



04-08-2022

**DESIGN PARAMETERS:**  
1. CONCRETE MAJOR WALL SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.  
2. CONCRETE MAJOR WALLS SHALL BE MINIMUM LIGHTWEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.  
3. MORTAR SHALL BE TYPE "M" OR "S", CONFORMING TO IRC SECTION 905.1 OF 2006 (1900 PSI MINIMUM).  
4. ALL GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. GROUT SHALL BE PROPORTIONED PER IRC TABLE 901.1 AND WITH SUFFICIENT WATER FOR POURING WITHOUT SEGREGATION.  
5. ALL CELLS CONTAINING REINFORCING STEEL OR BRACED TIE-BARS AND OTHERS NOTED ON PLANS.  
6. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.

**MASONRY NOTES:**

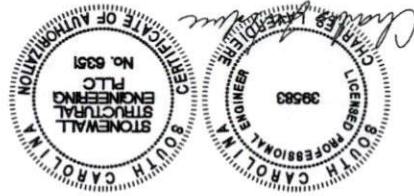
1. ALL PIECES ARE TO BE INSTALLED ON LEVEL GRADE.
2. SOILS EXAMINATION AND SITE PREPARATION TO BE IN ACCORDANCE WITH SOILS REPORT (AS APPLICABLE). IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY.
3. CONTRACTOR SHALL VERIFY ALL UTILITY LINES, ETC., ENCOUNTERED DURING EXCAVATION AND BRACKETING.
4. CONTRACTOR TO BRACE OR PROTECT ALL RETAINING WALLS FROM COLLAPSE UNTIL FLOORING, WALLS AND/OR SLABS ARE ATTAINED FULL STRENGTH.
5. ALL GROUT SHALL BE MECHANICALLY COMPACTED IN LAYERS TO THE FOOTING BROADFLAT AND UTILITY TRENCH BROADFLAT WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER AS APPLICABLE. FLOORING WILL NOT BE PERMITTED.

**FOUNDATION NOTES:**

1. MAXIMUM DESIGN SOIL PRESSURE: CODE MINIMUM, 2000 PSF  
CONTINUOUS FOOTINGS: 2000 PSF  
PAD FOOTINGS: 2000 PSF
2. SEE SOILS REPORT BY: N/A  
PROJECT NO.: N/A  
DATED: N/A
3. ALL PIECES ARE TO BE INSTALLED ON LEVEL GRADE.
4. SOILS EXAMINATION AND SITE PREPARATION TO BE IN ACCORDANCE WITH SOILS REPORT (AS APPLICABLE). IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY.
5. CONTRACTOR SHALL VERIFY ALL UTILITY LINES, ETC., ENCOUNTERED DURING EXCAVATION AND BRACKETING.
6. CONTRACTOR TO BRACE OR PROTECT ALL RETAINING WALLS FROM COLLAPSE UNTIL FLOORING, WALLS AND/OR SLABS ARE ATTAINED FULL STRENGTH.
7. ALL GROUT SHALL BE MECHANICALLY COMPACTED IN LAYERS TO THE FOOTING BROADFLAT AND UTILITY TRENCH BROADFLAT WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER AS APPLICABLE. FLOORING WILL NOT BE PERMITTED.

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK AND THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS. WORKING DRAWINGS AND OR SPECIFICATIONS SHALL BE SUBJECT TO THE DIMENSIONS AND CONDITIONS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS.
2. ALL STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC., UNLESS SO NOTED.
3. NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC., UNLESS SO NOTED.
4. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF EXISTING UTILITIES IN THE AREA TO BE EXCAVATED PRIOR TO BEGINNING OF EXCAVATION.
5. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 EDITION OF THE NC STATE RESIDENTIAL BUILDING CODE. ALL MEMBERS ARE TO "BOOKEND" THE APPLICABLE SECTION OF THE CODE.
6. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, AND SUPPORT NECESSARY TO ACHIEVE THE FINISHED STRUCTURE.



04-08-2022

**WOOD NOTES:**  
1. ALL WOOD FRAMING SHALL BE AS FOLLOWS (U.O.N.):  
A. ROOF RAFTERS & CEILING JOISTS.  
NO.1/NO.2 BRUSHE (PWF) WITH THE FOLLOWING DESIGN PROPERTIES:  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
B. FLOOR JOISTS.  
NO.2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
C. WOOD GRADES (U.O.N.):  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
D. JOISTS & RAFTERS GRADE: NO. 2 (U.O.N.)  
BEAMS & STRINGS GRADE: NO. 1  
FURLING GRADE: NO. 1  
SUB-FURLING GRADE: NO. 1  
2X6 GRADE: NO. 2  
2X4 GRADE: NO. 1  
HEADERS & NAILERS GRADE: NO. 2 (U.O.N.)  
E. FOR VERTICAL MEMBERS TOP & BOTTOM PLATES, MATCH VERTICAL MEMBERS.

1. ALL RAFTERS, ANCHORS, POST CAPS, COL. BASES, ETC. NOTED ARE MANUFACTURED BY SHIPSON OR APPROVED EQUAL. OTHER HARDWARE COMPANIES (E.I., ACQ, USP) MAY BE SUBSTITUTED PROVIDED ALL CAPACITIES, USE COMMON NAILS AS SPECIFIED BY MANUFACTURER. CUTTING, NOTCHING OR DRILLING OF BEAMS OR JOISTS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER (U.O.N.)  
2. LOAD BEARERS SHALL CONFORM WITH TABLE 1103.1 (1) & (2) (1) JACK STUDS EACH END REQUIRE HEADERS TO EACH JACK STUD IN (4) 8d NAILS. BEAM-HEADERS SURFACES REQUIRE MORE THAN 2 JACKS ARE DENOTED BY "2" (WHEN 2 JACKS ARE REQUIRED FOR EACH JACK STUD) (WHEN 1 JACK IS REQUIRED FOR EACH JACK STUD) (U.O.N.)  
3. ALL NAILS SHALL BE CORN NAILS (U.O.N.).  
4. LOAD BEARERS SHALL CONFORM WITH TABLE 1103.1 (1) & (2) (1) JACK STUDS EACH END REQUIRE HEADERS TO EACH JACK STUD IN (4) 8d NAILS. BEAM-HEADERS SURFACES REQUIRE MORE THAN 2 JACKS ARE DENOTED BY "2" (WHEN 2 JACKS ARE REQUIRED FOR EACH JACK STUD) (WHEN 1 JACK IS REQUIRED FOR EACH JACK STUD) (U.O.N.)  
5. ALL CELLS CONTAINING REINFORCING STEEL OR BRACED TIE-BARS AND OTHERS NOTED ON PLANS.  
6. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.

1. ALL RAFTERS, ANCHORS, POST CAPS, COL. BASES, ETC. NOTED ARE MANUFACTURED BY SHIPSON OR APPROVED EQUAL. OTHER HARDWARE COMPANIES (E.I., ACQ, USP) MAY BE SUBSTITUTED PROVIDED ALL CAPACITIES, USE COMMON NAILS AS SPECIFIED BY MANUFACTURER. CUTTING, NOTCHING OR DRILLING OF BEAMS OR JOISTS SHALL BE PERMITTED ONLY AS DETAILED OR APPROVED BY THE ENGINEER AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER (U.O.N.)  
2. LOAD BEARERS SHALL CONFORM WITH TABLE 1103.1 (1) & (2) (1) JACK STUDS EACH END REQUIRE HEADERS TO EACH JACK STUD IN (4) 8d NAILS. BEAM-HEADERS SURFACES REQUIRE MORE THAN 2 JACKS ARE DENOTED BY "2" (WHEN 2 JACKS ARE REQUIRED FOR EACH JACK STUD) (WHEN 1 JACK IS REQUIRED FOR EACH JACK STUD) (U.O.N.)  
3. ALL NAILS SHALL BE CORN NAILS (U.O.N.).  
4. LOAD BEARERS SHALL CONFORM WITH TABLE 1103.1 (1) & (2) (1) JACK STUDS EACH END REQUIRE HEADERS TO EACH JACK STUD IN (4) 8d NAILS. BEAM-HEADERS SURFACES REQUIRE MORE THAN 2 JACKS ARE DENOTED BY "2" (WHEN 2 JACKS ARE REQUIRED FOR EACH JACK STUD) (WHEN 1 JACK IS REQUIRED FOR EACH JACK STUD) (U.O.N.)  
5. ALL CELLS CONTAINING REINFORCING STEEL OR BRACED TIE-BARS AND OTHERS NOTED ON PLANS.  
6. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.

1. ALL WOOD FRAMING SHALL BE AS FOLLOWS (U.O.N.):  
A. ROOF RAFTERS & CEILING JOISTS.  
NO.1/NO.2 BRUSHE (PWF) WITH THE FOLLOWING DESIGN PROPERTIES:  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
B. FLOOR JOISTS.  
NO.2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
C. WOOD GRADES (U.O.N.):  
FV = 875 PSI E = 1.4x10<sup>6</sup> PSI  
FV = 775 PSI E = 1.4x10<sup>6</sup> PSI  
D. JOISTS & RAFTERS GRADE: NO. 2 (U.O.N.)  
BEAMS & STRINGS GRADE: NO. 1  
FURLING GRADE: NO. 1  
SUB-FURLING GRADE: NO. 1  
2X6 GRADE: NO. 2  
2X4 GRADE: NO. 1  
HEADERS & NAILERS GRADE: NO. 2 (U.O.N.)  
E. FOR VERTICAL MEMBERS TOP & BOTTOM PLATES, MATCH VERTICAL MEMBERS.



04-08-2022

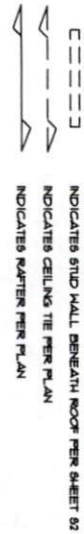
**STONEWALL**  
STRUCTURAL ENGINEERING  
4800 Falls of Neuse Road # 120  
Raleigh, NC 27609  
(919)407-8663  
stonewalleng.com Lic. # P-0951

Master Shed Plan Set  
Liberty Storage Solutions, LLC  
163 Industrial Blvd  
Mocksville, NC 27028  
SCALE: SEE PLAN  
DRAWN BY: JH.  
DATE: 4-8-2022  
JOB #: 21-2186  
SHEET #: 9PI

**ROOF FRAMING NOTES:**

1. ROOF SHEATHING PER SHEET 93.
2. RAFTERS END TO THE W/ 142.5A1' • 48" O.C. (MAX). TYP.
3. FOR ADDITIONAL NOTES, SEE 98" SHEETS.

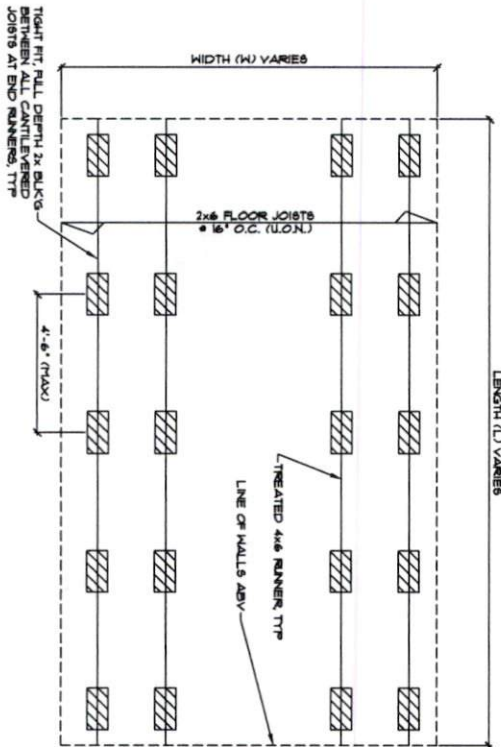
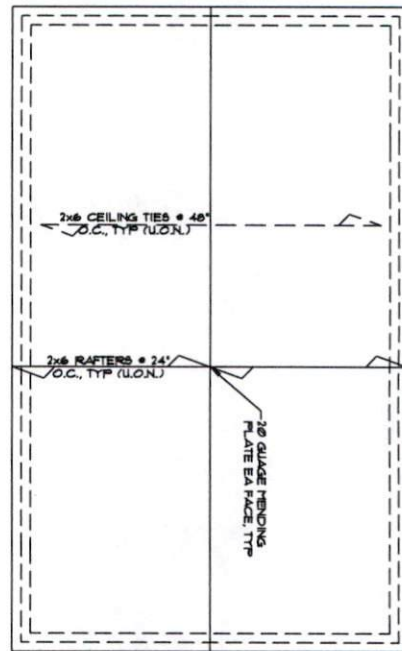
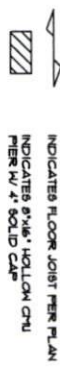
**LEGEND:**



**FOUNDATION AND FIRST FLOOR FRAMING NOTES:**

1. FLOOR SHEATHING PER SHEET 93.
2. CHL PIERIS ARE TO BE 3" HIGH (MAX).
3. BOTTOM AND TOP BLOCK OF CHL ARE TO BE 4" SOLID CHL.
4. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO WORK.
5. FOR ADDITIONAL NOTES SEE 98" SHEETS.

**LEGEND:**



	<p><b>STONEWALL</b>                  STRUCTURAL ENGINEERING</p> <p>4800 Falls of Neuse Road # 120                  Raleigh, NC 27609                  (919)407-8663                  stonewalleng.com Lic. # P-0951</p>	Master Shed Plan Set Liberty Storage Solutions, LLC 163 Industrial Blvd Mocksville, NC 27028	
		SCALE: SEE PLAN	JOB #: 21-2186
		DRAWN BY: J.H. DATE: 4-8-2022	SHEET #: 91

04-08-2022



**WALL FRAMING NOTES:**

1. SHED WIDTH IS TO BE 8'-0" MINIMUM AND 16'-0" MAXIMUM.
2. SHEED TOP PLATE HEIGHTS ARE TO BE 8'-0" MAXIMUM.
3. L/R RATIO IS TO BE 1:1 MINIMUM AND 3:1 MAXIMUM (SEE TYPICAL WALL FRAMING PLAN BELOW).
4. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO WORK.

**LEGEND:**

- ▬ INDICATES 2x4 @ 16" O.C. STUD WALL.
- ▬ INDICATES CONVENTIONAL 2x4 @ 16" O.C. CONVENTIONAL BALLOON FRAMED STUD WALL.
- ▬ INDICATES LIMITS OF BRACED WALL PER SCHEDULE.

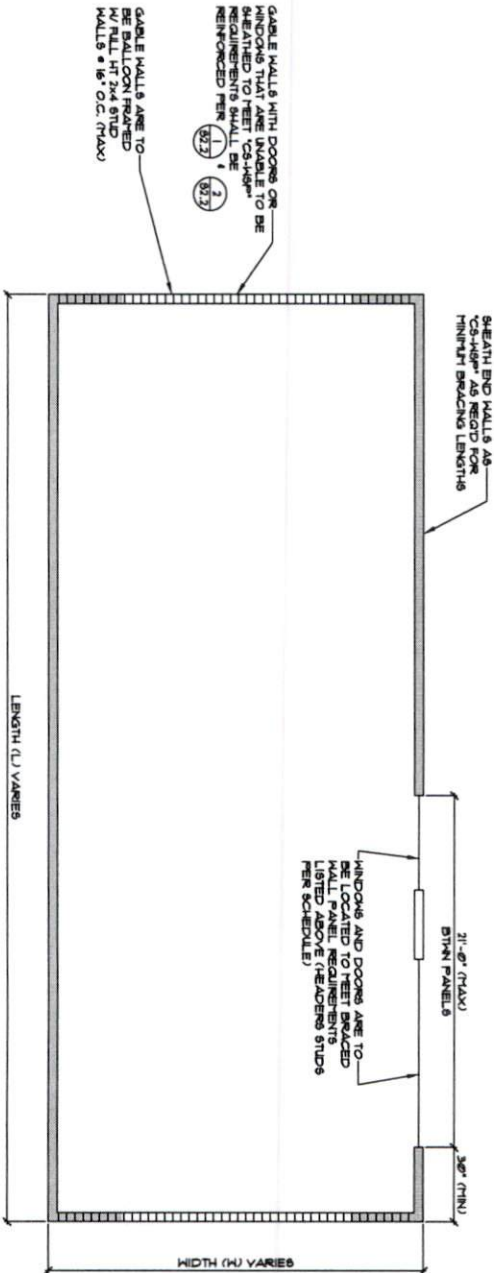
**BRACED WALL PANEL SCHEDULE**

ABBREVIATION	METHOD	MATERIAL	FASTENERS/SPACING
CS-4WP	CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL	3/4" OSB PLYWOOD	6d OR 8d CORN AT 8" O.C. AT PANEL EDGES & 12" O.C. TO INTERMEDIATE SUPPORTS

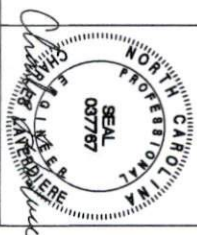
**HEADER SCHEDULE**

OPENING LENGTH (L)	HEADER	JACK STUDS	KING STUDS
6'-0"	(2) 2x4	2x4	(2) 2x4
8'-0" TO 8'-6"	(2) 2x6	2x4	(2) 2x4
8'-6" TO 9'-0"	(2) 2x6	(2) 2x4	(3) 2x4

- MINIMUM PANEL LENGTH REQUIREMENTS:**
1. CS-4WP SHALL COVER NO LESS THAN 50% OF WALL LENGTH IF UNBLOCKED.
  2. CS-4WP THAT COVERS LESS THAN 50% OF WALL LENGTH SHALL BE BLOCKED.
  3. CS-4WP SHALL COVER NO LESS THAN 25% OF WALL LENGTH. EACH BRACED PANEL COUNTING TOWARDS MINIMUM LENGTH SHALL BE NO LESS THAN 30" LONG.
  4. AT BLOCKED WALL SHEATHING, ALL JOINTS IN SHEATHING SHALL BE FASTENED TO COMMON FRAMING MEMBERS OR TRIM AT 12" ON CENTER. JOINTS IN SHEATHING AT EDGES SHALL BE FASTENED TO 2x BLOCKING PER SCHEDULE.



**TYPICAL WALL FRAMING PLAN**  
SCALE: 1/4"=1'-0"

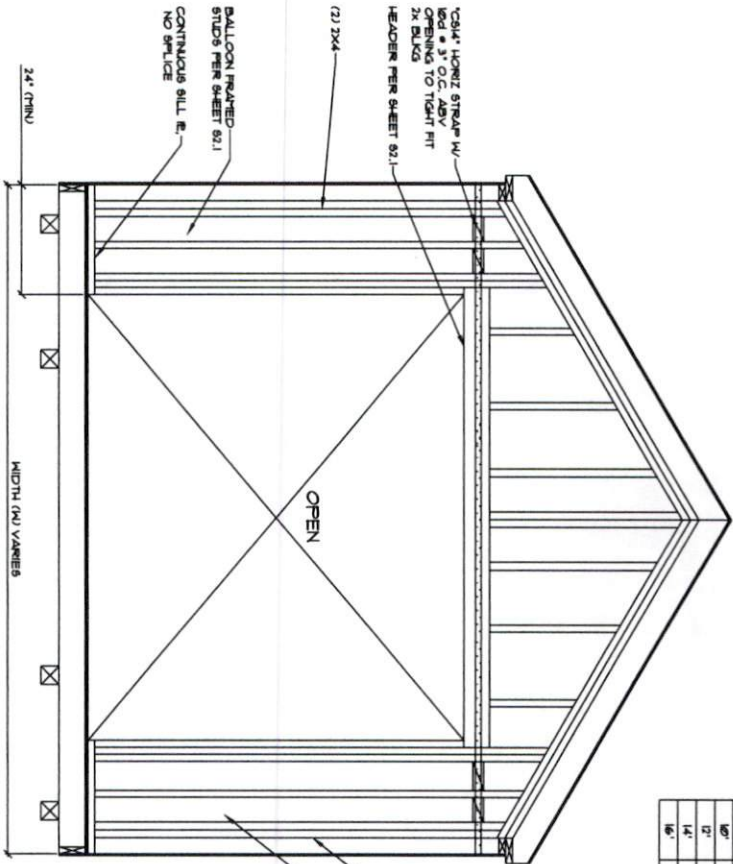


**STONEWALL**  
STRUCTURAL ENGINEERING  
4800 Falls of Neuse Road # 120  
Raleigh, NC 27609  
(919)407-8663  
stonewalleng.com Lic. # P-0951

Master Shed Plan Set  
Liberty Storage Solutions, LLC  
163 Industrial Blvd  
Mocksville, NC 27028

SCALE: SEE PLAN  
DRAWN BY: J.H.  
DATE: 4-8-2022

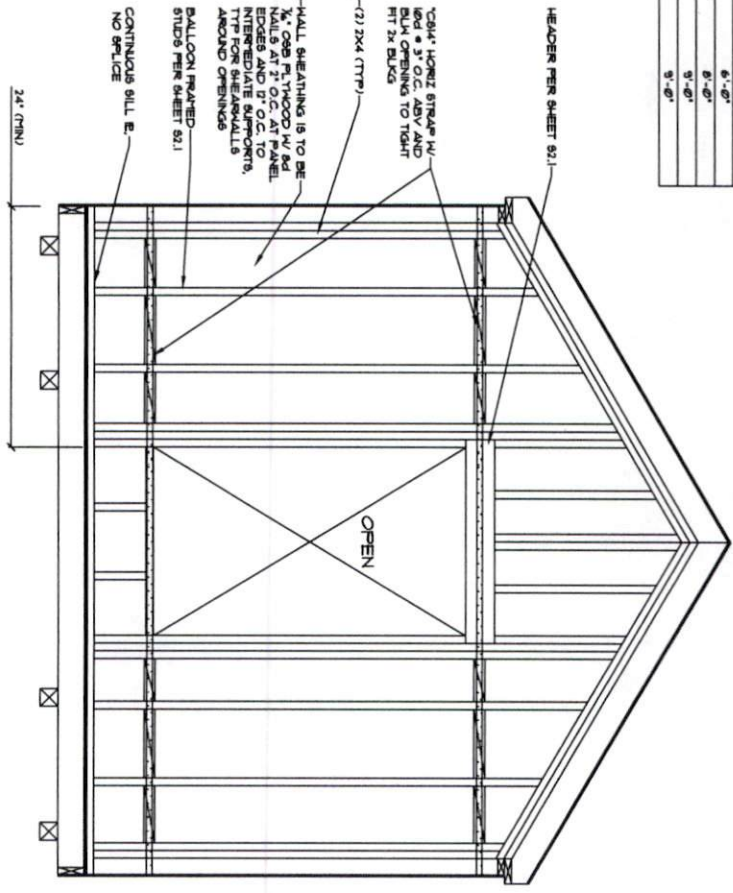
JOB #: 21-2186  
SHEET #: 52.1



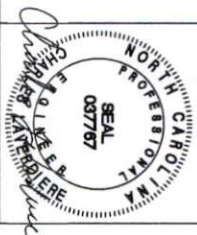
FOR ITEMS NOT NOTED, SEE S3 SHEETS

MAXIMUM DOOR OPENING IN GABLE WALL	
H	HORIZONTAL OPENING LENGTH
W	4'-0"
D	6'-0"
L	8'-0"
H	9'-0"
W	9'-0"

1 SHEARWALL AROUND DOOR OPENING  
SCALE: N.T.S.



2 SHEARWALL AROUND WINDOW OPENING  
SCALE: N.T.S.



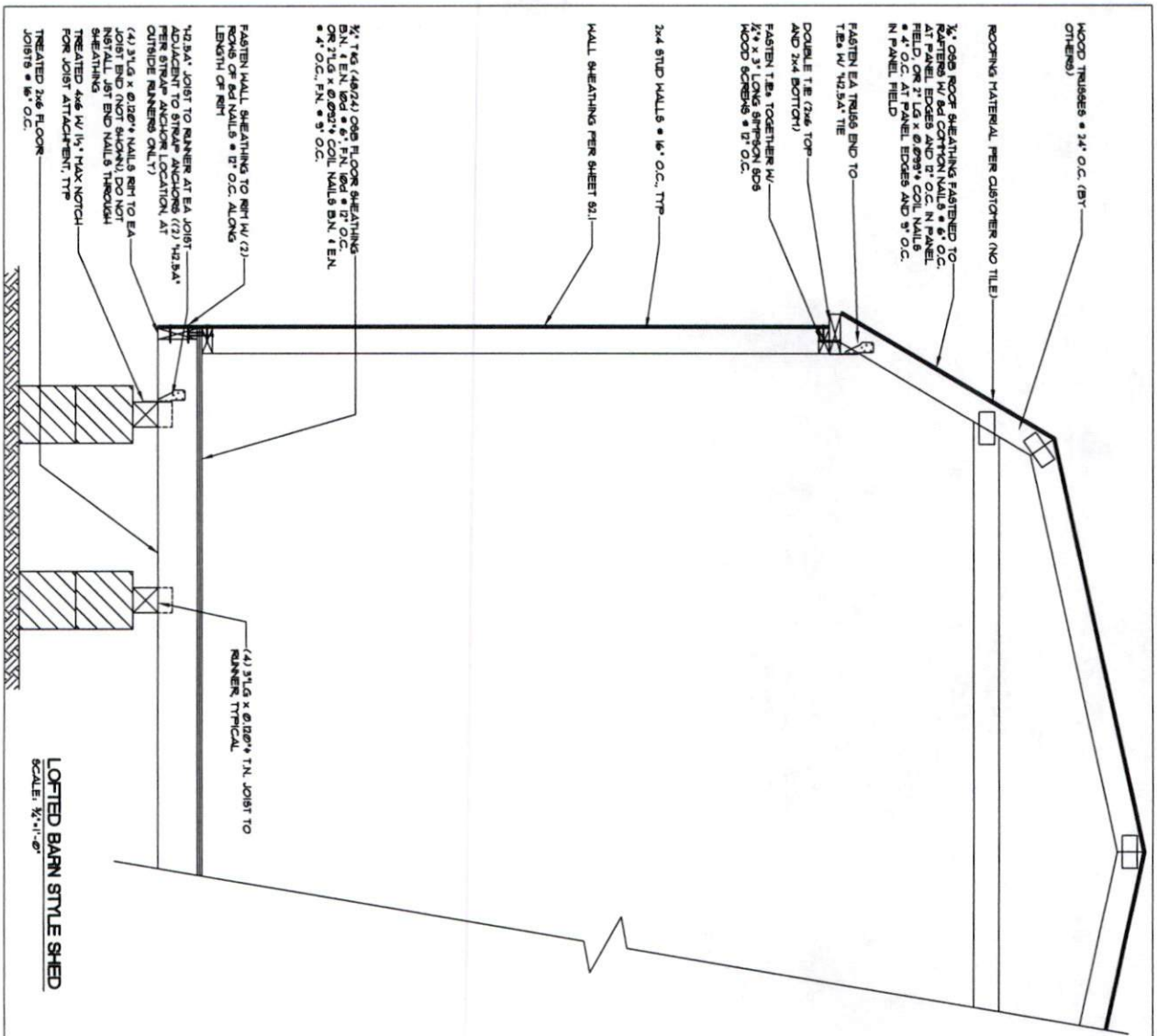
**STONEWALL**  
STRUCTURAL ENGINEERING

4800 Falls of Neuse Road # 120  
Raleigh, NC 27609  
(919)407-8663  
stonewalleng.com Lic. # P-0951

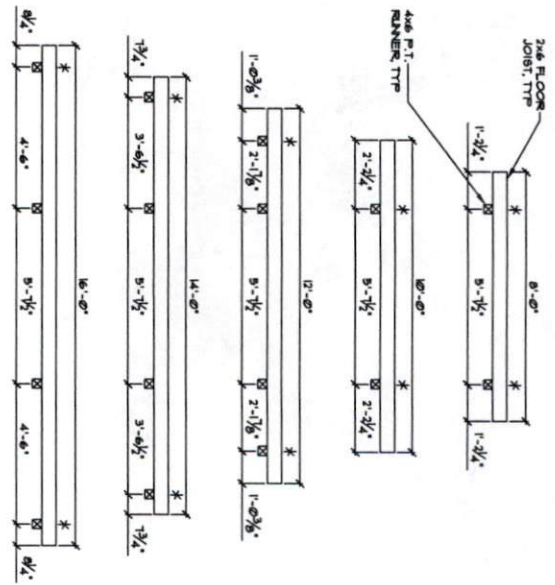
Master Shed Plan Set  
Liberty Storage Solutions, LLC  
163 Industrial Blvd  
Mocksville, NC 27028

SCALE: SEE PLAN	JOB #: 21-2186
DRAWN BY: J.H.	SHEET #: S2.2
DATE: 4-8-2022	

04-08-2022

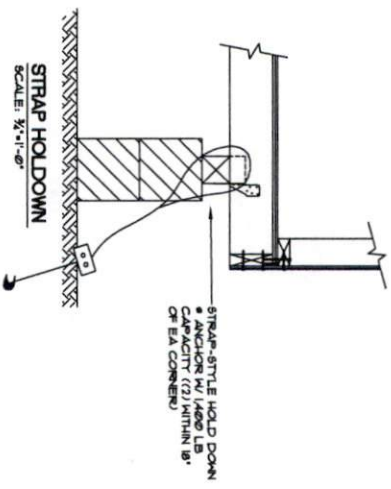


**LOFTED BARN STYLE SHED**  
SCALE: 3/4" = 1'-0"

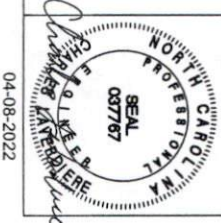


**SKID PLACEMENT**  
SCALE: N.T.S.

NOTE:  
4x6 SKIDS ARE TO BE SUPPORTED BY PIERS AT 4'-6" O.C. (MAX) ALONG THE LENGTH OF THE SHED AND AT ALL SKID SLICE LOCATIONS. ALTERNATIVELY, PIERS MAY BE CHITTED WHERE SKIDS ARE CONTINUOUSLY SUPPORTED ON LEVEL, ADEQUATELY COMPACTED SOIL. IF OVERHEAD POWER LINES ARE ENCOUNTERED, SKIDS MAY BE SUPPORTED BY PIERS AT 3'-4" O.C. (MAX) OR MUST BE CONTINUOUSLY SUPPORTED BY LEVEL AND ADEQUATELY COMPACTED SOIL IN lieu OF PIERS.



**STRAP HOLDOWN**  
SCALE: 3/4" = 1'-0"

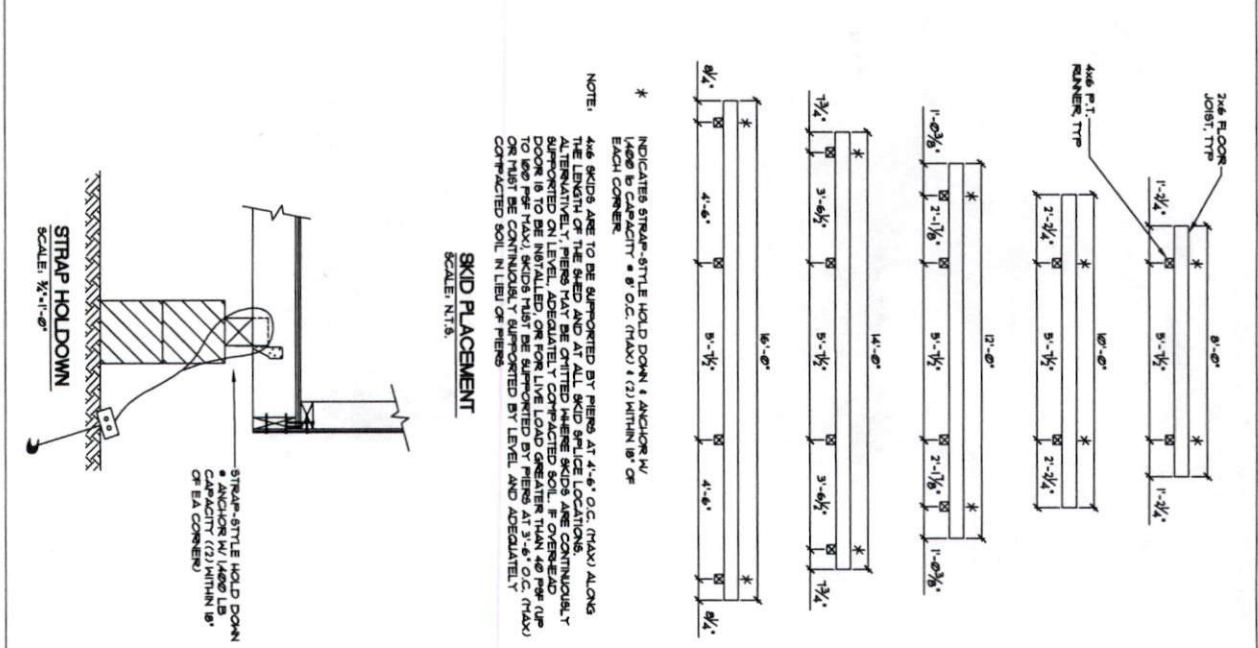
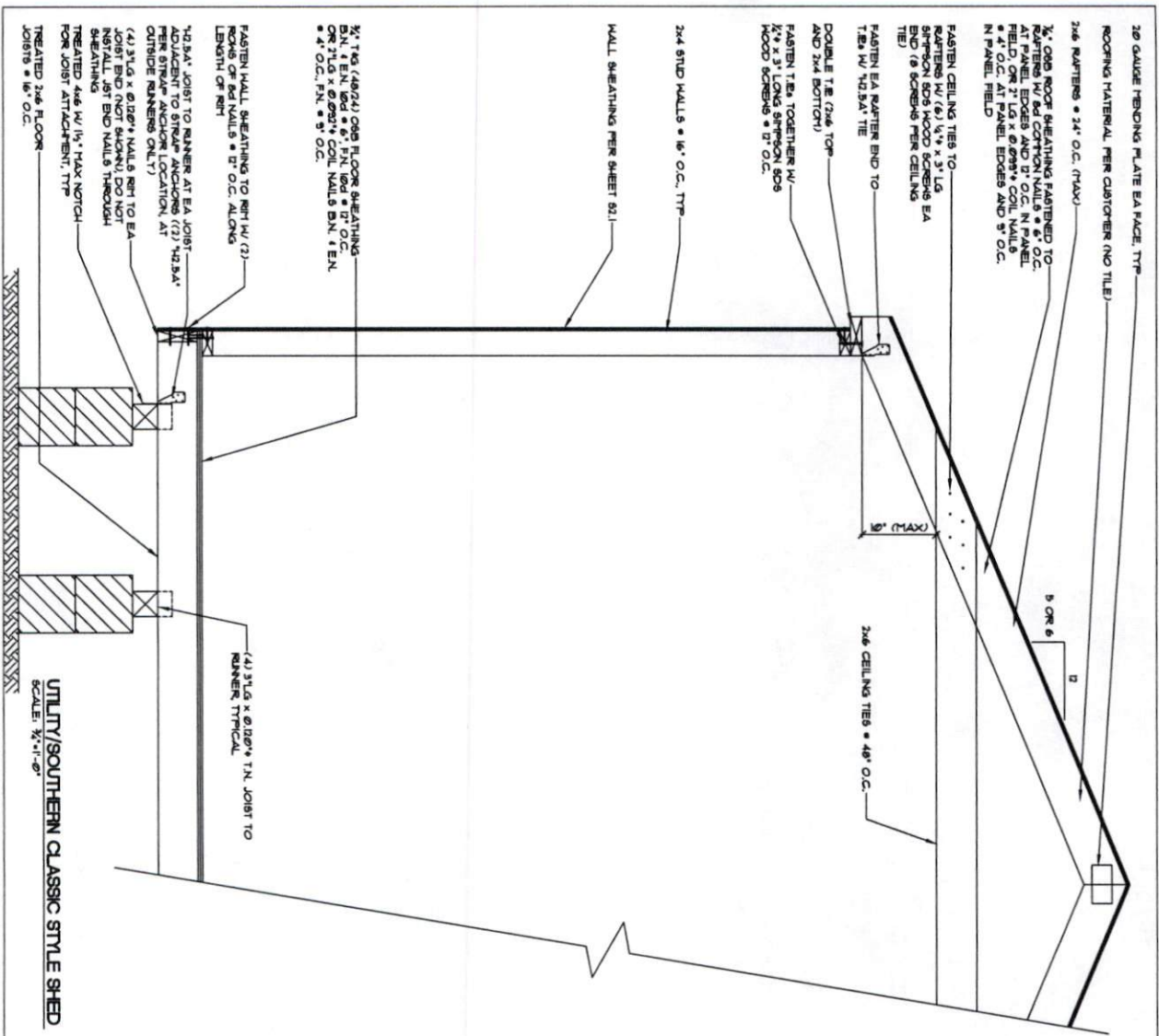


**STONEWALL**  
STRUCTURAL ENGINEERING  
4800 Falls of Neuse Road # 120  
Raleigh, NC 27609  
(919)407-8663  
stonewalleng.com Lic. # P-0951

Master Shed Plan Set		JOB #: 21-2186
Liberty Storage Solutions, LLC		
163 Industrial Blvd		SHEET #: 63.1
Mocksville, NC 27028		
SCALE:	SEE PLAN	
DRAWN BY:	J.H.	
DATE:	4-8-2022	

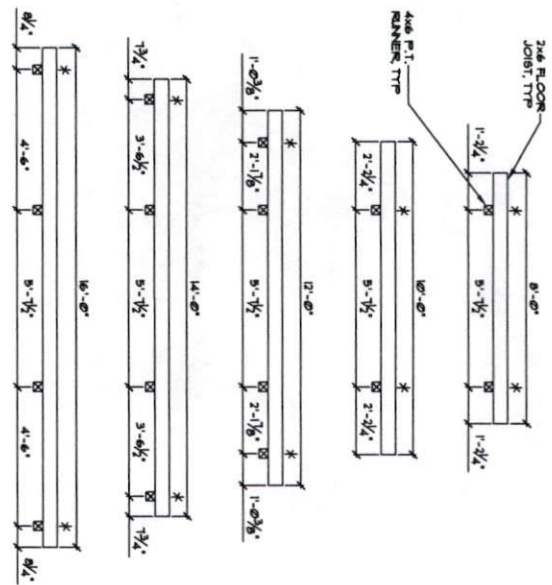






NOTE:  
4x6 SKIDS ARE TO BE SUPPORTED BY PIERS AT 4'-6" O.C. (MAX) ALONG THE LENGTH OF THE SHED AND AT ALL SKID SPICE LOCATIONS. ALTERNATIVELY, PIERS MAY BE OMITTED WHERE SKIDS ARE CONTINUOUSLY SUPPORTED ON LEVEL, ADEQUATELY COMPACTED SOIL. IF COVERED OR ADJACENT TO UNDEVELOPED AREAS, SKIDS MUST BE CONTINUOUSLY SUPPORTED BY PIERS AT 3'-6" O.C. (MAX) OR MUST BE CONTINUOUSLY SUPPORTED BY LEVEL AND ADEQUATELY COMPACTED SOIL IN LIEU OF PIERS.

**SKID PLACEMENT**  
SCALE: N.T.S.



	<p><b>STONEWALL</b> STRUCTURAL ENGINEERING</p> <p>4800 Falls of Neuse Road # 120 Raleigh, NC 27609 (919)407-8663 stonewalleng.com Lic. # P-0951</p>	<p>Master Shed Plan Set Liberty Storage Solutions, LLC 163 Industrial Blvd Mocksville, NC 27028</p>	
		<p>SCALE: SEE PLAN</p>	<p>JOB #: 21-2186</p>
		<p>DRAWN BY: J.H.</p>	<p>SHEET #: 63.3</p>
<p>DATE: 4-8-2022</p>		<p>DATE: 4-8-2022</p>	