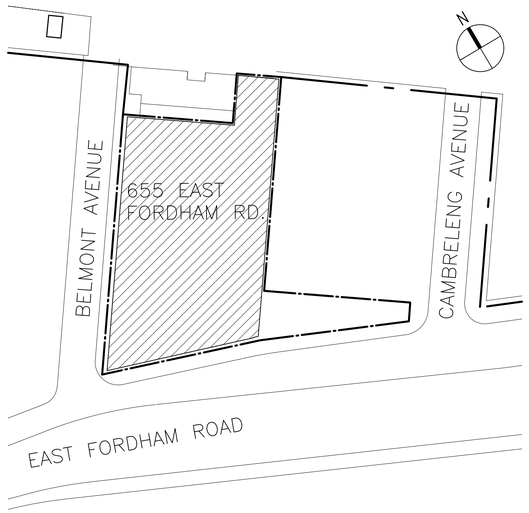
FACULTY MEMORIAL HALL
NEW CONDENSING BOILERS PROJECT

NO CHANGE OF USE, EGRESS OR OCCUPANCY

655 EAST FORDHAM ROAD, BRONX, NY 10458

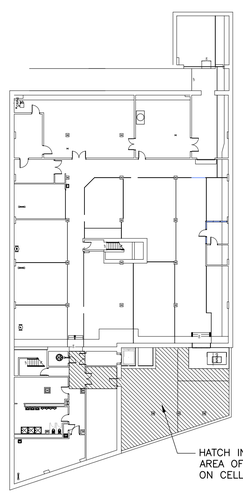


1 PLOT PLAN

NTS

BUILDING INFORMATION

FORDHAM UNIVERSITY
FACULTY MEMORIAL HALL
655 E. FORDHAM ROAD, BRONX, NY 10458
BLOCK 3273
LOT 209
ZONING DISTRICT: C4-5D
OCCUPANCY:G (EDUCATION)
CONSTRUCTION CLASSIFICATION: 1-C (2 HOUR PROTECTED)
BUILDING HEIGHT: 56'
BUILDING STORIES: 5



2 FACULTY MEMORIAL HALL
FIRST FLOOR REFERENCE PLAN 1/32"=1'-0"

LIST OF ASSOCIATED FILINGS:

PLUMBING
SCOPE IS FILED UNDER SEPARATE APPLICATION DOB NOW JOB#X00539835-S6
MECHANICAL
SCOPE IS FILED UNDER SEPARATE APPLICATION DOB NOW JOB#X00539835-S7
BOILER
SCOPE IS FILED UNDER SEPARATE APPLICATION DOB NOW JOB#X00539835-S8

LIST OF DRAWINGS

ARCHITECTURAL:

T-000 PLOT PLAN, REFERENCE PLAN, LIST OF DRAWINGS, SYMBOLS CONSTRUCTION, DEMOLITION & TENANT SAFETY NOTES

T-001 ZONNING AND BUILDING CODE NOTES

T-004 CONSTRUCTION NOTES (CONT.)

T-005 CONSTRUCTION NOTES (CONT.)

EN-101 ENERGY ANALYSIS NOTES - FIRST FLOOR

A-011 CELLAR FLOOR ORIENTATION PLAN & REMOVALS PLAN

A-012 CELLAR FLOOR CONSTRUCTION PLAN & BOILER ROOM PLAN

A-021 CELLAR CEILING REMOVALS PLAN

A-022 CELLAR REFLECTED CEILING CONSTRUCTION PLAN

EN-102 ENERGY ANALYSIS NOTES - CELLAR FLOOR

A-102 PARTIAL FIRST FLOOR MECHANICAL ROOM CONSTRUCTION PLAN

A-103 MECHANICAL ROOM ROOF PLAN

A-401 WALL TYPES, DOOR SCHEDULES, DOOR & FRAME TYPES AND DETAILS

A-601 TYPICAL FIRE STOPPING DETAILS

SP-022 CELLAR SPRINKLER PLAN

DEMOLITION NOTES

REMOVALS

A. EXTENT OF DEMOLITION IS SHOWN ON THE DRAWINGS.

B. ALL DEMOLISHED WORK SHALL BE REMOVED FROM THE PREMISES EXCEPT ITEMS TO BE REUSED OR RETURNED TO THE CLIENT OR AS OTHERWISE DIRECTED.

C. THE CONTRACTOR SHALL PROTECT THE PROPERTY OF THE BUILDING OWNER. CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE CAUSED BY HIS OPERATIONS TO ADJACENT PROPERTIES AT NO EXPENSE TO OWNER.

D. ERECT TEMPORARY WATERPROOF AND DUSTPROOF PARTITIONS AND ENCLOSURES PRIOR TO COMMENCING DEMOLITION.

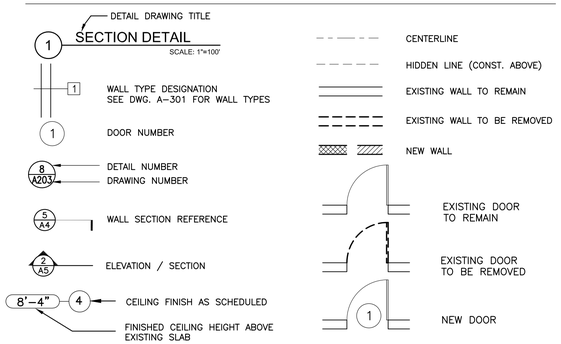
E. UPON COMPLETION OF THE DEMOLITION WORK, THE CONTRACTOR SHALL LEAVE THE SITE BROOM CLEAN.

HAZARDOUS MATERIALS

A. IF ASBESTOS CONTAINING MATERIALS (ACM) OR SUSPECT ACM ARE ENCOUNTERED IN THE COURSE OF WORK OPERATIONS, THE CONTRACTOR SHALL PROCEED IN ALL RESPECTS IN ACCORDANCE WITH INDUSTRIAL CODE 56 OF THE STATE OF NEW YORK.

B. REMEDIATION OF LEAD ENCOUNTERED IN THE COURSE OF WORK OPERATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.

ARCHITECTURAL SYMBOLS



ABBREVIATIONS

ACM	ALUMINUM COMPOSITE PANELS
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
A.F.S.	ABOVE FINISH SLAB
ALUM.	ALUMINUM
A.R.	ABUSE RESISTANT
B.O.	BOTTOM OF
CLG.	CEILING
CH	CEILING HEIGHT
CMU	CONCRETE MASONRY UNIT
CONC.	CONCRETE
CONN.	CONNECTION
DEMO	DEMOLITION
DIA.	DIAMETER
DN	DOWN
DR.	DOOR
ELEV.	ELEVATION
EQ.	EQUAL
E.W.C.	ELECTRIC WATER COOLER
FD	FLOOR DRAIN
FLR.	FLOOR
F.O.	FACE OF
GA.	GAUGE
GALV.	GALVANIZED
GEN.	GENERAL
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
HR	HOUR
L	ANGLE
MECH	MECHANICAL
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
PLAS. LAM.	PLASTIC LAMINATE
PT	PAINT
R.C.P.	REFLECTED CEILING PLAN
R.D.	ROLLING DOOR
RM	ROOM
STL	STEEL
STL.STL.	STAINLESS STEEL
TEL.	TELEPHONE
THRU	THROUGH
TYP.	TYPICAL
T.O.	TOP OF
U.O.N.	UNLESS OTHERWISE NOTED
V.I.F.	VERIFY IN FIELD
WR.	WATER RESISTANT

GENERAL CONSTRUCTION NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK AND ALL DRAWINGS IN THIS SET AS THEY APPEAR HEREIN

2. THE CONTRACTOR SHALL SUBMIT IN WRITING A DETAILED TRADE-BY-TRADE, SCHEDULE OF THE COMPLETE PROJECT INDICATING A COMPLETION DATE AND PRICE BREAKDOWN.

3. CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND JOB CONDITIONS AND IS TO NOTIFY ARCHITECT IMMEDIATELY OF ANY ERRORS OR OMISSIONS BEFORE SUBMITTING BIDS, OR COMMENCING WORK.

4. CONTRACTOR SHALL VERIFY ALL DELIVERY CLEARANCES AND SHALL BE RESPONSIBLE FOR SIZING ALL COMPONENTS OF THIS WORK AS NECESSARY TO ACCOMODATE DELIVERY.

5. THE GENERAL OR BUILDING CONTRACTOR IS TO PROVIDE EVERYTHING NECESSARY TO EXECUTE ALL WORK AS SHOWN ON THESE DRAWINGS W/ THE EXCEPTION OF THOSE ITEMS MARKED "NIC" OR "BY OTHER" AND IS TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES. ANY LIMITATIONS OR EXCLUSIONS SHOULD BE MADE KNOWN TO THE ARCHITECT DURING THE PRICING PHASE OF PROJECT.

6. ALL CONTRACTORS ARE TO INSPECT THE JOB SITE, SECURE COPIES OF BUILDING RULES & REGULATIONS & REPORT ANY DISCREPANCIES ON THE PLANS OR SITE TO THE ARCHITECT PRIOR TO ISSUING BIDS OR COMMENCEMENT OF CONSTRUCTION. CONTRACTORS ARE RESPONSIBLE FOR ACCESS REQUIRED TO GET MATERIALS INTO THE BUILDING.

7. WORK IS TO BE DONE IN ACCORDANCE WITH THE RULES AND THE REGULATIONS OF THE GOVERMENT AGENCIES HAVING JURISDICTION, PRIMARILY INCLUDING THE N.Y.C. BUILDING CODE.

8. CONTRACTORS ARE TO PROVIDE PROPER PROTECTION OF EXISTING AREA & NEW WORK. WHERE INADEQUATE PROTECTION IS PROVIDED, THE CONTRACTOR IS TO REFINISH SURFACES AT HIS OWN EXPENSE.

9. CONTRACTOR SHALL SUBMIT SAMPLES, SHOP DRAWINGS, CUTS AND SPEC'S. FOR APPROVAL PRIOR TO PURCHASE, FABRICATION & INSTALLATION THEREOF. SUBMIT SHOP DRAWINGS IN TRANSPARENCY OR SEPIA FILM.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DEBRIS PRODUCED AS A RESULT OF ALL WORK BY THEIR SUBCONTRACTORS OR THEIR OWN INSTALLATIONS.

11. THE ARCHITECT'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT AND DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE CORRECT EXECUTION OF THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

12. CONTRACTORS SHALL BE RESPONSIBLE FOR ARRANGING WITH OWNER FOR USE OF HOISTING, ELEVATORS OR TRUCK DOCK FOR DELIVERY OF MATERIALS.

13. DRAWINGS IN THIS SET ARE NOT NECESSARILY DRAWN TO SCALE. UNDERDIMENSIONED LINES SHALL BE CLARIFIED BY ARCHITECT. ARCHITECT IS NOT RESPONSIBLE FOR INCORRECT USE OF DRAWINGS. ANY INFORMATION REQUIRED BY CONTRACTOR NOT SHOWN ON THE DRAWINGS SHALL BE REQUESTED BY CONTRACTOR FROM ARCHITECT.

14. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONAL LAYOUT IN THE SITE (AREA OF WORK). DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION TO THE ARCHITECT AS SOON AS POSSIBLE.

15. PARTITIONS SHALL BE DIMENSIONED FROM FINISH TO FINISH, UNLESS OTHERWISE NOTED.

16. ALL WORK UNDER THE CONTRACTORS CONTRACT SHALL BE GUARANTEED FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE OF THE COMPLETED PROJECT.

17. THE WORK REQUIRED UNDER THIS CONTRACT SHALL BE PERFORMED ON (STANDARD) TIME, UNLESS OTHERWISE REQUIRED BY OTHER CLAUSES OF THIS CONTRACT OR AS DIRECTED BY THE BUILDING ENGINEER.

18. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY AREAS W/OUT FIREPROOFING. ALL EXPOSED STRUCTURAL STEEL AND CHIPPED OFF FIREPROOFING SHALL BE PATCHED OR TOUCHED-UP W/ CAFCO TYPE D-C/FIREPROOFING OR APPROVED EQUAL AS DIRECTED BY ARCHITECT.

19. THE CONTRACTOR SHALL NOT DRILL HOLES INTO THE EXISTING SLAB OR STRUCTURAL MEMBERS UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE ARCHITECT AND/OR STRUCTURAL ENGINEER.

20. THE CONTRACTOR SHALL PROTECT THE PUBLIC OR SPACE BELOW FROM ANY DAMAGE RESULTING FROM ALL FLOOR DRILLING OPERATIONS.

21. THE CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED IN THE PERFORMANCE OF THIS CONTRACT.

22. ALL INSTALLATIONS AND APPLICATIONS OF ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT PRINTED MANUFACTURER'S INSTRUCTIONS.

TENANT SAFETY NOTES

28-104.8.4 TENANT PROTECTION PLAN.

1. EGRESS.AT ALL TIMES IN THE COURSE OF CONSTRUCTION PROVISION SHALL BE MADE FOR ADEQUATE EGRESS AS REQUIRED BY THIS CODE AND THE TENANT PROTECTION PLAN SHALL IDENTIFY THE EGRESS THAT WILL BE PROVIDED. REQUIRED EGRESS SHALL NOT BE OBSTRUCTED AT ANY TIME EXCEPT WHERE APPROVED BY THE COMMISSIONER.

2. FIRE SAFETY. ALL NECESSARY LAWS AND CONTROLS, INCLUDING THOSE WITH RESPECT TO OCCUPIED DWELLINGS, AS WELL AS ADDITIONAL SAFETY MEASURES NECESSITATED BY THE CONSTRUCTION SHALL BE STRICTLY OBSERVED.

3. HEALTH REQUIREMENTS. SPECIFICATION OF MEANS AND METHODS TO BE USED FOR CONTROL OF DUST, DISPOSAL OF CONSTRUCTION DEBRIS, PEST CONTROL AND MAINTENANCE OF SANITARY FACILITIES, AND LIMITATION OF NOISE TO ACCEPTABLE LEVELS SHALL BE INCLUDED.

3.1. THERE SHALL BE INCLUDED A STATEMENT OF COMPLIANCE WITH APPLICABLE PROVISIONS OF LAW RELATING TO LEAD AND ASBESTOS, AND SUCH STATEMENT SHALL DESCRIBE WITH PARTICULARITY WHAT MEANS AND q METHODS ARE BEING UNDERTAKEN TO MEET SUCH COMPLIANCE.

4. COMPLIANCE WITH HOUSING STANDARDS. THE REQUIREMENTS OF THE NEW YORK CITY HOUSING MAINTENANCE CODE, AND, WHERE APPLICABLE, THE NEW YORK STATE MULTIPLE DWELLING LAW SHALL BE STRICTLY OBSERVED.

5. STRUCTURAL SAFETY. NO STRUCTURAL WORK SHALL BE DONE THAT MAY ENDANGER THE OCCUPANTS.

6. NOISE RESTRICTIONS. WHERE HOURS OF THE DAY OR THE DAYS OF THE WEEK IN WHICH CONSTRUCTION WORK MAY BE UNDERTAKEN ARE LIMITED PURSUANT TO THE NEW YORK CITY NOISE CONTROL CODE, SUCH LIMITATIONS SHALL BE STATED.

7. MAINTAINING ESSENTIAL SERVICES. WHERE HEAT, HOT WATER, COLD WATER, GAS, ELECTRICITY, OR OTHER UTILITY SERVICES ARE PROVIDED IN SUCH BUILDING OR IN ANY DWELLING UNIT LOCATED THEREIN, THE TENANT PROTECTION PLAN SHALL SPECIFY THE MEANS AND METHODS TO BE USED FOR MAINTAINING SUCH SERVICES DURING SUCH WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW YORK CITY HOUSING MAINTENANCE CODE. IF A DISRUPTION OF ANY SUCH SERVICE IS ANTICIPATED DURING THE WORK, THEN SUCH PLAN SHALL SPECIFY THE ANTICIPATED DURATION OF SUCH DISRUPTION AND THEMEANS AND METHODS TO BE EMPLOYED TO MINIMIZE SUCH DISRUPTION, INCLUDING THE PROVISION OF SUFFICIENT ALTERNATIVES FOR SUCH SERVICE DURING SUCH DISRUPTION.

28-104.8.4.1
PUBLIC AVAILABILITY OF TENANT PROTECTION PLAN. UPON ISSUANCE OF A PERMIT FOR WORK CONTAINING A TENANT PROTECTION PLAN, THE DEPARTMENT SHALL MAKE THE TENANT PROTECTION PLAN PUBLICLY AVAILABLE ON ITS WEBSITE.

28-104.8.4.2
PROVISION OF COPY OF TENANT PROTECTION PLAN TO OCCUPANTS UPON REQUEST. THE OWNER OF A BUILDING UNDERGOING WORK FOR WHICH A TENANT PROTECTION PLAN IS REQUIRED BY SECTION 28-104.8.4 SHALL, UPON REQUEST FROM AN OCCUPANT OF A DWELLING UNIT WITHIN SUCH BUILDING, PROVIDE SUCH OCCUPANT WITH A PAPER COPY OF THE TENANT PROTECTION PLAN APPROVED BY THE DEPARTMENT.

28-104.8.4.3 NOTICE TO OCCUPANTS. UPON ISSUANCE OF A PERMIT FOR WORK CONTAINING A TENANT PROTECTION PLAN, THE OWNER SHALL (I) DISTRIBUTE A NOTICE REGARDING SUCH PLAN TO EACH OCCUPIED DWELLING UNIT OR (II) POST A NOTICE REGARDING SUCH PLAN IN A CONSPICUOUS MANNER IN THE BUILDING LOBBY, AS WELL AS ON EACH FLOOR WITHIN TEN FEET OF THE ELEVATOR, OR IN A BUILDING WHERE THERE IS NO ELEVATOR, WITHIN TEN FEET OF OR IN THE MAIN STAIRWELL ON SUCH FLOOR. THE NOTICE SHALL BE IN A FORM CREATED OR APPROVED BY THE DEPARTMENT AND SHALL INCLUDE:

1. A STATEMENT THAT OCCUPANTS OF THE BUILDING MAY OBTAIN A PAPER COPY OF SUCH PLAN FROM THE OWNER AND MAY ACCESS SUCH PLAN ON THE DEPARTMENT WEBSITE;

2. THE NAME AND CONTACT INFORMATION FOR THE SITE SAFETY MANAGER, SITE SAFETY COORDINATOR OR SUPERINTENDENT OF CONSTRUCTION REQUIRED BY SECTION 3301.3 OF THE NEW YORK CITY BUILDING CODE, AS APPLICABLE, OR, IF THERE IS NO SITE SAFETY MANAGER, SITE SAFETY COORDINATOR OR SUPERINTENDENT OF CONSTRUCTION, THE NAME AND CONTACT INFORMATION OF THE OWNER OF THE BUILDING OR SUCH OWNER'S DESIGNEE; AND

3. A STATEMENT THAT OCCUPANTS OF THE BUILDING MAY CALL 311 TO MAKE COMPLAINTS ABOUT THE WORK.

FORDHAM UNIVERSITY
THE JESUIT UNIVERSITY OF NEW YORK

KOUZMANOFF BAINTON
ARCHITECTS
347 W 36th Street, #302, New York, N.Y. 10018
Phone: 212-290-8616

CONSULTANTS

NO.	DATE	DESCRIPTION
	3/16/2023	ISSUED FOR BID
1	3/06/2023	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 06/14/2021

DESCRIPTION

PLOT PLAN
REFERENCE PLAN
SYMBOLS AND
LIST OF DRAWINGS

DRAWING NUMBER

T-000. 00

PROJECT No: — 1 of 10

JOB# X00539835-P1

ZONING NOTES

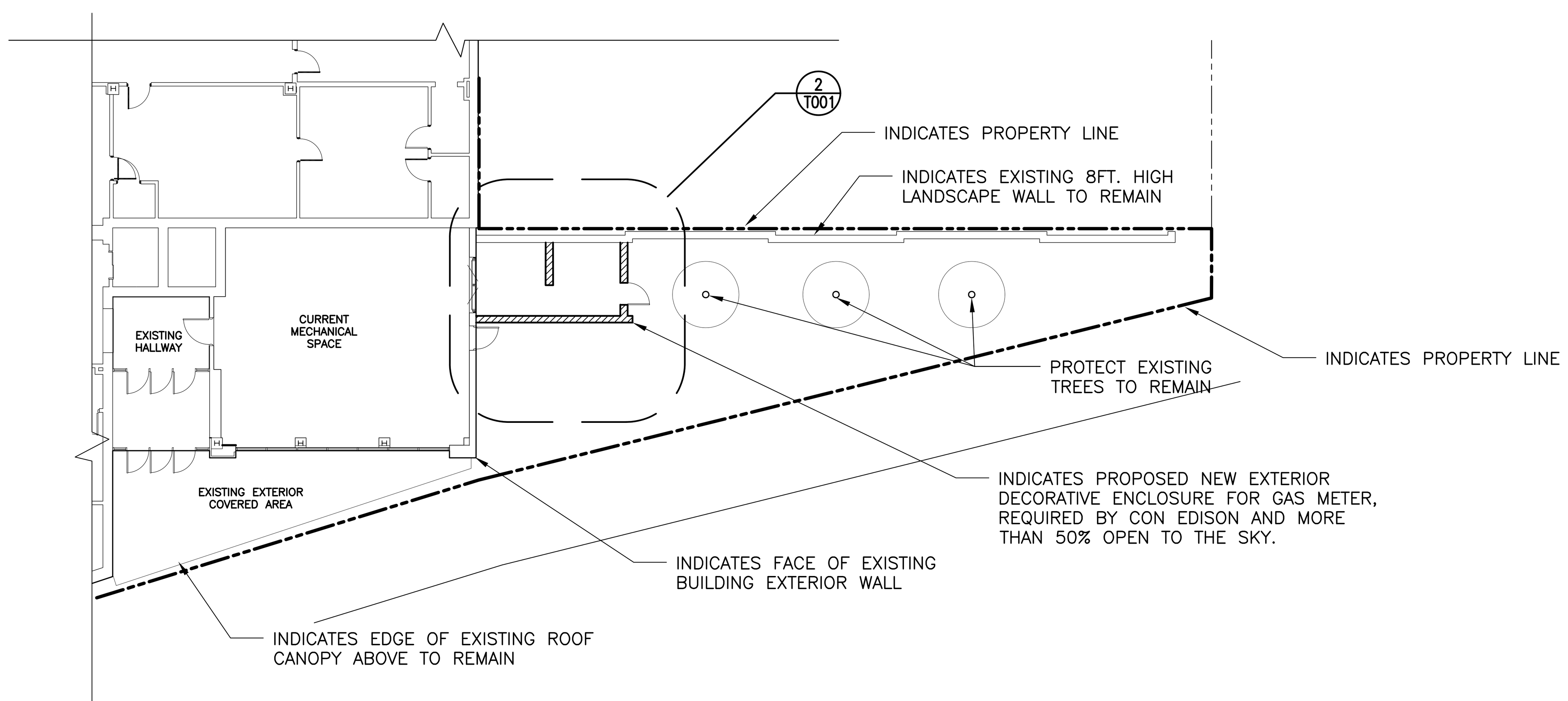
BUILDING INFORMATION

FORDHAM UNIVERSITY
FACULTY MEMORIAL HALL
655 E. FORDHAM ROAD, BRONX, NY 10458
BLOCK 3273
LOT 209
ZONING DISTRICT: C4-5D
OCCUPANCY:G (EDUCATION)
CONSTRUCTION CLASSIFICATION: 1-C (2 HOUR PROTECTED)
BUILDING HEIGHT: 56'
BUILDING STORIES: 5

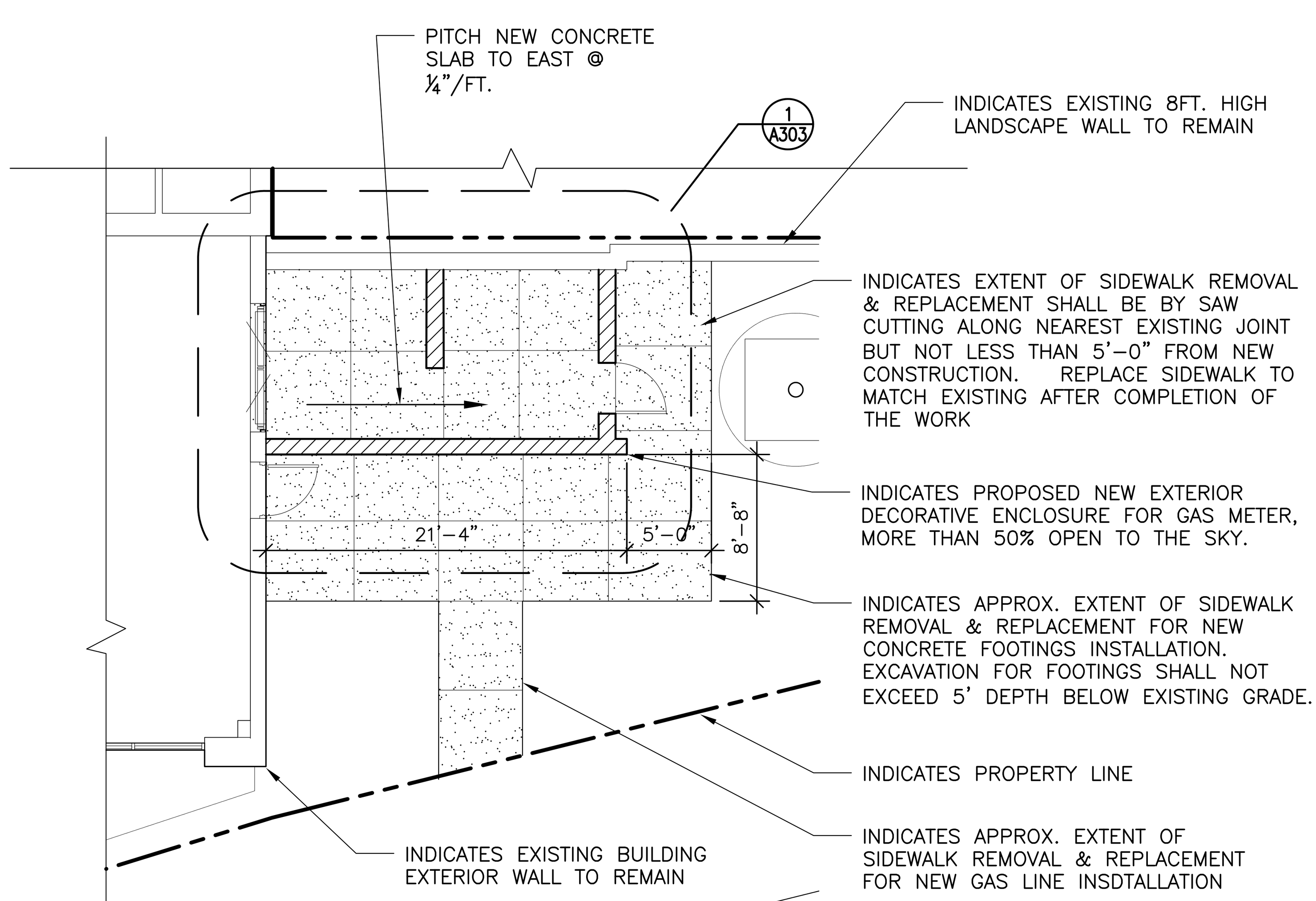
THIS APPLICATION PROPOSES NO ADDITION OF FLOOR AREA

THE PROPOSED DECORATIVE GAS METER ENCLOSURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE CON EDISON "YELLOW BOOK" REQUIREMENTS FOR THE "FORM OF SUITABLE ENCLOSURE" FOR THE GAS METER .

THE ENCLOSURE HAS BEEN REVIEWED AND ACCEPTED BY CON EDISON. GAS METER INSTALLATION IS FILED UNDER APPLICATION # X00539835-S6



1 PART PLAN OF LOT SHOWING WORK AREA
1ST FLOOR LEVEL 1/16"=1'-0"



2 PART PLAN OF LOT SHOWING WORK AREA 1/8"=1'-0"

NEW 4" CONCRETE SIDEWALK CONSTRUCTION LAID DIRECTLY ON PREPARED GRADE, 3000# AIR ENTRAINED CONCRETE. ALL NEW CONCRETE PAVING SHALL BE REINFORCED WITH 1.4X1.4, 6X6 WIRE MESH. JOINTS, INCLUDING EXPANSION JOINTS SHALL LINE UP WITH EXISTING CITY SIDEWALK JOINTS AND SHALL BE NOT OVER 6'0" IN ANY DIRECTION. FINISH SHALL MATCH ADJACENT SIDEWALK (BROOM) FINISH

ENERGY COMPLIANCE STATEMENT

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CONSTRUCTION CODE USING CHAPTER C4, 2020 ECCNY.

COMMERCIAL ENERGY EFFICIENCY:		NOT APPLICABLE	COMPLIES	EXEMPT
		NO WORK OF THIS TYPE PROPOSED UNDER THIS APPLICATION	SEE ATTACHED ANALYSIS	PER NYCECC CHAPTER 1
ECC C402	BUILDING ENVELOPE REQUIREMENTS	X	–	–
ECC C403	BUILDING MECHANICAL SYSTEMS	X	–	–
ECC C404	SERVICE WATER HEATING	X	–	–
ECC C405	ELECTRICAL POWER AND LIGHTING SYSTEMS	X	–	–
ECC C407	TOTAL BUILDING PERFORMANCE	X	–	–

FEMA NOTE:

THE BUILDING IS NOT IN A SFHA (SPECIAL FLOOD HAZARD AREA)

ENERGY COMPLIANCE STATEMENT

TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ENERGY CONSERVATION CODES OF NEW YORK CITY AND NEW YORK STATE.

ACCESSIBILITY NOTES

REFERENCE CODES AND STANDARDS:

LOCAL LAW NO. 58 OF 1987
ICC A117.1 – 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES

1. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT AND SHALL COMPLY WITH SECTION 303.
2. ACCESSIBLE ROUTES SHALL COMPLY WITH SECTION 402.
3. DOORS AND DOORWAYS THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH SECTION 404.

CODE NOTES

GENERAL

FORDHAM UNIVERSITY IS PLANNING TO ADD AN EXTERIOR DECORATIVE, CONED APPROVED, GAS METER ENCLOSURE THAT IS 70% OPEN TO THE SKY, ON AN OPEN PRTION OF THE LOT. FACULTY MEMORIAL HALL WAS CONSTRUCTED AND PERMITTED PRIOR TO THE EFFECTIVE DATE OF THE1968 BUILDING CODE. SECTION §28-101.4.3 ALLOWS THE OPTIONAL USE OF THE 1968 BUILDING CODE SUBJECT TO CERTAIN CONDITIONS.

THIS APPLICATION PROPOSES NO CHANGE OF USE, OCCUPANCY, OR EGRESS.

REFERENCE CODES AND STANDARDS:

NYC 1968 BUILDING CODE
NYC 2022 BUILDING CODE
NYC 2022 MECHANICAL CODE
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS, 1991B
ICC A117.1 – 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES
NYC 2020 ENERGY CONSERVATION CODE

SAFEGUARDS DURING CONSTRUCTION AND DEMOLITION (CHAPTER 33)

PROVISIONS OF CHAPTER 33 SHALL GOVERN THE CONDUCT OF ALL CONSTRUCTION AND DEMOLITION OPERATIONS WITH REGARD TO THE SAFETY OF PUBLIC AND PROPERTY. OSHA STANDARDS SHALL APPLY TO ALL PERSONS EMPLOYED IN CONSTRUCTION AND DEMOLITION.

INSPECTIONS

LIST OF SPECIAL INSPECTION ITEMS

MASONRY	BC 1704.5
POST-INSTALLED ANCHORS	(BB# 2014-018, 2014-019)

LIST OF PROGRESS INSPECTION ITEMS

FINAL	28-116.2.2; BC 110.5;
DIRECTIVE 14 OF 1975;	1 RCNY 101-10

WORK DOES NOT REQUIRE ANY TR8 ENERGY PROGRESS INSPECTIONS

FORDHAM UNIVERSITY
THE JESUIT UNIVERSITY OF NEW YORK

KOUZMANOFF BAINTON ARCHITECTS
347 W 36th Street, #302, New York, N.Y. 10018
Phone: 212-290-8616

CONSULTANTS

NO.	DATE	DESCRIPTION
1	9/18/22	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

EXTERIOR GAS METER OPEN ENCLOSURE
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 03/06/2023

DESCRIPTION
ZONING AND BUILDING CODE NOTES

DRAWING NUMBER
T-001. 00

PROJECT No: – 2 of 7

JOB# X00823108-I1

LIST OF ASSOCIATED FILINGS

PLUMBING WORK SCOPE
IS FILED UNDER SEPARATED DOB NOW APPLICATION JOB #X00539835-S6

MECHANICAL WORK SCOPE
IS FILED UNDER SEPARATED DOB NOW APPLICATION JOB #X00539835-S7

BOILER WORK SCOPE
IS FILED UNDER SEPARATED DOB NOW APPLICATION JOB #X00539835-S8

FEMA NOTE:

THE BUILDING IS NOT IN A SFHA (SPECIAL FLOOD HAZARD AREA)

ENERGY COMPLIANCE STATEMENT

TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ENERGY CONSERVATION CODES OF NEW YORK CITY AND NEW YORK STATE.

ACCESSIBILITY NOTES

REFERENCE CODES AND STANDARDS:

LOCAL LAW NO. 58 OF 1987
ICC A117.1 – 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES

1. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT AND SHALL COMPLY WITH SECTION 303.
2. ACCESSIBLE ROUTES SHALL COMPLY WITH SECTION 402.
3. DOORS AND DOORWAYS THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH SECTION 404.

CODE NOTES

GENERAL

FORDHAM UNIVERSITY IS PLANNING TO ADD A ROOM FOR A CONDENSING BOILER TO AN EXISTING MECHANICAL ROOM AT FACULTY MEMORIAL HALL. FACULTY MEMORIAL HALL WAS CONSTRUCTED AND PERMITTED PRIOR TO THE EFFECTIVE DATE OF THE1968 BUILDING CODE. SECTION §28-101.4.3 ALLOWS THE OPTIONAL USE OF THE 1968 BUILDING CODE SUBJECT TO CERTAIN CONDITIONS.

THIS APPLICATION PROPOSES NO CHANGE OF USE, OCCUPANCY, OR EGRESS.

REFERENCE CODES AND STANDARDS:

NYC 1968 BUILDING CODE
NYC 2022 BUILDING CODE
NYC 2022 MECHANICAL CODE
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS, 1991B
ICC A117.1 – 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES
NYC 2020 ENERGY CONSERVATION CODE

BUILDING CODE REVIEW

(PER THE NYC 1968 BUILDING CODE EXCEPT AS NOTED)

OCCUPANCY CLASSIFICATION (SUBCHAPTER 3)

TABLE 3-2: OCCUPANCY GROUP D-2 INDUSTRIAL; MECHANICAL EQUIPMENT ROOMS

CONSTRUCTION CLASSIFICATION (SUBCHAPTER 3)

THE EXISTING BUILDING CONSTRUCTION CLASS IS NONCOMBUSTIBLE I-C (2-HR. PROTECTED)

TABLE 3-4 EXTERIOR WALLS SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS.

TABLE 3-4 NON-BEARING EXTERIOR WALLS WITH AN EXTERIOR SEPARATION OF 30'-0" OR MORE SHALL HAVE A FIRE RATING OF 0 HOURS.

FIRE PROTECTION CONSTRUCTION REQUIREMENTS (SUBCHAPTER 4)

27-323 FIRE RESISTANCE RATINGS OF STRUCTURAL MEMBERS AND ASSEMBLIES SHALL COMPLY WITH THE REQUIREMENTS OF TABLE 304.

27-331 EXTERIOR WALLS SHALL HAVE THE FIRE RESISTANCE RATING REQUIREMENTS OF TABLE 304.

27-343 DUCTS, PIPES AND CONDUITS PASSING THROUGH CONSTRUCTION REQUIRED TO HAVE A FIRE RESISTANCE RATING SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION.

MEANS OF EGRESS (SUBCHAPTER 6)

27-369 (H) CORRIDOR CONSTRUCTION: INTERIOR CORRIDORS SHALL BE ENCLOSED WITHIN FIRE SEPARATIONS TO PROVIDE A MINIMUM FIRE-RESISTANCE RATING OF ONE HOUR.

27-371 CORRIDOR DOORS: DOORS THAT PROVIDE ACCESS TO ONE HOUR RATED INTERIOR CORRIDORS SHALL BE SELF-CLOSING SWINGING TYPE WITH A 3/4 HOUR FIRE-PROTECTION RATING.

BOILER AND FURNACE ROOMS (SUBCHAPTER 7, ARTICLE 5)

27-419 (A) ENCLOSURE: BOILERS CARRYING MORE THAN FIFTEEN PSI PRESSURE SHALL BE LOCATED IN A ROOM OR COMPARTMENT SEPARATED FROM THE REST OF THE BUILDING WITH NONCOMBUSTIBLE CONSTRUCTION HAVING AT LEAST A TWO HOUR FIRE-RESISTANCE RATING.

27-421 CLEARANCES: ENCLOSING CONSTRUCTION FOR BOILERS AND FURNACES SHALL HAVE MINIMUM CLEARANCES PRESCRIBED IN SUBCHAPTER 14 OF THIS CODE.

27-423 EXIT REQUIREMENTS: IN EVERY ROOM CONTAINING A BOILER OR FURNACE, THE MAXIMUM TRAVEL DISTANCE FROM ANY POINT WITHIN THE ROOM SHALL NOT EXCEED FIFTY FEET.

ACCESSIBILITY (CHAPTER 9 OF 2014 BUILDING CODE)

BUILDINGS AND FACILITIES SHALL BE DESIGNED AND CONSTRUCTED WITH TO BE ACCESSIBLE IN ACCORDANCE WITH THIS CODE AND ICC A117.1 – 2009.

SAFEGUARDS DURING CONSTRUCTION AND DEMOLITION (CHAPTER 33 OF 2014 BUILDING CODE)

PROVISIONS OF CHAPTER 33 SHALL GOVERN THE CONDUCT OF ALL CONSTRUCTION AND DEMOLITION OPERATIONS WITH REGARD TO THE SAFETY OF PUBLIC AND PROPERTY. OSHA STANDARDS SHALL APPLY TO ALL PERSONS EMPLOYED IN CONSTRUCTION AND DEMOLITION.

1

INSPECTIONS

LIST OF SPECIAL INSPECTIONS (1)

SPRAYED FIRE-RESISTANT MATERIAL	BC 1704.11
FIRE-RESISTANT PENETRATIONS AND JOINTS	BC 1704.27

LIST OF PROGRESS INSPECTIONS

FIRE-RESISTANCE RATED CONSTRUCTION	BC 110.3.4
ENERGY CODE COMPLIANCE	BC 110.3.5
FINAL INSPECTION	28-116.2.2; BC 110.5; DIRECTIVE 14 OF 1975; 1 RCNY 101-10

LIST OF ENERGY CODE PROGRESS INSPECTIONS (1)

INTERIOR LIGHTING POWER	(IC2), (IIC3)
LIGHTING CONTROLS	(IIC5)

1

1

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CONSULTANTS

NO.	DATE	DESCRIPTION
1	3/06/2023	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT
STATE OF NEW YORK
018133-1

DRAWN BY	CHECKED
AW	JK/ KB

SCALE: AS NOTED

DATE: 06/14/2021

DESCRIPTION: ZONING AND BUILDING CODE NOTES

DRAWING NUMBER: T-001. 01

PROJECT No: –

2 of 10

JOB# X00539835-P1

CONSTRUCTION NOTES:

TEMPORARY SIGNS AND BARRICADES

A. CONTRACTOR SHALL ERECT AND MAINTAIN IN NEAT CONDITION, MOVE AS DIRECTED AND REQUIRED, AND WHEN DIRECTED FROM PREMISES ALL TEMPORARY SIGNS AND BARRICADES REQUIRED FOR WORK.

B. CONTRACTOR SHALL ERECT SUCH SIGNS AND BARRICADES, AND TAKE SUCH OTHER PRECAUTIONS AS MAY BE NECESSARY AND AS DIRECTED, FOR CARE AND PROTECTION OF THE WORK, PROPERTY AND PERSONS WITHIN BUILDING.

SAFEGUARDS AND PROJECT SAFETY

A. CONTRACTOR SHALL PROVIDE THE NECESSARY SAFEGUARDS TO PREVENT ACCIDENTS, TO AVOID ALL UNNECESSARY HAZARDS AND TO PROTECT OWNER EMPLOYEES, THE PUBLIC, THE WORK AND THE PROPERTY AT ALL TIMES, INCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, AND AT OTHER TIMES WHEN NO WORK IS BEING DONE. THESE CONTRACT DOCUMENTS, AND THE CONSTRUCTION HEREBY CONTEMPLATED SHALL BE GOVERNED AT ALL TIMES BY THE APPLICABLE PROVISIONS OF THE CODE OF FEDERAL REGULATIONS (CFR) PUBLICATIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

B. CONTRACTOR SHALL MAKE KNOWN TO ALL HIS PERSONNEL INCLUDING SUBCONTRACTOR'S PERSONNEL, MATERIAL SUPPLIERS, AND ANY OTHERS CONNECTED WITH THE BUSINESS OF CONSTRUCTING PROJECT, AN EMERGENCY PROCEDURE FOR FIRE OR ACCIDENTS, INJURIES TO PERSONNEL OR THEFTS. OWNER REPRESENTATIVE IS TO BE NOTIFIED IMMEDIATELY, STATING NATURE OF THE INCIDENT, LOCATION ON SITE WHERE INCIDENT OCCURRED OR IS OCCURRING AND THE NAME OF THE PERSON REPORTING. CONTRACTOR WILL FILE WITH OWNER REPRESENTATIVE A COMPLETE WRITTEN REPORT OF ANY SUCH INCIDENT STATING THE PERSONNEL INVOLVED, THE EXTENT OF THE DAMAGE OR INJURY, AND THE PROBABLE CAUSE WITHIN 48 HOURS OF ITS OCCURRENCE.

C. SITE AND BUILDING SHALL BE MAINTAINED PASSABLE FOR EMERGENCY VEHICLES AND PERSONNEL AT ALL TIMES. FOLLOW DIRECTIONS OF OWNER REPRESENTATIVE, FIRE AND POLICE DEPARTMENTS SERVING AREA AS TO MINIMUM REQUIREMENTS FOR ACCESS FOR EMERGENCY AND FIRE-FIGHTING EQUIPMENT

D. SITE PREPARATION AND CLEARING WORK INCLUDES, BUT IS NOT LIMITED TO, PROTECTION OF EXISTING STRUCTURES, UTILITIES AND IMPROVEMENTS.

E. DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO, DEMOLITION AND REMOVAL OF EXISTING CONCRETE PAVING, CONCRETE CURBS AND BELOW_GRADE IMPROVEMENTS REQUIRED TO COMPLETE THE WORK.

F. EXCAVATION CONSISTS OF REMOVAL AND DISPOSAL OF ALL MATERIALS ENCOUNTERED WHEN ESTABLISHING THE REQUIRED GRADE AND SUBGRADE ELEVATIONS, INCLUDING EARTH AND ALL ROCK THAT MAY BE REMOVED BY MOBILE EQUIPMENT.

G. EARTH EXCAVATION INCLUDES THE REMOVAL AND DISPOSAL OF PAVEMENTS AND OTHER OBSTRUCTIONS VISIBLE ON GROUND SURFACE, AND ALL OTHER MATERIALS ENCOUNTERED THAT ARE NOT CLASSIFIED AS SOLID ROCK EXCAVATION OR UNAUTHORIZED EXCAVATION. BOULDERS, 2 CU. YARDS OR LESS, ARE INCLUDED IN EARTH EXCAVATION. ROCK THAT MAY BE BROKEN UP WITH MOBILE EQUIPMENT (WITHOUT USE OF COMPRESSORS OR EXPLOSIVES) IS INCLUDED IN EARTH EXCAVATION.

EXISTING UTILITIES:

A. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF WORK BEFORE STARTING OPERATIONS. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF PROTECTING AND PREVENTING UNDERMINING DURING EXCAVATION OPERATIONS.

EXCAVATION FOR STRUCTURES

A. IN EXCAVATING FOR FOOTINGS AND FOUNDATIONS, TAKE CARE NOT TO DISTURB BOTTOM OF EXCAVATION. EXCAVATE BY HAND TO FINAL GRADE JUST BEFORE CONCRETE REINFORCEMENT IS PLACED. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE A SOLID BASE TO RECEIVE CONCRETE.

MATERIAL STORAGE

A. STOCKPILE EXCAVATED MATERIALS AS SATISFACTORY BACKFILL MATERIAL WHERE DIRECTED, UNTIL REQUIRED FOR BACKFILL OR FILL. PLACE, GRADE, AND SHAPE STOCKPILES OF EXCAVATED MATERIALS FOR PROPER DRAINAGE AND MINIMUM EROSION.

BACKFILL AND FILL

A. BACKFILL EXCAVATIONS AS PROMPTLY AS WORK PERMITS, BUT NOT UNTIL COMPLETION OF THE FOLLOWING:
1. COMPLETION OF CONSTRUCTION BELOW FINISH GRADE.
2. REMOVAL OF CONCRETE FORMWORK.

PLACEMENT AND COMPACTION

A. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" COMPACTED DEPTH FOR MATERIAL COMPACTED BY ANY APPROVED COMPACTION METHOD APPROVED BY ARCHITECT.

CAST-IN-PLACE CONCRETE

A. THE EXTENT OF CONCRETE WORK IS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. THIS SECTION SPECIFIES CAST-IN PLACE CONCRETE, INCLUDING FORMWORK, REINFORCING, MIX DESIGN, PLACEMENT PROCEDURES, AND FINISHES.

B. CAST-IN-PLACE CONCRETE WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

1. NEW COCRETE FOUNDATIONS FOR EXTERIOR MASONRY WALLS
2. PATCH AND REPAIR OF EXISTING DAMAGED CONCRETE.
3. ALL REINFORCING STEEL FOR CONCRETE WORK.
4. FURNISHING AND SETTING OF SLEEVES, ALL DOWELS, BOLTS, INSERTS, ANCHORS, JOINT MATERIALS AND SIMILAR ITEMS REQUIRED IN THE ABOVE CONCRETE WORK.
5. COOPERATION WITH THE INSPECTION AGENCY FOR ALL REQUIRED TESTS AND INSPECTIONS.

C. SUBMITTALS: SUBMIT THE FOLLOWING ITEMS:

1. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA WITH APPLICATION AND INSTALLATION INSTRUCTIONS FOR ALL MATERIALS AND ITEMS SPECIFIED OR OTHERWISREQUIRED IN THE CONCRETE WORK.
2. LABORATORY TEST REPORTS FOR CONCRETE MATERIALS AND MIX DESIGN TEST.
3. MATERIAL CERTIFICATES IN LIEU OF MATERIAL LABORATORY TEST REPORTS WHEN PERMITTED BY ARCHITECT. MATERIAL CERTIFICATES SHALL BE SIGNED BY MANUFACTURER AND CONTRACTOR, CERTIFYING THAT EACH MATERIAL ITEM COMPLIES WITH OR EXCEEDS SPECIFIED REQUIREMENTS.

D. CODES AND STANDARDS: COMPLY WITH PROVISIONS OF THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS, EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE SHOWN OR SPECIFIED:

1. AMERICAN CONCRETE INSTITUTE (ACI) 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."
2. ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."

CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE."

E. CONCRETE TESTING SERVICE: ENGAGE A NEW YORK CITY CERTIFIED TESTING AGENCY ACCEPTABLE TO ARCHITECT TO PERFORM MATERIAL EVALUATION TESTS AND TO DESIGN CONCRETE MIXES.

F. REINFORCING MATERIALS

1. REINFORCING BARS: ASTM A 615 GRADE 60 (ASTM A 615M GRADE 400), DEFORMED.
2. STEEL WIRE: ASTM A 82, PLAIN, COLD-DRAWN STEEL.
3. WELDED WIRE FABRIC (WWF): ASTM A 185, WELDED STEEL WIRE FABRIC, 6 X 6 W1.4 W1.4 MINIMUM.
4. DEFORMED-STEEL WELDED WIRE FABRIC: ASTM A 497.

G. CONCRETE MATERIALS: PORTLAND CEMENT: ASTM C 150, TYPE I.

H. NORMAL-WEIGHT AGGREGATES: ASTM C 33 AND AS SPECIFIED. PROVIDE AGGREGATES FROM A SINGLE SOURCE FOR EXPOSED CONCRETE.

I. WATER: POTABLE.

J. ADMIXTURES, GENERAL: DO NOT USE ADMIXTURES CONTAINING CALCIUM CHLORIDE FOR CONCRETE THAT IS TO BE PLACED ON METAL DECKING.

K. DESIGN MIXES TO PROVIDE NORMAL WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES AS INDICATED ON DRAWINGS AND SCHEDULES:

1. 4000 PSI (27.6 MPA), 28-DAY COMPRESSIVE STRENGTH; WATER-CEMENT RATIO, 0.44 MAXIMUM (NON-AIR-ENTRAINED).
2. 3000 PSI (20.7 MPA), 28-DAY COMPRESSIVE STRENGTH; WATER-CEMENT RATIO, 0.58 MAXIMUM (NON-AIR-ENTRAINED).

L. SLUMP LIMITS: PROPORTION AND DESIGN MIXES TO RESULT IN CONCRETE SLUMP AT POINT OF PLACEMENT AS FOLLOWS: ALL CONCRETE NOT MORE THAN 4" WITH A TOLERANCE OF UP TO 1" FOR ON BATCH IN ANY FIVE CONSECUTIVE BATCHES TESTED.

M. READY-MIXED CONCRETE: COMPLY WITH REQUIREMENTS OF ASTM C 94 "STANDARD SPECIFICATION FOR READY-MIXED CONCRETE", AND AS SPECIFIED.

1. WHEN AIR TEMPERATURE IS BETWEEN 85 DEG F (29 DEG C) AND 90 DEG F (32 DEG C), REDUCE MIXING AND DELIVERY TIME FROM 1-1/2 HOURS TO 75 MINUTES, AND WHEN AIR TEMPERATURE IS ABOVE 90 DEG F (32 DEG C), REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES.
2. ADDITION OF WATER TO THE BATCH WILL NOT BE PERMITTED.

N. JOB-SITE MIXING: MIX CONCRETE MATERIALS IN APPROPRIATE DRUM-TYPE BATCH MACHINE MIXER. FOR MIXERS OF 1 CU. YD. (0.76 CU. M) OR SMALLER CAPACITY, CONTINUE MIXING AT LEAST 1-1/2 MINUTES, BUT NOT MORE THAN 5 MINUTES AFTER INGREDIENTS ARE IN MIXER, BEFORE ANY PART OF BATCH IS RELEASED. FOR MIXERS OF CAPACITY LARGER THAN 1 CU. YD. (0.76 CU. M), INCREASE MINIMUM 1-1/2 MINUTES OF MIXING TIME BY 15 SECONDS FOR EACH ADDITIONAL 1 CU. YD. (0.76 CU. M).

O. PLACING REINFORCING: INSTALL WELDED WIRE FABRIC IN LENGTHS AS LONG AS PRACTICABLE. LAP ADJOINING PIECES AT LEAST ONE FULL MESH AND LACE SPLICES WITH WIRE. OFFSET LAPS OF ADJOINING WIDTHS TO PREVENT CONTINUOUS LAPS IN EITHER DIRECTION.

P. INSPECTION: BEFORE PLACING CONCRETE, INSPECT AND COMPLETE FORMWORK INSTALLATION, REINFORCING STEEL, AND ITEMS TO BE EMBEDDED OR CAST IN. NOTIFY OTHER TRADES TO PERMIT INSTALLATION OF THEIR WORK.

Q. CONCRETE PLACEMENT: COMPLY WITH ACI 304, "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE," AND AS SPECIFIED.

R. PLACING CONCRETE SLABS: DEPOSIT AND CONSOLIDATE CONCRETE SLABS IN A CONTINUOUS OPERATION, WITHIN LIMITS OF CONSTRUCTION JOINTS, UNTIL COMPLETING PLACEMENT OF A PANEL OR SECTION.

S. MONOLITHIC SLAB FLOAT FINISH:
APPLY FLOAT FINISH TO MONOLITHIC SLAB SURFACES TO RECEIVE TROWEL FINISH AND OTHER FINISHES AS SPECIFIED; SLAB SURFACES TO BE COVERED WITH MEMBRANE OR ELASTIC WATERPROOFING, MEMBRANE OR ELASTIC ROOFING, OR SAND-BED TERRAZZO; AND WHERE INDICATED.

T. MONOLITHIC SLAB TROWEL FINISH:
APPLY A TROWEL FINISH TO MONOLITHIC SLAB SURFACES EXPOSED TO VIEW AND SLAB SURFACES TO BE COVERED WITH RESILIENT FLOORING, CARPET, CERAMIC OR QUARRY TILE, PAINT, OR ANOTHER THIN FILM-FINISH COATING SYSTEM.

U. FILLING IN: FILL IN HOLES AND OPENINGS LEFT IN CONCRETE STRUCTURES FOR PASSAGE OF WORK BY OTHER TRADES, UNLESS OTHERWISE SHOWN OR DIRECTED, AFTER WORK OF OTHER TRADES IS IN PLACE. MIX, PLACE, AND CURE CONCRETE AS SPECIFIED TO BLEND WITH IN-PLACE CONSTRUCTION. PROVIDE OTHER MISCELLANEOUS CONCRETE FILLING SHOWN OR REQUIRED TO COMPLETE WORK.

V. PATCHING DEFECTIVE AREAS: REPAIR AND PATCH DEFECTIVE AREAS WITH CEMENT MORTAR IMMEDIATELY AFTER REMOVING FORMS, WHEN ACCEPTABLE TO ARCHITECT.

W. PERFORM STRUCTURAL REPAIRS WITH PRIOR APPROVAL OF ARCHITECT FOR METHOD AND PROCEDURE, USING SPECIFIED EPOXY ADHESIVE AND MORTAR.

X. REPAIR METHODS NOT SPECIFIED ABOVE MAY BE USED, SUBJECT TO ACCEPTANCE OF ARCHITECT.

CONCRETE UNIT MASONRY

A. THE EXTENT OF CONCRETE UNIT MASONRY WORK IS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN AND INCLUDES ALL LABOR, MATERIAL, EQUIPMENT, AND APPLIANCES NECESSARY TO COMPLETE ALL NEW MASONRY WORK AND ALL MASONRY CUTTING, PATCHING, INFILL AND RELATED WORK REQUIRED FOR THE ALTERATION OF THE EXISTING CONCRETE UNIT MASONRY WALLS.

B. FURNISH AND INSTALL:
1. EXTERIOR CONCRETE UNIT MASONRY WALLS WITH SPECIAL FINISH.
2. MASONRY WALL REINFORCEMENT, TIES, SLOTS, ANCHORS, ETC.
3. PRECAST CONCRETE LINTELS.
4. INSTALL OTHER WORK SUCH AS DOOR FRAMES & LOUVERS SPECIFIED UNDER OTHER SECTIONS OF THE SPECIFICATIONS OR INDICATED ON THE DRAWINGS TO BE BUILT INTO MASONRY WORK.

C. TESTS:
1. SAMPLE AND TEST CONCRETE MASONRY UNITS IN ACCORDANCE WITH ASTM C140 AND ASTM C426. PERFORM TESTS IN AN INDEPENDENT TESTING LABORATORY AT CONTRACTOR'S EXPENSE.

D. ALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY.

E. ADDITIONAL REQUIREMENTS FOR CONSTRUCTION, TESTING AND STORAGE OF MATERIALS ARE CONTAINED IN AC1 STANDARD SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION, AC1 531.1 REVISED.

G. FIRE RESISTANCE RATING: CLASSIFICATION OF FIRE RESISTANCE RATING OF CONCRETE MASONRY UNIT WALLS AND PARTITIONS SHALL BE BASED UPON TEST METHOD AND ACCEPTANCE CRITERIA IN THE STANDARD FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS, ANSI/UL263 (BXUV) LISTED IN FIRE RESISTANCE DIRECTORY, VOLUME 1, OF THE UNDERWRITERS LABORATORIES INC. (UL), DESIGN INFORMATION SECTION.

H. PRODUCT DELIVERY, STORAGE AND HANDLING: STORE MASONRY UNITS OFF THE GROUND ON PLATFORMS THAT ALLOW AIR CIRCULATION UNDER STACKED UNITS. HANDLE UNITS ON PALLETS OR FLAT BED BARROWS. MATERIALS SHALL BE SO PLACED ON THE SITE TO MINIMIZE ON SITE HANDLING. SAFETY MEASURES SHALL BE TAKEN AS NECESSARY TO PREVENT THE ACCIDENTAL DROPPING OF CONCRETE MASONRY UNITS DURING CONSTRUCTION.

I. CONCRETE MASONRY UNIT MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, FURNISH PRODUCTS BY WESTBROOK CONCRETE BLOCK, WESTBROOK CT. OR APPROVED EQUAL.

J. HOLLOW AND SOLID LOAD-BEARING UNITS: ASTM C90-09.
1. MOISTURE CONTENT: AS DEFINED IN ASTM C140.
2. CALCIUM CHLORIDE SHALL NOT BE USED IN MASONRY.
3. HOLLOW UNITS: MINIMUM FACE SHELL THICKNESS AND WEB THICKNESS OF HOLLOW UNITS SHALL ONFORM TO ASTM C90, TABLE 1.
4. SOLID UNITS: THE NET CROSS-SECTIONAL AREA OF SOLID UNITS IN EVERY PLANE PARALLEL TO THE BEARING SURFACE SHALL BE NOT LESS THAN 75% OF THE GROSS CROSS-SECTIONAL AREA.

K. AGGREGATE: NORMAL WEIGHT AGGREGATE SHALL CONFORM TO ASTM C 33.

L. SPECIAL BLOCK: UNITS OF SPECIAL SHAPES AND SIZES AS REQUIRED FOR STARTER COURSES, CORNERS, JAMBS, HEADERS, BEAM BLOCK, BONDING, EXCEPT AS OTHERWISE NOTED, AND ALL OTHER SPECIAL CONDITIONS INDICATED OR REQUIRED.

M. TYPICAL CONCRETE MASONRY UNIT FINISH: PROVIDE ALL UNITS WITH GROUND FACE FINISH AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD 'WHITES' FINISHES. (GF-57; GF-99; GF-106; GF 328; GF-356). PROVIDE SAMPLES PER ABOVE FOR APPROVAL BY ARCHITECT & UNIVERSITY.

N. MASONRY UNITS SHALL BE MANUFACTURED IN AN ENCLOSED BUILDING EQUIPPED WITH MOLDING MACHINES CAPABLE OF EXERTING PRESSURE AND VIBRATION ON THE MIX SIMULTANEOUSLY AS MOLDED. ALL CURING SHALL BE IN ACCORDANCE WITH ASTM C 426.

O. MASONRY UNITS SHALL GENERALLY HAVE 8" X 16" FACE DIMENSIONS AND BE OF THICKNESSES INDICATED ON THE DRAWINGS.

P. ACCESSORIES: MASONRY WALL REINFORCEMENT FOR BLOCK WORK: TRUSS OR LADDER DESIGN, 9 GAUGE DEFORMED STEEL SIDE RODS WELDED TO 9 GAUGE STEEL WIRE CROSS TIES SPACED 16" O.C.; WIDTH 1 1/2" TO 2" LESS THAN WALL THICKNESS. HORIZONTAL JOINT REINFORCEMENT AT BRICK AND CMU CAVITY WALLS SHALL BE EITHER LADDER TYPE OR ADJUSTABLE EYE AND PINTEL TIES. PROVIDE FACTORY-FABRICATED CORNER AND TEE SECTIONS FOR CORNERS AND WALL INTERSECTIONS.
1. REINFORCEMENT FOR JOINTS: ASTM A-82 AND A-116, MINIMUM WIRE SIZE OF 9 GAUGE.
2. FINISH FOR INTERIOR WALLS: 0.8 OZ. P.S.F. MILL GALVANIZED ASTM A 116, CLASS 3.
3. FINISH FOR EXTERIOR WALLS: 1.5 OZ PER SQ. FT. HOT DIPPED GALVANIZED AFTER FABRICATION; ASTM A 153, CLASS B 2.
4. REINFORCING BARS: ASTM A-615, GRADE 60.
5. ANCHORS AND TIES: ASTM A153.
6. CONTROL JOINTS KEYS: ASTM 2240, RESILIENT MATERIAL FACTORY FABRICATED.

Q. MORTAR MATERIALS:

1. PORTLAND CEMENT SHALL CONFORM TO SPECIFICATIONS FOR PORTLAND CEMENT (ASTM C150); TYPE I, II OR III.
2. HYDRATED LIME SHALL CONFORM TO SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES (ASTM C207), TYPE S. HYDRATED LIME SHALL NOT CONTAIN AIR ENTRAINMENT ADDITIVES.
3. FINE AGGREGATE FOR MORTAR SHALL CONFORM TO SPECIFICATIONS FOR AGGREGATE FOR MASONRY MORTAR (ASTM C144)
4. WATER SHALL BE CLEAN AND POTABLE.
5. MASONRY CEMENT SHALL NOT BE USED.
6. ADMIXTURES SHALL NOT BE USED WITHOUT APPROVAL OF THE ARCHITECT'S ACCEPTANCE.

R. PROPORTIONS:

1. MORTAR SHALL CONFORM TO THE PROPORTION REQUIREMENTS OF SPECIFICATIONS FOR MORTAR FOR UNIT MASONRY (ASTM C270) AS FOLLOWS:
   A. INTERIOR NON-LOAD BEARING MASONRY AND EXTERIOR BLOCK BACK-UP: TYPE N
   B. REINFORCED CONCRETE BLOCK: TYPE S

S. INSTALLATION: LAY MASONRY IN RUNNING BOND EXCEPT WHERE OTHER BONDS ARE INDICATED. BOND AND INTERLOCK EACH COURSE OF EACH WYTHE AT CORNERS. LOCATE VERTICAL JOINTS LOCATED AT CENTER OF UNITS IN COURSE BELOW EXCEPT AS OTHERWISE INDICATED ON DRAWINGS. LAYOUT FOR ACCURATE PATTERN BOND, FOR UNIFORM JOINT WIDTHS, AND FOR ACCURATE LOCATION OF SPECIFIC FEATURES BEFORE BEGINNING ACTUAL CONSTRUCTION AND TO AVOID USING LESS THAN HALF-SIZE UNITS. WHERE CUTTING OF MASONRY IS NECESSARY, CUT WITH A POWER MASONRY SAW. IF IT IS NECESSARY TO STOP OFF A HORIZONTAL RUN OF MASONRY, RACK BACK ONE HALF BLOCK LENGTH IN EACH COURSE. TOOTHING WILL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE ARCHITECT.

T. MASONRY SHALL BE LAID WITH FULL HEAD AND BED JOINTS ON INSIDE AND OUTSIDE EDGES. ENOUGH MORTAR SHALL BE USED TO CAUSE EXCESS MORTAR TO OOZE OUT OF JOINTS. FURROWING OF THE MORTAR SHALL NOT BE PERMITTED.

U. MORTAR BED FOR HOLLOW UNITS:

1. LAY WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS.
2. BED WEBS IN MORTAR ALSO AT THE FOLLOWING LOCATIONS:
   a. STARTING COURSE ON FOOTINGS AND SOLID FOUNDATION WALLS.
   b. ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED.
   c. WITHIN 1' 6" OF EACH SIDE OF OPENINGS.
   d. ALL COURSES OF PIERS, COLUMNS, PILASTERS.

V. HORIZONTAL AND VERTICAL FACE JOINTS:

1. NOMINAL THICKNESS: 3/8", UNLESS OTHERWISE INDICATED, AND TO MATCH EXISTING.
2. CONSTRUCT UNIFORM JOINTS.
3. CUT JOINTS FLUSH WHERE CONCEALED (EXTERIOR FACE) AND TOOL SLIGHTLY CONCAVE WITH STEEL ROD WHERE EXPOSED (INTERIOR FACE).

W. INSTALL MASONRY WALL REINFORCEMENT IN HORIZONTAL JOINTS AS FOLLOWS:

1. SPACE REINFORCEMENT EVERY 16" VERTICALLY.
2. PLACE LONGITUDINAL WIRES OVER FACE SHELL MORTAR BEDS.
3. EMBED ENTIRE LENGTH OF LONGITUDINAL WIRES FULLY IN MORTAR.
5. PROVIDE MINIMUM MORTAR COVER OF 5/8" ON EXTERIOR SIDE OF WALLS AND 1/2" AT OTHER LOCATIONS.

X. VERTICAL REINFORCEMENT IN BLOCK WORK SHALL BE PROVIDED AS REQUIRED ON DRAWINGS; REINFORCEMENT SHALL FALL WITHIN CORES. ALL CORES TO BE FILLED SOLID WITH MORTAR.
1. LAP MINIMUM OF 30 BAR DIAMETERS AT SPLICES (36 FOR GRADE 60); HOLD IN POSITION TOP AND BOTTOM AND AT INTERVALS OF 192 DIAMETERS.
2. CAVITIES SHALL HAVE MINIMUM UNOBSTRUCTED CROSS-SECTIONAL AREA OF 8 SQUARE INCHES TO RECEIVE GROUT.
3. GROUT SHALL COMPLETELY FILL CAVITIES. CONSOLIDATE WITH VIBRATOR OR PUDDLING STICK.

Y. LINTELS: INSTALL NEW REINFORCED U-BLOCK LINTELS, PRECAST CONCRETE LINTELS, AND REINFORCED BOND BEAMS AS SHOWN ON DRAWINGS. SET WITH A MINIMUM BEARING OF 8" AT EACH END UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

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CONSULTANTS

NO.	DATE	DESCRIPTION

DWG ISSUE & REVISION HISTORY

EXTERIOR GAS METER OPEN ENCLOSURE

FACULTY MEMORIAL HALL
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FORDHAM UNIVERSITY
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DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE: AS NOTED

DATE: 03/16/2023

DESCRIPTION: CONSTRUCTION NOTES

DRAWING NUMBER: T-002. 00

PROJECT No: —

JOB# X00823108-I1

CONSTRUCTION NOTES (cont.):

BRICK MASONRY

A. THE EXTENT OF BRICK MASONRY WORK IS SHOWN ON THE DRAWINGS AND SPECIFICATION, AND INCLUDES ALL EXTERIOR BRICK MASONRY CONSTRUCTION, REINFORCING, AND ACCESSORIES NECESSARY TO COMPLETE INSTALLATION OF ALL BRICK MASONRY WORK. WORK INCLUDES, BUT IS NOT LIMITED TO, NEW BRICK AND CONCRETE MASONRY WALLS AND REPAIR AND INFILL OF EXISTING EXTERIOR BRICK WALLS.

B. BRICK TESTS: TEST IN ACCORDANCE WITH ASTM C67. CONTRACTOR, AT OWN EXPENSES, SHALL PROVIDE TEST RESULTS FROM INDEPENDENT TESTING LABORATORY FOR BRICK SELECTED FOR WORK.

C. PRODUCT DELIVERY, STORAGE AND HANDLING: DELIVER BRICK FOR USE IN FACE WORK ON PALLETS. HANDLE BY MECHANICAL MEANS, BY HAND OR TONGS. DUMPING WILL NOT BE PERMITTED. STORE BRICK OFF THE GROUND TO PREVENT CONTAMINATION BY MUD, DUST OR OTHER MATERIALS LIKELY TO CAUSE STAINING OR OTHER DEFECTS. PROTECT MASONRY ACCESSORIES FROM ELEMENTS.

D. FACING BRICK FOR MASONRY CAVITY WALLS: ASTM C216, GRADE SW (SEVERE WEATHER)

1. SIZE: MODULAR
2. MANUFACTURER: BELDEN OR APPROVED EQUAL
3. COLOR & TEXTURE: TO MATCH BRICK AT ADJACENT EXISTING EXTERIOR BRICK WALL

E. FACING BRICK FOR REPAIR OF EXISTING WALLS: ASTM C216, GRADE SW (SEVERE WEATHER)
1. SIZE, COLOR AND TEXTURE TO MATCH EXISTING.

F. MASONRY ACCESSORIES: PROVIDE ALL NECESSARY MISCELLANEOUS ACCESSORIES, TIES, ANCHORS, PREMOLDED CONTROL JOINT STRIPS, ETC. AS REQUIRED TO COMPLETE MASONRY WORK. ALL TIES, ANCHORS, JOINT REINFORCING, DOVETAIL SLOTS AND OTHER METAL ACCESSORIES TO BE HOT DIP GALVANIZED AFTER FABRICATION, ASTM A153–B2 (1.5 OZ. ZINC COATING/S.F.). ACCESSORIES SHALL BE AS MANUFACTURED BY HOHMANN & BARNARD, INC. OR AN APPROVED EQUAL.

G. CLEANING AGENTS:
1. POWDER: TRISODIUM PHOSPHATE OR DETERGENT, BIODEGRADABLE TYPE.
2. LIQUID: "THOROCLEAN" BY STANDARD DRYWALL PRODUCTS, NEW EAGLE, PA OR "SUREKLEAN #600" BY PRO SO CO., INC. OR SIMILAR PRODUCT DIEDRICH CHEMICALS OR APPROVED EQUAL.

H. INSPECTION AND COORDINATION: MASONRY CONTRACTOR MUST EXAMINE AREAS AND CONDITIONS UNDER WHICH MASONRY IS TO BE INSTALLED AND NOTIFY ARCHITECT AND OWNER'S REPRESENTATIVE IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO MASONRY CONTRACTOR.

I. WETTING BRICK:
1. WET UNITS THAT ABSORB 20 DROPS OF WATER (PLACED IN A 1" CIRCLE) IN LESS THAN 90 SECONDS.
2. ONE DAY BEFORE USE OF BRICK (OR SEVERAL HOURS IN EXTREMELY WARM WEATHER), PLACE A WATER HOSE ON THE BRICK PILE UNTIL EXCESS WATER RUNS OFF. ALLOW BRICK SURFACES TO DRY BEFORE USE.
3. CLEAN LOOSE AND FOREIGN MATERIALS OFF SUPPORTING SURFACES.

J. ALLOWABLE TOLERANCES: MAXIMUM VARIATION FROM PLUMB:
1. IN LINES AND SURFACES OF COLUMNS, WALLS AND ARRISES:
   a. 1/4" IN 10 FT.
   b. 3/8" IN 20 FT. MAXIMUM.
2. EXTERNAL CORNERS AND OTHER CONSPICUOUS LINES.
   a. 1/4" IN 20 FT. MAXIMUM.
   b. 1/2" IN 40 FT.

K. MAXIMUM VARIATION IN CROSS–SECTIONAL DIMENSIONS OF COLUMNS AND THICKNESS OF WALLS: NOT LESS THAN1/4" SMALLER NOR MORE THAN 1/2" LARGER THAN WALLS.

L. LAYING BRICK, GENERAL:
1. UNLESS OTHERWISE REQUIRED BY THE DESIGN, LAY BRICK PLUMB, TRUE TO LINE AND WITH LEVEL COURSES ACCURATELY SPACED WITHIN ALLOWABLE TOLERANCES.
2. COMPLETELY FILL MORTAR JOINTS. DO NOT FURROW BED JOINTS. BUTTER ENDS OF BRICK WITH SUFFICIENT MORTAR TO FILL HEAD JOINTS. POINT CLOSURE JOINTS FULL.
3. FILL VERTICAL LONGITUDINAL JOINTS BY SLUSHING JOINTS FULL OF MORTAR.
4. DO NOT POUND CORNERS AND JAMBS TO FIT STRETCHER UNITS AFTER THEY ARE SET IN POSITION. WHERE AN ADJUSTMENT MUST BE MADE AFTER MORTAR HAS STARTED TO HARDEN, REMOVE MORTAR AND REPLACE WITH FRESH MORTAR.
5. TOOL MORTAR JOINTS WITH SUITABLE TOOL TO MATCH APPROVED SAMPLES.

M. ANCHORING BRICK VENEER:
1. TIE BRICK VENEER TO CONCRETE MASONRY WALL WITH FLEXIBLE WALL TIES AT 16" O.C. HORIZONTALLY AND VERTICALLY.
2. EMBED TIES AT LEAST 1/2 DEPTH OF MASONRY UNIT IN HORIZONTAL JOINT OF FACING.
3. PROVIDE ADDITIONAL TIES AROUND OPENINGS. PLACE TIES WITHIN 12" OF OPENING, SPACED AT NOT MORE THAN 16" CENTERS AROUND PERIMETER.
4. SPACE ANCHORS NOT MORE THAN 16" O.C. BOTH WAYS. SPACE BRICK SILL ANCHORS INTO CONTINUOUS DOVETAIL SLOT 12" O.C.

N. CLEANING: DRY–BRUSH BRICKWORK AT END OF EACH DAY'S WORK. CLEAN BRICKWORK USING THE FOLLOWING STEPS:

1. CLEAN INITIALLY WITH STIFF BRUSHES AND WATER.
2. IF STAINING OR SOILING PERSISTS, CLEAN WITH STIFF BRUSHES AND A SOLUTION OF TRISODIUM PHOSPHATE AND DETERGENT (1/2 CUP OF EACH IN ONE GALLON OF WATER). RINSE WITH CLEAN WATER.
3. IF ABOVE METHODS FAIL, USE SPECIFIED LIQUID CLEANING AGENT IN CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS. TEST THE CLEANING AGENT ON A SAMPLE AREA, SELECTED BY THE ARCHITECT. PROCEED WITH THE CLEANING OF THE WORK AFTER THE SAMPLE HAS BEEN APPROVED BY THE ARCHITECT AND OWNER'S REPRESENTATIVE. PROTECT ADJACENT NON–MASONRY WORK FROM CONTACT WITH THE CLEANING SOLUTION.

METAL FABRICATION

A. PROVIDE GALVANIZED STEEL SUPPORT FRAME FOR SQUARE MOLDED FIBERGLASS GRATINGS AS INDICATED ON DRAWINGS.

B. STEEL FOR GRATINGS SUPPORT FRAMES SHALL CONFORM TO ASTM A36. MEMBERS TO HAVE HOT–DIP GALVANIZED G90 FINISH, TYPICALLY.

C. PROVIDE GALVANIZED STEEL MASONRY WEDGE ANCHORS AND EMBEDDED 'J' BOLTS IN NEW MASONRY WALLS AS REQUIRED FOR ANCHORAGE OF FRAME MEMBERS. WEDGE ANCHORS TO BE 1/2" DIAMETER MIN. IN LENGTHS REQUIRED BY FIELD CONDITIONS AND AS INDICATED ON DRAWINGS. PROVIDE HELICAL TIES WHERE REQUIRED TO TIE STONE PANELS TO EXISTING CMU BACKUP WALLS.

D. PROVIDE 1/4" NEOPRENE SHIM / SPACING PADS (3"X3" MINIMUM) BETWEEN STEEL FRAME MEMBERS AND MASONRY WALLS. PROVIDE 1/2" NEOPRENE PADS WHERE INDICATED ON DRAWINGS.

SHEET METAL FLASHING AND TRIM

A. THE EXTENT OF SHEET METAL FLASHING AND TRIM WORK INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

B. THE FOLLOWING TYPES OF WORK ARE SPECIFIED IN THIS SECTION:
1. CAP FLASHING AND COUNTERFLASHING.
2. CONTINUOUS CLEATS AND SPLICE PLATES WHERE REQUIRED.

D. INDUSTRY AND TRADE STANDARDS: WORK OF THIS SECTION SHALL COMPLY WITH DRAWINGS AND SPECIFICATIONS, AND WITH THE MOST RECENT EDITIONS OF FOLLOWING STANDARDS. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
1. REVERE COPPER PRODUCTS, INC. "COPPER AND COMMON SENSE".
2. SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA),"ARCHITECTURAL SHEET METAL MANUAL" AND THE NRCA'S "THE NRCA ROOFING MANUAL".

E. ALUMINUM SHEET: ASTM B 209 (ASTM B 209M) ALLOY AS STANDARD WITH MANUFACTURER FOR FINISH REQUIRED, WITH TEMPER AS REQUIRED TO SUIT FORMING OPERATIONS AND PERFORMANCE REQUIRED, WITH SMOOTH, FLAT SURFACE.
1. EXPOSED COIL–COATED FINISH:
   A. THREE–COAT FLUOROPOLYMER: AAMA 620, FLUOROPOLYMER FINISH CONTAINING NOT LESS THAN 70 PERCENT PVDF RESIN BY WEIGHT IN BOTH COLOR COAT AND CLEAR TOPCOAT. PREPARE, PRETREAT, AND APPLY COATING TO EXPOSED METAL SURFACES TO COMPLY WITH COATING AND RESIN MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
3. CONCEALED FINISH: PRETREAT WITH MANUFACTURER'S STANDARD WHITE OR LIGHT–COLORED ACRYLIC OR POLYESTER BACKER FINISH, CONSISTING OF PRIME COAT AND WASH COAT WITH MINIMUM DRY FILM THICKNESS OF 0/5 MIL (0.013 MM).

F. STAINLESS STEEL SHEET: ASTM A 240/A, ASTM A 240, OR ASTM A 666. TYPE 304 DEAD SOFT, FULLY ANNEALED; WITH SMOOTH FLAT SURFACE.
1. FINISH: 2D (DULL, COLD ROLLED)

SEALANTS

A. JOINT SEALANTS:
SEAL ALL JOINTS BETWEEN DISSIMILAR MATERIAL. SEAL JOINTS AT ALL OPENINGS & PENETRATIONS TO MAKE MECHANICAL ROOM AIRTIGHT.

A.1 SELF–LEVELING POLYURETHANE SEALANT: PROVIDE MULTI–PART, SELF–LEVELING POLYURETHANE–BASED ELASTOMERIC SEALANT COMPLYING WITH ASTM C 920, TYPE 1, CLASS 2A, FED SPEC. TT–S000227E, CLASS A. SELF–LEVELING SEALANT TO BE EQUAL TO THE FOLLOWING:
1. PECORA UREXSPAN NR200
2. SIKA 2CSL
3. SONNEBORN SONALASTIC PYJTST

A.2 NON–SAG POLYURETHANE SEALANT: PROVIDE MULTI–PART, SELF–LEVELING POLYURETHANE–BASED ELASTOMERIC SEALANT COMPLYING WITH ASTM C 920, TYPE M, GRADE NS, CLASS 25, FED SPEC. TT–S000227E, CLASS A. NON–SAG SEALANT TO BE EQUAL TO THE FOLLOWING:
1. TREMCO DYMERIC
2. SIKA SIKALEX 2CNS
3. SONNEBORN SONALASTIC NP2

B. EXTERIOR SEALANTS:
1. 2–PART POLYURETHANE BASED ELASTOMERIC SEALANT COMPLYING WITH FS TT–S–227E, CLASS A, TYPE 2 NON–SAG.
2. PROVIDE 1–PART, NON–STAIN SILICONE SEALANT FOR JOINTS 3/8" OR SMALLER – SILPRUF BY GE OR AN APPROVED EQUAL.

C. INTERIOR SEALANTS: ONE PART, NON–SAG ACRYLIC LATEX SEALANT.

D. FIRE RATED INTERIOR SEALANT SHALL BE 3M "FIRE BARRIER PENETRATION SEALING SYSTEM" OR APPROVED EQUAL.

E. MANUFACTURERS: PECORA, TREMCO, GENERAL ELECTRIC COMPANY OR AN APPROVED EQUAL.

F. SEALANT BACKER ROD: COMPRESSIBLE ROD STOCK POLYETHYLENE FOAM OR OTHER FLEXIBLE, DURABLE MATERIAL RECOMMENDED BY SEALANT MANUFACTURER.

G. PREPARE JOINT SURFACES AND INSTALL SEALANT AND BACKER ROD AS PER MANUFACTURER'S RECOMMENDATIONS.

STAINLESS STEEL DOORS & FRAMES

A. PROVIDE EXTERIOR SATIN FINISH STAINLESS STEEL DOOR AND FRAME WHERE SHOWN ON DRAWINGS.

B. DOOR TO BE 16 GAUGE, FULL FLUSH, WITH WELDED EDGES. PROVIDE STAINLESS STEEL CLOSING CHANNEL AT TOP EDGE AND STAINLESS STEEL FLUSH CLOSURE WITH DRAINAGE OPENINGS AT BOTTOM EDGE.

C. FRAME TO BE MINIMUM OF 14 GAUGE, WELDED.

D. FABRICATE SUPPORTS AND ANCHORS OF NOT LESS THAN 16 GAUGE STAINLESS STEEL SHEET.

E. PREPARE DOORS AND FRAMES FOR FINISH HARDWARE AS PER ANSI A115 "SPECIFICATIONS FOR DOOR AND FRAME PREPARATION FOR HARDWARE."

DOOR HARDWARE

A. PROVIDE MANUFACTURERS' FINISH HARDWARE NOTED IN HARDWARE SCHEDULE BELOW AND AS REQUIRED FOR SWING DOOR.

B. MOUNT HARDWARE AT HEIGHT RECOMMENDED IN "RECOMMENDED LOCATIONS FOR BUILDER'S HARDWARE" BY NBHA.

C. HARDWARE TO COMPLY WITH FIRE RATING OF DOOR AND FRAME.

D. LOCKS AND CYLINDERS SHALL BE MASTER KEYED AND GRAND MASTER KEYED TO THE EXISTING KEYWAY SYSTEM AS DIRECTED BY OWNER. ALL MASTER KEYS, GRAND MASTER KEYS, AND HIGH SECURITY KEYS SHALL BE DELIVERED TO THE OWNER AS DIRECTED.

E. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE ENSURE PROPER OPERATION.

F. HARDWARE SET SCHEDULE BELOW IS INTENDED TO ESTABLISH TYPE AND QUALITY OF HARDWARE FOR FUNCTIONAL REQUIREMENT OF DOOR OPENING.

HARDWARE SET #3 (STOREROOM)

3 MORTISE HINGES	STANLEY FBB 199 4–1/2"X 4–1/2"	US32D
1 MORTISE DEADBOLT	BEST 49H7K (INTERIOR TURN)	626
1 DOOR CLOSER	LCN 4040, CUSH–N–STOP STL STL COVER, ARM AND FASTENERS	US32D

SQUARE MOLDED FIBERGLASS GRATING

A. PROVIDE EXTERIOR SQUARE MOLDED FIBERGLASS, 2" DEEP GRATINGS BY MCNICHOLS CO., MODEL MS–S–200 OR APPROVED EQUAL WHERE SHOWN ON DRAWINGS. GRID SIZE TO BE 2" X 2". PANELS TO BE 48" X 144" NOMINAL, CUT TO SIZES REQUIRED FOR INSTALLATION AND AS INDICATED ON DRAWINGS.

B. BLADES THICKNESS TO BE 1/4" THICK.

C. PROVIDE STAINLESS STEEL CLIPS, SUPPORTS, FASTENERS AND ANCHORS IN MATCHING SIZES FOR ATTACHMENT OF GRATINGS TO STRUCTURAL STEEL MEMBERS.

D. PROVIDE MANUFACTURER'S STANDARD COLOR SAMPLES FOR SELECTION BY ARCHITECT. COLOR TO BE GRAY OR AS OTHERWISE SELECTED BY OWNER.

E. PROVIDE GALVANIZED STEEL SUPPORT FRAME AS INDICATED ON DRAWINGS AND PER METAL FABRICATIONS SPEC.

SUBMISSIONS

THE FOLLOWING SUBMISSIONS FOR REVIEW AND APPROVAL BY ARCHITECT SHALL BE REQUIRED PRIOR TO FABRICATION AND INSTALLATION.

ITEM	CATALOG CUT	SAMPLE	SHOP DRAWINGS
CONCRETE MASONRY GROUND–FACE UNITS	REQUIRED	REQUIRED	
BRICK MASONRY	REQUIRED	REQUIRED	
FIBERGLASS GRATING ASSEMBLY	REQUIRED	REQUIRED	REQUIRED
SEALANTS	REQUIRED	REQUIRED	
DOORS & FRAMES	REQUIRED		REQUIRED
FINISH HARDWARE	REQUIRED/ HDWR SCHEDULE		REQUIRED
PAINT	REQUIRED	REQUIRED	

FORDHAM UNIVERSITY
THE JESUIT UNIVERSITY OF NEW YORK

KOUZMANOFF BAINTON
ARCHITECTS
347 W 36th Street #302, New York, N.Y. 10018
Phone: 212-290-8616

CONSULTANTS

NO.	DATE	DESCRIPTION
1	9/18/22	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

EXTERIOR GAS METER OPEN ENCLOSURE
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 03/16/2023

DESCRIPTION
CONSTRUCTION NOTES (cont.)

DRAWING NUMBER
T-003. 00

PROJECT No: –

JOB# X00823108-I1

CONSTRUCTION NOTES (cont.):

MEMBRANE ROOFING CUTTING AND PATCHING

A. THE EXTENT OF ROOF MEMBRANE INFILLS, CUTTING, PATCHING AND RELATED WORK IS INDICATED ON DRAWINGS AND SPECIFIED HEREIN. PROVIDE EXACT MATCH OF EXISTING BUILT-UP ROOFING SYSTEM INCLUDING INSULATION AND RELATED MATERIALS AS DETERMINED IN FIELD BY CONTRACTOR.

B. PROVIDE COMPLETE WEATHERTIGHT SYSTEM AT EACH CONDITION INDICATED AND AS REQUIRED TO ACCOMMODATE ALTERATIONS SHOWN.

C. ROOF ASSEMBLY PATCHING SHALL CONFORM TO UNDERWRITERS LABORATORIES, INC (UL) CLASS A FIRE HAZARD CLASSIFICATION AND FACTORY MUTUAL ENGINEERING & RESEARCH CORP. (FM) ROOF ASSEMBLY CLASSIFICATION OF CLASS A CONSTRUCTION, WIND UPLIFT REQUIREMENTS OF I-90.

D. INSTALLATION OF ROOFING, ELASTIC FLASHING, ROOF INSULATION AND ALL RELATED WORK SHALL BE PERFORMED UNDER SINGLE ROOFING CONTRACT FOR UNDIVIDED RESPONSIBILITY FOR WEATHERTIGHTNESS OF INSTALLATION.

E. THE CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE OF WORK.

F. ALL MATERIALS SHALL BE EQUAL TO AND COMPATIBLE WITH THE EXISTING, INCLUDING ALL MEMBRANE AND FLASHING PLIES, PRIMERS, BITUMENS, FASTENTERS, AGGREGATE, INSULATION, UNDERLAYMENT AND ALL INCIDENTAL MATERIALS. ALL NAILERS AND BLOCKING SHALL BE SOUND, STRAIGHT AND PRESERVATIVE TREATED FOR ABOVE GROUND USE.

G. INSTALL ONLY AS MUCH ROOFING AS CAN BE COMPLETED IN ONE DAY. INSTALL ALL MATERIALS AS PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

H. BASE PLY MEMBRANE TO EXTEND MINIMUM OF 1 INCH UP FACE OF CURB. INSTALL GUSSET ONTO CORNER USING A TORCH AND HOT TROWEL, WRAPPING THE CORNER A MINIMUM OF 2 INCHES EACH SIDE. MECHANICALLY FASTEN BASE PLY FLASHING TO CURBS AND INSTALL TOP PLY FLASHING TO TOP OF CURB AND SEAL EDGES WITH HEATED TROWEL. AT COMPLETION OF MEMBRANE AND FLASHING INSTALLATION, SPREAD MATCHING STONE AGGREGAGATE IN A FLOOD COAT TO MATCH EXISTING AT MANUFACTURER'S RECOMMENDED RATE.

I. AT COMPLETION OF INSTALLATION AND IN PRESENCE OF ARCHITECT AND GC, ROOFING INSTALLER SHALL PROVIDE FLOOD TEST OF AREAS OF ROOFING INFILL AND HIGH PRESSURE HOSE TEST TO SMALLER PATCHED AREAS.

BUILDING INSULATION

A. THE EXTENT OF INSULATION WORK IS GENERALLY SHOWN ON THE DRAWINGS AND IS SPECIFIED HEREIN. THE TYPE OF BUILDING INSULATION INCLUDES THE FOLLOWING:

1. FIBERGLASS BLANKET INSULATION.
2. MINERAL WOOL RAINSCREEN / CAVITY WALL CONTINUOUS INSULATION
3. RIGID BOARD INSULATION

B. SUBMITTALS: SUBMIT MANUFACTURER'S DATA SHEETS, SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR TYPE OF INSULATION REQUIRED. INCLUDE DATA SUBSTANTIATING THAT THE MATERIALS COMPLY WITH SPECIFIED REQUIREMENTS. INDICATE BY COPY OF TRANSMITTAL FORM THAT INSTALLER HAS RECEIVED COPY OF MANUFACTURER'S INSTRUCTIONS.

C. FIRE AND INSURANCE RATINGS: COMPLY WITH THE FIRE-RESISTANCE, FLAMMABILITY AND INSURANCE RATINGS TO COMPLY WITH CODES AND GOVERNING AUTHORITIES.

D. MATERIALS SHALL BE DELIVERED TO SITE IN ORIGINAL, UNOPENED PACKAGES OR CONTAINERS BEARING MANUFACTURER'S NAMES, BRAND NAMES, AND TYPES AND THICKNESSES OF CONTENTS.

E. STORE OFF FLOOR IN INTERIOR SPACES, ADEQUATELY PROTECTED AGAINST DAMAGE FROM ALL SOURCES.

F. FIBERGLASS BLANKET/BATT INSULATION:

1. UNFACED MINERAL-FIBER BLANKET INSULATION: THERMAL INSULATION COMBINING MINERAL FIBERS OF TYPE DESCRIBED BELOW WITH THERMOSETTING RESINS TO COMPLY WITH ASTM C 665, TYPE 1 (BLANKETS WITHOUT MEMBRANE FACING)

a. MINERAL-FIBER TYPE: FIBERS MANUFACTURED FROM GLASS.
b. SURFACE BURNING CHARACTERISTICS: MAXIMUM FLAME-SPREAD AND SMOKE-DEVELOPED INDICES OF 25 AND 50, RESPECTIVELY
c. PROVIDE OWENS CORNING TYPE 701 FIBERGLAS INSULATION OR APPROVED EQUAL.
d. THICKNESS: FULL DEPTH OF FRAMING.

G. MINERAL WOOL RAINSCREEN / CAVITY WALL CONTINUOUS INSULATION

1. UNFACED MINERAL WOOL INSULATION WITH A FLAME-SPREAD INDEX OF 25 OR LESS PER ASTM E 84. R-VALUE: 4.3 PER INCH

a. PROVIDE OWENS CORNING THERMAFIBER RAINBARRIER 45
b. OR AN APPROVED EQUAL.

H. RIGID FOAM INSULATION

1. RIGID BOARD INSULATION WITH A FLAME-SPREAD INDEX OF 25 OR LESS PER ASTM E 84.

a. PROVIDE OWENS CORNING FOAMULAR CW15/CW25 OR AN APPROVED EQUAL.

I. INSTALLATION: COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR THE PARTICULAR CONDITIONS OF INSTALLATION IN EACH CASE. IF PRINTED INSTRUCTIONS ARE NOT AVAILABLE OR DO NOT APPLY TO THE PROJECT CONDITIONS, CONSULT THE MANUFACTURER'S TECHNICAL REPRESENTATIVE FOR SPECIFIC RECOMMENDATIONS BEFORE PROCEEDING WITH ANY WORK.

J. BLANKET INSULATION: INSTALL A SINGLE, CONTINUOUS LAYER OF FIBERGLASS BLANKET / BATT INSULATION OF THE REQUIRED THICKNESS WHERE INDICATED ON DRAWINGS.

K. BOARD INSULATION: INSTALL USING MECHANICAL FASTENERS SUCH AS IMPALING PINS OR SPEED CLIPS OR ADHERED WITH MANUFACTURER RECOMMENDED ADHESIVE. FASTENERS SHALL BE LOCATED NO LESS THAN 3" FROM EACH EDGE OR CORNER OF BOARD. ALL INSULATION JOINTS SHALL BE SEALED WITH PRESSURE-SENSITIVE JOINT SEALING TAPE TO MATCH THE INSULATION FACING. PROVIDE TWO LAYERS OF 2" ACOUSTIC BOARD AT CEILINGS AND WHERE INDICATED ON DRAWINGS.

L. MINERAL WOOL RAINSCREEN INSULATION: INSTALL USING MECHANICAL FASTENERS SUCH AS IMPALING PINS AS PER MANUFACTURER'S RECOMMENDATIONS.

1

METAL FABRICATION

A. PROVIDE STEEL LINTEL AT NEW MASONRY OPENING AND CAST THRESHOLD AT NEW DOOR AS SHOWN ON DRAWINGS.

B. STEEL FOR LINTELS SHALL CONFORM TO ASTM A36. LINTELS TO HAVE HOT-DIP GALVANIZED G90 FINISH.

C. CAST THRESHOLD SHALL BE TYPE 115 "FERROGRIT" SADDLES BY WOOSTER PRODUCTS INC. OR AN APPROVED EQUAL. THRESHOLD SHALL BE SIZE SHOWN ON DRAWINGS, PRE-DRILLED FOR ANCHORS, AND SET IN BED OF POLYURETHANE SEALANT OR MASTIC.

ROUGH CARPENTRY

A. PROVIDE WOOD BLOCKING AND CANT STRIPS AT NEW ROOF OPENINGS.

B. WOOD SHALL BE "CONSTRUCTION GRADE" DOUGLAS FIR, HEM-FIR, OR SOUTHERN PINE WITH 15 % MAXIMUM MOISTURE CONTENT.

C. WOOD SHALL RECEIVE PRESERVATIVE TREATMENT. MARK EACH TREATED ITEM WITH AWPB QUALITY MARK REQUIREMENTS.

J. JOINT SEALANTS: PROVIDE SEALANTS THAT COMPLY WITH ASTM C920, SINGLE-COMPONENT, NEUTRAL-CURING SILICONE. COMPLY WITH SECTION 079200, JOINT SEALANTS.

K. EXAMINATION: EXAMINE THE SUBSTRATE AND THE CONDITIONS UNDER WHICH THE AIR AND WATER BARRIERS WORK IS TO BE PERFORMED, AND CORRECT UNSATISFACTORY CONDITIONS. DO NOT PROCEED WITH THE AIR/WATER BARRIER WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

L. PREPARATION: CLEAN EXISTING SURFACES TO RECEIVE AIR AND MOISTURE BARRIER TO ENSURE THAT SURFACES ARE SOUND, DRY, EVEN AND FREE OF OIL, GREASE, DIRT AND OTHER CONTAMINANTS.

M. INSTALLATION: COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR THE PARTICULAR CONDITIONS OF INSTALLATION. IF PRINTED INSTRUCTIONS ARE NOT AVAILABLE OR DO NOT APPLY TO THE PROJECT CONDITIONS, CONSULT THE MANUFACTURER'S TECHNICAL REPRESENTATIVE FOR SPECIFIC RECOMMENDATIONS BEFORE PROCEEDING WITH ANY WORK.

N. SEAMING: SEAL SEAMS OF AIR/WATER BARRIER WITH SEAM TAPE AT ALL OVERLAPPING SEAMS.

SHEET METAL FLASHING AND TRIM

A. THE EXTENT OF SHEET METAL FLASHING AND TRIM WORK INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.

B. THE FOLLOWING TYPES OF WORK ARE SPECIFIED IN THIS SECTION:
1. PREFORMED ALUMINUM COPING COVERS.
2. CAP FLASHING AND COUNTERFLASHING.
3. CONTINUOUS CLEATS AND SPLICE PLATES WHERE REQUIRED.
4. PITCH POCKET FLASHING
5. FORMED METAL FLASHING CONCEALED WITHIN EXTERIOR WALLS.

C. SUBMIT PRODUCT DATA: FOR EACH TYPE OF PRODUCT
1. INCLUDE CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, AND FINISHES FOR EACH MANUFACTURED PRODUCT AND ACCESSORY.

D. INDUSTRY AND TRADE STANDARDS: WORK OF THIS SECTION SHALL COMPLY WITH DRAWINGS AND SPECIFICATIONS, AND WITH THE MOST RECENT EDITIONS OF FOLLOWING STANDARDS. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.
1. REVERE COPPER PRODUCTS, INC. "COPPER AND COMMON SENSE".
2. SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA),"ARCHITECTURAL SHEET METAL MANUAL" AND THE NRCA'S "THE NRCA ROOFING MANUAL".

E. ALUMINUM SHEET: ASTM B 209 (ASTM B 209M) ALLOY AS STANDARD WITH MANUFACTURER FOR FINISH REQUIRED, WITH TEMPER AS REQUIRED TO SUIT FORMING OPERATIONS AND PERFORMANCE REQUIRED, WITH SMOOTH, FLAT SURFACE.
1. EXPOSED COIL-COATED FINISH:
A. THREE-COAT FLUOROPOLYMER: AAMA 620, FLUOROPOLYMER FINISH CONTAINING NOT LESS THAN 70 PERCENT PVDF RESIN BY WEIGHT IN BOTH COLOR COAT AND CLEAR TOPCOAT. PREPARE, PRETREAT, AND APPLY COATING TO EXPOSED METAL SURFACES TO COMPLY WITH COATING AND RESIN MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
3. CONCEALED FINISH: PRETREAT WITH MANUFACTURER'S STANDARD WHITE OR LIGHT-COLORED ACRYLIC OR POLYESTER BACKER FINISH, CONSISTING OF PRIME COAT AND WASH COAT WITH MINIMUM DRY FILM THICKNESS OF 0/5 MIL (0.013 MM).

F. STAINLESS STEEL SHEET: ASTM A 240/A, ASTM A 240, OR ASTM A 666. TYPE 304 DEAD SOFT, FULLY ANNEALED; WITH SMOOTH FLAT SURFACE.
1. FINISH: 2D (DULL, COLD ROLLED)

G. MANUFACTURED COPING SYSTEM CONSISTING OF FORMED-METAL COPING CAP IN SECTION AND LENGTHS NOT EXCEEDING 12 FEET, CONCEALED ANCHORAGE, CORNER UNITS, END CAP UNITS AND CONCEALED SPLICE PLATES WITH SAME FINISH AS COPING CAPS.

1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ON OF THE FOLLOWING: CHENEY FLASHING COMPANY; HICKMAN COMPANY, W.P.; MM SYSTEMS CORPORATION
2. COPING CAP MATERIAL: FORMED ALUMINUM, 0.050 INCH THICK.
A. FINISH: THREE-COAT FLUOROPOLYMER
B. COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
3. CORNERS: FACTORY MITERED AND CONTINUOUSLY WELDED.
4. COPING CAP ATTACHMENT METHOD: SNAP-ON, FABRICATED FROM COPING-CAP MATERIAL.
5. FACE LEG CLEATS: CONCEALED, CONTINUOUS STAINLESS STEEL.

H. GENERAL: CUSTOM FABRICATE SHEET METAL FLASHING AND TRIM TO COMPLY WITH DETAILS SHOWN AND RECOMMENDATIONS IN CITED SHEET METAL STANDARD THAT APPLY TO THE ITEM REQUIRED. FABRICATED SHEET METAL FLASHING AND TRIM IN SHOP TO THE GREATEST EXTENT POSSIBLE.
1. FABRICATE SHEET METAL FLASHING AND TRIM IN THICKNESS OR WEIGHT NEEDED TO COMPLY WITH PERFORMANCE REQUIREMENTS.
2. OBTAIN FIELD MEASUREMENTS FOR ACCURATE FIT BEFORE FABRICATION.
3. FORM SHEET METAL FLASHING AND TRIM TO FIT SUBSTRATES WITHOUT EXCESSIVE OIL CANNING, BUCKLING, AND TOOL MARKS, TRUE TO LINE, LEVELS AND SLOPES WITH EXPOSED EDGES FOLDED BACK TO FORM HEMS.
4. CONCEAL FASTENERS AND EXPANSION PROVISIONS WHERE POSSIBLE.

I. CLEATS: FABRICATE CLEATS OF SAME METAL AND GAGE AS SHEET BEING ANCHORED, 2" WIDE, AND OF PROPER LENGTH FOR INTENDED PURPOSE (3" LONG MINIMUM). PROVIDE EXPANSION CLEATS OF SAME OVERALL DIMENSIONS AS FIXED CLEATS FORMED AS RECOMMENDED BY CITED REFERENCED STANDARDS AND APPROVED SHOP DRAWINGS.

J. REGLETS: CUSTOM FABRICATED AS SHOWN ON DRAWINGS AND APPROVED SHOP DRAWINGS OF SAME MATERIAL AS FLASHING TO BE IN CONTACT. FOR SURFACE-APPLIED STAINLESS STEEL REGLETS, USE STAINLESS STEEL PLATE (ASTM A 167, TYPE 304 PASSIVE), STAINLESS STEEL BAR (ASTM A 267, TYPE 302 OR 304 PASSIVE) AND STAINLESS-STEEL FASTENERS

K. SEAMS: FABRICATE NONMOVING SEAMS WITH FLAT-LOCK SEAMS. FORM SEAMS AND SEAL WITH ELASTOMERIC SEALANT UNLESS OTHERWISE RECOMMENDED BY SEALANT MANUFACTURER FOR INTENDED USE.

L. CONCEALED FLASHING: FABRICATE FROM THE FOLLOWING MATERIALS:
1. STAINLESS STEEL: 26 GAUGE

M. EXPOSED "SKIRT" FLASHING: FABRICATE FROM THE FOLLOWING MATERIALS:
1. STAINLESS STEEL: 26 GAUGE

N. INSTALLATION DETAILS: EXCEPT AS OTHERWISE SHOWN OR SPECIFIED, COMPLY WITH APPLICABLE RECOMMENDATIONS AND DETAILS OF THE "ARCHITECTURAL SHEET METAL MANUAL" BY SMACNA OR OF "COPPER AND COMMON SENSE" BY REVERE COPPER PRODUCTS, INC.

O. MANUFACTURER'S RECOMMENDATIONS: EXCEPT AS OTHERWISE SHOWN OR SPECIFIED, COMPLY WITH RECOMMENDATIONS AND INSTRUCTIONS OF MANUFACTURER OF EACH SHEET METAL ITEM BEING INSTALLED.

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CONSULTANTS

NO.	DATE	DESCRIPTION
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DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
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ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT
JOHN KOUZMANOFF
018133-1
STATE OF NEW YORK

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 06/14/2021

DESCRIPTION
CONSTRUCTION NOTES (cont.)

DRAWING NUMBER
T-004. 01

PROJECT No: –
5 of 10

JOB# X00539835-P1

CONSTRUCTION NOTES (cont.):

SPRAY–ON FIREPROOFING

A. PROVIDE SPRAY–ON FIREPROOFING OF NEW STRUCTURAL STEEL AND OF EXISTING STRUCTURAL STEEL AND DECKING WHERE EXISTING FIREPROOFING HAS BEEN REMOVED OR DAMAGED DUE TO ALTERATION WORK.

B. MATERIAL: Z 146 PORTLAND CEMENT FIREPROOFING MANUFACTURED BY GRACE CONSTRUCTION PRODUCTS DIVISION OF W.R. GRACE & CO. OR AN ACCEPTED EQUAL.

C. PROVIDE SINGLE–COAT INSTALLATION IN MINIMUM THICKNESS TO ACHIEVE 2 HOUR RATING FOR FIREPROOFING.

D. PROTECT OTHER SURFACES AND EQUIPMENT FROM BEING DAMAGED BY APPLICATION. REMOVE EXCESS AND SPILLAGE AND LEAVE PROJECT BROOM CLEAN. CLEAN OFF ANY EXCESS MATERIAL FROM SURFACES TO BE FINISH PAINTED.

SHEET METAL FLASHING

A. PROVIDE ALL SHEET METAL FLASHING INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. WORK INCLUDES BUT IS NOT LIMITED TO CONCEALED MASONRY FLASHING, COUNTERFLASHING, ROOF PENETRATION FLASHING AND ALL REQUIRED ACCESSORIES.

B. SHEET METAL FLASHING WORK SHALL COMPLY WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) "ARCHITECTURAL SHEET METAL MANUAL".

C. SHEET METAL TO BE STAINLESS STEEL ASTM A167, TYPE 302 AND 304 (PASSIVE), 26 GAUGE MINIMUM, UNLESS OTHERWISE INDICATED. FASTENERS AND ACCESSORIES TO BE STAINLESS STEEL.

D. SEALANT FOR SHEET METAL JOINTS SHALL BE SILICONE SEALANT SPECIFIED IN SEALANT NOTES BELOW.

E. ALL EXPOSED EDGES TO BE FOLDED BACK TO FORM HEM. FLANGES OF METAL FLASHING EMBEDDED IN ROOFING TO EXTEND A MINIMUM OF 4" EMBEDMENT UNLESS GREATER EXTENSION IS NOTED IN THE DRAWINGS.

THROUGH PENETRATION FIRESTOP SYSTEMS

A. PROVIDE FIRE STOPS AND SMOKE SEALS AT ALL PENETRATIONS OR OPENINGS IN FIRE RATED CONSTRUCTION IN ORDER TO MAINTAIN THE INTEGRITY OF FIRE RATED CONSTRUCTION. FIRE STOP SYSTEMS SHALL CONSIST OF A MATERIAL OR COMBINATION OF MATERIALS COMPLYING WITH THE TEST REQUIREMENTS OF ASTM E 814 "STANDARD METHOD OF FIRE TESTS OF THROUGH PENETRATION FIRE STOPS"

B. PACKING MATERIAL SHALL BE UNFACED SEMI–RIGID FIBER BLANKET BY USG, OWENS CORNING CERTAINTEED, OR AN APPROVED EQUAL. PACK OPENING FIRMLY WITH MINERAL FIBER SAFING INSULATION, RECESSED TO ACCOMMODATE FIRE STOP CAULK OR COMPOUND.

C. FIRE STOP CAULKING FOR SEALING SAFING INSULATION AT THROUGH PENETRATIONS AT FLOORS AND WALLS SHALL BE PROVIDED BY THE FOLLOWING MANUFACTURERS SUBJECT TO FIRE STOP AND JOINT SEALANT SYSTEMS LISTED IN VOLUME II UL FIRE RESISTANCE DIRECTORY:
1. HILTI INC.
2. 3M FIRE PROTECTION PRODUCTS
3. TREMCO SEALANTS AND COATINGS
4. OR OTHER SYSTEM MANUFACTURER LISTED IN THE UL FIRE RESISTANCE DIRECTORY VOLUME II

SEALANTS

A. JOINT SEALANTS:
SEAL ALL JOINTS BETWEEN DISSIMILAR MATERIAL. SEAL JOINTS AT ALL OPENINGS & PENETRATIONS TO MAKE MECHANICAL ROOM AIRTIGHT.

A.1 SELF–LEVELING POLYURETHANE SEALANT: PROVIDE MULTI–PART, SELF–LEVELING POLYURETHANE–BASED ELASTOMERIC SEALANT COMPLYING WITH ASTM C 920, TYPE 1, CLASS 2A, FED SPEC. TT–S000227E, CLASS A. SELF–LEVELING SEALANT TO BE EQUAL TO THE FOLLOWING:
1. PECORA UREXSPAN NR200
2. SIKA 2CSL
3. SONNEBORN SONALASTIC PYJTST

A.2 NON–SAG POLYURETHANE SEALANT: PROVIDE MULTI–PART, SELF–LEVELING POLYURETHANE–BASED ELASTOMERIC SEALANT COMPLYING WITH ASTM C 920, TYPE M, GRADE NS, CLASS 25, FED SPEC. TT–S000227E, CLASS A. NON–SAG SEALANT TO BE EQUAL TO THE FOLLOWING:
1. TREMCO DYMERIC
2. SIKA SIKALEX 2CNS
3. SONNEBORN SONALASTIC NP2

B. EXTERIOR SEALANTS:
1. 2–PART POLYURETHANE BASED ELASTOMERIC SEALANT COMPLYING WITH FS TT–S–227E, CLASS A, TYPE 2 NON–SAG.
2. PROVIDE 1–PART, NON–STAIN SILICONE SEALANT FOR JOINTS 3/8" OR SMALLER – SILPRUF BY GE OR AN APPROVED EQUAL.

C. INTERIOR SEALANTS: ONE PART, NON–SAG ACRYLIC LATEX SEALANT.

D. FIRE RATED INTERIOR SEALANT SHALL BE 3M "FIRE BARRIER PENETRATION SEALING SYSTEM" OR APPROVED EQUAL.

E. MANUFACTURERS: PECORA, TREMCO, GENERAL ELECTRIC COMPANY OR AN APPROVED EQUAL.

F. SEALANT BACKER ROD: COMPRESSIBLE ROD STOCK POLYETHYLENE FOAM OR OTHER FLEXIBLE, DURABLE MATERIAL RECOMMENDED BY SEALANT MANUFACTURER.

G. PREPARE JOINT SURFACES AND INSTALL SEALANT AND BACKER ROD AS PER MANUFACTURER'S RECOMMENDATIONS.

HOLLOW METAL DOORS & FRAMES

A. PROVIDE FACTORY UL LABELED DOORS AND FRAME ASSEMBLY, 1–1/2 HOUR FIRE RATED.

B. HOLLOW METAL DOORS: 18 GAUGE, FULL FLUSH, WELDED EDGE SEAMS.
INTERIOR DOORS AND FRAMES SHALL CONSIST OF METAL COATED STEEL SHEET WITH ZINC IRON–ALLOY (GALVANNEALED) COATING AND PRIMED WITH MANUFACTURER'S FACTORY–APPLIED RUST INHIBITING COATING COMPLYING WITH ANSI A250.10

C. HOLLOW METAL FRAMES: 16 GAUGE, WELDED.

D. FABRICATE SUPPORTS AND ANCHORS OF NOT LESS THAN 16 GAUGE STEEL SHEET METAL. PROVIDE FLUSH CLOSING CHANNEL AT TOP EDGE AND FLUSH CLOSURE WITH OPENINGS AT BOTTOM EDGE OF EXTERIOR DOOR.

E. PREPARE DOORS AND FRAMES FOR FINISH HARDWARE AS PER ANSI A115 "SPECIFICATIONS FOR DOOR AND FRAME PREPARATION FOR HARDWARE."

ARCHITECTURAL LOUVERS

A. PROVIDE EXTERIOR EXTRUDED ALUMINUM HIGH PERFORMANCE ARCHITECTURAL 4" DEEP LOUVERS BY AIROLITE MODEL K609HP OR APPROVED EQUAL WHERE SHOWN ON DRAWINGS.

B. LOUVER FRAME AND BLADES TO BE .081" THICK WITH DRAINABLE HEAD BLADE. AIR VOLUME FLOW RATE TO BE 8000 CFM MINIMUM. CLOSING CHANNEL AT TOP EDGE AND STAINLESS STEEL FLUSH CLOSURE WITH DRAINAGE OPENINGS AT BOTTOM EDGE.

C. LOUVER TO HAVE 50% FREE AREA MINIMUM & AMCA LICENSED RATINGS FOR AP, WP.

D. PROVIDE CLIPS, SUPPORTS AND ANCHORS OF NOT LESS THAN 1/8" ALUMINUM. PROVIDE STAINLESS STEEL FASTENERS

E. CLEAR ANODIZE: Louvers shall be FINISHED–AFTER–ASSEMBLY with a Class I clear anodized coating (AAM10C22A41) that complies with the performance requirements of AAMA Specification 611–98, "Voluntary Specification for Anodized Architectural Aluminum."

F. PROVIDE ALUMINUM BIRD & INSECT SCREENS FOR LOUVERS. PROVIDE BLANK–OFF PANELS AS REQUIRED FOR INSTALLATION. PROVIDE VERTICAL REINFORCING AS PER MANUFACTURER'S RECOMMENDATIONS.

G. PROVIDE EXTRUDED ALUMINUM SILL. FINISH TO MATCH LOUVER. PROVIDE MEMBRANE WATERPROOFING AT SILL, JAMBS AND HEAD OF OPENING.

1

DOOR HARDWARE

A. PROVIDE MANUFACTURERS' FINISH HARDWARE NOTED IN HARDWARE SCHEDULE BELOW AND AS REQUIRED FOR SWING DOOR.

B. MOUNT HARDWARE AT HEIGHT RECOMMENDED IN "RECOMMENDED LOCATIONS FOR BUILDER'S HARDWARE" BY NBHA.

C. HARDWARE TO COMPLY WITH FIRE RATING OF DOOR AND FRAME.

D. LOCKS AND CYLINDERS SHALL BE MASTER KEYED AND GRAND MASTER KEYED TO THE EXISTING KEYWAY SYSTEM AS DIRECTED BY OWNER. ALL MASTER KEYS, GRAND MASTER KEYS, AND HIGH SECURITY KEYS SHALL BE DELIVERED TO THE OWNER AS DIRECTED.

E. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE ENSURE PROPER OPERATION.

F. HARDWARE SET SCHEDULE BELOW IS INTENDED TO ESTABLISH TYPE AND QUALITY OF HARDWARE FOR FUNCTIONAL REQUIREMENT OF DOOR OPENING.

HARDWARE SET #1 (STOREROOM)

3	MORTISE HINGES	STANLEY FBB 179 4–1/2" X 4–1/2"	US26D
1	CYLINDRICAL LOCKSET	BEST 97K37D 14C	626
1	DOOR CLOSER	LCN 4040, COVER 4040–72	ALUM
1	WALL STOP	IVES WS401CVX	US26D
3	SILENCERS	VES SR64	GRAY

HARDWARE SET #2 (PASSAGE LATCHSET FOR CORRIDOR EXIT PASSAGEWAY)

3	MORTISE HINGES	STANLEY FBB 179 4–1/2" X 4–1/2"	US26D
1	CYLINDRICAL LATCHSET	BEST 97K3NX 14C	626
1	DOOR CLOSER	LCN 4040, COVER 4040–72	ALUM
1	WALL STOP	IVES WS401CVX	US26D
3	SILENCERS	VES SR64	

1

GYPSUM BOARD ASSEMBLIES

A. PROVIDE ALL GYPSUM WALLBOARD SYSTEMS WORK INCLUDING DRYWALL, DRYWALL FINISHING AND STANDARD FRAMING, AND SUSPENSIONS SYSTEMS. WORK INCLUDES GYPSUM WALLBOARD PARTITIONS AND CEILINGS.

B. MANUFACTURERS: USG, GOLD BOND, GEORGIA PACIFIC OR EQUAL.

C. GYPSUM BOARD: 5/8" THICK, FIRE RATED TYPE X, REGULAR TYPE WITH TAPERED EDGES COMPLYING WITH ASTM C 36.

D. METAL STUDS AND RUNNERS: 20 GAUGE, GALVANIZED STEEL, ASTM C 645, PROFILES, SIZES AND SPACING AS INDICATED ON DRAWINGS.

E. FURRING CHANNELS: 25 GAUGE ASTM C 645, HAT–SHAPED. REINFORCING STRIPS, GROUNDS, AND PLATES SHALL BE 16 GAUGE GALVANIZED STEEL.

F. TRIM: GALVANIZED STEEL CORNER BEADS, EDGE TRIM, AND CONTROL JOINTS FOR CONCEALMENT IN JOINT COMPOUND.

G. PROVIDE DOUBLE 20 GAUGE STUDS AT OPENINGS AND ENDS OF PARTITIONS, SOFFITS, AND FASCIAS, DIAGONAL BRACING AND WHERE OTHERWISE INDICATED ON THE DRAWINGS.

H. CEILING SUSPENSION SYSTEMS: 1–1/2" COLD ROLLED CHANNELS MAXIMUM 48" SPAN, 3/4" FURRING CHANNELS, 16" O.C., 1/2" HOOKED ROD HANGERS BOLTED TO TEE ANCHORS AND ANGLE CLIPS, AND HANGER ANCHORAGE SIZED FOR 4X CALCULATED LOAD AS PER NYC BUILDING CODE.

I. JOINT TREATMENT: MATERIALS SHALL COMPLY WITH ASTM C 475. PROVIDE "3 COAT" TAPED AND SPACKLED FINISH.

J. INSTALLATION OF GYPSUM WALLBOARD SYSTEMS SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF GA–216 "APPLICATION AND FINISHING OF GYPSUM BOARD".

K. INSULATION: PROVIDE SOUND INSULATION FIRE BATT INSULATION IN DRYWALL PARTITIONS. INSULATION TO BE THERMAFIBER SAFB BY OWENS CORNING, OR EQUAL.

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ACOUSTICAL CEILING PANELS

A. ACOUSTICAL CEILING PANELS SHALL BE 5/8" THICK, 24" X 24" MINERAL FIBER TYPE WITH RECESSED EDGE FOR AN EXPOSED LAY–IN TEE SUSPENSION SYSTEM. PROVIDE PANELS EQUAL TO ARMSTRONG DUNE TEGULAR, COLOR WHITE.

B. TEE SUSPENSION SYSTEM SHALL BE ARMSTRONG PRELUDE XL, 15/16", COLOR WHITE.

PERIMETER CEILING / WALL MOLDING SHALL BE "W" TYPE BY ARMSTRONG, FRY REGLET, OR EQUAL.

PAINTING

A. PAINT ALL INTERIOR SURFACES OF NEW WALLS. PAINT ALL CEILINGS OF NEW BOILER ROOMS AND NEW CORRIDORS.

B. MANUFACTURERS: PROVIDE PAINT MATERIALS FROM BENJAMIN MOORE, SHERWIN WILLIAMS, PPG OR AN APPROVED EQUAL.

C. ALL PAINTING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.

D. PAINTING OF INTERIOR SURFACES (PROVIDE NOT LESS THAN 3.5 MILS TOTAL DRY FILM THICKNESS EACH SYSTEM)

1. INTERIOR GYPSUM WALLBOARD PARTITIONS
ONE COAT: BENJAMIN MOORE ECO SPEC WB PRIMER
TWO COATS: BENJAMIN MOORE ECO SPEC EGGSHELL FINISH

2. INTERIOR GYPSUM WALLBOARD CEILINGS
ONE COAT: BENJAMIN MOORE ECO SPEC WB PRIMER
TWO COATS: BENJAMIN MOORE ECO SPEC FLAT FINISH

3. ZINC COATED METAL (GALVANNEALED & FACTORY PRIMED)
ONE COAT: APPROVED SHOP APPLIED PRIMER
TWO COATS: BENJAMIN MOORE SUPER SPEC HP DTM SEMI–GLOSS ENAMEL #P28

4. INTERIOR CMU WALLS
PRIMER: TNEMEC SERIES ENVIRONFILL ACRYLIC BLOCK FILLER
TWO COATS: TNEMEC SERIES 1081 ENDURA SHIELD

LIGHTING FIXTURES

A. PROVIDE LIGHTING FIXTURE AS SHOWN IN DRAWINGS AND ON LIGHTING FIXTURE SCHEDULE.

B. NEW SWITCHES SHALL BE MOUNTED AT HEIGHT COMPLYING WITH ADA REQUIREMENTS. INSTALL NEW SWITCH PLATES AFTER PAINTING IS COMPLETE.

C. ALL LENSES, REFLECTORS, LAMPS, ETC. TO BE GIVEN A THOROUGH CLEANING AT THE COMPLETION OF THE JOB.

SUBMISSIONS

THE FOLLOWING SUBMISSIONS FOR REVIEW AND APPROVAL BY ARCHITECT SHALL BE REQUIRED PRIOR TO FABRICATION AND INSTALLATION.

ITEM	CATALOG CUT	SAMPLE	SHOP DRAWINGS
FIREPROOFING	REQUIRED		
SEALANTS	REQUIRED	REQUIRED	
DOORS & FRAMES	REQUIRED		REQUIRED
FINISH HARDWARE	REQUIRED/ HDWR SCHEDULE		
PAINT	REQUIRED	REQUIRED	
LOUVER	REQUIRED		
LIGHTING FIXTURE	REQUIRED		

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CONSULTANTS

NO.	DATE	DESCRIPTION
1	3/16/2023	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

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DESCRIPTION
CONSTRUCTION NOTES (cont.)

DRAWING NUMBER
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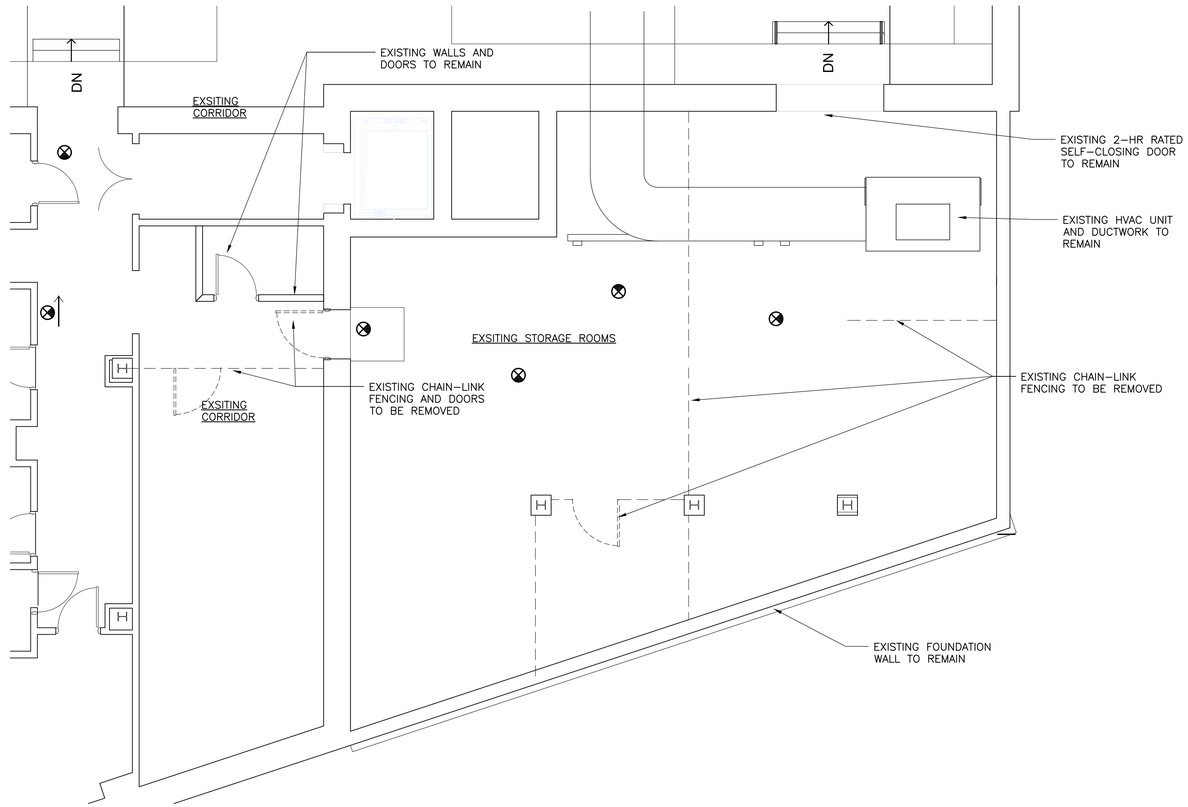

2 CELLAR REMOVALS PLAN

3/16"=1'-0"

REMOVALS NOTES

1. CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS REQUIRED TO COMPLETE DEMOLITION OF ALL ITEMS SHOWN ON DRAWINGS TO BE REMOVED.

2. CONTRACTOR SHALL EXECUTE ALL REMOVALS WORK AS PER THE REGULATIONS OF THE UNIVERSITY FOR DEMOLITION AND REMOVAL OF DEBRIS.

3. REMOVE ALL PARTITIONS, DOORS, FRAMES, ETC. WHERE INDICATED ON THE DEMOLITION DRAWINGS BY DASHED LINES.

4. REMOVE ALL REMAINING ABANDONED DUCTWORK, MECHANICAL EQUIPMENT, RADIATORS, PLUMBING PIPING, ELECTRICAL DEVICES AND CONDUITS, ETC. COORDINATE REMOVAL OF MEP ITEMS WITH RELATED TRADES. CHIP AWAY CONCRETE FLOOR SLAB AS REQUIRED TO CUT AND CAP EXISTING PENETRATIONS IN FLOOR. PATCH AND REPAIR IN KIND, AS REQUIRED, FOR PREPARATION FOR NEW FINISH FLOORING.

5. CONTRACTOR SHALL EXERCISE CAUTION WHEN OPENING, ACCESSING, OR REMOVING EXISTING CHASE WALLS. CONTRACTOR SHALL STOP WORK AND NOTIFY ARCHITECT AND OWNER IMMEDIATELY OF ANY HAZARDOUS CONDITIONS THAT MAY BE ENCOUNTERED WHILE PERFORMING WORK.

8. CONTRACTOR SHALL AT ALL TIMES PROTECT THE PROPERTY OF THE BUILDING OWNER INCLUDING, BUT NOT LIMITED TO, FLOORING, ELEVATORS, DOORS, FRAMES, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS, AND PERIPHERAL ENCLOSURES TO REMAIN.

9. CONTRACTOR SHALL ERECT TEMPORARY DUSTPROOF PARTITIONS AND ENCLOSURES PRIOR TO COMMENCING DEMOLITION.

10. CONTRACTOR SHALL FURNISH A SYSTEM OF TEMPORARY LIGHTS THROUGHOUT THE SPACE UNDER CONSTRUCTION AS REQUIRED.

11. ALL DEMOLISHED WORK SHALL BE REMOVED FROM THE PREMISES AND LEGALLY DISPOSED.

12. UPON COMPLETION OF DEMOLITION, CONTRACTOR SHALL LEAVE ALL AREAS BROOM CLEAN.

13. PROTECT ALL EXISTING WALL–MOUNTED DEVICES TO REMAIN IN AREAS AFFECTED BY WORK, INCLUDING BUT NOT LIMITED TO LIGHT SWITCHES, THERMOSTATS, RADIATORS, ETC. REMOVE & REINSTALL IN NEW WALL FINISHES WHERE REQUIRED. COORDINATE WITH THE UNIVERSITY.

14. EXISTING COLUMN ENCLOSURES TO REMAIN TYPICALLY.

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S6
MECHANICAL SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S7
BOILER SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S8

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CONSULTANTS

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REGISTERED ARCHITECT KENNETH J. BAINTON 018133-1 STATE OF NEW YORK

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 9/14/2022

DESCRIPTION

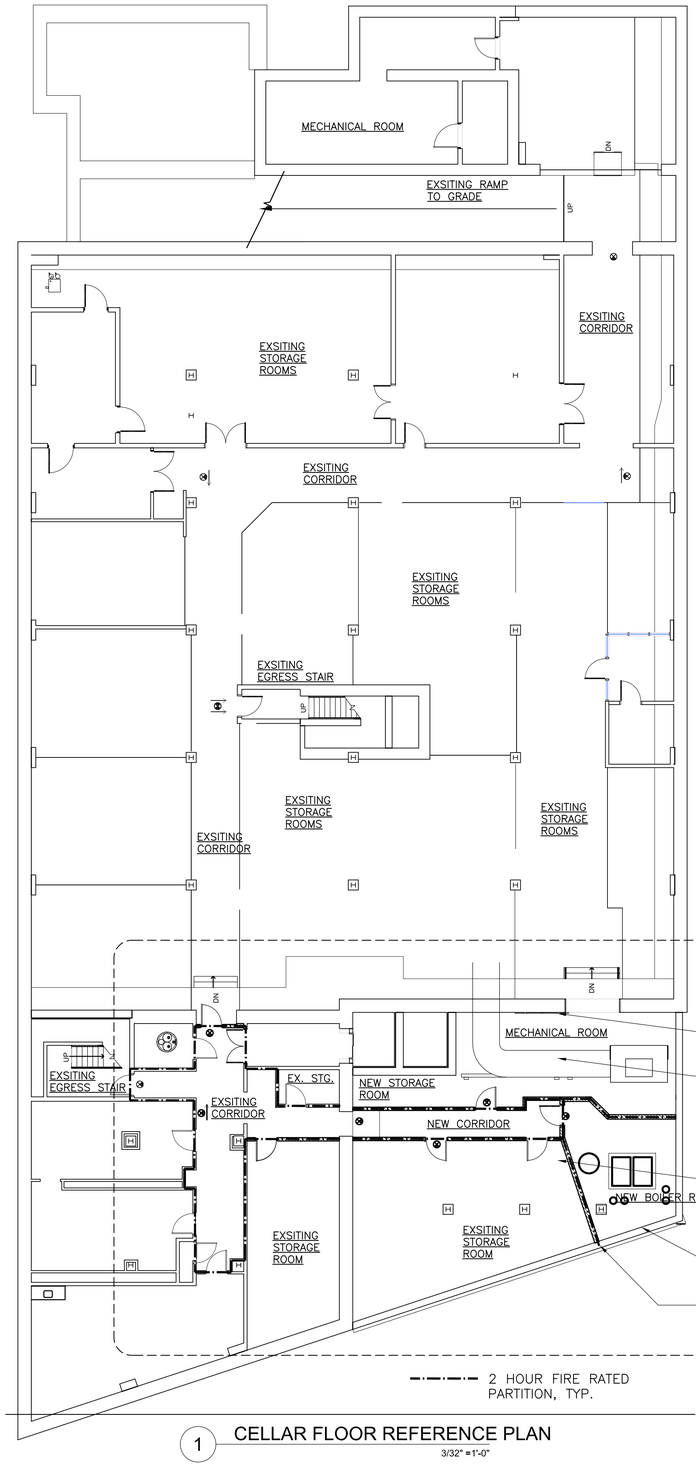
CELLAR FLOOR REMOVALS PLAN

DRAWING NUMBER

A-011. 00

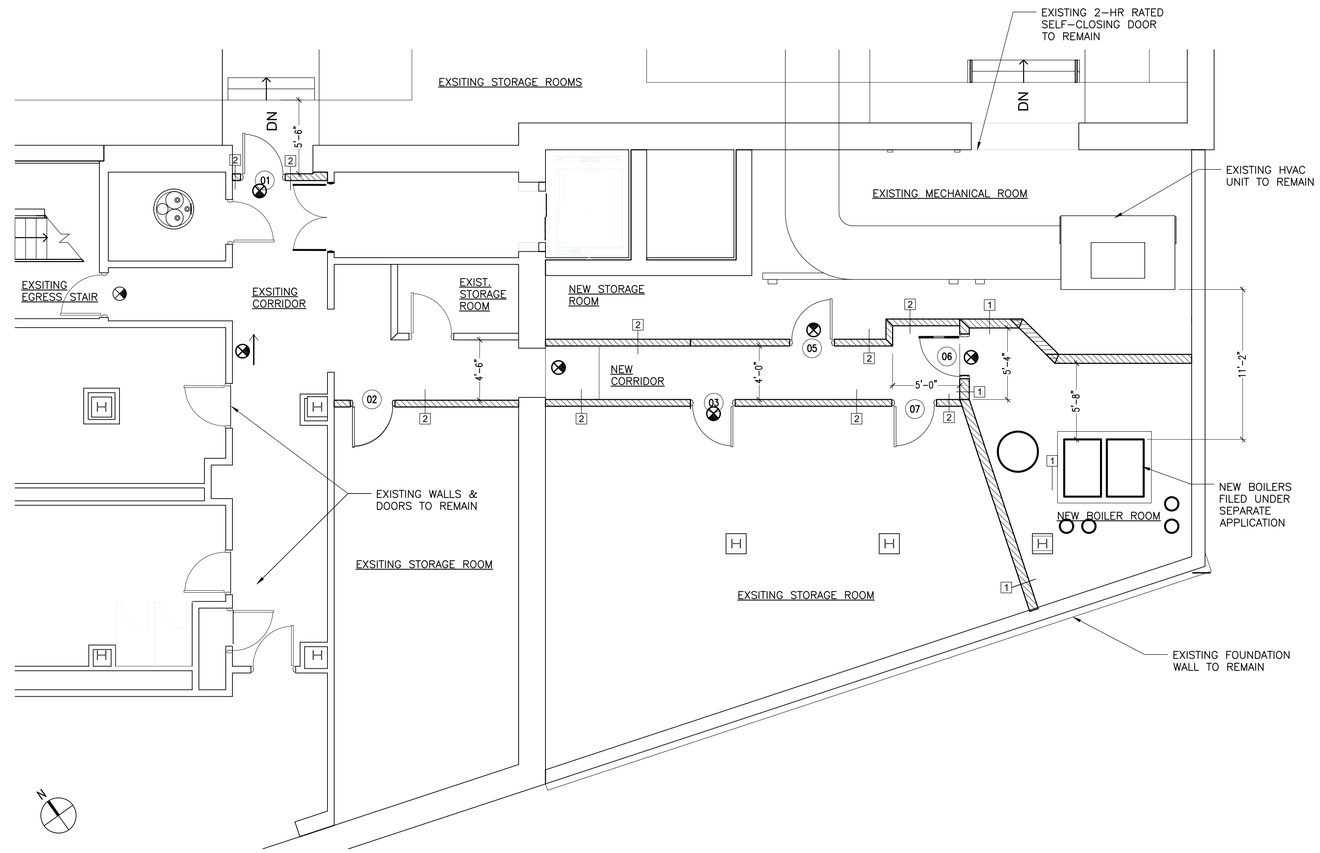
PROJECT No: –

JOB# X00539835-P1



1 CELLAR FLOOR REFERENCE PLAN
3/32" =1'-0"

0 FIRST FLOOR FIRE RATED WALLS PART PLAN
1/8"=1'-0"



2 CELLAR CONSTRUCTION PART PLAN
3/16"=1'-0"

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S6
MECHANICAL SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S7
BOILER SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S8

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AW	JK/ KB

SCALE AS NOTED

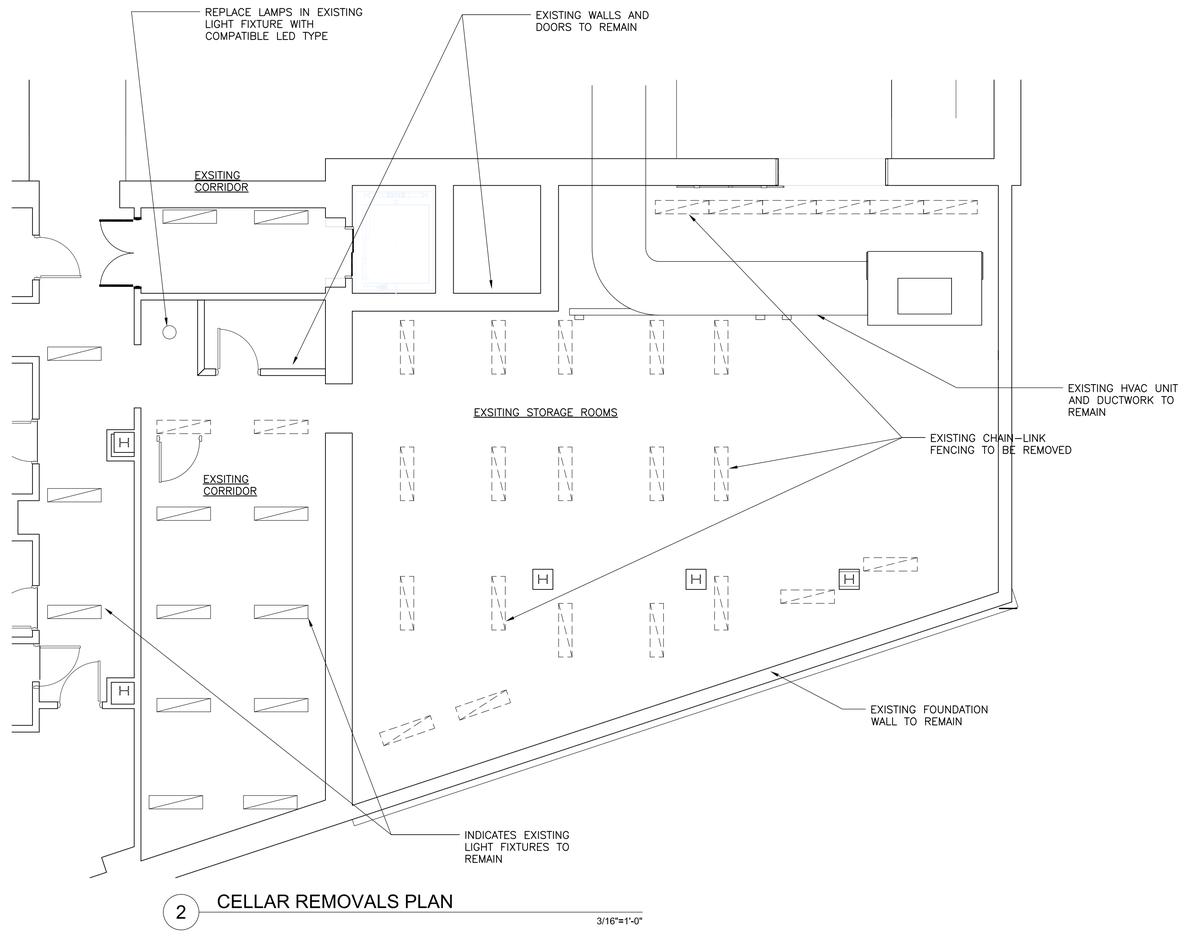
DATE 9/14/2022

DESCRIPTION
CELLAR FLOOR REFERENCE & CONSTRUCTION PLANS

DRAWING NUMBER
A-012. 00

PROJECT No: –
8 of 16

JOB# X00539835-P1



2 CELLAR REMOVALS PLAN

3/16"=1'-0"

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SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 3/14/2023

DESCRIPTION

CELLAR FLOOR LIGHTING REMOVALS PLAN

DRAWING NUMBER

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PROJECT No:	
—	8 of 16

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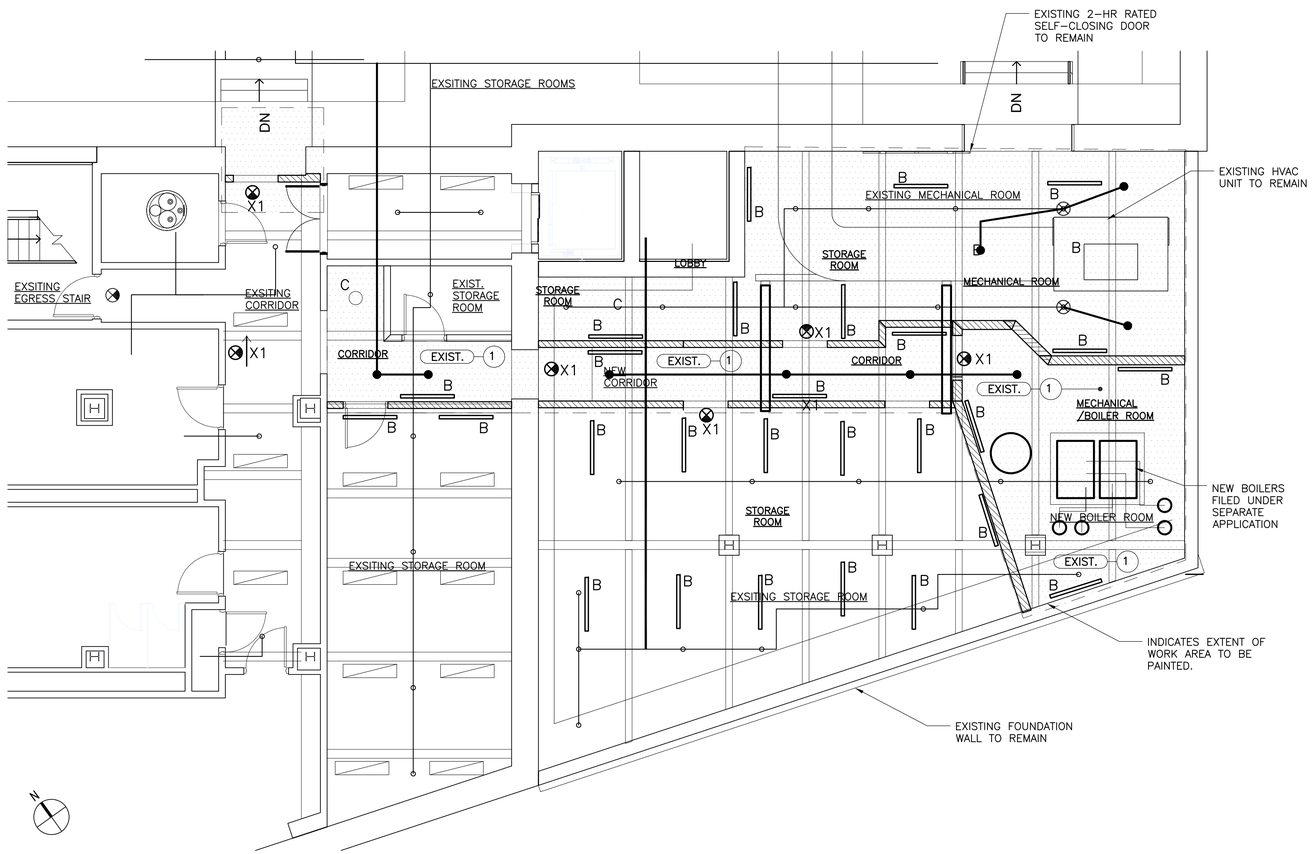

2 CELLAR CONSTRUCTION PLAN

3/16"=1'-0"

CEILING TAG KEY

10'-0" 2

INDICATES HEIGHT OF FINISH CEILING ABOVE FINISH FLOOR

INDICATES CEILING FINISH DESIGNATION

CEILING FINISH KEY

DESIG.	FINISH MATERIAL
1	EXISTING EXPOSED CEILING, PATCH AND REPAIR PAINT PT-1
2	
3	

PIPING SYMBOLS

- EXISTING PIPES TO BE REMOVED
- EXISTING PIPES TO REMAIN
- NEW PIPES TO BE SCHEDULE 40 BLACK STEEL WITH THREADED MALLEABLE IRON FITTINGS 1" THRU 2" AND SCHEDULE 10 GROOVED JOINT (VICTAULIC) SIZES 2-½" AND UP
- EXISTING SPR. HEADS TO REMAIN
- EXISTING SPR. HEADS TO BE REMOVED

LIGHTING FIXTURE SCHEDULE

EM/NL = EMERGENCY / NIGHT LIGHT

(MODEL NUMBERS ARE PROVIDED FOR ACCEPTABLE MANUFACTURERS. SUBSTITUTIONS OF EQUAL QUALITY AND FUNCTION WILL BE CONSIDERED.)

DESIG.	SYMBOL	DESCRIPTION	MANUF./ MODEL	REMARKS/LAMPS
B		4FT MVOLT SWITCHABLE LED STRIP LIGHT – SURFACE OR PENDANT MOUNTED	LITHONIA LIGHTING CSS L48 AL03 MVOLT SWW3 80CRI	3500K STANDARD LED SYSTEM; 28 WATTS / FIXTURE
C		EXISTING DOWNLIGHT FIXTURE TO REMAIN BULBS REPLACED WITH LED BULBS		
X1		SURFACE MOUNTED LED EXIT LIGHT, BATTERY BACKUP	ATLITE RIVAL SERIES – RXS-N-8-R-U	LED LAMPS PROVIDE MOUNTING AS REQUIRED PER FIELD CONDITIONS

PAINTING NOTES

1. ALL EXISTING CEILINGS IN WORK AREAS INDICATED BY SHADING ABOVE TO BE PAINTED.
2. ALL NEW WALLS TO BE PAINTED.
3. ALL EXISTING CONCRETE FLOORS SHALL REMAIN.
4. ALL NEW AND EXISTING PIPING TO BE PAINTED IN WORK AREA.

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THE JESUIT UNIVERSITY OF NEW YORK

KOUZMANOFF BAINTON ARCHITECTS
347 W 36th Street, #302. New York, N.Y. 10018
Phone: 212-290-8616

CONSULTANTS

NO.	DATE	DESCRIPTION

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT

FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458

FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 3/10/2023

DESCRIPTION

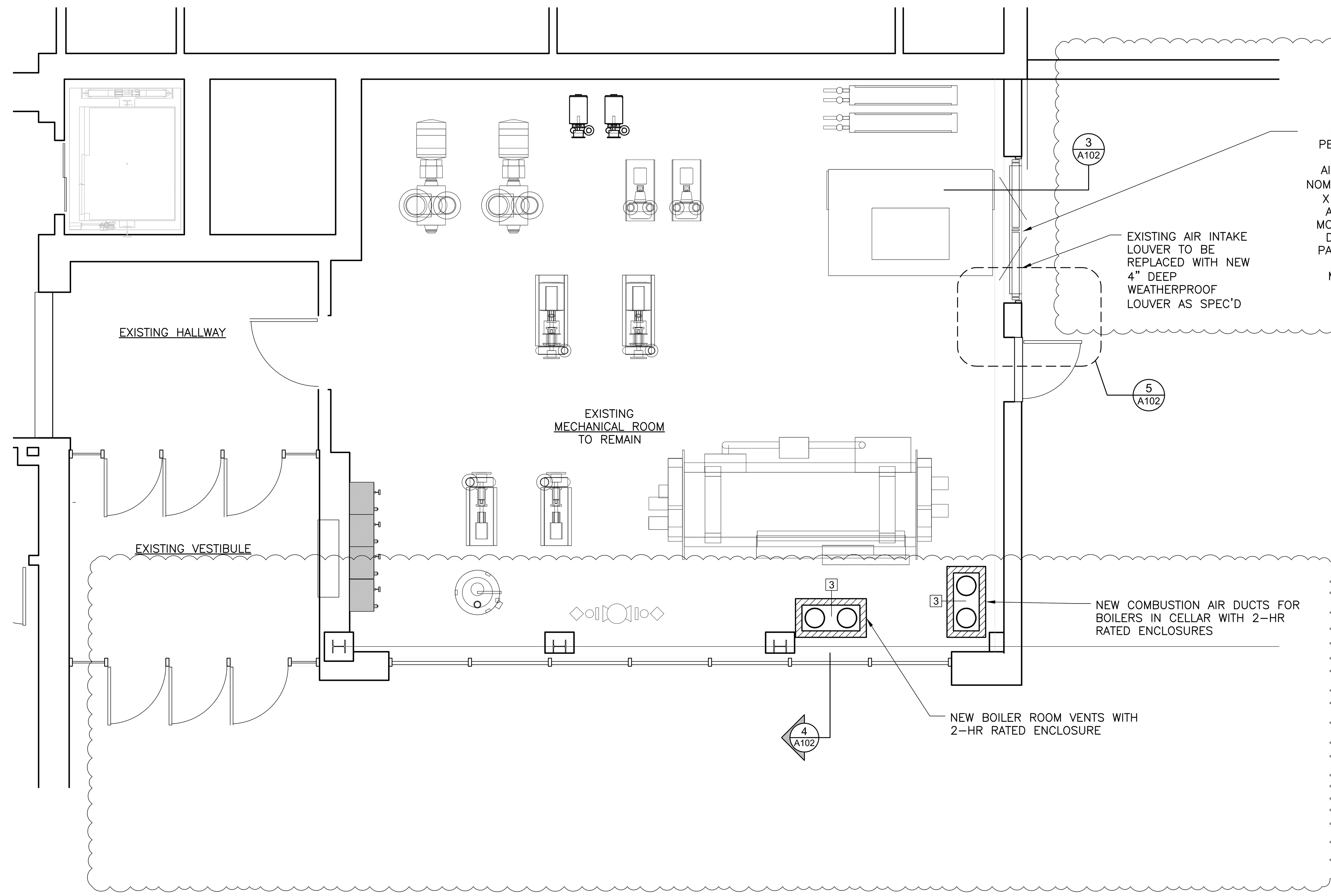
CELLAR FLOOR REFLECTED CEILING PLAN

DRAWING NUMBER

A-022. 00

PROJECT No: –

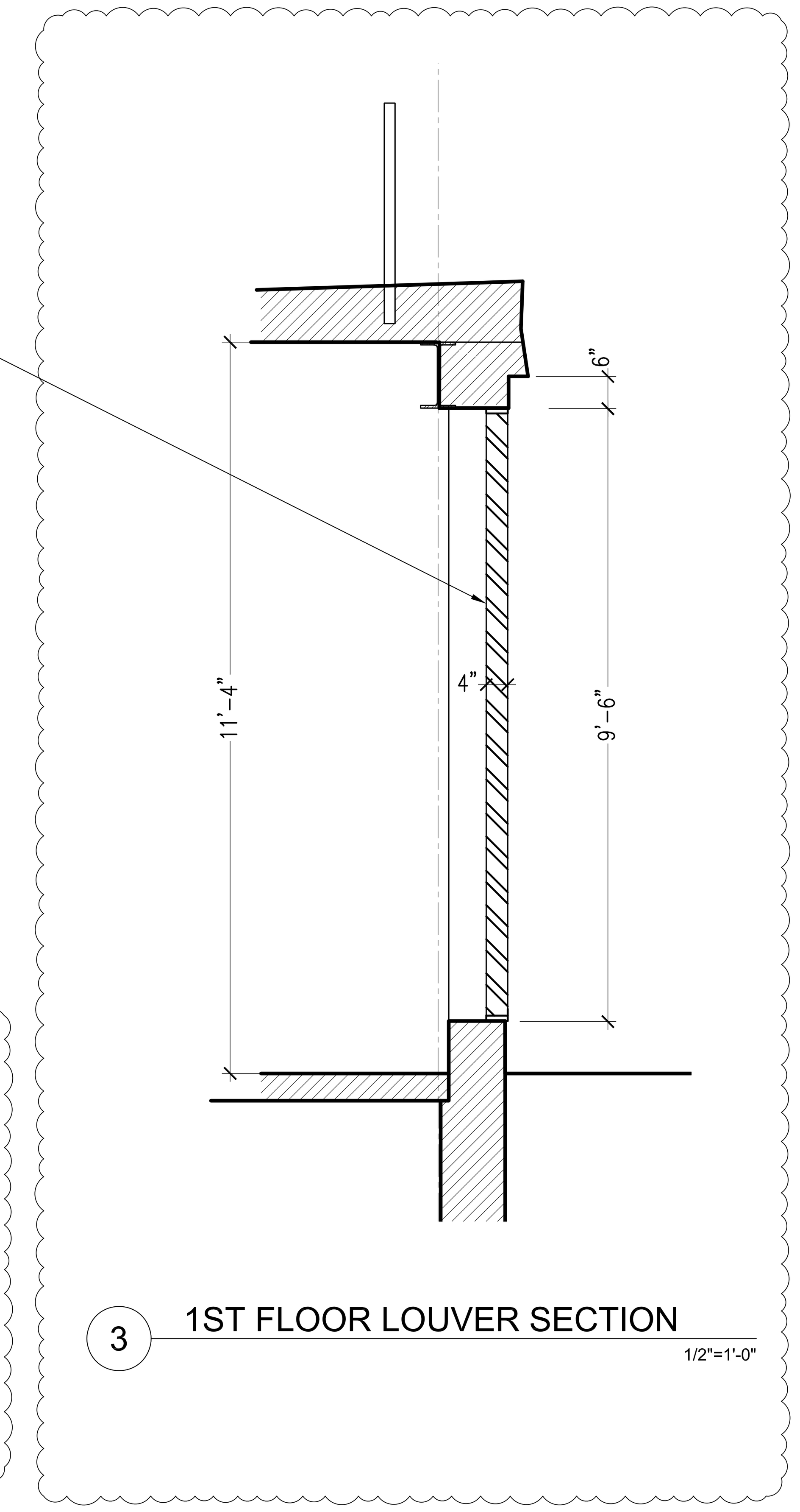
JOB# X00539835-I1



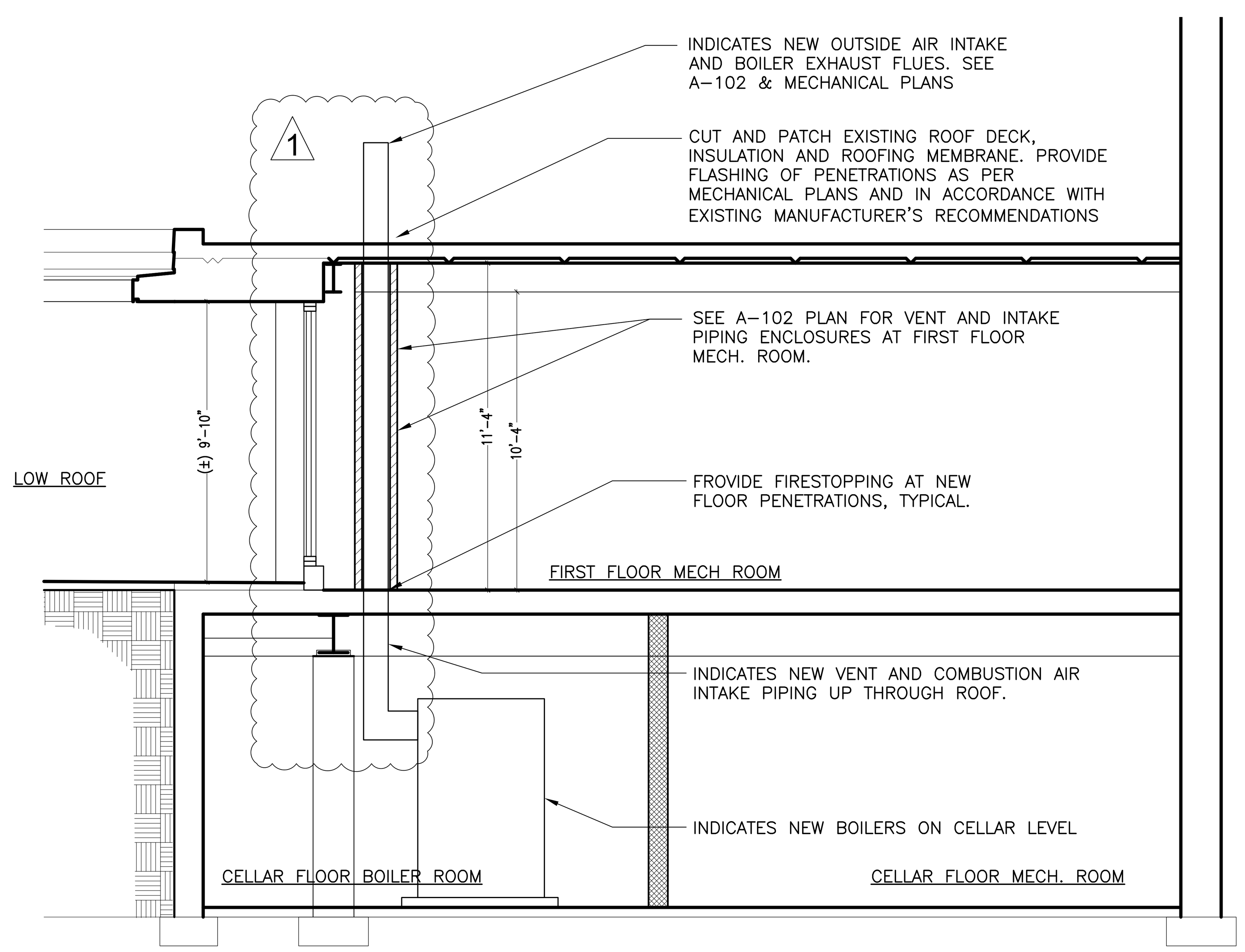
1 1ST FLOOR CONSTRUCTION PLAN
1/4"=1'-0"

1

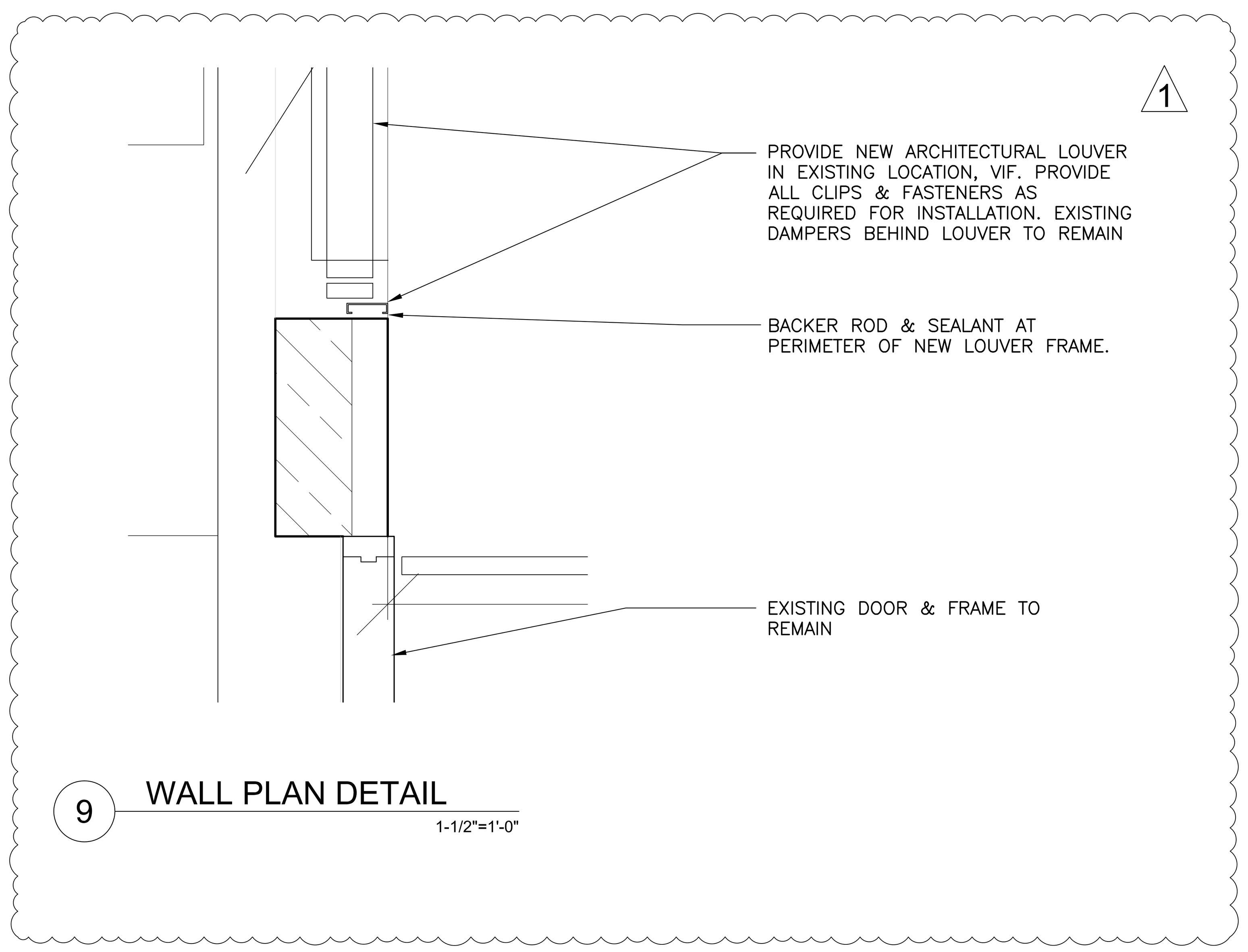
1 1ST FLOOR REMOVALS PLAN
1/4"=1'-0"



3 1ST FLOOR LOUVER SECTION
1/2"=1'-0"



4 SECTION-EXISTING
1/8"=1'-0"



9 WALL PLAN DETAIL
1-1/2"=1'-0"

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S6
MECHANICAL SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S7
BOILER SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S8

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CONSULTANTS

NO.	DATE	DESCRIPTION
1	3/5/2023	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT · STATE OF NEW YORK · 018133-1

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

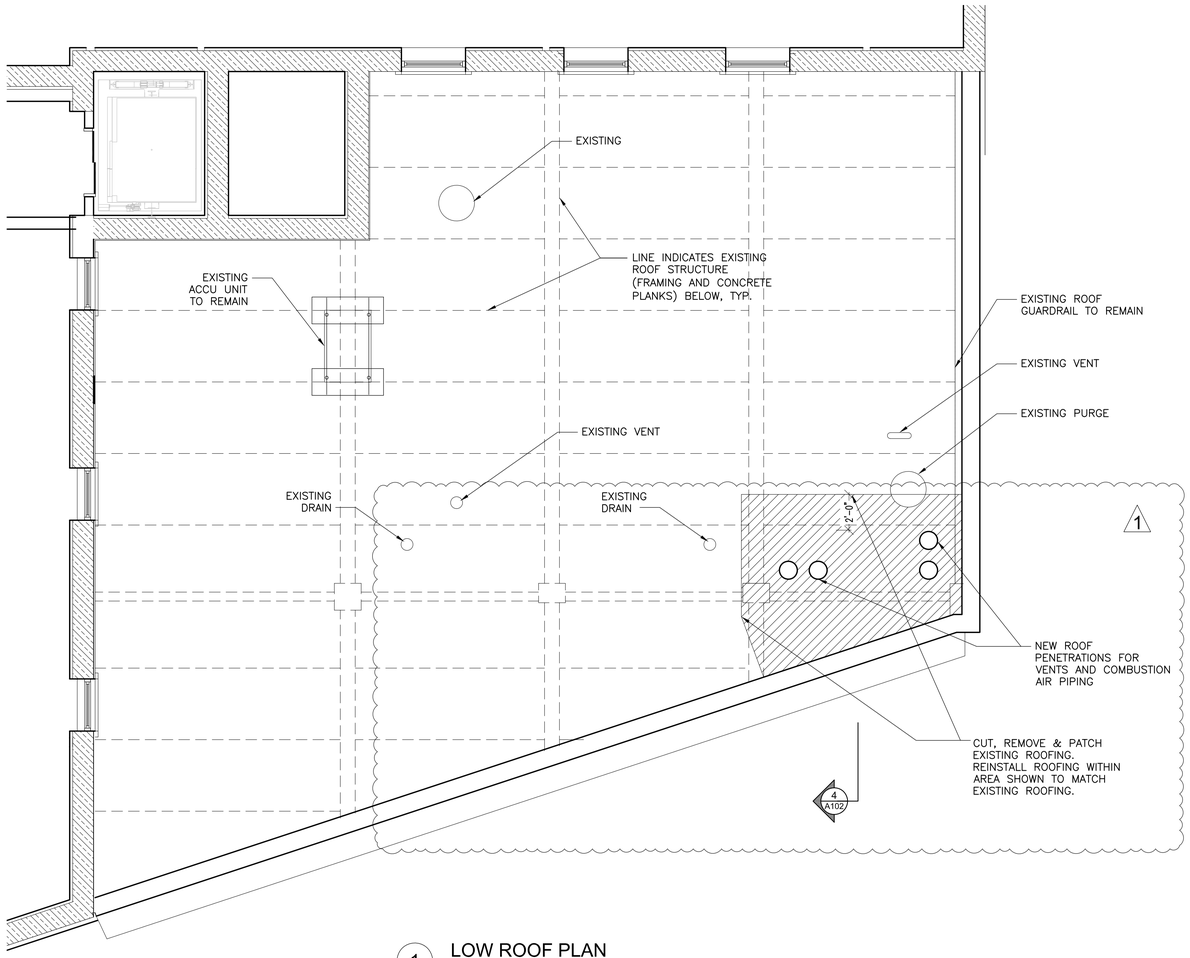
DATE 6/14/2021

DESCRIPTION
FIRST FLOOR CONSTRUCTION PLAN AND RCP

DRAWING NUMBER
A-102. 01

PROJECT No: –
9 of 16

JOB# X00539835-P1



1 LOW ROOF PLAN

1/4"=1'-0"

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S6
MECHANICAL SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S7
BOILER SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S8

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KOUZMANOFF BAINTON ARCHITECTS
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CONSULTANTS

NO.	DATE	DESCRIPTION
1	3/5/2023	AMENDMENT #1

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT

FACULTY MEMORIAL HALL

655 EAST FORDHAM ROAD, BRONX, NY 10458

FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT
JOSEPH KOUZMANOFF
018133-1
STATE OF NEW YORK

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 6/14/2021

DESCRIPTION

LOW ROOF OVER 1ST FLOOR PLAN

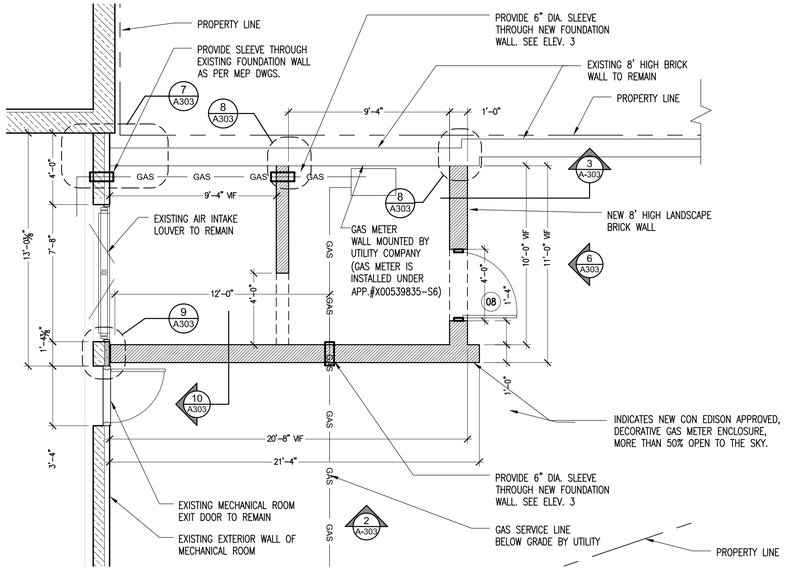
DRAWING NUMBER

A-103. 01

PROJECT No: –

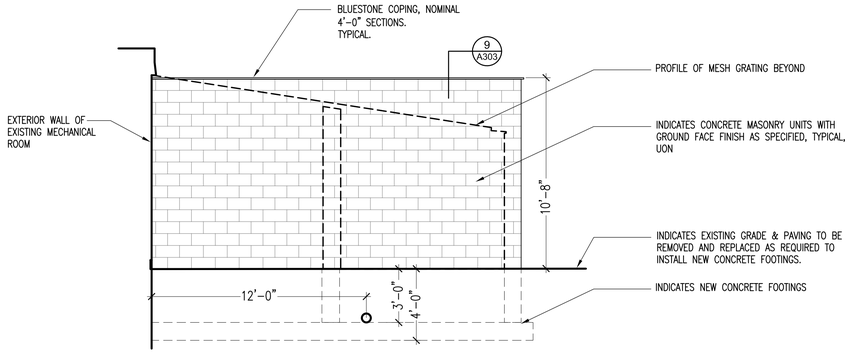
10 of 16

JOB# X00539835-P1



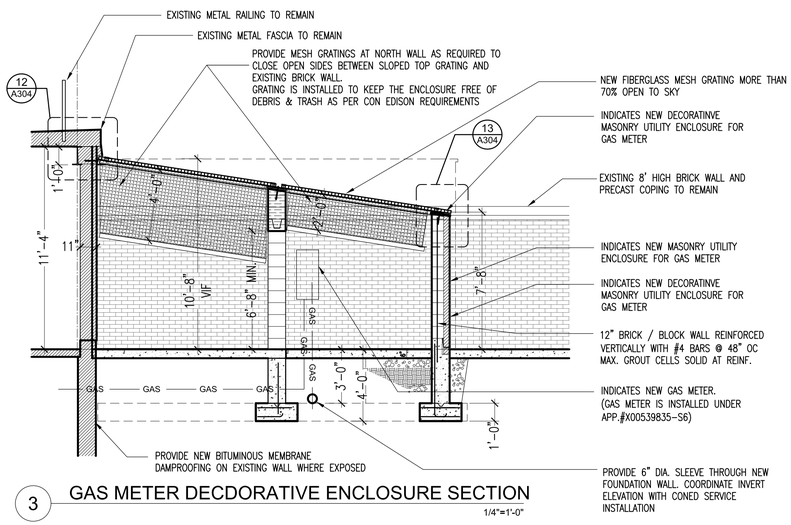
1 GAS ENCLOSURE CONSTRUCTION PLAN

1/4"=1'-0"



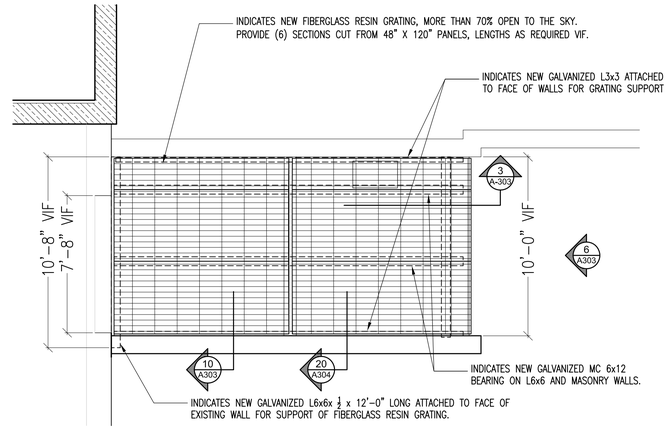
2 GAS METER ENCLOSURE SOUTH ELEVATION

1/4"=1'-0"



3 GAS METER DECDORATIVE ENCLOSURE SECTION

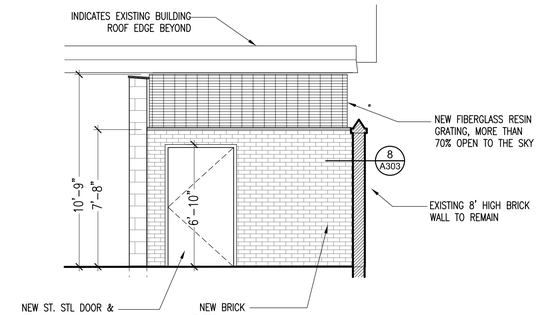
1/4"=1'-0"



5 GAS METER DECORATIVE GRATING ENCLOSURE TOP PLAN

GRATING IS INSTALLED TO KEEP THE ENCLOSURE SECURE AND FREE OF DEBRIS AS PER CON EDISON REQUIREMENTS

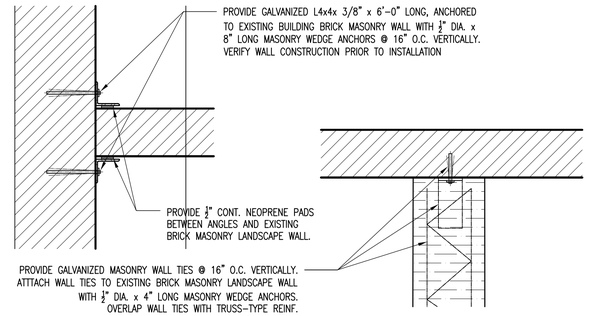
1/4"=1'-0"



6 GAS ENCLOSURE ELEVATION LOOKING WEST

1/4"=1'-0"

EXISTING ALUM. FASCIA TO REMAIN

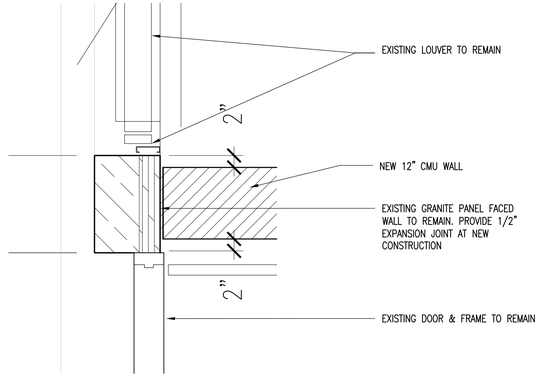


7 WALL PLAN DETAIL

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

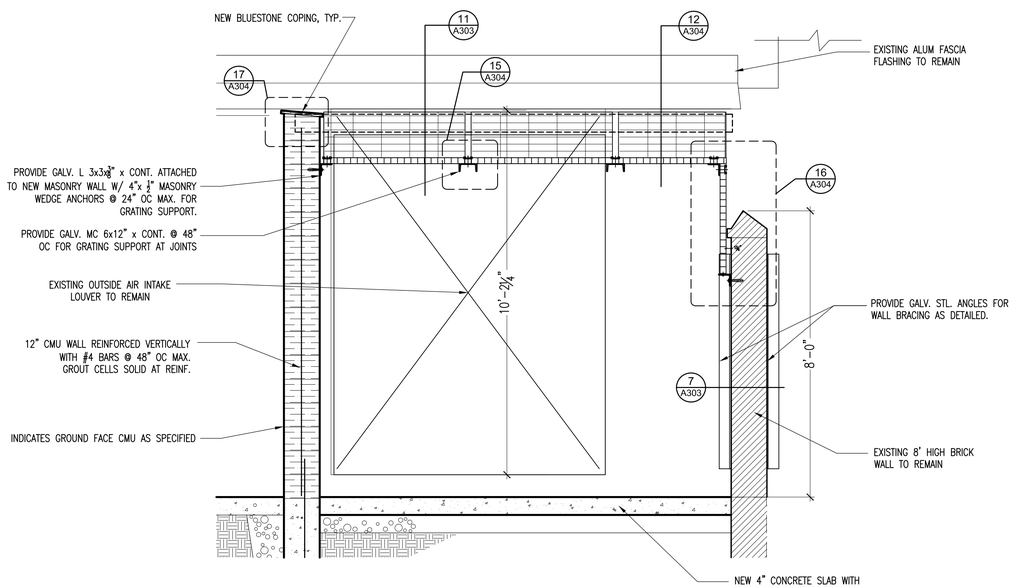
8 WALL PLAN DETAIL

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



9 WALL PLAN DETAIL

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



10 ELEVATION/ SECTION

1/2"=1'-0"

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347 W 36th Street, #302, New York, N.Y. 10018
Phone: 212-290-8616

CONSULTANTS

NO.	DESCRIPTION	DATE
1	9/13/22 AMENDMENT #1	
1	9/13/22 AMENDMENT #1	

DWG ISSUE & REVISION HISTORY

EXTERIOR GAS METER OPEN ENCLOSURE

FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458

FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 03/16/2023

DESCRIPTION

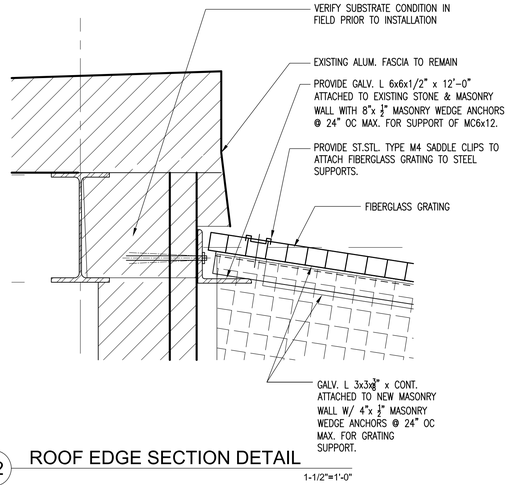
GAS SERVICE METER ENCLOSURE DETAILS

DRAWING NUMBER

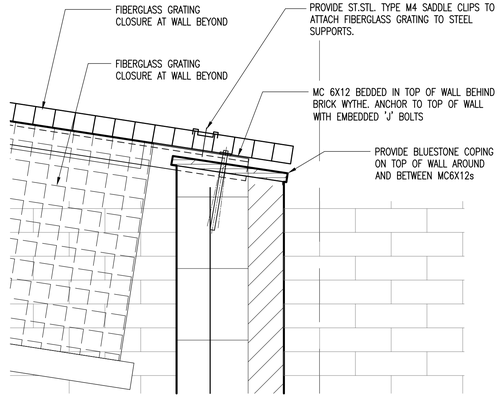
A-303. 00

PROJECT No: —

JOB# X00823108-I1



12 ROOF EDGE SECTION DETAIL
1-1/2"=1'-0"



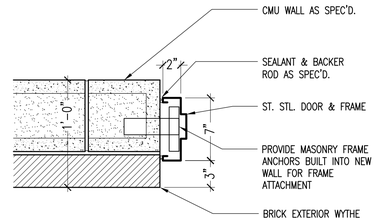
13 SECTION DETAIL
1-1/2"=1'-0"

DOOR & HARDWARE NOTES:

1. ALL DOOR HARDWARE SHALL BE ADA COMPLIANT.
2. ALL DOOR HARDWARE SHALL ACCESPT BEST KEYWAY AS PER FORDHAM STANDARDS

DOOR & FRAME SCHEDULE

DOOR/ OPEN FR. #	NOMINAL DOOR DIMENSION WxHxT	DOOR MATERIAL	DOOR TYPE	FRAME MATERIAL	FRAME TYPE	FRAME SECTION	JAMB DETAIL	HEAD DETAIL	FIRE RATING	HDWR. SET NO.	HDWR. FUNCTION	THRESHOLD	REMARKS
08	3'-8" X 7'-0" X 1¾"	ST. STL.	1	ST. STL.	1	1	18/A304	18/A304	–	3	STOREROOM	–	ALL 32D FINISH



18 PLAN DETAIL
1-1/2"=1'-0"

14 SECTION DETAIL
1-1/2"=1'-0"

15 SECTION DETAIL
1-1/2"=1'-0"

16 SECTION DETAIL
1-1/2"=1'-0"

17 SECTION DETAIL
3"=1'-0"

20 GAS METER DECDORATIVE ENCLOSURE SECTION
1/2"=1'-0"

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Phone: 212-290-8616

CONSULTANTS

NO.	DESCRIPTION	DATE

DWG ISSUE & REVISION HISTORY

EXTERIOR GAS METER OPEN ENCLOSURE
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 03/16/2023

DESCRIPTION

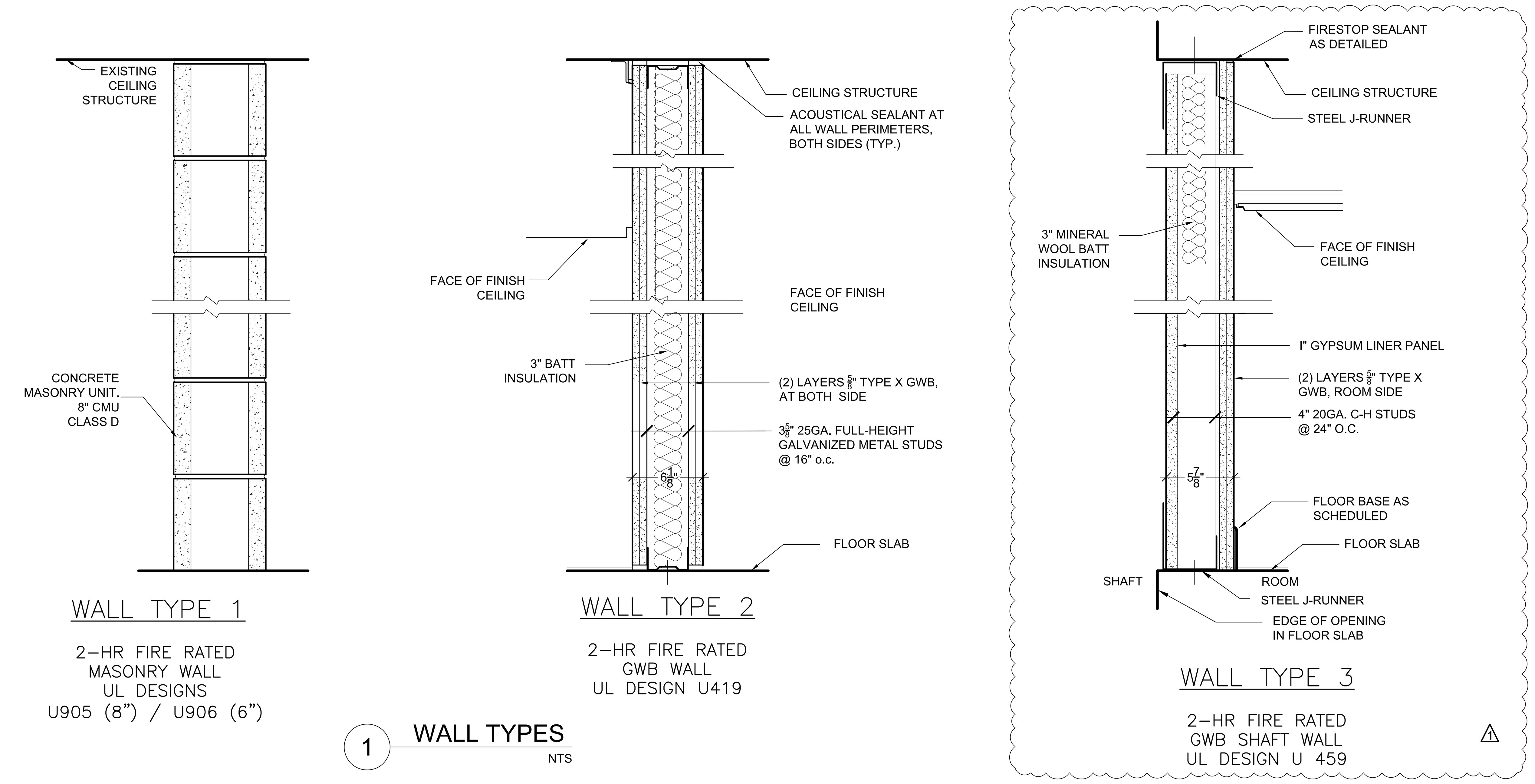
GAS SERVICE METER ENCLOSURE DETAILS

DRAWING NUMBER

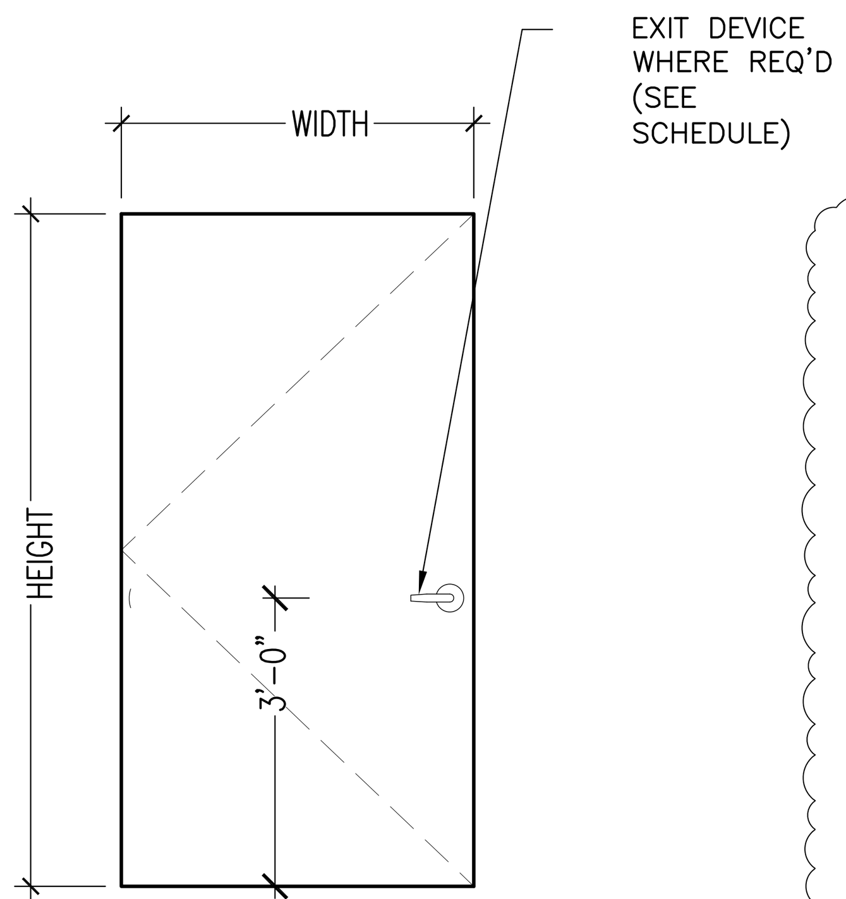
A-304. 00

PROJECT No: – | 14 of 16

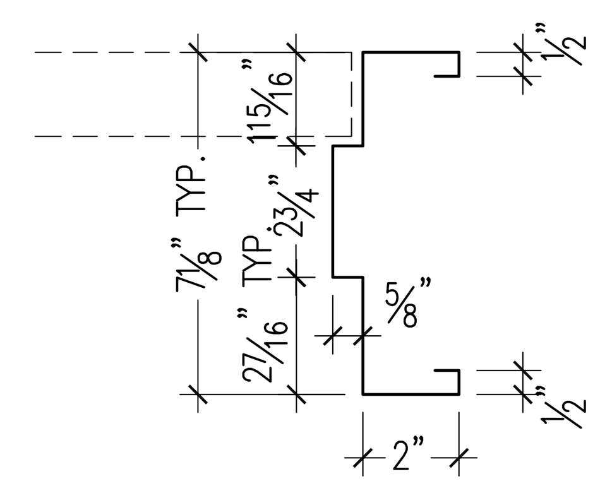
JOB# X00823108-I1



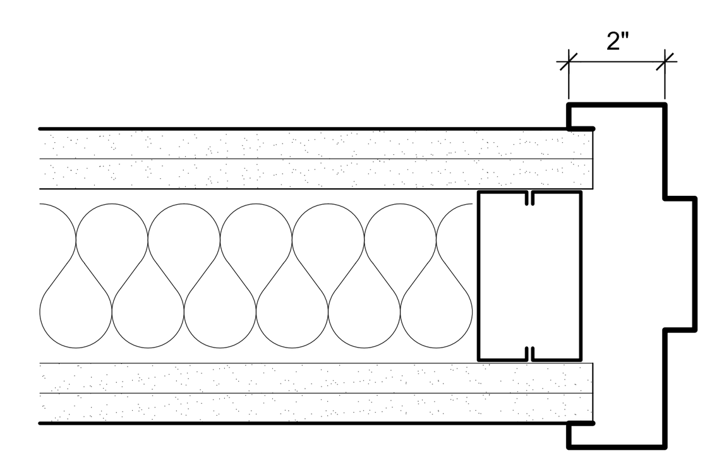
1 WALL TYPES
NTS



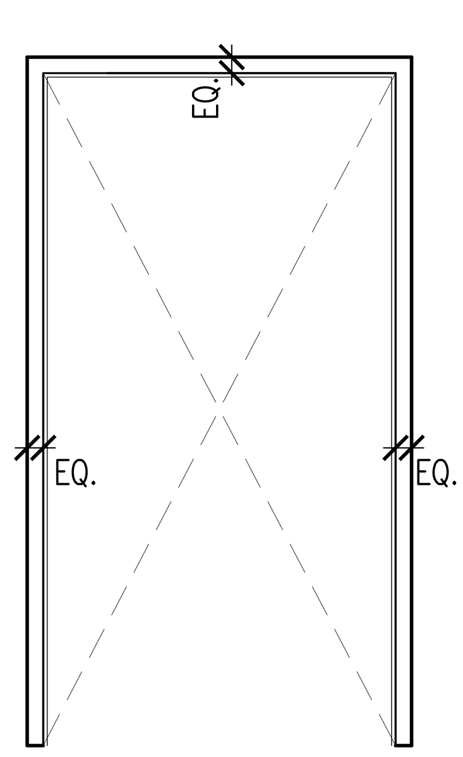
2 DOOR TYPES
1/2"=1'-0"



4 HM FRAME SECTION
3"=1'-0"



5 HM JAMB/HEAD DETAIL
3"=1'-0"



DOOR & HARDWARE NOTES:

1. ALL DOOR HARDWARE SHALL BE ADA COMPLIANT.
2. PROVIDE WEATHERSTRIPPING AT ALL EXTERIOR DOOR HEADS, JAMBS, SILLS.

DOOR & FRAME SCHEDULE

DOOR/ OPEN FR. #	NOMINAL DOOR DIMENSION WxHxT	DOOR MATERIAL	DOOR TYPE	FRAME MATERIAL	FRAME TYPE	FRAME SECTION	JAMB DETAIL	HEAD DETAIL	FIRE RATING	HDWR. SET NO.	HDWR. FUNCTION	THRESHOLD	REMARKS
01	3'-0" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	2	PASSAGE		
02	3'-0" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	1	STOREROOM		
03	3'-0" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	1	STOREROOM		
04	NOT USED												
05	3'-0" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	1	STOREROOM		
06	3'-0" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	1	STOREROOM		
07	3'-8" X 7'-0" X 1¾"	HM	1	HM	1	1	5/A401	5/A401	B	1	STOREROOM		

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CONSULTANTS

NO.	DESCRIPTION	DATE
1	REVISIONS	03/06/23

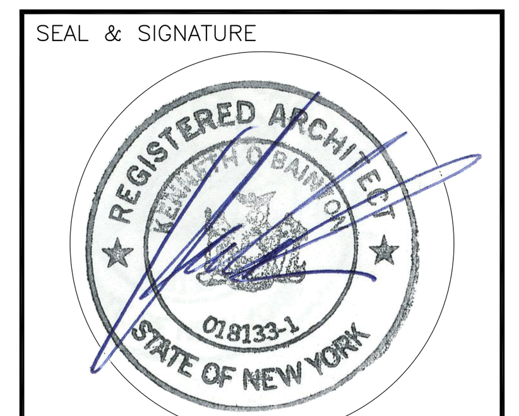
DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

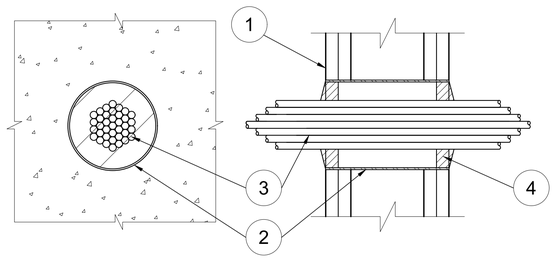
DOB STAMP

DOB STICKER

SEAL & SIGNATURE



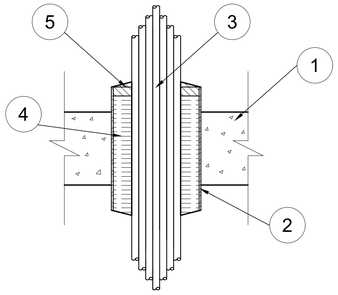
DRAWN BY: AW
CHECKED: JK/ KB
SCALE: AS NOTED
DATE: 06/14/2021
DESCRIPTION: WALL TYPES, DOOR & FRAME SCHEDULE AND DETAILS
DRAWING NUMBER: A-401. 01
PROJECT No: –
15 of 16
JOB# X00539835-S1



1 CABLE BUNDLE THROUGH GYPSUM WALL

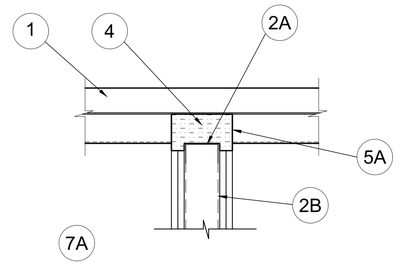
SYSTEM NO. W-L 311 OR EQUAL

1. WALL ASSEMBLY – 2 HR RATED GYPSUM BOARD ASSEMBLY (SEE WALL TYPES)
2. METALLIC SLEEVE – NOMINAL 4" INCH DIAMETER EMT OR SCHEDULE 5 STEEL PIPE FRICTION FIT
3. CABLE AGGREGATE
4. VOID OR CAVITY MATERIAL: PUTTY MINIMUM 5/8" INCH THICKNESS APPLIED BOTH SURFACES OF WALL FORCED INTO INTERSTICES OF CABLE BUNCH



2 SLEEVED CABLES THROUGH CONCRETE FLOOR / WALL OR BLOCK WALL

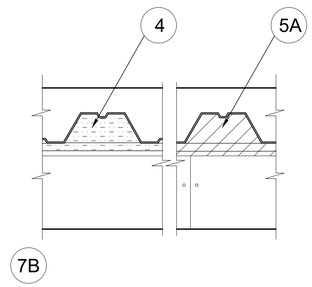
1. MINIMUM 4–1/2 INCH THICK CONCRETE FLOOR OR WALL, OR CMU BLOCK WALL
2. METALLIC SLEEVE – MAXIMUM NOMINAL 6 INCH DIAMETER SLEEVE CAST OR GROUTED INTO FLOOR OR WALL AND EXTENSIVE NOMINAL 2 INCHES BEYOND EACH SURFACE
3. CABLE AGGREGATE: MAXIMUM 30% FILL OF PVC JACKETED TELECOMMUNICATION CABLE
4. FORMING MATERIAL: TIGHTLY PACK MINIMUM 4 PCF MINERAL WOOL OR EQUAL
5. SEALANT OR PUTTY TO A MINIMUM OF 3/4" INCH DEPTH

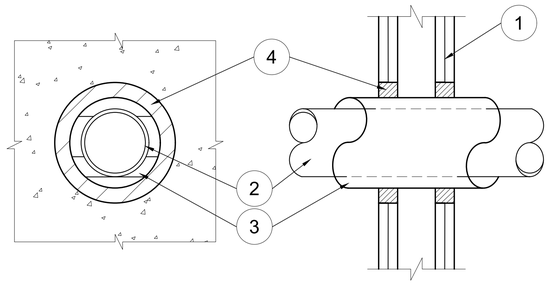


7 TOP OF WALL JOINT

2 HR GYPSUM BOARD WALL ASSEMBLY — 1 1/2"=1'-0"

UL SYSTEM HW-D-0042 OR EQUAL

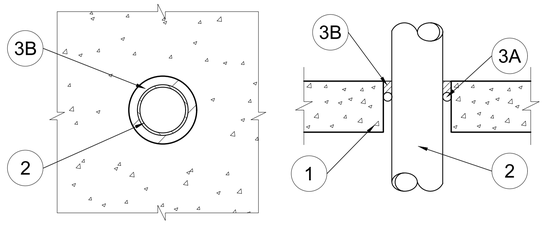




3 INSULATED PIPE THROUGH GYPSUM ASSEMBLY

SYSTEM NO. W-L-5028 OR EQUAL

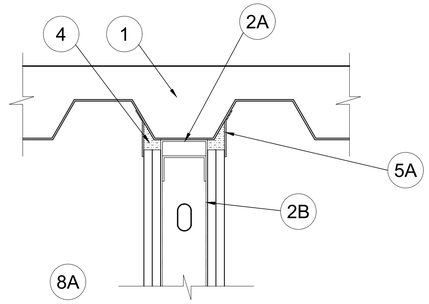
1. WALL ASSEMBLY – 2 HR RATED GYPSUM BOARD ASSEMBLY (SEE WALL TYPES)
2. ONE METALLIC PIPE, CONDUIT OR TUBING CENTERED WITHIN FIRESTOP SYSTEM AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY
3. INSULATION
4. FILL VOID OR CAVITY MATERIAL – SEALANT MINIMUM 1 1/4" INCH THICKNESS FLUSH BOTH SURFACES OF WALL



4 METAL PIPE THROUGH CONCRETE FLOOR / WALL

SYSTEM NO. C-AJ-1276 OR EQUAL

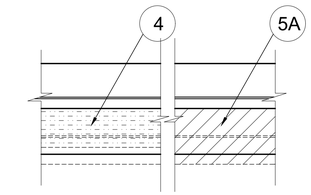
1. MINIMUM 4–1/2 INCH THICK CONCRETE FLOOR OR WALL, OR CMU BLOCK WALL
2. ONE METALLIC PIPE, CONDUIT OR TUBING CENTERED WITHIN FIRESTOP SYSTEM AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY
3. FIRESTOP SYSTEM
   A. PACKING OR FORMING MATERIAL FOAM BACKER ROD OR MINERAL WOOL MIN. 4 PCF
   B. FILL – PUTTY 1 INCH THICKNESS FLUSH WITH SURFACES OF WALL OR FLOOR



8 TOP OF WALL JOINT

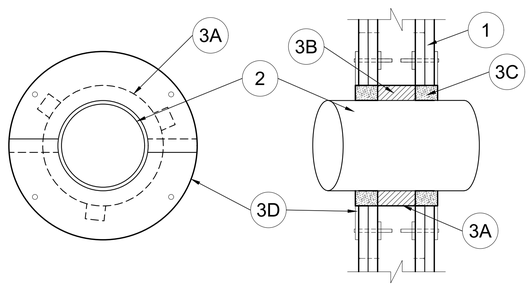
2 HR GYPSUM BOARD WALL ASSEMBLY — 1 1/2"=1'-0"

HW-D-0049 OR EQUAL



(SEE UL SYSTEMS FOR SPECIF INSTALLATION REQUIREMENTS)

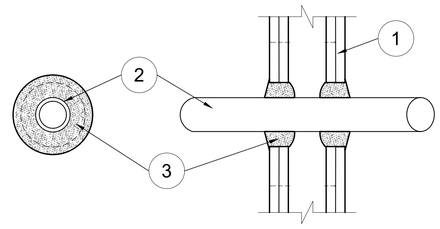
8B



5 METAL PIPE THROUGH WALL ASSEMBLY

SYSTEM NO. W-L-1005 OR EQUAL

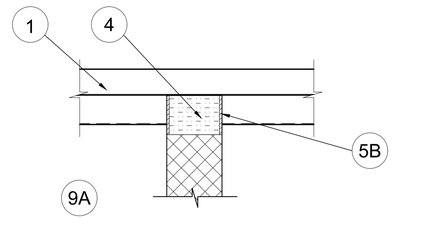
1. WALL ASSEMBLY – 2 HR RATED GYPSUM BOARD ASSEMBLY (SEE WALL TYPES)
2. METALLIC PIPE OR CONDUIT MAXIMUM 4 INCH DIAMETER SCHEDULE 5 OR HEAVIER OR NOMINAL 4" DIAMETER OR SMALLER STEEL CONDUIT OR EMT
3. FIRESTOP SYSTEM
   A. METALLIC SLEEVE: NOMINAL 6" DIAMETER OR SMALLER SLEEVE WITH 3/4" X 3/4" TABS TO RETAIN PUTTY
   B. PACKING MATERIAL MINIMUM 3" THICK 6 PCF MINERAL WOOL
   C. FILL VOID – PUTTY 1" INCH MINIMUM THICKNESS
   D. TRIM RIM NOMINAL 8" DIAMETER SECURED WITH 2" STEEL WALL ANCHORS



6 COPPER TUBING THROUGH GYPSUM WALL ASSEMBLY

SYSTEM NO. W-L-1006 OR EQUAL

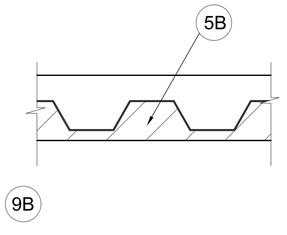
1. WALL ASSEMBLY – 2 HR RATED GYPSUM BOARD ASSEMBLY (SEE WALL TYPES)
2. COPPER TUBING – MAXIMUM NOMINAL 1 INCH DIAMETER TYPE L OR HEAVIER
3. FIRESTOP SYSTEM – PUTTY WITHIN ANNULAR SPACE A MINIMUM OF 1 1/2" INCH DEPTH BOTH SURFACE OF WALL



9 TOP OF WALL JOINT

2 HR CONCRETE BLOCK WALL ASSEMBLY — 1 1/2"=1'-0"

UL SYSTEM HW-D-0080 OR EQUAL



FIRE-RESISTANT JOINT SEALANTS LEGEND

1. FLOOR ASSEMBLY: FIRE-RATED STEEL DECK & CONCRETE ASSEMBLY.
2. WALL ASSEMBLY: 2 HOUR FIRE-RATED GYPSUM BOARD ASSEMBLY. (SEE WALL TYPES)
   A. MIN. 25 GA. GALV. STEEL CEILING RUNNER W/ 2" FLANGE ATTACHED TO VALLEYS OF STEEL DECK W/ STEEL FASTNERS @ 12" OC.
   B. STEEL STUDS CUT 3/4" LESS THAN FULL HEIGHT NESTING IN CEILING RUNNER WITHOUT ATTACHMENT. MAINTAIN 1" MAX GAP BETWEEN TOP OF GWB AND STEEL DECK.
3. WALL ASSMBLY: FIRE-RATED 6" CONCRETE BLOCK
   A. JOINT – MAX SEPARATION OF 1" BETWEEN BOTTOM OF FLOOR & TOP OF WALL.
4. FORMING MATERIAL – TIGHTLY PACKED MINERAL WOOL BATT INSULATION.
5. FILL MATERIAL
   A. MIN 1/8" TO COVER FORMING MATERIAL AND OVERLAP GWB 1/2" AT GYPSUM BOARD WALLS.
   B. MIN 1/4" THICK INSTALLED EACH SIDE BETWEEN TOP OF WALL & STEEL DECK AT CONCRETE BLOCK WALLS.

GENERAL NOTES

1. SEE SPECIFCATION SECTION 078420 FOR FIRE RESISTANT JOINT SEALANTS SPECIFICATION. JOINT SEALANT ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE UL SYSTEM FOR REQUIRED WALL AND FLOOR FIRE RATING.
2. SEE SPECIFATION SYSTEM 078400 FOR THROUGH PENTRATION FIRESTOP SYSTEMS SPECIFCATIONS. UL-CLASSIFIED SYSTEMS FOR VARIOUS TYPES OF FILL MATERIALS AND ARE SCHEDULED AND SPECIFIED IN THIS SECTION.

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CONSULTANTS

NO.	DESCRIPTION	DATE

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT
FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458
FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT
KENNETH O BAINTON
018133-1
STATE OF NEW YORK

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 06/14/2021

DESCRIPTION

TYPICAL FIRESTOPPING DETAILS

DRAWING NUMBER

A-601. 00

PROJECT No: –

JOB# X00539835-I1

ENERGY COMPLIANCE STATEMENT

RE 2020 ECCNY, CHAP 5. REMOVALS AND NEW PARTITIONS AND DOORS SHALL BE MADE AS SHOWN. NO CHANGE TO BLDG ENVELOPE, PLUMBING OR MECHANICAL UNDER THIS APPLICATION.

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CONSTRUCTION CODE USING CHAPTER C4

NYC ENERGY CODE COMPLIANCE 2020

This building is a Commercial building as per the definitions of

Chapter C2, Section ECC C202 GENERAL DEFINITIONS below:

COMMERCIAL BUILDING. - The term "commercial building" includes all buildings that are not included in the definition of "residential buildings."

Commercial Energy Efficiency:		Not Applicable	Complies	Exempt
		no work of this type proposed under this application	see attached analysis	per NYCECC
Sect. C402.1	Building Envelope Requirements General			
C402.2	Specific building thermal envelope insulation requirements.	X		
C402.3	Roof solar reflectance and thermal emittance.	X		
C402.4	Fenestration	X		
C402.4.3	Maximum U-Factor and SHGC	X		
C402.5	Air leakage - thermal envelope			
C402.5.1	Air barriers	X		
C402.5.2	Air leakage of fenestration	X		
C402.5.3	Rooms containing fuel-burning appliance	X		
C402.5.4	Doors and access openings to shafts, chutes, stairways and elevator lobbies	X		
C402.5.5	Air intakes, exhaust openings, stairways and shafts	X		
C402.5.6	Loading dock weatherseals	X		
C402.5.7	Vestibules	X		
C402.5.8	Recessed lighting	X		
		X		
Sect. C403.1	Building Mechanical Systems General			
C403.2	Provisions applicable to all mechanical systems	X		
C403.3	Economizers	X		
C403.4	Hydronic and multiple-zone HVAC systems controls and equipment.	X		
Sect. C404.1	Service Water Heating General			
C404.2	Service water-heating equipment performance efficiency	X		
C404.3	Heat traps	X		
C404.4	Insulation of piping	X		
C404.5	Efficient heated water supply piping	X		
C404.6	Heated-water circulating and temperature maintenance systems	X		
C404.7	Demand recirculation controls.	X		
C404.8	Drain water heat recovery units	X		
C404.9	Energy consumption of pools and permanent spas.	X		
C404.10	Energy consumption of portable spas	X		
C404.11	Service water-heating system commissioning and completion requirements	X		
		X		
Sect. C405.1	Electrical Power and Lighting Systems General			
C405.2	Lighting controls		X	
C405.3	Exit signs		X	
C405.4	Interior lighting power requirements		X	
C405.5	Exterior lighting	X		
C405.6	Electrical energy consumption	X		
C405.7	Electrical transformers	X		
C405.8	Electrical motors	X		
C405.9	Vertical and horizontal transportation systems and equipment	X		

LIGHTING CALCULATION

NEW BOILER ROOM AT FIRST FLOOR

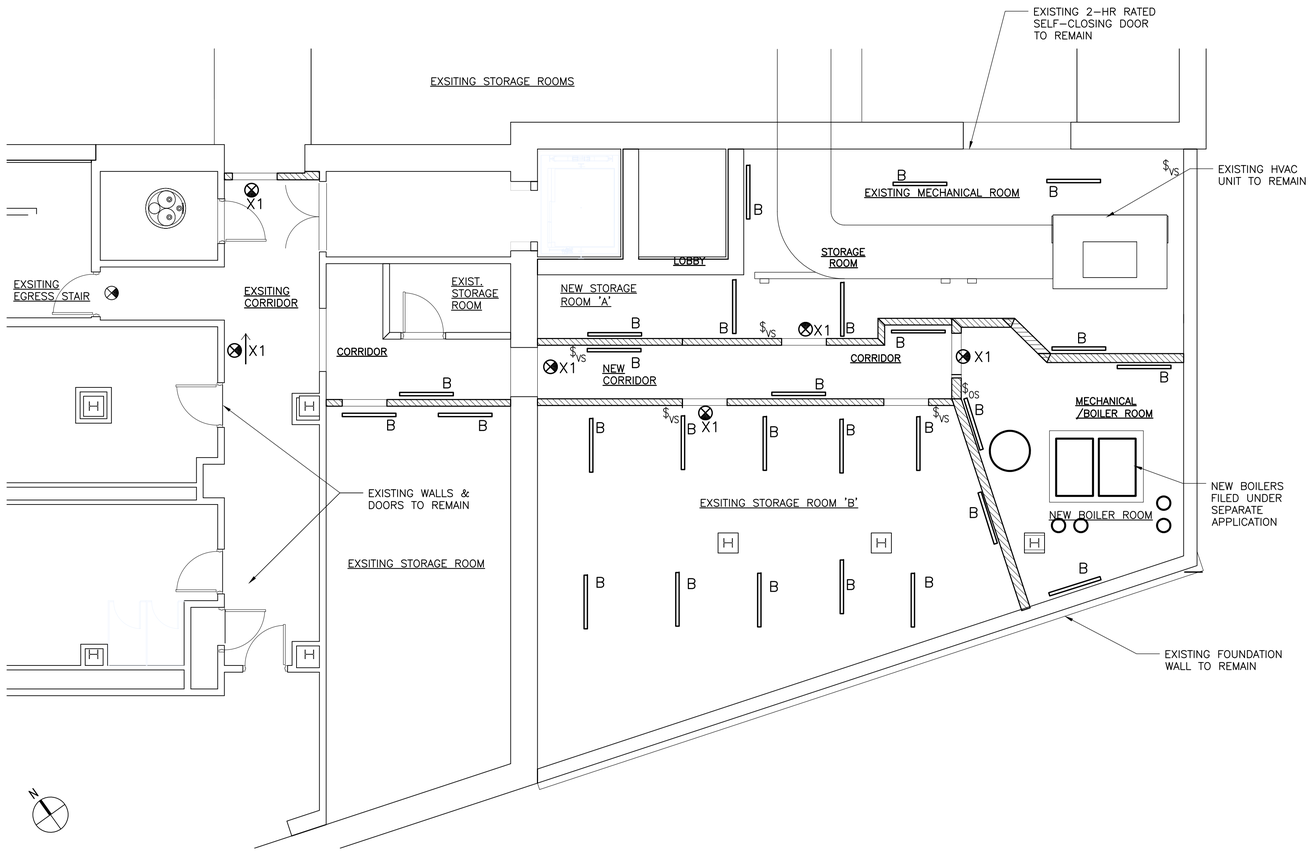
MECHANICAL /BOILER ROOM	STORAGE ROOM A	CORRIDOR
TOTAL ALLOWANCE 254 SQ. FT. X 0.39 W/SF = 99 WATTS. TYPE B 28W X 3 = 84.0 W 84.0 W < 99 W ☐	TOTAL ALLOWANCE 343 SQ. FT. X 0.43 W/SF = 147 WATTS. TYPE B 28W X 5 = 140 W 140 W < 147 W ☐	TOTAL ALLOWANCE 209 SQ. FT. X 0.58 W/SF = 121.2 WATTS TYPE B 28 W X 4 = 112 W 112 W < 121 W ☐
MECHANICAL ROOM	**STORAGE ROOM B**	
TOTAL ALLOWANCE 187 SQ. FT. X 0.39 W/SF = 73 WATTS. TYPE B 28 W X 2 = 56 W 56 W < 73 W ☐	TOTAL ALLOWANCE 725 SQ. FT. X 0.43 W/SF = 311.7 WATTS. TYPE B 28 W X 11 = 308 W 308 W < 314 W ☐	

LIGHTING FIXTURE SCHEDULE

EM/NL = EMERGENCY / NIGHT LIGHT

(MODEL NUMBERS ARE PROVIDED FOR ACCEPTABLE MANUFACTURERS. SUBSTITUTIONS OF EQUAL QUALITY AND FUNCTION WILL BE CONSIDERED.)

DESIG.	SYMBOL	DESCRIPTION	MANUF./ MODEL	REMARKS/LAMPS
	$VS	INDICATES WALL MOUNTED VACANCY SENSOR		
B	▭	4FT MVOLT SWITCHABLE LED STRIP LIGHT - SURFACE OR PENDANT MOUNTED	LITHONIA LIGHTING CSS L48 AL03 MVOLT SWW3 80CRI	3500K STANDARD LED SYSTEM; 28 WATTS / FIXTURE
C	○	EXISTING DOWNLIGHT FIXTURE TO REMAIN BULBS REPLACED WITH LED BULBS		
X1	⊗	SURFACE MOUNTED LED EXIT LIGHT, BATTERY BACKUP	ATLITE RIVAL SERIES - RXS-N-8-R-U	LED LAMPS PROVIDE MOUNTING AS REQUIRED PER FIELD CONDITIONS



2 CELLAR LIGHTING PLAN

3/16"=1'-0"

ENERGY TABULAR ANALYSIS - Commercial:

Fordham University Thebaud Hall First floor and Broiler replacement, Bronx, NY;
Climate Zone 4A (commercial) (Table 301.1)

Analysis: Chapter 4C of the 2020 New York City Energy Conservation Code

Item Description	Proposed Design Value	Code Prescriptive Value and Citation	Supporting Documentation
Provide interior lighting controls as required	Interior lighting controls include manual, automatic and occupant sensor controls	Lighting systems shall be provided with controls as required in Section C405.2	See plan on this sheet
Add new lighting in corridor	0.54 W/sf	Max. wattage: 0.58 W/sf (Table C405.3.2(2))	See plan, lighting fixture schedule, and calculation on EN-102
Add new lighting in storage rooms	0.43 W/sf	Max. wattage: 0.43W/sf (Table C405.3.2(2))	See plan, lighting fixture schedule, and calculation on EN-102
Add new lighting in boiler & mechanical rooms	0.35 W/sf	Max. wattage: 0.39 W/sf (Table C405.3.2(2))	See plan, lighting fixture schedule, and calculation on EN-102
Add new exit signs	5 W/Side	Max. wattage: 5 W/Side (Section 405.1.1)	See plan on this sheet

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S6
MECHANICAL SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S7
BOILER SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835-S8

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CONSULTANTS

NO.	DATE	DESCRIPTION

DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT

FACULTY MEMORIAL HALL
655 EAST FORDHAM ROAD, BRONX, NY 10458

FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

REGISTERED ARCHITECT JOSEPH A. KOUZMANOFF 018133-1 STATE OF NEW YORK

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 2/14/2023

DESCRIPTION

CELLAR FLOOR LIGHTING PLAN

DRAWING NUMBER

EN-102. 00

PROJECT No: -

JOB# X00539835-P1

DEPARTMENT OF BUILDING NOTES

1. This application proposes changes to egress but not occupancy or use

2. The proposed work filed under this application is to remove and install new stairs. No exterior work is involved under this application.

3. No change is proposed to the building's existing "Class 1, Fireproof" construction.

4. All new work shall strictly comply with all applicable provisions of the New York City building laws, including the administrative building code and NYC construction code.

5. All materials, assemblies, forms and methods of construction shall comply with the 2008 NYC construction codes, including articles 113 thru 114 and other rules as promulgated by the office of technical certification and research of the NYC building dept.

6. The contractor shall obtain and pay for all required permits prior to commencement of any of the proposed work. Contractor shall strictly comply with all applicable "Permit Requirements" of BC Article 105, including posting of permits at the job site as per SECT. 28–105.11 and " Conditions of Permits" as per SECT.105.12.

7. The contractor shall arrange for and obtain all required inspections from all governmental agencies having jurisdiction or their designated representatives, including those prescribed by: Title 28 Article 116; Chap.1 SECT.109 and Chap.17 of the 2008 NYC Construction code.

TENANT SAFETY NOTES

1. All work to be done in accordance with the New York City Building Code, Subchapter 19, and all other regulations of all other agencies having jurisdiction.

2. Construction work shall be confined to the building interior and shall not create dust, dirt or other such inconveniences to the other tenants in the building. Such measures may include but not be limited to: Installation of air seals on doors to public areas and common vents, temporary dust barriers, timely removal of food stuffs. No removal of asbestos or lead paint is anticipated under this application. Should such work become required, it shall be performed in strict compliance with all applicable regulations of Dep and any other agency having jurisdiction.

3. Construction operations shall not block hallways or means of egress for other tenants in the building.

4. Construction operations shall be confined to normal working hours: 9:00 am to 5:00 pm, and excluding legal holidays and weekends.

5. Construction operations shall not involve interruption of heating, water, or electrical services to other tenants in the building without prior consent by the managing agent. Contractor shall also obtain prior written consent of all parties affected by his working during other than regular hours.

6. All building materials stored in the construction area, and/ or any area of the building are to be secured in a locked area. Access to such areas to be controlled by the owner and/ or general contractor.

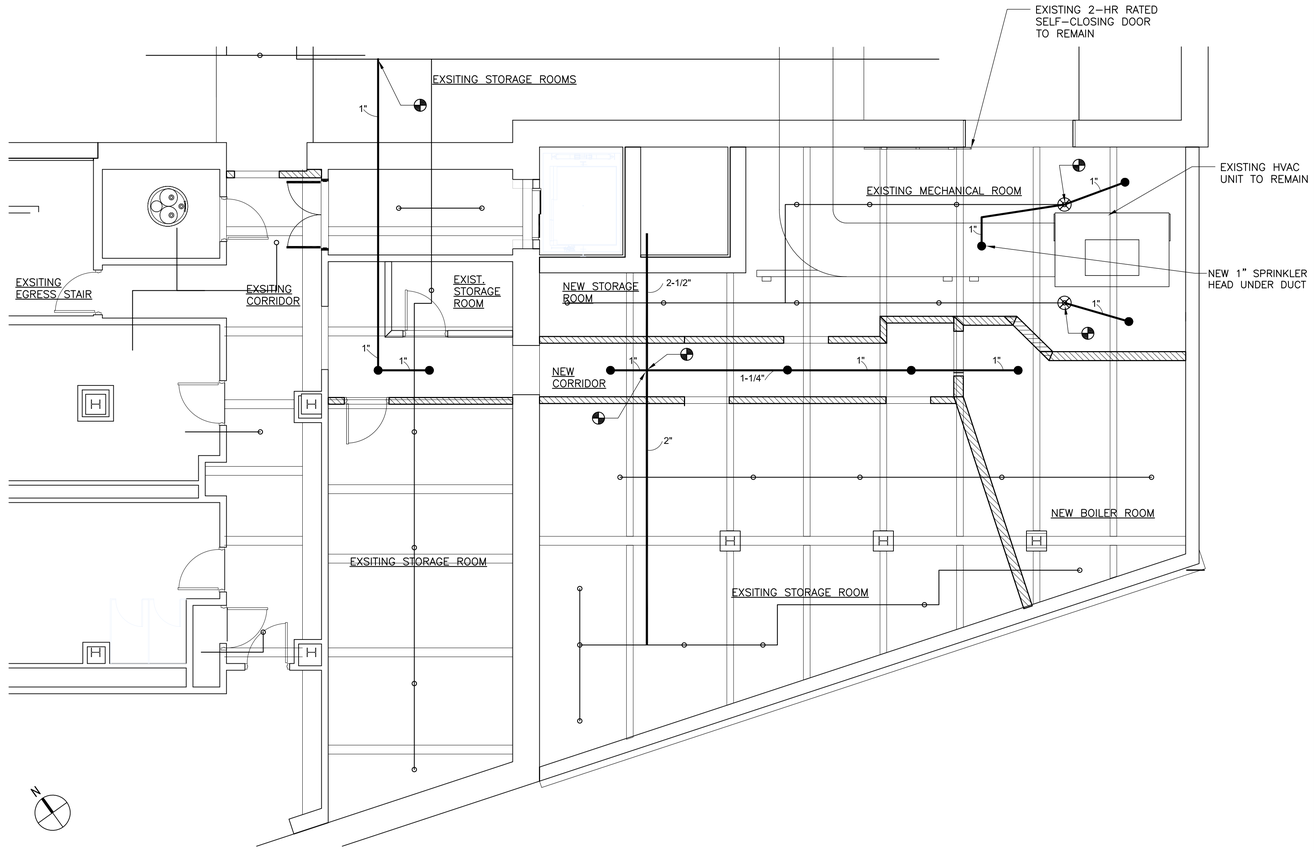
7. Construction and Housekeeping operations shall strictly observe all applicable laws and controls, in regard to fire safety. In addition, all contractors shall undertake additional fire safety measures, where appropriate to the nature of the work being performed. Such measures during construction may include, but not be limited to: Maintain existing smoke and carbon monoxide detectors in working order or install temporary devices; Maintain existing sprinkler heads in working order and unobstructed; Provide fire extinguishers on site; Maintain the integrity of all fire rated assemblies or provide temporary equivalents; All flammable materials to be kept tightly sealed in their respective manufacturer's containers and stored in and adequately ventilated space.

8. All electrical power in the construction area to be shutoff after working hours.

9. Plans submitted by the applicant shall require compliance with the above items during construction. Details such as temporary fire rated assemblies and opening protectives shall be included.

10. All required structural work shall be performed in a manner that will not endanger the occupants of the demised space or other spaces within the building. The contractor shall provide adequate temporary bracing and shoring wherever any structural work is involved.

11. The proposed work area shall be vacant for the duration of the construction work under this application, however tenants in other areas within this building shall remain in occupancy.



2 CELLAR CONSTRUCTION PLAN

3/16"=1'-0"

PIPING SYMBOLS

- EXISTING PIPES TO BE REMOVED
- EXISTING PIPES TO REMAIN
- NEW PIPES TO BE SCHEDULE 40 BLACK STEEL WITH THREADED MALLEABLE IRON FITTINGS 1" THRU 2" AND SCHEDULE 10 GROOVED JOINT (VICTAULIC) SIZES 2-½ AND UP
- EXISTING SPR. HEADS TO REMAIN
- EXISTING SPR. HEADS TO BE REMOVED

NOTE:
PLUMBING SCOPE IS FILED UNDER SEPARATE APPLICATION
DOB NOW JOB#X00539835–S6
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CONSULTANTS

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DWG ISSUE & REVISION HISTORY

NEW CONDENSING BOILERS PROJECT

FACULTY MEMORIAL HALL

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FORDHAM UNIVERSITY
ROSE HILL CAMPUS, BRONX

DOB STAMP

DOB STICKER

SEAL & SIGNATURE

DRAWN BY	CHECKED
AW	JK/ KB

SCALE AS NOTED

DATE 9/14/2022

DESCRIPTION

CELLAR FLOOR SPRINKLER PLAN AND KEY PLAN

DRAWING NUMBER

SP-022. 00

PROJECT No: –

JOB# X00539835-P1

GENERAL NOTES:

LOCATIONS OF ALL FIRE ALARM EQUIPMENT SHALL BE SELECTED BY AN ARCHITECT, SUBJECT TO THE BUILDING DEPARTMENT APPROVAL. NO CHANGES AND /OR MODIFICATIONS OF THE SYSTEM ARE ALLOWED WITHOUT THE ENGINEER'S WRITTEN APPROVAL. CONTRACTOR SHALL KEEP RECORDS OF ALL SUCH CHANGES. IF ANY SUBSTANTIAL CHANGES TO THE APPROVED PLANS WERE MADE PREVIOUS TO OR DURING THE INSTALLATION, AS -BUILT PLANS TO BE FILED FOR FINAL ACCEPTANCE.

NO WORK SHALL BE STARTED UNTIL PLANS ARE APPROVED BY THE AUTHORITIES HAVING JURISDICTION (AHJ).

ALL FIRE ALARM SIGNAL WIRING SHALL BE IN COMPLIANCE WITH NATIONAL ELECTRICAL CODE (NEC) ARTICLE 760 (2011 VERSION) ALL POWER & GROUND WIRING SHALL BE PROTECTED THROUGHOUT THE HEAVY WALL, THREADED RIGID STEEL CONDUIT, ALUMINUM THREADED CONDUIT MAY BE ACCEPTABLE, WHEN IT IS NOT EMBEDDED IN CONCRETE.

POWER CONDUCTORS (ABOVE 75 VOLTS) SHALL BE:
COPPER: THHN, THWN, THWN/THHN, TFFN, TFN, FEP, RHH, RHW-2, XHH, OR XHHW: MINIMUM 600 VOLTS; 90 C; FOR INSTALLATION IN RIGID METALLIC CONDUIT (RMC), INTERMEDIATE METALLIC CONDUIT (IMC).
CABLE TYPE MI. U.L. APPROVED FOR 2-HOUR FIRE RESISTANCE RATING.

LOW VOLTAGE CONDUCTORS (75 VOLTS AND LESS) SHALL BE:
COPPER: THHN, THWN, THWN/THHN, TFFN, TFN, FEP, RHH, RHW-2, XHH, OR XHHW: MINIMUM 600 VOLTS; 90 C; FOR INSTALLATION IN RIGID METALLIC CONDUIT (RMC), INTERMEDIATE METALLIC CONDUIT (IMC) OR ELECTRIC METALLIC TUBING (EMT).

MINIMUM WIRE SIZE NO.18 AWG

MULTI-CONDUCTOR CABLES RUN IN RACEWAYS OR EXPOSED AS DESCRIBED HEREINAFTER, SHALL MEET THE FOLLOWING ADDITIONAL REQUIREMENTS:
TYPE FPLP ONLY: MINIMUM INSULATION THICKNESS 15 MILS: MINIMUM TEMPERATURE 150 C COLORED RED.
RED COLORED JACKET OVERALL: MINIMUM THICKNESS 25 MILS.

CABLE PRINTING AS PER UL 1424: MUST BEAR ADDITIONAL DESCRIPTION "ALSO CLASSIFIED NYC CERT. FIRE ALARM CABLE" LEGIBLE WITHOUT REMOVING JACKET.
(FOR USE IN NEW YORK CITY ONLY).

FLEXIBLE PROTECTION IS NOT ACCEPTABLE, EXCEPT IF NOT MORE THEN 36" CONNECTION TO FIRE ALARM DEVICES, SUCH AS WATER FLOW AND TAMPER SWITCHES, WHERE RIGID CONNECTION MAY NOT BE PRACTICAL. ALL WIRING SHALL BE CONNECTED BY SOLDERING, APPROVED TERMINAL STRIPS OR U.L. LISTED "SCOTCH-LOCKS". POWER CONDUCTORS (ABOVE 75 VOLTS) SHALL BE THHN, THWN/THHN, TFFN, TFN, FEP, RHH, RHW-2, XHH OR XHHW; MINIMUM 600 VOLTS; 90 C.

POWER CONDUCTORS SHALL NOT BE INSTALLED IN COMMON RACEWAYS WITH LOW VOLTAGE CONDUCTORS. CONDUCTORS OTHER THAN M.I. CABLE SHALL BE RUN IN RACEWAY, EXCEPT AS SPECIFICALLY DESCRIBED BELOW:
MULTI-CONDUCTOR CABLES MAY BE INSTALLED WITHOUT RACEWAY PROTECTION WHERE CABLE IS PROTECTED BY BUILDING CONSTRUCTION. WHERE NOT PROTECTED BY BUILDING CONSTRUCTION, CABLES SHALL BE LOCATED 8 FEET OR MORE ABOVE THE FINISHED FLOOR AND NOT SUBJECT TO PHYSICAL TAMPERING OR HAZARD. LOCATIONS WITHIN EIGHT FEET OF THE FINISHED FLOOR THAT ARE DEEMED AS "PROTECTED BY BUILDING CONSTRUCTION" SHALL INCLUDE RAISED FLOORS, SHAFTS, TELEPHONE AND COMMUNICATION EQUIPMENT ROOMS AND CLOSETS AND ROOMS USED EXCLUSIVELY FOR FIRE ALARM SYSTEM EQUIPMENT.

IN ANY SUPPRESSION AND EXTINGUISHING SYSTEM ACTIVATED BY AUTOMATIC FIRE DETECTION, INCLUDING, BUT NOT LIMITED TO PRE-ACTION SPRINKLER, DELUGE SPRINKLER, CLEAN AIR AGENT, HALON, RANGE HOOD, C02 AND DRY CHEMICAL, MULTI-CONDUCTOR CABLES SHALL BE INSTALLED IN RMC IMC. OR EMT. (UNLESS ADDITIONAL CONSIDERATIONS ARE ALLOWED BY THE AHJ).

ALL WIRING WITHIN MECHANICAL AND ELEVATOR EQUIPMENT ROOMS SHALL BE RUN IN RACEWAY.

RACEWAYS RUN WITHIN 8 FEET OF FINISHED FLOOR IN GARAGE AREAS, LOADING DOCKS, MECHANICAL ROOMS, AND ELSEWHERE WHERE SUBJECT TO MECHANICAL DAMAGE, SHALL BE RIGID GALVANIZED STEEL CONDUIT ONLY.

WHERE WIRING IS REQUIRED TO BE RUN IN RACEWAY:
INSTALL CONDUCTORS IN RIGID METALLIC CONDUIT (RMC), INTERMEDIATE METALLIC CONDUIT (IMC) OR ELECTRIC METALLIC TUBING (EMT), EXCEPT THAT MULTI-CONDUCTOR CABLES MAY ALSO BE RUN IN SURFACE METAL RACEWAY. FLEXIBLE METALLIC CONDUIT NOT EXCEEDING 36" IN LENGTH SHALL BE PERMITTED FOR FINAL CONNECTIONS TO INITIATING AND NOTIFICATION DEVICES. CONDUCTORS FOR OTHER ELECTRICAL SYSTEMS SHALL NOT BE INSTALLED IN RACEWAYS CONTAINING REFERENCE STANDARD 17 CONDUCTORS.

WHERE ALLOWED TO BE RUN ***WITHOUT*** RACEWAY PROTECTION, MULTI-CONDUCTOR CABLES SHALL BE INSTALLED AS FOLLOWS:
CABLES SHALL NOT DEPEND ON CEILING MEDIA, PIPES, DUCTS, CONDUITS. OR EQUIPMENT FOR SUPPORT. SUPPORT INDEPENDENTLY FROM THE BUILDING STRUCTURE. SECURE BY CABLE TIES, STRAPS OR SIMILAR FITTINGS, SO DESIGNED AND INSTALLED AS NOT TO DAMAGE THE CABLE. SECURE IN PLACE AT INTERVALS NOT EXCEEDING 5-0" ON CENTERS AND WITHIN 12" OF EVERY ASSOCIATED CABINET BOX OR FITTING.

INSTALLATION OF RACEWAYS, BOXES AND CABINETS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS:
COVERS OF BOXES AND CABINETS SHALL BE PAINTED RED AND PERMANENTLY IDENTIFIED AS TO THEIR USE.
PENETRATIONS OF FIRE-RATED WALLS, FLOORS OR CEILINGS SHALL BE FIRE STOPPED.
WITHIN STAIRWAYS, RACEWAYS WITHIN 8 FEET OF THE FLOOR SHALL NOT BE INSTALLED SO AS TO REDUCE OR OBSTRUCT THE STAIRWAY RADIUS.

RACEWAYS OR CABLES SHALL NOT PENETRATE TOP OF ANY EQUIPMENT BOX OR CABINET.

ALL CONDUITS SUPPLYING 120-VOLT POWER TO THE FIRE COMMAND STATION AND/OR FIRE ALARM CONTROL UNIT AND/OR TO OUTLYING CONTROL CABINETS, SHALL CONTAIN A GREEN INSULATED GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE NEC ARTICLE 760 (#10 AWG MINIMUM). THE GROUNDING CONDUCTOR SHALL BE CONNECTED TO THE GROUND BUS OR OTHER SUITABLE GROUNDING TERMINAL IN EACH BOX AND CABINET IN WHICH IT ENTERS. AT THE FUSE CUTOUT PANEL SUPPLYING THE FIRE ALARM SYSTEM, PROVIDE A GROUNDING ELECTRODE CONDUCTOR SIZED AND INSTALLED IN ACCORDANCE WITH THE NEC ARTICLE 760 (#10 AWG MINIMUM).

FOR CABINETS WHOSE L20-VOLT SUPPLY IS NOT DERIVED FROM THE MAIN FIRE ALARM SYSTEM CUTOUT PANEL. PROVIDE GREEN INSULATED SEPARATE GROUNDING ELECTRODE CONDUCTORS SIZED AND INSTALLED AS PER NEC ARTICLE 760 (#10 AWG MINI. MUM). IN STEEL-FRAMED BUILDINGS, A CONNECTION TO LOCAL STEEL STRUCTURE WILL BE ACCEPTABLE.

SPLICES AND TERMINATION OF WIRES AND CABLES SHALL BE AS FOLLOWS:
PERMITTED ONLY IN BOXES OR CABINETS SPECIFICALLY APPROVED FOR THE PURPOSE.

UTILIZE MECHANICAL CONNECTIONS SPECIFICALLY APPROVED BY U.L. 486 A & C FOR THE CONDUCTORS, OR IF SOLDERED, FIRST JOINED SO AS TO BE MECHANICALLY AND ELECTRICALLY SECURE PRIOR TO SOLDERING AND INSULATING. TEMPERATURE RATING OF COMPLETED SPLICES SHALL EQUAL OR EXCEED THE TEMPERATURE RATING OF THE HIGHEST RATED CONDUCTOR.

WIRING FOR AUDIBLE AND VISUAL ALARM NOTIFICATION DEVICES SHALL BE ARRANGED SO THAT A LOSS OF A PORTION OF THE WIRING ON A FLOOR WILL NOT RENDER MORE THAN 60% OF THE DEVICES OF EACH TYPE INOPERATIVE, AND THE DEVICES SHALL BE SO CONNECTED TO THE CIRCUITRY (I.E.. BY MEANS OF ALTERNATE CIRCUITS) AS TO MAINTAIN AT LEAST PARTIAL AUDIBILITY/VISIBILITY THROUGHOUT THE ENTIRE FLOOR.

ALL WORK SHALL BE DONE IN ACCORDANCE WITH NEC ARTICLE 760 AND AHJ STANDARDS AND REQUIREMENTS.

ALL MATERIALS AND DEVICES USED IN FIRE ALARM SIGNAL SYSTEMS SHALL BE SECURELY FASTENED IN POSITION. PLASTIC ANCHORS ARE NOT ACCEPTABLE. ALL FIRE ALARM CABINETS, PULL BOX COVERS, ETC. SHALL BE PAINTED RED.

THE CENTERLINE OF ALL AUDIBLE DEVICES SHALL BE LOCATED AT LEAST 80" A.F.F., EXCEPT THAT IN LOCATIONS WHERE CEILINGS PREVENT THE INSTALLATION AT THIS HEIGHT, THE CENTERLINE OF THE HORN/SPEAKER SHALL BE LOCATED 6" BELOW CEILING.

CANDELA RATING FOR STROBE, HORN/STROBE, SPEAKER/STROBE SHOULD BE MIN. 75, CONTRACTOR SHALL ADJUST IN FIELD AND/OR ADD ADDITIONAL DEVICES TO COMPLY WITH CODE.

CARBON MONOXIDE NOTE:

LISTED CARBON MONOXIDE ALARMS AND/OR DETECTORS ARE REQUIRED TO BE INSTALLED IN **GROUP R-1, R-2, R-3 AND/OR I-1 OCCUPANCIES** PER SECTION 908.7.1 OF THE NYC BUILDING CODE.

PURSUANT TO SECTIONS 908.7.2 AND 908.7.3 OF THE NYC BUILDING CODE, LISTED CARBON MONOXIDE (CO) DETECTORS REQUIRED TO BE INSTALLED IN **E, I-2, AND I-4 OCCUPANCIES** AND IN BUILDINGS EQUIPPED WITH A FIRE ALARM SYSTEM THAT CONTAIN A GROUP **A-1, A-2, A-3, B AND/OR M OCCUPANCIES** (AS DEFINED IN BC CHAPTER 3) MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF 1 RCNY 908-01.

FIRE ALARM NOTES:

* INSTALLATION SHALL COMPLY WITH THE 2014 NYC CONSTRUCTION CODES, ELECTRICAL WORK SHALL COMPLY WITH 1 RCNY 4000-06, EQUIPMENT/DEVICE USED ARE BY APPROVED MANUFACTURERS AND ARE LISTED FOR THEIR USE.

* ALL HVAC UNITS ABOVE 2,000 CFM TO HAVE DUCT DETECTION WITH FAN SHUT DOWN (V.I.F.) AND TO BE MANUALLY RESTARTED AFTER RESET OF FIRE ALARM SYSTEM, VIA SEPARATE FAN RESTART SWITCH, TO COMPLY WITH 2014 NYC MECHANICAL CODE (SECTION MC 606).

* THE FIRE ALARM SYSTEM SHALL BE OF AN ADDRESSABLE TYPE. THE SYSTEM SHALL CONFORM TO ALL NYC BUILDING CODE, LOCAL LAWS AND NYC FIRE DEPARTMENT REQUIREMENTS. CONTRACTOR TO VERIFY WITH FIRE ALARM VENDOR MAX. NUMBER OF DEVICES PER CIRCUIT (TYP.). EXACT LOCATION AND QUANTITY OF FIRE ALARM DEVICES TO BE VERIFIED IN FIELD.

* ALL AUXILIARY RELAYS FOR FAN SHUTDOWN, DOOR RELEASE, DAMPER CONTROL, ELEVATOR CONTROL, ETC SHALL BE WIRED A MAXIMUM OF 3' FROM THE CONTROLLED DEVICE.

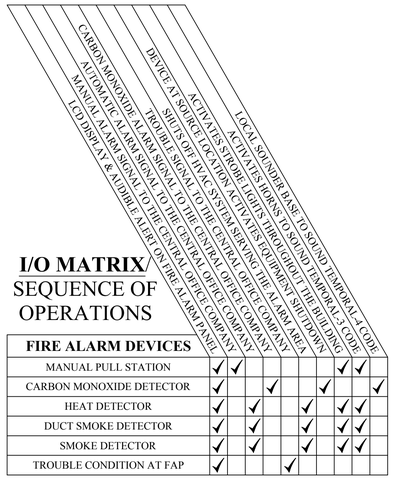
* ALL SMOKE/HEAT/CO DETECTORS TO BE MIN. 3' AWAY FROM SUPPLY AND RETURN AIR REGISTERS.

* INSTALL AREA SMOKE DETECTORS IN ALL RESPECTIVE ELECTRICAL, MECHANICAL, TELEPHONE, I.T., AND SIMILAR ROOMS ON ALL RESPECTIVE / APPLICABLE PROPOSED FLOORS THROUGHOUT.

* AS PER 2014 NYC BUILDING CODE SECTION 903.4 *SPRINKLER SYSTEM SUPERVISION AND ALARMS*, ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS, PUMPS, TANKS, WATER LEVELS AND TEMPERATURES, CRITICAL AIR PRESSURES AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY SUPERVISED BY THE FIRE ALARM SYSTEM WHERE A FIRE ALARM SYSTEM IS REQUIRED BY SECTION 907.

ENERGY CODE COMPLIANCE NOTE:

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT THESE PLANS AND SPECIFICATIONS ARE EXEMPT FROM THE ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE BECAUSE OF THE WORK PROPOSED UNDER THIS APPLICATION DOES NOT AFFECT THE ENERGY USE OF THE BUILDING



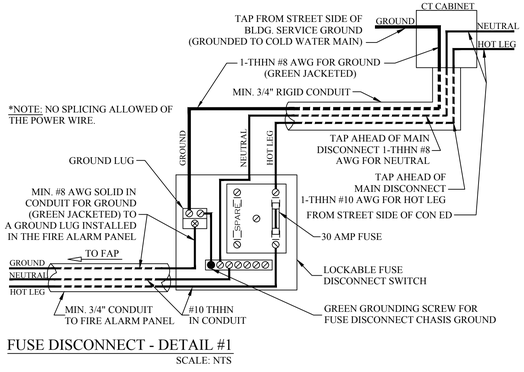
I/O MATRIX
SEQUENCE OF OPERATIONS

FIRE ALARM DEVICES									
MANUAL PULL STATION	✓	✓					✓	✓	
CARBON MONOXIDE DETECTOR	✓			✓		✓			✓
HEAT DETECTOR	✓		✓			✓		✓	✓
DUCT SMOKE DETECTOR	✓		✓			✓		✓	✓
SMOKE DETECTOR	✓		✓			✓		✓	✓
TROUBLE CONDITION AT FAP	✓				✓				

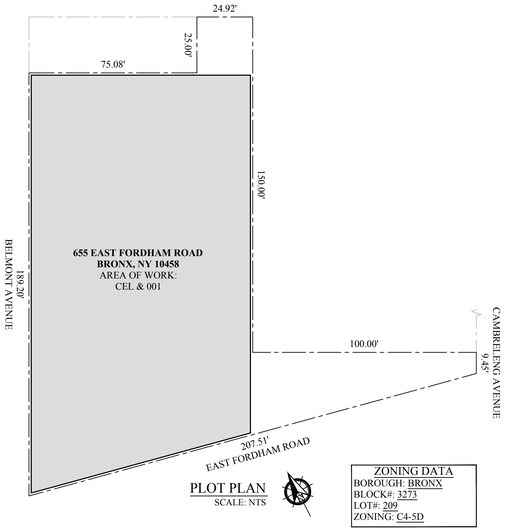
NOTE:
-ALL OTHER SYSTEM INPUT INITIATING DEVICES AND OUTPUT INDICATING / CONTROLLED DEVICES TO FUNCTION AS PER EXISTING APPROVED BASE BUILDING MATRIX/SEQUENCE OF OPERATIONS.

FIRE ALARM LEGEND

FACP	EXISTING FIRE ALARM CONTROL PANEL TO BE REPLACED WITH NEW IN SAME LOCATION	
FDS	LOCKABLE FUSE DISCONNECT SWITCH (SERVICE RATED) AS PER NYC 2011 ELECTRICAL CODE (SEE DETAIL #1)	
S	PHOTOELECTRIC TYPE AREA SMOKE DETECTOR	
D	PHOTOELECTRIC TYPE DUCT SMOKE DETECTOR WITH REMOTE LED (IF CONCEALED)	S = SUPPLY R = RETURN
H	HEAT DETECTOR	
C	CARBON MONOXIDE DETECTOR WITH SOUNDER BASE. REQUIRES 24 VOLT POWER WIRING FROM FAP.	
CM	CONTROL MODULE	
R ESD	RELAY - EQUIPMENT SHUTDOWN	

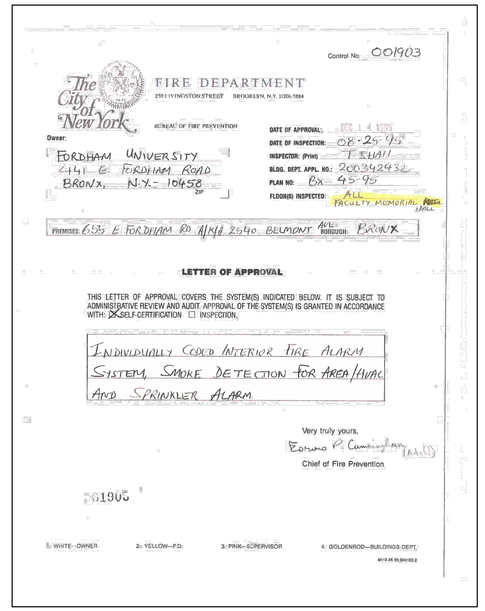


FUSE DISCONNECT - DETAIL #1
SCALE: NTS



PLOT PLAN
SCALE: NTS

ZONING DATA
BOROUGH: BRONX
BLOCK#: 3273
LOT#: 209
ZONING: C4-5D



THE CITY OF NEW YORK
FIRE DEPARTMENT
250 LIVINGSTON STREET BROOKLYN, N.Y. 11201-5884
BUREAU OF FIRE PREVENTION

Control No. 001903

Owner:
FORDHAM UNIVERSITY
2141 E FORDHAM ROAD
BRONX, N.Y. 10458

DATE OF APPROVAL: DEC 14 1995
DATE OF INSPECTION: 08-25-95
INSPECTOR: (Print) T SHAH
BLDG. DEPT. APPL. NO.: 200342932
PLAN NO: Bx 95-95
FLOOR(S) INSPECTED: ALL FACULTY MEMORIAL HALL

PREMISES: 655 E FORDHAM RD A/K/A 2540 BELMONT AVE BOROUGH: BRONX

LETTER OF APPROVAL

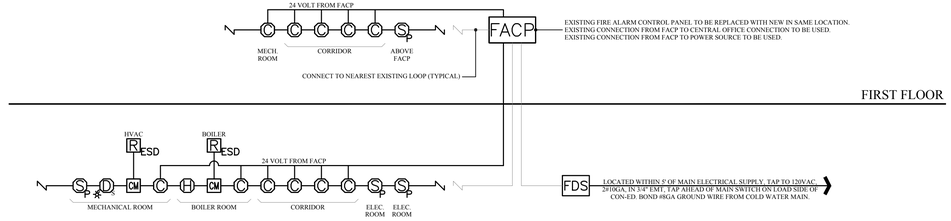
THIS LETTER OF APPROVAL COVERS THE SYSTEM(S) INDICATED BELOW. IT IS SUBJECT TO ADMINISTRATIVE REVIEW AND AUDIT. APPROVAL OF THE SYSTEM(S) IS GRANTED IN ACCORDANCE WITH: ☒ SELF-CERTIFICATION ☐ INSPECTION,

INDIVIDUALLY CODED INTERIOR FIRE ALARM SYSTEM, SMOKE DETECTION FOR AREA/HVAC AND SPRINKLER ALARM.

Very truly yours,
Edward P. Cunningham
Chief of Fire Prevention

G1905

1- WHITE--OWNER 2- YELLOW--F.D. 3- PINK--SUPERVISOR 4- GOLDENROD--BUILDING DEPT.



PARTIAL FIRE ALARM RISER DIAGRAM
SCALE: NTS

CLASSIFICATION OF WIRING

DEVICES	CLASS	LEVEL OF SURVIVABILITY
INITIATING (CIRCUITS)	EXISTING	EXISTING TO REMAIN
INDICATING (CIRCUITS)	EXISTING	EXISTING TO REMAIN
POWER / DATA (PATHWAY)	EXISTING	EXISTING TO REMAIN

AS PER NFPA 72 2010 CHAPTER 12 (12.3 & 12.4).

FIRE ALARM RISER DIAGRAM NOTE: FIRE ALARM RISER DRAWING IS FOR DIAGRAMMATICAL PURPOSES ONLY, NOT TO BE USED AS POINT TO POINT WIRING DIAGRAM. FINAL POINT TO POINT AND QUANTITY OF DEVICES (LIMITED PER CIRCUIT) TO BE DETERMINED BY FIRE ALARM VENDOR AND SHOULD BE PART OF REQUIRED SUBMITTALS.

P.E.C. ASSOCIATES, INC.
2840 LAWRENCE DRIVE, WANTAGH, NY 11793

OPERATIONS OFFICE: 55 WATER STREET, 1SL
NEW YORK, NY 10041
PH: 212-239-8500 FAX: 212-279-1136

THIS PLAN IS APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

REVISION	DATE	SCOPE
--	12/21/22	PRELIMINARY
--	12/21/22	ISSUED FOR FILING - FDNY

PROJECT LOCATION:
FACULTY MEMORIAL HALL PLANT

655 E. FORDHAM ROAD
BRONX, NY 10458

JOB DESCRIPTION:
REPLACEMENT OF FIRE ALARM CONTROL PANEL IN ACCORDANCE WITH DOB BULLETIN 2015-025 (2A) AND ADDITIONS / MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM

DRAWING TITLE:
FIRE ALARM RISER DIAGRAM & LEGEND, MATRIX / SEQUENCE OF OPERATIONS, GENERAL NOTES & PLOT PLAN

PROJECT PATH:A-PROJECTS\FORDHAM\FMH PLANT\DWG

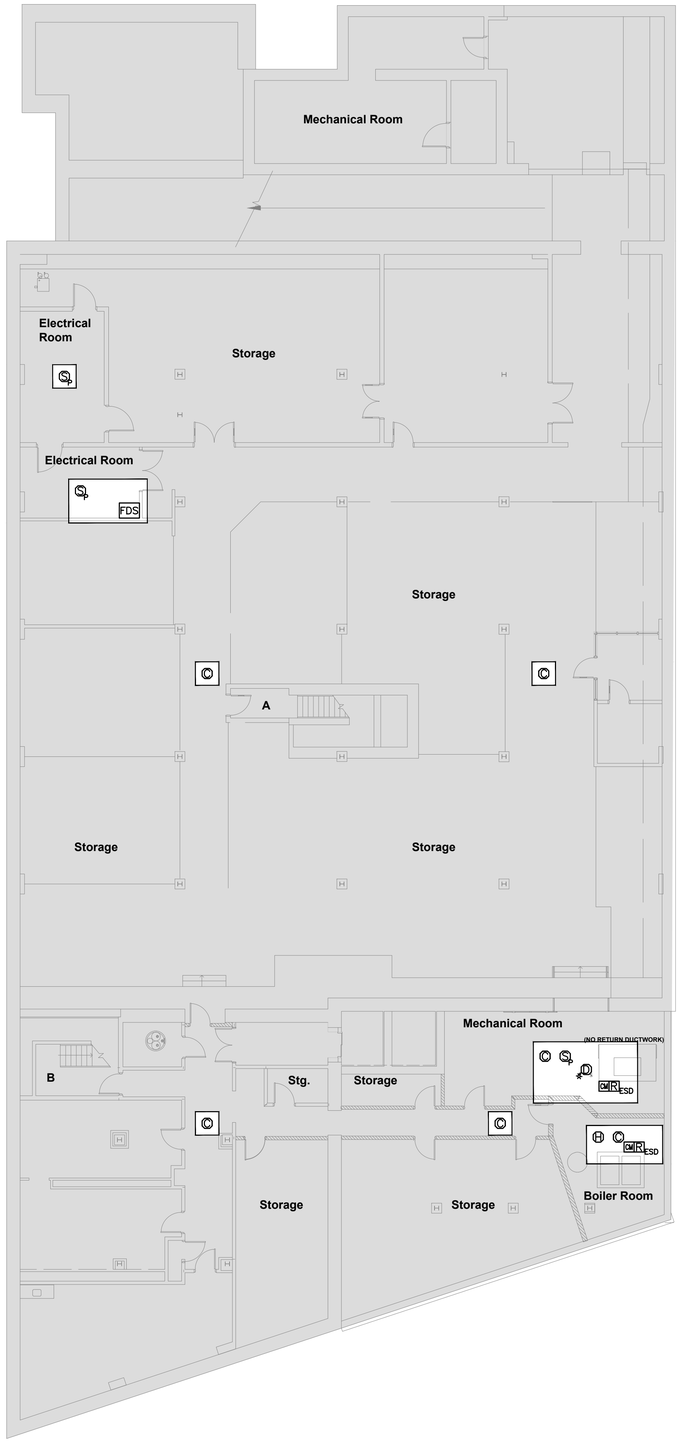
PROJECT NO:	DATE:	SCALE:
22-114	12/21/22	AS NOTED
DRAWN BY:	CHECKED BY:	FLOOR:
MH	MH	AS NOTED

PAGE:
1 OF 2

SHEET No.
FA-001.00

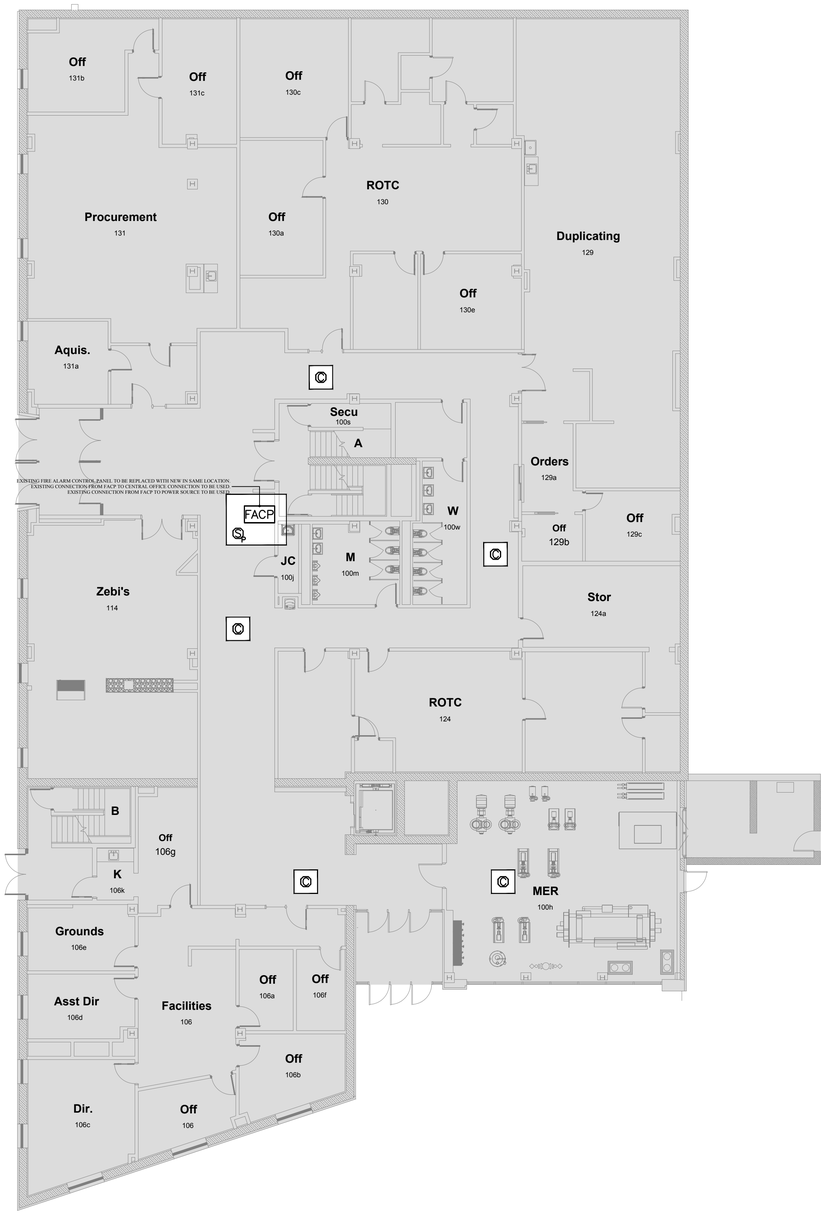
Grace Han, R.A.

REGISTERED ARCHITECT GRACE TAN 034429 STATE OF NEW YORK 01/23/2023



PARTIAL CELLAR FIRE ALARM PLAN
SCALE: 3/32" = 1'-0"

HATCHED AREAS NOT IN CONTRACT.
PROTECTED UNDER SEPARATE APPLICATION (DOB #200342432).



PARTIAL FIRST FLOOR FIRE ALARM PLAN
SCALE: 3/32" = 1'-0"

HATCHED AREAS NOT IN CONTRACT.
PROTECTED UNDER SEPARATE APPLICATION (DOB #200342432).

P.E.C. ASSOCIATES, INC.
2840 LAWRENCE DRIVE, WANTAGH, NY 11793

OPERATIONS OFFICE: 55 WATER STREET, 1SL
NEW YORK, NY 10041
PH: 212-239-8500 FAX: 212-279-1136

THIS PLAN IS APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

REVISION	DATE	SCOPE
--	12/21/22	PRELIMINARY
--	12/21/22	ISSUED FOR FILING - FDNY

PROJECT LOCATION:

FACULTY MEMORIAL HALL PLANT

655 E. FORDHAM ROAD
BRONX, NY 10458

JOB DESCRIPTION:

REPLACEMENT OF FIRE ALARM CONTROL PANEL IN ACCORDANCE WITH DOB BULLETIN 2015-025 (2A) AND ADDITIONS / MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM

DRAWING TITLE:

PARTIAL CELLAR & PARTIAL FIRST FLOOR FIRE ALARM PLANS

PROJECT PATH:A-PROJECTS/FORDHAM/FMH PLANT/DWG

PROJECT NO:	DATE:	SCALE:
22-114	12/21/22	AS NOTED
DRAWN BY:	CHECKED BY:	FLOOR:
MH	MH	AS NOTED

PAGE:
2 OF 2

SHEET No.
FA-002.00

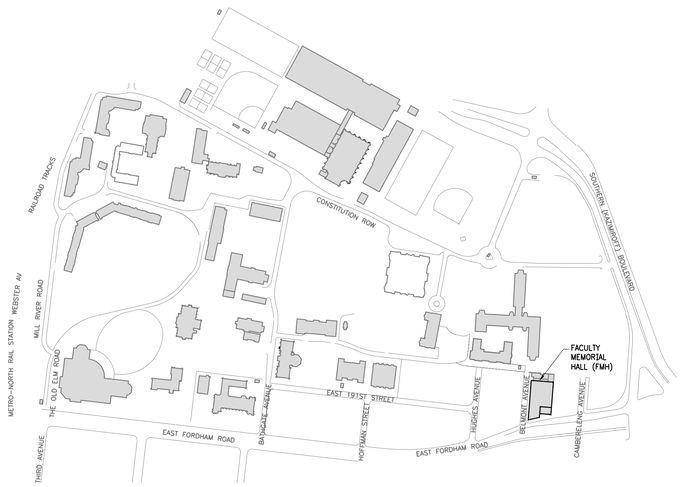
Grace Han, R.A.

REGISTERED ARCHITECT
GRACE HAN
034428
STATE OF NEW YORK
12/23/2022

ISSUED FOR BID & NYC DOB FILING

FORDHAM UNIVERSITY

FMH HEATING HOT WATER BOILERS IN CELLAR MER



1 PLOT PLAN
NTS

PROPERTY IS NOT IN SFHA

BLOCK: 3273
LOT: 1

DOB FILING: BOILER EQUIPMENT

DOB NOW JOB #: X00539835-S8

ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY

BIN: 2016244 BLOCK: 3273 LOT: 209

FORDHAM UNIVERSITY PROJECT NUMBER: ~

LIST OF ASSOCIATED FILINGS:

PLUMBING: APP# X00539835-S6

MECHANICAL: APP# X00539835-S7

BOILER EQUIPMENT: APP# X00539835-S8

FEBRUARY 17, 2023

RAMBOLL

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

LIST OF DRAWINGS

#	DWG. No.	DRAWING TITLE
1	BE-001.00	BOILER EQUIPMENT COVER SHEET
2	BE-002.00	GENERAL NOTES, SYMBOLS & ABBREVIATIONS AND NYC DOB INFORMATION
3	BE-101.00	BOILER EQUIPMENT INSTALLATIONS

BE-001.00

BOILER EQUIPMENT COVER SHEET

1940102717

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
2. EQUIPMENT DIMENSIONAL INFORMATION IS PRESENTED FOR REFERENCE ONLY. DIMENSIONS MAY VARY ACCORDING TO THE EQUIPMENT MANUFACTURER SELECTED AND FIELD VARIATIONS.
3. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS, OR IF HE DOES, IT SHALL BE AT HIS OWN RISK. THE CONTRACTOR SHALL USE FIELD MEASUREMENTS OR WRITTEN DIMENSIONS ONLY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY DIMENSIONAL VARIATIONS BETWEEN THESE CONSTRUCTION DOCUMENTS AND THE AS-DELIVERED EQUIPMENT.
5. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM AND COORDINATE JOBSITE DIMENSIONS THAT AFFECT THE ERECTION OR OPERATION OF SYSTEMS, AS INTENDED BY THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ENSURE INSTALLED EQUIPMENT MAINTAINS ADEQUATE CLEARANCES FOR OPERATIONAL ACCESS AND SERVICE, AND HE SHALL MAINTAIN ANY CLEARANCES REQUIRED BY ALL APPLICABLE CODES.
6. THE CONTRACTOR SHALL INFORM THE OWNER/ENGINEER OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK DESCRIBED HEREIN.
7. IF, DURING THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES OR CONFLICTS WITH THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE AND CONTINUES WITH THE WORK, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING THEREOF.
8. THESE CONTRACT DOCUMENTS ARE INTENDED TO INDICATE THE WORK NEEDED TO PROVIDE A COMPLETE AND READY-FOR-OPERATION INSTALLATION. THESE DOCUMENTS ARE INTENDED TO GUIDE THE CONTRACTOR. THESE DOCUMENTS ARE NOT INTENDED TO SHOW EVERY DETAIL OF THE EXISTING CONDITIONS OR NEW INSTALLATIONS, NOR DO THEY DESCRIBE EVERY FITTING REQUIRED FOR THE INSTALLATION OF THE WORK.
9. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" AND SHALL INCLUDE ALL EQUIPMENT, DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL JOB.
10. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, SUPPORTS, FITTINGS, AND ALL OTHER INCIDENTAL MATERIAL NEEDED FOR THE COMPLETE AND OPERATING INSTALLATION. MINOR ITEMS TO FINISH THE WORK SUCH AS PATCHING, BLOCKING, TRIM, TOUCH-UP PAINT, ETC., SHALL BE PROVIDED WHETHER OR NOT INDICATED IN THE CONTRACT DOCUMENTS.
11. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ASSEMBLE LOOSE EQUIPMENT AND PARTS AS SHIPPED BY THE EQUIPMENT MANUFACTURERS FOR ALL OWNER-FURNISHED EQUIPMENT.
12. IF A SUBSTITUTION MADE BY THE CONTRACTOR RESULTS IN ADDITIONAL COSTS TO A CONTRACTOR IN ANOTHER TRADE OR TO THE OWNER, THE SUBSTITUTING CONTRACTOR SHALL BEAR THE ADDITIONAL COSTS AT NO EXPENSE TO THE OWNER.
13. THE CONTRACTOR SHALL GIVE NOTICES, OBTAIN ALL PERMITS, PAY ALL FEES AND COMPLY WITH ALL LAWS, RULES AND REGULATIONS APPLICABLE TO THE WORK.
14. THE CONTRACTOR SHALL USE SHOP SUBMITTALS FOR FINAL COORDINATION OF HIS WORK.
15. THE CONTRACTOR SHALL SUBMIT EQUIPMENT INFORMATION, SHOP DRAWINGS AND A CONSTRUCTION SCHEDULE TO THE OWNER FOR APPROVAL BEFORE STARTING ANY WORK OR PURCHASING ANY EQUIPMENT.
16. ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM ANY DEFECT. SALVAGED OR REBUILT EQUIPMENT SHALL NOT BE PERMITTED.
17. ALL MATERIALS, PIPING, ETC., SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, AND ALL LOCAL AND NATIONALLY RECOGNIZED STANDARDS, SUCH AS NFPA, NEC, ASTM, UL, ETC., AS EXAMPLES.
18. THE CONTRACTOR SHALL ENSURE COORDINATION SO THAT ONCE THE PROJECT IS STARTED, IT SHALL CONTINUE WITHOUT DELAY UNTIL COMPLETION.
19. THE CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL HIS SUBCONTRACTORS, AND THEIR CONFORMANCE TO THESE CONTRACT DOCUMENTS.
20. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
21. THE CONTRACTOR SHALL PROVIDE NOTIFICATION AND OPPORTUNITY FOR INSPECTION TO THE OWNER BEFORE CLOSING UP ANY WORK, EQUIPMENT, OR PIPING SYSTEM.
22. THE CONTRACTOR SHALL PROVIDE ALL BUILDING MODIFICATIONS AND CONSEQUENTIAL REPAIRS TO THE BUILDING FOR RIGGING, INSTALLATION OF EGRESSES, INSTALLATION OF VENTS, ETC., AS REQUIRED TO PERFORM THIS WORK.
23. THE CONTRACTOR SHALL PERFORM ALL ACCEPTANCE TESTS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
24. THE CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A STATE FREE FROM HAZARDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, FOLLOW SAFE WORKING PRACTICES, AND MAINTAIN THE SITE AND ADJACENT AREAS SAFE FOR WORKERS, INSPECTORS, AND FACILITY EMPLOYEES.
25. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
26. THE OWNER'S REPRESENTATIVE DOES NOT PROFESS TO BE FAMILIAR WITH CONSTRUCTION SITE SAFETY REQUIREMENTS. MEETING SITE SAFETY AND OSHA REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO RETAIN A THIRD PARTY CONSULTANT IF HE OBSERVES PRACTICES THAT APPEAR UNSAFE.
27. IF THE OWNER'S REPRESENTATIVE DEEMS THAT ANY UNSAFE CONDITION APPEARS TO EXIST, THE OWNER HAS THE RIGHT TO STOP ALL WORK. ANY STOP-WORK ORDERS BY THE OWNER BECAUSE OF POTENTIALLY UNSAFE CONDITIONS SHALL NOT BE USED BY THE CONTRACTOR TO DELAY THE WORK SCHEDULE, INCREASE THE CONTRACT VALUE, OR AVOID ANY LIQUIDATED-DAMAGE PENALTIES ASSOCIATED WITH THE WORK OR TO MAKE A CLAIM AGAINST THE OWNER OR CONSTRUCTION MANAGER.
28. THE OWNER REQUIRES ACCESS TO AND AROUND AREAS OF THE BUILDING IMMEDIATELY ADJACENT TO AREAS OF THE WORK. ALL WORK MUST BE CONDUCTED IN A MANNER TO MINIMIZE DISRUPTION OF NORMAL FACILITY OPERATIONS.
29. SAFE AND DIRECT ENTRANCE TO AND FROM THE EXISTING BUILDING SHALL BE MAINTAINED AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
30. ALL CONSTRUCTION MATERIALS AND TOOLS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY OF THE CONTRACTOR'S SHIPPING, DELIVERY OR SECURITY ISSUES RELATED TO MATERIALS, EQUIPMENT, OR TOOL STORAGE.
31. THE CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, ORDERLY AND SAFE CONDITION AT THE END OF EACH WORK DAY. THE SITE AND BUILDING SHALL BE MADE AS SECURE AS POSSIBLE SO AS TO PREVENT UNAUTHORIZED ENTRY AND ACTIVITY. ATTENTION SHALL BE GIVEN TO WEATHER PROTECTION, INCLUDING UNCONDITIONED AIR INFILTRATION DURING THE CONSTRUCTION PERIOD.
32. ALL DEMOLISHED MATERIALS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
33. DISPOSAL OF ALL MATERIALS SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH STATE & LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN THE RECORDS OF PROPER DISPOSAL, WHICH SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE UPON HIS REQUEST.
34. THE OWNER SHALL HAVE THE RIGHT AT ALL TIMES TO EXAMINE THE WORK AND DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS.
35. THE CONTRACTOR SHALL COMPLETE ALL WORK WITH MINIMAL DISRUPTION OF THE FACILITY'S UTILITIES AND OPERATIONS. ANY WORK REQUIRING A SHUTDOWN OF GAS, ELECTRIC, STEAM, OR CONDENSATE UTILITIES SHALL BE SCHEDULED 3 DAYS IN ADVANCE. ALL OUTAGES SHALL BE COORDINATED WITH THE FACILITY.
36. THE FACILITY OPERATES THROUGHOUT THE ENTIRE YEAR. ALL SHUTDOWNS THAT REQUIRE THE LOSS OF UTILITIES TO THE FACILITY SHALL BE LIMITED TO PERIODS & DURATIONS AS SPECIFIED BY THE FACILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE AND INCLUDE THE NECESSARY WEEKEND/MIDNIGHT PREMIUM TIME TO ACCOMPLISH ALL SHUTDOWN WORK WITHIN THE LIMITATIONS OF MAINTAINING CONTINUOUS SERVICE TO THE FACILITY.
37. THE CONTRACTOR SHALL MAINTAIN AWARENESS OF THE FACILITY'S SHUTDOWN RESTRICTIONS AND LIMITATIONS. ANY WORK-SCHEDULING PROBLEMS CAUSED BY SHUTDOWN RESTRICTIONS BY THE FACILITY SHALL NOT BE CAUSE FOR CLAIM OR DELAY BY THE CONTRACTOR.
38. ALL CONTRACTORS SHALL PROVIDE THE NECESSARY LABOR INCLUDING ANY PREMIUM-TIME AND OVERTIME LABOR REQUIRED TO MAINTAIN THE CONSTRUCTION SCHEDULE.
39. ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL PAYMENT AND ACCEPTANCE UNLESS OTHERWISE STATED IN THE SPECIFICATIONS.
40. ALL WORK SHALL CONFORM TO NEW YORK STATE BUILDING CONSTRUCTION CODE, THE N.Y.S. ENERGY CONSERVATION CONSTRUCTION CODE AND ALL LOCAL CODES, RULES, REGULATIONS AND ZONING LAWS.
41. IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER, TO ALTER THESE PLANS IN ANY WAY.
42. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY THE ENGINEER AND TO THE BEST OF HIS KNOWLEDGE AND BELIEF MEET THE REQUIREMENTS OF THE N.Y.C. ENERGY CONSERVATION CONSTRUCTION CODE.
43. THE PROJECT SHALL MEET THE CURRENT NYC CONSTRUCTION CODES AND THE 2020 NYC ENERGY CONSERVATION CODE.
44. ALL EXISTING HVAC EQUIPMENT, PIPING, DUCTWORK, WIRING AND RELATED COMPONENTS REQUIRED TO REMAIN, BUT INTERFERING WITH THE PROJECT, SHALL BE RELOCATED AND RECONNECTED, IF NEEDED, USING MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS OF THIS CONTRACT.
45. THE CONTRACTOR SHALL IMPLEMENT A LOCK-OUT TAG-OUT PLAN WITH PROCEDURES FOR ELECTRICAL AND MECHANICAL DISCONNECTION/RE-CONNECTION OF EQUIPMENT AND RELATED COMPONENTS ACCORDING TO OSHA REQUIREMENTS. THE PLAN SHALL BE PREPARED BY AN ELECTRICAL PROFESSIONAL AND PRESENTED TO THE FACILITY MANAGEMENT BEFORE STARTING DEMOLITION.
46. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORT FOR ALL EXISTING HVAC EQUIPMENT, PIPING, DUCTWORK, PLUMBING PIPES, AND RELATED COMPONENTS TO REMAIN WHICH ARE AFFECTED BY THE DEMOLITION WORK.
47. THE CONTRACTOR SHALL COORDINATE AND CONDUCT TESTING, ADJUSTING AND BALANCING WORK FOR ALL THE RE-INSTALLED AND NEW HVAC UNITS AND COMPONENTS INCLUDING THOSE POWERED BY VOLTAGE GREATER THAN 120V.

EQUIPMENT REMOVAL NOTE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE NYC DOB DATABASE ANY PERMITTED EQUIPMENT BEING DEMOLISHED OR DISCONNECTED AS PART OF THIS PROJECT. THE OWNER WILL REIMBURSE THE CONTRACTOR FOR ANY REQUIRED FEES.

LINE TYPES

NEW — EXISTING — HIDDEN — ELECTRICAL SIGNAL — DEMOLITION, LINE — DEMOLITION, EQUIPMENT

GENERAL SYMBOLS

GATE VALVE; CHECK VALVE; BALL VALVE; PLUG VALVE; GLOBE VALVE; BUTTERFLY VALVE; Y-STRAINER; D REDUCER; SAFETY VALVE; M CONTROL VALVE, ELECTRIC; CONTRACT BREAK POINT OR CUT LINE; SPOT ELEVATION; PI PRESSURE INDICATOR; TI TEMPERATURE INDICATOR; HOSE BIB; V VENT TO OUTDOORS; XX/XX INSTRUMENT ABBREV. / TAG NO.; D TO DRAIN; C PIPE CAP / PLUG; M METER; UNION; BALANCING VALVE

PIPING IDENTIFIER

HWS-BS-4-I

- INSULATION CLASS (THICKNESS PER SCHEDULE): I FIBERGLASS
- LINE SIZE (NPS)
- MATERIAL SPECIFICATION (REFER TO SPECS)

FIRST LETTER - PRESSURE RATING		SECOND LETTER - MATERIAL	
A	125 LB ANSI	A	AUSTENITIC STEEL (STAINLESS)
B	150 LB ANSI	C	COPPER
C	300 LB ANSI	I	CAST IRON
		S	CARBON STEEL

- SERVICE: REFER TO "ABBREVIATIONS"

ELECTRICAL IDENTIFIER

(3)#12-#12G-0.75"C

- CONDUIT SIZE
- GROUND CONDUCTOR SIZE
- CONDUCTOR SIZE (AWG)
- QTY OF CONDUCTORS IN CONDUIT

ABBREVIATIONS

LINE ABBREVIATIONS

COND = CONDENSATE; DCW = DOMESTIC COLD WATER; D = DRAIN; HWR = HOT WATER RETURN; HWS = HOT WATER SUPPLY; HPS = HIGH PRESSURE STEAM; G = NATURAL GAS; LPS = LOW PRESSURE STEAM; V = VENT

TAG NO. / SYSTEM CROSS REFERENCE

1xx = HOT WATER; 2xx = NATURAL GAS; 9xx = MISC.

INSTRUMENT ABBREVIATIONS

FIRST LETTER(S): L = LEVEL; P = PRESSURE; T = TEMPERATURE

SECOND LETTER (S): I = INDICATOR; T = TRANSMITTER; S = SWITCH

TERTIARY LETTER (S): H = HIGH; L = LOW

MISCELLANEOUS ABBREVIATIONS

AFF = ABOVE FINISHED FLOOR; BLDG = BUILDING; BLR = BOILER; BOD = BOTTOM OF DUCT; CONN = CONNECTION; DHW = DOMESTIC HOT WATER; DWG = BUILDING; EL = ELEVATION; FT = FEET; HTR = HEATER; HX = HEAT EXCHANGER; MIN = MINIMUM; NTS = NOT TO SCALE; PRESS = PRESSURE; RM = ROOM; SEP = SEPARATOR; SHLD = SHIELDED; TEMP = TEMPERATURE; TK = TANK; TYP = TYPICAL; VLV = VALVE; w/ = WITH

HYDRONIC BOILER SCHEDULE

TAG	LOCATION	DESIGN	FUEL	INPUT (MBTUH)	OUTPUT (MBTUH)	TURNDOWN	HW TEMP INLET (°F)	HW TEMP OUTLET (°F)	MAX FLOW (GPM)	MIN FLOW (GPM)	MAX GAS PRESSURE	MIN GAS PRESSURE	FLUE (in.)	MAX COND. FLOW (GPH)	ELECTRICAL VOLT	PH.	Hz	FLA	CKT	MANUFACTURER / MODEL NO.
BLR-1	CELLAR	CONDENSING	NAT. GAS	3,000	2,817	10:1	160	180	283	28	14 IN W.C.	7 IN W.C.	10	21	460	3	60	6	20	CLEAVER BROOKS / CLEARFIRE CFCE 3000
BLR-2	CELLAR	CONDENSING	NAT. GAS	3,000	2,817	10:1	160	180	283	28	14 IN W.C.	7 IN W.C.	10	21	460	3	60	6	20	CLEAVER BROOKS / CLEARFIRE CFCE 3000

NOTE: BOILERS HAVE BEEN PRE-PURCHASED BY THE OWNER UNDER A PREVIOUS CONTRACT.

NYC NOTICE OF INSPECTION - BOILER EQUIPMENT

INSPECTIONS AND TESTING	CONTINUOUS	PERIODIC	2022 NYCBC REFERENCE	NOTES
HEATING SYSTEMS		X	1705.31	VERIFY BOILERS AND HEATING SYSTEMS INSTALLED AS PER THE CONSTRUCTION DOCUMENTS.
PROGRESS INSPECTIONS				
ENERGY CODE COMPLIANCE				
HVAC-R AND SERVICE WATER HEATING EQUIPMENT		X	1 RCNY §5000-01 (IIB3)	VERIFY EQUIPMENT SIZING AND EFFICIENCIES
MAINTENANCE INFORMATION		X	1 RCNY §5000-01 (IID1)	PROVIDE BOILERS O&M MANUALS.

2020 NYC ENERGY CODE ANALYSIS

ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE
BOILERS, HOT WATER, GAS-FIRED		(TABLE C403.3.2(5))
>2,500,000 BTU/HR	AHRI CERTIFIED EFFICIENCY: 94.0%	MIN. EFFICIENCY = 82%

NOTES:
1. TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, ALL WORK UNDER THIS APPLICATION IS IN COMPLIANCE WITH THE 2020 NYC ENERGY CONSERVATION CODE.

STATE OF NEW YORK — JOSHUA JUDE BREEN — LICENSED PROFESSIONAL ENGINEER — NO. 079046

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

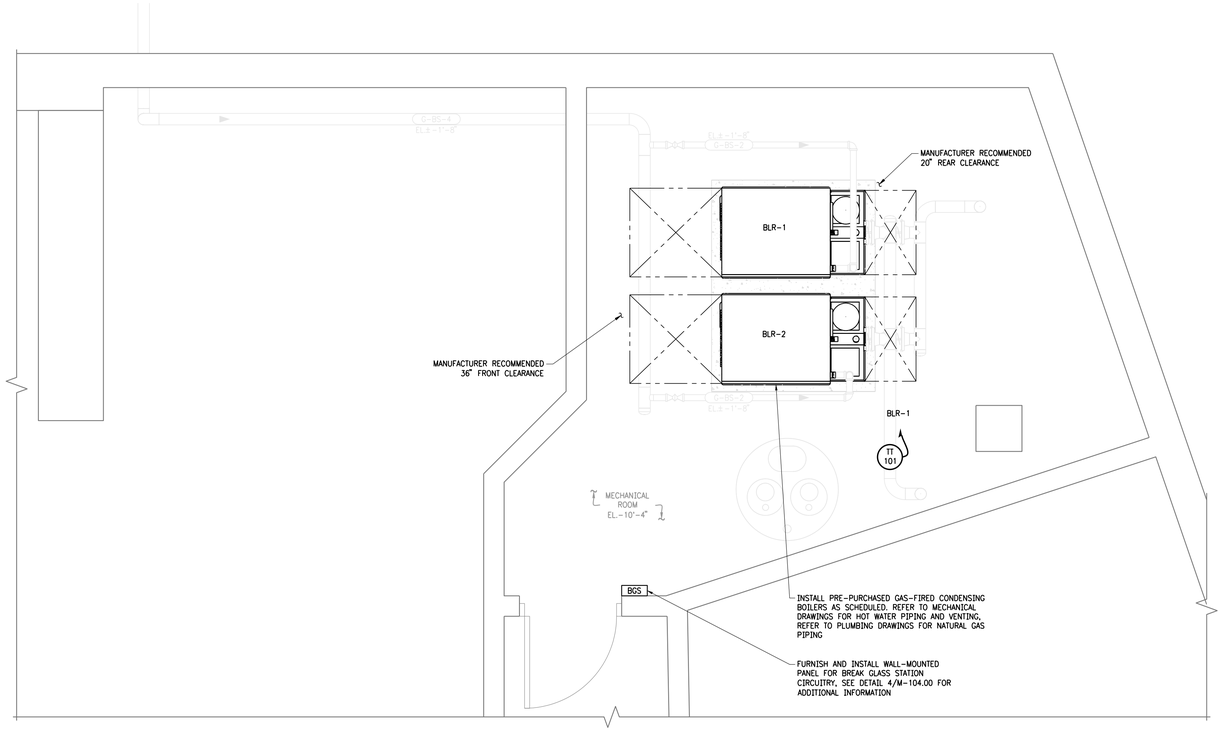
PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: GENERAL NOTES, SYMBOLS & ABBREVIATIONS AND NYC DOB INFORMATION
DRAWING LOCATION: ~

DOB NOW JOB NUMBER: X00539835-S8

BE-002.00

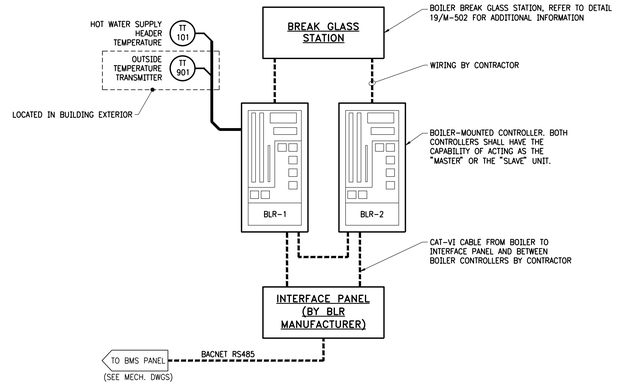
PAGE NUMBER: 2 OF 3



1 PARTIAL CELLAR PLAN: NATURAL GAS & DRAIN PIPING INSTALLATIONS

1/2"=1'-0"

PLAN NORTH



2 FMH BOILERS CONTROLS ARCHITECTURE

NOT TO SCALE

CLIENT
FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE
C.BREEN

DESIGNED BY D.GORDON
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DRAWN BY D.GORDON
FILE NO. 1088199.1940102717
DATE 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY

PROJECT
FMH HEATING HOT WATER BOILERS IN CELLAR MER

ADDRESS 655 EAST FORDHAM ROAD, BRONX NY
BIN 2016244
BLOCK 3273
LOT 209

SHEET DESCRIPTION
BOILER EQUIPMENT INSTALLATIONS

DRAWING LOCATION
FACULTY MEMORIAL HALL - CELLAR

DOB NOW JOB NUMBER:
X00539835-S8

BE-101.00

PAGE NUMBER
3 OF 3

BASIC ELECTRICAL REQUIREMENTS:

1. ALL WORK AND MATERIALS SHALL CONFORM WITH THE 2014 NATIONAL ELECTRICAL CODE WITH NEW YORK CITY AMENDMENTS, LIFE SAFETY CODE, NEW YORK CITY BUILDING CODE. OSHA REGULATIONS, STATE AND FEDERAL AUTHORITY HAVING JURISDICTION.
2. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE STARTING WORK.
3. EQUIPMENT DIMENSIONAL INFORMATION IS PRESENTED FOR REFERENCE ONLY. DIMENSIONS MAY VARY ACCORDING TO THE EQUIPMENT MANUFACTURER SELECTED AND FIELD VARIATIONS.
4. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS.
5. CONFIRM AND COORDINATE JOBSITE DIMENSIONS THAT AFFECT THE ERECTION OR OPERATION OF SYSTEMS, AS INTENDED BY THESE CONTRACT DOCUMENTS. THE INSTALLED EQUIPMENT SHALL MAINTAIN ADEQUATE CLEARANCES FOR OPERATIONAL ACCESS AND SERVICE, AND SHALL MAINTAIN ANY CLEARANCES REQUIRED BY ALL APPLICABLE CODES.
6. INFORM THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK DESCRIBED HEREIN.
7. IF, DURING THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES OR CONFLICTS WITH THE DRAWINGS OR SPECIFICATIONS, STOP WORK AND NOTIFY THE OWNER'S REPRESENTATIVE.
8. THESE CONTRACT DOCUMENTS ARE INTENDED TO INDICATE THE WORK NEEDED TO PROVIDE A COMPLETE AND READY-FOR-OPERATION INSTALLATION. THESE DOCUMENTS ARE INTENDED TO BE A GUIDE. THESE DOCUMENTS ARE NOT INTENDED TO SHOW EVERY DETAIL OF THE EXISTING CONDITIONS OR NEW INSTALLATIONS, NOR DO THEY DESCRIBE EVERY FITTING REQUIRED FOR THE INSTALLATION OF THE WORK.
9. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" AND SHALL INCLUDE ALL EQUIPMENT, DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL JOB.
10. PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ASSEMBLE LOOSE EQUIPMENT AND PARTS AS SHIPPED BY THE EQUIPMENT MANUFACTURERS FOR ALL OWNER-FURNISHED EQUIPMENT.
11. ALL CLARIFICATIONS SHALL BE RESOLVED BEFORE SUBMITTING THE PROPOSAL. NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF THE MATERIAL OR EQUIPMENT TO BE FURNISHED OR WORK TO BE PERFORMED AFTER THE CONTRACT IS EXECUTED.
12. ASSUME ALL COSTS ASSOCIATED WITH PROVIDING SUBSTITUTES. SUBSTITUTES INCLUDE ACCEPTABLE ALTERNATES, ALTERNATES TO THE SCOPE OF WORK, OR ANY MODIFICATIONS THAT DEVIATE FROM THE BASE-BID DESIGN. THESE ASSOCIATED COSTS INCLUDE, BUT ARE NOT LIMITED TO DESIGN AND ENGINEERING COSTS, CHANGES CAUSED TO INTERRELATED SYSTEMS SUCH AS ELECTRICAL COMPONENTS, WIRING, AND CONNECTIONS, REROUTING OF INTERFERENCES, ETC.
13. USE APPROVED SHOP SUBMITTALS FOR FINAL COORDINATION OF WORK.
14. ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM ANY DEFECT. SALVAGE OR REBUILT EQUIPMENT SHALL NOT BE PERMITTED.
15. COORDINATION SHALL BE PERFORMED SO THAT ONCE THE PROJECT IS STARTED. IT SHALL CONTINUE WITHOUT DELAY UNTIL COMPLETION.
16. COORDINATE ALL WORK WITH THE WORK OF OTHER CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
17. PROVIDE NOTIFICATION AND OPPORTUNITY FOR INSPECTION TO THE OWNER BEFORE CLOSING UP ANY WORK, EQUIPMENT, OR ELECTRICAL SYSTEM.
18. PROVIDE ALL BUILDING MODIFICATIONS AND CONSEQUENTIAL REPAIRS TO THE BUILDING FOR RIGGING, INSTALLATION OF EGRESSES, INSTALLATION OF VENT, ETC., AS REQUIRED TO PERFORM THIS WORK.
19. PERFORM ALL ACCEPTANCE TESTS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
20. MAINTAIN THE WORK AREA IN A STATE FREE FROM HAZARDS. TAKE ALL NECESSARY PRECAUTIONS, FOLLOW SAFE WORKING PRACTICES, AND MAINTAIN THE SITE AND ADJACENT AREAS SAFE FOR WORKERS, INSPECTORS, AND FACILITY EMPLOYEES.
21. ANY STOP-WORK ORDERS BY THE OWNER BECAUSE OF UNSAFE CONDITIONS SHALL NOT BE USED TO DELAY THE WORK SCHEDULE, INCREASE THE CONTRACT VALUE, OR AVOID ANY LIQUIDATED-DAMAGE PENALTIES ASSOCIATED WITH THE WORK OR TO MAKE A CLAIM AGAINST THE OWNER OR CONSTRUCTION MANAGER.
22. SAFE AND DIRECT ENTRANCE TO AND FROM EXISTING BUILDING SHALL BE MAINTAINED AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
23. ALL MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY SHIPPING, DELIVERY OR SECURITY ISSUES RELATED TO MATERIAL, EQUIPMENT, OR TOOL STORAGE.
24. ALL DEMOLISHED MATERIALS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE SUBCONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
25. THE OWNER SHALL HAVE THE RIGHT AT ALL TIMES TO EXAMINE THE WORK AND DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS.
26. ANY WORK SCHEDULING PROBLEMS CAUSED BY SHUTDOWN RESTRICTIONS BY THE FACILITY SHALL NOT BE CAUSE FOR CLAIM OR DELAY.
27. PROVIDE THE NECESSARY LABOR INCLUDING ALL PREMIUM-TIME AND OVERTIME LABOR REQUIRED TO MAINTAIN THE CONSTRUCTION SCHEDULE.
28. COORDINATE WITH FACILITY TO DETERMINE ELECTRICAL EQUIPMENT TO BE SALVAGED AND HANDED OVER TO FACILITY.
29. ESTABLISH A SAFETY LOCKOUT PROCEDURE. THIS PROCEDURE SHALL BE IN ACCORDANCE WITH OSHA REGULATION AND SHALL BE PROVIDED TO FACILITY STAFF BEFORE THE START OF THE WORK.
30. COORDINATE ANY POWER DISCONNECTION OR SHUTDOWN WITH FACILITY ENGINEER AND PROJECT MANAGER PRIOR TO ANY POWER INTERRUPTION.
31. ALL WORK SHALL BE PHASED AS INDICATED ON THE MECHANICAL DRAWINGS.

ABBREVIATIONS

A, AMP	AMPERE
AB	AMP BREAKER
AC	ALTERNATING CURRENT
AF	AMP FUSE
AS	AMP SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
COND	CONDUCTOR
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT
DS	DISCONNECT SWITCH
E	EXISTING
EM	EMERGENCY
ENC	ENCLOSURE
FT	FEET
FU	FUSE
G, GND	GROUND
I/O	INPUT/OUTPUT
J	JUNCTION BOX
AIC	AMPS INTERRUPTING CAPACITY
KVA	KILOVOLT AMPERE
KV	KILOVOLT
KW	KILOWATT
kcmil	THOUSAND CIRCULAR MILS
MECH.	MECHANICAL
NP	NAMEPLATE
NF	NON FUSED
No.	NUMBER
ø or PH	PHASE
PNL	PANEL
( )P	POLES ( ) NO OF POLES
QTY	QUANTITY
RECP	RECEPTACLE
RTU	REMOTE TERMINAL UNIT
TB	TERMINAL BLOCK
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
VAC	VOLTS ALTERNATING CURRENT
VA	VOLT – AMPERE
VDC	VOLTS DIRECT CURRENT
WP	WEATHERPROOF
XFMR	TRANSFORMER

SYMBOLS LIST

- ELECTRICAL HOMERUN
- TRANSFORMER
- PULL BOX / SPLICE BOX
- P — PULL BOX
- SAFETY DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- DISCONNECT SWITCH COMBINATION STARTER
- ELECTRICAL PANEL
- ELECTRICAL WIREWAY
- MV-# — MOTORIZED VALVE
- POINT OF DISCONNECTION
- J — JUNCTION BOX
- # — MOTOR, # INDICATED HP
- $ — TOGGLE SWITCH
- $3 — TOGGLE SWITCH, 3-WAY
- DATA AND TELEPHONE OUTLET WALL MOUNTED
- DATA AND TELEPHONE OUTLET FLOOR
- DUPLEX RECEPTACLE WALL MOUNTED
- DOUBLE DUPLEX RECEPTACLE WALL MOUNTED
- SIMPLEX DEDICATED RECEPTACLE WALL MOUNTED
- DOUBLE DUPLEX RECEPTACLE FLOOR
- CONTRACT BREAK-POINT
- SURFACE MOUNTED LED EXIT LIGHT, BATTERY BACKUP
- 4FT SWITCHABLE LED STRIP LIGHT – SURFACE OR PENDANT MOUNTED

REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON LIGHTING FIXTURES

STATE OF NEW YORK — ERIC J. MILES — 090895 — LICENSED PROFESSIONAL ENGINEER

Feb-17-2023

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
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DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: E.MILES
DESIGNED BY: J.GONZALEZ
CHECKED BY: E.MILES
DRAWN BY: J.GONZALEZ
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

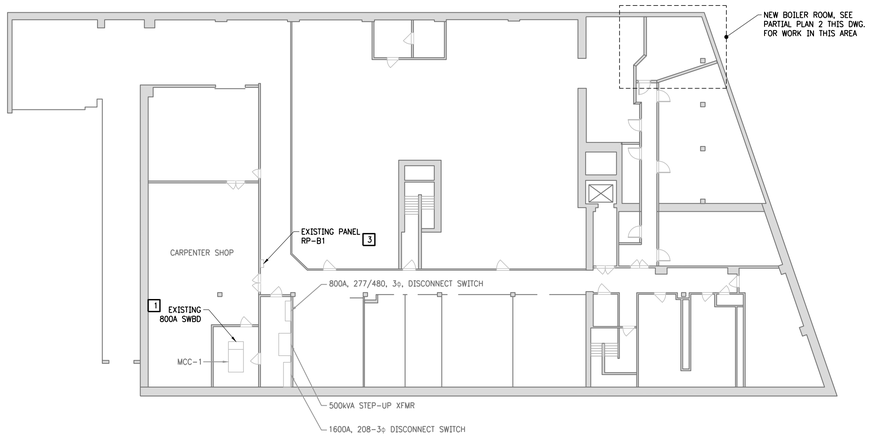
RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 1

SHEET DESCRIPTION: ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS
DRAWING LOCATION: ~

DOB NOW JOB NUMBER: TBD

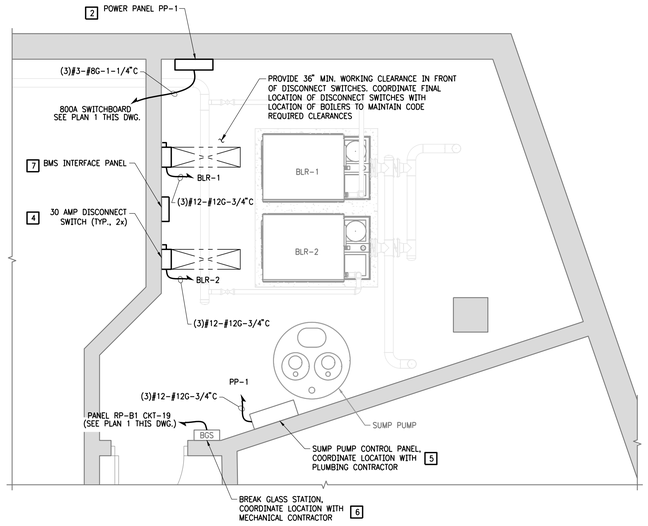
E-001
PAGE NUMBER: 1 OF 3



1 CELLAR LEVEL ELECTRICAL INSTALLATIONS

1/16"=1'-0" 16' 8' 0 16'

PLAN NORTH



2 BOILER ROOM ELECTRICAL INSTALLATIONS

3/8"=1'-0" 3' 2' 1' 0 1' 2' 3'

PLAN NORTH

DRAWING NOTES:

1. REFER TO P-DRAWINGS AND M-DRAWINGS FOR EQUIPMENT LOCATION.
2. ALL INTERIOR WALL AND FLOOR PENETRATIONS SHALL BE PROVIDED WITH A UL COMPLIANT FIRESTOP SYSTEM, REFER TO DRAWING M-502.00 FOR ADDITIONAL INFORMATION.
3. ALL CONTROLS, POWER AND LIGHTING CONDUIT INSTALLED UNDER THIS PROJECT SHALL BE RIGID GALVANIZED STEEL. EMT WILL NOT BE ACCEPTED.

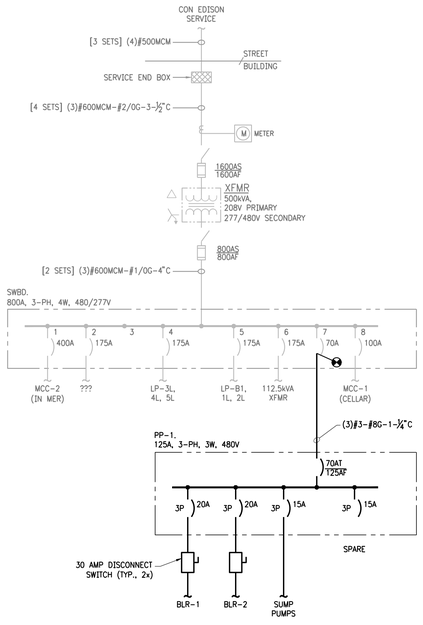
ELECTRICAL SCOPE OF WORK:

1. USE SPARE 70 AMP-3P BREAKER IN EXISTING 277/480V SWBD LOCATED IN ELECTRICAL ROOM.
2. PROVIDE 125AMP PANEL PP-1 AT LOCATION SHOWN. FEED PANEL FROM EXISTING SWBD LOCATED IN ELECTRICAL ROOM. REFER TO PANEL SCHEDULE FOR ALL DETAILS.
3. PROVIDE FOUR 15 AMP-1P CIRCUIT BREAKERS (CKT 19, 20, 21 & 22) IN EXISTING 120/208V ELECTRICAL PANEL RP-B1, LOCATED OUTSIDE OF THE CARPENTER SHOP. NEW CIRCUIT BREAKERS SHALL MATCH EXISTING WITH RESPECT TO TYPE AND RATING.
4. PROVIDE 30AMP, HEAVY-DUTY, 600VAC, 3-POLE, NON-FUSED, NEMA 12 SAFETY DISCONNECT SWITCH FOR EACH BOILER. PROVIDE (3)#12-(1)#12G-¾" FROM PANEL PP-1 TO FEED BOILERS VIA DISCONNECT SWITCH.
5. PROVIDE (3)#12-(1)#12G-¾" BRANCH CIRCUIT FROM PANEL PP-1 TO SUMP PUMP CONTROL PANEL. COORDINATE LOCATION OF CONTROL PANEL WITH MECHANICAL CONTRACTOR. PROVIDE CONDUIT AND WIRE AS NEEDED BETWEEN CONTROL PANEL AND PUMP MOTORS.
6. PROVIDE (2)#12-(1)#12G-¾" BRANCH CIRCUIT FROM ELECTRICAL PANEL RP-B1, LOCATED OUTSIDE OF CARPENTER SHOP. TO POWER BREAK GLASS STATION. COORDINATE LOCATION OF BREAK GLASS STATION WITH MECHANICAL CONTRACTOR.
7. PROVIDE (2)#12-(1)#12G-¾" BRANCH CIRCUIT FROM ELECTRICAL PANEL RP-B1, LOCATED OUTSIDE OF CARPENTER SHOP. TO POWER BMS INTERFACE PANEL. COORDINATE LOCATION OF BMS INTERFACE PANEL WITH MECHANICAL CONTRACTOR.

PANEL SCHEDULE

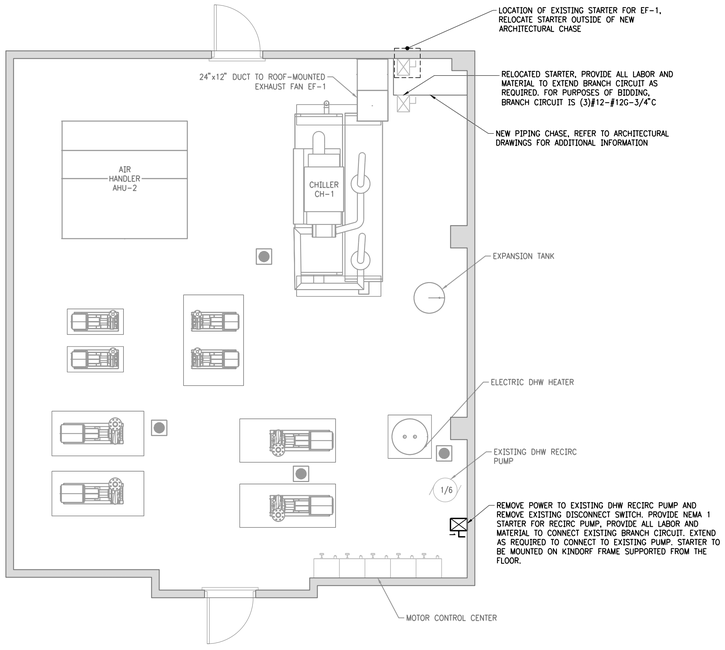
PANELBOARD: PP-1 LOCATION: CELLAR INSTALLATION: SURFACE
RATING: 125 AMPS 480/277 VOLTS 3 PH 3 WIRE 60 HZ GROUND BAR: X
MAIN LUGS: - BKR INTERRUPTING RATING 22KAIC AMPS RMS SYMMETRICAL
MAIN CIRCUIT BREAKER: 70 AMPS CONNECTED LOAD: _____ KVA PANEL SIZE: 30

DESCRIPTION	LOAD KVA	BKR AMPS	CKT		CKT	BKR AMPS	LOAD KVA	DESCRIPTION
BLR-1	4.15	20/3P	1		2	20/3P	4.15	BLR-2
			3		4			
			5		6			
SUMP PUMPS	1.15	15/3P	7		8	15/3P		SPARE
			9		10			
			11		12			
SPACE			13		14			SPACE
SPACE			15		16			SPACE
SPACE			17		18			SPACE
SPACE			19		20			SPACE
SPACE			21		22			SPACE
SPACE			23		24			SPACE
SPACE			25		26			SPACE
SPACE			27		28			SPACE
SPACE			29		30			SPACE



3 ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE



4 FIRST FLOOR MECHANICAL ROOM ELECTRICAL INSTALLATIONS

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

PLAN NORTH

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: E.MILES
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RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

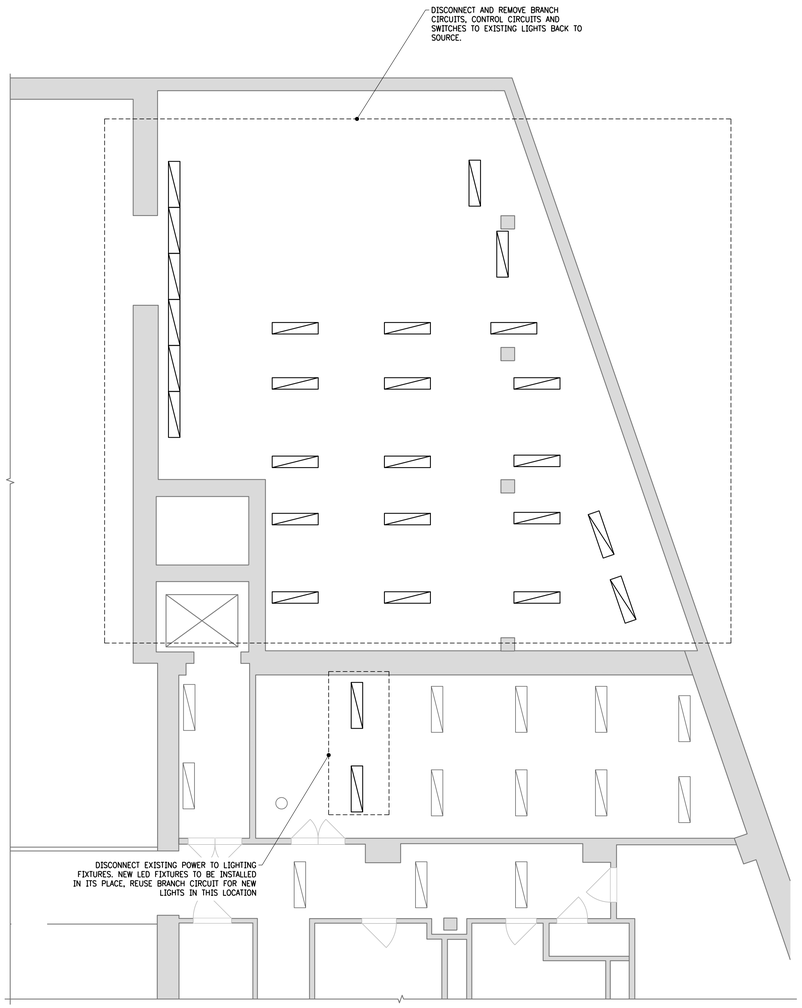
PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 1

SHEET DESCRIPTION: ELECTRICAL INSTALLATIONS
DRAWING LOCATION: FACULTY MEMORIAL HALL - CELLAR & FIRST FLOOR

DOB NOW JOB NUMBER: TBD

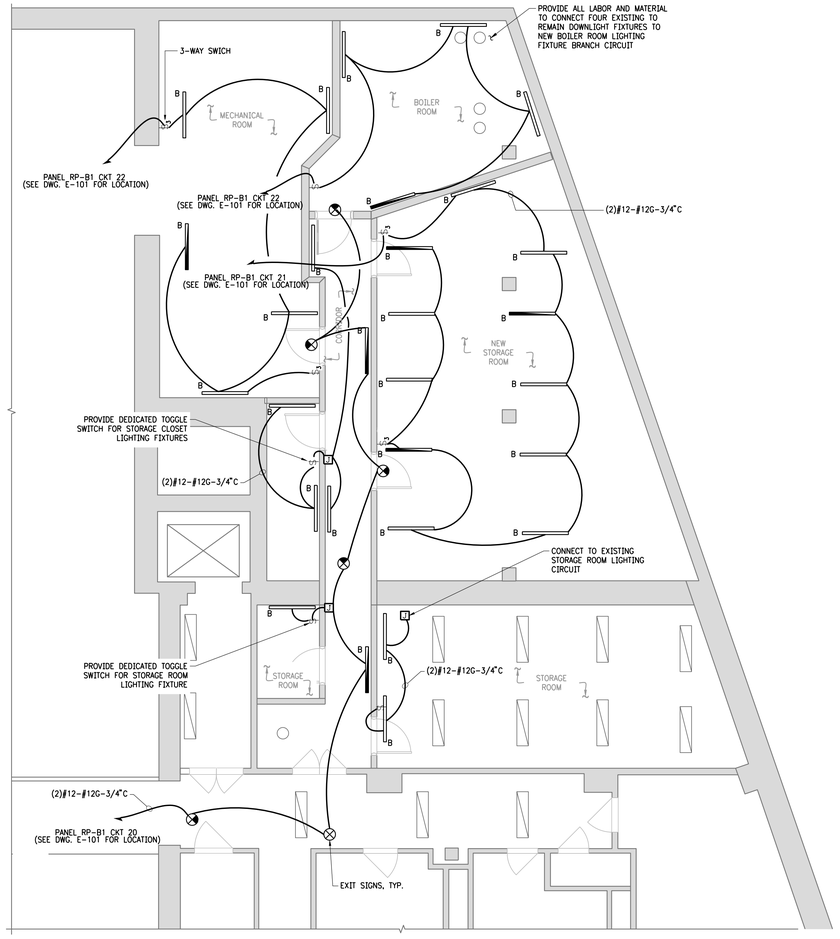
E-101

PAGE NUMBER: 2 OF 3



1 CELLAR LEVEL LIGHTING DEMOLITIONS
3/16"=1'-0" 5' 0 5'

PLAN NORTH



2 CELLAR LEVEL LIGHTING INSTALLATIONS
3/16"=1'-0" 5' 0 5'

PLAN NORTH

DRAWING NOTES:

1. REFER TO DRAWING A-021 FOR DEMOLITION OF LIGHTING FIXTURES AND LIGHTING FIXTURES TO REMAIN. ELECTRICAL DEMOLITIONS IS LIMITED TO THE REMOVAL OF ELECTRICAL BRANCH CIRCUITS, CONTROL CIRCUITS AND SWITCHES TO FIXTURES BEING DEMOLISHED.
2. REFER TO DRAWING A-022 FOR INSTALLATION OF LIGHTING FIXTURES AND CONTROLS. ELECTRICAL WORK IS LIMITED TO THE INSTALLATION OF ELECTRICAL BRANCH CIRCUITS, CONTROL CIRCUITS AND SWITCHES TO NEW FIXTURES.
3. REFER TO DRAWINGS A-022 AND EN-011 AS PART OF THE ARCHITECTURAL FILING (X0053835-I1) FOR LIGHTING CALCULATIONS AND SELECTED LIGHTING FIXTURES.
4. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED EMERGENCY LIGHTING LOCATIONS. EMERGENCY LIGHTING WILL BE PROVIDED WITH BATTERY PACKS.
5. PROVIDE FIRESTOPPING FOR ALL CONDUIT PENETRATIONS. REFER TO DRAWING E-101 FOR ADDITIONAL INFORMATION.
6. EMERGENCY FIXTURES ARE PROVIDED WITH BATTERY BACK-UP. WHERE THE EMERGENCY FIXTURES ARE CONTROLLED BY A TOGGLE SWITCH, THEY SHALL BE PROVIDED WITH A NON-SWITCHED HOT LEG.
7. PROVIDE VACANCY SENSORS IN ALL FOUR STORAGE ROOMS/CLOSETS.

LIGHTING CIRCUITS:

1. RP-B1 CKT #20: CORRIDOR LIGHTS.
2. RP-B1 CKT #21: NEW STORAGE ROOM
3. RP-B1 CKT #22: NEW BOILER ROOM AND MECHANICAL ROOM.

STATE OF NEW YORK ERIC J. MILES 090895 LICENSED PROFESSIONAL ENGINEER
Feb-17-2023

CLIENT: FORDHAM UNIVERSITY

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RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 1

SHEET DESCRIPTION: LIGHTING INSTALLATIONS
DRAWING LOCATION: FACULTY MEMORIAL HALL - CELLAR

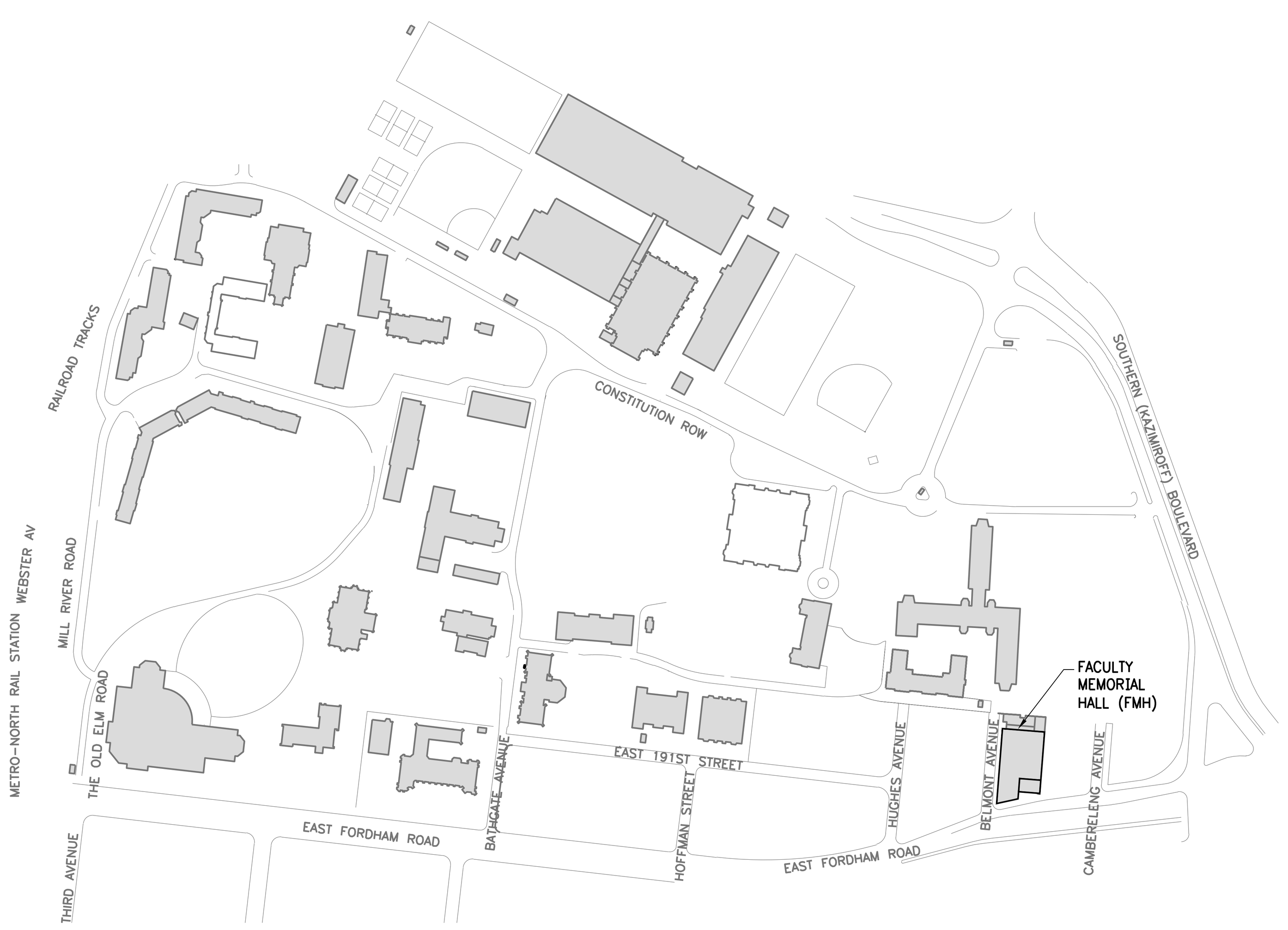
DOB NOW: JOB NUMBER: TBD

E-102
PAGE NUMBER: 3 OF 3

ISSUED FOR BID & NYC DOB FILING

FORDHAM UNIVERSITY

FMH HEATING HOT WATER BOILERS IN CELLAR MER



1 PLOT PLAN
NTS

PROPERTY IS NOT IN SFHA

BLOCK: 3273
LOT: 1

N

DOB FILING: MECHANICAL

DOB NOW JOB #: X00539835-S7

ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY

BIN: 2016244 BLOCK: 3273 LOT: 209

FORDHAM UNIVERSITY PROJECT NUMBER: ~

LIST OF ASSOCIATED FILINGS:

PLUMBING: APP# X00539835-S6
MECHANICAL: APP# X00539835-S7
BOILER EQUIPMENT: APP# X00539835-S8

FEBRUARY 17, 2023

RAMBOLL

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

LIST OF DRAWINGS

#	DWG. No.	DRAWING TITLE
1	M-001.00	MECHANICAL COVER SHEET
2	M-002.00	GENERAL NOTES, MECHANICAL SCOPE OF WORK AND NYC DOB INFORMATION
3	M-101.00	MECHANICAL FLOW DIAGRAMS
4	M-102.00	MECHANICAL EQUIPMENT AND PIPING DEMOLITIONS
5	M-103.00	MECHANICAL EQUIPMENT AND PIPING INSTALLATIONS
6	M-104.00	INSTRUMENTATION & CONTROLS
7	M-501.00	MECHANICAL DETAILS SHEET 1
8	M-502.00	MECHANICAL DETAIL SHEET 2
9	M-601.00	MECHANICAL SCHEDULES

STATE OF NEW YORK
CORNELIUS JUDE BREEN
NO. 078946
LICENSED PROFESSIONAL ENGINEER

M-001.00

MECHANICAL COVER SHEET

1940102717

SAVED: 2/23/23 2:17 PM

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
2. EQUIPMENT DIMENSIONAL INFORMATION IS PRESENTED FOR REFERENCE ONLY. DIMENSIONS MAY VARY ACCORDING TO THE EQUIPMENT MANUFACTURER SELECTED AND FIELD VARIATIONS.
3. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS, OR IF HE DOES, IT SHALL BE AT HIS OWN RISK. THE CONTRACTOR SHALL USE FIELD MEASUREMENTS OR WRITTEN DIMENSIONS ONLY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY DIMENSIONAL VARIATIONS BETWEEN THESE CONSTRUCTION DOCUMENTS AND THE AS-DELIVERED EQUIPMENT.
5. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM AND COORDINATE JOBSITE DIMENSIONS THAT AFFECT THE ERECTION OR OPERATION OF SYSTEMS, AS INTENDED BY THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ENSURE INSTALLED EQUIPMENT MAINTAINS ADEQUATE CLEARANCES FOR OPERATIONAL ACCESS AND SERVICE, AND HE SHALL MAINTAIN ANY CLEARANCES REQUIRED BY ALL APPLICABLE CODES.
6. THE CONTRACTOR SHALL INFORM THE OWNER/ENGINEER OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK DESCRIBED HEREIN.
7. IF, DURING THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES OR CONFLICTS WITH THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE AND CONTINUES WITH THE WORK, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING THEREOF.
8. THESE CONTRACT DOCUMENTS ARE INTENDED TO INDICATE THE WORK NEEDED TO PROVIDE A COMPLETE AND READY-FOR-OPERATION INSTALLATION. THESE DOCUMENTS ARE INTENDED TO GUIDE THE CONTRACTOR. THESE DOCUMENTS ARE NOT INTENDED TO SHOW EVERY DETAIL OF THE EXISTING CONDITIONS OR NEW INSTALLATIONS, NOR DO THEY DESCRIBE EVERY FITTING REQUIRED FOR THE INSTALLATION OF THE WORK.
9. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" AND SHALL INCLUDE ALL EQUIPMENT, DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL JOB.
10. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, SUPPORTS, FITTINGS, AND ALL OTHER INCIDENTAL MATERIAL NEEDED FOR THE COMPLETE AND OPERATING INSTALLATION. MINOR ITEMS TO FINISH THE WORK SUCH AS PATCHING, BLOCKING, TRIM, TOUCH-UP PAINT, ETC., SHALL BE PROVIDED WHETHER OR NOT INDICATED IN THE CONTRACT DOCUMENTS.
11. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ASSEMBLE LOOSE EQUIPMENT AND PARTS AS SHIPPED BY THE EQUIPMENT MANUFACTURERS FOR ALL OWNER-FURNISHED EQUIPMENT.
12. IF A SUBSTITUTION MADE BY THE CONTRACTOR RESULTS IN ADDITIONAL COSTS TO A CONTRACTOR IN ANOTHER TRADE OR TO THE OWNER, THE SUBSTITUTING CONTRACTOR SHALL BEAR THE ADDITIONAL COSTS AT NO EXPENSE TO THE OWNER.
13. THE CONTRACTOR SHALL GIVE NOTICES, OBTAIN ALL PERMITS, PAY ALL FEES AND COMPLY WITH ALL LAWS, RULES AND REGULATIONS APPLICABLE TO THE WORK.
14. THE CONTRACTOR SHALL USE SHOP SUBMITTALS FOR FINAL COORDINATION OF HIS WORK.
15. THE CONTRACTOR SHALL SUBMIT EQUIPMENT INFORMATION, SHOP DRAWINGS AND A CONSTRUCTION SCHEDULE TO THE OWNER FOR APPROVAL BEFORE STARTING ANY WORK OR PURCHASING ANY EQUIPMENT.
16. ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM ANY DEFECT. SALVAGED OR REBUILT EQUIPMENT SHALL NOT BE PERMITTED.
17. ALL MATERIALS, PIPING, ETC., SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, AND ALL LOCAL AND NATIONALLY RECOGNIZED STANDARDS, SUCH AS NFPA, NEC, ASTM, UL, ETC., AS EXAMPLES.
18. THE CONTRACTOR SHALL ENSURE COORDINATION SO THAT ONCE THE

    COMPLETION.
19. THE CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL HIS SUBCONTRACTORS, AND THEIR CONFORMANCE TO THESE CONTRACT DOCUMENTS.
20. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
21. THE CONTRACTOR SHALL PROVIDE NOTIFICATION AND OPPORTUNITY FOR INSPECTION TO THE OWNER BEFORE CLOSING UP ANY WORK, EQUIPMENT, OR PIPING SYSTEM.
22. THE CONTRACTOR SHALL PROVIDE ALL BUILDING MODIFICATIONS AND CONSEQUENTIAL REPAIRS TO THE BUILDING FOR RIGGING, INSTALLATION OF EGRESSES, INSTALLATION OF VENTS, ETC., AS REQUIRED TO PERFORM THIS WORK.
23. THE CONTRACTOR SHALL PERFORM ALL ACCEPTANCE TESTS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
24. THE CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A STATE FREE FROM HAZARDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, FOLLOW SAFE WORKING PRACTICES, AND MAINTAIN THE SITE AND ADJACENT AREAS SAFE FOR WORKERS, INSPECTORS, AND FACILITY EMPLOYEES.
25. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
26. THE OWNER'S REPRESENTATIVE DOES NOT PROFESS TO BE FAMILIAR WITH CONSTRUCTION SITE SAFETY REQUIREMENTS. MEETING SITE SAFETY AND OSHA REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO RETAIN A THIRD PARTY CONSULTANT IF HE OBSERVES PRACTICES THAT APPEAR UNSAFE.
27. IF THE OWNER'S REPRESENTATIVE DEEMS THAT ANY UNSAFE CONDITION APPEARS TO EXIST, THE OWNER HAS THE RIGHT TO STOP ALL WORK. ANY STOP-WORK ORDERS BY THE OWNER BECAUSE OF POTENTIALLY UNSAFE CONDITIONS SHALL NOT BE USED BY THE CONTRACTOR TO DELAY THE WORK SCHEDULE, INCREASE THE CONTRACT VALUE, OR AVOID ANY LIQUIDATED-DAMAGE PENALTIES ASSOCIATED WITH THE WORK OR TO MAKE A CLAIM AGAINST THE OWNER OR CONSTRUCTION MANAGER.
28. THE OWNER REQUIRES ACCESS TO AND AROUND AREAS OF THE BUILDING IMMEDIATELY ADJACENT TO AREAS OF THE WORK. ALL WORK MUST BE CONDUCTED IN A MANNER TO MINIMIZE DISRUPTION OF NORMAL FACILITY OPERATIONS.
29. SAFE AND DIRECT ENTRANCE TO AND FROM THE EXISTING BUILDING SHALL BE MAINTAINED AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
30. ALL CONSTRUCTION MATERIALS AND TOOLS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY OF THE CONTRACTOR'S SHIPPING, DELIVERY OR SECURITY ISSUES RELATED TO MATERIALS, EQUIPMENT, OR TOOL STORAGE.
31. THE CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, ORDERLY AND SAFE CONDITION AT THE END OF EACH WORK DAY. THE SITE AND BUILDING SHALL BE MADE AS SECURE AS POSSIBLE SO AS TO PREVENT UNAUTHORIZED ENTRY AND ACTIVITY. ATTENTION SHALL BE GIVEN TO WEATHER PROTECTION, INCLUDING UNCONDITIONED AIR INFILTRATION DURING THE CONSTRUCTION PERIOD.
32. ALL DEMOLISHED MATERIALS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
33. DISPOSAL OF ALL MATERIALS SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH STATE & LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN THE RECORDS OF PROPER DISPOSAL, WHICH SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE UPON HIS REQUEST.
34. THE OWNER SHALL HAVE THE RIGHT AT ALL TIMES TO EXAMINE THE WORK AND DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS.
35. THE CONTRACTOR SHALL COMPLETE ALL WORK WITH MINIMAL DISRUPTION OF THE FACILITY'S UTILITIES AND OPERATIONS. ANY WORK REQUIRING A SHUTDOWN OF GAS, ELECTRIC, STEAM, OR CONDENSATE UTILITIES SHALL BE SCHEDULED 3 DAYS IN ADVANCE. ALL OUTAGES SHALL BE COORDINATED WITH THE FACILITY.
36. THE FACILITY OPERATES THROUGHOUT THE ENTIRE YEAR. ALL SHUTDOWNS THAT REQUIRE THE LOSS OF UTILITIES TO THE FACILITY SHALL BE LIMITED TO PERIODS & DURATIONS AS SPECIFIED BY THE FACILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE AND INCLUDE THE NECESSARY WEEKEND/MIDNIGHT PREMIUM TIME TO ACCOMPLISH ALL SHUTDOWN WORK WITHIN THE LIMITATIONS OF MAINTAINING CONTINUOUS SERVICE TO THE FACILITY.
37. THE CONTRACTOR SHALL MAINTAIN AWARENESS OF THE FACILITY'S SHUTDOWN RESTRICTIONS AND LIMITATIONS. ANY WORK-SCHEDULING PROBLEMS CAUSED BY SHUTDOWN RESTRICTIONS BY THE FACILITY SHALL NOT BE CAUSE FOR CLAIM OR DELAY BY THE CONTRACTOR.
38. ALL CONTRACTORS SHALL PROVIDE THE NECESSARY LABOR INCLUDING ANY PREMIUM-TIME AND OVERTIME LABOR REQUIRED TO MAINTAIN THE CONSTRUCTION SCHEDULE.
39. ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL PAYMENT AND ACCEPTANCE UNLESS OTHERWISE STATED IN THE SPECIFICATIONS.
40. ALL WORK SHALL CONFORM TO NEW YORK STATE BUILDING

    CONSTRUCTION CODE AND ALL LOCAL CODES, RULES, REGULATIONS AND ZONING LAWS.
41. IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER, TO ALTER THESE PLANS IN ANY WAY.
42. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY THE ENGINEER AND TO THE BEST OF HIS KNOWLEDGE AND BELIEF MEET THE REQUIREMENTS OF THE N.Y.C. ENERGY CONSERVATION CONSTRUCTION CODE.
43. THE PROJECT SHALL MEET THE CURRENT NYC CONSTRUCTION CODES AND THE 2020 NYC ENERGY CONSERVATION CODE.
44.

    WITH THE PROJECT, SHALL BE RELOCATED AND RECONNECTED, IF NEEDED, USING MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS OF THIS CONTRACT.
45. THE CONTRACTOR SHALL IMPLEMENT A LOCK-OUT TAG-OUT PLAN WITH PROCEDURES FOR ELECTRICAL AND MECHANICAL DISCONNECTION/RE-CONNECTION OF EQUIPMENT AND RELATED COMPONENTS ACCORDING TO OSHA REQUIREMENTS. THE PLAN SHALL BE PREPARED BY AN ELECTRICAL PROFESSIONAL AND PRESENTED TO THE FACILITY MANAGEMENT BEFORE STARTING DEMOLITION.
46. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORT FOR ALL EXISTING HVAC EQUIPMENT, PIPING, DUCTWORK, PLUMBING PIPES, AND RELATED COMPONENTS TO REMAIN WHICH ARE AFFECTED BY THE DEMOLITION WORK.
47. THE CONTRACTOR SHALL COORDINATE AND CONDUCT TESTING, ADJUSTING AND BALANCING WORK FOR ALL THE RE-INSTALLED AND NEW HVAC UNITS AND COMPONENTS INCLUDING THOSE POWERED BY VOLTAGE GREATER THAN 120V.

MECHANICAL SCOPE OF WORK

1. DEMOLISH AND REMOVE ALL HIGH-PRESSURE STEAM, LOW-PRESSURE STEAM AND CONDENSATE PIPING IN THE FIRST FLOOR MECHANICAL ROOM. EXISTING PIPING SHALL BE CAPPED OR PLUGGED.
2. DEMOLISH AND REMOVE STEAM-TO-HOT WATER HEAT EXCHANGER AND CONDENSATE RETURN UNIT IN THE FIST FLOOR MECHANICAL ROOM. REMOVE EXISTING CONCRETE PADS AND PIERS AND RESTORE FLOOR AS DETAILED.
3. DEMOLISH AND REMOVE HOT WATER SUPPLY AND RETURN PIPING AS REQUIRED TO INSTALL NEW SYSTEMS.
4. INSTALL TWO CONDENSING HOT WATER BOILERS IN THE NEW CELLAR MECHANICAL ROOM, BOILER HAS BEEN PRE-PURCHASED BY THE OWNER UNDER A SEPARATE CONTRACT. PROVIDE A HOUSEKEEPING CONCRETE PAD FOR THE BOILERS.
5. FURNISH AND INSTALL HOT WATER SUPPLY AND RETURN PIPING TO TIE-IN THE BOILERS TO THE EXISTING SYSTEM. PROVIDE AN AIR SEPARATOR, AND ALL OTHER HYDRONIC SPECIALTIES FOR A COMPLETE AND CODE COMPLIANT SYSTEM. TIE-IN EXISTING EXPANSION TANK TO THE NEW SYSTEM.
6. FURNISH AND INSTALL COMBUSTION AIR AND FLUE GAS VENT TO THE BUILDING EXTERIOR. BOTH SYSTEMS SHALL TERMINATE AT THE ROOF LEVEL AS DETAILED. BOTH SYSTEMS SHALL BE INSTALLED INSIDE OF A FIRE-RATED CHASE IN THE FIRST FLOOR MECHANICAL ROOM, REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. FURNISH AND INSTALL CONTROL DEVICES AS SHOWN ON THE DOCUMENTS. CONNECT NEW DEVICES TO THE BMS SYSTEM AS REQUIRED.
8. ASSIST BOILER MANUFACTURER REPRESENTATIVE IN THE START-UP OF THE NEW BOILERS.
9. ASSIST COMMISSIONING AGENT IN THE COMMISSIONING OF THE NEW BOILERS.

PHASING NOTES

1. THE HOT WATER SYSTEM SHALL BE AVAILABLE FOR OPERATION BETWEEN OCTOBER 1 AND MAY 1. NO SHUTDOWNS OF THE HOT WATER SYSTEM WILL BE ALLOWED DURING THIS PERIOD.

SPECIAL CONDITIONS

1. THE CONTRACTOR SHALL CUT AND CAP THE 4" HIGH-PRESSURE AND 1.5" PUMPED CONDENSATE FEEDING FMH IN A MANHOLE OUTSIDE TIERNEY HALL.

FORDHAM UNIVERSITY VENDOR COORDINATION

1. THE SCOPE OF WORK WILL REQUIRE COORDINATION WITH THE FOLLOWING VENDORS:

   CONTROLS: AUTOMATED LOGIC

EQUIPMENT REMOVAL NOTE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE NYC DOB DATABASE ANY PERMITTED EQUIPMENT BEING DEMOLISHED OR DISCONNECTED AS PART OF THIS PROJECT. THE OWNER WILL REIMBURSE THE CONTRACTOR FOR ANY REQUIRED FEES.

LINE TYPES

NEW — HIDDEN — DEMOLITION, LINE — DEMOLITION, EQUIPMENT

EXISTING — ELECTRICAL SIGNAL

GENERAL SYMBOLS

GATE VALVE	SAFETY VALVE	XX XX — INSTRUMENT ABBREV.
CHECK VALVE	M — CONTROL VALVE, ELECTRIC	TAG NO.
BALL VALVE	CONTRACT BREAK POINT OR CUT LINE	D — TO DRAIN
PLUG VALVE	SPOT ELEVATION	PIPE CAP / PLUG
GLOBE VALVE	PI — PRESSURE INDICATOR	M — METER
BUTTERFLY VALVE	TI — TEMPERATURE INDICATOR	UNION
Y-STRAINER	HOSE BIB	BALANCING VALVE
REDUCER	V — VENT TO OUTDOORS	

PIPING IDENTIFIER

HWS-BS-4-I

- INSULATION CLASS (THICKNESS PER SCHEDULE)
  - I FIBERGLASS
- LINE SIZE (NPS)
- MATERIAL SPECIFICATION (REFER TO SPECS)
  - FIRST LETTER - PRESSURE RATING: A 125 LB ANSI; B 150 LB ANSI; C 300 LB ANSI
  - SECOND LETTER - MATERIAL: A AUSTENITIC STEEL (STAINLESS); C COPPER; I CAST IRON; S CARBON STEEL
- SERVICE: REFER TO "ABBREVIATIONS"

ELECTRICAL IDENTIFIER

(3)#12-#12G-0.75"C

- CONDUIT SIZE
- GROUND CONDUCTOR SIZE
- CONDUCTOR SIZE (AWG)
- QTY OF CONDUCTORS IN CONDUIT

ABBREVIATIONS

LINE ABBREVIATIONS

COND = CONDENSATE
DCW = DOMESTIC COLD WATER
D = DRAIN
HWR = HOT WATER RETURN
HWS = HOT WATER SUPPLY
HPS = HIGH PRESSURE STEAM
G = NATURAL GAS
LPS = LOW PRESSURE STEAM
V = VENT

TAG NO. / SYSTEM CROSS REFERENCE

1xx = HOT WATER
2xx = NATURAL GAS
9xx = MISC.

INSTRUMENT ABBREVIATIONS

FIRST LETTER(S)
L = LEVEL
P = PRESSURE
T = TEMPERATURE

SECOND LETTER (S)
I = INDICATOR
T = TRANSMITTER
S = SWITCH

TERTIARY LETTER (S)
H = HIGH
L = LOW

MISCELLANEOUS ABBREVIATIONS

AFF = ABOVE FINISHED FLOOR
BLDG = BUILDING
BLR = BOILER
BOD = BOTTOM OF DUCT
CONN = CONNECTION
DHW = DOMESTIC HOT WATER
DWG = BUILDING
EL = ELEVATION
FT = FEET
HTR = HEATER
HX = HEAT EXCHANGER
MIN = MINIMUM
NTS = NOT TO SCALE
PRESS = PRESSURE
RM = ROOM
SEP = SEPARATOR
SHLD = SHIELDED
TEMP = TEMPERATURE
TK = TANK
TYP = TYPICAL
VLV = VALVE
w/ = WITH

NYC NOTICE OF INSPECTION - MECHANICAL

INSPECTIONS AND TESTING	CONTINUOUS	PERIODIC	2022 NYCBC REFERENCE	NOTES
MECHANICAL SYSTEMS		X	1705.21	VERIFY MECHANICAL SYSTEMS INSTALLED AS PER THE CONSTRUCTION DOCUMENTS.
CHIMNEYS		X	1705.32	
FIRE-RESISTANT PENETRATION AND JOINTS		X	1705.17	SPECIAL INSPECTIONS FOR THROUGH-PENETRATIONS.
PROGRESS INSPECTIONS				
ENERGY CODE COMPLIANCE		X	110.3.5	
HVAC-R AND SERVICE WATER HEATING CONTROLS			1 RCNY §5000-01 (IIB4)	VERIFY AND TEST FOR FUNCTIONALITY
HVAC-R AND SERVICE WATER PIPING DESIGN AND INSULATION			1 RCNY 5000-01 (IIB5)	VISUALLY INSPECT FOR PLACEMENT AND INSULATION VALUE.
FINAL		X	28-116.2.4.2, 110.5	

2020 NYC ENERGY CODE ANALYSIS

ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE
PIPE INSULATION HIGH-PRESSURE STEAM PIPE (365°F): 1.5" TO 4"	CONDUCTIVITY < 0.32 BTU*INCH/H*FT*oF 5.0" INSULATION	CONDUCTIVITY 0.32-0.34 BTU*INCH/H*FT*oF (TABLE C403.11.3) 5.0" INSULATION
PIPE INSULATION LOW-PRESSURE STEAM PIPE (250°F): 1.5" TO 4"	CONDUCTIVITY < 0.27 BTU*INCH/H*FT*oF 2.5" INSULATION	CONDUCTIVITY 0.27-0.30 BTU*INCH/H*FT*oF (TABLE C403.11.3) 2.5" INSULATION
PIPE INSULATION HOT WATER SUPPLY/RETURN PIPE (180°F): UP TO 1.5"	CONDUCTIVITY < 0.27 BTU*INCH/H*FT*oF 1.5" INSULATION	CONDUCTIVITY 0.25-0.29 BTU*INCH/H*FT*oF (TABLE C403.11.3) 1.5" INSULATION
PIPE INSULATION HOT WATER SUPPLY/RETURN PIPE (180°F): 1.5" TO 4"	CONDUCTIVITY < 0.27 BTU*INCH/H*FT*oF 2.0" INSULATION	CONDUCTIVITY 0.25-0.29 BTU*INCH/H*FT*oF (TABLE C403.11.3) 2.0" INSULATION

NOTES:
1. TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, ALL WORK UNDER THIS APPLICATION IS IN COMPLIANCE WITH THE 2020 NYC ENERGY CONSERVATION CODE.

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

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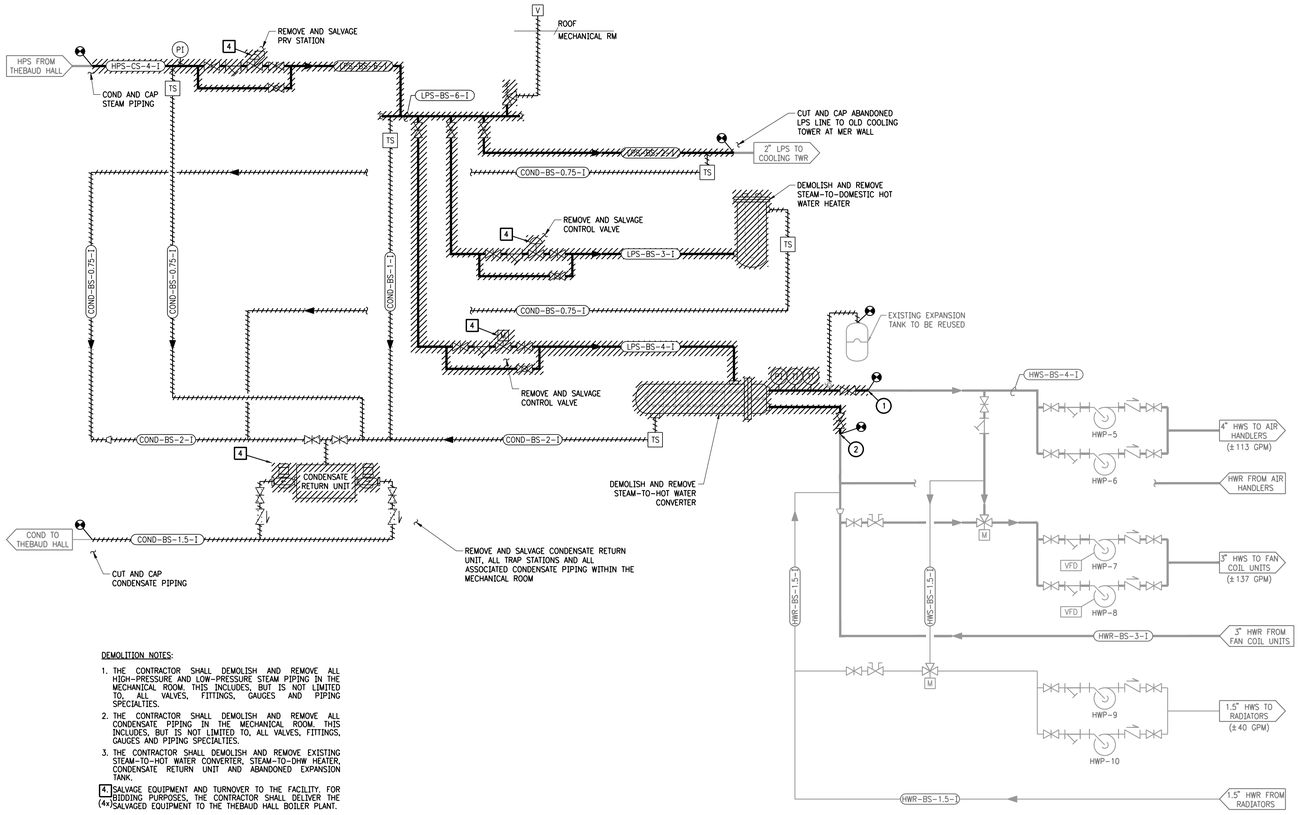
M-002.00



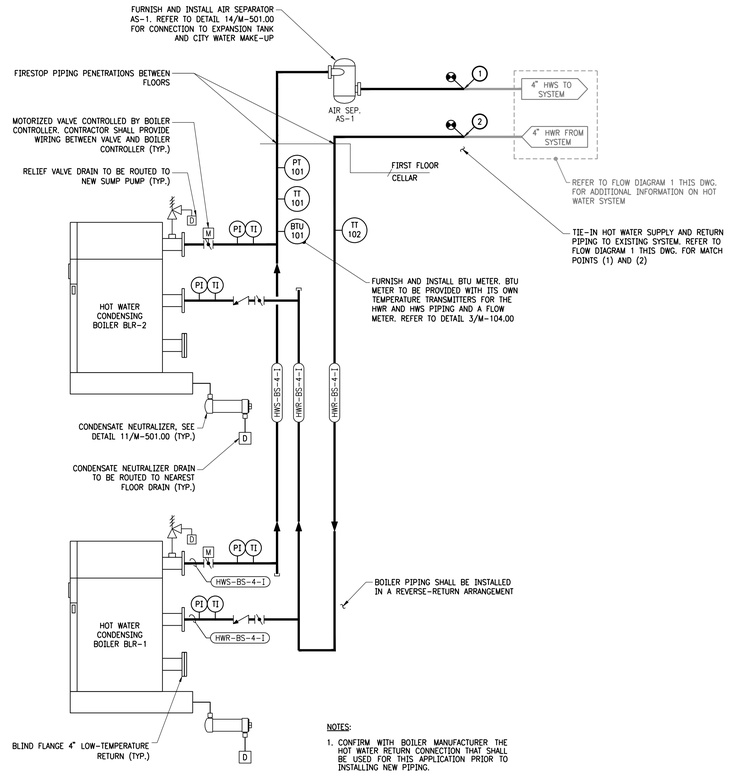
DEMOLITION NOTES:

1. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL HIGH-PRESSURE AND LOW-PRESSURE STEAM PIPING IN THE MECHANICAL ROOM. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL VALVES, FITTINGS, GAUGES AND PIPING SPECIALTIES.
2. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL CONDENSATE PIPING IN THE MECHANICAL ROOM. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL VALVES, FITTINGS, GAUGES AND PIPING SPECIALTIES.
3. THE CONTRACTOR SHALL DEMOLISH AND REMOVE EXISTING STEAM-TO-HOT WATER CONVERTER, STEAM-TO-DHW HEATER, CONDENSATE RETURN UNIT AND ABANDONED EXPANSION TANK.

4 (4x) SALVAGE EQUIPMENT AND TURNOVER TO THE FACILITY. FOR BIDDING PURPOSES, THE CONTRACTOR SHALL DELIVER THE SALVAGED EQUIPMENT TO THE THEBAUD HALL BOILER PLANT.

1 FIRST FLOOR MECHANICAL DEMOLITIONS

NOT TO SCALE



NOTES:

1. CONFIRM WITH BOILER MANUFACTURER THE HOT WATER RETURN CONNECTION THAT SHALL BE USED FOR THIS APPLICATION PRIOR TO INSTALLING NEW PIPING.

2 CELLAR & FIRST FLOOR MECHANICAL INSTALLATIONS

NOT TO SCALE

SEQUENCE OF WORK:

1. AS INDICATED BY FORDHAM UNIVERSITY, IT IS ANTICIPATED THAT THE INSTALLATION WORK IN THE CELLAR WILL TAKE PLACE DURING THE WINTER OF 2022. THE EXISTING HEATING SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES UNTIL APRIL 15, 2023.
2. THE DEMOLITION WORK IN THE FIRST FLOOR MECHANICAL ROOM SHALL TAKE PLACE AFTER THE HEATING SEASON.
3. TIE-INS TO EXISTING SYSTEMS, AND ROUTING OF THE COMBUSTION AIR AND VENT PIPING SHALL TAKE PLACE AFTER THE DEMOLITION WORK.

CLIENT: FORDHAM UNIVERSITY

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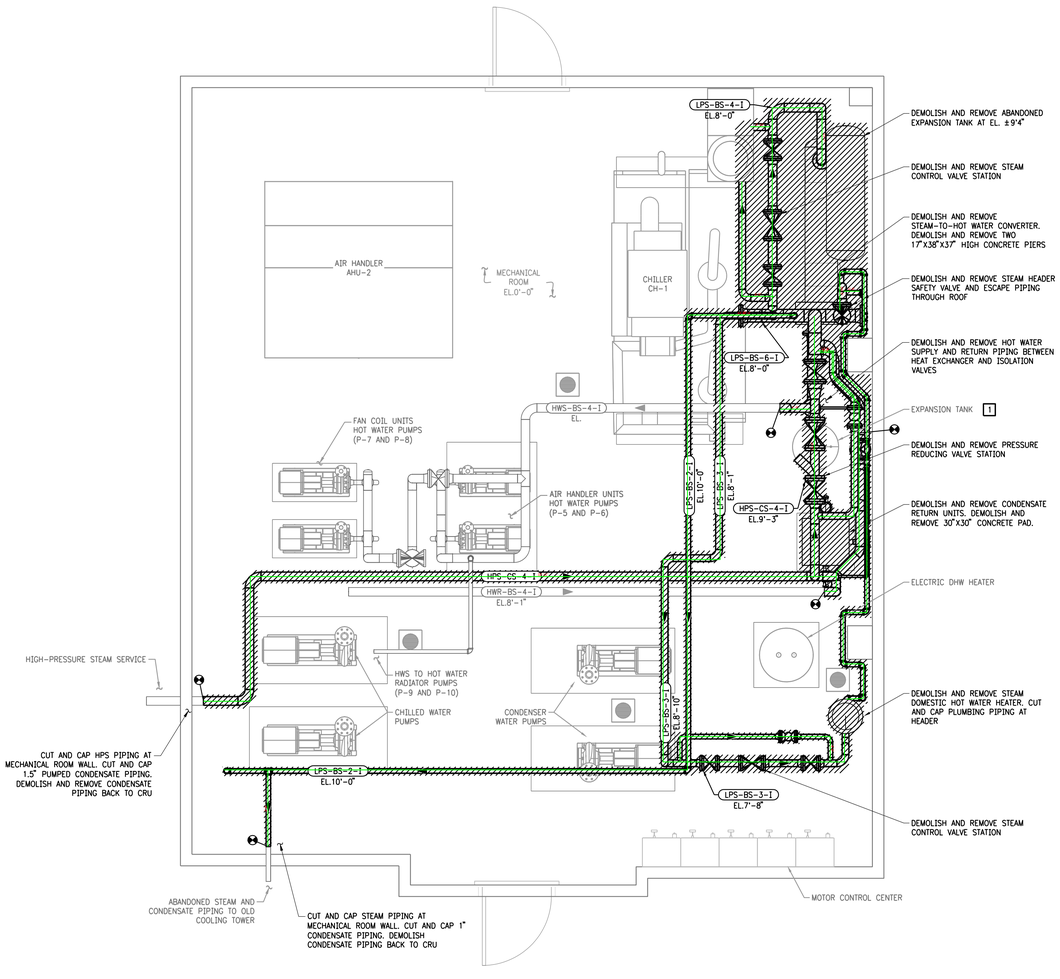
SHEET DESCRIPTION: MECHANICAL FLOW DIAGRAMS
DRAWING LOCATION: ~

DOB NOW: JOB NUMBER: X00539835-S7

M-101.00
PAGE NUMBER: 3 OF 9

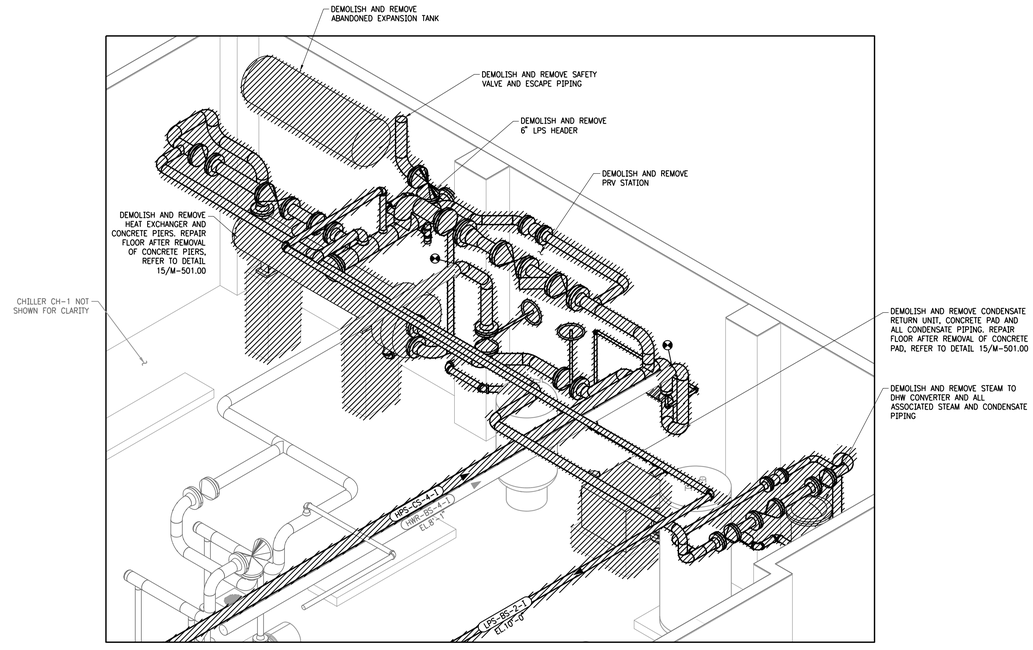
DRAWING NOTES:

1. THE CONTRACTOR SHALL DEMOLISH AND REMOVE 0.5" PIPING BETWEEN THE EXPANSION TANK AND THE HOT WATER SYSTEM. THE CONTRACTOR RELOCATE EXISTING EXPANSION TANK AS NEEDED TO ROUTE NEW PIPING FROM THE CELLAR AND CONNECT IT TO THE NEW PIPING.
2. THE CONTRACTOR SHALL DEMOLISH AND REMOVE CITY WATER AND DOMESTIC HOT WATER PIPING BETWEEN STEAM DOMESTIC HOT WATER HEATER AND ITS RESPECTIVE HEADER. THERE SHALL BE NO DEAD LEGS ON THE POTABLE WATER SYSTEM.
3. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL STEAM TRAP STATIONS WITHIN THE MECHANICAL ROOM, AND DEMOLISH AND REMOVE ALL CONDENSATE PIPING BACK TO THE CRU. THIS INCLUDES CRU DISCHARGE PIPING (1.5"). FOR PURPOSES OF BIDDING ASSUME THIS PIPING FOLLOWS A SIMILAR ROUTE THAN THE HIGH-PRESSURE STEAM PIPING FEEDING THE MECHANICAL ROOM.



1 MECHANICAL DEMOLITIONS
3/8"=1'-0"
3" 2" 1' 0 1' 2' 3"

PLAN NORTH



2 MECHANICAL DEMOLITIONS - ISOMETRIC
1/2"=1'-0"
2' 1' 0 1' 2'

CLIENT
FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
-			
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE
C.BREEN
DESIGNED BY
D.GORDON
CHECKED BY
M.MARTINO
DRAWN BY
D.GORDON
FILE NO.
1088199.1940102717
DATE
02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

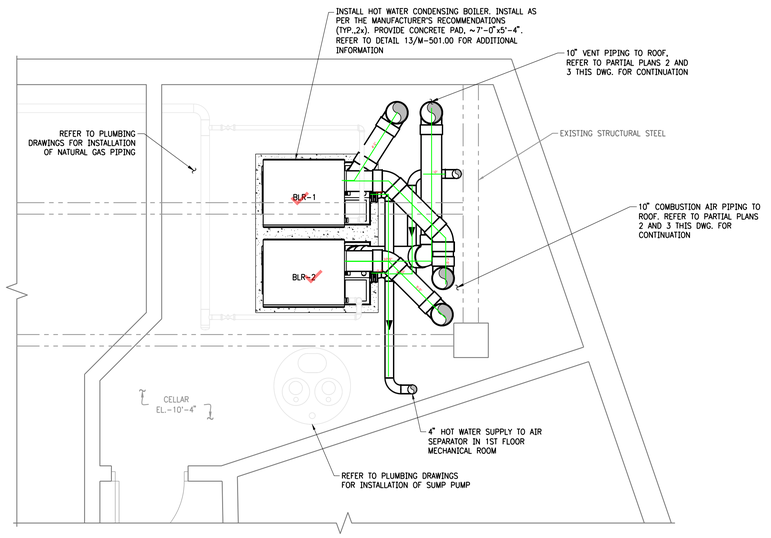
PROJECT
FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS
655 EAST FORDHAM ROAD, BRONX NY
BIN
2016244
BLOCK
3273
LOT
209

SHEET DESCRIPTION
MECHANICAL EQUIPMENT AND PIPING DEMOLITIONS
DRAWING LOCATION
FACULTY MEMORIAL HALL - FIRST FLOOR

DOB NOW JOB NUMBER:
X00539835-S7

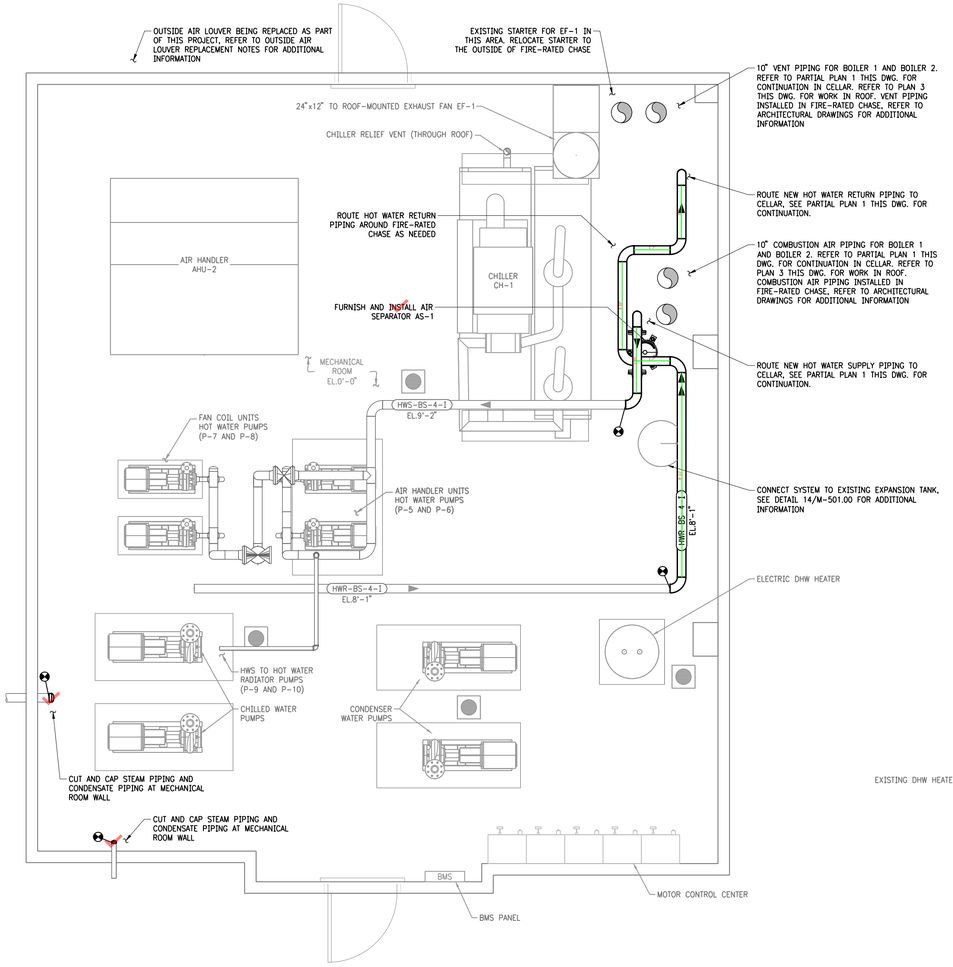
M-102.00

PAGE NUMBER
4 OF 9



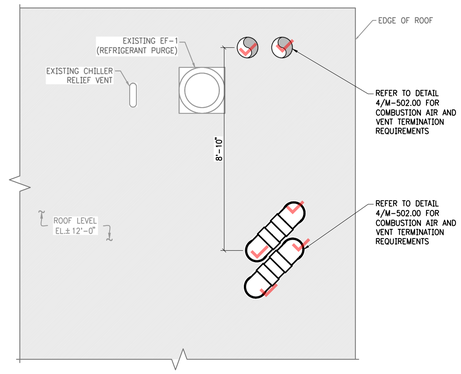
1 CELLAR MECHANICAL INSTALLATIONS
3/8"=1'-0" 64' 32' 0 64'

PLAN NORTH



2 FIRST FLOOR MECHANICAL INSTALLATIONS
3/8"=1'-0" 64' 32' 0 64'

PLAN NORTH



3 ROOF LEVEL INSTALLATIONS
3/8"=1'-0" 64' 32' 0 64'

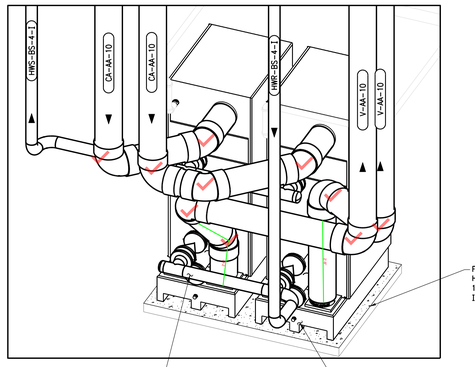
PLAN NORTH

VENT TERMINATION:

1. AS PER THE 2022 NYC MECHANICAL CODE SECTION 804, THE VENT TERMINATION SHALL BE LOCATED A MINIMUM OF 4 FEET FROM THE LOT LINE OR FROM ADJACENT BUILDINGS. REFER TO ARCHITECTURAL DRAWINGS FOR LOT LINE. THE LOT LINE MATCHES THE EDGE OF THE ROOF. THE VENT SHALL BE INSTALLED SO NO PART OF THE VENT PIPE IS WITHIN 4 FEET OF THE EDGE OF THE ROOF.

ROOF WORK NOTES:

1. ROOF AT FMH IS NOT UNDER WARRANTY. ALL ROOF PENETRATIONS SHALL HAVE A 1-YEAR WARRANTY FROM THE DATE OF PROJECT ACCEPTANCE.



4 CELLAR MECHANICAL INSTALLATIONS - ISOMETRIC
1/2"=1'-0" 2' 1' 0 1' 2'

5 HOT WATER PIPING INSTALLATIONS - ISOMETRIC
1/4"=1'-0" 4' 2' 0 2' 4'

DRAWING NOTES:

1. ALL INTERIOR WALL AND FLOOR PENETRATIONS SHALL BE PROVIDED WITH A UL COMPLIANT FIRESTOP SYSTEM. REFER TO DETAILS 1/M-502.00, 2/M-502.00 AND 3/M-502.00 FOR ADDITIONAL INFORMATION.
2. COMBUSTION AIR AND VENT PIPING SHALL BE SIMILAR TO CLEAVER BROOKS CBH WITH 316 STAINLESS STEEL INNER WALL AND 304 STAINLESS STEEL OUTER WALL WITH A 1" AIR GAP.
3. THE VENT MUST BE PITCHED UPWARD TOWARD THE TERMINATION BY A MINIMUM OF ¼" PER FOOT OF LENGTH. CONDENSATE MUST FLOW BACK TO THE BOILER FREELY, WITHOUT ACCUMULATING IN THE VENT.
4. COMBUSTION AIR AND VENT PIPING INSTALLATION SHALL BE AS PER THE MANUFACTURER'S REQUIREMENTS.

OUTSIDE AIR LOUVER REPLACEMENT NOTES:

1. COORDINATE WITH GENERAL CONTRACTOR FOR REPLACEMENT OF EXISTING OUTSIDE AIR LOUVER. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. OUTSIDE AIR LOUVER PROVIDES O.A. FOR AIR HANDING UNITS AHU-1, AHU-2 AND AHU-3.
2. MECHANICAL CONTRACTOR SHALL DISCONNECT AND RECONNECT DUCTWORK AS REQUIRED FOR THE REPLACEMENT OF THE OUTSIDE AIR LOUVER.
3. PROVIDE SHEET FORMED ALUMINUM BLANK-OFF PANEL. BLANK-OFF PANEL SHALL BE 2" THICK WITH >8.0 R-VALUE AND 0.040" ALUMINUM SHEATING ON EACH SIDE. REFER TO ARCHITECTURAL PLANS FOR PANEL FINISHING.

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
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0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY

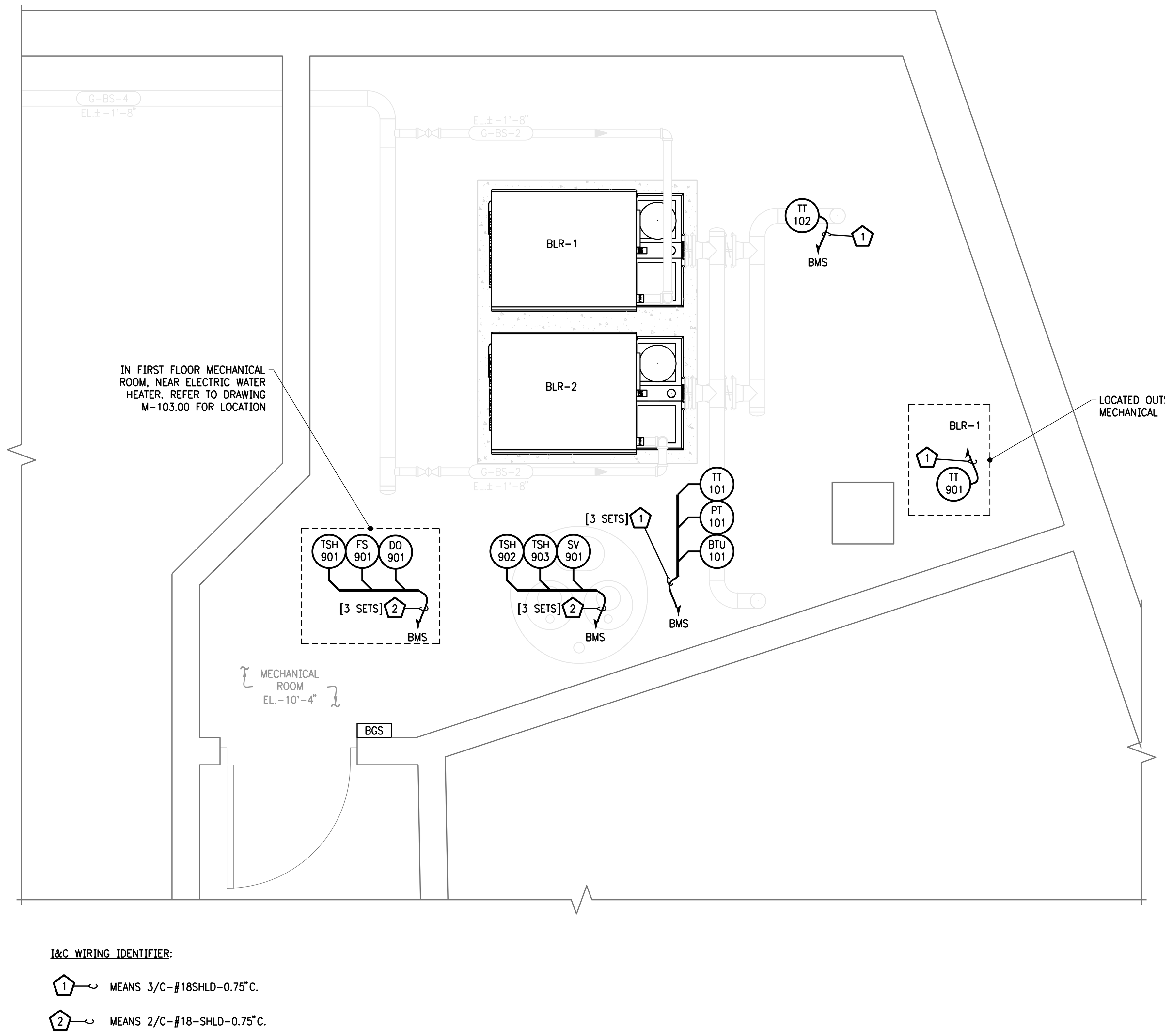
PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: MECHANICAL EQUIPMENT AND PIPING INSTALLATIONS
DRAWING LOCATION: FACULTY MEMORIAL HALL - CELLAR, FIRST FLOOR & ROOF

DOB NOW JOB NUMBER: X00539835-S7

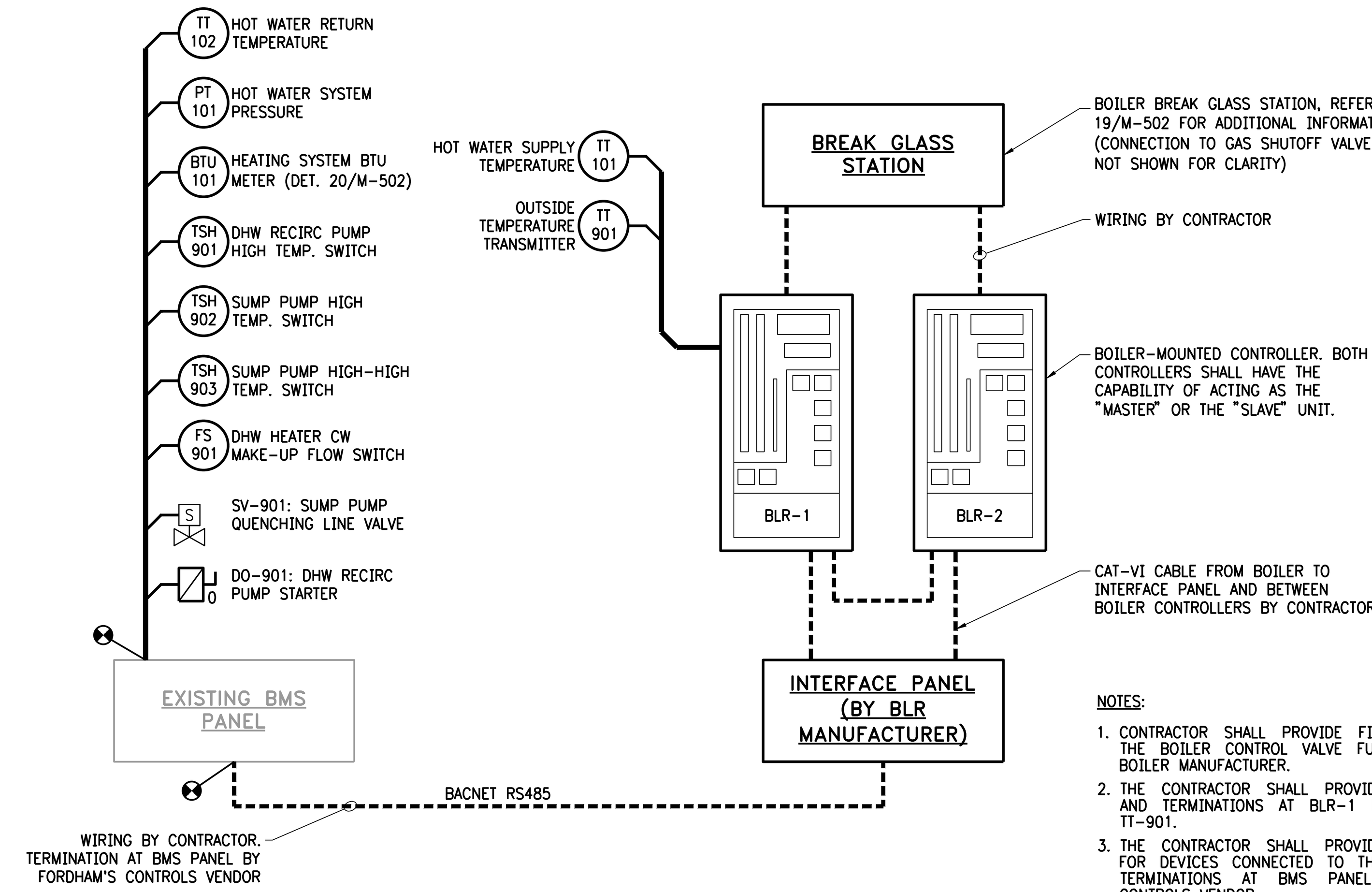
M-103.00

PAGE NUMBER: 5 OF 9



1 INSTRUMENTATION & CONTROLS PLAN

1/2"=1'-0"



NOTES:

1. CONTRACTOR SHALL PROVIDE FIELD WIRING FOR THE BOILER CONTROL VALVE FURNISHED BY THE BOILER MANUFACTURER.
2. THE CONTRACTOR SHALL PROVIDE FIELD WIRING AND TERMINATIONS AT BLR-1 FOR TT-101 AND TT-901.
3. THE CONTRACTOR SHALL PROVIDE FIELD WIRING FOR DEVICES CONNECTED TO THE EXISTING BMS. TERMINATIONS AT BMS PANEL BY FORDHAM'S CONTROLS VENDOR.

2 FMH BOILERS CONTROLS ARCHITECTURE

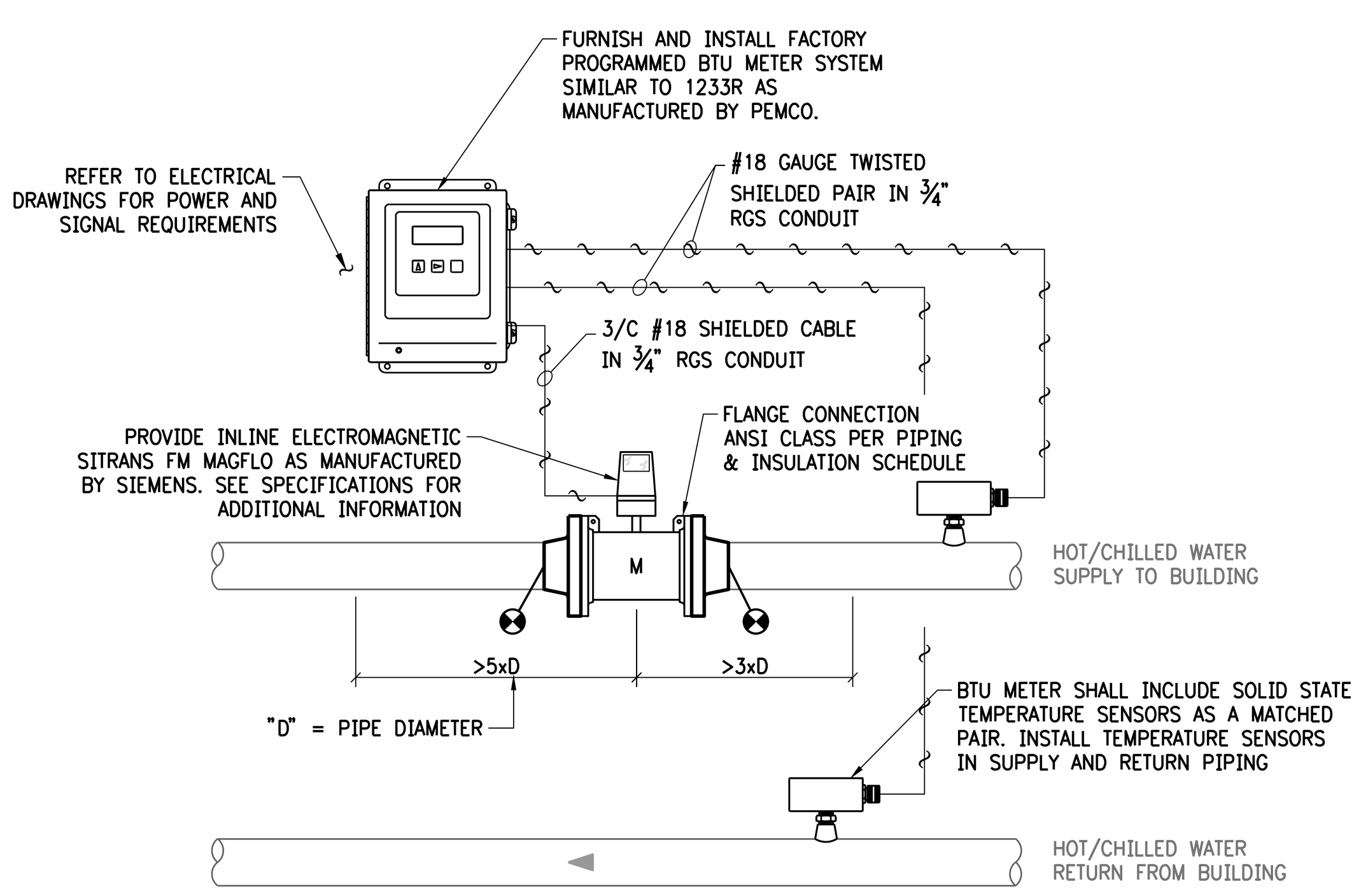
NOT TO SCALE

I&C NOTES:

1. THE EXISTING BMS PANEL IS LOCATED IN THE 1ST FLOOR MECHANICAL ROOM. REFER TO DRAWING M-103.00 FOR LOCATION. THE CONTRACTOR SHALL PROVIDE FIRESTOPPING ON ALL CONDUIT PENETRATIONS BETWEEN THE FIRST FLOOR AND CELLAR.
2. THE CONTRACTOR SHALL RETAIN THE SERVICES OF THE CAMPUS CONTROLS VENDOR (AUTOMATED LOGIC) FOR INTEGRATION OF THE NEW SYSTEM TO THE BMS. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL FIELD DEVICES AND RUNNING THE WIRE AND CONDUIT BACK TO THE BMS PANEL. AUTOMATED LOGIC WILL BE RESPONSIBLE FOR FINAL TERMINATIONS AND PROGRAMMING.
3. THE CONTRACTOR / CONTROLS VENDOR SHALL PROVIDE AN "ENABLE / DISABLE" CONTACT FROM THE BMS TO THE LEAD BOILER. THE BOILERS SHALL BE DISABLED WHENEVER THE SYSTEM PUMPS ARE DISABLED. THE CONTACT SHALL BE A DRY CONTACT. THE BOILER WILL PROVIDE 24 VAC TO THE CONTACT.
4. THE CONTRACTOR / CONTROLS VENDOR SHALL PROVIDE A 4-20mA SIGNAL FROM THE BMS TO THE BOILER MASTER CONTROLLER FOR REMOTE SETPOINT. SET POINT SHALL BE PER AN ADJUSTABLE OUTSIDE AIR RESET SCHEDULE. RESET SCHEDULE TO BE A LINEAR RELATIONSHIP BETWEEN LIMITS PROVIDED BY FORDHAM UNIVERSITY.

SEQUENCE OF OPERATIONS:

1. THE BOILER MASTER CONTROLLER SHALL COMPARE THE HOT WATER SETPOINT TEMPERATURE TO A VARIABLE SETPOINT BASED ON AN OUTSIDE AIR TEMPERATURE RESET SCHEDULE, AND SHALL INITIATE START-UP. RESET SCHEDULE SHALL BE A LINEAR RELATIONSHIP BETWEEN TWO ADJUSTABLE POINTS. THE INITIAL RESET SCHEDULE SHALL BE AS FOLLOWS:
   - 1.1. OAT OF 55°F = BOILER SETPOINT OF 140°F
   - 1.2. OAT OF 15°F = BOILER SETPOINT OF 180°F
2. THE BOILER MASTER CONTROLLER SHALL STAGE AND MODULATE THE BOILERS BASED ON OPERATING THE UNITS AT THE HIGHEST SYSTEM EFFICIENCY. STAGING SHALL BE PERFORMED SEQUENTIALLY. THE BOILER MASTER CONTROLLER SHALL BE CAPABLE OF ROTATING THE LEAD BOILER TO EQUALIZE RUN TIMES.
3. IF THE MASTER BOILER IS DISABLED FOR ANY REASON, THE OTHER BOILER INDEPENDENTLY TO MAINTAIN SETPOINT IN "MANUAL OPERATION/MODE".

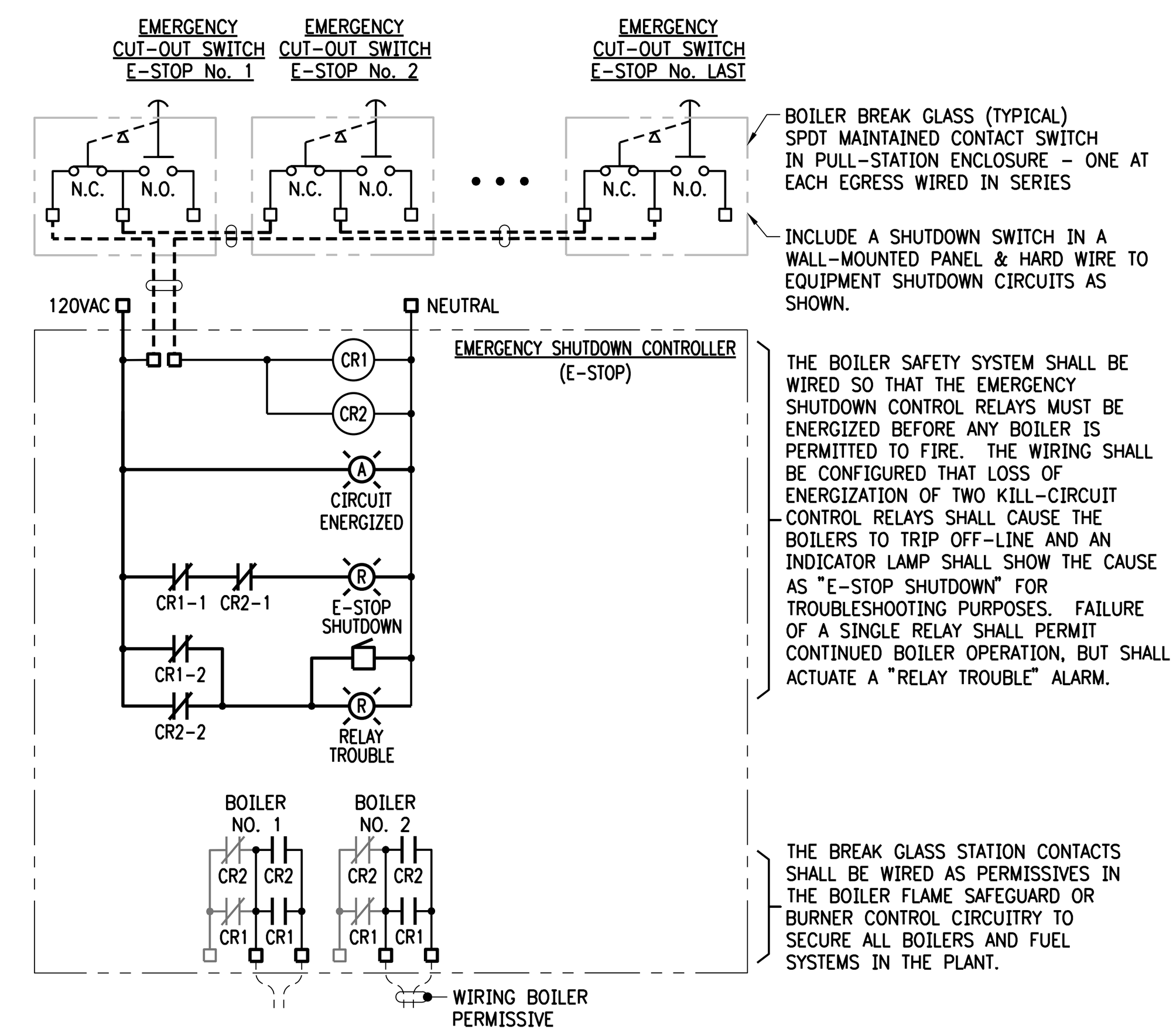


NOTE:

1. IN-LINE METER SHOWING METER SIZE SAME AS PIPE SIZE. THE CONTRACTOR SHALL FURNISH AND INSTALL PIPE REDUCERS AS NEEDED, SEE FLOW METER SCHEDULES IN DWG. M-601.

3 HOT WATER SYSTEM BTU METER

NOT TO SCALE



NOTE:

1. EACH EMERGENCY BREAK GLASS SHALL BE USED AS A "BOILER KILL" SWITCH TO STOP THE BOILER/PLANT FUEL SYSTEMS.
2. THE EMERGENCY BREAK GLASS (E-STOP) SHALL BE A DUAL-ACTION DEVICE, SUCH AS LIFT COVER AND PULL HANDLE.
3. THE E-STOP SWITCH SHALL BE MAINTAINED CONTACT, AND SHALL REQUIRE A HEX OR OTHER KEY TO RESET THE SWITCH TO THE "NORMAL" POSITION AFTER ACTUATION.
4. LOSS-OF-ELECTRICITY TO THE EMERGENCY SHUTDOWN CONTROLLER SHALL SHUT DOWN THE BOILER-SYSTEMS.
5. BREAK GLASS SWITCH N.C. CONTACTS SHALL BE WIRED IN SERIES SO THAT ACTUATION OF ANY ONE STATION WILL DE-ENERGIZE THE CONTROL RELAY CIRCUIT, AND CAUSE BOILER AND FUEL SYSTEM SHUTDOWNS.
6. 1/2" HIGH WHITE LETTERING ON RED BACKGROUND LAMINATED PLASTIC TAGS SHALL BE MOUNTED ON THE SWITCHES. TAG MUST INDICATE "BOILER EMERGENCY STOP".
7. TWO CONTROL RELAYS SHALL BE WIRED IN PARALLEL TO MAINTAIN HIGH OPERATIONAL RELIABILITY. THE SECOND CONTROL RELAY SHALL BE WIRED WITH ITS SETS OF N.O. CONTACTS IN PARALLEL WITH THE CR-1 N.O. PERMISSIVE CONTACTS, SO THAT BOTH RELAYS MUST DE-ENERGIZE TO TRIP THE BOILERS.
8. A SET OF CONTROL RELAY N.C. CONTACTS SHALL BE WIRED IN PARALLEL, SO THAT FAILURE OF ONE RELAY SHALL INDICATE "RELAY TROUBLE."
9. AN "E-STOP SHUTDOWN" INDICATOR LAMP IS REQUIRED IN A WALL-MOUNTED PANEL PROVIDED BY THE CONTRACTOR.

4 TYPICAL BOILER BREAK GLASS STATION ARRANGEMENT (BGS)

NOT TO SCALE

INSTRUMENT & CONTROLS LIST

ITEM	INSTRUMENT	TAG NO.	DESCRIPTION	LOCATION	A/I to	D/I to	AO	DO	RANGE	REMARKS
PRESSURE TRANSMITTERS										
1	PRESS XMTR	PT 101	HOT WATER SYSTEM PRESSURE	CELLAR	BMS				0-100 PSIG	
TEMPERATURE TRANSMITTERS										
1	TEMP XMTR	TT 101	HOT WATER SUPPLY	CELLAR	BLR-1				0-300°F	MAP POINT TO BMS FROM BOILER CONTROLLER
2	TEMP XMTR	TT 102	HOT WATER RETURN	CELLAR	BMS				0-300°F	
3	TEMP XMTR	TT 901	OUTDOOR TEMPERATURE SENSOR	OUTDOORS	BLR-1					FURNISHED BY BOILER MANUFACTURER, INSTALLED BY CONTRACTOR
DIGITAL OUTPUT FROM CONTROLLER										
1	DIGITAL OUTPUT	DO 901	DHW RECIRC PUMP STARTER	1ST FL MER			BMS			
TEMPERATURE SWITCHES										
1	TEMP SW. HIGH	TSH 901	DHW RECIRC HIGH TEMPERATURE	1ST FL MER		DHWR PUMP			75-200°F	STOP DHW RECIRC PUMP @115°F
2	TEMP SW. HIGH	TSH 902	SUMP PUMP HIGH TEMPERATURE	CELLAR		BMS			75-200°F	MAINTAIN SUMP PIT AT 135°F
3	TEMP SW. HIGH	TSH 903	SUMP PUMP HIGH TEMPERATURE	CELLAR		BMS			75-200°F	HIGH TEMPERATURE ALARM SET AT 140°F
FLOW SWITCHES										
1	FLOW SW. LOW	FS 901	DHW HEATER CW MAKE-UP FLOW	1ST FL MER		BMS				STARTS DHW RECIRC PUMP
CONTROLLER										
1	BLR 1 CONTROLLER	BLR 1	BOILER CONTROLLER	BLR-1					~	FURNISHED BY BOILER MANUFACTURER
2	BLR 2 CONTROLLER	BLR 2	BOILER CONTROLLER	BLR-2					~	FURNISHED BY BOILER MANUFACTURER
3	BMS PANEL	- -	EXISTING BMS PANEL	MER					~	
MISCELLANEOUS DEVICES										
1	KILL SWITCH	BGS -	EMERGENCY BOILER SHUTDOWN SWITCH	CELLAR		ALL BLRS			~	MANUAL RESET
2	FLOW CTRL VLV	FCV 101	BOILER 1 ISOLATION VALVE	BLR-1			BLR-1		~	FURNISHED BY BOILER MANUFACUTER
3	FLOW CTRL VLV	FCV 102	BOILER 2 ISOLATION VALVE	BLR-2			BLR-2		~	FURNISHED BY BOILER MANUFACUTER
4	BTU METER	BTU 101	HEATING SYSTEM BTU METER	CELLAR	BMS				~	SEE DETAIL 3/M-104 FOR INFORMATION
5	SOLENOID VALVE	SV 901	SUMP PUMP SOLENOID VALVE	CELLAR			BMS		~	SUMP PUMP CITY WATER QUENCHING LINE

BOILERS CONTROLS INTEGRATION:

1. THE HOT WATER BOILERS SHALL BE INTEGRATED TO THE EXISTING AUTOMATED LOGIC BUILDING MANAGEMENT SYSTEM (BMS). AT A MINIMUM, THE FOLLOWING POINTS SHALL BE MAPPED TO THE BMS:
   - 1.1. READ/WRITE POINTS:
     - 1.1.1. BOILER LEAD/LAG ENABLE
     - 1.1.2. BOILER LEAD/LAG SETPOINT
   - 1.2. READ ONLY POINTS:
     - 1.2.1. INLET WATER TEMPERATURE
     - 1.2.2. OUTLET WATER TEMPERATURE
     - 1.2.3. FIRING RATE %
     - 1.2.4. EXHAUST TEMPERATURE
     - 1.2.5. INLET AIR TEMPERATURE
     - 1.2.6. UNIT INFORMATION: ADDRESS, FAULTS, UNIT RUNNING, ETC.
2. DEDICATED BMS SCREENS SHALL BE PROVIDED FOR THE BOILERS.
3. THE BOILERS SHALL BE CONFIGURED FOR REMOTE DHW SETPOINT VIA A RESET SCHEDULE AS DESCRIBED ON THIS DRAWING. THE OPERATOR SHALL BE ABLE TO OVERRIDE THE RESET SCHEDULE. THE BMS SCREEN SHALL INCLUDE A RESET SCHEDULE SELECTOR SWITCH.

CLIENT: FORDHAM UNIVERSITY

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0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
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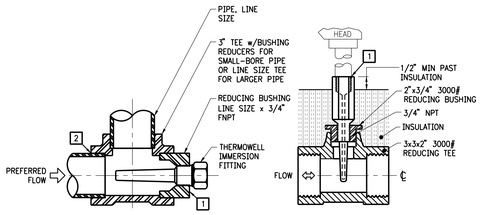
RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: INSTRUMENTATION & CONTROLS
DRAWING LOCATION: FACULTY MEMORIAL HALL - CELLAR

DOB NOW JOB NUMBER: X00539835-S7

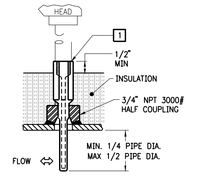
M-104.00



NOTE:

1. THE THERMOWELL'S BORE AND THREAD SIZES SHALL MATCH THE RTD, THERMOCOUPLE OR THERMOMETER ELEMENT. VERIFY DIMENSIONS WITH VENDOR.
2. THERMOWELLS THAT ARE TO RECEIVE LOCAL TEMPERATURE INDICATORS SHALL BE LOCATED NO HIGHER THAN 6' OFF THE GROUND AND ORIENTED TO BE EASILY READABLE FROM THE GROUND.
3. USE BUSHINGS AS REQUIRED TO REDUCE THE 3" TEE SIZE TO THE NECESSARY LINE SIZE.
4. TIP OF THERMOWELL TO EXTEND PAST THE PERPENDICULAR PIPE CENTERLINE.
5. INSTALL INSULATION. WITH ½" MINIMUM EXPOSURE OF THERMOWELL HEX HEAD.

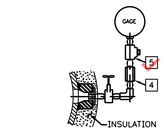
1 THERMOWELL 2.5" PIPE & SMALLER
NOT TO SCALE



NOTE:

1. THE THERMOWELL'S BORE AND THREAD SIZES SHALL MATCH THE RTD, THERMOCOUPLE OR THERMOMETER ELEMENT. VERIFY DIMENSIONS WITH VENDOR.
2. THERMOWELLS THAT ARE TO RECEIVE LOCAL TEMPERATURE INDICATORS SHALL BE LOCATED NO HIGHER THAN 6' OFF THE GROUND AND ORIENTED TO BE EASILY READABLE FROM THE GROUND.
3. INSTALL INSULATION. WITH ½" MINIMUM EXPOSURE OF THERMOWELL HEX HEAD FOR ENGAGING A WRENCH.
4. THE SENSING BULB SHALL BE BOTTOMED, WITHDRAWN TO 3/32" FROM THE BOTTOM OF THE THERMOWELL, AND LOCKED IN PLACE. CONDUCTING GRAPHITE SHALL BE USED TO INCREASE THE HEAT-TRANSFER RATE.

2 THERMOWELL 3" PIPE & LARGER
NOT TO SCALE

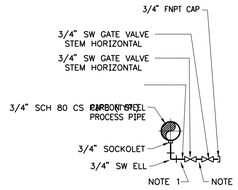


HORIZONTAL INSTALLATION
(PUMPED LIQUID SERVICE)

NOTE:

1. CONTRACTOR SHALL VERIFY GAUGE NPT CONNECTION WITH VENDOR.
2. LOCAL PRESSURE GAUGES ARE TO BE LOCATED NO HIGHER THAN 6' OFF OF THE GROUND.
3. GAUGES ARE TO BE FULLY VISIBLE FROM THE FLOOR.
4. PULSATION SNUBBERS TO BE INSTALLED BETWEEN ALL ISOLATION VALVES AND GAGES FOR PUMPED LIQUID SERVICES.
5. GAGE CALIBRATION TEES TO BE INSTALLED BETWEEN ALL ISOLATION VALVES AND GAGES.

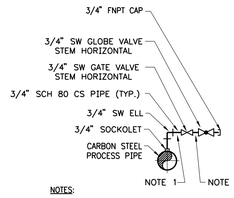
3 PRESSURE GAUGE
NOT TO SCALE



NOTES:

1. ALLOW ADEQUATE LENGTH TO OPERATE VALVE, INCLUDING LAGGING CLEARANCE.
2. KEEP PIPE SECTIONS AS SHORT AS POSSIBLE.
3. DRAIN PIPING 3/4" UNLESS OTHERWISE SPECIFIED.
4. ALL SYSTEMS OTHER THAN HTHW SHALL BE PROVIDED w/ONLY ONE DRAIN VALVE. DRAIN VALVES ARE TO BE BALL VALVES, NOT GATE VALVES, ON SYSTEMS OTHER THAN HTHW.

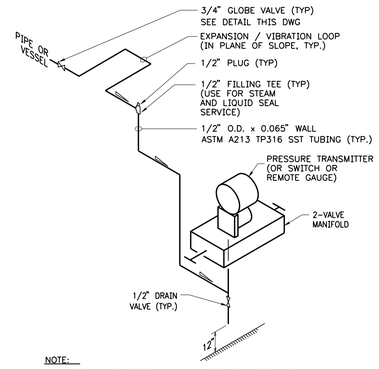
4 DRAIN PIPING
NOT TO SCALE



NOTES:

1. ALLOW ADEQUATE LENGTH TO OPERATE VALVE, INCLUDING LAGGING CLEARANCE.
2. KEEP PIPE SECTIONS AS SHORT AS POSSIBLE.
3. VENT PIPING 3/4" UNLESS OTHERWISE SPECIFIED.
4. ALL SYSTEMS OTHER THAN HTHW SHALL BE PROVIDED w/ONLY ONE VENT VALVE. VENT VALVES ARE TO BE BALL VALVES, NOT GATE/GLOBE VALVES, ON SYSTEMS OTHER THAN HTHW.

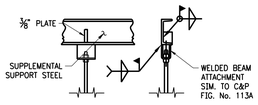
5 VENT PIPING
NOT TO SCALE



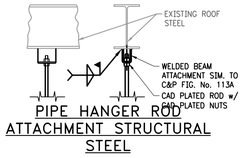
NOTE:

1) TRANSMITTERS SHALL BE FIELD RUN TO A LOCATION WHERE THEY ARE NO LONGER THAN 4'-6" OFF OF THE NEAREST FLOOR OR PLATFORM.
2) THE DISTANCE BETWEEN THE TAP POINT AND FILL TEE SHOULD BE HELD TO MIN. POSSIBLE.
3) ▱ = SLOPE 1" PER FOOT

6 PRESSURE DEVICE INSTALLATION FOR LIQUID SERVICE
NOT TO SCALE

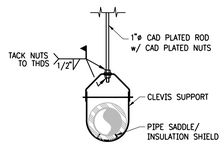


PIPE HANGER ROD ATTACHMENT SUPPLEMENTAL STEEL

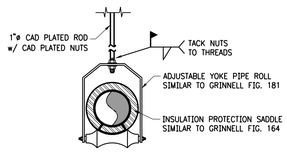


PIPE HANGER ROD ATTACHMENT STRUCTURAL STEEL

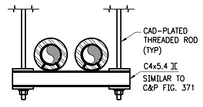
7 ATTACHMENT METHODS (SIZE TO MATCH PIPE)
NOT TO SCALE



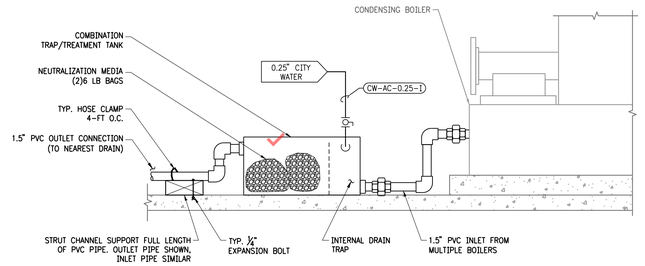
8 ROD & CLEVIS SUPPORT (SIZE TO MATCH PIPE)
NOT TO SCALE



9 ROLLER SUPPORT (SIZE TO MATCH PIPE)
NOT TO SCALE



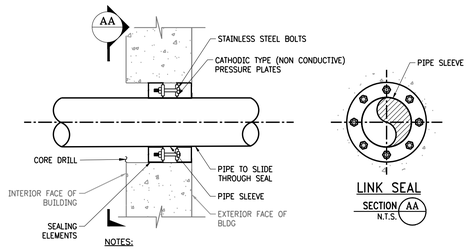
10 TRAPEZE SUPPORT
NOT TO SCALE



CONDENSATE NEUTRALIZER NOTES:

1. TOTAL BOILER CAPACITY PER CONDENSATE TANK SHALL NOT EXCEED 8,000,000 BTU/HR. 4 BOILERS MAXIMUM SHALL BE CONNECTED TO EACH TRAP. PROVIDE NUMBER OF TRAPS AS NECESSARY TO MEET THE PROJECT REQUIREMENTS.
2. PROVIDE INITIAL FILL OF NEUTRALIZATION MEDIA. PROVIDE SPARE NEUTRALIZATION MEDIA FOR ONE COMPLETE REFILL.

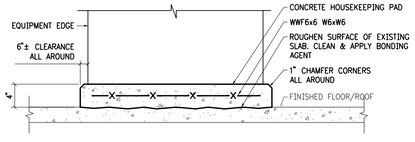
11 CONDENSATE NEUTRALIZER
NOT TO SCALE



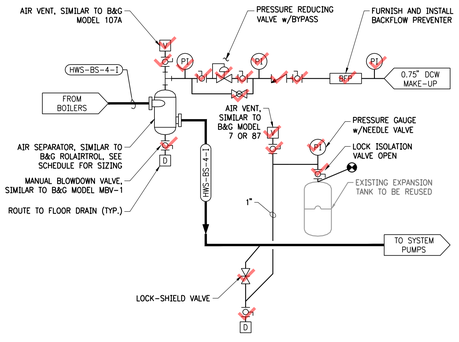
NOTES:

1. PROVIDE MODULAR SEALS WITH EPDM SEAL ELEMENTS SIMILAR TO MODEL "C" LINKSEAL ASSEMBLY AS MANUFACTURED BY THUNDERLINE. OTHER ACCEPTABLE MODULAR SEALS ARE INNERLYNX ASSEMBLIES AS MANUFACTURED BY ADVANCE PRODUCTS & SYSTEMS.

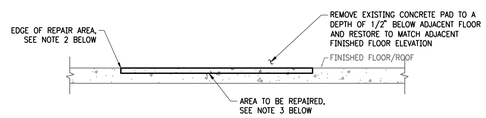
12 MODULAR MECHANICAL SEALS
NOT TO SCALE



13 TYPICAL HOUSEKEEPING CONCRETE PAD
NOT TO SCALE



14 EXPANSION TANK AND AIR SEPARATOR INSTALLATION
NOT TO SCALE



NOTES:

1. REMOVE EXISTING CONCRETE PAD AS SHOWN ON THE PLANS.
2. SAW CUT EDGES OF THE PATCH PERPENDICULAR TO THE SURFACE TO A DEPTH OF NO MORE THAN 1/2" TO AVOID FEATHER EDGING THE REPAIR MATERIAL.
3. ABRASIVE BLAST THE AREA TO BE REPAIRED PROVIDING A UNIFORM DEPTH.
4. THE CONCRETE MUST BE SOUND AND FREE OF ALL FOREIGN MATERIALS, INCLUDING OIL, GREASE, DUST OR OTHER SURFACE CONTAMINANTS PRIOR TO INSTALLATION OF REPAIR MATERIAL.
5. INSTALL REPAIR MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
6. ACCEPTABLE REPAIR PRODUCTS INCLUDE:
   6.1. SIKA REPAIR 223 AS MANUFACTURED BY SIKA
   6.2. PERMA PATCH VO AS MANUFACTURED BY DAYTON SUPERIOR
   6.3. REPCON V/O AS MANUFACTURED BY SPEC CHEM
   6.4. MASTEREMACO N 423 RS AS MANUFACTURED BY BASF

15 HOUSEKEEPING CONCRETE PAD REMOVAL AND FLOOR RESTORATION
NOT TO SCALE

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: MECHANICAL DETAILS SHEET 1
DRAWING LOCATION: ~

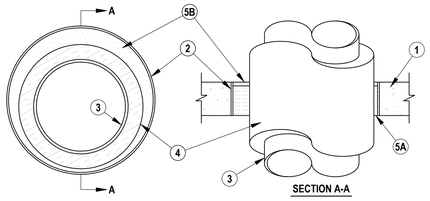
DOB NOW JOB NUMBER: X00539835-S7

M-501.00

PAGE NUMBER: 7 OF 9

System No. C-AJ-5091

F Rating - 2 Hr
T Rating - 1 Hr
L Rating At Ambient - 4 CFM/Sq Ft
L Rating At 400 F - Less Than 1 CFM/Sq Ft



1. EXISTING CONSTRUCTION: FLOOR OR WALL ASSEMBLY – MIN 4–1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS.

2. METALLIC SLEEVE – (OPTIONAL) – NOM 20" DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

3. THROUGH PENETRANTS – ONE METALLIC PIPE OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:
   A. STEEL PIPE – NOM 12" DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. COPPER PIPE – NOM 6" DIAMETER (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   C. COPPER TUBING – NOM 6" DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

3. PIPE COVERING – NOM 2" THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL–SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH THE PRODUCT. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE EDGE OF THE PERIPHERY OF THE OPENING SHALL BE MIN 1/2" TO A MAX 2–1/4" SEE PIPE EQUIPMENT COVERING – MATERIALS – (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

4. PIPE COVERING – (NOT SHOWN) – AS AN ALTERNATE TO ITEM 4, MAX 2" THICK CYLINDRICAL CALCIUM SILICATE (MIN 14 PCF) UNITS SIZED TO THE OUTSIDE DIAMETER OF THE PIPE OR TUBE MAY BE USED. PIPE INSULATION SECURED WITH STAINLESS STEEL BANDS OR MIN 8 AWG STAINLESS STEEL WIRE SPACED MAX 12" O.C. THE ANNULAR SPACE SHALL BE MIN 1/2" TO MAX 2–1/4"

5. FIRESTOP SYSTEM – THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL – MIN 4" THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL – SEALANT – MIN 1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIVISION OF HILTI INC – FS – ONE SEALANT
•BEARING THE UL CLASSIFICATION MARK

HILTI® FIRESTOP SYSTEMS

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 4, 2002

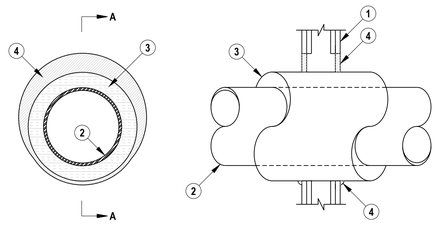
C UL US

FIRESTOP: FLOOR PENETRATION

1 NOT TO SCALE

System No. W-L-5029

F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 1/2, 3/4, 1, 1-1/2 and 1-3/4 Hr (See Item 3)
L Rating At Ambient - 4 CFM/Sq Ft
L Rating At 400 F - Less Than 1 CFM/Sq Ft



1. WALL ASSEMBLY – THE 1 OR 2 HR FIRE–RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2–1/2 IN. WIDE AND SPACED MAX 24 IN. OC.
   B. GYPSUM BOARD• – 5/8 IN. THICK, 4 FT WIDE, WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 18–5/8 IN. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

2. THROUGH PENETRANTS – ONE METALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:
   A. STEEL PIPE – NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. COPPER TUBING – NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   C. COPPER PIPE – NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PIPE COVERING• – NOM 1, 1–1/2 OR 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY–APPLIED SELF–SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH THE PRODUCT.
   SEE PIPE AND EQUIPMENT COVERING – MATERIALS (BRGU) CATEGORY IN THE BUILDING MATERIAL DIRECTORY FOR THE NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT ON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, THE SIZE AND TYPE OF THROUGH PENETRANT AND THE PIPE COVERING THICKNESS, AS SHOWN IN THE TABLE BELOW:

Wall Assembly Rating Hr	Through Penetrant		Pipe Covering Thkns In.	Annular Space		T Rating Hr
	Type +	Max Diam In.		Min In.	Max In.	
1	A	4	1	0	1–1/2	1/2
1	B or C	2	1 or 1–1/2	0	1–1/2	1/2
1	A	4	1–1/2	0	1–1/2	1
1	A	12	2	0	1–7/8	3/4
1	B or C	6	2	0	1–7/8	1
2	A	4	1	0	1–1/2	1
2	B or C	4	1 or 1–1/2	0	1–1/2	1
2	B or C	6	2	0	1–7/8	1
2	A	4	1–1/2	0	1–1/2	1–3/4
2	A	12	2	0	1–7/8	1–1/2
2	B or C	6	2	0	1–7/8	1

+INDICATES PENETRANT TYPE AS ITEMIZED IN ITEM 2.
3A. PIPE COVERING• – (NOT SHOWN) – AS AN ALTERNATE TO ITEM 3, MAX 2 IN. THICK CYLINDRICAL CALCIUM SILICATE (MIN 14 PCF) UNITS SIZED TO THE OUTSIDE DIAM OF THE PIPE OR TUBE MAY BE USED. PIPE INSULATION SECURED WITH STAINLESS STEEL BANDS OR MIN 8 AWG STAINLESS STEEL WIRE SPACED MAX 12 IN. OC. WHEN THE ALTERNATE PIPE COVERING IS USED, THE T RATING SHALL BE DETERMINED FROM THE TABLE ABOVE.
SEE PIPE AND EQUIPMENT COVERING – MATERIALS (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
4. FILL, VOID OR CAVITY MATERIAL• – SEALANT – MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL . AT THE POINT CONTACT LOCATION BETWEEN PIPE COVERING AND GYPSUM BOARD, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE COVERING/GYPSUM BOARD INTERFACE ON BOTH SURFACES OF WALL.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC – FS–ONE SEALANT
•BEARING THE UL CLASSIFICATION MARK

HILTI® FIRESTOP SYSTEMS

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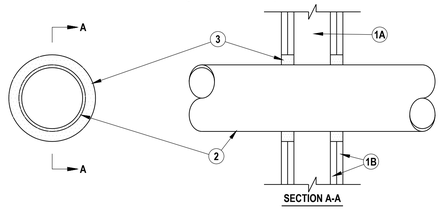
C UL US

FIRESTOP: INSULATED PIPE WALL PENETRATION

2 NOT TO SCALE

System No. W-L-1054

F Ratings - 1 and 2 Hr (See Items 1 and 3)
T Rating - 0 Hr
L Rating At Ambient - Less Than 1 CFM/Sq Ft
L Rating At 400 F - 4 CFM/Sq Ft



1. WALL ASSEMBLY –– THE 1 OR 2 HR FIRE–RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS –– WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2–1/2 IN. WIDE AND SPACED MAX 24 IN. OC. WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW–ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. WIDER AND 4 TO 6 IN. HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD• –– 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 32–1/4 IN. FOR STEEL STUD WALLS. MAX DIAM OF OPENING IS 14–1/2 IN. FOR WOOD STUD WALLS. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.

2. THROUGH–PENETRANTS –– ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 0 IN. TO MAX 2–1/4 IN. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45 DEGREES FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE –– NOM 30 IN DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE –– NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT –– NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAM STEEL CONDUIT.
   D. COPPER TUBING –– NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE –– NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. FILL, VOID OR CAVITY MATERIAL• –– SEALANT –– MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL .

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC –– FS–ONE SEALANT
•BEARING THE UL CLASSIFICATION MARK

HILTI® FIRESTOP SYSTEMS

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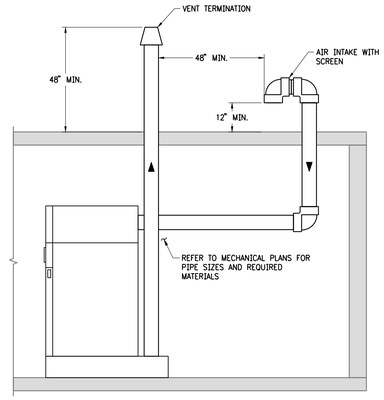
CLASSIFIED C UL US

FIRESTOP: UNINSULATED PIPE WALL PENETRATION

3 NOT TO SCALE



NOTES:

1. PURPOSE OF THE DETAIL IS TO SHOW THE MINIMUM REQUIRED CLEARANCES FOR THE VERTICAL TERMINATIONS OF THE COMBUSTION AIR AND VENT PIPING. REFER TO MECHANICAL PLANS FOR ACTUAL LOCATION OF BOILERS AND REQUIRED FITTINGS TO ROUTE THE PIPING TO THE ROOF LEVEL.
2. LOWER ROOF AT FACULTY MEMORIAL HALL DOES NOT HAVE A PARAPET WALL. THE CLEARANCES PROVIDED ARE THE MINIMUM REQUIRED BY THE BASIS OF DESIGN BOILER FOR AN INSTALLATION WITHOUT A PARAPET WALL.
3. THE BOILER VENT SHALL BE AS HIGH AS OTHER CHIMNEYS OR VENTS LOCATED WITHIN A 10 FOOT RADIUS OF THE BOILER VENT OUTLET. COORDINATE FAN BOILER OUTLET WITH EXISTING EXHAUST FAN EF–1, AND CHILLER RELIEF VENT.

BOILER VENT AND COMBUSTION AIR VERTICAL TERMINATIONS

4 NOT TO SCALE

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: MECHANICAL DETAIL SHEET 2
DRAWING LOCATION: ~

DOB NOW: JOB NUMBER: X00539835-S7

M-502.00

PAGE NUMBER: 8 OF 9

HYDRONIC BOILER SCHEDULE

TAG	LOCATION	DESIGN	FUEL	INPUT (MBTUH)	OUTPUT (MBTUH)	TURNDOWN	HW TEMP INLET (°F)	HW TEMP OUTLET (°F)	MAX FLOW (GPM)	MIN FLOW (GPM)	MAX GAS PRESSURE	MIN GAS PRESSURE	FLUE (in.)	MAX COND. FLOW (GPH)	ELECTRICAL					MANUFACTURER / MODEL NO.
															VOLT	PH.	Hz	FLA	CKT	
BLR-1	CELLAR	CONDENSING	NAT. GAS	3,000	2,817	10:1	160	180	283	28	14 IN W.C.	7 IN W.C.	10	21	460	3	60	6	20	CLEAVER BROOKS / CLEARFIRE CFCE 3000
BLR-2	CELLAR	CONDENSING	NAT. GAS	3,000	2,817	10:1	160	180	283	28	14 IN W.C.	7 IN W.C.	10	21	460	3	60	6	20	CLEAVER BROOKS / CLEARFIRE CFCE 3000

NOTES:
1. BOILERS HAVE BEEN PRE-PURCHASED BY THE OWNER UNDER A PREVIOUS CONTRACT.
2. BOILERS ARE PART OF THE BOILER EQUIPMENT FILING, REFER TO DOB FILING X00539835-S8 FOR ADDITIONAL INFORMATION.

FLOW METER SCHEDULE

TAG	FLUID (TEMP)	METER LOCATION	SERVICE METERED	LINE SIZE (IN)	METER SIZE (IN)	METER RANGE (GPM)		EXPECTED FLOW (GPM)		FLOW ELEMENT		BTU METER
						MIN	MAX	MIN	MAX	METER TYPE	MANUFACTURER / MODEL	MANUFACTURER / MODEL
BTU-101	HOT WATER (180°F)	CELLAR	FMH HEATING HOT WATER	4	4	31.0	1,245	40	290	ELECTROMAGNETIC	SIEMENS/MAG 3100P	PEMCO / 1233R

NOTES:
1. ALL FLOW METERS SHALL BE FURNISHED WITH A STAINLESS STEEL IDENTIFICATION TAG AS SPECIFIED IN SECTION 23 09 13.
2. ALL FLOW METERS SHALL BE PROVIDED WITH MODBUS COMMUNICATIONS OPTION.
3. ALL HOT WATER METERS ARE BTU METERS WHICH CONSIST OF A FLOW ELEMENT, TWO TEMPERATURE TRANSMITTERS AND A PANEL.

PIPING AND INSULATION SCHEDULE

SYSTEM DESIGNATION	SYSTEM TAG	DESIGN PRESS (PSI)	DESIGN TEMP (°D)	CONSTRUCTION MATERIAL	ANSI CLASS	PIPING DATA SHEET	BRANCHES, MAINS & LOOPS PIPE DIAMETER (INCHES) <1"	1" - <1.5"	1.5" - <4"	4" - <8"	8" AND UP	INSULATION MATERIAL	INSULATION COVERING	PAINT COLOR
							INSULATION THICKNESS (INCHES)							
DRAINS	D	~	~	CARBON STEEL	150	A-9	~	~	~	~	~	~	~	BLACK
HOT WATER	HWS/R	100	180	CARBON STEEL	150	A-4	1.5	1.5	2.0	2.0	2.0	FIBERGLASS	PVC	~
VENTS	V	~	~	CARBON STEEL	150	A-9	~	~	~	~	~	~	~	BLACK

NOTES:
1. REFER TO SPECIFICATION 23 07 19 FOR INSULATION AND SPECIFICATION 23 22 13 FOR PIPING.
2. THIS INSULATION TABLE APPLIES TO ALL PIPING.
3. VENTS AND DRAINS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION MATERIAL DATA SHEETS.
4. ALL INSULATED PIPING SHALL BE FURNISHED WITH A PVC JACKET.
5. PAINT COLOR IS PROVIDED FOR REFERENCE. FINAL COLOR SHALL MATCH FACILITY'S COLOR CODE AND/OR BE APPROVED BY THE FACILITY.

AIR SEPARATOR SCHEDULE

TAG	LOCATION	SYSTEM	DESIGN	MAX FLOW (GPM)	PRESSURE DROP	CONNECTION TYPE	MANUFACTURER / MODEL NO.
AS-1	FIRST FLOOR	HOT WATER	CENTRIFUGAL	300	1.42 FT	4" FLANGE	BELL & GOSSETT / RL-4F

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: MECHANICAL SCHEDULES
DRAWING LOCATION: ~

DOB NOW JOB NUMBER: X00539835-S7

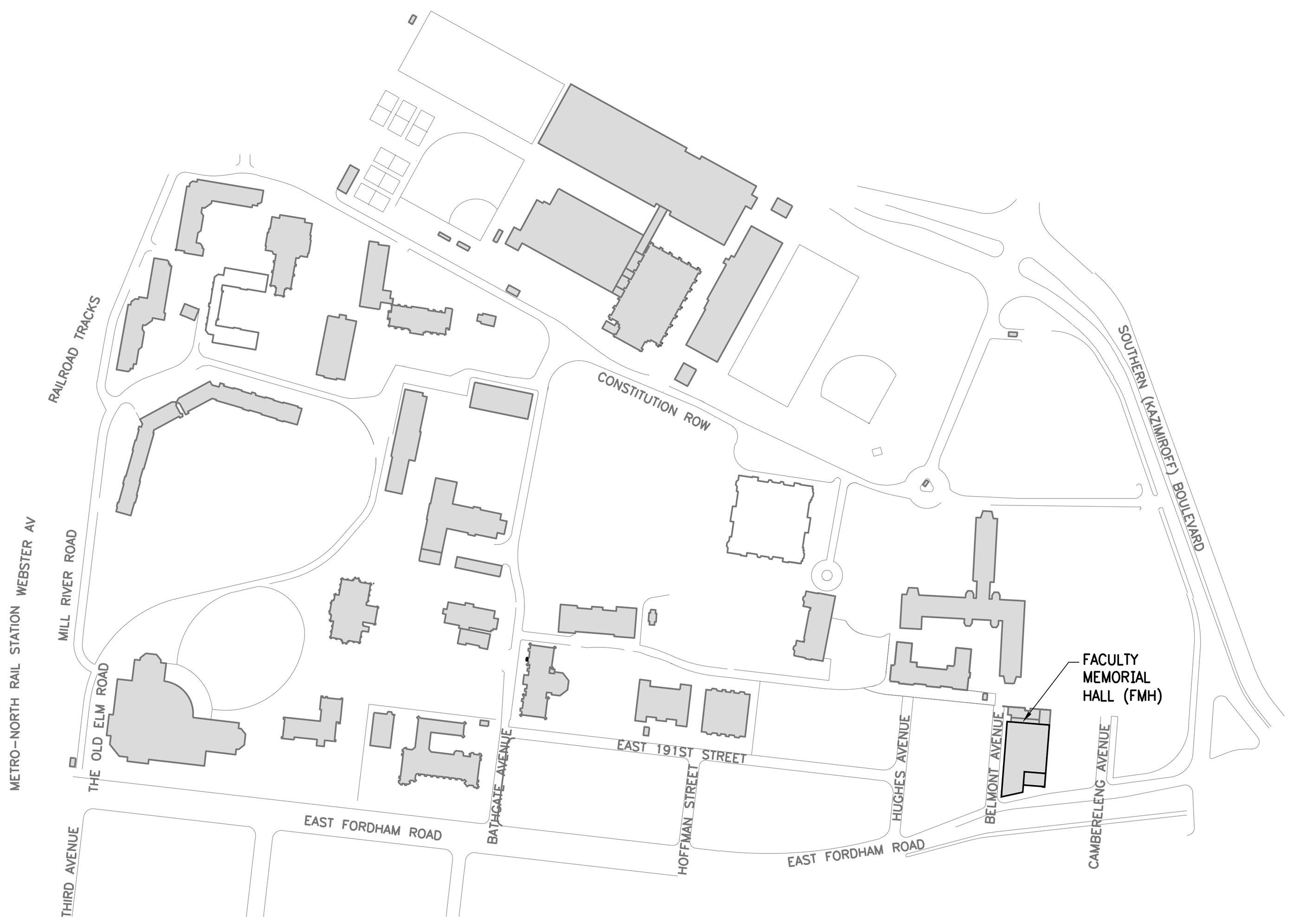
M-601.00

SAVED: 2/23/2023 1:29:56 PM

ISSUED FOR BID & NYC DOB FILING

FORDHAM UNIVERSITY

FMH HEATING HOT WATER BOILERS IN CELLAR MER



1 PLOT PLAN
NTS

PROPERTY IS NOT IN SFHA

BLOCK: 3273
LOT: 1

N

LIST OF DRAWINGS

#	DWG. No.	DRAWING TITLE
1	P-001.00	PLUMBING COVER SHEET
2	P-002.00	GENERAL NOTES, PLUMBING SCOPE OF WORK AND NYC DOB INFORMATION
3	P-101.00	PLUMBING INSTALLATIONS

DOB FILING: PLUMBING

DOB NOW JOB #: X00539835-S6

ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY

BIN: 2016244 BLOCK: 3273 LOT: 209

FORDHAM UNIVERSITY PROJECT NUMBER: ~

LIST OF ASSOCIATED FILINGS:
PLUMBING: APP# X00539835-S6
MECHANICAL: APP# X00539835-S7
BOILER EQUIPMENT: APP# X00539835-S8

FEBRUARY 17, 2023

RAMBOLL

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT.

P-001.00

PLUMBING COVER SHEET

1940102717

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
2. EQUIPMENT DIMENSIONAL INFORMATION IS PRESENTED FOR REFERENCE ONLY. DIMENSIONS MAY VARY ACCORDING TO THE EQUIPMENT MANUFACTURER SELECTED AND FIELD VARIATIONS.
3. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS, OR IF HE DOES, IT SHALL BE AT HIS OWN RISK. THE CONTRACTOR SHALL USE FIELD MEASUREMENTS OR WRITTEN DIMENSIONS ONLY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY DIMENSIONAL VARIATIONS BETWEEN THESE CONSTRUCTION DOCUMENTS AND THE AS-DELIVERED EQUIPMENT.
5. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM AND COORDINATE JOBSITE DIMENSIONS THAT AFFECT THE ERECTION OR OPERATION OF SYSTEMS, AS INTENDED BY THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ENSURE INSTALLED EQUIPMENT MAINTAINS ADEQUATE CLEARANCES FOR OPERATIONAL ACCESS AND SERVICE, AND HE SHALL MAINTAIN ANY CLEARANCES REQUIRED BY ALL APPLICABLE CODES.
6. THE CONTRACTOR SHALL INFORM THE OWNER/ENGINEER OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK DESCRIBED HEREIN.
7. IF, DURING THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES OR CONFLICTS WITH THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE AND CONTINUES WITH THE WORK, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING THEREOF.
8. THESE CONTRACT DOCUMENTS ARE INTENDED TO INDICATE THE WORK NEEDED TO PROVIDE A COMPLETE AND READY-FOR-OPERATION INSTALLATION. THESE DOCUMENTS ARE INTENDED TO GUIDE THE CONTRACTOR. THESE DOCUMENTS ARE NOT INTENDED TO SHOW EVERY DETAIL OF THE EXISTING CONDITIONS OR NEW INSTALLATIONS, NOR DO THEY DESCRIBE EVERY FITTING REQUIRED FOR THE INSTALLATION OF THE WORK.
9. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" AND SHALL INCLUDE ALL EQUIPMENT, DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL JOB.
10. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, SUPPORTS, FITTINGS, AND ALL OTHER INCIDENTAL MATERIAL NEEDED FOR THE COMPLETE AND OPERATING INSTALLATION. MINOR ITEMS TO FINISH THE WORK SUCH AS PATCHING, BLOCKING, TRIM, TOUCH-UP PAINT, ETC., SHALL BE PROVIDED WHETHER OR NOT INDICATED IN THE CONTRACT DOCUMENTS.
11. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ASSEMBLE LOOSE EQUIPMENT AND PARTS AS SHIPPED BY THE EQUIPMENT MANUFACTURERS FOR ALL OWNER-FURNISHED EQUIPMENT.
12. IF A SUBSTITUTION MADE BY THE CONTRACTOR RESULTS IN ADDITIONAL COSTS TO A CONTRACTOR IN ANOTHER TRADE OR TO THE OWNER, THE SUBSTITUTING CONTRACTOR SHALL BEAR THE ADDITIONAL COSTS AT NO EXPENSE TO THE OWNER.
13. THE CONTRACTOR SHALL GIVE NOTICES, OBTAIN ALL PERMITS, PAY ALL FEES AND COMPLY WITH ALL LAWS, RULES AND REGULATIONS APPLICABLE TO THE WORK.
14. THE CONTRACTOR SHALL USE SHOP SUBMITTALS FOR FINAL COORDINATION OF HIS WORK.
15. THE CONTRACTOR SHALL SUBMIT EQUIPMENT INFORMATION, SHOP DRAWINGS AND A CONSTRUCTION SCHEDULE TO THE OWNER FOR APPROVAL BEFORE STARTING ANY WORK OR PURCHASING ANY EQUIPMENT.
16. ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM ANY DEFECT. SALVAGED OR REBUILT EQUIPMENT SHALL NOT BE PERMITTED.
17. ALL MATERIALS, PIPING, ETC., SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, AND ALL LOCAL AND NATIONALLY RECOGNIZED STANDARDS, SUCH AS NFPA, NEC, ASTM, UL, ETC., AS EXAMPLES.
18. THE CONTRACTOR SHALL ENSURE COORDINATION SO THAT ONCE THE PROJECT IS STARTED, IT SHALL CONTINUE WITHOUT DELAY UNTIL COMPLETION.
19. THE CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL HIS SUBCONTRACTORS, AND THEIR CONFORMANCE TO THESE CONTRACT DOCUMENTS.
20. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
21. THE CONTRACTOR SHALL PROVIDE NOTIFICATION AND OPPORTUNITY FOR INSPECTION TO THE OWNER BEFORE CLOSING UP ANY WORK, EQUIPMENT, OR PIPING SYSTEM.
22. THE CONTRACTOR SHALL PROVIDE ALL BUILDING MODIFICATIONS AND CONSEQUENTIAL REPAIRS TO THE BUILDING FOR RIGGING, INSTALLATION OF EGRESSES, INSTALLATION OF VENTS, ETC., AS REQUIRED TO PERFORM THIS WORK.
23. THE CONTRACTOR SHALL PERFORM ALL ACCEPTANCE TESTS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
24. THE CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A STATE FREE FROM HAZARDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, FOLLOW SAFE WORKING PRACTICES, AND MAINTAIN THE SITE AND ADJACENT AREAS SAFE FOR WORKERS, INSPECTORS, AND FACILITY EMPLOYEES.
25. SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
26. THE OWNER'S REPRESENTATIVE DOES NOT PROFESS TO BE FAMILIAR WITH CONSTRUCTION SITE SAFETY REQUIREMENTS. MEETING SITE SAFETY AND OSHA REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO RETAIN A THIRD PARTY CONSULTANT IF HE OBSERVES PRACTICES THAT APPEAR UNSAFE.
27. IF THE OWNER'S REPRESENTATIVE DEEMS THAT ANY UNSAFE CONDITION APPEARS TO EXIST, THE OWNER HAS THE RIGHT TO STOP ALL WORK. ANY STOP-WORK ORDERS BY THE OWNER BECAUSE OF POTENTIALLY UNSAFE CONDITIONS SHALL NOT BE USED BY THE CONTRACTOR TO DELAY THE WORK SCHEDULE, INCREASE THE CONTRACT VALUE, OR AVOID ANY LIQUIDATED-DAMAGE PENALTIES ASSOCIATED WITH THE WORK OR TO MAKE A CLAIM AGAINST THE OWNER OR CONSTRUCTION MANAGER.
28. THE OWNER REQUIRES ACCESS TO AND AROUND AREAS OF THE BUILDING IMMEDIATELY ADJACENT TO AREAS OF THE WORK. ALL WORK MUST BE CONDUCTED IN A MANNER TO MINIMIZE DISRUPTION OF NORMAL FACILITY OPERATIONS.
29. SAFE AND DIRECT ENTRANCE TO AND FROM THE EXISTING BUILDING SHALL BE MAINTAINED AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.
30. ALL CONSTRUCTION MATERIALS AND TOOLS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY OF THE CONTRACTOR'S SHIPPING, DELIVERY OR SECURITY ISSUES RELATED TO MATERIALS, EQUIPMENT, OR TOOL STORAGE.
31. THE CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, ORDERLY AND SAFE CONDITION AT THE END OF EACH WORK DAY. THE SITE AND BUILDING SHALL BE MADE AS SECURE AS POSSIBLE SO AS TO PREVENT UNAUTHORIZED ENTRY AND ACTIVITY. ATTENTION SHALL BE GIVEN TO WEATHER PROTECTION, INCLUDING UNCONDITIONED AIR INFILTRATION DURING THE CONSTRUCTION PERIOD.
32. ALL DEMOLISHED MATERIALS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
33. DISPOSAL OF ALL MATERIALS SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH STATE & LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN THE RECORDS OF PROPER DISPOSAL WHICH SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE UPON HIS REQUEST.
34. THE OWNER SHALL HAVE THE RIGHT AT ALL TIMES TO EXAMINE THE WORK AND DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS.
35. THE CONTRACTOR SHALL COMPLETE ALL WORK WITH MINIMAL DISRUPTION OF THE FACILITY'S UTILITIES AND OPERATIONS. ANY WORK REQUIRING A SHUTDOWN OF GAS, ELECTRIC, STEAM, OR CONDENSATE UTILITIES SHALL BE SCHEDULED 3 DAYS IN ADVANCE. ALL OUTAGES SHALL BE COORDINATED WITH THE FACILITY.
36. THE FACILITY OPERATES THROUGHOUT THE ENTIRE YEAR. ALL SHUTDOWNS THAT REQUIRE THE LOSS OF UTILITIES TO THE FACILITY SHALL BE LIMITED TO PERIODS & DURATIONS AS SPECIFIED BY THE FACILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE AND INCLUDE THE NECESSARY WEEKEND/MIDNIGHT PREMIUM TIME TO ACCOMPLISH ALL SHUTDOWN WORK WITHIN THE LIMITATIONS OF MAINTAINING CONTINUOUS SERVICE TO THE FACILITY.
37. THE CONTRACTOR SHALL MAINTAIN AWARENESS OF THE FACILITY'S SHUTDOWN RESTRICTIONS AND LIMITATIONS. ANY WORK-SCHEDULING PROBLEMS CAUSED BY SHUTDOWN RESTRICTIONS BY THE FACILITY SHALL NOT BE CAUSE FOR CLAIM OR DELAY BY THE CONTRACTOR.
38. ALL CONTRACTORS SHALL PROVIDE THE NECESSARY LABOR INCLUDING ANY PREMIUM-TIME AND OVERTIME LABOR REQUIRED TO MAINTAIN THE CONSTRUCTION SCHEDULE.
39. ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL PAYMENT AND ACCEPTANCE UNLESS OTHERWISE STATED IN THE SPECIFICATIONS.
40. ALL WORK SHALL CONFORM TO NEW YORK STATE BUILDING CONSTRUCTION CODE, THE N.Y.S. ENERGY CONSERVATION CONSTRUCTION CODE AND ALL LOCAL CODES, RULES, REGULATIONS AND ZONING LAWS.
41. IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER, TO ALTER THESE PLANS IN ANY WAY.
42. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY THE ENGINEER AND TO THE BEST OF HIS KNOWLEDGE AND BELIEF MEET THE REQUIREMENTS OF THE N.Y.C. ENERGY CONSERVATION CONSTRUCTION CODE.
43. THE PROJECT SHALL MEET THE CURRENT NYC CONSTRUCTION CODES AND THE 2020 NYC ENERGY CONSERVATION CODE.
44. ALL EXISTING HVAC EQUIPMENT, PIPING, DUCTWORK, WIRING AND RELATED COMPONENTS REQUIRED TO REMAIN, BUT INTERFERING WITH THE PROJECT, SHALL BE RELOCATED AND RECONNECTED, IF NEEDED, USING MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS OF THIS CONTRACT.
45. THE CONTRACTOR SHALL IMPLEMENT A LOCK-OUT TAG-OUT PLAN WITH PROCEDURES FOR ELECTRICAL AND MECHANICAL DISCONNECTION/RE-CONNECTION OF EQUIPMENT AND RELATED COMPONENTS ACCORDING TO OSHA REQUIREMENTS. THE PLAN SHALL BE PREPARED BY AN ELECTRICAL PROFESSIONAL AND PRESENTED TO THE FACILITY MANAGEMENT BEFORE STARTING DEMOLITION.
46. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORT FOR ALL EXISTING HVAC EQUIPMENT, PIPING, DUCTWORK, PLUMBING PIPES, AND RELATED COMPONENTS TO REMAIN WHICH ARE AFFECTED BY THE DEMOLITION WORK.
47. THE CONTRACTOR SHALL COORDINATE AND CONDUCT TESTING, ADJUSTING AND BALANCING WORK FOR ALL THE RE-INSTALLED AND NEW HVAC UNITS AND COMPONENTS INCLUDING THOSE POWERED BY VOLTAGE GREATER THAN 120V.

PLUMBING SCOPE OF WORK

NATURAL GAS WORK

1. FURNISH AND INSTALL NEW NATURAL GAS PIPING FROM THE NEW METER AND REGULATOR STATION TO THE BOILERS FURNISHED AS PART OF THIS CONTRACT. COORDINATE WITH CONEDISON FOR LOCATION OF GAS METER AND REGULATOR STATION.

POTABLE WATER WORK

1. DEMOLISH AND REMOVE STEAM-TO-DHW HEATER AND ALL ASSOCIATED CITY WATER AND DOMESTIC HOT WATER PIPING.
2. MODIFY PIPING AS NEEDED TO MAINTAIN OPERATION OF EXISTING ELECTRIC DHW HEATER.
3. FURNISH AND INSTALL CITY WATER MAKE-UP TO THE HYDRONIC HEATING SYSTEM. FURNISH AND INSTALL BACKFLOW PREVENTER AND WATER PRESSURE REGULATOR.

SANITARY DRAINAGE WORK

1. FURNISH AND INSTALL A FLOOR DRAIN IN THE NEW MECHANICAL ROOM. CONNECT FLOOR DRAIN TO NEW SUMP PUMP. TIE-IN SUMP PUMP DISCHARGE TO EXISTING SANITARY LINE IN CELLAR.

NYC FUEL GAS NOTES:

1. INSTALLATION OF FUEL GAS PIPING SYSTEMS SHALL BE MADE AS DIRECTED IN CHAPTER OF NYC FGC.
2. FUEL GAS PIPING SIZING SHALL BE IN ACCORDANCE WITH NYC FGC 402.
3. PIPING MATERIALS FOR FUEL GAS PIPING SHALL COMPLY WITH THE REQUIREMENTS OF FGC 405.
4. GAS PIPING AND FITTINGS SHALL BE CLEAR AND FREE FROM CUTTING BURRS AND DEFECTS IN STRUCTURE OR THREADING, AND SHALL BE THOROUGHLY BRUSHED, AND CHIP AND SCALE BLOWN AS PER FGC 403.7.
5. FUEL GAS PIPING INSTALLATION SHALL BE IN ACCORDANCE WITH FGC 404.
6. ALL INSPECTIONS, TESTING AND PURGING SHALL BE MADE AS DIRECTED IN SECTION NYC FGC 406.
7. FUEL GAS PIPING SHALL BE PROVIDED WITH SUPPORTS IN ACCORDANCE WITH NYC FGC 407.
8. FUEL GAS PIPING SHALL BE PROVIDED WITH SHUT OFF VALVES IN ACCORDANCE WITH NYC FGC 409.
9. FLOW CONTROLS, IF REQUIRED SHALL BE INSTALLED AS DIRECTED IN SECTION NYC FGC 410. CONTRATOR SHALL COORDINATE WITH UTILITY COMPANY.
10. CONTRACTOR(S) AND SUB-CONTRACTOR(S) SHALL BE RESPONSIBLE FOR COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OSHA) ADMINISTRATIONS STANDARDS IN PROVIDING SAFE AND HEALTHFUL WORK PLACES. FOR COMPLETE TEXT OF OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY, SEE TITLE 29, CODE OF FEDERAL REGULATIONS (OFR), PART 1926.
11. BOILER/S AND BURNER/S SHALL BE REGISTERED BY NYC DEPARTMENT OF ENVIONMENTAL PROTECTION.
12. DEPARTMENT OF BUILDINGS WORK PERMITS OR OTHER APPROVALS SHALL BE POSTED AT A CONSPICUOUS LOCATION INSIDE THE BUILDING.

EQUIPMENT REMOVAL NOTE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE NYC DOB DATABASE ANY PERMITTED EQUIPMENT BEING DEMOLISHED OR DISCONNECTED AS PART OF THIS PROJECT. THE OWNER WILL REIMBURSE THE CONTRACTOR FOR ANY REQUIRED FEES.

LINE TYPES

NEW — EXISTING — HIDDEN — ELECTRICAL SIGNAL — DEMOLITION, LINE — DEMOLITION, EQUIPMENT

GENERAL SYMBOLS

GATE VALVE; CHECK VALVE; BALL VALVE; PLUG VALVE; GLOBE VALVE; BUTTERFLY VALVE; Y-STRAINER; D REDUCER

SAFETY VALVE; M CONTROL VALVE, ELECTRIC; CONTRACT BREAK POINT OR CUT LINE; SPOT ELEVATION; PI PRESSURE INDICATOR; TI TEMPERATURE INDICATOR; HOSE BIB; V VENT TO OUTDOORS

XX/XX INSTRUMENT ABBREV. / TAG NO.; D TO DRAIN; C PIPE CAP / PLUG; M METER; UNION; BALANCING VALVE

PIPING IDENTIFIER

HWS-BS-4-1

- INSULATION CLASS (THICKNESS PER SCHEDULE): I FIBERGLASS
- LINE SIZE (NPS)
- MATERIAL SPECIFICATION (REFER TO SPECS)
  - FIRST LETTER - PRESSURE RATING: A 125 LB ANSI; B 150 LB ANSI; C 300 LB ANSI
  - SECOND LETTER - MATERIAL: A AUSTENITIC STEEL (STAINLESS); C COPPER; I CAST IRON; S CARBON STEEL
- SERVICE: REFER TO "ABBREVIATIONS"

ELECTRICAL IDENTIFIER

(3)#12-#12G-0.75"C

- CONDUIT SIZE
- GROUND CONDUCTOR SIZE
- CONDUCTOR SIZE (AWG)
- QTY OF CONDUCTORS IN CONDUIT

ABBREVIATIONS

LINE ABBREVIATIONS

COND = CONDENSATE
DCW = DOMESTIC COLD WATER
D = DRAIN
HWR = HOT WATER RETURN
HWS = HOT WATER SUPPLY
HPS = HIGH PRESSURE STEAM
G = NATURAL GAS
LPS = LOW PRESSURE STEAM
V = VENT

TAG NO. / SYSTEM CROSS REFERENCE

1xx = HOT WATER
2xx = NATURAL GAS
9xx = MISC.

INSTRUMENT ABBREVIATIONS

FIRST LETTER(S)
L = LEVEL
P = PRESSURE
T = TEMPERATURE

SECOND LETTER (S)
I = INDICATOR
T = TRANSMITTER
S = SWITCH

TERTIARY LETTER (S)
H = HIGH
L = LOW

MISCELLANEOUS ABBREVIATIONS

AFF = ABOVE FINISHED FLOOR
BLDG = BUILDING
BLR = BOILER
BOD = BOTTOM OF DUCT
CONN = CONNECTION
DHW = DOMESTIC HOT WATER
DWG = BUILDING
EL = ELEVATION
FT = FEET
HTR = HEATER
HX = HEAT EXCHANGER
MIN = MINIMUM
NTS = NOT TO SCALE
PRESS = PRESSURE
RM = ROOM
SEP = SEPARATOR
SHLD = SHIELDED
TEMP = TEMPERATURE
TK = TANK
TYP = TYPICAL
VLV = VALVE
w/ = WITH

NYC NOTICE OF INSPECTION - PLUMBING

INSPECTIONS AND TESTING	CONTINUOUS	PERIODIC	2022 NYCBC REFERENCE	NOTES
FIRE-RESISTANT PENETRATIONS AND JOINTS		X	1705.17	SPECIAL INSPECTIONS FOR THROUGH-PENETRATIONS
PROGRESS INSPECTIONS				
ENERGY CODE COMPLIANCE		X	110.3.5	
HVAC-R AND SERVICE WATER PIPING DESIGN AND INSULATION		X	1 RCNY §5000-01 (IIB5)	

2020 NYC ENERGY CODE ANALYSIS

ITEM DESCRIPTION	PROPOSED DESIGN VALUE	CODE PRESCRIPTIVE VALUE
PIPE INSULATION DOMESTIC COLD WATER PIPE (60°F): 1" TO 1.5"	CONDUCTIVITY < 0.26 BTU*INCH/H*FT^2*F 0.5" INSULATION	CONDUCTIVITY 0.21-0.27 BTU*INCH/H*FT^2*%%'F (TABLE C403.11.3) 0.5" INSULATION
PIPE INSULATION DOMESTIC COLD WATER PIPE (60°F): 1.5" TO 4"	CONDUCTIVITY < 0.26 BTU*INCH/H*FT^2*F 1" INSULATION	CONDUCTIVITY 0.21-0.27 BTU*INCH/H*FT^2*%%'F (TABLE C403.11.3) 1" INSULATION
PIPE INSULATION DOMESTIC HOT WATER PIPE (140°F): 1.5" TO 4"	CONDUCTIVITY < 0.26 BTU*INCH/H*FT^2*F 1" INSULATION	CONDUCTIVITY 0.21-0.28 BTU*INCH/H*FT^2*%%'F (TABLE C403.11.3) 1" INSULATION

NOTES:
1. TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, ALL WORK UNDER THIS APPLICATION IS IN COMPLIANCE WITH THE 2020 NYC ENERGY CONSERVATION CODE.

PIPING AND INSULATION SCHEDULE

SYSTEM DESIGNATION	SYSTEM TAG	DESIGN PRESS (PSI)	DESIGN TEMP (°D)	CONSTRUCTION MATERIAL	ANSI CLASS	PIPING DATA SHEET	BRANCHES, MAINS & LOOPS PIPE DIAMETER (INCHES) <1"	1" - <1.5"	1.5" - <4"	4" - <8"	8" AND UP	INSULATION MATERIAL	INSULATION COVERING	PAINT COLOR
							INSULATION THICKNESS (INCHES)							
DOMESTIC COLD WATER	DCW	100	60	COPPER	125	A-11	0.5	0.5	1.0	1.0	1.0	FIBERGLASS	PVC	~
DOMESTIC HOT WATER	DHWS/R	100	140	COPPER	125	A-11	1.0	1.0	1.5	1.5	1.5	FIBERGLASS	PVC	~
NATURAL GAS	G	15	~	CARBON STEEL	150	A-6	~	~	~	~	~	~	~	YELLOW
SANITARY DRAIN	SAN	~	~	CAST IRON	125	A-12	~	~	~	~	~	~	~	~

NOTES:
1. REFER TO SPECIFICATION 23 07 19 FOR INSULATION AND SPECIFICATION 23 22 13 FOR PIPING.
2. THIS INSULATION TABLE APPLIES TO ALL PIPING.
3. VENTS AND DRAINS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION MATERIAL DATA SHEETS.
4. ALL INSULATED PIPING SHALL BE FURNISHED WITH A PVC JACKET.
5. PAINT COLOR IS PROVIDED FOR REFERENCE. FINAL COLOR SHALL MATCH FACILITY'S COLOR CODE AND/OR BE APPROVED BY THE FACILITY.

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

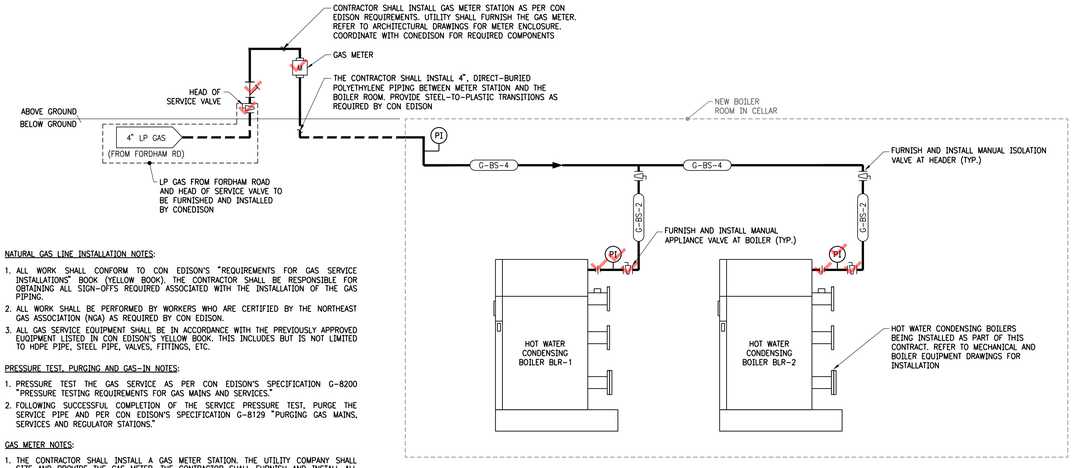
RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: GENERAL NOTES, PLUMBING SCOPE OF WORK AND NYC DOB INFORMATION
DRAWING LOCATION: ~

DOB NOW JOB NUMBER: X00539835-S6

P-002.00
PAGE NUMBER: 2 OF 3



NATURAL GAS LINE INSTALLATION NOTES:

1. ALL WORK SHALL CONFORM TO CON EDISON'S "REQUIREMENTS FOR GAS SERVICE INSTALLATIONS" BOOK (YELLOW BOOK). THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL SIGN-OFFS REQUIRED ASSOCIATED WITH THE INSTALLATION OF THE GAS PIPING.
2. ALL WORK SHALL BE PERFORMED BY WORKERS WHO ARE CERTIFIED BY THE NORTHEAST GAS ASSOCIATION (NGA) AS REQUIRED BY CON EDISON.
3. ALL GAS SERVICE EQUIPMENT SHALL BE IN ACCORDANCE WITH THE PREVIOUSLY APPROVED EUQIPMENT LISTED IN CON EDISON'S YELLOW BOOK. THIS INCLUDES BUT IS NOT LIMITED TO HDPE PIPE, STEEL PIPE, VALVES, FITTINGS, ETC.

PRESSURE TEST, PURGING AND GAS-IN NOTES:

1. PRESSURE TEST THE GAS SERVICE AS PER CON EDISON'S SPECIFICATION G-8200 "PRESSURE TESTING REQUIREMENTS FOR GAS MAINS AND SERVICES."
2. FOLLOWING SUCCESSFUL COMPLETION OF THE SERVICE PRESSURE TEST, PURGE THE SERVICE PIPE AND PER CON EDISON'S SPECIFICATION G-8129 "PURGING GAS MAINS, SERVICES AND REGULATOR STATIONS."

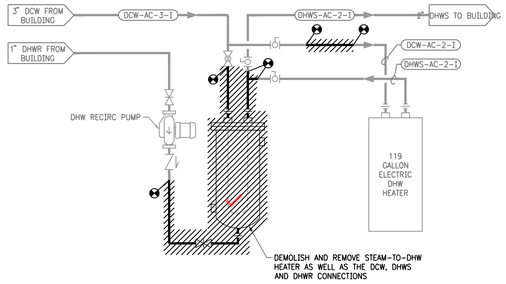
GAS METER NOTES:

1. THE CONTRACTOR SHALL INSTALL A GAS METER STATION. THE UTILITY COMPANY SHALL SIZE AND PROVIDE THE GAS METER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS REQUIRED BY CON EDISON TO COMPLETE THE METER INSTALLATION.
2. THE CONTRACTOR SHALL PROVIDE A LOCKABLE ENCLOSURE AROUND THE GAS METER AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

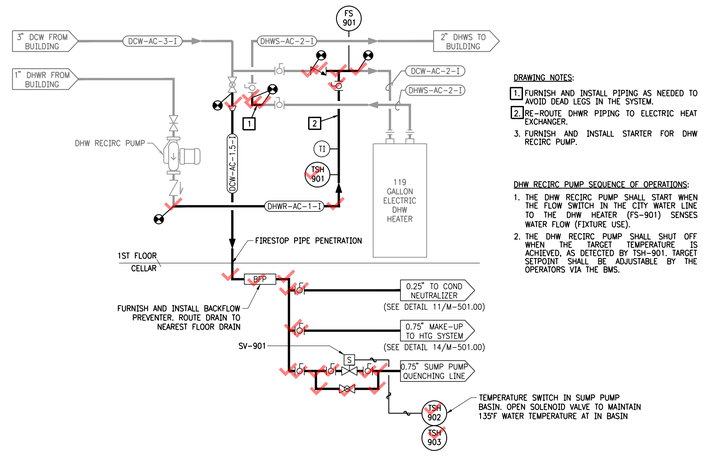
RESTORATION NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING AND INSTALLING DIRECT-BURIED PIPING BETWEEN THE GAS METER STATION AND THE BUILDING. ALL AREAS DISTURBED BY THE WORK SHALL BE RESTORED TO THE ORIGINAL CONDITIONS.

1 NATURAL GAS RISER DIAGRAM
NOT TO SCALE



2 POTABLE WATER DEMOLITIONS (FIRST FLOOR MECHANICAL RM)
NOT TO SCALE



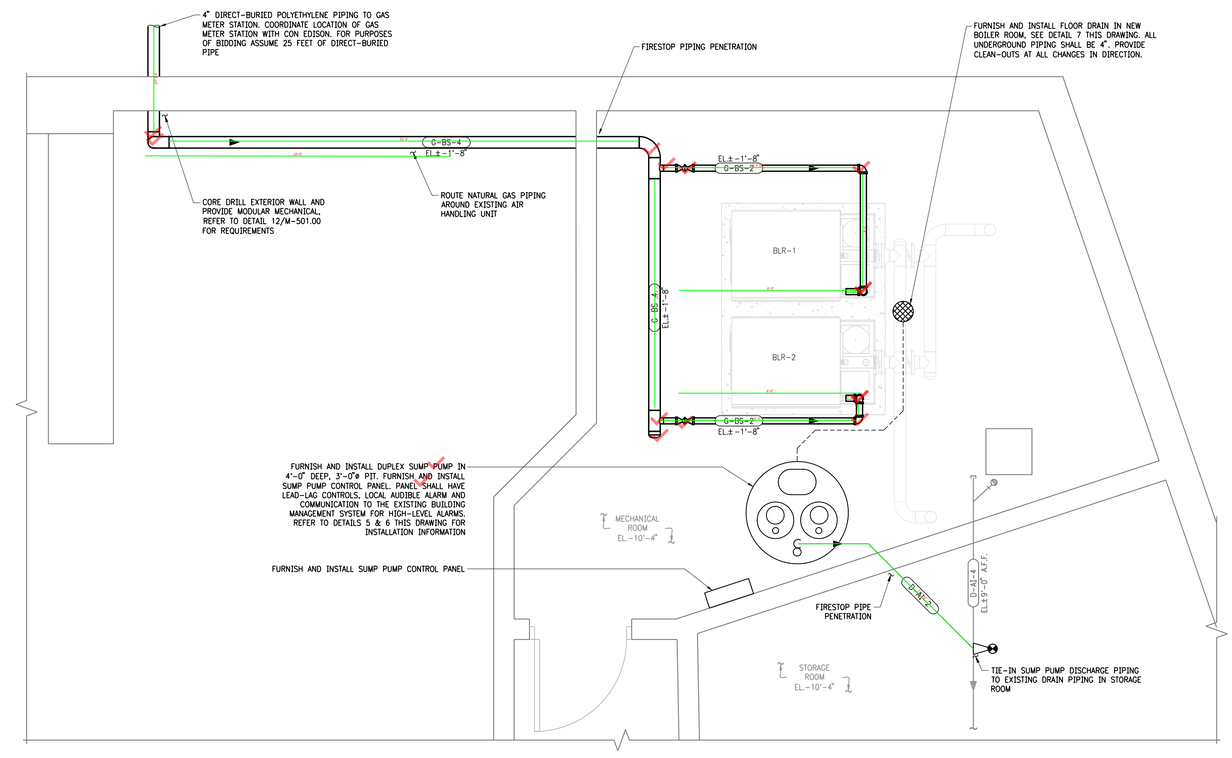
DRAWING NOTES:

1. FURNISH AND INSTALL PIPING AS NEEDED TO AVOID DEAD LEGS IN THE SYSTEM.
2. RE-ROUTE DHWR PIPING TO ELECTRIC HEAT EXCHANGER.
3. FURNISH AND INSTALL STARTER FOR DHW RECIRC PUMP.

DHW RECIRC PUMP SEQUENCE OF OPERATIONS:

1. THE DHW RECIRC PUMP SHALL START WHEN THE FLOW SWITCH IN THE CITY WATER LINE TO THE DHW HEATER (FS-901) SENSES WATER FLOW (FIXTURE USE).
2. THE DHW RECIRC PUMP SHALL SHUT OFF WHEN THE TARGET TEMPERATURE IS ACHIEVED, AS DETECTED BY TSH-901. TARGET SETPOINT SHALL BE ADJUSTABLE BY THE OPERATORS VIA THE BMS.

3 POTABLE WATER INSTALLATIONS
NOT TO SCALE



4 PARTIAL CELLAR PLAN: NATURAL GAS & DRAIN PIPING INSTALLATIONS
1/2"=1'-0"

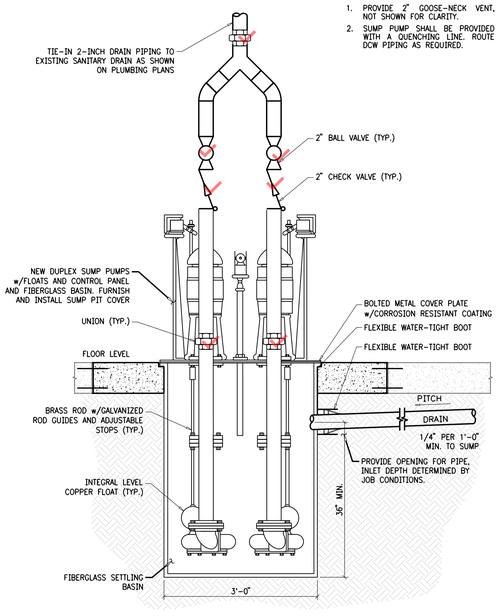
PLAN NORTH

NOTES:

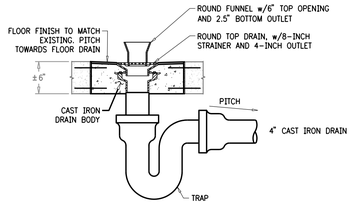
1. FURNISH AND INSTALL QUENCHING LINE FOR SUMP PUMP. DOMESTIC COLD WATER SHALL BE ROUTED FROM THE FEED TO THE DEMOLISHED STEAM-TO-DHW HEATER. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF HEATER. REFER TO DIAGRAM 3 THIS DWG. FOR ADDITIONAL INFORMATION.
2. PRIOR TO EXCAVATING IN THE CELLAR LEVEL, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GROUND PENETRATING RADAR (GPR) COMPANY TO SCAN THE AREA OF WORK TO ENSURE THAT THERE ARE NO BURIED UTILITIES IN THE WORK AREA.

NOTES:

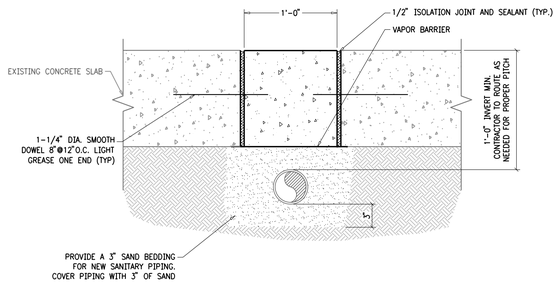
1. PROVIDE 2" GOOSE-NECK VENT, NOT SHOWN FOR CLARITY.
2. SUMP PUMP SHALL BE PROVIDED WITH A QUENCHING LINE. ROUTE DCW PIPING AS REQUIRED.



5 VERTICAL SUMP PUMP w/BURIED FLOOR DRAIN PIPING
NOT TO SCALE



7 FLOOR DRAIN DETAIL
NOT TO SCALE



6 CONCRETE FLOOR PATCHING
NOT TO SCALE

SUMP PUMP SCHEDULE

LOCATION	TAG	SERVICE	PUMP TYPE	FLUID	FLUID TEMP(°F)	CAPACITY (GPM)	HEAD (FT)	ELECTRICAL HP	RPM	VOLT	PH	Hz	COMMENTS	MANUFACTURER / MODEL NO.
CELLAR	SP-1	SUMP PUMP	VERTICAL SUBMERGED	DRAIN	180	30	22	0.5	1150	460	3	60	HIGH-TEMPERATURE PUMP	FEDERAL PUMPS / VF-2
CELLAR	SP-2	SUMP PUMP	VERTICAL SUBMERGED	DRAIN	180	30	22	0.5	1150	460	3	60	HIGH-TEMPERATURE PUMP	FEDERAL PUMPS / VF-2

CLIENT: FORDHAM UNIVERSITY

NO.	DATE	REVISION	INT.
0	02/17/2023	ISSUED FOR BID & NYC DOB FILING	CJB

DESIGNER / PROFESSIONAL ENGINEER RESPONSIBLE: C.BREEN
DESIGNED BY: D.GORDON
CHECKED BY: M.MARTINO
DRAWN BY: D.GORDON
FILE NO.: 1088199.1940102717
DATE: 02/17/2023

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
Lindenhurst, NY
RAMBOLL

PROJECT: FMH HEATING HOT WATER BOILERS IN CELLAR MER
ADDRESS: 655 EAST FORDHAM ROAD, BRONX NY
BIN: 2016244
BLOCK: 3273
LOT: 209

SHEET DESCRIPTION: PLUMBING INSTALLATIONS
DRAWING LOCATION: FACULTY MEMORIAL HALL - CELLAR & 1ST FLOOR

DOB NOW: JOB NUMBER: X00539835-S6

P-101.00
PAGE NUMBER: 3 OF 3