

January 6, 2023

Mr. Mathew Thomas James R. Childers, Architect, Inc.

Re: Cherokee Nation WW Hastings Replacement Hospital - Addendum 04 Narrative

Dear Mr. Thomas,

Following is a list of revisions included in Addendum 02.

- C3-103 Revised ramp and sidewalk at the east end of the dock area. Added a handrail to provide edge protection against the curb ramp.
- C3-105 Added a concrete mow strip along the south side of the building where landscaping will be provided.
- C5-103 Revised dock height to be 48-in. Revised dock ramp elevations and slope. Added a dock section profile view.
- C5-201 Updated Coordinates and Elevation table.

Sincerely, PARKHILL

By

Corey Lipps, PE Senior Practice Leader

#### ✤ S0.2

Modified note 4 under Foundations

### ✤ \$0.3

- Added note 38 under Structural Steel section, Abbreviations and symbols were moved to sheet S0.4
- Post Installed Anchors information was modified

#### ✤ S0.4

 New information, name changed to General Structural Notes and all previous information was moved to S0.5

#### ✤ \$0.5

- New sheet, with information of previous S0.4
- ✤ \$1.00.1
  - Modified notes

### ✤ \$1.01.2

- Added MRI note #3
- Added curb and notes

#### ✤ \$1.01.3

Modified pier cap depths at several locations

### ✤ \$1.01.4

- Changed diameter of 4 drilled piers at skybridge, as well as pier caps
- Modified top of some piers •

### ✤ \$1.01.5

- New Sheet
- Added post installed curb atop grade beam

### ✤ \$4.04

Included sheet with addendum .

### ✤ \$4.05

Added base plate 8

### ✤ \$4.06

- . Added post installed curb atop grade beam
- ✤ \$4.07
  - Added post installed curb atop grade beam

- ✤ \$4.08
  - Added post installed curb atop grade beam
- ✤ \$4.09
  - Added post installed curb atop grade beam
- ✤ SB102
  - Reduced sky bridge pier diameter from 32" to 30"
- ✤ SB103
  - New Sheet
- ✤ SM101
  - Modified base plate type at 5 locations
  - Added vapor barrier to slab at mechanical yard
- ✤ SM111
  - Modified foundation above drilled piers of pipe bridge
- ✤ SM112
  - Added Baseplate 41 & notes on details
- ✤ SM114
  - Added Baseplate 41 & notes on details
- ✤ SM115
  - Added New Sheet
  - Included sheet with addendum



## January 6, 2023

Cherokee Nation Replacement Hospital Tahlequah, Ok. Volume No. 4

Addendum No. 4 Summary

### Drawings:

- 1. Sheet HA1.1
  - a. Sheet to be removed in its entirety and replaced with attached drawing addenda sheet HA1.1 Addendum No. 4.
  - b. Adjusted Paving Hatch Patterns for clarity.
  - c. Rerouted Planter Drain Lines and Connections
- 2. Sheet HA1.2
  - a. Sheet to be removed in its entirety and replaced with attached drawing addenda sheet HA1.2 Addendum No. 4.
  - b. Adjusted Paving Hatch Patterns for clarity.
  - c. Rerouted Planter Drain Lines and Connections
  - d. Added Dimensions
  - e. Added Callout for Perforated Schedule 40 Pipe At Building
  - f. Added Callout for Fixed Stainless Steel Bollards
  - g. Modified Paving Legend
  - h. Corrected Sheet Title Scale
- 3. Sheet HA1.3
  - a. Sheet to be removed in its entirety and replaced with attached drawing addenda sheet HA1.3 Addendum No. 4.
  - b. Adjusted Paving Hatch Patterns for clarity.
  - c. Rerouted Planter Drain Lines and Connections
  - d. Added Dimensions
  - e. Modified Paving Legend
  - f. Corrected Sheet Title Scale



- 4. Sheet HA1.4
  - a. Sheet to be removed in its entirety and replaced with attached drawing addenda sheet HA1.4 Addendum No. 4.
  - b. Adjusted Paving Hatch Patterns for clarity.
  - c. Rerouted Planter Drain Lines and Connections
  - d. Added Dimensions
  - e. Modified Paving Legend
  - f. Modified Site Furnishings Schedule
  - g. Corrected Sheet Title Scale
- 5. Sheet HA2.1 Hardscape Details
  - a. Sheet to be removed in its entirety and replaced with attached drawing addenda sheet HA2.1 Addendum No. 4.
  - b. Added Detail No. 7 Subsurface Perforated Pipe to sheet
  - c. Added Notes to detail 6 referring to Planter Reservoirs
  - d. Added Elevation View to Detail 4 Lighted Bollard
  - e. Added Elevation View to Detail 5 Fixed Bollard





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BE IMMEDIATELY BROUGHT TO THE ENGINEER'S AND SURVEYOR'S ATTENTION.

20' 40 

SCALE: 1" = 20'





KEYNOTES						
1	INSTALL HEAVY DUTY CONCRETE PAVING. SEE DETAIL 4 SHEET C3-504.					
2	INSTALL 6-IN TALL BARRIER CURB WITH 24-IN GUTTER. SEE DETAIL 1 SHEET C3-501.					
3	INSTALL 4-IN WIDE WHITE TRAFFIC STRIPING FOR PARKING SPACES.					
4	CONSTRUCT SIDEWALK. SEE DETAIL 6 SHEET C3-501.					
5	INSTALL ADA COMPLIANT CURB TYPE A. REFER TO DETAIL 8 SHEET C3-501.					
6	INSTALL ADA COMPLIANT CURB TYPE B. REFER TO DETAIL 9 SHEET C3-501.					
7	INSTALL ADA COMPLIANT COMBINATION CURB TYPE D. REFER TO DETAIL 5 SHEET C3-504.					
9	CONSTRUCT ADA COMPLIANT ACCESSIBLE PARKING SPACES COMPLETE WITH WHEEL STOPS, PAVEMENT SYMBOL, AISLE STRIPING, AND SIGN.					
10	INSTALL 2-FT WIDE ADA TACTILE WARNING STRIP ALONG SIDEWALK WHERE SIDEWALK AND DRIVE ELEVATION ARE EQUAL.					
11	CONSTRUCT CONCRETE FLUME. SEE DETAIL 11, SHEET C3-501.					
12	INSTALL BOLLARDS, SEE DETAIL 7, SHEET C3-502.					
13	INSTALL LIGHT DUTY CONCRETE. SEE DETAIL 2, C3–504.					
14	INSTALL MEDIUM DUTY CONCRETE. SEE DETAIL 3, SHEET C3-504.					
15	INSTALL ADA COMPLIANT ACCESSIBLE RAMP.					
16	INSTALL ELECTRIC VEHICLE CHARGING STATIONS. REFER TO ELECTRIC DRAWINGS.					
17	INSTALL 2-FT WIDE X PLAN LENGTH YELLOW CROSSWALK STRIPING WITH 2-FT SPACING BETWEEN STRIPES.					
18	INSTALL CONCRETE FLUME. SEE DETAIL 11 SHEET C3-501.					
19	INSTALL 4—IN WIDE WHITE NO PARKING STRIPING AT 3—FT SPACING.					
20	CONSTRUCT MASONRY BLOCK RETAINING WALL. SEE DETAILS SHEET C5-208.					
21	CONSTRUCT GABION BASKET RETAINING WALL. SEE DETAILS SHEET C5-501.					
22	INSTALL 2-FT THICK LAYER OF 12-IN STONE RIP-RAP WITH FILTER FABRIC UNDERLAY.					
23	INSTALL RIBBON CURB. SEE DETAIL 2 SHEET C3-501.					
24	ADJUST EXISTING CLEANOUTS TO BE FLUSH WITH SIDEWALK.					
25	REMOVE EXISTING PAVING STRIPES AND RESTRIPE SPACES WITH 4-IN WIDE WHITE STRIPES.					
26	INSTALL WHEEL STOPS ALONG PARKING SPACES. SEE DETAIL 6 SHEET C3-504.					
27	INSTALL 8—IN WIDE WHITE LANE DIVIDER STRIPING.					
28	SEE LANDSCAPE DRAWINGS FOR PEDESTRIAN HARDSCAPE REQUIREMENTS.					
29	CONSTRUCT HANDRAIL ALONG TOP OF WALL. SEE DETAIL 8 SHEET C3-504.					
30	INSTALL DUMPSTER AREA CONCRETE PAVING. SEE DETAIL 7 SHEET C3-504.					
31	INSTALL HANDRAIL ALONG CURB RAMP.					
32	INSTALL 1-FT WIDE BY 4-IN THK 3,500-PSI @ 28-DAY CONCRETE MOW STRIP ALONG BUILDING. PROVIDE JOINTS PER REQUIREMENTS ON C3-503.					







THE UNDERGROUND UTILITIES.

UTILITY ELEVATIONS AND SIZES MAY HAVE BEEN MEASURED UNDER ADVERSE FIELD CONDITIONS. UPON EXPOSING THE UTILITY, ELEVATIONS AND LINE

SIZES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

CONTRACTOR SHOULD VERIFY CRITICAL ELEVATIONS USING THE BENCHMARK

PROVIDED BY THE SURVEYOR OR ENGINEER. ANY DISCREPANCIES SHOULD

BE IMMEDIATELY BROUGHT TO THE ENGINEER'S AND SURVEYOR'S ATTENTION.

HEAVY DUTY CONCRETE PAVING

REINFORCED HEAVY DUTY CONCRETE PAVING

SODDING / SEEDING / VEGETATIVE COVER



KEYNOTES						
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31	INSTALL HANDRAIL ALONG CURB RAMP.					
32	INSTALL 1-FT WIDE BY 4-IN THK 3,500-PSI @ 28-DAY CONCRETE MOW STRIP ALONG BUILDING. PROVIDE JOINTS PER REQUIREMENTS ON C3-503.					

\_ LLS 5534









COORDINATES ON THE BUILDING ARE SHOWN FOR GENERAL LOCATION ONLY. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL PLANS FOR STRUCTURAL FOUNDATION LAYOUT. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR CONSTRUCTION INFORMATION AND DETAILS FOR BUILDING ERECTION.



Point Table								
Point #	Elevation	Northing	Easting	Description				
1	918.75	346086.89	2872782.65	Q-1				
2	919.00	346091.26	2872926.58	Q-6				
3	919.00	346093.09	2872986.55	Q-8				
4	918.62	345890.98	2872788.60	H–1				
5	919.00	345895.36	2872932.53	H-6				
6	919.00	345897.18	2872992.50	H-8				
7	919.00	345699.07	2872794.43	B-1				
8	919.00	345703.44	2872938.36	B-6				
9	919.00	345705.26	2872998.33	B-8				
10	918.98	346107.61	2872811.53	FG				
11	918.98	346108.19	2872836.02	FG				
12	918.98	346091.45	2872836.53	FG				
13	918.98	346092.73	2872892.35	FG				
14	918.98	346095.10	2872956.69	FG				
15	918.98	346096.15	2873004.97	FG				
16	918.98	346016.18	2873007.40	FG				
17	918.98	346018.49	2873083.36	FG				
18	918.98	345945.52	2873085.58	FG				
19	918.98	345944.27	2873044.44	FG				
20	918.98	345870.12	2873046.69	FG				
21	918.98	345870.78	2873062.34	FG				
22	917.80	345842.64	2873063.17	FG				
23	917.30	345746.84	2873031.58	FG				
24	917.20	345735.80	2873031.92	FG				
25	917.35	345734.54	2873016.37	FG				
26	917.06	345702.92	2873017.33	FG				
27	918.98	345701.51	2872970.66	FG				
28	918.98	345698.87	2872897.54	FG				
29	918.98	345680.21	2872898.11	FG				
30	918.98	345679.69	2872881.05	FG				
31	918.98	345650.66	2872793.56	FG				
32	918.98	345697.00	2872792.15	FG				
33	918.98	345721.74	2872791.24	FG				
34	918.98	345808.95	2872788.75	FG				
35	918.98	345809.91	2872820.32	FG				
36	918.98	345857.86	2872819.28	FG				
37	918.98	345857.57	2872809.58	FG				
38	918.98	345906.51	2872808.13	FG				
39	918.98	345906.80	2872817.80	FG				
40	918.98	346085.63	2872812.37	FG				

Doint Tahla									
Deint #	Point # Elevation Northing Fasting Description								
				Description					
41	918.98	346090.70	28/2812.05	FG					
42	918.33	346119.94	28/2801.35	GU					
43	918.33	346120.94	28/2834.45	GU					
44	918.61	346110.57	2872855.48	GU					
45	918.89	346100.21	2872876.52	GU					
46	918.89	346103.11	2872972.05	GU					
47	918.37	346114.73	2872992.42	GU					
48	918.13	346126.36	2873012.79	GU					
49	918.64	346128.31	2873077.00	GU					
50	919.41	346185.28	2873075.27	GU					
51	919.71	346195.58	2873084.96	GU					
52	919.55	346180.83	2873108.40	GU					
53	920.59	346236.86	2873108.39	GU					
54	920.21	346221.86	2873093.85	GU					
55	920.16	346221.57	2873084.17	GU					
56	920.26	346228.18	2873074.46	GU					
57	920.51	346232.64	2873091.84	GU					
58	921.50	346280.12	2873090.40	GU					
59	921.32	346279.57	2873072.41	GU					
60	921.26	346283.08	2873067.30	GU					
61	918.41	346274.32	2872778.65	GU					
62	918.17	346226.34	2872780.11	GU					
63	918.08	346223.89	2872798.19	GU					
64	918.21	346212.59	2872788.53	GU					
65	918.29	346222.89	2872798.22	GU					
66	918.17	346212.33	2872779.86	GU					
67	918.18	346226.84	2872763.75	GU					
68	917.80	346170.87	2872765.45	GU					
69	917.92	346186.32	2872779.99	GU					
70	917.96	346186.60	2872789.32	GU					
71	918.04	346176.91	2872799.62	GU					
72	918.65	346151.09	2872970.59	FG					
73	918.17	346148.19	2872875.06	FG					
74	918.44	346192.07	2872969.35	FG					
75	917.96	346189.17	2872873.82	FG					
76	917.76	346187.94	2872833.30	FG					
77	917.97	346146.96	2872834.54	FG					
78	918.54	346171.57	2872969.97	FG					
79	919.55	346173.78	2873042.32	FG					
80	919.21	346174.79	2873075.59	GU					
	J			l					

Point Table						
Point <b>#</b>	Point <b>#</b> Elevation		Easting	Description		
321	918.11	346071.23	2873055.08	FG		

Point Table							
Elevation	Northing	Easting	Description				
919.37	346207.26	2873041.31	FG				
919.86	346208.27	2873074.57	FG				
918.31	346205.06	2872968.95	FG				
917.83	346202.16	2872873.42	FG				
917.63	346200.93	2872832.90	FG				
918.16	346199.90	2872798.92	FG				
920.04	346209.36	2873110.40	FG				
918.34	346071.50	2872786.48	GU				
918.07	345957.56	2872789.94	GU				
918.28	346048.81	2872787.17	GU				
918.20	346014.53	2872788.21	GU				
917.92	345957.10	2872774.95	GU				
917.89	345954.01	2872772.04	GU				
917.87	345949.22	2872772.18	GU				
918.71	345915.52	2872792.64	GU				
918.91	345898.67	2872802.87	FG				
918.91	345851.69	2872804.30	FG				
918.71	345834.25	2872795.11	GU				
918.47	345799.38	2872776.73	FG				
918.43	345792.02	2872776.96	FG				
918.41	345812.07	2872778.40	FG				
917.75	345630.47	2872787.72	FG				
917.63	345644.42	2872781.44	GU				
918.36	345628.20	2872809.86	GU				
918.75	345636.33	2872817.52	GU				
918.21	345630.49	2872853.40	GU				
918.00	345637.72	2872872.67	GU				
917.94	345634.50	2872876.85	GU				
917.78	345627.16	2872873.44	GU				
918.05	345626.59	2872854.05	GU				
917.33	345628.12	2872905.80	GU				
917.71	345631.77	2872902.78	GU				
916.82	345629.22	2872942.61	GU				
917.20	345633.04	2872945.40	GU				
918.33	345648.97	2872923.59	GU				
918.74	345666.66	2872896.08	FG				
918.66	345675.63	2872922.78	FG				
917.45	345641.06	2872970.14	GU				
916.16	345641.24	2873000.73	GU				
917.37	345868.24	2873078.78	GU				

Point Table							
Point #	Point # Elevation Northing Easting						
121	918.70	345880.98	2873068.86	GU			
122	918.86	345880.59	2873055.87	FG			
123	918.79	345931.57	2873054.33	FG			
124	918.52	345932.20	2873075.66	GU			
125	918.45	345932.38	2873081.63	GU			
126	917.87	345947.83	2873096.18	GU			
127	917.98	346030.31	2873093.68	FG			
128	917.59	346030.97	2873082.48	FG			
129	914.79	346029.15	2873022.51	FG			
130	918.79	346029.05	2873022.42	FG			
131	914.79	346069.54	2873021.28	FG			
132	918.79	346069.53	2873021.19	FG			
133	918.93	346114.12	2873003.76	FG			
134	918.79	346113.61	2873019.85	FG			
135	918.62	346114.64	2873053.76	GU			
136	918.49	346115.41	2873079.32	GU			
137	918.98	346145.40	2873108.41	GU			
138	919.64	346145.44	2873095.14	SW			
139	920.04	346183.41	2873094.00	SW			
140	921.01	346232.96	2873102.50	SW			
141	921.80	346271.05	2873101.34	SW			
142	921.23	346259.89	2873108.39	GU			
143	921.48	346289.51	2873077.50	GU			
144	921.39	346285.40	2873093.57	GU			
145	921.34	346279.90	2873100.41	GU			
146	918.55	346280.61	2872777.80	GU			
147	918.46	346265.14	2872762.59	GU			
148	918.16	346073.96	2872768.40	GU			
149	918.04	346071.76	2873094.42	FG			
150	917.59	346071.36	2873081.26	FG			
151	918.46	346264.35	2872736.60	GU			
152	918.14	346278.93	2872721.16	GU			
153	917.88	346277.14	2872661.05	GU/ME			
154	918.52	346309.13	2872660.10	GU/ME			
155	917.79	346167.45	2872739.54	GU			
156	918.19	346064.50	2872742.67	GU			
157	918.26	346059.35	2872737.83	GU			
158	918.39	346058.96	2872724.83	GU			
159	918.79	346066.87	2872733.48	SW			
160	917.96	346064.87	2872657.97	SW			

Point Table							
Point #	Elevation	Northing	Easting	Description			
161	917.44	346087.09	2872657.30	SW			
162	918.88	346088.05	2872689.07	SW			
163	918.87	346089.11	2872723.72	SW			
164	918.98	346096.05	2872688.83	FG			
165	918.98	346096.24	2872695.16	FG			
166	917.25	346095.09	2872657.06	FG			
167	917.55	346102.02	2872654.80	FG			
168	917.45	346174.89	2872652.60	FG			
169	916.98	346101.82	2872648.18	GU/ME			
170	917.14	346094.82	2872648.39	GU/ME			
171	918.08	346051.76	2872649.70	GU/ME			
172	917.88	346059.59	2872649.46	GU/ME			
173	918.05	346059.99	2872662.59	SW			
174	917.48	346244.17	2872643.86	GU			
175	917.53	346243.72	2872628.87	GU/ME			
176	917.57	346246.69	2872625.78	GU/ME			
177	918.42	346270.94	2872649.67	FG			
178	918.28	346273.16	2872722.63	FG			
179	918.68	346272.91	2872714.34	FG			
180	918.46	346266.37	2872729.84	FG			
181	918.89	346061.45	2872717.75	SW			
182	917.94	345944.01	2872728.32	GU			
183	917.86	345944.47	2872743.32	GU			
184	917.83	345941.56	2872746.40	GU			
185	917.81	345935.53	2872746.59	GU			
186	917.83	345918.62	2872740.68	GU			
187	918.05	345901.71	2872734.78	GU			
188	918.33	345854.04	2872736.22	GU			
189	918.27	345837.51	2872743.14	GU			
190	918.36	345820.99	2872750.07	GU			
191	918.42	345811.22	2872750.36	GU			
192	918.43	345791.23	2872750.97	GU			
193	918.15	345734.29	2872752.70	GU			
194	918.15	345731.50	2872749.78	GU			
195	918.23	345731.01	2872733.79	GU			
196	918.10	345685.03	2872735.19	GU			
197	918.02	345685.52	2872751.18	GU			
198	917.89	345682.64	2872754.27	GU			
199	917.72	345649.63	2872755.27	GU			
200	917.69	345643.63	2872755.45	GU			

Point Table	Point Table	Point Table	Point Table	Point Table	Point Table	Point Table	Point Table
Point # Elevation Northing Easting Description	Point # Elevation Northing Easting Description	Point # Elevation Northing Easting Description	Point # Elevation Northing Easting Description	Point # Elevation Northing Fasting Description	Point # Elevation Northing Fasting Description	Point # Elevation Northing Fasting Description	Point # Elevation Northing Easting Description
		Point #         Elevation         Norming         Edsting         Description           81         010.37         346207.26         2873041.31         EC		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	201 017 35 345636 60 2872755 67 CU	241 016 61 345602 55 2872020 66 01	281 016 24 345657 00 2873006 20 CU
1 916.75 540080.69 2672762.65 Q=1	41 916.90 340090.70 2672612.03 FG	61         919.37         346207.26         2673041.31         FG           82         010.86         346208.27         2873074.57         FC	121 910.70 545000.90 2075000.00 GU	162 018 98 346098 05 2872690 07 SW		241 910.01 345002.33 2072920.00 GU	281 910.24 345057.09 2873042.75 CU
2 919.00 546091.20 2672926.56 Q=0	43 918 33 346120 94 2872834 45 CU	83 918 31 346205 06 2872968 95 FC	122 910.00 345000.39 2073053.07 FG	163 918.87 346089.11 2872723.72 SW	202 917.84 345621.15 2872741.08 GU/ME	243 917.00 345591.47 2872867.43 CI	283 916 71 345690 61 2873019 90 CIL
3         919.00         346093.09         2672966.55         Q=6           4         018.62         346090.08         2872788.60         U         1	44 918 61 346110 57 2872855 48 CU	84 917 83 346202 16 2872873 42 FG	124 918 52 345932 20 2873075 66 CIL	164 918 98 346096 05 2872688 83 FC	203 918.48 346052.75 2872718.02 sw	244 917 31 345590 63 2872839 22 CU	284 915 78 345678 57 2873049 55 CU
4 916.02 345805 36 2872700.00 H-1	45 918 89 346100 21 2872876 52 GU	85 917 63 346200 93 2872832 90 FG	125 918 45 345932 38 2873081 63 GU	165 918 98 346096 24 2872695 16 FG	204 918.00 345949.79 2872721.14 SW	245 917.55 345595.69 2872836.96 GU	285 916 51 345705 74 2873025 76 GU
6 919.00 345897.18 2872992.50 H_8	46 918.89 346103.11 2872972.05 GU	86 918.16 346199.90 2872798.92 FG	126 917.87 345947.83 2873096.18 GU	166 917.25 346095.09 2872657.06 FG	205 918.47 345945.80 2872721.35 SW	246 917.63 345600.38 2872847.41 GU	286 915.88 345694.70 2873055.79 GU
7 919.00 345699.07 2872794.43 B-1	47 918.37 346114.73 2872992.42 GU	87 920.04 346209.36 2873110.40 FG	127 917.98 346030.31 2873093.68 FG	167 917.55 346102.02 2872654.80 FG	206 916.15 545901.51 2672726.11 SW	247 917.48 345600.71 2872858.69 GU	287 916.00 345711.87 2873061.78 GU
8 919 00 345703 44 2872938 36 B-6	48 918.13 346126.36 2873012.79 GU	88 918.34 346071.50 2872786.48 GU	128 917.59 346030.97 2873082.48 FG	168 917.45 346174.89 2872652.60 FG	207 918.20 343901.21 2872718.12 Sw 208 918.69 345853.83 2872729.56 Sw	248 917.17 345596.65 2872869.40 GU	288 916.59 345721.06 2873031.10 GU
9 919.00 345705.26 2872998.33 B-8	49 918.64 346128.31 2873077.00 GU	89 918.07 345957.56 2872789.94 GU	129 914.79 346029.15 2873022.51 FG	169 916.98 346101.82 2872648.18 GU/ME	200 918.82 345853 53 2872719.56 SW	249 913.28 345496.09 2872856.15 FG	289 916.28 345757.96 2873076.97 GU
10 918.98 346107.61 2872811.53 FG	50 919.41 346185.28 2873075.27 GU	90 918.28 346048.81 2872787.17 GU	130 918.79 346029.05 2873022.42 FG	170 917 14 346094 82 2872648 30 CU/ME	210 918.69 345811.02 2872743 70 SW	250 912.66 345497.93 2872918.12 FG	290 916.07 345734.50 2873069.23 GU
11 918.98 346108.19 2872836.02 FG	51 919.71 346195.58 2873084.96 GU	91 918.20 346014.53 2872788.21 GU	131 914.79 346069.54 2873021.28 FG		211 918.69 345791.03 2872744.31 SW	251 917.17 345591.05 2872853.33 GU	291 916.33 345768.41 2873080.42 GU
12 918.98 346091.45 2872836.53 FG	52 919.55 346180.83 2873108.40 GU	92 917.92 345957.10 2872774.95 GU	132 918.79 346069.53 2873021.19 FG	1/1 918.08 340031./6 28/2649./0 GU/ME	212 918.73 345730.82 2872727.59 SW	252 916.35 345592.89 2872915.30 GU	292 916.87 345775.25 2873048.98 GU
13 918.98 346092.73 2872892.35 FG	53 920.59 346236.86 2873108.39 GU	93 917.89 345954.01 2872772.04 GU	133 918.93 346114.12 2873003.76 FG	172 917.88 346059.59 2872649.46 GU/ME	213 918.52 345724.83 2872727.76 SW	253 911.11 345440.63 2872785.40 GU/ME	293 916.67 345846.06 2873105.63 GU
14 918.98 346095.10 2872956.69 FG	54 920.21 346221.86 2873093.85 GU	94 917.87 345949.22 2872772.18 GU	134 918.79 346113.61 2873019.85 FG	173 918.05 346059.99 2872662.59 SW	214 918.11 345690.86 2872728.68 SW	254 912.97 345487.64 2872784.05 GU/ME	294 916.52 345819.41 2873097.24 GU
15 918.98 346096.15 2873004.97 FG	55 920.16 346221.57 2873084.17 GU	95 918.71 345915.52 2872792.64 GU	135 918.62 346114.64 2873053.76 GU	174 917.48 346244.17 2872643.86 GU	215 918.63 345684.33 2872728.86 SW	255 014.14 345523.81 2872783.01 CIL/ME	295 916.39 345793.91 2873088.83 GU
16 918.98 346016.18 2873007.40 FG	56 920.26 346228.18 2873074.46 GU	96 918.91 345898.67 2872802.87 FG	136 918.49 346115.41 2873079.32 GU	175 917.53 346243.72 2872628.87 GU/ME	216 918.40 345706.22 2872728.26 SW		296 917.16 345829.43 2873066.86 GU
17 918.98 346018.49 2873083.36 FG	57 920.51 346232.64 2873091.84 GU	97 918.91 345851.69 2872804.30 FG	137 918.98 346145.40 2873108.41 GU	176 917.57 346246.69 2872625.78 GU/ME	217 918.44 345713.90 2872728.05 SW	256 915.34 345556.99 2872782.06 GU/ME	297 916.71 345848.11 2873109.25 GU
18 918.98 345945.52 2873085.58 FG	58 921.50 346280.12 2873090.40 GU	98 918.71 345834.25 2872795.11 GU	138 919.64 346145.44 2873095.14 SW	177 918.42 346270.94 2872649.67 FG	218 917.53 345594.81 2872807.44 GU	257 916.84 345597.24 2872741.79 FG/ME	298 917.05 345841.36 2873135.81 GU
19 918.98 345944.27 2873044.44 FG	59 921.32 346279.57 2873072.41 GU	99 918.47 345799.38 2872776.73 FG	139 920.04 346183.41 2873094.00 SW	178 918.28 346273.16 2872722.63 FG	219 917.38 345589.63 2872805.47 GU	258 916.39 345598.34 2872778.85 FG/ME	299 917.52 345932.46 2873158.96 GU
20 918.98 345870.12 2873046.69 FG	60 921.26 346283.08 2873067.30 GU	100 918.43 345792.02 2872776.96 FG	140 921.01 346232.96 2873102.50 SW	179 918.68 346272.91 2872714.34 FG	220 917.44 345589.21 2872791.36 GU	259 918.15 346022.81 2873093.90 GU	300 917.17 345939.37 2873131.78 GU
21 918.98 345870.78 2873062.34 FG	61 918.41 346274.32 2872778.65 GU	101 918.41 345812.07 2872778.40 FG	141 921.80 346271.05 2873101.34 SW	180 918.46 346266.37 2872729.84 FG	221 916.00 345583.42 2872781.30 GU/ME	260 918.92 346022.49 2873083.24 SW	301 917.15 345943.35 2873129.72 GU
22 917.80 345842.64 2873063.17 FG	62 918.17 346226.34 2872780.11 GU	102 917.75 345630.47 2872787.72 FG	142 921.23 346259.89 2873108.39 GU	181 918.89 346061.45 2872717.75 SW	222 917.29 345598.84 2872795.85 GU	261 918.22 345655.43 2872748.42 SW	302 917.24 345952.86 2873133.38 GU
23 917.30 345746.84 2873031.58 FG	63 918.08 346223.89 2872798.19 GU	103 917.63 345644.42 2872781.44 GU	143 921.48 346289.51 2873077.50 GU	182 917.94 345944.01 2872728.32 GU	223 912.72 345465.76 2872795.02 GU	262 917.94 345637.44 2872748.97 SW	303 917.33 345957.97 2873137.30 GU
24 917.20 345735.80 2873031.92 FG	64 918.21 346212.59 2872788.53 GU	104 918.36 345628.20 2872809.86 GU	144 921.39 346285.40 2873093.57 GU	183 917.86 345944.47 2872743.32 GU	224 912.55 345466.26 2872811.77 GU	263 918.10 345644.63 2872788.10 SW	304 917.84 346044.46 2873153.03 GU
25 917.35 345734.54 2873016.37 FG	65 918.29 346222.89 2872798.22 GU	105 918.75 345636.33 2872817.52 GU	145 921.34 346279.90 2873100.41 GU	184 917.83 345941.56 2872746.40 GU	225 912.30 345461.41 2872816.91 GU	264 918.74 345792.22 2872783.62 SW	305 917.82 345998.86 2873158.11 GU
26 917.06 345702.92 2873017.33 FG	66 918.17 346212.33 2872779.86 GU	106 918.21 345630.49 2872853.40 GU	146 918.55 346280.61 2872777.80 GU	185 917.81 345935.53 2872746.59 GU	226 911.50 345441.42 2872817.51 GU	265 918.92 345812.29 2872785.50 SW	306 918.14 345983.32 2873095.10 GU
27 918.98 345701.51 2872970.66 FG	67 918.18 346226.84 2872763.75 GU	107 918.00 345637.72 2872872.67 GU	147 918.46 346265.14 2872762.59 GU	186 917.83 345918.62 2872740.68 GU	227 910.35 345447.65 2872959.88 GU	266 902.57 345400.44 2873004.31 GU/ME	307 917.83 346080.28 2873146.78 GU
28 918.98 345698.87 2872897.54 FG	68 917.80 346170.87 2872765.45 GU	108 917.94 345634.50 2872876.85 GU	148 918.16 346073.96 2872768.40 GU	187 918.05 345901.71 2872734.78 GU	228 911.03 345465.64 2872959.35 GU	267 902.87 345395.36 2873035.90 GU/ME	308 920.46 346261.83 2873148.39 GU
29 918.98 345680.21 2872898.11 FG	69 917.92 346186.32 2872779.99 GU	109 917.78 345627.16 2872873.44 GU	149 918.04 346071.76 2873094.42 FG	188 918.33 345854.04 2872736.22 GU	229 911.36 345470.79 2872964.20 GU	268 907.05 345480.06 2873005.78 GU	309 921.83 346319.60 2873104.57 GU
30 918.98 345679.69 2872881.05 FG	/U 91/.96 346186.60 28/2/89.32 GU	110 918.05 345626.59 28/2854.05 GU	150 917.59 346071.36 2873081.26 FG	189 918.27 345837.51 2872743.14 GU	230 911.28 345471.28 2872980.94 GU	269 904.62 345440.20 2873007.85 GU	510 921.99 546321.38 28/3095.84 GU
31 918.98 345650.66 2872793.56 FG	/I 918.04 3401/0.91 28/2/99.62 GU	111 917.33 343628.12 2872905.80 GU	151 918.40 346264.35 28/2/36.60 GU	190 918.36 345820.99 2872750.07 GU	231 915.53 345594.73 2872977.27 GU	270 904.01 345439.61 2873039.84 GU	311 921.01 340320.00 2873043.02 GU
32 918.98 345697.00 2872792.15 FG	12         910.00         040101.09         28/29/0.09         FG           73         019.17         346149.10         0970975.06         50	112 917.71 343031.77 2872902.78 GU	152 910.14 3402/8.93 28/2/21.16 GU	191 918.42 345811.22 28/2/50.36 GU	232 915.70 345594.30 2872962.67 GU	271 906.41 345483.96 2873037.54 GU	312 919.20 340312.87 2872780.07 GU
33         918.98         345/21.74         2872791.24         FG           34         918.98         345/21.74         2872791.24         FG	/J         910.1/         J40140.19         Z8/28/J.00         FG           74         018.44         346102.07         2872060.75         FG	113 910.02 343029.22 2872942.01 GU	153 917.88 346277.14 2872661.05 GU/ME	192 918.43 345/91.23 28/2/50.9/ GU	233 915.91 345599.36 2872960.40 GU	272 914.04 345569.92 2872994.74 GU	
34         918.98         345808.95         28/2/88.75         FG           75         018.08         745800.04         0870000.70         FG	74 910.44 940192.07 207290.00 FG 75 017.06 346180.17 9879873.89 FC	115 018 33 345648 07 0870003 50 CU	154 918.52 346309.13 2872660.10 GU/ME	193 910.13 343/34.29 28/2/32.70 GU	234 915.89 345604.04 2872970.85 GU	273 913.40 345573.82 2873026.50 GU	315 014 70 346029.09 20/0040.01 FG
30 918.98 345867.96 2872820.32 FG	76 917 76 346187 04 2872833 30 FC	116 918 74 345666 66 2872806 08 FC	155 917.79 346167.45 2872739.54 GU	194 910.10 040701.00 2072749.70 GU	235 915.77 345604.26 2872978.00 GU	274 910.60 345524.99 2873000.26 GU	316 914 79 346069 68 2873026 12 FC
JU         310.30         J43037.00         Z072013.20         FG           37         018.09         345957.57         0070000.50         FG	77 917 97 346146 96 2872834 54 FC	117 918 66 345675 63 2872922 78 FC	156 918.19 346064.50 2872742.67 GU	195 910.20 340701.01 2072700.79 GU	236 914.97 345589.42 2872993.44 GU	275 909.96 345528.89 2873032.02 GU	317 915 04 346070 07 2873038 78 FG
37         310.30         343037.37         2072003.30         FG           38         018.08         345006.51         3973909.17         E0	78 918 54 346171 57 2872969 97 FG	118 917 45 345641 06 2872970 14 CU	157 918.26 346059.35 2872737.83 GU	197 918 02 345685 52 2872751 18 CU	237 916.16 345593.31 2872929.41 GU	276 915.60 345645.05 2873035.94 GU	318 912.74 345754.07 2873106.30 FL
30 910.90 340900.01 2072000.10 FG 30 018 08 345006 80 9879817 80 EC	79 919.55 346173 78 2873042 32 FG	119 916.16 345641.24 2873000 73 GU	158 918.39 346058.96 2872724.83 GU	197 910.02 91000.02 2072791.10 00 198 917.89 345682.64 2872754.27 Cli	238 916.54 345592.47 2872901.20 GU	277 915.13 345610.04 2873026.67 GU	319 909.80 345735.69 2873120.02 FL
J3         310.30         J4J300.00         Z0/Z017.00         FG           40         018.08         346085.63         9879819.37         EC	80 919.21 346174.79 2873075.59 GU	120 917.37 345868.24 2873078.78 GU	159 918.79 346066.87 2872733.48 SW	199 917 72 345649 63 2872755 27 CU	239 916.76 345597.53 2872898.93 GU	278 916.22 345630.53 2872986.80 GU	320 904.26 345689.26 2873121.43 FL
TU 310.30 J4000J.0J 20/2012.J/ FG			160 917.96 346064.87 2872657.97 SW		240 916.77 345602.22 2872909.38 GU	279 916.25 345630.47 2872984.93 GU	

Point Table							
Point #	Elevation	Northing	Easting	Descriptio			
241	916.61	345602.55	2872920.66	GU			
242	916.31	345598.49	2872931.37	GU			
243	917.00	345591.47	2872867.43	GU			
244	917.31	345590.63	2872839.22	GU			
245	917.55	345595.69	2872836.96	GU			
246	917.63	345600.38	2872847.41	GU			
247	917.48	345600.71	2872858.69	GU			
248	917.17	345596.65	2872869.40	GU			
249	913.28	345496.09	2872856.15	FG			
250	912.66	345497.93	2872918.12	FG			
251	917.17	345591.05	2872853.33	GU			
252	916.35	345592.89	2872915.30	GU			
253	911.11	345440.63	2872785.40	GU/ME			
254	912.97	345487.64	2872784.05	GU/ME			
255	914.14	345523.81	2872783.01	GU/ME			
256	915.34	345556.99	2872782.06	GU/ME			
257	916.84	345597.24	2872741.79	FG/ME			
258	916.39	345598.34	2872778.85	FG/ME			
259	918.15	346022.81	2873093.90	GU			
260	918.92	346022.49	2873083.24	SW			
261	918.22	345655.43	2872748.42	SW			
262	917.94	345637.44	2872748.97	SW			
263	918.10	345644.63	2872788.10	SW			
264	918.74	345792.22	2872783.62	SW			
265	918.92	345812.29	2872785.50	SW			
266	902.57	345400.44	2873004.31	GU/ME			
267	902.87	345395.36	2873035.90	GU/ME			
268	907.05	345480.06	2873005.78	GU			
269	904.62	345440.20	2873007.85	GU			
270	904.01	345439.61	2873039.84	GU			
271	906.41	345483.96	2873037.54	GU			
272	914.04	345569.92	2872994.74	GU			
273	913.40	345573.82	2873026.50	GU			
274	910.60	345524.99	2873000.26	GU			
275	909.96	345528.89	2873032.02	GU			
276	915.60	345645.05	2873035.94	GU			
277	915.13	345610.04	2873026.67	GU			
278	916.22	345630.53	2872986.80	GU			
279	916.25	345630.47	2872984.93	GU			
280	916.33	345673.85	2873013.10	GU			
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		Point Ta	ble	
Point #	Elevation	Northing	Easting	Description
281	916.24	345657.09	2873006.29	GU
282	915.69	345661.81	2873042.75	GU
283	916.71	345690.61	2873019.90	GU
284	915.78	345678.57	2873049.55	GU
285	916.51	345705.74	2873025.76	GU
286	915.88	345694.70	2873055.79	GU
287	916.00	345711.87	2873061.78	GU
288	916.59	345721.06	2873031.10	GU
289	916.28	345757.96	2873076.97	GU
290	916.07	345734.50	2873069.23	GU
291	916.33	345768.41	2873080.42	GU
292	916.87	345775.25	2873048.98	GU
293	916.67	345846.06	2873105.63	GU
294	916.52	345819.41	2873097.24	GU
295	916.39	345793.91	2873088.83	GU
296	917.16	345829.43	2873066.86	GU
297	916.71	345848.11	2873109.25	GU
298	917.05	345841.36	2873135.81	GU
299	917.52	345932.46	2873158.96	GU
300	917.17	345939.37	2873131.78	GU
301	917.15	345943.35	2873129.72	GU
302	917.24	345952.86	2873133.38	GU
303	917.33	345957.97	2873137.30	GU
304	917.84	346044.46	2873153.03	GU
305	917.82	345998.86	2873158.11	GU
306	918.14	345983.32	2873095.10	GU
307	917.83	346080.28	2873146.78	GU
308	920.46	346261.83	2873148.39	GU
309	921.83	346319.60	2873104.57	GU
310	921.99	346321.38	2873095.84	GU
311	921.81	346320.50	2873043.02	GU
312	919.28	346312.87	2872786.07	GU
313	919.20	346312.61	2872777.41	GU
314	918.80	346029.59	2873040.01	FG
315	914.79	346029.29	2873027.34	FG
316	914.79	346069.68	2873026.12	FG
317	915.04	346070.07	2873038.78	FG
318	912.74	345754.07	2873106.30	FL
319	909.80	345735.69	2873120.02	FL
320	904.26	345689.26	2873121.43	FL







DRAWING	DESCRIPTION	Sheet Status
SM101	MECHANICAL AREA - OVERALL FOUNDATION PLAN	BID PACKAGE 04
SM102	MECHANICAL AREA (CEP) - FOUNDATION PLAN	
SM103	MECHANICAL AREA (YARD) - FOUNDATION PLAN	
SM104	MECHANICAL AREA (CEP) - FRAMING PLAN 2	BID PACKAGE 05
SM105	MECHANICAL AREA (CEP) - FRAMING PLAN ROOF	BID PACKAGE 05
SM106	MECHANICAL AREA (YARD) - FRAMING PLAN 2	BID PACKAGE 05
SM107	MECHANICAL AREA (YARD) FRAMING PLAN ROOF	BID PACKAGE 05
SM108	MECHANICAL AREA (YARD) - COOLING TOWER SUPPORT	BID PACKAGE 05
SM109	MECHANICAL AREA (CEP) - ELEVATIONS	BID PACKAGE 05
SM110	MECHANICAL AREA (YARD) - ELEVATIONS	BID PACKAGE 05
SM111	MECHANICAL AREA (BRIDGE) - ENLARGEMENTS	BID PACKAGE 04
SM112	MECHANICAL AREA (BRIDGE) - SECTIONS	BID PACKAGE 04
SM113	MECHANICAL AREA - FOUNDATION DETAILS	BID PACKAGE 04
SM114	MECHANICAL AREA - ANCHOR RODS	BID PACKAGE 04
SM115	MECHANICAL AREA - ANCHOR RODS	

![](_page_10_Figure_3.jpeg)

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DESCRIPTION	Sheet Status	DRAWING	DESCRIPTION	Sheet Status	DRAWING	DESCRIPTION	Sheet Status	DRAWING	DESCRIPTION	
INGS AND SNOW DRIFT		S2.01.1	FOUNDATION PLAN SECTOR 01	<b>BID PACKAGE 04</b>	S3.01	RIGID FRAMES 1 & 2	BID PACKAGE 05	S4.01	CONCRETE TYPICAL DETAILS	BI
		S2.01.2	FOUNDATION PLAN SECTOR 02	BID PACKAGE 04	S3.02	RIGID FRAMES 3 & 4	BID PACKAGE 05	S4.02	CONCRETE TYPICAL DETAILS	BI
PLAN		S2.01.3	FOUNDATION PLAN SECTOR 03	BID PACKAGE 04	S3.03	RIGID FRAMES 6, 7, 8, & 11	BID PACKAGE 05	S4.03	FOUNDATION DETAILS	BI
JNDATION PLAN	BID PACKAGE 04	S2.01.4	FOUNDATION PLAN SECTOR 04	BID PACKAGE 04	S3.04	RIGID FRAMES B, C, D & F	BID PACKAGE 05	S4.04	BASE PLATE DETAILS	BI
	BID PACKAGE 04	S2.01.5	FOUNDATION PLAN SECTOR 05	BID PACKAGE 04	S3.05	RIGID FRAMES E, G & H	BID PACKAGE 05	S4.05	BASE PLATE DETAILS	BI
PLAN	BID PACKAGE 04	S2.02.1	02 FRAMING PLAN SECTOR 01	BID PACKAGE 05	S3.06	RIGID FRAMES J, K & L	BID PACKAGE 05	S4.06	FOUNDATION SECTIONS	BI
_AN	BID PACKAGE 04	S2.02.2	02 FRAMING PLAN SECTOR 02	BID PACKAGE 05	S3.07	RIGID FRAMES N, P, Q & S	BID PACKAGE 05	S4.07	FOUNDATION SECTIONS	BI
	BID PACKAGE 04	S2.02.3	02 FRAMING PLAN SECTOR 03	BID PACKAGE 05	S3.08	FRAMES 5, 9, 12, R & A	BID PACKAGE 05	S4.08	FOUNDATION SECTIONS	BI
AMING PLAN	BID PACKAGE 05	S2.02.4	02 FRAMING PLAN SECTOR 04	BID PACKAGE 05				S4.09	FOUNDATION SECTIONS	BI
	<b>BID PACKAGE 04</b>	S2.02.5	02 FRAMING PLAN SECTOR 05	BID PACKAGE 05						
N		S2.03.1	03 FRAMING PLAN SECTOR 01	BID PACKAGE 05						
AMING PLAN	BID PACKAGE 05	S2.03.2	03 FRAMING PLAN SECTOR 02	BID PACKAGE 05						
	BID PACKAGE 04	S2.03.3	03 FRAMING PLAN SECTORS 03 & 04	BID PACKAGE 05				DRAWING	DESCRIPTION	
N		S2.04.1	04 FRAMING PLAN SECTOR 01	BID PACKAGE 05				S5.01	STEEL TYPICAL DETAILS	BI
AMING PLAN	BID PACKAGE 05	S2.04.2	04 FRAMING PLAN SECTOR 02	BID PACKAGE 05				S5.02	STEEL TYPICAL DETAILS	BI
	BID PACKAGE 04	S2.04.3	04 FRAMING PLAN SECTORS 03 & 04	BID PACKAGE 05				S5.03	MASONRY TYPICAL DETAILS	
N		S2.05.1	05 FRAMING PLAN SECTOR 01	BID PACKAGE 05				S5.04	PRECAST TYPICAL DETAILS	BI
AMING PLAN	BID PACKAGE 05	S2.05.2	05 FRAMING PLAN SECTOR 02	BID PACKAGE 05				S5.05	FRAMING DETAILS	BI
	BID PACKAGE 04	S2.05.3	05 FRAMING PLAN SECTORS 03 & 04	BID PACKAGE 05						
N		S2.06.1	06 FRAMING PLAN SECTOR 01	BID PACKAGE 05						
RALL FRAMING PLAN	BID PACKAGE 05	S2.06.2	06 FRAMING PLAN - SECTORS 02 & 03	BID PACKAGE 05						
PLAN	BID PACKAGE 04	S2.07.1	ROOF FRAMING PLAN - SECTOR 01	BID PACKAGE 05						
DING PLANS		S2.07.2	ROOF FRAMING PLAN - SECTORS 02 & 03	BID PACKAGE 05						
		S2.08.1	STORAGE PENTHOUSE	BID PACKAGE 05						
		S2.08.2	HELIPAD	BID PACKAGE 05						
		S2.09	ELEVATOR HOUSE	BID PACKAGE 05						
		S2.10.1	FRAMING ENLARGEMENTS - ATRIUM FLOOR	BID PACKAGE 05						
		S2.10.2	FRAMING ENLARGEMENTS - PUBLIC ELEVATOR	BID PACKAGE 05						
		S2.10.3	FRAMING ENLARGEMENTS - LOADING DOCK	BID PACKAGE 05						
			ELEVATOR							

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	<u>G</u>	ENERAL REQUIREMENTS:
	1.	The structural construction documents represent the finished structure. The contractor shall be responsible for adequate design and construction of all forms, shoring and temporary bracing. The contractor shall provide all measures necessary to protect the structure and safety of workmen during construction.
	2.	Do not place construction materials or other construction loads on the structure such that the loads placed exceed the capacity of the structure.
	3.	Construction material shall be spread out if placed on framed structural elements. The weight of these materials shall not exceed the design live load per square foot.
4	4.	Take into consideration that full structural capacity of many structural members is not realized until structural assembly is complete; that is, until slabs, decks, diagonal bracing and/or moment frames are installed.
	5.	Provide temporary bracing and guying to provide stability and resist all loads to which the partially completed structure may be subjected including erection equipment and its operation. Adequacy of temporary bracing and guying for this purpose is the sole responsibility of the contractor.
	6.	The contractor shall hire a professional engineer licensed in the state of Oklahoma to design the bracing and to provide bracing details.
	7.	The structural engineer shall not be responsible for the contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and the programs incident thereto (nor shall observation visits to the site include inspection of these items).
	8.	The contractor shall provide and be responsible for the protection and repair of adjacent existing surfaces and areas which may be damaged by new work.
	9.	The contractor shall visit the site and familiarize himself with the existing conditions. The contractor shall verify existing dimensions and take additional measurements as needed prior to starting construction. The structural engineer shall be notified of any discrepancies or inconsistencies before proceeding with construction. The structural engineer is not responsible for the consequences of construction that do not comply with the requirements specified or the reasonable intent conveyed on these drawings or approved revisions thereof.
ed on	10.	Do not scale drawings.
	11.	The design is valid only for the dimensions shown. The design may not be valid if actual constructed dimensions vary substantially from those shown on these plans.
	12.	Modifications of details of construction shall not be made without written approval of the structural engineer.
et S0.1	13.	All column and foundations, unless noted otherwise, shall be centered on gridlines in each direction. Unless noted in the design documents
et S0.1	14.	Typical details shall apply in general construction unless specifically detailed. Where no details are specified, construction shall be as shown for similar work. For condition that are not similar a written letter shall be sent to the SEOR for direction.
	15.	All Drawings and specifications are considered to be part of the contract documents. Structural drawings shall be used in conjunction with the civil, architectural, mechanical, electrical, and plumbing drawings for location and size of openings, blockouts, floor depressions, curbs, dimensions, etc. not indicated on the structural drawings. The location and size of mechanical and electrical openings in the slabs, wall, and/or decks shall be coordinated by the contractor. Provide all additional framing or reinforcing to accommodate openings as required by the applicable standard details shown on the structural drawings or provided by the structural engineer. No holes, notches, blockouts, etc are allowed in structural members unless detailed on the structural drawings or approved by the structural engineer.
	16.	Where the dimensions are provided for the openings, blockouts, floor depressions, curbs, etc but may be affected by the equipment purchased, the contractor shall verify the information provided prior to construction.
	17.	Provide concrete equipment pads and intertial bases for mechanical and electrical installations. Construct pads and bases in accordance with typical details. Re: Mechanical and Electrical drawings for limits and locations.
	18.	Gravel for placement under the slab-on-grade shall consist of well-graded crushed store 3/4" maximum particle size and less than 5% passing thru a No. 4 sieve.
	19.	Unless noted otherwise, all concrete slab-on-grade shall be poured upon 4" gravel. Prior to concrete placement the gravel shall be compacted with at least 4 passes of a vibratory plate compactor or vibratory drum roller. However, if the soils report provides a more stringent compaction requirement, this will covern
	20.	All structural steel 3D models shall use grids B/1 as 0,0,0 for their "origin point". Level 1 is +100-0".
	<u>S</u>	UBMITTALS:
	1.	The structural engineer shall not be accountable for acts or omissions of the contractor or any party / person, affiliated or not, performing the work or failing to carry out the work in accordance with the contract documents.
or		<ul> <li>Shop Drawings and related material (if any) required are indicated below. Should Foy Consulting &amp; Engineering, LLC, (Foy) project SEOR or designated representative, required more than ten (10) working days to perform the review, the GC will be notified by Foy.</li> <li>Concrete mix designs and material certifications including Admixtures and compounds applied to the concrete mix after placement.</li> <li>Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.</li> <li>Structural steel shop drawings including erection drawings, and piece details. Include joists, decking, and connector submittals, include miscellaneous framing specified on the structural drawings, but do not submit framing specified on non-structural drawings for Foy to review. Large steel submittals can result in the SEOR's reviews exceeding 10 working days.</li> </ul>
	2.	The structural engineer reviews submittals to ensure the general conformance with the intent conveyed in contract documents. Quantities and dimensions are not checked. Checking of any submittal by the structural engineer does not relieve the contractor's responsibility of contract deviations or from the submittals errors and/or omissions.
	3.	Contractor shall comply with the Division 1 Specifications for "Submittals".
	4.	Submittals must be checked and stamped by the contractor prior to submission. The contractor's stamp of approval will constitute certification that he has verified all field measurements, construction criteria, materials and similar data and has checked each drawing for completeness, coordination, and compliance with the contract documents.
	5.	Submittals shall be transmitted in advance of related construction activities to avoid unnecessary delay. The structural engineer of record reserves the right to reject any submittal or withhold action on a submittal requiring coordination with other submittals until all related submittals are received. All submittals shall be electronic format. Any submittal that are scanned and of poor quality will be rejected without review. The definition of "poor quality" is subjective and, as finally determined by the SEOR's perspective. All drawings submitted for review shall be the original drawing's unscaled size which it was created and shall not be reduced from printing, scanning or other digital manipulation.
y Detailed	6.	Reproduction of any portion of the structural contract drawings for submittal as shop drawings is prohibited.
	7.	The structural engineer's cursory review of submissions by specialty engineers may be limited to verifying the contact document's design intent was understood and drawings have been signed and sealed by said specialty engineer. The specialty engineer is solely responsible for their design and compliance with codes and standards. The SEOR maintains the right to review and ensure all calculations are accurate and meets professional standards for engineering analysis. Design analysis are required for all connections supplied by steel fabricator. Specific calculations may be requi for areas of particular concern.
	8.	DEFERRED Specialty submittals. All deferred specialty submittals shall be designed under the guidance of a licensed professional engineer regist in the state of which the project is located. Calculations shall be clear, concise, and well organized with page numbers, summary and conclusions submitted to the structural engineer of record for file:
C Sec es.		<ol> <li>Deferred submittal: Structural steel connections, including vertical &amp; horizontal bracing and rigid frame connections. Including moment connections on gravity structure that are not part of the lateral frame system.</li> <li>Deferred Submittal: Metal Pan Stairs, Railings and Guardrails.</li> <li>Deferred Submittal: Metal Stair Framing. All forces from the stair shall be identified and transmitted to the SEOR for review and approval before</li> </ol>
		<ul> <li>going to fabrication.</li> <li>Deferred Submittal: Exterior cold-formed metal framing (light gage).</li> <li>Deferred Submittal: Exterior &amp; Interior Curtain Wall framing and their attachment includng glazing and mullion designs.</li> <li>Miscellaneous anchors shown on the structural drawings.</li> <li>Any Pre-Engineered Modular Buildings.</li> <li>Any Pre-Engineered canopies supported off of the structrure. All forces from the pre-engineered canopies, by others, shall be identified and transmitted to the SEOR for review and approval for coordination of attachment to the structure.</li> <li>Deferred Submittal: Precast Panels shop drawings including derection drawings, connection details and design calculations. see S0.5 for</li> </ul>
	<u>S</u>	additionla precase requirements.

- 1. Site preparation shall follow the geotechnical report recommendations
- 2. Shallow foundations shall be supported on approved stiff or dense natural overburden soils or controlled fill approved by the geotechnical engineer.
- The contractor shall be entirely responsible for safely excavating into the ground and constructing stable soil slopes. 3.
- 4. Positive drainage shall be provided during construction and maintained throughout the life of the project.
- The contractor shall provide dewatering of excavations from either surface water or seepage. The moisture content in soils prior to excavation should not be allowed to change relevantly after the excavation is made. Concrete for foundations shall not be placed on ground softened from excess water.
- The base of the excavation shall be free of water and loose soil prior to placement of reinforcing or concrete. Ideally, foundation concrete 6 shall be placed the same day when the excavation is made.

# **FOUNDATIONS**:

1. Foundation design is based upon Report prepared by Palmerton & Parrish, Inc.

a. Geotechnical Engineering Report W.W. Hastings Replacement Hospital & Parking Garage Project No: 277340 - February 9, 2022

- Issued Addendum No. 1 - August 18. 2022
  - Addendum No. 2 November 9. 2022
- b. Pier Pre-Drill Results Summary Letter - November 4, 2022 Issued
- c. The soils report will be made available upon request and all recommendations contained in the soils report shall be considered as a requirement for this project unless noted otherwise.
- d. The Geotechnical Engineer is the sole judge of stability of underlying material to support foundations and shall approve bearing material before foundation installation.

2. Minimum design frost & variation in soil moisture depth 24 inches 3. Foundations have been designed for the following: a. Mechanical Yard & Central Energy Plant Shallow foundations Net allowable pressure: 5,000 psf b. Mechanical Pipe Bridge 1. Drilled piers. Per the Pre-Drill Results summary c. Pedestrian Sky Bridge 1. Drilled piers. Per the Pre-Drill Results summary d. Hospital – one (1) story zone, & canopies. 1. Shallow foundations. Net allowable pressure = 3,500 spread footing and 3,000 psf continuous e. Hospital – Multi levels. 1. Drilled piers. Per the Pre-Drill Results summary f. Minimum Footing Depth and Widths: 2'-0" Exterior footing below lowest adjacent grade 2'-6"rc Isolated footing width 1'-6" 3. Continuous footing width 4. Drilled Piers additional requirements during construction:  $\langle a \rangle$  Drilled piers have been proportioned in design with skin friction and end bearing. • Skin friction is ignored when allowable soil bearing capacity exceeds +100 KSF. • End bearing is ignored when allowable end bearing capacity is less than +20 KSF. b. If a drilling requires a steel casing to resist water or soil stability / caving in the drilled shaft, steel casing shall be pulled from the drilled pier to prevent the loss of the skin friction capacity 5. All earthwork and site preparation shall be performed in strict accordance with the specifications and the Geotechnical Report. 6. If the contractor discovers poor soils conditions upon excavation, he shall notify the geotechnical engineer and structural engineer in writing. 7. The geotechnical engineer shall inspect and approve the soil excavation after the footings are excavated and before the concrete for the footings are poured. 8. The contractor shall notify the geotechnical engineer at least 48 hours prior to the inspection. 9. All footings shall be placed on either undisturbed previously compacted controlled fill or undisturbed native soils. 10. Any existing fills or unsuitable soils as determined by the geotechnical engineer shall be excavated and replaced with properly compacted fill. 11. Remove all debris from the excavation before the concrete is poured. 12. All over excavation shall be filled with concrete, engineering fill, or flowable fill. 13. All forms and organic debris shall be removed prior to backfilling. 14. Do not excavate below the bearing excavation of any completed footing nor any closer to the footing than a slope of 2 horizontal (measured from the edge of tooting to nearest point in the excavation) to 1 vertical. 15. Horizontal construction joints in column footings, slabs on grade and matt foundations are not permitted. **CAST-IN-PLACE CONCRETE:** 1. All concrete work shall be in accordance with the "Building Code Requirements for Reinforced Concrete" (ACI 318). 2. All concrete shall develop a minimum ultimate compressive strength in 28 days as noted below, with not less than 550 pounds of Type I/II Portland cement per cubic yard of concrete, regardless of the strengths obtained, maximum w/c ratio of 0.45, with course aggregate size not larger than  $\frac{3}{4}$ " diameter, and a maximum of 4" slump: a. F'c = 4,000 psi (normal weight, air entrained) all exposed concrete flatwork and retaining walls. b. F'c = 4,000 psi (normal weight, air entrained) all foundation concrete (footings, tie beams, stem walls, grade beams and interior concrete walls.) c. F'c = 4,000 psi (normal weight) all interior slabs on grade. d. F'c = 4,000 psi (normal weight) concrete over steel deck. e. F'c = 4,000 psi (normal weight) all other concrete. f. F'c = 8,000 psi at 28 days for non-shrink grout for placement under column base plates. Grout to comply with ASTM C 1107. 3. Concrete may have up to 15% of Portland cement weight replaced with an equivalent weight of an approved Class C or Class F fly ash. 4. All admixtures shall be submitted and noted in mix design for approval by the structural engineer before use. 5. Air entrained exterior exposed concrete and concrete flatwork shall have 6% ± 1% air. 6. No aluminum items shall be embedded in any concrete. 7. All concrete shall be vibrated during placement. 8. Provide <sup>3</sup>/<sub>4</sub>" chamfer on all exposed concrete corners. 9. All concrete is reinforced unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any sections not shown shall be detailed per ACI 315, "Details and Detailing of Concrete Reinforcement", current edition. 10. Concrete Cover Requirements: (Non-Prestressed Construction) a. Concrete placed against and permanently exposed to earth: b. Concrete exposed to earth or weather: #6 bars or larger #5 bars or smaller 1 1/2" c. Concrete not exposed to weather or in contact with ground: 3/4" Slabs, Walls, Joists 1 1/2" Beams and Columns 11. All Concrete Slab-on-Grade shall have construction joints located to form approximate square panels of not more than 250 square feet or as shown on the drawings. See typical details for construction or control joint information. Joints shall generally be on column centerlines. The ratio of the longer dimension to the shorter dimension on any concrete slab panel shall not exceed 1.5 unless noted otherwise. Lap reinforcement bars including corner bars and dowels, in accordance with the Reinforcement Bar Tension Lap Splice Schedule. 12. Cut saw joints in slab-on-grade concrete maximum 8 hours after concrete pour. 13. No conduit or piping larger than 1" I.D. shall be located in concrete members including slabs, unless shown on the structural drawings or approved by the structural engineer. The spacing of the conduit or piping in slabs shall be a minimum of 3 diameters center to center and multiple conduits over a 15" width shall be approved by the structural engineer. No conduit or piping is allowed in concrete over composite deck without the approval of the structural engineer.

## **CONCRETE REINFORCING:**

- 1. Bar reinforcing shall conform to ASTM A615 grade 60 deformed reinforcing steel
- 2. Plain welded wire fabric shall conform to ASTM A185.
- 3. All reinforcement shall be detailed, fabricated and placed in accordance with ACI 315.
- 4. Continuous reinforcement in walls and footings may be spliced as required, provided that bars are the longest practical length and all splices are shown on the reinforcement shop drawings. Splices are to be staggered when possible. Provide lap splices and development lengths in accordance with the Reinforcement Bar Tension Lap Splice Schedule.
- 5. Provide dowels of same size and number from adjacent pour both vertically and horizontally to match typical reinforcing shown unless noted otherwise. Lap bars in accordance with the Reinforcement Bar Tension Lap Splice Schedule.
- 6. Field welding or bending of reinforcing is not permitted except as indicated on the drawings or as approved by the structural engineer.

7. Provide corner bars at all intersections of continuous footings, grade beams and walls to match typical horizontal reinforcing in size and spacing. Extend all bars to far side of intersecting footing, grade beam, or wall unless noted otherwise. Lap reinforcing bars, including corner bars and dowels per the Reinforcement Bar Tension Splice Schedule.

8. The contractor shall submit for approval reinforcement shop drawings including elevations, section cuts, dimension, and schedules showing size and placement of all reinforcement in sufficient detail to be placed without reference to contract documents.

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GENERAL NOTES

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- 1. All concrete masonry units (CMU) shall be normal weight per ASTM C-90 with a minimum net area compressive strength of the concrete masonry units of 1900 psi.
- 2. All CMU shall be assembled using Type "S" mortar per ASTM C 270 with a minimum net area compressive strength f'm = 1500 psi.
- 3. All CMU shall have grout per ASTM C-476 using aggregates that do not exceed 3/8" diameter. Configure proportions of ingredients as required to achieve 3000 psi breaking strength in 28 days per ASTM C-1019.
- 4. All CMU shall have galvanized horizontal joint reinforcement. The joint reinforcement shall be 9 gage deformed wire, ladder-type, set continuously on CMU bed joints not exceeding 16" vertical spacing the full height of wall unless noted otherwise. Provide in first bed joint above and below openings and extend 24" beyond openings.
- 5. All CMU shall be constructed in running bond. Stack bond is not permitted.
- 6. All CMU shall be two-cell type units except lintels which shall be u-shaped units. Bond Beam units may be u-shaped or two-cell type.
- 7. All CMU bond beams and lintels shall be completely grouted. Bond beams at intersecting CMU walls shall meet at the same elevation and the reinforcing shall be lapped as required.
- 8. Any hollow masonry, brick or CMU, in contact with earth shall be grouted solid.
- 9. Add vertical reinforcing bars to all CMU walls at corners, cells adjacent to corners, anchored intersections, each side of openings, each side of control joints and in the last 2 cells at the end of walls. Vertical reinforcement size shall match typical wall reinforcement size unless noted otherwise.
- 10. All CMU vertical voids and horizontal bond beams to be grouted shall be free of debris and mortar droppings prior to grouting. Mortar projections into the grout shall not exceed 1/2" beyond inside face of masonry.
- 11. Reinforcing shall be placed prior to grouting and secured adequately to maintain rigid positioning during grouting. All cells containing reinforcing shall be grouted. Within the grout space, all voids shall be filled solid.
- 12. All reinforcing shall have a minimum coverage of one bar diameter (1/2" min.) of grout. Centered bars shall be securely placed in the center of a cell. Each face bars shall be placed 1" clear of the face shell. Where two layers are required in 8" or smaller block, use one bar in each of two adjacent cells.
- 13. Grout pours in excess of 5'-0" shall have access holes (clean outs) cut out of the bottom face of the void to facilitate debris removal and the check that reinforcing has been properly aligned. All clean-outs shall be inspected prior to plugging and shall be plugged prior to grouting.
- 14. All grout pours shall be constructed in grout lifts not exceeding 5'-0". For pours comprised of several lifts, place the next lift a minimum of 30 minutes after 2nd-vibration of the previous lift.
- 15. Vertical control joints in masonry shall not be located within 2'-0" of openings, unless noted otherwise.
- 16. Maximum spacing of control joints shall be as follows unless noted otherwise. Exterior walls = 30 ft; Interior walls = 40 ft. 17. All reinforcing including the horizontal reinforcement shall be discontinuous at control joints, except for bond beam reinforcing occurring at top of wall.
- 18. Continuous reinforcing in walls may be spliced as required. Provide bars of the longest practical length and all splices shall be shown on the reinforcing shop drawings. Wherever possible, splices shall be staggered.
- 19. Lap all reinforcing bars in masonry in accordance with the masonry lap bar schedule. Horizontal CMU reinforcing shall be continuous around all corners and intersections.
- 20. All vertical reinforcing shall be continuous for full height of wall and doweled into the footing or slab on grade below and extended into the bond beams above. Continuity may be established with lapped splices meeting all indicated requirements.
- 21. Cells containing bolts shall be grouted solid with at least  $\frac{1}{2}$ " grout coverage between the bolt and the CMU at the block face.
- 22. The contractor shall submit for approval CMU reinforcement shop drawings including elevations, section cuts, and schedules showing size and placement of all reinforcement in sufficient detail to be placed without reference to contract documents.

# POST INSTALLED ANCHORS:

- Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.
- Mechanical anchors used in cracked and uncracked concrete shall have been tested and gualified for use in accordance with ACI 355.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.
- Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.
- Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.
- Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC58. All anchors shall be installed per the anchor manufacturer's written instructions.
- 6. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

# **METAL PAN STAIRS**:

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- 1. The contractor shall submit complete stair shop drawings and structural calculations to the architect/engineer. Calculations for the stairs, stair landings, stair members, stair supports, rails, and stair connection design and shop drawings shall be signed and sealed by an engineer registered in the state of which the project is located. The sealed shop drawings and calculations shall be by the same engineer and be submitted together.
- 2. All required embedded angles and plates in concrete for stairs shall be part of the stair design and detailing.
- 3. The concrete strength, thickness, and reinforcement shall be indicated and called out on the shop drawings for all landings and pans designed by the stair manufacturer. The call outs shall include the phrase "By Others" if not supplied by the stair manufacturer.
- 4. Stairs shall be designed for the superimposed dead load, self-weight and live load as indicated below:
  - a. Uniform Load: 100 PSF b. Concentrated Load: 300 lbs applied on an area of 4 square inches.
  - Uniform and concentrated loads need not be assumed to act concurrently.
  - Stair Framing: Capable of withstanding stresses resulting from railing loads in addition to loads specified above. e. Limit deflection of treads, platforms, and framing members to L/360 or 1/4 inch, whichever is less. If members are supported off of primary framing, super imposed deflection of the primary member shall be taken into account.
- 5. Stair handrails and top rails of guards shall be designed for the self-weight and live load as indicated below: a. Uniform Load: 50 PLF applied in any direction.
  - Concentrated Load: 200 lbs applied in any direction. c. Uniform and concentrated loads need not be assumed to act concurrently.
- 6. Stair infill of guards shall be designed for the self-weight and live load as indicated below: a. Concentrated Load: 200 lbs applied horizontally on an area of 1 square foot.
  - b. Infill load and other loads need not be assumed to act concurrently.
- 7. Seismic Performance of Stairs: Metal stairs shall withstand the effects of earthquake motions determined according to ASCE 7 a. Component Importance Factor: 1.5
- 8. Stairs and related items shall comply with the building code.
- 9. Refer to the architectural drawings for stairway dimensions, details, and other requirements.
- 10. Stairs may be supported by the primary structure provided stair framing does not impose eccentric or torsional loading upon the primary framing. Stair reactions shall only impart vertical reaction to building steel support members. Any torsion developed by the stair manufacture shall be resolved with additional steel supplied by the stair manufacturer and documents provided to the SEOR for review prior to fabrication.
- 11. All stair/ rail steel detailing shall be provided in a 3D model in SDS2 version 2021, Steel Detailing Software. The SDS2 model shall be submitted to the SEOR for our design intent and submission review. Additionally, an IFC or NWC model provided to the GC for BIM coordination. All stair shop models shall have a Level of Development (LOD) 400-Fabrication-ready Geometry

# STRUCTURAL STEEL

1. The design, fabrication and erection shall be according to the AISC "Specifications for Structural Steel Buildings."

2. Structural steel shall meet the following minimum yield strengths and specifications:

DESCRIPTION	YIELD	ASTM
Headed Anchor Stud	50 ksi	A108 (Grades 1015 to 1020)
Steel W or WT U.N.O.	50 ksi	A992
Steel Channels and Angles	36 ksi	A36
Structural Bars and Plates	36 ksi	A36
Structural Steel HSS	46 ksi MIN	A500 Grade B or C
Structural Steel Pipe	35 ksi	A53 Grade B
Anchor Rods	36 ksi	F1554 Grade 36
Anchor Rods (Rigid Frames)	55 ksi	F1554 Grade 55 (Weldable)

3. Bolts for steel beam and column connections shall be 3/4" diameter ASTM A325N high-strength bolts, unless noted otherwise.

4. Bolt spacing in steel columns and beams flanges shall be per the AISC Manual, Table 1-1, "Workable Gage". Beams/Columns with flange widths of 4" shall have workable gages of 2  $\frac{1}{4}$ " with a maximum of 5/8" diameter bolts.

5. All bolts shall be tightened to a "Snug Tight" condition and inspected accordingly, unless noted otherwise on plans or connection details.

6. All composite beam connections noted with camber shall only use A325N bolts. a. F1852 Tension Control (TC) bolts will not be allowed, UNO.

7. At composite beam connections indicated on the contract documents where the bolts are indicated as fully tensioned, the dead load due to the placement of the concrete shall be applied prior to fully tensioning the bolts.

8. Welding shall meet ANSI/AWS D1.1 structural welding codes. Electrodes shall be 70 ksi low hydrogen, unless noted otherwise. Any weld sizes shown on the design drawings are considered effective weld sizes and shall be increased in accordance with AWS as required by gaps or skews between components.

9. The contractor shall submit structural steel shop drawings and structural steel connection calculations to the architect/engineer. Connections not specifically detailed on the design document shall be designed under the guidance of a licensed professional engineer registered in the state of which the project is located. The structural steel connection calculations shall be clear, concise, and well organized with page numbers, summary and conclusions submitted to the structural engineer of record for approval. The shop drawings and calculations shall be signed and sealed by the same engineer and be submitted together.

10. Any deviations from the contract documents requirements shall be approved in writing through the proper procedures prior to the submittal of shop drawings and calculations.

1.	Composite beams shall be designed for 50% of its web shear capacity and Non-Composite	Section Size/Nominal Beam Depth
	Deams shall be designed for 40% of its web shear capacity based upon the AISC Table 3-6 "Maximum Total Uniform Load Table" unless noted otherwise (UNO)	W8, W10
	Both shall adhere to the minimum number of bolts identified as follows, UNO.	W12, W14, W16
		\\\/18

Beam Depth	
W8, W10	
W12, W14, W16	
W18	
W21, W24	
W27	
W30, W33, W36	
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- 12. Additional requirements for moment connections are specified in the design documents. These shall be identified in the delegated specialty engineer' (DSEOR) calculation submittal for structural steel connections. Including web panel-zone review w/ required continuity and web-double plates or welds. Unbalanced moment conditions are provided in the contract doccuments are shall be reviewed. All frame moment connections are "FIELD WELDED" connections and shall be designed with the design moments "±M" and beam shear reactions "±V" forces specified on the building elevations and rigid frame elevations. In addition these "FIELD WELDED" moments shall adhear to the additional specified design configuration requirements and design force combinations shown on drawing S-520. The minimum design load for any connection shall be 6 kips (ASD) and 10 kips 3. All framing members shown on the Architectural/Structural drawings shall be considered minimum sizes. The contractor is responsible for (LRFD) regardless of the beam reaction(s) shown on the contract documents. Field bolted moment connections are allowed where approved.
- 13. Provide double nuts and double washers for steel column anchor rods to allow for adjustment in base plate elevation.

14. Place non-shrink grout under all column base plates before placing elevated slabs unless noted otherwise. Place flowable grout under all lateral frames with shear lugs or any base plate with dimensions over 24". Provide the following non-shrink and/or flowable grout under base plates after erection, UNO:

Anchor Rod Diameter	Non-Shrink Grout Thickness*
Up to 1"	1 1/2"
1" to 1 1/2"	2"
1 3/4" to 2"	2 1/2"

If the steel erector does not require leveling nuts under the base plates, then 1 1/2" grout may be used at all locations.

15. Non-shrink and/or flowable grout shall be non-metallic with a minimum compressive strength of 8000 psi at 28 days.

- 16. All anchor rods shall be placed accurately with setting templates and securely held in position while placing concrete. Use 1/8" steel templates at all base plates using 1 1/4" and 1 1/2" diameter anchor rods. Anchor rod tolerances shall be +/-1/8" horizontally and +/- 1/4" vertically.
- 17. Tolerance requirements structural drawings indicate miscellaneous steel elements such as lintels, support members for curtain walls and edge angles for openings and perimeter conditions which are intended to support or be coordinated with materials furnished with other trades. It is the intent of these drawings, that these elements be field attached by field welding or bolting to meet the tolerances required by other trades, which may be more stringent than AISC tolerances for structural steel. Contractor shall coordinate trades and field install miscellaneous steel elements and the structural steel frame to comply with the tolerance criteria for proper installation of materials by other trades.
- 18. Contractor shall protect any unprimed structural steel from detrimental effects of corrosion, as required, until the steel is enclosed and protected by the new construction.
- 19. All steel, directly exposed to the weather or corrosive environments, shall be galvanized or coated with approved products to prevent corrosion, unless noted otherwise.
- a. All exposed interior and exterior steel in "butterfly" clerestories shall minimally recieve SSPC-SP6 Commercial Blast Cleaning surface preparation and coated with high performance primer per architectural paint specification. All exposed steel "butterfly" canopies shall minimally recieve SSPC-SP6 Commercial Blast Cleaning surface

preparation and coated with high performance primer per architectural paint specification.

- 20. Prime paint all steel unless noted. Do not paint elements that are galvanized, receiving fireproofing, or noted otherwise.
- 21. All structural steel embedded in concrete and not permanently exposed to weather shall be unprimed. All structural steel embedded in concrete and permanently exposed to weather shall be hot-dip galvanized in accordance with ASTM A-123.
- 22. Contractor shall coordinate structural steel fireproofing requirements. All interior structural steel scheduled or indicated to receive fireproofing shall be delivered to the project site unprimed.
- 23. Where the work of other trades requires cuts or openings to be made in structural steel members, approval shall be obtained from the structural engineer. Such openings shall be made in the shop and clearly indicated on the shop drawings.
- 24. Beams shall be fabricated with the camber indicated on the plans. Beams without specified camber shall be erected with the standard mill tolerance camber up.
- 25. Do not weld bottom flange braces until all roof dead loads are in place.
- 26. In the event that beam CAMBER for a beam on the job site does NOT meet specified camber on the design documents, contact the SEOR for recommended resolution. Cambers shall be verified prior to erection.
- 27. All perimeter roof beams with type "B" roof deck shall have a connection with a minimum axial capacity of 3k (UNO). Single sided clips may not be used in these perimeter conditions without written permission from the SEOR.
- 28. All structural steel exposed to view both interior and exterior shall be considered Architecturally Exposed Structural Steel (AESS).
- 29. All welds on visually exposed or AESS steel will be ground smooth.
- 30. All moment connection welds that are visible shall have all backer bars removed.
- 31. Hangers for DUCTWORK, piping, electrical conduits, etc shall be hung directly from structural; steel or anchors embedded into concrete (excluding concrete composite floors). All extra support steel is the responsibility of the vendors. For single point loads or accumulative loads exceeding 500# per beam or #2000 per girder, submit official hanging load layout for review.
- 32. FABRICATION Qualification: Fabricator must participate AISC's Quality Certification program and designated an AISC-Certified plant, category STD and an "Approved Fabricator" in accordance with IBC Section 1704.2, "Special Inspection and Tests, Contractors Responsibility and Structural Observations". AISC CERTIFICATION shall be shown clearly on the shop drawings to avoid shop drawings being rejected. Steel fabricator may not sub-out steel fabrication to non-AISC Steel fabrication plants without explicit written approval from the Owners representative.
- 33. <u>All Steel detailing</u> shall be provided in a 3D model in SDS2 version 2022, Steel Detailing Software. A copy of the SDS2 model provided to the SEOR for our use and an IFC or NWC model provided to the GC for BIM coordination & shop drawing / calculation review. The 3D model shall minimally include the following items modeled in place: columns, beams, braces, connections (shear tabs, clips, end plates brace gussets), bolts and bolt holes, dge angles, frame braces, bottom flange braces/kickers, lintels, framed floor & roof openings, gates, stairs, rails, steel jambs & headers, and all cast in pace embeds & anchor rods. Items not explicitly required for 3D models: welds, LG material, floor deck and miscellaneous filler steel, concrete reinforcement not connected to structural steel.
- 34. Allow for 10,000# of structural steel to be used as directed in the field for special conditions or as required by the steel fabricator to complete design connections. 25% shall be bid as AESS steel and 25% should be bid as galvanized angles and plates.

# STRUCTURAL STEEL (CONTINUED)

35. IBC Sec 1616.2.2.1 **Columns**. Each column splice shall have the minimum design strength in tension to transfer the design dead and live load tributary to the column between the splice and the splice or base immediately below. (All loads in the design document are Factored Loads, UNO)

36. IBC Sec 1616.2.2.2 **Beams**. End connections of all beams and girders shall have a minimum nominal axial tensile strength equal to the required vertical shear strength for allowable stress design (ASD) or two-thirds (2/3) of the required shear strength for load and resistance factor design (LRFD) but not less than 10 kips. For the purpose of this section, the shear force and axial tensile force need not be considered to act simultaneously. (All loads in the design document are Factored Loads, UNO)

37. Allow a typical two (2) weeks for review of shop drawings and delegated connection engineering services for each 200 tons of structural

submitted. If larger submittals are anticipated, let the SEOR know in advance so scheduling can be expected, and time allowed.

38. Construction phase for steel with thermal growth (or shrinkage) effects:

- a. The Steel Contractor shall consider +/- construction temperature of the hospital during erection. b. The N/S direction is approximately 388' long and 280' in the E/W (level 2 only). During full erection the steel frames can exceed 1"
- out-to-out due to thermal growth depending upon the construction temperature. c. Note, the largest concern is between the 1<sup>st</sup> and 2<sup>nd</sup> levels. Level 1 is restrained while level 2 changes due to the temperature
- difference. All of the above levels will grow together and has the minimum concern for thermal effects. d. The lateral frames are designed with base plate shear keys at the foundations and could experience up to 5K of shear due to thermal growth of a bear-steel frame from thermal growth. The shear keys are design for up to 100K and not a concern when fully grouted. e. The Steel Contractor should consider allowing for a temporary construction expansion line. Minimum, one (1) bay, in both directions,
- to accommodate the thermal movement. The Steel Contractor shall determine when the temporary expansion connections can be completed to meet the design requirements.

**METAL DECK**:

Min No. of Bolts 4

1. Roof deck:

- a. Roof deck shall be galvanized. Provide deck type and gage thicknesses as shown on the roof framing plans. b. Roof deck shall be required to act as a diaphragm. Connections shall be in accordance with Steel Deck Institute specifications. Refer
- to the roof diaphragm connection detail for attachments. c. Decking to be continuous over a minimum of (3) supports, unless noted otherwise.
- d. Do not suspend loads from the roof deck.
- Composite deck:
- Composite deck shall be galvanized. Provide deck type and gage thicknesses as shown on the floor framing plans. Composite deck design is for unshored construction and shall be a minimum of a 2 span condition
- Provide headed stud placement per the "Headed Stud Shear Connectors Typical Detail" shown on the construction documents.
- d. Do not paint surfaces which receive welded studs. e. Loads exceeding 50 lbs shall not be permitted to be hung from metal decking. Hangers for ductwork, piping, electrical conduits, etc. shall be hung directly from Structural steel or anchors embedded in concrete. Submit hanging load layout for review. f. Loads suspended from composite floor exceeding 50 lbs shall not hung from metal decking. Hangers shall be 24" from adjacent deck hanger, except loads < 25 lbs may be minimally spaced 12" from adjacent deck hangers

# **COLD FORMED METAL FRAMING:**

- 1. All properties, fabrication and erection shall be according to the AISI, "Specification for the Design of Cold-Formed Structural Members".
- 2. All load bearing and exterior cold formed metal studs shall be at least 20 gage with a minimum 33 ksi yield.
- coordination of actual cold formed metal framing sizes with other trades such as structural steel.
- 4. Fabrication of cold formed metal framing shall not begin until shop drawings and calculations have been reviewed, approved, and returned.
- 5. The cold formed metal framing suppliers shop drawings shall include as a minimum the following:
- a. All member sizes
- The size, location and fastening of members. The fastening of the top and bottom tracks to the structure.
- The size and type of vertical slide clips.
- The size and type of vertical deflection top tracks. The size and fastening of headers at all openings.
- g. All screwed and welded connections.
- 6. All cold formed metal framing members shall be designed for the indicated gravity and lateral loads on the contract documents. The cold metal framing supplier shall reference architectural drawings for all openings and material associated with the cold metal framing, unless noted otherwise.
- 7. All cold formed metal framing shall be galvanized and conform to ASTM A653. Galvanized finish shall conform to ASTM A653 with a minimum coating class of G60.
- 8. Cold formed metal framing lateral deflection shall take into account architectural finishes and provide a minimum of the following: a. L/600 of span where exterior finish material is stone, brick, or masonry. b. L/360 of span otherwise.
- All framing members shall be cut as required to fit squarely against abutting members. Splicing of axially-loaded members is not permitted. Members shall be held in place until properly fastened. Attachments shall be made by welds, screws or bolts; wire tying is not permitted.
- 10. All vertically-oriented metal studs shall be framed between continuous top and bottom "C" shaped tracks. Top tracks framed between floors shall have a "Slip" track that allows for vertical deflection of the member the track is attaching too.
- 11. The contractor shall submit, to the structural engineer for review, cold formed metal framing shop drawings to the architect/engineer with design loads indicated and openings shown. Calculations for the member design and connection design and shop drawing shall be signed and sealed by an engineer registered in the state of which the project is located. The sealed shop drawings and calculations shall be by the same engineer and be submitted together for review. The engineer shall have a minimum of 3 years' experience and provide evidence of previous work experience in cold formed metal framing of projects equal is size and complexity.

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## Special Inspections and Tests

The general contractor shall maintain a quality control program separate from the special inspection program provided by the owner. The

The general contractor shall maintain a quality control owner or the owner's authorized agent, other than the o	program separat contractor shall e	e from the sp mploy one o	pecial inspection prog r more approved age	gram provided by the owner. The encies to provide special inspections	Inspections Tasks During Welding			Т
and tests during construction. The contracor/subcontr	ractor(s) shall des esponsible for all	signate a qua subcontracto	ality control represen	tative for each area listed under / control and shall be responsible for	1. Use of qualified welders     2. Control and handling of welding consumables	X		
the entire quality control program.					a. Packaging b. Exposure control	X X		
<ol> <li>General qualifications of inspectors and testing age</li> <li>The testing agencies are required to submit evidence</li> </ol>	ncies: ce of qualification	s to perform	the specified tests		3. No welding over cracked tack welds	X		
b. The inspectors must show evidence of qualifed prof	fessional staff en	ployed to m	ake inspections.		<ul> <li>4. Environmental conditions</li> <li>a. Wind speed within limits</li> <li>b. Precipitation and temperature</li> </ul>	X X		
c. Laboratory testing facilities must be accredited by a	nationally recog	nized agency	y such as The Ameri	can Association for Laboratory	5. Welding procedure specificaitons (WPS) followed:	Y	 AISC 360-10	
Accreditation (AALA), The National Institute of Standar (NAVLAP), or The Washington Area Council Engineeri	rds and Technolo ing Laboratories	gy (NIST), T (WACEL).	he National Volunta	ry Laboratory Accreditation Program	<ul> <li>a. Settings and welding equipment</li> <li>b. Travel Speed</li> <li>c. Selected welding metericle</li> </ul>		Table N5.4-2	
2 The special inspector(s) shall review the project pla	ns specifications	and constr	ruction schedule to b	ecome familiar with the scope of the	<ul> <li>d. Shielding gas type/flow rate</li> <li>e. Preheat applied</li> </ul>	X X		
inspection and testing services required.		, and conou			f. Interpass temperature maintained (min/max) g. Proper position (F,V,H, OH)	X		
3. The special inspector(s) shall keep records of their	inspections.				6. Welding Techniques	x		
4. The special inspector(s) shall furnish inspection rep Responsible Charge. Reports shall indicate that the w	oorts to The Author ork inspected wa	ority Having 、 s done in co	Jurisdiction and the I nformance to the ap	Registered Design Professional in proved construction documents.	<ul> <li>a. Interpass and final cleaning</li> <li>b. Each pass within profile limitations</li> <li>c. Each pass meets quality requirements</li> </ul>			
5. Inspection of contractor's quality control shall includ	le: Verification o	f dimensions	, dimensional tolerar	nce. location and number of items				
supplied; Verification of proper care of construction ma	aterials during per	iods of delet	terious weather cond	litions; and Verification of proper	1. Welds cleaned	X		1
		Constaction			2. Size, lengh and location of welds			
<ol><li>The special inspector(s) shall bring discrepancies to corrected, the special inspector(s) shall bring discrepancies</li></ol>	o the immediate a ncies to the atten	attention of th tion of The A	he contractor for corr Authority Having Juris	rection. If discrepancies are not sdiction and The Registered Design	3. Welds meet visual acceptance criteria			
Professional in Reponsible Charge prior to completion	of that phase of	work.			b. Weld/base-metal fusion			
7. The special inspector(s) shall periodically submit a solution of all discrepancies noted in the inspections at a frequencies	report of inspecti	ons docume	nting required inspec	ctions and method of correction action	d. Weld profiles 22 e. Weld size 25			
		by the Auth		ion but no longer than once per month.	g. Porosity		AISC 360-10 Table N5.4-3	
<ol><li>The special inspector(s) to verify that each fabricate inspection, control of workmanship and the fabricator's</li></ol>	or maintains deta ability to conforr	iled fabrication in to the appr	on and quality contro oved construction do	I proceedures that provide a basis for ocuments and referenced standards.	4. Arc strikes			
The special inspector(s) shall review the proceedures f scope of work. Special inspections are not required whether the special inspection is the special spec	for completeness here the fabricato	and adequa or is apppove	icy relative to the coo ed as described below	de requirements for the fabricator's w.	5. k-area (When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the			
					6. Backing removed and weld tabs removed (if required)	<u> </u>		
9. The special inspection of fabricators are not require perform such work without special inspection per IBC \$	d where the work Section 1704.2.5	t is done on t 1. Approval	the premises of a fat shall be based upor	pricator registered and approved to review of the fabrictor's written	7. Repair activities     >	,		
procedural and quality control manuals and periodic au	uditing of fabricati	on practices letion with th	by an approved spe	cial inspection agency. At completion	8. Document acceptance or rejection of welded joint or member			
10. The constructor shall provide access to the work b	oing inspected to	the special	inspector and shall a	arovido a minimum of ono husinoss dav	Frequency of Inspections for welding:			
notice of the intention of any work required to have spe	ecial inspections.	Regardless	of the notice provide	ed to the special inspector, all work	1. Structural steel and cold-formed steel deck:		AWS D1.1 -	
performed without required special inspection will be su Authority Having Jurisdiction at no cost to the owner.	ubject to removal	and replace	ement at the discretic	on or the Architect, Design Engineer, or			100% Field Welded shall be Ultrasonic	
11. Any rework required due to non-conformance with the owner. Any rework required by the contractor due	the construction	doucments s	shall be performed b	y the contractor at no additional cost to	a. Complete and partial joint penetration groove welds.	,	equal	-
separate the the special inspector(s). Any further inspector	ection(s) and tes	ting that are	required due to non-	conforming work shall be paid by the	b. Multipass fillet welds	,	AWS D1.1 -	-
12. Special inspector(s) and representative of the testi	ing agencies are	not authorize	ed to alter any requir	ements of the contract documents nor	c. Single-pass fillet welds > 5/16"	· · · · · · · · · · · · · · · · · · ·	Penetration - Remaining Visual	-
approve or accept any portion of the work.					e. Single-pass fillet Welds <= 5/16"	X	Inspection	-
13. Structural work requiring special inspection and structural	ructural testings	shall be as li	sted under "Special I	Inspection Tables and Structural Tests"		Х	AWS D1.3 - Visual	
14 The items checked with an "X" shall be inspected i	in accordance wi	th IBC Chan	ter 17 by a certified s	special inspector from an established	T. Floor and root deck welds		Inspection	
testing agency. The testing agency shall send copies	of all structural te	esting and ins	spection reports direct	ctly to the Architect, Structural	1. Manufacturer's certifications available for fastener materials.     >	:		
brought to the attention of the Architect, Contractor, an	id Structural Engi	neer. Speci	al inspection testing	requirments apply equally to all bidder	2. Fasteners marked in accordance with ASTM requirements.	Х		
designed components.					3. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	Х		
15. Continuous Special Inspection means that the spe (IBC Chapter 2). Periodic Special Inspection means the	ecial inspector is nat the special ins	on the site at spector is on	t all times observing site at time intervals	the work requiring special inspection necessary to confirm that all work	4. Proper bolting procedure selected for joint detail.	Х		
requiring special inspection is in compliance.	·				5. Connecting elements, including the approprate faying surface condition and hole preparation, if specified, meet applicable requirements	x	AISC 360-10 Table N5.6-1	
16. Perform these tasks for each welded joint, member	er, element, or bo	olted connec	tion		6. Pre-installation verification testing by installation personnel			
17. The fabricator or erector, as applicable, shall main Stamps, if used, shall be the low-stress type.	itain a system by	which a wel	der who has welded	a joint or member can be identified.	observed and documented for fastener assemblies and methods used.	X		
18. Inspection for prefabricated construction shall be t	he same as if the	e material us	ed in the contruction	took place on site. Continuous	7. Proper storage provided for bolts, nuts, washers and other fastener components	Х		
inspection will not be required during prefactrication if t	he approved age	ncy certifies	the construction and	furnishes evidence of compliance.	Inspection Tasks During Bolting:	I		
19. The Geotechical Report and construction document should also verify compliance	nts shall be used	to determine	e compliance. The C	Geotechnical Engineer	1. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.	Х		
					2. Joints brought to the snug-tight condition prior to the	X		
SPECIAL INSPE	ECTIONS TABLE	S AND STR	UCTURAL TESTS (	Note 14)	3. Fastener component not turned by the wrench prevented from rotating.	X	AISC 360-10 Table N5.6-2	
REQUIRED VERIFICATION OR INSPECTION	CONTINUOUS (Note 16)	PERIODIC (Note 16)	REFERENCED STANDARD	IBC REFERENCE COMMENTS	4. Fasteners are pretensioned in accordance with the RCSC	x		
A. Concrete Construction					point toward the free edges.			
1. Inspect reinforcement and verify placement.		X	ACI 318: 3.5 7.1-7,7	1910.4	Inspection Tasks After Bolting	,	AISC 360-10	1
2. Inspection of reinforcing steel welding and coupling in accordance with Table 1705.2.2, item 2b	Х	x	AWS D1.4; ACI 318: 3.5.2		1. Document acceptance or rejection of bolted connections.		Table N5.6-3	
3 Inspection of anchors cast in concrete prior to and during			ACI 318	1908 5	1. Placement of anchor rods and other embedments supporting			
placement of concrete .		X	8.1.3, 21.2.8	1909.1	structural steel for compliance with the construction documents: a. Diameter	X		
4. Inspection of anchors post-installed installed in hardened		x	ACI 318:	1909.1	D. Grade c. Type d. Embedment Length			
			ACL 318: CH 4 5 2 -		2 Inspection of the fabricated steel or erected steel frame for			
5. Verify use of required design mix.		X	5.4	1904.2.2, 1910.2, 1910.3	compliance with the details shown on the construction documents: a. Braces	x		
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and	x		ASTM C172 ASTM C31	1910.10	<ul> <li>b. Stiffeners</li> <li>c. Member locations</li> <li>d. Proper application of joint details at each connection</li> </ul>	X X		
			AUI 0 10: 0.0, 0.8		3. All shear keys under base plates shall be inspected for debris	X		
techniques.	X		ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8	removal, water removal, and clear of any obstructions prior to placing flowable grout.	X		
8. Inspection for maintenance of specified curing temperature and techniques.		х	ACI 318: 5.11-5.13	1910.9	Inspection of Steel Elements of Composite Construction Prior to Concrete Placement	I	 	
9. Erection of precast concrete members		×	ACI 318 <sup>,</sup> Ch. 16		a. For Welding of Steel Deck. (Visual Inspection per AWS D1.3)			
10. Inspect formwork for shape, location and dimension of the					i) Welding consumables ii) Welding proceedure			
concrete member being formed. B. Structural Steel Construction		^	רט טוט וס. ס. ו. ו ו		Iiii) Specifications       )         iv) Qualifications of welding personnel prior to start of work.       )			
Inspections Tasks Prior to Welding					b. For Attachment other then Welding of Steel Deck i) Fasteners to be used prior to start of work			
1. Welding procedure specifications (WPS's) available	Х			Note 17	ii) Observation of the progress to confirm installation in conformance with manufactuer's recommendations		AISC 360-10 Table N6.1	
<ol> <li>Manufacturer certification for welding consumables available</li> <li>Material identification (type/grade)</li> </ol>	X	x		Note 17	III) Visual Inspection of the completed installation		_	
4. Welder identification system		X		Note 18				
5. Fit-up groove weld (including joint geometry): a. Joint preparation		X			2. Placement and installation of steel headed stud anchors.			
<ul> <li>b. Dimensions (alignment, root opening, root face, bevel)</li> <li>c. Cleanliness (condition of steel surfaces)</li> <li>d. Tooking (took wold swelfty and beset in a standard standard</li></ul>			AISC 360-10 Table N5.4-1				_	
<ul> <li>а. I аскилд (tack weld quality and location )</li> <li>e. Backing type and fit (if applicable)</li> </ul>		) x			3. Document acceptance or rejection of steel elements.         X           Required Verification and Inspection of steel construction other than structural steel         X			
6. Configuration and finish of access holes		x	4		1. Material verification of cold-formed steel deck:			
<ul><li>7. Fit-up of fillet welds:</li><li>a. Dimensions (alignment, gaps at root)</li></ul>		X			a. Identification marking to conform to ASTM standards specified in the approved construction documents.	X	Applicable ASTM material standards	
p. Cleanliness (condition of steel surfaces) c. Tacking (tack weld qualify and location)		) x			h. Manufacturer's certified test reports	х		
				. 1	2. Inspection of welding:			<u> </u>
					a. Cold-formed steel deck: 1) Floor and roof deck welds.	x	AWS D1.3	
					b. Reinforcing steel:	``		
					A 706	X	AWS D1.4 ACI 318: Section	
						· · · · · · · · · · · · · · · · · · ·	3.5.2	L

3) Other reinforcing steel.

	1	C. Soils					
		<ol> <li>Verify materials below shallow foundation are adequate to achieve the design bearing capacity</li> </ol>		x			
		<ol> <li>Verify excavations are extended to proper depth and have</li> </ol>		x			┢
	-	3. Perform classification and testing of compacted fill materials.		X			┢
	1	4. Verify use of proper materials, densities and lift thicknesses	x				$\square$
	_	during placement and compaction of compacted fill.         5. Prior to placement of compacted fill, observe subgrade and		X			╞
		verify that site has been prepared properly.					
		D. Sprayed Fire-Resistant Materials:					Т
		<ol> <li>Verify condition of substrates.</li> <li>a. Structural member surface conditions.</li> <li>b. Mimimum ambient temperature</li> <li>c. Proper venting of area during and after installation.</li> </ol>		X X X		1705.13.2; 1705.13.3	
		2. Verify thickness of application.		Х		1705.13.4	
		3. Verify bond strength adhesion/cohesion.		Х		1705.13.6	
		4. Verify and record the condition of finished application.		X			
		5. Verify mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be in accordance with		x			T
Note 17		AWCI 12-B.				1705.14	
		E. Masonry Construction (Level B Quality Assurance)					<b>—</b>
Note 17		1. Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with ACI 530.1 Specification Article 1.5 B.1.b.3 for self-consolidating grout.		X	TMS 602/ACI 530.1/ASCE 6, Art 1.5 B.1.b.3		
		2. Verification of f'm in accordance with ACI 530.1 Specification Article 1.4B prior to construction except where specifically except by ACI 530.1.		x	TMS 602/ACI 530.1/ASCE 6, Art 1.4B		
Note 17	-	3 . Verify compliance with approved submittals					
Note 17		a. Grout mix design					
Note 17		c. Material Certificates		X	TMS 602/ACI		
Note 17		- Reinforcement - Anchor Ties			530.1/ASCE 6, Art 1.5		
Note 17	_	- Masonry Units		x			
Note 17		Cold weather construction procedures     - Hot weather construction procedures					
	-	4. As masonry construction begins, verify that the following are in compliance:					
	-			x	TMS 602/ACI 530 1/ASCE 6		
Note 9		a . Proportions of site-prepared mortar			Art 2.1, 2.6A		
				x	TMS 602/ACI 530.1/ASCE 6,		
Note 9		b. Construction of mortar joints			Art 3.3B		+
Note 9		c Location of reinforcement and connectors		x	530.1/ASCE 6, Art 3.4, 3.6A		
Note 9		5. Prior to grouting, verify the following are in compliance:					
Note 9				x	TMS 602/ACI 530.1/ASCE 6,		
		a. Grout space			Art 3.2D, 3.2F		_
		b. Grade, type, and size of reinforcement and anchor bolts		X	530.1/ASCE 6, Art 2.4, 3.4		
Note 17				v	TMS 602/ACI		+
	_	c. Placement of reinforcement and connectors		^	Art 3.2E, 3.4, 3.6A		$\downarrow$
		d. Proportions of site-prepared grout		x	TMS 602/ACT 530.1/ASCE 6, Art 2.6B, 2.4 G.1.b		
	-				TMS 602/ACI		┢
		e. Construction of mortar joints		X	530.1/ASCE 6, Art 3.3B		
	-	6. Verify during construction:			TMS 602/ACI		Т
		a. Size and location of structural elements		X	530.1/ASCE 6, Art 3.3F		
		b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction		x	TMS 402/ACI 530/ ASCE 5, Sec. 1.16.4.3, 1.17.1		
					TMS 402/ACI 530/ ASCE 5,		
	_	c. Welding of reinforcing	X		Sec. 2.1.7.7.2, 3.3.3.4c, 8.3.3.4b		
	_	d. Preparation, construction and protection of masonry during cold weather (temperature below 40 deg F (4.4 deg C)) and hot		Х	TMS 602/ACI 530.1/ASCE 6,		T
	-	weather (temperatures above 90 deg. F(32.2 deg C)).			Art 1.8C, 1.8D		
		e. Placement of grout	X		530.1/ASCE 6, Art 3.5, 3.6C		
Note 47	-				TMS 602/ACI 530.1/ASCE 6,		
Note 17		7. Observe preparation of grout specimens, mortar specimens.		X	Art. 1.4 B.2.a.3, 1.4 B.2.b.3; 1.4 B.2.c.3,		
		and/or prisms			1.4 B.3, 1.4 B.4		╞
		G. Cast-In-Place Deep Foudnation Elements					╀
		1. Inspect drilling operations and maintain complete and accurate records	Х				T
		2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable, lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.	x				
		3. For concrete elements, perform tests and additional special inspections in					$\uparrow$
	1						

![](_page_13_Figure_26.jpeg)

Note 17

Note 17 and See Stud Placement Quality Control on Headed Stud Shear Shear Connector Typical Detail.

Note 17

Х

Note 20		
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TMS 402/ACI 530/ ASCE 5.		
Sec. 1.16 TMS 402/ACI 530/ ASCE 5, Sec. 1.16		
Note 18		
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KEY PLAN:							
PROJECT PHASE: BID PACKA (STRUCTURAL CONCRET	GE 04 E / EARTHWORK)						
REVISION:       #     DATE     DE       1     01/06/23     ADDENDUM	S SCRIPTION 04						
JOB NUMBER: 21-08-2 DATE: 12-09-20 SHEET NUMBER: SHEET TITLE:	21 022 <b>5</b>						

![](_page_14_Figure_0.jpeg)

## SLAB ON GRADE NOTES: 1. FINISHED FLOOR EL: +100'-0" = DATUM EL: 919.00' 2. SLAB OPENING / DEPRESSION DIMENSIONS AND LOCATIONS. A. TRADES SHALL COORDINATE WITH THESE DRAWINGS FOR FINAL DEPRESSION LOCATIONS AND DIMENSIONS. DIMENSIOSN SHOWN ARE REFERENCED TO LINKED ARCHITECTURAL MODEL. B. TRADES REQUIRING MINIMUM OPENINGS OR RESTRICTRED LOCATIONS SHOULD VERIFY SLAB INFORMATION WITH THESE DRAWINGS. 3. GC SHALL REVIEW ALL FLOOR OPENING & DEPRESSION REQUIREMENT WITH FINAL MECHANICAL EQUIPMENT . SLAB ON GRADE SYSTEM TYPICAL SLAB ON GRADE (UNO) A. 5" NORMAL WEIGHT CONCRETE (4000 PSI) B. 15ML POLY VAPORT BARRIOR . 4" CRUSHED 3/4" STONE 100 PSF D. SLAB REINFORCEMENT: #4 @ 18" E.W. AND CENTERED IN SLAB, U.N.O. MRI SLAB IS RECESSED 1 1/2" B.F.F. A. 8" NORMAL WEIGHT CONCRETE (4000 PSI) B. 15ML POLY VAPORT BARRIOR C. 8" CRUSHED 3/4" STONE T.B.D. D. SLAB REINFORCEMENT: #4 @ 16" E.W. CENTER IN SLAB NON-METTALIC (FIBERGLAS) ISOLATED PERIMETER W/ NON-METTALIC 3/4" DOWELS F. CONTRACTOR TO REVIEW ADDITIONAL SPECIAL REQUIREMENTS BY MRI VENDOR TYPICAL RECESSED SLAB (UNO)A. MATCH SURROUNDING FLOOR REQUIREMETNS B. ELEVATION PER PLAN (-3" UNO) PER PLAN **ROOMS WITH SPECIAL MEDICAL EQUIPMENT** A. CONTRACTOR TO REVIEW SPECIAL REQUIREMENTS BY MEDICAL EQUIPMENT VENDORS EQUIPMENT NOTES: Below are equipment types identified in Vol 3, on drawing A1.10B and their GE product model numbers being designed for. In all situations the GC shall be familiar with the equipment's vibration specification, equipment's structural notes and all other environment considerations for each item. In all situations the GC may need to contract a vibration consultant to attenuate vibration to meet GE's design specification and implement appropriate solution(s). The project structural documents are limited to slab thickness, suggested isolated floor slabs and the use of non-ferrous slab reinforcement (i.e., ref S4.06 for MRI slab). Below are some items that the GC shall be aware of. i.e. floor flatness, concrete strength minimum and thickness minimum and sub floor mounting plates or slab suppression minimum. MRI Slab Notes (Based on GE Healthcare Signa Artist / Optima MR450W) 1. The Owner may hire a qualified acoustics and vibration engineer to further attenuate the transmitted noise and vibration, if required. 2. Contractor shall supply patient table dock anchors. Anchors shall be electrically conductive and $\sim$ non-magnetic. See Patient Table Dock Anchor Mounting Requirements for additional information. 3. Magnetic room floor specification detail requires floor levelness must be 3 mm between high and low spots as designated. NM (Nuclear Medicine) Slab Notes (Based on GE Healthcare NM830) 1. Concrete strength, f'c, in floor shall be 4,500 psi minimum. 2. Floor surface shall be placed in a single pour. 3. Slope: Within 3mm (0.125 in) over 3048mm (120 in.) 4. Floor levelness must be smooth, with deviations of no more than 5mm (0.195 in.) between depressions and high spots in any 1500mm (59 in.) throughout the room or system area. 5. General contractor may need to contract a vibration consulting. See product Environment (vibration) specifications. 6. Refer to unit specification for gantry anchors (Hilti-HSL-3). The selected anchoring method must have a pulling tensile force of 19.7kN on each of the anchors bolting the NM gantry to the floor.

- CT (COMPUTED TOMOGRAPHY) Slab Notes (Based in GE Healthcare Revolution Apex) 1. Floor slabs on which equipment is to be installed must be level to 1/4" in 10'-0". 2. Refer to unit specifications for gantry anchors installation requirements.
- RF (RADIOGRAPH AND FLUOROSCOPY) Slab Notes (Based on GE Healthcare Discovery RF180) 1. Contractor shall install a grout pad to meet ground a maximum tolerance for leveling of 0.2" per 10 feet. The maximum grout pad thickness is 0.25 inches. 2. Refer to unit specification for underfloor plate anchors.
- 1% SLOPE DOWN OUTWARDS AT BUILDING ENTRANCES CURB SEE CURB PLAN S1.01.5 FOR SLAB EDGE DIMENSIONS NOT SHOWN HERE TYPICAL 2" GAP BETWEEN CURB AND SLAB FOR INSULATION PER ARCH.

![](_page_14_Picture_5.jpeg)

![](_page_14_Picture_14.jpeg)

![](_page_15_Figure_0.jpeg)

-0" EC-2
EC-E
30' - 0"
EC-C
10 - D
EC-B

1-Q P54\* 873.00 54' - 0" 96' - 3" 76' - 0" 1-Q (-10' - 7") P24\* 895.00 96' - 3" 2-A.2 P30 885.50 66' - 6" 96' - 3" 2-B P54\* 881.00 62' - 0" 93' - 3" P48 885.50 2-C 66' - 6" 96' - 3" 2-D P54 879.50 60' - 6" 96' - 3" 57' - 0" 2-E P54 876.00 96' - 3" 37' - 0" 2-F P60 856.00 96' - 3" 886.00 67' - 0" P48 96' - 3" 2-G 2-H P54 881.00 62' - 0" 96' - 3" P48\* 847.50 28' - 6" 96' - 3" P60 851.50 32' - 6" 96' - 3" 2-K P54\* 861.50 42' - 6" 96' - 3" P54\* 874.50 55' - 6" 96' - 3" 2-N 2-P P54\* 876.00 57' - 0" 96' - 3" P54\* 885.75 66' - 9" 2-Q 96' - 3" 3-A.6 P30 890.00 71' - 0" 96' - 3" 883.00 64' - 0" 3-B P54 96' - 3" P48 885.50 66' - 6" 3-C 96' - 3" P54 885.50 66' - 6" 3-D 96' - 3" 3-E P54 881.50 62' - 6" 96' - 3" 3\_F P48 879.50 60' - 6" 96' - 3" 887.50 P48 68' - 6" 3-G 96' - 3" P54 879.00 60' - 0" 96' - 3" 3-H P48 866.00 47' - 0" 96' - 3" P54 872.00 53' - 0" 3-K 96' - 3" P48 855.50 96' - 3" 36' - 6" P60 874.50 55' - 6" 3-N 96' - 3" 3-P P60 876.00 57' - 0" 96' - 3" P66 870.50 51' - 6" 96' - 3" 3-Q P30 889.50 70' - 6" 96' - 3" 4-A.1 882.50 63' - 6" 96' - 3" P42 4-B 4-C P48 883.50 64' - 6" 96' - 3" P48 896.00 77' - 0" 96' - 3" 4-D 70' - 0" P48 889.00 96' - 3" 4-E P48\* 885.00 66' - 0" 4-F 92' - 11" 57' - 0" P60\* 876.00 94' - 5" 4-G 96' - 3" P42 885.50 66' - 6" 4-H P42 886.50 67' - 6" 96' - 3" 4-J 856.00 37' - 0" P60 96' - 3" 4-K 53' - 6" 872.50 P60\* 93' - 3" 4-L 852.00 33' - 0" P36 96' - 3" 4-N 36' - 6" 855.50 96' - 3" 4-P P60 4-Q P42\* 873.50 54' - 6" 94' - 3" 5(-6'-6 3/8")-A(-4 1/4") P30 883.00 64' - 0" 96' - 3 P48 879.00 5-B 60' - 0" 96' - 3" P36 67' - 0" 5-C 886.00 96' - 3" P36 885.50 66' - 6" 96' - 3" 5-D 885.50 66' - 6" P36 96' - 3" 878.50 59' - 6" P36 96' - 3" 5-F P36 889.00 70' - 0" 5-G 96' - 3 5-H P36 883.50 64' - 6" 96' - 3" 883.50 64' - 6" 5-J P36 96' - 3" 49' - 6" P30 868.50 96' - 3" 5-K P72 866.00 47' - 0" 96' - 3" P36 874.00 55' - 0" 96' - 3" 5-N P42\* 886.00 67' - 0" 5-P 95' - 9" 5-Q P48 872.00 53' - 0" 94' - 3 P54 880.50 61' - 6" 6-B 96' - 3" P36 886.50 67' - 6" 6-C 96' - 3" P36 894.00 75' - 0" 6-D 96' - 3" 890.00 71' - 0" 6-E P42 96' - 3" 6-F P48 874.50 55' - 6" 96' - 3" P48 888.00 69' - 0" 6-G 96' - 3" 892.50 73' - 6" P42 96' - 3" 6-H P48 871.00 52' - 0" 96' - 3" 6-.I P48 874.00 55' - 0" 96' - 3" 6-K 872.50 P48 53' - 6" 6-L 96' - 3 P54 47' - 6" 6-N 866.50 96' - 3 6-P P42\* 57' - 6" 876.50 95' - 9 6-P.3 P36 879.50 60' - 6" 94' - 3" 52' - 6" P42 871.50 6-Q 94' - 3" P30\* 882.00 63' - 0" 6.6-Q 93' - 3" 882.00 63' - 0" 7-B P48 96' - 3 7-C P36 890.50 71' - 6" 96' - 3 7-D P36 884.50 65' - 6" 96' - 3 67' - 0" P36 886.00 7-E 96' - 3" P36 888.00 69' - 0" 7-F 96' - 3" 7-P.3 P42\* 872.00 53' - 0" 95' - 9" 7-P.7 P30 887.00 68' - 0" 96' - 3" 7-Q P36 879.00 60' - 0" 94' - 3 8-B P30 887.50 68' - 6" 96' - 3" 66' - 0" 8-C P42 885.00 96' - 3" 890.00 71' - 0" P42 8-D 96' - 3" 71' - 6" P42 890.50 96' - 3" 8-E 67' - 6" 8-F P36 886.50 96' - 3 893.00 9-B P30 74' - 0" 96' - 3" 893.00 74' - 0" 9-0 P30 96' - 3" 74' - 0" P30 893.00 96' - 3" 10-C 77' - 0" 10-D P30 896.00 96' - 3" 890.00 71' - 0" 10-E P30 96' - 3" 10-F P30 882.00 63' - 0" 96' - 3 BR-1-BR-A P66\* 66' - 0" 885.00 95' - 3" BR-1-BR-B P66\* 885.00 66' - 0" 95' - 3" BR-2-BR-A 66' - 6" 95' - 3" 885.50 BR-2-BR-B 885.50 66' - 6" 95' - 3" P60\* CP-3.6-MB-A 886.00 67' - 0" 97' - 3" P30\* CP-3.6-MB-B P30\* 886.00 67' - 0" 97' - 3" CP-4-MB-A 97' - 3" 886.00 67' - 0" P30\* CP-4-MB-B 67' - 0" 97' - 3" P30\* 886.00 MB-1-MB-A P30\* 886.00 67' - 0" 97' - 3" 67' - 0" 97' - 3" MB-1-MB-B P30\* 886.00 MB-2-MB-A P24\* 896.00 77' - 0" 97' - 3" MB-2-MB-B 77' - 0" 97' - 3" P24\* 896.00 S1-R P30 883.00 64' - 0" 96' - 3" S1-R3 P24\* 895.50 76' - 6" 96' - 9" S2-R P24 883.00 64' - 0" 96' - 3" 64' - 0" S3-R 883.00 96' - 3" P24 895.50 76' - 6" S3-R3 P24\* 96' - 9" S4-R 883.00 64' - 0" 96' - 3" P30 S5-R 883.00 96' - 3" P24 64' - 0" S5-R3 P24\* 895.50 76' - 6" 96' - 9" S6-R P30 883.00 64' - 0" 96' - 3" S7-R 883.00 64' - 0" P24 96' - 3" S7-R3 895.50 76' - 6" 96' - 9" P24\* S8-R P24 883.00 64' - 0" 96' - 3" S9-R P30 883.00 64' - 0" 96' - 3" Grand total: 132

![](_page_15_Picture_3.jpeg)

DRILLED PIER NOTES

LOCATION

0.9-B.6

1-A

1-B

1-B.3

1-C

1-D

1-F

1-G

1-H

1-J

1-K

1-N

1-P

PIERS TAGGED WITH AN ASTERISK (\*) IS NOT TYPICAL SEE OVERALL AND SECTOR FOUNDATION PLANS OR FOUNDATION DETAILS FOR NON-TYP Α.

P30

P30

P36\*

P36\*

P42

P42

P48

P36

P42

P54

P36

P48\*

P54\*

P48\*

P54\*

CAP DIMENSIONS.

PILE SCHEDULE

898.0

881.00

885.00

881.50

878.50

887.50

858.50

872.50

854.50

876.50

853.50

868.50

875.00

873.00

873.50

TYPEBOT OF PIERBOT OF PIERTOP OF PIERMARK(TRUE MSL)(PROJECT)(PROJECT)

79' - 0

62' - 0"

66' - 0"

62' - 6"

59' - 6"

68' - 6"

39' - 6"

53' - 6"

35' - 6"

57' - 6"

34' - 6"

49' - 6"

56' - 0"

54' - 0"

54' - 6"

96' - 3"

96' - 3"

93' - 3"

93' - 3"

96' - 3"

96' - 3"

96' - 3"

96' - 3"

96' - 3"

96' - 3"

96' - 3"

96' - 3

96' - 3"

96' - 3"

96' - 3"

SEE ELEVATOR PIT PLAN FOR ADDITIONAL PIERS NOT INCLUDED ON THIS DRAWING. FINISHED FLOOR EL: +100'-0" = CIVILE DATUM EL: 919.00 4. TOP OF PIER ELEVATION IS 96'-3" = CIVIL DATUM 915.25 U.N.O.

D	IC	C	A	L PIER
E	1	V	G	iTH
132	747		-	3" 3" 3"
2 3 3	6	)' ;'	-	9" 9"
2 5 4	7 6 2	, ' , '	- - -	9" 9" 9"
63	0 8	)' ;'	-	9" 9"
0 4 4	6 0	;' )'	- -	9 9" 3"
4 4 4	2 1 2	· · ·	- - -	3" 9" 3"
2 2	9	)' )'	-	3" 9"
3 2 3	1 9 5	)' )'	- - -	3" 9" 9"
3 5 2	999	)' )' )'	-	3" 3" 3"
3 6	4		-	3" 9"
6 5 4	3 3 0	)' )'	- - -	9" 9" 9"
32	9	)' )'	-	3" 6" 3"
2 3 2	2 9	,	- - -	3" 9"
2 3 3	9 3 5	)' ;'	-	9" 9" 9"
23	7 6 6	, ''	-	9" 3" 2"
4 5	9 3 9	)' ;'	- - -	3" 3" 9"
43	09	)' )'	-	9" 3" o"
4 2 3	4 5 2	.' .'	- - -	9" 9" 9"
3	1 9 6	' )'	-	9" 3" 3"
20	5' 7	, ,,	- -	5 11" 5"
2 2 5	9 8 9	)' ;'	- - -	9" 9" 3"
3 6	9	)' ;'	-	9" 3"
5 3 3	9 9 2	)' )'	- - -	9" 9" 3"
3	6 9	;' )'	-	3" 3"
23	9 9 6	)' )'	- - -	9" 9" 9"
233	6 1	;' '	-	3" 9" 0"
4 4	6 9	;' )'	- -	9 9" 3"
4 2 4	1	'	-	3" 9" 3"
3 2	4	.' ;'	-	9" 9"
2 2 4	1 5 0	' ;'	- - -	3" 3" 9"
2	7		-	3" 9"
4 4 4	4 1 2		- - -	3" 3" 9"
43	8	;	-	9" 3" q"
3 4 3	1 0	' '	- -	9" 3"
32	3 4 0	; ; ; ;	-	3" 9" 9"
2	9 7	)' ''	-	3" 3"
4 2 3	2 8 4	: : :	- - -	9" 3" 3"
23	7	, )'	-	9" 3"
2 2 2	5 4 8	)' .'	- - -	3" 9" 9"
2	2		-	3" 3" 3"
2 1 2	2 9 5	)' ;'	- -	3" 3"
322	39	    	-	3" 3" 3"
2 2	8	;'	-	9" 9"
3 3 3	0000	)' )' )'	-	3" 3" 3"
3	0	)' )'	-	3" 3"
3 2 2	0	)' )'	-	3" 3" 3"
3	2	)' )' )'	-	3" 3" 2"
3 3 2	2	: 	- - -	3" 3"
33	2 2 1		-	3" 3" 3"
2 3 3	ປ 2 2	/  '	- -	3" 3"
23	0 2 2	)' )'	-	3" 3" 3"
2	4		1	-

![](_page_15_Picture_9.jpeg)

![](_page_16_Figure_0.jpeg)

# CURB: CB-WIDTH (in) DEPTH = 1' - 6"

NOMENCLATURE

NOTES \*SEE OVERALL FOUNDATION PLAN FOR GRID DIMENSIONS AND ADDITIONAL NOTES. \*TOP OF CURB = 100' - 6" U.N.O.

# 2 01 CURB PLAN MECHANICAL AREA 1/16" = 1'-0"

![](_page_16_Figure_5.jpeg)

![](_page_16_Figure_6.jpeg)

![](_page_16_Picture_7.jpeg)

![](_page_17_Figure_0.jpeg)

SLAB NOTE	S:
1. SLAB OF	PENING / DEPRESSION DIMENSIONS AND LOCATIONS.
A. TRAI	DES SHALL COORDINATE WITH THESE DRAWINGS FOR FINAL DEPRESSI ATIONS AND DIMENSIONS. DIMENSIONS SHOWN ARE REFERENCED TO I
ARC	
B. TRAL VERI	JES REQUIRING MINIMUM OPENINGS OR RESTRICTED LOCATIONS SHOU IFY SLAB INFORMATION WITH THESE DRAWINGS.
2. SEE 2/S1	I. <b>05.2</b> FOR TYPICAL RECESSED SLAB & PERIMETER
A. <u>EXC</u>	EPT BENEATH IDENTIFIED TYPE-3 FLOORS: 3" SLAB SUPPRESSIONS
B. TYPE ON F	=-3 SLAB RECESSES ONLY OCCUR OVER  2" COMPOSITE DECK WHERE IL PLAN.
4. THE GC	SHALL REVIEW ALL MECHANICAL FLOOR OPENING REQUIREMENTS WITH
5. ANY MA	IN STRUCTURAL STEEL BEAM PENETRATING AN OAHU FLOOR OPENING
NOT BE	MODIFIED OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SEOR
	TYPICAL FLOOR SYSTEM
	TYPE 1: TYPICAL COMPOSITE FLOOR (UNO)
	<ul> <li>A. FIRE RATING: 2 HOURS w/ UNPROTECTED DECK.</li> <li>B. TOTAL THICKNESS: 7 ½" = 3" DECK + 4 ½" COVER.</li> </ul>
<b>75 PSF</b>	C. 3" VLI COMPOSITE DECK, 20 GA G60.
	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 2: FLOOR AT 3" SLAB RECESSED ZONES
	<ul> <li>A. FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO</li> <li>B. TOTAL THICKNESS: 4 1/2" = 2" DECK + 2 1/2" COVER</li> </ul>
75 PSF	C. 2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.
701.01	D. % DIA. x 3 1/2" LONG HSA. E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W2 1xW2 1
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 3: FLOOR AT "ADJACENT" TO 3" SLAB RECESSED ZONES
	<ul> <li>A. FIRE RATING: 2 HOURS w/ UNPROTECTED DECK.</li> <li>B. TOTAL THICKNESS: 7 ½" = 2" DECK + 5 ½" COVER.</li> </ul>
80 PSF	C. 2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.
	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 4: ROOF AT AMBULATORY ENTRANCE
N/A	A. FIRE RATING: 1.5 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PRI B. TOTAL THICKNESS: $4 \frac{1}{2}$ " = 1.5" DECK + 3" COVER.
45 PSF	C. 1.5" VLI COMPOSITE DECK, 20 GA G60.
	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W1.4.1xW1.4.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
IN/A	<ul> <li>B. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER.</li> </ul>
69 PSF	C. 3" VLI COMPOSITE DECK, 20 GA G60. D. <sup>3</sup> / <sub>4</sub> " DIA, x 5" LONG HSA.
	E. CONCRETE 4 KSI.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 6: STORAGE PENTHOUSE (LEVEL 7)
	<ul> <li>B. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER</li> </ul>
69 PSF	C. 3" VLI COMPOSITE DECK, 20 GA G60. D. ¾" DIA. x 5" LONG HSA.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
N/A	TYPE 7: PENTHOUSE ROOF
5 PSF	B. 1 ½" "B"18 GA.
	TYPE 8: NORTH CANOPY, CAR PORT, EAST CANOPY AND AS NOTED
N/A	A. FIRE RATING: NOT REQUIRED B 1 ½" "B"20 GA
2 PSF	
	A. FIRE RATING: 1.5 HOURS w/ UNPROTECTED DECK.
N/A	B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER C. 2" VLI COMPOSITE DECK 20 GA G60
63 PSF	D. $\frac{3}{4}$ " DIA. x 4 $\frac{1}{2}$ " " LONG HSA.
	E. CONCRETE 4 KSI. F. DECK SHORING NOT REQUIRED.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
[]	
	I YPE 10: ELEVATOR HOUSE (HELIPAD AND OVERHEAD LEVELS)A.FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO
	B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER C 2" VI L COMPOSITE DECK 20 GA G60
63 PSF	D. $\frac{3}{4}$ " DIA. x 4 $\frac{1}{2}$ " " LONG HSA.
	E. CONCRETE 4 KSI. F. DECK SHORING NOT REQUIRED.
	G. SLAB REINFORCEMENT 6x6-W2 1xW2 1

# PRESSION ICED TO LINKED NS SHOULD

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SLAB REINFORCEMENT: 6x6-W2.1xW2.1. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS

![](_page_17_Picture_12.jpeg)

![](_page_18_Figure_0.jpeg)

SLAB NOTE	ES:
1. SLAB O	PENING / DEPRESSION DIMENSIONS AND LOCATIONS.
A. TRA	ADES SHALL COORDINATE WITH THESE DRAWINGS FOR FINAL DEPRESSION
ARG	CHITECTURAL MODEL.
B. TRA	ADES REQUIRING MINIMUM OPENINGS OR RESTRICTED LOCATIONS SHOULD
2. SEE 2/S	31.05.2 FOR TYPICAL RECESSED SLAB & PERIMETER
3. ALL CO	MPOSITE BEAM STUDS ARE 4 1/2" LONG <b>CEPT</b> BENEATH IDENTIFIED TYPE-3 FLOORS: 3" SLAB SUPPRESSIONS
B. TYF	2E-3 SLAB RECESSES ONLY OCCUR OVER 2" COMPOSITE DECK WHERE IDENTIFI
4. THE GC	PLAN. SHALL REVIEW ALL MECHANICAL FLOOR OPENING REQUIREMENTS WITH FINAL
MECHA	
5. ANY M/ NOT BE	MODIFIED OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SEOR
	TTFICAL FLOOR STSTEM
	A. FIRE RATING: 2 HOURS w/ UNPROTECTED DECK.
	B. TOTAL THICKNESS: $7 \frac{1}{2}$ " = 3" DECK + 4 $\frac{1}{2}$ " COVER.
75 PSF	D. $3^{*}$ DIA. x 4 1/2" LONG HSA.
	E. CONCRETE 4 KSI.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
	TYPE 2: FLOOR AT 3" SLAB RECESSED ZONES
	A. FIRE RATING: 2 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PROTECTIO B. TOTAL THICKNESS: $4 \frac{1}{2}$ " = 2" DECK + 2 $\frac{1}{2}$ " COVER.
75 PSF	C. 2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.
	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
	TYPE 3: FLOOR AT "ADJACENT" TO 3" SLAB RECESSED ZONES
	A. FIRE RATING: 2 HOURS w/ UNPROTECTED DECK.
	<ul> <li>B. TOTAL THICKNESS: 7 ½" = 2" DECK + 5 ½" COVER.</li> <li>C. 2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.</li> </ul>
80 PSF	D. <sup>3</sup> / <sub>4</sub> " DIA. x 5" LONG HSA.
	F. DECK SHORING NOT REQUIRED.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1. H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
[]	
N/A	A. FIRE RATING: 1.5 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PROTECT
	B. TOTAL THICKNESS: $4 \frac{1}{2}$ " = 1.5" DECK + 3" COVER.
45 PSF	D. $\frac{3}{2}$ DIA. x 3 $\frac{1}{2}$ LONG HSA.
	E. CONCRETE 4 KSI. F. DECK SHORING NOT REQUIRED.
	G. SLAB REINFORCEMENT: 6x6-W1.4.1xW1.4.
	Π. ANY ADDITIONAL SLAD REINFORCEMENT, REFERENCE SLAD PLANS
N/A	TYPE 5: ROOF (LEVEL 7) A FIRE RATING: 1.5 HOURS w/ UNPROTECTED DECK
	B. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER.
69 PSF	C. 3° VLI COMPOSITE DECK, 20 GA G60. D. ¾" DIA. x 5" LONG HSA.
	E. CONCRETE 4 KSI.
	G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
	TYPE 6: STORAGE PENTHOUSE (LEVEL 7)
N/A	<ul> <li>A. FIRE RATING: 2 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PROTECTIO</li> <li>B. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER</li> </ul>
69 PSF	C. 3" VLI COMPOSITE DECK, 20 GA G60.
	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
	TYPE 7: PENTHOUSE ROOF
	<ul> <li>A. FIRE RATING: 1.5 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PROTECTION</li> <li>B. 1 1/3" "B"18 GA.</li> </ul>
5 PSF	
N/A	A. FIRE RATING: NOT REQUIRED
2 PSF	B. 1 ½" "B"20 GA.
	TYPE 9: ELEVATOR HOUSE ROOF
N/A	<ul> <li>A. FIRE RATING: 1.5 HOURS W/ UNPROTECTED DECK.</li> <li>B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER</li> </ul>
	C. 2" VLI COMPOSITE DECK, 20 GA G60.
63 PSF	E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS
	TYPE 10: ELEVATOR HOUSE (HELIPAD AND OVERHEAD LEVELS)
	A. FIRE RATING: 2 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PROTECTIO
62 DOF	C. 2" VLI COMPOSITE DECK, 20 GA G60.
03 MSF	D. ¾" DIA. x 4 ½" " LONG HSA.
	F. DECK SHORING NOT REQUIRED.
	<ul> <li>G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.</li> <li>H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS</li> </ul>

# PRESSION ICED TO LINKED ONS SHOULD

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E SLAB PLANS <u>LS)</u> ON PROTECTION.

![](_page_18_Picture_13.jpeg)

![](_page_19_Figure_0.jpeg)

AB Ti	3 OPENING / D RADES SHAL	EPRESSION DIMENSIONS AND LOCATIONS. L COORDINATE WITH THESE DRAWINGS FOR FINAL DEPRESSION
L( A T	OCATIONS AI RCHITECTUF RADES REQU	ND DIMENSIONS. DIMENSIONS SHOWN ARE REFERENCED TO I ≀AL MODEL. JIRING MINIMUM OPENINGS OR RESTRICTED LOCATIONS SHOL
V E <b>2</b> L C	/ERIFY SLAB I <b>2/S1.05.2</b> FOR COMPOSITE E	NFORMATION WITH THESE DRAWINGS. TYPICAL RECESSED SLAB & PERIMETER BEAM STUDS ARE 4 1/2" LONG
<u>Е</u> Т О	EXCEPT BENE YPE-3 SLAB F ON PLAN.	ATH IDENTIFIED TYPE-3 FLOORS: 3" SLAB SUPPRESSIONS RECESSES ONLY OCCUR OVER 2" COMPOSITE DECK WHERE II
IE ( ECF NY	GC SHALL RE HANICAL EQU MAIN STRUC	VIEW ALL MECHANICAL FLOOR OPENING REQUIREMENTS WITH JIPMENT . TURAL STEEL BEAM PENETRATING AN OAHU FLOOR OPENING
)t e	BE MODIFIED	OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SEOR
$\overline{\}$	TYPE 1	: TYPICAL COMPOSITE FLOOR (UNO)
	A.	FIRE RATING: 2 HOURS W/ UNPROTECTED DECK.
SF	D. C.	3" VLI COMPOSITE DECK, 20 GA G60.
	D. E.	CONCRETE 4 KSI.
	F. G.	DECK SHORING NOT REQUIRED. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H.	ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	<u>TYPE 2</u> : A.	: FLOOR AT 3" SLAB RECESSED ZONES FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO
	B. C	TOTAL THICKNESS: 4 ½" = 2" DECK + 2 ½" COVER. 2" VI I COMPOSITE DECK 18 or 20 GA G60 WHERE IDENTIFIED
SF	D.	<sup>3</sup> / <sup>2</sup> DIA. x 3 1/2" LONG HSA.
	E. F.	DECK SHORING NOT REQUIRED.
	G. H.	SLAB REINFORCEMENT: 6x6-W2.1xW2.1. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
$\square$	TYPE 3	FLOOR AT "ADJACENT" TO 3" SLAB RECESSED ZONES
	А. В.	FIRE RATING: 2 HOURS w/ UNPROTECTED DECK. TOTAL THICKNESS: 7 ½" = 2" DECK + 5 ½" COVER.
SF	C. 2	2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.
	E.	CONCRETE 4 KSI.
	F. G.	DECK SHORING NOT REQUIRED. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	Н	ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	<u>TYPE 4</u>	: ROOF AT AMBULATORY ENTRANCE FIRE RATING: 1.5 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PR
	B.	TOTAL THICKNESS: $4 \frac{1}{2}$ " = 1.5" DECK + 3" COVER.
SF	D.	1.5" VLI COMPOSITE DECK, 20 GA G60. ¾" DIA. x 3 ½" LONG HSA.
	E. F	CONCRETE 4 KSI. DECK SHORING NOT REQUIRED
	G. H.	SLAB REINFORCEMENT: 6x6-W1.4.1xW1.4. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 5	: ROOF (LEVEL 7)
	A. B	FIRE RATING: 1.5 HOURS w/ UNPROTECTED DECK. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER
SF	C.	3" VLI COMPOSITE DECK, 20 GA G60.
	E.	CONCRETE 4 KSI.
	F. G.	DECK SHORING NOT REQUIRED. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	Н	ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	<u>TYPE 6</u>	: STORAGE PENTHOUSE (LEVEL 7) FIRE RATING: 2 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PRO
	B.	TOTAL THICKNESS: 7" = 3" DECK + 4" COVER
SF	D.	3 VELCOMPOSITE DECK, 20 GA G60. ¾" DIA. x 5" LONG HSA.
	E. F.	CONCRETE 4 KSI. DECK SHORING NOT REQUIRED.
	G. H.	SLAB REINFORCEMENT: 6x6-W2.1xW2.1. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 7	: PENTHOUSE ROOF
F	А. В.	FIRE RATING: 1.5 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PR 1 ½" "B"18 GA.
	TYPE 8	NORTH CANOPY, CAR PORT, EAST CANOPY AND AS NOTED
F	А. В.	FIRE RATING: NOT REQUIRED 1 ½" "B"20 GA.
•	<u>TYPE 9</u>	: ELEVATOR HOUSE ROOF
	A. R	FIRE RATING: 1.5 HOURS w/ UNPROTECTED DECK.
	C.	2" VLI COMPOSITE DECK, 20 GA G60.
SF	D. E.	¾ DIA. X 4 ½ TLONG HSA. CONCRETE 4 KSI.
	F.	DECK SHORING NOT REQUIRED. SLAB REINFORCEMENT: 6x6-W2 1xW2 1
	н.	ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL

- TYPE 10: ELEVATOR HOUSE (HELIPAD AND OVERHEAD LEVELS)
  A. FIRE RATING: 2 HOURS W/ CEMENTITIOUS FIRE SPRAY ON PROTECTION.
  B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER
  C. 2" VLI COMPOSITE DECK, 20 GA G60.
  D. ¾" DIA. x 4 ½" " LONG HSA.
  E. CONCRETE 4 KSI.
  F. DECK SHORING NOT REQUIRED.
  G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
  H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS

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E SLAB PLANS

![](_page_19_Picture_14.jpeg)

![](_page_20_Figure_0.jpeg)

# 2 RECESSED SLAB AT PERIMETER 1" = 1'-0"

![](_page_20_Picture_2.jpeg)

1' - 0"

				SLAE	NOTES:				
				1. S A	SLAB OPEN A. TRADES LOCATIO ARCHIT	ING / DEPRES S SHALL COOF ONS AND DIM ECTURAL MO	SSION DIMENSION RDINATE WITH TH ENSIONS. DIMEN DEL.	IS AND LOCATIONS. IESE DRAWINGS FOI ISIONS SHOWN ARE	R FINAL DEPRESSI REFERENCED TO
				E 2. S 3. A A	3. TRADES VERIFY SEE <b>2/S1.05</b> All Compc A. <u>Except</u>	5 REQUIRING SLAB INFORM 5.2 FOR TYPIC, DSITE BEAM S <u>I</u> BENEATH ID	MINIMUM OPENIN /ATION WITH THE AL RECESSED SL TUDS ARE 4 1/2" L ENTIFIED TYPE-3	IGS OR RESTRICTED SE DRAWINGS. AB & PERIMETER -ONG FLOORS: 3" SLAB SL	JPPRESSIONS
				E 4. T 5. A N	3. TYPE-3 ON PLA THE GC SH/ MECHANIC/ ANY MAIN S NOT BE MO	SLAB RECESS N. ALL REVIEW A AL EQUIPMEN STRUCTURAL DIFIED OR MC	SES ONLY OCCUF ALL MECHANICAL T . STEEL BEAM PEN OVED WITHOUT W	R OVER 2" COMPOSI FLOOR OPENING RE NETRATING AN OAHU /RITTEN APPROVAL	TE DECK WHERE I QUIREMENTS WIT J FLOOR OPENING FROM THE SEOR
					T T	<u>YPICAL FLOO</u> YPE 1: TYPIC	<u>R SYSTEM</u> CAL COMPOSITE I	LOOR (UNO)	
				75	A B PSF D E G H	. FIRE RA . TOTAL 3" VLI C . 34" DIA. . CONCR . DECK S 5. SLAB R . ANY AD	ATING: 2 HOURS & THICKNESS: 7 ½" COMPOSITE DECK X 4 1/2" LONG HS RETE 4 KSI. SHORING NOT RE EINFORCEMENT: DDITIONAL SLAB F	v/ UNPROTECTED DI = 3" DECK + 4 ½" CO (, 20 GA G60. A. QUIRED. 6x6-W2.1xW2.1. REINFORCEMENT, RE	EFERENCE SLAB P
				75	PSF D G H	YPE       2: FLOOI         .       FIRE RA         .       TOTAL         .       2" VLI C         .       34" DIA.         .       CONCR         .       DECK S         .       SLAB R         .       ANY AD	R AT 3" SLAB RE( ATING: 2 HOURS V THICKNESS: 4 ½" COMPOSITE DECK x 3 1/2" LONG HS RETE 4 KSI. CHORING NOT RE EINFORCEMENT: DITIONAL SLAB F	CESSED ZONES w/ CEMENTITIOUS FII = 2" DECK + 2 ½" CO , 18 or 20 GA G60, WI A. QUIRED. 6x6-W2.1xW2.1. REINFORCEMENT, RE	RE SPRAY ON PRO VER. HERE IDENTIFIED. EFERENCE SLAB PI
				80 1	PSF C F G H	YPE 3: FLOOI	R AT "ADJACENT ATING: 2 HOURS & THICKNESS: 7 ½" COMPOSITE DECK x 5" LONG HSA. RETE 4 KSI. SHORING NOT RE EINFORCEMENT: DITIONAL SLAB F	<u><b>" TO 3" SLAB RECE</b></u> w/ UNPROTECTED DE = 2" DECK + 5 ½" CO a, 18 or 20 GA G60, WI QUIRED. 6x6-W2.1xW2.1. REINFORCEMENT, RE	<u>SSED ZONES</u> ECK. VER. HERE IDENTIFIED.
				N/ 45 I	A A B C D E G G	YPE         4: ROOF           .         FIRE R/           .         TOTAL           .         1.5" VLI           .         ¾" DIA.           .         CONCR           .         DECK S           .         SLAB R	AT AMBULATOR ATING: 1.5 HOURS THICKNESS: 4 ½" COMPOSITE DEC x 3 ½" LONG HSA RETE 4 KSI. SHORING NOT RE EINFORCEMENT:	Y ENTRANCE 6 w/ CEMENTITIOUS F = 1.5" DECK + 3" COV CK, 20 GA G60. QUIRED. 6x6-W1.4.1xW1.4.	FIRE SPRAY ON PR
				N/ 69 I	A A B C C PSF D F G	YPE 5: ROOF FIRE RA TOTAL 3" VLI C 34" DIA. CONCR CONCR DECK S SLAB R	(LEVEL 7) ATING: 1.5 HOURS THICKNESS: 7" = 3 COMPOSITE DECK x 5" LONG HSA. RETE 4 KSI. SHORING NOT RE EINFORCEMENT:	W/ UNPROTECTED 3" DECK + 4" COVER 4, 20 GA G60. QUIRED. 6x6-W2.1xW2.1.	DECK.
				N/ 69 I	H A A B C PSF D F G	YPE     6: STOR       FIRE     R4       TOTAL       3" VLI C       3" VLI C       34" DIA.       CONCR       DECK S       SLAB R	AGE PENTHOUSE ATING: 2 HOURS & THICKNESS: 7" = 3 COMPOSITE DECK x 5" LONG HSA. RETE 4 KSI. CHORING NOT RE EINFORCEMENT:	REINFORCEMENT, RE (LEVEL 7) (CEMENTITIOUS FII 2" DECK + 4" COVER 20 GA G60. QUIRED. 6x6-W2.1xW2.1.	FERENCE SLAB P
				N/		. ANY AL YPE 7: PENTI . FIRE RA . 1 ½" "B"	HOUSE ROOF ATING: 1.5 HOURS '18 GA.	S w/ CEMENTITIOUS F	FERENCE SLAB P
				N/ 2 P	A A PSF	<u>YPE 8: NORT</u> . FIRE RA . 1 ½" "B"	<b>H CANOPY, CAR I</b> ATING: NOT REQL '20 GA.	P <b>ort, East Canop</b> Jired	<u>( AND AS NOTED</u>
				N/ 63 I	A A B C D PSF E F	YPE         9: ELEVA           FIRE RA         TOTAL           2" VLI C         ¾" DIA.           CONCR         DECK S	ATOR HOUSE ROO ATING: 1.5 HOURS THICKNESS: 6" = 3 COMPOSITE DECK x 4 ½" " LONG HS RETE 4 KSI. CHORING NOT RE	<b>DF</b> 8 w/ UNPROTECTED 2" DECK + 4" COVER 4, 20 GA G60. A. QUIRED.	JECK.
					G H T	6. SLAB R 1. ANY AD YPE 10: ELEV	EINFORCEMENT: DITIONAL SLAB F /ATOR HOUSE (HI	6x6-W2.1xW2.1. REINFORCEMENT, RE ELIPAD AND OVERH	EFERENCE SLAB PI
				63 I	PSF D F G H	. TOTAL 2" VLI C 34" DIA. CONCR CONCR DECK S SLAB R ANY AD	THICKNESS: 6" = 3 COMPOSITE DECK x 4 ½" " LONG HS RETE 4 KSI. CHORING NOT RE EINFORCEMENT: DDITIONAL SLAB F	QUIRED. 6x6-W2.1xW2.1. REINFORCEMENT, RE	EFERENCE SLAB P
- 6"	L								
1' - 6" 1' - 4"	f 1' - 0" GF	(	6' - 0" 2) 36" SHEETS 2 VLI DECK			REM 36" SHEET	IAINING S 3 VLI DECK	_ <del>/</del>	
2 1/2" ME	     		GROUT FILLED FOR TILED SHOWE	ĒR		FI ∫3'	LOOR TYPE-1: 7 1 " COMPOSITE DEC	/2" DEEP CK & 4 1/2" NW CONC	<b>)</b> .
			FLOOR TYPE-3: 4 1/2" DEEP 2" COMPOSITE DECK & 2 1/2" NW ( W/ 3/4"Ø x 3 1/2" LONG HSA ANCH(	CONC. ORS			// 3/4"Ø x 5" LONG		
				2 1/2"				4 1	
								3"	
				4					

NOTES: GF - GIRDER FILLER

# DEPRESSION ENCED TO LINKED IONS SHOULD

SIONS K WHERE IDENTIFIED IENTS WITH FINAL R OPENING SHALL THE SEOR

NCE SLAB PLANS AY ON PROTECTION DENTIFIED.

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NCE SLAB PLANS

![](_page_20_Picture_16.jpeg)

![](_page_21_Figure_0.jpeg)

SLAB NOTE	ES:
1. SLAB OI A. TRA LOC	PENING / DEPRESSION DIMENSIONS AND LOCATIONS. DES SHALL COORDINATE WITH THESE DRAWINGS FOR FINAL DEPRESSIO CATIONS AND DIMENSIONS. DIMENSIONS SHOWN ARE REFERENCED TO I
ARC B. TRA	XHITECTURAL MODEL. IDES REQUIRING MINIMUM OPENINGS OR RESTRICTED LOCATIONS SHOU
VER 2. SEE <b>2/S</b>	LIFY SLAB INFORMATION WITH THESE DRAWINGS. 1.05.2 FOR TYPICAL RECESSED SLAB & PERIMETER
3. ALL CO A. <u>EXC</u> B TYP	MPOSITE BEAM STUDS ARE 4 1/2" LONG <u>EPT</u> BENEATH IDENTIFIED TYPE-3 FLOORS: 3" SLAB SUPPRESSIONS IE-3 SLAB RECESSES ONLY OCCUR OVER -2" COMPOSITE DECK WHERE IF
ON I 4. THE GC	PLAN. SHALL REVIEW ALL MECHANICAL FLOOR OPENING REQUIREMENTS WITH
5. ANY MA	NICAL EQUIPMENT . AIN STRUCTURAL STEEL BEAM PENETRATING AN OAHU FLOOR OPENING
NOT BE	TYPICAL FLOOR SYSTEM
	TYPE 1: TYPICAL COMPOSITE FLOOR (UNO)
	A. FIRE RATING: 2 HOURS W/ UNPROTECTED DECK. B. TOTAL THICKNESS: $7 \frac{1}{2}$ " = 3" DECK + 4 $\frac{1}{2}$ " COVER.
75 PSF	D. $3^{\circ}$ VLI COMPOSITE DECK, 20 GA G60. D. $3^{\circ}$ DIA. x 4 1/2" LONG HSA.
	<ul> <li>E. CONCRETE 4 KSI.</li> <li>F. DECK SHORING NOT REQUIRED.</li> <li>C. SLAB DEINEODOCEMENT: 6x6 W/2 1xW/2 1</li> </ul>
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE       2: FLOOR AT 3" SLAB RECESSED ZONES         A.       FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO
	<ul> <li>B. TOTAL THICKNESS: 4 <sup>1</sup>/<sub>2</sub>" = 2" DECK + 2 <sup>1</sup>/<sub>2</sub>" COVER.</li> <li>C. 2" VLI COMPOSITE DECK. 18 or 20 GA G60. WHERE IDENTIFIED.</li> </ul>
75 PSF	D. ¾" DIA. x 3 1/2" LONG HSA. E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE 3: FLOOR AT "ADJACENT" TO 3" SLAB RECESSED ZONESA.FIRE RATING: 2 HOURS w/ UNPROTECTED DECK.
	<ul> <li>B. TOTAL THICKNESS: 7 <sup>1</sup>/<sub>2</sub>" = 2" DECK + 5 <sup>1</sup>/<sub>2</sub>" COVER.</li> <li>C. 2" VLI COMPOSITE DECK, 18 or 20 GA G60, WHERE IDENTIFIED.</li> </ul>
80 855	<ul> <li>D. ¾" DIA. x 5" LONG HSA.</li> <li>E. CONCRETE 4 KSI.</li> </ul>
	<ul><li>F. DECK SHORING NOT REQUIRED.</li><li>G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.</li></ul>
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
N/A	TYPE 4: ROOF AT AMBULATORY ENTRANCEA.FIRE RATING: 1.5 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO
	B. TOTAL THICKNESS: $4 \frac{1}{2}$ " = 1.5" DECK + 3" COVER. C. 1.5" VLI COMPOSITE DECK, 20 GA G60.
45 PSF	D. ¾" DIA. x 3 ½" LONG HSA. E. CONCRETE 4 KSI.
	<ul> <li>F. DECK SHORING NOT REQUIRED.</li> <li>G. SLAB REINFORCEMENT: 6x6-W1.4.1xW1.4.</li> </ul>
	TYPE 5: DOOE (I EVEL 7)
N/A	A. FIRE RATING: 1.5 HOURS w/ UNPROTECTED DECK. B. TOTAL THICKNESS: $7^{\circ}$ = 3° DECK + 4° COVER
69 PSF	C. $3^{\circ}$ VLI COMPOSITE DECK, 20 GA G60.
	E. CONCRETE 4 KSI. E. DECK SHORING NOT REQUIRED
	<ul> <li>G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.</li> <li>H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL</li> </ul>
	TYPE 6: STORAGE PENTHOUSE (LEVEL 7)
N/A	<ul> <li>A. FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO</li> <li>B. TOTAL THICKNESS: 7" = 3" DECK + 4" COVER</li> </ul>
69 PSF	<ul> <li>C. 3" VLI COMPOSITE DECK, 20 GA G60.</li> <li>D. ¾" DIA. x 5" LONG HSA.</li> </ul>
	<ul><li>E. CONCRETE 4 KSI.</li><li>F. DECK SHORING NOT REQUIRED.</li></ul>
	<ul><li>G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1.</li><li>H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL</li></ul>
N/A	TYPE 7: PENTHOUSE ROOF
5 PSF	<ul> <li>A. FIRE RATING: 1.5 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PROB.</li> <li>B. 1 <sup>1</sup>/<sub>2</sub>" "B"18 GA.</li> </ul>
	TYPE 8: NORTH CANOPY, CAR PORT, EAST CANOPY AND AS NOTED
2 PSF	A. FIRE RATING: NOT REQUIRED B. $1 \frac{1}{2}$ " "B"20 GA.
	TYPE 9: ELEVATOR HOUSE ROOF
N/A	<ul> <li>A. FIRE RATING: 1.5 HOURS W/ UNPROTECTED DECK.</li> <li>B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER</li> <li>C. 2" MUCOMPOSITE DECK 20 CA CCC</li> </ul>
63 PSF	D. $\frac{3}{4}$ " DIA. x 4 $\frac{1}{2}$ " LONG HSA.
	F. DECK SHORING NOT REQUIRED.
	H. ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PL
	TYPE10: ELEVATOR HOUSE (HELIPAD AND OVERHEAD LEVELS)A.FIRE RATING: 2 HOURS w/ CEMENTITIOUS FIRE SPRAY ON PRO
	<ul> <li>B. TOTAL THICKNESS: 6" = 2" DECK + 4" COVER</li> <li>C. 2" VLI COMPOSITE DECK, 20 GA G60.</li> </ul>
63 PSF	D. $\frac{3}{4}$ " DIA. x 4 $\frac{1}{2}$ " " LONG HSA. E. CONCRETE 4 KSI.
	F. DECK SHORING NOT REQUIRED. G. SLAB REINFORCEMENT: 6x6-W2.1xW2.1

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E SLAB PLANS <u>ELS)</u> ( ON PROTECTION.

ANY ADDITIONAL SLAB REINFORCEMENT, REFERENCE SLAB PLANS

![](_page_21_Picture_12.jpeg)

![](_page_22_Figure_0.jpeg)

![](_page_22_Figure_1.jpeg)

![](_page_22_Figure_2.jpeg)

![](_page_23_Figure_0.jpeg)

![](_page_23_Figure_1.jpeg)

BASEPLATE #15 IS EXTERIOR AND ENCASED WITH 16"Ø CONCRETE, SEE 2/S4.05 . TYPICAL (8) PLACES, SEE PLAN. FOUDNATION DIMENSIONS AROUN THE PERIMENTER HAVE BEEN MODIFIED FOR THE FOUNDATION SECTOR PLANS AND DIMESIONS ARE TO GRADE BEAMS AND STEM WALLS.

\*SEE OVERALL FOUNDATION PLAN FOR GRID DIMENSIONS AND ADDITIONAL NOTES. \*T.O.C. = 99' - 0" U.N.O.

HOSPITAL FOUNDATION NOTES

![](_page_23_Picture_5.jpeg)

![](_page_23_Picture_6.jpeg)

![](_page_24_Figure_0.jpeg)

FOUDNATION DIMENSIONS AROUN THE PERIMENTER HAVE BEEN MODIFIED FOR THE FOUNDATION SECTOR PLANS AND DIMESIONS ARE TO GRADE BEAMS AND STEM WALLS.

\*T.O.C. = 99' - 0" U.N.O. BASEPLATE #15 IS EXTERIOR AND ENCASED WITH 16"Ø CONCRETE, SEE 2/S4.05. TYPICAL (8) PLACES, SEE PLAN.

\*SEE OVERALL FOUNDATION PLAN FOR GRID DIMENSIONS AND ADDITIONAL NOTES.

HOSPITAL FOUNDATION NOTES

![](_page_24_Picture_5.jpeg)

![](_page_25_Figure_0.jpeg)

 BASEPLATE #15 IS EXTERIOR AND ENCASED WITH 16"Ø CONCRETE, SEE 2 / S4.05

 TYPICAL (8) PLACES, SEE PLAN.

 FOUDNATION DIMENSIONS AROUN THE PERIMENTER HAVE BEEN MODIFIED FOR THE

 FOUNDATION SECTOR PLANS AND DIMESIONS ARE TO GRADE BEAMS AND STEM WALLS.

HOSPITAL FOUNDATION NOTES \*SEE OVERALL FOUNDATION PLAN FOR GRID DIMENSIONS AND ADDITIONAL NOTES. \*T.O.C. = 99' - 0" U.N.O. BASEPLATE #15 IS EXTERIOR AND ENCASED WITH 16"Ø CONCRETE, SEE 2/ S4.05

![](_page_25_Picture_3.jpeg)

![](_page_26_Figure_0.jpeg)

![](_page_26_Figure_1.jpeg)

![](_page_26_Figure_11.jpeg)

![](_page_26_Picture_18.jpeg)

![](_page_27_Figure_0.jpeg)

1 PILE REINFORCEMENT

		HOSPITAL SPREAD FOOTING											
	TYPE	YPE GEOMETRY			BOTTON	AREINF.	TOP F						
	MARK	Т	W	L	SHORT	LONG	SHORT	LONG					
	FH1	1' - 6"	6' - 0"	6' - 0"	8#6	E.W.	-	-					
	FH2	1' - 6"	7' - 0"	7' - 0"	6#6	E.W.	-	-					
	FH3	1' - 6"	8' - 0"	8' - 0"	8#6	E.W.	-	-					
	FH4	1' - 9"	9' - 0"	9' - 0"	12#6	E.W.	-						
	FH5	1' - 9"	9' - 0"	9' - 0"	12#6	E.W.	12#6	E.W.	LATERA				
$\left( 1 \right)$	FH6	1' - 3"	5' - 0"	7' - 0"	8#5	5#5	8#5	5#5	NORTH (				
	FH7	1' - 3"	5' - 0"	5' - 0"	7#5	E.W.	-	-					

5 FOOTING SCHEDULE HOSPITAL

![](_page_27_Figure_4.jpeg)

4 ----

1/4" = 1

5

9

--

0

![](_page_27_Figure_5.jpeg)

![](_page_27_Figure_6.jpeg)

1' - 0"

/\_\_\_\_

1' - 4"

#5 @ 12" E. W.

E.F.

1' - 0"

ŧ4 @ 12' EA WAY

(10) TYPICAL STEM WALL - CMU - HOSPITAL

		DRILLED PIER & CAP										
	01 . P	01 . PILES MARKED WITH AN ASTRIX (*) HAVE CAPS DEFINED ON PLAN OR SECTIONS, NOT DEFINED IN SCHEDU										
		F	RILLED SHA	<b>F</b> T			PI	ER CAP				
JARS FAR			REINFORCEMENT		DIMENSIONS		REINF	ORCEM	ENT	Tura Commonto		
		DIA						TIES	BOT	TOP	Type Comments	
			VERTS	TIES	W	L	D	SPA @ 6"	(E.W.)	(E.W.)		
	P24	P24	7 #6	#4	36"	36"	36"	#4		-		
MIN. 4 #4 TIES @ TOP BOLTS @ 3" APART	P30	P30	8 #7	#4	42"	42"	36"	#4	5 #5	-		
	P36	P36	8 #8	#4	48"	48"	36"	#4	6 #5	-		
	P42	P42	10 #8	#4	54"	54"	36"	#5	7 #6	7 #5		
	P48	P48	12 #8	#5	60"	60"	36"	#5	8 #6	8 #5		
	P54	P54	10 #10	#5	66"	66"	36"	#5	9 #6	9 #5		
	P60	P60	12 # 10	#5	72"	72"	36"	#5	10 #6	10 #6		
RETE	P66	P66			78"	78"	36"					
CAP	P72	P72	17 # 10	#5	84"	84"	36"	#5	12 #6	12 #6		

COMMENTS CANOPY

![](_page_27_Figure_13.jpeg)

![](_page_27_Picture_16.jpeg)

![](_page_28_Figure_0.jpeg)

				ODS							
ANCHOR RODS											
Type Mark	GRADE	DIA	E	P	S	L	Grout				
AR-1	F1554 Gr.36	0.750"	14.000"	6.000"	2.000"	1' - 10"	1.50"				
AR-2	F1554 Gr.36	1.000"	18.000"	6.000"	2.000"	2' - 2"	2.00"				
AR-3	F1554 Gr.55-S1	1.125"	18.000"	7.000"	2.000"	2' - 3"	1.50"				
AR-4	F1554 Gr.55-S1	1.250"	24.000"	6.000"	2.000"	2' - 8"	1.50"				
AR-5	F1554 Gr.36	1.000"	24.000"	6.000"	2.000"	2' - 8"	2.00"				
AR-6	F1554 Gr.55-S1	1.250"	22.000"	6.000"	2.000"	2' - 6"	2.00"				
AR-7	F1554 Gr.55-S1	1.000"	16.000"	6.000"	2.000"	2' - 0"	2.00"				
AR-8	F1554 Gr.36	0.750"	9.000"	6.000"	2.000"	1' - 5"	2.00"				
AR-9	F1554 Gr.36	1.000"	15.000"	6.000"	2.000"	1' - 11"	1.50"				
AR-HDG-1	F1554 Gr.36	0.750"	12.000"	6.000"	2.000"	1' - 8"	1.50"				
AR-HDG-2	F1554 Gr.36	0.750"	18.000"	6.000"	2.000"	2' - 2"	1.50"				
AR-HDG-3	F1554 Gr.55-S1	1.125"	30.000"	7.000"	2.000"	3' - 3"	1.50"				
AR-HDG-4	F1554 Gr.36	1.000"	18.000"	10.500"	2.000"	2' - 6 1/2"	6.00"				

![](_page_28_Figure_3.jpeg)

![](_page_28_Figure_4.jpeg)

![](_page_28_Picture_5.jpeg)

–( **B.3** )

![](_page_29_Figure_0.jpeg)

![](_page_29_Figure_2.jpeg)

![](_page_29_Picture_8.jpeg)

![](_page_30_Figure_0.jpeg)

0

BID PACKAGE 04 (STRUCTURAL CONCRETE / EARTHWORK) REVISIONS DESCRIPTION 12-09-2022

FOUNDATION SECTIONS

![](_page_31_Figure_0.jpeg)

0 4

![](_page_31_Picture_3.jpeg)

![](_page_32_Figure_0.jpeg)

![](_page_32_Picture_4.jpeg)

![](_page_33_Figure_0.jpeg)

![](_page_33_Figure_1.jpeg)

![](_page_33_Figure_2.jpeg)

2 SKYBRIDGE FRAME 1/4" = 1'-0"

![](_page_33_Figure_5.jpeg)

![](_page_34_Figure_0.jpeg)

![](_page_34_Figure_1.jpeg)

![](_page_34_Figure_2.jpeg)

![](_page_34_Picture_3.jpeg)

1. TACK WELD OR DAMAGE ANCHOR ROD'S EMBEDED NUT PRIOR TO SHIPPING

 BASE PLATES ARE 50 KSI, U.N.O.
 ANCHOR ROD HOLES AND WASHERS ARE PER AISC 360 (U.N.O.): T14-2 RECOMMENDED MAXIMUM SIZES FOR ANCHOR-ROD HOLES IN BASE PLATES.

NON-SHRINK FLOWABLE GROUT (MIN. 8,000 PSI) PER GENERAL NOTES.
 INDEPENDANT INSPECTOR SHALL BE PRESENT TO VERIFY SHEAR KEYWAY IS CLEAN

OF DEBRIS PRIOR TO PLACING FLOWABLE GROUT

2 SKYBRIDGE SLIDING BASE PLATE 1" = 1'-0"

![](_page_34_Picture_10.jpeg)

ID LENGT			ТШСКИЕСС	REINF. (T&B	U.N.O.)	STRIP		
	LENGIH	WIDIH	I HICKINESS	LONG	SHORT	LENGTH		
FC1	13'	7'	2' - 3"	PER SC103		7' FROM END	12 OF 19	
FC2	13'	8'	2' - 3"	PER SC103		7' FROM END	12 OF 19	
FC3	9'	7'	1' - 9"	PER SC103		7' FROM END	8 OF 11	
FC4	8'	8'	1' - 9"	9 #6	9 #6			
FC5	7'	7'	1' - 9"	8 #6	8 #6			
FC6	6'	6'	1' - 6"	6 #6 E.W. (BOT. ONLY)				
FC7	10'	8'	1' - 9"	9 #6	12 #6			

2 FOOTING SCHEDULE SOUTH CANOPY

![](_page_35_Figure_2.jpeg)

1 01 FOUNDATION PLAN SC 3/16" = 1'-0"

4 ----

0 4 8 1/8" =1'-0"

![](_page_35_Figure_4.jpeg)

3 FOUNDATION AT HSS8x8 3/4" = 1'-0"

SOUTH CANOPY FOUNDATION

- 1. SEE OVERALL FOUNDATION PLAN FOR GRID DIMENSIONS AND ADDITIONAL NOTES.
- SEE OVERALL FRAMING PLAN FOR WP1 LOCATION
   A. 6'-3" NORTH OF LINE-E
   B. 9'-0" EAST OF LINE-1
- 3. COLUMNS ARE W12x87 U.N.O.
- 4. ROUND CONCRETE PEDESTALS SUPPORT ARCH'L METAL PANEL A. 40" DIAMETER B. EXTEND AT LEAST 4" ABOVE FINISHED GRADE.
- C. SEE FRAME ELEVATIONS FOR T/ PIER 5. SPREAD FOOTING ELEVATIONS PER PLAN
- 6. ANGULAR DIMENSIONS WITH MORE THAN 2 DECIAML PLACES ARE ROUNDED AND MAY NOT BE EXACT.

KEY NOTES:

01 - FIELD MAY TRIM FORM AND REBAR UP TO 6" AT FOUNDATION CORNER NEAR RADIAL GRAD BEAM FO CONVENINCE

![](_page_35_Picture_20.jpeg)

![](_page_36_Figure_0.jpeg)

![](_page_36_Picture_3.jpeg)

James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com PROFESSIONAL SEAL: CONSULTANT LOGO: Consulting & Engineering, LLC Structural Engineering Services 6900 College Blvd. Suite 600 Overland Park, KS 66211 Ph. (913) 814-0404 Oklahoma Certificate of Authorization" No. 4570

![](_page_36_Picture_15.jpeg)

ROBERSON

21501

![](_page_36_Picture_16.jpeg)

KEY PLAN: PROJECT PHASE: BID PACKAGE 04 (STRUCTURAL CONCRETE / EARTHWORK)

REVISIONS DESCRIPTION DATE 01/06/23 ADDENDUM 04

JOB NUMBER: 21-08-21 12-09-2022 SHEET NUMBER:

SM101

SHEET TITLE:

MECHANICAL AREA -OVERALL FOUNDATION PLAN

![](_page_37_Figure_0.jpeg)

![](_page_37_Figure_1.jpeg)

![](_page_37_Figure_2.jpeg)

4 MECH 01Foundation - BRIDGE 1/4" = 1'-0"

4

1/4" = 1

![](_page_37_Picture_4.jpeg)

![](_page_38_Figure_0.jpeg)

![](_page_38_Picture_6.jpeg)

![](_page_39_Figure_0.jpeg)

## MECHANICAL AREA & PIPE BRIDGE BASEPLATE NOTES 1. FOR ADD'L ANCHOR ROD AND BASEPLATE INFORMATION, SCHEDULES / TABLES AND TYPICAL DETAILS , SEE S4.04 . . TACK WELD OR DAMAGE ANCHOR ROD'S EMBEDED NUT PRIOR TO SHIPPING BASE PLATES ARE 50 KSI, U.N.O. 4. ANCHOR ROD HOLES AND WASHERS ARE PER AISC 360 TABLE 14-2 (U.N.O.): RECOMMENDED MAXIMUM SIZES FOR ANCHOR-ROD HOLES IN BASE PLATES.

- NON-SHRINK GROUT (MIN. 5,000 PSI) PER GENERAL NOTES.
   NON-SHRINK FLOWABLE GROUT (MIN. 6,000 PSI) SHALL EXTEND AT LEAST 2" BEYOND EDGE OF BASE PLATE. 7. USE SHIMS OR HALF NUTS UNDER BASEPLATES
- 8. BASE PLATE NUMBER IDENTIFIED ON FOUDNATION PLANS, SHOWN THUS:
- MECHANCIAL YARD
  1. ALL STEEL, BASEPLATES AND ANCHOR RODS ARE EXPOSED TO WEATHER AND SHALL BE HOT DIP GALVANZIED (HDG) PER ASTM A153 CLASS C. 2. SHEAR KEYS / SHEAR LUGS (S.L.) A. KEYWAY (K.W.) SHALL HAVE MIN. 1 1/2" GROUT AROUND SHEAR KEY ON ALL
- SIDES. B. KEYWAY SHALL EXTEND AT LEAST 1" BEYOND EDGE OF BASE PLATE C. AN INDEPENDENT INSPECTION IS REQUIRED TO VERIFY SHEAR KEY IS PRESENT AND KEY WAY IS CLEAN OF DEBRIS PRIOR TO PLACING FLOAWABLE NON-SHRINK GROUT

![](_page_39_Figure_6.jpeg)

![](_page_39_Figure_7.jpeg)

![](_page_39_Figure_8.jpeg)

![](_page_39_Figure_9.jpeg)

![](_page_39_Figure_10.jpeg)

![](_page_39_Figure_11.jpeg)

![](_page_39_Figure_12.jpeg)

![](_page_39_Picture_15.jpeg)

![](_page_39_Picture_16.jpeg)

# LAYOUT NOTES:

- 1. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, LAYOUT COORDINATES, AND WORK FROMONGOING CONTRACTS IN THE FIELD. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE FOR DIRECTIONS IMMEDIATELY BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- 2. CONTRACTOR SHALL REQUEST A FIELD REVIEW BY THE OWNER'S REPRESENTATIVE OF THE LAYOUT OF ALL ELEMENTS, AS SHOWN. CONTRACTOR SHALL STAKE ALL LOCATIONS AND OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK..
- 3. CONTRACTOR SHALL REQUEST A FIELD REVIEW BY THE OWNER'S REPRESENTATIVE OF ALL FORM WORK OR A TYPICAL PORTION OF FORM WORK REPRESENTING SIMILAR WORK. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE OF ALL FORM WORK FOR FLATWORK AND WALL WORK PRIOR TO CONCRETE POURING.
- 4. CONTRACTOR SHALL COORDINATE ALL LAYOUT WORK POINTS, GRID LINES, AND CONTROLS, AMONG ALL TRADES; SPECIFICALLY, BUT NOT LIMITED TO, SITE FORMATION, FLATWORK, AND WALL WORK.
- 5. CONTRACTOR SHALL REFER TO PAVING PLAN(S) FOR ALL FLATWORK AND WALL WORK JOINT LOCATIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS VERIFYING JOINT LAYOUT PRIOR TO INSTALLATION.
- 6. CONTRACTOR SHALL ERECT AND INSTALL ALL WORK LEVEL, PLUMB, SQUARE, TRUE, STRAIGHT, AND IN PROPER ALIGNMENT. 7. CONTRACTOR SHALL NOT SCALE DRAWINGS; CONTRACTOR SHALL USE
- DIMENSIONS SHOWN. 8. NO DIMENSIONS ARE ADJUSTABLE WITHOUT THE REVIEW AND
- APPROVAL OF THE OWNER'S REPRESENTATIVE UNLESS NOTED (+/-) FV (FIELD VERIFY) .. 9. DIMENSIONS NOTED CLEAR (CLR) MUST BE STRICTLY MAINTAINED
- ALLOWING FOR THICKNESS OF ALL FINISHES. CONTRACTOR SHALL FIELD VERIFY (FV) PRIOR TO CONSTRUCTION. 10. TYPICAL (TYP) MEANS IDENTICAL FOR ALL SIMILAR CONDITIONS
- UNLESS OTHERWISE NOTED. 11. ALL CURVES FOR PAVING, BANDS, PATHS, EDGING, AND HEADER BOARDS SHALL BE ALIGNED IN A SMOOTH AND CONTINUOUS FASHION

UNLESS OTHERWISE SHOWN.

۲<sup>°</sup>

2

0 4 8 1 1/8" = 1'-0"

AND SHALL MEET ADJACENT SURFACES AT 90 DEGREES, UNLESS OTHERWISE INDICATED. ALL WALK RADII AND CURVES SHALL BE SMOOTH AND CONTINUOUS WITHOUT ABRUPT CHANGES OR BENDS

![](_page_40_Figure_20.jpeg)

NORTH NORTH

![](_page_40_Picture_22.jpeg)

![](_page_41_Figure_0.jpeg)

![](_page_41_Picture_1.jpeg)

![](_page_42_Figure_0.jpeg)

![](_page_42_Picture_3.jpeg)

![](_page_43_Figure_0.jpeg)

![](_page_43_Figure_1.jpeg)

![](_page_44_Figure_0.jpeg)

![](_page_44_Picture_1.jpeg)