

## Architect's Supplemental Instructions

**Architect's Project No:**  
04561.01

**Architect's ASI No:** 058

**Project:**  
Webster University  
Interdisciplinary Science  
Building

**Date Issued:** 04/07/17

**Contract Date:**

**Reason Code:** 05 A/E Scope

**Discipline Code:** 03 Electrical  
11 Plumbing

**Owner:**  
Webster University

**Architect:**  
Cannon Design  
1100 Clark Avenue  
St. Louis, MO 63102

**Contractor:**  
Paric Construction

**Contract For:** General Construction

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Indicate your acceptance of these instructions for minor change to the Work as consistent with the Contract Documents and return a copy to the Architect within fourteen (14) business days of the date of issuance of these instructions. If you feel a change in Contract Sum or Contract Time is warranted, please submit an itemized quotation for the changes for approval within fourteen (14) business days of the date of issuance of these instructions prior to proceeding on the Work. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change.

### Attachments:

Drawings:

**Sheets:** E0101.A, E0504, P0601

### Manufacturers Cut Sheet:

Bell & Gossett – Submittal sheets 'A-127L' for model number NBF-25

## Architect's Supplemental Instructions

Page 2

### Description:

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Please submit an itemized proposal for changes in contract Sum and Contract Time for proposed modifications to the Contract Documents described herein:

ASI-058 is being issued for the purpose of providing a revised domestic hot water circulating pump selection and for updating the circuit serving HWP-1.

### **SHEET E0101.A – LEVEL 01 AREA A FLOOR PLAN – ELECTRICAL & AUXILIARY**

- Remove 3-pole homerun circuit 1NH2-20, 22, 24 and disconnect switch to HWP-1.
- Add 1-pole homerun 1NL2-35 and disconnect switch for HWP-1.

### **SHEET E0504 – PANEL SCHEDULES**

- Change 1NH2-20,22,24 15Amp circuit serving HWP-1 to 'Spare'
- Change 'Spare' 20Amp circuit 1NL2-35 to serve HWP-1 with 125Watt load.

### **SHEET P0601 – SCHEDULES – PLUMBING**

- Revised domestic hot water circulating pump selection. Refer to drawing P0601 for the revised 'Plumbing Fixtures and Equipment Schedule.'

**Issued by Architect:** Daniel R Veile, William Tao & Associates, Inc.  
Michael R. Whitworth, Webb Engineering Services, Inc.

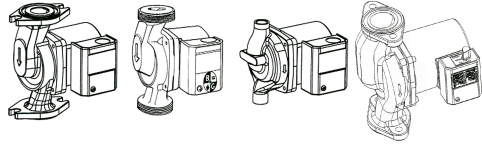
**Accepted by Contractor:**

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**JOB:** ggg

**REPRESENTATIVE:** Blackmore and Glunt

**UNIT TAG:**
**ORDER NO.**
**DATE:** 3/24/2017

**ENGINEER:**
**SUBMITTED BY:**
**DATE:**
**CONTRACTOR:**
**APPROVED BY:**
**DATE:**


# Lead-Free<sup>†</sup> Bronze and Stainless Steel Bodied System Lubricated Circulators



## DESCRIPTION

A series of in-line wet rotor circulation pumps designed specifically for quiet operation in open (potable) water systems. These pumps have lead-free<sup>†</sup> bronze or stainless steel bodies.

Automatic Timer and Aquastat accessories are available. (See Submittal A-128A for details).

## CONSTRUCTION MATERIALS

Pump Body: Impeller: Noryl  
 NBF: Lead-Free<sup>†</sup> Bronze Shaft: Ceramic  
 SSF: Stainless Steel

Bearings: Carbon

<sup>†</sup>Contains less than 0.25% Lead content by weight on wetted surfaces.

## OPERATING DATA

Maximum Working Pressure: 150 psi (10.3 Bar)  
 Minimum Operating Temperature: 40°F (5°C)  
 Maximum Operating Temperature  
 NBF-25, NBF-33, NBF-36, NBF-45: 225°F (107°C)  
 All Others: 230°F (110°C)

| MODEL NUMBER                                                                               | PART NUMBER | CONNECTION                  | APPROX. SHPG. WT. Lbs. (Kg) | STANDART 60 CYCLE 115 VOLT SINGLE PHASE |           |      | TAGGING INFORMATION | QUANTITY |
|--------------------------------------------------------------------------------------------|-------------|-----------------------------|-----------------------------|-----------------------------------------|-----------|------|---------------------|----------|
|                                                                                            |             |                             |                             | WATTS                                   | F.L. AMPS | RPM  |                     |          |
| NBF-8S/LW                                                                                  | 103257LF    | 1/2" Sweat                  | 9.0 (4.1)                   | 39                                      | 0.38      | 2800 |                     |          |
| NBF-9U/LW                                                                                  | 103258LF    | Union (See Following Page)  | 9.3 (4.2)                   | 41                                      | 0.40      | 2800 |                     |          |
| SSF-9U/LW                                                                                  | 103360LF    | Union (See Following Page)  | 9.3 (4.2)                   | 41                                      | 0.40      | 2800 |                     |          |
| NBF-10S/LW                                                                                 | 103259LF    | 1/2" Sweat                  | 9.0 (4.1)                   | 52                                      | 0.46      | 2800 |                     |          |
| NBF-12U/LW                                                                                 | 103261LF    | Union (See Following Page)  | 9.3 (4.2)                   | 55                                      | 0.48      | 2800 |                     |          |
| SSF-12U/LW                                                                                 | 103361LF    | Union (See Following Page)  | 9.3 (4.2)                   | 55                                      | 0.48      | 2800 |                     |          |
| NBF-12F/LW                                                                                 | 103260LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 9.5 (4.3)                   | 55                                      | 0.48      | 2800 |                     |          |
| SSF-12F/LW                                                                                 | 103358LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 9.5 (4.3)                   | 55                                      | 0.48      | 2800 |                     |          |
| NBF-18S                                                                                    | 103316LF    | 1/2" Sweat                  | 9.0 (4.1)                   | 90                                      | 0.74      | 3000 |                     |          |
| NBF-22U                                                                                    | 103255LF    | Union (See Following Page)  | 9.3 (4.2)                   | 92                                      | 0.80      | 2940 |                     |          |
| SSF-22U                                                                                    | 103362LF    | Union (See Following Page)  | 9.3 (4.2)                   | 92                                      | 0.80      | 2940 |                     |          |
| NBF-22                                                                                     | 103252LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 9.5 (4.3)                   | 92                                      | 0.80      | 2940 |                     |          |
| SSF-22                                                                                     | 103357LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 9.5 (4.3)                   | 92                                      | 0.80      | 2940 |                     |          |
|  NBF-25* | 103418LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 10.4 (4.7)                  | 125                                     | 1.10      | 2950 |                     | 1        |
| NBF-33                                                                                     | 103351LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 10.4 (4.7)                  | 125                                     | 1.10      | 2950 |                     |          |
| NBF-36*                                                                                    | 103401LF    | Flange 3/4, 1, 1-1/4, 1-1/2 | 13.1 (6.0)                  | 270                                     | 2.30      | 3300 |                     |          |
| NBF-45*                                                                                    | 103405LF    | Flange 1, 1-1/4, 1-1/2      | 14.5 (6.6)                  | 270                                     | 2.30      | 3300 |                     |          |

\*3-speed circulators

## TYPICAL SPECIFICATIONS

The contractor shall furnish and install in-line circulating pumps as illustrated on the plans and in accordance with the following specifications:

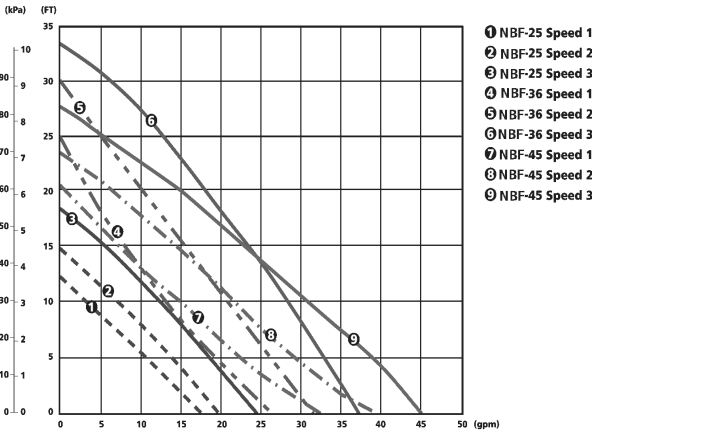
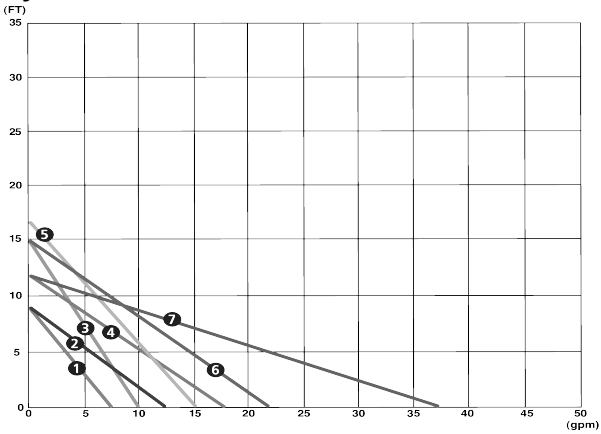
- The pumps shall be of the horizontal system lubricated type specifically designed and guaranteed for quiet operation.
- Pump to be suitable for \_\_\_\_\_°F (\_\_\_\_\_)°C [choose one: 225°F (107°C) for NBF-25, NBF-33, NBF-36, NBF-45 or 230°F (110°C) for all other circulators] operation at 150 psig (10.3 Bar) working pressure.
- The pumps shall have a ceramic shaft supported by carbon bearings. Bearings are to be lubricated by the circulating fluid.

- Pump body shall be lead-free bronze for NBF circulators or stainless steel for SSF circulators.
- Motor stator to be isolated from circulating fluid through use of stainless steel can. Rotor to be sheathed in stainless steel.
- Motors shall be non-overloading at any point on the pump curve. NBF-36 & NBF-45 to have built-in thermal protection. All other motors to have built-in impedance protection.
- NBF-25 has an optional check valve.

Pumps to have a capacity of \_\_\_\_\_GPM at \_\_\_\_\_ foot head when powered by 115 volt, 60 cycle single phase electrical supply.

All pumps are to be Xylem - Bell & Gossett Model \_\_\_\_\_.

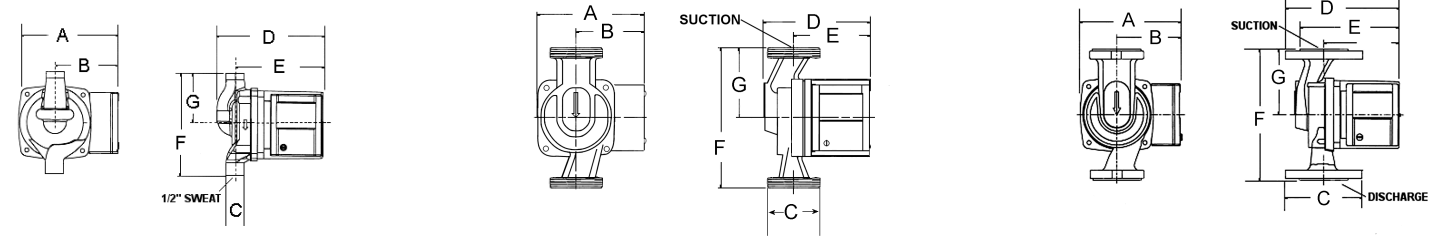
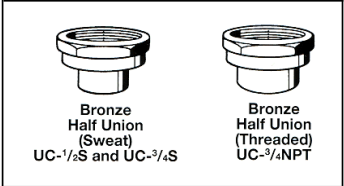
System Lubricated Circulators



HALF UNION CONNECTIONS

For NBF-9U/LW, NBF-12U/LW, NBF-22U, SSF-9U/LW, SSF-12U/LW, SSF-22U

| MODEL NUMBER | PART NUMBER | DESCRIPTION (SETS OF 2)      |
|--------------|-------------|------------------------------|
| UC-1/2S      | 113203LF    | 1/2" Bronze Union Sweat      |
| UC-3/4S      | 113201LF    | 3/4" Bronze Union Sweat      |
| UC-3/4NPT    | 113202LF    | 3/4" Bronze Union NPT Female |



| MODEL      | PART NUMBER | A<br>in (mm) | B<br>in (mm) | C<br>in (mm) | D<br>in (mm) | E<br>in (mm) | F<br>in (mm) | G<br>in (mm) |
|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| NBF-8S/LW  | 103257LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1/2 (13)     | 5-7/32 (132) | 4-9/32 (109) | 5 (127)      | 2-1/2 (63)   |
| NBF-9U/LW  | 103258LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (78)  |
| SSF-9U/LW  | 103360LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (78)  |
| NBF-10S/LW | 103259LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1/2 (13)     | 5-7/32 (132) | 4-9/32 (109) | 5 (127)      | 2-1/2 (63)   |
| NBF-12U/LW | 103261LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (81)  |
| SSF-12U/LW | 103361LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (78)  |
| NBF-12F/LW | 103260LF    | 4-7/8 (124)  | 3-3/16 (81)  | 3-3/16 (81)  | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162)  | 3-3/16 (82)  |
| SSF-12F/LW | 103358LF    | 4-7/8 (124)  | 3-3/16 (81)  | 3-3/16 (81)  | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162)  | 3-3/16 (82)  |
| NBF-18S    | 103316LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1/2 (13)     | 5-7/32 (132) | 4-9/32 (109) | 5 (127)      | 2-1/2 (63)   |
| NBF-22U    | 103255LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (78)  |
| SSF-22U    | 103362LF    | 4-7/8 (124)  | 3-3/16 (81)  | 1-1/4 (32)   | 5-1/16 (129) | 3-11/16 (93) | 6-1/8 (156)  | 3-1/16 (78)  |
| NBF-22     | 103252LF    | 4-7/8 (124)  | 3-3/16 (81)  | 3-3/16 (81)  | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162)  | 3-3/16 (82)  |
| SSF-22     | 103357LF    | 4-7/8 (124)  | 3-3/16 (81)  | 3-3/16 (81)  | 5-9/16 (141) | 3-11/16 (93) | 6-3/8 (162)  | 3-3/16 (82)  |
| NBF-25*    | 103418LF    | 5-1/8 (130)  | 3-3/16 (81)  | 3-3/16 (81)  | 6-3/16 (157) | 4-7/8 (124)  | 6-3/8 (162)  | 2-1/2 (63)   |
| NBF-33     | 103351LF    | 4-7/8 (124)  | 3-3/16 (81)  | 3-3/16 (81)  | 6-3/16 (157) | 3-11/16 (94) | 6-3/8 (162)  | 3-3/16 (82)  |
| NBF-36*    | 103401LF    | 5-3/4 (146)  | 3-9/16 (91)  | 3-3/16 (81)  | 6-3/16 (157) | 5-3/8 (137)  | 6-3/8 (162)  | 3-3/16 (82)  |
| NBF-45*    | 103405LF    | 5-3/4 (146)  | 3-9/16 (91)  | 3-7/16 (87)  | 7-3/8 (187)  | 5-1/2 (140)  | 8-1/2 (216)  | 4-1/4 (108)  |

Dimensions are subject to change. Not to be used for construction purposes unless certified.

Companion Flanges Available in Sizes: 3/4", 1", 1-1/4", and 1-1/2"

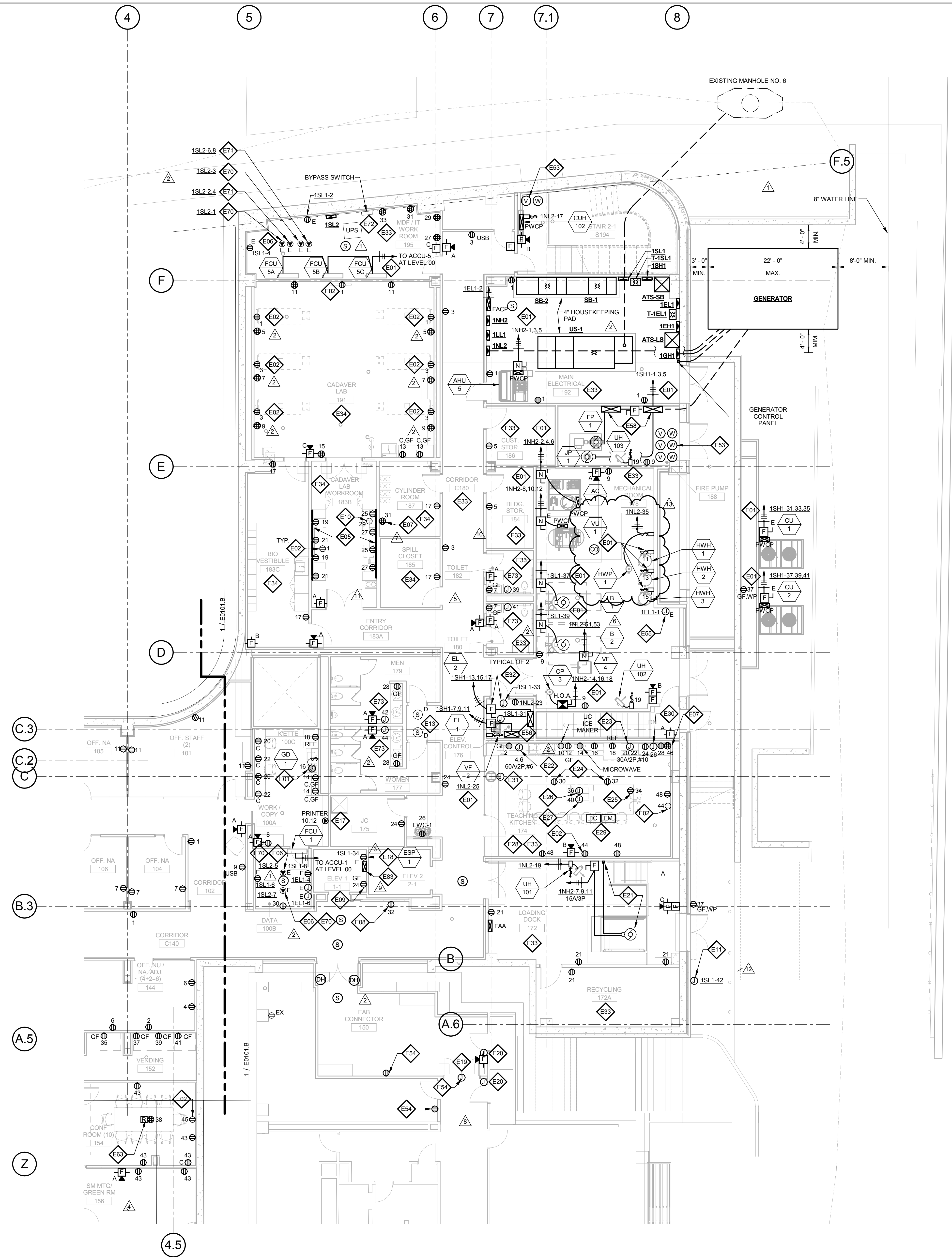
\* 3-speed circulators

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xylem  
Let's Solve Water

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1 LEVEL 01 - AREA A - FLOOR PLAN - POWER AND AUXILIARY  
1/8" = 1'-0"

## GENERAL NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR LOCATION AND ORIENTATION OF DEVICES. WHERE LOCATIONS ARE NOT INDICATED ON ARCHITECTURAL DRAWINGS, COORDINATE LOCATION AND ORIENTATION OF DEVICES IN FIELD WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
- WHERE EXPOSED CONDUIT IS NOTED, CONTRACTOR SHALL IDENTIFY ROUTING IN FIELD AND OBTAIN ARCHITECT'S APPROVAL OF ROUTING PRIOR TO ROUGH-IN. EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE.
- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN OF DATA, VOICE AND A/V.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL 1NL1 UNLESS NOTED OTHERWISE.

## KEYED NOTES

- E01 REFER TO EQUIPMENT DATA SCHEDULE FOR BRANCH CIRCUIT INFORMATION.
- E02 PROVIDE NEW RECEPTACLE FOR MONITOR. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND TECHNOLOGY PLANS.
- E05 PROVIDE NEW TWO SECTION ALUMINUM RACEWAY, WIREMOLD AL4320 WITH RECEPTACLES MOUNTED 24" ON CENTER UNLESS NOTED OR SHOWN OTHERWISE. PROVIDE ALL ACCESSORIES FOR A COMPLETE INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT AND LENGTH. SEE DETAILS ON SHEET E402.
- E06 OUTLET SHALL BE MOUNTED TO THE BACK SIDE OF THE TELECOMMUNICATION RACK AND FED FROM ABOVE. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH TELECOMMUNICATIONS CONTRACTOR PRIOR TO INSTALLATION.
- E07 OUTLET FOR RACK MOUNTED A/V EQUIPMENT. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS AND A/V DRAWINGS.
- E08 OUTLET FOR DIGITAL SIGNAGE. COORDINATE MOUNTING HEIGHT AND EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS AND A/V DRAWINGS.
- E09 MOUNT RECEPTACLE IN ELEVATOR PIT. COORDINATE EXACT LOCATION WITH ELEVATOR CONTRACTOR.
- E10 UNDERCOUNTER REFRIGERATOR. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECTURAL PLANS AND ELEVATIONS.
- E11 PROVIDE POWER AND FINAL CONNECTION TO WALL MOUNTED BLUE LIGHT EMERGENCY INTERCOM STATION.
- E13 PROVIDE A DUCT MOUNTED SMOKE DETECTOR(S) AT RETURN AIR GRILLE OF AHU-1 & AHU-2. BOTH AIR HANDLING UNITS SHALL SHUT DOWN UPON ACTIVATION OF THE DUCT MOUNTED SMOKE DETECTOR(S). PROVIDE REMOTE INDICATOR LIGHT(S) IN CEILING BELOW.
- E17 PROVIDE NEMA 6-30R, 30A-208V RECEPTACLE FOR PRINTER. CONTRACTOR SHALL VERIFY PRINTER PLUG TYPE WITH OWNERS REPRESENTATIVE PRIOR TO ROUGH-IN.
- E18 PROVIDE POWER AND FINAL CONNECTION TO ELEVATOR SUMP PUMP. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- E19 PROVIDE POWER AND FINAL CONNECTION TO ELECTRIC DOOR OPENER. COORDINATE POWER REQUIREMENTS WITH DOOR INSTALLER PRIOR TO ROUGH-IN.
- E20 PROVIDE POWER AND FINAL CONNECTION TO ELECTRIC DOOR OPENER CONTROLS. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
- E21 PROVIDE POWER AND FINAL CONNECTION TO DOCK LEVELER AND CONTROLS PER MANUFACTURERS WRITTEN INSTRUCTIONS. COORDINATE CONTROL AND DISCONNECT LOCATION WITH DOCK LEVELER INSTALLER PRIOR TO INSTALLATION.
- E22 PROVIDE POWER AND FINAL CONNECTION TO DISH WASHER. REFER TO KITCHEN EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- E23 PROVIDE POWER AND FINAL CONNECTION TO DOUBLE OVEN. REFER TO KITCHEN EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- E24 RECEPTACLE MOUNTED IN COUNTER APRON. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION.
- E25 RECEPTACLE MOUNTED INSIDE CABINET FOR COMPUTER. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION.
- E26 PROVIDE POWER AND FINAL CONNECTION TO DROP IN COOK TOP. REFER TO KITCHEN EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- E27 PROVIDE POWER AND FINAL CONNECTION TO ISLAND HOOD. REFER TO KITCHEN EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- E28 REFER TO KITCHEN EQUIPMENT DRAWINGS FOR MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES IN THIS ROOM AND FOR POWER REQUIREMENTS PRIOR TO ROUGH-IN.
- E29 PROVIDE FIRE ALARM MONITOR MODULE AND CONTROL MODULE CONNECTED TO FIRE ALARM SYSTEM AT HOOD. PROVIDE WIRING BETWEEN HOOD AND FIRE SUPPRESSION SYSTEM. REFER TO KITCHEN HOOD EXTINGUISHING SYSTEM WIRING DIAGRAM, ON SHEET E402.
- E30 PROVIDE POWER FOR HOOD FIRE PROTECTION SYSTEM. INTERCONNECT EXHAUST FANS AND MAKE-UP AIR FANS TO MICRO SWITCH IN FIRE PROTECTION CABINET. REFER TO KITCHEN HOOD EXTINGUISHING SYSTEM WIRING DIAGRAM.
- E31 PROVIDE J-BOX AND CONDUIT IN WALL FOR REMOTE MANUAL PULL STATION. REFER TO KITCHEN EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- E32 PROVIDE POWER MODULE SWITCH FOR ELEVATOR AND A JUNCTION BOX WITH A 120V/20A CIRCUIT FOR CONNECTION OF ELEVATOR CONTROLS. PROVIDE ALL FINAL CONNECTIONS TO ELEVATOR CONTROLLER AND ELEVATOR CAB PER MANUFACTURERS WRITTEN INSTRUCTIONS. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- E33 ALL 120V BRANCH CIRCUITS IN THIS ROOM SHALL BE FED FROM PANEL 1NL2.
- E34 ALL 120V BRANCH CIRCUITS IN THIS ROOM SHALL BE FED FROM PANEL 1LL1.
- E53 COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR.
- E54 EXTEND CIRCUIT FROM EXISTING RECEPTACLES SERVING THIS AREA.
- E55 PROVIDE POWER TO BUILDING AUTOMATION SYSTEM PANEL. COORDINATE LOCATION WITH AUTOMATION CONTRACTOR.
- E56 SEE ELEVATOR DETAIL ON SHEET E0402 FOR ADDITIONAL POWER & FIRE ALARM REQUIREMENTS.
- E58 FIRE PUMP CONTROLLER AND JOCKEY PUMP CONTROLLER SEE ONE LINE DIAGRAM FOR FEEDER INFORMATION.
- E63 PROVIDE A 2HR FIRE CLASSIFIED 4-GANG MULTI-SERVICE STEEL RECESSED FLOOR BOX EQUAL TO WIREMOLD CAT. NO. RFB4S-FC WITH A BRASS FLANGED COVER CAT. NO. FPB4S-NA. THE FLOOR BOX SHALL HAVE ALL NECESSARY MOUNTING BRACKETS FOR (2) 20A DUPLEX RECEPTACLE, (1) GANG - DATA/VOICE (SEE TECHNOLOGY DRAWINGS FOR DEVICE TYPE), (1) GANG - A/V (SEE A/V DRAWINGS FOR DEVICE TYPE). THE BOX SHALL BE INSTALLED PER MANUFACTURERS WRITTEN INSTRUCTIONS SO THAT THE COVER IS FLUSH WITH THE FLOOR.
- E70 PROVIDE NEMA L5-20R, 20A-120V TWIST LOCK RECEPTACLE FOR RACK MOUNTED PDU. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY CONTRACTOR.
- E71 PROVIDE NEMA L6-20R, 30A-208V TWIST LOCK RECEPTACLE FOR RACK MOUNTED PDU. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY CONTRACTOR.
- E72 UPS AND EXTERNAL BYPASS SWITCH FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR. REFER TO TECHNOLOGY DRAWINGS AND ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- E73 PROVIDE POWER AND FINAL CONNECTIONS FOR ELECTRIC HAND DRYER.
- E83 CONNECT WATER ALARM PANEL TO SAME RECEPTACLE SERVING SUMP PUMP.

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UNIVERSITY

**Webster University**  
Interdisciplinary Science  
Building

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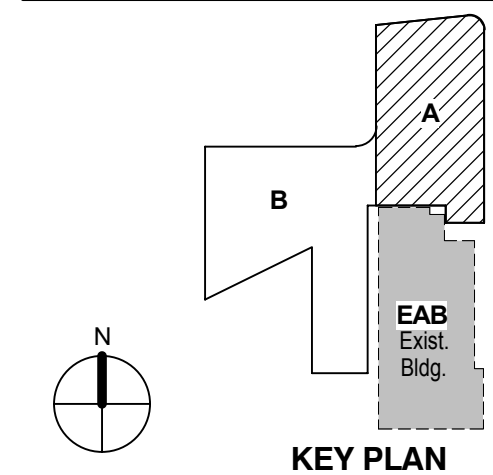
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**Spellman Brady & Company**  
Interior Designer  
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**SWT Design**  
Landscape Architect  
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1400 S. 3rd Street, Suite 201  
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|                                   |                  |
|-----------------------------------|------------------|
| 13 ASI-058                        | 07 APR 2017      |
| 12 ASI-049                        | 03 FEB 2017      |
| 11 ASI-048                        | 27 JAN 2017      |
| 10 ASI-047                        | 16 JAN 2017      |
| 9 RFI-383                         | 12 JAN 2016      |
| 8 ASI-044                         | 10 JAN 2017      |
| 7 ASI-035                         | 10 NOV 2016      |
| 6 ASI-034                         | 04 NOV 2016      |
| 5 ASI-031 - Not accepted by owner | 26 OCT 2016      |
| 4 RFI-329                         | 20 OCT 2016      |
| 3 ASI-010                         | 21 JULY 2016     |
| 2 ADDENDUM 2-2                    | 19 APRIL 2016    |
| 1 ADDENDUM 2-1                    | 17 MAR 2016      |
| - ISSUED FOR CONSTRUCTION (BP2)   | 01 MAR 2016      |
| No.                               | Description Date |



Drawing Title:

**LEVEL 01 AREA A FLOOR  
PLAN - ELECTRICAL &  
AUXILIARY**

Project No.: 04561.01 Checked by:

**E0101.A**

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| Panel: 1NL2                              |                                                |      |       |                    |      |          |      |                       |      |       |      |                                          |     |
|------------------------------------------|------------------------------------------------|------|-------|--------------------|------|----------|------|-----------------------|------|-------|------|------------------------------------------|-----|
| Location: MAIN ELECTRICAL 192            |                                                |      |       | Volts: 120/208 Wye |      |          |      | A.I.C. Rating: 10,000 |      |       |      |                                          |     |
| Supply From: SB-1                        |                                                |      |       | Phases: 3          |      |          |      | Mains Type: MLO       |      |       |      |                                          |     |
| Mounting: S                              |                                                |      |       | Wires: 4           |      |          |      | Mains Rating: 225 A   |      |       |      |                                          |     |
| Enclosure: Type 1                        |                                                |      |       |                    |      |          |      | MCB Rating:           |      |       |      |                                          |     |
| CKT                                      | Circuit Description                            | Trip | Poles | A                  |      | B        |      | C                     |      | Poles | Trip | Circuit Description                      | CKT |
| 1                                        | Main Electrical 192 - Receptacles              | 20 A | 1     | 720                | 180  |          |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - Counter           | 2   |
| 3                                        | Corridor C180 - Receptacles                    | 20 A | 1     |                    |      | 540      | 4118 |                       |      |       | 60 A | Teaching Kitchen 174 - Dish Washer       | 4   |
| 5                                        | Bldg. Stor. 184, Cust. Stor. 186 - Receptacles | 20 A | 1     |                    |      |          |      | 360                   | 4118 |       |      |                                          | 6   |
| 7                                        | Toilet 180, 182 - Receptacles                  | 20 A | 1     | 360                | 0    |          |      |                       |      | 1     | 20 A | Spare                                    | 8   |
| 9                                        | Mechanical Room 178 - Receptacles              | 20 A | 1     |                    |      | 720      | 1800 |                       |      | 1     | 20 A | Teaching Kitchen 174 - Ice Machine       | 10  |
| 11                                       | Mechanical Room 178 - HHW-1                    | 20 A | 1     |                    |      |          |      | 720                   | 180  | 1     | 20 A | Teaching Kitchen 174 - Counter           | 12  |
| 13                                       | Mechanical Room 178 - HHW-2                    | 20 A | 1     | 720                | 1500 |          |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - Microwave         | 14  |
| 15                                       | Mechanical Room 178 - HHW-3                    | 20 A | 1     |                    |      | 720      | 180  |                       |      | 1     | 20 A | Teaching Kitchen 174 - Counter           | 16  |
| 17                                       | Stair 2-1 - CUH-102                            | 15 A | 1     |                    |      |          |      | 40                    | 1000 | 1     | 20 A | Teaching Kitchen 174 - Refrigerator      | 18  |
| 19                                       | Dock 172 - UH-101, Mech Rm 178 UH-102          | 15 A | 1     | 48                 | 2700 |          |      |                       |      | 2     | 30 A | Teaching Kitchen 174 - Double Oven       | 20  |
| 21                                       | Loading Dock 172, Recycling 172A ...           | 20 A | 1     |                    |      | 720      | 2700 |                       |      |       |      |                                          | 22  |
| 23                                       | Elevator Control Room - Receptacle             | 20 A | 1     |                    |      |          |      | 180                   | 180  | 1     | 20 A | Teaching Kitchen 174 - Counter           | 24  |
| 25                                       | Elevator Control Room - VF-2                   | 15 A | 1     | 350                | 180  |          |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - Annu. System      | 26  |
| 27                                       | MDF Room - Receptacles                         | 20 A | 1     |                    |      |          | 360  | 180                   |      | 1     | 20 A | Teaching Kitchen 174 - Counter           | 28  |
| 29                                       | MDF Room - Receptacles                         | 20 A | 1     |                    |      |          |      | 360                   | 180  | 1     | 20 A | Teaching Kitchen 174 - Island Apron      | 30  |
| 31                                       | MDF Room - Receptacles                         | 20 A | 1     |                    | 360  | 180      |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - Island Apron      | 32  |
| 33                                       | MDF Room - Receptacles                         | 20 A | 1     |                    |      | 360      | 180  |                       |      | 1     | 20 A | Teaching Kitchen 174 - Island Computer   | 34  |
| 35                                       | Mechanical Room 178 - HHW-1                    | 20 A | 1     |                    |      |          |      | 125                   | 600  | 1     | 20 A | Teaching Kitchen 174 - Drop in Hood      | 36  |
| 37                                       | Refector - Egg Wash                            | 20 A | 1     |                    | 360  | 0        |      |                       |      |       |      |                                          | 38  |
| 39                                       | Teach. Kt. 174 - Electric Hand Dryer           | 20 A | 1     |                    |      | 1490     | 1500 |                       |      | 1     | 20 A | Teaching Kitchen 174 - Island Hood       | 40  |
| 41                                       | Toilet 180 - Electric Hand Dryer               | 20 A | 1     |                    |      |          |      | 1490                  | 0    | --    | --   | Shunt Trip                               | 42  |
| 43                                       | Spare                                          | 20 A | 1     | 0                  | 360  |          |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - Projector/Monitor | 44  |
| 45                                       | Spare                                          | 20 A | 1     |                    | 0    | 360      |      |                       |      | 1     | 20 A | Teaching Kitchen 174 - AV Rack           | 46  |
| 47                                       | Spare                                          | 20 A | 1     |                    |      |          |      | 0                     | 540  | 1     | 20 A | Teaching Kitchen 174 - Wall Receptacles  | 48  |
| 49                                       |                                                |      |       | 0                  |      |          |      |                       |      | 1     | 20 A | Spare                                    | 50  |
| 51                                       |                                                |      |       |                    | 1248 | 0        |      |                       |      | 1     | 20 A | Spare                                    | 52  |
| 53                                       | MECHANICAL ROOM 178 - VF-4                     | 30 A | 2     |                    |      |          |      | 1248                  | 0    | 1     | 20 A | Spare                                    | 54  |
| Total Load:                              |                                                |      |       | 8018 VA            |      | 17476 VA |      | 11321 VA              |      |       |      |                                          |     |
| Total Amps:                              |                                                |      |       | 67 A               |      | 150 A    |      | 99 A                  |      |       |      |                                          |     |
| <div><div>4</div><div>Notes:</div></div> |                                                |      |       |                    |      |          |      |                       |      |       |      |                                          |     |

| Panel: 1NL1         |                                      |      |       |                    |         |         |         |                       |         |       |      |                                         |     |
|---------------------|--------------------------------------|------|-------|--------------------|---------|---------|---------|-----------------------|---------|-------|------|-----------------------------------------|-----|
| Location: ELEC 110B |                                      |      |       | Volts: 120/208 Wye |         |         |         | A.I.C. Rating: 10,000 |         |       |      |                                         |     |
| Supply From: SB-1   |                                      |      |       | Phases: 3          |         |         |         | Mains Type: MCB/SFL   |         |       |      |                                         |     |
| Mounting: S         |                                      |      |       | Wires: 4           |         |         |         | Mains Rating: 225 A   |         |       |      |                                         |     |
| Enclosure: Type 1   |                                      |      |       |                    |         |         |         | MCB Rating:           |         |       |      |                                         |     |
| CKT                 | Circuit Description                  | Trip | Poles | A                  |         | B       |         | C                     |         | Poles | Trip | Circuit Description                     | CKT |
| 1                   | Power Elec 11.0B.1                   | 20 A | 1     | 900 VA             | 360 VA  |         |         |                       |         | 1     | 20 A | Office NUNNA ADJ 144 - Receptacles      | 2   |
| 3                   | Power Mock Beds Stor. 7.10           | 20 A | 1     |                    |         | 540 VA  | 360 VA  |                       |         | 1     | 20 A | Office NUNNA ADJ 144 - Receptacles      | 4   |
| 5                   | Power Nursing 7.03.3                 | 20 A | 1     |                    |         |         |         | 540 VA                | 360 VA  | 1     | 20 A | Office NUNNA ADJ 144 - Receptacles      | 6   |
| 7                   | Power Anesthesia 6.08.3              | 20 A | 1     | 540 VA             | 180 VA  |         |         |                       |         | 1     | 20 A | Work/Copy 100A - Counter                | 8   |
| 9                   | Power Corridor 102 USB               | 20 A | 1     |                    |         | 180 VA  | 180 VA  |                       |         | 2     | 30 A | Work/Copy 100A - Printer                | 10  |
| 11                  | Power Staff (2) 9.06.1               | 20 A | 1     |                    |         |         |         | 720 VA                | 180 VA  | 1     | 20 A | Kettle 100C - Counter                   | 12  |
| 13                  | Power Anesthesia 6.08.2              | 20 A | 1     | 720 VA             | 360 VA  |         |         |                       |         | 1     | 20 A | Kettle 100C - GD-1                      | 14  |
| 15                  | Power Nursing 7.03.2                 | 20 A | 1     |                    |         | 720 VA  | 1656... |                       |         | 1     | 20 A | Kettle 100C - Refrigerator              | 16  |
| 17                  | Power Nursing 7.03.4                 | 20 A | 1     |                    |         |         |         | 720 VA                | 1000... | 1     | 20 A | Kettle 100C - Desk                      | 18  |
| 19                  | Power Nursing 7.03.6                 | 20 A | 1     | 180 VA             | 360 VA  |         |         |                       |         | 1     | 20 A | Kettle 100C - Desk                      | 20  |
| 21                  | Power Mock Beds 7.10                 | 20 A | 1     |                    |         | 720 VA  | 360 VA  |                       |         | 1     | 20 A | Kettle 100C - Desk                      | 22  |
| 23                  | Power Conf Rm 24 Seats 10.06 Monitor | 20 A | 1     |                    |         |         |         | 360 VA                | 540 VA  | 1     | 20 A | Elev 1 Ptl. JC 175, Corridor C180       | 24  |
| 25                  | Power Conference Room 24 Seats 10.06 | 20 A | 1     | 360 VA             | 370 VA  |         |         |                       |         | 1     | 20 A | EWIC-1                                  | 26  |
| 27                  | Power Conference Room 24 Seats 10.06 | 20 A | 1     |                    |         | 540 VA  | 360 VA  |                       |         | 1     | 20 A | Women 177, Men 179                      | 28  |
| 29                  | Power Conference Room 24 Seats 10.06 | 20 A | 1     |                    |         |         |         | 540 VA                | 180 VA  | 1     | 20 A | Data - 100B                             | 30  |
| 31                  | Power Conference Room 24 Seats 10.06 | 20 A | 1     | 360 VA             | 180 VA  |         |         |                       |         | 1     | 20 A | Corridor C140 - Digital Signage         | 32  |
| 33                  | Power Commons-2 10.04-2              | 20 A | 1     |                    |         | 540 VA  | 0 VA    |                       |         | 1     | 20 A | Spare                                   | 34  |
| 35                  | Power Vending 11.28                  | 20 A | 1     |                    |         |         |         | 180 VA                | 720 VA  | 1     | 20 A | Power Rm. 114,116                       | 36  |
| 37                  | Power Vending 11.28                  | 20 A | 1     | 180 VA             | 180 VA  |         |         |                       |         | 1     | 20 A | Power Rm. 154                           | 38  |
| 39                  | Power Vending 11.28                  | 20 A | 1     |                    |         | 180 VA  | 720 VA  |                       |         | 1     | 20 A | Power Conference Room 24 Seats - Shades | 40  |
| 41                  | Power Vending 11.28                  | 20 A | 1     |                    |         |         |         | 180 VA                | 1490... | 1     | 20 A | Men 179 - Electric Hand Dryer           | 42  |
| 43                  | Power Conf Rm 154                    | 20 A | 1     | 1260...            | 1490... |         |         |                       |         | 1     | 20 A | Women 177 - Electric Hand Dryer         | 44  |
| 45                  | Power Conf Rm 154 Monitor            | 20 A | 1     |                    |         | 180 VA  | 540 VA  |                       |         | 1     | 20 A | Power Courtyard Bollard - Receptacles   | 46  |
| 47                  | Power Sim Mfg/ Green Rm 156 Monitor  | 20 A | 1     |                    |         |         |         | 180 VA                | 360 VA  | 1     | 20 A | Power Courtyard Bollard - Receptacles   | 48  |
| 49                  | Vest. C153 - Elec Door Opener        | 20 A | 1     | 360 VA             | 540 VA  |         |         |                       |         | 1     | 20 A | Power                                   | 50  |
| 51                  | Vest. C153 - CUH-101                 | 15 A | 1     |                    |         | 40 VA   | 0 VA    |                       |         | 1     | 20 A | Spare                                   | 52  |
| 53                  | Fire Protection Room 137A - FPA-1    | 15 A | 1     |                    |         |         |         | 528 VA                | 0 VA    | 1     | 20 A | Spare                                   | 54  |
| 55                  | Spare                                | 20 A | 1     | 0 VA               | 0 VA    |         |         |                       |         | 1     | 20 A | Spare                                   | 56  |
| 57                  | Spare                                | 20 A | 1     |                    |         | 0 VA    | 0 VA    |                       |         | 1     | 20 A | Spare                                   | 58  |
| 59                  | Spare                                | 20 A | 1     |                    |         |         |         | 0 VA                  | 0 VA    | 1     | 20 A | Spare                                   | 60  |
| Total Load:         |                                      |      |       | 8880 VA            |         | 7816 VA |         | 8776 VA               |         |       |      |                                         |     |
| Total Amps:         |                                      |      |       | 75 A               |         | 65 A    |         | 74 A                  |         |       |      |                                         |     |
| Notes:              |                                      |      |       |                    |         |         |         |                       |         |       |      |                                         |     |

Panel: 1LL2

Location: CORRIDOR C130

Supply From: SB-2

Mounting: F

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 10,000

Mains Type: MCB

Mains Rating: 225 A

MCB Rating:

| CKT         | Circuit Description                         | Trip | Poles | A       | B       | C       | Poles | Trip | Circuit Description                           | CKT |
|-------------|---------------------------------------------|------|-------|---------|---------|---------|-------|------|-----------------------------------------------|-----|
| 1           | Health Assessment Lab 131 - Teacher         | 20 A | 1     | 720 360 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Receptacles    | 2   |
| 3           | Health Assessment Lab 131 - Receptacles     | 20 A | 1     |         | 360 720 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Monitors       | 4   |
| 5           | Health Assessment Lab 131 - Monitor         | 20 A | 1     |         |         | 360 0   | 1     | 20 A | Spare                                         | 6   |
| 7           | Health Assessment Lab 131 - Desk            | 20 A | 1     | 720 540 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Surface...     | 8   |
| 9           | Health Assessment Lab 131 - Desk            | 20 A | 1     |         | 720 360 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Surface...     | 10  |
| 11          | Health Assessment Lab 131 - Desk            | 20 A | 1     |         |         | 720 360 | 1     | 20 A | Dry Skills Lab/Classroom 135 - Surface...     | 12  |
| 13          | Health Assessment Lab 131 - Desk            | 20 A | 1     | 720 540 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 14  |
| 15          | Health Assessment Lab 131 - Surface Raceway | 20 A | 1     |         | 360 540 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 16  |
| 17          | Health Assessment Lab 131 - Surface Raceway | 20 A | 1     |         |         | 360 540 | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 18  |
| 19          | Health Assessment Lab 131 - A/V Receptacle  | 20 A | 1     | 360 540 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 20  |
| 21          | Sim Lab 133B - Receptacle                   | 20 A | 1     |         | 540 540 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 22  |
| 23          | Sim Lab 133B - Receptacle                   | 20 A | 1     |         |         | 180 540 | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 24  |
| 25          | Sim Lab 133B - Receptacle                   | 20 A | 1     | 180 540 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 26  |
| 27          | Sim Lab 133B - Receptacle                   | 20 A | 1     |         | 360 540 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Desk           | 28  |
| 29          | Sim Lab 133B - Receptacle                   | 20 A | 1     |         |         | 180 540 | 1     | 20 A | Models/Storage/Research 137 - Surface...      | 30  |
| 31          | Control Room 133A - Monitor                 | 20 A | 1     | 180 540 |         |         | 1     | 20 A | Models/Storage/Research 137 - Surface...      | 32  |
| 33          | Control Room 133A - Surface Raceway         | 20 A | 1     |         | 360 540 |         | 1     | 20 A | Models/Storage/Research 137 - Surface...      | 34  |
| 35          | Control Room 133A - Surface Raceway         | 20 A | 1     |         |         | 360 180 | 1     | 20 A | Models/Storage/Research 137 - Surface...      | 36  |
| 37          | Control Room 133A - Surface Raceway         | 20 A | 1     | 180 180 |         |         | 1     | 20 A | Models/Storage/Research 137 - Receptacles     | 38  |
| 39          | Control Room 133A - A/V Receptacle          | 20 A | 1     |         | 360 180 |         | 1     | 20 A | Models/Storage/Research 137 - Receptacles     | 40  |
| 41          | Control Room 133A - Surface Raceway         | 20 A | 1     |         |         | 360 360 | 1     | 20 A | Dry Skills Lab/Classroom 135 - Movable Table  | 42  |
| 43          | Control Room 133A - Surface Raceway         | 20 A | 1     | 360 360 |         |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - Floor Box      | 44  |
| 45          | Control Room 133A - Surface Raceway         | 20 A | 1     |         | 180 360 |         | 1     | 20 A | Dry Skills Lab/Classroom 135 - A/V Receptacle | 46  |
| 47          | Spare                                       | 20 A | 1     |         |         | 0 360   | 1     | 20 A | Models/Storage/Research 137 - Receptacles     | 48  |
| 49          | Spare                                       | 20 A | 1     | 0 0     |         |         | 1     | 20 A | Spare                                         | 50  |
| 51          | Spare                                       | 20 A | 1     |         | 0 0     |         | 1     | 20 A | Spare                                         | 52  |
| 53          | Spare                                       | 20 A | 1     |         |         | 0 0     | 1     | 20 A | Spare                                         | 54  |
| Total Load: |                                             |      |       | 7020 VA | 7020 VA | 5400 VA |       |      |                                               |     |
| Total Amps: |                                             |      |       | 61 A    | 61 A    | 45 A    |       |      |                                               |     |

Notes:

PLUMBING FIXTURES AND EQUIPMENT

|                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WATER CLOSET: WC-1 MEN'S / WOMENS TOILET ROOM                                                  | FIXTURE - AMERICAN STANDARD MODEL #3351.160 "AFWALL", VITREOUS CHINA, WALL HUNG, TOP STUD, SIPHON JET FLUSH ACTION, ELONGATED BOWL WATER CLOSET, 1.6 GPF, STANDARD MOUNTING HEIGHT<br>FLUSH VALVE - SLOAN ROYAL MODEL 8111-1.6/1 (DUAL FLUSH) SENSOR OPERATED BATTERY POWERED FLUSH VALVE WITH MANUAL OVERRIDE BUTTONS, RATED FOR 1.6/1.1 GPF, WITH SCREWDRIVER SEAT AND CHROME PLATED CAST BRASS WALL FLANGE WITH SET SCREW<br>SEAT - OLSONITE MODEL #10-AM-CC-SS WITH DURAGUARD ANTIMICROBAL BUILT-IN SEAT PROTECTION AND STAINLESS STEEL HINGES, ELONGATED, HEAVY-DUTY, OPEN FRONT, LESS COVER<br>CARRIER - J.R. SMITH, ADJUSTABLE WITH PROPER DRAIN FITTING. ASSEMBLY TO BE COMPATABLE WITH FIXTURE AND APPLICATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| WATER CLOSET: WC-2 MEN'S / WOMENS TOILET ROOM & PRIVATE TOILET ROOMS                           | FIXTURE - AMERICAN STANDARD MODEL #3351.160 "AFWALL", VITREOUS CHINA, WALL HUNG, TOP STUD, SIPHON JET FLUSH ACTION, ELONGATED BOWL WATER CLOSET, 1.6 GPF, 18" AFF MOUNTING HEIGHT FOR ADA COMPLIANCE<br>FLUSH VALVE - SLOAN ROYAL MODEL 8111-1.6/1 (DUAL FLUSH) SENSOR OPERATED BATTERY POWERED FLUSH VALVE WITH MANUAL OVERRIDE BUTTONS, RATED FOR 1.6/1.1 GPF, WITH SCREWDRIVER SEAT AND CHROME PLATED CAST BRASS WALL FLANGE WITH SET SCREW<br>SEAT - OLSONITE MODEL #10-AM-CC-SS WITH DURAGUARD ANTIMICROBAL BUILT-IN SEAT PROTECTION AND STAINLESS STEEL HINGES, ELONGATED, HEAVY-DUTY, OPEN FRONT, LESS COVER<br>CARRIER - J.R. SMITH, ADJUSTABLE WITH PROPER DRAIN FITTING. ASSEMBLY TO BE COMPATABLE WITH FIXTURE AND APPLICATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| URINAL: UR-1 MEN'S TOILET ROOM ADA                                                             | FIXTURE - AMERICAN STANDARD MODEL 6590.005 "WASHBROOK" WASHOUT FLUSH ACTION TYPE TOP STUD, WALL HUNG VITREOUS CHINA URINAL, 0.5 GPF, WITH WALL HANGER, 2" OUTLET STANDARD MOUNTING HEIGHT<br>FLUSHOMETER - SLOAN ROYAL MODEL 8186.05 SENSOR OPERATED BATTERY POWERED FLUSH VALVE WITH OVERRIDE BUTTON, CHROME PLATED FLUSH VALVE, WITH SCREWDRIVER ANGLE STOP WITH RESISTANT STOP, ADJUSTABLE TAILPIECE, 3/4" HIGH BACK PRESSURE VACUUM BREAKER SPUD COUPLING AND FLANGE FOR TOP SPUD<br>CARRIER - J.R. SMITH, ADJUSTABLE WITH PROPER DRAIN FITTING. ASSEMBLY TO BE COMPATABLE WITH FIXTURE AND APPLICATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| LAVATORY: LAV-1 MEN'S / WOMENS TOILET ROOM ADA                                                 | FIXTURE - AMERICAN STANDARD MODEL #0497.221 "OVALYN" VITREOUS CHINA 19 INCHX16 INCH UNDER COUNTER LAVATORY, 4 INCH CENTERS FOR FAUCET, WITH MOUNTING KIT FOR UNDER COUNTER INSTALLATION<br>FAUCET - SYMMONS FAUCET MODEL S-20-2-G-0.5, DECK MOUNTED 4" CENTER, SINGLE LEVER HOT AND COLD WATER CHROME PLATED FAUCET, WITH 0.5 GPM FLOW RETRACTOR DRAIN - 1-1/4" CHROME TRAP - 1-1/4" X 1-1/2" CHROME PLATED 17 GAUGE CAST P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE<br>SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY 1/4 TURN STOPS AND WALL ESCUTCHEONS<br>INSTALL TRUEBRO SERIES 102 MOLDED FOAM PLASTIC ADA COMPLIANT COVERS ON SUPPLIES, WASTE, WASTE ARM AND TRAP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| LAVATORY: LAV-2 PRIVATE TOILET ROOMS ADA                                                       | FIXTURE - AMERICAN STANDARD MODEL 0358.012 "LUCERNE" VITREOUS CHINA 20 INCH X 18 INCH WALL HUNG LAVATORY, 4 INCH CENTERS FOR FAUCET. DRILLED FOR CONCEALED ARM CARRIER INSTALLATION. MOUNT UNDERSIDE OF RIM AT 29 INCHES AFF FOR WHEELCHAIR ACCESS.<br>FAUCET - CHICAGO FAUCET MODEL S-20-2-G-0.5, DECK MOUNTED 4" ON CENTER SINGLE LEVER HOT AND COLD WATER CHROME PLATED FAUCET, WITH 0.5 GPM FLOW RESTRICTOR DRAIN - 1-1/4" CHROME PLATED CAST BRASS PREFERATED GRID DRAIN<br>TRAP - 1-1/4" X 1-1/2" CHROME PLATED 17 GAUGE CAST P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE<br>SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY 1/4 TURN STOPS AND WALL ESCUTCHEONS<br>INSTALL TRUEBRO SERIES 102 MOLDED FOAM PLASTIC ADA COMPLIANT COVERS ON SUPPLIES, WASTE, WASTE ARM AND TRAP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CLINICAL SERVICE SINK: CSS-1 CADAVER LAB                                                       | FIXTURE - AMERICAN STANDARD WALL HUNG CLINICAL SERVICE SINK MODEL 9512.989.020 WITH THREE RIM GUARDS MODEL 7832512.075<br>FAUCET - AMERICAN STANDARD MODEL 6345.115-002 EXPOSED YOKE WALL-MOUNT UTILITY FAUCET WITH BOTTOM FORK BRACE AND OFFSET SHANKS. POLISHED CHROME FINISH, CAST BRASS BODY, METAL WRISTBLADE HANDLES WITH RED AND BLUE COLOR INDICATORS AND VANDAL RESISTANT SCREWS, 1/4" TURN CERAMIC DISC VALVE CARTRIDGES. BRASS SPOUT WITH BRACKET HOOK, BOTTOM FORK BRACED TO WALL. INTEGRAL SUPPLY STOPS, OFFSETS WITH INTEGRAL CHECK VALVES. 1/2" FEMALE INLETS WITH INLETS WITH ADJUSTABLE CENTERS FROM 6" TO 10".<br>FLUSH VALVE - SLOAN 117 EXPOSED SERVICE SINK TOP STUD FLOWSHOMETER, RATED FOR 6.5 GPF, HIGH CHLOROMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM WITH LINEAR FILTERED BYPASS AND VORTEX CLEANSING ACTION, ADA COMPLIANT METAL OSCILLATING NONHOLD-OPEN HANDLE WITH TRIPLE SEAL HANDLE PACKINGS. 1" I.P.S. SCREWDRIVER BAK-CHEK ANGLE STOP, ADJUSTABLE TAILPIECE, VACUUM BREAKER WITH FLUSH CONNECTION, STUD COUPLING AND STUD FLANGE FOR 1 1/2" TOP STUD; SWEAT SOLDER ADAPTOR WITH COVER TUBE AND CAST WALL FLANGE. PROVIDE WITH J. R. SMITH CARRIER SERIES 0631Y(X) WITH FITTING SPECIFIC TO THE FIXTURE.                                                                                                                                                     |
| SCRUB SINK: SS-1 SIN LAB AND CADAVER LAB                                                       | FIXTURE - ELKAY MODEL #EWSF13026SAC SURGICAL SINGLE STATION SCRUB-UP SINK, WALL MOUNTED, #16 GAUGE, TYPE 304 (18R),STAINLESS STEEL, COVED CORNERS, KEYED ACCESS DOOR, WALL HANGER, FULL LENGTH BRACKSLASH AND FULL EXPOSURE. UNIT TO BE POLISHED TO A SATIN FINISH AND THE UNDERSIDE TO BE SOUND DEADENED<br>FAUCET - ELKAY MODEL #K1802.16C, SENSOR OPERATED NON-FREEZE FAUCET WITH ADJUSTABLE SENSOR EYES. FAUCET TO BE CHROME PLATED, SOLID BRASS CONSTRUCTION WITH 2.0 GPM LAMINAR FLOW CONTROL. ASSEMBLY TO BE PROVIDED WITH MANUFACTURERS CONTROL, MODULE AND POWER CABLES, DUAL POWER OPTIONS AC PLUG-IN OR 4-A BATTERIES, IN-LINE FILTER, WITH CLEAN-OUT TRAP, AND FLEXIBLE SUPPLY HOSE.<br>DRAIN - ELKAY #K188 STAINLESS STEEL PERFORATED STRAINER GRID, DRAIN WITH 1-1/2" O.D. X 4" STAINLESS STEEL TAILPIECE.<br>THERMOSTATIC MIXING VALVE - ELKAY MODEL LK723 POINT-OF-USE WATER TEMPERING VALVE, COMPLYING WITH ASSE 1016 AND ASSE 1070, POSITIVE SHUTOFF OF HOT WATER WHEN COLD WATER SUPPLY IS LOST, ROUGH BRONZE BODY AND CAP WITH REPLACEABLE CORROSION-RESISTANT COMPONENTS. SET POINT: FACTORY PRESET AT 100 DEG. F, OUTLET TEMPERATURE RANGE: 80 TO 120 DEG. F. INLETS / OUTLET CONNECTIONS 1/2" NPT.<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS. |
| SINK: SK-1 BREAKROOMS (TO BE FURNISHED AND INSTALLED WITH FIXTURE GD-1)                        | FIXTURE - ELKAY MODEL GECR2521 GOURMET (CELEBRITY) SINGLE BOWL (21"x12"x5.25") TOP MOUNT STAINLESS STEEL SINK, 18 GAUGE TYPE 304 CONSTRUCTION WITH SATIN POLISH FINISH AND FULLY UNDERCOATED TO DAMPEN SOUND. SINK TO BE 4-HOLE PUNCHED FOR FAUCET AND SIDE SPRAY.<br>FAUCET - CHICAGO MODEL 200-AABCP MANUAL FAUCET, WITH SIDE SPRAY. CHROME PLATED FINISH, 8" L" TYPE SWING SPOUT, 2" VANDAL PROOF CANOPY SINGLE WING HANDLES, 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF AERATOR OUTLET.<br>DRAIN - TO BE INSTALLED WITH GARBAGE DISPOSER GD-1<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| GARBAGE DISPOSER: GD-1                                                                         | INSINKERATOR MODEL EVOLUTION COMPACT FOOD WASTE DISPOSER WITH MULTI-GRIND AND SOUND SEAL TECHNOLOGIES, 120 VOLT, 0.75 HP MOTOR WITH STAINLESS STEEL GRIND COMPONENTS. PERMANENTLY LUBRICATED UPPER AND LOWER BEARINGS AND MANUAL RESET OVERLOAD.<br>TO BE FURNISHED AND INSTALLED WITH FIXTURE SK-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| SINK: SK-2 NURSING ROOM EXAM ROOM LACT. (Z75)                                                  | FIXTURE - ELKAY MODEL LRAD1517 SINGLE BOWL (12"x12"x6.5") TOP MOUNT STAINLESS STEEL SINK, 18 GAUGE TYPE 304 CONSTRUCTION WITH SATIN POLISH FINISH AND FULLY UNDERCOATED TO DAMPEN SOUND. SINK TO BE 4-HOLE PUNCHED FOR FAUCET<br>FAUCET - CHICAGO MODEL 885-317CZABCP MANUAL FAUCET, CHROME PLATED FINISH, RIGID GOOSENECK SPOUT, WRIST BLADE HANDLES, 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF LAMINAR OUTLET.<br>DRAIN - ELKAY #KAD-18, CHROME PLATE STAMPED BRASS DRAIN OUTLET FITTING WITH 3" CHROME PLATED STEEL PERFORATED GRID STRAINER, TO INCLUDE LKDOS CHROME PLATED OFF-SET TAILPIECE WITH CAST BRASS ELBOW<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SINK: SK-3 NURSING CLASSROOMS / CLBS                                                           | FIXTURE - SINK TO BE INTEGRAL WITH COUNTERTOP, CONTRATOR TO FURNISH AND INSTALL FAUCET AND DRAIN ASSEMBLY. UNDERCOATED TO DAMPEN SOUND. SINK TO BE 3-HOLED PUNCHED FOR FAUCET.<br>FAUCET - CHICAGO MODEL 786-GN2BVBE3-2ABCP, CHROME PLATED FINISH, GOOSENECK SPOUT, VANDAL PROOF WRIST BLADE HANDLES, 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF AERATOR OUTLET.<br>DRAIN - ELKAY #LK-35, TYPE 304 STAINLESS STEEL BODY WITH REMOVABLE CONICAL BASKET, STRAINER WITH METAL STEM AND RUBBER STOPPER. POLISHED FINISH, CHROME PLATED BRASS 1-1/2" x 4" TAILPIECE.<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MOP SINK MS-1                                                                                  | FIAT PRODUCTS MODEL TS83000 MOP SERVICE BASIN, ONE-PIECE, PRECAST TERRAZZO, 24"x24"x12", STAINLESS STEEL CAPS ON ALL CURB EDGES. FIXTURE TO INCLUDE FIAT PRODUCTS, 830AA MOP SERVICE BASIN FITTING, 832AA SILICON SEALANT, MSG STAINLESS WALL GUARDS AND 832AA HOSE AND HOSE BRACKET.<br>FAUCET - WALL MOUNTED CHICAGO FAUCET MODEL 640-LD8978WV3317CP, 8" ON CENTERS, 8.3/4" RIGID VACUUM BREAKER SPOUT WITH 3/4" MALE HOSE THREAD AND PAIL HOOK, 4" WRISTBLADE HANDLES FOR HOT AND COLD WATER SUPPLIES, QUATURN COMPRESSION OPERATION CARTRIDGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ELECTRIC WATER COOLER: EW-1                                                                    | HALSEY TAYLOR MODELHAC2F8SBL-Q,ADA LEED-FREE, SELF-CONTAINED, HEAVY-DUTY, B.LEVEL WALL MOUNTED WATER COOLER, BARRIER FREE. FOUNTAIN TOP CONSTRUCTED OF STAINLESS STEEL POLISHED SATIN FINISH, PUSH BAR ACTIVATION, ONE-PIECE, CHROME PLATED BUBBLER AND IN-LET STRAINER. UNIT TO BE RATED FOR 8.0 GPH AT 80°F. 115V/1" /60HZ OPERATION, 4.0 FLA. VERIFY INSTALLATION AND ROUGH-IN REQUIREMENTS PRIOR TO ORDERING UNIT OR COMMENCING WORK.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SUMP PUMP: SP-1 / SP-2 LEVEL 0 MECHANICAL ROOM                                                 | WEIL PUMP CO. INC. DUPLEX SUMP PUMP MODEL 2224 (EACH), EACH PUMP RATED FOR 350 GPM @ 25 FT OF HEAD WITH 5 HP MOTORS, 480 VOLTS, 3-PHASE POWER. FOUR, INCH DIAMETER DISCHARGE. ASSEMBLY SHALL BE COMPLETE WITH NEMA 1 WALL MOUNTED CONTROL CABINET WITH; FUSED DISCONNECT, HIGH VOLTAGE STARTERS, ALTERNATOR, HIGH WATER ALARM RELAY AND PUMP FAILURE RELAY WITH EXTRA CONTACT FOR REMOTE ALARM, CONTROL TRANSFORMER (WHERE REQUIRED FOR 120 VOLT CONTROL, POWER CODED TERMINAL STRIP AND ELAPSE TIME TIMER. PEDestal MOUNTED ALTERNATE FLAT SWITCHES TO ALTERNATE OPERATIONS OF THE PUMPS AND TO PROVIDE SIMULTANEOUS OPERATION WHEN REQUIRED. SUMP PIT SHALL BE 36 INCH DIAMETER, REINFORCED FIBERGLASS. ASSEMBLY TO INCLUDE ALL NECESSARY AND REQUIRED FITTINGS, VALVES, ACCESSORIES, PIPE HANGERS AND SUPPORTS AS REQUIRED FOR A COMPLETE DUPLEX SYSTEM. SYSTEM TO INCLUDE SAND INTERCEPTOR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SUMP PUMP: ESP-1 /ESP-2 ELEVATOR PIT 1 AND 2                                                   | WEIL PUMP CO. INC. MODEL 1411 SUBMERSIBLE SUMP PUMP, RATED FOR 30 GPM @ 27 FT OF HEAD. ASSEMBLY SHALL BE COMPLETE WITH HIGH WATER ALARM FLOAT AND SMART CONTROL SYSTEM WITH BUILT-IN AUDIBLE AND VISUAL ALARM TO INDICATE WHEN PUMP IS NOT OPERATING DUE TO HIGH WATER CONDITIONS. ASSEMBLY TO INCLUDE ALL NECESSARY AND REQUIRED FITTINGS, VALVES, ACCESSORIES, PIPE HANGERS AND SUPPORTS AS REQUIRED FOR A COMPLETE SYSTEM. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| EMERGENCY EYEFACE WASH: EW-1 LABS AND RELATED SPACES                                           | FIXTURE - WATER SAVER SERIES EW849 DECK MOUNTED AUTO-FLOW DUAL ANGLED SPRAY HEAD EYE WASH UNIT. UNIT TO BE CHROME PLATED BRASS, SPRAY HEAD ASSEMBLY TO PROVIDE TWO SPRAY HEADS WITH FLIP-UP DUST COVER, INTERNAL FLOW CONTROL AND IN-LINE FILTER. VALVE TO BE 0.5 INCH PLUG-TYPE WITH O-RING SEALS. UNIT ACTIVATION IS SWING DOWN OPERATION, ASSEMBLY IS TO MOUNT TO COUNTER-TOP, COORDINATE WITH THE GENERAL CONTRACTOR FOR LOCATION OF UNIT AND MOUNTING HOLE. CONTRACTOR NOTE, SEVERAL SRAV HEAD CONFIGURATIONS ARE AVAILABLE IN THIS CATEGORY, SELECT EACH DECK MOUNTED EYE WASH UNIT FOR THE LOCATION AND APPLICATION. INSTALLATION TO BE IN FULL COMPLIANCE WITH A.D.A. GUIDELINES. FURNISH AND INSTALL WITH THERMOSTATIC MIXING VALVE TMV-3, MOUNT IN CABINET SPACE BELOW THE SINK.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| EMERGENCY SHOWER: ES-1 LABS AND RELATED SPACES                                                 | FIXTURE - GUARDIAN MODEL GBF2150 RECESSED SAFETY STATION WITH PULL DOWN EYEWASH COVER/DRAIN PAN, 10 INCH DIAMETER EXPOSED STAINLESS STEEL SHOWER HEAD SHOWER VALVE TO BE 1 INCH BRASS STAY OPEN BALL VALVE, WITH STAINLESS STEEL PANCI BAR ACTUATOR. COVER/DRAIN PAN TO BE PULL DOWN ACTIVATION AND EYEFACE WASH ASSEMBLY. EYEFACE WASH VALVE TO BE 0.5 INCH BRASS PLUG TYPE VALVE WITH O-RING SEALS, FURNISHED WITH IN-LINE STRAINER. UNIT TO CONNECT TO 2 INCH WASTE. MOUNTING HEIGHT TO BE IN FULL COMPLIANCE WITH A.D.A. GUIDELINES. CONTRACTOR TO FURNISH AND INSTALL 1 INCH PIPING AND FITTINGS AS REQUIRED FROM THE RECESSED UNIT TO TEE SHOWER HEAD. FURNISH AND INSTALL WITH THERMOSTATIC MIXING VALVE TMV-2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| THERMOSTATIC MIXING VALVE: TMV-1 DOMESTIC HOT WATER SERVICE                                    | BRADLEY MODEL # 559-3130-B-P. PIPED ASSEMBLY WITH INLET AND OUTLET SHUT-OFFS, LEAD FREE BRASS CONSTRUCTION FACTORY ASSEMBLED AND TESTED, INTEGRAL CHECK-STOPS AND STRAINER ON INLETS, ADJUSTABLE SET POINT WITHIN TEMPERATURE RANGE, BUILT-IN COLD WATER BYPASS, ASSURING COLD FLOW, POSITIVE SHUTOFF ON HOT WATER WHEN COLD SUPPLY IS LOST, DIRT AND LIME RESISTANT, DUAL THERMOMETER, PROVIDE MANUFACTURERS WALL MOUNTING BRACKET. INLETS TO BE 1-1/4", OUTLET TO BE 1-1/2". MAXIMUM OPERATING PRESSURE 125 PSI, MAXIMUM INLET TEMPERATURE 200°F. MOUNT FOR FULL ACCESSIBILITY AND POSITION THERMOMETER TO BE VISIBLE AND EASILY READ. VERIFY AND COORDINATE TEMPERATURE SET-POINT WITH THE FACILITIES STAFF.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| THERMOSTATIC MIXING VALVE: TMV-2 (TO BE FURNISHED AND INSTALLED WITH EMERGENCY SHOWERS - ES-1) | BRADLEY MODEL # 52100-B-P. EMERGENCY FIXTURE THERMOSTAIC MIXING VALVE. PIPED ASSEMBLY WITH INLET AND OUTLET SHUT-OFFS, LEAD FREE BRASS CONSTRUCTION FACTORY ASSEMBLED AND TESTED, INTEGRAL CHECK-STOPS AND STRAINER ON INLETS, ADJUSTABLE SET POINT WITHIN TEMPERATURE RANGE, BUILT-IN COLD WATER BYPASS, ASSURING COLD FLOW, POSITIVE SHUTOFF ON HOT WATER WHEN COLD SUPPLY IS LOST, DIRT AND LIME RESISTANT, SINGLE THERMOMETER, PROVIDE MANUFACTURERS WALL MOUNTING BRACKET. INLETS TO BE 3", OUTLET TO BE 1", MAXIMUM INLET TEMPERATURE 120°F. MOUNT ABOVE THE EMERGENCY SHOWER IN THE UP-RIGHT POSITION. ASSEMBLY TO BE FULLY ACCESSIBLE, THERMOMETER TO BE VISIBLE AND EASILY READ. SET-POINT TEMPERATURE TP BE 85°F.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| THERMOSTATIC VALVE: TMV-3 (TO BE FURNISHED AND INSTALLED WITH EMERGENCY EYE WASH - EW-1)       | BRADLEY MODEL # 519-2000-B-P. EMERGENCY FIXTURE THERMOSTAIC MIXING VALVE. LEAD FREE BRASS CONSTRUCTION FACTORY ASSEMBLED AND TESTED, INTEGRAL CHECK-STOPS ON INLETS, ADJUSTABLE SET POINT WITHIN TEMPERATURE RANGE, BUILT-IN COLD WATER BYPASS, ASSURING COLD FLOW, POSITIVE SHUTOFF ON HOT WATER WHEN COLD SUPPLY IS LOST, DIRT AND LIME RESISTANT, SINGLE THERMOMETER, PROVIDE MANUFACTURERS WALL MOUNTING BRACKET. INLETS TO BE 1/2", OUTLET TO BE 1/2". MAXIMUM OPERATING PRESSURE 125 PSI, MAXIMUM INLET TEMPERATURE 180°F. MOUNT IN THE CABINET SPACE BELOW THE SINK, IN THE IN UP-RIGHT POSITION. ASSEMBLY TO BE FULLY ACCESSIBLE, THERMOMETER TO BE VISIBLE AND EASILY READ. SET-POINT TEMPERATURE TO BE 85°F.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| HOSE STATION: HS-1 CADAVER LAB                                                                 | ACORN ENGINEERING COMPANY SERIES 8156 - HOSE & SUPPLY BOX FOR HOT AND COLD WATER SERVICE. STAINLESS STEEL RECESSED BOX WITH WALL FLANGE AND LEAD-FREE VACUUM BREAKER BOX TO BE CONSTRUCTED OF 18 GAUGE, TYPE 304 STAINLESS STEEL, WALL FLANGE TO BE 16 GAUGE STAINLESS STEEL WITH A SATIN FINISH. INLETS 3/4" FEMALE, OUTLET 1" MALE HOSE THREAD VALVES AND STOP BODY TO BE CAST BRONZE, EXPOSED PARTS TO BE CHROME PLATED, WITH SCREWDRIVER STOPS FOR SERVING EACH VALVE. DOOR IS TO BE PROVIDED WITH A CYLINDER LOCK DOOR AND/OR LOCK TO BE EASILY REMOVABLE AT OWNERS OPTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| COFFEE MAKER OUTLET BOX: CM-1                                                                  | GUY GRAY MODEL MDWB1AB RECESSED WHITE POWDER COATED STEEL WATER OUTLET BOX WITH 5 INCH SWEAT CONNECTION LEAD FREE QUARTER TURN VALVE AND WATER HAMMER ARRESTER. UNIT TO BE MOUNTED ABOVE THE COUNTER OR AS DIRECTED BY THE ARCHITECT, VERIFY EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE TUBING, FITTINGS AND MAKE FINAL CONNECTION TO EQUIPMENT AS REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ICE MAKER OUTLET BOX: IM-1                                                                     | GUY GRAY MODEL MB1HAB RECESSED WHITE POWDER COATED STEEL WATER OUTLET BOX WITH 5 INCH SWEAT CONNECTION LEAD FREE QUARTER TURN VALVE AND WATER HAMMER ARRESTER. UNIT TO BE MOUNTED BEHIND THE EQUIPMENT, IN AN ACCESSIBLE LOCATION OR AS DIRECTED BY THE ARCHITECT, VERIFY EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE TUBING, FITTINGS AND MAKE FINAL CONNECTION TO EQUIPMENT AS REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DISHWASHER OUTLET BOX: DW-1                                                                    | GUY GRAY MODEL MDWB1AB RECESSED WHITE POWDER COATED STEEL WATER OUTLET BOX WITH 5 INCH SWEAT CONNECTION LEAD FREE QUARTER TURN VALVE AND WATER HAMMER ARRESTER. UNIT TO BE MOUNTED BEHIND THE EQUIPMENT, IN AN ACCESSIBLE LOCATION OR AS DIRECTED BY THE ARCHITECT, VERIFY EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE TUBING, FITTINGS AND MAKE FINAL CONNECTION TO EQUIPMENT AS REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| GREASE INTERCEPTOR: GI-1                                                                       | J. R. SMITH SERIES 8235-B-(2)264Y-420-H2O ARID STEEL INTERCEPTOR WITH EXTENSION WITH LIFT OUT SEDIMENT BUCKET, TRAFFIC RATED COVER, FLOW CONTROL FITTING AND GRAY RAIN RESISTANT COATING INSIDE AND OUTSIDE. ASSEMBLY RATED FOR 35 GPM AND 70 LBS OF GREASE CAPACITY. PROVIDE MANUFACTURERS EXTENSION FOR DEPTH REQUIRED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ELECTRONIC TRAP PRIMER: TP-1                                                                   | PRECISION PLUMBING PRODUCTS MODEL PTR-8. PROVIDE WITH EIGHT, 5/8" COMPRESSION FITTINGS FOR 1/2" COPPER WATER LINE TO EACH FLOOR SINK. ONE OUTLET TO BE CAPPED AS REQUIRED. ASSEMBLY TO BE COMPLETE WITH ANTI-SIPHON ATMOSPHERIC VACUUM BREAKER, WITH 24-HOUR AUTOMATIC TYPING, WITH MANUAL OVER-RIDE BUTTON, INTERNAL CIRCUIT BREAKER AND SOLENOID VALVE OPERATING AT 120 VOLT, HOUSED IN A NEMA 1 SURFACE MOUNTED CABINET.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

PLUMBING FIXTURES AND EQUIPMENT

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| DOMESTIC WATER HEATER: HW-1 DOMESTIC WTR. SERVICE                                                                                                                                                                                                                                                                                                                                                          | RHEM MODEL GHE 100ES-400A SPIDER-FIRE HIGH EFFICIENCY COMMERCIAL NATURAL GAS FIRE HOT WATER HEATER. UNIT TO BE SEALED COMBUSTION, ULTRA LOW NOX WITH A THERMAL EFFICIENCY OF 94%, WITH A NATURAL GAS INPUT OF 400 MBH AND A RECOVERY RECOVERY RATE OF 445 GALLONS AT 100°F TEMPERATURE RISE, RATED FIRST HOUR DELIVERY OF 1545 GALLONS. WATER HEATER SHALL HAVE A STORAGE CAPACITY OF 100 GALLONS. ASME SECTION IV, UNIFORM CODE, 2015 EDITION, 1000 PSI MAXIMUM WORKING PRESSURE. LEAD FREE BRASS BODY CONSTRUCTION WITH A STANDARD CHARGING VALVE. TANK TO BE CONSTRUCTED IN ACCORDANCE TO ASME SECTION VII. EXPANSION TANK TANK VOLUME 20.0 GALLONS, TANK ACCEPTANCE 15.5 GALLONS. ALLOW FOR FLEXIBILITY IN INSTALLATION, A FULL-PORT DRAIN VALVE SHALL BE FACTORY INSTALLED. GAS IGNITION SHALL BE BY DIRECT SPARK. ASSEMBLY SHALL MEET THE REQUIREMENTS OF CSA AND HAVE CERTIFICATION SEAL ATTACHED. FURNISH AND INSTALL WITH THERMOSTATIC MIXING VALVE TMV-1                                                                                                                                                 |
| EXPANSION TANK: ET-1                                                                                                                                                                                                                                                                                                                                                                                       | WATTS SERIES DETA 60, ASME PRESSURIZED EXPANSION TANK. PRE-CHARGED TO 40 PSI WITH FIXED BUTYL BLADDER, PRESSURE CHARGE IS FIELD ADJUSTABLE. TOP POSITION NPT STAINLESS STEEL CONNECTION AND A STANDARD CHARGING VALVE. TANK TO BE CONSTRUCTED IN ACCORDANCE TO ASME SECTION VII. EXPANSION TANK TANK VOLUME 20.0 GALLONS, TANK ACCEPTANCE 15.5 GALLONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DOMESTIC HOT WATER CIRCULATING PUMP: HWP-1                                                                                                                                                                                                                                                                                                                                                                 | BELL & GOSSETT MODEL NF-25 1-IN LINE SYSTEM LUBRICATED CIRCULATION PUMP. SUITABLE FOR OPERATION OF 225°F) AND160 PSI MAXIMUM WORKING PRESSURE. LEAD FREE BRONZE BODY WITH NORYL IMPELLER. PUMP TO BE RATED FOR 6 GPM AT 10 FT/H. ELECTRICAL CHARACTERISTICS - 115 VOLT, SINGLE PHASE POWER, 125 WATTS/1.10 FULL LOAD AMPS. APPROXIMATE PUMP WEIGHT 10.4 LBS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| BACKFLOW PREVENTER: BFP-1 MAKE-UP WATER SERVICE                                                                                                                                                                                                                                                                                                                                                            | WATTS REGULATOR SERIES LF909-QT-FAD-S-FDA REDUCED PRESSURE ZONE ASSEMBLY, 4 INCH INLET AND OUTLET, FDA EPOXY COATED QUARTER TURN OPERATING VALVES, BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE, FDA EPOXY COATED STRAINER, WATTS WMODEL ACV-115 EPOXY COATED CAST IRON BODY BRASS TRIM PRESSURE REDUCING VALVE. WATTS MODEL 909AC-K AIR GAP FITTING AND RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| BACKFLOW PREVENTER: BFP-2 MAKE-UP WATER SERVICE                                                                                                                                                                                                                                                                                                                                                            | WATTS REGULATOR SERIES LF909-QT-S- REDUCED PRESSURE ZONE ASSEMBLY, 0.75 INCH INLET AND OUTLET, QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE, BRONZE STRAINER, MODEL 909AC-C AIR GAP FITTING AND RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| BACKFLOW PREVENTER: BFP-4 DEIONIZED WTR. SERVICE                                                                                                                                                                                                                                                                                                                                                           | WATTS REGULATOR SERIES LF909-QT-S- REDUCED PRESSURE ZONE ASSEMBLY, 1 INCH INLET AND OUTLET, QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE, BRONZE STRAINER, MODEL 909AG-X AIR GAP FITTING AND RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| BACKFLOW PREVENTER: BFP-4 MAKE-UP WATER SERVICE                                                                                                                                                                                                                                                                                                                                                            | WATTS REGULATOR SERIES LF909-QT-SOT-S- REDUCED PRESSURE ZONE ASSEMBLY, 1-1/4 INCH INLET AND OUTLET, QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE, BRONZE STRAINER, RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| FLOOR DRAIN: FD-1 PUBLIC SPACES AND AS INDICATED                                                                                                                                                                                                                                                                                                                                                           | JAY R. SMITH MODEL 2005Y-NB-U-P050, DUCO CAST IRON BODY CONSTRUCTION WITH ADJUSTABLE STRAINER HEAD, NO HUB 4 INCH OUTLET, 8 INCH ROUND NICKEL BRONZE STRAINER TOP WITH VANDAL PROOF SCREWS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| FLOOR DRAIN: FD-2 CADAVER LAB                                                                                                                                                                                                                                                                                                                                                                              | JAY R. SMITH MODEL 2005Y-NB-B-U-P050, DUCO CAST IRON BODY CONSTRUCTION, 4 INCH NO-HUB OUTLET WITH ADJUSTABLE 8 INCH ROUND NICKEL BRONZE STRAINER HEAD, TRAP PRIMER CONNECTION, SEDIMENT BUCKET AND VANDAL PROOF SCREWS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| FLOOR DRAIN: FD-3 LEVEL 0 AND MECHSERVICE AREAS                                                                                                                                                                                                                                                                                                                                                            | JAY R. SMITH MODEL 2360Y- E - H - P. DUCO CAST IRON BODY CONSTRUCTION AND FLASHING COLLAR WITH ADJUSTABLE TOP, GALVANIZED CAST IRON 11.5 INCH BAR GRATE AND DEEP SLOTTED SEDIMENT BUCKET, AND TRAP PRIMER CONNECTION. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. PROVIDE ADJUSTABLE EXTENSION AND TRANSITION. COLLAR AS REQUIRED. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SUMP PUMP: SP-3 LEVEL 0 CONDENSATE DRAINS                                                                                                                                                                                                                                                                                                                                                                  | WEIL PUMP CO. INC. MODEL 1411 SUBMERSIBLE SUMP PUMP, RATED FOR 25 GPM @ 25 FT OF HEAD. ASSEMBLY SHALL BE COMPLETE WITH HIGH WATER ALARM FLOAT AND SMART CONTROL SYSTEM WITH BUILT-IN AUDIBLE AND VISUAL ALARM. WHEN PUMP IS NOT OPERATING DUE TO HIGH WATER CONDITIONS. ASSEMBLY TO INCLUDE ALL NECESSARY AND REQUIRED FITTINGS, VALVES, ACCESSORIES, PIPE HANGERS AND SUPPORTS AS REQUIRED FOR A COMPLETE SYSTEM. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR. PROVIDE SUMP PIT AND COVER SIMILAR TO THAT USED FOR SUMP PUMP SP-1/SP-2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ROOF DRAIN: RD-1                                                                                                                                                                                                                                                                                                                                                                                           | JAY R. SMITH MODEL 1010Y-R-C-DIC, LARGE GENERAL PURPOSE ROOF DRAIN. DUCO CAST IRON BODY CONSTRUCTION WITH COMBINED FLASHING CLAMP AND GRAVEL STOP. TO INCLUDE SUMP RECEIVER, UNDER-DECK CLAMP AND CAST IRON DOME STRAINER. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ROOF DRAIN: RD-2 GREEN ROOF                                                                                                                                                                                                                                                                                                                                                                                | JAY R. SMITH MODEL 1900Y-R-C, GREEN ROOF MAIN AREA DRAIN WITH STANDPIPE. DUCO CAST IRON BODY CONSTRUCTION FLASHING CLAMP AND STAINLESS STEEL PERFORATED GRAVEL STOP. TO INCLUDE SUMP RECEIVER, UNDER-DECK CLAMP. COORDINATE HEIGHT OF PERFORATED GRAVEL STOP AND STANDPIPE WITH DEPTH OF GREEN ROOF IN-FILL. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| OVERFLOW ROOF DRAIN: OD-1                                                                                                                                                                                                                                                                                                                                                                                  | JAY R. SMITH MODEL 1070Y-R-C-SP2-CID, SPECIAL PURPOSE ROOF DRAIN. DUCO CAST IRON BODY CONSTRUCTION WITH COMBINED FLASHING CLAMP AND GRAVEL STOP. TO INCLUDE PVC STANDPIPE, SUMP RECEIVER, UNDER-DECK CLAMP AND CAST IRON DOME STRAINER. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DOWNSPOUT NOZZLE: DN-1                                                                                                                                                                                                                                                                                                                                                                                     | JAY R. SMITH MODEL 1775-U, SPECIAL PURPOSE DOWNSPOUT COVER. TYPE 304 STAINLESS STEEL CONSTRUCTION WITH SECURED HINGED PERFORATED COVER. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. COORDINATE LOCATIONS AND ELEVATION WITH THE ARCHITECT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| FLOOR SINK: FS-1                                                                                                                                                                                                                                                                                                                                                                                           | JAY R. SMITH MODEL 3161Y-O3-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR, 10 INCH SUMP DEPTH. SQUARE 12.5 INCH TOP, NICKEL BRONZE RIM WITH 3/4 GRATE, SEDIMENT BUCKET, NO-HUB 3" CONNECTION AND TRAP PRIMER CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| FLOOR SINK: FS-2                                                                                                                                                                                                                                                                                                                                                                                           | JAY R. SMITH MODEL 3461Y-O3-U-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR, 10 INCH SUMP DEPTH. SQUARE 12.5 INCH TOP, NICKEL BRONZE RIM WITH 3/4 GRATE, SEDIMENT BUCKET, FLASHING CLAMP, VANDAL PROOF SCREWS AND NO-HUB 3" CONNECTION AND TRAP PRIMER CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| FLOOR SINK: FS-3                                                                                                                                                                                                                                                                                                                                                                                           | JAY R. SMITH MODEL 3451Y-O4-C-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR, 12 INCH SUMP DEPTH. SQUARE 16 INCH SQUARE TOP, ACID RESISTANT COATED CAST IRON 3/4 SEDIMENT BUCKET, NO-HUB 4" CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| FLOOR CLEANOUT: FCC-1                                                                                                                                                                                                                                                                                                                                                                                      | JAY R. SMITH MODEL 4023S-U-ROUND CAST IRON BODY FLOOR CLEANOUT WITH TAPER THREAD BRONZE PLUG AND NICKEL BRONZE ADJUSTABLE HEAD WITH SCORIATED SOLID NICKEL BRONZE COVER AND VANDAL PROOF SCREWS. COVER TO HAVE 'CO CAST IN TOP TEE. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| WALL CLEANOUT EXPOSED: WWC-1                                                                                                                                                                                                                                                                                                                                                                               | JAY R. SMITH MODEL 4512S-Y, CAST IRON BODY STACK CLEANOUT TEE, TAPER THREADED WITH BRONZE PLUG. NO-HUB PIPE CONNECTIONS ON BOTH ENDS. FOR USE IN AREAS NON PUBLIC AREAS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| WALL CLEANOUT CONCEALED: WWC-2                                                                                                                                                                                                                                                                                                                                                                             | JAY R. SMITH MODEL 4532S-Y, CAST IRON BODY STACK CLEANOUT TEE, TAPER THREADED WITH BRONZE PLUG. NO-HUB PIPE CONNECTIONS ON BOTH ENDS. STAINLESS STEEL ROUND COVER WITH CENTER SCREW FOR USE IN AREAS PUBLIC AREAS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| WATER HAMMER ARRESTER: WHA                                                                                                                                                                                                                                                                                                                                                                                 | J.R. SMITH SERIES 5000 HYDROTROL ENGINEERED WATER HAMMER ARRESTER. LEAD-FREE STAINLESS CONSTRUCTION PLUMBING. CONTRACTOR TO SELECT UNIT FOR SPECIFIC APPLICATION AND FIXTURE UNIT RATINGS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| WALL HYDRANT: WH-1                                                                                                                                                                                                                                                                                                                                                                                         | J.R. SMITH SERIES 5515-WC-CL WALL MRECESSED GUARDIAN PLUS DUAL CHECK QUARTER TURN NON-FREEZE HYDRANT WITH AUTOMATIC DRAINING INTEGRAL VACUUM BREAKER. INTEGRAL SERVICE SHUT OFF VALVE, DUAL CHECK VALVE AND STAINLESS STEEL BOX. ASSEMBLY TO INCLUDE ADJUSTABLE WALL CLAMP. CONTRACTOR TO SELECT LENGTH FOR WALL THICKNESS APPLICATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| LABORATORY SINK FAUCET AND DRAIN ASSEMBLY: LF-1 LABS AND PREP ROOMS                                                                                                                                                                                                                                                                                                                                        | FIXTURE - SINK IS INTEGRAL WITH COUNTERTOP, CONTRACTOR IS TO FURNISH AND INSTALL FAUCET AND DRAIN ASSEMBLY.<br>FAUCET - CHICAGO FAUCET MODEL 930-317XKCP, DECK MOUNTED SINGLE HOLE HOT AND COLD WATER MIXING FAUCET WITH VACUUM BREAKER, 6" RIGID/SWING SPOUT, 4" VANDAL PROOF WRISTBLADE HANDLES, FULL FLOW NOZZLE, ATMOSPHERIC VACUUM BREAKER.<br>DRAIN - 1-1/2" ACID RESISTANT SINK STRAINER ASSEMBLY<br>TRAP - 1-1/2" ACID RESISTANT P-TRAP WITH AR WASTE ARM AND WALL FLANGE<br>STOP & SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY 1/4 TURN STOPS AND WALL ESCUTCHEONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| LABORATORY SINK FAUCET AND DRAIN ASSEMBLY: LF-2 LABS                                                                                                                                                                                                                                                                                                                                                       | FIXTURE - SINK IS INTEGRAL WITH COUNTERTOP, CONTRACTOR IS TO FURNISH AND INSTALL FAUCET AND DRAIN ASSEMBLY.<br>FAUCET - CHICAGO FAUCET MODEL 928-317XKCP, DECK MOUNTED SINGLE HOLE COLD WATER FAUCET WITH VACUUM BREAKER, 6" RIGID/SWING SPOUT, 4" VANDAL PROOF WRIST BLADE HANDLES, FULL FLOW NOZZLE, ATMOSPHERIC VACUUM BREAKER.<br>DRAIN - 1-1/2" ACID RESISTANT SINK STRAINER ASSEMBLY<br>TRAP - 1-1/2"ACID RESISTANT P-TRAP WITH AR WASTE ARM AND WALL FLANGE<br>STOP & SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY 1/4 TURN STOPS AND WALL ESCUTCHEONS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| LABORATORY DEIONIZED WATER FAUCET : DI-1                                                                                                                                                                                                                                                                                                                                                                   | FAUCET - CHICAGO FAUCET MODEL 828-ACP, DECK MOUNTED CHROME PLATED POLYPROPYLENE PURE WATER FAUCET, WITH 3/8" POLYPROPYLENE MALE THREAD INLET. COORDINATE LOCATION AND DRILLING OF COUNTERTOP WITH THE GENERAL CONTRACTOR. PROVIDE TUBING AND FITTINGS AS REQUIRED FROM THE DEIONIZED WATER CONNECTION POINT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| KITCHEN SINK: KS-1 TEACHING KITCHEN                                                                                                                                                                                                                                                                                                                                                                        | FIXTURE - ELKAY MODEL ECTSR25228BG CROSSTOWN SINGLE BOWL (22"x25"x9") UNIVERSAL MOUNT STAINLESS STEEL SINK, 18 GAUGE TYPE 304 CONSTRUCTION WITH SATIN POLISH FINISH, REAR CENTER DRAIN, AND FULLY UNDERCOATED TO DAMPEN SOUND. SINK TO BE 4-HOLE PUNCHED FOR FAUCET.<br>FAUCET - CHICAGO MODEL 1102-20238AB MANUAL FAUCET, CHROME PLATED FINISH, 5-1/4" RIGID GOOSENECK SPOUT (8GN2AE), 8 INCH FIXED CENTERS, WITH SIDE SPRAY, 4 INCH VANDAL PROOF WRIST BLADE HANDLES, 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF LAMINAR OUTLET.<br>DRAIN - ELKAY #LK-35, TYPE 304 STAINLESS STEEL BODY WITH REMOVABLE CONICAL BASKET, STRAINER WITH METAL STEM AND RUBBER STOPPER. POLISHED FINISH, CHROME PLATED BRASS 1-1/2" x 4" TAILPIECE.<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                           |
| KITCHEN SINK: KS-2 TEACHING KITCHEN                                                                                                                                                                                                                                                                                                                                                                        | FIXTURE - ELKAY MODEL ECTSRAD33228BG CROSSTOWN DOUBLE BOWL (33"x22"x8") DUAL/UNIVERSAL MOUNT STAINLESS STEEL SINK, 18 GAUGE TYPE 304 CONSTRUCTION WITH SATIN POLISH FINISH, REAR CENTER DRAIN, AND FULLY UNDERCOATED TO DAMPEN SOUND. SINK TO BE 4-HOLE PUNCHED FOR FAUCET.<br>FAUCET - CHICAGO MODEL 1102-GN8A3-317AB MANUAL FAUCET, CHROME PLATED FINISH, 8" RIGID GOOSENECK SPOUT, 8 INCH FIXED CENTERS, WITH SIDE SPRAY, 4 INCH VANDAL PROOF WRIST BLADE HANDLES, 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF LAMINAR OUTLET.<br>DRAIN - ELKAY #LK-35, TYPE 304 STAINLESS STEEL BODY WITH REMOVABLE CONICAL BASKET, STRAINER WITH METAL STEM AND RUBBER STOPPER. POLISHED FINISH, CHROME PLATED BRASS 1-1/2" x 4" TAILPIECE.<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                             |
| KITCHEN SINK: KS-3 TEACHING KITCHEN                                                                                                                                                                                                                                                                                                                                                                        | FIXTURE - ELKAY MODEL DLQR191910 GOURMET (LUSTERTONE) SINGLE BOWL (19"x19"x10") TOP UNIVERSAL MOUNT STAINLESS STEEL SINK, 18 GAUGE TYPE 304 CONSTRUCTION WITH SATIN POLISH FINISH, REAR CENTER DRAIN, AND FULLY UNDERCOATED TO DAMPEN SOUND. SINK TO BE 2-HOLE PUNCHED FOR FAUCET.<br>FAUCET - CHICAGO MODEL 895-317ABCP MANUAL FAUCET, CHROME PLATED FINISH, 3-1/2 INCH RIGID GOOSENECK SPOUT, 4 INCH FIXED CENTERS, 4 INCH VANDAL PROOF WRIST BLADE HANDLES, 1 1/2" NPSM SUPPLY INLETS AND COUPLING NUT FOR 1/2" FLEXIBLE RISER WITH SPOUT AND 2.2 GPM VANDAL PROOF LAMINAR OUTLET.<br>DRAIN - ELKAY #LK-35, TYPE 304 STAINLESS STEEL BODY WITH REMOVABLE CONICAL BASKET, STRAINER WITH METAL STEM AND RUBBER STOPPER. POLISHED FINISH, CHROME PLATED BRASS 1-1/2" x 4" TAILPIECE.<br>TRAP - CHROME PLATED 17 GAUGE 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT PLUG AND WALL FLANGE.<br>SUPPLY RISERS - 1/2" ANGLE SUPPLIES, FLEXIBLE RISERS, WITH LOOSE KEY STOPS.                                                                                                                                                  |
| PRESSURE REDUCING VALVES: PRV-1 AND PRV-2                                                                                                                                                                                                                                                                                                                                                                  | PRV-1. WATTS SERIES ACV-115 AUTOMATIC CONTROL VALVE. GLOBE PATTERN DUCTILE IRON BODY AND COVER. NSF APPROVED FUSION BONDED EPOXY COATED AND LINED. STAINLESS STEEL VALVE TRIM, STAINLESS STEEL STEM, NUT AND SPRING WITH BUNA-N ELASTOMERS. ASSEMBLY TO BE RATED FOR 150# OPERATING PRESSURE. FLANGED OR THREADED CONNECTIONS, PROVIDE UNIONS FOR THREADED CONNECTIONS.<br>PRV-2. WATTS SERIES LF223 HIGH CAPACITY WATER PRESSURE REDUCING VALVE. LEAD FREE BRASS BODY CONSTRUCTION WITH STAINLESS STEEL SEAT, SEAT GASKET AND O-RING OF BUNA-N, DIAPHRAGM OF REINFORCED BUNA-N.<br>MANUFACTURER SHALL BE CONSULTED FOR REQUIRED SIZES BASED ON PROJECT CONDITIONS. VALVES SHALL BE INSTALLED IN PARALLEL TO HANDLE WIDE RANGE OF FLOW CONDITIONS. PRV-1 TO BE SET AT 10 PSI LOWER DELIVERY PRESSURE THAN PRV-2. VERIFY INLET PRESSURE AT THE TIME OF INSTALLATION, OUTLET SHALL BE SET TO 60 PSI AT 150 GPM. OUTLET PRESSURE MAY BE ADJUSTED FOR PROJECT CONDITIONS. BOTH VALVE ASSEMBLIES SHALL BE BY THE SAME MANUFACTURER. SIMILAR PRODUCTS MANUFACTURED BY CAL-VAL OR WILKINS MAY BE CONSIDERED FOR APPROVAL. |
| TRAP PRIMER TP-2 SUPPLY TYPE                                                                                                                                                                                                                                                                                                                                                                               | PPP MODEL P1-500 AND P2-500 PRESSURE DROP ACTIVATED TRAP PRIMER. PROVIDE MODEL DU-4DU-U DISTRIBUTION UNIT AS REQUIRED, CAP UNUSED DISTRIBUTOR LINES. CONTRACTOR TO SELECT MODEL OF TRAP PRIMER ASSEMBLY BASED ON THE MANUFACTURERS RECOMMENDATIONS FOR THE NUMBER OF DRAINS TO BE SERVED. ASSEMBLES BY SIOUX CHIEF MODEL 695 WITH DISTRIBUTOR OR MIFAB MODEL MX-500 WITH DISTRIBUTOR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TRAP PRIMER TP-3 WASTE TYPE                                                                                                                                                                                                                                                                                                                                                                                | J .R. SMIT SERIES 2698-1 PRIME-EZE WATER SAVER TRAP PRIMER, SATIN CHROME PLATED 17 GAUGE CAST BRONZE P-TRAP WITH CLEANOUT, SLIP JOINT NUTS, WASHER AND ESCUTCHEON AND 1 1/2" PRIMER TUBE. ASSEMBLES BY WADE MODEL 4401-TS OR MIFAB MODEL MI-750 WILL BE CONSIDERED EQUAL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CONTRACTOR NOTES<br>1. MANUFACTURER AND MODEL NUMBERS LISTED ARE BASIS OF DESIGN. PLUMBING FIXTURES AND COMPONENTS OF COMPARABLE QUALITY, DESIGN AND FUNCTION MAY BE CONSIDERED AS AN APPROVED EQUAL, IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ROUGH-IN AND INSTALLATION REQUIREMENTS. .<br>2. PROVIDE ANGLE SHUT-OFF VALVES ON ALL PLUMBING FIXTURES AND EQUIPMENT. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |