Hockanum Mill - Buildings 2 & 3

200 West Main Street
Rockville, CT
May 15, 2017

Owner:
Kaplan Mill Works, LLC
61 Tolland Turnpike
Manchester, CT 06042
860-916-9784

Contractor:
Rockville Construction
Manchester, CT 06042
860-916-9784

Architect:
Crosskey Architects LLC
750 Main Street
Suite 150
Hartford, CT 06103
860-724-3000

PLAN LEGEND

- Indicates existing wall construction to remain in place.
- Indicates new wall construction
- Indicates new CMU wall construction
- Indicates new brick wall construction
- Indicates existing door to remain
- Indicates new door
- Indicates revision to drawings
- Indicates wall type reference
- Indicates door tag reference.
- Indicates window tag reference.
- Indicates floor / ceiling type reference (Ft./Clg. Above)
- Indicates interior elevation reference (A, B, C, D, A11)
- Indicates building section reference (AA, A11)
- Indicates detail reference (1, A11)

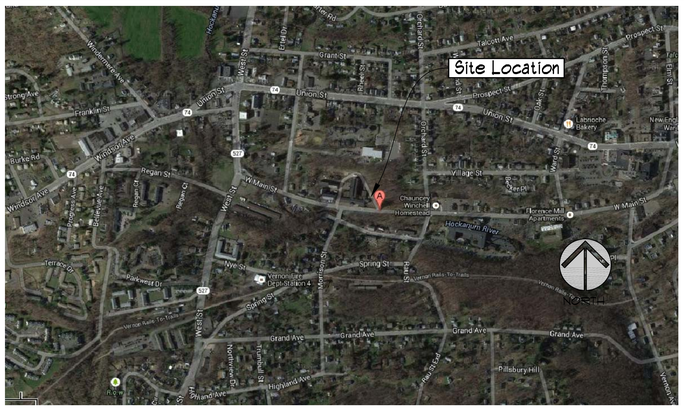
GENERAL NOTES

1. Provide all necessary demolition of existing light fixtures, HVAC and other components as required to complete the scope of work as indicated on these drawings.
2. Field-verify all dimensions and conditions prior to start of construction.
3. Provide all demolition and dumpsters as is necessary to complete the work.
4. If plans show any conflicting information, contact Architect for clarification.
5. Provide firestopping at all duct, pipe and other penetrations through rated wall, ceiling and floor assemblies. Use UL rated sealants and caulking as manufactured by Dow, 3M or approved equal. Follow manufacturer's installation instructions.
6. All plumbing and heating to be concealed in walls and floors, unless noted otherwise.
7. Locate plumbing and heating piping within framing bays to greatest extent possible.
8. When removing existing components, care must be taken to ensure that adjacent surfaces to remain are not damaged. Patch any damage which might occur. Prepare for new finishes or layout.
9. When a wall is indicated to be removed, all existing components or services in or on the wall shall be removed and/or relocated (lights, plumbing, etc.)
10. Patch and repair any damage to existing components which are to remain.
11. Provide solid blocking for wall mounted accessories such as handrails, bathroom accessories, etc.
12. Legally dispose all construction debris off site.
13. All finish flooring shall be refurbished unless noted otherwise. Remove existing finish and prepare surfaces as required to receive new finish.
14. All new interior wood trim to be clear pine, free of knots or defects.
15. All new exterior wood trim to be clear cedar, free of knots or defects.
16. Mechanical, electrical and plumbing systems' designs by Owner's Consultant(s). Specific items required per Code Compliance Alternatives Summary Sheet are as follows:

    Plumbing:
    Automatic fire suppression system throughout
    Standpipe

    Electrical:
    Smoke Detectors throughout
    Emergency Lighting: Power back-up @ egress stairs
17. Structural conditions assessments, scope of work, repair recommendations and design by Owner's Structural Engineering Consultant.
18. Construction details for stairs, ramps and other components not shown on these drawings: To be determined in field or by others.

LOCATION DIAGRAM



ABBREVIATIONS

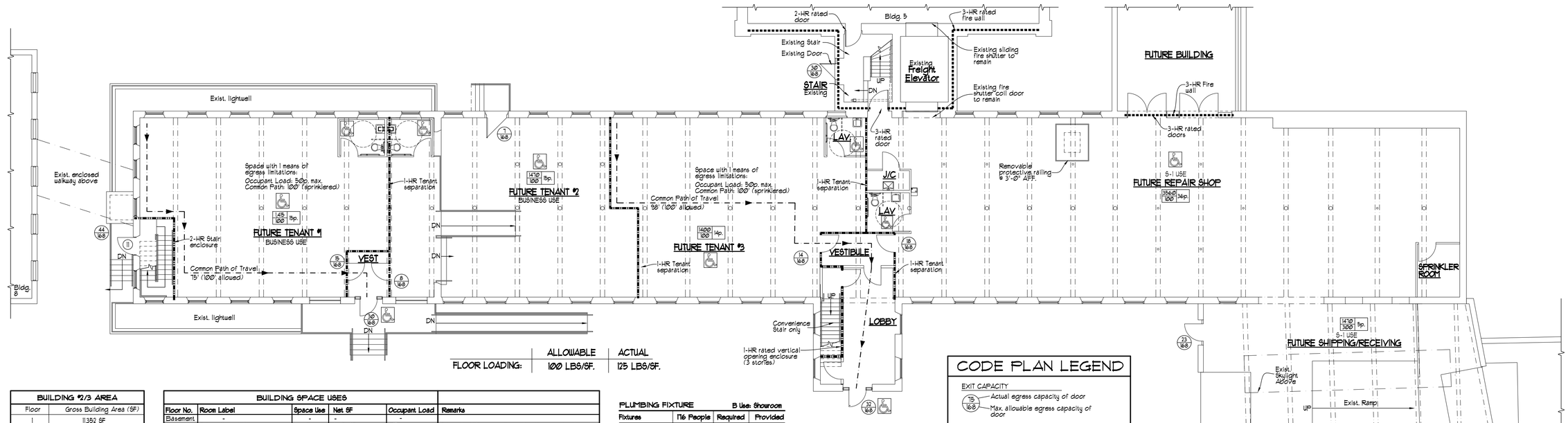
ACOUS.	Acoustical
AD.	Area Drain
ADJ.	Adjustable
AFF	Above Finished Floor
AGGR.	Aggregate
ALUM.	Aluminum
APPROX.	Approximate
ARCH.	Architectural
ASB.	Asbestos
ASPH.	Asphalt
A.T.	Acoustical Tile
BD.	Board
BITUM.	Bituminous
BLDG.	Building
BLK.	Block
BLKG.	Blocking
BM.	Beam
BOT.	Bottom
CAB.	Cabinet
C.B.	Catch Basin
CEM.	Cement
CER.	Ceramic
C.I.	Cast Iron
C.J.	Control Joint
CLG.	Ceiling
CLKG.	Caulking
CL.	Closet
CLR.	Clear
CMU	Concrete Masonry Unit
COL.	Column
CONC.	Concrete
CONN.	Connection
CONSTR.	Construction
CONT.	Continuous
CORR.	Corridor
COS.	Courses
CTSK.	Countersink
CNTR.	Counter
CTR.	Center
C.O.	Cased Opening
DBL.	Double
DF.	Drinking Fountain
DET.	Detail
DIA.	Diameter
DIM.	Dimension
DISP.	Dispenser
DN.	Down
D.O.	Door Opening
DR.	Door
DWR.	Drawer
DS.	Downspout
DWG.	Drawing
E.	East
EA.	Each
EF.	Exhaust Fan
EJ.	Expansion Joint
EL.	Elevation
ELEC.	Electrical
ELEV.	Elevator
EMER.	Emergency
ENCL.	Enclosure
EP.	Electrical Panel Board
EQ.	Equal
EQUIP.	Equipment
EXIST.	Existing
EXPO.	Exposed
EXP.	Expansion
EXT.	Exterior
F.A.	Fire Alarm
FG.	Fiberglass
F.D.	Floor Drain
FDN.	Foundation
FE.	Fire Extinguisher
FEC.	Fire Extinguisher Cabinet
FHC.	Fire Hose Cabinet
FIN.	Finish
FLR.	Floor
FLG.	Flashing
FLUOR.	Fluorescent
FOC.	Face of Concrete
FOF.	Face of Finish
FOS.	Face of Stud
FPRF.	Fireproof
FS.	Full Size
FT.	Foot or Feet
FTG.	Footing
FUT.	Future
GA.	Gauge
GALV.	Galvanized
G.B.	Grab Bar
GL.	Glass
GND.	Ground
GR.	Grade
G.C.	General Contractor
GYP.	Gypsum
GWB	Gypsum Wallboard
H.B.	Hose Bib
H.C.	Hollow Core
HDWD.	Hardwood
HDWR.	Hardware
H.M.	Hollow Metal
HORIZ.	Horizontal
HR.	Hour
HGT.	Height
H.P.	Handicapped
HW.	Hot Water Heater
I.D.	Inside Diameter
INSUL.	Insulation
INT.	Interior
JAN.	Janitor
JT.	Joint
JSTS.	Joist
KIT.	Kitchen
LAB.	Laboratory
LAM.	Laminate
LAV.	Lavatory
LKR.	Locker
LT.	Light
MAX.	Maximum
MC.	Medicine Cabinet
MECH.	Mechanical
MEMB.	Membrane
MFR.	Manufacturer
MH.	Manhole
MIN.	Minimum
MIR.	Mirror
MISC.	Miscellaneous
M.O.	Masonry Opening
MLF.	Micro-Lam Beam
MTD.	Mounted
MTL.	Metal
MUL.	Mullion
N.	North
N.I.C.	Not In Contract
NO. or #	Number
NOM.	Nominal
N.T.S.	Not To Scale
O.A.	Overall
O.C.	On Center
O.D.	Outside Diameter
OFF.	Office
OPNG.	Opening
OPP.	Opposite
PREJ.	Prerolded Exp. Joint
PRF.T.	Prerolded Filler
PL.	Plate
P.LAM.	Plastic Laminate
PLAS.	Plaster
PLYWD.	Plywood
PR.	Pair
P.C.	Precast
P.T.	Paper Towel
PTN.	Partition
QT.	Quarry Tile
R.	Riser
RAD.	Radius
RD.	Roof Drain
REBAR.	Reinforcing Bar
REF.	Reference
REFRIG.	Refrigerator
REG.	Register
RENF.	Reinforced
REQ'D.	Required
RESIL.	Resilient
RM.	Room
R.O.	Rough Opening
RS.	Rough Sawn
R&S	Rod and Shelf
RWD.	Redwood
RWL.	Rain Water Leader
S.C.	Solid Core
SCAP	Suspended Grid Acoustical Panel
SF.	Square Foot
SQ.	Square
SIM.	Similar
STD.	Standard
STL.	Steel
STOR.	Storage
T&G	Tongue & Groove
TME.	To Match Existing
T.O.	Top of
T.OF.	Top of Floor
T.OS.	Top of Slab
T.OW.	Top of Wall
TYP.	Typical
U.N.O.	Unless Noted Otherwise
VCT	Vinyl Composition Tile
V.I.F.	Verify in Field
VWC.	Vinyl Wall Covering
W.	With
WD.	Wood
W/O	Without
WT.	Weight

PROJECT SCOPE

The scope of work for this project includes the restoration of an historical factory industrial office structure. The existing square footage, general layout and appearance will remain the same, except as indicated on these plans as well as those of the Owner's Consultants.

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A-5.1	Door Elevations



FLOOR LOADING:	ALLOWABLE	ACTUAL
	100 LBS/SF.	125 LBS/SF.

This Floor will have a mixed use Future B and S-1 uses.

Floor Area: 11,352 SF.

BLDG. 2&3 FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH

CODE PLAN LEGEND

EXIT CAPACITY

- 175 / 168 — Actual egress capacity of door / Max. allowable egress capacity of door

ROOM OCCUPANCY LOAD

- 900 / 20 = 45p. — Room area in square feet / Occupant load / Occupancy load factor
- 18p — Number of occupants exiting / Direction of travel
- 250' — Max. travel dist. / Path of max. travel distance
- 100' — Max. travel dist. / Common Path of Travel

FIRE RATED SEPARATION DESIGNATIONS

- 3 Hour Fire Rated Wall Assembly
- 2 Hour Exit or Shaft enclosure
- 1 Hour Fire Rated Wall Assembly
- Designates handicap accessible area or component

BUILDING #2/3 AREA	
Floor	Gross Building Area (SF)
1	11,352 SF
2	9,752 SF
3	9,752 SF
4	9,752 SF
TOTAL	40,608 SF

BUILDING SPACE USES

Floor No.	Room Label	Space Use	Net SF	Occupant Load	Remarks
Basement	-	-	-	-	
First	Future Tenant #1	B	1,415 SF	15 p.	Future building permit application required
	Future Tenant #2	B	1,470 SF	15 p.	Future building permit application required
	Future Tenant #3	B	1,420 SF	14 p.	Future building permit application required
	Future Repair Shop	S-1	4,880 SF	54 p.	Future building permit application required
Second	Sales Showroom	B	8,130 SF	88 p.	
Third	Sales Showroom	B	8,130 SF	88 p.	
Fourth	Future Tenant #4	B	7,350 SF	76 p.	Future building permit application required
TOTALS			34,175 SF	350 p.	
			B Use: 29,295 SF S-1 Use: 4,880 SF.	B Use: 296 p. S-1 Use:54 p.	

PLUMBING FIXTURE — B Use: Showroom

Fixtures	1/16 People	Required	Provided
Water Closet (F)	88/ 50	2	2
Water Closet (M)	88/ 50	2	2
Lavatories (F)	88/ 80	2	2
Lavatories (M)	88/ 80	2	2
Drinking Fountains	1/ 100	2	2
Service Sink	1	1	1

BUILDING CODE INFORMATION

2012 International Existing Building Code
2012 International Building Code
2016 Connecticut State Building Code
2012 International Energy Conservation Code
(Not applicable- Historic Building)
2012 International Mechanical Code
2012 International Plumbing Code
2014 National Electrical Code (NFPA 70)
2009 ICC/ANSI 117.1
2016 CT Fire Safety Code
2012 International Fire Code

CONSTRUCTION CLASSIFICATION: Type 5B (Existing)

1012 CHANGE OF OCCUPANCY

Existing occupancy: F-1 (Moderate Hazard)
Proposed occupancy: Mixed-use non separated uses
B Business use (Motor Vehicle Showroom and offices)
S-1 Future Motorcycle Repair Shop

1012.4 Means of Egress
Existing F-1 use: 4 relative hazard
Proposed B use: 4 relative hazard (Equal hazard)
Proposed S-1 use: 4 relative hazard (Equal hazard)
- New stairs have been added to comply with Chapter 10 of IBC

1012.5 Height and Area
Existing F-1 use: 3 relative hazard
Proposed B use: 4 relative hazard (Lesser hazard)
Proposed S-1 use: 3 relative hazard (Equal hazard)
- Change in use is to equal or lesser hazard, therefore height and area of existing building shall be deemed acceptable

1012.6 Exterior walls
Existing F-1 use: 2 relative hazard
Proposed B use: 3 relative hazard (Lesser hazard)
Proposed S-1 use: 2 relative hazard (Equal hazard)
- Change in use is to equal or lesser hazard, therefore existing exterior walls and openings shall be deemed acceptable

IEBC 1012.2 FIRE PROTECTION: A fire protection system is required if required IBC Chapter 9 for new occupancy.

B Use Group: Fire protection not required
S-1 Use Group: Fire protection not required

A fire protection system in not required but is provided.

IEBC 1012.2.2 FIRE ALARM & DETECTION SYSTEM

A fire alarm system is required if required IBC Chapter 9 for new occupancy.

B Use Group: Fire alarm will be provided
S-1 Use Group: Fire alarm will be provided

Smoke detectors shall be provided throughout the entire building

IEBC 1012.8 HANDICAP ACCESSIBILITY:

Handicap accessibility has been provided on the 1st and 2nd floors as each of those floors have grade access. The 2nd and 3rd Floors are exempt from accessibility as these floors are not serviced by a passenger elevator

IEBC 1012 MEANS OF EGRESS: STAIRS

Two new code compliant egress stairs will be added into the existing building. The east stair will connect the 2nd, 3rd and 4th floors. This stair shall have a 1-Hr rated enclosure as it connects 3 stories. This stair will discharge into a 1-Hr rated lobby. The west stair connects all 4 stories and is rated for 2-Hrs.

The two existing stairs shall remain. These stairs shall be convidence and have not classified as egress stairs. A new 1-Hr rated walls have been added at the tower stair to enclosed the vertical openings. New rated doors have been added to the north stair to provide a rating for the vertical opening.

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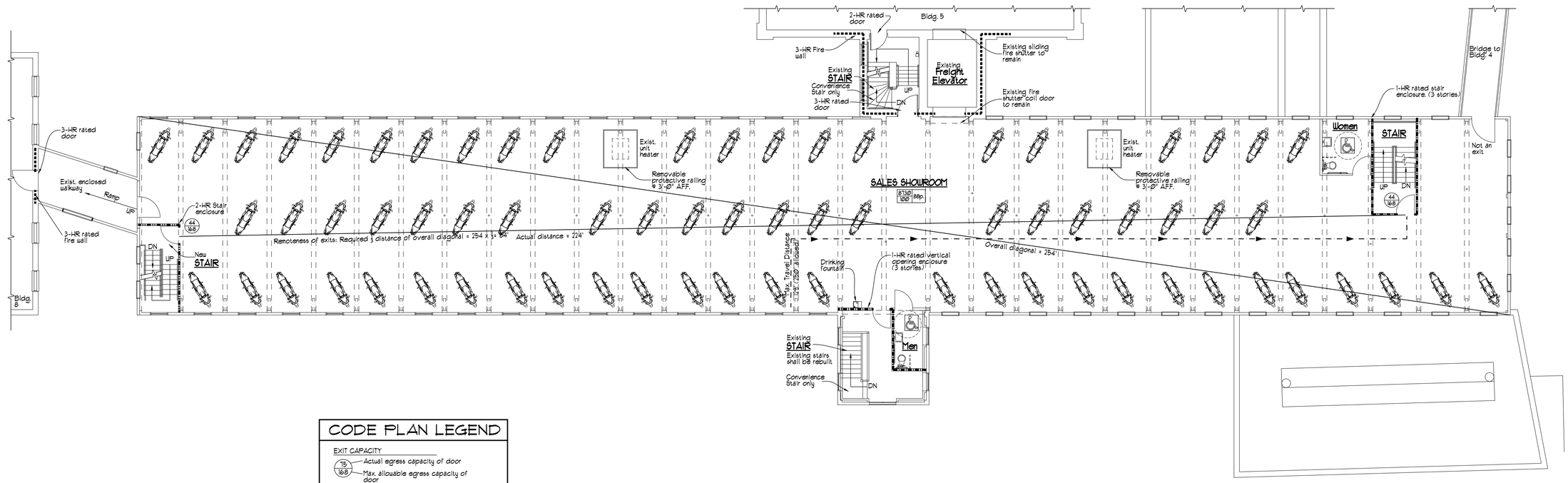
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Date: May 15, 2017
Revisions

Code Information

G-1.1

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CODE PLAN LEGEND

EXIT CAPACITY

- 15 / 168 — Actual egress capacity of door / Max. allowable egress capacity of door

ROOM OCCUPANCY LOAD

- 300 / 20 — 45p. — Room area in square feet / Occupant load / Occupancy load factor
- 18p — Number of occupants exiting / Direction of travel
- 250' — Max. travel dist. / Path of max. travel distance
- 100' — Max. travel dist. / Common Path of Travel

FIRE RATED SEPARATION DESIGNATIONS

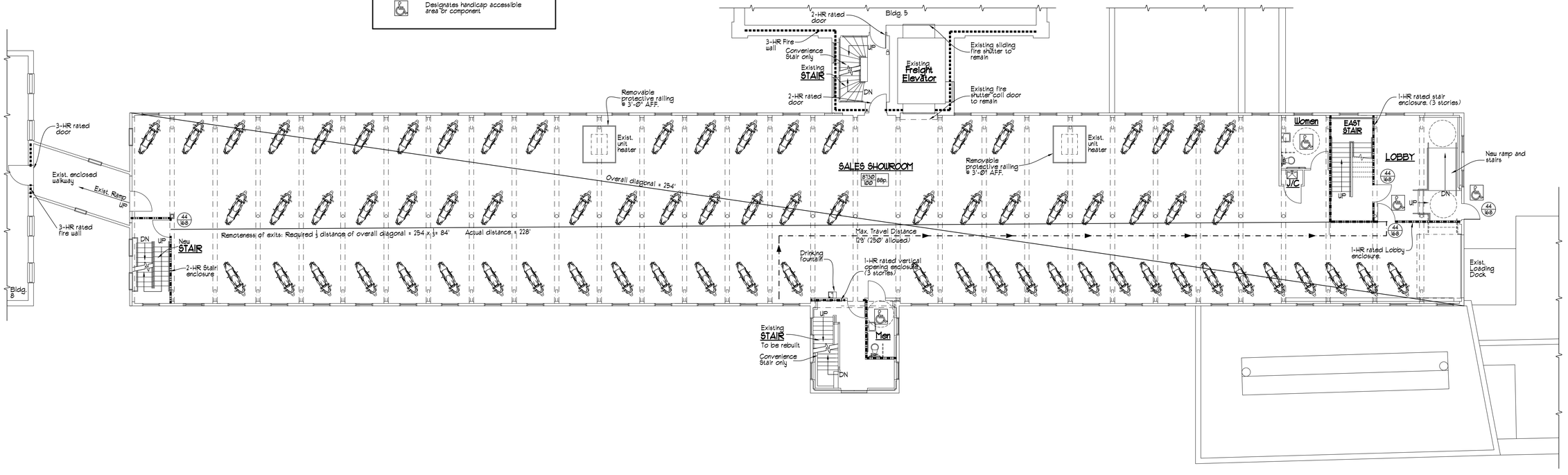
- 3 Hour Fire Rated Wall Assembly
- 2 Hour Exit or Shaft enclosure
- 1 Hour Fire Rated Wall Assembly
- Designates handicap accessible area or component

FLOOR LOADING:	ALLOWABLE	ACTUAL
	80 LBS/SF.	80 LBS/SF.

Entire floor shall be B Use group
Floor Area: 9,752 SF.

BLDG. 2&3 THIRD FLOOR PLAN
SCALE: 1/8"=1'-0"

NORTH



FLOOR LOADING:	ALLOWABLE	ACTUAL
	100 LBS/SF.	125 LBS/SF.

Entire floor shall be B Use group
Floor Area: 9,752 SF.

BLDG. 2&3 SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

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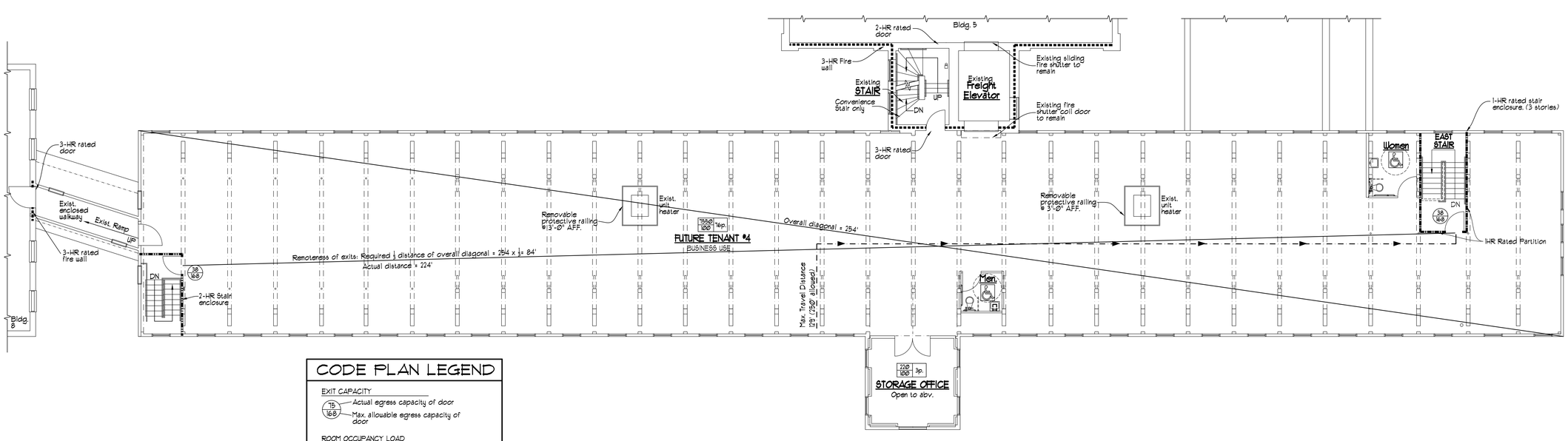
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CODE PLAN LEGEND

EXIT CAPACITY

- 75 / 168 — Actual egress capacity of door / Max. allowable egress capacity of door

ROOM OCCUPANCY LOAD

- 300 / 20 — 45p — Room area in square feet / Occupant load / Occupancy load factor
- 18p — Number of occupants exiting / Direction of travel
- 250' — Max. travel dist. / Path of max. travel distance
- 100' — Max. travel dist. / Common Path of Travel

FIRE RATED SEPARATION DESIGNATIONS

- 3 Hour Fire Rated Wall Assembly
- 2 Hour Exit or Shaft enclosure
- 1 Hour Fire Rated Wall Assembly
- Designates handicap accessible area or component

	ALLOWABLE	ACTUAL
FLOOR LOADING:	80 LBS/SF.	80 LBS/SF.

Floor Area: 9,752 SF.

BLDG. 243 FOURTH FLOOR PLAN

SCALE: 1/8"=1'-0"

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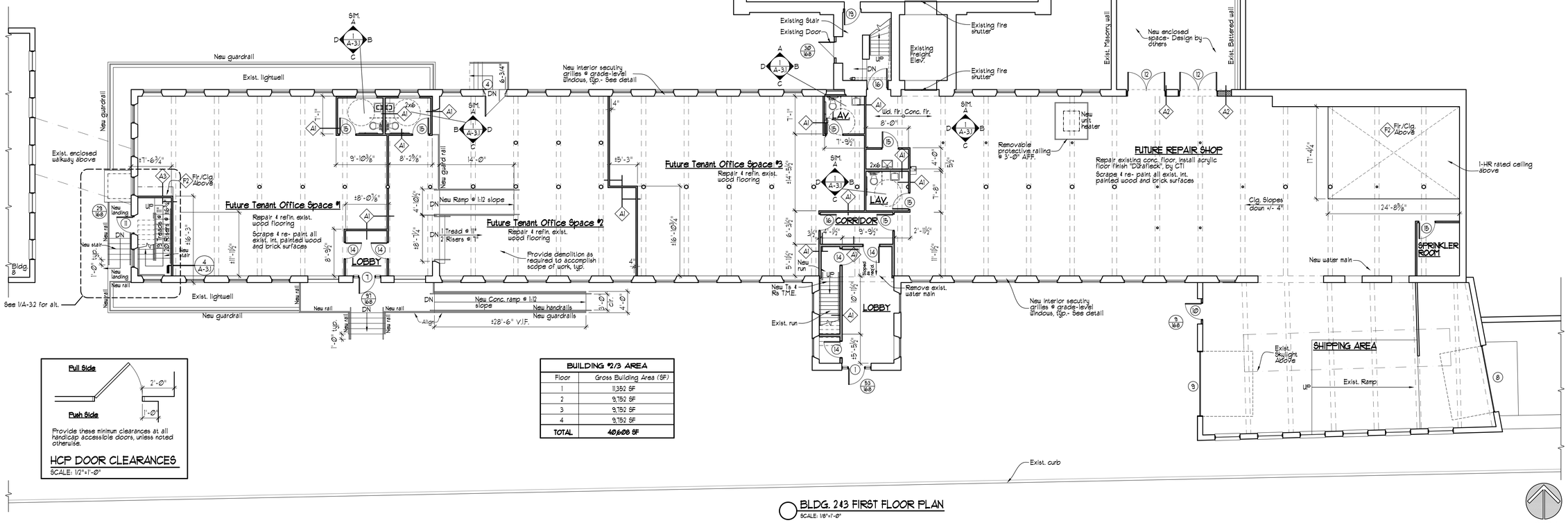
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Full Side

Push Side

Provide these minimum clearances at all handicap accessible doors, unless noted otherwise.

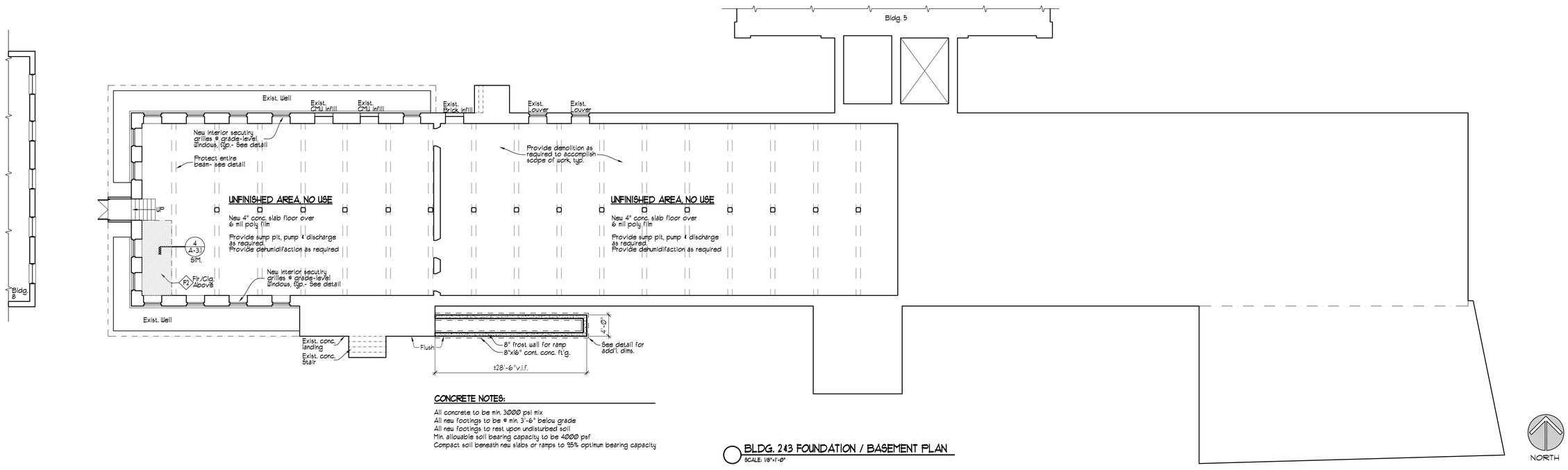
HCP DOOR CLEARANCES

SCALE: 1/2"=1'-0"

BUILDING #2/3 AREA	
Floor	Gross Building Area (SF)
1	11,352 SF
2	9,752 SF
3	9,752 SF
4	9,752 SF
TOTAL	40,608 SF

BLDG. 2&3 FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"



CONCRETE NOTES:

All concrete to be min. 3000 psi mix
All new footings to be @ min. 3'-6" below grade
All new footings to rest upon undisturbed soil
Min. allowable soil bearing capacity to be 4000 psf
Compact soil beneath new slabs or ramps to 95% optimum bearing capacity

BLDG. 2&3 FOUNDATION / BASEMENT PLAN

SCALE: 1/8"=1'-0"

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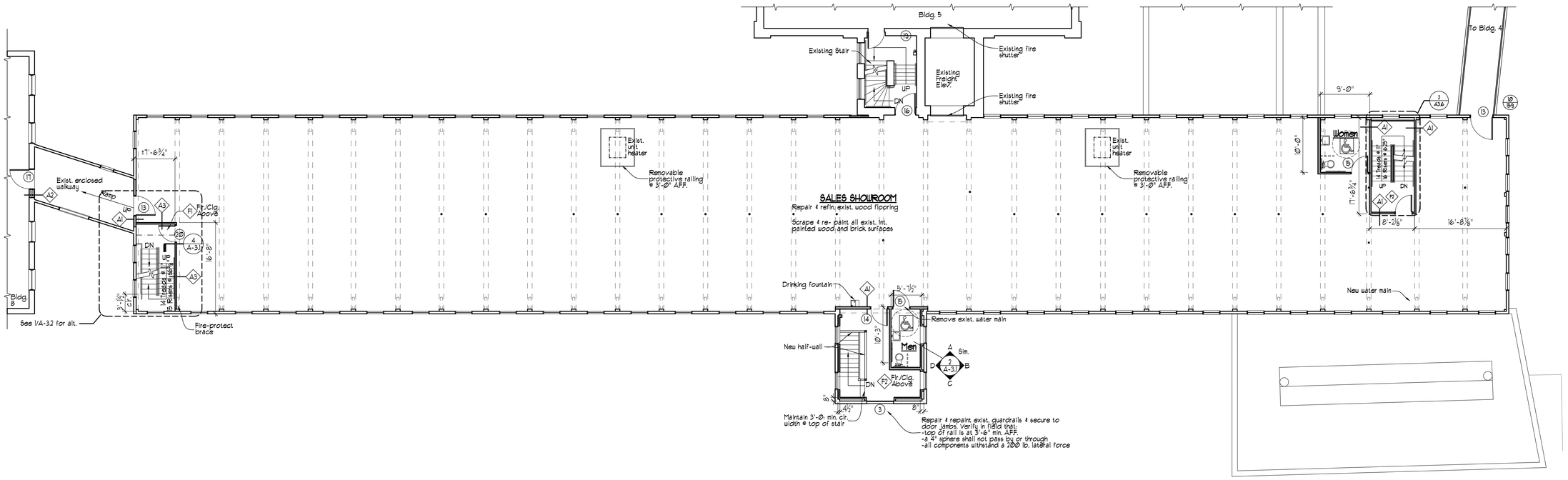
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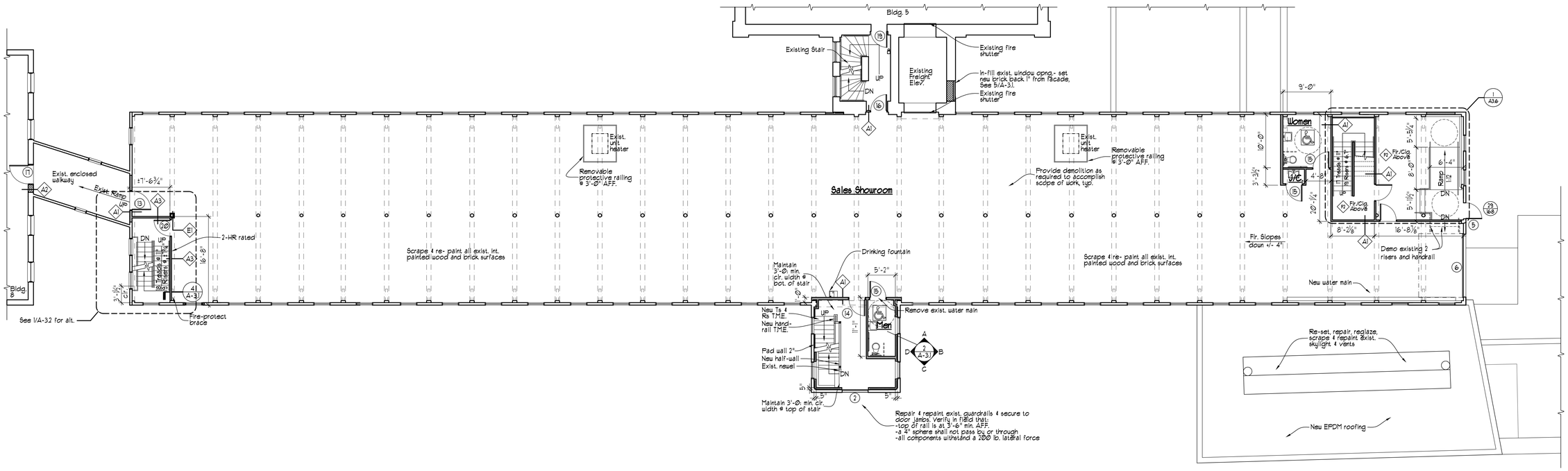
Bldgs. 2 & 3 Floor Plans

A-1.1

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2 BLDG. 2&3 THIRD FLOOR PLAN
SCALE: 1/8"=1'-0"



1 BLDG. 2&3 SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

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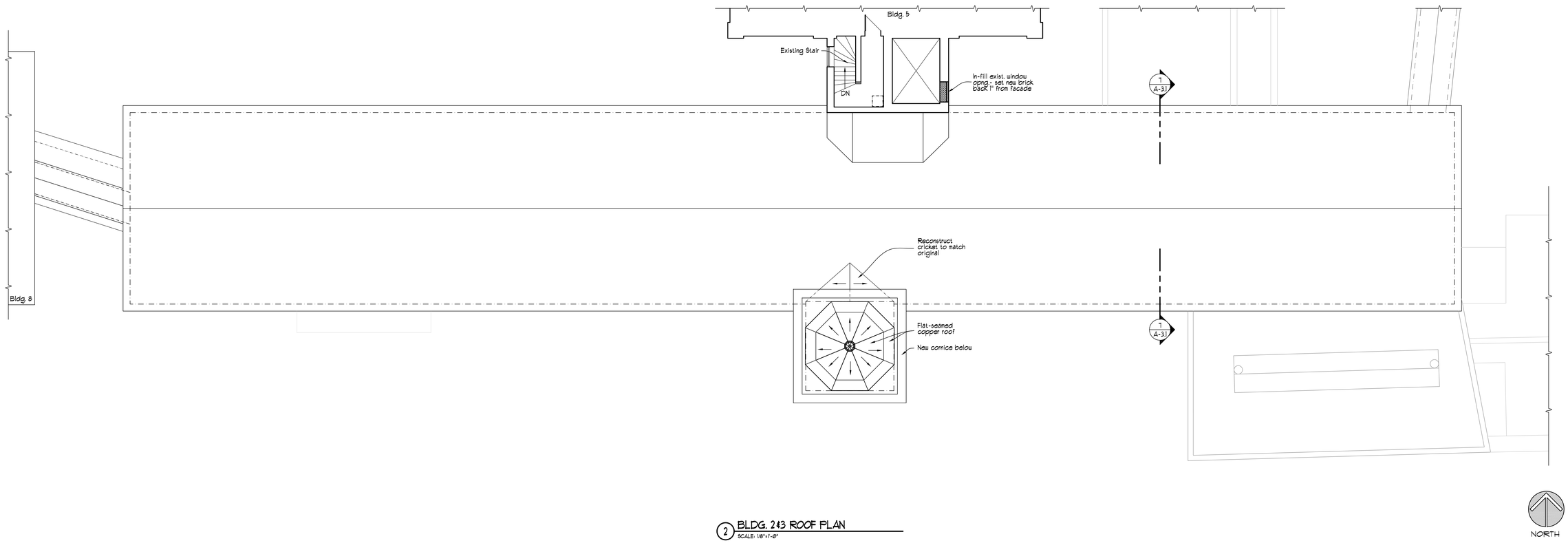
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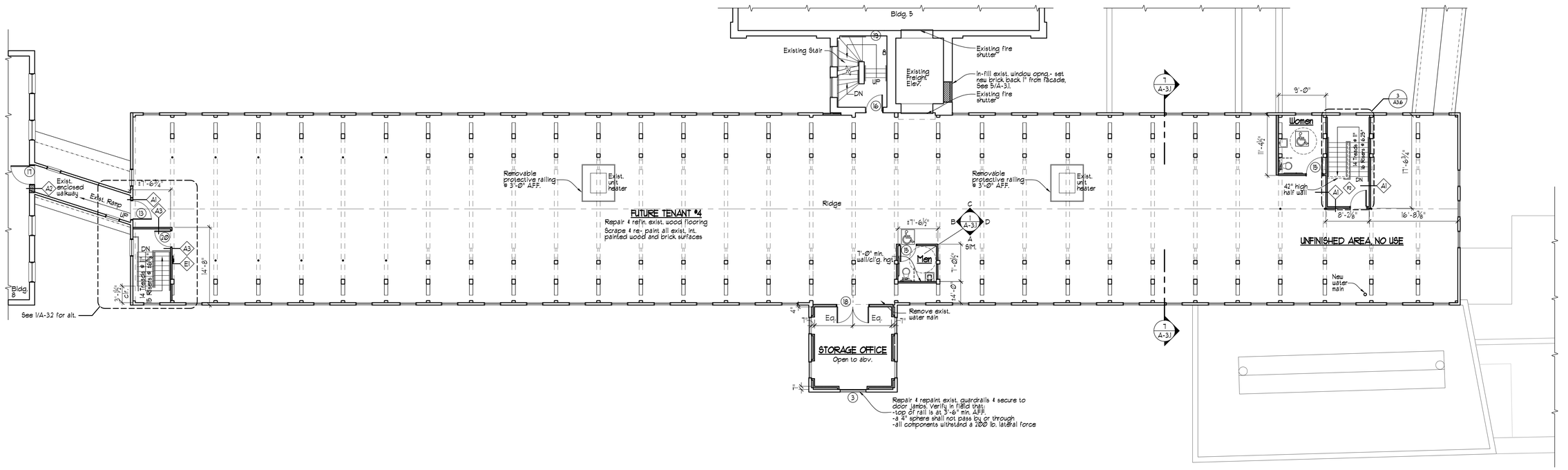
Bldgs. 2 & 3 Floor Plans

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2 BLDG. 2&3 ROOF PLAN
SCALE: 1/8"=1'-0"



1 BLDG. 2&3 FOURTH FLOOR PLAN
SCALE: 1/8"=1'-0"

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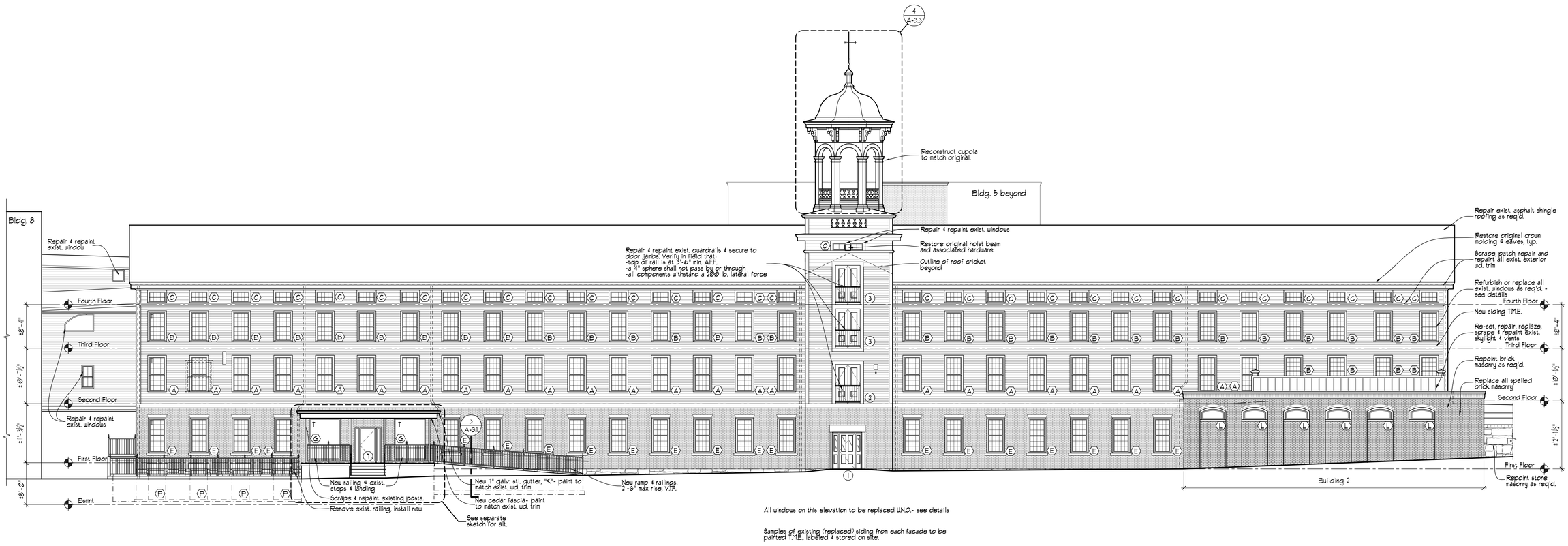
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Bldgs. 2 & 3
Floor Plans

A-1.3

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All windows on this elevation to be replaced U.N.O.- see details

Samples of existing (replaced) siding from each facade to be painted TME, labelled & stored on site.

1 BUILDING 2&3 SOUTH ELEVATION

SCALE: 1/8"=1'-0"

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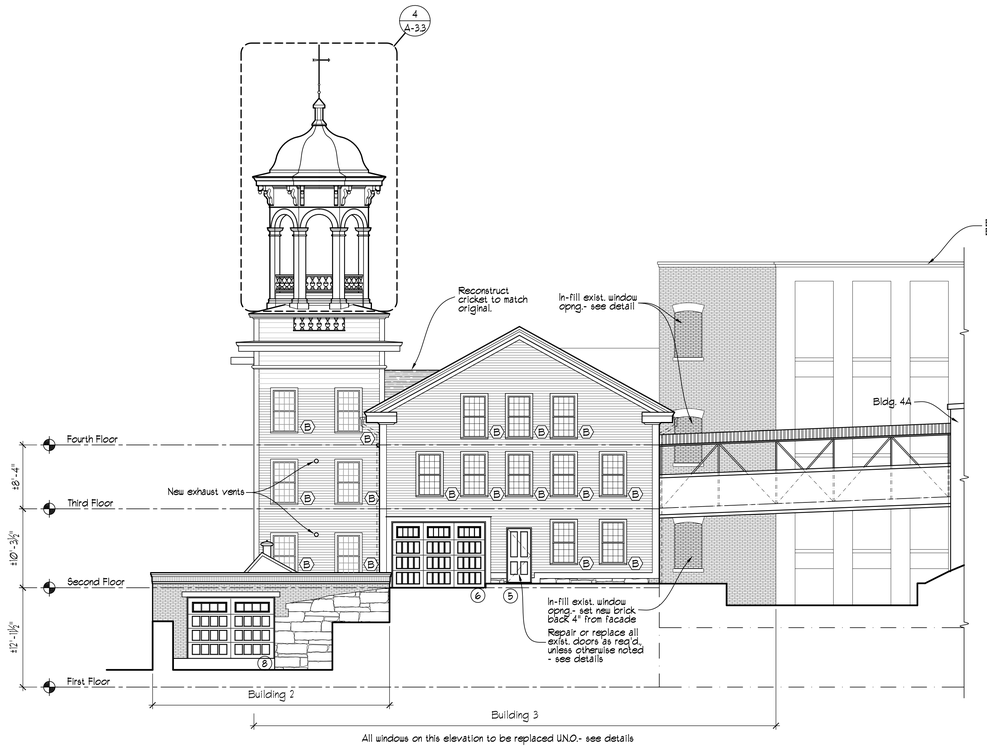
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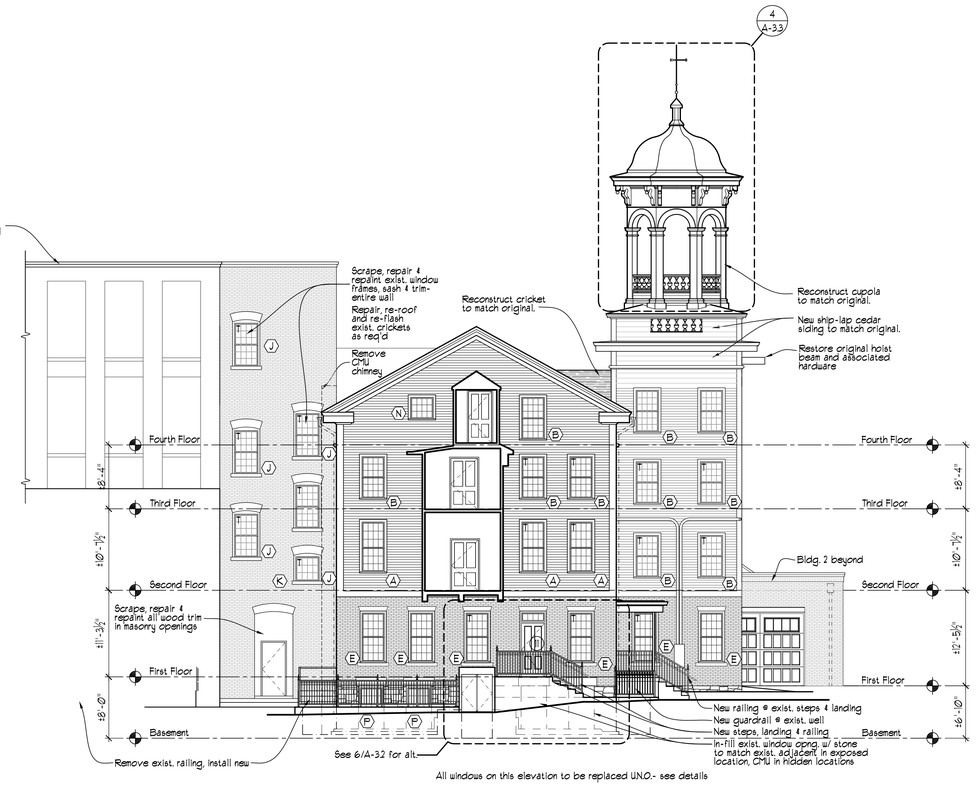
Bldgs. 2 & 3 Elevations

A-2.1

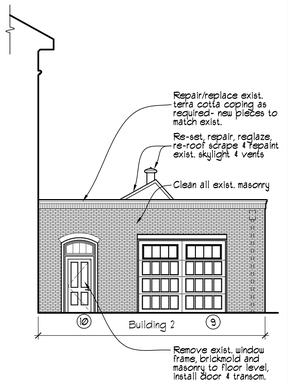
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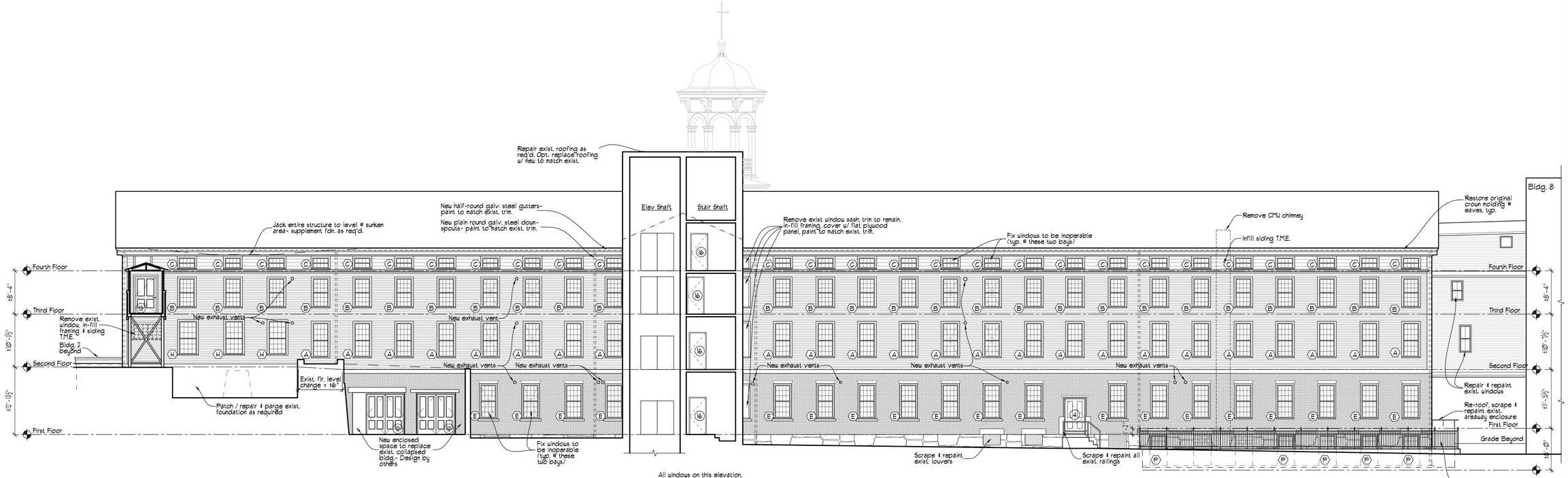
4 BUILDING 2&3 EAST ELEVATION
SCALE: 1/8"=1'-0"



3 BUILDING 2&3 WEST ELEVATION
SCALE: 1/8"=1'-0"



2 PARTIAL WEST ELEVATION
SCALE: 1/8"=1'-0"



1 BUILDING 2&3 NORTH ELEVATION
SCALE: 1/8"=1'-0"

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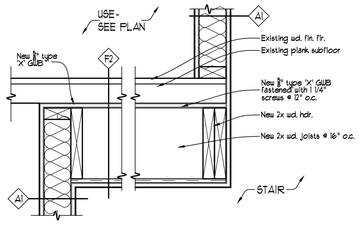
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Revisions

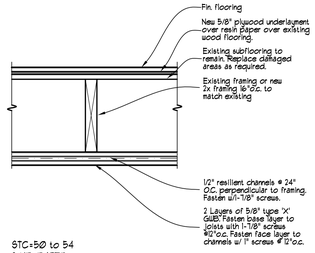
Bldgs. 2 & 3 Elevations

A-2.2

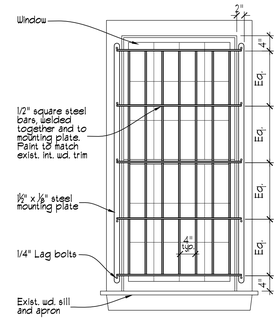
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10 DETAIL AT NEW STAIR / EXISTING FLOOR
SCALE: 1 1/2"=1'-0"

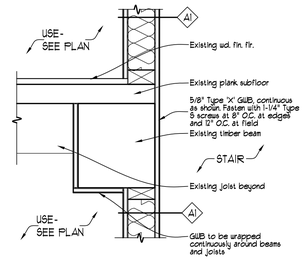


STC+50 to 54
2 HR. RATED
RATED FLR/CLG. CONST.
SCALE: 1-1/2"=1'-0" Sim. to UL No. L511 F1

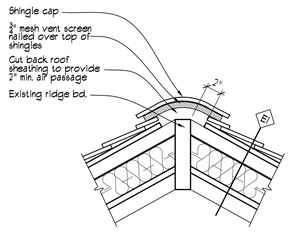


Provide window grilles at all basement- and first floor-level windows, U.N.O.

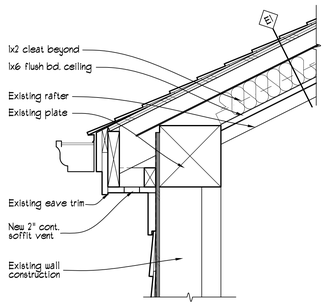
6 WINDOW SECURITY GRILLE DETAIL
SCALE: 3/4"=1'-0"



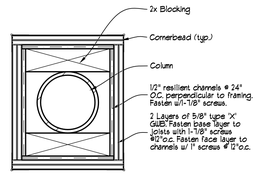
4 DETAIL AT NEW STAIR / EXISTING BEAM
SCALE: 1 1/2"=1'-0"



9 DETAIL AT RIDGE W/ Typical Roof Assembly
SCALE: 1 1/2"=1'-0"

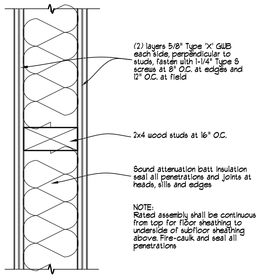


8 DETAIL AT EAVE W/ Typical Roof Assembly
SCALE: 1 1/2"=1'-0"

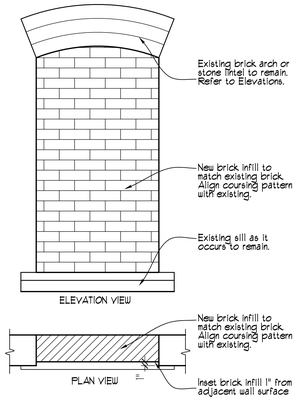


NOTE:
All load bearing assemblies which support a rated assembly shall have the same rating as the assembly it is supporting

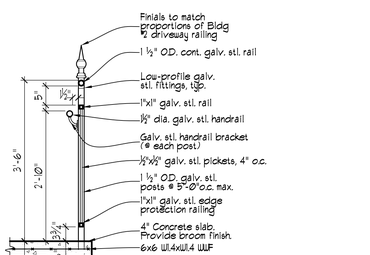
2 HR-RATED ASSEMBLY
COLUMN ENCLOSURE
SCALE: 1 1/2"=1'-0" Sim. to UL No. U334 E1



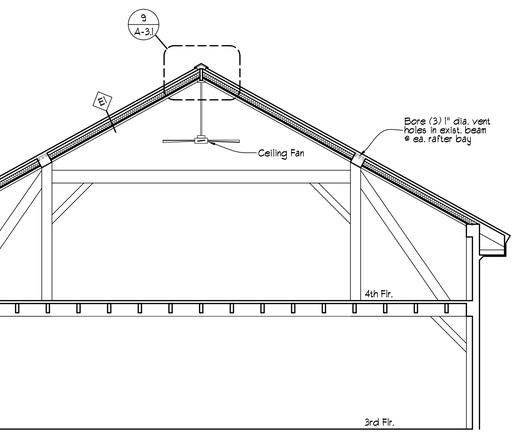
2 HR-RATED PARTITION
TYP. PARTITION
SCALE: 1-1/2"=1'-0" UL No. U305 A3



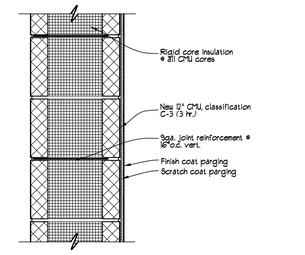
5 DETAIL AT BRICK INFILL OF EXISTING WINDOW
SCALE: 3/4"=1'-0"



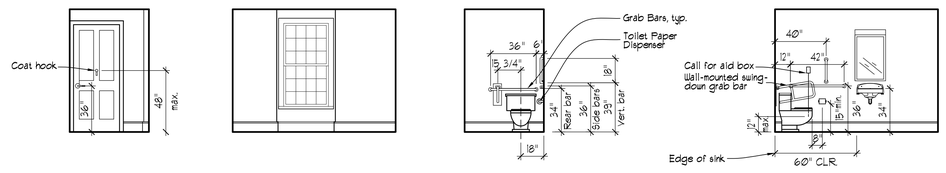
3 CONC. HCP RAMP DETAIL
SCALE: 3/4"=1'-0"



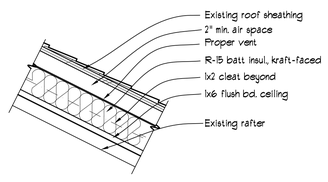
7 PARTIAL BUILDING SECTION
SCALE: 1/4"=1'-0"



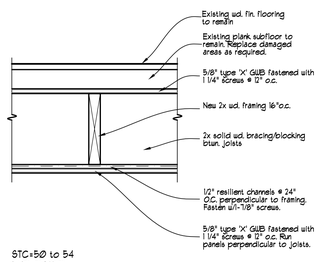
3-HR RATED PARTITION
3-HR CMU WALL
SCALE: 1-1/2"=1'-0" Sim to UL No. U804 A2



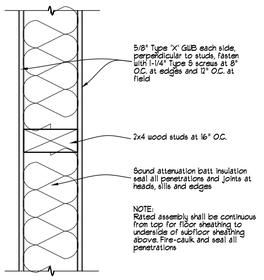
2 LAVATORY ELEVATIONS
SCALE: 1/4"=1'-0"



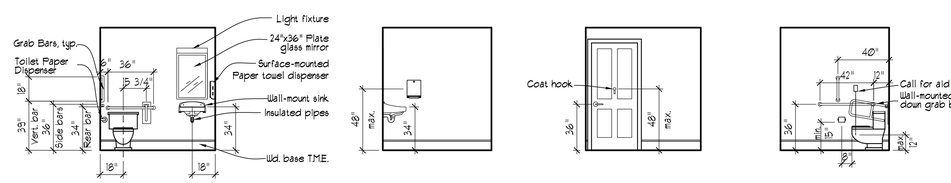
ROOF/CLG. CONST.
SCALE: 1-1/2"=1'-0" E1



STC+50 to 54
1 HR. RATED
RATED FLR/CLG. CONST.
SCALE: 1-1/2"=1'-0" Sim. to UL No. L502 F2



1 HR-RATED PARTITION
TYP. PARTITION
SCALE: 1-1/2"=1'-0" UL No. U305 A1



1 LAVATORY ELEVATIONS
SCALE: 1/4"=1'-0"

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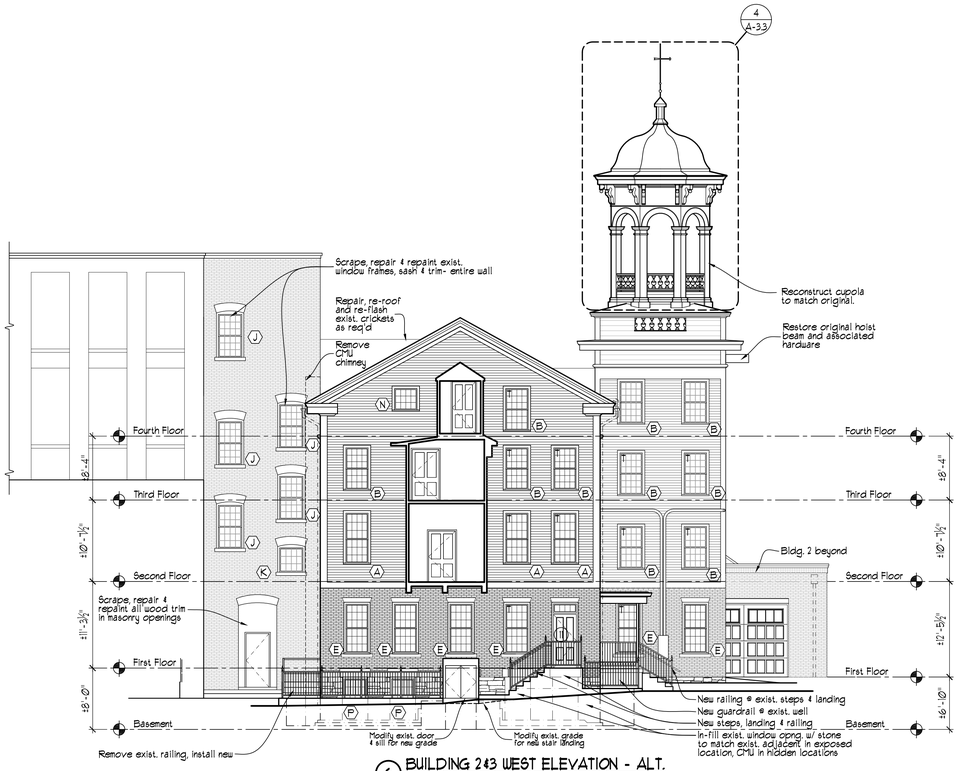
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Bldgs. 2 & 3 Details

A-3.1

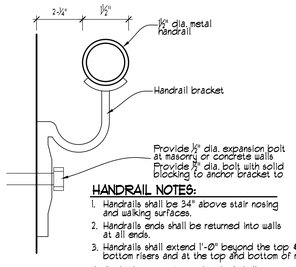
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6 BUILDING 2&3 WEST ELEVATION - ALT.

SCALE: 1/8"=1'-0"

All windows on this elevation to be replaced U.N.O.- see details

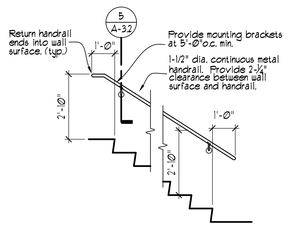


HANDRAIL NOTES:

1. Handrails shall be 34" above stair nosing and walking surfaces.
2. Handrails ends shall be returned into walls at all ends.
3. Handrails shall extend 1'-0" beyond the top & bottom risers and at the top and bottom of ramps.
4. At the bottom of stair, handrail shall continue to slope for a distance of 1'-0" from bottom riser.

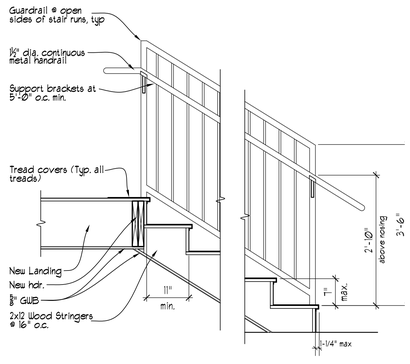
5 HANDRAIL DETAIL

SCALE: 6"=1'-0"



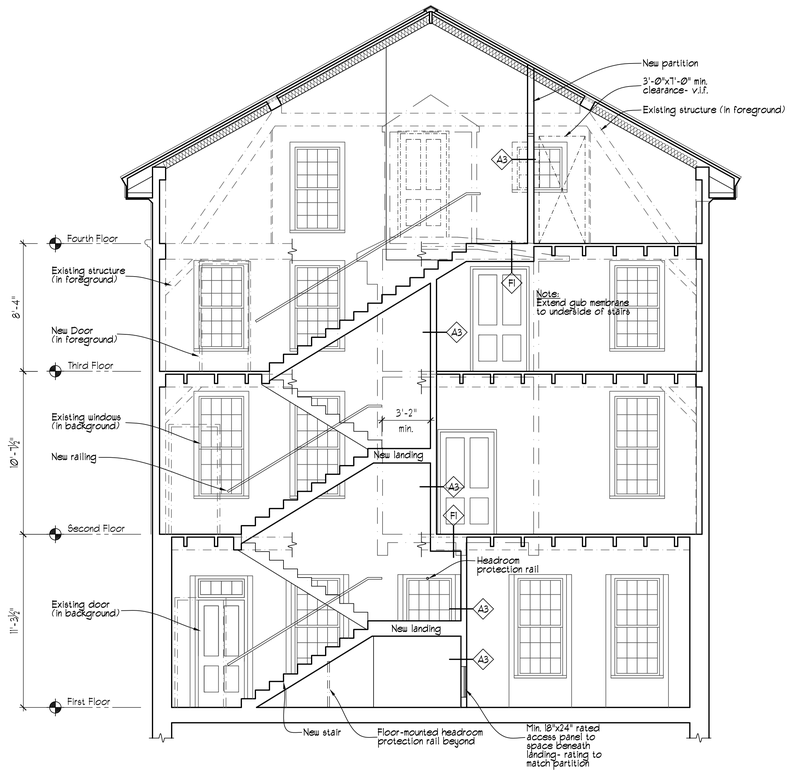
4 HANDRAIL DETAIL

SCALE: 3/8"=1'-0"



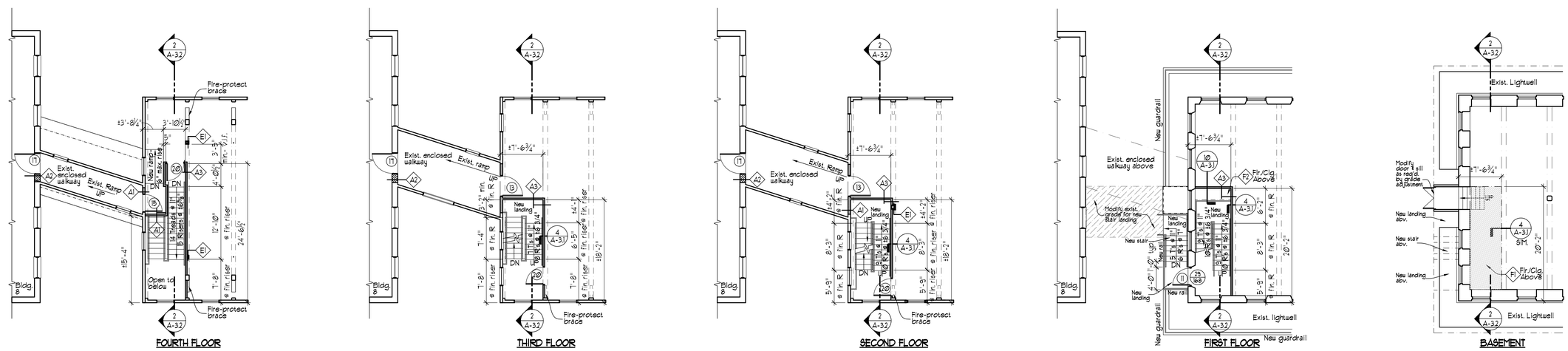
3 STAIR DETAIL

SCALE: 3/4"=1'-0"



2 DIAGRAMMATIC BUILDING SECTION AT STAIR - ALT.

SCALE: 1/4"=1'-0"



1 PLANS @ NEW STAIR - ALT.

SCALE: 1/8"=1'-0"

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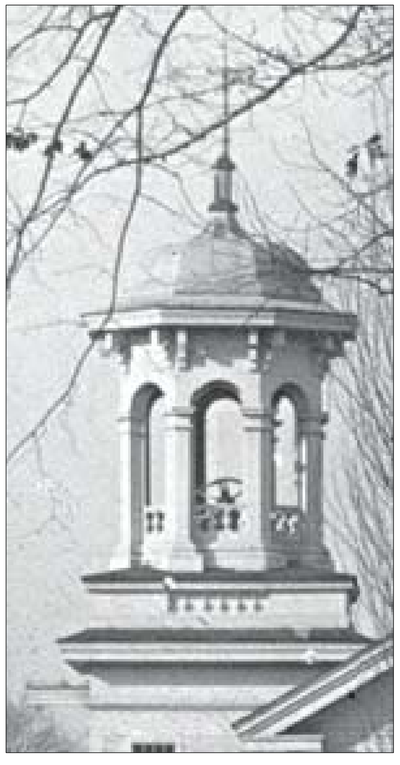
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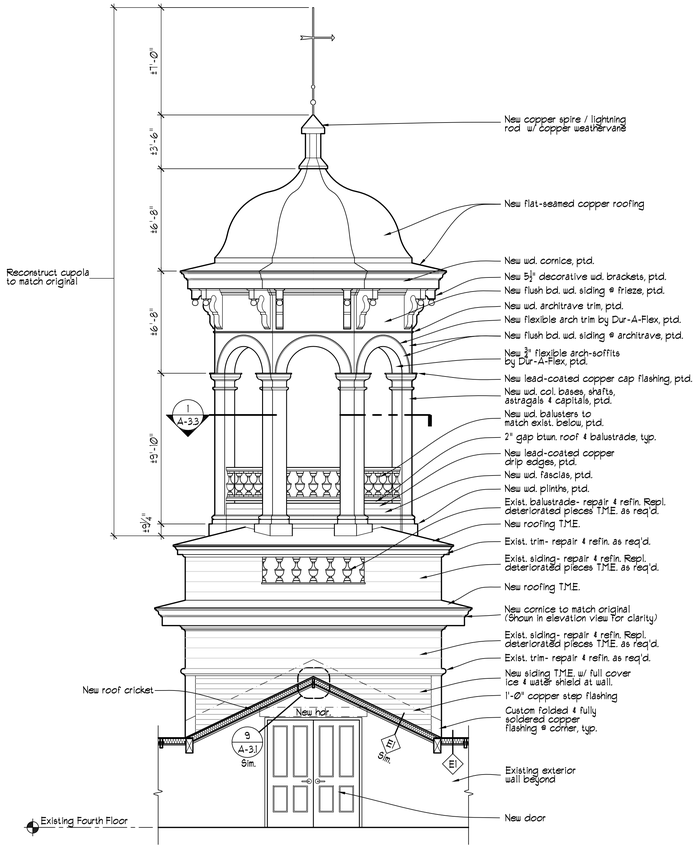
Bldgs. 2 & 3 Details

A-3.2

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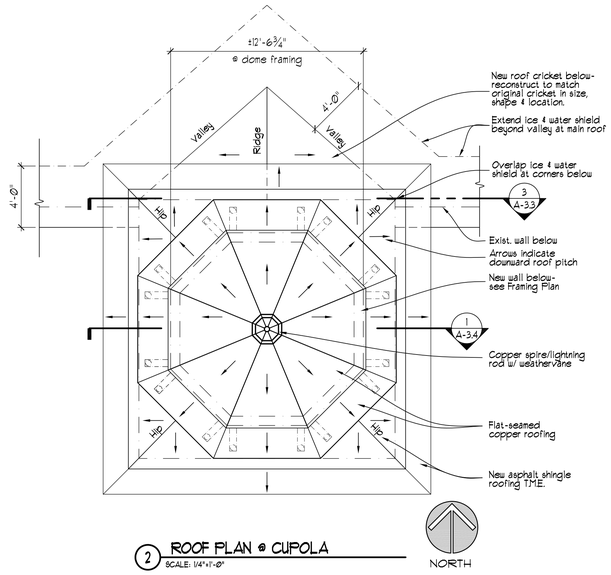


CUPOLA REFERENCE PHOTOGRAPH
SCALE: None

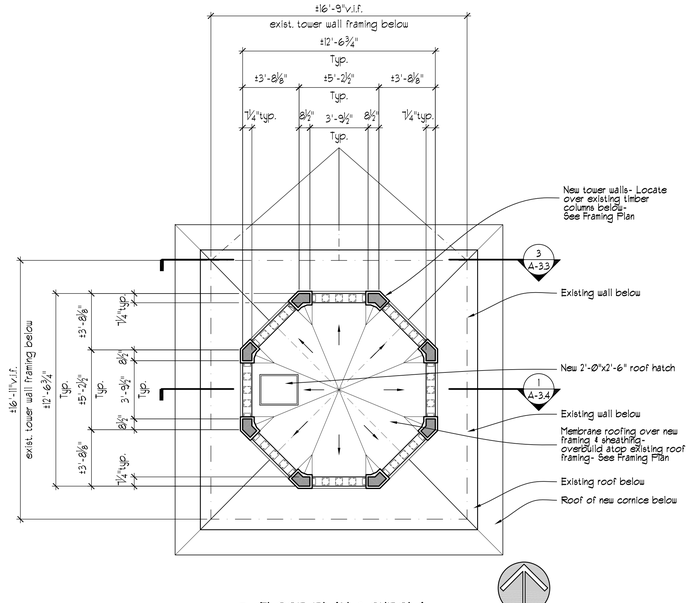


SECTION @ CRICKET / ELEVATION @ CUPOLA
SCALE: 1/4"=1'-0"

Note: Other sides of cupola are sillmar



ROOF PLAN @ CUPOLA
SCALE: 1/4"=1'-0"



FLOOR PLAN @ CUPOLA
SCALE: 1/4"=1'-0"

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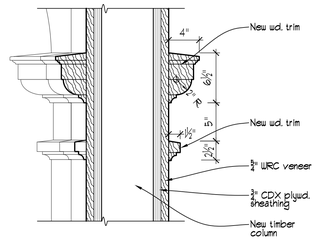
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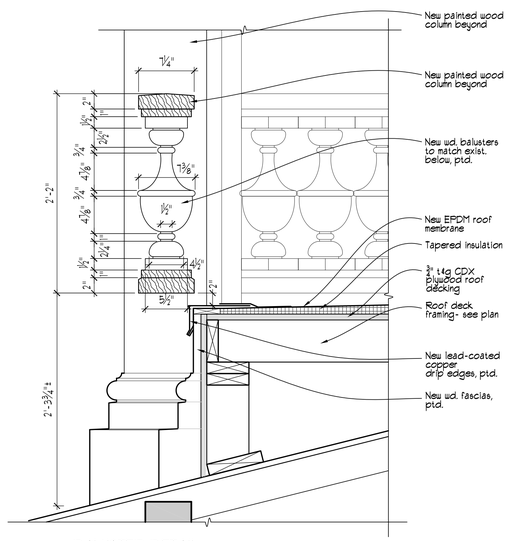
Bldgs. 2 & 3 Cupola & Cricket Plans, Sections & Elevations

A-3.3

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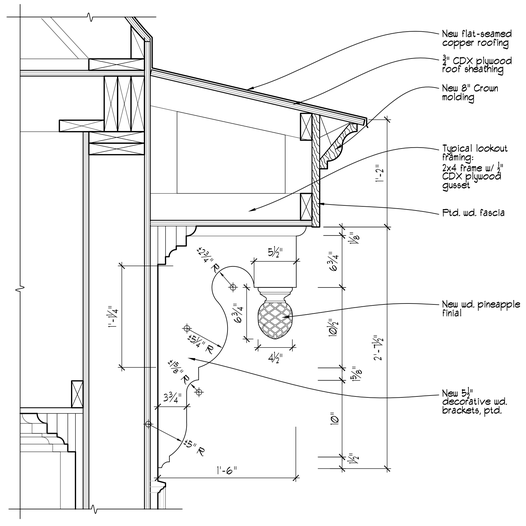


4 TRIM DETAIL
SCALE: 1 1/2"=1'-0"



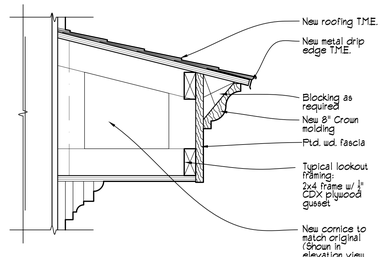
3 BALUSTER DETAIL
SCALE: 1 1/2"=1'-0"

Note:
Rough dimensions shown for approx. size

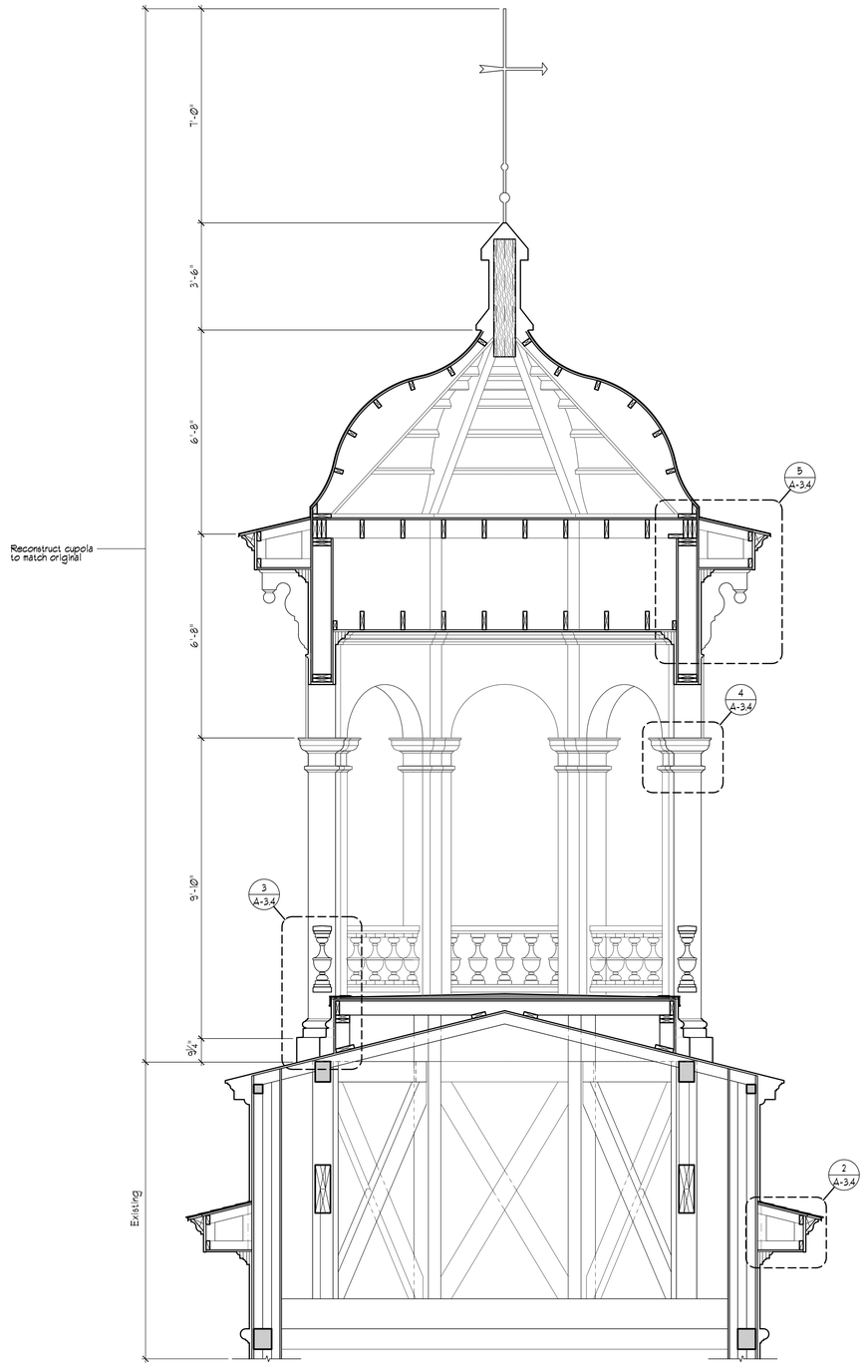


5 BRACKET DETAIL
SCALE: 1 1/2"=1'-0"

Note:
Rough dimensions shown for approx. size



2 CORNICE DETAIL
SCALE: 1 1/2"=1'-0"



1 SECTION AT CUPOLA
SCALE: 1/2"=1'-0"

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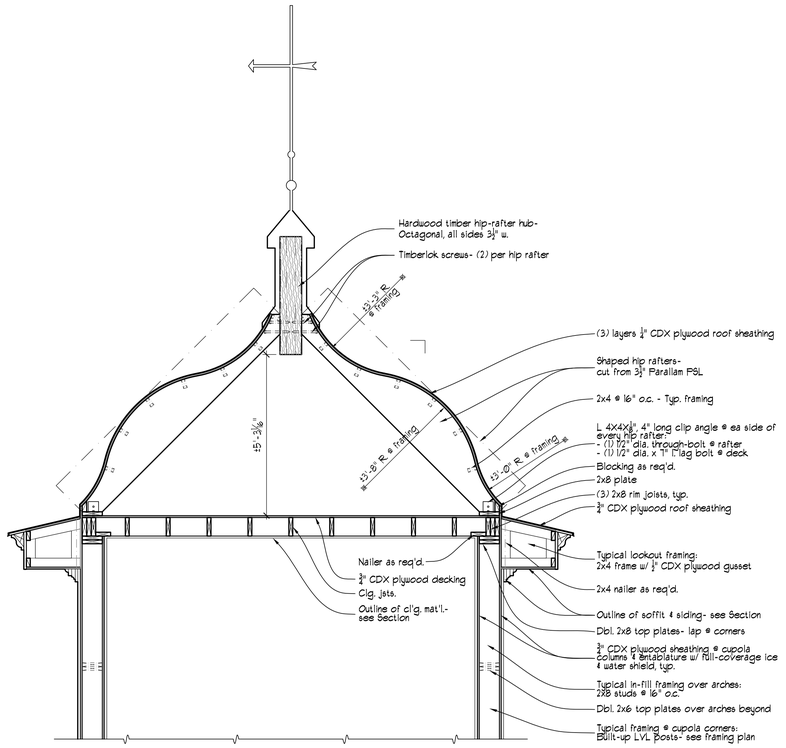
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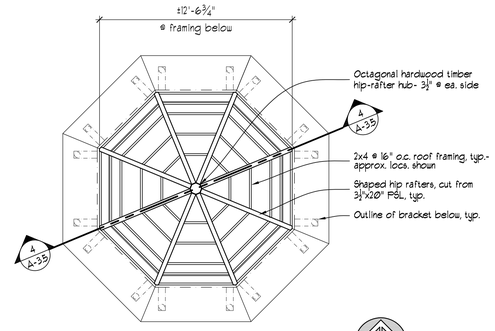
Bldgs. 2 & 3
Cupola Deails

A-3.4

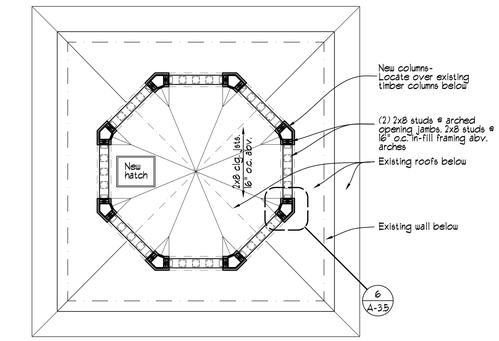
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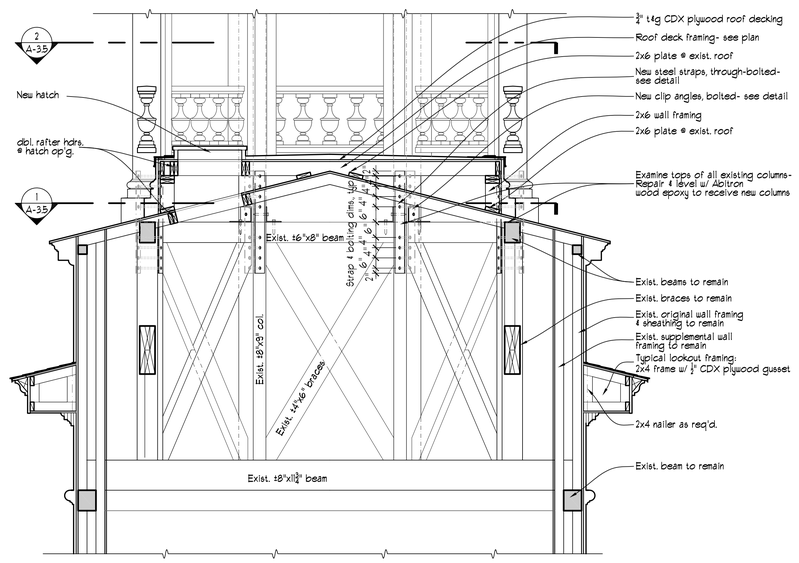
4 ROOF & CEILING FRAMING SECTION @ CUPOLA
SCALE: 1/2"=1'-0"



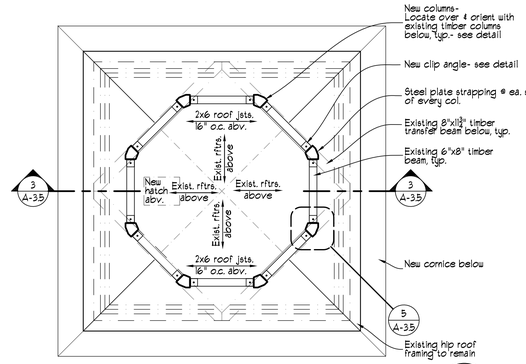
3 ROOF FRAMING PLAN @ CUPOLA
SCALE: 1/4"=1'-0"



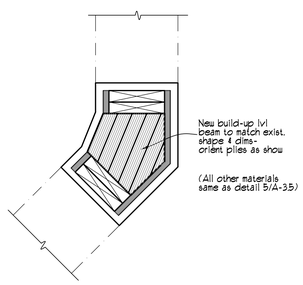
2 WALL & CEILING FRAMING PLAN @ CUPOLA
SCALE: 1/4"=1'-0"



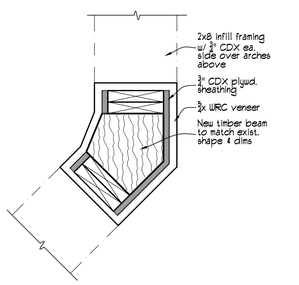
3 FLOOR & CUPOLA FRAMING SECTION AT TOWER
SCALE: 1/2"=1'-0"



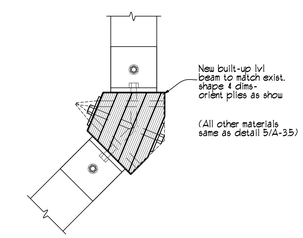
1 NEW COLUMN FRAMING PLAN @ EXIST. TOWER FRAMING
SCALE: 1/4"=1'-0"



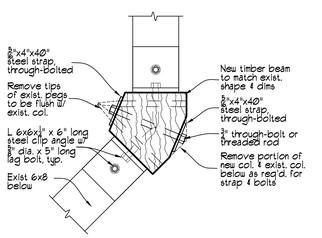
6a PLAN DETAIL @ NEW COLUMNS - CUPOLA - ALT.
SCALE: 1 1/2"=1'-0"



6 PLAN DETAIL @ NEW COLUMNS - CUPOLA
SCALE: 1 1/2"=1'-0"



5a PLAN DETAIL @ NEW COLUMNS - BASE - ALT.
SCALE: 1 1/2"=1'-0"



5 PLAN DETAIL @ NEW COLUMNS - BASE
SCALE: 1 1/2"=1'-0"

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Kaplan Mill Works, LLC

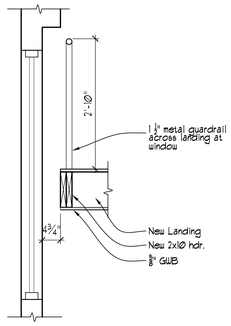
61 Tolland Turnpike, Manchester, CT

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Date: May 15, 2017
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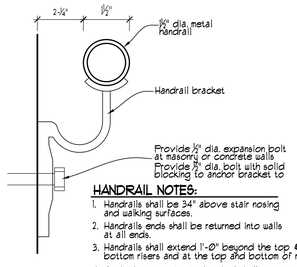
Bldgs. 2 & 3 Cupola Framing Drawings

A-3.5

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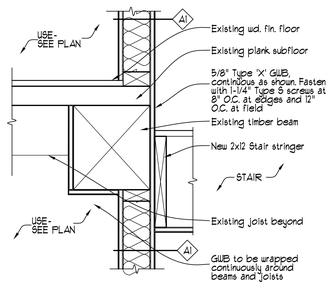
8 GUARDRAIL DETAIL
SCALE: 3/4"=1'-0"



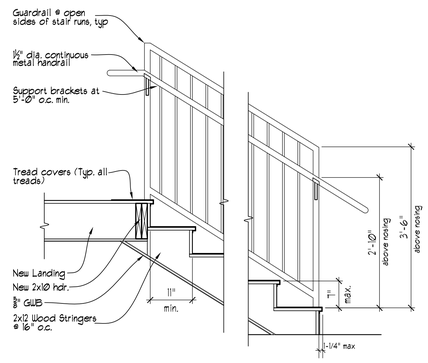
HANDRAIL NOTES:

1. Handrails shall be 34" above stair nosing and walking surfaces.
2. Handrails ends shall be returned into walls at all ends.
3. Handrails shall extend 1'-Ø" beyond the top & bottom risers and at the top and bottom of ramps.
4. At the bottom of stair, handrail shall continue to slope for a distance of 1'-Ø" from bottom riser.

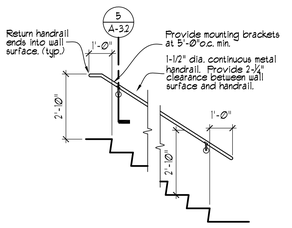
6 HANDRAIL DETAIL
SCALE: 6"=1'-Ø"



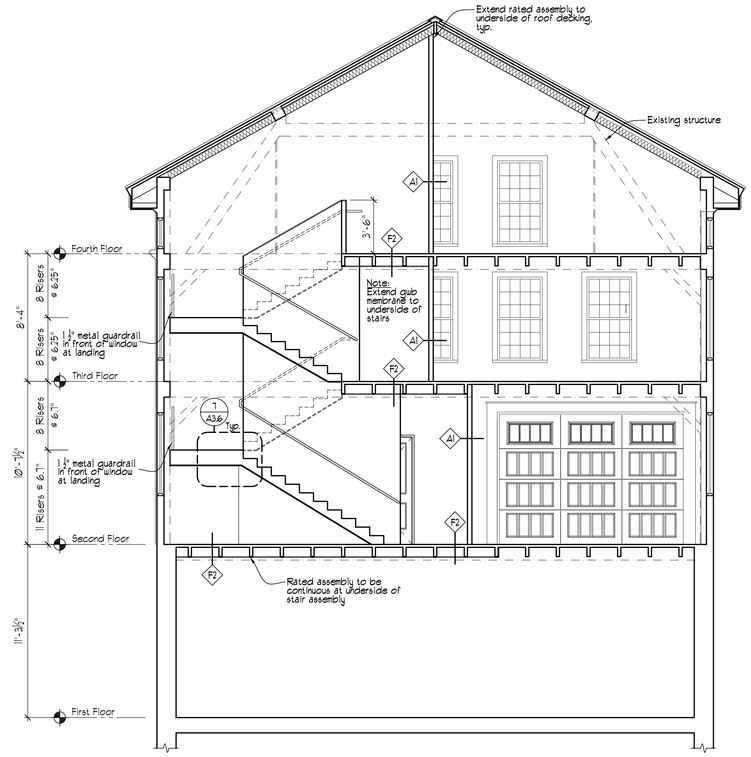
9 DETAIL AT NEW STAIR / EXISTING BEAM
SCALE: 1 1/2"=1'-Ø"



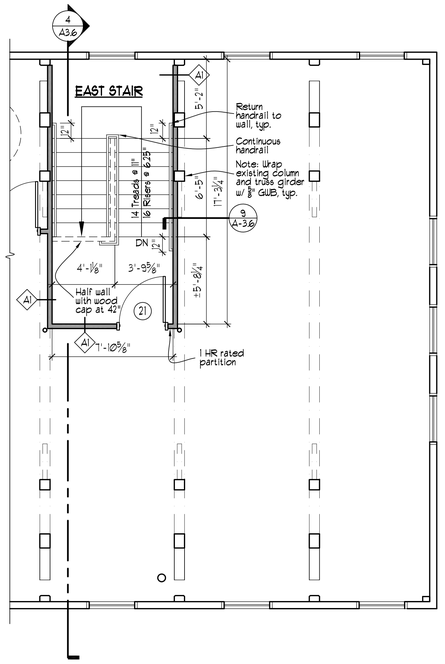
7 STAIR DETAIL
SCALE: 3/4"=1'-Ø"



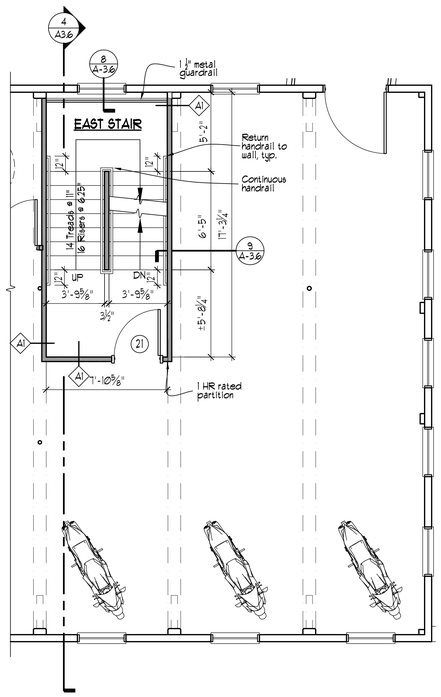
5 HANDRAIL DETAIL
SCALE: 3/8"=1'-Ø"



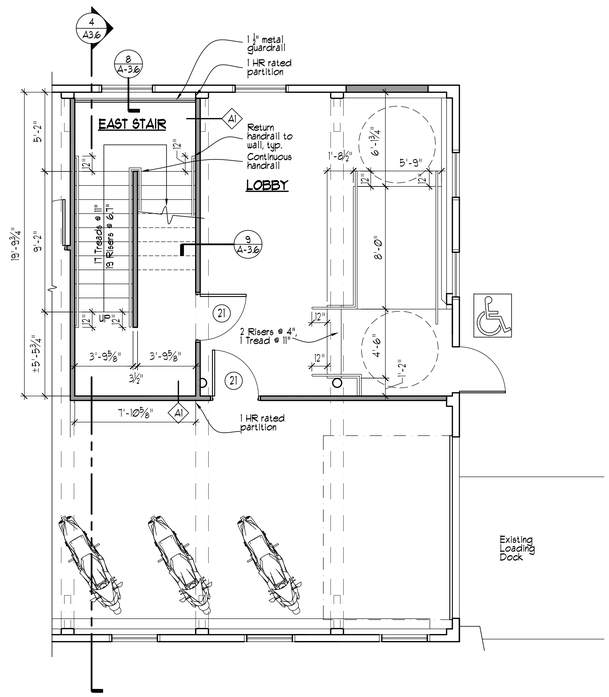
4 EAST STAIR SECTION
SCALE: 1/4"=1'-Ø"



3 FOURTH FLOOR STAIR PLAN
SCALE: 1/4"=1'-Ø"



2 THIRD FLOOR STAIR PLAN
SCALE: 1/4"=1'-Ø"



1 SECOND FLOOR STAIR PLAN
SCALE: 1/4"=1'-Ø"

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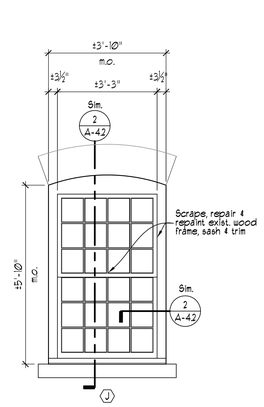
61 Tolland Turnpike, Manchester, CT

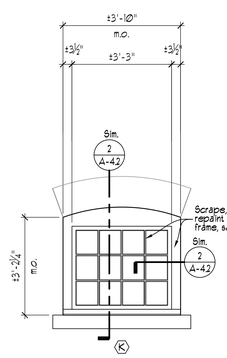
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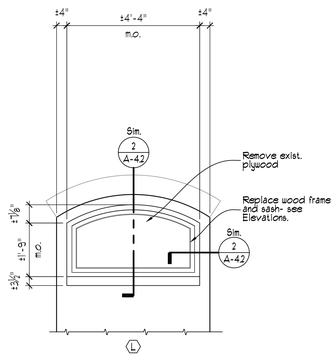
Bldgs. 2 & 3 Stair Section & Enlarged Plans

A-3.6

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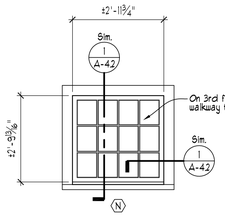


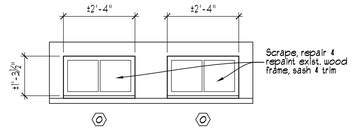


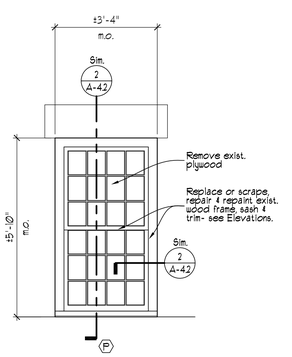


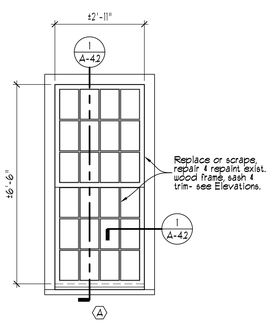
See Elevations for locations of windows to be replaced, and windows to be scraped, repaired and re-painted.

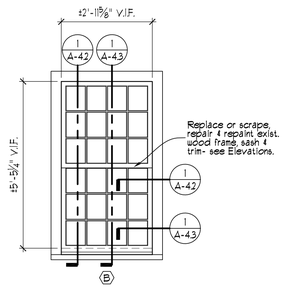
All repaired windows to be re-glazed as required

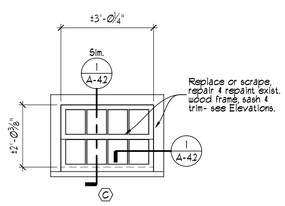


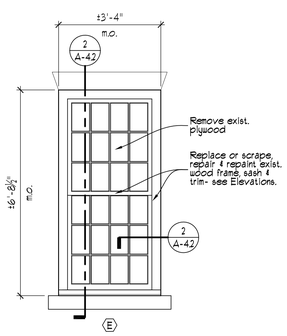


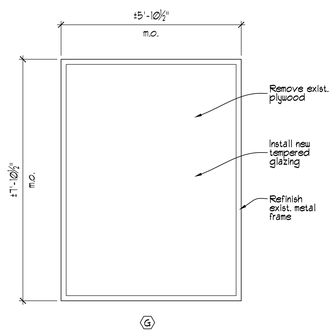


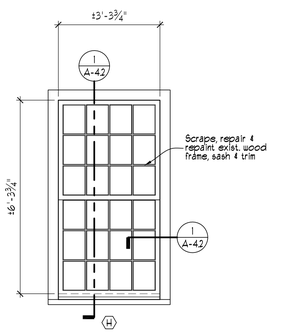












WINDOW ELEVATIONS
SCALE: 1/2"=1'-0"

Verify all dimensions in field.

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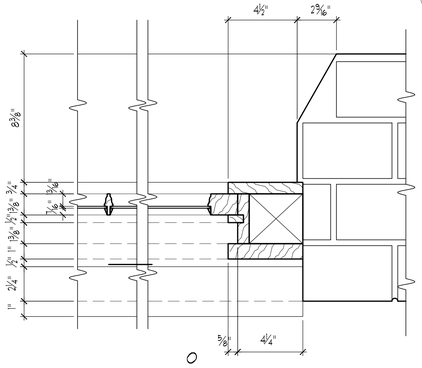
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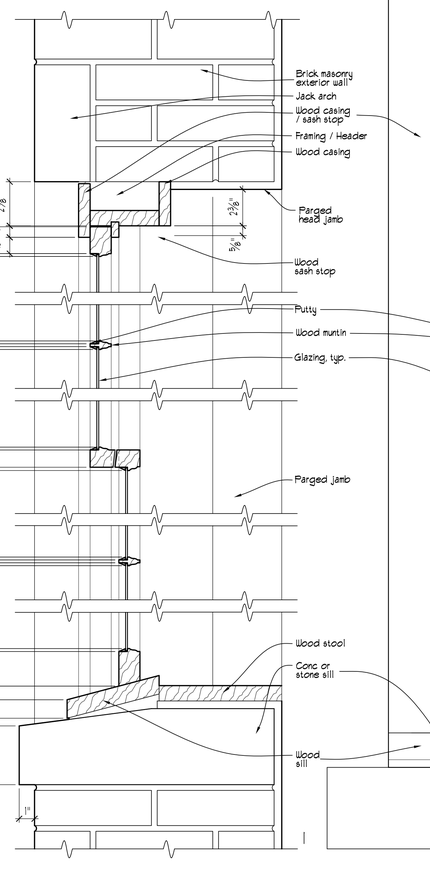
Bldgs. 2 & 3 Window Elevations

A-4.1

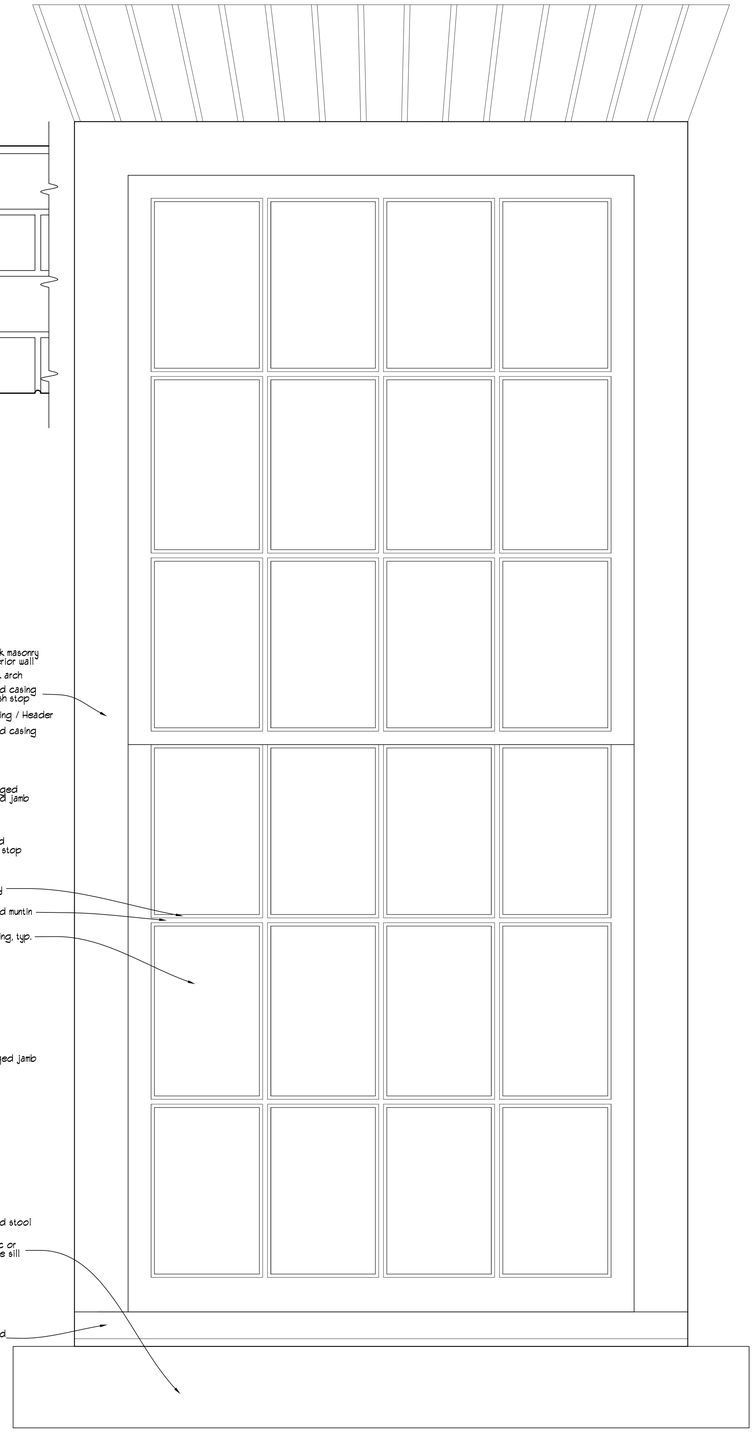
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SECTION AT JAMB



SECTION AT HEAD & SILL



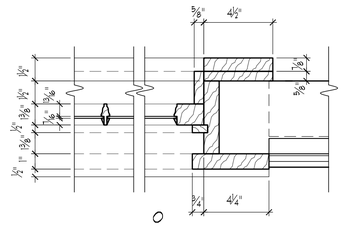
EXTERIOR ELEVATION

Verify all dimensions in field.

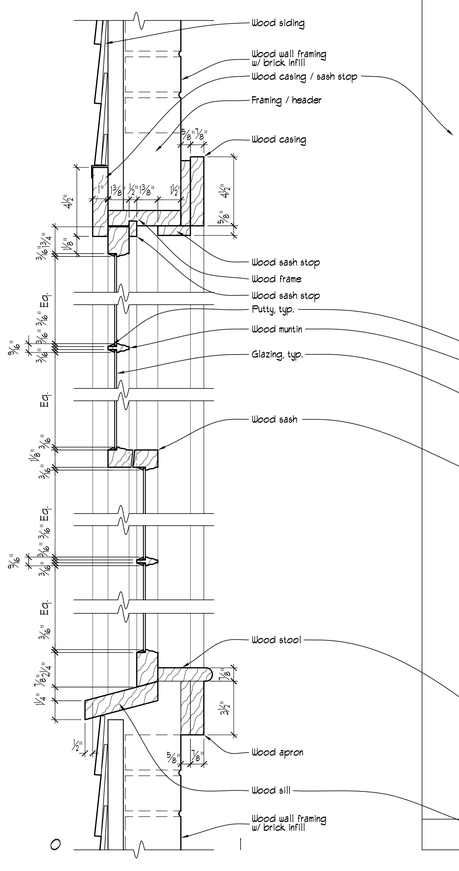
2 TYPICAL DETAILS AT WINDOW - MASONRY EXTERIOR WALL

SCALE: 3"=1'-0"

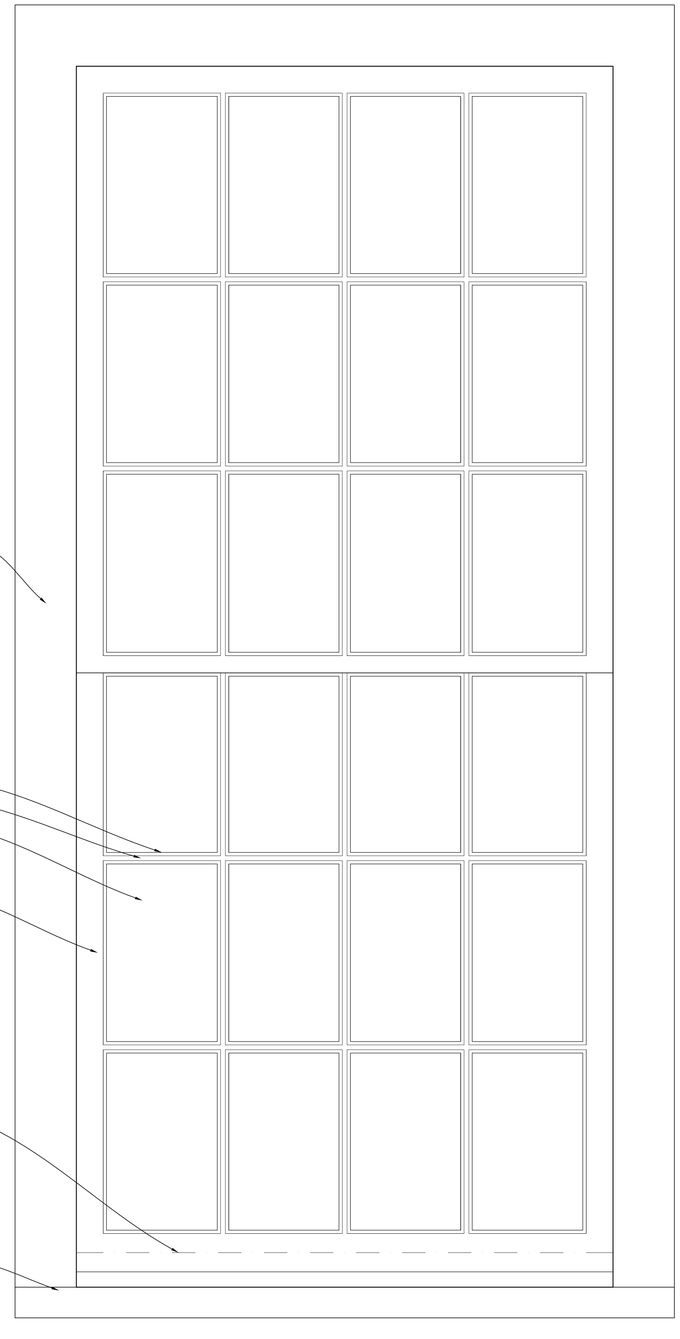
Note:
Existing window unit shown. See drawings by Window Manufacturer for details of proposed window unit



SECTION AT JAMB



SECTION AT HEAD & SILL



EXTERIOR ELEVATION

Verify all dimensions in field.

1 TYPICAL DETAILS AT WINDOW - WOOD-FRAMED EXTERIOR WALL WITH WOOD SIDING

SCALE: 3"=1'-0"

Note:
Existing window unit shown. See drawings by Window Manufacturer for details of proposed window unit

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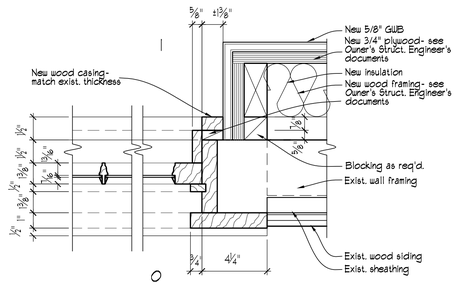
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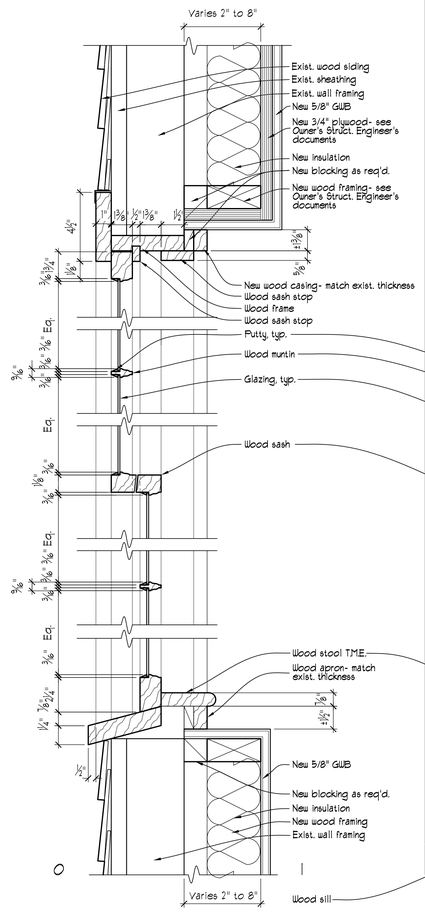
Bldgs. 2 & 3
Window Details

A-4.2

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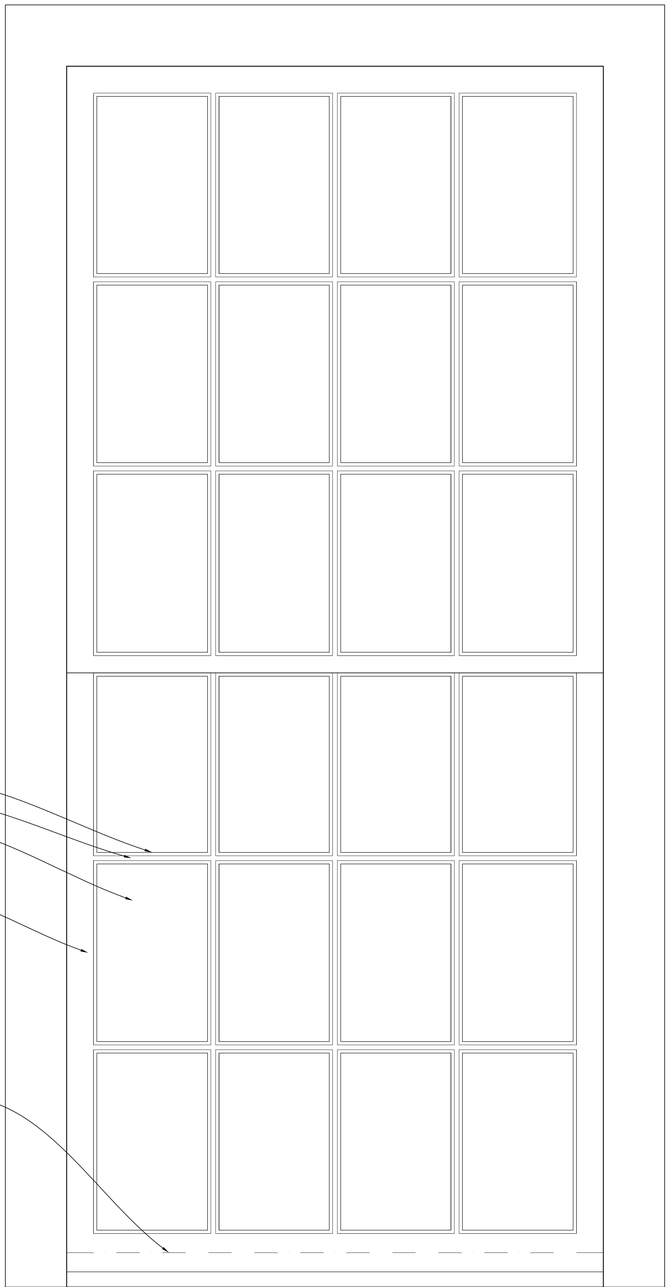


SECTION AT JAMB



Verify all dimensions in field.

SECTION AT HEAD & SILL



EXTERIOR ELEVATION

1 TYPICAL NEW TRIM DETAILS AT WINDOW "B"

SCALE: 3"=1'-0"

Note:

See drawing 1/A-42 for existing trim details

Existing window unit shown. See drawings by Window Manufacturer for details of proposed window unit

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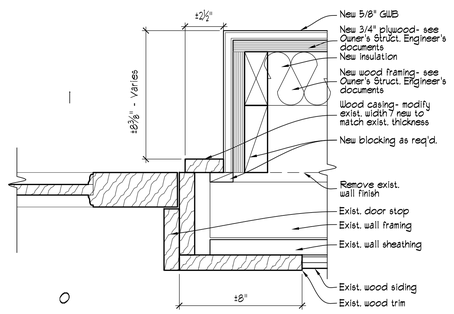
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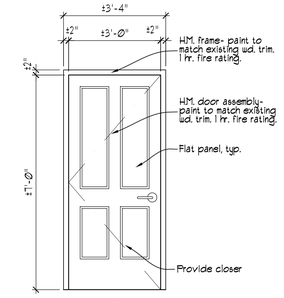
Bldgs. 2 & 3
Window Details

A-4.3

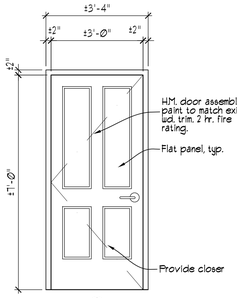
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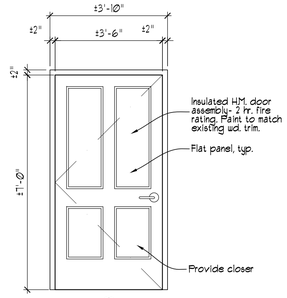
2 TYPICAL NEW HEAD/JAMB TRIM DETAILS AT DOORS "2" & "3"
SCALE: 3"=1'-0"



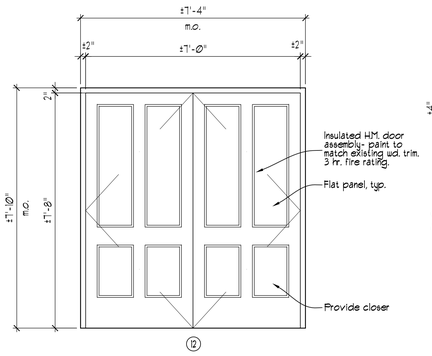
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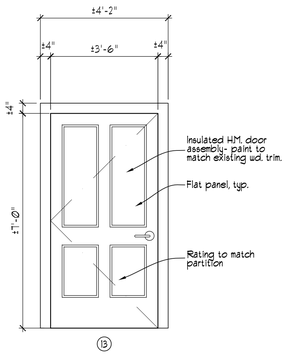
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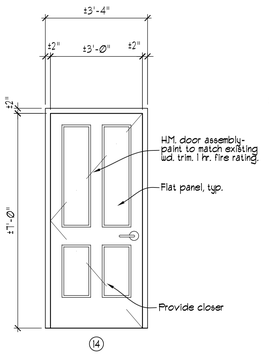
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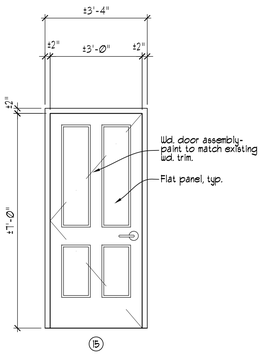
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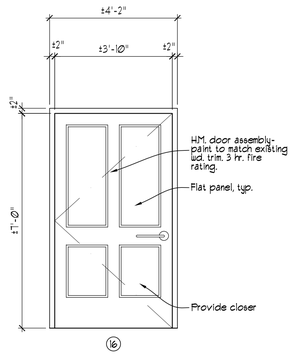
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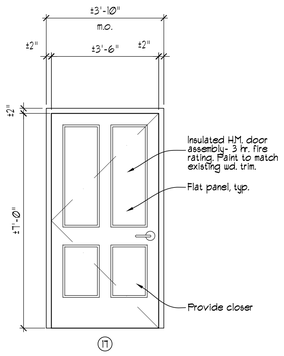
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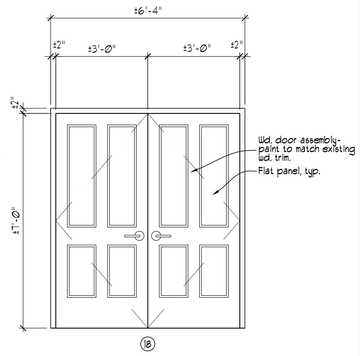
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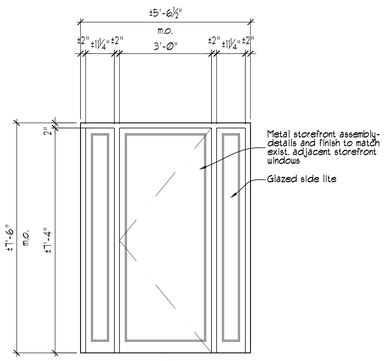
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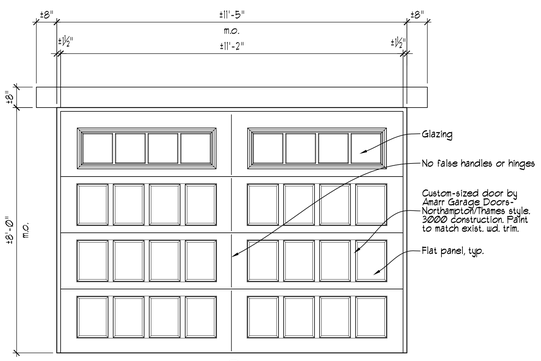
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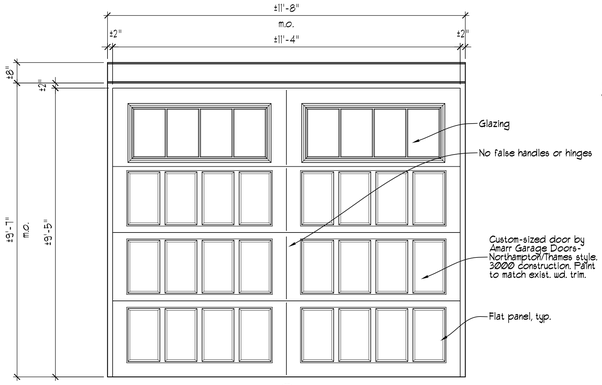
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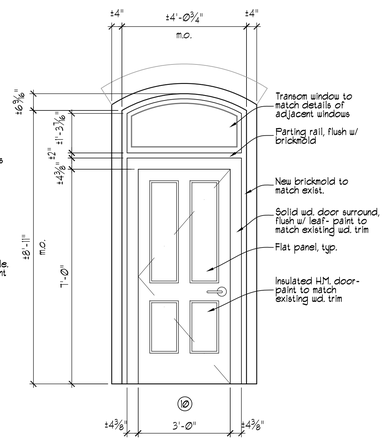
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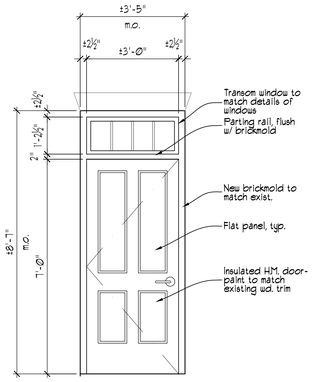
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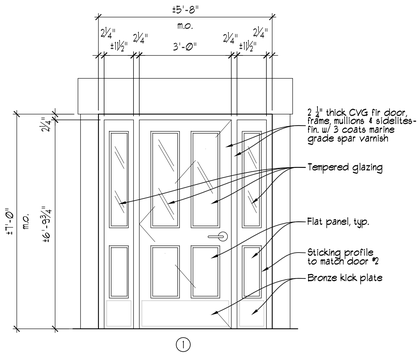
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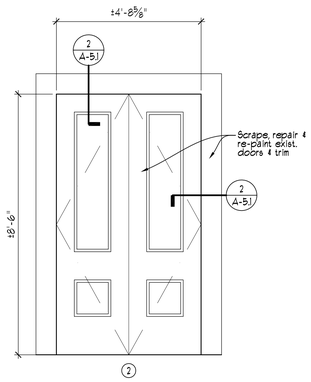
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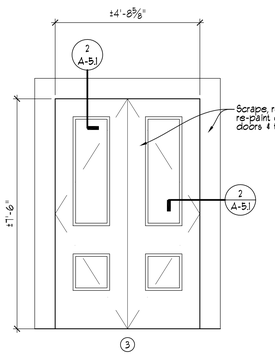
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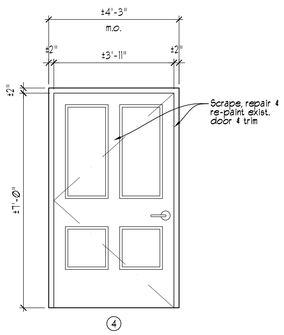
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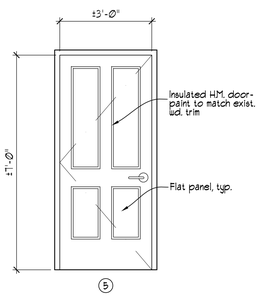
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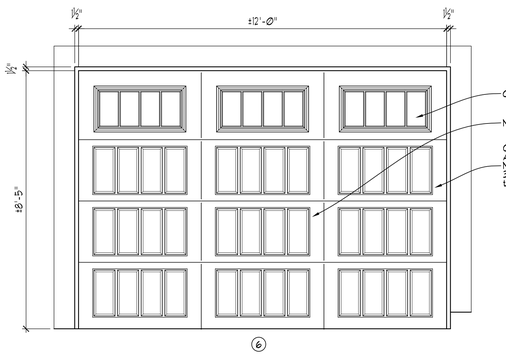
3



4



5



6

1 DOOR ELEVATIONS
SCALE: 1/2"=1'-0"

Verify all dimensions in field.

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200 West Main Street, Rockville, CT

Kaplan Mill Works, LLC
61 Tolland Turnpike, Manchester, CT

Drawn: DG, MB, TN
Date: May 15, 2017
Revisions

Bldgs. 2 & 3
Door Elevations

A-5.1

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HVAC SPECIFICATIONS

PART 1 - GENERAL

1.1. GENERAL

A. Owner's General Conditions are a part of this Division. All work shall be done in strict accordance with all applicable codes and regulations of local and State agencies and utility companies. This Contractor shall bear the cost of all fees, permits, licenses and taxes and any utility company charges in connection with the work.

1.2. SCOPE

A. Intent of the Specifications and Drawings is to call for finished work, tested and ready for operation.

B. Material and equipment mentioned in Specifications or show on the Drawings shall be furnished new, completely installed and adjusted, and left in a clean, safe, and satisfactory condition ready for operation. All supplied appliances and connections of every sort necessary shall be furnished and installed to the satisfaction of the Owner

C. Apparatus, appliances, material, or work not shown on the Drawings but mentioned in the Specifications, or vice versa, or any incidental accessory items such as valves, unions, fittings, etc., necessary to make the work complete, serviceable, and perfect in all respects and ready for operation, even thought not particularly specified or show, shall be provided and installed without additional cost to the Owner.

D. Minor details not usually show or specified, but necessary for the proper installation and operation of the work shall be inclu8ded as if specified herein.

E. All work is new unless noted otherwise.

1.3. SUBMITTALS

A. Submit 6 copies of manufacturer's drawings of the following to the Architect for approval.

B. Submit 6 copies of ductwork shop drawings showing clearances with structural members and major equipment of other trades.

C. Each submittal shall contain a complete list of all materials contained within. Include intended use for each item.

D. Shop drawings shall consist of manufacturer's scale drawings, cuts or catalogs, including descriptive literature and complete characteristics of equipment, including dimensions, capacity, code compliance, motor and drive and testing, construction, electrical characteristics, support, all as required for this project.

E. Certified performance curves shall be submitted for all fan and pumping equipment. Certified ratings shall be submitted for all operating equipment.

1.4. GUARANTEE

A. Materials, equipment and workmanship shall have standard warranty against defects in material and workmanship. Any failure due to defective or improper material, equipment, workmanship or design shall be made good, forthwith, by and at the expense of the Contractor, including any damage done to areas, materials and other systems resulting from this failure. Guarantee period shall extend for one year from Date of Acceptance.

B. The HVAC Contractor shall provide a guarantee covering all material and workmanship for 1 year following the date of acceptance.

1.5. DEFINITION

A. As used on Contract Documents, the term "to provide" shall mean "to furnish, install and connect completely in the specified or approved manner the item or material described."

1.6. OPERATING AND MAINTENANCE INSTRUCTIONS

A. Upon completion of the project, HVAC Contractor shall fully instruct the Owner in the operation, adjustment and maintenance of all equipment and systems furnished.

B. The HVAC Contractor shall provide Owner with 3 sets of complete maintenance and operating instructions, and technical data, in booklet form, of all equipment and devices furnished in Contract.

1.7. CONTRACTOR'S INSPECTION

A. Contract Drawings are diagrammatic and do NOT show every required fitting, etc. Contractor shall familiarize himself with existing site conditions, prior to submitting a bid, and shall include all equipment and accessories necessary for complete and operational systems.

B. The HVAC Contractor shall examine the Architectural Drawings and the drawings and specifications of other trades to determine the extent of work. The HVAC Contractor shall visit the site and become familiar with the project and local conditions before submitting a Bid. Drawings are diagrammatic and indicate the general arrangement of systems and work included in the Contract. If so directed by the Architect or Engineer, the HVAC Contractor shall, without extra charge, make reasonable modifications in the layout to prevent conflict with those of other trades and for proper installation of work. Refer to Architect's reflected ceiling plan for exact location of air diffusers, registers and grilles. The Contractor shall coordinate locations of equipment with all trades before starting construction. Any modifications to the equipment layout required for installation shall be performed at no additional cost to the Owner.

1.8. ARRANGEMENT OF WORK

A. Work shall be coordinated between trades to prevent unnecessary interference. Work shall present a neat coordinated appearance. Install work as necessary to provide maximum possible headroom, adequate clearance and ready access for inspection, operation, safe maintenance and repair, and code conformance. Where space appears inadequate, consult Owner before proceeding with installation.

1.9. INSURANCE

A. Furnish insurance certificates required by the Owner.

1.10. PERMITS, LAWS, ORDINANCES, CODES AND STANDARDS

A. Obtain and pay for permits, inspections, licenses and certificates required. Work of this Contract shall meet State Building Code, State Fire Safety Code and other laws, rules and regulations of Local, State and Federal authorities; National Fire Protection Association #90A and #90B; BOCA Mechanical & Plumbing Codes; National Electrical Code; and local utility company requirements. Pay utility company backcharges. Equipment, materials and components listed UL Product Directories, shall bear UL labels.

1.11. FILTERS

A. Any equipment which operates with filters shall have filters and strainers installed at all times.

1.12. WORK BY OTHERS

A. The HVAC Contractor shall install all motors provided under the HVAC Contract ready for wiring by the Electrical Contractor and shall furnish and deliver to the Electrical Contractor wiring diagrams for all motor starters for installation and wiring. The HVAC Contractor shall furnish motor starters, relays and all temperature control equipment to the Electrical Contractor for installation and wiring. The General Contractor shall perform all excavation, backfill, chases, openings, cutting, patching and finish work.

1.13. FIELD MEASUREMENTS

A. The HVAC Contractor shall verify in the field all measurements necessary for the work. Verify thermostat locations with the Owner before installation.

B. The HVAC Contractor shall coordinate supply and return ductwork locations with structure, conduits and piping of other trades.

1.14. WORKMANSHIP

A. Equipment and materials shall be new, of first quality, selected and arranged to fit properly into spaces indicated. Install equipment and materials in accordance with manufacturer's recommendations.

1.15. COORDINATION WITH OWNER

A. All work shall be scheduled with Owner. Interruptions in Owner's access to the site shall be subject to Owner limitations of date and duration.

1.16. OPERATION OF SERVICES AND UTILITIES

A. Shutdown of existing services and utilities shall, without exception, be coordinated with the proper utility and with the Owner as to date, time of day, and duration before any service is interrupted. Notify Owner of estimated duration of shutdown period at least ten days in advance of proposed shutdown.

1.17. PROTECTION

A. Close open ends of work with temporary covers or plugs during construction to prevent entry of obstructing material or damaging water. Protect existing property, equipment and finishes from damage. Repair, to original condition, existing property that has been damaged during execution of the work.

1.18. CUTTING AND PATCHING

A. Areas disturbed by new construction or demolition shall be patched and repaired to match existing conditions. Patch painting of ceilings shall include painting of entire ceiling of room involved. Patch painting of other surfaces shall be to nearest cut-off point.

1.19. WATERPROOFING

A. Provide necessary sleeves, caulking and flashing required to make openings waterproof.

1.20. FIREPROOFING

A. At closing of each working day, provide temporary firestopping in every opening cut between floors and through fire-rated partitions. Permanent firestops shall be provided around sleeves and at other permanent openings through fire-rated partitions and floors, as required. Materials used for fire stopping shall be Class A "Incombustible" with firestopping capabilities equal to that of adjacent construction.

1.21. BASES AND SUPPORTS

A. Provide necessary supports, pads, bases and piers required. Equipment shall be securely attached to building structure in acceptable manner. Attachments shall be of strong and durable nature, as determined by Owner.

1.22. ACCESS

A. Provide adequately sized access doors, for access to concealed equipment and components requiring servicing or inspection. Doors shall have fire ratings equal to construction in which they are located.

1.23. TESTS

A. Perform tests required by Owner, legal authorities and agencies. Each piece of equipment, including motors and controls, shall be operated continuously for minimum one-hour test. Correct all defects appearing during tests, and repeat tests until no defects are disclosed. Final tests shall be made in Owner's presence.

1.24. SEISMIC REQUIREMENTS

A. Submit four copies of a final inspection report which includes: Sealed certification by a structural engineer with P.E. registration in the state in which the project is located, that:

1. Engineer has reviewed the project.
2. Engineer has approved the use of the devices for the particular applications.
3. The devices satisfy Specification- and Code-mandated seismic criteria.

PART 2 - PRODUCTS

2.1. MATERIALS AND METHODS

A. Piping:

1. All piping shall be supported in a manner to prevent vibration or sagging. In no case shall the hanger spacing exceed the distances listed in the BOCA National Mechanical Code.

B. Ductwork:

1. All ductwork and accessories shall be constructed, fabricated and installed in accordance with the latest SMACNA Standards manuals for low pressure ducts, fire damper installations and flexible ductwork.

2. Flexible ducts to air outlets shall be UL Class 1 connectors with airtight core, galvanized wire helix and pre-insulated with one (1") inch, 3/4 pcf fiberglass with a flame retardant vapor barrier. Flexmaster Type IX.

3. All exhaust systems ductwork shall be galvanized sheet metal, two (2") inch static pressure classification, Seal Class "C".

4. Furnish and install UL listed fire dampers and access doors at all duct penetrations of walls, floors, partitions, etc., that are required to have a fire resistance rating. Fire dampers, sleeves, access doors, etc., shall be constructed and installed in conformance to the manufacturer's instructions, NFPA 90A and the building official.

C. Insulation Systems:

1. Duct System Insulation:

a. Insulate all outside air ductwork, exhaust ductwork on cold side of dampers, all plenums connected to louvers with 2" thick, rigid foil-faced fiberglass duct insulation.

2.2. CATEGORY III VENTING SYSTEM

A. Based on M&G DuraVent, Inc. Category III double wall venting system, UL Listed 1738. Pressure rated to 10 inches W.C.

PART 3 - EXECUTION

3.1 FIRE STOPS

A. All penetrations through fire rated walls, ceilings or floors in which pipes or ducts pass shall be sealed with a UL approved fire-stop fitting classified for an hourly rating equal to the rating of the wall, ceiling or floor.

3.2 REMOVAL, RELOCATION AND/OR ABANDONMENT

B. Certain items of existing equipment and piping or ductwork may be indicated for removal, relocation or abandonment. Items noted for removal shall be disconnected and turned over to the Owner or disposed of by the Contractor if the Owner so requests. Items noted for relocation are intended for reuse in another location as designated on the Drawings. It shall be the responsibility of the Contractor to remove the material from its present location, store the material in a safe place and reinstall the material in its new location. Questions regarding the suitability of the material or equipment shall be brought to the attention of the Architect/Engineer in writing. Abandonment shall be defined as abandoning in place any item so designated and shall include proper piping or ductwork termination within any occupied or open area. All abandoned pipes and ducts shall be disconnected and capped at their mains. All abandoned pipes shall be capped.

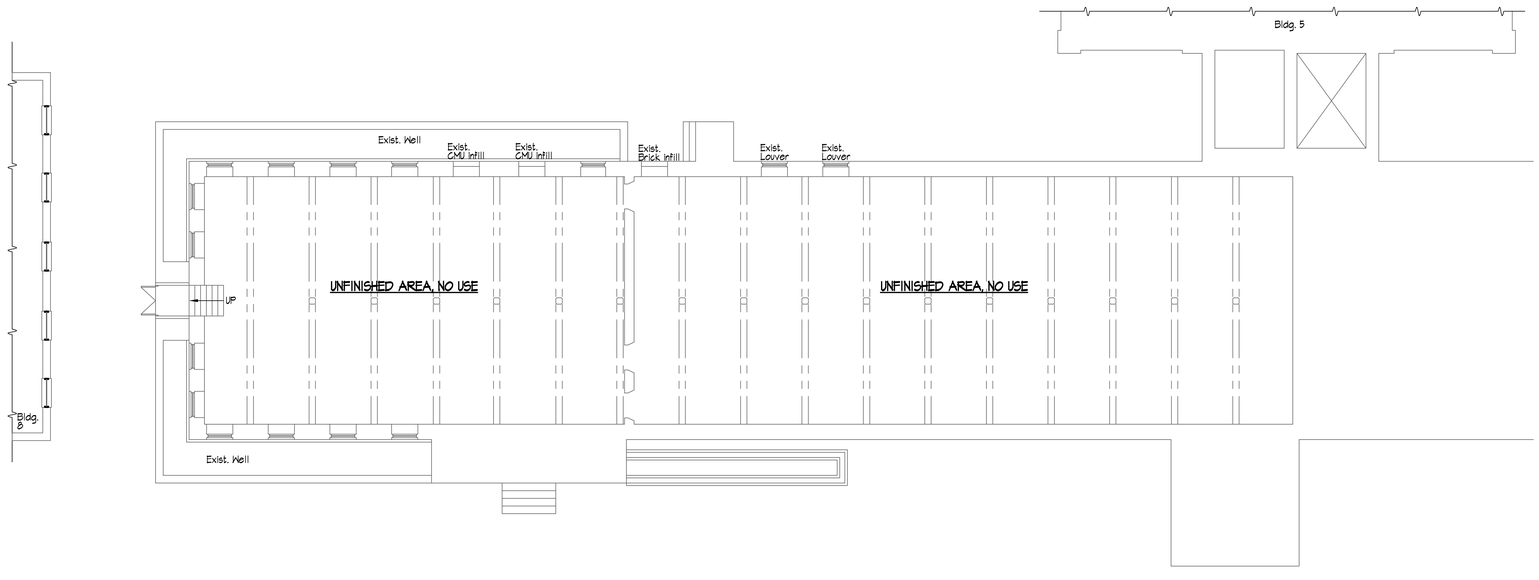
3.3 EQUIPMENT

A. Equipment shall be installed in accordance with the manufacturer's printed instructions and recommendations.

B. Maintain clearance to combustibles as recommended by the equipment manufacturer.

C. Coordinate the exact location of all wall and roof penetrations with the Architect.

END OF SPECIFICATION



BLDG. 2&3 FOUNDATION / BASEMENT PLAN
SCALE: 1/8"=1'-0"

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Hockanum Mill
200 West Main Street, Rockville, CT

Kaplan Mill Works, LLC

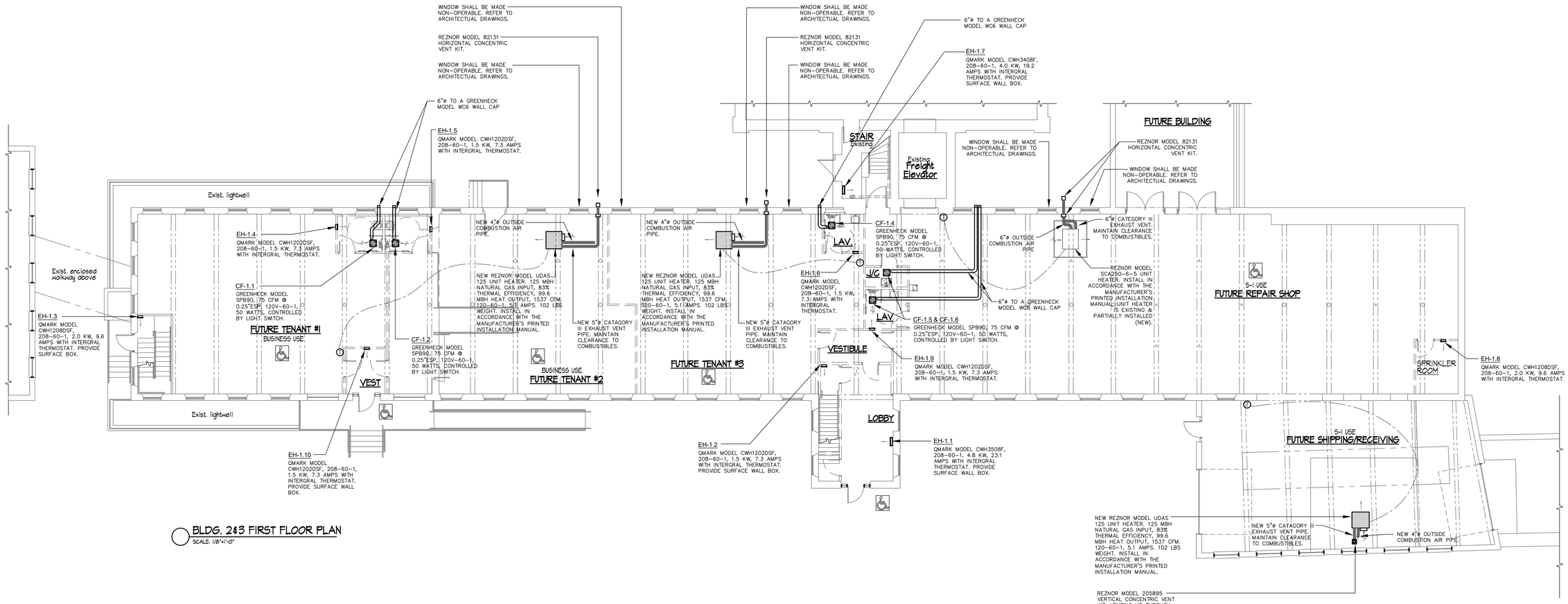
Drawn: TAS
Date: May 9, 2017
Revisions

BASEMENT FLOOR PLAN & SPECIFICATION - MECHANICAL

M-1.1

acorn Consulting Engineers Inc.
- Mechanical - Electrical Engineering for Building Systems -
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West Simsbury, CT 06092 • (860) 651-1949 • fax (860) 651-1957
www.acornengineers.com

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BLDG. 2&3 FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

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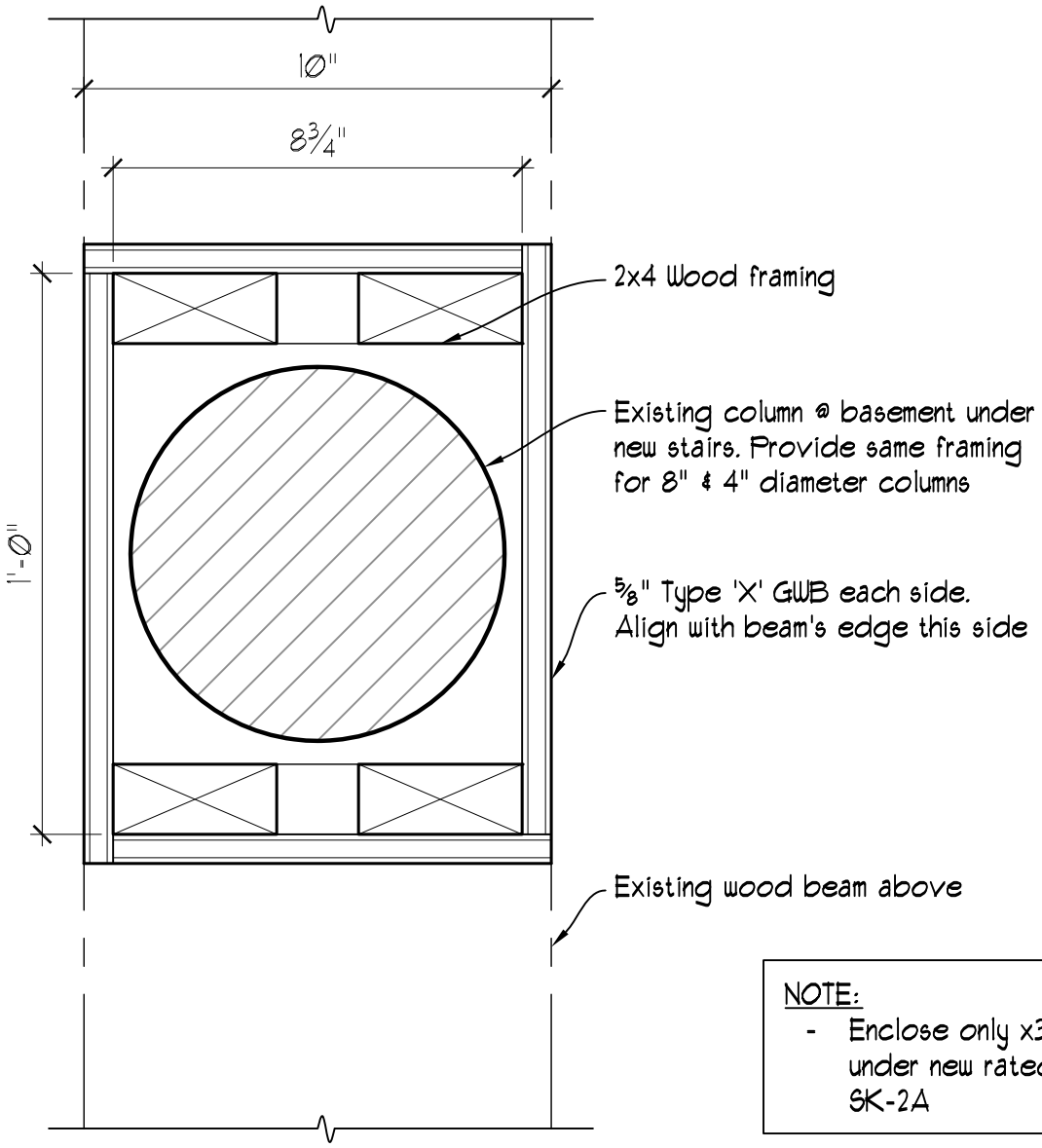
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Date: May 9, 2017
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FIRST FLOOR PLAN - MECHANICAL

M-1.2

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NOTE:
- Enclose only x3 basement columns under new rated entry. See SK-2A

1 RATED COLUMN ENCLOSURE DETAIL

SCALE: 3"=1'-0"

UL No. U419

Hockanum Mill

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Use with sheet: SK-2A

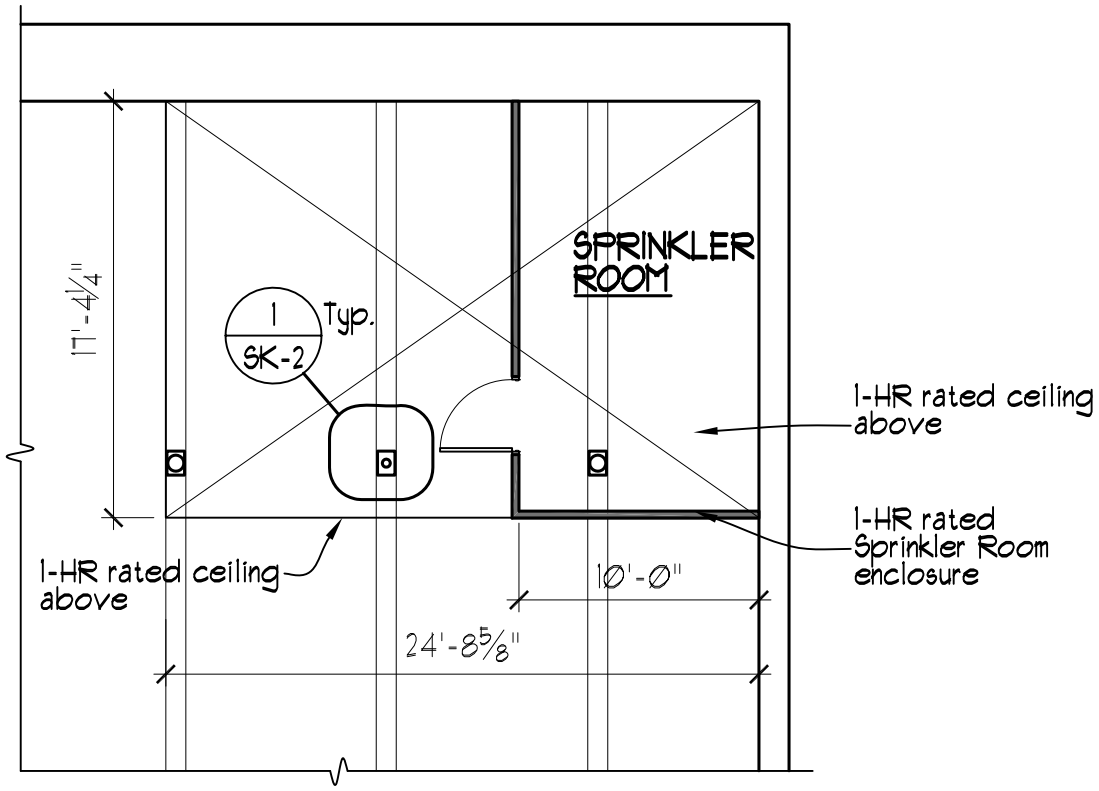
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Drawn: MeB
Date: 08/31/2017

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SK-2



1 PARTIAL FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

Hockanum Mill

200 West Main Street, Rockville, CT

Use with sheet: SK-2

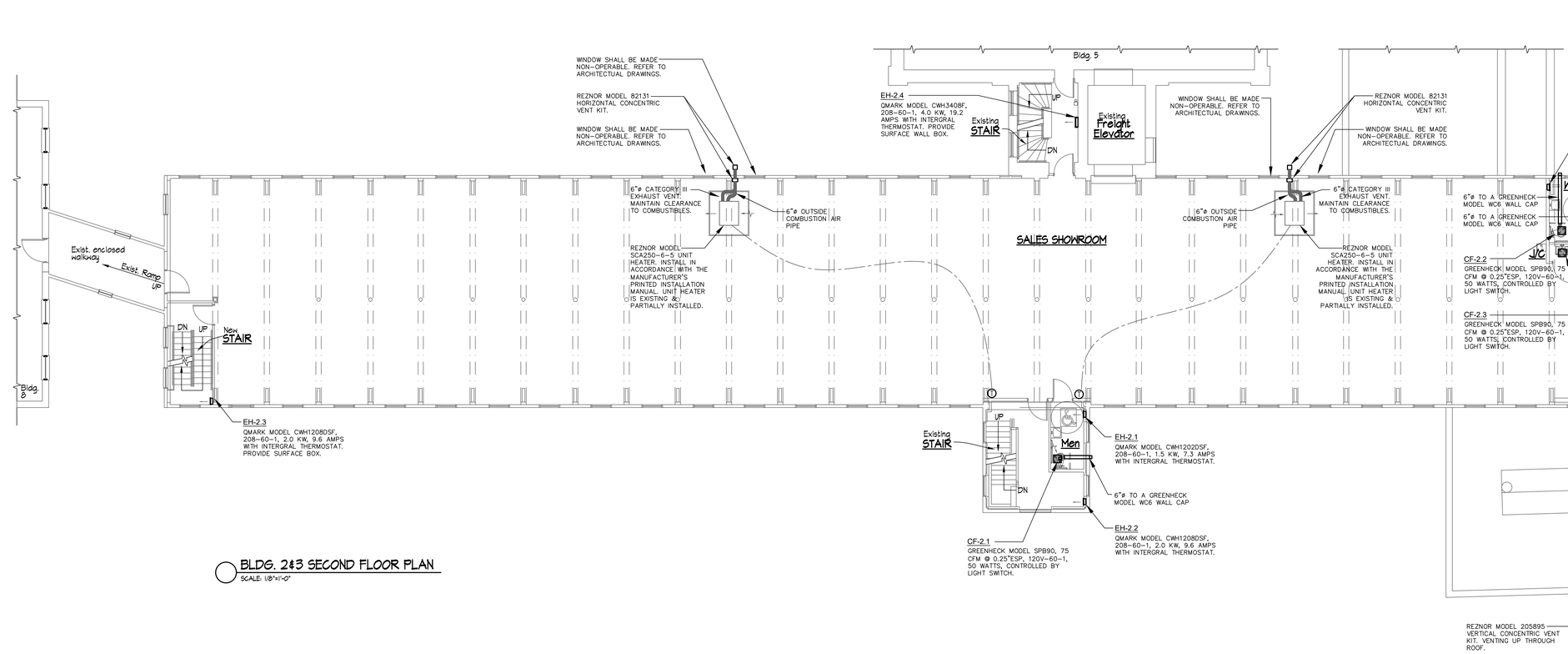
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SK-2A



BLDG. 2&3 SECOND FLOOR PLAN

SCALE: 1/8"=1'-0"

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Hockanum Mill

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Kaplan Mill Works, LLC

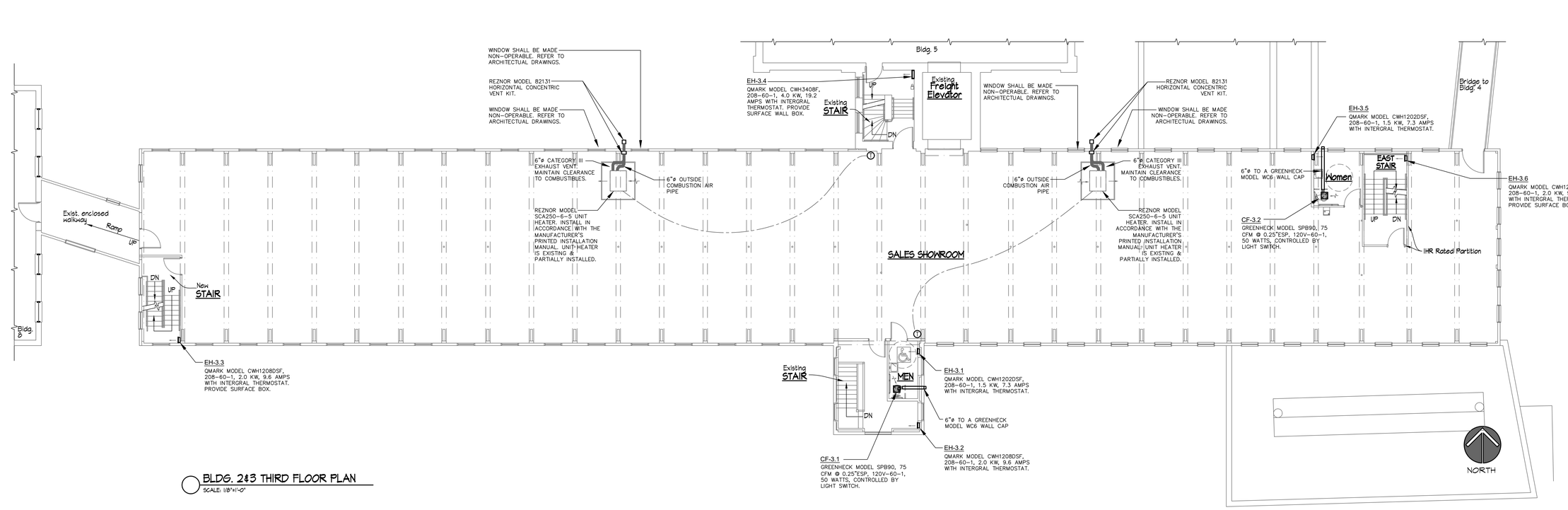
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Revisions

SECOND FLOOR PLAN - MWECHANICAL

M-1.3

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BLDG. 2&3 THIRD FLOOR PLAN

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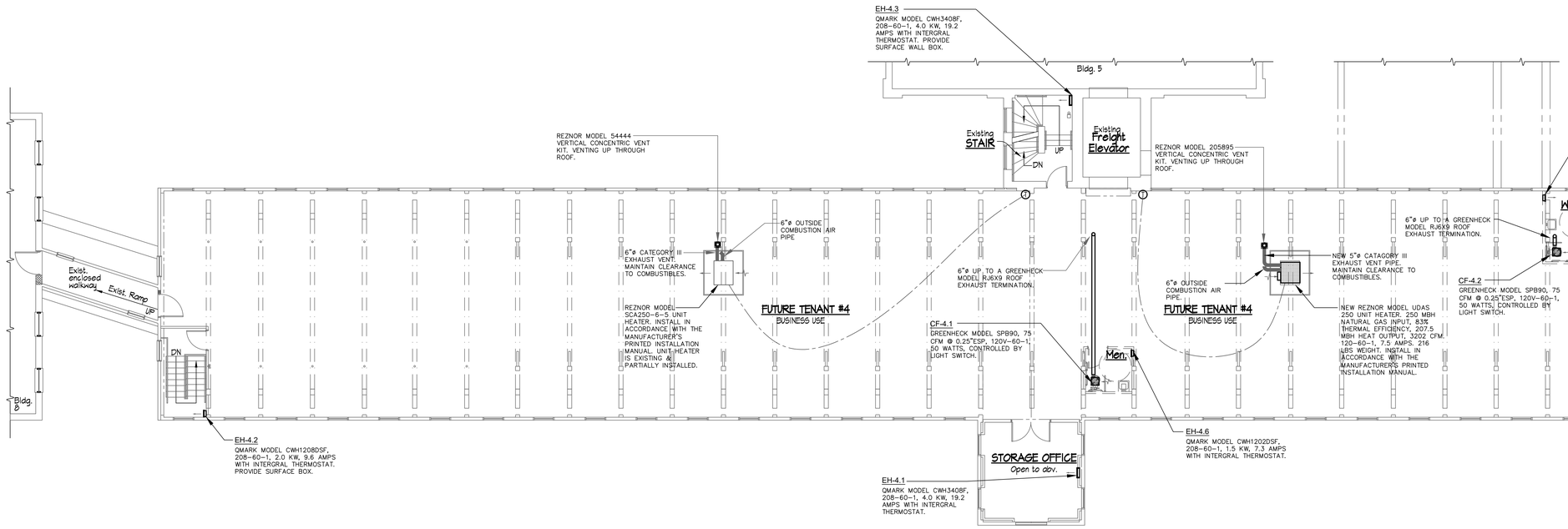
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Revisions

THIRD FLOOR PLAN - MECHANICAL

M-1.4

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BLDG. 2&3 FOURTH FLOOR PLAN

SCALE: 1/8"=1'-0"

NORTH

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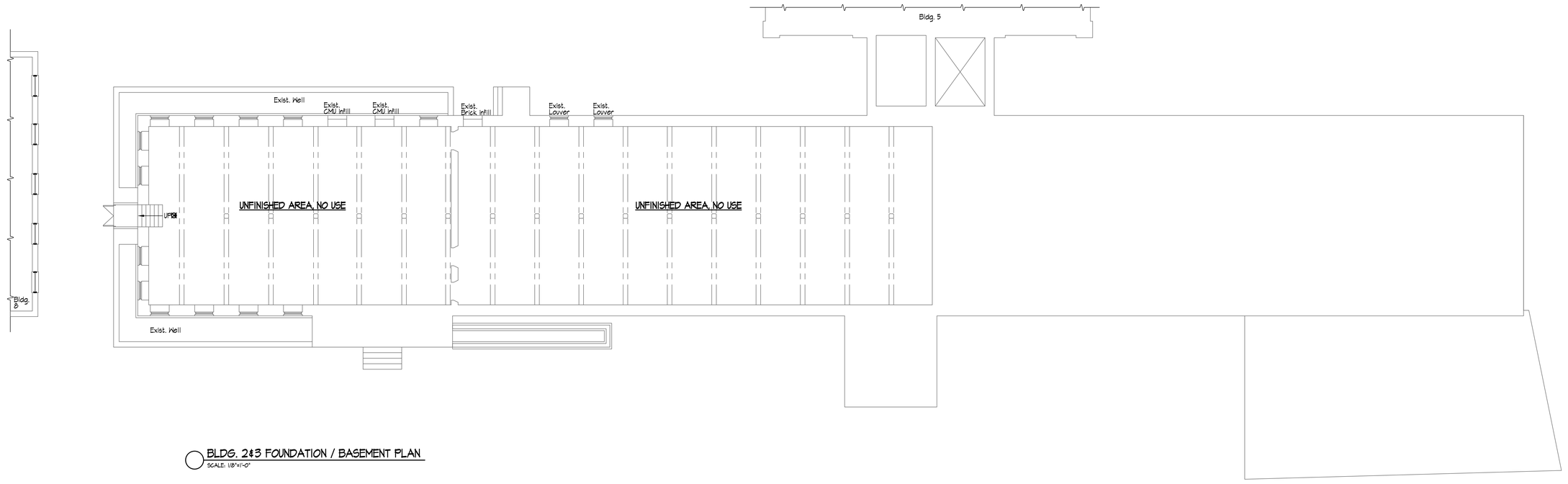
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Revisions

FOURTH FLOOR PLAN - MECHANICAL

M-1.5

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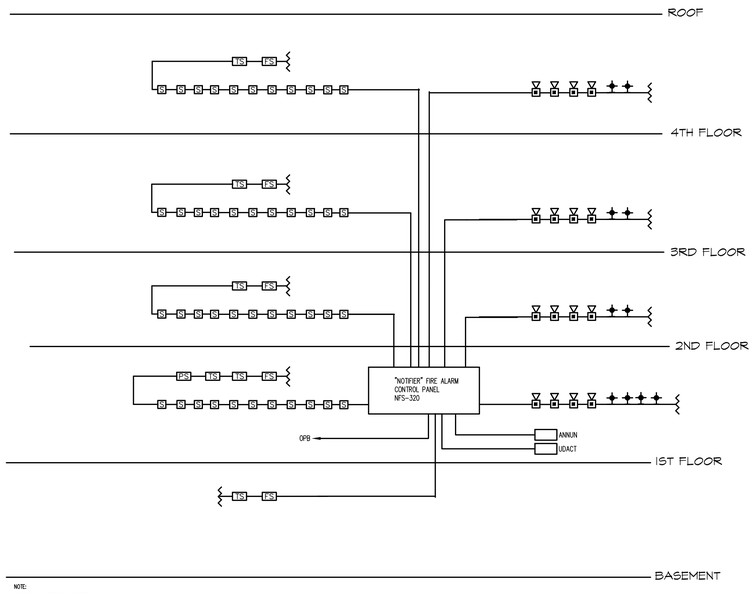
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Revisions

BASEMENT FLOOR PLAN

E-1.1

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NOTE:
CENTRAL ARRANGEMENT SHOWN;
CONFIRM QUANTITIES WITH FLOOR PLANS AND VICE-VERSA.
PROVIDE TWO DEDICATED PHONE LINES FOR FACP

FIRE ALARM RISER DIAGRAMS
NOT TO SCALE

FIRE ALARM SYSTEM NOTES:

A SIGNAL DETECTED BY A UNIT SMOKE/CO DETECTOR SHALL ACTIVATE ASSOCIATED UNIT ANNUNCIATORS ONLY; A GENERAL ALARM SIGNAL SHALL ACTIVATE ALL ANNUNCIATORS AND ALSO NOTIFY THE FIRE DEPT

CONNECT SMOKE CONTROL DAMPER FOR EACH ELEVATOR VENT TO FACP; PROVIDE POWER CIRCUIT FOR DAMPERS IF REQUIRED FROM NEAREST EMERGENCY PANEL

COORDINATE LOCATION OF ALL FIRE/SMOKE DAMPERS WITH DIV 15.; PROVIDE ALL POWER AND DEVICES REQUIRED; VERIFY LOCATION OF TEST SWITCHES IN FIELD FOR DUCT SMOKES IN FIELD

H/C UNITS SHALL BE PROVIDED WITH STROBES LIGHTS IN UNIT BEDROOMS; ALL OTHER UNITS SHALL BE ADAPTABLE WITH JUNCTION BOXES PROVIDED IN BEDROOMS WITH CONDUIT AND PULL STRING TO ACCESSIBLE LOCATION OUTSIDE UNIT

PROVIDE ONE HEAT DETECTOR FOR EACH SPRINKLER HEAD IN ELEVATOR MACHINE ROOMS; COORDINATE EXACT NUMBER OF HEADS WITH SPRINKLER CONTRACTOR; LOCATE HEAT DETECTORS WITHIN 2 FEET OF SPRINKLER HEAD AND CONNECT INTO SHUNT-TRIP POWER SYSTEM

PROVIDE ALL POWER PACKS, MODULES AND ACCESSORITES AS REQUIRED PER MANUFACTURERS REQUIREMENTS FOR COMPLETE OPERATIONAL SYSTEM

PROVIDE SMOKE DETECTOR IN CEILING ABOVE LOCATION OF FIRE ALARM CONTROL PANEL

PROVIDE TWO (2) DEDICATED PHONE LINES AND REMOTE DIALER FOR FACP

PROVIDE REMOTE ANNUNCIATOR FOR FACP; COORDINATE EXACT LOCATION OF ANNUNCIATOR IN FIELD

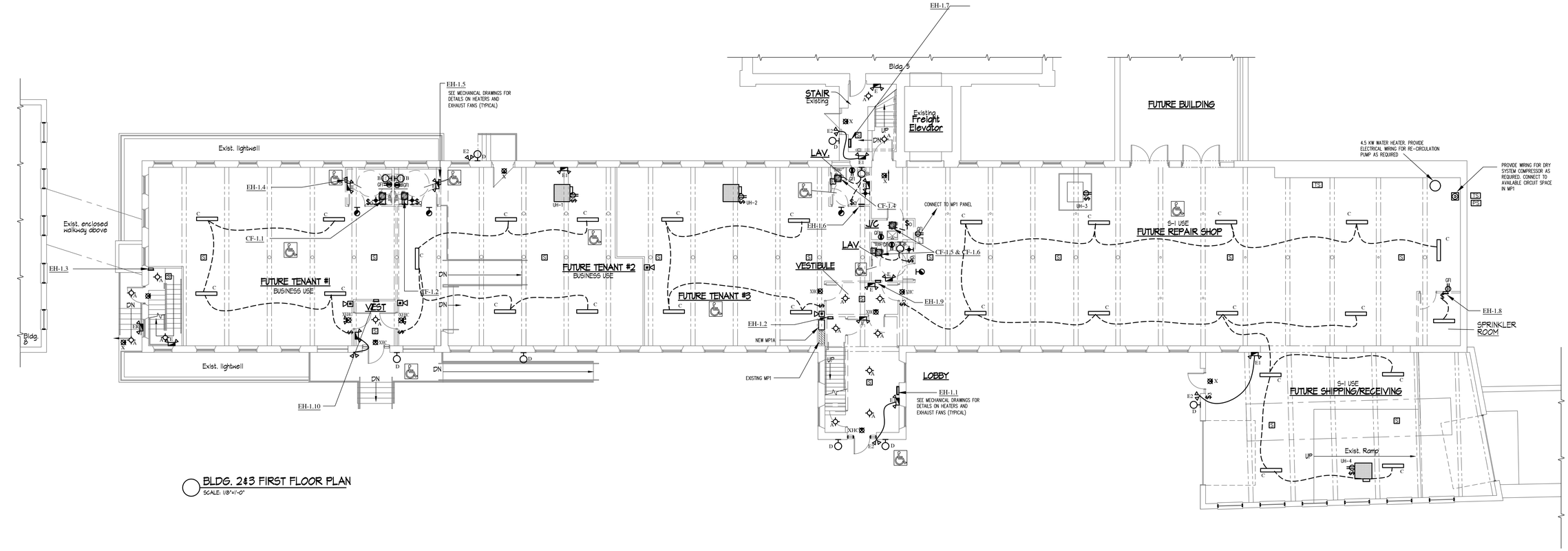
LIGHTING FIXTURE SCHEDULE

TYPE	MFG.	CATALOG #	DESCRIPTION	LAMPS	VOLTAGE
A	ANP LIGHTING	CAT# W516 021LD N W 35K RTC BLC FINISH	WAREHOUSE SHADE – CEILING MOUNT	18 WATT LED	120
B	ANP LIGHTING	CAT# WM 1926 M009LDN N 35K FINISH	WAREHOUSE SHADE – 12" WALL MOUNT (VANITY)	18 WATT LED	120
C	DAYBRITE	CAT# T2 32 UNV 1/2EB	4' 2 LIGHT T-8 FLUORESCENT TEMP LIGHT	2-T8 32 WATT LAMPS	120
D	ANP LIGHTING	CAT# W514M013LD N N 35K WM35 FINISH	WAREHOUSE SHADE – 14" WALL MOUNT (EXTERIOR)	18 WATT LED	120
E	EXITRONIX	CAT# LED52 WH	EMERGENCY LIGHT	INC	120
E1	EXITRONIX	CAT# LED52 WH R2	EMERGENCY LIGHT WITH REMOTE HEAD CAPABILITY	INC	120
E2	EXITRONIX	CAT# 2RL52WH	REMOTE EMERGENCY LIGHT HEAD	INC	12
X	EXITRONIX	CAT# VEX U BP WB WH	EXIT LIGHT.	INC	120
XHC	EXITRONIX	CAT# CT70E WB WH	HANDICAP EXIT LIGHT.	INC	120
XE	EXITRONIX	CAT# VLEDC 51	COMBINATION EXIT AND EMERGENCY LIGHT	INC	120
				INC	120

PROJECT NO:	17047	PANEL:	MP1A	DATE:	5/9/17
LOCATION:	4TH FLOOR	MOUNTING:	SURFACE	FEED:	TOP
VOLTAGE:	120/ 208	SOURCE:	MDP	BUS AMP:	100
WIRE:	4	COND:	1 1/4"	BRKR:	MLO
PHASE:	3	WIRE:	#2 AWG	GROUND:	#6 AWG

CKT	LOAD DESCRIPTION	WATTS	CB AMP		CB AMP	WATTS	LOAD DESCRIPTION	CKT
1	EH1.1	2400	2P-20	A	2P-20	2000	EH1.7	2
3	||	2400	||	B	||	2000	||	4
5	EH1.2	750	2P-20	C	20	1000	EH1.8	6
7	||	750	||	A	20	1000	||	8
9	EH4.3	750	2P-20	B	20	750	EH1.9	10
11	||	750	||	C	20	750	||	12
13	EH1.4	750	2P-20	A	20	750	EH1.10	14
15	||	750	||	B	20	750	||	16
17	EH1.5	750	2P-20	C	20	615	UH-1	18
19	||	750	||	A	20	615	UH-1	20
21	EH1.6	750	2P-20	B	20	615	UH-3	22
23	||	750	||	C	20	615	UH-4	24
25	WATER HEATER	2250	2P-20	A	20			26
27	||	2250	||	B	20			28
29			20	C	20			30
TOTAL WATTS/PH:		A= 11265		B=	11015	C= 5980	TOTAL WATTS:	28260
							TOTAL AMPS:	78.4

NOTES:
1. VERIFY BREAKERS WITH NAMEPLATE RATINGS OF EQUIPMENT IN FIELD.
2. PROVIDE SIX (6) 20A-1P SPARE BREAKERS.
3. PROVIDE FULL COPPER BUSSING.



BLDG. 2&3 FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

Crosskey Architects LLC
Architecture Preservation Interiors
One Union Place, Hartford, CT 06103
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Hockanum Mill

200 West Main Street, Rockville, CT

Kaplan Mill Works, LLC

Drawn: SES
Date: May 9, 2017
Revisions

FIRST FLOOR PLAN

E-1.2

acorn Consulting Engineers Inc.
- Mechanical - Electrical Engineering for Building Systems -
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www.acornengineers.com

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ELECTRIC SYMBOL LIST

	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTERTOP
	TYPICAL LIGHTING FIXTURES (see schedule)
	TYPICAL LIGHTING FIXTURES WITH BATTERY BACKUP (see schedule)
$	SINGLE POLE WALL SWITCH
$3 $4	WALL SWITCH; 3 DENOTES THREE WAY; 4 DENOTES FOUR WAY
$T	SWITCH WITH THERMAL OVERLOAD
	WIRE CONCEALED IN WALLS OR CEILING
	SWITCHED CIRCUIT
	HOMERUN TO SERVICE PANEL; NUMBER OF WIRES INDICATED
	EXIT SIGN WITH BATTERY BACKUP (see schedule)
	CALL-FOR-AID DOME LIGHT
	CALL-FOR-AID PULL STATION
	CIRCUIT BREAKER PANEL BOARD - VOLTAGE NOTED
	EMERGENCY LIGHT WITH BATTERY PACK
	DISCONNECT SWITCH
J	JUNCTION BOX
	REMOTE EMERGENCY HEAD
GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF

ELECTRICAL POWER NOTES:

1. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND LOCATIONS. VERIFY WITH ARCHITECTURAL PLANS AND COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN. NOTIFY THE ARCHITECT/E.C. OF ANY DISCREPANCIES IF DISCREPANCIES ARE NOTED. DO NOT PROCEED WITHOUT ARCHITECTURAL APPROVAL.
3. HVAC AND PLUMBING EQUIPMENT ARE SHOWN FOR REFERENCE ONLY. E.C. SHALL COORDINATE EXACT LOCATIONS AND POWER REQUIREMENTS OF APPLICABLE HVAC AND PLUMBING EQUIPMENT WITH MECHANICAL DRAWINGS. E.C. SHALL MAKE ALL FINAL CONNECTIONS TO ALL CONTROLS, OWNER-SUPPLIED EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AS NEEDED.
4. E.C. SHALL PROVIDE DISCONNECT SWITCHES AND STARTERS AS REQUIRED FOR ALL EQUIPMENT WHERE THE DISCONNECT SWITCH IS NOT PROVIDED WITH THE EQUIPMENT OR BY OTHERS.
5. E.C. SHALL SUPPLY AND INSTALL FEEDERS, FUSES AND CIRCUIT BREAKERS TO MATCH THE NAME-PLATE RATING OF ALL EQUIPMENT. THIS SHALL BE INCLUDED IN THE INITIAL BID PROPOSAL AND NO EXTRAS WILL BE ACCEPTED.
6. ELECTRICAL OUTLET PLATE GASKETS SHALL BE INSTALLED IN ALL RECEPTACLES, SWITCHES OR OTHER ELECTRICAL BOXES IN WALLS SEPARATING CONDITIONED AND UNCONDITIONED SPACE.
7. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
8. MANUAL FIRE ALARM PULL BOXES SHALL BE LOCATED NOT MORE THAN 5 FEET FROM THE ENTRANCE TO EACH EXIT.
9. THE HEIGHT OF THE MANUAL FIRE ALARM PULL BOXES SHALL BE A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE ACTIVATING HANDLE OR LEVER OF THE BOX.
10. THE MINIMUM MOUNTING HEIGHT OF THE COMBINATION HORN/STROBES SHALL BE 80 INCHES AFF TO THE BOTTOM AND MINIMUM OF 6 INCHES BELOW THE FINISHED CEILING TO THE TOP.
11. COMBINATION HORN STROBES SHALL HAVE A SOUND LEVEL RATING FROM A MINIMUM OF 75 dBA AND A MAXIMUM OF 120 dBA. THE FOLLOWING MUST BE ACHIEVED: A MINIMUM OF 15 dBA OVER AVERAGE AMBIENT SOUND LEVEL. A MINIMUM OF 90 dBA IN MECHANICAL ROOMS. ALL STROBES OUTPUTS SHALL BE 110 CANDELA.
12. CONNECT ALL BATHROOM EXHAUST FANS TO ASSOCIATED LIGHT SWITCH UNLESS OTHERWISE NOTED.
13. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO HVAC CONTROL WIRING; COORDINATE ALL REQUIREMENTS WITH DIV 15
14. ALL CIRCUITS BACK TO PANEL SHALL REQUIRE 20A-1 POLE BREAKERS UNLESS OTHERWISE NOTED
15. HEIGHT OF UNIT PANELS IN HC AND HC ADAPTABLE UNITS SHALL BE 46" AFF TO HIGHEST BREAKER.
16. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF PLUGS AND LIGHTS IN BATHROOMS.

ELECTRICAL LIGHTING NOTES:

1. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLANS FOR EXACT LOCATIONS OF CEILING MOUNTED LIGHT FIXTURES. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT OF WALL MOUNTED LIGHT FIXTURES INDOORS AND OUTDOORS.
2. ALL LIGHT FIXTURES IN CEILING SHALL BE BRACED TO THE BUILDING STRUCTURE AND NOT TO THE CEILING.
3. EMERGENCY LIGHTING UNITS AND EMERGENCY BALLASTS SHALL BE WIRED INTO ASSOCIATED LIGHTING CIRCUITS AHEAD OF ANY SWITCHED LEGS FOR CONTINUOUS CHARGING AND AC CIRCUIT MONITORING.
4. COORDINATE LOCATIONS AND DIRECTIONAL ARROWS OF ALL EXIT SIGNS WITH ARCHITECTURAL EGRESS PLAN.
5. PROVIDE IC HOUSING FOR LIGHTING FIXTURE WHERE REQUIRED; COORDINATE WITH ARCHITECTURAL PLANS.
6. FLOOR PROXIMITY EXIT SIGNS SHALL BE MOUNTED NOT LESS THAN 6 INCHES AND NO MORE THAN 18 INCHES ABOVE THE FINISHED FLOOR AND WITH THE NEAREST EDGE WITHIN 4 INCHES OF THE DOOR.

CONNECTIONS TO EXISTING CONDITIONS:

1. WHERE NEW CIRCUITS ARE TO ADDED TO EXISTING PANELBOARDS, CONFIRM THAT PANEL HAS SUFFICIENT SPACE AND CAPACITY FOR NEW LOADS.
2. MODIFY EXISTING PANEL DIRECTORIES TO REFLECT NEW CIRCUITS, ADDED OR DELETED.
3. WHERE NOT SPECIFICALLY INDICATED, NEW CIRCUITS ARE TO BE EXTENDED TO THE NEAREST APPROPRIATE PANEL.
4. ALL NEW CIRCUITRY SHALL BE COMPLETE WITH REQUIRED BRANCH CIRCUIT PROTECTION AND GROUNDING CONNECTIONS.
5. ANY WORK REQUIRING THE SHUT-DOWN OF ELECTRICAL SERVICE TO THE BUILDING AND/OR ANY PORTION THEREOF, THE E.C. SHALL MAKE ARRANGEMENTS WITH THE OWNER AND ANY OTHER CONCERNED AUTHORITY.
6. CERTAIN SYSTEMS, SUCH AS THE FIRE ALARM SYSTEM, SECURITY SYSTEM, ETC...MAY REQUIRE STAND-BY WATCHES DURING SHUT-DOWN. E.C. SHALL ARRANGE AND PAY FOR ANY SUCH STAND-BY WATCHES.
7. EXISTING SYSTEMS AFFECTED BY NEW WORK SHALL BE TESTED COMPLETELY FOR INTEGRITY AND PROPER OPERATION. RE-FEED CIRCUITS UP-STREAM AND DOWN-STREAM OF DEVICES BEING REMOVED.
8. MAKE ANY REVISIONS TO THE EXISTING WORK FOUND NECESSARY TO MAINTAIN ORIGINAL OPERATION. FURNISH AND INSTALL ALL NECESSARY ELECTRICAL EQUIPMENT AND DEVICES AS NEEDED AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE BUILDING CODES.
2. E.C. SHALL OBTAIN AND PAY FOR BOTH ROUGH AND FINAL INSPECTION AND OBTAIN A CERTIFICATE OF "ELECTRICAL INSPECTION". THIS CERTIFICATE SHALL BE PRESENTED WITH REQUEST FOR FINAL PAYMENT.
3. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND OPERATING ELECTRICAL SYSTEM. THE E.C. SHALL FURNISH AND INSTALL ALL WIRING, CONDUIT, EQUIPMENT, MATERIAL, ETC. AS REQUIRED., EXCEPT WHERE SPECIFICALLY NOTED AS BEING FURNISHED BY OTHERS. SHOULD THERE BE ANY QUESTIONS CONCERNING RESPONSIBILITY, THE QUESTIONS SHALL BE SETTLED BEFORE BID SUBMISSION AND CONTRACT SIGNING. NO EXTRA CHARGES WILL BE ALLOWED.
4. THE E.C. SHALL COORDINATE ALL PHASING OF WORK WITH THE ARCHITECT, GENERAL CONTRACTOR AND/OR OWNER OF THE PROJECT.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR SPECIFIC DETAILS, ARRANGEMENTS, MOUNTING HEIGHTS, CEILING CONSTRUCTION, ETC. ALL COLORS AND FINISHES TO BE SELECTED BY THE ARCHITECT.
6. ALL ELECTRICAL EQUIPMENT SHALL BE SEISMICALLY SUPPORTED AS REQUIRED BY THE LOCAL AND STATE BUILDING CODE.
7. ALL NECESSARY MOUNTING HARDWARE, HANGERS, BRACKETS, RAILS, YOKES, STEMS, CHAINS, ETC. SHALL BE FURNISHED AND INSTALLED BY E.C.
8. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
9. ALL WIRING INSTALLED UNDER THIS CONTRACT SHALL BE TESTED FOR PROPER CONNECTIONS AND SHORT CIRCUITS PRIOR TO THE TURNING OVER OF WORK AS A COMPLETE UNIT.
10. ALL CONDUITS PASSING THROUGH PARTITIONS ARE TO BE APPROPRIATELY SLEEVED AND SEALED.
11. E.C. SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL AND FINAL ACCEPTANCE.
12. ALL CONDUIT AND WIRING SHALL BE RUN CONCEALED IN WALLS, FLOORS AND CEILINGS UNLESS OTHERWISE NOTED TO BE EXPOSED.
13. ALL WIRING SHALL BE TYPE THWN OR THW UNLESS OTHERWISE NOTED. FOR CONDUCTORS LARGER THAN #6 AWG, TYPE XHHW WILL BE ACCEPTED.
14. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID WIRE CONDUCTORS. CONDUCTORS SIZED LARGER THAN #10 AWG SHALL BE STRANDED TYPE. COMMUNICATIONS AND CONTROL WIRE SHALL BE #14 GAUGE STRANDED, SHIELDED.
15. ALL CIRCUITS BACK TO PANEL SHALL REQUIRE 20A-1 POLE BREAKERS UNLESS OTHERWISE NOTED
16. ALL DRAWINGS ARE SCHEMATIC IN NATURE; ALL DEVICES SHALL BE INSTALLED IN ALL AREAS AND LIVING SPACES PER NEC AND SHALL BE DIMENSIONED IN FIELD TO MEET PROPER CODES; ALL DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION DURING BID PROCESS AND/OR ADJUSTED IN FIELD DURING CONSTRUCTION
17. ALL WORK IS NEW UNLESS OTHERWISE NOTED.

PROJECT NO:		17047		PANEL:		MDPA		DATE:		5/8/17
LOCATION:		2ND FLOOR		MOUNTING:		SURFACE		FEED:		TOP
VOLTAGE:		120/ 208		SOURCE:		MDPA		BUS AMP:		100
WIRE:		4		COND:		1 1/4"		BRKR:		MLO
PHASE:		3		WIRE:		#2 AWG		GROUND:		#6 AWG
CKT	LOAD DESCRIPTION	WATTS	CB AMP		CB AMP	WATTS	LOAD DESCRIPTION		CKT	
1	EH2.1	750	2P-20	A	2P-20	750	EH2-5		2	
3	||	750	||	B	||	750	||		4	
5	EH2.2	1000	2P-20	C	2P-20	1000	EH2-6		6	
7	||	1000	||	A	||	1000	||		8	
9	EH2.3	1000	2P-20	B	2P-20	2000	EH2-7		10	
11	||	1000	||	C	||	2000	||		12	
13	EH2.4	2000	2P-20	A	20	960	UH-1		14	
15	||	2000	||	B	20	960	UH-2		16	
17	REST ROOM RECEPT	360	20	C	20				18	
19			20	A	20				20	
21			20	B	20				22	
23			20	C	20				24	
25			20	A	20				26	
27			20	B	20				28	
29			20	C	20				30	
TOTAL WATTS/PH:		A= 6460		B=	7460	C= 5360		TOTAL WATTS:		19280
								TOTAL AMPS:		53.5

NOTES:
1. VERIFY BREAKERS WITH NAMEPLATE RATINGS OF EQUIPMENT IN FIELD.
2. PROVIDE SIX (6) 20A-1P SPARE BREAKERS.
3. PROVIDE FULL COPPER BUSSING.

BLDG. 2&3 SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

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200 West Main Street, Rockville, CT
Kaplan Mill Works, LLC

Drawn: SES
Date: May 9, 2017
Revisions

SECOND FLOOR PLAN

E-1.3

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www.acornengineers.com

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ELECTRIC SYMBOL LIST

	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTERTOP
	TYPICAL LIGHTING FIXTURES (see schedule)
	TYPICAL LIGHTING FIXTURES WITH BATTERY BACKUP (see schedule)
$	SINGLE POLE WALL SWITCH
$3 $4	WALL SWITCH; 3 DENOTES THREE WAY; 4 DENOTES FOUR WAY
$T	SWITCH WITH THERMAL OVERLOAD
	WIRE CONCEALED IN WALLS OR CEILING
	SWITCHED CIRCUIT
	HOMERUN TO SERVICE PANEL; NUMBER OF WIRES INDICATED
	EXIT SIGN WITH BATTERY BACKUP (see schedule)
	CALL-FOR-AID DOME LIGHT
	CALL-FOR-AID PULL STATION
	CIRCUIT BREAKER PANEL BOARD - VOLTAGE NOTED
	EMERGENCY LIGHT WITH BATTERY PACK
	DISCONNECT SWITCH
J	JUNCTION BOX
	REMOTE EMERGENCY HEAD
GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF

ELECTRICAL POWER NOTES:

1. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND LOCATIONS. VERIFY WITH ARCHITECTURAL PLANS AND COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN. NOTIFY THE ARCHITECT/E.C. OF ANY DISCREPANCIES IF DISCREPANCIES ARE NOTED, DO NOT PROCEED WITHOUT ARCHITECTURAL APPROVAL.
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6. ELECTRICAL OUTLET PLATE GASKETS SHALL BE INSTALLED IN ALL RECEPTACLES, SWITCHES OR OTHER ELECTRICAL BOXES IN WALLS SEPARATING CONDITIONED AND UNCONDITIONED SPACE.
7. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
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9. THE HEIGHT OF THE MANUAL FIRE ALARM PULL BOXES SHALL BE A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE ACTIVATING HANDLE OR LEVER OF THE BOX.
10. THE MINIMUM MOUNTING HEIGHT OF THE COMBINATION HORN/STROBES SHALL BE 80 INCHES AFF TO THE BOTTOM AND MINIMUM OF 6 INCHES BELOW THE FINISHED CEILING TO THE TOP.
11. COMBINATION HORN STROBES SHALL HAVE A SOUND LEVEL RATING FROM A MINIMUM OF 75 dBA AND A MAXIMUM OF 120 dBA. THE FOLLOWING MUST BE ACHIEVED: A MINIMUM OF 15 dBA OVER AVERAGE AMBIENT SOUND LEVEL. A MINIMUM OF 90 dBA IN MECHANICAL ROOMS. ALL STROBES OUTPUTS SHALL BE 110 CANDELA
12. CONNECT ALL BATHROOM EXHAUST FANS TO ASSOCIATED LIGHT SWITCH UNLESS OTHERWISE NOTED.
13. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO HVAC CONTROL WIRING; COORDINATE ALL REQUIREMENTS WITH DIV 15
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16. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF PLUGS AND LIGHTS IN BATHROOMS.

ELECTRICAL LIGHTING NOTES:

1. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLANS FOR EXACT LOCATIONS OF CEILING MOUNTED LIGHT FIXTURES. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT OF WALL MOUNTED LIGHT FIXTURES INDOORS AND OUTDOORS.
2. ALL LIGHT FIXTURES IN CEILING SHALL BE BRACED TO THE BUILDING STRUCTURE AND NOT TO THE CEILING.
3. EMERGENCY LIGHTING UNITS AND EMERGENCY BALLASTS SHALL BE WIRED INTO ASSOCIATED LIGHTING CIRCUITS AHEAD OF ANY SWITCHED LEGS FOR CONTINUOUS CHARGING AND AC CIRCUIT MONITORING.
4. COORDINATE LOCATIONS AND DIRECTIONAL ARROWS OF ALL EXIT SIGNS WITH ARCHITECTURAL EGRESS PLAN.
5. PROVIDE IC HOUSING FOR LIGHTING FIXTURE WHERE REQUIRED; COORDINATE WITH ARCHITECTURAL PLANS.
6. FLOOR PROXIMITY EXIT SIGNS SHALL BE MOUNTED NOT LESS THAN 6 INCHES AND NO MORE THAN 18 INCHES ABOVE THE FINISHED FLOOR AND WITH THE NEAREST EDGE WITHIN 4 INCHES OF THE DOOR.

CONNECTIONS TO EXISTING CONDITIONS:

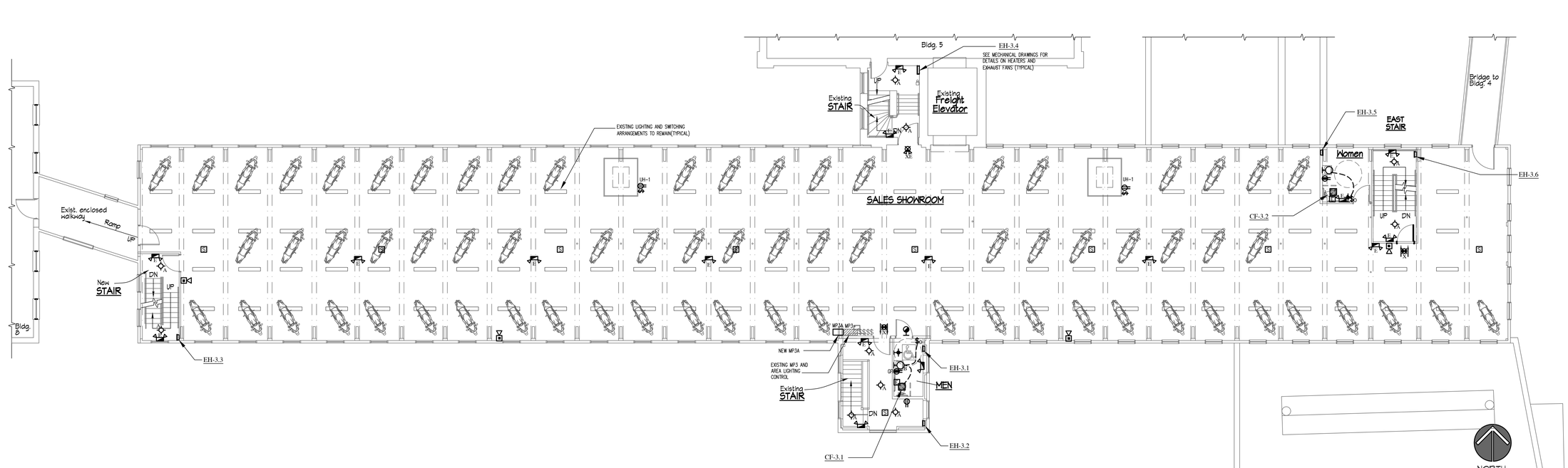
1. WHERE NEW CIRCUITS ARE TO ADDED TO EXISTING PANELBOARDS, CONFIRM THAT PANEL HAS SUFFICIENT SPACE AND CAPACITY FOR NEW LOADS.
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3. WHERE NOT SPECIFICALLY INDICATED, NEW CIRCUITS ARE TO BE EXTENDED TO THE NEAREST APPROPRIATE PANEL.
4. ALL NEW CIRCUITRY SHALL BE COMPLETE WITH REQUIRED BRANCH CIRCUIT PROTECTION AND GROUNDING CONNECTIONS.
5. ANY WORK REQUIRING THE SHUT-DOWN OF ELECTRICAL SERVICE TO THE BUILDING AND/OR ANY PORTION THEREOF, THE E.C. SHALL MAKE ARRANGEMENTS WITH THE OWNER AND ANY OTHER CONCERNED AUTHORITY.
6. CERTAIN SYSTEMS, SUCH AS THE FIRE ALARM SYSTEM, SECURITY SYSTEM, ETC...MAY REQUIRE STAND-BY WATCHES DURING SHUT-DOWN. E.C. SHALL ARRANGE AND PAY FOR ANY SUCH STAND-BY WATCHES.
7. EXISTING SYSTEMS AFFECTED BY NEW WORK SHALL BE TESTED COMPLETELY FOR INTEGRITY AND PROPER OPERATION. RE-FEED CIRCUITS UP-STREAM AND DOWN-STREAM OF DEVICES BEING REMOVED.
8. MAKE ANY REVISIONS TO THE EXISTING WORK FOUND NECESSARY TO MAINTAIN ORIGINAL OPERATION. FURNISH AND INSTALL ALL NECESSARY ELECTRICAL EQUIPMENT AND DEVICES AS NEEDED AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL GENERAL NOTES:

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2. E.C. SHALL OBTAIN AND PAY FOR BOTH ROUGH AND FINAL INSPECTION AND OBTAIN A CERTIFICATE OF "ELECTRICAL INSPECTION". THIS CERTIFICATE SHALL BE PRESENTED WITH REQUEST FOR FINAL PAYMENT.
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4. THE E.C. SHALL COORDINATE ALL PHASING OF WORK WITH THE ARCHITECT, GENERAL CONTRACTOR AND/OR OWNER OF THE PROJECT.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR SPECIFIC DETAILS, ARRANGEMENTS, MOUNTING HEIGHTS, CEILING CONSTRUCTION, ETC. ALL COLORS AND FINISHES TO BE SELECTED BY THE ARCHITECT.
6. ALL ELECTRICAL EQUIPMENT SHALL BE SEISMICALLY SUPPORTED AS REQUIRED BY THE LOCAL AND STATE BUILDING CODE.
7. ALL NECESSARY MOUNTING HARDWARE, HANGERS, BRACKETS, RAILS, YOKES, STEMS, CHAINS, ETC. SHALL BE FURNISHED AND INSTALLED BY E.C.
8. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
9. ALL WIRING INSTALLED UNDER THIS CONTRACT SHALL BE TESTED FOR PROPER CONNECTIONS AND SHORT CIRCUITS PRIOR TO THE TURNING OVER OF WORK AS A COMPLETE UNIT.
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14. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID WIRE CONDUCTORS. CONDUCTORS SIZED LARGER THAN #10 AWG SHALL BE STRANDED TYPE. COMMUNICATIONS AND CONTROL WIRE SHALL BE #14 GAUGE STRANDED, SHIELDED.
15. ALL CIRCUITS BACK TO PANEL SHALL REQUIRE 20A-1 POLE BREAKERS UNLESS OTHERWISE NOTED
16. ALL DRAWINGS ARE SCHEMATIC IN NATURE; ALL DEVICES SHALL BE INSTALLED IN ALL AREAS AND LIVING SPACES PER NEC AND SHALL BE DIMENSIONED IN FIELD TO MEET PROPER CODES; ALL DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION DURING BID PROCESS AND/OR ADJUSTED IN FIELD DURING CONSTRUCTION
17. ALL WORK IS NEW UNLESS OTHERWISE NOTED.

PROJECT NO:		17047		PANEL:		MP3A		DATE:	5/8/17
LOCATION:		2ND FLOOR		MOUNTING:		SURFACE		FEED:	TOP
VOLTAGE:		120/ 208		SOURCE:		MDPA		BUS AMP:	100
WIRE:		4		COND:		1 1/4"		BRKR:	MLO
PHASE:		3		WIRE:		#2 AWG		GROUND:	#6 AWG
CKT	LOAD DESCRIPTION	WATTS	CB AMP		CB AMP	WATTS	LOAD DESCRIPTION	CKT	
1	EH3.1	750	2P-20	A	2P-20	750	EH3-5	2	
3	||	750	||	B	||	750	||	4	
5	EH3.2	1000	2P-20	C	2P-20	1000	EH3-6	6	
7	||	1000	||	A	||	1000	||	8	
9	EH3.3	1000	2P-20	B				10	
11	||	1000	||	C				12	
13	EH3.4	2000	2P-20	A	20	960	UH-1	14	
15	||	2000	||	B	20	960	UH-2	16	
17			20	C	20			18	
19			20	A	20			20	
21			20	B	20			22	
23			20	C	20			24	
25			20	A	20			26	
27			20	B	20			28	
29			20	C	20			30	
TOTAL WATTS/PH:		A= 6460		B= 5460		C= 3000	TOTAL WATTS: 14920		
							TOTAL AMPS: 41.4		

NOTES:
1. VERIFY BREAKERS WITH NAMEPLATE RATINGS OF EQUIPMENT IN FIELD.
2. PROVIDE SIX (6) 20A-1P SPARE BREAKERS.
3. PROVIDE FULL COPPER BUSSING.



BLDG. 2&3 THIRD FLOOR PLAN
SCALE: 1/8"=1'-0"

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Hockanum Mill

200 West Main Street, Rockville, CT

Kaplan Mill Works, LLC

Drawn: SES
Date: May 9, 2017
Revisions

THIRD FLOOR PLAN

E-1.4

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ELECTRIC SYMBOL LIST

	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTERTOP
	TYPICAL LIGHTING FIXTURES (see schedule)
	TYPICAL LIGHTING FIXTURES WITH BATTERY BACKUP (see schedule)
$	SINGLE POLE WALL SWITCH
$3 $4	WALL SWITCH; 3 DENOTES THREE WAY; 4 DENOTES FOUR WAY
$T	SWITCH WITH THERMAL OVERLOAD
	WIRE CONCEALED IN WALLS OR CEILING
	SWITCHED CIRCUIT
	HOMERUN TO SERVICE PANEL; NUMBER OF WIRES INDICATED
	EXIT SIGN WITH BATTERY BACKUP (see schedule)
	CALL-FOR-AID DOME LIGHT
E	CALL-FOR-AID PULL STATION
	CIRCUIT BREAKER PANEL BOARD - VOLTAGE NOTED
	EMERGENCY LIGHT WITH BATTERY PACK
D	DISCONNECT SWITCH
J	JUNCTION BOX
	REMOTE EMERGENCY HEAD
GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF

ELECTRICAL POWER NOTES:

1. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND LOCATIONS. VERIFY WITH ARCHITECTURAL PLANS AND COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN. NOTIFY THE ARCHITECT/E.C. OF ANY DISCREPANCIES IF DISCREPANCIES ARE NOTED. DO NOT PROCEED WITHOUT ARCHITECTURAL APPROVAL.
3. HVAC AND PLUMBING EQUIPMENT ARE SHOWN FOR REFERENCE ONLY. E.C. SHALL COORDINATE EXACT LOCATIONS AND POWER REQUIREMENTS OF APPLICABLE HVAC AND PLUMBING EQUIPMENT WITH MECHANICAL DRAWINGS. E.C. SHALL MAKE ALL FINAL CONNECTIONS TO ALL CONTROLS, OWNER-SUPPLIED EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AS NEEDED.
4. E.C. SHALL PROVIDE DISCONNECT SWITCHES AND STARTERS AS REQUIRED FOR ALL EQUIPMENT WHERE THE DISCONNECT SWITCH IS NOT PROVIDED WITH THE EQUIPMENT OR BY OTHERS.
5. E.C. SHALL SUPPLY AND INSTALL FEEDERS, FUSES AND CIRCUIT BREAKERS TO MATCH THE NAME-PLATE RATING OF ALL EQUIPMENT. THIS SHALL BE INCLUDED IN THE INITIAL BID PROPOSAL AND NO EXTRAS WILL BE ACCEPTED.
6. ELECTRICAL OUTLET PLATE GASKETS SHALL BE INSTALLED IN ALL RECEPTACLES, SWITCHES OR OTHER ELECTRICAL BOXES IN WALLS SEPARATING CONDITIONED AND UNCONDITIONED SPACE.
7. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
8. MANUAL FIRE ALARM PULL BOXES SHALL BE LOCATED NOT MORE THAN 5 FEET FROM THE ENTRANCE TO EACH EXIT.
9. THE HEIGHT OF THE MANUAL FIRE ALARM PULL BOXES SHALL BE A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE ACTIVATING HANDLE OR LEVER OF THE BOX.
10. THE MINIMUM MOUNTING HEIGHT OF THE COMBINATION HORN/STROBES SHALL BE 80 INCHES AFF TO THE BOTTOM AND MINIMUM OF 6 INCHES BELOW THE FINISHED CEILING TO THE TOP.
11. COMBINATION HORN STROBES SHALL HAVE A SOUND LEVEL RATING FROM A MINIMUM OF 75 dBA AND A MAXIMUM OF 120 dBA. THE FOLLOWING MUST BE ACHIEVED: A MINIMUM OF 15 dBA OVER AVERAGE AMBIENT SOUND LEVEL. A MINIMUM OF 90 dBA IN MECHANICAL ROOMS. ALL STROBES OUTPUTS SHALL BE 110 CANDELA.
12. CONNECT ALL BATHROOM EXHAUST FANS TO ASSOCIATED LIGHT SWITCH UNLESS OTHERWISE NOTED.
13. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO HVAC CONTROL WIRING; COORDINATE ALL REQUIREMENTS WITH DIV 15
14. ALL CIRCUITS BACK TO PANEL SHALL REQUIRE 20A-1 POLE BREAKERS UNLESS OTHERWISE NOTED
15. HEIGHT OF UNIT PANELS IN HC AND HC ADAPTABLE UNITS SHALL BE 48" AFF TO HIGHEST BREAKER.
16. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF PLUGS AND LIGHTS IN BATHROOMS.

ELECTRICAL LIGHTING NOTES:

1. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLANS FOR EXACT LOCATIONS OF CEILING MOUNTED LIGHT FIXTURES. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT OF WALL MOUNTED LIGHT FIXTURES INDOORS AND OUTDOORS.
2. ALL LIGHT FIXTURES IN CEILING SHALL BE BRACED TO THE BUILDING STRUCTURE AND NOT TO THE CEILING.
3. EMERGENCY LIGHTING UNITS AND EMERGENCY BALLASTS SHALL BE WIRED INTO ASSOCIATED LIGHTING CIRCUITS AHEAD OF ANY SWITCHED LEGS FOR CONTINUOUS CHARGING AND AC CIRCUIT MONITORING.
4. COORDINATE LOCATIONS AND DIRECTIONAL ARROWS OF ALL EXIT SIGNS WITH ARCHITECTURAL EGRESS PLAN.
5. PROVIDE IC HOUSING FOR LIGHTING FIXTURE WHERE REQUIRED; COORDINATE WITH ARCHITECTURAL PLANS.
6. FLOOR PROXIMITY EXIT SIGNS SHALL BE MOUNTED NOT LESS THAN 6 INCHES AND NO MORE THAN 18 INCHES ABOVE THE FINISHED FLOOR AND WITH THE NEAREST EDGE WITHIN 4 INCHES OF THE DOOR.

CONNECTIONS TO EXISTING CONDITIONS:

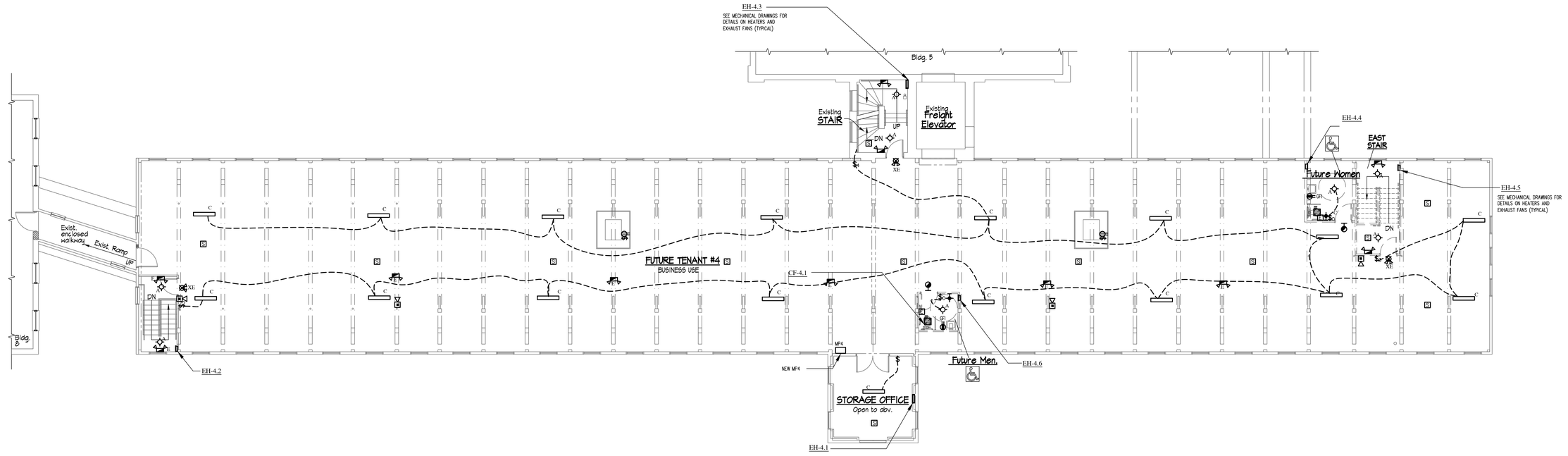
1. WHERE NEW CIRCUITS ARE TO ADDED TO EXISTING PANELBOARDS, CONFIRM THAT PANEL HAS SUFFICIENT SPACE AND CAPACITY FOR NEW LOADS.
2. MODIFY EXISTING PANEL DIRECTORIES TO REFLECT NEW CIRCUITS, ADDED OR DELETED.
3. WHERE NOT SPECIFICALLY INDICATED, NEW CIRCUITS ARE TO BE EXTENDED TO THE NEAREST APPROPRIATE PANEL.
4. ALL NEW CIRCUITRY SHALL BE COMPLETE WITH REQUIRED BRANCH CIRCUIT PROTECTION AND GROUNDING CONNECTIONS.
5. ANY WORK REQUIRING THE SHUT-DOWN OF ELECTRICAL SERVICE TO THE BUILDING AND/OR ANY PORTION THEREOF, THE E.C. SHALL MAKE ARRANGEMENTS WITH THE OWNER AND ANY OTHER CONCERNED AUTHORITY.
6. CERTAIN SYSTEMS, SUCH AS THE FIRE ALARM SYSTEM, SECURITY SYSTEM, ETC...MAY REQUIRE STAND-BY WATCHES DURING SHUT-DOWN. E.C. SHALL ARRANGE AND PAY FOR ANY SUCH STAND-BY WATCHES.
7. EXISTING SYSTEMS AFFECTED BY NEW WORK SHALL BE TESTED COMPLETELY FOR INTEGRITY AND PROPER OPERATION. RE-FEED CIRCUITS UP-STREAM AND DOWN-STREAM OF DEVICES BEING REMOVED.
8. MAKE ANY REVISIONS TO THE EXISTING WORK FOUND NECESSARY TO MAINTAIN ORIGINAL OPERATION. FURNISH AND INSTALL ALL NECESSARY ELECTRICAL EQUIPMENT AND DEVICES AS NEEDED AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE BUILDING CODES.
2. E.C. SHALL OBTAIN AND PAY FOR BOTH ROUGH AND FINAL INSPECTION AND OBTAIN A CERTIFICATE OF "ELECTRICAL INSPECTION". THIS CERTIFICATE SHALL BE PRESENTED WITH REQUEST FOR FINAL PAYMENT.
3. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND OPERATING ELECTRICAL SYSTEM. THE E.C. SHALL FURNISH AND INSTALL ALL WIRING, CONDUIT, EQUIPMENT, MATERIAL, ETC. AS REQUIRED., EXCEPT WHERE SPECIFICALLY NOTED AS BEING FURNISHED BY OTHERS. SHOULD THERE BE ANY QUESTIONS CONCERNING RESPONSIBILITY, THE QUESTIONS SHALL BE SETTLED BEFORE BID SUBMISSION AND CONTRACT SIGNING. NO EXTRA CHARGES WILL BE ALLOWED.
4. THE E.C. SHALL COORDINATE ALL PHASING OF WORK WITH THE ARCHITECT, GENERAL CONTRACTOR AND/OR OWNER OF THE PROJECT.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR SPECIFIC DETAILS, ARRANGEMENTS, MOUNTING HEIGHTS, CEILING CONSTRUCTION, ETC. ALL COLORS AND FINISHES TO BE SELECTED BY THE ARCHITECT.
6. ALL ELECTRICAL EQUIPMENT SHALL BE SEISMICALLY SUPPORTED AS REQUIRED BY THE LOCAL AND STATE BUILDING CODE.
7. ALL NECESSARY MOUNTING HARDWARE, HANGERS, BRACKETS, RAILS, YOKES, STEMS, CHAINS, ETC. SHALL BE FURNISHED AND INSTALLED BY E.C.
8. ALL HOMERUNS TO PANELBOARDS DESIGNATED SHALL CONSIST OF 2#12 AWG & 1#12 GROUND IN 3/4" CONDUIT TO PANEL LABELED AT THE HOMERUN SYMBOL UNLESS OTHERWISE NOTED.
9. ALL WIRING INSTALLED UNDER THIS CONTRACT SHALL BE TESTED FOR PROPER CONNECTIONS AND SHORT CIRCUITS PRIOR TO THE TURNING OVER OF WORK AS A COMPLETE UNIT.
10. ALL CONDUITS PASSING THROUGH PARTITIONS ARE TO BE APPROPRIATELY SLEEVED AND SEALED.
11. E.C. SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL AND FINAL ACCEPTANCE.
12. ALL CONDUIT AND WIRING SHALL BE RUN CONCEALED IN WALLS, FLOORS AND CEILINGS UNLESS OTHERWISE NOTED TO BE EXPOSED.
13. ALL WIRING SHALL BE TYPE THWN OR THW UNLESS OTHERWISE NOTED. FOR CONDUCTORS LARGER THAN #6 AWG, TYPE XHHW WILL BE ACCEPTED.
14. CONDUCTORS SIZED #10 AWG AND SMALLER SHALL BE SOLID WIRE CONDUCTORS. CONDUCTORS SIZED LARGER THAN #10 AWG SHALL BE STRANDED TYPE. COMMUNICATIONS AND CONTROL WIRE SHALL BE #14 GAUGE STRANDED, SHIELDED.
15. ALL CIRCUITS BACK TO PANEL SHALL REQUIRE 20A-1 POLE BREAKERS UNLESS OTHERWISE NOTED
16. ALL DRAWINGS ARE SCHEMATIC IN NATURE; ALL DEVICES SHALL BE INSTALLED IN ALL AREAS AND LIVING SPACES PER NEC AND SHALL BE DIMENSIONED IN FIELD TO MEET PROPER CODES; ALL DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION DURING BID PROCESS AND/OR ADJUSTED IN FIELD DURING CONSTRUCTION
17. ALL WORK IS NEW UNLESS OTHERWISE NOTED.

PROJECT NO:		17047		PANEL:		MP3A		DATE:	5/8/17
LOCATION:		4TH FLOOR		MOUNTING:		SURFACE		FEED:	TOP
VOLTAGE:		120/ 208		SOURCE:		MDP		BUS AMP:	100
WIRE:		4		COND:		1 1/4"		BRKR:	MLO
PHASE:		3		WIRE:		#2 AWG		GROUND:	#6 AWG
CKT	LOAD DESCRIPTION	WATTS		CB AMP		CB AMP	WATTS	LOAD DESCRIPTION	CKT
1	EH4.1	750		2P-20	A	2P-20	750	EH4-5	2
3	||	750		||	B	||	750	||	4
5	EH4.2	1000		2P-20	C	20	1080	LIGHTS	6
7	||	1000		||	A	20			8
9	EH4.3	1000		2P-20	B	20			10
11	||	1000		||	C	20			12
13	EH4.4	2000		2P-20	A	20	960	UH-1	14
15	||	2000		||	B	20	960	UH-2	16
17				20	C	20				18
19				20	A	20				20
21				20	B	20				22
23				20	C	20				24
25				20	A	20				26
27				20	B	20				28
29				20	C	20				30
TOTAL WATTS/PH:		A= 5460		B= 5460		C= 3080		TOTAL WATTS:	14000
								TOTAL AMPS:	38.9

NOTES:
1. VERIFY BREAKERS WITH NAMEPLATE RATINGS OF EQUIPMENT IN FIELD.
2. PROVIDE SIX (6) 20A-1P SPARE BREAKERS.
3. PROVIDE FULL COPPER BUSSING.



BLDG. 2&3 FOURTH FLOOR PLAN
SCALE: 1/8"=1'-0"

NORTH

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Drawn: SES
Date: May 9, 2017
Revisions

FOURTH FLOOR PLAN

E-1.5

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FIRE PROTECTION NOTES: NOTE PERTAIN TO ALL DRAWINGS

1. THE FIRE PROTECTION SYSTEM SHALL BE A MAINTAINING AND EXTENDING OF EXISTING "WET PIPE SYSTEM" AND AN ADDITION OF A "DRY PIPE SYSTEM" FOR THE BASEMENT SPACE.
2. COORDINATE FIRE PROTECTION WORK WITH OTHER TRADES AND STRUCTURAL ELEMENTS.
3. ALL PENETRATIONS OF RATED ASSEMBLIES TO BE SEALED WITH APPROVED FIRE RATED CAULK.
4. THE BUILDING IS TO BE FULLY SPRINKLED INCLUDING COMBUSTIBLE SPACES ABOVE CEILINGS, CONCEALED SPACES, ETC. AS PER NFPA-13 2010 AND INTERNATIONAL FIRE CODE 2012.
5. PROVIDE AUXILIARY DRAINS ON ISOLATED TRAPPED PIPING SECTION AS PER NFPA-13.
6. PROVIDE SEISMIC BRACING AS PER NFPA.
7. THE SPRINKLER LAYOUT IS TO BE BASED ON AN ORDINARY HAZARD W/130 SQ.FT. MAX COVERAGE PER HEAD. LIGHT HAZARD SYSTEM USING 225 SQ. FT. MAX COVERAGE PER HEAD FOR BATHROOMS, CLOSETS & VESTABULES. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE TO SECURE A FLOW TEST PER LOCAL WATER COMPANY GUIDELINES.
8. SPRINKLER CONTRACTOR IS RESPONSIBLE FOR THE FINAL LOCATION OF ALL RELATED EQUIPMENT (FIRE DEPT. SIAMESE CONN., WATER GONG, ELECTRIC BELL, DRAINS, TAMPER & FLOW SWITCHES, ETC.), SPRINKLER HEADS, AND ALL ASSOCIATED PIPING. COORDINATE FINAL COUNT OF SUPERVISORY AND FLOW SWITCHES WITH DIVISION 16.
9. SPRINKLER SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND ARE SHOWN AS A GUIDE FOR COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR A DESIGN & BUILD SERVICE AND SHALL INCLUDE IN THE BID ANY ADDITIONAL HEADS REQUIRED.

SPRINKLER COVERAGE NOTES: NOTE PERTAIN TO ALL DRAWINGS

1. 1ST – 4TH FLOORS – MAINTAIN EXISTING WET SYSTEM SPRINKLER COVERAGE, EXTEND, ADJUST OR ADD AS NEEDED SPRINKLERS FOR ADDED ROOMS ON PLANS. ALL PIPING TO BE EXPOSED & PAINTED.
2. BASEMENT – PROVIDE A DRY SYSTEM WITH UPRIGHT SPRINKLER COVERAGE. ALL PIPING TO BE EXPOSED IN UNFINISHED CEILING AREAS.

SYMBOL LIST

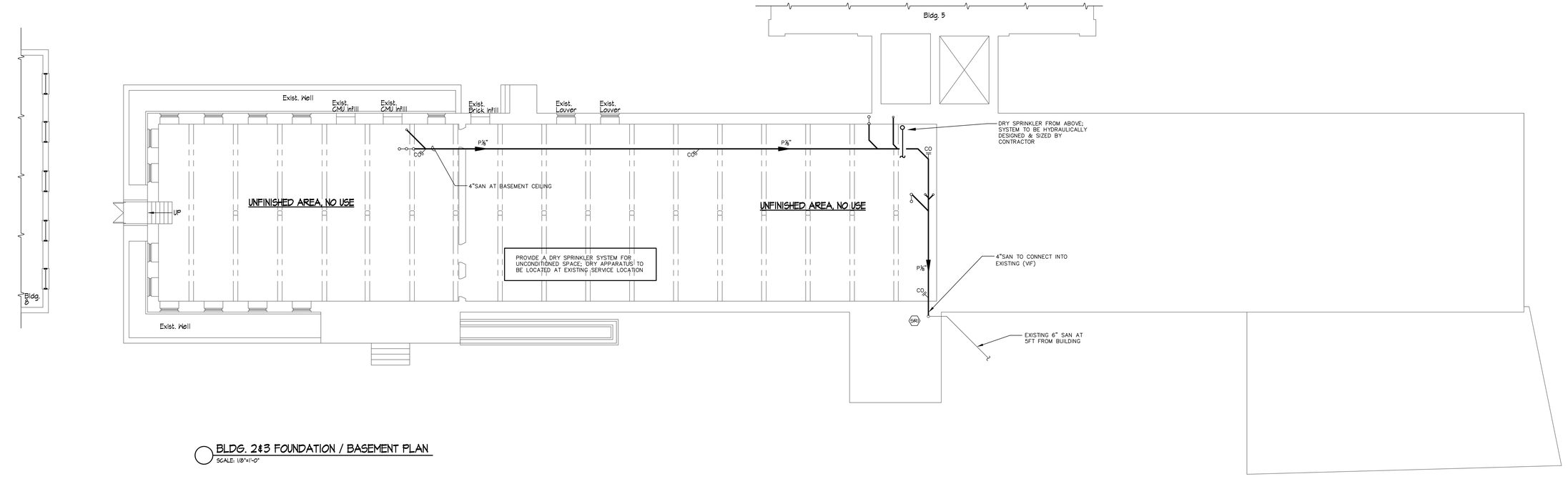
	COLD WATER PIPE (CW)
	HOT WATER PIPE (HW) (110°F)
	HOT WATER RECIRCULATION PIPE (HWR) (110°F)
	HOT WATER PIPE (140°F)
	HOT WATER CIRCULATION PIPE (140°F)
— S —	SANITARY PIPE (BROKEN LINE IS BELOW FLOOR)
— ST —	STORM PIPE
— EMST —	EMERGENCY STORM PIPE
	VENT PIPE (V)
—CD—	CONDENSATE / DRY PIPE
	DIRECTION OF FLOW
WCO	WALL CLEANOUT
	CHECK VALVE
W.S.	WASTE STACK
V.S.	VENT STACK
S.S.	SOIL STACK
V.T.R.	VENT THROUGH ROOF
	GATE VALVE
	BALL VALVE
— G —	GAS PIPE
	GAS SHUT OFF
	BACKFLOW PREVENTER
	PRESSURE REDUCING VALVE
	BALANCING VALVE
H.B.	HOSE BIBB (NON-FREEZE WHEN INDICATED)
F.D.	FLOOR DRAIN
FCO	FLOOR CLEANOUT
FGCO	FINISH GRADE CLEANOUT
(VIF)	VERIFY IN FIELD

PLUMBING NOTES: NOTES PERTAIN TO ALL DRAWINGS

1. ALL WATER PIPING TO BE WITHIN THE HEATED ENVELOPE OF BUILDING. ALL BRANCH PLUMBING WATER PIPES TO HAVE STOP AND WASTE VALVES.
2. PIPING AS SHOWN IS ONLY DIAGRAMMATICALLY PRESENTED; CONTRACTOR IS TO COORDINATE WITH OTHER TRADES AND NEW STRUCTURAL ELEMENTS.
3. ALL PENETRATIONS OF RATED ASSEMBLIES TO BE SEALED WITH APPROVED FIRE RATED CAULK; FIRE PENETRATION SYSTEMS SHALL MEET THE UL LISTING FOR EXISTING WALL OR FLOOR CONSTRUCTION.
4. PROVIDE ACCESS DOORS AS NEEDED FOR ALL SHUT-OFF VALVES AND COMPONENTS NEEDING ACCESS; COORDINATE WITH GENERAL CONTRACTOR.
5. SEE ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS.
6. INSULATE EXPOSED PIPING BELOW HANDICAP LAVATORIES AND SINKS.
7. ALL EXTERIOR EXPOSED GAS PIPING TO BE PAINTED.
8. PROVIDE SEISMIC BRACING AS REQUIRED PER CODE.
9. ALL FIXTURE WATER TERMINATIONS TO BE COPPER & THROUGH THE WALLS (UNLESS ON AN EXTERIOR WALL, THEN THROUGH FLOOR TO BE PERMITTED) AND HAVE ESCUTCHEON PLATES.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD ALL LOCATIONS AND SIZE OF EXISTING MAIN SANITARY AND WATER PIPING BEING TIED INTO AND VERIFY CONTINUITY, CONDITION AND PROPER SIZE. IF PIPING DOES NOT CONFORM TO ALL CONDITIONS THEN THE ARCHITECT & ENGINEER IS TO BE NOTIFIED.
11. ALL OVERHEAD PIPING AT EACH FLOOR TO BE AS HIGH AS POSSIBLE TO MAXIMIZE CLEARANCE BELOW.

SCHEDULE OF SIZING FOR ROUGHING FOR PLUMBING FIXTURES

WATER CLOSET- TANK TYPE	1/2"CW	3"S	2"V
LAVATORY SINK	1/2" H & CW	1-1/2"W	1-1/2"V
WATER COOLER	1/2" CW	1-1/2"W	1-1/2"V
SERVICE SINK	1/2" H & CW	1-1/2"W	1-1/2"V
HOSE BIB	3/4"CW	----------	----------



BLDG. 2&3 FOUNDATION / BASEMENT PLAN
SCALE: 1/8"=1'-0"

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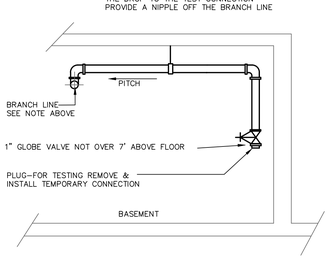
Drawn: RJM
Date: May 9, 2017
Revisions

BASEMENT FLOOR PLAN - FIRE PROTECTION & PLUMBING

FP-1.1

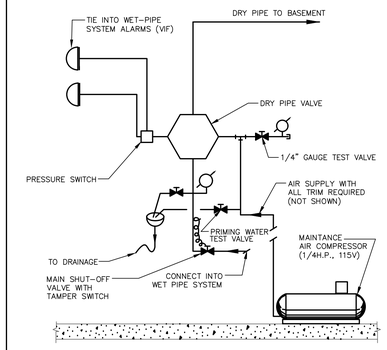
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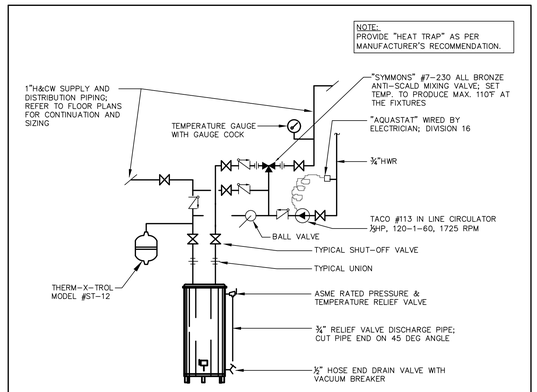
TEST CONNECTION ON DRY-PIPE SYSTEM

NOT TO SCALE



DRY PIPE SYSTEM CONNECTION

NOT TO SCALE



DOMESTIC WATER HEATER PIPING DETAIL

NOT TO SCALE

FIXTURE SCHEDULE

(P1) FIXTURE: "Kohler", Highline, Comfort Height, Class Five Elongated Toilet, Model #K-3658 Vitreous china. 16½" Comfort Rim Height, 1.28 Gal. flush, Elongated bowl, Floor mounted, Floor outlet. Provide Braided supplies, stops & escutcheons. Fixture is ADA Compliant.

Seat: "Olsonite" #47 Elongated bowl, open front seat LESS cover.

(P2) FIXTURE: "Kohler", Brenham, Wall mounted lavatory, Model #K-1997-4 Vitreous china, 4" center holes, concealed arms. Provide with wall carrier, Braided supplies, stops & escutcheons, 1¼" 17ga chrome P-trap, Front overflow, 22"x19¾" size. Undersink protection by "TRUEBRO LAV GUARD" Model #103.

Trim: "Symmons" Model #S-20-2-G-W-.5, 6" Lever chrome finish Faucet with grid drain assembly, vandal resistant 5GPM aerator. Fixture is ADA Compliant.

(P3) "ELKAY", Model #EZ4, Water Cooler, Single level wheelchair access model, includes LK464 drain and trap assembly. Fixture is ADA compliant.

(P4) FIXTURE: "Fiat", Service Sink, Model #MSB-2424 Molded-stone mop service sink.

Trim: "Fiat", Service Faucet, Model #830-AA. 30" hose & bracket Model #832-AA, Mop bracket Model #889CC, Wall guard Model #MSG 2424.

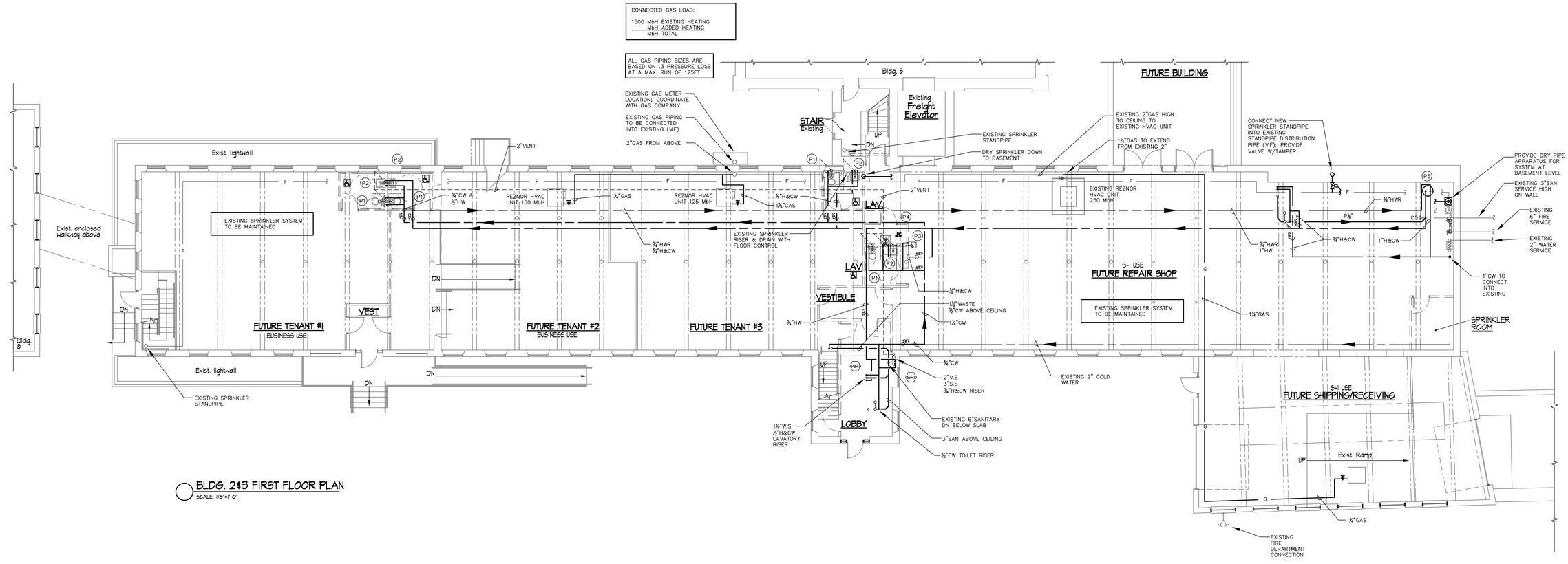
(P5) "A.O. Smith", Model #DEN-30, Commercial Electric Water Heater, 30 Gal. capacity, Non-Simultaneous double element element operation, single-phase, 208V, 4500/6000 Watt, 20 GPH recovery at 90°F temperature rise, glass lined, thick permafoam insulation, anode protection and a T&P relief valve.

— H.B.I ANSI/ASSE 1011; Non-freezing area, chrome plated hose thread spout, lock shield and removable key and integral vacuum breaker. Hydrant shall be Model #44-VB-PC and manufactured by Woodford or approval equal.

— H.B.E ANSI/ASSE 1019; Non-freeze, self-draining type with chrome plated hose thread spout, lock shield and removable key and integral vacuum breaker. Hydrant shall be Model #25C an manufactured by Woodford or approval equal.

— W.C.O. "J.R. Smith" #4400 Series-U Duco C.I. Spigot Ferrule with cast bronze taper thread plug. Chrome plated bronze round frame and vandal proof screws.

— F.C.O. "J.R. Smith" #4020-U Series, No-hub outlet. Duco C.I. Cleanout with round adjustable scoriated nickel bronze top. Vandal proof top.



BLDG. 2&3 FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

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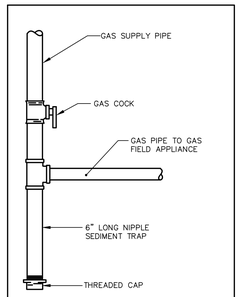
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Date: May 9, 2017
Revisions

FIRST FLOOR PLAN - FIRE PROTECTION & PLUMBING

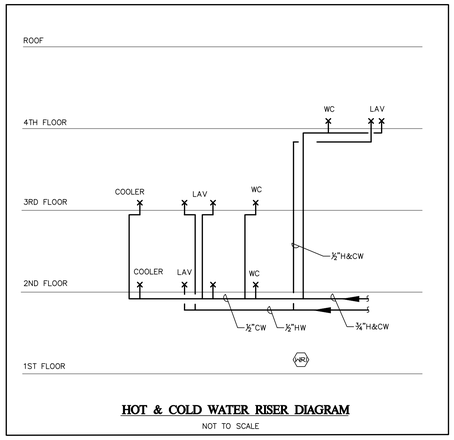
FP-1.2

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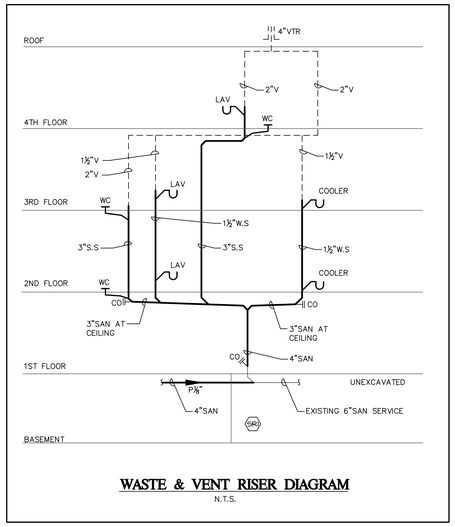
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TYPICAL SEDIMENT TRAP DETAIL
NOT TO SCALE



HOT & COLD WATER RISER DIAGRAM
NOT TO SCALE



WASTE & VENT RISER DIAGRAM
N.T.S.

BLDG. 2&3 SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

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Drawn: RJM
Date: May 9, 2017
Revisions

SECOND FLOOR PLAN - FIRE PROTECTION & PLUMBING

FP-1.3

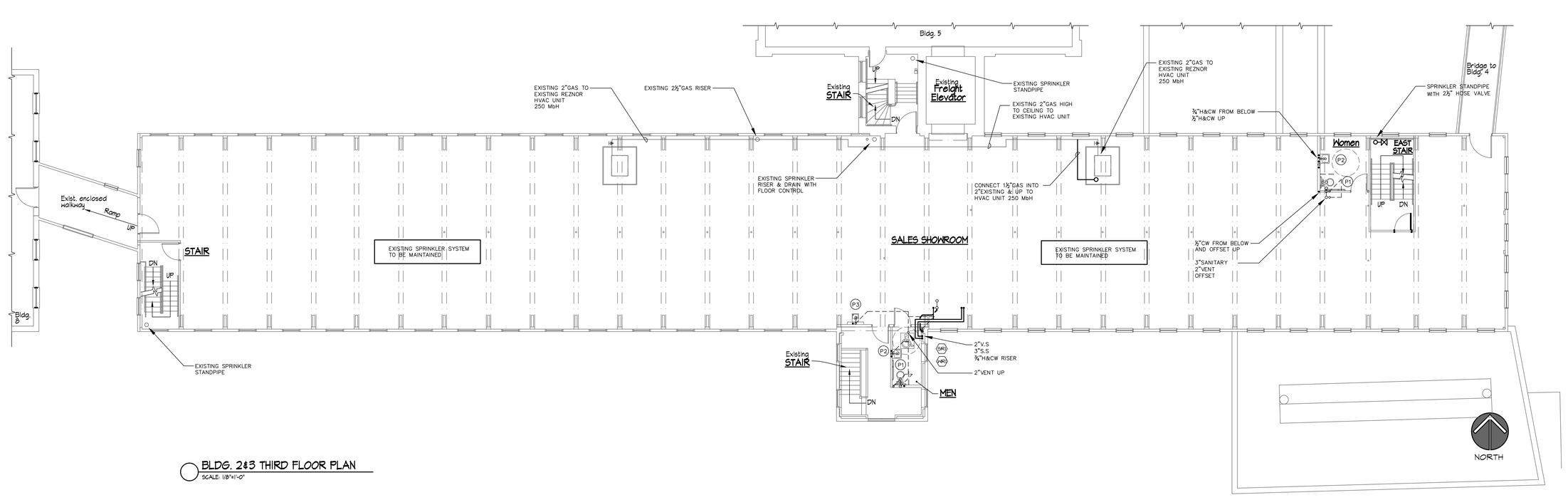
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BLDG. 2&3 THIRD FLOOR PLAN
SCALE: 1/8"=1'-0"

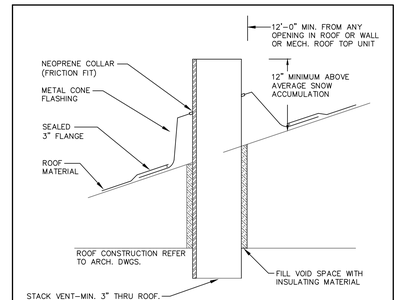
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Revisions

THIRD FLOOR PLAN - FIRE PROTECTION & PLUMBING

FP-1.4

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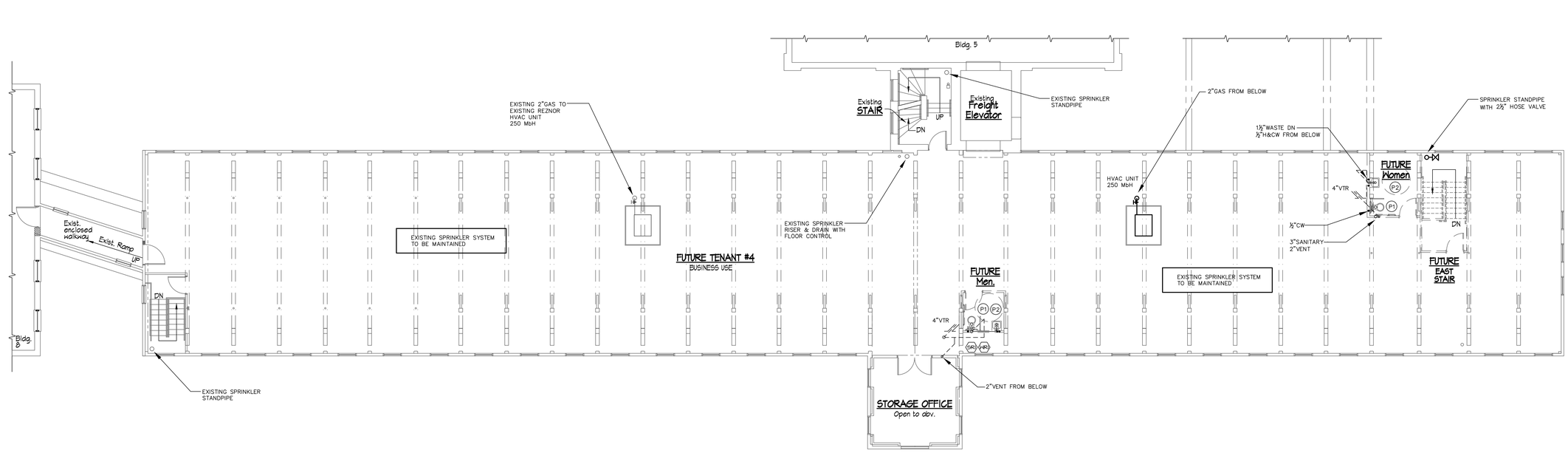


VENT STACK FLASHING DETAIL

NOT TO SCALE

NOTE:

ALL VENT RISERS SHALL BE OFFSET AS REQUIRED TO CLEAR ROOF STRUCTURE, DUCTWORK, OR MECHANICAL UNITS ON ROOF. PLUMBING CONTRACTOR MUST COORDINATE WITH OTHER TRADES.



BLDG. 2&3 FOURTH FLOOR PLAN

SCALE: 1/8"=1'-0"

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Drawn: RJM
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FOURTH FLOOR PLAN - FIRE PROTECTION & PLUMBING

FP-1.5

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FIRE PROTECTION AND PLUMBING SPECIFICATIONS

PART I. WET-PIPE SPRINKLER SYSTEM

1.00 GENERAL

A. Intent of the specifications is to call for finished work, tested and ready for operation.

B. Material and equipment mentioned in specifications or shown on the drawings shall be furnished new, completely installed and adjusted, and left in a clean, safe, and satisfactory condition ready for operation.

C. Minor details not usually shown or specified, but necessary for the proper installation and operation of the work shall be included as if specified herein.

D. Prior to submitting a bid, visit the site of the work, inspect the existing building and conditions so as to determine if these conditions will affect the work. Bidders are cautioned that they will be held responsible for any assumptions made regarding existing conditions.

E. Equipment and materials furnished or required shall be new, without blemish or fault, equipment shall bear labels attesting to approval by Underwriters Laboratories, AGA, or other recognized testing laboratory where specified or required to have such approval.

F. Where no specific indication as to type or quality is indicated, a first-class article shall be furnished.

G. Fully insure all employees, material and furnished work as required by the General Conditions of the contract.

H. Unless otherwise indicated, the work for each section shall include all scaffolding, rigging, hoisting and services necessary to deliver, install, erect in place all items as specified. Remove such handling materials when no longer needed.

1.01 WORK INCLUDED

A. Wet-pipe fire protection system Modification & Dry-pipe addition.

B. Sprinkler heads.

C. Coordination with existing conditions.

D. Sprinkler system and devices signage.

E. Hangers and supports for sprinkler installation.

1.02 REFERENCES

A. NFPA-13 – Installation of Sprinkler Systems, 2010 Edition.

B. International Fire Code, 2012 Edition with "Connecticut State Fire Code Amendments".

C. International Building Code, 2012 Edition. "With Connecticut Supplements"

D. NFPA 220 – Types of Building Construction, 2010 Edition.

1.03 SYSTEMS DESCRIPTION

A. Modify and Extend existing wet-pipe sprinkler system as indicated.

B. The piping layout and head locations indicated on the Contract Drawings are diagrammatic. The Contractor is responsible for a complete, fully coordinated installation.

C. Coordinate existing structural elements and building construction for adequate coverage.

D. System shall be designed to meet NFPA-13 Standard, Engineer's requirements, Fire Marshal's requirements.

1.04 QUALITY ASSURANCE

A. Design and installation to conform to NFPA-13.

B. Equipment and Components: Bear UL.

C. Additional coverage shall conform to referenced code above.

D. System design and installation shall meet the requirements of the local Fire Marshal.

1.05 SUBMITTALS

A. Submit shop drawings and product data for approval.

B. Submit manufacturer's data, drawings, and installation instructions for all equipment and specialties.

C. Submit installation shop drawings, including major building structural components, detailed pipe layout, elevations, hanger and support locations, seismic brace locations, and components and accessories. Show all changes in ceiling elevation, obstructions. Coordinate these shop drawings with all building elements, including, but not limited to, mechanical system, electrical systems, structural systems, architectural components, reflected ceilings, etc. Provide dimensioning of critical areas.

D. Shop Drawings shall be ¼" equals 1'-0" scale minimum.

E. After successful review by Architect and Engineer, submit shop drawings to Owner's insurance underwriter and local Fire Marshal for approval. Submit proof of approval to Architect/Engineer. Any deviation from approved plans must require approval from the Fire Marshal and Architect/Engineer.

PART 2 PRODUCTS

2.01 SPRINKLER HEADS

A. Coordinate new head with same manufacturer as existing.

1. Adjustable pendent chrome type.
2. Upright brass heads.
3. Dry Sidewall heads.

2.02 PIPING

A. Provide schedule 40 steel piping (threaded).

PART 3 EXECUTION

3.01 PREPARATION

A. Coordinate work of this Section with other affected work.

B. The Contractor shall field verify prior to the installation of the sprinkler system the location of exposed structure and other building elements. The Contractor shall furnish and install the appropriate sprinkler head type and spacing per NFPA for this application.

3.02 INSTALLATION – PIPING

A. Place pipe runs to minimize obstruction to other work and existing construction. Provide pipe offsets to avoid all obstructions and interferences.

B. The Contractor may be allowed to deviate from the design drawings with the permission of the Engineer. The Contractor shall be responsible for any additional expenses that the deviation may require.

C. Hangers and supports shall be in accordance with the requirements of Section 6-1 of NFPA-13 for Sprinkler piping.

D. Where necessary or directed by the Fire Marshal, provide intermediate pipe support members, connecting these members into existing building structure.

3.03 DELIVERY, STORAGE AND HANDLING

A. Provide temporary caps.

B. Maintain caps in place until installation.

3.04 EXTRA STOCK

A. Provide extra sprinkler heads under provisions of NFPA-13. Provide extra sprinkler heads in proportion to the type of heads installed.

B. Provide suitable wrenches for each head type.

C. Provide sprinkler head cabinets to store the extra supply of heads and wrenches in locations designated.

3.05 CLEANING

A. Flush entire piping system of foreign matter.

3.06 SYSTEM TESTS

A. Hydrostatically test entire refurbished system.

B. Test shall be witnessed by authority having jurisdiction.

II. PLUMBING SPECIFICATIONS

1.01 SCOPE

A. All plumbing equipment, materials and accessories necessary to complete the plumbing system as shown on drawings and described, or as required to put the system in operation, are a part of this Contract.

B. Work shall include furnishing all labor and materials, equipment, and tools necessary to install a complete plumbing system as shown on Drawings and/or called for in the specifications, including all pipe valves, fittings, fixtures, drains, insulation, miscellaneous specialties and accessories. Contractor, to identify in field all existing sanitary, vent, cold water and hot water in order to connect new plumbing lines.

C. The plumbing system for the building shall consist of, but not be limited to, the following:

1. A complete gravity sanitary system, vent and drain pipes to be connected into existing sanitary/vent system.
2. A complete system of hot and cold water piping system to fixtures.
3. Insulation of piping, as hereinafter described.
4. A complete gas system to new HVAC, including connection into existing piping.

1.02 SOIL, WASTE, VENT AND DRAINAGE LINES

A. All offsets shall be made at an angle of not more than 45 degrees, and all horizontal runs shall have a pitch of not less than ⅜" to the foot (¼" for piping under 3"). Branch, waste and vent connections shall be run to the house drain or vent stacks as shown on the Drawings. Vertical vent pipes may be connected to a stacks as shown on the Drawings. Vertical vent pipes may be connected to a one main vent riser above fixtures serving other fixtures, the vent line shall be extended 3 ft. above the floor on which the fixtures are located vent line before being connected to the other vent lines, so as to prevent the use of any vent line as a waste.

B. All changes in pipe size shall be made with reducing fittings or recessed reducers, Y-fittings, and ⅛" or 1/16" bends or combination Y- and ⅛" bends shall be used where possible.

C. Sanitary long sweep bends and T's shall be used for connections to branch lines for fixtures and on vertical runs on pipe. Long turn fittings shall be used wherever conditions permit. Long sweep fittings shall be used on all horizontal to vertical runs.

D. Soil, waste, and vent branch piping installed above floor slab in walls shall be plastic pipe type "PVC" Schedule 40 with fittings. Joints to be solvent-cemented. Soil & waste piping installed below floor slab shall be plastic pipe type "PVC" Schedule 40 with fittings. Joints to be solvent-cemented. (Contractor to use plenum rated materials as required.)

1.03 CLEANOUTS

A. The plumbing contractor shall provide cleanouts, of same size as line served up to 4", at changes in direction of drain lines of 90 degrees or more, and elsewhere as required by the Plumbing Code.

B. Cleanouts shall have raised heads and shall be located and installed so that they may be readily accessible and removable for cleaning lines.

1.04 WATER PIPING

A. Plumbing contractor shall supply and install valves, a complete system of hot and cold water piping, plumbing fixtures, etc., all as shown on Plumbing Drawings.

B. Hot and cold water piping shall be hard drawn copper tubing Type "L". Joints to be 95-5 solder.

C. Pipe sizes shall be not less than sized indicated on Drawings and specified herein.

1.05 GAS PIPING

A. Gas piping shall be schedule 40 black steel pipe.

B. Plumbing contractor shall commence with gas pipe to equipment as shown on plans. Plumbing contractor shall be responsible for any charges for the complete gas service.

1.06 CONNECTIONS TO FIXTURES

A. All branches from mains shall be equipped with stop and waste valves.

B. Connections shall be made from the top of the mains, unless otherwise specified. Branches shall drain toward the mains. The piping installation shall be so arranged that the entire system can be drained through accessible valves at low points. The plumbing contractor shall provide the necessary valves.

1.07 UNIONS

A. Where union connections are installed on pipe 1" in diameter and smaller, they shall be of brass composition "B".

B. All piping shall be provided at intervals with unions to permit alterations and repairs.

1.08 VALVES

A. The entire plumbing system shall be provided with valves, so located that they may be operated, repaired and/or replaced with a minimum of effort.

B. The following list of valves is intended only as a guide to the plumbing contractor:

1. Ball Valves, ¾" – 4" – WATTS B6000 Series.
2. Gate Valves, ¾" – 4" – WATTS GV Series.
3. Globe Valves, ¾" – 2" – WATTS GLV Series.
4. Stop and Waste Valves, 1" and smaller – WATTS Series SWS.

C. Valves shall be Crane, Jenkins, Red & White or Nibco, located as shown on Drawings, and on all branch mains.

1.09 PIPE SUPPORTS

A. Piping shall be supported form the building structure by means of approved hangers and supports. Pipeline shall be supported to maintain required grading and pitching of lines to prevent vibration and to secure piping in place, and shall be so arranged as to provide for expansion and contraction.

B. The spacing of hangers shall not be greater than 4 ft. center to center for pipe smaller than 1".

C. Vertical lines shall be adequately supported at their bases by a suitable hanger in place with the horizontal line near the riser.

D. Hangers for copper tubing shall be copper plated, equal to Grinnell No. 97 CP. All other hangers shall be adjustable clevis hangers. Hanger rods shall have machine threads.

1.10 PIPE SLEEVES AND RECESSES

A. The plumbing contractor shall furnish and install sleeves in connection with all piping passing through masonry. Plumbing contractor shall be responsible for location, setting and anchoring of sleeves in a substantial manner so that they will not be displaced. Plumbing pipes run in sleeves shall be made Fireproof by Contractor. Fire protection system shall meet the UL listing for existing wall or floor construction.

B. Where recesses are required for piping, the plumbing contractor shall instruct the various trades as to sizes and locations required in advance of construction.

1.11 ESCUTCHEONS

A. Where un-insulated, exposed pipes pass through floors, finished walls, or finished ceilings, they shall be fitted with neat, heavy spun or stamped escutcheons, firmly secured to pipes. Escutcheons shall be of sufficient outside diameter to amply cover the sleeve openings for pipes. Escutcheons shall be nonferrous metal, chromium plated.

1.12 INSULATION OF PIPING

A. All insulation and covering on pipe and tubing to meet the IBC2003 Section 719.7 for flame spread index.

B. Hot Water Lines: All hot water pipes shall be insulated with closed cell elastomeric insulation, ¾" thick, as manufactured by Armstrong Corporation, Johns-Manville, or approved thermal equal.

C. Cold Water Lines: All cold water pipes, including horizontal and vertical runs, shall be insulated with closed cell elastomeric insulation, ½" thick, with factory applied vapor barrier jacket, as manufactured by Armstrong Corporation, Johns-Manville, or approved thermal equal.

1.13 PLUMBING FIXTURES – GENERAL REQUIREMENTS

A. Plumbing contractor shall furnish and install all fixtures in accordance with the Drawings and with the schedule.

B. Where escutcheons are not furnished with plumbing fixtures, the plumbing contractor shall supply them.

C. Each fixture shall be separately trapped, using the type and size of trap required by the Plumbing Code.

D. Unless otherwise specified, faucets and all exposed fittings shall be chromium plated.

E. All low voltage wire for fixtures and or faucets shall be provided and installed by contractor.

F. The Owner and the Architect shall be the final judges as to whether fixtures fulfill the requirements of the specifications and as to whether they are of a suitable quality.

1.14 INSTALLATION

A. Plumbing contractor shall furnish, set, seal and connect all fixtures and accessories shown and specified, including all necessary supports, connections, fittings and parts required to fully complete the plumbing installation.

1.15 ACCESS DOORS

A. Where access doors in walls or ceilings are required for valves, traps, etc., they shall be of flush type with anchor, frame and hinged panel as manufactured by Milcor or Zurn. Access doors shall be furnished by plumbing contractor to the General Contractor who will install them.

1.16 TESTING AND START-UP

A. Test all drainage piping, including vents to a minimum of 10 feet head for 2 hours without leakage or any drop in water level.

B. Test all hot and cold water piping hydraulically to 150 psig for 24 hours without leaks or loss of pressure.

C. Flush all piping to remove all dirt and debris before starting up any system.

D. Check the water flow at faucet. Run full flow tests for each system and correct any noise, vibration, or water hammer.

E. Perform disinfection of domestic water piping system, as required by Code.

F. Test the final gas distribution entirely as per Code.

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Date: May 9, 2017
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SPECIFICATION - FIRE PROTECTION & PLUMBING

FP-2.1

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