DAVIS TECHNICAL COLLEGE - WELDING TECHNOLOGY BUILDING MASONRY BID PACKAGE





DAVIS TECHNICAL COLLEGE WELDING TECHNOLOGY BUILDING 355 SOUTH 650 EAST, KAYSVILLE, UT 84037

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CONTRACTOR GRAMOLL CONSTRUCTION KEN ROMNEY 801-295-2341 KEN.ROMNEY@GRAMOLL.COM

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ARCHITECT CRSA KATHY WHEADON 801-355-5915 KATHY@CRSA.COM



CIVIL ENGINEER MERIDIAN ENGINEERING JAYMIN VICKERS 801-569-1315 [email@firm.com]



STRUCTURAL ENGINEER DUNN ASSOCIATES GREG DUNN [PHONE NUMBER] GDUNN@DUNN-SE.COM



HEATH ENGINEERING BRIAN ANDERSON [PHONE NUMBER] [email@firm.com]

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MECHANICAL/PLUMBING ENGINEER



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ELECTRICAL ENGINEER SPECTRUM ENGINEERS CHRIS KOBAYASHI [PHONE NUMBER] [email@firm.com]



PROJEC1

BID PACKAGE #1

REVISIONS

24-038









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NARRATIVE

1

BID PACKAGE #1 SITE & STRUCTURE - Major structural and site elements. BID PACKAGE #2 CORE & SHELL - Exterior envelope and major MEP systems.

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BID PACKAGE #3 INTERIOR FINISHES - Interior elements, including finishes and millwork.

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GENERAL GI000.1 COVER

GI000.1	COVER SHEET
GI001.1	SHEET INDEX
GI002.1	CODE SUMMARY DFCM
GI003.1	SPECIAL INSPECTIONS
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CIVIL

CG400.1 GRADING PLAN CU300.1 UTILITY PLAN

ARCHITECTURAL SITE

AS101.1 ARCHITECTURAL SITE PLAN

ARCHITECTURAL

AE100.1	DIMENSION CONTROL PLAN
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AE201.1	BUILDING ELEVATIONS

STRUCTURAL

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LOCATION MAP



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PROJECT

BID PACKAGE #1

REVISIONS no. date

DESCRIPTION

24-038









under their pre-approval program for seismic restraint systems. 6. Deferred Submittals:

Section 13.3 of ASCE 7. d) The following seismic restraint publications shall be considered "Accepted Engineering Practice": - Seismic Restraint Manual, Guidelines for Mechanical Systems (3rd Edition, published by SMACNA)

- An engineered analysis conforming to the requirements of Chapter 13 of ASCE 7. demands determined by Section 13.3 of ASCE 7.

c) A certificate of seismic qualification by the manufacturer must be accompanied by one of the following items:

5. Seismic Restraint Design Requirements: design prepared by a registered design professional, or a manufacturer's certification that the component is seismically qualified.

constructed in a manner that subjects the rod to bending moments.

of ASCE 7. provisions and limitations of the ICC Listing Report. IBC

discussed in Section 5 of this handout. 4. Construction Documents:

restraint. See the example checklists provided at the end of this handout. question will not be provided as part of the project. 3. Submittal Requirements:

nonstructural components shall be confirmed to meet the seismic restraint requirements of Chapter 13 in ASCE 7. d) All references made to the IBC or ASCE 7 reference the 2006 and 2005 editions, respectively. 2. Checklist Requirements:

1. General Comments:

this checklist.

stiffeners.

DFCM GUIDELINES FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS

a) These guidelines shall apply to all nonstructural components installed in newly constructed buildings, building additions, and all new or replaced components in existing buildings. Nonstructural components consist of architectural, mechanical and electrical components that are permanently attached to the primary structure. b) When a change in occupancy occurs that causes an existing building to be re-classified to a higher Occupancy Category per IBC Table 1604.5, all existing

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c) These guidelines define the minimum submittal requirements to obtain DFCM approval for seismic restraint of nonstructural components. The guidelines noted herein shall not cancel or set aside more conservative requirements specified by the design professional in responsible charge.

a) All DFCM projects shall have the "Nonstructural Component Checklist" clearly shown on the front of the construction plans. Click here to download a PDF of

b) Each item within the checklists shall have the appropriate box checked and comments shall be provided noting the particular component(s) that require seismic

c) The "Not Required" box should only be checked if the component is exempt from requiring seismic restraint by Section 13.1.4 of ASCE 7, or if the component in d) If the "Deferred Submittal" box is checked the additional requirements of Section 6 included in this handout must be met.

a) The seismic restraint requirements for nonstructural components may be provided with the original construction documents submitted to DFCM or may be submitted later as a deferred submittal. Whether provided with the original plans or later, the requirements of this section must be met. b) Seismic restraint submittals shall include construction documents meeting the requirements of Section 4 of this handout as well as supporting design information

a) The construction documents must include seismic restraint details providing specific information relating to the materials, type, size, and locations of anchorages; materials used for bracing; attachment requirements of bracing to structure and component; and locations of transverse and longitudinal sway bracing and rod

b) The construction documents must note the special inspection and testing requirements for the seismic restraint of nonstructural components per Section 13.2.7

c) DFCM will accept products that have been tested and listed under the ICC Evaluation Service Program, as long as they are installed in accordance with the

d) The requirements for anchorage/bracing of nonstructural components cannot be satisfied by a general reference to Design Manuals. Design professional may utilize these manuals as a basis of their design, but must provide all supporting documentation to ensure that the design conforms to the requirements of the 2006

e) Rod hangers shall not be used as seismic supports unless the length of the hanger from the supporting structure is 12 in. or less. Rod hangers shall not be

a) Per IBC 1613.1, the seismic restraint of nonstructural components shall meet the requirements of ASCE 7. If the component in question is exempted by Section 13.1.4 of ASCE 7, a submittal noting the seismic restraint of that particular component is not required. b) The seismic restraint design must meet the requirements listed in Table 13.2-1 of ASCE 7. These requirements may be met by providing either a project-specific

- Testing by a nationally recognized testing standard procedure such as ICC-ES AC 156. The substantiated seismic design capacities shall exceed the seismic

- Experience data conforming to a nationally recognized procedure. The substantiated seismic design capacities shall exceed the seismic demands determined by

- Guidelines and details that have been evaluated and reported under the International Code Council Evaluation Service Program (ICC-ES).

- Seismic restraint manuals, guidelines and details that have been approved by the California Office of Statewide Health Planning and Development (OSHPD)

a) Deferred submittals of seismic restraint of nonstructural components must be submitted to the DFCM Building Official a minimum of two weeks prior to the planned installation in order to allow for plan review and forwarding to inspectors. In the event that the submittal is deficient additional time may become necessary. b) Deferred submittals shall be clearly noted on the construction plans as required by IBC 106.3.4.2. Prior to submitting to the DFCM Building Official, the submittal must be reviewed by the design professional in responsible charge and approved for general conformance with the design of the building. Please note on the plans that no deferred submittal element shall be installed until DFCM approval has been received.

c) If seismic restraints of nonstructural components are installed prior to receiving DFCM approval they shall not be covered or concealed until plan review and inspection approval. Further, installers are proceeding at their own risk until plan review and inspection approval occurs.

DFCM SUBMITTAL NOTES

- DEFERRED SUBMITTALS FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS MUST BE SUBMITTED TO THE DFCM BUILDING OFFICIAL A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION IN ORDER TO ALLOW FOR PLAN REVIEW AND FORWARDING TO INSPECTORS. IN THE EVENT THAT THE SUBMITTAL IS DEFICIENT ADDITIONAL TIME MAY BECOME NECESSARY.
- IF SEISMIC RESTRAINTS OF NON-STRUCTURAL COMPONENTS ARE INSTALLED PRIOR TO RECEIVING DFCM APPROVAL THEY SHALL NOT BE COVERED OR CONCEALED UNTIL RECEIVING BOTH PLAN REVIEW AND INSPECTION APPROVAL. FURTHER, INSTALLERS ARE PROCEEDING AT THEIR OWN RISK UNTIL PLAN REVIEW AND INSPECTION APPROVAL OCCURS.
- THE REQUIREMENTS FOR SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS CANNOT BE SATISFIED BY A GENERAL REFERENCE TO DESIGN MANUALS. THE DESIGN PROFESSIONAL MAY UTILIZE THESE MANUALS AS A BASIS OF THEIR DESIGN, BUT MUST PROVIDE ALL SUPPORTING DOCUMENTATION TO ENSURE THAT THE DESIGN CONFORMS TO THE REQUIREMENTS OF ASCE 7-05, CHAPTER 13.
- SUBMITTALS MUST INCLUDE DETAILS OF THE PROPOSED SEISMIC RESTRAINT OF NONSTRUCTURAL COMPONENTS. THESE DETAILS MUST SHOW SPECIFIC INFORMATION RELATING TO THE MATERIALS, TYPE, SIZE, AND LOCATIONS OF ANCHORAGES; MATERIALS USED FOR BRACING; ATTACHMENT REQUIREMENTS OF BRACING TO STRUCTURE AND COMPONENT; AND LOCATIONS OF TRANSVERSE AND LONGITUDINAL SWAY BRACING AND ROD STIFFENERS. SUBMITTALS MAY ALSO REQUIRE STRUCTURAL CALCULATIONS, ENGINEERING REPORTS, TEST DATA, AND/OR SPECIFICATIONS TO ENSURE CODE COMPLIANCE.

REQUIREMENTS FOR OCCUPANCY

- 1. A CODE INSPECTION REPORT RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED.
- 2. FINAL REPORT FROM THE SPECIAL INSPECTION AGENCY.
- 3. CERTIFICATE OF FIRE CLEARANCE FROM THE STATE FIRE MARSHALL
- 4. FINAL APPROVAL FROM THE STATE ELEVATOR INSPECTOR, IF APPLICABLE
- 5. FINAL APPROVAL FROM THE STATE BOILER INSPECTOR, IF APPLICABLE.
- 6. REPORT OF THE DISINFECTION OF THE POTABLE WATER SYSTEM. IPC 610.
- 7. A CERTIFICATE OF COMPLIANCE FROM THE APPROVED FABRICATOR, IF A APPLICABLE. IBC 1704.2.2
- 8. A STAMPED AND SIGNED FINAL REPORT FORM THE STRUCTURAL ENGINEER WHEN STRUCTURAL OBSERVATION IS REQUIRED BY IBC 1710. 9. FINAL REPORT FROM THE SPECIAL INSPECTOR AND THE MECHANICAL ENGINEER WHEN SMOKE CONTROL IS REQUIRED. THE REPORTS
- MUST COMPLY WITH IBC 909.18.8.3. 10. THE NFRC CERTIFICATE TO SHOW COMPLIANCE WITH THE FENESTRATION REQUIREMENTS OF THE INTERNATIONAL ENERGY CODE.

NONSTRUCTURAL COMPONENT CHECKLIST

ON CONST. DEFERRED

DOCUMENTS SUBMITTAL

ITEM DESCRIPTION	NOT REQUIRED
ARCHITECTURAL COMPONENTS:	
Interior Nonstructural Walls & Partitions	
Cantilever Elements (i.e. parapets, etc.)	
Exterior Nonstructural Wall Elements	
Veneer	
Penthouse	
Ceilings (i.e. suspended grid or hard-lid)	
Cabinets (i.e. storage cabinets, equip, etc.)	
Access Floors	X
Storage Racks	X
Appendages & Ornamentations	Х
Signs & Billboards	X
MEP COMPONENTS:	
Fire Sprinklers	
Mechanical Equipments (i.e. HVAC, fans, air handlers, boilers, furnaces, tanks, chillers, water heaters, heat exchangers, evaporates, engines, turbines, pumps, compressors, MFR equipments, etc.)	
Electrical Equipments (i.e. generators, batteries inverters, transformers, MCC, panel boards, switch gear, cabinets, etc.)	
Elevator & Escalator Components	X
Communication Equipments, Computers, Instrumentation, and Controls	Х
Roof - mounted Chimneys, Stacks, Cooling & Electrical Towers	X
Lighting Fixtures	
Vibration Isolated Components	Х
Piping & Conduit System	
Ductwork (including in-line components)	
Conveyors	X
Cable Trays	

CODE ANALYSIS

E DFCM BUILDING W AND FORWARDING TO		APPLICAB	LE CODES	
AL THEY SHALL NOT BE RS ARE PROCEEDING AT	International Building International Mechar	Year Code 2021 nical Code 2021	National Electrical Cod	Year e2020
NERAL REFERENCE TO UST PROVIDE ALL	International Plumbin International Fire Cou	ng Code 2021 de 2021	 Building Conservation ADA Accessibility Guildelines 	2010
THESE DETAILS MUST ATERIALS USED FOR RANSVERSE AND	Conservation Code International Fuel Gas Code	2021 2021	Accessibility Standard	2009
	A. Occupancy and G	Broup: <u>B</u>	Mixed Occupancy: Yes	No X
	- Special Use and (Decupancy (e.g. High	h Rise, Covered Mall): <u>N/A</u>	110
	B. Seismic Design C	ategory: <u>D</u>	Design Wind Speed: <u>105</u>	mph
	C. Type of Construct $\underline{I} \qquad \underline{I}$	tion (circle one): $\underline{\Pi} \underline{\Pi} \underline{I}$		
	A B D Fire Resistance R	A B A	A B HT A	B I on the fire
	separation distance	ce (in hours):		
REQUIRED BY IBC 1710.	E. Mixed Occupanci	outh: <u>0</u> East:_ es:Nc	0 West: 0 West: $$	
ENERGY CODE.	F: Sprinklers: Required:	Provided: $$	Type of Sprinkler System	:FULL NFPA-13
	_		_ , ,	
	G: Number of Stories H: Actual Area per F	s: <u>1</u> Building Floor (square feet): 1	g Height: <u>20'-0"</u> 7,052	
COMMENTS	l [.] Tabular Area: 3	6.000		
	J: Area Modification	s: N/A		
	a) _{N/A}			
	b) Sum of the Ra Actual Area	atio Calculations for - ≤ 1	Mixed Occupancies:	
	Allowable Are	a Io Aroo for:		
	1) One Story	y: <u>N/A</u>		
Fire Sprinkler Submittal MEP Seismic Restraints Submittals	 Two Story Three Story 	y: A _a (2) <u>N/A</u> ory: A _a (3) <u>N/A</u>		
MEP Seismic Restraints Submittals	d) Unlimited Are	a Building: Yes	No XCode Se	ection:T <u>ABLE 507.</u> 4
	K. Fire Resistance F	Rating Requirements	s for Building Elements (hour	s).
	Element	Hours Assembly Listing	Element	Hours Assembly Listing
MEP Seismic Restraints Submittals MEP Seismic Restraints Submittals	Exterior Bearing Walls Interior Bearing Walls	0	Floors - Ceiling Floors Roofs - Ceiling Roofs	0
MEP Seismic Restraints Submittals	Structural Frame Partitions - Permanent	0	Exterior Doors and Windows Shaft Enclosures Eire Walls	N/A
	Fire Barriers	0	Fire Partitions	N/A N/A
	L. Design Occupant	Load: <u>147</u>	Stair Occupant Load:	N/A
	Exit Width Require	ed: <u>30"</u>	Stair Width Required: Stair Width Provided	N/A N/A
	M. Minimum Numbe	r of Required Plumbi	ing Facilities:	
	a) Water Closets Total Provider	s - Required <u>4</u> d: ⁵		
	b) Lavatories -	Required <u>3</u>		
	l otal Provideo	d: Showers: Required:	0	
	d) Drinking Four	Provided:	$\frac{0}{0}$	
	Provided Level 2	1: (DF) <u>2</u> , Level 1:	(SS) <u>1</u>	
	FOOTNOTES:			
	 In case of conflict w through	vith the U.S. Departn uidelines and specifi Chapters, the more r	nent of Justice Federal Regis c reference to the Internation restrictive requirement shall g	sters Parts I nal Building govern.
	 2) Additional Code Inf Official for Complex a) High Rise Re b) Atriums 	ormation shall be pro Buildings. Including quirements.	ovided at the discretion of the , but not limited to:	e Building
	c) Performance	Based Criteria.		
	d) Means or Egr e) Fire Assembl	ess Analysis. y Locator Sheet.		

- f) Exterior and Interior Accessibility Route. g) Fire Stopping, Including Tested Design Number.



PROJECT

BID PACKAGE #1

REVISIONS DATE

DESCRIPTION

24-038





FACILITIES CONSTRUCTION & MANAGEMENT

Items Required by Chapter 17 of the 2021 IBC

1	Indicate items requiring special inspection, structural testing
	box. All items not requiring inspection/testing should be re
	inspection, a special inspector must be present onsite during
j,	inspections/tests shall be performed prior to commencing
	completion of the task. The "Detailed Instructions & I
-	requirements for tasks requiring "periodic" inspections. The
1	the requirements as needed on a project-specific basis.
	me redomentario de mercario en o brobere obremento energi
1	ABRICATORS (IBC 1704.2.5.1 & 1705.10)
	Approved Fabricator Van No.

Approved Fabricator Yes No

Fabricators plant location	1	
Required In-plant Inspections	Steel Construction Cold-formed Construction	oncrete

Please refer to drawing SE003.1 for further information re: Structural Steel.

PRIOR TO WELDING (TABLE	N5.4-1, AISC 36	0-16):
Welder qualification records	Observe 🛛	Perform
Welding procedures (WPS) and consumable certificates	Observe	Perform
Material identification	Observe 🛛	Perfor
Welder identification	Observe	Perform
Fit-up groove welds	Observe	Perfor
Fit-up of CJP welds to HSS T-, Y- and K- joints without backing	Observe 🛛	Perform
Access holes	Observe	Perform
Fit-up of fillet welds	Observe	Perform
DURING WELDING (TABLE N	5.4-2, AISC 360-	16):
Control and handling of welding consumables	Observe	Perfon
Cracked tack welds	Observe 🛛	Perform
Environmental conditions	Observe	Perform
WDC fallowed	M Observa	Dorfor

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ACCOUNTS FILLING PROPERTY DIVISION OF FACILITIES CONSTRUCTION & MANAGEMENT

Curing temperature and techniques	Continuous	🛛 Periodia
Pre-stressed concrete	Continuous	Periodi
Precast concrete diaphragm connections or reinforcement classified as moderate or high deformability elements in seismic decom category C-F	Continuous	Periodia
Installation tolerances of precast concrete diaphragm connections Strength verification	Continuous	Periodia
Formwork	Continuous	Periodic

Item		
PRIOR TO CONSTRUCTION	Table 3, TMS-602-	-16):
Review material certificates, mix designs, test results and construction procedures	Continuous	Periodic
AS MASONRY CONSTRUCTION	ON BEGINS (TAB	LE 4, TMS-6(
Proportions of site-prepared mortar	Continuous	Periodic
Grade and size of prestressing tendons and anchorages	Continuous	Periodic
		Page 5 of 1.

ACCOUNTS FILLING ADDRESS Division of Facilities Construction & Management

100.00	the second second second		Detailed Instructions and Frequencies
Record installation equipment used, pile dimensions, tip elevations, final depth, and final installation torque	Continuous	Periodic	
Verify that helical piles used match the approved submittal	Continuous	Periodic	
PRAYED FIRE-RESISTAN	NT MATERIAL	.S (IBC 1705	.15)
Item	Continuous	Desirella	Detailed Instructions and Frequencies
Surface preparation	Commuous	Periodic	
Material thickness	Continuous	Deriodic	
Material density	Continuous	Periodic	
Bonding strength	Continuous	Periodic	
AASTIC AND INTUMESCI Item	ENT FIRE-RES	SISTANT CO	OATINGS (IBC 1705.16 & AWCI 12-B) Detailed Instructions and Frequencies
Surface preparation	Continuous	Periodic	
Thickness	Continuous	Periodic	
XTERIOR INSULATION .	AND FINISH S	YSTEMS (E	IFS) (IBC 1705.17)
nem			Detailed Instructions and Frequencies
Material and installation	Continuous	JOINTS (IE	C 1705.18)
Material and installation IRE-RESISTANT PENETH <i>Only required for high-rise buccontaining group R occupanci</i> <i>Item</i> Penetration firestops	Continuous Continuous Continuous Continuous Continuous Continuous	Deriodic JOINTS (IE igned to Risk Ca load greater the Periodic	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies
Material and installation TRE-RESISTANT PENETI <i>Only required for high-rise buccontaining group R occupance</i> <i>Item</i> Penetration firestops Fire-resistant joint systems	Continuous Continuous Continuous Continuous Continuous Continuous	Periodic JOINTS (IB igned to Risk Ca load greater the Periodic Periodic	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies
Material and installation IRE-RESISTANT PENETI > Only required for high-rise buccontaining group R occupance Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item	Continuous	Periodic JOINTS (IB igned to Risk Ca load greater the Periodic Periodic Periodic	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies
Material and installation IRE-RESISTANT PENETI Conly required for high-rise bia containing group R occupance Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item Verify device locations and perform leakage testing	Continuous RATIONS AND ildings or those ass ies with an occupant Continuous Continuous 705.19 Continuous	Periodic JOINTS (IB igned to Risk Ca load greater the Periodic Periodic Periodic Periodic	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies
Item Material and installation TIRE-RESISTANT PENETH Only required for high-rise buccontaining group R occupanci Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item Verify device locations and perform leakage testing Pressure difference testing, flow measurements and detection and control verification	Continuous RATIONS AND And Continuous	Periodic JOINTS (IB igned to Risk Ca load greater the Periodic Periodic Periodic Periodic Periodic Periodic	Detailed Instructions and Frequencies SC 1705.18) Itegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies
Material and installation IRE-RESISTANT PENETI Only required for high-rise buccontaining group R occupanci Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item Verify device locations and perform leakage testing Pressure difference testing, flow measurements and detection and control verification RCHITECTURAL COMP Only required for buildings loo Item	Continuous RATIONS AND And And Continuous Continu	Periodic JOINTS (IE igned to Risk Ca load greater the Periodic Periodic Periodic Periodic Periodic Periodic TPO5.13.5) Centry Category	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies ry D, E, or F. Detailed Instructions and Frequencies
Material and installation IRE-RESISTANT PENETI Only required for high-rise bia containing group R occupanci litem Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' litem Verify device locations and perform leakage testing Pressure difference testing, flow measurements and detection and control verification RCHITECTURAL COMP(> Only required for buildings lo litem Freeding of exterior	Continuous ATIONS AND AND AND AND Continuous Con	Periodic JOINTS (IE igned to Risk Ca load greater the Periodic Periodic Periodic Periodic Periodic T705.13.5) Design Catego	Detailed Instructions and Frequencies SC 1705.18) tegory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies ry D, E, or F. Detailed Instructions and Frequencies
Item Material and installation TIRE-RESISTANT PENETI > Only required for high-rise bia containing group R occupanci Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item Verify device locations and perform leakage testing Pressure difference testing, flow measurements and detection and control verification RCHITECTURAL COMP > Only required for buildings loo Item	Continuous ATIONS AND AND AND Continuous Continuo	Periodic JOINTS (IE igned to Risk Ca load greater the Periodic Periodi	Detailed Instructions and Frequencies C 1705.18) Regory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies ry D, E, or F. Detailed Instructions and Frequencies
Material and installation FIRE-RESISTANT PENETI Conly required for high-rise bia containing group R occupanci Item Penetration firestops Fire-resistant joint systems MOKE CONTROL (IBC 1' Item Verify device locations and perform leakage testing Pressure difference testing, flow measurements and detection and control verification RCHITECTURAL COMP Conly required for buildings lo Item Erection and fastening of exterior cladding or interior and exterior veneers Erection and fastening of interior and exterior nonbearing walls	Continuous ATIONS AND AND AND Continuous Continuo	Periodic JOINTS (IB igned to Risk Ca load greater the Periodic Pieriodic Pierio	Detailed Instructions and Frequencies C 1705.18) Regory III or IV per IBC Table 1604.5 or in fire areas an 250. Detailed Instructions and Frequencies Detailed Instructions and Frequencies ry D, E, or F. Detailed Instructions and Frequencies

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HERRICE COULD AND STATE

REFERENCE FOR THE PROPERTY OF

DIVISION OF

MANAGEMENT

anchorages

AAC masonry

Sample panel

Grout space

and anchorages

Placement of reinforcement,

connectors, and anchor bolts

and prestressing grout for bonded

Materials and procedures

mortar joint construction

elements

Placement of masonry units and

Size and location of structural

Type, size, and location of anchors, including other details of

structural members, frames, or

Preparation, construction, and

weather (<40°F) or hot weather

protection of masonry during cold

REFERRE ENTRY

Division of Facilities Construction & Management

anchorage of masonry to

Welding of reinforcement

other construction.

Prestressing technique

Properties of thin-bed mortar for

FACILITIES CONSTRUCTION &

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Special Inspection, Material Testing & Structural Observation

, or structural observations by checking the appropriate emoved from the form. For items requiring continuous the performance of that task. In most cases "periodic" ng the task, intermittently during the task, and at the Frequency" provides a description of the presumed e design professional in responsible charge should revise

Wood Construction Concrete Construction Other: Other: Detailed Instructions and Frequencies Verify welder qualification records and continuity Verify type and grade of material. Confirm a system is in place by which a welder who has welded a joint or member can be identified. Verify joint preparation, dimensions, cleanliness, tacking, and backing.

Verify joint preparation, dimensions, cleanliness and tacking. Verify configuration and finish. Verify dimensions, cleanliness and tacking. Verify packaging and exposure control. Verify that welding does not occur over cracked tack Verify wind speed is within limits as well as

precipitation and temperature. Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow

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Please refer to drawing SE003.1 for further information re: Masonry Construction. Detailed Instructions and Frequencies



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DIVISION OF	J S		Phone: (801) 538-3018 Website: http://dfcm.utah.gov/
MANAGEMENT			
		1	rate, preheat applied, interpass temperature maintai and proper position.
Welding techniques	Observe 🛛	Perform	Verify interpass and final cleaning, each pass is wi profile limitations, and quality of each pass.
Headed stud anchors	Observe	Perform	Verify placement and installation of head stud and
AFTER WELDING (TABLE N5.	.4-3, AISC 360-1	6):	
Welds cleaned	Observe	Perform	Verify that welds have been properly cleaned.
Size, length, and location of welds	Observe	Perform	Verify the size, length and location of welds.
Welds meet visual acceptance criteria	Observe	Perform	Verify that welds meet crack prohibition, base met fusion, profile, size, undercut, and porosity provisi
Arc strikes	Observe	Perform	Verify that arc strikes do not exist outside the permanent weld areas.
k-area	Observe	Perform	When welding of doubler plates, continuity plates stiffeners has been performed in the k-area, visuall inspect the web k-area for cracks.
Backing & weld tabs removed	Observe	Perform	If required on the approved construction document verify that back and weld tabs are removed.
Repair activities	Observe	Perform	Verify that repair activities are performed in accordance with AISC 360 and AWS D1.1.
Documentation	Observe	Perform	Document the acceptance or rejection of the welde joint or member.
Prohibited welds	Observe	Perform	Verify that no prohibited welds have been added w the approval of the engineer of record.
NONDESTRUCTIVE TESTING	(SECTION N5,	AISC 360-16):	
CJP welds (Risk Cat. II)	Observe	Perform	
CJP welds (Risk Cat. III or IV)	Observe	Perform	
Welded joints subject to fatigue	Observe	Perform	
PRIOR TO BOLTING (TABLE	N5.6-1, AISC 36	0-16):	
Certifications of fasteners	Observe	Perform	on N5.6(1) of AISC 360-16]. Verify that manufacturer's certificates are availabl fastener materials.
Fasteners marked	Observe Observe	Perform	Verify that fasteners have been marked in accordant with ASTM requirements.
Proper fasteners for joint	Observe 🛛	Perform	Verify grade, type, and bolt length if threads are excluded from the shear plane.
Proper bolting procedure	🛛 Observe	Perform	Verify proper procedure is used for the joint detail
Connecting elements	Observe	Perform	Verify appropriate faying surface condition and ho preparation, if specified, meet requirements.
Pre-installation verification testing	Observe 🛛	Perform	Observe and document verification testing by installation personnel for fastener assemblies and methods used.
Proper storage	Observe 🛛	Perform	Verify proper storage of bolts, nuts, washers, and c fastener components.
 DURING BOLTING (TABLE NS Not required if only snug- Not required for pretension wist off two towics participants 	5.6-2, AISC 360- tight joints are sp ned joints using t	16): ecified [per Section wrn-of-the-mut me ection NS 6(2) of	on N5.6(1) of AISC 360-16]. thod with match-marking, direct-tension-indicators, AISC 360-161
Fastener assemblies	Observe	Perform	Verify that fastener assemblies are of suitable

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Website: http://dfcm.utah.gov/ Reinforcement, connectors, and 🔲 Continuous 🖾 Periodic Verify that reinforcement, connectors, and anchorages are of the proper grade, type and size in accordance with Article 3.4 of TMS-602-16. Prestressing tendons shall be placed per Article 3.6 A. Continuous Periodic Verify that prestressing technique complies with Article 3.6 B of TMS-602-16. Continuous Periodic Verify that mortar complies with Article 2.1 C of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.) Continuous Periodic Verify that sample panels are properly constructed and that subsequent work conforms per Article 1.6 D of TMS-602-16. (If Risk Category IV this should be erformed on a continuous basis.) PRIOR TO GROUTING (TABLE 4, TMS-602-16): Continuous Cerify that grout space is free of mortar droppings, debris, loose aggregate, and other deleterious materials and that cleanouts are provided per Article 3.2 D and 3.2 F of TMS-602-16. (If Risk Category IV this should e performed on a continuous basis.) Placement of prestressing tendons 🛛 Continuous 🖾 Periodic Verify that prestressing tendons and anchorages are installed per the approved construction documents and per Articles 2.4 and 3.6 of TMS-602-16. Verify that reinforcement, joint reinforcement, wall ⊠ Continuous Periodic

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ties, anchor bolts and veneer anchors are installed in accordance with the approved construction documents and Articles 3.2 E and 3.4 of TMS-602-16. (If Risk Category IV this should be performed on a continuous Proportions of site-prepared grout 🗌 Continuous 🖾 Periodic Verify that grout is proportioned per ASTM C 476 and has a slump between 8-11 inches. Self-consolidated grout shall not be proportioned onsite. (see Articles 2.6 3 and 2.4 G.1.b of TMS-602-16.) DURING MASONRY CONSTRUCTION (TABLE 4, TMS-602-16): Continuous Periodic Ensure that materials and procedures conform to the approved construction documents and Article 1.5 of MS-602-16 Continuous Periodic Verify that masonry units are properly placed and that mortar joint construction conforms to Article 3.3 B of ГMS-602-16. Continuous Periodic Verify the locations of structural elements with respect to the approved plans and confirm that tolerances meet the requirements of Article 3.3 F of TMS-602-16. Continuous Periodic Verify that correct anchorages and connections are

provided per the approved plans and Sections 1.2.1, 6.2.1 and 6.3.1 of TMS-402-16. (If Risk Category IV this should be performed on a continuous basis.) 🖾 Continuous 🗌 Periodic Continuous Periodic Verify that cold-weather construction is performed in accordance with Article 1.8 C of TMS-602-16 and hot weather construction per Article 1.8 D of TMS-602-16.

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STORAGE RACKS (IBC 1705.13.7) > Only required for buildings located within Seismic Design Category D, E, or F. Detailed Instructions and Frequencies

Materials used	Continuous	Periodic	
Fabricated storage rack elements	Continuous	Periodic	
Storage rack anchorage installation.	Continuous	Periodic	
Completed storage rack system	Continuous	Periodic	
ECHANICAL & ELECTR > Only required for buildings loo	ICAL COMPO cated within Seismic	NENTS (IB) C Design Catego	C 1705.13.6) ry C, D, E, or F.
Item			Detailed Instructions and Frequencies
Anchorage of emergency or standby power systems	Continuous	Periodic	
Installation of piping systems carrying flammable, combustible or highly toxic materials	Continuous	Periodic	
Installation of HVAC ductwork containing hazardous materials	Continuous	Periodic	
Installation of vibration isolation systems having a clearance of ≤¼"	Continuous	Periodic	
Clearances to fire sprinkler drops and sprigs	Continuous	Periodic	
Designated seismic systems	Continuous	Periodic	
EISMICALLY ISOLATED Item	STRUCTURE	S (IBC 1705.	13.8 & 1705.14.4) Detailed Instructions and Frequencies
Prototype tests	Continuous	Periodic	
Fabrication and installation	Continuous	Periodic	
PECIAL CASES (IBC 1705 Item	.1.1) – material a	alternatives or	runusual design applications Detailed Instructions and Frequencies
Material and installation	Continuous	Periodic	

MISCELLANEOUS AREAS

Item			Detailed Instructions and Frequencies
Suspended Acoustical Ceilings	Continuous	Periodic	
Soil backfill (specify locations and frequency)	Continuous	Periodic	
Soils for curb and gutter (specify locations and frequency)	Continuous	Periodic	
Soils for parking lots (specify locations and frequency)	Continuous	Periodic	

During concrete placement After concrete placement STEEL ROOF AND FLOO Prior to metal deck attachmen After metal deck placement Prior to welding During welding

FACILITIES CONSTRUCTION MANAGEMENT	1 &		Website: http://dfcm.utah.gov/
(>90°F).		1	
Application and measurement of	Continuous	Periodic	
prestressing force			
Placement of grout and prestressing grout for bonded tendons is in compliance	Continuous		
Placement of AAC masonry units and construction of thin-bed mortar joints	Continuous	Periodic	Verify that mortar is placed in accordance with Articl 3.3 B.9 of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
Observation of grout specimens, mortar specimens, and/or prisms	Continuous	Periodic	Confirm that specimens/prisms are performed as required by Article 1.4 B of TMS-602-16. (If Risk Category IV this should be performed on a continuou basis.)
MINIMUM TESTING:			
Verification of f'_m and f'_{AAC}	Continuous	🛛 Periodic	Determine the compressive strength for each wythe by the "unit strength method" or by the "prism test method" as specified in Article 1.4 B of TMS 602-16 prior to construction. (For Risk Category IV buildings this should be verified at every 5,000ft ² of construction.)
Verification of Slump Flow and Visual Stability Index (VSI) for self-consolidating grout	Continuous	Periodic	Compressive strength tests should be performed in accordance with ASTM C 1019 for slump flow and ASTM C 1611 for VSI.
Verification of proportions of materials in premixed or pre- blended mortar and grout	Continuous	🛛 Periodic	Verify that proportions for mortar meet ASTM C 270 and proportions for grout meet ASTM C 476. (This applies to Risk Category IV buildings only.)
OOD CONSTRUCTION (I	BC 1705.5, 170	5.11.1 & 170	5.12.2)
Item High-load diaphragms	Continuous	Periodic	Detailed Instructions and Frequencies
Wood trusses spanning > 60-feet	Confinuous	Periodic	0
Structural wood	Continuous	Periodic	
LASS TIMPED CONSTRUC	TION (IPC 12	105 5 3)	
Item	TION (IBC I)	(03.3.3)	Detailed Instructions and Frequencies
Anchorson of annactions of mass	Continuous	Periodic	
timber to timber deep foundation systems			
Exection of mass timber construction	Continuous	Periodic	
Functionage of connections of mass timber to timber deep foundation systems Erection of mass timber construction Sealing of mass timber	Continuous	Periodic	
Exection of mass timber construction Sealing of mass timber Inspection of connections where installation methods are required to meet design loads	Continuous	Periodic Periodic See below	
Functionage of connections of mass timber to timber deep foundation systems Erection of mass timber construction Sealing of mass timber Inspection of connections where installation methods are required to meet design loads Threaded fasteners	Continuous Continuous See below Continuous	Periodic Periodic See below Periodic	
Antonage of connections of mass timber to timber deep foundation systems Erection of mass timber construction Sealing of mass timber Inspection of connections where installation methods are required to meet design loads Threaded fasteners Adhesive anchors installed horizontally or upwardly inclined to resist sustained tension	Continuous Continuous See below Continuous Continuous Continuous	Periodic Periodic See below Periodic Periodic Periodic	



Special Inspectors Shall: Inspection reports are to meet the requirements of IBC 1704.2.4 and DFCM standards; The following statement must be provided on the plans along with a signature from the contractor prior to permit issuance.

Each contractor involved requirements of IBC 170 plans and contract docum contractor and shall be n
Declaration by General
I, the General Contractor

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			condition, paced in all holes, and washers are
o 11. · · · · · · ·			positioned as required.
Snug-tight prior to pretensioning	🖄 Observe	Perform	verify that joints are brought to snug-tight condition prior to pretensioning operation.
Fastener component	Observe Observe	Perform	Verify that fastener component is not turned by wrench prevented from rotating.
Pretensioned fasteners	Observe 🛛	Perform	Verify that fasteners are Pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges.
AFTER BOLTING (TABLE N5.	6-3, AISC 360-16	i);	
Documentation	Observe	Perform	Document the acceptance or rejection of bolted connections.
OTHER STEEL INSPECTIONS	(SECTION N5.)	7 & N5.8, AISC 3	360-16; Tables J8.1 & J10.1, AISC 341-16):
Galvanized structural steel	D Observe	D Perform	
Structural steel details	Observe	Perform	
Anchor rods and other embedments supporting structural steel	Observe	Perform	
Reduced beam sections (RBS)	D Observe	Perform	
Protected zones	Observe	Perform	
H-piles	Observe	Perform	
COMPOSITE CONSTRUCTION	N - STEEL & CO	ONCRETE (TAI	BLES J9.1, J9.2, J9.3 of AISC 341-16):
Prior to concrete placement	Observe	Perform	Verify type and grade of reinforcing steel; carbon equivalent if other than A706 bars; proper reinforcing steel size, spacing and orientation; that bar has not been re-bent; bar is tied and supported; proper clearances are provided; and composite member has required size.
During concrete placement	Observe 🛛	Perform	Verify appropriate mix design; limitations on water added to truck/pump; and proper placement techniques are used to limit segregation.
After concrete placement	Observe	Perform	Document that minimum concrete compressive strength was achieved at specified age.
STEEL ROOF AND FLOOR DE	CKS (IBC 1705.	2.2 and SDI QA	QC - 2017):
Prior to metal deck attachment	D Observe	Perform	Verify and document compliance of materials (deck and all deck accessories) with approved construction documents, including profiles, material properties, and base metal thickness.
After metal deck placement	Observe	Perform	Verify and document compliance of deck, and deck accessories, installation with the approved construction documents. Verify that mill certificates comply with approved construction documents.
Prior to welding	Observe	Perform	Verify that welding procedures and certifications of consumables are available, material is properly identified, and welding equipment is appropriate.
During welding	Observe	Perform	Verify that welders are qualified, proper handling of consumables is provided, that environmental conditions are acceptable and WPS is followed.

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			that repair activities are acceptable.
rior to mechanical fastening	Observe 🛛	Perform	Verify that manufacturer's installation instructions and tools are available. Verify proper storage of fasteners.
During mechanical fastening	Observe Observe	Perform	Verify that fasteners are positioned appropriately and installed per manufacturer's instructions.
After mechanical fastening	Continuous	Periodic	Verify spacing and type of all fasteners. Verify that repair activities are acceptable.
OPEN-WEB STEEL JOISTS AN	D JOIST GIRDE	RS (IBC TABL	E 1705.2.3):
nd connections – welded or olted	Continuous	Periodic	Visual inspection to confirm that end connections conform to the approved construction documents.
Bridging – horizontal or diagonal	Continuous	🛛 Periodic	Visual inspection to confirm that bridging is provided per the approved construction documents.
OLD-FORMED STEEL CONS	TRUCTION (IBC	1705.2.4, 1705	.11.2, 1705.12.3, and 1705.12.9):
russes spanning > 60-feet	Continuous	Periodic	
Vind-force-resisting systems or eismic-force-resisting systems	Continuous	Periodic	
old-formed steel special bolted noment frame	Continuous	Deriodic	
em	Continuous	Derindia	Detailed Instructions and Frequencies
DNCRETE CONSTRUCT pase refer to drawing SE003 tem tem temforcing steel, including restressing tendons	ION (IBC 1705.	3 & 1705.12.	 Concrete Construction. Detailed Instructions and Frequencies Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental
			reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Velding of reinforcing steel	Continuous	Deriodic	Visually inspect all welds and also verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4. Continuously inspect any welds over 5/16" thick.
cast-in bolts & embeds	Continuous	Periodic	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
	Continuous	Periodic	All post-installed anchors/dowels shall be specially
ost-installed anchors or dowels			inspected as required by the approved ICC-ES report. Horizontally or upwardly inclined anchors that resist sustained tension loads require continuous inspection and approved installers.

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Periodi

Continuous

Concrete & shotcrete placement 🛛 Continuous 🗋 Periodic



Concrete sampling for strength

tests, slump, air content, and

temperature

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MANAGEMENT

After welding

Observe

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construction documents; ACI 318: Ch. 19, 26.4.3,

26.4.4; and IBC 1904.1, 1904.2.

Bolted connections	Continuous	Periodic	
Concealed connections	Continuous	Periodic	
OILS CONSTRUCTION (II	BC 1705.6)		
lease refer to drawing SE003.	1 for further in	formation re	: Soils Construction.
Item	.,.,.	,	Detailed Instructions and Frequencies
Verify subgrade is adequate to	Continuous	Periodic	Prior to placement of concrete.
achieve design bearing capacity			
Verify excavations extend to proper depth and material	Continuous	Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	Continuous	Periodic	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	Continuous	Periodic	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10 000ft ² of surface area
Verify proper materials, densities and lift thicknesses during placement and compaction.	Continuous	Periodic	Verify use of proper materials and procedures in accordance with the geotechnical report. Verify densities and lift thicknesses during placement and compaction of compacted fill.
RIVEN DEEP FOUNDATIO	ONS (IBC 1705	5.7)	
Item			Detailed Instructions and Frequencies
Verify materials, sizes and lengths	Continuous	Periodic	
Determine capacities and conduct necessary load tests	Continuous	Periodic	
Observe driving operations	Continuous	Periodic	
Verify placement locations & plumbness, confirm type & size of hammer, record number of blows per foot, record tip and butt elevations and document any damage to element	Continuous	Periodic	
Perform additional inspections for steel, concrete or other specialty elements.	Continuous	Periodic	
AST-IN-PLACE DEEP FO	UNDATIONS (IBC 1705.8)	Detailed Instructions and Frequencies
Observe drilling operation and	Continuous	Periodic	
reporting			
Verify placement locations & plumbness, confirm element diameters, lengths, embedment and adequate end-bearing capacity. Record concrete or grout volumes.	Continuous	Periodic	
Perform additional inspections for concrete elements.	Continuous	Periodic	

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Soils for utility trench backfill 🗌 Continuous 🔲 Periodic Continuous Periodi Continuous Periodi Continuous Periodi Continuous Perio phalt testing (specify locations 🛛 🗌 Continuous 💭 Periodic Continuous Periodi Continuous Deriodi Continuous Deriod Continuous Perio

Be approved by the Building Official prior to performing any duties; • Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;

 Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hours of performing inspections; A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the approved construction documents and applicable codes (see IBC 1704.2.4).

CONTRACTOR'S STATEMENT OF RESPONSIBILITY (IBC 1704.4)

ed with the construction of wind or seismic force-resisting systems shall comply with the 704.4. The contractor is responsible for providing the special inspector access to approved uments at the job site. All special inspection records shall be retained at the job site by the made available to the Building Department upon request. al Contractor or of the project, agree to comply with the "Contractor Responsibility" items noted above.

Division of Facilities Construction & Management STRUCTURAL OBSERVATIONS (IBC 1704.6)

REFERRE FILLIN PROPERTY

Item		Proposed Frequency	Name of Structural Observer
Footings, Slabs on Grade, & Concrete over Steel Deck	Required	At initial placement.	Dunn Associates.
Masonry Walls	Required	At initial grout pours.	Dunn Associates.
Structural Steel	Required	At initial erection.	Dunn Associates.
Structural Roof Deck	Required	At completion.	Dunn Associates.

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Structural Observer's Shall:

 Provide proof of licensure as a licensed professional/structural engineer by the State of Utah; • If structural observations are performed by individuals other than the design professional in responsible charge, they should first be approved by the Building Official.

• At the conclusion of work a final structural observation report must be submitted to the Building Official noting any deficiencies which, to the best of the structural observer's knowledge, have not been resolved (see IBC 1704.6).

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Perform Verify size, location and appearance of welds. Verify

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PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

24-038











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A1 LEVEL 1 FLOOR PLAN GI101.1 1/8" = 1'-0"



GENERAL NOTES

 GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS OR CONFLICT IN THE DRAWINGS BEFORE BEGINNING WORK. DO NOT SCALE DRAWINGS

ITEMS HALF-TONED SHOWN FOR REFERENCE ONLY.

6



PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

24-038











2. ALL WALKWAYS SHALL NOT EXCEED 5%. SLOPE 2% MAX. FROM BUILDING OR STAIR RISERS FOR 5' MIN. REFER TO PLAN AT ALL DOORWAYS TO THE BUILDING. ALSO SLOPE 2% MAX FOR 5' AT THE END OF THE 1:12 SLOPE OF ALL H.C. RAMPS. ALL STEPS AND RAMPS ARE DETAILED ON THE ARCHITECTURAL SITE PLANS.

3. SITE CLEARING, SUBGRADE PREPARATION, EXCAVATION, AND BACKFILL WILL BE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT. SITE PAVEMENT THICKNESS WILL ALSO IN ACCORDANCE

4. CONCRETE DRIVEWAY TO BE CONSTRUCTED PER APWA STANDARD PLAN 225. ALL OTHER CONCRETE PAVEMENT FOR VEHICLES SHALL BE A MINIMUM OF 6" OF CONCRETE (4500 psi) OVER 8" OF BASE COURSE.

ALL CONCRETE AND ASPHALT PAVEMENT TO MEET REQUIREMENTS OF THE APWA SPECIFICATIONS. BASE COURSE TO MEET UDOT SPECIFICATIONS (1 1/2" GRADATION).

5. ALL ASPHALT PAVING TO BE 4" OF ASPHALT (1 1/2" OF 1/2" MIX OVER 2 1/2" OF 3/4" MIX) OVER 8" OF BASE COURSE.

REPORT HAS LESS STRINGENT REQUIREMENTS.

WITH THE GEOTECHNICAL REPORT. USE MINIMUM PAVEMENT THICKNESS OUTLINE IN NOTES 4 AND 5 IF GEOTECHNICAL

1. HANDICAP PARKING AREA SHALL NOT EXCEED 2% IN ANY DIRECTION. THE PERPENDICULAR CROSS SLOPE TO PARKING ANY DIRECTION FOR PARKING AREAS.

GENERAL GRADING NOTES:

STALL IN OTHER AREAS OF THE PARKING LOT SHALL NOT EXCEED 5% IN SLOPE AND SLOPE SHALL NOT EXCEED 6% IN

SCALE 1"=20' MERIDIAN ENGINEERING, INC. 128 WEST 11010 SOUTH, SUITE 102 SOUTH JORDAN, UTAH 84095 PHONE (801) 569-1315 FAX (801) 5691319

MERID





PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

24-038

2024-08-26

DESCRIPTION



(801) 355-5915



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- GENERAL UTILITY NOTES:
- 1. PLUMBING CONTRACTOR WILL TERMINATE THEIR ROOF DRAIN LINES WITH A CLEAN OUT APPROXIMATELY 5' FROM THE BUILDING. COORDINATE WITH PLUMBING CONTRACTOR ON SCHEDULE AND PLACEMENT OF ROOF DRAIN LINES NEAR THE BUILDING.
- ALIGN ALL INTERIOR AND EXTERIOR UTILITIES. SITE UTILITY CONTRACTOR TO COORDINATE PLACEMENT HORIZONTALLY AND VERTICALLY WITH BUILDING PLUMBING CONTRACTOR. SITE "INTERFACE LINE" BETWEEN THE BUILDING PLUMBING CONTRACTOR AND THE SITE UTILITY CONTRACTOR WILL BE AT 5' FROM THE BUILDING AND (EXCEPT FOR THE FIRE SPRINKLER LINE AND WATER LINES) A CLEAN OUT WILL BE INSTALLED BY THE PLUMBING CONTRACTOR APPROXIMATELY 5' FROM THE BUILDING FOR STORM DRAIN AND SEWER LINES. CONNECTION TO BUILDING PIPING AND ALL PIPING BEYOND THIS INTERFACE SHALL BE THE SITE UTILITY CONTRACTOR'S RESPONSIBILITY. PROVIDE REDUCERS, ADAPTERS, OR OTHER FITTINGS AS REQUIRED AT THE INTERFACE TO CONNECT TO BLDG. PIPE. COLLECT ROOF DRAIN LINES AS SHOWN AND ROUTE TO NEW CATCH BASINS OR CLEAN OUTS ON SITE. PREFERRED SLOPES, APPROXIMATE DISTANCES, AND INVERTS OF GRAVITY PIPING ARE SHOWN ON THE PLAN MAY REQUIRE ADJUSTMENT TO CONNECT TO BUILDING ROOF OR SEWER DRAIN LINES. MAINTAIN 2% SLOPE FOR 4" DIAMETER OR SMALLER PIPES, 1% FOR 6" AND 0.4% FOR 8" DIAMETER PIPES.
- 3. SITE CONTRACTOR SHALL COORDINATE WITH KAYSVILLE CITY INSPECTOR WHEN COMPLETING CONNECTIONS TO LINES ALONG DAVIS TECH DRIVE OR ON SITE WHERE REQUIRED. ALL WATER AND SEWER SYSTEM DETAILS AS WELL AS INSPECTIONS FOR THE ENTIRE SITE SHALL BE IN ACCORDANCE WITH CENTRAL DAVIS SEWER DISTRICT AND KAYSVILLE CITY STANDARD DETAILS AND SPECIFICATIONS. SEE GENERAL NOTES ON SHEET C-100. WHERE THRUST BLOCKING CANNOT BE COMPLETED DUE TO OTHER ADJACENT UTILITIES OR OTHER SITE CONSTRAINTS, RESTRAINED JOINTS WILL BE REQUIRED PER CITY STANDARD SPEC'S. THRUST BLOCK ALL WATERLINE FITTINGS PER CITY STANDARDS TYP.
- 4. NO CONNECTION SHALL BE ALLOWED TO THE 8" FIRE LOOP EXCEPT FOR FIRE HYDRANTS AND THE FIRE SPRINKLER LINE. REFER TO LANDSCAPING PLANS FOR DOUBLE CHECK AND STOP & WASTE LOCATION AND DETAILS FOR IRR. SYSTEM.
- 5. COORDINATES FOR FIRE HYDRANTS, 3'x3' CATCH BASINS, OR CLEAN OUTS ARE AT THE CENTER OF THE UTILITY SURFACE FEATURE. COORDINATES FOR WATER LINE ANGLE POINTS ARE AT THE CENTER OF THE PIPELINE. COORDINATES FOR CURB INLETS ARE AT THE FACE OF THE CURB AT THE CENTER OF THE INLET. ALL STORM DRAIN BOXES ARE 3'x3' EXCEPT THOSE INLETS PLACED IN CURB AND GUTTER.
- 6. ALL VALVES, AREA CATCH BASINS (NOT IN C&G), CLEAN OUTS, OR MANHOLES SHALL HAVE CONCRETE GRADE ADJUSTMENT COLLARS PLACED AROUND THE STRUCTURE.
- 7. STORM DRAIN CLEAN OUTS TO BE SIMILAR TO DETAIL SHOWN ON PLUMBING PLANS.
- 8. ROOF DRAIN CONNECTIONS AT CATCH BASINS OR CLEAN OUT BOXES TO BE CORE DRILLED AND EPOXY GROUTED INTO PRECAST BOXES DUE TO FIELD ADJUSTMENTS WHICH MAY BE NECESSARY TO CONNECT TO BUILDING PIPING.
- 9. THE FIRE SPRINKLER LINE AND DOMESTIC WATER LINES SHALL BE ROUTED INTO THE FIRE SPRINKLER ROOM INSIDE THE BUILDING AND TERMINATE 12" ABOVE FINISH FLOOR WITH A FLANGE FITTING. CAP WITH BLIND FLANGE FOR LINE TESTING. REFER TO PLUMBING PLANS FOR RISER LOCATION IN THE BUILDING. THE FIRE SERVICE LINE AND FIRST FIVE FEET OF THE DOMESTIC WATER LINE SHALL BE CEMENT LINED DUCTILE IRON PIPE (PER AWWA C151 350psi AND AWWA C104) WRAPPED IN POLYETHYLENE (PER AWWA C105) FROM THE BUILDING CONNECTION TO THE TEE AT THE FIRE CONNECTION PER CITY STANDARD SPECIFICATIONS AND DETAILS.
- 10. ALL PAVEMENT REPAIR IN DAVIS TECH DRIVE TO BE IN ACCORDANCE WITH APWA STANDARDS. REPAIRS TO MATCH EXISTING PAVEMENT THICKNESS. USE 6" ASPHALT OVER 12" BASE COURSE IF EXISTING PAVEMENT IS LESS THAN THIS THICKNESS. (TYP.)
- 11. ALL CONSTRUCTION, PIPING MATERIALS AND INSTALLATION TO BE PER CITY STANDARDS FOR CULINARY WATER, SANITARY SEWER LINES AND STORM DRAIN LINES.
 - NEW WATER LINES KAYSVILLE CITY STD'S. TO METER CONNECTION; DIP CLASS 51. FIRE SPRINKLER & 4" CULINARY WATER LINES TO BE D.I. PER NOTE 9 ABOVE AND PER CITY STANDARDS. SEWER LINES AND MANHOLES - CENTRAL DAVIS SEWER DISTRICT STD'S.; PVC PIPING (SDR 35), PRECAST MANHOLES. STORM DRAIN - KAYSVILLE CITY STD'S.; RCP (CLASS III), ALONG DAVIS TECH DRIVE. 12 TO 15" PIPING HIGH PERFORMANCE HDPE FOR SITE AREA.
- ROOF DRAIN PIPING PROJECT PLUMBING SPECIFICATIONS; CAST IRON SOIL PIPE 4" TO 8" ROOF DRAIN PIPING WRAPPED IN POLYETHYLENE SLEEVES (PER AWWA C105). 12. BACKFLOW PROTECTION SHALL BE IN ACCORDANCE WITH ALL UTAH DIVISION OF DRINKING REGULATIONS AND STANDARDS. BACKFLOW DEVICES
- AND THE STOP AND WASTE VALVE ARE SHOWN ON THE LANDSCAPE DRAWINGS. 13. INSPECTION AND APPROVAL FOR ANY SEWER/WATER LINE CROSSINGS SHALL BE REVIEWED AND APPROVED BY CITY PRIOR TO CONSTRUCTION OF THE CROSSING. CITY SHALL ALSO INSPECT THE CROSSING PRIOR TO BACKFILL.
- 14. ALL WATERLINES SHALL MAINTAIN A MINIUMUM OF FOUR FEET OF COVER AT ALL TIMES. THE ANTICIPATED FROST DEPTH IS 30 INCHES.
- 15. UNDERGROUND FIRE SERVICE MAINS TO BE FLUSHED PER CITY AND NFPA STANDARDS 13 AND 24.
- 16. CONTRACTOR TO PROVIDE ELECTRICAL & TELEPHONE LINE TRENCHING AND BACKFILL. COORDINATE LOCATIONS WITH POWER AND TELEPHONE COMPANIES.
- 7. WATER VALVES, SEWER MANHOLES, STORM DRAIN INLETS OR CLEANOUTS BOXES, AND OTHER SURFACE UTILITY APPARATUSES SHALL BE RAISED TO ACCURATE FINISH SURFACE BY A CONCRETE GRADE COLLAR. THE CONCRETE COLLAR WILL EXTEND 12" MINIMUM AROUND THE UTILITY APPARATUSES WITH A 10" MINIMUM THICKNESS. PLACE 2-#4 HOOPS IN CONCRETE COLLAR.











(801) 355-5915

UTILITY PLAN

CU300





GENERAL NOTES

GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS OR CONFLICT IN THE DRAWINGS BEFORE BEGINNING WORK.
 DO NOT SCALE DRAWINGS
 ITEMS HALF-TONED SHOWN FOR REFERENCE ONLY.

ARCHITECTURAL SITE PLAN LEGEND

KEYNOTES



5



PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

24-038













A1 DIMENSION CONTROL PLAN AE100.1 1/8" = 1'-0"

2

3

5

4

PROJECT

BID PACKAGE #1

REVISIONS DATE NO.

DESCRIPTION

24-038

A1 LEVEL 1 FLOOR PLAN AE101.1 1/8" = 1'-0"

2

2

3

5

4

6

PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

24-038

A1 LEVEL 1 CEILING PLAN AE171.1 1/8" = 1'-0"

3

4

D

E

4

2

2

GENERAL NOTES

 GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS OR CONFLICT IN THE DRAWINGS BEFORE BEGINNING WORK.
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CEILING LEGEND

GYPSUM BOARD CEILING. PAINT.	C1 X'-X"
OPEN TO STRUCTURE ABOVE	C4 X'-X"
WINDOW SHADES	

5

PROJECT

BID PACKAGE #1

REVISIONS no. date

DESCRIPTION

24-038

2024-08-26

AE171.1

GENERAL NOTES

5

 GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS OR CONFLICT IN THE DRAWINGS BEFORE BEGINNING WORK.
 DO NOT SCALE DRAWINGS
 ITEMS HALF-TONED SHOWN FOR REFERENCE ONLY.

5

4

PROJECT

BID PACKAGE #1

REVISIONS no. date

DESCRIPTION

24-038

T.O. LOWER <u>PARAPET</u> 117' - 6" POINT 117' - 0" POINT 113' - 4"

MAIN LEVEL 100' - 0"

1. All systems (including façade, cladding, components, elements and/or their attachments to the structure) intended for use to enclose the building

shall comply with the following criteria for interstory drift as required by ASCE 7 as interpreted or defined herein and as modified or supplemented herein. See Basis of Design section of the General Structural notes for wind loads, deflection limits, and horizontal (story) drift limits. A. Systems shall be detailed to accommodate vertical building movement (live load deflection) in conjunction with interstory drift. Interstory drifts B. Systems shall be designed and detailed for elastic (probable) interstory drift such that all systems shall remain intact, undamaged and all sealant joints integral to or placed between systems shall remain intact, uncompromised, without failures or breaches. Joints, jointing and/or

C. Systems shall be designed and detailed for inelastic (credible) interstory drift such that no failure or distress occurs to systems except joint sealant is allowed to fail. Under no circumstances shall elements and/or components come in contract with adjacent systems, elements and/or

D. Systems with glazing are intended to keep all members and glazing intact and connected to the building. Glazing shall not break or become E. Systems shall not apply moments to the slab edges and shall not induce lateral loads into beams unless kicker bracing is supplied. Attachments shall not induce torsional loads into beams and columns, nor loads into braces that are part of the Main Seismic Force Resisting System. F. Allowance shall be made for sealant to occupy some finite space when compressed beyond its working limit (suggest ±15% of its static joint

3. All systems shall be coordinated to interface with all adjoining systems such that consistency is maintained throughout the exterior closure regarding 4. Systems and details shall be consistent with the architectural intent for joint sizes and system details to the largest extent possible, or where

> ----- Gordon Geotechnical Engineering ----- Feb. 28th, 2024 003-053-24 -----2500 psf, on structural fill or natural soils.

----- 30 inches minimum

----- 0 4-0 4

(a,b,c)

F0, S0, W0, C1

F1, S0, W0, C1

F0, S0, W0, C0

F3, S0, W0, C0

5000 F3, S0, W0, C2

3000

3500

4000

4500

---- 300 pcf - 75 psf uniform seismic

- 35 pcf + 75 psf uniform seismic (retaining walls) ----- 55 pcf + 75 psf uniform seismic (rigid foundation walls)

Consult the project specifications and soils report for further earthwork requirements. In absence of information, refer to the following notes.

6. Proof rolling: The natural undisturbed soil below all footings shall be proof rolled prior to placing concrete. Remove all soft spots and replace with 7. Compacted structural fill: All fill material shall be a well-graded granular material with a maximum size less than 4" and with not more than 10% passing a #200 sieve. Fill beneath footings shall be compacted to 95% of the maximum laboratory density as determined by ASTM D 1557. All fill

8. Floor slabs shall be underlain by a granular layer at least 4" thick. The granular layer shall have a maximum size less than 1" with not more than 5% passing a #200 sieve and shall be compacted to at least 90% of the maximum laboratory density as determined by ASTM D 1557.

> Comp. Strength Exposure Classes Nominal Max. per ACI 318 19.3.1 Aggregate Size 1 1/2"

3/4"

b. Air content ± 1.5%, to comply with ACI 318 Tables 19.3.2.1 and 19.3.3.1, initially measured at point of final placement and point of discharge. Subsequent measurements may occur only at point of discharge provided air content is adjusted to account for placement losses. Air content shall be adjusted for the use of admixtures, fly ash and aggregate size. Air-entraining admixtures shall comply with ASTM C260 (when used). c. Calcium chloride shall not be added to the concrete mix. Unreinforced concrete slabs on grade may use calcium chloride as permitted by ACI

d. For any exposed slab on grade, the contractor is to notify the engineer of record at least 7 days prior to any pours to discuss the concrete mix design being used as well as present their means and methods of addressing concrete phenomena such as cracking, curling, spalling, etc. e. Interior slabs on grade shall have a drying shrinkage maximum of 0.040% by ASTM C157 (7-day soak time permitted). Test results shall be

> ---- ASTM C33 ----- ASTM C330 --- ASTM C618

---- ASTM A615 Grade 60 ----- ASTM A706 Grade 60 ASTM A615 is permitted if mill certifications are submitted showing that actual yield strength does not exceed the specified strength by more than 18000 psi, the ratio of tensile to yield strength is greater than 1.25, and required minimum elongations of A706 are met. 3. A706 Grade 80 may be used at the contractor's option. Subject to the above requirements, ASTM A615 Grade 80 steel may be used at the

----- ASTM A496 --- ASTM A108 H. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete. A. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own

B. Suspended slabs shall be re-supported after form removal until concrete reaches its 28-day specified compressive strength.

A. Provide a beveled 2" x 4" x continuous or intermittent keyway in all horizontal and vertical construction joints including between top of footing and foundation walls. In addition, all joints shall be intentionally roughened to a full amplitude of approximately 1/4". B. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be

C. Install control joints in slabs on grade at a spacing not to exceed 30 times the slab thickness in any direction, unless noted otherwise. D. Install construction joints in walls at a spacing not to exceed 30 times the wall thickness, except in concrete shear walls. For masonry walls

A. Use chairs or other support devices recommended by the CRSI to support bar and tie reinforcement bars and WWR prior to placing concrete.

B. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to D. No pipes, ducts, sleeves, etc. shall be placed in structural concrete unless specifically detailed or approved by the structural engineer.

Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around these elements and footings stepped to avoid piping. E. Reinforcing bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute

A. Lap splice lengths shall be detailed to comply with the "Reinforcing Bar Lap Splice Schedule" contained within the contract drawings.

Splices may be made with mechanical splices capable of 125% of yield strength of the bar being spliced (Type 1). Splices located within lateral resisting elements shall also develop the tensile strength of the bar (Type 2). Mechanical splices shall be the positive connecting type coupler and shall meet all ACI requirements. Use "Cadweld", "Lenton" Standard Couplers, "Bar-Lock" or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis B. All 90, 135 and 180° hooks shown graphically in the drawings shall be detailed as ACI standard and seismic hooks, unless noted otherwise.

E. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing. F. All vertical reinforcing shall be doweled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the

element above. Dowels extending into footings shall terminate with a 90° standard hook and shall extend to within 4" of the bottom of the G. See details for reinforcing around miscellaneous openings. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

8. All concrete shall be mixed and placed per ACI 304. Contractor shall refer to and follow the recommendations in ACI 305R for hot weather

9. Contractor is not to backfill against retaining walls unless walls have achieved design strength or have been shored. Contractor is not to backfill against basement walls without placement of the main floor diaphragm unless the walls have been shored or approval of the EOR has been 10. Construction activity or storage of materials shall not take place on newly placed concrete until the concrete achieves sufficient strength to provide

GENERAL STRUCTURAL NOTES POST-INSTALLED ANCHORS 1. Post-installed anchors shall only be used where specifically detailed or called for on the design drawings. If circumstances arise during construction where the Contractor desires to substitute a post-installed anchor in place of a cast-in-place anchor, the Contractor shall submit a formal written request for each circumstance to the Architect and Engineer for review. 2. Follow all ICC Evaluation Report and manufacturers' requirements and recommendations for post-installed anchor installation. Where conflicts may exist, the most stringent requirement applies 3. Post-installed anchors that are exposed to exterior conditions, or interior spaces where moisture can accumulate, shall be either galvanized or 4. All holes in hollow, brick, or stone masonry shall be drilled in the "rotary-only" mode with the hammer function off. 5. For installation of adhesive anchors horizontally or vertically inclined, installers must have AMI/CRSI Adhesive Anchor Installer Certification or 3. Adhesive anchors shall be as specified in the Contract Documents. If no specific adhesive is specified, or if a particular product is preferred, the

Contractor may submit a request for an adhesive from the following list prior to design of the anchor. Follow manufacturer and ICC evaluation report requirements for installation temperature of adhesive anchors. Adhesive anchors shall not be installed or cured outside of approved temperature ranges. Adhesive anchors may not be installed in concrete less than 21 days old without prior approval. A. Eligible adhesive anchors in concrete (normal weight only) 1. HIT-RE 500v3 by Hilti (ESR-3814) HIT-HY 200v3 by Hilti (ESR-4868) 3. Kwik-X Dual Action by Hilti (ESR-5065) 4. SET-3G by Simpson (ESR-4057) 5. AT-3G by Simpson (ESR-5026) 6. ET-3G by Simpson (ESR-5334) 7. Pure 110+ by Dewalt (ESR-3298)

AC200+ Gold by Dewalt (ESR-4027) B. Eligible adhesive anchors in grouted masonry 1. HIT-HY 270 by Hilti (ESR-4143) 2. AT-XP by Simpson (IAPMO ES ER-261) 3. SET-3G by Simpson (ESR-4844). Also approved for ungrouted masonry. 4. ET-3G by Simpson (ESR-5309)

AC100+ Gold by Dewalt (ESR-3200) 7. Mechanical anchors shall be as specified in the Contract Documents. If no specific mechanical anchor is specified, or if a particular product is preferred, the Contractor may submit a request for an anchor from the following list prior to design of the anchor. A. Eligible mechanical anchors in concrete Kwik Bolt TZ2 by Hilti (ESR-4266) 2. Kwik HUS-EZ by Hilti (ESR-3027)

3. HDI-P TZ by Hilti (ESR-4236) 4. Strong-Bolt 2 by Simpson (ESR-3037) 5. Titen HD by Simpson (ESR-2713) Torg-cut by Simpson (ESR-2705) Trubolt+ by ITW (ESR-2427)

8. Tapcon/Sammy Anchors by ITW (ESR-2202) 9. Power-Stud+ SD2 by Dewalt (ESR-2502) 10. Power-Stud+ SD4 and SD6 Stainless by Dewalt (ESR-2502)

- 11. Snake+ by Dewalt (ESR-2272) 12. Screw-Bolt+ by Dewalt (ESR-3889)
- 13. Mini Undercut+ by Dewalt (ESR-3912) B. Eligible mechanical anchors in grouted masonry . Kwik Bolt 3 by Hilti (ESR-1385) . Kwik HUS-EZ by Hilti (ESR-3056)
- Kwik Bolt TZ2 by Hilti (ESR-4561 4. Titen HD by Simpson (ESR-1056) Strong-Bolt 2 by Simpson (IAPMO ES ER-0240) 6. Power-Stud+ SD1 by Dewalt (ESR-2966)
- Screwbolt+ by Dewalt (ESR-4042) 8. The Contractor may also submit for review and approval, the manufacturer's ICC evaluation report of alternate anchor systems not listed above. The alternate system shall provide minimum capacities equal to or greater than the specified anchor system. The alternate system shall be approved by the engineer of record prior to the substitution.

MASONRY

stainless steel anchors

approved equivalent.

- 1. Materials shall be as follows, unless noted otherwise: A. Design strength of all masonry shall be f 'm=2000 psi at 28 days, unless noted otherwise. B. Concrete Masonry Units (CMU) shall be ASTM C-90, Grade N, Type 1, medium weight (115 pcf) with a minimum unit strength of 2000 psi at 28 davs for net area.
- C. Solid Clay Masonry Units shall be ASTM C62, Grade SW, with a minimum compression strength of 3000 psi at 28 days. D. Mortar shall be ASTM C270 Portland cement - lime, type "S", with a minimum compression strength of 2000 psi at 28 days. See specifications for additives allowed. Masonry mortars and masonry cements are not allowed. Use type "M" mortar for masonry below grade (2500 psi). . Grout shall be ASTM C476, with a minimum compression strength at least equal to the design strength F'm at 28 days. Limit fly ash to 25% of
- the total cementitious material. Slump shall be between 8" and 11". F. Reinforcing bars shall be ASTM A615, grade 60, (Fy = 60 ksi) except only ASTM A706, grade 60, "low alloy" steel shall be used for reinforcing shown to be welded. G. Joint Reinforcing shall be ASTM A951, galvanized, standard class, ladder type with #9 wire per ASTM A82.
- H. Deformed Bar Anchors (DBA) shall be ASTM A496. I. Headed Stud Anchors (HSA) shall be ASTM A108.
- J. Anchor Bolts shall be ASTM F1554 Grade 36. Heavy hex nuts shall be ASTM A563. K. Mechanical splice couplers shall be ASTM A1034 and shall be capable of developing 125% of the specified yield strength of the bar.
- 2. Construction Requirements A. All masonry construction, workmanship, and materials shall comply with TMS 602/ACI 530.1/ASCE 6, "Specifications for Masonry Structures". B. All masonry units shall be stored under cover at the job site. Do not use any frozen materials. C. Prior to placing masonry, check with all trades to insure proper placement of openings, block outs, sleeves, curbs, conduits, bolts, inserts, embeds, dowels, etc.
- D. During construction, cover and protect the top of all constructed masonry at the end of each day. No "toothing" or doweling only will be E. All masonry walls, lintels, and columns shall be built with running bond, typical unless noted otherwise.
- F. Mortar joints for all hollow units, both vertical head joints and horizontal bed joints, shall be bedded for a distance at least equal to the thickness of the face shells. The webs each side of cells to be grouted shall be bedded as well. Mortar joints for all solid masonry units, both vertical head joints and horizontal bed joints, shall be fully bedded. G. Do not use mortar for grout.
- H. Grout pours shall be limited to 4'-0" in height and shall be placed in accordance with low lift procedures, typical, unless noted otherwise. I. Grout pours shall terminate flush with the top of the uppermost unit except at cells with vertical reinforcing where the grout shall be 1-1/2" below the top of the unit to provide a construction key. J. Grout shall be consolidated by mechanical vibration during placement and reconsolidated after excess moisture has been absorbed but before
- workability is lost. Puddling or rodding of grout is not allowed. K. Grout solid all cells which contain reinforcing, bolts, anchors, etc., and as otherwise specified. Grout solid all cells below grade. Grout solid all lintels and columns. Do not grout walls solid unless specifically noted as such. Grout solid around all joist and beam bearing pockets after installation of beams and joists, typical, unless noted otherwise. L. Vertical cells to be filled with grout shall have vertical alignment sufficient to maintain a clear, unobstructed, vertical cell measuring not less than
- M. See architectural drawings for locations of control joints. Masonry control joint spacing shall not exceed 26'-0". Corners are to have a control joint on one side of the corner within 2'-0" of the corner. Control joints shall not be over or within 4'-0" of openings. Control joints shall not be placed in masonry columns. If these requirements cannot be satisfied, walls with multiple openings (3'x3' or larger) may have control joint spacing increased to 40'-0" max.
- N. Penetrations shall not be allowed through any masonry lintel, column, pilaster, or jamb without the EOR's prior written approval. Penetrations shall be re-routed as required at these locations. Penetrations through masonry walls shall be built into the wall as the wall is being constructed and shall be reviewed by the EOR prior to installation. Conduits or pipes shall not run in reinforced cells and units without notification and approval by the Engineer of Record.
- O. Masonry walls and columns shall be securely braced until floor and/or roof systems have been installed and are capable of stabilizing the P. Where horizontal reinforcing bars join concrete walls, columns, or pilasters, reinforcing shall be continuous. Also, a key shall be provided
- between the masonry and the concrete. Fill the key with grout. Q. Bolt holes in face or end shells shall have a diameter two inches larger than the bolt diameter and the hole shall be filled with grout. R. Post-installed anchor bolts shall only be installed with prior written approval of the EOR. When used, they shall be installed in solid material. Grout solid at cavity locations. All bolt holes to be filled with epoxy shall be wire brushed and cleaned with compressed air per manufacturer's recommendations. 3. Detailing Requirements
- A. Reinforcing steel shall be free of loose flakey rust, scale, grease, oil, dirt, or other deleterious materials which might affect or impair bond. B. Minimum grout coverage for reinforcing bars shall be one bar diameter, but not less than 3/4". Minimum mortar coverage for joint reinforcing shall be 5/8" from exposed face. C. Reinforcing steel shall be placed prior to grouting and shall be placed, positioned, and located according to the structural drawings. It shall be
- secured against displacement by wire positioners or other suitable devices at intervals not to exceed 200 bar diameters or ten feet, and at all bar splice locations. D. Lap all masonry reinforcing per the "Masonry Reinforcing Bar Lap Splice Schedule" in the contract documents. In the absence of this schedule,
- lap all masonry reinforcing per bar size as follows 1. One bar/cell, typical: #3=12", #4=13", #5=20", #6=38", #7=52", #8=72", #9=81". 2. Two bars/cell, typical: #3=13", #4=22", #5=35", #6=54", #7=63", #8=72" and #9=81".
- E. Vertical reinforcing shall be doweled into the foundation wall, footing, or structure below with the same size bar, spacing, and in same core as the vertical reinforcing in the wall above. F. Horizontal reinforcing shall be continuous through masonry walls, columns, and pilasters.
- G. Horizontal reinforcing at masonry control joints shall be continuous through the joint, typical, unless noted otherwise. H. Reinforcing bars shall not be field bent, except as shown in the contract drawings or permitted by the EOR. I. Walls:
- 1. Masonry walls shall be built as an integral unit at corners and intersections. Reinforcing shall be continuous and back-to-back end shells shall be removed at each course . Vertical reinforcing shall be placed in the center of the wall, typical, unless each face is specified or unless noted otherwise.
- . Vertical reinforcing shall be provided at each corner and intersection. 4. Horizontal corner bars shall be provided at all wall intersections and corners. Use same size and spacing as horizontal reinforcing. Provide proper lap lengths.
- 5. Horizontal reinforcing shall terminate with a standard hook at the edge of openings and at ends of walls, around the vertical bar. 6. Horizontal reinforcing shall occur at the top and bottom course of all masonry walls except the bottom course horizontal reinforcing may be omitted when the wall is doweled to a concrete foundation wall below. J. Lintels
- 1. Masonry lintels shall be built as an integral part with the support. Masonry units with lintel block ("U" blocks) or one open end ("A" blocks) shall be used in all masonry lintels. Back-to-back end shells are not allowed. Grout all masonry lintels solid for full depth and width shown in the masonry lintel schedule Reinforcing shown in the masonry lintel schedule is in addition to standard wall reinforcing.
- 3. Horizontal reinforcing bars in the top of the lintel shall be placed in the top 4 inches of the lintel and shall extend a minimum of 72 bar diameters beyond the face of the opening or shall be hooked if required. 4. Horizontal reinforcing bars in the bottom of the lintel shall be placed in the bottom 4 inches of the lintel and shall extend a minimum of 24 inches beyond the face of the opening or shall be hooked if required.
- 5. Vertical reinforcing bars shall hook around the bottom horizontal reinforcing bars. They shall also hook around the top horizontal reinforcing hars or extend into the wall above the lintel a minimum of 48 har diameters 6. Do not splice horizontal top or bottom bars of lintels, typical unless noted otherwise.
- 7. For openings not shown, use similar lintel as shown in that wall or type of wall for similar length openings. Verify with the EOR. 8. Use the following masonry lintel sizes for openings in non-bearing masonry walls. Width of Opening Lintel Depth Horizontal Reinforcing Up to 4'-0" 16" (2) #5 bottom
 - Up to 8'-0" 24" (2) #5 top and bottom Up to 10'-0" 32" (2) #5 top and bottom For wider openings contact the EOR. See the masonry lintel schedule for additional information.
- K. Columns/Jambs 1. All masonry column ties shall terminate with a 135 degree hook plus a 6 bar diameter extension (4" minimum). Horizontal wall reinforcing shall be placed inside the column vertical reinforcing. 2. Grout jambs solid for full height of wall (floor to floor and/or roof) at sides of openings; one cell for each 4-0" of span or portion thereof.
- Reinforce with (2) #5 vertical bars in each grouted cell with one bar placed at each face of wall, typical unless noted otherwise. See contract documents for other reinforcing requirements. L. Reinforcing shall not be welded unless specifically noted otherwise. In such cases, use AWS D1.4 standards. Do not substitute bars for DBA's
- or HSA's. M. Epoxy Coated reinforcing shall only be used when specifically noted. Increase lap lengths as required by the IBC and ACI

MASONRY VENEER

- at 16" on center maximum in both vertical and horizontal directions. Anchors shall extend to the galvanized "ladur type" ((2) #9 wires) joint reinforcing in the masonry wall spaced at 16" on center maximum. . Other methods of attachment may be used after written acceptance by the architect and structural engineer.
- minimum bearing of 6". See the Steel Angle Lintel Schedule for size. STRUCTURAL STEEL A. American Institute of Steel Construction (AISC) 360, "Specification for Structural Steel Buildings," with "Commentary". B. AISC 341 "Seismic Provisions for Structural Steel Buildings. AISC 303 "Code of Standard Practice" excluding sections 3.4, 4.4 and 4.4.1. D. AISC "Specification for Structural Joints Using High Strength Bolts" Manual".
- 2. Material: A. Wide Flange Sections------ ASTM A992 (50 ksi) part of the Seismic Load Resisting System (SLRS). Minimum Charpy V-Notch requirements are 20 ft-lbs at 70°F. B. Plate
- 1. Typical-----D. Hollow Structural Shapes 1. Rectangular-----Round-----E. Other Structural Shapes (M, C, etc), Threaded Rod--- ASTM A36
- F. Bolted Connections-----G. Anchor Bolts 1. All Columns unless noted otherwise: ASTM F1554 Grade 105 with ASTM A563 heavy hex nuts. Nuts to be snug tight.
- H. Weld Filler Metal 1. Shielded Metal Arc Welding------ AWS A5.1, low-hydrogen only structural members. 2. Gas-Metal & Metal-Cored Arc Welding------ AWS A5.18
- 3. Flux-Cored Arc Welding------ AWS A5.20 E7XT-4 or E7XT-11 electrodes are not permitted. 4. Intermixing of welds made from self-shielded welding electrodes with welds made by other processes is not allowed in seismic critical
- . Deformed Bar Anchors (DBA)---------- ASTM A496
- Headed Stud Anchors (HSA)------ ASTM A108 K. Non-Shrink Grout-----Non-shrink grout shall be prepackaged, non-metallic and non-gaseous. Furnish certified independent test data to Structural Engineer. Compressive Strength in 28 days = 7,500 psi
- L. Refer to architectural drawings for structural steel fireproofing or architecturally exposed steel requirements. M. All steel, connectors and embeds exposed to weather shall be galvanized, unless noted otherwise. Structural Detailing
- the 'k' region of wide flange members is prohibited unless noted otherwise.
- FLANGE WIDTH------Less than 8 1/4"------
- 8 1/4" to 12 1/4"---------- 3/8" & 1/4" 12 1/4" to 16 1/2"----------- 1/2" & 5/16" 16 1/2" to 20 3/4"----------- 5/8" & 3/8" C. Bolting and Fasteners
- the design drawings, unless noted otherwise: a. Use A325N bolts or tension-controlled bolts. b. Tighten these fasteners to a "snug tight" condition. the beam for the span and steel specified.
- 2. Slip Critical connections (SC) are shown on the structural design drawings. They join steel-to-steel connections in Seismic Load-Resisting Systems (SLRS). 3. Fasteners and washers shall not be reused. Scrap dirty, rusted, or water-contaminated bolt assemblies.
- Repair of gouges, notches, mill imperfections, shall conform to the requirements of the AISC and AWS provisions. D. Weld Access Holes and Temporary Attachments Fabricate beam copes and weld access holes using the geometry described in AISC 360 Section J1.6.
- 2. Runoff tabs are to be removed unless noted otherwise.
- backup bar is welded to column flanges with 5/16" fillet weld. F. All welds not noted on drawings shall be minimum 1/4" fillet welds.
- G. All structural steel members shall be considered as an unrestrained fire-resistance-rated assembly. 4. Welding of Reinforcing Steel or Bolts A. Reinforcing Bars: Do not weld rebar except as specifically detailed in the drawings. In such cases, use only AWS standards. Do not substitute
- reinforcing bars for deformed bar anchors, structural bolts, or headed stud anchors. B. Do not weld anchor bolts, including "tack" welds. C. Headed Stud Anchor welding and Deformed Bar Anchor welding shall conform to the manufacturer's specifications.

OPEN WEB STEEL JOISTS AND GIRDERS

- Specifications and Code of Standard Practice."
- joist or girder sizes indicated on the framing plan, as if the joists or girders were installed level.
- Provide special bearing ends to accommodate slopes from sloped joists, sloped girders or sloped bearing conditions.
- manufacturer is not allowed. Design loads, unless noted otherwise A. Wind loads (W) shown are calculated using ASCE 7
- B. Seismic loads (E and Em) shown are calculated using ASCE 7 C. Gravity loads (D, L, S, etc.) shown are Allowable Stress (Working Stress) levels.
- D. Loads shown are at levels to be used directly by the Load Combinations from Section 1605 of the IBC without further adjustment. E. Allowable stress increases are permitted as allowed by the referenced standard being used for design.
- The deflection of all open web joists and girders shall be limited to L/240 for total load and L/360 for live load.

6. All members supporting deck shall be dry before welding.

to develop minimum shear requirements):

intact and not to be removed.

METAL DECKING

and steel.

adhere to the painted deck.

the substitution.

minimum lap.

Masonry veneer shall be attached to steel stud and wood stud walls with "Hohmann & Barnard HB 213 seismic veneer anchors" (or equal) spaced at 16" on center. Veneer anchors shall be attached to studs with (2) #10 corrosion resistant self-drilling screws and neoprene washers. . Masonry veneer shall be attached to reinforced masonry walls with "tri-rod ladur type reinforcement" spaced at a maximum of 16" on center vertically consisting of (3) #9 gauge, galvanized, corrugated, wires. Veneer may also be attached with "Hohmann & Barnard 270 Eye wire" spaced

4. Steel Lintels: Provide steel angle lintels at all openings through the masonry veneer. Provide 1" of bearing for each foot of width of opening, with a

1. Codes and Standards: Fabrication, Erection and Quality Control of structural steel shall comply with the latest edition of the following:

E. American Welding Society (AWS), Structural Welding Codes D1.1, D1.3, D1.4, and D1.8, except as modified by the "Steel Construction

Notch-toughness requirements apply for Group 3, 4, and 5 shapes with flange thickness greater than 1 1/2" and plate 2" and thicker which are a

----- ASTM A36 ---- ASTM A53 Grade B Type E/S

----- ASTM A500 Grade C (50 ksi) ----- ASTM A500 Grade C (46 ksi)

----- ASTM F3125 Grade A325 with ASTM A563 heavy hex nuts and ASTM F436 washers.

2. Braced Frame/Moment Frame Columns unless noted otherwise: ASTM F1554 Grade 105 (equiv to A193 Grade B7) with ASTM A563 heavy hex nuts with 5/16" min plate washers. Bottom assembly to include double heavy hex nuts with similar washer. Nuts to be snug tight.

Low-hydrogen restrictions do not apply when welding sheet steels in accordance with AWS D1.3, including attaching these steels to

welds, unless tested in accordance with AWS D1.8, annex B. The Field Erection Contractor is responsible for verifying that intermixing of self-shielded weld metal with weld metal of other processes will not occur, or alternatively, the welding procedure is qualified by testing. 5. Where demand critical welds are required, provide filler metals meeting the following minimum mechanical properties: 58ksi yield strength, 70ksi tensile strength, 22% elongation, Charpy V-Notch toughnesses of 20ft-lbs at 0°F and 40 ft-lbs at 70°F.

----- ASTM C1107 Grade B

A. Welds may be performed in the shop or the field. Designations of field welds on the Contract Documents are shown where it is anticipated field welds may be required, and are shown only for the purpose of assisting the Contractor in the bidding process. The Contractor shall coordinate the welding sequence between sub-contractors, and any costs associated with variations in the welding sequence are outside the scope of the Design Engineer, and are the responsibility of the Contractor. Field welding is to be minimized where possible. Contractor is to verify that the sequencing of welds meets all safety regulations, and the requirements of the Construction Documents and their referenced codes. Welding in

B. Provide full depth web stiffener plates at one side of all beams at all bearing points, unless noted otherwise. Stiffener plates shall be the thickness called out below unless noted otherwise. Stiffeners shall be welded on both sides of the plate-to-flange and plate-to-web interfaces. ------ STIFFENER THICKNESS & WELD SIZE ----- 1/4" & 3/16"

Ordinary steel-to-steel connections, simple span framing, and beam/girder-to-bearing plates are the standard connection used throughout

c. Where a steel-to-steel connection is not shown, provide a framed connection per AISC for one half the total uniform load capacity of

E. Backup Bars: Remove backup bars from connections in demand critical welds, unless noted otherwise. Backgouge the root and weld to sound metal. Reweld the gouged area and add a 5/16" reinforcing fillet weld. Backup bars may remain for top flange beam welds provided the

1. All open web steel joist and girders shall be fabricated and erected in accordance with the latest edition of Steel Joist Institute (SJI), "Standard 2. Joists or girders with slopes greater than 1/2" per foot shall be designed to meet or exceed the load capacities, listed in the SJI load tables, of the

4. Modifications to any joist or girder, including holes through the top and bottom chords, without the written consent and direction from the

F. Joist chords, both top and bottom, shall be designed to accomodate additional 100lb point loads applied at any point along the joists. A certificate of compliance must be submitted to the building official upon completion of fabrication per IBC 2207.5. 8. If bridging is utilized for joist uplift bracing in the as-built condition, supplier shall provide a note on joist erection drawings that bridging is to remain

 Steel deck shall comply with the latest requirements of the Steel Deck Institute. 2. Steel deck material shall comply with the manufacturer's ICC Report and have a minimum yield strength of 33ksi.

3. All deck shall be 3-span continuous minimum. In areas where 3-span conditions are not possible, the contractor shall provide heavier gauge deck as required to provide the equivalent loading of the specified deck under a 3-span condition. 4. Loads from plumbing, fire sprinklers, HVAC ducts, light fixtures, architectural elements, or equipment of any kind, may only be attached to the roof deck provided the attachment and loading meets the 'Suspended Loads from Metal Deck' detail supplied in the drawings. 5. Conduits are permitted in deck slabs subject to local code requirements and fire rating considerations. When conduit is installed in the slab, it shall be limited to conduits the lesser of 2" in diameter or less than 1/3 the concrete thickness over the deck flutes, and that no crossovers occur, and that conduit is spaced at least 18" apart with a 3/4" minimum cover and placed a minimum of 1" above top of deck flutes. Conduits shall not be run in bottom deck ribs. For conduits not able to meet spacing requirements, see typical detail for conduits in reinforced concrete over metal deck. Aluminum conduits in concrete slabs shall be coated or covered to prevent aluminum - concrete reaction and electrolytic action between aluminum

7. Crimp seams before button punching or welding interlocking seams. 8. Where deck is to receive sprayed-on fire proofing, painted deck shall be coated with special paint that will allow the sprayed-on fire proofing to

9. All welds performed on roof deck or galvanized deck are to be painted. 10. Steel deck shall be galvanized (G60) when used above or below mechanical equipment rooms.

11. Steel roof deck shall be painted with interlocking side seams with the following minimum properties: Type/Ga-----S(in3/ft)-----Notes 1 1/2" B/20------0.233------0.223------1000 plf for 6'-8" span-----Typ. Roof

A. Weld steel roof deck to supporting framing members with 3/4" diameter puddle welds at the following spacings (Closer spacings may be used 1. 6" on center to all supports perpendicular to deck corrugations (7 welds per 36" sheet).

2. 6" on center to all supports parallel to deck corrugations. B. Interlocking side seams between adjacent pieces of decking may be attached with "PunchLok II" by Verco Manufacturing (VSC2) or "ASC DeltaGrip side seam connection" by ASC Steel Deck at 12" on center. C. The Contractor may submit, for review and approval, the manufacturer's ICC report of an alternate method of deck attachment, including Hilti X-HSN 24 (open web joist attachment) and Hilti X-ENP 19 (steel beam attachment). The alternate method shall provide minimum deck diaphragm shear values equal to or greater than those noted above. The alternate method shall be approved by the engineer of record prior to

Provide a minimum deck bearing of 2". Lap splices shall be centered over the support. To ensure proper lap placement, 4" of lap is recommended, however, it may be reduced to 2" minimum. Deck laps less than the minimum will need to be replaced with deck that meets the

- COLD FORMED STEEL
- 1. Cold Formed Steel Framing
- A. The design of cold formed steel and low alloy steel structural members shall be in accordance with AISI-NASPEC, North American Specification for the Design of Cold-Formed Steel Structural Members.
- B. The design, installation and construction of cold formed steel for structural and non-structural framing shall be in accordance with AISI-CFSD, Standard for Cold-Formed Steel Framing - General Provisions. C. All steel framing members shall comply with ASTM A1003.
- D. Follow all manufacturers' guidelines and recommendations for all products. . Unless noted otherwise, all welded connections shall be done according to AWS standards.

F. All interior non-bearing steel stud walls that extend above the ceiling but do not attach to the structure above shall be braced with diagonal metal-stud braces (45°). The kl/r ratio of the brace shall not exceed 200 and shall not be spaced further apart than 10'-0" on center. Connect diagonal braces to the top of the steel stud walls and to the top flange of the steel beams with (2) #10 tek screws minimum. Where a concrete deck occurs above, use two powder-driven fasteners per diagonal brace. Other approved methods may be used. G. Anchor bolts: See steel section of general notes. 2. Connection Hardware

- A. Exterior framing shall be attached to primary structure to provide vertical and lateral drift as indicated in these drawings. The "DriftTrack DTSL" by the Steel Network or equivalent is suitable to meet this requirement. Inside and outside corner joints shall be detailed to accommodate the lateral drift indicated. See architectural drawings for joint location and details
- B. All connection hardware (examples: "StiffClip", "VertiClip", "BridgeClip", etc) shown shall be supplied by the Steel Network, Inc. C. Install all hardware per the manufacturer's guidelines and recommendations.
- D. The contractor may submit an alternate connection method for approval by Dunn Associates, Inc. and the Architect. 3. Wood Structural Panel Sheathing
- A. Wood structural panels shall comply with US DOC PS 1 or PS 2 and shall be manufactured using exterior glue. See schedule for sheathing thickness and screw spacings. B. Wood structural panels shall be attached to steel framing and blocking with flat-head self-drilling tapping screws with a minimum head diameter of 0.292".
- C. Structural panels may be installed either perpendicular or parallel to the framing members. D. All edges of the sheets shall be attached to framing members or blocking. E. Flat strap blocking, when used, shall be a minimum of 1 1/2" wide and of the same material and equal or greater thickness as the track and
- 4. Sheet Steel Sheathing
- A. Steel Sheets shall be ASTM A1003, Grade 33 Type H. See schedule for sheet sheathing thickness and screw spacings. B. Screws used to attach steel sheets shall be a minimum of #8 modified truss head screws and shall be of sufficient length to penetrate at least three exposed threads.
- Steel sheets may be installed either perpendicular or parallel to the framing members. D. All edges of the sheets shall abut at framing members, straps, and/or blocking. Do not lap sheets.
- E. Flat strap blocking, when used, shall be a minimum of 1 1/2" wide and of the same material and equal or greater thickness as the track and 5. Prefabricated Wall Systems: Submit complete shop drawings and calculations of all elements and connections for review. Shop Drawings shall bear the stamp of a Professional Engineer licensed in the same state as the project location.

2024-08-26 **BID PACKAGE #1** THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024 DIMENSIONS AND ELEVATIONS. AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

PROJEC

BID PACKAGE #1

DATE

REVISIONS

DESCRIPTIO

ABBREVIATIONS

Kip(s) = 1000 Pounds

Kips Per Lineal Foot

Pounds (#)

Location

Masonry Maximum

Mechanical

Mezzanine

Manufacturer

Miscellaneous

Not To Scale

Non-shrink

On Center

Opening

Opposite

Oriented Strand Board

Power Actuated Fastener

Pounds per Cubic Foot

Penetrate or Penetration

Pre-Fabricated Truss

Partial Joint Penetration

Pounds per Lineal Foot

Pounds per Square Foot

Pounds per Square Inch

Shear Bars/Hairpins (135°/90° HK)

Seismic Force Resisting System

Perpendicular

Prefabricated

Reinforce

Required Roof Top Unit

Schedule

Sheathing

Similar

Sill Nail

Standard

Stiffener

Structural

Shear Wall

Top and Bottom

Temperature

Top Hook

Through

Top of

Typical

Vertical

Working Point

With

Tongue and Groove Top Bar

Unless Noted Otherwise

Welded Wire Reinforcement

Slab on Grade

Plate

Minimum

Metal

Moment Frame Beam

Moment Frame Column

Kips Per Square Foot

1.	Spec	cial Inspections and Testing Special inspections and testing as required per the approved construction documer
	B. 7 C.	unless waived by the Building Official. An independent agency, or agencies, employed by the Owner, shall perform the sp The special inspection and testing requirements of this section of the General Struc
2.	Cont	Engineer of Record's statement of special inspections and structural observations r tractor Responsibilities (1704.4)
	A. I	Each Contractor responsible for the construction of a main wind or seismic force-re seismic force-resisting component listed in the statement of special inspections sha Official and Owner prior to commencing with the work involved. It shall contain ackre
	B. '	contained in the statement of special inspection. The Contractor shall coordinate and cooperate with all the required inspections, tes
	C D	The Contractor shall maintain access to and exposure of the work which requires s The Contractor shall not proceed with subsequent work until required inspections, to
	E. F. G	I he Contractor shall correct all work found to be deficient, and re-test at no addition The Contractor shall notify the Engineer of Record at least (7) days prior to any requestion of the Special Inspector for review.
3.	Spec A.	cial Inspector Responsibilities (1704.2) Prior to the start of the construction, each approved agency shall provide written do
	B. 3 C. 1	competence and relevant experience or training of the special inspectors who will p Special Inspectors shall keep records of their inspections and testing. Inspection reports shall indicate whether the work inspected was or was not comple
	D. 1 E.	documents. Non-conforming work and/or discrepancies shall be brought to the Contractor's imn The Special Inspector shall notify the Architect/Engineer of any non-conforming wo
	F. / G. 3	Any uncorrected non-conforming work or discrepancies shall be brought to the atten to completion of that phase of the work. Submit the following to the Building Official:
		 Special Inspections and Testing Reports. Certificates of Compliance for:
		 a. Fabrication of structural elements from approved fabricators. b. The seismic qualifications of nonstructural components, supports, and atta Designated Seismic Systems
	:	 d. Open-web steel joists and joist girders. 3. Reports of:
		 a. Pre-construction tests for shotcrete. b. Material properties verifying compliance with the requirements of AWS D1.
1.	Spec	or coupling beams in structures assigned to Seismic Design Category B, C cial Inspections (1705)
-	A. :	Special Cases (1705.1.1): Special Inspection and tests shall be required for propos in its nature, such as, but not limited to, the following:
		 Construction materials and systems that are alternatives to materials and s Unusual design applications of materials described in the IBC. Materials and systems required to be installed in accordance with additions
	В. 3	contained in the IBC or in standards referenced by the IBC. Steel Construction (1705.2): The special inspections and nondestructive testing of standards and structive testing of standards and standards and standards and structive testing of standards and structive testing of standards and standards and structive testing of standards and standa
	1	following: 1. Structural Steel. Special inspections and non-destructive testing of structu
		thereof shall be in accordance with the Quality Assurance inspection requil documents. Exception: Railing systems composed of structural steel elem base of cantilevered rail posts.
		 Cold-Formed Steel Deck. Special inspections and qualification of welding shall be in accordance with the Quality Assurance inspection requirements
	C	 Open-Web Steel Joists and Joist Girders. Special inspections of open-we portions thereof shall be in accordance with Table 1705.2.3 in the construct Quality Control Schwitzle for Structure Steel.
	U. 1	Provide Level III non-destructive testing (NDT) personnel certifications. Provide welder qualification records to verify project welders are tested an
		structural or miscellaneous steels, D1.3 before welding sheet steels (10 gas Submit documentation to the approved inspection agency for review before
		 Provide welder identification methodology. The fabricator/erector shall ma or member can be identified. Stamps, if used, shall be the low stress type. Provide welding precedures that comply with AW/S D1 1 D1 2 D1 4 D1 2
		 a. Provide welding procedures that comply with Avid D1.1, D1.3, D1.4, D1.6, made available to welders and inspectors. a. Provide weld filler metal product data sheets identifying optimum weld
		5. Provide bolt storage and installation procedures to the approved inspection
	D. 3	Structural Steel Non-Destructive Testing (NDT) Personnel Qualifications 1. NDT personnel will: a. Qualify in accordance with the recommended practices of the America
		edition.b. Pass eye examinations meeting: (1) ASTM requirements at least once
		 c. Be certified in accordance with the AWS QC-1, latest edition. d. Level III must be qualified by ASNT testing in the applicable method ur Only Level III and Level III techniciana, gualified by testing in the applicable
		 Only Level in and Level in technicians, qualined by testing in the applicable results. Only Senior Certified or Certified Welding Inspectors (SCWI, CWI) are per
		 Inspectors may evaluate welds when under the direct supervision of a SCV Approved Inspection Agency will certify the following:
	E. 3	a. Level III Inspector has reviewed the NDT procedures. Structural Steel: Special inspection and non-destructive testing (NDT) are required members and assemblies. Special inspection, except NDT, may be waived when t
	: ; 	approved by the Building Official to perform work without Special Inspection. NDT performed by the fabricator when approved by the Building Official. When the fabri
	1	reports for review by the Special Inspector. Special inspection and NDT shall be pr the construction documents.
		 renorm an weiging and weiging special inspection activities in accordance N, and AISC 341 Chapter J, as appropriate for the material form and weldin criteria are established in these codes.
		2. Perform all bolting and bolting inspection activities in accordance with AISC Strength Bolts, AISC 360 Chapter N, and AISC 341 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter N, and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter J, as applicable of the strength Bolts and AISC 360 Chapter
		 Non-Destructive Testing (NDT) of welds is required as follows: a. Ultrasonic testing (UT), magnetic particle testing (MT), penetrant testing be performed in accordance with AWS D1 1/D1 1/M Accentence with AWS D1 1/D1 1/D1 1/D1 1
		 b. All NDT shall be documented. NDT reports shall be distributed to the f
		the Architect. c. Amount of NDT is permitted to be reduced according to AISC 360 Cha met and if approximate but to Duilding Official with the Duilding Offic
		 d. Requirements for structures in Seismic Design Categories C thru F: Ultrasonic test all complete joint penetration groove
		 Magnetic particle test or penetrant test all thermally cut surfaces of Magnetic particle test or penetrant test all thermally cut surfaces of
		exceeding 1 ½" for members of the seismic force resisting system deemed unacceptable.
		 Special inspections and resting for Non-Shrink Grout are required as follo a. Periodic special inspection verifying the use of required mix design. Samples of non-shrink grout shall be tested for compressive strength.
	F. (10 bags mixed per day. Concrete (1705.3): Special inspections and tests of concrete construction shall be
	(Construction documents. Special inspections of welding of and qualifications of special inspectors for any importance of AW/S D1.4 for appendix properties and for appendix properties.
		 In the absence of sufficient data or documentation providing evidence of co building official shall require testing in accordance with the appropriate star
	G. I	Masonry (1705.4): Special inspections and tests of masonry construction shall be p requirements of TMS 402 and TMS 602.
		 Engineered masonry construction in Risk Categories I, II and III shall be sp and Tables 3 and 4 in the construction documents. Special inspections and tests shall not be required for
		 a. Empirically designed masonry, glass unit masonry or masonry veneer Chapter 14, respectively, where they are part of a structure classified a
		 Masonry foundation walls constructed in accordance with Table 1807. Masonry fireplaces, masonry heaters or masonry chimneys installed constructed in accordance with Table 1807.
		 2113, respectively. Special inspections and tests for glass unit masonry or masonry veneer de respectively, where they are part of a church we also if a department of a department of a church we also if a department of a
	Н. 9	and Tables 3 and 4 in the construction documents. Soils (1705.6): Special inspections and tests of existing site soil conditions fill place
	(accordance with this section and Table 1705.6 in the construction documents. The documents shall be used to determine compliance.
	I. 	Fabricated Items (1705.11): Where fabrication of structural, load bearing or lateral I the premises of a fabricator's shop, special inspections of the fabricated items shall fabrication are not required where the work is done on the provision of a fabricated items shall be a statement of a fabricated items and the provision of the statement of a fabricated items are not required where the work is done on the provision of the fabricated items and the provision of the fabricated items are not required where the work is done on the provision of the fabricated items are not required where the work is done on the provision of the fabricated items are not required where the work is done on the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the fabricated items are not be accessed at the provision of the provision o
	ן י ו	such work without special inspection. Approval shall be based on review of the fabr manuals that provide a basis for control of materials and workmanship with periodi
	1	approved agency or the building official. At the completion of fabrication, the approv

J. See architectural drawings for additional required inspections pertaining to sprayed fire-resistant materials (1705.15), mastic and intumescent fire-resistant coatings (1705.16), EIFS (1705.17), fire resistant penetrations and joints (1705.18), or smoke control systems (1705.19). K. Post-Installed Anchors: Special inspections and tests shall be performed during installation of post-installed anchors according to the requirements of the ICC Evaluation Report and table 1705.3 in the construction documents.

2

	AB	Anchor Bolt	JST
	ABV	Above Alternate	к
	ARCH	Architect	KLF
	ADD'L	Additional	KSF
	<u>@</u>	AL	LB
	BB	Bottom Bar	LOC
	BFB	Braced Frame Beam	
	BFC	Braced Frame Column Bottom Hook	MAS MAX
	BLDG	Building	MECH
	BLKG	Blocking	MEZZ
	BLW	Below	MFB
	BN	Boundary Nail	MFC
	BOTT	Bottom	MIN
	BRB	Buckling Restrained Brace	MISC
	BRDG	Bridging	MIL
	BTWN	Between	NTS
	BYND	Beyond	NS
	CANT	Cantilevered	00
	CGS	Center of Gravity of Strand	OPNG
	CJ	Control Joint	OPP
	CJP	Complete Joint Penetration	OSB
	CMU	Concrete Masonry Unit	PAF
	COL	Column	PCF
	CONC	Concrete	PEN
	CONN	Continuous	PERP
	COORD	Coordinate	PJP
	CS	Coil Strap	PL
	CTR	Center	
	DB	Deck Bearing	PSF
	DBA	Deformed Bar Anchor	PSI
	DBL	Double	
	DET	Detail	REQD
	DIA	Diameter	RTU
	DIM	Dimension	00
	DWG	Drawing	SB SCHED
	(E)	Existing	SFRS
	ÊÂ	Each	SHTG
		Each Face	SIM
	ELEC	Electrical	SOG
	EN	Edge Nail	STD
	ENGR	Engineer	STIFF
	EQUIP	Equipment	STRUCT
	EQ SP	Equally Spaced	SW
	EW	Each Way	TOD
	EXT	Exterior	T&G
		_	ТВ
	FLR	Floor	TEMP
	FND FRT	Foundation Fire resistance treated	THRU
	FTG	Footing	Τ/
	GO	Care	TYP
	ya GALV	Gage Galvanized	UNO
	GLB	Glued Laminated Beam	
	GSN	General Structural Notes	VERT
	01	Girder Huss	W/
	HD	Hold-down	WWR
	HK	Hook	WP
	HSA	Headed Stud Anchor	
	HSS	Hollow Structural Section	
		International Duffition On L	
	ICC	International Building Code	
	INT	Interior	
		re organized as follows:	
I			
	SHEET SERIES D	DESCRIPTION	
		Concret Nates, Crestifications and Loading Dians	

Typically our sheets are organized as follows:						
	SHEET SERIES	DESCRIPTION				
	S-0XX	General Notes, Specifications and Loading Plans				
	S-1XX	Plan Sheets				
	S-2XX	Elevations				
	S-3XX	Building Sections				
	S-4XX	Enlarged Plans & Vertical Circulation (stairs & elevators) and Details				
	S-5XX	Foundation Details				
	S-6XX	Floor Details				
	S-7XX	Roof Details				
	S-8XX	Schedules				
	S-9XX	Isometrics, 3D views, Renderings				

DEFERRED SUBMITTALS

1. Deferred submittals are items that are not part of our scope which require architectural and/or engineering review. Deferred submittals include plans, details, calculations and/or other relevant design information stamped by a Professional Engineer licensed in the state in which construction will occur.

- 2. Deferred submittals shall first be submitted to the project architect and/or engineer for review and coordination. Upon completion of the architect/engineer review, the architect/engineer will submit the deferred submittals to the Building Official for review and approval. The submittal to the Building Official shall include a notation stating that the architect/engineer review has been performed and that the plans and calculations for the deferred submittal items are found to be in general conformance with the design drawings with no exceptions. 3. Construction related to deferred submittals shall not commence until the Building Official has approved the submittal. Approved deferred submittals shall be available at the jobsite throughout construction.
- 4. Items requiring deferred submittals are listed below. These items shall be designed and fabricated by the manufacturer according to specifications given in the construction documents. A. Roof hatch ladders (by supplier)
- B. Handrails, guardrails and other railings (by supplier)
- C. Fences and Landscaping Structures (by supplier) D. Open Web Steel Roof Joists and Girders (by steel joist manufacturer)
- E. Seismic Bracing for mechanical, electrical and plumbing components per ASCE 7, Chapter 13 (by MEP consultant) F. Seismic Bracing for fire protection components per ASCE 7, Chapter 13 (by supplier)

ents and per IBC Chapter 17 shall be provided for this project

pecial inspection and testing services required. uctural Notes and the special inspection tables serve as the required by IBC Chapter 17.

esisting system, a designated seismic system, or a wind or all submit a written statement of responsibility to the Building nowledgement of awareness of the special requirements esting, and/or structural observations required for the project. special inspection or testing. testing, and/or structural observations have been provided.

onal cost to the Owner. quired structural observations.

ocumentation to the Building Official, demonstrating the Il perform the special inspections and tests during construction. eleted in conformance to the approved construction

mediate attention for correction. ork or discrepancies that the Contractor cannot readily correct. ttention of the Architect/Engineer and the Building Official prior

hments

D1.4 for weldability for reinforcing bars other than ASTM A706. ed forces in special moment frames, special structural walls C, D, E, or F.

osed work that is, in the opinion of the Building Official, unusual I systems prescribed by the IBC.

al manufacturer's instructions that prescribe requirements not f steel construction in buildings shall be in accordance with the

tural steel elements in buildings, structures, and portions irements of AISC 360 and tables in the construction ments shall be limited to welding inspection of welds at the

g special inspectors for cold-formed steel floor and roof deck s of SDI QA/QC. eb steel joists and joist girders in buildings, structures, and ction documents.

d qualified in accordance with AWS D1.1 before welding auge and thinner), and D1.4 before welding reinforcing steel. e welding. aintain a system by which the welder who has welded a joint

8, as required by the project. Welding procedures shall be ling parameters and storage conditions with each welding n agency for review.

an Society of Nondestructive Testing, SNT-TC-1A, latest ce a year, and (2) AWS D1.1 every three years.

nder review. e method, are permitted to interpret nondestructive testing

ermitted to evaluate welds. Certified Associate Welding CWI and/or CWI.

during the fabrication and erection of any load-bearing the work is performed in a fabricating shop, or by an erector of welds completed in an approved fabricator's shop may be ricator performs the NDT, the fabricator shall submit the NDT rovided per the special inspection tables for structural steel in e with AWS D1.1, D1.3, D1.4, and D1.8, AISC 360 Chapter

ding methods employed. Approved methods and acceptance C Specification for Structural Structural Joints Using High

ing (PT), and radiographic testing (RT), where required, shall eria shall be in accordance with AWS D1.1/D1.1M for statically gs or project specifications.

fabricator/erector, the Building Official, the Contractor, and hapter N and AISC 341 Chapter J if appropriate criteria are

f access holes for flange or web thicknesses exceeding 2". f beam copes access holes for flange or web thicknesses m in Seismic Design Categories C thru F. Any crack shall be

at least daily, with additional tests required for each additional

e performed in accordance with Table 1705.3 in the r reinforcing bars shall be in accordance with the r qualifications. onformance to quality standards for concrete materials, the

andards and criteria for the material in Ch. 19&20 of ACI 318. performed in accordance with the Quality Assurance program pecial inspected per TMS 602, Level 2, Quality Assurance

er designed in accordance with Section 2109, Section 2110 or I as Risk Category I, II or III. .1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3) or 1807.1.6.3(4). r constructed in accordance with Section 2111, 2112 or

designed in accordance with Section 2110 or Chapter 14, y IV shall be performed in accordance with TMS 602 Level 2

ement and load-bearing requirements shall be performed in e approved geotechnical report and the construction

l load-resisting members or assemblies is being conducted on all be performed during fabrication. Special inspections during r registered and approved by the building official to perform ricator's written fabrication procedures and quality control dic auditing of fabrication and quality control practices by an roved fabricators shall submit a certificate of compliance to the accordance with the approved construction documents.

GENERAL STRUCTURAL NOTES

5. Special Inspections for Wind Resistance (1705.12): Special inspections for wind resistance are not required for this project per IBC Section 1705.12. 6. Special Inspections for Seismic Resistance (1705.13): Special inspections for seismic resistance are required for this project per IBC section 1705.13.

- A. Structural Steel (1705.13.1): Special Inspections for seismic resistance shall be in accordance with the following as applicable: 1. Seismic Force-Resisting Systems; Special Inspections of structural steel in the seismic force-resisting systems of buildings and structures assigned to Seismic Design Category B, C, D, E, or F shall be performed in accordance with the Quality Assurance requirements of AISC 341 and the construction documents.
- 2. Structural Steel Elements; Special Inspections of structural steel elements in the seismic force-resisting systems of buildings and structures assigned to Seismic Design Category B, C, D, E, or F other than those covered in section5.A.1 above, including struts, collectors, chords, and foundation elements, shall be performed in accordance with the Quality Assurance requirements of AISC 341
- and the construction documents. 3. the seismic force-resisting system, whre the lateral resistance is provided by structural sheathing and the specified fastener spacing is more than 4" on center.
- B. Cold-Formed Steel Light-Frame Construction (1705.13.3): For the seismic force-resisting systems of structures assigned to Seismic Design Category C, D, E, or F, periodic special inspection shall be required for both: 1. Welding operations of elements of the seismic force-resisting system.
- 2. Screw attachment, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs. Exception: Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screw installation, bolting, anchoring and other fastening to components of the seismic force-resisting system, where either of the following applies:
- a. The sheathing is gypsum board or fiberboard. b. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the specified fastener spacing at the panel or sheet edge is more than 4" on center. . Designated Seismic Systems (1705.13.4): For structures assigned to Seismic Design Category C, D, E, or F, the Special Inspector shall
- examine designated seismic systems requiring seismic qualifications in accordance with ASCE7 Section 13.2.2, and verify that label, anchorage and mounting conforms to the certificate of compliance. D. Architectural Components (1705.13.5): Periodic special inspection is required for the erection and fastening of exterior cladding, interior and exterior nonbearing walls and interior and exterior veneer in structures assigned to Seismic Design Category D, E, or F.
- E. Plumbing, Mechanical, and Electrical Components (1705.13.6): Periodic special inspection of plumbing, mechanical, and electrical components shall be required for the following: 1. Anchorage of electrical equipment for emergency and standby power systems in structures assigned to Seismic Design Category C, D, E. or F.
- Anchorage of other electrical equipment is structures assigned to Seismic Design Category E or F. B. Installation and anchorage of piping systems designed to carry hazardous materials and their associated mechanical units in structures assigned to Seismic Design Category C, D, E, or F.
- 4. Installation and anchorage of ductwork designed to carry hazardous materials in structures assigned to Seismic Design Category C, D, E, or F. 5. Installation and anchorage of vibration isolated systems in structures assigned to Seismic Design Category C, D, E, or F where the
- approved construction documents require a nominal clearance of 1/4" or less between the equipment support frame and restraint. b. Installation of mechanical and electrical equipment, including duct work, piping systems, and their structural supports, where automatic fire sprinkler systems are installed in structures assigned to Seismic Design Category C, D, E, or F to verify minimum clearances have
- been maintained. Where flexible sprinkler hose fittings are used, special inspection of minimum clearances is not required. F. Seismic Isolation Systems (1705.13.8): Periodic special inspection shall be provided for seismic isolation systems in seismically isolated structures assigned to Seismic Design Category B, C, D, E, or F during the fabrication and installation of isolator units and energy dissipation devices.
- 7. Testing for Seismic Resistance (1705.14): Testing for seismic resistance is required for this project per IBC section 1705.14. A. Structural Steel (1705.14.1):
- 1. Seismic Force-resisting Systems. Non-destructive testing of structural steel in the seismic force-resisting systems of structures assigned to Seismic Design Category B, C, D, E, or F shall be performed in accordance with the Quality Assurance requirements of AISC 341.
- 2. Structural Steel Elements other than SFRS elements (struts, collectors, chords, foundation elements). Non-destructive testing of structural steel elements other than those of the seismic force-resisting systems of structures assigned to Seismic Design Category B, C, D, E, or F shall be performed in accordance with the Quality Assurance requirements of AISC 341. B. Non-Structural Components (1705.14.2): For structures assigned to Seismic Design Category B, C, D, E, or F where the requirements of
- ASCE 7 Section 13.2.1 for nonstructural components, supports or attachments are met by seismic qualification as specified in Item #2 therein, the registered design professional of the applicable discipline shall specify on the approved construction documents the requirements for seismic qualification by analysis, testing, or experience data. Certificates of Compliance for the seismic qualification shall be submitted to the Building Official. C. Designated Seismic Systems (1705.14.3): For structures assigned to Seismic Design Category C, D, E, or F and with designated seismic
- systems that are subject to the requirements of ASCE 7 Section 13.2.2 for certification, the registered design professional of the applicable discipline shall specify on the approved contract documents the requirements to be met by analysis, testing, or experience data as specified therein. Certificates of Compliance documenting that the requirements are met shall be submitted to the Building Official. 8. Structural Observations/Site Observations (1704.6): Structural observations are required for this project per IBC section 1704.6.
- A. The Engineer of Record or his representative shall perform the structural observations as required. B. A registered design professional employed by the Owner shall perform the structural observations as required.
- C. Structural Observations of the following stages of construction shall be provided. The Contractor shall notify (in writing) the [EOR/design professional] performing the structural observations at least 7 days prior to the following stages of construction so that they may have the opportunity to review the work. At the conclusion of the work, a site observation report will be provided stating that the site visits have been made and report any unresolved deficiencies. 1. Initial placing of any concrete, including but not limited to: footings, slabs on grade or concrete over steel deck
- Initial grout pours for masonry walls Initial erection of structural steel 4. Completion of structural roof deck

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- D. Site Observations are part of the Dunn Associates, Inc. contract with the Architect/Owner. The stages of construction listed below will serve as suggested stages of construction to be observed. The Contractor shall notify (in writing) the Engineer of Record at least 7 days prior to the following stages of construction so that the Engineer may have the opportunity to review the work. Initial placing of any concrete, including but not limited to: footings, slabs on grade or concrete over steel deck
- Initial grout pours for masonry walls 3. Initial erection of structural steel
- 4. Completion of structural roof deck E. Structural observation/Site observation reports will be provided to the Architect. Distribution to the Contractor, Owner, and/or Building Official will be through the Architect.
- 9. Seismic/Wind Main Force Resisting Systems That Require Special Inspections A. Masonry Shear Walls
- B. Steel Moment Frames C. Metal Roof Deck Diaphragms

4

2024-08-26 **BID PACKAGE #1** NOTE THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024 DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

PROJEC

BID PACKAGE #1

DATE

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REVISIONS

NO.

DESCRIPTION

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TABLE 1705.6: REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS						
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION				
 Verify materials below shallow foundations are adequate to achieve the design bearing capacity. 	-	Х				
2. Verify excavations are extended to proper depth and have reached proper material.	-	Х				
3. Perform classification and testing of compacted fill materials.	-	Х				
4. During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thicknesses during placement and compaction of compacted fill.	X	-				
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	-	Х				

	TABLE 1705.3: REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION							
	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD ^a	IBC REFERENCE			
	 Inspect reinforcement , including prestressing tendons, and verify placement 	-	X	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	-			
	 Reinforcing bar welding Verify weldability of reinforcing bars other than ASTM A 706; 	-	x	AWS D1.4 ACI 318: 26.6.4	-			
	 b. Inspect single-pass fillet welds, maximum 5/16"; and c. inspect all other welds 	- X	X -					
	3. Inspect anchors cast in concrete.	-	X	ACI 318; 17.8.2	-			
D	 Inspect anchors post-installed in hardened concrete members^b. a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads 	Х	-	ACI 318: 17.8.2.4	-			
	b. Mechanical anchors and adhesive anchors not defined in 4.a.	-	Х	ACI 318: 17.8.2				
	5. Verify use of required design mix.	-	Х	ACI 318: Ch 19, 26.4.3, 26.4.4	1904.1, 1904.2			
(6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Х	-	ASTM C31 ASTM C172 ACI 318: 26.5, 26.12	-			
	Inspect concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 26.5	-			
	8. Verify maintenance of specified curing temperature and techniques.	-	X	ACI 318: 26.5.3-26.5.5	-			
_	 Inspect formwork for shape, location and dimensions of the concrete member being formed. 	-	Х	ACI 318: 26.11.1.2(b)	-			

For SI: 1 inch = 25.4 mm.

a. Where applicable, see Section 1705.12. Special inspection for seismic resistance.

b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

	TABLE 1705.2.3: REQUIRED SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS						
C [TYPE	CONTINUOUS SPECIAL INSPECTIONPERIODIC SPECIAL INSPECTION		REFERENCED STANDARD			
	1. Installation of open-web steel joists and joist girders						
	a. End connections - welding or bolted.	-	Х	SJI specifications listed in Section 2207.1.			
	b. Bridging - horizontal or diagonal.	-	-	-			
	1. Standard bridging	-	Х	SJI specifications listed in Section 2207.1.			
	2. Bridging that differs from the SJI specifications listed in Section 2207.1.	-	Х	-			

For SI: 1" = 25.4mm ____ a.Where applicable, see Section 1705.13.

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	DE	FINITION OF INSPECTION TASK ABBREVIATIONS
	0	Observe: The inspector shall observe these items on a random, daily basis. Operations need not be delayed pending these inspections.
	Р	Perform: These inspections shall be performed for each item prior to final acceptance.
3	D	Document: The inspector shall prepare reports indicating that the work has been performed in accordance with the contract documents. The report need not provide detailed measurements for joint fit-up, WPS settings, completed welds, or other individual items listed in the tables. For shop fabrication, the report shall indicate the piece mark of the piece inspected. For field work, the report shall indicate the reference grid lines and floor or elevation inspected. Work not in compliance with the contract documents and whether the noncompliance has been satisfactorily repaired shall be noted in the inspection report.

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-	TABLE N5.4-1 COMBINED WITH TABLE J6-1 INSPECTION TASKS PRIOR TO WELDING						
AISC	AISC		C)C	(QA	
360	341	VISUAL INSPECTION TASKS FRICK TO WELDING	TASK	DOC.	TASK	DOC.	
•		Welder qualification records and continuity records	Р	-	0	-	
•		Welding procedure specification (WPSs) available	Р	-	Р	-	
•		Manufacturer certification for welding consumables available	Р	-	Р	-	
•	•	Material identification (type/grade)	0	-	0	-	
•	•	Welder identification system ^a	0	-	0	-	
•	•	 Fit-up of groove welds (including joint geometry) Joint preparation Dimensions (alignment, root opening, root face, bevel) Cleanliness (condition of steel surfaces) Tacking (tack weld quality and location) Backing type and fit (if applicable) 	P/O**	-	0	-	
•		 Fit-up of CJP groove welds of HSS T-, Y-, and K-joints without backing (including joint geometry) Joint preparation Dimensions (alignment, root opening, root face, bevel) Cleanliness (condition of steel surfaces) Tacking (tack weld quality and location) 	P	-	0	-	
•	•	Configuration and finish of access holes	0	-	0	-	
•	•	 Fit-up of fillet welds Dimensions (alignment, gaps at root) Cleanliness (condition of steel surfaces) Tacking (tack weld quality and location) 	P/O**	-	0	-	
•		Check welding equipment	0	-	0	-	

		4				5	
	TABLE N5.4-2 COMBINED WITH TABLE J6-2 VISUAL INSPECTION TASKS DURING WELDING						
AISC	AISC	VISUAL INSPECTION TASKS DURING WELDING	C	QC	C)A	
360	341	VISUAL INSPECTION TASKS DURING WELDING	TASK	DOC.	TASK	DOC.	
•	•	 WPS followed Settings on welding equipment Travel speed Selected welding materials Shielding gas type/flow rate Preheat applied Interpass temperature maintained (min/max) Proper position (F, V, H, OH) Intermix of filler metals avoided unless approved 	0	-	0	-	
	•	Use of qualified welders	0	-	0	-	
•	•	Control and handling of welding consumables Packaging Exposure control 	0	-	0	-	
•	•	No welding over cracked tack welds	0	-	0	-	
•	•	Environmental conditions Wind speed within limits Precipitation and temperature 	0	-	0	-	
•	•	 Welding techniques Interpass and final cleaning Each pass within profile limitations Each pass meets quality requirements 	0	-	0	-	
•		Placement and installation of steel headed stud anchors	Р	-	Р	-	

^aThe fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be

identified, Stamps, if used, shall be low stress type.

** Follow performance of this inspection task for ten welds to be made by a given welder, with the welder demonstrating understanding of requirements and possession of skills and tools to verify these items, the Perform designation of this task shall be reduced to Observe, and the welder shall perform this task. Should the inspector determine that the welder has discontinued performance of this task, the task shall be returned to Perform until such time as the inspector has re-established adequate assurance that the welder will perform the inspection tasks listed.

TABLE N5.6-1 COMBINED WITH TABLE J7-1 INSPECTION TASKS PRIOR TO BOLTING

AISC	AISC		QC		QA	
360	341	VISUAL INSPECTION TASKS PRIOR TO BOLTING		DOC.	TASK	DOC.
•		Manufacturer's certifications available for fastener materials	0	-	Р	-
•		Fasteners marked in accordance with ASTM requirements	0	-	0	-
•	•	Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	0	-	0	-
•	•	Correct bolting procedure selected for joint detail	0	-	0	-
•	•	Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	0	-	0	-
•	•	Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	Р	D	0	D
•	•	Proper storage provided for bolts, nuts, washers and other fastener components	0	-	0	-

TABLE J9-1					
INSPECTION OF COMPOSITE STRUCTURES PRIOR TO CONCRETE PLACEMENT					
INSPECTION OF COMPOSITE STRUCTURES	G)C	G	A	
PRIOR TO CONCRETE PLACEMENT	TASK	DOC.	TASK	DOC.	
Material identification of reinforcing steel (Type/Grade)	0	-	0	-	
Determination of carbon equivalent for reinforcing steel other than ASTM A706	0	-	0	-	
Proper reinforcing steel size, spacing and orientation	0	-	0	-	
Reinforcing steel has not been rebent in the field	0	-	0	-	
Reinforcing steel has been tied and supported as required	0	-	0	-	
Required reinforcing steel clearances have been provided	0	-	0	-	
Composite member has required size	0	-	0	-	

TABLE J9-2						
INSPECTION OF COMPOSITE STRUCTURES DURING CONCRETE PLACEMENT						
INSPECTION OF COMPOSITE STRUCTURES DURING CONCRETE PLACEMENT		QC		QA		
		DOC.	TASK	DOC.		
Concrete: Material identification (mix design, compressive strength, maximum large	0	D	0	D		
aggregate size, maximum slump)						
Limits on water added at the truck or pump	0	D	0	D		
Proper placement techniques to limit segregation	0	-	0	-		

TABLE 4: MASONRY MINIMUM SPECIAL INSPECTION REQUIREMENTS

MIN	NIMUM SPECI	AL INSPECTIC	N		
INSPECTION TASK	F	REQUENCY ^{(a})	REFERENCE	FOR CRITERIA
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 402	TMS 602
1. As masonry construction begins, verify that the following are in compliance:					
a. Proportions of site-prepared mortar	NR	Р	Р		Art. 2.1, 2.6 A, & 2.6 C
b. Grade and size of prestressing tendons and anchorages	NR	Р	Р		Art. 2.4 B & 2.4 H
 Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorages 	NR	Р	Р		Art. 3.4 & 3.6 A
d. Prestressing technique	NR	Р	Р		Art. 3.6 B
e. Properties of thin-bed mortar for AAC masonry	NR	$C^{(b)}/P^{(c)}$	С		Art. 2.1 C.1
f. Sample panel construction	NR	Р	С		Art. 1.6 D
2. Prior to grouting, verify that the following are in compliance:					
a. Grout space	NR	Р	С		Art. 3.2 D & 3.2 F
b. Placement of prestressing tendons and anchorages	NR	Р	Р	Sec. 10.8 & 10.9	Art. 2.4 & 3.6
c. Placement of reinforcement, connectors, and anchor bolts	NR	Р	С	Sec. 6.1, 6.3.1, 6.3.6, & 6.3.7	Art. 3.2 E & 3.4
 Proportions of site-prepared grout and prestressing grout for bonded tendons 	NR	Р	Р		Art. 2.6 B & 2.4 G.1.b
3. Verify compliance of the following during construction:					
a. Materials and procedures with the approved submittals	NR	Р	Р		Art. 1.5
b. Placement of masonry untis and mortar joint construction	NR	Р	Р		Art. 3.3 B
c. Size and location of structural members	NR	Р	Р		Art. 3.3 F
 Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction 	NR	Р	С	Sec. 1.2.1(e), 6.2.1, & 6.3.1	
e. Welding of reinforcement	NR	С	С	Sec. 6.1.6.1.2	
 f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C)) 	NR	Р	Р		Art. 1.8 C & 1.8 D
g. Application and measurement of prestressing force	NR	С	С		Art. 3.6 B
h. Placement of grout and prestressing grout for bonded tendons is in compliance	NR	С	С		Art. 3.5 & 3.6 C
i. Placement of AAC masonry units and construction of thin-bed mortar joints	NR	C ^(b) /P ^(c)	С		Art. 3.3 B.9 & 3.3F.1.b
4. Observe preparation of grout specimens, mortar specimens, and/or prisms	NR	Р	С		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3 & 1.4 B.4

(a) Frequency refers to the frequency of inspection, which may be continuous during the listed task or periodically during the listed task, as defined in the table. NR=Not Required, P=Periodic, C=Continuous

(b) Required for the first 5000 square feet (465 square meters) of AAC masonry.

(c) Required after the first 5000 square feet (465 square meters) of AAC masonry.

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		VISUAL INSPECTION TASKS AFTER W	E JO-3 ELDIN(G		
AISC	AISC		Q	C	Q	A
360	341	VISUAL INSPECTION TASKS AFTER WELDING	TASK	DOC.	TASK	DOC.
•	•	Welds cleaned	0	-	0	-
٠	•	Size, length and location of welds	Р	-	Р	-
•	•	 Welds meet visual acceptance criteria Crack prohibition Weld/ base-metal fusion Crater cross section Weld profiles and size Undercut Porosity 	Ρ	D	Ρ	D
•		Arc strikes	Р	-	Р	-
•		k-area ¹	Р	D	Р	D
٠		Weld access holes in rolled heavy shapes and built-up heavy shapes ²	Р	-	Р	-
	•	Placement of reinforcing or contouring fillet welds (if required)	Р	D	Р	D
٠	•	Backing removed, weld tabs removed and finished, and fillet welds added (if required)	Р	D	Р	D
•	•	Repair activities	Р	-	Р	D
•		Document acceptance or rejection of welded joint or member	Р	D	Р	D
•		No prohibited welds have been added without the approval of the EOR	0	-	0	-
^{1.} Wh area	en weld for crad	ding of doubler plates, continuity plates or stiffeners has been performed in the cks within 3 in. (75mm) of the weld, no sooner than 48 hours following weld cor	<i>k</i> -area, vis npletion.	ually inspe	ect the web	<i>k</i> -

TABLE N5.6-2 COMBINED WITH TABLE J7-2 INSPECTION TASKS DURING BOLTING

			ING				
AISC	AISC		QC		QA		
360	341	VISUAL INSPECTION TASKS DURING BOLTING	TASK	DOC.	TASK	DOC.	
•	•	Fastener assemblies of suitable condition placed in all holes and washers (if required) and nuts are positioned as required	0	-	0	-	
•	•	Joint brought to the snug-tight condition prior to the pretensioning operation	0	-	0	-	
•	•	Fastener component not turned by the wrench prevented from rotating	0	-	0	-	
•	•	Fasteners are pretensioned in accordance with the RCSC Specification progressing systematically from the most rigid point toward the free edges	0	-	0	-	

		TABLE N5.6-3 COMBINED WITH TABL INSPECTION TASKS AFTER BOLTI	E J7-3 NG			
ISC				IC	Q	A
360	341	VISUAL INSPECTION TASKS AFTER BULLING	TASK	DOC.	TASK	DOC.
•	•	Document acceptance or rejection of bolted connections	Р	D	Р	D

^{2.} After rolled heavy shapes and built-up heavy shpaes are welded, visually inspect the weld access hole for cracks.

TABLE J9-3				
INSPECTION OF COMPOSITE STRUCTURES AFTER CONCRETE PLACEMENT				
INSPECTION OF COMPOSITE STRUCTURES	C)C	G	A
AFTER CONCRETE PLACEMENT		DOC.	TASK	DOC.
Achievement of minimum specified concrete compressive strength at specified age	-	D	-	D

TABLE 3: MASONRY MINIMUM VERIFICATION REQUIREMENTS

MINIMUM	VERIFICATION F	REQUIREMENTS		
MINIMUM VERIFICATION	REQUIRED	FOR QUALITY AS	SURANCE ^(a)	REFERENCE FOR CRITERIA
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 602
. Prior to construction, verification of compliance of submittals	R	R	R	Art. 1.5
. Prior to construction, verification of f 'm and f 'AAC except where specifically exempted by the Code.	NR	R	R	Art. 1.4 B
. During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to the project site.	NR	R	R	Art. 1.5 & 1.6.3
. During construction, verification of f 'm and f 'AAC for every 5,000 sq. ft. (465 sq. m.)	NR	NR	R	Art. 1.4 B
. During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	NR	NR	R	Art. 1.4 B

(a) R=Required, NR=Not Required

2024-08-26 BID PACKAGE #1 NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024 DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

PROJECT

BID PACKAGE #1

REVISIONS

NO. DATE

DESCRIPTION

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2024-08-26 BID PACKAGE #1
NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024
DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

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	2024-08-26 BID PACKAGE #1
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	NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024
	DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.
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BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

240104

2024-08-26

FRAMING PLAN

(801) 355-5915

SE102.1

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2024-08-26 BID PACKAGE #1
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BID PACKAGE #1

REVISIONS NO. DATE

DESCRIPTION

240104

2024-08-26

(801) 355-5915

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		15'-11 3
		4'-0"

MASONRY WALL REINFORCING ELEVATION SE201.1 SCALE: 1/8" = 1'-0"

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3 MASONRY WALL REINFORCING ELEVATION SE201.1 SCALE: 1/8" = 1'-0"

> The field CMU will from from the bottom of the wall to the bottom sill of the window band and will be don with 8" Split Faced inter An accent band will go from the bottom sill of the window band to the top of the wall and will be done with 8" Smooth Faced CM The brick will 4x4x16 Emperor brick (Interstate Brick - Midnight Black, or approved equal). Please refer to the attached revised rendering (The first page in this bid package).

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Please refer to the attached revised rendering (The first page in this bid package).

	5					
				G		
					- <u>T.O. UPPER PARAPET</u> 120'-0' UPPER BEARING 117'-0' LOWER BEARING 113'-4'	- - - -
INFORCING ELEVATION						
G 0"		23'-0"			B	
					T.O. UPPER PARA 12 12 12 13 14 15 16 17 18 19 11 </td <td>PET 10'-0" 1ING 1'-0" 1NG 3'-4" 2VEL 00'-0"</td>	PET 10'-0" 1ING 1'-0" 1NG 3'-4" 2VEL 00'-0"
INFORCING ELEVATION		4'-0"	·	- Or ap	proved	E
MU integrally colored (St	ed (Sunroc -	oleweed).	WALL	MASONRY WAL . TYPE VERTICAL REINFORCIN 1 (1) #5 AT 32"oc 2 (1) #6 AT 16"oc X MASONRY WALL REINFORCIN X MASONRY WALL REINFORCIN X SECTION MARK SHEET NUMBER	L REINFORCING G HORIZONTAL REINFORCI (1) #5 AT 32"oc (1) #5 AT 16"oc	NG
			ML MC CJ	X MASONRY LINTEL, SEE C-X MASONRY COLUMN, SE CONTROL JOINT	SCHEDULE E SCHEDULE	

2024-08-26 BID PACKAGE #1
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BID PACKAGE #1

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REVISIONS

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PROJECT

BID PACKAGE #1

REVISIONS NO. DATE

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4 BUILDING SECTION SE301.1 SCALE: 1/4" = 1'-0"

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BID PACKAGE #1

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11 DOUBLE WALL AT COLUMN SE502.1 NO SCALE:

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SE502.1 NO SCALE:

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8 TYPICAL STEEL STUD ON CONCRETE FOUNDATION WALL SE502.1 NO SCALE:

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9 STEEL STUD ON CONCRETE FOUNDATION WALL AT WINDOW

SE502.1 NO SCALE:

BID PACKAGE #1
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6 TYPICAL DECK BEARING AT MASONRY WALL SE703.1 NO SCALE:

11 TYPICAL BEAM OVER TUBE COLUMN CONNECTION SE703.1 NO SCALE:

15 MOMENT FRAME BEAM BRACE AT JOIST SE703.1 NO SCALE:

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DESCRIPTION

DATE

NO.

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TYPICAL STEEL STUD WALL DEFLECTION TRACK 3 ASSEMBLY DETAIL - SINGLE & DOUBLE TRACK

4 TYPICAL WALL FRAMING AT CORNER TRACK LAP CONNECTION SE704.1 NO SCALE:

8 TYPICAL EXTERIOR WALL OPENING FRAMING ELEVATION

	2024-08-26 BID PACKAGE #1
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DESCRIPTION

	CC	ONCRET	FE FC	JOTI	NG SO	CHED	ULE				
			R	EINFORCI	NG CROSSW	/ISE		REINFORCING	G LENGTHWIS	3E	
IDTH	LENGIH	THICKNESS	NO	SIZE	LENGTH	SPACING	NO	SIZE	LENGTH	SPACING	COMMENTS
2'-0"	CONT	12"					2	#5	CONT	EQ	
5'-0"	CONT	12"		#5	2' - 6"	9"	3	#5	CONT	EQ	TOP AND BOTT
-0"	CONT	12"		#5	3' - 6"	12"	4	#5	CONT	EQ	TOP AND BOTT
-6"	CONT	12"		#5	4' - 0"	14"	5	#5	CONT	EQ	TOP AND BOTT
3'-6"	3'-6"	12"	3	#5	3'-0"	EQ	3	#5	3'-0"	EQ	
5'-0"	5'-0"	13"	5	#5	4'-6"	EQ	5	#5	4'-6"	EQ	
5'-6"	6'-6"	17"	6	#6	6'-0"	EQ	6	#6	6'-0"	EQ	
/'-0"	7'-0"	18"	7	#6	6'-6"	EQ	7	#6	6'-6"	EQ	

TYPICAL FOOTING SECTION

CONCRETE FOOTING NOTES:

ES5

FS6

FS7.0

1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER, UNLESS NOTED OTHERWISE. 2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.

- 3. IF FOOTINGS ARE EARTH FORMED, FOOTING WIDTH AND LENGTH SHALL BE 6" WIDER AND LONGER THAN SCHEDULED. 4. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS. 5. NOT ALL FOOTINGS ARE USED, SEE FOUNDATION PLAN FOR FOOTING MARKS.
- 6. RUN CONTINUOUS BARS IN 'FC' FOOTING THROUGH INTERSECTED 'FS' FOOTINGS, AND TO THE FAR SIDE OF INTERSECTED 'FC' FOOTINGS (NO CORNER BARS REQUIRED). 7. EXTEND CONTINUOUS FOOTINGS 1'-0" BEYOND END OF WALL, EXCEPT AT INTERSECTING CORNERS OR UNO ON PLAN.
- 8. FOOTINGS MAY BE THICKER THAN THE SCHEDULED DEPTH IN AREAS SURROUNDING ANCHOR BOLTS OR HOLD DOWNS, SEE ANCHORAGE AND HOLD DOWN DETAILS.
- 9. IN FC FOOTINGS CROSSWISE BAR SHALL BE BELOW THE LENGTHWISE BAR

CONCRETE FOOTING SCHEDULE SE801.1 NO SCALE:

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			CO	NCR	ETE	RE	INFC	DRC	ING	BAF	R LA	P SF	PLIC	E SC	CHEI	DUL	E							
		f'c = 30	00 PSI			f'c = 35	00 PSI			f'c = 40	00 PSI			f'c = 45	00 PSI			f'c = 50	00 PSI			f'c = 60	00 PSI	
BAR	REGI	JLAR	TC)P	REG	ULAR	т	OP	REG	ULAR	T	OP	REG	JLAR	TC	OP	REG	JLAR	т	OP	REG	JLAR	т	ЭР
SIZE	CLA	ASS	CLA	N SS	CLA	ASS	CLA	ASS	CLA	ASS	CL/	ASS	CLA	ASS	CLA	ASS	CLA	N SS	CLA	ASS	CLA	ASS	CL/	ASS
	А	В	А	В	А	В	А	В	А	В	А	В	А	В	А	В	А	В	А	В	А	В	А	В
#3	17"	22"	22"	28"	16"	21"	21"	26"	15"	19"	19"	25"	14"	18"	18"	23"	13"	17"	17"	22"	12"	16"	16"	20"
#4	22"	29"	29"	38"	21"	27"	27"	36"	19"	25"	25"	33"	18"	24"	24"	31"	17"	23"	23"	29"	16"	21"	21"	27"
#5	28"	36"	36"	47"	26"	34"	34"	44"	24"	31"	31"	41"	23"	30"	30"	38"	22"	28"	28"	36"	20"	26"	26"	33"
#6	33"	43"	43"	56"	31"	40"	40"	52"	29"	37"	37"	49"	27"	35"	35"	46"	26"	34"	34"	44"	24"	31"	31"	40"
#7	48"	63"	63"	81"	45"	59"	59"	75"	42"	54"	54"	71"	40"	51"	51"	67"	38"	49"	49"	63"	34"	45"	45"	58"
#8	55"	72"	72"	93"	51"	67"	67"	82"	48"	62"	62"	81"	45"	59"	59"	76"	43"	56"	56"	72"	39"	51"	51"	66"
#9	62"	81"	81"	105"	58"	75"	75"	98"	54"	70"	70"	91"	51"	66"	66"	86"	48"	63"	63"	81"	44"	57"	57"	74"
#10	70"	91"	91"	118"	65"	85"	85"	110"	61"	79"	79"	102"	57"	74"	74"	96"	54"	71"	71"	92"	50"	64"	64"	84"
#11	78"	101"	101"	131"	73"	94"	94"	122"	67"	87"	87"	114"	64"	82"	82"	107"	60"	78"	78"	102"	55"	71"	71"	93"

NOTES: 1. THIS SCHEDULE SHALL BE USED FOR ALL SPLICES, UNLESS NOTED OTHERWISE. 2. HORIZONTAL BARS ARE CLASSIFIED AS TOP BARS WHERE 12", OR MORE, OF FRESH CONCRETE IS CAST BELOW

THE REINFORCING BARS. 3. CLASS 'B' SPLICES SHALL BE USED FOR ALL SPLICES UNLESS NOTED OTHERWISE.

4. TIES AND STIRRUPS SHALL NOT BE SPLICED. 5. FOR ALL LIGHTWEIGHT CONCRETE, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3. 6. FOR ALL EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.5 FOR BARS WITH CLEAR COVER LESS

THAN 3 BAR DIAMETERS OR CLEAR SPACING LESS THAN 6 BAR DIAMETERS, OTHERWISE MULTIPLY BY 1.2. 7. LAP LENGTHS SHALL BE MULTIPLIED BY 1.25 AT SHEARWALL BOUNDARY ELEMENTS.

8. DEVELOPMENT LENGTH 'Ld' IS EQUAL TO CLASS 'A' SPLICE. 9. IF REINFORCING HAS CLEAR COVER LESS THAN ONE BAR DIAMETER, LAP LENGTHS SHALL BE MULTIPLIED BY 1.5.

10. IF REINFORCING IS NOT ENCLOSED IN TIES OR STIRRUPS AND IS SPACED TIGHTER THAN 2 BAR DIAMETERS ON CENTER, LAP LENGTHS SHALL BE MULTIPLIED BY 1.5.

11. LAP LENGTHS SHALL BE MULTIPLIED BY 1.33 FOR GRADE 80 REBAR. 12. WHERE BARS OF DIFFERENT SIZES ARE LAPPED, THE SPLICE LENGTH SHALL BE THE LARGER OF 'Ld' OF THE

LARGER BARS AND THE SPLICE LENGTH OF THE SMALLER BAR.

4 CONCRETE REINFORCING BAR LAP SCHEDULES AND DIAGRAMS SE801.1 NO SCALE:

T-810-05

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MARK CW-08 CW-12

TOP AND BOTT

2 CONCRETE WALL SCHEDULE SE801.1 NO SCALE:

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HORIZONTAL REINFORCING

	CONCF	RETE WALL S	CHEDULE		
THICKNESS		REINFORCING		WALL TYPE	COMMENTS
THORALEGO	VERTICAL	HORIZONTAL	TOP AND BOTTOM		o o mini El tri o
8"	(1) #4 AT 16"oc	(1) #4 AT 12"oc	(1) #4	А	TYP WALL
12"	(2) #4 AT 16"oc	(2) #4 AT 12"oc	(2) #4	С	AT OFFICES
WALL NOTES:					

CONCRETE

THICKNESS

1. SEE GENERAL STRUCTURAL NOTES FOR COVER AND OTHER REQUIREMENTS NOT NOTED IN SCHEDULE. 2. CONCRETE WALLS NOT DESIGNATED ON THE PLANS SHALL BE REINFORCED AS FOLLOWS:

VERTICAL REINFORCING

#4 BARS AT 16"oc #4 BARS AT 12"oc #4 BARS AT 18"oc #4 BARS AT 18"oc #4 BARS AT 16"oc #5 BARS AT 15"oc #4 BARS AT 18"oc EA FACE #4 BARS AT 16"oc EA FACE 3. PLACE STEEL IN THE CENTER OF THE WALL (EXCEPT TYPE 'B' AND RETAINING WALLS). WALLS THICKER THAN 10" SHALL HAVE TWO CURTAINS OF REINFORCEMENT (PLACED NEAR EA FACE OF THE WALL), UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

WALL REINFORCEMENT PLACEMENT TYPES:

NOTES:

		CONCRETE	PIER SCHEDU	JLE	
MARK	PIER SIZE	REINFO	DRCING	TYPE	COMMENTS
	TIER OIZE	VERTICAL	TIES		OOMMENTO
CP -1	16" x16"	(8) #6	(1) #3 AT 4"oc	A	AT CANOPY
CP -2	12" x18"	(4) #6	(1) #3 AT 4"oc	В	IN WALL
CP -3	12" x18"	(8) #6	(1) #3 AT 4"oc	С	IN WALL, AT CORNER

INSTALL (3) SETS OF TIES WITHIN THE TOP 5" AT THE TOP OF ALL PIERS (UNO). ALTERNATE POSITION OF HOOKS IN PLACING SUCCESSIVE SETS OF TIES.

3 CONCRETE PIER SCHEDULE SE801.1 NO SCALE: T-811-04

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HOOKE	ED BAR	DEVELC	PMENT	LENGTH	IS, Ldh
BAR SIZE	f'c = 3000 PSI	f'c = 4000 PSI	ťc = 4500 PSI	f'c = 5000 PSI	f'c = 6000 PSI
#3	9"	8"	7"	7"	6"
#4	11"	10"	9"	9"	8"
#5	14"	12"	12"	11"	10"
#6	17"	15"	14"	13"	12"
#7	20"	17"	16"	15"	14"
#8	22"	19"	18"	17"	16"
#9	25"	22"	21"	20"	18"
#10	28"	25"	23"	22"	20"
#11	31"	27"	26"	24"	22"

3. FOR EPOXY COATED REINFORCEMENT, MULTIPLY LENGTHS BY 1.2. 4. FOR HOOKS WITH 2.5" MINIMUM SIDE COVER PERPENDICULAR TO PLANE OF HOOK, MULTIPLY LENGTHS BY 0.7. 5. FOR LATERAL LOAD RESISTING ELEMENTS, CRITICAL SECTIONS SHALL BE TAKEN AS THE FACE OF TIE / HOOP AT CONFINED CORES OF COLUMN JOINTS OR SHEAR WALL BOUNDARY ZONE.

1. FOR GRADE 80 REBAR, MULTIPLY LENGTHS BY 1.33. 2. FOR LIGHTWEIGHT CONCRETE, MULTIPLY LENGTHS BY 1.3.

CONCRETE PIER NOTES:

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SECTION AT LATERAL LOAD RESISTING ELEMENT

	2024-08-26 BID PACKAGE #1								
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	NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024								
	DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.								
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PROJECT

BID PACKAGE #1

DATE

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REVISIONS

NO.

DESCRIPTION

240104

∖STEEL COLUMN SCHEDULE FOR SEISMIC DESIGN CATEGORIES C THRU F SE802.1 NO SCALE:

WHICHEVER IS GREATER

A-325 BOLT SCHEDULE A-325N BOLTS MAXIMUM BEAM SIZE IN EACH BEAM DEPTH GROUP No. PER BEAM SIZE 7/8"Ø W8 2 W10 7/8"Ø 2 W12 7/8"Ø 3 W14 3 7/8"Ø 7/8"Ø W16 4 7/8"Ø W18 5 W21 7/8"Ø 6 W24 6 7/8"Ø 7 W27 7/8"Ø CLIP ANGLES: L5x3 1/2. THICKNESS SHALL BE EQUAL TO ONE HALF THE BEAM WEB THICKNESS PLUS 1/16" (1/4" MIN). FOR TWO ROWS OF BOLTS OR SKEWED CONNECTIONS, USE BENT PLATES. WHERE COLUMN WIDTH IS SMALLER THAN THE CONNECTING CLIP ANGLES, ANGLE LEGS SHALL BE REDUCED TO MATCH WIDTH OF COLUMN. BEAM WEB CONNECTION PLATE THICKNESS EQUALS 3/8" MINIMUM THICK FOR W18 BEAMS OR SMALLER 1/2" MINIMUM THICK FOR W21 BEAMS OR LARGER 3/4" MINIMUM THICK FOR BEAMS WITH WEB GREATER THAT 1" THICK FILLET WELDS SHALL BE AS FOLLOWS: 1/4" FOR 3/8" PLATES 5/16" FOR 1/2" PLATES 7/16" FOR 3/4" PLATES THICKNESS EQUALS BEAM FLANGE THICKNESS OF BEAM FRAMING INTO COLUMN WEB (3/8" MINIMUM). BOLT EDGE DISTANCE SHALL BE 1 1/2" MINIMUM AT ALL EDGES. BOLT SPACING SHALL BE AT 3". BOLT SPACING MAY BE REDUCED TO 3x THE BOLT DIAMETER IF IT IS REQUIRED FOR A SINGLE ROW OF BOLTS. A SINGLE ROW OF BOLTS IS PREFERRED. WHEN MORE THAN ONE COLUMN OF BOLTS IS NEEDED, THE FIRST COLUMN SHALL BE COMPLETE WITH THE REMAINDER OF THE BOLTS PLACED IN THE SECOND COLUMN.

1/2" PLATE THICKNESS + 5/16"

С

 \uparrow TYPICAL BOLTED WEB PLATE CONNECTIONS WITH BOLT SCHEDULE (SINGLE SHEAR) SE802.1 NO SCALE:

LH SIZENUMBER OF BOLTSSIZE OF WELD (A)18LH to 20LH23/1624LH TO 32LH33/16	$\left[\right]$	FLUSH F TO BE	RAME OPE	EN WEB ST ECTION SC	
18LH to 20LH 2 3/16 24LH TO 32LH 3 3/16		LH SIZE	NUMBER OF BOLTS	SIZE OF WELD A	
24LH TO 32LH 3 3/16		18LH to 20LH	2	3/16	
		24LH TO 32LH	3	3/16	
36LH TO 48LH 4 3/16		36LH TO 48LH	4	3/16	

1. THE ABOVE SCHEDULE IS BASED OFF HIGHEST CATALOG VALUES. IF LOADING EXCEEDS THAT OF THE CATALOG OR IS A SPECIAL JOIST TYPE, THE ABOVE VALUES DO NOT APPLY. 2. SCHEDULE VALUES AND CAPACITIES BASED ON 7/8"Ø A325 BOLTS.

\TYPICAL FLUSH FRAMED JOIST CONNECTION SE802.1 NO SCALE:

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(THIS DETAIL MAY BE USED AS AN ALTERNATE AT LOCATIONS WHERE THE WEB PLATE THICKNESS DOES NOT EXCEED 1.6 TIMES THE COLUMN WALL THICKNESS.) (THIS DETAIL MAY NOT BE USED AT THE FOLLOWING COLUMN SIZES. HSS16x16x3/8, HSS16x16x5/16 HSS14x14x5/16, HSS12x12x5/16 HSS12x12x1/4, HSS10x10x1/4

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3. CONTRACTOR TO COORDINATE CONNECTION BETWEEN JOIST SUPPLIER AND STEEL SUPPLIER.

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NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS.

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PROJECT

BID PACKAGE #1

REVISIONS

NO. DATE

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DESCRIPTION

240104

MASONRY WALL SCHEDULE									
MARK	MARK THICKNESS	MATERIAL S	SOLID		REINFORCING				
			GROUT	VERTICAL	HORIZONTAL	TYPE	JOINT REINF		
MW-08	8"	CMU	NO	SEE MAS WALL ELEV	SEE MAS WALL ELEV	A	NO		

MASONRY WALL NOTES:

4	
1.	COORDINATE WITH ARCHITECTURAL DRAWINGS, MASONRY WALL FINISHES, TYPES OF MATERIAL, COURSING, ET
2.	DO NOT SOLID GROUT WALLS UNLESS NOTED OTHERWISE.

- 3. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID. 4. VERTICAL REINFORCING SHALL BE CENTERED IN THE WALL UNLESS NOTED OTHERWISE.
- 5. PROVIDE (1) VERTICAL BAR MINIMUM AT ALL CORNERS AND END OF WALLS. 6. HORIZONTAL WALL REINFORCING SHALL BE PLACED BETWEEN VERTICAL MASONRY COLUMN REINFORCING BARS.
- 7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING. 8. HORIZONTAL WALL REINFORCEMENT SPACING SHALL NOT EXCEED 48" oc. IN SPECIAL REINFORCED MASONRY SHEAR WALLS, MAX
- SPACING OF HORIZONTAL AND VERTICAL BARS SHALL NOT EXCEED THE LESSER OF 48", OR WALL LENGTH / 3, OR WALL HEIGHT / 3.

IF JOINT REINFORCING IS REQUIRED, PROVIDE 3/16" DIAMETER GALVANIZED LADDER TO TRUSS TYPE REINFORCING.							
THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING					
6"	#5 BARS AT 32"oc	#4 BARS AT 48"oc					
8"	#5 BARS AT 32"oc	#5 BARS AT 48"oc					
10"	#6 BARS AT 32"oc	#6 BARS AT 48"oc					
12"	#6 BARS AT 32"oc	(2) #5 BARS AT 48"oc					

1 MASONRY WALL SCHEDULE SE803.1 NO SCALE:

-									
	MASONRY COLUMN SCHEDULE								
	MADK		REINFO	DRCING					
	WARN	COLOMN SIZE	VERTICAL	TIES	TYPE				
	MC-1	8" x 16"	(4) #5	#3 AT 8"oc	1				
	MC-2	8" x 24"	(6) #5	#3 AT 8"oc	3				
	MC-3	8" x 48"	(12) #5	#3 AT 8"oc	5				

<u>TYPE 1</u>	
<u>TYPE 2</u>	
<u>TYPE 3</u>	
<u>TYPE 4</u>	
<u>TYPE 5</u>	

- 1. HORIZONTAL WALL REINFORCEMENT SHALL BE LOCATED TO THE INSIDE OF VERTICAL BARS. THE CENTERLINE OF VERTICAL BARS SHALL BE LOCATED 2 1/2" FROM FACE OF THE MASONRY.
- 2. VERTICAL REINFORCING AND TIES SHALL EXTEND TO FULL WALL HEIGHT, UNO. 3. VERTICAL MASONRY COLUMN REINFORCING SHALL EXTEND INTO FOOTING AND TERMINATE WITH A
- STANDARD 90° HOOK. FOR CONCRETE FOUNDATION WALLS OVER 5'-0" TALL, VERTICAL COLUMN REINFORCING SHALL DOWEL 4'-0" MINIMUM INTO THE FOUNDATION WALL.
- 4. IN CONCRETE FOUNDATION WALLS, VERTICAL MASONRY COLUMN REINFORCING SHALL BE TIED WITH #3 TIES AT THE SAME SPACING AND CONFIGURATION AS MASONRY COLUMNS ABOVE.
- 5. #3 TIES MAY BE SUBSTITUTED WITH #2 TIES IN SEISMIC DESIGN CATEGORIES A, B AND C.

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MASONRY COLUMN SCHEDULE SE803.1 NO SCALE:

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MASONRY LINTEL SCHEDULE								
MADK		LINTEL SPAN	REINFO	DRCING	COMMENTO			
WARK	LINTEL DEPTH	(MAX)	HORIZONTAL	STIRRUPS	COMMENTS			
ML-1	16"	6' - 0"	(1) #7BAR CONT T&B	NONE	_			
ML-2	24"	8' - 0"	(1) #7BAR CONT T&B	#4 AT 8"oc	_			
ML-3	32"	10' - 0"	(1) #7BAR CONT T&B	#4 AT 8"oc	_			
ML-4	40"	16' - 0"	(1) #7BAR CONT T&B	#4 AT 8"oc	_			

MASONRY LINTEL NOTES:

- 1. LINTEL WIDTH AND MATERIAL TYPES SHALL BE THE SAME AS THE WALL IN WHICH THE LINTEL IS CONSTRUCTED.
- 2. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EA END. 3. MASONRY LINTELS ML-1 THRU ML-4 SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. WHEN A LINTEL IS SPECIFIED ON THE PLANS, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT
- APPLY. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SPECIFIED ON THE PLANS WHICH HAVE A SPAN GREATER THAN 10'-0". 4. MASONRY LINTELS ML-1 THRU ML-4 SHALL NOT BE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS UNLESS NOTED OTHERWISE ON THE PLANS. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 16" DEEP. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SHOWN ON THE PLANS WHICH ARE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS.

5. EXTEND ALL HORIZONTAL REINFORCING BEYOND THE EDGE OF ALL OPENINGS. IF HORIZONTAL REINFORCING CANNOT EXTEND LAP SPLICE LENGTH BEYOND EDGE OF OPENING, PROVIDE 90°

- STANDARD HOOK. 6. SPLICE TOP BARS AT MID-SPAN OF LINTEL ONLY AND BOTTOM BARS OVER SUPPORTS ONLY.
- 7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS, WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE
- THE LARGER REINFORCING. 8. DOWEL VERTICAL REINFORCING OF WALL ABOVE LINTEL INTO THE FULL DEPTH OF LINTEL. 9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

LAP

2	MASONRY LINTEL SCHEDULE
SE803.1	NO SCALE:

1															
	MAS	SON	ry f	REIN	FOF	RCIN	G B/	AR L	AP \$	SPLI	CES	SCH	EDU	ILE	
SINGLE BAR CENTERED IN CELL															
REBAR	Т	HICKNES	SS	Т	HICKNES	SS	Т	HICKNES	SS	T	HICKNES	SS	Т	HICKNES	S
SIZE	8"	10"	12"	8"	10"	12"	8"	10"	12"	8"	10"	12"	8"	10"	12"
	fr	n = 2000p	osi	fr	n = 2500p	osi	fr	n = 3000µ	osi	fr	n = 3500p	osi	fn	n = 4000p	osi
#3		12"			12"			12"			12"			12"	
#4	13"	1:	2"		12"			12"			12"		12"		
#5	20"	16"	13"	18"	14"	12"	16"	13"	12"	15"	12	<u>2</u> "	14"	12	2"
#6	38"	29"	24"	34"	26"	21"	31"	24"	20"	29"	22"	18"	27"	21"	17"
#7	52"	40"	33"	47"	36"	29"	42"	33"	27"	39"	30"	25"	37"	29"	23"
#8 *	72"	61"	50"	71"	55"	45"	65"	50"	41"	60"	46"	38"	56"	43"	35"
#9 *	81"	78"	64"	81"	70"	57"	81"	64"	52"	78"	59"	48"	73"	56"	45"
				FL	USH WA	ILL PILAS	TER OR	COLUM	N, TWO E	BARS IN I	EA CELL				
#3		13"			12"		12"		12"		12"				
#4	22" 20"		18"		17"		16"								
#5		35"		31"			28"		26"				25"		
#6		54"			54"			53"			49"			46"	
#7		63"			63"			63"			63"			62"	
#8 *		72"		72"			72"			72"			72"		
#9 *		81"			81"			81"			81"			81"	
MASONDY															

SONRY REINFOR	RCING BAR LAP SPLIC	E NOTES:		
MECHANICAL S		D FOR BARS IN MASC	NRY GREATER T	HAN #9 BAR

MECHANICAL SPLICES ARE REQUIRED FOR BARS IN MASONRY GREATER THAN #9 BARS.
 MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES SHOWN.
 MECHANICAL SPLICES SHALL DEVELOP 125% OF SPECIFIED YIELD STRENGTH OF BAR.

4. MASONRY DEVELOPMENT LENGTHS SHOWN SHALL BE INCREASED BY 50% WHERE REBAR IS COATED WITH EPOXY. * BARS MAY DIFFICULT TO LAP SPLICE DUE TO CONGESTION. COUPLERS RECOMMENDED.

4 MASONRY REINFORCING BAR LAP SPLICE SCHEDULE SE803.1 NO SCALE: T-860-05

9'-1" TC 10'-1" T(11'-1" TO 12'-1" AND

STEEL ANGL

5 STEEL ANGLE LINTEL SCHEDULE (NON-STRUCTURAL) SE803.1 NO SCALE:

- LINTEL BLK (TYP)

ANGLE LINTEL SCHEDULE (NON-STRUCTURAL)				
CLEAR OPENING	(VERT x HORIZ x THICKNESS)			
UP TO 5'-0"	3 1/2" x 3" x 1/4"			
5'-1" TO 7'-0"	3 1/2" x 3 1/2" x 1/4"			
7'-1" TO 9'-0"	5" x 3 1/2" x 1/4"			
9'-1" TO 10'-0"	5" x 3 1/2" x 5/16"			
10'-1" TO 11'-0"	5" x 3 1/2" x 3/8"			
11'-1" TO 12'-0"	6" x 4" x 3/8"			
12'-1" AND OVER	REQUIRES SPECIAL ANALYSIS			

NOTE: 1. LINTELS CARRY VENEER ONLY. WHERE FLOORS, ROOFS OF CONCENTRATED LOADS OCCUR, FURTHER ANALYSIS IS NECESSARY.

2. PROVIDE 1" OF BEARING EA END FOR EA FOOT OF SPAN. MINIMUM BEARING OF 6" EA SIDE OF OPENING.

3. USE THIS SCHEDULE UNLESS NOTED OTHERWISE. 4. LINTELS ARE TO BE GALVANIZED.

2024-08-26 BID PACKAGE #1			
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NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024			
DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.			
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PROJECT

BID PACKAGE #1

DATE

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REVISIONS

NO.

DESCRIPTION

240104

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1 LIGHT GAUGE STEEL STUD WALL SCHEDULE SE804.1 NO SCALE:

LIGHT GAUGE STEEL HOLD DOWN SCHEDULE						
MARK	HOLD DOWN TYPE	COMP STUD TYPE	SCREWS	ANCHOR BOLT Ø	EMBED DEPTH	
HD-1	S/HDU6	D	(18) #10	7/8"	9"	
HD-2	S/HDU9	Н	(26) #10	7/8"	9"	
HD-3	S/HDU11	А	(8) #14	1/2"	9"	

SCHEDULE NOTE. 4 LIGHT GAUGE STEEL HOLDDOWN SCHEDULE

SE804.1 NO SCALE:

9'-0' NOTE:

INTERIOR LIGHT GAUGE HEADER/JAMB SCHEDULE					
I LENGTH	HEADER SIZE	JAMB SIZE	JAMB CONNECTOR TOP	HEADER TYPE	
)" - 3'-6"	(2) 600S300-54 BOXED	(2) 600S200-43 BACK TO BACK	(2) SIMPSON SCB45.5	SSHDR-1	
6" - 8'-0"	(2) 800S300-54 BOXED	(2) 600S200-43 BOXED	(2) SIMPSON SCB45.5	SSHDR-2	
0"-9'-0"	(2) 800S300-54 BOXED	(4) 600S200-43 BACK TO BACK	(2) SIMPSON SCB45.5	SSHDR-3	
)"-10'-0"	(2) 1000S300-54 BOXED	(4) 600S200-43 BACK TO BACK	DIRECT BRG ON (2) BACK TO BACK STUDS	SSHDR-4	

1. ALL HEADERS SHALL BE BUILT WITH (2) STUDS SIZE AS SHOWN IN THE SCHEDULE, AND (2) 400/600/800T150-54 TRACKS W/ A DEPTH TO MATCH WALL THICKNESS. 2. PLACE ONE STUD AT EACH FACE OF THE WALL, PLACE ONE TRACK ON TOP AND ONE TRACK ON BOTTOM. SCREW TOGETHER WITH (8) #10 SCREWS AT 16" oc. 3. THE WEBS OF EACH OF THE STUD MEMBERS SHALL EXTEND PAST THE EDGE OF THE OPENING TO THE FAR SIDE OF THE JAMB, EACH SIDE. COPE FLANGES AND TRACKS AS REQUIRED. 4. ALL JAMBS SHALL BE BUILT WITH (2) 400/600 STUDS AS SHOWN IN THE SCHEDULE. WHEN A BOX IS SPECIFIED MAKE THE FLANGES BUTT TOGETHER.

5. WELD JAMBS TOGETHER WITH A 1/8" BY 2" LONG WELD AT 12"oc. EACH SIDE. 5. JAMBS SHALL EXTEND FULL HEIGHT OF WALL.

6. ATTACH EACH WEB OF EACH HEADER STUD TO EACH FACE OF THE JAMBS WITH (8) #10 SCREWS AT EACH END OF THE HEADER. 7. EDGE DISTANCE OF ALL SCREWS SHALL BE 3/8" MINIMUM. 8. BACK TO BACK JAMBS TO BE SCREWED ALONG THEIR WEB WITH #8 SCREWS AT 12"oc.

> TOP SCREWS TO ATTACH TO BOTT TRACK OF WALL ABV (NOT SHOWN FOR CLARITY)

400/600/800T150-54 TOP AND BOTT TYP ALL HEADERS UNO (MATCH WIDTH OF WALL) (8) #10 SCREWS AT 16"oc SECTION A-A

LIGHT GAUGE HEADER/JAMB SCHEDULE SE804.1 NO SCALE:

LIGHT GAUGE STEEL STUD SHEARWALL SCHEDULE (STEEL SHEATHED)						
MARK	SHEATHING THICKNESS	SINGLE OR DOUBLE SHEATHED	EDGE SCREWS	FIELD SCREWS	BOTT TRACK TO SLAB	
SW-1	0.027"	DOUBLE	#8 AT 6"oc	#8 AT 12"oc	5/8"Ø THRU BOLT AT16"oc	
SW-2	0.027"	DOUBLE	#8 AT 2"oc	#8 AT 12"oc	5/8"Ø THRU BOLT AT16"oc	

NOTES:

- 1. ALL WALL SHEATHING SHALL BE FLAT STEEL PANEL SHEETS CONFORMING TO ASTM A1003 STRUCTURAL GRADE 33 TYPE H WITH THICKNESS AS SHOWN IN THE SCHEDULE. STANDARD WIDTH OF PANELS SHALL BE 4'-0". MINIMUM WIDTH OF ALL PANELS SHALL BE 12". 2. ALL STUDS SHALL BE AT LEAST 1-5/8" WIDE, 3-1/2" DEEP, AND 43 MILS THICK. ALL TRACKS SHALL BE A MINIMUM OF 1-1/2" WIDE, 3-1/2" DEEP AND 43 MILS THICK. ALL BLOCKING AND STRAPS SHALL BE A MINIMUM OF 1-1/2" WIDE AND 43 MILS THICK.
- 3. USE ASTM C1513 #10-16 METAL SCREWS. ALL SCREWS SHALL HAVE A MINIMUM OF THREE THREADS EXTENSION ON THE FAR SIDE OF THE CONNECTION. INSTALL SCREWS TIGHT TO THE SURFACE OF THE SHEATHING.
- 4. ALL PANEL EDGES ARE DESIGNED TO BE LAPPED. AT CONTRACTORS OPTION PANELS MAY BE BLOCKED AT JOINTS IN LIEU OF LAPS. 5. PROVIDE FIELD SCREWS AT 12" oc TYPICAL FOR ALL SHEATHED WALLS.
- 6. PLACE STEEL PANELS IN EITHER HORIZONTAL OR VERTICAL DIRECTION. BUTT ALL JOINTS AT COMMON STUD, STRAP, AND/OR BLOCKING. DO NOT LAP SHEETS. 7. AT WALLS WITH SHEATHING ON EACH FACE OF THE WALL, STAGGER ALL PANEL JOINTS ON ONE FACE OF THE WALL FROM THE PANEL JOINTS ON
- THE OTHER FACE OF THE WALL, BOTH HORIZONTAL AND VERTICAL. 8. ATTACH ALL BOTTOM PLATES OF WALLS ABOVE TO TOP PLATES OF WALLS BELOW WITH THRU-BOLTS, SIZE AND SPACING AS SHOWN IN THE
- SCHEDULE. 9. ALL TOP PLATES AT ROOF SHALL BE ATTACHED WITH (2) ROWS OF #10 SCREWS AT EDGE SPACING SHOWN IN THE SCHEDULE. 10. ALL BOTTOM PLATES AT CONCRETE SOLE PLATES SHALL BE ATTACHED TO CONCRETE WALLS AND/OR FOOTINGS WITH CAST IN PLACE ANCHOR
- BOLTS, SIZE AND SPACING AS SHOWN IN THE SCHEDULE. 11. PROVIDE A HOLD DOWN AT EACH END OF EACH SHEAR WALL. SEE THE TYPICAL SHEAR WALL AND HOLD DOWN DETAILS. PLACE DOUBLE BACK TO BACK STUDS OF HOLD DOWNS ADJACENT TO THE JAMB STUDS AT SIDES OF OPENINGS. ENDS OF SHEAR WALLS THAT ARE BOUNDED BY AN HSS COLUMN DO NOT REQUIRE A HOLD DOWN PROVIDED SHEATHING IS FASTENED TO THE HSS MEMBER WITH EDGE SCREWS AS INDICATED IN THE SCHEDULE.
- 12. PROVIDE BB150 BRIDGING AT A MAXIMUM SPACING OF 48" oc. TYPICAL. SEE LIGHT GAUGE STEEL STUD WALL SCHEDULE FOR CLIP INFO. 13. FOR BRIDGING SEE TYPICAL BEARING SCHEDULE.
- 14. FOR HOLD DOWNS, SEE PLAN AND HOLD DOWN SCHEDULE. 15. BACK TO BACK CHORDS TO BE INTERCONNECTED WITH A SPACING OF 12". 16. SOLE BOLTING AT THE TOP AND THE BOTTOM OF THE WALLS TO BE 5/8"Ø BOLTS WITH 6" EMBED AT 16"oc.

LIGHT GAUGE STEEL STUD SHEARWALL SCHEDULE 3 (STEEL SHEATHED) SE804.1 NO SCALE:

	2024-08-26 BID PACKAGE #1
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DECK DIAPHRAGM GAUGE CONNECTION SCHEDULE				
{	DECK GAGE	SUPPORT CONNECTION HILTI/PNEUTEK FASTENERS	SIDE SEAM ATTACHMENT VSC2/DELTAGRIP SPACING	COMMENTS
	20 ga	7 PER 36"	8"oc	

2024-08-26 BID PACKAGE #1 NOTE: THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS DATED July 23, 2024 DIMENSIONS AND ELEVATIONS, AS THEY RELATE TO THE BUILDING IN GENERAL, i.e. GRID TO GRID DIMENSIONS OR DECK BEARING ELEVATIONS, ARE SUPPLIED BY THE ARCHITECT. THEY ARE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS.

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PROJECT

BID PACKAGE #1

DATE

REVISIONS

DESCRIPTION

SYSTEM RESPONSIBILITY MATRIX					
	DESIGNED	FURNISHED	INSTALLED		
	BY	BY	ВҮ	NOTES	
OWER		•		1	
EDIUM VOLTAGE RACEWAYS	A/E	CONTRACTOR	CONTRACTOR		
EDIUM VOLTAGE CABLING/EQUIPMENT	NIC	NIC	NIC	By Kaysville City Power	
CK MOUNTED UPS SYSTEM	OWNER	OWNER	OWNER	Eaton	
CHARGERS	NIC	NIC	NIC		
ELECOMM				•	
CEWAYS (CONDUIT AND CABLETRAY)	A/E	CONTRACTOR	CONTRACTOR		
ACKBONE FIBER	A/E	CONTRACTOR	CONTRACTOR	24ST SMF	
BER TERMINATION SHELVES (FPP)	A/E	CONTRACTOR	CONTRACTOR		
SER PATCH PANELS (RPP)	A/E	CONTRACTOR	CONTRACTOR		
DRIZONTAL CABLING	A/E	CONTRACTOR	CONTRACTOR	CAT 6A	
45 INSERTS AND FACEPLATES	A/E	CONTRACTOR	CONTRACTOR		
TCH PANELS/INSERTS SPP	A/E	CONTRACTOR	CONTRACTOR		
BER AND CAT 6A PATCH CORDS	OWNER	OWNER	OWNER		
DF RACKS & WIRE MANAGERS	A/E	CONTRACTOR	CONTRACTOR	2-2 POST RACKS PER ER/TR	
DF CABINET	NIC	NIC	NIC	NA	
DF LADDER TRAY	A/E	CONTRACTOR	CONTRACTOR		
TIVE NETWORK ELECTRONICS	OWNER	OWNER	OWNER	WIRELESS AP's, L2/L3 SWITCHES, ETC.	
VERGENCY DAS SYSTEM TESTING	A/E	CONTRACTOR	CONTRACTOR	Performance Spec	
IERGENCY & CELLULAR DAS SYSTEM	NIC	NIC	NIC		
CURITY AND MISC. SYSTEMS					
ACEWAYS	A/E	CONTRACTOR	CONTRACTOR		
TV SYSTEMS	A/E	CONTRACTOR	CONTRACTOR	MILESTONE & AXIS	
CCESS CONTROLS SYSTEMS	NIC	CONTRACTOR	CONTRACTOR	S2 SYSTEM	
TRUSION DETECTION SYSTEMS	NIC	NIC	NIC		
IRELESS CLOCKS	NIC	NIC	NIC		
REALARM	A/E	CONTRACTOR	CONTRACTOR	SILENT KNIGHT	
udio Visual					
CEWAYS	A/E	CONTRACTOR	CONTRACTOR		
JDIO SYSTEM	A/E	CONTRACTOR	CONTRACTOR		
DEO SYSTEM	A/E	CONTRACTOR	CONTRACTOR		
AT SCREENS & MOUNTS	A/E	OWNER	CONTRACTOR		
OJECTORS, MOUNTS & SCREENS	A/E	CONTRACTOR	CONTRACTOR		

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	DESCRIPTION AL POWER AND DISTRIBUTION FUSE WITH RATING (ONE-LINE DIAGRAM).
	AL POWER AND DISTRIBUTION FUSE WITH RATING (ONE-LINE DIAGRAM).
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
Ş	ONE-LINE DIAGRAM).
5	OVERLOAD RELAY (ONE-LINE DIAGRAM).
L L	STARTER (ONE-LINE DIAGRAM).
<u> </u>	
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP
↓ 1	(ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
([*] #AF #AT	THE RATING AND "150AT" REPRESENTS THE TRIP SETTING. (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
m	TRANSFORMER (ONE-LINE DIAGRAM).
"1DPHA"	
	DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER, PLUG-IN BUSWAY, MEDIUM VOLTAGE SWITCHBOARD (ONE-LINE DIAGRAM).
("1H"	
225/3	
"1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE A
	SHOWN (ONE-LINE DIAGRAM).
)225/3 "1H"	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER
	(ONE-LINE DIAGRAM).
60/3	
REFERENC	E AND LINE SYMBOLS
(A5) (E-501)	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE FLEVATION OR SECTION IS SHOWN
\checkmark	
A5	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING
ROOM NAME	
100	KEYNOTE INDICATOR.
Δ	REVISION INDICATOR.
<u>CU-1</u>	EQUIPMENT INDICATOR.
	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP"
	EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
MATCH LINE	MATCH LINE INDICATOR: CENTER. EXTRA WIDE LINE
SEE XX/X-XXX	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	ELECTRICAL EQUIPMENT INDICATOR. "XXX" INDICATES TYPE OF
	EQUIPMENT OR EQUIPMENT ID. "EF-X" IDENTIFIES MECHANICAL EQUIPMENT BEING SERVED. REFER TO EQUIPMENT SCHEDULE
XXX EF-X	FOR ADDITIONAL INFORMATION.

	4 SYMBOLS LEGEND
SYMBOL ELECTRICA	DESCRIPTION
225/3 "1H" 25/3	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 225/3 "1H"	PANELBOARD WITH SUB FEED LUGS (ONE-LINE DIAGRAM).
)225/3 "1H" "1H"	PANELBOARD WITH CIRCUIT BREAKER AND SUB FEED LUGS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	EARTH GROUND (ONE-LINE DIAGRAM).
⊷⊉⊬	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
ANN	GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
F PO	PUSH BUTTON, REMOTE EMERGENCY STOP.
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
(M)	METER.
	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE
	DIAGRAM).
	DISCONNECT SWITCH, FUSED.
Ŀ	DISCONNECT SWITCH, UNFUSED.
μ	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
•	PUSHBUTTON.
•	PUSHBUTTONS, MOTOR CONTROL.
¥k	
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
<i>₹7.7</i> ₽ 7.72	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
\$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
	TRANSFORMER (SEE ONE-LINE FOR SIZE)
	SWITCH SINGLE BREAK (ONE-LINE DIAGRAM)
	SPECIALIZED TRANSFER SWITCH (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, DRAW OUT (ONE-LINE DIAGRAM).
GESM	GENERATOR ENGINE START MONITORING SYSTEM GENERATOR
	MODULE (ONE-LINE DIAGRAM). GENERATOR ENGINE START MONITORING SYSTEM ATS MODULE
	(ONE-LINE DIAGRAM).
WIRING ME	THODS
\frown	WIRING.
\frown	WIRING TURNED UP OR TOWARDS OBSERVER.
\frown	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
A-1	SINGLE BRANCH CIRCUIT HOME RUN TO PANELBOARD WITH DEDICATED NEUTRAL CONDUCTOR. LETTER AND NUMBER NOTATION IDENTIFY PANEL AND CIRCUIT NUMBER.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
+	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
(нс)	ADA ACCESS PUSH PLATE
<u> </u>	JUNCTION BOX.
÷	
₽C	
\mathbb{Q}_{SC}	CONNECTION.
\mathbb{O}_{SP}	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
PB	PULL BOX.
$igodoldsymbol{\Theta}$	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCHEDULE FOR REQUIREMENTS.
X /	
EV	LECTRIC VEHICLE CHARGING STATION.
<u>I I</u>	GROUND BUSBAR. REFER TO GROUNDING RISER DIAGRAM FOR

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BBF	REVI	ATI	ON	S

	ADDREV		
	NOTE: ALL ABBREVIAT	IONS MAY	Y NOT BE USED.
1P	SINGLE POLE	kVA	KILOVOLT AMPER
1PH	SINGLE-PHASE	kVAR	KILOVOLT AMPER
1WAY	ONE-WAY	kW	KILOWATT
2/C 2\\/AV	TWO-CONDUCTOR	kWh	
3/C	THREE-CONDUCTOR		LIQUID TIGHT FLE
3WAY	THREE-WAY		CONDUIT
40UT		LFNC	LIQUID TIGHT FLE
4PDT	FOUR-POLE DOUBLE THROW	LPS	LOW PRESSURE
4PST	FOUR-POLE SINGLE THROW	LRA	LOCKED ROTOR
4W	FOUR-WIRE	LTG	
4WAY		LV MATV	MASTER ANTENN
AC	ARMORED CABLE		SYSTEM
ACS	ACCESS CONTROL SYSTEM	MAX	
ADA	AMERICANS WITH DISABILITIES	MCA	
ADJ	ACT ADJACENT	MCB	MAIN CIRCUIT BR
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL
AFG	ABOVE FINISHED GRADE	MCP	
AIC	CAPACITY	MG	MOTOR GENERAL
ALUM	ALUMINUM	MH	MANHOLE
AMP	AMPERE	MIN	MINIMUM
ANN AP	ANNUNCIATOR ACCESS POINT (WIRELESS	MOCP	
7.0	DATA)	MOOI	PROTECTION
AR	AS REQUIRED	MTS	MANUAL TRANSF
ASC	AMPS SHORT CIRCUIT	NA	NOT APPLICABLE
///0	SWITCH	NEC	NATIONAL ELECT
AV	AUDIO VISUAL	NEMA	NATIONAL ELECT
AWG BB	AMERICAN WIRE GAGE		MANUFACTURER: ASSOCIATION
XFMR	BUCK-BUUST TRANSFORMER	NFC	NATIONAL FIRE C
BFF	BELOW FINISHED FLOOR	NFPA	NATIONAL FIRE P
BFG		NIC	
CAT		NL	NIGHT LIGHT
CATV	COMMUNITY ANTENNA	NO	NORMALLY OPEN
05	TELEVISION	NTS	NOT TO SCALE
СВ	CIRCUIT BREAKER		
CODA	BY ARCHITECT	OE	OWNER ELECTRO
CCTV	CLOSED CIRCUIT TELEVISION	OF/CI	OWNER FURNISH
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED		
CF/OI	CONTRACTOR FURNISHED/	01701	INSTALLED
		OFP	OBTAIN FROM PL
СГВА	BY ARCHITECT		OVERHEAD (COIL
CI	CONTACT INDICATOR	PB	PUSHBUTTON
CKT		PF	POWER FACTOR
	CONDUIT	PH	PHASE
CO	CONVENIENCE OUTLET	PNL	
COR	CONTRACTING OFFICER'S	PR	PAIR
CP	CONTROL PANEL	PS	POWER SUPPLY
CR	CARD READER	PT	POTENTIAL TRAN
СТ	CURRENT TRANSFORMER	PIZ PV	PAN/TILT/200M PHOTO VOLTAIC
CTV	CABLE TELEVISION	QTY	QUANTITY
dBA	UNIT OF SOUND LEVEL	R	REMOVE
DPDT	DOUBLE POLE, DOUBLE	RCP	REFLECTED CEIL
D.O.	THROW	RMC	RIGID METAL CON
DS F	ENHANCED	RO	REMOTE DOOR O
EA	EACH	RPM	REVOLUTIONS PE
EM	EMERGENCY	RPP	
		S/S	START/STOP
	TUBING	SCA	SHORT CIRCUIT A
EPO	EMERGENCY POWER OFF	SCBA	STANDARD COLO
EQUIP		SF	SQUARE FOOT (F
EX	EXISTING	SFBA	STANDARD FINIS
F	FURNITURE MOUNTED	SPD	SURGE PROTECT
FA		SPDT	SINGLE POLE, DC
FLA	FULL LOAD AMPS	SPEC	SPECIFICATION
FMC	FLEXIBLE METAL CONDUIT	SPP	
FOB	FREIGHT ON BOARD	ST	SINGLE THROW
FPP FVNR		SWBD	SWITCHBOARD
	NON-REVERSING	SWGR	SWITCHGEAR
FVR	FULL VOLTAGE REVERSING	TP	
GEN		TP	TWISTED PAIR
GFP	GROUND FAULT PROTECTION	TR	TELECOMMMUNIC
GIG	GIGA HERTZ	TTB	
GND	GROUND	TV	TELEVISION
пи HID	HIGH INTENSITY DISCHARGE	TVSS	TRANSIENT VOLT
HOA	HAND-OFF-AUTOMATIC	ТҮР	SUPPRESSER TYPICAI
HP	HORSE POWER	UF	UNDERFLOOR
HPF нрс		UGND	UNDERGROUND
HV	HIGH VOLTAGE	UPS	UNINTERRUPTIBL
HWM	HORIZONTAL WIRE	v	VOLTS
Ц7	MANAGEMENT	VA	VOLT AMPERE
I/O	INPUT/ OUTPUT	VFC/VF	
IG	ISOLATED GROUND	VIC	VIDEO INTERCOM
IMC		VSS	VIDEO SURVEILLA
IN/IS	INSULATED/ ISOLATED	VWM	
IR	INFRARED	W/O	WITHOUT
J-BOX		WP	WEATHERPROOF
KCP kV	KATOVILLE UITY POWER	WPP	WIRELESS PATCH
		XFMR	IKANSFORMER

AY	NOT BE USED.
	KILOVOLT AMPERE
	KILOVOLT AMPERE REACTIVE
	LIQUID TIGHT FLEXIBLE METAL
	NONMETALLIC CONDUIT
	LOW PRESSURE SODIUM
	LOCKED ROTOR AMPS
	MASTER ANTENNA TELEVISION
	SYSTEM
	MINIMUM CIRCUIT AMPS
	MAIN CIRCUIT BREAKER
	MOTOR CONTROL CENTER
	MAIN DISTRIBUTION PANEL
	MOTOR GENERATOR
	MANHOLE
,	MAXIMUM OVERCURRENT
	PROTECTION
	MANUAL TRANSFER SWITCH
	NORMALLY CLOSED
	NATIONAL ELECTRICAL CODE
	NATIONAL ELECTRICAL
	ASSOCIATION
	NATIONAL FIRE CODE
	NATIONAL FIRE PROTECTION
	NOT IN CONTRACT
	NIGHT LIGHT
	NORMALLY OPEN
	NOT TO SCALE
	OVER CURRENT PROTECTION
	OWNER ELECTRONICS
	OWNER FURNISHED/
	OWNER FURNISHED/ OWNER
२	OVERHEAD (COILING) DOOR
	OVERLOAD
	PUSHBUTTON
	FLIANE
	PANEL
	PANEL PLENUM
	PANEL PLENUM PAIR
	PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER
	PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM
	PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC
	PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE
	PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN
	PANEL PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT
	PANEL PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REMOTE DOOR OPEN
	PANEL PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REMOTE DOOR OPEN REVOLUTIONS PER MINUTE
	PANEL PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REMOTE DOOR OPEN REVOLUTIONS PER MINUTE RISER PATCH PANEL
	PANEL PANEL PLENUM PAIR POWER SUPPLY POTENTIAL TRANSFORMER PAN/TILT/ZOOM PHOTO VOLTAIC QUANTITY REMOVE REFLECTED CEILING PLAN RIGID METAL CONDUIT RIGID METAL CONDUIT RIGID NONMETAL CONDUIT REMOTE DOOR OPEN REVOLUTIONS PER MINUTE RISER PATCH PANEL REMOVE AND RELOCATE PANEL REMOVE AND RELOCATE
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- 5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- . ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

SITE COORDINATION

THE LOCATION, CAPACITY, AND VOLTAGE OF THE LINES ARE ALL IN ACCORDANCE WITH DATA GIVEN THIS OFFICE BY THE UTILITY COMPANY. COORDINATE WITH THE LOCAL UTILITY COMPANY FOR THE INSTALLATION OF THE ELECTRICAL SERVICE. COMPLY WITH UTILITY REGULATIONS. REPORT DISCREPANCIES TO THE ENGINEER.

ELECTRIC UTILITY

PERSON CONTACTED: BRIAN JOHNSON DATE: 8/22/2024 PHONE NUMBER: 801-544-8925 EMAIL: BJOHNSON@KAYSVILLE.GOV

ELECTRICAL SHEET INDEX EE001.1 SHEET INDEX, AND ABBREVIATIONS ES101.1 ELECTRICAL SITE PLAN

ES501.1 ELECTRICAL DETAILS EP601.1 ONE-LINE DIAGRAM

KAYSVILLE CITY POWER

BID PACKAGE 1 DESCRIPTION

- THE SCOPE OF THIS BID PACKAGE INCLUDES: EARLY PROCUREMENT OF THE SWITCHBOARD
- CONDUIT SLEEVES ALONG BUILDING PERIMETER ROUTING OF KAYSVILLE CITY POWER CONDUITS, AND SECONDARY
- FEEDERS TO THE SWITCHBOARD. ROUTING OF TELECOMMUNICATION RACEWAYS FROM HAND HOLES TO
- BUILDING.

ALL OTHER ITEMS SHOWN ON THE SET WILL BE INCLUDED IN THE FOLLOWING BID SET AND SHALL NOT BE FURNISHED OR INSTALLED.

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

"TX"

Е

OWER BEARING POINT 113' - 4"					
MAIN LEVEL 100' - 0"					
TO BARLOW MANHOLE					
	2 (2) 6" PVC SLEEVES BENEATH FOOTER WV3"	(2) 6" PVC- SLEEVES BENEATH FOOTER	5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		
			"1HW4" H DING C(2) 6" PV SLEEVE BENEAT FOOTEF	CSH	
G H ER H	(2) 6" PVC SLEEVES BENEATH FOOTER 9' - 0" (2) 6" PVC SLEEVES BENEATH FOOTER	"1EDP" "1EW1" "1LW1" "1LW1" "1LW1" "1LW1" "1LW1" "1LW1" "1LW1" "1LW1"	"1HL 1" "1LP1" "1RA" 1 1 1 1 1 1 1 1 1 1 1 1 1		

1 2 3 4 5 6 7	THE ELECTRICAL CONTRACTOR SHALL MEET WITH AND COORDINATE WITH ALL SERVICE PROVIDERS (POWER, COMMUNICATION, CABLE/SATELLITE, ETC.) TO THE FACILITY ON SITE PRIOR TO ANY WORK BEING PREFORMED. CONFIRM WITH EACH SERVICE PROVIDER EXACT LOCATIONS OF EQUIPMENT AND ROUTING. COMPLY WIT ALL SERVICE PROVIDER EXACT LOCATIONS OF EQUIPMENT AND ROUTING. COMPLY WIT ALL SERVICE PROVIDER EXACT LOCATIONS OF EQUIPMENT AND ROUTING. COMPLY WIT ALL SERVICE PROVIDER WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, AND COMPACTION ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROUND RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH. THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE BASES AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESIGN PER STRUCTURAL ENGINEER'S AND OR AHJ'S RECOMMENDATIONS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHALT CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHER MODIFICATIONS.
2 3 4 5 6 7	CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, AND COMPACTION ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROUND RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH. THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE BASES AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESIGN PER STRUCTURAL ENGINEER'S AND OR AHJ'S RECOMMENDATIONS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHALT CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL
3 4 5 6 7	 RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH. THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE BASES AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESIGN PER STRUCTURAL ENGINEER'S AND OR AHJ'S RECOMMENDATIONS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHALT CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL
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5 6 7	PROJECT. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL
6	SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL
7	INSTALLATION OCCUR. PLEASE INCLUDE NOTES IN THE ELECTRICAL DRAWINGS OR
	SUPPLY CALCULATIONS WHERE APPLICABLE. SEE NEC 110.24. (B) ALL UNDERGROUND RACEWAYS SHALL UTILIZE GRADUAL SWEEPS WHERE POSSIBLE. PROVIDE FACTORY LONG SWEEP BENDS ONLY WHERE ABSOLUTELY
8	CONTRACTOR SHALL ADJUST DEPTH OF RACEWAYS DEEPER AS NECESSARY TO AVOID CONFLICTS WITH OTHER UTILITIES AND MAINTAIN A SEPARATION OF NO LESS THAN 1 FOOT FROM ALL OTHER UTILITIES CROSSINGS UNLESS NOTED OTHERWISE.
9	ALL ELECTRICAL GEAR AND EQUIPMENT (GENERATOR, TRANSFORMER, SWITCHBOARDS, PANELBOARDS, DISCONNECTS, ENCLOSURES, ETC.) LOCATED OUTDOOR OR EXPOSED TO WEATHER SHALL BE NEMA 3R RATED UNLESS NOTED OTHERWISE.
1	SHEET KEYNOTES PROVIDE 2 EA 4" CONDUITS WITH (1) 7 WAY 12.7X10 MM MICRODUCT, (2) WITH 3 EA. 1 OFFINITE PROVIDE 2 MILLION DUTE
2	EXISTING UTILITY MEDIUM VOLTAGE EQUIPMENT TO REMAIN AND BE PRESERVED.
3 4	APPROXIMATE ROUTING OF PRIMARY CONDUIT TO TRANSFORMER. DROPPED FOOTING FOR FUTURE ACCESS OF ALL CONDUITS FROM SWITCHBOARD
5	CONTRACTOR TO PROVIDE CONDUIT 1 FOOT AWAY FROM EXISTING SECTIONALIZEF CONTRACTOR TO COORDINATE WITH KAYSVILLE CITY POWER ONCE COMPLETED.
6	HALFTONED RACEWAYS AND EQUIPMENT ARE SHOWN FOR REFERENCE ONLY AND NOT INCLUDED IN BID PACKAGE 1.

NORTH

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(801) 355-5915

GENERAL SHEET NOTES

 A data termine in a control that a label and even the control that label and even the control that a label and even that a label		 SERVICE PROVIDER EXACT LOCATIONS OF EQUIPMENT AND ROUTING. COMPLALL SERVICE PROVIDER'S CURRENT STANDARDS AND REQUIREMENTS. PROV THE REQUIRED EQUIPMENT, RACEWAYS, BOXES, CABLE, ETC. AS REQUIRED B SERVICE PROVIDER WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, AND COMPAC ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROU RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH. THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE B. AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESI PER STRUCTURAL ENGINEER'S AND OR AHJ'S RECOMMENDATIONS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHAL CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARAI REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FAL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAX AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR. PLEASE INCLUDE NOTES IN THE ELECTRICAL DRAWING SUPPLY CALCULATIONS WHERE APPLICABLE. SEE NEC 110.24. (B)
SHEET KEYNOTES SHEET KEYNOTES SHEET KEYNOTES SHEET KEYNOTES		 ALL UNDERGROUND RACEWAYS SHALL UTILIZE GRADUAL SWEEPS WHERE POSSIBLE. PROVIDE FACTORY LONG SWEEP BENDS ONLY WHERE ABSOLUTEL NECESSARY OR NOTED. CONTRACTOR SHALL ADJUST DEPTH OF RACEWAYS DEEPER AS NECESSARY AVOID CONFLICTS WITH OTHER UTILITIES AND MAINTAIN A SEPARATION OF NC THAN 1 FOOT FROM ALL OTHER UTILITIES CROSSINGS UNLESS NOTED OTHER ALL ELECTRICAL GEAR AND EQUIPMENT (GENERATOR, TRANSFORMER, SWITCHBOARDS, PANELBOARDS, DISCONNECTS, ENCLOSURES, ETC.) LOCATE OUTDOOR OR EXPOSED TO WEATHER SHALL BE NEMA 3R RATED UNLESS NOT OTHERWISE.
RF: PLANTER: LANDSCAPE PAR DIRF: PLANTER: LANDSCAPE 2: TORSOIL URITARY SEVER & NON-WATER 0: VERTCALLY 1: VERTCALLY NORE: E REPAR 1: VERTCALLY 1: VERTCALY 1: VERTCALY 1: VERTCALY 1: VERTCALY 1: VERTCALY 1: VERTCAL		SHEET KEYNOTES
PHALT REPAIR ' STANDARD ASPHALT ' UNTREATED BASE COURSE MPACT TO 95% MODIFIED OCTOR ' PIT RUN GRAVE COMPACT TO 95% DDIFIED PROCTOR	RE/PLANTER/LANDSCAPE PAIR URE/PLANTER/LANDSCAPE " TOPSOIL NITARY SEWER & NON-WATER 30° HORIZONTALLY 18° VERTICALLY 18° VERTICALLY 18° VERTICALLY 18° VERTICALLY 18° VERTICALLY 10° PRESSURE GAS LINE -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -38° HORIZONTALLY -18° VERTICALLY HIGH PRESSURE GAS LINE -0600V - 22° VERTICALLY -600V - 22° VERTICALLY -600V - 2000V - 30° VERTICALLY -2001V - 40,000V - 36° VERTICALLY TELECOM & LOW VOLTAGE -12° HORIZONTALLY -12° VERTICALLY NCRETE REPAIR "CEMENT CONCRETE" UNTREATE BASE COURSE MPACT TO 95% MODIFIED OCTOR "AGGREGATE BASE COURSE DER ROADS, OMPACT TO 95% MODIFIED OCTOR	
	OCTOR PHALT REPAIR STANDARD ASPHALT UNTREATED BASE COURSE MPACT TO 95% MODIFIED OCTOR PIT RUN GRAVE COMPACT TO 95% DDIFIED PROCTOR	

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1									2
SERVICE LOAD CALCULATIONS									
480Y/277 V SERVICE CALCULATION									
NEW CONSTRUCTION AREA FT ²	16 000								
ELECTRICAL SERVICE VOLTAGE (V)	480								
	3								
	0					N	IEC DEMAND		
DESCRIPTION.	KW	VA/FT ²	HP	PF	KVA	FACTOR			NOTE
A LIGHTING LOAD		1.5			24.0	125%	30	36	
B MOTOR & HVACIOAD		1.0			99.5	100%	99	120	
		0.5			8.0	100%	8	10	
		0.5	30		20.1	25%	7	0	
					903.6	100%	004	1087	
	_				537.0	100%	537	646	
G EXTRATION SYSTEM	-				166.3	100%	166	200	
	-				107.2	100%	100	120	
11. 200/1201 LOAD					107.2	10070	107	125	
						τοται	1850	2236	
							RVICE SIZE (A)	2500	
							CAPACITY (%)	11%	
208Y/120 V SERVICE CALCULATION						OLIVIOL OF AIL		1170	
NEW CONSTRUCTION AREA ET2	16 000								
	208								
	200								
	5								
	K/W	VA/ET2	нр	DE	K\/Δ	FACTOR			NOTE
A RECERTACI E LOAD EIRST 10 KVA	1.00	VANT			10.0	100%	10	28	NOTE
		2			32.0	50%	10	20	
		2			20.7	100%	30	82	
		1			16.0	100%	30	02	
		1			10.0	100%	20	54	
	_	1			16.0	100%	20		
					F	TOTAL BUILDING SE	107 RVICE SIZE (A)	298	
					E	SERVICE SPARE	E CAPACITY (%)	26%	
NOTES									
 LIGHTING LOADS BASED ON NEC TABLE 220.12 LOAD BASED ON ACTUAL CALCULATED LOAD C TABLE 220.44. 	VALUE FOR S DR 1 VA/S.F. W	CHOOLS HICHEVE	or ac R IS G	REAT	LOAD WH ER. RECEF	ICHEVER IS GREA PTACLE DEMAND	ATER FACTOR BASED	ON NEC	
 MOTOR LOAD CALCULATED AS PER NEC 220.50 LARGEST MOTOR LOAD AS PER NEC 220.50, 43), 430.24, 430.2 0.24.	25, 430.26	, AND 4	440.6.					

2

3											
EQUIPMENT ID SCHEME SCHEDULE											
FIRST DIGIT - BUILDING LEVEL (0, 1, 2, ETC) SECOND DIGIT - PANEL TYPE L - (120/208) H - (277/480) THIRD DIGIT - M - MECHANICAL L - LIGHTING W - WELDING EQUIP G - GENERAL POWER FOURTH DIGIT - SEQUENCE # (1,2,3,) OR DISTRIBUTION											
LABEL FORMAT [NAME] [SYSTEM] [VOLTAGE] [FED FROM] [SOLIBCE(S)]											
LABEL EXAMPLE PANEL "4LA1" STANDBY POWER 120/208V FED FROM BUS-A / XEMR 4TA											
OTHER	EXCEPTIONS: MDP - MAIN DISTRIBUT	ION BOARD)								
C	COLOR SCHEM	E									
		NAMEPL	ATE COLOR								
SYSTEM		TEXT	BACKGROUND								
NORMAL POWER	ALL GEAR NOT INCLUDED BELOW	WHITE	BLACK								

BRANCH CIRCUIT CONDUCTOR AND CONDUIT SIZING TABLE										
	CIRCUIT									
AMPACITY/VOLTAGE	LENGIH	(PHASE, NEUTRAL AND GR)	CONDULT SIZE							
20A/120V	0' - 60'	#12 AWG	0.75" Ø							
20A/120V	60' - 95'	#10 AWG	0.75" Ø							
20A/120V	95' - 150'	#8 AWG	1" Ø							
20A/120V	150' - 240'	#6 AWG	1.25" Ø							
20A/277V	0' - 140'	#12 AWG	0.75" Ø							
20A/277V	140' - 220'	#10 AWG	0.75" Ø							
20A/277V	220' - 350'	#8 AWG	1" Ø							
20A/277V	350' - 550'	#6 AWG	1.25" Ø							
NOTES:		R CONDUCTORS SUPPLYING	A 20A 120V							

4

1. WIRE SIZING IS BASED ON COPPER CONDUCTORS SUPPLYING A 20A, 120V CIRCUIT AT THE INDICATED VOLTAGE, ASSUMED TO BE 80% LOADED (16A), WITH MAXIMUM VOLTAGE DROP OF 3% AT THE LOAD.

2. DOWN-SIZED WIRE AT DEVICE/LOAD AS REQUIRED AND TERMINATE CONDUCTORS IN A SAFE AND CODE COMPLIANT MANNER.

3. CONDUIT SIZE IS BASED ON A MAXIMUM OF 3 CIRCUITS PER CONDUIT, EACH WITH A SEPARATE NEUTRAL CONDUCTOR.

5												6				
ALU	MIN	UM	CO	ND	UCI	FOR				AL S	HE	ET	NO [®]	TES		
			JII	201	HED	OLE			OR EQU			NS.				NEADANO
SUBSC	RIPT (NOT	TE 5)		(E.G.)	5 IG		REQ	UIREME	ENTS OF CONST	EQUIPME	NT. PR	OVIDE E SPECIFI	QUIPMEI C LOCAT	NT DIMENTION.	ISIONS TI	HAT FALL
SYM AMP SIZI	JIT COND	UCTOR (SIZE	NOTE 1) G	IG	SE	NOTES	3 ALL CON	EQUIPN DITION	IENT SH S OF TH	IALL BE CO IE PROJEC	ONSTRU T. REF	ICTED AN ER TO EL	ND BRAC	ED FOR ⁻ AL SPECI	THE SEISI FICATION	MIC IS FOR
							4 PRO	VIDE PE WITH A				OR GRO	UND-FAL		ECTION S	SYSTEMS
							HAV				EC 230.	95(C).	FS			-
Z _A B _A 9 _A)E 4" CC				G. UTILITY	TO INSTA
10 _A 11 _A 12 _A	<u> </u>		\mathbb{X}				- 2 CON		OR TO I	NSTALL TF	RANSFC	RMER P	AD. UTIL			
13 _A 14 _A 15 _A							3 PRC	VIDE (2 FUTUR) 3" CON	NDUITS AN	D 1" CO R CORF		O OUTSI CAPACII	DE OF SV	NITCHBO	ARD PAD
16 _A 17 _A 18 _A							4 KCP	WILL F ER BAS	URNISH	I METER BA	ASE WIT	TH CABLI O CONNE	NG. CON ECT AND		R TO INS ⁻ ATE ALL V	TALL THE VIRING.
194 204 214 130 2	3	2/0	4	1/0	4	27	5 EQU	IPMEN	r ASSO(CIATED WI	TH BID I	PACKAGI	E 1.			
22_A 130 2 23_A 150 2 24_A 150 2	4 3 4	2/0 3/0 3/0	4 4 4	1/0 1/0 1/0	4 4 4	2,7 2,7 2,7										
25_A 175 2 26_A 175 2.50 27_A 200 2.50		4/0 4/0 250	4 4	1/0 1/0 1/0	2 2 2 2	2,7 2,7 2,7		<u> </u>					אוור			
23_A 200 2.50 28_A 200 3 29_A 230 2.50 230 230		250 250 300	4 4 2	1/0 1/0 1/0	2 1/0	2,7 2,7 2,7		U	UP C					EDL	к А JLE	ND
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4 3 4	350 350 500	2 2 2	2/0 2/0	1/0 1/0 1/0	2,7 2,7 2,7	- +*		-SCHEE	DULE NUME	BER		(E.G	6.) 5		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 4 .50 3	500 500 250	1	3/0 3/0 4/0	1/0 1/0 3/0	2,7 2,7 2,7			-SUBSC		E 5) CONDI		NOTE 1)	IG		NOTE
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3 4 .50 3 .50 4	250 250 250	1 1/0 1/0	4/0 4/0 4/0	3/0 3/0 3/0	2,7 2,7 2,7		20 20	- -	.75 .75	2 3	12 12	12 12	1G/HH 12 12	8 8	2 2,3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccc} 3 & 3 \\ 3 & 4 \\ 3 & 3 \\ \end{array} $	350 350 500	1/0 1/0 3/0	300 300 300	3/0 3/0 3/0	2,4,7 2,4,7 2,4,7	(3) (4) (5)	20 30 30	24 - -	.75 .75 .75	4 2 3	12 10 10	12 10 10	12 10 10	8 8 8	2,3 2 2
42 _A 620 2 EA 43 _A 750 3 EA 44 _A 750 3 EA		500 350 350	3/0 3/0 3/0	300 300 300	3/0 4/0 4/0	2,4,7 2,4,7 2,4,7	6 7 8	30 40 40	32 - -	.75 1 1	4 2 3	10 8 8	10 10 10	10 8 8	8 6 6	2 2 2
45 _A 810 3 EA 46 _A 810 3 EA 47 _A 1000 4 EA	$ \frac{3}{4} \frac{3}{4} \frac{3}{3} $	400 400 350	4/0 4/0 4/0	300 300 300	250 250 250	2,4,7 2,4,7 4,7	9 10 11	40 55 55	44 - -	1 1 1	4 2 3	8 6 6	10 10 10	8 8 8	6 4 4	2 2 2
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 4 - 4 4	350 - 500	4/0 - 250	300 - 300	250 - 250	4,7 - 4,7	12 13 14	55 70 70	60 - -	1.25 1 1.25	4 2 3	6 4 4	10 8 8	8 4 4	4 2 2	2 2 2
51_A 1240 4 EA 52_A 1240 4 EA 53_A 1620 6 EA	$ \begin{array}{c cc} 4 & 3 \\ \hline 4 & 4 \\ \hline 4 & 4 \end{array} $	500 500 400	350 350 400	300 300 350	250 250 250	4,7 4,7 4,7	15 16 17	70 85 85	76 - -	1.25 1.25 1.25	4 2 3	4 3 3	8 8 8	4 3 3	2 2 2	2 2 2
54_A 2170 7 EA 55_A 2695 7 EA 56_A 3080 8 EA	$ \begin{array}{c cc} $	500 750 750	400 600 600	400 750 750	500 750 750	4,7 4,7 4,7	18 19 20	85 95 95	92 - 104	1.25 1.25 1.50	4 3 4	3 2 2	8 8 8	3 2 2	2 2 2	2 2 2
$\overline{57}_{A}$ 4235 11 EA $\overline{58}_{A}$ 1200 5 EA $\overline{59}_{A}$ 3000 10 EA	<u>4</u> 4 <u>4</u> -	750	800	750	750	4,7 6	21 22 23	130 130 150	- 116 -	1.50 1.50 2	3 4 3	1 1 1/0	6 6 6	2 2 2	2 2 1/0	2 2 2
60 _A - 10 EA	4 - ONDUCTO	- DR AND C	- ONDUIT :	- SCHEDUI	LE NOTES	6	24 25 26	150 175 175	136 - 156	2 2 2	4 3 4	1/0 2/0 2/0	6 6 6	2 2 2	1/0 2/0 2/0	2 2 2
1 CONDUCTORS MODIFICATION UNLESS OTHE	SHOWN A IS AS NOT RWISE NC	ARE SHO' ED IN NC DTED.	WN FOR DTE 5. ALI	EACH CO L CONDU	ONDUIT W ICTORS S	ITH HOWN ARE THWN	27 27 28	200 200 230	- 180	2 2.50 2.50	3 4 3	3/0 3/0 4/0	6 6 4	2 2 2 2 2	2/0 2/0 2/0	2 2 2
2 PROVIDE EQU CIRCUIT BREA TABLE.	IPMENT GF KERS ARE	ROUND (SIZED G	CONDUCT REATER	TORS PE	R TABLE 2 MPERE RA	250-122 WHEN ATING SHOWN IN	30 31 32	230 255 255	208	2.50 2.50 2.50	4 3 4	4/0 250 250	4 4 4	2 1 1	2/0 2/0 2/0	2 2 2 2
3 PROVIDE #10 COMPUTERS. 4 GROUND (G) (CONDUCTORS		OR MAY E	BE DELET	ED ON S	ERVICE E		33 34 35	310 310 380	- 280	3 3 3 50	3 4 3	350 350 500	3 3 3	1/0 1/0 3/0	3/0 3/0 3/0	2 2 2
5 SYMBOL SUB "2N": INCLUE PHASE	CRIPTS: E TWO NE AND NEUT		ONDUCT	ORS SIZ	ED AS SC RE THE CO	HEDULED FOR NDUCTOR IS #1/0	36 37 38	380 400	344 - 360	4 2 EA 2 2 EA 2 50	4 3 4	500 500 3/0	3 3 3	3/0 3/0 3/0	3/0 3/0 3/0	2 2 2
OR LAF TWICE CONDL	GER. INCL THE AMPA CTOR WHI	LUDE A S CITY OF ERE THE	SINGLE 20 THE SCH CONDUC	00% RATE IEDULED CTOR IS E	ED COND PHASE A BELOW #1	UCTOR THAT IS ND NEUTRAL /0 IN SIZE.	39 40 41	510 510 620	- 464	2 EA 2.50 2 EA 3 2 EA 3	3 4 3	250 250 350	1 1 1/0	4/0 4/0 4/0	3/0 3/0 3/0	2 2 2 4
"CI": PROVIE RESIST	E CIRCUIT	T INTEGR	ITY CABL	LE; TYPE R PROVID	TWO-HOU DE FEEDEI	JR FIRE R ENCASED IN	42	620 760	560	2 EA 3 2 EA 3.50	4 3 4	350 500	1/0 1/0 1/0	4/0 4/0 4/0	3/0 3/0 3/0	2,4 2,4 2,4
"FG" FULL S	ZE GROUN	ND, SIZE			UNDING (CONDUCTOR TO	45	855 855	- 768	3 EA 3 3 EA 3	3 4	300 300 400	2/0 2/0	4/0 4/0 4/0	3/0 3/0 3/0	2,4 2,4 2,4
"HH": NEUTR					ARMONIC	C "NONLINEAR" ED	47 48 49	1000 1000 1140	912	3 EA 3.50 3 EA 4	3 4 3	400	2/0 2/0 3/0	4/0 4/0 4/0	3/0 3/0 3/0	4 4 4
ACCOR	DINGLY. P DING CON	PROVIDE	THE IG/H	IH SIZE F	OR THE E	EQUIPMENT	51 52	1140 1240 1240	- 1120	3 EA 4 4 EA 3 4 EA 3	4 3 4	350 350	3/0 3/0 3/0	4/0 4/0 4/0	3/0 3/0 3/0	4 4 4
"IG": INCLUE SCHED CONDL	E IG (INSU ULED ALOI CTOR.	ILATED/IS NG WITH	SOLATED THE GRO	GROUNI	D CONDU EQUIPM	CTOR) ENT GROUND	53 54 55	2010 2660	1520 1824 2408	э EA 4 6 EA 4 7 EA 4	4 4 4	400 400 500	4/0 250 350	4/0 250 350	4/0 250 350	4 4 4
"MC": Provie Single	E FEEDER	R IN META	AL-CLAD (CONDUIT	CABLE; T	YPE MC I	N PLACE OF	56) 57) 58)	3040 4180 1200	2752 3784 -	8 EA 4 11 EA 4 5 EA 4	4 4 -	500 500 -	500 500 -	500 500 -	500 500 -	4 4 6
"SE": SUBST	TUTE "SE" D FOR THE			R "G" CO THE SEC	NDUCTOF CONDARY	r Shown, which of the	<u>59</u> 60	3000	-	10 EA 6 10 EA 4	- - TOR ΔN	- - וD CONח	UIT SCH	- - EDULF NG	- - 	6 6
SEPAR "SER": PROVIE		E-ENTRA	NCE CAE	BLE; TYPE	E SE OR S	ER IN PLACE OF	1.	CONDU AS NO		SHOWN A NOTE 5. AL	RE SHO		R EACH C S SHOWI	CONDUIT N ARE TH	WITH MO WN UNLE	DIFICATIO ESS
6 RACEWAY ONL 7 ALUMINUM COL OR MOTOR DO			PROVIDE BE USEI	D BY UTI D FOR CO	LITY. ONNECTIO	ON TO MOTORS	2.	PROVII CIRCUI TABLE	DE EQU T BREA	IPMENT GF KERS ARE	ROUND SIZED	CONDUC GREATE	CTORS P R THAN /	er table Ampere	E 250-122 RATING S	WHEN SHOWN IN
	י בוז בעטוּ 	. ıvı∟IN I .					3. 4.	PROVII COMPL GROUN	DE #10 I JTERS. ND (G) C	NEUTRALS	FOR M R MAY	ULTIWIRI BE DELE	E BRANC	CH CIRCU	ITS SERV	'ING CE
							5.	CONDU SYMBC "2N".	JCTORS)L SUBS INCLUI	3. SCRIPTS: DF TWO NF	-UTRAI	CONDU	CTORS S	SIZED AS	SCHEDUI	ED FOR
								211.	PHASE OR LAI TWICE	AND NEU RGER. INC	TRAL C LUDE A	ONDUCT SINGLE	ORS WH 200% RA	ERE THE ATED COI ED PHASE	CONDUC VDUCTOF E AND NE	TOR IS #1 R THAT IS UTRAL
								"CI":	CONDU	JCTOR WH	IERE TH	IE COND	UCTOR I BLE; TYF	S BELOW PE TWO-H	#1/0 IN S	SIZE. E
									RESIS ⁻ CONCI	TIVE CABLI RETE.	ES IN C	ONDUIT	OR PRO\	/IDE FEEI	JER ENC	ASED IN
								"FG"	full s Be sai	SIZE GROU ME SIZE AS	ND, SIZ 8 THE P	E EQUIPI HASE CC	MENT GF	ROUNDIN ORS.	3 CONDU	ICTOR TO
								"HH":	NEUTE LOADS ACCOF	RAL CURRE 6. CURREN RDINGLY. 1	ENTS EX IT CARF PROVID	(IST DUE RYING CO DE THE IO	TO HIGH ONDUCTO S/HH SIZE	H HARMO ORS DER E FOR TH	NIC "NON ATED E EQUIPN	ILINEAR" //ENT
								"IG":	INCLU	DE IG (INSU		אל. ISOLATI				
								"\\/_"		JCTOR.			עאוטטאD			
								"SE".	SINGLI							
								JL .	IS SIZE	ED FOR THI RATELY DE	E GROU RIVED S	JNDING (SYSTEM.	DF THE S	ECONDA	RY OF TH	IE
								"SER":	PROVI SINGLI	DE SERVIC E CONDUC	E-ENTR	RANCE C	ABLE; T\ JIT.	(PE SE O	R SER IN	PLACE OF

RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

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