

_	Drawing Title	Phase	Project Title
e of ction ilities	ROOF FRAMING PLAN	BID DOCUMENTS	Renovate and Repa Building 4
ment	Approved:		Location Wichita, KS
Department erans s		FULLY SPRINKLEF	RED Issue Date Check 9/23/2021 DRS
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ir Structural,		Project Number 589A7-21-108 Building Number 4
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GENERAL STRUCTURAL NOTES

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IGN CRITERIA:	
IGN CODE:	2021 IBC
W LOAD: GROUND SNOW LOAD EXPOSURE FACTOR IMPORTANCE FACTOR RAIN ON SNOW (SLOPE =<1/2:12)	Pg = 20 PSF Ce = 1.0 I = 1.0 = 5 PSF
D LOAD: BASIC WIND SPEED EXPOSURE CATEGORY	V = 110 MPH B
SMIC LOAD: Ss S1	= 0.091 = 0.055

IMPORTANCE FACTOR SOIL PROFILE TYPE SEISMIC DESIGN CATEGORY ELEGATED DESIGN ITEMS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE FOLLOWING ITEMS (PERFORMED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF KANSAS. - PRIMARY NON-STRUCTURAL ELEMENTS AND THEIR ATTACHMENTS THAT ARE

l = 1.0

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ESSENTIAL FOR LIFE-SAFETY SYSTEMS OR ELEMENTS THAT CAN CAUSE SUBSTANTIAL INJURY IF FAILURE OCCURS, INCLUDING OVERHEAD HEAVY SUSPENDED COMPONENTS OR FIXTURES WEIGHING MORE THAN 31 LBS, BUT EXCLUDING DISTRIBUTED SYSTEMS SUCH AS SUSPENDED CEILINGS OR PIPING NETWORKS, SHALL BE ANCHORED WITH LATERAL TIES CAPABLE OF RESISTING A FORCE OF 1.5 TIMES ITS WEIGHT APPLIED IN ANY DIRECTION. MOUNTINGS MUST ALSO BE DESIGNED FOR FORCES REQUIRED BY OTHER CRITERIA SUCH AS SEISMIC STANDARDS.

- MISCELLANEOUS EQUIPMENT SUPPORTS (E.G., FOR HANGING TRANSFORMERS) B. FOR ALL ITEMS LISTED AS DELEGATED-DESIGN ITEMS, STAMPED ENGINEERING CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AT THE SAME TIME THAT RELATED SHOP DRAWINGS ARE SUBMITTED FOR REVIEW.

ENERAL PROJECT NOTES

1. ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OR CONSTRUCTION.

2. THE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY EXISTING CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THE CONTRACT DOCUMENTS. 3. THE ENGINEER WILL NOT ACCEPT SHOP DRAWINGS WITHOUT FIRST BEING REVIEWED

AND SIGNED BY THE CONTRACTOR. ALL CHANGES SHALL BE FLAGGED AND NOTED AS DEVIATING FROM THE CONTRACT DOCUMENTS. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING

BUILDING DURING THE EXECUTION OF THE CONTRACT. 5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE SHORING AND BRACING TO PROTECT THE EXISTING STRUCTURE AND UNFINISHED NEW CONSTRUCTION. ONCRETE AND REINFORCING STEEL:

1. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" UNLESS NOTED OTHERWISE.

2. ALL REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60.

ASONRY: 1. ALL MORTAR SHALL CONFORM TO ASTM C-270, TYPE S OR M.

2. MORTAR ADMIXTURES ARE NOT ALLOWED WITHOUT APPROVAL OF THE ENGINEER. TRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITIONS.

2. ALL WIDE FLANGES SHALL BE ASTM A992, GRADE 50, UNLESS NOTED OTHERWISE. CHANNELS, ANGLES AND PLATE MATERIAL SHALL BE ASTM A36.

3. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS D.1.1, LATEST EDITION.

4. ALL WELDS SHALL BE MADE WITH E70 ELECTRODES.

TRUCTURAL LUMBER AND CARPENTRY: 1. ALL STRESS GRADES AND DESIGN CRITERIA SHALL BE BASED ON THE NATIONAL DESIGN SPECIFICATION (2018 EDITION), TABLE 4A, PUBLISHED BY THE AMERICAN WOOD

COUNCIL. 2. STRUCTURAL FRAMING LUMBER SHALL BE #2 SOUTHERN YELLOW PINE, TREATED.

3. PROVIDE TREATED MEMBERS IN CONTACT WITH CONCRETE OR CMU.

4. ALL LUMBER SHALL HAVE A MOISTURE CONTENT NOT GREATER THAN 19% AND SHALL BE SMOOTH ON ALL 4 SIDES (S4S).

5. PROVIDE ONE HEAVY GALVANIZED WASHER UNDER ALL BOLTS WHERE A PLATE WASHER IS NOT SHOWN.

6. ROOF SHEATHING SHALL BE 23/32" PLYWOOD, SHALL BE APA RATED, AND SHALL HAVE AN EXPOSURE CLASSIFICATION OF EXPOSURE 1.

7. ROOF SHEATHING SHALL BE LAID WITH LONG DIMENSION ACROSS FRAMING MEMBERS AND WITH SHORT DIMENSION PANEL EDGES CENTERED ON A FRAMING MEMBER. SHEATHING SHALL BE NAILED WITH GALVANIZED 12d NAILS AT 4" O.C. AT ALL PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT 4" O.C. AT ALL INTERMEDIATE FRAMING MEMBERS.

8. ALL METAL HANGERS AND CONNECTIONS SHALL BE MANUFACTURED BY SIMPSON COMPANY OR AN APPROVED EQUAL.

9. ALL FASTENERS (NAILS, BOLTS, ETC) IN TREATED LUMBER SHALL BE GALVANIZED UNLESS THE SUPPLIER REQUIRES THEM TO BE STAINLESS STEEL. THE CONTRACTOR SHALL VERIFY THIS REQUIREMENT. ALL LIGHTGAGE HANGERS, STRAPS AND TIES WHICH ARE IN CONTACT WITH TREATED LUMBER SHALL BE GALVANIZED. ASTENERS:

1. ALL EXPANSION ANCHORS SHALL BE THE SIZE AND EMBEDMENT AS SHOWN ON THE DRAWINGS. WHEN EMBEDMENT IS NOT SHOWN ON THE DRAWINGS, THE EMBEDMENT SHALL BE THE STANDARD EMBEDMENT AS RECOMMENDED BY THE MANUFACTURER.

2. THE PLACEMENT OF EXPANSION BOLTS IN MASONRY HEAD JOINTS OR 'T' JOINTS SHALL BE AVOIDED IF POSSIBLE. EXPANSION BOLTS SHALL HAVE A MINIMUM OF 8" OF GROUT AROUND ALL SIDES OF THE BOLTS.

3. APPROVED EXPANSION ANCHORS SHALL BE:

a. KWIK BOLT 3 EXPANSION ANCHOR BY HILTI, b. TRUBOLT WEDGE ANCHOR BY ITW RAMSET / REDHEAD, c. OR AN APPROVED EQUAL.

4. ALL ADHESIVE ANCHORS SHALL BE THE SIZE AND EMBEDMENT AS SHOWN ON THE DRAWINGS. WHEN EMBEDMENT IS NOT SHOWN ON THE DRAWINGS. THE EMBEDMENT SHALL BE THE STANDARD EMBEDMENT AS RECOMMENDED BY THE MANUFACTURER.

- 5. APPROVED ADHESIVE ANCHORS SHALL BE: a. HY-200 INJECTION ADHESIVE ANCHOR INTO SOLID CONCRETE OR SOLID
  - MASONRY BLOCK, BY HILTI, b. HY-70 INJECTION ADHESIVE ANCHOR WITH SCREEN TUBE INTO HOLLOW
  - MASONRY BLOCK OR SOLID BRICK WITH VOIDS, BY HILTI, c. EPCON ADHESIVE ANCHOR SYSYEM WITH CERAMIC 6 EPOXY INTO SOLID
  - CONCRETE OR SOLID MASONRY, BY ITW RAMSET / REDHEAD, d. EPCON ADHESIVE ANCHOR SYSYEM WITH CERAMIC 6 EPOXY WITH SCREEN TUBES INTO HOLLOW MASONRY BLOCK OR SOLID BRICK WITH VOIDS, BY ITW

RAMSET / REDHEAD, e. OR AN APPROVED EQUAL

1. PRIOR TO REMOVAL OF THE EXISTING SUPPORTING STRUCTURE, ADEQUATELY SHORE THE EXISTING PORTIONS SO THAT NO MOVEMENT OCCURS. MAINTAIN THE EXISTING LINES AND ELEVATIONS AFTER PERMANENT SUPPORTS ARE IN PLACE.



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