

BUILDING DESIGN LOADS – EXISTING BUILDING

ROOF SNOW LOAD (ROOF LIVE LOAD) ASCE 7-05/IBC 2009

GROUND SNOW LOAD (Pg) = 60 PSF
 SNOW EXPOSURE FACTOR (Ce) = 1.0
 SNOW LOAD ROOF SLOPE FACTOR (Cs) = 1.0
 SNOW LOAD THERMAL FACTOR (ct) = 1.1
 BALANCED ROOF SNOW LOAD (Pf) = 46 PSF
 SNOW DRIFTING ON MAIN BUILDING ROOF (Pd) = 150 PSF
 SNOW LOAD IMPORTANCE FACTOR (I) = 1.0
 ROOF DEAD LOAD = 42 PSF
 ROOF LIVE LOAD = 20 PSF

FLOOR DEAD LOAD = 48 PSF
 FLOOR LIVE LOAD:
 LOBBY AND 1ST FLOOR CORRIDORS = 100 PSF
 OFFICES = 50 PSF + 15 PSF PARTITIONS
 2ND FLOOR CORRIDORS = 80 PSF
 STAIRS = 100 PSF
 MECHANICAL PLATFORMS = 150 PSF

WIND LOAD ASCE 7-05/IBC 2009

BASIC WIND SPEED = 100 MPH
 WIND LOAD IMPORTANCE FACTOR = 1.0
 WIND EXPOSURE = EXPOSURE B
 BUILDING TYPE = "ENCLOSED"
 WIND DESIGN PRESSURE:
 MAIN WIND FORCE RESISTING SYSTEM = 18 PSF
 (MAXIMUM PRESSURE)

SEISMIC DESIGN DATA ASCE 7-05/IBC 2009
 SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (Ss) = 0.33
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S1) = 0.08
 SEISMIC USE GROUP = GROUP II
 SEISMIC DESIGN CATEGORY = B
 SEISMIC IMPORTANCE FACTOR = 1.0
 SITE CLASS = C
 TOTAL BASE SHEAR = 1046 KIPS

BASIC STRUCTURAL SYSTEM

PLAIN MASONRY WALLS
 RESPONSE MODIFICATION COEFFICIENT (R) = 1.50
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 1.25
 SYSTEM OVER STRENGTH FACTOR (Ro) = 2.50

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN SOIL BEARING PRESSURE = 4000 PSF

NOTES:

- EXISTING SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
 - VERTICAL ELEMENTS – EXISTING PLAIN MASONRY SHEAR WALLS.
 - HORIZONTAL ELEMENTS – CONCRETE FLOOR SLAB AND ROOF SLAB DIAPHRAGMS.

BUILDING DESIGN LOADS – PRE-FUNCTION MEZZANINE

FLOOR LOAD ASCE 7-05/IBC 2009

FLOOR DEAD LOAD = 56 PSF
 FLOOR LIVE LOAD:
 OFFICES = 50 PSF + 15 PSF PARTITIONS
 2ND FLOOR CORRIDORS = 80 PSF
 STAIRS = 100 PSF
 MECHANICAL ROOM = 100 PSF
 STORAGE = 125 PSF

SEISMIC DESIGN DATA ASCE 7-05/IBC 2009

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (Ss) = 0.33
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S1) = 0.08
 SEISMIC USE GROUP = GROUP II
 SEISMIC DESIGN CATEGORY = B
 SEISMIC IMPORTANCE FACTOR = 1.0
 SITE CLASS = C
 TOTAL BASE SHEAR = 24 KIPS

BASIC STRUCTURAL SYSTEM

STEEL MOMENT FRAMES NOT DETAILED
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.00
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 3.00
 SYSTEM OVER STRENGTH FACTOR (Ro) = 3.00

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN SOIL BEARING PRESSURE = 4000 PSF

NOTES:

- SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
 - VERTICAL ELEMENTS – STEEL MOMENT FRAMES NOT DETAILED.
 - HORIZONTAL ELEMENTS – CONCRETE FLOOR SLAB/COMPOSITE STEEL DECK DIAPHRAGMS.
 - COLLECTOR ELEMENTS – CONSIST OF STRUCTURAL STEEL BEAMS INDICATED ON FLOOR FRAMING PLAN.

BUILDING DESIGN LOADS – CLASSROOM MEZZANINE

FLOOR LOAD ASCE 7-05/IBC 2009

FLOOR DEAD LOAD = 56 PSF
 FLOOR LIVE LOAD:
 CLASSROOM = 50 PSF + 15 PSF PARTITIONS
 2ND FLOOR CORRIDORS = 80 PSF

SEISMIC DESIGN DATA ASCE 7-05/IBC 2009

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (Ss) = 0.33
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S1) = 0.08
 SEISMIC USE GROUP = GROUP II
 SEISMIC DESIGN CATEGORY = B
 SEISMIC IMPORTANCE FACTOR = 1.0
 SITE CLASS = C
 TOTAL BASE SHEAR = 25 KIPS

BASIC STRUCTURAL SYSTEM

STEEL MOMENT FRAMES AND BRACED FRAMES NOT DETAILED
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.00
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 3.00
 SYSTEM OVER STRENGTH FACTOR (Ro) = 3.00

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN SOIL BEARING PRESSURE = 4000 PSF

NOTES:

- SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
 - VERTICAL ELEMENTS – STEEL MOMENT FRAMES AND STEEL BRACED FRAMES NOT DETAILED.
 - HORIZONTAL ELEMENTS – CONCRETE FLOOR SLAB/COMPOSITE STEEL DECK DIAPHRAGMS.
 - COLLECTOR ELEMENTS – CONSIST OF STRUCTURAL STEEL BEAMS INDICATED ON FLOOR FRAMING PLAN.

BUILDING DESIGN LOADS – STAIR TOWER

ROOF SNOW LOAD (ROOF LIVE LOAD) ASCE 7-05/IBC 2009

GROUND SNOW LOAD (Pg) = 60 PSF
 SNOW EXPOSURE FACTOR (Ce) = 1.0
 SNOW LOAD ROOF SLOPE FACTOR (Cs) = 1.0
 SNOW LOAD THERMAL FACTOR (ct) = 1.1
 BALANCED ROOF SNOW LOAD (Pf) = 46 PSF
 SNOW DRIFTING ON STAIR CANOPY (Pd) = 94 PSF
 SNOW LOAD IMPORTANCE FACTOR (I) = 1.0
 ROOF DEAD LOAD = 20 PSF
 ROOF LIVE LOAD = 20 PSF

FLOOR DEAD LOAD = 50 PSF
 FLOOR LIVE LOAD:
 1ST FLOOR LOBBY = 100 PSF
 2nd FLOOR LOBBY = 80 PSF
 STAIRS = 100 PSF

WIND LOAD ASCE 7-05/IBC 2009

BASIC WIND SPEED = 100 MPH
 WIND LOAD IMPORTANCE FACTOR = 1.0
 WIND EXPOSURE = EXPOSURE B
 BUILDING TYPE = "ENCLOSED"
 WIND DESIGN PRESSURE:
 MAIN WIND FORCE RESISTING SYSTEM = 16 PSF
 (MAXIMUM PRESSURE)

SEISMIC DESIGN DATA ASCE 7-05/IBC 2009

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (Ss) = 0.33
 ONE SECOND SPECTRAL RESPONSE ACCELERATION (S1) = 0.08
 SEISMIC USE GROUP = GROUP II
 SEISMIC DESIGN CATEGORY = B
 SEISMIC IMPORTANCE FACTOR = 1.0
 SITE CLASS = C
 TOTAL BASE SHEAR = 5 KIPS

BASIC STRUCTURAL SYSTEM

STEEL MOMENT FRAMES AND BRACED FRAMES NOT DETAILED
 RESPONSE MODIFICATION COEFFICIENT (R) = 3.00
 DEFLECTION AMPLIFICATION FACTOR (Cd) = 3.00
 SYSTEM OVER STRENGTH FACTOR (Ro) = 3.00

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

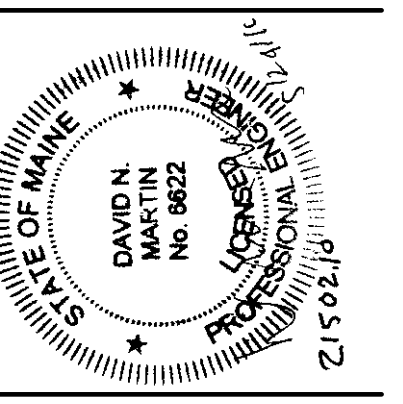
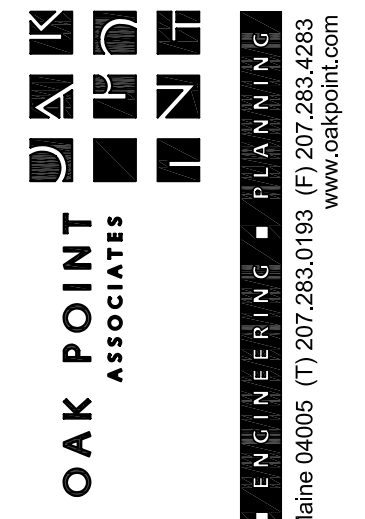
DESIGN SOIL BEARING PRESSURE = 4000 PSF

NOTES:

- SEISMIC LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING:
 - VERTICAL ELEMENTS – STEEL MOMENT FRAMES AND STEEL BRACED FRAMES NOT DETAILED.
 - HORIZONTAL ELEMENTS – CONCRETE FLOOR SLAB/COMPOSITE STEEL DECK AND STEEL ROOF DECK DIAPHRAGMS.
 - COLLECTOR ELEMENTS – CONSIST OF STRUCTURAL STEEL BEAMS INDICATED ON FLOOR AND ROOF FRAMING PLANS.

STRUCTURAL ABBREVIATIONS:

±	PLUS OR MINUS	IBC	INTERNATIONAL BUILDING CODE
∠	ANGLE	IN	INCH
ACI	AMERICAN CONCRETE INSTITUTE	INSUL	INSULATION
AFF	ABOVE FINISH FLOOR	INV	INVERT
AISI	AMERICAN IRON AND STEEL INSTITUTE	K	KIPS
ALT	ALTERNATE	KSI	KIPS PER SQUARE INCH
ARCH	ARCHITECTURAL	LBS	POUNDS
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	LLV	LONG LEG VERTICAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LP	LONG POINT
AWS	AMERICAN WELDING SOCIETY	LT	LIGHT
BBP	BEAM BEARING PLATE	LW	LONG WAY
BFE	BOTTOM OF FOOTING ELEVATION	MAX	MAXIMUM
BLDG	BUILDING	MECH	MECHANICAL
BP	BASE PLATE	MFR	MANUFACTURER
BSE	BRICK/BLOCK SHELF ELEVATION	MIN	MINIMUM
CJ	CONTROL JOINT	MO	MASONRY OPENING
CL	CENTERLINE	MPH	MILES PER HOUR
CLG	CEILING	MTL	METAL
COL	COLUMN	#, NO	NUMBER
CONC	CONCRETE	OC	ON CENTER
CONN	CONNECTION	OPNG	OPENING
CONT	CONTINUOUS	OPF	POUNDS PER CUBIC FOOT
CP	CAP PLATE	PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	RCSC	RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
EA	EACH	REINF	REINFORCED
EJ	EXPANSION JOINT	REQ'D	REQUIRED
ELEC	ELECTRICAL	SAT	SUSPENDED ACOUSTICAL TILE
ELEV	ELEVATION, ELEVATOR	SIM	SIMILAR
EOD	EDGE OF DECK	SJI	STEEL JOIST INSTITUTE
EQ	EQUAL	SLV	SHORT LEG VERTICAL
EQUIP	EQUIPMENT	SS	STAINLESS STEEL
EW	EACH WAY	STL	STEEL
EXIST	EXISTING	SW	SHORT WAY
EXP	EXPANSION	TJE	TOP OF JOIST ELEVATION
EXT	EXTERIOR	TMS	THE MASONRY SOCIETY
F'c	CONCRETE COMPRESSIVE STRENGTH	TOS	TOP OF STEEL
F'm	MASONRY COMPRESSIVE STRENGTH	TPE	TOP OF PIER ELEVATION
FND	FOUNDATION	TWE	TOP OF WALL ELEVATION
FTG	FOOTING	TYP	TYPICAL
Fy	YIELD STRESS	VERT	VERTICAL
GA	GAUGE	W/	WITH
GALV	GALVANIZED	WT	WEIGHT
GYP BD	GYP SUM BOARD	WWF	WELDED WIRE FABRIC
HGT	HEIGHT		
HORIZ	HORIZONTAL		
HSS	HOLLOW STRUCTURAL SECTION		



DESIGNED BY: DNM
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RENOVATIONS TO THE
 STEVENS AVENUE ARMORY

DESIGN LOADS AND ABBREVIATIONS

SCALE: AS NOTED
 DATE: 05-24-16

DWG. **S-002**

SHEET: 14 OF 169