BRAMHALL FIRE STATION
ROOF STRENGTHENING

27 MAY, 2015

LOCUS MAP

DRAWING LIST

G1.1 COVERSHEET, DRAWING INDEX & STRUCTURAL NOTES
S1.1 PLAN & EXISTING ELEVATION
S1.2 SECTIONS AND DETAILS

STRUCTURAL DESIGN CRITERIA

1. MAINE UNIFORM BUILDING AND ENERGY CODE, 2009 EDITION, INCLUDING CONSIDERATION OF ASCE 7-05, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".

WIND LOAD: PER IBC SECTION 1609.0/ASCE 7-02 CHAPTER 6

BASIC WIND SPEED, (3 SEC GUST	100 mph
IMPORTANCE FACTOR Iw	1.15
EXPOSURE CATEGORY	B
BUILDING CLASSIFICATION	IV
VELOCITY PRESSURE COEF, Kz	0.91
TOPOGRAPHIC PRESSURE COEF Kzt	1.0
DIRECTIONALITY FACTOR, Kd	0.85
VELOCITY PRESSURE qh	26.79 psf

SNOW LOAD: PER ASCE 7-05, CHAPTER 7:

GROUND SNOW LOAD Pg	60 PSF (FIGURE 7-1)
EXPOSURE FACTOR Ce	1.0 (TABLE 7-2)
THERMAL FACTOR Ct	1.1 (TABLE 7-3)
IMPORTANCE FACTOR Is	1.2 (CATEGORY III, TABLE 7-4)
FLAT ROOF SNOW LOAD	55.4 PSF

DRIFTED SNOW LOADS AND DRIFT PER SECTION 7.6 OF ASCE 7-05

SEISMIC LOAD: IBC SECTION 1615.0; EARTHQUAKE DATA PER SECTION 1616.3:

SEISMIC USE GROUP	III
OCCUPANCY IMPORTANCE FACTOR, Ie	1.1
SHORT-PERIOD ACCELERATION Ss	0.32g
1.0 SECOND ACCELERATION S1	0.10g
SITE CLASSIFICATION SOIL TYPE	D
MAXIMUM CONSIDERED EQ. ACCEL. PARAMETER Fa	1.53
MAXIMUM CONSIDERED EQ ACCEL. PARAMETER Fv	2.40
SHORT PERIOD ACCELERATION (ASCE 9.4.1.2.4-1., Sms)	0.49g
1.0 SECOND ACCELERATION (ASCE 9.4.1.2.4-2, Sm1)	0.192g
SHORT PERIOD DESIGN SPECTRAL RESPONSE ACC.	0.326g, SDC B
1.0 SECOND DESIGN SPECTRAL RESPONSE ACC.	0.128g, SDC B

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERMIT SAFE PASSAGE OF STAFF AND THE PUBLIC ADJACENT TO THE AREAS OF WORK IF REQUIRED.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND LOCAL SAFETY REQUIREMENTS. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF ADJACENT PORTIONS OF THE BUILDING, ADJACENT PROPERTY, AND THE PUBLIC. THIS INCLUDES, BUT IS NOT LIMITED TO, PROVIDING AND MAINTAINING BOTH SIGNAGE AND FENCING THROUGHOUT THE DURATION OF THE PROJECT.
3. THE STRUCTURAL DESIGN OF THESE REPAIRS IS BASED ON THE FULL INTERACTION OF ALL CONNECTED COMPONENTS. NO PROVISIONS HAVE BEEN MADE FOR ANY TEMPORARY CONDITIONS THAT MAY ARISE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS, SHORING, AND TEMPORARY BRACING DURING THE PROGRESS OF THE PROJECT.
4. THE CONTRACTOR MUST HAVE A FULL-TIME SUPERINTENDENT ON SITE DURING CONSTRUCTION.
5. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE INCLUDED.
6. THE CONTRACTOR SHALL, PRIOR TO WORK, REVIEW WITH DESIGN TEAM AND OWNER ALL ASPECTS OF SITE ACCESS, WORK SCHEDULE, AND COORDINATION WITH OTHERS TO ENSURE SMOOTH PROJECT FLOW.
7. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
8. THE INSTALLATION AND OR REMOVAL OF PROPOSED MATERIALS SHALL NOT DAMAGE EXISTING COMPONENTS.
9. ANY MODIFICATION OR ALTERATION OF THESE CONSTRUCTION DOCUMENTS OR CHANGES IN CONSTRUCTION FROM THE INTENT OF THESE DRAWINGS BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL OF THE ARCHITECT AND/OR ENGINEER SHALL REMOVE ALL PROFESSIONAL AND LIABILITY RESPONSIBILITY OF THE ARCHITECT AND/OR ENGINEER.
10. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIFICATIONS CAREFULLY, VISIT THE SITE, AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS PRIOR TO SUBMITTING THEIR BID. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE SUCCESSFUL BIDDER FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. INCORRECT WORK SHALL BE RECTIFIED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. THE SUCCESSFUL CONTRACTOR OR SUBCONTRACTORS WILL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION CONFERENCE, HELD AT A DATE AND TIME DETERMINED BY THE OWNER.
12. DO NOT SCALE FROM THE DRAWINGS.
13. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

GENERAL REQUIREMENTS

1. COORDINATE CONSTRUCTION TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF EACH PART OF THE WORK.
2. CONDUCT PROGRESS MEETINGS AT SITE AT WEEKLY INTERVALS OR AS NECESSARY. REQUIRE SUBCONTRACTOR ATTENDANCE AS REQUIRED FOR COORDINATION OF SITE ACTIVITIES.
3. COORDINATE EACH SHOP DRAWING SUBMITTAL WITH FABRICATION, PURCHASING, DELIVERY, AND RELATED ACTIVITIES. SUBMIT THREE COPIES OF EACH SUBMITTAL. PROVIDE SPACE TO RECORD REVIEW AND APPROVAL MARKINGS BY ENGINEER.
4. IDENTIFY DEVIATIONS FROM CONTRACT DOCUMENTS ON SUBMITTALS. REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO ARCHITECT/ENGINEER.
5. SUBMIT SAMPLES FINISHED AS SPECIFIED AND PHYSICALLY IDENTICAL WITH PROPOSED MATERIAL OR PRODUCT. INCLUDE NAME OF MANUFACTURER AND PRODUCT NAME ON LABEL.
6. GENERAL CONTRACTOR WILL SUBMIT WEEKLY UPDATED GANTT CHART SCHEDULE TO SUBCONTRACTORS AND NEED-TO-KNOW PARTIES FOR COORDINATION PURPOSES.
7. DELIVER, STORE, AND HANDLE PRODUCTS USING MEANS AND METHODS THAT WILL PREVENT DAMAGE, DETERIORATION, AND LOSS, INCLUDING THEFT. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
8. SCHEDULE DELIVERY TO MINIMIZE LONG-TERM STORAGE AT PROJECT SITE AND TO PREVENT OVERCROWDING OF CONSTRUCTION SPACES. DELIVER PRODUCT IN MANUFACTURER'S ORIGINAL SEALED CONTAINER OR PACKAGING, COMPLETE WITH LABELS AND INSTRUCTIONS FOR HANDLING, STORING, UNPACKING, PROTECTING, AND INSTALLING.
9. STORE PRODUCTS THAT ARE SUBJECT TO DAMAGE BY THE ELEMENTS UNDER COVER IN A WEATHERTIGHT ENCLOSURE ABOVE GROUND, WITH VENTILATION ADEQUATE TO PREVENT CONDENSATION.
10. WHERE DRAWINGS SPECIFY A SINGLE PRODUCT OR MANUFACTURER, PROVIDE THE ITEM INDICATED THAT COMPLIES WITH REQUIREMENTS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL BEAMS SHALL CONFORM WITH A992, GRADE 50.
2. STRUCTURAL STEEL PLATES SHALL CONFORM WITH ASTM36, Fy=36ksi.
3. SUBMIT STEEL SHOP DRAWINGS TO THE ENGINEER FOR REVIEW BEFORE STARTING FABRICATION.
4. ALL STEEL SHALL RECEIVE A SHOP COAT OF TNEMC 10-99 OR EQUIVALENT.
5. .PROVIDE SHOP COATS OF FLAME-STOP IM LATEX INTUMESCENT COATING MANUFACTURED BY FLAME-STOP INC. (1-877-397-7867) COLOR - WHITE. PAINT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS TO ACHIEVE 30-MINUTE FIRE RATING.
6. NEOPRENE RUBBER BEARING MATERIAL SHALL BE ADHESIVE-BACKED, 40 °SHORE A "DUROMETER HARDNESS. REFER TO GRAINGER CATALOG NO. 406, PAGE 3052 FOR THE FOLLOWING ITEM NUMBERS:
   D7155 (12" X 36" X ¼" ADHESIVE BACKED) THREE SHEETS TO PROVIDE 4X4 SHIM PIECES OVER STEEL BRACING PLATES (81 TOTAL)
   D7158 (12" X 36" X ¾" ADHESIVE BACKED) ONE SHEET TO PROVIDE 4X6 SHIM PIECES BETWEEN STEEL BRACING PLATES (16 TOTAL)

STATE OF MAINE ALFRED HODSDON No. 9 LICENSED PROFESSIONAL ENGINEER
ENGINEER OF RECORD

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 02/25/16

RESURGENCE
ENGINEERING & PRESERVATION, INC.
132 BRENTWOOD STREET
PORTLAND, ME 04103
207.773.4880

BRAMHALL FIRE STATION
ROOF STRENGTHENING
PORTLAND, MAINE

COVER SHEET

Date: 05/27/15
Issued for:

CLIENT REVIEW

G1.1