

MECHANICAL ADDENDUM NO. M-1

The following additions, deletions, amendments and/or items of clarification are hereby made an integral part of the Tender Documents. All revisions shall be made to the drawings and/or specifications and all costs for same shall be included in the Stipulated Price.

CHANGES TO DRAWINGS

1. Drawing PD1, Rev. #1 (Drawing Re- Issued)

- .1 Detail 3/PD1: Revise sump basin inlet pipe invert to as noted on drawing.

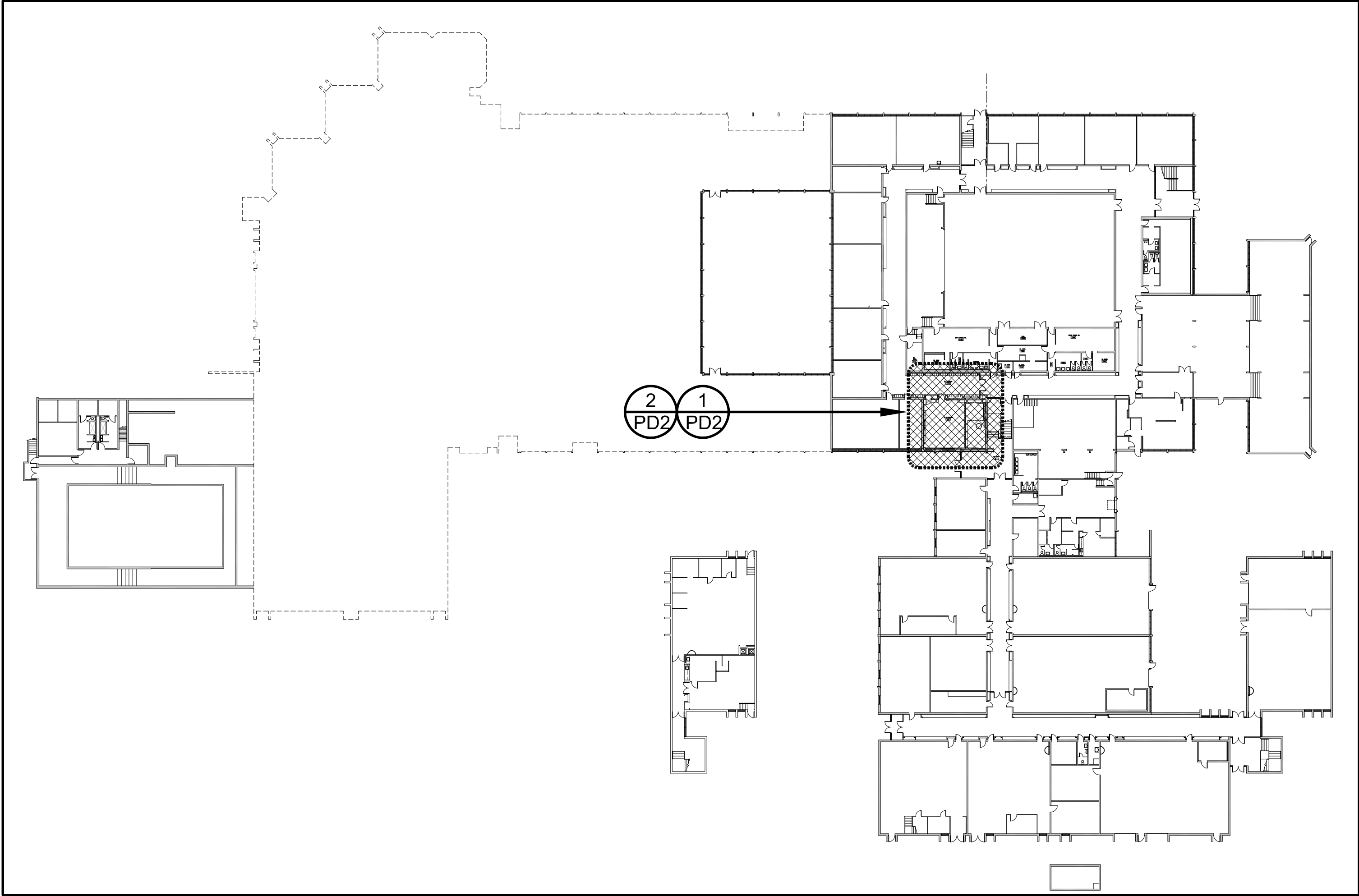
2. Drawing PD2, Rev. #1 (Drawing Re- Issued)

- .1 Part Plan 1/PD2: Extend arrow for note to new vent line in corridor and add size on new cold water line where indicated on drawing.
- .2 Part Plan 2/PD2: Revise General Note (Demolition) #1 as noted on drawing.

3. Drawing PD3, Rev. #1 (Drawing Re- Issued)

- .1 Part Plan 1/PD3 & 2/PD3: Cap existing vent line at high level as noted on drawing.

END OF MECHANICAL ADDENDUM M-1



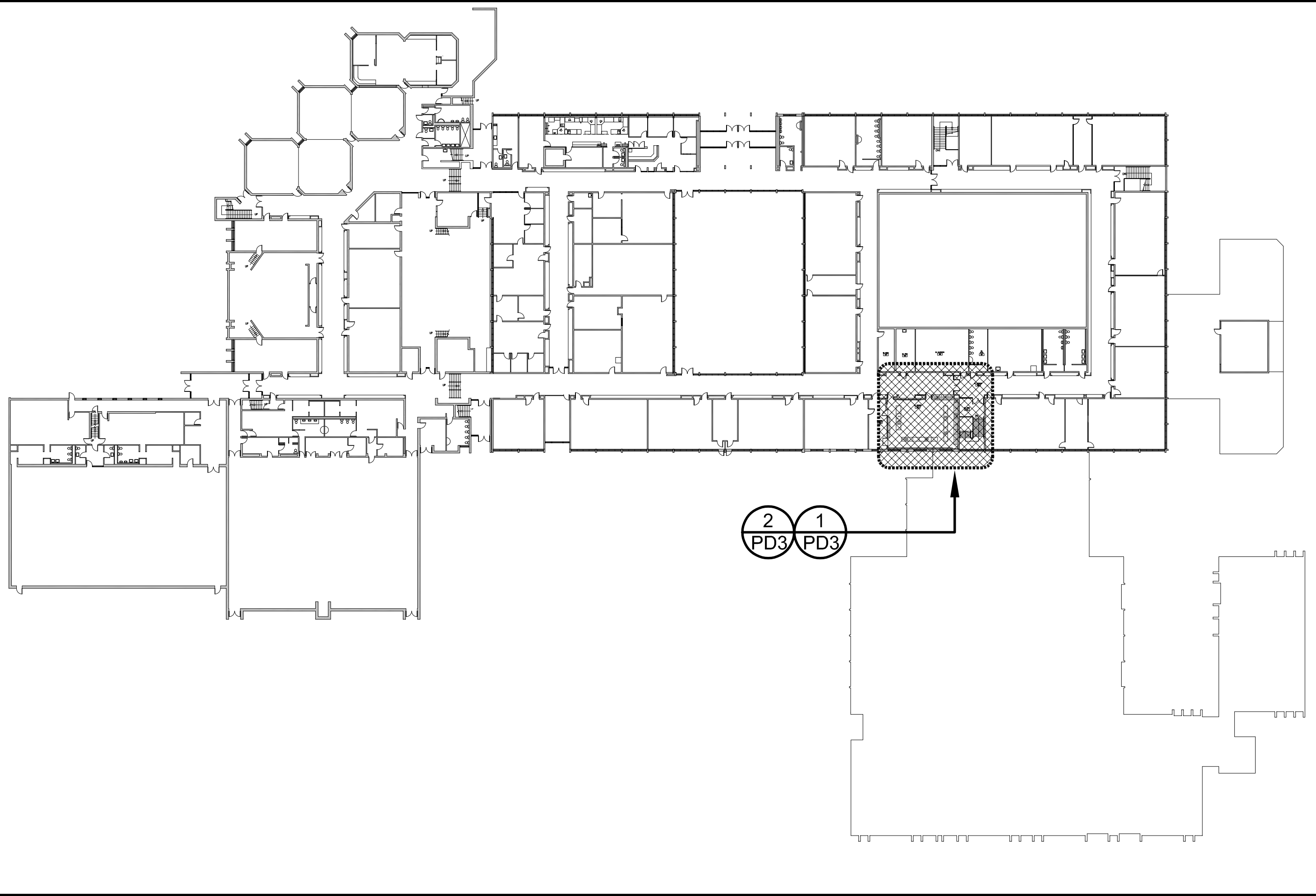
1 KEY PLAN-FIRST PLAN
SCALE: N.T.S.

| PLUMBING PIPING LEGEND | |
|------------------------|---|
| SYMBOL | DESCRIPTION |
| — | NEW SANITARY DRAIN LINE ABOVE FINISHED FLOOR |
| — | NEW SANITARY DRAIN LINE BELOW FINISHED FLOOR |
| —ST— | NEW STORM DRAIN LINE ABOVE FINISHED FLOOR |
| —ST— | NEW STORM DRAIN LINE BELOW FINISHED FLOOR |
| — | NEW DOMESTIC COLD WATER LINE |
| — | NEW DOMESTIC HOT WATER LINE |
| ---- | NEW SANITARY VENT LINE |
| ===== | EXISTING SANITARY DRAIN LINE ABOVE FINISHED FLOOR |
| ===== | EXISTING SANITARY DRAIN LINE BELOW FINISHED FLOOR |
| =====EX-ST===== | EXISTING STORM DRAIN LINE ABOVE FINISHED FLOOR |
| =====EX-ST===== | EXISTING STORM DRAIN LINE BELOW FINISHED FLOOR |
| -----EX----- | EXISTING DOMESTIC COLD WATER LINE |
| -----EX----- | EXISTING DOMESTIC HOT WATER LINE |
| -----EX----- | EXISTING HOT WATER RECIRCULATION LINE |
| -----EX----- | EXISTING SANITARY VENT LINE |
| —F—EX— | EXISTING FIRE LINE |
| XXXXXX | EXISTING SERVICE TO BE REMOVED |
| —ICo —CO | NEW CLEANOUT |
| ● F.EX. | NEW FIRE EXTINGUISHER |
| ■ F.EX.#2 & CAB. | NEW FIRE EXTINGUISHER IN CABINET |

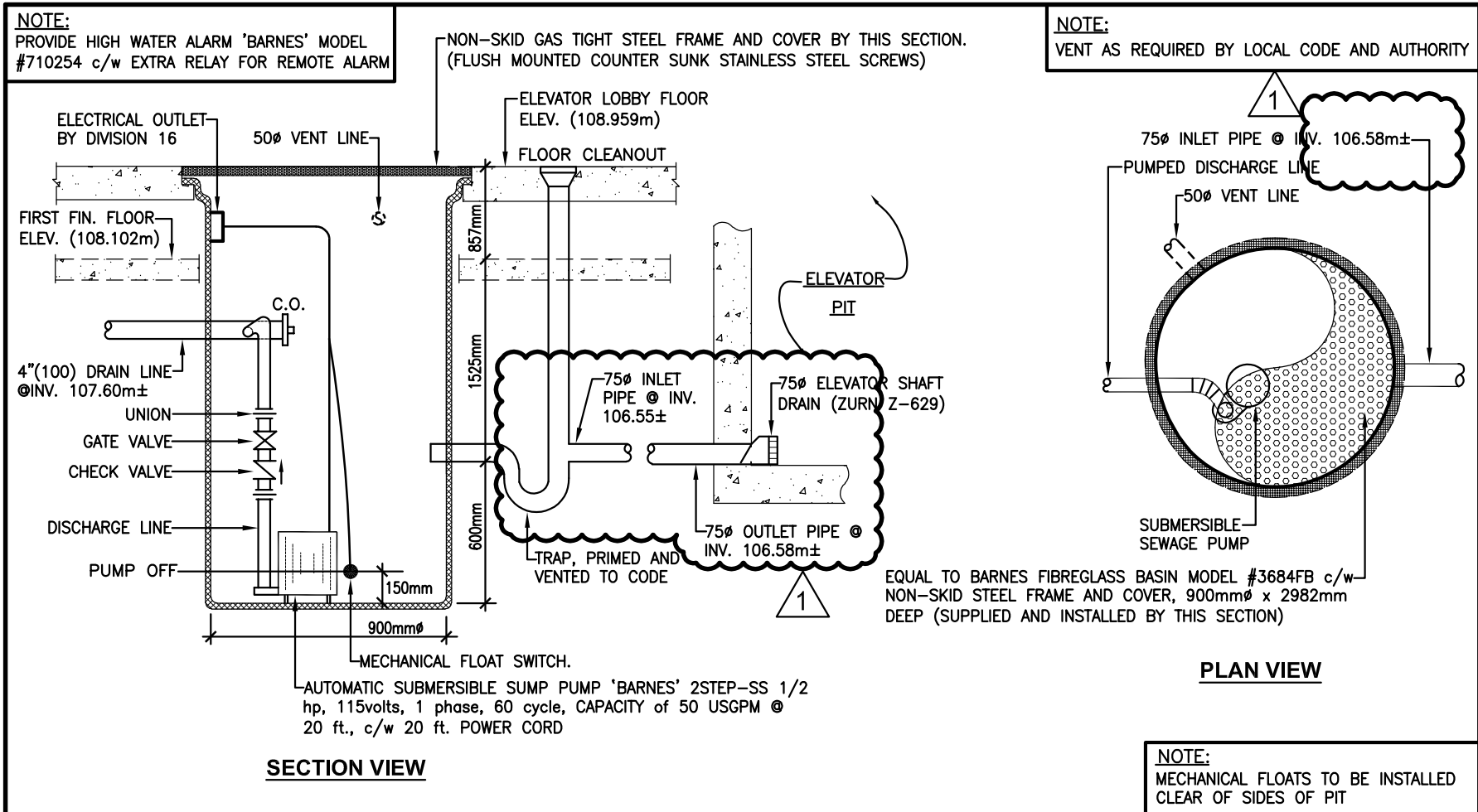
DIVISION 15 - MECHANICAL GENERAL REQUIREMENTS

- THE GENERAL CONDITIONS AND SUPPLEMENTARY GENERAL CONDITIONS IN THE DIVISION ONE SPECIFICATIONS APPLY TO THIS DIVISION OF THE WORK.
- CONFORM IN FULL ACCORDANCE WITH APPLICABLE CODES, REGULATIONS, BY-LAWS, ORDINANCES, DESIGNATED INSURANCE UNDERWRITERS, AND ALL AUTHORITIES HAVING JURISDICTION. IN CASE OF CONFLICT WITH THE CONTRACT DOCUMENTS, THE CODES, BY-LAWS AND ORDINANCES, ETC. SHALL TAKE PRECEDENCE.
- INCLUDE ALL LABOUR, PRODUCTS AND SERVICES NECESSARY FOR COMPLETE WORK, TESTED AND READY FOR OPERATION.
- EXAMINE THE EXISTING SITE PRIOR TO TENDER AND BECOME FAMILIAR WITH THE BUILDING AND EXISTING CONDITIONS SO THE TENDER INCLUDES ALL WORK REQUIRED AS NO EXTRAS WILL BE ALLOWED FOR EXISTING SITE CONDITIONS AFFECTING THE WORK.
- GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY FOR ALL FEES, TAXES, AND OTHER COSTS IN CONNECTION WITH THE WORK. FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND BODIES HAVING JURISDICTION.
- COORDINATE AND COOPERATE FULLY WITH THE WORK OF ALL OTHER TRADES.
- SUBMIT 6 COPIES OF SHOP DRAWINGS FOR REVIEW FOR ALL MANUFACTURED EQUIPMENT.
- PREPARE AS-BUILT DRAWINGS SHOWING ALL CHANGES IN DUCTWORK, PIPING AND EQUIPMENT SIZES AND LOCATIONS. SHOW AS-BUILT INVERTS AND DIMENSIONS FOR UNDERGROUND PIPING, FROM TWO CONVENIENT REFERENCE POINTS. MAKE DRAWINGS AVAILABLE FOR INSPECTION AT THE SITE AT ALL TIMES. SUBMIT AUTOCAD FILES AND 1 HARD COPY OF ALL AS-BUILTS TO THE CONSULTANTS.
- IN ADDITION TO THE INSURANCE SPECIFIED IN THE GENERAL CONDITIONS MAINTAIN INSURANCE TO FULLY PROTECT BOTH THE OWNER AND ALL MECHANICAL TRADES FROM ALL CLAIMS UNDER THE WORKER'S COMPENSATION ACT, ETC.
- THE GUARANTEE PERIOD FOR ALL SYSTEMS AND EQUIPMENT STARTS ON THE ISSUE DATE OF THE SUBSTANTIAL COMPLETION CERTIFICATE AND EXTENDS FOR A PERIOD OF ONE YEAR UNLESS SPECIFIED OTHERWISE. ALL SYSTEMS ARE TO BE OPERATED, TESTED AND BALANCED BEFORE ISSUANCE OF THE SUBSTANTIAL COMPLETION CERTIFICATE. ASSIGN ALL WARRANTIES TO THE OWNER. ALL REPAIRS TO SYSTEMS REQUIRED DURING THE GUARANTEE PERIOD SHALL BE PERFORMED BY THIS DIVISION AT NO COST TO THE OWNER.
- DO THE CUTTING AND PATCHING OF BUILDING FINISHES FOR HOLES UP TO 200MM (8") DIAMETER. OPENINGS LARGER THAN 200MM (8") AS REQUIRED TO COMPLETE THE WORK WILL BE PROVIDED BY THE GENERAL CONTRACTOR. PROVIDE THE LOCATION AND DIMENSION OF REQUIRED OPENINGS. OBTAIN CONSULTANT'S ACCEPTANCE OF LOCATION AND METHODS BEFORE CUTTING, BORING OR SLEEVING LOAD-BEARING MARKERS.
- MATERIALS, FIXTURES, FITTINGS, APPLIANCES AND APPARATUS PROVIDED SHALL BE NEW, CSA APPROVED, THE BEST OF THE VARIOUS KINDS SPECIFIED, FREE FROM ALL DEFECTS AND OF UNIFORM PATTERN THROUGHOUT THE PROJECT. ALL FIRE PROTECTION MATERIALS ARE ULC APPROVED.
- THE TENDER SHALL BE BASED ONLY ON THE "BASIS OF DESIGN" PRODUCT OR MATERIAL. OTHER "SUBSTITUTE" PRODUCTS PROPOSED MUST BE SHOWN SEPARATELY IN THE TENDER COMPLETE WITH THE ASSOCIATED CHANGE IN TENDER PRICE FOR ACCEPTANCE BY THE OWNER. ASSUME FULL RESPONSIBILITY FOR ENSURING THAT WHEN PROVIDING ACCEPTABLE ALTERNATIVE OR SUBSTITUTE ITEMS, ALL SPACE, WEIGHT, CONNECTIONS, POWER AND WIRING REQUIREMENTS, ETC. ARE CONSIDERED. ALL COSTS INCURRED FOR ADDITIONAL COMPONENTS, CHANGES TO SERVICE, STRUCTURAL OR SPACE REQUIREMENTS, LAYOUTS AND PLANS, ETC. THAT MAY BE NECESSARY TO ACCOMMODATE THE ALTERNATIVE OR SUBSTITUTE ITEMS SHALL BE BORNE BY THIS DIVISION.
- PROVIDE THE SERVICES OF A COMPETENT ENGINEER TO INSTRUCT PERSONNEL DESIGNATED BY THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT PROVIDED BY THIS DIVISION.
- SUPPLY SUITABLY SIZED ACCESS PANELS FOR INSTALLATION THROUGH ARCHITECTURAL

- FINISHES WHERE THEY ARE REQUIRED BY ARRANGEMENT OF OTHERWISE INACCESSIBLE EQUIPMENT PROVIDED UNDER THIS DIVISION SUCH AS VALVES, COCKS, DRAINS, AIR VENTS ETC.
- ASSUME THE RESPONSIBILITY FOR DRAYAGE, HOISTING, WAREHOUSING AND DEMURRAGE FOR ALL EQUIPMENT AND MATERIALS TO BE FURNISHED AND INSTALLED UNDER THIS DIVISION.
 - PREPARE THREE COPIES OF AN OPERATION AND INSTRUCTION MANUAL INCLUDING THE FOLLOWING:
 - COPY OF ALL GUARANTEES AND WARRANTIES.
 - COPY OF ALL "SHOP DRAWINGS".
 - PROVIDE ADJUSTABLE WROUGHT IRON CLEVIS TYPE AND/OR ADJUSTABLE RING WITH THREADED SUSPENSION RODS, PIPE HANGERS FOR HORIZONTAL PIPES. ON COPPER PIPING PROVIDE COPPER PLATED LEPHOXY TYP HANGERS/PROVIDE SEPARATION OF THE DISSIMILAR METALS WITH APPROVED DIELECTRIC MATERIALS. INSULATING TAPE IS NOT ACCEPTABLE.
 - PROTECT EQUIPMENT, PIPING FROM DIRT AND DAMAGE DURING THE CONSTRUCTION PERIOD. WHERE DAMAGE OCCURS REPAIR AND TOUCH UP WITH THE MANUFACTURER'S PAINT. ON COMPLETION OF THE WORK REMOVE ALL WASTE MATERIALS AND LEAVE THE WORK IN A CLEAN AND PERFECT CONDITION.
 - THE PAINTING SECTION OF THE CONTRACT PROVIDES ALL FINISHED PAINTING OF DUCTS, EQUIPMENT, PIPES (EXCEPT GAS PIPING) OR FITTINGS.
 - PIPE INSULATION IS U/L APPROVED, 1" THICK, 88KG/M3 (5.5LB/CU.F.T.) DENSITY MOULDED SECTIONAL GLASS FIBRE COMPLETE WITH VINYL COATED FOIL-KRAFT LAMINATED VAPOUR BARRIER JACKET REINFORCED WITH AN OPEN MESH FIBREGLASS SCRIM FABRIC. INSULATE THE FOLLOWING:
 - COLD WATER PIPING
 - INCLUDING WATER METER BODY AND ASSEMBLY.
 - HORIZONTAL SANITARY AND STORM DRAINS ABOVE GRADE INCLUDING ROOF DRAIN BODIES.
 - VENT PIPING - LAST 6 FEET PRIOR TO LEAVING THROUGH ROOF.
 - INSTALL PIPES IN TRENCHES ON CLASS "B" BEDDING ON SOLID STABLE SOIL. EXTEND CLASS "B" BEDDING TO 305MM (1'-0") ABOVE PIPING AND FINISH WITH APPROVED MATERIAL ABOVE. WHERE SOLID STABLE SOIL BED IS UNOBTAINABLE, INSTALL PIPES ON CONCRETE BED, SOLID CONCRETE BLOCK, CONCRETE PIERS OR OTHER APPROVED BEDDING PROVIDED BY THIS DIVISION, TO THE SATISFACTION OF LOCAL AUTHORITIES.
 - PROVIDE ALL EXCAVATION AND BACKFILL IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. ALSO REFER TO REQUIREMENTS IN ARCHITECTURAL DIVISION.
 - WHERE EXCAVATION IS NECESSARY IN CLOSE PROXIMITY TO AND BELOW THE LEVEL OF STRUCTURAL FOOTING, BACKFILL WITH 2000 P.S.I. CONCRETE TO THE HIGHEST LEVEL OF THE FOOTING.
 - BACKFILL TRENCHES INSIDE AND OUTSIDE THE BUILDING USING APPROVED BACKFILL MATERIAL IN MAXIMUM OF 6" THICK LAYERS COMPACTED TO MINIMUM OF 98% STANDARD PROCTOR DENSITY.
 - PROVIDE ALL CONCRETE WORK FOR THE SUPPORT OF ALL PIPING LAID IN BACKFILLED GROUND AND INCLUDE CONCRETE BED, SOLID CONCRETE BLOCK OR CONCRETE PIERS TO THE APPROVAL OF THE LOCAL INSPECTORS.





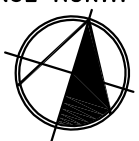
2 KEY PLAN - SECOND FLOOR PLAN
SCALE: N.T.S.

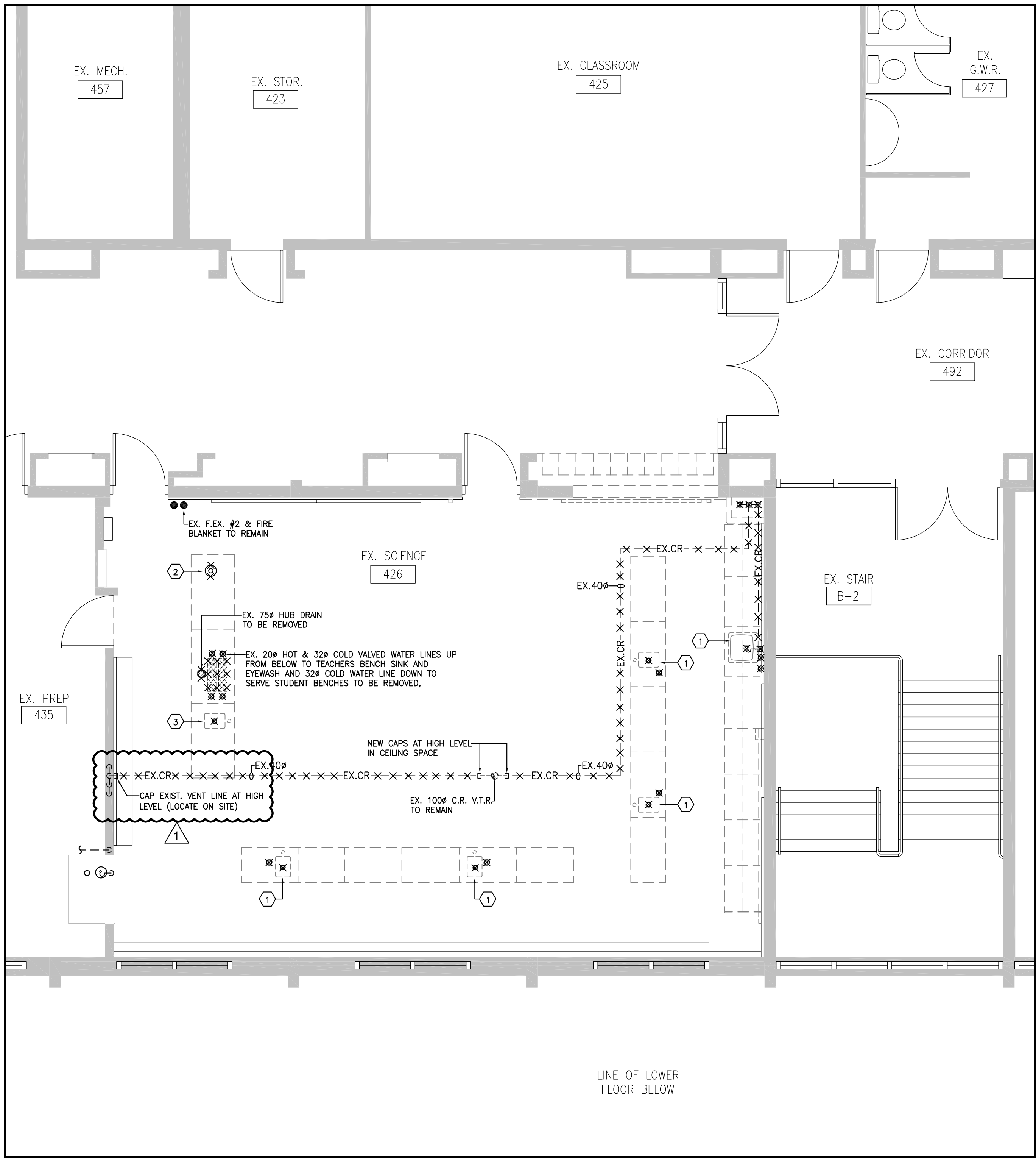


3 SCHEMATIC DETAIL OF ELEVATOR SANITARY SUMP PIT AND PUMP
N.T.S.

PLUMBING AND DRAINAGE SPECIFICATION

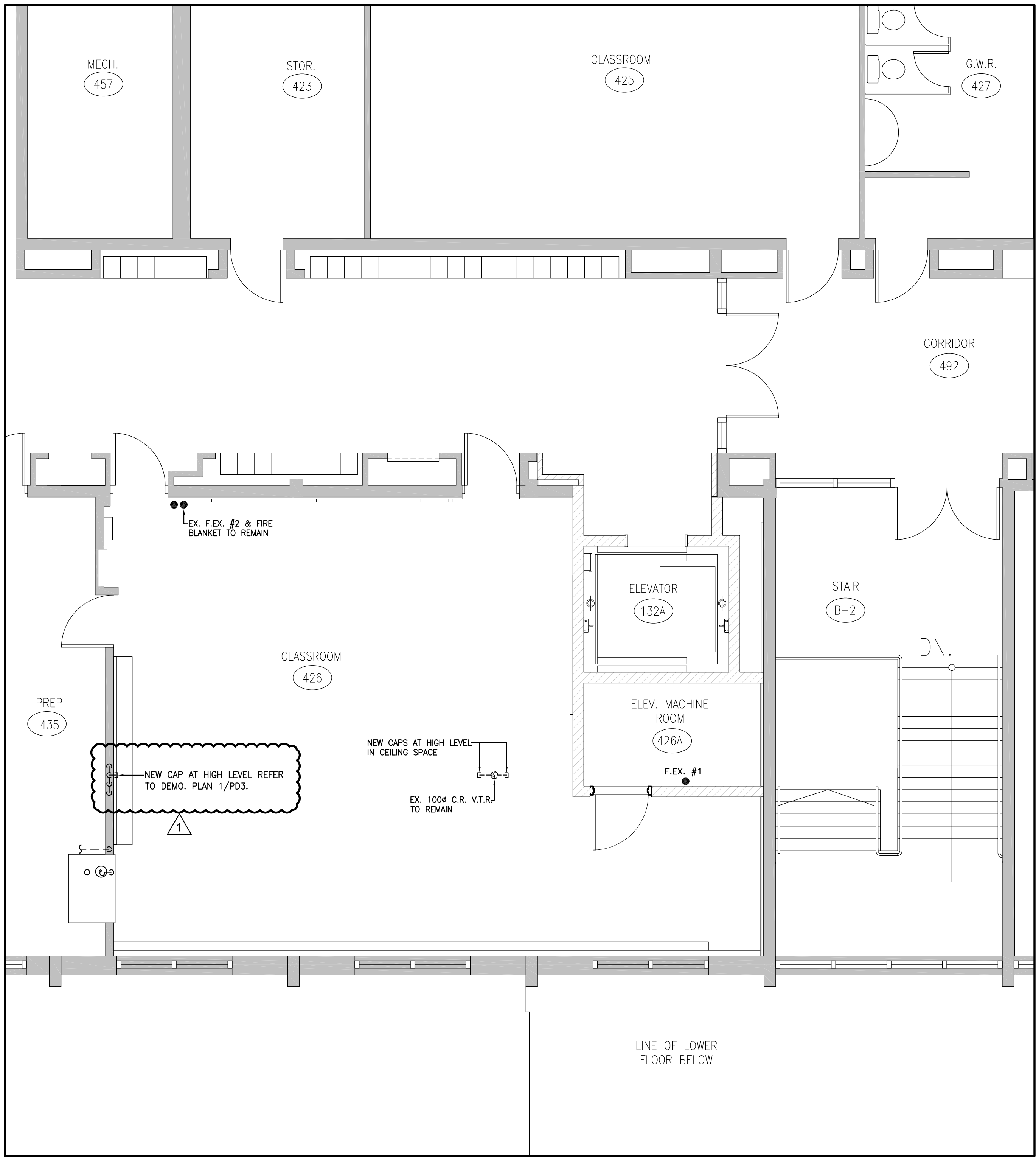
- PROVIDE ALL EQUIPMENT, LABOR, MATERIAL AND SERVICES TO COMPLETE THE PLUMBING SYSTEMS GENERALLY AS SHOWN ON PLAN AND/OR AS DESCRIBED HEREINAFTER.
 - COMPLETE INSTALLATION SHALL CONFORM WITH ALL APPLICABLE CODES, BY-LAWS AND REGULATIONS. APPLY AND PAY FOR ALL PERMITS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION.
 - VISIT THE SITE TO DETERMINE ALL EXISTING CONDITIONS AFFECTING THE WORK. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR OF FULL RESPONSIBILITY FOR THE EFFECTS OF SUCH CONDITIONS ON THE WORK.
 - ABIDE BY ALL WORK RULES AS SET OUT BY THE LANDLORD AND INCLUDE ALL OVERTIME WORK. CO-ORDINATE WORK WITH ALL OTHER TRADES.
 - SUBMIT "AS BUILT" DRAWINGS FOR RECORD PURPOSES.
 - PROVIDE 12 MONTH GAURANTEE ON THE COMPLETE INSTALLATION TO RUN FROM DATE OF ACCEPTANCE.
- PLUMBING AND DRAINAGE SPECIFICATION
- VALVES
 - EXCEPT FOR SPECIALTY VALVES, ALL VALVES SHALL BE OF ONE MANUFACTURER; SHALL BEAR THE MANUFACTURER'S NAME AND THE PRESSURE RATING CAST OR TAMPED ON THE BODY. ALL VALVES SHALL HAVE NON-ASBESTOS PACKING.
 - BALL VALVES ARE LARGE BORE, QUARTER-TURN LEVER OPERATED WITH STOP, BUBBLE-TIGHT SHUT-OFF, BRONZE BODY, DOUBLE-SEATED HARD CHROME-PLATED BRONZE BALL, RESILIENT SEATS, BLOW-OUT PROOF STEM. SEAL AND "O" RING MATERIAL SHALL BE TEFLON.
 - WATER PIPING: TYPE "L" COPPER TUBE.
 - VENT LINES: TYPE "DWV" COPPER TUBE OR IPEX SYSTEM 15 PIPE & FITTINGS (IPEX XFR PIPE & FITTINGS IN CEILING RETURN PLENUMS).
 - DRAIN LINES: SIZES UP TO 2" - "DWV" COPPER TUBE; LARGER THAN 2" - "DWV" COPPER TUBE OR CLASS 4000 MJ CAST IRON PIPE OR IPEX SYSTEM 15 PIPE & FITTINGS (IPEX XFR PIPE & FITTINGS IN CEILING RETURN PLENUMS).
 - INSULATION: ALL WATER AND DRAIN LINES, NOT BURIED TO BE INSULATED WITH 1" THICK FIBERGLASS PIPE INSULATION WITH VAPOUR BARRIER JACKET. NOTE: IN EXPOSED AREAS (AREAS WITHOUT CEILING) FINISH PIPE AND FITTINGS WITH PVC JACKET.

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|---|---|----------------------------|---------|
| MAY 4, 2020 | | ISSUED FOR TENDER & PERMIT | |
| DATE | | REVISIONS | |
| DUNBARTON HIGH SCHOOL ELEVATOR | | | |
| 655 SHEPPARD AVE. | | PICKERING, ONTARIO | |
|  | | | |
| DURHAM DISTRICT SCHOOL BOARD | | | |
| DRAWING | | | |
| PLUMBING AND DRAINAGE KEY PLAN & DETAILS | | | |
|  | TRUE NORTH | DWG. NORTH | JOB NO. |
| |  | | 2021 |
| | SCALE | | |
| DATE | | PRINTED | |
| FEB, 2020 | | May 7, 2020 | |
| DWG. NO. | | PD1 | |
| ELLARD WILLSON ENGINEERING LTD | | | |
| 260 TOWN CENTRE BLVD. | | | |
| SUITE 202, MARKHAM | | | |
| ONTARIO, L3R-8H8 | | | |
| TEL : (905) 940-3100 | | | |
| FAX : (905) 940-2139 | | | |



1 SECOND FLOOR PLAN - PLUMBING AND DRAINAGE - DEMOLITION WORK
PD3 SCALE: 1:50

- GENERAL NOTES (DEMOLITION):
- EX. SCIENCE ROOM (426): REMOVE EXISTING STUDENT SINK (1) INCLUDING FITTINGS, TRAP AND REMOVE ABOVE FLOOR VENT BACK TO MAINS AND CAP AT HIGH LEVEL. ALL HOT & COLD WATER LINES AND SANITARY DRAINS TO BE REMOVED IN CEILING SPACE BELOW. REMOVE ALL REDUNDANT PIPING AS REQUIRED WITHIN DEMOLITION AREA. REFER TO 1/PD2. (LOCATE EXIST. ON SITE). EXACT LOCATION OF EXIST. PIPING TO BE DETERMINED ON SITE PRIOR TO BEGINNING NEW WORK.
 - EX. SCIENCE ROOM (426): REMOVE EXISTING EYEWASH (1) INCLUDING FITTINGS, TRAP AND REMOVE ABOVE FLOOR VENT BACK TO MAINS AND CAP AT HIGH LEVEL. ALL HOT & COLD WATER LINES AND SANITARY DRAINS TO BE REMOVED IN CEILING SPACE BELOW. REMOVE ALL REDUNDANT PIPING AS REQUIRED WITHIN DEMOLITION AREA. REFER TO 1/PD2. (LOCATE EXIST. ON SITE). EXACT LOCATION OF EXIST. PIPING TO BE DETERMINED ON SITE PRIOR TO BEGINNING NEW WORK.
 - EX. SCIENCE ROOM (426): REMOVE EXISTING TEACHER SINK (1) INCLUDING FITTINGS, B.F.P. FLOOR DRAIN, TRAP AND REMOVE ABOVE FLOOR VENT BACK TO MAINS AND CAP AT HIGH LEVEL. ALL HOT & COLD WATER LINES AND SANITARY DRAINS TO BE REMOVED IN CEILING SPACE BELOW. REMOVE ALL REDUNDANT PIPING AS REQUIRED WITHIN DEMOLITION AREA. REFER TO 1/PD2. (LOCATE EXIST. ON SITE). EXACT LOCATION OF EXIST. PIPING TO BE DETERMINED ON SITE PRIOR TO BEGINNING NEW WORK.
 - VISIT THE SITE TO DETERMINE ALL EXISTING CONDITIONS AFFECTING THE WORK. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR OF FULL RESPONSIBILITY FOR THE EFFECTS OF SUCH CONDITIONS ON THE WORK.
 - ALL WORK TO BE DONE TO CODE AND LOCAL AUTHORITY REQUIREMENTS.



2 SECOND FLOOR PLAN - PLUMBING AND DRAINAGE - NEW WORK
PD3 SCALE: 1:50

| | | | |
|---|------------|--|---------|
| MAY 6, 2020 ISSUED FOR MECHANICAL ADDENDUM M1 | | MAY 4, 2020 ISSUED FOR TENDER & PERMIT | |
| DATE | REVISIONS | | |
| DUNBARTON HIGH SCHOOL ELEVATOR 655 SHEPPARD AVE. PICKERING, ONTARIO | | | |
| DDS Ignite Learning | | | |
| DURHAM DISTRICT SCHOOL BOARD | | | |
| DRAWING | | | |
| PLUMBING AND DRAINAGE SECOND FLOOR PLAN | | | |
| | TRUE NORTH | DWG. NORTH | JOB NO. |
| | 2021 | | SCALE |
| DATE | | FEB, 2020 | |
| PRINTED | | May 7, 2020 | |
| DWG. NO. | | PD3 | |