

CLIENT:  
**TANDEM COFFEE**  
122 ANDERSON STREET  
PORTLAND ME 04101

**TANDEM COFFEE**  
MAINE  
PORTLAND

No.	DATE	DESCRIPTION	ISSUE			
			ISSUED FOR CONSTRUCTION			
0	10-4-16					

SHEET TITLE:

**NOTES**

DESIGNED:	TD
DRAWN:	CD
DATE:	9-23-16
PROJECT No:	16-168

**S0**

**GENERAL NOTES:**

- EXISTING DIMENSIONS AND CONDITIONS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL EXISTING CONSTRUCTION AND DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION OR FABRICATION. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF DEVIATIONS OR CHANGES ARE REQUIRED TO THE CONTRACT DOCUMENTS OR APPROVED SHOP DRAWINGS DUE TO INTERFERENCES, FABRICATION ERRORS, OR OTHER CAUSES.
- THE STRUCTURE IS SELF-SUPPORTING AND STABLE AFTER THE ENTIRE BUILDING IS COMPLETELY CONSTRUCTED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCING DURING CONSTRUCTION AND ERECTION TO PROVIDE AND ENSURE LOCAL AND OVERALL STABILITY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION AND ERECTION. THE CONTRACTOR SHALL RETAIN A LICENSED STRUCTURAL ENGINEER TO DESIGN TEMPORARY BRACING/SHORING AND DETERMINE WHERE THE TEMPORARY BRACING/SHORING IS NEEDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION PROCEDURES, SEQUENCING AND FOR COMPLYING WITH ALL APPLICABLE SAFETY REGULATIONS DURING THE WORK.

**DESIGN CRITERIA:**

- BUILDING CODES:  
INTERNATIONAL BUILDING CODE (IBC), 2009 EDITION  
ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES  
MAINE UNIFORM BUILDING AND ENERGY CODE
- LIVE LOADS:  
MEZZANINE OFFICE AREA = 50 PSF

**FOUNDATION NOTES:**

- FOUNDATIONS HAVE BEEN DESIGNED USING A PRESUMED ALLOWABLE BEARING PRESSURE PER TABLE 1806.2 OF THE INTERNATIONAL BUILDING CODE BASED ON TYPICAL SOILS FOUND IN THIS AREA. IF CLAY, MUD, ORGANIC SILT, PEAT OR UNPREPARED FILL IS FOUND DURING CONSTRUCTION, NOTIFY ENGINEER IMMEDIATELY, AS THE ALLOWABLE LOADS USED IN DESIGN WILL NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER. CASCO BAY ENGINEERING RECOMMENDS PROCURING A GEOTECHNICAL ENGINEER TO VERIFY EXISTING SOIL CONDITIONS.
- EXCAVATION, BACKFILL, COMPACTION, GRADATION REQUIREMENTS, FOUNDATION DRAINAGE AND PERMANENT DEWATERING REQUIREMENTS SHALL BE PROVIDED BY A GEOTECHNICAL ENGINEER.
- CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED ON A MINIMUM 12" THICK LAYER OF PROPERLY COMPACTED STRUCTURAL FILL, UNLESS OTHERWISE DIRECTED BY A GEOTECHNICAL ENGINEER.
- FOUNDATIONS SHALL BEAR ON UNDISTURBED NATIVE SOIL, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEER IF ANY UNSUITABLE SOILS ARE ENCOUNTERED PRIOR TO PLACING FOUNDATIONS.
- DO NOT UNDERMINE EXISTING FOUNDATIONS OF ADJACENT STRUCTURES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHORING, BRACING AND UNDERPINNING OF EXISTING STRUCTURES DURING EXCAVATION, BACKFILLING, AND CONSTRUCTION. CONTRACTOR SHALL SLOPE EXCAVATIONS TO ACHIEVE SOIL STABILITY.

**CONCRETE NOTES:**

- ALL WORK SHALL CONFORM TO IBC 2009 REFERENCED EDITIONS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).
- REQUIRED CONCRETE PARAMETERS ARE AS FOLLOWS:

LOCATION	MAX W/C RATIO	f <sub>c</sub>	AIR-ENTRAINMENT
FOUNDATIONS, FOOTINGS, & FOUNDATION WALLS	.45	3,000 PSI	6% ± 1½%

WHERE: W/C = WATER TO CEMENT RATIO AND  
f<sub>c</sub> = COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS

USE PORTLAND CEMENT TYPE II, IN CONFORMANCE WITH ASTM 150  
AIR ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C 260  
ADMIXTURES SHALL CONFORM TO ASTM C 494  
FLY ASH USED AS ADMIXTURES SHALL CONFORM TO ASTM C 618

- MAXIMUM AGGREGATE SIZE SHALL BE ¾", IN CONFORMANCE WITH ASTM C33.
- CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE IS NOT PERMITTED.
- MAXIMUM SLUMP AFTER THE ADDITION OF A WATER-REDUCING ADMIXTURE IS 5 INCHES.
- CONTRACTOR SHALL NOT PLACE CONCRETE ON FROZEN GROUND OR IN WATER. ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING NEAR-FREEZING OR FREEZING WEATHER. REFERENCE ACI 306, AS NOTED ABOVE, FOR RECOMMENDATIONS FOR COLD WEATHER CONCRETING.
- ANCHOR BOLTS SHALL BE HEADED RODS AND CONFORM TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, U.N.O. ON DRAWINGS. PROVIDE GALVANIZED ANCHOR BOLTS WHERE IN CONTACT WITH PRESSURE TREATED LUMBER.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS.
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:  
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3 INCHES  
B. FORMED CONCRETE IN CONTACT WITH EARTH OR EXPOSED TO WEATHER 2 INCHES  
C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER IN SLABS & WALLS 1½ INCHES
- PROVIDE NON-SHRINK GROUT BENEATH LEVELING PLATES & BEARING PLATES w/ MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS.

**STRUCTURAL STEEL NOTES:**

- STRUCTURAL STEEL WORK SHALL CONFORM TO IBC 2009 REFERENCED EDITIONS OF AISC "SPECIFICATION FOR THE DESIGN FABRICATIONS, AND ERECTION OF STRUCTURAL STEEL" AND THE "CODE OF STANDARD PRACTICE"
- STRUCTURAL STEEL MEMBERS SHALL BE IN CONFORMANCE WITH THE FOLLOWING:  
  

WIDE FLANGE SHAPES AND TEES	ASTM A992
ANGLES, PLATES, CHANNELS	ASTM A36, Fy=36 KSI (U.N.O.)
SQUARE/RECTANGULAR HSS	ASTM A500, GRADE B, Fy=46 KSI
ROUND HSS	ASTM A500, GRADE B, Fy=42 KSI
STEEL PIPE	ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI
- FIELD CONNECTIONS SHALL UTILIZE MINIMUM ¾" DIAMETER A325 HIGH STRENGTH BOLTS, U.N.O. WELDING SHALL CONFORM TO AWS D1.1. USE LOW-HYDROGEN SMAW ELECTRODES WITH MINIMUM TENSILE STRENGTH OF 70 KSI.
- ALL STRUCTURAL STEEL NOT EXPOSED TO WEATHER SHALL RECEIVE ONE COAT OF STANDARD SHOP PRIMER, U.N.O.
- SEE DRAWINGS AND CONCRETE NOTES FOR ANCHOR BOLT INFORMATION.

**WOOD NOTES:**

- ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH IBC 2009 REFERENCED EDITIONS OF THE AITC TIMBER CONSTRUCTION MANUAL AND AF&PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).
- ALL FRAMING SHALL BE SPRUCE-PINE-FIR, No.2 OR BETTER U.N.O. AND HAVE A MAXIMUM MOISTURE CONTENT OF 19%.
- ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED (PT) SOUTHERN YELLOW PINE.
- WHERE "LVL" IS NOTED ON DRAWINGS, PROVIDE LAMINATED VENEER LUMBER, WHICH HAS THE FOLLOWING MINIMUM ALLOWABLE STRESSES:  
  

F <sub>b</sub> = 2600 PSI	F <sub>c</sub> = 2510 PSI (PARALLEL TO GRAIN)
F <sub>v</sub> = 285 PSI	F <sub>c</sub> = 750 PSI (PERPENDICULAR TO GRAIN)
F <sub>t</sub> = 1555 PSI	E = 2,000,000 PSI
- ALL ENGINEERED LUMBER THAT IS EXPOSED TO WEATHER SHALL BE WOLMANIZED.
- PROVIDE FULL DEPTH BLOCKING AT ENDS AND INTERIOR SUPPORTS OF ALL JOISTS AND RAFTERS WHERE JOISTS AND RAFTERS FRAME OVER SUPPORTS. PROVIDE 1x3 DIAGONAL BRIDGING OR FULL DEPTH SOLID BLOCKING FOR EACH 8'-0" OF SPAN FOR ALL JOISTS AND RAFTERS.
- WHERE BEAMS ARE LABELED ON PLAN, DO NOT SPLICE BEAM NOR ANY PLY OF BEAM BETWEEN SUPPORTS.
- ALL CONNECTION HARDWARE SHALL BE BY SIMPSON STONG-TIE (OR APPROVED EQUIVALENT) AND SHALL BE HOP-DIPPED GALVANIZED. HARDWARE IN CONTACT WITH PRESSURE TREATED (PT) LUMBER SHALL BE GALVANIZED G185 (ZMAX). REFER TO MANUFACTURERS LITERATURE FOR PROPER INSTALLATION GUIDELINES.
- FASTENERS USED IN CONTACT WITH PRESSURE TREATED (PT) LUMBER SHALL BE HOT-DIPPED GALVANIZED, STAINLESS STEEL, OR OTHER FINISH APPROVED BY ENGINEER.
- ALIGN COLUMNS SUCH THAT COLUMNS BEAR CONTINUOUSLY TO FOUNDATION SUPPORT. INSTALL ADDITIONAL SOLID BLOCKING WITHIN FLOOR PACKAGE TO PROVIDE CONTINUITY OF LOAD PATH.
- PROVIDE HORIZONTAL BLOCKING FOR ALL LOAD BEARING WALLS AT 4'-0" O.C. VERTICAL, MAXIMUM.

