# GENERAL:

1. ALL WORK PERFORMED IN REFERENCE TO THESE DRAWINGS SHALL CONFORM TO THE NEW HAMPSHIRE STATE BUILDING CODE, (IBC 2021 WITH AMENDMENTS) AND ITS APPLICABLE REFERENCED STANDARDS.

2. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY CONFLICTS BETWEEN THE ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OF RECORD (AOR) AND THE ENGINEER OF RECORD (EOR).

3. THESE DRAWINGS DEPICT THE COMPLETED STRUCTURE. TEMPORARY BRACING, SHORING AND/OR FALSEWORK MAY BE REQUIRED AND ARE THE RESPONSIBILITY OF OTHERS AS 'MEANS AND METHODS.'

4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL EXISTING CONDITIONS. ANY OBSERVATIONS CONFLICTING WITH INFORMATION SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE AOR AND EOR BEFORE CONTINUATION OF WORK IN THE AFFECTED AREA. REFERENCES IN THESE DRAWINGS TO EXISTING CONDITIONS ARE FOR REFERENCE ONLY AND MAY DIFFER FROM ACTUAL FIELD CONDITIONS.

5. THE GENERAL CONTRACTOR SHALL LIMIT CONSTRUCTION LOADING TO NO MORE THAN THE DESIGN LOADS NOTED BELOW FOR MATERIAL STOCK PILING AND EQUIPMENT LOADING.

## DESIGN LOADS:

LIVE LOADS:				
FLOOR LOADS: OFFICE	50 PSF			
FLOOR LOADS: MULTI-PURPOSE	100 PSF			
SNOW:				
GROUND SNOW LOAD, Pg	50 PSF			
FLAT-ROOF SNOW LOAD	42 PSF			
SNOW EXPOSURE FACTOR, Ce	1.0			
SNOW LOAD IMPORTANCE FACTOR, $I_s$	1.0			
THERMAL FACTOR, C <sub>t</sub>	1.2			
WIND:				
BASIC WIND SPEED (3-SEC)	115 MPH			
WIND IMPORTANCE FACTOR, Iw	1.0			
WIND EXPOSURE (ALL DIRECTIONS)	В			
INTERNAL PRESSURE COEFFICIENT, G <sub>cpi</sub>	±0.18			

### FOUNDATIONS:

1. SOIL LOAD BEARING VALUE ASSUMED FROM AT 2,000 PSF. IF CLAYS ARE DISCOVERED DURING EXCAVATION NOTIFY ENGINEER. SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH IBC.

2. BOTTOM OF FOOTING ELEVATIONS SHOWN ON THE CONTRACT DOCUMENTS ARE MINIMUM DEPTHS. IT MAY BE NECESSARY TO FURTHER EXCAVATE TO OBTAIN SUFFICIENT BEARING.

3. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN SUBGRADE. THERE SHALL BE NO STANDING WATER IN TRENCHES BEFORE OR AFTER CONCRETE IS PLACED. FORMS SHALL BE FREE OF DEBRIS.

4. FOUNDATION WALLS SHALL BE BACKFILLED EQUALLY ON BOTH SIDES UNLESS ADEOUATELY BRACED OR NOTED ON THE PLANS.

5. STEPPED FOOTINGS SHALL BE NO STEEPER THAN 1 UNIT OF VERTICAL FOR 2 UNITS HORIZONTAL. STEPS SHALL NOT EXCEED 2'-0" VERTICALLY. LOCATIONS OF STEPS IF SHOWN ON PLANS ARE SCHEMATIC ONLY. THE QUANTITY AND LOCATIONS MAY VARY BASED ON SUBSURFACE CONDITIONS.

## SUBMITTALS:

1. REVIEW OF SHOP DRAWINGS SHALL BE FOR GENERAL CONFORMANCE. REVIEW OF DIMENSIONS, OUANTITIES AND MEANS AND METHODS SHALL BE BY THE CONTRACTOR. ALL SUBMITTALS SHALL BE STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION TO THE EOR.

2. SUBMITTALS ARE REQUIRED FOR THE FOLLOWING ITEMS: PRE-FABRICATED WOOD TRUSSES (STAMPED)

3. THE EOR SHALL BE ALLOWED 2 WEEKS TO REVIEW SHOP DRAWINGS.

4. ORDERING OF MATERIALS PRIOR TO APPROVAL OF THE SHOP DRAWINGS SHALL BE AT THE CONTRACTOR'S RISK.

#### WOOD FRAMING:

1. ALL WOOD MATERIALS SHALL HAVE A GRADE STAMP DENOTING THE SPECIES, GRADE, MOISTURE CONTENT (< 19% REQUIRED), AND THE ACCREDITED AGENCY CERTIFICATION MARK.

2. WOOD FRAMING FASTENING REQUIREMENTS NOT DETAILED SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE TABLE 2304.9.1.

3. WOOD FRAMING SHALL BE SPRUCE-PINE-FIR NO. 1 OR 2 WITH MINIMUM REFERENCE DESIGN VALUES OF: Fb/875, Ft/450, Fv/135, Fc/1150, Fcperp/425, E/1,400,000 AND G/0.42 UNLESS NOTED OTHERWISE. POSTS SHALL BE SOUTHERN PINE NO. 2 OR AS NOTED. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE, MASONRY OR EARTH SHALL BE PRESSURE TREATED SOUTHERN PINE NO. 2 OR BETTER AND SHALL USE GALVANIZED CONNECTORS (G185) MIN.

4. WOOD FRAMING MEMBERS SHALL BE SUPPORTED BY DIRECT BEARING, OR A LIGHT GAUGE CONNECTOR. MEMBERS SHOULD NOT BE SUPPORTED BY END NAILING.

5. FASTENERS CALLED OUT BY PENNYWEIGHT SHALL BE COMMON WIRE NAILS UNLESS APPROVED BY THE EOR.

6. LIGHT GAUGE CONNECTORS ARE TO BE MANUFACTURED BY SIMPSON STRONG-TIE, UNLESS NOTED OTHERWISE. SUBSTITUTIONS SHALL BE REVIEWED BY THE EOR PRIOR TO USE. NAILING SHALL BE AS RECOMMENDED BY MANUFACTURER OR AS NOTED. FOR P.T. LUMBER METAL CONNECTIONS AND CONNECTORS SHALL BE GALVANIZED (G185) MIN. U.N.O.

7. PLYWOOD SHEATHING SHALL COMPLY WITH U.S. VOLUNTARY PRODUCT STANDARD PS 1-19 OR PS 2-18.

8. PLYWOOD SHALL BE AS NOTED BELOW UNLESS NOTED OTHERWISE ROOF SHEATHING: 5/8" THICK (NOMINAL) APA-RATED, EXP. 1 WALL SHEATHING: <sup>1</sup>/<sub>7</sub>" THICK (NOMINAL) APA-RATED, EXP. 1 FLOOR SHEATHING:  $\frac{3}{4}$ " THICK (NOMINAL) APA-RATED, EXP. 1. TONGUE AND GROOVE, GLUED AND NAILED.

9. WOOD STRUCTURAL PANELS SHALL BE INSTALLED PERPENDICULAR TO FRAMING WITH JOINTS STAGGERED. PANELS SHALL BE CONTINUOUS OVER THREE SPANS (4' LONG MINIMUM).

10. PLYWOOD SHEATHING SHALL BE PLACED WITH A  $\frac{1}{8}$ " GAP BETWEEN PANEL EDGES, UNLESS OTHERWISE INDICATED BY MANUFACTURER (EDGES NOT SUPPORTED BY FRAMING SHALL HAVE H-CLIPS INSTALLED AT MID-SPAN.)

11. SHEATHING SHALL BE FASTENED TO FRAMING WITH 10d X 3" LONG NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. BRACED WALLS SHALL BE BLOCKED. WALL SHEATHING SHALL LAP OVER OR MEET AT RIM BOARD. DO NOT LEAVE RIM SHEATHING AS SINGULAR PIECE.

12. LAMINATED VENEER LUMBER, OR "LVL", SHALL BE MANUFACTURED BY TRUS-JOIST WITH AN ALLOWABLE BENDING STRESS (Fb) OF 2,600 PSI OR GREATER AND A MODULUS OF ELASTICITY (E) OF 2,000 KSI. UNLESS NOTED OTHERWISE MULTIPLE PLY LVLS SHALL BE FASTENED WITH SIMPSON 'SDS' SCREWS, (2) ROWS AT 24" O/C, EACH SIDE.

#### WOOD TRUSSES:

1. TRUSS DESIGN SHALL MEET ALL APPLICABLE PROVISIONS OF THE TRUSS PLATE INSTITUTE (TPI) NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TPI 1-2014).

2. MINIMUM TRUSS BRACING SHALL COMPLY WITH THE TPI BUILDING COMPONENT SAFETY INFORMATION: GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES (BCSI-2018).

3. MEMBERS SHALL BE DESIGNED SUCH THAT WEB BRACING IS NOT REQUIRED.

4. TRUSS MANUFACTURER SHALL PARTICIPATE IN TPI THIRD PARTY QUALITY ASSURANCE INSPECTION PROGRAM.

5. THE TRUSS SUBMITTAL PACKAGE BY THE MANUFACTURER SHALL CONSIST OF EACH INDIVIDUAL TRUSS DESIGN, A TRUSS PLACEMENT DIAGRAM, THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING METHOD AND DETAILS PERTINENT TO THE TRUSSES. THE MANUFACTURER SHALL SPECIFY TRUSS TO TRUSS CONNECTIONS. ALL SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN NEW HAMPSHIRE.

6.	ROOF TRUSS LOADS:	
	TOP CHORD SNOW LOAD:	SEE DESIGN LOADS
	(DESIGNS SHALL INCLUDE UNBALANCED SNOW	LOAD EFFECTS)
	TOP CHORD DEAD LOAD:	12 PSF
	BOTTOM CHORD LIVE LOAD:	PER IBC
	BOTTOM CHORD DEAD LOAD:	10 PSF

7. ROOF TRUSSES SHALL BE DESIGNED TO MEET A LIVE LOAD DEFLECTION LIMIT OF L/360 AND A TOTAL LOAD DEFLECTION LIMIT OF L/240.

8. ROOF TRUSSES SHALL BE DESIGNED FOR WIND COMPONENT & CLADDING WIND LOADS UNLESS OTHERWISE INDICATED WITHIN THE PROJECT PLANS.

n	FLOOR TRUSS LOADS:	
7.	FLOOK TRUSS LOADS.	
	TOP CHORD SNOW LOAD:	100 PSF
	TOP CHORD DEAD LOAD:	12 PSF
	BOTTOM CHORD LIVE LOAD:	PER IBC
	BOTTOM CHORD DEAD LOAD:	10 PSF

7. FLOOR TRUSSES SHALL BE DESIGNED TO MEET A LIVE LOAD DEFLECTION LIMIT OF L/480 AND A TOTAL LOAD DEFLECTION LIMIT OF L/360.

9. TRUSSES SHALL NOT BE FIELD MODIFIED. ANY DAMAGED TRUSS SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH MANUFACTURER'S ENGINEER'S METHODS. MODIFICATIONS SHALL BE REVIEWED BY THE EOR/AOR.

## CONCRETE:



1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE STATE BUILDING CODE AND THE REFERENCED EDITION OF ACI-318.

2. CONCRETE MIXES SHALL CONFORM TO ASTM C94 WITH THE FOLLOWING: -PORTLAND CEMENT: ASTM C150 TYPE I OR II -NORMAL WEIGHT AGGREGATES: ASTM C33 -POTABLE WATER -AIR-ENTRAINING ADMIXTURES: ASTM C260 AIR CONTENT: 6% ±1.5% BY VOLUME U.N.O. NO AIR FOR TROWEL FINISH SLABS -WATER-REDUCING ADMIXTURES: ASTM C494, MID-RANGE TYPE A,

HIGH RANGE TYPE F OR G -ACCELERATOR AND RETARDER ADMIXTURES: ASTM C494, TYPE C AND D RESPECTIVELY -CORROSION INHIBITOR: ASTM C494, 30% CALCIUM NITRITE.

3. CONCRETE 28-DAY STRENGTH: 3000 PSI

4. NORMAL WEIGHT CONCRETE SLUMP SHALL NOT EXCEED 6"±1" AT THE POINT OF DELIVERY.

5. CONCRETE SHALL BE CURED BY AN ACI APPROVED METHOD. HOT WEATHER CONCRETING SHALL BE PER ACI 305R. COLD WEATHER CONCRETING SHALL BE PER ACI 306.

6. UNLESS NOTED OTHERWISE COMPOSITE FLATNESS SHALL BE 25 AND COMPOSITE LEVELNESS SHALL BE 20.

STEEL REINFORCEMENT:

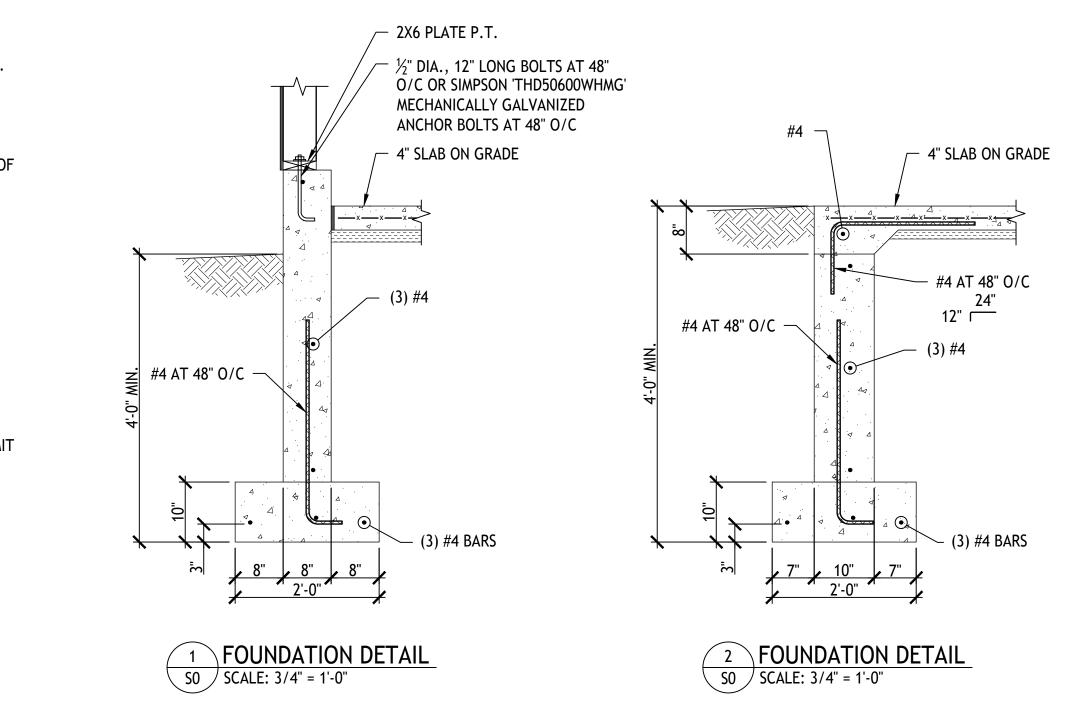
1. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE STATE BUILDING CODE REFERENCED ACI 318.

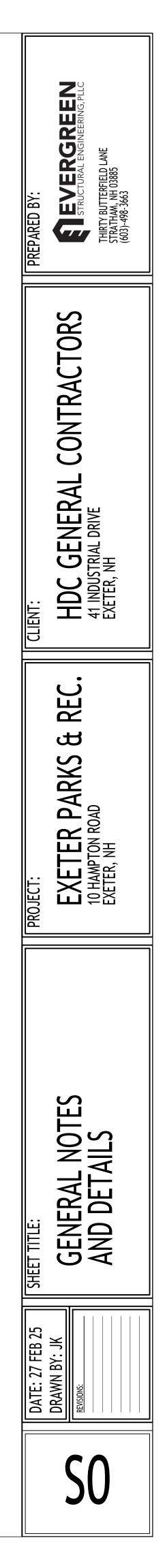
2. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 KSI DEFORMED BARS. REINFORCING NOTED AS CONTINUOUS SHALL HAVE LAPS MEETING ACI 318 FOR A CLASS B SPLICE.

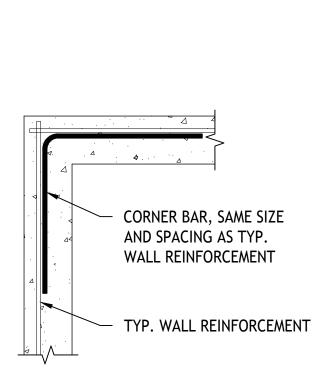
3. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR **REINFORCEMENT:** 

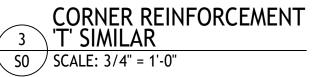
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3" CONCRETE EXPOSED TO EARTH OR WEATHER:

4. WELDED WIRE REINFORCEMENT SHALL BE ASTM A-185.











ABBREVIATIONS:		
AOR	ARCHITECT OF RECORD	
BOT.	BOTTOM	
BRG.	BEARING	
CL	CENTER LINE	
CLR.	CLEAR	
CONT.	CONTINUOUS	
DIA.	DIAMETER	
EA.	EACH	
EL, ELEV.	ELEVATION	
EOR	ENGINEER OF RECORD	
EQ.	EQUAL	
E.W.	EACH WAY	
EXIST.	EXISTING	
GC	GENERAL CONTRACTOR	
LVL	LAMINATED VENEER LUMBER	
MAX.	MAXIMUM	
MIN.	MINIMUM	
NTS	NOT TO SCALE	
0/C	ON CENTER	
OPP.	OPPOSITE	
PT	PRESSURE TREATED	
SIM.	SIMILAR	
Т.О.	TOP OF	
TYP.	TYPICAL	
U.N.O.	UNLESS NOTED OTHERWISE	
V.I.F.	VERIFY IN FIELD	
WWR	WELDED WIRE REINFORCEMEN	

LEGEND

☑ POST DOWN

POST UP

