

VENTILATION CALCULATION						
ROOM	SQ. FT.	CFM/SQ. FT.*	CFM/PERS.*	PPL/1,000 SQ. FT.*	# PEOPLE*	CFM OSA
MEN'S PRAYER	2461	0.06	5	120	296	1628
UTILITY	63	0.12	-	-	-	8
STORAGE	186	0.12	-	-	-	23
MEN'S RR	107	-	-	-	-	0
PANTRY	760	0.06	-	-	-	46
WOMEN'S RR	29	-	-	-	-	0
WOMEN'S PRAYER	327	0.06	5	120	39	215
OFFICE	328	0.06	5	5	2	30

*VALUE BASED UPON 2009 INTERNATIONAL MECHANICAL CODE

SHEET NOTES:

- 1 REMOVE AND REPLACE EXISTING CONSTANT VOLUME ROOFTOP UNIT WITH EQUIVLENT NEW GAS HEAT/DX COOLING UNIT WITH THE FOLLOWING PERFORMANCE LISTED BELOW. PROVIDE NEW GAS SHUT-OFF VALVE, 6" LONG DIRT LEG AND ANY NECESSARY DUCT TRANSITIONS, ROOF CURB, OR CURB ADAPTER AS NEEDED. PLACEMENT OF THERMOSTAT IS BY ARCHITECT. PROVIDE GRAVITY OUTDOOR AIR DAMPER TO CLOSE WHEN UNIT IS OFF.
1,990 TOTAL CFM
486 CFM FIXED OUTSIDE AIR
4 TONS NOMINAL COOLING - MINIMUM 13.0 SEER
80 MBH HEATING OUTPUT CAPACITY - 80% MINIMUM EFFICIENCY
5HP OR LESS
208/230V 1PH POWER
- 2 EXISTING UNITS ARE ASSUMED TO BE SERVICEABLE CONDITION. RE-BALANCE OUTDOOR AIR TO PROVIDE A MINIMUM OF 486 CFM.
- 3 PROVIDE 1/2" UNDERCUT ON DOOR TO ALLOW TRANSFER AIR FOR EXISTIN EXHAUST FAN(S).
- 4 PROVIDE NEW PROGRAMMABLE THERMOSTATS FOR ALL (4) UNITS. MOUNT WHERE INDICATED AT 4'-6" AFF, UNLESS DIRECTED OTHERWISE BY THE ARCHITECT.

ACCEPTABLE MANUFACTURERS:

TRANE
CARRIER
MC QUAY
AACN
OTHERS UPON PRE-APPROVAL

GENERAL NOTES:

1. CONTRACTOR TO INSPECT SUPPLY AND RETURN DUCTWORK IN CEILING PLENUM FOR GENERAL DEFICIENCIES AND PROVIDE COST ESTIMATE FOR REPAIRS.
2. UNLESS OTHERWISE NOTED, ALL DUCT MAINS AND BRANCES, ELECTRICAL DISTRIBUTION, AND GAS PIPING IS TO REMAIN AS-IS.
3. RELOCATE SUPPLY DIFFUSER(S), SD-1, TO LOCATIONS SHOWN, PROVIDE ANY NECESSARY DUCTWORK, AND BALANCE DIFFUSER FLOW TO VALUES INDICATED. IF NO DIFFUSER IS AVAILABLE, PROVIDE PRICE MODEL SCD THE FOLLOWING NECK SIZES:
AIR FLOW (CFM)NECK SIZE (IN.)
0-250 6
250-400 8
400-600 10
4. RELOCATE RETRUN GRILLE(S), RG-1, TO LOCATIONS SHOWN AND PROVIDE ANY NECESSARY DUCTWORK. IF NO GRILLE IS AVAILABLE, PROVIDE PRICE MODEL FDDR WITH 12"X12" NECK.
5. EXISTING RESTROOM EXHUST FANS IN WOMEN'S RESTROOM AND MEN'S RESTROOM ARE TO REMAIN UNCHANGED.



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Colorado Islamic
Society

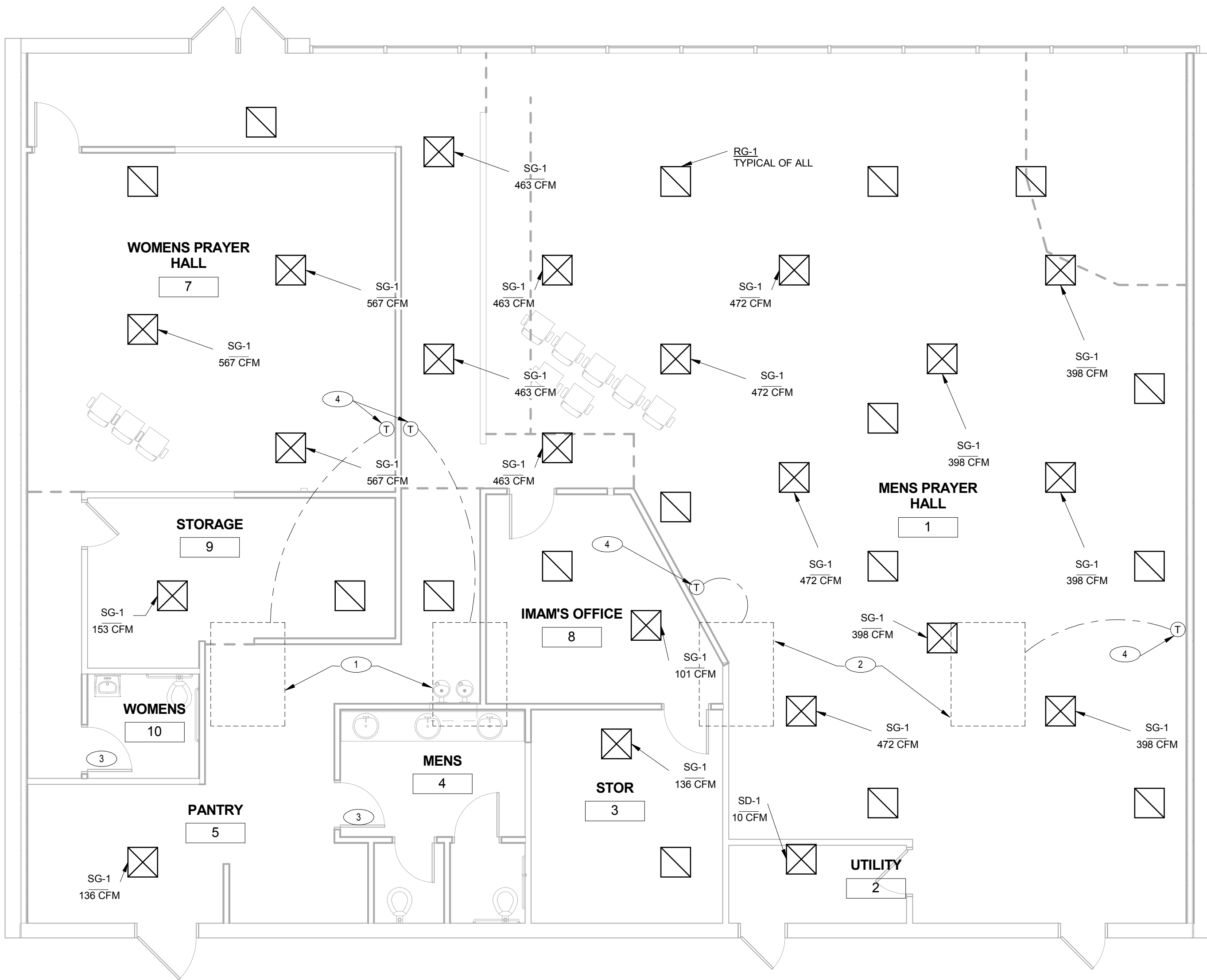
16786 East Illif Avenue
Aurora, Colorado 80013

Owner:
Colorado Islamic Society

16786 East Illif Avenue
Aurora, Colorado 80013
Phone: XXX.XXX.XXXX
Fax : XXX.XXX.XXXX

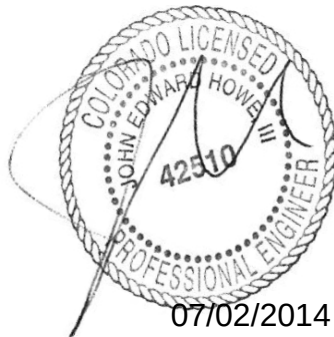
GENERAL MECHANICAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES, LOCAL CODES, AND OWNER'S STANDARDS INDICATED BY THE CONSTRUCTION DOCUMENTS.
2. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
3. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
4. PROVIDE ALL EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS INCLUDING ANY REQUIRED BUT NOT LISTED MISC ITEMS REQUIRED TO PROVIDE COMPLETE OPERATIONAL SYSTEMS AS INDICATED WHETHER SPECIFICALLY CALLED FOR OR NOT. INSTALLATION SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS FOR ALL PROPOSED EQUIPMENT AND MATERIALS TO BE UTILIZED. PROVIDE OPERATION AND MAINTENANCE MANUAL FOR ALL SYSTEMS AND EQUIPMENT AT END OF PROJECT.
5. ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS AND ELECTRICAL CONTRACTOR PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
6. DRAIN PIPING FROM EQUIPMENT SHALL BE ROUTED SO AS NOT TO CREATE A TRIPPING HAZARD. COORDINATE ACTUAL DRAIN CONNECTIONS WITH PLUMBING CONTRACTOR.
7. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE.
8. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS WITH CHAIN. IDENTIFICATION BANDS SHALL BE LOCATED EVERY 25 FEET AND ON EITHER SIDE OF INTERMEDIATE BARRIER.
9. PROVIDE 18" X 18" MINIMUM ACCESS DOOR IN INACCESSIBLE CEILINGS AND WALLS FOR EQUIPMENT AND VALVES REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
10. VALVES SHALL BE LOCATED WITHIN EASY REACH OF CEILING WHERE CEILINGS OCCUR & DROPPED TO WITHIN A MAXIMUM 10'-0" ABOVE FINISHED FLOOR WHERE NO CEILING OCCURS.
7. DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS. DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS, BRANCH RUNOUT DUCTS TO DIFFUSERS AND GRILLES TO BE SAME SIZE AS DIFFUSER OR GRILLE CONNECTION SIZE UNLESS OTHERWISE NOTED.
8. LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAX. HORIZONTAL RUN WITH ONLY ONE 90° ELBOW PERMITTED. SECURE FLEXIBLE DUCTWORK WITH SCREWS & DRAWBANDS PER SMACNA STANDARDS.
9. PROVIDE CEILING OPERATORS FOR INACCESSIBLE MVD'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE GEAR OPERATED, WITH CEILING ESCUTCHEON.
10. DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE WHERE INDICATED ON DRAWINGS.
11. CEILING DIFFUSERS SHALL BE 36" MINIMUM FROM CEILING MOUNTED SMOKE DETECTORS, COORDINATE WITH DIVISION 16.
12. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES, DIFFUSERS, AND ACCESS DOORS IN CEILING. SECURE DIFFUSERS & GRILLES TO T-BAR CEILINGS WHERE APPLICABLE. SUBMIT SHOP DWG. FOR APPROVAL PRIOR TO BEGINNING WORK.
13. DUCTWORK VISIBLE BEHIND DIFFUSERS, REGISTERS, OR GRILLES SHALL BE PAINTED FLAT BLACK.
14. AT THE COMPLETION OF WORK, PROVIDE TESTING AND BALANCING SERVICES FOR MECHANICAL SYSTEM. SUBMIT WRITTEN REPORT TO ARCHITECT LISTING SYSTEM AIRFLOWS, ELECTRIC DATA, TEMPERATURES, AND PRESSURE DROPS.
15. WHERE PIPES PASS THROUGH FIRE-RATED FLOOR OR WALLS, SEAL WITH MATERIALS EQUAL TO 3M FIRE BARRIER, MEETING TESTING PER ASTM-E-814 (UL 1479). USE CAULK OR PUTTY TYPE. ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
16. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE, ALL PARTS OF THE WORK INSTALLED UNDER THIS SPECIFICATION SHALL BE THOROUGHLY CLEANED.
17. ALL EQUIPMENT, MATERIALS, AND INSTALLATION IS TO BE WARRANTED FOR ONE YEAR TO BE FREE FROM DEFECT. PROVIDE WRITTEN WARRANTY TO OWNER.
18. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM HIS WORK.
19. THIS CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ETC., PRIOR TO STARTING OF CONSTRUCTION. COORDINATE CONFLICTS WITH THE GENERAL CONTRACTOR.
20. THIS CONTRACTOR SHALL COORDINATE ALL REQUIRED EXISTING BUILDING SERVICE SYSTEM OUTGAGES WITH BUILDING MANAGEMENT.
21. ALL MECHANICAL SYSTEMS ARE REQUIRED TO BE INSTALLED PER BASE BUILDING REQUIREMENTS, LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
22. PATCH AND REPAIR TO MATCH EXISTING, ANY WALL/CEILINGS TO BE ACCESSED TO ROUTE PIPING AND DUCTWORK.
23. EXISTING DUCTWORK, PIPING, AND EQUIPMENT TO REMAIN IS SHOWN LIGHT. NEW DUCTWORK, PIPING, AND EQUIPMENT IS SHOWN HEAVY. EXISTING DUCTWORK, PIPING, AND EQUIPMENT TO BE REMOVED IS SHOWN CROSSHATCHED.



1 Mechanical - New
3/16" = 1'-0"

Seal:



Key Plan:

Project Number 14.0087
Date 30 JUN 2014

Mechanical Plans

M-1.0



COMcheck Software Version 3.9.3
Mechanical Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **Alteration**
Project Title : Colorado Islamic Society
Construction Site: 16786 E. Illiff Ave.
Aurora, CO 80013
Owner/Agent: Colorado Islamic Society
16786 E. Illiff Ave.
Aurora, CO 80013
Designer/Contractor: JCAA Consulting Engineers
4100 Wadsworth Blvd.
Wheat Ridge, CO 80033
303-985-3260

Section 2: General Information

Building Location (for weather data): **Aurora, Colorado**
Climate Zone: **5b**

Section 3: Mechanical Systems List

Quantity	System Type & Description
2	HVAC System 1 (Single Zone w/ Perimeter System) : Heating: 1 each - Duct Furnace, Gas, Capacity = 80 kBtu/h Proposed Efficiency = 80.00% Ec, Required Efficiency = 80.00% Ec Cooling: 1 each - Single Package DX Unit, Capacity = 48 kBtu/h, Air-Cooled Condenser Proposed Efficiency = 13.00 SEER, Required Efficiency = 13.00 SEER Fan System: RTU Religious Worship -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 1990 CFM, 5.0 motor nameplate hp

Section 4: Requirements Checklist

- Requirements Specific To: HVAC System 1 :**
- ☒ 1. Equipment minimum efficiency: Duct Furnace (Gas): 80.00 % Ec
 - ☒ 2. Equipment minimum efficiency: Single Package Unit: 13.00 SEER
- Generic Requirements: Must be met by all systems to which the requirement is applicable:**
- ☒ 1. Plant equipment and system capacity no greater than needed to meet loads
Exception(s):
 - ☐ Standby equipment automatically off when primary system is operating
 - ☐ Multiple units controlled to sequence operation as a function of load
 - ☒ 2. Minimum one temperature control device per system
 - ☒ 3. Minimum one humidity control device per installed humidification/dehumidification system
 - ☒ 4. Load calculations per ASHRAE/ACCA Standard 183.
 - ☒ 5. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
Exception(s):
 - ☐ Continuously operating zones
 - ☒ 6. Outside air source for ventilation, system capable of reducing OSA to required minimum
 - ☒ 7. R-5 supply and return air duct insulation in unconditioned spaces
R-8 supply and return air duct insulation outside the building
R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
Exception(s):

Project Title: Colorado Islamic Society
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- ☒ Ducts located within equipment
- ☐ Ducts with interior and exterior temperature difference not exceeding 15°F.
- ☒ 8. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- ☒ 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- ☒ 10. Hot water pipe insulation: 1.5 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in.
Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in.
Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
Exception(s):
 - ☐ Piping within HVAC equipment.
 - ☐ Fluid temperatures between 55 and 105°F.
 - ☐ Fluid not heated or cooled with renewable energy.
 - ☐ Piping within room fan-coil (with AHRI440 rating) and unit ventilators (with AHRI840 rating).
 - ☐ Runouts <4 ft in length.
- ☒ 11. Operation and maintenance manual provided to building owner
- ☒ 12. Thermostatic controls have 5°F deadband
Exception(s):
 - ☒ Thermostats requiring manual changeover between heating and cooling
 - ☐ Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
- ☒ 13. Balancing devices provided in accordance with IMC 603.17
- ☒ 14. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.
Exception(s):
 - ☐ Systems with heat recovery.
 - ☐ Multiple-zone systems without DDC of individual zones communicating with a central control panel.
 - ☒ Systems with a design outdoor airflow less than 1200 cfm.
 - ☐ Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.
- ☒ 15. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings
Exception(s):
 - ☒ Gravity dampers acceptable in buildings <3 stories
- ☒ 16. Automatic controls for freeze protection systems present
- ☒ 17. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted
Exception(s):
 - ☐ Hazardous exhaust systems, commercial kitchen and clothes dryer exhaust systems that the International Mechanical Code prohibits the use of energy recovery systems.
 - ☐ Systems serving spaces that are heated and not cooled to less than 60°F.
 - ☐ Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
 - ☐ Heating systems in climates with less than 3600 HDD.
 - ☐ Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64°F.
 - ☐ Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
 - ☐ Laboratory fume hood exhaust systems that have either a variable air volume system capable of reducing exhaust and makeup air volume to 50 percent or less of design values or, a separate make up air supply meeting the following makeup air requirements:
 - a) at least 75 percent of exhaust flow rate, b) heated to no more than 2°F below room setpoint temperature, c) cooled to no lower than 3°F above room setpoint temperature, d) no humidification added, e) no simultaneous heating and cooling.

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical alteration project has been designed to meet the 2009 IECC, Chapter 8, requirements in COMcheck Version 3.9.3 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title Signature Date

Section 6: Post Construction Compliance Statement

Project Title: Colorado Islamic Society
Data filename: P:\JCAA 2014\14.0087_COLORADO ISLAMIC CENTER\DOCUMENTS\COMCHECK\COLORADO ISLAMIC SOCIETY - 07-01-2014.cck
Report date: 07/02/14
Page 2 of 3

- ☐ HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
 - ☐ HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
 - ☐ Written HVAC balancing and operations report provided to the owner.
- The above post construction requirements have been completed.

Principal Mechanical Designer-Name Signature Date



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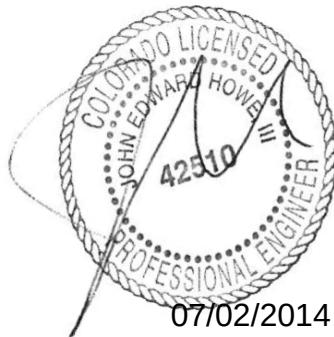
Colorado Islamic
Society

16786 East Illiff Avenue
Aurora, Colorado 80013

Owner:
Colorado Islamic Society

16786 East Illiff Avenue
Aurora, Colorado 80013
Phone: XXX.XXX.XXXX
Fax : XXX.XXX.XXXX

Seal:



Key Plan:

Project Number 14.0087
Date 30 JUN 2014

Mechanical ComCHECK

M-1.1



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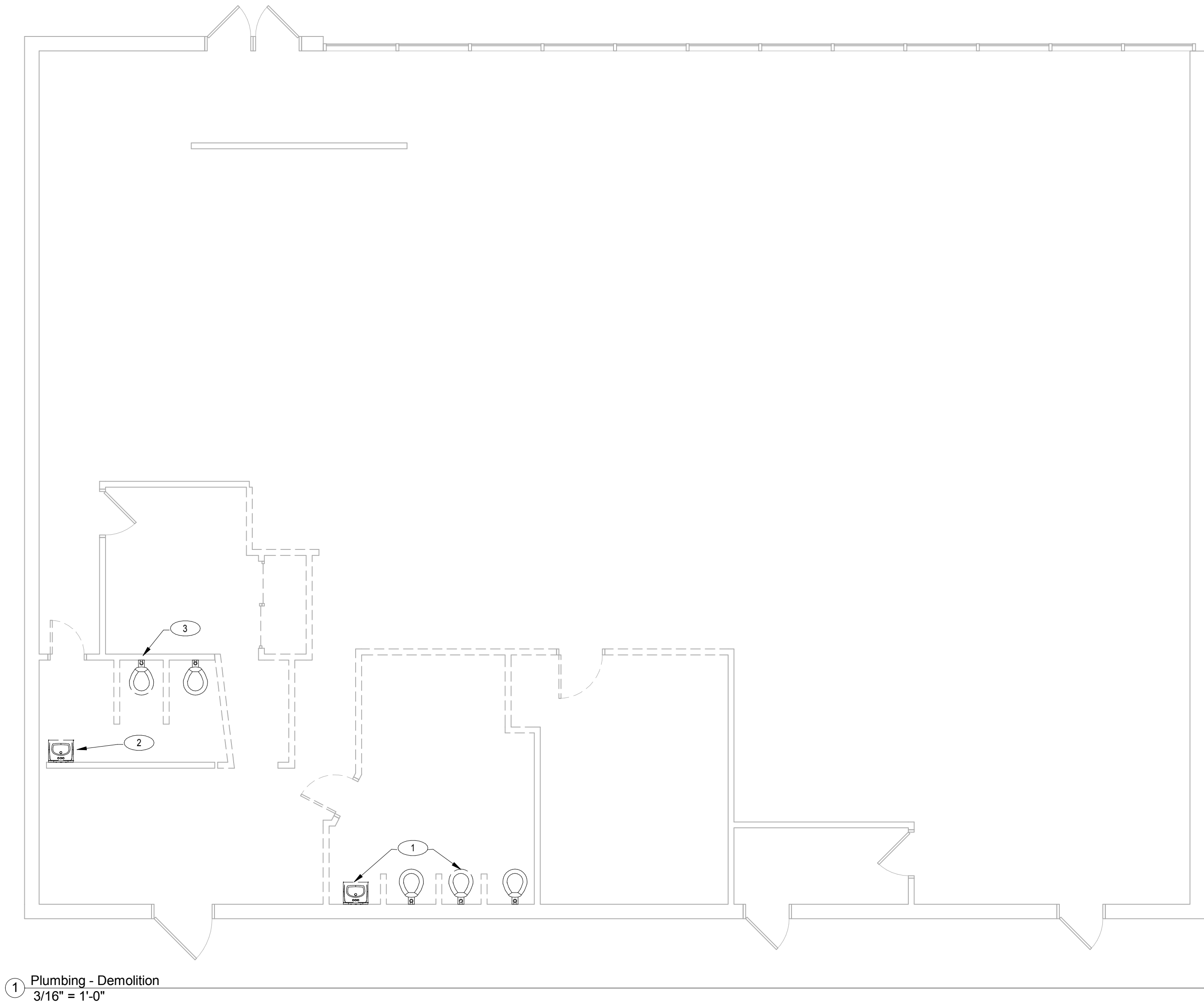
16786 East Illiff Avenue
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Phone: XXX.XXX.XXXX
Fax : XXX.XXX.XXXX

SHEET NOTES:

- 1 REMOVE INDICATED FIXTURE. CAP WASTE AND VENT AT WALL. DEMO COLD AND HOT WATER BACK TO MAIN DISTRIBUTION LINE. VALVE AND CAP FOR FUTURE USE. PATCH ALL WALLS AND CEILINGS AS NECESSARY TO PROVIDE A CONSISTENT FINISH WITH THE SURROUNDING AREA.
- 2 REMOVE LAVATORY AND SALVAGE FOR RE-USE. CAP WASTE AND VENT AT WALL. DEMO COLD AND HOT WATER BACK TO MAIN DISTRIBUTION LINE. VALVE AND CAP FOR FUTURE USE. PATCH ALL WALLS AND CEILINGS AS NECESSARY TO PROVIDE A CONSISTENT FINISH WITH THE SURROUNDING AREA.
- 3 REMOVE WATER CLOSET AND PREPARE WASTE, VENT, AND COLD WATER LINES FOR INSTALLATION OF SALVAGED LAVATORY. SEE P-1.1.

GENERAL NOTES:

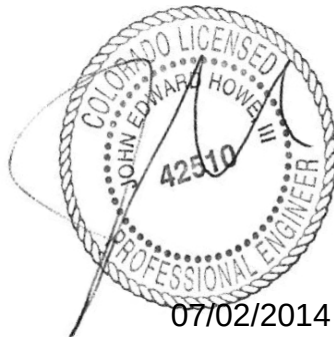
- 1. FIXTURES REMOVED: (2) WATER CLOSETS, (1) LAVATORY
- 2. FIXTURES SALVAGED FOR RE-USE: (1) LAVATORY



GENERAL PLUMBING NOTES

- 1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES, LOCAL CODES, AND OWNER'S STANDARDS INDICATED BY THE CONSTRUCTION DOCUMENTS.
- 2. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
- 3. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, CIVIL, AND ARCHITECTURAL DIVISIONS. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. COORDINATE WITH OTHER TRADES AND MAKE FINAL CONNECTION. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR PLUMBING SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF PLUMBING SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
- 4. PROVIDE ALL EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS INCLUDING ANY REQUIRED BUT NOT LISTED MISC ITEMS REQUIRED TO PROVIDE COMPLETE OPERATIONAL SYSTEMS AS INDICATED WHETHER SPECIFICALLY CALLED FOR OR NOT. INSTALLATION SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS FOR ALL PROPOSED FIXTURES, EQUIPMENT AND MATERIALS TO BE UTILIZED. PROVIDE OPERATION AND MAINTENANCE MANUAL FOR ALL SYSTEMS AND EQUIPMENT AT END OF PROJECT.
- 5. ELECTRICAL CHARACTERISTICS OF PLUMBING EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS AND ELECTRICAL CONTRACTOR PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
- 6. DRAIN PIPING FROM EQUIPMENT SHALL BE ROUTED SO AS NOT TO CREATE A TRIPPING HAZARD.
- 7. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNER'S REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE.
- 8. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS WITH CHAIN. IDENTIFICATION BANDS SHALL BE LOCATED EVERY 25 FEET AND ON EITHER SIDE OF INTERMEDIATE BARRIER.
- 9. PROVIDE 18" X 18" MINIMUM ACCESS DOOR IN INACCESSIBLE CEILINGS AND WALLS FOR EQUIPMENT AND VALVES REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
- 10. VALVES SHALL BE LOCATED WITHIN EASY REACH OF CEILING WHERE CEILINGS OCCUR & DROPPED TO WITHIN A MAXIMUM 10'-0" ABOVE FINISHED FLOOR WHERE NO CEILING OCCURS.
- 11. PROVIDE CLEANOUTS WHERE INDICATED ON DRAWINGS OR AS REQUIRED BY JURISDICTIONAL PLUMBING CODE.
- 12. VTR'S SHALL BE 10'-0" MINIMUM FROM BUILDING AIR INTAKES AND OPENINGS INTO BUILDING. COORDINATE WITH MECHANICAL DRAWINGS AND CONTRACTOR.
- 13. ALL WORK UNDER THIS CONTRACT IS TO FIVE (5) FEET OUTSIDE THE BUILDING.
- 14. CLEAN, TEST, AND SANITIZE ALL PLUMBING IN ACCORDANCE WITH REQUIREMENTS OF JURISDICTIONAL PLUMBING AND HEALTH CODES.
- 15. WHERE PIPES PASS THROUGH FIRE-RATED FLOOR OR WALLS, SEAL WITH MATERIALS EQUAL TO 3M FIRE BARRIER, MEETING TESTING PER ASTM-E-614 (UL 1479). USE CAULK OR PUTTY TYPE. ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
- 16. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE, ALL PARTS OF THE WORK INSTALLED UNDER THIS SPECIFICATION SHALL BE THOROUGHLY CLEANED.
- 17. ALL EQUIPMENT, MATERIALS, AND INSTALLATION IS TO BE WARRANTED FOR ONE YEAR TO BE FREE FROM DEFECT. PROVIDE WRITTEN WARRANTY TO OWNER.
- 18. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM HIS WORK.
- 19. THIS CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ETC., PRIOR TO STARTING OF CONSTRUCTION. COORDINATE CONFLICTS WITH THE GENERAL CONTRACTOR.
- 20. THIS CONTRACTOR SHALL COORDINATE ALL REQUIRED EXISTING BUILDING SERVICE SYSTEM OUTAGES WITH BUILDING MANAGEMENT.
- 21. ALL PLUMBING SYSTEMS ARE REQUIRED TO BE INSTALLED PER BASE BUILDING REQUIREMENTS, LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- 22. SAWCUT/CORE DRILL EXISTING FLOOR AS REQUIRED FOR INSTALLATION OR CAPPING OF WASTE AND VENT PIPING. PATCH AND REPAIR TO MATCH EXISTING.
- 23. PATCH AND REPAIR TO MATCH EXISTING, ANY WALL/CEILINGS TO BE ACCESSED TO ROUTE PIPING.
- 24. EXISTING PLUMBING AND EQUIPMENT TO REMAIN IS SHOWN LIGHT. NEW PLUMBING AND EQUIPMENT IS SHOWN HEAVY. EXISTING PLUMBING AND EQUIPMENT TO BE REMOVED IS SHOWN CROSSHATCHED.

Seal:



Key Plan:

Project Number 14.0087
Date 30 JUN 2014

Plumbing - Demolition

P-1.0



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Owner:
Colorado Islamic Society

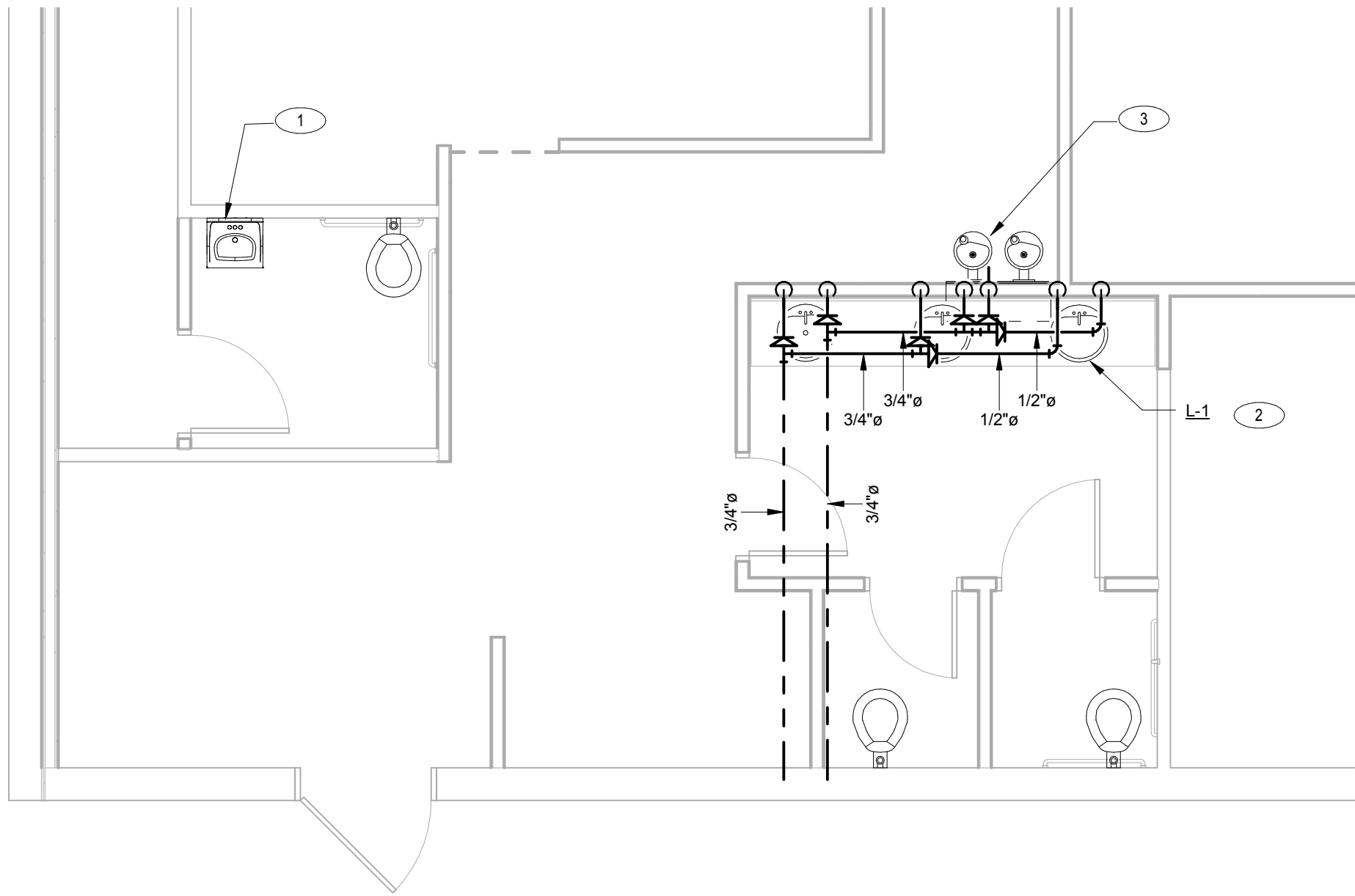
16786 East Illiff Avenue
Aurora, Colorado 80013
Phone: XXX.XXX.XXXX
Fax : XXX.XXX.XXXX

SHEET NOTES:

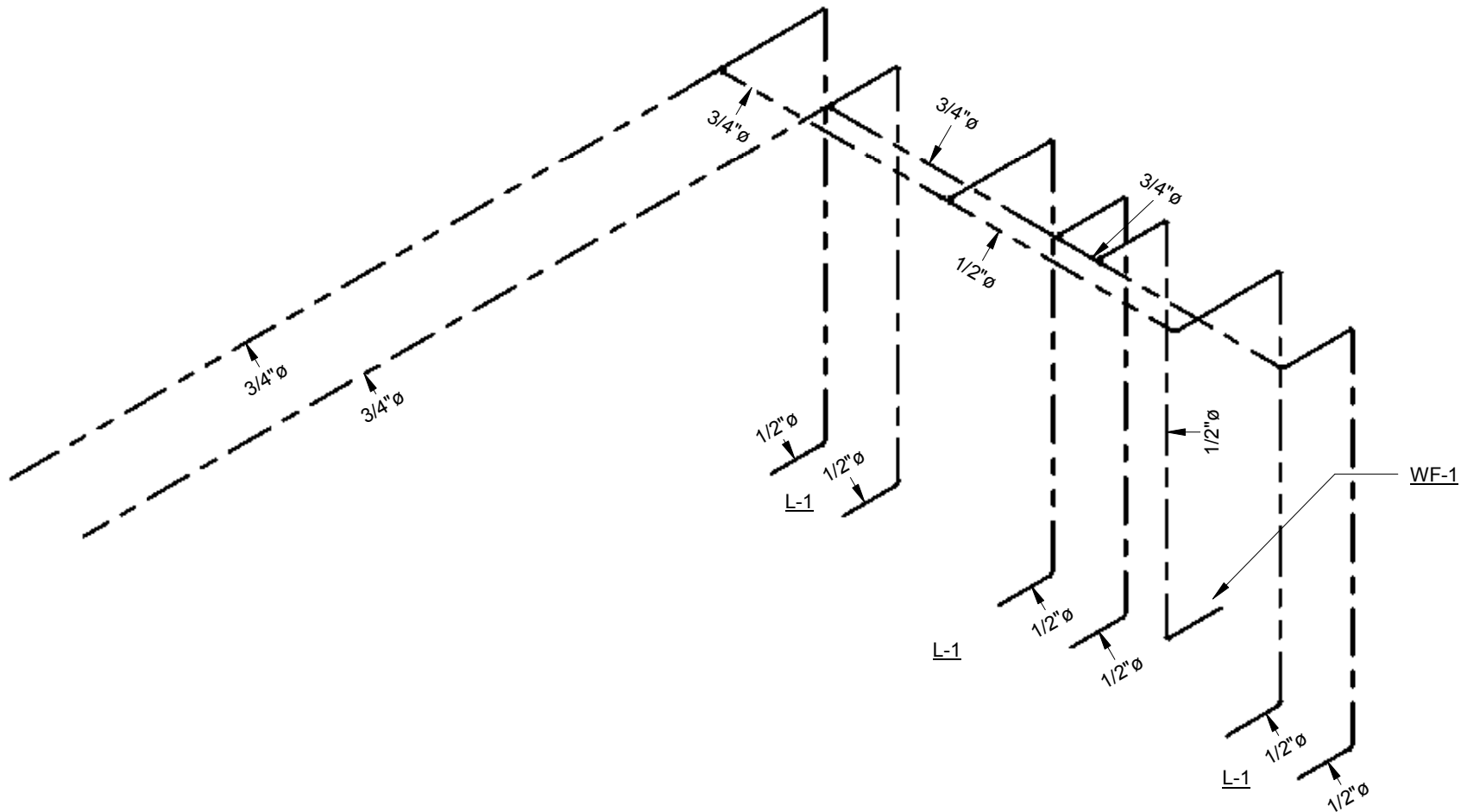
1. SALVAGED LAVATORY. PROVIDE ANY NEW ACCESSORIES NEEDED TO ENSURE LAVATORY IS FUNCTIONAL AND SERVICEABLE. CONNECT NEW 2" WASTE, 2" VENT, AND 1/2" COLD WATER TO EXISTING WASTE, VENT AND COLD WATER AT THIS LOCATION, PROVIDING ANY NECESSARY OFFSETS AND/OR TRANSITIONS. EXTEND HOT WATER IN CEILING FROM PREVIOUS LOCATION TO NEW LOCATION, MAINTAINING PIPE SIZE.
2. ABOVE COUNTER MOUNTED LAVATORIE, L-2, WITH ADA ACCEPTABLE FAUCETS AND UNDER-COUNTER SAFETY COVERS. SEE ARCHITECTURAL DOCUMENTS FOR COMPLETE SPECIFICATIONS. TYPICAL OF 3. 1/2" COLD WATER, 1/2" HOT WATER, 2" WASTE IN WALL. PROVIDE ANY REQUIRED OFFSETS IN WALL. SLOPE ALL WASTE PIPE AT A MINIMUM OF 1/8" PER FOOT.
3. DUAL HEIGHT WATER FOUNTAIN. SEE ARCHITECTURAL DOCUMENTS FOR COMPLETE SPECIFICATIONS. 1/2" COLD WATER AND 2" WASTE IN WALL. PROVIDE ANY REQUIRED OFFSETS IN WALL.
4. 2" BRANCH VENT AND 2" WASTE CONNECTED FROM CENTER LAVATORY TO NEAREST VENT AND WASTE 2" OR LARGER.

GENERAL NOTES:

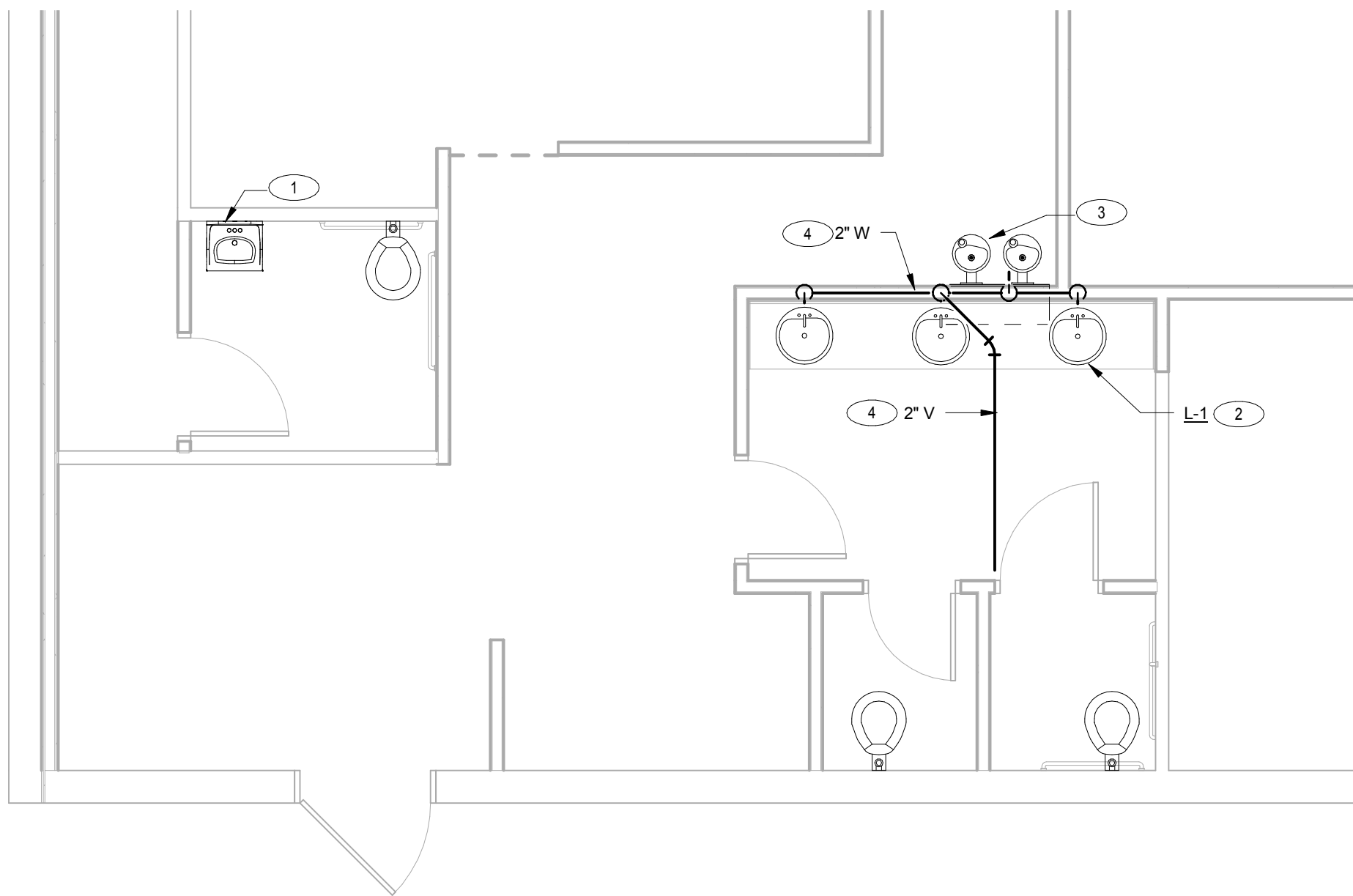
1. ALL NEW WASTE ABOVE GRADE IS TO BE SCH. 40 PVC. ALL NEW WASTE BELOW GRADE IS TO BE CAST IRON.
2. ALL NEW VENT IS TO BE PVC.
3. ALL NEW DOMESTIC SUPPLY IS TO BE COPPER.
4. MECHANICAL SYSTEMS ARE DUCTED RETURN. PLENUM REATED MATERIALS ARE NOT REQUIRED.



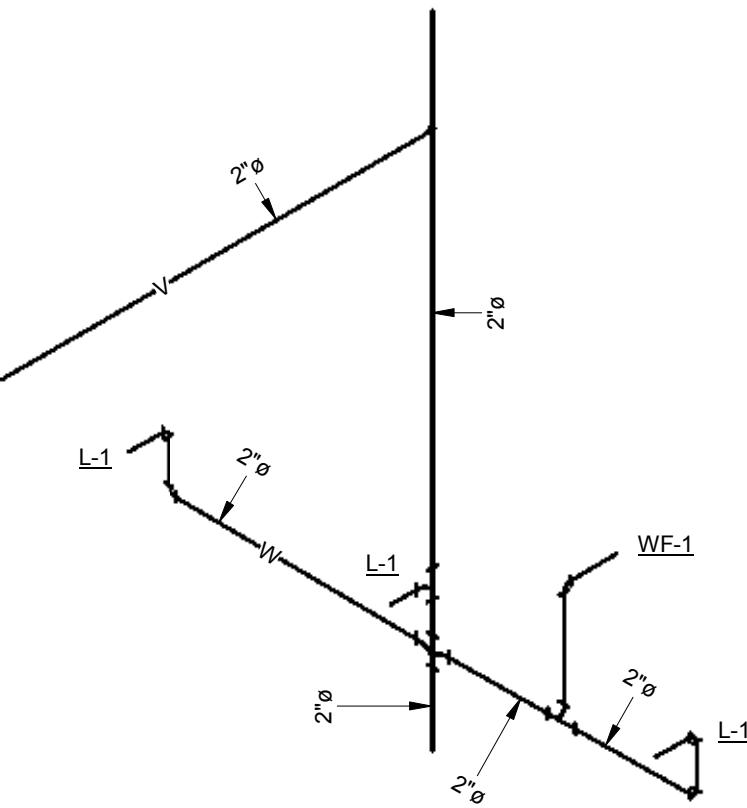
2 Plumbing - New Waste & Vent
1/4" = 1'-0"



3 Domestic Supply Isometric

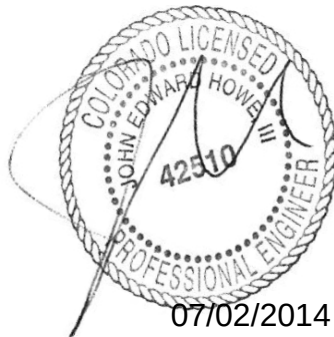


1 Plumbing - New Domestic Supply
1/4" = 1'-0"



4 Waste & Vent Isometric

Seal:



Key Plan:

Project Number 14.0087
Date 30 JUN 2014

Plumbing - New Plans