



NORTH WEST VIEW OF EXISTING FRONT FACADE @ 291 BEACON ST



NORTH EAST VIEW OF EXISTING FRONT FACADE @ 291 BEACON ST



STREET VIEW OF EXISTING FRONT FACADE @ 291 BEACON ST



EXISTING FRONT FACADE CLOSE UP@ 291 BEACON ST



EXISTING LOWER SECTION OF REAR FACADE@ 291 BEACON ST



EXISTING UPPER SECTION OF REAR FACADE@ 291 BEACON ST



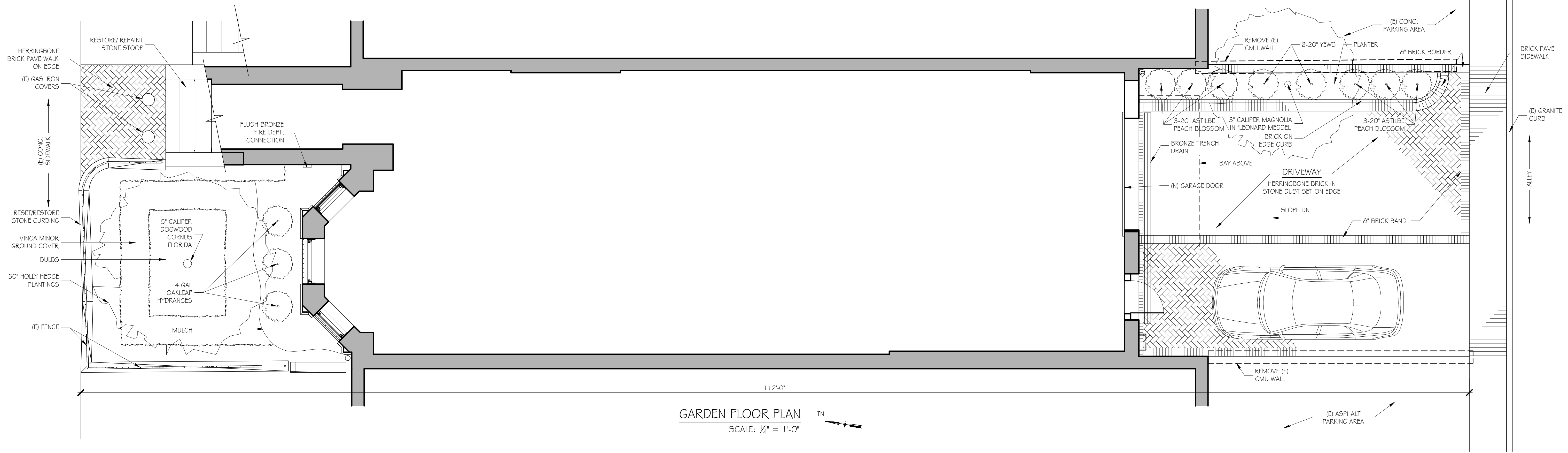
EXISTING ROOF @ NORTH SIDE @ 291 BEACON ST



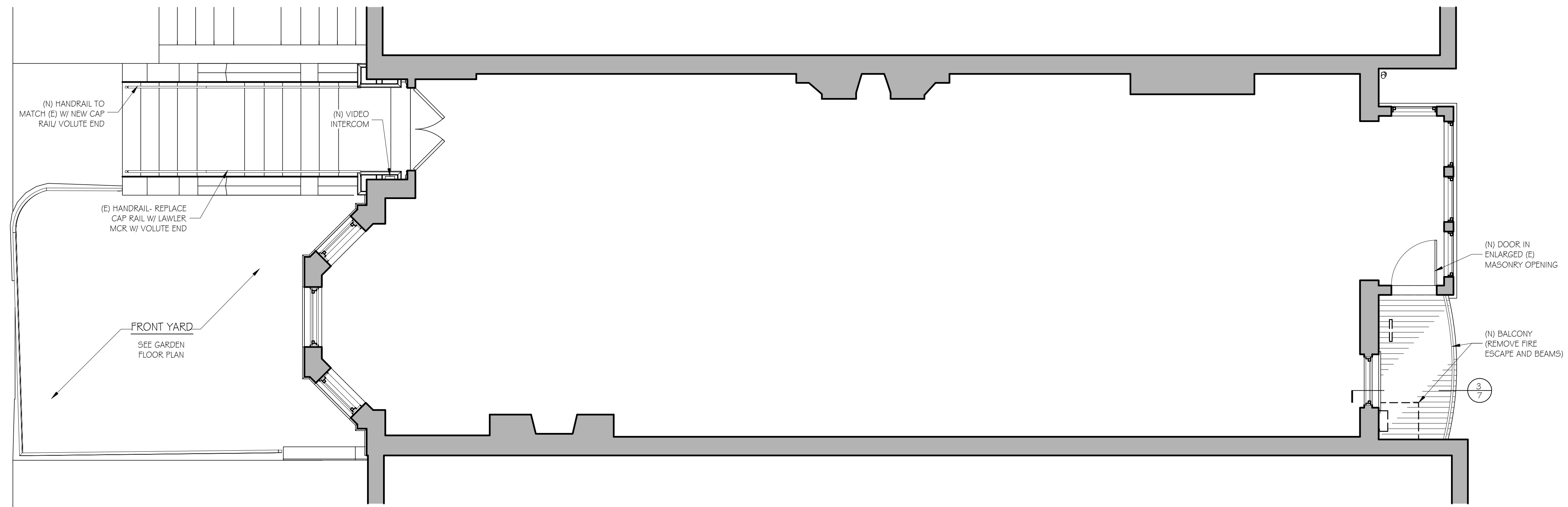
EXISTING ROOF @ NORTH SIDE @ 291 BEACON ST



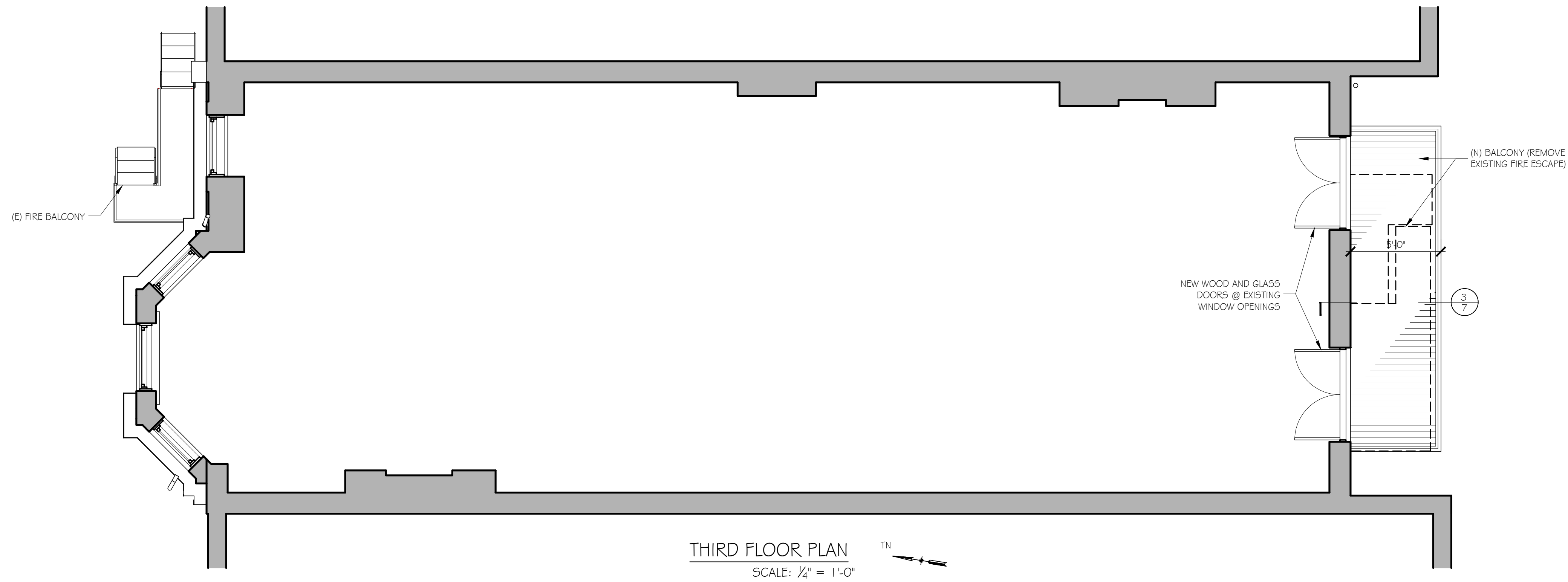
EXISTING ROOF @ SOUTH SIDE @ 291 BEACON ST



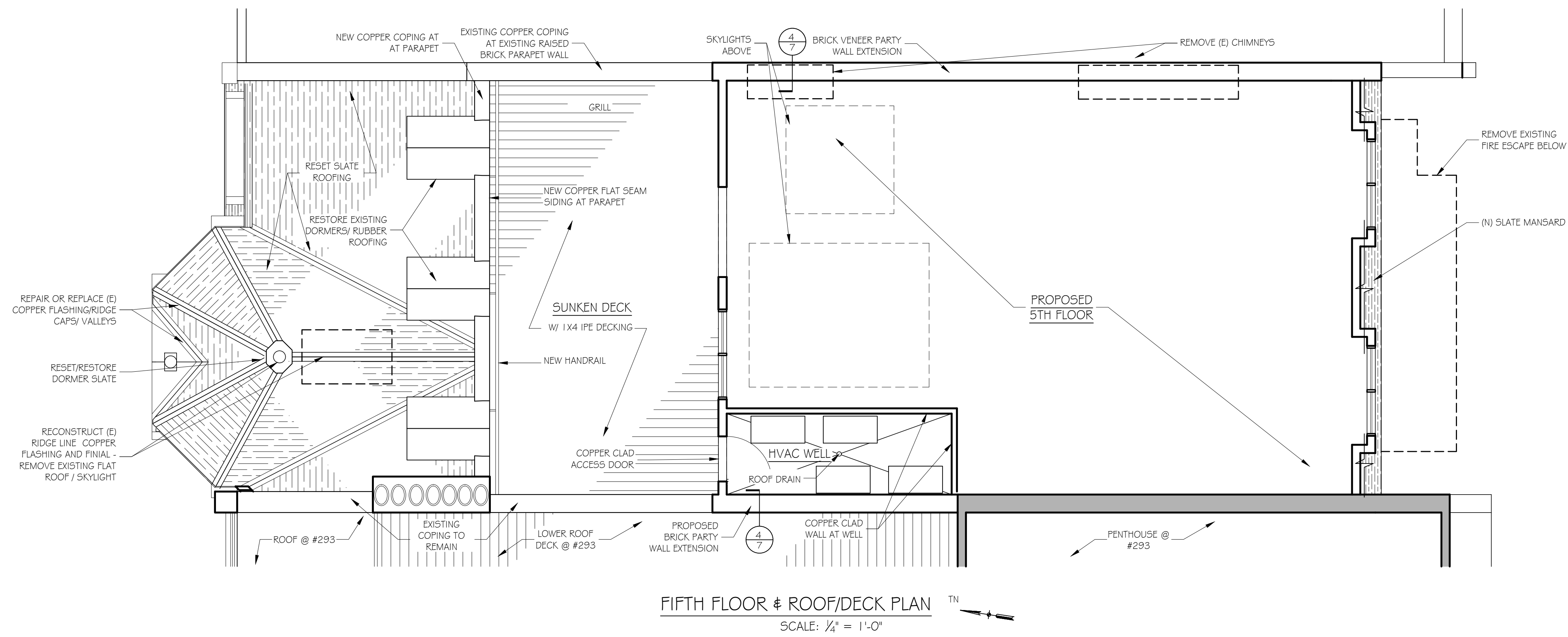
GARDEN FLOOR PLAN
SCALE: 1/4" = 1'-0"



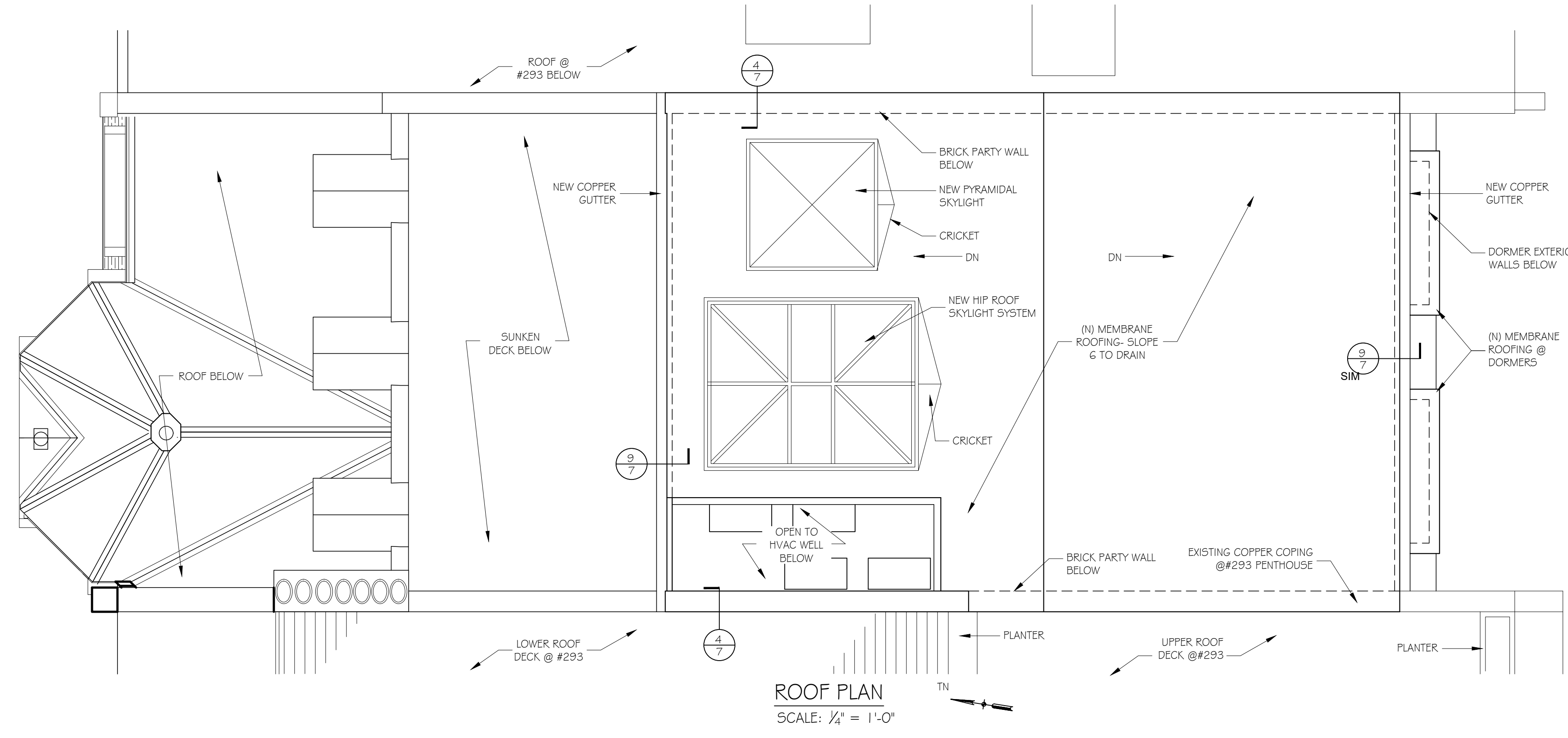
FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



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

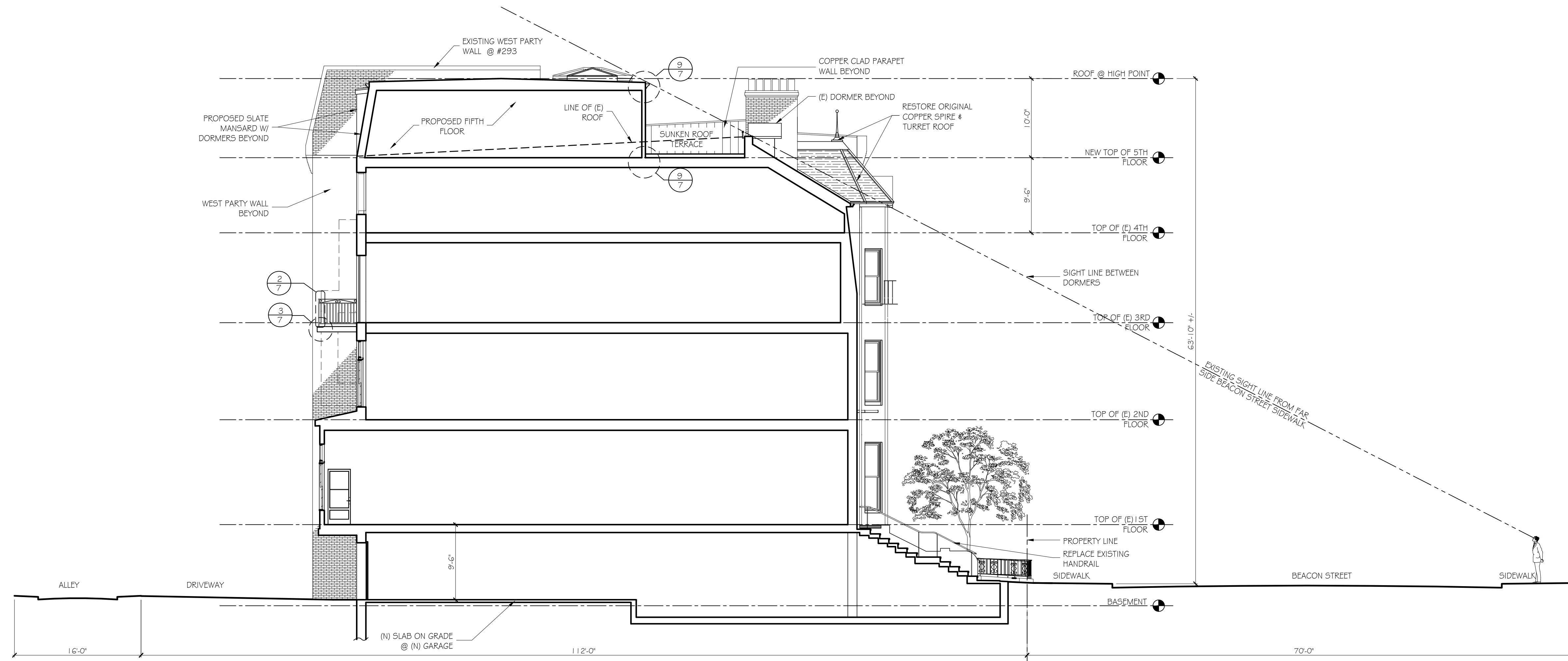


FIFTH FLOOR & ROOF/DECK PLAN
SCALE: 1/4" = 1'-0"



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

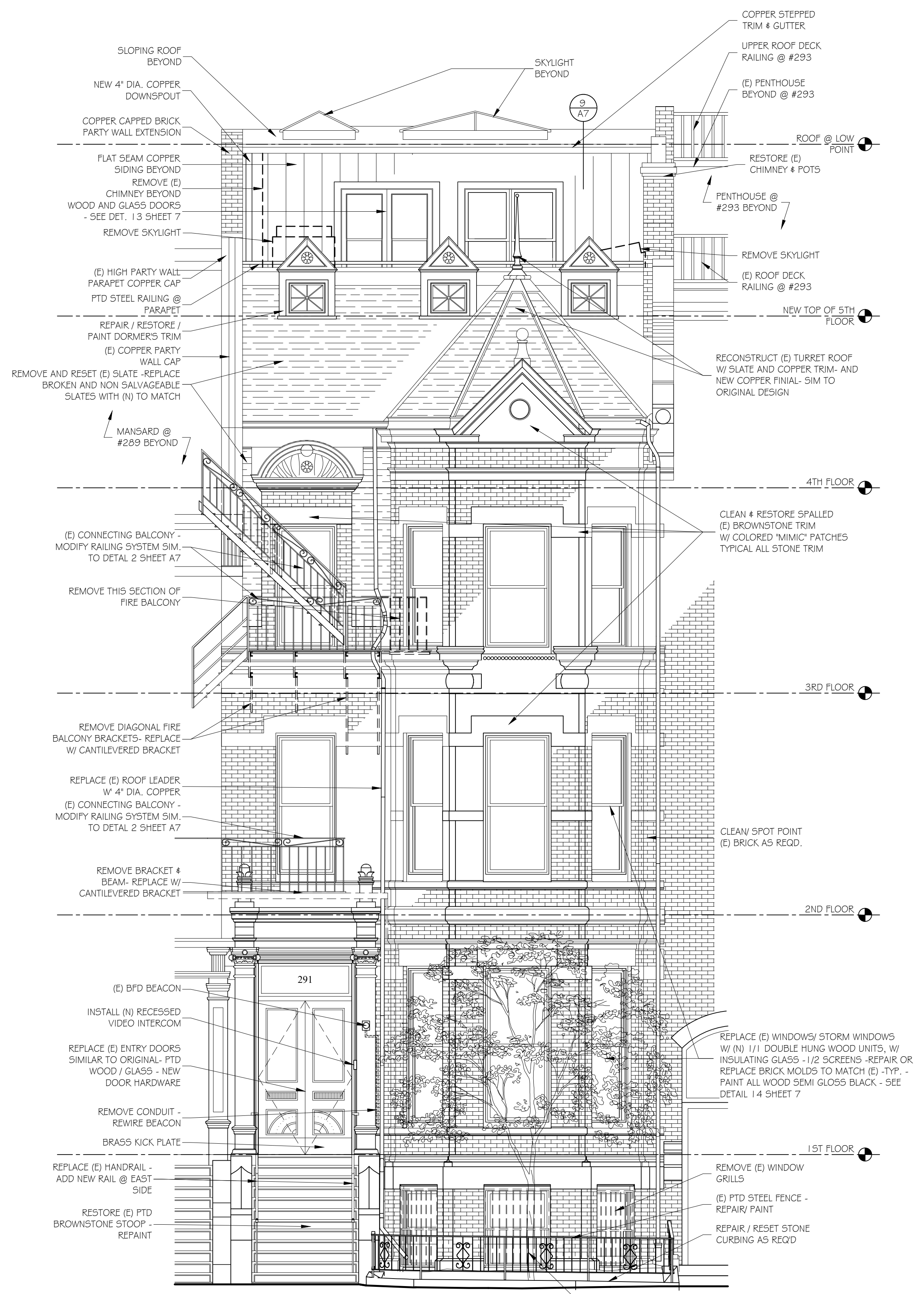
GD GRASSI DESIGN GROUP BG BEAUCHEMIN GRASSI INTERIORS	45 Newbury Street, Suite 506 Boston, MA 02116 Phone 617.956.9992 Fax 917.956.9993
	JOB NO: 2415 SCALE: 1/4" = 1'-0" REVISED
291 BEACON STREET BOSTON, MA 02106	ROOF PLAN
3	



1 BUILDING /SITE SECTION
SCALE: 1/8"=1'-0"



EXISTING NORTH ELEVATION
 1/4" = 1'-0"



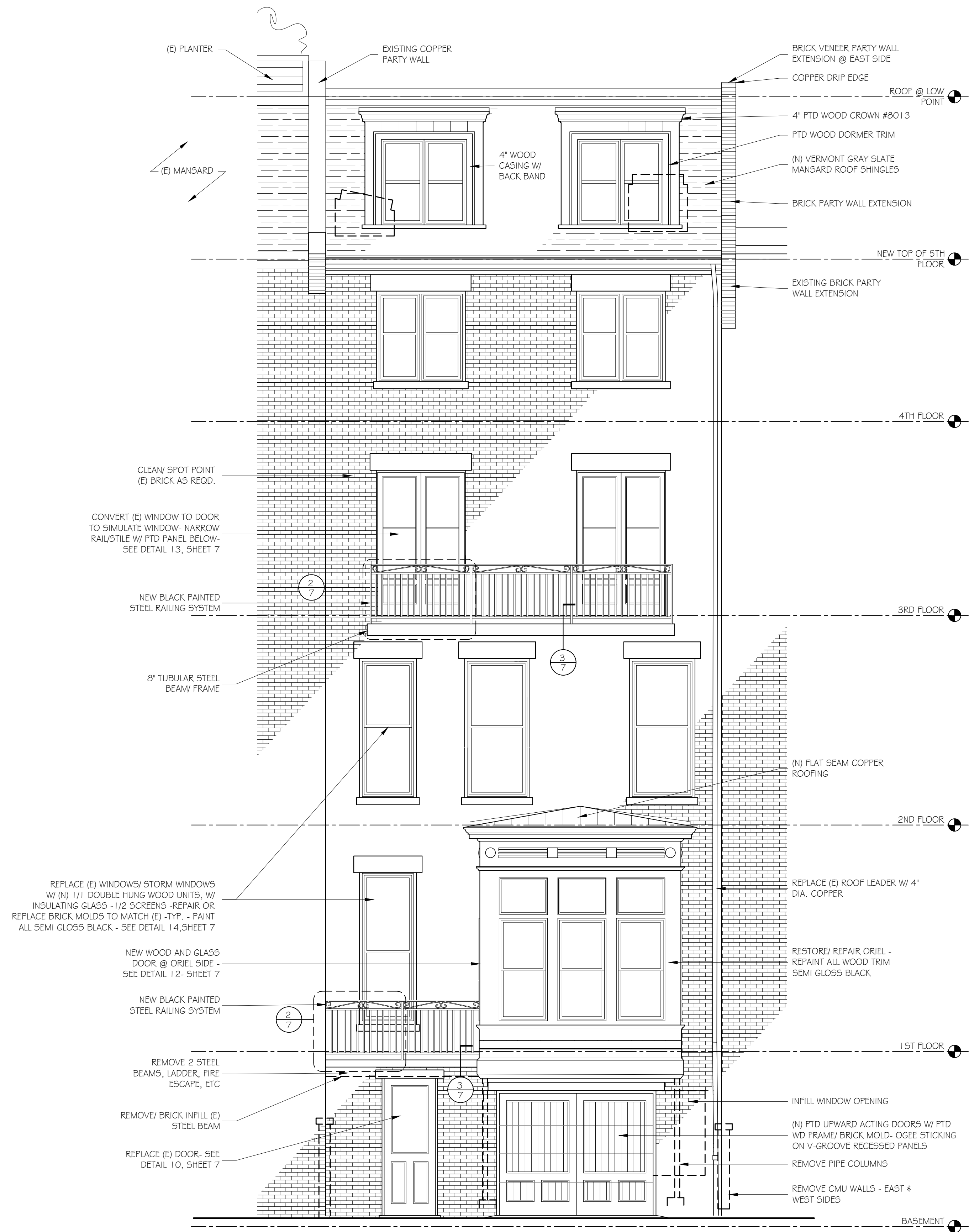
PROPOSED NORTH ELEVATION
 1/4" = 1'-0"

- SLOPING ROOF BEYOND
- NEW 4" DIA. COPPER DOWNSPOUT
- COPPER CAPPED BRICK PARTY WALL EXTENSION
- FLAT SEAM COPPER SIDING BEYOND
- REMOVE (E) CHIMNEY BEYOND
- WOOD AND GLASS DOORS - SEE DET. 13 SHEET 7
- REMOVE SKYLIGHT
- (E) HIGH PARTY WALL PARAPET COPPER CAP
- PTD STEEL RAILING @ PARAPET
- REPAIR / RESTORE / PAINT DORMER'S TRIM
- (E) COPPER PARTY WALL CAP
- REMOVE AND RESET (E) SLATE - REPLACE BROKEN AND NON SALVAGEABLE SLATES WITH (N) TO MATCH
- MANSARD @ #289 BEYOND
- (E) CONNECTING BALCONY - MODIFY RAILING SYSTEM SIM. TO DETAIL 2 SHEET A7
- REMOVE THIS SECTION OF FIRE BALCONY
- REMOVE DIAGONAL FIRE BALCONY BRACKETS- REPLACE W/ CANTILEVERED BRACKET
- REPLACE (E) ROOF LEADER W/ 4" DIA. COPPER
- (E) CONNECTING BALCONY - MODIFY RAILING SYSTEM SIM. TO DETAIL 2 SHEET A7
- REMOVE BRACKET & BEAM- REPLACE W/ CANTILEVERED BRACKET
- (E) BFD BEACON
- INSTALL (N) RECESSED VIDEO INTERCOM
- REPLACE (E) ENTRY DOORS SIMILAR TO ORIGINAL- PTD WOOD / GLASS - NEW DOOR HARDWARE
- REMOVE CONDUIT - REWIRE BEACON
- BRASS KICK PLATE
- REPLACE (E) HANDRAIL - ADD NEW RAIL @ EAST SIDE
- RESTORE (E) PTD BROWNSTONE STOOP - REPAINT
- COPPER STEPPED TRIM & GUTTER
- UPPER ROOF DECK RAILING @ #293
- (E) PENTHOUSE BEYOND @ #293
- ROOF @ LOW POINT
- RESTORE (E) CHIMNEY & POTS
- PENTHOUSE @ #293 BEYOND
- REMOVE SKYLIGHT
- (E) ROOF DECK RAILING @ #293
- NEW TOP OF 5TH FLOOR
- RECONSTRUCT (E) TURRET ROOF W/ SLATE AND COPPER TRIM- AND NEW COPPER FINIAL- SIM TO ORIGINAL DESIGN
- CLEAN & RESTORE SPALLED (E) BROWNSTONE TRIM W/ COLORED 'MIMIC' PATCHES TYPICAL ALL STONE TRIM
- CLEAN SPOT POINT (E) BRICK AS REQD.
- REPLACE (E) WINDOWS/ STORM WINDOWS W/ (N) 1/1 DOUBLE HUNG WOOD UNITS, W/ INSULATING GLASS - 1/2 SCREENS - REPAIR OR REPLACE BRICK MOLDS TO MATCH (E) - TRIP - PAINT ALL WOOD SEMI GLOSS BLACK - SEE DETAIL 14 SHEET 7
- REMOVE (E) WINDOW GRILLS
- (E) PTD STEEL FENCE - REPAIR/ PAINT
- REPAIR / RESET STONE CURBING AS REQD
- NEW TREE & GARDEN PLANTING



EXISTING SOUTH ELEVATION

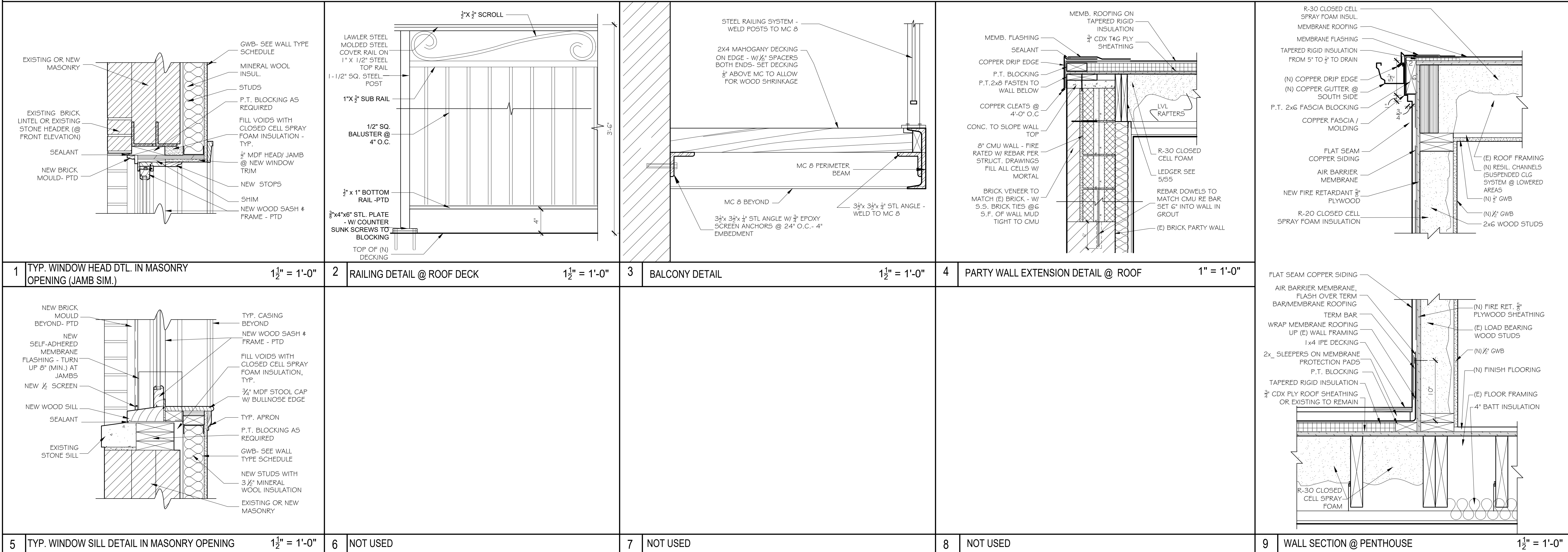
1/4" = 1'-0"



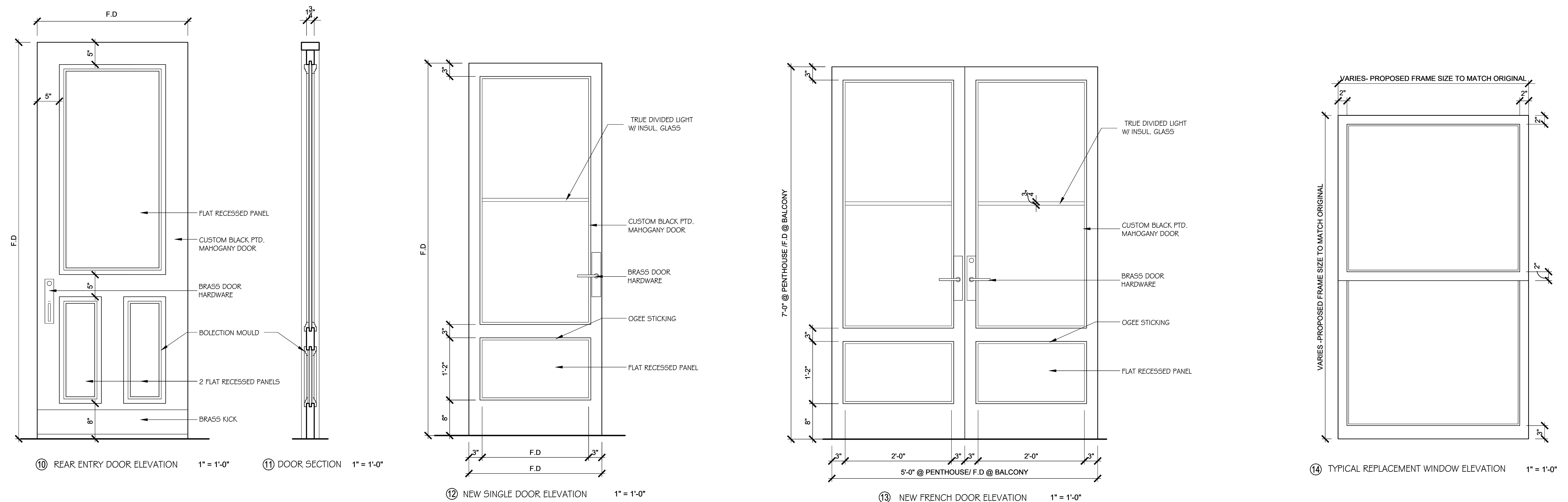
PROPOSED SOUTH ELEVATION

1/4" = 1'-0"

EXTERIOR DETAILS



DOOR & WINDOW TYPE ELEVATIONS - SCALE: 1" = 1'-0"



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Phone 617.956.9992
Fax 917.956.9993

GD GRASSI DESIGN GROUP
BG BEAUCHEMIN GRASSI INTERIORS

JOB NO: 2415
SCALE: AS NOTED
REVISED

291 BEACON STREET
BOSTON, MA

EXTERIOR DETAILS AND DOOR & WINDOW TYPE ELEVATIONS

7

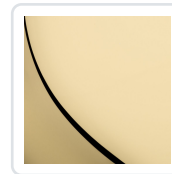


Baldwin Houston Mortise Entry Single Cylinder Trim Set w/ 5164 Lever Both Sides Polished Brass - 6973.003.ENTR

[Home](#) / [Mortise Lock\(Build a set\)](#) / [Trim Kit Only](#)

Finish:

003 Lifetime Polished Brass



Function:

ENTR Keyed Entrance Set

Price: **\$443.30** List: ~~\$682.00~~

Quantity

- 1 +

[Add to Cart](#)[Add to Quote](#)[Description](#)[Images](#)[Technical Docs](#)[Part Numbers](#)

Must order Mortise Lock and Cylinder for specific door thickness separately.

Most residential functions are fully reversible for both handing.

Designed to conceal cylindrical bores.

Requires mortise pocket and can be installed on wood, metal and some fiberglass doors.

Accommodates door thickness of 1-3/4 in. Conversion kit available for 2 in. and 2-1/4 in. thick doors, sold separately.

Specify function when ordering. Available in Single Cylinder, Double Cylinder and Full Dummy.

Single Cylinder Set includes Active Exterior Trim, Interior Escutcheon with Attached Turnpiece, 5164 Estate Lever Pair, and (0522) 4 in. Swivel Spindle.

Double Cylinder Set includes Active Exterior Trim, Interior Escutcheon Cut for Cylinder, 5164 Estate Lever Pair, and (0522) 4 in. Swivel Spindle.

Full Dummy Set includes Dummy Exterior Trim, Interior Escutcheon with Knob Hole, 5164 Estate Lever Pair, (0511) 4 in. Straight Spindle, (2) 5099.004 Dummy Mounting Plates, and 6761 Dummy Cylinder.

Escutcheon: 2-1/4 in. x 9-21/32 in.

Escutcheon Thickness: 15/32 in.

Lever: 4-3/16 in.

Lever Projection: 2-3/16 in.

Interior Turnpiece Projection: 1-5/32 in.

Solid forged brass construction

Specify finish when ordering.



Contact

1180 Route 28
South Yarmouth, Cape Cod
Massachusetts 02664
(508) 394-2300
Fax: (508) 394-7900

[Authorized Dealer](#)

Shop our Stores

Home By Decor	Newport Brass Faucets	Simplex Lock	TopKnobSupply.com
CabinetPull.com	ccbrass.com	Cape Cod Brass	Doorhardware Supply
Faucet Supply	hagersupply.com	floorregister.com	Door Hardware Clearance
Ginger Bath	bradleysupply.com	Rocky Mountain Door Hardware	gatcobath.com
californiafaucetsupply.com	Schaub Supply	RKI Cabinethardware.com	ValsanBath.com
Alno Supply.com	InoxLock.com	Exit Device.com	Division 10 Hardware
Base of Design	Nostalgic Hardware	Grandeur Supply	Smedbo Bath
Cape Cod Light Fixtures	Hinge Supply.com	Omnia Supply	Cavity Slider Supply.com
Rockwood Pull.com			



Siedle Steel - Video Door station - Intercom Unit
Recess mounted with 2 push buttons (One shown)

SPECIFICATIONS**Certifications/Qualifications**www.kichler.com/warranty**Dimensions**

Base Backplate	5.75 X 9.50
Extension	10.75"
Weight	5.70 LBS
Height from center of Wall opening (Spec Sheet)	6.75"
Height	19.50"
Width	8.00"

Light Source

Lamp Included	Not Included
Lamp Type	A19
Light Source	Incandescent
Max or Nominal Watt	100W
# of Bulbs/LED Modules	1
Socket Type	Medium
Socket Wire	150

Mounting/Installation

Interior/Exterior	Exterior
Location Rating	CSA UL Listed Wet
Mounting Weight	3.15 LBS

FIXTURE ATTRIBUTES**Housing**

Diffuser Description	White Linen
Primary Material	ALUMINUM

Product/Ordering Information

SKU	9040BK
Finish	Black
Style	Traditional
UPC	783927226769

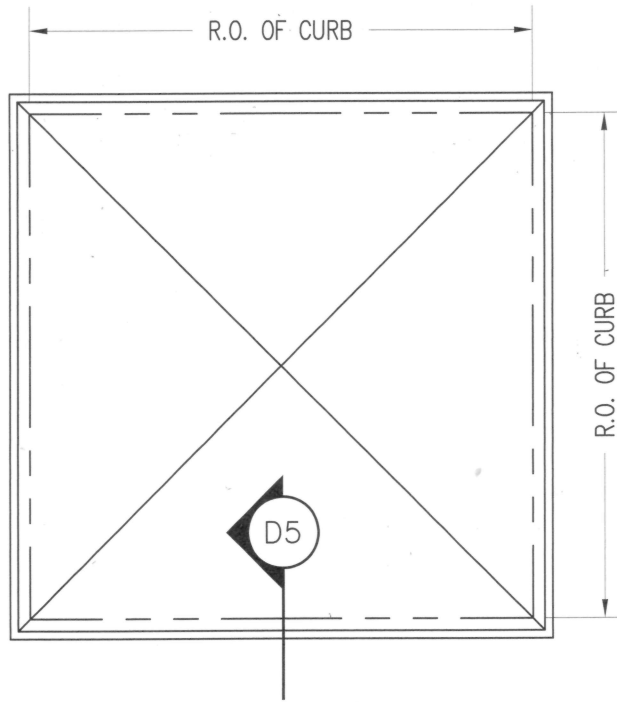
Finish Options

Black



Rubbed Bronze

**ALSO IN THIS FAMILY****Rear Exterior Sconce**



PYRAMID DOME SHOWN - CURVED DOME SIMILAR

GENERAL NOTES:

- 1) UNIT TESTED TO MEET OR EXCEED OSHA FALL GUARD INTENT

MODEL	R.O. OF CURB	OUTER DOME RISE	INNER DOME RISE
2020	14 1/4" X 14 1/4"	5"	3"
2028	14 1/4" X 22 1/4"	5"	3"
2052	14 1/4" X 46 1/4"	5"	3"
2424	19" X 19"	5"	3"
2828	22 1/4" X 22 1/4"	7"	5"
2836	22 1/4" X 30 1/4"	7"	5"
2852	22 1/4" X 46 1/4"	7"	5"
3636	30 1/4" X 30 1/4"	8"	6"
3652	30 1/4" X 46 1/4"	10"	8"
3676	30 1/4" X 69 1/2"	10"	8"
4242	37" X 37"	10"	8"
4280	37" X 75"	12"	10"
→ 4364	38" X 59"	12"	10"
→ 5252	46 1/4" X 46 1/4"	12 1/2"	10 1/2"
→ 5276	46 1/4" X 69 1/2"	12"	10"
5296	46 1/4" X 89 1/2"	12"	10"
6060	55" X 55"	14"	12"
6476	57 1/2" X 69 1/2"	16"	14"
6496	57 1/2" X 89 1/2"	16"	14"
→ 7272	68" X 68"	16"	14"
8080	75" X 75"	18"	16"
9898	92 1/2" X 92 1/2"	22"	20"

Gx6

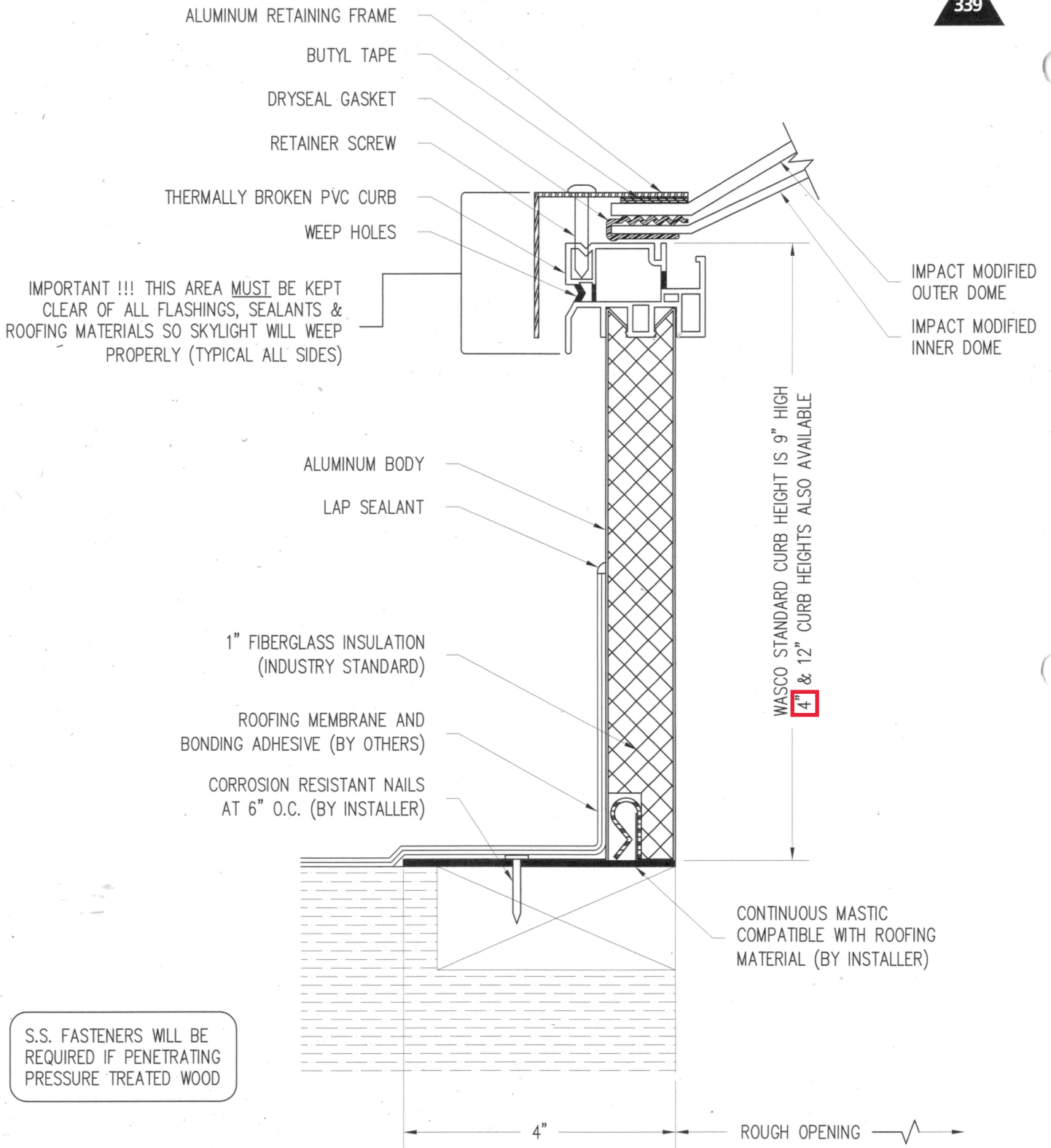
Pyramidal Skylights



Wasco Products, Inc.
 22 Pioneer Avenue, P.O. Box 351
 Sanford, ME 04073
 Fax: 207-490-5270 sales@wascoproducts.com
 800-388-0293 www.wascoproducts.com

Sentinel (DDSA) (DDSAP)
 Deck Mount Skydome
 Unit Plan View

PLN5

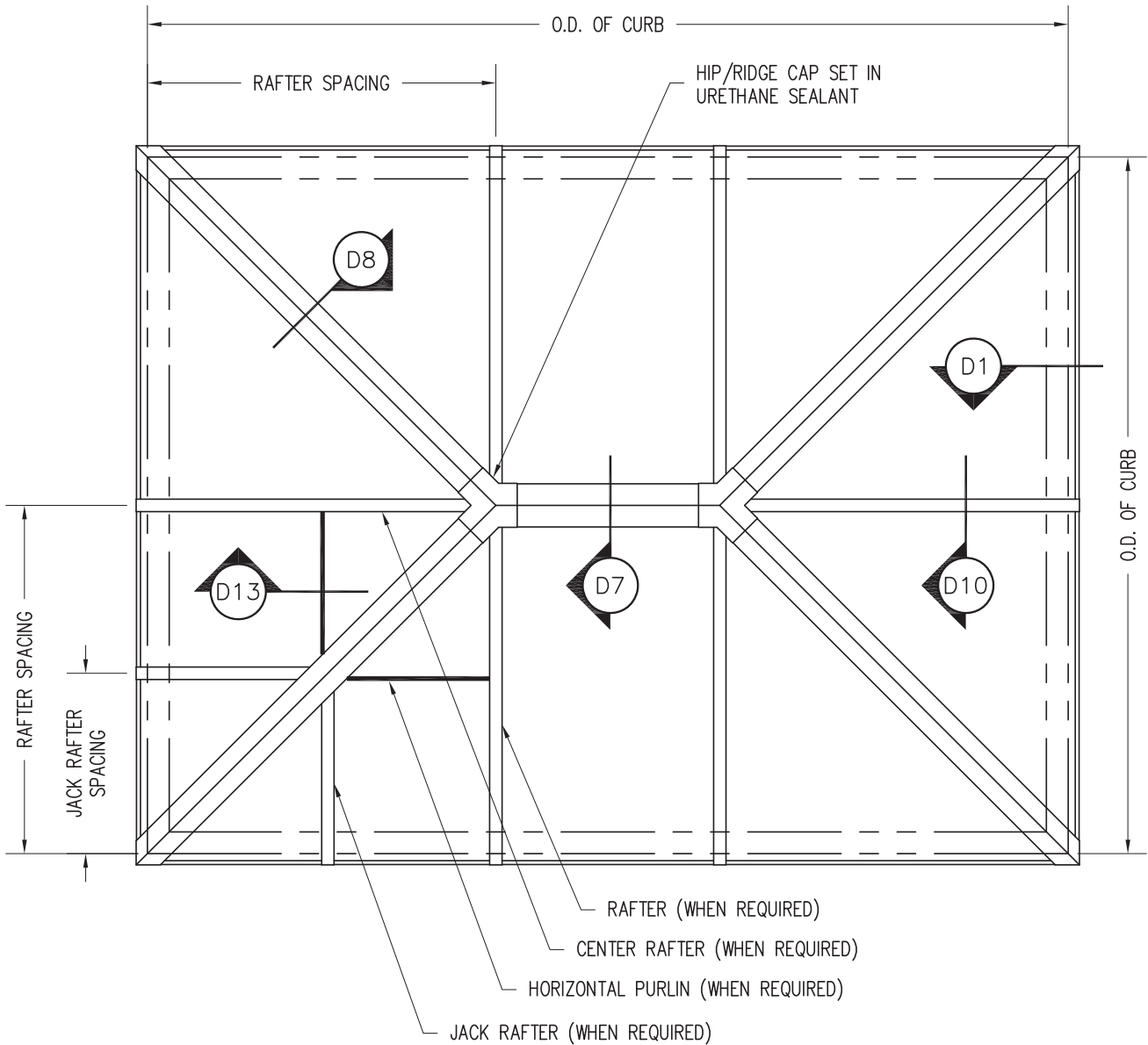


S.S. FASTENERS WILL BE REQUIRED IF PENETRATING PRESSURE TREATED WOOD

GENERAL NOTES:
1) UNIT TESTED TO MEET OR EXCEED OSHA FAIL GUARD INTENT

Pyramidal Skylight Curb - 4" High

 <p>Since 1935 Wasco SKYLIGHTS</p>	<p>Wasco Products, Inc. 22 Pioneer Avenue, P.O. Box 351 Sanford, ME 04073 Fax: 207-490-5270 sales@wascoproducts.com 800-388-0293 www.wascoproducts.com</p>	<p>DDSA and DDSAP SA Sill Detail</p>	<p>D5</p>
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GENERAL NOTES:

- 1) RAFTER LOCATION BASED ON WASCO'S RECOMMENDATIONS AND AAMA GLAZING GUIDELINES (BASED ON SIZE OF UNIT, TYPE OF GLAZING, CUSTOMER'S REQUEST, ETC.)
- 2) UNIT PITCHES ARE AVAILABLE FROM 3:12 TO 12:12

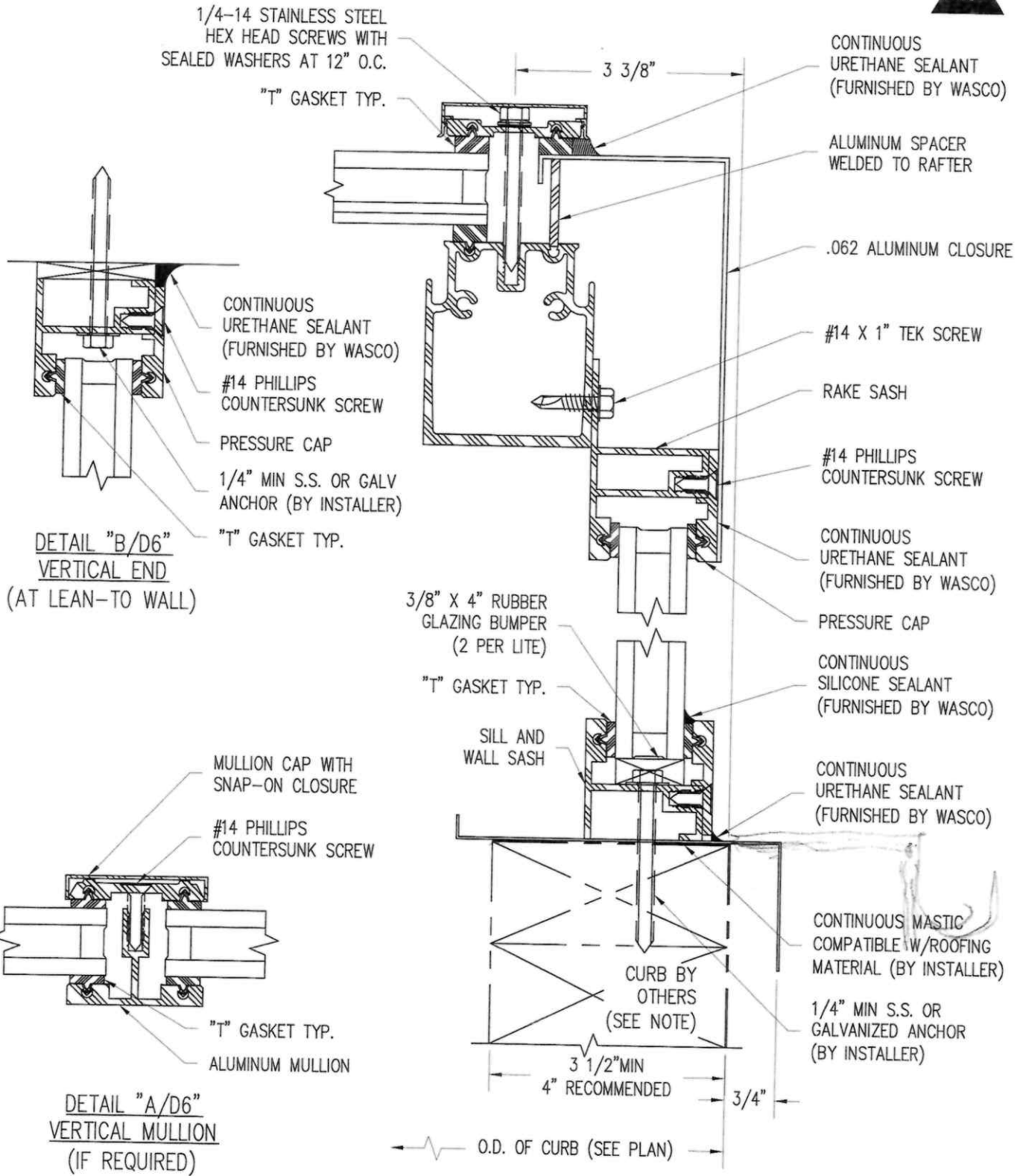
Wasco Part of
VELUX Commercial

VELUX Wells
 85 Spencer Dr, Unit A
 Wells, ME 04090
 1-800-88-VELUX
 veluxusa.com

PINNACLE 350 OR 600
 (PYH)
 EXTENDED PYRAMID
 PLAN VIEW

PLN2

SKYLIGHT



Glazed Roof System

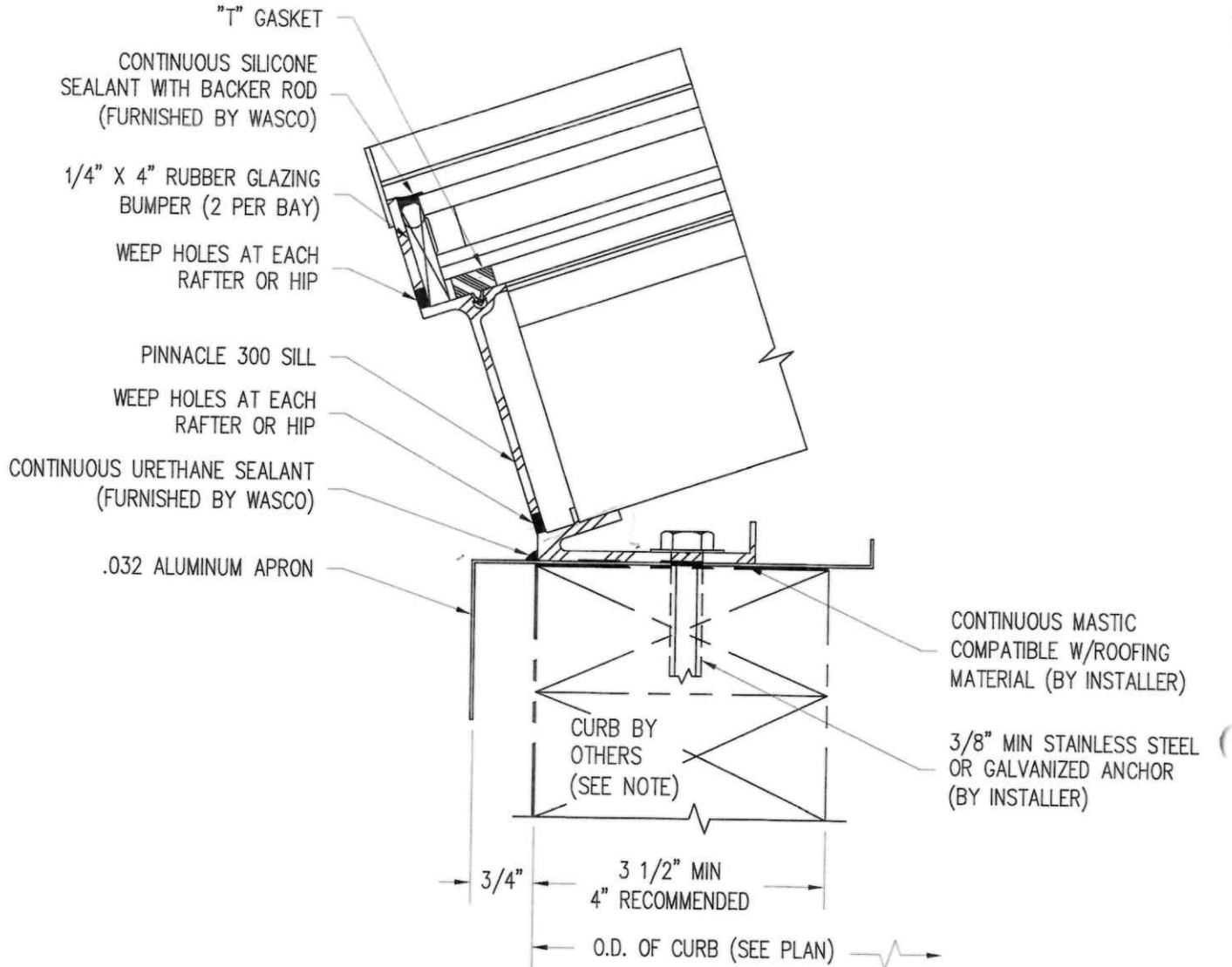
Since 1935



Wasco Products, Inc.
22 Pioneer Avenue, P.O. Box 351
Sanford, ME 04073
Fax: 207-490-5270 sales@wascoproducts.com
800-388-0293 www.wascoproducts.com

**Pinnacle 300
Vertical End Detail**

D6



S.S. FASTENERS WILL BE REQUIRED IF PENETRATING PRESSURE TREATED WOOD

Glazed Roof System

Since 1935
Wasco
 SKYLIGHTS
 Wasco Products, Inc.
 22 Pioneer Avenue, P.O. Box 351
 Sanford, ME 04073
 Fax: 207-490-5270 sales@wascoproducts.com
 800-388-0293 www.wascoproducts.com

Pinnacle 300 Sill Detail

D1

CITY MULTI® S-Series Building Comfort Solutions

Roof Top Mech. Equipment



S-Series Solutions for the home or small office

The CITY MULTI S-Series offers all the features and benefits of our large commercial CITY MULTI Y-Series. The S-Series Solution features a single-phase outdoor unit with Variable Refrigerant Flow Zoning (VRFZ) technology and CITY MULTI Controls Network (CMCN) to cool or heat all zones with a variety of indoor unit styles. The compact outdoor unit utilizes R410A refrigerant and an INVERTER-driven compressor to use energy effectively. A maximum of eight CITY MULTI indoor units can be connected with up to 130% connected capacity, depending on diversity. CITY MULTI Controls Network intelligently manages the CITY MULTI building comfort solution through zone controllers and system controllers and optionally through a networked PC to manage individual comfort and to provide the ultimate building comfort solution.

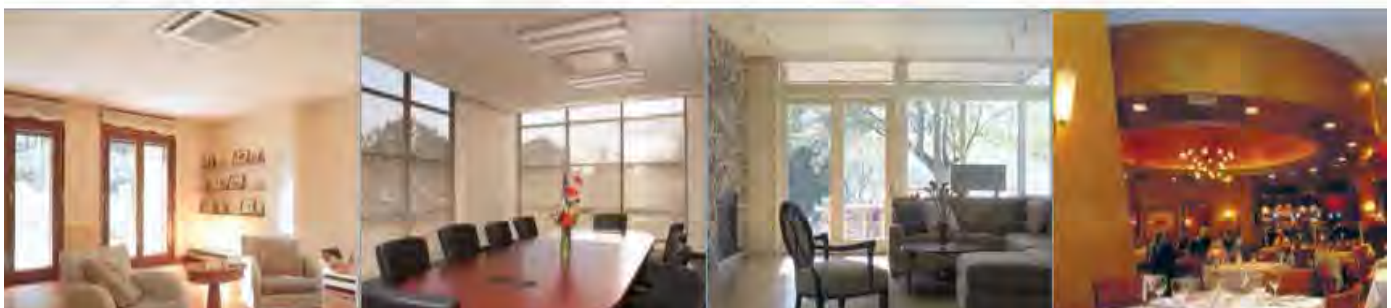


Easy, flexible installation

The S-Series outdoor unit is easy to install and can be accessed for service through both a front and side panel. The unit's compact dimensions and easy accessibility allow multiple units to be stacked side by side in tight areas, saving valuable space and resources.

Available indoor units

Capacity Code	Wall-mounted PWFY-P-W+MU-E	Ceiling-recessed Cassette RWFY-P-W+MU-E	Ceiling-recessed Cassette PWFY-P-NBMU-E	Ceiling-suspended PWFY-P-NBGMU-E	Ceiling-concealed (ducted) PWFY-P-NMU-E	Ceiling-concealed (ducted low-profile) PWFY-P-NMLU-E	Ceiling-concealed (ducted alternate high-static) PWFY-P-NMHU-E	Floor-standing (exposed/concealed) PWFY-P-NEMUNRIMU-E
Nominal Btu/h	 6,000-30,000	 8,000-36,000	 6,000-15,000	 15,000-36,000	 6,000-48,000	 6,000-12,000	 15,000-54,000	 PWFY-NEMU down 6,000-24,000



Roof Top Mechanical Equipment

Indoor Unit	PLA-A24EA7	PLA-A30EA7	PLA-A36EA7	PLA-A42EA7		
Outdoor Unit	PUZ-HA24NHKA1	PUZ-HA30NHKA	PUZ-HA36NHKA	PUZ-HA42NHKA1		
Cooling	Capacity	Rated ¹ 24,000	30,000	36,000	42,000	
	Capacity Range	Min-Max 10,000-24,000	14,600-30,000	14,800-36,000	18,800-42,000	
	Power Input	Rated ¹ W	2,120	2,750	3,920	
	Moisture Removal	Pintsh	5.4	5.5	4.5	
	Sensible Heat Factor		0.860	0.830	0.880	
	Capacity at 47°F	Rated ² BTU/H	26,000	32,000	38,000	48,000
	Capacity Range	Min-Max BTU/H	10,000-28,000	14,200-34,000	16,700-40,000	17,000-54,000
	Power Input at 47°F	Rated ² W	1,700	2,260	2,650	4,210
	Capacity at 17°F	Rated ³ BTU/H	17,300	20,600	24,200	40,500
		Max BTU/H	26,000	32,000	38,000	48,000
Heating	Capacity at 5°F	Max ⁴ BTU/H	26,000	32,000	38,000	48,000
	Capacity at -5°F	Max BTU/H	—	—	—	—
	SEER		21.5	20.2	20.0	16.3
	EER		14.0	14.1	13.0	10.7
	HSPF		11.3	9.8	10.4	9.8
	COP		4.5	4.1	4.2	3.3
	ENERGY STAR® Certified	Yes	Yes	Yes	No	
	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-SH)	Dry CFM	530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200
	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-SH)	Wet CFM	490-600-670-770	530-630-740-840	630-810-980-1160	700-880-1020-1160
	Air Flow Rate - Heating (Quiet-Lo-Med-Hi-SH)	Dry CFM	530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200
Sound Pressure Level (Quiet-Lo-Med-Hi-SH)	Cooling dB(A)	28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45	
Sound Pressure Level (Quiet-Lo-Med-Hi-SH)	Heating dB(A)	28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45	
External Static Pressure	In. W.G.	—	—	—	—	
Condensate Lift Mechanism	Max Distance In. [mm]	33-7/16 [849]	33-7/16 [849]	33-7/16 [849]	33-7/16 [849]	
Dimensions	H In. [mm]	11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]	
	W In. [mm]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	
Weight	D In. [mm]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	
	lbs [kg]	56 // 11 [25 // 5]	56 // 11 [25 // 5]	56 // 11 [25 // 5]	56 // 11 [25 // 5]	
MCA	A	17.0	24.0	26.0	36.0	
MOC	A	27	40	42	44	
Dimensions	H In. [mm]	37-1/8 [943]	52-11/16 [1338]	52-11/16 [1338]	52-11/16 [1338]	
	W In. [mm]	37-13/32 [950]	41-5/16 [1050]	41-5/16 [1050]	41-5/16 [1050]	
Weight	D In. [mm]	14-3/16 [360]	14-3/16 [360]	14-3/16 [360]	14-3/16 [360]	
	lbs [kg]	190 [86]	261 [118]	261 [118]	283 [128]	
Air Flow Rate (Cooling/Heating)	CFM	1940/1940	3880/3880	3880/3880	3319/3319	
Sound Pressure Level	Cooling dB(A)	52	52	52	49	
	Heating dB(A)	53	53	53	51	

SECTION 04500

MASONRY RESTORATION AND CLEANING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including general and supplementary conditions and Division-1 specifications sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

A. Extent of masonry restoration work is indicated on drawings and in schedules.

B. Masonry Restoration Work Includes the Following:

1. Chemical cleaning of exposed exterior masonry surfaces.
2. Repairing and rebuilding damaged stonework.
3. Stonework restoration.
4. Re-pointing of masonry joints as required.

NOTE: The chemical cleaning of exterior surfaces should be accomplished before new windows are installed.

C. Masonry construction is specified in other Division 4 sections.

D. Joint sealers are specified in a Division 7 section.

1.03 QUALITY ASSURANCE

A. Restoration Specialist: Work must be performed by a firm with not less than 5 years successful experience in masonry restoration projects employing skilled personnel for execution of the work.

B. Job Mock-Ups: Prior to start of general masonry restoration, conduct the following procedures. Obtain Architect's acceptance of visual qualities before proceeding with the work.

1. Cleaning: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing materials and methods to be used for cleaning exterior masonry surfaces.

2. Re-pointing: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing routing and repointing including mortar, type of joint, and workmanship for masonry in project.

3. Stonework Restoration: Prepare a 2' x 2' sample area on the building, where directed by Architect for stonework restoration. Use anchorage, bonding, mortar and workmanship expected in completed work. The restoration patching mix shall match the existing brownstone in texture and color. Acceptable panel shall be used as a standard for judging completed work.

C. Source of Materials: Obtain materials for masonry restoration from a single source for each type material required (face brick, cement, sand, etc.) to ensure match quality, color, pattern, and texture.

1.04 SUBMITTALS:

A. Product Data: Submit manufacturer's specifications and other data for each manufactured product, including certification that each product complies with specified requirements. Include instructions for handling, storage, installation and protection of each product.

B. Samples: Sample areas shall be used to exhibit the cleaning performance of the restoration cleaner on brick work. Test areas shall be selected by Architect and shall be approximately 20 sq. ft. Multiple tests of varying concentrations shall determine composition of cleaning solution required. Provide written certification by manufacturer that restoration cleaner is compatible with brownstone.

1.05 DELIVERY, STORAGE AND HANDLING

A. Protect masonry materials during storage and construction from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.

B. Protect grout and mortar materials from deterioration by moisture and temperature. Store in a dry location or in waterproof containers tightly closed and away from open flames. Protect liquid components from freezing. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage.

1.06 JOB CONDITIONS

A. Materials Protection: Do not use metal reinforcing or ties having loose rust or other coatings, including ice, which will reduce or destroy bond.

B. Protection of Work: During restoration cover wall with heavy waterproof sheeting at end of each day's work, if precipitation is expected.

- C. Staining: Prevent grout or mortar from staining face of masonry to be left exposed. Remove immediately grout or mortar in contact with masonry.
- D. Protect sills, ledges and projections from droppings of mortar.
- E. Cold Weather Protection:
 - 1. Remove ice or snow formed on masonry bed by carefully applying heat until top surface is dry to the touch.
 - 2. Remove masonry determined to be frozen or damaged by freezing conditions.
- F. Perform the following construction procedures while the work is in progress:
 - 1. When air temperature is from 40 deg. F (4 C) to 32 Deg. F (0 C), heat sand or mixing water to produce mortar temperatures between 40 deg. F (4 C) and 120 deg. F (49 C).
 - 2. When air temperature is below freezing, do not undertake tuckpointing or stone restoration.
- G. Perform the following protections for completed masonry and masonry not being worked on:
 - 1. Protect masonry from rain or snow for at least 24 hours by covering with water-resistive membrane.

PART 2 PRODUCTS

2.01 BRICK:

- A. Rebuild and/or repair existing masonry to be exposed, using bricks salvaged from selective demolition or new bricks to match existing.

2.02 MORTAR MATERIALS

- A. Mortar for Face Brick and Accessories: Provide mortar for face brick and accessories to match original mortar in texture, color, strength, and hardness (density and porosity).
 - 1. Determining existing mortar mix constituents and ratios by analysis. Review laboratory evaluations with Architect before proceeding with the work.
 - 2. Match color of existing mortar by use of aggregates matching original aggregate color where possible. Use inorganic coloring pigments if satisfactory color match cannot be attained with natural materials.
 - 3. Mortar mix to be in accordance with New York City Landmarks Preservation Commission Row House Manual – page 44 – 1 part Portland cement, 2 parts lime, 8 parts sand – mix, then add pigments and water- (Type O).

2.03 MASONRY CLEANING (BRICKWORK)

- A. A sample patch of cleaning must be reviewed and approved by architect before work is begun.
- B. Cleaning Agent: Blended organic and inorganic acids combined with special wetting systems and inhibitors; as manufactured by ProSoCo, Inc., Type 1 Restoration cleaner – or approved equal for the removal of atmospheric carbon and dirt, paint oxidation, and embedded clay and mud stains from brick and other masonry surfaces.

2.04 RESTORATION MATERIALS

- A. Epoxy Mortar: Conproco “mimic” trowel applied color matched, or approved equal.
- B. Primer: Conproco “mimic” bonding agent or approved equal.
- C. Stone Restoration Mix: Mix as per mortar manufacture’s recommendations.

PART 3 EXECUTION

3.01 CLEANING EXISTING MASONRY:

A. Preparation of Surfaces: Cleaners specified herein are highly concentrated products, and to the extent established by job site tests, shall be diluted with clean water before application.

1. Cleaners specified herein are harmful to glass, aluminum, painted, surfaces, foliage, and human skin and eyes.
2. Protect all surrounding areas as recommended by the literature of the manufacturer and as requested by the architect.
3. Windows shall be protected from contact with materials by masking with polyethylene, or by using Sure Klean Acid Stop, as manufactured by ProSoCo, Inc. South Plainfield, NJ or approved equal.
4. All polished stone, metal or non-masonry surfaces shall be protected from contact with the material by masking with polyethylene or approved protective material.
5. Adjacent shrubs, lawn, plants and sidewalks should be covered with polyethylene and protected from direct contact with the material.
6. Necessary routing of joints and replacement of damaged masonry units shall have been completed, with exception of final pointing, prior to beginning cleaning operation.
7. Adequate water supply shall be made available to assure thorough pre-soaking and thorough rinsing of the wall before undertaking general cleaning. All surfaces shall be thoroughly pre-soaked with clean water to prevent the absorption of the cleaning solution within the pores of the masonry.

- B. Cleaning Process: Brick, unpolished granite, sandstone, terra cotta and/or exposed aggregate shall be spray or brush coated with Type I restoration cleaner, and left on the surface two or three minutes. A second application shall follow if deemed necessary by preliminary tests. Coated area shall then be rinsed from bottom up with clear water using high pressure rinsing equipment. Equipment shall be adjusted so that rinse water, either warm or cold, is applied at a pressure not to exceed 500 P.S.I. Attempts shall be made during the testing stage to determine if effective cleaning can be achieved with rinse water applied at pressures not to exceed 500 P.S.I. Flow of water shall be 10 gallons per minute. Gun used to apply water shall be equipped with not less than a 15" spray tip. All tips shall be fan type.

3.02 REPAIRING EXISTING MASONRY

- A. Routing of Joints: Remove defective mortar joints to solid material or a depth of 1.0" whichever is greater, using hand tools. Take care to avoid damaging existing masonry or enlarging width of joints.
1. A sample of pointing must be reviewed and approved by architect before work is begun.
 2. Mechanical tools will be permitted only on specific written approval of architect and demonstrated ability by operators to use without damage to masonry.
 3. Remove and repair damage to existing masonry by cutting, spalling and chipping as caused by routing operations.
 4. Thoroughly remove loose material from joints using a hose stream under normal pressure or by low pressure compressed air.
- B. Mortar Mixing: Add only enough water to dry mix ingredients to produce a damp, workable mix. Keep mortar in dampened condition for 1 to 2 hours, and then add sufficient to bring it to proper consistency.
- C. Replacing Brick: Lay brick and accessories to match existing bond, unless otherwise indicated.
1. Match existing course height (one brick and one joint) for both face brick and back-up brick.
 2. Provide bonding between face brick and back-up brick as indicated.
 3. Provide joints to match existing, unless otherwise indicated. Delay final tooling of joints until mortar is thumb print hard. Take care to not spread mortar over the edges of face brick onto exposed surfaces.
 4. Wet brick before laying. Do not use brick which are saturated with water, or which have been unduly exposed to moisture or rain at site, or which have been in contact with ground.
 5. Lay brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not slush head joints. Do not furrow bed joint; strike mortar flat with trowel.

6. Lay up brickwork with full or half brick, as required. Do not fill in concealed work with spalls, small bats, or excess mortar.
7. Lay up brickwork level and plumb, or as otherwise required to match existing.

D. Re-pointing:

1. After careful routing and cleaning joints, wet joints thoroughly and then apply fresh, pre-hydrated mortar. Allow water to soak into joints, but joints should not be visibly wet with standing water during tuckpointing.
2. Fill mortar joints in layers not over 1/4" thick, with each layer applied with pressure as soon as previous layer has partially dried. Do not tool each layer smooth: Leave surface rough to help bond of subsequent layers. Compress the final packing as much as possible to completely fill joint. Compact joints solidly before final tooling.
3. Tool joints to match existing work which has not been repointed, or oldest joints found, unless otherwise indicated. Take care to not spread mortar over edges of brick onto exposed surfaces. Do not featheredge mortar. Cure mortar by maintaining in a damp condition for 5 days.

3.03 FINAL CLEANING

- A. All mortar to fully harden for approximately 30 days after completion of work, then thoroughly clean exposed masonry surfaces of excess mortar and foreign matter using stiff nylon or bristle brushes and clean water under normal pressure.
1. Use of metal scrapers or brushes will not be permitted.
 2. Use of acid or alkali cleaning agents will not be permitted.

3.04 STONE RESTORATION-PATCH METHOD

- A. Carefully remove loose and friable stone, dust, dirt, oil and other contaminants.
- B. Saw cut edges with a diamond blade at a 90 degree angle to eliminate feather edges. Repair zone must be 1/2" deep min.
- C. Saturate surface of stone to be repaired.
- D. Prime the prepared substrate in accordance with manufacturers instructions, while wet.
- E. Mix mortar patch in accordance with mortar manufacturers instructions.
- F. Apply materials in lifts, 1/2" minimum, 2: maximum, forcing materials against edges.
- G. Cross hatch scratch each lift to prepare surface for next lift.
- H. Overbuild 1/4", and shave to final form with trowel edge.
- I. Entire method to be performed in accordance with manufacturers detailed instructions.

- END OF SECTION -