AND MINIMUM THICKNESS TO MATCH THE WALL STUDS.

FABRICATE AND ERECT FRAMING ASSEMBLIES LEVEL, PLUMB, AND TRUE TO LINE WITH A MAXIMUM ALLOWABLE TOLERANCE VARIATION OF 1/8 INCH IN 10 FEET.

SUBMIT COLD-FORMED WALL SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED MARYLAND PROFESSIONAL ENGINEERING RESPONSIBLE FOR THEIR PREPARATION.

TEMPORARY SHORING

PROVIDE AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED.

STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF SELECTIVE DEMOLITION. SHORING DESIGN SHALL BE COMPLETED BY A DELEGATED DESIGN ENGINEER.

SUBMIT SHORING SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED MARYLAND PROFESSIONAL ENGINEERING RESPONSIBLE FOR THEIR PREPARATION.

ADHESIVE ANCHORS

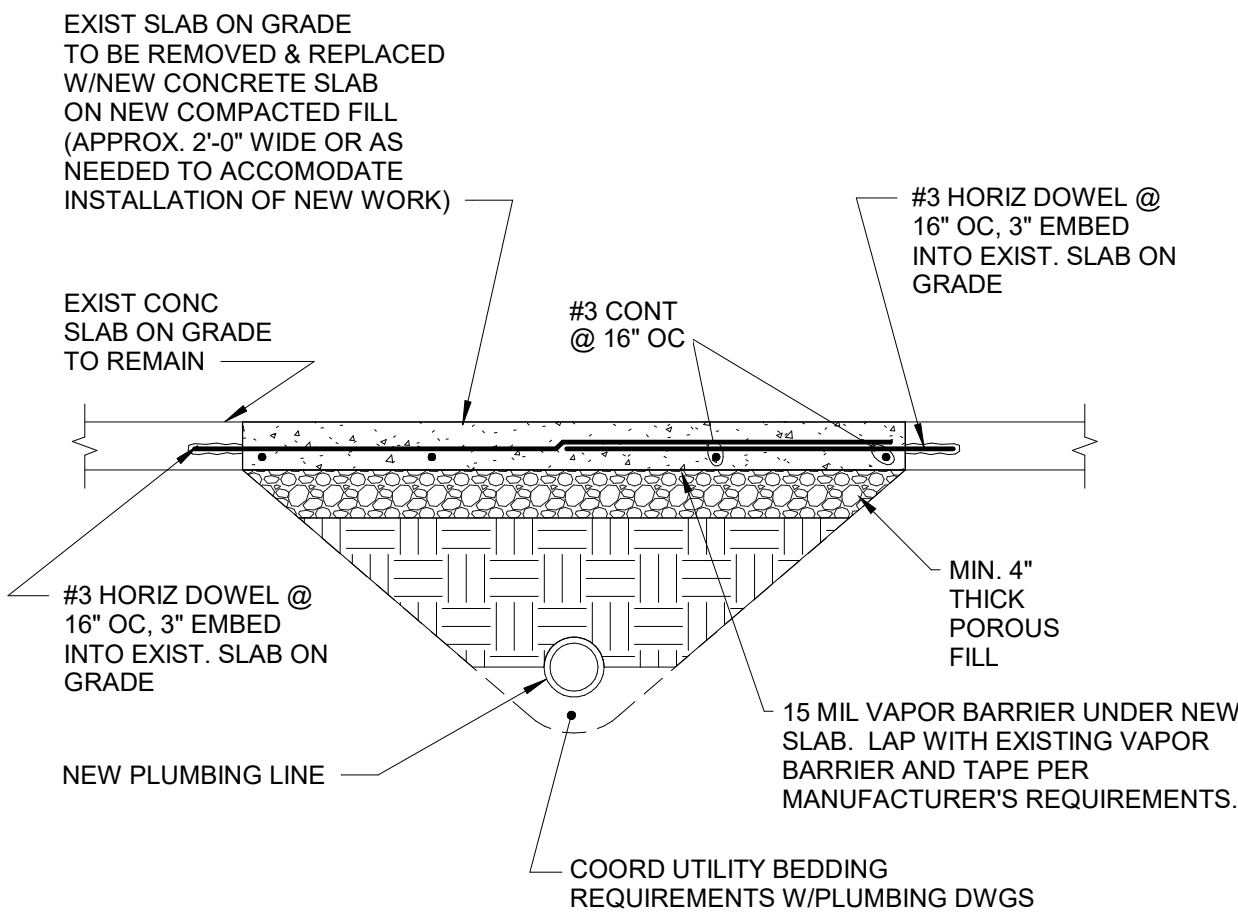
UNLESS OTHERWISE NOTED, ALL ADHESIVE ANCHORS SHALL BE INSTALLED INTO CONCRETE OR MASONRY WITH HILTI HIT-HY 100 ADHESIVE WITH HAS-V-36 5/8" ANCHORS RODS OR ASTM A615, GRADE 60 REBAR.

NO ANCHOR SHALL BE INSTALLED PRIOR TO RECEIVING PROPER INSTALLATION TRAINING FROM A MANUFACTURER'S REPRESENTATIVE. ALL ANCHORS SHALL BE INSTALLED BY PERSONNEL TRAINED BY A MANUFACTURER'S REPRESENTATIVE.

ABV	ABOVE	JST	JOIST
ADH AHR	ADHESIVE ANCHOR	JT	JOINT
ADJ	ADJACENT	K	KIP (1000 POUNDS)
AFT	ABOVE FINISHED FLOOR	KSI	KIPS PER SQUARE INCH
APPROX	APPROXIMATE	LBS	POUNDS
ARCH.	ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
BF	BRACED FRAME	LLV	LONG LEG VERTICAL
BIDG	BUILDING	MAX	MAXIMUM
BLW	BELOW	MECH	MECHANICAL
BM	BEAM	MFR	MANUFACTURER
BOT	BOTTOM	MID	MIDDLE
BRG	BEARING	MIN	MINIMUM
BTWN	BETWEEN	MTL	METAL
CFMF	COLD FORMED METAL FRAMING	NTS	NOT TO SCALE
CFS	COLD FORMED STEEL	OC (O/C)	ON CENTER
CIP	CAST-IN-PLACE	OPNG	OPENING
CJ	CONTROL JOINT	PAF	POWER-ACTUATED FASTENER
CL	CENTERLINE	PERP	PERPENDICULAR
CLR	CLEAR	PL	PLATE
CMU	CONCRETE MASONRY UNITS	PSF	POUNDS PER SQUARE FOOT
COL	COLUMN	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PT	POINT
CONN	CONNECTION	R	RADIUS
CONT	CONTINUOUS	REINF	REINFORCEMENT, REINFORCED
DIA	DIAMETER	REQ'D	REQUIRED
DIAG	DIAGONAL	SCHED	SCHEDULE
DM	DIMENSION	SHT	SHEET
DWG(S)	DRAWING(S)	SH	SIMILAR
EA	EACH	SL	SLOPED
EF	EACH FACE	SOG	SLAB ON GRADE
EJ	EXPANSION JOINT	STD	STANDARD
ELEC	ELECTRICAL	STIFF	STIFFENER
ELEV	ELEVATION	STL	STEEL
EMBED	EMBEDMENT	STRL	STRUCTURAL
EOS	EDGE OF SLAB	SYN	SYMMETRICAL
EQ	EQUAL	TAB	TOP AND BOTTOM
EQUIP.	EQUIPMENT	THK	THICK
EW	EACH WAY	TOP	TOP OF FOOTING
EXT	EXISTING	TOS	TOP OF STEEL
EXT	EXTERIOR	TRANSV	TRANSVERSE
EXPN AHR	EXPANSION ANCHOR	TYP	TYPICAL
FIN. FLR	FINISHED FLOOR	UNO	UNLESS NOTED OTHERWISE
FLG	FLANGE	VERT	VERTICAL
FRMG	FRAMING	VIF	VERIFY IN FIELD
FTG	FOOTING	W/	WITH
GA	GAUGE	WP	WORKING POINT
GALV	GALVANIZED	WWF	WELDED WIRE FABRIC
GB	GRADE BEAM		
HORIZ	HORIZONTAL		
INFO	INFORMATION		
INT	INTERIOR		

1 STRUCTURAL ABBREVIATIONS

S0.1-1A N.T.S.



NOTE: SEE PLUMBING DRAWINGS FOR PLUMBING LINE LOCATIONS.

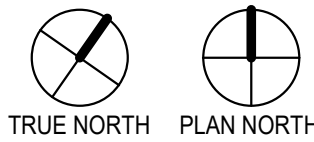
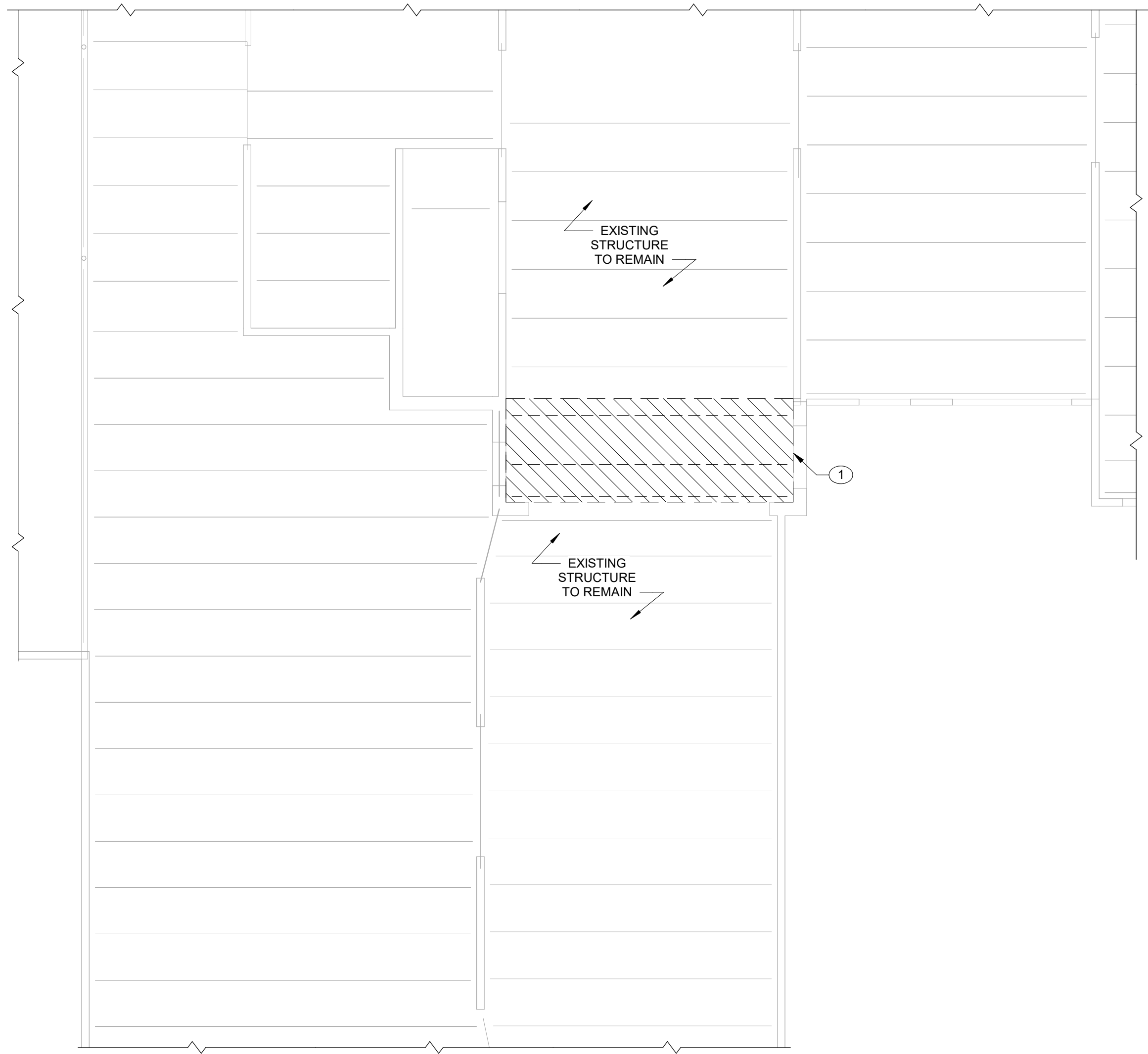
2 TYP SOG INFILL @ PLUMBING TRENCHES

S0.1-1A N.T.S.

- STRUCTURAL DEMOLITION NOTES:
- EXISTING CONDITIONS ARE APPROXIMATE BASED ON ORIGINAL CONSTRUCTION DRAWINGS. FIELD VERIFY LOCATION AND ELEVATION OF ALL STRUCTURAL ELEMENTS AFFECTED BY DEMOLITION WORK.
 - TEMPORARY SHORING SYSTEMS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND. SUBMIT SHOP DRAWINGS AND CALCULATIONS AS REQUIRED BY THE SPECIFICATIONS.

DEMOLITION PLAN NOTES:

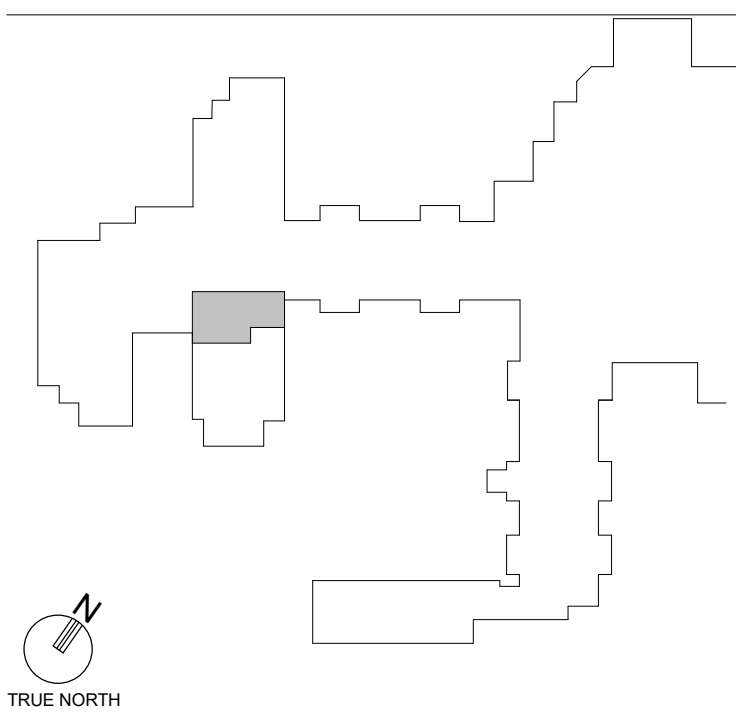
- ① EXISTING SLAB AND HAMBO JOIST SYSTEM TO BE REMOVED. INSTALL LOAD-BEARING WALL UNDER SLAB EDGE PRIOR TO DEMOLITION.



3 4TH FLOOR FRAMING DEMO PLAN

S0.1-1A 1/8" = 1'-0"

KEYPLAN



PROJECT TITLE

Collington
A KENDAL AFFILIATE

**ENABLING RENOVATION
CONSTRUCTION DOCUMENTS**

SFCS Architecture
Engineering
Planning
Interiors

SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

DESIGNER : JGB DRAWN : HJS
ARCHITECT : EMUNSS CHECKED : LBF
ENGINEER : LBF APPROVED : LBF

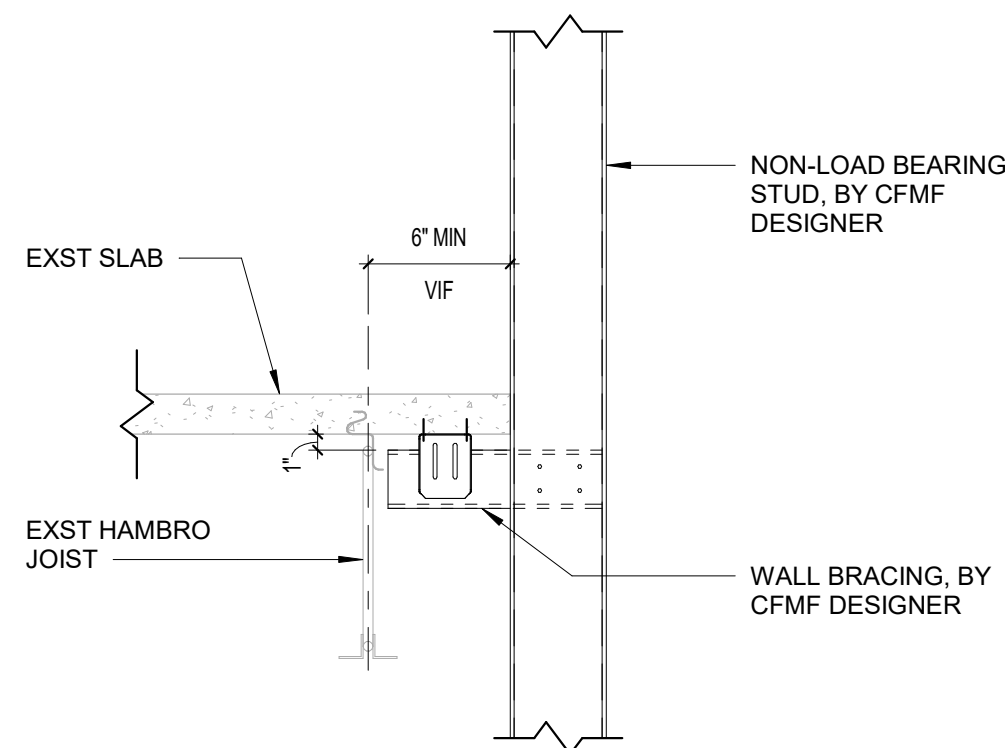
NO. REVISION DESCRIPTION DATE

DRAWING TITLE

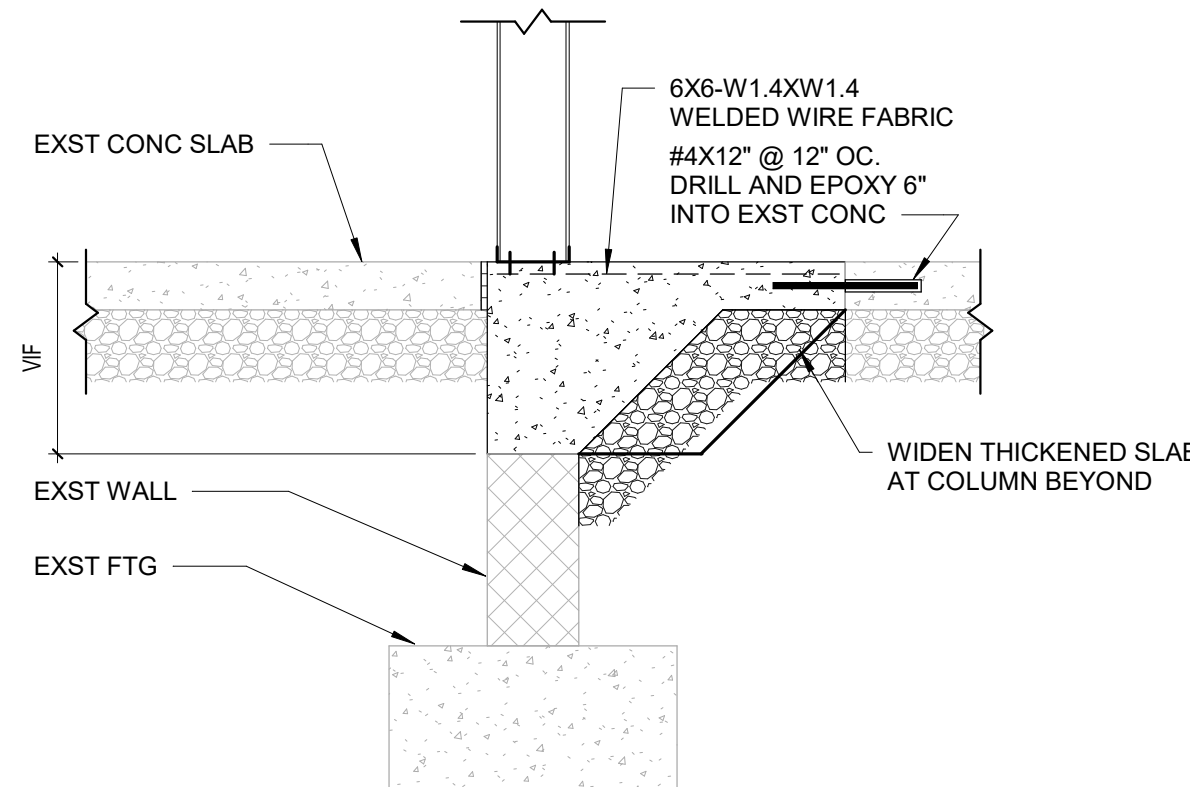
**STRUCTURAL NOTES AND
DEMO PLANS**

DATE: MAY 13, 2026
COMM. NO. 18135.00
DRAWING
18135.00

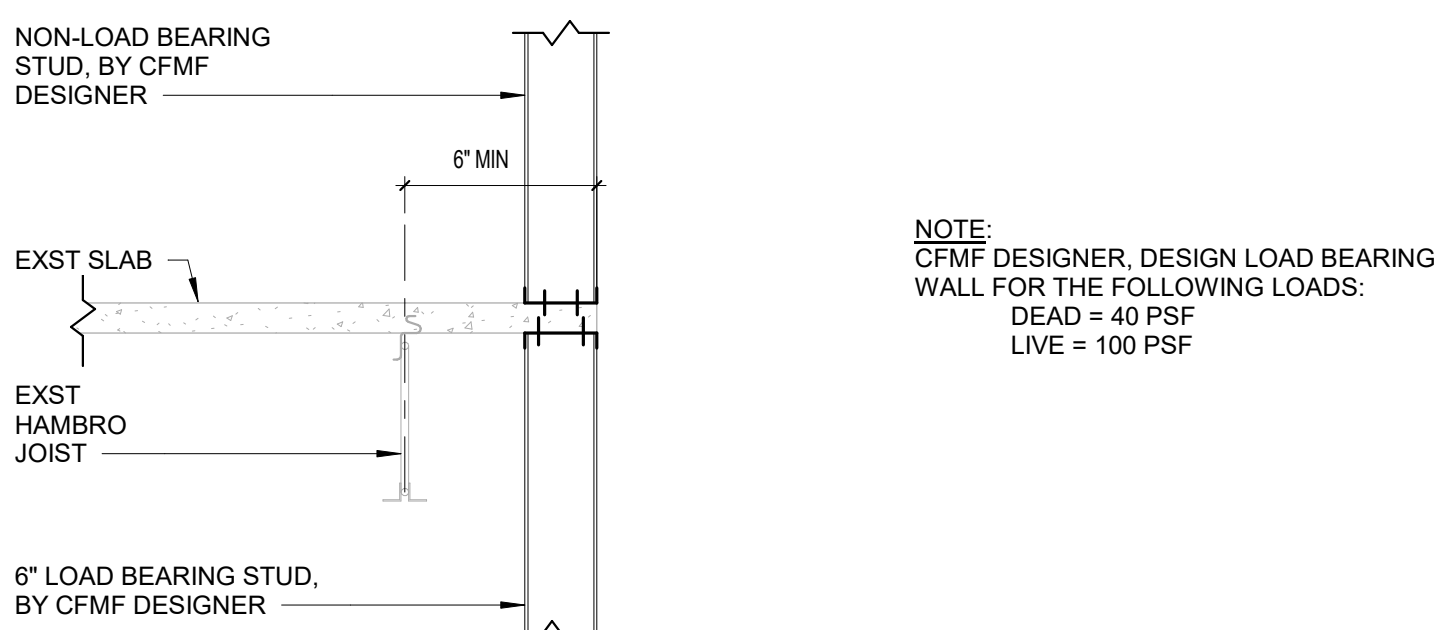
S0.1-1A



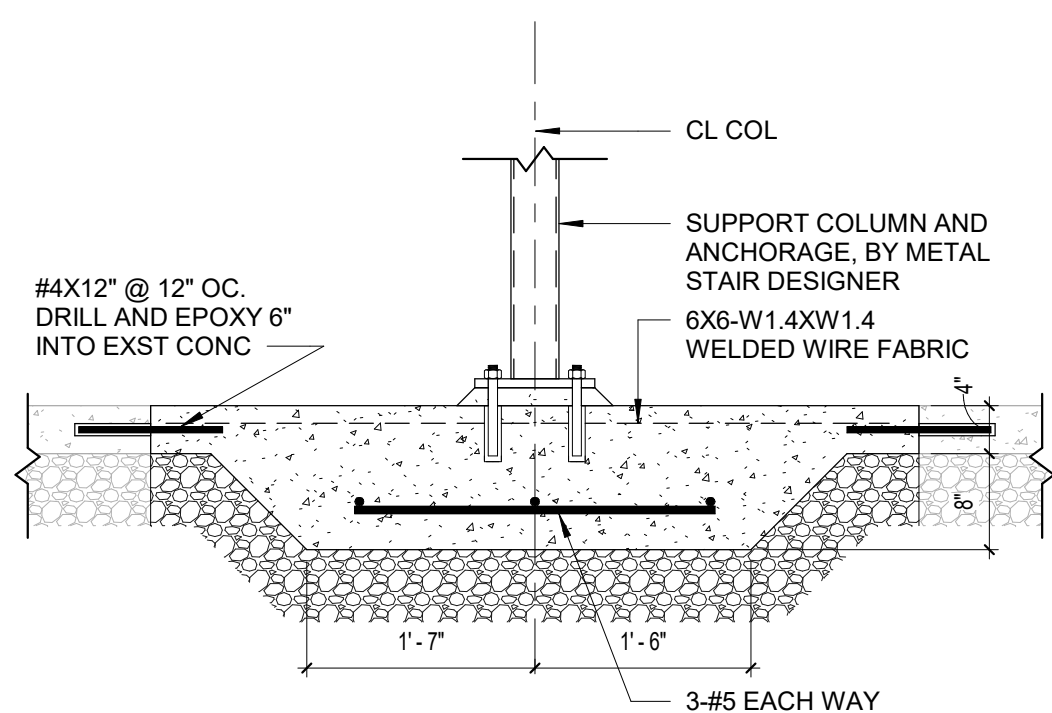
7 SECTION
S1.40-1A 1" = 1'-0"



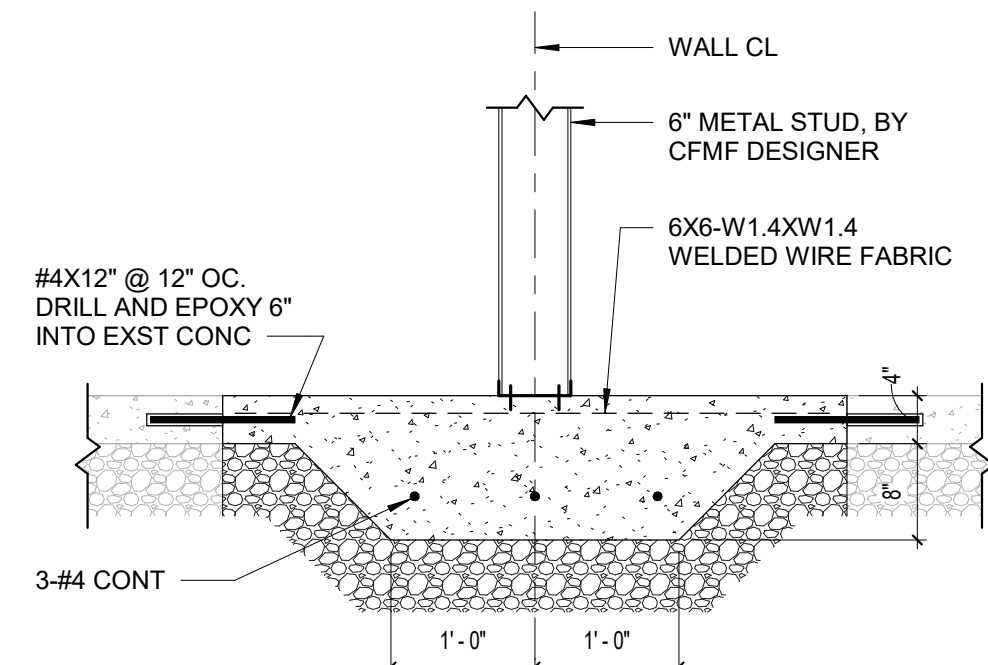
6 SECTION
S1.40-1A 3/4" = 1'-0"



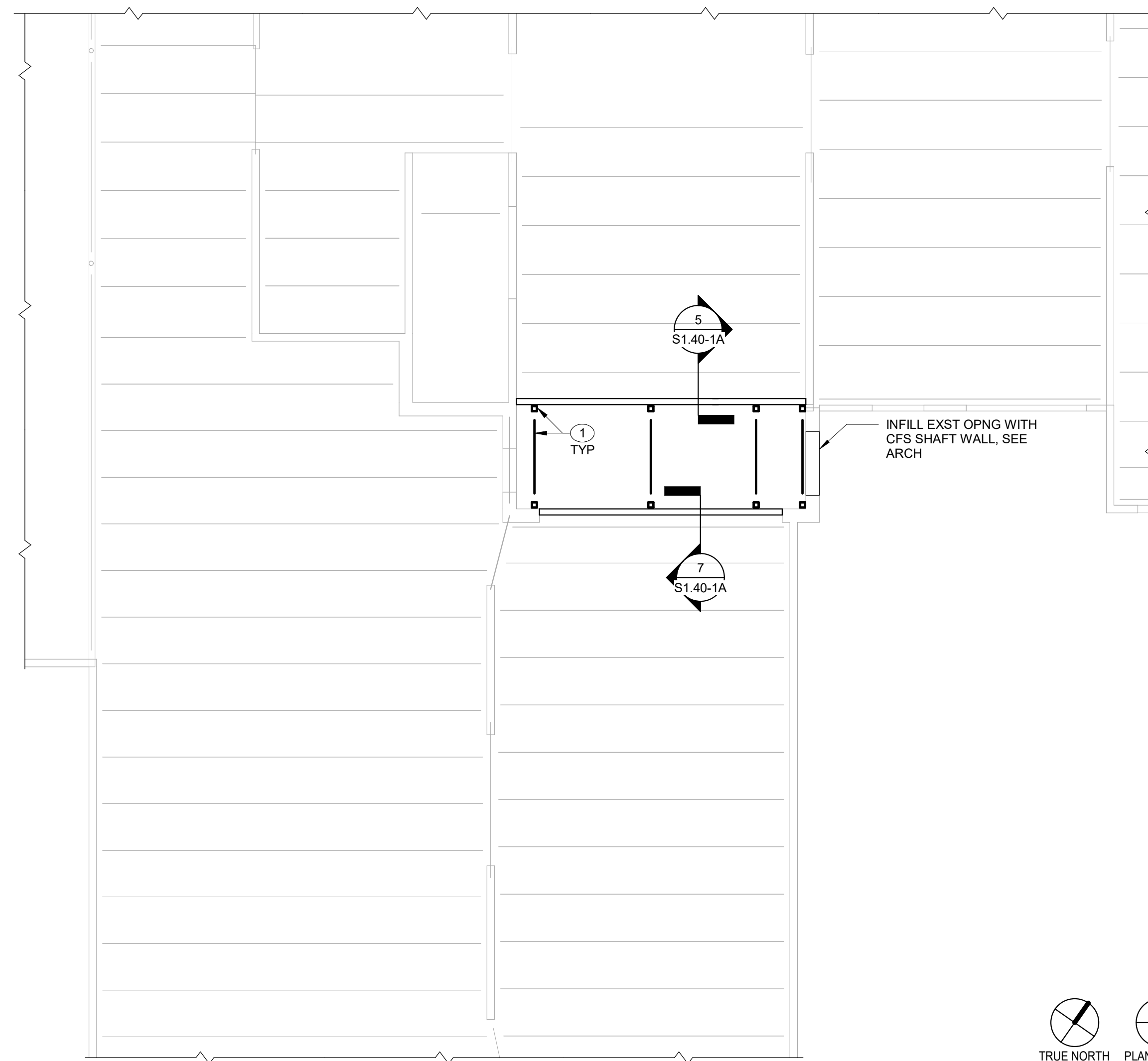
5 SECTION
S1.40-1A 3/4" = 1'-0"



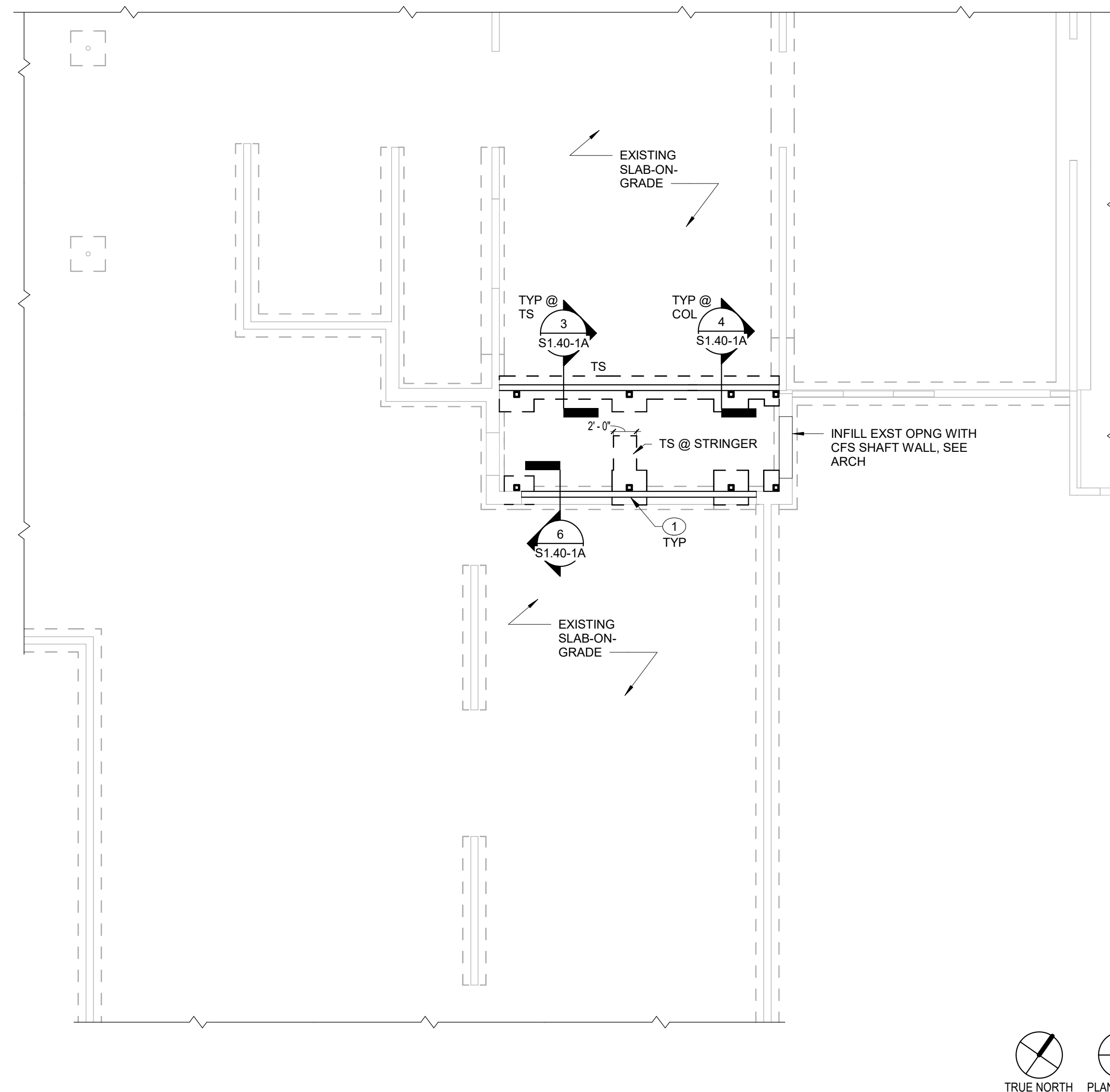
4 SECTION
S1.40-1A 3/4" = 1'-0"



3 SECTION
S1.40-1A 3/4" = 1'-0"

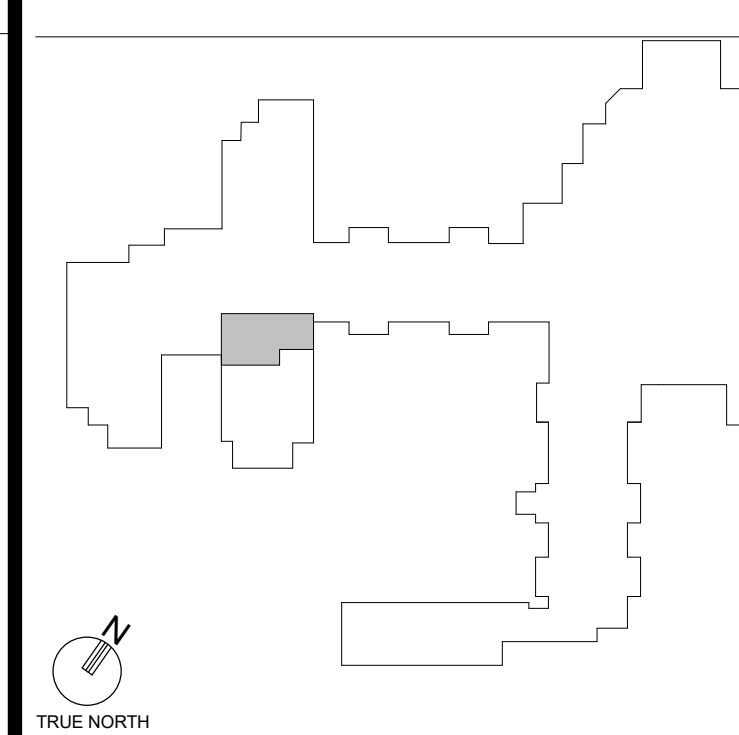


2 FOURTH FLOOR FRAMING PLAN
S1.40-1A 1/8" = 1'-0"



1 FOUNDATION PLAN
S1.40-1A 1/8" = 1'-0"

KEYPLAN



GENERAL NOTES

1. ALL DIMENSIONS SHOULD BE COORDINATED WITH ARCH DRAWINGS AND FIELD VERIFIED.

PLAN NOTES

1. STRUCTURE BY METAL STAIR DESIGNER.

PROJECT TITLE

Collington
A KENDAL AFFILIATE

ENABLING RENOVATION
CONSTRUCTION DOCUMENTS

SFCS Architecture
Engineering
Planning
Interiors

SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

DESIGNER : JGB	DRAWN : HJS
ARCHITECT : EMUNNS	CHECKED : LBF
ENGINEER : LBF	APPROVED : LBF
NO.	REVISION DESCRIPTION
DATE	

DRAWING TITLE
STRUCTURAL PLANS

DATE: MAY 13, 2026
COMM. NO. 18135.00

S1.40-1A