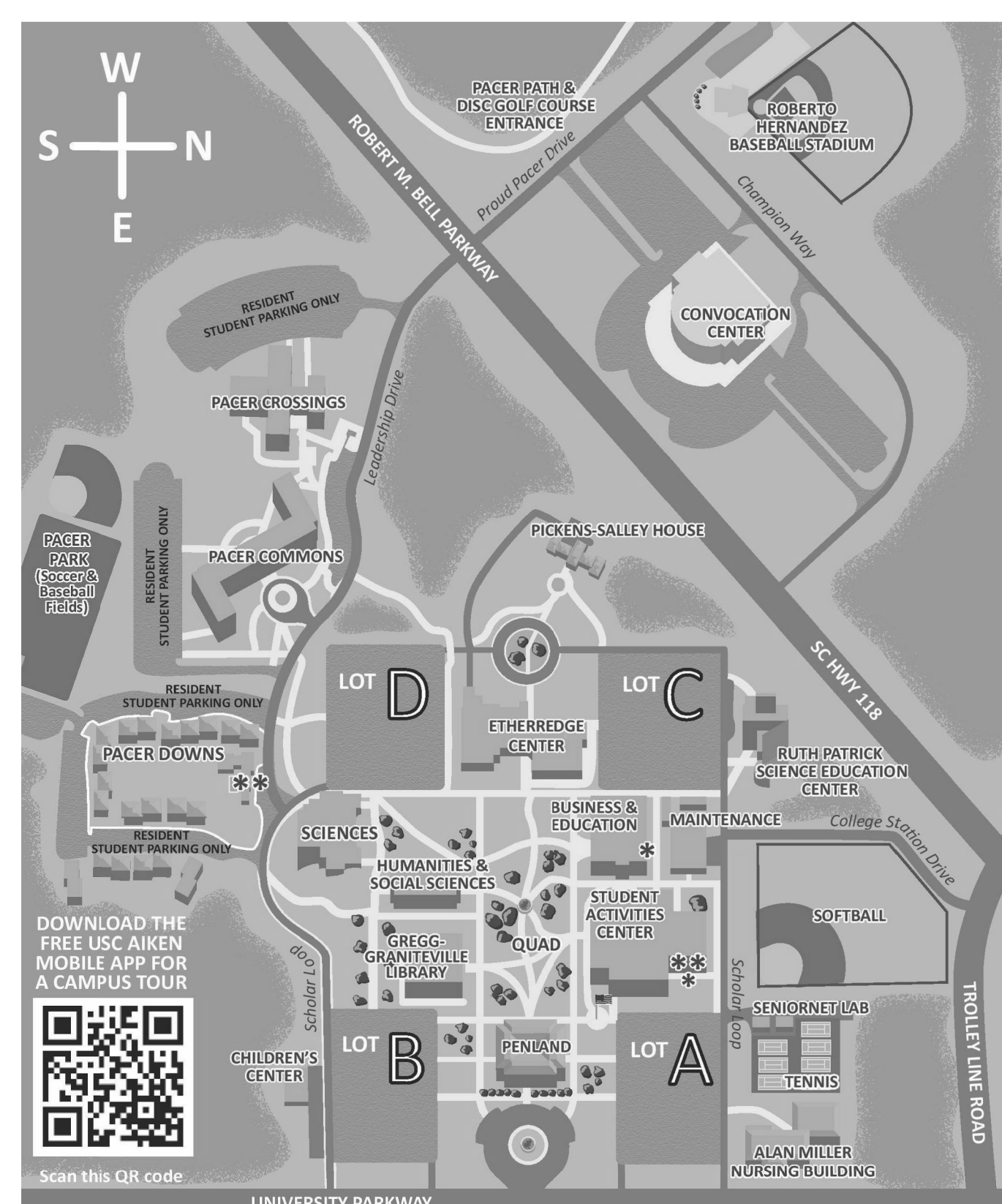
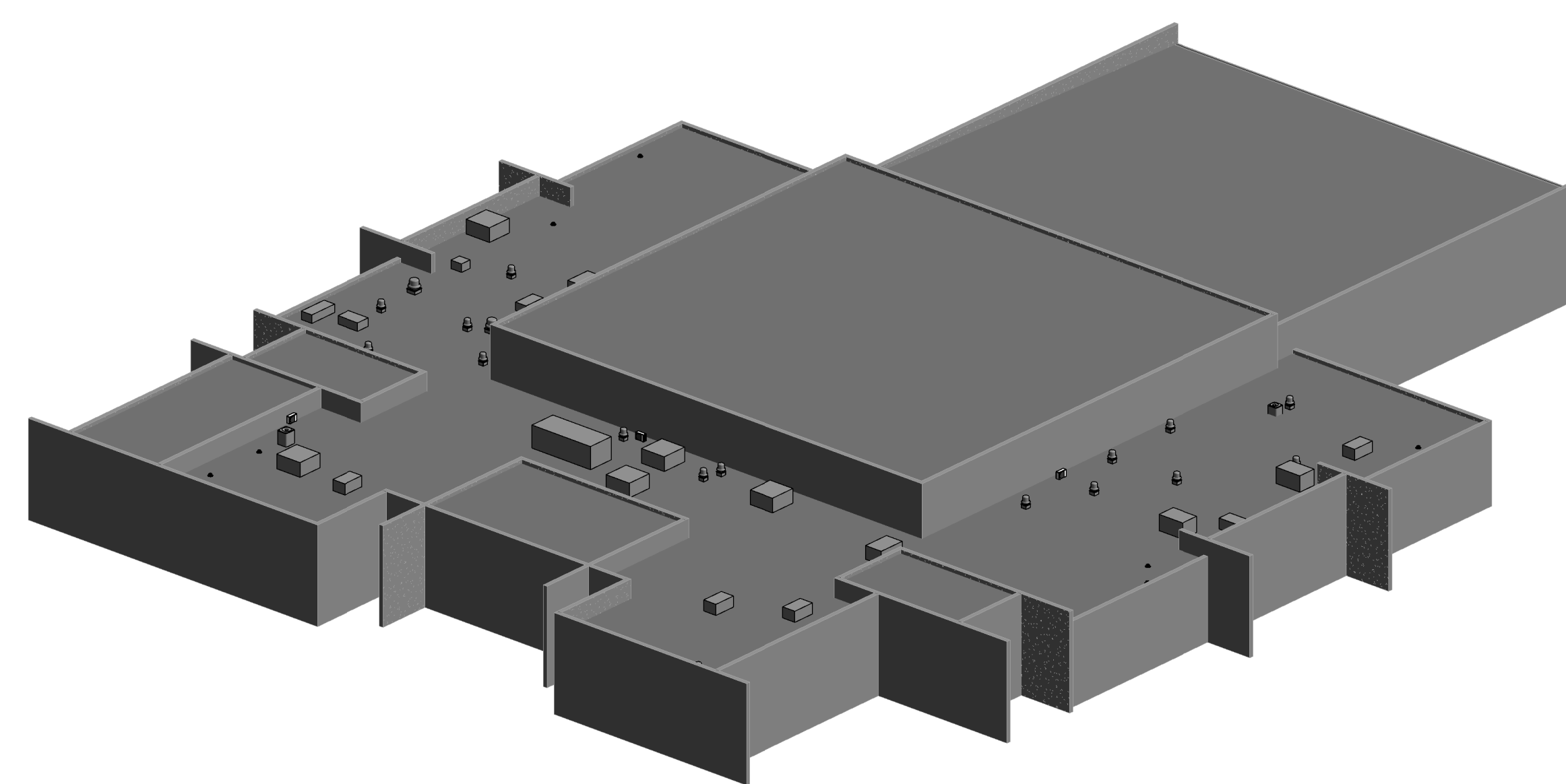


USC-AIKEN REPLACE ROOF TOP UNITS AT STUDENT ACTIVITY CENTER

471 UNIVERSITY PKWY. AIKEN, SC 29801

FEBRUARY 26, 2021



USC AIKEN CAMPUS MAP
NOT TO SCALE

SCHEDULE OF DRAWINGS

SHEET: TITLE:

- CS001 COVER SHEET
- M001 MECHANICAL SCHEDULE AND DETAILS
- M101 MECHANICAL DEMOLITION - EAST
- M102 MECHANICAL DEMOLITION - WEST
- M201 MECHANICAL NEW WORK - EAST
- M202 MECHANICAL NEW WORK - WEST

**USC-AIKEN REPLACE
ROOF TOP UNITS AT
STUDENT ACTIVITY
CENTER
H29-I363 50003417**

**471 UNIVERSITY
PARKWAY
AIKEN, SC 29801**

MARK	DATE	DESCRIPTION
PROJECT NO:	612-2003	
CAD DWG FILE:		
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SHEET TITLE
COVER SHEET

CS001

A

MARK	DATE	DESCRIPTION
PROJECT NO:	612-2003	
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SHEET TITLE

**MECHANICAL
SCHEDULE &
DETAILS**

M001	A
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MECHANICAL LEGEND

PHASE HATCHING

NEW DUCT/PIPE
EXISTING DUCT/PIPE
TO BE DEMOLISHED DUCT/PIPE

PIPING SYSTEMS

CONDENSATE
NATURAL GAS

SYMBOLS

KEYNOTE TAG
ROOF DRAIN
NEW / EXISTING WORK SYMBOL

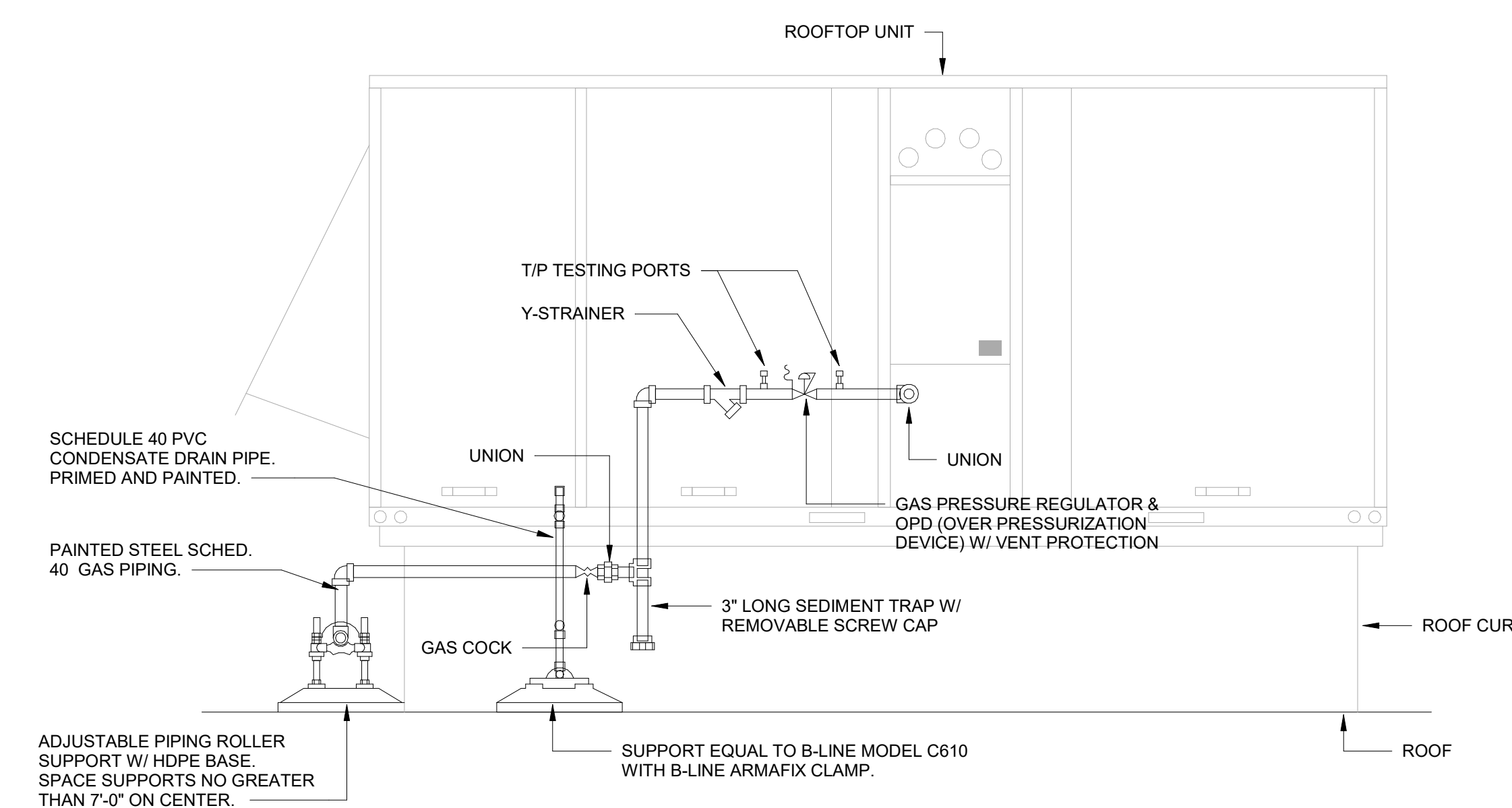
ABBREVIATIONS

A.F.F. ABOVE FINISHED FLOOR
CO CLEANOUT
(E) EXISTING

GAS FIRED ROOFTOP UNIT SCHEDULE

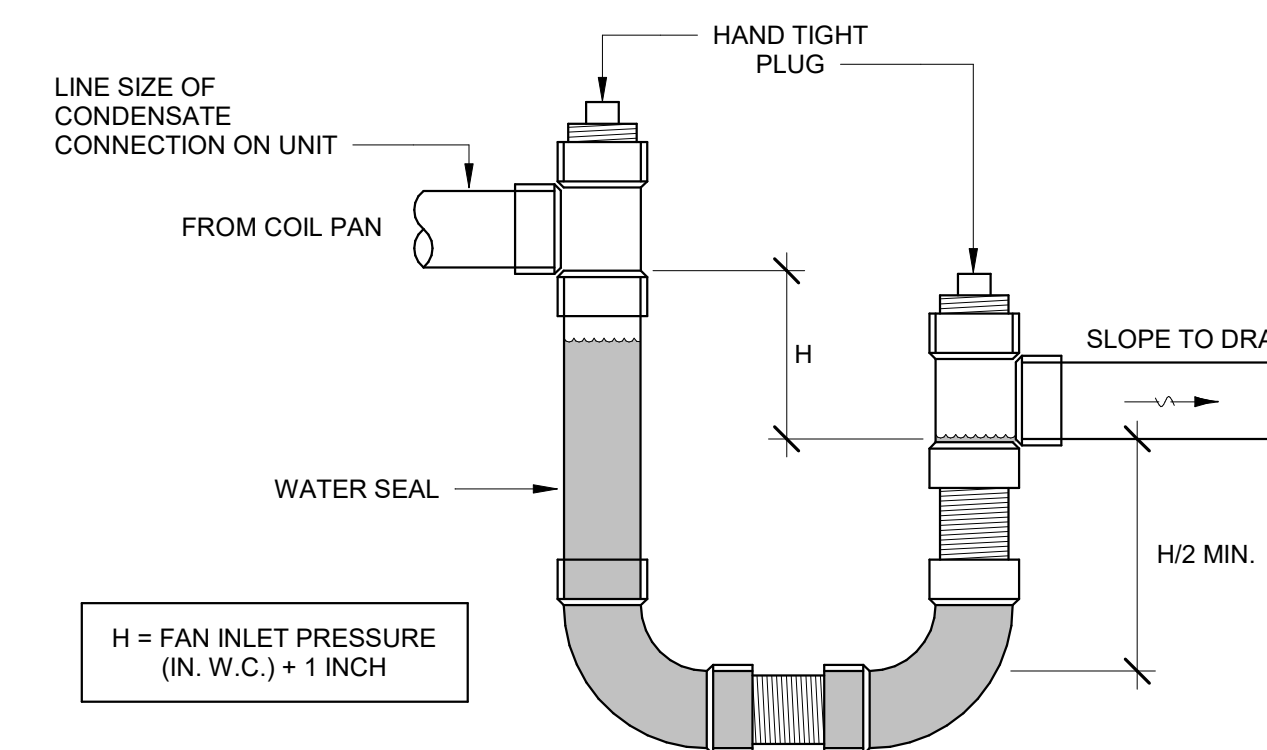
TAG	MANUFACTURER	MODEL	NOMINAL TONS	AIRFLOW	OUTSIDE AIR CFM	SUPPLY FAN					COOLING PERFORMANCE					HEATING PERFORMANCE			ELECTRICAL				WEIGHT (lbs)	SEER	IEER	EER	OPTIONS			
						DRIVE	BHP	RPM	ESP (IN. W.C.)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	TOTAL CAP (BTU/h)	SENSIBLE CAP (BTU/h)	COMP. STAGES	EAT DB (°F)	LAT DB (°F)	INLET TOTAL CAP (BTU/h)	OUTLET TOTAL CAP (BTU/h)	VOLTAGE	PHASE	MCA						MOCP		
RTU-1	CARRIER	48LC	15.0	VERTICAL	800	6,000	BELT	2.6	803	0.6	78	65	57	179,000	137,000	3	65	92	220,000	178,000	460	3	46.9	60	3,000	-	18.4	12.5	1-10,12,13	
RTU-2	CARRIER	48GC	3.0	VERTICAL	240	1,200	DIRECT	0.4	1,738	0.6	80	67	60	34,000	25,000	2	60	102	67,000	54,000	460	3	10	15	600	16.0	-	-	-	1-11
RTU-3	CARRIER	48GC	5.0	VERTICAL	240	2,000	DIRECT	1.1	2,220	0.6	78	65	57	61,000	45,000	2	64	89	67,000	54,000	460	3	13	15	800	16.0	-	-	-	1-11
RTU-7	CARRIER	48LC	15.0	VERTICAL	800	6,000	BELT	2.6	803	0.6	78	65	57	179,000	137,000	3	65	92	220,000	178,000	460	3	46.9	60	3,000	-	18.4	12.5	1-10,12,13	
RTU-8	CARRIER	48LC	15.0	VERTICAL	800	6,000	BELT	2.6	803	0.6	78	65	57	179,000	137,000	3	65	92	220,000	178,000	460	3	46.9	60	3,000	-	18.4	12.5	1-10,12,13	
RTU-14	CARRIER	48LC	7.5	VERTICAL	300	3,000	BELT	1.1	606	0.75	78	65	57	89,000	67,000	3	65	102	150,000	120,000	460	3	23	25	2,000	-	19.0	12.8	1-10,12,13	

- OPTIONS:**
- MINIMUM 2-STAGE COOLING & HEATING CAPACITY
 - SINGLE POINT THRU-THE-BASE ELECTRICAL CONNECTIONS WITH FUSED DISCONNECT.
 - HUMIDIFIER ADAPTIVE DEHUMIDIFICATION SYSTEM WITH HOT GAS REHEAT
 - LOW LEAK "ECONOMISER" WITH BAROMETRIC RELIEF
 - HINGED ACCESS PANELS
 - STAINLESS STEEL HEAT EXCHANGER WITH MINIMUM 15 YR WARRANTY
 - LOUVERED CONDENSER HAIL GUARD
 - VERTICAL SUPPLY AND RETURN
 - PLASMA AIR CLEANER EQUAL TO GPS
 - 2 INCH MERV 13 FILTER
 - DIRECT DRIVE ECM MOTOR COMPARABLE TO CARRIER ECOBLUE
 - VFD CONTROLLER FOR SUPPLY FAN MOTOR
 - ADAPTER CURB. BASIS OF DESIGN BY MTI MANUFACTURING



1 TYPICAL GAS ROOFTOP PIPING

M001 NOT TO SCALE



2 NEGATIVE PRESSURE CONDENSATE DRAIN TRAP

M001 NOT TO SCALE

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H29-I363 50003417**

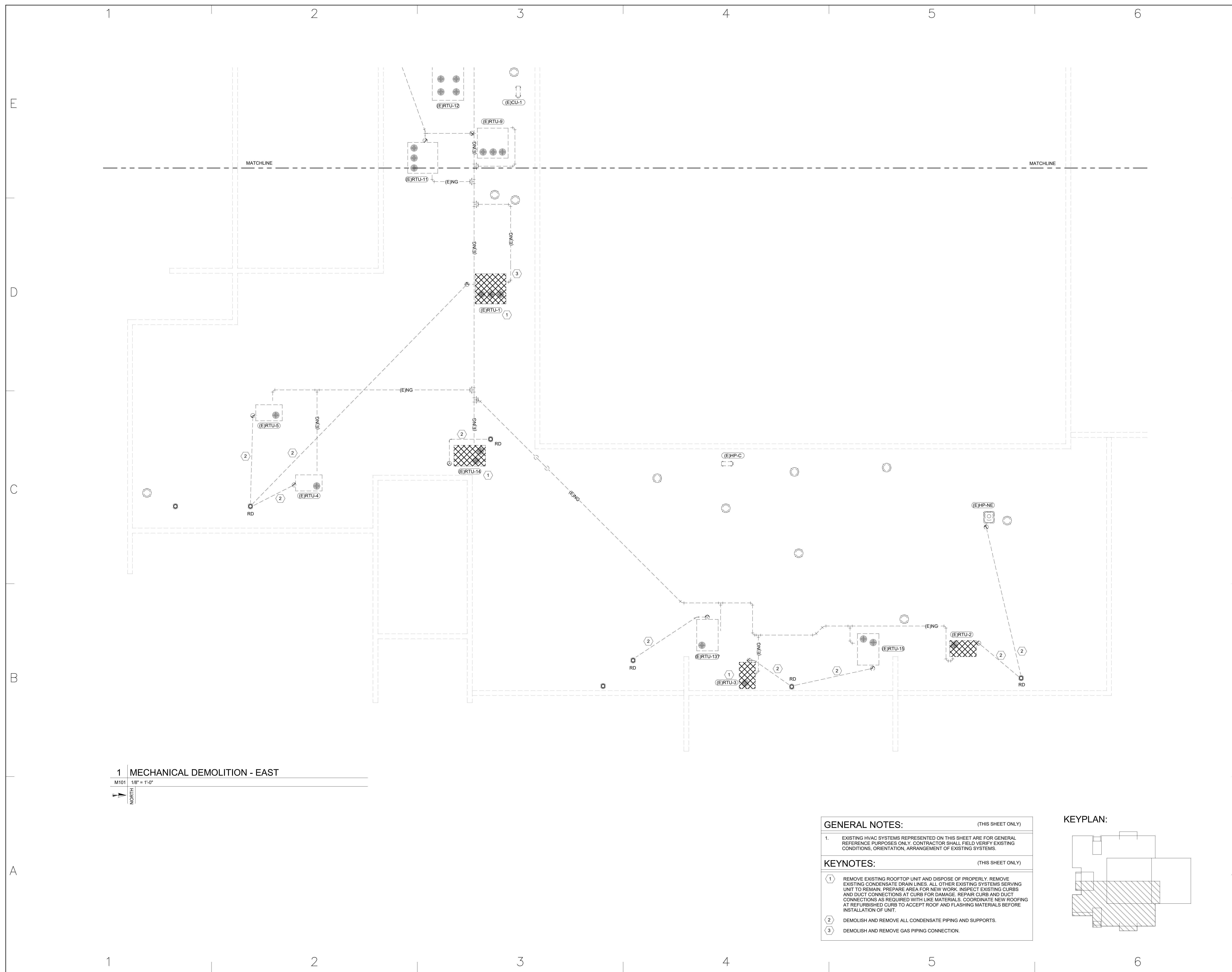
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**MECHANICAL
DEMOLITION - EAST**

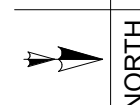
M101

A



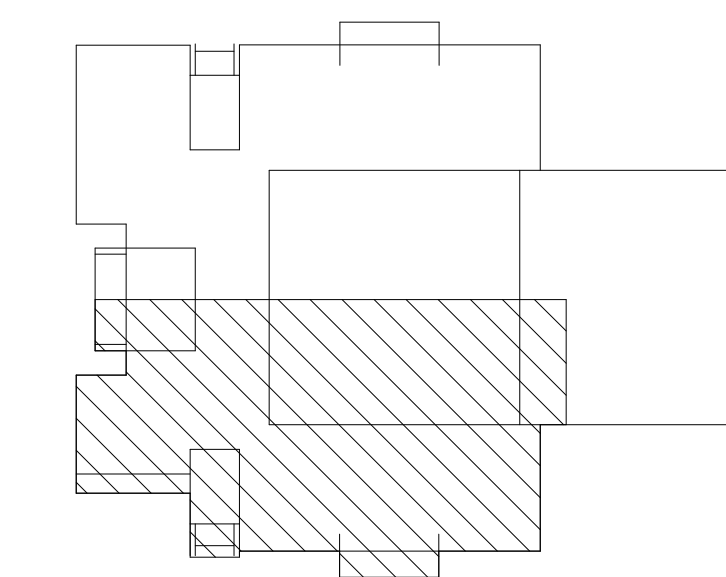
1 MECHANICAL DEMOLITION - EAST

M101 1/8" = 1'-0"



- GENERAL NOTES:** (THIS SHEET ONLY)
- EXISTING HVAC SYSTEMS REPRESENTED ON THIS SHEET ARE FOR GENERAL REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, ORIENTATION, ARRANGEMENT OF EXISTING SYSTEMS.
- KEYNOTES:** (THIS SHEET ONLY)
- REMOVE EXISTING ROOFTOP UNIT AND DISPOSE OF PROPERLY. REMOVE EXISTING CONDENSATE DRAIN LINES. ALL OTHER EXISTING SYSTEMS SERVING UNIT TO REMAIN. PREPARE AREA FOR NEW WORK. INSPECT EXISTING CURBS AND DUCT CONNECTIONS AT CURB FOR DAMAGE. REPAIR CURB AND DUCT CONNECTIONS AS REQUIRED WITH LIKE MATERIALS. COORDINATE NEW ROOFING AT REFURBISHED CURB TO ACCEPT ROOF AND FLASHING MATERIALS BEFORE INSTALLATION OF UNIT.
 - DEMOLISH AND REMOVE ALL CONDENSATE PIPING AND SUPPORTS.
 - DEMOLISH AND REMOVE GAS PIPING CONNECTION.

KEYPLAN:



**USC-AIKEN REPLACE
ROOF TOP UNITS AT
STUDENT ACTIVITY
CENTER
H29-I363 50003417**

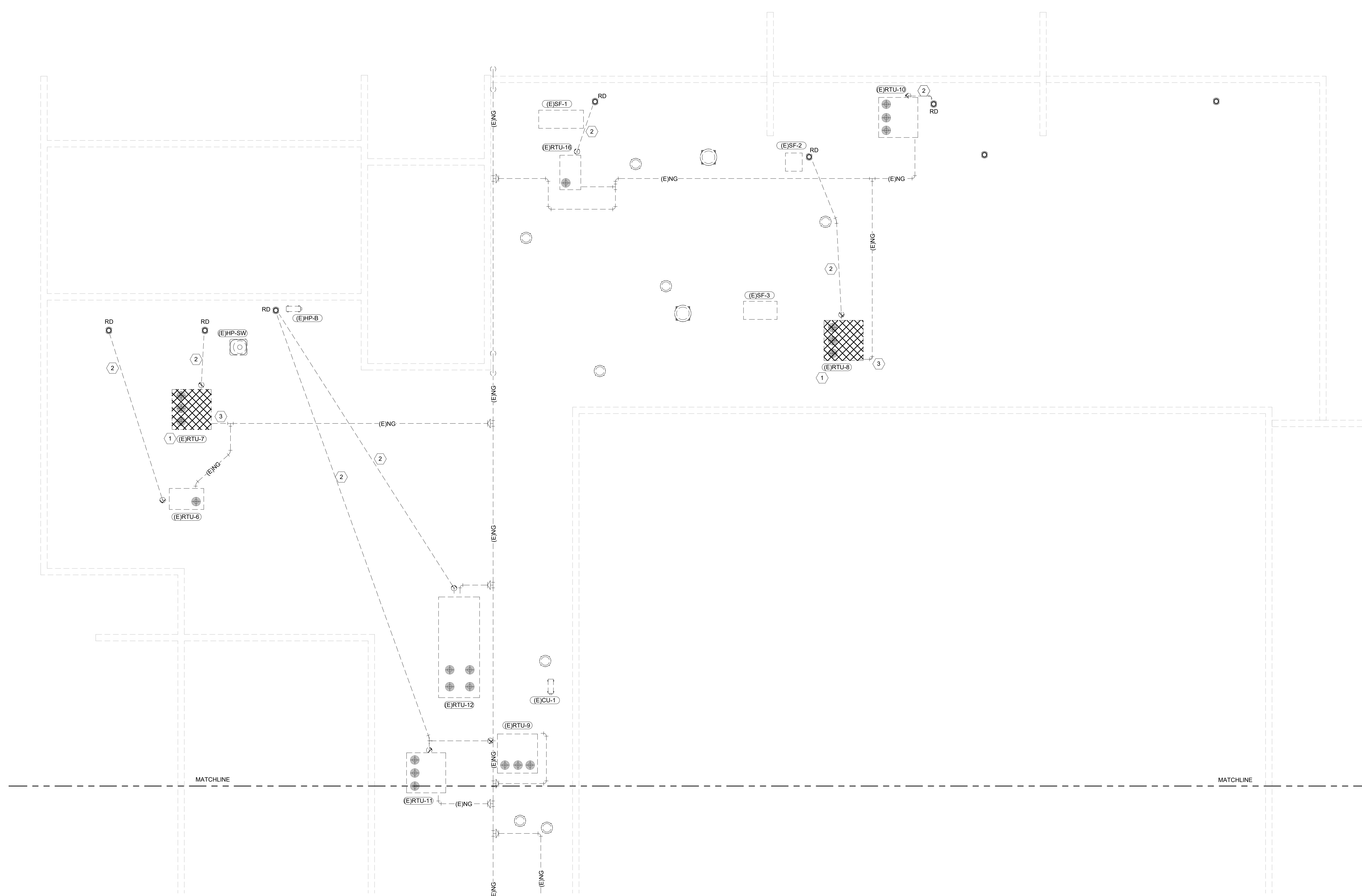
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SHEET TITLE
**MECHANICAL
DEMOLITION - WEST**

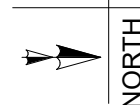
M102

A



1 MECHANICAL DEMOLITION - WEST

M102 1/8" = 1'-0"



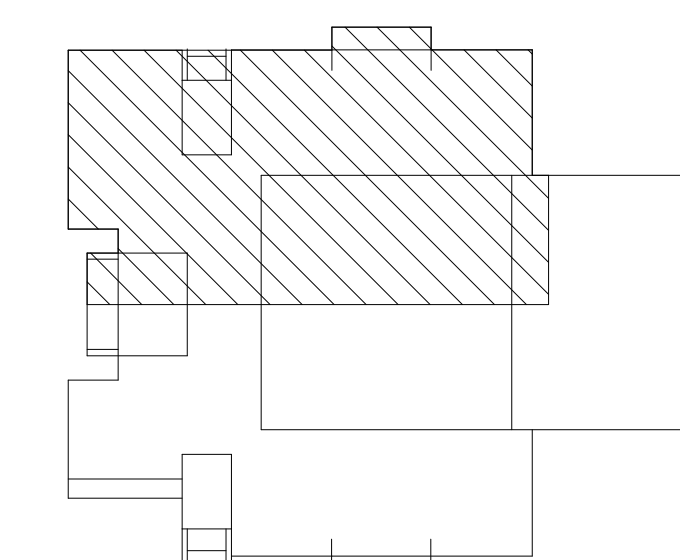
GENERAL NOTES: (THIS SHEET ONLY)

1. EXISTING HVAC SYSTEMS REPRESENTED ON THIS SHEET ARE FOR GENERAL REFERENCE PURPOSES ONLY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, ORIENTATION, ARRANGEMENT OF EXISTING SYSTEMS.

KEYNOTES: (THIS SHEET ONLY)

- ① REMOVE EXISTING ROOFTOP UNIT AND DISPOSE OF PROPERLY. REMOVE EXISTING CONDENSATE DRAIN LINES. ALL OTHER EXISTING SYSTEMS SERVING UNIT TO REMAIN. PREPARE AREA FOR NEW WORK. INSPECT EXISTING CURBS AND DUCT CONNECTIONS AT CURB FOR DAMAGE. REPAIR CURB AND DUCT CONNECTIONS AS REQUIRED WITH LIKE MATERIALS. COORDINATE NEW ROOFING AT REFURBISHED CURB TO ACCEPT ROOF AND FLASHING MATERIALS BEFORE INSTALLATION OF UNIT.
- ② DEMOLISH AND REMOVE ALL CONDENSATE PIPING AND SUPPORTS.
- ③ DEMOLISH AND REMOVE GAS PIPING CONNECTION.

KEYPLAN:



1

2

3

4

5

6

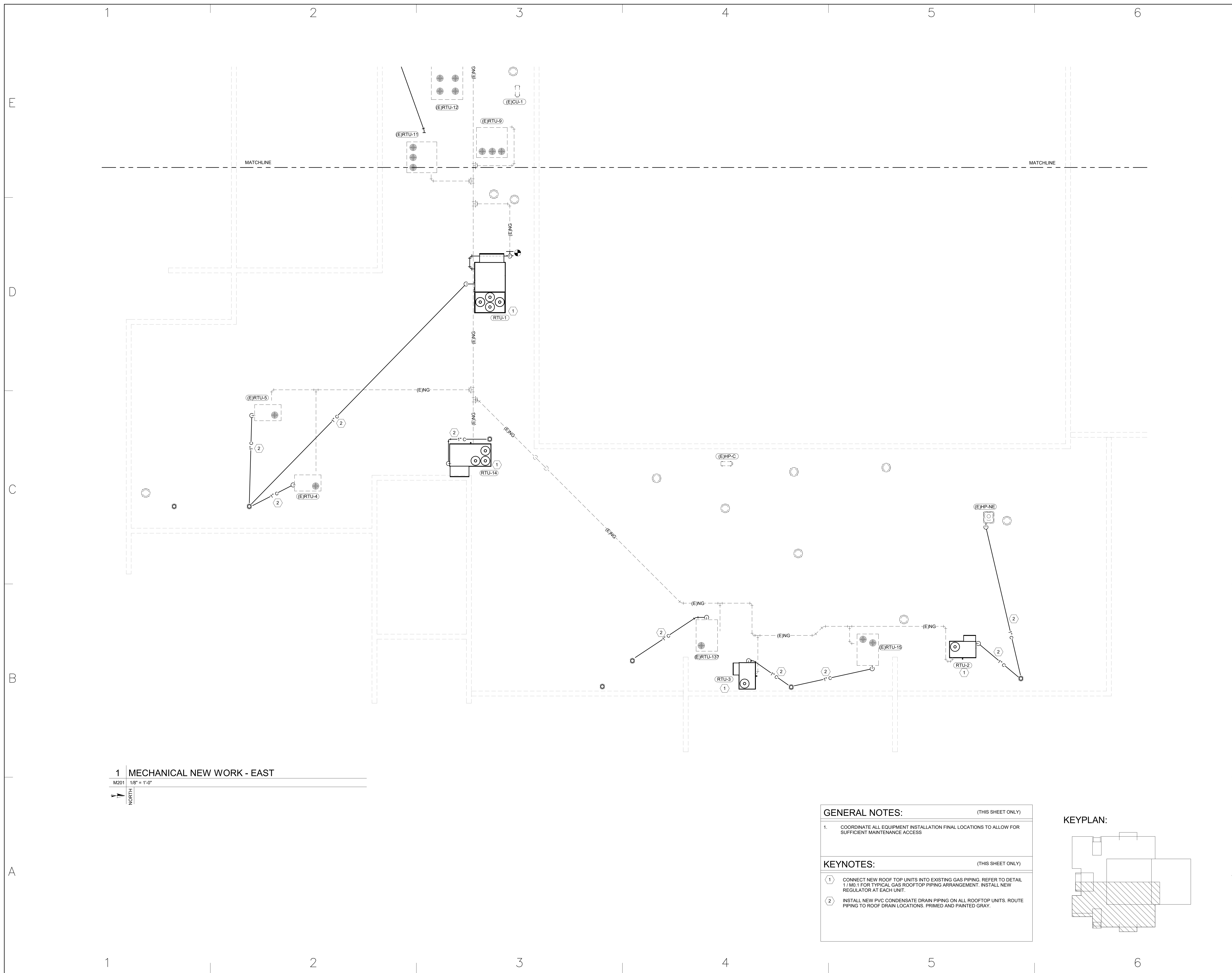
E

D

C

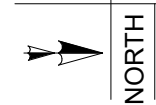
B

A



1 MECHANICAL NEW WORK - EAST

M201 1/8" = 1'-0"



GENERAL NOTES: (THIS SHEET ONLY)

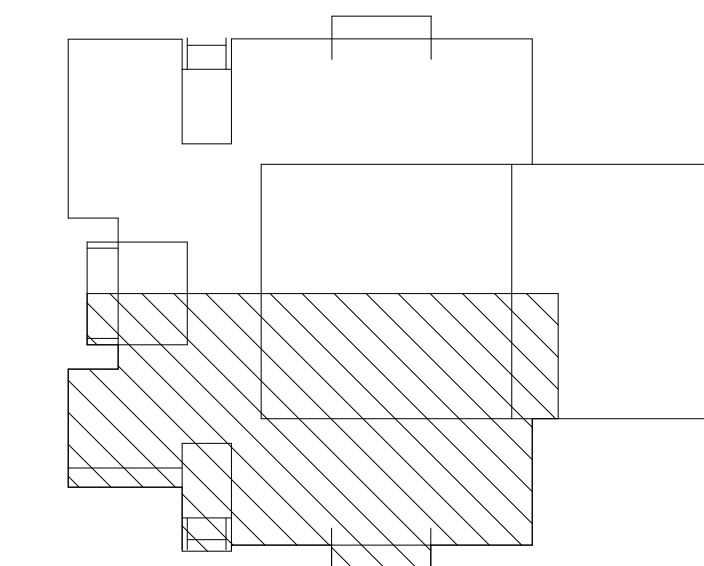
1. COORDINATE ALL EQUIPMENT INSTALLATION FINAL LOCATIONS TO ALLOW FOR SUFFICIENT MAINTENANCE ACCESS.

KEYNOTES: (THIS SHEET ONLY)

① CONNECT NEW ROOF TOP UNITS INTO EXISTING GAS PIPING. REFER TO DETAIL 1 / MG. 1 FOR TYPICAL GAS ROOFTOP PIPING ARRANGEMENT. INSTALL NEW REGULATOR AT EACH UNIT.

② INSTALL NEW PVC CONDENSATE DRAIN PIPING ON ALL ROOFTOP UNITS. ROUTE PIPING TO ROOF DRAIN LOCATIONS. PRIMED AND PAINTED GRAY.

KEYPLAN:



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MECHANICAL NEW WORK - EAST

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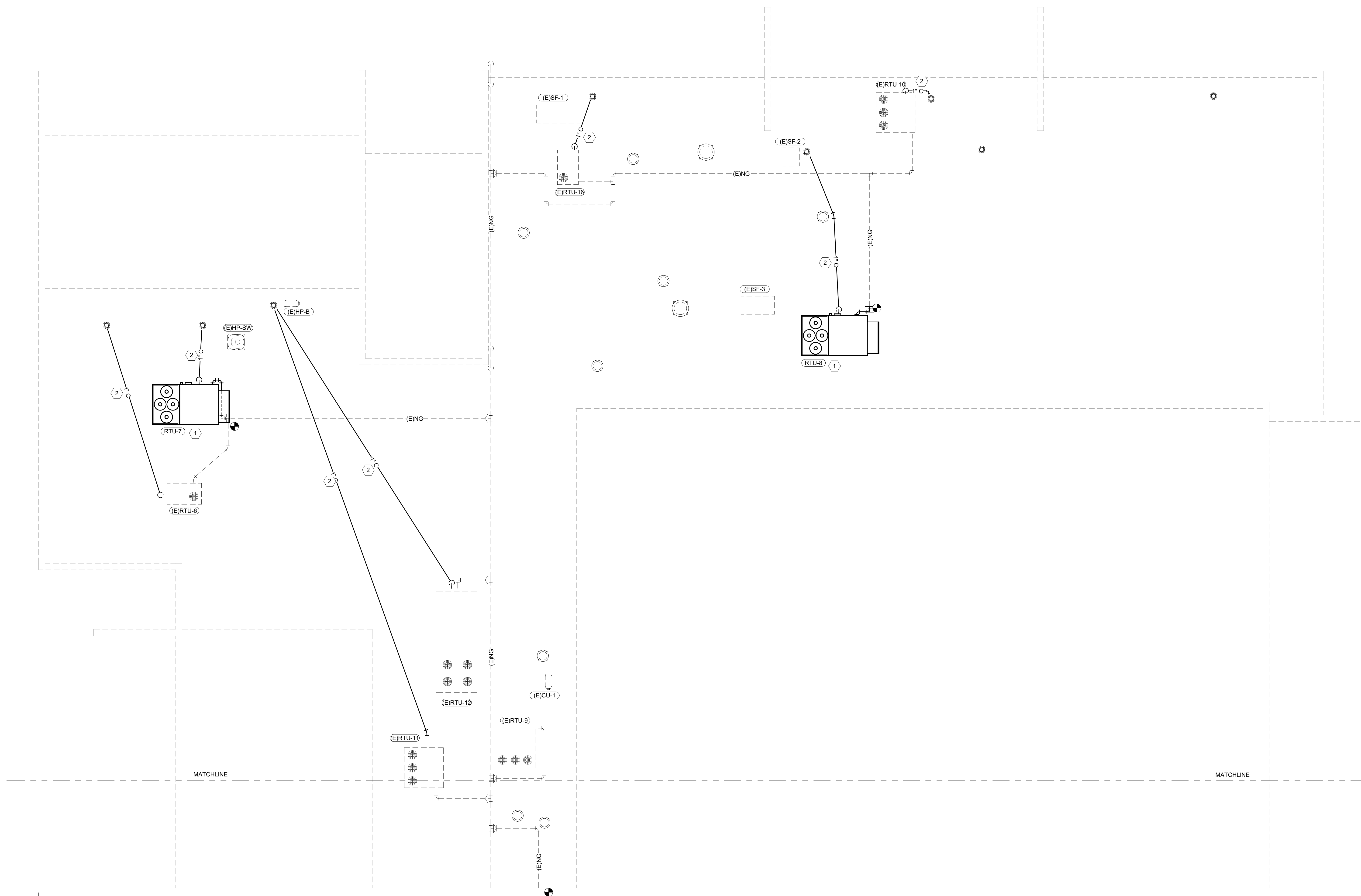
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**MECHANICAL NEW
WORK - WEST**

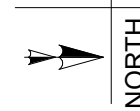
M202

A



1 MECHANICAL NEW WORK - WEST

M202 1/8" = 1'-0"



GENERAL NOTES: (THIS SHEET ONLY)

- COORDINATE ALL EQUIPMENT INSTALLATION FINAL LOCATIONS TO ALLOW FOR SUFFICIENT MAINTENANCE ACCESS

KEYNOTES: (THIS SHEET ONLY)

- CONNECT NEW ROOF TOP UNITS INTO EXISTING GAS PIPING. REFER TO DETAIL 1 / MD. 1 FOR TYPICAL GAS ROOFTOP PIPING ARRANGEMENT. INSTALL NEW REGULATOR AT EACH UNIT.
- INSTALL NEW PVC CONDENSATE DRAIN PIPING ON ALL ROOFTOP UNITS. ROUTE PIPING TO ROOF DRAIN LOCATIONS. PRIMED AND PAINTED GRAY.

KEYPLAN:

