

CERTIFICATE NUMBER: P-1513

DESIGN CRITERIA

ent

Superior Metal Structures & Concrete

1183 S NC 41 & HWY 111

Beulaville, NC 28518

(p) 252-286-4512

Project:	
30'x49'x13'	
Jose Cruz-Acevedo	
60 Mamie Bell Cir	
Lillington, NC 27546	

Job No: 1901–471 Date: 04/10/19 Sheet:

**S5** 

## NOTES

1. BUILDING CODE2018 NORTH CAROLINA BUILDING CODE
2. IMPORTANCE FACTORS SNOW (Is) 0.80 SEISMIC (Iw) 1.0
3. GROUND SNOW LOAD15 PSF
4. ROOF LL
5. WIND A) ULTIMATE WIND SPEED (IBC)
SEISMIC     A) SEISMIC DESIGN CATEGORY A     COMPLIANCE WITH SECTION 1616.4 ONLY?YES _X_NO
B) SEISMIC DESIGN CATEGORYBCX_D
SEISMIC USE GROUP 1 SPECTRAL RESPONSE ACCELERATION S8 19.6 %g S1 7.3 %g SITE CLASSIFICATION D FIELD TEST X PRESUMPTIVE HISTORICAL DATA BASIC STRUCTURAL SYSTEM (CHECK ONE) BEARING WALL DUAL W/SPECIAL MOMENT FRAME BUILDING FRAME DUAL W/INTERMEDIATE R/C OR SPECIAL STEEL X MOMENT FRAME INVERTED PENDULUM SEISMIC BASE SHEAR Vx = 0.5 k Vy = 0.5 k (PER FRAME)  ANALYSIS PROCEDURE X SIMPLIFIED EQUIVALENT LATERAL FORCE MODAL ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? NO LATERAL DESIGN CONTROL: EARTHQUAKE WIND X.

## OTHER NOTES

- PRESUMPTIVE SOIL PRESSURE = 1,500 PSF.
- WHERE A DETAIL IS SHOWN ON STRUCTURAL DRAWINGS FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR OR LIKE CONDITIONS, UNLESS NOTED OR SHOWN OTHERWISE.
- IF CONTRACTOR FINDS A DIFFERENCE BETWEEN THESE DRAWINGS AND EXISTING ELEVATIONS, OR OTHER CONDITIONS
  WHICH PROHIBIT EXECUTION OF THE WORK AS DIRECTED ON THESE DRAWINGS, CONTRACTOR SHALL NOTIFY ENGINEER
  IMMEDIATELY.
- 4. ALL ITEMS SHALL BE TIGHTLY ANCHORED OR ATTACHED SQUARE, PLUMB AND TRUE, OR IN OTHER PLANES OR SHAPES AS SHOWN ON THE DRAWINGS. JOINTS SHALL BE TIGHT, EVEN, AND FREE OF OFFSETS. NO FIELD ALTERING OF ANY MEMBERS WILL BE ALLOWED THAT WILL CAUSE THEM NOT TO BE IN ACCORDANCE WITH THE DRAWINGS AND THEM NOT TO BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, WITHOUT WRITTEN APPROVAL OF THE DESIGN ENGINEER.
- GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ADEQUATE SHORING, BRACING OR SUPPORT TO PREVENT MOVEMENT, SETTLEMENT, OR DAMAGE TO THE STRUCTURE DURING CONSTRUCTION PROCEDURES ASSOCIATED WITH THIS PROJECT.
- 6. CONCRETE: CONCRETE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 3000 PSI.
- CONCRETE WORK SHALL COMPLY WITH ACI "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING (ACI 301)
  AND APPLICABLE PROVISIONS OF ACI 318. KEEP A COPY OF ACI FIELD REFERENCE MANUAL (ACI-SP-15) WHICH
  INCLUDES ACI 301 AND OTHER ACI AND ASTM REFERENCES ON THE JOB.
- 8. ALL FOOTING FOUNDATIONS SHALL BE PLACED ON COMPETENT SOIL.
- 9. FIBER MESH MAY BE SUBSTITUTED FOR WWM PER MANUFACTURER'S RECOMMENDATIONS.
- REINFORCING STEEL: ASTM A615, GRADE 60. PROVIDE 3" CLEARANCE TO EARTH SURFACES. LAP BARS 30 DIAMETERS.
- 11. ALL GALVANIZING SHALL BE PERFORMED AFTER FABRICATION, AND IN ACCORDANCE WITH ASTM A123 AND/OR A153.
- 12. THE MINIMUM YIELD STRENGTH OF THE STEEL USED IN THE LIGHT GAUGE METAL FRAMES SHALL BE 55,000 PSI, FOR RAW OR GALVANIZED TUBES.
- 13. THE MINIMUM YIELD STRENGTH OF THE STEEL USED FOR THE LIGHT GAUGE METAL DECK SHALL BE 80,000 PSI, DECKING PANELS SHALL COVER THREE SPANS, MINIMUM.
- 14. THE LIGHT GAUGE METAL FRAMES AND DECK SHALL BE OF THE GAUGE INDICATED ON THE PLAN/DETAILS.
- ALL SCREWS FOR ASSEMBLING FRAMES SHALL BE #12 SIZE.
- 16. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1.
- 17. ALL WELDS SHALL BE COATED WITH GALVANIZE PRIMER & PAINT AFTER WELDING.



JS CONSULTING & DESIGN STRUCTURAL ENGINEERING
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P [919] 675-1680
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Client:

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Beulaville, NC 28518 (p) 252-286-4512 Project:

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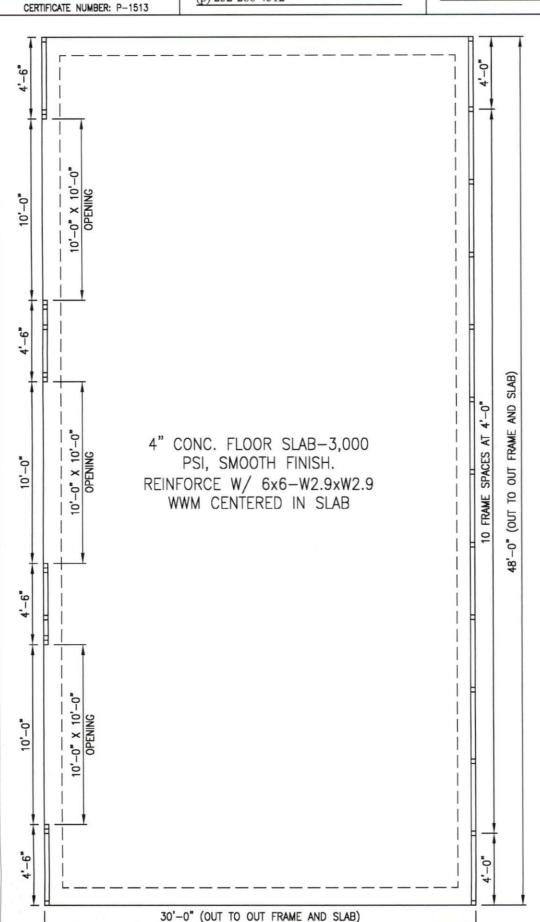
Jose Cruz-Acevedo

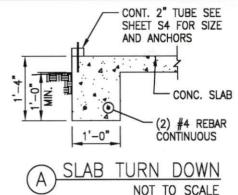
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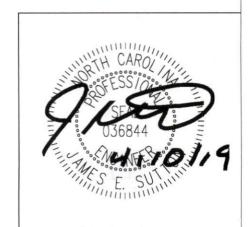
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DRAINAGE NOTE:
OWNER TO PROVIDE POSITIVE
DRAINAGE AWAY FROM BLDG. PAD.

FOUNDATION PLAN
NOT TO SCALE



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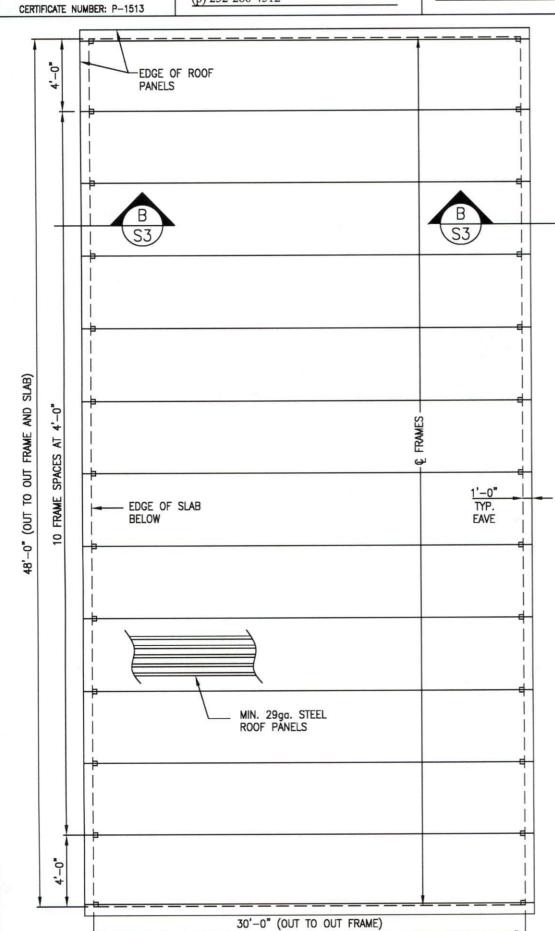
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FRAMING PLAN NOT TO SCALE



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Beulaville, NC 28518 1183 S NC 41 & HWY 111 Superior Metal Structures & Concrete

Lillington, 60 Marnie Bell Cir

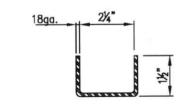
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TYP. AT ALL ROOF CONNECTIONS ROOF PANELS 12 2¼"x2¼"x14ga. VERTICALS **©** 4'−0" 0.C. 3 [ WELDED TO FRAME LONG 2¼"x2¼"x14ga. WIND COLLAR 2¼"x2¼"x14ga. TUBE FRAME (8) SCREWS TOTAL OR 4'-0" LONG BRACE FIELD WELD (TYP. @ COL.) W/(4) SCREWS E.E. WALL PANELS 2¼"x2¼"x12ga. TUBE COLUMN (TYP.) 2"x2"x14ga. WELDED COLUMN STUB x 8" LG. WELDED TO CONT. RAIL (4) SCREWS TOTAL

## TYPICAL CROSS SECTION B-B

NOT TO SCALE

GABLE END WALL FRAMING GABLE END WALLS SHALL BE FRAMED @ 4' O.C. USING 2-1/4" 14ga SQUARE TUBES TO THE BOTTOM RAIL AND RAFTERS W/ L-CLIPS AND (2) SCREWS IN EACH LEG OF THE CLIP. ANY STUDS OVER 13'-0" IN LENGTH SHALL BE (2) 2-1/4" 14ga AND ATTACHED W/ (2) L-CLIPS AND (2) SCREWS IN EACH LEG OF THE CLIP.



TYP. WIND COLLAR/BRACE NOT TO SCALE



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SEE FRAMING PLAN FOR SPACING ATTACH W/ ANGLE CLIPS & SCREWS %"x18ga. CONTINUOUS HAT CHANNEL Н BLOCKING. CONNECT W/ SCREWS @ EACH FRAME, @ EAVE AND 12" BELOW EAVE **HEADER** HEADER ATTACHED w/ ATTACHED TO SCREWS @ 18" O.C. LEGS w/ ANGLE CLIP TOP AND (2) 2¼"x2¼"x12ga COLUMN EACH SIDE 1/2" EXPANSION 2¼"x2¼"x14ga. BOTTOM RAIL **BOTTOM** ANCHORS @ 18" O.C. ATTACH TOGETHER W/ AND MAX. 12" FROM (CONTINUOUS) SCREWS @ 18" O.C. ENDS. 2¼" MIN. EMBEDMENT INTO CONCRETE MIN. 29ga. SIDING PANELS COLUMN CONNECTOR 36" X 80" MAX DOOR OPENING LOCATED BY DOOR HEADER SCHEDULE 10'-0" X 10'-0": (3) 21/4"X21/4"X12ga BUILDER



ALL ANGLE CLIPS TO HAVE (2) SCREWS INSTALLED IN EACH LEG OF ANGLE. TYP.

DOOR OPENING NOTE: FOR DOORS PLACED IN GABLE END WALLS ONLY. EXACT LOCATION TO BE DETERMINED BY BUILDER. MINIMUM HEADER SIZE (2) 2-1/4" 14ga SQUARE TUBES ATTACHED TOGETHER W/ CLIPS AND SCREWS @ 1'-0" O.C. MINIMUM (1) 2-1/4" KING STUD EACH SIDE FOR DOORS LESS THAN 10' WIDE AND (2) 2-1/4" KING STUD EACH SIDE FOR DOORS 12' AND WIDER. ATTACH USING ANGLE CLIPS AND SCREWS

21/4"x14ga. HEADER TUBE AND JACK CONNECT W/ANGLE
CLIPS & SCREWS