Renovations to:

OLD WOODBRIDGE FIRE STATION

4 NEWTON ROAD, WOODBRIDGE,CT 06525



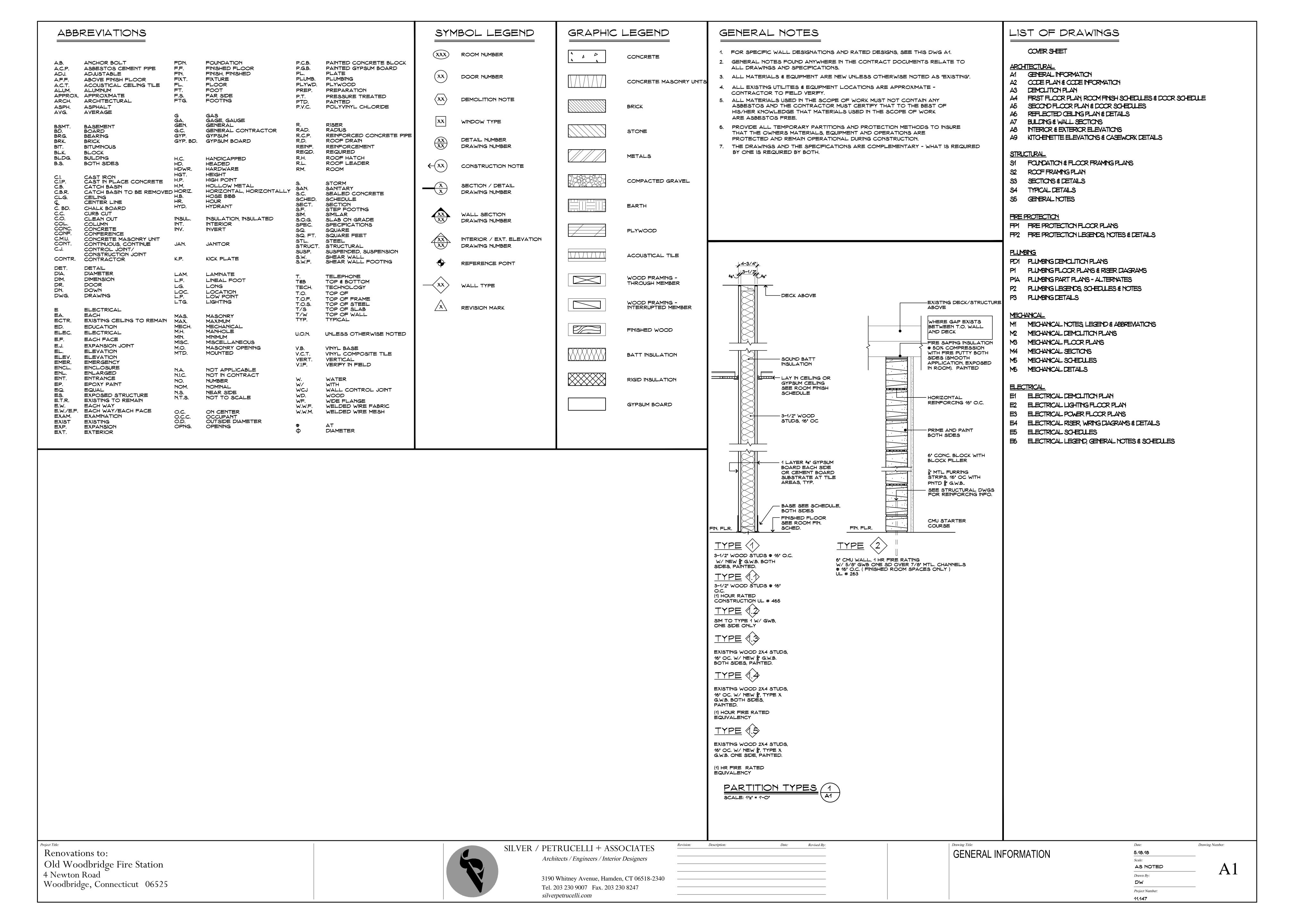
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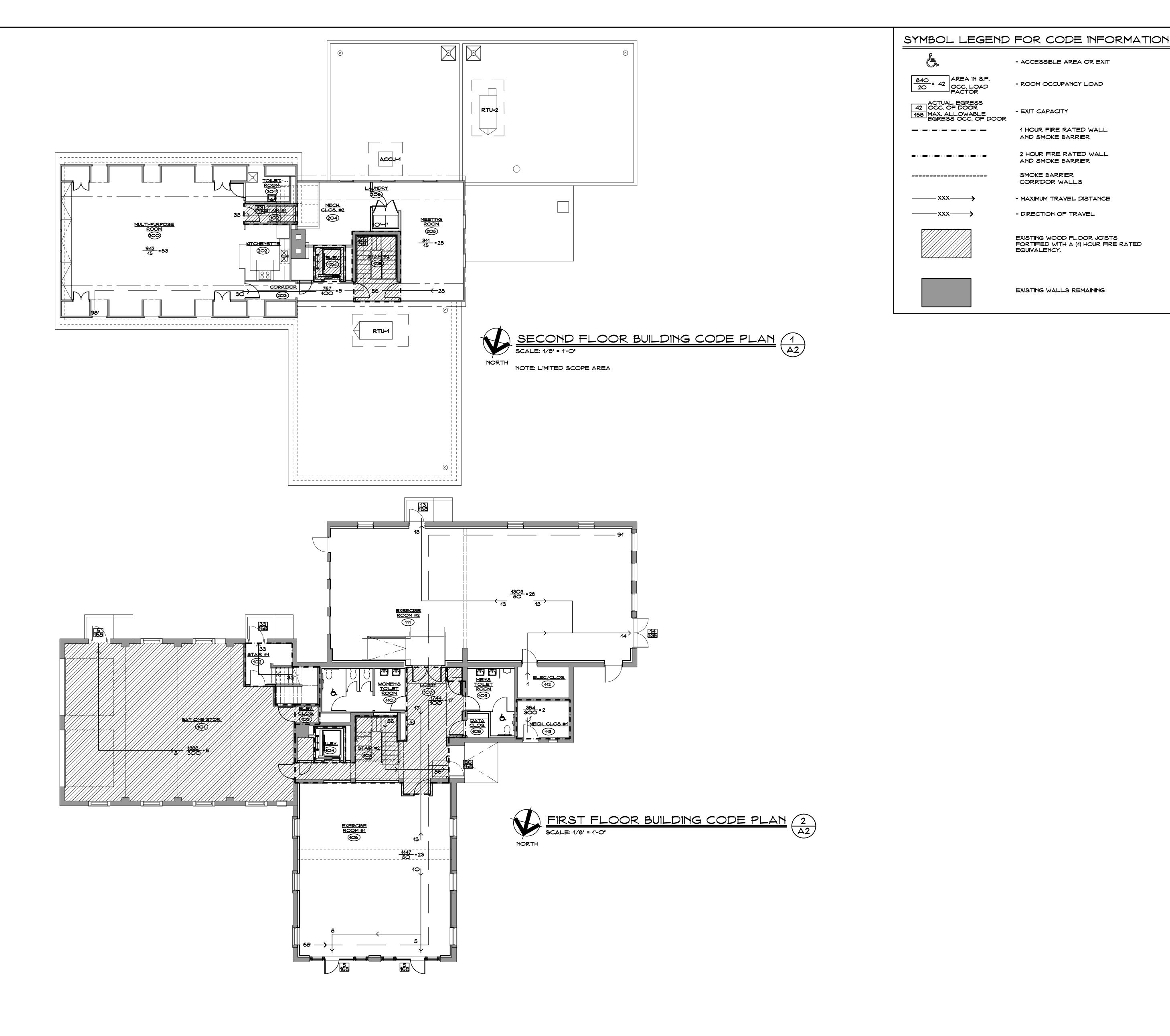
Architects/Engineers/Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340
Tel. 203 230 9007 Fax. 203 230 8247

silverpetrucelli.com

100% CD's May 18, 2018





	CODE INFORMATI	<u>01</u>	
	DATE OF ORIGINAL CONSTRUCTION	1937	
1.	USE GROUP CLASSIFICATION (Chapter 3)		
	(Primary	1 42	
	(Incidental)		
2.	CONSTRUCTION TYPE (Chapter 6)	·····	
	Minimum Type Required	111B 111B	
	Actual Type Provided (existing) (new)		
		L	
3.	BUILDING HEIGHT (Chapter 5) Allowable Height (story/feet)	2 ST / 55	,
	Allowable Height (story/feet) Actual Height (story/feet)	2 ST / 33	
	(Storles Above Grade)	2	
4.	BUILDING AREA (Chapter 5)		
	a) Building Area (first floor)		
	Existing construction	8,283	s
	Renovated extg. area	8,283	s ا
	New construction area Total floor	8,283	s
5.	AREA MODIFICATIONS TO TABLE 503		
	tal Perimeter = <u>120'</u> ft. <u>92'</u> f		<u>2'</u>
Пр	en Perimeter = <u>120'</u> ft, <u>92'</u> f N E		92' S
То	tal Frontage (F) <u>438'</u> ft. Per	imeter (P) <u>438'</u>	f
		rimeter of the er .ding)	ntir
ha	ving 20 feet open min.) with of open space (W) = 30		
	=100[F/P-0,25]W/30	_	
	0[<u>438'</u> / <u>438'</u> -0.25] <u>30</u> /30= <u>75</u>	<u>5_</u>	
	Frontage increase (lf) = 75	_	
	of Allowable Tabular Area, At (table	<u> </u>	
	of Increase for frontage, lf (506.2		10
1 %	of Increase for automatic sprinkler		20
450	16.3) tal percentage factor	<u> </u>	3
Со	nversion factor		3.
(To	otal percentage factor 100)		
6. C	ASE 1 - SINGLE OCCUPANCY OR NONSE	PARATED USES (302	2.3.1
		(Allowable Area 5	06.4
	JSE GROUP A-3		
I	a) ALLOWABLE AREA per floor (A3)		
	3.75 × 9,500 (tabular area,	35,625	sq.
	factor) Table 503)		
	b) TOTAL FLOOR AREA (all stories)		
		8,283	sq.
ı	c) ALLOWABLE FLOOR AREA (all storie	·s>	•
ı	c) ALLOWABLE FLOOR AREA (all storie	·s>	•
1	c) ALLOWABLE FLOOR AREA (all stories) 35,625 Allowable area × number of per floor (Aa) stories (maximum)	·s)	•
	c) ALLOWABLE FLOOR AREA (all stories) 35,625 Allowable area x number of stories (maximum 3)	71,250	•
	c) ALLOWABLE FLOOR AREA (all stories) 35,625 Allowable area × number of per floor (Aa) stories (maximum)	71,250	•
	c) ALLOWABLE FLOOR AREA (all stories) 35,625 Allowable area x number of stories (maximum 3) ASE 2 - MIXED OCCUPANCY UNSEPARAT	71,250	•
7. C	c) ALLOWABLE FLOOR AREA (all stories) 35,625 Allowable area × number of stories (maximum 3) ASE 2 - MIXED OCCUPANCY UNSEPARAT not applicable IRE-RESISTANCE RATED REQUIREMENTS	71,250 (302.3.2)	∍q,
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Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525



Revision: Description: Date: Revised By: SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers 3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

CODE PLAN & CODE INFORMATION

- ACCESSIBLE AREA OR EXIT

- ROOM OCCUPANCY LOAD

1 HOUR FIRE RATED WALL

2 HOUR FIRE RATED WALL AND SMOKE BARRIER

- MAXIMUM TRAVEL DISTANCE

EXISTING WOOD FLOOR JOISTS FORTIFIED WITH A (1) HOUR FIRE RATED EQUIVALENCY.

- DIRECTION OF TRAVEL

EXISTING WALLS REMAINING

AND SMOKE BARRIER

SMOKE BARRIER

CORRIDOR WALLS

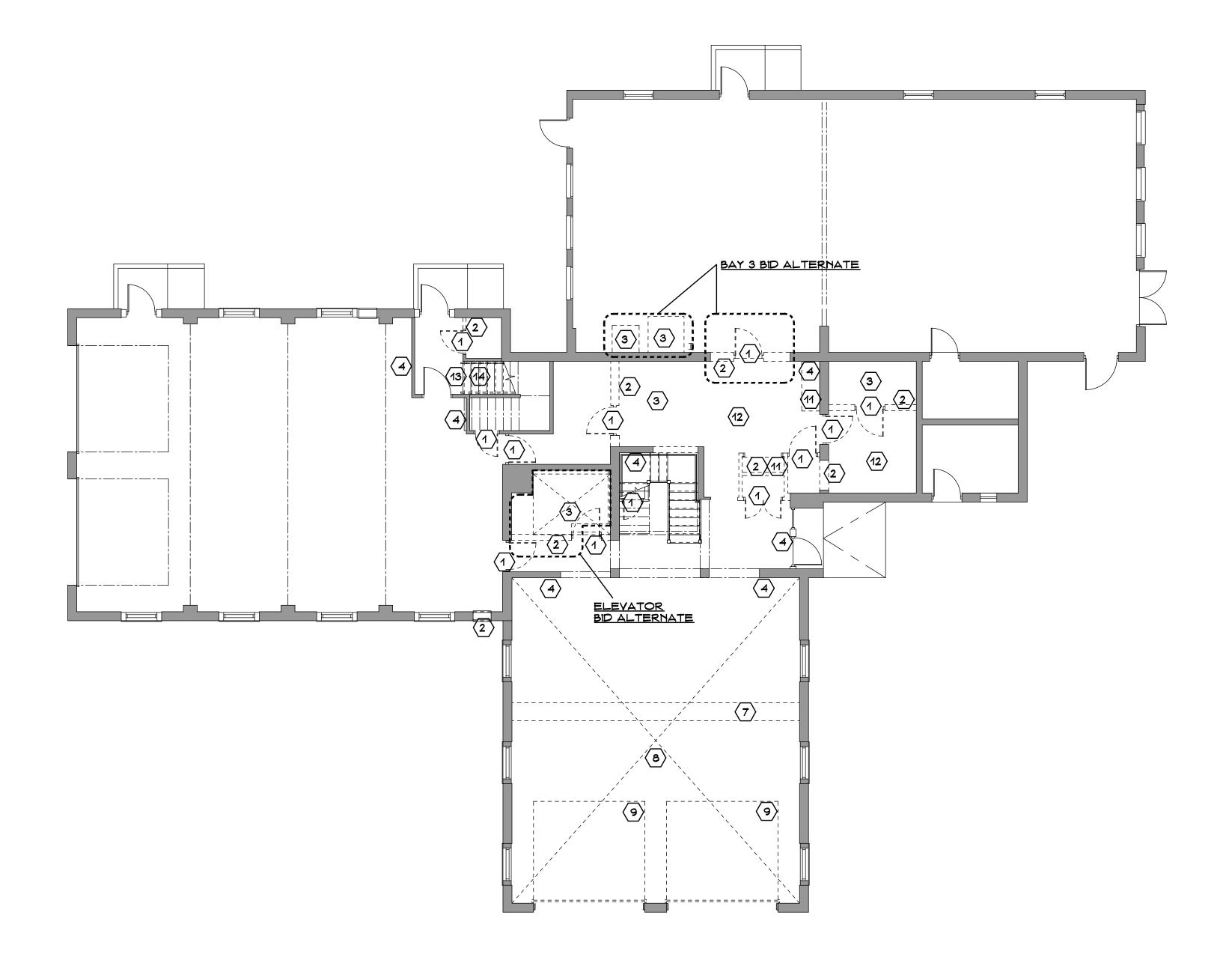
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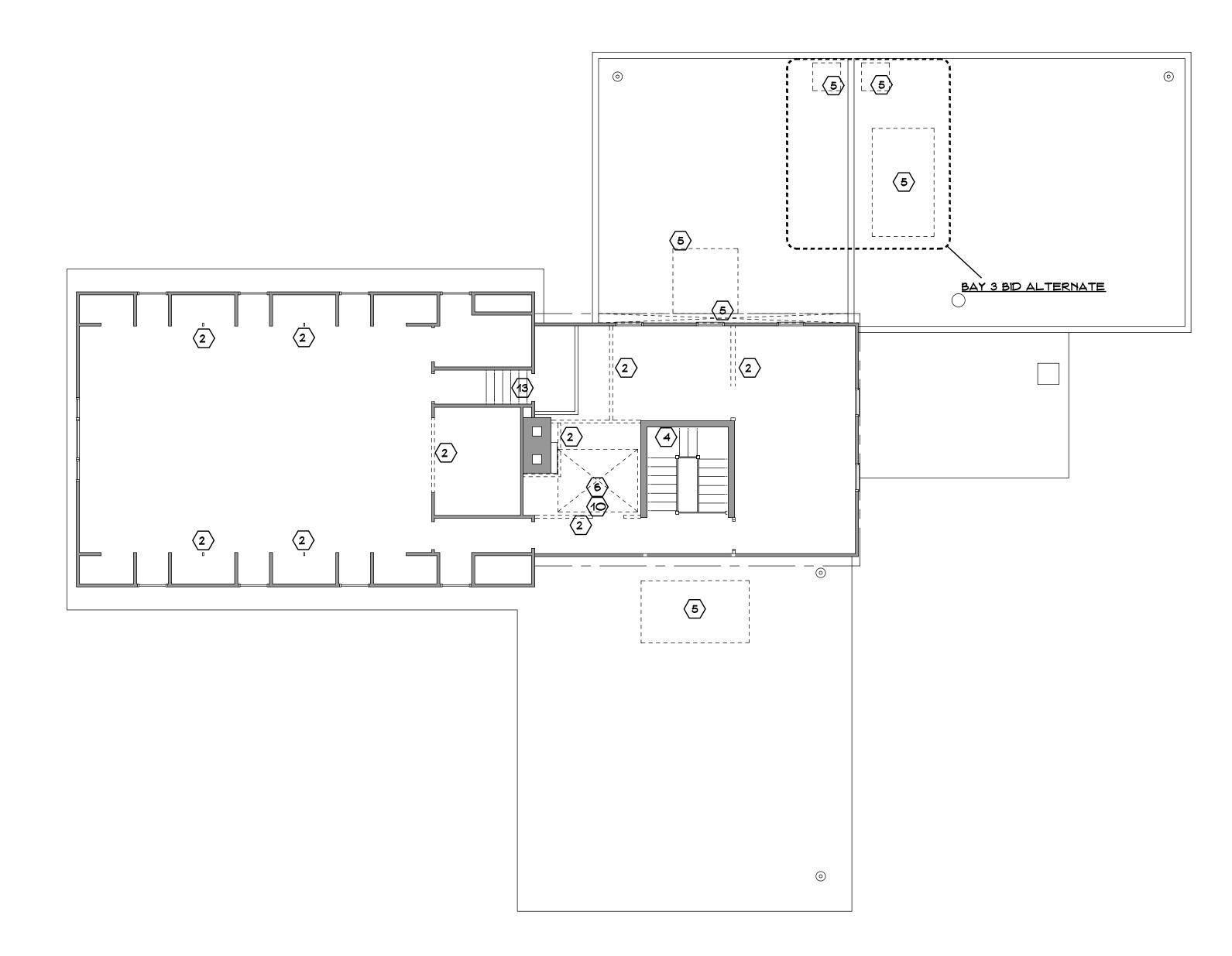
- EXIT CAPACITY

Drawing Number: Date: 5.18.18 Scale: AS NOTED Drawn By: Project Number: 11.147

DEMOLITION NOTES GENERAL DEMOLITION NOTES A. THE DEMOLITION DRAWINGS AND NOTES ARE PROVIDED AS A GUIDE TO THE SCOPE OF DEMOLITION WORK REQUIRED FOR THIS PROJECT. IT IS NOT THE INTENT OF THE DOCUMENT DRAWINGS AND NOTES TO DESCRIBE EVERY DEMOLITION CONDITION. B. DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CODES, REGULATIONS AND ORDINANCES OF LOCAL, STATE, AND FEDERAL AUTHORITIES. DEMOLITION WORK SHALL BE PERFORMED IN COOPERATION AND ACCORDANCE WITH THE REQUIREMENTS OF UTILITY COMPANIES PROVIDING SERVICES TO THE PROJECT SITE. C. PROVIDE ALL NECESSARY AND REQUIRED GUARD FENCES, CATCH PLATFORMS, AND PROTECTION DEVICES FOR ADJACENT PROPERTIES AND PUBLIC WAYS IN IN ACCORDANCE WITH THE LATEST STATE BASIC BUILDING AND DEMO CODES. D. EACH CONTRACTOR IS RESPONSIBLE FOR THE DEMO ITEMS PERTAINING TO HIS TRADE, UNLESS OTHERWISE AGREED UPON. E. PROVIDE ALL NECESSARY BARRIERS AND STRUCTURES REQUIRED TO KEEP PROJECT SITE AND ADJACENT PROPERTIES SAFE AND DEBRIS FREE. G. PROVIDE PROPER PROTECTION FOR FOUNDATION WALLS AND MISC. ITEMS TO REMAIN, DURING DEMOLITION AND CONSTRUCTION PERIODS. H. MAINTAIN ALL REQUIRED FIRE DEPARTMENT VEHICLE AND EQUIPMENT ACCESS. SPECIFIC DEMOLITION NOTES NOTE: COORDINATE ALL DEMOLITION W/ NEW WORK. $\langle 1 \rangle$ REMOVE EXISTING DOOR,FRAME, CASING & DOOR HDWR. $\langle 2 \rangle$ REMOVE EXISTING WALL OR PORTION. COORDINATE WITH STRUCTURAL. $\langle 3 \rangle$ REMOVE EXISTING SLAB. COORDINATE WITH STRUCTURAL AND PLUMBING SCOPE. $\langle 4 \rangle$ REMOVE EXISTING GWB WALL FINISH DOWN TO EXISTING FRAMING & FURRING. COORD W/NEW WORK. $\langle 5 \rangle$ REMOVE PORTION OF EXISTING ROOFING FOR NEW SCOPE. \langle 6 \rangle REMOVE PORTION OF EXISTING FLOOR CONSTRUCTION, COORD. W/STRUCTURAL. $\langle 7 \rangle$ REMOVE EXISTING TRENCH DRAIN GRATING AND ASSOCIATED SUPPORT ANGLES. PREP FOR NEW CONC. INFILL. (8) SCARIFY EXISTING CONCRETE FINISH IN PREPARATION OF NEW SLAB LEVELING. \langle 9angle REMOVE EXISTING BAY DOORS, GUIDE RAILS. RETURN OPERATORS TO OWNER. (10) REMOVE EXISTING PORTION OF EXISTING ROOF CONST., ROOFING, AND SUBSTRATE. COORD. WITH STRUCTURAL. (11) REMOVE EXISTING CASEWORK. $\langle 12 \rangle$ REMOVE EXISTING FLOORING. COORD. W/ENVIRONMENTAL ABATEMENT. (13) REMOVE EXISTING WOOD PANELING THROUGOUT EXISTING STAIR & EXIT WAY. (14) REMOVE EXISTING WOOD HANDRAILS









Renovations to:
Old Woodbridge Fire Station
4 Newton Road
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SILVER / PETRUCELLI + ASSOCIATES

Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 *silverpetrucelli.com*

Revision: Date: Revised By:

DEMOLITION PLAN

 Date:
 Drawing Number:

 5.18.18

 Scale:

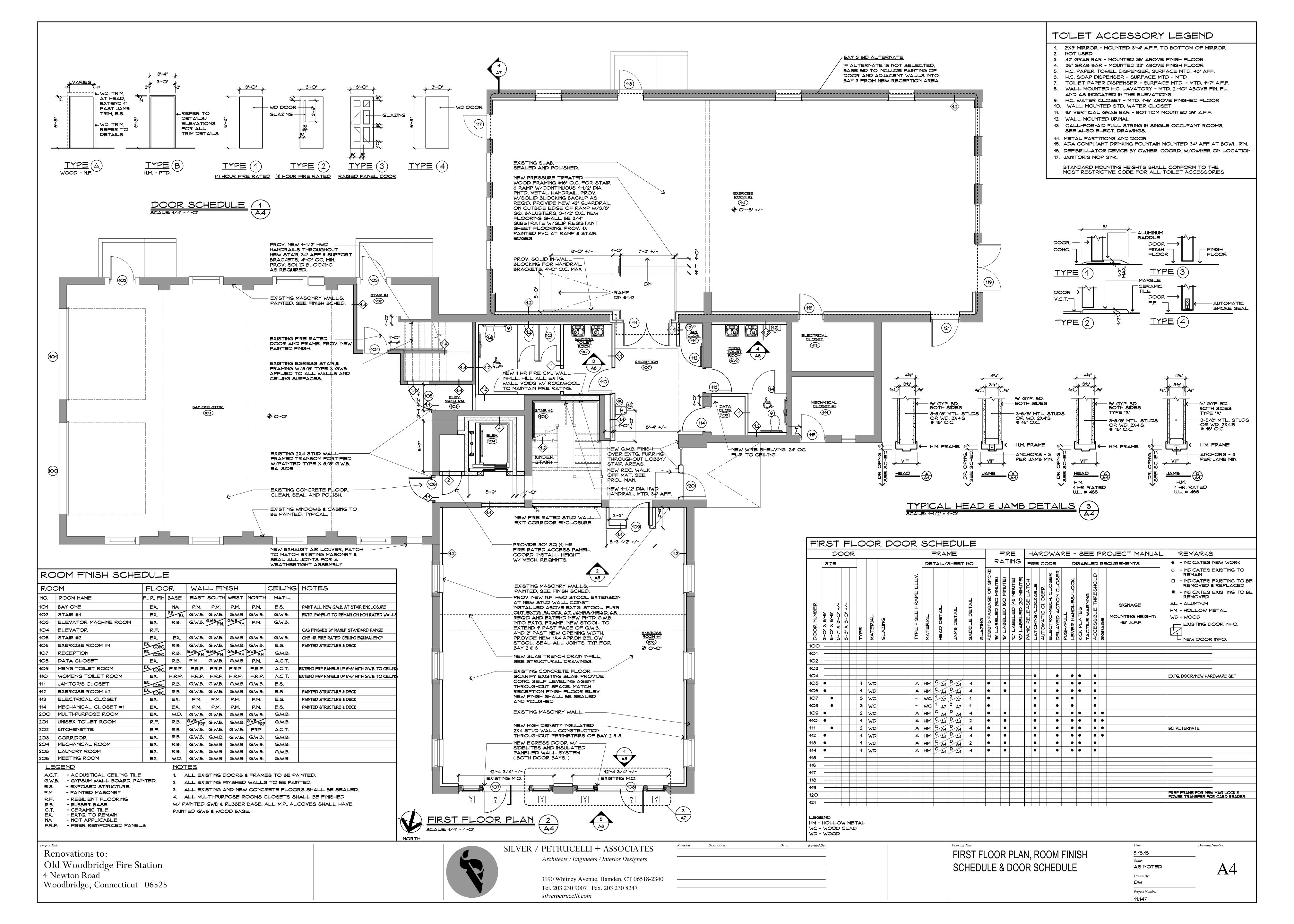
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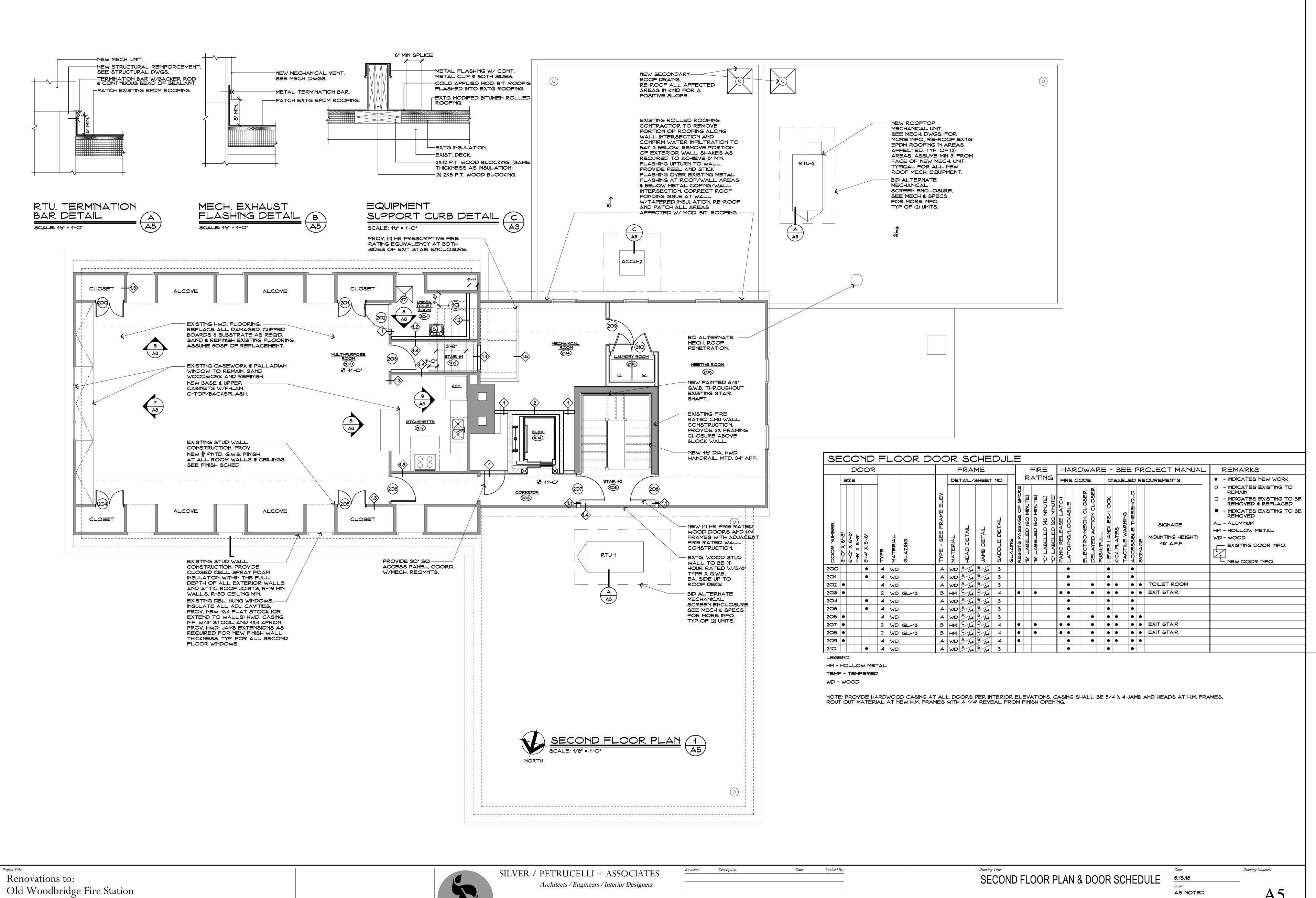
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Project Number:

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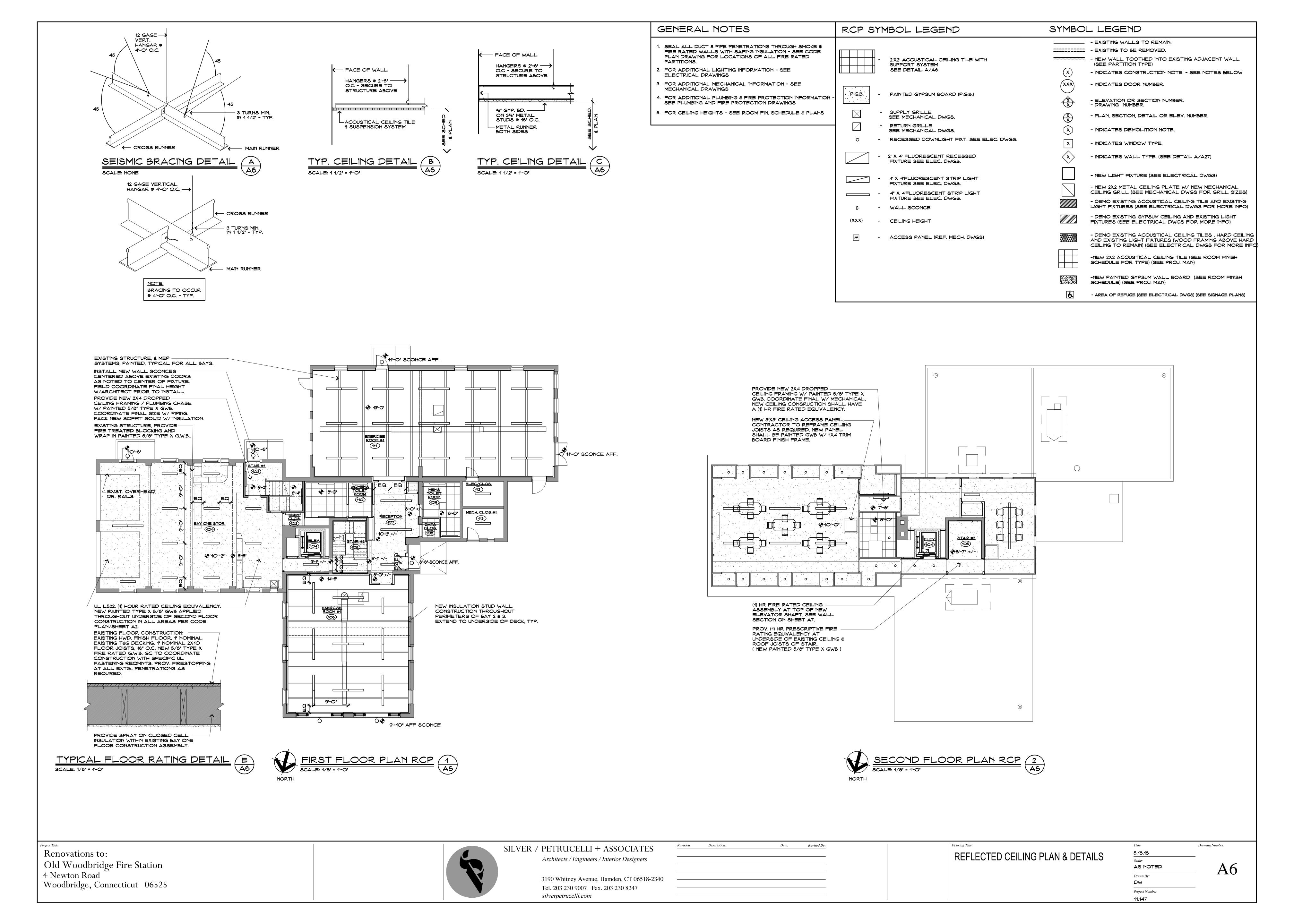


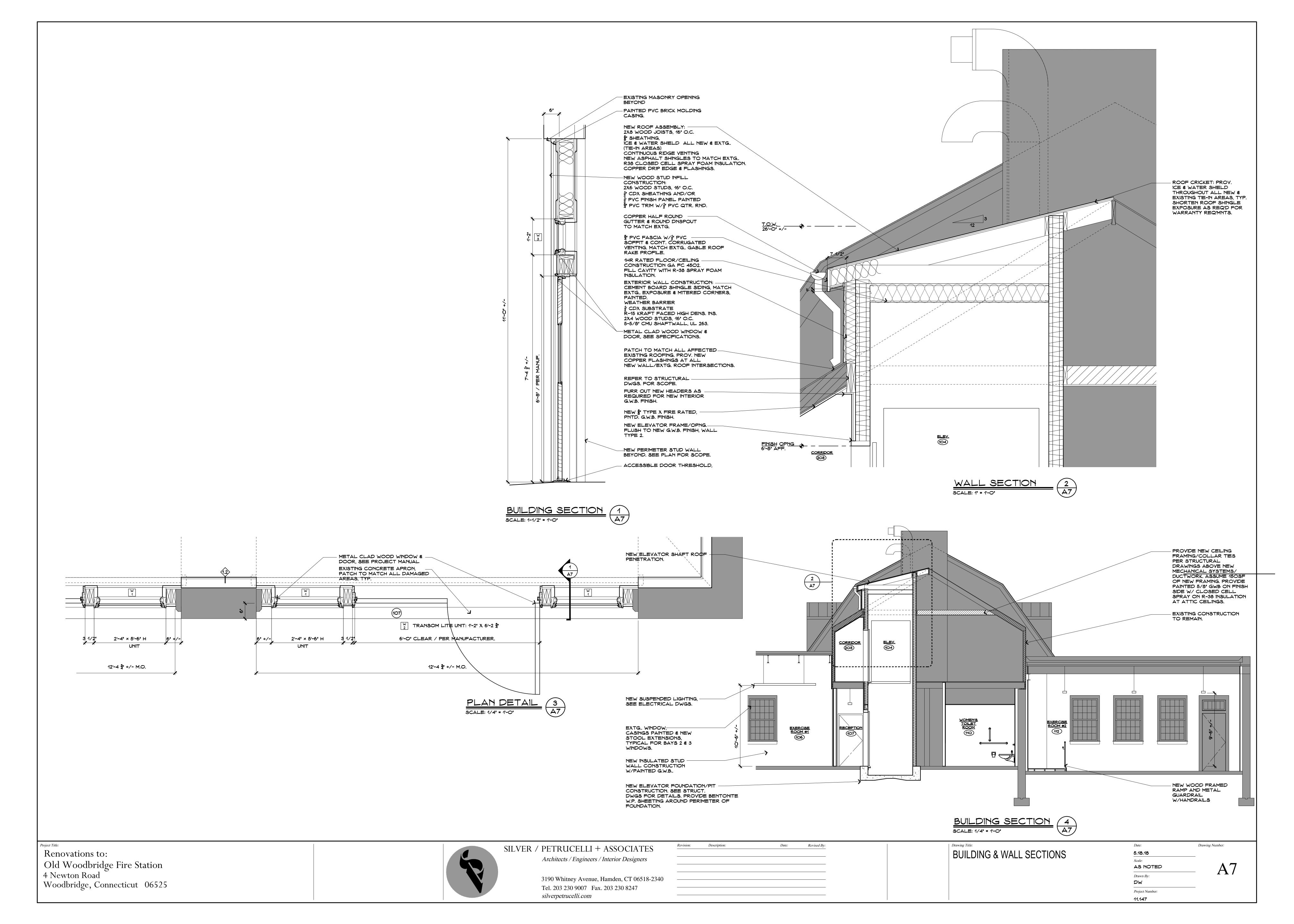
Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525

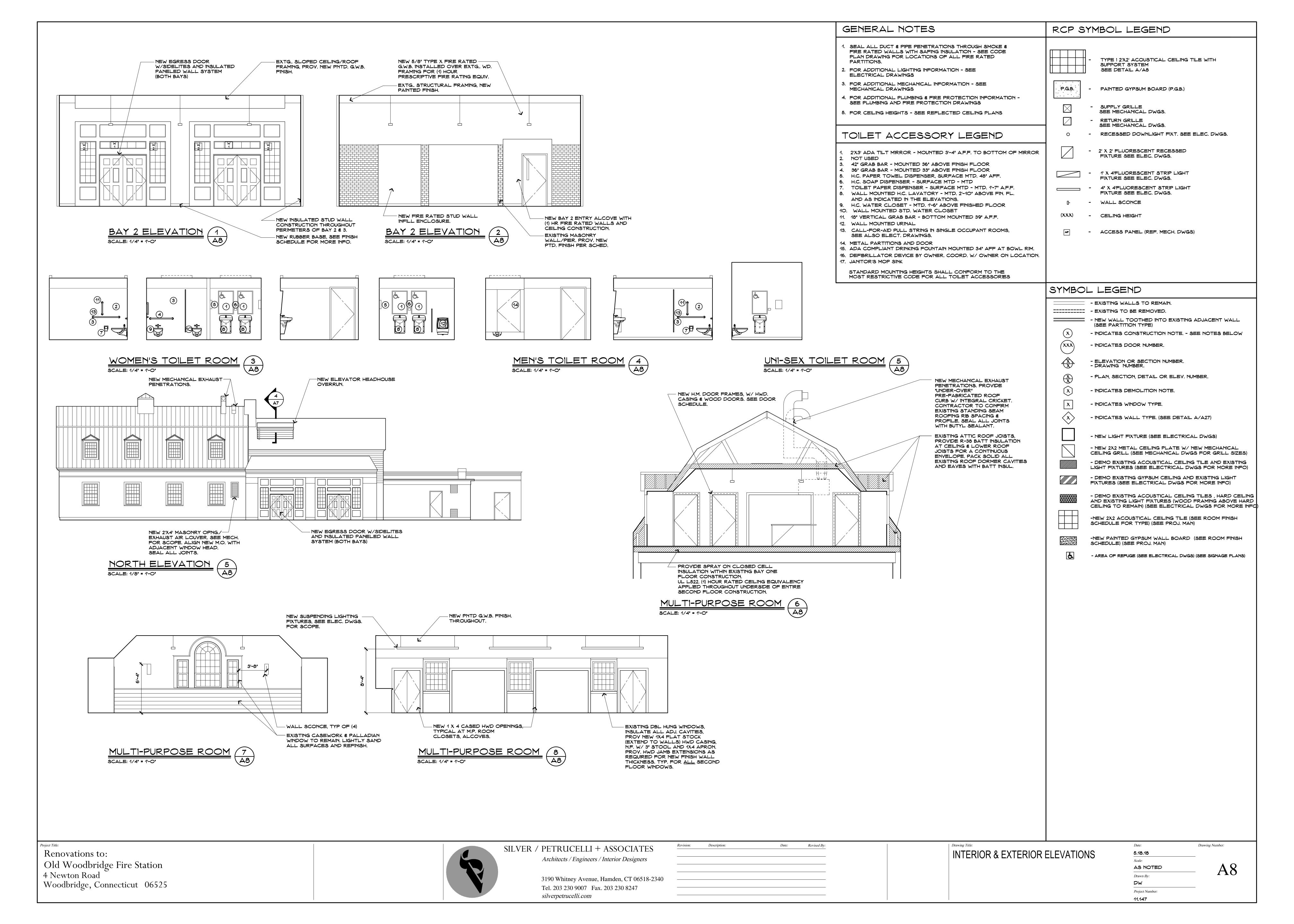
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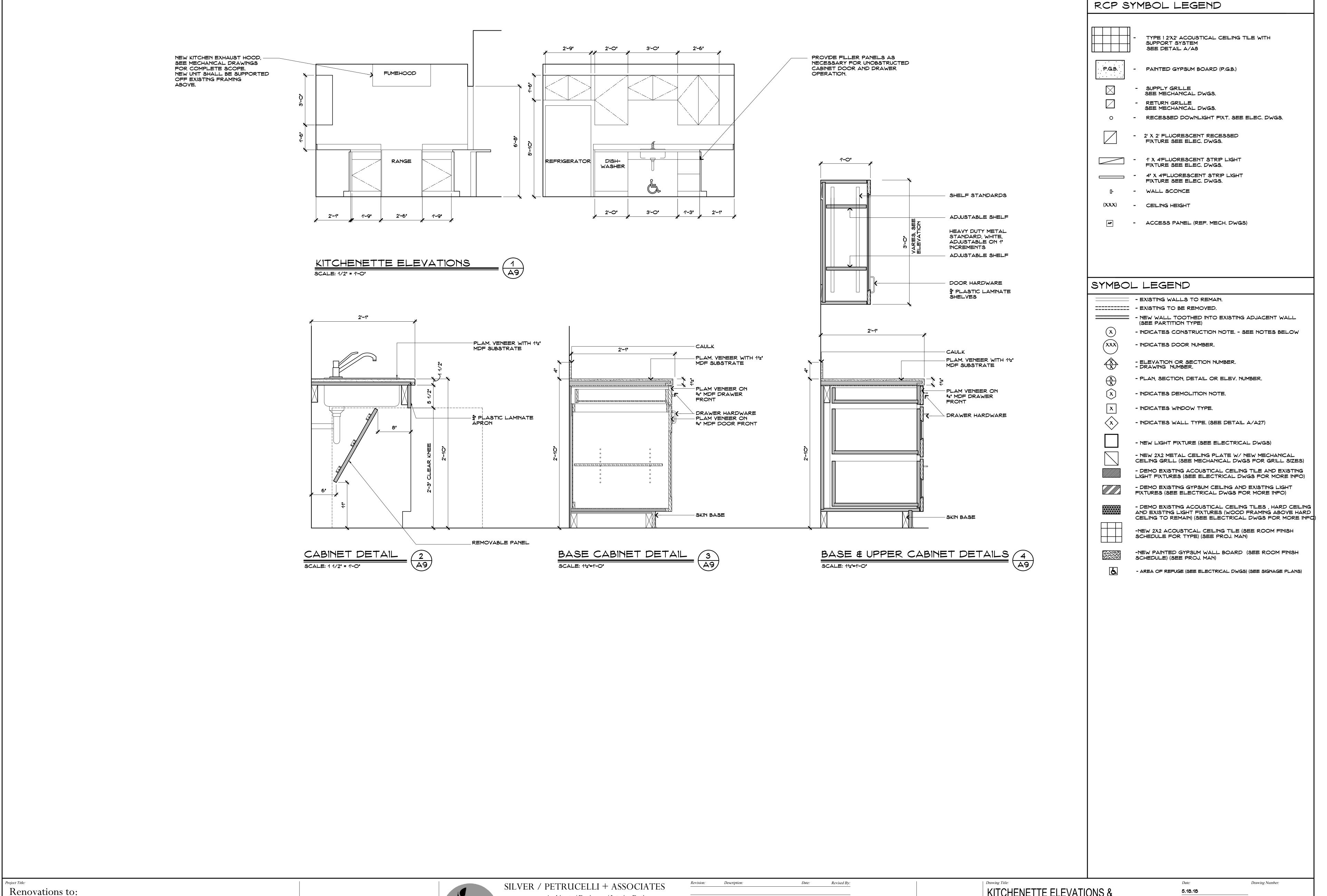
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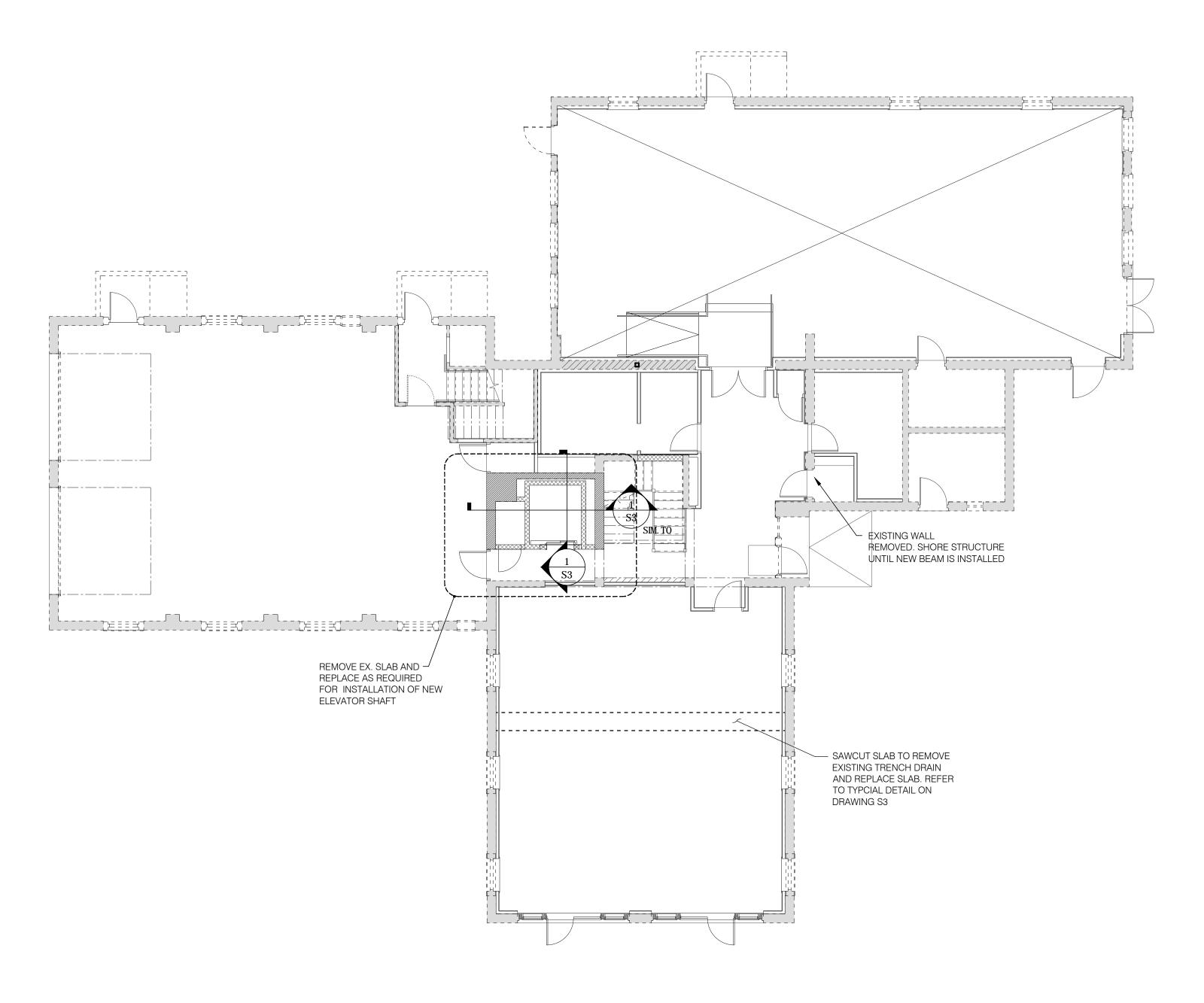
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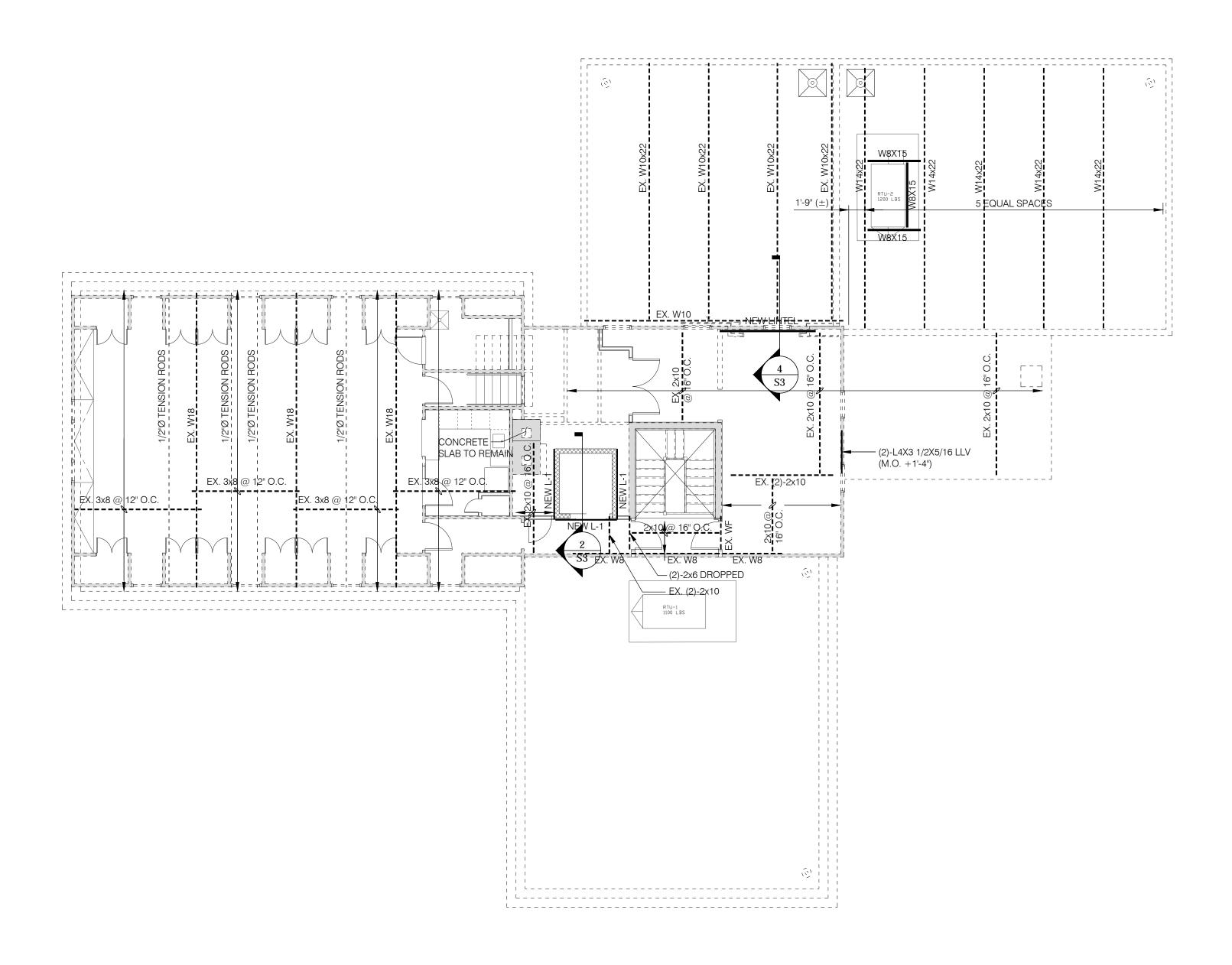
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KITCHENETTE ELEVATIONS & CASEWORK DETAILS

5.18.18 AS NOTED Drawn By: Project Number: 11.147









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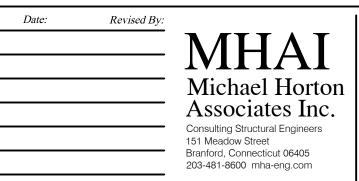


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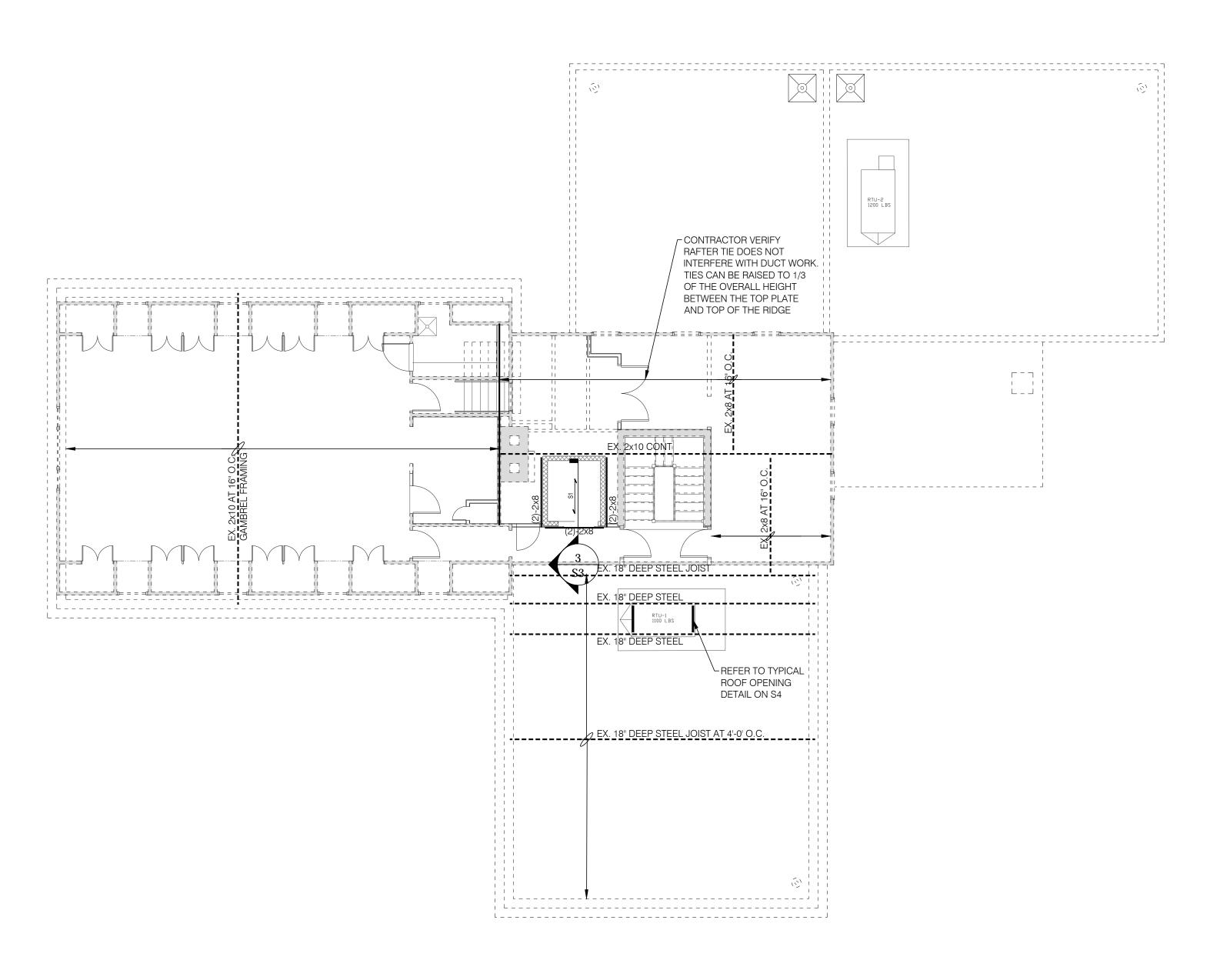
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Revision: Description:



FOUNDATION & FLOOR FRAMING PLANS

Date:	Drawing Number:
5.18.18	
Scale: AS NOTED	
Drawn By:	S1
Project Number:	
11 147	





- 1. ELEVATOR SLAB SI 3" NORMAL WEIGHT CONCRETE ON 2"-20GA LOK GALV. COMPOSITE FLOOR DECK (5" TOTAL THICKNESS) REINFORCED WITH 6X6-W2.9XW2.9 WELDED WIRE FABRIC(CHAIRED).
- 2. TOP OF SLAB ELEVATION: REFER TO ARCH'L DRAWINGS
- 3. PROVIDE TEMPORARY SHORING AS REQUIRED TO INSTAL NEW STRUCTURAL MEMBERS.

Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



SILVER / PETRUCELLI + ASSOCIATES

Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

Revision: Description:

Date:	Revised By:	
		MHAI
		Michael Horto
		Associates Inc
		Consulting Structural Engineers 151 Meadow Street Branford, Connecticut 06405

ROOF FRAMING PLAN

Date: Drawing Number:

5.18.18

Scale:

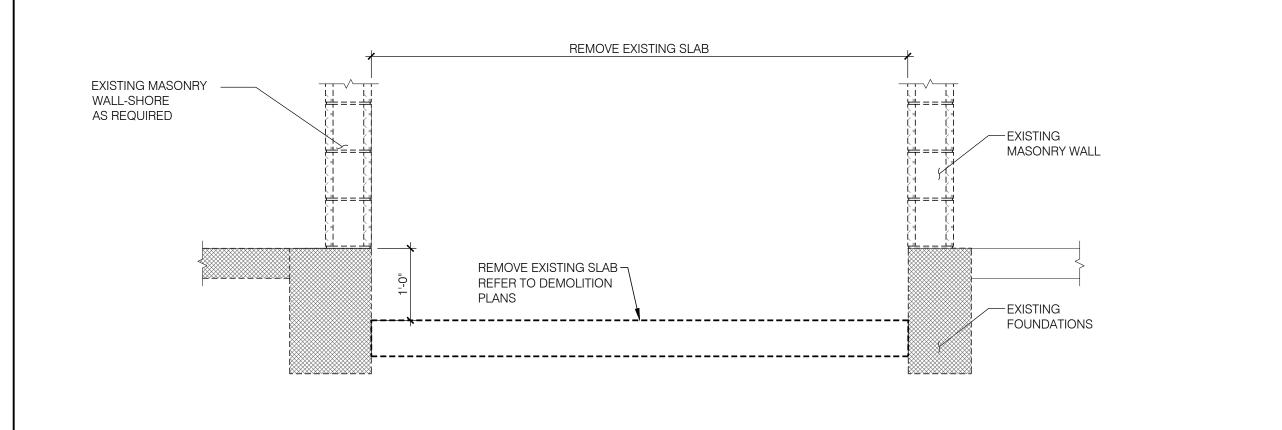
AS NOTED

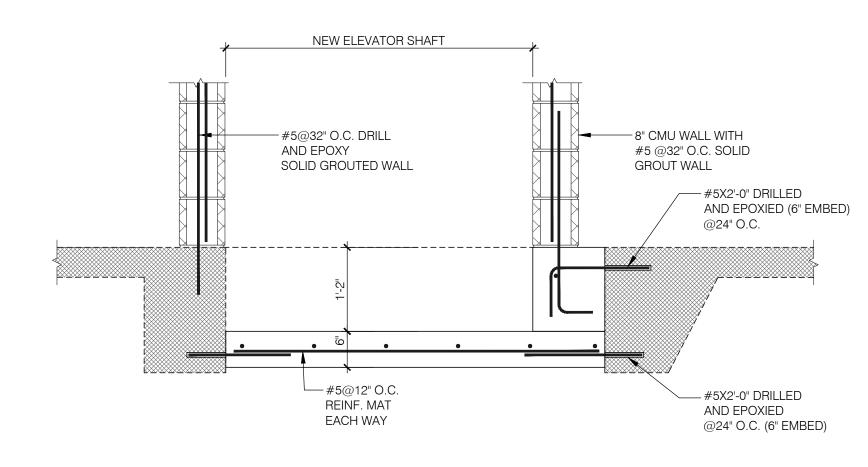
Drawn By:

AC

Project Number:

11.147





TYPICAL HAUNCHED SLAB DETAIL

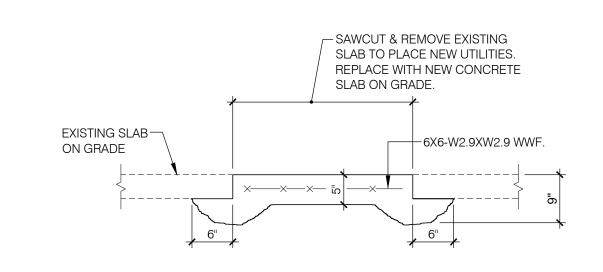
SITE GRADING

1'-0" OF 3/8" FREE DRAINING STONE

- DRILL AND EPOXY
REINF. AT FOUNDATION
WALLS - MIN. 6" EMBED

REFER TO SITE DRAWINGS

(2)-#4 CONT.—

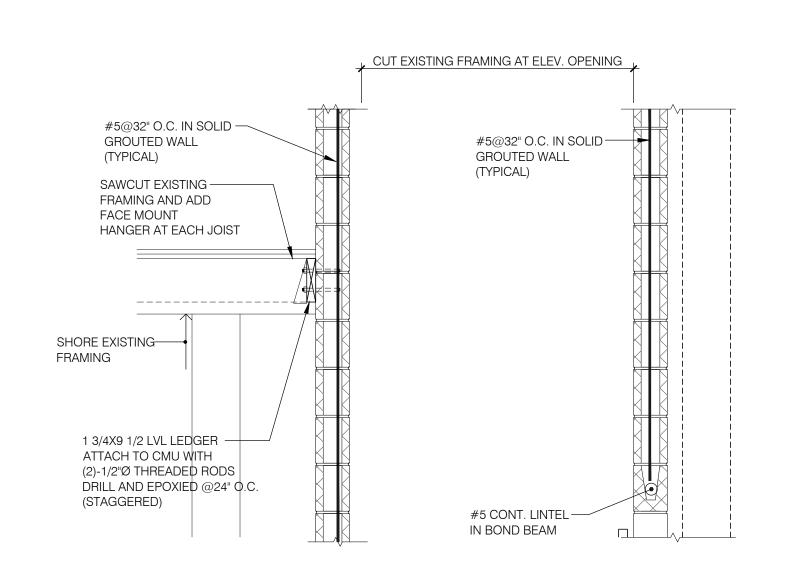


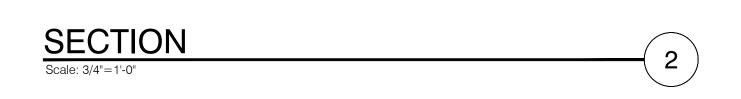
TYPICAL DETAIL FOR TRENCH DRAIN INFILL

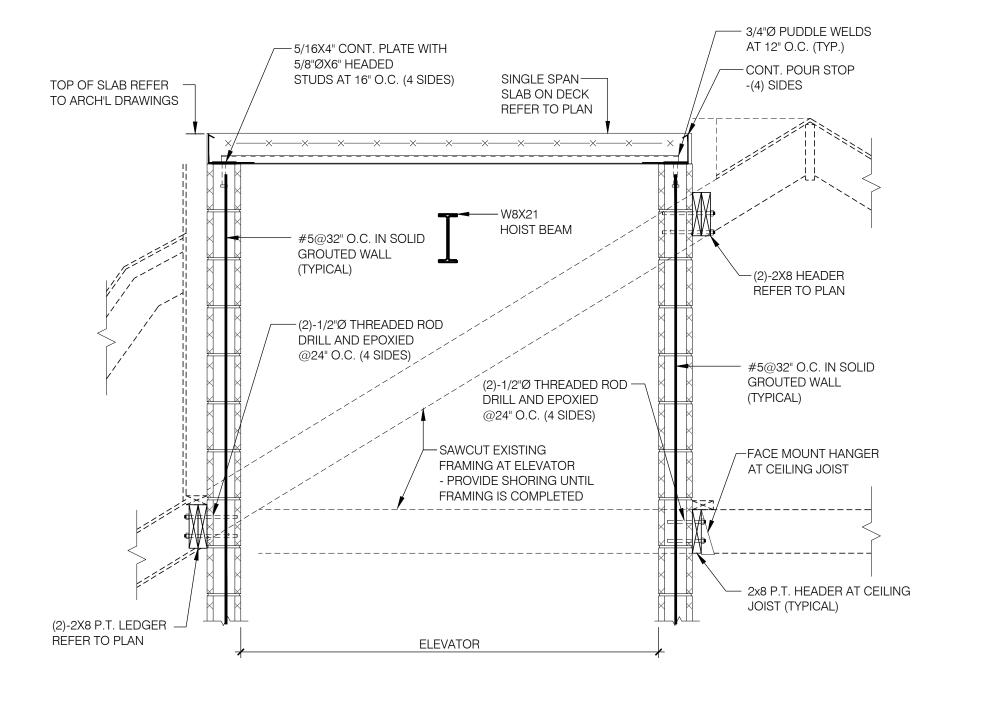
EXISTING CONDITION

NEW CONDITION

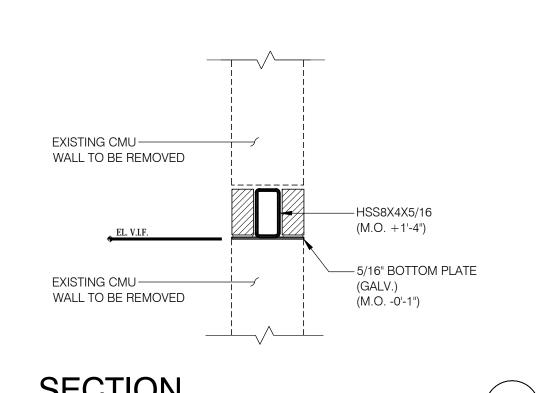
SECTION Scale: 3/4"-1"-0"





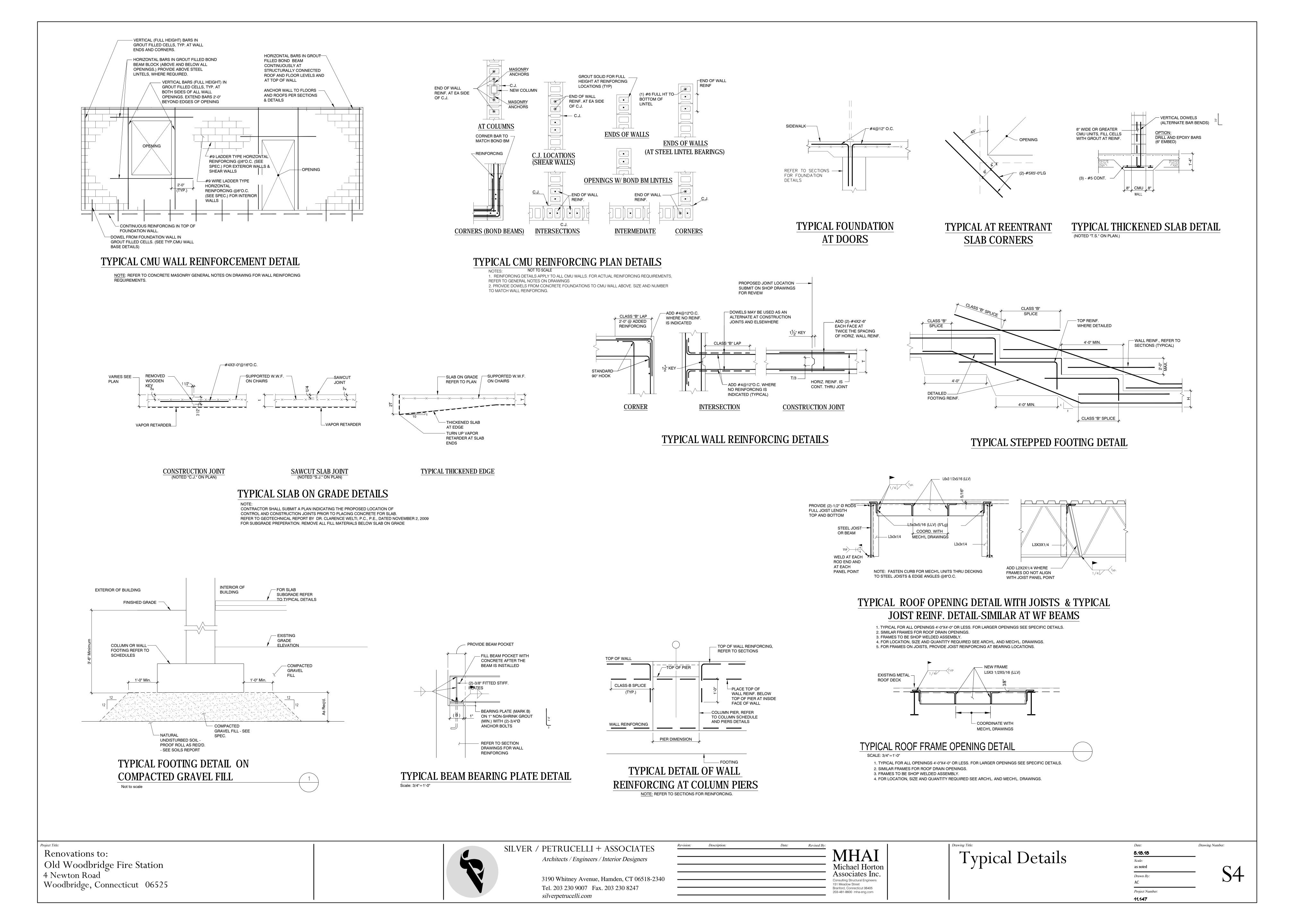


SECTION
Scale: 3/4"=1'-0"



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

Revision:



GOVERNING CODE: 2016 CONNECTICUT STATE BUILDING CODE, (2012 INTERNATIONAL BUILDING CODE). DESIGN LOADS: TOWN OF WOODBRIDGE

ROOF LOAD:

ROOF SNOW LOAD CRITERIA: Pg = 30 PSF, Ce = 0.9 AND Is = 1.2, Ct= 1.0 WITH INCREASES FOR SNOW DRIFTING, UNBALANCES AND SLIDING PER SECTION 1608 (2012 IBC).

MINIMUM ROOF LIVE LOAD = 30 PSF

EXPOSURE CLASSIFICATION "B".

ROOF DEAD LOAD = 20 PSF

WIND LOAD CRITERIA: SECTION 1609 (2012 IBC) ULTIMATE WIND SPEED VU = 130 MPH NOMINAL DESIGN WIND VASD = 101 MPH RISK CATEGORY IV, Iw = 1.15

MINIMUM WIND LOAD ON PRIMARY STRUCTURE = 15 PSF

WIND LOADS ON SECONDARY ELEMENTS SHALL CONFORM WITH ASCE 7-10.

SEISMIC LOAD CRITERIA: AS PER SECTION 1613 (2012 IBC) WITH: RISK CATEGORY = IV SEISMIC IMPORTANCE FACTOR, le = 1.5 Ss = 0.191g, S1 = 0.063gSOIL SITE CLASS = DSPECTRAL RESPONSE COEFFICIENTS, Sds = 0.204G, Sd1 = 0.101g SEISMIC DESIGN CATEGORY, B

BASIC SEISMIC-FORCE-RESISTING SYSTEM: EXISTING BUILDING

ASSUMED BEARING PRESSURE ON UNDISTURBED SOIL:4000 PSF ASSUMED BEARING PRESSURE ON COMPACTED FILL: 4000 PSF

PROPERTY AFTER COMPLETION OF THE PROJECT.

1. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL

2. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S

THE CONTRACTOR SHALL PROVIDE SHORING CALCULATIONS AND SHORING DRAWINGS, INDICATING THE WORK TO BE PROVIDED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.

- 3. LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO REQUIREMENTS OF OTHER (NON-STRUCTURAL) DISCIPLINES ARE SHOWN FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL OBTAIN FROM THE HEATING AND VENTILATING, ELECTRICAL, PLUMBING AND OTHER SUBCONTRACTORS THE FINAL APPROVED SIZE AND LOCATION OF ALL OPENINGS AND WORK TO BE PROVIDED FOR THEIR TRADE IN ROOFS, FLOORS AND WALLS, WHETHER SHOWN OR NOT SHOWN ON STRUCTURAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSMISSION OF REQUIREMENTS, LOCATIONS AND DETAILS TO STRUCTURAL SUBCONTRACTORS. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS ARE NOT TO BE BORNE BY THE OWNER.
- 4. MECHANICAL EQUIPMENT WEIGHTS USED IN DESIGN OF SUPPORTING ELEMENTS HAVE BEEN INDICATED ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO INSTALLATION IF ACTUAL WEIGHT EXCEEDS WEIGHT SHOWN ON DRAWINGS.
- 5. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- 6. SHOP DRAWINGS ARE TO BE CHECKED BY THE CONTRACTOR AND SUBCONTRACTOR AND BEAR CHECKER'S INITIALS BEFORE BEING SUBMITTED TO THE ARCHITECT FOR APPROVAL.
- 7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.
- 8. ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY FOR THE SAME AND SIMILAR SITUATIONS THROUGHOUT THE BUILDING, UNLESS OTHERWISE SPECIFICALLY NOTED.

PREPARATION OF THEIR BID. THESE REFERENCED ITEMS SHALL BE PART OF THE BASE BID.

- 9. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO SUBMITTING THEIR BID FOR REFERENCE TO ALL NOTES ON ARCHITECTURAL DRAWINGS REFERRING TO SEE STRUCTURAL DRAWINGS. IF THE SIZE OF ELEMENTS AND DETAILING OF MEMBERS IS NOT INDICATED, THE CONTRACTOR SHALL CONTACT THE ARCHITECT TO REQUEST THE MISSING INFORMATION IN
- IN CASES OF DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND SUBMITTED SHOP DRAWINGS, THE CONTRACT DOCUMENTS SHALL GOVERN INSTALLATION OF MATERIALS.

FOUNDATIONS

DRAWINGS.

- BACKFILLING SHALL BE ACCOMPLISHED TO EQUAL HEIGHTS ON BOTH SIDES OF FOUNDATION WALLS TO PREVENT MOVEMENTS DUE TO UNBALANCED EARTH PRESSURE. WHERE EARTH IS ON ONE SIDE ONLY, BACKFILLING AND COMPACTION SHALL NOT START UNTIL FLOOR SLAB OR ADEQUATE BRACING IS PROVIDED FOR WALL SUPPORT (EXCEPT AT RETAINING WALLS).
- 2. ALL FOOTINGS ARE TO REST ON UNDISTURBED NATURAL SOIL. AS DEFINED IN THE SPECIFICATIONS. OR CONTROLLED COMPACTED FILL, REGARDLESS OF ELEVATIONS SHOWN ON DRAWINGS. FOOTING BOTTOM ELEVATIONS SHALL NOT BE HIGHER THAN INDICATED ON THE FOUNDATION PLAN, NOR LESS THAN 3'-6" BELOW FINISH GRADES.
- 3. IF FILL MATERIALS ARE ENCOUNTERED AT FOOTING BEARING ELEVATIONS, ALL FILL MATERIAL SHALL BE EXCAVATED AND DISPOSED OF LEGALLY OFF-SITE. THE OVER EXCAVATION SHALL BE BACKFILLED WITH CONTROLLED COMPACTED FILL TO THE BOTTOM OF FOOTING ELEVATION AS REQUIRED.
- 4. ALL CONTROLLED COMPACTED BACKFILL UNDER FOOTINGS AND WITHIN THE FOOTPRINT OF THE STRUCTURE SHALL BE COMPACTED TO 95% OF THE MODIFIED OPTIMUM DENSITY.
- 5. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 3' 6" BELOW FINISHED GRADE. PRIOR TO PROCEEDING WITH FOOTING EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF FINISH GRADES AND BOTTOM OF EXTERIOR FOOTING ELEVATIONS TO MAINTAIN THE 3'-6" FROST PROTECTION.
- 6. ALL SOIL SURROUNDING AND UNDER ALL FOOTINGS SHALL BE PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION.
- 7. FOOTING BOTTOMS SHALL STEP AT THE RATE OF 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL WITH A
- MAXIMUM VERTICAL STEP OF 1' 4". 8. WHERE SUBSURFACE PIPING PASSES THROUGH FOUNDATION WALLS, THE TOP OF THE FOOTINGS SHALL BE AT LEAST 8" BELOW THE INVERT ELEVATION OF THE PIPING AND CONDUITS. COORDINATE ALL INVERTS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, SITE AND SITE UTILITY
- 9. WHERE FOOTINGS ARE IN CLOSE PROXIMITY OF SUBSURFACE PIPING OR CONDUIT, BOTTOM OF FOOTINGS SHALL BE AT LEAST 8" BELOW INVERT ELEVATION OF PIPING OR CONDUITS.
- 10. KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES.
- 11. USE LEAN CONCRETE (f'c=1500) OR CONTROLLED COMPACTED FILL FOR OVER_EXCAVATION OF FOOTINGS.
- 12. PLACEMENT OF ALL COMPACTED FILL MATERIALS MUST BE UNDER SUPERVISION OF AN APPROVED TESTING LABORATORY (SEE SPECIFICATIONS). CONCRETE FOUNDATIONS SHALL NOT BE PLACED UNTIL SUBGRADE HAS BEEN CHECKED IN PLACE AND APPROVED BY TESTING LABORATORY
- 13. EXISTING ON-SITE EXCAVATED MATERIALS SHALL NOT BE ACCEPTABLE BACKFILL MATERIAL BELOW BUILDING FOUNDATIONS, SLABS ON GRADE, OR FOR BACKFILLING OF FOUNDATION WALLS, OR WITHIN 2 FEET OF PAVEMENT GRADES.
- 14. CONTROL JOINT SPACING IN FOUNDATION WALLS SHALL NOT EXCEED 30 FEET. 50% OF HORIZONTAL REINFORCEMENT SHALL EXTEND THROUGH JOINT AND HAVE A CLASS "B" SPLICE (PER ACI 318-95).
- 15. WHERE REQUIRED, CONSTRUCTION JOINTS SHALL BE KEYED AND OCCUR AT CONTROL JOINT INTERVALS. PROVIDE BENTONITE WATERSTOP FULL HEIGHT IN ALL WALL CONSTRUCTION JOINTS BELOW GRADE.
- 16. FOUNDATION DESIGN SITE PREPARATION: THE FOUNDATION DESIGN AS INDICATED ON THE STRUCTURAL DRAWINGS HAS BEEN BASED ON THE FOLLOWING SITE PREPARATION. THE SITE HAS BEEN PREPARED BY THE EXCAVATION AND REMOVAL FROM THE SITE OF ALL EXISTING FILL AND CONTAMINATED SOILS. THE FOUNDATION DESIGN IS BASED ON THE CONTROLLED BACKFILLING OF THE SITE EXCAVATION WITH

SLAB ON GRADE

1. ALL SLABS ON GRADE SHALL BEAR ON A 15 MIL, CLASS A, VAPOR RETARDER OVER A MINIMUM OF 6 INCHES OF 3/4" COMPACTED PROCESSED AGGREGATE FILL, OVER A MINIMUM OF 6 INCHES OF COMPACTED GRAVEL FILL.

ALL JOINTS OF THE VAPOR RETARDER SHALL BE SEALED WITH TAPE. TURN THE VAPOR BARRIER UP AT ALL TERMINATIONS AGAINST FOUNDATION WALLS AND SEAL JOINT BY CONTINUOUSLY TAPING.

- 2. IF FILL MATERIALS ARE ENCOUNTERED SLAB SUBGRADE ELEVATIONS, ALL FILL MATERIAL SHALL BE EXCAVATED AND DISPOSED OF LEGALLY OFF-SITE. THE OVER EXCAVATION SHALL BE BACKFILLED WITH CONTROLLED COMPACTED FILL TO THE BOTTOM OF THE SLAB SUBGRADE AS REQUIRED. ALL CONTROLLED COMPACTED BACKFILL UNDER SLABS WITHIN THE FOOTPRINT OF THE STRUCTURE SHALL BE COMPACTED TO 95% OF THE MODIFIED OPTIMUM DENSITY.
- EXISTING ON-SITE EXCAVATED MATERIALS SHALL NOT BE ACCEPTABLE BACKFILL MATERIAL BELOW BUILDING SLABS ON GRADE.
- 4. CONTROL JOINTS ARE TO BE CREATED IN SLABS ON GRADE. JOINTS SHALL BE SAW CUT 1/8" WIDE AND TO A DEPTH EQUAL TO 1/4 OF THE SLAB THICKNESS. LOCATE JOINTS A MAXIMUM OF 15' 0" ON CENTER IN EACH DIRECTION, IN ADDITION TO THOSE LOCATIONS INDICATED ON PLAN.
- 5. CONSTRUCTION JOINTS AS REQUIRED SHALL BE KEYED AND DOWELED AND LOCATED AT INTERVALS OF A MAXIMUM OF 75 FEET ON CENTER.
- 6. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND SIZE OF DEPRESSED AREAS IN CONCRETE SLABS AND FOR CONCRETE PADS. MAINTAIN FULL SLAB THICKNESS IN DEPRESSED AREAS, UNLESS OTHERWISE
- 7. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL MASONRY WALLS FOR WHICH NO FOOTING IS SHOWN. SEE DETAILS FOR SLAB REINFORCING REQUIREMENTS AT ALL WALL LOCATIONS.
- 8. CONTRACTOR SHALL CONSOLIDATE ALL SLAB CONCRETE USING VIBRATIONAL METHODS IN CONFORMANCE WITH ACI 309, GUIDE FOR CONSOLIDATION OF CONCRETE.

CONCRETE SHALL DEVELOP STRENGTH IN 28 DAYS AS FOLLOWS:

LOCATION STRENGTH (PSI) **FOUNDATIONS** WALLS 3000 SLABS ON GRADE 3500 SLABS ON METAL DECK

- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS MUST FOLLOW THE LATEST ACI CODE AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE
- REINFORCING STEEL SHALL BE 60,000 PSI YIELD.
- 3. NO TACK WELDING OF REINFORCING WILL BE PERMITTED.
- 4. UNLESS NOTED OTHERWISE, ALL LAP SPLICES SHALL BE CLASS B, IN ACCORDANCE WITH ACI 318-02.
- 5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A_185.

COINCIDING END LAP AND SIDE LAP LOCATION.

- 6. WIRE MESH REINFORCEMENT MUST LAP ONE MESH SIZE AT SIDES AND ENDS AND BE WIRED TOGETHER WELDED WIRE FABRIC SIDE LAPS SHALL BE STAGGERED TO AVOID FOUR MESH THICKNESS AT
- 8. NO CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.1% CHLORIDE BY WEIGHT OF ADMIXTURE SHALL BE USED IN THE CONCRETE.
- 9. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 3' 6" BELOW FINISHED GRADE. PRIOR TO PROCEEDING WITH FOOTING FORMWORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF BOTTOM OF EXTERIOR FOOTING ELEVATIONS WITH THE FINISH GRADES AND MAINTAINING THE 3'-6" FROST PROTECTION. WHERE SUBSURFACE PIPING PASSES THROUGH FOUNDATION WALLS, THE TOP OF FOOTINGS SHALL BE AT LEAST 8" BELOW THE INVERT ELEVATION OF THE PIPING AND CONDUITS. COORDINATE ALL INVERTS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, SITE AND SITE UTILITY DRAWINGS. PIPING OR CONDUITS SHALL NOT PASS THROUGH COLUMNS OR PIERS.
- 10. CONTRACTOR SHALL ANTICIPATE DEFLECTION OF STEEL AT SUPPORTED ELEVATED SLABS, AND PROVIDE ADDITIONAL CONCRETE AS REQUIRED.
- 11. ALL HORIZONTAL STEEL SHOWN IN SECTIONS AND DETAILS SHALL BE CONTINUOUS, UNLESS OTHERWISE NOTED. ALL LAPS SHALL BE CLASS B SPLICES IN ACCORDANCE WITH ACI 318.
- 12. AT INTERSECTIONS OF REINFORCED CONCRETE WALLS. PROVIDE CORNER DOWELS OF SAME SIZE AND AT THE SAME SPACING AS THE SMALLER HORIZONTAL REINFORCING. DOWELS SHALL HAVE A CLASS B LAP WITH HORIZONTAL REINFORCING IN EACH DIRECTION.
- 13. PROVIDE DRILLED AND EPOXIED DOWELS OF SAME SIZE TO MATCH NEW REINFORCING WHERE NEW CONSTRUCTION ABUTS EXISTING CONCRETE CONSTRUCTION. LENGTH SHALL BE THE REQUIRED EMBEDMENT DEPTH PER THE ANCHOR BOLT/EPOXY MANUFACTURER PLUS A CLASS B LAP SPLICE FOR THE SIZE OF BAR.
- 14. PROVIDE CORROSION RESISTANT ACCESSORIES IN ALL EXPOSED CONSTRUCTION.
- 15. ALL KEYS IN CONCRETE WALLS SHALL BE 2 X 4 UNLESS NOTED OTHERWISE.
- 16. SEE ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, SITE, SITE UTILITY AND EQUIPMENT DRAWINGS FOR CONCRETE PADS, SLEEVES, OPENINGS, RECESSES, AND BUILT-IN WORK IN CONCRETE ELEMENTS.
- 17. THE CONTRACTOR SHALL FURNISH, LOCATE AND INSTALL ALL ACCESSORIES FOR PROPER ANCHORAGE OF WOOD AND METAL FRAMING, WOOD BLOCKING, BRICK WORK AND MASONRY UNITS. HE SHALL BE SOLELY RESPONSIBLE FOR FURNISHING, LOCATING AND ENSURING PROPER QUANTITY OF ALL
- 18. ALL CONCRETE TO REMAIN EXPOSED TO VIEW SHALL RECEIVE A SMOOTH RUBBED FINISH (SEE SPECIFICATIONS).
- 19. ALL CONCRETE CORNERS WITH BOTH SIDES EXPOSED TO VIEW SHALL BE SQUARE UNLESS OTHERWISE SHOWN OR NOTED. THE EDGE SHALL BE RUBBED, PRODUCING A SMOOTH, DENSE SURFACE WITHOUT PITS OR IRREGULARITIES.
- 20. PROVIDE CONTINUOUS VERTICAL DOVETAIL SLOTS AT 16 INCH CENTERS HORIZONTALLY FOR ALL CONCRETE WALLS ABUTTING A MASONRY WALL OR MASONRY VENEER, UNLESS OTHERWISE NOTED.
- 21. PROVIDE CLEARANCE FROM EDGE OF REINFORCING TO EDGE OF CONCRETE AS FOLLOWS:
- FOOTINGS (AGAINST EARTH) WALLS, INTERIOR FACE WALLS, EXTERIOR FACE (#5 AND SMALLER) 1 1/2" WALLS, EXTERIOR FACE (#6 AND LARGER) SLABS (INTERIOR) SLABS (EXTERIOR) SLABS ON GRADE (W.W.F.) 1/3 X THK. FROM TOP SURFACE
- 22. REINFORCING STEEL SHOP DRAWINGS SHALL INDICATE THE SEQUENCE IN WHICH LAYERS OF CROSSING REINFORCING SHOULD BE PLACED. IN ORDER TO PRODUCE THE CORRECT OUTERMOST LAYER AS INDICATED ON THE DRAWINGS.
- 23. SHOP DRAWINGS SHALL INDICATE LOCATIONS OF ALL WALL CONTROL AND CONSTRUCTION JOINTS.

STRUCTURAL STEEL

WELDING ELECTRODE

MATERIALS:

STRUCTURAL STEEL ASTM A 36 ALL W SHAPES ASTM A 992, GR.50 STRUCTURAL STEEL TUBING ASTM A500. GRADE B STRUCTURAL STEEL PIPE ASTM A53, GRADE B ASTM A325 ANCHOR BOLTS ASTM F1554, GRADE 36

- 1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO CURRENT AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION.
- 2. WELDING SHALL CONFORM TO THE CODE FOR "ARC AND GAS WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
- 3. ALL LOOSE BEAM LINTELS SHALL HAVE 8" MINIMUM BEARING. SEE ARCHITECTURAL JAMB DETAILS FOR
- 4. FOR MISCELLANEOUS STEEL REFER TO ARCHITECTURAL DRAWINGS.

ASTM E 70

- 5. ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.
- 6. PROVIDE LEVELING NUTS FOR ALL COLUMN BASE PLATES WITH FOUR (4) ANCHOR BOLTS AND PROVIDE 1 1/2" MINIMUM, 5000 PSI NON-SHRINK GROUT.
- CONNECTIONS:
 - CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION. CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONSTRUCTION UNLESS
 - CONNECTIONS SHALL BE DESIGNED TO ACCOMMODATE THE REACTIONS RESULTING FROM THE ALLOWABLE UNIFORM LOAD BEAM TABLES, PER THE AISC MANUAL, FOR THE SPAN INDICATED ON
 - MINIMUM CONNECTION ANGLE THICKNESS SHALL BE 5/16". USE DOUBLE FRAMING ANGLE
 - CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER ASTM A325 BOLTS (SNUG TIGHT OR SLIP CRITICAL) OR WELDS, UNLESS NOTED OTHERWISE. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES USING CLASS A FAYING SURFACE.
 - PROVIDE SLOTTED BOLTED CONNECTIONS WHERE SHOWN WITH 13/16" X 1 7/8" SLOTTED HOLES USING ASTM A 325 BOLTS WITH WASHERS. NUTS SHALL BE FASTENED SNUG TIGHT, THEN UNTIGHTENED BY ONE-HALF TURN. PEEN THREADS TO PREVENT FURTHER LOOSENING OF NUT. USE LARGER OF 1/4" FILLET WELDS OR MINIMUM SIZE PER AISC REQUIREMENTS WHERE NO WELD SIZE IS SHOWN ON DRAWINGS.
 - WELDS IN EXCESS OF 24" IN LENGTH SHALL BE 3" STITCH WELDS AT 8" ON CENTERS, UNLESS SPECIFICALLY SHOWN ON DRAWINGS TO BE CONTINUOUS.
- 8. NO WELDING OR FINAL BOLTING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURE THAT WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
- 9. SEQUENCE OF PLACING WELDS SHALL BE SUCH AS TO AVOID DISTORTION OF MEMBERS. 10. SUBSTITUTION OF STRUCTURAL STEEL MEMBERS IS PERMITTED TO FACILITATE DELIVERY AT NO ADDITIONAL COST TO THE OWNER. SUBSTITUTED MEMBERS MUST BE OF THE SAME NOMINAL DEPTH AS

THE MEMBER ORIGINALLY INDICATED AND HAVE A WEIGHT GREATER THAN THAT INDICATED. BEAM

- FLANGES MUST NOT INFRINGE ON ADJACENT ARCHITECTURAL ELEMENTS. 12. PROVIDE DEFORMED BAR ANCHORS ON THE TOP OF ALL BEAMS SUPPORTING CONCRETE MASONRY UNIT WALLS OR MULTI-WYTHE BRICK WALLS. THE ANCHORS SHALL BE WELDED AT 24" ON CENTER AND SHALL BE THE SAME SIZE AS THE WALL REINFORCING. DEFORMED BAR ANCHORS SHALL BE PLACED BY
- A TIMED STUD WELDING MACHINE. 13. STEEL MEMBERS SHOWN CONNECTED TO MASONRY WITH EXPANSION ANCHORS SHALL HAVE 3/4" DIAMETER EXPANSION ANCHORS AT 2'-8" ON CENTERS IN VERTICALLY SLOTTED HOLES, UNLESS
- 14. PROVIDE 9/16" DIAMETER HOLES FOR WOOD NAILERS AS REQUIRED BY ARCHITECTURAL DRAWINGS.
- 15. BEAMS BEARING ON MASONRY SHALL HAVE ANGLE WALL ANCHORS WELDED TO THE BEAM, AS DETAILED IN THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION.
- 16. PROVIDE 8" X 8" X 5/8" BEARING PLATES FOR ALL WALL BEARING BEAMS UNLESS NOTED OTHERWISE. ALL PLATES SHALL HAVE A MINIMUM OF (2)-3/4" DIAMETER X 5" LONG WELDED STUDS ON THE BOTTOM TO SET IN CONCRETE OR MASONRY WALLS.
- 17. EXISTING STEEL SURFACES TO RECEIVE FIELD WELDS SHALL BE THOROUGHLY CLEANED UNTIL FREE FROM PAINT, RUST, GREASE, ETC.
- 18. PROVIDE AN ELEVATOR HOIST BEAM AT EACH ELEVATOR. THE BEAM SHALL BE A W8X21 MINIMUM. COORDINATE WITH THE ARCHITECTURAL DRAWINGS. THE BEARING PLATE ON MASONRY WALLS SHALL BE A PLATE 3/4"X6"X12" MINIMUM WITH (2)-3/4" DIAMETER ANCHOR BOLTS SET INTO GROUTED MASONRY.

METAL ROOF DECK

OTHERWISE INDICATED.

MATERIALS:

TYPICAL METAL DECK SHALL BE 1 1/2" GALVANIZED WIDE RIB TYPE WITH NESTING SIDE SEAMS OF GAGE INDICATED ON THE DRAWINGS.

DECK SHALL CONFORM TO "BASIC DESIGN SPECIFICATION" AS ADOPTED BY THE STEEL DECK INSTITUTE. METAL ROOF DECK SHALL BE FURNISHED IN SHEET LENGTHS SUFFICIENT TO EXTEND OVER FOUR SUPPORTS (3 SPANS) WHEREVER POSSIBLE.

ATTACHMENT:

METAL DECK SHALL BE SCREWED TO SUPPORTING STEEL WITH #12 SELF TAPPING SCREWS SPACED NOT MORE THAN 12" ON CENTER WITH A 36/4 FASTENING PATTERN, UNLESS OTHERWISE NOTED ON THE

SCREW METAL ROOF DECK TO STEEL MEMBERS PARALLEL TO SPAN OF DECK USING #12 SELF TAPPING

SCREWS SPACED AT 12" ON CENTER. WELDING OF THE ROOF DECK IS PROHIBITED. INTERMEDIATE SIDE CONNECTIONS SHALL BE MADE WITH #10 SELF TAPPING SCREWS. THE MAXIMUM SPACING OF SIDE LAP CONNECTIONS SHALL BE 1'-6", WITH A MINIMUM OF (4) SCREWS PER SPAN. FOR 3" DECK USE A MINIMUM OF (8) SCREWS PER SPAN.

Revision: Description:

LONG SPAN ROOF DECK SHALL HAVE BUTTON PUNCHED SIDELAPS SPACED AT 3'-0" MAX.

CONCRETE MASONRY

MATERIALS:

HOLLOW LOAD BEARING UNITS: ASTM C 90

- MORTAR: (TYPE S) ASTM C 270 (COMPRESSIVE STRENGTH OF MASONRY, fm = 1500 PSI) GROUT FOR REINFORCED MASONRY: ASTM C 476 (COMPRESSIVE STRENGTH AT 28 DAYS = 2500 PSI)
- GROUT FOR REINFORCED MASONRY: ASTM C 476 SOLID LOAD BEARING UNITS: (GRADE N-I) ASTM C 145 CONCRETE BRICK: (GRADE N-I) ASTM C 55
- WALLS INDICATED ON STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR LOCATION, THICKNESS AND COMPOSITION OF MASONRY WALLS.
- 2. ALL MASONRY WALLS SHALL CONTAIN THE FOLLOWING REINFORCING:
- 1-#5 VERTICAL BAR AT 32" ON CENTER.

GROUTING ON THE PROJECT SITE.

BEARING EXCEPT AS NOTED.

CONDUIT OR PIPE IN CELLS CONTAINING REINFORCING.

- 2-#6 VERTICAL BARS AT BOTH SIDES OF DOOR, WINDOW AND MECHANICAL OPENINGS.
- 2-#5 HORIZONTAL BAR MINIMUM ABOVE AND BELOW ALL WINDOW AND MECHANICAL OPENINGS AND ABOVE ALL DOOR OPENINGS. PROVIDE ADDITIONAL BARS ABOVE DOORS, WINDOWS AND MECHANICAL OPENINGS AS REQUIRED IN ACCORDANCE WITH LINTEL SCHEDULE ON ARCHITECTURAL DRAWINGS.
- 2-#5 HORIZONTAL AT TOP OF ALL WALLS, AND AT BOND BEAMS CONNECTED TO FLOORS AND ROOFS, UNLESS OTHERWISE INDICATED.
- 2_#6 VERTICAL BARS AT ENDS OF ALL WALLS, AND EACH SIDE OF CONTROL JOINTS.
- STANDARD LADUR TYPE DESIGN DUR O WAL HORIZONTAL REINFORCING @ 16" O.C. VERTICAL. SIDE WIRE SIZE SHALL BE #9 GAGE WIRE. 3. PROVIDE VERTICAL DOWELS FROM CONCRETE WALLS INTO ALL CMU WALLS. SIZE AND SPACING OF THE DOWELS SHALL MATCH THE VERTICAL REINFORCING AS SPECIFIED IN THESE GENERAL NOTES, UNLESS
- OTHERWISE NOTED ON THE DRAWINGS. DOWEL LENGTHS SHALL BE THE REQUIRED CONCRETE DEVELOPMENT LENGTH PLUS THE REQUIRED BAR LAP SPLICE LENGTH FOR MASONRY AS SPECIFIED IN THESE GENERAL NOTES.

4. ALL VERTICAL WALL REINFORCING SHALL BE CONTINUOUS FOR THE FULL HEIGHT OF MASONRY WALLS,

- INCLUDING THROUGH CONTINUOUS MASONRY BOND BEAMS UNLESS OTHERWISE INDICATED. 5. ALL GROUTING OF MASONRY WALLS SHALL BE ASSUMED TO BE COMPLETED BY LOW LIFT GROUTING METHODS. IF THE CONTRACTOR PROPOSES TO UTILIZE HIGH LIFT GROUTING METHODS THEY SHALL SUBMIT THEIR PROPOSED HIGH LIFT GROUTING PROCEDURE FOR REVIEW PRIOR TO STARTING ANY
- 6. REINFORCING ABOVE WINDOWS, DOORS AND MECHANICAL OPENINGS IN THE EXTERIOR WALLS SHALL BE IN A BOND BEAM COURSE ABOVE THE STEEL LINTELS PROVIDED AT THESE OPENINGS. BOND BEAMS
- SHALL EXTEND 2'-0" BEYOND THE OPENING. 7. CELLS CONTAINING REINFORCING BARS AND ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID. ALL OTHER CELLS SHALL REMAIN HOLLOW EXCEPT WHERE NOTED. THE CONTRACTOR SHALL NOT RUN
- 8. ALL BOLTS OR ANCHORS SHALL BE SOLIDLY EMBEDDED IN MORTAR OR GROUT. IF BOND BEAM IS NOT LOCATED AT BOLT OR ANCHOR ELEVATION, PROVIDE LATH AND FILL CELL LOCALLY TO PROVIDE
- SUBSTRATE FOR BOLT OR ANCHOR. GROUT CELL ABOVE ALL MASONRY ANCHORS. 9. USE 2 COURSES (16") OF SOLID MASONRY OR GROUTED SOLID MASONRY BELOW EACH BEAM OR LINTEL
- 10. PROVIDE CONTINUOUS GROUTED BOND BEAM WHERE MASONRY ANCHORS CONNECT CONCRETE MASONRY TO STEEL FRAMING. GROUT CELL ABOVE ANCHOR.
- 11. HOLLOW UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS, EXCEPT THAT WEBS SHALL ALSO BE BEDDED IN ALL COURSES OF BEARING AND SHEAR WALLS, PIERS. COLUMNS AND PILASTERS. AND IN THE STARTING COURSE ON FOOTINGS AND SOLI FOUNDATION WALLS, AND WHERE ADJACENT TO CELLS OR CAVITIES WHICH ARE TO BE REINFORCED
- 12. MORTAR PROTRUSIONS EXTENDING INTO CELLS OR CAVITIES TO BE REINFORCED AND/OR GROUTED
- SHALL BE REMOVED. 13. ALL MASONRY WALLS SHALL BE BRACED AT THE TOP WHERE MASONRY ENDS AT THE UNDERSIDE OF
- FLOOR OR ROOF CONSTRUCTION. REFER TO TYPICAL DETAILS. 14. ALL MASONRY WALLS THAT DO NOT EXTEND TO BOTTOM OF FLOOR OR ROOF STRUCTURE ABOVE SHALL BE BRACED AT THE TOP, UNLESS BRACED HORIZONTALLY BY COLUMNS OR INTERSECTING WALLS AT A MAXIMUM SPACING OF 11 FEET FOR 4" WALLS, 17 FEET FOR 6" WALLS, 23 FEET FOR 8" WALLS, AND 33 FEET FOR 12" WALLS. THE ENDS OF THE WALLS MUST BE ANCHORED TO INTERSECTING WALLS BY EITHER TOOTHING OR MECHANICAL ANCHORS. THERE SHALL BE NO VERTICAL CONTROL JOINTS WITHIN
- THE HORIZONTAL SPAN OF THE WALL BETWEEN THE INTERSECTING WALLS. 15. IN MASONRY WALLS, NO CHASES, RISERS, CONDUITS, OR TOOTHING OF MASONRY SHALL OCCUR WITHIN
- 17" OF CENTERLINE OF BEAM BEARING OR LOAD CONCENTRATION. 16. SOLID UNITS SHALL BE LAID WITH FULL HEAD AND BED JOINTS.
- 17. COLLAR (VERTICAL LONGITUDINAL) JOINTS BETWEEN THE FACING AND BACKING WYTHES IN WALLS
- SHALL BE COMPLETELY FILLED WITH MORTAR OR GROUT AND WORKED IN WITH A TROWEL. 18. ALL INTERSECTING LOAD BEARING WALLS SHALL BE TIED TOGETHER IN MASONRY BOND UNLESS NOTED
- 19. MINIMUM DEVELOPMENT LENGTH AND SPLICE LENGTH OF MASONRY REINFORCING SHALL BE AS FOLLOWS:
- 1. BAR SIZE DEVELOPMENT LENGTH SPLICE LENGTH JOINT REINFORCING

3. #4

4. #5

6. #7 20. SUBMIT SHOP DRAWINGS INDICATING THE PLACEMENT OF ALL REINFORCING REQUIRED IN MASONRY WALLS. REFER TO SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS. SHOP DRAWINGS SHALL INDICATE

THE LOCATION OF ALL CONTROL JOINTS, AND THE REQUIRED LAP SPLICES FOR ALL REINFORCING.

1. LUMBER FOR WOOD JOISTS, RAFTERS AND BEAMS SHALL BE DOUG-FIR, NUMBER 2 GRADE, WITH 19% MAXIMUM MOISTURE CONTENT AND MINIMUM SAFE STRENGTH CAPACITY OF:

Fb = 875 PSI FOR BENDING

Fc (perp.) = 625 PSI FOR COMPRESSION PERP. TO GRAIN Fc (par.) = 1300 PSI FOR COMPRESSION PARALLEL TO GRAIN

Fv = 95 PSI FOR HORIZONTAL SHEAR E = 1,600,000 PSI MODULUS OF ELASTICITY

2. LUMBER FOR WOOD STUDS SHALL BE DOUG-FIR, NUMBER 2 GRADE, WITH 19% MAXIMUM MOISTURE

Fb = 875 PSI FOR BENDING Fc (perp.) = 625 PSI FOR COMPRESSION PERP. TO GRAIN Fc (par.) = 1300 PSI FOR COMPRESSION PARALLEL TO GRAIN Fv = 95 PSI FOR HORIZONTAL SHEAR

CONTENT AND MINIMUM SAFE CAPACITY OF:

E = 1,600,000 PSI MODULUS OF ELASTICITY

3. ALL LUMBER IN CONTACT WITH MASONRY, CONCRETE, OR WITHIN 8" OF GRADE SHALL BE PRESSURE TREATED LUMBER.

4. ROUGH PLYWOOD: CONFORM TO THE REQUIREMENTS OF U.S. PRODUCT STANDARD PS 1 AND THE AMERICAN PLYWOOD ASSOCIATION. PRODUCTS CONFORMING TO EQUIVALENT GRADING BY TECO OR PITTSBURGH TESTING LABORATORY IS ALSO APPROVED. DO NOT USE PARTICLE PANEL PRODUCTS OR OTHER FABRICATED WOOD PRODUCTS.

FLOOR SHEATHING SHALL BE 3/4" STURD-I-FLOOR TONGUE AND GROOVE PLYWOOD.

5. CORNER POSTS SHALL BE THE EQUIVALENT OF NOT LESS THAN THREE PIECES OF 2" X 6" STUDS AT 6" STUD WALLS AND 2" X 4" STUDS AT 4" STUD WALLS, BRACED BY APPROVED SHEATHING APPLIED VERTICALLY IN PANELS NOT LESS THAN 4'-0" X 8'-0".

6. PROVIDE WOOD POSTS BELOW BEAMS, MULTIPLE WIDTH WOOD MEMBERS, AND GIRDER TRUSSES THAT SHALL MATCH THE WIDTH OF THE MEMBER TO BE SUPPORTED.

7. FLOOR JOIST BRIDGING:

PROVIDE 1" X 3" DIAGONAL BRIDGING (OR EQUIVALENT) AT 8'-0" MAXIMUM ON CENTER. USE ONE LINE OF SOLID BLOCKING NEXT TO EXTERIOR WALLS AND AT CENTERLINE OF INTERIOR

8. CUTTING AND NOTCHING: IN BEAMS, JOISTS AND RAFTERS, CUTS SHALL NOT BE DEEPER THAN SHOWN ON DRAWINGS, AND IN NO CASE DEEPER THAN 1/6 THE DEPTH OF THE BEAM, JOIST OR RAFTER.

9. CONNECTIONS AND FASTENINGS: ALL MEMBERS SHALL BE FASTENED AT THEIR JUNCTIONS WITH APPROVED CONNECTORS, SPIKES, NAILS, STRAPS, OR OTHER DEVICES. ALL CONNECTORS AND FASTENERS FOR USE WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. ALL BOLTS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

10. NAILING SHALL BE IN ACCORDANCE WITH THE "FASTENING SCHEDULE", IN CHAPTER 23 OF THE 2003 IBC CODE PER THE STATE OF CONNECTICUT BUILDING CODE.

INDICATED ON THE DRAWINGS. 12. ALL OPENINGS SHALL BE FRAMED WITH DOUBLE POSTS, DOUBLE JOISTS OR DOUBLE RAFTERS AND

HEADERS ON END (UPRIGHT), UNLESS OTHERWISE INDICATED.

11. DOUBLE UP JOISTS AND RAFTER UNDER ALL HVAC UNITS, UNDER ALL PARTITIONS, AND ELSEWHERE AS

13. CONNECT ALL WOOD SILL PLATES TO CONCRETE OR MASONRY WITH A MINIMUM OF (1)-5/8" DIAMETER ANCHOR BOLT WITH WASHERS AT 4'-0" ON CENTER MAXIMUM AND A MINIMUM OF 8" EMBEDMENT INTO CONCRETE OR MASONRY, AND BOLTS A MAXIMUM OF 6" FROM EACH END OF INDIVIDUAL WOOD PLATES AND ADJACENT TO PLATE LAPS, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

14. CONNECT RAFTERS, JOISTS AND HEADERS FRAMING INTO THE SIDES OF OTHER WOOD MEMBERS WITH FORMED "SADDLE" TYPE JOIST HANGERS, MADE FROM 18 GA. GALVANIZED STEEL PER ASTM A93. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

15. ALL PREFABRICATED STEEL CONNECTORS INDICATED ON THE DRAWINGS SHALL BE AS MANUFACTURED

BY SIMPSON STRONG-TIE OR APPROVED EQUAL. ALL SUBSTITUTIONS SHALL BE SUBMITTED FOR

APPROVAL PRIOR TO PLACEMENT ON THE PROJECT. CONTRACTOR SHALL ANTICIPATE THE LEAD TIMES REQUIRED FOR OBTAINING THE CONNECTORS INDICATED ON THE DRAWINGS AND ALLOW SUFFICIENT TIME TO ORDER AND OBTAIN IN ORDER AS TO NOT DELAY THE WORK.

16. SIZE, SPACING AND DETAIL OF WOOD STUDS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS. 17. MEMBERS INDICATED THUS: "LVL" SHALL BE LAMINATED VENEER LUMBER, OR EQUIVALENT PSL PARALLEL

STRAND LUMBER "PARALLAM" SECTIONS WITH THE FOLLOWING MINIMUM MATERIAL PROPERTIES: Fb = 2600 PSIFc (perp.) = 750 PSIFc (par.) = 2510 PSI

Fv = 285 PSI

E = 1,900,000 PSI18. BEAM MEMBERS INDICATED THUS: "PSL" SHALL BE PARALLEL STRAND LUMBER "PARALLAM" SECTIONS

WITH THE FOLLOWING MINIMUM MATERIAL PROPERTIES Fb = 2900 PSIFc (perp.) = 750 PSIFc (par.) = 2900 PSI

Fv = 290 PSI

E = 2,000,000 PSI19. STUD MEMBERS INDICATED THUS: "LSL" SHALL BE LAMINATED STRAND LUMBER "TIMBERSTRAND"

SECTIONS WITH THE FOLLOWING MINIMUM MATERIAL PROPERTIES Ft = 1075 PSIFc (par.) = 1400 PSIE = 1,300,000 PSI

SIDES TO 6" MINIMUM BEYOND THE FACE OF THE WALL.

20. ALL ENGINEERED LUMBER FRAMING BEARING ON MASONRY WALLS OR IN BEAM POCKETS IN MASONRY WALLS SHALL BE WRAPPED WITH "ICE AND WATER SHIELD". WRAP THE END AND THE TOP, BOTTOM AND

Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525

SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

> 3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

MHAI Michael Horton Associates Inc. onsulting Structural Engineers Branford, Connecticut 06405 203-481-8600 mha-eng.com

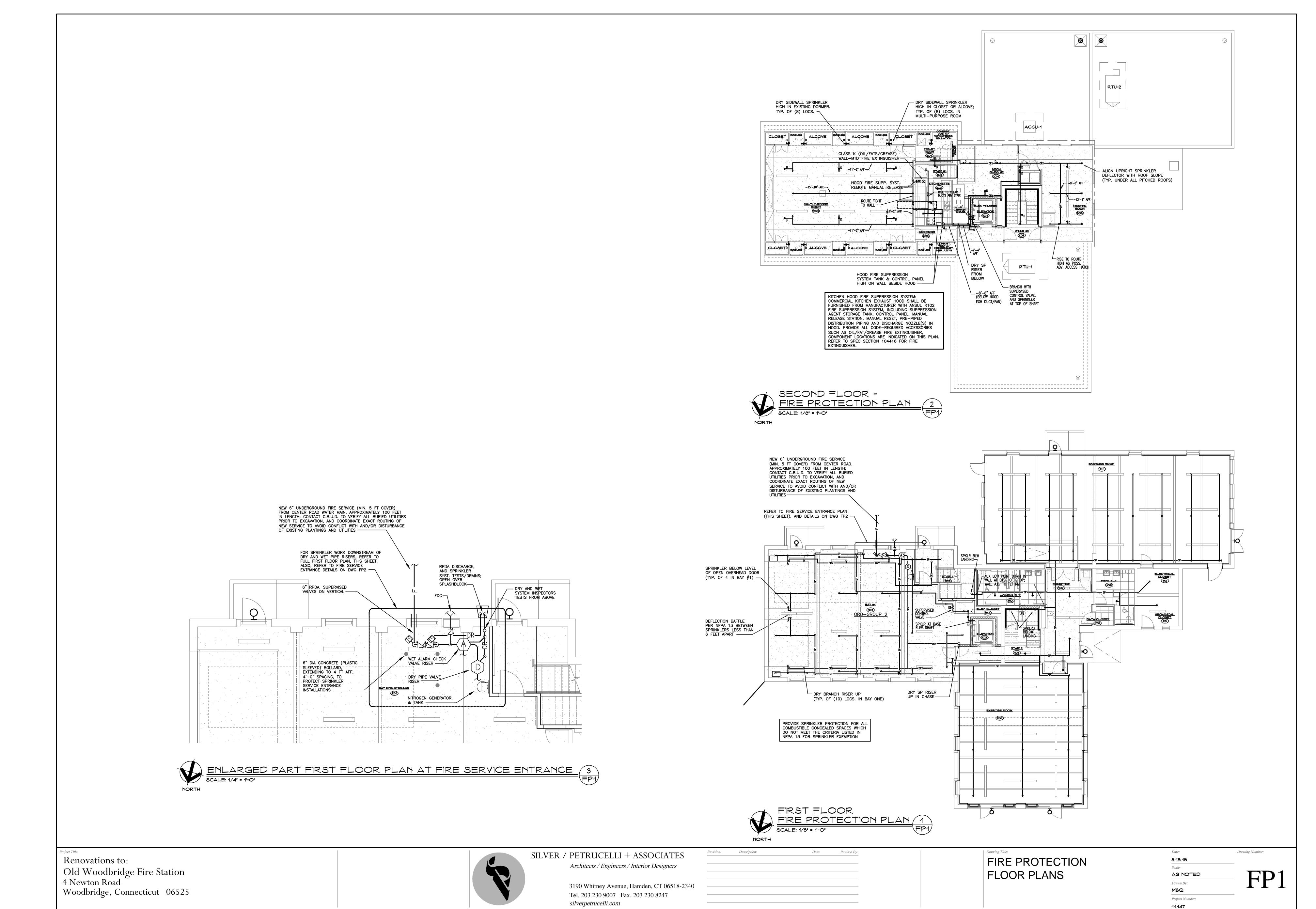
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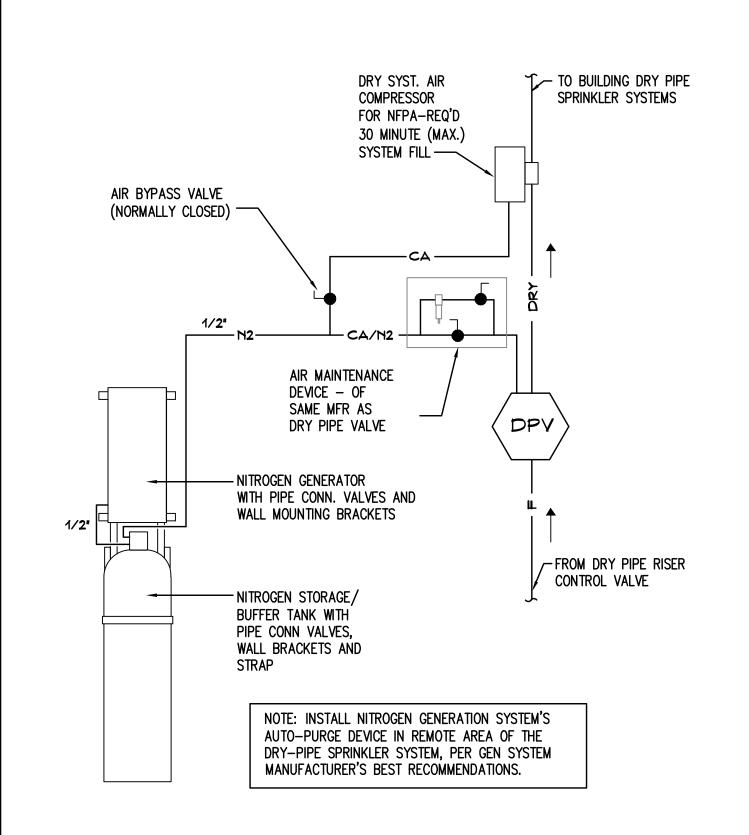
General Notes

AS NOTED 11.147

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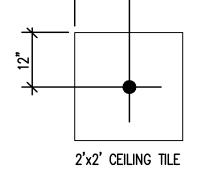
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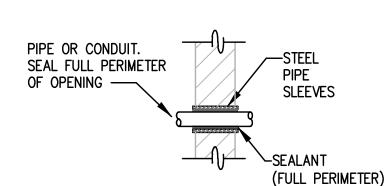
SCALE: NONE



NITROGEN GENERATION SYSTEM

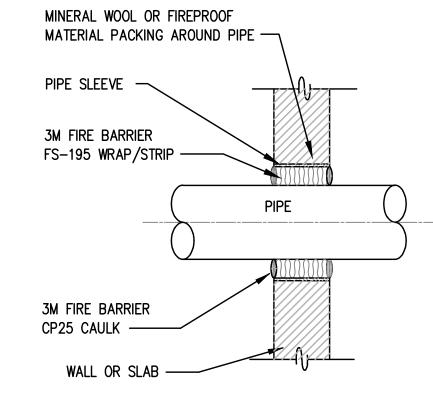
PLACEMENT OF SPRINKLER HEAD IS DEPENDENT UPON LAYOUT AS SHOWN ON FIRE PROTECTION DWGS. THIS DETAIL IS ONLY TO REFERENCE WHERE TO INSTALL SPRINKLER HEAD IN CONJUNCTION WITH MIDPOINT OF CEILING TILE.

DETAIL OF SPRINKLER HEAD IN CEILING TILE AT MIDPOINT SCALE: NONE FP2

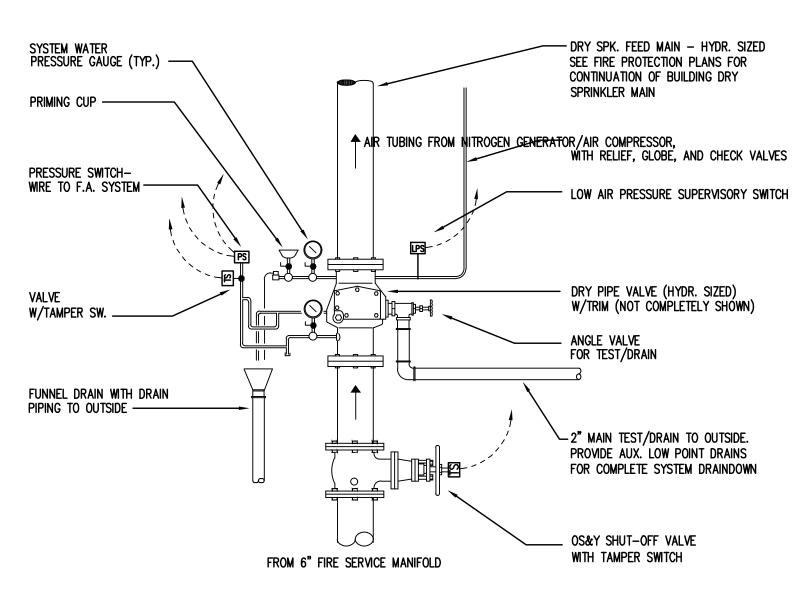


WALL PENETRATIONS AT NON-RATED WALLS

NOT TO SCALE FOR WALL PENETRATIONS AT RATED WALLS, SEE SPECIFICATION SECTION "FIRESTOPPING"



DETAIL OF FIREPROOFING OF PIPES PIERCING WALLS SLABS, SHAFT WALLS SCALE: NONE FP2

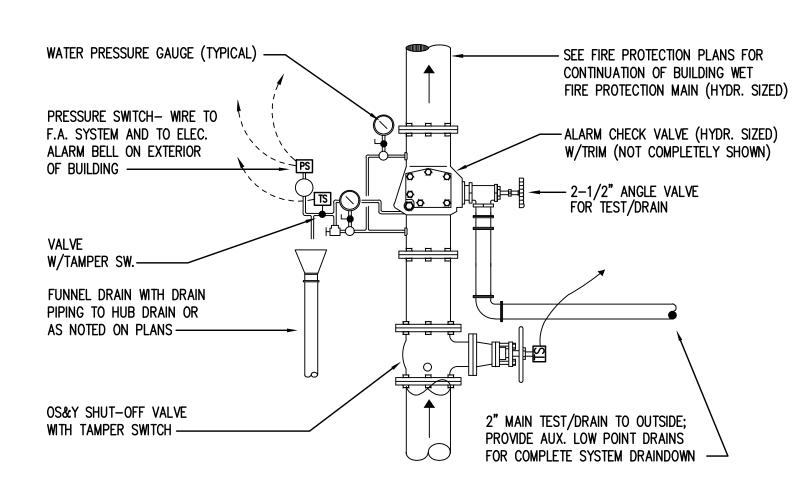


ALL EQUIPMENT, PIPING, VALVES, SUPERVISORY AND ALARM DEVICES, ETC. SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR UNLESS OTHERWISE NOTED. WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

NOT ALL TRIM IS SHOWN. PROVIDE ALL TRIM, SUPPORT EQUIPMENT, ETC. REQUIRED FOR A COMPLETE AND CORRECTLY FUNCTIONING INSTALLATION PER NFPA 13 AND MFR'S INSTALLATION INSTRUCTIONS.

REFER TO N2 GEN SYSTEM SCHEMATIC, THIS SHEET, FOR INTERFACE OF THAT SYSTEM WITH THE DRY-PIPE SPRINKLER SYSTEM

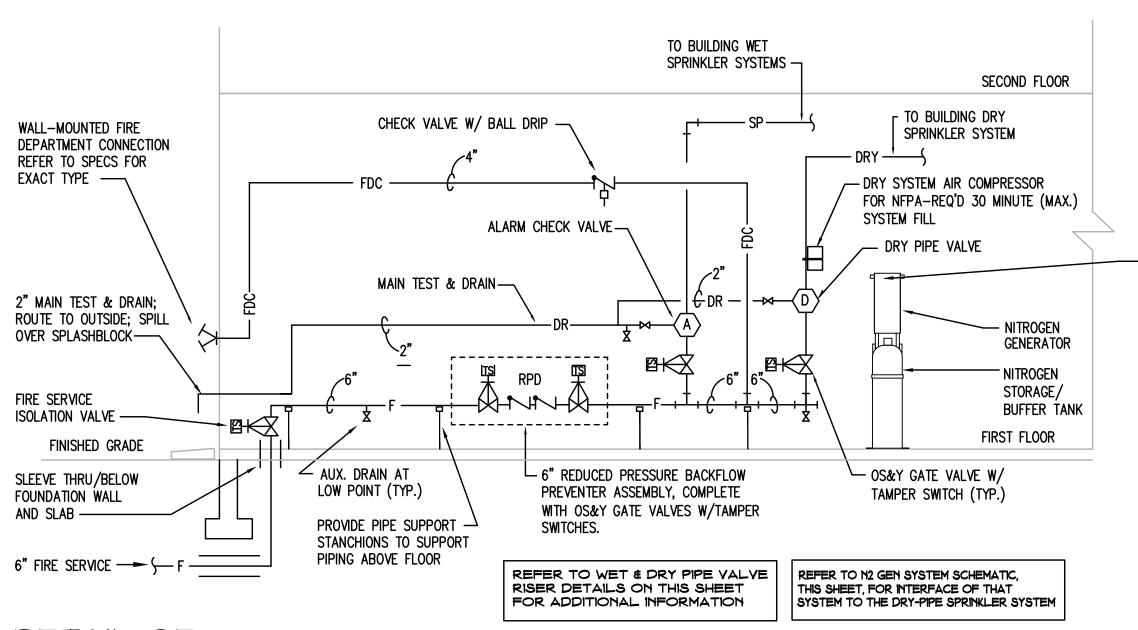
DETAIL OF DRY PIPE RISER AND DRY PIPE VALVE ASSEMBLY SCALE: NONE



ALL EQUIPMENT, PIPING, VALVES, SUPERVISORY AND ALARM DEVICES, ETC. SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR UNLESS OTHERWISE NOTED. WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.

NOT ALL TRIM IS SHOWN. PROVIDE ALL TRIM, SUPPORT EQUIPMENT, ETC. REQUIRED FOR A COMPLETE AND CORRECTLY FUNCTIONING INSTALLATION PER NFPA 13 AND MFR'S INSTALLATION INSTRUCTIONS.

DETAIL OF WET PIPE RISER AND ALARM CHECK VALVE ASSEMBLY SCALE: NONE



DETAIL OF FIRE SERVICE ENTRANCE AND DRY/WET PIPE RISER DIAGRAM SCALE: NONE

FIRE PROTECTION NOTES

- 1. INSTALL SPRINKLER SYSTEMS IN ACCORDANCE WITH MINIMUM STANDARDS OF NFPA 13. CURRENT ADOPTED EDITION IN STATE PROJECT IS LOCATED. USE ONLY NEW APPROVED (UL/FM) SPRINKLERS, MATERIALS AND DEVICES. ADHERE TO SPRINKLER SPACING RULES.
- 2. ALL SYSTEM COMPONENTS SHALL BE CAPABLE OF WITHSTANDING A WORKING PRESSURE OF 175 PSI.
- 3. SUPPORT SPRINKLER PIPING IN A SUBSTANTIAL MANNER FROM BUILDING STRUCTURE, AND INDEPENDENT OF THE CEILING MATERIAL. DO NOT USE SPRINKLER PIPING OR HANGERS TO SUPPORT NON-SYSTEM COMPONENTS.
- 4. MAKE REDUCTIONS IN PIPE SIZES WITH ONE-PIECE REDUCING FITTINGS. DO NOT USE BUSHINGS.
- 5. PROVIDE CLEARANCE AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS AND FOUNDATIONS.
- 6. ARRANGE PIPING TO FACILITATE FLUSHING. PROVIDE READILY REMOVABLE FITTINGS AT ENDS OF ALL CROSS AND FEED MAINS.
- 7. INSTALL ALL PIPING WITH PROVISIONS FOR COMPLETE DRAINAGE. WET-PIPE SPRINKLER SYSTEMS MAY BE INSTALLED LEVEL, AND NOT SLOPED. DRY PIPE SYSTEMS SHALL BE PITCHED PER NFPA 13.
- 8. DO NOT SCALE DRAWINGS. CHECK SPACE CONDITIONS AT THE JOB SITE.

- 9. SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, FLOW TESTS, INSPECTIONS AND APPROVALS.
- 10. SUBMIT: (1) SHOP DRAWINGS AND HYDRAULIC CALCULATIONS, STAMPED/SIGNED BY PROFESSIONAL ENGINEER OR OTHER STATE AND LOCAL-APPROVED DESIGNER, LICENSED IN STATE WHERE PROJECT IS LOCATED, (2) SPRINKLER SYSTEM PRODUCT DATA AND (3) CONTRACTOR—SIGNED AND AHJ—WITNESSED COPY OF "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" TO FIRE MARSHAL HAVING JURISDICTION, TO ENGINEER AND TO OWNER'S INSURANCE CARRIER FOR APPROVAL
- 11. PROVIDE WET AND DRY SPRINKLER SYSTEMS WITH TEST CONNECTIONS. INSPECTOR'S TEST VALVE SHOULD BE READILY ACCESSIBLE AND INSTALLED NOT OVER 7 FEET ABOVE THE FLOOR.
- 12. INSTALL SPRINKLERS BENEATH DUCTS AND OTHER OBSTRUCTIONS TO SPRINKLER DISCHARGE WHICH ARE MORE THAN 4 FEET WIDE.
- 13. PROVIDE ALL CONTROL, DRAIN AND TEST VALVES WITH IDENTIFICATION SIGNS AND SUPERVISORY SWITCHES.
- 14. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL SPRINKLER HEADS, DIFFUSERS, LIGHTS, GRILLES, ETC.

SPRINKLER SYSTEM NOTES

- 1. CONTRACTOR SHALL RUN PIPING TO ALL SPRINKLER HEADS, COORDINATE EXACT LOCATION OF PIPING, SIZE ALL PIPING, COORDINATE WITH OTHER TRADES, PRODUCE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS AS LISTED THROUGHOUT.
- 2. THE CONTRACTOR SHALL NOT REVISE OR DEVIATE FROM THE MAIN PIPING LAYOUT, VALVES, EQUIPMENT ACCESSORIES, DEVICES OR SPRINKLER HEADS SHOWN ON THESE DRAWINGS AND ITEMS LISTED IN THE SPECIFICATIONS.
- . <u>THE SPRINKLER HEAD LAYOUT INDICATED ON THE PLANS IS</u> SHOWN ONLY FOR GENERAL REFERENCE AND COORDINATION <u> VITH OTHER TRADES. DO NOT COUNT THE SPRINKLER HEADS</u> NDICATED FOR BIDDING PURPOSES. THE ACTUAL NUMBER <u>F SPRINKLERS REQUIRED SHALL BE BASED ON FINAL</u> COORDINATED SPRINKLER SHOP DRAWINGS.
- 4. PROVIDE AND INSTALL WHETHER SHOWN OR NOT, INSIDE THE BUILDING, A 1" INSPECTORS TEST CONNECTION, INCLUDING A 1" SHUTOFF VALVE AND SIGHT GLASS, FOR WET SPRINKLER SYSTEM AND A 1" DRY INSPECTOR'S TEST CONNECTION FOR DRY SPRINKLER SYSTEM.
- 5. FURNISH AND INSTALL, WHERE DIRECTED BY THE OWNER, A SPARE HEAD CABINET INCLUDING A WRENCH AND SPRINKLER HEAD SPARES OF ALL TYPES, DEGREE RATING AND ORIFICE SIZES INSTALLED.
- 6. BEFORE ACTUAL INSTALLATION, THIS CONTRACTOR SHALL PREPARE AND SUBMIT ACTUAL DETAILED WORKING DRAWINGS TO THE TOWN OF WOODBRIDGE FIRE MARSHAL AND INSURANCE UNDERWRITER TO OBTAIN STAMPED FINAL APPROVAL.
- 7. A STANDARD INSTALLATION OF AUTOMATIC SPRINKLERS ARRANGED AS A WET PIPE SYSTEM AND A NITROGEN-CHARGED DRY PIPE SYSTEM IS REQUIRED. THE SPRINKLER CONTRACTOR SHALL HYDRAULICALLY DESIGN THE SPRINKLER SYSTEMS STARTING AT THE BASE OF THE ALARM CHECK VALVE AND DRY PIPE VALVE RISERS. THE SYSTEM SHALL BE DESIGNED TO PROVIDE DENSITIES AS NOTED OVER THE HYDRAULICALLY MOST REMOTE AREAS. ALLOWANCE FOR INSIDE AND OUTSIDE HOSE TO BE INCLUDED.
- 8. AT EACH SYSTEM RISER (WET AND DRY) SHALL HANG A HYDRAULIC CALCULATION POSTER SIGN EQUAL TO "VIKING" #03573C, PROVIDING CALCULATION DATA FOR THAT RISER'S HYDRAULICALLY MOST REMOTE AREA.
- 9. CAUTION SIGNS SHALL BE ATTACHED TO ALL CONTROLLING
- SPRINKLER VALVES AS PER NFPA 13. 10. WHERE PIPING IS TO BE RUN THROUGH EXPANSION JOINTS, CONTRACTOR SHALL INSTALL EXPANSION LOOPS AT THAT
- ALL DRY OR NORMALLY DRY PIPING NOT CHARGED WITH NITROGEN SHALL BE GALVANIZED STEEL SCHEDULE 40; THIS INCLUDES FIRE DEPARTMENT CONNECTION, TEST AND DRAIN
- 12. SPRINKLER FEED MAINS AND SP ZONE PIPE SIZES SHALL BE DETERMINED FROM FIRE PROTECTION CONTRACTOR SHOP DRAWINGS AND HYDRAULIC CALCULATIONS.

1" CLOSE NIPPLE

-1" Drop Nipple

- 1" X 1/2" REDUCER

— SUSPENDED CEILING

SPRINKLER HEAD-REFER TO SPECIFICATIONS FOR EXACT TYPE

((S))------- OUTLET TEE

DETAIL OF SPRINKLER CONNECTION

FOR CENTER OF TILE INSTALLATION (1)

- 13. SUBMITTALS FOR APPROVAL THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR APPROVAL:
- A COMPLETE SET OF DETAILED CONTRACTOR'S INSTALLATION DRAWINGS TO INCLUDE: A FULL HEIGHT CROSS SECTION, LOCATIONS OF ALL WALLS PARTITIONS, LIGHTS, DIFFUSERS. GRIDS. MAJOR EQUIPMENT AND DUCTWORK. SIZE OF SITE WATER MAIN AND PRESSURE. NOMINAL PIPE SIZES. CUTTING LENGTHS AND FINISHED FLOOR TO PIPE ELEVATION LENGTH, LOCATION OF ALL VALVES, MAINS, BRANCH PIPING AND SPRINKLER HEADS HYDRAULIC NAMEPLATE DATA AND ALL PERTINENT INFORMATION. SUBMITTAL INFORMATION OUTLINED IN NFPA 13.
- A COMPLETE SET OF DETAILED HYDRAULIC CALCULATIONS FOR EACH SYSTEM WITH HYDRAULIC REFERENCE POINTS, AS PER NFPA 13. SUBMITTAL INFORMATION OUTLINED IN NFPA 13. A COMPLETE SET OF DETAILED PRODUCT SUBMITTALS. FOR ALL PRODUCTS REQUIRED BY NFPA 13 TO BE LISTED FOR THE INTENDED USE, SUCH LISTING SHALL BE CLEARLY INDICATED ON THE SUBMITTAL.
- 14. ALL NEW PIPING PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED WITH LISTED FIREPROOFING MATERIALS. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND SPEC SECTION 078413 "PENETRATION FIRESTOPPING".
- 15. PROVIDE SEISMIC SUPPORTS PER NFPA 13 REQUIREMENTS AND THE CONNECTICUT STATE BUILDING CODE.
- 16. ALL PIPING IS TO BE RUN CONCEALED ABOVE CEILINGS OR IN WALLS. PIPING IS TO BE EXPOSED ONLY WHERE NOTED ON DRAWINGS. IF CONTRACTOR CANNOT RUN PIPING CONCEALED, NOTIFY ENGINEER IMMEDIATELY TO RESOLVE CONFLICT.
- 17. IN SMALL ROOMS OR CLOSETS WHERE SURFACE MOUNTED LIGHTS OR OTHER OBSTRUCTIONS EXIST, THE CONTRACTOR SHALL INSTALL STANDARD PENDENT HEADS WITH DEFLECTOR BELOW THE LEVEL OF THE OBSTRUCTION, OR MAINTAIN REQUIRED CLEARANCE FROM THE OBSTRUCTION PER OBSTRUCTION DEPTH ACCORDING TO RULES SET BY NFPA 13 DEEP CHROME ESCUTCHEONS MAY BE USED IF ABSOLUTELY NECESSARY. THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY IF THESE ESCUTCHEONS ARE REQUIRED DUE TO THE CONCERN OF AESTHETICS OF THE SPRINKLER SYSTEM. SEE NFPA 13 FOR OBSTRUCTION CLEARANCE RULES.
- 18. PIPING MAINS ARE SHOWN ONLY TO CLARIFY WHERE THE ENGINEER INTENDS THE PIPING TO BE LOCATED. THE CONTRACTOR SHALL NOT DEVIATE FROM THE LOCATIONS SHOWN UNLESS IT IS PHYSICALLY IMPOSSIBLE TO INSTALL PIPING IN THOSE LOCATIONS. SPRINKLER CONTRACTOR SHALL RUN ALL OTHER REQUIRED PIPING TO SPRINKLER HEADS, TEST, DRAINS, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELBOWS, TEES, DROPS, AND MISCELLANEOUS PIPING REQUIRED DUE TO ELEVATION CHANGES, OBSTRUCTIONS, ETC. TO INSTALL A COMPLETE AND FULLY FUNCTIONAL SPRINKLER SYSTEM.
- 19. AT ALL LOCATIONS WHERE PIPING IS ATTACHED TO BEAMS. A GALVANIZED BEAM RESTRAINING STRAP MUST BE USED IN CONJUNCTION WITH GALVANIZED BEAM CLAMP.
- 20. CONCEALED SPACES ENCLOSED IN COMBUSTIBLE CONSTRUCTION. IN ADDITION TO THE CEILINGS SPACES AND ATTIC SPACES INDICATED ON THE DRAWINGS TO BE SPRINKLERED, MAY EXIST OR BE CREATED AS PART OF THE RENOVATION. IDENTIFY LOCATIONS OF SUCH SPACES AND PROVIDE SPRINKLER PROTECTION PER NFPA 13 FOR SAME.

F	F	FIRE MAIN PIPING
SP	SP, SPK	WET SYSTEM SPRINKLER PIPING
——————————————————————————————————————	DRY	DRY SPRINKLER PIPING
———— FDC ———	FDC	FIRE DEPARTMENT CONNECTION PIPING
——————————————————————————————————————	DR	DRAIN PIPING
N2	N2	NITROGEN PIPING
• _D		DRY RECESSED PENDENT SPRINKLER HEAD (QUICK RESPONSE)
•		RECESSED PENDENT SPRINKLER HEAD (QUICK RESPONSE)
×		UPRIGHT SPRINKLER HEAD (QUICK RESPONSE)
× _G		UPRIGHT SPRINKLER HEAD (QUICK RESPONSE) WITH HEAD GUARD
×I		UPRIGHT SPRINKLER HEAD (QUICK RESPONSE) WITH BAFFLE PLATE
>		SIDEWALL SPRINKLER HEAD (QUICK RESPONSE) (NORMAL 14'x14' THROW)
D ►		SIDEWALL SPRINKLER HEAD (QUICK RESPONSE) (DRY)
	OSY W/TS	OUTSIDE SCREW & YOKE VALVE WITH TAMPER SWITCH
	cv	CHECK VALVE
FS	FS	FLOW SWITCH
		TEST & DRAIN VALVE
≯		FIRE DEPARTMENT CONNECTION (REFER TO SPECIFICATIONS FOR EXACT TYPE)
A	RPD	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY
		PIPING DOWN
		PIPING UP
Ø		PRESSURE GAUGE
A	ACV	ALARM CHECK VALVE ASSEMBLY
_		

FIRE PROTECTION LEGEND

(NOT ALL SYMBOLS ARE USED)

ABBREVIATION

SYMBOL

DESCRIPTION

FIRE PROTECTION DESIGN CRITERIA

NOTE: ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE.

FIRST FLOOR (WET SYSTEM):

OFFICE, CONFERENCE, FITNESS, TOILET, AND PUBLIC ACCESS AREAS (NOT INCLUDING STORAGE AREAS)- INSTALL A HYDRAULICALLY BALANCED WET SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.10 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1500 SQUARE FOOT AREA WITH A 100 GPM ALLOWANCE FOR HOSE STREAMS. SPRINKLER HEAD SPACING 225 SQUARE FT. PER HEAD MAX. FOR UPRIGHT AND PENDENT SPRINKLER HEADS; PROVIDE RECESSED PENDENT IN FINISHED CEILINGS, UPRIGHT IN AREAS WITHOUT CEILINGS.

DRY PIPE VALVE ASSEMBLY

MECHANICAL/ELECTRICAL EQUIPMENT ROOMS, ELEVATOR MACHINE ROOM - INSTALL A HYDRAULICALLY BALANCED WET SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.15 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1500 SQUARE FOOT AREA WITH A 250 GPM ALLOWANCE FOR HOSE STREAMS. SPRINKLER HEAD SPACING: 130 SQUARE FT. PER HEAD MAX. SPRINKLER HEADS; PROVIDE RECESSED PENDENT IN FINISHED CEILINGS, UPRIGHT IN AREAS WITHOUT CEILINGS.

STORAGE ROOMS (INCLUDING BAY ONE AND JANITOR'S CLOSETS) - INSTALL A HYDRAULICALLY BALANCED WET SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.20 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1500 SQUARE FOOT AREA WITH A 250 GPM ALLOWANCE FOR HOSE STREAMS. SPRINKLER HEAD SPACING; 130 SQUARE FT. PER HEAD MAX. SPRINKLER HEADS; PROVIDE RECESSED PENDENT IN FINISHED CEILINGS, UPRIGHT IN AREAS WITHOUT CEILINGS.

CEILING SPACES ENCLOSED BY LIMITED COMBUSTIBLE OR COMBUSTIBLE CONSTRUCTION-UNLESS EXEMPETED BY NFPA 13 FOR CONDITIONS ENCOUNTERED, SPRINKLER PROTECTION IS REQUIRED IN THESE CEILING SPACES. CEILING SPACES SHALL NOT BE USED FOR STORAGE INSTALL A HYDRAULICALLY BALANCED WET SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.10 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1500 SQUARE FOOT AREA WITH A 100 GPM ALLOWANCE FOR HOSE STREAMS. PROVIDE UPRIGHT SPRINKLER HEADS; SPRINKLER HEAD SPACING SHALL BE ACCORDING TO THE REQUIREMENTS OF NFPA 13, CHAPTER 8 FOR THE TYPE OF CONSTRUCTION ENCOUNTERED.

SECOND FLOOR (DRY SYSTEM):

OFFICES, MULTI-PURPOSE ROOM, TOILET ROOM AND PUBLIC ACCESS AREAS (NOT INCLUDING STORAGE AREAS): INSTALL A HYDRAULICALLY BALANCED DRY SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.10 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1950 SQUARE FOOT AREA WITH A 100 GPM ALLOWANCE FOR HOSE STREAMS PROVIDE DRY RECESSED PENDENT OR DRY SIDEWALL SPRINKLER HEADS. SPRINKLER HEAD SPACING SHALL BE ACCORDING TO NFPA 13 FOR THE TYPE OF CONSTRUCTION ENCOUNTERED.

MECHANICAL CLOSET, KITCHEN: INSTALL A HYDRAULICALLY BALANCED DRY SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.15 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1950 SQUARE FOOT AREA WITH A 250 GPM ALLOWANCE FOR HOSE STREAMS. PROVIDE DRY RECESSED PENDENT OR DRY SIDEWALL SPRINKLER HEADS. SPRINKLER HEAD SPACING SHALL BE ACCORDING TO NFPA 13 FOR THE TYPE OF CONSTRUCTION ENCOUNTERED.

STORAGE AREAS: INSTALL A HYDRAULICALLY BALANCED DRY SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.20 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1950 SQUARE FOOT AREA WITH A 250 GPM ALLOWANCE FOR HOSE STREAMS. PROVIDE DRY RECESSED PENDENT OR DRY SIDEWALL SPRINKLER HEADS. SPRINKLER HEAD SPACING SHALL BE ACCORDING TO NFPA 13 FOR THE TYPE OF CONSTRUCTION ENCOUNTERED.

2ND FLOOR ATTIC SPACES: INSTALL A HYDRAULICALLY BALANCED DRY SPRINKLER SYSTEM TO PROVIDE A DENSITY OF 0.10 GPM PER SQUARE FOOT OVER THE MOST REMOTE AREA UP TO A MAXIMUM OF 1950 SQUARE FOOT AREA WITH A 100 GPM ALLOWANCE FOR HOSE STREAMS. PROVIDE UPRIGHT SPRINKLER HEADS. SPRINKLER HEAD SPACING; PER NFPA 13, TABLE 8.6.2.2.1(a) FOR UNOCCUPIED ATTICS HAVING COMBUSTIBLE WOOD JOIST OR WOOD TRUSS CONSTRUCTION WITH MEMBERS LESS THAN 3 FEET ON CENTER WITH SLOPES HAVING A PITCH OF 4 IN 12 OR GREATER, AND FOR MINIMUM RESIDUAL PRESSURE REQUIREMENT (APPROXIMATELY 7 PSI OR 0.48 BAR) AT THE SPRINKLER HEAD.

FIRE PROTECTION CONTRACTOR SHALL ARRANGE WITH THE WATER LITHLITY FOR A NEW WATER

MBQ

11.147

SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

SCALE: NONE

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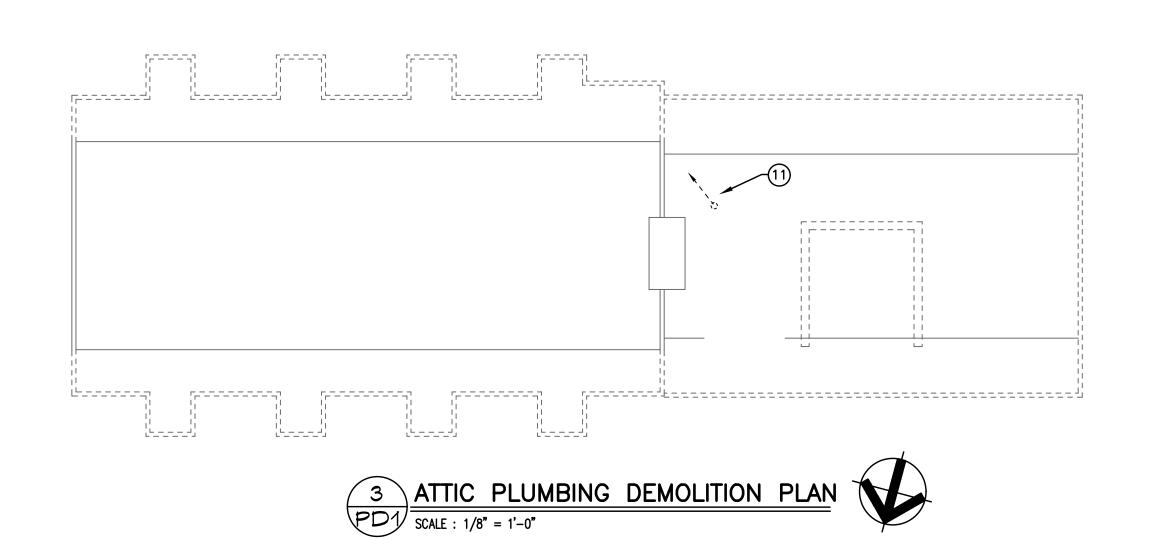
Date: Revised By:

Drawing Title: FIRE PROTECTION LEGENDS, NOTES AND DETAILS

Drawing Number: 5.18.18 AS NOTED

FP2 Drawn By: Project Number.

Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525



DEMOLITION LEGEND

SYMBOL DESC

"HHHHA" EXISTING PIPING OR FIXTURES TO BE REMOVED

GENERAL DEMOLITION NOTES

- 1. MAINTAIN SYSTEMS AND BUILDING SERVICES AS REQUIRED DURING CONSTRUCTION. REVIEW AND COORDINATE WITH G.C.'s APPROVED SEQUENCING PLAN.
- 2. PATCH, REPAIR AND SEAL ALL WALL AND ROOF OPENINGS RESULTING FROM MECHANICAL/ELECTRICAL DEMOLITION. RESTORE FINISHES WITH MATERIALS MATCHING EXISTING. PROVIDE PROTECTION FROM WEATHER DURING CONSTRUCTION.
- ENSURE THAT POWER IS SECURED OFF PRIOR TO COMMENCING EQUIPMENT REMOVAL. SECURE POWER BACK TO PANEL FOR EQUIPMENT BEING REMOVED.
 PROVIDE TEMPORARY CAPS OR COVERS FOR ALL OPENED PIPE, DUCT AND CONDUIT TO PREVENT INTRODUCTION OF FOREIGN MATERIAL.
- 5. ALL WASTE MATERIALS AND EQUIPMENT SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR.
- 6. THE DEMOLITION NOTES ARE FOR DESCRIPTIVE GUIDE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL ITEMS INDICATED AND/OR NOTED ON THE DRAWINGS. INCLUSION OF THESE EXISTING CONDITIONS HEREON SHALL IN NO WAY ALLEVIATE THE CONTRACTOR(S) OF HIS/HER RESPONSIBILITY TO VISIT THE SITE TO VERIFY ALL EXISTING CONDITIONS.
- 7. THE CONTRACTORS SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS AND MATERIALS IN THE FIELD AND SHALL NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES MINIMUM ONE WEEK PRIOR TO BID OPENING.
- 8. LOCATION OF ALL EXISTING PIPING, ETC. IS APPROXIMATE. THE PLUMBING CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND EXTENT OF WORK IN THE FIELD.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH ALL TRADES.
- THE EXISTING CONDITIONS REPRESENTED HEREON ARE BASED ON LYONS, MATHER, LECHNER ARCHITECTS CONSTRUCTION DRAWING P-5 DATED FEBRUARY 10, 1971 AND ARE INCLUDED FOR CONTRACTORS REFERENCE ONLY. ACTUAL LOCATION OF PIPING AND UTILITIES MAY VARY IN FIELD. PIPING CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD AND MAKE ALLOWANCE IN BID FOR LOCATIONS AND ARRANGEMENTS OTHER THAN SHOWN.
 NO WORK SHALL BE LEFT INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED
- OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.

 12. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES

WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING

- AND PIPING SYSTEM, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON.
- 13. COORDINATE SHUTDOWN OF EXISTING SERVICES AND TAPPING OF EXISTING PIPING

WITH OWNER'S MAINTENANCE PERSONNEL. NO WORK SHALL TAKE PLACE UNTIL

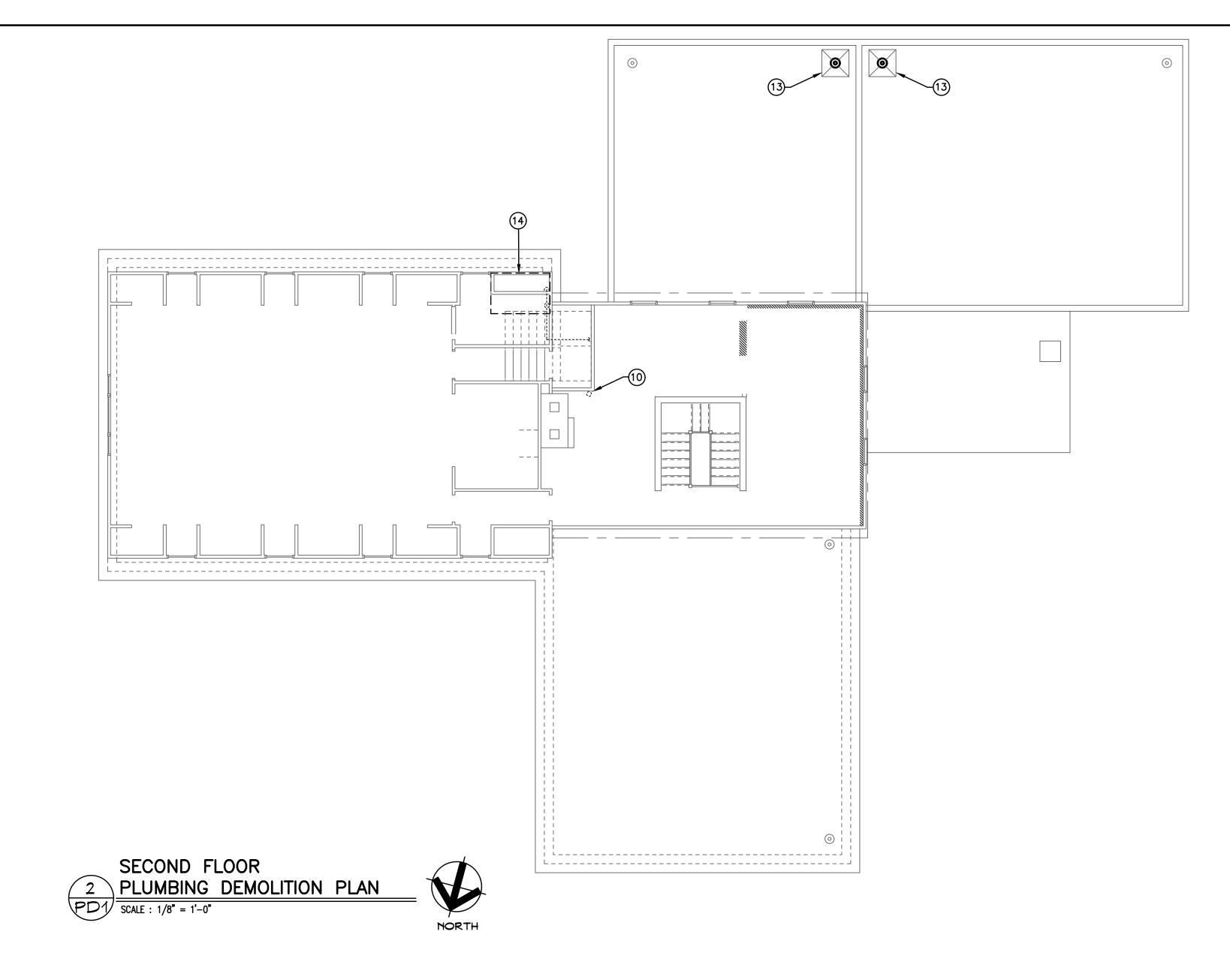
DEMOLITION NOTES (

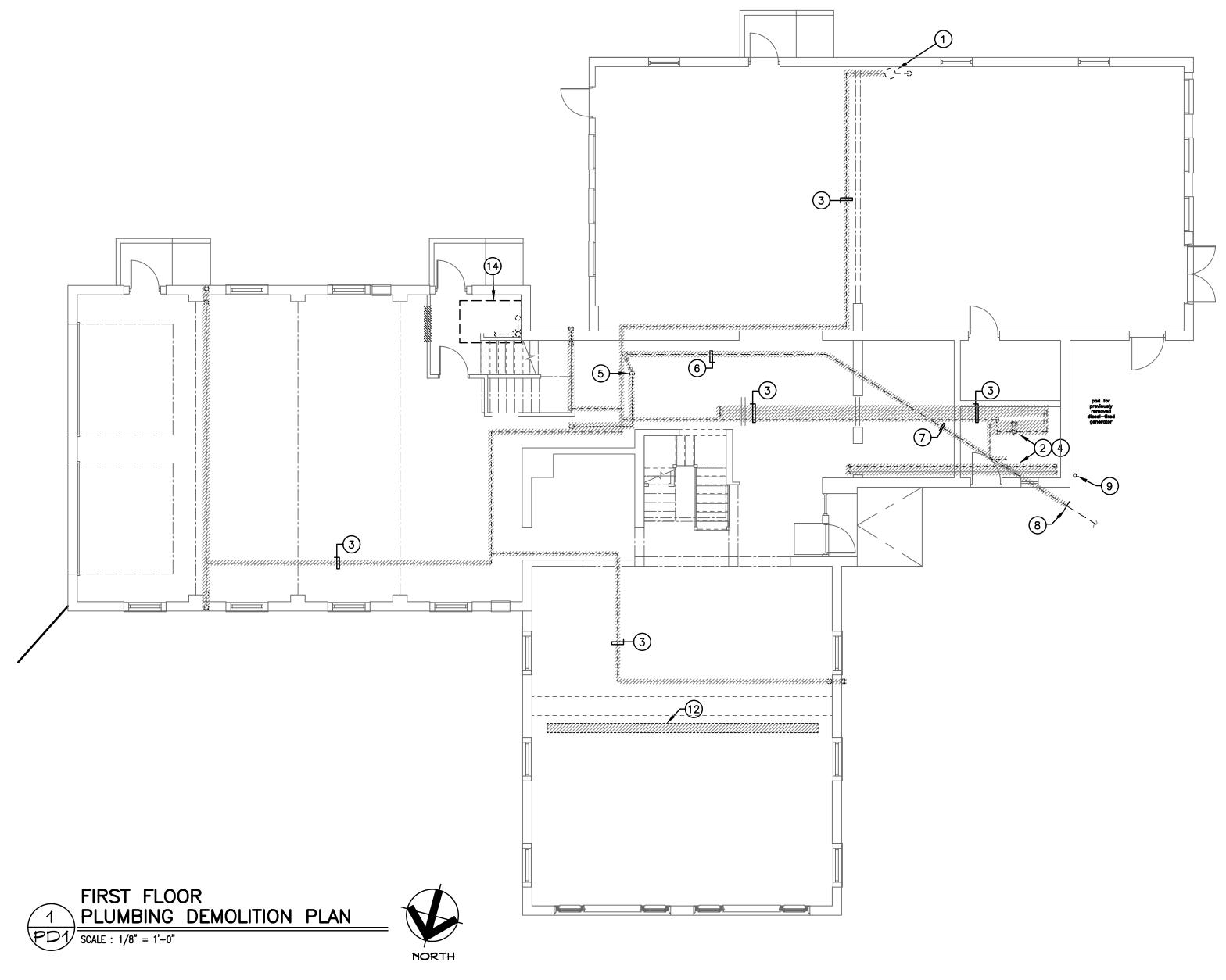
- EXISTING DOMESTIC WATER SERVICE ENTRANCE THROUGH FLOOR SLAB, AND WATER METER INSTALLATION TO REMAIN. FIELD VERIFY IF METER MUST BE RAISED TO ACCOMMODATE NEW HIGHER FLOOR SLAB; IF VERIFIED RAISING IS NECESSARY, COORDINATE METER—RAISING WITH THE WATER UTILITY (REGIONAL WATER AUTHORITY).
- DISCONNECT, REMOVE AND DISPOSE OF EXISTING DOMESTIC HOT WATER CIRCULATORS AND ASSOCIATED PLUMBING SPECIALTIES (DOMESTIC HOT WATER IS PRESENTLY GENERATED VIA TANKLESS HEAT EXCHANGER IN THE EXISTING SPACE—HEATING BOILER REFER TO MECHANICAL DEMOLITION PLANS)
- 3 DISCONNECT, REMOVE AND DISPOSE OF ALL EXISTING DOMESTIC WATER PIPING AND ASSOCIATED INSULATION AND HANGERS, WALL HYDRANT, ETC. DOWNSTREAM OF WATER METER.
- DISCONNECT, REMOVE AND DISPOSE OF EXISTING DOMESTIC HOT WATER EXPANSION TANK AND ASSOCIATED SPECIALTIES
- 5 DISCONNECT AND REMOVE 4" EXISTING SANITARY VENT RISER, FROM BELOW GROUND FLOOR SLAB TO JUST BELOW EX. VTR.
- 6 ALL EXISTING SAN/WASTE/VENT PIPING UNDERSLAB SHALL BE DISCONNECTED AND ABANDONED (OR REMOVED IF IN CONFLICT WITH NEW WORK). CUT AND CAP ALL OPEN PIPE ENDS SO AS NOT TO BE EXPOSED AFTER PROJECT COMPLETION. (PROVIDE ALL NEW UNDERSLAB SAN/WASTE/VENT PIPING FOR NEW WORK REFER TO DRAWING P1.)
- NEW UNDERSLAB SAN MAIN TO BE INSTALLED HERE IN APPROX SAME ELEVATION AND ROUTING AS EXISTING; CUT SLAB, EXCAVATE AND REMOVE EX. SAN MAIN AS REQUIRED TO INSTALL NEW UNDERSLAB SAN MAIN REFER TO DRAWING P1.
- 8 EXISTING SITE SANITARY DOWNSTREAM OF APPROXIMATELY HERE SHALL REMAIN; VERIFY EX. INVERT AT BLDG EXIT AND COORDINATE PITCH AND ELEVATION OF NEW UNDERSLAB SAN PIPING WITHIN BUILDING TO MAKE PITCH TO CONNECT TO EXISTING INVERT.
- 9 AREA OF EXISTING GAS SERVICE RISER WITH METER AND REGULATOR (LABELS INDICATE PSI AFTER METER/REGULATOR). CONFIRM AVAILABLE BUILDING DISTRIBUTION PRESSURE.
- 10 REMOVE EXISTING 4" VENT UP & DN THROUGH 2ND FLOOR TO BASE OF VENT THRU ROOF.

 11 EXISTING 4" VENT THROUGH ROOF TO REMAIN.
- EXISTING TRENCH DRAIN TO BE FILLED IN. VERIFY ROUTING OF WASTE PIPING, DISCONNECT AND CAP ALL OPEN PIPE ENDS SO AS NOT TO (1) CONFLICT WITH OR
- EXISTING ROOF DRAIN WITH INTERIOR LEADER DISCHARGING TO OUTSIDE JUST ABOVE GRADE. DISCONNECT AND REMOVE ROOF DRAIN. REFER TO DWG P1 FOR NEW WORK.

BE EXPOSED AFTER PROJECT COMPLETION, AND (2) LEAVE DEAD END PIPING.

AREA OF EXISTING ROUGH—IN FOR 2ND FLOOR FIXTURES. DISCONNECT AND REMOVE ALL PIPING PROVISIONS FOR FUTURE FIXTURES, INCLUDING SAN DROP IN CORNER OF 1ST FLOOR CLOSET IN STAIR ENCLOSURE. CUT/CAP SAN CONTINUATION UNDERSLAB; DO NOT CONNECT TO NEW WORK.





Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



SILVER / PETRUCELLI + ASSOCIATES

Architects / Engineers / Interior Designers

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PLUMBING DEMOLITION PLANS Date:

5.18.18

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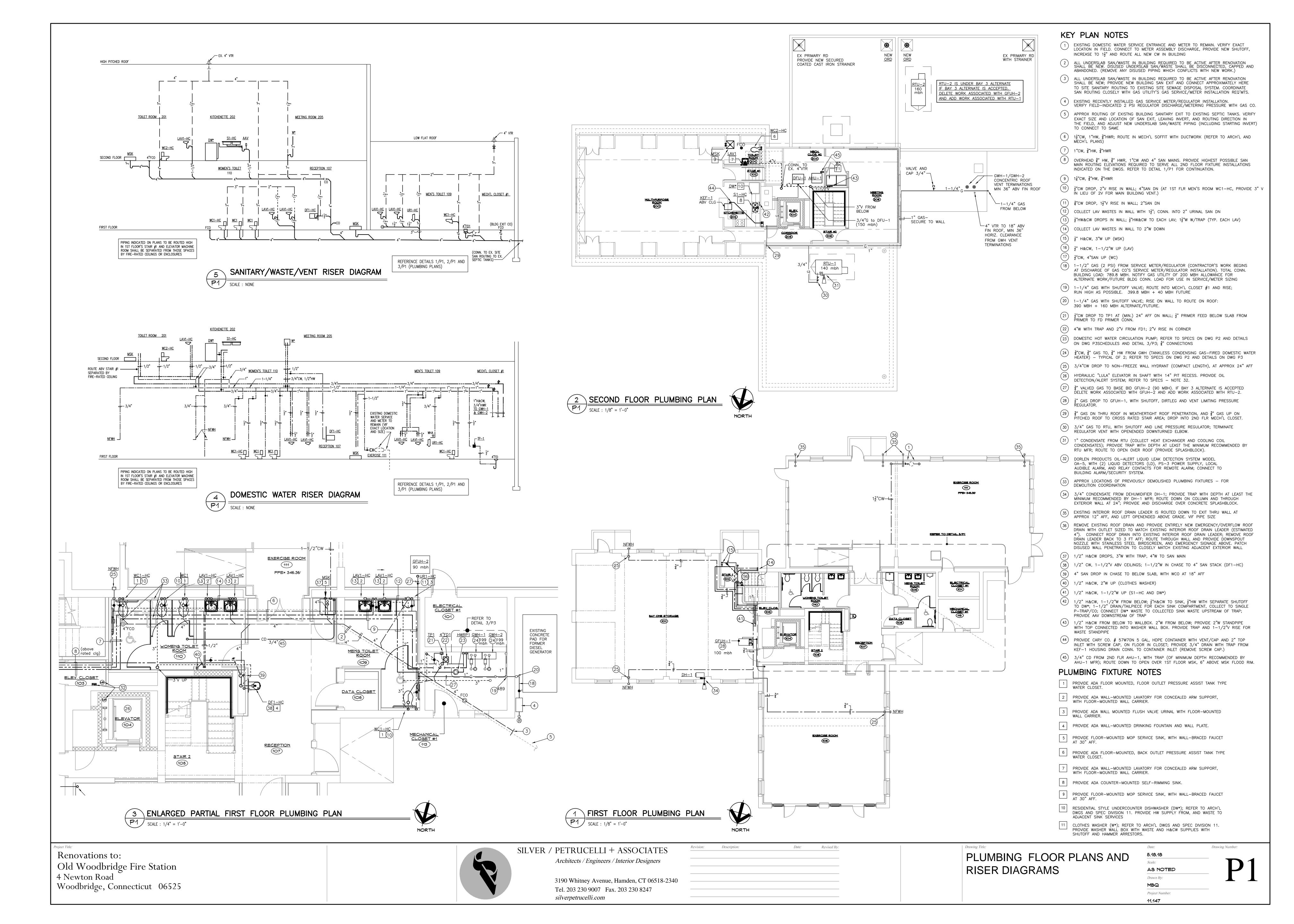
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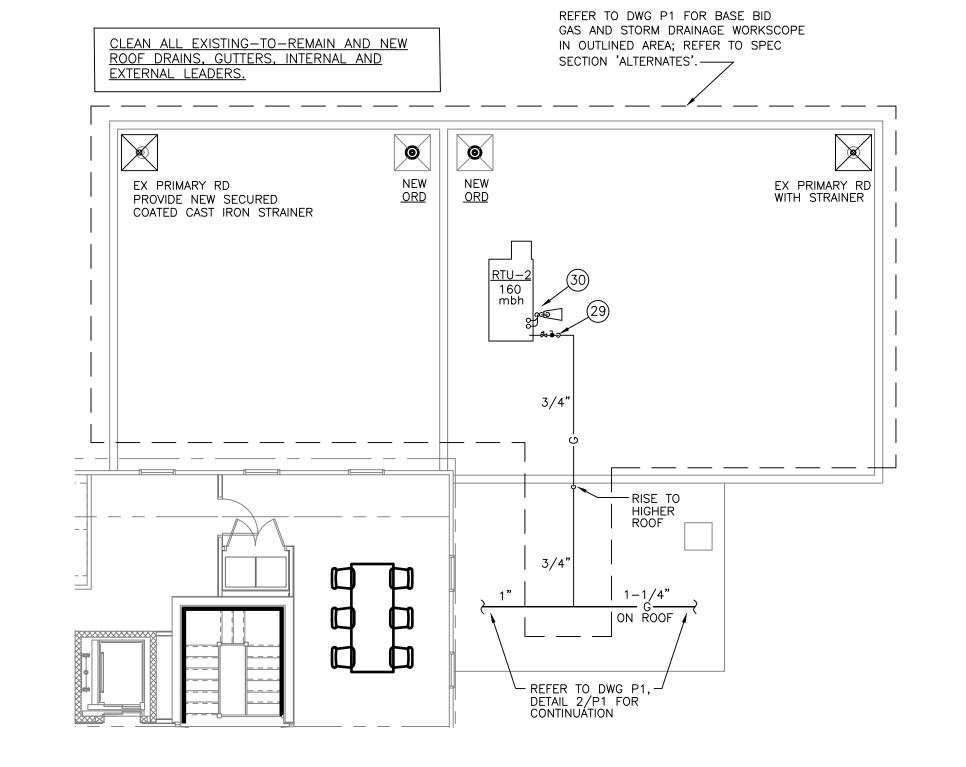
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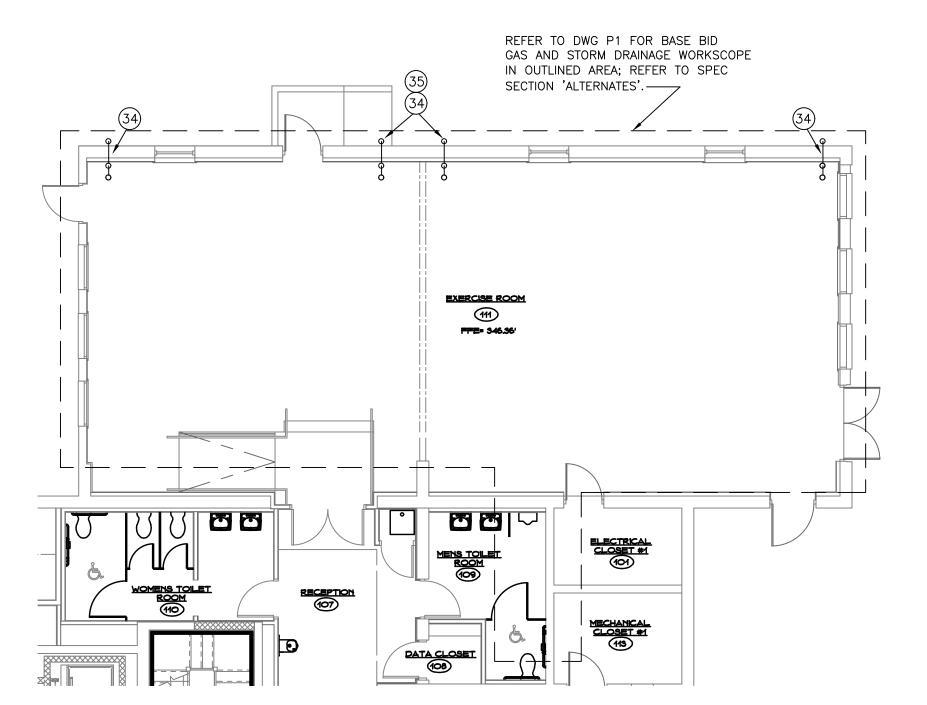
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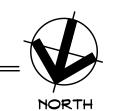












KEY PLAN NOTES

- 1 EXISTING DOMESTIC WATER SERVICE ENTRANCE AND METER TO REMAIN. VERIFY EXACT LOCATION IN FIELD. CONNECT TO METER ASSEMBLY DISCHARGE, PROVIDE NEW SHUTOFF, INCREASE TO 12 AND ROUTE ALL NEW CW IN BUILDING
- 2 ALL UNDERSLAB SAN/WASTE IN BUILDING REQUIRED TO BE ACTIVE AFTER RENOVATION SHALL BE NEW. DISUSED UNDERSLAB SAN/WASTE SHALL BE DISCONNECTED, CAPPED AND ABANDONED. (REMOVE ANY DISUSED PIPING WHICH CONFLICTS WITH NEW WORK.)
- 3 ALL UNDERSLAB SAN/WASTE IN BUILDING REQUIRED TO BE ACTIVE AFTER RENOVATION SHALL BE NEW; PROVIDE NEW BUILDING SAN EXIT AND CONNECT APPROXIMATELY HERE TO SITE SANITARY ROUTING TO EXISTING SITE SEWAGE DISPOSAL SYSTEM. COORDINATE SAN ROUTING CLOSELY WITH GAS UTILITY'S GAS METER INSTALLATION REQUIREMENTS.
- 4 EXISTING RECENTLY INSTALLED GAS SERVICE METER/REGULATOR INSTALLATION. 2 PSI REGULATOR DISCHARGE/METERING PRESSURE.
- 5) APPROX ROUTING OF EXISTING BUILDING SANITARY EXIT TO EXISTING SEPTIC TANK. VERIFY EXACT SIZE AND LOCATION OF SAN EXIT, LEAVING INVERT, AND ROUTING DIRECTION IN FIELD, AND ADJUST NEW UNDERSLAB SAN/WASTE PIPING (INCLUDING STARTING INVERT) TO CONNECT TO SAME
- 6 1½"CW, ¾"HW, ¾"HWR; ROUTE IN MECH'L SOFFIT WITH DUCTWORK (REFER TO ARCH'L AND MECH'L PLANS)
- (7) 1"CW, $\frac{3}{4}$ "HW, $\frac{3}{4}$ "HWR
- 8 EXTEND OVERHEAD 3"HWS&R AND 4" SAN MAINS TO BEYOND ELEV. MACHINE ROOM, CAP FOR FUTURE AND CONNECT HW AND HWR MAINS WITH VALVED BRANCH. CALCULATE AND PROVIDE HIGHEST POSSIBLE SAN MAIN ROUTING ELEVATIONS REQUIRED TO SERVE ALL FUTURE 2ND FLOOR FIXTURE INSTALLATIONS INDICATED ON THE DWGS.
- 9) 1¼"CW, ¾"HW, ¾"HWR
- (10) ½"CW DROP, 2"V RISE IN WALL; 4"SAN DN
- (11) $\frac{3}{4}$ "CW DROP, $1\frac{1}{2}$ "V RISE IN WALL; 2"SAN DN
- (12) COLLECT LAV WASTES IN WALL WITH $1\frac{1}{2}$ "; CONN. INTO 2" URINAL SAN DN
- 13) ½"HW&CW DROPS IN WALL; ½"HW&CW TO EACH LAV; 1½"W
- W/TRAP (TYP. EACH LAV) (14) COLLECT LAV WASTES IN WALL TO 2"W DOWN
- (15) $\frac{1}{2}$ "CW DROP, $1\frac{1}{2}$ "V RISE IN CHASE; $1\frac{1}{2}$ "W TO 4" SAN STACK
- 4"SAN DOWN TO BELOW SLAB; PROVIDE WCO AT BASE OF DROP; STUB TOP OUT OF CHASE AND PROVIDE CO ABOVE CEILING
- 17) 1-1/2" GAS (2 PSI) FROM SERVICE METER/REGULATOR (CONTRACTOR'S WORK BEGÍNS AT DISCHARGE OF GAS CO'S SERVICE METER/REGULATOR INSTALLATION). FOR USE IN SERVICE METER/REG SIZING, NOTIFY GAS UTILITY OF TOTAL CONN LOAD FOR THIS PROJÉCT AND INCLUDE 160 MBH ALLOWANCE FOR FUTURE BLDG CONN LOAD.
- 18 1" GAS WITH SHUTOFF VALVE; ROUTE INTO MECH'L ROOM AND RISE; RUN HIGH AS POSSIBLE.
- (19) 1-1/4" GAS WITH SHUTOFF VALVE; RISE ON WALL TO ROUTE ON ROOF.
- $\frac{1}{2}$ "CW DROP TO TP1 AT (MIN.) 24" AFF ON WALL; $\frac{1}{2}$ " PRIMER FEED BELOW SLAB FROM PRIMER TO FD PRIMER CONN.
- (21) 4"W WITH TRAP AND 2"V FROM FD1; 2"V RISE IN CORNER DOMESTIC HOT WATER CIRCULATION PUMP; REFER TO SPECS ON DWG P2 AND DETAILS ON DWG P3SCHEDULES AND DETAIL
- 3/P3; ¾" CONNECTIONS
- 23) ¾"CW, ¾" GAS TO, ¾" HW FROM GWH1 (TANKLESS CONDENSING GAS—FIRED DOMESTIC WATER HEATER) REFER TO SPECS ON DWG P2 AND DETAILS
- 24) 3/4"CW DROP TO NON-FREEZE WALL HYDRANT (COMPACT LENGTH), AT APPROX 24" AFF
- 25) HYDRAULIC "LULA" ELEVATOR IN SHAFT WITH 14" PIT RECESS. PROVIDE OIL DETECTION/ALERT SYSTEM; REFER TO SPECS —
- 26) 3" VALVED GAS STUB WITH CAP FOR FUTURE EQUIPMENT (40 MBH)
- $^{1"}$ GAS DROP TO GFUH-1, WITH SHUTOFF, DIRTLEG AND VENT LIMITING PRESSURE REGULATOR.
- 28) 3" GAS DN THRU ROOF IN WEATHERTIGHT ROOF PENETRATION, AND 3" GAS UP ON PITCHED ROOF TO CROSS RATED STAIR AREA; DROP INTO 2ND FLR
- 29 3/4" GAS TO RTU, WITH SHUTOFF AND LINE PRESSURE REGULATOR; TERMINATE REGULATOR VENT WITH OPENENDED DOWNTURNED ELBOW. TERMINATE REGULATOR VENT WITH OPENENDED DOWNTURNED ELBOW.
- 1" CONDENSATE FROM RTU (COLLECT HEAT EXCHANGER AND COOLING COIL CONDENSATES); PROVIDE TRAP WITH DEPTH AT LEAST THE MINIMUM RECOMMENDED BY RTU MFR; ROUTE TO OPEN OVER ROOF (PROVIDE SPLASHBLOCK).
- 31) DORLEN PRODUCTS OIL-ALERT LIQUID LEAK DETECTION SYSTEM MODEL OA-5, WITH (2) LIQUID DETECTORS (LD), PS-3 POWER SUPPLY, LOCAL AUDIBLE ALARM, AND RELAY CONTACTS FOR REMOTE ALARM; CONNECT TO BUILDING ALARM/SECURITY SYSTEM.
- 32) APPROX LOCATIONS OF PREVIOUSLY DEMOLISHED PLUMBING FIXTURES FOR DEMOLITION COORDINATION
- 33 3/4" CONDENSATE FROM DEHUMIDIFIER DH-1; PROVIDE TRAP WITH DEPTH AT LEAST THE MINIMUM RECOMMENDED BY DH-1 MFR; ROUTE DOWN ON COLUMN AND THROUGH EXTERIOR WALL AT 24"; PROVIDE AND DISCHARGE OVER CONCRETE SPLASHBLOCK.
- EXISTING INTERIOR ROOF DRAIN LEADER IS ROUTED DOWN TO EXIT THRU WALL AT APPROX 12" AFF, AND LEFT OPENENDED ABOVE GRADE. VIF PIPE SIZE
- REMOVE EXISTING ROOF DRAIN AND PROVIDE ENTIRELY NEW EMERGENCY/OVERFLOW ROOF DRAIN WITH OUTLET SIZED TO MATCH EXISTING INTERIOR ROOF DRAIN LEADER (ESTIMATED 4"). CONNECT ROOF DRAIN INTO EXISTING INTERIOR ROOF DRAIN LEADER; REMOVE ROOF DRAIN LEADER BACK TO 3 FT AFF; ROUTE THROUGH WALL AND PROVIDE DOWNSPOUT NOZZLE WITH STAINLESS STEEL BIRDSCREEN, AND EMERGENCY SIGNAGE ABOVE. PATCH DISUSED WALL PENETRATION TO CLOSELY MATCH EXISTING ADJACENT EXTERIOR WALL
- 36 ½" GAS DROP TO GFUH-2, WITH SHUTOFF, DIRTLEG AND VENT LIMITING PRESSURE REGULATOR.

NOTE: ALL PLUMBING SYSTEMS IN ALTERNATE WORKSCOPE AREAS SHALL BE AS PER BASE BID (AS SHOWN ON DWGS P1, P2 AND P3) UNLESS SPECIFICALLY SHOWN ALTERED FROM BASE BID ON DWG P1A.

REFER TO SPECIFICATION SECTION 'ALTERNATES'



Renovations to:

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Woodbridge, Connecticut 06525

SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

> 3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

PLUMBING PART PLANS -ALTERNATES

5.18.18 AS NOTED Drawn By: MBQ Project Number: 11.147

- 1. THE INTENT OF THESE CONTRACT DOCUMENTS IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS, OPERATING, TESTED, ADJUSTED, APPROVED BY THE
- AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER. 2. THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID.
- 3. ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.
- 4. ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- 5. PROVIDE SUPPORT/BRACING OF EQUIPMENT AND BUILDING SERVICES FOR SEISMIC RESTRAINT AS REQUIRED BY THE STATE OF CONNECTICUT BUILDING CODE.
- 6. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
- 7. ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS
- 8. REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.
- 9. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- 10. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF FIXTURES, ETC. COLORS SHALL BE COORDINATED WITH THE ARCHITECT. CONTACT ARCHITECT FOR CLARIFICATION OF MOUNTING REQUIREMENTS IF INFORMATION IS NOT CONTAINED IN THE DRAWINGS.
- 11. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES IN THE ORDINANCES AND THE REGULATORY AGENCIES HAVING JURISDICTION.
- 12. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. THESE SHALL BE COORDINATED WITH
- 13. WHEN CONFLICTS OCCUR BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL CARRY AS PART
- OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S). 14. CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL EQUIPMENT FURNISHED BY OWNER OR OTHER TRADES, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC.
- BEFORE INSTALLATION. 15. CONTRACTORS SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR PIPES OR CONDUIT PENETRATING WALLS OR FLOOR SLABS WITH FIRE STOPPING SEALANT WHERE REQUIRED. PENETRATIONS OF FIRE-RATED CONSTRUCTION SHALL USE LISTED COMPONENTS AND U.L.-APPROVED METHODS.
- 16. LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE UP/DOWN STREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- 17. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE VALVES, AND OTHER CONCEALED DEVICES.
- 18. ALL EQUIPMENT, PIPING, FIXTURES, ETC. SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND/OR REQUIRED TO PROVIDE A SECURE AND VIBRATION FREE INSTALLATION.
- 19. LOCATION AND SIZES OF ALL FLOOR, WALL AND ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
- 20. COORDINATE THE TERMINATIONS OF ALL EXHAUST PIPING, PLUMBING VENTS, ETC. TO MAINTAIN 25 FOOT MINIMUM HORIZONTAL SEPARATION FROM ALL FRESH AIR INTAKES AND OPERABLE WINDOWS AND DOORS. IF EXHAUST OR VENT TERMINATION MUST BE LOCATED WITHIN 25 HORIZONTAL FEET OF SUCH AN OPENING OR INTAKE, TERMINATION MUST BE LOCATED AT LEAST 2 FEET ABOVE TOP OF ALL OPENINGS/INTAKES WITHIN 25 HORIZONTAL

PLUMBING GENERAL INTENT - DEMOLITION AND COORDINATION WITH EXISTING SYSTEMS

- 1. THIS PROJECT IS PRIMARILY A RENOVATION OF AN EXISTING FACILITY. IT IS GENERALLY THE INTENT OF THE PLUMBING DRAWINGS TO MAINTAIN EXISTING SITE UTILITIES AND SERVICES, DEMOLISH ALL EXISTING PLUMBING FIXTURES, EQUIPMENT AND ABOVE SLAB PIPING AND TO PROVIDE ALL NEW PLUMBING FIXTURES, EQUIPMENT AND PIPING WITHIN THE BUILDING.
- 2. BEFORE SUBMITTING HIS BID, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH THE PROJECT IS TO
- 3. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MAKES AS A RESULT ON HIS FAILURE TO BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS.
- 4. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW EVERY PIECE OF EQUIPMENT, PIPING OR CONDUIT TO BE REMOVED. EQUIPMENT INDICATED TO BE REMOVED SHALL BE REMOVED INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS, PIPES, DUCTS, CONDUITS, WIRES AND CONTROLS BACK TO THE POINT OF ORIGIN.
- 5. NO EQUIPMENT, PIPING OR CONDUIT SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED. NO DEADENDS ARE ALLOWED ON ACTIVE SANITARY AND WASTE PIPING; REMOVE EXISTING SAN/WASTE/VENT PIPING TO BELOW SLAB AND CAP. DISCONNECT EX. BLDG SAN EXIT FROM EX. SITE SANITARY AND CAP. REMOVE EX. BUILDING DOMESTIC CW/HW/HWR WATER COMPLETELY, BACK TO EX. WATER METER DISCHARGE; PROVIDE NEW SHUTOFF VALVE AT METER DISCHARGE.
- 6. PROPERLY DISPOSE OF ALL DEMOLISHED EQUIPMENT AND MATERIALS IN COMPLIANCE WITH CODES AND REGULATIONS.
- 7. PROVIDE TEMPORARY CONNECTIONS AND SYSTEM MODIFICATIONS AS REQUIRED FOR CONSTRUCTION.
- 8. INCLUDE ALL WORK REQUIRED TO ALLOW PHASED CONSTRUCTION WHERE NECESSARY. COORDINATE WITH GENERAL CONTRACTOR/CONSTRUCTION MANAGER FOR PHASING
- 9. FIELD VERIFY FOR EXACT LOCATIONS AND QUANTITY OF ITEMS BEING REMOVED. COORDINATE WITH ARCHITECTURAL PLANS FOR SCOPE AREA OF DEMOLITION AND CONSTRUCTION.
- 10. GENERAL CONTRACTOR IS RESPONSIBLE FOR PATCHING, REPAIRING, CAPPING, ETC. RELATED TO DEMOLITION AND CONSTRUCTION.

- 1. IT IS NOT NECESSARILY THE INTENT OF THE DRAWINGS TO SHOW INDIVIDUAL BRANCH PIPING TO EACH PLUMBING FIXTURE: ONLY BRANCH PIPING TO GROUPS OF FIXTURES MAY BE INDICATED. EACH AND EVERY FIXTURE SHALL BE PROPERLY PIPED TO WATER, WASTE AND VENT PIPING SYSTEMS. FOR INDIVIDUAL PIPE SIZES TO EACH FIXTURE, REFER TO THE PLUMBING FIXTURE SCHEDULE.
- 2. PIPING LAYOUTS AS INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC: PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED FOR COORDINATION WITH BUILDING CONSTRUCTION AND THE WORK OF OTHER TRADES.
- 3. PROVIDE TRAP PRIMER FOR EACH NEW FLOOR DRAIN. CONNECT TRAP PRIMER TO NEAREST COLD WATER MAIN; PROVIDE ISOLATION VALVE AND EXTEND TO FLOOR DRAIN AS REQUIRED.
- 4. PROVIDE CONDENSATE DRAINS FOR ALL COOLING COILS; PIPE BY GRAVITY TO INDIRECT WASTE OR IF GRAVITY DRAINAGE IS NOT POSSIBLE, AND NOT PROVIDED INTEGRAL TO UNIT GENERATING CONDENSATE, PROVIDE A CONDENSATE REMOVAL PUMP, WIRED TO LOCAL POWER CIRCUIT AND PIPED TO OUTSIDE (AND NOT POSING HAZARD TO PEDESTRIAN OR VEHICULAR TRAFFIC) OR VIA INDIRECT WASTE CONNECTION TO BLDG SANITARY PIPING DRAINAGE SYSTEM.
- 5. COORDINATE MOUNTING HEIGHTS OF PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS. 6. PROVIDE SHUT OFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH
- 7. ALL WATER PIPING SHALL GRADE TO LOW POINTS. PROVIDE HOSE AND DRAIN VALVES AT
- THE BOTTOM OF ALL WATER SYSTEM RISERS AND LOW POINTS.

BRANCH PIPING SERVES TWO OR MORE FIXTURES.

- 8. UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES AND IN LONG PIPING RUNS ABOVE FLOOR SLAB (100 FEET OR MORE) TO
- PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS. 9. PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
- 10. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE. 11. PROVIDE CLEANOUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS, AT

CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 50 FEET IN HORIZONTAL RUNS

- AND ELSEWHERE AS INDICATED. 12. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE 6 INCHES AND SMALLER AND
- SHALL BE 6 INCHES FOR PIPE SIZES LARGER THAN 6 INCHES. 13. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING

AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

14. PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRED VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE.

	PLUMBING	ABBREVIA	TIONS
	(NOT ALL	SYMBOLS ARE USED)	
		1.47	LAVATORY
AAV	AIR ADMITTANCE VALVE	LAV	LAVATORY
ABV	ABOVE	LB.	POUND
AD	ACCESS DOOR	L.F.	LINEAL FEET
AFF	ABOVE FINISHED FLOOR	LP	LIQUID PROPANE
AFG	ABOVE FINISHED (LOCAL) GRADE	LVG.	LEAVING
BLW	BELOW	MAX	MAXIMUM
С	CONDENSATE	MIN	MINIMUM
CLG	CEILING	MBH	BTU PER HOUR (THOUSANDS)
CO	CLEANOUT	NFWH	NON-FREEZE WALL HYDRANT
CONN	CONNECT, CONNECTION	NTS	NOT TO SCALE
C.P.	CHROME PLATED	OST	OVERFLOW (EMERGENCY) STORM
CTE	CONNECT TO EXISTING	PH	PHASE
CW	COLD WATER	PRV	PRESSURE REDUCING VALVE
CUST.	CUSTODIAN'S (JANITOR'S)	RD	ROOF DRAIN
DF	DRINKING FOUNTAIN	RPZ	REDUCED PRESSURE ZONE
EWC	ELECTRIC WATER COOLER		BACKFLOW PREVENTER
EX, EXIST'G	EXISTING	RTU	ROOF TOP UNIT
EXH	EXHAUST (GAS WATER HEATER)	RWL	VERTICAL RAINWATER CONDUCTOR
FC0	FLOOR CLEANOUT	S, SAN	SANITARY WASTE
FD	FLOOR DRAIN	ST	STORM
FS	FLOOR SINK	START.	STARTING
FT	FEET	SWS	SOLAR WATER SUPPLY
G	GAS	SWR	SOLAR WATER RETURN
GPF	GALLONS PER FLUSH	TD	TRENCH DRAIN
GPH	GALLONS PER HOUR	TMV	THERMOSTATIC MIXING VALVE
GPM	GALLONS PER MINUTE	TP	TRAP PRIMER
		TW	TEPID WATER (85 DEG F)
GT	GREASE TRAP	UR	URINAL
GW	GREASE WASTE	٧	VENT
HCHB	HOT/COLD HOSE BIBB	VTR	VENT THRU ROOF
HD	HEAD	W	WASTE
HP	HORSEPOWER	WC	WATER CLOSET
HW	HOT WATER	WCO	WALL CLEAN OUT
HWR	HOT WATER RECIRCULATING	WHA	WATER HAMMER ARRESTOR
I.W.	INDIRECT WASTE	YCO	YARD CLEANOUT
	JANITOR'S (CUSTODIAN'S)	,	

PLUMBING LEGEND (NOT ALL SYMBOLS ARE USED)						
SS	EXIST'G PIPING/EQUIPMENT TO BE REMOVED	>	BALANCING VALVE			
<u> </u>	EXIST'G COLD WATER	\$	CHECK VALVE			
5−140−−−−	EXIST'G HOT WATER (140°F)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	PRESSURE REDUCING VALVE THERMOSTATIC MIXING VALVE			
5-TW	EXIST'G HOT WATER (TEMPERED TO 110°F)	<i>y</i> →	T & P RELIEF VALVE			
⊊TW(95)———	EXIST'G HOT WATER (TEMPERED TO 95°F)	~ Ø				
∽ — — — →	EXIST'G SANITARY OR WASTE BELOW SLAB	<u> </u>	PRESSURE GAUGE			
\$	EXIST'G SANITARY OR WASTE ABOVE GRADE/SLAB	5	BACKFLOW PREVENTER UNION			
S	EXIST'G VENT	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	STRAINER			
S	COLD WATER	}	BUTTERFLY VALVE			
5-140	HOT WATER (TEMPERED TO 110°F)	√ 	WATER HAMMER ARRESTOR			
⊊TW	HOT WATER (TEMPERED TO 110°F)	\	THERMOMETER			
←TW(95)	HOT WATER (TEMPERED TO 95°F)	I 	EXPOSED OR WALL CLEANOUT			
<u></u>	SANITARY OR WASTE BELOW SLAB	•	FLOOR CLEANOUT			
, ————		□ _{or} ○	FLOOR DRAIN			
	SOIL OR WASTE ABOVE GRADE/SLAB	0	ROOF DRAIN			
5 5	VENT	,p-	WALL HYDRANT OR HOSE BIB			
ç — c —	CONDENSATE	<u>*</u> —	MANUAL AIR VENT			
α	TRAP & DRAIN	igtriangle	CIRCULATIING PUMP			
o—————————————————————————————————————	PIPE ELBOW UP PIPE ELBOW DOWN	• -	CONNECT TO EXISTING			
١٥	VALVE ON RISE OR DROP	□ _{TP1}	TRAP PRIMER VALVE FOR			
└──┴	SHUTOFF VALVE (GATE OR BALL TYPE)		SINGLE TRAP SERVICE			
├	GATE VALVE					
├ ├ ├ ├ ├ ├ ├ ├ ├ ├	BALL VALVE					
├	ELECTRIC/ELECTRONIC (SOLENOID) VALVE					

	DRAINAGE SPECIALTIES SCHEDULE					
EQUIPMENT MARK	MANUFACTURER	MODEL NUMBER	NOTES			
FD1	WADE (1)	1104STD- 27-179-EF6	FLOOR DRAIN, 8"Ø NICKEL BRONZE STRAINER (ADJUSTABLE), 4" BOTTOM OUTLET SIZE; WITH FLANGE, REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS, 1/2" PRIMER TAP, SEDIMENT BUCKET, VANDALPROOF SCREWS, NICKEL BRONZE 2.375" X 6" OVAL FUNNEL, 4.25" HIGH.			
NFWH	WADE (1)	8600	ANTI-SIPHON, NON-FREEZE WALL HYDRANT, BRONZE INTERIOR AND CASING, 3/4" INTEGRAL BACKFLOW PREVENTER, BRONZE FACE			
WHA	WADE (1)	SHOKSTOP 'P' SERIES	PISTON-TYPE MAINTENANCE-FREE WATER HAMMER ARRESTER, STAINLESS STEEL; PDI AND ASSE CONFORMANCE			
TP1	PPP, INC.	MINI-PRIME MP-500-115V	ELECTRONIC TRAP PRIMING ASSEMBLY WITH SOLENOID VALVE, 6 FT ELECTRICAL CORD, AND 1" PHYSICAL AIR GAP. 115 VOLTS/1 PHASE, 1/2" NPT INLET			
ORD (EMERG'Y/OVERFLOW ROOF DRAIN SYSTEM)	ZURN (2)	Z125–E–VP	LOW SILHOUETTE ROOF DRAIN WITH 2" HIGH STATIC EXTENSION, VANDALPROOF CAST IRON DOME			
DOWNSPOUT NOZZLE	ZURN (2)	ZARB199-SS	DOWNSPOUT NOZZLE, PLAIN BRONZE BODY, THREADED INLET; WITH STAINLESS STEEL SCREEN			

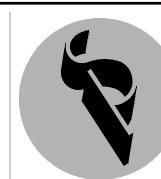
FIXTURE DESIGNATION	DESCRIPTION	MANUFACTURER	MODEL NUMBER	NOTES	SAN/ WASTE	VENT	COLD	нот
WC1	FLOOR-MOUNT/ FLOOR OUTLET PRESSURE-ASSISTED TANK TYPE WATER CLOSET	AMERICAN STANDARD	CADET RIGHT—HEIGHT ELONGATED PRESSURE— ASSISTED TOILET 1.6 GPF #2467.016	ADA/UFAS-COMPLIANT, WHITE VITREOUS CHINA, 1.6 GPF, FLOOR-MOUNT, ELONGATED PRESSURE-ASSISTED, CLOSE-COUPLED TANK TYPE TOILET WITH OLSONITE # 95 ELONGATED OPEN FRONT PLASTIC SEAT WITH CHECK HINGE. 12" ROUGH, 16-1/2" RIM HEIGHT.	4"	2"	1/2"	
WC1-HC	ADA FLOOR-MOUNT/ FLOOR OUTLET PRESSURE-ASSISTED TANK TYPE WATER CLOSET	AMERICAN STANDARD	CADET RIGHT—HEIGHT ELONGATED PRESSURE— ASSISTED TOILET 1.6 GPF #2467.016	ADA/UFAS-COMPLIANT, WHITE VITREOUS CHINA, 1.6 GPF, FLOOR-MOUNT, ELONGATED PRESSURE-ASSISTED, CLOSE-COUPLED TANK TYPE TOILET WITH OLSONITE # 95 ELONGATED OPEN FRONT PLASTIC SEAT WITH CHECK HINGE. 12" ROUGH, 16-1/2" RIM HEIGHT.	4"	2"	1/2"	
WC2-HC	ADA FLOOR-MOUNT/ BACK OUTLET PRESSURE-ASSISTED TANK TYPE WATER CLOSET	AMERICAN STANDARD	YORKVILLE RIGHT—HEIGHT ELONGATED PRESSURE— ASSISTED TOILET 1.6 GPF #2878.020	ADA/UFAS-COMPLIANT, WHITE VITREOUS CHINA, 1.6 GPF, FLOOR-MOUNT, BACK OUTLET, ELONGATED, PRESSURE-ASSISTED, CLOSE-COUPLED TANK TYPE TOILET WITH OLSONITE # 95 ELONGATED OPEN FRONT PLASTIC SEAT WITH CHECK HINGE. 16-1/2" RIM HEIGHT.	4"	2"	1/2"	
UR1-HC	ADA WALL-MOUNT URINAL	AMERICAN STANDARD	WASHBROOK FloWise 0.125 GPF #6590.503 URINAL SYSTEM	ADA/UFAS-COMPLIANT, WHITE VITREOUS CHINA, WASHOUT ACTION, 0.125 GPF, WALL MOUNT; WITH AMERICAN STANDARD #6045.013 0.125 GPF PISTON TYPE MANUAL FLUSH VALVE, AND MFR'S WALL HANGER. PROVIDE ADDITIONAL WALL BLOCKING AS REQUIRED FOR RIGID HANGER MOUNTING.	2"	1-1/2"	3/4"	
LAV1	WALL-MOUNT LAVATORY	AMERICAN STANDARD	LUCERNE # 0355.012	WALL-MOUNT, VITREOUS CHINA, CONCEALED ARMS; 20.5" X 18.25" O.A., FRONT OVERFLOW, SELF-DRAINING DECK AREA, BACK/SIDE SPLASH SHIELDS, FAUCET LEDGE; 4" CENTERS. PROVIDE (ALL CHROME-PLATED): BRASS TAILPIECE WITH BRASS TRAP/CLEANOUT, NEW BRASS ANGLE STOPS, COPPER SUPPLIES. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE ON HW SUPPLY. FAUCET: SYMMONS S-20-2-G SINGLE LEVER FAUCET WITH GRID STRAINER AND 0.5 GPM FLOW CONTROL. PROVIDE FLOOR-MOUNTED CONCEALED ARM SUPPORT BY WADE, JOSAM, JAY R. SMITH. PROVIDE TRUEBRO LAV-SHIELD ENCLOSURE TO COVER EXPOSED WATER/WASTE PIPING BELOW LAV; FOR LAV MOUNTING HEIGHTS LOWER THAN 34"AFF, CUT TOP OF ENCLOSURE TO MAINTAIN/MATCH REQUIRED ADA CLEARANCES AT THAT MOUNTING HT.	1-1/2"	1-1/2"	1/2"	1/2"
LAV1 – HC	ADA WALL—MOUNT LAVATORY	AMERICAN STANDARD	LUCERNE # 0355.012	ADA WALL-MOUNT, VITREOUS CHINA, CONCEALED ARMS; 20.5" X 18.25" O.A., FRONT OVERFLOW, SELF-DRAINING DECK AREA, BACK/SIDE SPLASH SHIELDS, FAUCET LEDGE; 4" CENTERS. PROVIDE (ALL CHROME-PLATED): BRASS TAILPIECE WITH BRASS TRAP/CLEANOUT, NEW BRASS ANGLE STOPS, COPPER SUPPLIES. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE ON HW SUPPLY. FAUCET: SYMMONS S-20-2-G-W EXTRA LONG SINGLE LEVER FAUCET WITH GRID STRAINER AND 0.5 GPM FLOW CONTROL. PROVIDE FLOOR MOUNTED CONCEALED ARM SUPPORT BY WADE, JOSAM, JAY R. SMITH.	1-1/2"	1-1/2"	1/2"	1/2"
S1-HC	ADA COUNTER MOUNT DOUBLE COMPARTMENT SINK	ELKAY	LRAD3319	BELOW LAV; FOR LAV MOUNTING HEIGHTS LOWER THAN 34"AFF, CUT TOP OF ENCLOSURE TO MAINTAIN/MATCH REQUIRED ADA CLEARANCES AT THAT MOUNTING HT. ADA—COMPLIANT, COUNTER MOUNT 18 GA. TYPE 304 STAINLESS STEEL SINK, 33" X 19.5" OVERALL, EACH COMPARTMENT 14"x 14" x 5.0" DEEP. FAUCET HOLE PROVISIONS: (4) ON 4" CENTERS. PROVIDE C.P. METAL TAILPIECE/TRAP&CLEANOUT, C.P. METAL ANGLE STOPS AND SUPPLIES. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE ON HW SUPPLY. PROVIDE TRUEBRO BASIN GUARD ENCLOSURE ACROSS ENTIRE WIDTH OF UNDER—SINK OPENING BETWEEN BASE CABINETRY. FAUCET: ELKAY # LKE—4101 SINGLE LEVER WITH HOSE SPRAY. DRAIN: ELKAY # LK—35 STRAINER DRAIN. NOTE: # LK—35L DRAIN WITH 90 DEGREE ELBOW MAY BE USED IN LIEU OF # LK—35	1-1/2"	1-1/2"	1/2"	1/2"
MSK	MOP SERVICE BASIN	FIAT	# MSB-2424	MOLDED STONE MOP SERVICE BASIN, 24"x24"x10"H, WITH MFR'S: VANDALPROOF DRAIN, 3" QDC DRAIN CONN., 832 AA HOSE AND HOSE BRACKET, 830 AA SERVICE FAUCET (INTEGRAL STOPS, VACUUM BREAKER, PAIL HOOK, HOSE THREAD, 8" CENTERS); 889 CC MOP BRACKET; E-88-AA STAINLESS STEEL BUMPER GUARD. PROVIDE 1.5 GPM FLOW CONTROL FITTING ON FAUCET.	3"	1-1/2"	1/2"	1/2"
DF1-HC	ADA DRINKING FOUNTAIN	ELKAY	# ECDFPW314C	ADA NO-LEAD STAINLESS STEEL DRINKING FOUNTAIN WITH STAINLESS STEEL WALL PLATE, FLEXIBLE ANTI-MICROBIAL BUBBLER, FRONT PUSHBUTTON. PROVIDE WITH MFR'S FILTER ON INLET, INTEGRAL P-TRAP, BOTTOM COVER PLATE.	1-1/2"	1-1/2"		1/2"
DW*	UNDERCOUNTER DISHWASHER	REFER TO ARCH'L	REFER TO ARCH'L	1/2"HW FROM ADJACENT SINK SERVICES WITH INDIVIDUAL SHUTOFF VALVE; 3/4" HOSE DRAIN TO SINK WASTE VIA AIR GAP FITTING AS REQUIRED; CONNECT UPSTREAM OF TRAP; DO NOT OBSTRUCT ADA CLEARANCES BELOW SINK. DISHWASHER DISCHARGE HOSE, SINK WASTE TAILPIECE, TRAP AND WASTE PIPING SHALL BE PRODUCT MANUFACTURER—APPROVED FOR THE DW'S MAXIMUM DISCHARGE TEMPERATURE (DO NOT INSTALL PVC FOR MAX. TEMP. EXCEEDING 140 DEG F.)	HOSE TO SINK W.			1/2
W*	CLOTHES WASHER	REFER TO ARCH'L	REFER TO ARCH'L	PROVIDE WASHER WALL BOX: IPS CORP/GUY GRAY MODEL WMOB, WHITE POWDER COATED 20 GA. COLD—ROLLED STEEL WATER/WASTE LAUNDRY BOX WITH SINGLE LEVER SHUTOFF FOR HW/CW SUPPLIES, INTEGRAL WATER HAMMER ARRESTERS, AND 2" DRAIN CONN. PROVIDE HW, CW, 2" WASTE STANDPIPE TO WALL BOX; PROVIDE STANDPIPE TRAP AND VENT.	2"	1-1/2"	1/2"	1/2

EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	NOTES
GWH1, GWH2	RHEEM (1)	RGTH-CM95DVLN	COMMERCIAL, FULLY MODULATING, ON-DEMAND, CONDENSING NATURAL GAS-FIRED TANKLESS MANIFOLD-READY WATER HEATER, U.L. LISTED; ENERGY STAR QUALIFIED, NSF STANDARD 5-CERTIFIED; DIRECT VENT, ELECTRONIC IGNITER COIL, STEEL JACKET WITH BAKED POWDER COAT FINISH, FACTORY-INSTALLED POWER CORD, GAS AND WATER SERVICE SHUTOFF VALVES, AND TEMPERATURE REMOTE. TEMPERATURE REMOTE SHALL PROVIDE DIAGNOSTIC INFORMATION, FAULT HISTOR' AND HEATER SET TEMPERATURE WITH MINIMUM SETTING OF 85'F AND MAXIMUM SETTING OF 185'F. ON HW DISCHARGE, REPLACE FACTORY-INSTALLED PRESSURE RELIEF VALVE WITH COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE PER CT CODE, AND ALSO PROVIDE DRAIN VALVE. PROVIDE MANIFOLDED CENTROTHERM PPs VENT AND INTAKE PIPING SYSTEMS TO A SINGLE CONCENTRIC ROOF TERMINATION, ALL SIZED PER MANUFACTURER'S INSTRUCTIONS, BASED OF CONNECTED HEATERS, EQUIVALENT LENGTH OF PIPE AND NUMBER/TYPE OF FITTINGS. PROVIDE CONDENSATE TRAP ON AIR INTAKE, INSTALLED HORIZONTALL WITH BOTTOM DRAIN CONNECTION PIPED TO NEAREST FLOOR DRAIN. PROVIDE MANUFACTURER'S INTEGRATED CONDENSATE NEUTRALIZER, PIPED TO OPEN OVER LOCAL FD. PROVIDE FACTORY-INSTALLED MANIFOLD CONTROL MODULE AND CONTROL CABLE. THE MANIFOLD HEATER CONTROLS SHALL MODULATE THE TWO—HEATER SYSTEM FOR THE MOST EFFICIENT PERFORMANCE, AND ALTERNATE THE INITIAL HEATER FOR BALANCED DUTY/CYCLE OPERATION. HEATERS SHALL HAVE MINIMUM 96% THERMAL EFFICIENCY, MEET THE ENERGY EFFICIENCY REQUIREMENTS OF THE US DEPT OF ENERGY AND ASHRAE 90.1—2007, AND COMPLY WITH ULTRA—LOW NOX EMISSIONS OF 14 ng/J or 20 ppm. PERFORMANCE (EACH HEATER): MAX/MIN. INPUT: 11 MBH/199.9 MBH NATURAL GAS; MIN ACTIVATIC AS REQUIRED. CONTRACTOR SHALL HAVE THE ENTIRE HEATER INSTALLATION INSPECTED BY THE STATE BOILER INSPECTOR. SIGNED CERTIFICATES SHALL BE FORWARDED TO THE OWNER WITH COPIES TO THE ENGINEER. PROVIDE FACTORY START—UP AND 3 HOURS OF OPERATION/CONTROL TRAINING TO OWNER'S STAFI SET CONTROLLER FOR 120'F. MANUFACTURER'S WARRANTIES: 5 YEAR HEAT EXCHANGER/5 YEAR PARTS/1 YEAR LABOR (AT MINIMUM) FOR PROJECT'S COMMERC APPLICAT

DOMESTIC WATER HEATING SYSTEM ACCESSORY SCHEDULE					
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	NOTES		
ET1	AMTROL	ST-5-C-DD	ASME-RATED 150 PSI THERMAL EXPANSION TANK; 2.0 GALLONS TOTAL VOLUME, 0.9 GALLONS MAX. ACCEPTANCE; 3/4" NPT CONNECTION		
INDIVIDUAL TMVS AT LAVS AND KITCHENETTE SINKS	ACORN (1)	ST70	ASSE 1070-CERTIFIED AT 0.25 GPM; LEAD-FREE POINT-OF-USE THERMOSTATIC WATER TEMPERATURE LIMITING DEVICE, WITH INTEGRAL CHECKS AND SCREENS. ALLEN WRENCH/LOCKNUT FOR FIELD ADJUSTMENT OF TEMPERATURE; ADJUST FOR 110 DEGF MAXIMUM DELIVERY TO FIXTURE.		

	PLUMBING PUMP SCHEDULE					
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	NOTES			
HWRP1	BELL & GOSSETT (1)		BRONZE DOMESTIC HOT WATER RECIRCULATING PUMP: 15 FT SHUTOFF HEAD; RATED 2.5 GPM AT 12 FT HEAD; 115 VOLTS/1 PH, 1/25 HP; 3/4"NPT FLANGE. PUMP SHALL OPERATE VIA AQUASTAT CONTROLLED THROUGH 7-DAY TIMECLOCK, CAPABLE OF 6 ON/OFF OPERATIONS EACH DAY: INTERMATIC #T2005, SPDT, 120VAC, 3 WATTS, 20 AMP RESISTIVE, CONTROLLING UP TO 1/2 HP MOTOR AT 120V. LOCATE THE TIME CLOCK ON WALL NEAR HWRP1 IN MECHANICAL ROOM, COORDINATING WITH ALL OTHER INSTALLATIONS.			
(1) OR APPROVE	D EQUAL BY TACO.					

Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525



(1) OR APPROVED EQUAL BY JAY R. SMITH; JOSAM; ZURN (2) OR APPROVED EQUAL BY JAY R. SMITH; JOSAM; WADE

SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

> 3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

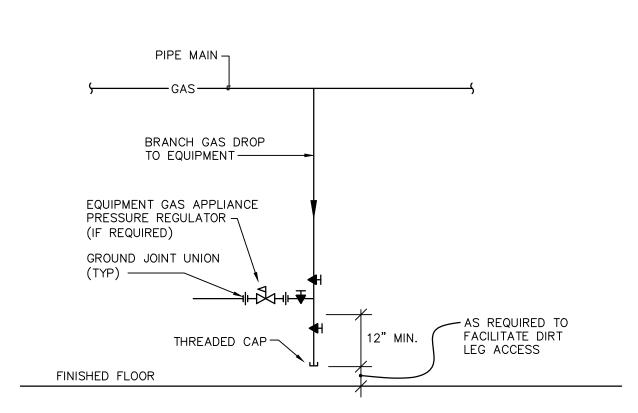
Revision:	Description:	Date:	Revised By

PLUMBING LEGENDS, SCHEDULES AND NOTES

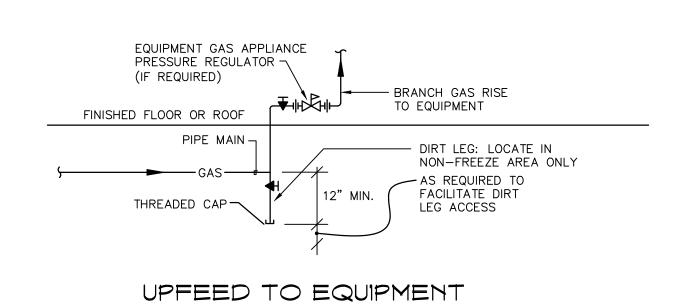
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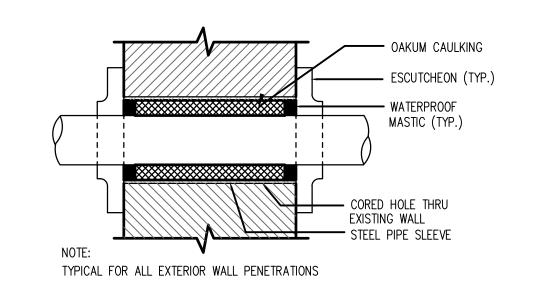


DOWNFEED TO EQUIPMENT

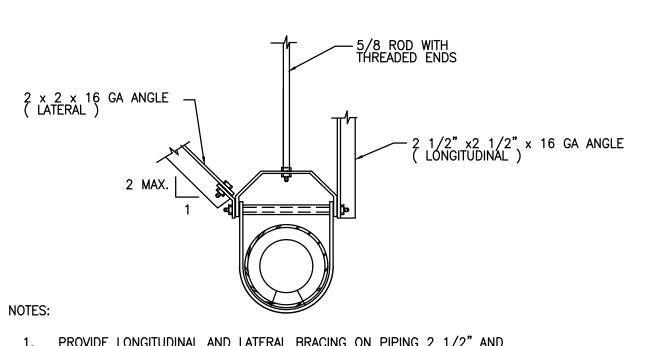


NOTE: DO NOT LOCATE DRIP/DIRT LEGS IN AREAS EXPOSED TO FREEZING







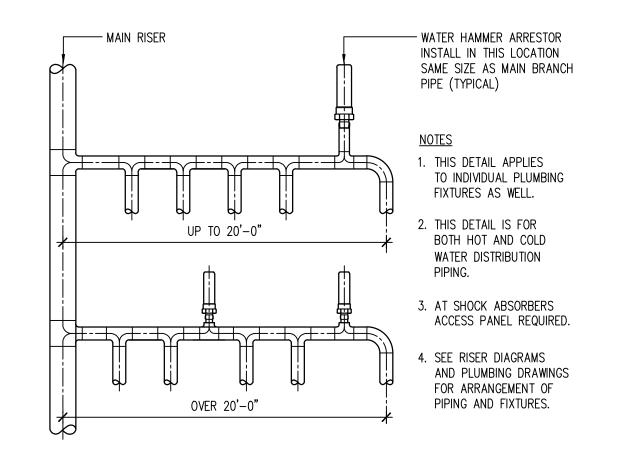


PROVIDE LONGITUDINAL AND LATERAL BRACING ON PIPING 2 1/2" AND GREATER, GAS PIPING 1" I.D. AND GREATER AND PIPING IN BOILER AND MECHANICAL ROOMS 1 1/4" AND GREATER, WHERE SUSPENDED 12" OR MORE FROM SUPPORTING STRUCTURE.
 PROVIDE SIMILAR BRACING ON ALL DUCTWORK WITH CROSS—SECTIONAL AREA OF 6 SF OR GREATER OR DIAMETER OF 28 IN. OR GREATER WHERE

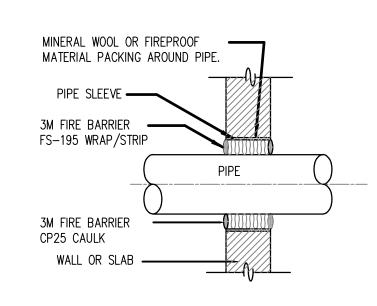
3. MAKE END CONNECTIONS TO EXISTING STRUCTURAL STEEL WITH 1/2" BOLTS OR TO CONCRETE DECK PER CONNECTION TO CONCRETE DETAIL ABOVE.



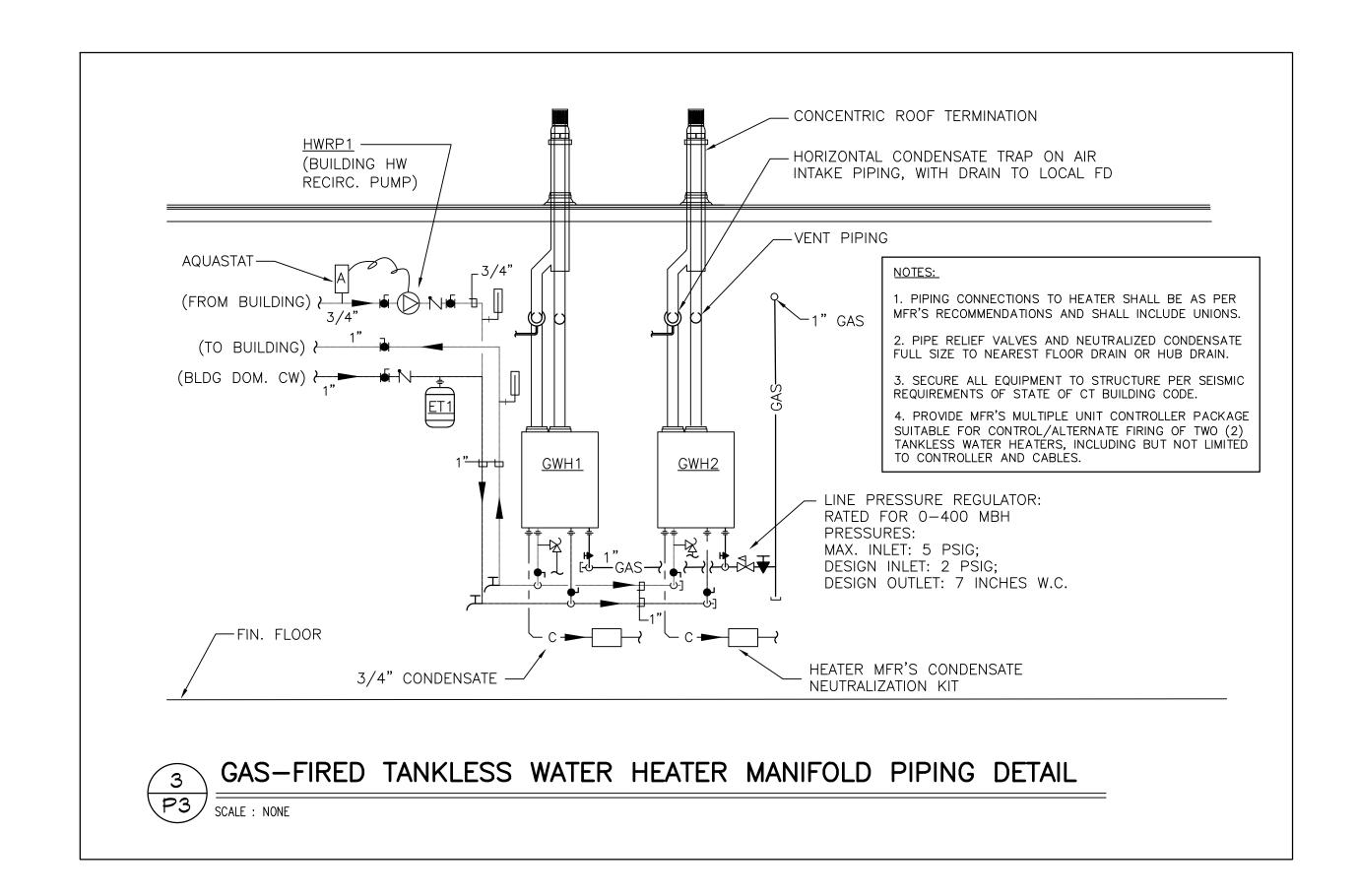
SUSPENDED 12" OR MORE FROM SUPORTING STRUCTURE.

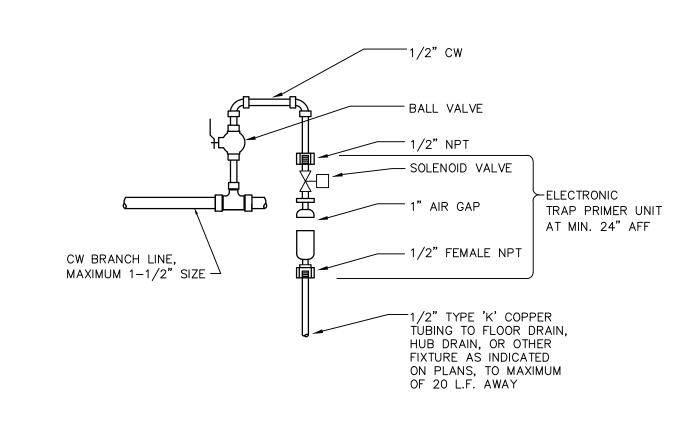




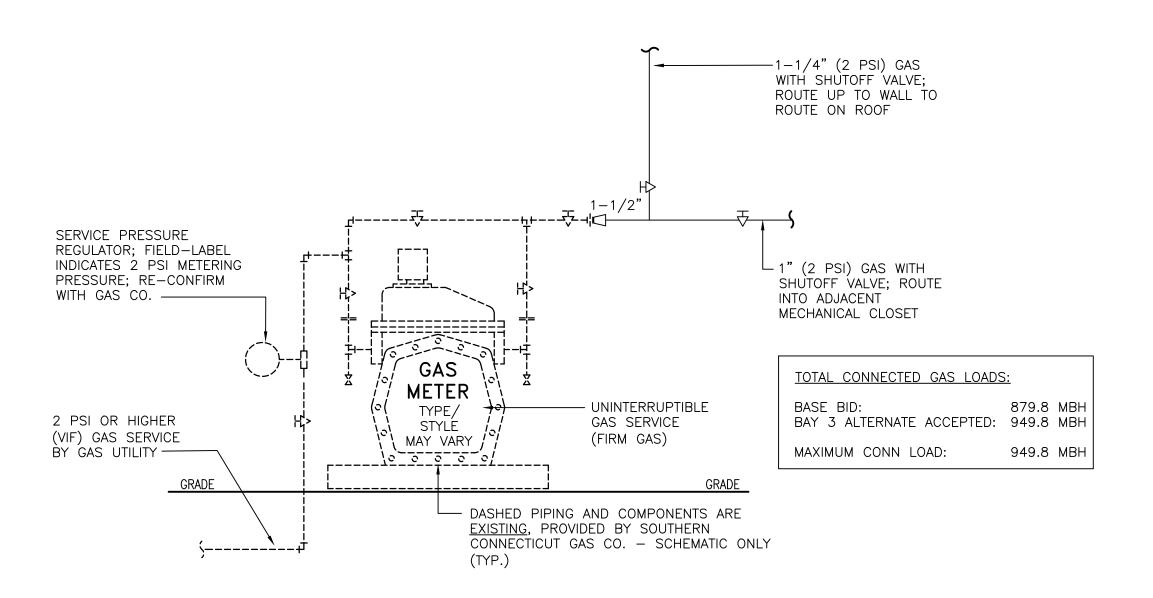














Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



SILVER / PETRUCELLI + ASSOCIATES

Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

Revision: Date: Revised By:

PLUMBING DETAILS

Date:

5.18.18

Scale:

AS NOTED

Drawn By:

MBQ

Project Number:

11.147

			ABBREVIATIONS		
			(NOT ALL SYMBOLS ARE USED)		
(###)	CFM	FC	FORWARD CURVE	NO	NORMALLY OPEN
AD	ACCESS DOOR	FD	FIRE DAMPER WITH ACCESS DOOR	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	FF	FINAL FILTER	OA	OUTSIDE AIR
APD	AIR PRESSURE DROP	FIBO	FURNISHED AND INSTALLED BY OTHERS	0AT 0A1	OUTDOOR AIR TEMPERATURE OUTDOOR AIR INTAKE
		FIN FL	FINISH FLOOR	OBD	OPPOSED BLADE DAMPER
BTU	BRITISH THERMAL UNIT	FL	FLOOR FULL LOAD AMPERES	OD	OUTSIDE DIMENSION
CAP	CAPACITY	FLA FLEX	FLEXIBLE	PD	
CC-#	COOLING COIL	FPF	FINS PER FOOT	, -	PRESSURE DROP
CD	CEILING DIFFUSER	FPV	FAN POWERED VAV BOX	PH	PHASE
CFM	CUBIC FEET PER MINUTE	FT	FEET	PSI	POUND PER SQUARE INCH
CG	CEILING GRILLE	FV	FACE VELOCITY	RA	RETURN AIR
CLG	CEILING	GC	GENERAL CONTRACTOR	RAT	RETURN AIR TEMPERATURE
CR	CEILING REGISTER	GFUH	GAS FIRED UNIT HEATER	REG	REGISTER
C=5				RH	RELATIVE HUMIDITY
CTD	CEILING TRANSFER DUCT	H-O-A	HAND-OFF-AUTOMATIC		
DBA	DECIBELS	HP	HORSEPOWER	RM	ROOM
DB	DRY BULB	HTG	HEATING	RPM	REVOLUTIONS PER MINUTE
DD	DIRECT DRIVE	HTR	HEATER	RTU-#	ROOFTOP AIR CONDITIONING UNIT
DDC	DIRECT DIGITAL CONTROL	HVAC	HEATING, VENTILATING &	SA	SUPPLY AIR
DIFF	DIFFUSER	ПУДС	AIR CONDITIONING	SF-#	SUPPLY AIR FAN
DN	DOWN	HX	HEAT EXCHANGER	SAT	SUPPLY AIR TEMPERATURE
DH	DEHUMIDIFIER	ID	INSIDE DIMENSION	SD	SMOKE DAMPER
DP	DEWPOINT TEMPERATURE	17	INCHES	SG	SUPPLY GRILLE
DX	DIRECT EXPANSION	KW	KILOWATT	SP	STATIC PRESSURE
E-#	EXHAUST FAN	KWH	KILOWATT HOUR	SQ FT	SQUARE FOOT (AREA)
EAT	ENTERING AIR TEMPERATURE			SWR	SIDE WALL REGISTER
EER	ENERGY EFFICIENCY RATIO	LAT	LEAVING AIR TEMPERATURE	T'STAT TD	THERMOSTAT TEMPERATURE DIFFERENCE
EG	EXHAUST GRILLE	LRA	LOCKED ROTOR AMPERES	TEMP	TEMPERATURE TEMPERATURE
ENT	ENTERING	LYG	LEAVING	TG	AIR TRANSFER GRILLE
HEPA	HIGH EFFICIENCY PARTICULATE FILTER	MAT	MIXED AIR TEMPERATURE		
ESP	EXTERNAL STATIC PRESSURE	MAX	MAXIMUM	TRD	TRANSFER DUCT TYPICAL
		MBH	1000 BTU'S	TYP	
EUH	ELECTRIC UNIT HEATER	MCA	MINIMUM CIRCUIT AMPACITY	VD	VOLUME DAMPER
EWH	ELECTRIC WALL HEATER	MD	MOTORIZED DAMPER	VE	VOLUME EXTRACTOR
EX	EXISTING	MFS	MAXIMUM FUSE SIZE	VSF	VARIABLE SPEED FAN SWITCH
EXH	EXHAUST	MIM	MINIMUM	W/ WB	WITH WET BULB
	DEGREES FAHRENHEIT	NC	NORMALLY CLOSED		WE DOLD
FA	FACE AREA	NC	NOISE CRITERIA	WMS	WIRE MESH SCREEN
FBO	FURNISHED BY OTHERS	NFA	NET FREE AREA	WT	WEIGHT (LBS)
	INSTALLED BY HVAC SUBCONTRACTOR	NIC	NOT IN THIS CONTRACT		

	MBOL LEGEND OT ALL SYMBOLS ARE USED))	
	RETURN GRILLE		MECHANICAL NOTE REFERENCE, NUMBER INDICATES NOTE
S	THERMOSTAT/SENSOR	VD	VOLUME DAMPER
P	PRESSURE SENSOR	SPS	DUCT STATIC PRESSURE SENSOR
	DIRECTION OF FLOW	MD	MOTORIZED DAMPER
+	POINT OF CONNECTION	\boxtimes	SUPPLY OR OUTSIDE AIR DUCT UP OR CSD
	RETURN OR EXHAUST DUCT	· [X]	SUPPLY OR OUTSIDE AIR DUCT DOWN
	SUPPLY OR OUTSIDE AIR DUCT UP		RETURN OR EXHAUST DUCT UP OR CRG/CRR
SMD	SMOKE DAMPER		RETURN OR EXHAUST DUCT DOWN
FSD	COMBINATION FIRE AND SMOKE DAMPER		RECTANGULAR TO ROUND TRANSITION
S	WALL MOUNTED SENSOR		TRANSITION
H	DUCT MOUNTED HUMIDITY SENSOR	├	DUCT WORK, DIRECTION OF FLOW
CO2	DUCT MOUNTED CARBON DIOXIDE SENSOR		POSITIVE PRESSURE DUCT
H	WALL MOUNTED HUMIDITY SENSOR		NEGATIVE PRESSURE DUCT
T/H	WALL MOUNTED COMBINATION HUMIDITY & TEMPERATURE SENSOR	∤ → R	CHANGE OF ELEVATION, RISE (R) DROP (D)
(0)	CARBON MONOXIDE SENSOR		DOUBLE LINE LINED DUCT WORK
(10)	NITROUS OXIDE SENSOR	}	SINGLE LINE LINED DUCT WORK
SD	SMOKE DETECTOR		DIRECTION OF SUPPLY OR OUTSIDE AIR
	FIRE DAMPER W/ ACCESS DOOR	7/1	DIRECTION OF RETURN OR EXHAUST AIR
	DUCT ACCESS DOOR	BDD	BACK DRAFT DAMPER

RENOVATION

REGULATIONS.

Revision:

Description:

- 1. THIS PROJECT IS AN EXISTING FACILITY RENOVATION.
- 2. BEFORE SUBMITTING HIS/HER BID, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH THE PROJECT IS TO BE COMPLETED.
- 3. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ASSUMPTIONS, OMISSIONS OR ERRORS HE MAKES AS A RESULT ON HIS FAILURE TO BECOME FULLY FAMILIAR WITH THE EXISTING CONDITIONS.
- 4. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW EVERY PIECE OF EQUIPMENT, PIPING OR CONDUIT TO BE REMOVED. EQUIPMENT NOT BEING USED SHALL BE REMOVED INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS,
- PIPES, DUCTS, CONDUITS, WIRES AND CONTROLS BACK TO THE POINT OF ORIGIN. 5. NO EQUIPMENT, PIPING OR CONDUIT SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED.
- 6. PROPERLY DISPOSE OF ALL DEMOLISHED EQUIPMENT AND MATERIALS IN COMPLIANCE WITH CODES AND
- 7. RELOCATE EXISTING EQUIPMENT, PIPING, WIRING AND RELATED SYSTEMS TO REMAIN AS REQUIRED FOR CONSTRUCTION. EXTEND FEEDER/CONDUIT AND PROVIDE RECONNECTIONS FOR SYSTEM TO BE FULLY OPERATIONAL.

- 9. GENERAL CONTRACTOR IS RESPONSIBLE OF PATCHING, REPAIRING, CAPPING, ETC. PER DEMOLITION AND

- ALL RELOCATED EQUIPMENT SHALL BE PROTECTED DURING CONSTRUCTION.
- 8. PROVIDE TEMPORARY CONNECTIONS AND SYSTEM MODIFICATIONS AS REQUIRED FOR CONSTRUCTION.

GENERAL

TO THE OWNER.

- 1. THE INTENT OF THESE CONTRACT DOCUMENTS IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE MECHANICAL AND ELECTRICAL SYSTEMS. THESE MECHANICAL AND ELECTRICAL SYSTEMS INCLUDE PLUMBING, FIRE PROTECTION, HVAC, ELECTRICAL AND ALL ASSOCIATED SPECIAL SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS. OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR BENEFICIAL USE BY THE OWNER.
- THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR MECHANICAL AND ELECTRICAL INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID.
- ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.
- 4. ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- 5. PROVIDE SUPPORT/BRACING OF EQUIPMENT AND BUILDING SERVICES FOR SEISMIC RESTRAINT AS REQUIRED BY CODE.
- 6. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
- 7. ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS
- SPECIFICALLY NOTED OTHERWISE. 8. REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED
- DURING CONSTRUCTION. 9. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST
- 10. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF LIGHT FIXTURES AND MOUNTING HEIGHTS OF EQUIPMENT. INCLUSIVE OF RECEPTACLES, SWITCHES, THERMOSTATS, ETC. ALL SUCH EQUIPMENT AND COLORS SHALL BE COORDINATED WITH THE ARCHITECT. CONTACT ARCHITECT FOR CLARIFICATION OF MOUNTING REQUIREMENTS, IF INFORMATION IS NOT CONTAINED IN THE
- 11. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES IN THE ORDINANCES AND THE REGULATORY AGENCIES HAVING JURISDICTION.
- 12. ALL EQUIPMENT SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. THESE SHALL BE COORDINATED WITH THE ARCHITECT.
- 13. WHEN CONFLICTS OCCUR BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL CARRY AS PART OF THE BID THE LARGER QUANTITY AND/OR MORE EXPENSIVE ITEM(S).
- 14. CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL OWNER-FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC. BEFORE INSTALLATION.
- 15. CONTRACTORS SHALL PROVIDE ALL REQUIRED SLEEVES AND SEALS FOR PIPES OR CONDUIT PENETRATING WALLS OR FLOOR SLABS WITH FIRE STOPPING SEALANT WHERE REQUIRED.
- 16. ELECTRICAL CONDUITS & BOXES TO BE CONCEALED IN WALLS OR ABOVE CEILING WHEREVER
- 17. COORDINATE ALL PIPING AND CONDUITS LEAVING THE BUILDING WITH THE SITE CONTRACTOR(S) BEFORE INSTALLATION.
- 18. PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT.
- 19. PROVIDE VIBRATION ISOLATORS FOR ALL PIPING SUPPORTS CONNECTED TO AND WITHIN 50 FEET OF ISOLATED EQUIPMENT THROUGHOUT MECHANICAL EQUIPMENT ROOMS.
- 20. LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP/DOWN STREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- 21. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS AND OTHER CONCEALED MECHANICAL EQUIPMENT.
- 22. ALL EQUIPMENT, PIPING, DUCT WORK SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 23. LOCATION AND SIZES OF ALL FLOOR, WALL AND ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
- 24. INSTALL COMPLETE OPERATING SYSTEMS. PROVIDE ALL COMPONENTS, DEVICES, CONTROLS, RELAYS, TRANSFORMERS, ETC., WHETHER INDICATED OR NOT, FOR COMPLETE SYSTEMS AS INTENDED BY THE CONSTRUCTION DOCUMENTS.
- 25. SOME PART OF THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION. REFER TO PHASING PLAN FOR MORE INFORMATION. MAINTAIN EXISTING SERVICES TO OCCUPIED AREAS. SEAL ALL DUCTWORK AND VENTILATION OPENINGS COMMUNICATING CONSTRUCTION AREAS WITH OCCUPIED AREAS TO PREVENT THE TRANSFER OF AIR CONTAMINATED BY CONSTRUCTION ACTIVITIES.
- 26. ALL PENETRATIONS THRU RATED WALLS, FLOORS & CEILINGS SHALL BE SEALED USING U.L. LISTED METHODS APPROPRIATE FOR INDICATED RATING

HVAC

- 1. PIPING AND DUCT WORK LAYOUTS AS INDICATED ON THE DRAWINGS ARE DIAGRAMATIC; PROVIDE ADDITIONAL TRANSITIONS AND OFFSETS AS REQUIRED FOR COORDINATION WITH BUILDING CONSTRUCTION AND THE WORK OF OTHER TRADES.
- 2. PROVIDE VOLUME DAMPERS, THROTTLING VALVES AND ISOLATION VALVES AS SPECIFIED AND AS INDICATED ON THE DRAWINGS.
- 3. PROVIDE FIRE DAMPERS AT DUCT PENETRATIONS OF FIRE RATED PARTITIONS.
- 4. PROVIDE SMOKE DETECTORS ON THE SUPPLY AND RETURN SIDE OF ALL AIR HANDLING EQUIPMENT 2000 CFM AND OVER. 5. THE TEMPERATURE CONTROL SYSTEM SHALL BE COMPLETE IN ALL REGARDS, TESTED AND
- CAPABLE OF ACHIEVING THE SEQUENCES OF OPERATION. ALL DEVICES SHALL BE UNDER SYSTEM CONTROL. ALL ZONES SHALL BE THERMOSTATICALLY CONTROLLED WHETHER OR NOT A THERMOSTAT, SENSOR OR CONTROLLER IS INDICATED.
- 6. MAINTAIN MANUFACTURER'S RECOMMENDED MINIMUM CLEARANCES FOR INSTALLATION OF EQUIPMENT. 7. FLEX DUCT RUNS SHALL NOT BE LONGER THAN 5 FT.
- 8. PROVIDE VOLUME DAMPERS AT ALL SUPPLY DIFFUSERS, RETURN GRILLES, AND EXHAUST GRILLES.
- 9. PROVIDE VANDAL RESISTANT COVERS THERMOSTATS, AS NOTED.
- 10. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS.
- PROVIDE ALL 90 DEGREE SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED. ELBOWS SHALL BE UNVANED SMOOTH RADIUS CONSTRUCTION WITH A RADIUS EQUAL TO 1-1/2 TIMES THE WIDTH OF THE DUCT. PROVIDE ACCESS DOORS UPSTREAM OF ALL ELBOWS WITH TURNING VANES.
- 12. COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING AND OTHER CEILING ITEMS.
- 13. PROVIDE INSULATED FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO AIR HANDLING UNITS, FANS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE
- 14. ALL DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS, INCLUDING DIVIDED DUCTS AND TRANSITIONS AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- 15. PROVIDE ACCESS DOORS IN DUCTWORK TO PROVIDE ACCESS FOR ALL SMOKE DETECTORS, FIRE DAMPERS, SMOKE DAMPERS, VOLUME DAMPERS, COILS AND OTHER ITEMS LOCATED IN DUCTWORK WHICH REQUIRE SERVICE OR INSPECTION.
- 16. PROVIDE ACCESS DOORS IN DUCTWORK FOR OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL FANS, VALVES AND MECHANICAL EQUIPMENT.
- 17. DUCTWORK SHALL BE PRESSURE TESTED AND SEALED FOR LEAKAGE.
- 18. THE SUPPLY AIR SYSTEM SHALL BE PURGED TO ENSURE ALL FOREIGN PARTICLES ARE REMOVED PRIOR TO FINAL CONNECTION OF SUPPLY AIR DIFFUSERS.
- 19. ALL DUCTWORK SHALL BE PROVIDED WITH INSULATION IN ACCORDANCE WITH THE 2012 INTERNATIONAL ENERGY CONSERVATION CODE.



SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

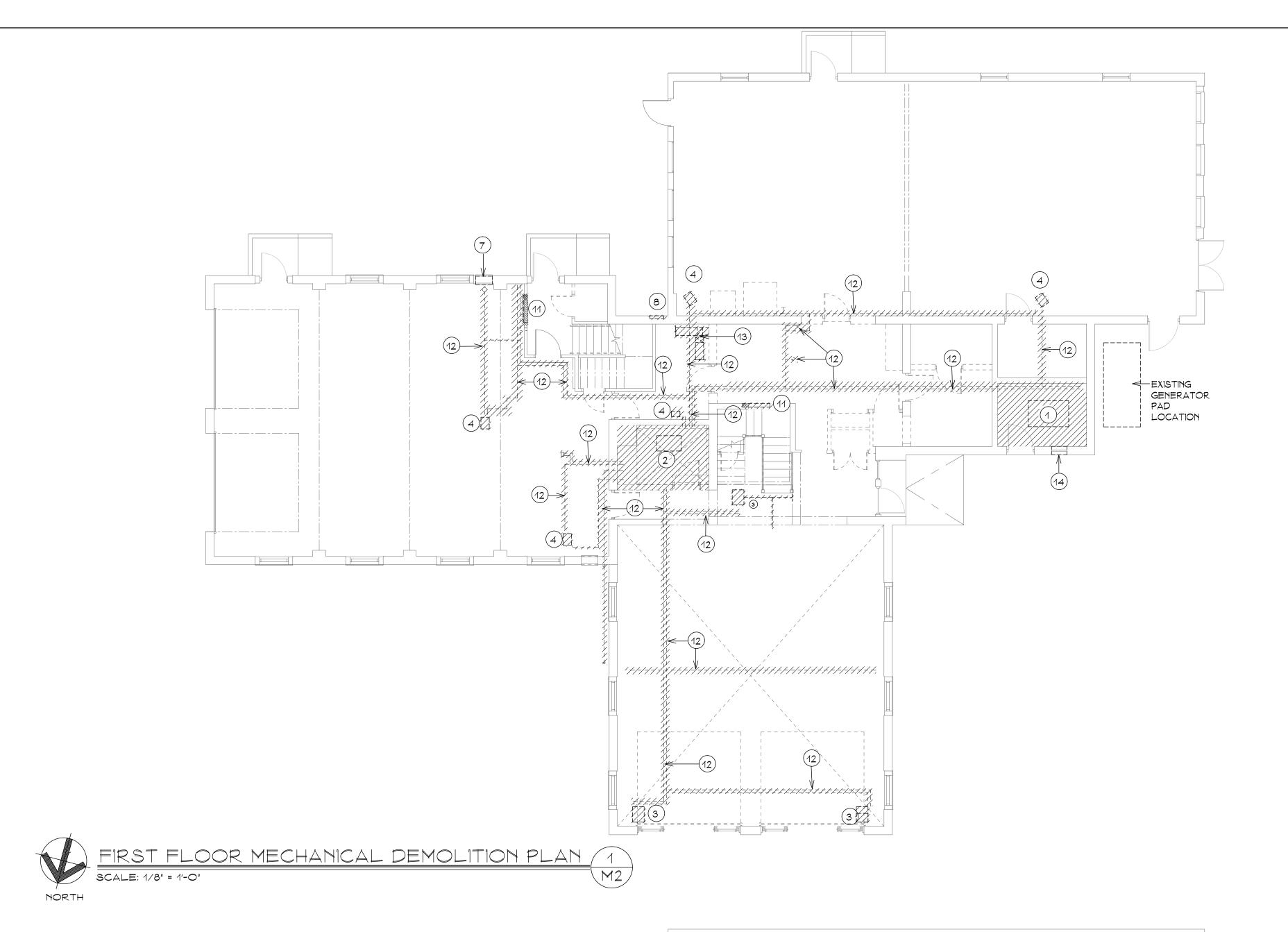
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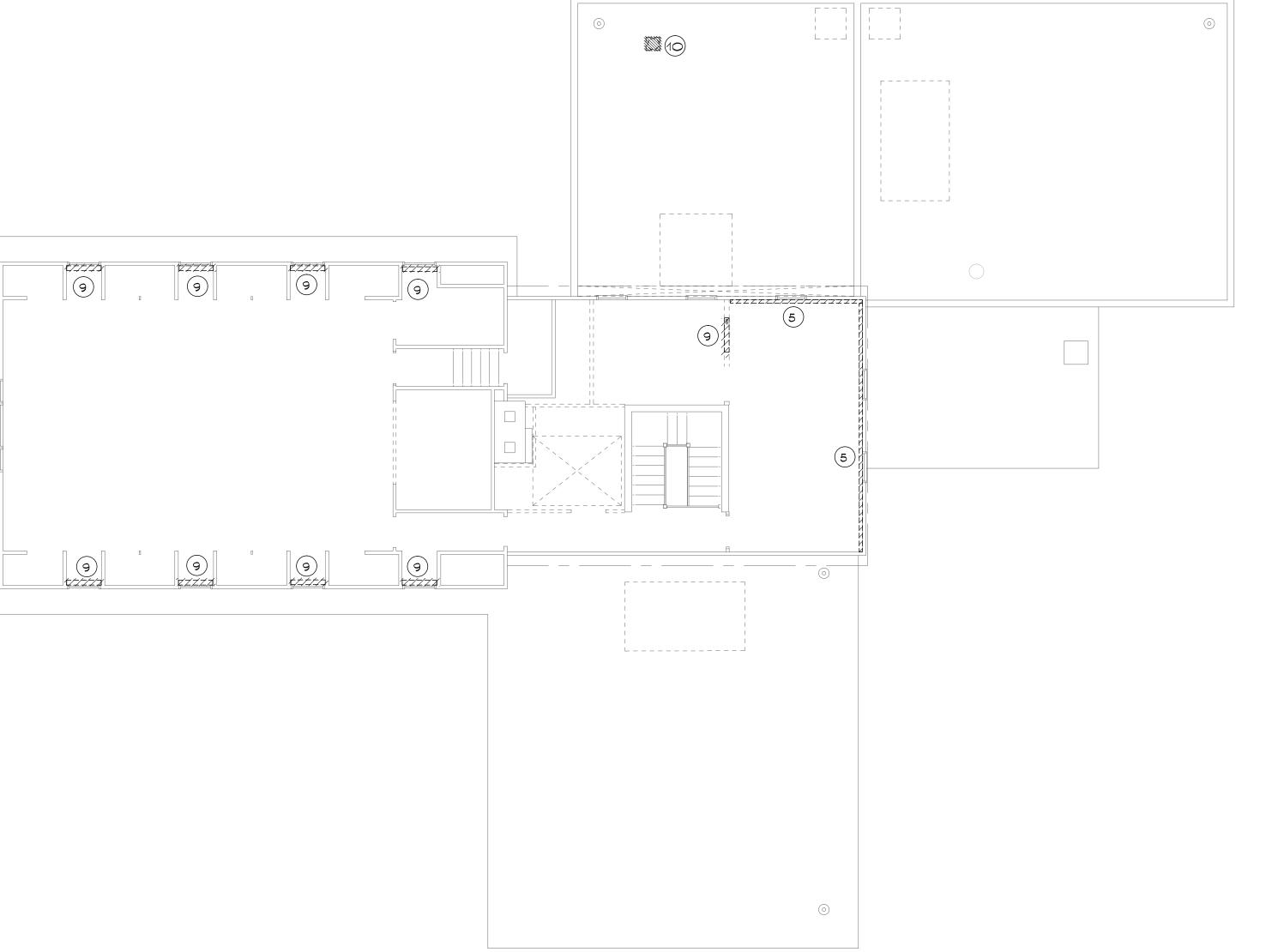
Date: Revised By:

MECHANICAL NOTES, LEGEND AND ABBREVIATIONS

Date: Drawing Number: 5.18.18 M1NONE Drawn By: AMG Project Number: 11.147

Woodbridge, Connecticut 06525





Revised By:

DEMOLITION LEGEND

SYMBOL	DESCRIPTION
0R	EXISTING EQUIPMENT TO BE REMOVED
<i>'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	EXISTING PIPING OR EQUIPMENT TO BE REMOVED
├	EXISTING PIPING OR EQUIPMENT TO REMAIN
<i>``! </i> OR ☆⇒⇒	EXISTING DIFFUSER TO BE REMOVED
1///	EXISTING GRILLE TO BE REMOVED

GENERAL DEMOLITION NOTES

- 1. THE INTENT OF THIS DEMOLITION PLAN IS TO DISCONNECT, REMOVE AND DISPOSE ALL EXISTING MECHANICAL EQUIPMENT, PIPING AND PIPING SPECIALTIES, EXISTING DUCTWORK, AND ALL ASSOCIATED HANGER, SUPPORT AND INSULATION. THE EXISTING CONDITIONS REPRESENTED HEREON ARE BASED ON GENERAL LOCATIONS OF EXISTING COMPONENTS IN THE FIELD AND ARE SHOWN ON THIS DRAWING FOR CONTRACTORS REFERENCE ONLY. ACTUAL LOCATION OF EQUIPMENT, DUCTWORK AND EXTENT OF DUCTWORK ROUTING, PIPING AND EXTENT OF PIPING LENGTH AND ROUTING AND UTILITIES MAY VARY IN FIELD. MECHANICAL CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD AND MAKE ALLOWANCE IN BID FOR LOCATIONS AND ARRANGEMENTS OTHER THAN SHOWN.
- 2. THE DEMOLITION NOTES ARE FOR DESCRIPTIVE GUIDE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL ITEMS WHETHER OR NOT INDICATED AND/ OR NOTED ON THE DRAWINGS. INCLUSION OF THESE EXISTING CONDITIONS HEREON SHALL IN NO WAY ALLEVIATE THE CONTRACTOR(S) OF HIS RESPONSIBILITY TO VISIT THE SITE TO VERIFY ALL EXISTING CONDITIONS.
- 3. ALL WASTE MATERIALS AND EQUIPMENT SHALL BE REMOVED FROM SITE AND SHALL BE LEGALLY DISPOSED BY THE CONTRACTOR.
- 4. NO WORK SHALL BE LEFT INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
- WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND PIPING SYSTEM, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON.
- 6. COORDINATE SHUTDOWN OF EXISTING SERVICES AND TAPPING OF EXISTING PIPING WITH OWNER'S MAINTENANCE PERSONNEL. NO WORK SHALL TAKE PLACE UNTIL DOING SO.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH ALL TRADES.
- 8. ENSURE THAT POWER IS SECURED OFF PRIOR TO COMMENCING EQUIPMENT REMOVAL. SECURE POWER BACK TO PANEL FOR EQUIPMENT BEING REMOVED.
- COORDINATE PATCHING OF ALL FLOORS AND WALLS OPENINGS AFTER REMOVAL OF EXISTING PIPING AND DUCTWORK.

PLAN DEMOLITION NOTES

- EXISTING BOILER AND ALL NEAR BOILER PIPING IN THIS ROOM TO BE REMOVED. BOILER AND ASSOCIATED PIPING AND SPECIALTIES, AND INSULATION SHALL BE DISPOSE PROPERLY BY THIS CONTRACTOR. REMOVE EXISTING FLUE PIPING CONNECTION TO CHIMNEY. PATCH HOLE OPENING AT CHIMNEY CONNECTION.
- 2 EXISTING STEAM CONDENSATE PUMP AND ALL ASSOCIATED STEAM, STEAM CONDENSATE DRAIN AND CONTROLS LOCATED IN THIS ROOM TO BE REMOVED.
- 3 EXISTING RECESSED STEAM CABINET UNIT VENTILATOR AND ALL ASSOCIATED DUCTWORK, HANGERS, CONTROLS, STEAM AND STEAM CONDENSATE PIPING AND
- SPECIALTIES TO BE REMOVED.

 (4) EXISTING STEAM UNIT HEATER AND ALL ASSOCIATED CONTROLS, STEAM AND STEAM
- CONDENSATE PIPING AND SPECIALTIES TO BE REMOVED.

 EXISTING FINNED TUBE RADIATION AND ALL ASSOCIATED PIPING AND CONTROLS TO BE
- REMOVED.

 EXISTING PIPING AND ALL ASSOCIATED INSULATON AND HANGERS, AND ALL BRANCH
- FEED TO SECOND FLOOR TO BE REMOVED.
-) EXISTING LOUVER TO REMAIN
- EXISTING EXHAUST AIR WALL CAP TERMINATION TO BE REMOVED
- EXISTING CONVECTOR AND ALL ASSOCIATED PIPING AND CONTROLS TO BE REMOVED.
- EXISTING ROOF MOUNTED SIREN AND/OR ANNUNCIATOR. COORDINATE WITH OWNER IF THE EQUIPMENT STAYS OR TO BE RELOCATED. PATCHING OF ROOF BY DIVISION 7
- EXISTING RECESSED STEAM CABINET UNIT HEATER AND ALL ASSOCIATED CONTROLS, STEAM AND STEAM CONDENSATE PIPING AND SPECIALTIES TO BE REMOVED.
- EXISTING PIPING, PIPING STUB UPS, PIPING SPECIALTIES AND ALL ASSOCIATED INSULATON AND HANGERS TO BE REMOVED.
- (13) EXISTING DUCTWORK AND HANGER TO BE REMOVED
- (14) EXISTING LOW INTAKE AND HIGH RELIEF LOUVERS TO REMAIN

SECOND FLOOR MECHANICAL DEMOLITION PLAN

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

NORTH

Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



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Architects / Engineers / Interior Designers

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MECHANICAL DEMOLITION
PLANS

Date:

5.18.18

Scale:

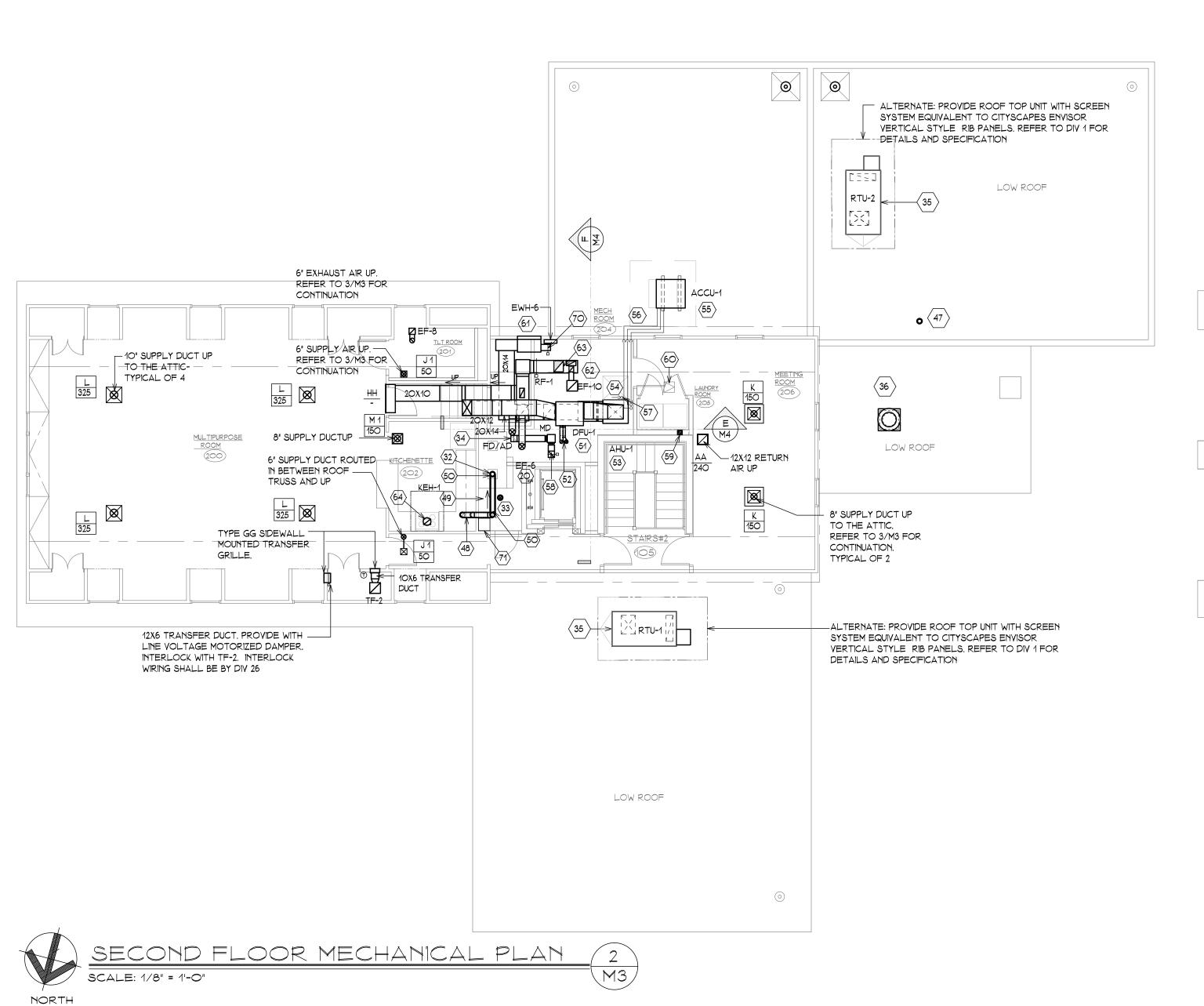
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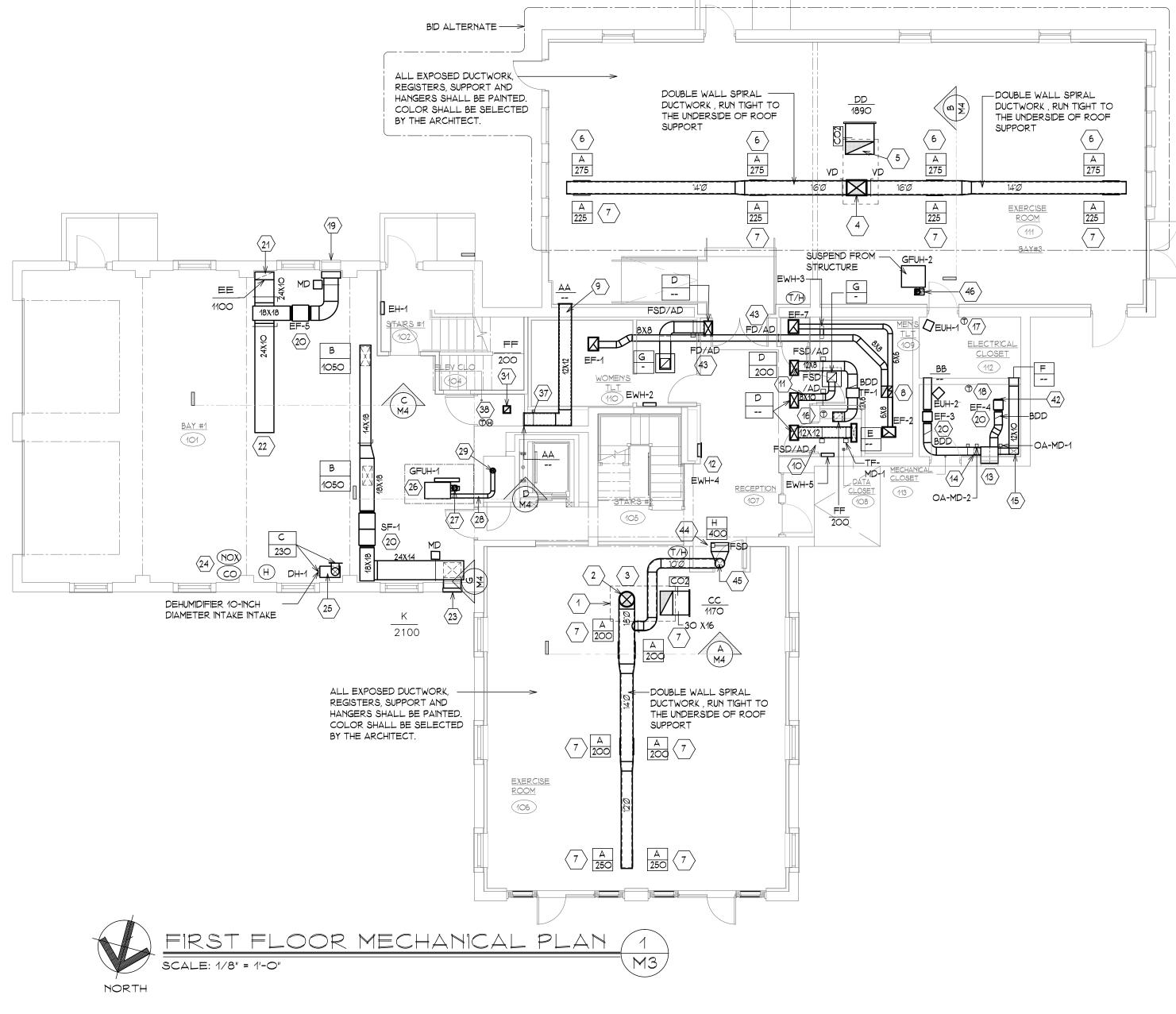
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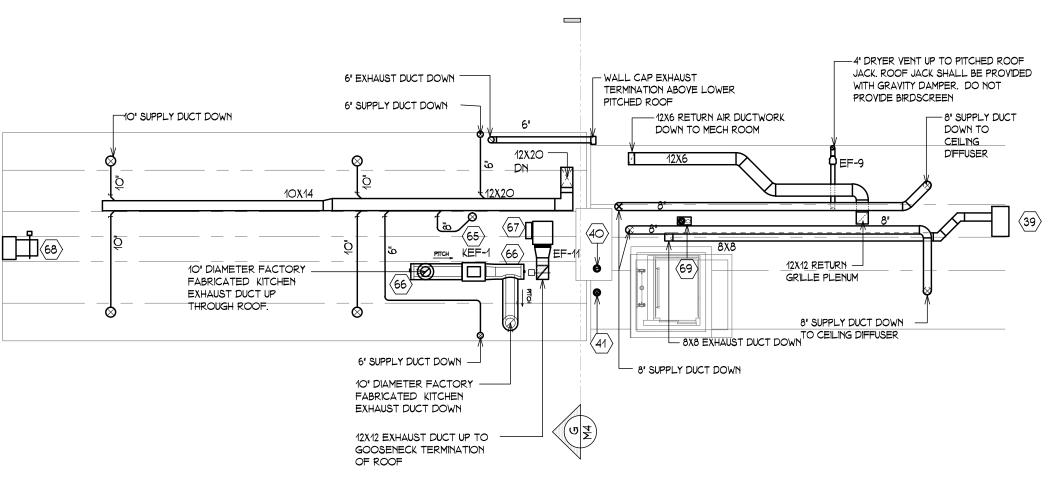
AMG

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- 14X12 AND 12X6 RELIEF AIR AND 6X6 EXHAUST AIR UP TO 30X14 RELIEF VENTILATOR ON ROOF. RELIEF VENTILATOR SHALL BE GREENHECK FGR OR EQUIVALENT. RELIEF VENTILATOR SHALL HAVE THROAT DIMENSION OF 14" WIDTH X 30" LENGTH. PROVIDE WITH 10" HIGH PITCHED CURB. VERIFY EXISTING ROOF PITCH IN FIELD
- RECTANGULAR TO ROUND TRANSITION. PROVIDE WITH FLANGED CONNECTION AT HOOD. TRANSITION SHEETMETAL MATERIAL SHALL BE WELDED CARBON STEEL WRAPPED WITH 2 LAYERS OF FIREMASTER INSULATION FOR ZERO CLEARANCE TO COMBUSTIBLES
- UL 762 IN LINE EXHAUST FAN. MOUNTED ON A NON- COMBUSTIBLE PLATFORM. INSTALL IN-LINE FAN IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS. ALL BUILDING MATERIALS WITHIN 18 INCHES OF FAN SHALL BE NON-COMBUSTIBLE. COORDINATE REQUIREMENTS WITH DIVISION 1. INLINE FAN SHALL BE PROVIDED WITH DUCT MOUNTED ACCESS DOOR WITHIN 3 FEET OF INLET AND OUTLET CONNECTIONS.
- PROVIDE DUCT WITH ACCESS DOOR AND CLEANOUT AT EVERY CHANGE OF DIRECTION
- 16X16 EXHAUST AIR TERMINATION IN ATTIC. PROVIDE TERMINATION WITH WIRE MESCH SCREEN. EXISTING GABLE LOUVER. HALF OF THE GABLE LOUVER SHALL BE USED AS OUTSIDE AIR INTAKE. PROVIDE WITH INSULATED PLENUM.
- CONNECT 18X14 INSULATED OUTSIDE TO PLENUM. PROVIDE WITH LINE VOLTAGE MOTORIZED DAMPER. INTERLOCK WITH EXHAUST FAN AND LINE VOLTAGE THERMOSTAT. INTERLOCK WIRING SHALL BE BY DIVISION 26
- GENERAL LOCATION OF CONCENTRIC VENT BOX. VENT BOX INSTALLATION AND FLUE AND COMBUSTION AIR CONNECTIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. REFER TO M6 FOR GENERAL ROUTING DETAILS
- 8X8 OUTSIDE AIR, TERMINATE IN MECHANICAL ROOM WITH WIRE MESH SCREEN. PROVIDE WITH MOTORIZED AIR DAMPER WITH LINE 8X8 OUTSIDE AIR, LERMINALE IN MECHANICAL ROUM WILD WILD WILD SOLLELI. TO SOLLE IN THE STATE OF SOLUTION OF
- GENERAL LOCATION OF GREASE TROUGH WITH ABSORBENT MATERIAL, AS PROVIDED WITH THE KITCHEN EXHAUST FAN. PROVIDE 3' DEEP SECONDARY DRAIN PAN WITH WATER SENSOR. RELAY OUTPUT FROM THE WATER SENSOR SHALL BE WIRED TO THE KITCHEN FAN CONTROL CENTER FOR VISUAL ALARM INDICATOR. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE RELAYS AND LOW VOLTAGE POWER AND INTERLOCK WIRING TO THE WATER SENSOR. DRAIN PIPING FROM KITCHEN EXHAUST FAN TO THIS LOCATION SHALL BE BY DIVISION 22

GENERAL NOTES

- 1. REFER TO M1 FOR ABBREVIATIONS AND M6 FOR DETAILS
- 2. PROVIDE DAMPER AT EVERY BRANCH TAKE-OFF WHETHER OR NOT INDICATED IN PLANS.
- 3. RATED WALL PENETRATIONS SHALL BE PROVIDED WITH THE REQUIRED FIRE STOP SYSTEM 4. DELIVER ALL DUCT SECTIONS WITH SEALED ENDS TO PREVENT DEBRIS FROM GETTING INSIDE. SEAL
- OPEN ENDS AS WORK PROGRESS UNTIL ALL DIFFUSERS, REGISTERS AND GRILLES ARE INSTALLED. 5. ALL DIFFUSER BOOTS, DIFFUSER BACKPANS, RETURN AIR GRILLE PLENUM BOX SHALL BE PROVIDED WITH INSULATION WITH MINIMUM INSTALLED R VALUE AS FOLLOWS: - R6 WHEN INSTALLED INSIDE THE BUILDING ENVELOP
- R8 WHEN INSTALLED IN THE ATTIC OUTSIDE OF THE BUILDING ENVELOP 6. ALL EXPOSED SPIRAL DUCTWORK SHALL BE DOUBLE WALL AND SHALL BE FIELD PAINTED PER
- ARCHITECT'S SELECTED COLOR. 7 ALL EXPOSED DUCT MOUNTED DIFFUSERS IN EXERCISE ROOMS SHALL BE FIELD PAINTED PER
- 8. ALL EXPOSED RECTANGULAR DUCTWORK SHALL BE PROVIDED WITH RIGID INSULATION AND PAINTABLE JACKET AND SHALL BE FIELD PAINTED PER ARCHITECT'S SELECTED COLOR.
- 9. ALL EXPOSED EQUIPMENT SHALL BE FIELD PAINTED PER ARCHITECT'S SELECTED COLOR.
- 10. INSIDE SURFACES OF ALL DIFFUSER BOOTS AND RETURN AIR GRILLE PLENUM THAT ARE VISIBLE FROM THE DIFFUSER/GRILLE SHALL BE PAINTED FLAT BLACK
- Revised By: Revision:

ARCHITECT'S SELECT COLOR.

PLAN NOTES

- (1) OUTLINE OF ROOFTOP UNIT ABOVE
- DOUBLE WALL SPIRAL SUPPLY AIR DUCTWORK UP TO RTU-1 ON ROOF. RUN DUCTWORK IN BETWEEN ROOF JOIST. COORDINATE EXACT LOCATION OF ROOF PENETRATION IN FIELD. FRAMING OF OPENING SHALL BE UNDER DIVISION 5 AND 7. 30X16 EXPOSED RETURN AIR DUCTWORK UP TO RTU-1 ON ROOF. RUN DUCTWORK IN BETWEEN ROOF JOIST. COORDINATE EXACT LOCATION OF ROOF PENETRATION IN FIELD. FRAMING OF OPENING SHALL BE UNDER DIVISION 5 AND 7. TERMINATE RETURN AIR HIGH IN
- THE STRUCTURE. PROVIDE TERMINATION WITH GRILLE SECURED PROPERLY IN DUCTWORK. PROVIDE RIGID INSULATION WITH PAINTABLE
- 24X20 EXPOSED SUPPLY AIR DUCTWORK UP TO RTU-2 ON ROOF. RUN DUCTWORK IN BETWEEN ROOF JOIST. COORDINATE EXACT LOCATION OF ROOF PENETRATION IN FIELD. FRAMING OF OPENING SHALL BE UNDER DIVISION 5 AND 7. PROVIDE WITH RIGID INSULATION
 - 36X16 EXPOSED RETURN AIR DUCTWORK UP TO RTU-2 ON ROOF. RUN DUCTWORK IN BETWEEN ROOF JOIST. COORDINATE EXACT LOCATION OF ROOF PENETRATION IN FIELD. FRAMING OF OPENING SHALL BE UNDER DIVISION 5 AND 7. TERMINATE RETURN AIR HIGH IN THE STRUCTURE. PROVIDE TERMINATION WITH GRILLE SECURED PROPERLY IN DUCTWORK. PROVIDE WITH RIGID INSULATION WITH
 - $\langle 6 \, \rangle$ MOUNT REGISTER AT 25 DEGREES BELOW THE HORIZONTAL AXIS
 - $\langle 7 \rangle$ MOUNT REGISTER AT 30 DEGREES BELOW THE HORIZONTAL AXIS
- 8X14 EXHAUST FROM EF-1, 6X8 EXHAUST DUCT FROM EF-2 AND 6X6 EXHAUST DUCT FROM EF-7 UP TO ROOF MOUNTED EXHAUST VENTILATOR. ROUTE EXHAUST DUCTWORK INSIDE RELIEF VENTILATOR ROOF CURB. TERMINATE EACH DUCTWORK AT THE TOP OF THE ROOF CURB. TOP OF THE CURB SHALL BE PROVIDED WITH SHEETMETAL WITH OPENINGS TO ACCOMMODATE EXHAUST DUCT TERMINATIONS TO PREVENT EXHAUST FROM OTHER FANS FROM SPILLING INTO ADJACENT EXHAUST TERMINATIONS AND/OR SPILLING
- ⟨g⟩ 12X12 LINED TRANSFER DUCT. CONNECT TO 12X12 CEILING IN TOILET AND TO 12X12 SIDE WALL GRILLE IN EXERCISE ROOM 111
- 12X12 LINED TRANSFER DUCT. CONNECT TO CEILING GRILLE IN DATA CLOSET AND TO 12X12 CEILING GRILLE IN RECEPTION 107. PROVIDE COMBINATION FIRE AND SMOKE DAMPER AT WALL PENETRATION. PROVIDE DUCT MOUNTED ACCESS DOOR ABOVE ACCESSIBLE CEILING. COMBINATION FIRE AND SMOKE DAMPER AND LINE VOLTAGE DAMPER ACTUATOR SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SMOKE DETECTOR SHALL BE BY DIVISION 28. WIRING TO ACTUATOR AND FIRE ALARM SHALL BE BY DIVISION 26 AND
- TRANSFER DUCT. PROVIDE COMBINATION FIRE AND SMOKE DAMPER AT WALL PENETRATION. PROVIDE DUCT MOUNTED ACCESS DOOR ABOVE ACCESSIBLE CEILING. COMBINATION FIRE AND SMOKE DAMPER AND LINE VOLTAGE DAMPER ACTUATOR SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SMOKE DETECTOR SHALL BE BY DIVISION 28. WIRING TO ACTUATOR AND FIRE ALARM SHALL BE BY DIVISION 26 AND DIVISION 28.
- SEMI RECESSED ELECTRIC WALL HEATER EXISTING HIGH EXHAUST AIR LOUVER AND EXISTING LOW OUTSIDE AIR INTAKE LOUVER. EXHAUST AND INSTAKE LOUVER SHALL BE
- PROVIDED WITH A MINIMUM OF 12-INCH DEEP INSULATED PLENUM. PROVIDE PLENUM WITH SHEETMETAL DIVIDER. COORDINATE EXACT
- 12X1O OUTSIDE AIR, TERMINATE IN MECHANICAL ROOM WITH WIRE MESH SCREEN. PROVIDE WITH MOTORIZED AIR DAMPER WITH LINE VOLTAGE ACTUATOR, OA-MD-2, INTERLOCKED WITH EF-4. LINE VOLTAGE INTERLOCK WIRING SHALL BE BY DIVISION 26. COORDINATE
- 12X1O OUTSIDE AIR DROP IN CORNER AND CONNECT TO OUTSIDE AIR PLENUM. PROVIDE WITH MOTORIZED AIR DAMPER WITH LINE 12X10 OUTSIDE AIR DROP IN CORNER AND CONNECT TO OUTSIDE AIR FELLION. THORIS SHALL BE BY DIVISION 26. COORDINATE VOLTAGE ACTUATOR, OA-MD-1, INTERLOCKED WITH EF-3. LINE VOLTAGE INTERLOCK WIRING SHALL BE BY DIVISION 26. COORDINATE
- LINE VOLTAGE REVERSE ACTING THERMOSTAT. INTERLOCK WITH TF-1 AND LINE VOLTAGE TRANSFER AIR MOTORIZED AIR DAMPER ACTUATOR, TF-MD-1. LINE VOLTAGE INTERLOCK WIRING SHALL BE PROVIDED BY DIV 26
- LINE VOLTAGE REVERSE ACTING THERMOSTAT. INTERLOCK WITH EF-3 AND LINE VOLTAGE OUTSIDE AIR MOTORIZED AIR DAMPER ACTUATOR, OA-MD-1. ALL LINE VOLTAGE INTERLOCK WIRING SHALL BE PROVIDED BY DIVISION 26
- LINE VOLTAGE REVERSE ACTING THERMOSTAT. INTERLOCK WITH EF-4 AND LINE VOLTAGE OUTSIDE AIR MOTORIZED AIR DAMPER ACTUATOR, OA-MD-2. ALL LINE VOLTAGE INTERLOCK WIRING SHALL BE PROVIDED BY DIVISION 26
- EXISTING EXHAUST AIR LOUVER TO PROVIDED WITH 20" DEEP INSULATED PLENUM. COORDINATE EXACT LOUVER SIZE IN FIELD. PLENUM SHALL BE EXTENDED UP HIGH. EXHAUST CONNECTION SHALL BE NEAR THE TOP OF PLENUM. COORDINATE EXACT ELEVATION IN FIELD.
- $\langle \widehat{\phi}
 angle$ In-Line fan suspended from the structure. Provide Vibration Isolator. Mount bottom of fan at 6'-8' Aff
- 24X10 EXHAUST AIR DOWN TO 6" ABOVE FINISHED FLOOR. PROVIDE LOW DUCT MOUNTED EXHAUST GRILLE, DUCT AND GRILLE SHALL BE FIELD PAINTED PER ARCHITECT'S SELECTED COLOR. 24X10 EXHAUST AIR . TERMINATE HIGH WITH WIRE MESH SCREEN. BALANCE AT 1100 CFM
- OUTSIDE AIR LOUVER, GREENHECK MODEL ESD-435 OR EQUIVALENT, 3.5 SF FREE AREA, WITH BIRDSCREEN. PROVIDE WITH INSULATED PLENUM. EXTEND PLENUM TO CONNECT TO OUTSIDE AIR DUCTWORK
- HONEYWELL E3POINT STANDALONE DUAL GAS MONITOR, 120VAC WITH ON-BOARD TRANSFORMER, CO WALL SENSOR WITH REMOTE NO2 SENSOR. MOUNT CO SENSOR AT 4'-O" AFF AND NO2 SENSOR AT 12 INCHES BELOW CEILING. POWER WIRING TO MONITOR SHALL BE
- BY DIVISION 26. ALL LOW VOLTAGE WIRING TO SENSORS SHALL BE BY MECHANICAL CONTRACTOR. COORDINATE IN FIELD. DEHUMIDIFIER MOUNTED ON A 24-INCH HIGH STEEL PLATFORM. ROTATE COLLAR TO POSITION DISCHARGE UPWARDS. MECHANICAL CONTRACTOR TO PROVIDE ALL REQUIRED RELAY AND LOW VOLTAGE WIRING TO HUMIDISTAT. CONDENSATE PUMP AND CONDENSATE
- DRAIN SHALL BE PROVIDED BY DIVISION 22. COORDINATE DRAIN REQUIREMENTS WITH THE MANUFACTURER. GAS FIRED UNIT HEATER SUSPENDED FROM THE STRUCTURE. PROVIDE WITH VIBRATION ISOLATOR. PROVIDE UNIT WITH OSHA COMPLIANT
- FAN GUARD INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S CLEARANCE REQUIREMENTS. MOUNT BOTTOM OF UNIT AT 6'-8" AFF. MECHANICAL CONTRACTOR SHALL PAINT A VISIBLE WARNING SIGN, USING HIGH HEAT PAINT, AT THE BOTTOM OF UNIT HEATER. MECHANICAL CONTRACTOR TO PROVIDE ALL VOLTAGE WIRING REQUIRED TO INTERLOCK UNIT TO FACTORY PROVIDE CONTROLS AND
- THERMOSTAT. COORDINATE REQUIREMENTS 5" FLUE PIPING FROM UNIT HEATER CONNECTION UP TO SECOND FLOOR. FLUE PIPING SHALL BE UL 1738 AND SHALL BE INSTALLED IN
- $\langle \overline{27} \rangle$ ACCORDANCE WITH THE MANUFACTURER'S CLEARANCE REQUIREMENTS TO COMBUSTIBLE. SUPPORT PIPE IN ACCORDANCE WITH THE 5' COMBUSTION AIR PIPING. HORIZONTAL PIPING SHALL BE SINGLE WALL. PITCH HORIZONTAL PIPE DOWNWARD 1/4 -INCH PER FOOT TOWARDS THE DOUBLE WALL INSULATED TEE LOCATED AT THE BOTTOM OF THE STACK.. SUPPORT PIPE IN ACCORDANCE WITH THE
- MANUFACTURER'S REQUIREMENTS 5' INSULATED DOUBLE WALL COMBUSTION AIR PIPING UP. SUPPORT VERTICAL PIPIE IN ACCORDANCE WITH THE MANUFACTURER'S
- REQUIREMENTS. PROVIDE TEE WITH DRIP LEG AND CLEANOUT CAP AT THE BOTTOM OF THE STACK. GENERAL CONTRACTOR TO PROVIDE ACCESS PANEL AT THE GENERAL LOCATION OF TEE WITH DRIP LEG AND CLEANOUT CAP FOR ACCESS. COORDINATE
- 5" INSULATED DOUBLE WALL UL 1738 FLUE PIPING UP AND INTO THE EXISTING CHIMNEY CAVITY. PROVIDE WITH 45 DEGREE ELBOWS AT ALL CHANGE OF DIRECTION. SUPPORT VERTICAL PIPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. GENERAL CONTRACTOR SHALL PROVIDE OPENING AT EXISTING CHIMNEY FOR SUPPORT ACCESS AND INSTALLATION. PROVIDE TEE WITH DRIP LEG AND CLEANOUT CAP AT THE BOTTOM OF THE STACK. GENERAL CONTRACTOR TO PROVIDE ACCESS PANEL AT THE GENERAL
- LOCATION OF TEE WITH DRIP LEG AND CLEANOUT CAP FOR ACCESS. COORDINATE LOCATION. (31) 8X8 EXHAUST AIR DUCTWORK FROM ELEVATOR CONTROLLER ROOM GRILLE AND UP. REFER TO 1/M3 AND 3/M3 FOR CONTINUATION
- 5" INSULATED DOUBLE WALL UL 1738 FLUE PIPING UP. ROUTE NEW FLUE PIPING INSIDE EXISTING CHIMNEY OPENING. SUPPORT VERTICAL PIPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. GENERAL CONTRACTOR SHALL PROVIDE OPENING AT EXISTING CHIMNEY FOR SUPPORT ACCESS AND INSTALLATION. COORDINATE LOCATION.
- 5" INSULATED DOUBLE WALL COMBUSTION AIR PIPING UP THROUGH THE ROOF AND DOWN. SUPPORT VERTICAL PIPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- 8X8 EXHAUST AIR DUCTWORK DOWN TO ELEVATOR CONTROLLER ROOM GRILLE AND UP TO ATTIC. REFER TO 1/M3 AND 3/M3 FOR CONTINUATION. PROVIDE FIRE DAMPER AND ACCESS DOOR AT FLOOR PENETRATION
- ROOFTOP UNIT. MOUNT ON 24-INCH HIGH SPRING ISOLATED SEISMIC ROOF CURB. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. ROOF CURB SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY DIVISION 7. FLASHING, SEALING AND WATERPROOFING SHALL BE BY DIVISION 7. REFER TO ARCHITECTURAL PLANS. COORDINATE FRAMING OF OPENING WITH STRUCTURAL PLANS. CONDENSATE DRAIN PIPING SHALL BE PROVIDED BY DIVISION 22. COORDINATE REQUIREMENTS
- RELIEF VENTILATOR, COOK GRAVITY VENTILATOR MODEL PR-16, 16-1/2 INCHES THROAT DIAMETER. PROVIDE BIRDSCREEN AND 14" HIGH ROOF CURB. ROOF CURB SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY DIVISION 7. FLASHING, SEALING AND WATERPROOFING SHALL BE BY DIVISION 7. REFER TO ARCHITECTURAL PLANS. COORDINATE FRAMING OF OPENING WITH
- 12X12 LINED TRANSFER DUCT. CONNECT TO 12X12 HIGH SIDEWALL GRILLE IN ELEV CLOSET WALL AND TO 12X12 HIGH SIDEWALL GRILLE IN EXERCISE 111. PROVIDE OUT OF THE WALL COMBINATION FIRE AND SMOKE DAMPER AT WALL PENETRATION. COMBINATION FIRE AND SMOKE DAMPER AND LINE VOLTAGE DAMPER ACTUATOR SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SMOKE
- DETECTOR SHALL BE BY DIVISION 28. WIRING TO ACTUATOR AND FIRE ALARM SHALL BE BY DIVISION 26 AND DIVISION 28. LINE VOLTAGE REVERSE ACTING THERMOSTAT AND LINE VOLTAGE HUMIDISTAT. INTERLOCK WITH EF-6.. ALL LINE VOLTAGE INTERLOCK WIRING SHALL BE PROVIDED BY DIVISION 26
- EXISTING GABLE LOUYER. HALF OF THE GABLE LOUYER SHALL BE USED AS RELIEF AIR LOUYER. PROVIDE WITH INSULATED PLENUM. COORDINATE EXACT LOUVER SIZE IN FIELD.
- DOUBLE WALL UL 1738 FLUE PIPING. TERMINATE 24 INCHES ABOVE CHIMNEY. TERMINATION SHALL COMPLY WITH MANUFACTURER'S VENTING REQUIREMENTS AND APPLICABLE LOCAL CODE. PROVIDE WITH BREIDERT TYPE L OR APPROVED STACK CAP DOUBLE WALL COMBUSTION AIR PIPING. TERMINATE 24 INCHES THE ROOF LINE. TERMINATION SHALL COMPLY WITH MANUFACTURER'S
- REQUIREMENTS AND APPLICABLE LOCAL CODE. PROVIDE WITH BREIDERT TYPE L OR APPROVED STACK CAP TERMINATE IN MECHANICAL ROOM WITH WIRE MESH SCREEN. SIZE OF OPENING TO BE THE SAME SIZE AS THE EXHAUST FAN
- CONNECTION. COORDINATE IN FIELD.
- PROVIDE FIRE DAMPER AT RATED WALL PENETRATION. PROVIDE DUCT MOUNTED ACCESS DOOR AT ABOVE ACCESSIBLE CEILING 22X8 OUT OF THE WALL COMBINATION FIRE/SMOKE DAMPER AT WALL PENETRATION. INSTALL IN ACCORDANCE WITH THE
- $\langle 44
 angle$ manufacturer's requirements. Accees to all components shall be from the grille located in reception wall. COMBINATION FIRE AND SMOKE DAMPER AND LINE VOLTAGE DAMPER ACTUATOR SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SMOKE DETECTOR SHALL BE BY DIVISION 28. WIRING TO ACTUATOR AND FIRE ALARM SHALL BE BY DIVISION 26 AND
- SPIRAL DUCTWORK DROP. COORDINATE ELEVATION IN FIELD. PROVIDE ROUND TO RECTANGULAR TRANSITION AND CONNECT TO OUT $\stackrel{\langle 45 \rangle}{}$ OF THE WALL COMBINATION FIRE AND SMOKE DAMPER. COMBUSTION AIR INLET BOX SUSPENDED FROM STRUCTURE. COORDINATE REQUIREMENTS WITH MANUFACTURER. CONNECT 4"
- $\overline{\langle 46 \rangle}$ COMBUSTION AIR AND 4" DIAMETER UL 1738 FLUE PIPE FROM UNIT TO INLET CONNECTIONS OF COMBUSTION AIR INLET BOX. PROVIDE CONCENTRIC OUTLET FROM BOX THROUGH ROOF.
- COMBUSTION AIR AND FLUE PIPE TERMINATION ON ROOF. FLASHING, SEALING AND WATERPROOFING SHALL BE BY DIVISION 7. TERMINATE COMBUSTION AIR 24 INCHES ABOVE ROOF. DEFLECTOR DISK AND VENT TERMINAL DISTANCE FROM COMBUSTION AIR INLET TERMINATION SHALL COMPLY WITH MANUFACTURER'S INSTALLATION REQUIREMENTS AND APPLICABLE LOCAL CODE. PROVIDE COMBUSTION AIR TERMINATION WITH SCREEN. PROVIDE FLUE PIPE WITH BREIDERT TYPE L OR APPROVED STACK CAP
- (48) 45 DEGREE ELBOWS AT CHANGE OF DIRECTION. LIMIT CHANGE OF CHANGE IN DIRECTION TO WITHIN 2 FEET OFF THE SECOND FLOOR
- (49) SLOPE UP AT 45 DEGREE ANGLE TO THE EXISTING CHIMNEY CAVITY
- (50) 45 DEGREE ELBOWS AT CHANGE OF DIRECTION SEPARATED COMBUSTION GAS FIRED DUCT FURNACE. SUPPORT FROM THE STRUCTURE. BOTTOM OF DUCT MOUNTED FURNACE SHALL
- BE AT A MINIMUM OF 7'-2" AFF. COORDINATE IN FIELD. PROVIDE UL 1738 FLUE PIPING AND COMBUSTION AIR PIPING IN ACCORDANCE WITH
- GENERAL LOCATION OF 4" DIAMETER FLUE PIPING AND 4" COMBUSTION AIR PIPING UP TO LOCATION OF CONCENTRIC VENT BOX IN THE ATTIC. PROVIDE BOTTOM OF STACK WITH DRAIN CONNECTION AND SHUTOFF VALVE. DRAIN PIPING FROM THE SHUT-OFF VALVE. SHALL
- AIR HANDLING UNIT MOUNTED ON A HOUSEKEEPING PLATFORM , AS PROVIDED BY DIVISION 3. PROVIDE WITH VIBRATION ISOLATION BETWEEN PLATFORM AND UNIT. COORDINATE LOADING WITH ISOLATOR MANUFACTURER.
- (54) AIR HANDLING UNIT SERVICE ACCESS. DO NOT ROUTE ANY DUCTWORK/PIPING AND OR CONDUIT WITHIN THE SERVICE ACCESS AREA
- AIR COOLED CONDENSING UNIT MOUNTED ON A SUPPORT RAIL ON ROOF. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S CLEARANCE REQUIREMENTS. SUPPORT RAIL SHALL BE FASTENED TO THE ROOF STRUCTURE. SUPPORT RAIL SHALL BE PROVIDED BY
- $\frac{(55)}{}$ DIV 23 AND INSTALLED UNDER DIVISION 7. BOTTOM OF CONDENSING UNIT SHALL BE, AT A MINIMUM, 6 INCHES ABOVE FINISHED ROOF. COORDINATE HEIGHT OF SUPPORT RAIL .
- GENERAL LOCATION OF REFRIGERATION (LIQUID, GAS AND HOT GAS REHEAT) PIPING ROUTING ON ROOF INTO THE MECHANICAL ROOM. EXPOSED PIPING SHALL BE PROVIDED WITH ALUMNIMUM JACKET AND SHALL BE PROVIDED WITH SUPPORT
- (57) CONDENSATE DRAIN PIPING WITH TRAP AS PROVIDED BY DIVISION 22. INSTALL IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- (58) 8X8 EXHAUST AIR UP TO ATTIC. REFER TO 3/M3 FOR CONTINUATION.
- GENERAL LOCATION OF 4" ALUMINUM DRYER VENT UP. REFER TO 3/M3 FOR CONTINUATION. PROVIDE LOW RECESSED STEEL DRYER BOX, 18 TO 24 INCHES TALL, TO ACCOMMODATE A SHORT FLEXIBLE DRYER VENT DUCT FROM DRYER. INSTALL RECESSED LINT TRAP IN AN ACCESSIBLE LOCATION JUST ABOVE DRYER. COORDINATE MOUNTING ELEVATION.

11.147

- (60) 14X14 ACCESS PANEL FOR EF-9. COORDINATE EXACT LOCATION
- OUTSIDE AIR LOUVER, GREENHECK MODEL ESD-435 OR EQUIVALENT, 2.5 SF FREE AREA, WITH BIRDSCREEN. PROVIDE WITH INSULATED
- PLENUM. EXTEND PLENUM TO CONNECT TO OUTSIDE AIR DUCTWORK
- (62) CEILING MOUNTED EXHAUST FAN. PROVIDE 6X6 EXHAUST AIR DUCT WORK ROUTED IN BETWEEN COLLAR TIES AND UP

MECHANICAL FLOOR PLANS

Date: Drawing Number: 5.18.18 Scale: AS NOTED Drawn By: AMG Project Number:

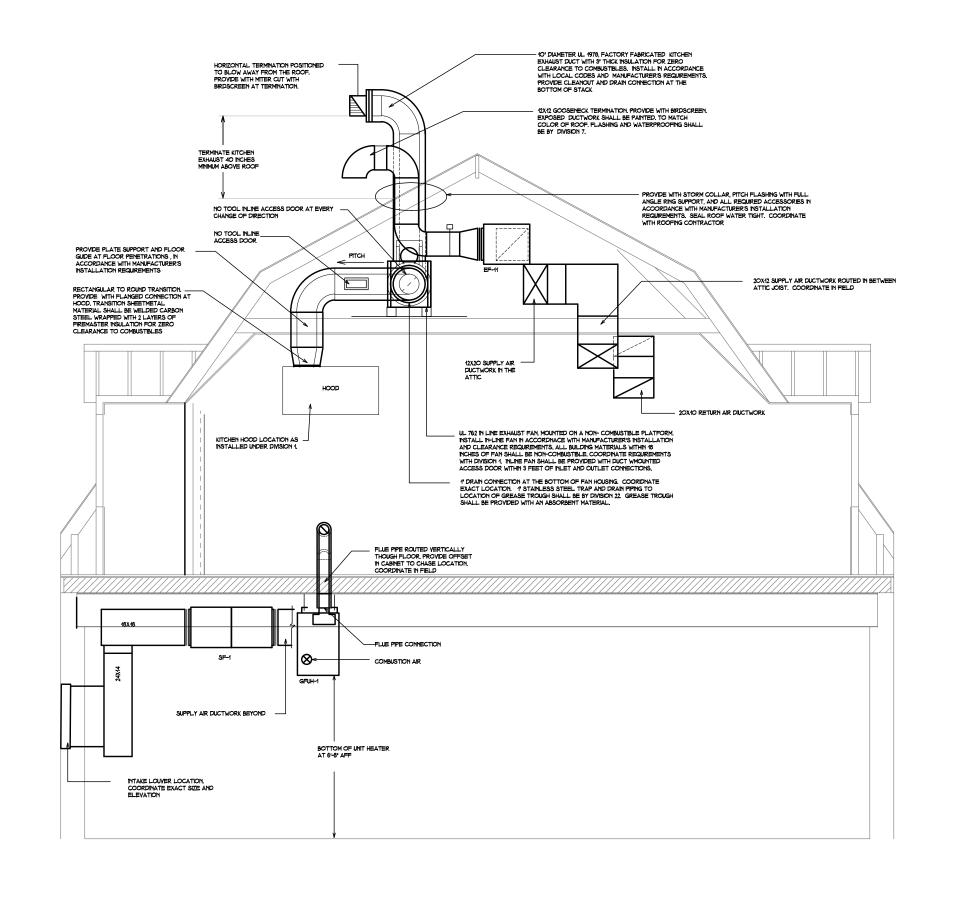


SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

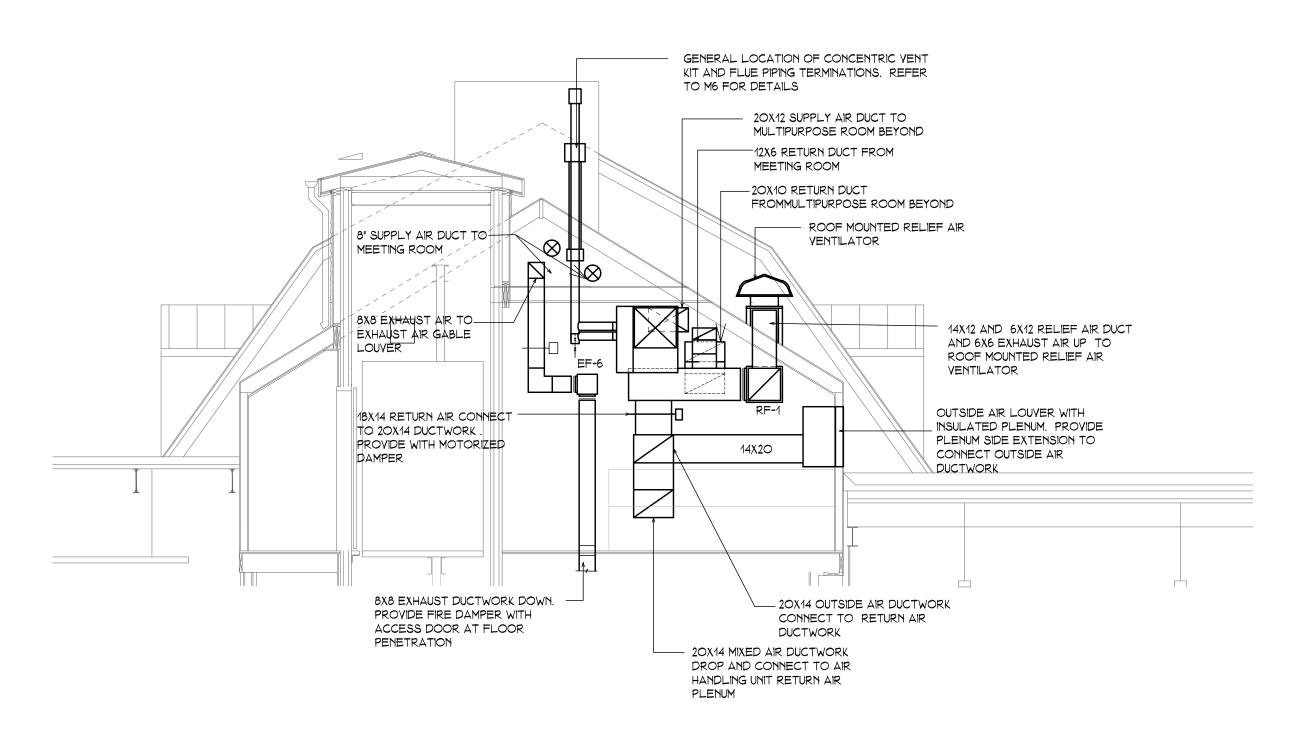
> Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

Project Title:

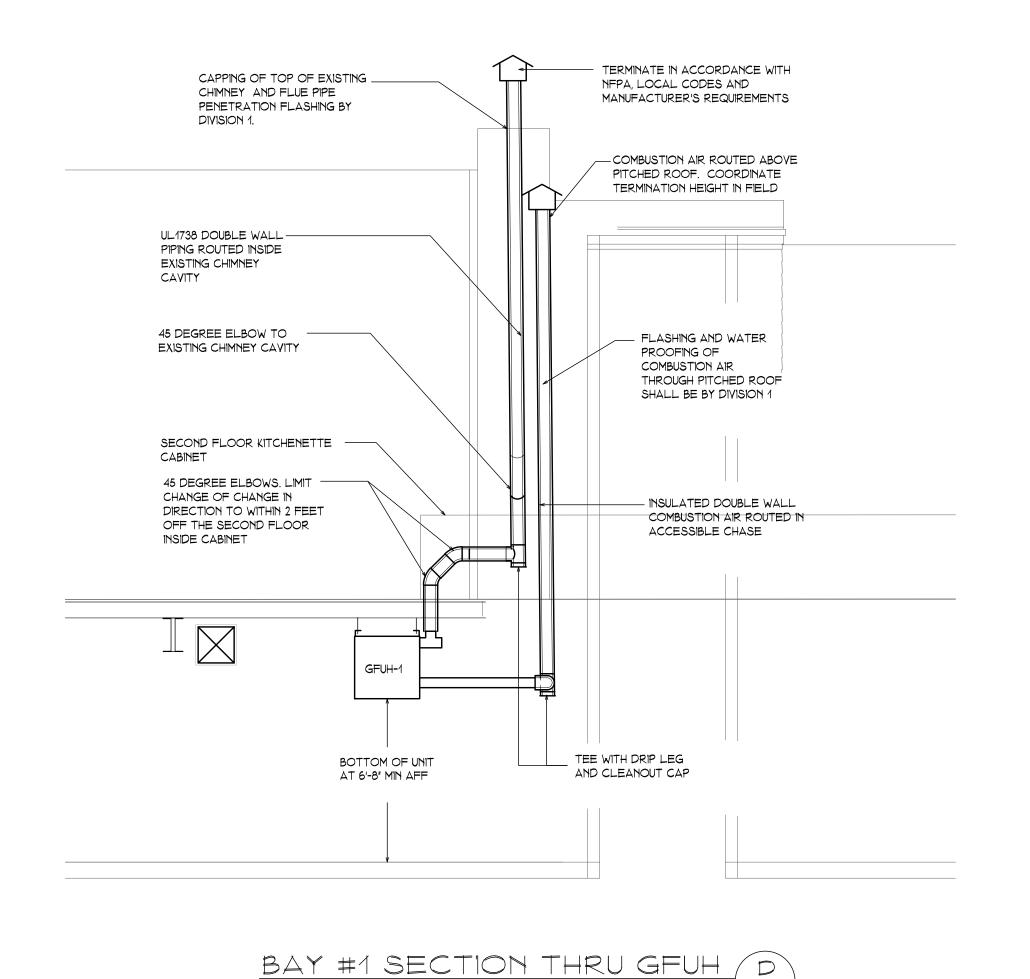
Renovations to:

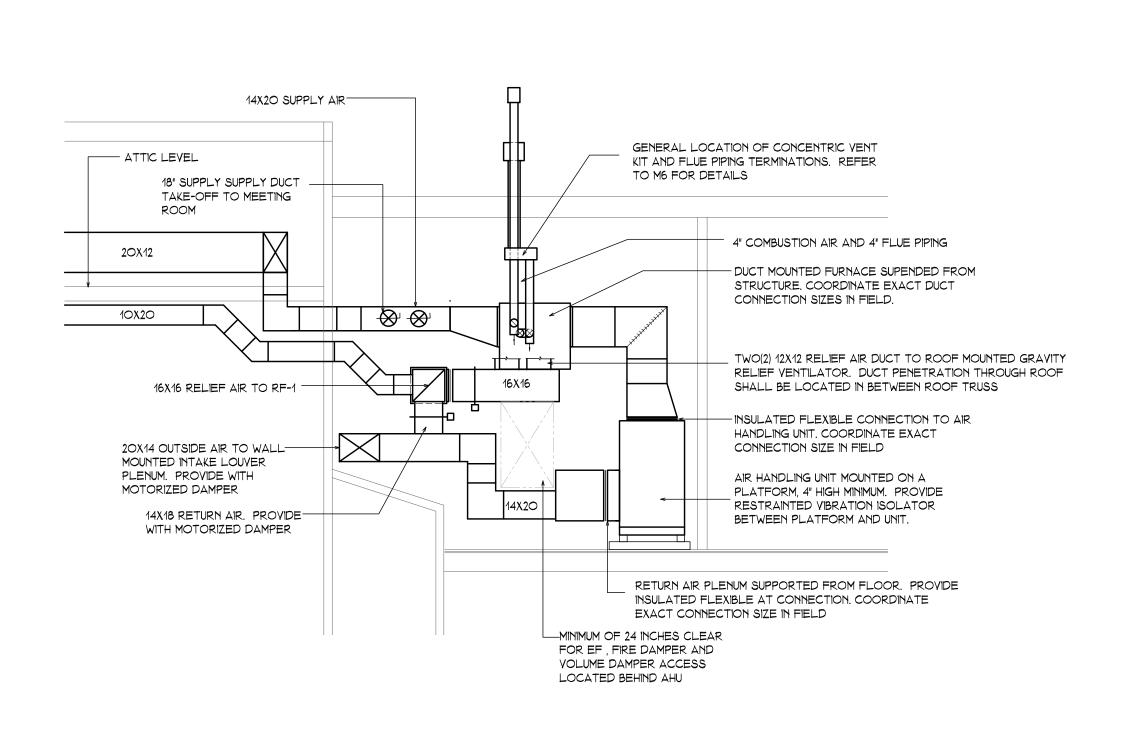








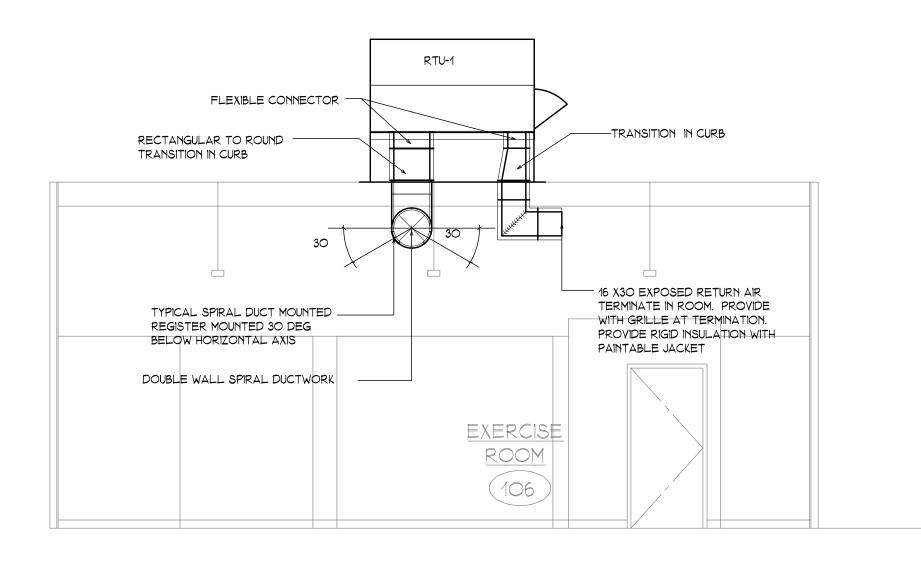




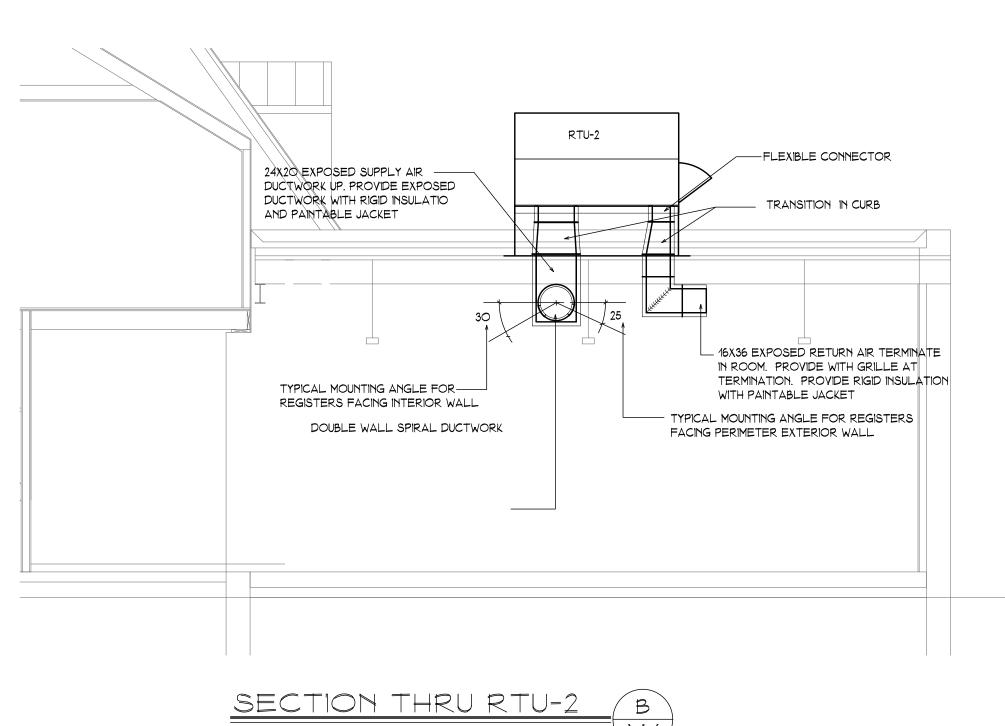


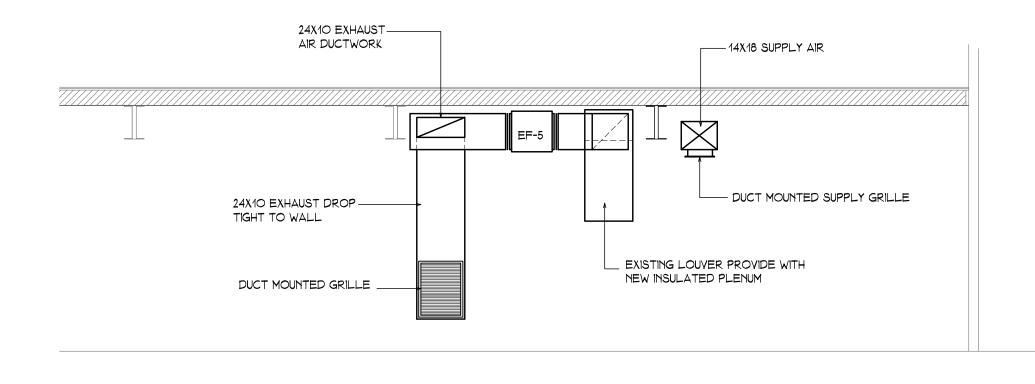
Revision: Description:

Revised By:











Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



SILVER / PETRUCELLI + ASSOCIATES

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MECHANICAL SECTIONS

Date:

5.18.18

Scale:

AS NOTED

Drawn By:

AMG

Project Number:

11.147

DUCT MOUNTED FURNACE SCHEDULE ELECTRICAL WEIGHT MANUFACTURER DIMENSION TAG SERVED CAPACITY REMARKS (LBS) AND MODEL V-PH-HZ DFU-1 AHU-1 28.1"∟ X 17.6"W X 34"H 206 1 TO 5 115/1/60 150 MBH DFS150

REMARKS:

- SUSPEND FROM STRUCTURE ELECTRONIC MODULATING GAS CONTROL WITH EXTERNAL O-10 VDC INPUT
- 3. 409 STAINLESS STEEL HEAT EXCHANGER

4. REFER TO SECTION 230993 FOR SEQUENCE OF OPERATION

5. PROVIDE WITH CONCENTIC VENT BOX

ROOF MOUNTED UNIT SCHEDULE

		EL	ECTRICA	AL .	OUT	SIDE AIR		SU	PPLY AIF	RFAN						COOLING PI	ERFORMA	ANCE			HOT GAS REF	HEAT PERFORMANCE		١	IATURAL GA	AS HEA	TING		UTSIDE		LINIT		
TAG	MANUFACTURER AND MODEL	V-PH-HZ	MCA AMP	MOCP FLA AMP AMP	FIRST MIN POSITION (BALANCING)	SECOND MIN AT MAXIMUM OCCUPANCY	MAXIMUM (ECONOMIZER)	NOMINAL TSP	IN WG	FAN SPEED RPM BHP	MOTOR HP	TYPE	COOLING OTAL BTU/HR	CAPACITY SENSIBLE BTU/HR	EAT F DB/WB	COIL LAT F	NO OF ROWS	AMBIENT F	COMPRES CAPACITY CONTROL QT		CAPACITY BTU/HR	REHEAT COIL LAT F DB/WB	INPUT MBH	OUTPUT MBH	EAT R	LAT ANGE (F)	CONTROL F		AIR FILTER	DIMENSION	UNIT WEIGHT W/O CURB WT	AREA SERVED	REMARKS
RTU-1	AAON MODEL RQ-005	208/60/1	48	70 41	170	1,000	1,700	1,700 1.63	0.75	1348 0.79	1.0	ECM	69,300			57.46/57.20	4	95	DIGITAL MODULATING	R410A 12.4	22,000	72/62.52	140	113.4	24 9	90-95	MODULATING	6-14 ME	ERV 13	82.5"L X 44.25"W X 50.5"H		EXERCISE ROOM 106	1 TO 4, 6 TO 9
RTU-2	AAON MODEL RQ-005	208/60/1	48	70 41	210	1,420	2,100	2,100 2.13	0.75	1669 1.33	2.0	ECM	76,760	49,130	81/70	58.96/58.43	6	95	DIGITAL MODULATING	R410A 12.7	30,000	72/63.12	160	129.6	24 9	90-95	MODULATING	6-14 ME	ERV 13	82.5"L X 44.25"W X 50.5"H		EXERCISE ROOM 111	1 TO 9

- REMARKS: 1. MANUFACTURER SHALL PROVIDE STANDALONE CONTROLLER AND ALL REQUIRED SENSORS TO PERFORM THE REQUIRED SEQUENCE OF OPERATION. REFER TO SECTION 230993. ALL LOW VOLTAGE WIRING SHALL BE BY DIVISION 23
 - 2. SEISMICALLY SUPPORT. PROVIDE INSULATED, SPRING ISOLATED SEISMIC CURB, 24" HIGH, CAMBRIDGEPORT OR EQUIVALENT.
 - 3. SINGLE POINT CONNECTION. MANUFACTURER SHALL PROVIDE DISCONNECT SWITCH. FACTORY WIRED GFI RECEPTACLE POWERED BY AN INDEPENDENT 120 VOLT POWER SOURCE BY DIV 26.

TAG

GFUH-1

GFUH-2

REMARKS

. SEISMICALLY SUPPORT

CATEGORY III VENTING

ROOM

. SEPARATED COMBUSTION , TUBULAR, PROPELLER

CONTROL AND A 2-STAGE LOW VOLTAGE THERMOSTAT

DISCONNECT SWITCH SHALL BE PROVIDED BY DIVISION 26. . 5" DIAMETER COMBUSTION AIR INLET, 5" FLUE SIZE DIAMETER

- 4. UNIT TO HAVE GFI RECEPTACLE POWERED BY AN INDEPENDENT 120VOLT POWER SOURCE. COORDINATE WITH DIV 26
- 5. SMOKE DETECTORS AT SUPPLY DUCTWORK AS PROVIDED BY DIV. 28, INSTALL BY DIV. 23, CONNECTION TO FIRE ALARM SYSTEM BY DIV. 28

6. UNIT SHALL BE PROVIDED WITH FULLY MODULATING HOT GAS REHEAT

- 8. UNIT MANUFACTURER TO PROVIDE CONDENSATE OVERFLOW SENSOR AT DRAIN PAN.
- 9. REFER TO SPECIFICATION SECTION FOR MORE INFORMATION

7. PROVIDE WITH DUAL ENTHALPY ECONOMIZER.

Ali	R COOLE	D CONDE	Ensing (JNIT SC	HED	ULE													
				CAPACITY			ELECTRIC	AL DATA			COMPRESSO	R	CON	DENSER F	FAN MOTO	R			
TAG	UNIT SERVED	MODEL	NOMINAL TONS	AMBIENT TEMP DB (F)	EER	VOLTS/PH/HZ	MOCP	MCA	FLA	NUMBER OF COMPRESSORS	RATED LOAD (AMP)	CAPACITY CONTROL	QTY	HP	FLA	RPM	DIMENSION	WEIGHT (LBS)	REMARKS
ACCU-1	AHU-1	AAON CBB-060	5.0	95	10.6	208/1/60	60	35	29	1	26	VARIABLE CAPACITY	1	0.33	2.8	1075	36.44"L X 37"W X 42.52"H	300	1 TO 5

REMARKS

- OF MOUNTED CURRORT RAIL MOUNT PROVID
- 5 PROVIDE INTERCONNECTING REFRIGERANT LIQUID SUCTION AND HOT GAS REHEAT

1	AIR	AIR HANDLING UNIT SCHEDULE (WITH DIRECT EXPANSION COIL)																									
				ELECT	RICAL			OUSIDE A	AIR (CFM)			SUPPI	LY FAN						DIRECT EXPAN	ISION COIL	HOT GAS R	EHEAT COIL					
s'	YMBOL	AREA SERVED	MANUFACTURER AND MODEL	V-PH-HZ	MCA AMP	MOCP AMP	1 A M/D	MIN AT MAX OCCUPANCY	MIN WHEN KEF IS RUNNING	NOMINAL CFM	TSP IN WG	ESP IN WG	RPM		OTOR BHP 1	TYPE	TC (MBH)	SC (MBH)	EAT F DB/WB	LAT F DB/WB	CAPACITY (MBH)	LAT F DB/WB	FILTER	DIMENSION	WEIGHT (LBS)	UNIT ORIENTATION	REMARKS
Δ	∖HU−1	SECOND FLOOR	AAON V3-BRB-9	208/1/60	8	15	7	455	700	1850	3.12	2.0	2326	2.3	1.69	ECM	60.41	37.95	78.9/68.1	56.97/56.55	30	72/62.1	MERV 13	62.6"L X 63"W X 70"H	931	LEFT HAND CONNECTIONS, TOP DISCHARGE, BACK INTAKE	1 TO 5
- 1																											

4. MANUFACTURER SHALL PROVIDE STANDALONE VARIABLE VOLUME CONTROLLER AND ALL REQUIRED SENSORS TO PERFORM THE

EXHAUST FAN SCHEDULE

SERVED

ELEVATOR CLOSET 104 | IN-LINE

EF-1 | WOMEN'STOILET 110

EF-7 | JAN CLOSET

EF-8 TOILET ROOM 201

EF-9 DRYER BOOSTER

EF-10 MECH ROOM 204

TF-1 DATA CLOSET 108

SUPPORT FROM STRUCTURE.

RELAYS SHALL BE BY DIVISION 23.

PROVIDE FILTER BOX WITH MERV 8 FILTER

TF-2 DATA CLOSET

SF-1 | BAY 101

REMARKS:

MEN'S TOILET 109

ELECTRICAL CLOSET

MECHANICAL CLOSET

TYPE

CEILING

CEILING

IN-LINE

CEILING

CEILING

IN-LINE

IN-LINE

IN-LINE

N-LINE

IN-LINE

IN-LINE

VOLTAGE HUMIDISTAT SHALL BE PROVIDED BY MECHANICAL CONTRACTOR

CABINET

225

150

REQUIRED SEQUENCE OF OPERATION. REFER TO SECTION 230993. ALL LOW VOLTAGE WIRING SHALL BE BY DIVISION 23

MOUNT ON A HOUSEKEEPING PLATFORM. PROVIDE WITH VIBRATION ISOLATION BETWEEN TO FIRE ALARM SYSTEM BY DIVISION 28. UNIT AND PLATFORM

(BASED ON STERLING)

24V | 1/10 | SF100

24V 1/12 GG75

ELECTRICAL

| VOLTAGE | HP

(F) IN WC VOLT/HZ/PH CONTROL MOTOR

115V/6O/1

1151/60/1

3. SMOKE DETECTOR AT SUPPLY DUCTWORK AS PROVIDED BY DIV 28, INSTALLED BY DIVISION23, CONNECTION

NOTES

1 TO 6

(LBS)

135

115/1

115/1

115/1

IN-LINE | 200 | 0.375 | 1254 | 115/1 | 1/6 | 83W | 1050 | 90SQN12D

115/1

208/1

208/1

115/1

115/1

1413 208/1

1717 208/1

900 | 115/1

1404 | 115/1

1404

874

1222

1659

1359

1030

PROVIDE CEILING FANS WITH: DISCONNECT SWITCH, WHITE ALUMINUM INTAKE GRILLE, VIBRATION ISOLATION, BACKDRAFT DAMPER, SOLID STATE SPEED CONTROLLER. INTERLOCK WIRING OF EXHAUST FAN WITH OCCUPANCY SENSOR BY DIVISION 26. OCCUPANCY SENSOR TO BE PROVIDED

VOLTAGE OUTSIDE AIR MOTORIZED DAMPER ACTUATOR WITH END SWITCH. ALL LINE VOLTAGE WIRING INTERLOCK SHALL BE BY DIVISION 26. EXHAUST AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, ELECTRONIC

DAMPER, ACTUATOR VOLTAGE SHALL BE THE SAME AS THE FAN VOLTAGE . FAN MANUFACTURER PROVIDED TEMPERATURE CONTROLLER.

INTERLOCK WITH SUPPLY FAN, SF-1. ALL LINE VOLTAGE WIRING SHALL BE BY DIVISION 26. LOW VOLTAGE WIRING FROM TRANSFORMERS AND

. EXHAUST AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, SOILD STATE FAN SPEED CONTROLLER, DUCT MOUNTED MOTORIZED DAMPER WITH LINE VOLTAGE ACTUATOR. INTERLOCK EXHAUST FAN WITH LINE VOLTAGE MOTORIZED DAMPER, LINE VOLTAGE THERMOSTAT AND LINE VOLTAGE HUMIDISTAT. INTERLOCK WIRING SHALL BE BY DIVISION 26. LINE VOLTAGE MOTORIZED DAMPER ACTUATOR SHALL HAVE THE SAME VOLTAGE AS THE EXHAUST FAN. LINE VOLTAGE THERMOSTAT AND LINE

COMMUTATION DRIVE MOTOR WITH 0-10V WIRE INPUT WITH FACTORY MOUNTED CONTROL TRANSFORMER, DUCT MOUNTED MOTORIZED

SUPPLY AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, ELECTRONIC

SHALL BE BY DIVISION 26. LOW VOLTAGE WIRING FROM TRANSFORMERS AND RELAYS SHALL BE BY DIVISION 23.

VOLTAGE TRANSFER AIR MOTORIZED DAMPER. INTERLOCKING WIRING SHALL BE BY DIVISION 26

COMMUTATION DRIVE MOTOR WITH 0-10V WIRE INPUT WITH FACTORY MOUNTED CONTROL TRANSFORMER, DUCT MOUNTED 24 V MOTORIZED DAMPER. FAN MANUFACTURER PROVIDED TEMPERATURE CONTROLLER. INTERLOCK WITH EXHAUST FAN, EF-5. ALL LINE VOLTAGE WIRING

B. CEILING MOUNTED TRANSFER FAN. PROVIDE WITH: DISCONNECT SWITCH, WHITE ALUMINUM INTAKE GRILLE, VIBRATION ISOLATION, BACKDRAFT

DAMPER, SOLID STATE SPEED CONTROLLER. INTERLOCK TRANSFER FAN WITH LINE VOLTAGE REVERSE ACTING THERMOSTAT AND LINE

. PROVIDE CEILING FAN WITH: DISCONNECT SWITCH, WHITE ALUMINUM INTAKE GRILLE, VIBRATION ISOLATION, BACKDRAFT DAMPER, SOLID STATE

PROVIDE CEILING FAN WITH: DISCONNECT SWITCH, WHITE ALUMINUM INTAKE GRILLE, VIBRATION ISOLATION, BACKDRAFT DAMPER, SOLID STATE

SPEED CONTROLLER. INTERLOCK EXHAUST FAN WITH WALL SWITCH AS PROVIDED BY DIVISION 26. INTERLOCK WIRING SHALL BE PROVIDED BY

SPEED CONTROLLER. INTERLOCK EXHAUST FAN WITH WALL SWITCH AS PROVIDED BY DIVISION 26. INTERLOCK WIRING SHALL BE PROVIDED BY

EXHAUST AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, SOLID STATE FAN SPEED CONTROLLER, DUCT MOUNTED GRAVITY BACKDRAFT DAMPER. INTERLOCK WITH REVERSE ACTING LINE VOLTAGE THERMOSTAT AND 2-POSITION LINE

ELECTRICAL

77.6W

69W

33.1W

33.1W

69W

0.5

86.6W

76.1W

HP POWER

1/6 | 83W

(BASED ON LOREN COOK)

1331

874

1254

STATIC

PRESS

(IM. WG.)

0.375

0.375

0.375

0.375

0.375

0.20

0.375

0.375

0.50

0.25

200 0.375

950

2100

200 0.25

1100 0.50

5. REFER TO SPECIFICATION SECTION FOR MORE INFORMATION

MOTOR

MODEL

DBF4XLT-705

1725 | 120SQN17DEC | 7/7.7

GC-422

- GC-186

1050 | 90SQN12D

3/4 581W 1725 135SQN17DEC 15.6/16.2

3/4 | 527W | 1725 | 135SQN17DEC | 14.7/15

1/2 | 198W | 1725 | 120SQN17DEC | 8.4/9.2

| 1/6 | 83W | 1050 | 90SQN12D

SONES

3.9/4.8

3.9/4.8

INLET/OUTLET NOTES

1,15,16

1.	MOUNT ON ROOF MOUNTED SUPPORT RAIL AS PROVIDED BY DIVISION 23 AND INSTALLED UNDER DIVISION 7	 COMPRESSOR WITH INTERNAL OVER TEMPERATURE AND PRESSURE PROTECTION. HERMETIC MOTOR. PROVIDE WITH SOUND BLANKET 	 PROVIDE INTERCONNECTING REFRIGERANT LIQUID, SUCTION AND HOT GAS R PIPING. REFER TO MANUFACTURER'S MANUAL FOR SIZES BASED ON ROUTING SHOWN ON DRAWING
;	2. DISCONNECT SWITCH BY DIVISION 26.	4. PROVIDE WITH MODULATING HT GAS REHEAT OPTION	

	ECTRIC HEA					(B)	ASED ON IN	DEECO)	
TAG	LOCATION	CFM	AIR TEMP RISE (F)	WATTS	CAPACITY (BTUH)	VOLT/PH	TOTAL AMPS	MODEL	REMARKS
EWH-1	STAIRS#1	160	30	1500	5,100	208/1	7.6	WAI SERIES	1,2,3,6
EWH-2	WOMEN'S TLT110	160	30	1500	5,100	2087/1	7.6	WAI SERIES	1,2,3,6
EWH-3	MEN'S TOILET 109	160	30	1500	5,100	208/1	7.6	WAI SERIES	1,2,3,6
EWH-4	ENTRANCE	160	45	2250	7,600	2087/1	11.2	WAI SERIES	1,2,5,6
EWH-5	DATA CLOSET 108	160	30	1125	3,800	208/1	5.8	WAI SERIES	1,2,3,6
EWH-6	MECHANICAL CLOSET 204	160	30	1125	3,800	208/1	5.8	WAI SERIES	1,2,3,6
EUH-1	ELECTRICAL CLOSET 112	300	24	2250	7,600	208/1	11.2	ULI SERIES	1,2,4
EUH-2	MECHANICAL CLOSET 113	300	24	2250	7,600	208/1	11.2	ULI SERIES	1,2,4

- 1. DISCONNECT SWITCH BY MANUFACTURER
- 4. MANUFACTURER TO PROVIDE BRACKETS
- 3. MANUFACTURER TO PROVIDE SURFACE MOUNTING FRAME
- 2. MANUFACTURER TO PROVIDE UNIT MOUNTED THERMOSTAT 5. MANUFACTURER TO PROVIDE 2" SEMI RECESSED TRIM KIT. 6. COLOR TO BE SELECTED BY THE ARCHITECT

KITCHEN EXHAUST HOOD												
		OVERALL	DIMENSIO	(NI) MC	VOLUME	SP (IN	EXHAUST DUCT					
TAG	TYPE	LENGTH	WIDTH	HEIGHT	(CFM)	WG)	SIZE (IN)	WEIGHT	REMARKS			
KEH-1	TYPE 1, BAFFLE FILTER EXHAUST ONLY WALL CANOPY, GREENHECK MODEL GHEW	42	48	24	700	0.423	9 X 7	124 LBS	1 TO 8			
REMARK	S:	<u>'</u>	•		'			1				

DRAWING FOR MORE INFORMATION

- UL LISTED 18 GA STAINLESS STEEL
- PROVIDE WITH ALUMINUM FILTERS

KITCHEN EXHAUST FAN

- 4 REFER TO MANUFACTURER'S RECOMMENDATION FOR MOUNTING HEIGHT
- 5 PROVIDE WITH GREASE CUP MOUNTED ON RIGHT END OF THE HOOD 6 PROVIDE WITH INTEGRAL 3" AIR SPACE ON BACK OF HOOD
- 7 PROVIDE WITH PREWIRED MANUFACTURER PROVIDED KITCHEN FAN CONTROL CENTER 8 PROVIDE WITH ANSUL R-102, HOOD FIRE SUPPRESSION SYSTEM. REFER TO PLUMBING

| ELECTRICAL MANUFACTURER/ TSP FAN RPM | MOTOR | TYPE REMARKS MODEL WEIGHT VOLTS/ | HP | (CFM) (IN WG) RPM KEF-1 IN-LINE CENTRIFUGAL FAN GREENHECK MODEL 170 LBS 700 208/3 | 1/2 | 1725 1.25 2115 1 TO 7 TCB 1-09 REMARKS:

2 CONTINOUSLY WELDED STEEL

- 3 PROVIDE MOTOR WITH CLASS F OR HIGHER INSULATION 4 FACTORY PROVIDED DISCONNECT SWITCH
- 5 MECHANICAL CONTRACTOR TO PROVIDE WITH VFD

5. CONDENSATE DRAIN SHALL BE BY DIVISION 22. COORDINATE REQUIREMENTS

- 6 PROVIDE FAN WITH 1" DRAIN CONNECTION
- 7 PROVIDE GREASE TRAP WITH DRAIN CONNECTION AND ABSORBENT MATERIAL, FOR REMOTE MOUNTING

2.	22.5 DEGREE, DOUBLE DEFLECTION ADJUSTABLE BLADES V
	THE SHORT DIMENSION OF THE REGISTER, RADIUSED ENDCA
	SPIRAL DUCTWORK WITH 1-INCH THICK INSULATION. PROVIDE
	DAMPER/EXTRACTOR.

- 22.5 DEGREE DEFLECTION. PROVIDE WITH OPPOSED BLADE DAMPER. PROVIDE SHORT TAKEOFF FOR DUCT MOUNTED REGISTER 4. DUCT MOUNTED. DOUBLE DEFLECTION
- SINGLE DEFLECTION. SURFACE MOUNTED. MECHANICAL CONTRACTOR ADJUST BLADES TO BLOW

BEVEL DROP FACE. PROVIDE BORDER FOR SURFACE MOUNT. COORDINATE LOCATION WITH

REMARKS:

DELIVERY CAPACITY CAPACITY RISE PRESSURE

GAS FIRED UNIT HEATER SCHEDULE

FREE AIR | INPUT | OUTPUT

CFM (BTUH) (BTUH)

BAY 1 STORAGE 1600 100,000 83,000 47 6-7

PROVIDE WITH 2-STAGE GAS CONTROLS WITH A 2-STAGE COMBINATION GAS

920 | 90,000 | 73,800 | 60 |

2. DISCONNECT SWITCH SHALL BE PROVIDED BY DIVISION 26.

TOWARDS CORRIDOR SINGLE DEFLECTION. LAY-IN.

ALUMINUM CONSTRUCTION

- 35 DEGREE FIXED DEFLECTION. SURFACE MOUNT
- ZERO DEGREE FIXED DEFLECTION. DUCT MOUNTED
- 10. SURFACE MOUNT, ZERO DEGREE DEFLECTION
- ARCHITECTURAL PLAN. DIFFUSER AIR PATTERN AS INDICATED ON DRAWING
- PROVIDE BORDER FOR SURFACE MOUNT. PROVIDE WITH INSULATED BACK PANEL. COORDINATE LOCATION WITH ARCHITECTURAL PLAN.

7.	LOW PROFILE, SEPARATED COMBUSTION, PROVIDE WITH SINGLE STAGE GAS CONTROLS WITH A SINGLE STAGE COMBINATION GAS CONTROL AND A SINGLE STAGE LOW VOLTAGE THERMOSTAT, CONCENTRIC VENT KIT	

OVERALL | OVERALL | WEIGHT

WIDTH DEPTH

43-1/2

26-3/16

DIMENSION (INCHES)

33-3/4 25-1/4

16-13/16 30

HEIGHT

TAG	MODULE SIZE	SIZE	NECK SIZE	TYPE	CFM	MAX TOTAL PRESSURE	MAX NC	MAX NECK VEL	MANUFACTURER	REMARKS
	SIZE					(IN. WG)		(FPM)	∉ MODEL NO.	
А	-	18 X 6	18 X 6	SPIRAL DUCT MOUNTED REGISTER	UP TO 300	0.117	15	400	TITUS MODEL S300FS	1, 2
В	-	30 X 12	30 X 12	SURFACE MOUNT SUPPLY GRILLE	900-1100	0.033	20	400	TITUS MODEL 300FL	1, 3
С	-	10	10	ROUND DUCT MOUNTED	UP TO 300	0.096	15	400	SEIHO MODEL RHV	1, 4
D	-	18 X 10	18 X 10	CEILING GRILLE- SURFACE MOUNTED	200-250	0.018	12	300	TITUS MODEL 301FL	1, 5
E	24 X 8	22 X 6	22 X 6	CEILING GRILLE- LAY IN	200-250	0.018	12	300	TITUS MODEL 301FL	1, 6
F	-	12 X 10	12 X 10	SURFACE MOUNT SIDEWALL GRILLE	UP TO 200	0.018	12	300	TITUS MODEL 301FL	1, 5
G	24 X 24	12 X 12	12 X 12	LAY-IN CEILING GRILLE	UP TO 250	0.018	12	300	TITUS MODEL 301FL	1, 9
Н	-	22 X 8	22 X 8	REVERSIBLE CORE NARROW BLADE GRILLE	UP TO 400	0.018	12	500	TITUS MODEL 1700L	10
J	6 X 6	6 X 6	6"	SURFACE MOUNT CEILING DIFFUSER	UP TO 100	0.018	16	400	TITUS MODEL TDC-AA	1, 11, 12
K	12 X 12	12 X 12	8"	SQUARE CEILING DIFFUSER	99-200	0.030	15	450	TITUS MODEL TMS-AA	1, 13
L	20 X 20	20 X 20	10"	SQUARE CEILING DIFFUSER	220-327	0.045	17	600	TITUS MODEL TMS-AA	1, 13
М	9 X 9	9 X 9	8"	SURFACE MOUNT CEILING DIFFUSER	101 TO 175	0.104	16	400	TITUS MODEL TDC-AA	1, 11, 12
ДД	-	12 X 12	12 X 12	SURFACE MOUNTED GRILLE	150- 250	0.019	15	300	TITUS MODEL 350FL	1, 7
ВВ	-	12 X 10	12 X 10	SURFACE MOUNTED GRILLE	UP TO 200	0.018	12	300	TITUS MODEL 350FL	1, 7
CC	-	30 X 16	30 X 16	SURFACE MOUNTED GRILLE	1000 - 1300	0.071	15	400	TITUS MODEL 350ZFL	1, 8
DD	-	36 X 16	36 X 16	SURFACE MOUNTED GRILLE	1301 - 2000	0.071	18	450	TITUS MODEL 350ZFL	1, 8
EE	-	22 X 24	22 X 24	SURFACE MOUNTED GRILLE	1000 TO 1200	0.045	15	400	TITUS MODEL 350FS	1, 7
FF	-	8 X 8	8 X 8	CEILING GRILLE	150- 200	0.019	15	300	TITUS MODEL 350FL	1, 7
GG	-	12 X 6	12 X 6	SURFACE MOUNTED GRILLE	-	-	-	-	TITUS MODEL 350FL	1, 7
НН	-	36X12	36X12	SURFACE MOUNTED GRILLE	800 TO 1200	0.045	15	400	TITUS MODEL 350FS	1, 7

LEGEND: SUPPLY TAG -X #- PATTERN: WITH FRONT BLADES PARALLEL TO CAPS, TO BE USED FOR DOUBLE WALL 1-WAY E WITH AIR SCOOP 2-WAY

> C-CORNER RETURN TAG<u>···X</u>

> > Revised By:

3-WAY

DIVISION 26.

DIVISION 26 . PROVIDE WITH WALL CAP AND BUILT IN BIRDSCREEN AND DAMPER . UL 705 DRYER BOOSTER. PROVIDE WITH GALVANIZED LINT TRAP, PRESSURE SENSING SWITCH, TEMPERATURE LIMIT SWITCH AND UNIT PROVIDE FAST CLAMPS FOR EASY INSTALLATION AND MAINTENANCE. INTERLOCK WIRING SHALL BE PROVIDED BY DIVISION 26.

. RELIEF AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, ELECTRONIC COMMUTATION DRIVE MOTOR WITH 0-10V WIRE INPUT WITH FACTORY MOUNTED CONTROL TRANSFORMER, DUCT MOUNTED 24 V MOTORIZED DAMPER, FAN MANUFACTURER PROVIDED TEMPERATURE CONTROLLER. INTERLOCK WITH EXHAUST FAN, EF-5. ALL LINE VOLTAGE WIRING SHALL BE BY DIVISION 26. LOW VOLTAGE WIRING FROM TRANSFORMERS AND RELAYS SHALL BE BY DIVISION 23.

13. INTERLOCK WITH AHU-1. REFER TO 23 09 93 FOR SEQUENCE OF OPERATION.

4. EXHAUST AIR DIRECT DRIVE IN-LINE FAN, PROVIDE WITH: DISCONNECT SWITCH, FAN HOUSING WITH 0.5-INCH THICK INSULATION, SOILD STATE FAN SPEED CONTROLLER, DUCT MOUNTED MOTORIZED DAMPER WITH LINE VOLTAGE ACTUATOR. INTERLOCK EXHAUST FAN WITH LINE VOLTAGE MOTORIZED DAMPER AND LINE VOLTAGE THERMOSTAT. INTERLOCK WIRING SHALL BE BY DIVISION 26. LINE VOLTAGE MOTORIZED DAMPER ACTUATOR SHALL HAVE THE SAME VOLTAGE AS THE EXHAUST FAN. LINE VOLTAGE THERMOSTAT SHALL BE PROVIDED BY MECHANICAL

5. INTERLOCK WITH LINE VOLTAGE OUTSIDE AIR DAMPER. LINE VOLTAGE INTERLOCKS SHALL BE BE DIVISION 26. REFER TO 23 09 93 FOR SEQUENCE OF

16. INTERLOCK WITH LIGHT SWITCH. INTERLOCK WIRING SHALL BE PROVIDED BY DIV 26.

PROVIDE CEILING FANS WITH: DISCONNECT SWITCH, WHITE ALUMINUM INTAKE GRILLE, VIBRATION ISOLATION, BACKDRAFT DAMPER, SOLID STATE SPEED CONTROLLER. INTERLOCK WITH LIGHT SWITCH AND CO SENSOR AS PROVIDED BY DIVISION 26. INTERLOCK WITH LLINE VOLTAGE OUTSIDE AIR DAMPER. INTERLOCK WIRING SHALL BE BY DIVISION 26.

TAG	LOCATION	MANUFACTURER/ MODEL	ELECTRICAL RATING	BLOWER	CAPACITY AT 80F, 60%RH (PINTS/DAY)	FILTER	DRAIN CONNECTION	WEIGHT (LBS)	REMARKS
DH-1	BAY#1 STORAGE ROOM	HONEYWELL TRUEDRY90	120V/60HZ/1PH 6.3 AMP	230 CFM AT 0.2 "WG ESP	90	MERV 8 MINIMUM	3/4	100	1 TO 5

Description: Revision: SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers

3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com

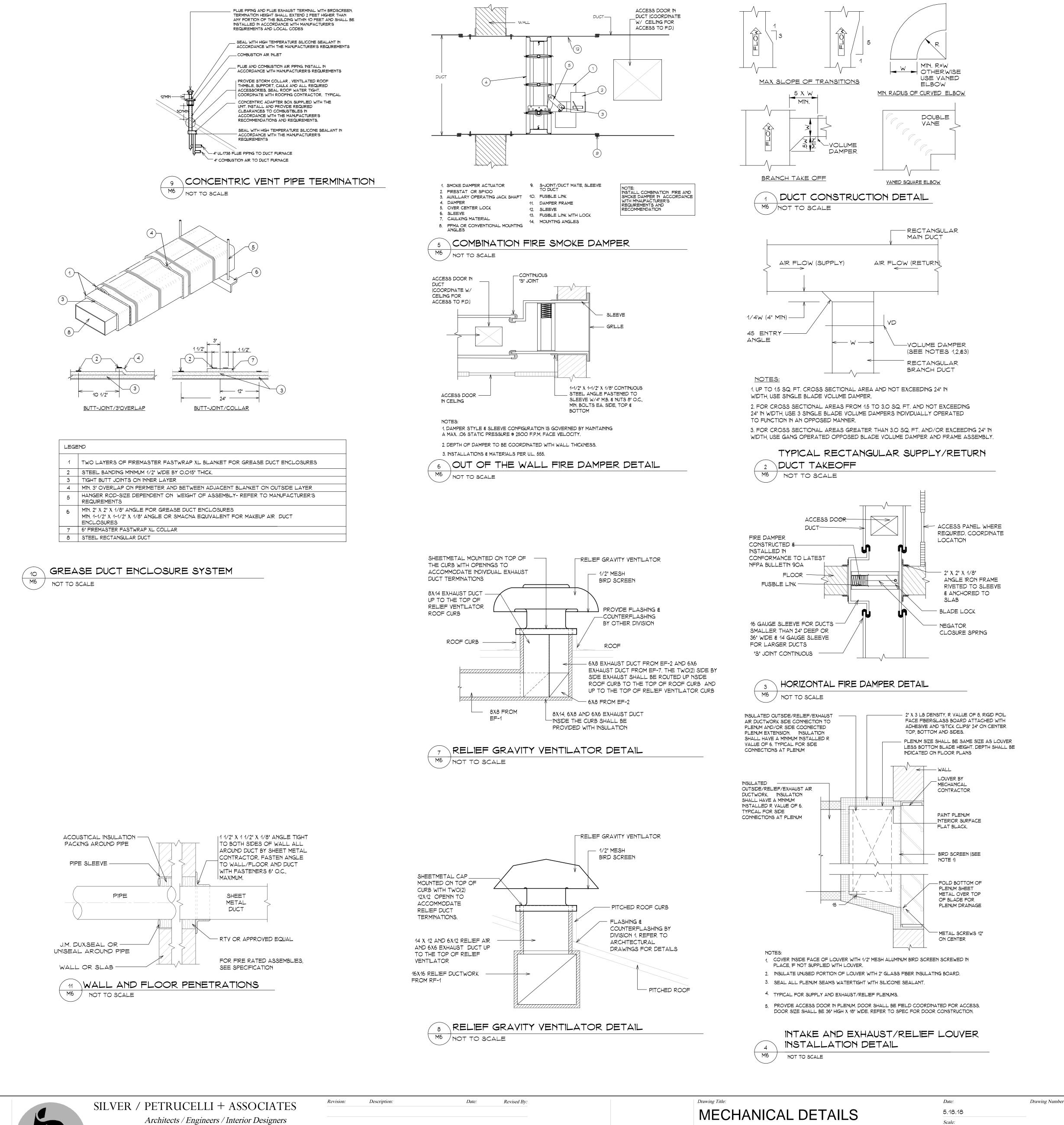
Drawing Title:	Date:
MECHANICAL SCHEDULES	5.18
WILOT IN TIMO AL GOTTLE DOLLO	Scale
	NON
	Drawi

Drawing Number: AMG Project Number: 11.147

Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525

PROVIDE WITH HUMIDISTAT

3. PROVIDE WITH POWER CORD, PLUG TYPE



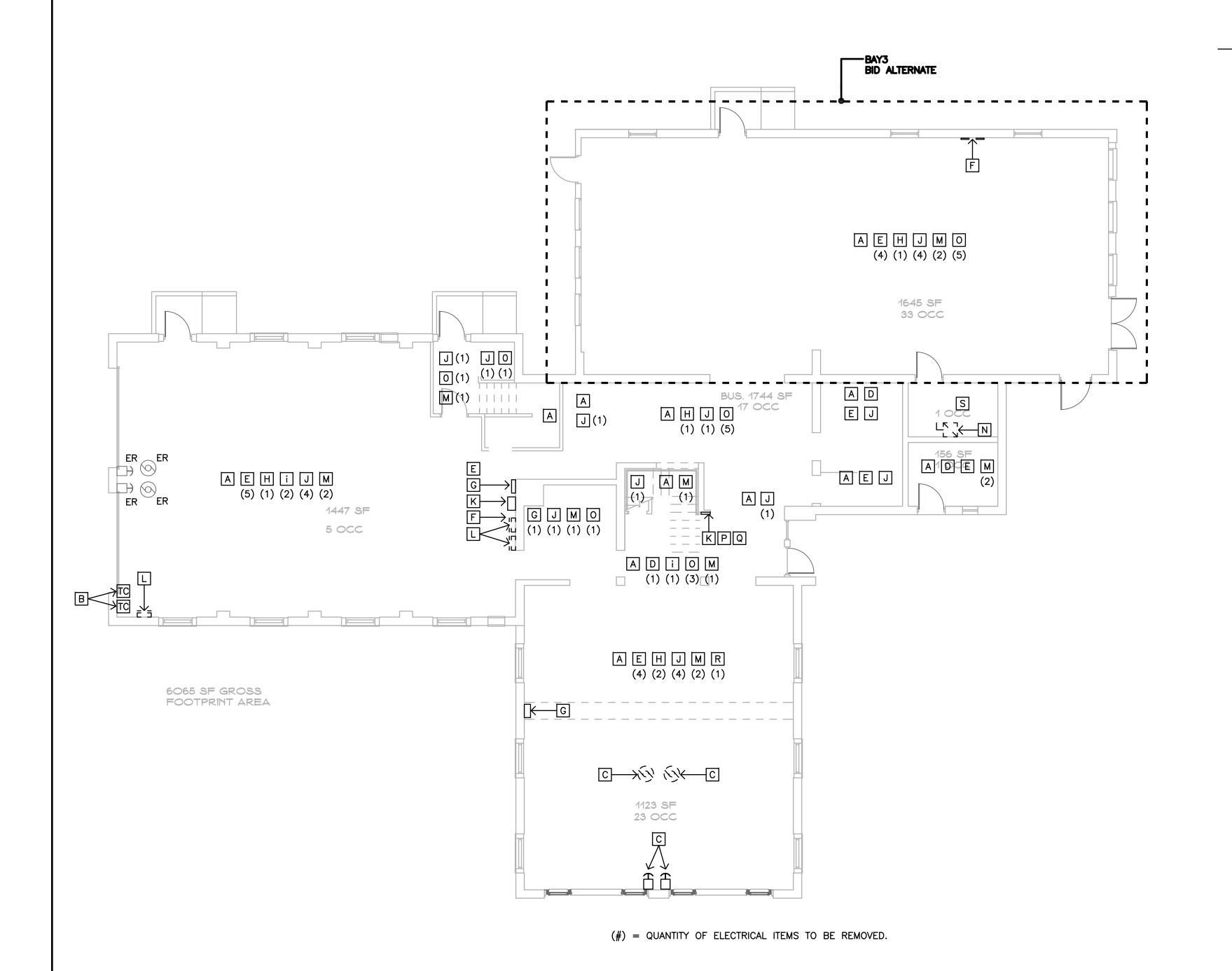
Renovations to: Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525

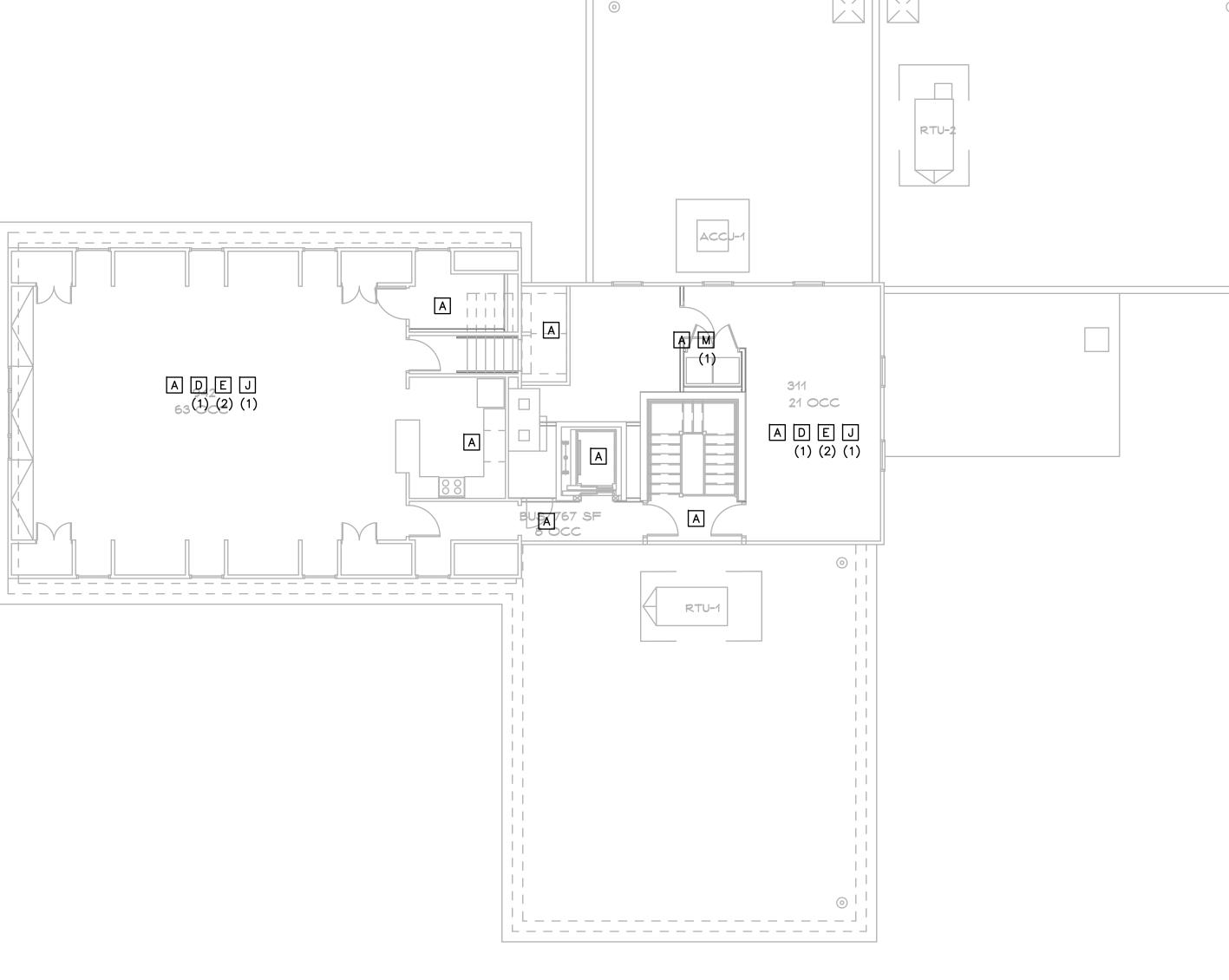


Architects / Engineers / Interior Designers

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Drawing Number: M6 NONE Drawn By: AMG Project Number: 11.147





(#) = QUANTITY OF ELECTRICAL ITEMS TO BE REMOVED.





DEMOLITION KEY NOTES

- DISCONNECT & REMOVE (UNLESS OTHERWISE INDICATED) THE FOLLOWING:
- A TEMPORARY LIGHTING ASSOCIATED WIRING AND CONDUIT BACK TO
- B LIGHTING TIME CLOCK ASSOCIATED WIRING AND CONDUIT BACK TO
- OVERHEAD DOOR ASSOCIATED CONTROL, WIRING AND CONDUIT BACK TO SOURCE.
- TO SOURCE.

 D TOGGLE SWITCH ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- E RECEPTACLES ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- F TELEPHONE TERMINATION SYSTEM AND ASSOCIATED WIRING.
- G CONTROLLERS ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- H FIRE ALARM HORN/STROBE DEVICES ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- FIRE ALARM PULL STATION ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- J HEAT DETECTOR ASSOCIATED WIRING BACK TO SOURCE.
- K FIRE ALARM CONTROL PANEL, REMOTE ANNUNCIATOR ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
- L ELECTRICAL PANELBOARD ASSOCIATED FEEDER AND CONDUIT BACK TO
- ALL HVAC/PLUMBING ELECTRICAL CONNECTION INCLUDED BUT NOT LIMITED TO SAFETY DISCONNECT SWITCH, WIRING, AND CONDUIT OF MECHANICAL, AND PLUMBING EQUIPMENT WITHIN ROOM. REFER TO MECHANICAL DRAWINGS FOR EXISTING LOCATION OF EQUIPMENT TO BE REMOVED.
- N ENCLOSURE CIRCUIT BREAKER ASSOCIATED FEEDER AND CONDUIT BACK TO SOURCE.
- O WALL RECESSED BACK BOX AND ASSOCIATED CONDUIT.
- P EXISTING GENERATOR REMOTE ANNOUNCIATOR TO BE REMOVED AND RELOCATED. REFER TO NEW WORK FOR NEW LOCATION. CONTRACTOR TO EXTEND WIRING AND CONDUIT AS REQUIRED.
- Q SECURITY KEYPAD ASSOCIATED WIRING BACK TO SOURCE.
- R CLOCK ASSOCIATED WIRING BACK TO SOURCE.
- S REFER TO ONE LINE RISER DIAGRAM DEMOLITION ON SHEET E-4 FOR ADDITIONAL INFORMATION.

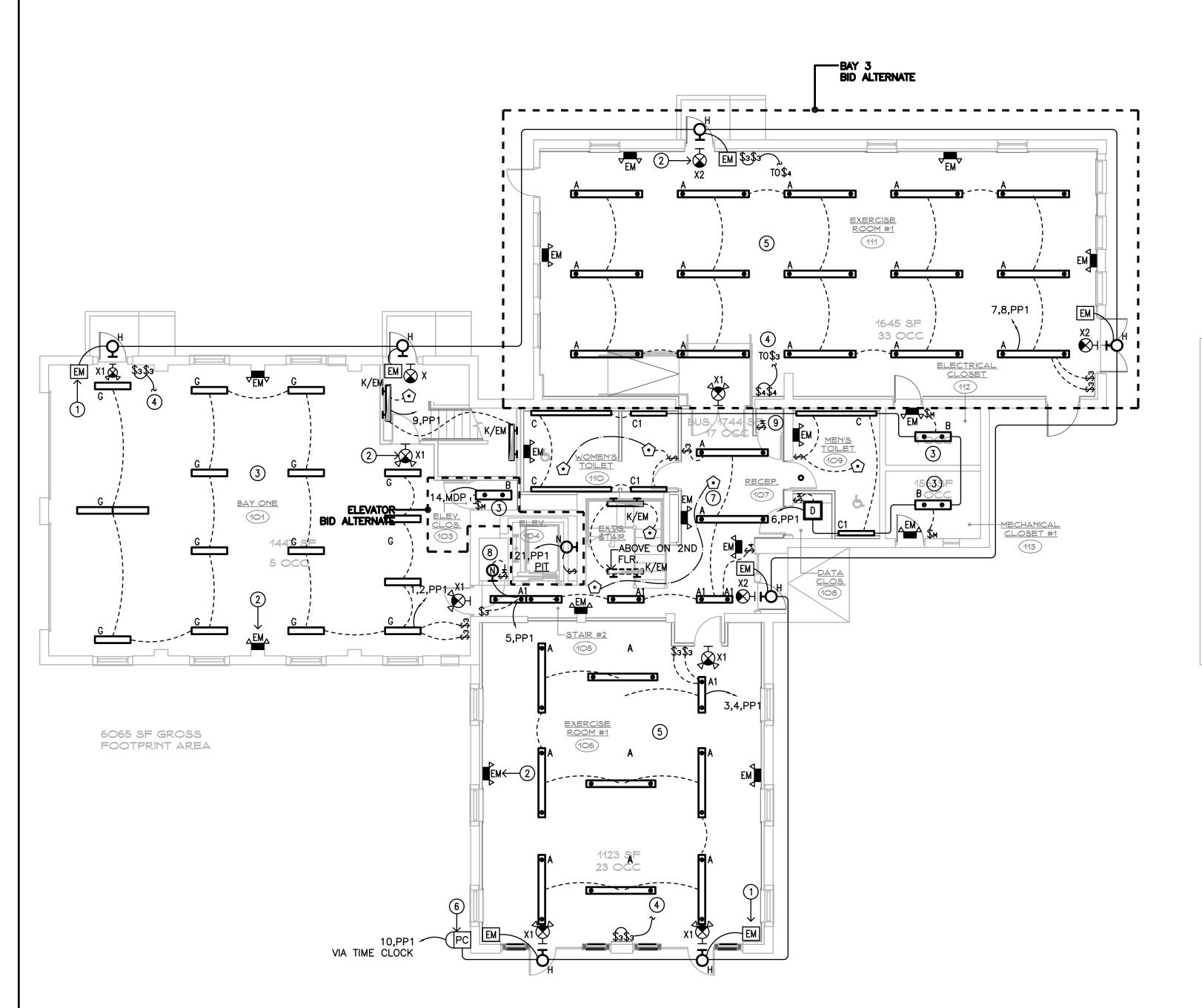
DEMOLITION GENERAL NOTES

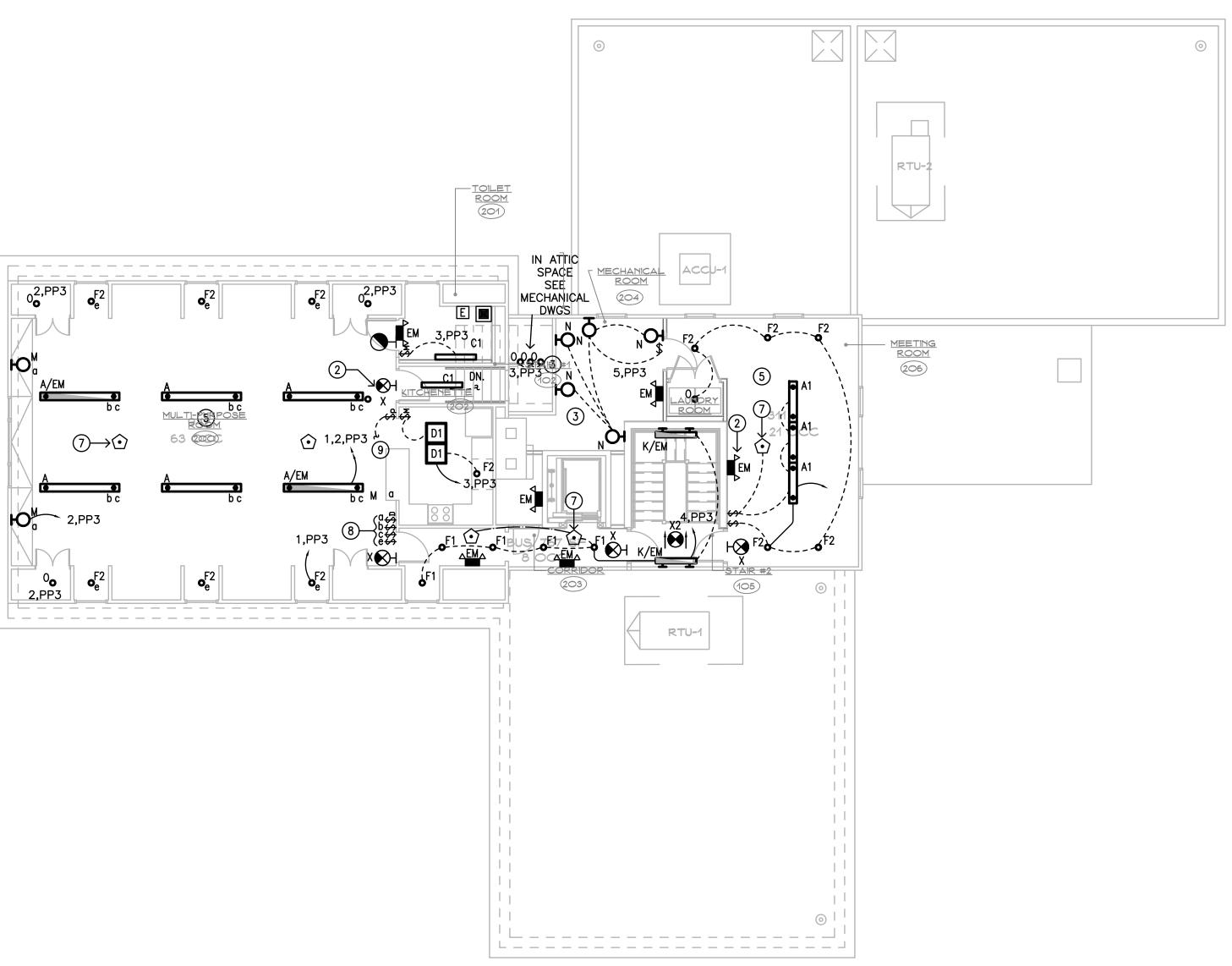
- ELECTRICAL DEMOLITION TO BE SUPERVISED BY LICENSED ELECTRICAL CONTRACTOR. EACH CIRCUIT SHALL BE VERIFIED "COLD" & DISCONNECTED FROM ELECTRICAL SERVICE PRIOR TO COMMENCING REMOVAL.
- REMOVE EXISTING ELECTRICAL EQUIPMENT & MATERIALS AS REQUIRED TO ACCOMODATE ARCHITECTURAL WORK AND AS SPECIFICALLY NOTED ON THE DEMOLITION DRAWINGS.
- ALL MATERIALS BEING REMOVED SHALL BE HANDLED IN A MANNER COMPLYING WITH ALL PERTINENT LAWS, CODES AND ENVIRONMENTAL REGULATIONS.
- 4. WHERE ELECTRICAL EQUIPMENT & DEVICES ARE BEING REMOVED, COORDINATE AND FIELD VERIFY IF BRANCH CIRCUIT FEEDS THROUGH TO EQUIPMENT/DEVICES TO REMAIN. BRANCH CIRCUITS SHALL BE SPLICED OR RELOCATED TO MAINTAIN CONTINUATION OF SERVICES.
- 5. WHERE EXISTING DEVICES ARE REMOVED & NO NEW DEVICES ARE INSTALLED IN THE SAME LOCATION, REMOVE ALL WIRING FROM BOX & PROVIDE PROPERLY SIZED BLANK COVER PLATE.
- CONTRACTOR SHALL REMOVE ALL FLUORESCENT LIGHT FIXTURE BALLASTS & IDENTIFY THOSE CONTAINING PCB'S. THESE SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL.
- ALL REMOVED COMPONENTS SHALL BE LEGALLY DISPOSED OF BY CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- 8. ELECTRICAL COMPONENTS SHOWN ON THE DEMOLITION DRAWINGS, AND THE ASSOCIATED CONDUIT, WIRE & BOXES ARE TO BE REMOVED AND DISPOSED OF UNLESS SPECIFICALLY NOTED OTHERWISE.

Revision: Description:

Date: Revised By:

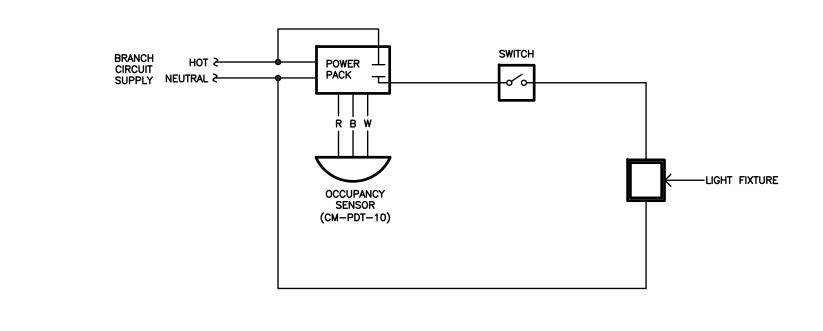
11.147







ELECTRICAL SECOND FLOOR LIGHTING PLAN



CEILING MULTIPLE OCCUPANCY SENSOR DETAIL © ©

NOTE

EXACT QUANTITY OF DEVICES MAY DIFFER FROM THIS DETAIL CONTRACTOR SHALL PROVIDE ACTUAL QUANTITY REQUIRED. REFER TO LIGHTING FLOOR PLAN.

CEILING OCCUPANCY SENSOR DETAIL ©

SCALE: NON NOTE:

Revision: Description:

EXACT QUANTITY OF DEVICES MAY DIFFER FROM THIS DETAIL CONTRACTOR SHALL PROVIDE ACTUAL QUANTITY REQUIRED. REFER TO LIGHTING FLOOR PLAN.

Date: Revised By:

Renovations to:
Old Woodbridge Fire Station
4 Newton Road
Woodbridge, Connecticut 06525



SILVER / PETRUCELLI + ASSOCIATES

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ELECTRICAL LIGHTING FLOOR PLAN

Date:

Drawing Number:

5.18.18

Scale:

AS NOTED

Drawn By:

JRP/PJE LC

Project Number: **11.147**

CONTRACTOR TO PROVIDE ADDITIONAL LIGHT FIXTURE "TYPE-N" AND WALL MOTION SENSOR SWITCH IN SECOND FLOOR AT SAME LOCATION. INTERCONNECT WITH SAME LIGHTING BRANCH CIRCUIT.

 CONTRACTOR TO INTERCONNECT WALL MOTION SENSOR SWITCH WITH EXHAUST FAN EF-7. COORDINATE CONNECTION WITH EQUIPMENT AND PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE MANUFACTURER APPROVED/OPERATIONAL INSTALLATION.

1 REMOTE EMERGENCY BATTERY PACK TO SUIT EXTERIOR EMERGENCY LIGHT.

TO LIGHTING SCHEDULE TYPE-H FOR UNIT PART NUMBER. TYPICAL.

MECHANICAL/PLUMBING SYSTEM IN THE FIELD. VERIFY LUMINAIRE MOUNTING

4 3/4"C, 2#12, 1#12G. FROM EACH THREE WAY SWITCH TO CORRESPONDING

FINISH FLOOR TO THE BOTTOM OF LUMINAIRE. VERIFY LUMINAIRE MOUNTING

(6) PHOTOCELL TO BE LOCATED ON SOUTHERN EXPOSURE. MOUNT ON WALL JUST

(7) CEILING MOUNTED OCCUPANCY SENSOR. CONTRACTOR TO COORDINATE LOCATION IN THE FIELD.

(5) CONTRACTOR SHALL COORDINATE ALL LUMINAIRE LOCATION WITH ARCHITECTURAL/STRUCTURE AND MECHANICAL/PLUMBING SYSTEM IN THE FIELD. LUMINAIRE SHALL BE INSTALL AT 8'-0" FROM

TO LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.

TO LIGHTING SCHEDULE FOR ADDITIONAL INFORMATION.

TO CONTACT DIAGRAM FOR ADDITIONAL INFORMATION.

ADDITIONAL INFORMATION. (TYPICAL).

GENERAL NOTES - ELECTRICAL

THREE WAY SWITCH AT OPPOSITE END OF ROOM

CIRCUIT AHEAD OF SWITCHING DEVICE. TYPICAL.

COORDINATE MOUNTING LOCATION IN THE FIELD. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE MANUFACTURER APPROVED INSTALLATION. REFER

(2) CONTRACTOR SHALL CONNECT EXIT SIGN AND EMERGENCY WALL PACK TO LOCAL LIGHTING BRANCH

(3) CONTRACTOR SHALL COORDINATE ALL LUMINAIRE LOCATION WITH ARCHITECTURAL STRUCTURE AND

REQUIREMENTS FOR CEILING TYPE AND ORDER APPROPRIATE HARDWARE. REFER

REQUIREMENTS FOR CEILING TYPE AND ORDER APPROPRIATE HARDWARE. REFER

BELOW ROOF. CONTRACTOR SHALL VERIFY CONSTRUCTION AND EXACT CONDITIONS IN FIELD. REFER

WIRE AND MOUNT AS PER MANUFACTURER REQUIREMENTS. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE MANUFACTURER APPROVED INSTALLATION. REFER TO WIRING DIAGRAM DETAIL FOR

 SPECIFICATION SECTIONS, GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS AND DRAWINGS ARE INTEGRAL PARTS OF CONTRACT DOCUMENTS.

KEY NOTES

 SYSTEM COMPONENTS ARE LOCATED APPROXIMATELY ON DRAWINGS. BASE ACTUAL LOCATIONS ON FIELD VERIFICATION OF EXISTING BUILDING CHARACTERISTICS INCLUDING BUT NOT LIMITED TO STRUCTURAL, MECHANICAL, ELECTRICAL & ARCHITECTURAL COMPONENTS.

3. ALL WORK AND ACTION DEPICTED AND DESCRIBED IN CONTRACT DOCUMENTS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

4. REFERENCE TO SPECIFIC SUB—CONTRACTORS SUCH AS "MECHANICAL", "ELECTRICAL" ETC. ARE INTENDED TO SUGGEST POSSIBLE DIVISION OF RESPONSIBILITY. PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND EXECUTION OF ALL WORK.

5. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.

6. ALL EQUIPMENT, MATERIALS AND RELATED SYSTEM COMPONENTS SHALL BE NEW UNLESS NOTED OTHERWISE.

7. REPAIR AND REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.

8. CIRCUITING DEPICTED FOR LIGHTING FIXTURES DEFINES GROUPING OF FIXTURES, DEVICES AND COMPONENTS AND REQUIRED CONDUCTORS. CIRCUITING IS <u>NOT</u> INTENDED TO DEFINE CONDUIT LOCATIONS.

9. STUDY THE PROJECT MANUAL & DRAWINGS OF OTHER DISCIPLINES INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL & MECHANICAL.

10. ELECTRICAL CONDUITS & BOXES SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS WHEREVER POSSIBLE.

 ALL PENETRATIONS THRU RATED WALLS & CEILINGS SHALL BE SEALED USING U.L. LISTED METHODS APPROPRIATE FOR INDICATED RATING.

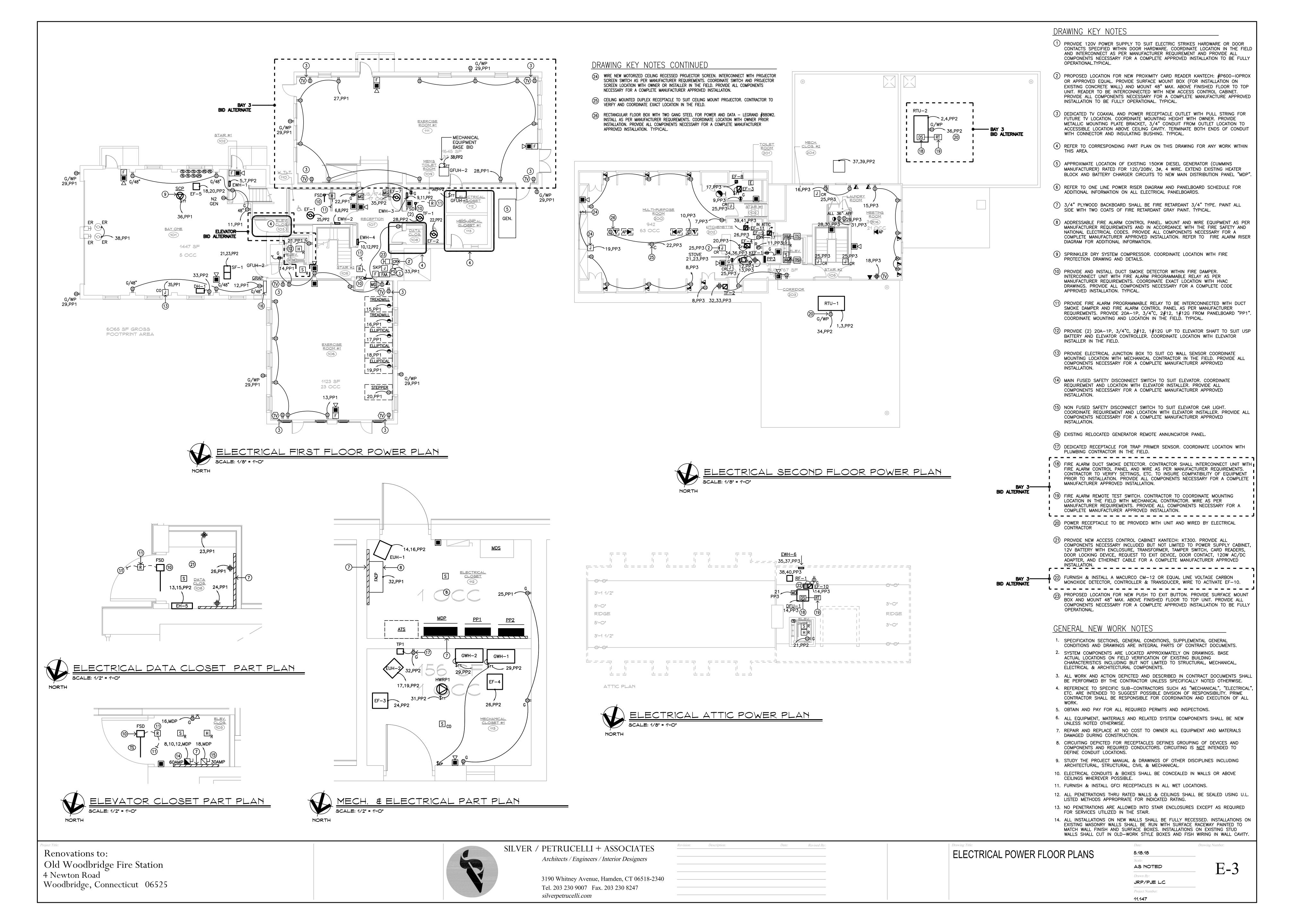
12. NO PENETRATIONS ARE ALLOWED INTO STAIR ENCLOSURES EXCEPT AS REQUIRED FOR SERVICES UTILIZED IN THE STAIR.

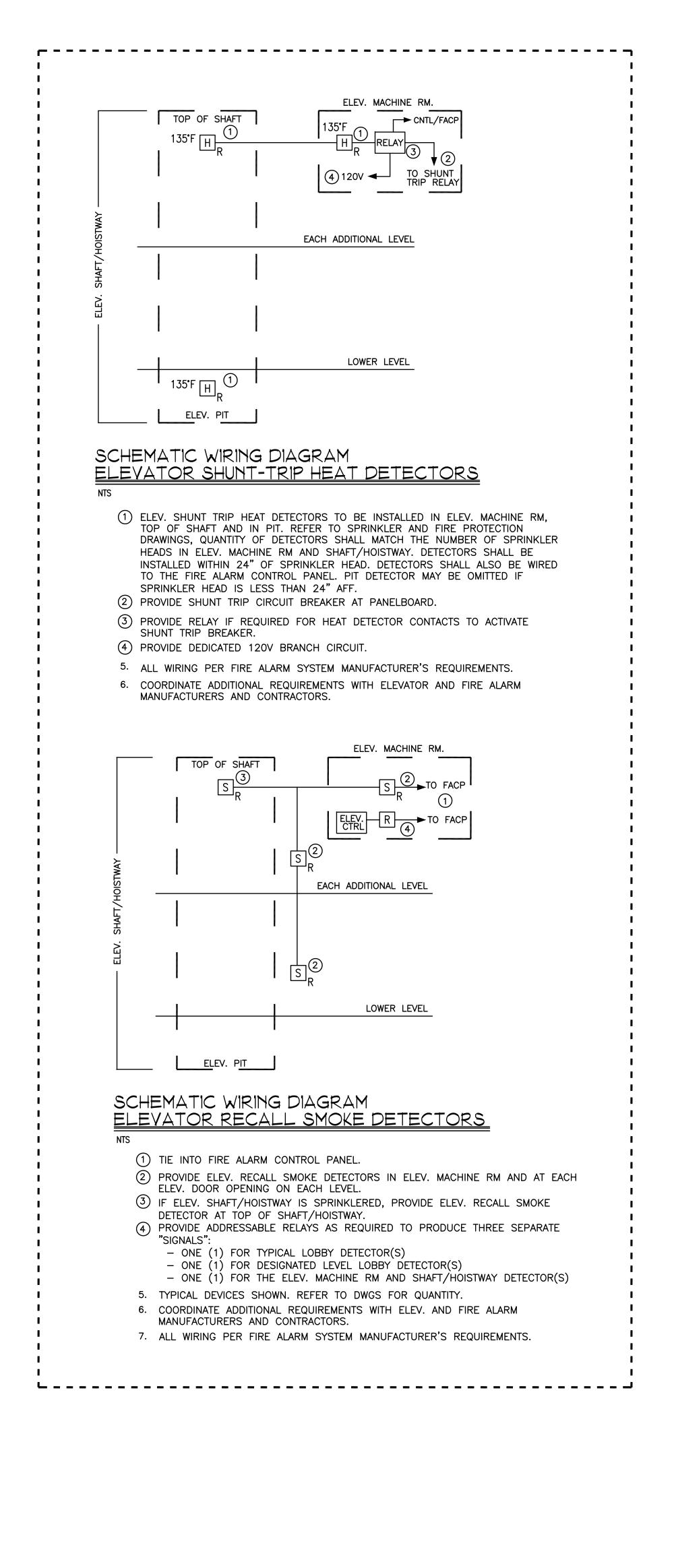
FOR SERVICES UTILIZED IN THE STAIR.

13. ALL INSTALLATIONS ON NEW WALLS SHALL BE FULLY RECESSED. INSTALLATIONS ON EXISTING MASONRY WALLS SHALL BE RUN WITH SURFACE RACEWAY PAINTED TO

MATCH WALL FINISH AND SURFACE BOXES. INSTALLATIONS ON EXISTING STUD

WALLS SHALL CUT IN OLD-WORK STYLE BOXES AND FISH WIRING IN WALL CAVITY.



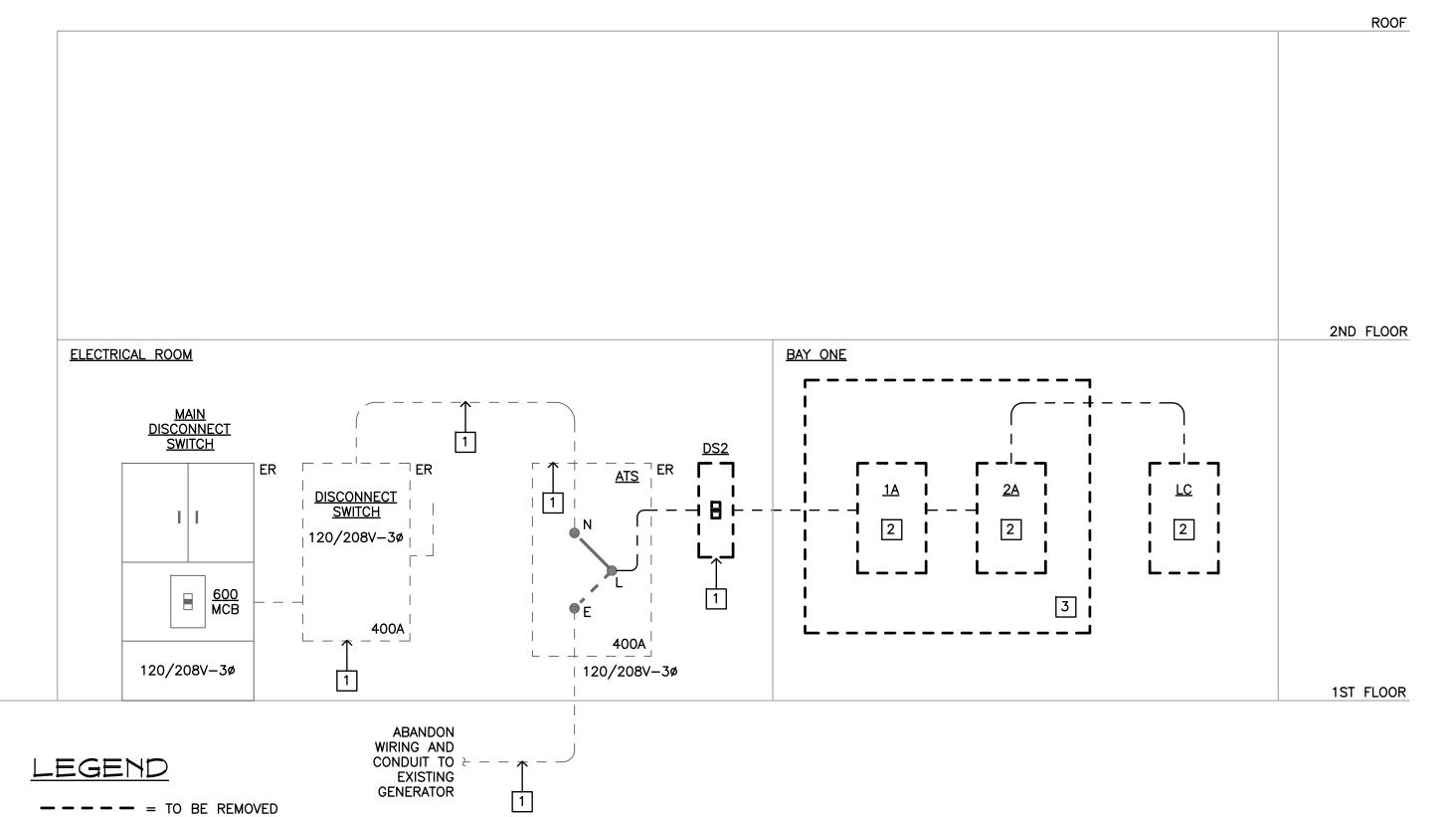


Renovations to:

4 Newton Road

Old Woodbridge Fire Station

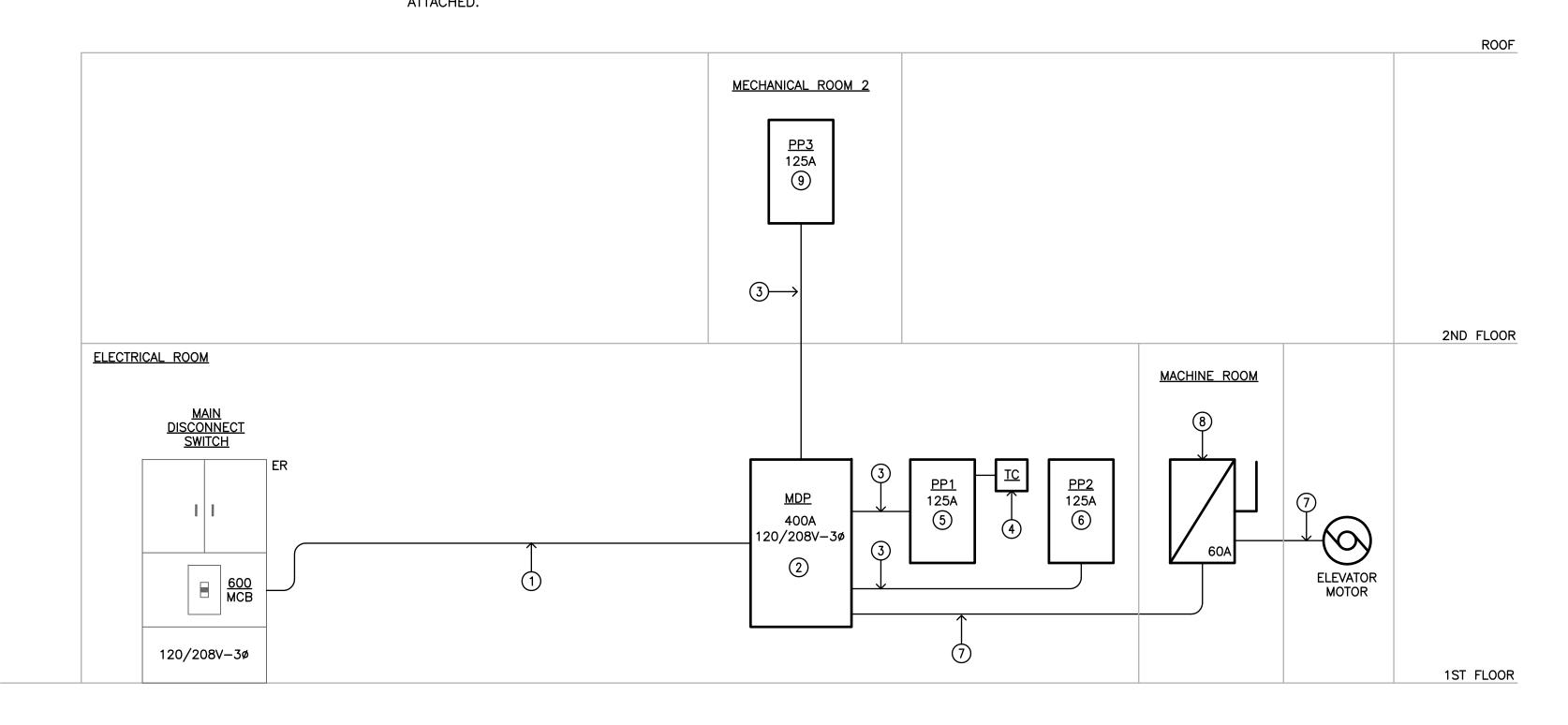
Woodbridge, Connecticut 06525



= EXISTING TO REMAIN

ONE-LINE RISER DIAGRAM - DEMOLITION

- 1 DISCONNECT AND REMOVE THE 400 AMP ATS / DISCONNECT SWITCH AND DS2 CIRCUIT BREAKER BACK TO SOURCE.MAKE SAFE ALL WIRING TO / FROM THE EXISTING ATS MAIN SERVICE PANEL.
- 2 DISCONNECT AND REMOVE EXISTING ELECTRICAL PANELBOARD, ASSOCIATED CONDUIT AND FEEDER BACK TO SOURCE.
- 3 REMOVE EXISTING PLYWOOD BACKBOARD AND ASSOCIATED EQUIPMENT/PANELS



<u>LEGEND</u>

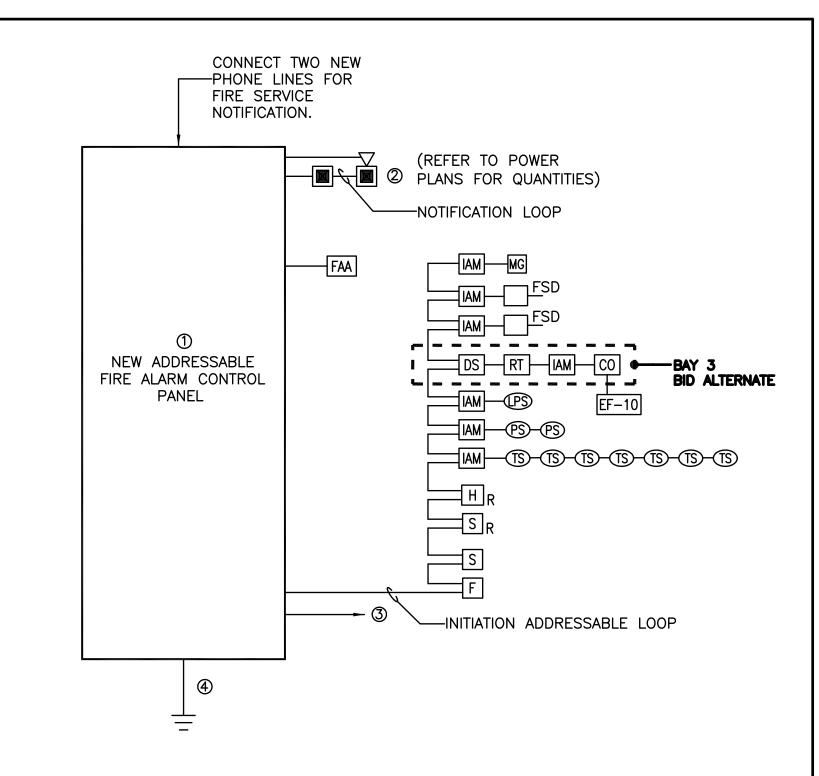
= NEW WORK = EXISTING TO REMAIN

ONE-LINE RISER DIAGRAM -NEW WORK SCALE: NONE

- 1 PROVIDE 4"C, 4#600KCMILL, 1#3G.
- 2 NEW ELECTRICAL MAIN DISTRIBUTION PANEL RATED FOR 120/208V, 400A, 3ø, 4 WIRE. REFER TO PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
- (3) PROVIDE 2"C, 4#1, 1#6G.
- (4) DIGITAL PROGRAMMABLE TIME CLOCK INTERCONNECT WITH PHOTOCELL AS PER MANUFACTURER REQUIREMENT. REFER TO CONTACTOR DIAGRAM FOR ADDITIONAL
- (5) NEW ELECTRICAL PANELBOARD "PP-1" RATED FOR 120/208V, 125A, 3ø, 4 WIRE. REFER TO PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
- (6) NEW ELECTRICAL PANELBOARD "PP-2" RATED FOR 120/208V, 125A, 3ø, 4 WIRE. REFER TO PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
- 7 PROVIDE 1"C, 4#8, 1#10G.
- 8 60 AMP, 3 POLE HEAVY DUTY SAFETY SWITCH WITH (3) CLASS RK5 FUSES, NEMA TYPE 1 ENCLOSURE; COORDINATE EXACT REQUIREMENTS WITH THE ELEVATOR MANUFACTURER AND INSTALLER. PROVIDE WITH AUXILIARY CONTACT FOR BATTERY SYSTEM.

Revision: Description:

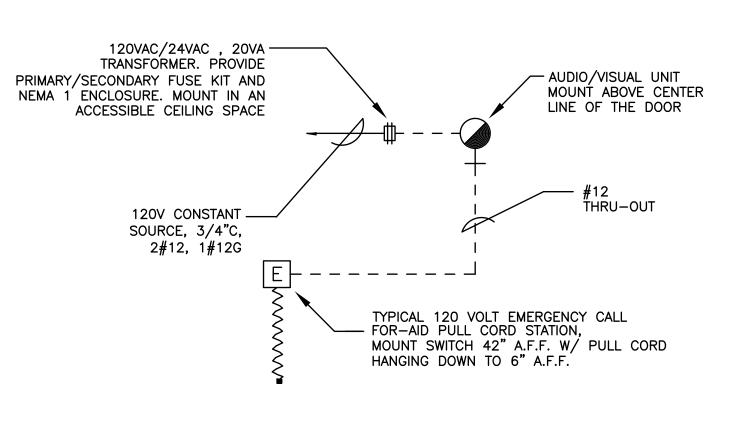
Date: Revised By:



FIRE ALARM RISER DIAGRAM

- ① NEW ADDRESSABLE FIRE ALARM CONTROL PANEL LOCATED IN ELECTRICAL CLOSET 112. FIRE ALARM CONTROL PANEL SHALL BE FURNISHED WITH ALL COMPONENTS REQUIRED TO SERVE NEW DEVICES SHOWN ON DRAWINGS.
- ② ALL STROBES SHALL BE SYNCHRONIZED.
- 3 PROVIDE 120VAC, 3/4"C, 2#12, 1#12G, CONNECT TO DEDICATED 1P, 20A BRANCH CIRCUIT BREAKER. PROVIDE CIRCUIT BREAKER TAB LOCK.
- 4 3/4"C, #6 CONNECT TO EXISTING MAIN GROUND SOURCE. CONTRACTOR SHALL VERIFY THE EXISTING GROUND CONNECTION IN THE FIELD.
- GEN. ALL WIRING TO BE PER SPECIFICATIONS AND MANUFACTURER'S REQUIREMENTS.
- GEN. FURNISH DEVICES WITH ALL NECESSARY MATERIALS AND ACCESSORIES FOR COMPLETE INSTALLATION TO BE FULLY OPERATIONAL. GEN. MOUNT NOTIFICATION DEVICES 80" AFF OR 6" BELOW CEILING, WHICH EVER IS LOWER.
- MOUNT PULL STATIONS AT 48" AFF.
- GEN. PROVIDE FRAMED BUILDING LAYOUT ADJACENT TO CONTROL PANEL & REMOTE ANNUNCIATOR. GEN. REFER TO ELECTRICAL PLANS FOR LOCATION AND DEVICE QUANTITIES. ALL FIRE
- ALARM WORK SHALL BE INCLUDED IN THE BASE BID. GEN. COORDINATE EXACT LOCATION OF FIRE ALARM CONTROL PANEL WITH FIRE MARSHAL
- GEN. FIRE ALARM DEVICES MOUNTING HEIGHTS SHALL COMPLY WITH ADA REQUIREMENTS.





HANDICAPPED CALL-FOR-AID SYSTEM

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ELECTRICAL RISER, WIRING DIAGRAMS, AND DETAILS

Drawing Number: 5.18.18 AS NOTED Drawn By:

JRP/PJE LC Project Number: 11.147

				EQ	UIPME	ENT S	SCHEDL	 JLE		
			CIRCUIT	DISCONNECT	1					
SYMBOL	VOLTAGE	PHASE	AMPS	SWITCH	BREAKER	PANEL CIRCUIT	WIRE	CONNECTION	LOCATION	NOTES
RTU-1	208	1	31	BY MFR.	50A/2P	PP2	1"C, 3#8	HARDWIRE TO DISC.	ROOF	1
RTU-2	208	1	41	BY MFR.	70A/2P	PP2	1-1/4°C, 3#4	HARDWIRE TO DISC.	ROOF	1
EF-1	115	1	1.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	WOMEN'S TOILET	12
EF-2	115	1	1.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	MEN'S TOILET	12
EF-3	115	1	2.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	ELECTRICAL ROOM	14
EF-4	115	1	2.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	MECHANICAL ROOM	14
EF-5	208	1	7.6	BY M.C.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	BAY 101	14
EF-6	115	1	6.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	ELEVATOR CONTROLLER	14
EF-7	115	1	1	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	JANITOR CLOSET	12
EF-8	208	1	7.6	BY M.C.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	BAY 101	1 4
EF-9	115	1	6.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	ELEVATOR CONTROLLER	14
EF-10	115	1	1	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	JANITOR CLOSET	12
SF-1	208	1	6.0	BY M.C.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	BAY 101	14
TF-1	115	1	2.0	BY M.C.	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO DISC.	DATA CLOSET	14
EWH-1	208	1	7.6	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	STAIR #1	3
EWH-2	208	1	7.6	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	WOMEN'S TOILET	3
EWH-3	208	1	7.6	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	MEN'S TOILET	3
EWH-4	208	1	11.2	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	ENTRANCE	3
EWH-5	208	1	5.8	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	DATA CLOSET	3
EWH-6	208	1	5.8	BY MFR.	20A/2P	PP3	3/4"C, 3#12	HARDWIRE TO DISC.	MECH CLOSET 204	3
EUH-1	208	1	11.2	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	ELECTRICAL ROOM	3
EUH-2	208	1	11.2	BY MFR.	20A/2P	PP2	3/4"C, 3#12	HARDWIRE TO DISC.	MECHANICAL ROOM	3
GWH-1	120	1	5.0	THERMOPLASTIC TOGGLE SWITCH	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO TOGGLE SWITCH	MECHANICAL ROOM	
HWRP1	115	1	2.0	THERMOPLASTIC TOGGLE SWITCH	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO TOGGLE SWITCH	MECHANICAL ROOM	
GFUH-1,2	115	1	2.0	THERMOPLASTIC TOGGLE SWITCH	20A/1P	PP2	3/4"C, 2#12	HARDWIRE TO TOGGLE SWITCH	BAY 101	
DH-1	120	1	5.9	125V POWER RECEPTACLE	20A/1P	PP2	3/4"C, 2#12	_	BAY 101	
KEF-1	208	1	2.4	BY MFR.	15A/2P	PP3	3/4"C, 3#12	HARDWIRE TO TOGGLE SWITCH	KITCHEN 2ND FL	3

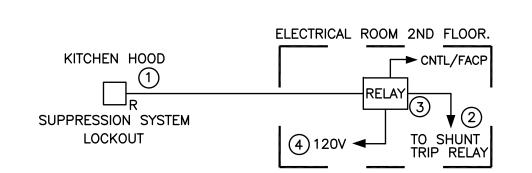
NOTES:

1 SAFETY DISCONNECT SWITCH TO BE PROVIDED BY MECHANICAL AND WIRED BY ELECTRICAL.

② INTERLOCK WITH LIGHTS OCCUPANCY SENSOR.

3 SAFETY DISCONNECT SWITCH TO BE PROVIDED BY MANUFACTURER WITHIN UNIT AND WIRED BY ELECTRICAL.

- 4 EQUIPMENT TO BE INTERCONNECTED WITH LINE VOLTAGE THERMOSTAT OR CONTROLLER. THERMOSTAT OR CONTROLLER TO BE PROVIDED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL. COORDINATE CONTROLLER LOCATION WITH MECHANICAL DRAWINGS.
- 5. DISCONNECT SWITCHES & MOTOR STARTERS LISTED SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE. COORDINATE SAFETY DISCONNECT PROVISION WITH MECHANICAL DRAWINGS PRIOR BIDDING/ORDER UNITS.
- 6. PROVIDE ANY 120V WIRING REQUIRED TO INTERLOCK EQUIPMENT WITH HVAC CONTROLS.



KITCHEN HOOD SUPPRESSION SHUTDOWN ELECTRIC STOVE SHUNT-TRIP

- 1 ELEV. SHUNT TRIP HEAT DETECTORS TO BE INSTALLED IN ELEV. MACHINE RM, TOP OF SHAFT AND IN PIT. REFER TO SPRINKLER AND FIRE PROTECTION DRAWINGS, QUANTITY OF DETECTORS SHALL MATCH THE NUMBER OF SPRINKLER HEADS IN ELEV. MACHINE RM AND SHAFT/HOISTWAY. DETECTORS SHALL BE INSTALLED WITHIN 24" OF SPRINKLER HEAD. DETECTORS SHALL ALSO BE WIRED TO THE FIRE ALARM CONTROL PANEL. PIT DETECTOR MAY BE OMITTED IF
- SPRINKLER HEAD IS LESS THAN 24" AFF.

 ② PROVIDE SHUNT TRIP CIRCUIT BREAKER AT PANELBOARD.
- 3 PROVIDE RELAY IF REQUIRED FOR HEAT DETECTOR CONTACTS TO ACTIVATE
- SHUNT TRIP BREAKER CIRCUITS 21,23 PP3.

 4 PROVIDE DEDICATED 120V BRANCH CIRCUIT.
- 5. ALL WIRING PER FIRE ALARM SYSTEM MANUFACTURER'S REQUIREMENTS.
- 6. COORDINATE ADDITIONAL REQUIREMENTS WITH ELEVATOR AND FIRE ALARM MANUFACTURERS AND CONTRACTORS.

PANELBOARD "PP-1"		80 75 91	125	3	С	1	4	\Box	_							
	-		125	3		—		- 1	+	2				144		
		91				3	7	\rightarrow		4	d c	3	125	146		PANELBOARD "PP-2"
						5	7	7	+	6	1			72		
		51				7	-	7	+	8				32		
PANELBOARD "PP-3"	Ī	48	125	3	С	9	7	+		10	С	3	40	32	2	ELEVATOR
	Ī	56				11	7	7	+	12				32		
EXISTING GEN. BLOCK HTR.		16	30	1	Α	13	4	7	+	14	Α	1	20	2.0		ELEV. MACH. RM LIGHTIN
EXIST. GEN. BATTERY CHGR.		5.0	20	1	Α	15	\exists	-		16	Α	1	20	2.0		ELEVATOR RECEPTACLE
EXIST. TEMPORARY LIGHT		6.0	20	1	Α	17	\exists		+	18	Α	1	20	5.0		ELEVATOR CAR LIGHT
EXIST. TEMPORARY LIGHT		6.0	20	1	Α	19	+	-	+	20	Α	1	20	4.0		EXISTING RECEPTACLES
ELEVATOR CONTROLLER		5.0	20	1	Α	21	\exists	+	+	22	Α	1	20	0.0		SPARE
ELEVATOR BATTERY (USP)		5.0	20	1	Α	23	\exists	\exists	+	24	Α	1	20	0.0		SPARE
EXISTING FLAG POLE LIGHT		0.0	20	1	Α	25	-			26	Α	1	20	0.0		SPARE
SPARE		ı	ı	1	ı	27	\exists	1	+	28	_	1	1	_		SPARE
SPARE		1	ı	1	ı	29	\top		+	30	_	1	-	_		SPARE
SPARE		ı	1	1	ı	31	+	\dashv		32	-	1	-	_		SPARE
SPACE		ı	ı	1	•	33	\exists	-	+	34	_	1	1	-		SPACE
SPACE		1	1	1	ı	35	\exists		+	36	_	1	_	_		SPACE
SPACE		ı	ı	1	ı	37	+			38	_	1	-	_		SPACE
SPACE		1	ı	1	ı	39	\top	+		40	_	1	1	_		SPACE
SPACE		1	1	1	-	41	+	+	+	42	_	1	-	-		SPACE

RATINGS: 240V/ 22,000 SERVICE: 208 Y			S/4-	WIRE	F	ΊΑ	ΝE	ΞL	_	7	PP	2"				N: ELEC. CLOSET 112
DESCRIPTION	NOTE	AMPS	TRIP AMP	POLE	CKT.	CKT.		В	С	CKT.	CKT. TYP	POLE	TRIP AMP	AMPS	NOTE	DESCRIPTION
RTU-1		41	70	2	В	1 3			E	2	В	2	70	41		RTU-2
EwH-1		7.6 7.6	20	2	В	5				6	В	2	20	7.6		EWH-2
EWH-3		7.6 7.6	20	2	В	9				10	В	2	20	11.2		EWH-4
EWH-5		5.8 5.8	20	2	В	13				14	В	2	20	11.2		EWUH-1
EUH-2		11.2	20	2	В	17 19				18 20	В	2	20	7.6 7.6		EF-5
MOTORIZED DAMPER		1	20	1	Α	21		\downarrow	F	22	Α	1	20	1.0		EF-2
SPARE		2.0	20	1	Α	23		#	-	24	Α	1	20	2.0		EF-3
EF-1		1.0	20	1	Α	25			F	26	Α	1	20	2.0		EF-4
EF-6		6.0	20	1	Α	27	17	+	F	28	Α	1	20	7.6		TF-1
GWH-1, 2		5.0	20	1	Α	29	1	#	-	30	Α	1	20	2.0		GFUH-1, 2
HWRP1		2.0	20	1	Α	31	-	+	F	32	Α	1	20	4.0		TRAP PRIMER SENSOR
DH-1 RECEPTACLE		5.9	20	1	Α	33	17	+	F	34	Α	1	20	2.0		ROOF TOP POWER RECEP.
EF-7		2.0	20	1	Α	35	1	+		36	Α	1	20	2.0		ROOF TOP POWER RECEP.
ACCU-1		6.0	20	2	В	37			\vdash	38	Α	1	20	2.0		GFUH-2
A000 1		6.0	20			39	土	+	L	40	Α	1	20	_		SPARE
SPARE		_	20	1	Α	41		\pm	<u> </u>	42	Α	1	20	_		SPARE
NOTES: 1. PANELBOARD S ② PROVIDE CB LO ③ PROVIDE HACR 4. UPGRADE WIRE 5. TOTAL CONNEC	OCK. BREAKE SIZE AS	:R. S REQU .D: PI PI	IRED HASE HASE	TO MA A — 1 B — 1	INTAIN 44 46	1 3% N	ΙΧΑΝ	MUN	1 V	OLTAG	E DRO					
6. CIRCUIT TYPE		3 WIR	E IN		JIT OR				F							
7. CIRCUIT TYPE I	o. ∠∪ŏV,	ιν, 4			ו וטטאכ CIUDNC											

Revision: Description:

Date: Revised By:

* = BAY 3 BID ALTERNATE

DESC LIGHTING BAY LIGHTING EXER	RIPTION													МО		IG: SURFACE
		NOTE	AMPS	TRIP AMP	POLE	CKT. TYP	CKT. NO.	A	в с	CKT. NO.	CKT. TYP	POLE	TRIP AMP	AMPS	NOTE	DESCRIPTION
LIGHTING EXER	ONE		4	20	1	Α	1	+		2	Α	1	20	4		LIGHTING BAY ONE
	CISE 106		5	20	1	Α	3	+		4	Α	1	20	5		LIGHTING EXERCISE 106
LIGHTING CORF	IDOR		4	20	1	Α	5	\pm		6	Α	1	20	5		LIGHTING MECH. TOILET
LIGHTING EXER	CISE 111		9	20	1	Α	7	+		8	Α	1	20	9		LIGHTING EXERCISE 111
LIGHTING STAIR	CASE 102		2	20	1	Α	9	+		10	Α	1	20	5		EXTERIOR LIGHTING
RECEPTACLES	BAY ONE		10	20	1	Α	11	+		12	Α	1	20	8		RECEPTACLES BAY ONE
RECEPTACLES	RM.106		8	20	1	Α	13	+	+	14	Α	1	20	8		RECEPTAC. EXERCISE106
DEDICATED TRE	ADMILL		14	20	1	Α	15	\mp	+	16	Α	1	20	14		DEDICATED TREADMILL
DEDICATED ELL	IPTICAL		14	20	1	Α	17	+	+	18	Α	1	20	14		DEDICATED ELLIPTICAL
DEDICATED ELL	IPTICAL		14	20	1	Α	19	+	++	20	Α	1	20	14		DEDICATED STEPPER
ELEVATOR PIT	RECEPTACLE		2	20	1	Α	21	+	+-	22	Α	1	20	3		RECEPTACLES TOILET
RECEPTACLES	DATA CLOSET		7	20	1	Α	23	+	-	24	Α	1	20	3		RECEPTACLES DATA CLOS
RECEPTACL. MI	CH. CLOSET		3	20	1	Α	25	+	\mathbf{H}	26	Α	1	20	3		RECEPTACLES DATA CLOS
RECEPTACLES	ROOM 111		8	20	1	Α	27	+	+-	28	Α	1	20	7		RECEPTACLES ROOM 11
EXTERIOR RECI	PTACLES		12	20	1	Α	29	\mp	+	30	Α	1	20	2		SMOKE FIRE DAMPER
SMOKE FIRE D	AMPER		2	20	1	Α	31	+	++	32	Α	1	20	2	2	FACP
CARD READER	POWER SUPP.		8	20	1	Α	33	\mp	+	34	Α	1	20	2		SMOKE FIRE DAMPER
CO SENSOR			2	20	1	Α	35	+	+	36	Α	1	30	18	2	SPC (SPRINKLER COMPR
SPARE			_	20	1	1	37	+	+	38	Α	1	20	6		EXISTING OVERHEAD DOG
SPARE			_	20	1	-	39	\mp	+-	40	_	1	20	_		SPARE
SPARE			_	20	1	-	41	\mp	 	42	_	1	20	_		SPARE

* = BAY 3 BID ALTERNATE

	INDIE	AMPS	TRIP AMP	POLE	CKT. TYP	CKT.		В	С	CKT.	CKT. TYP	POLE	TRIP AMP	AMPS	NOTE	DESCRIPTION
IGHTING MULTI-PURPOSE	1	7	20	1	Α	1	_		Ţ	2	A	1	20	5		LIGHTING MULTI-PURPOS
LIGHTING KITCHENETTE		3	20	1	A	3		\Rightarrow	\pm	4	A	1	20	4		LIGHTING STAIRCASE
LIGHTING MEETING/OFFICE		6	20	1	A	5			\Rightarrow	6	A	1	20	3		LIGHTING ATTIC
RECEPT. MULTI-PURPOSE		8	20	1	A	7		\pm	\pm	8	A	1	20	7		RECEPT. MULTI-PURPOS
RECEPTACLE TOILET ROOM		2	20	1	A	9			士	10	A	1	20	5		FLOOR POWER BOX
REF.	+	13	20	1	A	11	\vdash	\exists	\pm	12	A	1	20	5		RECEPT. KITCHENETTE
RECEPTACLES CORRIDOR		3	20	1	A	13	H	\exists		14	A	'-	20	2		RECEPT. MECH. CLOSET
RECEPTACLES CORRIDOR RECEPT. MEETING/OFFICE	+	7	20	1	A	15	H	\prod	\pm	16	A	1	20	5		RECEPT. MEETING/OFFICE
F-3		1	20	1		17	\vdash	Ť	\mp	18		- '	20	3		•
SCREEN PROJECTOR		2	-		A	-	H		+		A	1	l	1		RECEPT. MEETING/OFFICE
SCREEN PROJECTOR		5.8	20	1	Α	19	Γ	\exists	-	20	A		20			
ELECTRIC STOVE		5.8	50	2	В	21	F	7	\mp	22	A	1	20	2		PROJECTOR ATTIO
ACCECC CARD DEADED			20	1		23		\exists	+	24	A	1	20	2		RECEPTACLE ATTIC
ACCESS CARD READER		2		1	A	25	Ľ	7	#	26	A	1	20	2		TRAP PRIMER SENSOR
F-6	-	4.4	20	1	A	27	F	1	丰	28	В	2	30	11.6	-	DRYER, ELECTRIC
VASHER		4.1	20	1	A	29		=	1	30	<u>.</u>			11.6		D.T. 0.00T 0.T #0
CONVENIENCE RECPT		2	20	1	A	31			丰	32	A	1	20	1		DATA CLOSET CKT #2
DATA CLOSET CKT #1		1	20	1	Α	33		#	丰	34	В	2	15	2.4		KEF-1
EWH-6		5.8	20	2	В	35	_		_	36			15	2.4		
		5.8				37	┌		‡	38	В	2	15	2.4		RF-1
EF-11		2.4	15	2	В	39		+	士	40			15	2.4		
		2.4		_)	41	_		+	42	_	1	20	_		SPARE

* = BAY 3 BID ALTERNATE

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ELECTRICAL SCHEDULES

5.18.18

Scale:
AS NOTED

Drawn By:

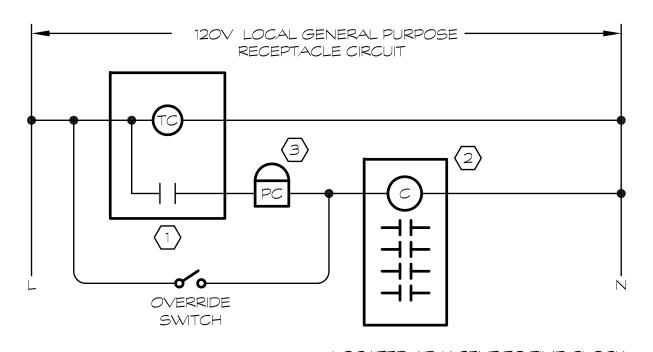
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Drawing Number:

JRP/PJE LC

Project Number:

11.147



LOCATED ADJACENT TO TIME CLOCK #POLES: 4 CIRCUIT#: REFER TO PANELBOARD SCHEDULE "PP1" FOR ADDITIONAL INFORMATION.

<u>TAG</u>	DESCRIPTION	MODEL NO.	REMARKS
1	DIGITAL PROGRAMMABLE TIME CLOCK 24HR, 7DAY 365DAY, SEASONAL SCHEDULING, 99 ON/OFF POINTS, PERMANENT SCHEDULE RETENTION ON POWER LOSS, POWER OUTAGE BACKUP, AUTOMATIC LEAP YEAR AND DAYLIGHT SAVINGS TIME ADJ., MECHANICALLY HELD CONTACTS, MULTI VOLTAGE INPUT.	TORK DZS100A OR EQUIVALENT INTERMATIC OR SQUARE D	1,2
2	CONTACTOR ELECTRICALLY OPERATED, MECHANICALLY HELD, 20A LIGHTING CONTACTOR. CONTROL VOLTAGE AS LISTED, FROM LOCAL GENERAL PURPOSE RECEPTACLE CIRCUIT.	ASCO 917 SERIES WITH 2 WIRE CONTROL OPTION OR EQUIVALENT GE OR SQUARED	
3>	PHOTOCELL 1800W, 15A, -40 DEG. TO 140 DEG., SOLID STATE SPST, DRY CONTACT, LIGHT LEVEL RANGE 1.5 TO 10fC WITH ADJUSTMENT. TIME DELAY 15 SEC. MINIMUM.	TORK 2100 SERIES OR EQUIVALENT INTERMATIC OR SQUARE D	3

LIGHTING TIME CLOCK AND CONTACTOR DIAGRAM

NOT TO SCALE

GENERATOR MAINTENANCE

- 1. CONTRACTOR SHALL ARRANGE AND PAY FOR A CUMMINGS GENERATOR OEM CERTIFIED TECHNICIAN TO PERFORM THE
- WORK INDICATED BELOW.

 2. TEST & REPLACE BATTERIES A/R.
- 3. REPLACE BELTS & HOSES.
- ANALYZE COOLANT, FUEL & OIL. PROVIDE REPORT ON FINDINGS. REPLACE COOLANT.
- 5. REPLACE BLOCK HEATER.6. PERFORM LOAD BANK TEST. PROVIDE REPORT ON
- FINDINGS.
- PERFORM LEVEL II PREVENTATIVE MAINTENANCE SERVICE. REFER TO SPECIFICATION 16660 FOR LIST OF APPLICABLE WORK.
- 8. IF INTERRUPTION OF POWER TO ANY BUILDING LOADS IS REQUIRED FOR GENERATOR WORK, THIS WILL NEED TO TAKE PLACE BETWEEN THE HOURS OF 12:00 AM AND 6:00 AM ON A SATURDAY OR SUNDAY.

GENERATOR MAINTENANCE

NOT TO SCALE

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			
			TYPE	COLOR	NO	BALLAST	VOLTAGE	WATTS	NOTES
A	8' LENGTH PENDANT WITH PARABOLIC LOUVER LUMINAIRE	FINELITE S12-ID-PLV-8'-2E-H-840-FT0-120-DC-FA-FE-C4	LED	4K	1	ELECTRONIC	120	57	16
A 1	4' LENGTH PENDANT WITH PARABOLIC LOUVER LUMINAIRE	FINELITE S12-ID-PLV-4'-2E-H-840-FTO-120-DC-FA-FE-C4	LED	4K	1	ELECTRONIC	120	39	16
В	4' INDUSTRIAL CHAIN HUNG LUMINAIRE -	DAY-BRITE LBX-55L-840-UNV-W-UP-LBX-HANGER BRKT	LED	4K	1	ELECTRONIC	120/277	41	1
С	9' LENGTH LED HIGH PERFORMANCE 4" APERTURE RECESSED	FINELITE HP4R-9-H-4000K-120-SC-C1	LED	4K	1	ELECTRONIC	120	74	1
C1	4' LENGTH LED HIGH PERFORMANCE 4" APERTURE RECESSED	FINELITE HP4R-4-H-4000K-120-SC-C1	LED	4K	1	ELECTRONIC	120	37	1
D	2'X2' RECESSED TROFFER WITH .125 DIFFUSED LENS -	DAY-BRITE 2-TG-38L-840-R-2-FA-Q2F-UNV-DIM-2W	LED	4K	1	ELECTRONIC	120	62	1
EM	EMERGENCY LIGHTING UNIT, LED	CHLORIDE VLLU2	LED	_	1	ELECTRONIC	120	1	2
F	6 INCH RECESSED DOWNLIGHT	PATHWAY 6VLED-2800-4K-E1 / 6VLEDICE6	LED	_	1	ELECTRONIC	120	50	5
F1	6 INCH RECESSED DOWNLIGHT FOR SLOPE CEILING	PATHWAY 6VLED-2800-4K-E1 / 6SCA-SCLPF	LED	_	1	ELECTRONIC	120	50	5
F	6 INCH RECESSED DOWNLIGHT FOR SLOPE CEILING	PATHWAY 6VLED-1100-4K-E1 / 6SCA-SCLPF	LED	_	1	ELECTRONIC	120	50	5
G	4' LENGTH SURFACE MOUNT WRAPAROUND, SUPPLY SPARE LENSES	DAY-BRITE OWL-40L 840 UNV-DIM-OWLED848	LED	4K	1	ELECTRONIC	120	56	5
Н	EXTERIOR HALF CYLINDER SCONCE WITH REMOTE EMERGENCY BATTERY	GARDCO 104L-16-530-NW/G1-3-EBPC-120-LLC3W-WH	LED	4K	2	ELECTRONIC	120	28	1
K/EM	4' LENGTH ADA WALL MOUNT LUMINAIRE WITH INTEGRATED ULTRASONIC OCCUPANCY SENSOR	LAMAR BAL 24 H PF TB 40 EM OS	LED	4K	2	ELECTRONIC	120	56	12
М	LUMINOUS SCONCE	LAMAR LIGHTING VESCL 1550 55 40	LED	4K	1	ELECTRONIC	120	17	1
N	LED VAPORTIGHT SCONCE	BARN LIGHT BLE-W-CGG-LED	LED	4K	1	ELECTRONIC	120	26	1
0	CLOSET LIGHT WITH ON BOARD SENSOR - LED	LEVITON 9864-LED	LED	4K	1	ELECTRONIC	120	9	1
Χ	EXIT SIGN LED SINGLE FACE, SELF DIAGNOSTIC/SELF TEST UNIVERSAL MOUNT	CHLORIDE TPC-D-N-R-W-IC (TPECK WHERE REQUIRED)	LED	_	_	UNIVERSAL	120	-	3
X1	EXIT SIGN / EMERGENCY LIGHT COMBO	CHLORIDE TPC-D-R-R-W-IC (TPECK WHERE REQUIRED)	LED	_	_	UNIVERSAL	120	_	3
X2	ADA EXIT SIGN SINGLE FACE, WITH DYNAMIC HANDICAP SYMBOL & DIAGNOSTIC/SELF TEST	ISOLITE LP-CT-EM-R-S-WW-UN-SD	LED	_	_	UNIVERSAL	120	_	3

LIGHT FIXTURE SCHEDULE NOTES:

- 1) FURNISH WITH ALL REQUIRED MOUNTING HARDWARE, REMOTE POWER SUPPLY AND CONNECTING CABLE.
- (2) FURNISH W/ BATTERY FOR 90 MINUTE EMERGENCY LIGHTING OPERATION.
- PROVIDE W/ FEATURES & ACCESSORIES NECESSARY FOR UNIVERSAL (TOP, BACK, & END) MOUNTING AND UNIVERSAL DIRECTIONAL ARROW KNOCKOUTS. ARROWS ON PLANS INDICATE DIRECTION OF CHEVRONS. SHADING INDICATES FIXTURE FACE. CHEVRON & LETTERING SHALL COMPLY W/ BUILDING CODE. COORDINATE NEED FOR CEILING MOUNT CANOPY PRIOR TO SUBMITTING. PROVIDE SELF—DIAGNOSTICS.
- (4) COMPLY W/ BUILDING CODE. COORDINATE NEED FOR CEILING MOUNT CANOPY PRIOR TO SUBMITTING. PROVIDE SELF-DIAGNOSTICS.
- 5 BUILD HOUSING ENCLOSURE TO PROTECT LUMINAIRE FROM INSULATION CONTACT. COORDINATE WITH ARCHITECTURAL STRUCTURE IN THE FIELD.
 ENCLOSURE SHALL BE BUILD IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE REQUIREMENTS. SUPPLY 4 EXTRA LENSES, TURN OVER TO CLIENT.
- 6 LUMINAIRE SHALL BE MOUNT AT 8'-0" FROM FINISH FLOOR TO THE BOTTOM OF THE LUMINIARE UNLESS OTHERWISE SPECIFIED.
- COORDINATE MOUNTING LOCATION OF LUMINAIRE WITH EXPOSED STEEL BEAMS IN THE FIELD.
- 7. ELECTRONIC BALLAST SHALL HAVE MAXIMUM TOTAL HARMONIC DISTORTION OF TEN PERCENT (10%)
- 8. FURNISH ALL FIXTURES WITH REQUIRED LAMPS. FLUORESCENT LAMPS SHALL PASS THE FEDERAL TCLP TEST FOR MERCURY TOXICITY AND SHALL BE CLASSIFIED AS NON—HAZARDOUS WASTE.

ELECTRICAL LEGEND

	(NOT ALL SYMBOLS ARE USED)					
	SURFACE OR RECESSED ELECTRICAL PANEL, 120/208 VOLT.					
	EXISTING ELECTRICAL PANEL					
	PLYWOOD BACKBOARD.					
	NON-FUSED DISCONNECT SWITCH.					
	COMBINATION DISCONNECT/MOTOR STARTER. COORDINATE EXACT REQUIREMENTS WITH MOTOR FURNISHED.					
	FUSED DISCONNECT SWITCH.					
IJ SKP	JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS.					
∫ co	JUNCTION BOX, TO SUIT SECURITY KEYPAD. INSTALL 3/4" C. W/ NYLON PULL STRING UP TO ACCESSIBLE CEILING.					
CR	JUNCTION BOX, TO SUIT CO SENSOR. INSTALL 3/4" C. W/ NYLON PULL STRING UP TO ACCESSIBLE CEILING. CARD READER. INSTALL 3/4" C AND WIRING FROM ACCESS CONTROL PANEL					
(PS)	POWER SUPPLY TO SUIT DOOR STRIKE HARDWARE.					
<u> </u>	MOTOR					
0	RECESSED LIGHT FIXTURE; SUBLETTER INDICATES FIXTURE TYPE.					
Θ	WALL MOUNTED LIGHT FIXTURE; SUBLETTER INDICATES FIXTURE TYPE.					
	TYPICAL RECESSED FLUORESCENT TROFFER; SUBLETTER INDICATES FIXTURE TYPE & SIZE.					
	TYPICAL SURFACE, UNDERCABINET, OR RECESSED MOUNTED FLUORESCENT FIXTURE; SUBLETTER INDICATES FIXTURE TYP					
• •	TYPICAL PENDANT MOUNTED FLUORESCENT FIXTURE; SUBLETTER INDICATES FIXTURE TYPE.					
	TYPICAL PENDANT MOUNTED FIXTURE WITH INTEGRAL BATTERY PACK FOR 90 MINUTE EMERGENCY LIGHTING.					
⊗ OH	WALL MOUNTED FIXTURE; SUBLETTER INDICATES FIXTURE TYPE. CEILING MOUNTED EXIT SIGN. SHADING INDICATES DIRECTION OF FIXTURE FACE. ARROW INDICATES DIRECTION OF					
⊬⊗	CHEVRON. PROVIDE UNSWITCHED POWER FROM AREA LIGHTING CIRCUIT. WALL MOUNTED EXIT SIGN. INSTALL AT 7'-7" AFF OR ON EXISTING LOCATION.					
H ⊗	COMBO EXIST SIGN / EMERGENCY LIGHT					
$ \Theta $	DOUBLE FACE EXIT SIGN.					
< EM ⊳	TWIN HEAD EMERGENCY LIGHT WITH INTEGRAL BATTERY FOR 90 MINUTE EMERGENCY LIGHTING.					
EM	REMOTE EMERGENCY BATTERY.					
\$	SINGLE—POLE SWITCH; MOUNT AT 48" AFF.					
\$з \$м	3-WAY SWITCH; MOUNT AT 48" AFF. SINGLE-POLE, MOTION SENSOR SWITCH; MOUNT AT 48" AFF.					
\$тт \$d	THERMO PLASTIC DISCONNECT TOGGLE SWITCH. DIMMING TOGGLE SWITCH.					
\$ _{ep}	EMERGENCY POWER SHUT-OFF TOGGLE SWITCH WITH RED COVER.					
\odot	CEILING MOUNTED OCCUPANCY SENSOR. REFER TO SPECIFICATION 16500 FOR DETAILS.					
- ● = =	SPECIAL DEDICATED RECEPTACLE, COORDINATE NEMA TYPE WITH EQUIPMENT. DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER, UNLESS OTHERWISE SPECIFIED.					
#	DUPLEX GROUND FAULT RECEPTACLE; MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED. QUAD RECEPTACLE; MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED.					
♦	QUAD RECEPTACLE; MOUNTED ABOVE COUNTER, UNLESS OTHERWISE SPECIFIED.					
\Rightarrow_{c}	CEILING MOUNTED POWER RECEPTACLE SHOWN ON POWER PLANS.					
⊕ _G ⊕wp	DUPLEX GROUND FAULT RECEPTACLE; MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED. RECEPTACLE WITH OUTDOOR RATED COVER PLATE. PROVIDE FLUSH MOUNTED BOX.					
	FLOOR BOX OUTLET FOR POWER AND DATA					
▼ D:X	COMPUTER NETWORK WORKSTATION PORT. MOUNT AT 18" AFF UNLESS OTHERWISE NOTED. D:X = NUMBER OF DATA OUTLETS. PROVIDE CAT 6 CABLE (4 PAIR UTP) ON EACH LOCATION.					
∑ p:x	TELEPHONE JACK LOCATION. PROVIDE 4" SQUARE BOX, PHONE LINE, 1-GANG RING & 3/4" CONDUIT TO CEILING					
V V:X	SPACE. VOICE/DATA OUTLET, 4" X 4" OUTLET BOX WITH A 1 GANG COVER 18 INCHES ABOVE FINISHED FLOOR OR AS					
	NOTED WITH 3/4" CONDUIT TO 6" ABOVE ACCESSIBLE CEILING. V:X/D:X = NUMBER OF VOICE/DATA PORTS					
⋈ AP	WIRELESS ACCESS POINT (CABLE AND JACK ONLY IN THIS SCOPE).					
$\langle T \rangle$	TV COAXIAL JACK LOCATION. PROVIDE NEW JACK & COAXIAL CABLE TO HEADEND EQUIPMENT. COORDINATE REQUIREMENTS OF JACK & CABLE WITH OWNER & SYSTEM INSTALLER.					
□)	GARAGE DOOR OPERATOR PUSH BUTTON.					
ТС	TIME CLOCK.					
PC	PHOTOCELL					
	MECHANICAL / PLUMBING PUMP					
CKT-X,Y	DUAL BRANCH CIRCUIT HOMERUNS.					
CKT-X	BRANCH CIRCUIT HOMERUN.					
	CONDUIT AND WIRE					
	CONDUIT AND WIRE, SWITCHED					
	LOW VOLTAGE WIRE, SWITCHED					
	REFER TO FIRE ALARM LEGEND IN THIS DRAWING FOR ADDITIONAL SYMBOLS					
	ABBREVIATION					
AFF	ABOVE FINISHED FLOOR					
C CH	CEILING MOUNTED CABINET HEATER					
CLH CR	CEILING MOUNTED HEATER CARD READER					
D ED	DATA ELECTRICAL DRYER					
EH	ELECTRICAL UNIT HEATER					

EM EMERGENCY
EWH ELECTRIC WALL HEATER
G GROUND FAULT INTERRUPTER

G GROUND FAULT INTERRUPTER
GUWH GASS FIRED WATER HEATER
ER EXISTING TO REMAIN

ER EXISTING TO
M MICROWAVE
R REFRIGERATOR

R REFRIGERATOR
V VOICE

W WASHER
WP WEATHERPROOF

SILVER / PETRUCELLI + ASSOCIATES

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Revision: Description:

Date: Revised By:

ELECTRICAL LEGEND, GENERAL NOTES, AND SCHEDULES

Date:

5.18.18

Scale:

AS NOTED

Drawn By:

JRP/PJE LC

Project Number:

11.147

Old Woodbridge Fire Station 4 Newton Road Woodbridge, Connecticut 06525

Renovations to: