### 979 Main St

Walpole, MA

11.01.2021 PERMIT SET

### **ABBREVIATIONS SYMBOLS** ABOVE FINISHED FLOOR ACOUSTICAL CEILING TILE AMERICANS W/ DISABILITIES ACT **APPRO APPROXIMATE** ARC ARCHITECTURAL **AUDIO VISUAL** BUILDING BLOCKING B.O **BOTTOM OF** CABINET CEILING HEIGHT CLEAR A20 CENTERLINE COL COLUMN CONT CONTINUOUS CONCRETE MASONRY UNIT **CONTROL JOINT** DETAIL DIAMETER DIMENSION DOWN DRAWING **EXISTING ELEVATION** EL. ELEC. ELECTRICAL **EQUAL** FLOOR DRAIN FACE F.O.C **FACE OF CONCRETE** F.O.F FACE OF FINISH F.O.S FACE OF STUD GROUND FAULT INTERCEPTOR CIRCUIT **GSM** GALVANIZED SHEET METAL GYPSUM WALL BOARD HEATING, VENTILATING, AND AIR CONDITIONING H OR **HOLLOW METAL** MAXIMUM MASONRY OPENING MEC MECHANICAL MECHANICAL ELECTRICAL MINIMUM MISCELLANEOUS METAL NOT IN CONTRACT

N.T.

O.C.

O.D

**PLYW** 

REQ'

R.O.

S.G

SPE

S.S.

SST

STO

STRUC

SCHED.

NOT TO SCALE

ON CENTER

OPENING

OPPOSITE

PLYWOOD PAINTED

PAINT GRADE

**ROOF DRAIN** 

**ROUGH OPENING** 

SEE LANDSCAPE DRAWINGS

SEE STRUCTURAL DRAWINGS

REQUIRED

SCHEDULE

SIMILAR

SQUARE

STEEL

STORAGE

STRUCTURAL

SYMMETRICAL

TUBULAR STEEL

VERIFY IN FIELD

**TYPICAL** 

WITHOUT WOOD

TONGUE AND GROOVE

UNLESS OTHERWISE NOTED

WATERPROOFING MEMBRANE

STAIN GRADE

SPECIFICATION

STAINLESS STEEL

**OUTSIDE DIAMETER** 

OVER

DESIGN IS BASED ON THE INTERNATIONAL BUILDING CODE (IBC) 2015, THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2015, THE INTERNATIONAL **ENERGY CONSERVATION CODE (IECC) 2018, AND THE MASSACHUSETTS BUILDING CODE 2015 AMENDMENTS. CONSTRUCTION SHALL CONFORM** WITH ALL APPLICABLE SECTIONS.

SHEET LIST

SHEET

REFERENCE

REFERENCE

REFERENCE

DRAWING

REFERENCE

REFERENCE

DRAWING SHEET

DRAWING SHEET

NORTH ARROW

WINDOW TAG

WALL TYPE TAG

APPLIANCE TAG

**REVISION TAG** 

**CENTER LINE** 

DOOR TAG

INTERIOR ELEVATION

**EXTERIOR ELEVATION** 

DRAWING SHEET

DETAIL

DRAWING SHEET

DRAWING SHEET

**BUILDING SECTION** 

### **GENERAL REQUIREMENTS**

- ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE LOCALS BUILDING CODES AND REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS APPLICABLE TO SPECIFIC TRADES OR SUBCONTRACTORS.
- CONTRACTOR SHALL EXAMINE THE PREMISES AND SITE SO AS TO COMPARE THEM TO THE CONTRACT DRAWINGS AND WILL BE FAMILIAR WITH THE EXISTING CONDITIONS OF THE BUILDING AND ADJACENT PROPERTY PRIOR TO SUBMISSION OF BID NUMBER. ALLOWANCES ARE TO BE MADE TO INCLUDE ALL ITEMS OF WORK INCLUDING BOTH LABOR OR MATERIALS FOR ALL NOTED, DETAILS, OR IMPLIED ITEMS REQUIRED TO ATTAIN THE COMPLETED CONDITIONS PROPOSED IN THE DRAWINGS AND SPECIFICATIONS
- ALL SUBCONTRACTORS SHALL INSPECT THE SITE AND CONVEY ANY QUESTIONS REGARDING DESIGN INTENT AND SCOPE OF WORK TO THE GENERAL CONTRACTOR WHO WILL CONVEY THESE TO THE ARCHITECT PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND SUBCONTRACTORS AND SHALL BE RESPONSIBLE FOR ANY ACTS, OMISSIONS, OR ERRORS OF THE SUBCONTRACTORS AND OR PERSON DIRECTLY OR INDIRECTLY EMPLOYED BY THEM.
- CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS INCLUDING THE SAFETY OF PERSONS AND PROPERTY FOR
- CONTRACTOR SHALL CONFORM TO ALL NEIGHBORHOOD ASSOCIATION RULES AND GUIDELINES.
- CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY AND PRIOR TO ORDERING OF ALL LONG LEAD TIME ITEMS AND OF APPROXIMATE
- ALL CONSTRUCTION MATERIALS AND SUPPLIES ARE TO BE STORED, HANDLED, AND INSTALLED ACCORDING TO MANUFACTURERS'
- DRAWINGS SCHEMATICALLY INDICATE NEW CONSTRUCTION. THE CONTRACTOR SHALL ANTICIPATE, BASED ON EXPERIENCE, A REASONABLE NUMBER OF ADJUSTMENTS TO BE NECESSARY TO MEET THE DESIGN OBJECTIVES AND SHOULD CONSIDER SUCH ADJUSTMENTS AS

IF ERRORS OR OMISSIONS ARE FOUND IN THE CONTRACT DOCUMENTS, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT

- WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
- 12. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF OF THE DRAWINGS.
- THESE NOTES ARE TO APPLY TO ALL DRAWINGS AND GOVERN UNLESS MORE SPECIFIC REQUIREMENTS ARE INDICATED THAT ARE APPLICABLE TO PARTICULAR DIVISIONS OF THE WORK. SEE SPECIFICATIONS AND GENERAL NOTES IN THE INDIVIDUAL SUBSECTIONS OF CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
- 14. ALL DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.

BEFORE PROCEEDING WITH THE WORK.

PROVIDE WEATHERSTRIPPING AT ALL DOORS LEADING FROM HEATED TO UNHEATED AREAS. PROVIDE VINYL BEAD TYPE WEATHERSTRIPPING AT THESE DOORS AND WINDOWS. ALL SIDES OF NEW DOORS ARE TO BE WEATHERSTRIPPED INCLUDING THE

SHEET

NUMBER

SHEET NAME

E103 POWER THIRD FLOOR PLAN

E105 POWER ROOF FLOOR PLAN

E200 LIGHTING BASEMENT PLAN

E201 LIGHTING FIRST FLOOR PLAN

E203 LIGHTING THIRD FLOOR PLAN

E205 LIGHTING ROOF PLAN

E301 | ELECTRICAL DETAILS

FA105 | FIRE ALARM ROOF PLAN

FP101 | FIRE PROTECTION PLAN

FP102 | FIRE PROTECTION PLAN

FP103 | FIRE PROTECTION PLAN

FP104 | FIRE PROTECTION PLAN

FP105 | FIRE PROTECTION PLAN

FP106 | FIRE PROTECTION PLAN

FP200 FIRE PROTECTION DETAILS

FP201 FIRE PROTECTION NOTES

FA106 NOTES

E302 RISER DIAGRAM & DETAILS

FA100 | FIRE ALARM BASEMENT PLAN

FA101 | FIRE ALARM FIRST FLOOR PLAN

FA102 | FIRE ALARM SECOND FLOOR PLAN

FA104 | FIRE ALARM FOURTH FLOOR PLAN

FA103 | FIRE ALARM THIRD FLOOR PLAN

E202 LIGHTING SECOND FLOOR PLAN

E204 LIGHTING FOURTH FLOOR PLAN

E104 POWER FOURTH FLOOR PLAN

Revision

- 16. CAULK AND SEAL OPENINGS IN BUILDING EXTERIOR TO A THICKNESS OF 1/8" OR GREATER TO PREVENT AIR INFILTRATION.
- 17. ALL WINDOWS ARE TO BE OPERABLE FOR CLEANING UNLESS OTHERWISE NOTED.
- 18. ALL WALL FRAMING SHALL BE 3 5/8" AT 16" ON CENTER UNLESS OTHERWISE NOTED.

SHEET

19. ALL GYPSUM BOARD SHALL BE 5/8" THICK UNLESS OTHERWISE NOTED

Revision

20. STRUCTURAL WOOD MEMBERS ADJACENT TO CONCRETE ARE TO BE PRESSURE TREATED DOUGLAS FIR

### **PROJECT DATA**

SPACE	AREA
GROUND	3,005 SF
FIRST	2,989 SF
SECOND	2,860 SF
THIRD	2,530 SF
FOURTH	2,346 SF

13,730 SF

### A. DESCRIPTION:

TOTAL SF =

ADDITION OF TWO STORIES ON TOP OF EXISTING TWO STORIES STRUCTURE B. USE GROUP: MIXED USE R-RESIDENTIAL (APARTMENTS)/ B-BUSINESS (RESTAURANT) C. CONSTRUCTION CLASSIFICATION:

TYPE 3-A CONSTRUCTION

NUMBER SHEET NAME NUMBER SHEET NAME Date Revision Date Revision A000 COVER S100 STRUCTURAL FRAMING C1 SITE PLAN STRUCTURAL FRAMING C2 | CIVIL SITE PLAN S102 | STRUCTURAL FRAMING A001 BUILDING INFORMATION S103 STRUCTURAL FRAMING A002 BUILDING INFO - EXIST. AREA CALCS H101 LEVEL G - PROPOSED HVAC A003 BUILDING INFO - PROP. AREA CALCS H102 LEVEL 1 - PROPOSED HVAC A010 ARCH SITE PLAN - PROPOSED H103 | LEVEL 2 - PROPOSED HVAC A100 DEMO FLOOR PLANS H104 LEVEL 3 - PROPOSED HVAC A101 LEVEL G - PROPOSED 11.19.2021 H105 LEVEL 4 - PROPOSED HVAC A102 LEVEL 1 - PROPOSED 11.19.2021 H106 ROOF LEVEL - PROPOSED HVAC A103 | LEVEL 2 - PROPOSED 11.19.2021 H201 HVAC NOTES A104 LEVEL 3 - PROPOSED 11.19.2021 H202 HVAC SCHEDULSS A105 LEVEL 4 - PROPOSED 11.19.2021 H203 | HVAC DETAILS A106 ROOF LEVEL - PROPOSED H204 | HVAC DETAILS A109 | FLOOR FINISH PLANS H205 | HVAC DETAILS A112 | PAINT PLANS P101 LEVEL G - PROPOSED PLUMBING A113 LEVEL G - RCP P102 | LEVEL 1 - PROPOSED PLUMBING A114 | LEVEL 1 - RCP P103 LEVEL 2 - PROPOSED PLUMBING A115 LEVEL 2 - RCP P104 | LEVEL 3 - PROPOSED PLUMBING A116 | LEVEL 3 - RCP P105 | LEVEL 4 - PROPOSED PLUMBING A117 LEVEL 4 - RCP P106 ROOF LEVEL- PROPOSED PLUMBING A118 ROOF - RCP P201 PLUMBING NOTES & SCHEDULES A200 | ELEVATIONS - DEMO/PROPOSED P202 | PLUMBING NOTES A201 | ELEVATIONS - DEMO/PROPOSED P203 | PLUMBING DETAILS A300 | SECTIONS P204 | PLUMBING DETAILS A400 PERSPECTIVE VIEWS P205 PLUMBING DETAILS A600 | FINISH SCHEDULE P206 | PLUMBING RISERS A601 | FINISH SCHEDULE E100 POWER BASEMENT PLAN A602 | FINISH SCHEDULE E101 POWER FIRST FLOOR PLAN A603 APPLIANCE, PLUMB FIXT LEGEND E102 POWER SECOND FLOOR PLAN





**ZONING REVIEW** 

**979 MAIN** 

Revision Date

STREET

ZONING TABLE		N STREET 2 POSED CBI		
TOWN OF WALPOLE, CENTRAL BUSINESS ZONING DISTRICT - CBD	PERMITTED DIMENSION	EXISTING DIMENTION	PROPOSED DIMENSION	RELIEF REQUIRED
LOT AREA (SF) MINIMUM	5,000	4,385	4,385	E/N*
LOT FRONTAGE (FEET) MINIMUM	50	55.9	55.9	N
MAX. LOT COVERAGE BY STRUCTURES (PERCENT)	90	68.1	68.1	N
BUILDING HEIGHT (FEET) MAXIMUM	52 (14)	+/-27	45.1	N
USABLE OPEN SPACE (MIN. SQUARE FEET/DW UNIT)	N/A	-	-	-
FRONT YARD MIN. DEPTH (FEET - SOUTH SIDE)	0	5	5	N
FRONT YARD MAX. DEPTH (FEET - SOUTH SIDE)	25 (1)	5	5	N
SIDE YARD MIN. DEPTH	0 (5)	0.6	0.6	N
REAR YARD DEPTH (FEET - NORTH SIDE)	10 (6)	9.5	9.5	E/N*

FOOTNOTES TO TABLE \* E/N - Existing Nonconforming

1. Any setbacks established beyond zero (0) shall be to enhance the pedestrian-oriented quality of the space within that setback pursuant to the Central Business District Design Guidelines in Section 13.11.

5. A wall adjoining a side lot line shall be designed as a firewall and used either as a party wall or with its outer faces coincident with said line. A recorded easement should be provided to the Building Inspector prior to occupancy of the building.

6. For a dwelling, except that a dwelling in which all rooms open onto a street or onto a yard or exterior court at least twenty (20) feet in depth may be constructed within six (6) feet of the rear line of its lot and six (6) feet from all other abutting buildings.

14. Except that a dormitory may be determined by "10" (above).

design | resource | team

Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co

Owner
HUS Companies
Architect
Design Resource Team, LLC. 546 East Broadway, Boston, MA 02127
Surveyor
GLM Engineering 19 Exchange St, Holliston, MA 01746
General Contractor TBD
Governing Code MA 780 CMR Residential – 9th Edition, IRC 2015
Construction Type
V-B
Occupancy Use Group Mixed Use (B-Business/R-Residential)
Height & Area
Per Walpole Zoning Ordinances

**GENERAL NOTES:** 



No.	Description	Date

**HUS Companies** 

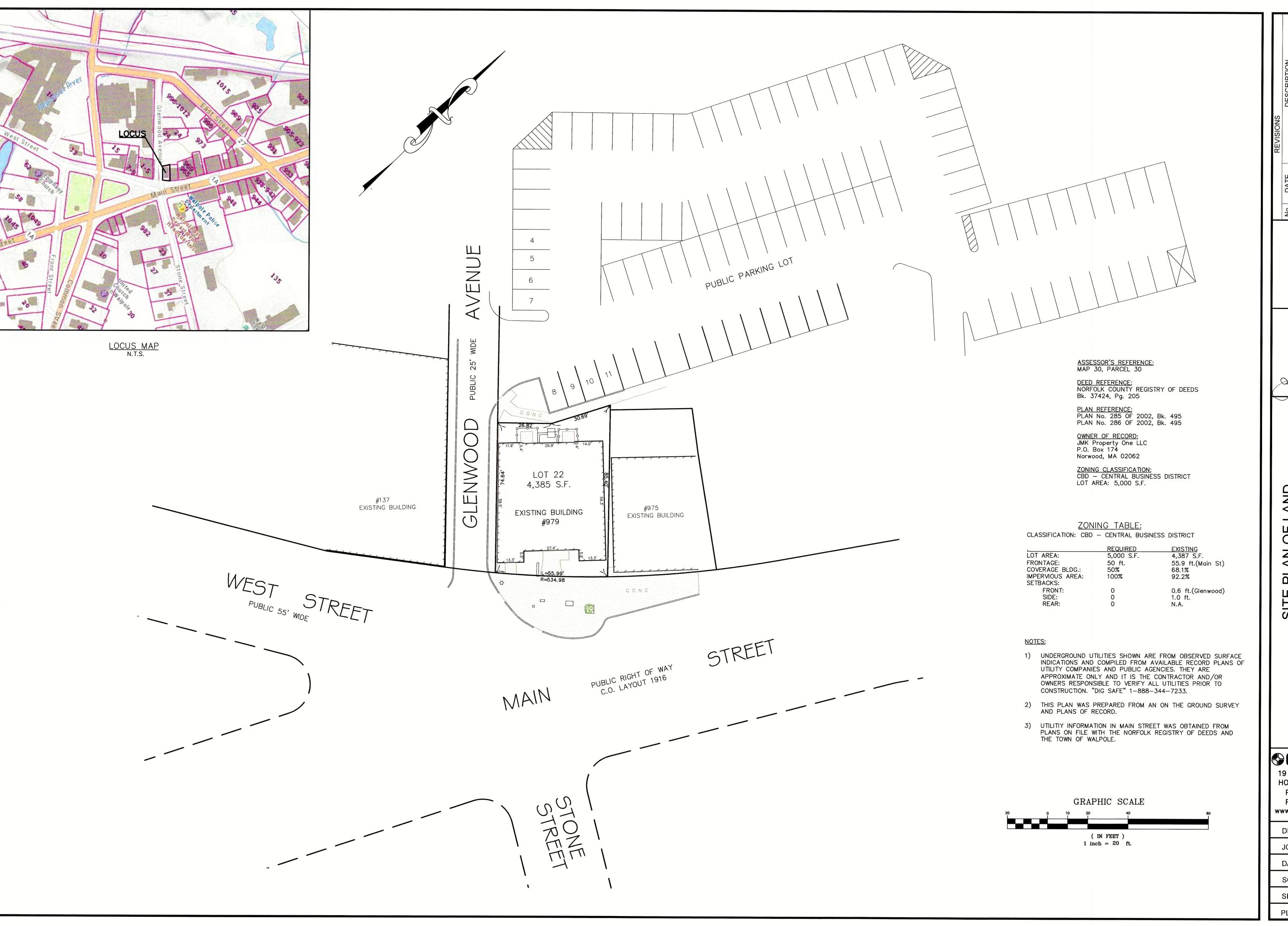
979 Main St **COVER** 

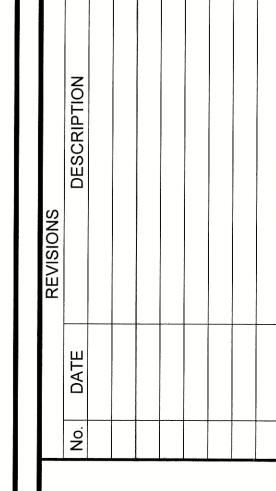
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Checked by	NPL
Drawn by	DB
Date	11.01.2021
Project number	221018

AUUU

As indicated

C:\Users\Darya\Design Resource Team, LLC\DRT - Active Projects\221018-979 Main - HUS\BIM\979 Main St - 8 units.rvt







SITE PLAN OF LAND
"979 MAIN STREET"
WALPOLE, MASSACHUSETT

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19 EXCHANGE STREET
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DRW.: RST

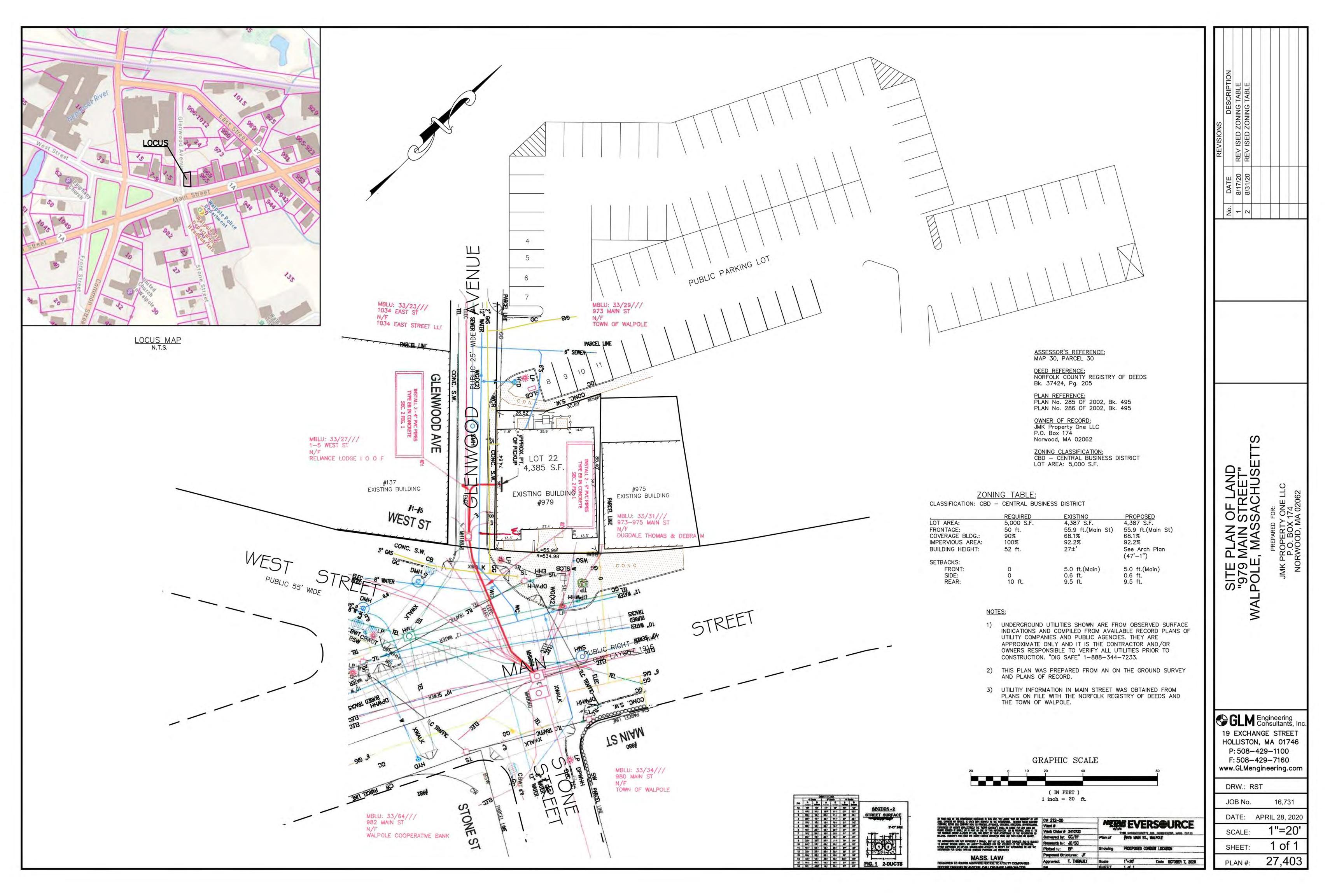
JOB No. 16,731

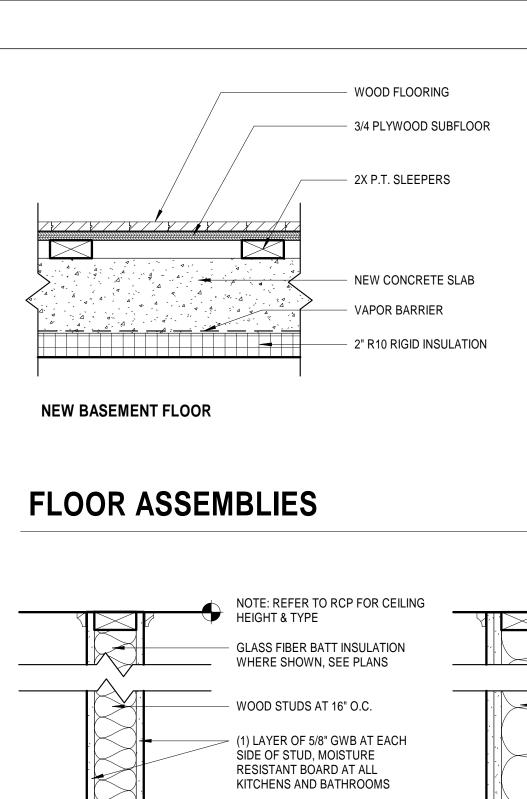
DATE: APRIL 28, 2020

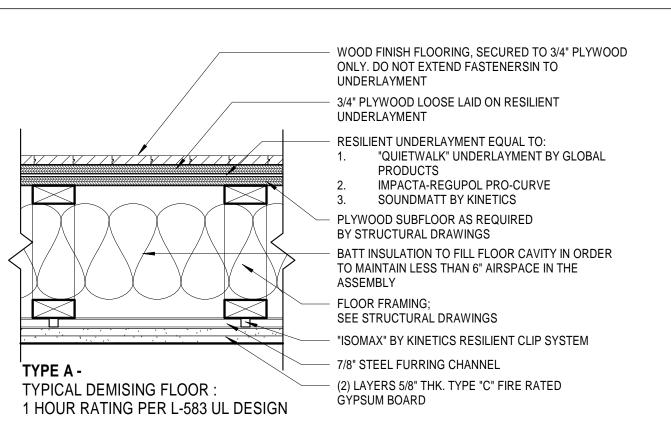
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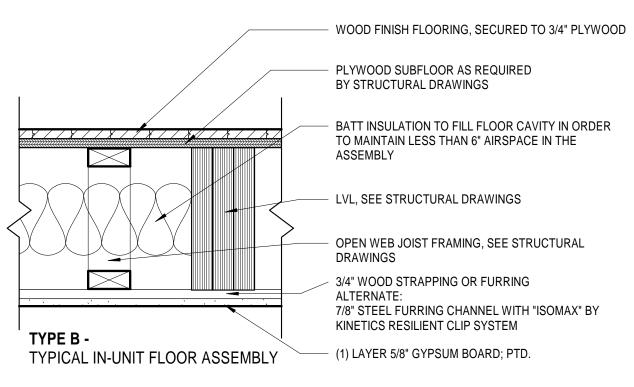
SHEET: 1 of 1

PLAN #: 27,403



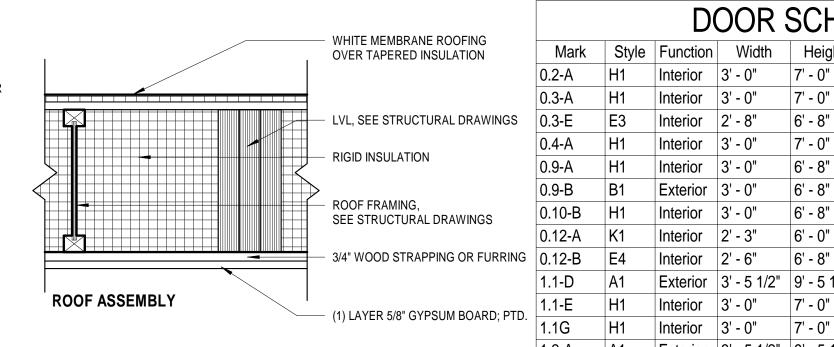






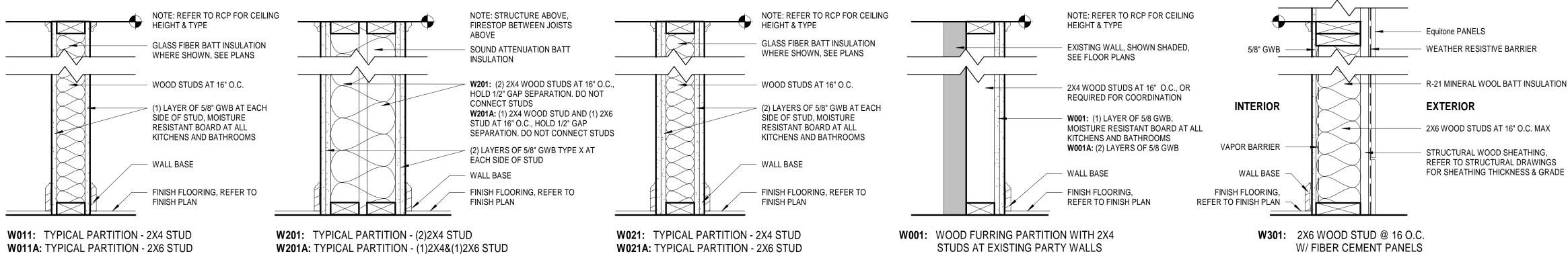
**W001A:** WOOD FURRING PARTITION WITH 2X4

STUDS AT EXISTING PARTY WALLS - (2) LAYERS GWB

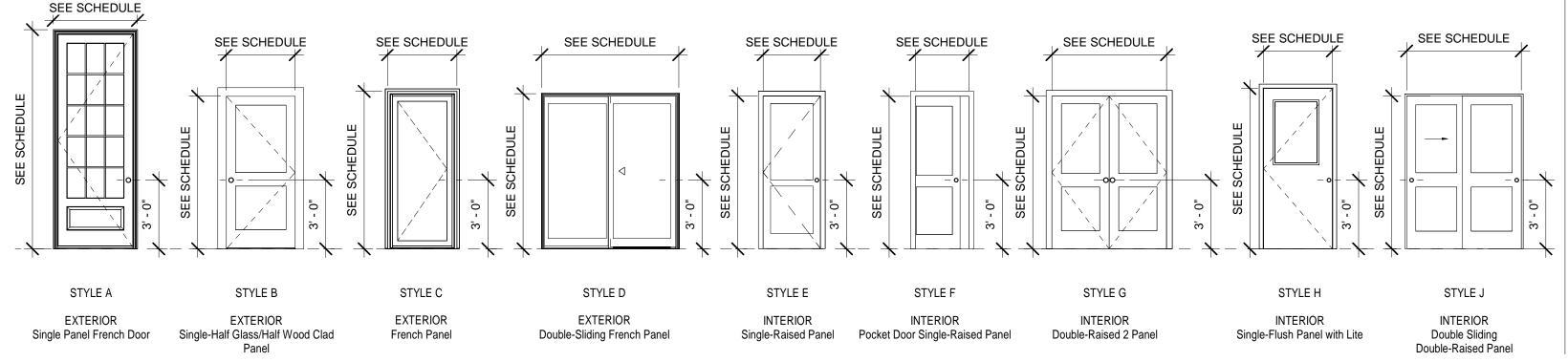




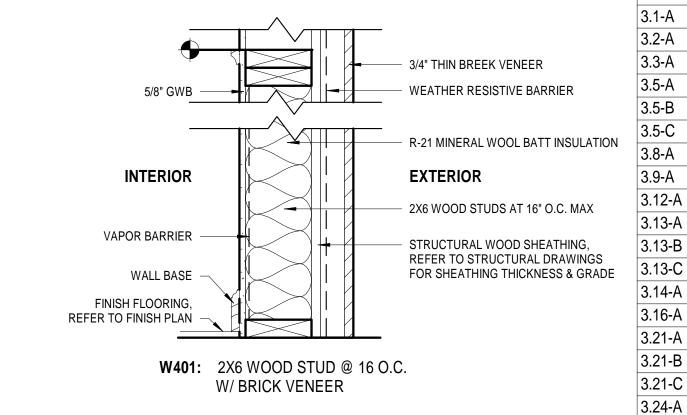
Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



### WALL TYPES

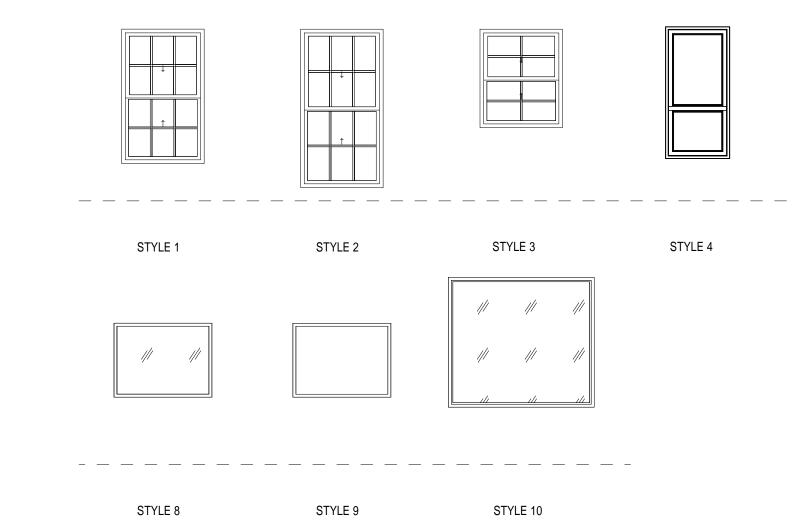


STYLE 5



### DOOR STYLES

WINDOW STYLES



A 11 '			, –		A 11	
All wi	ndows - M	arvin Elev	∕ate or Eq	ual - \$600 <i>i</i>	Allowar	nce per window
Operation	Type Mark	Width	Height	Sill Height	Count	Comments
Double-Hung	1	3' - 4"	5' - 6"	2' - 0"	12	
Double-Hung	2	3' - 4"	6' - 6"	3' - 0"	1	
Double-Hung	3	3' - 4"	4' - 0"	3' - 6"	2	
Casement	4	2' - 8"	5' - 5 3/4"	<varies></varies>	12	
Casement	5	5' - 3"	5' - 3 1/2"	<varies></varies>	9	
Casement	6	6' - 7 1/4"	8' - 0 1/2"	0' - 1 1/4"	2	
Casement	7	2' - 8"	7' - 11"	0' - 2 3/4"	5	
Fixed Skylight	8	4' - 0"	3' - 0"		2	fixed skylight
	9	4' - 0"	3' - 0"		1	roof hatch
	10	6' - 0"	5' - 4"		2	roof hatch

STYLE 6

STYLE 7

- SEE FLOOR PLANS FOR PARTITION TAGS AND LOCATIONS.
- SEE FLOOR PLANS FOR LOCATIONS OF SOUND INSULATION.
- PARTITION TYPE DETAILS SHOW ONLY PRINCIPLE COMPONENTS AND REQUIREMENTS; RATED PARTITIONS WITH U.L. DESIGN NUMBERS MAY HAVE ADDITIONAL COMPONENTS AND REQUIREMENTS; REFER TO U.L. FIRE RESISTANCE DIRECTORY
- 4. RATED PARTITIONS SHALL HAVE U.L. HEAD DESIGNS, SEALANT, AND FILL MATERIAL OF THE SAME RATING.
- ALL THROUGH-WALL PENETRATIONS MUST BE COMPLETED TO PREVENT DIRECT CONTACT WITH FRAMING MEMBERS AND SHALL BE ACOUSTICALLY SEALED WITH A RESILIENT, NON-HARDENING CAULK. IF THE PENETRATION IS THOUGH A FIRE-RATED PARTITION, AN ACOUSTICAL FIRE-RATED CAULK SHALL BE USED.
- SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS FOR REINFORCING, BRACING AND OTHER SPECIAL REQUIREMENTS.
- PROVIDE LATERAL BRACING AND CROSS-BRIDGING AS RECOMMENDED BY STUD MANUFACTURER FOR EACH CONDITION
- COORDINATE FINISHES APPLIED TO PARTITIONS AS INDICATED IN THE FINISH SCHEDULE, INTERIOR ELEVATIONS AND ELSEWHERE IN THE CONTRACT DOCUMENTS.
- PROVIDE BLOCKING AT LOCATIONS INCLUDING BUT NOT LIMITED TO CASEWORK, SHELVING, COUNTERS, CABINETS, DOOR STOPS, HANDRAIL BRACKETS, TELEVISION LOCATIONS, BATHROOM ACCESSORIES, ETC. WHERE INDICATED, SPECIFIED OR REQUIRED TO PROVIDE A SOLID BASE.
- 10. SUBSTITUTE MOISTURE-RESISTANT GYPSUM BOARD AT ALL BATHROOMS AND LAUNDRY ROOMS.
- 11. WHERE TWO OR MORE LAYERS OF GYPSUM BOARD ARE USED, BOTH HORIZONTAL AND VERTICAL JOINTS SHALL BE STAGGERED.
- 12. FIBER INSULATION SHOULD BE UN-FACED AND SECURED TO STRUCTURE TO PREVENT SAGGING.

2.14-B	E4	Interior	2' - 6"	6' - 8"	
2.14-C	E1	Interior	3' - 0"	6' - 8"	
2.15-A	F4	Interior	2' - 6"	6' - 8"	
2.18-A	G3	Interior	3' - 0"	6' - 8"	
2.19-A	H1	Interior	3' - 0"	7' - 0"	
2.21-A	H1	Interior	3' - 0"	7' - 0"	
2.21-B	E1	Interior	3' - 0"	6' - 8"	
2.25-A	E3	Interior	2' - 8"	6' - 8"	
2.26-A	E1	Interior	3' - 0"	6' - 8"	
2.26-B	E2	Interior	2' - 10"	6' - 8"	
2.27-A	E1	Interior	3' - 0"	6' - 8"	
2.29-A	E4	Interior	2' - 6"	6' - 8"	
2.31-A	E4	Interior	2' - 6"	6' - 8"	
2.32-A	E4	Interior	2' - 6"	6' - 8"	
2.34-A	E4	Interior	2' - 6"	6' - 8"	
3.1-A	C1	Exterior	3' - 0 1/4"	8' - 0 1/2"	
3.2-A	E3	Interior	2' - 8"	6' - 8"	
3.3-A	E4	Interior	2' - 6"	6' - 8"	
3.5-A	E1	Interior	3' - 0"	6' - 8"	
3.5-B	G2	Interior	4' - 0"	6' - 8"	
3.5-C	E1	Interior	3' - 0"	6' - 8"	
3.8-A	E4	Interior	2' - 6"	6' - 8"	
3.9-A	G3	Interior	3' - 0"	6' - 8"	
3.12-A	E1	Interior	3' - 0"	6' - 8"	
3.12-A 3.13-A	E3	Interior	2' - 8"	6' - 8"	
3.13-A 3.13-B	E4	Interior	2' - 6"	6' - 8"	
3.13-D 3.13-C	G3	Interior	3' - 0"	6' - 8"	
3.13-C 3.14-A	E1	Interior	3' - 0"	6' - 8"	
3.14-A 3.16-A	J2	Interior	4' - 0"	6' - 8"	
3.16-A 3.21-A	H1	Interior	3' - 0"	7' - 0"	
3.21-A 3.21-B	H1	Interior	3' - 0"	7' - 0"	
3.21-D	E1	Interior	3' - 0"	6' - 8"	
3.21-C 3.24-A	E4	Interior	2' - 6"	6' - 8"	
3.24-A 3.25-A	E4	Interior	2' - 6"	6' - 8"	
	E4 E1				
3.27-A		Interior	3' - 0"	6' - 8"	
3.28-A	E4	Interior	2' - 6"	6' - 8"	
3.28-B	E3	Interior	2' - 8"	6' - 8"	
3.29-A	E2	Interior	2' - 10"	6' - 8"	
3.29-B	E1	Interior	3' - 0"	6' - 8"	
3.31-A	E3	Interior	2' - 8"	6' - 8"	
3.33-A	C1	Exterior	3' - 0 1/4"	8' - 0 1/2"	
4.3-A	E1	Interior	3' - 0"	6' - 8"	
4.3-B	E4	Interior	2' - 6"	6' - 8"	
4.3-C	C8	Interior	5' - 0"	6' - 8"	
4.3-D	E4	Interior	2' - 6"	6' - 8"	
4.3-E	143	Interior	3' - 0"	6' - 8"	
4.7-A	E3	Interior	2' - 8"	6' - 8"	
4.8-A	E1	Interior	3' - 0"	6' - 8"	
4.10-A	E4	Interior	2' - 6"	6' - 8"	
4.11-A	F4	Interior	2' - 6"	6' - 8"	
4.13-A	E3	Interior	2' - 8"	6' - 8"	
4.14-A	G1	Interior	6' - 0"	6' - 8"	
4.15-A	E4	Interior	2' - 6"	6' - 8"	
4.17-A	D1	Interior	6' - 0"	6' - 9 1/2"	
4.19-A	E1	Interior	3' - 0"	6' - 8"	
4.19-B	C8	Interior	5' - 0"	6' - 8"	
4.22-A	E1	Interior	3' - 0"	6' - 8"	
4.23-A	E3	Interior	2' - 8"	6' - 8"	
4.04.4		1	01 0"	01 0"	

DOOR SCHEDULE

7' - 0"

|6' - 8"

|7' - 0"

|6' - 8"

|6' - 8"

|6' - 8"

|6' - 8"

6' - 8"

|6' - 8"

|6' - 8"

|6' - 8"

6' - 8"

6' - 8"

|6' - 8"

Comments

Mark | Style | Function | Width | Height

Interior | 3' - 0"

|Interior | 2' - 8"

Interior | 3' - 0"

Interior 2' - 8"

Interior | 2' - 6"

Interior 4' - 0"

Interior | 3' - 0"

Interior | 3' - 0"

Interior | 2' - 6"

Interior | 3' - 0"

Interior 4' - 0"

Interior | 2' - 8"

2.14-B | E4 | Interior | 2' - 6" | 6' - 8"

Interior | 3' - 0" | 7' - 0"

| Exterior | 3' - 0" | 6' - 8"

Interior | 2' - 3" | 6' - 0"

| Exterior | 3' - 5 1/2" | 9' - 5 1/2"

Interior | 3' - 0" | 7' - 0"

Interior | 3' - 0" | 7' - 0"

Exterior | 3' - 5 1/2" | 9' - 5 1/2"

|H1

|E3

∣H1

|H1

∣H1

|E3

∣F4

G2

|E4

2.14-A E3

4.24-A

4.28-A D1

Grand total: 86

|6' - 8"

|6' - 8"

|7' - 0"

7' - 0"

6' - 9 1/2"

Interior | 2' - 8"

Interior | 2' - 6"

Interior 3' - 0"

Interior | 3' - 0"

Interior | 6' - 0"



Description Date **HUS Companies** 

979 Main St BUILDING

221018 Project number 11.01.2021 Drawn by NPL Checked by

**INFORMATION** 

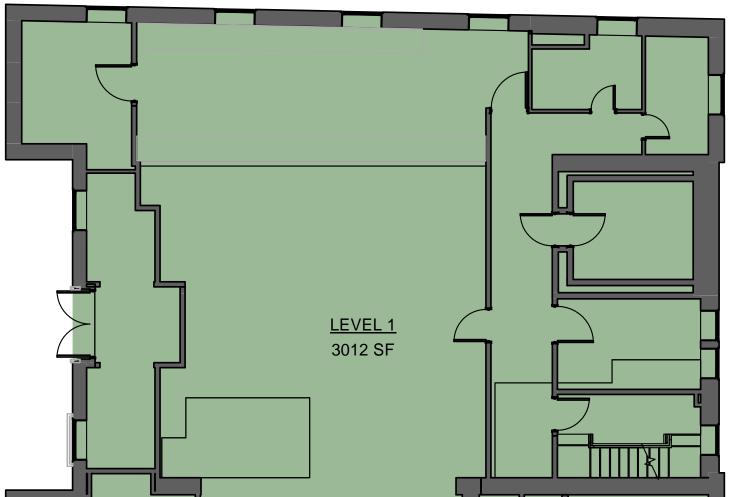
A001

Scale

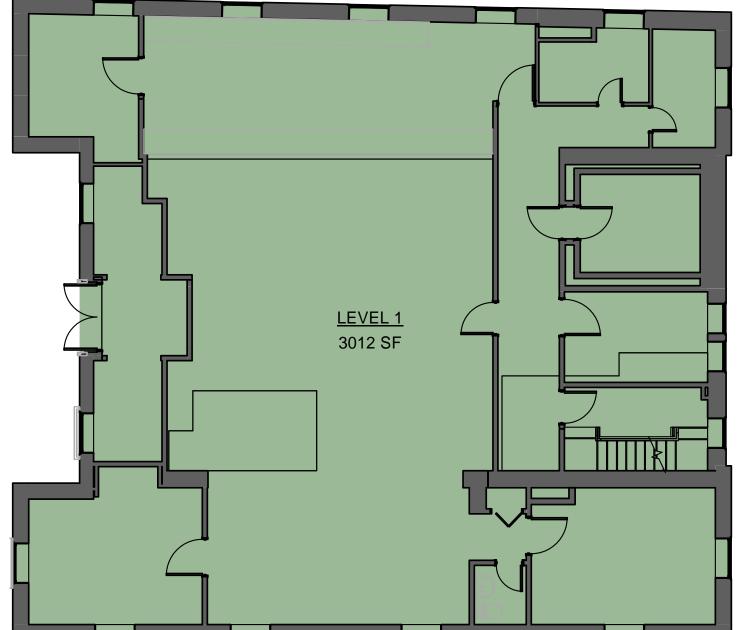
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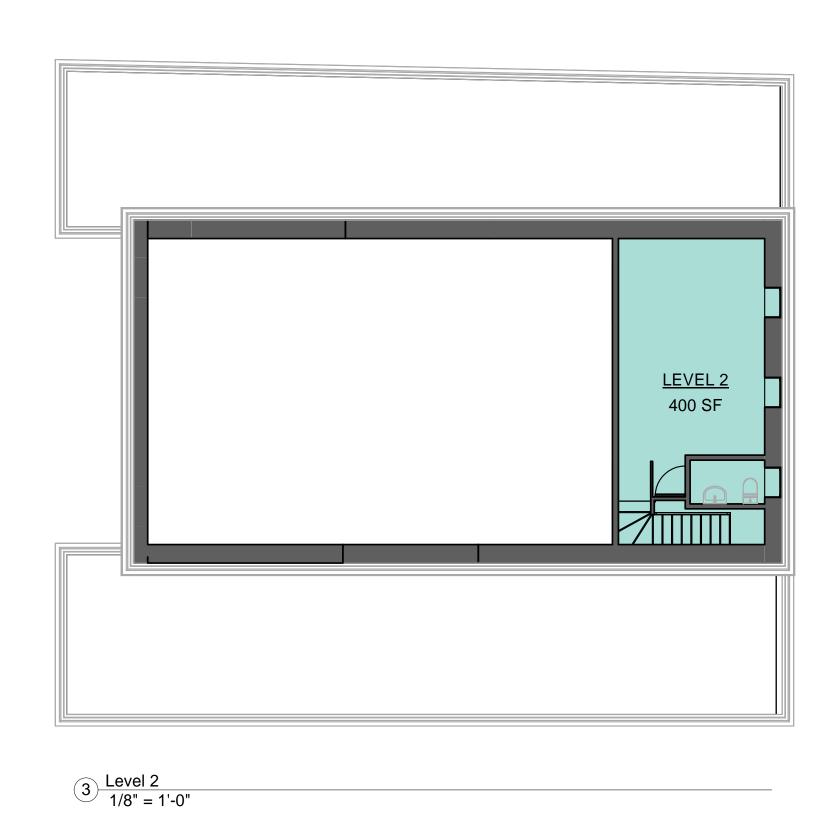
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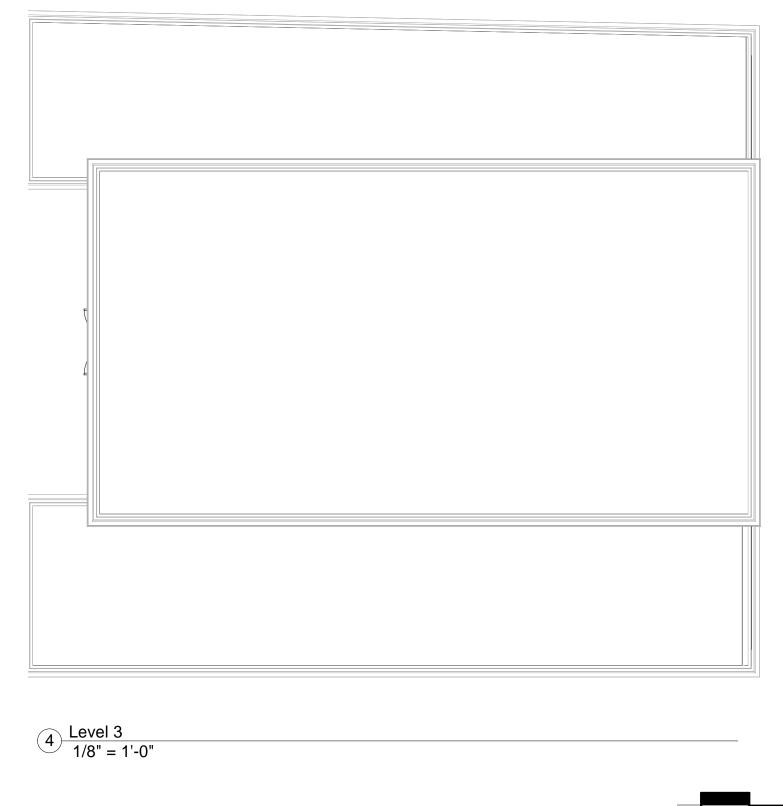


2 Level 1 1/8" = 1'-0"





<u>LEVEL G</u> 3003 SF





Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



No.	Description	Date
⊢	IUS Companie	es

979 Main St BUILDING INFO -EXIST. AREA CALCS

Project number 11.01.2021 Drawn by
Checked by

A002

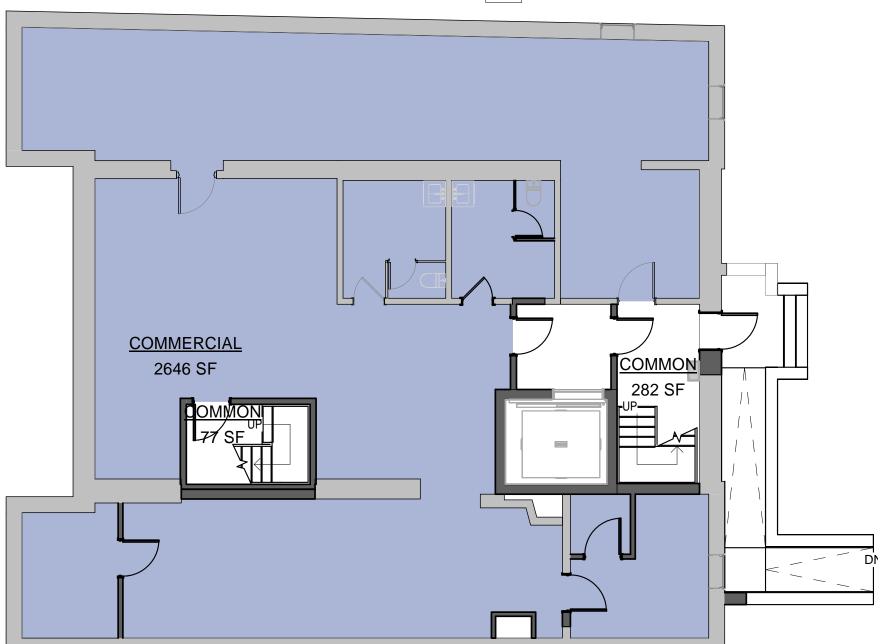
Scale

1 Basement 1/8" = 1'-0"

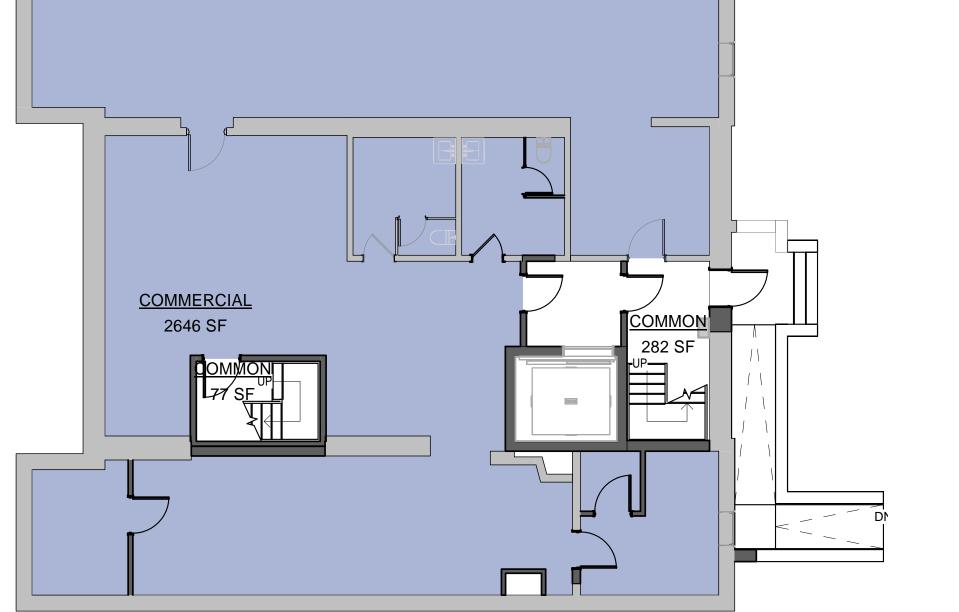


1 Basement 1/8" = 1'-0"

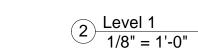




COMMON 153 SF	COMMERCIAL 2550 SF	EOMMON 286 SF
		×

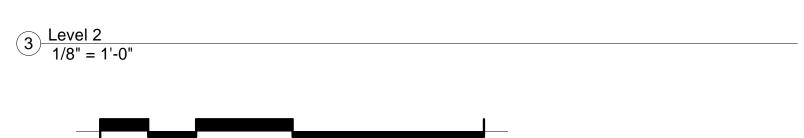


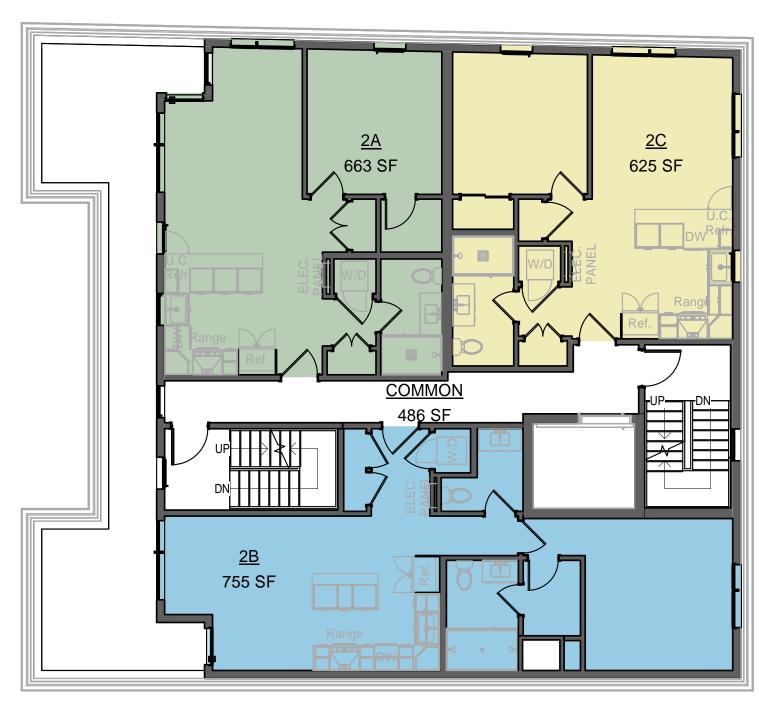
- COMMON

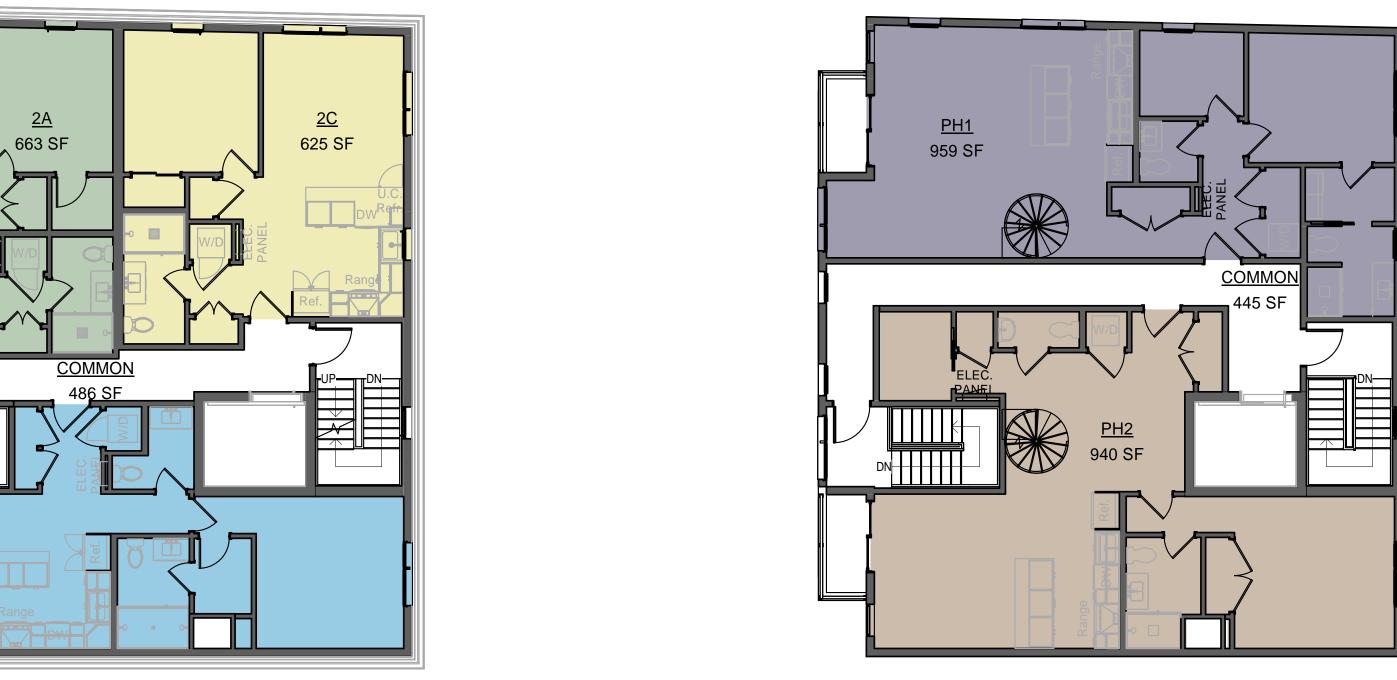


4 Level 3 1/8" = 1'-0"

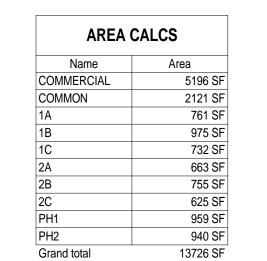








5 Level 4 1/8" = 1'-0"





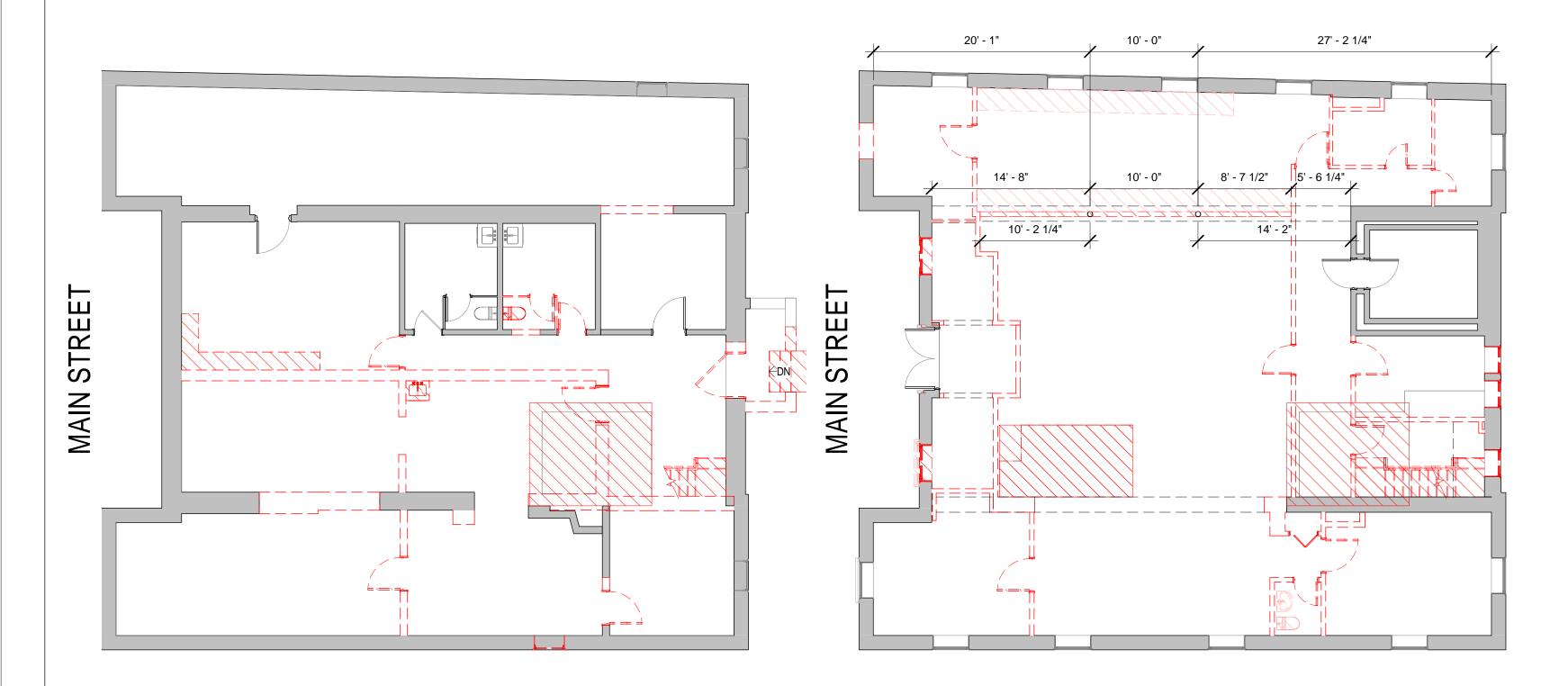


No.	Description	Date
	HUS Companie	es
	979 Main St	
	BUILDING INFO	) -
Pl	ROP. AREA CA	LCS
Project	number	221018
Date	1	1.01.2021
Drawn	by	DB
Checke	ed by	NPL

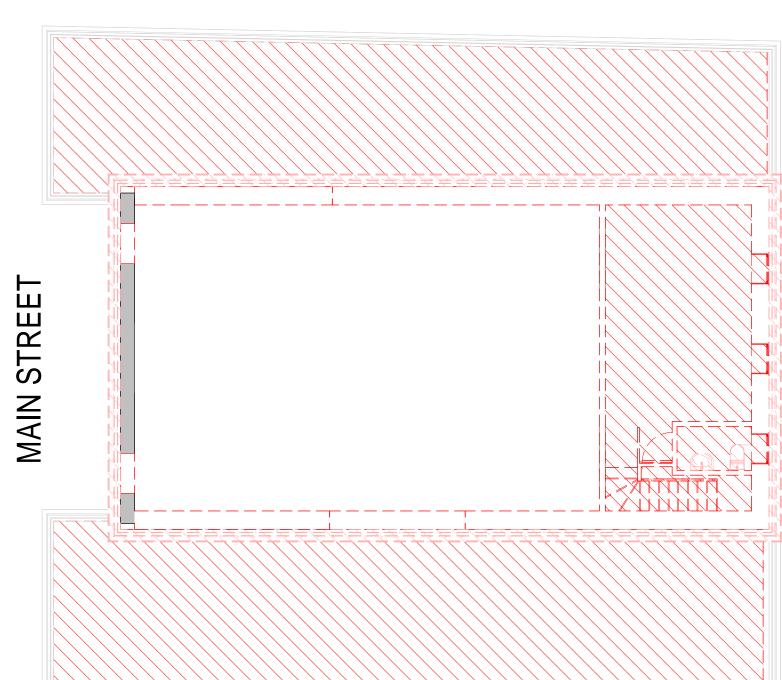
A003 1/8" = 1'-0"

Scale





2 <u>Level 1 - Existing/Demo</u> 1/8" = 1'-0"



3 <u>Level 2 - Existing/Demo</u> 1/8" = 1'-0"

### **GENERAL NOTES**

- 1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
- 2. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF THE DRAWINGS.
- 3. ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
- ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE
- 5. PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF
- ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
- 7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2009 INTERNATIONAL BUILDING CODE

### **PLAN NOTES**

- ALL DIMENSIONS ARE MEASURED FROM FACE OF BRICK TO F.O. STUD OR FROM F.O. STUD TO F.O. STUD. UNLESS OTHERWISE NOTED.
- 2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

### MECHANICAL | SECURITY NOTES

- PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER
  BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING
  PLANS.
- 2. PROVIDE NEST LEARNING THERMOSTAT AT EACH UNIT. (ZONING PER FLOOR LEVEL IN DUPLEX UNITS)
- 3. HEATING AND AIR CONDITIONING IS TO BE PROVIDED BY HIGH VELOCITY FORCED AIR SPACE PAK HIGH VELOCITY AIR CONDITIONING SYSTEMS WITH HYDRONIC HEATING.
- 4. HOT WATER IS TO BE PROVIDED BY A HIGH EFFICIENCY NAVIEN MODULATING CONDENSING COMBINATION HEATING AND HOT WATER SYSTEM OR EQUAL.
- 5. HARD WIRED SECURITY SYSTEM SHALL BE PROVIDED AT EACH UNIT; CONTACTS SHALL BE PLACED AT EXTERIOR DOORS AND WINDOWS WITH ONE MOTION DETECTOR PER UNIT.

### **ELECTRICAL NOTES**

- 1. ELECTRICAL SERVICE POWER IS TO BE EVALUATED FOR MEETING LIGHTING DESIGN AND EQUIPMENT REQUIREMENTS. PROPER POWER LEVEL SHALL BE PROVIDED.
- 2. ALL NEW ELECTRICAL ITEMS ARE TO BE U.L. RATED.
- 3. ALL ELECTRICAL PANELS ARE TO BE RECESSED INTO A WALL WITH A MINIMUM 6" STUD DIMENSION. REVIEW FINAL LOCATION WITH ARCHITECT AND OWNER.
- ALL DISTRIBUTION PANELS ARE TO BE NEW.
- 5. LIVING AREAS, DINING AREAS, AND ALL BEDROOM ARE TO RECEIVE 3-WIRE JUNCTION BOXES.
- PROVIDE ELECTRIC HEAT MATS BY NUHEAT OR EQUAL AT ALL BATHROOMS.
- ALL CLOSET LIGHTING IS TO BE HIGH EFFICIENCY LIGHTING.
  OUTLETS IN BATHROOMS SHALL HAVE GROUND FAULT
- 9. ALL SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY SOURCE OF

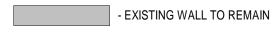
POWER FROM BUILDING WIRING WITH BATTERY BACK-UP.

- 10. ALL DIMENSIONS FOR THE FOLLOWING ITEMS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED:
  - . MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM
  - 3. MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.

BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.

C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE

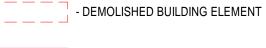
### DEMO/PROPOSED PLAN GRAPHIC KEY



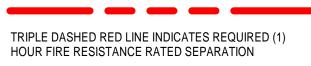


- AREA NOT IN CONTRACT

- NEW WALL/INFILL



- DEMOLISHED FLOOR FINISH/CEILING



TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, L 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description

HUS Companies
979 Main St
DEMO FLOOR PLANS

 Project number
 221018

 Date
 11.01.2021

 Drawn by
 DB

 Checked by
 NPL

 A 100
 As indicated

C:\Users\Darya\Design Resource Team, LLC\DRT - Active Projects\221018-979 Main - HUS\BIM\979 Main St - 8 units.rvt

1 Basement - Existing/Demo 1/8" = 1'-0"

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- ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE
- PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF
- ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
- ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2009 INTERNATIONAL BUILDING CODE

### **PLAN NOTES**

- ALL DIMENSIONS ARE MEASURED FROM FACE OF BRICK TO F.O. STUD OR FROM F.O. STUD TO F.O. STUD. UNLESS OTHERWISE
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### MECHANICAL | SECURITY NOTES

- PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING
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  - C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE

### DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN



- AREA NOT IN CONTRACT



- DEMOLISHED BUILDING ELEMENT



- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (1) HOUR FIRE RESISTANCE RATED SEPARATION

TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co

www.d-r-t.co



Description

Wall tags/Mail boxes

Date

11.19.2021

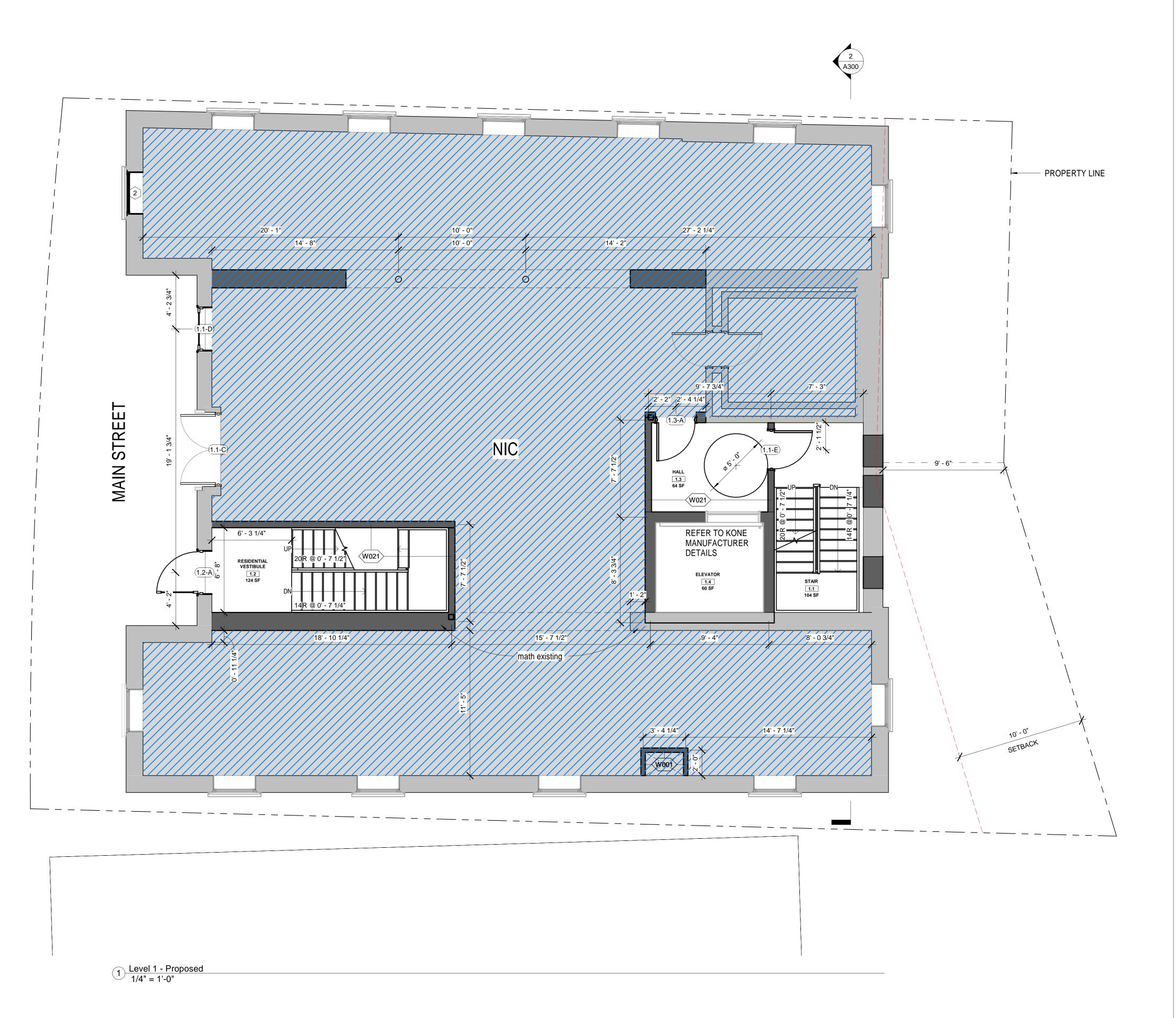
**HUS Companies** 979 Main St LEVEL G - PROPOSED

Project number 221018 11.01.2021 Drawn by Checked by NPL A101

Scale

C:\Users\Darya\Design Resource Team, LLC\DRT - Active Projects\221018-979 Main - HUS\BIM\979 Main St - 8 units.rvt

1/4" = 1'-0"



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- C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE POSSIBLE.

### DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN



- AREA NOT IN CONTRACT

- NEW WALL/INFILL

- — — — - DEMOLISHED BUILDING ELEMENT

- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (1) HOUR FIRE RESISTANCE RATED SEPARATION

TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



11.19.2021

Wall tags/Mail boxes

HUS Companies
979 Main St
LEVEL 1 - PROPOSED

 Project number
 221018

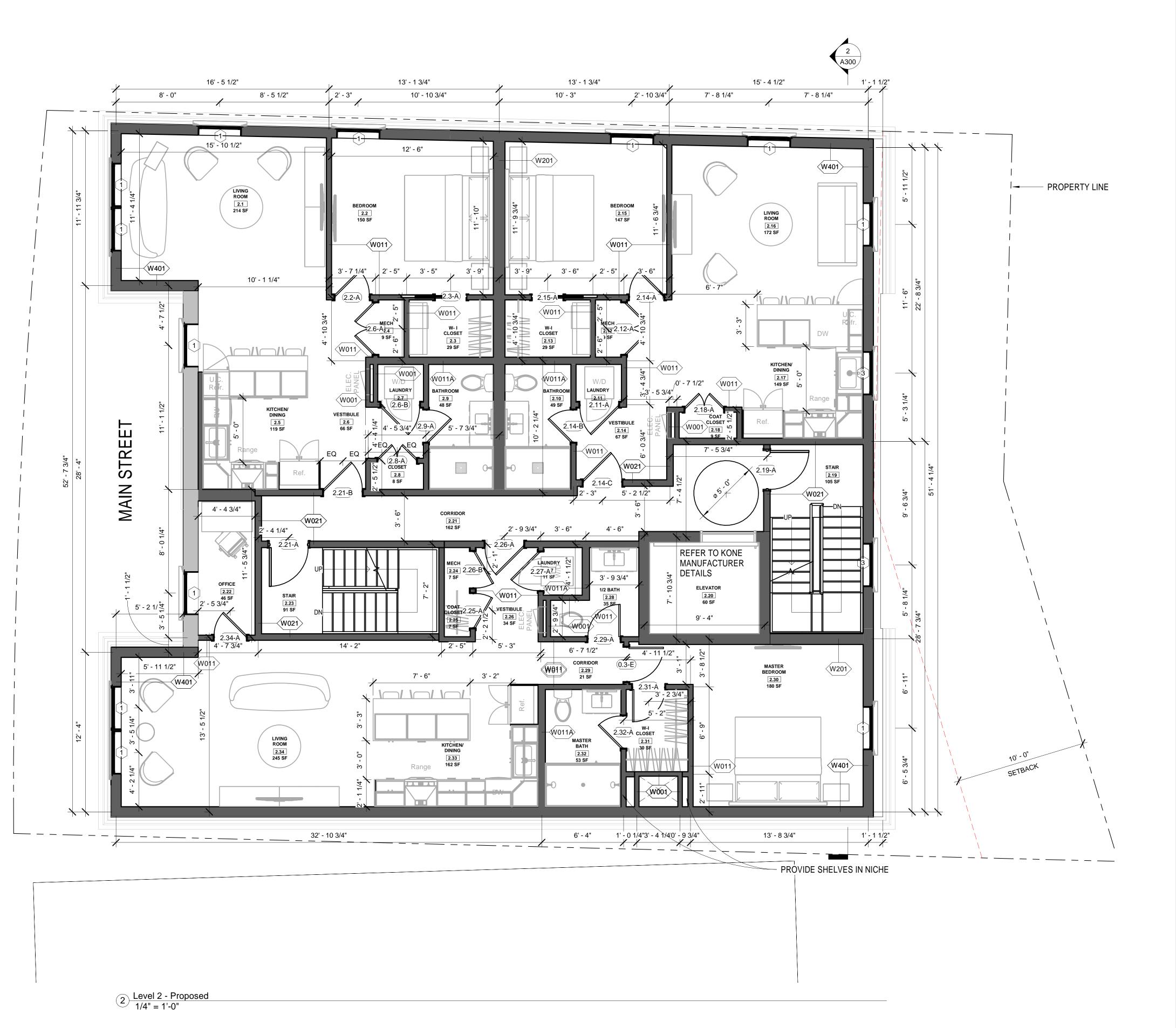
 Date
 11.01.2021

 Drawn by
 DB

 Checked by
 NPL

A102

Scale



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### MECHANICAL | SECURITY NOTES

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### DEMO/PROPOSED PLAN GRAPHIC KEY

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TRIPLE DASHED RED LINE INDICATES REQUIRED (1) HOUR FIRE RESISTANCE RATED SEPARATION

TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description

Wall tags/Mail boxes

Date

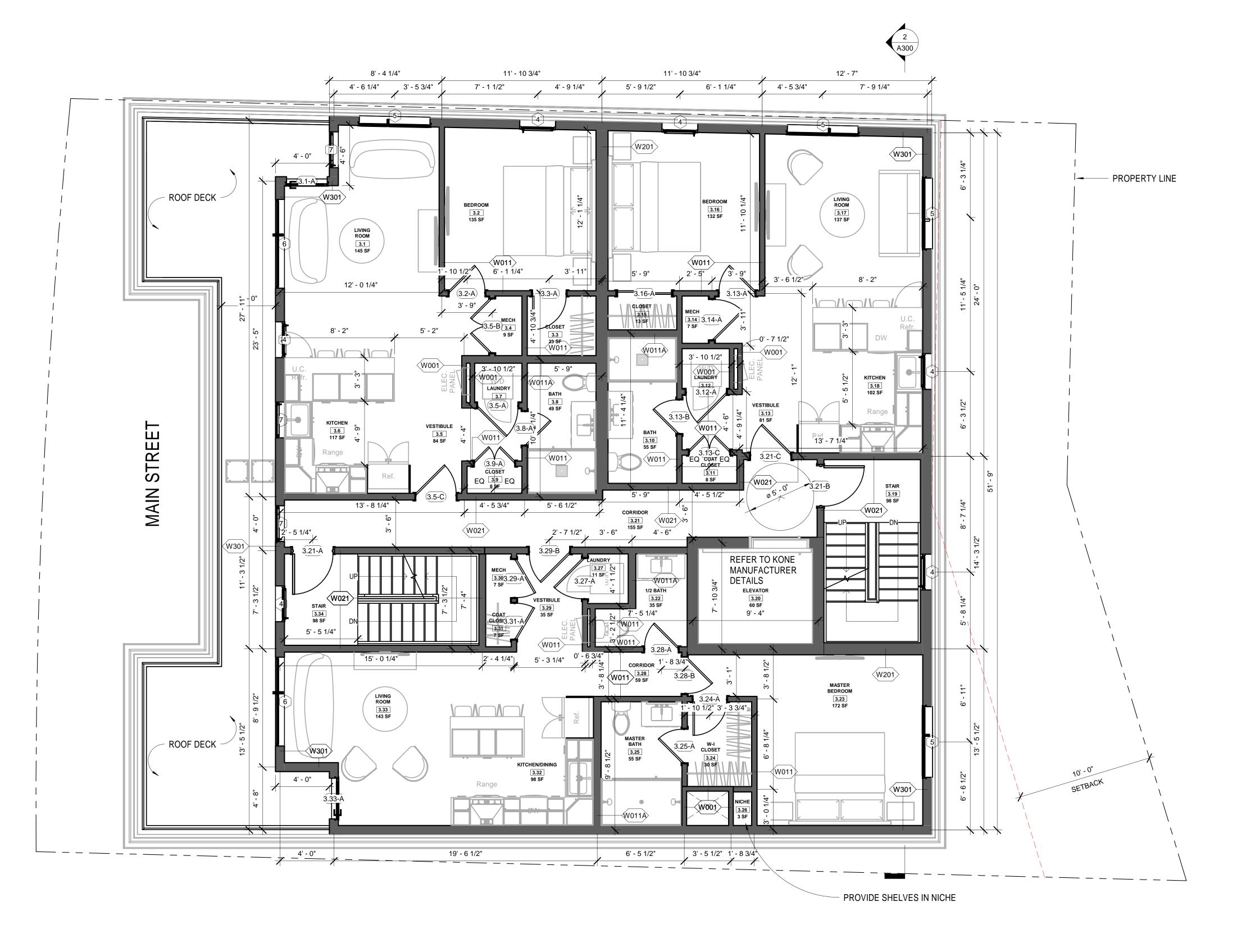
11.19.2021

HUS Companies
979 Main St
LEVEL 2 - PROPOSED

Project number	221018
Date	11.01.2021
Drawn by	DB
Checked by	NPL

A103

Scale



- WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
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  - MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.
  - MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
  - C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE

### DEMO/PROPOSED PLAN GRAPHIC KEY

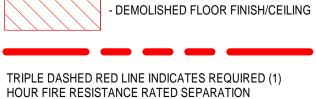
- EXISTING WALL TO REMAIN



AREA NOT IN CONTRACT

- NEW WALL/INFILL

- DEMOLISHED BUILDING ELEMENT



TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description

Wall tags/Mail boxes

Date

11.19.2021

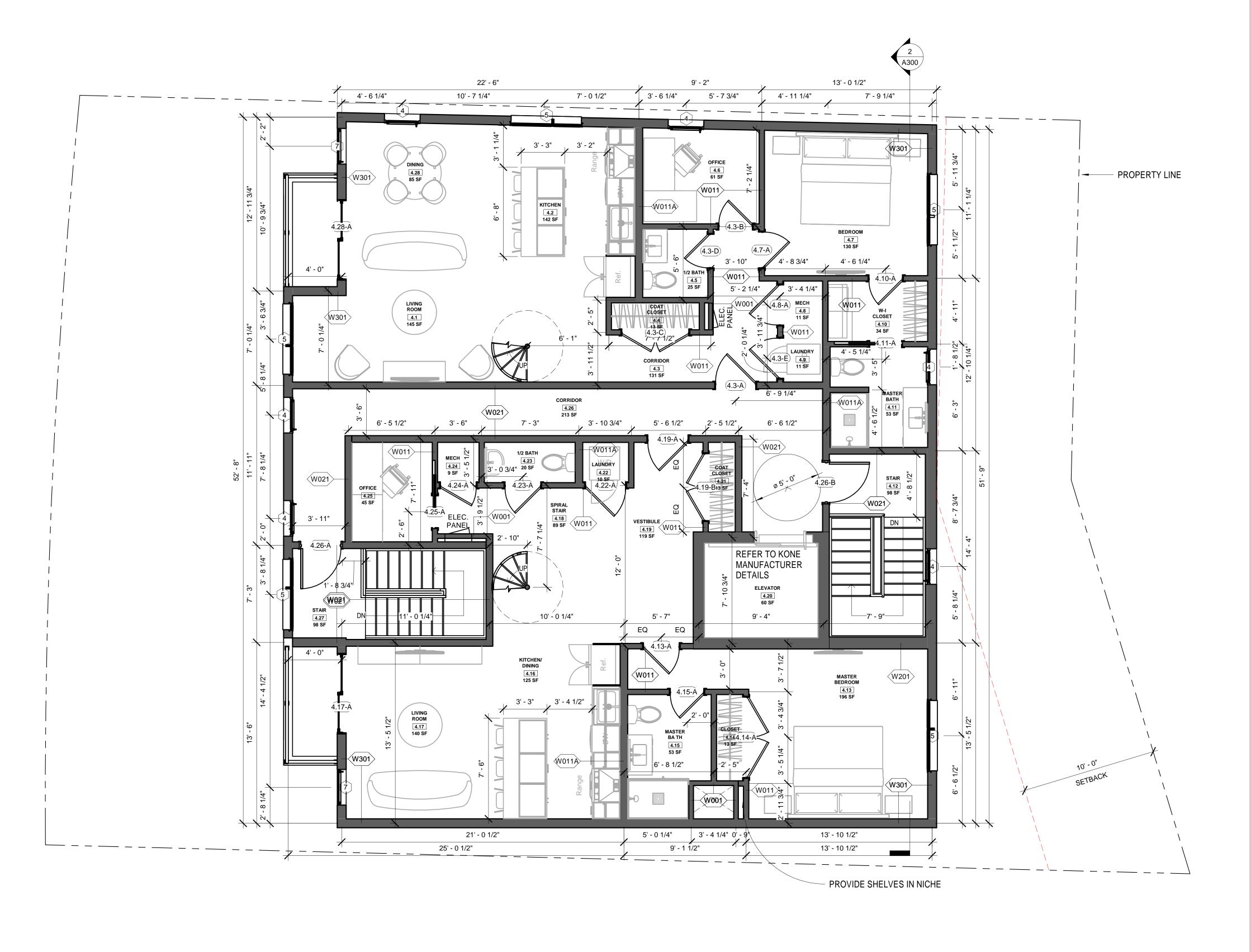
**HUS Companies** 979 Main St LEVEL 3 - PROPOSED

Project number 221018 11.01.2021 Drawn by Checked by NPL

A104

Scale

1 Level 3 - Proposed 1/4" = 1'-0"



- 1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
- 2. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF THE DRAWINGS.
- ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
- ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE
- 5. PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF
- 6. ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
- 7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2009 INTERNATIONAL BUILDING CODE

### **PLAN NOTES**

- ALL DIMENSIONS ARE MEASURED FROM FACE OF BRICK TO F.O. STUD OR FROM F.O. STUD TO F.O. STUD. UNLESS OTHERWISE NOTED.
- 2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

### MECHANICAL | SECURITY NOTES

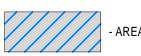
- 1. PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING PLANS.
- 2. PROVIDE NEST LEARNING THERMOSTAT AT EACH UNIT. (ZONING PER FLOOR LEVEL IN DUPLEX UNITS)
- 3. HEATING AND AIR CONDITIONING IS TO BE PROVIDED BY HIGH VELOCITY FORCED AIR SPACE PAK HIGH VELOCITY AIR CONDITIONING SYSTEMS WITH HYDRONIC HEATING.
- 4. HOT WATER IS TO BE PROVIDED BY A HIGH EFFICIENCY NAVIEN MODULATING CONDENSING COMBINATION HEATING AND HOT WATER SYSTEM OR EQUAL.
- 5. HARD WIRED SECURITY SYSTEM SHALL BE PROVIDED AT EACH UNIT; CONTACTS SHALL BE PLACED AT EXTERIOR DOORS AND WINDOWS WITH ONE MOTION DETECTOR PER UNIT.

### **ELECTRICAL NOTES**

- 1. ELECTRICAL SERVICE POWER IS TO BE EVALUATED FOR MEETING LIGHTING DESIGN AND EQUIPMENT REQUIREMENTS. PROPER POWER LEVEL SHALL BE PROVIDED.
- 2. ALL NEW ELECTRICAL ITEMS ARE TO BE U.L. RATED.
- 3. ALL ELECTRICAL PANELS ARE TO BE RECESSED INTO A WALL WITH A MINIMUM 6" STUD DIMENSION. REVIEW FINAL LOCATION WITH ARCHITECT AND OWNER.
- ALL DISTRIBUTION PANELS ARE TO BE NEW.
- LIVING AREAS, DINING AREAS, AND ALL BEDROOM ARE TO RECEIVE 3-WIRE JUNCTION BOXES.
- PROVIDE ELECTRIC HEAT MATS BY NUHEAT OR EQUAL AT ALL BATHROOMS.
- ALL CLOSET LIGHTING IS TO BE HIGH EFFICIENCY LIGHTING.
  OUTLETS IN BATHROOMS SHALL HAVE GROUND FAULT
- 9. ALL SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY SOURCE OF POWER FROM BUILDING WIRING WITH BATTERY BACK-UP.
- 10. ALL DIMENSIONS FOR THE FOLLOWING ITEMS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED:
  - A. MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.
  - B. MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
  - C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE POSSIBLE.

### DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN



- AREA NOT IN CONTRACT

- NEW WALL/INFILL

- DEMOLISHED BUILDING ELEMENT

TRIPLE DASHED RED LINE INDICATES REQUIRED (1)

- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION

HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description

Wall tags/Mail boxes

Date

11.19.2021

HUS Companies
979 Main St
LEVEL 4 - PROPOSED

 Project number
 221018

 Date
 11.01.2021

 Drawn by
 DB

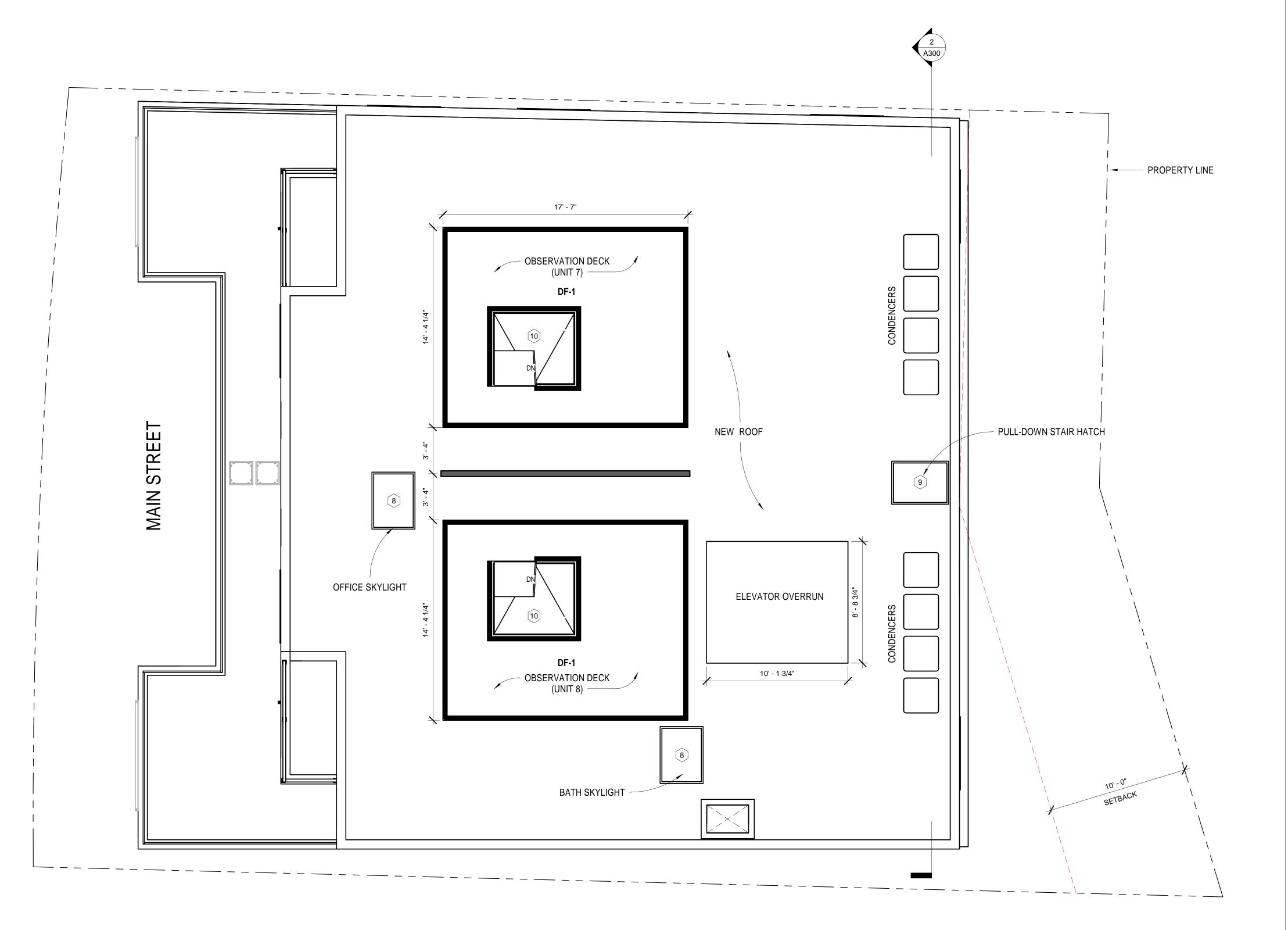
 Checked by
 NPL

A105

Scale

As indicated

1 <u>Level 4 - Proposed</u> 1/4" = 1'-0"



- 1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
- 2. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF THE DRAWINGS.
- 3. ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
- ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE
- 5. PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF
- 6. ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
- 7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2009 INTERNATIONAL BUILDING CODE

### **PLAN NOTES**

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- 2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

### MECHANICAL | SECURITY NOTES

- 1. PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING PLANS.
- 2. PROVIDE NEST LEARNING THERMOSTAT AT EACH UNIT. (ZONING PER FLOOR LEVEL IN DUPLEX UNITS)
- 3. HEATING AND AIR CONDITIONING IS TO BE PROVIDED BY HIGH VELOCITY FORCED AIR SPACE PAK HIGH VELOCITY AIR CONDITIONING SYSTEMS WITH HYDRONIC HEATING.
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  OUTLETS IN BATHROOMS SHALL HAVE GROUND FAULT
  INTERCEPTORS
- 9. ALL SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY SOURCE OF POWER FROM BUILDING WIRING WITH BATTERY BACK-UP.
- 10. ALL DIMENSIONS FOR THE FOLLOWING ITEMS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED:
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### DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN



- AREA NOT IN CONTRACT

- DEMOLISHED BUILDING ELEMENT

- NEW WALL/INFILL

- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (1) HOUR FIRE RESISTANCE RATED SEPARATION

TRIPLE DASHED RED LINE INDICATES REQUIRED (1/2) HOUR FIRE RESISTANCE RATED SEPARATION



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co

www.d-r-t.co



Description

HUS Companies

979 Main St ROOF LEVEL -PROPOSED

 Project number
 221018

 Date
 11.01.2021

 Drawn by
 DB

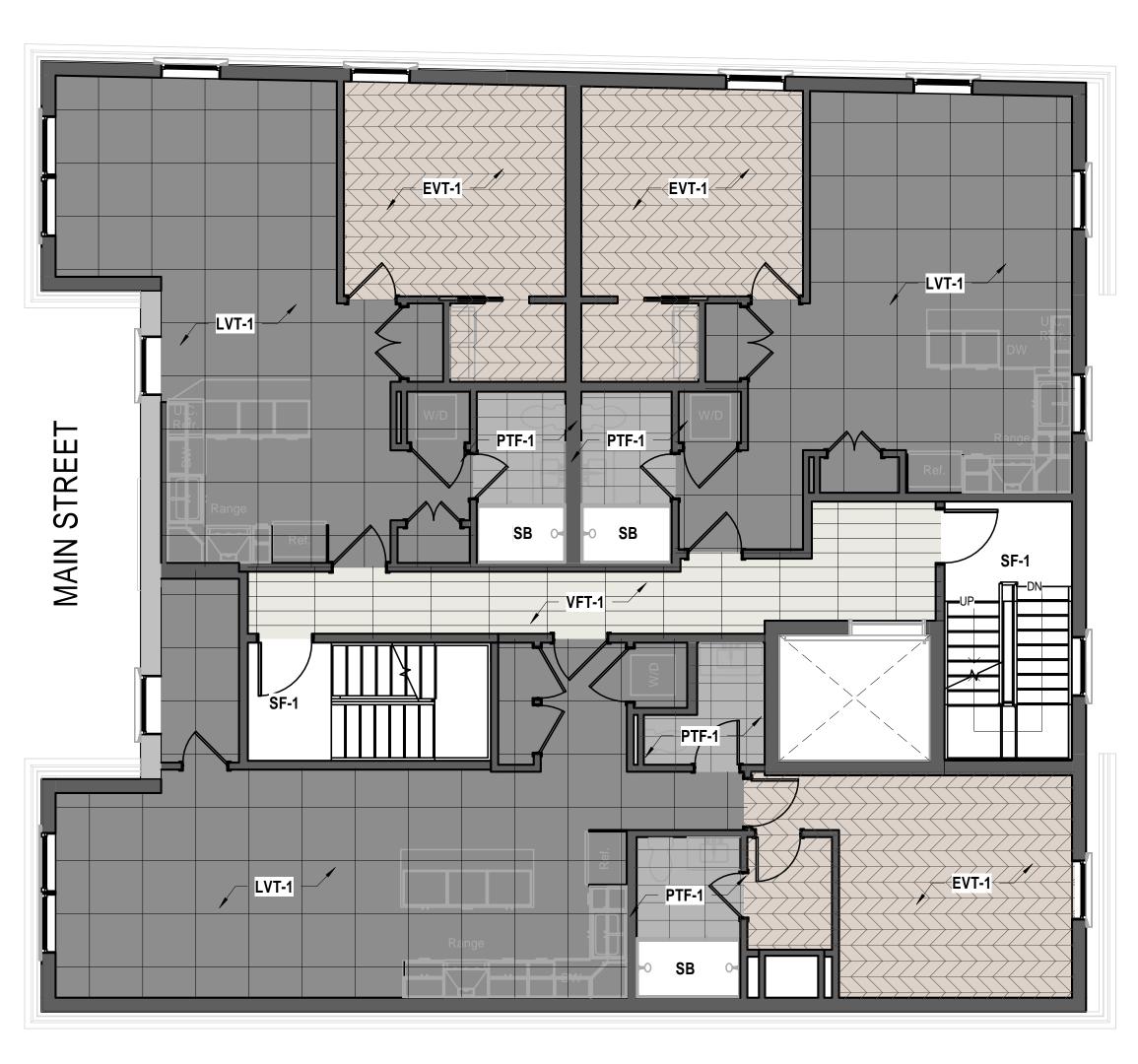
 Checked by
 NPL

A106

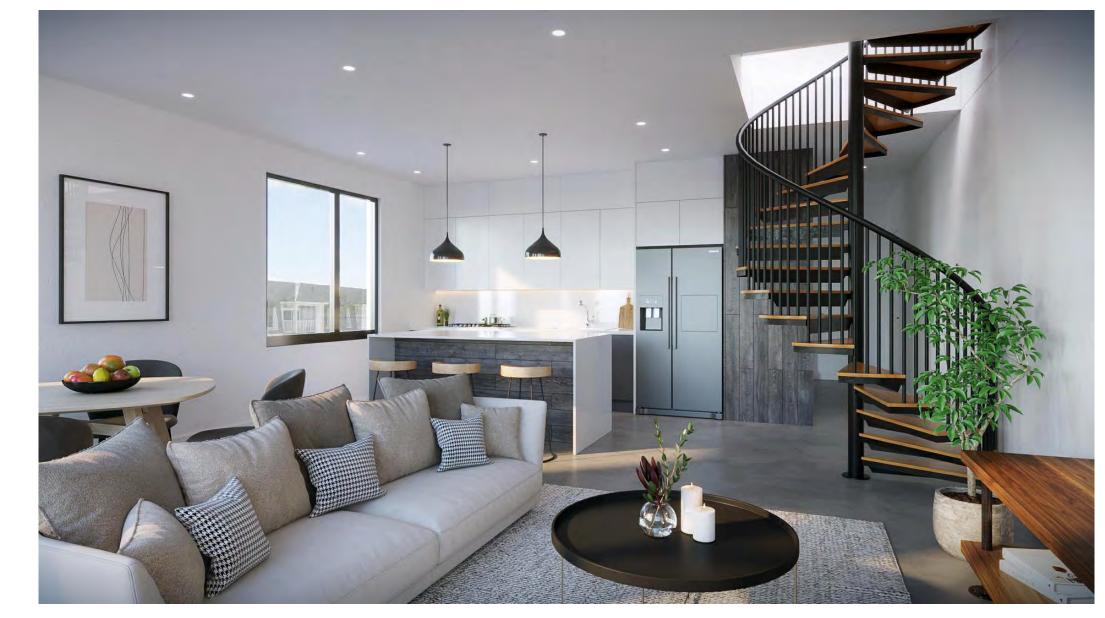
Scale

As indicated

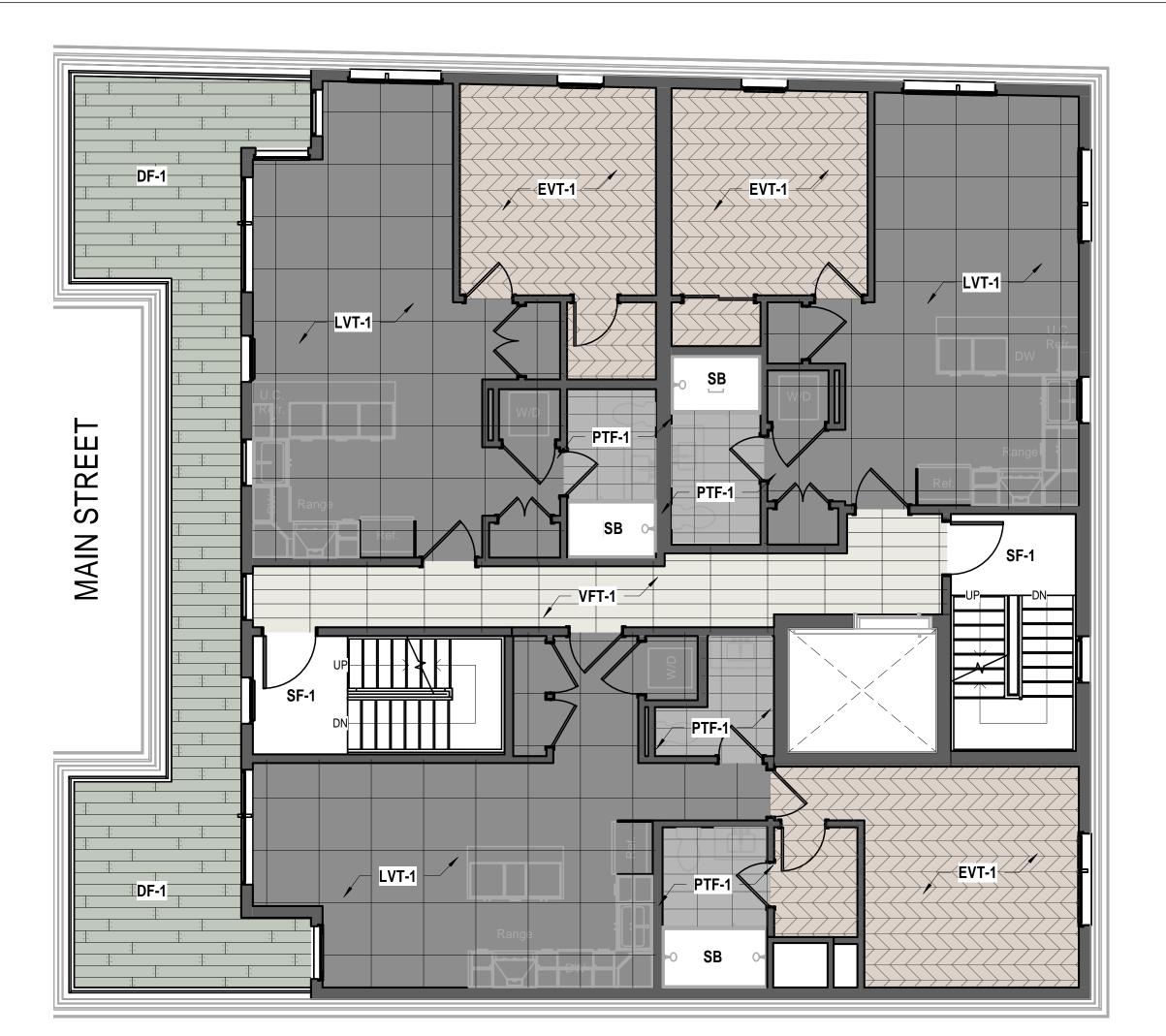
1 Level 5- Proposed 1/4" = 1'-0"



1 Level 2 - Floor Finish Plan 3/16" = 1'-0"

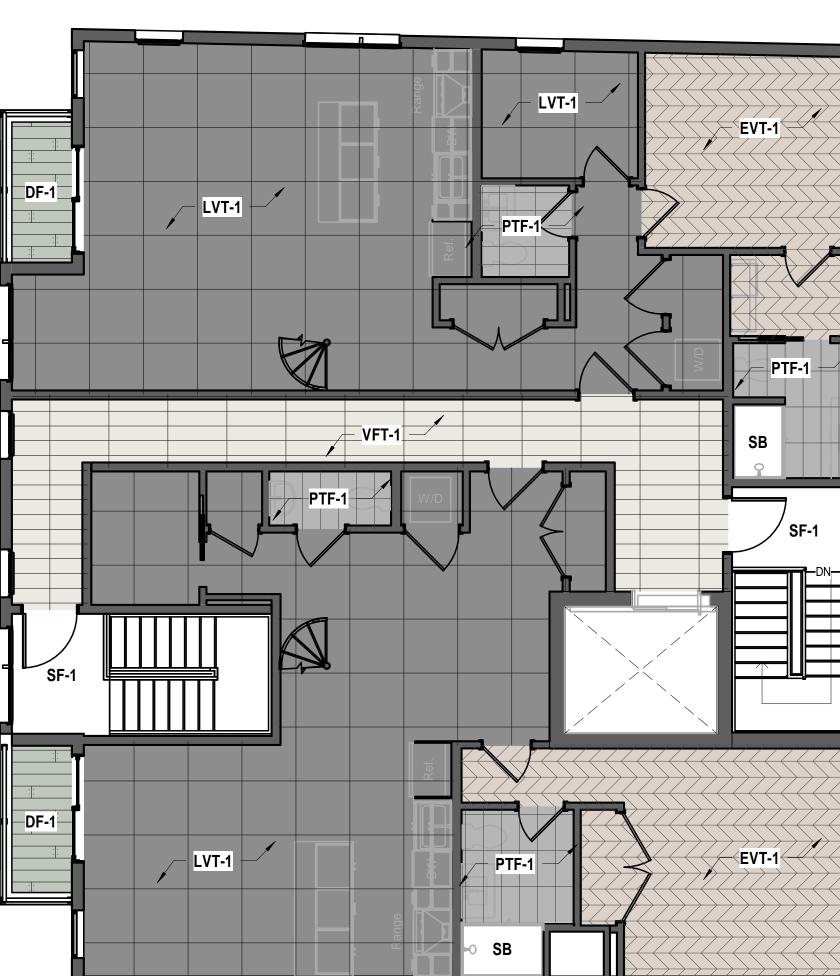






2 Level 3 - Floor Finish Plan 3/16" = 1'-0"

MAIN STREET



3 Level 4 - Floor Finish Plan
3/16" = 1'-0"

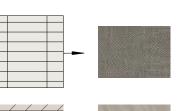
### GENERAL NOTES

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- 7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2009 INTERNATIONAL BUILDING CODE

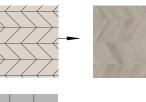
### **PLAN NOTES**

- ALL DIMENSIONS ARE MEASURED FROM FACE OF BRICK TO F.O. STUD OR FROM F.O. STUD TO F.O. STUD. UNLESS OTHERWISE NOTED.
- 2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

### FLOOR FINISH LEGEND



VFT-1 - VINYL FLOOR TILES SILENCE, VISUAL MONOLITHIC INSTALLATION (ALL COMMON CORRIDORS)



EVT-1 - ASPECTA, Aspecta Contours Versailles Alpin ( 6816701X) 12.01" x 55.43"

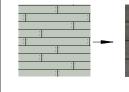


PORCELAIN TILE FLOOR (12 X 24) NEXTONE GREY

PTF-1 - HAPPY FLOORS,



LVT-1 - MOHAWK GROUP BOLDER 888 (36X36) MONOLITHIC INSTALLATION



DF-1 - AZEK Building Products, TimberTech Capped Composite Material Straight wood grain finish The Prime+ Collection COLOR:Sea Salt Gray



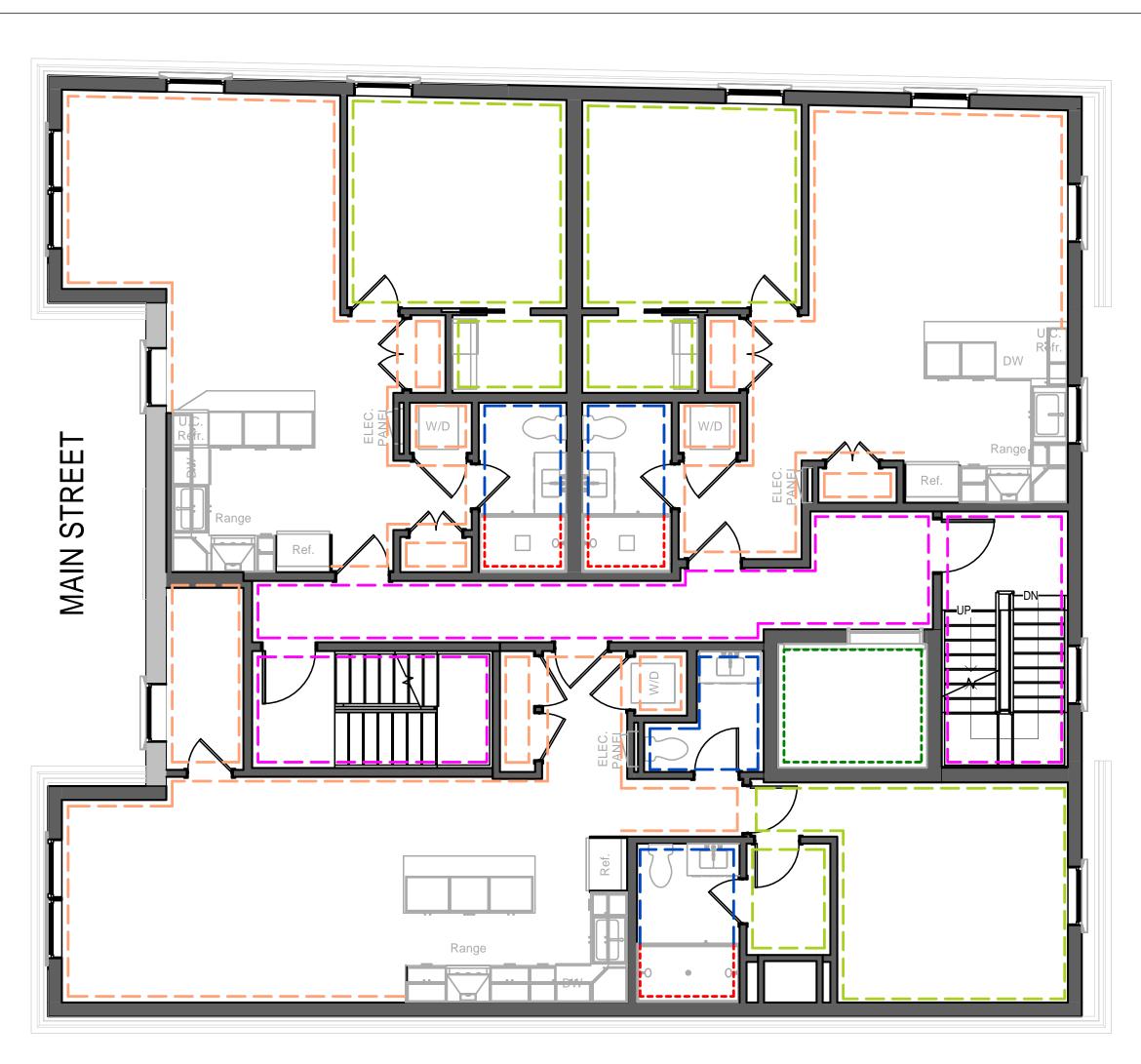
Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



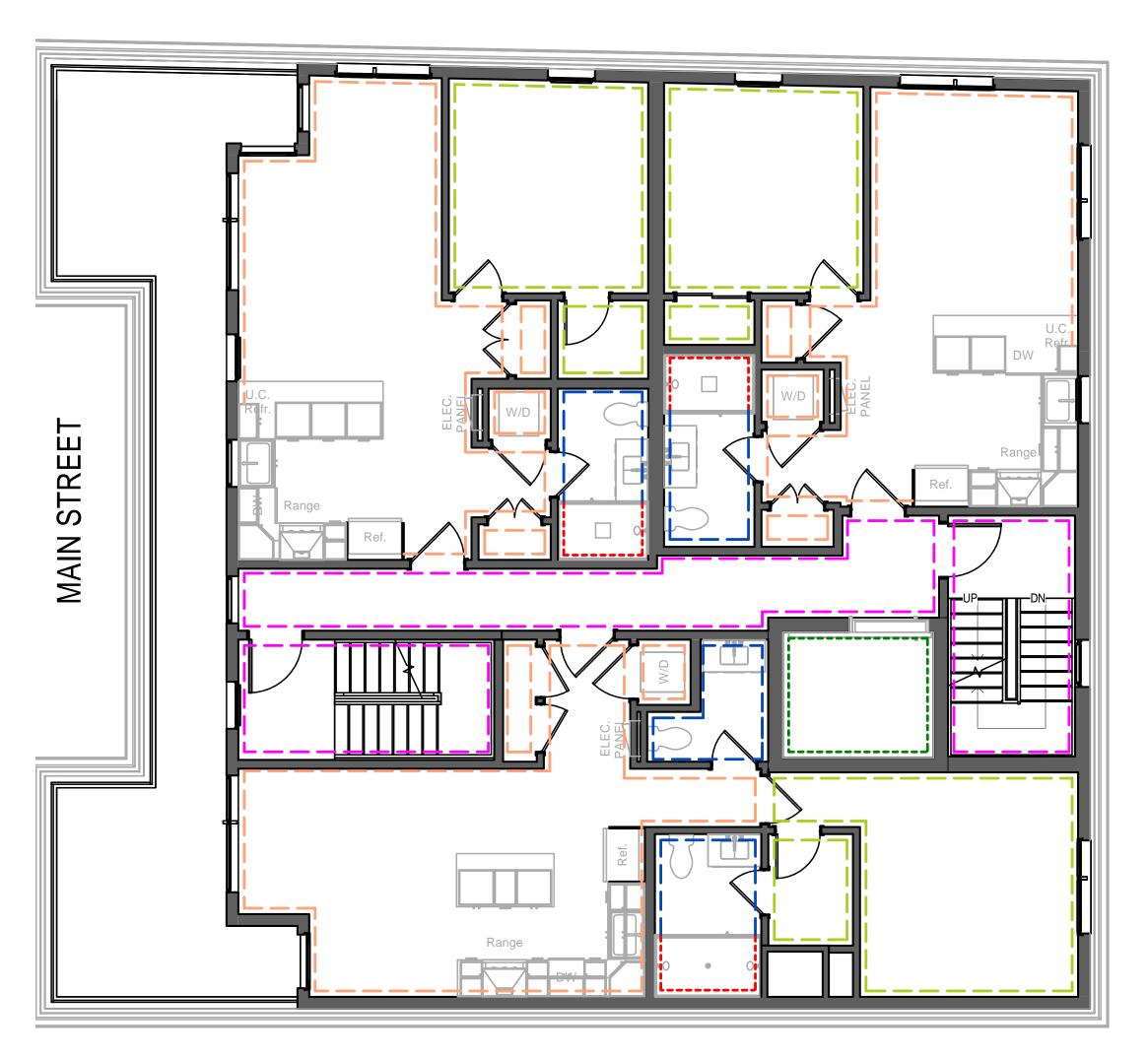
No.	Description	Date

## HUS Companies 979 Main St FLOOR FINISH PLANS

Project number	221018
Date	11.01.2021
Drawn by	DB
Checked by	NPL
A109	
Scale	As indicated

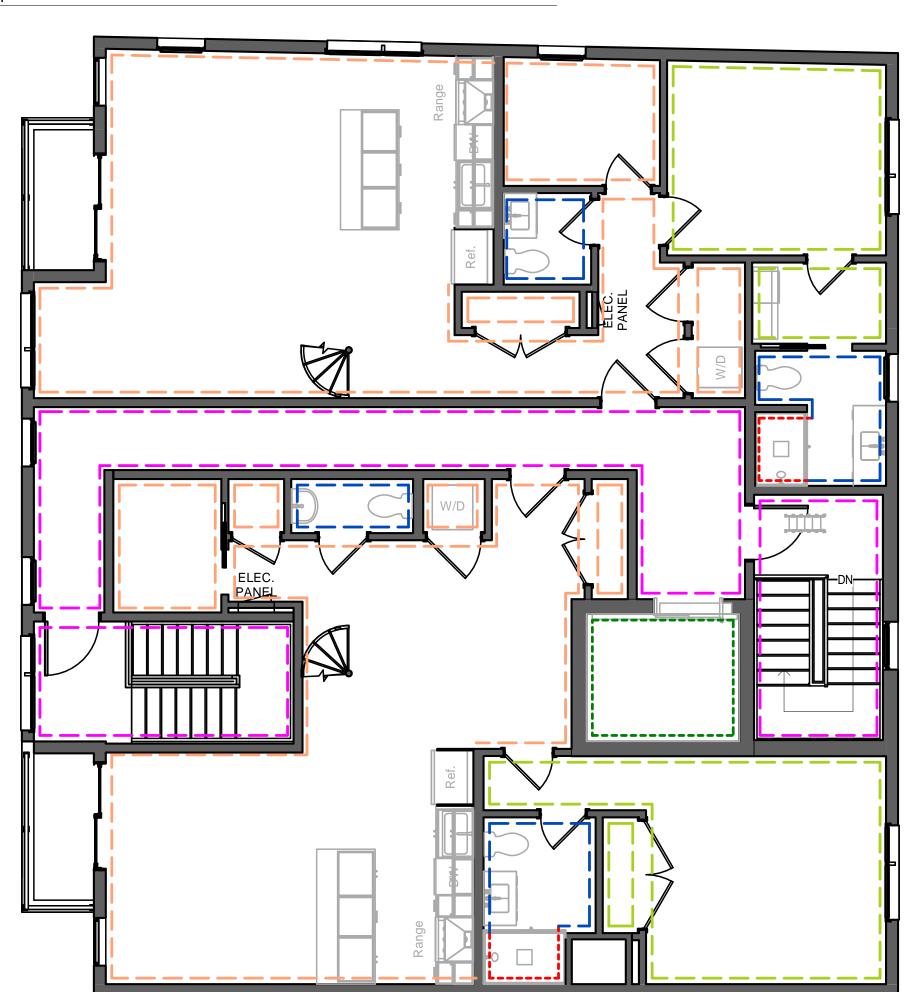


1 Level 2 - Paint Plan 3/16" = 1'-0"



2 Level 3 - Paint Plan 3/16" = 1'-0"

3 Level 4 - Paint Plan 3/16" = 1'-0"



### **GENERAL NOTES**

- 1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
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- ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE
- PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF
- 6. ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
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### **PLAN NOTES**

- ALL DIMENSIONS ARE MEASURED FROM FACE OF BRICK TO F.O. STUD OR FROM F.O. STUD TO F.O. STUD. UNLESS OTHERWISE NOTED.
- 2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

### **PAINT LEGEND**



### WALLCOVERING LEGEND



### WALL TILE LEGEND





Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description

HUS Companies
979 Main St
PAINT PLANS

 Project number
 221018

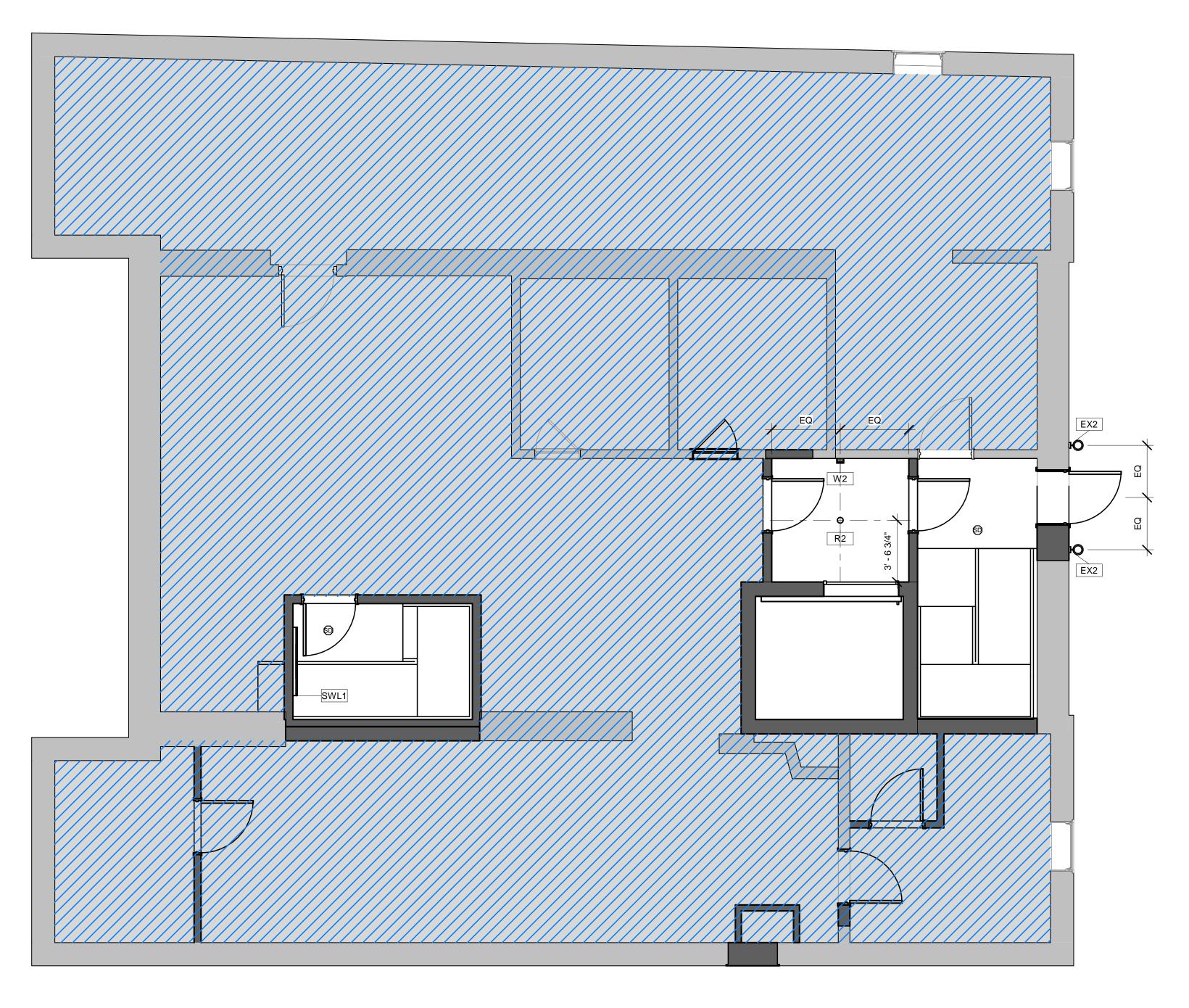
 Date
 11.01.2021

 Drawn by
 DB

 Checked by
 NPL

Scale

C:\Users\Darya\Design Resource Team, LLC\DRT - Active Projects\221018-979 Main - HUS\BIM\979 Main St - 8 units.rvt



1 Basement - Proposed 1/4" = 1'-0"

	LIGH	ITING FIXTURE SCHEDULE
Lighting F		ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture
Type Mark	Count	Comments
EX1	2	exterior wall sconce, front entry
EX2	2	exterior wall sconce, back entry
FL1	12	bath fan light
L1	4	4 ft linear closet light with motion sensor
L2	14	2 ft linear closet light with motion sensor
L3	40	under cabinet linear light
P1	16	island pendant
P2	8	pendant fan light
R1	31	wall washer 4" diam
R2	140	down light 4" diam
SWL1	11	4ft linear wall light
W1	12	wall sconce over bathroom mirror
W2	25	wall sconce - common corridor

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
- CONTRACTOR TO REVIEW FINAL SCONCE LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.
- 3. ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE FRAMED AS HIGH AS POSSIBLE BELOW MECHANICAL UNITS.
- 4. SUSPENDED GYP. BOARD CEILINGS SHOULD USE USG DRYWALL SUSPENSION SYSTEM "DGLW", OR EQUAL.
- 5. SUSPENDED CEILINGS WITHIN CORRIDOR TO USE USG WALL-TO-WALL SUSPENSION SYSTEM "DGW", OR EQUAL.
- 6. ALL GYPSUM BOARD CEILINGS TO HAVE SMOOTH TEXTURE AND
- PAINT FINISH AS SCHEDULED.

  7. ARCHITECTURAL PLANS GOVERN FOR FIXTURE LOCATION AND TYPE.
- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

RE: ELECTRICAL FOR FIXTURE SPECIFICATIONS.

GYPSUM BOARD CEILING AT UNDERSIDE OF FLOOR/CEILING ASSEMBLY

SUSPENDED GYPSUM BOARD CEILING

SPRINKLER TYP.

SIDEWALL SPRINKLER TYP.

1i
1'-0" A.F.F.

SD SMOKE DETECTOR

HEAT DETECTOR

CARBON MONOXIDE DETECTOR

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: DUPLEX

RECESSED AV BOX (DATA/POWER/TV FEED)

POWER RECEPTICAL: QUADRUPLEX

\$ SWITCH: SINGLE

SWITCH: DOUBLE

\$ 3

SWITCH: TRIPLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3		LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES
SWL1		LINEAR WALL LIGHT - COMMON STAIRS
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)
P2		BEDROOM FAN PENDANT
R1	0	4" WALL WASHER
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)
W1	I	WALL SCONCE - OVER BATHROOM MIRROR
W2	<del>_</del>	WALL SCONCE - COMMON CORRIDOR
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY
EX2		EXTERIOR WALL SCONCE - BACK ENTRY
RL1		EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



HUS Companies
979 Main St
LEVEL G - RCP

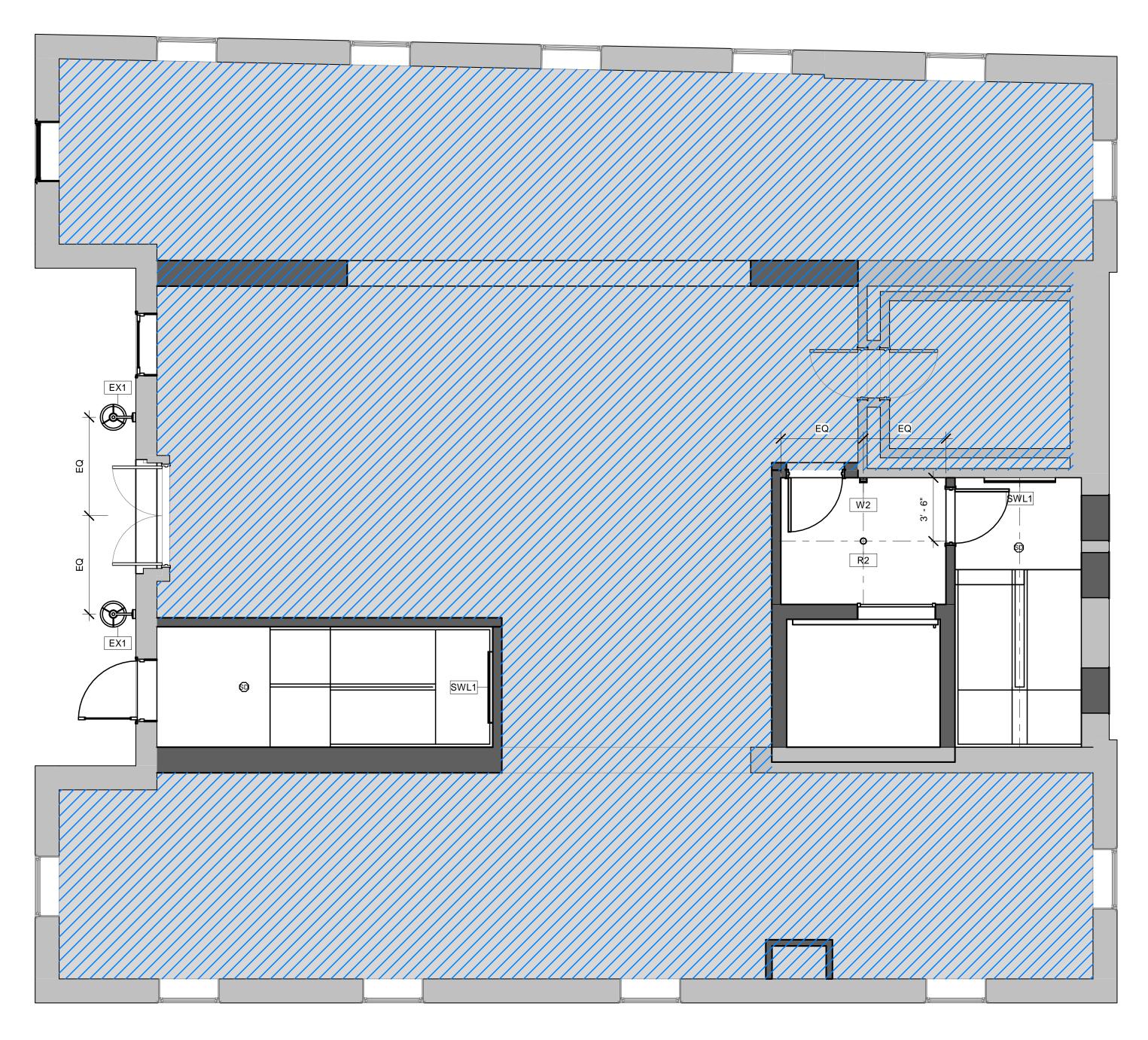
 Project number
 221018

 Date
 11.01.2021

 Drawn by
 DB

 Checked by
 NPL

Scale



1	Level 1 - Proposed
	1/4" = 1'-0"

	LIGHTING FIXTURE SCHEDULE		
Lighting F	_	ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture	
Type Mark	Count	Comments	
EX1	2	exterior wall sconce, front entry	
EX2	2	exterior wall sconce, back entry	
FL1	12	bath fan light	
L1	4	4 ft linear closet light with motion sensor	
L2	14	2 ft linear closet light with motion sensor	
L3	40	under cabinet linear light	
P1	16	island pendant	
P2	8	pendant fan light	
R1	31	wall washer 4" diam	
R2	140	down light 4" diam	
SWL1	11	4ft linear wall light	
W1	12	wall sconce over bathroom mirror	
W2	25	wall sconce - common corridor	
Grand total	: 317		

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
- 2. CONTRACTOR TO REVIEW FINAL SCONCE LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.

AS POSSIBLE BELOW MECHANICAL UNITS.

PAINT FINISH AS SCHEDULED.

- 3. ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE FRAMED AS HIGH
- 4. SUSPENDED GYP. BOARD CEILINGS SHOULD USE USG DRYWALL SUSPENSION SYSTEM "DGLW", OR EQUAL.
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- 7. ARCHITECTURAL PLANS GOVERN FOR FIXTURE LOCATION AND TYPE. RE: ELECTRICAL FOR FIXTURE SPECIFICATIONS.
- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

GYPSUM BOARD CEILING AT UNDERSIDE OF SUSPENDED GYPSUM BOARD CEILING

FLOOR/CEILING ASSEMBLY

SPRINKLER TYP.

SIDEWALL SPRINKLER TYP.

**CEILING TAG** 1'-0" A.F.F.

SMOKE DETECTOR HEAT DETECTOR

CARBON MONOXIDE DETECTOR

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: DUPLEX POWER RECEPTICAL: QUADRUPLEX

 $\bigcirc$   $\bigcirc$   $\bigcirc$ RECESSED AV BOX (DATA/POWER/TV FEED)

SWITCH: DOUBLE

SWITCH: TRIPLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
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W1	I	WALL SCONCE - OVER BATHROOM MIRROR
W2	<del>-</del>	WALL SCONCE - COMMON CORRIDOR
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY
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RL1		EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



Description **HUS Companies** 979 Main St

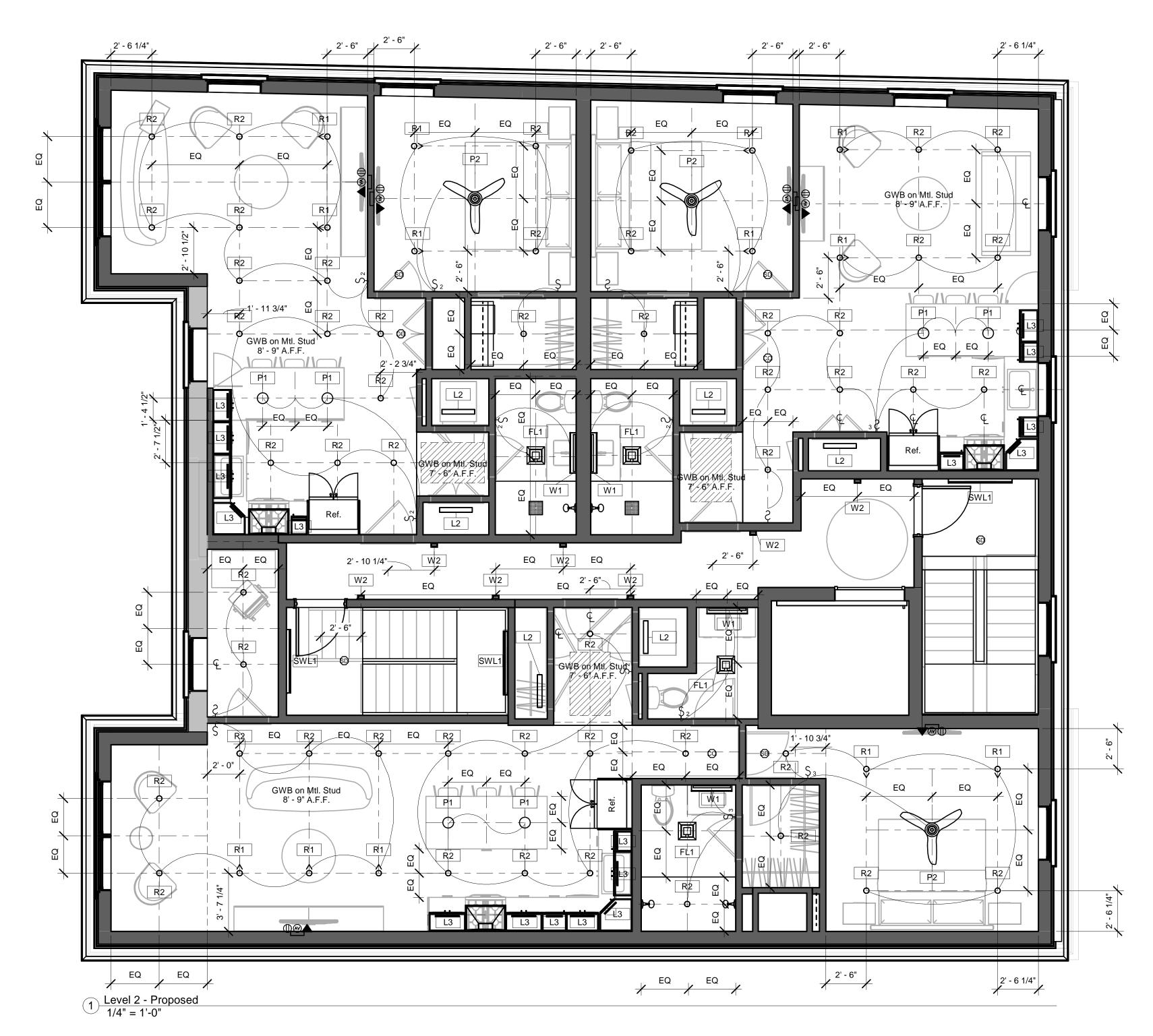
LEVEL 1 - RCP 221018 Project number 11.01.2021

A114

As indicated

Drawn by Checked by

Scale



LIGHTING FIXTURE SCHEDULE		
Lighting F		ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture
Type Mark	Count	Comments
EX1	2	exterior wall sconce, front entry
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L3	40	under cabinet linear light
P1	16	island pendant
P2	8	pendant fan light
R1	31	wall washer 4" diam
R2	140	down light 4" diam
SWL1	11	4ft linear wall light
W1	12	wall sconce over bathroom mirror
W2	25	wall sconce - common corridor

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
- 2. CONTRACTOR TO REVIEW FINAL SCONCE LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.
- 3. ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE FRAMED AS HIGH AS POSSIBLE BELOW MECHANICAL UNITS.
- 4. SUSPENDED GYP. BOARD CEILINGS SHOULD USE USG DRYWALL SUSPENSION SYSTEM "DGLW", OR EQUAL.
- 5. SUSPENDED CEILINGS WITHIN CORRIDOR TO USE USG WALL-TO-WALL SUSPENSION SYSTEM "DGW", OR EQUAL.
- 6. ALL GYPSUM BOARD CEILINGS TO HAVE SMOOTH TEXTURE AND PAINT FINISH AS SCHEDULED.
- ARCHITECTURAL PLANS GOVERN FOR FIXTURE LOCATION AND TYPE. RE: ELECTRICAL FOR FIXTURE SPECIFICATIONS.
- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

GYPSUM BOARD CEILING AT UNDERSIDE OF SUSPENDED GYPSUM BOARD CEILING

FLOOR/CEILING ASSEMBLY

SPRINKLER TYP.

SIDEWALL SPRINKLER TYP.

**CEILING TAG** 1'-0" A.F.F.

SMOKE DETECTOR

HEAT DETECTOR

CARBON MONOXIDE DETECTOR

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: QUADRUPLEX

RECESSED AV BOX (DATA/POWER/TV FEED)

SWITCH: TRIPLE

SWITCH: DOUBLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3		LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES
SWL1		LINEAR WALL LIGHT - COMMON STAIRS
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)
P2		BEDROOM FAN PENDANT
R1	0	4" WALL WASHER
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)
W1		WALL SCONCE - OVER BATHROOM MIRROR
W2	<del>-</del> -a-	WALL SCONCE - COMMON CORRIDOR
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY
EX2		EXTERIOR WALL SCONCE - BACK ENTRY
RL1	• • • •	EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS



Design Resource Team, LLC 546 East Broadway Boston, MA 02127 617.804.6117 info@d-r-t.co www.d-r-t.co



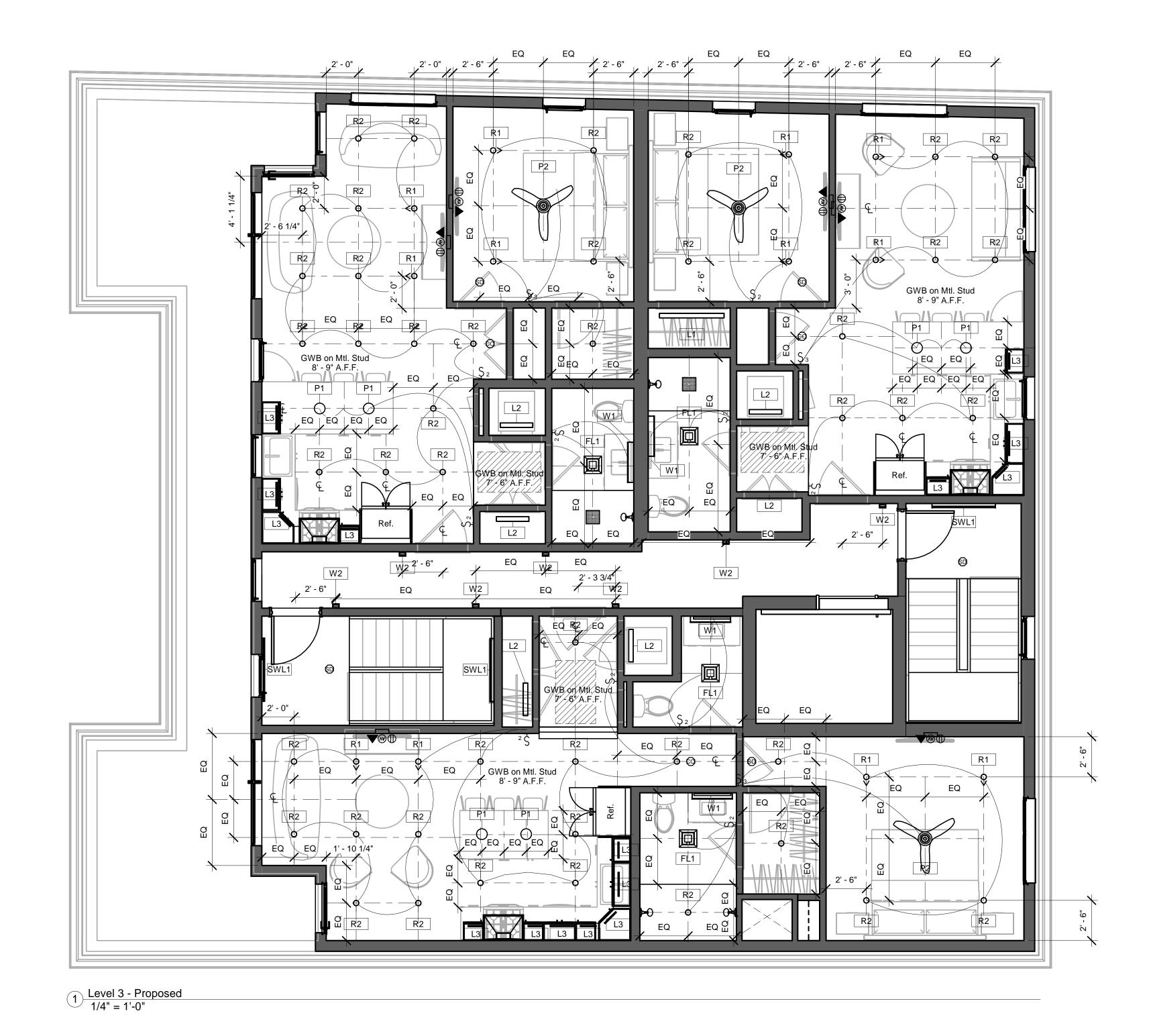
Description **HUS Companies** 979 Main St

221018 Project number 11.01.2021 Drawn by Checked by A115

Scale

As indicated

LEVEL 2 - RCP



LIGHTING FIXTURE SCHEDULE		
Lighting F	_	ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture
Type Mark	Count	Comments
EX1	2	exterior wall sconce, front entry
EX2	2	exterior wall sconce, back entry
FL1	12	bath fan light
L1	4	4 ft linear closet light with motion sensor
L2	14	2 ft linear closet light with motion sensor
L3	40	under cabinet linear light
P1	16	island pendant
P2	8	pendant fan light
R1	31	wall washer 4" diam
R2	140	down light 4" diam
SWL1	11	4ft linear wall light
W1	12	wall sconce over bathroom mirror
W2	25	wall sconce - common corridor

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
- 2. CONTRACTOR TO REVIEW FINAL SCONCE LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.
- 3. ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE FRAMED AS HIGH AS POSSIBLE BELOW MECHANICAL UNITS.
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- 7. ARCHITECTURAL PLANS GOVERN FOR FIXTURE LOCATION AND TYPE. RE: ELECTRICAL FOR FIXTURE SPECIFICATIONS.
- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

GYPSUM BOARD CEILING AT UNDERSIDE OF FLOOR/CEILING ASSEMBLY SUSPENDED GYPSUM BOARD CEILING

SPRINKLER TYP.

SIDEWALL SPRINKLER TYP.

**CEILING TAG** 1'-0" A.F.F.

SMOKE DETECTOR

**HEAT DETECTOR** 

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: QUADRUPLEX

RECESSED AV BOX (DATA/POWER/TV FEED)

CARBON MONOXIDE DETECTOR

SWITCH: DOUBLE

SWITCH: TRIPLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3	_	LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES
SWL	.1 ===	LINEAR WALL LIGHT - COMMON STAIRS
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)
P2		BEDROOM FAN PENDANT
R1	<0	4" WALL WASHER
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)
W1		WALL SCONCE - OVER BATHROOM MIRROR
W2	<del></del>	WALL SCONCE - COMMON CORRIDOR
EX		EXTERIOR WALL SCONCE - FRONT ENTRY
EX2	2 🗆	EXTERIOR WALL SCONCE - BACK ENTRY
RL1		EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS



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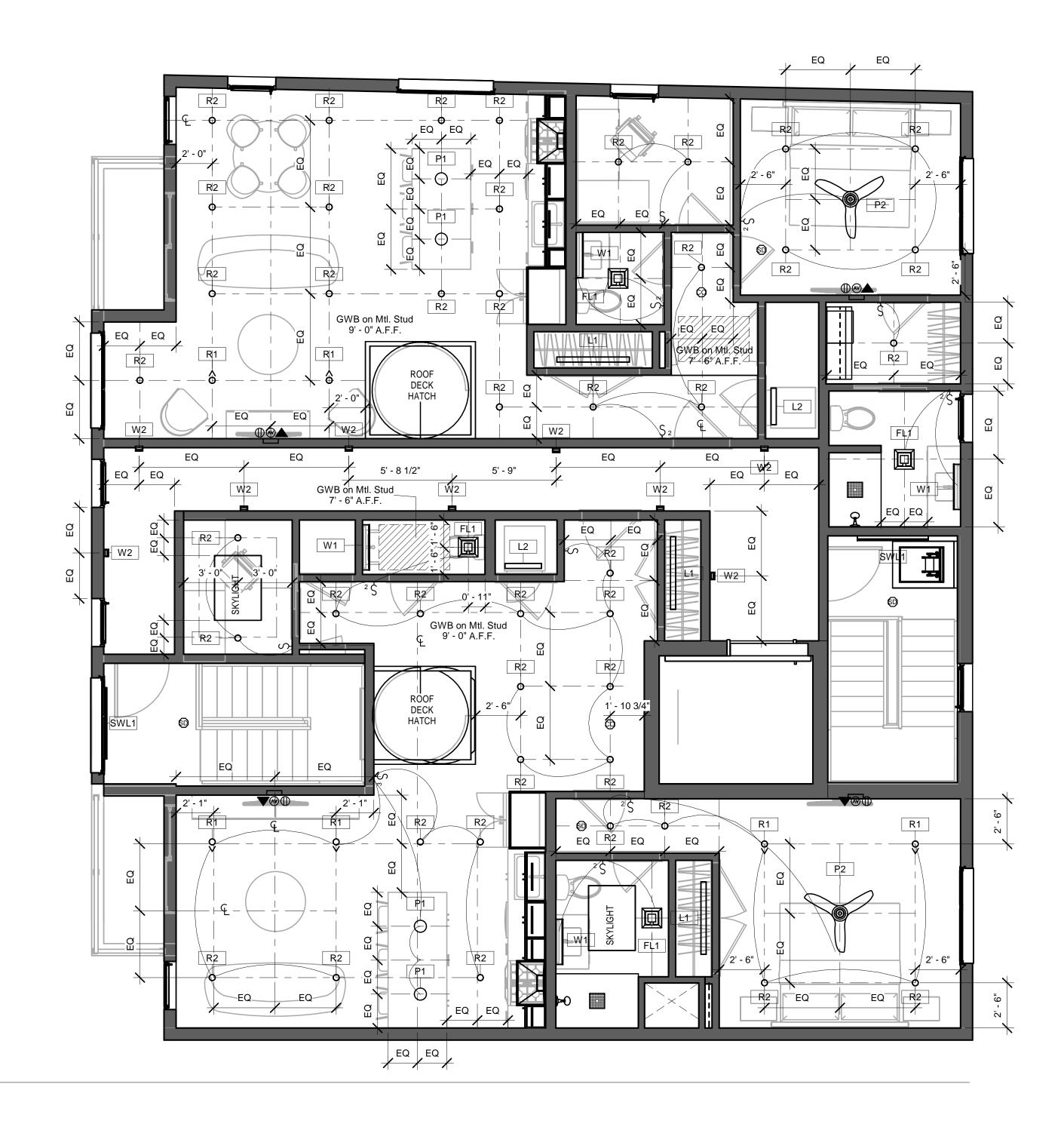


Description **HUS Companies** 979 Main St

LEVEL 3 - RCP

221018 Project number 11.01.2021 Drawn by Checked by A116

Scale



1 Level 4 - Proposed 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE		
Lighting F		ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture
Type Mark	Count	Comments
EX1	2	exterior wall sconce, front entry
EX2	2	exterior wall sconce, back entry
FL1	12	bath fan light
L1	4	4 ft linear closet light with motion sensor
L2	14	2 ft linear closet light with motion sensor
L3	40	under cabinet linear light
P1	16	island pendant
P2	8	pendant fan light
R1	31	wall washer 4" diam
R2	140	down light 4" diam
SWL1	11	4ft linear wall light
W1	12	wall sconce over bathroom mirror
W2	25	wall sconce - common corridor
Grand total	: 317	

### SHEET NOTES

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
- CONTRACTOR TO REVIEW FINAL SCONCE LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH WIRING.
- 3. ALL SUSPENDED GYPSUM BOARD CEILINGS TO BE FRAMED AS HIGH AS POSSIBLE BELOW MECHANICAL UNITS.
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- ARCHITECTURAL PLANS GOVERN FOR FIXTURE LOCATION AND TYPE.
  RE: ELECTRICAL FOR FIXTURE SPECIFICATIONS.
- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

GYPSUM BOARD CEILING AT UNDERSIDE OF FLOOR/CEILING ASSEMBLY

SUSPENDED GYPSUM BOARD CEILING

• SPRINKLER TYP.

▷ SIDEWALL SPRINKLER TYP.

1i 1'-0" A.F.F. CEILING TAG

SMOKE DETECTOR

HEAT DETECTOR

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: QUADRUPLEX

CARBON MONOXIDE DETECTOR

POWER RECEPTICAL: DUPLEX

RECESSED AV BOX (DATA/POWER/TV FEED)

\$ SWITCH: SINGLI

SWITCH: DOUBLE

Ç 3 SWITCH: TRIPLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3		LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES
SWL1		LINEAR WALL LIGHT - COMMON STAIRS
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)
P2		BEDROOM FAN PENDANT
R1	0	4" WALL WASHER
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)
W1		WALL SCONCE - OVER BATHROOM MIRROR
W2	<del>-</del> -a-	WALL SCONCE - COMMON CORRIDOR
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY
EX2		EXTERIOR WALL SCONCE - BACK ENTRY
RL1	• • • •	EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS



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No. Description Date

HUS Companies

979 Main St

979 Main St LEVEL 4 - RCP

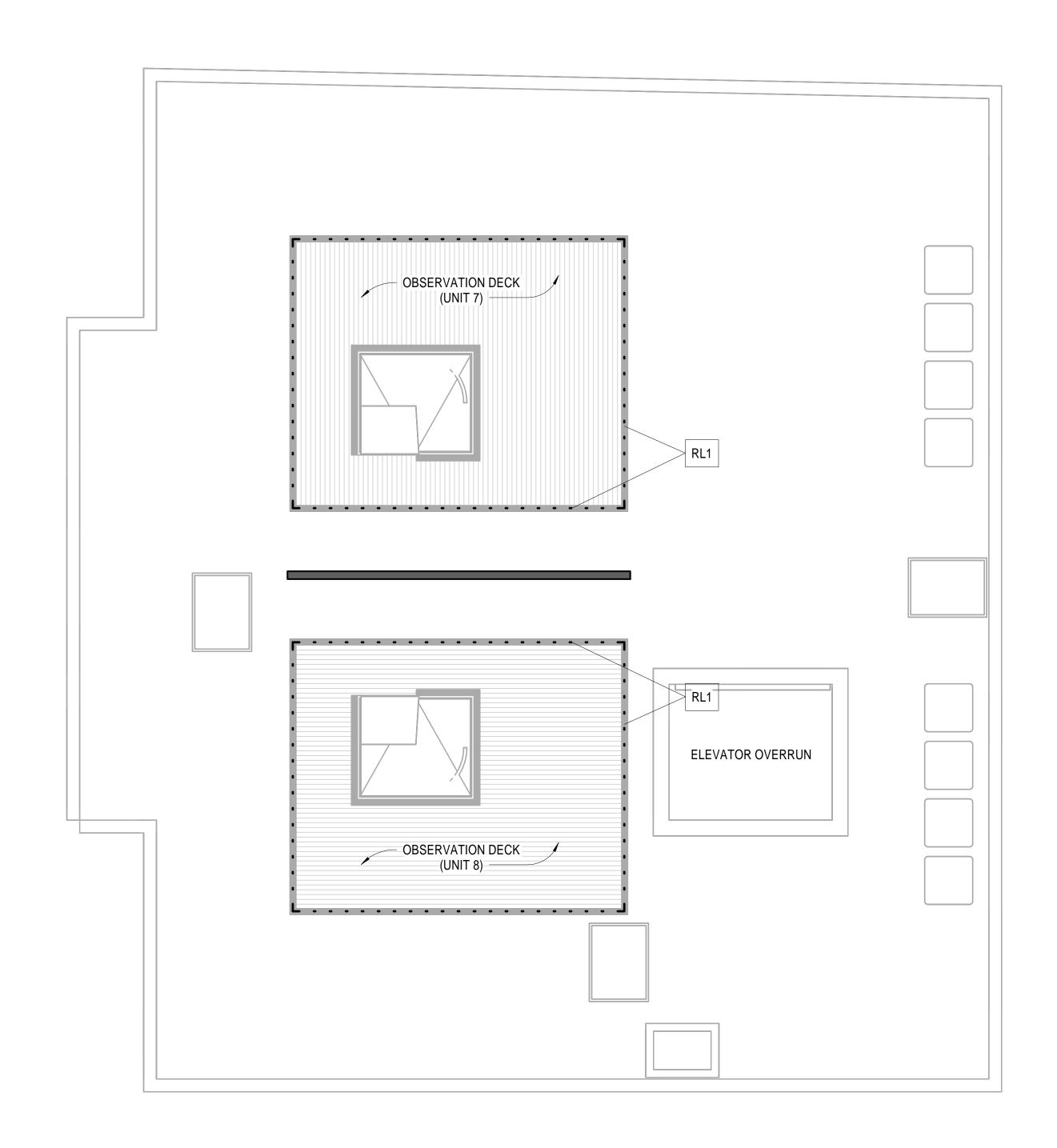
 Project number
 221018

 Date
 11.01.2021

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 DB

 Checked by
 NPL

Scale



New Roof 1/4" = 1'-0"

	LIGH	HTING FIXTURE SCHEDULE
Lighting F		ting Fixtures Allowance per Unit - \$2,000. Allowance in Common Spaces - \$100 per Light Fixture
Type Mark	Count	Comments
EX1	2	exterior wall sconce, front entry
EX2	2	exterior wall sconce, back entry
FL1	12	bath fan light
L1	4	4 ft linear closet light with motion sensor
L2	14	2 ft linear closet light with motion sensor
L3	40	under cabinet linear light
P1	16	island pendant
P2	8	pendant fan light
R1	31	wall washer 4" diam
R2	140	down light 4" diam
SWL1	11	4ft linear wall light
W1	12	wall sconce over bathroom mirror
W2	25	wall sconce - common corridor
Grand total	: 317	

### SHEET NOTES

- CONTRACTOR TO REVIEW SWITCHING LOCATIONS IN FIELD WITH ARCHITECT PRIOR TO ROUGH WIRING.
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- 8. ALL LIGHT FIXTURE PENETRATIONS AT FLOOR/CEILING ASSEMBLIES NEED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY.

### LIGHTING/DATA/POWER | CEILING GRAPHICAL KEY

GYPSUM BOARD CEILING AT UNDERSIDE OF FLOOR/CEILING ASSEMBLY

SUSPENDED GYPSUM BOARD CEILING

SPRINKLER TYP.

▷ SIDEWALL SPRINKLER TYP.

1'-0" A.F.F. CEILING TAG

SMOKE DETECTOR

HEAT DETECTOR

© CARBON MONOXIDE DETECTOR

FLOOR POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: DUPLEX

POWER RECEPTICAL: QUADRUPLEX

RECESSED AV BOX (DATA/POWER/TV FEED)

\$ 2 SWITCH: DOUBLE

\$ 3 SWITCH: TRIPLE

### LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT		
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT		
L3		LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS		
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES		
SWL1		LINEAR WALL LIGHT - COMMON STAIRS		
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)		
P2		BEDROOM FAN PENDANT		
R1	0 >	4" WALL WASHER		
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)		
W1		WALL SCONCE - OVER BATHROOM MIRROR		
W2	— <u>45</u> -	WALL SCONCE - COMMON CORRIDOR		
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY		
EX2		EXTERIOR WALL SCONCE - BACK ENTRY		
RL1	• • • •	EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS		



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HUS Companies
979 Main St
ROOF - RCP

 Project number
 221018

 Date
 11.01.2021

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 NPL

Scale











No. Description Date

HUS Companies

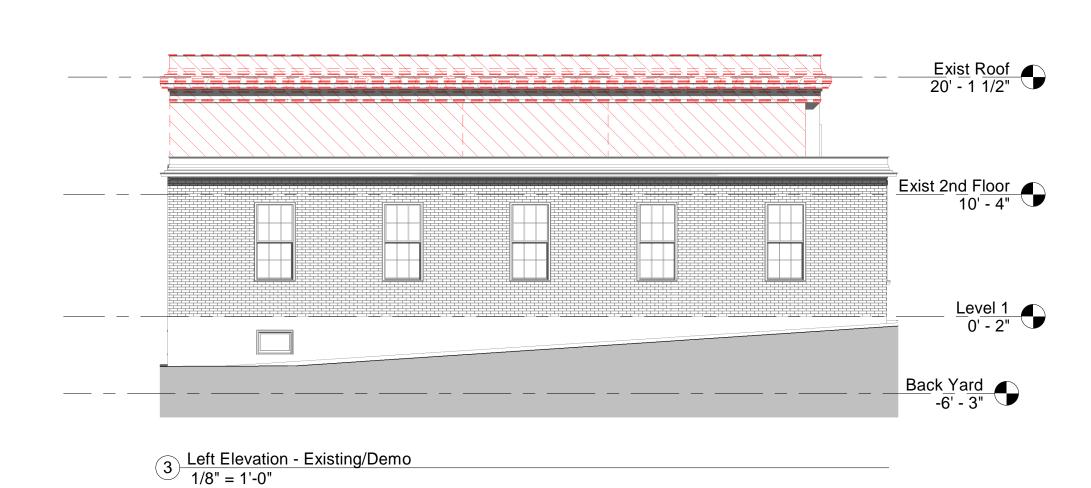
979 Main St

ELEVATIONS DEMO/PROPOSED

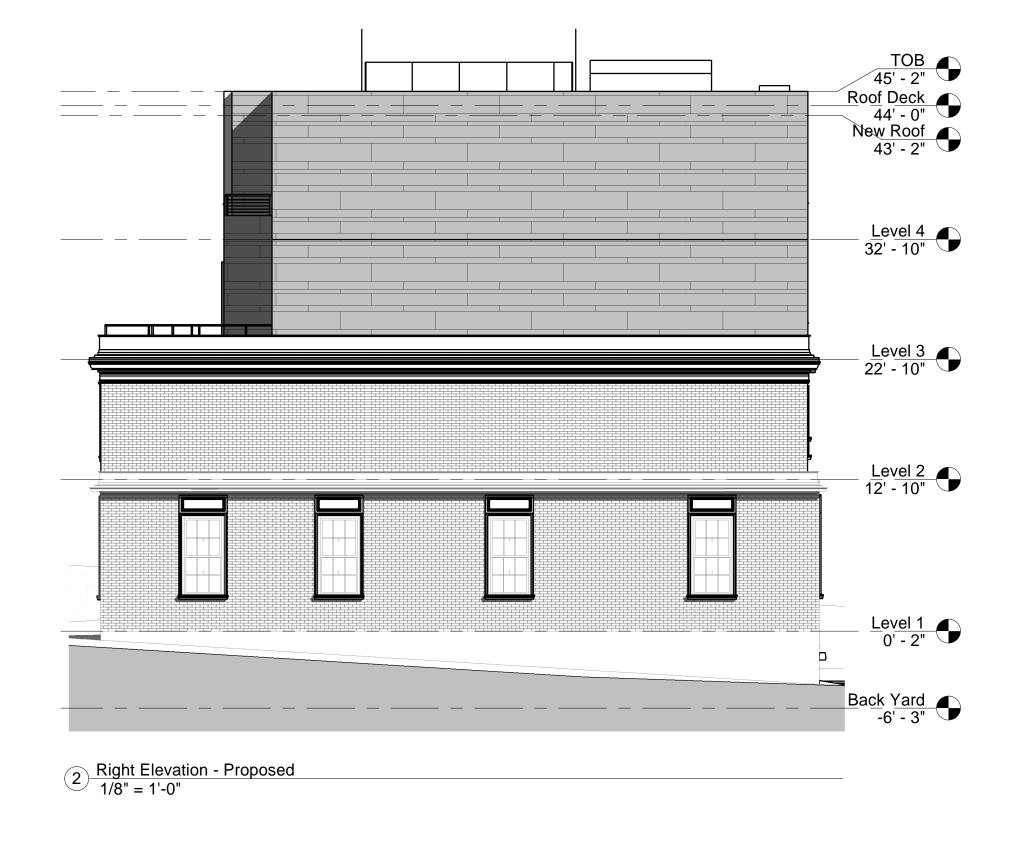
Project number 221018
Date 11.01.2021
Drawn by DB
Checked by NPL

A200

Scale 1/8" = 1'-0"













No. Description Date

HUS Companies

979 Main St

ELEVATIONS DEMO/PROPOSED

Project number 221018

Date

A201

NPL

1/8" = 1'-0"

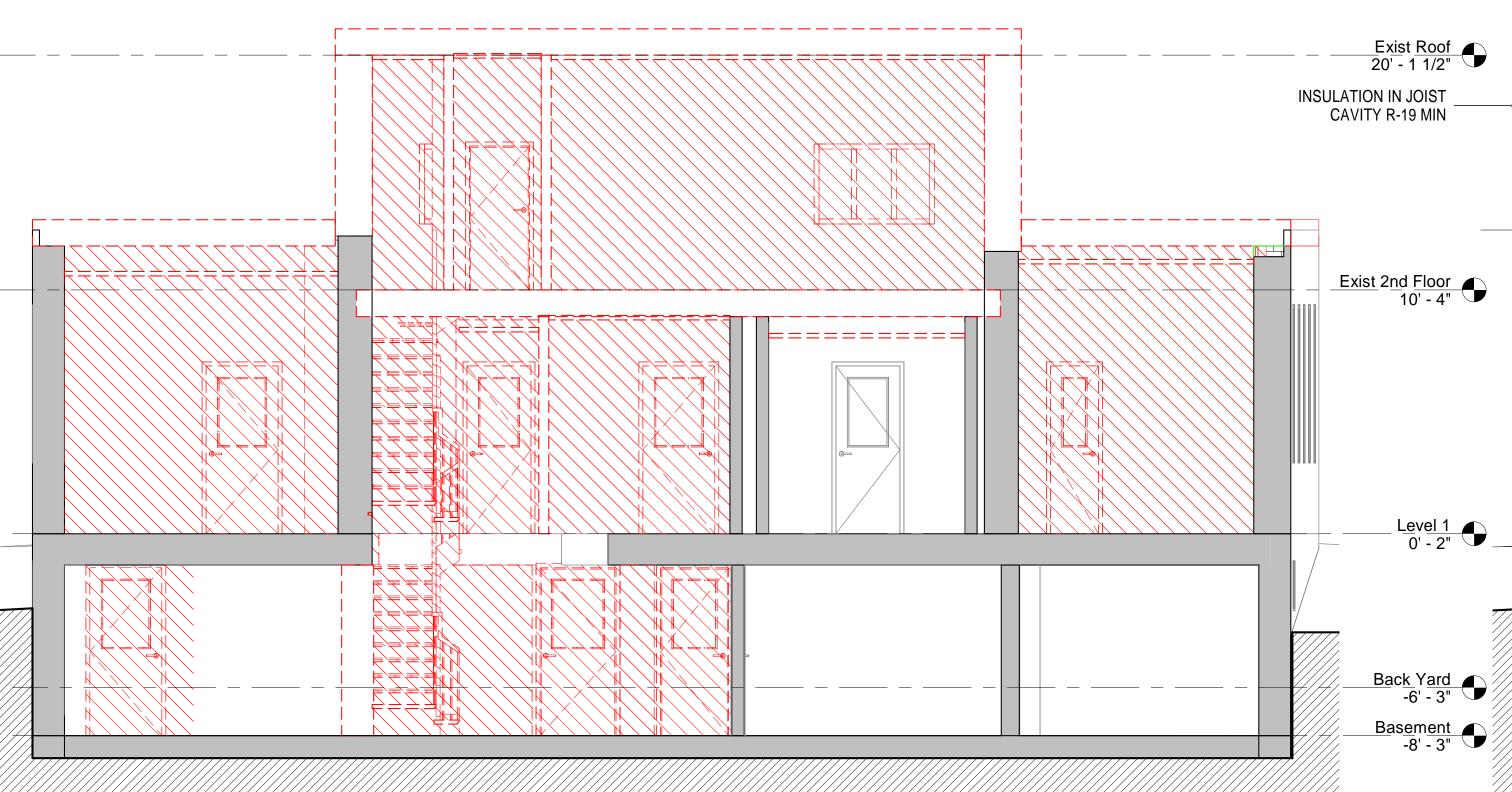
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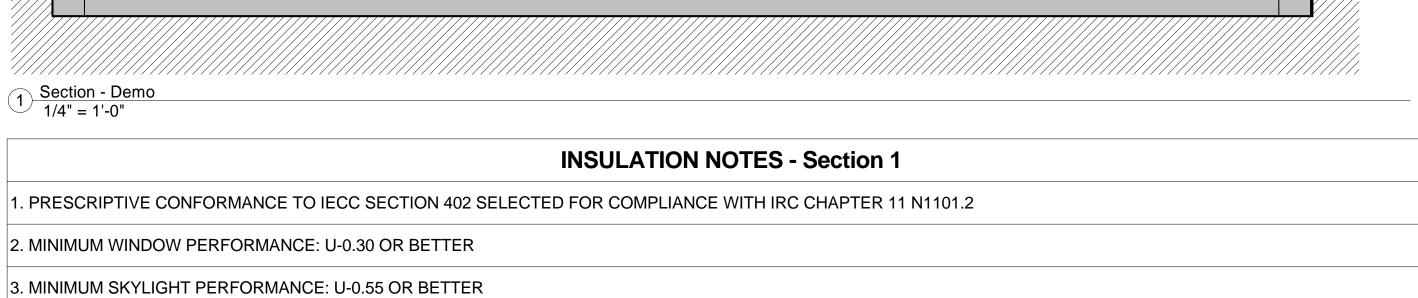
Scale

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### **ENERGY CODE REQUIREMENTS (IECC 2018 EDITION)** TABLE R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (a) **GLAZED** MASS **CRAWL** SLAB (d) **CEILING** FENESTRATION SKYLIGHT(b) BASEMENT (c) **FLOOR FENESTRATION** FRAME WALL WALL R-VALUE & SPACE (c) U-FACTOR **R-VALUE** WALL R-VALÙÉ U-FACTOR (b) **R-VALUE** SHGC (b, e) R-VALUE R-VALUE (i) DEPTH **WALL R-VALUE** 5 and 13/17 49 20 or 13+5(h) 30(g) 15/19 10, 2 ft 15/19 Marine 4 NR - Not Required; For SI: 1 foot = 304.8 mm. a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table. b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1 through 3 where the SHGC for such skylights does not exceed 0.30. c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall. d. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated e. There are no SHGC requirements in the Marine Zone. f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1. g. Or insulation sufficient to fill the framing cavity, R-19 minimum. h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation. i. The second R-value applies when more than half the insulation is on the interior of the mass wall.





5. WOOD FRAME EXTERIOR WALLS: HIGH PERFORMANCE R-21 WALL INSULATION IN 2x6 WD STUD WALLS OR FLASH AND BATT WITH SPRAY FOAM AND FIBERGLAS ATT INSULATION TO MEETMINIMUM REQUIREMENT IN TABLE 402.1.1

6. MASS WALLS: R-17 MINIMUM PERFORMANCE IF INSTALLED INSIDE OF WALL CENTERLINE, R-13 MINIMUM IF INSTALLED ON THE OUTSIDE AS MEASURED FROM THE WALL

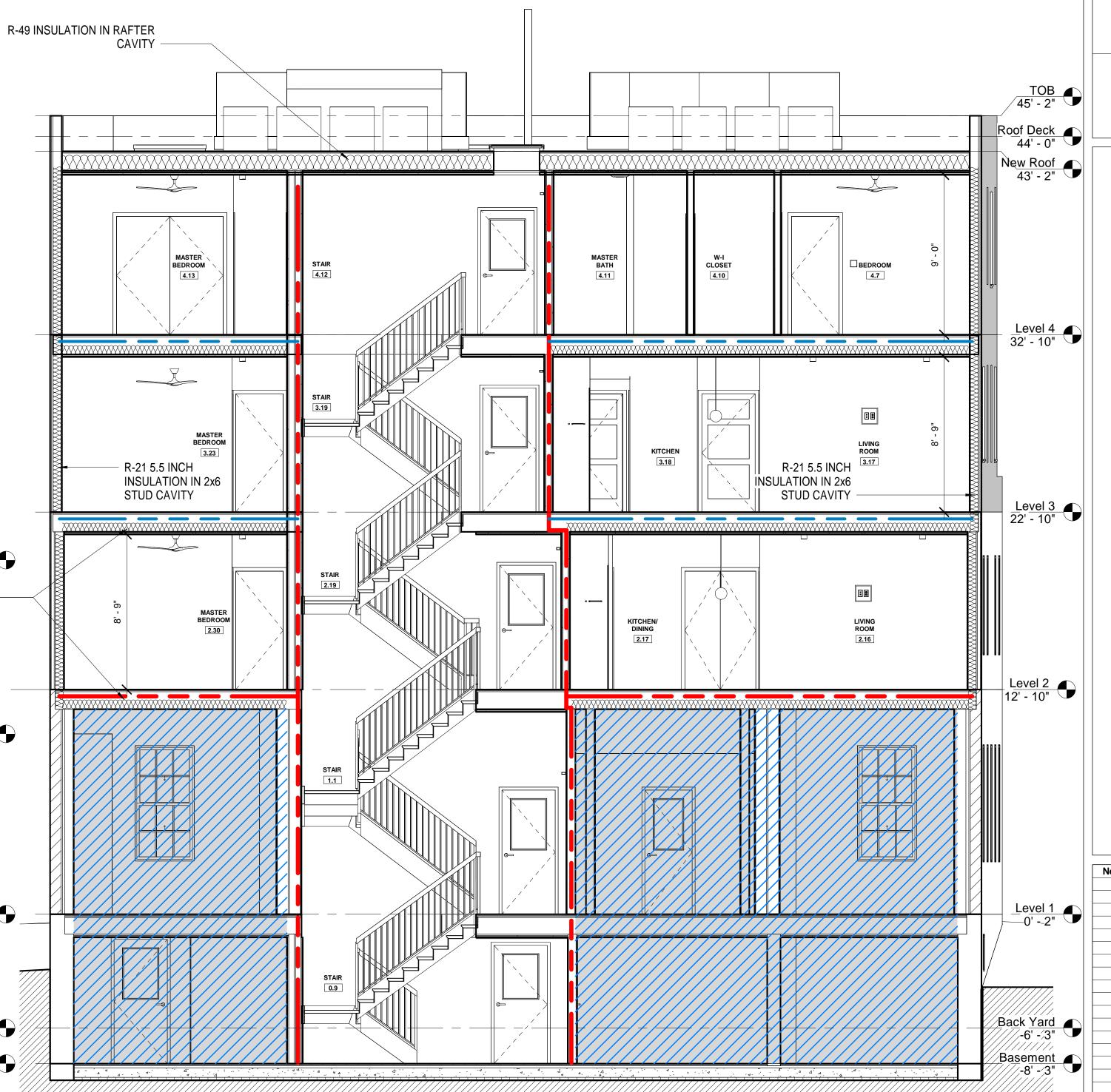
4. ROOF AND CEILING INSULATION: PERFORMANCE R-49 OR BETTER. EXTEND FULL DEPTH INSULATION TO EXTERIOR WALL SHEATHING TO ELIMINATE COLD CORNERS AND

CENTERLINE

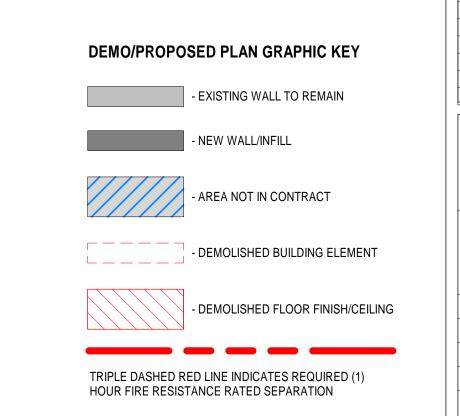
7. FLOOR INSULATION: R-30 INSULATION BETWEEN JOISTS. INSULATION MUST BE INSTALLED FOR PERMANENT DIRECT CONTACT BETWEEN SUB-FLOOR AND INSULATION. INSTALLATIONS THAT ALLOW FUTURE SAGGING OF INSULATION AWAY FROM FLOOR DECK NOT PERMITTED

8. FOUNDATION AND SLAB INSULATION AT BASEMENT: R-30 INSULATION UNDER SLAB

PREVENT ICE DAM FORMATIONS



2 Section - Proposed 1/4" = 1'-0"



HOUR FIRE RESISTANCE RATED SEPARATION



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Description

HUS Companies
979 Main St
SECTIONS

Project number 221018

Date 11.01.2021

Drawn by DB

Checked by NPL

A300

As indicated

Scale







DIAGRAM AXON - OPT 4

No. Description Date

HUS Companies
979 Main St
PERSPECTIVE VIEWS

 Project number
 221018

 Date
 11.01.2021

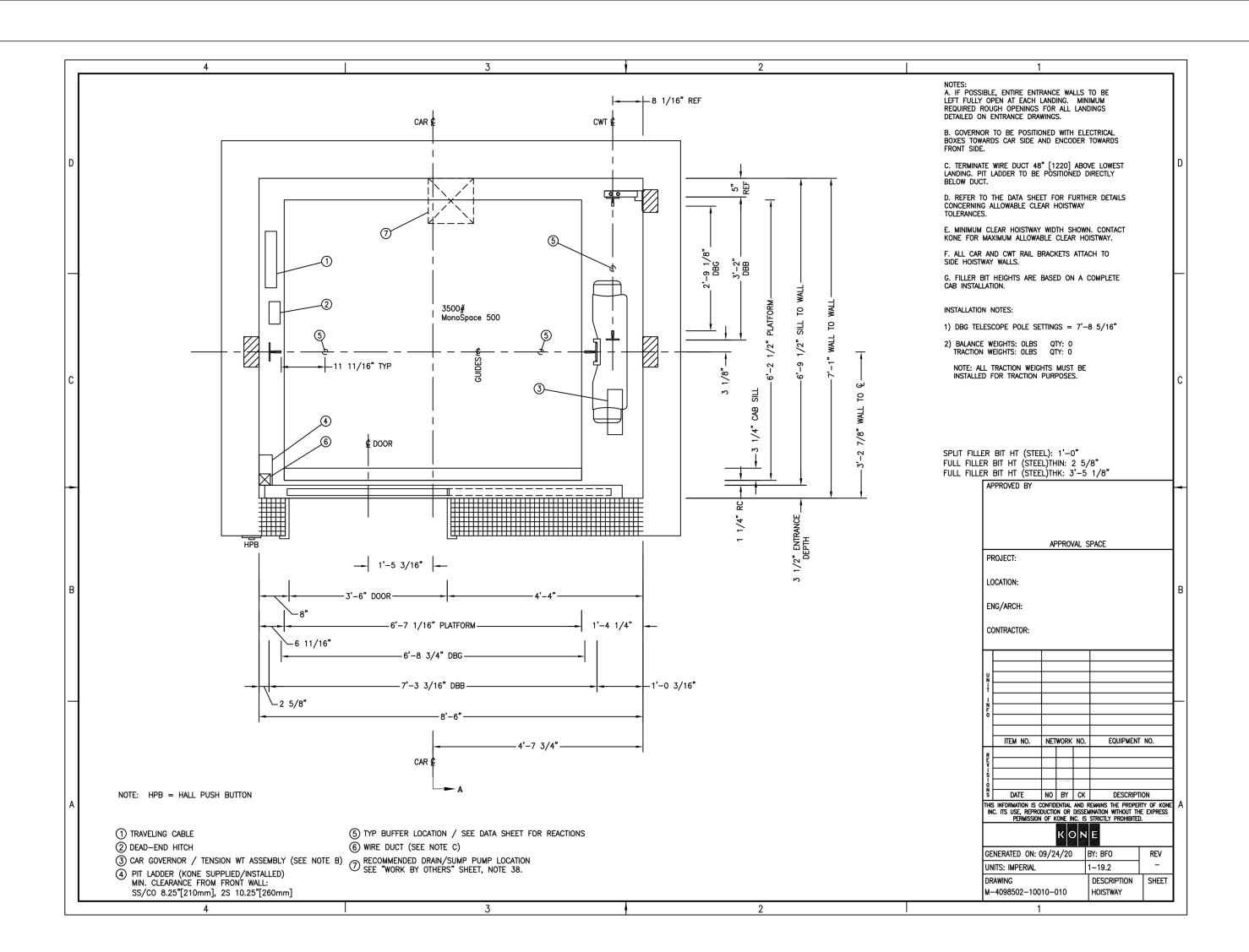
 Drawn by
 DB

 Checked by
 NPL

 A400

 Scale

1 VIEW 1







No.	Description	Da

HUS Companies 979 Main St ELEVATOR DETAILS

A500		70.03.4.60.07
Checked by		0.70
Drawn by	KONE	
Date	11.01.2021	
Project number	221018	

				FINISH LEGEND - 1				
KEY NAME	PRODUCT	MANUFACTURER	STYLE NAME/ COLOR	PRODUCT TYPE/ DESCRIPTION	PRICE	NOTES	MANUFACTURER CONTACT	IMAGE
				1. BASE				
/B-1	Wood Base	TBD	TBD	1/2" x 5-1/2" MDF Baseboard, Modern / Contemporary Profile	\$1.25 per LF	All Resedential Units		
				2. CEILING				
WB	Ceiling - Hard	GC		Smooth Plaster Finish, LVL-4 Finish Throughout		All Ceilings		
				3. FLOOR				
/FT-1	VINYL FLOOR TILES	BOLON	Collection: SILENCE, Color: VISUAL	MONOLITHIC INSTALLATION	\$5.00 per SF	(All Common	MI STUDIOS 212 252 2049 LEADS@MI-STUDI OS.COM	
.VT-1	Floating LVT	Mohawk Group	Collection: Hot and Heavy	36"x36",OVERALL THICKNESS: .2"; FINISH: M-Force Ultra; SURFACE PROFILE: Light Emboss; EDGE PROFILE: Square; INSTALLATION:Loose Lay with Perimeter Glue or Full Spread; RECOMMENDED ADHESIVE: M95.0 Resilient Flooring Adhesive, M99 Resilient Flooring Adhesive, or M700 Adhesive; CONSTRUCTION: Commercial Grade Loose Lay Luxury Vinyl Tile; STATIC LOAD: ASTM F970 - Passes, modified - 1000 psi	\$4.00 per SF	All Living Rooms, Offices, Kitchens In-Unit Corridors	Jennifer Hanson Cell: 401-480-1517 'jennifer_hanson@m ohawkind.com	
EVT-1	Resilient Wood Planks	ASPECTA	Collection: Aspecta Contours Color: Versailles Alpin	Pre-Assembled Chevron Plank	\$6.00 per SF	All Bedrooms and Bedroom Closets	TYSON ZAWADZKI (551) 255-3537	
TF-1	Porcelain Tile Floor	Creative Materials	Nextone, Grey/Natural	Material:Porcelain; Cut:Rectified; 12x24 Tile; Stacked Installation	\$4.00 per SF	All Bathrooms	GLOBAL FLOORING QUINCY (MA) 9 School St	
F-1	Stair Finish	Lumber Liquidators	SKU 10048831; Soho Gray Linen	5mm w/pad Soho Gray Linen Waterproof Rigid Vinyl Plank Flooring 12 in. Wide x 24 in. Long	\$100 per Tread	All Common Stairs	1-844-4-LLFLOOR	
F-1	Deck Finish	AZEK Building Products, TimberTech	The Prime Collection	Capped Composite Material  Straight wood grain finish Blended colors Scalloped boards		All Decks	1.877.275.2935	
PR-1	Deck Railing	Mailahn Innovation or Equal	TBD	Stainless steel cable deck railing system		All Decks	(402) 499-2511 Quoting@MailahnIn novation.com	
F-1	Roof	SIKA	Sarnafil Adhered System Color: Black	PVC ROOFING SYSTEMS		All Roofs	100 Dan Road Canton, MA 02021 +1-800-451-2504	



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No. 51043
ROSTON

No.	Description	Date

HUS Companies
979 Main St
FINISH SCHEDULE

A60	00
Checked by	NPL
Drawn by	DB
Date	11.01.2021
Project number	221018

	FINISH LEGEND - 2							
KEY NAME	PRODUCT	MANUFACTURER	STYLE NAME/ COLOR	PRODUCT TYPE/ DESCRIPTION	PRICE	NOTES	MANUFACTURER CONTACT	IMAGE
			(ALL WALLS TO HAVE S	4. WALL MOOTH PLASTER FINISH, CEMENT BOARD IN TILE AREAS- OR SHEETROCK AND T	APE WITH LEVEL 4 FI	NISH)		
WMT-1	Wall Protection Metal Plate	Fry Regiet DMEC-7250	PTD	TBD		Full Height		
EWC-1	Wall Cover	Materials Inc	Elements, Cubo Perla	Dimension: 3.25 ft x 8.5 ft Environment: Interior Feature: Lightweight Installation: Panel Standard Backer Available Gravitas Backer Available		Wall Cover @ Elevator	201.968.0101 201.968.0555 info@materials-inc.c om	
PNT-1	Paint	Sherwin-Williams	Spare White (6203)	Spare White (6203) EGGSHELL FINISH		All	(617) 268-1802	Spare While SW 6203
PNT-2	Paint	Sherwin-Williams	Ice Cube (6525)	Ice Cube (6525) SATIN FINISH		Living Rooms and Offices	(617) 268-1802	Ice Cube SW 6252
PNT-3	Paint	Sherwin-Williams	Snow Bound (7004)	Snow Bound (7004) SATIN FINISH		Bedrooms and Bedroom Closets	(617) 268-1802	Snowbound SW 7004
PNT-4	Paint	Sherwin-Williams	Oyster White (7637)	Oyster White (7637) FLAT FINISH		Common Corridors	(617) 268-1802	Oyster White SW 7637
PNT-5	Paint	Benjamin Moore	White Wisp 2137-70	Interior Latex Satin		Base Moulding		
BS-1	Ceramic Mosaic Wal Tile	Daltile	Bright White Herringbone Pattern	Restore Bright White Glossy 9 in. x 12 in. x 6.35 mm Ceramic Mosaic Wall Tile (0.6 sq. ft./Each)	\$5.00 per SF	Kitchen Backsplash	676 HANCOCK ST QUINCY, MA 02170 (617) 934-2492	
PWT-1	Classic white subway tile	Daltile	Arctic White Subway Tile	Rittenhouse Square 3 in. x 6 in. Ceramic Arctic White Subway Tile (12.5 sq. ft. / case)	\$3.00 per SF	Bathrooms (Shower Walls)	676 HANCOCK ST QUINCY, MA 02170 (617) 934-2492	
		1		5. DOOR				
WD-1	Interior Door	REEB	Ovation Door; No Sticking Flat Panel Option; Style 7517	Architectural Solid Core MDF Doors. Finish: TBD	\$225 per interior door	Doors	SYRACUSE, NY 7475 Henry Clay Blvd. Liverpool, NY 1308	
				6. STAIR				
PT-9	Spiral Stair	Paragon Stairs	Black with Wooden Treads - Color TBD	High Performance Coding Paint	\$7,000 per stair	Spiral Stair	1-855-662-1919	





No.	Description	Da
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1 1	Jo Cumpar	1169

FINISH SCHEDULE 221018 Project number 11.01.2021 Drawn by

979 Main St

Checked by A601

Scale

NPL

				FINISH LEGEND - 3				
KEY NAME	PRODUCT	MANUFACTURER	STYLE NAME/ COLOR	PRODUCT TYPE/ DESCRIPTION	PRICE	NOTES	MANUFACTURER CONTACT	IMAGE
				7. MILLWORK				
PL-1	Plastic Laminate	Wilsonart	Oiled Soapstone 4882, Finish: Fine Velvet	Dark Gray Plastic Laminate	Millwork Allowance (Kitchen cabinets &	Base Cabinets	Rebecca Farren - (978) 872-8993	
PL-2	Plastic Laminate	Wilsonart	Frosty White, 1573-60	White Plastic Laminate, Standart HPL, Finish: Matte	Vanities) including hardware \$10,000	Upper Cabinets	Rebecca Farren - (978) 872-8993	
SSM-1	Solid Surface Material	Silestone by COSENTINO	ETH Ethereal Noctis, Finish: Polished	THICKNESS: 1.2 cm.2.0 cm.3.0 cm. SLAB FORMAT: 327X159 cm.	\$65 per SF (price includes under-mount sink)	Counter Tops & Islands	508-393-9600	
				8. TRANSITION ACCESSORIES				
MST	Metal Transition	TBD	TBD	TBD				
RST	Resilient Transition	TBD	TBD	TBD				
				9. WALL PROTECTION				
WMP-1	Wall Protection Metal TRIM	Fry Regiet DMEC-7250	PTD (TBD)			Full Height		
WMT-1	Wall Protection Metal Plate	Fry Regiet DMEC-7250	PTD (TBD)			Full Height		
				10. HARDWARE				
DS-1	Door Stops	INOX	Model:DSIX19-19G DSIX Collection; Finish: Graphite Black	DSIX 2-7/8 Inch Baseboard Mounted Rigid Door Stop		All Interior Doors		
DL-1	Door Lever	Schlage	Latitude Collection; Model: F10LAT622COL; Finish: Matte Black	Schlage Latitude Passage Door Lever Set with Collins Trim	\$60 per Door	All Interior Doors	3	
DH-1		Schlage	General Hardware Collection; Model:S3P1020FRP622; Finish: Matte Black	Schlage 4" x 4" Square Corner Plain Bearing Mortise Hinges		All Interior Doors		





No.	Description	Dat

HUS Companies 979 Main St FINISH SCHEDULE

A602		
Checked by	NPL	
Drawn by	DB	
Date	11.01.2021	
Project number	221018	

Scale

KEY NAME	PRODUCT	MANUFACTURER	STYLE NAME/ COLOR	PRODUCT TYPE/ DESCRIPTION	PRICE	NOTES	MANUFACTURER CONTACT	IMAGE
				11. KITCHEN APPLIANCES				
REF	REFRIGIRATOR	SAMSUNG or EQUAL	RF28T5101SR Stainless Steel	36 Inch 3-Door French Door Refrigerator 28.2 Cu. Ft. Capacity, Adjustable Spillproof Shelves		All Kitchens	AJ Madison Inc (800) 570-3355	
ИW	OVER STOVE MICROVAWE	SAMSUNG or EQUAL	ME21R7051SS Stainless Steel	2.1 cu. ft. Over-the-Range Microwave Sensor Cook, Large Capacity, 400 CFM Ventilation		All Kitchens	AJ Madison Inc (800) 570-3355	
STV	STOVE	SAMSUNG or EQUAL	NE63A6311SS Stainless Steel	30 Inch Freestanding Electric Smart Range 5 Smoothtop Burners, 6.3 Cu. Ft. Capacity, Storage Drawer	Allowance	All Kitchens	AJ Madison Inc (800) 570-3355	
DW .	DISHWASHER	SAMSUNG or EQUAL	DW80R2031US Stainless Steel	24 Inch Fully Integrated Dishwasher Adjustable Rack, NSF® Certified Sanitize, Digital Leak Sensor		All Kitchens	AJ Madison Inc (800) 570-3355	
GD	GARBAGE DISPOSAL	InSinkErator Badger or EQUAL	B09JV517LQ	1/2 Horsepower Heavy Duty Motor (Quiet Dura-Drive® Induction Motor), Rugged Galvanized Steel Construction (For Disposer Durability)  • Space-Saving Compact Design  • Available with or without a factory installed power cord		All Kitchens		
				12. PLUMBING FIXTURES				
ΓL	TOILET	TOTO or EQUAL	Entrada; COLOR: Cotton White	Entrada 2-Piece 1.28 GPF Single Flush Round Toilet	\$200 per toilet	All Bathrooms		
KS	KITCHEN SINK	Kraus	Model:KHU24L Pax Collection; Finish: Stainless Steel	Pax 24" Single Basin 18 Gauge Stainless Steel Kitchen Sink for Undermount Installations with NoiseDefend Technology and Pax Zero-Radius Corners Model:KHU24L	\$150 per Kitchen	All Kitchens		Kräus
38	BATHROOM SINK	Swiss Madison	Model:SM-UM625 Voltaire Collection; Finish: Glossy White	Voltaire 21" Rectangular Ceramic Undermount Bathroom Sink with Overflow	\$50 for Bathroom	All Bathrooms		geor findance
SB	SHOWER BASE	KOHLER	Ballast® COLOR: White K-1935	Low-threshold design for easy entry and exit. Single threshold for alcove installation with integral tile-in flange. Durable acrylic with resin concrete core construction. Center drain	\$600 per Shower	All Bathrooms		<b>®</b>
				13. PLUMBING FIXTURES				
<b>KF</b>	Kitchen Faucet	Vigo	Model:VG02027ST Livingston Collection Finish: Stainless Steel	Livingston 1.8 GPM Single Hole Pre-Rinse Pull Down Kitchen Faucet	\$250 per Kitchen Faucet	All Kitchens		Nieo Nieo
BF	Bathroom Faucet	Kohler	Model:K-97093-4-CP Hint Collection Finish: Polished Chrome	Kohler Hint 1.2 GPM Widespread Bathroom Faucet with Pop-Up Drain		All Bathrooms		7
SV	Shower Valve	Kohler	Model:K-AWAKEN-TS7801 5-4-SHOWER-CP Components Collection Finish: Polished Chrome	Kohlar Components Shower Only Trim Bookage with 2 CDM Multi Function Shower Hood	\$300 per Shower Valve	All Showers		NONER
			1	12. BATH ACCESSORIES				
ΓR	Towel Rod	Kohler	Model:K-27287-CP Elate Collection Finish: Polished Chrome	Kohler Elate 24" Towel Bar		All Bathrooms		NOLER .
ГРН	Toilet Paper Holder	Kohler	Model:K-24546-CP Kumin Collection Finish: Polished Chrome	Kohler Kumin Wall Mounted Pivoting Toilet Paper Holder	\$300 per Bathroom	All Bathrooms		66
MR	Mirror	Elegant Lighting	Model:MR4074BK Eternity Collection Finish: Black	Elegant Lighting Eternity 40"x 24" Rectangular Metal Framed Wall Mirror		All Bathrooms		
SCR	Shower Curtain Rod	MOEN or EQUAL	SKU: MOE8959 Finish: Silver	Donner Straight Fixed Shower Curtain Rod	\$30	All Showers		3
				13. CLOSET ACCESSORIES				
NS	Wire Shelf	TBD		White wire shelf		One per Closet		
CR	Closet Rod	TBD		Wite closet rod		One per Closet		





No.	Description	Date

**HUS Companies** 979 Main St APPLIANCE, PLUMB FIXT LEGEND

Project number	221018
Date	11.01.2021
Drawn by	DB
Checked by	NPL

A603

# $(\mathsf{D})$ (A.5) ( B ) C

SEE APPROVED ELEVATOR SHOP DRAWINGS FOR SHAFT DIMENSIONS & PIT DPTH USE 2 - L 5 x 3 1/2 x 5/16 X 7' LG. @ ELEV. DOOR M.O.

Section @ Elevator Shaft

1/2" = 1'-0"

### STRUCTURAL NOTES

- 1. All work shall be done in accordance with the MSBC, 9th edition.
- 2. Provide temporary support prior to demolition.
- 3. Allowable soil bearing pressure = 1.50 ksf.
- 4. Loading: LL = 40 psf.; LL(deck) = 40 psf.;  $P_g$  = 40 psf.;  $P_f$  = 35 psf.  $V_{ult}$  = 130 mph. (Cat II)  $S_s = 0.190$ ;  $S_1 = 0.065$

5. Material:

- A. Lumber: LVL:  $F_b = 2,600 \text{ psi}$ ;  $E = 2.0 \text{ x } 10^6 \text{ psi}$ ; Posts: PSL Wood: Hem-Fir No.1 & btr.;
  Joists: TJI series or approved equal; P.T. at ext. exposure Studs: construction grade
- B. Metal connectors: Simpson or approved equal; corrosion protected @ ext. exposure Structural Steel (if needed): A36, A500, and A992 Concrete:  $f'_c = 3,500 \text{ psi}$ ; Rebar: Grade 60.

BRACED WALL PARTITION (B.W.P.) ATTACH SHEATHING ON EA. SIDE OF WALL @ 4" O.C. AT PERIMETER & O.C. IN FIELD OF EA. SHEATHING



Design Resource Team, LLC. 546 E Broadway Boston, MA 02127 617.804.6117 nlandry@d-r-t.co www.d-r-t.co



No.	Description	Date
	•	

1103 Companies

979 Main St

### STRUCTURAL FRAMING

Project number	221018
Date	11.01.2021
Drawn by	DB
Checked by	ELH

**S100** 

Scale

As indicated

ASSUME 7'-1" x 8'-6"

FOOTING SIZE:

1 Basement 1/8" = 1'-0"

I: 4' - 0" x 4' - 0" x 12" DP W/5 - #5 EA WAY

NOTE:

- 3/4" PLYWOOD SUB-FLR - 11 7/8" TJI 110@16" O.C. NOTE:

NOTIFY ENGINEER AFTER EXISTING STR. BEAMS & COLUMNS ARE EXPOSED. ASSUME W10X54 @ COL 2 & 5 AS ALTERNATE.

STRUCTURAL NOTES

- 1. All work shall be done in accordance with the MSBC, 9th edition.
- 2. Provide temporary support prior to demolition.
- 3. Allowable soil bearing pressure = 1.50 ksf.
- 4. Loading: LL = 40 psf.; LL(deck) = 40 psf.;  $P_g$  = 40 psf.;  $P_f$  = 35 psf.  $V_{ult}$  = 130 mph. (Cat II)  $S_s = 0.190$ ;  $S_1 = 0.065$

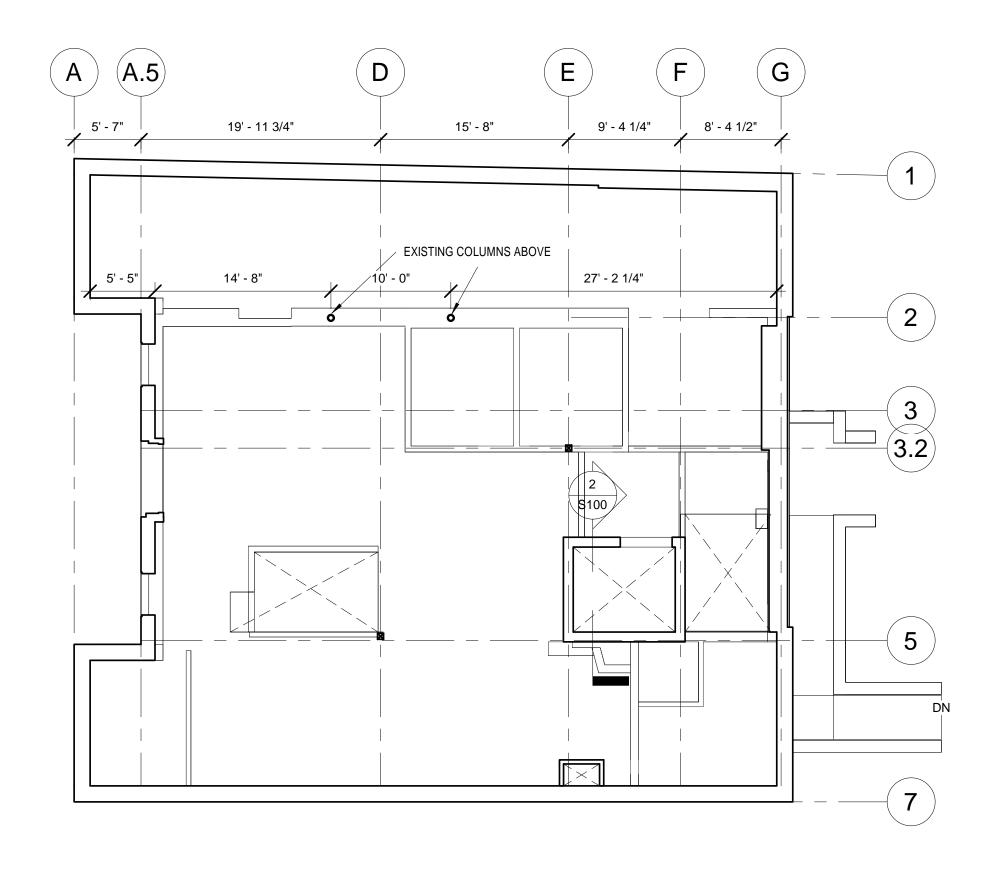
5. Material:

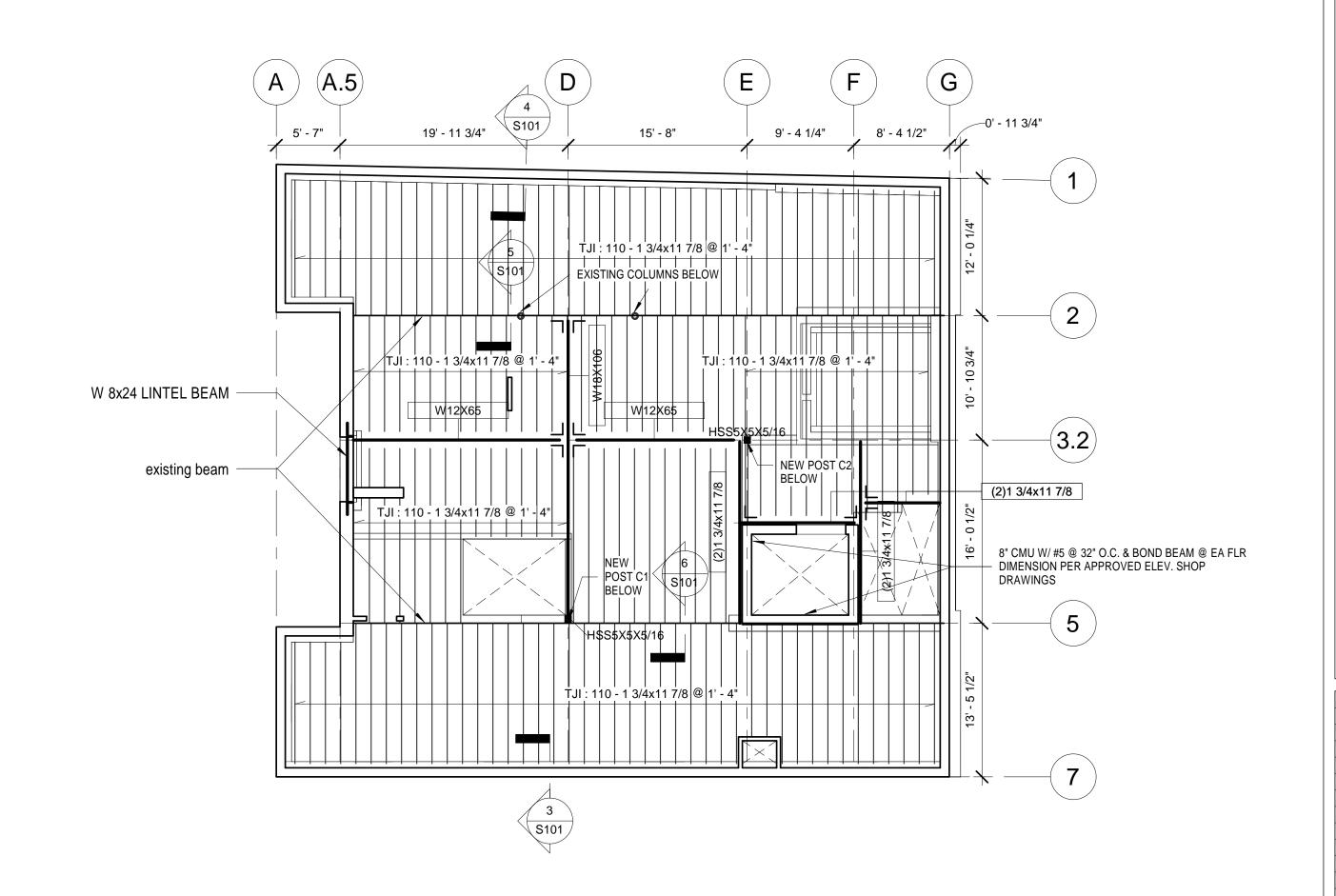
- A. Lumber: LVL:  $F_b = 2,600 \text{ psi}$ ;  $E = 2.0 \text{ x } 10^6 \text{ psi}$ ; Posts: PSL Wood: Hem-Fir No.1 & btr.; Joists: TJI series or approved equal; P.T. at ext. exposure Studs: construction grade
- B. Metal connectors: Simpson or approved equal; corrosion protected @ ext. exposure Structural Steel (if needed): A36, A500, and A992 Concrete: f'<sub>c</sub> = 3,500 psi; Rebar: Grade 60.

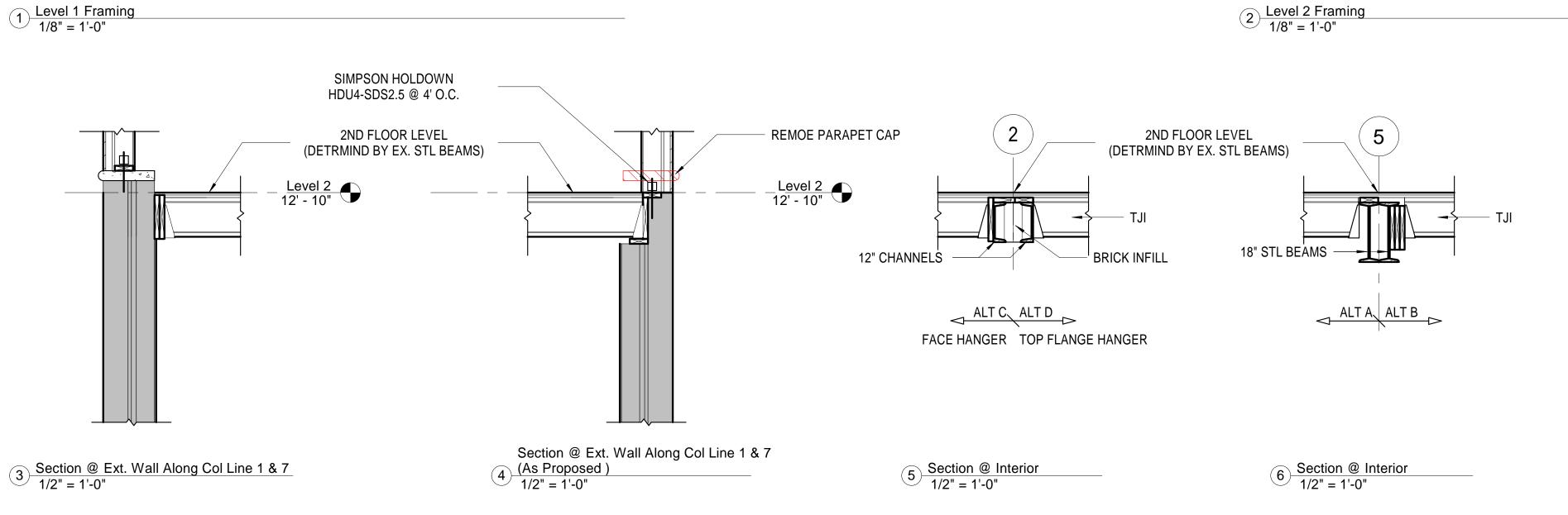
BRACED WALL PARTITION (B.W.P.) ATTACH SHEATHING ON EA. SIDE OF WALL @ 4" O.C. AT PERIMETER & O.C. IN FIELD OF EA. SHEATHING



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Date Description **HUS Companies** 

979 Main St

STRUCTURAL FRAMING

221018 Project number 11.01.2021 Drawn by ELH Checked by

S101

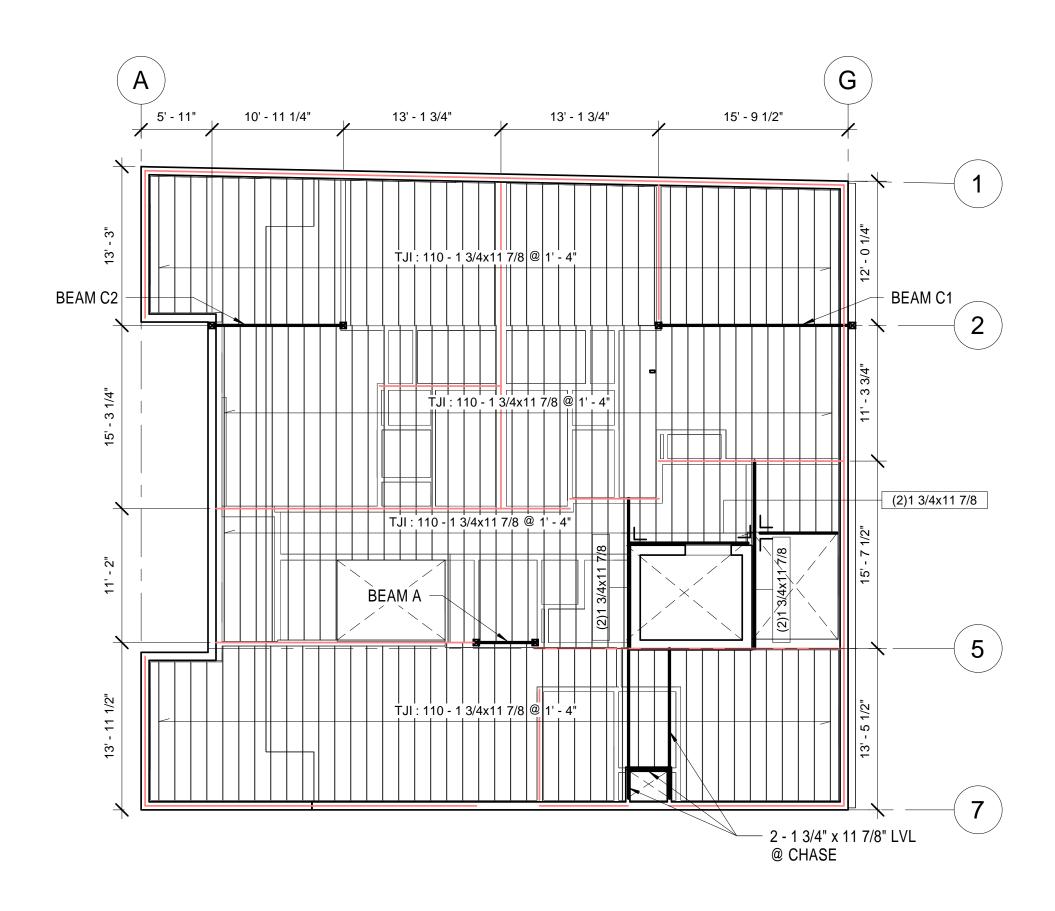
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### NOTE:

- 3/4" PLYWOOD SUB-FLR - 11 7/8" TJI 110@16" O.C.

### **BEAM SIZE:**

BEAM A = 2 - 2x12BEAM B1 = 3 - 1 3/4" x 11 7/8" LVL BEAM B2 = 4 - 1 3/4" x 11 7/8" LVL BEAM C1 = 4 - 1 3/4" x 11 7/8" LVL BEAM C2 = 4 - 1 3/4" x 11 7/8" LVL



1 Level 3 Framing 1/8" = 1'-0"

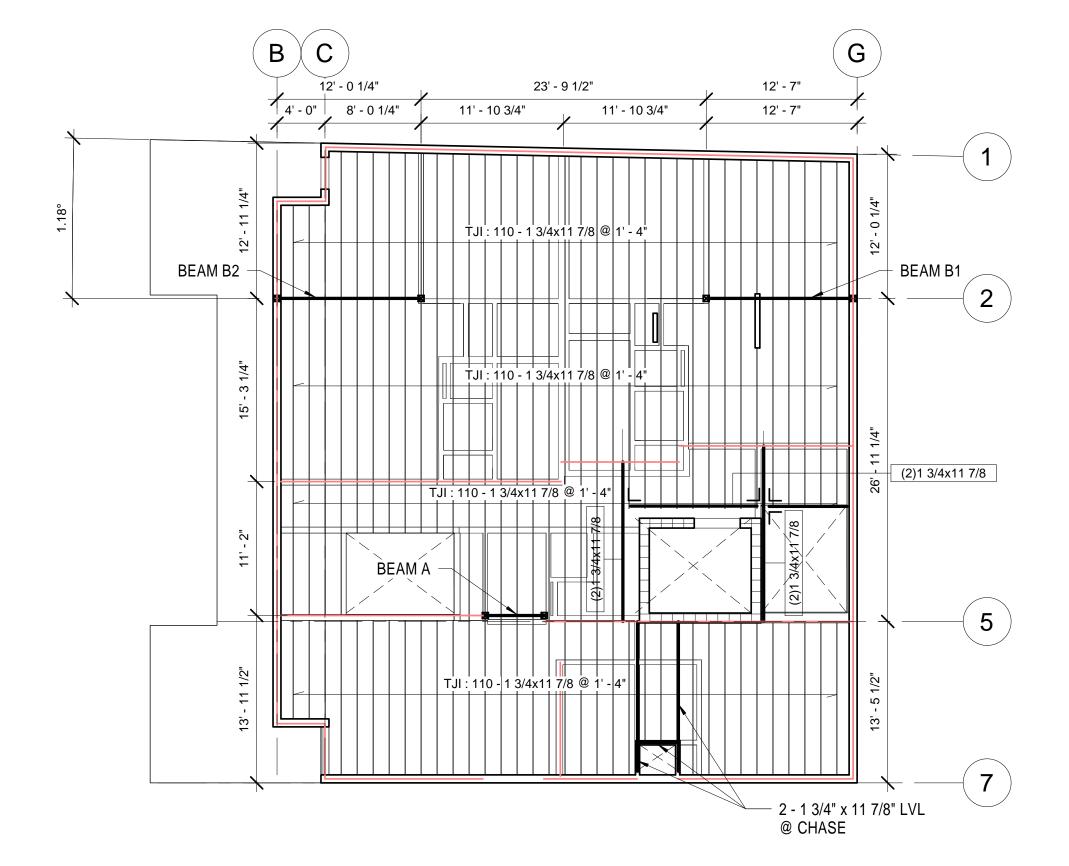
### STRUCTURAL NOTES

- 1. All work shall be done in accordance with the MSBC, 9th edition.
- 2. Provide temporary support prior to demolition.
- 3. Allowable soil bearing pressure = 1.50 ksf.
- 4. Loading: LL = 40 psf.; LL(deck) = 40 psf.;  $P_g$  = 40 psf.;  $P_f$  = 35 psf.  $V_{ult}$  = 130 mph. (Cat II)  $S_s = 0.190$ ;  $S_1 = 0.065$

5. Material:

- A. Lumber: LVL:  $F_b = 2,600 \text{ psi}$ ;  $E = 2.0 \text{ x } 10^6 \text{ psi}$ ; Posts: PSL Wood: Hem-Fir No.1 & btr.;
  Joists: TJI series or approved equal; P.T. at ext. exposure Studs: construction grade
- B. Metal connectors: Simpson or approved equal; corrosion protected @ ext. exposure Structural Steel (if needed): A36, A500, and A992 Concrete:  $f'_c = 3,500 \text{ psi}$ ; Rebar: Grade 60.

BRACED WALL PARTITION (B.W.P.) ATTACH SHEATHING ON EA. SIDE OF WALL @ 4" O.C. AT PERIMETER & O.C. IN FIELD OF EA. SHEATHING



2 Level 4 Framing 1/8" = 1'-0"



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Date Description **HUS Companies** 

979 Main St

STRUCTURAL FRAMING

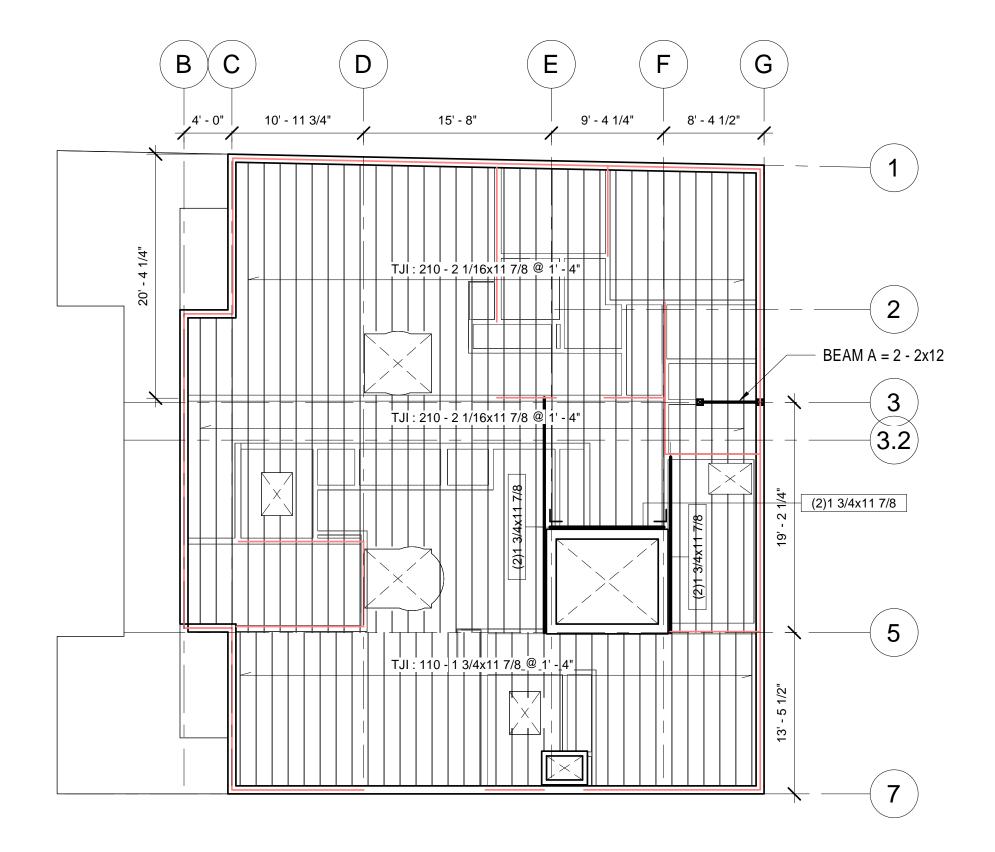
221018 Project number 11.01.2021 Drawn by ELH Checked by

S102

Scale

NOTE:

- 5/8" ROOF SHEATHING - HURRICANE TIS @ EA ROOF JOIST



Dimension Lumber : 2x10 @ 1' - 4"

Dimension Lumber : 2x10 @ 1' - 4"

2 Roof Deck Framing 1/8" = 1'-0"

### STRUCTURAL NOTES

- 1. All work shall be done in accordance with the MSBC, 9th edition.
- 2. Provide temporary support prior to demolition.
- 3. Allowable soil bearing pressure = 1.50 ksf.
- 4. Loading: LL = 40 psf.; LL(deck) = 40 psf.;  $P_g$  = 40 psf.;  $P_f$  = 35 psf.  $V_{ult}$  = 130 mph. (Cat II)  $S_s$  = 0.190;  $S_1$  = 0.065

5. Material:

- A. Lumber: LVL: F<sub>b</sub> =2,600 psi; E=2.0 x 10<sup>6</sup> psi;
  Posts: PSL
  Wood: Hem-Fir No.1 & btr.;
  Joists: TJI series or approved equal; P.T. at ext. exposure
  Studs: construction grade
- B. Metal connectors: Simpson or approved equal; corrosion protected @ ext. exposure
  C. Structural Steel (if needed): A36, A500, and A992
  D. Concrete: f'c = 3,500 psi;
  Rebar: Grade 60.

BRACED WALL PARTITION (B.W.P.)
ATTACH SHEATHING ON EA. SIDE OF WALL @ 4" O.C.
AT PERIMETER & O.C. IN FIELD OF EA. SHEATHING

5



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No. Description Date

HUS Companies

979 Main St

STRUCTURAL FRAMING

 Project number
 221018

 Date
 11.01.2021

 Drawn by
 DB

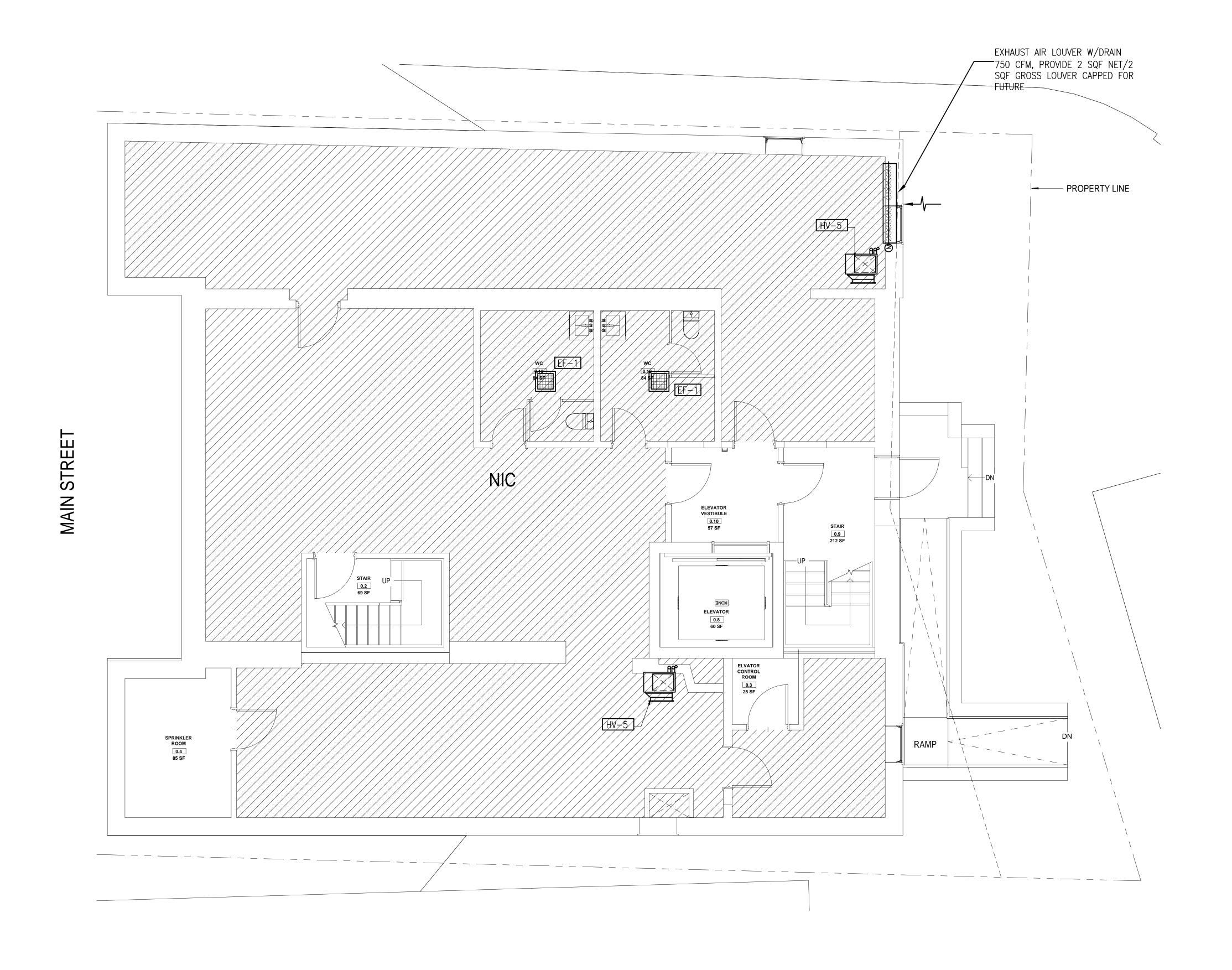
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 ELH

S103

Scale

As indicated

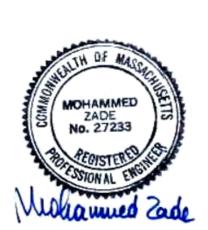
New Roof Framing
1/8" = 1'-0"



Basement - Proposed
1/4" = 1'-0"

design | resource | team

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No.	Description	Date
1	For construction/ Permit	7-23-202

HUS Companies
979 Main St
LEVEL G - PROPOSED
HVAC

 Project number
 221018

 Date
 04.07.2021

 Drawn by
 RC

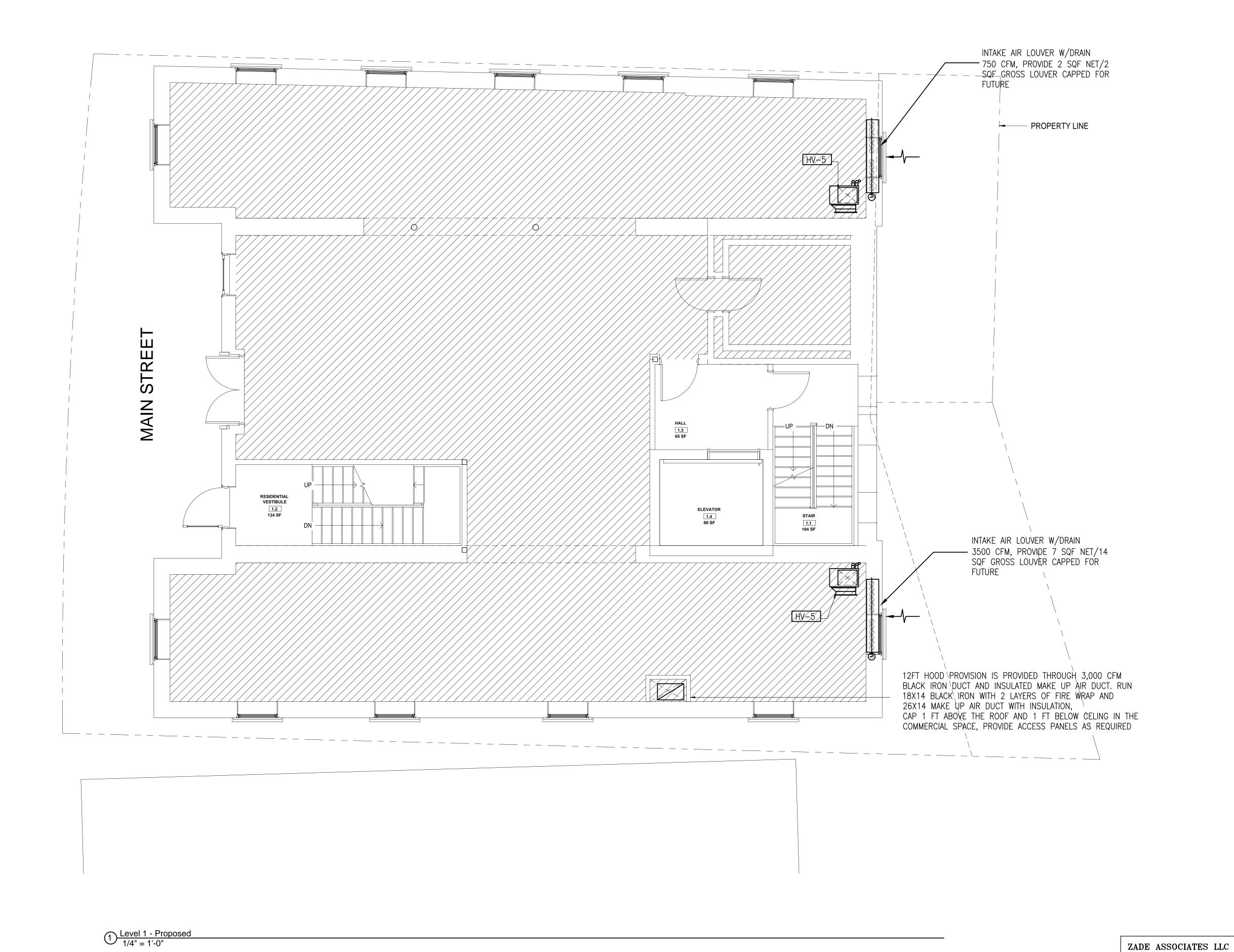
 Checked by
 MZ

H101

Scale As indicated

ZADE ASSOCIATES LLC

CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL. (617) 338-4406
FAX. (617) 451-2540
E-MAIL Zade@ZadeEngineering.com







No.	Description	Date
1	For construction/ Permit	7-23-202

HUS Companies
979 Main St

LEVEL 1 - PROPOSED HVAC

CONSULTING ENGINEERS
140 BEACH STREET, BOSTON, MA 02111
TEL. (617) 338-4406

FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com 
 Project number
 221018

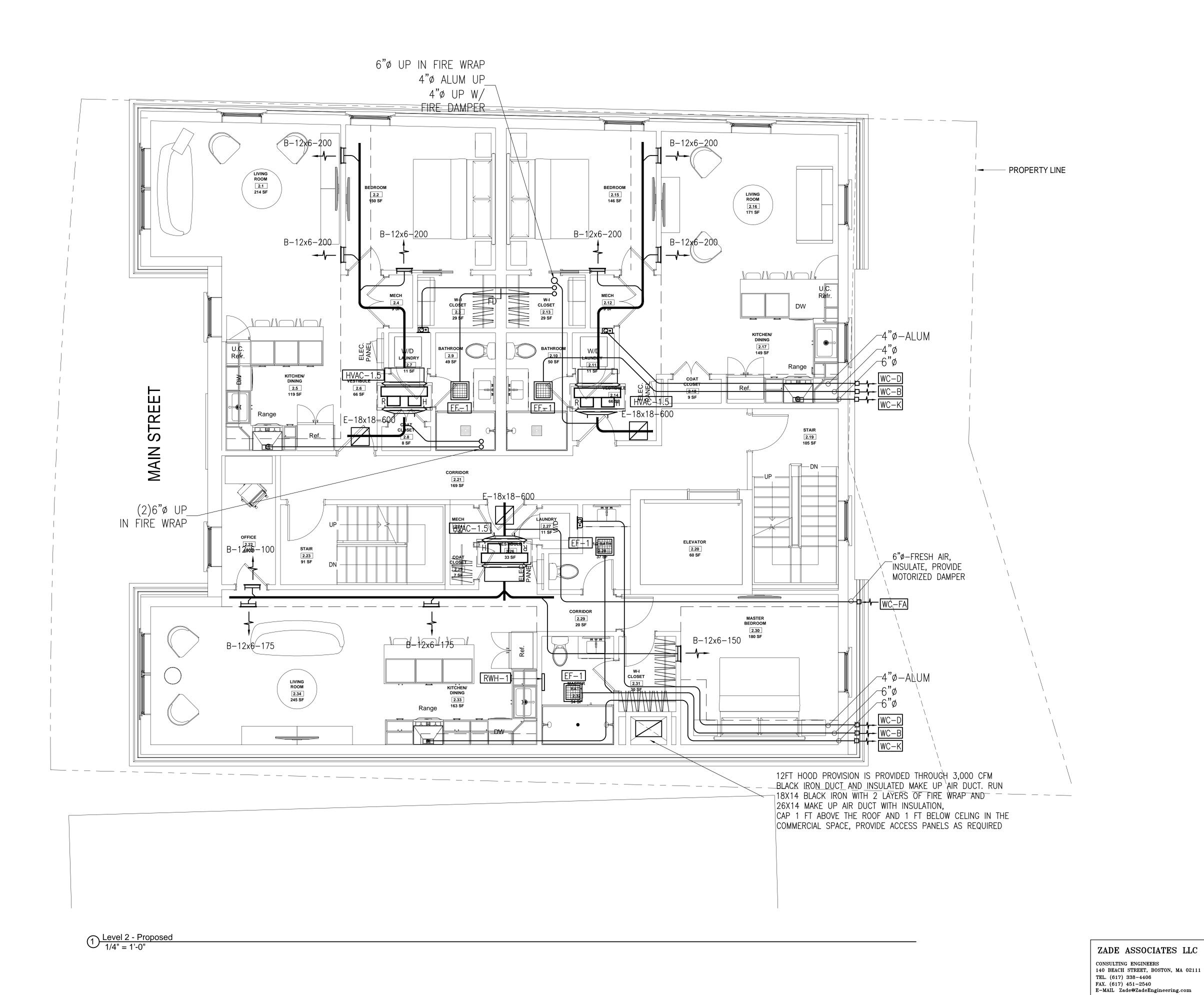
 Date
 04.07.2021

 Drawn by
 RC

 Checked by
 MZ

H102

Scale As indicated







No.	Description For construction/ Permit	Date
1	For construction/ Permit	7-23-2021
-		•

HUS Companies
979 Main St
LEVEL 2 - PROPOSED

HVAC

 Project number
 221018

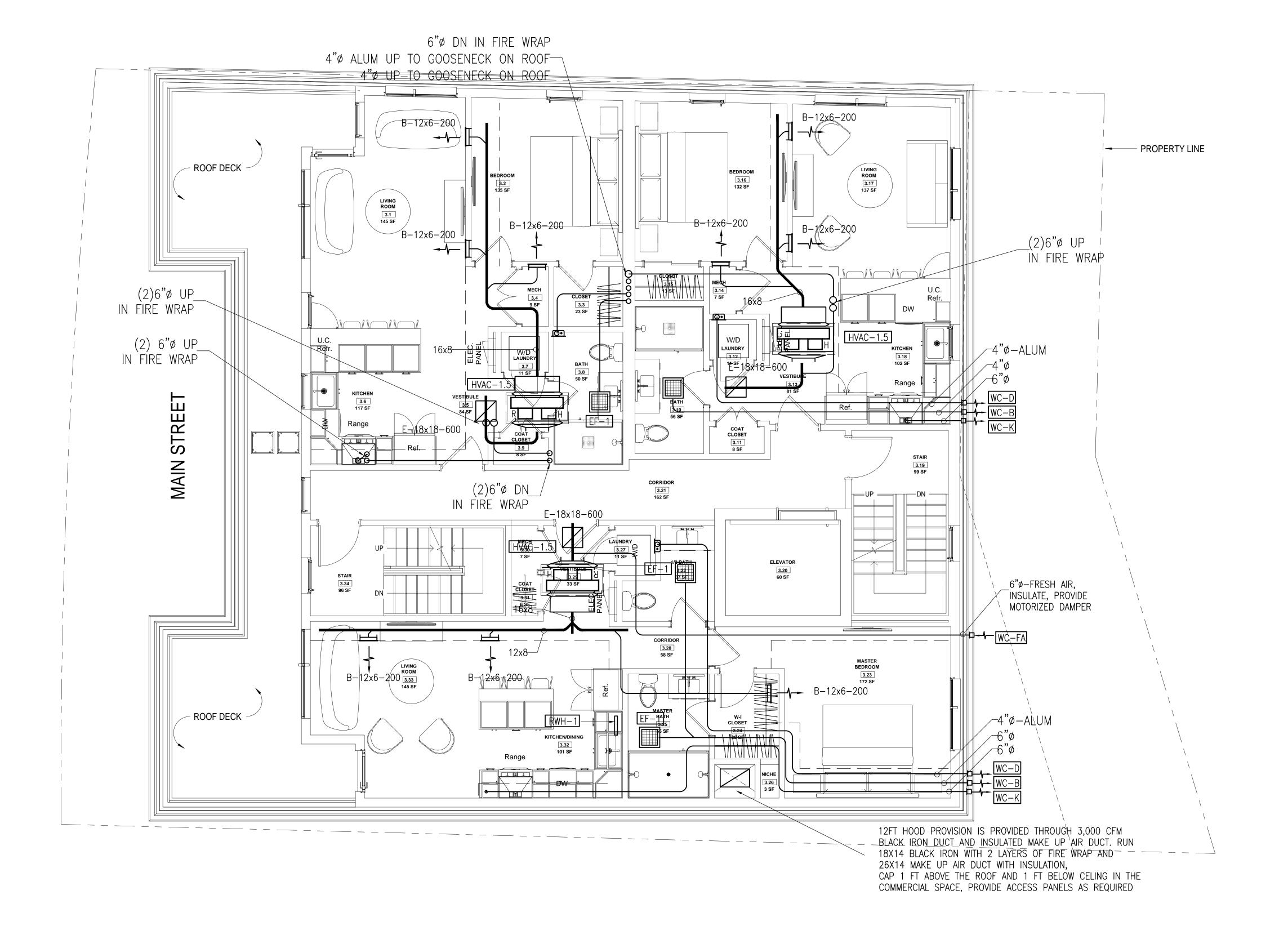
 Date
 04.07.2021

 Drawn by
 RC

 Checked by
 MZ

H103

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-202

HUS Companies
979 Main St
LEVEL 3 - PROPOSED

HVAC

 Project number
 221018

 Date
 04.07.2021

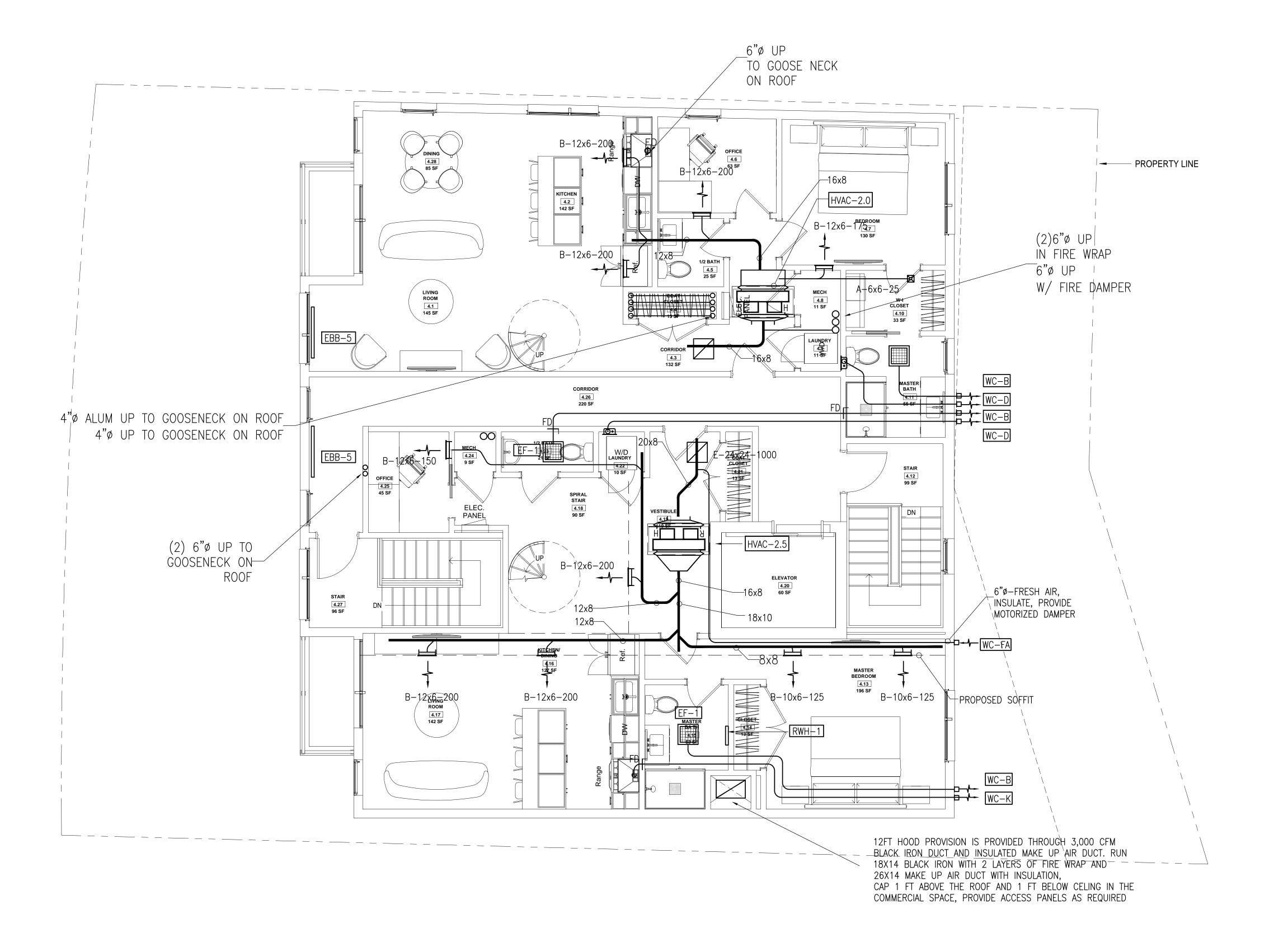
 Drawn by
 RC

 Checked by
 MZ

H104

Scale As indicated

1) Level 3 - Proposed
1/4" = 1'-0"







No.	Description	Date
1	Description For construction/ Permit	7-23-20

HUS Companies
979 Main St
LEVEL 4 - PROPOSED

LEVEL 4 - PRO HVAC

 Project number
 221018

 Date
 04.07.2021

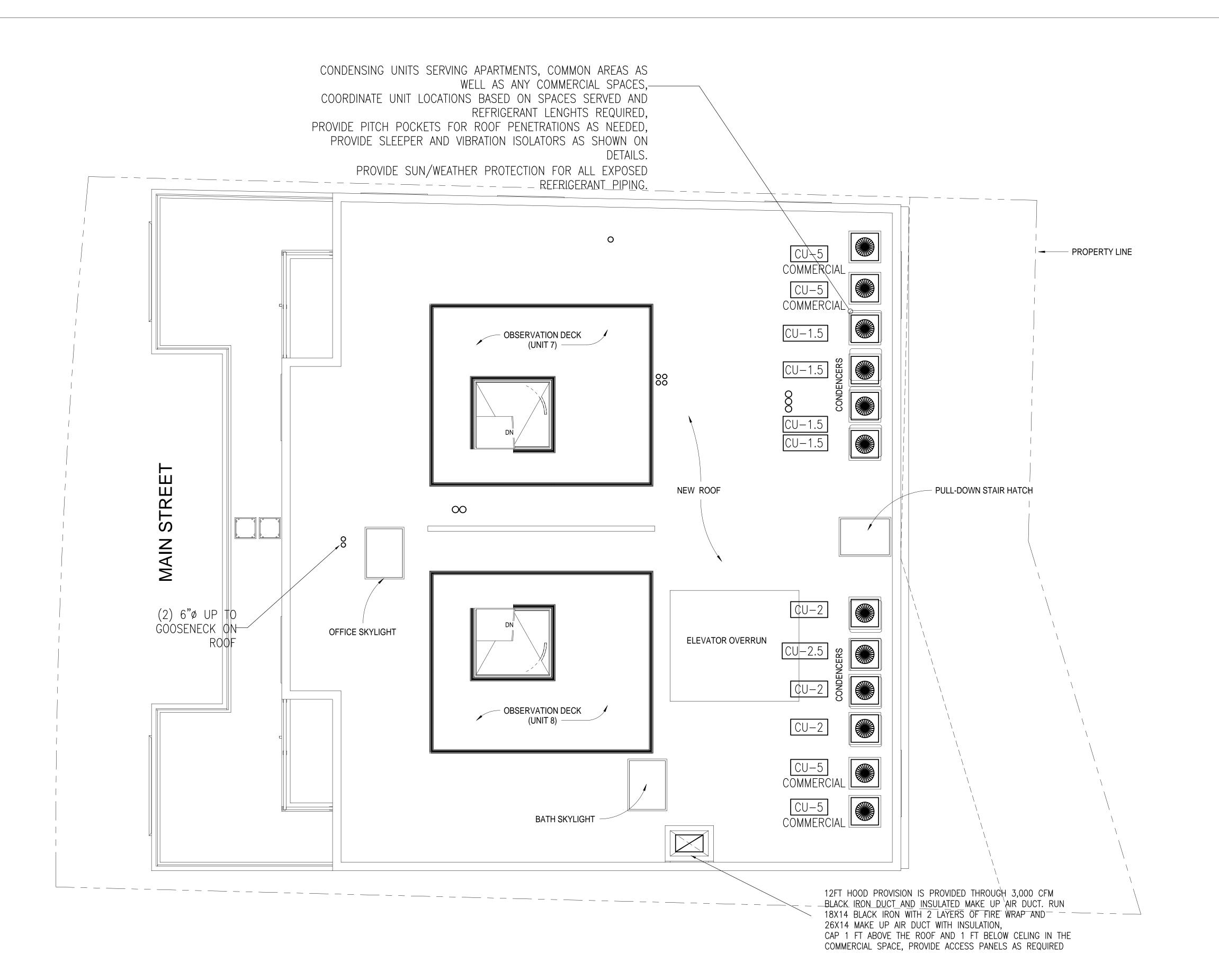
 Drawn by
 RC

 Checked by
 MZ

H105

Scale As indicated

1) <u>Level 4 - Proposed</u> 1/4" = 1'-0"







No.	Description	Date
1	For construction/ Permit	7-23-2021

HUS Companies 979 Main St ROOF LEVEL -

PROPOSED HVAC

Project number 221018

Date 04.07.2021

Drawn by RC

Checked by MZ

H106

Scale As indicated

 $1 \frac{\text{Level 5 - Proposed}}{1/4" = 1'-0"}$ 

- 1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO EXECUTE THE WORK SHOWN AND DESCRIBED. INSTALLATION OF MATERIALS SHALL MEET ALL APPLICABLE STATE, FEDERAL AND MUNICIPAL REQUIREMENTS.
- 2. OBTAIN PERMITS AND PAY ALL FEES FOR WORK AND REQUIRED INSPECTIONS.
- 3. MAINTAIN LIABILITY INSURANCE TO PROTECT OWNER AND THE CONTRACTOR FROM ANY AND ALL CLAIMS UNDER THE WORKER'S COMPENSATION ACT.
- 4. THE DRAWINGS SHALL CONSIDERED DIAGRAMMATIC ONLY. ALL MEASUREMENTS SHALL BE TAKEN FROM BUILDING SITE AND ARCHITECT'S DRAWINGS.
- 5. PROVIDE TEMPORARY MATERIAL STORAGE AS REQUIRED AND BE RESPONSIBLE FOR ANY LOSS OR DAMAGE THERETO.
- 6. SUBMIT DIGITAL COPIES OF SHOP DRAWINGS FOR REVIEW COVERING MAJOR MANUFACTURED ITEMS, IE. AIR HANDLING UNITS, REGISTERS & DIFFUSERS, WIRING DIAGRAMS, ETC.
- 7. KEEP ACCURATE RECORD OF "AS-BUILT" DRAWINGS AND SUBMIT THESE BEFORE FINAL CERTIFICATE OF COMPLETION.
- 8. ON COMPLETION OF THE WORK, REMOVE FROM THE PREMISES ALL TOOLS, DEBRIS, SURPLUS AND WASTE MATERIALS RESULTING FROM OPERATIONS UNDER THIS SECTION. CLEAN ALL EQUIPMENT
- AND LEAVE ALL ITEMS IN PERFECT ORDER READY FOR OPERATION. 9. AFTER ACCEPTANCE, INSTRUCT OWNER IN EQUIPMENT OPERATION AND PROVIDE HIM WITH OPERATING AND MAINTENANCE MANUALS STANDARDS AND EXTENDED WARRANTY DOCUMENTS,
- INSPECTION CERTIFICATES AND COPIES OF SHOP DRAWINGS OF INSTALLED EQUIPMENT. 10. THE CONTRACTOR SHALL, BEFORE FINAL PAYMENT IS MADE, GUARANTEE ALL MATERIALS AND WORKMANSHIP SUPPLIED BY HIM IN THE PERFORMANCE OF THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND SHALL, WHEN CALLED UPON, MAKE GOOD
- WITHOUT FURTHER COST TO THE OWNER SUCH DEFECTS AS MAY APPEAR WITHIN THIS PERIOD. 11. SUPPLY AND INSTALL DUCTWORK AS INDICATED ON DRAWING. DUCTWORK SHALL BE FABRICATED
- AND INSTALLED IN STRICT ACCORDANCE WITH LATEST ASHRAE & SMACNA STANDARDS AND SHALL BE MANUFACTURED OF GALVANIZED STEEL UNLESS SPECIFICALLY NOTED OTHERWISE.
- 12. ADJUST ALL FAN SPEEDS TO DELIVER SHOWN AIR QUANTITIES. BALANCE ALL AIR SYSTEMS AND SUPPLY WRITTEN AIR BALANCING REPORTS IN TRIPLICATE. INCLUDE NECESSARY SPARE BELTS AND PULLEYS FOR FIELD ADJUSTMENT.
- 13. ALL VALVES AND FITTINGS SHALL BE SUITABLE FOR THIS PARTICULAR PIPING APPLICATION AND MINIMUM 150LBS PRESSURE RATING.
- 14. ALL DUCTWORK SHALL BE: <u>24 GAUGE</u> UP TO 36 INCHES WIDE, <u>22 GAUGE</u> 31 INCHES WIDE TO 60 INCHES WIDE, ROUND DUCT SHALL BE 24 GAUGE UO TO 10 INCHES
- DIAMETER, <u>22 GAUGE</u> 11 TO 20 INCHES DIAMETER, <u>20 GAUGE</u> ABOVE 20 INCHJES DIAMETER; ALL GALVINIZED SHEETMETAL. SEAL ALL JOINTS AND SLIPS WITH EC 800 OR OTHER SUITABLE SEALANT. ALL LONGITUDINAL SEAMS SHALL BE PITTSBURG LOCKING TAPE. ALL SLIPS SHALL BE REINFORCED BAR TYPE. FABRICATE AND INSTALL ALL DUCTS IN COMPLIANCE WITH
- SMACNA STANDARDS FOR LOW PRESURE DUCT CONSTRUCTION. 15. ALL DUCT CONNECTIONS TO FAN DRIVEN UNITS SHALL BE MADE WITH A FIREPROOF FLEXIBLE
- DUCT CONNECTOR. 16. BEFORE THE H.V.A.C. SYSTEM IS OPERATED, ALL DUCTS SHALL BE BLOWN OUT & THOUGHLY CLEANED. SYSTEM SHALL BE TEST AT FULL PRESSURE & ALL LEAKS & FAULTS CORRECTED.
- 17. INSTALL ALL PIPING AND VALVES AS HIGH AS POSSIBLE.
- 18. BALANCE THE AIR SYSTEM AS PER ASSOCIATED AIR BALANCING COUNCILS LATEST STANDARDS. SUBMIT BALANCING REPORT FOR ENGINEERS APPROVAL.
- 19. THESE DRAWINGS ARE DIAGRAMMATIC. FIELD CONDITIONS SHALL DETERMINE ACTUAL LOCATION OF ALL PIPING AND DUCTWORK.
- 20. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
- 21. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL MECHANICAL CODE AND THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION DUCT CONSTRUCTION STANDARDS UNLESS OTHERWISE INDICATED IN THESE DRAWINGS OR IN THE SPECIFICATIONS.
- 22. ALL DUCT SUPPORTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS UNLESS OTHERWISE NOTED.

## GENERAL NOTES

SHOULD ANY CONTRADICTION, AMBIGUITY, ERROR, INCONSISTENCY, OMISSION OR INCOMPLETE SYSTEM APPEAR IN OR BETWEEN ANY OF CONTRACT DOCUMENTS THE CONTRACTOR SHALL, BEFORE SUBMITTING THE FINAL BID AND SIGNING THE CONTRACT FOR CONSTRUCTION, NOTIFY THE ARCHITECT AND REQUEST A WRITTEN RESOLUTION AS TO WHICH METHODS OR MATERIALS WILL BE REQUIRED. IN THE EVENT OF CONFLICTING REQUIREMENTS OF STANDARDS. DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENTS. BEFORE SUBMITTING THE FINAL BID AND THE SIGNING THE CONTRACT FOR THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION FROM THE ARCHITECT, IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE AFFECTED WORK UNTIL ADVISED BY THE ARCHITECT.

IF THE CONTRACTOR FAILS TO MAKE A REQUEST FOR INTERPRETATION OR RESOLUTION NO EXCUSE WILL BE ACCEPTED FOR FAILURE TO CARRY OUT THE WORK IN A SATISFACTORY MANNER, AS INTERPRETED BY THE ARCHITECT. THIS GENERALLY MEANS THE USE OF THE HIGHEST QUALITY MATERIAL, MOST EXPENSIVE WAY OF PERFORMING WORK AND PROVIDING COMPLETE FUNCTIONING SYSTEM FOR PROPER OPERATION.

EACH AND EVERY TRADE OR SUBCONTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED THEMSELVES WITH ALL THE CONTRACT DOCUMENTS OF THIS PROJECT, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE VISITED THE SITE, SO AS TO AVOID ERROR, OMISSIONS AND MISINTERPRETATIONS. RELATED INFORMATION MAY BE PROVIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE ASSOCIATED WITH THE SUBCONTRACTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELATED WORK OF ALL THE CONTRACT DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS REQUIREMENT OR NOT.

## ENERGY CODE 2015 REQUIREMENTS

APPLICABILITY (CONTRACTOR SHALL PROVIDE ALL ITEMS LISTED BELOW)

RESIDENTIAL BUILDING. FOR THIS CODE. INCLUDES DETACHED ONE- AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) AS WELL AS GROUP R-2, R-3 AND R-4 BUILDINGS THREE STORIES OR LESS IN HEIGHT ABOVE GRADE PLANE.

PROJECTS SHALL COMPLY WITH SECTIONS IDENTIFIED AS "MANDATORY" AND WITH EITHER SECTIONS IDENTIFIED AS "PRESCRIPTIVE" OR THE PERFORMANCE APPROACH IN SECTION R405. (PRESCRIPTIVE METHOD IS CHOSEN)

R403.1.1 PROGRAMMABLE THERMOSTAT.

PROVIDE. AT LEAST ONE THERMOSTAT PER DWELLING UNIT. THERMOSTAT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY. THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55'F (13°C) OR UP TO 85°F (29°C). THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED WITH A HEATING TEMPERATURE SET POINT NO HIGHER THAN 70°F (21°C) AND A COOLING TEMPERATURE SET POINT NO LOWER THAN 78°F (26°C).

PROVIDE PER R403.2.1 INSULATION (PRESCRIPTIVE). ANY SUPPLY DUCT IN ATTIC SHALL BE INSULATED TO A MINIMUM OF R-12. ALL OTHER DUCTS SHALL BE INSULATED TO A MINIMUM OF

ALL DUCTS, AIR HANDLERS, AND FILTER BOXÉS SHALL BE SEALED, JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR INTERNATIONAL RESIDENTIAL CODE, AS APPLICABLE.

DO NOT USE BUILDING CAVITIES PER R403.2.3. (MANDATORY). BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.

PROVIDE VENTILATION R403.5 AS SHOWN (MANDATORY). THE BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE OR INTERNATIONAL MECHANICAL CODE, AS APPLICABLE, OR WITH OTHER APPROVED MEANS OF VENTILATION. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.2 HOT WATER BOILER OUTDOOR TEMPERATURE SETBACK. HOT WATER BOILERS THAT SUPPLY HEAT TO THE BUILDING THROUGH ONE- OR TWO-PIPE HEATING SYSTEMS SHALL HAVE AN OUTDOOR SETBACK CONTROLL THAT LOWERS THE BOILER WATER TEMPERATURE BASED ON THE OUTDOOR TEMP.

DUCTS, AT HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR IRC, AS APPLICABLE

1. AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS 2. FOR DUCTS HAVING A STATIC PRESSURE CLASSIFICATION OF LESS THAN 2 INCHES OF WATER COLUMN (500 PA), ADDITIONAL CLOSURE SYSTEMS SHALL NOT BE REQUIRED TO CONTINUOUSLY WELDED JOINTS AND SEAMS, LOCKING TYPE JOINTS AND SEAMS OF

AIR HANDLERS SHALL HAVE A MANUFACTURERS DESIGNATION OF AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193.

DUCRS SHALL BE PRESSURE TESTED THROUGH ROUGH IN TEST, POST CONSTRUCTION TEST

OTHER THAN THE SNAP-LOCK AND BUTTON-LOCK TYPES.

EXCEPTION- NOT REQUIRED WHERE DUCTS AND AIR HANDLERS ARE LOCATED ENITRLEY THROUGH THE BUILING THERMAL ENVELOPE

## LOW RISE ESTAR REQUIREMENTS FOR MEP TRADES

(CONTRACTOR SHALL COMPLY WITH ALL ITEMS BELOW)

PROGRAMMABLE THERMOSTAT REQUIRED

(IF HEAT PUMP HAS AUXILIARY ELECTRIC HEATER, THAN THERMOSTAT WILL HAVE "ADAPTIVE USE TECHNOLOGY"

INSULATION IN THE UNCONDITIONED ATTIC R-8 OR BETTER ALL OTHER DUCTS IN CONDITIONED SPACE R-6 OR BETTER

DUCT LEAKAGE TO INTERIOR SHALL BE LESS THAN 8 CFM25 PER 100 SQF OF CONDITIONED SPACE DUCT LEAKAGE TO OUTSIDE SHALL BE LESS THAN 4CFM25 PER 100 SQF OF CONDITIONED SPACE

ALL APPLIANCES SHALL BE ESTAR RATED 80% OF ALL BULBS SHALL BE ESTAR RATED.

## HVAC SYSTEM REQUIREMENTS

- 1-VENTILATION SHALL COMPLY WITH ASRAE 62.2-2010 (EXHAUST ONLY) KITCHEN 5ACH CONTINUOUS OR 100 CFM INTERMITTENT BATHROOM 20 CFM CONSTANT OR 50 CFM INTERMITTENT
- CONTINUOUS FANS 1SONE, INTERMITTENT MAXIMUM 3 SONES 2-IF INTAKE IS CONNECTED TO RETURN OF THE DUCT THAN MOTORIZED DAMPER TO BE USED.
- 3-FOR HVAC MAXIMUM 115% OF HVAC LOAD OR NEXT NOMINAL SIZE.
- 4-FORE HEAT PUMP MAXIMUM 140% OF HEATING LOAD OR NEXT NOMINAL SIZE
- 5-TOTAL SYSTEM AIR FLOW WITHIN 15% OF CALCULATED AIR.
- 6-SYSTEM TO BE BALANCED WITHIN 25% OF CALCULATED AIR OR 25 CFM
- 7-CORROSION RESISTANT DRAIN PAN IS PROVIDED. (galvanized or plastic)
- 8-PROVIDE MINIMUM MERV 6 FILTER (MINI SPLITS ARE EXEMPTED)
- 9-IF HVAC HAS FRESH AIR INTAKE THAN MOTOR WILL BE ECM WITH SMART CYCLER THAT WILL SHUT DOWN THE INTAKE. (17) INSTALLATION
- 1-THERE WILL BE NO KINKS OR SHARP TURNS IN DUCTWORK
- 2-FLEXIBLE DUCTS SUPPORTED AT MAXIMUM 5FT INTERVALS 3-PROVIDE RETURN GRILL 1 SQ. INCH NET PER 1 CFM AIR. 4-CONTINUOSLY OPERATED EXHAUST FANS SHALL HAVE READILY ACCESSIBLE CONTROLS.
- 5-VENTILATION INTAKES SHALL BE 4FT ABOVE ROOF OR GRADE. 6-PROVIDE INSECT SCREEN 0.5 INCH MESH
- 7-FRESH AIR MUST PASS THRU FILTER
- 8-PROVIDE DUCT LEAKAGE TEST, LEAKAGE TO BE LIMITED TO ESTAR REQUIREMENTS

## CONSTRUCTION NOTES

- -ALL CEILING MOUNTED HVAC UNITS SHALL BE HUNG FROM STRUCTURAL STEEL WITH SPRING ISOLATORS,
- -PROVIDE FLEXIBLE DUCT CONNECTIONS AT HVAC UNIT, AND ALL FANS -PROVIDE ISOLATION VALVES, CONTROL VALVES, DRAIN AND STRAINER FOR ALL WATER BASED HVAC UNITS.
- -Provide Secondary Drain pan with leak detector to shut down hvac unit. -MAINTAIN ACCESS DOORS AND CODE REQUIRED CLEARANCES FOR ALL FILTER REPLACEMENT, EQUIPMENT REPAIR AND ELECTRICAL CONTROLS,
- -PRIOR TO ANY INSTALLATION, COORDINATE CLEARANCES WITH ALL TRADES. -ALL CONDENSATE DRAINS SHALL RUN TO NEAREST STORM CONNECTION PROVIDED BY P.C. REFER TO PLUMBING DRAWINGS
- -ALL CONDENSING UNITS SHALL BE MOUNTED ON CONCRETE PAD ON VIBRATION PADS, OR MOUNTED ON SLEEPERS ANCHORED TO ROOF. -ALL SPLIT SYSTEM CONDENSER UNITS IF LOCATED AWAY FROM THE BUILDING SHALL BE PIPED UNDERGROUND UP TO BUILDING, PROVIDE MINIMUM 18" COVER.
- -PROVIDE MAINTENANCE PADS MINIMUM 4" HIGH FOR ALL FLOOR-MOUNTED EQUIPMENT PUMPS AND BOILERS. -PROVIDE 13 FILTERS FOR ALL INDOOR UNITS, MERV 8 FOR ESTAR/LEED BUILDINGS
- -PROVIDE 11 FILTERS FOR ALL OUTSIDE AIR UNITS, MERV 8 FOR ESTAR/LEED BUILDINGS -ALL PIPING CONNECTED TO VIBRATION-ISOLATED EQUIPMENT TO BE ISOLATED BY MEANS OF VIBRATION ISOLATORS, RESILIENT LATERAL SUPPORTS AND RESILIENT PENETRATION SLEEVE /SEALS. THIS APPLIES TO FIRST 50 FEET OF TOTAL PIPE LENGTH OR THE ENTIRE PIPE WITHIN MECH. ROOM (WHICHEVER IS LONGER). PIPES THAT ARE 4" DIAMETER OR LARGER TO BE ISOLATED THROUGHT THE BUILDING REFER TO SPEC SECTION 230548 FOR ADDITIONAL INFORMATION
- -ALL FRESH AIR DUCTS SHALL HAVE MOTORIZED DAMPERS INTERLOCKED WITH UNIT AND HAVE VOLUME DAMPERS

## APARTMENT EXHAUST NOTES

- I) EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR A CLOTHES
- ii) Provide and install thedryerbox ®, sized to the Wall thickness, shall be provided at EACH SCHEDULED DRYER LOCATION
- III) DRYER VENT PIPE SHALL BE MINIMUM 28 GAUGE RIGID METAL, WITH NO SCREWS FOR ATTACHMENT, AND CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS. IV) DRYER VENTING SHALL USE THE DRYER ELL FOR THE FIRST ELBOW, LOCATED AND
- COORDINATED TO MINIMIZE ANY ADDITIONAL BENDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE EXTERIOR EXHAUST POINT. V) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A NON-SCREENED VINYL SIDEWALL HOOD
- PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH. VI)INSULATE WITH R-4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL VII)LAUNDRY VENT DUCT SHALL BE ALUMINUM TYPE TO PREVENT CORROSION AND TAPE SHALL BE IN COMPLIANCE WITH UL FOR DRYER DUCT CONNECTIONS
- EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR EXHAUSTING A RANGE HOOD. II) COORDINATE SIZE AND CONNECTION POINT WITH THE GENERAL CONTRACTOR, APPLIANCE SUPPLIER AND
- CABINET SUPPLIER. III) EXHAUST PIPE SHALL BE MINIMUM 26 GAUGE RIGID METAL, WITH NO SCREWS FOR ATTACHMENT, AND CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE EXTERIOR EXHAUST POINT. IV) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A SCREENED VINYL SIDEWALL HOOD PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH. V)INSULATE WITH R-4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL
- <u>BATHROOM EXHAUST</u> I) EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR EXHAUSTING A
- BATHROOM II) COORDINATE SIZE AND LOCATION WITH THE GENERAL CONTRACTOR AND ARCHITECT EXHAUST PIPE SHALL BE MINIMUM 26 GAUGE RIGID METAL, CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE
- IV) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A SCREENED VINYL SIDEWALL HOOD PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH. V)INSULATE WITH R-4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL

## LOUVER NOTES

LOUVER DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND FIELD CONDITIONS LOUVERS SHALL BE AMCA CERTIFIED FOR WIND DRIVEN RAINS BLADES SHALL BE 4" DEEP MOUNTED BETWEEN 35-45 DEGREES WITH DRAINABLE BLADE AND

PROVIDE BIRD SCREENS IN COMPLIANCE WITH IMC 401 PROVIDE CLOR ANODIZED LOUVER PER ARCHITECTS DIRECTION LOUVERS SHALL BE AS MANUFACTURED BY GREENHECK MODEL EHH 401 SERIES

## FIRE RATED CEILING NOTES:

- WHEN DUCT PENETRATE RATED CEILING:
- -ALL RECESSED DIFFUSERS AND REGISTERS SHALL HAVE RADIATION DAMPERS. -ALL UNITS DUCTED TO PLENUM SPACE SHALL HAVE CEILING FIRE DAMPERS TO MEET UL 555C -ALL RETURN DUCTS SHALL BE BELOW THE RATED CEILING, DROPPED CEILING AREAS SHALL NOT BE RATED CEILING UNLESS SHOWN OTHERWISE
- -ALL RETURN AIR GRILLES IN RATED CEILING SHALL HAVE CEILING FIRE DAMPERS -ALL UNIT DISCHARGES SHALL BE OFFSET TO GET INTO PROPER JOIST SPACES, CARRY TRANSITION PIECE AS NEEDED
- -ALL DUCTS LARGER THAN 4"0 DIAMETER SHALL HAVE FIRE DAMPERS AT CEILING PENETRATIONS

## FIRE/SMOKE DAMPER REQUIREMENTS

- IMC 607.5.5 REQUIRES FIRE/SMOKE DAMPER AT ALL SHAFT PENETRATIONS
- IMC 607.6.1. REQUIRES DAMPER EXCEPT -DUCT CAN PENETRATE UP TO THREE FLOORS IF, 26 GAUGE, OPEN FROM ONE UNIT TO OUTSIDE, 4"
- ROUND AND SEALED AROUND AND CEILING GRILLES HAVE RADIATION DAMPERS IMC 6075.3 REQUIRES FIRE PARTITION PENETRATIONS TO HAVE FIRE DAMPERS EXCEPT -BUILDING IS SPRINKLED OR -DUCT IS MINIMUM 26 GAUGE, LESS THAN 100 SQ-INCH AND
- -DUCT IS ABOVE CEILING AND, -DUCT IS NOT TERMINATED AT FIRE RATED WALL AND -MINIMUM 12" SLEEVE IS PROVIDED

## CEILING RADIATION DAMPERS

CEILING RADIATION DAMPERS SHALL BE AS MANUFACTURED BY GRFFNHFCK MODEL CRD-1WT FOR SIDE INLET MODEL CRD-2WT FOR TOP INLET

CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE UL LISTED DAMPER

WITH THE UL LISTING OF THE CEILING APPROVED CEILING RATINGS ARE L-528,546,558,562,574,576,581,583,585,592 M-501.503.508

P-533,538,545,547.548.554

## INSULATION NOTES

CONTRACTOR SHALL FOLLOW THE MOST STRINGENT INSULATION REQUIREMENT FOR EACH ITEM

THE FOLLOWING SYSTEMS SHALL BE INSULATED. DUCT LINER SHALL BE CLOSED CELL TYPE, GERM PROOF

## IECC 2015 REQUIREMENTS:

- 1. HEATING HOT WATER MAINS AND BRANCHES: PIPING < 1" REQUIRES 1 1/2" INSULATION PIPING > 1½" REQUIRES 2" INSULATION
- 2. SUPPLY & RETURN DUCTWORK FROM HVAC UNITS: 1 1/2" INSULATION MIN. R-6

## LEED/ASHRAE 2013 REQUIREMENTS:

- 1. HEATING HOT WATER MAINS AND BRANCHES: PIPING < 1 1/2" REQUIRES 11/3" INSULATION PIPING > 1½" REQUIRES 2" INSULATION
- 2. SUPPLY & RETURN DUCTWORK FROM HVAC UNITS: 1" INSULATION MIN. R-6

## GENERAL INSULATION REQUIREMENTS:

- 1: ALL LINED SUPPLY, RETURN AND TRANSFER DUCTWORK SHALL BE 1" DUCT LINER -DUCT INSUALTION SHALL CONTINUE OVER DUCT AT LINED POINT -FIRST 10' OF SUPPLY AND RETURN FOR ALL ERU'S AND HVAC UNITS
- CONDENSATE DRAIN: 1" ALL DUCTWORK IN CEILING SPACE SHALL HAVE R-6 INSULATION, 4. REFRIGERANT PIPING ¾" ARAMFLEX
- ALL DUCTWORK ON ROOF OR UNCONDITIONED SPACE SHALL BE INSULATED WITH R-12 INSULATION AND COVERED WITH EPDM ROOFING MATERIAL FOR WATER TIGHT INSTALLATION.

## DIFFUSER/REGISTER SCHEDULE (N)- #x# - ### LEGEND: - DIMENSIONS TYPE MODEL (BASED ON TITUS) DESCRIPTION LOUVER FACE CEILING DIFFUSER TITUS TDCA, BORDER 1 FOR SHEET ROCK CEILING INSTALLATION. WITH OPPOSIBLE BLADE DAMPER LOUVER FACE CEILING DIFFUSER TITUS TDCA, BORDER 3 FOR 2'x2' LAY-IN CEILING INSTALLATION. PROVIDE ROUND TO SQUARE ADAPTOR. WITH OPPOSIBLE BLADE DAMPER TITUS 272RS DOUBLE DEFLECTION REGISTER FOR SHEET ROCK INSTALLATION. PROVIDE ROUND TO SQUARE ADAPTOR. DOUBLE DEFLECTION GRILLE TITUS 25 RS FOR SHEET ROCK NSTALLATION. WITH OPPOSIBLE BLADE DAMPER DOUBLE DEFLECTION GRILLE TITUS 25 RS FOR SHEET ROCK NSTALLATION WITH OPPOSIBLE BLADE DAMPER ALUMINUM TYPE PERFORATED SIGHT PROOF EGGCRATE GRILLE TITUS 45F FOR SHEET ROCK CEILING INSTALLATION. TITUS MLR-40. LINEAR DIFFUSER, LINEAR STYLE 1 1/2" SLOT SPACING WIDTH, 4 SLOT BORDER TYPE 22 FOR SHEET ROCK CEILING INSTALLATION.

100 CFM/FT WITH DAMPER, INSULATED PLENUM



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For construction/ Permit 7-23-2021

Description

**HUS Companies** 979 Main St **HVAC NOTES** 

221018 Project number 04.07.2021 Drawn by ΜZ Checked by

ZADE ASSOCIATES LLC

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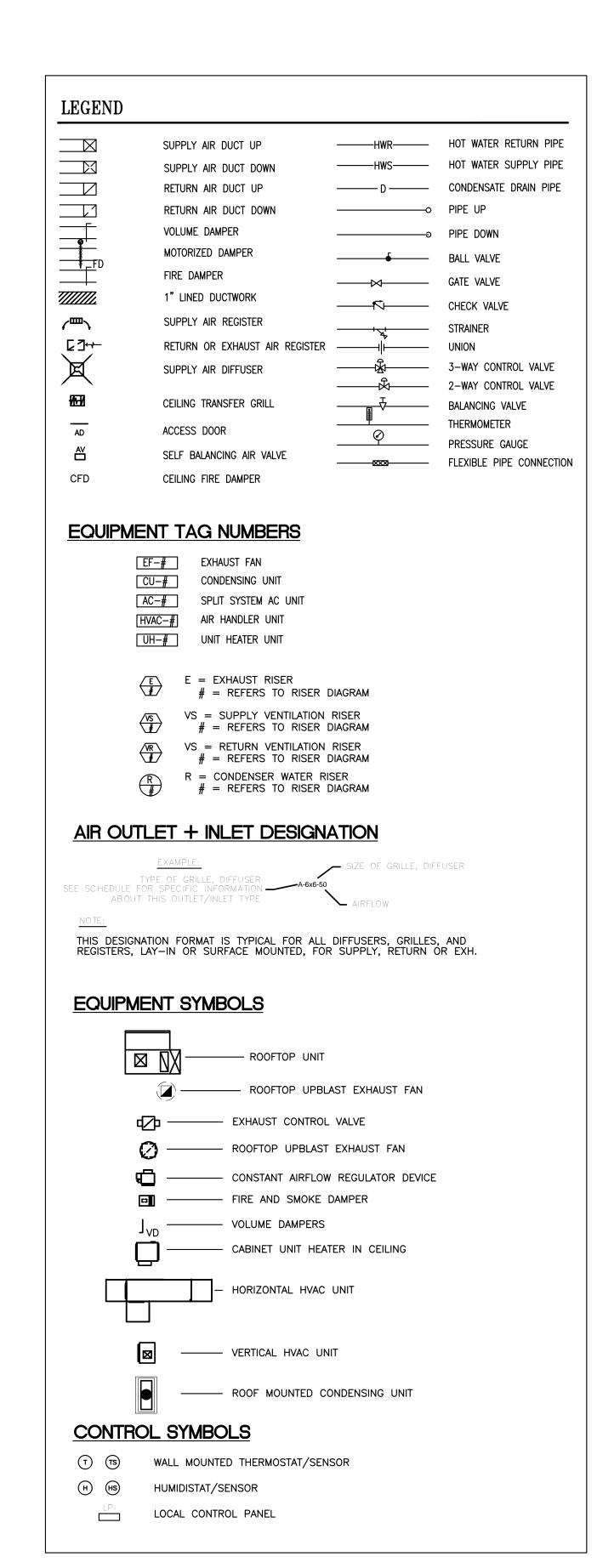
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H201

As indicated Scale



STANDARD SPLIT HEAT PUMP SYSTEM SCHEDULE (INDOOR)  STANDARD SPLIT HEAT PUMP SYSTEM SCHEDULE (OUTDOOR)																														
UNIT NO.	MITSUBISHI MODEL	RATED CAPACIT (BTU/H)	Y ) SEER	POWER SUPPLY	1	FAN MOTOR	AIRFLOW (LOW-MEDIUM HIGH)	SOUND LEVEL (LO-M1-M2-HI)	w	D	H	(LBS)	MAX	AIR TEMP	UNIT NO.	MITSUBISHI MODEL		SEER	POWER SUPPLY	R.L.A.	MCA M	ocp sound level	_ w	D	Н			MAX REFRIDGERANT PIPE HEIGHT DIFF (FT)		AIR TEMP
ACU-1	PKA-A12HA7	12,000	15.3	208/230V 1 PHASE, 60HZ	1.0 A	0.76 F.L.A	. 268-328-381 DRY CFM 240-293-342 WET CFM	34-40-45 DB(A)	30-11/16"	8-1/4"	11-3/4"	23	95°FDB 71°FWB	67°FDB 57°FWB	CU-1	PUZ-A12NHA4	12,000	16	208/1PHASE	DC	14 2	20 50 DB(A)	31-1/2"	11-1/4"	21-5/8"	88	100	100	D.B. 115° F	D.B. 0° F

WITH EACH UNIT PROVIDE -3R RATED FUSED DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR -PROVIDE MOUNTING STAND ABOVE SNOW LINE -PROVIDE WIND BAFFLE KIT FOR LOW AMBIENT OPERATION

## SPLIT SYSTEM WITH WATER COIL VERTICAL HVAC UNIT SCHEDULE(VARIABLE DRIVE) INDOOR SECTION CONDENSING SECTION

TAG	NOM. CAP. TON	CFM	ESP IN	FAN HP	TOT. MBH	SENS. MBH			BTUH	V/ø	TAG	MCA	МОСР	V/ø	EER/SEER	DB IN/OUT	MODEL (ASPEN/ CARRIER)	INDOOR	OUTDOOR	REMARKS
HVAC-1.5	1.5	600	.5	1/3	24	20	70	90	24.0	115/1	CU-1.5	14	20	208/1	13/17	60/74	AFM18/24ACB7-18-3 AND MATCHING COIL	15"WX22"DX44"H+12" COIL	31"LX31WDX40"H-250 LBS	W/HW PUMP/TIMER
HVAC-2	2	800	.5	1/3	24	20	70	90	28.0	115/1	CU-2	14	20	208/1	13/17	60/74	AFM24/24ACB7-24-3 AND MATCHING COIL		31"LX31WDX40"H-250 LBS	
HVAC- 2.5	2.5	1000	.5	1/2	30	25	70	90	31.0	115/1	CU-2.5	14	20	208/1	13/17	60/74	AFM30/24ACB7-32-3 AND MATCHING COIL	15"WX22"DX44"H+12" COIL	31"LX31WDX40"H-250 LBS	W/HW PUMP/TIMER
HVAC-3	3	1200	.5	1/2	36	35	70	90	33.5	115/1	CU-3	22	30	208/1	13/17	60/74	AFM36/24ACB7-36-3 AND MATCHING COIL	15"WX22"DX44"H+12" COIL	31"LX31WDX40"H-250 LBS	W/HW PUMP/TIMER
HVAC-3.5	3.5	1400	.5	1/2	42	33	70	90	42.0	115/1	CU-3.5	22	30	208/1	13/17	60/74	AFM42/24ACB7-42-3 AND MATCHING COIL	15"WX22"DX44"H+12" COIL	31"LX31WDX40"H-250 LBS	W/HW PUMP/TIMER
HVAC-4	4	1600	.5	1/2	48	41	70	90	44.0	115/1	CU-4	27	40	208/1	13/17	60/74	AFM48/24ACB7-48-3 AND MATCHING COIL	15"WX22"DX44"H+12" COIL	31"LX31WDX40"H-250 LBS	W/HW PUMP/TIMER

NOTE: PROVIDE ESTAR RATED THERMOSTAT, ANTI CYCLING PROTECTION, DISCONNECT SWITCH.

PROVIDE ME HVAC CONTROLLER WALL MOUNTED THERMOSTAT, DISCONNECT SWITCH

HEATING COILS SUPPLIED W/ 140 DEG. HOT WATER. CONDENSATE DRAINS SHALL BE TYPE "L" COPPER WITH 1/2" FIBERGLASS INSULATION RUN TO INDIRECT WASTE DRAIN REFER TO RISER DIAGRAM

PROVIDE ZONE CONTROL AS REQUIRED TO MATCH NUMBER OF MOTORIZED DAMPERS

PROVIDE REFRIGERANT LINES BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS.

PROVIDE MERV 11 FILTERS PROVIDE HIGH HEAD PUMP

CEILING	MOUNTED	EXHAUST	FAN	

TAG	LOCATION	TYPE	DRIVE	CFM	CFM V/Ø LAMP SP NOISE DIMENSIONS		DIMENSIONS	PANASONIC MODEL	ESTAR	CONTROLS		
EF-1	BATHROOM	CEILING	DIRECT	110	120/1	(2)PL18	0.1"	0.3	14.5"X17"X11.5"H-16LBS-6" DUCT	FV-05-11VKSL1	YES	HIGH/LOW FAN REQUIRES TWO WALL SWITCHES (HAS LIGHT)

ø6"-INSULATED

PROVIDE PANASONIC FIRE DAMPER ENCLOSURE FOR ALL CEILING BATHROOM FANS.

ENERGY	RECOVERY	UNITS

			•==	• • -		<b>-</b> - 1						
TAG #			EQUIPM	ient per	FORMAN	CE						
IAO #	"   CEM   EFF   EFF   ESP   VOLT		FLA (AMP)	MODEL	DB	ESTAR	HVI	DESIGN	DIMENSIONS			
ERU-1	95	<b>%</b> 60	<b>%</b> 80	0.40	120/1	1.4	PANASONIC-FV-10VEC1	_	YES	YES	IN/OUT OPPOSITE SIDE	28"LX23"WX9-6" DUCT

PROVIDE CONTROLS AS FOLLOWS

-PROVIDE ON/OFF, LOW-HIGH, 20 MINJ ON/40 MIN OFF CYCLER -PROVIDE MERV 8 FILTER FOR STANDARD DESIGN

WALL	WALL CAP SCHEDULE												
TAG	BRAND	SIZE	DIMENSIONS	LOCATION	DUCT								
WC-B	X-VENT THVB	4" VENT	7.5"X7.5"X1.5"	BATHROOM EXHAUST	ø4"–NO FLEX								
WC-K	X-VENT THVB	6" VENT	10"x9"X5"	KITCHEN EXHAUST	Ø6" W/FD AT CEILING PENETRATION								
WC-D	X-VENT THVB	4" VENT	7.5"X7.5"X1.5"	DRYER EXHAUST-REMOVE SCREEN	ø4" AL WITH HARD ELBOW								

7.5"X7.5"X1.5" FRESH AIR INTAKE

WC-FA X-VENT TEVB 6" VENT VYNIL COLOR TO MATCH SIDING, MATCH DUCT SIZE CONNECTED TO UNIT.

ALL EXHAUST DUCTS SHALL HAVE R-6 INSULATION FIRST 10FT FROM EXTERIOR WALL IN ALL FRESH AIR INTAKE DUCTS SHALL HAVE MOTORIZED DAMPER AT ENVELOPE PENETRATION WITH ACCESS PANEL.

DAMPER SHALL BE INTERLOCKED WITH HVAC UNIT

FOR COMBINED BATHROOMS, USE 6" DUCT AFTER COMBINE AND USE WC-K WALL CAP COMBINE EXHAUST TO ONE WALL CAP WITH SEPARATE DUCT CONNECTIONS IF LOCATED NEXT TO EACH OTHER COORDINATE WITH ARCHITECT

FIRE	SAFE	THRO	UGH FLOORS				
TYPE	SIZE	HILTI	MATERIAL	RATING	воттом	TOP	CHASE WALL
STEEL/CAST COPPER/EMT	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
STEEL/CAST 4" EMT/ 2" FLEX	MAX 6" -	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
STEEL/CAST COPPER/EMT	MAX 4"	CP-620	FIRE FOAM	1HRS	FIRE STOP	FIRE STOP	REQUIRED
PEX	MAX 1"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	BOTH SIDES	BOTH SIDES	NOT REQUIRED
PVC PIPE	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
PVC PIPE	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
PVC PIPE	MAX 4"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	COLLAR	FIRE STOP	NOT REQUIRED
REFRIGERANT	-	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
4" DUCT	MAX 4"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
INSULATED COPPER/STEEL	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
CABLES	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED

ELEC	CTRI	C HEA	TER SCHE	DULE
TYPE	KW	VOLT/PH	DIMENSIONS	MODEL NUMBER-COLOR BY ARCH
RWH-1	1	120/1		Q'MARK#CRA 1512-T2
RWH-2	2	120/1	19"HX16"WX4"D	Q'MARK# MCSSARWH1802/HTWHS1
RWH-4	4	208/1	19"HX16"WX4"D	Q'MARK# MCSSARWH4808/HTWHS1
SWH-4	4	208/1	19"HX16"WX4"D	Q'MARK# MCSSARWH4808/HTWHSM
EBB-2	0.4	120/1		Q'MARK#QMK-2512W-W/T'STAT
EBB-3	0.75	120/1		Q'MARK#QMK-2513W-W/T'STAT
EBB-4	1	120/1		Q'MARK#QMK-2514W-W/T'STAT
EBB-6	1.5	120/1		Q'MARK#QMK-2516W-W/T'STAT
UH-5	5	208/1		Q'MARK#MUH-35-W/T'STAT
CCH-4	4	208/1		Q'MARK#CDF548-W/T'STAT

SIZE	MAX. CFM
6" DIA	100
7" DIA	150
8" DIA	200
9" DIA	300
10" DIA	400
8x6	200
8x8	250
10x8	300
12x8	350
12x8	400
12x8	450
14x8	500
16x8	600
18x8 OR 16x10	700
20x8 OR 18x10	800
24x8 OR 20x10	1000
30x8 OR 24x10	1200

MINIMUM RETURN DUCT PER HERS			
CAPACITY	RETURN	FILTER	
1.5 TON	ø16"	500 INCH2	
2.0 TON	ø18"	600 INCH2	
2.5 TON	ø20"	500 INCH2	



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No.	Description	Date
1	For construction/ Permit	7-23-2021

**HUS Companies** 979 Main St **HVAC SCHEDULSS** 

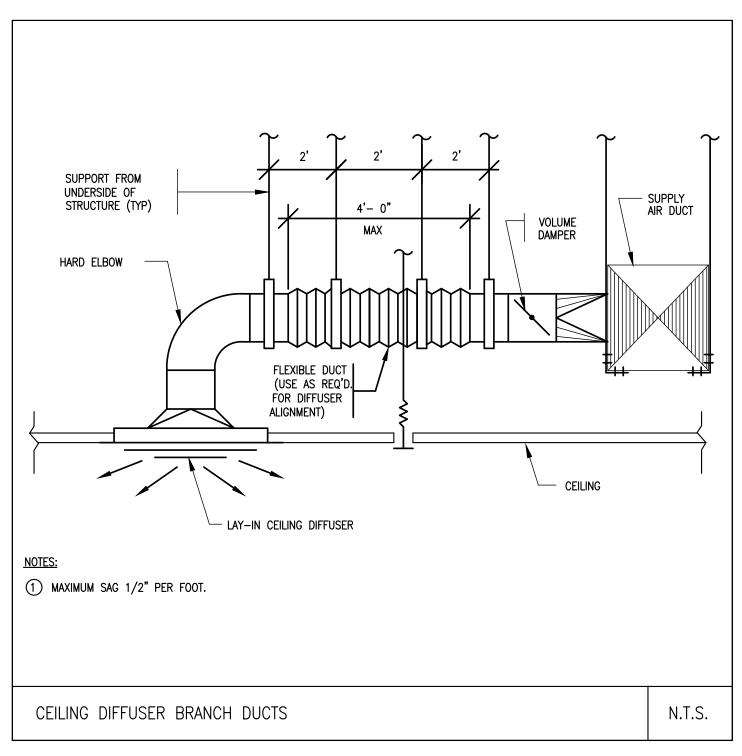
221018 Project number 04.07.2021 Drawn by Checked by

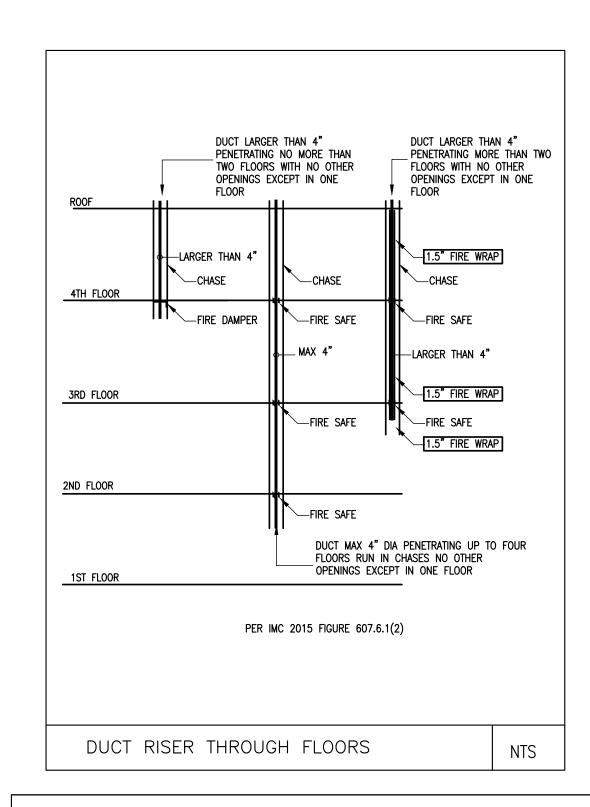
H202

As indicated Scale

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- PLENUM DEPTH

PITCH TO

PER PLAN

STORMPROOF LOUVER &

SCREEN BY GENERAL

CONTRACTOR

PACK VOIDS W/INSULATION —

I. SHEETMETAL CONSTRUCTION PER SMACNA.

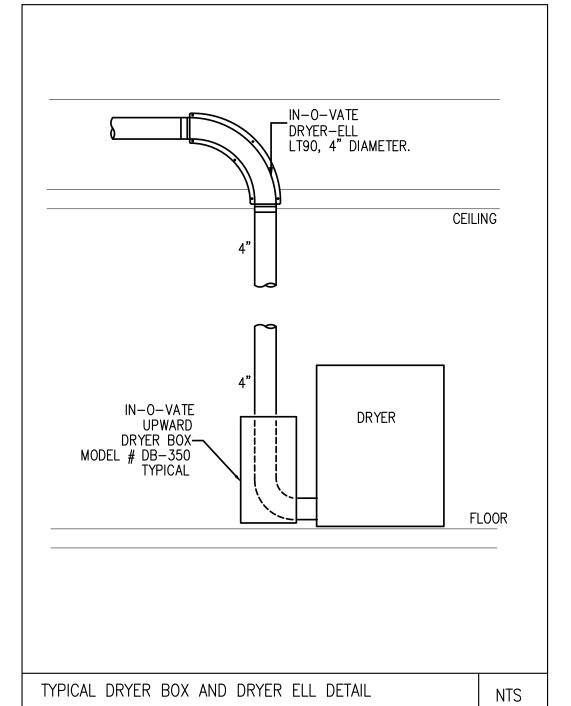
STRUCTURE ABOVE W/GALVANIZED STEEL

ANGLES AND CHANNELS, CROSS BREAK ALL

2. SUPPORT PLENUM FROM FLOOR OR

PANELS FOR RIGIDITY.

PLENUM AT LOUVER DETAIL



BARE SHEETMETAL PAINTED BY HVAC

SUBCONTRACTOR (BLACK OR AS

DIRECTED BY ARCHITECT)

- 2" MINIMUM FOR

1½"x3lb DENSITY RIGID FOIL FACE FIBERGLASS

BOARD ATTACHED WITH ADHESIVE &

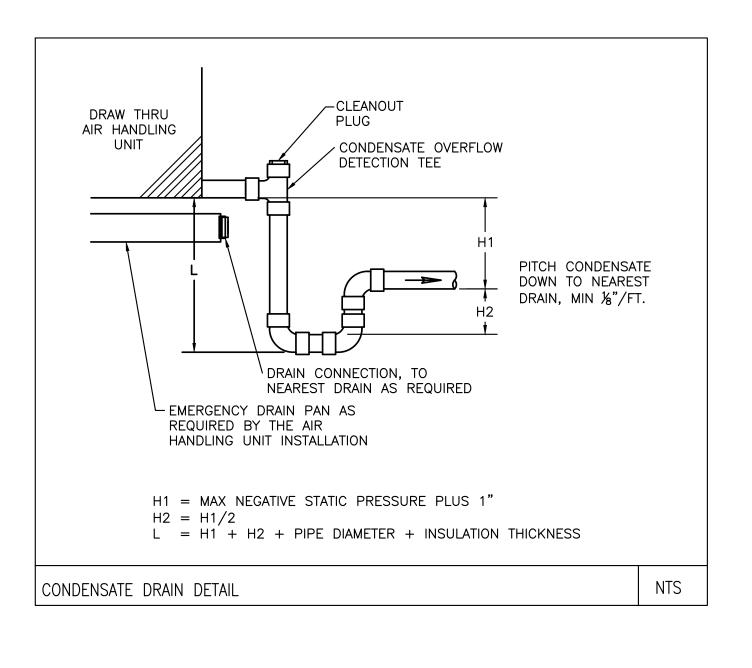
"STICK-CLIPS" 24" O.C. TOP, BOTTOM &

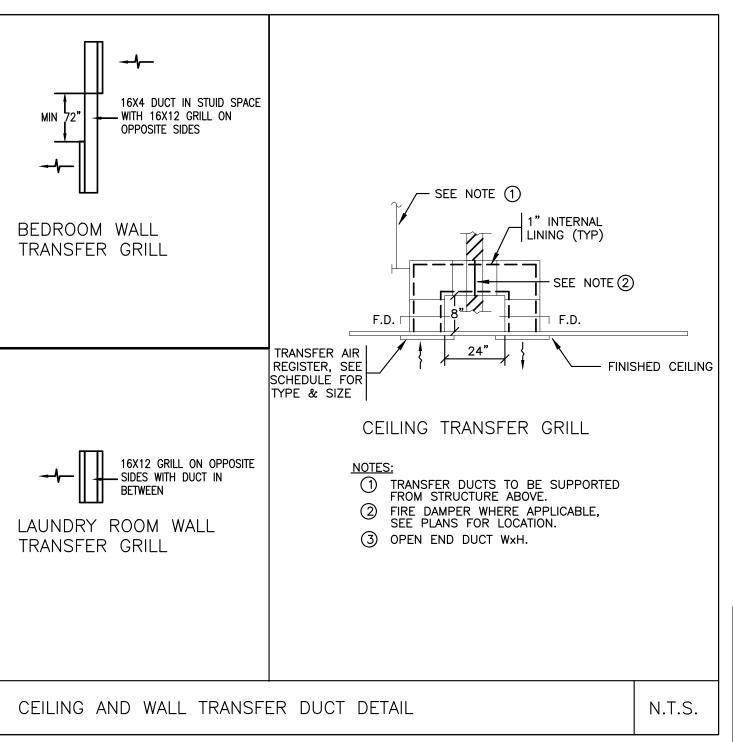
OVERLAP PLENUM BOTTOM AND CONNECT

W/SHEETMETAL SCREWS 12" O.C. WHERE

N.T.S.

DUCT CONNECTION





PRESSURE INDEPENDENT SELF BALANCING VALVE

✓ WATER COIL

DRAIN W/HOSE END

AIR VENT  $\triangle$ 

NTS

FLOWCON TYPE AB W/

E-JUST CARTRIDGE

UNION—

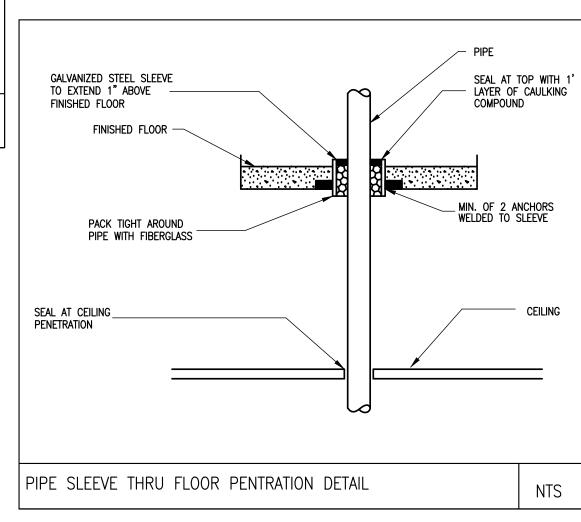
BALL TYPE SHUT-OFF VALVE

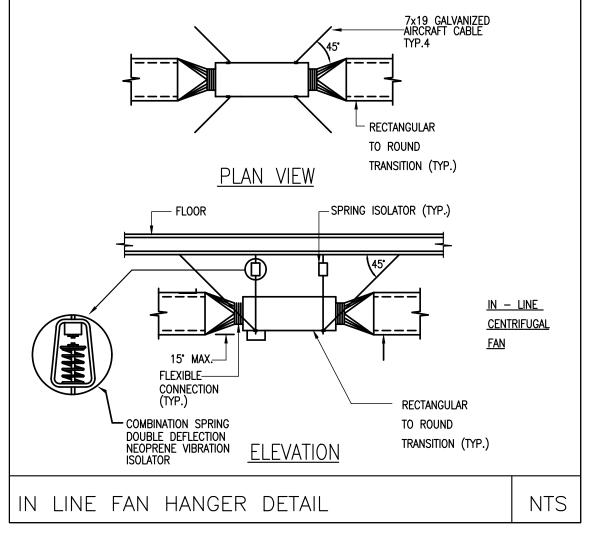
WATER COIL PIPING DETAIL

MODULATING ELECTRIC CONTROL VALVE

NOTE: OMIT CONTROL VALVE FOR CABINET AND WALL HEATER

PROVIDE FREEZE STAT FOR UNITS WITH OUTDOOR AIR CONNECTIONS TO OPEN VALVE TO FREE RUN THE HOT WATER AND CIRCULATE HOT WATER





26 GAUGE GALVANIZED STEEL

FROM BUILDING STRUCTURE

MANUFACTURER RECOMMENDATION)

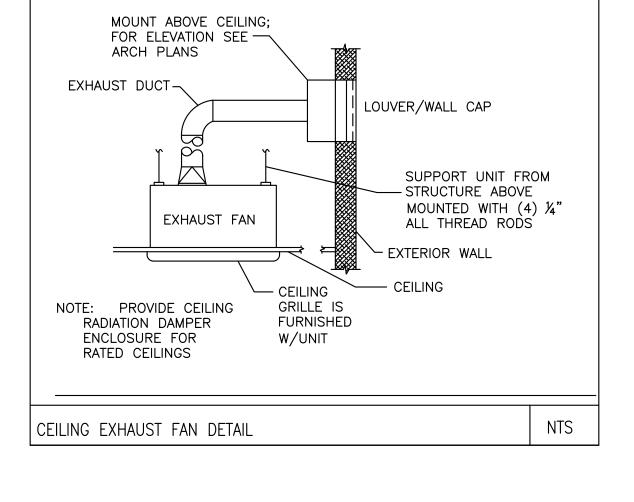
NTS

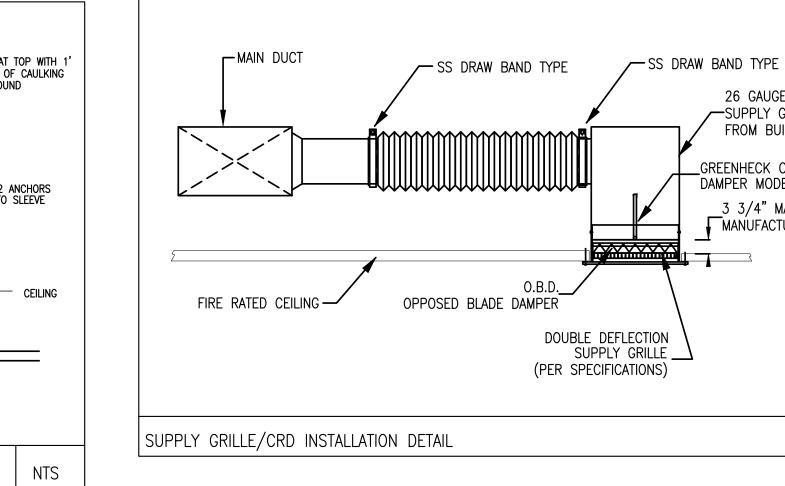
\_GREENHECK CEILING RADIATION

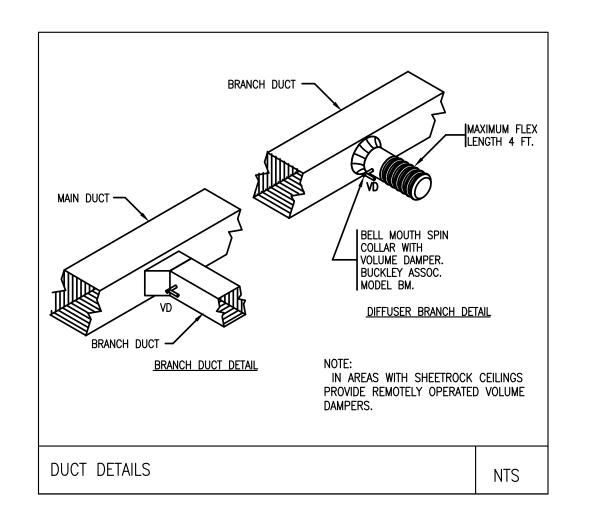
DAMPER MODEL CRD-1

3 3/4" MAX. (PER

SUPPLY GRILLE BOOT, SUPPORTED



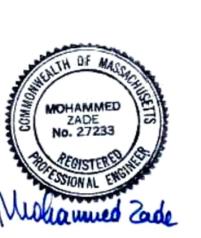




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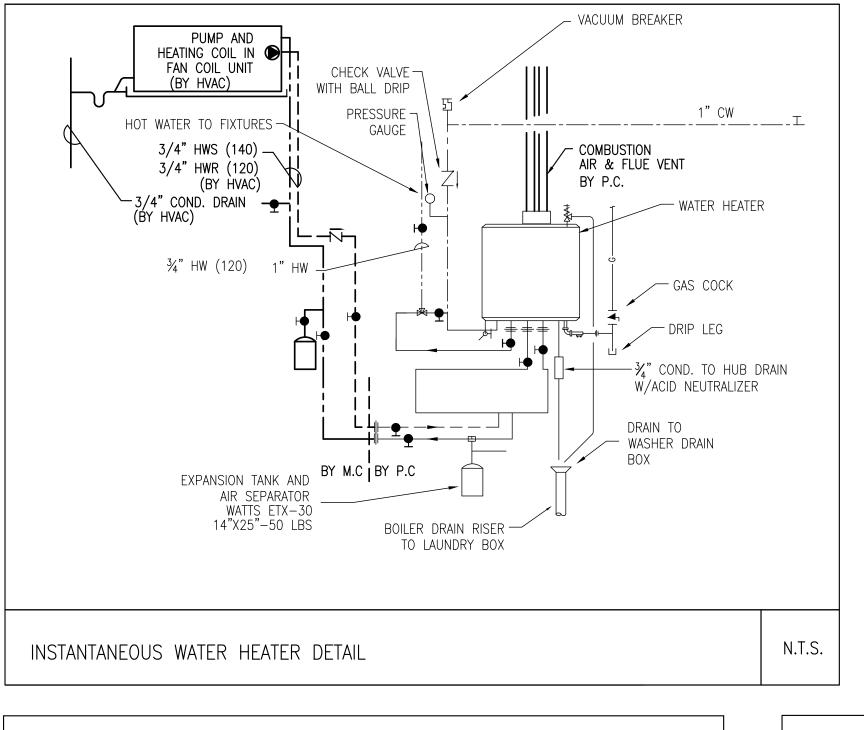
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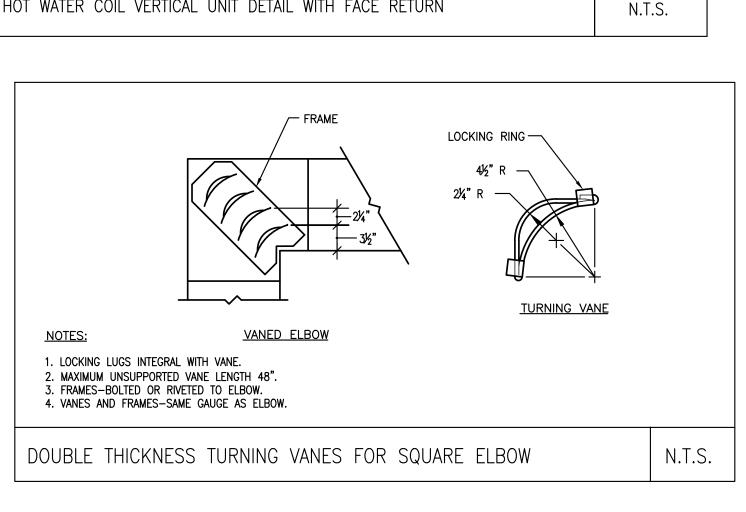
HUS Companies 979 Main St HVAC DETAILS

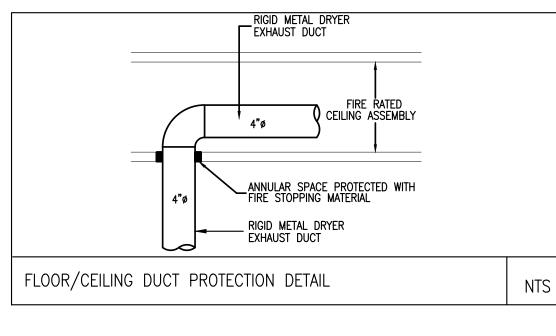
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Checked by	MZ
Drawn by	RC
Date	04.07.2021
Project number	221018

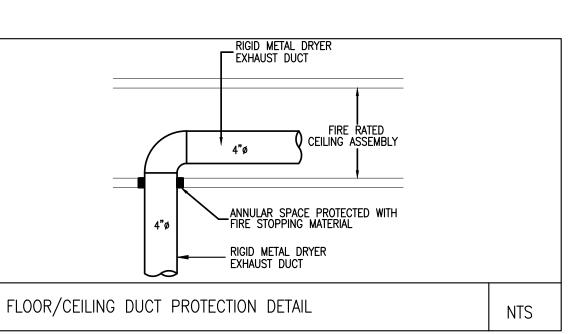
H203

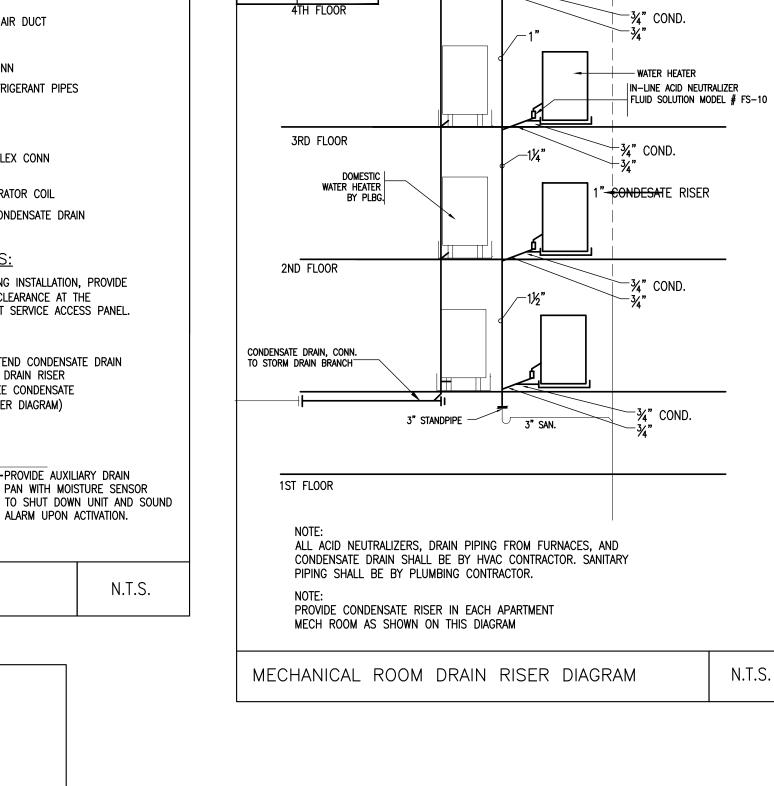
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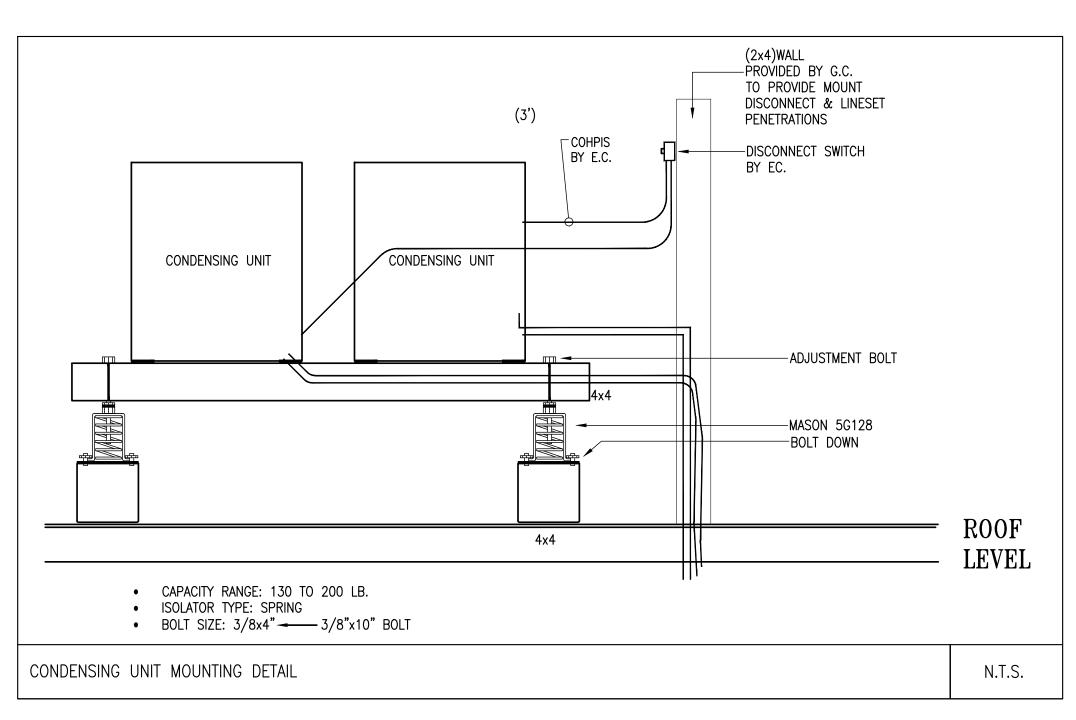


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 $\frac{C}{1}$ 

VENT THROUGH ROOF



CEILING

FRESH AIR DUCT\_

R-4 INSULATION

AT EXT. WALL

WITH MOTORIZED DAMPER

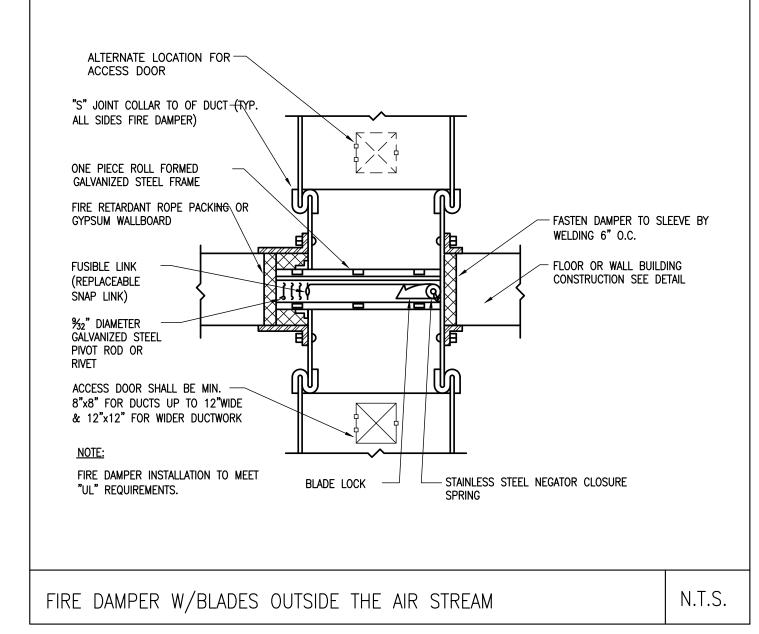
RETURN AIR DUCT

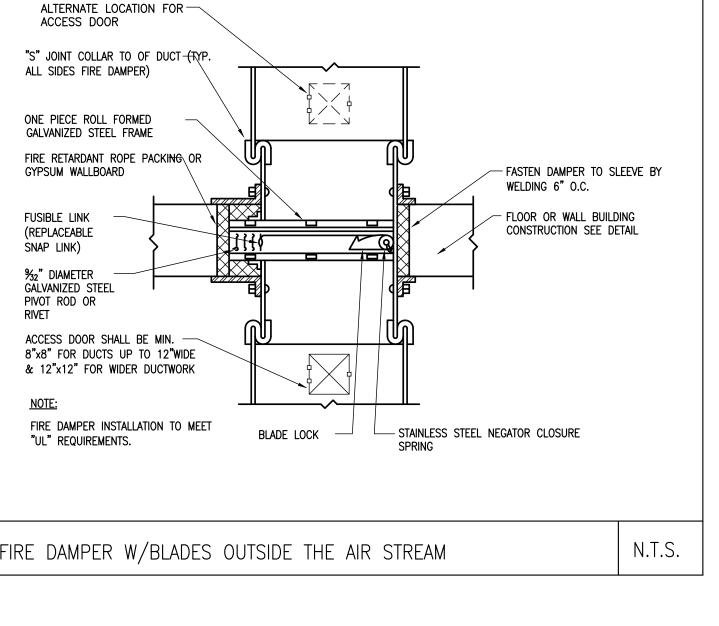
VIBRATION ISOLATORS

VERTICAL UNIT DETAIL WITH SIDE AIR RETURN

FILTER RACK/

1" FILTER





CONDENSATE DRAIN PIPE SIZING GUIDELINES

TON

170

ROOF

PIPE

3/4"

1 1/4"

1 1/2" 50

-SEE FLOOR PLANS FOR

CONTINUATION

S.A.

■ CFD

REFRIGERANT PIPES

FLEX CONN

EVAPORATOR COIL

— CONDENSATE DRAIN

1. DURING INSTALLATION, PROVIDE

FRONT SERVICE ACCESS PANEL.

- EXTEND CONDENSATE DRAIN

-PROVIDE AUXILIARY DRAIN

ALARM UPON ACTIVATION.

PAN WITH MOISTURE SENSOR

N.T.S.

TO DRAIN RISER

RISER DIAGRAM)

(SEE CONDENSATE

36" CLEARANCE AT THE

FLEX CONN



ZADE No. 27233

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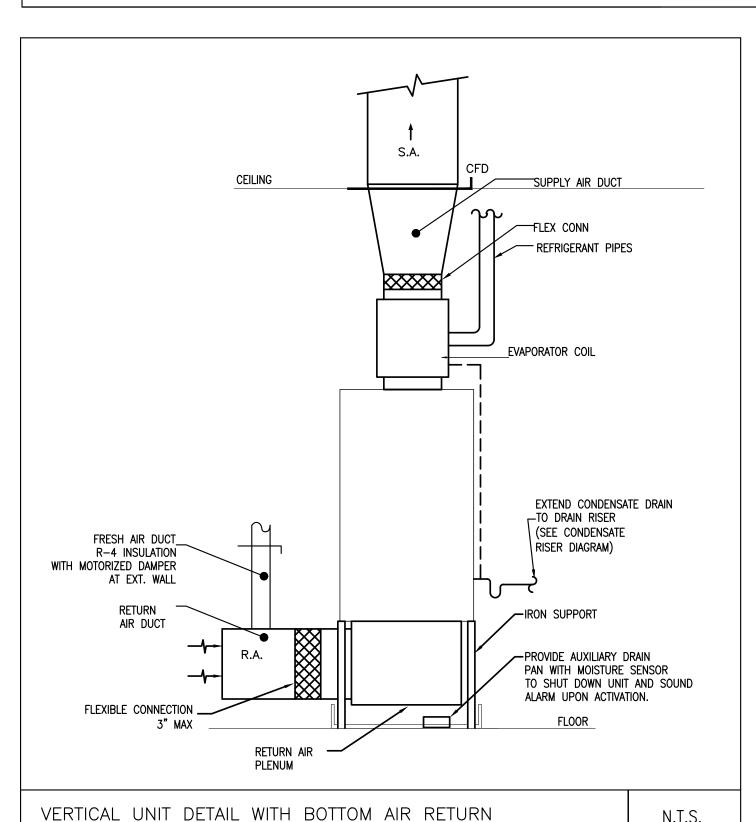
No.	Description	Date
1	For construction/ Permit	7-23-20
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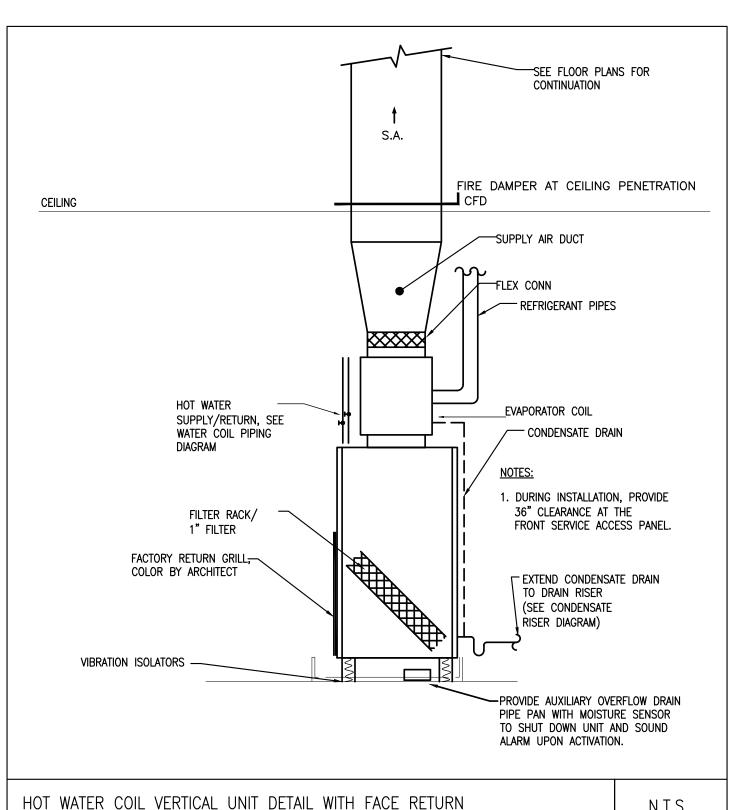
HUS Companies	S
979 Main St	
HVAC DETAILS	3

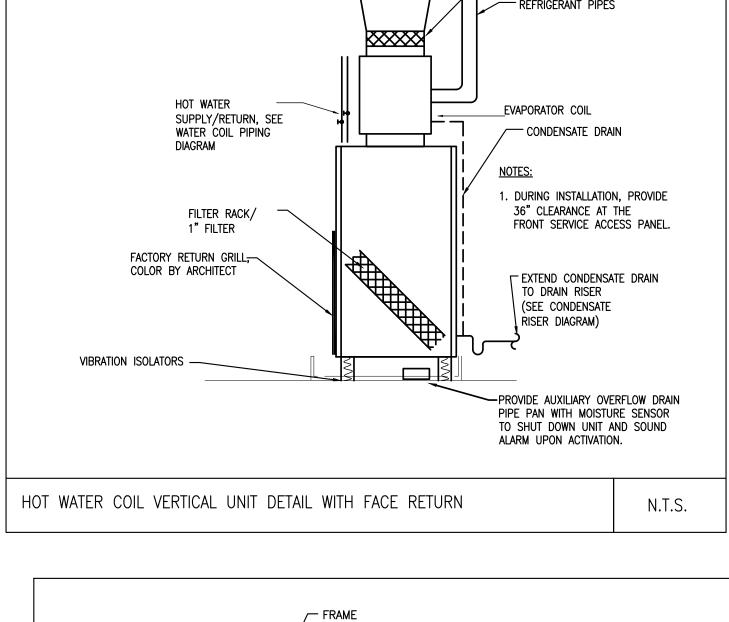
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Project number	221018
Date	04.07.202
Drawn by	RC
Checked by	MZ
H2	204

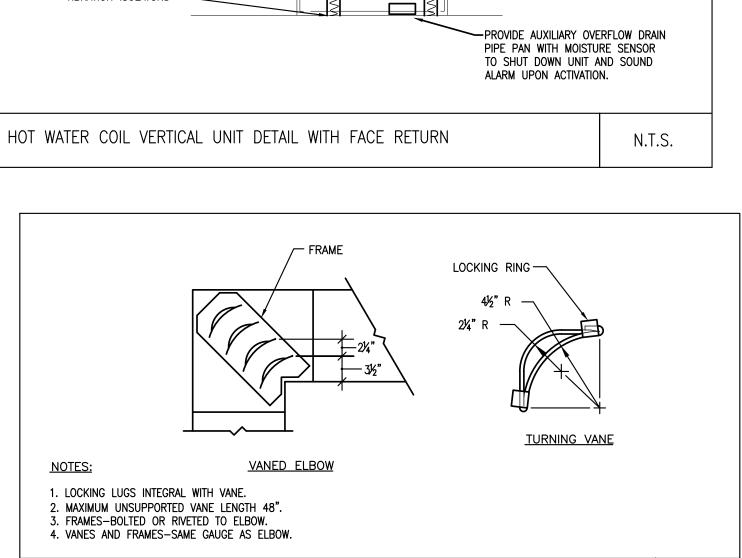
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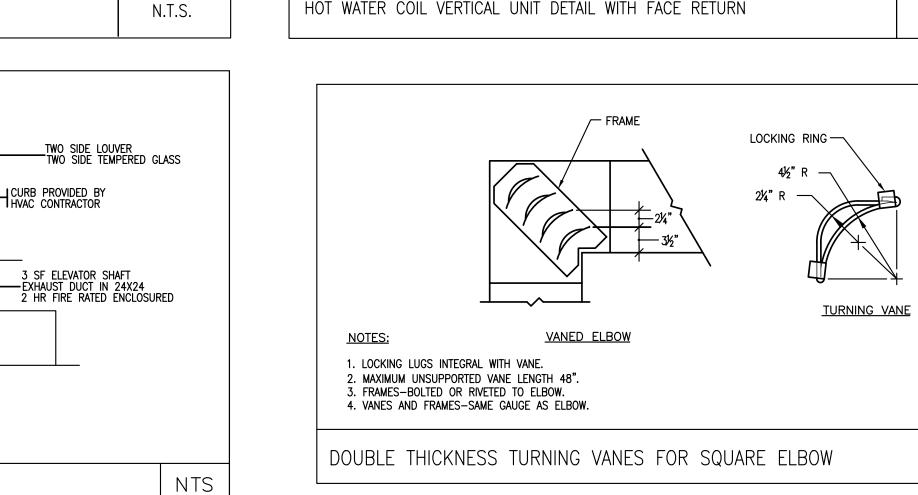
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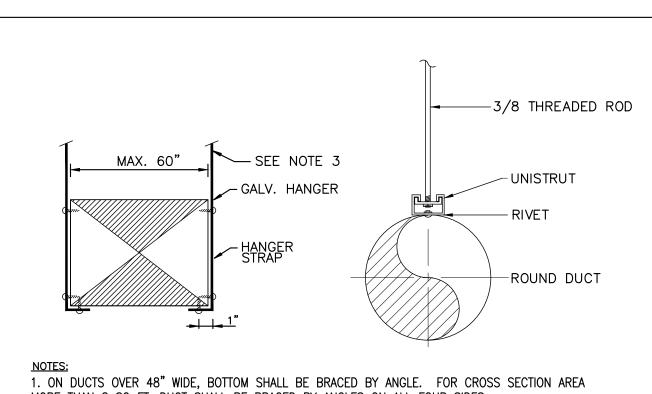




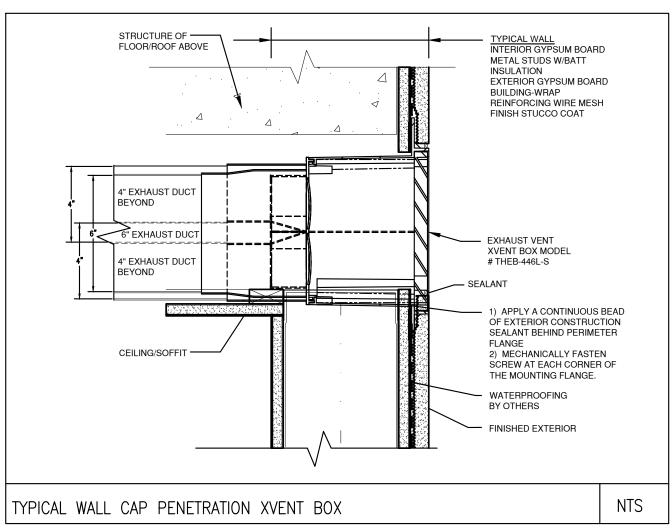


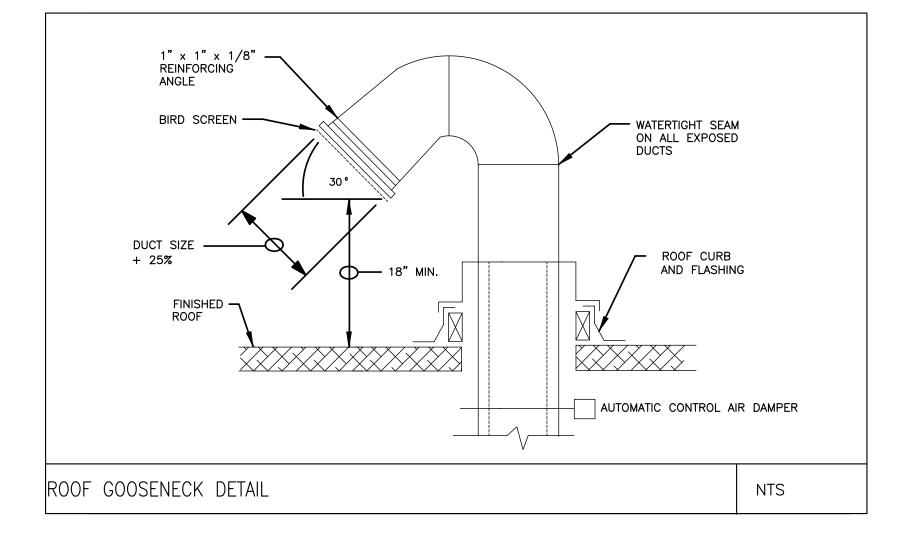
CURB PROVIDED BY HVAC CONTRACTOR FAIL SAFE MOTORIZED DAMPER SET IN CLOSED POSITION AND OPEN UPON: 1. THE ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE OF THE BUILDING FIRE ALARM SYSTEM; 2. THE INTERRUPTION OF POWER IN THE DAMPER (POWER AND CONTROLS BY E.C. 3. HIGH TEMPERATURE LIMIT, THERMOSTAT AT TOP OF SHAFT TO OPEN DAMPER AT 100°F(ADJ) ELEVATOR SHAFT GREENHECH PEV-400 OR APPROVED EQUAL

ELEVATOR VENT DETAIL



MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.  2. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.		
3. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.		TY
DUCT HANGER SUPPORT	NTS	







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No.	Description	Date
1	For construction/ Permit	7-23-202

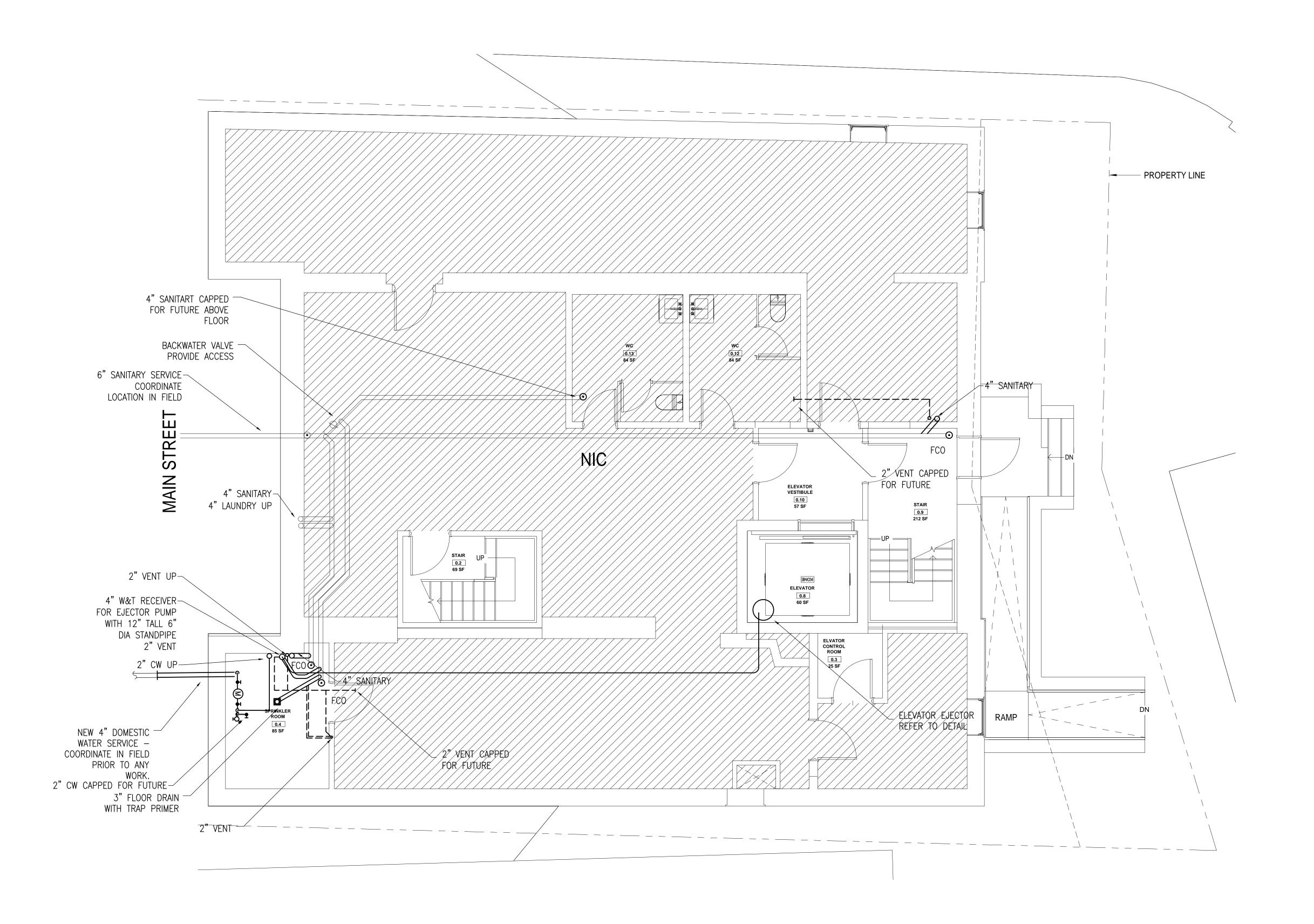
**HUS Companies** 979 Main St HVAC DETAILS

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Project number	221018
Date	04.07.2021
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Checked by	MZ
-	1205

As indicated



Basement - Proposed
1/4" = 1'-0"

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No.	Description	Date
1	For construction/ Permit	7-23-20

HUS Companies
979 Main St
LEVEL G - PROPOSED

EVEL G - PROPC PLUMBING

 Project number
 221018

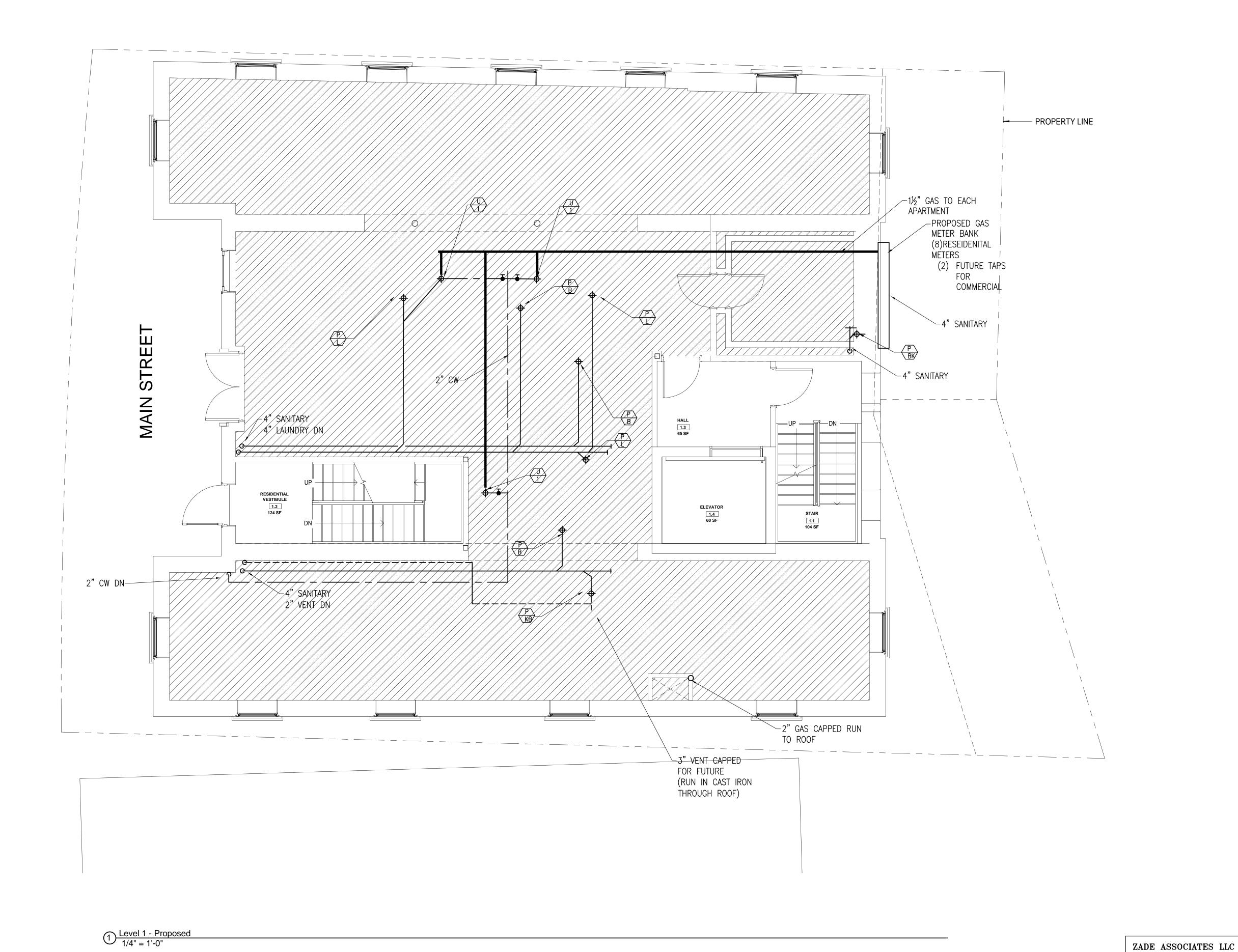
 Date
 04.07.2021

 Drawn by
 RC

 Checked by
 MZ

P101

Scale As indicated







No.	Description	Date
1	Description For construction/ Permit	7-23-2021

HUS Companies 979 Main St

LEVEL 1 - PROPOSED PLUMBING

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140 BEACH STREET, BOSTON, MA 02111
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FAX. (617) 451-2540
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 Project number
 221018

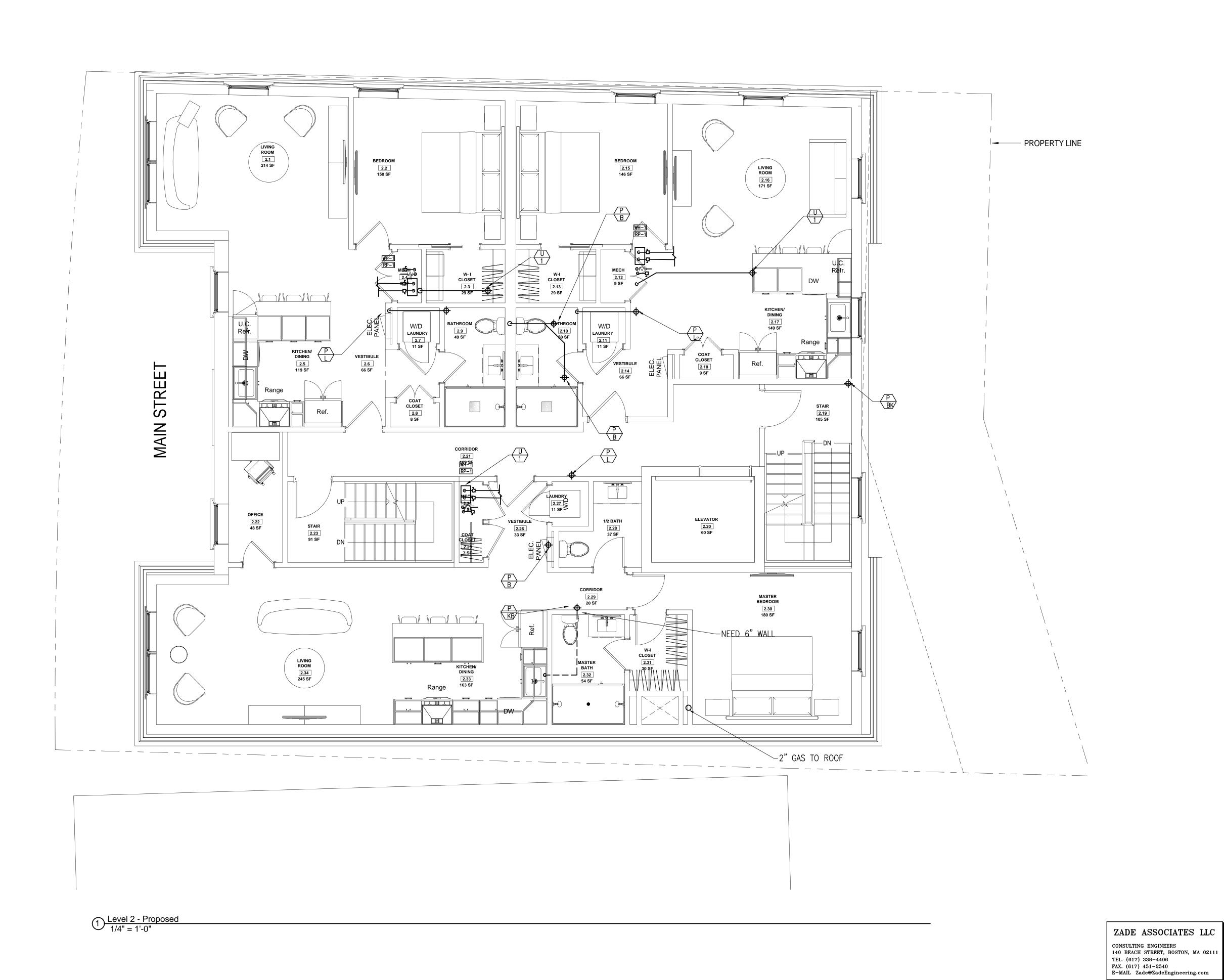
 Date
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 Drawn by
 RC

 Checked by
 MZ

P102

Scale As indicated







No.	Description	Date
1	Description For construction/ Permit	7-23-2021

HUS Companies 979 Main St

LEVEL 2 - PROPOSED PLUMBING

 Project number
 221018

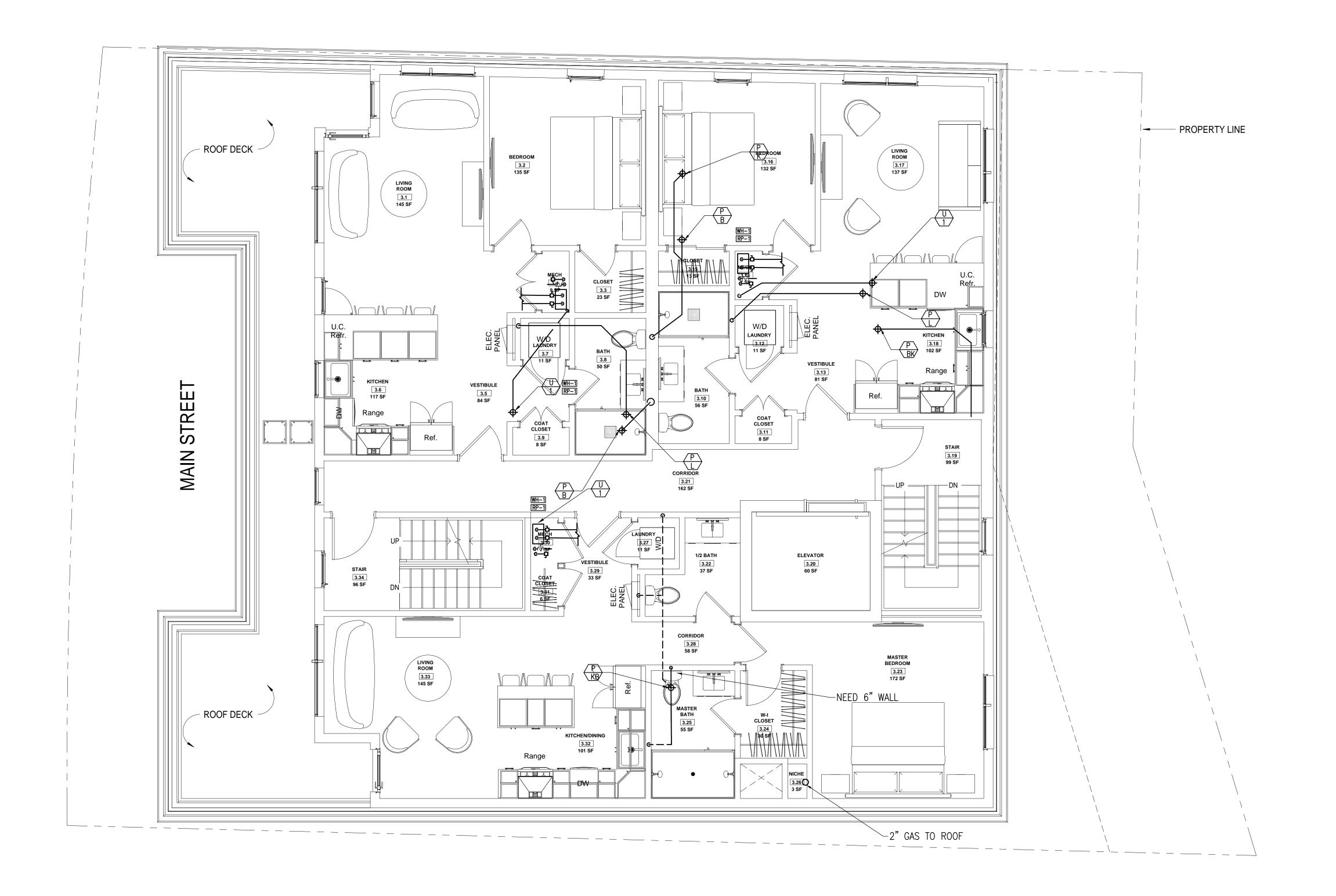
 Date
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 Drawn by
 RC

 Checked by
 MZ

P103

le As indicated







No.	Description	Date
1	Description For construction/ Permit	7-23-2021

HUS Companies 979 Main St

LEVEL 3 - PROPOSED PLUMBING

 Project number
 221018

 Date
 04.07.2021

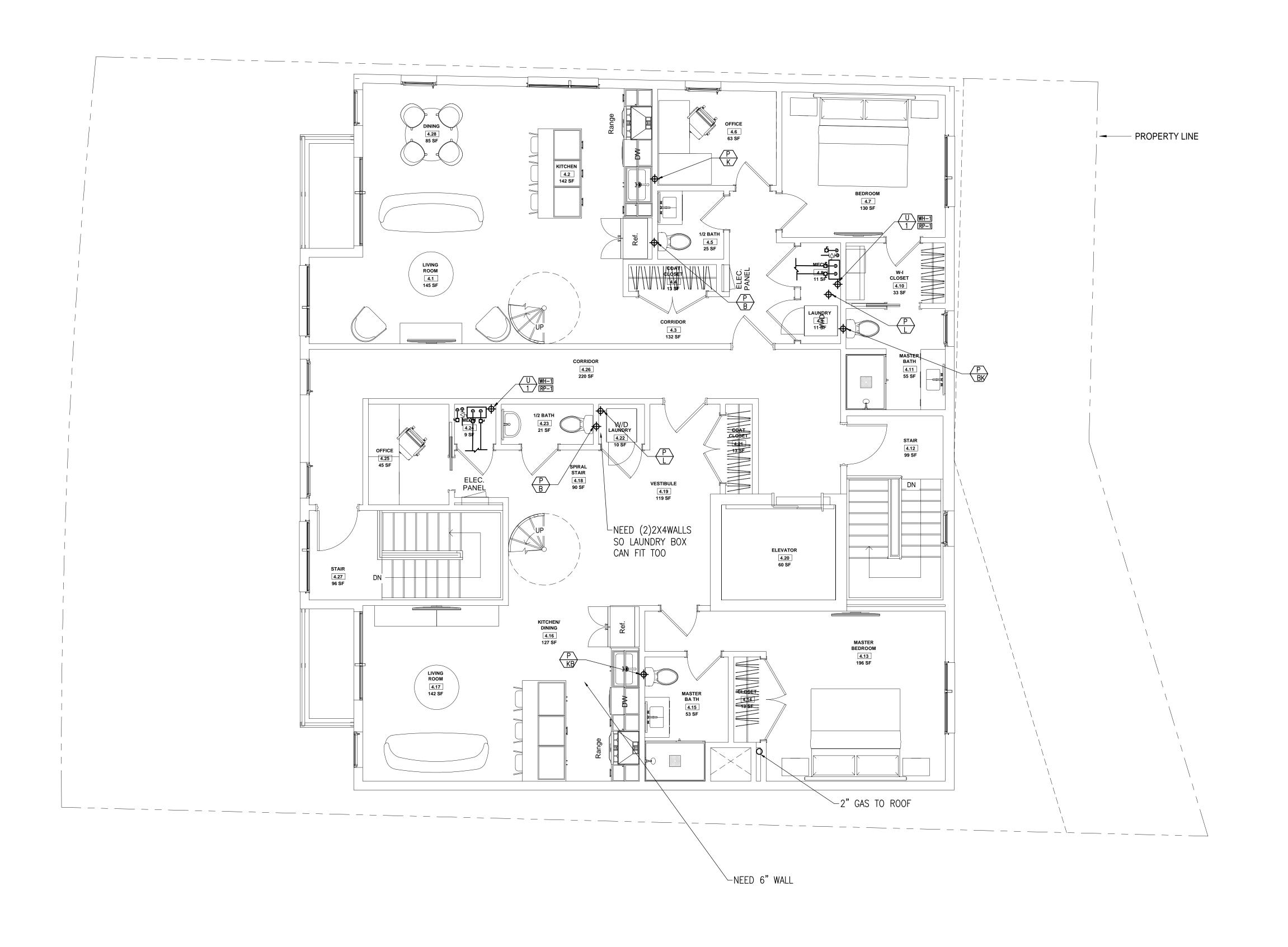
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 Checked by
 MZ

P104

Scale As indicated

1/4" = 1'-0"







No.	Description	Date
1	Description For construction/ Permit	7-23-2021

HUS Companies 979 Main St

LEVEL 4 - PROPOSED PLUMBING

ZADE ASSOCIATES LLC

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E-MAIL Zade@ZadeEngineering.com

 Project number
 221018

 Date
 04.07.2021

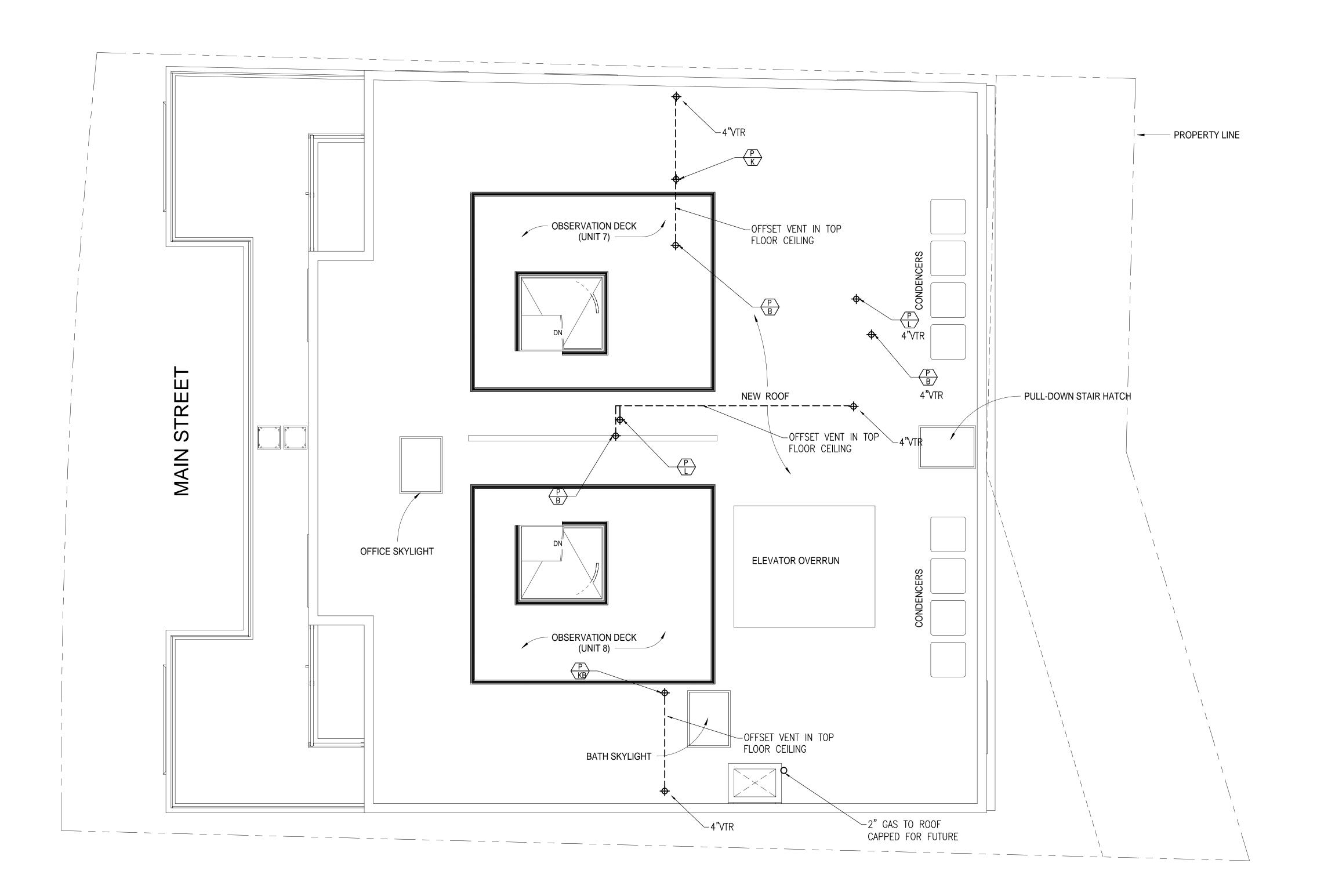
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 Checked by
 MZ

P105

Scale As indicated

1/4" = 1'-0"







No.	Description	Date
1	For construction/ Permit	7-23-20

HUS Companies 979 Main St

ROOF LEVEL -

PROPOSED PLUMBING
Project number 221018
Date 04.07.2021

Drawn by
Checked by

Scale

P106

P 1 U O As indicated

1/4" = 1'-0"

## PLUMBING FIXTURE SPECIFICATION SCHEDULE

DESIGNATION	FIXTURE	CVAIDOL	MANUFACTURER -	FIXTURE				FITTING			OARRIER	LOCATION	DEMARKS
DESIGNATION	SYMBOL	SYMBOL	MANOFACTORER	MODEL	TYPE	SIZE	MANUF/MODEL#	TYPE	SUPPLY	TRAP	CARRIER	LOCATION	REMARKS
REFER TO ARCITECTU	JRAL SPECIFIC	CATION FOR PL	UMBING FIXTURES										

NOTE: ALL WASHER MACHINES TO BE PROVIDED WITH AQUA MANAGERS "FLOODSTOP" (FS 3/4-H) AUTOMATIC FLOOD PROTECTION KIT

## SCHEDULE OF WATER HEATER

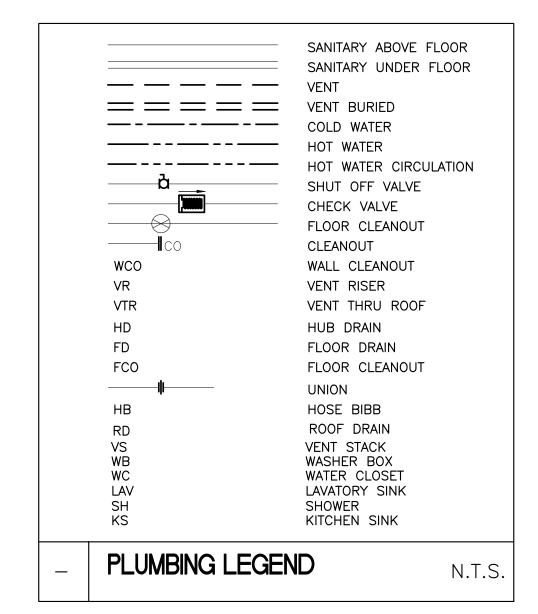
_				
	DESIGNATION	NAME	LOCATION	DESCRIPTION
	WH-1	HOT WATER HEATER	AS SHOWN	HTP COMBI-GAS FIRED WATER HEATER, MODEL EFTC-199, 95.7 AFUE, 120V/10, 4.8 GPM DOMESTIC OUTPUT.
	POU-1	POINT OF USE WATER HEATER	BATHROOMS	EEMAX MODEL EX95T-ML, THERMOSTATIC, 208 V, 7.125 KW, 30 AMPS, 48.75°F RISE @ 1 GPM, MAX TEMP SET @ 90°F

## GENERAL NOTES

- 1) FOR EXACT LOCATION OF PLUMBING FIXTURES SEE ARCHITECTURAL DRAWINGS
- 2) EXAMINE ALL CONTRACT DRAWINGS, GERNERAL CONDITIONS AND SPECIFICATIONS WHICH MAY AFFECT THE WORK.
- 3) ALL PLUMBING WORK MUST BE COORDINATED WITH ALL OTHER TRADES BEFORE PROCEEDING WITH INSTALLATION. 4) CHECK INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL OUTSIDE UTILITIES BEFORE INSTALLING ANY UNDERGROUND.
- 5) NO CHANGES ARE TO BE MADE IN PLUMBING LAYOUT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. 6) NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS.
- 7) ALL PLUMBING SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES.
- 8) ROUGHING DIMENSIONS OF TOILET FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR. 9) INSTALL ALL HOT AND COLD WATER PIPING AS PER SPECIFICATIONS.
- 10) INSTALL SHUTOFF GATE VALVES ON ALL BRANCH SUPPLY LINES AND AT THE BASE OF HOT AND COLD WATER RISERS. 11) PLUMBING CONTRACT SHALL REQUIRES PANELS TO ACCESS THE CONCEALED PLUMBING CLEANOUTS, DRAINS, DEVICES AND CONTROLS. ACCESS PANELS SHALL BE FIRE RATED TO MATCH THE PENETRATING PARTITION OR CEILING TYPE. GENERAL CONTRACTOR SHALL INSTALL THE
- ACCESS PANELS.
- 12) INSTALL ALL FLOOR CLEANOUTS TO CLEAR EQUIPMENT. 13) PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND CHARGES IN CONNECTION WITH THE WORK.
- 14) PLUMBING CONTRACTOR SHALL PROVIDE WATERTIGHT SLEEVES FOR ALL PIPES PASSING THRU BASEMENT WALLS.
- 15) INSTALL CLEANOUTS AT THE BASE OF ALL SANITARY STACKS.
- 16) INSTALL ALL HORIZONTAL RUNS OF PIPING AS HIGH AS POSSIBLE, PITCH ALL WATER PIPING TO DRAIN, DRAW OFFS AT ALL POINTS. 17) PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OUTSIDE UTILITIES.
- 18) FOR PIPE SIZES NOT SHOWN ON PLANS SEE DETAILS & RISER DIAGRAMS.

# FIRE SAFE THROUGH WOOD FLOORS

TYPE	SIZE	HILTI	MATERIAL	RATING	воттом	TOP	CHASE WALL
STEEL/CAST COPPER/EMT	MAX 4"	FS-0NE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
STEEL/CAST 4" EMT/ 2" FLEX	MAX 6" -	FS-0NE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
STEEL/CAST COPPER/EMT	MAX 4"	CP-620	FIRE FOAM	1HRS	FIRE STOP	FIRE STOP	REQUIRED
PEX	MAX 1"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	BOTH SIDES	BOTH SIDES	NOT REQUIRED
PVC PIPE	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
PVC PIPE	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
PVC PIPE	MAX 4"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	COLLAR	FIRE STOP	NOT REQUIRED
REFRIGERANT	_	FS-ONE	INTUMESCENT SEALANT -	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
4" DUCT	MAX 4"	FS-0NE	INTUMESCENT SEALANT -	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
INSULATED COPPER/STEEL	MAX 2"	FS-0NE	INTUMESCENT SEALANT -	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
CABLES	MAX 2"	FS-0NE	INTUMESCENT SEALANT -	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED



## INSULATION NOTES

ESTAR REQUIREMENTS:

THE FOLLOWING SYSTEMS SHALL BE INSULATED. DUCT LINER SHALL BE CLOSED CELL TYPE, GERM PROOF

> 1. DOMESTIC HOT WATER & RECIRCULATION MAINS AND BRANCHES: PIPING < 1" REQUIRES 1" INSULATION PIPING > 1½" REQUIRES 1½" INSULATION

## IECC 2015 REQUIREMENTS:

1. DOMESTIC HOT WATER MAINS AND BRANCHES: PIPING < 1" REQUIRES 1" INSULATION PIPING > 1½" REQUIRES 2" INSULATION GENERAL INSUALTION REQUIREMENTS:

½" INSULATION CW PIPING: ½" INSULATION HORIZONTAL STORM:

THIS BUILDING WILL SHALL BE QUALIFIED FOR ESTAR, STRETCH CODE, AND LEED SILVER. PROVIDE THE MOST STRINGENT LEVELS OF INSULATION FOR QUALIFICATION

## PIPING MATERIAL NOTES

SANITARY AND VENT: BELOW GROUND: SWCI WITH PUSH ON JOINTS.

ABOVE GROUND: -SCH.40 PVC WITH SOLVENT JOINTS FOR ALL PLUMBING FIXTURES ONLY SERVING RESIDENTIAL FLOORS, IF SANITARY MAIN CONNECTS TO COMMERICAL FIXTURES FROM THAT POINT AND BEYOND SHALL BE CAST IRON. IF ANY CONNECTION FROM RESIDENTIAL TO COMMERCIAL FIXTURES HAPPENS ON FIRST LEVEL TRANSITION TO CAST IRON IN RESIDENTIAL LEVEL. -SWCI WITH HUSKY 4-BAND CLAMPS FOR ALL PLUMBING IN CONNECTIONS IN COMMERCIAL AND GARAGE LEVELS.

WATER PIPING: TYPE "L" COPPER WITH 95-5 SOLDER JOINTS IN COMMERCIAL AND GARAGE LEVEL, CPVC IN RESIDENTIAL LEVELS ONLY.

GAS PIPING: SCHEDULE 40 ER/ERW BLACK STEEL WITH THREADED JOINTS OR WELDED.

## PLUMBING NOTES:

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FIRE WALLS. ANY PENETRATION THROUGH FIRE FLOORS SHALL BE <u>FIRE STOPPED</u>. ANY PENETRATION THROUGH FIRE WALL SHALL BE FIRE CAULKED. REFER TO SECTION 7275 FOR PROCEDURE.
- 2. WITHOUT LIMITATION PAY ATTENTION TO THE FOLLOWING ITEMS:
- A. CHASES BEHIND BATHROOM (WALL BETWEEN CORRIDOR AND BATHROOM) AND WALLS BETWEEN UNITS ARE FIRE RATED. <u>FIRE CAULK</u> ALL PENETRATIONS.
- B. TOP AND BOTTOM WALL PLATES AT CEILING AND AT FLOOR IS PART OF FIRE SEPARATION. FIRE STOP ALL PENETRATIONS THROUGH PLATES.

## GENERAL NOTES:

1. SHOULD ANY CONTRADICTION, AMBIGUITY, ERROR, INCONSISTENCY, OMISSION OR INCOMPLETE SYSTEM APPEAR IN OR BETWEEN ANY OF CONTRACT DOCUMENTS THE CONTRACTOR SHALL, BEFORE SUBMITTING THE FINAL BID AND SIGNING THE CONTRACT FOR CONSTRUCTION, NOTIFY THE ARCHITECT AND REQUEST A WRITTEN RESOLUTION AS TO WHICH METHODS OR MATERIALS WILL BE REQUIRED. IN THE EVENT OF CONFLICTING REQUIREMENTS OF STANDARDS, DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENTS. BEFORE SUBMITTING THE FINAL BID AND THE SIGNING THE CONTRACT FOR THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION FROM THE ARCHITECT. IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE AFFECTED WORK UNTIL ADVISED BY THE ARCHITECT.

IF THE CONTRACTOR FAILS TO MAKE A REQUEST FOR INTERPRETATION OR RESOLUTION NO EXCUSE WILL BE ACCEPTED FOR FAILURE TO CARRY OUT THE WORK IN A SATISFACTORY MANNER, AS INTERPRETED BY THE ARCHITECT. THIS GENERALLY MEANS THE USE OF THE HIGHEST QUALITY MATERIAL, MOST EXPENSIVE WAY OF PERFORMING WORK AND PROVIDING COMPLETE FUNCTIONING SYSTEM FOR PROPER OPERATION.

EACH AND EVERY TRADE OR SUBCONTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED THEMSELVES WITH ALL THE CONTRACT DOCUMENTS OF THIS PROJECT, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE VISITED THE SITE, SO AS TO AVOID ERROR, OMISSIONS AND MISINTERPRETATIONS. RELATED INFORMATION MAY BE PROVIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE ASSOCIATED WITH THE SUBCONTRACTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELATED WORK OF ALL THE CONTRACT DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS REQUIREMENT

2. ALL PENETRATIONS OF ASSEMBLIES EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE SEALED WITH FOAM SEALANT OR EQUIVALENT SEALER TO PROVIDE ZERO AIR INFILTRATION. COORDINATE WITH FIRE STOPPING REQUIREMENTS.

3. NO COMPONENT OF ANY SYSTEM SHALL RUN THROUGH THE STAIR ENCLOSURE THAT DOES NOT RELATE TO OR SERVE THE STAIR ENCLOSURE.



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No.	Description	Date
1	For construction/ Permit	7-23-2021

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Scale

Checked by

P201

**HUS Companies** 

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PLUMBING NOTES &

SCHEDULES

221018

04.07.2021

As indicated

## BASIC PLUMBING REQUIREMENTS

PART 1. — GENERAL

## 1.1 RELATED DOCUMENTS

ALL APPLICABLE REQUIREMENTS OF OTHER PORTIONS OF THE CONTRACT DOCUMENTS APPLY TO THE WORK OF THIS SECTION INCLUDING, BUT NOT LIMITED TO, ALL DRAWINGS, ALL SPECIFICATIONS, GENERAL CONDITIONS, AND GENERAL REQUIREMENTS INCLUDING SUBMITTALS.

## 1.2 APPLICABLE CODES AND STANDARDS

APPLICABLE CODES: ALL LOCAL AND STATE BUILDING CODES, INCLUDING THE INTERNATIONAL PLUMBING CODE MASSACHUSETTS STATE PLUMBING CODE AND THE MASSACHUSETTS STATE BUILDING CODE. APPLICABILITY OF STANDARDS: EXCEPT WHERE THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS. APPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF BOUND OR COPIED DIRECTLY INTO THE CONTRACT DOCUMENTS. SUCH STANDARDS ARE MADE A PART OF THE CONTRACT DOCUMENTS BY REFERENCE.

CONFLICTING REQUIREMENTS: WHERE COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED, AND THE STANDARDS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, REFER REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, AND UNCERTAINTIES TO THE ARCHITECT FOR A DECISION BEFORE PROCEEDING.

## PUBLICATION DATES: WHERE THE DATE OF ISSUE OF A REFERENCED STANDARD IS NOT SPECIFIED, COMPLY WITH THE STANDARD IN EFFECT AS OF DATE OF CONTRACT DOCUMENTS.

ABBREVIATIONS AND NAMES: TRADE ASSOCIATION NAMES AND TITLES OF GENERAL STANDARDS ARE FREQUENTLY ABBREVIATED. THE FOLLOWING ACRONYMS OR ABBREVIATIONS AS REFERENCED IN CONTRACT DOCUMENTS ARE DEFINED TO MEAN THE ASSOCIATED NAMES. NAMES AND ADDRESSES ARE SUBJECT TO CHANGE AND ARE BELIEVED TO BE BUT ARE NOT ASSURED TO BE ACCURATE AND UP TO DATE AS OF DATE OF CONTRACT DOCUMENTS.

## AGA - AMERICAN GAS ASSOCIATION ANSI — AMERICAN NATIONAL STANDARDS INSTITUTE

ARI — AIR CONDITIONING AND REFRIGERATION INSTITUTE

ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS

ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS ASSE - AMERICAN SOCIETY OF SANITARY ENGINEERING

ASTM — AMERICAN SOCIETY FOR TESTING AND MATERIALS

AWS - AMERICAN WELDING SOCIETY AWWA - AMERICAN WATER WORKS ASSOCIATION

CISPI - CAST IRON SOIL PIPE INSTITUTE NEC - NATIONAL ELECTRIC CODE

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION NSF - NATIONAL SANITATION FOUNDATION

PDI - PLUMBING AND DRAINAGE INSTITUTE UL – UNDERWRITERS LABORATORIES

DOT - DEPARTMENT OF TRANSPORTATION

EPA - ENVIRONMENTAL PROTECTION AGENCY OSHA — OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

PRIOR TO THE PERFORMANCE OF ANY WORK OR INSTALLATION OF ANY MATERIALS, OBTAIN APPROVAL FROM THE ARCHITECT BY SUBMITTING SHOP DRAWINGS AND DATA SHEETS.

SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES WILL BE ACCEPTED ONLY WHEN SUBMITTED BY THE GENERAL CONTRACTOR. DATA SUBMITTED FROM SUBCONTRACTORS AND MATERIAL SUPPLIERS DIRECTLY TO THE ARCHITECT WILL NOT BE PROCESSED. CERTIFIED DRAWINGS AND CATALOG DATA SHEETS SHALL SHOW:

- 1. SPECIFICALLY WHAT ITEMS AND FEATURES ARE TO BE PROVIDED. 2. APPLICABLE SPECIFICATION SECTION NUMBER AND EQUIPMENT TAG NUMBER.
- 3. PRINCIPAL DIMENSIONS AND DETAILS OF CONSTRUCTION.
- 4. WEIGHTS: INFORMATION REQUIRED FOR THE DESIGN OF SUPPORTS AND FOUNDATIONS. 5. SIZES AND LOCATIONS OF PIPING AND CONNECTIONS.
- 6. PERFORMANCE DATA CERTIFIED BY THE MANUFACTURER. '. SUBMIT SCHEDULE OF PROPOSED PIPING, VALVES, SPECIALTIES, ETC.
- 8. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE SEPERATLY

## PLUMBING SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS:

- 1 PIPING AND FITTING MATERIALS 2. PLUMBING VALVES AND SPECIALTIES.
- 3. PIPING HANGER AND ATTACHMENT ASSEMBLIES. 4. PIPING INSULATION.
- 5. ALL SCHEDULED PLUMBING FIXTURES, DRAINS, AND CLEANOUTS.
- 6. UTILITY CONNECTION DETAILS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

APPROVAL OF SHOP DRAWINGS DOES NOT RELEASE RESPONSIBILITY OF COORDINATING HIS WORK AT JOBSITE AND TAKING FIELD MEASUREMENTS. IN CASES WHERE INTERFERENCES BECOME APPARENT, NOTIFY ARCHITECT SO THAT SUCH INTERFERENCES MAY BE RESOLVED PRIOR TO PROCEEDING WITH SHOP WORK, NO CLAIM WILL BE ALLOWED FOR WORK THAT MIGHT HAVE TO BE MOVED OR REPLACED BASED ON A CLAIM THAT WORK WAS PLACED IN ACCORDANCE WITH DIMENSIONS INDICATED ON AN APPROVED SHOP DRAWING.

## 1.4 COORDINATION

## COORDINATE WITH THE BUILDING TRADES:

1. STRUCTURAL MEMBERS, PADS, AND BUILDING OPENINGS FOR FIXTURES, EQUIPMENT, PIPING, ETC., FOR USE BY THIS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL PLANS ARE THE COORDINATION RESPONSIBILITY OF THIS INSTALLER. PAY FOR ANY CHANGES IN THE ABOVE REQUIREMENTS AFTER LETTING AND ACCEPTING THE CONTRACT. 2. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT. DIRECTIONS AND SIZES OF EQUIPMENT. PIPING. ETC. IT IS NOT INTENDED TO SHOW EVERY OFFSET AND FITTING OF EVERY SITE DIFFICULTY THAT MAY BE ENCOUNTERED. PROVIDE ALL MATERIALS AND PERFORM ALL LABOR NECESSARY TO MAKE COMPLETE WORKING SYSTEMS, READY FOR USE, WITHOUT EXTRA CHARGE. ALL MEASUREMENTS MUST BE VERIFIED ON THE JOBSITE.

3. EXAMINE THE SITE AND ALL DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO THAT ALL WORK WILL BE INSTALLED IN PROPER RELATIONSHIP. COORDINATE PRECISE LOCATION OF PARTS WITH OTHER WORK. ALL SYSTEMS SHALL BE INSTALLED TO PROVIDE MAXIMUM HEADROOM, EXCEPT WHERE DIMENSIONED OTHERWISE ON THE DRAWINGS.

## 1.5 RECORD DOCUMENTS

RECORD DRAWINGS: MAINTAIN A CLEAN, UNDAMAGED SET OF PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS, MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN, MARK WHICHEVER DRAWING IS MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY: WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD LATER. 1. MARK INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP

2. ORGANIZE RECORD DRAWING SHEETS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT

- SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET. 3. MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS,
- TANKS, ETC.). 4. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM AT LEAST TWO PROMINENT BUILDING LINES. 5. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED. 6. INCLUDE ALL "CORRECTED FOR RECORD" SHOP DRAWINGS TO REFLECT APPROVALS RECEIVED.

## 1.6 MAINTENANCE MANUALS

ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 2-INCH, 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES OF INFORMATION: 1. COPIES OF WARRANTIES.

2. WIRING DIAGRAMS.

### 3. INSPECTION PROCEDURES. 4. APPROVED SHOP DRAWINGS AND PRODUCT DATA.

5. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS. 6. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, AND ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.

7. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS. 8. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

## 1.7 REGULATIONS AND PERMITS

PROVIDE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES HAVING JURISDICTION.

PAY FOR AND OBTAIN ALL REQUIRED PERMITS & SCHEDULE INSPECTIONS IN A TIMELY MANNER AS TO NOT DELAY THE PROJECT. OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO ENTERING MANHOLES, USE OF WATER FROM LOW PRESSURE HYDRANTS, DEMOLITION AND NEW WORK, ETC. PRIOR TO COMMENCE OF WORK.

## PART 2. – PRODUCTS

## 2.1 GENERAL PRODUCT REQUIREMENTS

ALL EQUIPMENT AND MATERIALS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE NEW, OF CURRENT PRODUCTION, FIRST QUALITY AND OF THE BEST OF EACH CLASS SPECIFIED. MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE DELIVERED TO JOBSITE WITH FACTORY PACKAGING BEARING MANUFACTURER'S NAME OR LABEL, AND UNION LABEL WHENEVER PRACTICAL.

## PART 3. – EXECUTION

## 3.1 PLUMBING INSTALLATIONS

GENERAL: SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF PLUMBING SYSTEMS, MATERIALS, AND EQUIPMENT. COMPLY WITH THE FOLLOWING REQUIREMENTS: 1. COORDINATE SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.

2. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS 3. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, 1

ALLOW FOR MECHANICAL INSTALLATIONS 4. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.

5. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES. 6. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH

8. COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, TO THE EXTENT THAT THOSE INSTRUCTIONS AND RECOMMENDATIONS ARE MORE EXPLICIT OR STRINGENT THAN REQUIREMENTS CONTAINED IN CONTRACT

9. INSPECT MATERIALS OR EQUIPMENT IMMEDIATELY UPON DELIVERY AND AGAIN PRIOR TO INSTALLATION. REJECT DAMAGED AND defective items.

PRIOR TO FINAL ACCEPTANCE, ALL SYSTEMS SHALL BE OPERATED TO TEST PERFORMANCE TO THE SATISFACTION OF THE 1. WATER SHALL CIRCULATE THROUGHOUT SYSTEMS WITHOUT NOISE, WATER HAMMER, LEAKS, TRAPPING, OR AIR-BINDING. 2. MOTORS AND OTHER EQUIPMENT SHALL OPERATE WITHOUT EXCESSIVE NOISE OR VIBRATION. 3. DRAINS SHALL FLOW FREELY, WITHOUT EXCESSIVE NOISE, LEAKS OR STOPPAGES.

CORRECT DEFECTS DEMONSTRATED BY INSPECTIONS AND TESTS TO THE SATISFACTION OF THE ARCHITECT.

7. PROVIDE ACCESS PANELS OR DOORS WHERE UNITS ARE CONCEALED BEHIND FINISHED SURFACES.

## 3.3 CLEANING OF SYSTEMS AND PREMISES

ALL EQUIPMENT AND FIXTURES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS AT THE COMPLETION OF THE PROJECT AND PRIOR TO ACCEPTANCE BY THE OWNER. 3.4 PROTECTION

GUARDS, BARRICADES, LIGHTS, SERVICES, ETC., NECESSARY FOR THE PROTECTION OF PERSONS AND PROPERTY SHALL BE FURNISHED AND MAINTAINED.

EXISTING WORK SUCH AS PAVEMENTS, LAWNS, SIDEWALKS, FLOORS, CURBS, AND OTHER STRUCTURES AND UTILITIES WHICH ARE DAMAGED OR DISTURBED DUE TO MAKING CONNECTIONS OR ANY PHASE OF OPERATIONS SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER AND THE GOVERNING AUTHORITIES.

## GENERAL NOTES

NOTE FOLLOWING LINE ITEMS ARE LISTED FOR QUALITY PURPOSES AND APPLICABLE WHERE COMPONENTS PRESENT IN THE PROJECT.

REGARDLESS HOW THE DETAILS ARE SHOWN, CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS.

CONTRACTOR SHALL PAY ATTENTION TO GAS FIRED EQUIPMENT DISCHARGE LOCATIONS RELATIVE TO AIR INTAKES BEFORE ANY INSTALLATION AND MAINTAIN CODE REQUIRED OR MANUFACTURER REQUIRED CLERANCES.

1-ALL HOT WATER PIPING IN RECIRCULATION TYPE SYSTEMS SHALL BE INSULATED, INCLUDING TAKE OFFS FROM RE-CIRCULATION LINE.

2-HOT WATER PIPING IN SYSTEMS WITHOUT RECIRCULATION SHALL BE FULLY INSULATED TO MAINTAIN TEMPERATURE (IECC 2014)

ALL HORIZONTAL STORM DRAINS SHALL BE INSULATED. INSULATE 3 FT PIPING ABOVE AND BELOW THE OFFSET. INSULATE ROOF DRAIN BODIES UNDER DECK AND 3 FT PIPING IF NO OFFSET.

-ALL TRAPS SHALL HAVE CLEAN OUTS

4-ALL COMMON AREA FAUCETS SHALL HAVE POINT OF USE MIXING VALVES, ZURN LEAD FREE SERIES LFUSG-B OR EQUAL

5-ALL ADA SINKS AND LAVATORIES SHALL HAVE LAVGUARD PROTECTION COVERS, COMPLETE

ALL HORIZONTAL COLD WATER MAINS OR BRANCH LINES ABOVE CEILINGS SHALL BE INSULATED.

6-ALL FIXTURES SHALL HAVE MULTI TURN LEAD FREE WATER STOPS AS MANUFACTURED BY ZURN LF SERIES.

-ALL PREFABRICATED SHOWERS AND TUB SURROUNDS SHALL HAVE BUILT IN GRAB BAR RE-INFORCEMENTS, OR

8-WALLS BEHIND THE WATER CLOSETS, TUBS, SHOWERS SHALL BE RE-INFORCED FOR FUTURE GRAB BAR INSTALLATION

9-ALL KITCHEN SINKS SHALL HAVE 30" CLEAR KNEE SPACE UNDER

10-IN ALL ELEVATOR BUILDINGS OR GROUP 2 UNITS, SINKS SHALL BE NO DEEPER THAN 6 ½"

1-WATER CLOSET CONTROLS FOR ADA UNITS SHALL BE ON THE ACCESSIBLE SIDE

12-GROUP 2 TUBS SHALL BE 60" LONG WITH RIM 16-18" AFF.

13-FOR GROUP 2 APARTMENTS, ALL TUBS AND SHOWERS SHALL HAVE HOT/COLD WATER PIPING CAPPED BEHIND TO LONGER DIMENSION OF THE STALL

14-A HAND HELD SHOWER HEAD WITH FLOW REGULATOR ATTACHED TO 60" LONG FLEXIBLE HOSE AND AN ADJUSTABLE MOUNTING BAR SHALL BE PROVIDED OR BE CAPABLE OF BEING INSTALLED ON THE LONG WALL OF THE

15-ALL VENT THROUGH THE ROOF LOCATIONS SHALL BE FIELD COORDINATED WITH HVAC EQUIPMENT INTAKES AND IF NECESSARY SHALL BE EXTENDED 3FT ABOVE THE EQUIPMENT WITHIN 10FT OF THE VENT.

16-ALL FLOOR DRAINS SHALL HAVE TRAP PRIMERS.

17-ALL PUBLIC TOILETS SHALL HAVE HOSE BIBS AND FLOOR DRAINS, FLOOR DRAINS SHALL BE WITHIN 3FT OF THE URINALS

18-ALL FLOOR PENETRATIONS SHALL BE FIRE RATED WITH FIRE STOP MATERIAL OR INTUMESCENT TYPE COLLARS AS REQUIRED.

19-UNLESS NOTED OTHERWISE PVC MAY BE USED FOR RESIDENTIAL TYPE BUILDINGS UP TO TEN FLOORS FOR DRAINAGE. CPVC MAY BE USED FOR DOMESTIC HOT/COLD WATER IN RESIDENTIAL TYPE BUILDINGS UP TO 60 FT, OR 6 STORY BUILDINGS. PROVIDE SOUND INSULATION ON ALL PVC VERTICAL DRAIN LINES

20-PROVIDE DRAIN PAN FOR ALL STORAGE TYPE WATER HEATERS AND WASHING MACHINES W/DRAINS CONNECTED TO SEWER DRAIN, PROVIDE TRAP PRIMERS.

21-PROVIDE COMPLETE PIPING FOR DISHWASHER AND DISPOSAL CONNECTIONS, OBSERVE CLEARANCE REQUIREMENTS UNDER KITCHEN SINKS.

22-ALL DRAINS LOCATED BELOW THE STREET GRADE SHALL HAVE LOCAL OR CENTRAL TYPE BACK WATER VALVES. DRAINS FROM UPPER FLOORS WILL CONNECT AT EXIT

23-ALL PLUMBING FIXTURES SHALL BE APPROVED TYPE IN THE STATE OF PROJECT BEING USED, SPECIFICATIONS ARE FOR QUALITY, LOOK AND PERFORMANCE PURPOSES ONLY. IF SPECIFIED EQUIPMENT IS NOT THE APPROVED TYPE. CONTRACTOR SHALL PROVIDE SIMILAR APPROVED FIXTURE.

24-ALL FLOOR DRAINS IN BOILER ROOMS SHALL BE COORDINATED WITH BOILER PLACEMENTS SO THAT CONDENSATE DRAINS WILL BE DRAINED TO FLOOR DRAIN.

25-ALL PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS SHALL BE FIRE SAFED.

USE FIRE PUDDY WITH FIRE WOOL FILLING FOR 2" AND SMALL PIPES, USE INTUMESCENT COLLAR FOR LARGER PIPES.

JOINTS, FLOWGUARD PIPING SYSTEM.

PLUG TYPE, WITH SQUARE KEY AND THREADED ENDS.

RECOMMENDATIONS TO CONFORM TO THE AUL NON-COMBUSTIBLE RATING

18. TEST ALL NEW PLUMBING WORK IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS.

26-ALL LAUNDRY DRAINS FOR BUILDINGS 4 STORIES AND HIGHER SHALL HAVE DEDICATED DRAIN LINES CONNECTED TO SEWER LINES AT BUILDING DISCHARGE

11. HOT AND COLD WATER PIPING SHALL BE TYPE L SEAMLESS COPPER TUBING AND FITTINGS WITH 95-5 SOLDER

TO ENGINEER. ALL PIPING SHALL BE INSULATED AND MARKED AS HOT WATER (HW) OR COLD WATER (CW)

13. VALVES FOR HOT AND COLD WATER SHALL BE GATE VALVE, BRONZE BODY AND TRIM, NON-RISING STEM, 200

PSIG, SOLDER END, SIMILAR TO JENKINS 1240 OR APPROVED EQUAL. VALVES FOR GAS SHALL BE IRON BODY,

(TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)

14. COLD WATER AND HOT WATER PIPING INSULATION SHALL BE 1/2" THICK, WITH FACTORY APPLIED FIBERGLASS CLOTH

WITH INTEGRAL VAPOR BARRIER AND SELF-SEALING LAP. FITTINGS AND VALVES SHALL BE COVERERD WITH PRE-CUT

12. GAS PIPING SHALL BE SCHEDULE 40 STEEL WITH MALLEABLE IRON FITTINGS AND THREADED JOINTS.

SEEK APPROVAL FROM ARCHITECT AND BUILDING OWNER REPRESENTATIVE BEFORE SUBMITTING FOR APPROVAL

27-ALL BASEMENT DRAINS WILL HAVE BACK WATER VALVES AND AND UPPER FLOORS WILL BE CONNECTED TO SEWER DISCHARGE SEPERATELY FROM BASEMENT DRAIN

28- PROVIDE BALL TYPE SHUT OFF VALVES FOR ALL RIZERS AND WATER BRANCHES OFF THE MAIN PIPES. RISERS SHALL HAVE DRAIN VALVES WITH CAP AND CHAIN



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No.	Description	Date
1	For construction/ Permit	7-23-2021

**HUS Companies** 979 Main St PLUMBING NOTES

221018 Project number 04.07.2021 Drawn by ΜZ Checked by

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Scale As indicated

## 1. GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS, APPLY TO WORK SPECIFIED ON THESE DRAWINGS.

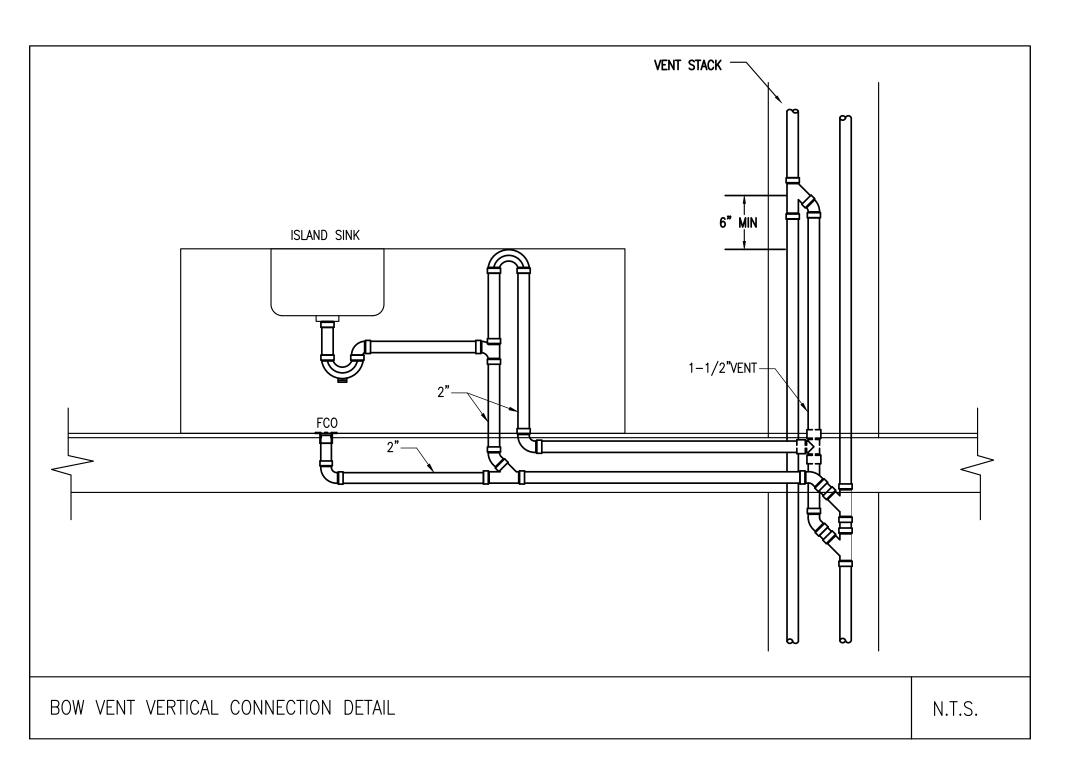
- 2. COORDINATE WORK WITH THAT OF OTHER TRADES AFFECTING OR AFFECTED BY WORK OF THIS SECTION AND COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF THE WORK
- 3. ALL WORK AND MATERIALS SHALL COMPLY WITH THE MASSACHUSETTS STATE PLUMBING AND GAS CODES AND THE CITY OF BOSTON, MA. 4. FURNISH AND INSTALL A COMPLETE, SANITARY DRAINAGE AND VENT SYSTEM THROUGHOUT THE BUILDING
- FOR CONNECTION TO EVERY FIXTURE OR PIECE OF EQUIPMENT REQUIRING DRAINAGE. THE NEW WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR SANITARY SYSTEM AS INDICATED. 5. FURNISH AND INSTALL A COMPLETE HOT WATER AND COLD WATER SYSTEM THROUGHOUT THE BUILDING,
- CONNECTING TO ALL FIXTURES AND EQUIPMENT REQUIRING HOT AND/OR COLD WATER. THE COLD WATER SYSTEM FIBERGLASS INSERTS AND FITTED WITH MOULDED PVC COVERS, SECURED WITH GLASS FABRIC TAPE WITH MASTIC. WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR COLD WATER SYSTEM AS INDICATED. THE HOT WATER SYSTEMULATION SHALL BE FIBERGLASS 25 ASJ OR EQUAL, AND SHALL BE INSTALLED PER MANUFACTURER'S WORK SHALL BEGIN AT EACH NEW WATER HEATER WHERE INDICATED.
- 6. FURNISH AND INSTALL A COMPLETE GAS SYSTEM THROUGHOUT THE BUILDING, CONNECTING TO ALL EQUIPMENT 5. PLUMBING FIXTURES:

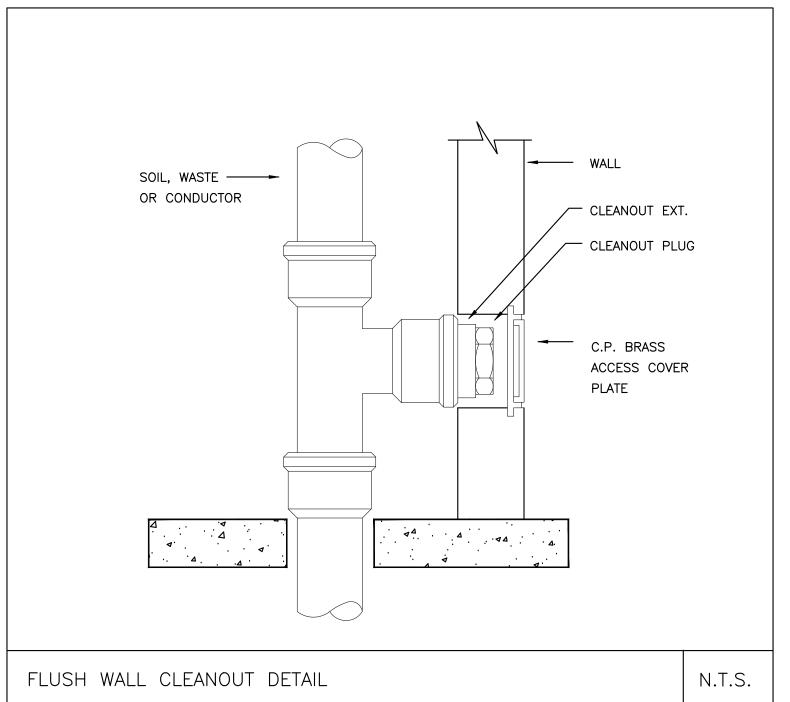
  DECLIDING GAS THE GAS SYSTEM WORK SHALL EXTEND AND CONNECT TO THE GAS METERS SUPPLIED BY (TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER) 16. WH - WALL HYDRANT - WOODFORD MODEL 25 FREEZE RESISTANT, WITH INTEGRAL VACUUM BREAKER.
- 7. FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SUBCONTRACTOR JOINTLY AND PROVIDE EVERY 150', WHERE DIRECTED BY BUILDING OWNER) FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SECTION FOR A PERIOD OF SEVERALLY, AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP IN WORK OF THIS SECTION FOR A PERIOD OF 17. WATER HEATERS - FURNISH AND INSTALL WATER HEATERS WHERE INDICATED.
- 8. SUBMIT SHOP DRAWINGS ON PLUMBING FIXTURES AND VALVES SPECIFIED. 9. FURNISH AND INSTALL ALL PIPE OPENINGS, PIPE HANGERS AND HANGER RODS, AND FIXTURE SUPPORTS.
  PROPERLY SECURE HANGER RODS TO BUILDING STRUCTURE. SEAL ALL PIPE OPENINGS THROUGH FLOORS AND PROPERLY SECURE HANGER RODS TO BUILDING STRUCTURE. SEAL ALL PIPE OPENINGS THROUGH FLOORS AND PROPERLY SECURE HANGER RODS TO BUILDING STRUCTURE.

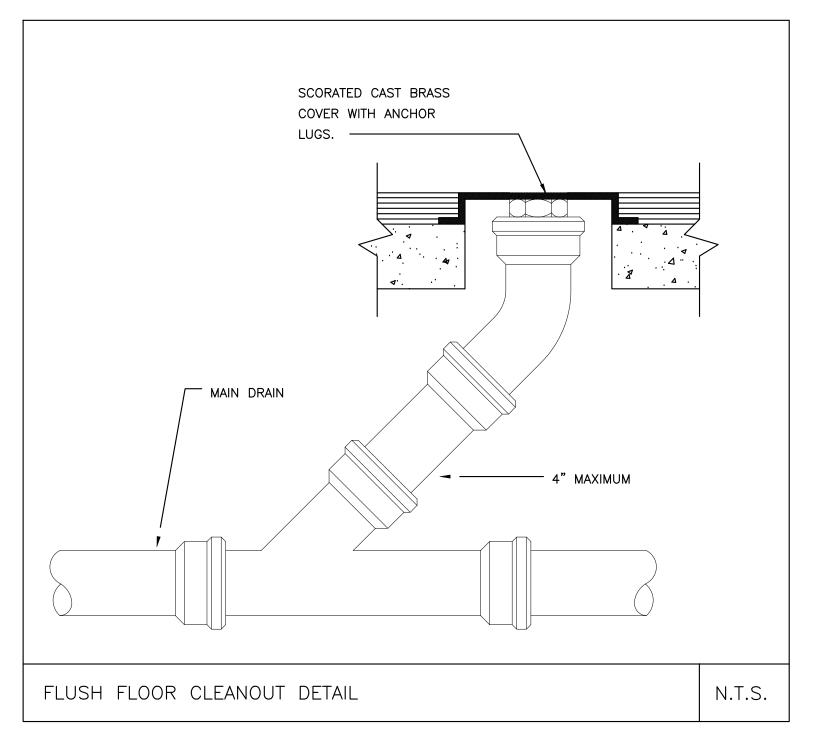
PASSES THROUGH FIRE RATED WALLS AND FLOORS.

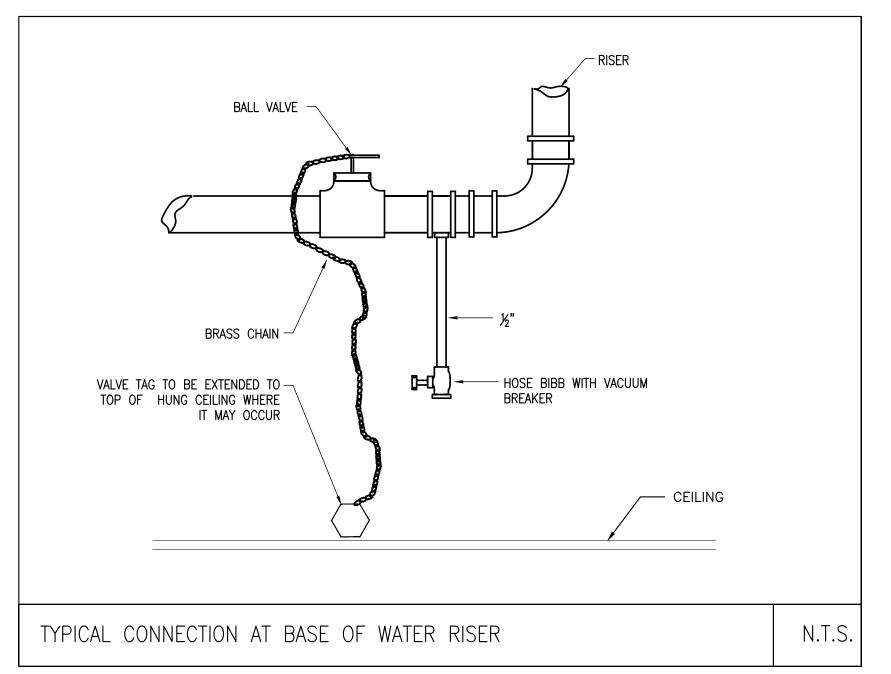
AND ANY PIPING SUBJECT TO FREEZING. 10. BURIED STORM, SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS. ABOVE GROUND SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS/PVC SCHED. 40 SOLID. PROVIDE FIRE STOPPING AND SHEET METAL SLEEVES AS REQUIRED BY CODE WHERE ALL PVC PIPING

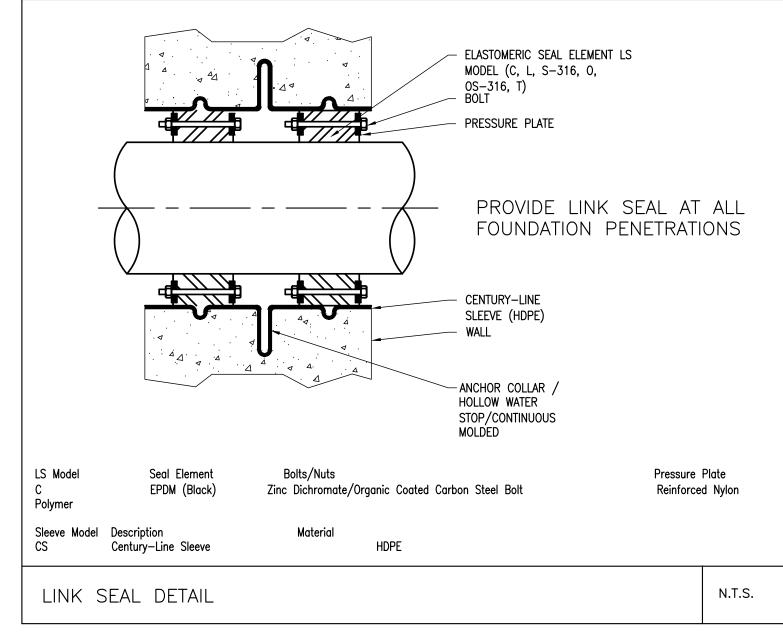
NTS GENERAL NOTES

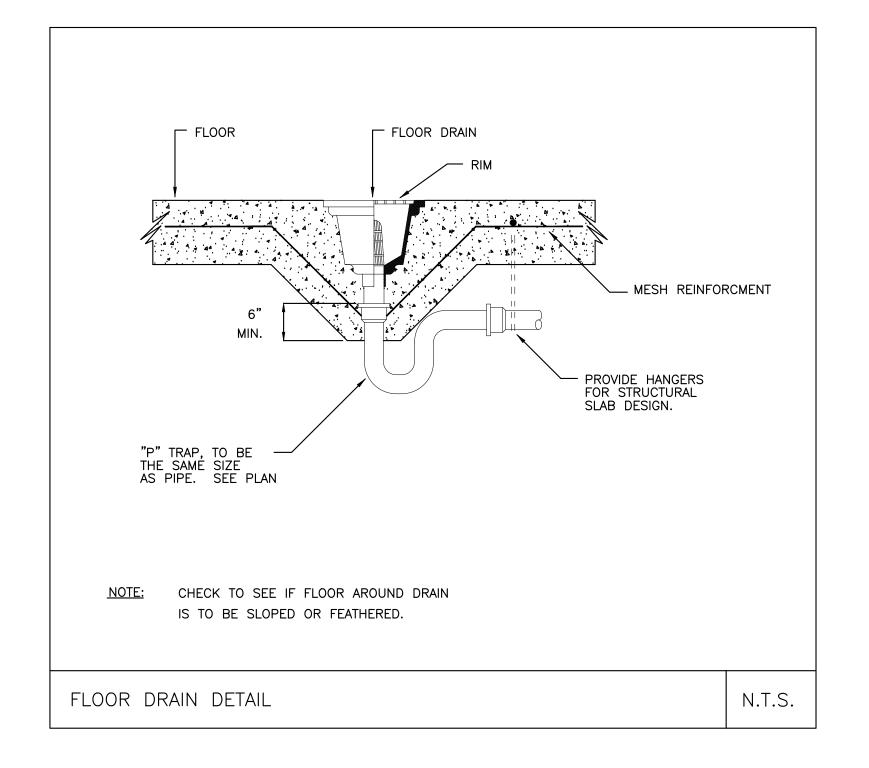


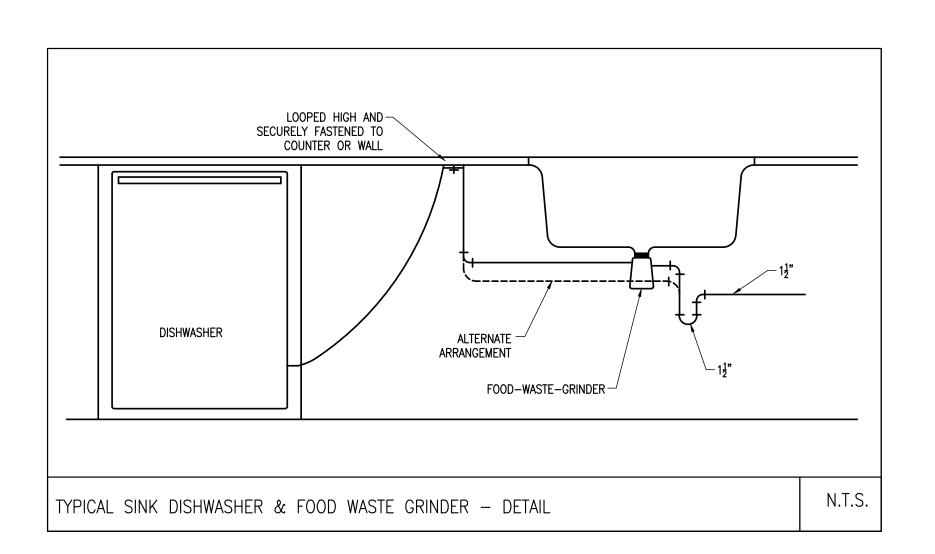


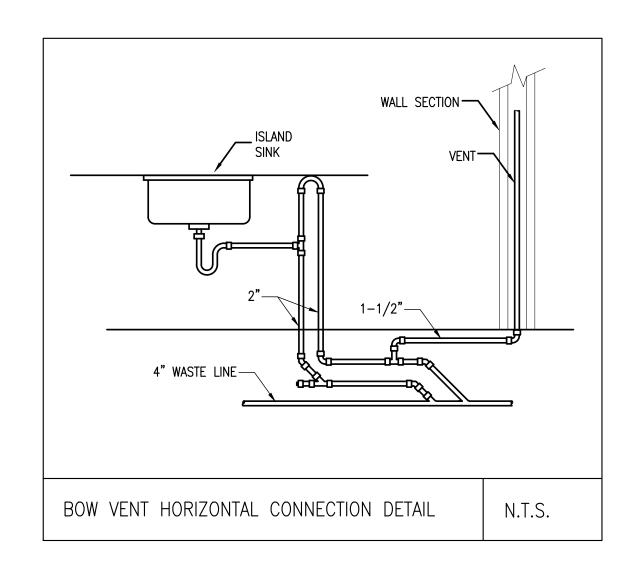


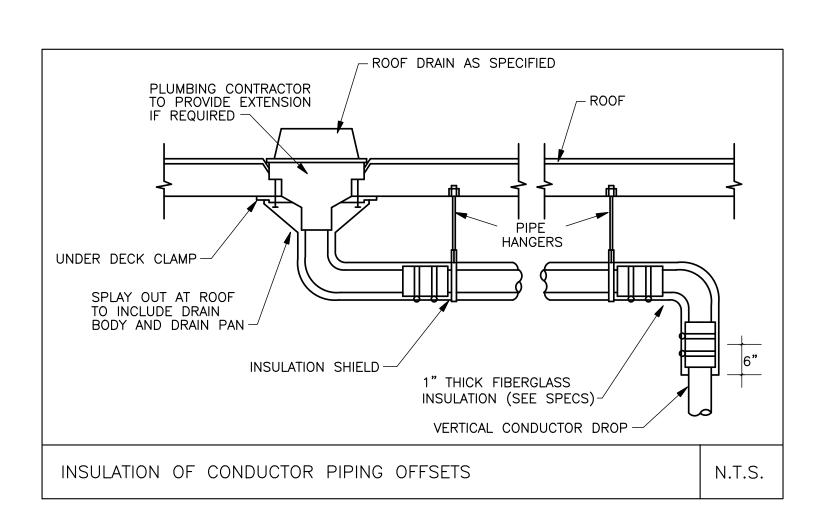












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Description

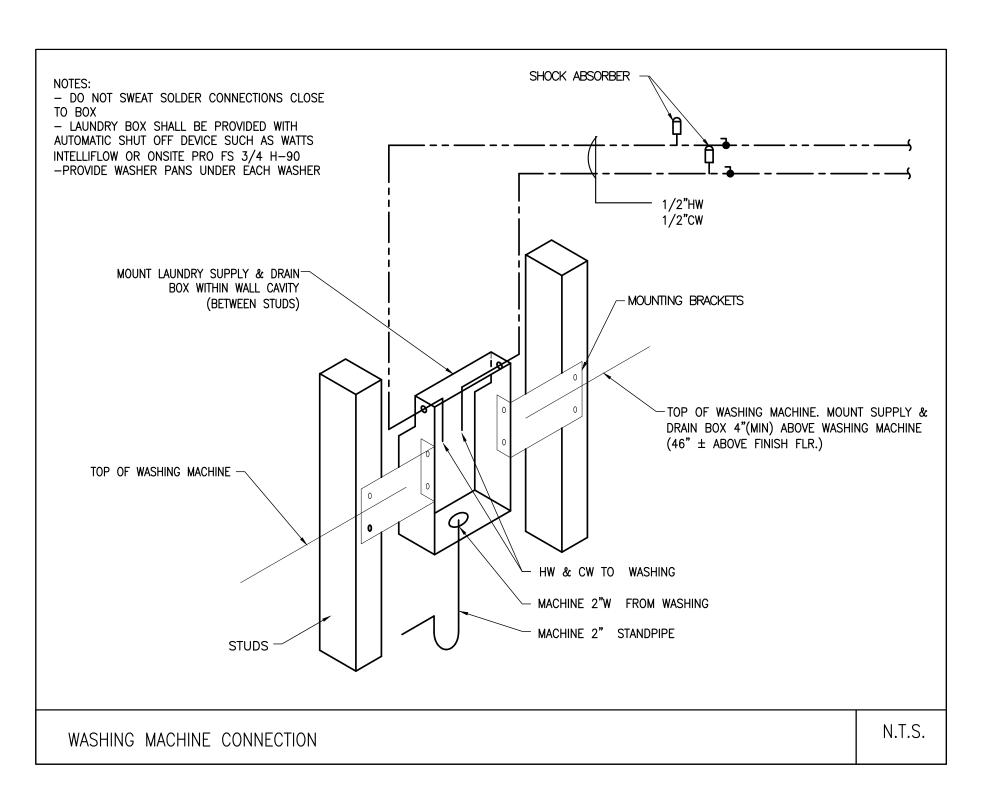
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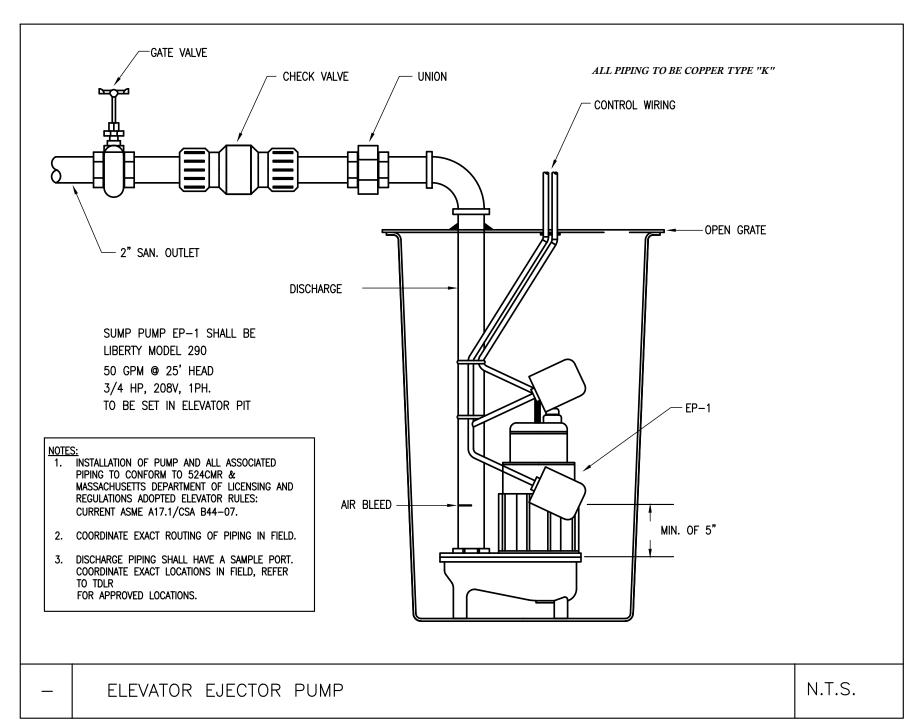
1	For construction/ Permit	7-23-202
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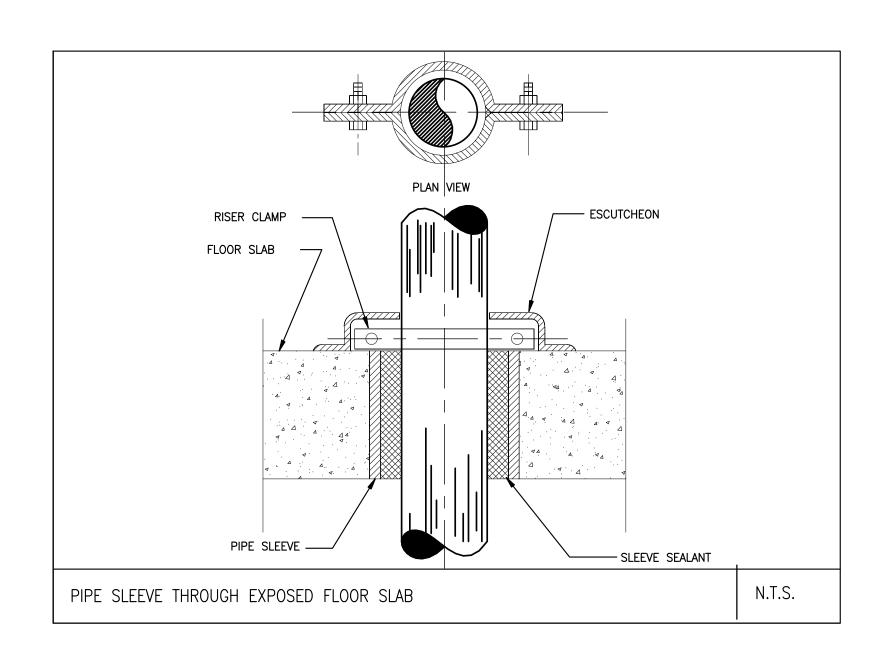
979 Main St
PLUMBING DETAILS

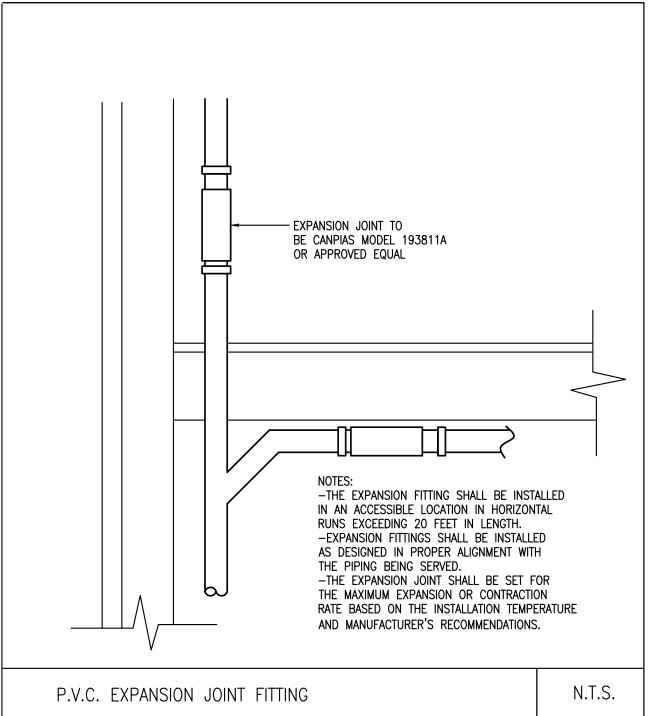
Checked by	MZ
Date Drawn by	04.07.2021 RC
Project number	221018

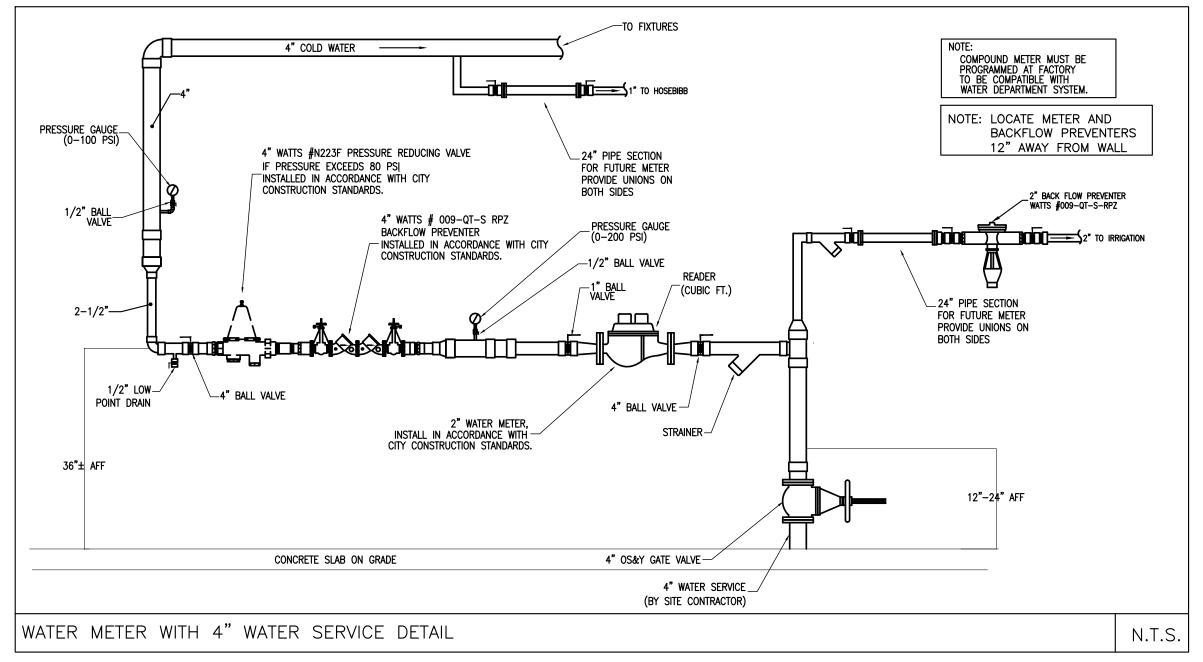
P203
Scale As indicated

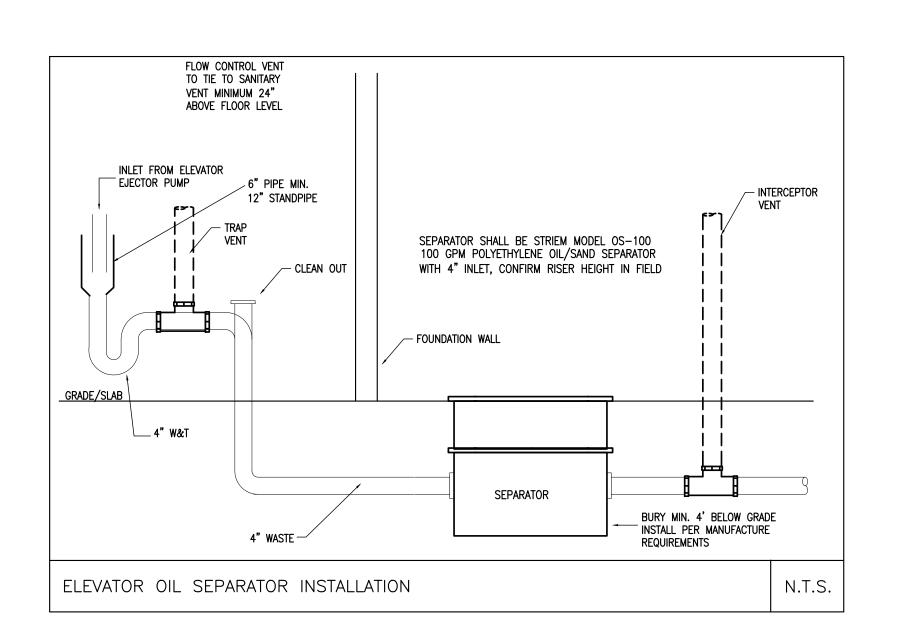


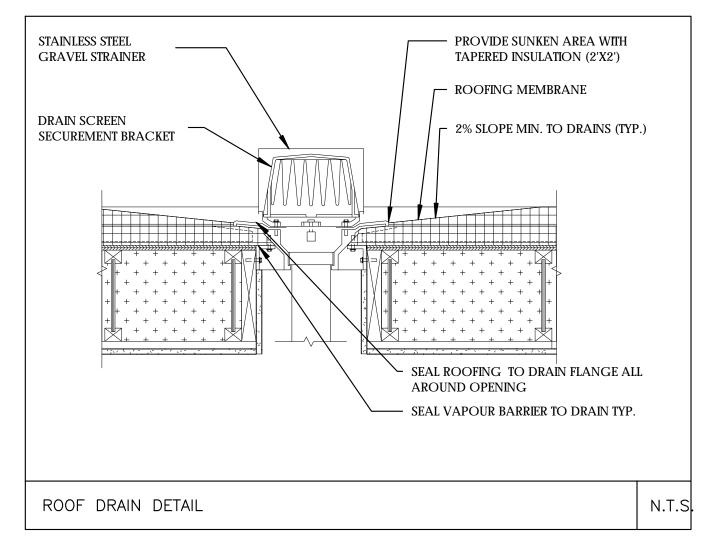


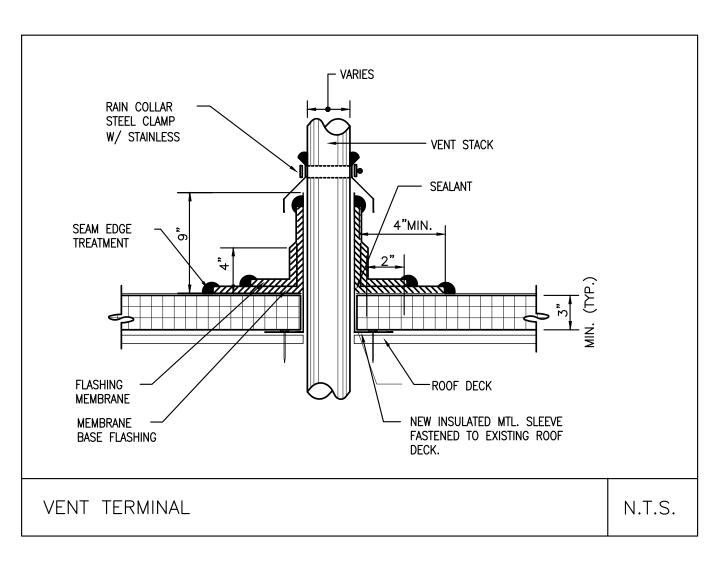


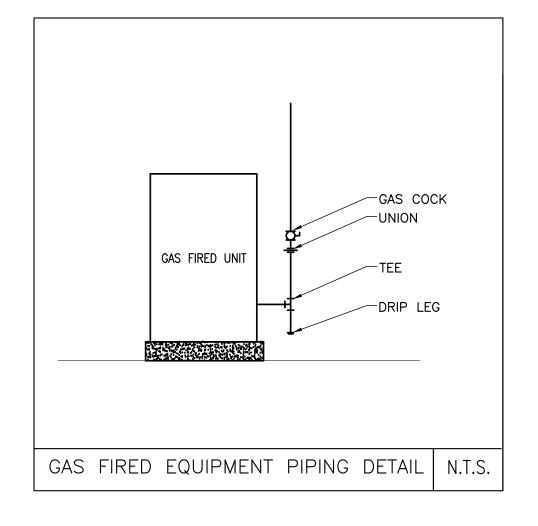












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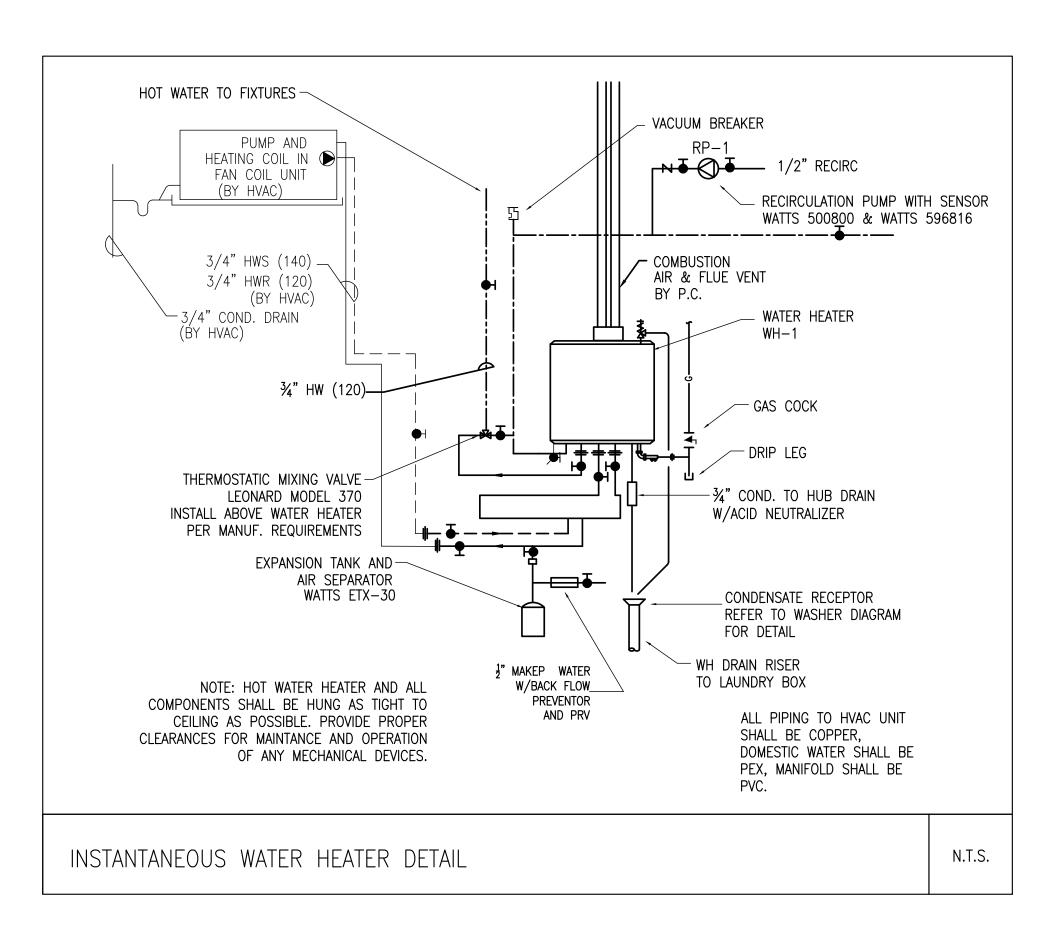
No.	Description	Date
1	For construction/ Permit	7-23-2021

HUS Companies
979 Main St
PLUMBING DETAILS

Project number	221018
Date	04.07.2021
Drawn by	RC
Checked by	MZ

P204

Scale As indicated

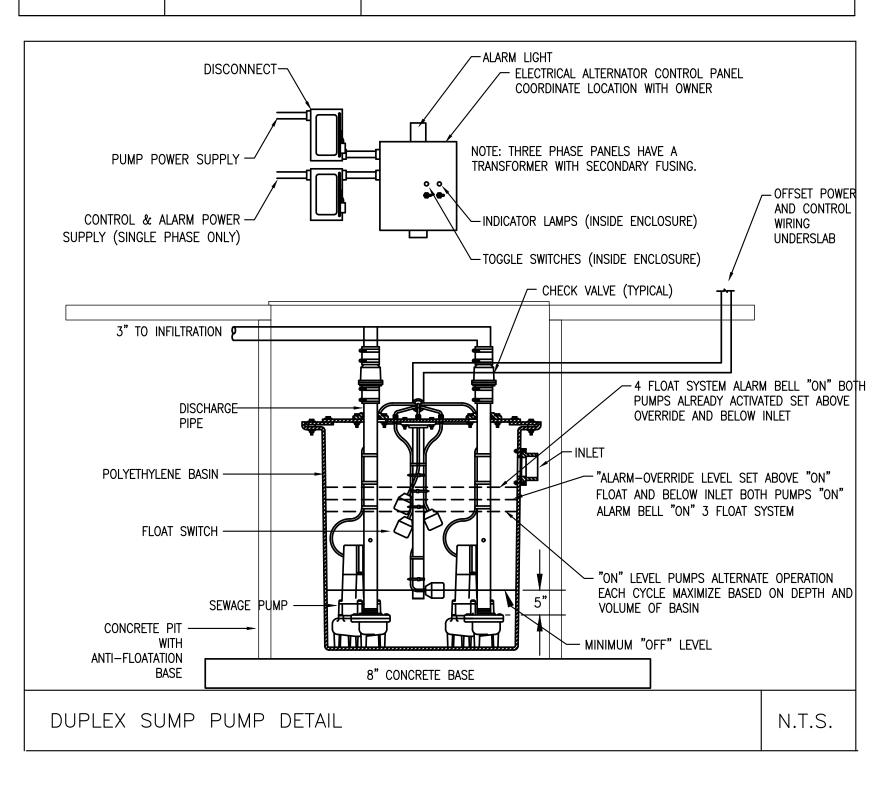


## EJECTOR PUMP SCHEDULE

EJECTOR PUMP EP-2

PROVIDE DUPLEX SEWAGE EJECTOR SYSTEM. PUMPS SHALL BE ZOELLER X185, 20 GPM @ 20 FT HEAD, 1 HP, 208V/10, POWER CORD, 36"0 x 48" DEEP POLYPROPYLENE BASIN (4"INLET, (2)2"DISCHARGE, 2"VENT). PROVIDE WITH DUPLEX PUMP CONTROL WITH

NÈMA 4X ENCLOSURE(WEATHER PROOF), PUMP ALTERNATOR, TWO SENSORS AND ONE ALARM FLOAT, VISUAL AND AUDIBLE ALARM WITH SILENCE SWITCH.





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Description For construction/ Permit	7-23-2021
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# HUS Companies 979 Main St PLUMBING DETAILS

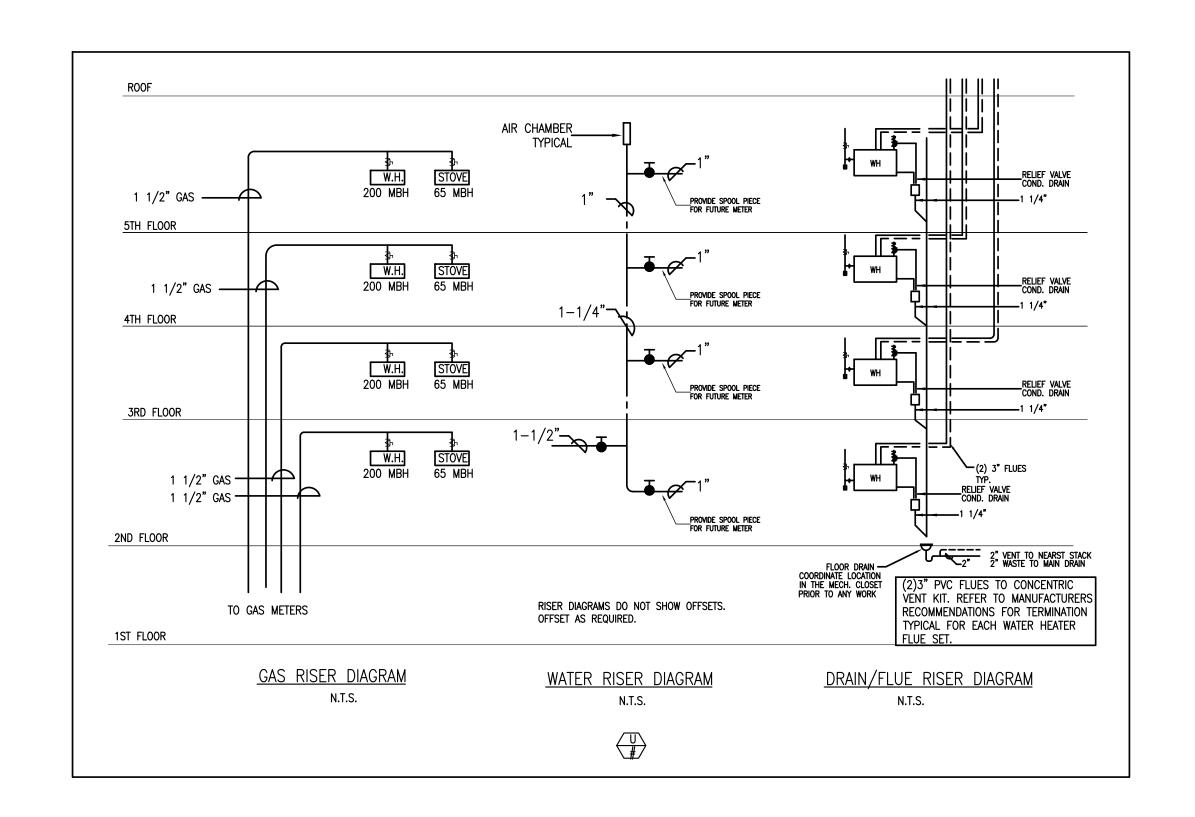
ZADE ASSOCIATES LLC CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540

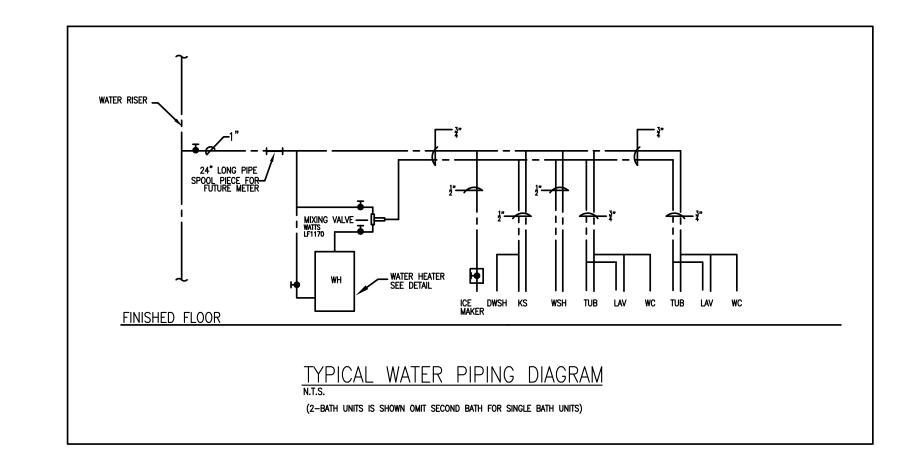
Scale

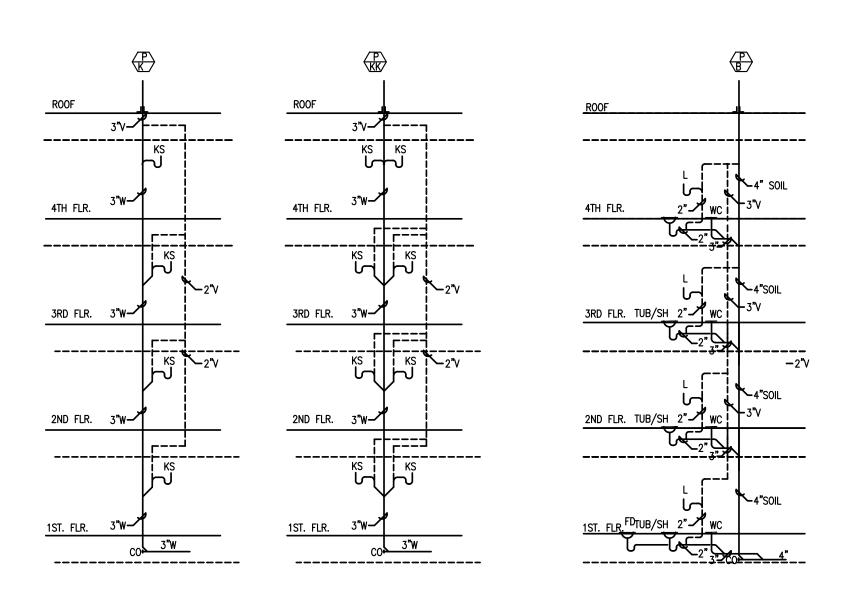
E-MAIL Zade@ZadeEngineering.com

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Checked by		MZ
Drawn by		RC
Date		04.07.202
Project number		221018

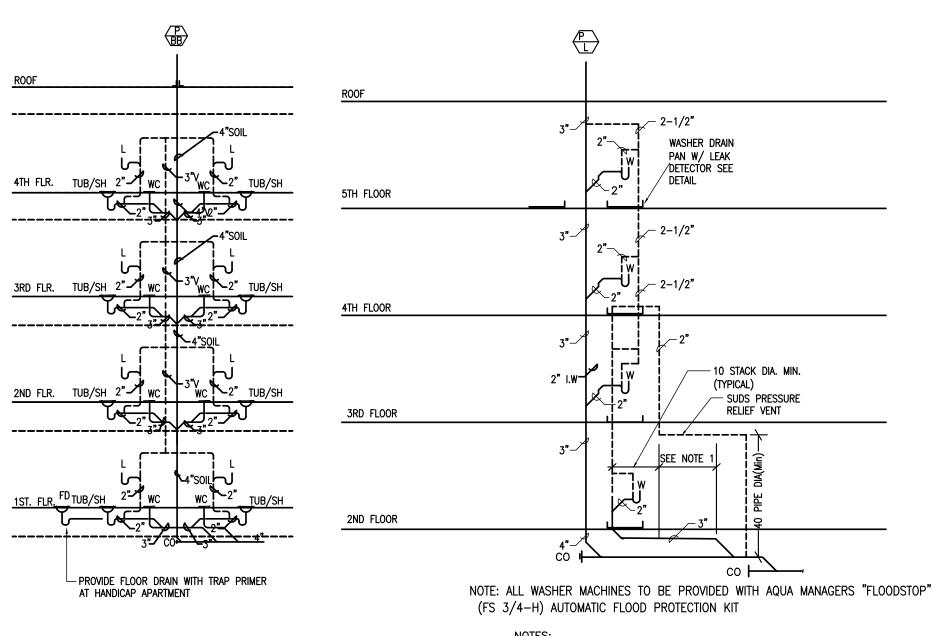
As indicated











1. 40 PIPE DIAMETER (MIN) IF CHANGE IN DIRECTION
IS GREATER THAN 45°.
2. LONG SWEEPS & DANDY CLEANOUTS MAY BE USED
IN LIEU OF WYE 1/8 BEND.
3. IF THERE ARE MORE THAN TEN BRANCH INTERVALS
ON STACK THEN A RELIEF VENT SHALL BE INSTALLE

IF THERE ARE MORE THAN TEN BRANCH INTERVALS
 ON STACK THEN A RELIEF VENT SHALL BE INSTALLED
 IN ACCORDANCE WITH 248 CHR 2.16(4)(e).
 IF IDEAL CONDITIONS DO NOT EXIST, THE LOCAL PLUMBING
 INSPECTOR MAY APPROVE A VARIATION FROM FIGURE 19 TO
 ACCOMODATE THE INTENT OF 248 CMR 2.15(9)(d).

WASHER RISER DIAGRAMS

N.T.S.

RISER DIAGRAMS DO NOT SHOW OFFSETS.

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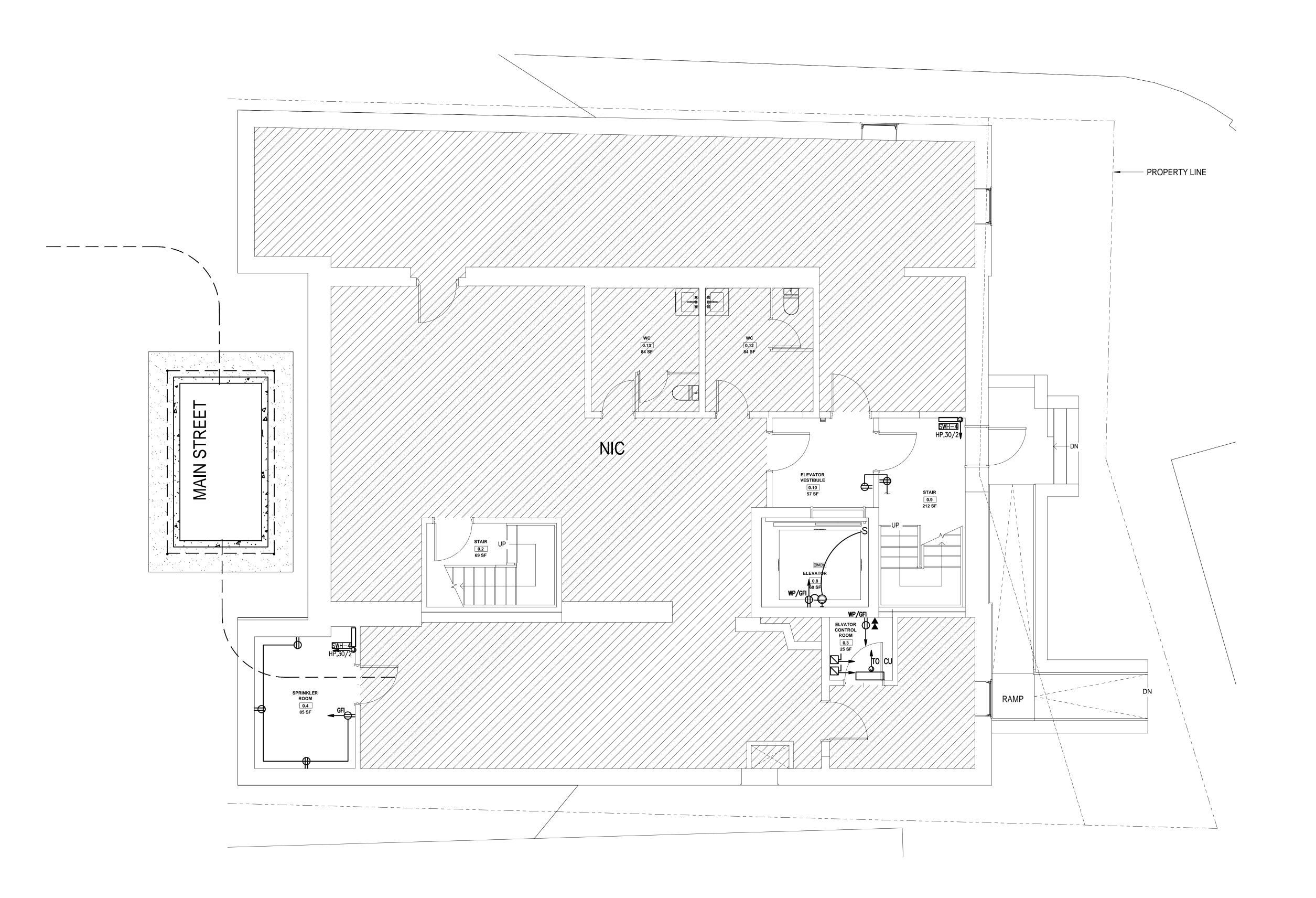


No.	Description	Date
1	Description For construction/ Permit	7-23-202

HUS Companies
979 Main St
PLUMBING RISERS

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Checked by	MZ
Drawn by	RC
Date	04.07.2021
Project number	221018

P206
Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-2021

HUS Companies 979 Main St

POWER BASEMENT PLAN

Project number 221018

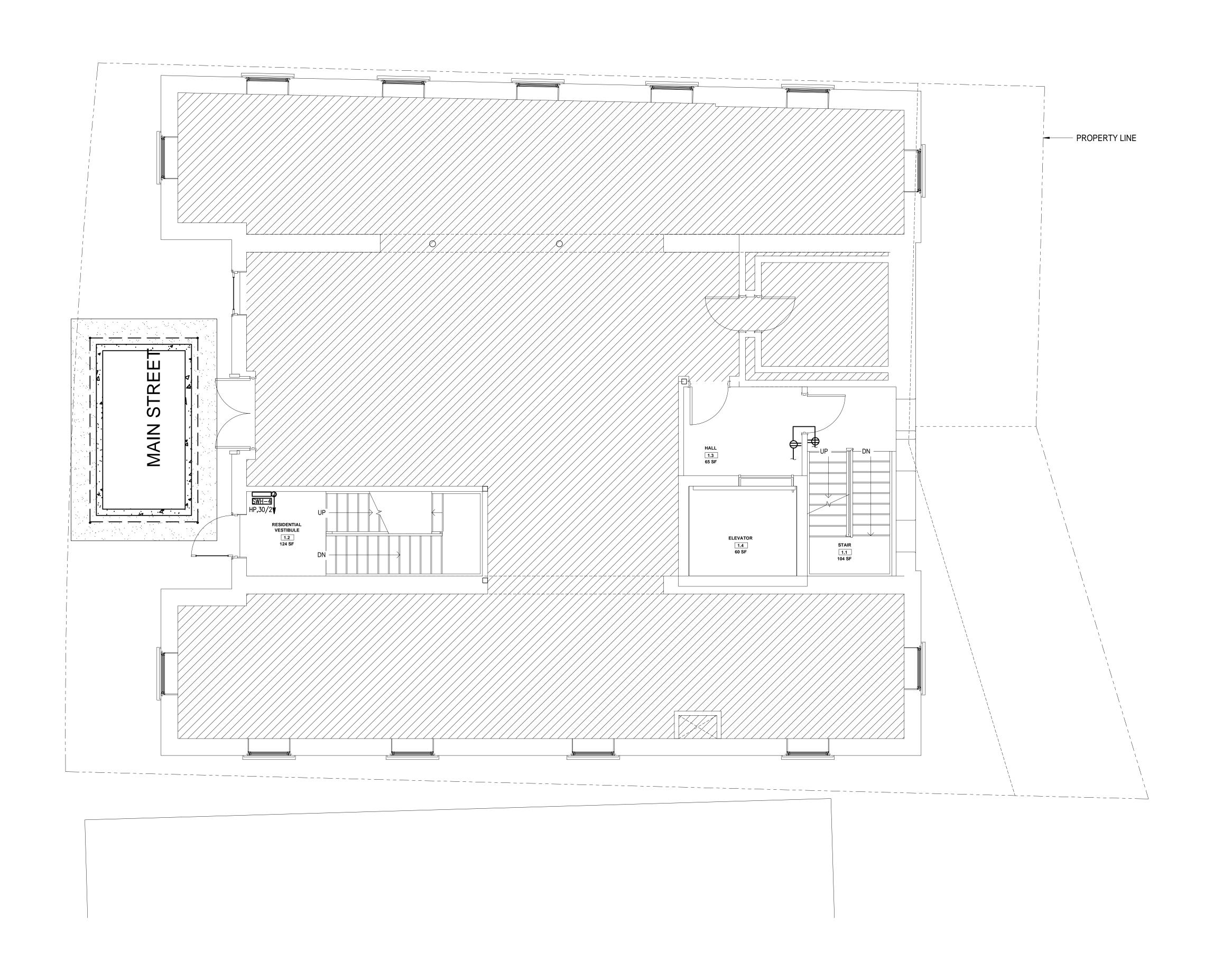
Date 04.07.2021

Drawn by

Checked by

E100

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-2021

# **HUS Companies**

979 Main St

# POWER FIRST FLOOR PLAN

Project number 221018

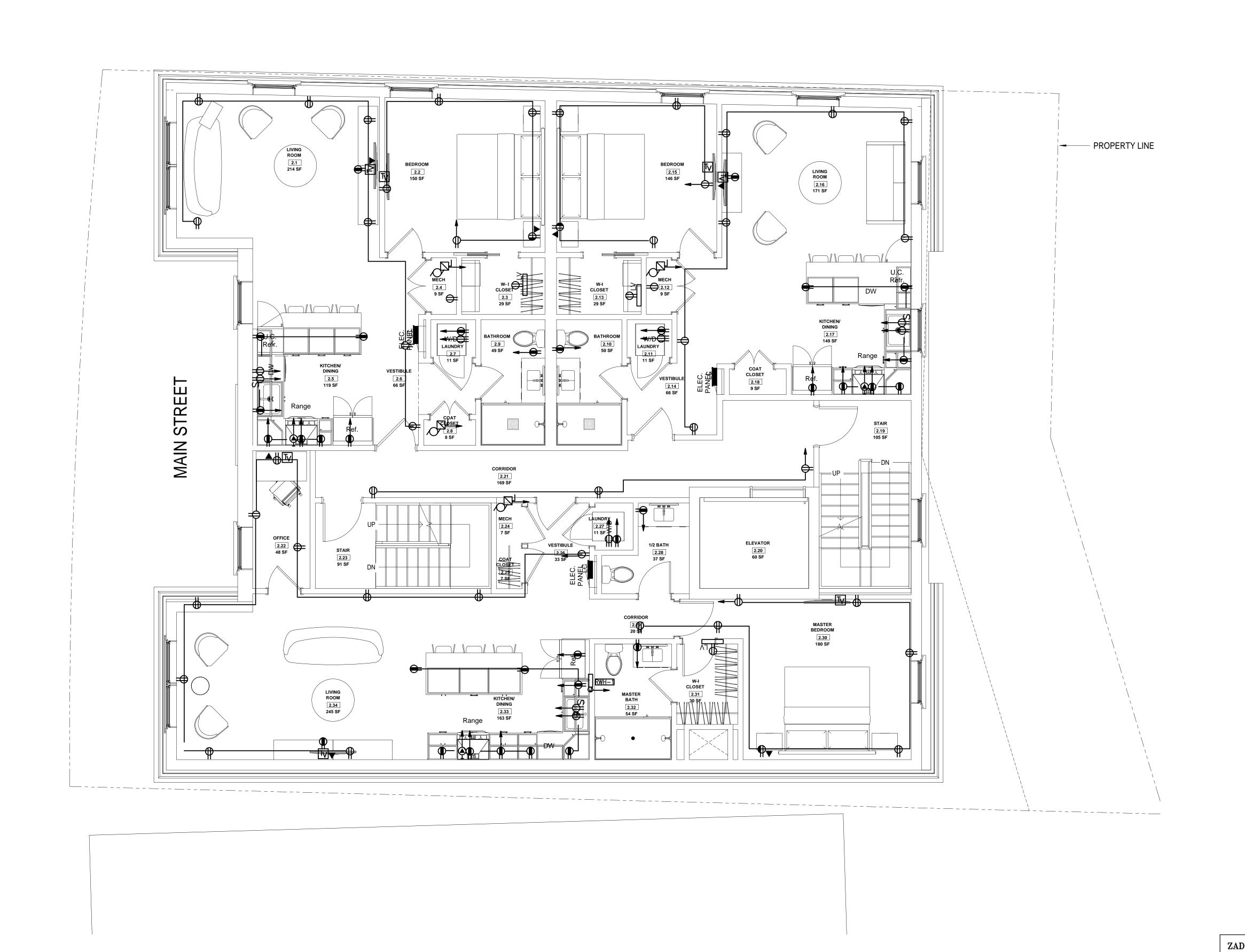
Date 04.07.2021

Drawn by

Checked by

E101

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-202
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HUS Companies

979 Main St

Checked by

POWER SECOND FLOOR PLAN

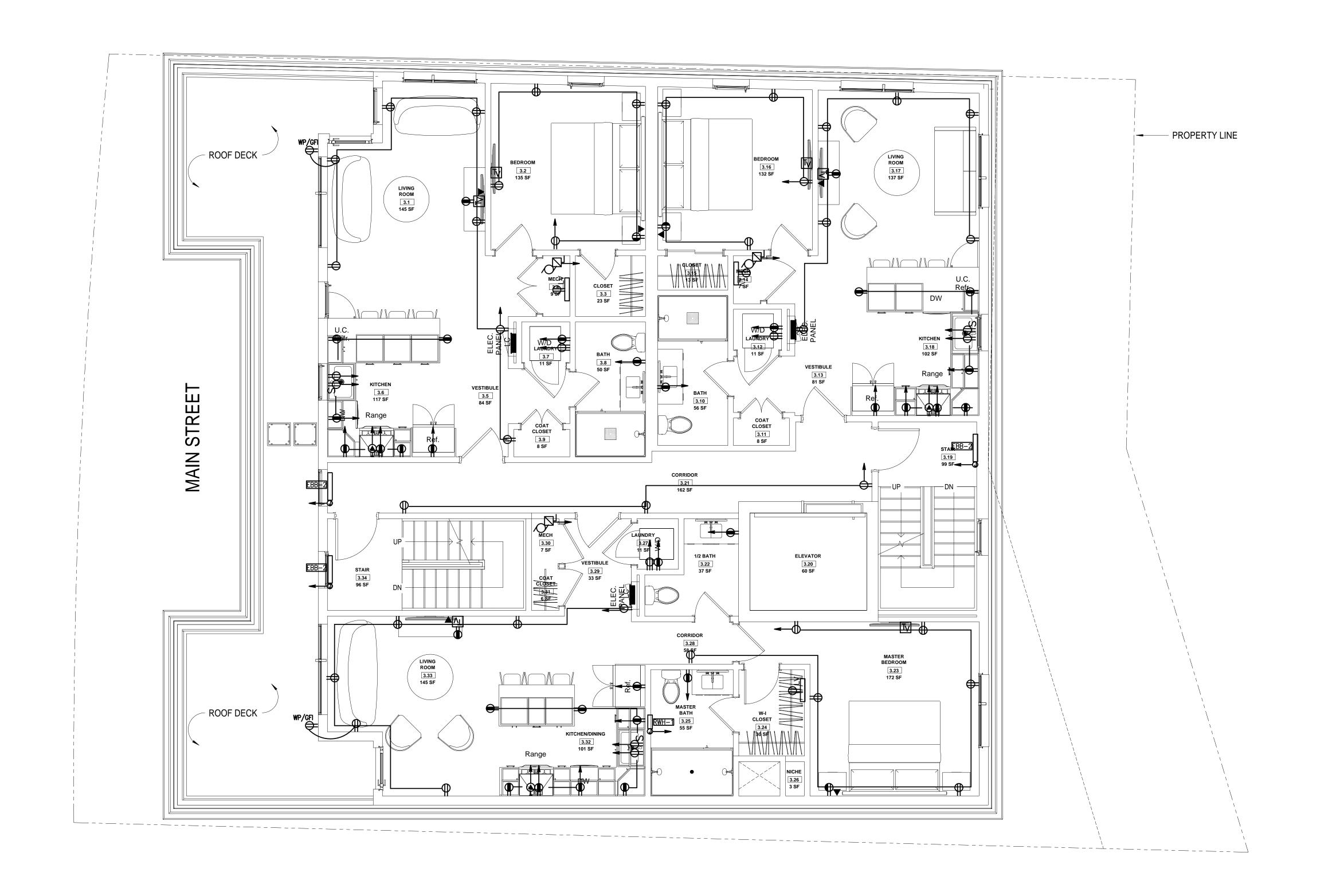
 Project number
 221018

 Date
 04.07.2021

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E102

le As indicated







No.	Description For construction/ Permit	Date
1	For construction/ Permit	7-23-2021
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**HUS Companies** 

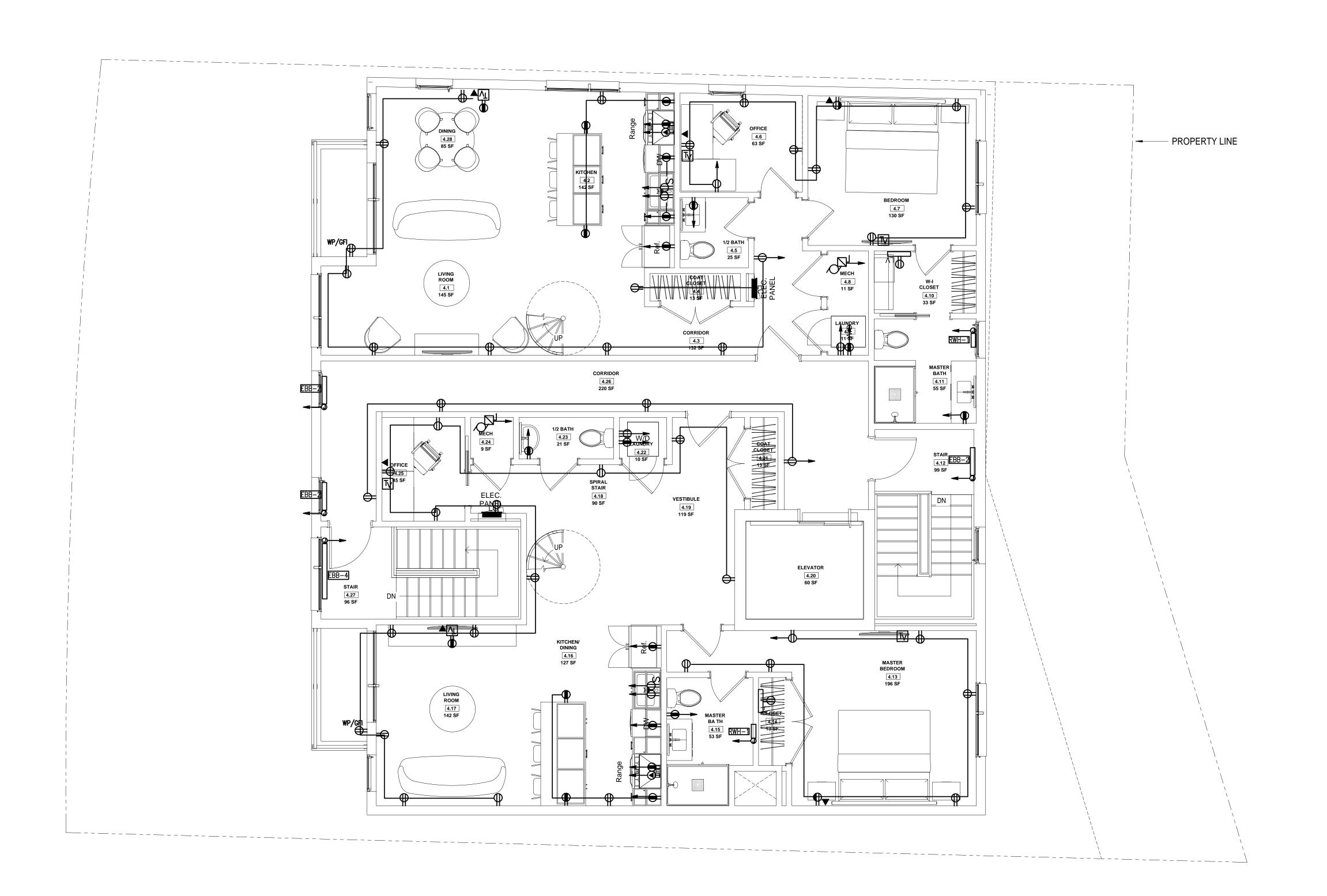
979 Main St

POWER THIRD FLOOR PLAN

E103

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ale As indicated







No.	Description	Date	
1	For construction/ Permit	7-23-202	

HUS Companies

979 Main St

POWER FOURTH FLOOR PLAN

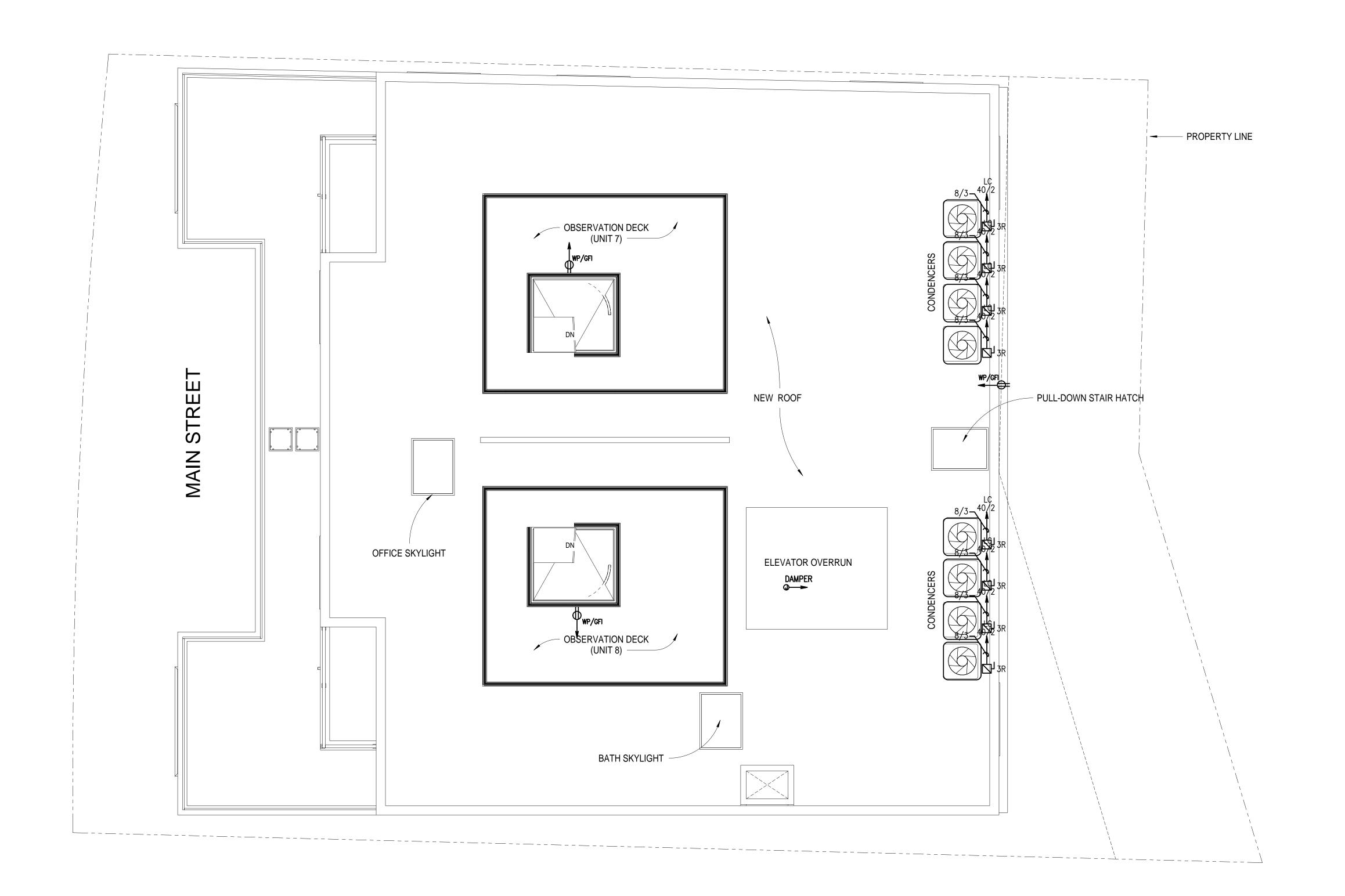
 Project number
 221018

 Date
 04.07.2021

E104

le As indicated

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No.	Description	Date	
1	For construction/ Permit	7-23-20	

**HUS Companies** 

979 Main St

POWER ROOF FLOOR PLAN

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 Project number
 221018

 Date
 04.07.2021

 Drawn by

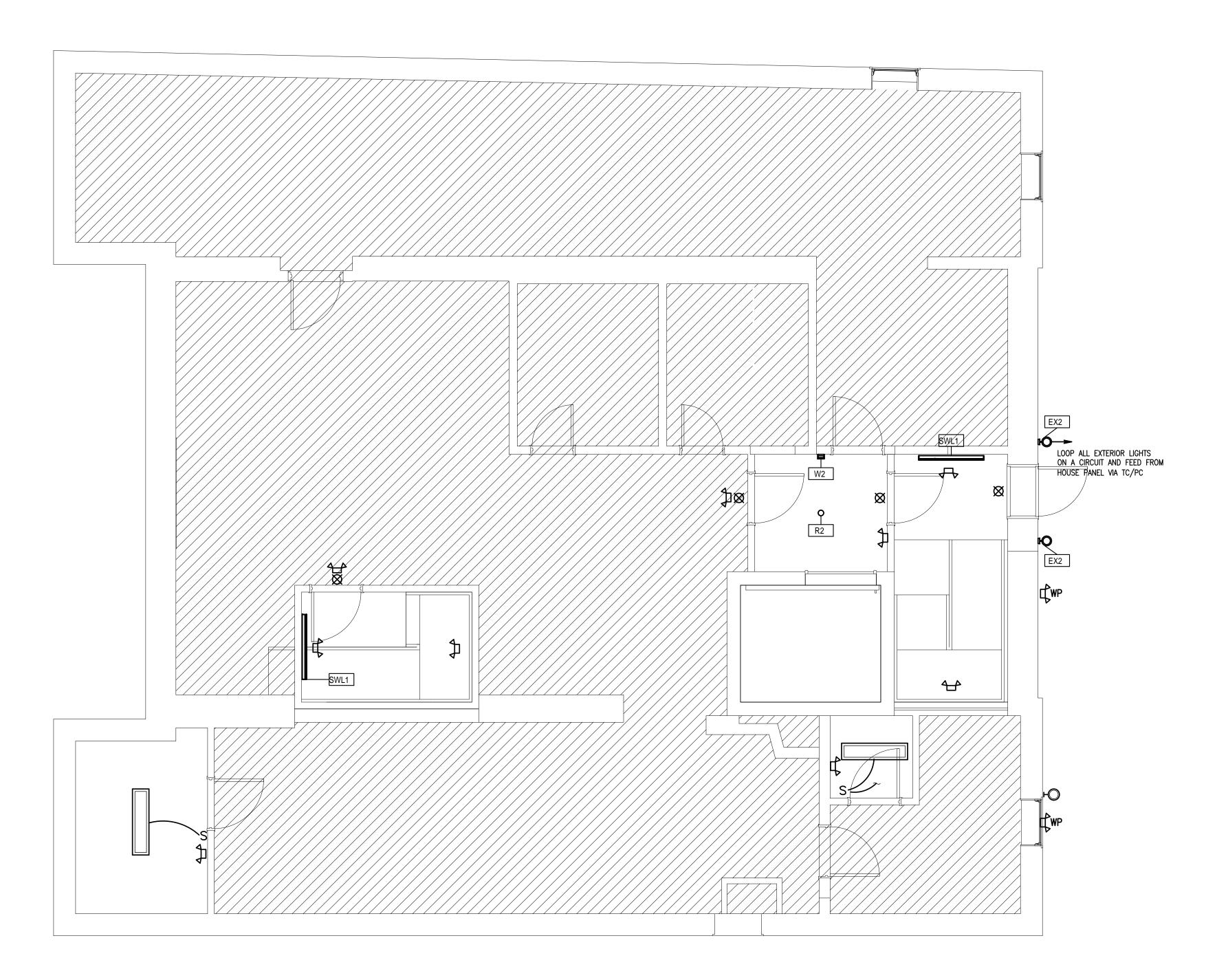
E105

Scale As indicated

Checked by

# LIGHT FIXTURE LEGEND

L1		2" WIDE, 4' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L2		2" WIDE, 2' FT LONG LINEAR LED LIGHT, GENERAL LIGHT
L3	Ci	LINEAR DOWNLIGHT - UNDER KITCHEN CABINETS
L4		LINEAR TAPE LIGHT - CLOSET & BUIT- IN SHELVES
SWL1		LINEAR WALL LIGHT - COMMON STAIRS
P1	0	ISLAND PENDANT - DECORATIVE (KITCHEN)
P2		BEDROOM FAN PENDANT
R1	0	4" WALL WASHER
R2	0	4" ROUND RECESSED LED DOWNLIGHT (TYP.)
W1		WALL SCONCE - OVER BATHROOM MIRROR
W2	<del>-</del> 45	WALL SCONCE - COMMON CORRIDOR
EX1		EXTERIOR WALL SCONCE - FRONT ENTRY
EX2		EXTERIOR WALL SCONCE - BACK ENTRY
RL1		EXTERIOR LED LINEAR RAIL LIGHT - ROOF DECKS





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Description	Date
For construction/ Permit	7-23-202
	Description For construction/ Permit

HUS Companies
979 Main St
LIGHTING
BASEMENT PLAN

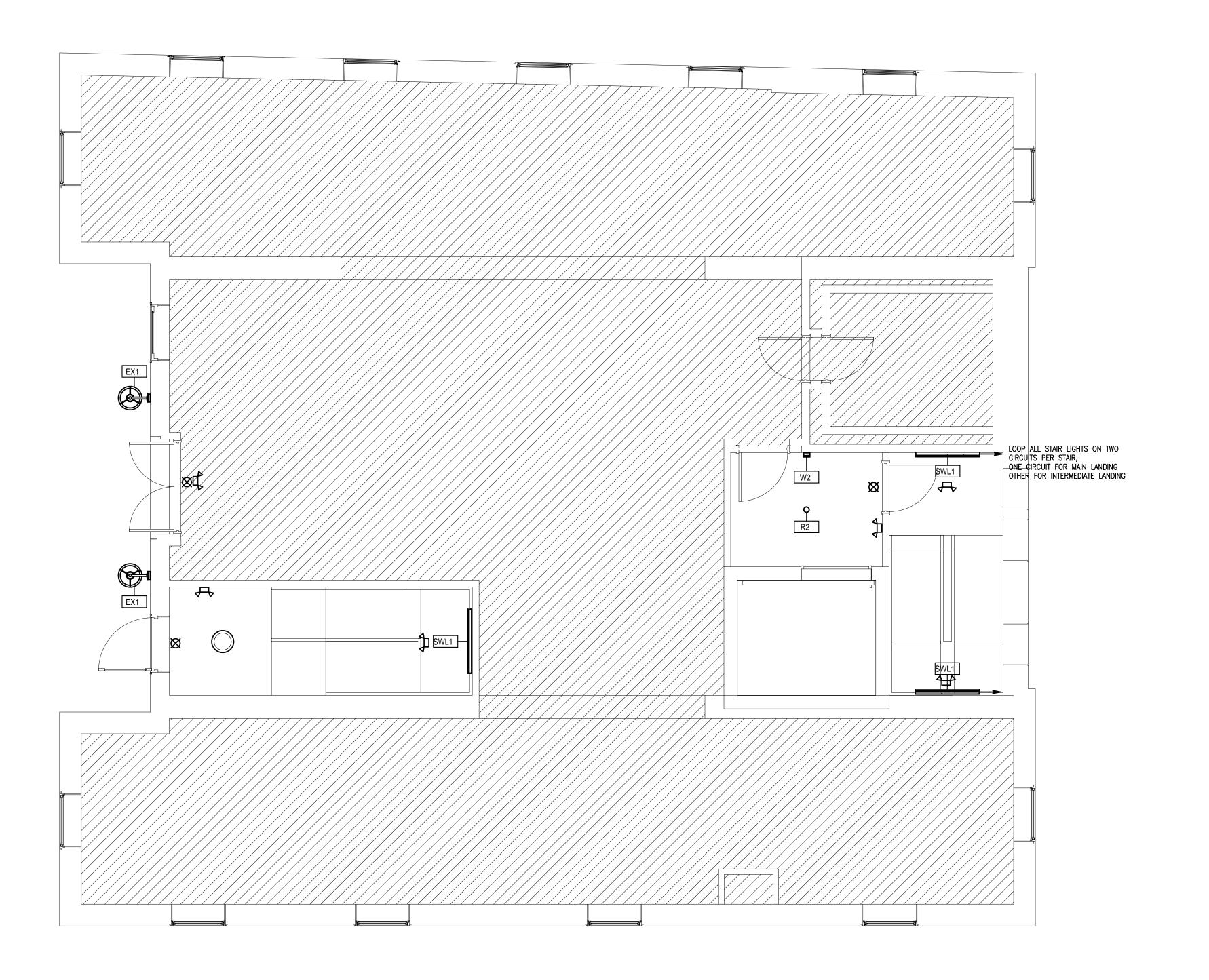
	BASEMENT	PLAN
Pr	oject number	2210
Da	ate	04.07.202
Dr	awn by	
Cr	necked by	

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E200

ale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-2021

HUS Companies

979 Main St

LIGHTING FIRST FLOOR PLAN

Date
Drawn by
Checked by

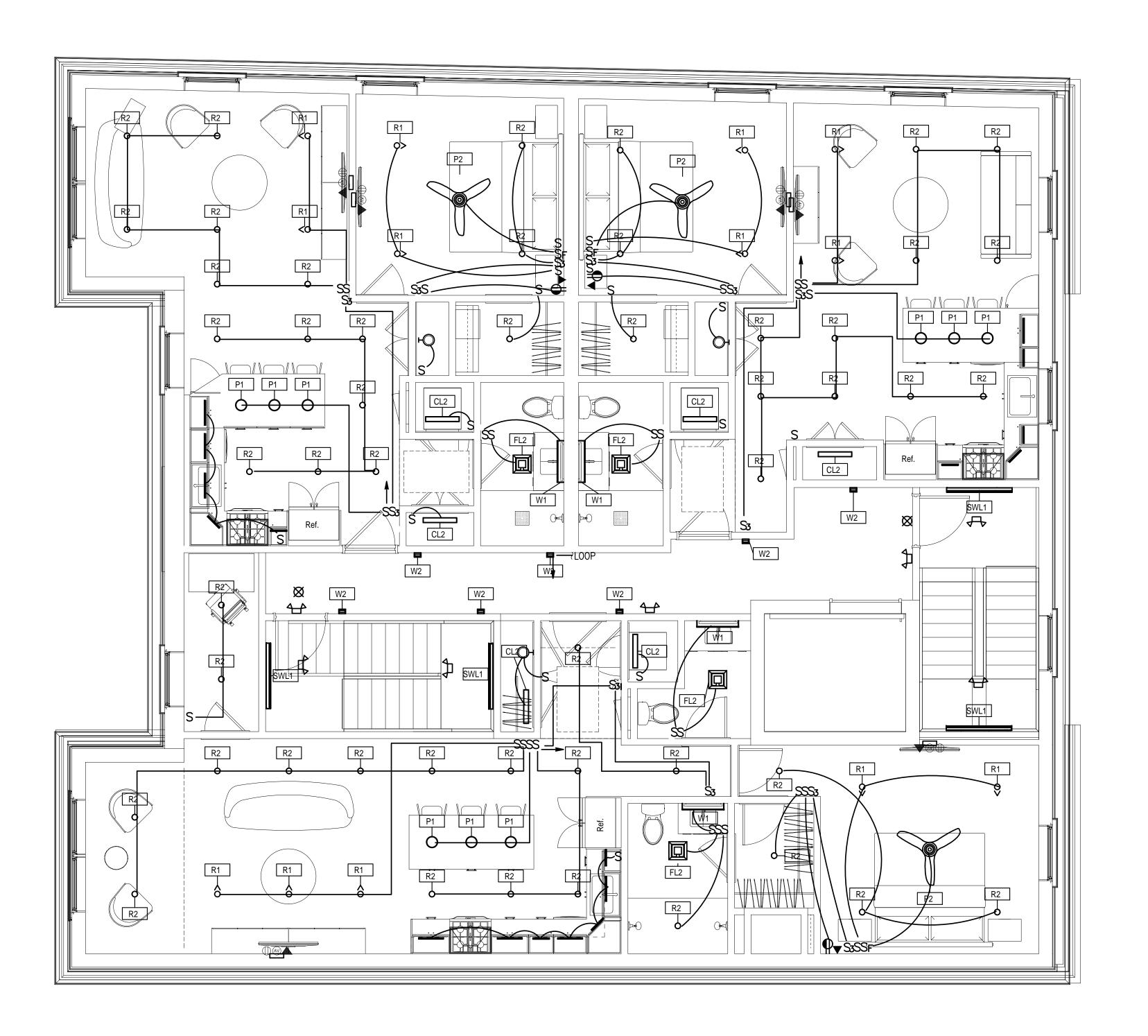
Project number

E201

221018

04.07.2021

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-202

**HUS Companies** 979 Main St

LIGHTING SECOND FLOOR PLAN

221018

04.07.2021

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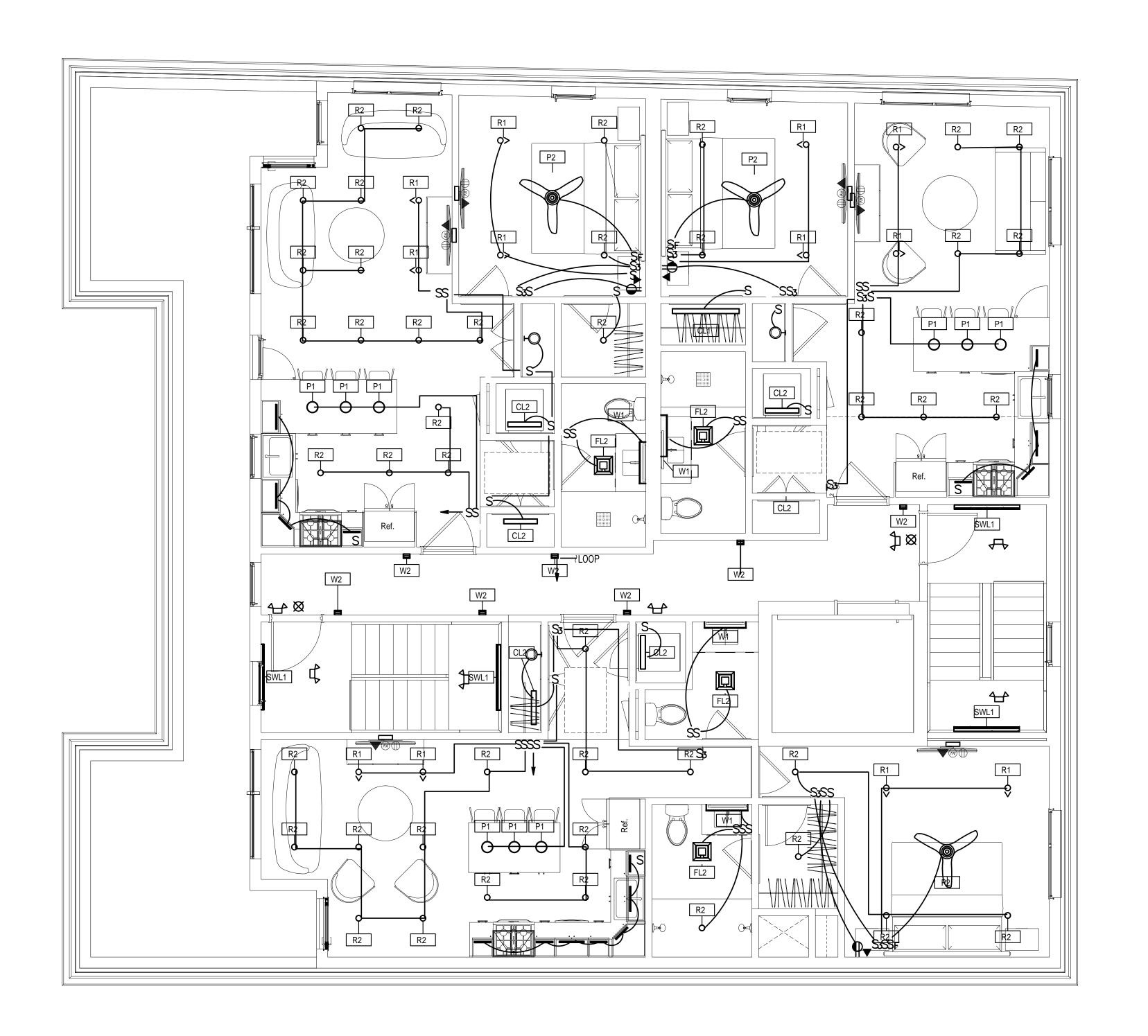
Project number

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E202

As indicated







No.	Description	Date
1	Description For construction/ Permit	7-23-2021

HUS Companies 979 Main St

LIGHTING THIRD FLOOR PLAN

 Project number
 221018

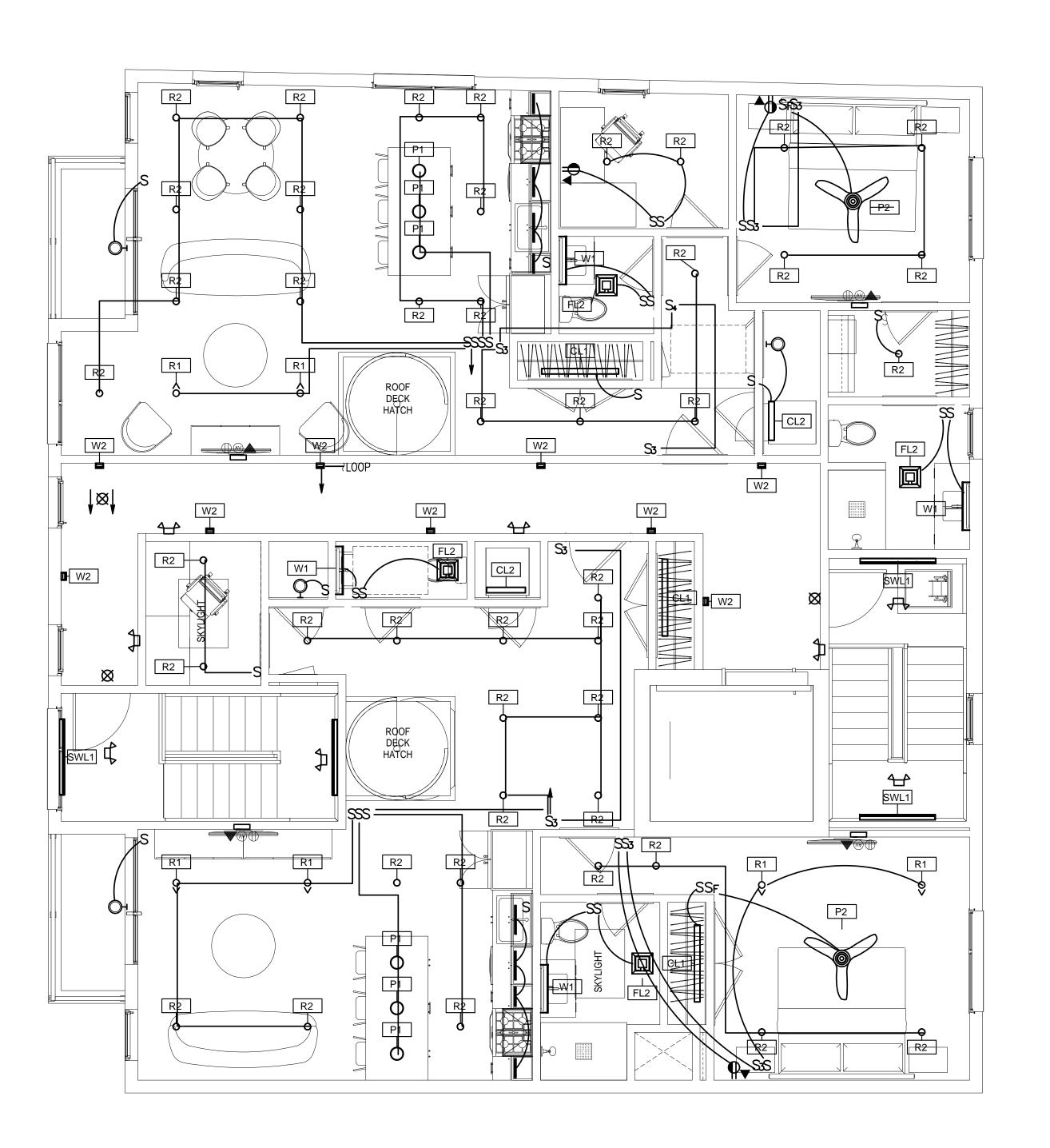
 Date
 04.07.2021

 Drawn by

E203

Scale As indicated

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No.	Description	Date
1	For construction/ Permit	7-23-202
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979 Main St

LIGHTING FOURTH FLOOR PLAN

 Project number
 221018

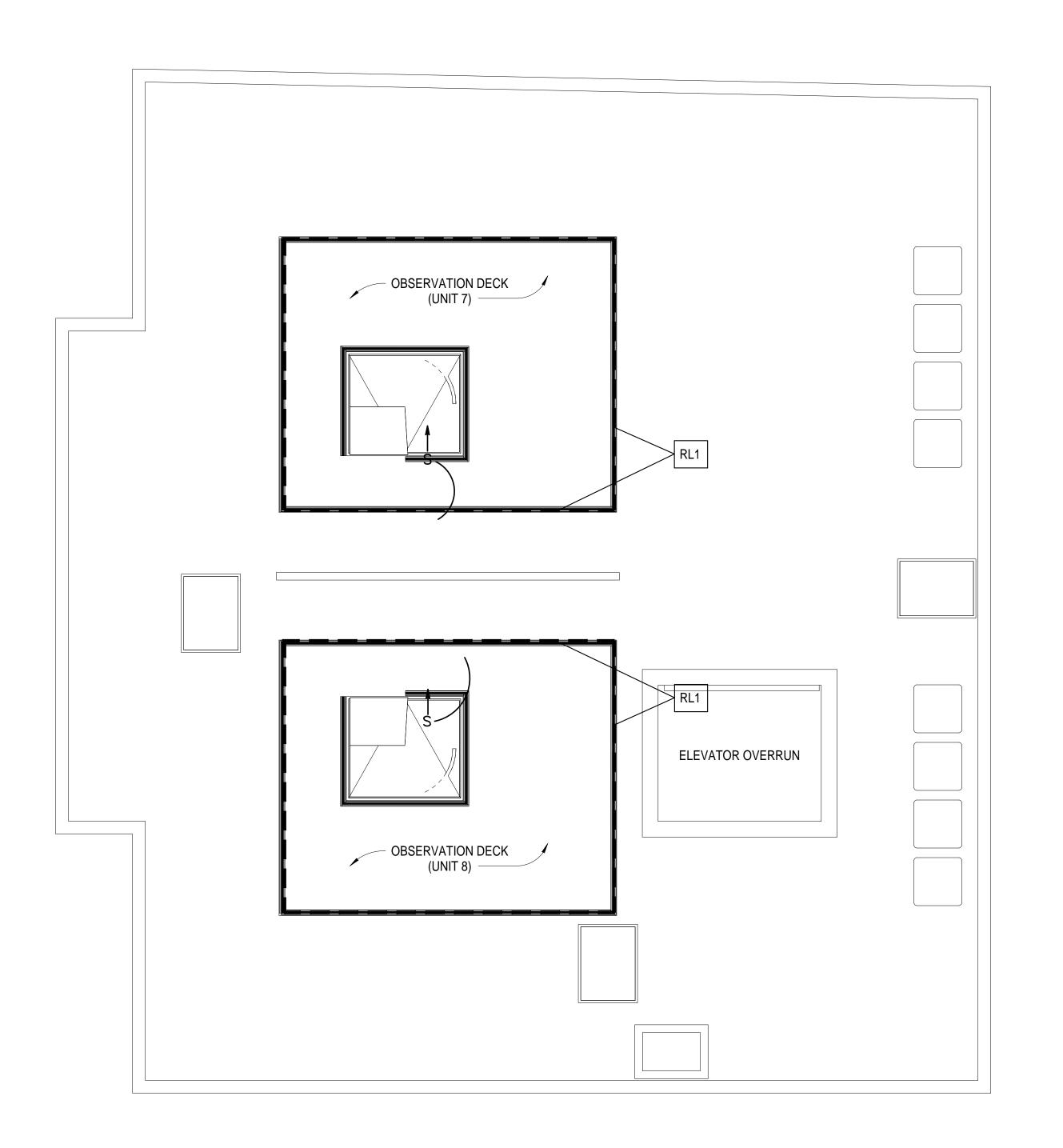
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E204

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-2021

HUS Companies

979 Main St

LIGHTING ROOF FLOOR PLAN

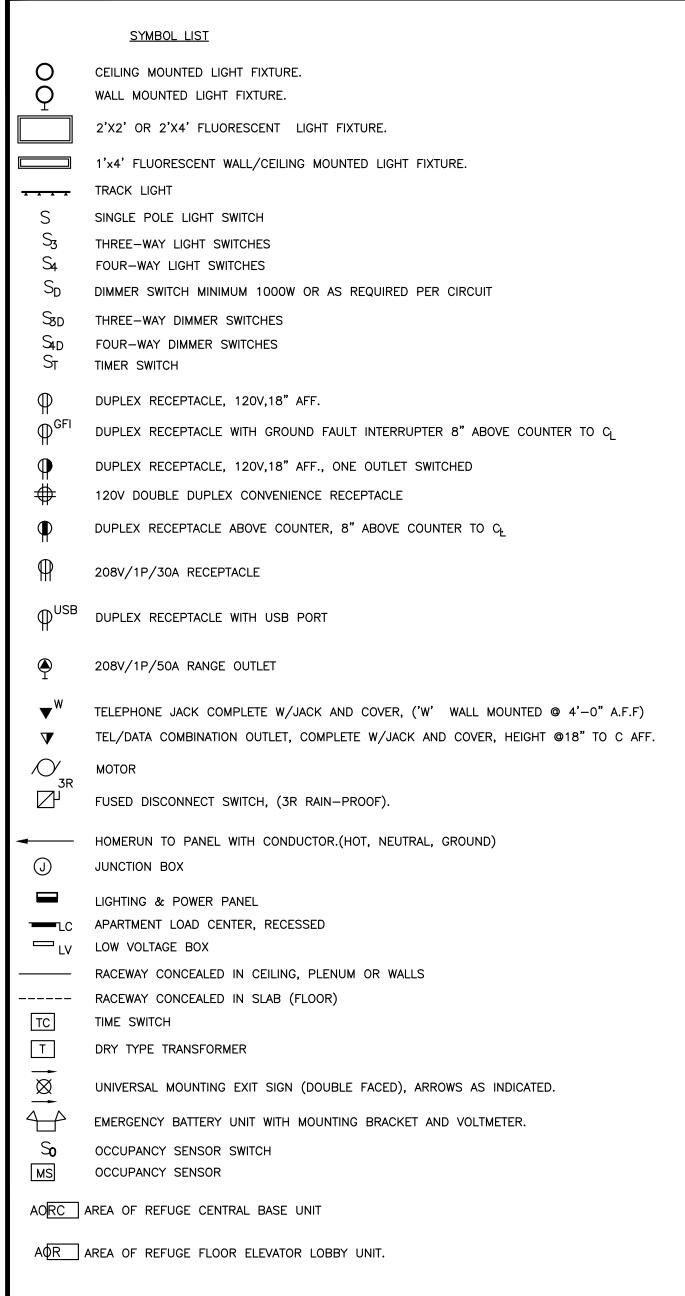
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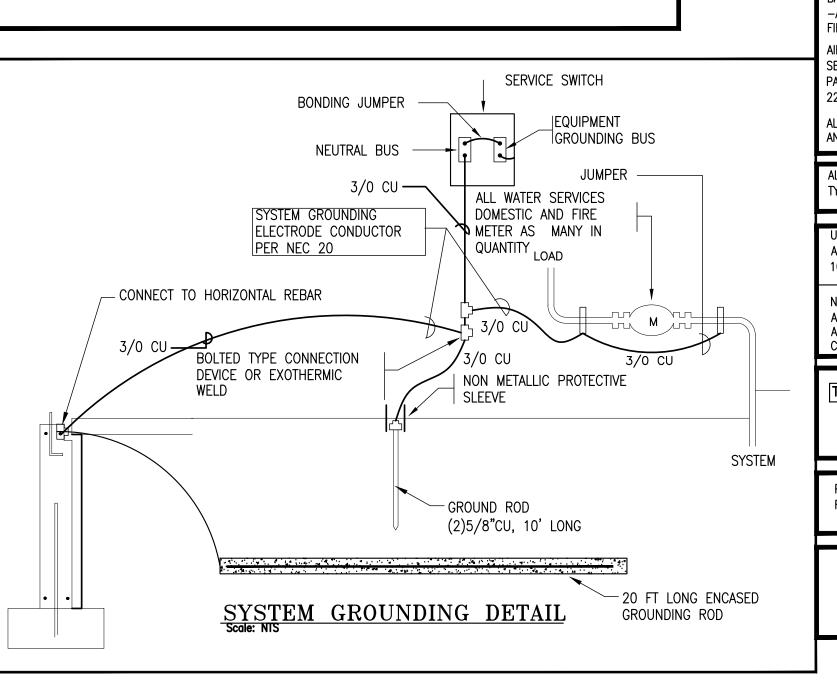
Date 04.07.2021

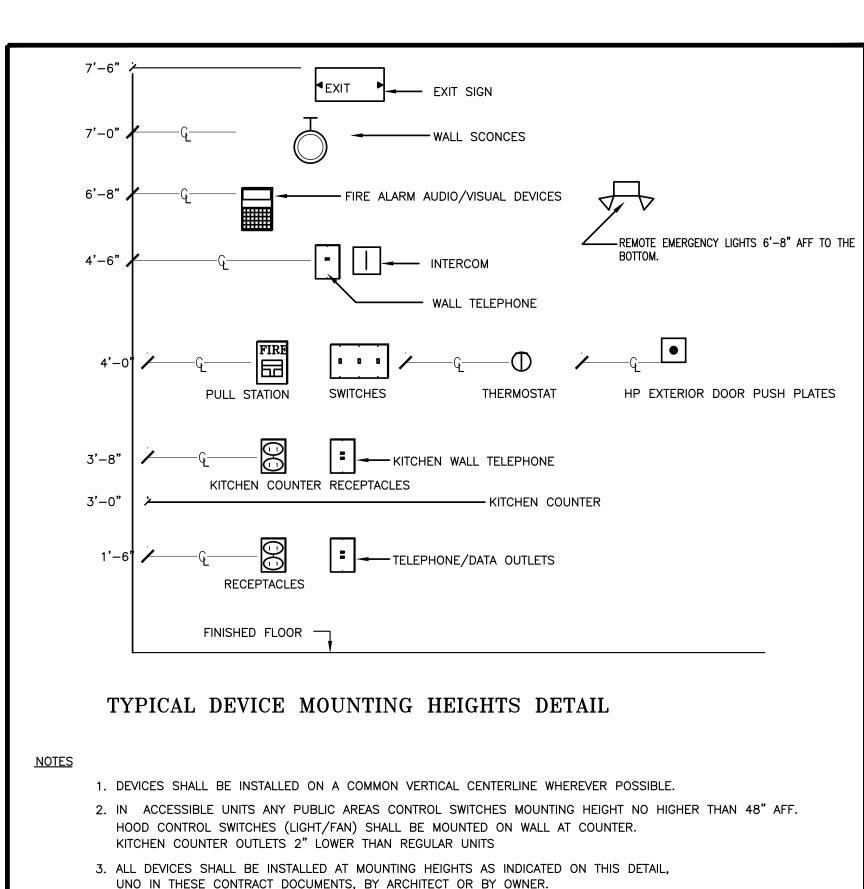
Drawn by
Checked by

E205

Scale As indicated







OUTLETS AT FOLLOWING LOCATIONS SHALL BE GFI TYPE REGARDLESS HOW THEY ARE SHOWN. -RESIDENTIAL BATHROOMS, 210.8(A)(1) -RESIDENTIAL KITCHENS, 210.8(A) -LAUNDRY, 210.8(A)(10) -DISHWASHERS, 210.8(D) (THROUGH GFI BREAKER) -VENDING MACHINES, 422.51 -ROOF TOPS, 210.8(B)(2)(WP ALSO) -BALCONY/EXTERIOR OUTLETS (WP ALSO) -ELEVATOR MACHINE ROOMS AND PITS (WP ALSO) -GARAGES -FINISHED/UNFINISHED BASEMENT OUTLETS

-IN THE ROOM HOUSING THE GAS APPLIANCE.

DETECTORS SHALL BE UL LISTED.

PANEL VIA MONITOR MODULE

CARBON MONOXIDE DETECTORS

PROVIDE CARBON MONOXIDE DETECTORS AT

-ON EVERY HABITABLE LEVEL AT LEAST ONE AND

■ . INDICATES TEL/DATA COMBINATION OUTLET WITH

FROM POWER FEEDS AND FIXTURE BALLASTS

IN ALL RESIDENTIAL UNITS

CONTRACT PRICE.

REGARDLESS SHOWN ON PLANS OR NOT PROVIDE CARBON MONOXIDE DETECTORS AT

IN RESIDENTIAL BUILDINGS, FOR ALL GAS FIRED VENTILATION/AIR CIRCULATION EQUIPMENT,

PROVIDE DUCT MOUNTED CO DETECTOR COMPLETE WITH HOUSING AND SAMPLING TUBE

AS MANUFACTURED BY MACURCO CM 15A OR EQUAL AND CONNECT TO FIRE ALARM

ALL CO DETECTORS MUST "LATCH" AT THE PANEL; THAT IS TO SAY, THE RESPONDER TO

A CO DETECTOR SUPERVISORY ALARM MUST BE LEAD TO MITIGATE THE CO ISSUE AT THE

DETECTOR AND THEN CLEAR/RESET THE FIRE ALARM PANEL. THIS WILL MEAN THE CO

SUPERVISORY ALARM CANNOT BE MITIGATED AT THE POINT LOCATION, BUT REQUIRES A

ALARM MONITORING SERVICE RECEIVES A SUPERVISORY CARBON MONOXIDE SIGNAL; THAT

-FOR ALL GAS FIRED UNITS WITH UNIT SHUT DOWN INTERLOCK AND NEAR ALL GAS FIRED FIRE

CAT 6 TEL/DATA JACK. E.C. SHALL WIRE EACH OUTLET HOME RUN 4 PAIR CAT 6 CLP

FOR TELEPHONE AND 4 PAIR CAT 6 CLP FOR DATA TO TELEPHONE AND DATA

TERMINATION BOARDS RESPECTIVELY. TERMINATE AT TWO SEPARATE PUNCH DOWN

BLOCKS. ALL WIRING AND TERMINATION'S SHALL BE PER CAT 6 SPECIFICATIONS, ALL

WIRES SHALL BE PROPERLY LABELED AND RINGED OUT. KEEP WIRES MINIMUM 18"

WIRING IN ALL EXPOSED AREAS SHALL BE IN METALLIC RACEWAYS AS WIREMOLD OR

RACEWAYS SHALL CLOSELY FOLLOW THE SURFACE AND WRAP AROUND THE BEAMS AS

REQUIRED. PRIOR TO ANY INSTALLATION, SUBMIT LAYOUT SKETCH INDICATING PROPOSED ROUTING FOR APPROVAL. ARCHITECT HAS THE RIGHT TO MODIFY OR CHANGE LAYOUT AS

EQUAL. RACEWAYS SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. SURFACE

NEEDED. ANY CHANGES PRIOR TO ANY INSTALLATION SHALL BE AT NO CHANGE TO

IS TO SAY. LITERALLY THE WORDS "CARBON MONOXIDE" MUST BE PRESENT AT ALARM

COMPETENT RESPONDER TO ADDRESS THE PANEL IN THE FIRE COMMAND CENTER.

-OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND

DIDETECTORS SHALL BE AS MANUFACTURED BY BRK CO 5120BN

DETECTORS SHALL BE HARD WIRED WITH BATTERY BACK-UP

COMPANY, THE LETTERS "CO" ARE NOT ACCEPTABLE.

-OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND

PER NEW DEFINITION OF READILY ACCESSIBLE, ALL APPLIANCE CONNECTION POINT WILL LOCATED IN THE NEXT BAY OF THE KITCHEN COUNTER OR SIMILAR SO THAT PLUGGING/UNPLUGGING OF THE APPLIANCES WILL NOT REQUIRE REMOVAL OR PULLING OU OR TAKING PANELS OF THE FRONT FACE OF THE APPLIANCE. PROVIDE GFI BREAKER FOR DISHWASHER

4. FIRE ALARM PULL STATION MOUNTING HEIGHT SHALL BE COMPLY WITH NFPA 72.

5. FIRE ALARM HORN/STROBE OR STROBE ONLY

LOOP UP TO 8 SUCH ROOF OUTLETS ON ONE CIRCUIT

THE APPROVAL OF MECHANICAL EQUIPMENT SHOP DRAWINGS

(NOT LESS THAN 42 INCHES AND NOT MORE THAN 48 INCHES ABOVE FINISHED FLOOR.)

AND NOT MORE THAN 96 INCHES ABOVE FINISHED FLOOR AND COMPLY WITH NFPA 72.

CONDENSING UNIT SHALL BE WIRED TO APARTMENT PANEL UNIT IS SERVING. CONTRACTOR

WITHIN 25FT OF EACH CONDENSING UNIT PROVIDE WP/GFI OUTLET WIRED TO HOUSE PANE

SHALL COORDINATE WITH HVAC SUB CONTRACTOR FOR EXACT UNIT, CORRESPONDING

OCATION OF ALL MECHANICAL EQUIPMENTS AND ELECTRICAL CHARACTERISTICS SHALL

BE COORDINATED WITH MECHANICAL CONTRACTOR PRIOR TO ANY WORK DONE. ALL

EQUIPMENT RELATING TO MECHANICAL COMPONENTS SHALL BE ORDERED ONLY AFTER

APARTMENT AND ELECTRICAL CHARACTERISTICS PRIOR TO ANY WORK DONE

THE ENTIRE STROBE LENS TO BE LOCATED NOT LESS THAN 80 INCHES ABOVE FINISHED FLOOR

IN RESIDENTIAL BUILDINGS ALL EXTERIOR WALL MOUNTED OUTLETS SHALL HAVE DRAFT -ALL OUTLETS MOUNTED ON FIRE RATED WALLS (UNIT SEPERATION WALLS SHALL HAVE) FIRE BLANKETS ON THEM AIR TIGHT ELECTRICAL BOXES SHALL BE "ALLIED MOULDED PRODUCTS, INC" VAPOR

SEAL SINGLE GANG 22.5 CU.IN., PART#1099-NV2 TWO GANG 37.0 CU.IN., PART#2302-HNKV2 4" ROUND 22.5 CU.IN., PART#9350-BHKV2 KV2 HN 4" ROUND 22.5 CU.IN., PART#9350-

ALL WIRES IN DWELLING ENCLOSURE WALLS SHALL BE FOAM SEALED TO THE BOXES AND THE BOXES SHALL BE FOAM SEALED TO THE DRYWALL.

ALL 120V RECEPTACLES INSTALLED WITHIN A RESIDENTIAL UNIT SHALL BE SHALL BE SAFE TYPE AS MANUFACTURED BY LEVITON "5262-SG" OR APPROVED EQUAL.

UNLESS NOTED OTHERWISE ALL WIRING SHALL BE #12AWG, Cu, AND FED FROM PANEL LP VIA 20A/1P C.B. CIRCUITS LONGER THAN 100FT SHALL BE #10 CU

NO EXPOSED WIRING IS ALLOWED, ALL CONCEALED WIRING SHALL BE IN "MC". ALL WIRING IN BLOCK WALLS SHALL BE CONCEALED, RUN IN CONDUIT.

INDICATES CATY JACK COMPLETE. EC SHALL HOME RUN EACH CATV OUTLETS WITH RG 6 COAX CABLE AND CONNECT TO CATV SPLITTER WITHIN EACH UNIT CLOSET AND CONNECT UNIT WITH DOUBLE COAX TO CATV ENTRANCE BOX LOCATED IN ELECTRIC ROOM.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE BOXES FOR EACH TYPICAL UNIT FOR OWNER/ARCHITECT REVIEW.

IN RESIDENTIAL BUILDINGS, UNLESS NOTED OTHERWISE -ALL LIGHT FIXTURES WITHIN BEDROOMS SHALL BE WIRED TO BEDROOM CIRCUIT -ALL OPEN AREA LIGHTS SHALL BE WIRED TO A SINGLE LIGHTING CIRCUIT (DINING ROOM, KITCHEN, HALL WAY) -BATHROOM LIGHTS SHALL BE WIRED TO OPEN AREA CIRCUITS.

MP INDICATES EXTERIOR MOUNTED EMERGENCY LIGHT.CONNECT ALL REMOTE EMERGENCY LIGHTS ON CIRCUITS SO THAT (WATTSXFT) IS LESS THAN 3200 UNITS AND WIRE WITH #10 CU TO REMOTE BATTERY PROVIDE 12V SEALED CALCIUM BATTERY UNIT AS REQUIRED OR AS SPECIFIED. BATTERY SHALL BE LOCATED IN A WARM ROOM AND FED FROM LIGHTING CIRCUIT SERVING THE AREA WHERE REMOTE HEADS ARE LOCATED BATTERY SHALL BE EMERGI-LITE 12LSM 220V OUTDOOR LIGHTS SHALL BE EMERGI-LITE EF11D

OOP EVERY 8 EXTERIOR BUILDING MOUNTED LIGHT FIXTURE ON ONE CIRCUIT AND FEED FROM TC-S VIA 20A/1PCB. WIRE SHALL RUN INSIDE BUILDING

**MS**INDICATES CEILING MOUNTED OCCUPANCY SENSOR. IN EACH SPACE EXCEPT CLOSETS, BATHROOMS, CORRIDORS ND UTILITY ROOMS, PROVIDE CEILING MOUNTED OCCUPANCY SENSOR SHOWN OR OTHERWISE TO COMPLY VITH MASS ENERGY CODE. UNITS SHALL BE SIZED PER CIRCUIT REQUIREMENTS. EQUIPMENT SHALL BE AS MANUFACTURED BY NOVITAS 01-087 OR 01-077 OR EQUAL, AIR FLOW COMPENSATED TYPE.

SHADED AND HALF SHADED FIXTURE INDICATES LIGHT FIXTURE ON NIGHT LIGHT CIRCUIT, LOOP UP TO 1200W/120V ON ONE CIRCUIT AND FEED FROM LIGHTING

CONNECT ALL EXIT SIGNS AND EMERGENCY BATTERIES TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY CONTROLS TYPICAL FOR ALL AREAS

## TELEPHONE SYSTEM

SERVICE ENTRANCE

- A. FURNISH AND INSTALL A COMPLETE SYSTEM OF CONDUITS AND BACKBOARDS FOR TELEPHONE INSTRUMENTS AS SHOWN ON THE PLANS.
- B. TELEPHONE TERMINAL LOCATIONS AS SHOWN ON THE PLANS SHALL BE 30" X 48" X 3/4" PLYWOOD. GROUND CONNECTIONS SHALL BE MADE BY THE TELEPHONE COMPANY. ELECTRICAL CONTRACTOR SHALL PROVIDE PRIMARY ARRRESTER WITH FUSE AND I#6CU GROUNDING WIRE AND GROUND BOLT CONNECTED TO SERVICE GROUND
- C. A NYLON FISH WIRE SHALL BE LEFT IN ALL CONDUITS TO FACILITATE PULLING-IN TELEPHONE WIRES. FURNISH AND INSTALL ONE NYLON PULL WIRE FOR PULLING IN TELEPHONE SERVICE IN ALL CONDUITS. SEE SITE PLAN FOR
- D. LOCAL TELEPHONE COMPANY SHALL BE RESPONSIBLE FOR TELEPHONE WIRING FROM THEIR OUTDOOR TERMINATION CABINET TO A NETWORK INTERFACE LOCATED IN THE TELEPHONE ROOM.
- F. EACH TELEPHONE OUTLET SHALL BE WIRED TO DATA INTERFEACE TERMINATION BOARD WITH PLENUM RATED CAT 6 , #20/8 TWISTED DATA WIRE TERMINATED IN TESTED AND CERTIFIED CAT 6 TERMINATION STYLE AT BOTH ENDS AND CLEARLY RINGED AND TAGGED.
- CONSTRUCTION AND TEST REQUIREMENTS (NEC REQUIREMENTS)
- 800.50 PREVENTS LAYING TELEPHONE WIRES ON CEILING TILES.
- 800.50 REQUIRES PRIMARY PROTECTOR FOR MOST UNDERGROUND AND ALL OVERHEAD SERVICES
- 800.30 (2) REQUIRES FUSED TYPE PRIMARY PROTECTOR AT SERVICE ENTRANCE
- 800.50 REQUIRES ALL METAL SHIELDS TO BE GROUNDED
- 800.50 REQUIRES INSULATED GROUNDING CONDUCTOR TO BE MINIMUM #14, NO LONGER THAN 20FT AND CONNECTED TO BUILDING GROUND SYSTEM. WITH MINIMUM #6 BONDING CABLE.
- 800.50 REQUIRES TYPE CMP FOR PLENUM, CMR FOR RISER APPLICATIONS,
- 800.51 REQUIRES MINIMUM 2" BETWEEN POWER LINES AND COMMUNICATION LINES, RECOMMENDED PRACTICE 6" FROM BALLASTS AND 6FT FROM LIGHTNING WIRES.
- ALSO KEEP DISTANCE FROM HEAT SOURCES. KEEP MINIMUM 6" FROM 20A/2KW CIRCUITS
- KEEP MINIMUM 12" FROM 30A/5KW CIRCUITS KEEP MINIMUM 24" FROM ANY FEEDER.
- FOR SHIELDED CABLES THESE VALUES MAY BE TAKEN IN 1/3.
- CAT 6 INSTALLATION RECOMMENDATIONS INCLUDE
- CAT 6 INSTALLATION REQUIRES MINIMUM 1/2" UNTWIST
- MINIMUM 1" BENDING RADIUS FOR FOUR PAIR OR 4X. FOR 25 PAIR 10XDIA PROVIDE MINIMUM TWO LINES AT EACH LOCATION ONE FOR TELEPHONE OTHER FOR DATA
- WATCH FOR THAT A KINKED CABLE REDUCES 2.5DB; A SINGLE 1" RADIUS BEND REDUCES 2 DB.
- -WIRE MAP TEST (TO IDENTIFY INSTALLATION ERRORS) -LENGTH TEST (TO VERIFY MAXIMUM OPERATIONAL LENGTH IS 300FT) -ATTENUATION TEST (TO MEASURE MAXIMUM SIGNAL LOSS AT 100MHZ LESS THAN 22) -NEXT (TO MEASURE SIGNAL COUPLING BETWEEN THE PAIRS AT 100MHZ LESS THAN 32)

-PROPAGATION TEST (TO MEASURE TIME IT TAKES SIGNAL FROM ONE POINT TO OTHER)

## CATV INTERNAL UNIT WIRING SPECIFICATIONS

ALL COAXIAL CABLE WITHIN THE UNIT, INCLUDING THE DROP CABLES BACK TO THE COMMON DISTRIBUTION ROOM SHOULD MEET OR EXCEED THE FOLLOWING REQUIREMENTS:

RG-6 QUAD SHIELD FOR DROP LENGTHS OF UP TO 150 FEET.

RG-11QUAD SHIELD FOR DROP LENGTHS BETWEEN 151 FEET AND 250 FEET. (DROP LENGTHS SHOULD NOT EXCEED 250 FEET.)

## INTERNAL UNIT WIRING

EACH APARTMENT SHALL HAVE IT'S OWN SEPARATE HOME-RUN WIRE. PROVIDE A DUAL CABLE TO BE USED FOR ALL

EACH APARTMENT THAT HAS MORE THAN ONE OUTLET MUST HAVE AN INTERFACE ENCLOSURE. THE INTERFACE ENCLOSURE SHALL BE PLACED IN A CENTRAL LOCATION IN THE UNIT, TYPICALLY THE CLOSET. THE ENCLOSURE SHOULD BE LOCATED AS CLOSE AS POSSIBLE TO THE PHONE INTERFACE WITHIN THE UNIT.

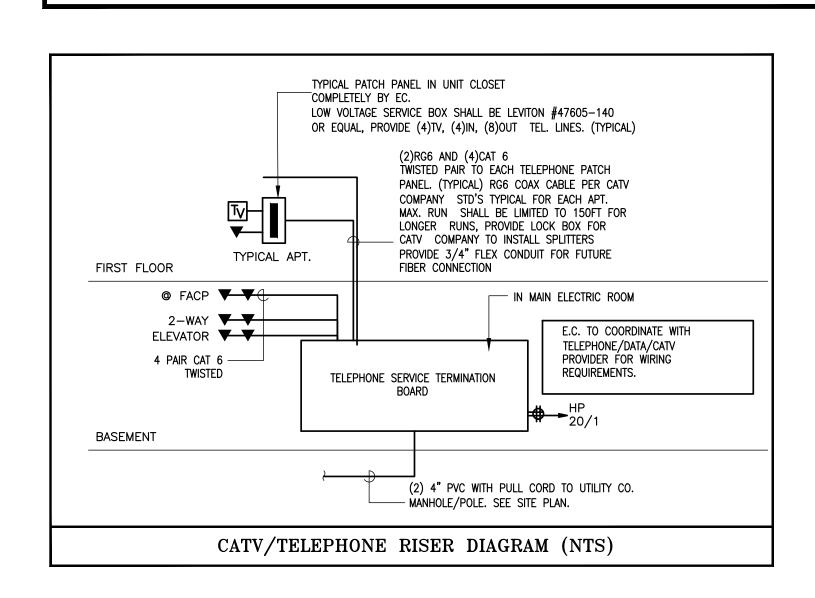
NO OUTLET SHOULD BE LOOP-WIRED (NO DAISY CHAIN WIRING.) EVERY OUTLET IN THE UNIT SHOULD BE WIRED BACK TO AN INTERFACE ENCLOSURE WITHIN THE UNIT.

ALL OUTLET LOCATIONS SHOULD HAVE A MINIMUM OF 12 " OF EXTRA CABLE BEHIND THE WALLPLATE.

MUD RINGS SHOULD BE USED AS OPPOSED TO CLOSED BOXES.

THE COAXIAL HOME RUN AND TWISTED PAIR HOME RUN SHALL BE WIRED TO THE SAME DISTRIBUTION CLOSET ON EACH

DO NOT KINK, FORM TIGHT NINETY-DEGREE ANGLES, PIERCE THE OUTER JACKET, DAMAGE OR MISHANDLE THE COAXIAL CABLE IN ANY WAY. USE APPROVED COAXIAL FASTENERS ONLY. METAL STUDS REQUIRE THAT PLASTIC BUSHINGS BE INSTALLED PRIOR TO PULLING THE CABLE.



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Description

7-23-2021 For construction/ Permit 1

**HUS Companies** 

979 Main St

**ELECTRICAL DETAILS** 

Project number

221018 04.07.2021 Drawn by Checked by

E301

As indicated Scale

CONSTRUCTION NOTES

-LOCAL SMOKE DETECTORS SHALL BE WIRED FROM ARC-FAULT

CIRCUITS, VERIFY WITH ELECTRICAL INSPECTOR.

-BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS, IF NECESSARY, USE FIRE RATED OUTLET BOXES.

-ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS.

-RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILINGS SHALL HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.

-ALL WIRING WITHIN UNITS SHALL BE ROMEX. WIRING OUTSIDE UNITS SHALL BE METAL CLAD.

LOAD CALCULATIONS,

-LIGHTING AND POWER: 3W/SFX1,000SF=3,000W

-ELECTRIC RANGE =8,000W-gas =2,000W-DISHWASHER/DISPOSAL: -WATER HEATER: =0W-gas =1,500W-Washer: =5.000W

-INDOOR A/C: =500W-OUTDOOR A/C: =4,500W-MICROWAVE/HOOD: =1,500W=29,500WTOTAL:

UNIT DEMAND=(29.5-10KW-5)X.4+10+5=20.8KW

BUILDING DEMAND=UNIT#XTOTAL KWXFACTOR=XXXXKW FACTOR TO BE TAKEN FROM TABLE NEC 220.84

FOR EACH APARTMENT PROVIDE DEDICATED CIRCUITS

) 30A/2P FOR DRYER, GFCI

-(3) 20A/1P KITCHEN COUNTER OUTLETS GFCI AND AFCI PROTECTION

(1) 20A/1P FOR REFRIGERATOR GFCI AND AFCI PROTECTON ) 20A/1P FOR DISHWASHER AFCI/GFCI PROTECTION -(1) 20A/1P FOR DISPOSAL RECEPTACLE AFCI/GFCI PROTECTION

(1) 20A/1P FOR MICROWAVE-HOOD AFCI/GFCI PROTECTION ) 50A/2P FOR ELECTRIC RANGE, GFCI -(1) 20A/1P FOR DINING ROOM OUTLETS AFCI PROTECTION IF THEY ARE COMBINED WITH KITCHEN COUNTER OUTLETS GFCI

AND AFCI PROTECTION. -(1) 30A/2P FOR ELECTRIC WATER HEATER, GFCI (1) 20A/1P FOR WASHER, AFCI/GFI

) 30A/2P FOR EACH A/C CONDENSER UNIT, GFCI 1) 15A/1P FOR EACH A/C INDOOR UNIT (VERIFY) 1) 20A/1P FOR EACH BATHROOM GFCI PROTECTION -(1) 15A/1P FOR LIGHTING AFCI PROTECTION (1) 15A/1P FOR LIVING ROOM AFCI PROTECTION

-(1) 15A/1P FOR EACH BEDROOM AFCI PROTECTION

PROTECTED IN ADDITION TO AFCI PROTECTION.

-RECEPTACLES INSTALLED WITHIN 6 FEET OF SINK SHALL BE GFCI

-SYSTEM TYPE STROBE IN EACH BEDROOM AND LIVING ROOM

SEE ARCHITECTURAL PLANS FOR NUMBER OF HC UNITS AND LOCATIONS.

ACCESSIBLE UNIT WIRING NOTES

IN EACH UNIT PROVIDE

CARRY MINIMUM OF 5% OF UNITS AS ACCESIBLE

STROBES ARE TO BE LOCATED IN BEDROOMS AND HABITABLE SPACES -MOUNTING HEIGHTS OF ANY CONTROL SWITCH SHALL BE NO HIGHER THAN 48" AFF. -HOOD CONTROL SWITCHES (LIGHT/FAN) SHALL BE MOUNTED ON WALL AT COUNTER -PROVIDE WALL OVEN AND COOK TOP WIRING ON SAME CIRCUIT, 50A/2P -ALL OUTLETS AND CONTROL SWITCHES SHALL BE MINIMUM 18" AWAY FROM AN INTERIOR CORNER REGARDLESS HOW IT IS SHOWN

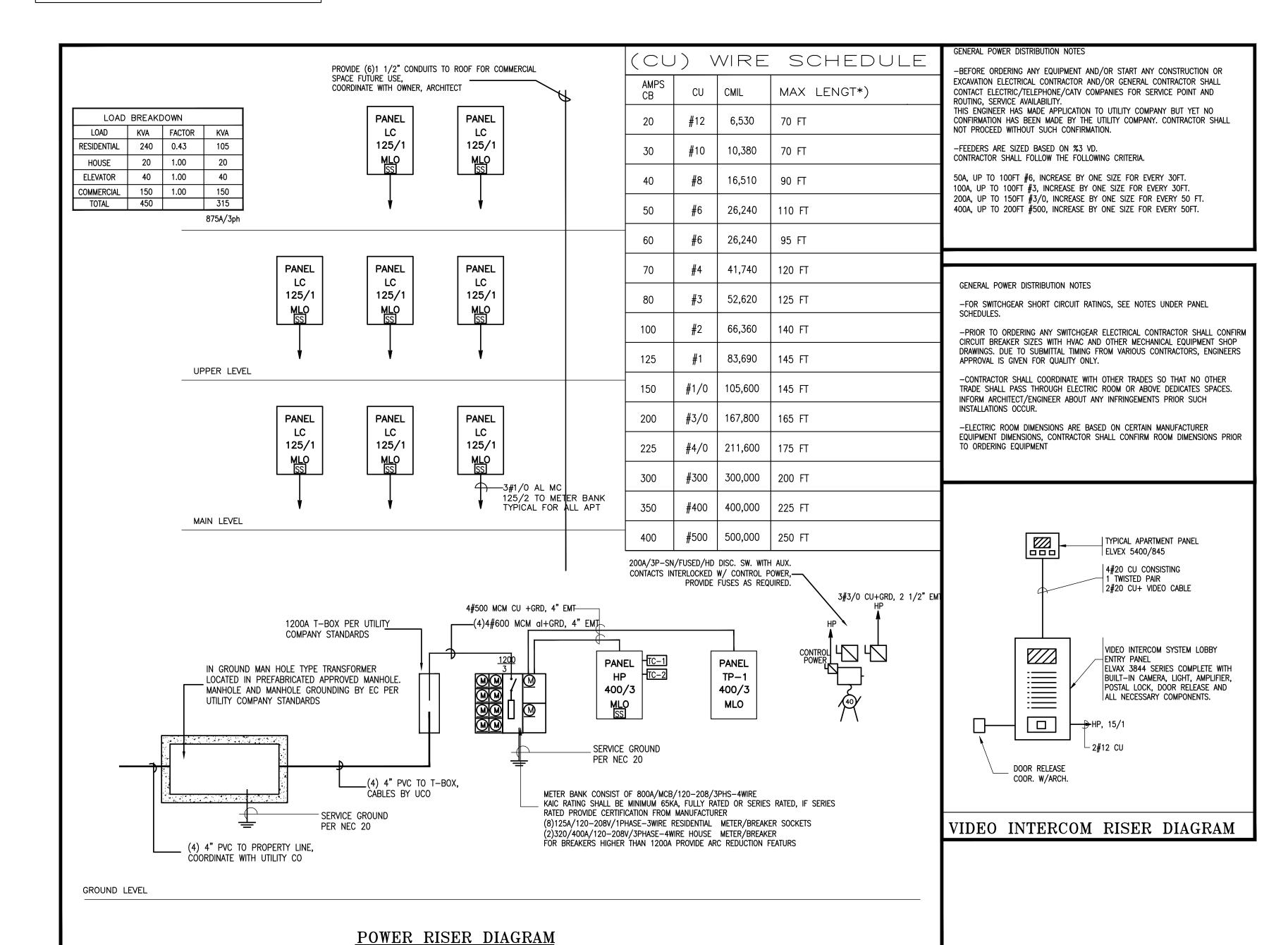
-LOCAL TYPE SMOKE DETECTOR WITH BUILT IN STROBE EACH BEDROOM, OUTSIDE BEDROOM

-LOCAL TYPE CO DETECTORS OUTSIDE BEDROOMS AND EVERY HABITABLE FLOOR LEVEL.

-PROVIDE STROBE LIGHT FOR INTERCOM SYSTEM IN LIVING ROOM AND IN EACH BEDROOM -ALL ELECTRICAL OUTLETS HEIGHTS TO BE A MINIMUM OF 15" TO THE CENTERLINE OF THE LOWEST RECEPTACLE AND MAXIMUM OF 48" TO THE CENTERLINE OF THE HEIGHEST RECEPTACL

-ALL ELECTRICAL OUTLETS ARE LOCATED OVER COUNTERTOPS, SHALL BE NO HIGHER THAN 44 TO THE CENTERLINE OF THE HIGHEST RECEPTACLE. -ALL CIRCUIT BREAKER PANELS MUST BE CENTERED ON A 30" BY 48" CLEAR FLOOR SPACE

AND IF A PARALLEL APPROACH IS USED, THE HIGHEST CONTROL CAN BE NO HIGHER THAN 54  $\mid$  IF A FRONT APPROACH IS USED, THE HIGHEST CONTROL CAN BE NO HIGHER THAN 48" A.F.F. -PROVIDE STROBE FOR INTERCOM FOR THE HEARING IMPAIRED.



	PANEL SCHEDULE							
ITEM	VOLT/PHS/W	MLO	мсв	CIRC	F:Flush S:Surf.	B:Blug B:Bolt	BRANCH BREAKERS SPC=SPACE	
PANEL HP	120-208/3/4	400	_	42	S	В	(1)200/3, (8)30/2, (1)20/2, (20)20/1	
PANEL TP-1	120-208/3/4	400	_	42	S	В	(8)30/2, (1)20/2, (20)20/1	
PANEL LC	120-208/1/3	125	-	30	F	Р	(1)50/2 GFCI, (2)30/2 GFCI, (4)20/1 AFI/GFI, (2)20/1, (4)20/1 AFI, (7)15/1 AFI	

SWITCHGEAR AND PANELBOARDS SHALL BE MANUFACTURED BY SQUARE D, SIEMENS OR GENERAL ELECTRIC MAIN SWITCH AND MAIN DISTRIBUTION PANEL AND ALL CONSECUTIVE PANELS UP TO LAST TWO PANELS IN THE DISTRIBUTION GRID SHALL BE FULLY RATED AND LAST TO PANELS MAY BE SERIES RATED FOR AVAILABLE SHORT CIRCUIT RATINGS. IF SERIES RATINGS ARE APPLIED SUPPLIER SHALL BE RESPONSIBLE FOR PROVIDING PROPER SERIES RATED EQUIPMENT AS REQUIRED.

AVAILABLE SHORT CIRCUIT CURRENT FOR THE MAIN SERVICE IS 42KA. SEE RISER DIAGRAM FOR CONNECTION DIAGRAM OF THE PANELS. NO LINE IMPEDANCES ARE TO BE CONSIDERED IN SERIES RATING APPLICATIONS.

FOR ALL RESIDENTIAL LOAD CENTERS, 15A AND 20A CIRCUITS SERVING THE UNIT EXCEPT BATHROOMS CIRCUITS SHALL BE ARC FAULT INTERRUPTER TYPE AS REQUIRED PER NEC 210-12(B)

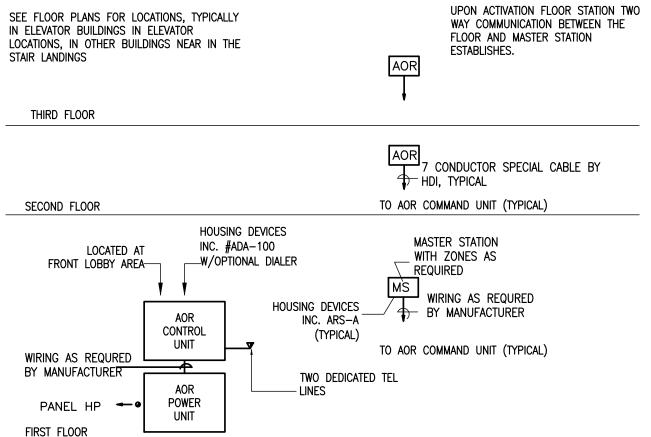
	FIXTURE SCHEDULE - COMMON AREA							
TYPE	MANUFACTURER	CATALOG NUMBER	VOLT	LAMP	DESCRIPTION			
SEE	ARCHI	rectura!	L R	CP FOR F	IXTURES TYPES			
SL-1	TBD	CARRY \$150	120	(1)32W LED	EXTERIOR FRONT LIGHT			
SL-2	TBD	CARRY \$150	120	(1)32W LED	EXTERIOR REAR LIGHT			
X	TBD	CARRY \$150	120/12	LED AS REQUIRED	SELF POWERED EXIT SIGN SINGLE FACE			
	TBD	CARRY \$150	120/6	(2)5.4W	SELF CONTAINED EMERGENCY LIGHTS AT INTERIOR			
WP	TBD	CARRY \$150	120/6	(2)5W	WP EMERGENCY LIGHTS AT EXTERIOR			
	EM" INDICATES FIXTURE WITH BUILT IN OCCUPANCY SENSOR, HALE							

MS" INDICATES FIXTURE WITH BUILT IN OCCUPANCY SENSOR, HALF LIGHT/FULL LIGHT EM/MS INDICATES BOTH FEATURES AS ABOVE

# FIXTURE SCHEDULE -APARTMENTS SEE ARCHITECTURAL RCP FOR FIXTURES TYPES

FIXTURE NOTES ALL LIGHT FIXTURES MODELS, FINISH COLORS SHALL BE VERIFIED BY ARCHITECT. REGARDLESS HOW MODEL NUMBERS ARE WRITTEN ALL FLUORESCENT & PL FIXTURES SHALL HAVE HPF ENERGY SAVINGS BALLAST/ENERGY STAR LABEL. LAMPS AND BALLASTS SHALL BE IN COMPLIANCE WITH LOCAL UTILITY COMPANY REBATE PROGRAMS, SPECIFICATIONS ABOVE FOR THE FIXTURE TYPE ONLY. FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS THD LESS THAN %15. FIXTURES MOUNTED IN INSULATED CEILINGS, EC SHALL PROVIDE HOODS TO KEEP INSULATION AWAY. FIXTURES MOUNTED IN RATED CEILINGS (SEE ARCHITECTURAL DRAWINGS), EC SHALL PROVIDE HOODS TO MAINTAIN RATINGS. SHADED FIXTURE INDICATES EMERGENCY LIGHT WITH BUILT IN BODINE BALLAST, 700 LUMEN OUTPUT. EMERGENCY LIGHTS SHALL HAVE INTEGRAL TEST SWITCHES BUILT INTO FIXTURE (NOT SEPARATE SWITCH). PROVIDE CONSTANT FEED TO BUILT-IN EMERGENCY BATTERY AS REQUIRED. EXACT LOCATION AND TYPES OF ALL LIGHTING FIXTURES, MOUNTING HEIGHTS AND MOUNTING DETAILS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ANY CONFLICTS SHALL BE BROUGHT TO ARCHITECT'S ATTENTION PRIOR TO ANY WORK DONE. OBTAIN LATEST COPY OF THE CEILING PLAN FROM ARCHITECT PRIOR TO ANY WORK DONE. IN AREAS WHERE FIXTURES ARE MOUNTED INTO INSULATED CEILINGS, THIS CONTRACTOR SHALL PROVIDE HOODS, 3" LARGER THAN FIXTURES TO KEEP INSULATION AWAY FROM THE FIXTURES AND TO MAINTAIN INSULATION INTEGRITY OF THE CEILING,

SCH						LECTRIC HEATER
TYPE	KW	VOLT/PH	WIRE	СВ	DIMENSIONS	MODEL NUMBER-COLOR BY ARCH
RWH-1	1	120/1	2#12	20/1		Q'MARK#CRA 1512-T2
RWH-2	2	120/1	2#12	20/1	19"HX16"WX4"D	Q'MARK# MCSSARWH1802/HTWHS1
RWH-4	4	208/1	2#10	30/2	19"HX16"WX4"D	Q'MARK# MCSSARWH4808/HTWHS1
SWH-4	4	208/1	2#12	30/2	19"HX16"WX4"D	Q'MARK# MCSSARWH4808/HTWHSM
EBB-2	0.4	120/1	2#12	20/1		Q'MARK#QMK-2512W-W/T'STAT
EBB-3	0.75	120/1	2#12	20/1		Q'MARK#QMK-2513W-W/T'STAT
EBB-4	1	120/1	2#12	20/1		Q'MARK#QMK-2514W-W/T'STAT
EBB-6	1.5	120/1	2#12	20/1		Q'MARK#QMK-2516W-W/T'STAT
CCH-4	4	208/1	2#10	30/2		Q'MARK#CDF548-W/T'STAT
EUH-5	5	208/1	2#10	30/2	22"HX20"WX8"D	Q'MARK#MUH-35-W/T'STAT
EUH-10	5	208/3	2#10	30/3	22"HX20"WX8"D	Q'MARK#MUH-108-W/T'STAT
IN ELEV	ATOR BUNS, IN (	INS FOR LOC JILDINGS IN I OTHER BUILD	ELEVATOR			UPON ACTIVATION FLOOR ST WAY COMMUNICATION BETWE FLOOR AND MASTER STATION ESTABLISHES. AOR



TWO-WAY COMMUNICATION DIAGRAM (SUPERVISED LINES)

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No.	Description	Date
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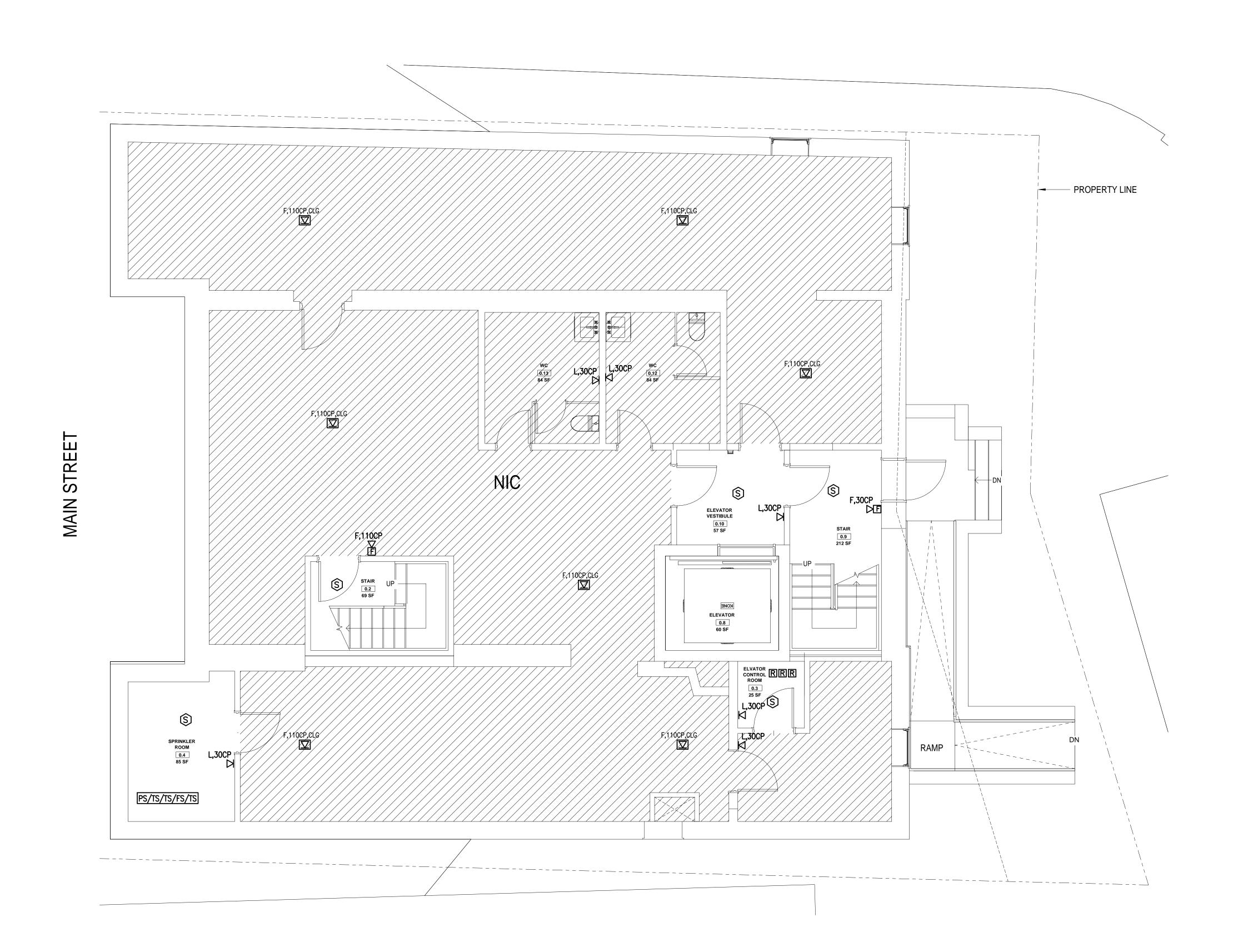
nus companies 979 Main St

RISER DIAGRAM & DETAILS

221018 Project number 04.07.2021 Drawn by Checked by

E302

Scale As indicated







No.	Description	Date
1	For construction/ Permit	7-23-202

HUS Companies 979 Main St FIRE ALARM

BASEMENT PLAN

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Project number 221018

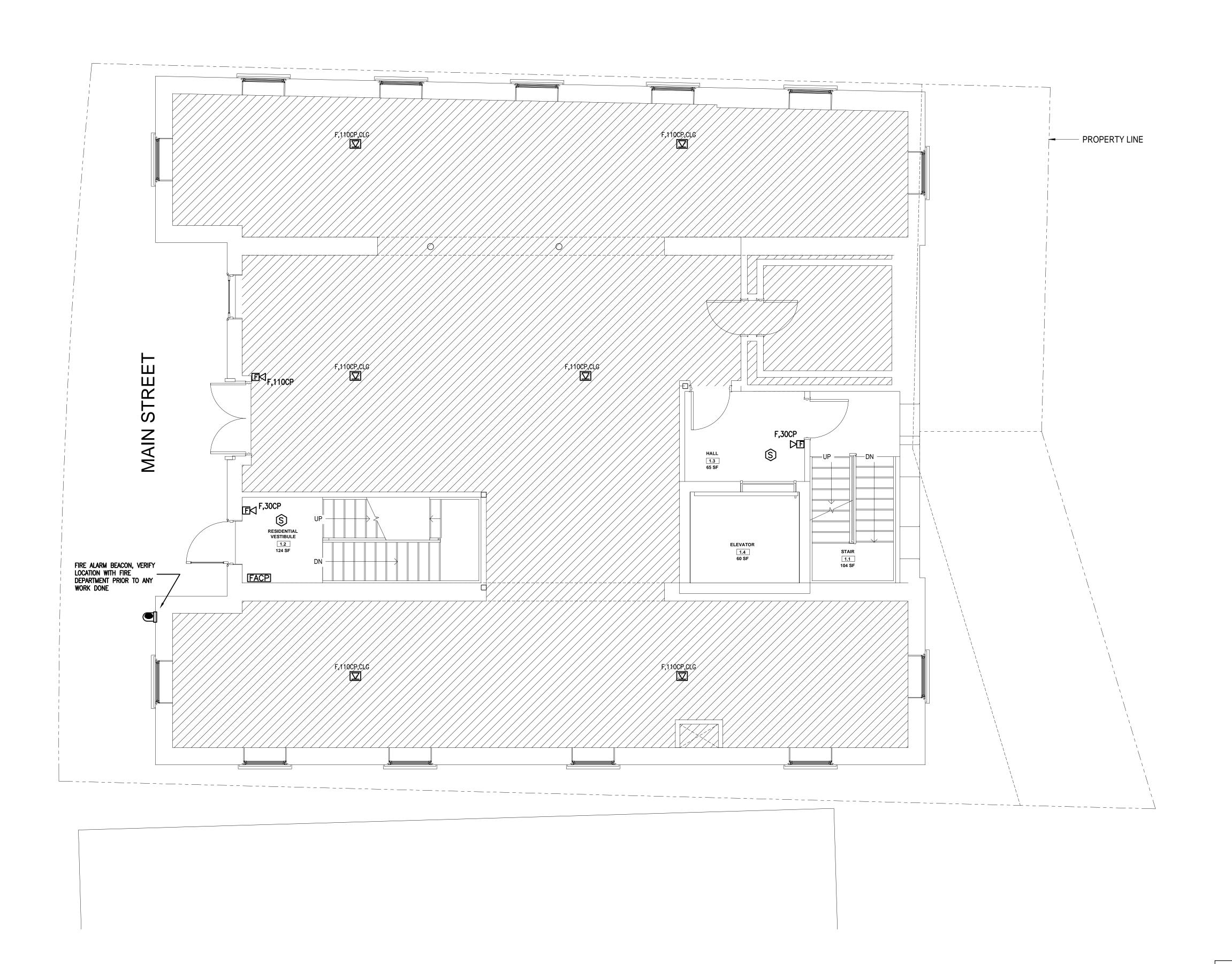
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No.	Description	Date
1	For construction/ Permit	7-23-202

HUS Companies 979 Main St FIRE ALARM

FIRST FLOOR PLAN
Project number 221018
Date 04.07.2021

Date
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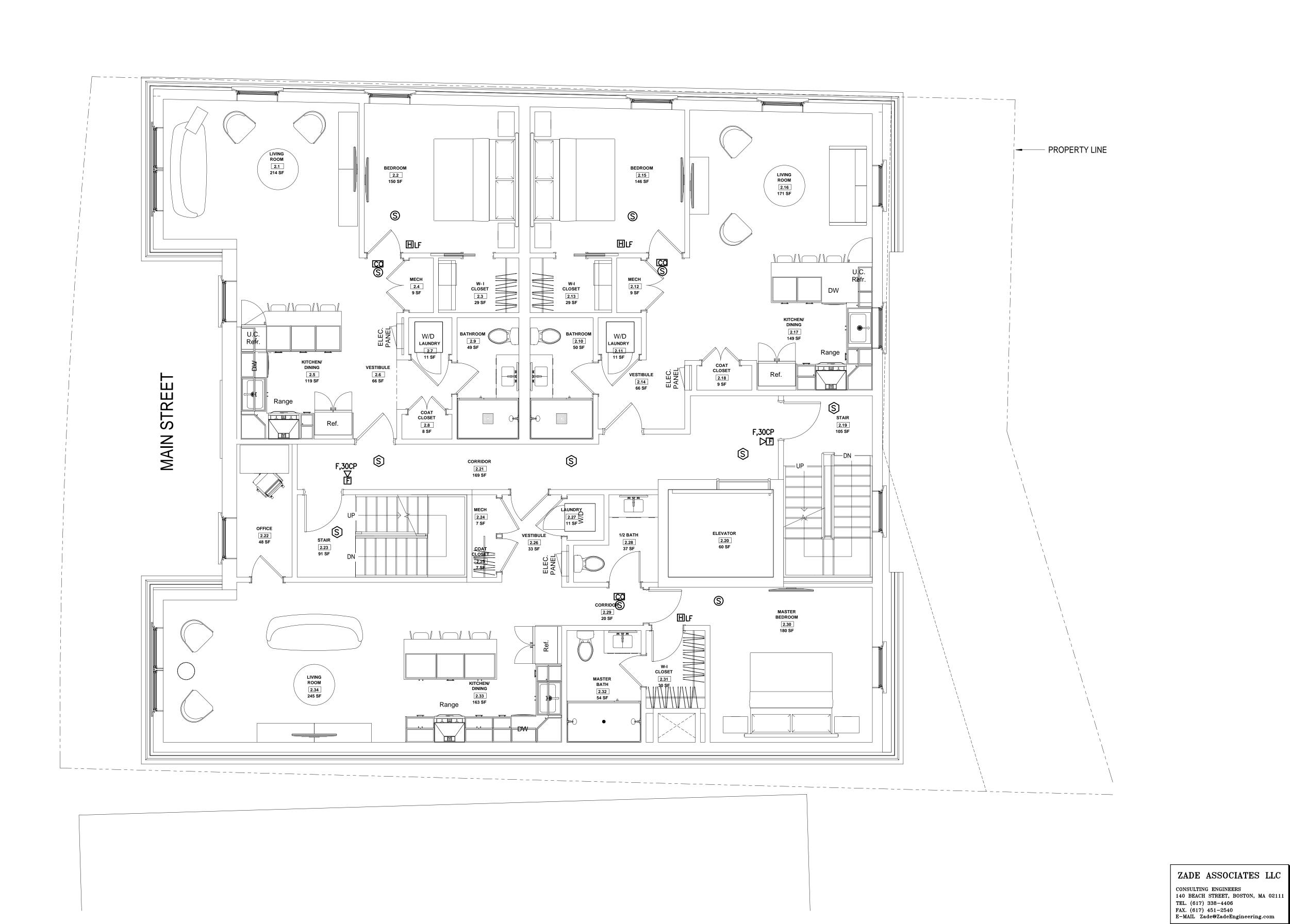
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No.	Description	Date
1	For construction/ Permit	7-23-2021

**HUS Companies** 

979 Main St

FIRE ALARM SECOND FLOOR PLAN

 SECOND FLOOR FLAIN

 Project number
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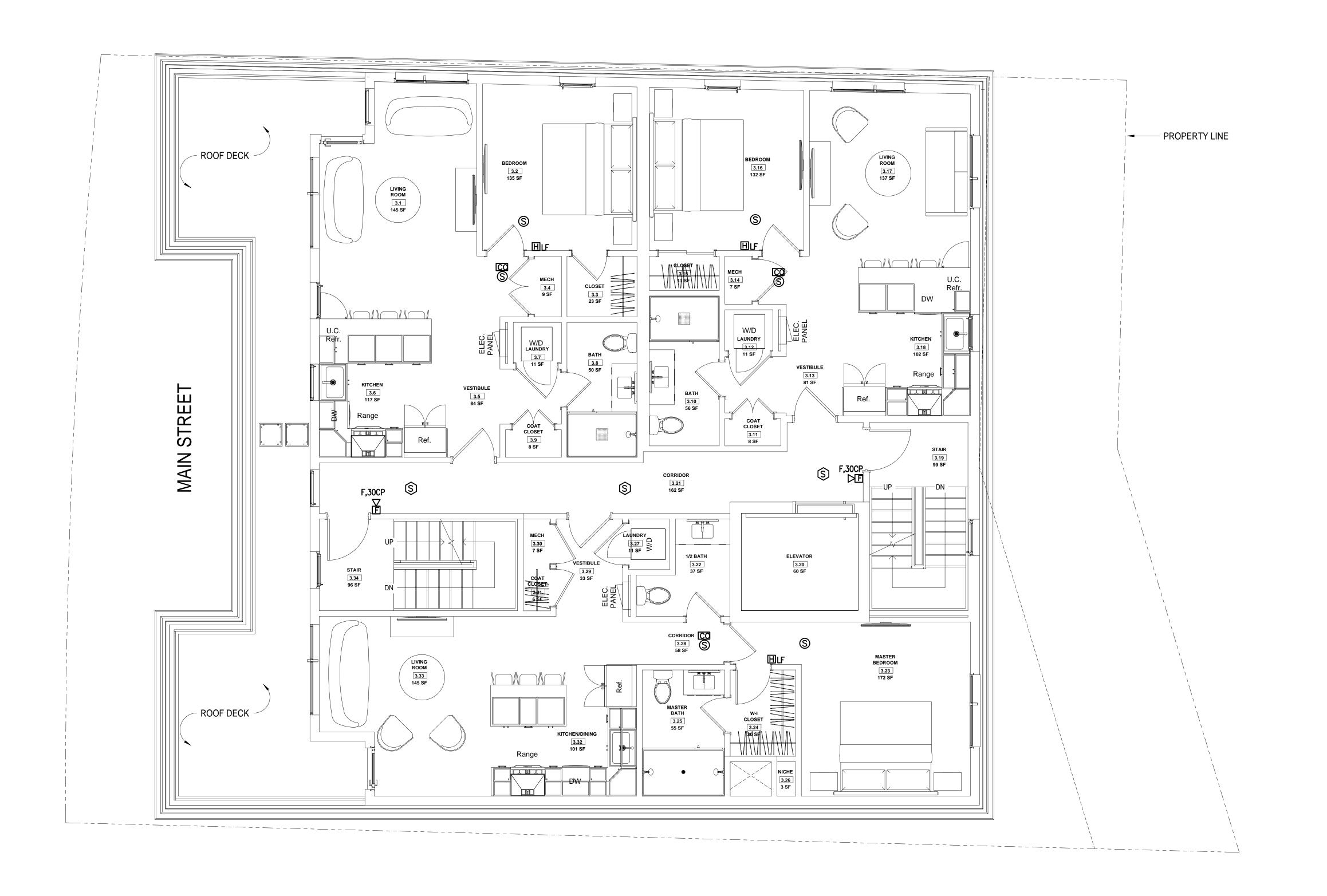
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HUS Companies

979 Main St

FIRE ALARM THIRD FLOOR PLAN

 Project number
 221018

 Date
 04.07.2021

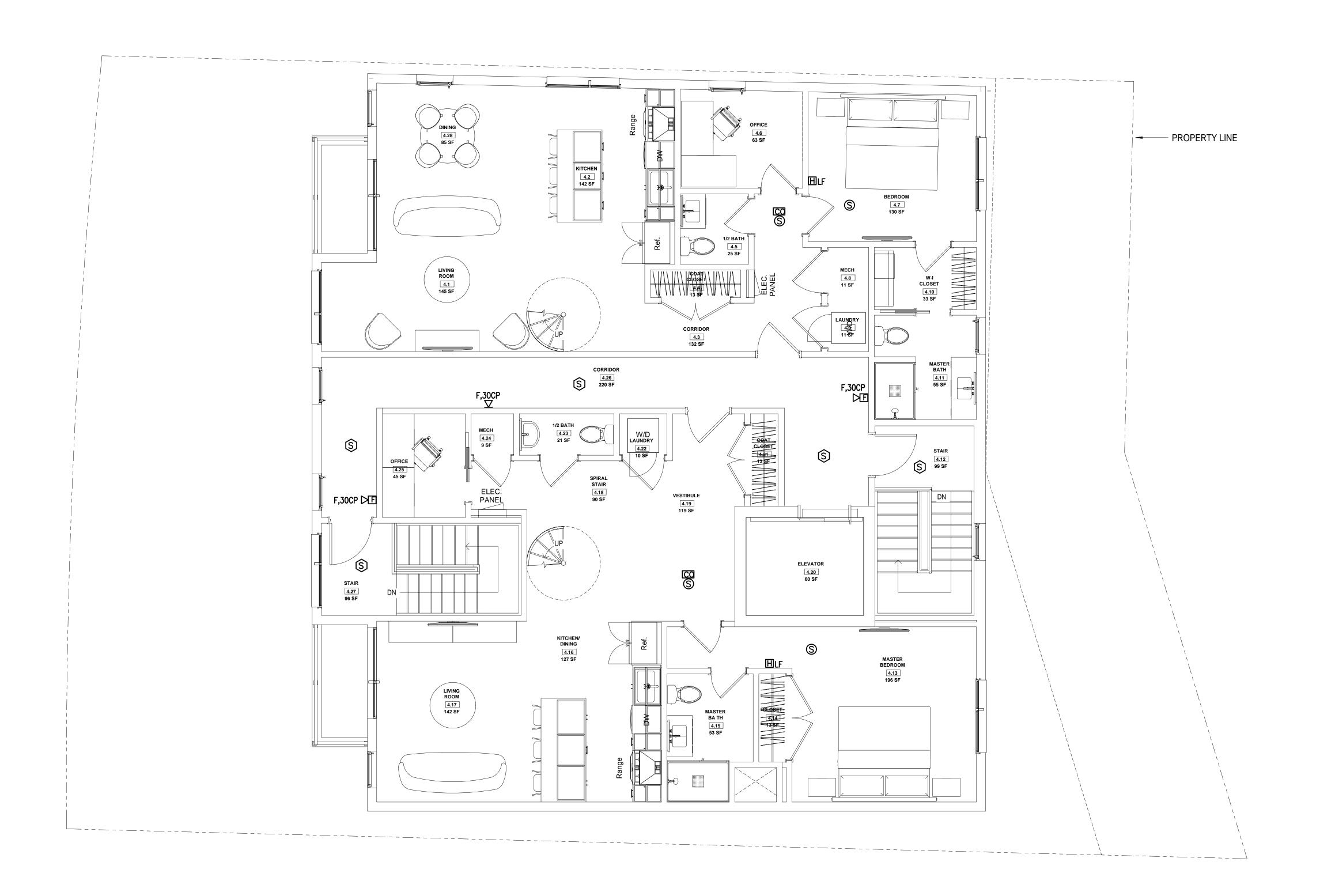
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FA103

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No.	Description	Date
1	For construction/ Permit	7-23-20

HUS Companies

979 Main St

FIRE ALARM FOURTH FLOOR PLAN

Date
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Project number

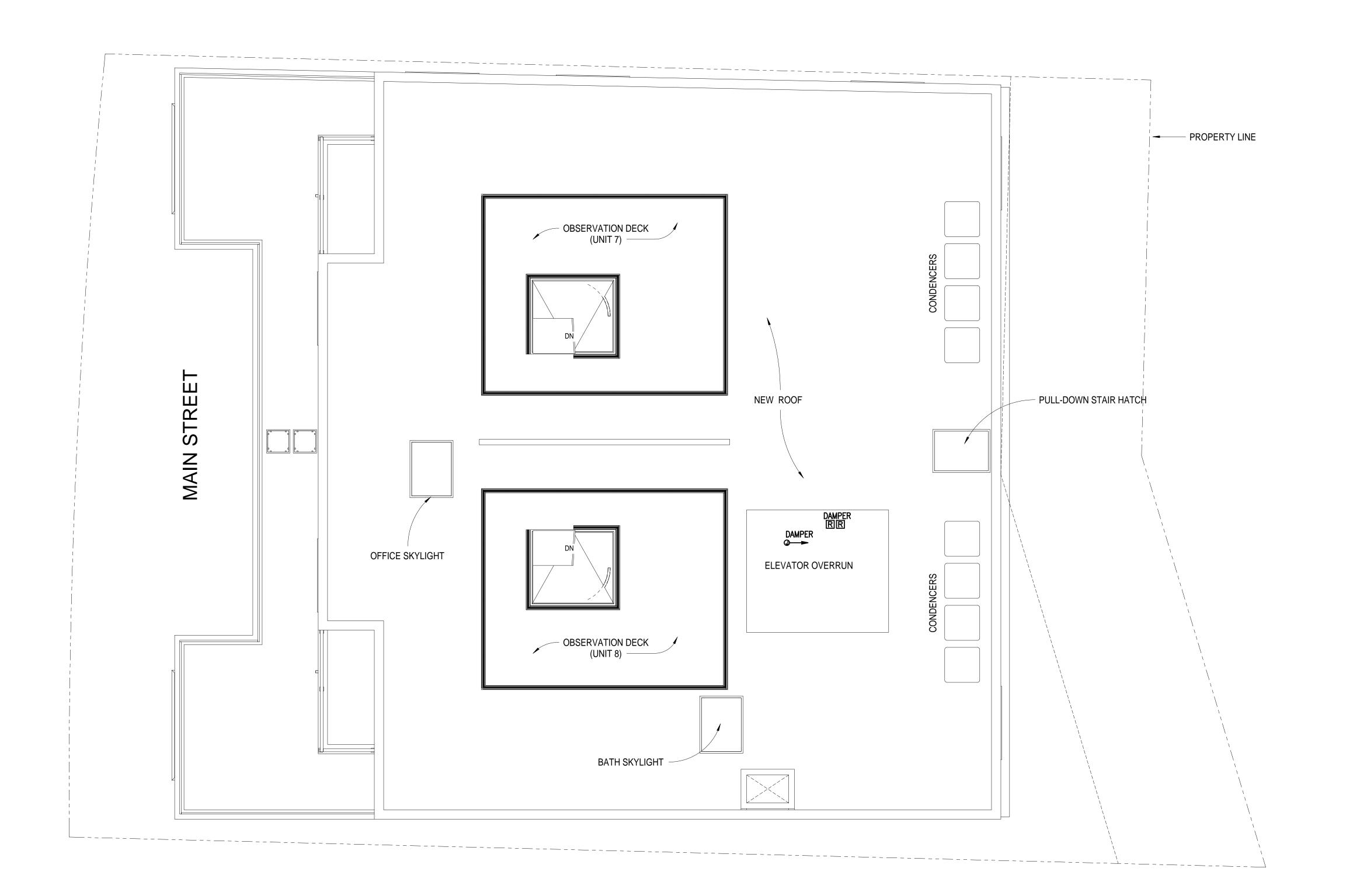
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No.	Description	Date
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**HUS Companies** 

979 Main St

FIRE ALARM ROOF PLANS

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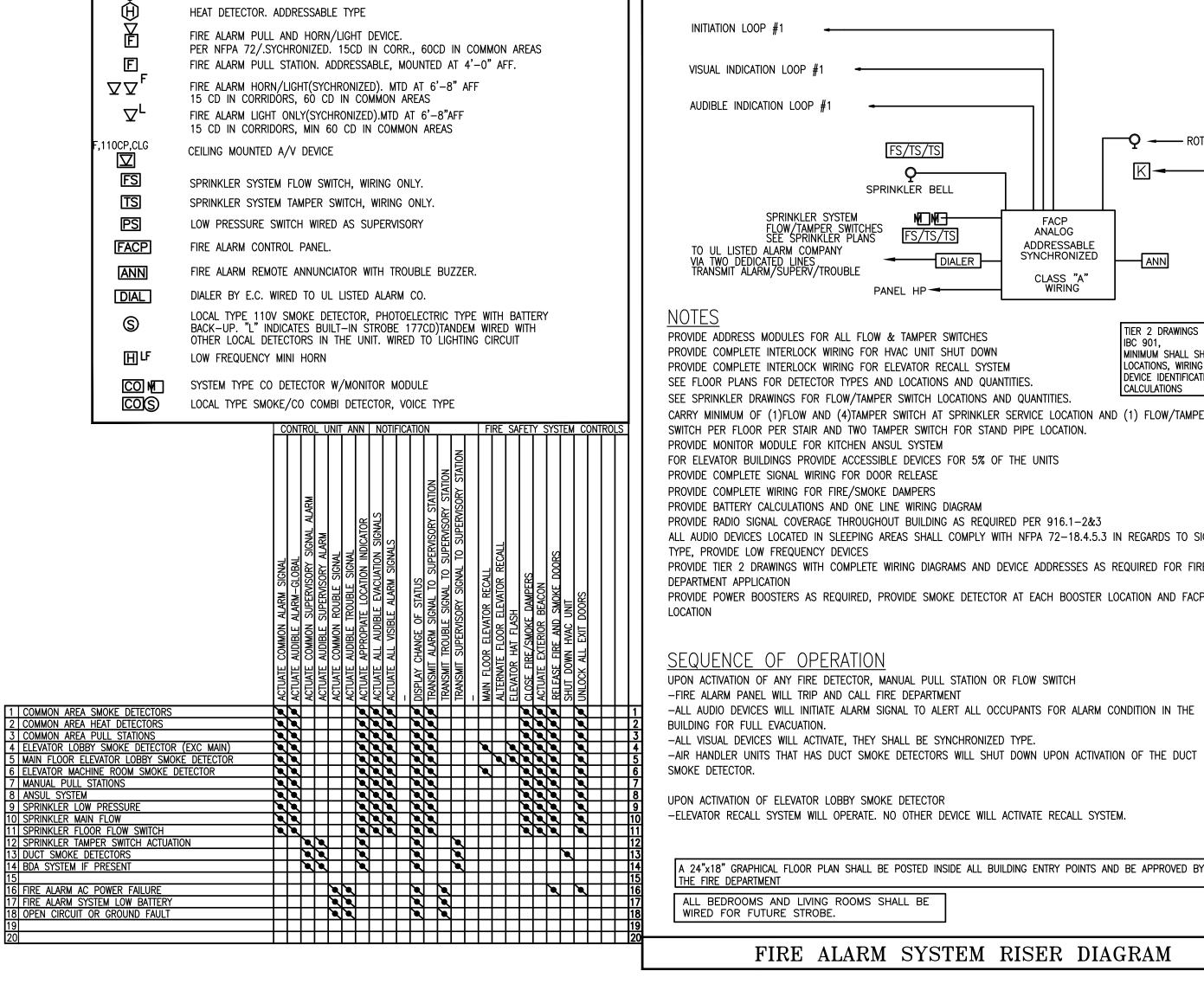
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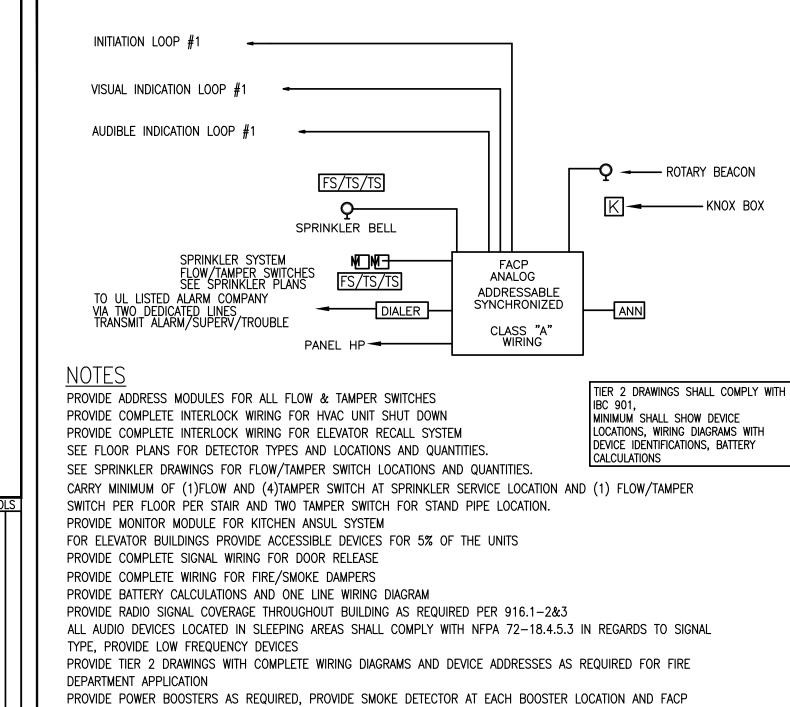
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LEGEND

SYSTEM TYPE SMOKE DETECTOR. ANALOG ADDRESSABLE



FIRE ALARM SYSTEM RISER DIAGRAM

THE FIRE DEPARTMENT

WIRED FOR FUTURE STROBE.

ALL BEDROOMS AND LIVING ROOMS SHALL BE

S 120V LOCAL SMOKE DETECTOR WITH BATTERY BACK-UP. COMBINATION TYPE 120V LOCAL SMOKE/CO DETECTOR WITH BATTERY BACK UP. S SMOKE DETECTOR SHALL BE PHOTO ELECTRIC TYPE. TANDEM WIRE ALL COMBINATION TYPE SMOKE/CO AND SMOKE ONLY DETECTORS IN THE SAME UNIT AND FEED FROM BEDROOM RECEPTACLE CIRCUIT. VOICE TYPE, CO CARBON MOROALDE LIENTEDTOR MFG:BRK ELECTRONICS CAT#CO5120BN FEED FROM

> FIRE ALARM CONSTRUCTION NOTES -LOCAL SMOKE DETECTORS SHALL BE WIRED FROM ARC-FAULT CIRCUITS, VERIFY WITH ELECTRICAL INSPECTOR. -BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS. IF NECESSARY. USE FIRE RATED OUTLET BOXES. -ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS. -RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILINGS SHALL

REGARDLESS SHOWN ON PLANS OR NOT PROVIDE CARBON MONOXIDE DETECTORS A

CO DETECTORS SHALL BE AS MANUFACTURED BY BRK CO 5120BN, VOICE TYPE

-OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND

DETECTORS SHALL BE HARD WIRED WITH BATTERY BACK-UP

AUDIBLE APPLIANCES PROVIDED FOR THE SLEEPING

AREAS TO AWAKEN OCCUPANTS SHALL PRODUCE A LOW

FREQUENCY ALARM SIGNAL THAT COMPLIES WITH THE

(1) THE ALARM SIGNAL SHALL BE A SQUARE WAVE OR

(2) THE WAVE SHALL HAVE A FUNDAMENTAL FREQUENCY

IN RESIDENTIAL BUILDINGS, FOR ALL GAS FIRED VENTILATION/AIR

CIRCULATION EQUIPMENT, PROVIDE DUCT MOUNTED CO DETECTOR

BY MACURCO CM 15A OR EQUAL AND CONNECT TO FIRE ALARM

ALL CO DETECTORS MUST "LATCH" AT THE PANEL; THAT IS TO

MUST BE LEAD TO MITIGATE THE CO ISSUE AT THE DETECTOR

SAY, THE RESPONDER TO A CO DETECTOR SUPERVISORY ALARM

AND THEN CLEAR/RESET THE FIRE ALARM PANEL. THIS WILL MEAN

THE CO SUPERVISORY ALARM CANNOT BE MITIGATED AT THE POINT

LOCATION, BUT REQUIRES A COMPETENT RESPONDER TO ADDRESS

ALARM MONITORING SERVICE RECEIVES A SUPERVISORY CARBON

"CARBON MONOXIDE" MUST BE PRESENT AT ALARM COMPANY, THE

-ALL SMOKE DETECTOR LOCATIONS SHALL BE COORDINATED WITH

REFLECTED CEILING PLANS IN FIELD SO THAT DETECTORS SHALL BE

-DUCT SMOKE DETECTORS SHALL BE INSTALLED IN HEATED AREAS

AT THE SUPPLY SIDE BEFORE THE FIRST TAKE OFF, MINIMUM 5FT AWAY FROM THE UNIT COIL. REMOTE TEST/INDICATOR LOCATIONS

SHALL BE NEXT TO FACP PANEL OR AS DIRECTED BY THE FIRE

STRUCTURES SO THAT VISIBILTY WILL BE MAINTAINED. PROPOSED

CHANGES SHALL BE FORWARDED TO ARCHITECT/ENGINEER FOR

-A/V DEVICE LOCATIONS ARE SHOWN BASED ON DISTANCE

REQUIREMENTS. CONTRACTOR SHALL COORDINATE PHYSICAL

MONOXIDE SIGNAL; THAT IS TO SAY, LITERALLY THE WORDS

COMPLETE WITH HOUSING AND SAMPLING TUBE AS MANUFACTURED

PROVIDE EQUIVALENT AWAKENING ABILITY.

THE PANEL IN THE FIRE COMMAND CENTER.

MINIMUM 3FT AWAY FROM SUPPLY DIFFUSER.

LETTERS "CO" ARE NOT ACCEPTABLE.

APPROVAL.

SMOKE DETECTOR.

OF 520 HZ +/- 10 PERCENT.

PANEL VIA MONITOR MODULE

-IN THE ROOM HOUSING THE GAS APPLIANCE.

DETECTORS SHALL BE UL LISTED.

FOLLOWING.

HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.

-ALL WIRING WITHIN UNITS SHALL BE ROMEX. WIRING OUTSIDE UNITS SHALL BE METAL CLAD.

ON TOP OF ELEVATOR SHAFT PROVIDE 20A/120V DEDICATED CIRCUIT TO POWER FAIL SAFE TYPE MOTORIZED DAMPER (VERIFY W/HVAC TO ASSURE FAIL SAFE TYPE DAMPER INSTALLATION) INTERLOCKED VIA 20A RELAY AND CONTROL MODULE TO OPEN UPON FIRE ALARM PANEL ACTIVATION

REGARDLESS SHOWN ON PLANS OR NOT PROVIDE CARBON MONOXIDE DETECTORS AT -OUTSIDE EACH BEDROOM WIRED TO SMOKE DETECTOR CIRCUIT AND -IN THE ROOM HOUSING THE GAS APPLIANCE. DETECTORS SHALL BE UL LISTED. DETECTORS SHALL BE HARD WIRED WITH BATTERY BACK-UP CO DETECTORS SHALL BE AS MANUFACTURED BY BRK CO 5120BN

FOR FIRE ALARM SYSTEM A/V WIRING WITHIN THE TENANT SPACE PROVIDE SPARE CAPACITY AT THE PANEL BY WAY OF POWER BOOSTERS ON EACH FLOOR TO SUPPLY POWER TO TENANT A/V DEVICES WITHIN THE TENANT SPACE. SPARE POWER SHALL BE CALCULATED BASED ON (1) 110CD RATED A/V DEVICES PER 1000SQF OF TENANT SPACE. TYPICAL FOR EACH TENANT SPACE

FOR EVERY SMOKE DAMPER SHOWN ON MECHANICAL DRAWINGS, PROVIDE DUCT SMOKE DETECTOR IN THE DUCT TO OPERATE SMOKE DAMPER. PROVIDE 120V POWER TO SMOKE DAMPER FOR OPERATION. IN SITUATIONS WHERE THE AIR SUPPLY FROM THE SHAFT SERVES DIRECTLY A CORRIDOR OR A SPACE WHERE THERE ARE SMOKE DETECTORS FOR COMPLETE COVERAGE, NO DUCT SMOKE DETECTOR IS REQUIRED. INTERLOCK DAMPERS TO CLOSE UPON THESE DETECTOR ACTIVATIONS.

CARRY MINIMUM 5% OF TOTAL UNIT NUMBER

ACCESSIBLE UNIT AND HEARING IMPAIRED FIRE ALARM NOTES NOTES SEE ARCHITECTURAL PLANS FOR NUMBER OF HC AND HEARING IMPAIRED UNITS

IN EACH UNIT PROVIDE -LOCAL TYPE SMOKE DETECTOR WITH BUILT IN STROBE/OR SEPARATE 120V STROBE EACH BEDROOM, OUTSIDE BEDROOM FOR LOCAL SMOKE ALARM -LOCAL TYPE STROBE IN EACH BEDROOM AND LIVING ROOM FOR CO ALARM -SYSTEM TYPE STROBE IN EACH BEDROOM AND LIVING ROOM -SYSTEM TYPE STROBE IN EACH BATHROOM -LOCAL TYPE STROBE IN EACH BATHROOM FOR LOCAL SMOKE ALARM

-LOCAL TYPE STROBE IN EACH BATHROOM FOR CO ALARM -LOCAL TYPE CO DETECTORS OUTSIDE BEDROOMS AND EVERY HABITABLE FLOOR LEVEL, STROBES ARE TO BE LOCATED IN BEDROOMS AND HABITABLE SPACES



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1	For construction/ Permit	7-23-2

**HUS Companies** 

979 Main St

FIRE ALARM

**ROOF PLANS** 221018 Project number 04.07.2021

Drawn by

Checked by

FA106

As indicated Scale

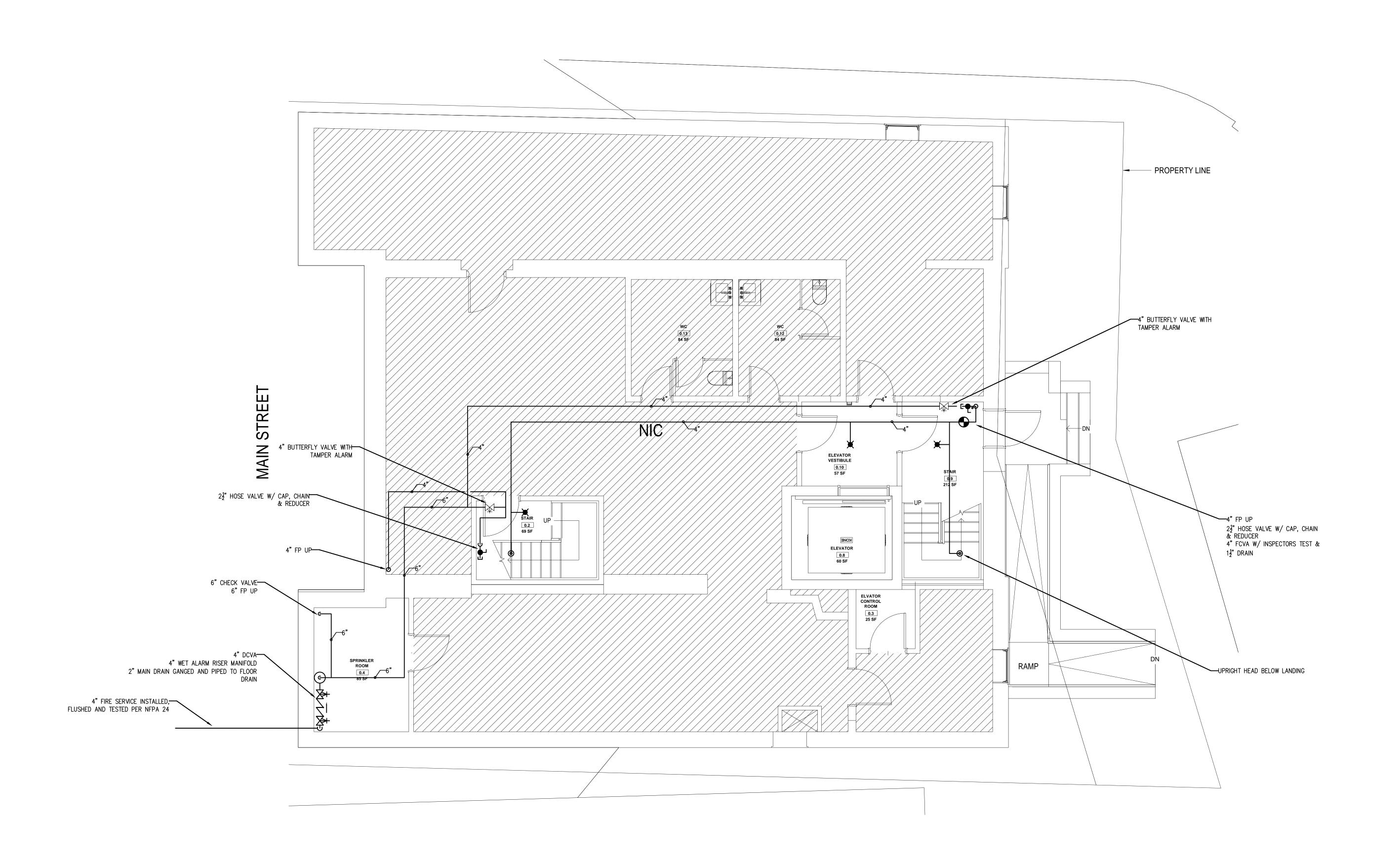
ZADE ASSOCIATES LLC CONSULTING ENGINEERS 140 BEACH STREET, BOSTON, MA 02111 TEL. (617) 338-4406 FAX. (617) 451-2540 E-MAIL Zade@ZadeEngineering.com

DETERMINED BY THE FD. PROVIDE ADD ALTERNATE COST FOR ALL HARDWARE COMPONENTS AND INSTALLATION OF FOR EACH BUILDING (EACH BUILDING MAY HAVE DIFFERENT NEEDS) RUN CONDUITS IN 2HR RATED ENCLOSURE. IF EQUIPMENT IS TO BE INSTALLED IT WILL BE HOUSED IN 2HR ENCLOSURE CARRY THE COST OF TESTING THE BUILDING UPON COMPLETION OF INTERIOR PARTITIONS
FLOOR COAX CABLE
A FLOOR COAX CABLE
A FLOOR COAX CABLE
A FLOOR COAX CABLE
AMPLIFIER AND POWER SUPPLY
SCHEMATIC BDA SYSTEM DIAGRAM

PROVIDE ALL NECESSARY STRUCTURE AND RACEWAYS TO BE ABLE TO INSTALL BDA SYSTEM PER IBC

916.1.2&3 UPON COMPLETION OF THE BUILDING AND AFTER ESTABLISHING THE NEED TO INSTALL HEAD

END EQUIPMENT OF A BDA SYSTEM TO MEET EMERGENCY SERVICES COMMUNICATION NEEDS AS TO BE







No.	Description	Date
1	Description For construction/ Permit	7-23-20

HUS Companies 979 Main St

## FIRE PROTECTION PLAN

Scale

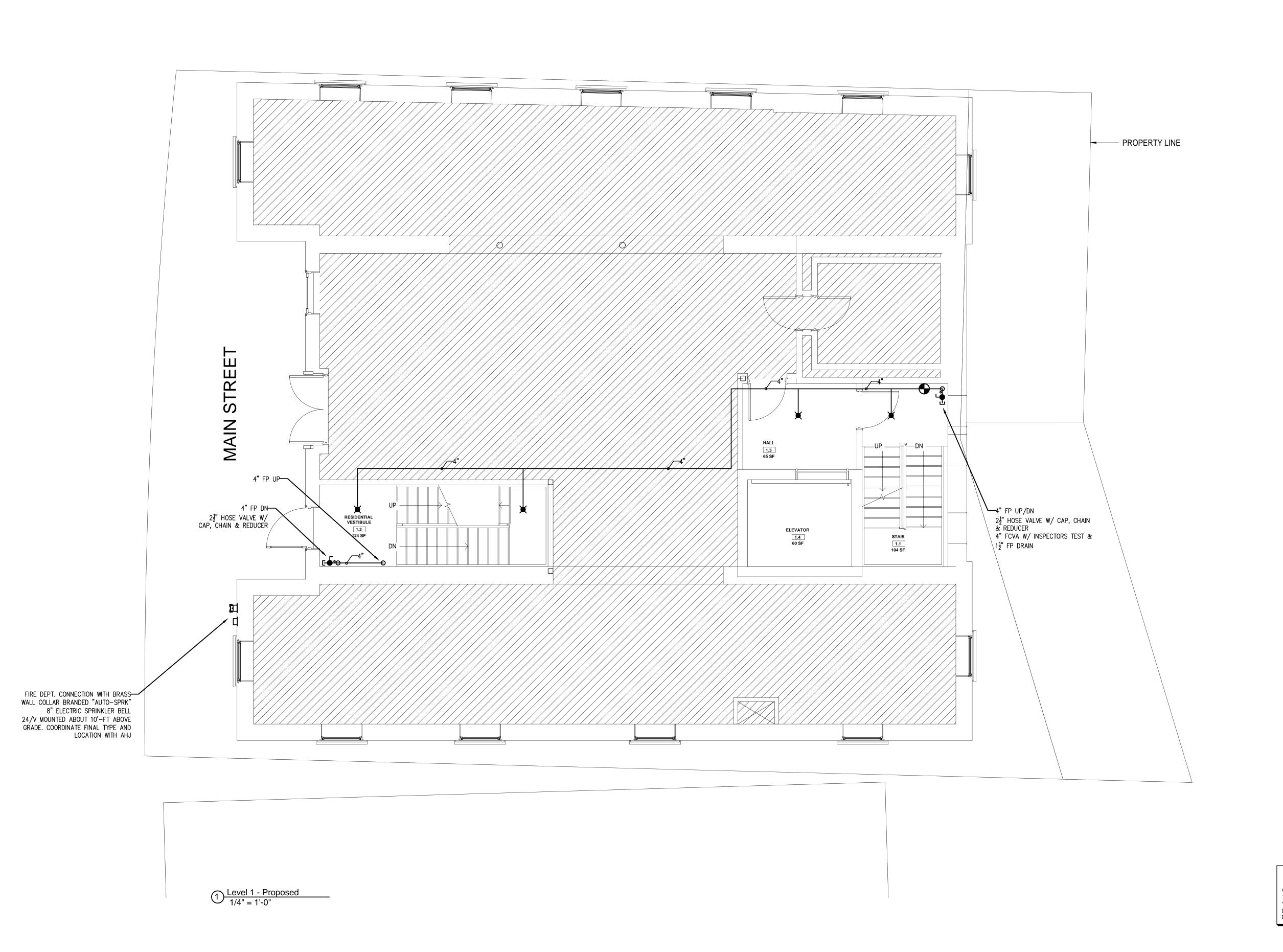
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Checked by		MM
Drawn by		JD
Date		04.07.2021
Project number		221018
I .		

As indicated

Basement - Proposed
1/4" = 1'-0"

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ZADE ASSOCIATES LLC







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HUS Companies 979 Main St

## FIRE PROTECTION PLAN

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Date

04.07.2021

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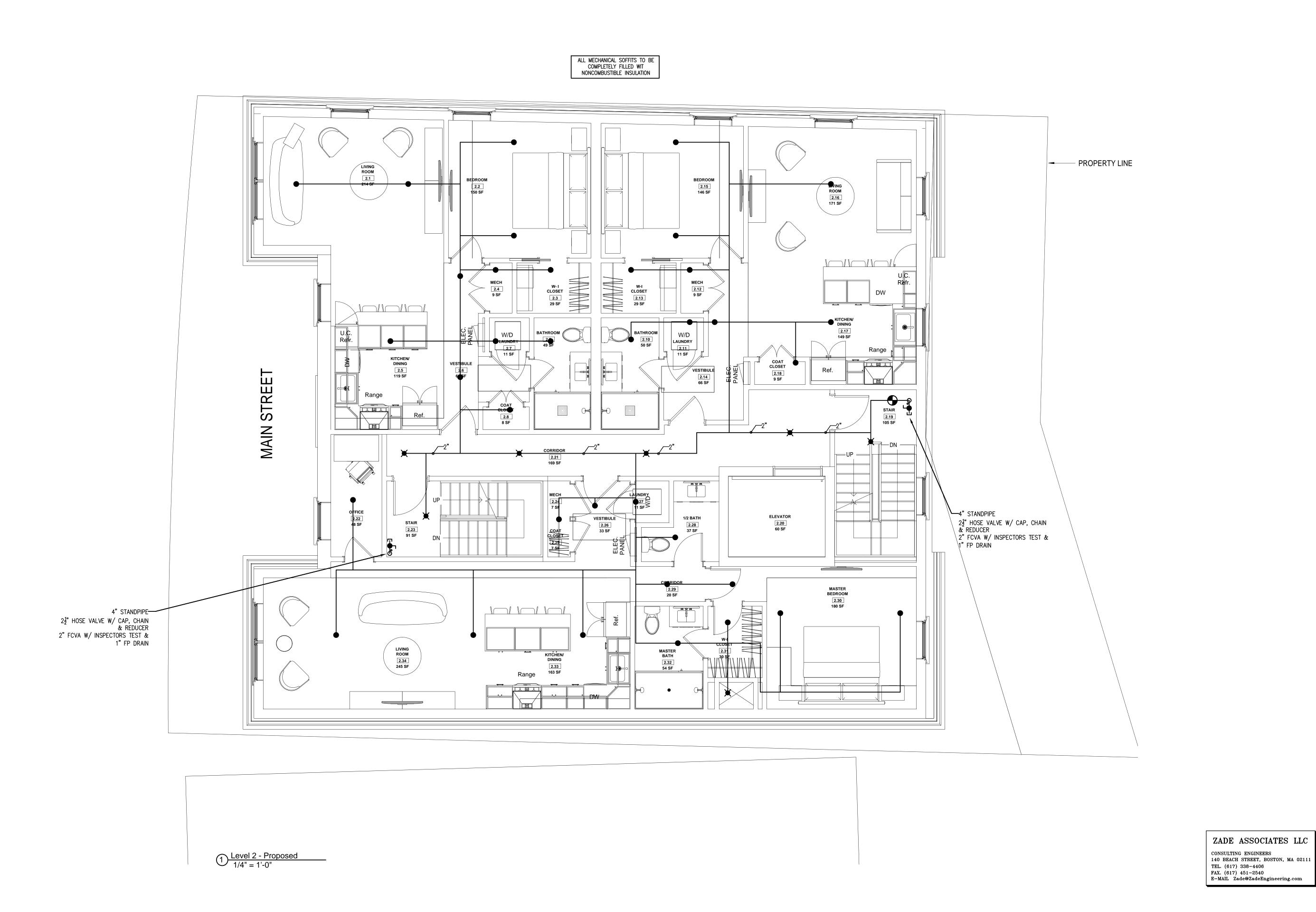
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1	For construction/ Permit	7-23-20

**HUS Companies** 979 Main St

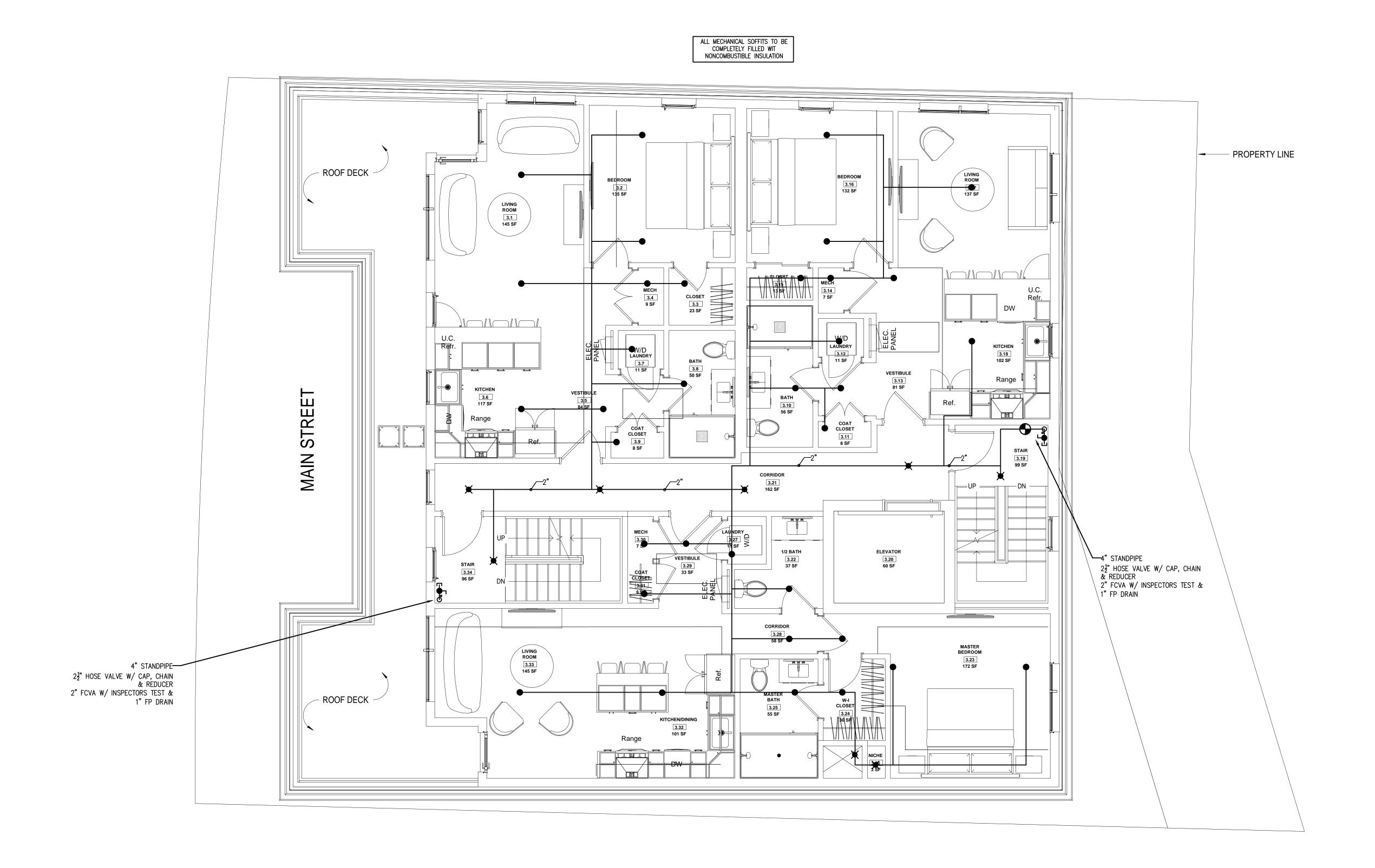
## FIRE PROTECTION PLAN

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No.	Description	Date
1	For construction/ Permit	7-23-2021
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**HUS Companies** 979 Main St

## FIRE PROTECTION PLAN

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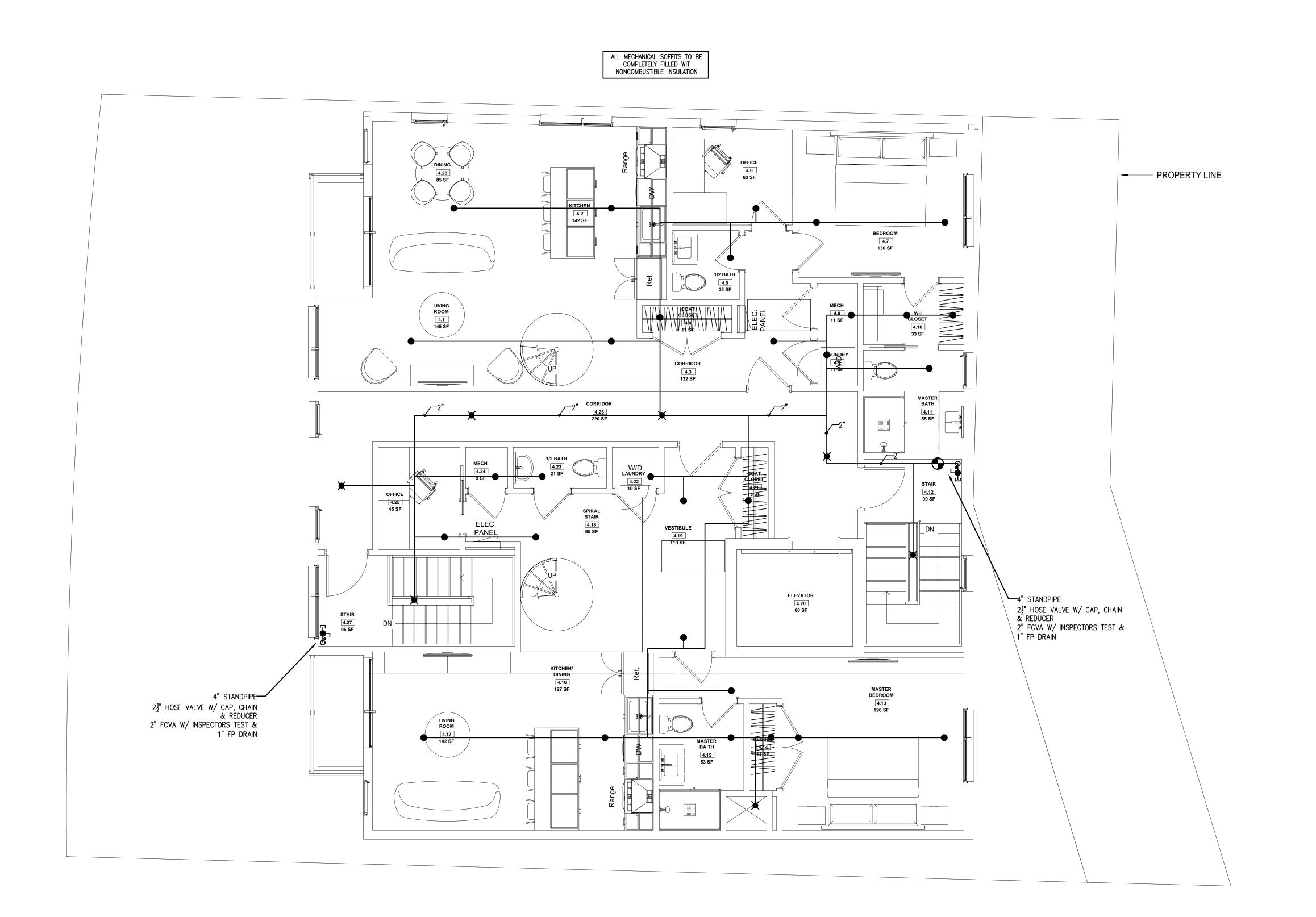
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1/4" = 1'-0"





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1	For construction/ Permit	7-23-202

HUS Companies 979 Main St

# FIRE PROTECTION PLAN

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 Project number
 221018

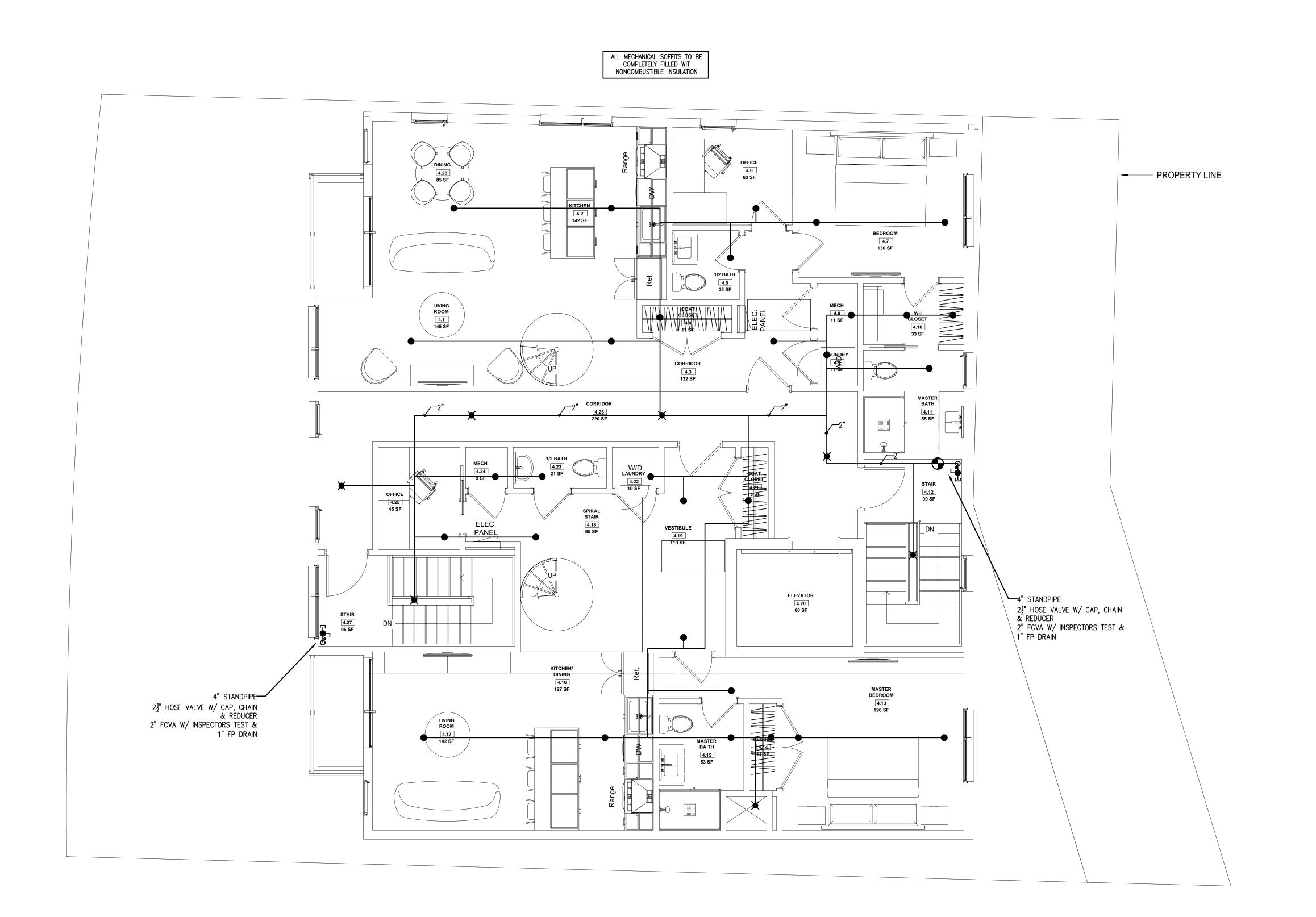
 Date
 04.07.2021

 Drawn by
 JD

 Checked by
 MM

As indicated

1/4" = 1'-0"







No.	Description	Date
1	For construction/ Permit	7-23-20

HUS Companies 979 Main St

## FIRE PROTECTION PLAN

 Project number
 221018

 Date
 04.07.2021

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 MM

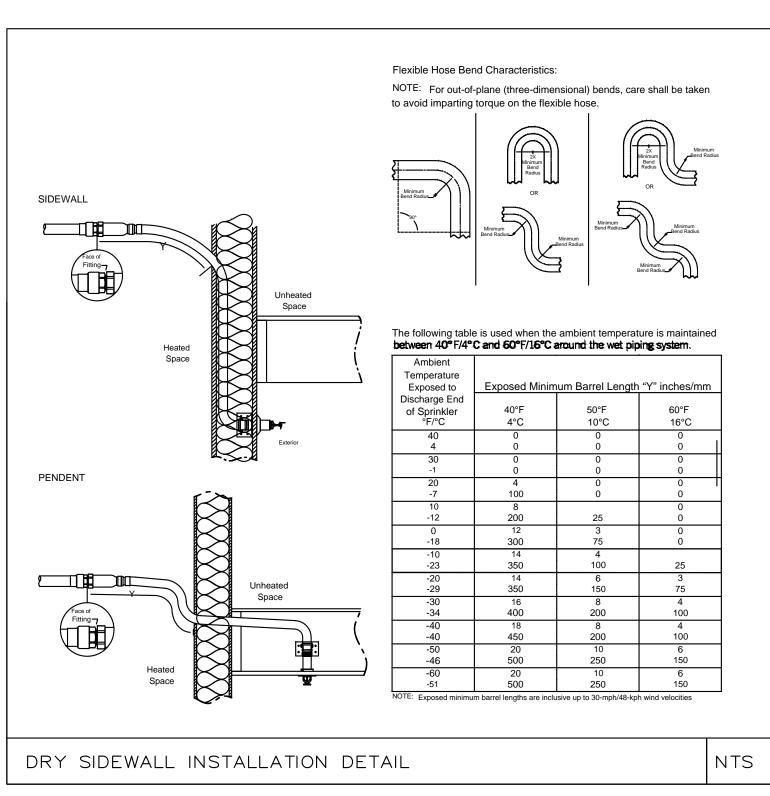
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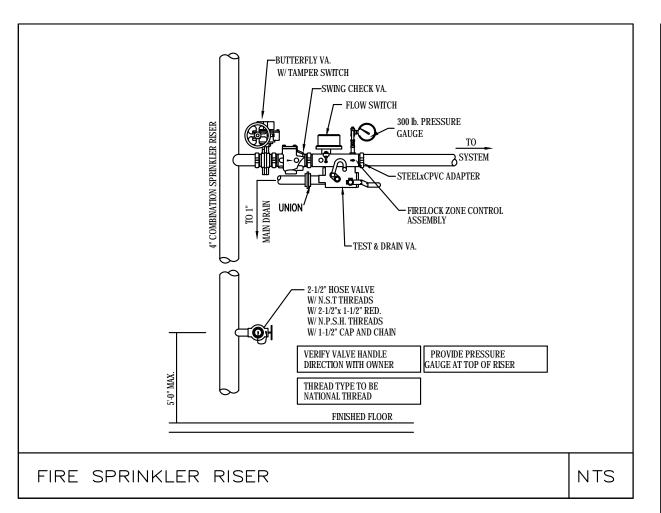
1/4" = 1'-0"

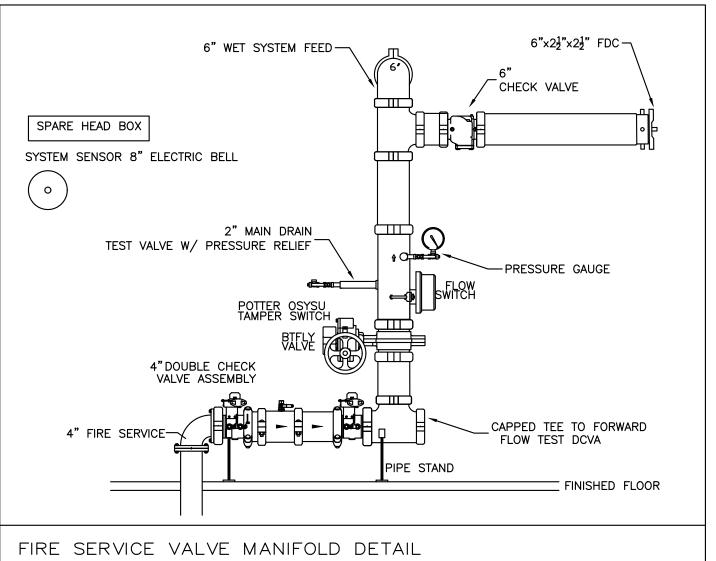
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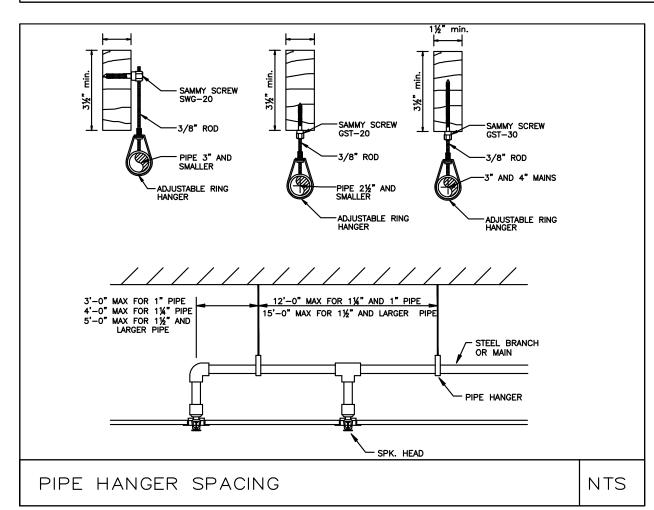
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ZADE ASSOCIATES LLC







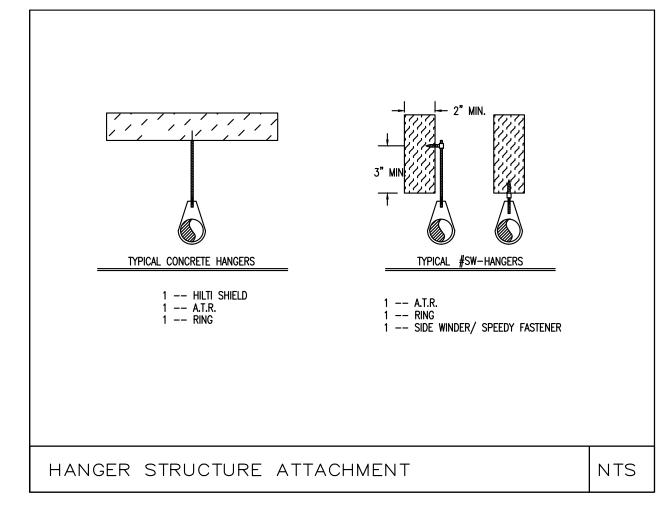


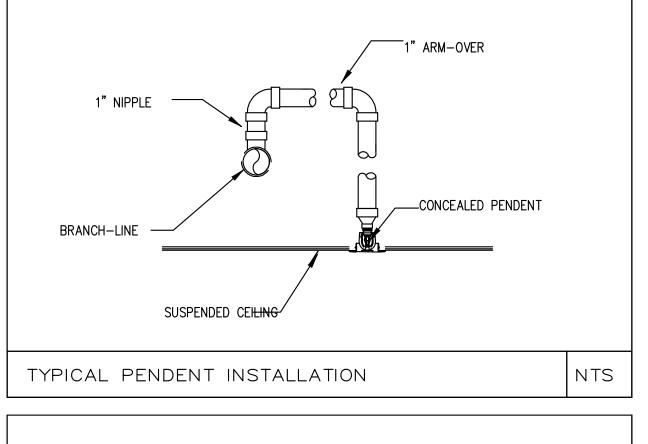
Caution: It is important that the insulation be installed tight against the joists. In

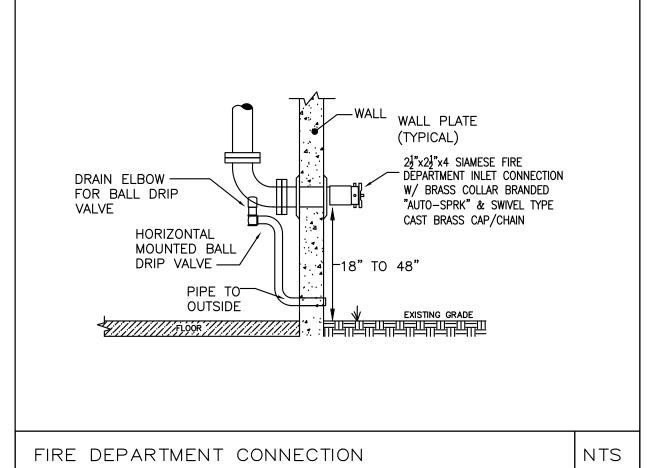
PIPE INSULATION

unheated areas, any spaces or voids between the insulation and the joist cause the water in the fire sprinkler piping to freeze.

NTS









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## FIRE PROTECTION **DETAILS**

As indicated

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NGO GIA TITO	Project number	221018
SSOCIATES LLC	Date	04.07.2021
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#### <u>DESIGN CRITERIA</u>

THE AUTOMATIC FIRE SUPPRESSION SYSTEM HAS BEEN DESIGNED PER NFPA-13 2013, CMR 780 WITH AMENDMENTS

THE DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC IN NATURE AND MAY NOT DEPICT EVERY COMPONENT REQUIRED TO FURNISH A FULLY CODE COMPLIANT SYSTEM. THE FIRE PROTECTION CONTRACTOR IS REQUIRED TO PROVIDE ALL MATERIAL AND LABOR TO FURNISH A FULLY CODE COMPLIANT SYSTEM PER NFPA-13 2013

#### PIPE, FITTINGS AND JOINTS

PIPE AND FITTINGS SHALL CONFORM TO THE LATEST ANSI, ASTM, NFPA AND AWWA STANDARDS INCLUDING LATEST AMENDMENTS AND SHALL BE LISTED FOR USE WITH FIRE SPRINKLER SYSTEMS

2. SEE MATERIAL SCHEDULE ON DETAIL SHEET

#### HANGERS AND SUPPORTS

1. HANGERS AND SWAY BRACING WHERE REQUIRED , SHALL BE INSTALLED TO MEET NFPA AND LOCAL STATE BUILDING CODE COMPLIANCE AS TO LOCATION, SPACING, AND MAXIMUM LOADS.

2. HANGER MATERIAL SHALL BE COMPATIBLE WITH PIPING MATERIALS WITH WHICH IT COMES INTO CONTACT.

3. HANGERS SHALL BE INSTALLED, IN ADDITION TO THE ABOVE, AT ALL CHANGES OF DIRECTION (HORIZONTAL AND VERTICAL), VALVES AND EQUIPMENT CONNECTIONS. HANGERS SHALL BE LOCATED SO THAT THEIR REMOVAL IS NOT REQUIRED TO SERVICE, ASSEMBLE OR REMOVE EQUIPMENT.

4. HORIZONTAL RUNS MAY USE BAND HANGERS UP TO 4" SIZE. PIPING LARGER THAN 4" SHALL BE PROVIDED WITH CLEVIS TYPE.

5. ALL RODS, CLAMPS, NUTS, WASHERS, SHIELDS AND HANGERS IN ALL AREAS SHALL BE ELECTRO—GALVANIZED COATED STEEL.

#### <u>VALVES AND SUNDRIES</u>

1. SHUTOFF VALVES ON THE ABOVEGROUND FIRE PROTECTION SYSTEM SHALL BE UL, FM BUTTERFLY OR OS&Y GATE VALVES, AS INDICATED, ON SIZES 2-1/2" AND LARGER, VALVES UP TO 2" SHALL BE UL, FM BALL VALVES. ALL ISOLATION / CONTROL VALVES SHALL BE MONITORED.

2. CHECK VALVES SHALL BE 175-POUND CLASS FOR FIRE PROTECTION.

3. VALVES SHALL BE PROVIDED WITH SEATS SUITABLE FOR THE SERVICE INTENDED.

4. VALVES SHALL BE AS MANUFACTURED BY NIBCO, VICTAULIC, WALLWORTH, MILWAUKEE OR APPROVED EQUAL. MANUFACTURERS MODEL NUMBERS REFERENCED BELOW ARE USED TO INDICATE A TYPE, MATERIAL AND QUALITY TO BE PROVIDED.

5. ALL VALVES SPECIFIED HEREIN SHALL BE UL/FM APPROVED, 175 PSI MINIMUM WORKING PRESSURE. ALL CONTROL VALVES SHALL BE PROVIDED WITH TAMPER SWITCH.

#### AUTOMATIC SPRINKLERS

1. SPRINKLER HEADS: QUICK RESPONSE, BULB TYPE, AND STYLE AS INDICATED OR REQUIRED BY THE APPLICATION. UNLESS OTHERWISE INDICATED.

2. IN ALL OPEN AREAS, WHERE ELECTRICAL EQUIPMENT IS LOCATED, AN APPROVED TYPE SHIELD, TO KEEP WATER OFF THE ELECTRICAL EQUIPMENT, SHALL BE PROVIDED.

3. PROVIDE ALL SPRINKLER HEADS WITH PROTECTIVE CAGE.

4. PROVIDE IN THE VALVE ROOM, A FINISHED STEEL CABINET SUITABLE FOR WALL MOUNTING, WITH HINGED COVER AND SPACE FOR 6 SPARE SPRINKLER HEADS PLUS SPRINKLER HEAD WRENCH.

1. PRIOR TO INSTALLATION FIRE PROTECTION CONTRACTOR SHALL FURNISH COMPLETE TIER II SHOP DRAWINGS AND HYDRAULIC CALCULATIONS BASED ON A RECENT HYDRANT FLOW TEST FOR APPROVAL BY THE ENGINEER OF RECORD. FINAL AFFIDAVITS CANNOT BE ISSUED WITHOUT APPROVED SHOP DRAWINGS

#### FLUSHING AND TESTING

1. ALL LABOR, MATERIALS, INSTRUMENTS, DEVICES AND POWER REQUIRED FOR TESTING SHALL BE PROVIDED BY THIS CONTRACTOR. THE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF THE ENGINEER, GENERAL CONTRACTOR AND THE LOCAL FIRE DEPARTMENT AND SUCH OTHER PARTIES, AS MAY HAVE LEGAL JURISDICTION. NO PIPING IN ANY LOCATION SHALL BE CLOSED UP, FURRED IN, OR COVERED BEFORE TESTING.

2. WHERE PORTIONS OF PIPING SYSTEMS ARE TO BE COVERED OR CONCEALED BEFORE COMPLETION OF THE PROJECT, THOSE PORTIONS SHALL BE TESTED SEPARATELY IN THE MANNER SPECIFIED HEREIN FOR THE RESPECTIVE ENTIRE SYSTEM.

3. ANY PIPING OR EQUIPMENT THAT HAS BEEN LEFT UNPROTECTED AND SUBJECT TO MECHANICAL OR OTHER INJURY IN THE OPINION OF THE GENERAL CONTRACTOR SHALL BE RE TESTED IN PART OR IN WHOLE AS DIRECTED.

4. THE ENGINEER RETAINS THE RIGHT TO REQUEST A RECHECK OR RESETTING OF ANY PUMP OR INSTRUMENT BY THIS CONTRACTOR DURING THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE

CONTRACTOR.

5. REPAIR, OR IF DIRECTED, REPLACE ANY DEFECTIVE WORK WITH NEW WORK WITHOUT EXTRA CHARGE TO THE CONTRACT. REPEAT TESTS AS DIRECTED, UNTIL THE WORK IS PROVEN TO MEET THE REQUIREMENTS SPECIFIED HEREIN.

6. RESTORE TO ITS FINISHED CONDITION ANY WORK, DAMAGED OR DISTURBED, PROVIDED BY OTHER CONTRACTORS AND ENGAGE THE ORIGINAL CONTRACTOR TO DO THE WORK OF RESTORATION TO THE DAMAGED OR DISTURBED WORK.

7. THIS CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND ANY INSPECTORS HAVING JURISDICTION, A MINIMUM OF 48 HOURS IN ADVANCE OF MAKING ANY REQUIRED TESTS SO THAT ARRANGEMENTS MAY BE MADE FOR THEIR PRESENCE TO WITNESS HIS SCHEDULED TESTS.

8. TESTING SHALL BE IN ACCORDANCE WITH NFPA-13 "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS".

9. EACH SYSTEM SHALL BE TESTED TO A HYDROSTATIC PRESSURE OF 200 PSI FOR TWO HOURS.

10. FLUSHING OF ALL BURIED SUPPLY PIPING SHALL BE PERFORMED AT A MINIMUM RATE OF 880 GPM FOR SYSTEMS WITH A 6" SERVICE.

11. ALL WATER FLOW DETECTING DEVICES AND CIRCUITS SHALL BE FLOW TESTED THROUGH THE INSPECTOR'S TEST CONNECTION AND ACTIVATE WITHIN FIVE MINUTES OF INITIATION.

12. ALL FLOW TESTS ON THE FIRE PROTECTION SYSTEMS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

13. SPRINKLER FLOW TEST DISCHARGE AND FLUSHING WATER DISCHARGE SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE LOCAL FIRE DEPARTMENT OR PUBLIC WORKS AS TO ACCEPTABLE DISCHARGE POINTS PRIOR TO SCHEDULING OF FLUSHING AND TESTS. THIS CONTRACTOR SHALL PROVIDE ALL HOSE AND EQUIPMENT NECESSARY TO PERFORM THE REQUIRED TESTING AND

### AS BUILT DRAWINGS AND CONTRACTOR CERTIFICATES

PATCHING, REPLACEMENT AND MODIFICATION OF EXISTING WORK

1. CONTRACTOR SHALL HAVE, ON HAND, AT TIME OF FINAL INSPECTION BY THE AUTHORITY HAVING JURISDICTION, FOR TEMPORARY / FINAL CERTIFICATE OF OCCUPANCY, ALL COMPLETED CERTIFICATES OF MATERIAL AND TESTING FOR ABOVEGROUND AND UNDERGROUND PIPING AS WELL AS THE AS- BUILT DRAWINGS OF THE FIRE PROTECTION INSTALLATION.

2. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD AT SUCH A TIME WHERE THE INSTALLATION HAS PROGRESSED TO 90% AND PRIOR TO WALLS BEING CLOSED FOR INSPECTION.

#### 1. AFTER INSTALLATION OF PIPELINES, THE CONTRACTOR SHALL NEATLY PATCH, REPAIR, AND/OR REPLACE EXISTING WORK WHERE DAMAGED, REMOVED OR ALTERED FOR PIPE LINE INSTALLATION. THIS WORK SHALL BE SIMILAR AND EQUAL IN QUALITY TO THE WORK REMOVED OR DAMAGED, UNLESS OTHERWISE SHOWN OR SPECIFIED. SUCH WORK SHALL INCLUDE PATCHING AND REPLACEMENT OF EXISTING

PIPING AT POINTS OF CONNECTION TO NEW PIPING, PATCHING OF INSULATION, AND WHEREVER ANY SUCH PATCHING WORK IS INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED. <u>INSTALLATION</u>

1. GENERAL: INSTALL FIRE PROTECTION SPECIALTY VALVES, FITTINGS, AND SPECIALTIES IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, NFPA 13 AND 14, AND THE AUTHORITY HAVING

JURISDICTION.

3. ALL PENDENT MOUNTED SPRINKLERS SHALL BE INSTALLED ON RETURN BENDS.

2. USE PROPER TOOLS TO PREVENT DAMAGE DURING INSTALLATIONS.

4. ALL SPRINKLERS INSTALLED IN ACOUSTICAL CEILING TILES SHALL BE CENTERED IN TILES WHERE APPLICABLE.

5. COORDINATE AND VERIFY DRAFT CURTAINS ARE INSTALLED AS REQUIRED BY SPRINKLER HEAD SPECIFICATIONS

6. CONTRACTOR IS RESPONSIBLE TO PROVIDE 100% SPRINKLED BUILDING INCLUDING ALL COMBUSTIBLE CONCEALED SPACES WHETHER SHOWN ON THIS PLAN OR NOT

7. NO WORK SHALL COMMENCE BEFORE HAVING FULL APPROVAL FROM THIS OFFICE

### FIRE PROTECTION SPECIFICATION

#### FIRE PROTECTION SPECIFICATION

BEFORE BIDDING THE JOB, CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY EXISTING CONDITIONS. REPORT ADVERSE CONDITIONS IN WRITING TO ARCHITECT.

2. SPRINKLER PIPING SHALL BE SCH.10/40 BLACK STEEL WITH 125 LB. CAST IRON THREADED/GROOVED JOINTS WHERE EXPOSED. BLAZE-MASTER TYPE CPVC FOR FIRE PROTECTION SHALL BE INSTALLED CONCEALED AND PER MANUFACTURERS INSTRUCTIONS.

SPRINKLER HEADS IN COMMON AREAS SHALL BE QUICK RESPONSE CONCEALED TYPE MANUFACTURED BY VIKING OR EQUAL. WITHIN UNITS THEY WILL BE RESIDENTIAL

4. APPLY AND OBTAIN PERMIT AND APPROVAL FROM LANDLORD'S INSURANCE COMPANY. FIRE DEPARTMENT AND STATE AND LOCAL AUTHORITIES.

5. COORDINATE WITH ARCHITECT AND ARCHITECTURAL REFLECTED CEILING PLAN FOR THE LOCATION OF SPRINKLER HEADS.

6. COORDINATE SPRINKLER WORK WITH OTHER DISCIPLINES. SINCE PERFORMANCE OF SPRINKLER SYSTEM IS AFFECTED BY OBSTRUCTIONS AND NOT OTHER WAY AROUND, THIS CONTRACTOR SHALL COORDINATE ALL LIGHTING FIXTURE LOCATIONS AND TYPES AND OTHER OBSTRUCTIONS PRIOR TO ANY WORK DONE.

7. THE SYSTEM SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI PRESSURE FOR 2 HOURS. THERE WILL BE NO VISIBLE LEAKAGE WHEN THE SYSTEM IS SUBJECTED TO THE HYDROSTATIC PRESSURE TEST.

8. GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR FROM THE DATE OF ACCEPTANCE.

### FIRE PROTECTION ABBREVIATIONS

DSW DCVA DIA DR ETR FHV IT FP FS SP GV GAL GALV GPM MAX MIN	DRY SIDEWALL DOUBLE CHECK VALVE ASSEMBLY DIAMETER DRAIN EXISTING TO REMAIN FIRE HOSE VALVE INTERMEDIATE TEMPERATURE FIRE PROTECTION FLOW SWITCH STANDPIPE GATE VALVE GALLONS GALVANIZED GALLONS PER MINUTE MAXIMUM MINIMUM
NTS	NOT TO SCALE
DN PSI PRV	PIPE DROP POUNDS PER SQUARE INCH PRESSURE REDUCING VALVE
RV	RELIEF VALVE
SPK	SPRINKLER
TS	TAMPER SWITCH
UP	PIPE RISE

VERIFY IN FIELD

FLOW

FLOW TEST DATA

STATIC ---- 83 PSI

RESIDUAL ---- 78 PSI

---- 1,349 GPM

#### FIRE PROTECTION LEGEND SYMBOL DESCRIPTION SUPERVISED BUTTERFLY VALVE DOUBLE CHECK VALVE ASSEMBLY SUPERVISED OS&Y GATE VALVE ₹FS FLOW ALARM SWITCH SPRINKLER ZONE CONTROL ASSEMBLY (SEE DETAIL) PUMP (FIRE OR JOCKEY) DRY ALARM VALVE WET ALARM VALVE -egthinspace -CHECK VALVE DRAIN VALVE FIRE VALVE ASSEMBLY ₩. <u>2-1/2"W X 2-1/2" X 1-1/2"</u> PRESSURE GAUGE $\langle xx \rangle$ HYDRAULIC JUNCTION POINT (XXX) HYDRAULIC DISCHARGE NODE

PREPARATION OF SHOP DRAWINGS:
PER 780CMR 901.2.1 SPRINKLER CONTRACTOR SHALL PREPARE TIER ii SHOP DRAWINGS INCLUDING PIPING & HYDRAULIC
CALCULATIONS, AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WORK.
ENGINEER SHALL CERTIFY SYSTEM INSTALLATION FOR CODE COMPLIANCE AT PROJECT COMPLETION.

VIF

	IEER SHALL CER COMPLIANCE A		FOR		G CONTRACTOR SHALL OBTAIN FLOW TEST DATA PRIOR TO		
						CONSTRUC	SHOR
FIRE	SPRINKLER	R LEGEND					
SYM	POSITION	FINISH	TEMP	K	NPT	SIN	
0	UPRIGHT	BRASS	155°	5.60	1/2"	EQ	
$\boxtimes$	UPRIGHT	BRASS	200°	5.60	1/2"	EQ	
DΧ	DRY UPRIGHT	BRASS	200°	5.60	1/2"	EQ	
	PENDENT	CONCEALED	155°	5.60	1/2"	EQ	
	RES PENDENT	CONCEALED	155°	4.90	1/2"	EQ	
•	DRY PENDENT	CONCEALED	155°	5.60	1/2"	EQ	
<b>•</b>	RES SIDEWALL	CONCEALED	155°	4.00	1/2"	VK480	
$\triangleright$	DRY SIDEWALL	CONCEALED	155°	5.60	1/2"	VS-1	

FIRE PROTECTION MATERIAL SCHE	Dl	IJ	E	 																
SYSTEM					PIP	E						FIT	'TIN	1GS	3		J	OIN	ITS	
NOTES:  1. COMPONENT PRESSURE RATING TO MATCH EXISTING  2. ALL MATERIALS SELECTED ON THIS SCHEDULE MUST BE APPROVED BY THE ENGINEER & LOCAL AUTHORITIES  2. ALL MATERIALS SELECTED ON THIS SCHEDULE MUST BE APPROVED BY THE ENGINEER & LOCAL AUTHORITIES	ER	DUCTILE IRON	HEAVY	SCHED	SCHED	SIEEL SCHED 40	SCIED	GALVANIZED	CEMENT LINED	MALLEABLE IRON	BLAZEMASTER CPVC	LINED	BLACK	GALVANIZED	VICTAULIC	DUCTILE IRON	THREADED	MECH.JOINT-FLANGED	GROOVED	SLIF
BURIED BUILDING FIRE SERVICE		•					•		•									•		
RESIDENTIAL CROSS MAINS	•																		•	
RESIDENTIAL BRANCH LINES	•																		•	
ARM-OVER & DROPS	•										•									
SPRINKLER DRAIN PIPE								•						•			•		•	



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**HUS Companies** 979 Main St

## FIRE PROTECTION **NOTES**

Project number

Scale

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FP201

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