

DUNELAND SCHOOL CORPORATION

2020 HOT WATER TANK UPGRADES AT: CHESTERTON MIDDLE SCHOOL

651 WEST MORGAN STREET, CHESTERTON, INDIANA 46304

TRIA PROJECT#: 19-063

ARCHITECT:

TRIA ARCHITECTURE, INC.

West Suburban Office: 901 McClintock Drive, Suite 100
Burr Ridge, Illinois 60521

South Suburban Office: 1820 Ridge Road, Suite 209
Homewood, Illinois 60430

Indiana Office: 436 Sand Creek Drive N, Suite 105
Chesterton, Indiana 46304

Company Main: 630.455.4500 Fax: 630.455.4040
www.TriaArchitecture.com

M.E.P. CONSULTANT:

OAS, LLC.

769 Heartland Dr., Unit A
Sugar Grove, Illinois 60554

Phone: 630.538.1996
www.oasllc.net

GENERAL BUILDING CODE REQUIREMENTS

BUILDING CODES REFERENCED:

2012 INTERNATIONAL BUILDING CODE WITH 2014 INDIANA AMENDMENTS

2006 INTERNATIONAL PLUMBING CODE 2ND EDITION AMENDED INDIANA 2012

2008 NATIONAL ELECTRICAL CODE WITH 2009 INDIANA AMENDMENTS

2012 INTERNATIONAL MECHANICAL CODE WITH 2014 INDIANA AMENDMENTS

INDIANA ENERGY CONSERVATION CODE 2010

2012 INTERNATIONAL FIRE CODE WITH 2014 INDIANA AMENDMENTS

2012 INTERNATIONAL FUEL GAS CODE 2ND EDITION WITH 2014 INDIANA AMENDMENTS

OCCUPANCY CLASSIFICATION:

EDUCATIONAL GROUP E

DESIGN FIRM REGISTRATION:

THOMAS R. SZURGOT

INDIANA LICENSE NUMBER: #A100800173

DRAWING INDEX

T1.00 TITLE SHEET, SITE LOCATION MAP, INDEX, AND GENERAL
BUILDING CODE REQUIREMENTS

ARCHITECTURAL:

A0.01 OVERALL FLOOR PLAN

PLUMBING:

MEP0.11 EXISTING FIRST FLOOR PLAN - MECH ROOM B119 - PLUMBING
MEP0.13 EXISTING FIRST FLOOR PLAN - MECH ROOM F115-M-PLUMBING
MEP0.15 EXISTING FIRST FLOOR PLAN - MECH ROOM F181 - PLUMBING

MEP1.11 NEW FLOOR PLAN - MECH ROOM B119 - PLUMBING
MEP1.13 NEW FLOOR PLAN - MECH ROOM F115-M - PLUMBING
MEP1.15 NEW FLOOR PLAN - MECH ROOM F181 - PLUMBING

MEP3.01 ABBREVIATIONS, NOTES, AND SYMBOLS - PLUMBING

MEP4.01 DETAILS - PLUMBING

SCHOOL BOARD

BOARD PRESIDENT	BRANDON KROFT
BOARD VICE PRESIDENT	KRISTIN KROEGER
BOARD SECRETARY	RONALD STONE
BOARD MEMBER	JOHN MARSHALL
BOARD MEMBER	ALAYNA LIGHTFOOT POL
SUPERINTENDENT	DR. CHIP PETTIT

SITE LOCATION MAP

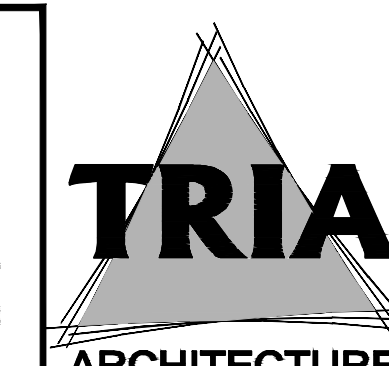
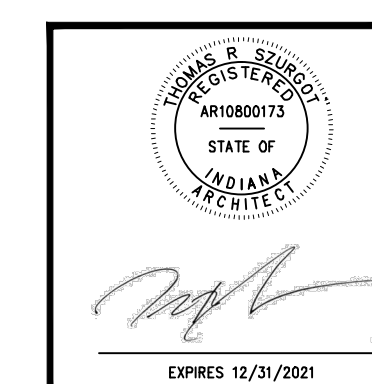


ISSUED FOR PROPOSAL:

03/09/2020

TRIA ARCHITECTURE, INC. HEREBY EXPRESSLY
RESERVES ALL COPYRIGHT AND OTHER PROPERTY
RIGHTS PRESENT WITHIN THESE DOCUMENTS.
REPRODUCTION, SALE, OR ALTERATION OF THESE
DOCUMENTS IN WHOLE, OR A PORTION THERE OF,
SHALL BE PROHIBITED WITHOUT PRIOR WRITTEN
CONSENT OF TRIA ARCHITECTURE, INC.

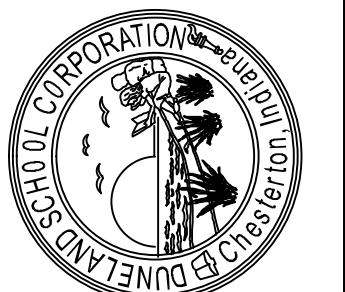
COPYRIGHT 2020 TRIA ARCHITECTURE, INC.



REVISION:

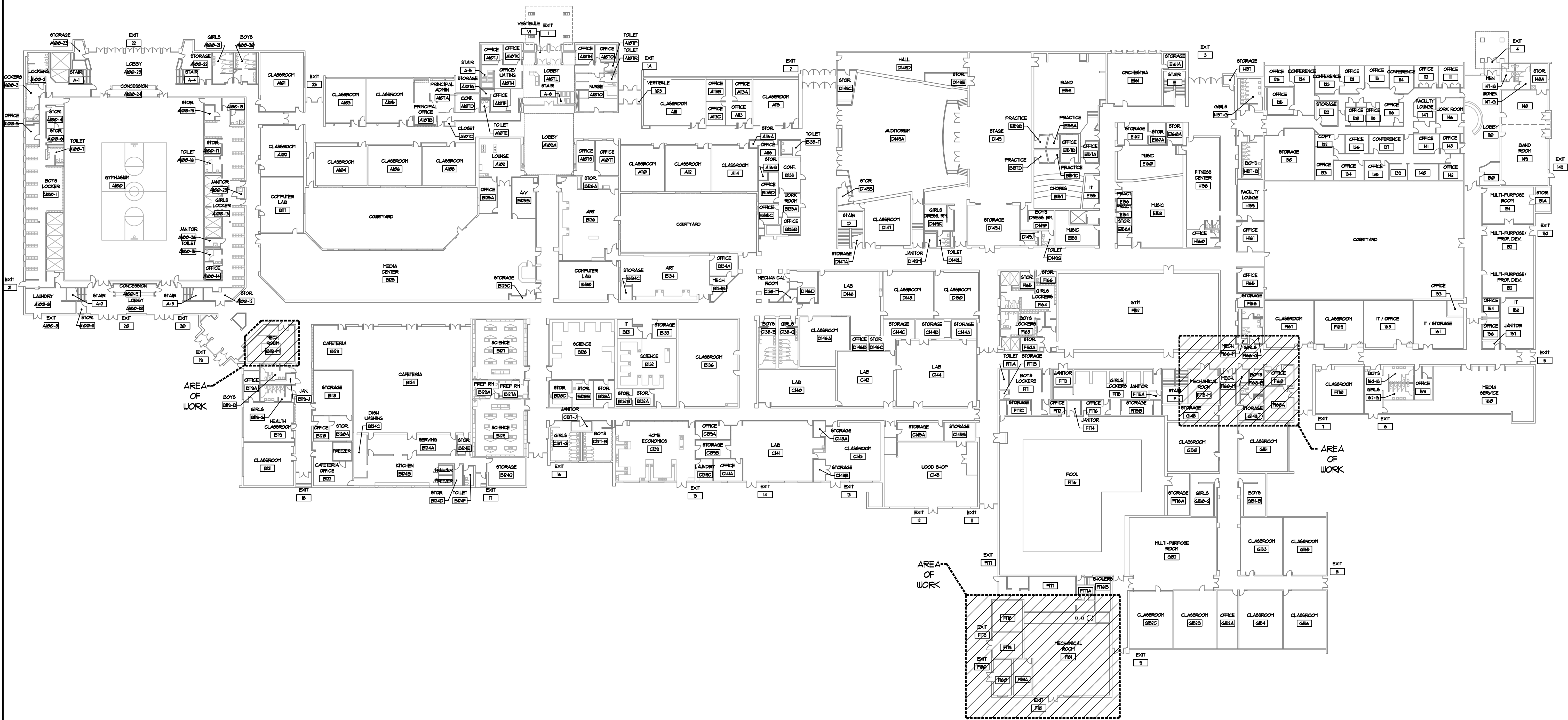
T1.00

DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W MORGAN AVE, CHESTERTON, IN 46304

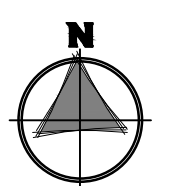


PROJECT NUMBER	18-003
PROJECT MANAGER	NO
DATE	01
DATE FOR PROPOSAL	09/20/2020
OVERALL FLOOR PLAN	

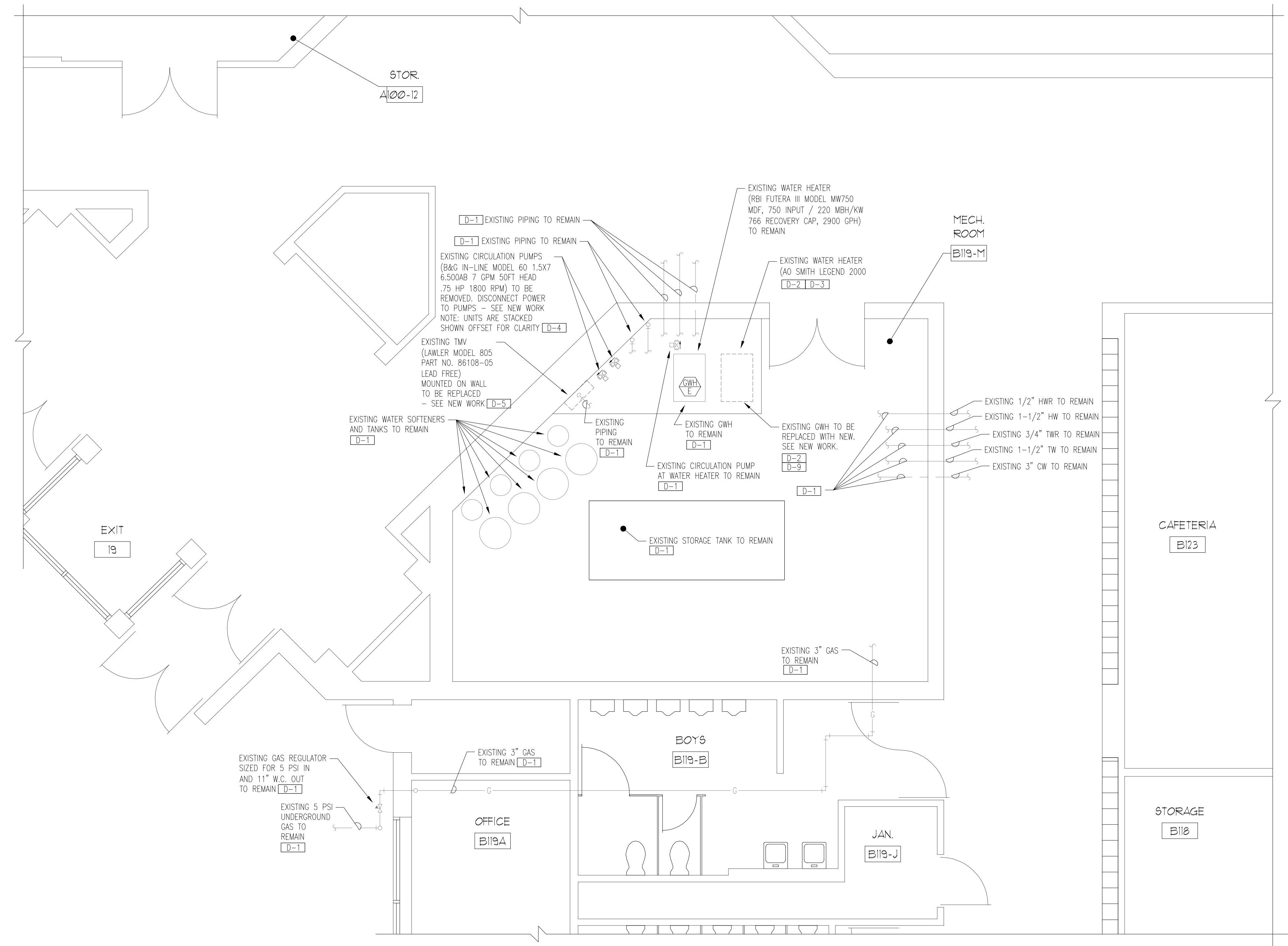
A0.01



1 OVERALL FLOOR PLAN
1/32" = 1'-0"

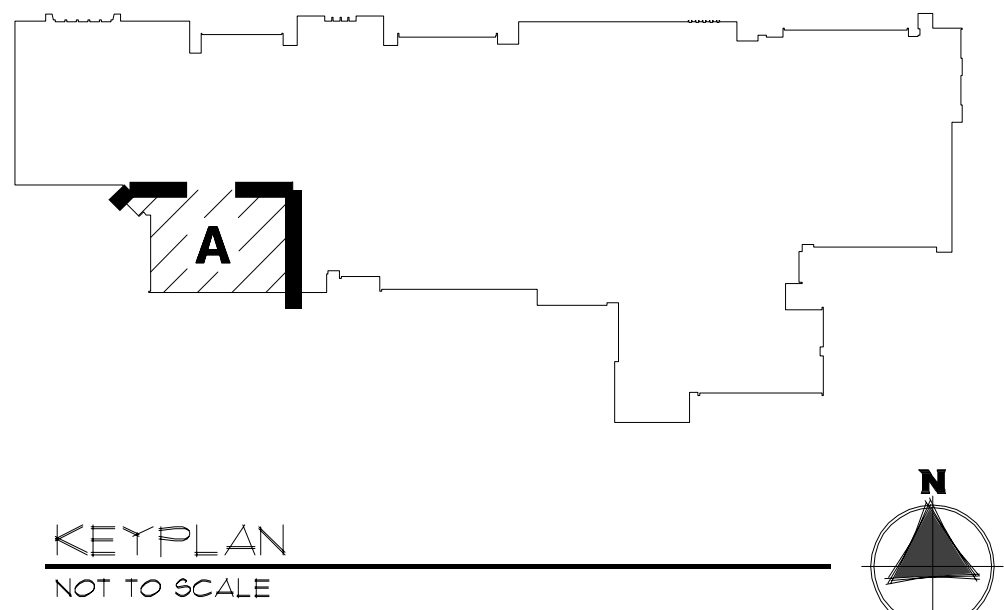


EXPIRES 12/31/2021



- GENERAL NOTES**
1. CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
 2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
 3. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
 4. CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
 5. CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
 6. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
 7. ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
 8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
 9. ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
 10. ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

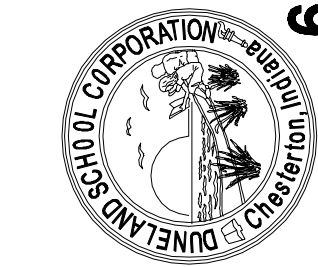
- DEMOLITION NOTES**
- D-1 EXISTING TO REMAIN. VERIFY IN FIELD.
 - D-2 EXISTING EQUIPMENT TO BE REMOVED. DISCONNECT POWER TO HEATER. EXISTING PIPING, VENTING, GAS, AND ELECTRICAL TO REMAIN FOR RECONNECTION TO NEW. VERIFY IN FIELD. SEE NEW WORK.
 - D-3 EXISTING WATER HEATER TO BE REMOVED AND REPLACED. ALL PIPING, VENTING, GAS, AND ELECTRICAL ARE TO REMAIN FOR RECONNECTION TO NEW. REPLACE ALL CONNECTIONS TO EXISTING PIPING AND VENTING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
 - D-4 EXISTING CIRCULATION PUMP IS TO BE REMOVED AND REPLACED. ALL PIPING AND ELECTRICAL IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
 - D-5 EXISTING TMV TO BE REMOVED AND REPLACED. ALL PIPING IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
 - D-6 EXISTING ELECTRIC WATER HEATER TO BE REMOVED IN ITS ENTIRETY. REMOVE CW AND HW PIPING AND CONNECTIONS TO EXISTING ELECTRIC WATER HEATER. REMOVE T&P PIPING, DRAIN PAN, AND DRAIN PAN DRAIN PIPING. EXISTING CW AND HW ARE TO REMAIN. EXISTING CIRCULATION PUMP AND TMV NEXT TO WATER HEATER ARE TO REMAIN. SEE NEW WORK.
 - D-7 EXISTING TMV TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
 - D-8 EXISTING CIRCULATION PUMP TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
 - D-9 DISCONNECT BAS SYSTEM CONNECTION FROM WATER HEATER.



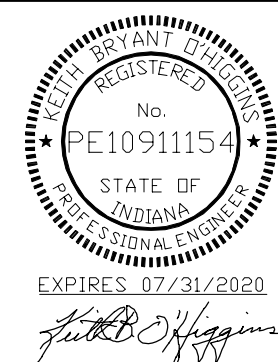
1 CHESTERTON MIDDLE SCHOOL - EXISTING FIRST FLOOR PLAN - MECH ROOM B119-M - PLUMBING
1/4" = 1'-0"



DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304



PROJECT NUMBER: 13-003	REVISIONS:
PROJECT MANAGER: YG	
DRAWN BY: OAS	
ISSUED FOR PROPOSAL: 03/09/2020	
EXISTING FLOOR PLAN - MECH ROOM B119 - PLUMBING	



MEPO.11

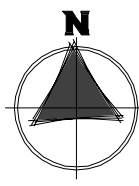


NEFFP CONSULTANT
1760338196
IDAS
INDIANAPOLIS, INDIANA
7818 HARMON DR. SUITE A, SUITE 100, LINDS 46034

FILE PATH AND NAME: P:\139-4-4 - Duneland School Corp. - Chesterton MS HW Tank Replacements\PE139-A-4 - DMS MEPO.13 existing plan.mech

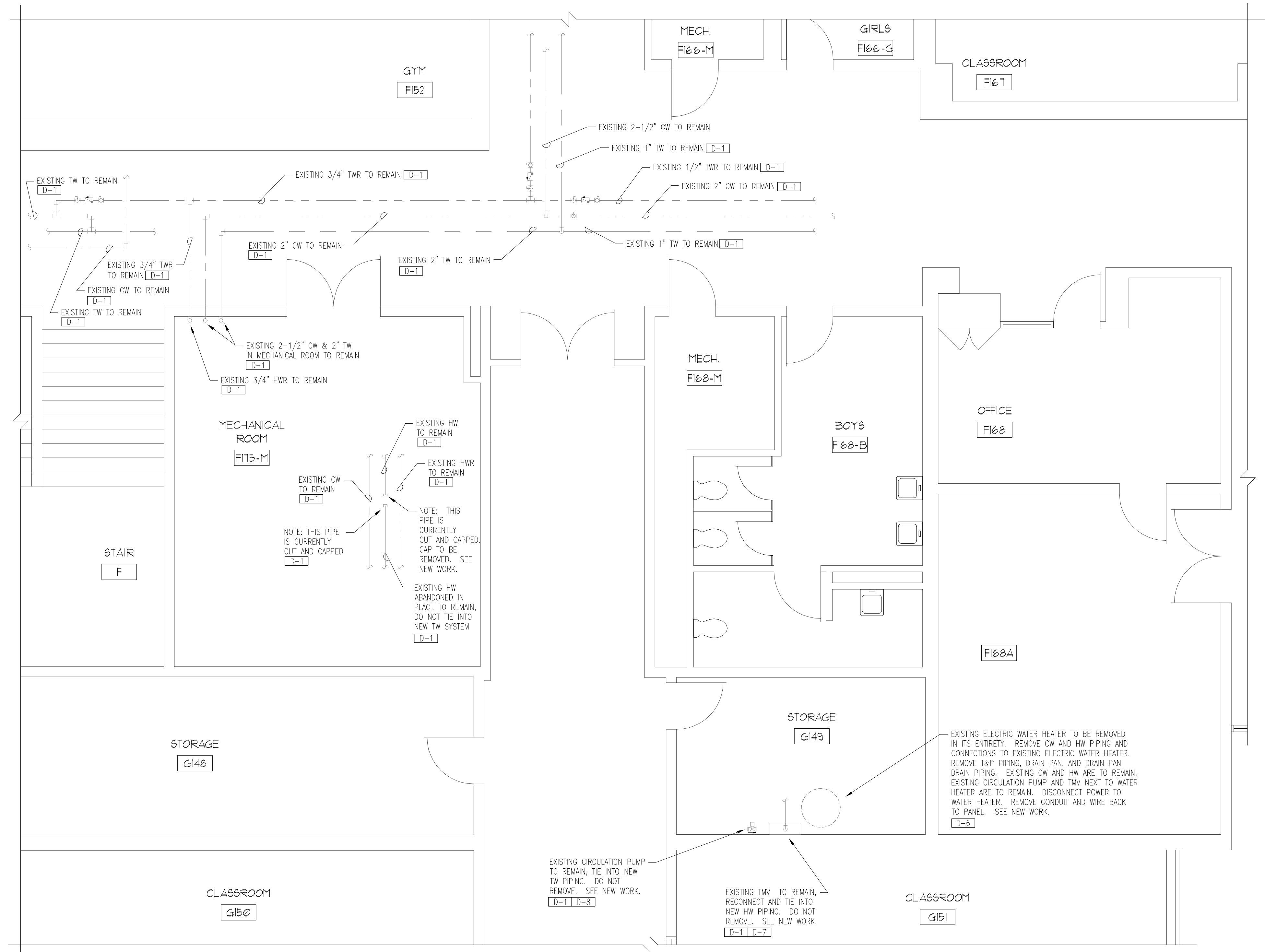
DATE PLOTTED: 3/10/2020 10:27 AM

PLOTTED BY: CARL FUGEL



1 CHESTERTON MIDDLE SCHOOL - EXISTING FIRST FLOOR PLAN - MECH ROOM F175-M - PLUMBING

1/4" = 1'-0"

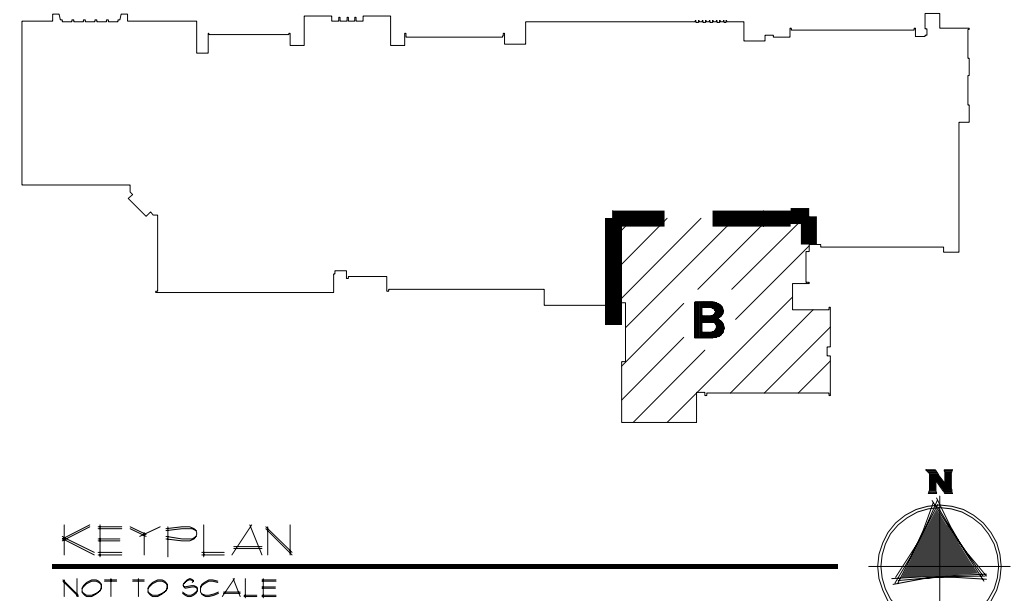


GENERAL NOTES

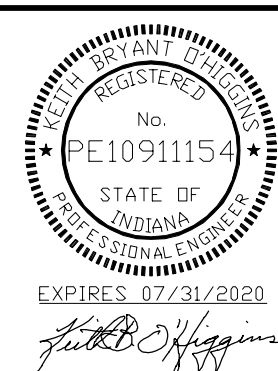
1. CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
3. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
4. CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
5. CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
6. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
7. ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
9. ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
10. ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

DEMOLITION NOTES

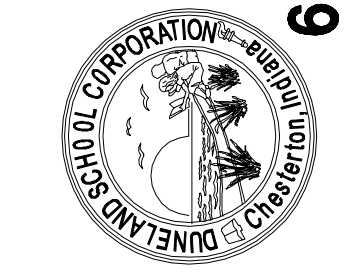
- D-1 EXISTING TO REMAIN. VERIFY IN FIELD.
- D-2 EXISTING EQUIPMENT TO BE REMOVED. DISCONNECT POWER TO HEATER. EXISTING PIPING, VENTING, GAS, AND ELECTRICAL TO REMAIN FOR RECONNECTION TO NEW. VERIFY IN FIELD. SEE NEW WORK.
- D-3 EXISTING WATER HEATER TO BE REMOVED AND REPLACED. ALL PIPING, VENTING, GAS, AND ELECTRICAL ARE TO REMAIN FOR RECONNECTION TO NEW. REPLACE ALL CONNECTIONS TO EXISTING PIPING AND VENTING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-4 EXISTING CIRCULATION PUMP IS TO BE REMOVED AND REPLACED. ALL PIPING AND ELECTRICAL IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-5 EXISTING TMV TO BE REMOVED AND REPLACED. ALL PIPING IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-6 EXISTING ELECTRIC WATER HEATER TO BE REMOVED IN ITS ENTIRETY. REMOVE CW AND HW PIPING AND CONNECTIONS TO EXISTING ELECTRIC WATER HEATER. REMOVE T&P PIPING, DRAIN PAN, AND DRAIN PAN DRAIN PIPING. EXISTING CW AND HW ARE TO REMAIN. EXISTING CIRCULATION PUMP AND TMV NEXT TO WATER HEATER ARE TO REMAIN. SEE NEW WORK.
- D-7 EXISTING TMV TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
- D-8 EXISTING CIRCULATION PUMP TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
- D-9 DISCONNECT BAS SYSTEM CONNECTION FROM WATER HEATER.



KEYPLAN
NOT TO SCALE

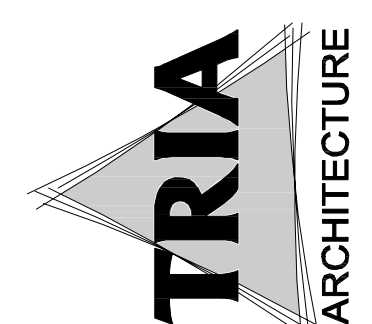


DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304



PROJECT NUMBER: 20-003
PROJECT MANAGER: MFG
DESIGN BY: OAS
ISSUED FOR PROPOSAL: 03/09/2020
EXISTING FIRST FLOOR PLAN -
MECH. ROOM F175-M -
PLUMBING

MEPO.13



NEEPP CONSULTANT
1760338196



FILE PATH AND NAME: P:\139-4-4 - Duneland School Corp. - Chesterton MS HW Tank Replacements\PE139-4-4 - DMS MEPO15 existing plan.mech

DATE PLOTTED: 3/10/2020 10:27 AM

PLOTTED BY: CARL FUGEL

room F181

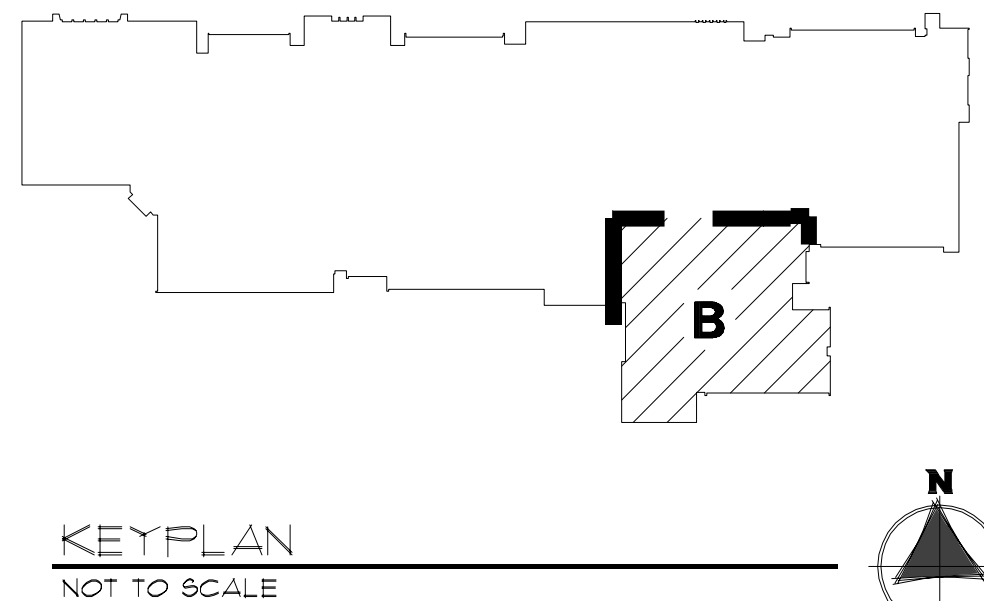


GENERAL NOTES

1. CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
3. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
4. CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
5. CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
6. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
7. ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
9. ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
10. ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

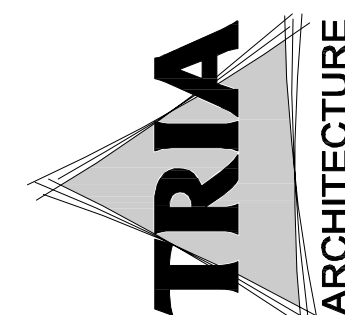
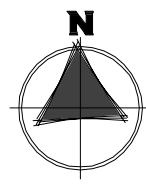
DEMOLITION NOTES

- D-1 EXISTING TO REMAIN. VERIFY IN FIELD.
- D-2 EXISTING EQUIPMENT TO BE REMOVED. DISCONNECT POWER TO HEATER. EXISTING PIPING, VENTING, GAS, AND ELECTRICAL TO REMAIN FOR RECONNECTION TO NEW. VERIFY IN FIELD. SEE NEW WORK.
- D-3 EXISTING WATER HEATER TO BE REMOVED AND REPLACED. ALL PIPING VENTING, GAS, AND ELECTRICAL ARE TO REMAIN FOR RECONNECTION TO NEW. REPLACE ALL CONNECTIONS TO EXISTING PIPING AND VENTING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-4 EXISTING CIRCULATION PUMP IS TO BE REMOVED AND REPLACED. ALL PIPING AND ELECTRICAL IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-5 EXISTING TMV TO BE REMOVED AND REPLACED. ALL PIPING IS TO REMAIN. REPLACE ALL CONNECTIONS TO EXISTING PIPING WITH NEW CONNECTIONS. PROVIDE DI-ELECTRIC UNIONS ON NEW WORK. ALL NEW AND EXISTING PIPING IS TO BE INSULATED PER SPECIFICATIONS AND PER ALL APPLICABLE CODES. SEE NEW WORK.
- D-6 EXISTING ELECTRIC WATER HEATER TO BE REMOVED IN ITS ENTIRETY. REMOVE CW AND HW PIPING AND CONNECTIONS TO EXISTING ELECTRIC WATER HEATER. REMOVE T&P PIPING, DRAIN PAN, AND DRAIN PAN DRAIN PIPING. EXISTING CW AND HW ARE TO REMAIN. EXISTING CIRCULATION PUMP AND TMV NEXT TO WATER HEATER ARE TO REMAIN. SEE NEW WORK.
- D-7 EXISTING TMV TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
- D-8 EXISTING CIRCULATION PUMP TO REMAIN FOR RECONNECTION TO NEW. SEE NEW WORK.
- D-9 DISCONNECT GAS SYSTEM CONNECTION FROM WATER HEATER.



1 CHESTERTON MIDDLE SCHOOL - EXISTING FIRST FLOOR PLAN - MECH ROOM F181- PLUMBING

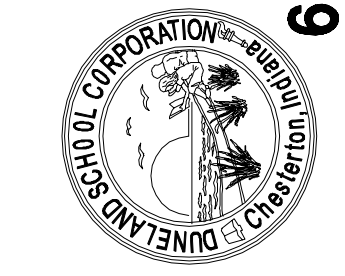
1/4" = 1'-0"



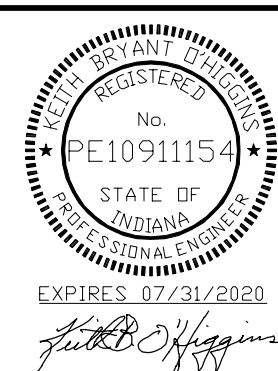
NEPPF CONSULTANT
1760338196



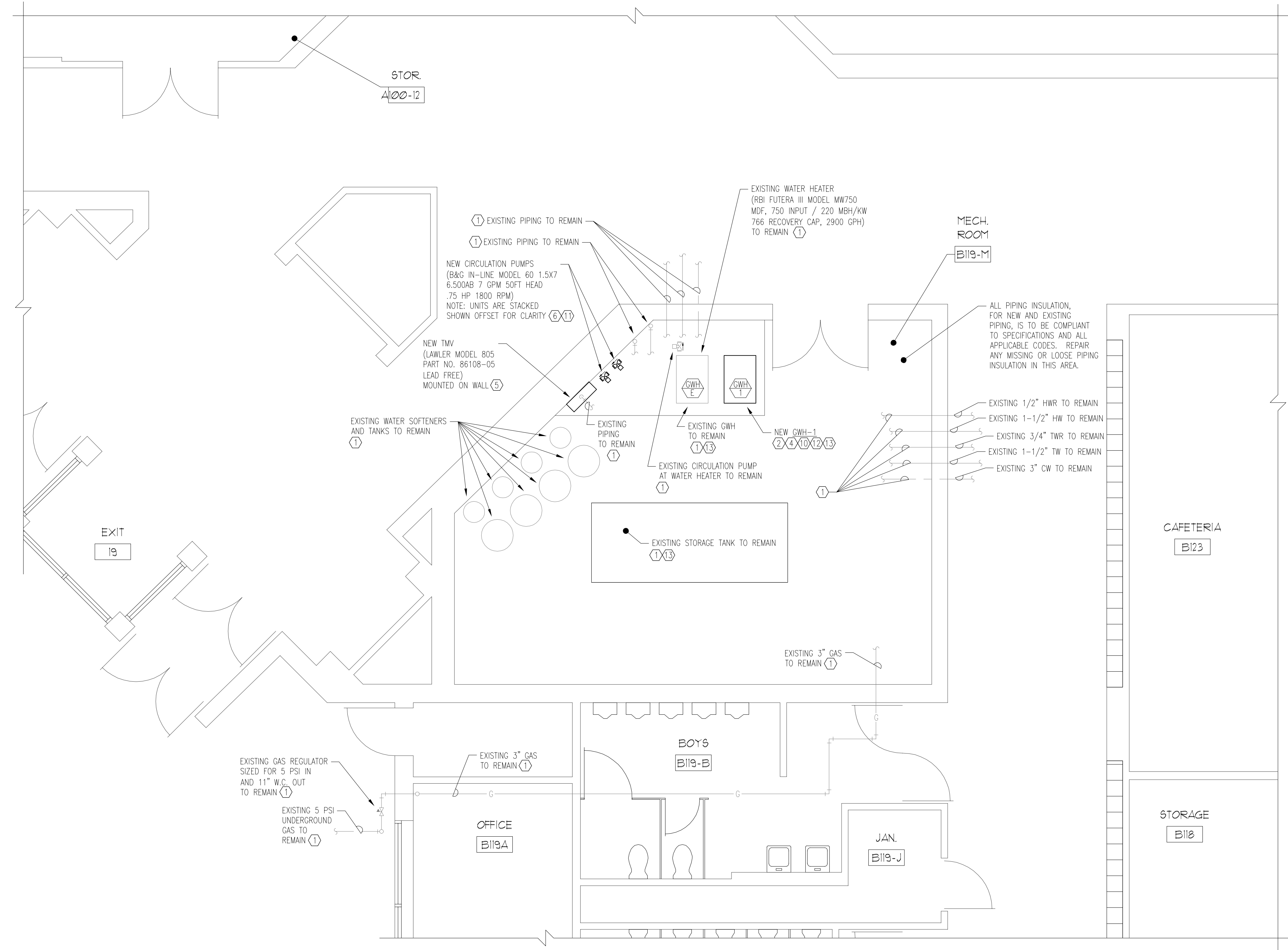
DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304



PROJECT NUMBER: 13-063
PROJECT MANAGER: MGS
DESIGN BY: OAS
ISSUED FOR PROPOSAL: 03/09/2020
EXISTING FIRST FLOOR PLAN -
MECH ROOM F181 -
PLUMBING



MEPO.15

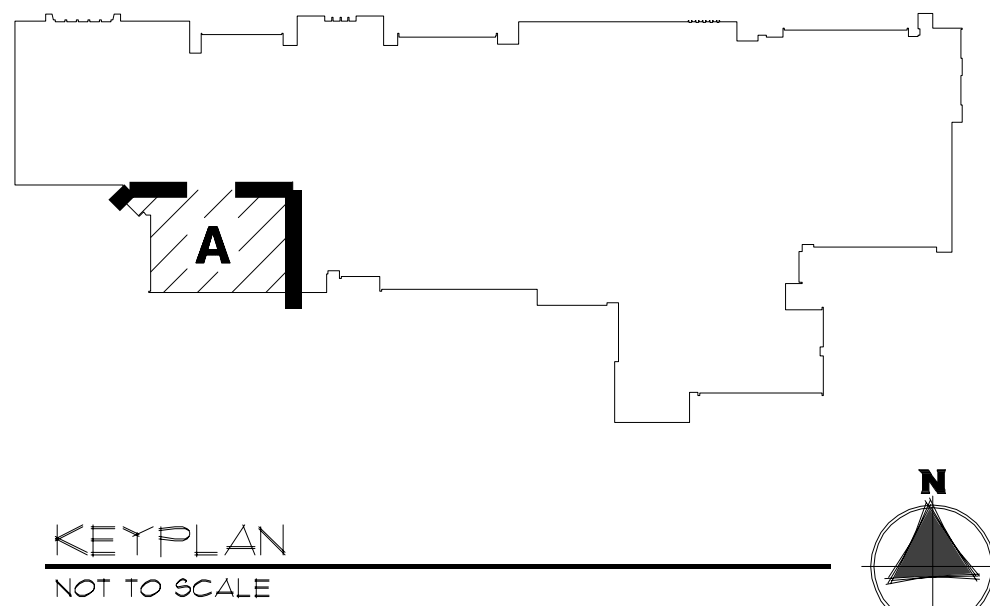


GENERAL NOTES

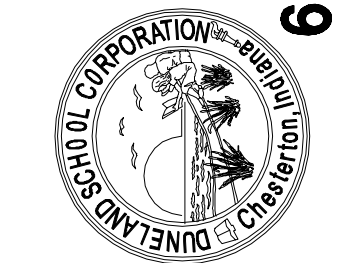
- CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
- ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
- CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
- CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
- CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
- ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
- ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
- ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
- ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

KEYED NOTES:

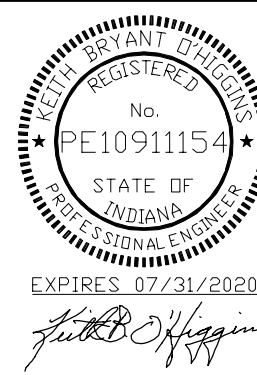
- EXISTING TO REMAIN. VERIFY IN FIELD.
- PROVIDE NEW GA WATER HEATER GWH-1 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO INDIAN PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
- PROVIDE NEW GAS WATER HEATERS GWH-2 & GWH-3 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. MODIFY PIPING AS REQUIRED PER PIPING DETAILS AND MANUFACTURERS REQUIREMENTS. ENSURE COMPLIANCE TO INDIANA PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
- ROUTE GAS WATER HEATER GWH-1, GWH-2, AND GWH-3 T&P PIPING AS WELL AS CONDENSATE DRAIN PIPING SEPARATELY TO ABOVE NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAPS FOR BOTH SETS OF PIPING FOR EACH WATER HEATER AS PER INDIANA PLUMBING CODE AND AHJ. PROVIDE CONDENSATE NEUTRALIZATION KIT PER MANUFACTURER SPECIFICATIONS AND INSTRUCTIONS.
- PROVIDE NEW TMV - TMV-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE LAWLER MODEL 805 PART NUMBER 86108-05 LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ.
- PROVIDE NEW CIRCULATION PUMP HCB-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE B&G IN-LINE MODEL 60 - 1.5X7, 6.500 AB, 7 GPM AT 50 FT HEAD, .75 HP, 1800 RPM LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. COORDINATE WITH ELECTRICAL.
- NEW 1" HW PIPING, TIE INTO EXISTING HW PIPING IN MECHANICAL ROOM F175-M. ROUTE NEW HW PIPING FROM MECHANICAL ROOM F175-M THROUGH CORRIDOR AND TO STORAGE G149. TIE INTO EXISTING TMV AND CIRCULATION PUMP IN STORAGE G149. COORDINATE ALL PIPING IN FIELD. ENTIRE INSTALLATION IS TO BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ.
- COORDINATE HORIZONTAL PIPING WITH MECHANICAL DUCT WORK, LIGHTING, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. ALL HORIZONTAL WATER PIPING TO BE TIGHT TO STRUCTURE OR CEILING. COORDINATE WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, AND EQUIPMENT.
- RUN NEW HW PIPING TIGHT TO WALL AND SUPPORT AS REQUIRED PER SPECIFICATIONS, ALL APPLICABLE CODES AND AHJ. ENSURE PIPING IS ABLE TO TIE INTO EXISTING EQUIPMENT. ENSURE NEW PIPING IS TIED INTO EXISTING TMV AND NOT DIRECTLY INTO EXISTING TW. EXISTING TW SHALL REMAIN CONNECTED TO EXISTING TMV.
- CONNECT GWH-1, GWH-2, AND GWH-3 TO EXISTING POWER FROM OLD WATER HEATER.
- CONNECT NEW PUMPS TO EXISTING POWER FROM OLD PUMPS.
- CONNECT EXISTING BAS SYSTEM. PROVIDE ALL INTERLOCK ACCESSORIES AND PROGRAMMING REQUIRED TO CONTROL ON-OFF AND TO RECEIVE ALARMS, TEMPERATURES, AND OPERATING INFORMATION. COORDINATE WITH WATER HEATER MANUFACTURER. CONTROLS TO BE BY JCI; CALUMET CITY, ILLINOIS OFFICE. CONTACT: MARY PULLO @ 708-828-3421.
- PROVIDE NEW EXPANSION TANK DTX-1 FOR EACH WATER HEATER PIPING SYSTEM. SEE DETAIL FOR LOCATION. ENSURE COMPLIANCE TO ALL APPLICABLE CODES AND AHJ. SEE SCHEDULE FOR MODEL AND SIZE. NO SUBSTITUTIONS. COORDINATE LOCATION IN FIELD WITH EXISTING AND NEW PIPING AND EQUIPMENT.

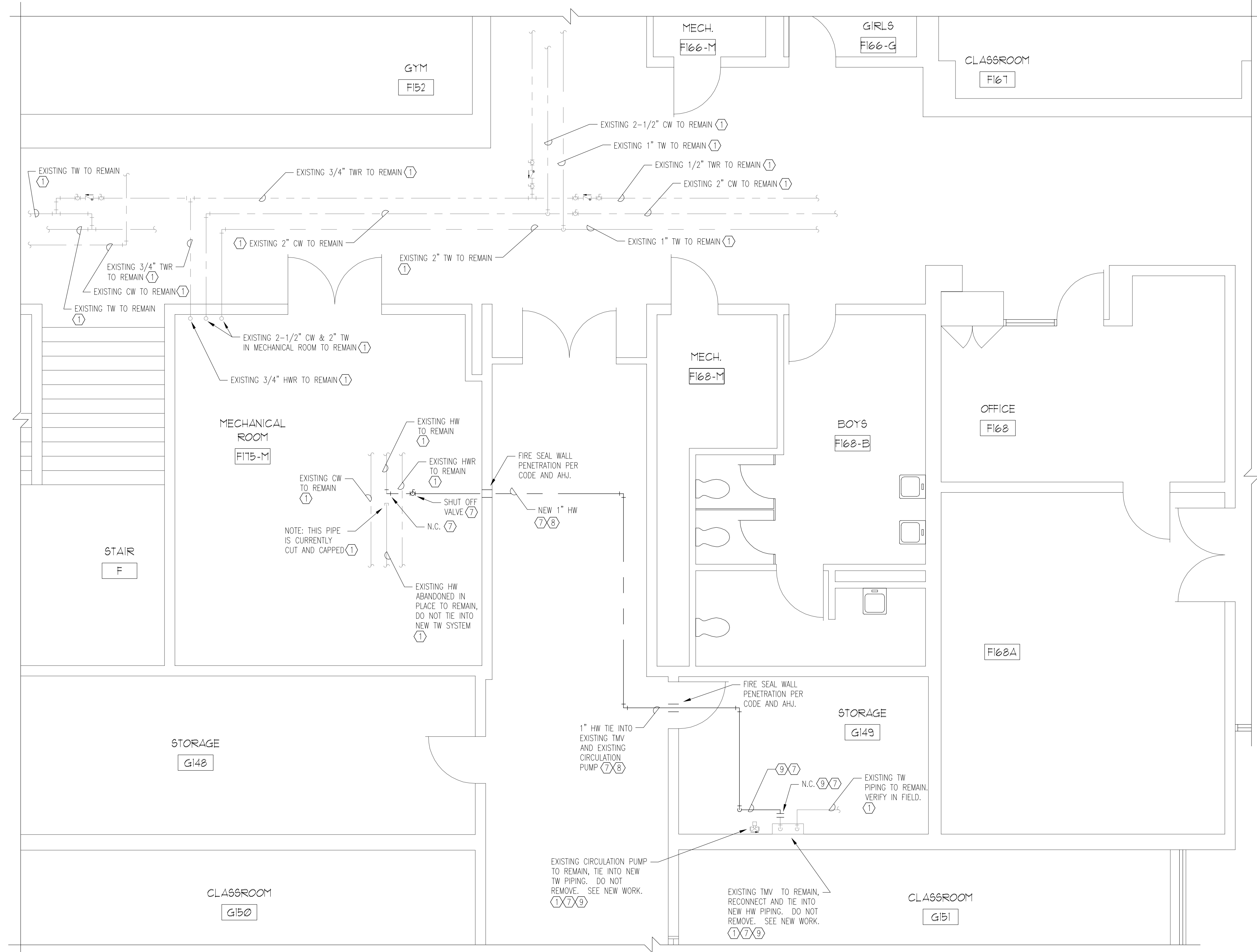


1 CHESTERTON MIDDLE SCHOOL - NEW FIRST FLOOR PLAN - MECH ROOM B119-M - PLUMBING
1/4" = 1'-0"



PROJECT NUMBER: 13-063	REVISIONS:
PROJECT MANAGER: MGS	
DRAWN BY: OAS	
ISSUED FOR PROPOSAL: 03/09/2020	
NEW FLOOR PLAN - MECH ROOM B119 - PLUMBING	



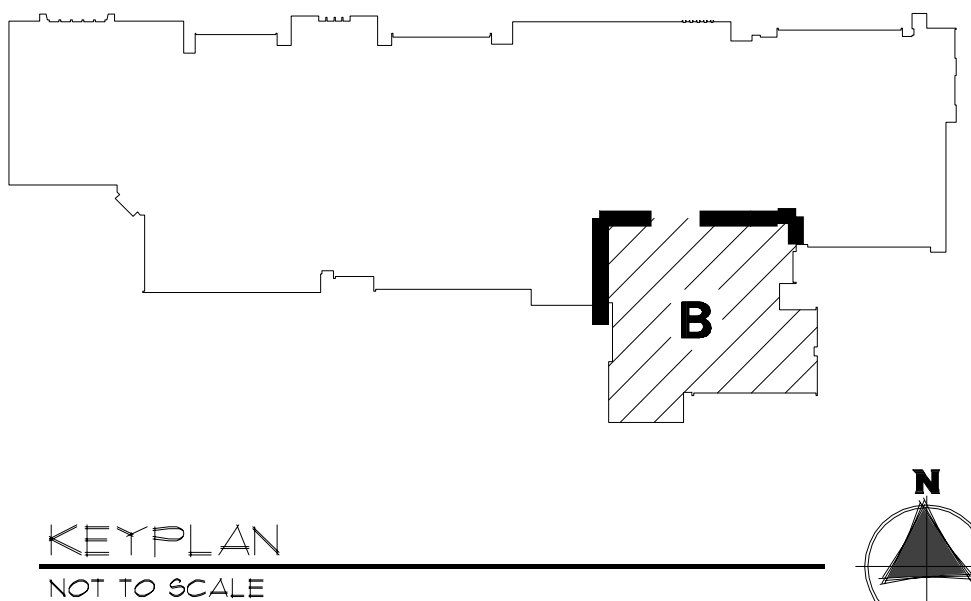


GENERAL NOTES

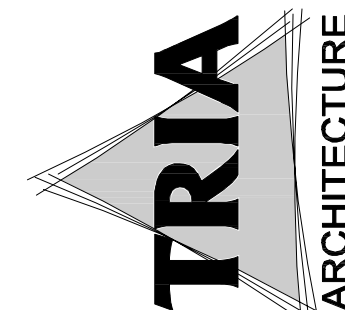
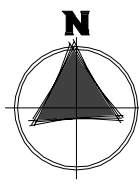
- CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
- ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
- CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
- CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
- CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
- ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
- ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
- ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
- ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

KEYED NOTES:

- EXISTING TO REMAIN. VERIFY IN FIELD.
- PROVIDE NEW GA WATER HEATER GWH-1 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. MODIFY AS REQUIRED. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO INDIAN PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
- PROVIDE NEW GAS WATER HEATERS GWH-2 & GWH-3 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. MODIFY PIPING AS REQUIRED PER PIPING DETAILS AND MANUFACTURERS REQUIREMENTS. ENSURE COMPLIANCE TO INDIANA PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
- ROUTE GAS WATER HEATER GWH-1, GWH-2, AND GWH-3 T&P PIPING AS WELL AS CONDENSATE DRAIN PIPING SEPARATELY TO ABOVE NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAPS FOR BOTH SETS OF PIPING FOR EACH WATER HEATER AS PER INDIANA PLUMBING CODE AND AHJ. PROVIDE CONDENSATE NEUTRALIZATION KIT PER MANUFACTURER SPECIFICATIONS AND INSTRUCTIONS.
- PROVIDE NEW TMV - TMV-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE LAWLOR MODEL 805 PART NUMBER 86108-05 LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. COORDINATE WITH ELECTRICAL.
- PROVIDE NEW CIRCULATION PUMP HCB-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE BAG IN-LINE MODEL 60 - 1.5X7, 6,500 AB, 7 GPM AT 50 FT HEAD, .75 HP, 1800 RPM LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. COORDINATE WITH ELECTRICAL.
- NEW 1" HW PIPING, TIE INTO EXISTING HW PIPING IN MECHANICAL ROOM F175-M. ROUTE NEW HW PIPING FROM MECHANICAL ROOM F175-M THROUGH CORRIDOR AND TO STORAGE G149. TIE INTO EXISTING TMV AND CIRCULATION PUMP IN STORAGE G149. COORDINATE ALL PIPING IN FIELD. ENTIRE INSTALLATION IS TO BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ.
- COORDINATE HORIZONTAL PIPING WITH MECHANICAL DUCT WORK, LIGHTING, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. ALL HORIZONTAL WATER PIPING TO BE TIGHT TO STRUCTURE OR CEILING. COORDINATE WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, AND EQUIPMENT.
- RUN NEW HW PIPING TIGHT TO WALL AND SUPPORT AS REQUIRED PER SPECIFICATIONS, ALL APPLICABLE CODES AND AHJ. ENSURE PIPING IS ABLE TO TIE INTO EXISTING EQUIPMENT. ENSURE NEW PIPING IS TIED INTO EXISTING TMV AND NOT DIRECTLY INTO EXISTING TW. EXISTING TW SHALL REMAIN CONNECTED TO EXISTING TMV.
- CONNECT GWH-1, GWH-2, AND GWH-3 TO EXISTING POWER FROM OLD WATER HEATER.
- CONNECT NEW PUMPS TO EXISTING POWER FROM OLD PUMPS.
- CONNECT EXISTING BAS SYSTEM. PROVIDE ALL INTERLOCK ACCESSORIES AND PROGRAMMING REQUIRED TO CONTROL ON-OFF AND TO RECEIVE ALARMS, TEMPERATURES, AND OPERATING INFORMATION. COORDINATE WITH WATER HEATER MANUFACTURER. CONTROLS TO BE BY JCI; CALUMET CITY, ILLINOIS OFFICE. CONTACT: MARY PULLO @ 708-828-3421.
- PROVIDE NEW EXPANSION TANK DTX-1 FOR EACH WATER HEATER PIPING SYSTEM. SEE DETAIL FOR LOCATION. ENSURE COMPLIANCE TO ALL APPLICABLE CODES AND AHJ. SEE SCHEDULE FOR MODEL AND SIZE. NO SUBSTITUTIONS. COORDINATE LOCATION IN FIELD WITH EXISTING AND NEW PIPING AND EQUIPMENT.



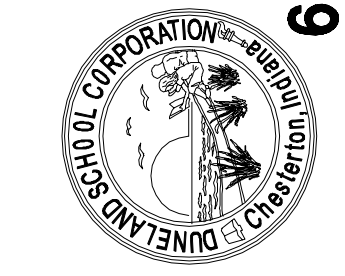
1 CHESTERTON MIDDLE SCHOOL - NEW FIRST FLOOR PLAN - MECH ROOM F175-M - PLUMBING
1/4" = 1'-0"



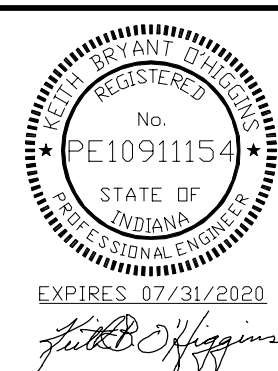
MEP CONSULTANT
PE 62038196



DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304

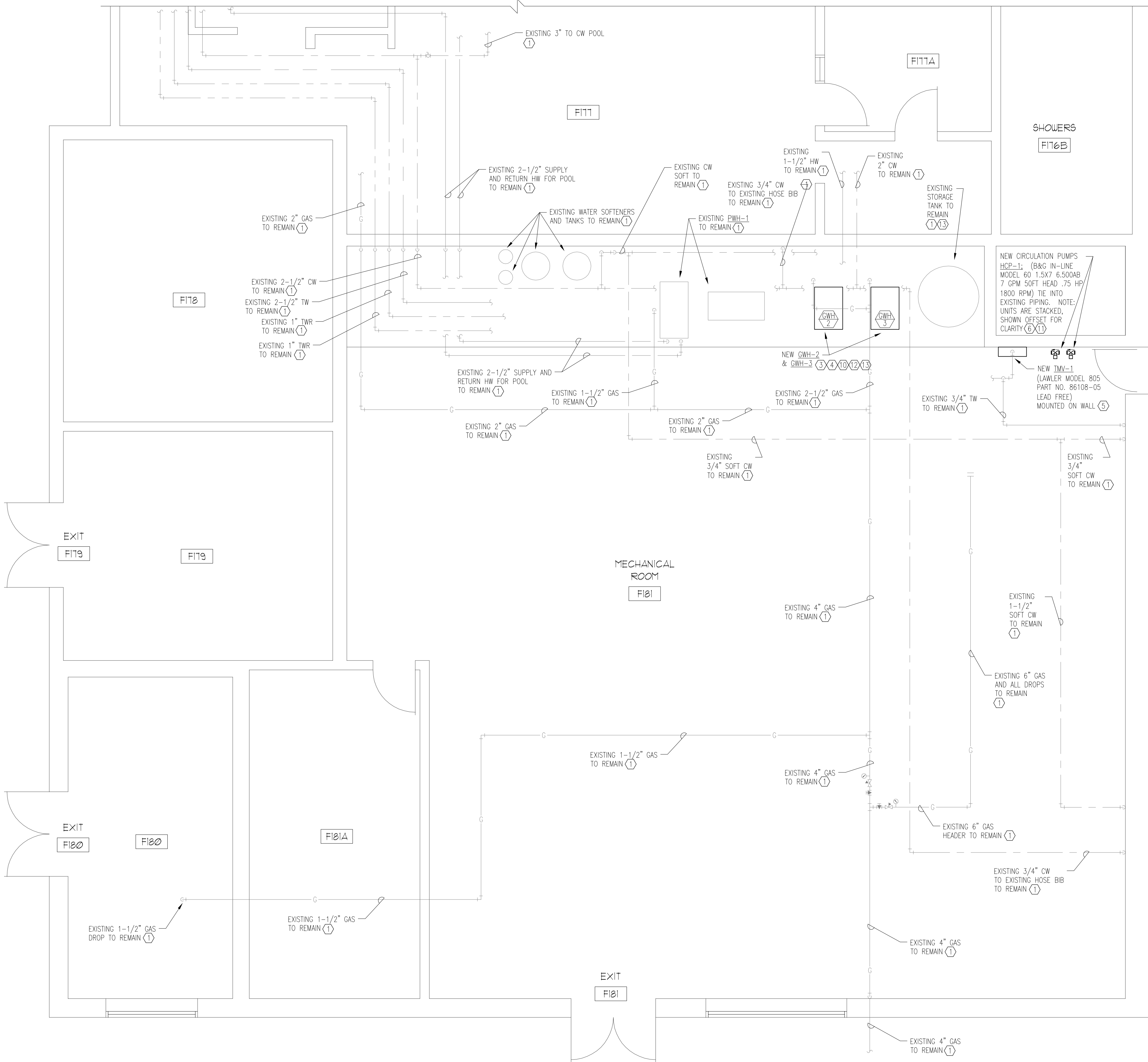


PROJECT NUMBER: 13-043
PROJECT MANAGER: MFG
DESIGN BY: OAS
ISSUED FOR PROPOSAL: 03/09/2020
NEW FIRST FLOOR PLAN -
MECH. ROOM F175-M -
PLUMBING



MEP1.13

1 CHESTERTON MIDDLE SCHOOL - NEW FIRST FLOOR PLAN - MECH ROOM F181- PLUMBING
1/4" = 1'-0"

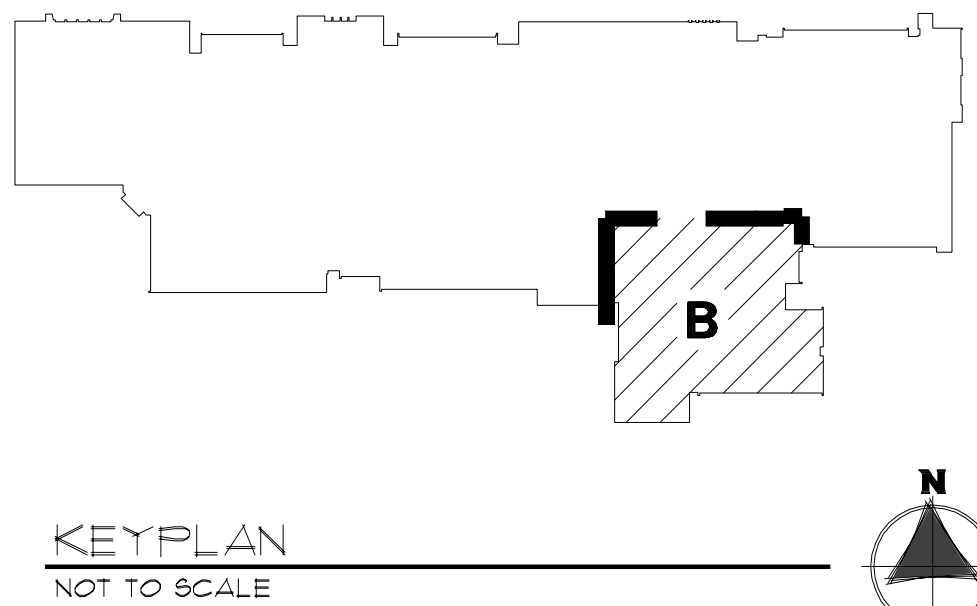


GENERAL NOTES

1. CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER INDIANA ENERGY CONSERVATION CODE.
2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE INDIANA PLUMBING CODE AND AHJ.
3. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
4. CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS.
5. CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK. PATCH TO MATCH.
6. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
7. ALL PLUMBING, NEW AND EXISTING, AFFECTED BY THIS WORK MUST BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND DRAWINGS, THE CODES SHALL BE FOLLOWED.
8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, CIVIL, AND EQUIPMENT.
9. ENSURE NO DEAD ENDS REMAIN IN SANITARY, WATER, VENT SYSTEMS PER INDIANA PLUMBING CODE AND AHJ.
10. ALL PLUMBING VENT TERMINALS SHALL BE A MINIMUM OF 12'-0" AWAY FROM ANY INTAKE AS PER INDIANA PLUMBING CODE AND AHJ.

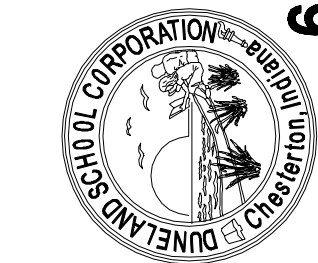
KEYED NOTES:

1. EXISTING TO REMAIN. VERIFY IN FIELD.
2. PROVIDE NEW GA WATER HEATER GWH-1 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. MODIFY AS REQUIRED. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO INDIAN PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
3. PROVIDE NEW GAS WATER HEATERS GWH-2 & GWH-3 ON EXISTING CONCRETE PAD. TIE INTO EXISTING WATER SYSTEM. TIE INTO EXISTING GAS PIPING, FINAL CONNECTION BY PLUMBING. TIE INTO EXISTING INTAKE AND EXHAUST VENT PIPING - VERIFY SIZES IN FIELD. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. MODIFY PIPING AS REQUIRED PER PIPING DETAILS AND MANUFACTURERS REQUIREMENTS. ENSURE COMPLIANCE TO INDIANA PLUMBING CODE AND AHJ. SEE GAS WATER HEATER SCHEDULE.
4. ROUTE GAS WATER HEATER GWH-1, GWH-2, AND GWH-3 T&P PIPING AS WELL AS CONDENSATE DRAIN PIPING SEPARATELY TO ABOVE NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAPS FOR BOTH SETS OF PIPING FOR EACH WATER HEATER AS PER INDIANA PLUMBING CODE AND AHJ. PROVIDE CONDENSATE NEUTRALIZATION KIT PER MANUFACTURER SPECIFICATIONS AND INSTRUCTIONS.
5. PROVIDE NEW TMV - TMV-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE LAWLER MODEL 805 PART NUMBER 86108-05 LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. COORDINATE WITH ELECTRICAL.
6. PROVIDE NEW CIRCULATION PUMP HCP-1. USE SAME MANUFACTURER AND MODEL NUMBER THAT WAS PREVIOUSLY INSTALLED. USE B&G IN-LINE MODEL 60 - 1.5X7, 6,500 AB, 7 GPM AT 50 FT HEAD, .75 HP, 1800 RPM LEAD FREE. VERIFY INFORMATION IN FIELD. NO SUBSTITUTIONS. TIE INTO EXISTING PIPING. INSTALL PER MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. PROVIDE INSULATION PER SPECIFICATIONS AND ALL APPLICABLE CODES. ENSURE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. COORDINATE WITH ELECTRICAL.
7. NEW 1" HW PIPING, TIE INTO EXISTING HW PIPING IN MECHANICAL ROOM F175-M. ROUTE NEW HW PIPING FROM MECHANICAL ROOM F175-M THROUGH CORRIDOR AND TO STORAGE G149. TIE INTO EXISTING TMV AND CIRCULATION PUMP IN STORAGE G149. COORDINATE ALL PIPING IN FIELD. ENTIRE INSTALLATION IS TO BE COMPLIANT TO INDIANA PLUMBING CODE AND AHJ.
8. COORDINATE HORIZONTAL PIPING WITH MECHANICAL DUCT WORK, LIGHTING, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. ALL HORIZONTAL WATER PIPING TO BE TIGHT TO STRUCTURE OR CEILING. COORDINATE WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, AND EQUIPMENT.
9. RUN NEW HW PIPING TIGHT TO WALL AND SUPPORT AS REQUIRED PER SPECIFICATIONS, ALL APPLICABLE CODES AND AHJ. ENSURE PIPING IS ABLE TO TIE INTO EXISTING EQUIPMENT. ENSURE NEW PIPING IS TIED INTO EXISTING TMV AND NOT DIRECTLY INTO EXISTING TW. EXISTING TW SHALL REMAIN CONNECTED TO EXISTING TMV.
10. CONNECT GWH-1, GWH-2, AND GWH-3 TO EXISTING POWER FROM OLD WATER HEATER.
11. CONNECT NEW PUMPS TO EXISTING POWER FROM OLD PUMPS.
12. CONNECT EXISTING BAS SYSTEM. PROVIDE ALL INTERLOCK ACCESSORIES AND PROGRAMMING REQUIRED TO CONTROL ON-OFF AND TO RECEIVE ALARMS, TEMPERATURES, AND OPERATING INFORMATION. COORDINATE WITH WATER HEATER MANUFACTURER. CONTROLS TO BE BY JCI; CALUMET CITY, ILLINOIS OFFICE. CONTACT: MARY PULLO @ 708-828-3421.
13. PROVIDE NEW EXPANSION TANK DTX-1 FOR EACH WATER HEATER PIPING SYSTEM. SEE DETAIL FOR LOCATION. ENSURE COMPLIANCE TO ALL APPLICABLE CODES AND AHJ. SEE SCHEDULE FOR MODEL AND SIZE. NO SUBSTITUTIONS. COORDINATE LOCATION IN FIELD WITH EXISTING AND NEW PIPING AND EQUIPMENT.

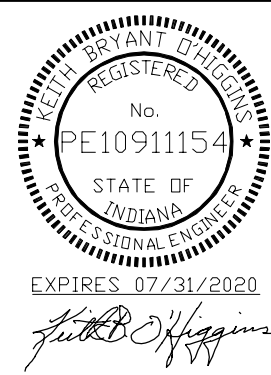


DUNELAND SCHOOL CORPORATION

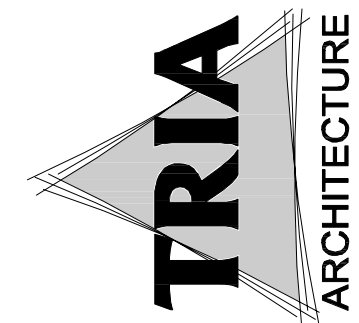
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304



PROJECT NUMBER: 13-003	REVISIONS:
PROJECT MANAGER: YG	
DRAWN BY: OAS	
ISSUED FOR PROPOSAL: 03/09/2020	
NEW FIRST FLOOR PLAN - MECH ROOM F181 - PLUMBING	



MEP1.15



NEEPP CONSULTANT
1760338196



GENERAL NOTES - ALL CONTRACTORS

- A. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC., AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING, NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.
- B. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLARNESS OF PRESENTATION.
- C. CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.
- D. CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.
- E. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
- F. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS AND STRUCTURAL BUILDING MEMBER.
- G. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER AND OWNER'S STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR AS DIRECTED.
- H. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.
- I. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN, ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT AND OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT.
- J. SOME OF THE EXISTING ITEMS AND EQUIPMENT SCHEDULED TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER. ANY ITEMS THAT THE OWNER WANTS TO RETAIN SHALL BE REMOVED CAREFULLY SO AS NOT TO DAMAGE THEM. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE.
- K. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.
- L. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.
- M. IT IS MANDATORY THAT THE COMPLETE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING REMODELING/ALTERING OF SAID EXISTING BUILDING. THE SPECIFIC AREA(S) BEING REMODELED/ALTERED AT ANY SCHEDULED TIME ARE OBVIOUSLY EXCLUSIVE OF THIS STATEMENT. SERVICES TO EXISTING BUILDING SHALL BE KEPT IN CONTINUOUS OPERATION INCLUDING POWER, SIGNAL SYSTEMS, LIGHTING, TELEPHONE, HEATING, COOLING, VENTILATING, TEMPERATURE CONTROL, SEWERS AND HOT AND COLD WATER. ANY ABSOLUTELY NECESSARY INTERRUPTION OF THESE SERVICES TO ACCOMPLISH CONTRACT WORK SHALL BE ARRANGED THROUGH THE ARCHITECT WITH THE OWNER A MINIMUM OF TEN (10) WORKING DAYS IN ADVANCE. SUCH INTERRUPTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AS FAR AS TIME INTERVAL IS INVOLVED AND TEMPORARY SERVICES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT WHERE NECESSARY TO ACCOMPLISH THIS PURPOSE. TEMPORARIES SHALL BE REMOVED BY THE CONTRACTOR ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.
- N. UNLESS INDICATED OTHERWISE, THE ARCHITECT/ENGINEER MAKES NO REPRESENTATION AS TO WHETHER OR NOT ANY HAZARDOUS OR CONTAMINATED MATERIALS (INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB'S, CONTAMINATED SOILS, ETC.) ARE PRESENT WITHIN THE EXISTING BUILDING OR ON THE SITE. WORK SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CALL FOR CONTACT WITH ANY OF THESE MATERIALS. IF THESE MATERIALS ARE ENCOUNTERED OR SUSPECTED, THE CONTRACTOR SHALL NOT DISTURB THEM AND SHALL CONTACT THE ARCHITECT/ENGINEER IMMEDIATELY.
- O. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.

- P. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.
- Q. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.
- R. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.
- S. CONTRACTOR SHALL FIELD VERIFY THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF THE NEW EQUIPMENT INTO OR REMOVAL OF EXISTING EQUIPMENT FROM THE BUILDING. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO ORIGINAL SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE EXISTING SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.

GENERAL NOTES - PLUMBING

- A. ALL WATER SUPPLY AND RETURN PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPPEZ PIPE HANGERS. INSULATED PIPING SHALL REST ON STEEL OR WOOD. PIPE COVERING PROTECTION SADDLES OR SHEET METAL INSULATION SHIELDS AS CALLED FOR IN THE SPECIFICATIONS AND/OR DETAILED ON THE DRAWING.
- B. ALL WATER SUPPLY AND RETURN PIPING SHALL BE INSULATED, INCLUDING ALL PIPING ABOVE CEILINGS, INSIDE EQUIPMENT, CABINETS, PIPE CHASES AND IN WALLS. SEE SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION.
- C. ALL HOT WATER SUPPLY AND RECIRCULATING PIPING SHALL BE INSTALLED TO COMPENSATE FOR EXPANSION OF THE PIPE BY INSTALLING PIPE ANCHORS, GUIDES, EXPANSION JOINTS OR LOOPS AND PIPE OFFSETS AS REQUIRED BY FIELD CONDITIONS OR AS SHOWN ON THE DRAWINGS.
- D. ALL PIPING PASSING THRU FLOOR CONSTRUCTION SHALL HAVE A SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND PIPE ONLY. ALL PIPE PASSING THRU WALLS SHALL HAVE A GALVANIZED SHEET METAL OR SCHEDULE 40 STEEL SLEEVE INSTALLED AROUND THE PIPE AND PIPE INSULATION. SEE SLEEVE DETAILS THESE DRAWINGS.
- E. PITCH ALL SUPPLY AND RETURN WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT FIXTURES, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD AND VACUUM BREAKER. OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT.
- F. ALL VENT AND WASTE PIPING SIZES ARE MINIMUM. ADDITIONAL VENTS SHALL BE ADDED AND/OR PIPE SIZE INCREASED AS REQUIRED BY APPLICABLE CODES, STATUTES AND REGULATIONS, ETC. WITHOUT ADDITIONAL COST TO THE OWNER.
- G. UNUSED OPENINGS IN SEWERS, MANHOLES, ETC. SHALL BE CAPPED; THOSE IN PIPING SHALL BE CAPPED OR PLUGGED; STRUCTURAL MEMBERS AND SUPPORTS SHALL NOT BE CUT UNLESS AUTHORIZED BY ARCHITECT IN WRITING.
- H. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (OR EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS.
- NC NEW CONNECTION TO PRESENT PIPING, DEVICE, MANHOLE, SEWER, DUCT, WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC. SAME AS NEW WORK. IF IN SEWER MANHOLE, PROVIDE FLOW CHANNEL IN BOTTOM.
- VL VERIFY EXACT LOCATION, SIZE, INVERT, ETC. IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR OR NOT.

PLUMBING ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS SHOWN MAY BE REQUIRED FOR THIS PROJECT.

AC	ABOVE CEILING	PRV	PRESSURE RELIEF VALVE
BV	BALL VALVE	PS	PIPE SLEEVE
BBA	BETWEEN BEAMS ABOVE	RCO	RISER CLEANOUT
BFP	BACKFLOW PREVENTER	SH	SHOWER
BF	BALANCING FITTING	SK	SINK
CI	CAST IRON	SS	SERVICE SINK
CIU	CAST IRON PIPE UNDERGROUND	SSR	SERVICE SINK RECEPTOR
CK	CHECK VALVE	TB	THRUST BLOCK
CO	CLEANOUT	TFA	TO FLOOR ABOVE
CTB	CLOSE TO BOTTOM OF BEAM	TFB	TO FLOOR BELOW
CTC	CLOSE TO CEILING	TMV	THERMOSTATIC MIXING VALVE
DF	DRINKING FOUNTAIN	UR	URINAL
DIP	DUCTILE IRON PIPE	UV	UNDERFLOOR VENT
EW	ELECTRIC WATER COOLER	V42"	VENT LINE RUN OR CONNECTED ABOVE FLOOR BY 42"
FBO	FURNISHED BY OTHERS	VB	VACUUM BREAKER
FCO	FLOOR CLEANOUT	VTR	VENT THROUGH ROOF
FFA	FROM FLOOR ABOVE	W	WASTE
FFB	FROM FLOOR BELOW	WC	WATER CLOSET
GV	GATE VALVE	WCO	WALL CLEANOUT
HV	HOSE VALVE	WH	WALL HYDRANT
INV.	INVERT ELEVATION	WT	WATER THERMOMETER
LAV	LAVATORY	YCO	YARD CLEANOUT
OSD	OPEN SITE DRAIN		

PLUMBING SYMBOLS

NOTE: NOT ALL SYMBOLS SHOWN MAY BE REQUIRED FOR THIS PROJECT.

---	CW	---	COLD WATER SUPPLY
---	HW	---	HOT WATER SUPPLY
---	HWC	---	HOT WATER CIRCULATING
---	CPW	---	CITY PRESSURE COLD WATER
---	WM	---	WATER MAIN
---	SA	---	SUSPENDED SANITARY SEWER
---	ST	---	SUSPENDED STORM SEWER
---	SA	---	UNDERGROUND SANITARY SEWER
---	V	---	SUSPENDED VENT PIPING
---	PD	---	PUMPED DISCHARGE
---		---	LINE ARROW INDICATES DIRECTION OF FLOW
---	PITCH	---	PITCH OF PIPE (DOWN)
---		---	PIPE ELBOW (TURNED UP)
---		---	PIPE ELBOW (TURNED DOWN)
---		---	PIPE TEE DOWN (DROP)
---		---	PIPE TEE UP TO FLOOR ABOVE (RISE)
---		---	PIPE TEE UP OR ANGLE
---		---	PIPE TEE DOWN OR ANGLE
---		---	PIPE TEE HORIZONTAL
---		---	90° ELBOW IN HORIZONTAL PIPE RUN
---		---	ANGLE ELBOW IN HORIZONTAL PIPE RUN
---	NC	---	NEW CONNECTION
---	GV	---	GATE VALVE
---	CK	---	CHECK VALVE
---	BV	---	BALL VALVE
---	BF	---	BALANCING FITTING
---	CS	---	CIRCUIT BALANCING VALVE W/BALANCING PORTS
---	D	---	DRAIN VALVE WITH 3/4" HOSE THREADED OUTLET
---	EJ	---	PIPE EXPANSION JOINT
---		---	PIPE ANCHOR
---		---	PIPE FLEXIBLE CONNECTION
---	PG	---	PIPE ALIGNMENT GUIDE
---	PS	---	PIPE SLEEVE
---	UN	---	PIPE UNION
---	STR	---	STRAINER
---	PG	---	ECCENTRIC REDUCER OR INCREASER
---	WT	---	PRESSURE GAUGE AND NEEDLE VALVE
---		---	WATER THERMOMETER (WITH PIPE WELL)
---		---	THERMOMETER WELL
---	C	---	CLEANOUT IN SUSPENDED CEILING
---	ECO	---	FLOOR CLEANOUT
---	ED	---	FLOOR DRAIN (ROUND)
---	HV	---	HOSE VALVE
---	P-1	---	PLUMBING STACK No. RISER DIAGRAM DRAWING No.

GAS FIRED WATER HEATER (GWH) SCHEDULE

EQUIP. TAG	MANUFACTURER	MODEL	BTUH INPUT	RECOVERY CAPACITY	AIR INTAKE/ EXHAUST VENT DIAMETER	VOLTAGE REQUIREMENTS	GAS CONN.
GWH-1	AERCO	AM 500W	500,000	570 GPH @ 100°F Δ T	4"	15 AMP. (MAX.), 120V., 60 HZ, 1 PHASE	1"
GWH-2	AERCO	AM 500W	500,000	570 GPH @ 100°F Δ T	4"	15 AMP. (MAX.), 120V., 60 HZ, 1 PHASE	1"
GWH-3	AERCO	AM 500W	500,000	570 GPH @ 100°F Δ T	4"	15 AMP. (MAX.), 120V., 60 HZ, 1 PHASE	1"

- NOTES:
- ALL CAPACITIES LISTED ARE MINIMUM REQUIREMENTS.
 - CONTRACTOR TO SUBMIT MODIFIED PIPING DIAGRAMS IN THE EVENT THAT ONE OF THE OTHER MANUFACTURERS LISTED IN THE SPECIFICATIONS ARE UTILIZED IN LIEU OF MANUFACTURER LISTED ABOVE.
 - CONTRACTOR TO PROVIDE INTERCONNECTING WIRING FOR HEATERS AS SHOWN ON WIRING DIAGRAMS, IN ACCORDANCE WITH DIVISION-16 SPECIFICATIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND COMPENSATING OTHER TRADES FOR INCREASED FLUE, GAS, ELECTRICAL, ETC., REQUIREMENTS WHICH MAY OCCUR FROM UTILIZING OTHER ACCEPTABLE EQUIPMENT.
 - ALL UNITS SHALL BE MANUFACTURED FOR A MINIMUM 180 PSIG WORKING PRESSURE.
 - PROVIDE THE MANUFACTURERS AM INSTALLATION KIT, ONE KIT PER UNIT.
 - NO SUBSTITUTIONS.
 - PROVIDE THE MANUFACTURERS CONDENSATE NEUTRALIZATION KIT. ROUTE TO NEAREST FLOOR DRAIN, ENSURE AIR GAP PER CODE.

HOT WATER CIRCULATING PUMP (HCP) SCHEDULE

EQUIP. TAG	GPM	HEAD (FT.)	RPM	INLET SIZE (IN.)	MOTOR			BELL AND GOSSET MODEL	NOTES
					HP	PHASE	VOLT		
HCP-1	7	50	1,800	1-1/2"	0.75	1	120	INLINE CENTRIFUGAL SERIES E-60 ~ 1.5x7 6.500 AB 7 GPM @ 50 FT HEAD, 75 HP, 1800 RPM. ~ FOR POTABLE WATER ALL BRONZE ~ LEAD FREE	1,2,3,4,5,6,7,8,9

- NOTES:
- LEAD FREE.
 - ECM MOTOR.
 - PROPORTIONAL PRESSURE CONTROL.
 - AUTOMATIC NIGHT SETBACK.
 - COMMUNICATE W/ BAS (2 ANALOG INPUTS).
 - EXTERNAL TEMPERATURE SENSOR INPUT.
 - PROVIDE 3 SPEED PUMP MOUNTED SWITCH.
 - NO SUBSTITUTIONS.
 - COORDINATE WITH ELECTRICAL. VERIFY IN FIELD.

PLUMBING FIXTURE SCHEDULE

FIXTURE TAG	FIXTURE		TRIM		NOTES:
	MANUFACTURER	MODEL	MANUFACTURER	MODEL	
TMV	LAWLER	LEAD FREE MODEL 805 (PART # 86108-05)	-	-	LAWLER THERMOSTATIC WATER CONTROLLER MODEL 805 ~ HIGH / LOW WATER MIXER, PART NUMBER 86108-05. MASTER WATER MIXING CONTROL VALVE SHALL BE OF THE THERMOSTATIC TYPE WITH LIQUID-FILLED MOTOR. IT SHALL HAVE BRONZE BODY CONSTRUCTION WITH REPLACEABLE CORROSION-RESISTANT COMPONENTS. VALVE CONSTRUCTION SHALL EMPLOY SLIDING PISTON CONTROL MECHANISM. PISTON AND LINER SHALL BE OF STAINLESS STEEL MATERIAL. VALVE SHALL COME EQUIPPED WITH REMOVABLE UNION END STOP AND CHECK INLETS WITH STAINLESS STEEL STRAINERS. VALVE SHALL CONTROL TEMPERATURE FROM A LOW FLOW OF 5 GPM UP TO A MAXIMUM FLOW RATE FOR A GIVEN PRESSURE DIFFERENTIAL. VALVE SHALL PROVIDE PROTECTION AGAINST HOT OR COLD SUPPLY LINE FAILURE AND THERMOSTAT FAILURE. THIS UNIT IS ASSE 1017 APPROVED. ASSE LEAD FREE CERTIFIED. NO SUBSTITUTIONS.
NOTES: -					

DOMESTIC HOT WATER EXPANSION TANK (DXT) SCHEDULE

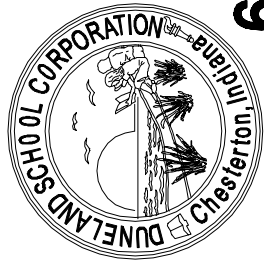
EQUIP. TAG	MANUFACTURER	MODEL	TANK VOLUME (GALS.)	MAXIMUM ACCEPT VOLUME (GALS.)	WORKING PRESSURE (PSIG.)	PRECHARGED PRESSURE (PSIG.)	H/D (IN.)	CONN. (IN.)
DXT-1	WESSELS, CO.	TTA SERIES TTA-80	35	23.5	150 ASME	40	45/16	1"



MEP3.01
PROJECT NO. 139-A-4
PROJECT MANAGER: YAG
DRAWN BY: OAS

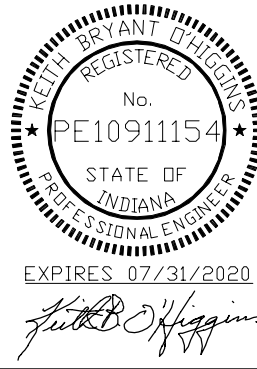


DUNELAND SCHOOL CORPORATION
2019 HOT WATER TANK UPGRADES AT:
CHESTERTON MIDDLE SCHOOL
651 W. MORGAN AVENUE CHESTERTON, INDIANA 46304

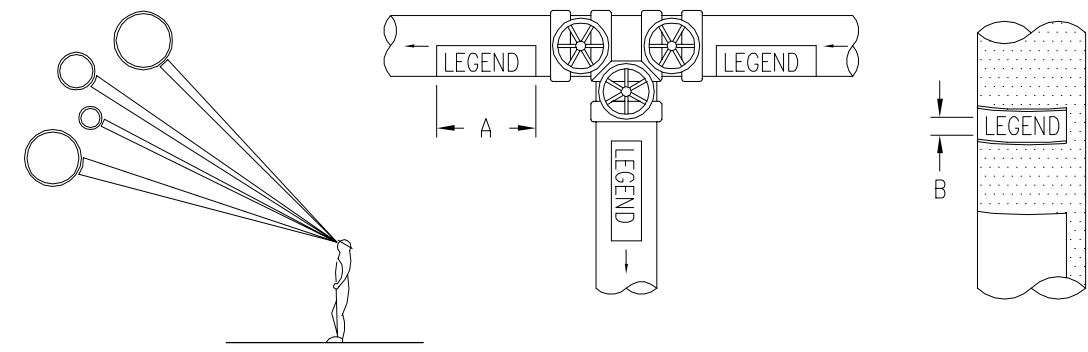


PROJECT NUMBER: 139-A-4
PROJECT MANAGER: YAG
DRAWN BY: OAS

SEAL FOR PROPOSAL 03/09/2020
ABBREVIATIONS, NOTES AND SYMBOLS -
PLUMBING



MEP3.01



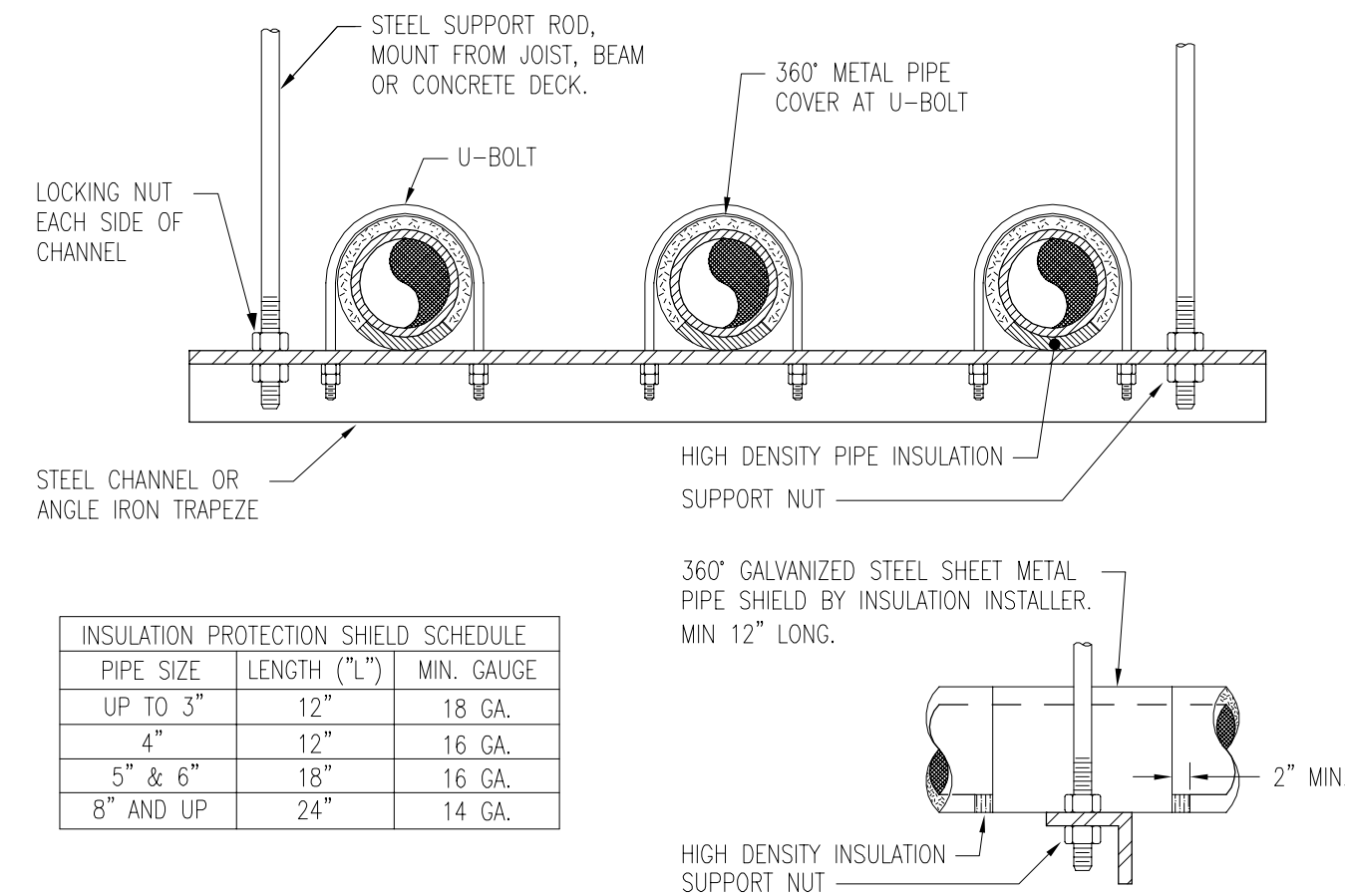
NOTE:
IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS AND AT ALL VALVES AND BRANCHES AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

SIZE OF LEGEND LETTERS		
OUTSIDE DIAMETER OF PIPE OR COVERING	LENGTH OF COLOR FIELD A	SIZE OF LETTERS B
3/4" TO 1-1/4"	8"	1/2"
1-1/2" TO 2"	8"	3/4"
2-1/2" TO 6"	12"	1-1/4"
8" TO 10"	24"	2-1/2"
OVER 10"	32"	3-1/2"

SERVICE	BACKGROUND OR COLOR BAND	IDENTIFICATION MARKER
CITY WATER	GREEN	WHITE ON GREEN
DOMESTIC COLD WATER	GREEN	WHITE ON GREEN
DOMESTIC HOT WATER	YELLOW	BLACK ON YELLOW
FIRE PROTECTION (SPRINKLER)	RED	WHITE ON RED
NATURAL GAS	YELLOW	BLACK ON YELLOW
SANITARY DRAIN	GREEN	WHITE ON GREEN
STORM WATER	GREEN	WHITE ON GREEN

1 TYPICAL PIPE IDENTIFICATION MARKERS

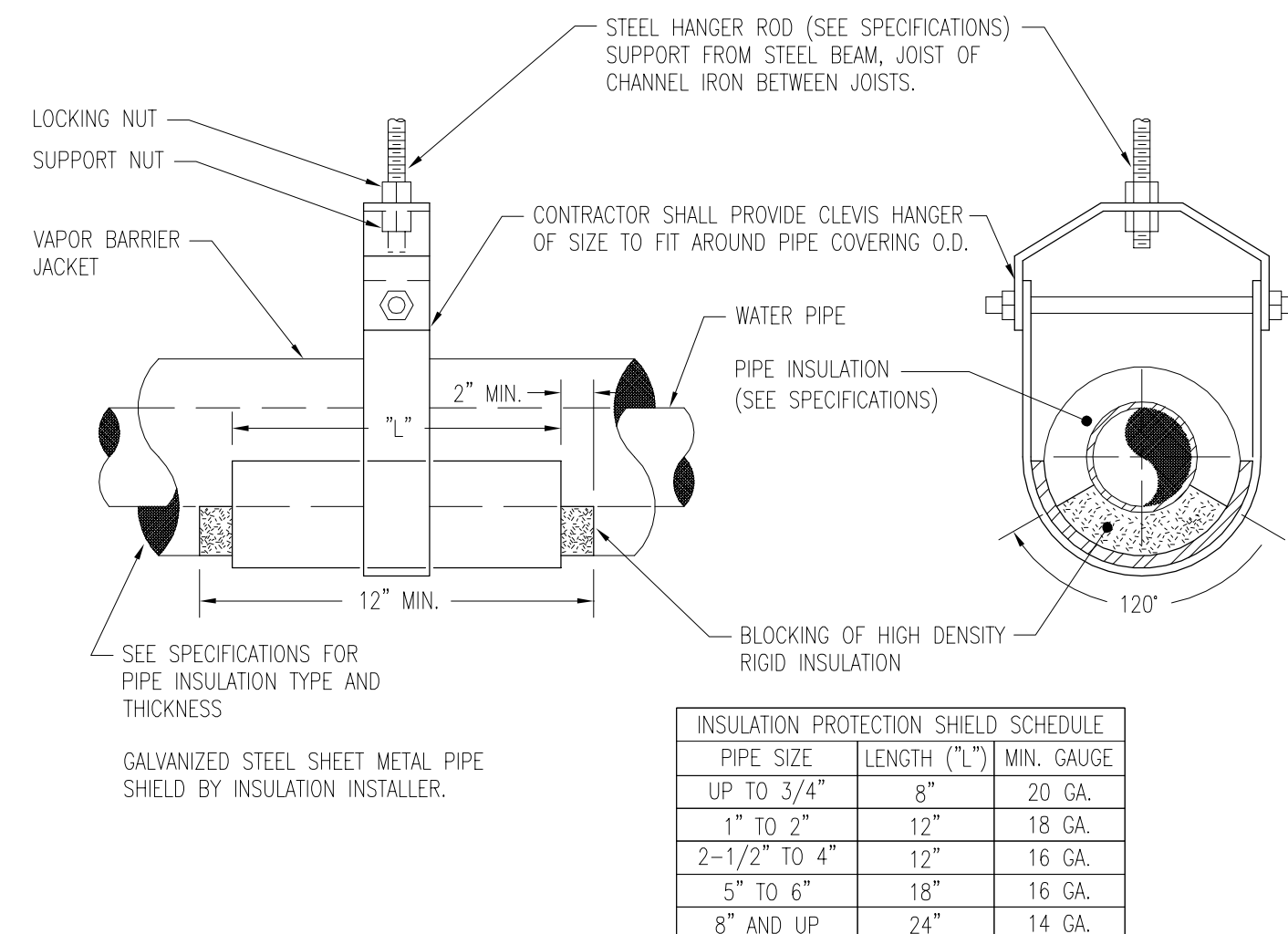
NO SCALE



INSULATION PROTECTION SHIELD SCHEDULE		
PIPE SIZE	LENGTH ("L")	MIN. GAUGE
UP TO 3"	12"	18 GA.
4"	12"	16 GA.
5" & 6"	18"	16 GA.
8" AND UP	24"	14 GA.

2 PIPE COVERING PROTECTION SHIELDS AND TRAPEZE HANGER DETAIL

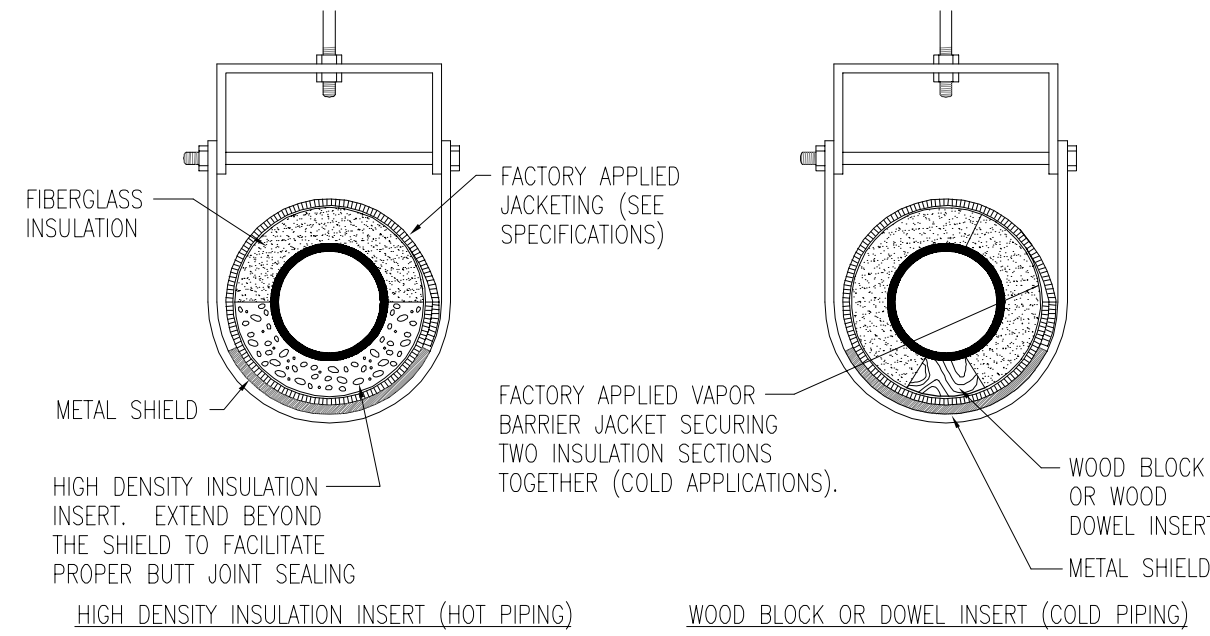
NO SCALE



INSULATION PROTECTION SHIELD SCHEDULE		
PIPE SIZE	LENGTH ("L")	MIN. GAUGE
UP TO 3/4"	8"	20 GA.
1" TO 2"	12"	18 GA.
2-1/2" TO 4"	12"	16 GA.
5" TO 6"	18"	16 GA.
8" AND UP	24"	14 GA.

3 PIPE COVERING PROTECTION SHIELDS AND CLEVIS HANGER DETAIL

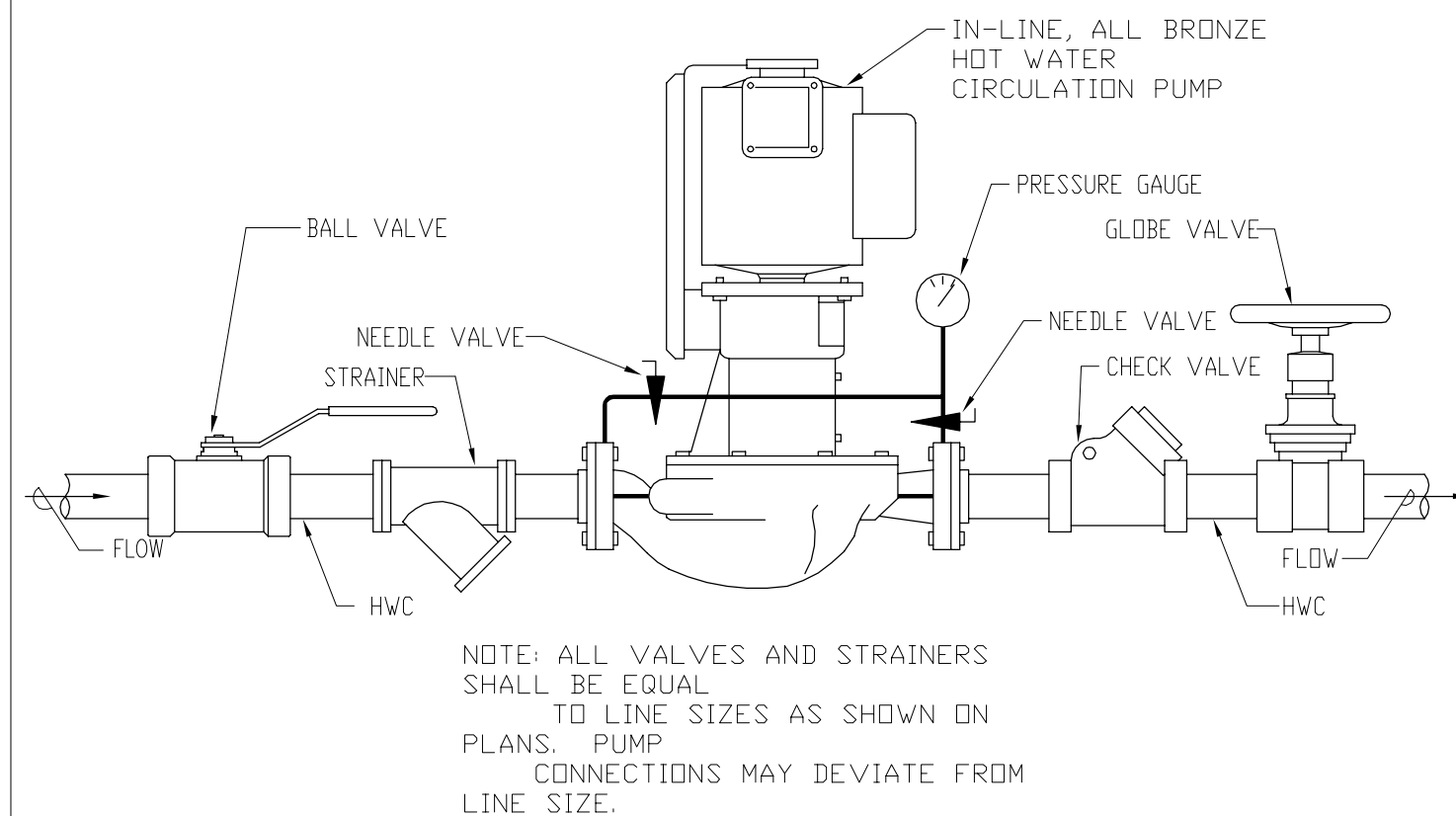
NO SCALE



4 CLEVIS HANGER HIGH DENSITY INSERT DETAIL

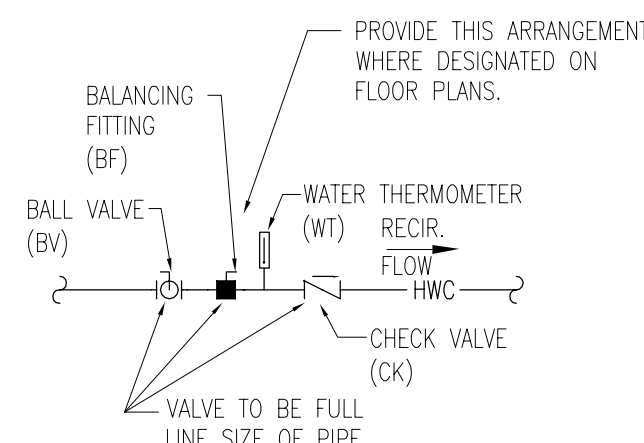
NO SCALE

NOTE:
NO HORIZONTAL PIPE HANGERS TO BE SPACED FURTHER THAN 10'-0" APART.



5 DOMESTIC HOT WATER CIRCULATING PUMP DETAIL

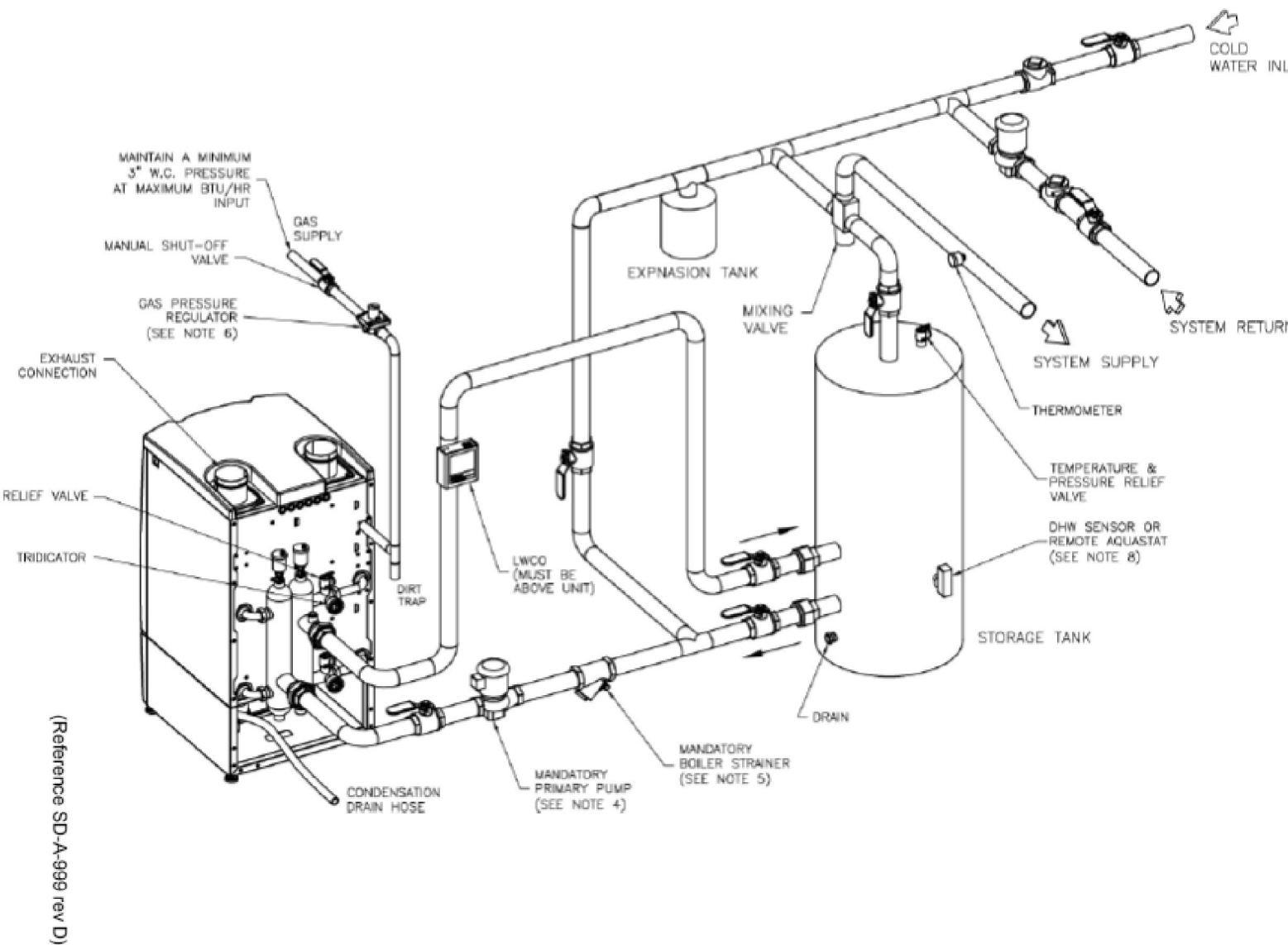
NO SCALE



6 HOT WATER RECIRCULATING BALANCING TRIM DETAIL

NO SCALE

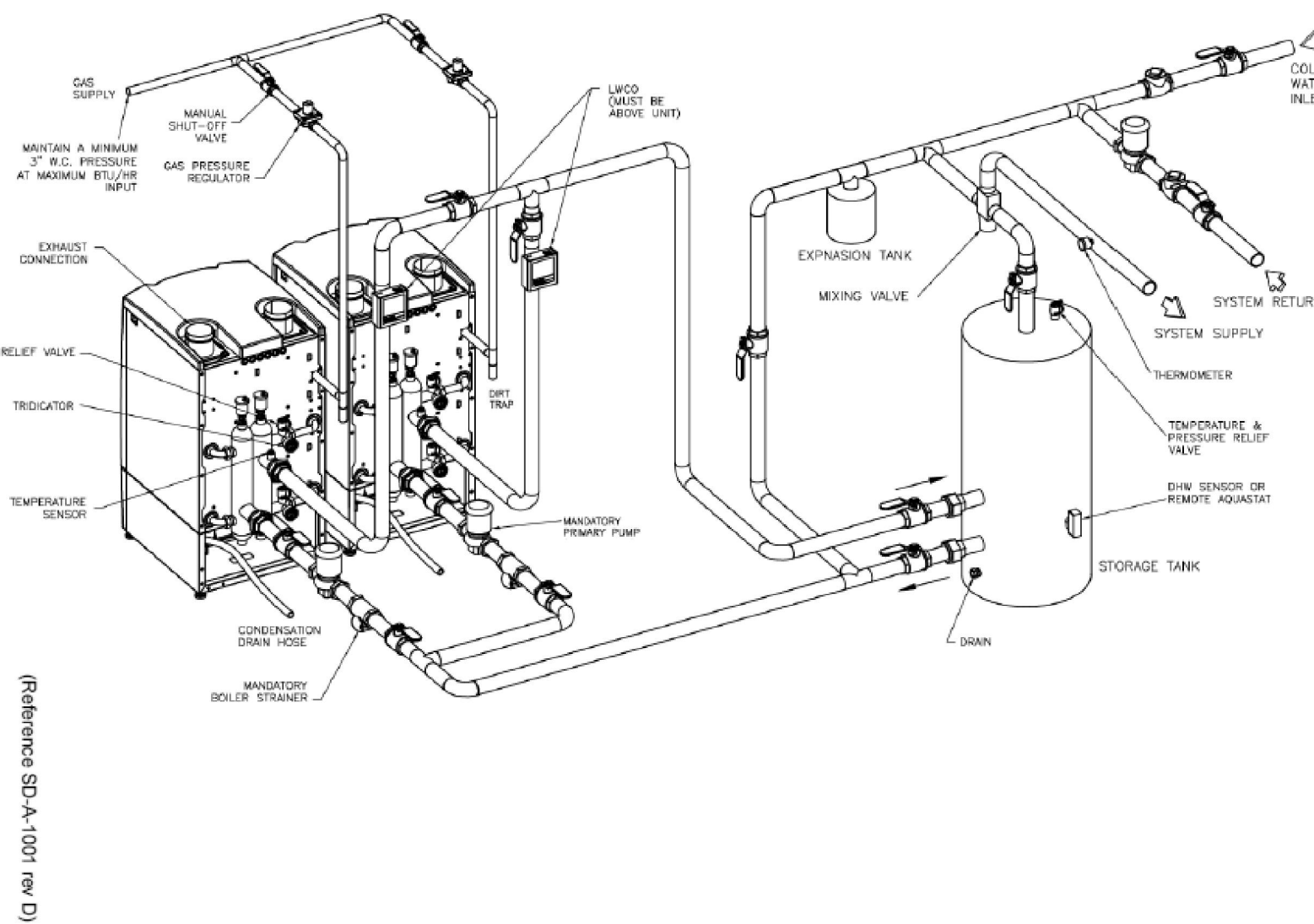
Figure 11: AM Series 399/500 Single Unit Installation with DHW installed



7 TYPICAL PIPING DIAGRAM - SINGLE HOT WATER HEATER UNIT

NO SCALE

Figure 13: AM Series 399/500 Multiple Unit Installation with DHW installed

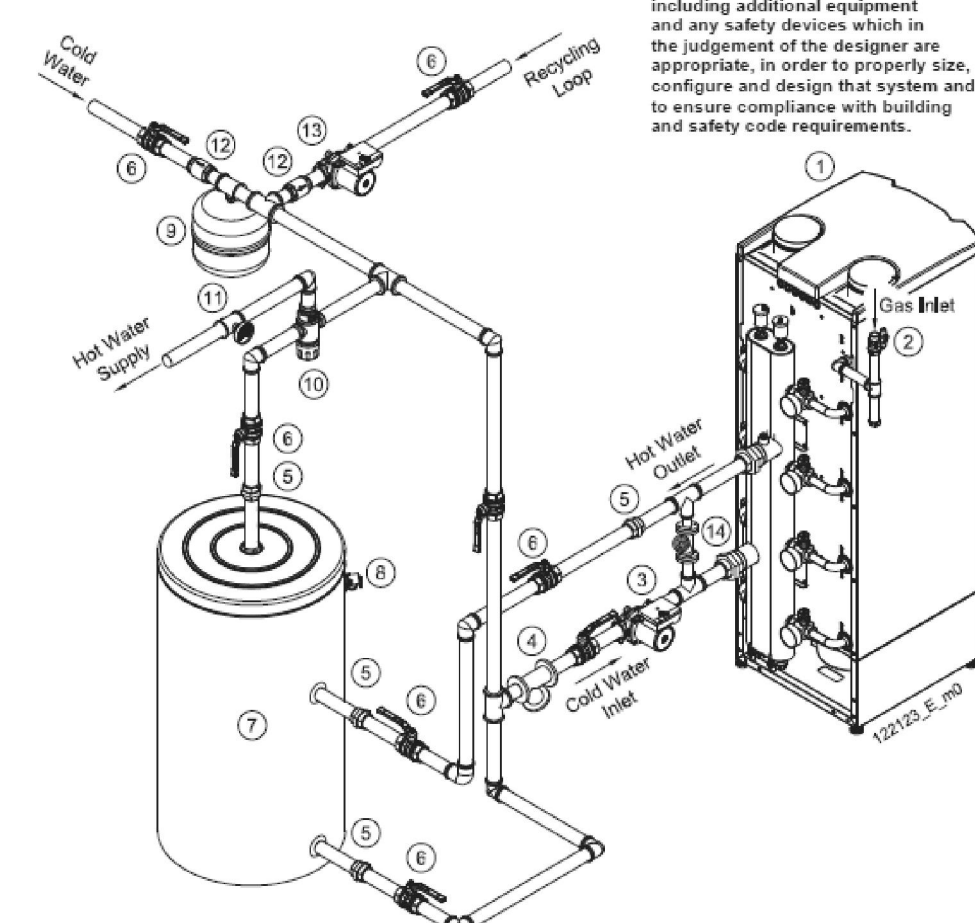


8 TYPICAL PIPING DIAGRAM - SINGLE HOT WATER HEATER UNIT

NO SCALE

8 - INSTALLATION - AM - W water connections

CAUTION: This is a concept drawing only. It is up to the system designer to determine the necessary components, including additional equipment and any safety devices which in the judgement of the designer are appropriate, in order to properly size, configure and design that system and to ensure compliance with building and safety code requirements.



- 1 = Water heater
- 2 = Manual gas shut-off valve (install manual gas shut-off valve 5 ft (1.5m) above floor)
- 3 = Storage tank Pump (Local pump)
- 4 = Filter
- 5 = Union
- 6 = Ball valve
- 7 = Storage tank
- 8 = Storage tank T-P relief valve
- 9 = Expansion tank
- 10 = Mixing valve
- 11 = Temperature gauge
- 12 = Check valve
- 13 = Recycling pump (if needed)
- 14 = Balancing valve (mandatory if heater is equipped with motorized valve, item 17 Fig. 3-1)

Figure 8.4 Piping of an AM - W water heater

9 TYPICAL PIPING DIAGRAM - AM-W WATER HEATER

NO SCALE