



March 7, 2022

BID ADDENDUM 2

Project: Warwick Valley CSD
**Sanfordville Elementary School
Chiller Replacement**

Owner: Warwick Valley CSD
225 West Street Ext
Warwick, NY 10990

Engineer: Eisenbach & Ruhnke Engineering, P.C.
291 Genesee Street
Utica, NY 13501
E&R Project #: 05-21-06

THE FOLLOWING CHANGES, DELETIONS AND ADDITIONS TO THE SPECIFICATIONS AND DRAWINGS SHALL BECOME AND ARE HEREBY MADE PART OF THE CONTRACT DOCUMENTS DATED FEBRUARY 24, 2022. THEY CHANGE THE ORIGINAL DOCUMENTS ONLY IN THE MANNER AND TO THE EXTENT STATED.

THE FOLLOWING ARE MODIFICATIONS, CLARIFICATIONS, DELETIONS OR ADDITIONS TO THE SPECIFICATIONS:

None

THE FOLLOWING ARE MODIFICATIONS, CLARIFICATIONS, DELETIONS OR ADDITIONS TO THE DRAWINGS:

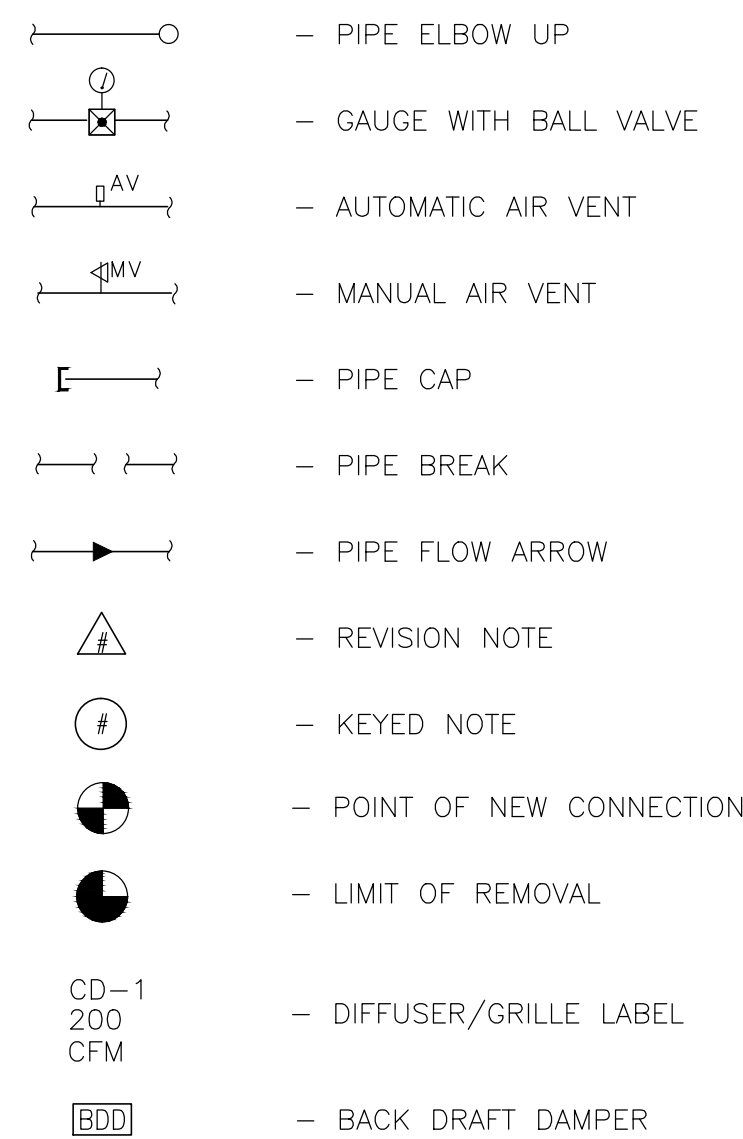
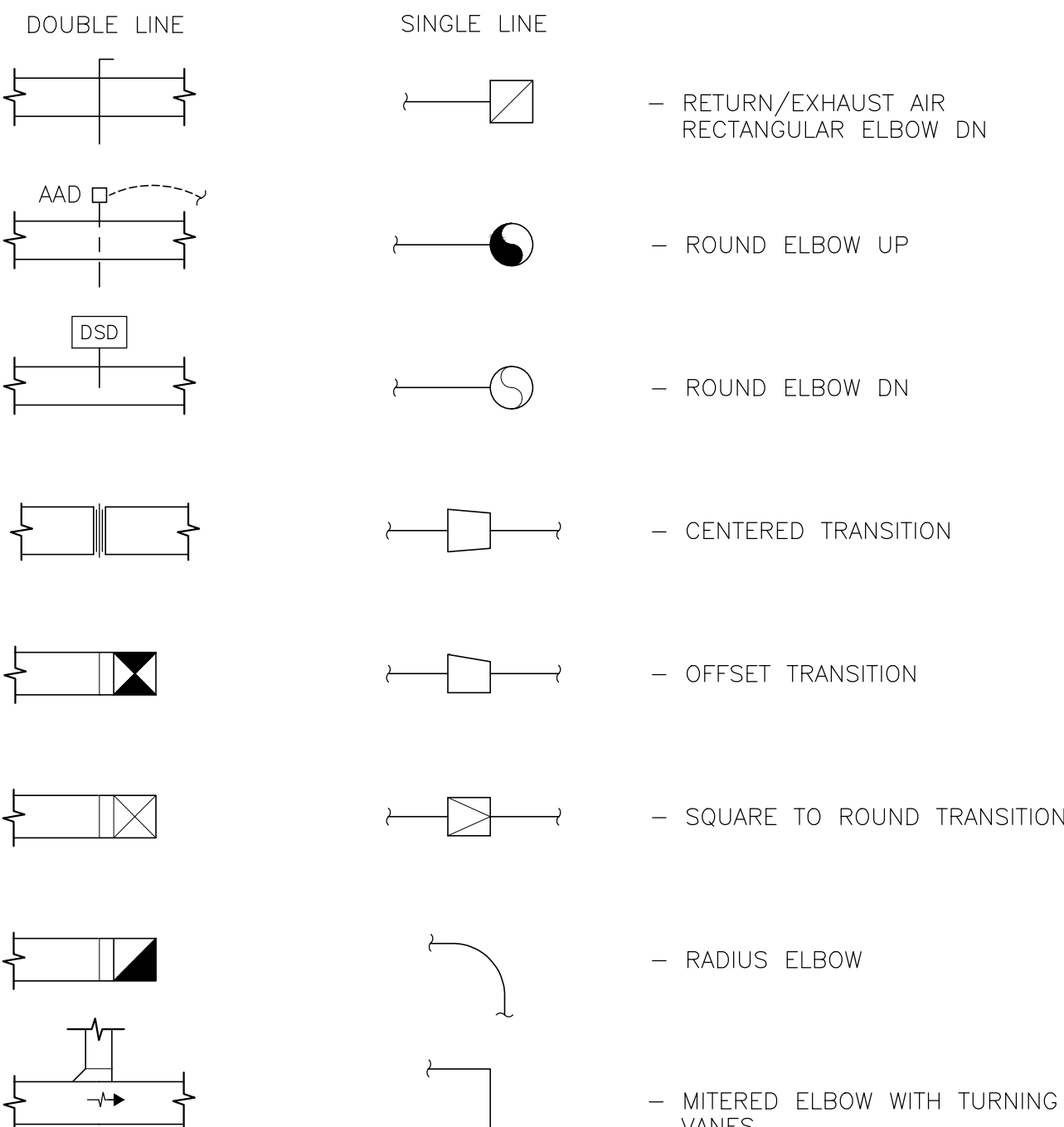
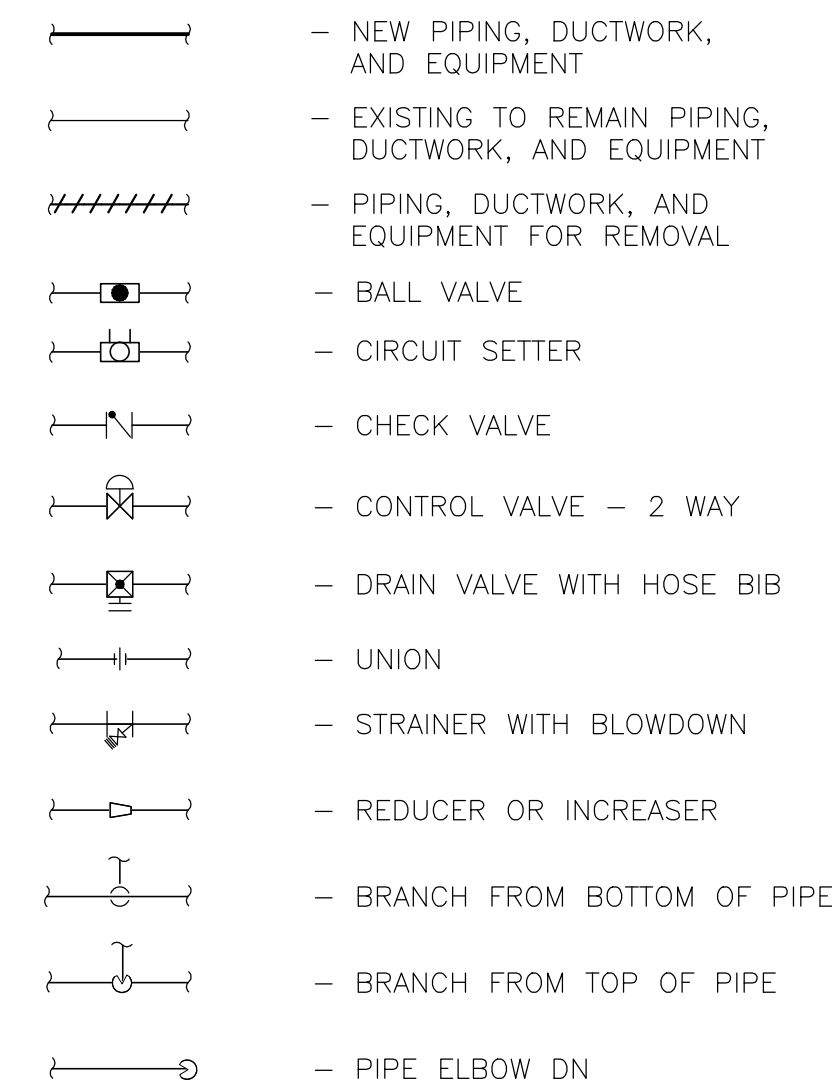
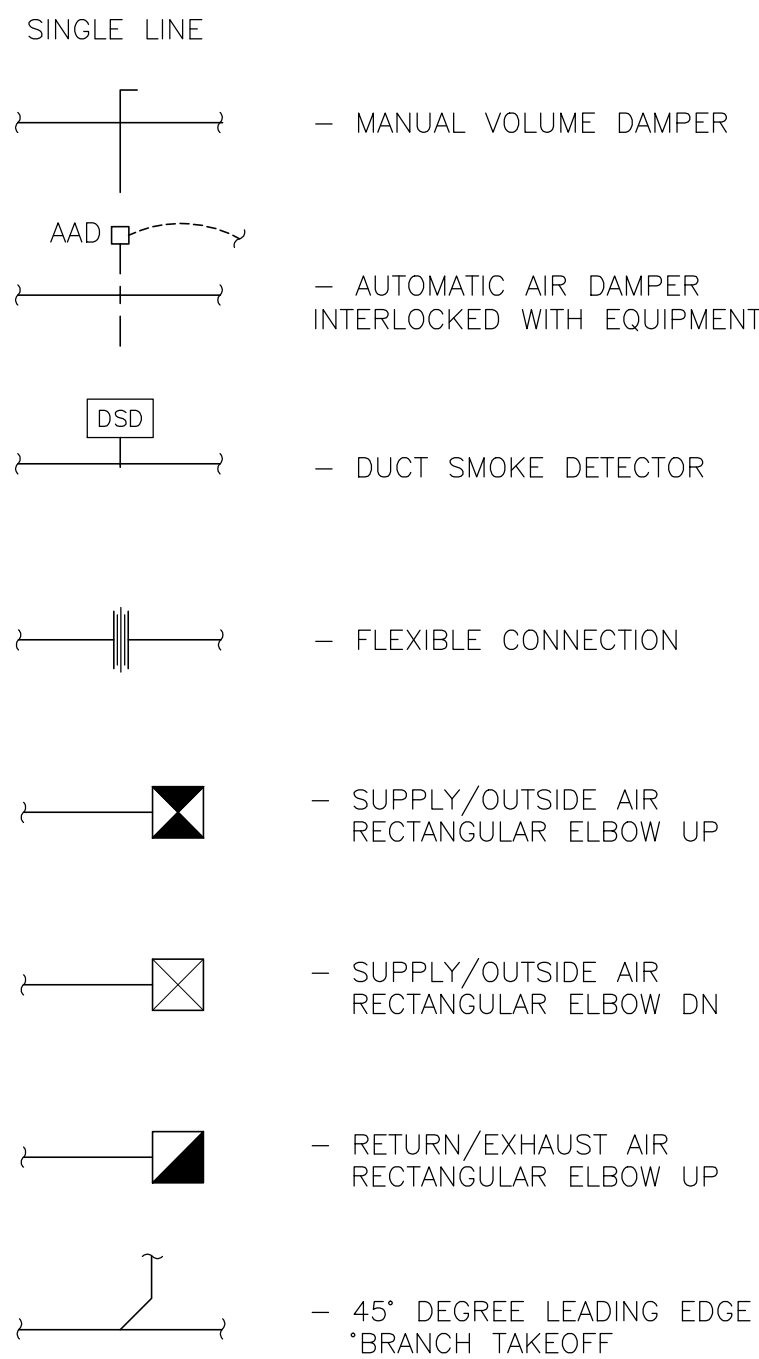
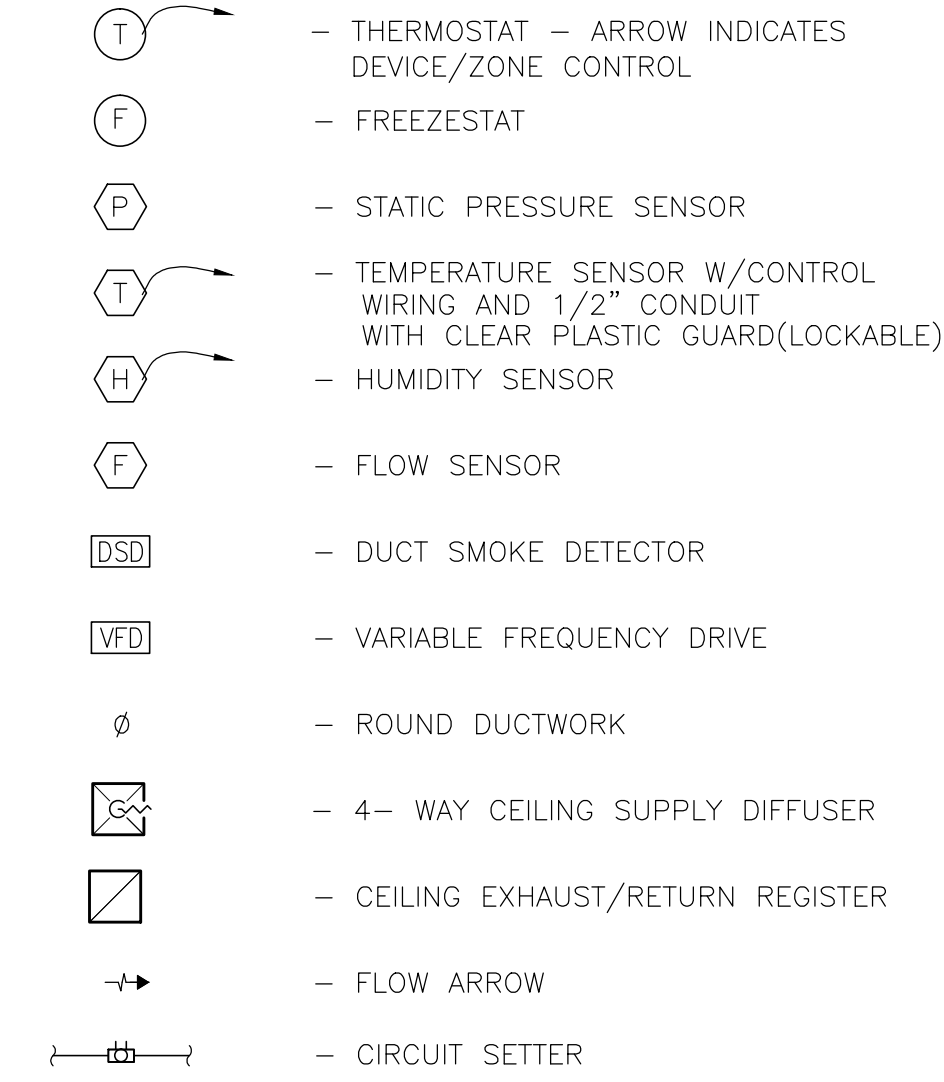
ITEM #1 – Delete the following Drawings and replace with the attached Drawings.

- M-001 – Abbreviations and Symbols
- ME-100 – Partial Floor Plans Demolition and New Work Details

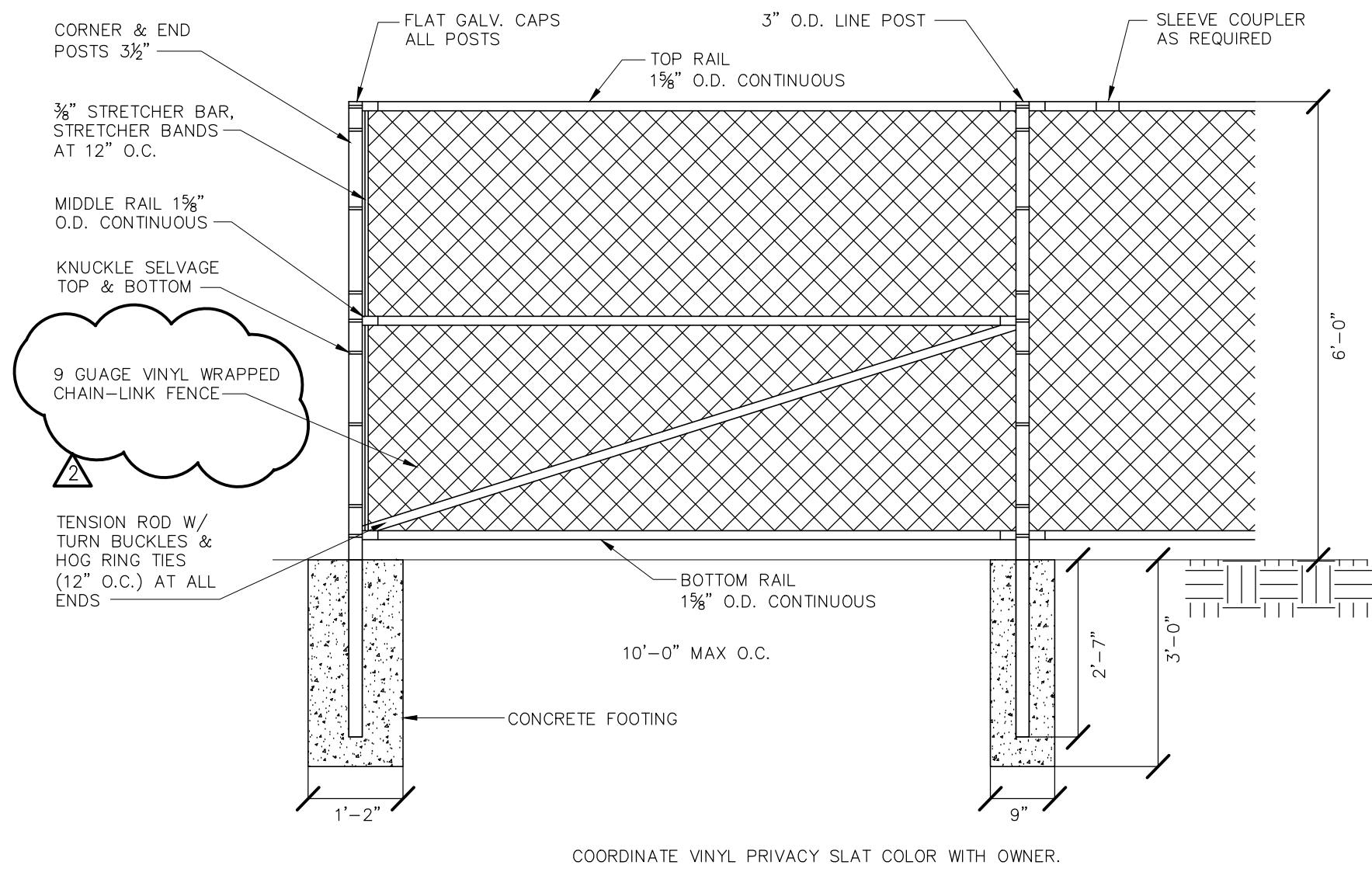
END OF ADDENDUM

MECHANICAL GENERAL NOTES:

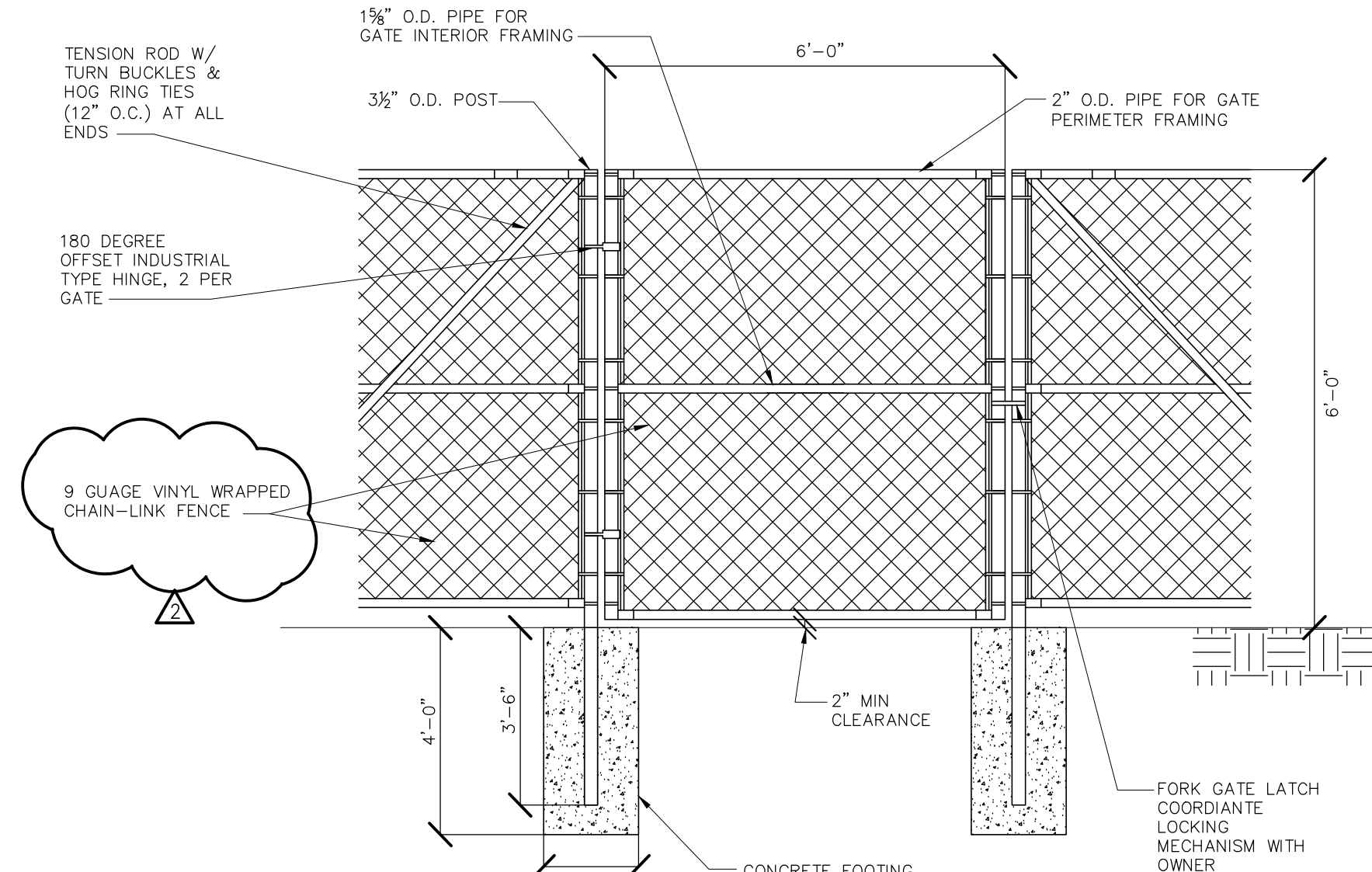
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. IT IS NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT; HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFICALLY SPECIFIED TO MAKE THE SYSTEMS BEING INSTALLED COMPLETE, CODE COMPLIANT, TESTED AND OPERATIONAL.
- CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- ALL MATERIALS, EQUIPMENT, METHODS OF INSTALLATION, REMOVALS AND DISPOSAL SHALL BE IN ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
- PERFORM WORK, PROVIDE MATERIALS AND EQUIPMENT FOR SYSTEMS SHOWN, SPECIFIED AND DESCRIBED ON DRAWINGS. COMPLETELY COORDINATE ALL TRADES OF THIS CONTRACT AND PROVIDE COMPLETE AND FULLY FUNCTIONAL INSTALLATION. ALL WORK IN THIS SET TO BE COMPLETED UNDER THIS CONTRACT, UNLESS OTHERWISE INDICATED.
- PROTECT ALL EXISTING AND NEW BUILDING ELEMENTS (INSTALLED BY OTHER CONTRACTS) FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL DAMAGED ELEMENTS TO ORIGINAL OR BETTER CONDITION.
- WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN MANUFACTURER'S EQUIPMENT CLEARANCES.
- CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND TESTING SYSTEMS TO ALLOW FOR COMPLETION OF WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER AND UTILITY AS APPLICABLE. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER, UTILITY AND COORDINATED WITH OTHER TRADE WORK.
- ALL EQUIPMENT PIPING, WIRING, INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS AND FLOORS WITH UL RATED MATERIALS/METHODS EQUIVALENT TO FIRE RATING OF ASSEMBLY.
- COORDINATE ALL WALL/FOUNDATION PENETRATIONS WITH GENERAL CONTRACT AND SEAL WEATHERTIGHT. PROVIDE STAINLESS STEEL ESCUTCHEON PLATE/TRIM RING FOR EACH ABOVE GRADE PENETRATION (BOTH SIDES).
- PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS/DOORS SHALL BE A MINIMUM OF 12"x12", UNLESS OTHERWISE NOTED.
- DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. ALL SUPPORT SHALL BE FROM BUILDING STRUCTURE OR FROM CEILING SUSPENSION SYSTEM WHICH HAS BEEN REINFORCED. SUPPORTS SHALL BE SELECTED AND INSTALLED TO PROVIDE A VIBRATION FREE INSTALLATION.
- CLEANING DURING MECHANICAL WORK: THE MECHANICAL ROOM AND ROOMS WHERE WORK WILL BE DONE TO MINIMIZE DISTURBANCE IN THE BUILDINGS. WORKERS ARE TO USE PATHWAYS AND FACILITIES AGREED UPON WITH THE DISTRICT DESIGNEE IN WRITING. THE AREA OUTSIDE THE BUILDING WHERE CUTTING WELDING OR STORAGE IS ALLOWED IS TO BE FENCED AT ALL TIMES. THE CONTRACTOR WILL ON A DAILY BASIS CLEAN THE GROUNDS AND THE BUILDING OF ANY DEBRIS OR GARBAGE GENERATED BY THEIR WORK.
- PROTECT EXISTING SURFACES AND EQUIPMENT NOT MARKED FOR REMOVAL OR MODIFICATION. CONTRACTOR RESPONSIBLE FOR REPAIR OF EXISTING SURFACES AND/OR EQUIPMENT TO THE APPROVAL OF THE OWNER.



HVAC ABBREVIATIONS	
AAD	AUTOMATIC AIR DAMPER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
AMP	AMPERAGE
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CH	CABINET HEATER
CLG	CEILING
C	CONDENSATE
DB	DRYBULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL (SYSTEM)
DEG	DEGREE
DIA	DIAMETER
DN	DOWN
DP	DEWPOINT TEMPERATURE
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
F	FAHRENHEIT
FD	FIRE DAMPER
FF	FINAL FILTER
FLR	FLOOR
FPM	FEET PER MINUTE
FSTAT	FREEZESTAT
FT	FEET
FT HD	FEET OF HEAD
FT WG	FEET OF WATER GAUGE
FV	FACE VELOCITY
G	GAS
GAL	GALLON
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSEPOWER
L	LOUVER
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MBH	1,000 BTU/HR
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
PD	PRESSURE DROP
R	REMOVE
RA	RETURN AIR
RL	REFRIGERANT LIQUID
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
S	SATISFACTORY
SAT	SUPPLY AIR TEMPERATURE
SEN	SENSIBLE HEAT
SG	SPECIFIC GRAVITY
SP	STATIC PRESSURE
TAB	TESTING, ADJUSTING, BALANCE
TSTAT	THERMOSTAT
TYP	TYPICAL
UC	UNDER CUT
VD	VOLUME DAMPER
WB	WETBULB
WG	WATER GAUGE
ΔT	TEMPERATURE DIFFERENCE



1 6' CHAINLINK FENCE
SCALE: NONE



2 SINGLE CHAINLINK GATE
SCALE: NONE

HVAC REMOVAL NOTES:

- THE SCOPE OF REMOVAL SHOWN ON "REMOVALS" DRAWING IS DIAGRAMMATIC ONLY AND INDICATES THE INTENT OF THE WORK TO BE PERFORMED AND NOT THE COMPLETE SCOPE OF DEMOLITION AND/OR REMOVAL WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ANY RELATED MECHANICAL DEVICES/ITEMS EVEN IF NOT SPECIFICALLY INDICATED TO BE REMOVED ON THESE DRAWINGS IN ORDER TO ACCOMMODATE NEW WORK.
- EQUIPMENT/ITEMS SHOWN CROSS HATCHED ON DRAWINGS ARE ITEMS TO BE REMOVED. ANY DEVICES/ITEMS REMOVED SHALL INCLUDE (BUT SHALL NOT BE LIMITED TO) THE REMOVAL OF ALL ASSOCIATED PIPING, CONTROLS, ETC. THAT ARE NOT INCORPORATED IN THE NEW LAYOUT. THE CONTRACTOR SHALL PERFORM ALL WORK REQUIRED TO INSURE CONTINUITY OF SERVICE TO EXISTING REMAINING EQUIPMENT. NO EXTRAS RELATING TO THE SCOPE OF WORK DESCRIBED WILL BE ALLOWED.
- EQUIPMENT, PIPING, ETC. REQUIRED TO RECONNECT SHALL BE INSTALLED CONCEALED WITHIN THE SUSPENDED CEILINGS, PARTITIONS AND/OR WALLS, FLOORS. NO SURFACE MOUNTED OR EXPOSED EQUIPMENT, PIPING, ETC., SHALL BE PERMITTED, UNLESS SPECIFICALLY INDICATED.
- ALL ITEMS TO BE REMOVED SHALL BE REVIEWED WITH THE OWNER PRIOR TO REMOVAL. OWNER SHALL HAVE FIRST SALVAGE RIGHTS. ITEMS THE OWNER WISHES TO KEEP SHALL BE REMOVED WITH CARE AND STORED AS DIRECTED BY OWNER. ITEMS THE OWNER DOES NOT WISH TO KEEP SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

NOTE:
BASE BID: ALL ELECTRICAL WORK BY DISTRICT
ALT-1: ALL ELECTRICAL WORK BY CONTRACTOR

ENGINEER:

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CONSULTANT(S):

STAMP



**WARWICK VALLEY CSD
EMERGENCY CHILLER PROJECT**
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(914) SANDFORDVILLE ESJ 144 SANDFORDVILLE ROAD, WARWICK, NY 10990
SV SED NO. 44-21-01-06-0019-014

PROJECT NO.	05-21-06
ADDENDUM	3.7.2022
BID SET	2.24.2022
REVISION	
DRAWN BY	JMU/BS
CHECKED BY	JIE
SHEET SIZE	30" X 42"
SCALE	AS NOTED

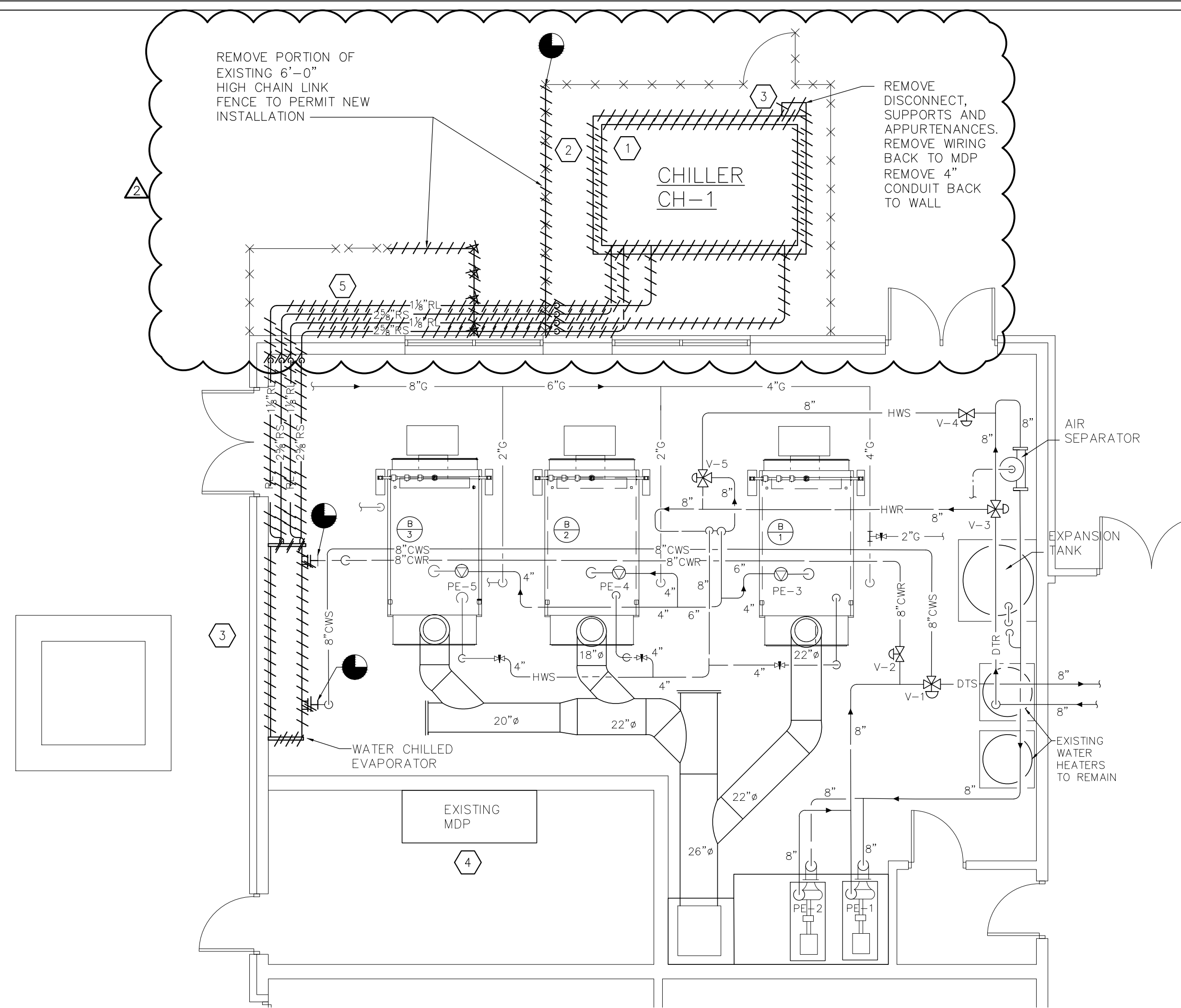
SHEET TITLE

ABBREVIATIONS
AND SYMBOLS

SHEET NO.

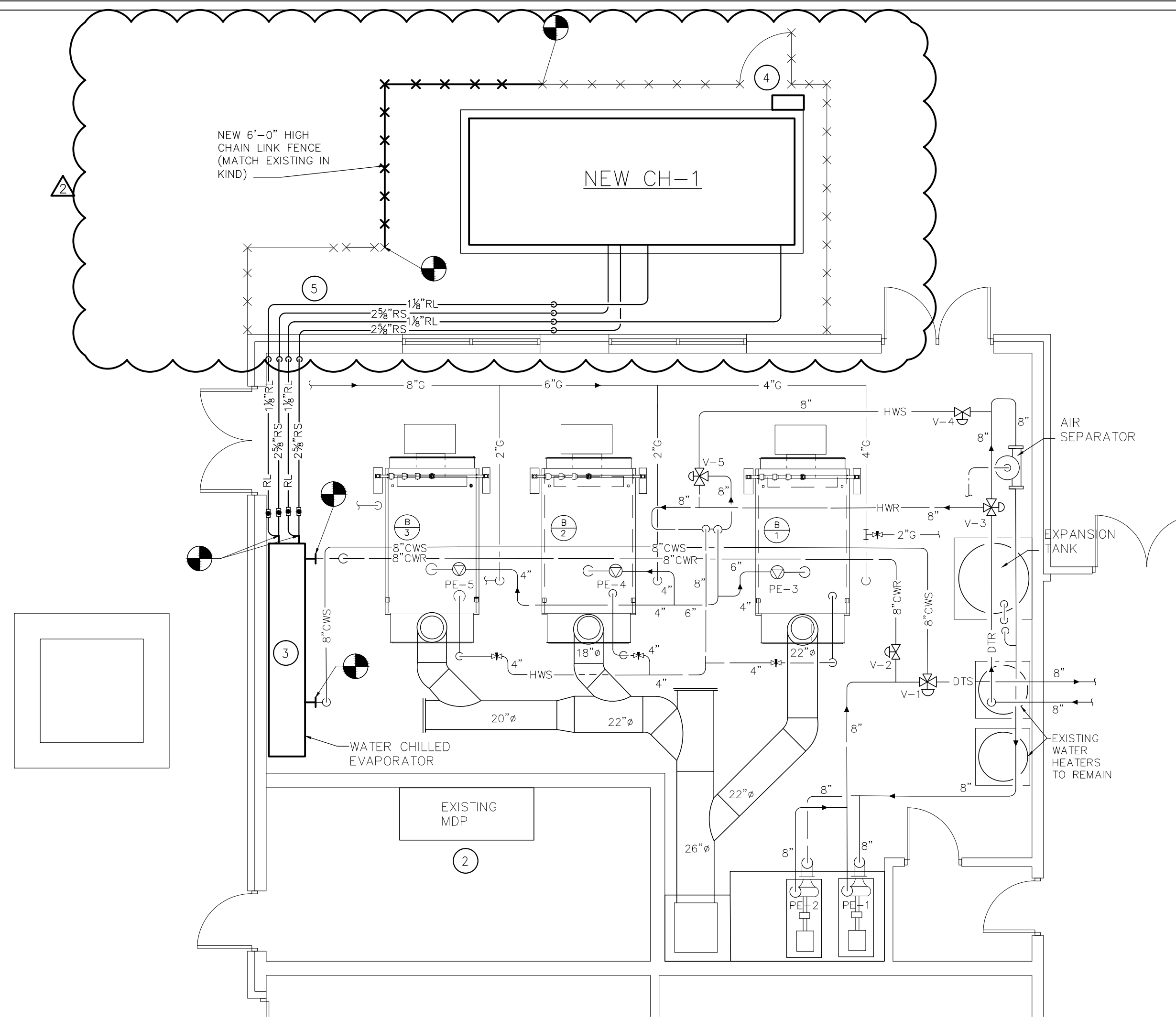
M-001

FILE PATH - N:\1 - PROJECT DIRECTORIES\1 - E & R Projects\05- 21-06 Sandfordville Emergency Chiller\CAD\05- 21-06.mxd.dwg



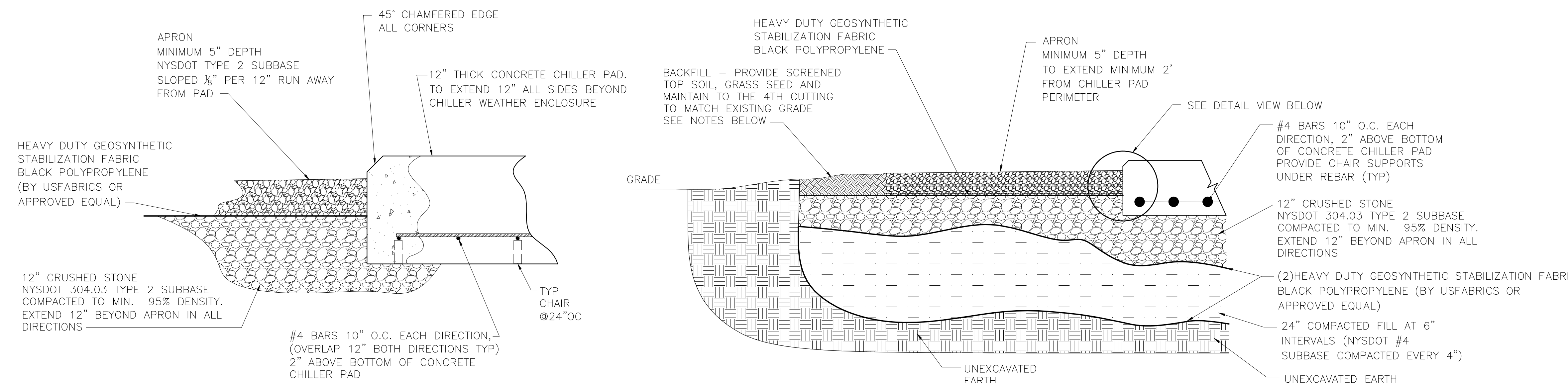
1 PARTIAL FLOOR PLAN - DEMOLITION
SCALE: 3/16" = 1' - 0"

- KEYED NOTES - DEMOLITION:**
- 1 REMOVE CHILLER AS SHOWN. SEE 2 PARTIAL FLOOR PLAN - NEW WORK
 - 2 REMOVE CONCRETE PAD AS SHOWN. SEE 2 PARTIAL FLOOR PLAN - NEW WORK
 - 3 REMOVE WATER CHILLER EVAPORATOR AS SHOWN. SEE 2 PARTIAL FLOOR PLAN - NEW WORK
 - 4 REMOVE 400 AMP BREAKER. SEE 2 PARTIAL FLOOR PLAN - NEW WORK
 - 5 REMOVE REFRIGERANT LINES AS SHOWN. SEE 2 PARTIAL FLOOR PLAN - NEW WORK



2 PARTIAL FLOOR PLAN - NEW WORK
SCALE: 3/16" = 1' - 0"

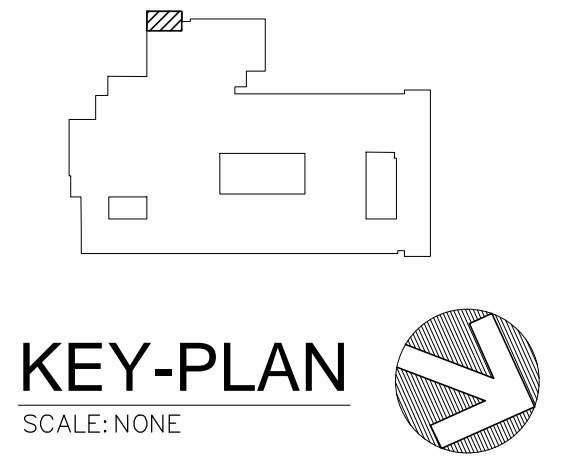
- KEYED NOTES - NEW WORK: ALL ELECTRICAL WORK BY DISTRICT**
- 1 PROVIDE NEW CHILLER 100 TONS, EVAPORATOR LEAVING TEMP 45°F. EVAPORATOR ENTERING FLUID TEMP 55°F. DESIGN FLOW 240 GPM. TRANE RAU100 OR APPROVED EQUAL CHILLER TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR IS RESPONSIBLE TO RECONNECT ALL PIPING, ELECTRICAL, CONTROLS AND ALL ACCESSORIES REQUIRED FOR A COMPLETE OPERATING SYSTEM. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PIPE SIZING AND TO MAKE EXISTING PIPE TRANSITIONS FIT TO NEW CHILLER. CONTRACTOR IS RESPONSIBLE FOR START UP, TESTING, CERTIFICATIONS AND INSPECTIONS. CONTRACTOR TO REUSE EXISTING CIRCUIT NUMBER. REWIRE AS REQUIRED FOR OPERATING UNIT. RECONNECT TO EXISTING BMS WITH APPURTENANCES. (JCI METASYS)
 - 2 PROVIDE NEW 300 AMP 3 POLE BREAKER, COMPATIBLE WITH EXISTING SYSTEM (CUTLER HAMMER NO SUBSTITUTIONS)
 - 3 THERE WAS NO EXISTING DATA ON EXISTING WATER CHILLED EVAPORATOR, CONTRACTOR MUST FIELD VERIFY EXISTING SIZE AND REPORT TO MECHANICAL ENGINEER FOR FINAL SIZING. (THIS IS BASIS OF DESIGN FOR BIDDING ONLY) PROVIDE NEW WATER CHILLED EVAPORATOR ARMSTRONG MODEL W-1204-212-2-CSSSSNN-20 AND ALL APPURTENANCES. REUSE EXISTING SUPPORT STRUCTURE
 - 4 CONTRACTOR TO PROVIDE NEW DISCONNECT SWITCH, SUPPORTS AND APPURTENANCES. PROVIDE WIRING 4-(350MCM) IN 4" TO EXISTING MDP. MAKE ALL CONNECTIONS WATERTIGHT. (COORDINATE WITH MANUFACTURER FOR FINAL POINT OF CONNECTION TO UNIT FOR CONDUIT ROUTING)
 - 5 PROVIDE NEW REFRIGERANT LINES WITH WATERPROOF INSULATION. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.



3 CONCRETE PAD DETAILS
SCALE: NONE

- CONCRETE CHILLER PAD, APRON, AND GRADING NOTES:**
- A. TOP OF NEW CHILLER PAD SHALL BE 4" ABOVE EXISTING GRADE LEVEL
 - B. TOP SURFACES FINISHES:
 - B.A. CHILLER PAD SHALL BE TROWEL FINISHED
 - C. APRON: (SEE DETAILS THIS SHEET)
 - C1. SHALL BE 2" ABOVE EXISTING GRADE LEVEL
 - C2. COMPACTED FLAT SLOPED 1/8" PER 12" OF RUN AWAY FROM CONCRETE CHILLER PAD
 - C3. VOID OF DEPRESSIONS GREATER THAN 1/8"
 - D. PROVIDE ANCHOR BOLTS FOR CHILLER PER CHILLER MANUFACTURER'S WRITTEN REQUIREMENTS
 - E. ALL CONCRETE WORK MUST FOLLOW ACI STANDARDS
 - F. COORDINATE ALL WORK WITH OWNER
 - G. CONCRETE:
 - G1. MINIMUM 28 DAY COMPRESSIVE STRENGTH - 5000 PSI
 - G2. MINIMUM CEMENT FACTOR - (5.5) 94 LB. SACKS PER CUBIC YARD OF CONCRETE
 - G3. MAXIMUM AGGREGATE SIZE - 1"
 - G4. MAXIMUM SLUMP - 4"
 - G5. ADMIXTURES - WATER-REDUCING AGENT, AIR ENTERING AGENT (4% TO 6%)
 - H. REINFORCING STEEL MATERIALS (SEE DETAIL #3/E-400 DETAIL VIEW ABOVE):
 - H1. REINFORCING BARS - NEW BILLET STEEL ASTM A-165 GRADE 60
 - H2. WELDED WIRE MESH REINFORCING - COLD DRAWN WIRE PER ASTM A-185
 - H3. REINFORCING STEEL AND WIRE MESH TO BE UNPAINTED, UNCOATED, FREE FROM RUST, SCALE, AND OIL
 - J. GRASS SEED:
 - J1. SHALL BE PREMIUM GRADE AND 99.9% WEED FREE
 - J2. SEED MIXTURE TO CONTAIN:
 - J3. 10%-15% PERENNIAL RYE GRASS
 - J4. 15%-20% CREEPING RED FESCUE
 - J5. 75%-80% KENTUCKY BLUEGRASS
 - J6. APPLICATION RATE: 6 POUNDS SEED PER 1000 SQ.FT. TOP SOIL
 - J7. USE SCREEN TOP SOIL FINISH TO MATCH EXISTING GRADE

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IT IS A VIOLATION OF THE LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ARCHITECT/ENGINEER TO ALTER THE DRAWING IN ANY WAY. ALL ALTERATIONS MUST HAVE THE SEAL, ATTACHED ALONG WITH A DESCRIPTION OF THE ALTERATION, THE SIGNATURE AND DATE. COPYRIGHT © 2019

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CONSULTANT(S):

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(SY-SANDFORDVILLE ES) 144 SANDFORDVILLE ROAD, WARWICK, NY 10990

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SHEET TITLE

**PARTIAL FLOOR PLANS
DEMOLITION AND NEW
WORK, DETAILS**

KEY-PLAN

SCALE: NONE

ME-100