



SUITE 203 FLORENCE, SC 29503 GREENVILLE, SC 29601

DESIGN DEVELOPMENT SCHEMATIC DESIGN 08/09/2019 DESCRIPTION DATE SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106 PROJECT DATE: 11/01/2019 PROJECT MANAGER: SLT PROJECT TEAM: RSK, HWB

COVER SHEET

G-001

GENERAL

COVER SHEET G-002 PROJECT STANDARDS, LEGENDS AND CODE REVIEW LIFE SAFETY PLAN - FIRST FLOOR

(UNDER SEPARATE CONTRACT WITH OWNER)

BRITT, PETERS & ASSOCIATES, INC. 101 FALLS PARK DRIVE, SUITE 601 GREENVILLE, SC 29601 FRANK REPPI 864-271-8869

FREPPI@BRITTPETERS.COM

STRUCTURAL

GENERAL NOTES FOUNDATION PLAN - WORSHIP BUILDING ROOF FRAMING PLAN - WORSHIP BUILDING FOUNDATION PLAN - CHILDREN'S BUILDING

ROOF FRAMING PLAN - CHILDREN'S BUILDING S-300 SECTIONS AND ELEVATIONS CONCRETE DETAILS - REINFORCING CONCRETE DETAILS - SLAB ON GRADE STRUCTURAL STEEL DETAILS S-510 METAL DECKING DETAILS

ARCHITECTURAL

EQUIP STUDIO 245 NORTH MAIN STREET, SUITE 200 GREENVILLE, SC 29601 CONTACT: STEPHEN TROUTMAN 864-520-2086

STEPHENTROUTMAN@EQUIPSTUDIO.COM AD051 DEMO PLAN - SITE AND MODULARS AD101 DEMO PLAN - FIRST FLOOR

A-051 ARCHITECTURAL SITE PLAN A-100 OVERALL FIRST FLOOR PLAN A-101 FIRST FLOOR PLAN (WORSHIP) A-102 FIRST FLOOR PLAN (EDUCATION) A-121 FIRST FLOOR RCP (WORSHIP) FIRST FLOOR RCP (EDUCATION)

ROOF PLAN EXTERIOR ELEVATIONS **EXTERIOR ELEVATIONS** INTERIOR ELEVATIONS

BUILDING SECTIONS RESTROOMS CASEWORK DETAILS

ENLARGED PLANS & DETAILS WALL TYPES, FLOOR & ROOF TYPES DOOR, HARDWARE AND GLAZING SCHEDULES & DETAILS FINISH SPECIFICATIONS

FIRST FLOOR FINISH PLAN (WORSHIP)

A-702 FIRST FLOOR FINISH PLAN (EDUCATION)

INTERIOR ELEVATIONS

FIRE PROTECTION

DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TREY MORAN

864-232-6642 TMORAN@DEVITAINC.COM

FP-101 FIRE PROTECTION NOTES & FLOOR PLAN

PLUMBING SANITARY WASTE & VENT PLAN (WORSHIP) P-102 PLUMBING SANITARY WASTE & VENT PLAN

(EDUCATION) PLUMBING DOMESTIC WATER PLAN (WORSHIP) P-112 PLUMBING DOMESTIC WATER PLAN (EDUCATION)

PLUMBING

DEVITA & ASSOCIATES, INC.

33 VILLA ROAD, SUITE 300

TMORAN@DEVITAINC.COM

P-001 PLUMBING LEGEND AND NOTES

GREENVILLE, SC 29615

P-002 PLUMBING DETAILS

TREY MORAN

864-232-6642

PLUMBING ROOF PLAN P-161 SANITARY WASTE & VENT RISER DIAGRAM P-162 DOMESTIC WATER RISER DIAGRAM

MECHANICAL

M-101 MECHANICAL FLOOR PLAN (WORSHIP)

DEVITA & ASSOCIATES, INC. 33 VILLA ROAD, SUITE 300 GREENVILLE, SC 29615 TREY MORAN 864-232-6642 TMORAN@DEVITAINC.COM

M-001 MECHANICAL SCHEDULES, LEGEND, AND

M-102 MECHANICAL FLOOR PLAN (EDUCATION) M-151 MECHANICAL ROOF PLAN

M-002 MECHANICAL DETAILS

PROJECT SITE

Lakeside At Lakes
 Of Windermere

SITE ENTRY

PROJECT SITE

LOCATION MAP

ELECTRICAL

DEVITA & ASSOCIATES, INC.

TWALKER@DEVITAINC.COM

E-002 ELECTRICAL DETAILS

E-151 ELECTRICAL ROOF PLAN

E-001 ELECTRICAL LEGEND AND NOTES

E-101 ELECTRICAL POWER PLAN (WORSHIP)

E-102 ELECTRICAL POWER PLAN (EDUCATION)

E-122 ELECTRICAL LIGHTING PLAN (EDUCATION)

E-161 ELECTRICAL PANELS AND RISER DIAGRAM

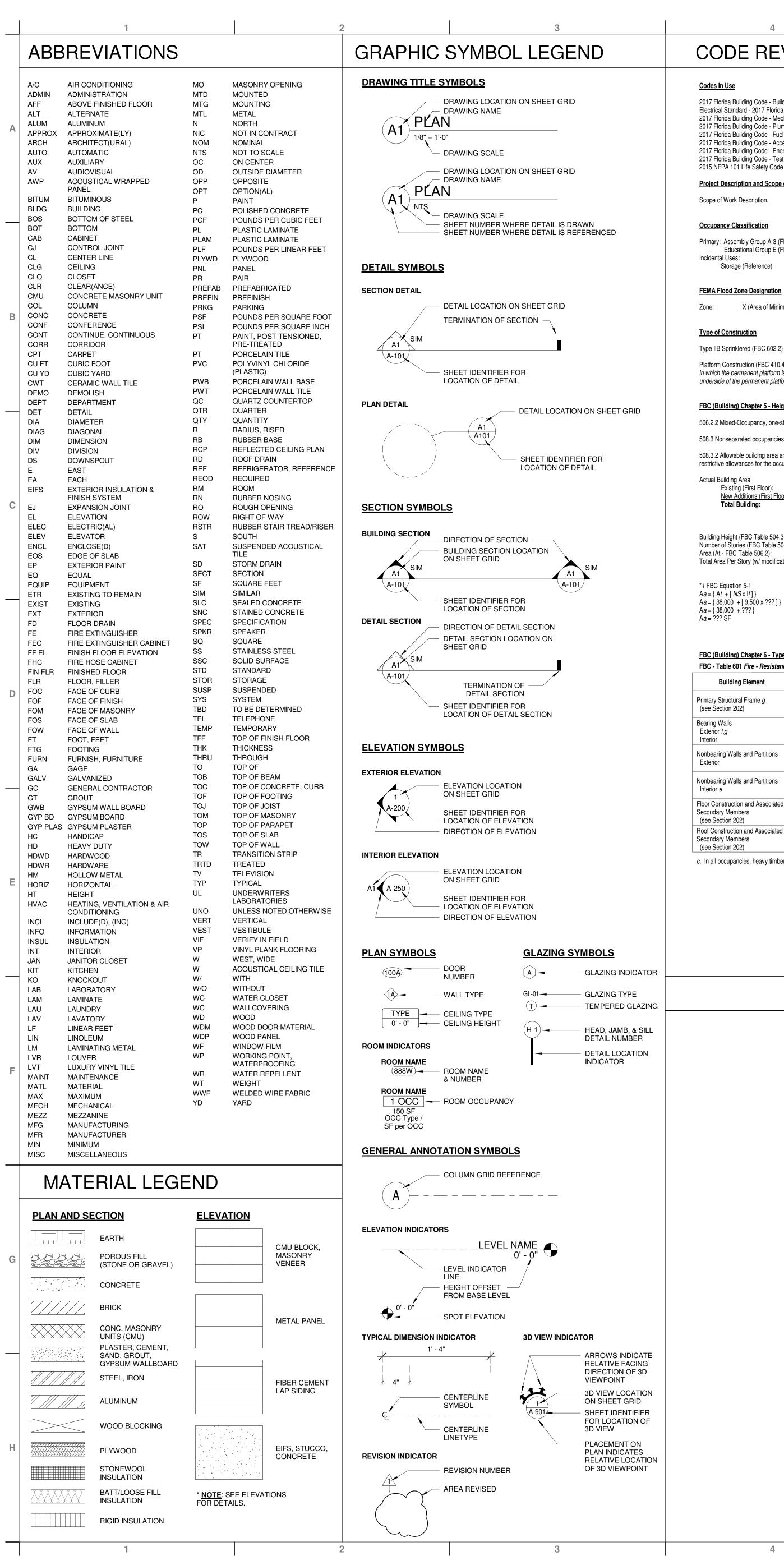
E-121 ELECTRICAL LIGHTING PLAN (WORSHIP)

33 VILLA ROAD, SUITE 300

GREENVILLE, SC 29615

TRAVIS WALKER

864-232-6642



CODE REVIEW

Codes In Use 2017 Florida Building Code - Building, 6th Edition Electrical Standard - 2017 Florida Building Code - Building, 6th Edition - Chapter 27 2017 Florida Building Code - Mechanical, 6th Edition 2017 Florida Building Code - Plumbing, 6th Edition 2017 Florida Building Code - Fuel Gas, 6th Edition 2017 Florida Building Code - Accessibility, 6th Edition

2017 Florida Building Code - Energy Conservation, 6th Edition 2017 Florida Building Code - Test Protocols, 6th Edition 2015 NFPA 101 Life Safety Code Project Description and Scope of Work

Primary: Assembly Group A-3 (FBC 303.4). Place of Religious Worship Educational Group E (FBC 305.2). Day Care Facilities Incidental Uses: Storage (Reference)

FEMA Flood Zone Designation

X (Area of Minimal Flood Hazard)

Type of Construction

Platform Construction (FBC 410.4): "Permanent platforms shall be constructed of materials as required for the type of construction of the building in which the permanent platform is located ... Where the space beneath the permanent platform is used only for equipment, wiring or plumbing, the underside of the permanent platform need not be protected."

FBC (Building) Chapter 5 - Height and Area Modifications

506.2.2 Mixed-Occupancy, one-story buildings.

508.3 Nonseparated occupancies. Per Table 508.4, no separation requirement between Groups A and E.

508.3.2 Allowable building area and height. The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

Actual Building Area Existing (First Floor): 13,255 SF 33,725 SF New Additions (First Floor): Total Building:

Building Height (FBC Table 504.3): 75' (sprinklered) Number of Stories (FBC Table 504.4): 3 (sprinklered) Area (At - FBC Table 506.2): Total Area Per Story (w/ modifications): ?? SF

38,000 SF (sprinklered) 33,725 SF

*1 FBC Equation 5-1 $Aa = \{At + [NS \times If]\}$ $Aa = \{38,000 + [9,500 \times ???]\}$ $Aa = \{38,000 + ???\}$

*2 FBC Equation 5-5 If = [F/P - .25] W / 30If = [?? / ?? - .25] ?? / 30|f = [??]??

*3 FBC Equation 5-4 $W = (L1 \times w1 + L2 \times w2 + L3 \times w3...) / F$ $W = (?? \times 30) / ??$

FBC (Building) Chapter 6 - Types of Construction

Duilding Clament	Ty	pe I	Typ	oe II	Тур	e III	Type IV	Тур	e V
Building Element	Α	В	Ad	В	Ad	В	HT	Ad	В
Primary Structural Frame <i>g</i> (see Section 202)	3 <i>a</i>	2a	1	0	1	0	нт	1	0
Bearing Walls Exterior <i>f,g</i> Interior	3 3 <i>a</i>	2 2a	1 1	0 0	2 1	2 0	2 1/HT	1 1	0 0
Nonbearing Walls and Partitions Exterior				5	See Table 60	2			
Nonbearing Walls and Partitions Interior <i>e</i>	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor Construction and Associated Secondary Members (see Section 202)	2	2	1	0	1	0	НТ	1	0
Roof Construction and Associated Secondary Members (see Section 202)	1 1/2 <i>b</i>	1 <i>b,c</i>	1 <i>b,c</i>	0 <i>c</i>	1 <i>b,c</i>	0 <i>b,c</i>	НТ	1 <i>b,c</i>	0

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

FBC (Building) Chapter 6 - Types of Construction (cont.)

FBC - Table 602 Fire - Resistance Requirements For Exterior Walls Based On Separation Distance a, e, h

Fire Separation Distance = X (feet)	Type of Construction	Group Hf	Group F-1, M, S-1 <i>g</i>	Group A, B, E, F-2, I, R, S-2g, Ub
X<5 <i>c</i>	All	3	2	1
X>5<10	I-A Others	3	2	1
X≥10<30	IA, IB IIB, VB Others	2 1 1	1 0 1	1 <i>d</i> 0 1 <i>d</i>
X≥30	All	0	0	0

a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601. e. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which h. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.

FBC (Building) Chapter 7 - Fire and Smoke Protection Features

FBC - Table 705.8 Maximum Area of Exterior Wall Openings Based on Fire Separation Distance and Degree of Opening Protection (partial table) Fire Separation Distance (feet) **Degree Of Opening Protection** Unprotected, nonsprinklered (UP, NS) No Limit Unprotected, Sprinklered (UP,S) i 30 or greater Not Required

Not Required

Protected (P)

a. Values indicated are the percentage of the area of the exterior wall, per story. b. For the requirements for fire walls of buildings with differing heights, see Section 706.6.1.

c. For openings in a fire wall for buildings on the same lot, see Section 706.8.

Table 706.4 Fire Wall Fire-resistance Rating: In Type II construction, Group A, walls shall be permitted to have a 2-hour fire resistance rating. (Ex 3) Fire walls shall be permitted to terminate at the interior surface of noncombustible exterior Horizontal Continuity: sheathing where the building on each side of the fire wall is protected by an automatic sprinkler

system installed in accordance with Section 903.3.1.1 or 903.3.1.2. Vertical Continuity: (Ex 3) Walls shall be permitted to terminate at the underside of noncombustible roof sheathing, deck or slabs where both buildings are provided with not less than a Class B roof covering. Openings in the roof shall not be located within 4 feet of the fire wall.

FBC - Table 716.5 Opening Fire Protection Assemblies, Ratings and Markings (partial table)

Type Of Assembly	Accombly Oliver	Fire Door And Fire Shutter	Door Vision Panel Size	Fire Rated Glazing Marking Door Vision Panel	Transom Ass	Minimum Sidelight/ Transom Assembly Rating (hours) Fire		zing Marking som Panel
Assembly			e	Fire protection	Fire resistance	Fire protection	Fire resistance	
Fire walls and fire	3	3 <i>a</i>	Not Permitted	Not Permitted	Not Permitted	3	Not Permitted	W-180
barriers having a required fire-	2	1 1/2	100 sq. in. <i>c</i>	<100 sq.in. = D-H-90>100 sq.in.= D-N-W-90	Not Permitted	2	Not Permitted	W-120
resistance rating greater than 1 hour	1 1/2	1 1/2	100 sq. in. <i>c</i>	<100 sq.in. = D-H-90>100 sq.in.= D-N-W-90	Not Permitted	1 1/2	Not Permitted	W-90
Other fire barriers	1	3/4	Maximum size tested	D-H-NT-45	3/4		D-H-N	T-45

f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.

Finish Classification (LSC Chapter 12)

LSC 12.3.3 Interior Wall and Ceiling Finish Requirements by Occupancy (Ch. 12 - New Assembly)

Corridors and Lobbies: Enclosed Stairways: General Assembly Areas with < 300 occupants: Class C All Other Enclosed Spaces:

Fire Protection Systems (LSC Chapter 12)

Project is located in: NFPA 13 Automatic Sprinkler System: Provided throughout Building

LSC 12.3.4 Detection, Alarm, and Communications Systems. Assembly Occupancies with > 300 occupants shall be equipped with a fire alarm system installed, tested, and maintained in accordance with the applicable requirements of NFPA 70, National Electrical Code, NFPA 72, and National Fire Alarm Code.

LSC 12.3.4.2.1 Exception 2, Initiation. Manual means of alarm initiation shall not be required where the fire alarm system is initiated by means of an approved automatic sprinkler system in accordance with LSC 9.6.2.1 (3). LSC 12.3.5.1 Extinguishing Requirements. Assembly Occupancies with > 300 occupants shall be protected by an approved, supervised automatic

sprinkler system in accordance with Section 9.7. **NOTE**: Existing Sprinkler System to be maintained (Refer to Fire Protection drawings).

Means of Egress (LSC and FBC references noted below)

Occupancy Calculation: Assembly (A-3) Total Occupants (See Life Safety Plan):

1,908 Occupants

Common Path of Egress Travel: 20' for any number of occupants (LSC 12.2.5.1) 75' for not more than 50 occupants (LSC 12.2.5.1 Maximum Travel Distance: 250' w/ sprinklers (LSC 12.2.6 Exception 1)

No Requirements (LSC 12.3.6 Exception 2), 0 Hr (FBC - Table 1020.1) Exit Access Corridor Rating: Minimum Required Corridor Width: **36"** (LSC 7.3.4.1) **44"** for corridors serving > 50 occupants (LSC 12.2.3.8) Maximum Dead End Corridor Length: **20'** (LSC 12.2.5.1.3)

Not less than 3 for occupant load > 500 and < 1,000 (LSC 7.4.1.2 (1) Minimum Number of Exits: **Not less than 4** for occupant load > 1,000 (LSC 7.4.1.2 (2)) Headroom Requirements:

Not less than 7'-6" clear height (LSC 7.1.5.1) Not less than 6'-8" clear height to ceiling projections (LSC 7.1.5.1 Egress Capacity Factors: Stairways = 0.3" per person (LSC Table 7.3.3.1) Level Components and Ramps = 0.2" per person (LSC Table 7.3.3.1 FBC (Accessbility)

TBD Sixty percent of all public entrances shall be accessible.

Exception 2: Loading and Service Entrances that are not the only entrance to a tenant space. TBD Sinks: ≥ 5% but not less than one provided in accessible spaces shall comply with ICC A117.1.

TBD Drinking Fountains: Required. TBD Directional Signage: Required at inaccessible building entrances and at each separate-sex toilet indicating the nearest

FBC (Building) Chapter 15 - Roof Assemblies And Rooftop Structures

Roof Covering Classification: Class C or Better (FBC Table 1505.1)

FBC (Building) Chapter 17 - Special Inspections - Required

(See Structural Specification)

FBC (Plumbing) Chapter 4 - Fixtures, Faucets and Fixture Fittings

Table 403.1 Minimum Number of Plumbing Fixtures

Occupants *	Fixture	Required			Provided	
1,908 = 954M / 954W	rixture	Male	Female	Male	Female	Unisex
	Water Closet	1 per 150 = 6.36	1 per 75 = 12.72	9	14	5
	Lavatories 1 per 200 = 4.77		1 per 200 = 4.77	7	12	5
Assembly (A-3)	Showers	0	0	0	0	0
	Drinking Fountains	1 per 1,000	4 Existing + 2 New			
	Service Sink	1 service si	ink required	1 provided		

* Occupant load based on Life Safety Plans (See sheet G-101). ** 403.1.2 Family or assisted-use toilet and bath fixtures. Fixtures located within...assisted-use toilet...are permitted to be included in the

number of required fixtures for either the male or female occupants in assembly...occupancies. *** 419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly...occupancies.

FBC (Energy Conservation) Table C402.1.3 BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES Partial Table - Climate Zone 2A

	Descr	iption	Min. Req.	Provided
Roofs	Insulation Entirely	Above Deck	R-25ci	R-25ci
Walls, Above Grade	Metal Framed		R-13 + R-5ci	R-13 + R-5ci
Walls, Below Grade	Below Grade Wall	I	NR	0
Floors	Joist / Framing (st	eel / wood)	R-30	N/A
	Unheated Slab		NR	0
Slab-on-Grade Floors	0	Swinging	N/A	N/A
	Opaque Doors Nonswinging		R-4.75	N/A

NOTE: FINAL CODE REVIEW ANALYSIS IN PROGRESS - NOT FOR CONSTRUCTION OR PERMIT. EQUIP

245 NORTH MAIN STREET 140 WEST EVANS STREET SUITE 200 SUITE 203 FLORENCE, SC 29503 GREENVILLE, SC 29601

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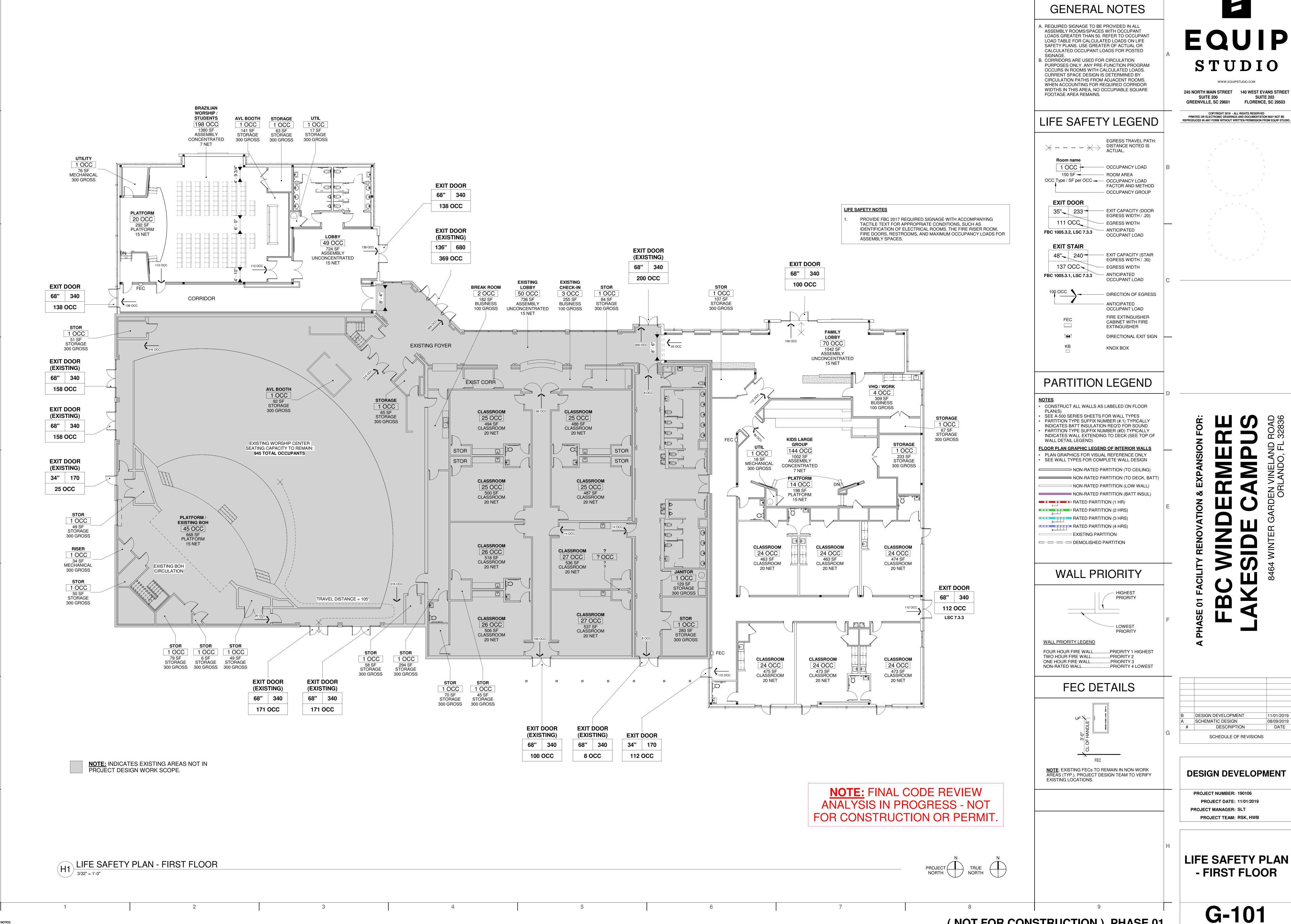
DESIGN DEVELOPMENT SCHEMATIC DESIGN 08/09/2019 DESCRIPTION DATE SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106 PROJECT DATE: 11/01/2019 PROJECT MANAGER: SLT PROJECT TEAM: RSK, HWB

PROJECT STANDARDS, **LEGENDS AND CODE REVIEW**

G-002



EQUIP

08/09/2019 DATE

LATERAL LOADS AND PROVIDE STABILITY UNDER GRAVITY LOADS. DURING THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER. H. UNLESS NOTED OTHERWISE, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR I. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS AND FOR SAFETY PRECAUTIONS AND PROGRAMS. BRITT, PETERS & ASSOCIATES, INC. SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSION OF THE CONTRACTOR OR FOF

THEIR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS K. PERIODIC SITE OBSERVATION BY BRITT, PETERS & ASSOCIATES, INC. IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS AND IS NOT EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK. THE BUILDING OWNER SHALL PROVIDE PERIODIC MAINTENANCE TO INSURE STRUCTURAL INTEGRITY. SUCH MAINTENANCE SHALL INCLUDE BUT IS NOT LIMITED TO PAINTING OF STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS.

M. CONTRACT DRAWINGS SHALL NOT BE USED FOR SHOP DRAWINGS

A. THE CONTRACT DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE 2017 FLORIDA BUILDING CODE B. DEAD LOADS

 TYPICAL ROOF SYSTEMS: (20 PSF TOTAL)

MISCELLANEOUS CEILING AND HANGING MECHANICAL LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES. PARTITION LOAD INCLUDED WITH LIVE LOAD FOR OFFICE SPACES.

 SEE LIVE LOADS TABLE 2. LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD LISTED BELOW OR THE CONCENTRATED LOAD LISTED ACTING OVER A 6.25 SQUARE FOOT AREA EXCEPT FOR PARKING GARAGES WHICH ACT OVER AN AREA OF 20 SQUARE INCHES. LIVE LOADS HAVE BEEN REDUCED AS PRESCRIBED IN THE AFOREMENTIONED BUILDING CODE.

D. DESIGN SNOW LOAD:		
GROUND SNOW LOAD,	P _G	0 PSF
FLAT ROOF SNOW LOAD,	P_F	0 PSF
EXPOSURE FACTOR,	CE	1.0
SNOW THERMAL FACTOR,	Ст	1.0
SNOW IMPORTANCE FACTOR,	I	1.0
DESIGN WIND LOADS:		
BASIC WIND SPEED,	Vult	135 MPH (3-SEC GUST)
BASIC WIND SPEED,	Vasd	106 MPH (3-SEC GUST)
RISK CATEGORY,		II
EXPOSURE,		С
INTERNAL PRESSURE COEFF	GC_Pl	±0.18

COMPONENTS & CLADDING WIND PRESSURES (ULTIMATE):

			Decign M	lind Droce	uro (nof):				
	Design Wind Pressure (psf): Effective Wind Area (sqft)								
	Walls:		10	20	50	100	200	500	
		+	37.8	36.1	33.9	32.2	30.5	28.3	
Interior	Area 4	-	-40.9	-39.3	-37.0	-35.4	-33.7	-31.5	
- Calara	Δ	+	37.8	36.1	33.9	32.2	30.5	28.3	
Edge	Area 5	ı	-50.4	-47.0	-42.6	-39.3	-35.9	-31.5	
	Roof:		10	20	50	100	200	500	
Interior	Area 1	+	16.8	16.0	16.0	16.0	16.0	16.0	
menor	Area	•	-41.3	-40.2	-38.8	-37.8	-37.8	-37.8	
Edgo	dge Area 2	+	37.8	36.1	33.9	32.2	30.5	28.3	
Edge	Area 2	-	-69.3	-61.9	-52.1	-44.8	-44.8	-44.8	
Corner	r Area 3	+	37.8	36.1	33.9	32.2	30.5	28.3	
Comer	Area 3	-	-69.3	-61.9	-52.1	-44.8	-44.8	-44.8	
	Overhang:		10	20	50	100	200	500	
Interior	Area 1	+	16.0	16.0	16.0	16.0	16.0	16.0	
intenoi		_	-59.5	-58.4	-57.0	-56.0	-48.7	-38.7	
Edge	Area 2	+	16.0	16.0	16.0	16.0	16.0	16.0	
Edge	Area 2	+	16.0 -59.5	16.0 -58.4	16.0 -57.0	16.0 -56.0	16.0 -48.7	16.0 -38.7	
	7 11 0 0 1	+ - +							
Edge Corner	Area 2 Area 3	-	-59.5 16.0 -97.9	-58.4 16.0 -76.9	-57.0 16.0 -49.0	-56.0 16.0 -28.0	-48.7	-38.7	
	7 11 0 0 1	-	-59.5 16.0	-58.4 16.0 -76.9 esign Pres	-57.0 16.0 -49.0 sure (psf):	-56.0 16.0 -28.0	-48.7 16.0 -28.0	-38.7 16.0	
	7 11 0 0 1	-	-59.5 16.0 -97.9	-58.4 16.0 -76.9 esign Pres	-57.0 16.0 -49.0	-56.0 16.0 -28.0	-48.7 16.0 -28.0	-38.7 16.0	
	7 11 0 0 1	-	-59.5 16.0 -97.9	-58.4 16.0 -76.9 esign Pres	-57.0 16.0 -49.0 sure (psf):	-56.0 16.0 -28.0	-48.7 16.0 -28.0	-38.7 16.0	
Corner	Area 3 Parapet:	-	-59.5 16.0 -97.9 Parapet Do	-58.4 16.0 -76.9 esign Pres	-57.0 16.0 -49.0 sure (psf): fective Wir 50 76.6	-56.0 16.0 -28.0	-48.7 16.0 -28.0	-38.7 16.0 -28.0	
	Area 3	+	-59.5 16.0 -97.9 Parapet Do 10 98.5 -69.0	-58.4 16.0 -76.9 esign Pres Ef	-57.0 16.0 -49.0 sure (psf): fective Wir 50 76.6 -60.9	-56.0 16.0 -28.0 ad Area (sc 100 67.2 -57.4	-48.7 16.0 -28.0 4ft) 200 65.4 -53.9	-38.7 16.0 -28.0 500 63.1 -49.3	
Corner	Area 3 Parapet:	+	-59.5 16.0 -97.9 Parapet Do	-58.4 16.0 -76.9 esign Pres Eff 20 89.1	-57.0 16.0 -49.0 sure (psf): fective Wir 50 76.6	-56.0 16.0 -28.0 ad Area (sc 100 67.2	-48.7 16.0 -28.0 200 65.4	-38.7 16.0 -28.0 500 63.1	

WIDTH OF ZONE, a = 7.2 FT ALLOWABLE INTERSTORY DRIFT = 0.0025*H (10 YEAR SERVICE LEVEL WIND)

F. SEISMIC LOADS:				
SHORT PERIOD SPEC	CTRAL RESPONSE ACCELERATION,	Ss	0.076	
1-SEC PERIOD SPECT	FRAL RESPONSE ACCELERATION,	S_1	0.037	
SHORT PERIOD DESI	GN SPECTRAL RESPONSE ACCELERATION,	S_{DS}	0.082	
1-SEC PERIOD DESIG	N SPECTRAL RESPONSE ACCELERATION,	S_{D1}	0.059	
RISK CATEGORY		II		
SEISMIC DESIGN CAT	EGORY,	Α		
SITE CLASS,		D (AS	SSUMED)	
BASIC SEISMIC-FORC	E RESISTING SYSTEM:			
STEEL SYSTEMS NOT	SPECIFICALLY DETAILED FOR SEISMIC RESIS	TANCE		
RESPONSE MODIFICA	ATION FACTOR,	R	3.0	
DEFLECTION AMPLIF	ICATION FACTOR,	C_D	3.0	
SEISMIC IMPORTANC	E FACTOR,	lΕ	1.0	
SEISMIC RESPONSE	COEFFICIENT,	Cs	0.027	
ANALYSIS PROCEDUI	RE:	EQUIVAL	ENT LATERAL FORCE	
DESIGN BASE SHEAR		V	4.5 K (WORSHIP), 7.5 K (CHIL	DRENS)
ALLOWABLE INTERST	· · · · · · · · · · · · · · · · · · ·		0.02*H	
	HALL SUBMIT FINAL ELEVATOR SHOP DRAWIN	GS SHOWING ALL	LOADS PRIOR TO THE FABRICA	ATION OF
THE SUPPORTING ST	RUCTURE.			

H. THE CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT WEIGHTS, LOCATIONS AND ASSOCIATED OPENINGS WITH THE MECHANICAL CONTRACTOR AND SUBMIT SUCH INFORMATION PRIOR TO FABRICATION OF THE SUPPORTING STRUCTURE. PROMPTLY NOTIFY THE ENGINEER IF THE ACTUAL WEIGHT EXCEEDS THE WEIGHT SHOWN ON THE STRUCTURAL DRAWINGS. PROVISIONS SHALL BE MADE IN THE DETAILING, FABRICATION, AND ERECTION OF ALL CLADDING, PARTITIONS, WALLS, ETC. TO ACCOUNT FOR FLOOR TO FLOOR DEFLECTIONS AND LATERAL FRAME DEFLECTION.

LIVE LOADS		
CATEGORY	UNIFORM LOAD (PSF)	CONCENTRATED LOAD (LBS)
ASSEMBLY AREAS	100	
ROOFS: ORDINARY ROOF	20	
STAGE FLOORS	150	

III. FOUNDATIONS

- A. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT, 'GEOTECHINCAL ENGINEERING REPORT PROPOSED ADDITIONS TO FBC WINDERMERE', ECS FLORIDA, LLP, AUGUST 26, 2019, PROJECT NUMBER 24:6518 B. CONTRACTOR SHALL OBTAIN A COPY OF THE SOILS REPORT AND ADHERE TO ALL RECOMMENDATIONS WITHIN, INCLUDING
- PREPARATION OF SOILS AT BUILDING PAD. ALL SOILS WORK, INCLUDING BACKFILL OF UTILITY TRENCHES AND THE VERIFICATION OF BEARING CAPACITY OF SAME SHALL BE UNDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER. PROXIMITY OF UTILITY TRENCHES TO BUILDING FOUNDATION SYSTEM SHALL BE AS APPROVED BY THE SOILS ENGINEER TO ENSURE INTEGRITY OF THE BEARING SOILS. ALL FOOTINGS SHALL BEAR ON UNDISTURBED EARTH OR ENGINEERED FILL AT ELEVATIONS SHOWN ON PLANS AND DETAILS.
- GC TO COORDINATE FINAL TOP OF FOOTING ELEVATIONS WITH THE ARCHITECTURAL ELEVATIONS, MEP DRAWINGS AND CIVIL GRADING PLANS PRIOR TO PLACEMENT. FOOTING STEPS DENOTED ON PLAN ARE APPROXIMATE, UNLESS NOTED OTHERWISE, AND SHALL BE FIELD COORDINATED. FLOOR SLABS SHALL BEAR ON 4 INCHES OF COMPACTED STONE MINIMUM UNLESS OTHERWISE NOTED IN THE
- GEOTECHNICAL REPORT. THE MOISTURE RETARDER SHALL BE PLACED BETWEEN THE STONE AND THE SLAB. F. NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH
- UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD OF ALL CONFLICTS THAT EXIST BETWEEN FOOTINGS AND UTILITIES. G. ALL FOUNDATIONS OR PORTIONS THEREOF BELOW GRADE MAY BE EARTH FORMED BY NEAT EXCAVATIONS.
- H. UNLESS NOTED OTHERWISE, ALL FOOTINGS SHALL BE CENTERED ON WALLS AND/OR COLUMNS. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING PRIOR TO EXCAVATION
- FOOTINGS SHALL NOT BE PLACED ON FROZEN SUBGRADE OR IN STANDING WATER. K. FOUNDATION TYPE
- SPREAD FOOTING: a. TOTAL LOAD: 2500 PSF NET PRESSURE

- A. CONCRETE SHALL CONFORM TO THE CONCRETE PROPERTIES SPECIFIED IN THE CONCRETE PROPERTIES TABLE. B. ALL CONCRETE SHALL HAVE ALLOWABLE UNIT SHRINKAGE OF 0.045% AT 28 DAYS. (SEE ASTM C157) {0.03% CAN BE ACHIEVED WITH ADMIXTURES AND SHOULD BE CONSIDERED FOR PT SLABS AND OTHER SPECIFIC USES) ALL SLABS TO RECEIVE MOISTURE SENSITIVE FLOOR COVERINGS SHALL HAVE MAXIMUM WATER/ CEMENT RATIO OF 0.45.
- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE". PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR II. ALL AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C 33
- . ALL REINFORCEMENT SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
- 1. ALL REINFORCING, UNO: ASTM A615 GRADE 60 2. WELDED WIRE REINFORCEMENT (WWR): a. SMOOTH WIRE
- b. DEFORMED WIRE ASTM A 497 (70 KSI) c. POLYPROPYLENE FIBRILLATED FIBER MAY BE USED TO SUBSTITUTE WWR IN SLABS ON GRADE, WHEN ADDED TO CONCRETE MIX ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDED DOSAGES.
- H. REINFORCEMENT DETAILING: REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED AND SHALL BE AS TABULATED IN THE SPLICE LENGTH TABLE, (THIS SHEET). UNLESS OTHERWISE INDICATED. INCLUDE STANDARD DETAIL
- "REINFORCEMENT SPLICE LENGTH TABLE" 3. PIER AND COLUMN VERTICAL BARS ARE IN COMPRESSION UNLESS OTHERWISE INDICATED AS TENSION-CONTROLLED. a. COMPRESSION EMBEDMENT: 22X BAR DIAMETER (28 BAR DIAMETERS, GRADE 75); b. COMPRESSION SPLICE: 30X BAR DIAMETER (44 BAR DIAMETERS, GRADE 75).
- 4. LAP WWR ONE CROSSWIRE SPACING PLUS 2". PROVIDE CORNER BARS AT ALL FOOTINGS AND WALL INTERSECTIONS TO MATCH HORIZONTAL REINFORCING SIZE AND SPACING. AT INTERSECTIONS OF CONTINUOUS SPREAD FOOTINGS EXTEND ALL BARS TO FAR SIDE OF INTERSECTING
- 6. REINFORCEMENT SHALL BE SECURELY PLACED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. PROVIDE THE FOLLOWING CONCRETE COVER FOR REINFORCING [ACI 318 SECTION 7.7 AND IBC TABLE 720.1], UNLESS SPECIFICALLY NOTED OTHERWISE: a. CAST AGAINST EARTH
- b. EXPOSED TO EARTH/WEATHER: #5 & SMALLER 1 1/2" 7. PROVIDE DOWELS TO MATCH REINFORCEMENT SIZE AND SPACING INDICATED FOR ALL STRUCTURAL ELEMENTS, UNLESS FOUNDATION WALLS, GRADE BEAMS AND FOOTINGS SHALL BE CAST IN ALTERNATE PANELS NOT TO EXCEED 60'-0" IN
- LENGTH. SHEAR KEYS SHALL BE PROVIDED AT EACH CONSTRUCTION JOINT AND SHALL BE LOCATED AT 1/3 POINTS OF J. CHAMFER ALL PERMANENTLY EXPOSED CONCRETE EDGES 3/4 INCH, UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES IN CONCRETE WALLS AND

SUPPORTED FLOORS. SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE SHOWN. DO NOT CUT

REINFORCEMENT. SEE TYPICAL REINFORCEMENT DETAILS FOR OPENINGS IN SLABS AND WALLS FOR ADDITIONAL NO HOLES OR OPENINGS THROUGH FOUNDATION WALLS AND/OR FOOTINGS WITHOUT ENGINEER'S APPROVAL

<u>CONCRETE PROPERTIES TABLE N</u>OTES STRENGTH (PSI) DENOTES 28-DAY COMPRESSIVE STRENGTH AND DENSITY REQUIREMENTS NWT = NORMAL WEIGHT CONCRETE

M. ALUMINUM SHALL NOT BE EMBEDDED IN ANY CONCRETE

3. LWT = SAND-LIGHTWEIGHT CONCRETE (120 PCF MAX) a. SAND-LIGHT WEIGHT CONCRETE USED FOR COMPOSITE METAL DECKS SHALL HAVE 4 TO 7% AIR ENTRAINMENT 4. DURABILITY CLASSIFICATION DENOTES CONCRETE REQUIREMENTS BY EXPOSURE CLASS, REFER TO TABLE 19.3.2.1 OF ACI 318-14

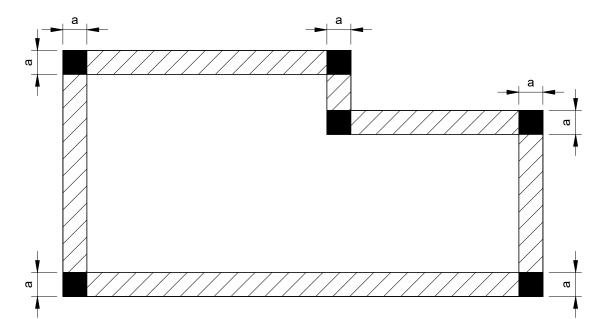
CONCRETE PROPERTIES								
USAGE	STRENGTH (PSI)	TYPE	COMMENTS	DURABILITY CLASSIFICATION				
ALL CONCRETE NOT OTHERWISE SPECIFIED	4000	NWT		F0, S0, P0, C1				
FOOTINGS	3000	NWT		F0, S0, P0, C1				
SLAB-ON-GRADE EXTERIOR	4500	NWT		F1, S0, P0, C1				
SLAB-ON-GRADE INTERIOR	3000	NWT		F0, S0, P0, C0				

- A. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. B. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. C. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE. CONTACT MANUFACTURER PRIOR TO ANCHOR INSTALLATION, IF TRAINING IS REQUIRED.
-). UNLESS NOTED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES THE NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED TO SUPPORT THE INTENDED
- E. ADHESIVE ANCHOR DESIGN BOND STRENGTH HAS BEEN BASED ON CRACKED CONCRETE, ACI 355.4 TEMPERATURE CATEGORY B, AND INSTALLATIONS INTO DRY HOLES DRILLED USING A HAMMER DRILL INTO CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER [ACI 318-08. D.9.2.2.] [ACI 318-11. D.9.2.2] [ACI 318-14. 17.8.2.2] WHERE INDICATED ON THE CONTRACT DOCUMENTS. INSTALLATION REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11, D.9.2.4.
- F. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE LISTED BELOW, SHALL BE SUBMITTED TO THE ENGINEER WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE BUILDING CODE.
- G. ACCEPTABLE PRODUCTS ARE: CONCRETE MECHANICAL ANCHORS: a. HILTI KB-TZ
- b HII TI KWIK HUS-F7 c. SIMPSON STRONG-TIE TITEN-HD
- d. SIMPSON STRONG-TIE "STRONG-BOLT 2" 2. 2. CONCRETE ADHESIVE ANCHORS: a. HILTI RE 500-SD
- b. HILTI HY 200 c. SIMPSON STRONG-TIE "SET-XP" d. SIMPSON STRONG-TIE "AT-XP"
- A. ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A6-98A
- B. STRUCTURAL STEEL SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE WIDE FLANGE SHAPES ASTM A992
- STEEL PIPE ASTM A53 GRADE B $F_Y = 35 \text{ KSI}$ B. STRUCTURAL RECTANGULAR TUBING ASTM A500 GRADE C $F_Y = 50 \text{ KSI}$ 4. STRUCTURAL ROUND TUBING ASTM A500 GRADE B
- $F_{Y} = 42 \text{ KSI}$. ALL OTHER STRUCTURAL STEEL ASTM A36 $F_Y = 36 \text{ KSI}$ CONNECTION MATERIALS: a. BEAM COLUMN STIFFENER PLATES AND DOUBLER PLATES: ASTM A572 GRADE 50
- b. ALL OTHER CONNECTION MATERIAL, U.N.O.: ASTM A36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS. ASTM A572 GRADE 50 IS ACCEPTABLE AS A SUBSTITUTE FOR A992 C. STRUCTURAL STEEL SHALL MEET THE LATEST AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF
- STRUCTURAL STEEL FOR BUILDINGS". D. THE CENTERLINES OF ALL COLUMNS AND BEAMS SHALL BE LOCATED ON COLUMN LINES UNLESS OTHERWISE SHOWN. BOLTS SHALL BE A325N TYPE 1, UNLESS NOTED OTHERWISE.
 - ALL BOLTS SHALL BE SNUG TIGHT, UNLESS NOTED OTHERWISE, BOLTS SHALL BE TIGHTENED UNTIL ALL PLIES OF THE JOINT ARE IN FIRM CONTACT. BOLTS THAT ARE DESIGNATED AS SLIP-CRITICAL SHALL BE FULLY TENSIONED TO THE MINIMUM LOADS AS INDICATED IN THE "SPECIFICATION OF STRUCTURAL JOINTS USING ASTM325 OR A490 BOLTS".
 - ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE. THREADED RODS SHALL CONFORM TO ASTM A36 BOLTED MOMENT CONNECTIONS SHALL BE SLIP-CRITICAL CONNECTIONS. OTHER CONNECTIONS SHALL BE BEARING
 - CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANES. 7. WELDING SHALL CONFORM TO THE STANDARDS SET FORTH IN AWS PUBLICATION, "WELDING IN BUILDING
 - 8. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW). WEATHERING STEEL ELECTRODES SHALL CONFORM TO THE ANSI/AWS D1.1 MANUAL. ELECTRODES FOR GRADE 60 OR GRADE 65 MATERIAL SHALL CONFORM TO E80XX (SMAW), F8XX-EXX-XX (SAW), ER80S-X (GMAW), OR E8XT-X (FCAW). WELDS INDICATED "CJP" ["PJP"] SHALL BE COMPLETE [PARTIAL] JOINT PENETRATION GROOVE WELDS. FABRICATOR
 - SHALL PRODUCE COMPLETE [OR PARTIAL] JOINT PENETRATION GROOVE WELDS WHICH CONFORM TO ALL AWS D1.1 QUALIFIED WELD REQUIREMENTS AND WHICH ARE APPLICABLE TO THE SPECIFIC CONDITIONS SHOWN. ALL ERECTION DRAWINGS SHALL SHOW ALL FIELD WELDS REQUIRED.
 - 11. ALL STEEL BEAMS BEARING ON MASONRY TO HAVE MINIMUM OF 8" BEARING LENGTH 12. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER TO RESIST FORCES INDICATED ON THE DRAWINGS. INDICATED FORCES ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD. WHERE NONE ARE INDICATED, BEAMS SHALL BE DESIGNED FOR AN END REACTION EQUAL TO 1/2 OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE UNIFORM LOAD TABLES OF THE AISC MANUAL. THE CONTRACTOR SHALL EMPLOY THE ASSISTANCE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. DESIGN CALCULATIONS FOR THE CONNECTIONS DESIGNED BY THE SPECIALTY ENGINEER SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL. CONNECTIONS ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT
- WHEN DESIGNING AND DETAILING THE CONNECTION. WHERE THE WORK OF OTHER TRADES REQUIRES CUTS, HOLES, ETC., IN STRUCTURAL STEEL MEMBERS, CUTS, HOLES, ETC., SHALL BE MADE IN THE SHOP AND SHALL BE SHOWN ON THE SHOP DRAWINGS. MAKING HOLES OR CUTS IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.
- . GROUT BELOW BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6000 PSI WHEN BEARING ON 3000 PSI CONCRETE OR LESS, STRENGTH OF 8000 PSI WHEN BEARING ON CONCRETE BETWEEN 3000 AND 4000
- H. ALL STRUCTURAL STEEL SHALL BE SHIPPED WITH ONE COAT OF SHOP PRIMER EXCEPT THOSE MEMBERS THAT ARE GALVANIZED OR IN AREAS SCHEDULED TO RECEIVE FIRE PROOFING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AREAS TO BE FIRE PROOFED.
- ALL EXTERIOR STRUCTURAL STEEL TO BE GALVANIZED, ASTM A525, G90. J. ALL MEMBERS MARKED "AESS" SHALL MEET THE REQUIREMENTS OF AISC 303-16 FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL LEVEL 3 UNLESS NOTED OTHERWISE. REF ARCH FOR PAINT AND FINISHING.

- A. STEEL DECK SHALL BE DESIGNED AND FABRICATED IN COMPLIANCE WITH THE LATEST EDITION OF "THE STEEL DECK INSTITUTE'S DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS PUBLICATION". B. PROVIDE DECK IN LENGTHS ADEQUATE FOR A THREE-SPAN CONDITION WHERE POSSIBLE.
- C. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, INSERTS, ETC., WITH SHOP
- DRAWINGS OF THE EQUIPMENT TO BE INSTALLED. D. STEEL DECK SHALL BE ATTACHED TO ALL MEMBERS ON WHOM IT BEARS.
- E. STEEL DECK SHALL HAVE SUFFICIENT BEARING AT END AND INTERMEDIATE SUPPORTS TO PREVENT WEB CRIPPLING (1 1/2" AND 3", RESPECTIVELY). MINIMUM SHORING BEAM WIDTHS SHALL BE PER THE DECK MANUFACTURER'S RECOMMENDATIONS. F. DECK MANUFACTURER SHALL PROVIDE CELL CLOSURES, COLUMN CLOSURES, FINISH STRIPS, GIRDER FILLERS, AND THE ATTACHMENTS AS REQUIRED TO ACHIEVE A COMPLETE SYSTEM.
- G. UNLESS NOTED OTHERWISE, PROVIDE POUR STOPS OF LENGTH, DEPTH AND GAGE APPROPRIATE FOR OVERHANG AND SLAB H. PROVIDE WELD WASHERS WHEN WELDING DECK THINNER THAN 22 GAGE MATERIAL
- I. GENERAL CONTRACTOR SHALL SUBMIT ALL ALTERNATE PRODUCTS TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION OF ANY MATERIAL.
- - MINIMUM SECTION PROPERTIES: SP= <u>0.186</u> IN³/FT SN= 0.192 IN³/FT IN= <u>0.183</u> IN⁴/FT
 - **DECK ATTACHMENTS:** -SIMPSON STRONG-TIE STRONG-DRIVE #12-24 XL SCREW IN 36/# PATTERN AT SUPPORTS* -SIMPSON STRONG-TIE STRONG-DRIVE #12-24 XL SCREW @ ##" OC AT DIAPHRAGM BOUNDARIES* -SIMPSON STRONG-TIE STRONG-DRIVE #10-16 XU SCREW @ ##" OC AT DECK SIDELAPS MINIMUM DIAPHRAGM SHEAR CAPACITY = 398 PLF

* 5/8"Ø PUDDLE WELD REQUIRED WHERE SUPPORT MEMBER THICKNESS EXCEEDS 3/8".

L. FACTORY MUTUAL (FM) GLOBAL ROOF DECK SECUREMENT CRITERIA: -STEEL DECK SHALL BE SECURED IN ACCORDANCE W/FM GLOBAL PROPERTY LOSS PREVENTION DATA SHEET 1-29, "ROOF DECK SECUREMENT AND ABOVE-DECK ROOF COMPONENTS, SECTION 2.2.3.4 AND TABLES 2, 3, & 4 AS X. METAL STUD FRAMING FOLLOWS UNLESS A MORE STRINGENT ATTACHMENT HAS BEEN SPECIFIED BY THE ENGINEER OF RECORD.



 BUILDING FOOTPRINT DEPICTED IS SCHEMATIC AND SOLELY FOR DESCRIBING ZONES 2. ZONE WIDTHS SHOWN ABOVE ARE APPLICABLE FOR MONOSLOPE ROOFS WITH $0 \le 3^\circ$ AND GABLE ROOFS WITH $0 \le 7^\circ$. . WIDTH OF PRESSURE COEFFICIENT ZONE = a, REFER TO TABLES ON GENERAL NOTES PAGE.

DENOTES "FIELD" ZONE DENOTES "PERIMETER" ZONE DENOTES "CORNER" ZONE

. SUPPORT FASTENER INDICATES ATTACHMENT OF METAL DECK TO BEARING MEMBER OR PERIMETER EDGE ANGLE 8. SIDELAP FASTENER INDICATES DECK-TO-DECK ATTACHMENT

FACTORY MUTUAL (FM) GLOBAL ROOF DECK SECUREMENT CRITERIA

	SUPPORT FASTENER	SUPPORT FASTENER	SUPPORT FASTENER	SIDELAP	
DIPATTERN	"FIELD"	"PERIMETER"	"CORNER" (NOTE a)	≤ 115 MPH	> 115 MPH
24/3	(1) 5/8"Ø PUDDLE WELD OR (1) FM APPROVED DECK FASTENER	(1) 5/8"Ø PUDDLE WELD @ 6" OC MAX OR (1) FM APPROVED DECK FASTENER @ 6" OC MAX	(1) 3/4"Ø PUDDLE WELD @ 6" OC MAX OR (1) FM APPROVED DECK FASTENER @ 6" OC MAX	24" OC MAX	12" OC MAX
24/5	(1) 5/8"Ø PUDDLE WELD OR (1) FM APPROVED DECK FASTENER	(2) 5/8"Ø PUDDLE WELD @ 6" OC MAX OR (2)FM APPROVED DECK FASTENER @ 6" OC MAX	(2) 3/4"Ø PUDDLE WELD @ 6" OC MAX OR (2) FM APPROVED DECK FASTENER @ 6" OC MAX	24" OC MAX	12" OC MAX
36/4	(1) 5/8"Ø PUDDLE WELD OR (1) FM APPROVED DECK FASTENER	(1) 5/8"Ø PUDDLE WELD @ 6" OC MAX OR (1)FM APPROVED DECK FASTENER @ 6" OC MAX	(1) 3/4"Ø PUDDLE WELD @ 6" OC MAX OR (1) FM APPROVED DECK FASTENER @ 6" OC MAX	24" OC MAX	12" OC MAX
36/7	(1) 5/8"Ø PUDDLE WELD OR (1) FM APPROVED DECK FASTENER	(2) 5/8"Ø PUDDLE WELD @ 6" OC MAX OR (2)FM APPROVED DECK FASTENER @ 6" OC MAX	(2) 3/4"Ø PUDDLE WELD @ 6" OC MAX OR (2) FM APPROVED DECK FASTENER @ 6" OC MAX	24" OC MAX	12" OC MAX
30/6	(1) 5/8"Ø PUDDLE WELD OR (1) FM APPROVED DECK FASTENER	(2) 5/8"Ø PUDDLE WELD @ 6" OC MAX OR (2)FM APPROVED DECK FASTENER @ 6" OC MAX	(2) 3/4"Ø PUDDLE WELD @ 6" OC MAX OR (2) FM APPROVED DECK FASTENER @ 6" OC MAX	24" OC MAX	12" OC MAX

- A. FM APPROVED FASTENERS FOR CORNER ZONE ATTACHMENT SHALL INCLUDE A 1/" MINIMUM DIAMETER INTEGRAL
- WASHER OR 3/4"MINIMUM STAND-ALONE WASHER BETWEEN HEAD AND BASE MATERIAL B. WIND SPEEDS BASED ON ASCE 7-10
- VIII. OPEN WEB STEEL JOISTS AND JOIST GIRDERS
- A. STEEL JOISTS, JOIST GIRDERS, AND BRIDGING SHALL BE DESIGNED, FABRICATED, AND ERECTED PER SJI B. THE SJI LOAD TABLES SHALL BE TAKEN AS THE MINIMUM DESIGN LOADINGS FOR JOISTS AND JOIST GIRDERS. JOISTS AND JOIST GIRDERS SHALL ADDITIONALLY BE DESIGNED TO CARRY ALL OTHER LOADINGS INDICATED ON THE DRAWINGS. C. BRIDGING INDICATED ON PLANS IS FOR PURPOSES OF ILLUSTRATING MISCELLANEOUS ATTACHMENTS AND DETAILS ONLY. GREATER OR FEWER LINES OF BRIDGING MAY BE REQUIRED BY SJI AND THESE REQUIREMENTS WILL SUPERSEDE THE
- CONTRACT DOCUMENTS. SEE PLANS AND DETAILS FOR SPECIAL BRIDGING AND BRACING REQUIREMENTS. D. ALL JOISTS SHALL BE CAMBERED IN ACCORDANCE WITH SJI CRITERIA. E. $\,$ STEEL JOIST SPACING SHALL NOT EXCEED SPACING INDICATED ON DRAWINGS AND PLACEMENT OF JOISTS SHALL BE
- CAREFULLY COORDINATED WITH PARTITIONS AND WORK OF OTHER TRADES TO AVOID INTERFERENCES. F. PROVIDE STABILITY BRACING FOR JOIST GIRDERS AS REQUIRED PER JOIST GIRDER MANUFACTURER. G. ALL STEEL JOISTS, JOIST GIRDERS, BRIDGING, AND THEIR CONNECTIONS SHALL BE DESIGNED FOR ALL LOADS INDICATED ON THE DRAWINGS. WHERE UPLIFT LOADS ARE INDICATED, AN OPPOSING DEAD LOAD OF 10 PSF MAY BE UTILIZED.
- H. JOISTS AT OR NEAREST TO CENTERLINES OF COLUMNS ARE TO HAVE BOLTED CONNECTIONS. I. ALL JOISTS OR JOIST GIRDERS SUPPORTING BLOCK OR BRICK TO BE DESIGNED FOR AN L/600 OR 0.3" TOTAL LOAD DEFLECTION CRITERIA. J. DO NOT WELD JOIST GIRDERS BOTTOM CHORD EXTENSIONS TO STABILIZER PLATES AT COLUMN CENTERLINES.
- K. WHERE DOUBLE JOISTS ARE LOCATED PROVIDE BEARING PLATES OF TWICE THE NORMAL WIDTH SPECIFIED FOR MASONRY L. JOIST BEARING DETAILS INDICATING SUPPORT AT THE CENTER LINE OF THE MASONRY WALLS SHALL NOT BE CHANGED UNLESS APPROVED BY THE ENGINEER.
- M. SEAT DEPTHS SHALL BE AS FOLLOWS, ANY DEVIATIONS MUST BE APPROVED PRIOR TO SUBMITTAL OF SHOP DRAWINGS K & KCS JOIST:
- a. <1/4:12 SLOPE: 2.5" b. >1/4:12 SLOPE: PER SJI RECOMMENDATIONS LHS & DLH JOIST:
- a. <18 SECTION #:5.0" b. >18 SECTION #:7.5" 3. JOIST GIRDERS: 7.5"

A. THIS WORK INCLUDES THE COMPLETE FURNISHINGS AND INSTALLATION OF ALL OPEN-WEB TRUSSES AS SHOWN ON THE

DRAWINGS HEREIN SPECIFIED AND NECESSARY TO COMPLETE THE WORK. B. CODE APPROVALS: THESE PRODUCTS SHALL BE DESIGNED AND MANUFACTURED TO THE STANDARDS SET FORTH IN THE

- NATIONAL EVALUATION SERVICE, INC. (NES) REPORT NO. NER-148. C. OPEN WEB TRUSSES SHALL BE DESIGNED TO FIT THE DIMENSIONS AND LOADS INDICATED ON THE DRAWINGS.
- 1. A FULL PLAN INDICATING TRUSS LOCATIONS AND DETAILS THAT PROVIDE SUFFICIENT INFORMATION FOR COMPLETE INSTALLATION OF TRUSSES. . A FULL SET OF CALCULATIONS, PREPARED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF THE PROJECT. FABRICATION AND INSTALLATION SHOULD NOT PROCEED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED. $4. \hspace{0.1in}$ TRUSSES INDICATED ON FRAMING PLANS ARE SIZED BASED ON REDBUILT TRUSS JOIST OPEN-WEB TRUSS LOAD TABLES.
- 5. THE PRODUCTS DELIVERED SHALL BE FREE FROM MANUFACTURING ERRORS OR DEFECTS IN WORKMANSHIP AND MATERIAL. THE PRODUCTS, WHEN CORRECTLY INSTALLED, SHALL PERFORM TO THE TRUSS MANUFACTURER'S SPECIFICATIONS FOR THE NORMAL AND EXPECTED LIFE OF THE BUILDING. 6. OPEN WEB TRUSSES SHALL BE MANUFACTURED AND INSTALLED WITHIN THE FOLLOWING TOLERANCES:
- a. LENGTH BEARING TO BEARING b. DEPTH
- d. TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE ALL PERMANENT BRIDGING / BRACING REQUIRED TO RESIST THE DESIGN GRAVITY AND LATERAL LOADS SPECIFIED IN THE CONTRACT DRAWINGS. BOTTOM CHORD BRIDGING
- SHALL NOT BE LESS THAN (1) 2x4 CONTINUOUS AT A MAXIMUM SPACING OF 10'-0" OC. e. ERECTION AND INSTALLATION: THE OPEN-WEB TRUSSES, IF STORED PRIOR TO ERECTION, SHALL BE STORED IN A VERTICAL POSITION AND PROTECTED FROM THE WEATHER. THEY SHALL BE HANDLED WITH CARE SO THEY ARE NOT DAMAGED. THEY SHALL BE ERECTED AND INSTALLED IN ACCORDANCE WITH THE PLANS AND ANY TRUSS MANUFACTURER'S APPROVED SHOP DRAWINGS AND INSTALLATION SUGGESTIONS THAT MAY BE PROVIDED TEMPORARY CONSTRUCTION LOADS THAT CAUSE STRESSES BEYOND DESIGN LIMITS ARE NOT PERMITTED. ERECTION BRACING SHALL BE PROVIDED TO KEEP THE TRUSSES STRAIGHT AND PLUMB AS REQUIRED AND TO ASSURE ADEQUATE LATERAL SUPPORT FOR THE INDIVIDUAL TRUSSES AND THE ENTIRE SYSTEM UNTIL THE
- SHEATHING MATERIAL HAS BEEN APPLIED. f. THE CONTRACTOR SHALL GIVE NOTIFICATION TO THE TRUSS MANUFACTURER'S REPRESENTATIVE, PRIOR TO ENCLOSING THE TRUSSES, TO PROVIDE OPPORTUNITY FOR REVIEW OF THE INSTALLATION.
- A. DESIGN OF COLD-FORMED FRAMING MEMBERS AND CONNECTIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SHOW SIZE AND GAUGE OF MEMBERS AND ALL CONNECTIONS IN SHOP DRAWINGS AND SUBMIT WITH SUPPORTING CALCULATIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE PROJECT
- B. DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION. ALL METAL STUDS SHALL BE GALVANIZED. C. ALL 33 MIL AND 43 MIL STUDS, JOISTS, TRACK, BRIDGING, END CLOSURES, AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL
- D. ALL MATERIAL AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A G-60 GALVANIZED COATING MEETING ASTM A

STRUCTURAL MEMBERS" WITH A MINIMUM YIELD OF 33 KSI U.N.O. ALL 54 MIL AND THICKER MEMBERS SHALL HAVE A MINIMUM

- E. UNLESS NOTED OTHERWISE, ALL SCREWS OR PINS SHALL BE NON-CORROSIVE NO. 8-18 (D=.125") OR LARGER. DO NOT USE STAINLESS STEEL OR COPPER-COATED FASTENERS.
- F. UNLESS NOTED OTHERWISE, TRACKS SHALL BE THE SAME DEPTH AS STUDS OR JOISTS AND OF EQUAL OR THICKER GAUGE THAN STUDS OR JOISTS. TRACKS SHALL BE CONNECTED TO SUPPORT AT 16" O.C. MAX. STUDS OR JOISTS SHALL BE CONNECTED TO TRACKS AT EACH SIDE. G. THE QUANTITY OF STUDS AND JOISTS DISPLACED OR CUT FOR OPENING SHALL BE PLACED HALF ON EACH SIDE OF OPENING
- PER METAL STUD HEADER SCHEDULE ON THIS SHEET. H. INSTALLATION OF CURTAIN WALL FRAMING SHALL ACCOMMODATE VERTICAL DISPLACEMENT OF THE PRIMARY STRUCTURE I. THE DESIGN OF SLIP TRACKS SHALL CONFORM TO GUIDELINES ESTABLISHED IN SSMA TECHNICAL NOTE NO. 1 PUBLISHED
- J. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. UNLESS OTHERWISE NOTED, INSTALL THE FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. K. WALL SHEATHING SHALL BE FASTENED TO SUPPORTING FRAMING WITH NO. 10, FLAT-HEAD SELF-DRILLING TAPPING SCREWS
- WITH A MINIMUM HEAD DIAMETER OF 0.333 INCHES AT THE SPACING INDICATED BELOW UNLESS NOTED OTHERWISE IN THE SHEAR WALL SCHEDULE: WALL EDGE
- 2. SUPPORTED PANEL EDGES AWAY FROM EDGE OF WALL CENTER OF PANELS PREPUNCHED HOLES SHALL NOT BE LOCATED WITHIN 10 INCHES OF THE STUD SUPPORT LOCATIONS
- M. USE FLUX COVERED, MILD STEEL ELECTRODES AWS E-6012, E-6013, OR E-7014 FOR WELDING STEEL STUDS. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS PROCEDURES. CONSULT MANUFACTURER FOR EQUIPMENT RECOMMENDATIONS AND PROPER ELECTRODE SELECTION. TOUCH UP WELDED AREAS WITH A ZINC RICH PAINT.

- A. THE GENERAL CONTRACTORS SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTING FOR REVIEW. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND/OR ENGINEER AND HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED PRIOR TO FABRICATION. FABRICATION AND ERECTION SHALL BE FROM REVIEWED SHOP DRAWINGS. PLEASE ALLOW 10 BUSINESS DAYS FOR REVIEW.
- B. A RECORD SET OF APPROVED SHOP DRAWINGS SHALL BE KEPT IN THE FIELD BY THE GENERAL CONTRACTOR C. ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED ON THE CONTRACT DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC
- D. THE CONTRACTOR SHALL PREPARE A LIST AND SCHEDULE OF ALL STRUCTURAL SUBMITTALS PRIOR TO CONSTRUCTION. E. THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S REVIEW:
 - 1. BAR JOISTS AND JOIST GIRDERS (1, 3) MISCELLANEOUS STEEL
 - . METAL AND FABRIC CANOPIES CONNECTION TO BUILDING SHALL BE BY SUPPLIER (1, 3) 4. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (1, 3) 5. STRUCTURAL STEEL BUILDING ERECTION-BRACING DRAWINGS AND ERECTION TOWER/SHORING DRAWINGS (1, 2)
 - 6. SURVEY OF STRUCTURAL STEEL ERECTION (1) 7. ROOF METAL DECK 8. CONCRETE MIX DESIGNS
 - 9. EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS (2) 10. FORMWORK, SHORING, BACKSHORING (1, 2)
- 11. PENETRATIONS IN BEAMS AND JOISTS 12. EXTERIOR WINDOW WALL SYSTEM (2) 13. LIGHT GAUGE METAL (1, 3) USED TO SUPPORT EXTERIOR CLADDING OR AS LOAD BEARING MEMBERS F. ITEMS MARKED (1) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT
- IS LOCATED. ITEMS MARKED (2) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED. ITEMS MARKED (3) SHALL HAVE DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. 1. CONTRACTOR SHALL SUBMIT ONE SET OF REPRODUCIBLES AND TWO SETS OF PRINTS FOR ALL SHOP DRAWINGS
- SPECIFIED TO BE RETURNED BY THE ENGINEER. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH
- MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED. G. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY
- XII. SPECIAL INSPECTION AND TESTING (CHAPTER 17) A. ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY. THE SPECIAL INSPECTOR FROM THIS TESTING AGENCY SHALL OBSERVE THE WORK FOR CONFORMANCE TO THE DESIGN DRAWINGS AND

B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT

OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF

DRAWINGS, SPECIFICATIONS, SOILS REPORT AND APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING

JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

- THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED DESIGN
- D. MASONRY WORK SHALL HAVE SPECIAL INSPECTION AS DEFINED BY THE AFOREMENTIONED BUILDING CODE. E. A STATEMENT OF SPECIAL INSPECTIONS SHALL BE INCLUDED AS PART OF THE CONTRACT DOCUMENTS.

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BPA Project #: 190600

08/09/2019 Schematic Design DESCRIPTION

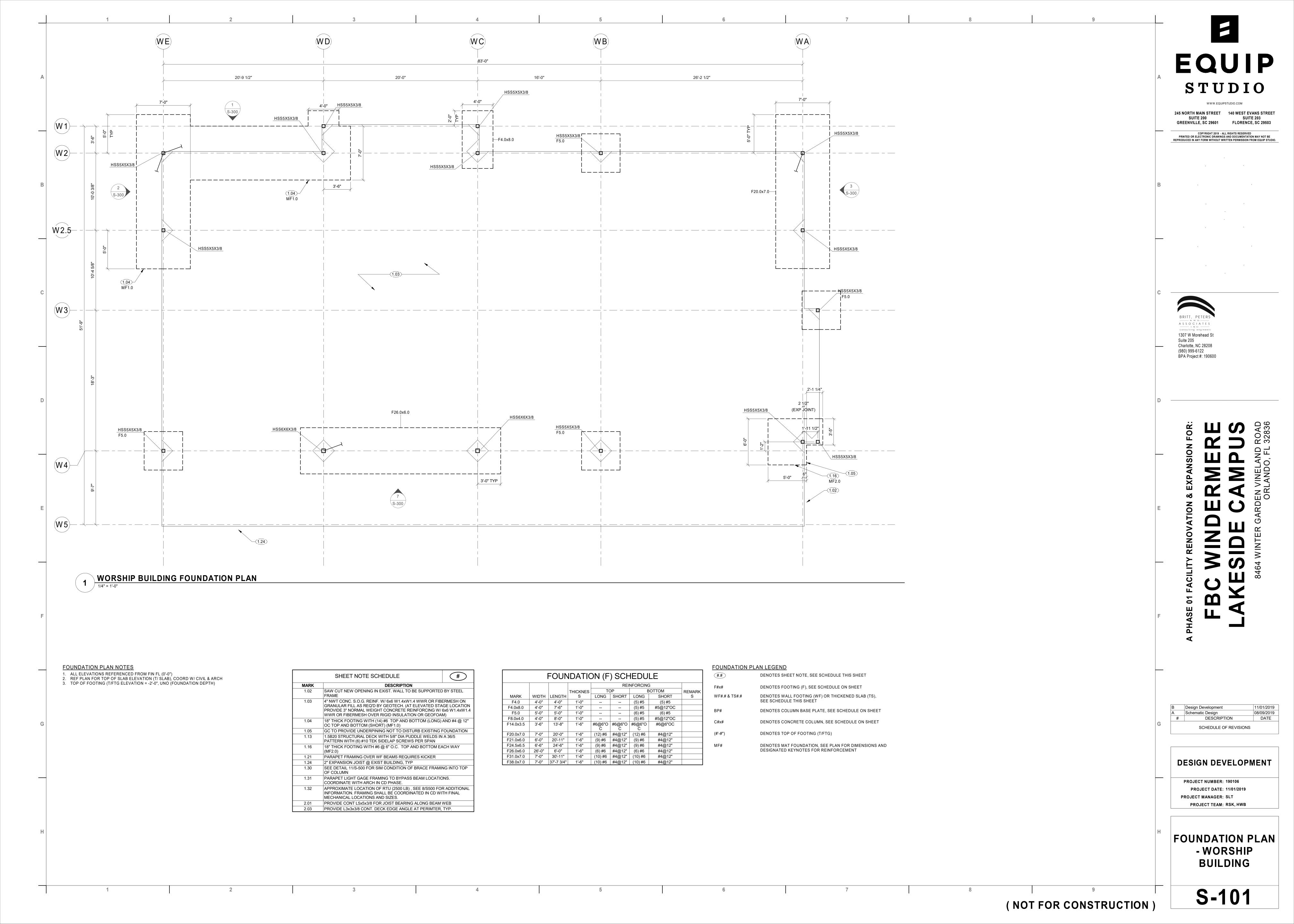
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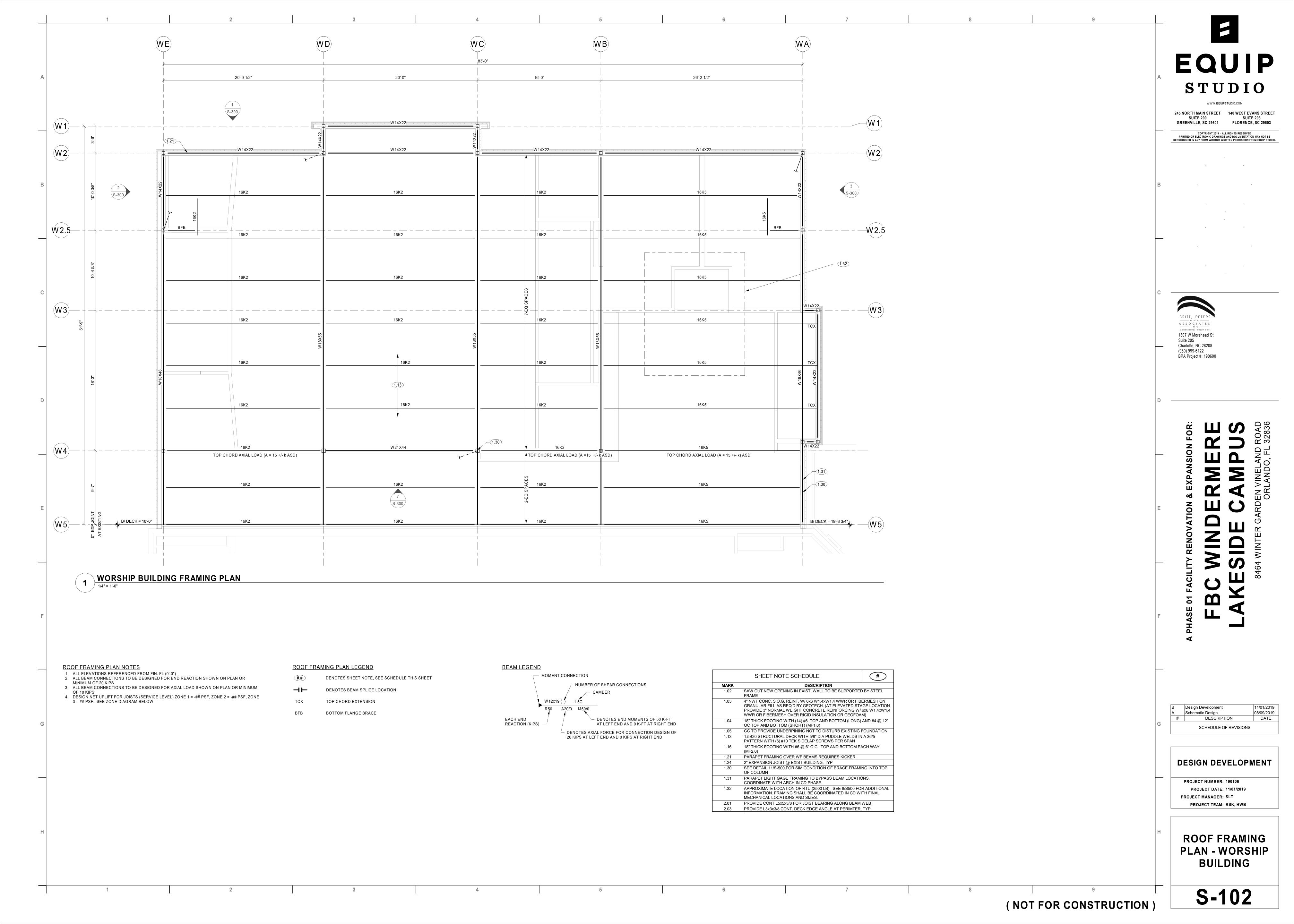
SCHEDULE OF REVISIONS

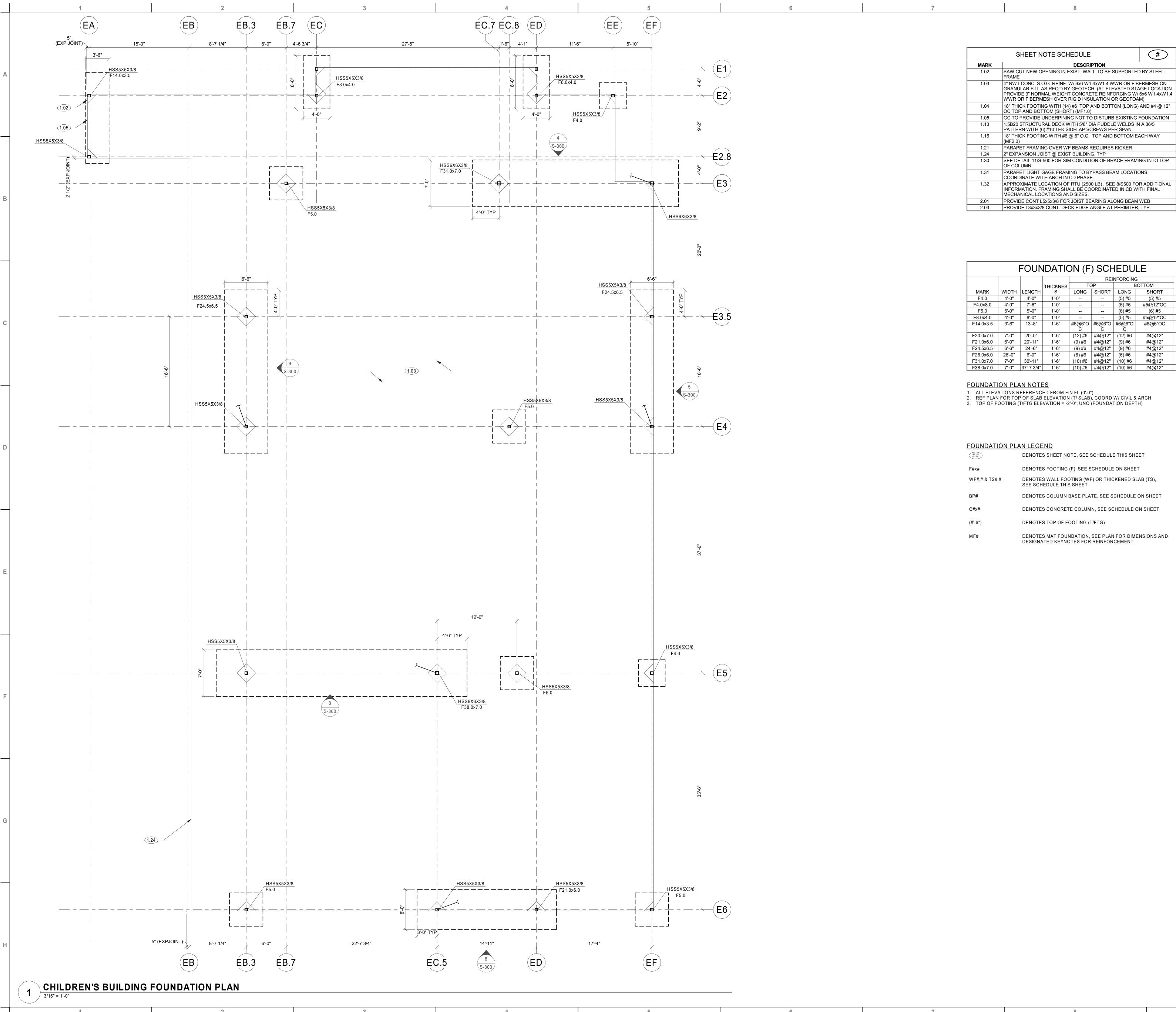
PROJECT NUMBER: 190106 PROJECT DATE: 11/01/2019 PROJECT MANAGER: SLT

PROJECT TEAM: RSK, HWB

GENERAL NOTES







FOUNDATION (F) SCHEDULE										
					REINFORCING					
			THICKNES	TO)P	E	ВОТТОМ	REMARK		
MARK	WIDTH	LENGTH	S	LONG	SHORT	LONG	SHORT	S		
F4.0	4'-0"	4'-0"	1'-0"			(5) #5	(5) #5			
F4.0x8.0	4'-0"	7'-6"	1'-0"			(5) #5	#5@12"OC			
F5.0	5'-0"	5'-0"	1'-0"			(6) #5	(6) #5			
F8.0x4.0	4'-0"	8'-0"	1'-0"			(5) #5	#5@12"OC			
F14.0x3.5	3'-6"	13'-8"	1'-6"	#6@6"O	#6@6"O	#6@6"O	#6@6"OC			
				С	С	С				
F20.0x7.0	7'-0"	20'-0"	1'-6"	(12) #6	#4@12"	(12) #6	#4@12"			
F21.0x6.0	6'-0"	20'-11"	1'-6"	(9) #6	#4@12"	(9) #6	#4@12"			
F24.5x6.5	6'-6"	24'-6"	1'-6"	(9) #6	#4@12"	(9) #6	#4@12"			
F26.0x6.0	26'-0"	6'-0"	1'-6"	(6) #6	#4@12"	(6) #6	#4@12"			
F31.0x7.0	7'-0"	30'-11"	1'-6"	(10) #6	#4@12"	(10) #6	#4@12"			
F20 0v7 0	7! 0"	271 7 2/411	41.01	(40) 40	44@40!	(40) 40	#4@40"			

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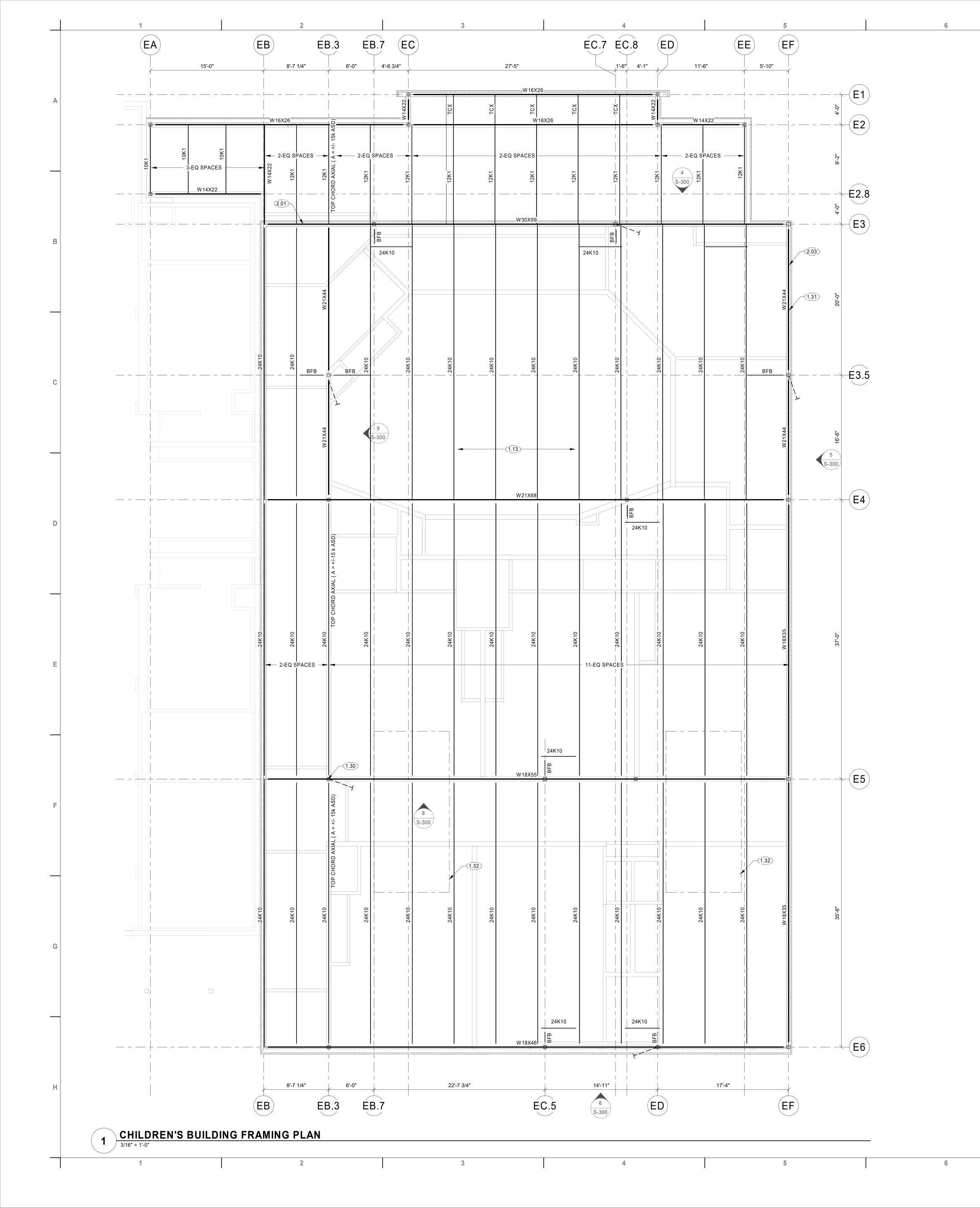
A S S O C I A T E S consulting engineers 1307 W Morehead St Suite 205 Charlotte, NC 28208 (980) 999-6122 BPA Project #: 190600

08/09/2019 Schematic Design DESCRIPTION SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106 PROJECT DATE: 11/01/2019 PROJECT MANAGER: SLT PROJECT TEAM: RSK, HWB

FOUNDATION PLAN - CHILDREN'S BUILDING



ROOF FRAMING PLAN NOTES

- ALL ELEVATIONS REFERENCED FROM FIN. FL (0'-0")
 ALL BEAM CONNECTIONS TO BE DESIGNED FOR END REACTION SHOWN ON PLAN OR
- MINIMUM OF 20 KIPS
 3. ALL BEAM CONNECTIONS TO BE DESIGNED FOR AXIAL LOAD SHOWN ON PLAN OR MINIMUM
- OF 10 KIPS
 4. DESIGN NET UPLIFT FOR JOISTS (SERVICE LEVEL) ZONE 1 = -## PSF, ZONE 2 = -## PSF, ZONE

3 = ## PSF. SEE ZONE DIAGRAM BELOW

ROOF FRAMING PLAN LEGEND

#.# DENOTES SHEET NOTE, SEE SCHEDULE THIS SHEET

DENOTES BEAM SPLICE LOCATION

TCX TOP CHORD EXTENSION

BFB BOTTOM FLANGE BRACE

BEAM LEGEND

MOMENT CONNECTION

NUMBER OF SHEAR CONNECTIONS

CAMBER

W12x19 () 1.5C

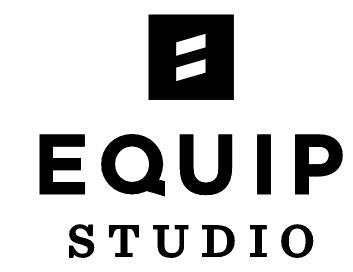
R50 A20/0 M50/0

EACH END
REACTION (KIPS)

DENOTES END MOMENTS OF 50 K-FT
AT LEFT END AND 0 K-FT AT RIGHT END

DENOTES AXIAL FORCE FOR CONNECTION DESIGN OF
20 KIPS AT LEFT END AND 0 KIPS AT RIGHT END

SHEET NOTE SCHEDULE #					
MARK	DESCRIPTION				
1.02	SAW CUT NEW OPENING IN EXIST. WALL TO BE SUPPORTED FRAME	BY STEEL			
1.03	4" NWT CONC. S.O.G. REINF. W/ 6x6 W1.4xW1.4 WWR OR FIBERMESH ON GRANULAR FILL AS REQ'D BY GEOTECH. (AT ELEVATED STAGE LOCATION PROVIDE 3" NORMAL WEIGHT CONCRETE REINFORCING W/ 6x6 W1.4xW1.4 WWR OR FIBERMESH OVER RIGID INSULATION OR GEOFOAM)				
1.04	18" THICK FOOTING WITH (14) #6 TOP AND BOTTOM (LONG) AND #4 @ 12" OC TOP AND BOTTOM (SHORT) (MF1.0)				
1.05	GC TO PROVIDE UNDERPINING NOT TO DISTURB EXISTING FOUNDATION				
1.13	1.5B20 STRUCTURAL DECK WITH 5/8" DIA PUDDLE WELDS IN A 36/5 PATTERN WITH (6) #10 TEK SIDELAP SCREWS PER SPAN				
1.16	18" THICK FOOTING WITH #6 @ 6" O.C. TOP AND BOTTOM EACH WAY (MF2.0)				
1.21	PARAPET FRAMING OVER WF BEAMS REQUIRES KICKER				
1.24	2" EXPANSION JOIST @ EXIST BUILDING, TYP				
1.30	SEE DETAIL 11/S-500 FOR SIM CONDITION OF BRACE FRAMING INTO TOP OF COLUMN				
1.31	PARAPET LIGHT GAGE FRAMING TO BYPASS BEAM LOCATIONS. COORDINATE WITH ARCH IN CD PHASE.				
1.32	APPROXIMATE LOCATION OF RTU (2500 LB), SEE 8/S500 FOR ADDITIONAL INFORMATION. FRAMING SHALL BE COORDINATED IN CD WITH FINAL MECHANICAL LOCATIONS AND SIZES.				
2.01	PROVIDE CONT L5x5x3/8 FOR JOIST BEARING ALONG BEAM WEB				
2.03	PROVIDE L3x3x3/8 CONT. DECK EDGE ANGLE AT PERIMTER, TYP.				



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C WINDERMERE (ESIDE CAMPUS

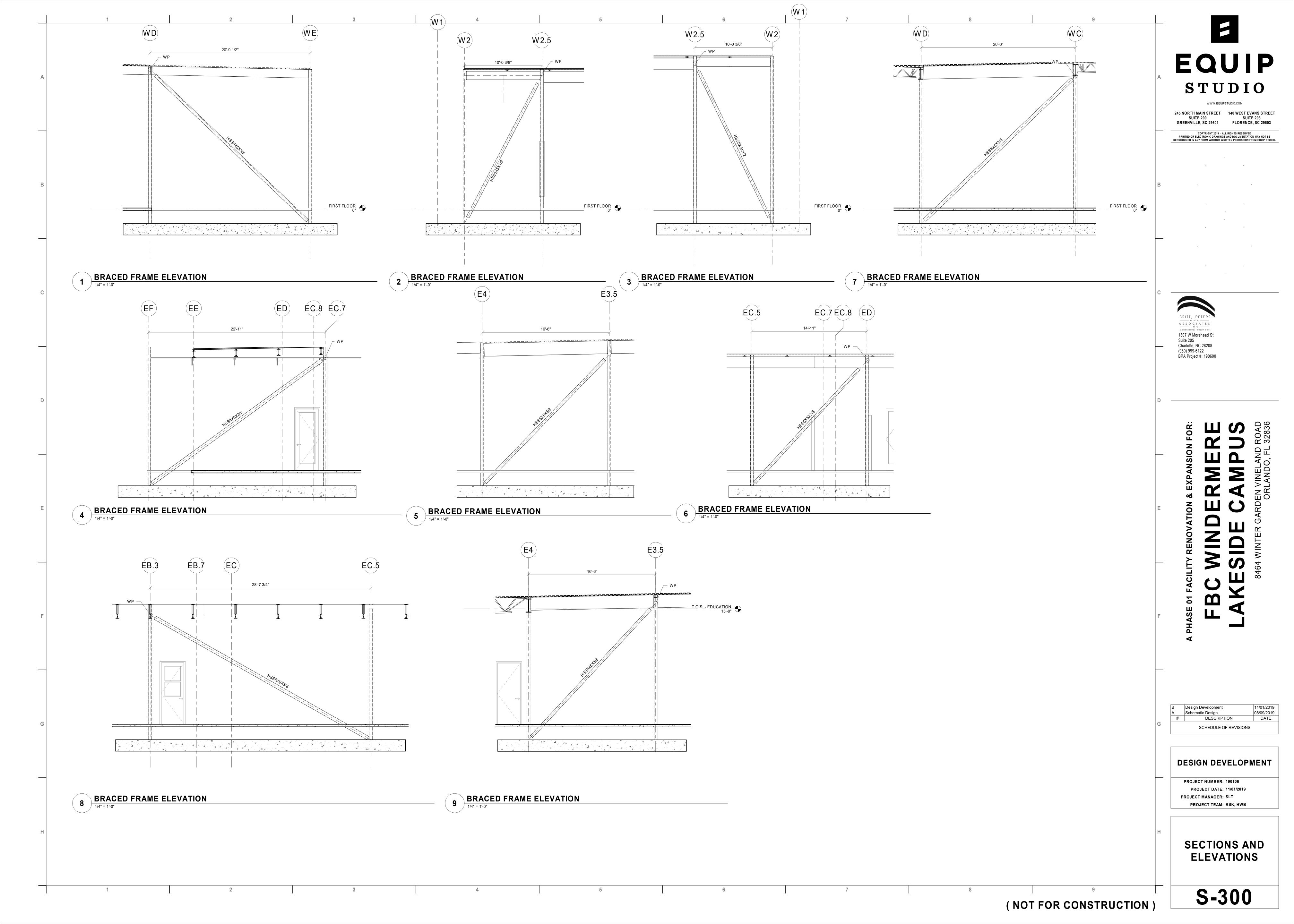
Design Development 11/01/2019
Schematic Design 08/09/2019
DESCRIPTION DATE

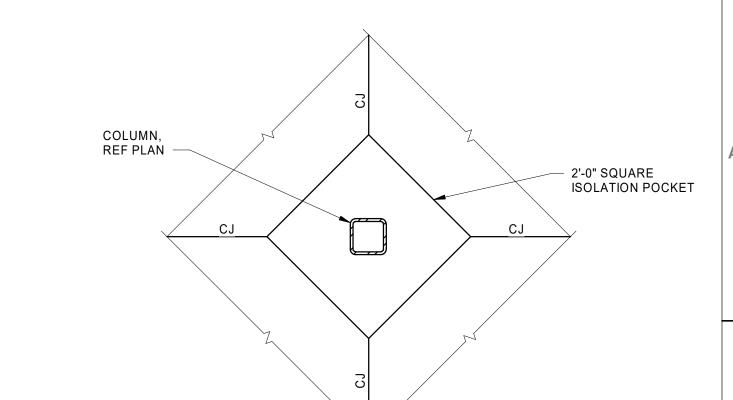
SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT

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PROJECT MANAGER: SLT
PROJECT TEAM: RSK, HWB

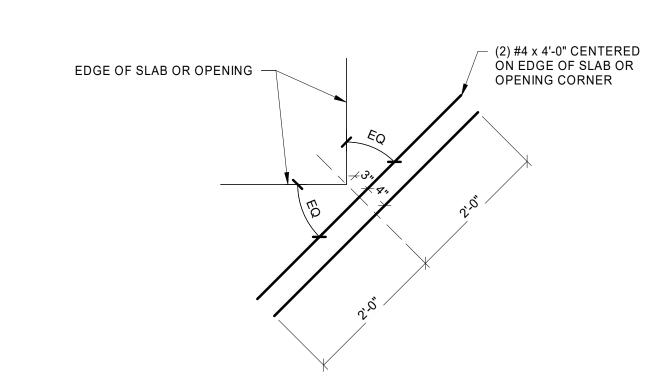
ROOF FRAMING PLAN - CHILDREN'S BUILDING





NOTE
IT IS IMPERATIVE THAT THE ORIENTATION OF ISOLATION
POCKET BE AS THAT SHOWN (WITH CORNERS AT CONTROL JOINTS) TO PREVENT EXCESSIVE CRACKING IN SLAB

5 TYP ISOLATION POCKET



10 TYPICAL REENTRANT CORNER BARS

REINFORCING BAR LAP LENGTH SCHEDULE (CLASS B) **GRADE 60 STEEL**

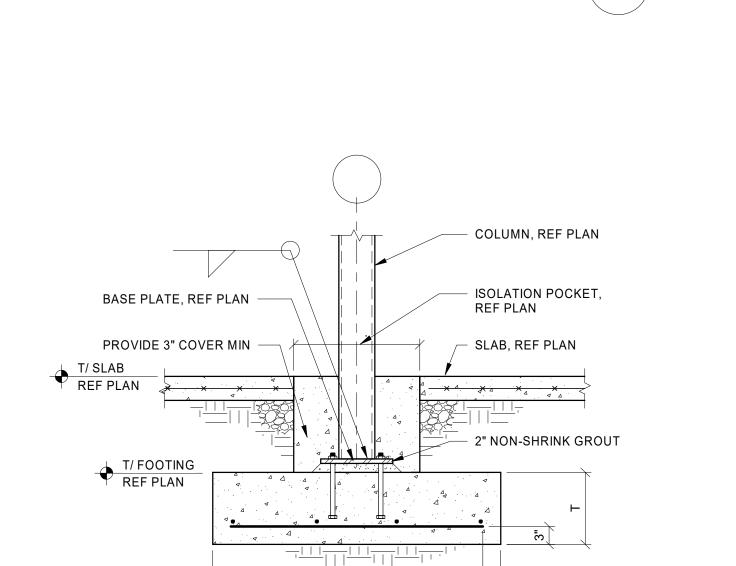
NORMAL WEIGHT CONCRETE STRENGTH						
BAR	3000 PSI	4000 PSI	5000 PSI	7000 PSI		
#3	21"	18"	17"	14"		
#4	28"	25"	22"	19"		
#5	36"	31"	28"	23"		
#6	43"	37"	33"	28"		
#7	62"	54"	48"	41"		
#8	71"	62"	55"	47"		
#9	80"	70"	62"	53"		
#10	90"	78"	70"	59"		

- LAP SCHEDULE NOTES

 1. LENGTH SHOWN CONFORM TO NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS ENCLOSED BY PROPERLY SPACED TIES OR STIRRUPS
- 2. LENGTH IN TABLE SHALL BE FACTORED FOR THE FOLLOWING CONDITIONS HORIZONTAL BARS MORE THAN 12" ABOVE BOTTOM OF CAST MEMBER: 1.3xTABLE LENGTH
- LIGHT WEIGHT CONCRETE: 1.3xTABLE LENGTH BAR CLEAR SPACING SHALL BE NO LESS THAN ONE BAR DIAMETER AND/OR BAR CLEAR COVER LESS THAN ONE BAR DIAMETER: 1.5xTABLE LENGTH WHERE MORE THAN ONE CONDITION APPLIES, ALL APPLICABLE FACTORS SHALL
- BE APPLIED TO LENGTH INDICATED IN TABLE 3. THIS TABLE SHALL APPLY UNLESS SPECIFICALLY NOTED, DETAILED OR SCHEDULED
- 4. UNLESS NOTED OTHERWISE ALL REINFORCING BARS SHALL LAP AROUND CORNERS

9 REINF BAR LAP LENGTH SCHEDULE

3/4" = 1'-0"



3" CLR TYP

HOOK DEVELOPMENT LENGTH OR 2 1/2" MIN 90 DEG. HOOK 180 DEG. HOOK **END HOOK TYPES** TIES OR STIRRUPS REQUIREMENTS AT

DETAILING

DEMINSION

D = INSIDE BEND OF DIAMETER 1. HOOK EMBEDMENT LENGTHS IN TABLE SHALL BE FACTORED FOR THE FOLLOWING CONDITIONS: LIGHTWEIGHT CONCRETE: 1.3 x TABLE LENGTH EPOXY COATED BARS: 1.2 x TABLE LENGTH

RECOMMENDED END HOOKS

A OR G (IN)

FINISHED BEND

3 3/4

4 1/2

5 1/4

9 1/2

10 3/4

D = INSIDE BEND OF DIAMETER

BAR SIZE DIAMETER D (IN)

#5

#8

#9

#10

#11

180 DEG HOOKS

J (IN)

11 3/4

13 1/4

STIRRUP & TIE HOOK SCHEDULE							
BAR SIZE	D (IN)	90° HOOK A OR G (IN)	135° HOOK A OR G (IN)				
#3	1 1/2	4	4				
#4	2	4 1/2	4 1/2				
#5	2 1/2	6	5 1/2				

HOOK MIN. DEVELOPMENT

LENGTHS (IN)

11 10 9

14 12 11

17 | 15 | 13

20 | 17 | 15

22 | 19 | 17

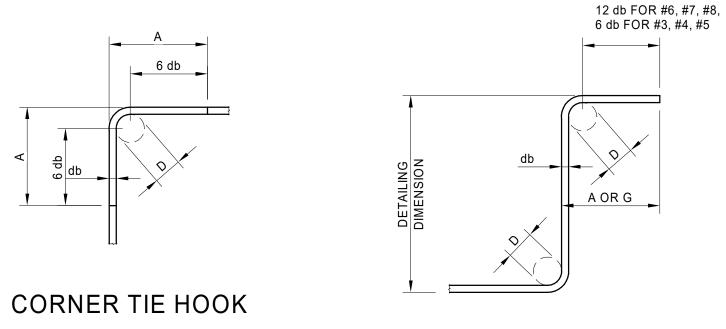
25 22 20

28 25 22

31 27 24

90 DEG HOOKS NORMAL WT CONCRET

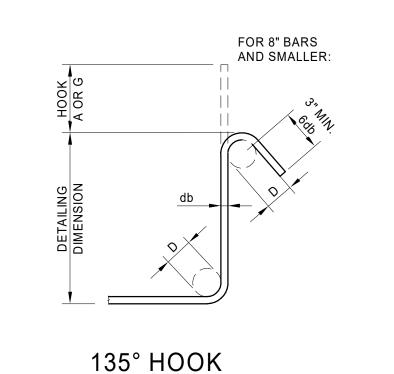
A OR G (IN) 3000 4000 5000



DETAILING

DIMENSION

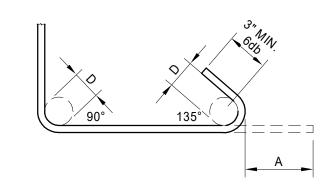
90° HOOK



DISCONTINUOUS END

DISCONTINUOUS END (BEAM OR

COLÙMN)



CROSS TIE

6 STIRRUP AND TIE HOOK TYPES DETAIL

3/4" = 1'-0"

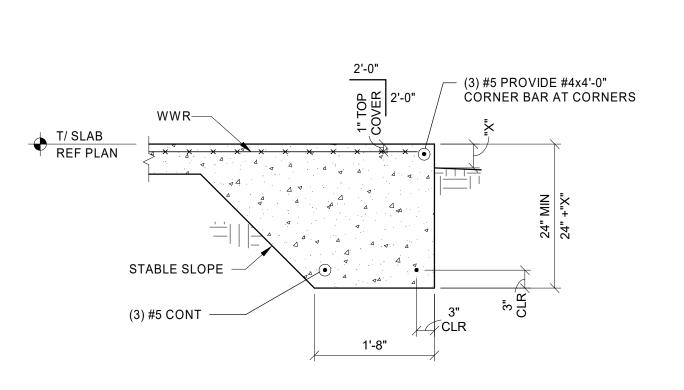
 AFTER REMOVING FORMS
 PULL DOWEL 1 1/2" WHEN FORMED EDGE IS STRIPPED, LIGHTLY GRIND. DEBUR EDGE AT TOP DO NOT TOOL GREASED 1/2" DIAx24" LONG DOWEL @ 24" OC - SAW JOINT AS SOON AS POSSIBLE — CONSTRUCTION JOINT AFTER CONCRETE IS PLACED SO AT CONTRACTORS OPTION

> NOTE:
> CONTINUOUS FOOTINGS AND FLOOR SLABS SHALL HAVE KEYED CONSTRUCTION JOINTS SPACED AT 60'-0" MAXIMUM ON CENTER EACH WAY. CONTROL JOINT SPACING SHALL NOT EXCEED 12 FEET EACH WAY, AND SLAB UNITS CREATED BY JOINT LAYOUTS SHOULD BE AS SQUARE AS POSSIBLE WITH A MAXIMUM ASPECT RATIO OF 1.25 TO 1. IN ADDITION, CONTROL JOINTS SHALL BE LOCATED AT THE POINTS OF ALL ISOLATION POCKETS.

CONTROL/ CONSTRUCTION JOINT DETAIL

3/4" = 1'-0"

AS NOT TO DAMAGE SLAB



13 TYPICAL TURNDOWN

3/4" = 1'-0"



REF TO SCHEDULE FOR

FOOTING SIZE AND REINFORCEMENT

Design Development Schematic Design 08/09/2019 DESCRIPTION DATE SCHEDULE OF REVISIONS

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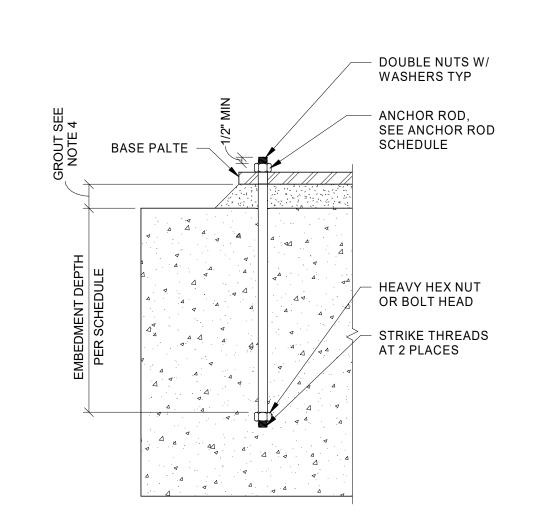
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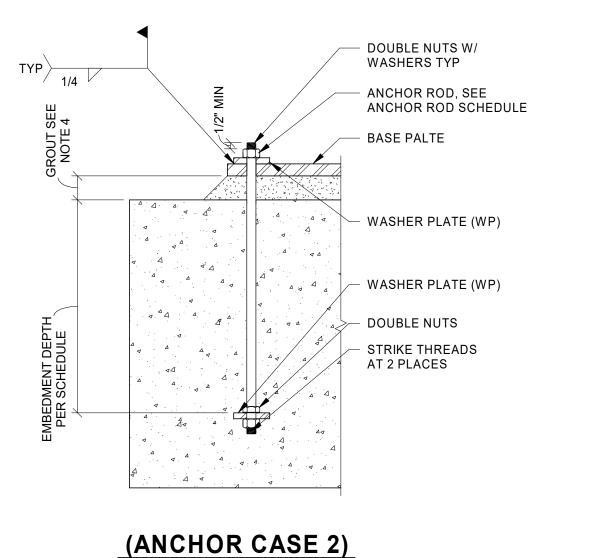
DESIGN DEVELOPMENT

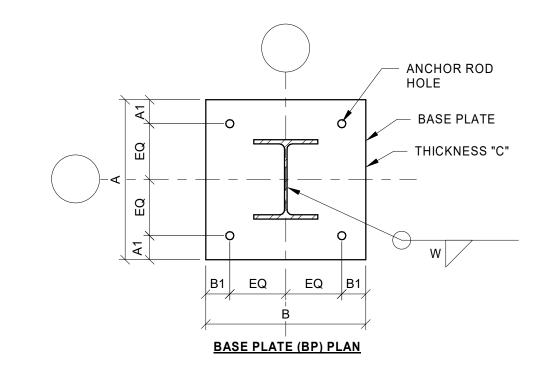
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CONCRETE **DETAILS** -REINFORCING



ANCHOR (CASE 1)





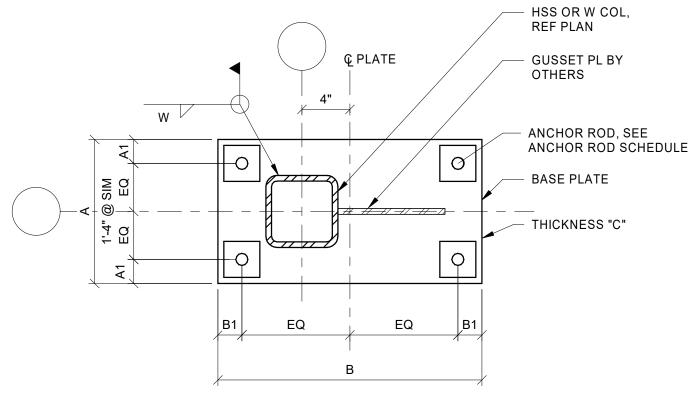
4 BASE PLATE
1" = 1'-0"



(WP) SHALL BE 1/16" MAXIMUM OVERSIZED

ANCHOR ROD (AR) DETAIL

MIN GROUT THICKNESS.



(AR) NOTES

1. UNLESS NOTED OTHERWISE, ALL RODS SHALL BE TIGHTENED TO A "SUNG TIGHT" CONDITION AS DEFINED BY AISC AFTER THE CONCRETE IS AT LEAST 14 DAYS OLD

2. OVERSIZED HOLE ALLOWED IN BASE PLATE ONLY. HOLE IN THE WASHER PLATE

4. FOR ANCHOR ROD DIAMETER LESS THAN OR EQUAL TO 1 ½" USE 2" MIN GROUT THICKNESS. FOR ANCHOR ROD DIAMETER LESS THAN OR EQUAL TO 2 ½" USE 3"

3. DEEPEN FOOTING LOCAL TO ANCHOR ROD AS REQ'D TO MAINTAIN 3" CLEAR

5. ALL GROUT HOLES IN BASE PLATE SHALL BE AUTHORIZED WITH ENGINEER.

NOTE: REFER TO DETAIL 1/S-410 FOR ANCHOR BOLT SCHEDULE AND INFORMATION.





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A Schematic Design 08/09/2019
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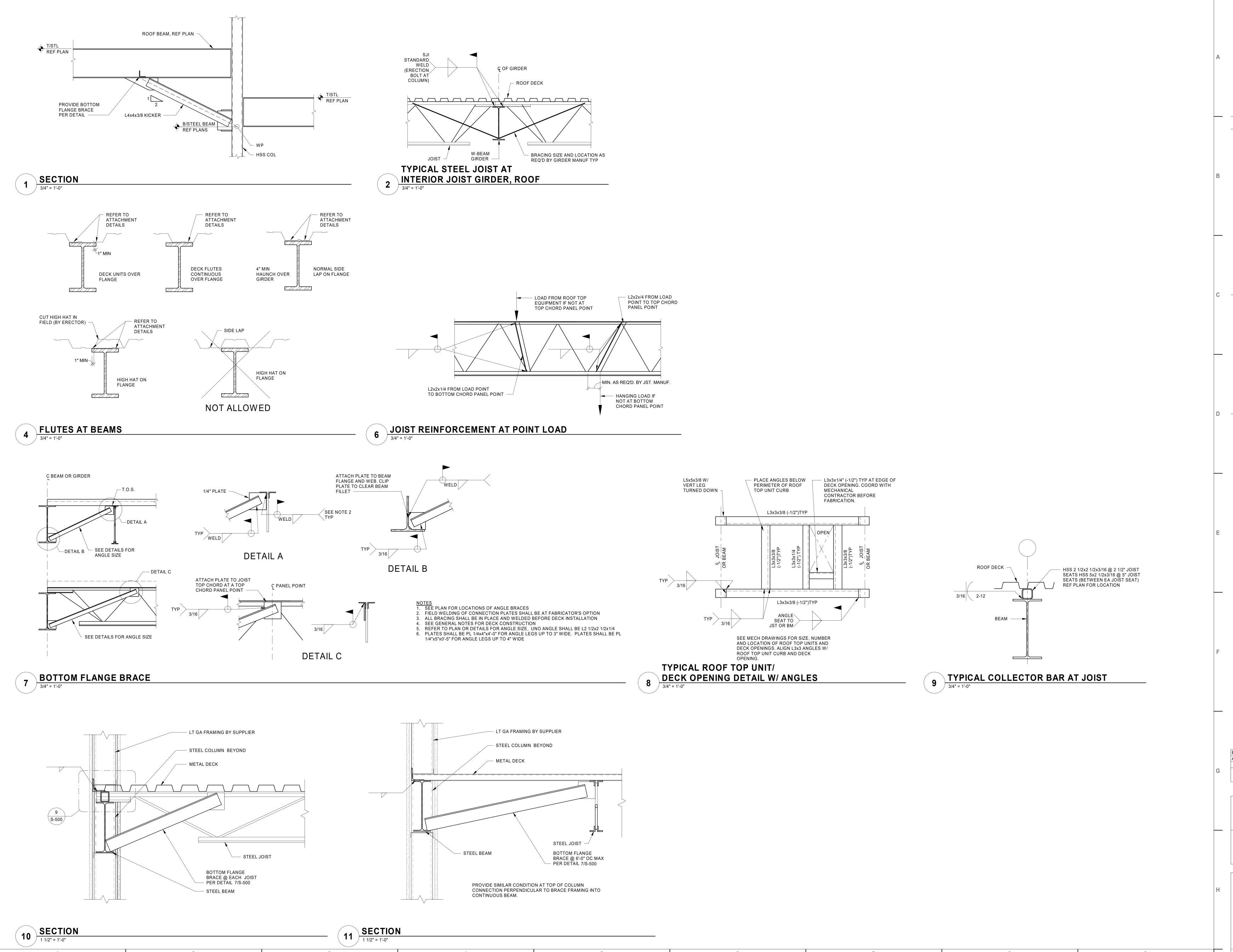
PROJECT NUMBER: 190106

PROJECT DATE: 11/01/2019

PROJECT MANAGER: SLT

PROJECT TEAM: RSK, HWB

CONCRETE DETAILS - SLAB ON GRADE



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PROJECT NUMBER: 190106

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PROJECT TEAM: RSK, HWB

STRUCTURAL STEEL DETAILS



245 NORTH MAIN STREET 140 WEST EVANS STREET
SUITE 200 SUITE 203
GREENVILLE, SC 29601 FLORENCE, SC 29503

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BC WINDERMERE
AKESIDE CAMPUS

B Design Development 11/01/2019
A Schematic Design 08/09/2019
DESCRIPTION DATE

SCHEDULE OF REVISIONS

DESIGN DEVELOPMENT

PROJECT NUMBER: 190106

PROJECT DATE: 11/01/2019

PROJECT MANAGER: SLT

PROJECT TEAM: RSK, HWB

METAL DECKING DETAILS

S-510

1 1/2" ROOF DECK FASTENING ISOMETRIC

3/4" = 1'-0"