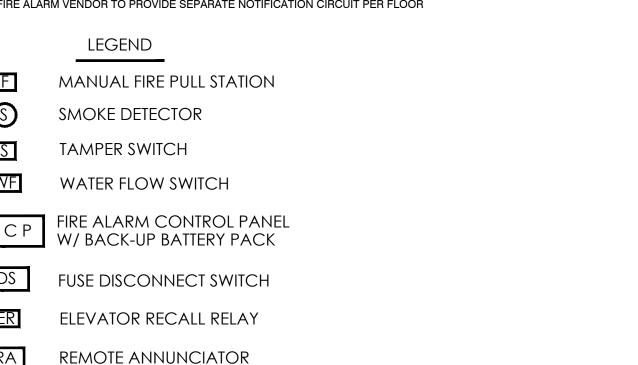
AUTOMATIC SMOKE /CO/HEAT DETECTION

AND SPRINKLER ALARM SYSTEM

- 1 ALL WIRING, POWER, CONDUCTORS, CONDUITS ETC. SHALL MEET NYC ELECTRICAL CODE ARTICLE 760 AS PER SECTION 4000-06 OF 8-2009.
- 2 ALL WORK SHALL BE IN ACCORDANCE WITH THE 2014 NYC BUILDING CODE AND IN ACCORDANCE WITH APPENDIX Q AND K, NYC FIRE ALARM RULES, AND 2010 NFPA 72 AS AMENDED BY APPENDIX Q.
- 3 ALL FIRE ALARM EQUIPMENT SHALL BE NYC APPROVED.
- 4 ALL FIRE ALARM CIRCUITS SHALL BE SIZED TO A MAXIMUM OF 80% OF CAPACITY.
- 5 ALL FIRE ALARM CIRCUITS SHALL BE WIRED NFPA STYLE 4/Y/B (CLASS B) WITH THE EXCEPTION OF THE NETWORK CIRCUIT WHICH SHALL BE NFPA STYLE 7 (CLASS A WITH ISOLATION). DUAL CLASS B NETWORKING IS NOT STYLE 6 AND WILL NOT BE APPROVED. ALL AUDIBLE AND VISUAL CIRCUITS SHALL BE STYLE Y/CLASS B UNLESS THE CONTRACT DRAWINGS INDICATE NYC SPLIT A/B. A/B CIRCUITS
- WIRED SO THAT EVERY OTHER DEVICE IS WIRED ON AN ALTERNATE CIRCUIT. ALL FIRE ALARM SPEAKER WIRING FOR ONE-WAY VOICE IN R2 APARTMENT BUILDINGS SHALL BE WIRED NFPA CLASS A/STYLE Z.
- 6 CONDUITS MAY NOT ENTER THE TOP OF ANY FIRE ALARM CABINET.
- 7 ALL FIRE ALARM EQUIPMENT SHALL BE INSTALLED WITH AESTHETICS IN MIND.
- CABINETS SHALL BE SEMI FLUSH MOUNTED AND CABLE TRAYS SHALL BE HIDDEN.
- 8 ALL FIRE ALARM CABINETS AND JUNCTION BOXES SHALL BE PAINTED FIRE DEPARTMENT RED. ALL FIRE ALARM CABINETS SHALL BE CLEARLY LABELED WITH A NYC APPROVED LAMINATE ENGRAVED LABEL.
- 9 ALL FIRE ALARM WIRE SHALL BE CLEARLY LABELED IN JUNCTION BOXES AND CABINETS. ALL TERMINALS SHALL BE NUMBERED AND LABELED.
- ALL CONNECTIONS SHALL BE EITHER SOLDERED, APPROVED TERMINAL STRIPS OR SCOTCH LOCKS.
- 10 ALL FIRE ALARM CONDUCTORS SHALL BE PROTECTED BY EITHER BUILDING CONSTRUCTION OR CONDUIT TO 8 FEET ABOVE THE FINISHED FLOOR. LOADING DOCKS, GARAGES, SUPPRESSION AND EXTINGUISHING SYSTEM WIRING, MECHANICAL AND ELECTRICAL ROOMS AND OTHER LOCATIONS SUBJECT TO MECHANICAL DAMAGE SHALL BE IN FULL RIGID CONDUIT. IN ALL OTHER AREAS, NYC APPROVED WIRE MAY BE RUN WITHOUT CONDUIT ABOVE 8 FT. PROVIDED IT MEETS NYC ARTICLE 760 AND CONNECTS TO BUILDING CONSTRUCTION USING A NYC APPROVED MEANS.
- 11 FIRE ALARM CABLES SHALL NOT BE MIXED WITH NON FIRE ALARM CABLING. LOW VOLTAGE FIRE ALARM CABLING SHALL NOT BE MIXED OR WIRED NEAR ANY AC CIRCUIT.
- 12 ALL LOW VOLTAGE WIRING SHALL BE FPLP 150 DEGREE F NYC CERTIFIED WIRE. ALL NOTIFICATION CIRCUITS SHALL BE A MINIMUM OF
- 14 AWG AND ALL OTHER LOW VOLTAGE FIRE ALARM CIRCUITS SHALL BE 16 AWG MINIMUM. 13 - VERTICAL RISER CABLE FOR ALL SYSTEMS THAT INCLUDE STAGED EVACUATION (ANYTHING OTHER THAN A GENERAL ALARM SEQUENCE)
- SHALL INCLUDE NYC CERTIFIED CI RISER CABLE PER THE NYC ELECTRICAL CODE OR A 2 HOUR RATED SHAFT.
- 14 POLARITY SHALL BE OBSERVED ON ALL CIRCUITS. T-TAPPING SHALL NOT BE ALLOWED ON ANY NOTIFICATION CIRCUITS (HORN, STROBE OR SPEAKER). T-TAPPING SHALL NOT BE PERMITTED ON ADDRESSABLE CIRCUITS WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER.
- 15 ALL WIRING SHALL BE INSPECTED TO ASSURE THERE ARE NO OPENS, SHORTS OR EARTH GROUNDS.
- 16 SHIELDED CONDUCTORS OR RUNNING IN SEPARATE RACEWAY SHALL BE AS INSTRUCTED BY THE FIRE ALARM MANUFACTURERS DOCUMENTATION. ALL NON-POWER LIMITED WIRING, INCLUDING CIRCUITS FOR CENTRALIZED AMPLIFIERS SHALL BE RUN IN A SEPARATE RACEWAY (NOTE: CENTRALIZED AMPLIFIERS ARE NOT PERMITTED ON NEW SYSTEMS).
- 17 FIRE ALARM EQUIPMENT SHALL BE POWERED THROUGH AN APPROVED FUSE DISCONNECT SWITCH (FDS) CONNECTED AHEAD OF THE MAIN SERVICE SWITCH. THE FDS SHALL BE LOCATED WITHIN 5 FT OF THE CONNECTION POINT, PAINTED RED AND SUPPLIED WITH A LOCK WITH KEY MAINTAINED ON THE PREMISES. ALL WIRING SHALL BE #10 MINIMUM THHN OR EQUIVALENT RUN IN ¾ INCH EMT/RGS AND IN ACCORDANCE WITH NYC REQUIREMENTS. IF A SEPARATE CENTRAL STATION DIALER IS PROVIDED (NOT PANEL MOUNTED), INCLUDE SEPARATE FDS.
- 18 ALL FDSS AND FIRE ALARM CONTROL PANELS SHALL BE GROUNDED USING A MINIMUM #10AWG (#8 MINIMUM TO FDS SEE NYC ELECTRICAL CODE TABLE 250.66)) GREEN THHN OR EQUIVALENT, CONNECTED TO THE STREET SIDE OF THE COLD WATER MAIN WITH AN APPROVED CLAMP IN 3/4 INCH MINIMUM EMT/RGS. THE GROUND SHALL BE CONTINUED TO ALL OTHER FIRE ALARM EQUIPMENT CABINETS. ADDITIONALLY, THE NEUTRAL IN EACH FDS/FCO SHALL BE BONDED TO THE METALLIC HOUSING IN ACCORDANCE WITH NYC CODE.
- 19 A CENTRAL STATION DIALER AND TWO DEDICATED PHONE LINES SHALL BE PROVIDED. THE DIALER SHALL BE CAPABLE OF SENDING THE FOLLOWING EVENTS: ALARM, MANUAL STATION, WATERFLOW, SUPERVISORY, TROUBLE, PUMP RUNNING AND PUMP TROUBLE.
- 20 ALL AREA OR DUCT SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE.
- 21 SMOKE DETECTORS MUST BE MOUNTED AT LEAST 3 FT AWAY FROM ANY AIR REGISTER.
- 22 ALL CEILING MOUNT DEVICES MUST BE SECURELY FASTENED TO BUILDING CONSTRUCTION. 23 - DEVICE LOCATIONS MUST BE READILY ACCESSIBLE TO ALLOW FOR MAINTENANCE AND REPAIR.
- 24 DUCT MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON THE DUCTWORK IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
- ALL DUCT DETECTORS SHALL BE PROVIDED WITH A REMOTE LED. 25 - MANUAL STATIONS SHALL BE MOUNTED 48 INCHES ABOVE THE FINISHED FLOOR TO THE HANDLE OF THE STATION AND SHALL BE PAINTED
- FIRE DEPARTMENT RED. ALL MANUAL STATION SHALL BE INSTALLED SO THAT THEY ARE KEPT UN-OBSTRUCTED AT ALL TIMES. 26 - ALL STROBE LIGHTS SHALL BE ADA AND UL-1971 APPROVED/LISTED. THE MINIMUM CANDELA IS 75 UNLESS OTHERWISE NOTED.
- A 15/75 STROBE MAY BE UTILIZED WHERE 15 CANDELA STROBES MEET NFPA REQUIREMENTS (CORRIDORS AND 20 X 20 SPACES).
- 27 NOTIFICATION DEVICES THAT INCLUDE A STROBE SHALL BE MOUNTED 80 INCHES OFF THE FINISHED FLOOR TO THE BOTTOM OF THE STROBE 28 - ALL AUXILIARY RELAYS FOR FAN SHUTDOWN, DOOR RELEASE, DAMPER CONTROL, ELEVATOR CONTROL, ETC SHALL BE WIRED A MAXIMUM OF 3 FT FROM THE CONTROLLED DEVICE. THE AUXILIARY RELAY SHALL FUNCTION WITHIN THE REQUIRED VOLTAGE AND CURRENT OF THE CONTROLLED DEVICE. SLAVE OR INTERPOSING RELAYS SHALL BE INCLUDED AND POWERED BY THE FIRE ALARM CONTROL PANEL IN A FAIL-SAFE (FIRE FUNCTION) POSITION.
- POWER TO THE INTERPOSING RELAY SHALL BE MONITORED BY THE FIRE ALARM SYSTEM. 29 - LOCATIONS OF ALL FIRE ALARM EQUIPMENT SHALL BE SUBJECT TO THE NYC DEPARTMENT OF BUILDINGS AND FDNY APPROVAL. NO CHANGE OR MODIFICATION TO THE SYSTEM OR PLANS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
- IF ANY CHANGES ARE MADE TO THE DRAWINGS PRIOR TO OR DURING INSTALLATION, AS BUILT PLANS SHALL BE PREPARED BY THE ENGINEER AND FILED WITH THE APPROPRIATE NYC AGENCIES FOR FINAL ACCEPTANCE. 30 - CONTRACTOR SHALL PROVIDE A SIGNED AND SEALED A-433 FORM AND FILE THE SAME FORM WITH THE NYC FIRE DEPARTMENT
- TO OBTAIN A FIRE ALARM INSPECTION. IF A LETTER OF DEFECT IS ISSUED, THE CONTRACTOR SHALL CORRECT ALL ITEMS AND SUBMIT A SIGNED AND SEALED CERTIFICATE OF CORRECTION TO THE NYC FIRE DEPARTMENT TO OBTAIN A FINAL LETTER OF APPROVAL AT NO ADDITIONAL COST.
- 31 THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY AND ALL ABANDONED FIRE ALARM CABINETS, DEVICES, AND WIRE.
- PAINT, PATCH AND CLEANUP SHALL ALSO BE INCLUDED. 32 - FIRE ALARM VENDOR TO PROVIDE SEPARATE NOTIFICATION CIRCUIT PER FLOOR



OCCUPANCY GROUP R-2 THIRD FLOOR OCCUPANCY GROUP R-2 SECOND FLOOR OCCUPANCY GROUP R-2 RA FIRST FLOOR TO 24 HR. CENTRAL MONITORING STATION VIA DIGITAL TRANSMITTER CENTRAL OFFICE — TRANSMITTER POWER TAB ON LINE SIDE OF ELECTRIC SERVICE

FIRE ALARM SYSTEM RISER DIAGRAM

BULKHEAD

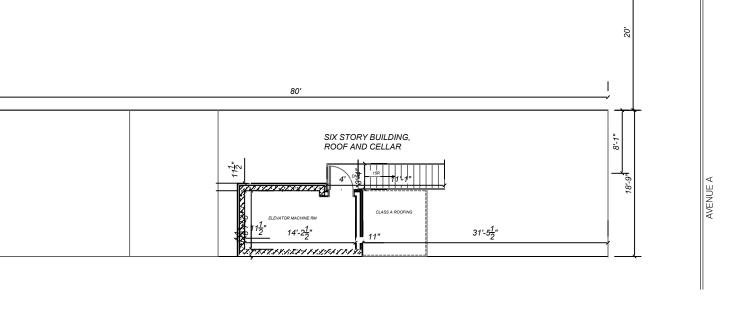
SIXTH FLOOR

FIFTH FLOOR

FOURTH FLOOR

CELLAR FLOOR

OCCUPANCY GROUP R-2 OCCUPANCY GROUP R-2 PLOT PLAN BLOCK: 429 ZONE: R8A MAP: 12c LOT: 39 OCCUPANCY GROUP R-2 TS-WF-S OCCUPANCY GROUP R-2 OCCUPANCY GROUP R-2



| FIRE ALARM SYSTEM INPUT/OUTPU

						M	ATF	RIX										
		SYSTEM OUTPUTS	ACTIVATE AUDIBLE/VISUAL ALARM AT FACP	ACTIVATE AUDIBLE/VISUAL TROUBLE AT FACP	activate audible/visual supervisory at facp	activate central office manual station alarm signal	activate central office transmitter supervisory	ACTIVATE WATERFLOW SIGNAL AT FACP	ACTIVATE CENTRAL OFFICE TRANSMITTER AUTOMATIC ALARM SIGNAL, REPORTS FIRE ALARM CENTRAL OFFICE MONITORING COMPANY	ACTIVATE CENTRAL OFFICE TRANSMITTER FOR TROUBLE SIGNAL	activate smoke alarm signal to central office	ACTIVATE ELEVATOR RECALL	activate central office transmitter waterflow signal					
-	SYSTEM INPUTS		ACT	ACT	ACT	ACT	ACT	ACI	ACTIN	ACI	AC	ACI	AC					
1	manual pull Station		0			0												
2	AREA SMOKE DETECTOR		0						0		0							
3	TOP OF STAIR SMOKE DETECTOR		0						0									
1	HEAT DETECTOR		0						0									
5	ELEVATOR, ELEV. MACH. ROOM, TOP SHAFT SMOKE DETECTOR	OF	0						0			0						
5	SPRINKLER TAMPER				0		0											
,	WATERFLOW		0					0				0	\bigcirc					
3	FIRE PUMP RUNNING				0		0											
,	FIRE PUMP POWER FAIL				0		0											
0	FIRE PUMP PHASE REVERSAL				0		0											
	SYSTEM FAULTS)																
ı	OPEN CIRCUIT			0						0								
2	GROUNDED WIRE			0						0								
3	A/C FAILURE			0						0								
	TROUBLE CONDITION			\bigcirc						\cap								



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ADDITION, OR SUBSTITUTION OF OR SPECIFICATION(S) COULD
RESULT IN PROPERTY DAMAGE, INJURY, OR EVEN DEATH,
AND REQUIRES A FULL REVIEW OF THE ENTIRE SYSTEM BY
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PLOT PLAN, NOTES, LEGEND, FIRE ALARM SYSTEM RISER DIAGRAM

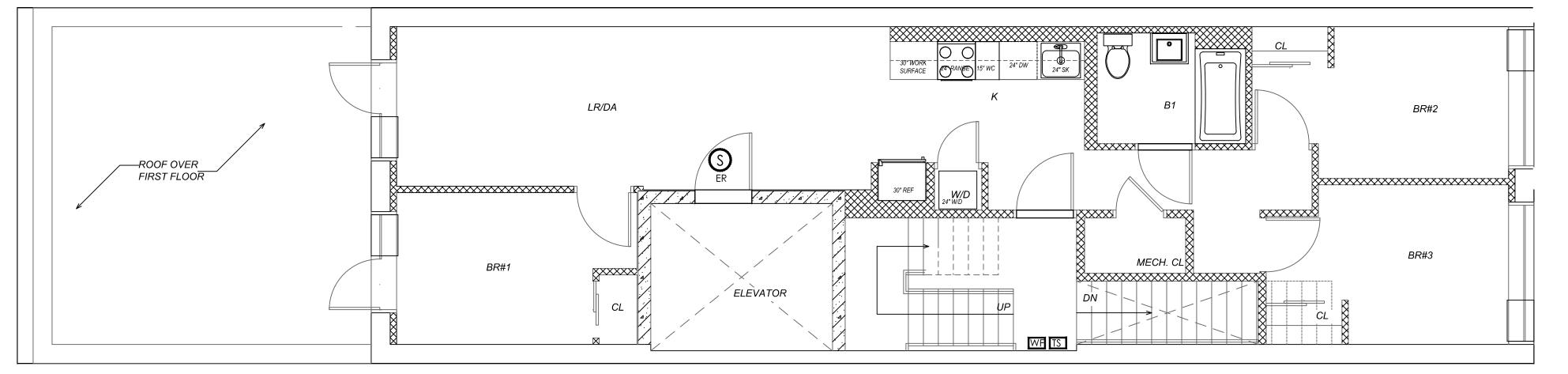
SEAL & SIGNATUR DATE (MM-DD-YY): 02-07-17 DRAWN BY: G.P. FA-001.00

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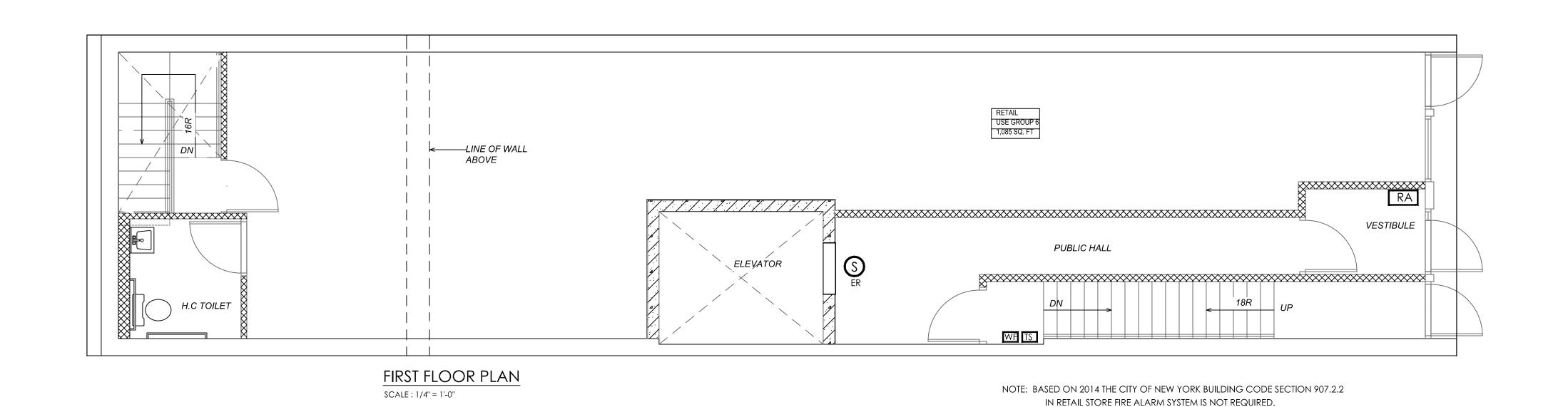
JUNCTION BOX **SMOKE DETECTOR** (ELEV. RECALLING) "ER" DENOTES - ELEVATOR RECALL HEAT DETECTOR RELAY (PUMP RUNNING) RELAY (PUMP PHASE REVERSAL)

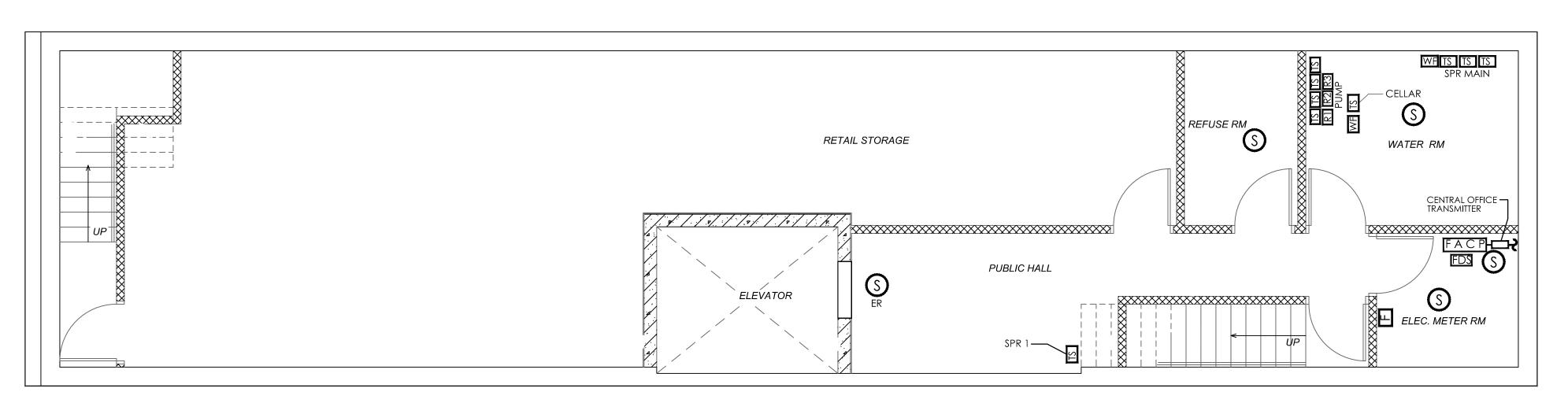
RELAY (PUMP AC FAIL)



SECOND FLOOR PLAN

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





CELLAR FLOOR PLAN

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



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CELLAR PLAN, FIRST FLOOR PLAN, SECOND FLOOR PLAN

SEAL & SIGNATUR

DATE (MM-DD-YY): 02-07-17

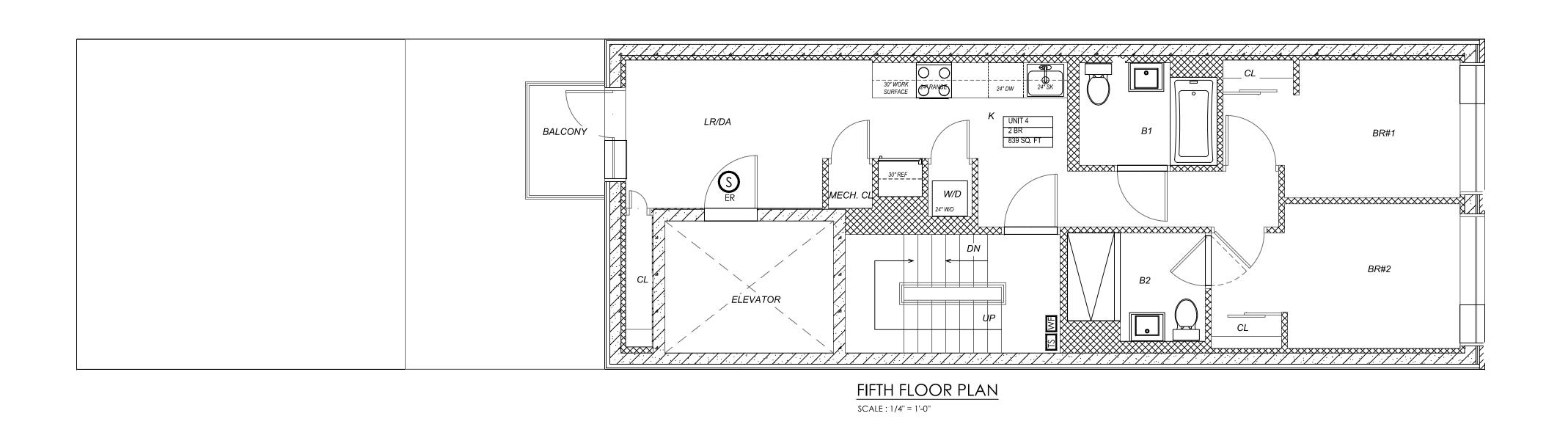
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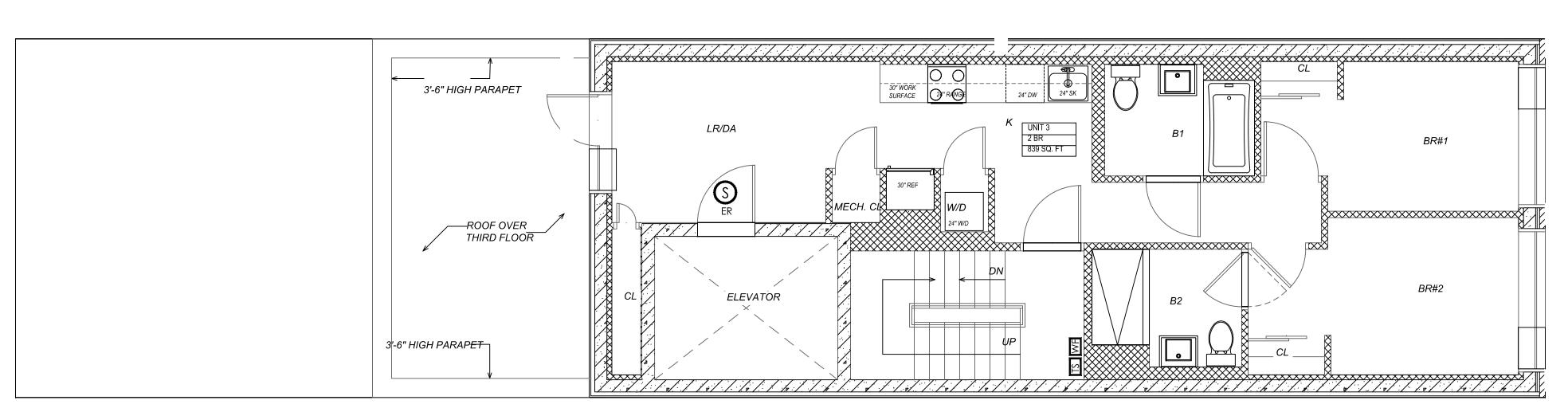
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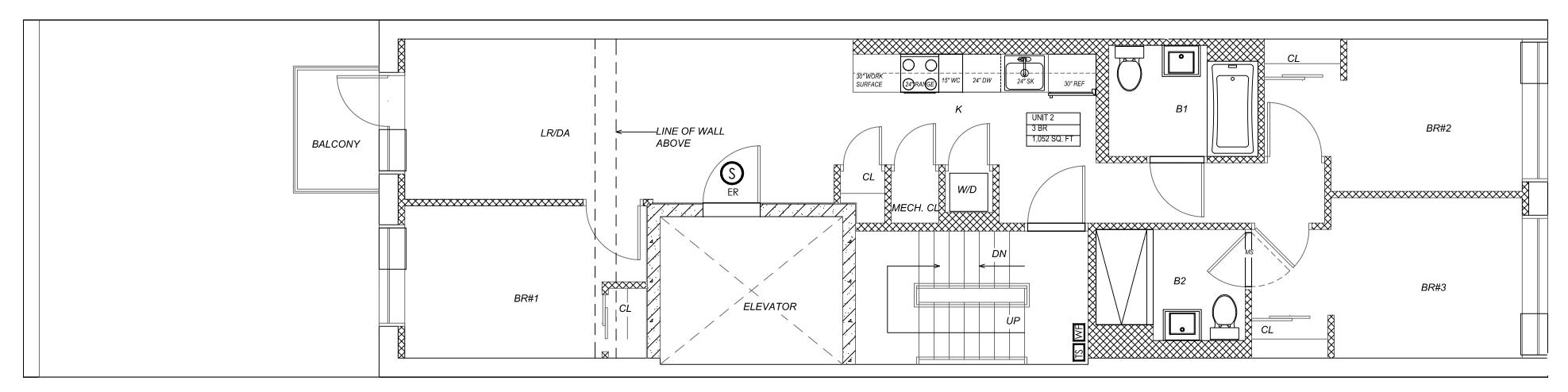
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FOURTH FLOOR PLAN

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



THIRD FLOOR PLAN

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



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ı		

THIRD FLOOR PLAN, FOURTH FLOOR PLAN, FIFTH FLOOR PLAN

11

AVENUE A

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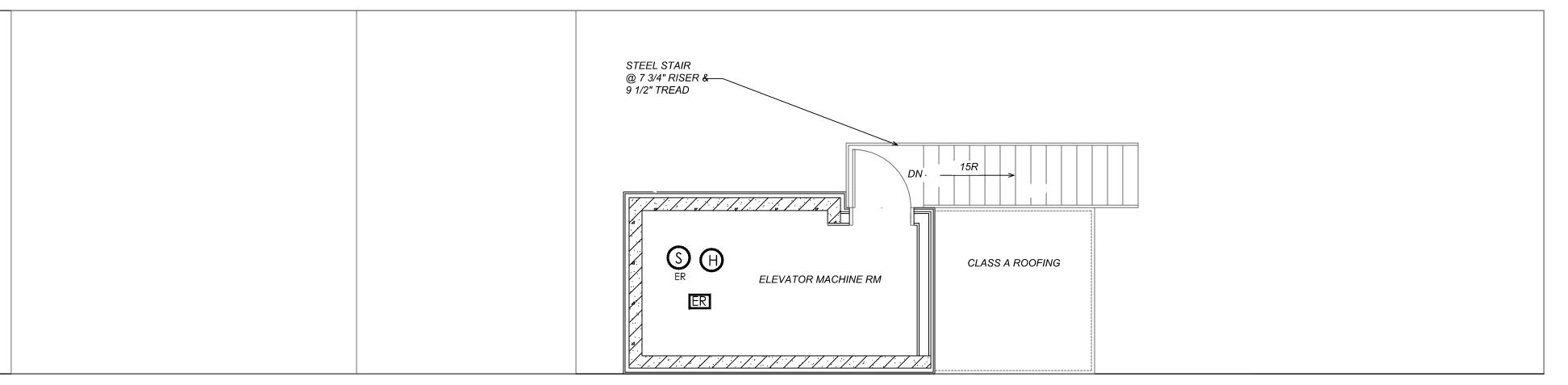
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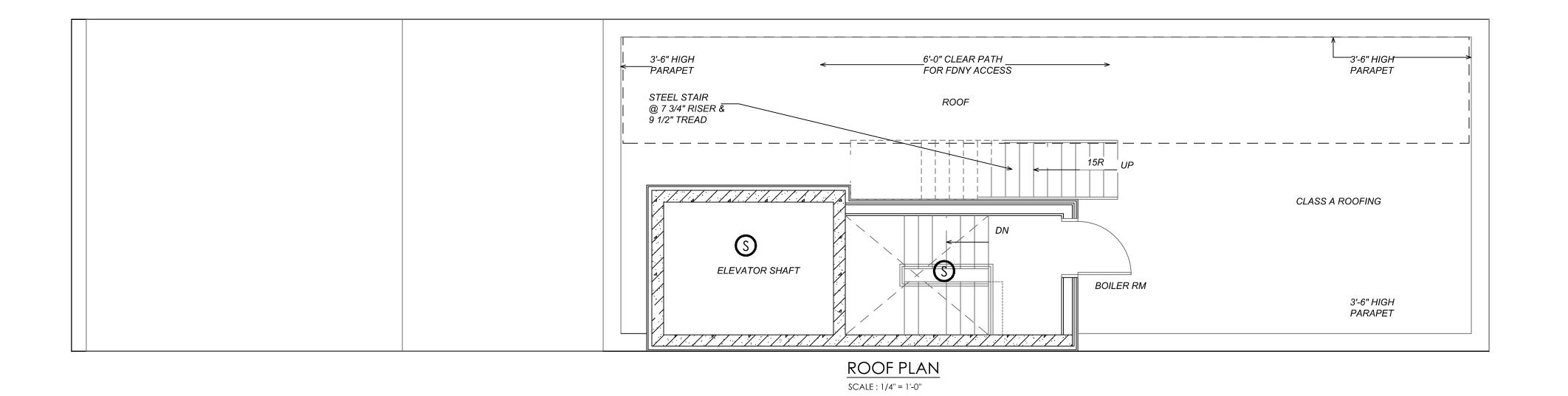
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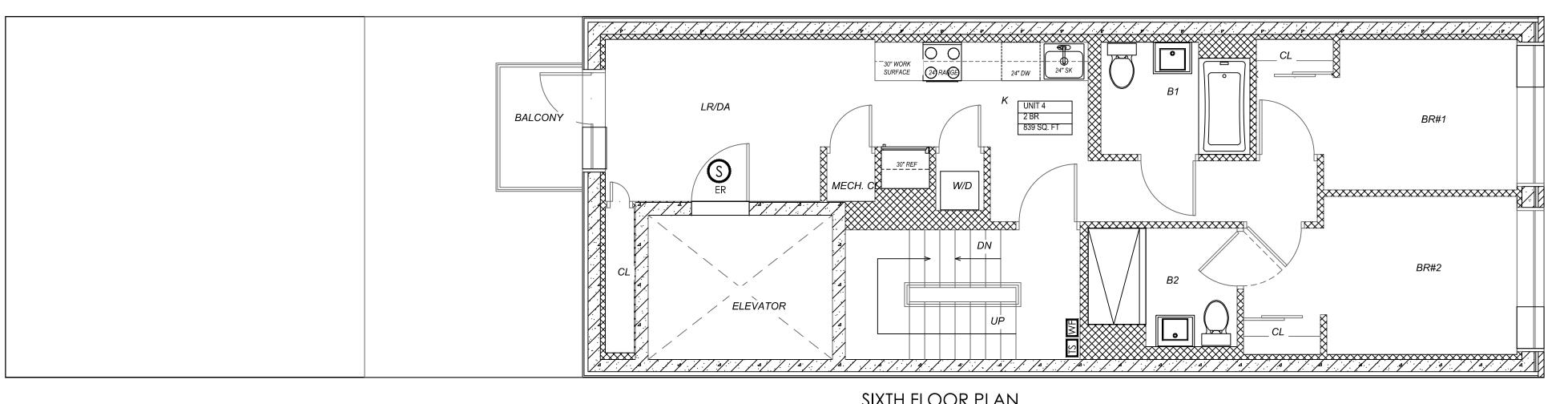
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ELEVATOR MACHINE ROOM

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





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



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SIXTH FLOOR PLAN, ROOF PLAN, ELEVATOR MACHINE ROOF PLAN

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	CHK BY: D.L.					
	DWG. No.:					
	FA-004.00					

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