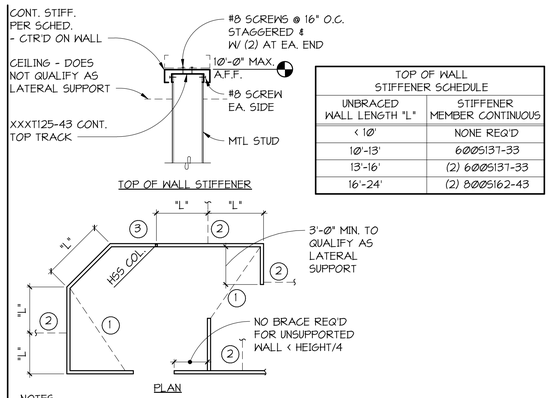


TOP OF WALL STIFFENER

PLAN

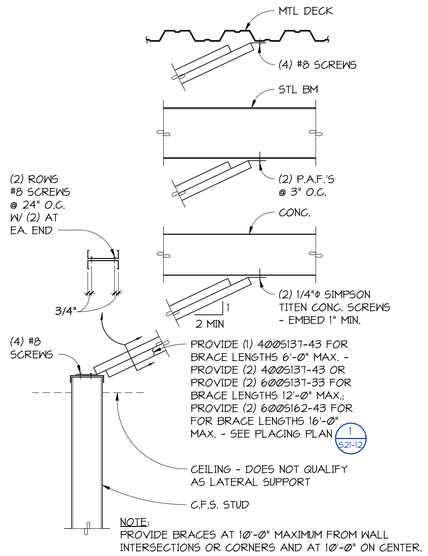
TOP OF WALL STIFFENER SCHEDULE	
UNBRACED WALL LENGTH "L"	STIFFENER MEMBER CONTINUOUS
< 10'	NONE REQ'D
10'-13'	600S137-33
13'-16'	(2) 600S137-33
16'-24'	(2) 800S162-43

NOTES:

1. THIS PLAN IS AN EXAMPLE ONLY. IT DOES NOT REPRESENT A SPECIFIC WALL.
2. "L" INDICATES UNBRACED LENGTH OF WALLS - SEE SCHEDULE FOR TOP OF WALL STIFFENER SIZE.
3. AT CONTRACTORS OPTION, IN LIEU OF TOP OF WALL STIFFENER:
   - (1) INDICATES HORIZONTAL BRACE EXTENDING TO ADJACENT CORNER - SEE 3/S21-12.
   - (2) INDICATES BRACE UP TO STRUCTURE - SEE 2/S21-12.
   - (3) INDICATES WALL BRACED AT HOLLOW STRUCTURAL SECTION COLUMN - PROVIDE L2"x2"x1/2" LESS THAN STUD WIDTH x54MIL. WITH (4) #8 SCREWS TO TOP TRACK. - WELD CONNECTION ANGLE TO HOLLOW STRUCTURAL SECTION COLUMN OR PROVIDE (4) POWER ACTUATED FASTENERS AT CONTRACTOR'S OPTION.
4. ALL TOP TRACK SPLICES SHALL BE AT BRACE LOCATIONS.

TYPICAL LATERAL SUPPORT FOR COLD-FORMED STEEL STUD WALLS NOT EXTENDING TO STRUCTURE ABOVE

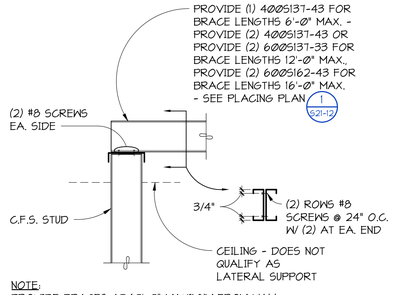
1 S21-12 DETAIL
NO SCALE



NOTE:
PROVIDE BRACES AT 10'-0" MAXIMUM FROM WALL INTERSECTIONS OR CORNERS AND AT 10'-0" ON CENTER.

TYPICAL COLD-FORMED STEEL STUD WALL BRACE UP TO STRUCTURE

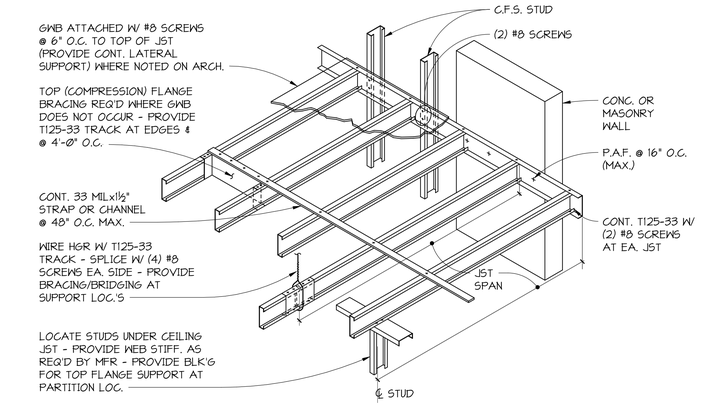
2 S21-12 DETAIL
NO SCALE



NOTE:
PROVIDE BRACES AT 10'-0" MAXIMUM FROM WALL INTERSECTIONS OR CORNERS AND AT 10'-0" ON CENTER.

TYPICAL COLD-FORMED STEEL STUD WALL HORIZONTAL BRACE

3 S21-12 DETAIL
NO SCALE



TYPICAL COLD-FORMED STEEL CEILING FRAMING DETAIL

COLD-FORMED STEEL JOIST CEILING FRAMING SCHEDULE 10 POUNDS PER SQUARE FOOT (ASD) LIVE LOAD, 1/240 DEFLECTION LIMIT, (2) LAYERS MAXIMUM OF 5/8" GYPSUM WALL BOARD												
JOIST SIZE	STUD MIL											
	18 MIL						33 MIL					
	JOIST SPACING											
	12" O.C.		16" O.C.		24" O.C.		12" O.C.		16" O.C.		24" O.C.	
	NUMBER OF CONTINUOUS SPANS											
	ONE	TWO+	ONE	TWO+	ONE	TWO+	ONE	TWO+	ONE	TWO+	ONE	TWO+
	MAXIMUM JOIST SPAN ALLOWED											
250S	6'-9"	6'-11	5'-4"	5'-9"	-	4'-4"	8'-3"	10'-0"	7'-6"	8'-9"	6'-4"	7'-1"
362S	7'-3"	6'-8"	5'-5"	5'-3"	-	-	11'-0"	13'-3"	10'-0"	11'-6"	8'-4"	9'-4"
400S	9'-0"	6'-3"	7'-6"	4'-10"	5'-0"	-	11'-11"	14'-3"	10'-10"	12'-4"	9'-0"	9'-9"
600S	-	-	-	-	-	-	16'-6"	16'-10"	14'-9"	13'-10"	12'-0"	10'-2"

NOTES:

1. BRACE TOP FLANGE AT 48" ON CENTER MAXIMUM.
2. INFORMATION SHOWN TAKEN FROM THE GYPSUM CONSTRUCTION HAND BOOK BY CGC INCORPORATED.
3. SEE ARCHITECTURAL DRAWING FOR LATERAL SUPPORT OF SUSPENDED FRAMING.

4 S21-12 DETAIL
NO SCALE

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1301 5th Ave
#2300, Seattle,
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t +1206381600
www.perkinswill.com

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AHBL
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Seattle, WA 98101

PCS
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Seattle WA 98104

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Seattle, WA 98134

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401 15th Ave SE,
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WA 98372

MultiCare Good Samaritan Hospital

MULTICARE

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

NON-BEARING COLD FORMED STEEL DETAILS

SHEET NUMBER

S21-12

1 / S11-05 LEVEL 05 ROOF FRAMING PLAN

3/16" = 1'-0"

6/24/2025 11:48:10 AM Autodesk Docs://MultiCare - Good Samaritan Hospital Kitchen Expansion/SSTRU_MultiCare-Kitchen-R25.rvt

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KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

FRAMING PLAN - LEVEL 05

SHEET NUMBER

S11-05

NON-AISC CERTIFIED STEEL FABRICATORS SHALL HAVE FIVE YEARS MINIMUM EXPERIENCE ON SIMILAR PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TWO WEEKS PRIOR TO BID.

STEEL ERECTORS

ALL STEEL ERECTION SHALL BE PERFORMED BY AN ERECTOR CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. THE ERECTOR SHALL BE DESIGNATED AN AISC CERTIFIED ERECTOR, CATEGORY CSE AT THE TIME OF BID AND SHALL MAINTAIN THIS CERTIFICATION FOR THE DURATION OF THE PROJECT.

NON-AISC CERTIFIED STEEL ERECTORS MAY BE ACCEPTABLE PROVIDED THEY HAVE A MINIMUM OF (5) YEARS EXPERIENCE ON PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TO STRUCTURAL ENGINEER (2) WEEKS PRIOR TO BID.

STEEL DETAILERS

ALL STEEL DETAILING SHALL BE PERFORMED BY A DETAILER WITH FIVE YEARS MINIMUM EXPERIENCE ON SIMILAR PROJECTS OF EQUAL OR LARGER COMPLEXITY AND SCOPE. QUALIFICATIONS SHALL BE SUBMITTED TWO WEEKS PRIOR TO BID.

MATERIAL PROPERTIES

WIDE FLANGE SECTIONS: ASTM A992 (Fy = 50 KSI)

OTHER SHAPES AND PLATES: ASTM A36 (Fy = 36 KSI) TYP. U.N.O.; ASTM A572 (Fy = 50 KSI) WHERE INDICATED

HOLLOW STRUCTURAL SECTIONS: RECTANGULAR & SQUARE - ASTM A500, GRADE C (Fy = 50 KSI) ROUND - ASTM A500, GRADE C (Fy = 46 KSI)

STRUCTURAL STEEL PIPES: ASTM A53, GRADE B, TYPE E OR S (Fy = 35 KSI)

MACHINE BOLTS (M.B.): ASTM A307, GRADE A

HIGH-STRENGTH BOLTS: ASTM 3125, GRADE F1852, UNLESS NOTED OTHERWISE, ASTM 3125, GRADE F2280 WHERE INDICATED

ANCHOR BOLTS (A.B.): ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE, ASTM F1554, GRADE 105 WHERE INDICATED.

WIDE FLANGE STRUCTURAL MEMBERS WHICH ARE ASTM A6 GROUP 3 SHAPES WITH FLANGE THICKNESS 1-1/2" THICK AND THICKER, AND ALL ASTM A6 GROUP 4 AND 5 SHAPES AND PLATE THAT IS 1-1/2" THICK OR THICKER SHALL HAVE A CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LBS @ 70 DEG F.

WELDING

STRUCTURAL STEEL: WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE" AWS D1.1.

LATERAL FORCE-RESISTING SYSTEM: WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE SEISMIC SUPPLEMENT" AWS D1.8.

REINFORCING STEEL: WELD IN ACCORDANCE WITH "REINFORCING STEEL WELDING CODE" AWS D1.4. WELD ONLY WITH SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER. IN NO CASE SHALL A WELD BE MADE WITHIN 6 BAR DIAMETERS OF A "COLD BEND".

CERTIFICATION: ALL WELDING SHALL BE PERFORMED BY WABO CERTIFIED WELDERS. WELDERS SHALL BE PREQUALIFIED FOR EACH POSITION AND WELD TYPE WHICH THE WELDER WILL BE PERFORMING.

WELD TABS (ALSO KNOWN AS WELD "EXTENSION" TABS OR "RUN OFF" TABS) SHALL BE USED. AFTER THE WELD HAS BEEN COMPLETED THE WELD TABS SHALL BE REMOVED AND THE WELD END GROUND TO A SMOOTH CONTOUR. WELD "DAMS" OR "END DAMS" SHALL NOT BE USED.

THE PROCESS CONSUMABLES FOR ALL WELD FILLER METAL INCLUDING TACK WELDS, ROOT PASS AND SUBSEQUENT PASSES DEPOSITED IN A JOINT SHALL BE COMPATIBLE.

ALL WELD FILLER METAL AND WELD PROCESS SHALL PROVIDE THE TENSILE STRENGTH AND CHARPY V-NOTCH RATINGS AS FOLLOWS:

GRAVITY FRAME

WELD TYPE	FILLER METAL TENSILE STRENGTH	CHARPY V-NOTCH (CVN) RATING
FILLET	70 KSI	-----
PARTIAL PENETRATION	70 KSI	-----
COMPLETE PENETRATION	70 KSI	20 FT-LBS @ 40 DEG F

LATERAL FORCE-RESISTING SYSTEM

WELD TYPE	FILLER METAL TENSILE STRENGTH	CHARPY V-NOTCH (CVN) RATING
FILLET	70 KSI	20 FT-LBS @ 0 DEG F
PARTIAL PENETRATION	70 KSI	20 FT-LBS @ 0 DEG F
COMPLETE PENETRATION	70 KSI	20 FT-LBS @ 0 DEG F
FILLET (1)	70 KSI	40 FT-LBS @ 70 DEG F
PARTIAL PENETRATION (1)	70 KSI	40 FT-LBS @ 70 DEG F
COMPLETE PENETRATION (1)	70 KSI	40 FT-LBS @ 70 DEG F

(1) DCW LOCATIONS ARE INDICATED IN THE DETAILS.

WELDED CONNECTIONS INSPECTION:

1. ALL WELDING SHALL BE CHECKED BY VISUAL MEANS AND BY OTHER METHODS DEEMED NECESSARY BY THE WELDING INSPECTOR.

2. ALL FULL PENETRATION WELDS TO MEMBERS WHICH FORM A PORTION OF THE LATERAL FORCE-RESISTING SYSTEM SHALL BE CHECKED 100 PERCENT BY ULTRASONIC TESTING.

3. THE CONTRACTOR SHALL SUBMIT A WRITTEN WELDING PROCEDURE SPECIFICATION FOR SHOP AND FIELD WELDING OF ALL LATERAL FORCE-RESISTING SYSTEM CONNECTIONS FOR APPROVAL TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION.

THE STANDARDS OF ACCEPTANCE FOR WELDS TESTED BY ULTRASONIC METHODS SHALL CONFORM TO AWS D1.1.

ALL WELDS FOUND TO BE DEFECTIVE SHALL BE REPAIRED AND REINSPECTED BY THE SAME METHODS ORIGINALLY USED, AND THIS REPAIR AND REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR

GENERAL REQUIREMENTS

HIGH-STRENGTH BOLTS: ALL A325 HIGH-STRENGTH BOLTS (HSB) INDICATED AS A325 IN THE DRAWINGS SHALL BE ASTM F3125, GRADE F1852, UNLESS OTHERWISE INDICATED AS A490. ALL HSB INDICATED AS A490 SHALL BE ASTM F3125, GRADE F2280. ALL HSB SHALL BE BY "LEJEUNE BOLT COMPANY" OR PRE-APPROVED EQUAL AND SHALL BE INSTALLED PER SECTION 8.2 OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS", JUNE 2020 BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC SPECIFICATION). ALL BOLT HOLES SHALL BE STANDARD ROUND HOLES UNLESS NOTED OTHERWISE. THE FAYING SURFACES OF ALL PLIES WITHIN THE GRIP OF SLIP-CRITICAL BOLTS (A325SC OR A490SC) SHALL MEET THE REQUIREMENTS FOR A CLASS A SURFACE PER SECTION 3.2 OF THE RCSC SPECIFICATION.

BOLTED CONNECTIONS INSPECTION: CONNECTIONS MADE WITH BEARING TYPE BOLTS SHALL BE INSPECTED PER SECTION 9.1 AND CONNECTIONS MADE WITH SLIP-CRITICAL TYPE BOLTS (A325SC OR A490SC) SHALL BE INSPECTED PER SECTION 9.3 OF RCSC SPECIFICATION.

ADHESIVE ANCHOR RODS: FULLY THREADED ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE.

FINISH: STRUCTURAL STEEL SHALL BE UNPAINTED, UNLESS NOTED OTHERWISE, AND SHALL BE CLEAN OF LOOSE RUST, LOOSE MILL SCALE, OIL, GREASE AND OTHER FOREIGN SUBSTANCES AND SHALL MEET THE REQUIREMENTS OF SSPC-SP1. WHERE STRUCTURAL STEEL IS NOTED TO BE PAINTED, ALL AREAS COMPRISING THE FAYING SURFACES OF BOLTED CONNECTIONS MADE WITH SLIP-CRITICAL TYPE BOLTS (A325SC OR A490SC) SHALL COMPLY WITH THE REQUIREMENTS OF THE RCSC SPECIFICATION. WHERE STRUCTURAL STEEL IS NOTED TO BE GALVANIZED, IT SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123, A384, AND A385. ALL SURFACES WITHIN TWO INCHES OF ANY FIELD WELD LOCATION SHALL BE FREE OF MATERIALS THAT WOULD PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES. FIELD TOUCH-UP OF PRIMED, PAINTED, AND GALVANIZED SURFACES SHALL BE PERFORMED TO REPAIR COATING ABRASIONS, AS WELL AS TO PROTECT ALL AREAS AT CONNECTIONS.

COLD-FORMED STEEL FRAMING CONSTRUCTION:

THE DESIGN, INSTALLATION AND CONSTRUCTION OF COLD-FORMED CARBON OR LOW-ALLOY STEEL, STRUCTURAL AND NON-STRUCTURAL STEEL FRAMING, SHALL BE IN ACCORDANCE WITH IBC SECTION 2211 AND AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARD S100-16 AND S240-20 AND SHALL BE MANUFACTURED BY A MEMBER OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA), CERTIFIED STEEL STUD ASSOCIATION (CSSA), STEEL FRAMING INDUSTRY ASSOCIATION (SFIA), OR PRE-APPROVED EQUAL, IN ACCORDANCE WITH A CURRENT ICC EVALUATION SERVICE REPORT, AISI S202-20 AND S240-20. ALL 54 MIL AND HEAVIER GALVANIZED MEMBERS SHALL BE FORMED FROM STEEL THAT MEETS THE REQUIREMENTS OF ASTM A653, QUALITY SQ, GRADE 50, CLASS 1, FY= 50 KSI. ALL 43 MIL AND LIGHTER GALVANIZED MEMBERS SHALL BE FORMED FROM STEEL THAT MEETS THE REQUIREMENTS OF ASTM A653, QUALITY SQ, GRADE 33, FY=33 KSI. BRIDGING PER MANUFACTURER'S REQUIREMENTS AND AS SHOWN IN THE STRUCTURAL DRAWINGS SHALL BE IN PLACE PRIOR TO PLACING OF ANY CONSTRUCTION LOADS. ALL RUNS SHALL BE RIGIDLY ANCHORED TO END WALLS.

INTERIOR NON-BEARING WALL, CEILING, SOFFIT, AND OTHER MISC. COLD-FORMED STEEL FRAMING: COLD-FORMED STEEL FRAMING MEMBERS SHALL MEET THE TYPE, SIZE, AND THICKNESS AS INDICATED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, AND SHALL CONFORM TO THE MINIMUM PERSCRIPTIVE REQUIREMENTS OF THE GYPSUM CONSTRUCTION HANDBOOK BY CGC, INC. FRAMING CONDITIONS THAT EXCEED THE WEIGHT, SPAN OR HEIGHT LIMITATIONS SHALL BE CONSTRUCTED USING APPLICABLE DETAILS ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF ALL COLD-FORMED FRAMING NOT SPECIFICALLY DETAILED IN THE GYPSUM CONSTRUCTION HANDBOOK OR ON THE STRUCTURAL DRAWINGS. THE DESIGN AND DETAILING OF THE COLD-FORMED STEEL FRAMING AND CONNECTION TO THE STRUCTURE SHALL BE PREPARED UNDER THE DIRECTION OF AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

COLD-FORMED STEEL FRAMING SUBSTITUTION: AT THE CONTRACTOR'S OPTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF THE INTERIOR NON-BEARING COLD-FORMED STEEL FRAMING, NOT OCCURING AT BRICK VENEER, AND THE CONNECTION OF THE COLD-FORMED STEEL FRAMING TO THE STRUCTURE. THE DESIGN AND DETAILING OF THE COLD-FORMED STEEL FRAMING AND CONNECTION TO THE STRUCTURE SHALL BE PREPARED UNDER THE DIRECTION OF AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

POWDER ACTUATED FASTENERS: SHALL BE X-U UNIVERSAL KNURLED SHANK FASTENER BY HILTI OR PRE-APPROVED EQUAL. INSTALL PER ALL MANUFACTURER'S PUBLISHED RECOMMENDATIONS. COLD-FORMED STEEL TO STRUCTURAL STEEL: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - FASTENER TIP SHALL PENETRATE STRUCTURAL STEEL. COLD-FORMED STEEL TO CONCRETE: UNLESS NOTED OTHERWISE, PROVIDE 0.157" SHANK DIAMETER X-U LOW-VELOCITY FASTENER - EMBED 1-1/2" MINIMUM INTO CONCRETE, UNLESS NOTED OTHERWISE.

MISCELLANEOUS:

PRE-APPROVED SUBSTITUTIONS: SUBSTITUTIONS MAY BE ALLOWED ONLY IF THEY MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND THE SPECIFICATIONS, AND IF COMPLETE WRITTEN ENGINEERING DATA FOR EACH CONDITION REQUIRED FOR THIS PROJECT IS PROVIDED TO THE STRUCTURAL ENGINEER TWO WEEKS PRIOR TO BID DATE AND APPROVED IN WRITTEN ADDENDA BY THE ARCHITECT. DATA IS TO INDICATE CODE BASIS BY YEAR, AUTHORITY FOR STRESSES AND STRESS INCREASES, IF ANY, AND AMOUNT OF EXPECTED DEFLECTION FOR FLEXURAL MEMBERS UNDER (1) TOTAL LOAD AND (2) LIVE LOAD ONLY. ALL INCREASED COSTS IN MECHANICAL, SPRINKLER, ELECTRICAL OR GENERAL INSTALLATION AND ANY ARCHITECTURAL OR STRUCTURAL REDESIGN RESULTING FROM SUBSTITUTION SHALL BE BORNE BY THE GENERAL CONTRACTOR.

SHOP DRAWINGS/SUBMITTALS

THE FOLLOWING SHOP DRAWINGS/SUBMITTALS SHALL BE PROVIDED FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OR DELIVERY.

		STRUCTURAL ENGR.	BLDG. DEPT.
1.	CONCRETE MIX DESIGNS	X	X
2.	REINFORCING STEEL SHOP DRAWINGS	X	
3.	STRUCTURAL STEEL	X	X
4.	COLD-FORMED STEEL FRAMING	X	X
5.	MISCELLANEOUS STEEL	X	X
6.	CONTRACTOR'S STATEMENT OF RESPONSIBILITY	X	X

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING LABORATORY PER THE REQUIREMENTS OF IBC CHAPTER 17 AND THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION AND THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS AND A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL FOR THE ITEMS LISTED IN THE QUALITY ASSURANCE/SPECIAL INSPECTION SECTION:

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MultiCare Good Samaritan Hospital

MULTICARE

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KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

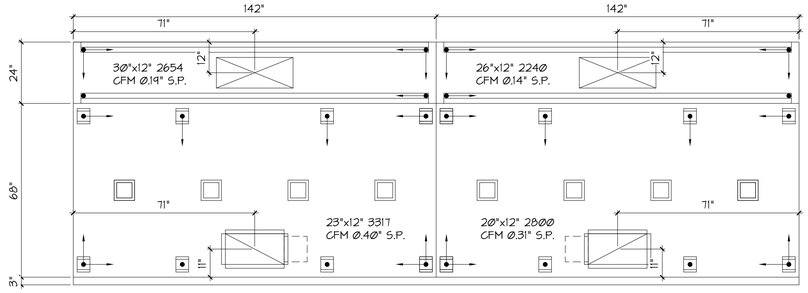
TITLE

GENERAL NOTES

SHEET NUMBER

S01-02

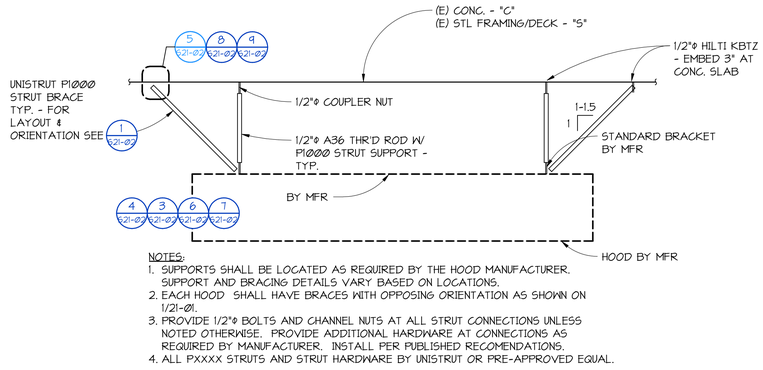
6/24/2025 11:47:51 AM Autodesk Docs://MultiCare - Good Samaritan Hospital Kitchen Expansion/STR/LM-MultiCare-Kitchen-R25.rvt



FRAMING NOTES:

1. ●—— INDICATES 1/2" DIAMETER ALL THREAD ROD WITH P1000 STRUT SUPPORT AND P1000 BRACE UP TO STRUCTURE. ARROW END OF BRACE INDICATES THE END WHICH CONNECTS TO STRUCTURE. SEE DETAIL 2/S21-02 FOR TYPICAL CONNECTION INFORMATION.
2. ● INDICATES 1/2" DIAMETER ALL THREAD ROD WITH P1000 STRUT SUPPORT. SEE DETAIL 2/S21-02 FOR TYPICAL CONNECTION INFORMATION.

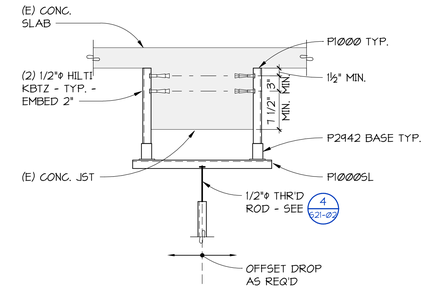
1 S21-02 **PLAN**
1/2" = 1'-0"



NOTES:
1. SUPPORTS SHALL BE LOCATED AS REQUIRED BY THE HOOD MANUFACTURER. SUPPORT AND BRACING DETAILS VARY BASED ON LOCATIONS.
2. EACH HOOD SHALL HAVE BRACES WITH OPPOSING ORIENTATION AS SHOWN ON 1/21-01.
3. PROVIDE 1/2"ø BOLTS AND CHANNEL NUTS AT ALL STRUT CONNECTIONS UNLESS NOTED OTHERWISE. PROVIDE ADDITIONAL HARDWARE AT CONNECTIONS AS REQUIRED BY MANUFACTURER. INSTALL PER PUBLISHED RECOMENDATIONS.
4. ALL PXXXX STRUTS AND STRUT HARDWARE BY UNISTRUT OR PRE-APPROVED EQUAL.

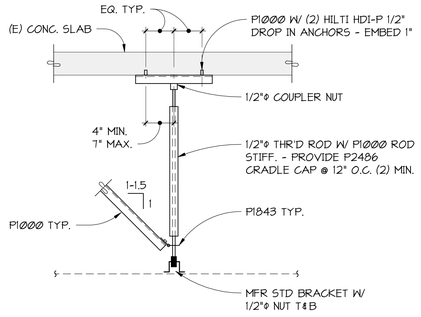
LIFT SUPPORT AT EXISTING FRAMING

2 S21-02 **SECTION**
NO SCALE



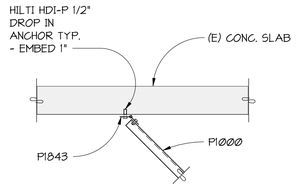
ALTERNATE DROP DETAIL AT CONCRETE JOIST AS REQUIRED

3 S21-02 **SECTION**
NO SCALE



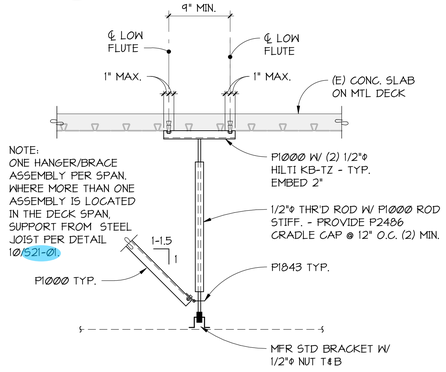
TYPICAL SUPPORT AT SLAB

4 S21-02 **DETAIL**
NO SCALE



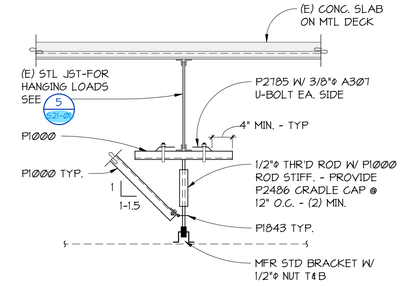
TYPICAL BRACE AT SLAB

5 S21-02 **DETAIL**
NO SCALE



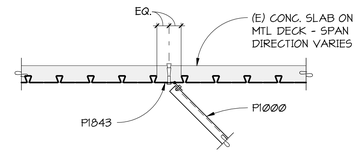
TYPICAL SUPPORT AT SLAB ON METAL DECK

6 S21-02 **DETAIL**
NO SCALE



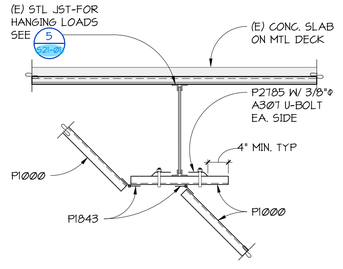
TYPICAL SUPPORT AT STEEL BEAM

7 S21-02 **DETAIL**
NO SCALE



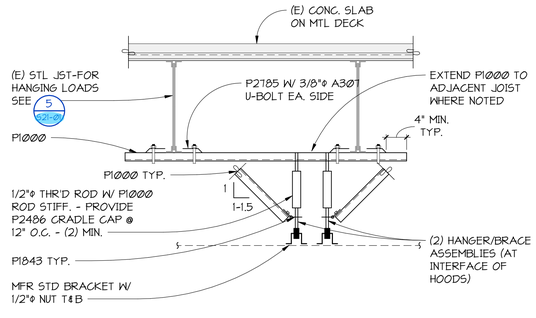
TYPICAL BRACE AT SLAB ON METAL DECK

8 S21-02 **DETAIL**
NO SCALE



TYPICAL BRACE AT BOTTOM OF STEEL BEAM

9 S21-02 **DETAIL**
NO SCALE



TYPICAL BRACE AT WEB OF STEEL BEAM

10 S21-02 **DETAIL**
NO SCALE

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KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

STEEL DETAILS

SHEET NUMBER

S21-02

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
CONCRETE	INSPECT REINFORCEMENT, INCLUDING PRE-STRESSING TENDONS, AND VERIFY PLACEMENT		X	SPECIAL INSPECTIONS NOT REQUIRED FOR THE FOLLOWING CONDITIONS:	ACI 318: CH 20, 25.2, 25.3, 26.6-1 TO 26.6-3, IBC 1908
	ANCHORS CAST IN CONCRETE-PRIOR TO AND DURING PLACEMENT OF CONCRETE		X	NON-STRUCTURAL SLAB ON GRADE	ACI 318: 26.7 AISC 360 SECTION N7
	VERIFY USE OF REQUIRED DESIGN MIX		X	CONCRETE FOUNDATION WALLS WITH F'c ≤ 2500 PSI	ACI 318, CH 19
	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X		ISOLATED SPREAD FOOTINGS FOR BUILDINGS THREE-STORIES AND LESS ABOVE GRADE PLANE	ASTM C172, C31 ACI 318: 26.4, 26.12
	CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION	X		CONTINUOUS FOOTINGS SUPPORTING WALLS OF THREE-STORIES AND LESS ABOVE GRADE PLANE WHERE WALLS ARE LIGHT-FRAME CONSTRUCTION AND STRUCTURAL DESIGN IS BASED ON F'c ≤ 2500 PSI	ACI 318: 26.5
	MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X		ACI 318: 26.5.3 TO 26.5.5
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (MECHANICAL ANCHORS INSTALLED IN ANY DIRECTION AND ADHESIVE ANCHORS INSTALLED DOWNWARD)		X	PERIODIC INSPECTION TO INCLUDE A QUANTITY OF 10% WITH A MINIMUM OF (5) ANCHORS INSPECTED PER INSTALLER ON A DAILY BASIS.	ACI 318: 26.7 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	ANCHORS POST-INSTALLED IN HARDENED CONCRETE (ADHESIVE ANCHORS INSTALLED HORIZONTAL OR UPWARDLY INCLINED)	X			ACI 318: 26.7 MFR EVAL REPORT MFR PUBLISHED INSTALLATION INSTRUCTIONS
	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X		ACI 318: 26.11.1.2(b)
	MATERIAL VERIFICATION OF REINFORCEMENT STEEL FOR ASTM A615 REINFORCING		X	MANUFACTURER SHALL PROVIDE MILL TEST REPORTS. CONTINUOUS INSPECTION FOR ALL WELDS GREATER THAN 5/16" FILLET. PERIODIC INSPECTION FOR FILLET WELD 5/16" AND SMALLER	ACI 318: 26.6.4 AWS D1.4 IBC 1705.3.1
	TESTING OF MATERIALS		X		IBC 1705.3.2
	INSPECTION OF WELDING FOR REINFORCING STEEL A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706 B. REINFORCING STEEL IN MOMENT FRAMES AND BOUNDARY ELEMENTS C. SHEAR REINFORCEMENT D. OTHER REINFORCING STEEL	 X X X	X		AWS D1.3 AWS D1.4 ACI 318 SECTION 26.6.4
SUSPENDED CEILINGS	ANCHORAGE AND SEISMIC BRACING		X		
STORAGE RACKS	MATERIALS USED, TO VERIFY COMPLIANCE WITH ONE OR MORE OF THE MATERIAL TEST REPORTS IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS		X	SPECIAL INSPECTION NOT REQUIRED FOR STORAGE RACKS < 8 FT. HIGH	IBC 1705.13.7
	FABRICATED STORAGE RACK ELEMENTS		X		IBC 1704.2.5
	STORAGE RACK ANCHORAGE INSTALLATION		X		ANSI/MH16.1, SECTION 7.3.2
	COMPLETED STORAGE RACK SYSTEM, TO INDICATE COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS		X		
MECHANICAL AND ELECTRICAL SYSTEMS	MINIMUM CLEARANCE TO SPRINKLER PIPING OF 3"		X		IBC 1705.13.6

TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNATED REPRESENTATIVE IN ACCORDANCE WITH IBC 1704.6. STRUCTURAL OBSERVATION SHALL BE PERFORMED AS FOLLOWS:

- PERIODIC VISUAL OBSERVATION OF STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES.
- REVIEW OF TESTING AND INSPECTION REPORTS.
- REPORTS SHALL BE PREPARED FOR EACH SITE VISIT AND SHALL BE DISTRIBUTED TO ARCHITECT.

GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

ABBREVIATION LIST			
@	AT	HDR	HEADER
A.B.	ANCHOR BOLT	HGR	HANGER
ADD'L	ADDITIONAL	HORIZ.	HORIZONTAL
A.F.F.	ABOVE FINISH FLOOR	HSS	HOLLOW STRUCTURAL SECTION
ALT.	ALTERNATE	HT	HEIGHT
ARCH.	ARCHITECTURAL	INT.	INTERIOR
BLD'G	BUILDING	JST	JOIST
BLK'G	BLOCKING	JT	JOINT
BM	BEAM	L	ANGLE
B.O.F.	BOTTOM OF FOOTING	L.F.R.S.	LATERAL FORCE-RESISTING SYSTEM
BOT.	BOTTOM	L.L.	LIVE LOAD
BRB	BUCKLING RESTRAINED BRACE	LLH	LONG LEG HORIZONTAL
BRG	BEARING	LLV	LONG LEG VERTICAL
BTWN	BETWEEN	LOC.	LOCATION
B.U.	BUILT UP	LSL	LAMINATED STRAND LUMBER
(C=)	CAMBER	LVL	LAMINATED VENEER LUMBER
CANT.	CANTILEVER	MAX.	MAXIMUM
CFS	COLD-FORMED STEEL	M.B.	MACHINE BOLT
C.J.	CONTROL/CONSTRUCTION JOINT	MECH.	MECHANICAL
℄	CENTERLINE	MEZZ.	MEZZANINE
CLR.	CLEARANCE	MFR	MANUFACTURER
CLT	CROSS-LAMINATED TIMBER	MIN.	MINIMUM
CMU	CONCRETE MASONRY UNIT	MISC.	MISCELLANEOUS
COL.	COLUMN	MTL	METAL
CONC.	CONCRETE	MT SCREW	MASS TIMBER SCREW
CONN.	CONNECTION	N.F.	NEAR FACE
CONST.	CONSTRUCTION	N.S.	NEAR SIDE
CONT.	CONTINUOUS	NTS	NOT TO SCALE
CONTR.	CONTRACTOR	O.C.	ON CENTER
COORD.	COORDINATE	OPN'G	OPENING
C.P.	COMPLETE PENETRATION	OPP.	OPPOSITE
CTR'D	CENTERED	P.A.F.	POWDER ACTUATED FASTENER
C.Y.	CUBIC YARD	PERP.	PERPENDICULAR
DBL.	DOUBLE	PL	PLATE
DCW	DEMAND CRITICAL WELD	P.P.	PARTIAL PENETRATION
D.F.	DOUGLAS FIR	P.P.T.	PRESERVATIVE PRESSURE TREATED
DIA. OR ϕ	DIAMETER	P.S.F.	POUNDS PER SQUARE FOOT
DIAG.	DIAGONAL	PSL	PARALLAM
DIM.	DIMENSION	P.T.	POST TENSION
D.L.	DEAD LOAD	PWL	PLYWOOD
DLT	DOWEL-LAMINATED TIMBER	REINF.	REINFORCEMENT
DWG	DRAWING	REQ'D	REQUIRED
DWL	DOWEL	SCHED.	SCHEDULE
(E)	EXISTING	SCL	STRUCTURAL COMPOSITE LUMBER
EA.	EACH	SHT'G	SHEATHING
E.F.	EACH FACE	SIM.	SIMILAR
EL.	ELEVATION	S.O.G.	SLAB ON GRADE
ELEV.	ELEVATOR	SQ.	SQUARE
ENGR	ENGINEER	STD	STANDARD
EQ.	EQUAL	STIFF.	STIFFENER
E.W.	EACH WAY	STL	STEEL
EXP.	EXPANSION	STRUCT.	STRUCTURAL
EXT.	EXTERIOR	T&B	TOP & BOTTOM
FDN	FOUNDATION	T&G	TONGUE AND GROOVE
F.F.	FAR FACE	THR'D	THREADED
FLR	FLOOR	T.O.F.	TOP OF FOOTING
F.O.M.	FACE OF MASONRY	T.O.S.	TOP OF STEEL
F.O.S.	FACE OF STUD	TRT'D	TREATED
FRMG	FRAMING	TYP.	TYPICAL
F.R.T.	FIRE RETARDANT TREATED	U.N.O.	UNLESS NOTED OTHERWISE
F.S.	FAR SIDE	U.T.	ULTRASONIC TESTED
FTG	FOOTING	VERT.	VERTICAL
GA.	GAGE/GAUGE	W/	WITH
GALV.	GALVANIZED	W.P.	WORK POINT
GL.	GLULAM	WT	WEIGHT
GR.	GRADE	W.W.R.	WELDED WIRE REINFORCING
GWB	GYPSUM WALL BOARD		

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KEY PLAN

ISSUE CHART

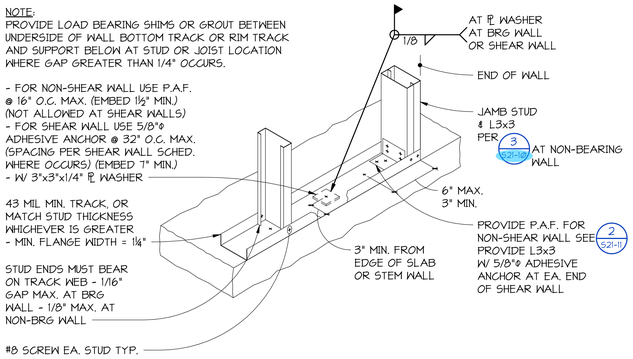
MARK	ISSUE	DATE
Job Number	24127	

TITLE

GENERAL NOTES

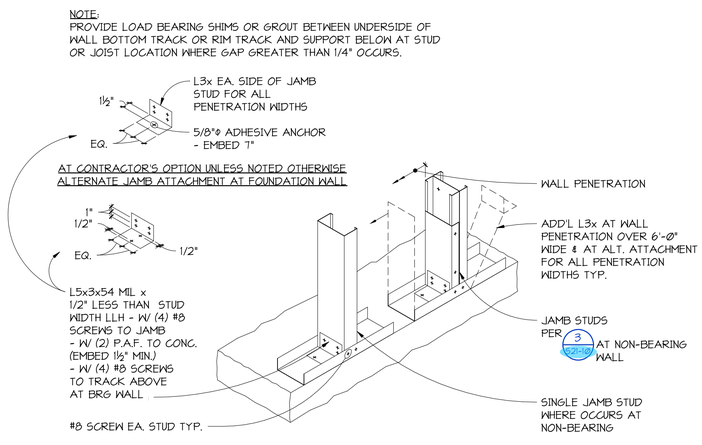
SHEET NUMBER

S01-04



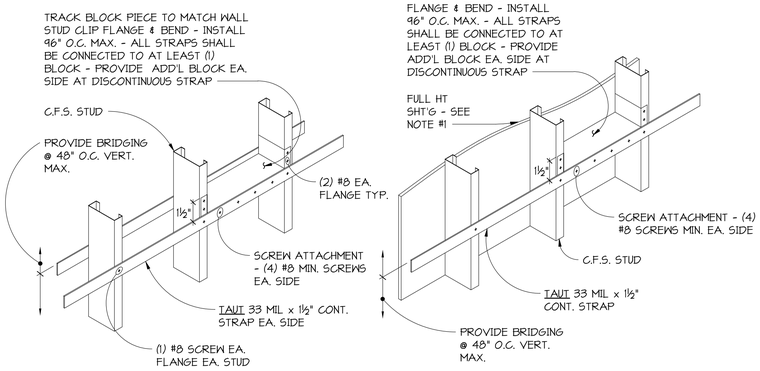
TYPICAL COLD-FORMED STEEL STUD AND TRACK ATTACHMENT

1 S21-11 **DETAIL** NO SCALE



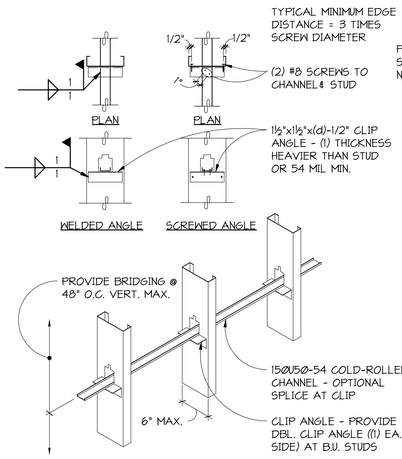
TYPICAL COLD-FORMED STEEL JAMB STUD ATTACHMENT

2 S21-11 **DETAIL** NO SCALE

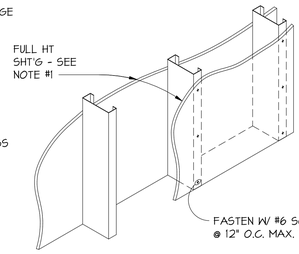


OPTION 1: BRIDGING CONSISTS OF DOUBLE FLAT STRAP WITH BLOCKING

OPTION 3: BRIDGING CONSISTS OF SINGLE FLAT STRAP WITH BLOCK AND FULL HEIGHT SHEATHING OPPOSITE FACE



OPTION 2: BRIDGING CONSISTS OF COLD-ROLLED CHANNEL WITH CLIP ANGLE (6" MAXIMUM STUD SIZE)



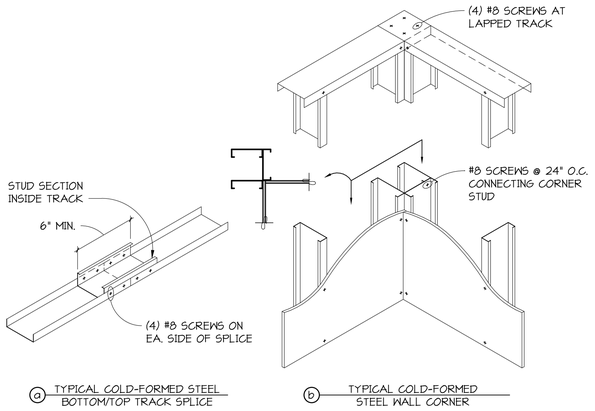
OPTION 4: FULL HEIGHT SHEATHING EACH FACE

NOTES:

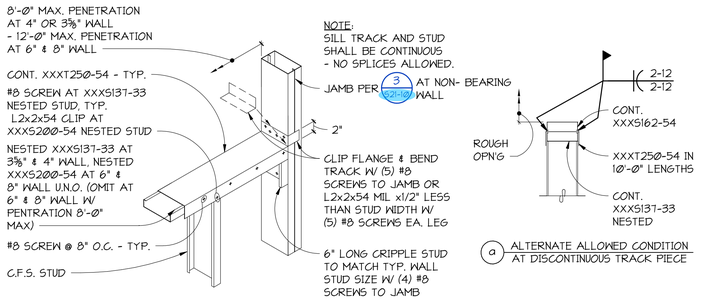
1. QUALIFIED SHEATHING SHALL BE GYPSUM WALL BOARD, GYPSHEATHING, PLYWOOD, OR ORIENTED STRAND BOARD ONLY AND SHALL OCCUR FULL HEIGHT OF WALL.
2. OPTIONS 3 & 4 ARE NOT ALLOWED FOR STUD BRACING AT LOAD BEARING WALL CONDITION.

TYPICAL BRIDGING AT COLD-FORMED STEEL WALL

5 S21-11 **DETAIL** NO SCALE

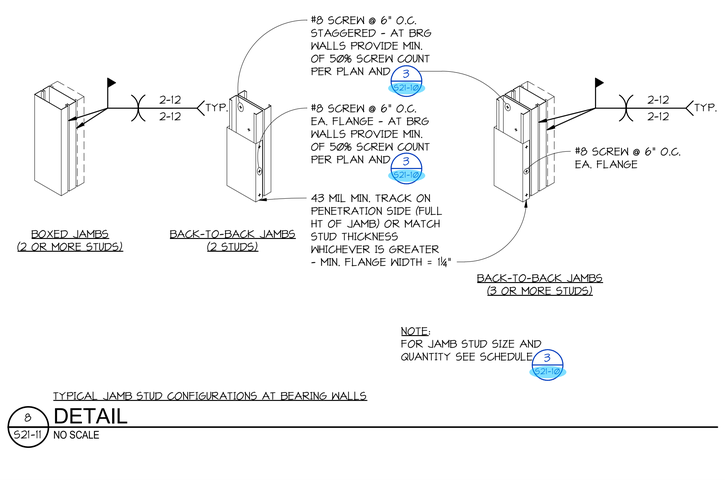


3 S21-11 **DETAIL** NO SCALE



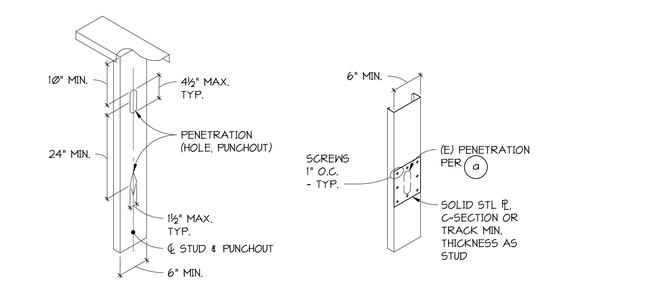
TYPICAL SILL AT COLD-FORMED STEEL WALL PENETRATION AT 16'-ø" MAXIMUM STUD HEIGHT

4 S21-11 **DETAIL** NO SCALE

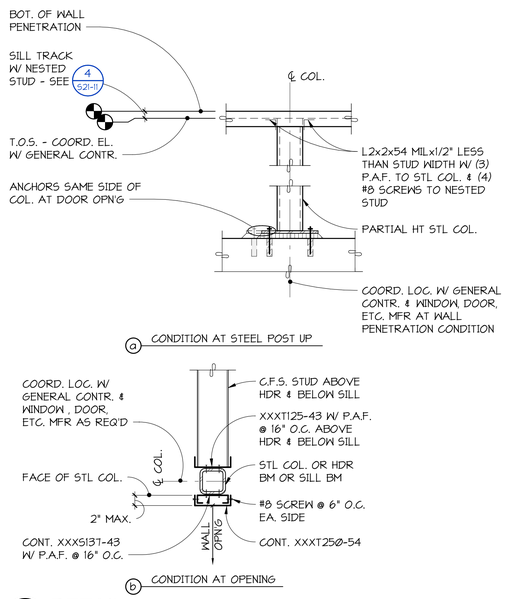


TYPICAL JAMB STUD CONFIGURATIONS AT BEARING WALLS

8 S21-11 **DETAIL** NO SCALE



6 S21-11 **DETAIL** NO SCALE



7 S21-11 **DETAIL** NO SCALE

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KEY PLAN

ISSUE CHART

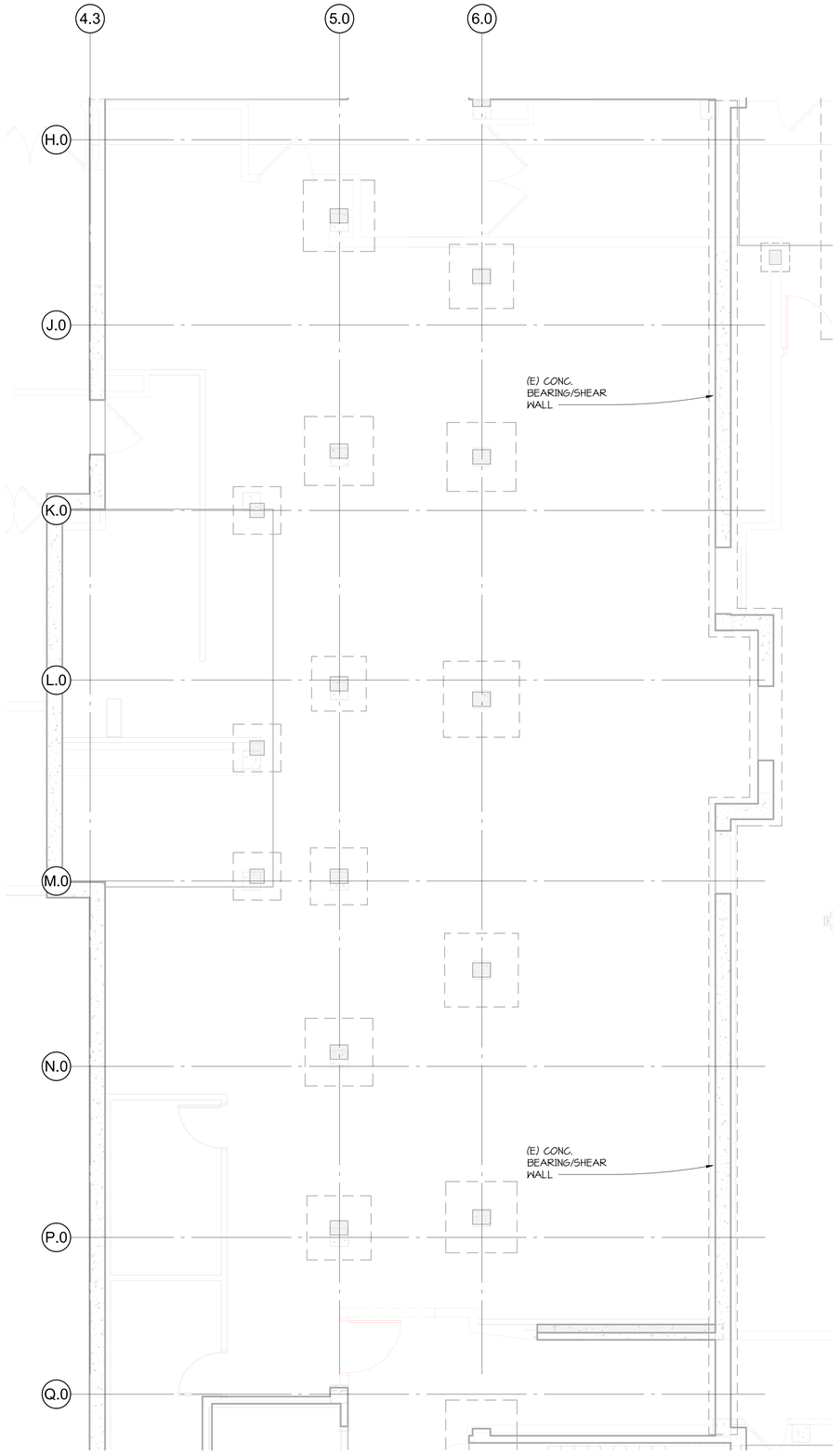
MARK	ISSUE	DATE
Job Number		24127

TITLE

COLD FORMED STEEL FRAMING DETAILS

SHEET NUMBER

S21-11



1 S11-Ø1.2 FRAMING PLAN - LEVEL 01
1/4" = 1'-Ø"

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KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

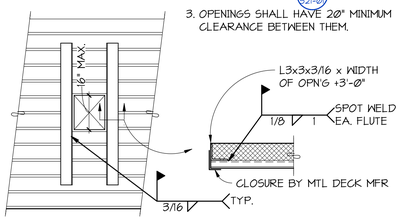
Job Number 24127

TITLE

FRAMING PLAN - LEVEL 01 - PHASE 2

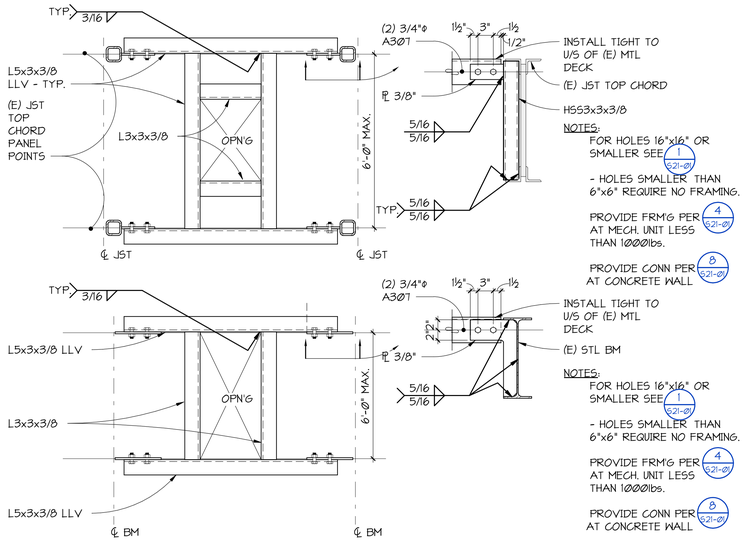
SHEET NUMBER

S11-01.2



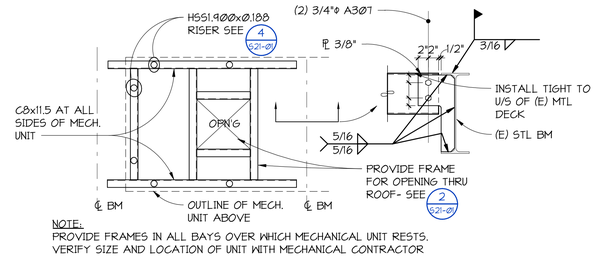
TYPICAL AT ISOLATED OPENINGS IN NON-COMPOSITE METAL DECK LESS THAN 16 INCH SQUARE

1 S21-01 DETAIL
NO SCALE



TYPICAL FRAMING AT OPENINGS IN METAL ROOF DECK (MAXIMUM LOAD = 1000 POUNDS)

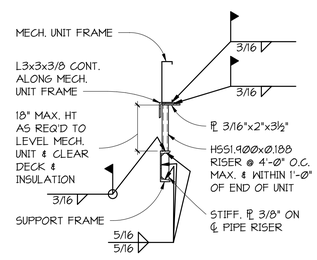
2 S21-01 DETAIL
NO SCALE



NOTE:
PROVIDE FRAMES IN ALL BAYS OVER WHICH MECHANICAL UNIT RESTS. VERIFY SIZE AND LOCATION OF UNIT WITH MECHANICAL CONTRACTOR

TYPICAL MECHANICAL UNIT SUPPORT FRAME (MAX. WT = 6000#)

3 S21-01 DETAIL
NO SCALE



RISER SUPPORT FOR MECHANICAL UNIT FRAME

4 S21-01 DETAIL
NO SCALE

① HANG WITHIN 3" OF ANY UPPER PANEL POINT FOR "K" SERIES JOIST, 6" FOR "LH" SERIES.
② HANG WITHIN 3" OF ANY LOWER PANEL POINT FOR "K" SERIES JOIST, 6" FOR "LH" SERIES.
③ TRAPEZE BETWEEN ANY PANEL POINTS.
④ REINFORCE TOP CHORD AS REQUIRED BY JOIST MANUFACTURER.
⑤ REINFORCE BETWEEN LOAD LOCATION AND LOWER CHORD PANEL POINT AS REQUIRED BY JOIST MANUFACTURER.

NOTES:
1. SINGLE LOADS LESS THAN 100# MAY BE ADDED ANYWHERE ALONG THE UPPER CHORD (NOT JUST AT PANEL POINTS) WITHOUT ADDING AN ANGLE TO STIFFEN THE JOIST.
2. DO NOT CUT OR DRILL THROUGH ANY JOIST MEMBER.
3. THIS DETAIL IS APPLICABLE TO HANGING MECHANICAL EQUIPMENT, SPRINKLER PIPES, ETC.

ALLOWABLE METHODS AND LOCATIONS FOR HANGING LOADS FROM STEEL JOIST

5 S21-01 DETAIL
NO SCALE

TYPICAL BRIDGING INTERRUPTED BY DUCT OR UNIT

6 S21-01 DETAIL
NO SCALE

SECTION a-a

7 S21-01 SECTION
1" = 1'-0"

8 S21-01 SECTION
1" = 1'-0"

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MULTICARE

100% CD SET 06/30/2025

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

STEEL DETAILS

SHEET NUMBER

S21-01

6/24/2025 11:47:33 AM Autodesk Docs://MultiCare - Good Samaritan Hospital Kitchen Expansion/STRUMultiCare-Kitchen-R25.rvt

STATEMENT OF SPECIAL INSPECTIONS:

SPECIAL INSPECTION: SPECIAL INSPECTION SHALL BE PROVIDED PER THE REQUIREMENTS OF IBC SECTION 1704 AND 1705 AND AS NOTED HEREIN.

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
SOILS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X		IBC 1705.6
	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X		
	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X		
	DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X			
	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X		

STEEL CONSTRUCTION	INSPECTION TASKS	OBSERVE	PERFORM	COMMENTS	REFERENCES
	PRIOR TO WELDING:			SPECIAL INSPECTIONS IN THIS SECTION **MAY BE** WAIVED WHERE FABRICATION IS PERFORMED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5 **AND WITH THE APPROVAL OF THE BUILDING OFFICIAL.**	AISC 360, TABLE N5.4-1 AISC 341, TABLE J6.1
	WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	X			
	WELDING PROCEDURE SPECIFICATIONS		X		
	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE		X		
	MATERIAL IDENTIFICATION (TYPE/GRADE)	X			
	WELDER IDENTIFICATION SYSTEM	X			
	FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	X			
	FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K—JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	X			
	CONFIGURATION AND FINISH OF ACCESS HOLES	X			
	FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	X			
	DURING WELDING:				AISC 360, TABLE N5.4-2 AISC 341, TABLE J6.2
	CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	X			
	NO WELDING OVER CRACKED TACK WELDS	X			
	ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	X			
	WELDING PROCEDURE SPECIFICATIONS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH) • INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED (LATERAL CONNECTIONS ONLY)	X			
	WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	X			
	USE OF QUALIFIED WELDERS (FOR LATERAL CONNECTIONS)	X			
	PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS		X		
	AFTER WELDING:				AISC 360, TABLE N5.4-3 AISC 341, TABLE J6.3
	WELDS CLEANED	X			
	SIZE, LENGTH, AND LOCATION OF WELDS		X		
	WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY		X		
	ARC STRIKES		X		
	k-AREA		X		
	WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES		X		

STEEL CONSTRUCTION (CONTINUED)	INSPECTION TASKS	OBSERVE	PERFORM	COMMENTS	REFERENCES
	BACKING REMOVED AND WELD TABLES REMOVED (IF REQUIRED)		X		
	REPAIR ACTIVITIES		X		
	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER		X		
	NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER	X			
	PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS AS REQUIRED (LATERAL CONNECTIONS ONLY)		X		
	PRIOR TO BOLTING:				AISC 360, TABLE N5.6-1 AISC 641, TABLE J7.1
	MANUFACTURER'S CERTIFICATIONS FOR FASTENER MATERIALS	X			
	PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	X			
	CONNECTING ELEMENTS INCLUDING FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	X			
	PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED FOR FASTENER ASSEMBLIES AND METHODS USED	X			
	PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	X			
	DURING BOLTING:				AISC 360, TABLE N5.6-2 AISC 341, TABLE J7.2
	FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	X			
	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION	X			
	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	X			
	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC *SPECIFICATION*, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	X			
	AFTER BOLTING:				AISC 360, TABLE N5.6-3 AISC 341, TABLE J7.3
	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS		X		
	OTHER INSPECTION TASKS:				
	PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS		X		AISC 360 SECTION N5.8
	FABRICATED STEEL OR ERECTED STEEL FRAME, AS APPLICABLE, TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS		X		
	REDUCED BEAM SECTION REQUIREMENTS, IF APPLICABLE • CONTOUR AND FINISH • DIMENSIONAL TOLERANCE		X		AISC 341 TABLE J8.1
	PROTECTED ZONE – NO HOLES AND UNAPPROVED ATTACHMENTS MADE BY FABRICATOR OR ERECTOR, AS APPLICABLE		X		
	NONDESTRUCTIVE TESTING OF WELDED JOINTS:			SPECIAL INSPECTIONS IN THIS SECTION **MAY BE** WAIVED WHERE FABRICATION IS PERFORMED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED IN ACCORDANCE WITH IBC SECTION 1704.2.5 **AND WITH THE APPROVAL OF THE BUILDING OFFICIAL.** SEE AISC 360 SECTION N5 FOR ULTRASONIC TESTING RATE	AISC 360 SECTION N5
	FOR RISK CATEGORY III AND IV STRUCTURES ALL COMPLETE-JOINT-PENETRATION WELDS, T- AND CORNER JOINTS, IN MATERIAL 5/16" OR GREATER		X		
	FOR RISK CATEGORY II STRUCTURES 10% OF ALL COMPLETE-JOINT-PENETRATION WELDS, T- AND CORNER JOINTS, IN MATERIAL 5/16" OR GREATER		X		
	COMPOSITE STRUCTURES PRIOR TO CONCRETE PLACEMENT:				AISC 341 TABLE J9.1
	MATERIAL IDENTIFICATION OF REINFORCEMENT STEEL (TYPE/GRADE)	X			
	DETERMINATION OF CARBON EQUIVALENT FOR REINFORCING STEEL OTHER THAN ASTM A706/A706M	X			
	PROPER REINFORCING STEEL SIZE, SPACING AND ORIENTATION	X			
	REINFORCING STEEL HAS NOT BEEN REBENT IN THE FIELD	X			
	REINFORCING STEEL HAS BEEN TIED AND SUPPORTED AS REQUIRED	X			
	REQUIRED REINFORCING STEEL CLEARANCES HAVE BEEN PROVIDED	X			
	COMPOSITE MEMBER HAS REQUIRED SIZE	X			
	COMPOSITE STRUCTURES DURING CONCRETE PLACEMENT:				AISC 341 TABLE J9.2
	CONCRETE: MATERIAL IDENTIFICATION (MIX DESIGN, COMPRESSIVE STRENGTH, MAXIMUM LARGE AGGREGATE SIZE, MAXIMUM SLUMP)	X			
	LIMITS ON WATER ADDED AT THE TRUCK OR PUMP	X			
	PROPER PLACEMENT TECHNIQUES TO LIMIT SEGREGATION	X			
	COMPOSITE STRUCTURES AFTER CONCRETE PLACEMENT:				AISC 341 TABLE J9.3
	ACHIEVEMENT OF MINIMUM SPECIFIED CONCRETE COMPRESSIVE STRENGTH AT SPECIFIED AGE		X		
	H-PILES:				AISC 341 TABLE J10.1
	PROTECTED ZONE – NO HOLES AND UNAPPROVED ATTACHMENTS MADE by THE RESPONSIBLE CONTRACTOR, AS APPLICABLE		X		

STRUCTURAL SYSTEM	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL	MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS B. MANUFACTURER'S CERTIFIED TEST REPORTS		X X		APPLICABLE ASTM MATERIAL STANDARDS & IBC 2210.1.1
	INSPECTION OF WELDING A. COLD-FORM STEEL DECK WELDS B. OPEN WEB STEEL JOISTS & JOIST GIRDERS 1. END CONNECTIONS - WELDING OR BOLTED 2. BRIDGING - HORIZONTAL OR DIAGONAL a. STANDARD BRIDGING b. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1	X	X X X X		AWS D1.3 AWS D1.4 IBC 1705.2.3 SJI SPECIFICATIONS LISTED IN SECTION 2207.1 SJI SPECIFICATIONS LISTED IN SECTION 2207.1

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MultiCare Good Samaritan Hospital

MULTICARE

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

GENERAL NOTES

SHEET NUMBER

S01-03

FOUNDATION AND GRADE LEVEL FRAMING PLAN NOTES:

1. INDICATES NON-STRUCTURAL STUD WALLS. ALL WALLS ARE NOT SHOWN. FOR LOCATION SEE ARCHITECTURAL FOR BRACING AT TOPS OF WALLS SEE SHEET S21.12. FOR SCHEDULE AND TYPICAL FRAMING SEE SHEETS S21-10 & S21-11.
2. SEE DETAIL 1/S21-00 FOR CUTTING AND PATCHING EXISTING SLAB ON GRADE.
3. SEE DETAILS 1/S21-03 AND 2/S21-03 FOR RE-SUPPORT OF EXISTING MEZZANINE AT GREASE INTERCEPTOR.
4. PROVIDE SHORING SUCH AS PIN PILES AT EXISTING FOOTING TO ALLOW EXCAVATION OF NEW PIPING BELOW EXISTING FOOTING.
5. UNDERPIN EDGE OF EXISTING FOOTING. EXCAVATE TRENCH IN SECTIONS SMALL ENOUGH TO MINIMIZE UNDERMINING OF EXISTING FOOTING. AFTER EACH SECTION HAS BEEN EXCAVATED DOWN TO PIPE DEPTH, FORM AND PLACE CONCRETE (f'_c = 3,000 psi MINIMUM) UNDER FOOTING TO LOWER BEARING STRATA TO BOTTOM OF TRENCH. UNDERPINNING SHALL HAVE 12" HORIZONTAL LENGTH UNDER FOOTING. ALL OVEREXCAVATED AREAS SHALL BE FILLED WITH LEAN CONCRETE. AFTER THE ENTIRE LENGTH OF FOOTING HAS BEEN UNDERPINNED AS NOTED ABOVE, TRENCH MAY BE BACKFILLED WITH CDF, OR OTHER APPROVED BACKFILL MATERIAL. IF PIPE IS ABOVE LINE OF INFLUENCE OF FOOTING (DEFINED AS A LINE DRAWN FROM THE BOTTOM CORNER OF THE FOOTING AND EXTENDING DOWNWARD AT 2H:1V), EXCAVATED SECTIONS MAY BE FILLED WITH CDF AND NEED NOT BE FORMED UNDER EDGE OF FOOTING.

1 S11-01.1 FRAMING PLAN - LEVEL 01
3/16" = 1'-0"

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KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

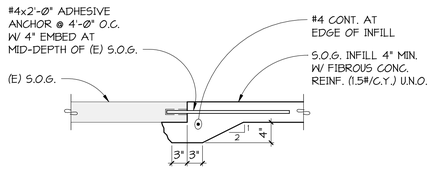
Job Number 24127

TITLE

FRAMING PLAN - LEVEL 01 - PHASE 1

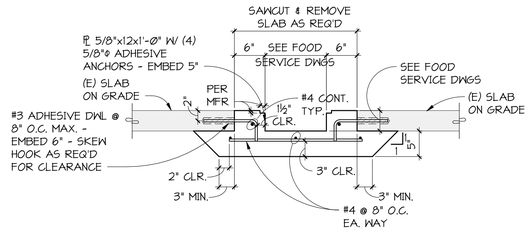
SHEET NUMBER

S11-01.1

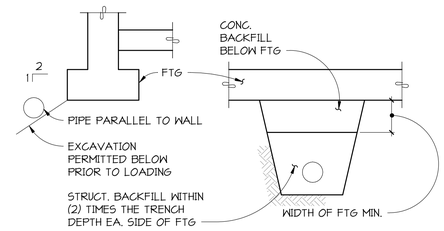


TYPICAL SLAB ON GRADE CONNECTION TO EXISTING SLAB ON GRADE

1 6Z1-00 SECTION
1" = 1'-0"



2 6Z1-00 SECTION
1" = 1'-0"



TYPICAL FOR PARALLEL PIPES ADJACENT TO FOOTINGS

TYPICAL FOR PERPENDICULAR PIPES UNDER FOOTINGS

NOTES:
1. FOUNDATIONS SHALL NOT BE LOADED PRIOR TO COMPLETING STRUCTURAL BACKFILL UNDER AND NEAR FOOTINGS.
2. CONCRETE BACKFILL SHALL BE USED UNDER FOOTINGS WHERE 95% COMPACTION CANNOT BE ACCOMPLISHED.
3. ALL STRUCTURAL BACKFILL NOTED SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER ASTM.
4. A PIPE SLEEVE SHALL BE PROVIDED FOR SHALLOW PIPES CAST IN CONCRETE.
5. PIPES SHALL NOT BE PLACED IN THE FOOTING WITHOUT SPECIFIC APPROVAL FROM THE ENGINEER.
6. FOR VARIATIONS CONTACT ENGINEER.

3 6Z1-00 SECTION
NO SCALE

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100% CD SET 06/30/2025

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

CONCRETE DETAILS

SHEET NUMBER

S21-00

1 S11-02.1 FRAMING PLAN - LEVEL 02
3/16" = 1'-0"

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KEY PLAN

ISSUE CHART

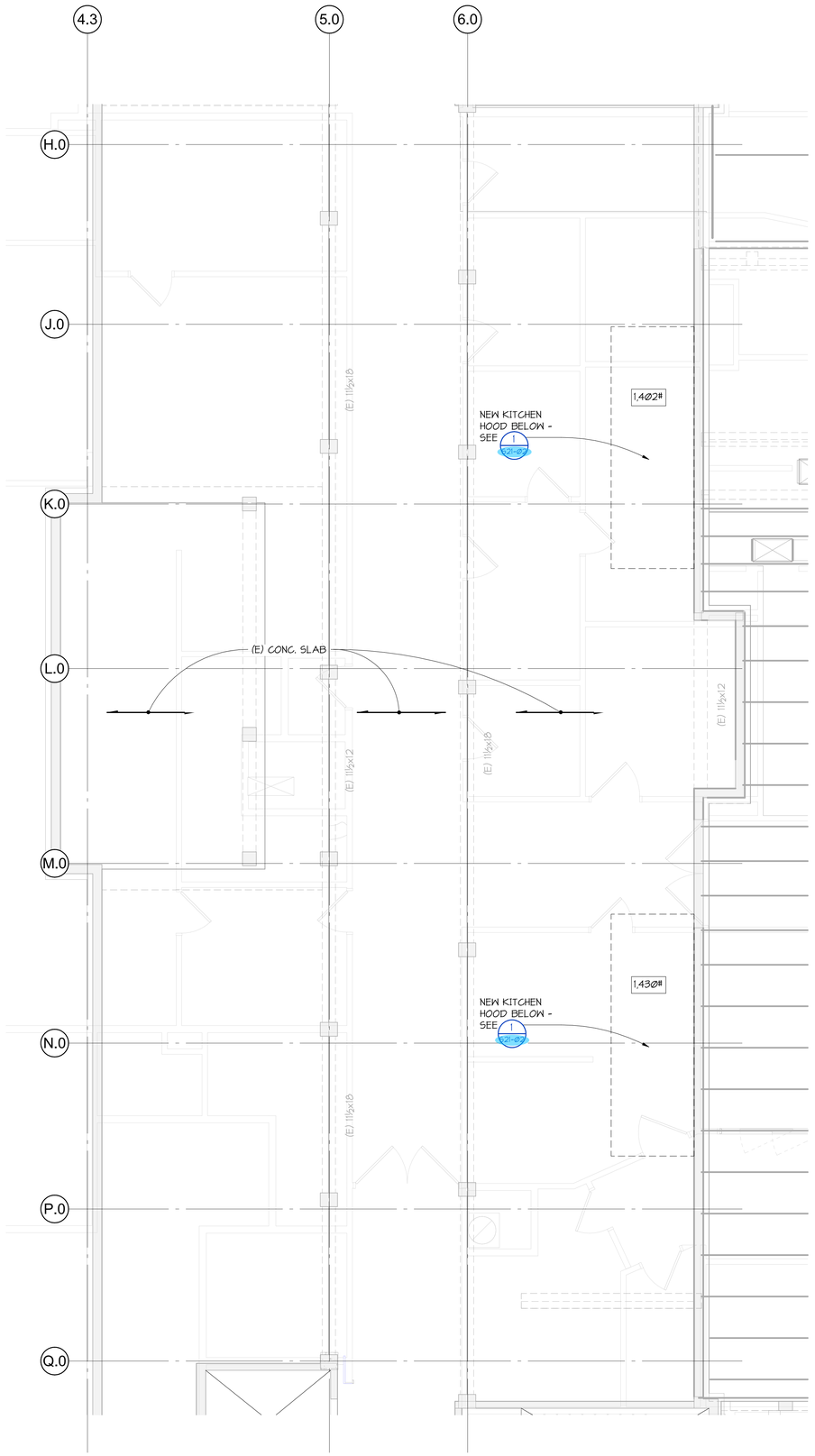
MARK	ISSUE	DATE
Job Number		24127

TITLE

FRAMING PLAN - LEVEL 02 - PHASE 1

SHEET NUMBER

S11-02.1



1 FRAMING PLAN - LEVEL 02 - PHASE 2
S11-02.2 1/4" = 1'-0"

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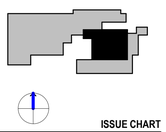
KEY PLAN



ISSUE CHART

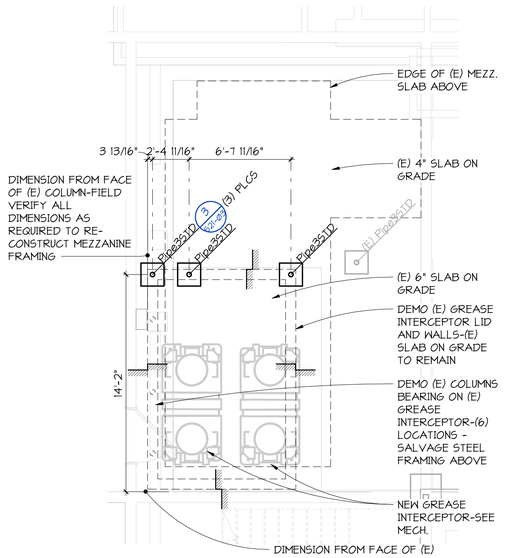
MARK	ISSUE	DATE
Job Number		24127

TITLE

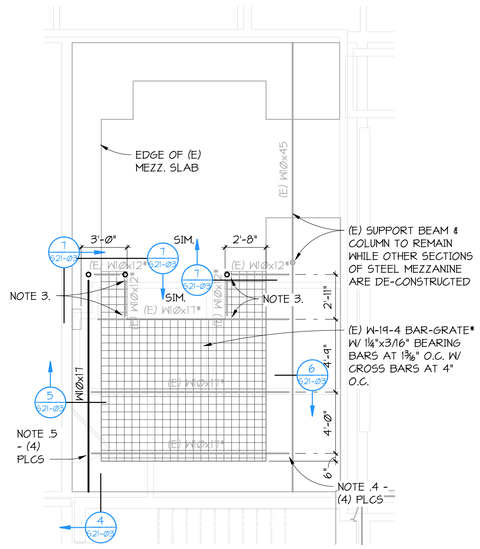
FRAMING PLAN - LEVEL 02 - PHASE 2

SHEET NUMBER

S11-02.2

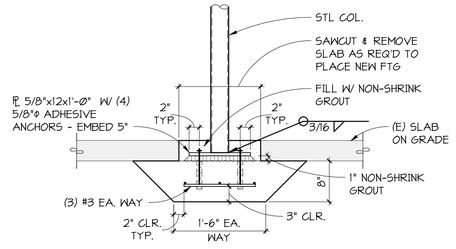


1 S21-03 PARTIAL FOUNDATION PLAN
1/4" = 1'-0"

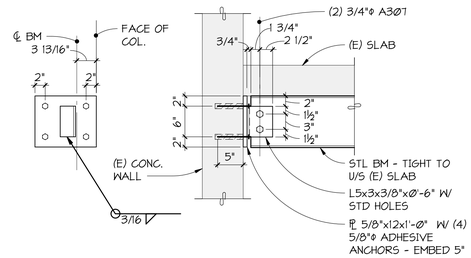


NOTES:
1. * INDICATES EXISTING FRAMING TO BE TEMPORARILY DE-CONSTRUCTED TO ALLOW REMOVAL AND REPLACEMENT OF GREASE INTERCEPTOR. ONCE NEW GREASE INTERCEPTOR HAS BEEN INSTALLED, FRAMING TO BE REINSTALLED AT THE SAME LOCATION.
2. VERIFY ALL DIMENSIONS PRIOR TO DE-CONSTUCTING MEZZANINE. INTENT IS TO REINSTALL ALL MEMBERS IN ORIGINAL LOCATION AFTER REMOVAL AND REPLACEMENT OF GREASE INTERCEPTOR BELOW.
3. RE-INSTALL ALL CONNECTIONS LIKE FOR LIKE UNLESS NOTED OTHERWISE.
4. PROVIDE NEW CONNECTIONS BASED ON EXISTING CONNECTION TYPE WHERE NOTED.
5. FIELD MODIFY BEAM END AS REQUIRED TO INSTALL NEW CONNECTION WHERE NOTED.

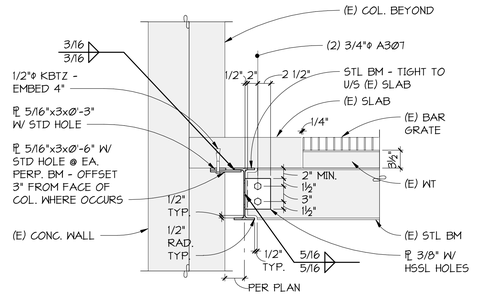
2 S21-03 PARTIAL MEZZANINE FRAMING PLAN
1/4" = 1'-0"



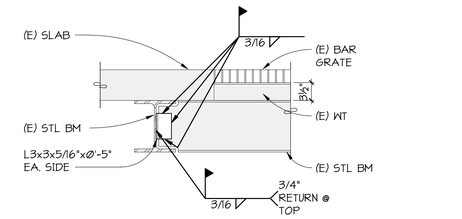
3 S21-03 SECTION
1" = 1'-0"



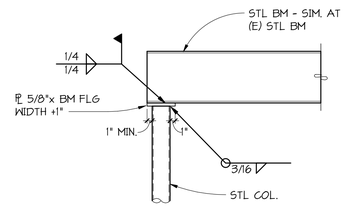
4 S21-03 SECTION
1" = 1'-0"



5 S21-03 SECTION
1" = 1'-0"



6 S21-03 SECTION
1" = 1'-0"



7 S21-03 SECTION
1" = 1'-0"

Perkins&Will
1301 5th Ave
#2300, Seattle,
WA 98101
t +12063816000
www.perkinswill.com

INMAN FOOD SERVICES
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AHBL
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ABBOTT CONSTRUCTION
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TURNER & TOWNSEND
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MultiCare
Good Samaritan
Hospital Kitchen
401 15th Ave SE,
Puyallup,
WA 98372

MultiCare Good Samaritan Hospital

MULTICARE

100% CD SET 06/30/2025

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE

Job Number 24127

TITLE

STEEL DETAILS

SHEET NUMBER

S21-03

1 FRAMING PLAN - LEVEL 04
S11-04 3/16" = 1'-0"

Perkins&Will

1301 5th Ave
#2300, Seattle,
WA 98101
t +12063816000
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KEY PLAN

ISSUE CHART

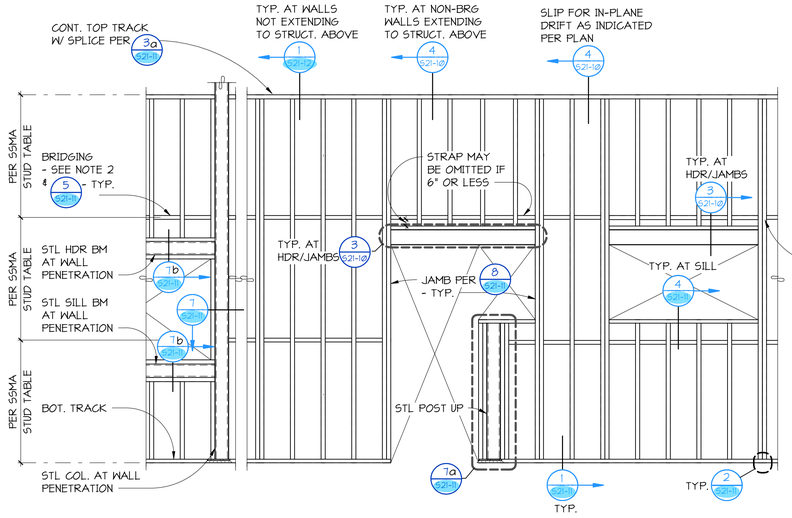
MARK	ISSUE	DATE
Job Number	24127	

TITLE

FRAMING PLAN - LEVEL 04

SHEET NUMBER

S11-04



MILS/GAUGE SCHEDULE		
MILS	MINIMUM THICKNESS	GAGE
30	.0312	20
33	.0346	20
43	.0451	18
54	.0566	16
68	.0713	14
97	.1017	12

COLD FORMED STEEL STUD WALL FRAMING NOTES:

1. ALL NON-BEARING WALL STUDS SHALL BE PER 2/S21-10 UNLESS NOTED OTHERWISE. FOR WALL TYPE AND PROPER LOCATION SEE ARCHITECTURAL DRAWINGS.
2. PROVIDE BRIDGING AT ALL NON-BEARING WALLS WITHOUT FULL HEIGHT QUALIFIED SHEATHING EITHER SIDE OF STUD PER 5/SLGM3 NOTE #1.
3. FOR TYPICAL COLD-FORMED STEEL JOIST CEILING FRAMING SCHEDULE AND DETAIL - SEE 4/S21-12.
4. ALL WELDS SHALL BE 1/8" FILLET MAXIMUM. FOR MATERIALS THINNER THAN Ø.15", EFFECTIVE THROAT SHALL NOT BE LESS THAN THINNEST MATERIAL. WELD IN ACCORDANCE WITH "STRUCTURAL WELDING CODE -- SHEET METAL" AWS D1.3.
5. STUD PUNCHOUTS SHALL NOT BE SPACED LESS THAN 24" ON CENTER, NOR WITHIN 10" CLEAR OF MEMBER END AT STUDS, HEADERS, BEAMS, JOISTS, ETC. FOR TYPICAL ALLOWABLE PUNCHOUT DETAIL - SEE 6/S21-11.
6. SCREWS SHALL BE THREAD-FORMING OR THREAD-CUTTING, WITH OR WITHOUT A SELF DRILLING POINT. SCREWS SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MINIMUM SPACING IS THREE SCREW DIAMETERS. A MINIMUM OF (3) THREADS SHALL BE ENGAGED.
7. FOR TYPICAL COLD-FORMED STEEL WALL CORNER REQUIREMENTS - SEE 3b/S21-11.
8. FOR POWER ACTUATED FASTENER REQUIREMENTS - SEE GENERAL NOTES.

TYPICAL NON-BEARING COLD-FORMED STEEL STUD WALL FRAMING

1 ELEVATION
S21-10 NO SCALE

EXTERIOR NON-BEARING COLD-FORMED STEEL WALL STUDS WITH MASONRY VENEER
15 PSF (ASD) WIND LOAD, 1/600 DEFLECTION LIMIT

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	33 MIL	43 MIL	54 MIL	68 MIL
		STUDS SPACED @ 16" O.C. MAXIMUM				
		MAXIMUM STUD HEIGHT ALLOWED				
1 OR 2 OR 3	4005137	SEE NOTE #3	11'-4"	12'-1"	21'-11"	
	4005162		11'-10"	12'-8"	13'-7"	
	4005200		12'-6"	13'-5"	14'-4"	
	6005137		15'-7"	16'-9"	17'-11"	
	6005162		16'-3"	17'-6"	18'-9"	
	6005200		17'-1"	18'-4"	19'-8"	
1 OR 3	8005137		19'-6"	21'-0"	22'-9"	
	8005162		20'-4"	21'-10"	23'-7"	
	8005200		21'-6"	23'-1"	24'-9"	

EXTERIOR NON-BEARING COLD-FORMED STEEL WALL STUDS
15 PSF (ASD) LOAD, 1/360 DEFLECTION LIMIT

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	33 MIL	43 MIL	54 MIL	68 MIL
		STUDS SPACED @ 16" O.C. MAXIMUM				
		MAXIMUM STUD HEIGHT ALLOWED				
1 OR 2 OR 3	4005137		12'-4"	13'-5"	14'-4"	15'-4"
	4005162		12'-11"	14'-0"	15'-1"	16'-1"
	4005200		13'-7"	14'-10"	15'-11"	17'-0"
	6005137		16'-6"	18'-6"	19'-10"	21'-3"
	6005162		17'-9"	19'-4"	20'-9"	22'-3"
	6005200		18'-7"	20'-3"	21'-9"	23'-4"
1 OR 3	8005137		18'-10"	22'-10"	24'-11"	26'-11"
	8005162		20'-6"	24'-1"	25'-11"	28'-0"
	8005200		22'-0"	25'-5"	27'-3"	29'-4"

EXTERIOR NON-BEARING COLD-FORMED STEEL WALL STUDS WITH MASONRY VENEER
20 PSF (ASD) WIND LOAD, 1/600 DEFLECTION LIMIT

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	33 MIL	43 MIL	54 MIL	68 MIL
		STUDS SPACED @ 16" O.C. MAXIMUM				
		MAXIMUM STUD HEIGHT ALLOWED				
1 OR 2 OR 3	4005137	SEE NOTE #3	10'-3"	11'-0"	11'-9"	
	4005162		10'-9"	11'-6"	12'-4"	
	4005200		11'-4"	12'-2"	13'-0"	
	6005137		14'-2"	15'-2"	16'-3"	
	6005162		14'-9"	15'-10"	17'-0"	
	6005200		15'-6"	16'-8"	17'-11"	
1 OR 3	8005137		17'-4"	19'-1"	20'-8"	
	8005162		18'-5"	19'-10"	21'-6"	
	8005200		19'-6"	20'-11"	22'-6"	

EXTERIOR NON-BEARING COLD-FORMED STEEL WALL STUDS
20 PSF (ASD) LOAD, 1/360 DEFLECTION LIMIT

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	33 MIL	43 MIL	54 MIL	68 MIL
		STUDS SPACED @ 16" O.C. MAXIMUM				
		MAXIMUM STUD HEIGHT ALLOWED				
1 OR 2 OR 3	4005137		10'-11"	11'-11"	12'-9"	13'-7"
	4005162		11'-5"	12'-5"	13'-4"	14'-3"
	4005200		12'-0"	13'-2"	14'-1"	15'-1"
	6005137		15'-1"	16'-5"	17'-7"	18'-10"
	6005162		15'-9"	17'-2"	18'-5"	19'-8"
	6005200		16'-6"	18'-0"	19'-4"	20'-9"
1 OR 3	8005137		-	20'-9"	22'-4"	23'-11"
	8005162		-	21'-7"	23'-2"	24'-11"
	8005200		-	22'-7"	24'-3"	26'-1"

INTERIOR NON-BEARING COLD-FORMED STEEL WALL STUDS
5 PSF (ASD) LIVE LOAD, 1/360 DEFLECTION LIMIT

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	18 MIL	33 MIL
		STUD SPACING		
			16" O.C.	16" O.C.
		MAXIMUM STUD HEIGHT ALLOWED		
4	1625125		8'-2"	8'-5"
	2505125		9'-10"	11'-2"
	3625125		12'-4"	14'-3"
	4005125		13'-4"	15'-11"
	6005125		17'-11"	21'-4"

REQUIRED BRIDGING TYPE	STUD SIZE	STUD MIL	43 MIL	54 MIL
		STUD SPACING		
			16" O.C.	16" O.C.
		MAXIMUM STUD HEIGHT ALLOWED		
1 OR 2 OR 3 OR 4	4005137		17'-2"	18'-5"
	4005162		18'-0"	19'-3"
	4005200		19'-0"	20'-4"
	6005137		23'-8"	25'-5"
	6005162		24'-9"	26'-6"
	6005200		26'-0"	27'-11"
1 OR 3 OR 4	8005137		30'-0"	32'-2"
	8005162		31'-2"	33'-6"
	8005200		32'-7"	35'-0"

NOTES:
1. FOR TYPICAL COLD-FORMED STEEL WALL STUD BRIDGING DETAIL SEE 5/SLGM3.
2. INFORMATION SHOWN FOR S125 STUDS TAKEN FROM THE GYPSUM CONSTRUCTION HAND BOOK BY CGC INC. - INFORMATION SHOWN FOR ALL OTHER STUDS TAKEN FROM ICC ES LEGACY REPORT ER-4943P*.
3. 43 MIL MINIMUM REQUIRED AT MASONRY VENEER.

2 SCHEDULE
S21-10 NO SCALE

EXTERIOR NON-BEARING COLD FORMED STEEL STUD WALL PENETRATION JAMB SCHEDULE 15 PSF (ASD) WIND LOAD

STUD SIZE AND MIL	MAXIMUM PENETRATION (FEET)	MINIMUM NUMBER STUD(S) AT JAMB (1)		(2)		(3)		(4)	
		HORIZONTAL DEFLECTION LIMIT OF WALL HEIGHT							
		L / 360	L / 600	L / 360	L / 600	L / 360	L / 600	L / 360	L / 600
		MAXIMUM JAMB HEIGHT (FEET)							
4005137-33	4	10	9	13	11	15	13	16	-
	8	-	-	10	9	12	10	13	11
6005137-33	4	13	12	16	15	16	16	16	16
	8	-	-	10	10	15	14	16	15
	12	-	-	-	-	10	10	13	13
8005162-43	4	16	16	16	16	16	16	16	16
	8	14	14	16	16	16	16	16	16
	12	11	11	13	13	16	16	16	16

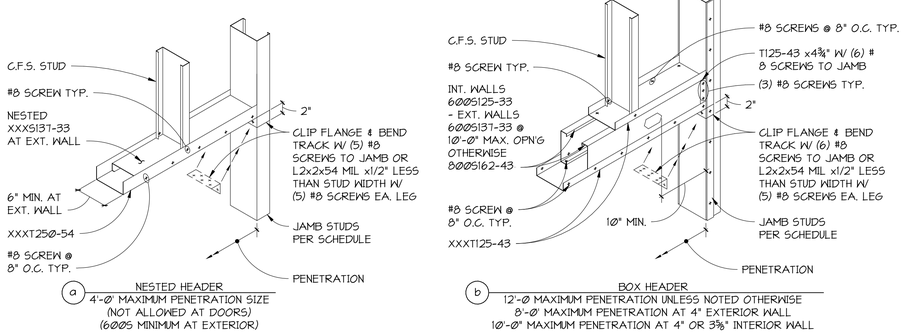
EXTERIOR NON-BEARING COLD FORMED STEEL STUD WALL PENETRATION JAMB SCHEDULE 20 PSF (ASD) WIND LOAD

STUD SIZE AND MIL	MAXIMUM PENETRATION (FEET)	MINIMUM NUMBER STUD(S) AT JAMB (1)		(2)		(3)		(4)	
		HORIZONTAL DEFLECTION LIMIT OF WALL HEIGHT							
		L / 360	L / 600	L / 360	L / 600	L / 360	L / 600	L / 360	L / 600
		MAXIMUM JAMB HEIGHT (FEET)							
4005137-33	4	9	-	12	10	14	11	15	13
	8	-	-	-	-	11	9	12	10
6005137-33	4	11	11	15	14	16	16	16	16
	8	-	-	-	-	11	11	15	14
	12	-	-	-	-	-	-	10	10
8005162-43	4	16	16	16	16	16	16	16	16
	8	12	12	16	16	16	16	16	16
	12	9	9	11	11	12	12	16	16

INTERIOR NON-BEARING COLD FORMED STEEL STUD WALL PENETRATION JAMB SCHEDULE 5 POUNDS PER SQUARE FOOT (ASD) LIVE LOAD - L/360

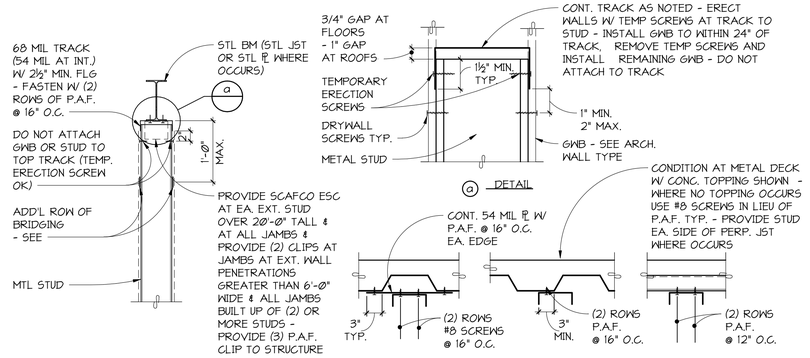
STUD SIZE AND MIL	MAXIMUM PENETRATION (FEET)	MINIMUM NUMBER OF BUILT-UP STUDS AT JAMB (2)	(3)	(4)	STUD DEPTH	STUD WIDTH AND MIL	MAXIMUM PENETRATION WIDTH (FEET) WITH SINGLE JAMB STUD (4)	(8)	(12)
		MAXIMUM JAMB HEIGHT (FEET)					MAXIMUM JAMB HEIGHT (FEET)		
3625125-33 OR 4005125-33	4	12	15	-	3625 OR 4005	125-33	10	-	-
						137-43	12	-	-
						162-54	13	11	-
	8	10	12	14		200-54	14	12	10
6005125-33	4	16	-	-	6005	125-33	11	-	-
						137-43	14	-	-
	8	13	16	-		162-54	-	15	-
						200-54	-	-	15
	12	9	14	16					

NOTES:
1. BOXED JAMB STUDS SHOWN. BACK-TO-BACK JAMB STUDS PERMITTED AT CONTRACTOR'S OPTION. FOR DETAIL SEE 8/SLGM3.
2. FOR CONNECTION TO STRUCTURE ABOVE - SEE 4/SLGM2 & 1/SLGM4.
3. FOR CONNECTION TO STRUCTURE BELOW - SEE 1/SLGM3.
4. HEADER AND STUDS SHALL BE CONTINUOUS - NO SPLICES ALLOWED.
5. 1/600 APPLIES TO WALLS WITH MASONRY VENEER - COORDINATE WITH ARCH WALL TYPES.



TYPICAL NON-BEARING COLD-FORMED STEEL WALL PENETRATION AT 16'-Ø" MAXIMUM STUD HEIGHT - JAMB STUD SCHEDULE

3 DETAIL
S21-10 NO SCALE



TYPICAL NON-BEARING CFS WALL EXTENDING TO STRUCTURE ABOVE

4 SECTION
S21-10 NO SCALE

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#2300, Seattle,
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t +12063816000
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MULTICARE

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE
Job Number	24127	

TITLE

COLD FORMED STEEL FRAMING DETAILS

SHEET NUMBER

S21-10

GENERAL NOTES

THESE GENERAL NOTES ARE TO BE USED AS A SUPPLEMENT TO THE SPECIFICATIONS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE STRUCTURE HAS BEEN DESIGNED TO RESIST CODE SPECIFIED VERTICAL AND LATERAL FORCES AFTER THE CONSTRUCTION OF ALL STRUCTURAL ELEMENTS HAS BEEN COMPLETED. STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THIS RESPONSIBILITY INCLUDES BUT IS NOT LIMITED TO JOB SITE SAFETY; ERECTION MEANS, METHODS, AND SEQUENCES; TEMPORARY SHORING, FORMWORK, BRACING; USE OF EQUIPMENT AND CONSTRUCTION PROCEDURES. PROVIDE ADEQUATE RESISTANCE TO LOADS ON THE STRUCTURES DURING CONSTRUCTION PER SEI/ASCE STANDARD NO. 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."

CONSTRUCTION OBSERVATION BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH DESIGN ASPECTS ONLY AND IS NOT INTENDED IN ANY WAY TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES.

STANDARDS
ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION.

CONTRACT DRAWINGS / DIMENSIONS

ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. CONSULTANT DRAWINGS BY OTHER DISCIPLINES ARE SUPPLEMENTARY TO ARCHITECTURAL DRAWINGS. REPORT DIMENSIONAL OMISSIONS OR DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND STRUCTURAL, MECHANICAL, ELECTRICAL OR CIVIL DRAWINGS TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. PRIMARY STRUCTURAL ELEMENTS ARE DIMENSIONED ON STRUCTURAL PLANS AND DETAILS AND OVERALL LAYOUT OF STRUCTURAL PORTION OF WORK. SOME SECONDARY ELEMENTS ARE NOT DIMENSIONED, SUCH AS WALL CONFIGURATIONS, INCLUDING EXACT DOOR AND WINDOW LOCATIONS, ALCOVES, SLAB SLOPES AND DEPRESSIONS, CURBS, ETC. VERTICAL DIMENSIONAL CONTROL IS DEFINED BY ARCHITECTURAL WALL SECTIONS AND BUILDING SECTIONS. STRUCTURAL DETAILS SHOW DIMENSIONAL RELATIONSHIPS TO CONTROL DIMENSIONS DEFINED BY ARCHITECTURAL DRAWINGS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN **BOTH** ARCHITECTURAL AND STRUCTURAL DRAWINGS.

DESIGN CRITERIA

VERTICAL LOADS

AREA	DESIGN DEAD LOAD	LIVE LOAD (1)	PARTITION LOAD	CONCENTRATED LOADS
ROOF	20 PSF	25 PSF		300#
OPERATING ROOMS AND LABORATORIES	90 PSF	60 PSF		
PATIENT ROOMS	90 PSF	40 PSF	20 PSF	
OFFICE	90 PSF	50 PSF	+15 PSF	2,000#
CORRIDORS (ABOVE 1ST FLR)	90 PSF	80 PSF		2,000#
CORRIDORS (1ST FLR)	90 PSF	100 PSF		2,000#
STAIRS	50 PSF	100 PSF		300#

(1) LIVE LOADS EXCEPT SNOW LOADS ARE REDUCED PER IBC SECTION 1607.12.

SNOW: (MINIMUM ROOF SNOW LOAD = 25 PSF)

Pg = 20 PSF = GROUND SNOW LOAD
Pf = 0.7CeCtIsPg = FLAT ROOF SNOW LOAD
Ps = CsPf = SLOPED ROOF SNOW LOAD
I s = 1.2 Ce = 1.0, Ct = 1.0, Cs = VARIES

LATERAL FORCES

WIND:

THE BUILDING MEETS THE CRITERIA TO USE THE "ENCLOSED, PARTIALLY ENCLOSED, AND OPEN BUILDING OF ALL HEIGHTS PROCEDURE" PER ASCE 7-16.

- EXPOSURE CATEGORY = B
- BASIC WIND SPEED, (3 SEC. GUST), V_{ULT} = 108 MPH
- RISK CATEGORY PER IBC TABLE 1604.5 = IV
- TOPOGRAPHIC FACTOR K_{ZT} = 1.0
- INTERNAL PRESSURE COEFFICIENT (ENCLOSED) = ± 0.18

SEISMIC: (ASCE 7-16)

THIS IS A LIMITED SCOPE REMODEL IN WHICH THE EXISTING LATERAL SYSTEM IS NOT BEING MODIFIED. SEISMIC PARAMETERS ARE LISTED FOR USE IN DETERMINING THE DEMANDS ON NON-STRUCTURAL COMPONENTS IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7.

DESIGN SPECTRAL RESPONSE ACCELERATIONS S_{DS} = 1.014

PIPES, DUCTS AND MECHANICAL EQUIPMENT SUPPORTED OR BRACED FROM STRUCTURE SHALL CONFORM TO SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC. PUBLICATION "SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS". SPRINKLER LINE ATTACHMENTS SHALL CONFORM TO NFPA PAMPHLET 13.

FOUNDATION DESIGN CRITERIA

ALLOWABLE SOIL BEARING PRESSURE: 1500 PSF (ASSUMED)*

ACTIVE PRESSURE - RESTRAINED: 50 PCF +14H SEISMIC SURCHARGE (ASSUMED)
ACTIVE PRESSURE - UNRESTRAINED: 35 PCF +6H SEISMIC SURCHARGE (ASSUMED)
PASSIVE RESISTANCE: 200 PCF (INCLUDES F.O.S. ≥ 1.5) (ASSUMED)
COEFFICIENT OF FRICTION: .35 (INCLUDES F.O.S. ≥ 1.5) (ASSUMED)
*1/3 INCREASE ALLOWED FOR SEISMIC OR WIND LOADING

ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH OR "STRUCTURAL BACKFILL". NATIVE EARTH BEARING SHALL BE SURFACE COMPACTED. AREAS OVER-EXCAVATED SHALL BE BACKFILLED WITH LEAN CONCRETE (f'c= 2000 PSI) OR "STRUCTURAL BACKFILL". AREAS DESIGNATED "STRUCTURAL BACKFILL" SHALL BE FILLED WITH APPROVED WELL-GRADED BANKRUN MATERIAL. MAXIMUM SIZE OF ROCK 4". FROZEN SOIL, ORGANIC MATERIAL AND DELETERIOUS MATTER NOT ALLOWED. COMPACT TO AT LEAST 95% OF ITS MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. CONTRACTOR SHALL EXERCISE EXTREME CARE DURING EXCAVATION TO AVOID DAMAGE TO BURIED LINES, TANKS, AND OTHER CONCEALED ITEMS. UPON DISCOVERY, DO NOT PROCEED WITH WORK UNTIL RECEIVING WRITTEN INSTRUCTIONS FROM ARCHITECT. A COMPETENT REPRESENTATIVE OF THE OWNER SHALL INSPECT ALL FOOTING EXCAVATIONS FOR SUITABILITY OF BEARING SURFACES PRIOR TO PLACEMENT OF REINFORCING STEEL. PROVIDE DRAINAGE AND DEWATERING AROUND ALL WORK TO AVOID WATER-SOFTENED FOOTINGS.

FREE DRAINING BACKFILL MATERIAL FOR RETAINING & BASEMENT WALLS

A CLEAN, FREE DRAINING, WELL GRADED GRANULAR MATERIAL CONFORMING TO ASTM D2487 GW OR SW WHOSE MAXIMUM PARTICLE SIZE DOES NOT EXCEED 3/4" AND WHOSE FINES CONTENT (MATERIAL PASSING THE NO. 200 SIEVE) DOES NOT EXCEED 5%,

WITH A MAXIMUM DUST RATIO $\frac{\%\text{ PASSING U.S. NO. 200 SIEVE}}{\%\text{ PASSING U.S. NO. 40 SIEVE}}$ = 2/3 MAX.

CONCRETE

CAST-IN-PLACE CONCRETE

CODES, SPECIFICATIONS, AND STANDARDS. CONCRETE WORK SHALL CONFORM TO THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS, AND THE STANDARDS AND SPECIFICATIONS THEY REFERENCE. THE CONTRACTOR SHALL OBTAIN AND HAVE READILY AVAILABLE ON SITE THE LATEST VERSION OF THE "ACI MANUAL OF CONCRETE PRACTICE":

ACI:
1. ACI-117 'SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY'.
2. ACI-301 'SPECIFICATIONS FOR CONCRETE CONSTRUCTION'.
3. ACI-302.1 'GUIDE TO CONCRETE FLOOR AND SLAB CONSTRUCTION'.
4. ACI-304 'GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE'.
5. ACI-305.1 'SPECIFICATIONS FOR HOT WEATHER CONCRETING'.
6. ACI-306.1 'STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING'.
7. ACI-308.1 'STANDARD SPECIFICATION FOR CURING CONCRETE'.
8. ACI-309 'GUIDE FOR CONSOLIDATION OF CONCRETE'.
9. ACI-311.4 'GUIDE FOR CONCRETE INSPECTION'.
10. ACI-315 'GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS'.
11. ACI-318 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE'.
12. ACI-506.2 'SPECIFICATION FOR SHOTCRETE'.
13. ACI 347 'GUIDE TO FORMWORK FOR CONCRETE'.
14. ACI 303 'GUIDE TO CAST-IN-PLACE ARCHITECTURAL CONCRETE PRACTICE'.

ASTM:
1. ASTM C33 'STANDARD SPECIFICATION FOR CONCRETE AGGREGATES'.
2. ASTM C94 'STANDARD SPECIFICATION FOR READY-MIX CONCRETE'.
3. ASTM C150 'STANDARD SPECIFICATION FOR PORTLAND CEMENT'.
4. ASTM C260 'STANDARD SPECIFICATION FOR AIR-ENTRAINED ADMIXTURES FOR CONCRETE'.
5. ASTM C309 'STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE'.
6. ASTM C494 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE'.
7. ASTM C595 'STANDARD SPECIFICATION FOR BLENDED HYDRAULIC CEMENTS'.
8. ASTM C618 'STANDARD SPECIFICATION FOR ..., COAL-ASH...'.
9. ASTM C989 'STANDARD SPECIFICATION FOR SLAG...'.
10. ASTM C1017 'STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE'.
11. ASTM C1116 'STANDARD SPECIFICATION FOR FIBER-REINFORCED CONCRETE'.
12. ASTM C1218 'STANDARD TEST METHOD FOR WATER-SOLUBLE CHLORIDE IN MORTAR AND CONCRETE'.
13. ASTM C1315 'STANDARD SPECIFICATION FOR LIQUID MEMBRANE-FORMING COMPOUNDS HAVING SPECIAL PROPERTIES FOR CURING AND SEALING CONCRETE'

MIX DESIGNS: THE CONTRACTOR SHALL DESIGN CONCRETE MIXES THAT MEET OR EXCEED THE REQUIREMENTS OF THE CONCRETE MIX TABLE. ALL CONCRETE MIXES SHALL BE NORMAL WEIGHT, UNLESS NOTED OTHERWISE. THE MIX DESIGNS SHALL FACILITATE ANTICIPATED PLACEMENT METHODS, WEATHER, REBAR CONGESTION, ARCHITECTURAL FINISHES, CONSTRUCTION SEQUENCING, STRUCTURAL DETAILS, AND ALL OTHER FACTORS REQUIRED TO PROVIDE A STRUCTURALLY SOUND, AESTHETICALLY ACCEPTABLE FINISHED PRODUCT. WATER REDUCING ADMIXTURES WILL LIKELY BE REQUIRED TO MEET THESE REQUIREMENTS. CONCRETE MIX DESIGNS SHALL CLEARLY INDICATE THE TARGET SLUMP. SLUMP TOLERANCE SHALL BE ± 1-1/2 INCHES.

LIGHTWEIGHT CONCRETE: SHALL CONFORM TO ASTM C330 AND ACI 211.2. LIGHTWEIGHT CONCRETE SHALL HAVE MAXIMUM DRY DENSITY OF 116 PCF AND A MINIMUM OF 90 PCF AT PLACEMENT.

AGGREGATE: COARSE AND FINE AGGREGATE SHALL CONFORM TO ASTM C33

CEMENT: CEMENT SHALL CONFORM TO ASTM C150, TYPE II PORTLAND CEMENT OR ASTM C595 - TYPE IL PORTLAND LIMESTONE CEMENT, UNLESS NOTED OTHERWISE. CEMENT IN CONCRETE EXPOSED TO EARTH SHALL BE TYPE II OR TYPE IL-MS.

FLYASH: SHALL CONFORM TO ASTM C618 CLASS C OR F, MAXIMUM LOSS OF IGNITION SHALL BE 1.0%.

SLAG: GROUND GRANULATED BLAST-FURNACE (GGBF) SLAG SHALL CONFORM TO ASTM C989 GRADE 100 OR 120.

ALTERNATE MIX DESIGNS: VARIATIONS TO THE MIX DESIGN PROPORTIONS MAY BE ACCEPTED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318, CHAPTER 19. PROVIDE SUBMITTALS A MINIMUM OF TWO WEEKS PRIOR TO BID FOR DETERMINATION OF ACCEPTABILITY.

ADMIXTURES: ADMIXTURES SHALL BE BY MASTER BUILDERS, W.R. GRACE, OR PRE-APPROVED EQUAL. ALL MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED.

WATER: SHALL BE CLEAN AND POTABLE.

MAXIMUM CHLORIDE CONTENT: THE MAXIMUM WATER SOLUBLE CHLORIDE CONTENT SHALL NOT EXCEED 0.15% BY WEIGHT OF CEMENTITIOUS MATERIAL UNLESS NOTED OTHERWISE.

CONCRETE EXPOSED TO WEATHER: PROVIDE 5.0% TOTAL AIR CONTENT FOR ALL CONCRETE EXPOSED TO WEATHER. TOTAL AIR CONTENT IS THE SUM OF ENTRAINED AIR PROVIDED BY ADMIXTURES AND NATURALLY OCCURRING ENTRAPPED AIR. AIR CONTENT SHALL BE TESTED PRIOR TO BEING PLACED IN THE PUMP HOPPER OR BUCKET; IT IS NOT REQUIRED TO BE TESTED AT THE DISCHARGE END OF THE PUMP HOSE. THE TOLERANCE ON ENTRAPPED AIR SHALL BE +2.0% AND -1.5% WITH THE AVERAGE OF ALL TESTS NOT LESS THAN THE SPECIFIED AMOUNT.

SHOTCRETE: SHALL CONFORM TO IBC SECTION 1908.

TOTAL CEMENTITIOUS MATERIAL: THE SUM OF ALL CEMENT PLUS FLYASH AND SLAG. AT THE CONTRACTORS OPTION FLYASH OR SLAG MAY BE SUBSTITUTED FOR CEMENT BUT SHALL NOT EXCEED 25% BY WEIGHT OF TOTAL CEMENTITIOUS MATERIAL. IN NO CASE SHALL THE AMOUNT OF FLYASH OR SLAG BE LESS THAN REQUIRED BY THE CONCRETE MIX DESIGN TABLE. FOOTING MIXES SHALL CONTAIN NOT LESS THAN **5 SACKS** OF CEMENTITIOUS MATERIAL PER CUBIC YARD, ALL OTHER MIXES SHALL CONTAIN NOT LESS THAN **5-1/2 SACKS** OF CEMENTITIOUS MATERIAL PER CUBIC YARD, UNLESS NOTED OTHERWISE.

ITEM	DESIGN f'c (PSI) (AT 28 DAYS U.N.O.)	MAX. W/C RATIO	MIN. FLYASH OR SLAG (PCY)	AGGREGATE GRADING ASTM AASHTO	NOTES
SLABS ON GRADE - UNO	4000	0.45	100	57 OR 67	
FOUNDATIONS - UNO	3000	0.50	--	57 OR 67	
STEM WALLS AND OTHER WALLS EXPOSED TO EARTH OR WEATHER	4500	0.45	100	57 OR 67	
CONTROLLED DENSITY FILL (CDF)	200	--	--	SAND	1
ALL OTHER CONCRETE	4000	0.50	--	57 OR 67	

CONCRETE MIX NOTES:

1. SAND - CEMENT CONCRETE GROUT.

CONCRETE PLACEMENT

PLACE CONCRETE FOLLOWING ALL APPLICABLE ACI RECOMMENDATIONS. CONCRETE SHALL BE PROPERLY CONSOLIDATED PER ACI 309 USING INTERIOR MECHANICAL VIBRATORS, DO NOT OVER-VIBRATE. CONCRETE SHALL BE POURED MONOLITHICALLY BETWEEN CONSTRUCTION OR EXPANSION JOINTS. IF CONCRETE IS PLACED BY THE PUMP METHOD, HORSES SHALL BE PROVIDED TO SUPPORT THE HOSE, THE HOSE SHALL NOT BE ALLOWED TO RIDE ON THE REINFORCING. WEATHER FORECASTS SHALL BE MONITORED AND ACI RECOMMENDATIONS FOR HOT AND COLD WEATHER CONCRETING SHALL BE FOLLOWED AS REQUIRED. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FEET DURING PLACEMENT WITHOUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER.

COLD WEATHER PLACEMENT:

1. COLD WEATHER IS DEFINED BY ACI 306 AS "A PERIOD WHEN FOR MORE THAN 3 SUCCESSIVE DAYS THE MEAN DAILY TEMPERATURE DROPS BELOW 40° F."
2. NO CONCRETE SHALL BE PLACED ON FROZEN OR PARTIALLY FROZEN GROUND. THAWING THE GROUND WITH HEATERS IS PERMISSIBLE.
3. CONCRETE MIX TEMPERATURES SHALL BE AS SHOWN BELOW. HEATING OF WATER AND/OR AGGREGATES MAY BE REQUIRED TO ATTAIN THESE TEMPERATURES.
4. THE CONCRETE MAY REQUIRE PROTECTION FOR 4-7 DAYS AFTER POURING. IF TEMPERATURES REMAIN BELOW FREEZING, INSULATING BLANKET COVERAGE IS REQUIRED. IF TEMPERATURES ARE SLIGHTLY BELOW FREEZING (30° F MIN.) AT NIGHT AND ABOVE FREEZING DURING THE DAY, KRAFT PAPER WITH COMPLETE COVERAGE MAY BE USED IN LIEU OF INSULATED BLANKETS.
5. NO ADDITIVES CONTAINING CHLORIDES SHALL BE USED. USE "POZZUTEC 20+" BY MASTER BUILDERS OR "POLARSET" BY W.R. GRACE OR PRE-APPROVED EQUAL.

CONDITION OF PLACEMENT AND CURING		WALLS & SLABS	FOOTINGS
MIN. TEMP. FRESH CONCRETE AS MIXED FOR WEATHER INDICATED, DEGREES F.	ABOVE 30° F. 0° TO 30° F. BELOW 0° F.	60° 65° 70°	55° 60° 65°
MIN. TEMP. FRESH CONCRETE AS PLACED AND MAINTAINED, DEGREES F.		55°	50°
MAX. ALLOWABLE GRADUAL DROP IN TEMP. THROUGHOUT FIRST 24 HOURS AFTER END OF PROTECTION, DEGREES F.		50°	40°

HOT OR WINDY WEATHER PLACEMENT

HOT WEATHER IS DEFINED BY ACI 305 AS "ANY COMBINATION OF HIGH AIR TEMPERATURE, LOW RELATIVE HUMIDITY, AND WIND VELOCITY, TENDING TO IMPAIR THE QUALITY OF FRESH HARDENED CONCRETE. ACI 305 FIGURE 2.1.5 SHALL BE USED BY THE CONTRACTOR TO ESTIMATE THE RATE OF EVAPORATION. WHEN THE ESTIMATED RATE OF EVAPORATION IS GREATER THAN O.2 PSF/HOUR THE PLACEMENT SHALL BE CONSIDERED A HOT WEATHER PLACEMENT. PRECAUTIONS AGAINST PLASTIC SHRINKAGE CRACKING ARE NECESSARY. PRECAUTIONS TAKEN BY THE CONTRACTOR VARY DEPENDING UPON THE FACTORS ASSOCIATED WITH WATER EVAPORATION AND INCLUDE BUT ARE NOT LIMITED TO:

1. LIMITING CONCRETE TEMPERATURE TO 100°F AT TIME OF PLACEMENT.
2. APPLICATION OF AN EVAPORATION RETARDER.
3. USE OF FOG SPRAY.
4. REDUCTION OF POUR SIZE.
5. PLACING CONCRETE AT NIGHT.

CONTROL AND CONSTRUCTION JOINTS

CONSTRUCTION JOINTS SHALL MEET THE REQUIREMENTS OF ACI 301 SECTIONS 2.2.2.5 AND 5.3.2.6. SPECIAL BONDING METHODS PER SECTION 5.3.2.6 SHALL BE SATISFIED BY ITEM 6 BELOW UNLESS OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN ON PLAN OR ADDITIONAL CONSTRUCTION JOINTS ARE REQUIRED SUBMIT PROPOSED JOINTING FOR STRUCTURAL ENGINEERS APPROVAL. PROVIDE CONSTRUCTION JOINTS AS INDICATED BELOW UNLESS NOTED OTHERWISE ON THE PLANS:

1. SLABS ON GRADE: PROVIDE CONSTRUCTION AND/OR CONTROL JOINTS AT 16 FEET O.C. MAXIMUM FOR UNEXPOSED SLABS ON GRADE AND 12 FEET O.C. FOR EXPOSED SLABS ON GRADE. COORDINATE JOINTS WITH ARCHITECTURAL DRAWINGS.
2. BONDING AGENT: WHERE BONDING AGENT IS SPECIFICALLY CALLED OUT ON THE STRUCTURAL DRAWINGS USE "WELD CRETE" BY LARSEN PRODUCTS CORPORATION OR PRE-APPROVED EQUAL. FOLLOW ALL MANUFACTURERS RECOMMENDATIONS.
3. ATTACHMENT OF NEW CONCRETE TO EXISTING: WHERE SHOWN, ROUGHEN CONCRETE TO A MINIMUM AMPLITUDE OF 1/4" USING IMPACT HAMMER. REMOVE ALL LOOSE OR DAMAGED CONCRETE, THOROUGHLY FLUSH ALL SURFACES WITH POTABLE WATER, AIR BLAST WITH OIL FREE COMPRESSED AIR TO REMOVE ALL WATER.

EMBEDDED ITEMS

1. NO ALUMINUM ITEMS SHALL BE EMBEDDED IN ANY CONCRETE.
2. ALL EMBED PLATES SHALL BE SECURELY FASTENED IN PLACE.
3. ALL EMBEDDED STEEL ITEMS EXPOSED TO EARTH SHALL BE GALVANIZED.
4. ALL EMBEDDED STEEL ITEMS EXPOSED TO WEATHER SHALL BE PAINTED UNLESS NOTED AS GALVANIZED. SEE DRAWINGS AND SPECIFICATIONS FOR PAINT, PRIMER, AND GALVANIZING REQUIREMENTS.

CONCRETE CURING AND SEALING

CURING PROCEDURES SHALL COMMENCE IMMEDIATELY AFTER FINISHING CONCRETE TO MAINTAIN CONCRETE IN A MOIST CONDITION. VERIFY CURING AND/OR SEALING PRODUCTS ARE COMPATIBLE WITH FLOOR COVERINGS SHOWN ON THE ARCHITECTURAL DRAWINGS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS. SLABS ARE DEFINED AS SLABS ON GRADE, CONCRETE ON METAL DECK, ELEVATED POST-TENSIONED OR MILD REINFORCED DECKS, AND TOPPING SLABS.

ITEM	CONCRETE CURING NOTES
ALL OTHER SLABS	1, (3 OR 4 OR 5)
FORMED SURFACES EXCLUDING FOUNDATIONS	2
SHOTCRETE WALLS	4
ALL OTHER CONCRETE	NONE

CONCRETE CURING NOTES:

1. WHEN THE ESTIMATED EVAPORATION RATE IS GREATER THAN 0.2 PSF/HOUR PROVIDE A SPRAY APPLIED EVAPORATION RETARDER IMMEDIATELY AFTER CONCRETE PLACEMENT. THE EVAPORATION RATE MAY BE CALCULATED PER ACI 305 FIGURE 2.1.5.
2. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND, CONFORMING TO ASTM C309 TYPE 1 CLASS B SPECIFICATIONS, PER MANUFACTURER'S RECOMMENDATIONS TO ALL FORMED SURFACES IMMEDIATELY AFTER FINAL FORM REMOVAL. NOT REQUIRED IF FORMWORK REMAINS IN PLACE FOR MORE THAN 7 DAYS.
3. PROVIDE PRE-APPROVED CONTINUOUS WET CURE METHOD FOR A MINIMUM OF 14 DAYS.
4. APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND, CONFORMING TO ASTM C309 TYPE 1 CLASS B SPECIFICATIONS OR ASTM C1315 TYPE 1 CLASS A SPECIFICATIONS, PER MANUFACTURER'S RECOMMENDATIONS IMMEDIATELY AFTER FINAL FINISHING. CURING COMPOUND SHALL BE COMPATIBLE WITH ARCHITECTURAL FLOOR COVERINGS AND SEALERS.
5. PROVIDE "ULTRACURE DOT" MOISTURE RETAINING COVER BY MCTECH GROUP, OR APPROVED EQUAL, FOR A MINIMUM OF 14 DAYS.
6. APPLY A SILANE SEALER WITH MINIMUM SOLIDS CONTENT OF 40% PER MANUFACTURER'S RECOMMENDATIONS.

GROUT

NON-SHRINK GROUT: MASTER BUILDERS "MASTERFLOW 928" OR PRE-APPROVED EQUAL. GROUT SHALL CONFORM TO CRD-C621 AND ASTM C1107 WHEN TESTED AT A FLUID CONSISTENCY PER CRD-C611-85 FOR 30 MINUTES. GROUT MAY BE PLACED FROM A 25 SECOND FLOW TO A STIFF PACKING CONSISTENCY. FILL OR PACK ENTIRE SPACE UNDER PLATES OR SHAPES. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PREPARATION, INSTALLATION, AND CURING. 28-DAY MINIMUM STRENGTH SHALL BE 7,500 PSI MINIMUM

REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO:

ASTM A615, GRADE 60 TYPICAL UNLESS NOTED OTHERWISE.

ASTM A615 GRADE 75 WHERE NOTED AS Fy = 75 ON DRAWINGS.

ASTM A615 GRADE 80 WHERE NOTED AS Fy = 80 ON DRAWINGS.

ASTM A615 GRADE 40 WHERE NOTED AS Fy = 40 ON DRAWINGS, HIGHER GRADES MAY NOT BE SUBSTITUTED.

ASTM A706 GRADE 60 FOR ALL MOMENT FRAME HORIZONTAL BEAM BARS, MOMENT FRAME VERTICAL COLUMN BARS, VERTICAL SHEAR WALL BARS, ALL COUPLING BEAM BARS (EXCEPT TIES), AND ALL ANCHORAGE REINFORCING AT BASE PLATES OF STEEL COLUMNS PART OF MOMENT FRAME/BRACED FRAME. PER ACI 318, ASTM A615 GRADE 60 MAY BE SUBSTITUTED FOR THESE MEMBERS IF THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18 KSI, THE RATIO OF ACTUAL ULTIMATE TENSILE STRENGTH TO ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25, AND IF THE ELONGATION OVER AN 8" GAGE LENGTH MEETS THE FOLLOWING:

BAR SIZE	MINIMUM ELONGATION
#3 - #6	14% ≥
#7 - #11	12% ≥
#14, #18	10% ≥

ASTM A706 GRADE 60 FOR ALL WELDED BARS.

DETAIL FABRICATE AND PLACE PER ACI 315 AND ACI 318.

WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064. LAP ONE FULL MESH ON SIDES AND ENDS BUT NOT LESS THAN 8 INCHES. WELDED WIRE REINFORCING SHALL BE SUPPORTED TO WITHSTAND CONCRETE PLACEMENT. PULLING OF MESH INTO PLACE AFTER PLACEMENT IS NOT ALLOWED.

REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE, Fy=60 KSI (UNLESS NOTED OTHERWISE)					
BAR SIZE	MINIMUM LAP SPLICE LENGTHS ("Ls")		MINIMUM DEVELOPMENT LENGTHS ("Ld")		MINIMUM EMBEDMENT LENGTH FOR STANDARD END HOOKS ("Ldh")
	TOP BARS (1)	OTHER BARS	TOP BARS (1)	OTHER BARS	
#3	2'-0"	1'-6"	1'-6"	1'-3"	0'-6"
#4	2'-8"	2'-0"	2'-0"	1'-7"	0'-6"
#5	3'-4"	2'-7"	2'-7"	2'-0"	0'-8"
#6	4'-0"	3'-1"	3'-1"	2'-4"	0'-10"
#7	5'-10"	4'-6"	4'-6"	3'-6"	1'-0"
#8	6'-8"	5'-2"	5'-2"	3'-11"	1'-3"
#9	7'-6"	5'-10"	5'-10"	4'-6"	1'-6"
#10	8'-6"	6'-6"	6'-6"	5'-0"	1'-9"
#11	9'-5"	7'-3"	7'-3"	5'-7"	2'-1"
#14	MECHANICAL SPLICE REQUIRED		8'-8"	6'-8"	5'-6"
#18	MECHANICAL SPLICE REQUIRED		11'-7"	8'-11"	8'-5"

SPLICE TABLE NOTES:

1. "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.

MECHANICAL COUPLERS: "LENTON" BY NVENT, "CADWELD" BY NVENT, "BAR-LOCK" BY DAYTON SUPERIOR L-SERIES, OR PRE-APPROVED EQUAL. COUPLERS SHALL BE TYPE 2 PER ACI 318 SECTION 18.2.7.1.

WELDED HALF COUPLERS: "LENTON" BY NVENT WELDABLE HALF COUPLERS TYPE C2/C3J OR APPROVED EQUAL.

TERMINATORS: "LENTON" BY NVENT THREADED TERMINATORS TYPE D6 OR APPROVED EQUAL.

FORM SAVERS: "LENTON" BY NVENT THREADED FORM SAVERS TYPE FS OR APPROVED EQUAL.

REINFORCING STEEL COVER

PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH ---------- 3"
EXPOSED TO WEATHER OR EARTH ---------- 2"
TIES ON BEAMS AND COLUMNS ---------- 1-1/2"
WALLS AND SLABS NOT EXPOSED TO WEATHER---- 3/4"

GENERAL REQUIREMENTS

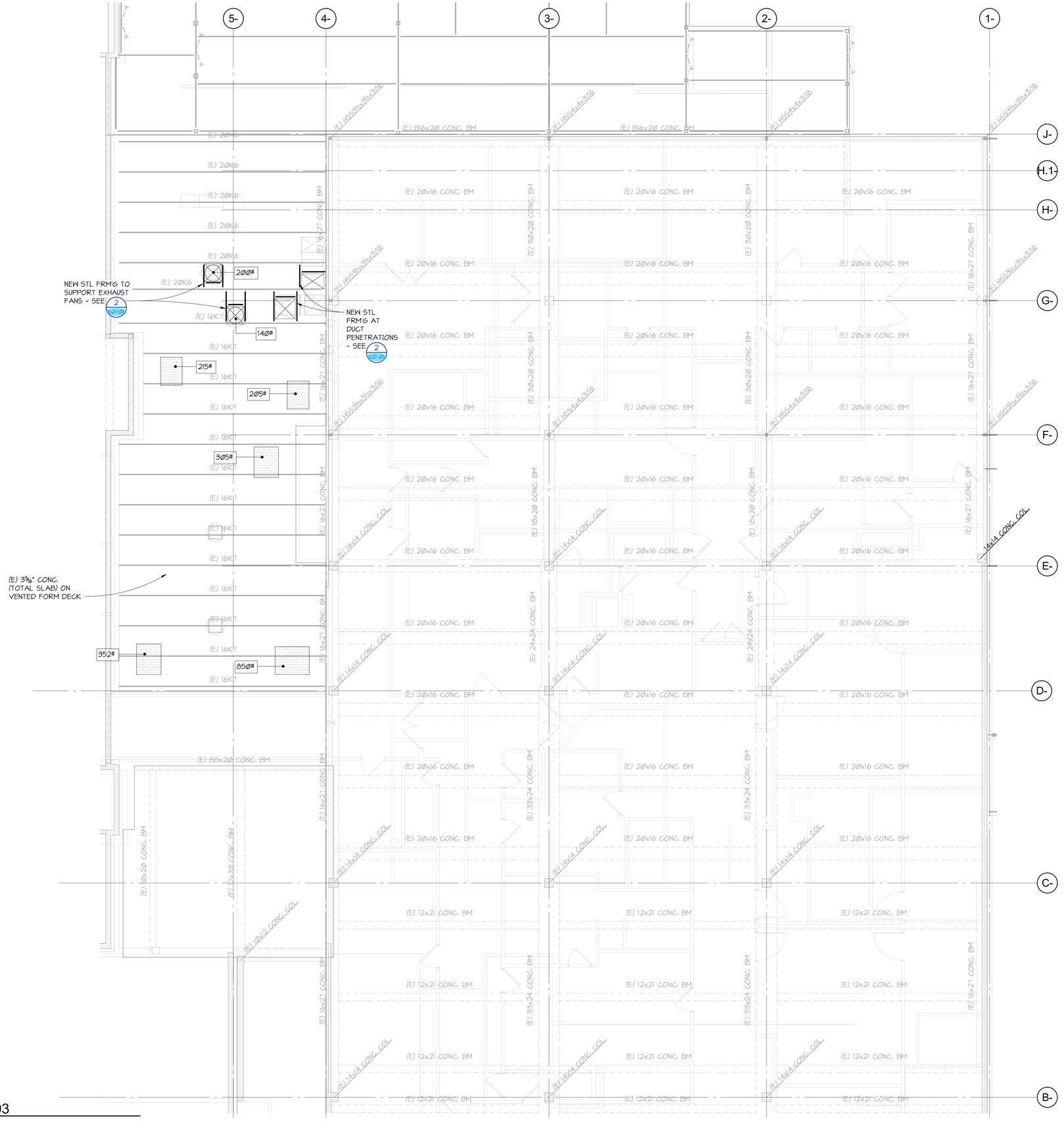
REPAIR MORTAR: SIKA "QUICK VOH" OR PRE-APPROVED EQUAL. TREAT ALL REBAR IN PATCH AREA WITH SIKA "ZINC-RICH 1 PRIMER" OR PRE-APPROVED EQUAL. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS.

POST-INSTALLED ANCHORS

POST-INSTALLED ANCHORS: SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH REBAR. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. INSTALLER SHALL BE QUALIFIED AND TRAINED BY THE MANUFACTURER. HOLES SHALL BE HAMMER DRILLED ONLY (ROTARY DRILLED ONLY AT UNREINFORCED MASONRY - NO HAMMER TOOLS).

SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED FOR APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO BID, ALONG WITH CALCULATIONS THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER (LICENSED IN THE STATE OF THE PROJECT) DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

CONCRETE ANCHORS:
- ADHESIVE ANCHORS: HILTI HIT-HY 200 V3 (ICC-ESR-4868), HILTI HIT-RE 500 V3 (ICC-ESR-3814), DEWALT PURE 110+ (ICC-ESR-3298) OR SIMPSON SET-3G (ICC-ESR-4057) OR PRE-APPROVED EQUAL.
  - *CONCRETE SHALL BE A MINIMUM OF 21 DAYS OLD AT TIME OF INSTALLATION.
  - *CONCRETE SHALL BE IN THE TEMPERATURE RANGE AS REQUIRED BY THE CONCRETE MANUFACTURER.
  - *HOLE SHALL BY HAMMER-DRILLED ONLY.
  - *DO NOT INSTALL IN WATER-FILLED HOLES.
  - *INSTALLER OF HORIZONTAL OR UPWARDLY INCLINED (ANY POSITION EXCEPT DIRECTLY DOWN



1 S11-03 FRAMING PLAN - LEVEL 03
3/16" = 1'-0"

Perkins&Will

1301 5th Ave
#2300, Seattle,
WA 98101
t +1206381600
www.perkinswill.com

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PCS
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3408 1st Ave S,
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1004 Madison St,
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MULTICARE

100% CD SET 06/30/2025

KEY PLAN

ISSUE CHART

MARK	ISSUE	DATE
Job Number		24127

TITLE

FRAMING PLAN - LEVEL 03

SHEET NUMBER

S11-03