NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

13A DICKINSON AVENUE, NYACK, NY 10960
ISSUED FOR BID: 12/16/2024

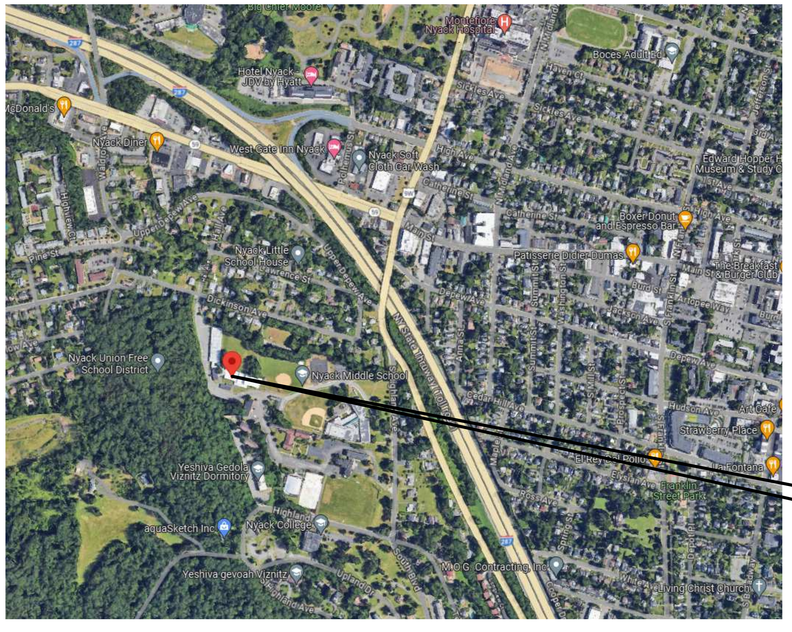
CSARCH - ARCHITECTS
GREENMAN - PEDERSEN, INC. - MEP ENGINEER
QuES&T - ASBESTOS ABATEMENT DESIGNER

DRAWING LIST - VOLUME 1

STATE EDUCATION DEPARTMENT PROJECT CONTROL NUMBER:
BOILER REPLACEMENT PROJECT 50-03-04-03-1-005-010

THE DESIGN OF THIS PROJECT CONFORMS TO APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE, AND THE MANUAL OF PLANNING STANDARDS OF THE NEW YORK STATE EDUCATION DEPARTMENT.

CSArch PROJECT NO. 226-2302.00



VICINITY MAP NTS

VOLUME 1 OF 3

PARTITION NOTES

1A — PARTITION TYPE NUMBER
1 — FIRE RATING HOUR

NOM. CMU SIZE	STC RATING	FIRE RATING	SIDE ONE FINISH
		TEST DESIGN	SIDE TWO FINISH

GENERAL PARTITION NOTES

1. THIS PARTITION TYPE SCHEDULE IS GENERIC IN NATURE. NOT ALL OF THE PARTITION TYPES ILLUSTRATED ON THIS SHEET HAVE BEEN UTILIZED IN THIS PROJECT. SEE FLOOR PLANS FOR LOCATIONS OF PARTITION TYPES USED.
2. ALL INTERIOR PARTITIONS INDICATED ON THE FLOOR PLANS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY PARTITION SHOWN ON THE FLOOR PLANS WITHOUT A PARTITION TAG. THE ARCHITECT WILL DETERMINE THE PARTITION TYPE TO BE USED AT SUCH LOCATIONS.

FIRE RATED SYSTEMS

1. PROVIDE FIRE RATED JOINT SYSTEMS AT ALL INTERSECTIONS OF FIRE RATED PARTITION ASSEMBLIES AND FIRE RATED FLOOR/ROOF ASSEMBLIES. THE FIRE RATED JOINT SYSTEM SHALL HAVE A MINIMUM FIRE RESISTANCE RATING GREATER THAN OR EQUAL TO THE PARTITION IN WHICH IT IS BEING USED. THIS JOINT SYSTEM MUST BE AN APPROVED ASSEMBLY TESTED BY A NATIONALLY RECOGNIZED TESTING AGENCY.
2. PROVIDE THROUGH-PENETRATION FIRE STOP SYSTEM AT ALL PENETRATIONS THROUGH FIRE RATED PARTITION, FLOOR AND ROOF ASSEMBLIES. THE THROUGH-PENETRATION FIRE STOP SYSTEM SHALL HAVE A MINIMUM FIRE RESISTANCE RATING GREATER THAN OR EQUAL TO THE ASSEMBLY THAT IT IS BEING USED IN. THIS FIRE STOP SYSTEM MUST BE AN APPROVED ASSEMBLY TESTED BY A NATIONALLY RECOGNIZED TESTING AGENCY.
3. ANY PRODUCT THAT EMITS ODOR MUST MEET THE REQUIREMENTS OF THE NEW YORK STATE EDUCATION DEPARTMENT.
4. CONCEALED VERTICAL SPACES IN PARTITIONS SHALL BE FILLED WITH NON COMBUSTIBLE MATERIAL, OR FIRE-STOPPED AT EACH FLOOR LEVEL AND AT THE CEILING OF THE UPPERMOST STORY, SO THAT SUCH SPACES WILL NOT BE CONTINUOUS FOR MORE THAN ONE STORY, OR COMMUNICATE WITH CONCEALED HORIZONTAL SPACES IN THE FLOOR OR ROOF CONSTRUCTION.
5. ALL PARTITION TYPE DIAGRAMS ARE GRAPHICAL IN NATURE. IN THE CASE WHERE A DIAGRAM DOES NOT SHOW ALL MATERIALS REQUIRED BY A FIRE-RATED PARTITION, THE PARTITION TYPE DESCRIPTION GOVERNS.

CMU WALL SYSTEMS

1. ALL PLAN DIMENSIONS ARE TO FACE OF CMU, UNLESS NOTED OTHERWISE.
2. PROVIDE HORIZONTAL JOINT REINFORCEMENT EVERY OTHER CMU COURSE.
3. PROVIDE (2) VERTICAL #4 BARS IN FULLY GROUTED CORES AT THE FOLLOWING LOCATIONS:
   A. PARTITION INTERSECTIONS (REINFORCE FULL HEIGHT)
   B. DOOR OPENINGS (REINFORCE FULL HEIGHT OF DOOR)
   C. WINDOW OPENINGS (REINFORCE FLOOR TO WINDOW HEAD)
   D. WALL ENDS (REINFORCE FULL HEIGHT)
4. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REINFORCING AND ANCHORING REQUIREMENTS.
5. PROVIDE BULLNOSE MASONRY UNITS ON ALL OUTSIDE CORNERS OF WALLS UNLESS NOTED OTHERWISE.

METAL STUD PARTITION AND CEILING SYSTEMS

1. ALL DIMENSIONS ARE TO THE FACE OF METAL STUDS UNLESS NOTED OTHERWISE.
2. PROVIDE METAL BRACING AT THIRD POINTS AT THE INTERIOR OF METAL STUD CHASE PARTITIONS. BRACING SHALL NOT EXCEED 48" OC.
3. PROVIDE METAL L.C. BEAD, BACKER ROD AND SEALANT AT THE INTERSECTION OF GYP BD PARTITIONS AND MASONRY PARTITIONS.
4. PROVIDE ACOUSTICAL SEALANT IN THE FOLLOWING LOCATIONS:
   A. PERIMETER OF PARTITIONS
   B. RUNNERS
   C. ELECTRICAL OUTLETS
   D. PARTITION PENETRATIONS AND OPENINGS
5. PROVIDE BLOCKING WITHIN PARTITIONS TO SUPPORT PARTITION MOUNTED EQUIPMENT, FIXTURES AND ACCESSORIES. COORDINATE WITH CABINETRY DETAILS AND MEP DRAWINGS.
6. ALL INTERIOR METAL STUDS AND METAL FURRING AT PARTITIONS ARE 20 GAUGE UNLESS OTHERWISE NOTED. ALL INTERIOR METAL STUDS AND FURRING FOR CEILING SOFFITS ARE 25 GAUGE UNLESS NOTED OTHERWISE.
7. ANCHOR INSULATION TO STUD SYSTEM WITH WIRE SUPPORT SYSTEM IF INSULATION IS NOT SUPPORTED ON BOTH SIDES BY GYPSUM BOARD. WHERE DOUBLE STUD PARTITIONS ARE USED TO FORM CHASE PARTITIONS ONLY PROVIDE SOUND ATTENUATION BLANKETS ON ONE SIDE OF CHASE
8. GYPSUM BOARD SCHEDULE
   - 5/8" TYPE "X" GYPSUM BOARD UNLESS NOTED OTHERWISE.
   - CORRIDOR AND STUDENT OCCUPIED SPACES FROM FLOOR TO 8'-0" ABOVE FINISHED FLOOR: 5/8" TYPE "X" ABUSE RESISTANT GYPSUM BOARD
   - SUSPENDED GYPSUM BOARD CEILINGS: 5/8" TYPE "X" SAG RESISTANT GYPSUM BOARD
   - EXTERIOR CEILINGS AND SOFFITS: 5/8" GLASS-MAT GYPSUM SHEATHING
   - PARTITIONS TO RECEIVE TILE FINISH: 5/8" TYPE "X" GLASS-MAT WATER RESISTANT BACKING BOARD
   - TOILET ROOMS, KITCHENS & JANITOR CLOSETS: PARTITIONS & CEILINGS THAT DO NOT RECEIVE TILE SHALL RECEIVE 5/8" TYPE "X" MOISTURE & MOLD RESISTANT GYPSUM BOARD

MAXIMUM SPACING - GYPSUM BOARD CONTROL JOINTS

CONSTRUCTION AND LOCATION	MAX SINGLE DIMENSION	MAX SINGLE AREA
	FEET	FEET
PARTITION - INTERIOR	30	-
CEILING - INTERIOR		
W/ PERIMETER RELIEF	50	2500
W/O PERIMETER RELIEF	30	900

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM
ADMIN	ADMINISTRATIVE
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT / ARCHITECTURAL
AV	AUDIO VISUAL
BLDG	BUILDING
BOT OR B/	BOTTOM OF
BSMT	BASEMENT
CJ	CONTROL / CONSTRUCTION JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
ED	EDUCATION
EIFS	EXTERIOR INSULATION FINISH SYSTEM
ELECT	ELECTRIC / ELECTRICAL
ELEV	ELEVATION
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQUIP	EQUIPMENT
EXST	EXISTING
EJ	EXPANSION JOINT
EXT	EXTERIOR
FIN	FINISH
FIN FL	FINISH FLOOR
FIXT	FIXTURE
FLR	FLOOR
FRT	FIRE-RETARDENT-TREATED MATERIAL
FTG	FOOTING
G	GROUND
GA	GAUGE
GAL	GALLON(S)
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
GWB	GYPSUM WALL BOARD
GWBS	GYPSUM WALL BOARD SOFFIT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HTG	HEATING
HVAC	HEATING/VENTILATING/AIR CONDITIONING
ID	INSIDE DIMENSION
IN	INCH
INT	INTERIOR
JAN	JANITOR
JC	JANITOR'S CLOSET
JST	JOIST
JT	JOINT
LAB	LABORATORY
LB	POUND
LIN	LINEAR
LVL	LEVEL
MAN	MANUAL
MAS	MASONRY
MAX	MAXIMUM
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPT	OPTIONAL
OVR	OVERALL
OZ	OUNCE
PERIM	PERIMETER
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
POLYISO	POLYISOCYANURATE
PPT	PRESSURE PRESERVATIVE TREATED
PR	PAIR
PREP	PREPARATORY
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
RAD	RADIUS
REQD	REQUIRED
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
SCH	SCHEDULED
SECT	SECTION
SF	SQUARE FEET
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL / STRUCTURE
SUSP	SUSPENDED
SAC	SUSPENDED ACOUSTICAL CEILING
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TECH	TECHNOLOGY
TEMP	TEMPORARY
TMPD	TEMPERED
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WPT	WOOD PRESERVED-TREATED MATERIAL
WGT	WEIGHT
YD	YARD

ARCHITECTURAL LEGEND

MATERIAL INDICATIONS

- EARTH
- GRANULAR FILL
- BRICK
- CONCRETE MASONRY UNIT
- CONCRETE
- GROUT
- ROUGH WOOD BLOCKING
- SHIM
- FINISH WOOD
- PLYWOOD
- SHEATHING
- RIGID INSULATION
- BATT INSULATION
- SPRAY FOAM INSULATION
- EPS INSULATION
- STEEL

DIMENSIONING CONVENTIONS

- FACE OF STUD OR CMU
- COLUMN CENTER LINE

SYMBOLS

- CLASSROOM — ROOM NAME
- 100 — ROOM NUMBER
- 000 S.F. — AREA OF ROOM
- A100 — DOOR NUMBER, REFER TO A900 DRAWINGS
- 1 — WINDOW TAG, REFER TO A900 DRAWINGS
- BL11 — BORROWED LIGHT NUMBER, REFER TO A900 DRAWINGS
- S1 — STOREFRONT / CURTAINWALL NUMBER, REFER TO A900 DRAWINGS
- 1 — COLUMN GRID DESIGNATION
- 1 — PARTITION TAG, REFER TO A700 DRAWINGS
- 1 — HOUR RATING OF PARTITION
- M — ADDITIONAL NOTES FOR PARTITION
- 1 — REVISION NUMBER
- 1 — KEY NOTE, NEW WORK
- 1 — KEY NOTE, DEMOLITION WORK
- +0'-0" — ELEVATION TAG
- HANDICAPPED ACCESSIBLE ELEMENT OR FIXTURE
- ROOM NAME / 101 / WALL FINISH / BASE FINISH / FLOOR FINISH — INTERIOR FINISH TAG, REFER TO AF100 DRAWINGS

DETAIL INDICATOR LEGEND

SECTION INDICATOR

- SECTION NUMBER (1)
- DRAWING SHEET NUMBER SECTION IS DRAWN ON (A100)
- DIRECTION OF VIEW

DETAIL INDICATOR (SECTION)

- SECTION NUMBER (1)
- DRAWING SHEET NUMBER SECTION IS DRAWN ON (A100)
- DIRECTION OF VIEW

ENLARGED DETAIL INDICATOR

- DRAWING AREA REQUIRING DETAIL
- DETAIL NUMBER (1)
- DRAWING SHEET NUMBER DETAIL IS DRAWN ON (A100)

DETAIL TITLE

- DETAIL NUMBER — 1
- DETAIL TYPE / NAME — FLOOR PLAN
- DRAWING SHEET NUMBER — A100
- SCALE — 1/8" = 1'-0"

EXTERIOR ELEVATION INDICATOR

- DIRECTION OF VIEW
- ELEVATION NUMBER (1)
- DRAWING SHEET NUMBER DETAIL IS DRAWN ON (A100)

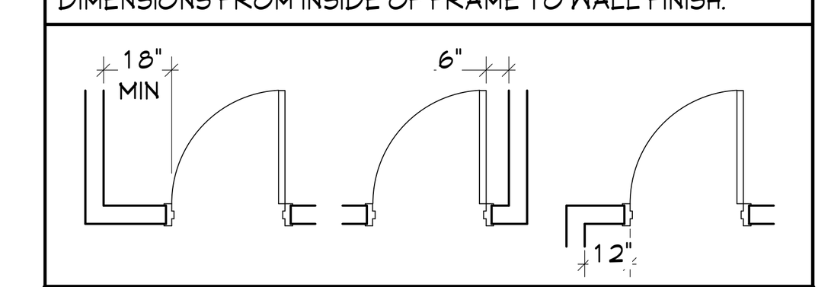
INTERIOR ELEVATION INDICATOR

- BLANK ARROW INDICATES ELEVATIONS NOT DETAILED
- ELEVATION NUMBER (A, B)
- DRAWING SHEET NUMBER DETAIL IS DRAWN ON (A600)
- DIRECTION OF VIEWS

PLAN GRAPHICS LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW CONCRETE MASONRY WALL
- NEW METAL STUD WALL
- NEW BRICK VENEER
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE REMOVED
- NEW DOOR

FINISHED DOOR OPENINGS SHALL BE LOCATED AS INDICATED BELOW UNO. DIMENSIONS SHOWN ARE CLEAR DIMENSIONS FROM INSIDE OF FRAME TO WALL FINISH.



GENERAL NOTES

1. DIMENSIONS ARE GIVEN THUS (UNLESS NOTED OTHERWISE)
   A. TO FACE OF MASONRY WALL
   B. TO FACE OF METAL STUD
   C. TO COLUMN CENTERLINES
   D. TO FINISH FACE OF SOFFIT OR CEILING
   E. FACE OF EXISTING CONSTRUCTION
2. DO NOT SCALE DRAWINGS. IF A DIMENSION IS NOT SHOWN, BRING IT TO THE ATTENTION OF THE ARCHITECT FOR VERIFICATION BEFORE PROCEEDING WITH THE ASSOCIATED WORK
3. WALLS ON COLUMN LINES ARE CENTERED, UNO
4. ALL DIMENSIONS RELATED TO EXISTING CONDITIONS SHALL BE VERIFIED IN FIELD. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK IN THAT AREA.
5. LAYOUT OF TOILET FIXTURES AND ACCESSIBILITY CLEARANCES ARE SHOWN AS CLEAR DIMENSION. CONTRACTORS ARE REQUIRED TO COODINATE LAYOUTS OF PARTITIONS, UTILITY CONNECTIONS, AND THICKNESS OF FINISHES TO ALLOW THESE CLEAR DIMENSIONS.
6. ALL ELEVATIONS (X'-X") ARE REFERENCE FROM FIRST FLOOR ELEVATION
7. ALL WOOD BLOCKING WITHIN 2'-0" OF GRADE SHALL BE PRESSURE TREATED
8. ALL FLOOR PENETRATIONS SHALL BE SMOKE-SEALED AND /OR FIRE STOPPED. COORDINATE WITH 'H' DWGS FOR SMOKE / FIRE DAMPER REQUIREMENTS.
9. FOR INTERIOR PARTITION TYPES, REFER TO DRAWING A701
10. FOR DOOR SCHEDULE, REFER TO DRAWING A901
11. FOR FINISH SCHEDULE, REFER TO DRAWING AF901
12. ALL EXPOSED SURFACES OF NEW PARTITIONS AND SOFFITS ARE TO BE FINISHED.
13. PROVIDE PATCH TO MATCH EXISTING FINISHES AT ALL WALL REMOVAL AREAS, COORDINATE WITH DEMOLITION DRAWINGS AND SPECIFICATIONS.
14. ALL CONSTRUCTION SHOWN IS NEW UNLESS NOTED OTHERWISE

CSARCH
40 Beaver St. · Albany · New York 12207-1511
518 · 463 · 8068 www.csarchpc.com

Consultant

Project Title

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

REGISTERED ARCHITECT THOMAS M. RITZENTHALER 023344 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 02/28/2025

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Drawn By:	Author
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Sheet Title

SYMBOLS, ABBREVIATIONS, AND MISC

Sheet No.

HTA G001

CONSTRUCTION DOCUMENTS

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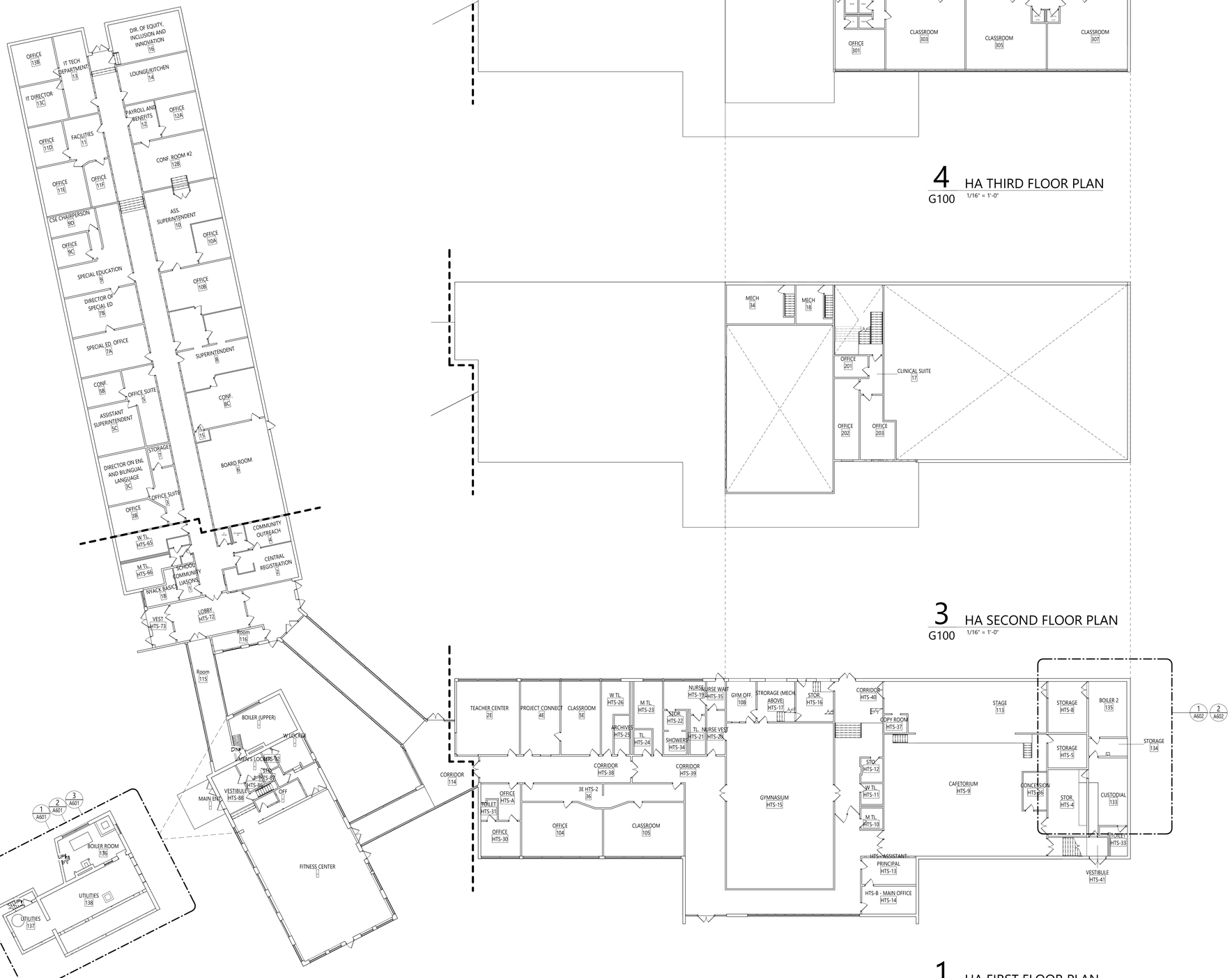


4 HA THIRD FLOOR PLAN
G100 1/16" = 1'-0"

3 HA SECOND FLOOR PLAN
G100 1/16" = 1'-0"

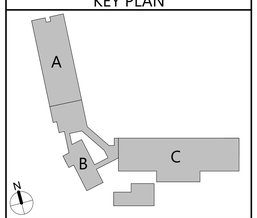
1 HA FIRST FLOOR PLAN
G100 1/16" = 1'-0"

2 BOILER ROOM FLOOR PLAN
G100 1/16" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR PARTITION TYPES AND ADDITIONAL NOTES, ENLARGED FLOOR AND ROOF PLANS, DETAILS, ADDITIONAL DIMENSIONS AND DETAILED INFORMATION.

KEY PLAN



CSARCH
40 Beaver St. - Albany - New York 12207-1511
518 -463 - 8068 www.csarchpc.com

Consultant

Project Title

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

REGISTERED ARCHITECT
DAVID M. RITZENTHALER
223345
STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 02/28/2025

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Sheet Title
OVERALL FLOOR PLANS

Sheet No.
HTA G100

CONSTRUCTION DOCUMENTS

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ASBESTOS ABATEMENT NOTES

PRE-ABATEMENT WORK NOTES:

1. THESE DRAWINGS HAVE BEEN PREPARED UTILIZIMG THE OWNERS' ORIGINAL CONSTRUCTION DOCUMENTS IN ORDER TO ILLUSTRATE THE EXISTING CONDITIONS OF THE SITE AND STRUCTURES THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL VERIFICATION OF ALL EXISTING CONDITIONS IN THE FIELD.
2. THE CONTRACTOR SHALL DETERMINE EXACT FINAL LOCATIONS OF PERSONNEL AND WASTE DECONTAMINATION ENCLOSURES, PICK UP AREA FOR REFUSE AND ASBESTOS DEBRIS. THESE LOCATIONS SHALL BE REVIEWED AND PROPERLY APPROVED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK. THIS CONTRACTOR SHALL ESTABLISH, LABEL AND MAINTAIN PROPER EXITS AND WAYS OF EGRESS WITHIN EACH WORK AREA FOR NORMAL AND EMERGENCY USE BY WORKERS DURING ALL ABATEMENT ACTIVITIES.
3. THE CONTRACTOR, PRIOR TO BIDDING SHALL BE RESPONSIBLE TO BECOME COMPLETELY FAMILIAR WITH ALL ASPECTS OF THE PROJECT, INCLUDING, BUT NOT LIMITED TO, ALL DEMOLITION AND CONSTRUCTION WORK AS SHOWN IN THE COMPLETE SET OF DRAWINGS AND IN THE PROJECT MANUAL / SPECIFICATIONS AND ASBESTOS SURVEY REPORTS IN ORDER THAT THE FULL SCOPE OF WORK WHICH MAY ENCOUNTER ASBESTOS CONTAINING MATERIALS IS UNDERSTOOD AND ACCOUNTED FOR BY THE CONTRACTOR IN UNDERTAKING THIS PROJECT. A COPY OF THE ASBESTOS SURVEY REPORT CAN BE REQUESTED FROM THE OWNERS' ENVIRONMENTAL CONSULTANT AND WILL BE AVAILABLE AT THE PRE-BID MEETING. ADDITIONAL REPORT REQUESTS MUST BE SUBMITTED IN WRITING SEVEN CALENDAR DAYS IN ADVANCE OF THE BID OPENING.
4. PRIOR TO ABATEMENT ALL CONTRACTORS WILL SURVEY EXISTING CONDITIONS IN THE ABATEMENT AND GENERAL WORK AREAS. ITEMS / MATERIALS, ETC., DAMAGED OR NON-FUNCTIONAL SHALL BE LISTED, NOTED, PHOTOGRAPHED AND REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE ASSUMED TO BE IN GOOD CONDITION AND WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR TO MAINTAIN ALL MATERIALS, ITEMS, EQUIPMENT, SYSTEMS, ETC. IN THEIR ORIGINAL CONDITION AND RETURN TO OWNER/GENERAL CONTRACTOR, ETC., IN SAME CONDITION AT THE END OF THIS CONTRACT.

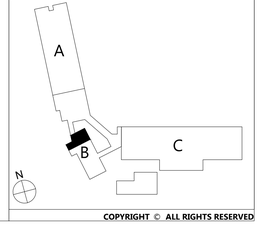
ASBESTOS REMOVAL GENERAL NOTES:

1. ASBESTOS ABATEMENT INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY A NYS DEPARTMENT OF LABOR LICENSED ASBESTOS ABATEMENT CONTRACTOR, WHO SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES PRIOR TO BID.
2. THE CONTRACTOR SHALL PERFORM ALL CONTRACT WORK IN ACCORDANCE WITH CONTRACT SPECIFICATIONS, NEW YORK STATE DEPARTMENT OF LABOR (NYSDOL) INDUSTRIAL HEALTH CODE RULE 56, OSHA, NESHAPS, AHERA, NYSDEC AND ALL OTHER APPLICABLE CODES.
3. THE CONTRACTOR SHALL MAINTAIN THE SITE AS NEAT AS POSSIBLE AND ORDERLY DURING (THE COURSE OF)THE WORK. ALL LOOSE DEBRIS WHICH MAY (BECOME WINDBORNE) BLOW OFF THE SITE, SHALL BE COLLECTED AND DISPOSED OF PROPERLY BY THE CONTRACTOR ON A DAILY BASIS AS PART OF THE PROJECT WORK.
4. THE CONTRACTOR SHALL PROVIDE BARRIERS AROUND THE WORK AREAS IN ORDER TO ENSURE SAFE PASSAGE BY ANY PERSON. THESE BARRIERS SHALL ALSO SERVE TO KEEP ALL UNAUTHORIZED PERSONS OUT OF THE PROJECT AREA FOR THE DURATION OF THE WORK.
5. VARIANCES: CONTRACTOR SHALL PAY FOR AND OBTAIN ANY NECESSARY SITE SPECIFIC VARIANCES.
6. THE CONTRACTOR SHALL MAINTAIN SECURITY IN THE BUILDING AND THE WORK AREAS AT ALL TIMES.
7. PROJECT STAGING, STORAGE, SCHEDULING AND ACCESS SHALL BE COORDINATED WITH AND APPROVED BY THE ARCHITECT, CONSTRUCTION MANAGER AND OWNER PRIOR TO PROCEEDING WITH WORK.
8. SHOULD IT BECOME NECESSARY, THE CONTRACTOR SHALL COORDINATE SHUT DOWN AND LOCK OUT / TAG OUT OF THE ELECTRICAL POWER FROM THE OWNERS' POWER, WITH OWNERS' REPRESENTATIVE, PRIOR TO THE COMMENCEMENT OF WORK.
9. ALL TEMPORARY POWER TO THE WORK AREA SHALL BE BROUGHT IN FROM OUTSIDE THE WORK AREA BY ABATEMENT CONTRACTOR / GC THROUGH A GROUND-FAULT CIRCUIT INTERRUPTER AT THE SOURCE.
10. CONTRACTOR SHALL COORDINATE CONNECTION OF WATER SERVICE FOR DECONTAMINATION PURPOSES WITH OWNERS' REPRESENTATIVE. WATER FOR DECONTAMINATION UNITS IS AVAILABLE FROM THE OWNER.
11. THE OWNER OR OWNERS' REPRESENTATIVE IS RESPONSIBLE TO CONTRACT FOR NYSDOL PROJECTS MONITORING / AIR SAMPLING TECHNICIAN SERVICES AS REQUIRED.
12. CONTRACTOR TO PROVIDE A COPY OF SAFETY DATA SHEETS (SDS'S) FOR ANY CHEMICAL AGENTS TO BE USED DURING THE ASBESTOS ABATEMENT TO THE PROJECT MONITOR AND THE OWNERS'S REPRESENTATIVE.
13. CONTRACTOR SHALL REQUEST AND RECEIVE PROJECT MONITOR AND OWNERS' REPRESENTATIVES APPROVAL OF ALL WORK BEFORE ANY ABATEMENT IS UNDERTAKEN.
14. UNDER NO CIRCUMSTANCES SHALL CONTAMINATED WASTE WATER BE DISCHARGED THROUGH A SYSTEM WITHOUT FILTERING. THE MAXIMUM FILTER SIZE OPENING SHALL BE CAPABLE OF RETAINING A 5.0 MICRON PARTICLE SIZE COLLECTION CAPABILITY.
15. DRAWINGS ATTEMPT TO INDICATE THE GENERAL SCOPE OF EXISTING CONDITIONS AND ITEMS AFFECTED BY THE ABATEMENT WORK. CONTRACTOR SHALL EXAMINE THE WORK AREA PRIOR TO FORMULATING HIS BID SHALL INCLUDE FIELD VARIATIONS FROM THOSE SHOWN WITHIN THE GENERAL INTENT OF THE WORK.
16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ASBESTOS CONTAINING MATERIALS CONTAINED WITHIN AND GENERATED FROM THE ABATEMENT PROJECT AND ASSOCIATED WITH ALL PROJECT WORK, IN COMPLIANCE WITH ALL APPLICABLE LAWS, RULES REGULATIONS AND ALL REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION.
17. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ASBESTOS CONTAINING MATERIALS CONTAINED WITHIN AND GENERATED FROM THE PROJECT AND ASSOCIATED WITH ALL PROJECT WORK, IN THE MOST EFFICIENT AND COST EFFECTIVE METHOD POSSIBLE, WHICH ALSO COMPLIES WITH THE REQUIREMENTS LISTED ABOVE.

POST ABATEMENT WORK NOTES:

1. PROVIDE ALL APPLICABLE CODE RULE 56 PROCEDURES, CLEAN UP AND ADDITIONAL TESTING AS REQUIRED.
2. AFTER FINAL CLEARANCE HAS BEEN ATTAINED, THE ABATEMENT CONTRACTOR, TOGETHER WITH THE PROJECT INSPECTOR AND OWNERS REPRESENTATIVE WILL SURVEY FINAL CONDITIONS IN THE ABATEMENT AND GENERAL WORK AREAS. ITEMS / MATERIALS, ETC., DAMAGED OR NON-FUNCTIONAL SHALL BE LISTED, NOTED, PHOTOGRAPHED AND REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS NOT NOTED, SHALL BE ASSUMED TO BE IN GOOD CONDITION AND WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR TO MAINTAIN ALL MATERIALS, ITEMS, EQUIPMENT, SYSTEMS, ETC. IN THEIR ORIGINAL CONDITION AND RETURN TO OWNER/GENERAL CONTRACTOR, ETC., IN SAME CONDITION AT THE END OF THIS CONTRACT. ANY NEW DAMAGE OR MISSING EQUIPMENT SHALL BE NOTED AND THE COST OFFSET FROM THE CONTRACT.
3. REMOVE ALL TEMPORARY ENCLOSURES, BARRIERS, ETC. REINSTALL ITEMS/WORK PREVIOUSLY REMOVED. ALL TAPE AND ADHESIVE RESIDUALS TO BE REMOVED.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE AGAINST DAMAGE TO THE EXISTING WORK TO REMAIN IN PLACE. ANY DAMAGE TO SUCH WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT AND OWNER AT NO ADDITIONAL COST TO THE CONTRACT.
5. AT COMPLETION OF THE ABATEMENT WORK, A CONDITION SURVEY SHALL BE DONE BY ALL CONTRACTORS AND PROJECT INSPECTOR (SEE NOTE 2.) ANY VARIATION (I.E. DAMAGE BY THE CONTRACTOR) SHALL BE REPAIRED / RESTORED BY THE ABATEMENT CONTRACTOR.
6. THE CONTRACTOR SHALL, UPON COMPLETION OF THE REMOVAL, PROVIDE WRITTEN DOCUMENTATION (INCLUDING ALL APPROPRIATE THIRD PARTY TESTING RESULTS) THAT THE PROJECT WORK AREAS ARE COMPLETELY FREE OF ALL ASBESTOS CONTAINING MATERIALS (CONTEMPLATED FOR REMOVAL UNDER THIS PROJECT, OR PHASE) AT FINAL CLEARANCE.
7. THE CONTRACTOR SHALL PROVIDE RECORDS OF ALL ASBESTOS CONTAINING MATERIALS REMOVED FROM THE SITE, INCLUDING THE COMPOSITION AND VOLUMES OF DISPOSED MATERIALS AND THE FINAL DISPOSAL SITE(S).

KEY PLAN



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CSARCH

Consultant
QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.
1370 ROUTE 9
WAPPINGERS FALLS, NY 12590
TEL. (845)298-6031

Project Title
NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

STATE OF NEW YORK
ANTHONY MICHAEL MELONE
067501
LICENSED PROFESSIONAL ENGINEER
Exp. 11-30-25

#	DATE	DESCRIPTION

Drawn By:	AM
Checked By:	RL
Proj. #:	50-03-04-03-1-005-010
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Sheet Title
ASBESTOS ABATEMENT NOTES

Sheet No.
AA000

CONSTRUCTION DOCUMENTS

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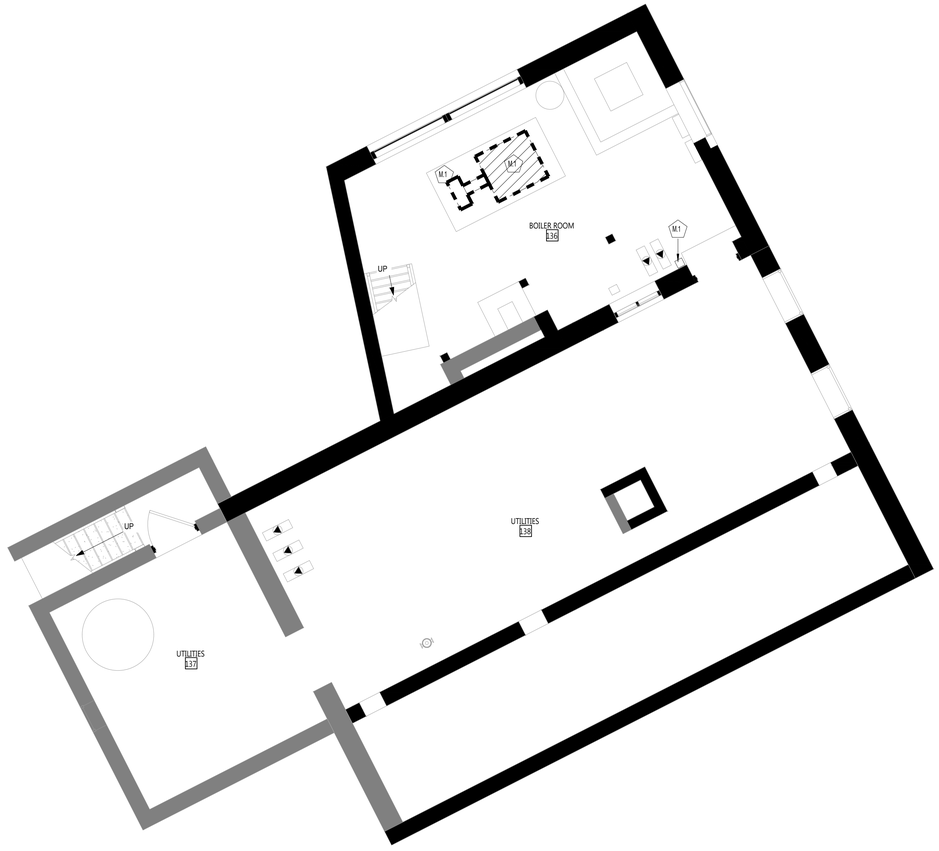
ASBESTOS ABATEMENT LEGEND

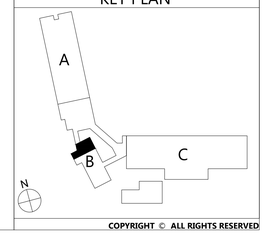
PRESUMED ASBESTOS CONTAINING (PACM) BOILER INTERIORS TO BE REMOVED AND DISPOSED BY ASBESTOS CONTRACTOR.

REFER TO ASBESTOS ABATEMENT SPECIFICATION 020800 - 3.17 FOR A MORE DETAILED DESCRIPTION OF THE ABATEMENT WORK REQUIREMENTS .



1 AREA A - BOILER ROOM 136 ENLARGED ABATEMENT PLAN
AA101 1/4" = 1'-0"

KEY PLAN



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40 Beaver St. Albany, New York 12207-1511
518 463 8068 www.csarchpc.com

Consultant
QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.
1376 ROUTE 9
WAPPINGERS FALLS, NY 12590
TEL: (845)298-6031
Exp. 11-30-25

Project Title
NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

STATE OF NEW YORK
ANTHONY MICHAEL MUSCO
LICENSED PROFESSIONAL ENGINEER
087057
Exp. 11-30-25

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Sheet Title
AREA 'B' BOILER ROOM ENLARGED ABATEMENT PLANS

Sheet No.
HTA
AA101

CONSTRUCTION DOCUMENTS

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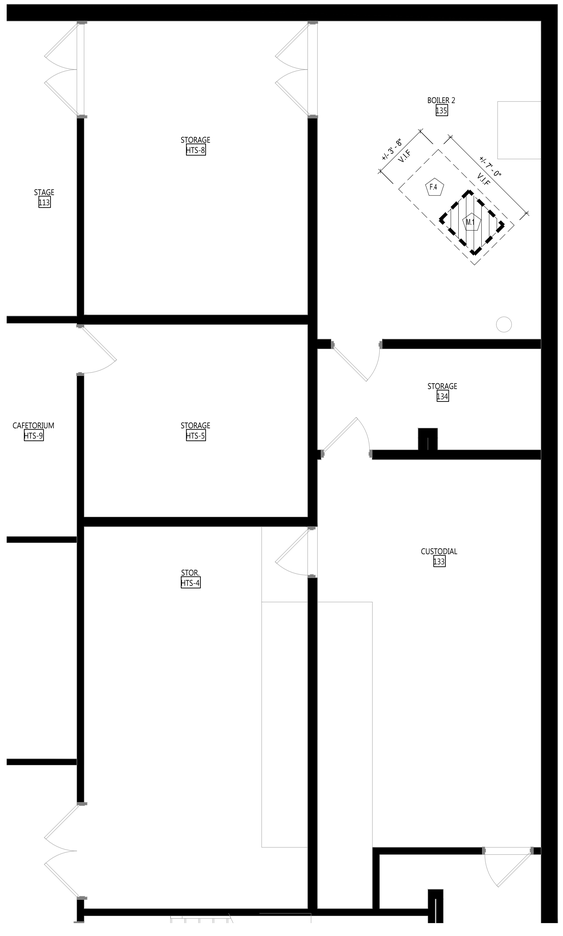
ASBESTOS ABATEMENT LEGEND

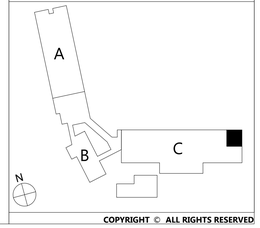
PRESUMED ASBESTOS CONTAINING (PACM) BOILER INTERIORS TO BE REMOVED AND DISPOSED BY ASBESTOS CONTRACTOR.

REFER TO ASBESTOS ABATEMENT SPECIFICATION 020800 - 3.17 FOR A MORE DETAILED DESCRIPTION OF THE ABATEMENT WORK REQUIREMENTS .



1 AREA C - BOILER ROOM 135 ENLARGED ABATEMENT PLAN
AA102 1/4" = 1'-0"

KEY PLAN



CSARCH
40 Beaver St. Albany, New York 12207-1511
518 463 8068 www.csarchpc.com

Consultant

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.
1121 ROUTE 9
WAPPINGERS FALLS, NY 12590
TEL. (845)298-6031
Exp. 11-30-25

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

STATE OF NEW YORK
ANTHONY MICHAEL MACRI
067507
LICENSED PROFESSIONAL ENGINEER
Exp. 11-30-25

#	DATE	DESCRIPTION

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Sheet Title
AREA 'C' BOILER ROOM ENLARGED ABATEMENT PLAN

Sheet No.
HTA AA102

CONSTRUCTION DOCUMENTS

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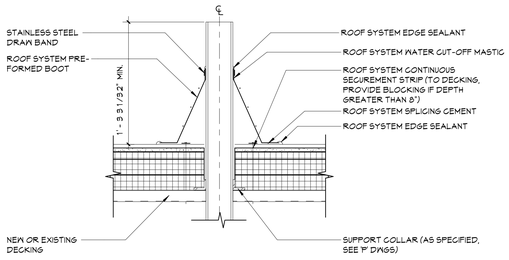


4 VENT PIPE DETAIL
A601 1 1/2" = 1'-0"

3 AREA B - BOILER ROOM ROOF PLAN
A601 1/4" = 1'-0"

2 AREA A - BOILER ROOM ENLARGED FLOOR PLAN
A601 1/4" = 1'-0"

1 AREA A - BOILER ROOM ENLARGED DEMOLITION FLOOR PLAN
A601 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR PARTITION TYPES AND ADDITIONAL NOTES, ENLARGED FLOOR AND ROOF PLANS, DETAILS, ADDITIONAL DIMENSIONS AND DETAILED INFORMATION.

ROOF GENERAL NOTES

1. ALL EXISTING ROOF DRAINS TO REMAIN, UNO.
2. REFER TO ROOF SCAN REPORT FOR LOCATION OF WET INSULATION / ROOFING. REMOVE ALL WET INSULATION / ROOFING AND PATCH WITH NEW ROOFING IN KIND TO MATCH EXISTING THICKNESS IN THAT AREA.
3. REFER TO ROOF SCAN REPORT FOR CORES TAKEN IN EXISTING ROOFING.
4. CURB SIZES SHOWN REFLECT PENETRATING DUCT SIZE. CURB SIZE MAY VARY. REFER TO MECHANICAL DRAWINGS, COORDINATE ACTUAL SIZE OF CURBS IN APPROVED SUBMITTALS.
5. NEW ROOF AND ROOF INSULATION FASTENERS TO ENGAGE HIGH POINT OF STEEL DECK FLUTES.
6. PROVIDE MINIMUM 1 1/2" RIGID INSULATION AT NEW FLAT ROOF AREAS, TAPER INSULATION TO HEIGHTS INDICATED.

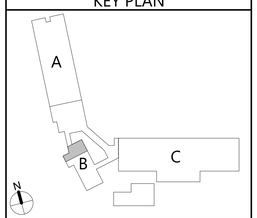
ROOF LEGEND

RD	ROOF DRAIN, REFER TO PLUMBING DRAWINGS
SD	SECONDARY DRAIN, REFER TO PLUMBING DRAWINGS
SC	ROOF SCUPPER
V	VENT PIPE, REFER TO PLUMBING DRAWINGS
	ROOF PENETRATIONS, REFER TO MECHANICAL DRAWINGS
AH	ROOF ACCESS HATCH
	INDICATES DIRECTION OF SLOPE AT 1/4" PER FOOT MINIMUM, UNO
	ROOF LADDER
EJ	EXPANSION JOINT

KEYNOTES

#	Description
M 1	MECHANICAL INSTALLATION, REFER TO 'M' DRAWINGS.
M 1	MECHANICAL REMOVAL, REFER TO 'M' DRAWINGS.
R 1	PROVIDE A NEW CUT OUT OF THE EXISTING ROOF SYSTEM AND DECK TO SUPPORT A NEW BOILER VENT PIPE PENETRATION, REFER TO DETAIL FOR MORE INFORMATION.

KEY PLAN



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40 Beaver St. - Albany - New York 12207-1511
518 463 - 8068 www.csarchpc.com

Consultant

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

REGISTERED ARCHITECT
JOHN M. RITZENHEIN
223345
STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 02/28/2025

#	DATE	DESCRIPTION

Drawn By:	Author
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Sheet Title
AREA 'B' BOILER ROOM ENLARGED PLANS AND DETAILS

Sheet No.
HTA
A601

CONSTRUCTION DOCUMENTS

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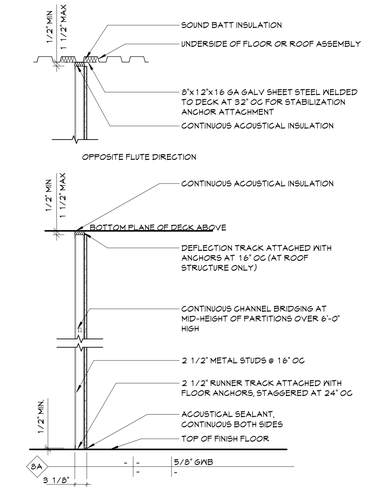
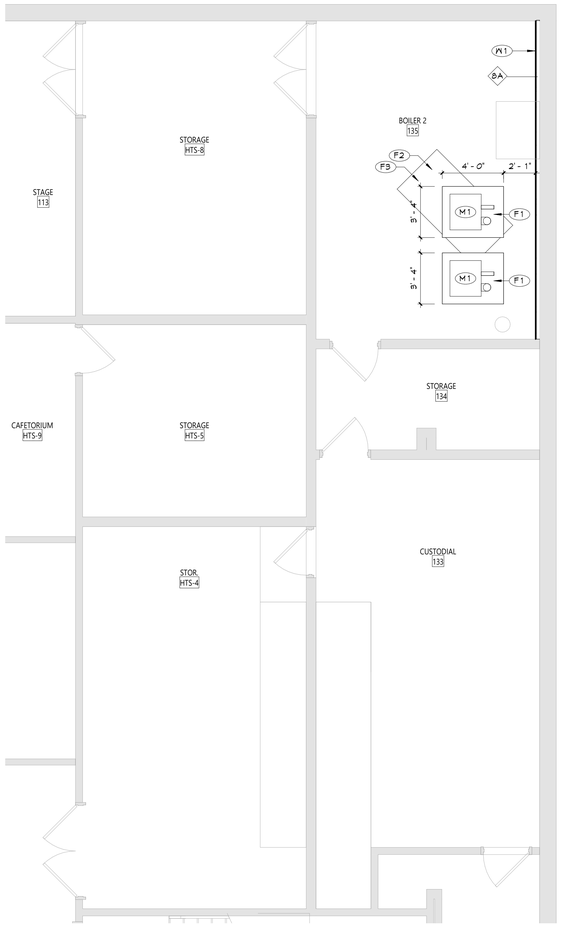
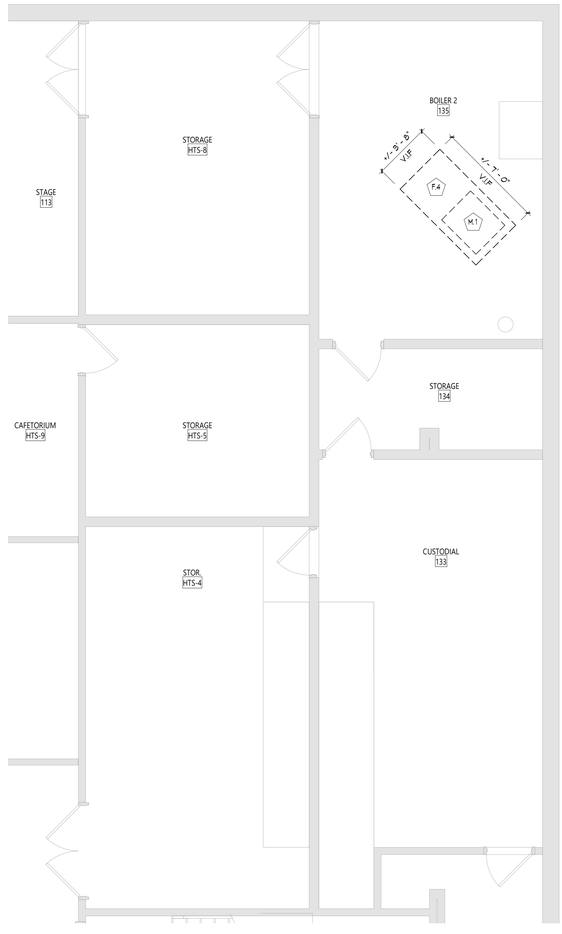


3 PARTITION TYPE '8'
A701 3/4" = 1'-0"



2 AREA C - BOILER ROOM PLAN
A602 1/4" = 1'-0"



1 AREA C - BOILER ROOM DEMOLITION PLAN
A602 1/4" = 1'-0"

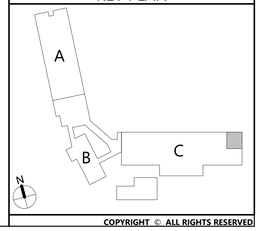
GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR PARTITION TYPES AND ADDITIONAL NOTES, ENLARGED FLOOR AND ROOF PLANS, DETAILS, ADDITIONAL DIMENSIONS AND DETAILED INFORMATION.

KEYNOTES

#	Description
F.1	ROUGHEN THE SURFACE OF THE EXISTING SLAB AND PROVIDE 4" THICK CONCRETE PAD REINFORCED WITH 6X6, W1.4 X W1.4 WELDED WIRE FABRIC. VERIFY FINAL SIZE OF PAD WITH APPROVED MECHANICAL EQUIPMENT.
F.2	PROVIDE NEW FLOOR FINISH, REFER TO 'AF' DRAWINGS.
F.3	PROVIDE SELF-LEVELING COMPOUND TO ACHIEVE LEVEL SURFACE FOR FINISHED FLOORING.
F.4	SAWCUT AND REMOVE CONCRETE PAD, COORDINATE EXTENT WITH NEW WORK AND 'M' DRAWINGS.
M.1	MECHANICAL INSTALLATION, REFER TO 'M' DRAWINGS.
M.1	MECHANICAL REMOVAL, REFER TO 'M' DRAWINGS.
W.1	PROVIDE NEW FULL HEIGHT PARTITION, REFER TO DETAILS FOR ADDITIONAL INFORMATION.

KEY PLAN



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40 Beaver St. - Albany - New York, 12207-1511
518 - 463 - 8068 www.csarchpc.com

Consultant

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

REGISTERED ARCHITECT
THOMAS M. FITZPATRICK
023343
STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 03/28/2025

#	DATE	DESCRIPTION

Drawn By:	Author
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Sheet Title
AREA 'C' BOILER ROOM ENLARGED PLANS AND DETAILS

Sheet No.
HTA
A602

CONSTRUCTION DOCUMENTS

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SHEETMETAL LEGEND

- SUPPLY DUCT (UP & DN)
- RETURN DUCT (UP & DN)
- EXHAUST DUCT (UP & DN)
- 12"x10" — RECTANGULAR DUCTWORK (WIDTH X DEPTH)
- 12"/10" — FLAT OVAL DUCTWORK (WIDTH X DEPTH)
- 10"ø — ROUND DUCTWORK (SIZE, DIAMETER)
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES)
- RADIUS ELBOW (I.D. RADIUS IS DUCT WIDTH)
- VOLUME DAMPER (SINGLE OR OPPOSED BLADE) AS SPECIFIED
- AD — ACCESS DOOR (BOTTOM SHOWN)
- ACCESS DOOR (SIDE SHOWN)
- ACOUSTIC LINED DUCTWORK (SIZE INDICATES INSIDE DUCT DIMENSIONS)
- AUTOMATIC TEMPERATURE CONTROL DAMPER (OPPOSED BLADE TYPE)
- FLEXIBLE DUCTWORK (MAXIMUM LENGTH NOT TO EXCEED 36 INCHES)
- TRANSITION WITH FLAT SIDE
- TRANSITION ON CENTER
- RECTANGULAR TO ROUND TRANSITION
- BRANCH TAKE-OFF WITH VOLUME DAMPER
- ROUND TAP TO RECTANGULAR DUCT (BELL MOUTH) & VOLUME DAMPER
- RECTANGULAR TO ROUND TAP (HETO) & VOLUME DAMPER
- SMOKE DAMPER, FIRE DAMPER, OR COMBINATION FIRE/SMOKE DAMPER WITH ACCESS DOOR

PIPING LEGEND

- HWS — HOT WATER SUPPLY (BELOW 250° F)
- HWR — HOT WATER RETURN (BELOW 250° F)
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- HPWS — HEAT PUMP WATER SUPPLY
- HPWR — HEAT PUMP WATER RETURN
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RHG — REFRIGERANT HOT GAS
- DTWS — DUAL TEMP WATER SUPPLY
- DTWR — DUAL TEMP WATER RETURN
- GS — GLYCOL SUPPLY
- GR — GLYCOL RETURN
- MUW — MAKE UP WATER
- CD — CONDENSATE DRAIN
- CS — CONDENSER WATER SUPPLY TO TOWER
- CR — CONDENSER WATER RETURN FROM TOWER
- G — NATURAL GAS PIPING

VALVE LEGEND

- BALL VALVE
- DRAIN VALVE WITH CAP
- BUTTERFLY VALVE
- CHECK VALVE
- TRIPLE DUTY VALVE
- PRESSURE REDUCING VALVE
- CALIBRATED BALANCING VALVE

SPECIALTY LEGEND

- Y-LINE STRAINER
- THERMOMETER
- PRESSURE GAUGE W/ NEEDLE VALVE
- T — THERMOSTAT (48" AFF)
- C — CARBON DIOXIDE SENSOR (48" AFF)
- S — DUCT MOUNTED SMOKE DETECTOR
- POINT OF DISCONNECTION
- CONNNECT TO EXISTING
- COMBINATION AUTOMATIC STARTER

DETAIL NUMBER
DRAWING NUMBER WHERE DETAIL IS DRAWN — A1 / H501
DETAIL INDICATION

SECTION NUMBER
DRAWING NUMBER WHERE SECTION IS DRAWN — A / H001 — DIRECTION OF VIEW
SECTION INDICATION

ENERGY CONSERVATION CODE COMPLIANCE STATEMENT:

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT THE PLANS AND SPECIFICATIONS COMPLY WITH THE LATEST EDITION OF THE ENERGY CONSERVATION CODE OF NEW YORK STATE.

THE HVAC SYSTEM WAS DESIGNED IN ACCORDANCE WITH THE 2020 NEW YORK STATE ENERGY CONSERVATION CODE CHAPTER 4 (COMMERCIAL ENERGY EFFICIENCY). ACCEPTABLE PRACTICE FOR COMMERCIAL BUILDINGS METHOD. THE HEAT AND COOLING LOAD CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH ASHRAE HANDBOOK OF FUNDAMENTALS CHAPTER 17 AND 18, AND APPROPRIATE EXTERIOR DESIGN ZONE CONDITIONS.

ABBREVIATION LEGEND

ABBREVIATION	DESCRIPTION
A	
AD	ACCESS DOOR
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
AV	AUTOMATIC AIR VENT
B	
BTUH	BRITISH THERMAL UNITS PER HOUR
C	
CD	CEILING DIFFUSER
CEF	CEILING EXHAUST FAN
CFM	CUBIC FEET PER MINUTE
CMS	COMBINATION MOTOR STARTER
CO	CLEAN OUT
CONT	CONTINUED
CR	CEILING RETURN
CUH	CABINET UNIT HEATER
D	
DB	DECIBELS
DBT	DRY BULB TEMPERATURE
DIA	DIAMETER
DPT	DEW POINT TEMPERATURE
E	
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EFT	ENTERING FLUID TEMPERATURE
EG	EXHAUST GRILLE
EHC	ELECTRIC HEATING COIL
ER	EXHAUST REGISTER
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FD/SD	COMBINATION FIRE/SMOKE DAMPER
FF	FINAL FILTER
FL	FLOOR
FPM	FEET PER MINUTE
FT	FEET
G	
GAL	GALLONS
GPM	GALLONS PER MINUTE
GR	GLYCOL SUPPLY
GRV	GRAVITY ROOF VENTILATION
GS	GLYCOL SUPPLY
H	
HC	HEATING COIL
HGT	HEIGHT
HP	HORSEPOWER OR HEAT PUMP
HX	HEAT EXCHANGER
IN	INCH
KW	KILOWATT
L	
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LD	LINEAR DIFFUSER
LFT	LEAVING FLUID TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MBH	ONT THOUSAND BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MIN	MINIMUM
N	
NIC	NOT IN CONTRACT
NOM	NOMINAL
O	
OA	OUTSIDE AIR
P	
P	PUMP
PC	PUMPED CONDENSATE
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE OR POWER ROOF VENTILATOR
PSIG	POUND PER SQUARE INCH - GAUGE
R	
RA	RETURN AIR
RF	RETURN FAN
RG	RETURN GRILLE
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RTU	ROOF-TOP UNIT
S	
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
T	
TO	TRANSFER OPENING
U	
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
V	
VA	VENTILATION AIR
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
W	
WBT	WET BULB TEMPERATURE
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
WPD	WATER PRESSURE DROP

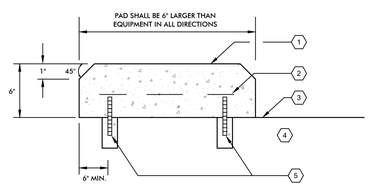
BOILER SCHEDULE

TAG	LOCATION	SERVICE	FUEL	GAS PRESSURE MAX. / MIN. (IN. WC)	INPUT (MBH)	NET OUTPUT (MBH)	THERMAL EFFICIENCY	MAX. PRESSURE RATING (PSIG)	RELIEF VALVE SETTING (PSIG)	ELECTRICAL			MANUFACTURER			REMARKS
										VOLTS	PHASE	FLA	AERCO	LOCHINVAR	PATTERSON KELLY	
B-1-HTA-B	BOILER ROOM - AREA 'B'	BUILDING HEAT	NAT. GAS	14 / 4	1000	930	96.8	160	60	120	1	13	BMK-1000	ACC. MFG.	ACC. MFG.	1,2,3,4,5,6,7,8,9
B-2-HTA-B	BOILER ROOM - AREA 'B'	BUILDING HEAT	NAT. GAS	14 / 4	1000	930	96.8	160	60	120	1	13	BMK-1000	ACC. MFG.	ACC. MFG.	1,2,3,4,5,6,7,8,9
B-1-HTA-C	BOILER ROOM - AREA 'C'	BUILDING HEAT	NAT. GAS	14 / 4	750	697	95.6	160	60	120	1	13	BMK-750	ACC. MFG.	ACC. MFG.	1,2,3,4,5,6,7,8,9
B-2-HTA-C	BOILER ROOM - AREA 'C'	BUILDING HEAT	NAT. GAS	14 / 4	750	697	95.6	160	60	120	1	13	BMK-750	ACC. MFG.	ACC. MFG.	1,2,3,4,5,6,7,8,9

REMARKS: 1) PROVIDE CONDENSATE NEUTRALIZATION KIT; JJM ALKALINE TECHNOLOGIES NBT-610. EACH BOILER TO BE PIPE INDEPENDENTLY TO FLOOR DRAIN.
2) PROVIDE EXTERNAL GAS REGULATOR APPROVED FOR VENTLESS INSTALLATION; PIETRO FIORENTINI GOVERNOR.
3) PROVIDE SAFETY RELIEF VALVE.
4) PROVIDE WITH TWO (2) MANUAL RESET LOW-WATER CUTOFFS, MAIN AND AUXILIARY.
5) BOILER CERTIFIED FOR ASME CSD-1.
6) VENTING SUPPLIER TO PROVIDE CALCULATIONS VERIFING VENTING SYSTEM DESIGN IS COMPATIBLE WITH BOILERS.
7) BOILER PUMPS TO BE STARTED/STOPPED AND SPEED MODULATED TO MATCH BOILER FIRING RATE TO CONTROL BOILER TEMPERATURE RISE ACROSS OPERATING RANGE.
8) PROVIDE BACnet BMS INTERFACE.
9) BOILER TO BE PROVIDED TO FIT WITHIN A 28" OPENING.

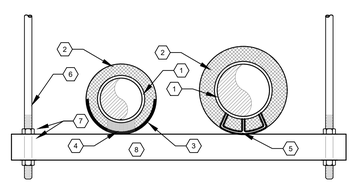
PUMP SCHEDULE

TAG	LOCATION	SERVICE	TYPE	GPM	HEAD (FT)	FLUID	ELECTRICAL				STARTER	MANUFACTURERS			REMARKS
							H.P.	RPM	VOLTS	PH.	TYPE	TACO	BELL & GOSSETT	AURORA	
BP-1-HTA-B	BOILER ROOM - AREA 'B'	BOILER B-1-HTA-B	INLINE	95	30	WATER	1.5	1760	208	3	'B'	KV2006D	ACC. MFG.	ACC. MFG.	
BP-2-HTA-B	BOILER ROOM - AREA 'B'	BOILER B-2-HTA-B	INLINE	95	30	WATER	1.5	1760	208	3	'B'	KV2006D	ACC. MFG.	ACC. MFG.	
BP-1-HTA-C	BOILER ROOM - AREA 'C'	BOILER B-1-HTA-C	INLINE	70	30	WATER	1.0	1760	208	3	'B'	KV2006D	ACC. MFG.	ACC. MFG.	
BP-2-HTA-C	BOILER ROOM - AREA 'C'	BOILER B-2-HTA-C	INLINE	70	30	WATER	1.0	1760	208	3	'B'	KV2006D	ACC. MFG.	ACC. MFG.	



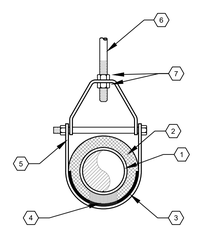
1. CONCRETE PAD
2. 6^6-W2.9 * W2.9 WWF
3. TOP OF SLAB
4. CLEAN AND SCORE FLOOR SLAB
5. #4 BAR DOWELS 3" EMBEDMENT INTO SLAB, GROUT FILL AROUND DOWEL MIN. (4) PER PAD. REFER TO SCHEDULE FOR LOCATION

1 / M001 — CONCRETE PAD DETAIL
SCALE: NONE



1. PIPE
2. PIPE INSULATION
3. PIPE INSULATION SHIELD
4. HIGH DENSITY FILLER PIECE
5. PIPE INSULATION PROTECTION SADDLE
6. HANGER ROD
7. SECURING NUTS WITH WASHERS
8. FOR ALL PIPES UNDER 2" IN SIZE USE 1-1/2"x1-1/2"x1/4" ANGLE. ALL PIPES 2" IN SIZE AND LARGER USE 3"x3"x1/4" ANGLE

2 / M001 — TYPICAL TRAPEZE SUPPORT
SCALE: NONE



1. PIPE
2. PIPE INSULATION
3. PIPE INSULATION SHIELD
4. HIGH DENSITY FILLER PIECE
5. CLEVIS PIPE HANGER
6. HANGER ROD
7. SECURING NUTS WITH WASHERS

3 / M001 — TYPICAL CLEVIS HANGER
SCALE: NONE

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80 Wolf Road, Suite 600
Albany, NY 12205
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NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

STATE OF NEW YORK — LUCAS GUSTO BENEDETTO — 089636 — LICENSED PROFESSIONAL ENGINEER
EXP: 11/30/2025

#	DATE	DESCRIPTION

Drawn By:	PM
Checked By:	JM
Proj. #:	50-03-04-03-0-005-010
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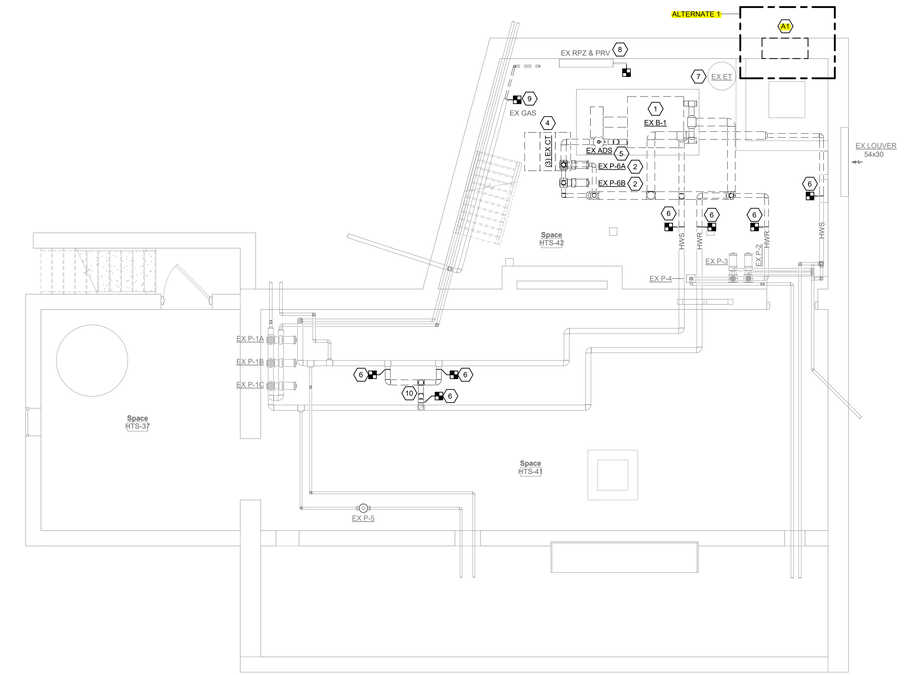
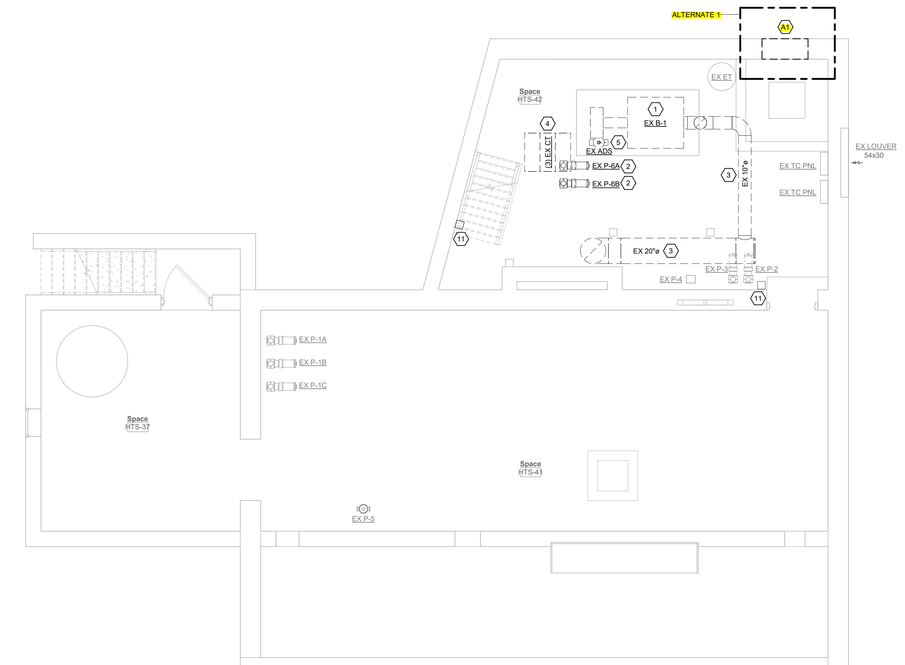
Sheet Title
MECHANICAL LEGENDS, ABBREVIATIONS & SCHEDULES

Sheet No.
HTA M001

CONSTRUCTION DOCUMENTS



1 MD101 REMOVALS - AREA 'B' BOILER ROOM PIPING
1/4" = 1'-0"



2 MD101 REMOVALS - AREA 'B' BOILER ROOM EQUIPMENT & DUCT
1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR IS TO INSPECT EQUIPMENT THAT IS TO BE REUSED AND DETERMINE THAT IT IS COMPLETE AND IN GOOD WORKING ORDER. IF NOT, REPORT FINDINGS TO THE ARCHITECT/ENGINEER.

B. EVERY EFFORT HAS BEEN MADE TO TO VERIFY CLEARANCE OF NEW INSTALLATIONS THROUGH FIELD OBSERVATIONS, HOWEVER, THE CONTRACTOR IS TO VERIFY ALL JOB INSTALLATIONS PRIOR TO PROVIDING NEW WORK.

C. ALL ITEMS BEING REMOVED AND NOT REUSED SHALL BE TURNED OVER TO THE OWNER FOR FUTURE USE. IF OWNER DECIDES THE FIXTURES ARE NOT REUSABLE, THE MECHANICAL CONTRACTOR SHALL DISPOSE OF THEM.

D. IF THERE IS A QUESTION REGARDING EXISTING MECHANICAL SYSTEMS THE CONTRACTOR IS TO VERIFY WITH THE OWNER OR THE OWNER'S REPRESENTATIVE AS TO THE STATUS BEFORE PROCEEDING.

E. ALL INTERRUPTIONS OF SERVICE SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER. MECHANICAL SYSTEMS FEEDING FROM OR THROUGH THE CONTRACT AREA SHALL BE MAINTAINED.

F. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.

G. COORDINATE THIS DRAWING WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF NEW WALL AND CEILING WORK.

H. COORDINATE THIS PLAN WITH REMOVAL PLAN.

I. ALL EQUIPMENT, DUCTWORK, DIFFUSERS, REGISTERS, AND PIPING SHOWN WITH LIGHT LINE WEIGHT IS EXISTING TO REMAIN.

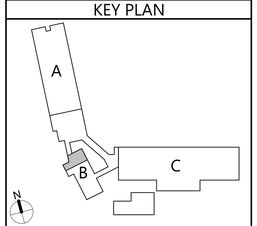
CODED NOTES

1. DISCONNECT AND REMOVE EXISTING BOILER AND BURNER COMPLETE INCLUDING ASSOCIATED HEATING HOT WATER PIPING, VALVES, INSULATION, CONTROLS AND WIRING, GAS TRAIN, FUEL OIL PIPING, HANGERS AND SUPPORTS. EXISTING CONCRETE PAD TO REMAIN AND BE REUSED.
2. DISCONNECT AND REMOVE EXISTING BOILER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING BREECHING COMPLETE INCLUDING, FITTINGS, DAMPERS, INSULATION, HANGERS AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING COMPRESSION TANKS INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, HANGERS AND SUPPORTS.
5. DISCONNECT AND REMOVE EXISTING AIR & DIRT SEPARATOR INCLUDING ASSOCIATED PIPING, INSULATION, VALVES, AIR VENT, DRAIN, HANGERS AND SUPPORTS.
6. DISCONNECT AND REMOVE EXISTING PIPING BACK TO POINT-OF-DISCONNECTION INCLUDING ASSOCIATED VALVES, INSULATION, CONTROL SENSORS, HANGERS AND SUPPORTS.
7. EXISTING EXPANSION TANK TO REMAIN AND BE REUSED.
8. EXISTING BACKFLOW PREVENTER AND PRESSURE REDUCING VALVE (RPZ & PRV) TO REMAIN AND BE REUSED. DISCONNECT 3/4" CW MAKE-UP FROM SYSTEM.
9. DISCONNECT AND REMOVE EXISTING GAS PIPING BACK TO POINT OF DISCONNECTION INCLUDING ALL ASSOCIATED VALVES, REGULATORS, VENT PIPING, HANGERS AND SUPPORTS.
10. DISCONNECT AND REMOVE EXISTING 3-WAY VALVE INCLUDING ALL ASSOCIATED LOCAL PIPING TO POINT-OF-DISCONNECTION, VALVE, INSULATION, CONTROL, HANGERS AND SUPPORTS.
11. EXISTING EMERGENCY BOILER SHUTDOWN REMOVED BY OTHERS.

CODED NOTES - ALTERNATE 1

A1. REMOVE PORTION OF EXTERIOR MASONRY WALL (CMU WITH BRICK VENEER) TO ALLOW ACCESS FOR NEW BOILER INSTALLATION. PROVIDE ALL NECESSARY SUPPORT FOR TEMPORARY OPENING.

KEY PLAN



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BOILER REPLACEMENT PROJECT

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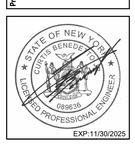

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Sheet Title

MECHANICAL REMOVALS PLAN - AREA'B'

Sheet No.

HTA MD101

CONSTRUCTION DOCUMENTS

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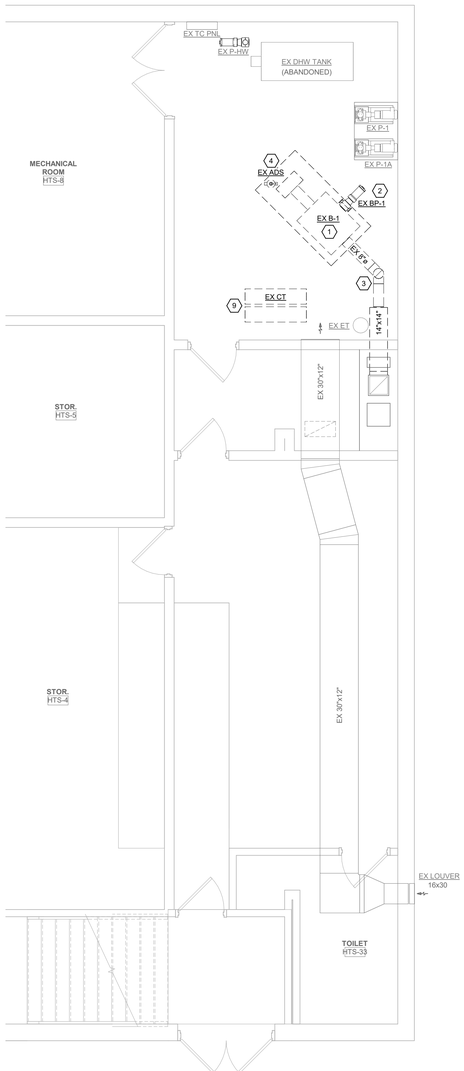
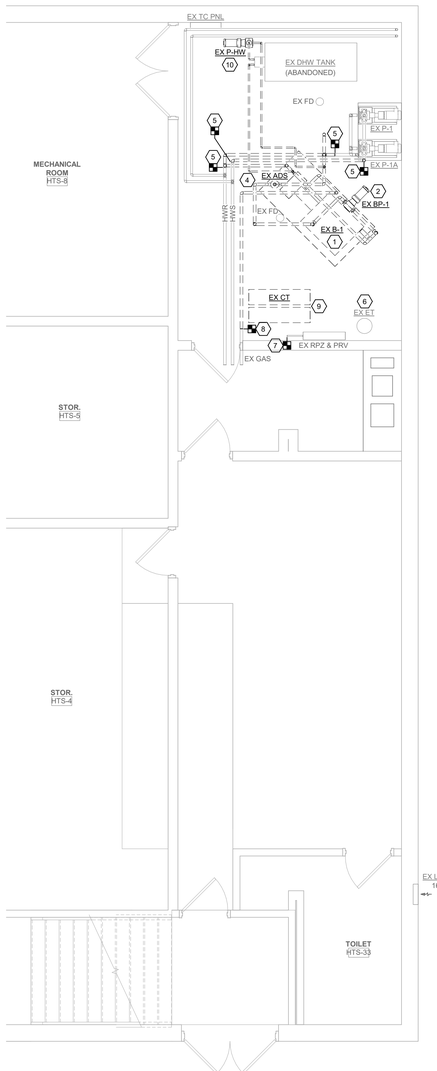


2 REMOVALS - AREA 'C' BOILER ROOM EQUIPMENT & DUCT
MD102 1/4" = 1'-0"



1 REMOVALS - AREA 'C' BOILER ROOM PIPING
MD102 1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR IS TO INSPECT EQUIPMENT THAT IS TO BE REUSED AND DETERMINE THAT IT IS COMPLETE AND IN GOOD WORKING ORDER. IF NOT, REPORT FINDINGS TO THE ARCHITECT/ENGINEER.

B. EVERY EFFORT HAS BEEN MADE TO TO VERIFY CLEARANCE OF NEW INSTALLATIONS THROUGH FIELD OBSERVATIONS, HOWEVER, THE CONTRACTOR IS TO VERIFY ALL JOB INSTALLATIONS PRIOR TO PROVIDING NEW WORK.

C. ALL ITEMS BEING REMOVED AND NOT REUSED SHALL BE TURNED OVER TO THE OWNER FOR FUTURE USE. IF OWNER DECIDES THE FIXTURES ARE NOT REUSABLE, THE MECHANICAL CONTRACTOR SHALL DISPOSE OF THEM.

D. IF THERE IS A QUESTION REGARDING EXISTING MECHANICAL SYSTEMS THE CONTRACTOR IS TO VERIFY WITH THE OWNER OR THE OWNER'S REPRESENTATIVE AS TO THE STATUS BEFORE PROCEEDING.

E. ALL INTERRUPTIONS OF SERVICE SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER. MECHANICAL SYSTEMS FEEDING FROM OR THROUGH THE CONTRACT AREA SHALL BE MAINTAINED.

F. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.

G. COORDINATE THIS DRAWING WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF NEW WALL AND CEILING WORK.

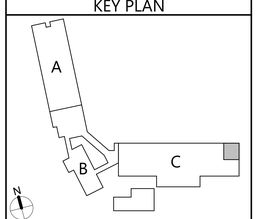
H. COORDINATE THIS PLAN WITH REMOVAL PLAN.

I. ALL EQUIPMENT, DUCTWORK, DIFFUSERS, REGISTERS, AND PIPING SHOWN WITH LIGHT LINE WEIGHT IS EXISTING TO REMAIN.

CODED NOTES

1. DISCONNECT AND REMOVE EXISTING BOILER AND BURNER COMPLETE INCLUDING ASSOCIATED HEATING HOT WATER PIPING, VALVES, INSULATION, CONTROLS AND WIRING, GAS TRAIN, FUEL OIL PIPING, HANGERS AND SUPPORTS. REMOVE EXISTING CONCRETE PAD.
2. DISCONNECT AND REMOVE EXISTING BOILER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING BREECHING COMPLETE INCLUDING, FITTINGS, DAMPERS, INSULATION, HANGERS AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING AIR & DIRT SEPARATOR INCLUDING ASSOCIATED PIPING, INSULATION, VALVES, AIR VENT, DRAIN, HANGERS AND SUPPORTS.
5. DISCONNECT AND REMOVE EXISTING PIPING BACK TO POINT-OF-DISCONNECTION INCLUDING ASSOCIATED VALVES, INSULATION, CONTROL SENSORS, HANGERS AND SUPPORTS.
6. EXISTING EXPANSION TANK TO REMAIN AND BE REUSED.
7. EXISTING BACKFLOW PREVENTER AND PRESSURE REDUCING VALVE (RPZ & PRV) TO REMAIN AND BE REUSED. DISCONNECT 3/4" CW MAKE-UP FROM SYSTEM.
8. DISCONNECT AND REMOVE GAS PIPING BACK TO POINT OF DISCONNECTION INCLUDING ALL ASSOCIATED VALVES, REGULATORS, VENT PIPING, HANGERS AND SUPPORTS.
9. DISCONNECT AND REMOVE EXISTING COMPRESSION TANKS INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, HANGERS AND SUPPORTS.
10. DISCONNECT AND REMOVE EXISTING HOT WATER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.

KEY PLAN



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NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

STATE OF NEW YORK · LUCAS GUSTO BENEDETTO · 089636 · LICENSED PROFESSIONAL ENGINEER

EXP: 11/30/2025

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Sheet Title
MECHANICAL REMOVALS PLAN - AREA 'C'

Sheet No.
HTA MD102

CONSTRUCTION DOCUMENTS

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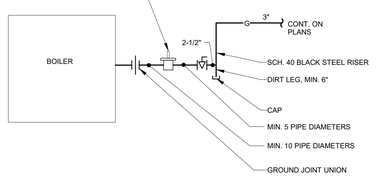
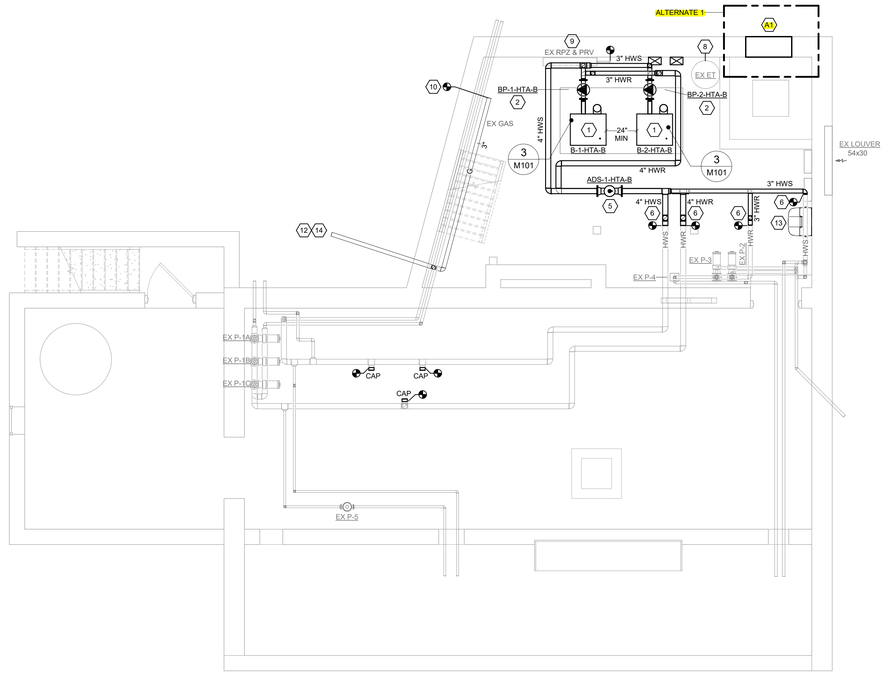
PROVIDE REGULATOR SET FOR 10" W.C. FOR 1000 MBH. COORDINATE WITH BOILER MANUFACTURER INSTALLATION INSTRUCTIONS. PROVIDE REGULATOR SET FOR 10" W.C. FOR 3000 MBH. COORDINATE WITH BOILER MANUFACTURER INSTALLATION INSTRUCTIONS. PROVIDE REGULATOR VENT TO OUTDOOR ATMOSPHERE. INSTALL PER NYS FUEL GAS CODE AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.



3 / M101 GAS PIPING CONNECTION FOR BOILER ROOM "B"
N.T.S.

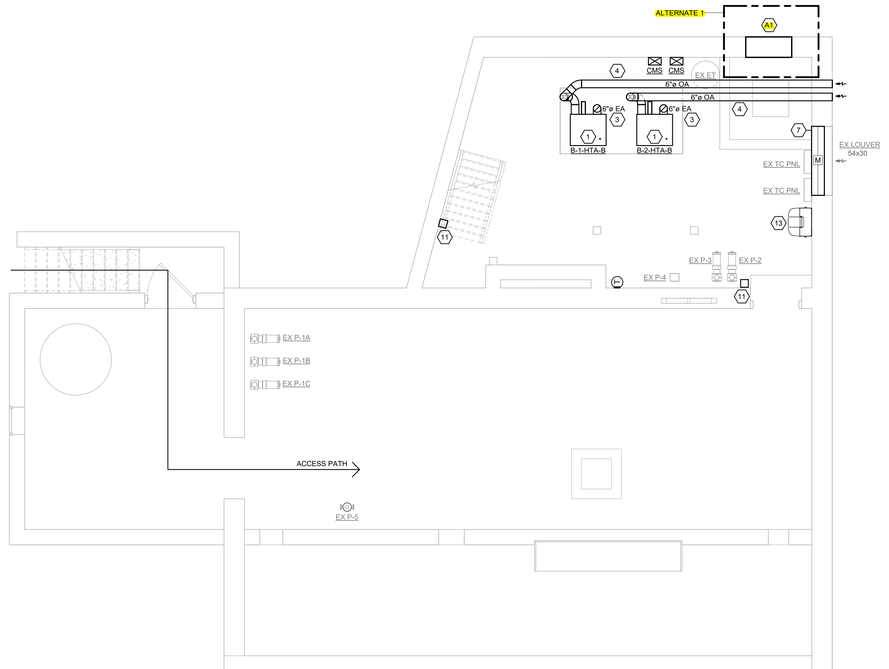


1 / M101 NEW WORK - AREA 'B' BOILER ROOM PIPING
1/4" = 1'-0"

COMBUSTION AIR SCHEDULE

EQUIPMENT	TOTAL INPUT (BTU/H)	REQ'D FREE AREA PER CODE (SQ. IN.)	FREE AREA PROVIDED (SQ. IN.)	REMARKS
NEW BOILER (B-1-HTA-B)	1,000,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-2-HTA-B)	1,000,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-1-HTA-C)	750,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-2-HTA-C)	750,000	DIRECT VENT	DIRECT VENT	1

REMARKS:
1) FOR CONTROL OF COMBUSTION AIR DAMPERS, REFER TO SPECIFICATION SECTION 230993 - SEQUENCE OF OPERATIONS FOR HVAC CONTROL.



2 / M101 NEW WORK - AREA 'B' BOILER ROOM EQUIPMENT & DUCT
1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR IS TO INSPECT EQUIPMENT THAT IS TO BE REUSED AND DETERMINE THAT IT IS COMPLETE AND IN GOOD WORKING ORDER. IF NOT, REPORT FINDINGS TO THE ARCHITECT/ENGINEER.

B. EVERY EFFORT HAS BEEN MADE TO TO VERIFY CLEARANCE OF NEW INSTALLATIONS THROUGH FIELD OBSERVATIONS, HOWEVER, THE CONTRACTOR IS TO VERIFY ALL JOB INSTALLATIONS PRIOR TO PROVIDING NEW WORK.

C. ALL ITEMS BEING REMOVED AND NOT REUSED SHALL BE TURNED OVER TO THE OWNER FOR FUTURE USE. IF OWNER DECIDES THE FIXTURES ARE NOT REUSABLE, THE MECHANICAL CONTRACTOR SHALL DISPOSE OF THEM.

D. IF THERE IS A QUESTION REGARDING EXISTING MECHANICAL SYSTEMS THE CONTRACTOR IS TO VERIFY WITH THE OWNER OR THE OWNER'S REPRESENTATIVE AS TO THE STATUS BEFORE PROCEEDING.

E. ALL INTERRUPTIONS OF SERVICE SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER. MECHANICAL SYSTEMS FEEDING FROM OR THROUGH THE CONTRACT AREA SHALL BE MAINTAINED.

F. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.

G. COORDINATE THIS DRAWING WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF NEW WALL AND CEILING WORK.

H. COORDINATE THIS PLAN WITH REMOVAL PLAN.

I. ALL EQUIPMENT, DUCTWORK, DIFFUSERS, REGISTERS, AND PIPING SHOWN WITH LIGHT LINE WEIGHT IS EXISTING TO REMAIN.

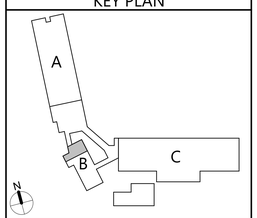
CODED NOTES

1. PROVIDE BOILER AS SCHEDULED INCLUDING ALL ASSOCIATED HYDRONIC AND GAS PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS. LOCATE BOILER ON EXISTING CONCRETE PAD; MODIFY AS NECESSARY.
2. PROVIDE BOILER CIRC. PUMP AS SCHEDULED INCLUDING ALL ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. PROVIDE 6" DIA. FLUE FROM BOILER UP THROUGH ROOF. TERMINATE MINIMUM 10'-0" ABOVE ROOF WITH RAIN CAP. PROVIDE ALL NECESSARY ACCESSORIES FOR A COMPLETE SYSTEM.
4. PROVIDE 6" DIA. INTAKE DUCT FROM BOILER TO EXTERIOR OF BUILDING. CORE-DRILL EXISTING EXTERIOR WALL FOR NEW PENETRATION. TERMINATE OPEN END WITH S.S. WIMS. PROVIDE 2" RIGID INSULATION PER SPECIFICATION.
5. PROVIDE 4" COMBINATION HYDRAULIC SEPARATOR, AIR ELIMINATOR, DIRT SEPARATOR WITH MAGNET INCLUDING ALL ASSOCIATED PIPING, VALVES, INSULATION, HANGERS AND SUPPORTS.
6. PROVIDE COMPLETE HYDRONIC PIPING SYSTEM AS INDICATED INCLUDING ALL ASSOCIATED VALVES, INSULATION, HANGERS AND SUPPORTS. CONNECT TO EXISTING PIPING AT POINT-OF-RECONNECTIONS.
7. PROVIDE SHEETMETAL SLEEVE WITH MOTORIZED DAMPERS SIZED TO MATCH EXISTING LOUVER.
8. EXISTING EXPANSION TANK TO BE REUSED. CONNECT TO SYSTEM PER PIPING SCHEMATIC.
9. EXISTING BACKFLOW PREVENTER AND PRESSURE REDUCING VALVE (RPZ & PRV) TO BE REUSED, CONNECT TO SYSTEM PER PIPING SCHEMATIC. SET PRESSURE AS INDICATED.
10. PROVIDE GAS PIPING FROM POINT-OF-CONNECT TO EACH BOILER PER PIPING DETAIL .
11. BOILER EMERGENCY SHUTDOWN SWITCH; REFER TO ELECTRICAL DOCUMENTS.
12. APPROXIMATE LOCATION OF EXISTING GAS METER.
13. PROVIDE WALL MOUNTED GRAVITY-FED EYEWASH STATION; BRADLEY MODEL S19-921. STATION SHALL MEET ANSI Z358.1 STANDARD. MOUNT STATION 40" AFF.
14. NEW BOILERS REQUIRE AN ADDITIONAL LOAD OF 510 CFH AT 4"-14" W.C. COORDINATE WITH ORANGE AND ROCKLAND GAS - 845-577-3324. CREATE A NEW BUSINESS APPLICATION FOR ORANGE AND ROCKLAND ENGINEERING REVIEW OF EXISTING LOADS AND DELIVERY PRESSURE TO DETERMINE IF A METER UPGRADE IS REQUIRED. PROVIDE ADDITIONAL EQUIPMENT REGULATOR AS REQUIRED, BASED UPON ORANGE AND ROCKLAND DETERMINATION OF EXISTING DELIVERY PRESSURE AFTER THE METER.

CODED NOTES - ALTERNATE 1

A1 PROVIDE MASONRY INFILL OF TEMPORARY WALL OPENING. ALL MATERIALS SHALL MATCH EXISTING CONSTRUCTION.

KEY PLAN



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NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

STATE OF NEW YORK
GUNTER BENEDETTO
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Sheet Title
MECHANICAL FLOOR PLAN - AREA 'B'

Sheet No.
HTA M101

CONSTRUCTION DOCUMENTS

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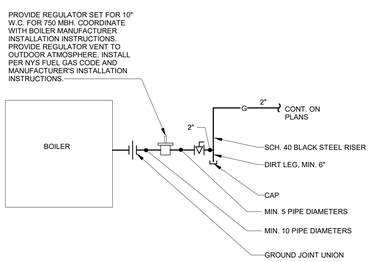
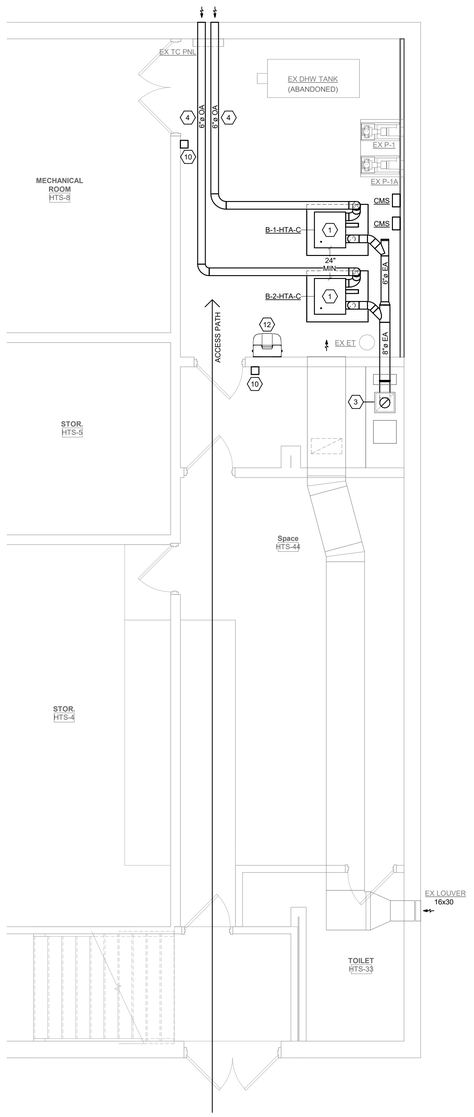
COMBUSTION AIR SCHEDULE

EQUIPMENT	TOTAL INPUT (BTU/H)	REQ'D FREE AREA PER CODE (SQ. IN.)	FREE AREA PROVIDED (SQ. IN.)	REMARKS
NEW BOILER (B-1-HTA-B)	1,000,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-2-HTA-B)	1,000,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-1-HTA-C)	750,000	DIRECT VENT	DIRECT VENT	1
NEW BOILER (B-2-HTA-C)	750,000	DIRECT VENT	DIRECT VENT	1

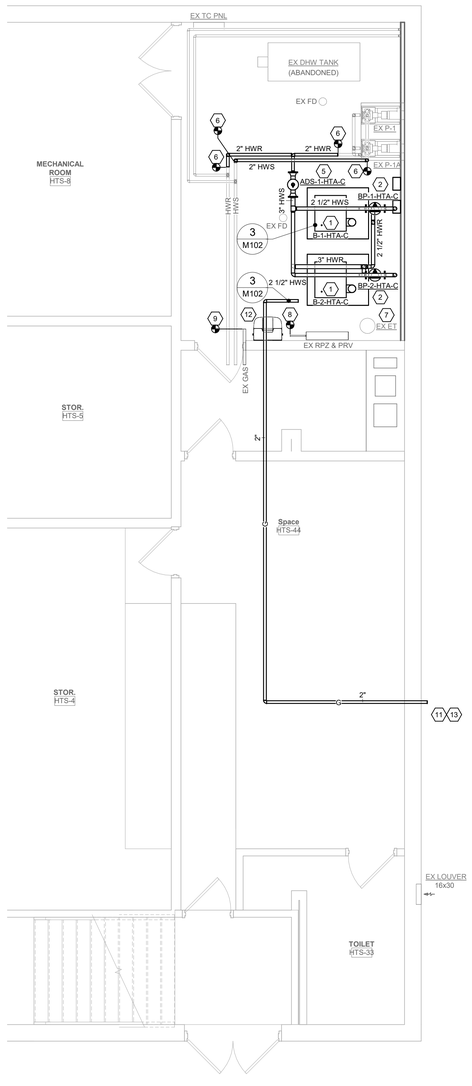
REMARKS:
1) FOR CONTROL OF COMBUSTION AIR DAMPERS, REFER TO SPECIFICATION SECTION 230993 - SEQUENCE OF OPERATIONS FOR HVAC CONTROL.



3 M102 GAS PIPING CONNECTION FOR BOILER ROOM "C"
N.T.S.



2 M102 NEW WORK - AREA 'C' BOILER ROOM EQUIPMENT & DUCT
1/4" = 1'-0"



1 M102 NEW WORK - AREA 'C' BOILER ROOM PIPING
1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR IS TO INSPECT EQUIPMENT THAT IS TO BE REUSED AND DETERMINE THAT IT IS COMPLETE AND IN GOOD WORKING ORDER. IF NOT, REPORT FINDINGS TO THE ARCHITECT/ENGINEER.

B. EVERY EFFORT HAS BEEN MADE TO TO VERIFY CLEARANCE OF NEW INSTALLATIONS THROUGH FIELD OBSERVATIONS, HOWEVER, THE CONTRACTOR IS TO VERIFY ALL JOB INSTALLATIONS PRIOR TO PROVIDING NEW WORK.

C. ALL ITEMS BEING REMOVED AND NOT REUSED SHALL BE TURNED OVER TO THE OWNER FOR FUTURE USE. IF OWNER DECIDES THE FIXTURES ARE NOT REUSABLE, THE MECHANICAL CONTRACTOR SHALL DISPOSE OF THEM.

D. IF THERE IS A QUESTION REGARDING EXISTING MECHANICAL SYSTEMS THE CONTRACTOR IS TO VERIFY WITH THE OWNER OR THE OWNER'S REPRESENTATIVE AS TO THE STATUS BEFORE PROCEEDING.

E. ALL INTERRUPTIONS OF SERVICE SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER. MECHANICAL SYSTEMS FEEDING FROM OR THROUGH THE CONTRACT AREA SHALL BE MAINTAINED.

F. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.

G. COORDINATE THIS DRAWING WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF NEW WALL AND CEILING WORK.

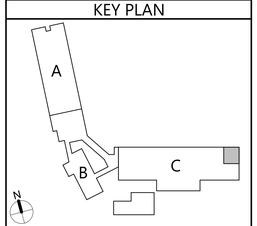
H. COORDINATE THIS PLAN WITH REMOVAL PLAN.

I. ALL EQUIPMENT, DUCTWORK, DIFFUSERS, REGISTERS, AND PIPING SHOWN WITH LIGHT LINE WEIGHT IS EXISTING TO REMAIN.

CODED NOTES

1. PROVIDE BOILER AS SCHEDULED INCLUDING ALL ASSOCIATED HYDRONIC AND GAS PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS. LOCATE BOILER ON EXISTING CONCRETE PAD.
2. PROVIDE BOILER CIRC. PUMP AS SCHEDULED INCLUDING ALL ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. PROVIDE 6" DIA. FLUE FROM BOILER TO COMBINED VENT SYSTEM. PROVIDE BOILER FLUE IN EXISTING CHIMNEY. PROVIDE ALL NECESSARY ACCESSORIES AND SUPPORTS FOR A COMPLETE VENT SYSTEM.
4. PROVIDE 6" DIA. INTAKE DUCT FROM BOILER TO EXTERIOR OF BUILDING. CORE-DRILL EXISTING EXTERIOR WALL FOR NEW PENETRATION. TERMINATE OPEN END WITH S.S. WMS. PROVIDE 2" RIGID INSULATION PER SPECIFICATION.
5. PROVIDE 3" COMBINATION HYDRAULIC SEPARATOR, AIR ELIMINATOR, DIRT SEPARATOR WITH MAGNET INCLUDING ALL ASSOCIATED PIPING, VALVES, INSULATION, HANGERS AND SUPPORTS.
6. PROVIDE COMPLETE HYDRONIC PIPING SYSTEM AS INDICATED INCLUDING ALL ASSOCIATED VALVES, INSULATION, HANGERS AND SUPPORTS. CONNECT TO EXISTING PIPING AT POINT-OF-RECONNECTIONS.
7. EXISTING EXPANSION TANK TO BE REUSED. CONNECT TO SYSTEM PER PIPING SCHEMATIC.
8. EXISTING BACKFLOW PREVENTER AND PRESSURE REDUCING VALVE (RPZ & PRV) TO BE REUSED. CONNECT TO SYSTEM PER PIPING SCHEMATIC. SET PRESSURE AS INDICATED.
9. PROVIDE GAS PIPING FROM POINT-OF-CONNECT TO BOILER B-1-HTA-C PER PIPING DETAIL.
10. BOILER EMERGENCY SHUTDOWN SWITCH; REFER TO ELECTRICAL DOCUMENTS.
11. APPROXIMATE LOCATION OF EXISTING GAS SERVICE. ROUTE 2" GAS PIPING TO BOILER B-2-HTA-C.
12. PROVIDE WALL MOUNTED GRAVITY-FED EYEWASH STATION; BRADLEY MODEL S19-921. STATION SHALL MEET ANSI Z358.1 STANDARD. MOUNT STATION 40" AFF.
13. NEW BOILERS REQUIRE AN ADDITIONAL LOAD OF 570 CFH AT 4"-14" W.C. COORDINATE WITH ORANGE AND ROCKLAND GAS - 845-577-3324. CREATE A NEW BUSINESS APPLICATION FOR ORANGE AND ROCKLAND ENGINEERING REVIEW OF EXISTING LOADS AND DELIVERY PRESSURE TO DETERMINE IF A METER UPGRADE IS REQUIRED. PROVIDE ADDITIONAL EQUIPMENT REGULATOR AS REQUIRED, BASED UPON ORANGE AND ROCKLAND DETERMINATION OF EXISTING DELIVERY PRESSURE AFTER THE METER.

KEY PLAN



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NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

#	DATE	DESCRIPTION

Drawn By:	JM
Checked By:	CD
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Sheet Title
MECHANICAL FLOOR PLAN - AREA 'C'

Sheet No.
HTA M102

CONSTRUCTION DOCUMENTS

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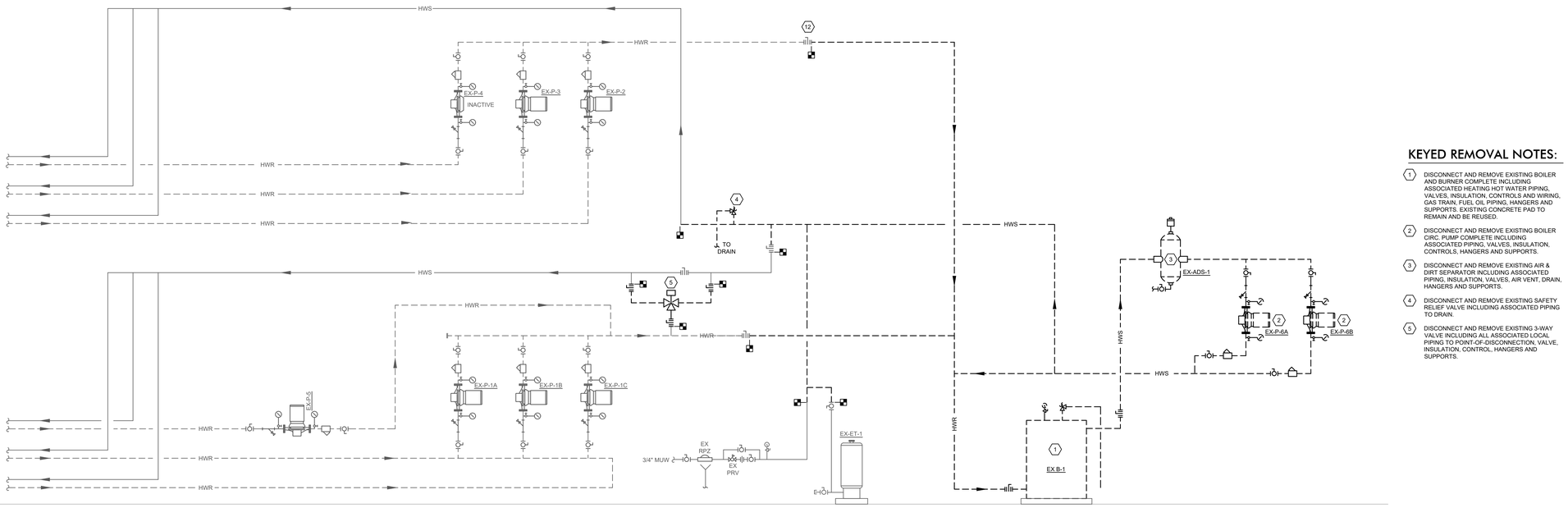
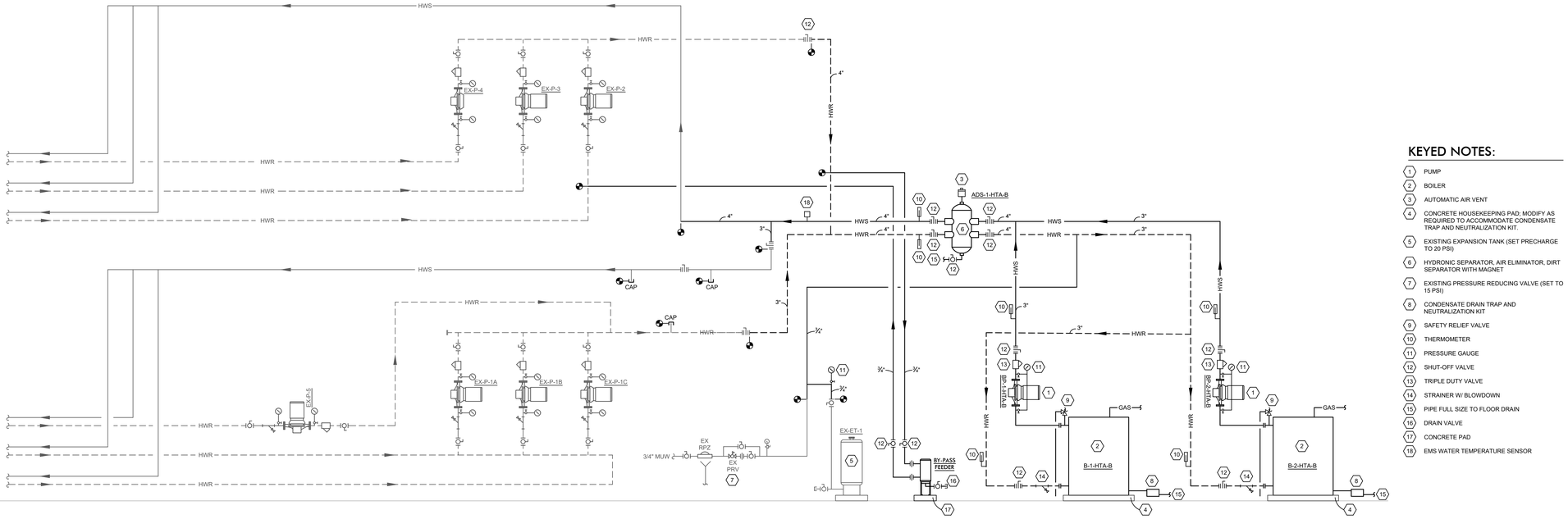


KEYED REMOVAL NOTES:

1. DISCONNECT AND REMOVE EXISTING BOILER AND BURNER COMPLETE INCLUDING ASSOCIATED HEATING HOT WATER PIPING, VALVES, INSULATION, CONTROLS AND WIRING, GAS TRAIN, FUEL OIL PIPING, HANGERS AND SUPPORTS. EXISTING CONCRETE PAD TO REMAIN AND BE REUSED.
2. DISCONNECT AND REMOVE EXISTING BOILER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING AIR & DIRT SEPARATOR INCLUDING ASSOCIATED PIPING, INSULATION, VALVES, AIR VENT, DRAIN, HANGERS AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING SAFETY RELIEF VALVE INCLUDING ASSOCIATED PIPING TO DRAIN.
5. DISCONNECT AND REMOVE EXISTING 3-WAY VALVE INCLUDING ALL ASSOCIATED LOCAL PIPING TO POINT-OF-DISCONNECTION, VALVE, INSULATION, CONTROL, HANGERS AND SUPPORTS.

1 M301 BOILER PIPING SCHEMATIC - REMOVAL
SCALE: NONE



KEYED NOTES:

1. PUMP
2. BOILER
3. AUTOMATIC AIR VENT
4. CONCRETE HOUSEKEEPING PAD; MODIFY AS REQUIRED TO ACCOMMODATE CONDENSATE TRAP AND NEUTRALIZATION KIT.
5. EXISTING EXPANSION TANK (SET PRECHARGE TO 20 PSI)
6. HYDRONIC SEPARATOR, AIR ELIMINATOR, DIRT SEPARATOR WITH MAGNET
7. EXISTING PRESSURE REDUCING VALVE (SET TO 15 PSI)
8. CONDENSATE DRAIN TRAP AND NEUTRALIZATION KIT
9. SAFETY RELIEF VALVE
10. THERMOMETER
11. PRESSURE GAUGE
12. SHUT-OFF VALVE
13. TRIPLE DUTY VALVE
14. STRAINER W/ BLOWDOWN
15. PIPE FULL SIZE TO FLOOR DRAIN
16. DRAIN VALVE
17. CONCRETE PAD
18. EMS WATER TEMPERATURE SENSOR

2 M301 BOILER PIPING SCHEMATIC - NEW
SCALE: NONE

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Project Title
NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

LICENSED PROFESSIONAL ENGINEER
CURTIS BENEDICT BRADY
089636
STATE OF NEW YORK
EXP:11/30/2025

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Sheet Title
PIPING SCHEMATIC - AREA 'B'

Sheet No.
HTA M301

CONSTRUCTION DOCUMENTS

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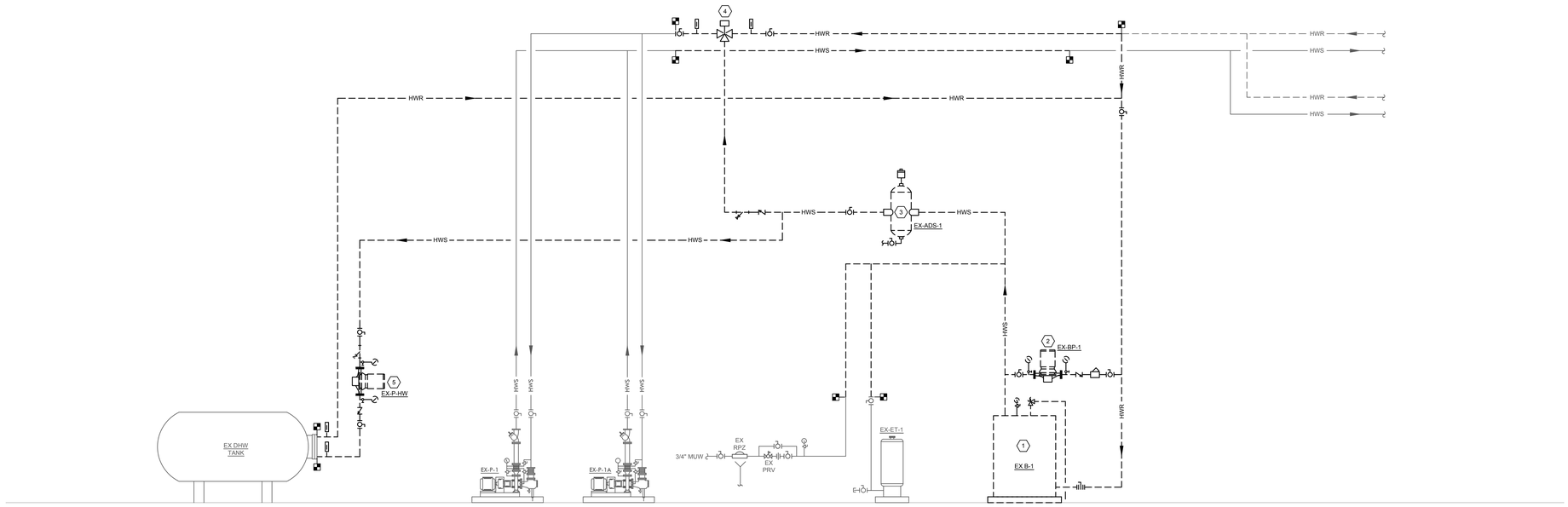
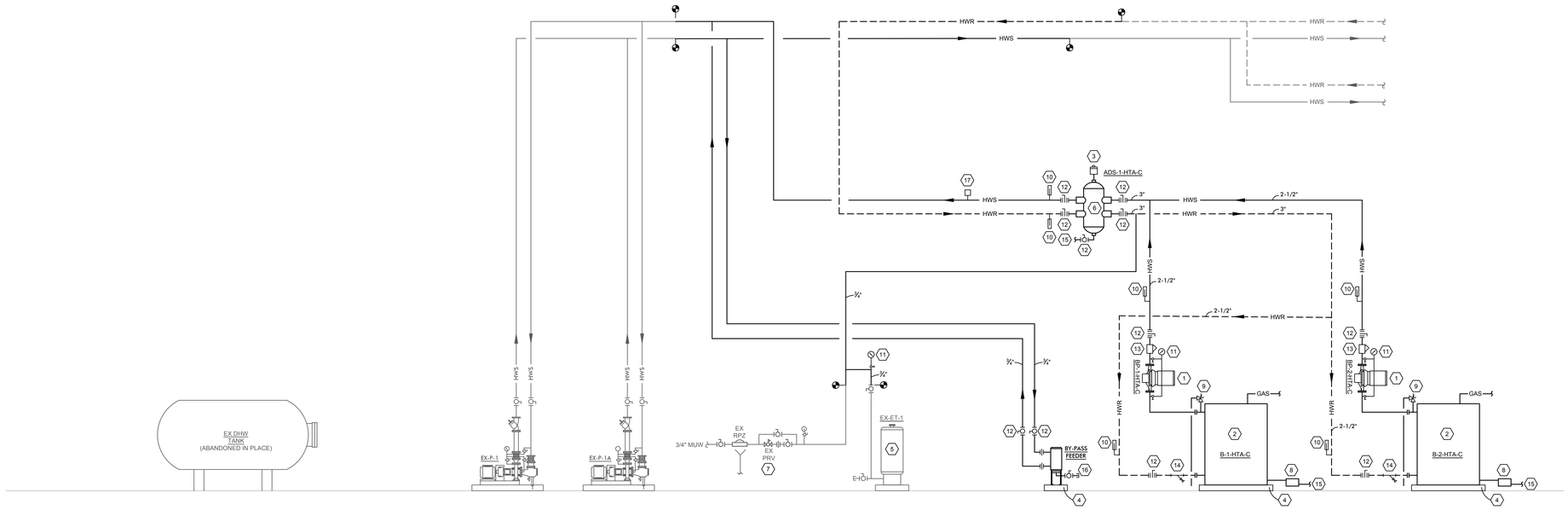


KEYED REMOVAL NOTES:

1. DISCONNECT AND REMOVE EXISTING BOILER AND BURNER COMPLETE INCLUDING ASSOCIATED HEATING HOT WATER PIPING, VALVES, INSULATION, CONTROLS AND WIRING, GAS TRAIN, FUEL OIL PIPING, HANGERS AND SUPPORTS. REMOVE EXISTING CONCRETE PAD COMPLETE.
2. DISCONNECT AND REMOVE EXISTING BOILER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING AIR & DIRT SEPARATOR INCLUDING ASSOCIATED PIPING, INSULATION, VALVES, AIR VENT, DRAIN, HANGERS AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING 3-WAY VALVE INCLUDING ALL ASSOCIATED LOCAL PIPING TO POINT-OF-DISCONNECTION, VALVE, INSULATION, CONTROL, HANGERS AND SUPPORTS.
5. DISCONNECT AND REMOVE EXISTING HOT WATER CIRC. PUMP COMPLETE INCLUDING ASSOCIATED PIPING, VALVES, INSULATION, CONTROLS, HANGERS AND SUPPORTS.

1 M302 BOILER PIPING SCHEMATIC - REMOVAL
SCALE: NONE



KEYED NOTES:

1. PUMP
2. BOILER
3. AUTOMATIC AIR VENT
4. CONCRETE HOUSEKEEPING PAD; HEIGHT TO ACCOMMODATE CONDENSATE TRAP AND NEUTRALIZATION KIT.
5. EXISTING EXPANSION TANK (SET PRECHARGE TO 20 PSI)
6. HYDRONIC SEPARATOR, AIR ELIMINATOR, DIRT SEPARATOR WITH MAGNET
7. EXISTING PRESSURE REDUCING VALVE (SET TO 15 PSI)
8. CONDENSATE DRAIN TRAP AND NEUTRALIZATION KIT
9. SAFETY RELIEF VALVE
10. THERMOMETER
11. PRESSURE GAUGE
12. SHUT-OFF VALVE
13. TRIPLE DUTY VALVE
14. STRAINER W/ BLOWDOWN
15. PIPE FULL SIZE TO FLOOR DRAIN
16. DRAIN VALVE
17. EMS WATER TEMPERATURE SENSOR

1 M302 BOILER PIPING SCHEMATIC - NEW
SCALE: NONE

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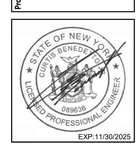
BOILER REPLACEMENT PROJECT



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Sheet Title
PIPING SCHEMATIC - AREA 'C'

Sheet No.
HTA M302

CONSTRUCTION DOCUMENTS

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ABBREVIATIONS

A	AMPERE(S)
AC	ABOVE COUNTER/ALTERNATING CURRENT
ACC	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ASD	ADJUSTABLE SPEED DRIVE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
B	BOILER
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CCT	CIRCUIT
CKT	CIRCUIT
CLG	CEILING
COL	COLUMN
COMB	COMBINATION
CU	CONDENSING UNIT
△	DELTA CONNECTION
D	DEEP
DIA	DIAMETER
DN	DOWN
DP	DISTRIBUTION PANEL
DWG	DRAWING
E	EAST
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ELEC	ELECTRICAL)
ELU	EMERGENCY LIGHTING UNIT
EM, EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WALL HEATER
EXIST	EXISTING
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FAN COIL UNIT
FIXT	FIXTURE
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FS	FOOD SERVICE
FURN	FURNISH(ED)
FUT	FUTURE
G	GROUND
GC	GENERAL CONTRACTOR; CONDUCTOR
GEC	
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
H	HIGH
HID	HIGH INTENSITY DISCHARGE
HO	HIGH OUTPUT
HOA	HAND-AUTO-OFF
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
IG	ISOLATED GROUND
IL	INTERLOCK
J	JUNCTION
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT(S)
LTG	LIGHTING
LT(S)	LIGHT(S)
MAX	MAXIMUM
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MT	MOUNT
MTD	MOUNTED
N	NORTH, NEUTRAL
NAC	NOTIFICATION APPLIANCE CIRCUIT
NC	NORMALLY CLOSED, NURSE CALL
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
N.T.S	NOT TO SCALE
OH	OVERHEAD
OHD	OVERHEAD DOOR OPERATOR
OL	OVERLOAD
OO	ON-OFF
P	PANEL, POLE(S)
PB	PULL BOX, PUSHBUTTON
PF	POWER FACTOR
PH, ø	PHASE
PL	PILOT LIGHT
PP	POWER POLE
PR	PAIR
PVC	POLYVINYL CHLORIDE
R	REFRIGERATOR
REC	RECEPTACLE
RECEPT	RECEPTACLE
RP	REFRIGERATION POWER
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RTH	RADIANT TUBE HEATER
RTU	ROOF TOP UNIT
S	SOUTH
SCHED	SCHEDULE
SCP	SECURITY CONTROL PANEL
SEC	SECONDARY
SFL	SUB-FEED LUGS
SPC	SPACE
SPKR	SPEAKER
SPR	SPARE
SS	START-STOP
SW	SWITCH
TCP	TEMPERATURE CONTROL PANEL
TEL	TELEPHONE
TS	TIME SWITCH
T-STAT	THERMOSTAT
TTB	TELECOMM. TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
U/C	UNDER CABINET
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VOLT(S)
VA	VOLT-AMPERE(S)
W	WATT, WEST, WIRE
W/	WITH
WCR	WITHSTAND CURRENT RATING
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
Y	WYE CONNECTION

RACEWAY SYSTEMS

- CONDUIT OR CABLE AS SPECIFIED
- CONDUIT OR CABLE TURNING UP
- CONDUIT OR CABLE TURNING DOWN
- CONDUIT STUB (REAMED AND BUSHED)
- CONNECTION TO EQUIPMENT
- CONDUIT CUT
- P/1,2,3 — HOMERUN TO PANELBOARD (PANEL AND CIRCUITS INDICATED)
- UGC — UNDERGROUND CABLE TV LINE
- UGFO — UNDERGROUND FIBER OPTIC LINE
- UGL — UNDERGROUND LIGHTING LINE
- UGP — UNDERGROUND PRIMARY LINE
- UGS — UNDERGROUND SECONDARY LINE
- UGT — UNDERGROUND TELECOMMUNICATIONS LINE
- J — JUNCTION BOX

NOTE - LINES MAY BE SHOWN CURVED OR STRAIGHT.

BRANCH CIRCUITS

1. CONNECT EACH LIGHTING FIXTURE, SWITCH, RECEPTACLE, MOTOR, AND OTHER ITEM REQUIRING ELECTRICAL CONNECTIONS TO PANELBOARD AND CIRCUIT(S) INDICATED. HOMERUNS AND CONNECTIONS BETWEEN ITEMS MAY OR MAY NOT BE SHOWN.
2. NUMBER(S) SHOWN ADJACENT TO ELECTRICAL SYMBOLS GENERALLY INDICATE RESPECTIVE CIRCUIT NUMBER(S).
3. CONFIRM CORRECT CIRCUITING BY CORRELATING THE FLOOR PLANS WITH THE PANELBOARD SCHEDULES.

DEVICES AND OUTLETS

- DUPLEX RECEPTACLE - (18" AFF)
- DUPLEX RECEPTACLE (EMERGENCY) - (18" AFF)
- G — DUPLEX RECEPTACLE, GFCI TYPE - (18" AFF)
- U — DUPLEX RECEPTACLE, USB CHARGING - (18" AFF)
- DOUBLE DUPLEX (QUAD) RECEPTACLE - (18" AFF)
- DUPLEX RECEPTACLE (FLOOR)
- DUPLEX RECEPTACLE (CEILING)
- 6-20R — SPECIAL PURPOSE RECEPTACLE - (18" AFF) (NEMA CONFIGURATION INDICATED)

ABOVE SYMBOLS MAY BE COMBINED FOR VARIOUS APPLICATIONS

- T — THERMOSTAT - (60" AFF)
- R — RELAY
- TC — TIME SWITCH / TIME CLOCK
- PS — PHOTOSWITCH

MISCELLANEOUS EQUIPMENT

- WH — WATER HEATER
- CUH — CABINET UNIT HEATER
- UNIT HEATER
- EWH — ELECTRIC WALL HEATER
- GRAP — GENERATOR REMOTE ANNUNCIATOR PANEL
- HD — ELECTRIC HAND DRYER
- PUMPS

POWER DISTRIBUTION EQUIPMENT

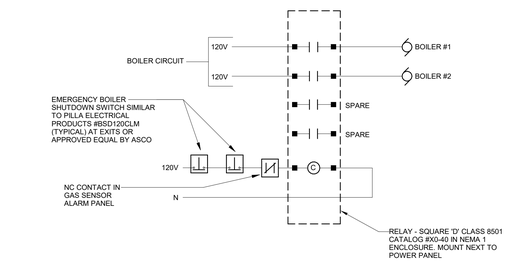
- DISTRIBUTION PANELBOARD (VOLTAGE/PHASES AS INDICATED)
- BRANCH CIRCUIT PANELBOARD (VOLTAGE/PHASES AS INDICATED)
- NON-FUSED SAFETY SWITCH AMPS/NO. OF POLES
- FUSED SAFETY SWITCH AMPS/NO. OF POLES FUSE SIZE
- CB — CIRCUIT BREAKER
- SS — SURGE SUPPRESSOR
- T — TRANSFORMER
- GROUND BAR
- METER SOCKET

MOTORS AND CONTROLS

- M — ELECTRIC MOTOR (DESIGNATION INDICATED)
- MOTOR STARTER
- COMBINATION MOTOR STARTER DISCONNECT SWITCH
- ASD — ADJUSTABLE SPEED DRIVE
- D — DAMPER
- DO — DOOR OPERATOR
- DOOR OPERATOR PUSHBUTTON - (48" AFF)

NOTES TO ELECTRICAL SYMBOLS

1. ALL ABBREVIATIONS AND SYMBOLS MAY OR MAY NOT BE USED.
2. MOUNTING HEIGHTS: FOR ALL WALL MOUNTED DEVICES , LOCATE CENTERLINE OF DEVICE VERTICALLY AT INDICATED MOUNTING HEIGHT (E.G. 18" AFF) AND IN ACCORDANCE WITH THE NOTES BELOW, UNLESS INDICATED OTHERWISE. MOUNTING HEIGHTS (E.G. 42") INDICATED ADJACENT TO SYMBOLS ON PLANS, AND MOUNTING HEIGHTS SHOWN ON ELEVATIONS R DETAILS OR BY NOTES TAKE PRECEDENCE OVER STANDARD MOUNTING HEIGHTS.
3. ELECTRICAL DEVICE PLACEMENT: WHERE MULTIPLE ELECTRICAL DEVICES (E.G. SWITCHES, RECEPTACLES, CLOCKS, FIRE ALARM DEVICES, EXIT SIGNS, TELECOMMUNICATION OUTLETS, ETC.) ARE SHOWN NEAR EACH OTHER, ORGANIZE EXACT LOCATIONS IN GROUPS WHICH ALIGN ON COMMON HORIZONTAL AND VERTICAL CENTER LINES.
4. WIRING DEVICE GANGING: WHERE ADJACENT WIRING DEVICES ARE INDICATED, GROUP ALL SUCH DEVICES WITH A COMMON MULTI-GANG COVERPLATE UNLESS INDICATED OTHERWISE.
5. INDIVIDUAL CIRCUIT BREAKERS, SAFTEY SWITCHES, STARTERS, AND THE LIKE: WHEREVER PRACTICABLE, MOUNT WITH CENTER LINE OF ENCLOSURE AT 60" AFF, BUT ADJUST AS NECESSARY SO THAT TOP OF ENCLOSURE IS AT MAXIMUM 72" AFF.
6. EXIT SIGNS: WHERE LOCATED ABOVE DOOR, CENTER EXIT SIGN VERTICALLY BETWEEN TOP OF DOOR FRAME AND CEILING LINE, BUT AT MAXIMUM 96" AFF TO CENTER LINE. USE SAME MOUNTING HEIGHT FOR EXIT SIGNS IN VICINITY BUT NOT LOCATED ABOVE DOOR.
7. FIRE ALARM NOTIFICATION APPLIANCES: (E.G. HORN/STROBES, STROBES, ETC.). MOUNT AT 80" AFF TO CENTER LINE OF UNIT, OR WITH TOP OF DEVICE AT 6" BELOW CEILING LINE, WHICHEVER IS LESS.
8. SOLID DARK/BLACK LINES: INDICATE NEW ELECTRICAL WORK, UNLESS INDICATED OTHERWISE.
9. SHADED SYMBOLS: GENERALLY INDICATE CONNECTION TO THE EMERGENCY BRANCH ELECTRICAL DISTRIBUTION SYSTEM.



1 / E001 TYPICAL BOILER EMERGENCY SHUTDOWN WIRING DIAGRAM
1/8" = 1'-0"

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Project Title
NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK — LUCAS GUIDO BENEDETTO — 089636
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Sheet Title
ELECTRICAL LEGEND AND ABBREVIATIONS

Sheet No.
HTA E001

CONSTRUCTION DOCUMENTS

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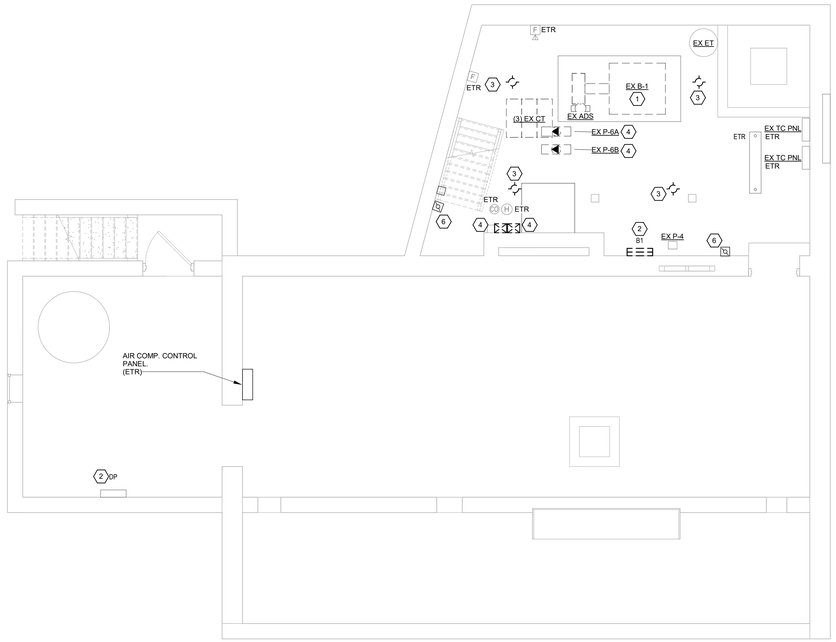
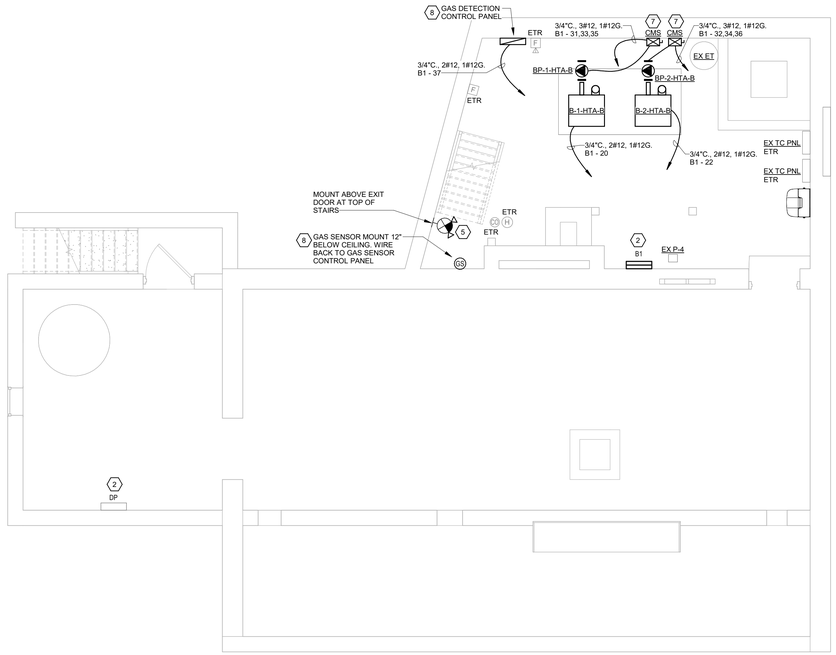


1 REMOVALS - AREA 'B' BOILER ROOM ELECTRICAL
E101 1/4" = 1'-0"



2 NEW WORK - AREA 'B' BOILER ROOM Elec
E101 1/4" = 1'-0"

Branch Panel: DP

(EXISTING PANEL)

Location: BASEMENT MECHANICAL... **Volts:** 120/208 Wye **A.I.C. Rating:** 22 KAIC
Supply From: **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 400 A
Enclosure: Type 1

Notes:

CKT	LOAD DESCRIPTION	WIRE SIZE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE SIZE	LOAD DESCRIPTION	CKT
1	CIRCULATORS, OIL GAS BURNER COMP.	-	20 A	3	0.0 kVA	0.0 kVA					3	20 A	-	SEWER PUMPS	2
3	--	-	--	--			0.0 kVA	0.0 kVA			--	--	-	--	4
5	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	6
7	OIL HEATERS	-	100 A	3	0.0 kVA	0.0 kVA					3	70 A	-	NEW OUTSIDE UNIT	8
9	--	-	--	--			0.0 kVA	0.0 kVA			--	--	-	--	10
11	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	12
13	BIG KITCHEN PANEL P1	-	100 A	3	0.0 kVA	--					1	--		SPACE	14
15	--	-	--	--			0.0 kVA	--			1	--		SPACE	16
17	--	-	--	--					0.0 kVA	--	1	--		SPACE	18
19	BOILER RM PANEL B1	-	100 A	3	0.0 kVA	--					1	--		SPACE	20
21	--	-	--	--			0.0 kVA	--			1	--		SPACE	22
23	--	-	--	--					0.0 kVA	--	1	--		SPACE	24
25	NORTH PANEL	-	200 A	3	0.0 kVA	0.0 kVA					3	100 A	-	PANEL "A" ADMIN RECEPTION AREA A	26
27	--	-	--	--			0.0 kVA	0.0 kVA			--	--	-	--	28
29	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	30

Branch Panel: B1

(EXISTING PANEL)

Location: BASEMENT BOILER ROOM **Volts:** 120/208 Wye **A.I.C. Rating:** 22 KAIC
Supply From: **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

Notes:

CKT	LOAD DESCRIPTION	WIRE SIZE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE SIZE	LOAD DESCRIPTION	CKT
1	NO TAG	-	20 A	1	0.0 kVA	0.0 kVA					2	15 A	-	NO TAG	2
3	NO TAG	-	20 A	1			0.0 kVA	0.0 kVA			--	--	-	--	4
5	BURNER CONTROLS	-	20 A	1					0.0 kVA	0.0 kVA	2	15 A	-	CIRC. PUMP	6
7	NO TAG	-	20 A	3	0.0 kVA	0.0 kVA					--	--	-	--	8
9	--	-	--	--			0.0 kVA	0.0 kVA			1	20 A	-	GYM PUMP B & CONTROL TO RELAYS	10
11	--	-	--	--					0.0 kVA	0.0 kVA	1	20 A	-	NO TAG	12
13	SPACE		--	1	--	0.0 kVA					3	15 A	-	PUMP 1	14
15	NO TAG	-	70 A	3			0.0 kVA	0.0 kVA			--	--	-	--	16
17	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	18
19	--	-	--	--	0.0 kVA	0.0 kVA					3	20 A	-	BOILER	20
21	SPACE		--	1			--	0.0 kVA			--	--	-	--	22
23	SPACE		--	1					--	0.0 kVA	--	--	-	--	24
25	NO TAG	-	50 A	3	0.0 kVA	0.0 kVA					3	15 A	-	NO TAG	26
27	--	-	--	--			0.0 kVA	0.0 kVA			--	--	-	--	28
29	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	30

Branch Panel: B1

(NEW PANEL)

Location: BASEMENT BOILER ROOM **Volts:** 120/208 Wye **A.I.C. Rating:** 22 KAIC
Supply From: **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

Notes:
* = NEW LOAD AND BRANCH BREAKER - SIZE AS INDICATED

CKT	LOAD DESCRIPTION	WIRE SIZE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE SIZE	LOAD DESCRIPTION	CKT
1	NO TAG		20 A	1	0.0 kVA	0.0 kVA					2	20 A		NO TAG	2
3	NO TAG		20 A	1			0.0 kVA	0.0 kVA			--	--		--	4
5	BURNER CONTROLS		15 A	1					0.0 kVA	0.0 kVA	2	15 A		CIRC PUMP A	6
7	NO TAG		20 A	3	0.0 kVA	0.0 kVA					--	--		--	8
9	--		--	--			0.0 kVA	0.0 kVA			1	20 A		GM PUMP B & CONTROL TO RELAYS	10
11	--		--	--					0.0 kVA	0.0 kVA	1	20 A		NO TAG	12
13	SPACE		--	1	--	0.8 kVA					3	15 A		PUMP 1	14
15	NO TAG		70 A	3			0.0 kVA	0.8 kVA			--	--		--	16
17	--		--	--					0.0 kVA	0.8 kVA	--	--		--	18
19	--		--	--	0.0 kVA	1.3 kVA					1	20 A	#12	* BOILER B-1-HTA-B	20
21	SPACE		--	1			--	1.3 kVA			1	20 A	#12	* BOILER B-2-HTA-B	22
23	SPACE		--	1					--	0.0 kVA	1	20 A		* SPARE	24
25	NO TAG		50 A	3	0.0 kVA	0.8 kVA					3	15 A		NO TAG	26
27	--		--	--			0.0 kVA	0.8 kVA			--	--		--	28
29	--		--	--					0.0 kVA	0.8 kVA	--	--		--	30
31	* BOILER PUMP BP-1-HTA-B	#12	20 A	3	0.8 kVA	0.8 kVA					3	20 A	#12	* BOILER PUMP BP-2-HTA-B	32
33	--	#12	--	--			0.8 kVA	0.8 kVA			--	--	#12	--	34
35	--	#12	--	--					0.8 kVA	0.8 kVA	--	--	#12	--	36
37	* GAS DETECTION CONTROL PANEL	#12	20 A	1	0.5 kVA	0.0 kVA					1	20 A		* SPARE	38
39	* SPARE		20 A	1			0.0 kVA	0.0 kVA			1	20 A		* SPARE	40
41	* SPARE		20 A	1					0.0 kVA	0.0 kVA	1	20 A		* SPARE	42

GENERAL NOTES

A. LIGHT/GRAY LINES: ELECTRICAL ITEMS SHOWN WITH LIGHT/GRAY LINES ARE EXISTING TO REMAIN, UNLESS INDICATED OTHERWISE.

B. BLACK/SOLID LINES: INDICATE NEW ELECTRICAL ITEMS.

KEYED NOTES :

1. DISCONNECT AND REMOVE ALL ELECTRICAL SERVICES TO BOILER AND REMOVE ALL CONDUIT AND WIRING BACK TO SOURCE.
2. DISCONNECT ALL FEEDER AND BRANCH CIRCUIT CONDUITS AND WIRING FROM PANELBOARD. REMOVE AND REPLACE PANELBOARD REFER TO ASSOCIATED PANEL SCHEDULES FOR PANELBOARD RATINGS, AND REQUIRED BRANCH DEVICES. RECONNECT FEEDER AND BRANCH CIRCUITS TO NEW PANELBOARD AND BRANCH DEVICES
3. DISCONNECT, REMOVE AND REPLACE INCANDESCENT PENDANT LIGHT FIXTURE WITH LED INDUSTRIAL STRIP FIXTURE SIMILAR TO LITHONIA #ZL1D-L24-SMR-3500LM-FST-MVOLT-35K-80CRI-WH-WGZ24-ZSPRG.
4. DISCONNECT AND REMOVE ALL ELECTRICAL SERVICES TO BOILER PUMP. REMOVE ALL ASSOCIATED CONDUIT, WIRING MOTOR STARTERS AND DISCONNECT SWITCHES BACK TO PANEL B1.
5. PROVIDE SURFACE WALL MOUNTED 6" ABOVE TOP OF DOOR FRAME COMBINATION EMERGENCY / EXIT LIGHT SIMILAR TO LITHONIA #LHQM-LED-E-M6, WIRE TO ROOM LIGHTING CIRCUIT AHEAD OF ALL SWITCHES.
6. REMOVE AND REPLACE BOILER EMERGENCY SHUT DOWN SWITCHES, SEE DETAIL 1 E001. INTERCEPT EMERGENCY BOILER SHUT DOWN CIRCUIT CONDUIT AT BOILER TO BE REPLACED, CUT BACK AND MAINTAIN TO ALLOW FOR BOILER TO BE REPLACED. ONCE NEW BOILERS HAS BEEN INSTALLED SPLICE AND EXTEND CONDUIT AND WIRING (MATCHING EXISTING SIZE, TYPE AND QUANTITIES) AND CONNECT TO EACH NEW BOILER SHUT DOWN TERMINALS.
7. OBTAIN PUMP COMBINATION MOTOR STARTER FROM MC AND INSTALL AND WIRE AS INDICATED.
8. PROVIDE GAS DETECTOR WITH REMOTE SENSOR (METHANE) SIMILAR TO RC SYSTEMS #SENSMART5200 WITH POWER SUPPLY #10-0314. WIRE REMOTE SENSOR TO DETECTOR WITH 4#18'S SHEILDED CABLE IN 1/2"C. PROVIDE FIRE ALARM RELAY TO MONITOR ALARM STATUS OF GAS DETECTOR. UPON GAS DETECTOR ALARM FIRE ALARM CONTROL PANEL SHALL ANNUNCIATE A TROUBLE CONDITION AND SHALL INDICATE "BOILER ROOM GAS ALARM" ON DISPLAY PANEL.

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Consultant
GPI
Greenman-Pedersen, Inc.
80 Wolf Road, Suite 600
Albany, NY 12205
518.453.4500 | GPINET.COM

NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT

Project Title

STATE OF NEW YORK
CURTIS RENEE MAY
LICENSED PROFESSIONAL ENGINEER
089636
EXP:11/30/2025

#	DATE	DESCRIPTION

Drawn By:	FR
Checked By:	CB/MA
Proj. #:	50-03-04-03-0-005-010
CSArch Proj. #:	226-2302.00
Issued for Bid:	12/16/2024

Sheet Title
ELECTRICAL FLOOR PLAN

Sheet No.
HTA E101

CONSTRUCTION DOCUMENTS

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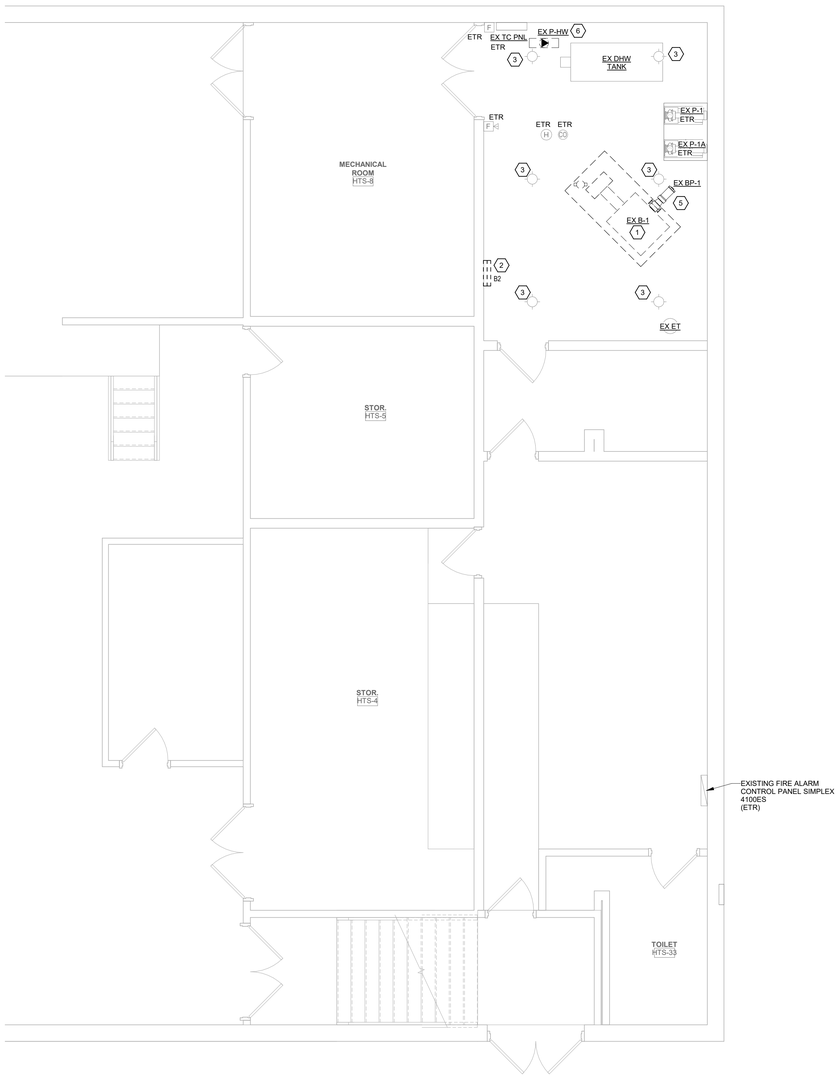
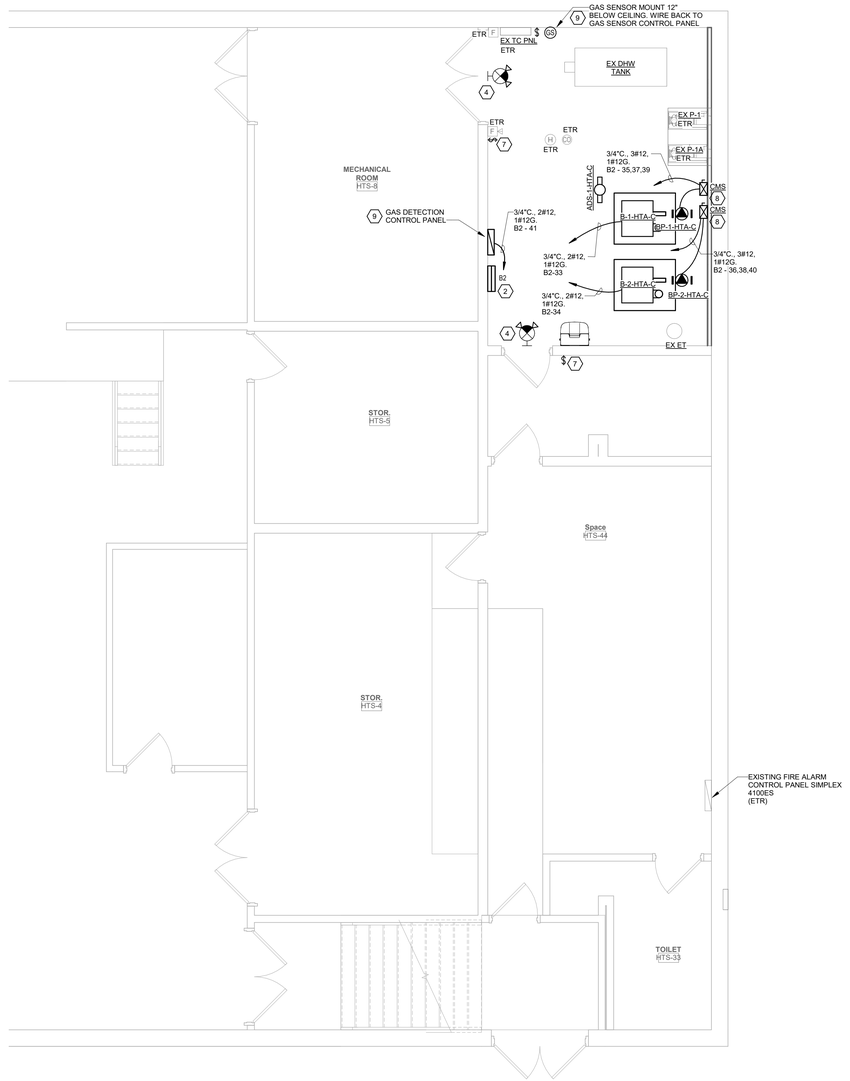


1 E102 REMOVALS - AREA 'C' BOILER ROOM Elec
1/4" = 1'-0"



2 E102 NEW WORK - AREA 'C' BOILER ROOM Elec
1/4" = 1'-0"

Branch Panel: B2

(EXISTING PANEL)

Location: BASEMENT MECHANICAL... **Volts:** 120/208 Wye **A.I.C. Rating:** 22 KAIC
Supply From: **Phases:** 3 **Mains Type:** MLO
Mounting: Surface **Wires:** 4 **Mains Rating:** 200 A
Enclosure: Type 1

Notes:

CKT	LOAD DESCRIPTION	WIRE SIZE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE SIZE	LOAD DESCRIPTION	CKT
1	HEAT TIMER	-	20 A	1	0.0 kVA	0.0 kVA					1	20 A	-	HONEYWELL	2
3	PLUGS, BOILER	-	20 A	1			0.0 kVA	0.0 kVA			1	20 A	-	TBS PANEL	4
5	SPACE		--	1					--	0.0 kVA	3	70 A	-	BOILER HW PUMP	6
7	SPACE		--	1	--	0.0 kVA					--	--	-	--	8
9	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	10
11	--	-	--	--					0.0 kVA	0.0 kVA	3	20 A	-	AIR COMPRESSOR	12
13	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	14
15	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	16
17	--	-	--	--					0.0 kVA	0.0 kVA	3	20 A	-	NO TAG	18
19	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	20
21	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	22
23	--	-	--	--					0.0 kVA	0.0 kVA	2	20 A	-	NO TAG	24
25	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	26
27	NO TAG	-	20 A	2			0.0 kVA	0.0 kVA			2	20 A	-	NO TAG	28
29	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	30

Branch Panel: B2

(NEW PANEL)

Location: BASEMENT MECHANICAL... **Volts:** 120/208 Wye **A.I.C. Rating:** 22 KAIC
Supply From: **Phases:** 3 **Mains Type:** MLO
Mounting: Surface **Wires:** 4 **Mains Rating:** 200 A
Enclosure: Type 1

Notes:
* = NEW LOAD AND BRANCH BREAKER - SIZE AS INDICATED

CKT	LOAD DESCRIPTION	WIRE SIZE	TRIP	POLES	A		B		C		POLES	TRIP	WIRE SIZE	LOAD DESCRIPTION	CKT
1	HEAT TIMER	-	20 A	1	0.0 kVA	0.0 kVA					1	20 A	-	HONEYWELL	2
3	PLUGS, BOILER	-	20 A	1			0.0 kVA	0.0 kVA			1	20 A	-	TBS PANEL	4
5	SPACE		--	1					--	0.0 kVA	3	70 A	-	BOILER HW PUMP	6
7	SPACE		--	1	--	0.0 kVA					--	--	-	--	8
9	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	10
11	--	-	--	--					0.0 kVA	0.0 kVA	3	20 A	-	AIR COMPRESSOR	12
13	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	14
15	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	16
17	--	-	--	--					0.0 kVA	0.0 kVA	3	20 A	-	NO TAG	18
19	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	20
21	NO TAG	-	20 A	3			0.0 kVA	0.0 kVA			--	--	-	--	22
23	--	-	--	--					0.0 kVA	0.0 kVA	2	20 A	-	NO TAG	24
25	--	-	--	--	0.0 kVA	0.0 kVA					--	--	-	--	26
27	NO TAG	-	20 A	2			0.0 kVA	0.0 kVA			2	20 A	-	NO TAG	28
29	--	-	--	--					0.0 kVA	0.0 kVA	--	--	-	--	30
31	SPACE		--	1	--	--					1	--		SPACE	32
33	* BOILER B-1-HTA-C	#12	20 A	1			1.3 kVA	1.3 kVA			1	20 A	#12	* BOILER B-2 HTA-C	34
35	* BOILER BP-1-HTA-C	#12	20 A	3					0.8 kVA	0.8 kVA	3	20 A	#12	* BOILER BP-2-HTA-C	36
37	--	#12	--	--	0.8 kVA	0.8 kVA					--	--	#12	--	38
39	--	#12	--	--			0.8 kVA	0.8 kVA			--	--	#12	--	40
41	* GAS DETECTION CONTROL PANEL	#12	20 A	1					0.5 kVA	0.0 kVA	1	20 A		* SPARE	42

GENERAL NOTES

A. LIGHT/GRAY LINES: ELECTRICAL ITEMS SHOWN WITH LIGHT/GRAY LINES ARE EXISTING TO REMAIN, UNLESS INDICATED OTHERWISE.

B. BLACK/SOLID LINES: INDICATE NEW ELECTRICAL ITEMS.

KEYED NOTES : REMOVALS

1. DISCONNECT AND REMOVE ALL ELECTRICAL SERVICES TO BOILER AND REMOVE ALL CONDUIT AND WIRING BACK TO BOURCE.
2. DISCONNECT ALL FEEDER AND BRANCH CIRCUIT CONDUITS AND WIRING FROM PANELBOARD. REMOVE AND REPLACE PANELBOARD WITH 225AMP MAIN LUGS ONLY, 120/208V, 3PH, 4W 42 POLE, 22KAIC PANELBOARD. PROVIDE WITH BRANCH BREAKERS INDICATED IN ASSOCIATED PANEL SCHEDULE. RECONNECT FEEDER AND BRANCH CIRCUITS TO NEW PANELBOARD AND BRANCH DEVICES.
3. DISCONNECT, REMOVE AND REPLACE INCANDESCENT PENDANT LIGHT FIXTURE WITH LED INDUSTRIAL STRIP FIXTURE SIMILAR TO LITHONIA #ZL1D-L24-SMR-3500LM-FST-MVOLT-35K-80CRI-WH-WQZ24-ZSPRG.
4. PROVIDE SURFACE WALL MOUNTED 6" ABOVE TOP OF DOOR FRAME COMBINATION EMERGENCY / EXIT LIGHT SIMILAR TO LITHONIA #LHQM-LED-R-M6, WIRE TO ROOM LIGHTING CIRCUIT AHEAD OF ALL SWITCHES.
5. DISCONNECT AND REMOVE ALL ELECTRICAL SERVICES TO BOILER PUMP. REMOVE ALL ASSOCIATED CONDUIT, WIRING MOTOR STARTERS AND DISCONNECT SWITCHES BACK TO PANEL B2.
6. DISCONNECT AND REMOVE ALL ELECTRICAL SERVICES TO HOT WATER RE-CIRC PUMP. REMOVE ALL ASSOCIATED CONDUIT, WIRING MOTOR STARTERS AND DISCONNECT SWITCHES BACK TO PANEL B2.
7. PROVIDE SURFACE WALL MOUNTED 54" AFF EMERGENCY BOILER SHUT DOWN SWITCH. WIRE AS INDICATED ON DETAIL 1/E001.
8. OBTAIN PUMP COMBINATION MOTOR STARTER FROM MC AND INSTALL AND WIRE AS INDICATED.
9. PROVIDE GAS DETECTOR WITH REMOTE SENSOR (METHANE) SIMILAR TO RC SYSTEMS #SENSMART5200 WITH POWER SUPPLY #10-0314. WIRE REMOTE SENSOR TO DETECTOR WITH 4#18'S SHIELDED CABLE IN 1/2"C. PROVIDE FIRE ALARM RELAY TO MONITOR ALARM STATUS OF GAS DETECTOR. UPON GAS DETECTOR ALARM FIRE ALARM CONTROL PANEL SHALL ANNUNCIATE A TROUBLE CONDITION AND SHALL INDICATE "BOILER ROOM GAS ALARM" ON DISPLAY PANEL.

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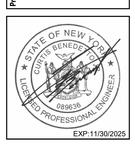
Project Title
NYACK UFSD
HILLTOP ADMIN BUILDING
BOILER REPLACEMENT PROJECT



#	DATE	DESCRIPTION

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Issued for Bid:	12/16/2024

Sheet Title
ELECTRICAL FLOOR PLAN

Sheet No.
HTA
E102

CONSTRUCTION DOCUMENTS

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