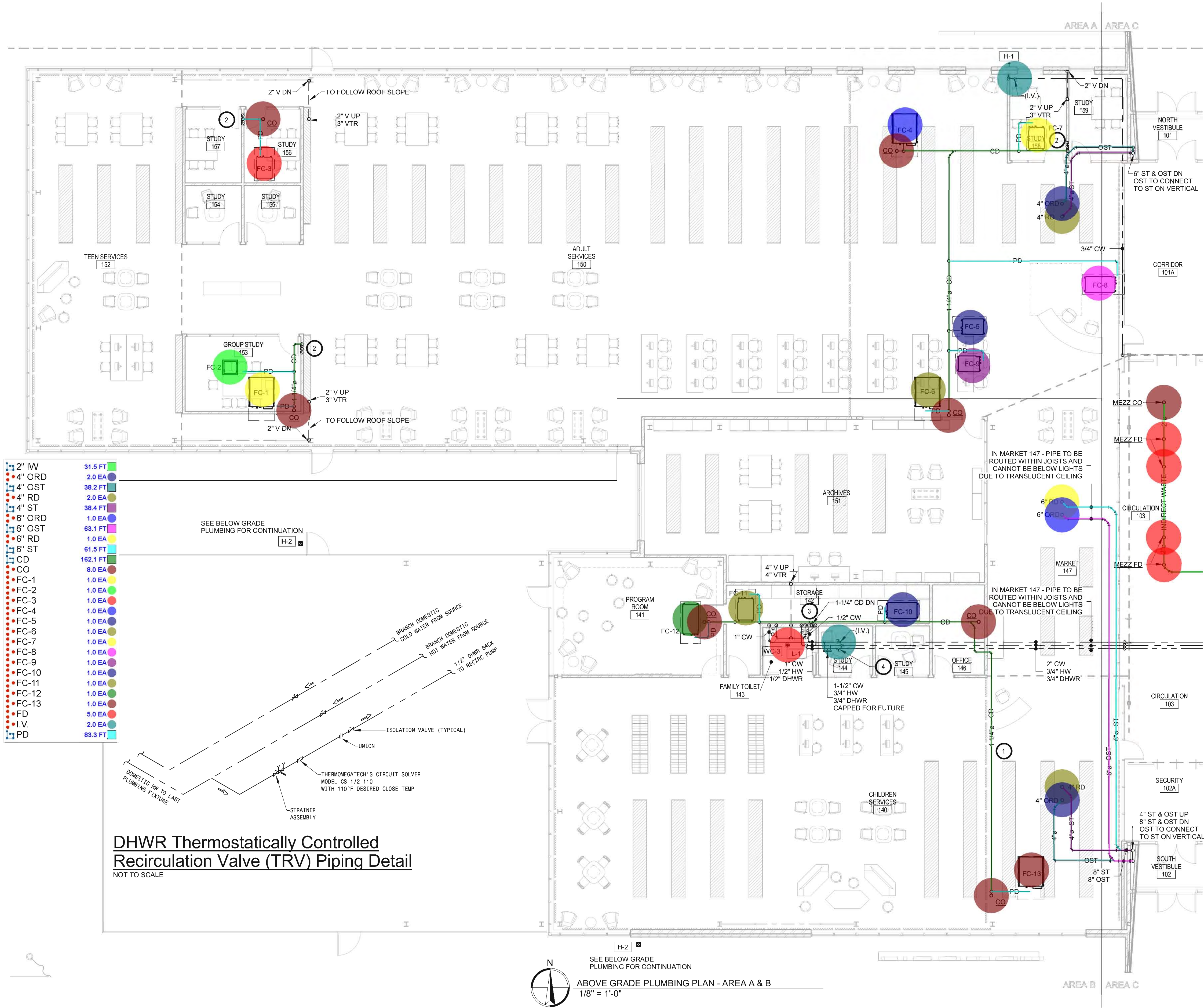




GENERAL NOTES:

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.
- F. CONTRACTOR SHALL COORDINATE ALL WORK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, AND STRUCTURAL DRAWINGS.
- G. FRESH AIR INTAKES TO BE MINIMUM 25' FROM ANY EXHAUST TERMINATION.
- H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

KEYNOTES:

1. TYPICAL - ALL COOLING CONDENSATE PIPING TO BE BY THIS CONTRACTOR. SEE SHEET M17 NOTE 1 OF FAN COIL SCHEDULE REGARDING CONDENSATE PUMPS PROVIDED WITH V.C.'S EQUIPMENT.
2. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS: INDIRECT CONDENSATE PIPING DIAGRAMS, AIR GAP FITTING IN ISLAND DIAGRAM.
3. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS: INDIRECT CONDENSATE PIPING DIAGRAMS, AIR GAP FITTING DIAGRAM.
4. PC TO PROVIDE & INSTALL PROVISIONS FOR BALANCING THE DOMESTIC HOT WATER, SEE DHWR THERMOSTATICALLY CONTROLLED RECIRCULATION VALVE (TRV) PIPING DETAIL.

SPECIAL NOTES:

1. SLOPE OF ALL STORM DRAINAGE SHALL BE 1/8" PER FOOT UNLESS OTHERWISE NOTED.
2. ALL EXPOSED PIPING TO BE PAINTABLE SURFACES. PAINTING BY GC.

Takeoff By: Tushar
Checked By: AB
Date: 11-03-2016

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Aberdeen, SD 57401
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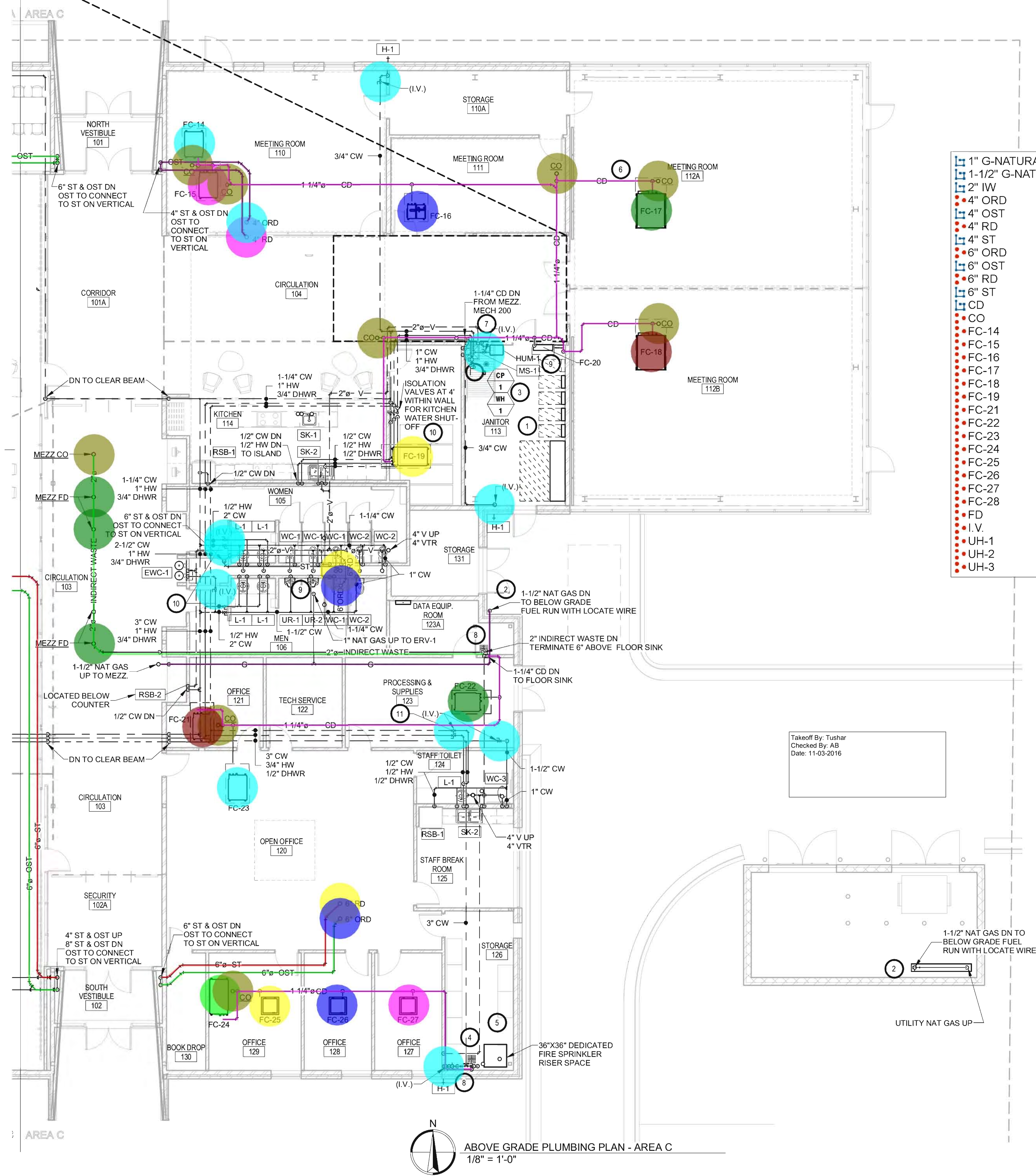
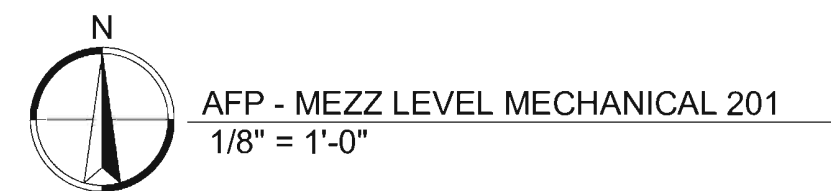
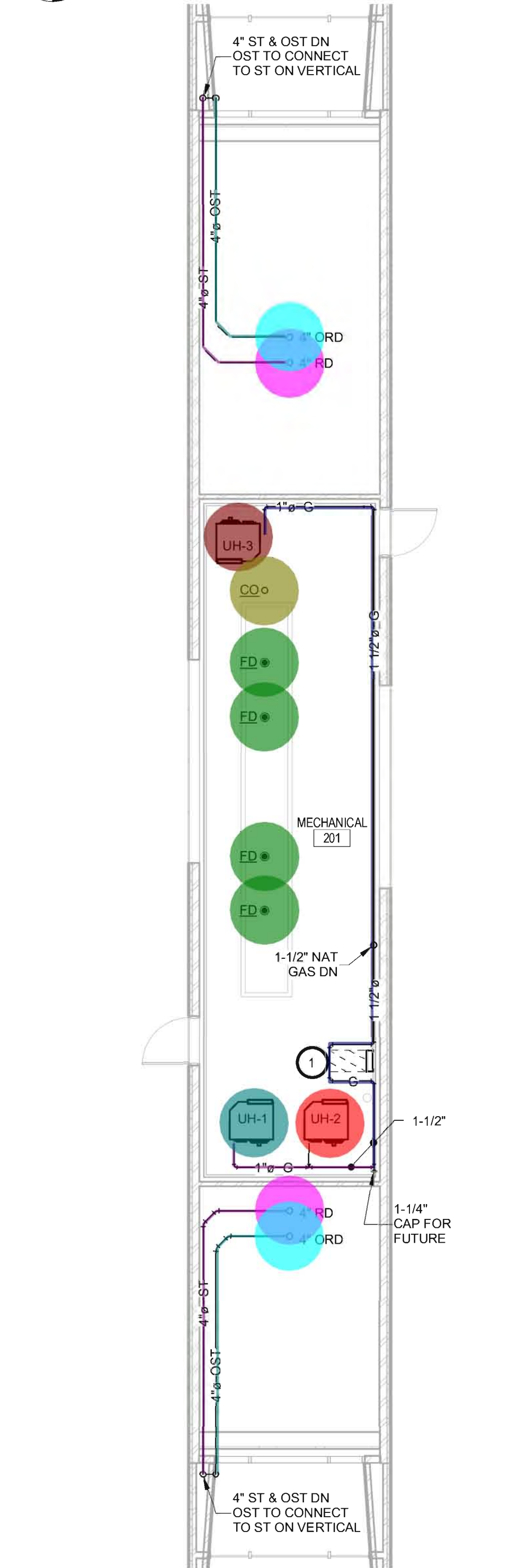
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ABERDEEN, SOUTH DAKOTA

SHEET TITLE:

ABOVE GRADE PLUMBING PLAN
- AREA A & B

M6

OF-17



- | | |
|----------------------|----------|
| 1" G-NATURAL GAS | 63.7 FT |
| 1-1/2" G-NATURAL GAS | 69.3 FT |
| 2" IW | 77.5 FT |
| 4" ORD | 3.0 EA |
| 4" OST | 47.2 FT |
| 4" RD | 3.0 EA |
| 4" ST | 92.5 FT |
| 6" ORD | 2.0 EA |
| 6" OST | 101.7 FT |
| 6" RD | 2.0 EA |
| 6" ST | 89.7 FT |
| CD | 247.7 FT |
| CO | 10.0 EA |
| FC-14 | 1.0 EA |
| FC-15 | 1.0 EA |
| FC-16 | 1.0 EA |
| FC-17 | 1.0 EA |
| FC-18 | 1.0 EA |
| FC-19 | 1.0 EA |
| FC-21 | 1.0 EA |
| FC-22 | 1.0 EA |
| FC-23 | 1.0 EA |
| FC-24 | 1.0 EA |
| FC-25 | 1.0 EA |
| FC-26 | 1.0 EA |
| FC-27 | 1.0 EA |
| FC-28 | 1.0 EA |
| FD | 7.0 EA |
| I.V. | 9.0 EA |
| UH-1 | 1.0 EA |
| UH-2 | 1.0 EA |
| UH-3 | 1.0 EA |

GENERAL NOTES:

A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.

B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.

D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.

E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.

F. CONTRACTOR SHALL COORDINATE ALL WORK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, AND STRUCTURAL DRAWINGS.

G. FRESH AIR INTAKES TO BE MINIMUM 25' FROM ANY EXHAUST TERMINATION.

H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.

J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.

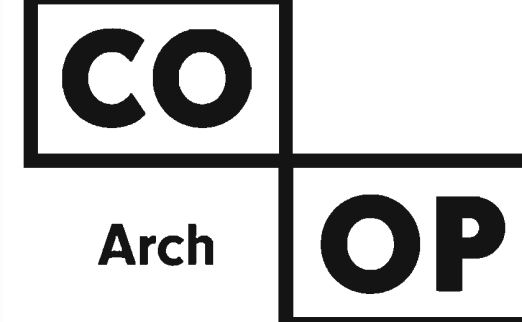
K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

KEYNOTES:

1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR, PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS.
COORDINATE WITH DIVISION 16.
2. SEE GAS PIPING DIAGRAM FOR ALL GAS PIPE SIZES.
3. SEE WATER HEATER PIPING DETAIL.
4. SEE WATER HEADER PIPING DIAGRAM.
5. PLUMBING CONTRACTOR TO PROVIDE 1-1/2" STUB OUT WITH LOCATE WIRE FOR LAWN IRRIGATION CONTRACTOR.
SEE WATER HEADER DIAGRAM.
6. TYPICAL - ALL COOLING CONDENSATE PIPING TO BE BY THIS CONTRACTOR. SEE SHEET M17 NOTE 1 OF FAN COIL SCHEDULE REGARDING CONDENSATE PUMPS PROVIDED WITH V.C.S. EQUIPMENT.
7. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS:
INDIRECT CONDENSATE PIPING DIAGRAMS, MOP SINK DIAGRAM.
8. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS:
INDIRECT CONDENSATE PIPING DIAGRAMS, FLOOR SINK DIAGRAM.
9. PC TO INSTALL WATER FILTER PROVIDED BY VC FOR HUMIDIFIER HUM-1.
10. PC TO COORDINATE WITH GC. LOCATIONS OF ACCESS PANELS FOR SHUTOFF VALVES. ACCESS PANELS BY GC. VALVES REQUESTED BY OWNER FOR CONTROL OF WATER TO BOTH SINKS, RSB-1 TO BE FEED AT ALL TIMES.
11. PC TO PROVIDE & INSTALL PROVISIONS FOR BALANCING THE DOMESTIC HOT WATER, SEE DHWR THERMOSTATIC CONTROLLED RECIRCULATION VALVE (TRV) PIPING DETAIL ON SHEET M6.

SPECIAL NOTES:

1. SLOPE OF ALL STORM DRAINAGE SHALL BE 1/8" PER FOOT UNLESS OTHERWISE NOTED.
2. ALL EXPOSED PIPING TO BE PAINTABLE SURFACES. PAINTING BY G.C.



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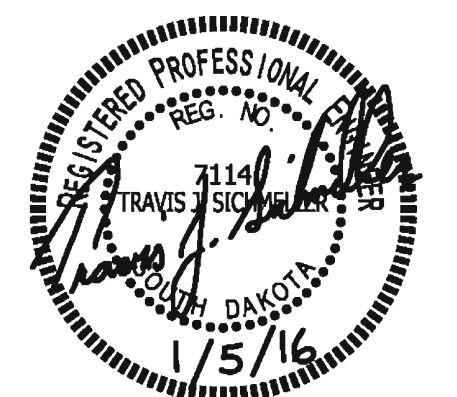
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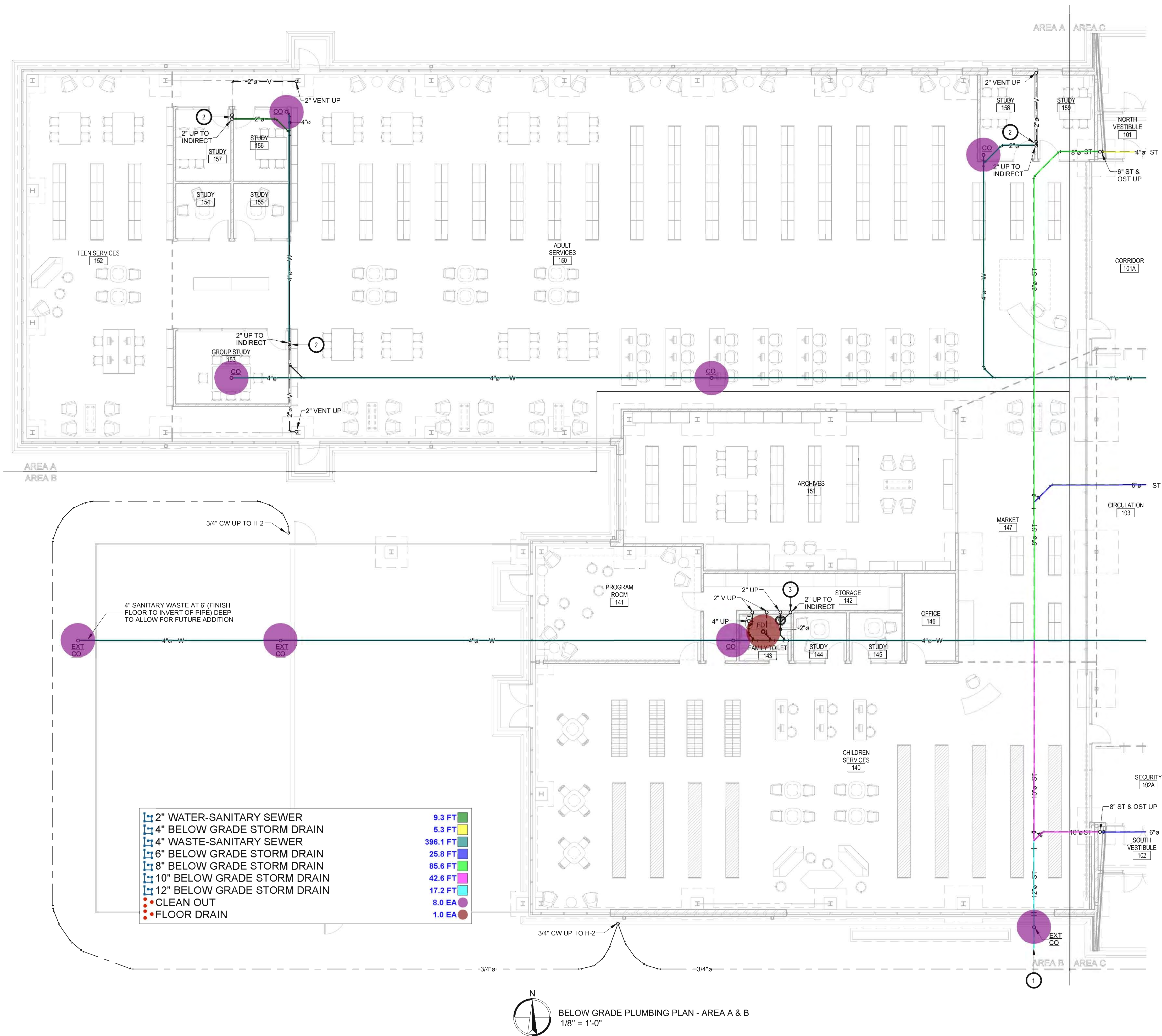
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SHEET TITLE:

ABOVE GRADE PLUMBING PLAN
- AREA C

M7

OF-17



GENERAL NOTES:

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.
- F. CONTRACTOR SHALL COORDINATE ALL WORK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, AND STRUCTURAL DRAWINGS.
- G. FRESH AIR INTAKES TO BE MINIMUM 25' FROM ANY EXHAUST TERMINATION.
- H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

KEYNOTES:

1. PLUMBING CONTRACTOR TO CONNECT NEW 12" STORM SEWER TO NEW 12" STORM SEWER SERVICE INSTALLED BY SITE UTILITY CONTRACTOR AT THIS LOCATION 5' OUTSIDE OF BUILDING. PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION, & INVERT.
2. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS: INDIRECT CONDENSATE PIPING DIAGRAMS, AIR GAP FITTING IN ISLAND DIAGRAM.
3. SEE DETAILS ON SHEET M13 - MECHANICAL DETAILS: INDIRECT CONDENSATE PIPING DIAGRAMS, AIR GAP FITTING DIAGRAM.

SPECIAL NOTES:

1. SLOPE OF ALL STORM DRAINAGE SHALL BE 1/8" PER FOOT UNLESS OTHERWISE NOTED.

Takeoff By: Tushar
Checked By: AB
Date: 11-03-2016



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Phone: 605-725-4852

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Sioux Falls, SD 57104
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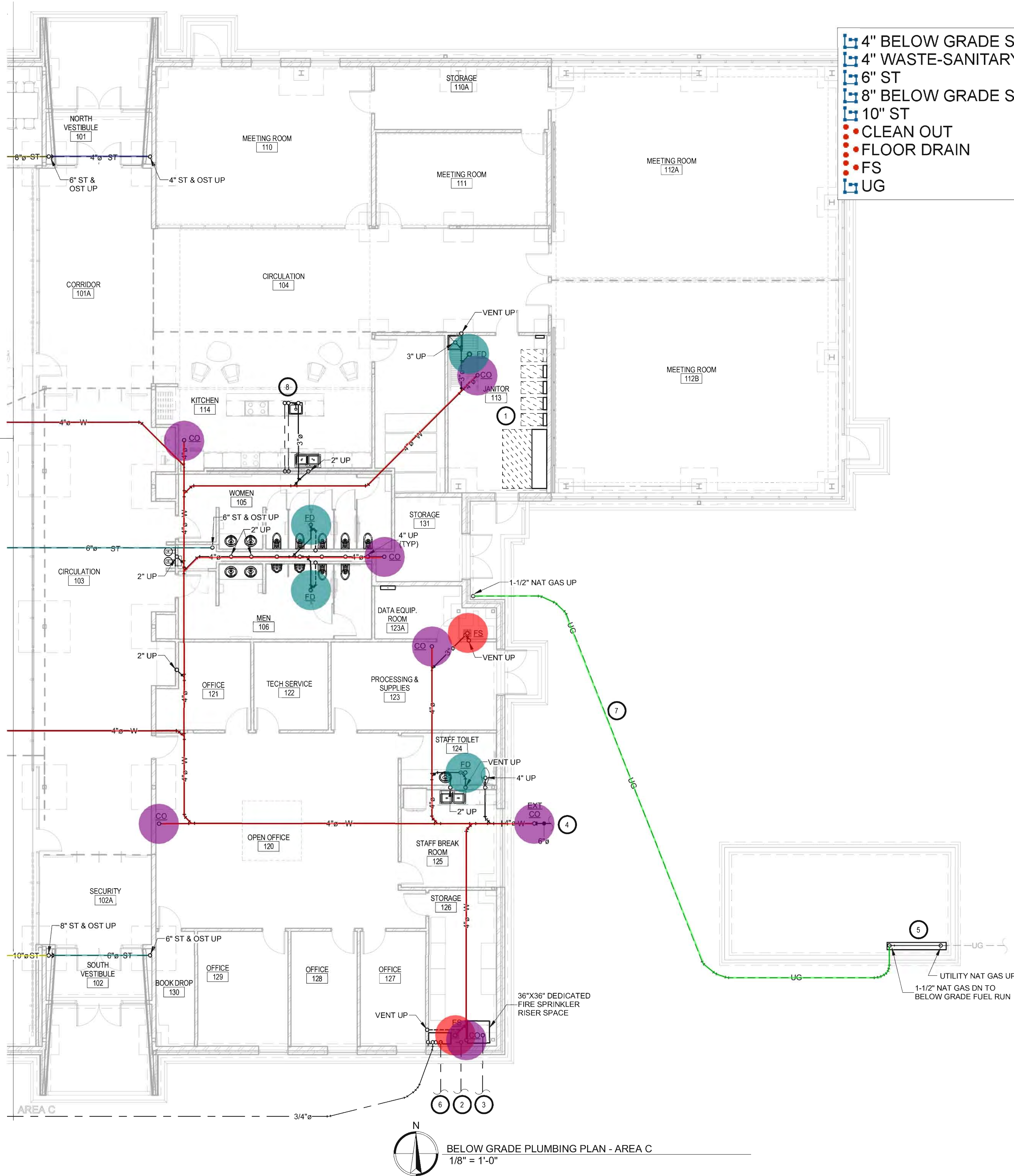
BELOW GRADE PLUMBING PLAN
- AREA A & B

M4

OF-17



BELOW GRADE PLUMBING PLAN - AREA A & B
1/8" = 1'-0"



GENERAL NOTES:

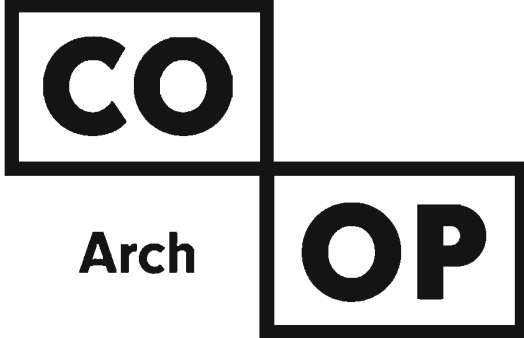
- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
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- G. FRESH AIR INTAKES TO BE MINIMUM 25' FROM ANY EXHAUST TERMINATION.
- H. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.
- I. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE A/E IMMEDIATELY OF ANY DISCREPANCIES.
- J. COORDINATE NEW SERVICES WITH LOCAL UTILITIES.
- K. PLUMBING CONTRACTOR TO PROVIDE VENTING FOR ALL FLOOR DRAINS, AND FLOOR SINKS AS SHOWN OR AS REQUIRED BY CODE.

KEYNOTES:

1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 16.
2. PLUMBING CONTRACTOR TO CONNECT NEW 4" DOMESTIC WATER SERVICE TO NEW 4" DOMESTIC WATER SERVICE INSTALLED BY SITE UTILITY CONTRACTOR AT THIS LOCATION 5' OUTSIDE THE BUILDING. FURNISH AND INSTALL THRUST BLOCKS AND/OR TIE-RODS IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT STANDARDS AND REGULATIONS. PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION, AND INVERT.
3. PLUMBING CONTRACTOR TO CONNECT NEW 6" FIRE PROTECTION WATER SERVICE TO NEW 6" FIRE PROTECTION WATER SERVICE INSTALLED BY SITE UTILITY AT THIS LOCATION 5' OUTSIDE OF BUILDING. PLUMBING CONTRACTOR TO EXTEND INTO BUILDING, FURNISH AND INSTALL THRUST BLOCKS AND/OR TIE-RODS IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT STANDARDS AND REGULATIONS, AND PROVIDE 6" FLANGED CONNECTION FOR SPRINKLER CONTRACTOR'S USE. AS-BUILTS AND REQUIRED UNDERGROUND FIRE PROTECTION PIPING TESTING/TEST CERTIFICATE SHALL BE SUBMITTED TO ENGINEER AND FIRE PROTECTION CONTRACTOR FROM THE PLUMBING CONTRACTOR.
4. PLUMBING CONTRACTOR TO CONNECT NEW 6" SANITARY SEWER TO NEW 6" SANITARY SEWER SERVICE INSTALLED BY SITE UTILITY CONTRACTOR AT THIS LOCATION 5' OUTSIDE OF BUILDING. PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION, & INVERT.
5. PLUMBING CONTRACTOR TO COORDINATE WITH MONTE OF NWE @ 605-226-4170 TO PROVIDE & INSTALL UTILITIES UNDERGROUND GAS SERVICE & METER FIT TO THIS LOCATION. GAS PRESSURE TO BE 2 PSI AFTER NWE METER FIT. PLUMBING CONTRACTOR TO PROVIDE & INSTALL COMPLETE GAS DISTRIBUTION SYSTEM FROM THE METERFIT AS SHOWN. PC TO PREPARE, PRIME, AND PAINT EXPOSED EXTERIOR GAS PIPING TO MATCH UTILITY METER FIT.
6. PLUMBING CONTRACTOR TO PROVIDE 1-1/2" STUB OUT WITH LOCATE WIRE FOR LAWN IRRIGATION CONTRACTOR. SEE WATER HEADER DIAGRAM.
7. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL 1-1/2" UNDERGROUND NATURAL GAS FUEL RUN WITH LOCATION WIRE. PROVIDE & INSTALL WITH ANODELESS RISERS & LOCKABLE VALVES.
8. EACH FEED TO BE ENCASED WITHIN 2" SCH 40 PVC WITH LONG SWEEP ELBOWS. SEE ABOVE FLOOR PLUMBING PLAN FOR CONTINUATION. (1) 1/2" HW SUPPLY AND (1) 1/2" CW SUPPLY.

SPECIAL NOTES:

1. SLOPE OF ALL STORM DRAINAGE SHALL BE 1/8" PER FOOT UNLESS OTHERWISE NOTED.



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BELOW GRADE PLUMBING PLAN
- AREA C

M5

OF-17

Takeoff By: Tushar
Checked By: AB
Date: 11-03-2016

BELOW GRADE PLUMBING PLAN - AREA C
1/8" = 1'-0"

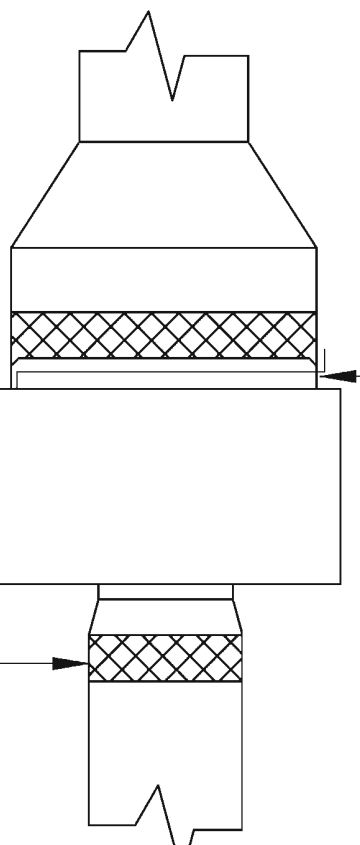


HVAC GENERAL NOTES

- A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.
- C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.
- D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.
- F. COORDINATE INSTALLATION OF ALL HVAC WITH PLUMBING, LIGHT FIXTURES, FIRE SPRINKLER, AND STRUCTURE TO ACCOMMODATE LIMITED CEILING SPACE.
- G. PROVIDE & INSTALL VIBRATION ISOLATION ON ALL HANGING EQUIPMENT. PROVIDE & INSTALL VIBRATION ABSORPTION MOUNTING PADS ON ALL EQUIPMENT MOUNTED ON FLOOR.
- H. PROVIDE AND INSTALL DURODINE FLEX DUCT CONNECTORS AT ALL EQUIPMENT CONNECTIONS.
- I. ALL DUCTWORK TO BE SEALED AIRTIGHT.
- J. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.
- K. ALL EXPOSED DUCTWORK TO BE PAINTGRIP, PAINTED BY G.C.

KEYNOTES

1. TYPICAL - MULTIPLE LOCATIONS - SEE TYPICAL DIFFUSER CONNECTION DETAIL FOR RIGID FITTING, AND TAKE OFF BALANCING DAMPER, ETC.
2. TYPICAL - MULTIPLE LOCATIONS - SEE INSULATED RETURN ELBOW FOR DUCT SIZING, ETC.
3. TYPICAL - FULL SIZE & LINED RETURN AIR ELBOW UP WITH TURNING VANES.



Ducted Fan Coil Duct Connection Detail
NOT TO SCALE

Takeoff By: Tushar
Checked By: AB
Date: 11 Mar, 2016



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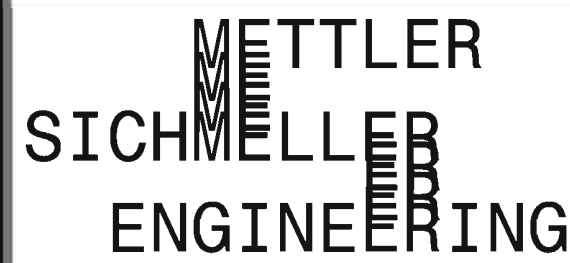
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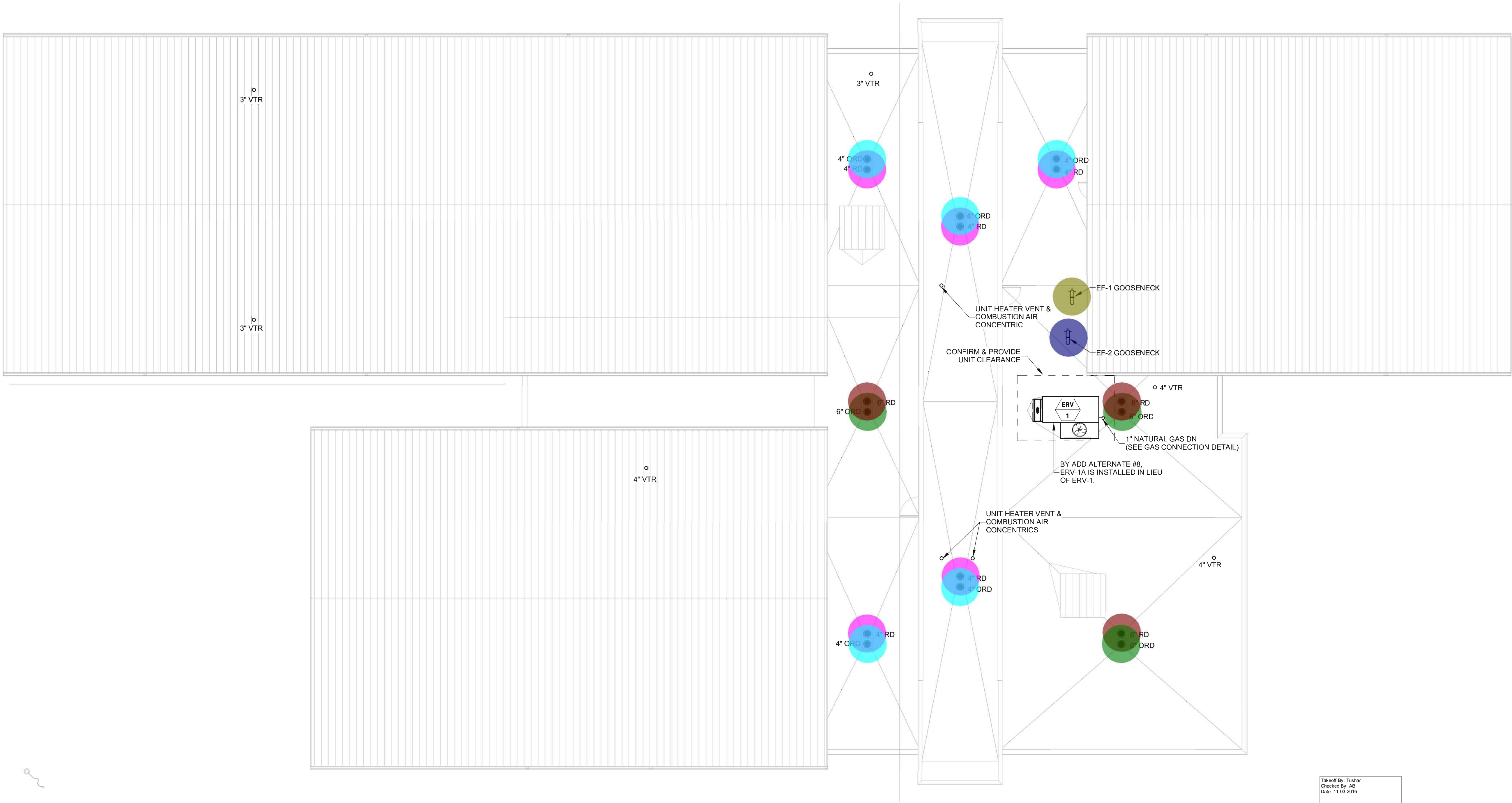
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HVAC PLAN - AREA A & B

M10

OF-17



4" ORD	5.0 EA
4" RD	5.0 EA
6" ORD	3.0 EA
6" RD	3.0 EA
EF-1	1.0 EA
EF-2	1.0 EA

N

MECHANICAL ROOF PLAN
3/32" = 1'-0"

Takcoff By: Tushar
Checked By: AB
Date: 11-03-2016

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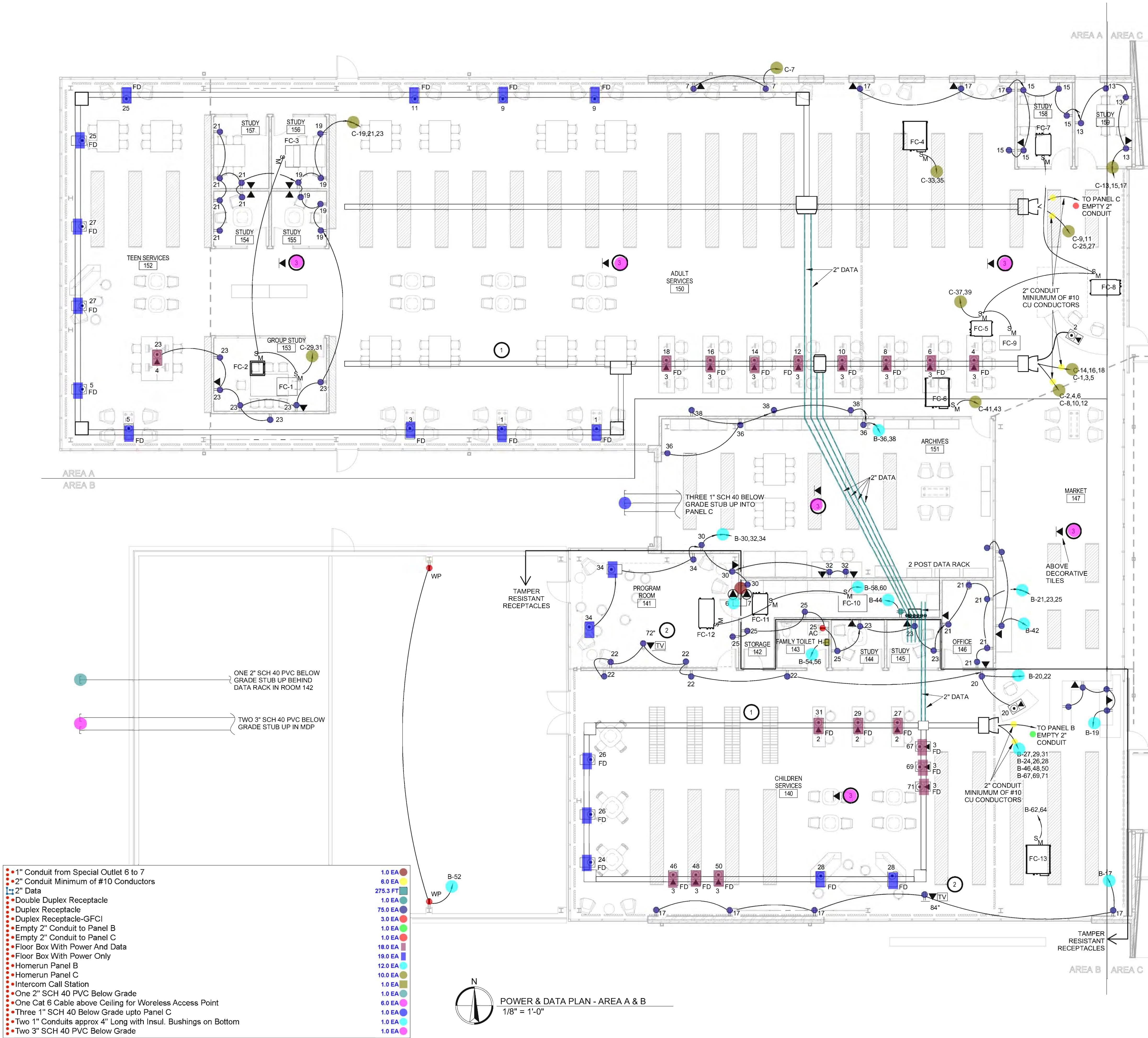
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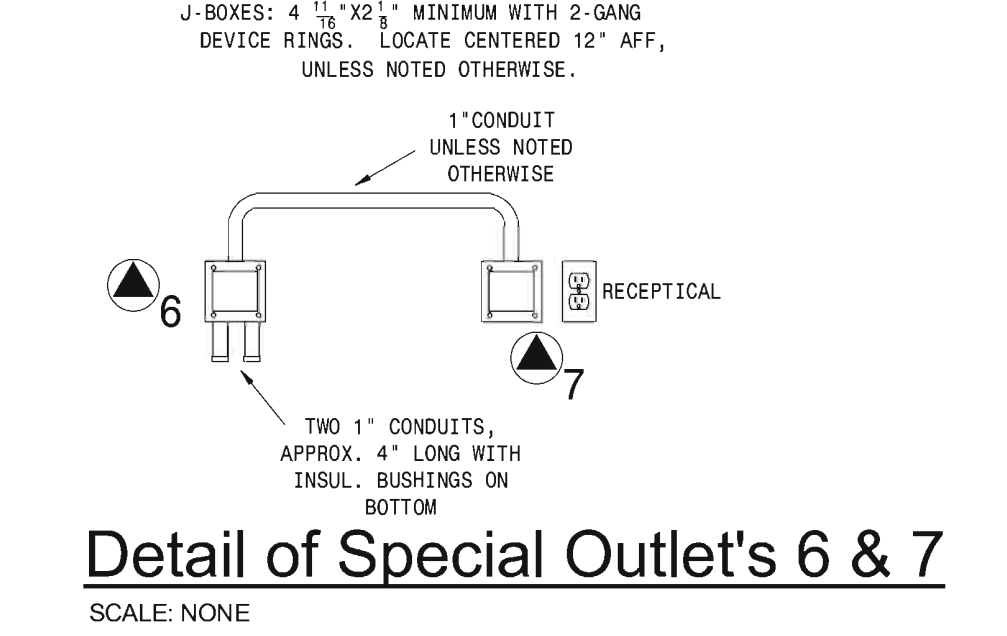
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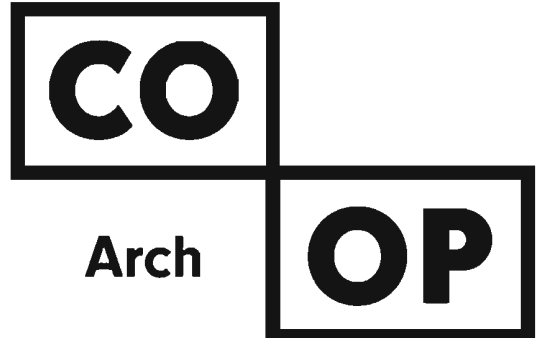
- KEYNOTES
1. FLOORDUCT FILGES 202F-3-24, OR PRE-APPROVED EQUAL.
 2. ARLINGTON TVB810, INCLUDE COVERS, TRIM RING AND ALL ACCESSORIES.
 3. INSTALL ONE CAT6 CABLE TO THIS LOCATION ABOVE CEILING TO BE USED FOR OWNER PROVIDED WIRELESS ACCESS POINT.
 4. NOT USED
 5. NOT USED
 6. FOR HEARING LOOP, SEE DETAIL.
 7. FOR HEARING LOOP, SEE DETAIL.

- SPECIAL OUTLETS
6. FOR HEARING LOOP, SEE DETAIL.
 7. FOR HEARING LOOP, SEE DETAIL.

- GENERAL NOTES:
1. IN ROOMS WITH EXPOSED STRUCTURAL CEILING PANELS, NOTHING CAN BE ATTACHED DIRECTLY TO THE PANELS. ALL ELECTRICAL ITEMS MUST BE ATTACHED EITHER TO THE I-BEAMS OR THE TUBE STEEL PROVIDED BY G.C.



Takeoff By- AB
Checked By- Sen
Date : 11 Mar, 2016



205 6th Ave. SE 301
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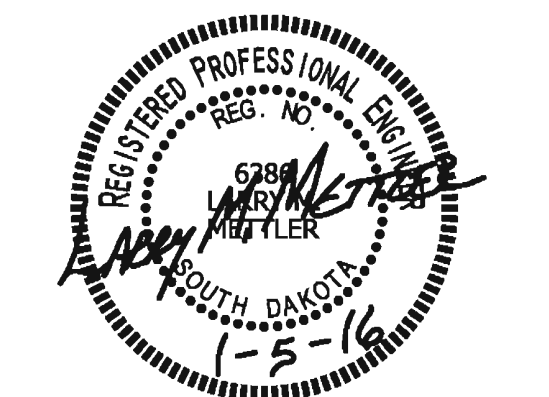
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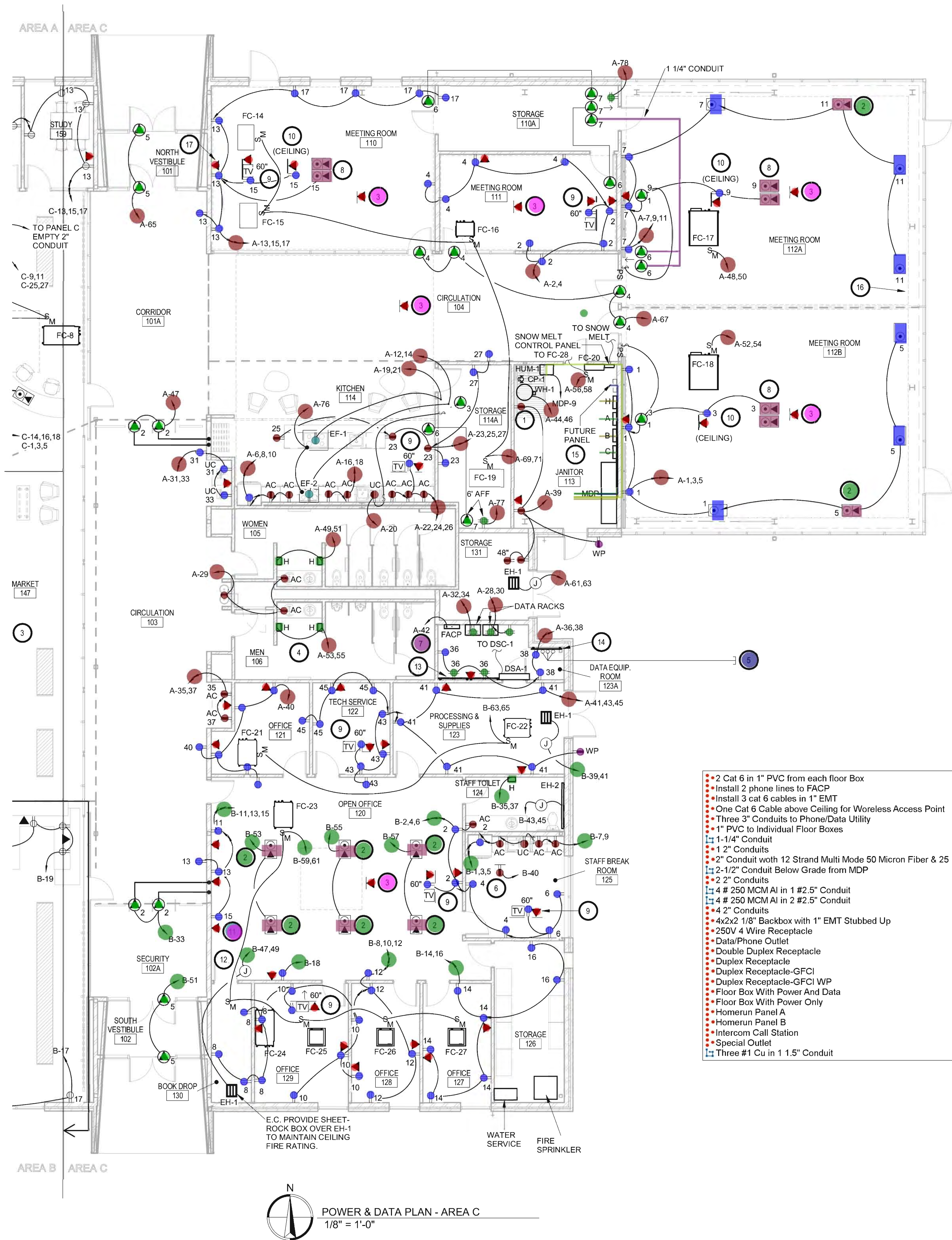
REV. #	REV. DSC.	REV. DATE
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PROJECT:
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SHEET TITLE:
POWER & DATA PLAN - AREA A
& B

E3

OF-11

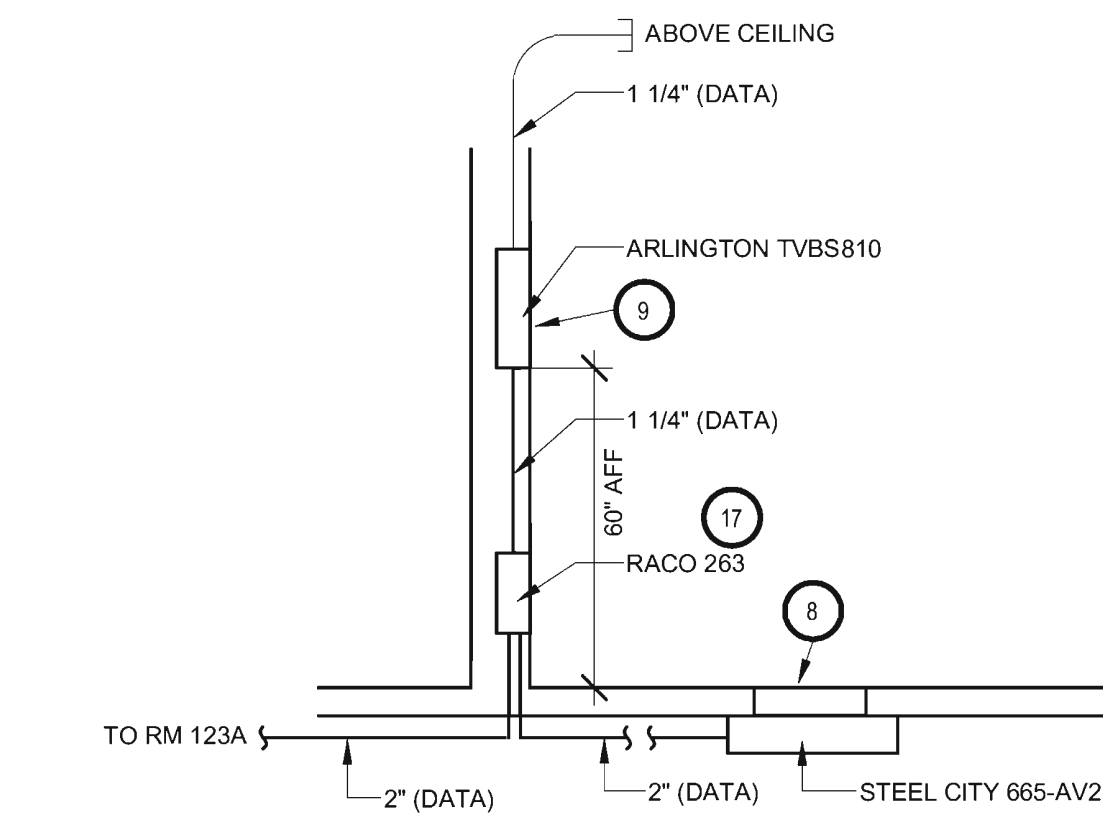


KEYNOTES

1. POSITION OUTLET SO CP-1 CAN BE CORD CONNECTED.
2. TYPICAL FOR ALL FLOOR BOXES WITH DATA, UNLESS OTHERWISE MARKED, INSTALL 1" PVC FROM EACH FLOOR BOX & STUB UP EITHER IN ROOM 123A OR 142. INSTALL TWO CAT6, UNLESS OTHERWISE MARKED, AND TERMINATE.
3. INSTALL ONE CAT6 CABLE TO THIS LOCATION ABOVE CEILING TO BE USED FOR OWNER PROVIDED WIRELESS ACCESS POINT.
4. TYPICAL FOR HAND DRYERS - USE XLERATOR MODEL XL-XX (COLOR BY ARCHITECT), 208V AND INCLUDE ADA RECESS KIT. IN EACH RESTROOM MOUNT ONE DRYER AT MENS OR LADIES HEIGHT. RESPECTIVELY, MOUNT THE SECOND HAND DRYER AT ADA HEIGHT. FOLLOW MANUFACTURERS SUGGESTED MOUNTING HEIGHTS.
5. THREE 3" CONDUITS TO PHONE/DATA UTILITY LOCATED INSIDE OF TRANSFORMER FENCING.
6. COORDINATE LOCATION FOR MICROWAVE SHELF.
7. INSTALL TWO PHONE LINES TO FACP.
8. STEEL CITY 665-AV2 WITH (1) 665-RP DUPLEX PLATE, (1) 665-6RJ, (1) 665-GP, (1) 665-CST-SW-XX COVER, COLOR BY ARCHITECT.
9. ARLINGTON TVB810, INCLUDE COVERS, TRIM RING AND ALL ACCESSORIES.
10. POWER AND DATA FOR CEILING PROJECTOR. PROVIDE AND INSTALL PREMIER MOUNT FALSE CEILING PLATE #344188 WITH FINE TUNE MOUNT FOR PROJECTOR #2147036, OR APPROVED EQUAL.
11. TYPICAL - 4x4x2 1/8" BACKBOX WITH SINGLE GANG DEVICE RING. 1" EMT STUBBED UP TO ACCESSIBLE CEILING SPACE. INSTALL 3-CAT6 CABLES TO EACH LOCATION, UNLESS OTHERWISE MARKED. TERMINATE WITH PANDUIT RJ-45 JACKS.
12. TYPICAL - INSTALL J-BOX IN ACCESSIBLE CEILING FOR T.C. TO ADD RELAY FOR CONTROL.
13. PROVIDE 8x8x3/4 GRAY PAINTED PLYWOOD ON ALL SIDES. MOUNT DOOR ACCESS EQUIPMENT AND CCTV ON THIS WALL.
14. PROVIDE 8x4x3/4 GRAY PAINTED PLYWOOD ON ALL SIDES.
15. LEAVE OPEN WALL SPACE FOR FUTURE PANELBOARD, INSTALL 2 1/2" CONDUIT BELOW GRADE FROM MDP.
16. DASHED LINE INDICATES HEARING LOOP. COORDINATE PLACEMENT OF FLOOR BOXES SO AS NOT TO INTERFERE WITH HEARING LOOP.
17. RACO 263 WITH THREE GANG DEVICE PLATE.

SPECIAL OUTLETS

1. POWER AND ROCKER SWITCH FOR MOTORIZED PROJECTOR SCREEN.
2. INSTALL 120V CONNECTION AND 1" EMPTY CONDUIT TO EACH ANTI-THEFT DETECTOR. ROUGH-INS WILL BE IN THE FLOOR, EXACT LOCATIONS TO BE DETERMINED BY SECURITY EQUIPMENT PROVIDER.
3. INSTALL TWO 3 POLE 60A CONTACTORS WITH ON/OFF SWITCH IN THE COVER TO TURN OFF THE RANGE CIRCUITS. INSTALL A SINGLE POLE SWITCH TO DISABLE THE DISPOSAL CIRCUIT.
4. INSTALL J-BOX ABOVE CEILING WITH 120V CIRCUIT TO BE USED FOR DOOR SECURITY POWER SUPPLY AND HANDICAPPED OPERATORS.
5. INSTALL J-BOX ABOVE THE CEILING IN ADJACENT ROOM AND ROUTE 120V CIRCUIT THROUGH ALUMINUM DOOR FRAME TO POWER HANDICAPPED OPERATORS. ROUTE DOOR SECURITY WIRING THROUGH ALUMINUM DOOR FRAME. ADD A RELAY TO DISABLE HANDICAPPED DOOR OPERATOR WHEN DOOR SECURITY HAS THE DOOR LOCKED.
6. FOR HEARING LOOP, SEE DETAIL ON SHEET E3.
7. FOR HEARING LOOP, SEE DETAIL ON SHEET E3.

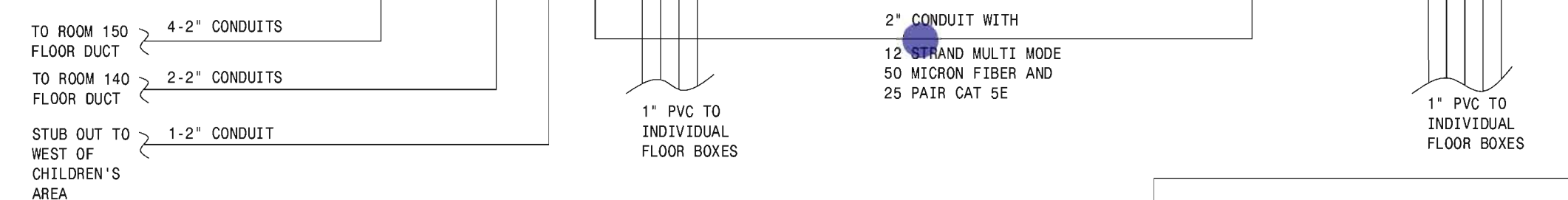


ROOM 110 FRONT OF ROOM DETAIL

NO SCALE

- 2 Cat 6 in 1" PVC from each floor Box
- Install 2 phone lines to FACP
- Install 3 cat 6 cables in 1" EMT
- One Cat 6 Cable above Ceiling for Wireless Access Point
- Three 3" Conduits to Phone/Data Utility
- 1" PVC to Individual Floor Boxes
- 1-1/4" Conduit
- 1-2" Conduits
- 2" Conduit with 12 Strand Multi Mode 50 Micron Fiber & 25 Pair Cat 5E
- 2-1/2" Conduit Below Grade from MDP
- 2-2" Conduits
- 4 # 250 MCM Al in 1 #2.5" Conduit
- 4 # 250 MCM Al in 2 #2.5" Conduit
- 4 2" Conduits
- 4x2x2 1/8" Backbox with 1" EMT Stubbed Up
- 250V 4 Wire Receptacle
- Data/Phone Outlet
- Double Duplex Receptacle
- Duplex Receptacle
- Duplex Receptacle-GFCI
- Duplex Receptacle-GFCI WP
- Floor Box With Power And Data
- Floor Box With Power Only
- Homerun Panel A
- Homerun Panel B
- Intercom Call Station
- Special Outlet
- Three #1 Cu in 1.5" Conduit

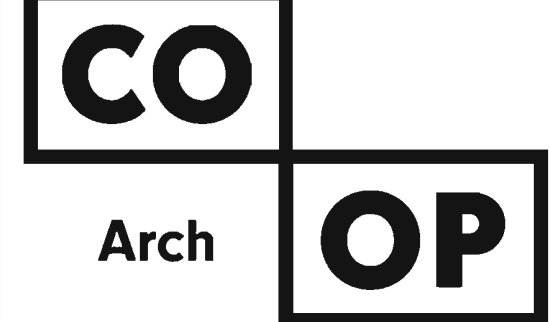
- 8.0 EA
- 1.0 EA
- 1.0 EA
- 1.0 EA
- 1.0 EA
- 1.0 EA
- 1.0 EA
- 38.3 FT
- 1.0 EA
- 1.0 EA
- 18.0 FT
- 1.0 EA
- 36.8 FT
- 31.0 FT
- 1.0 EA
- 1.0 EA
- 2.0 EA
- 43.0 EA
- 8.0 EA
- 94.0 EA
- 26.0 EA
- 2.0 EA
- 14.0 EA
- 6.0 EA
- 34.0 EA
- 16.0 EA
- 5.0 EA
- 24.0 EA
- 34.9 FT



Data Detail

NOT TO SCALE

Takeoff By- AB
Checked By- Sen
Date : 11 Mar, 2016



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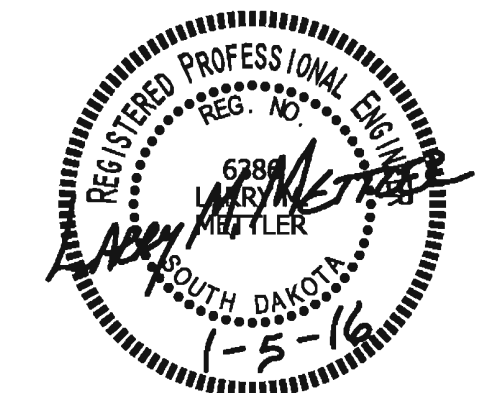


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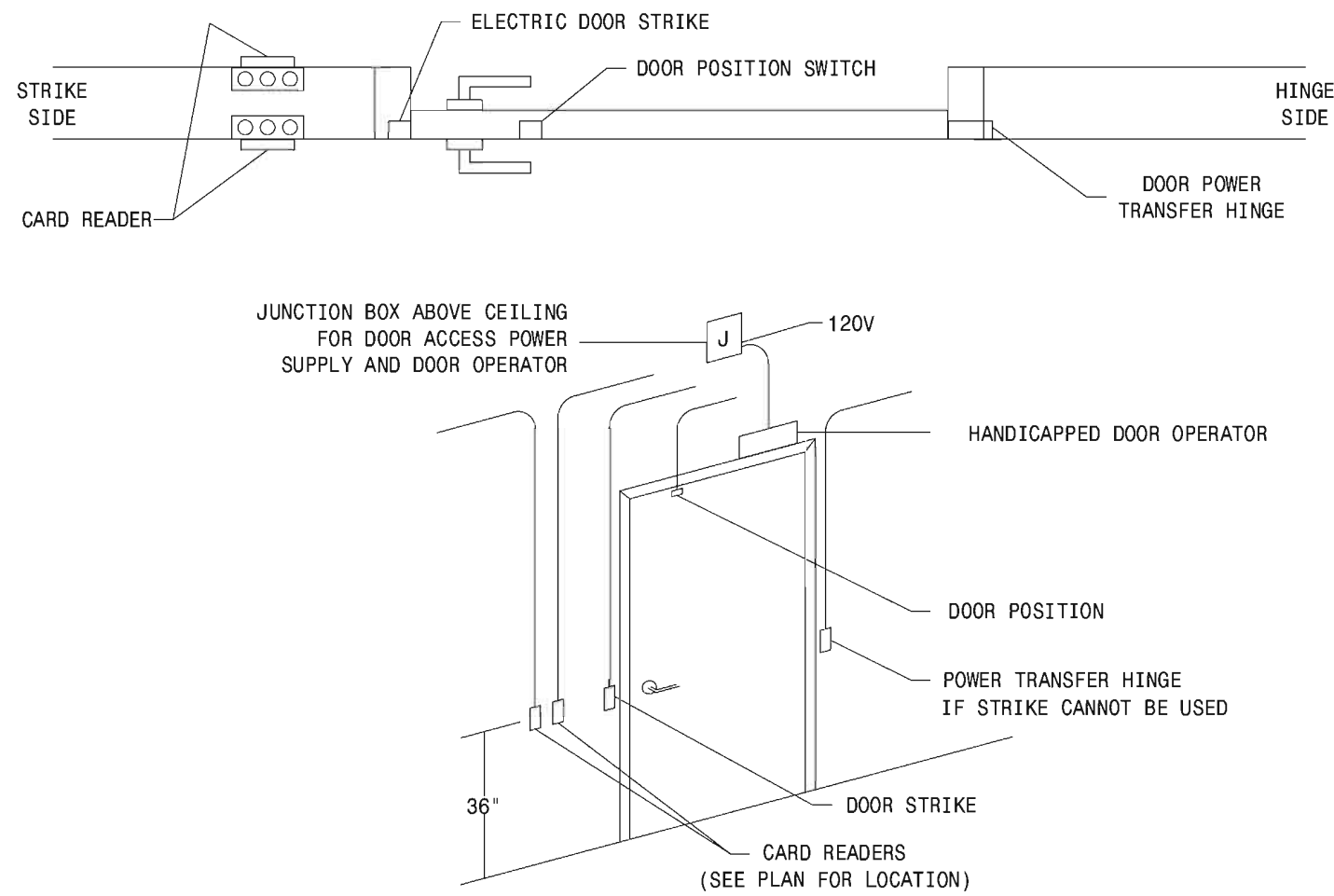
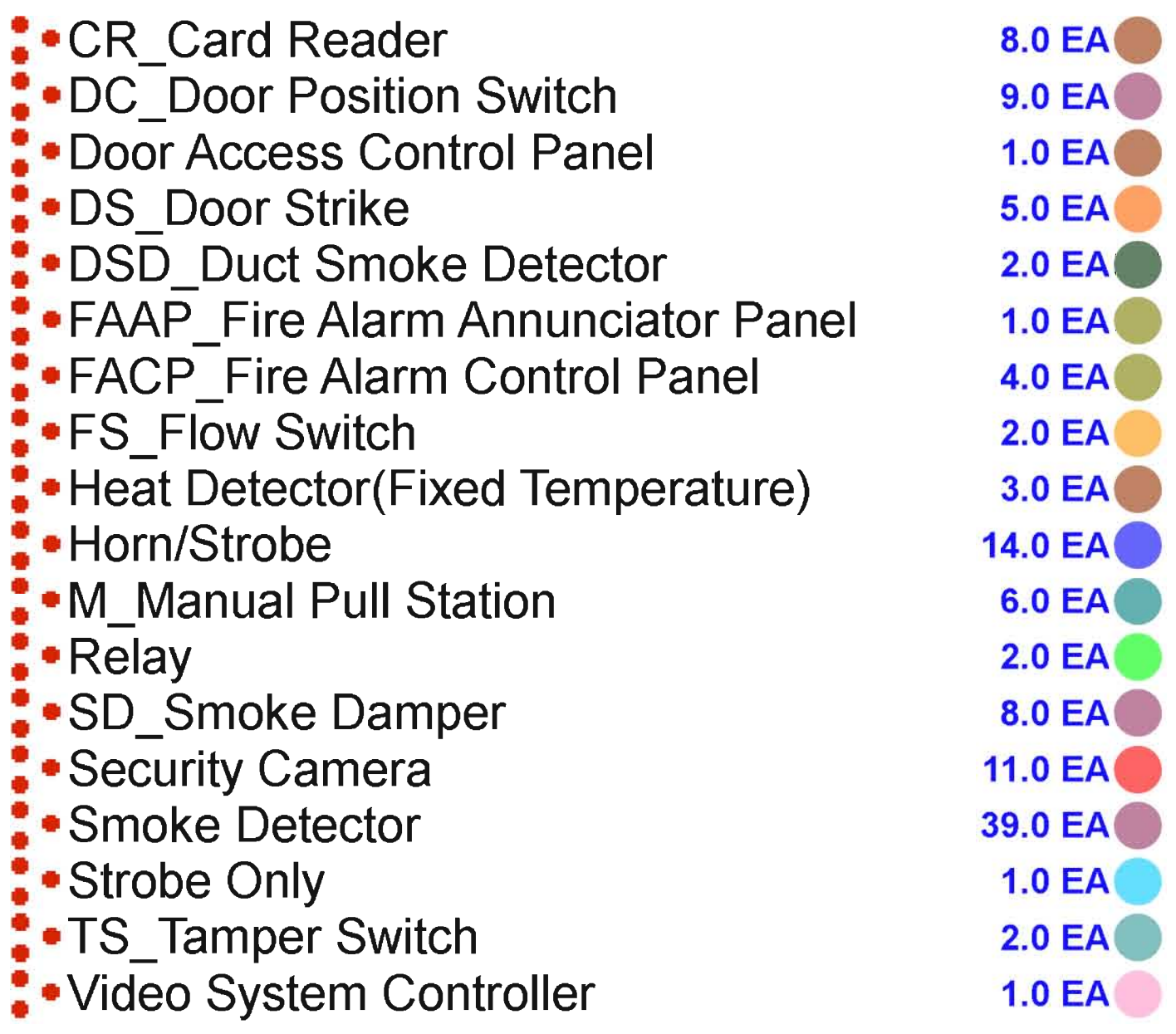
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SHEET TITLE:
POWER & DATA PLAN - AREA C

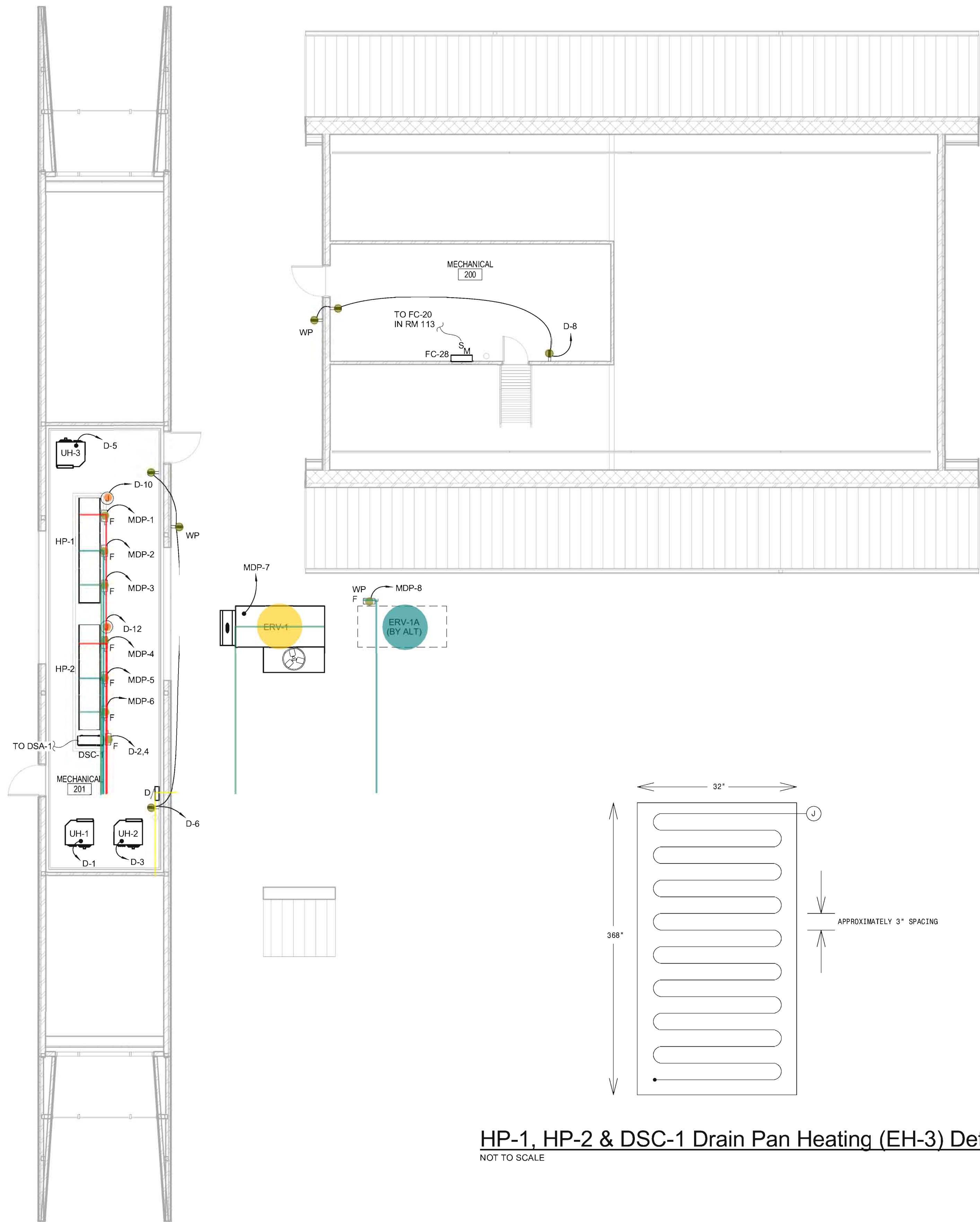
E4

OF-11



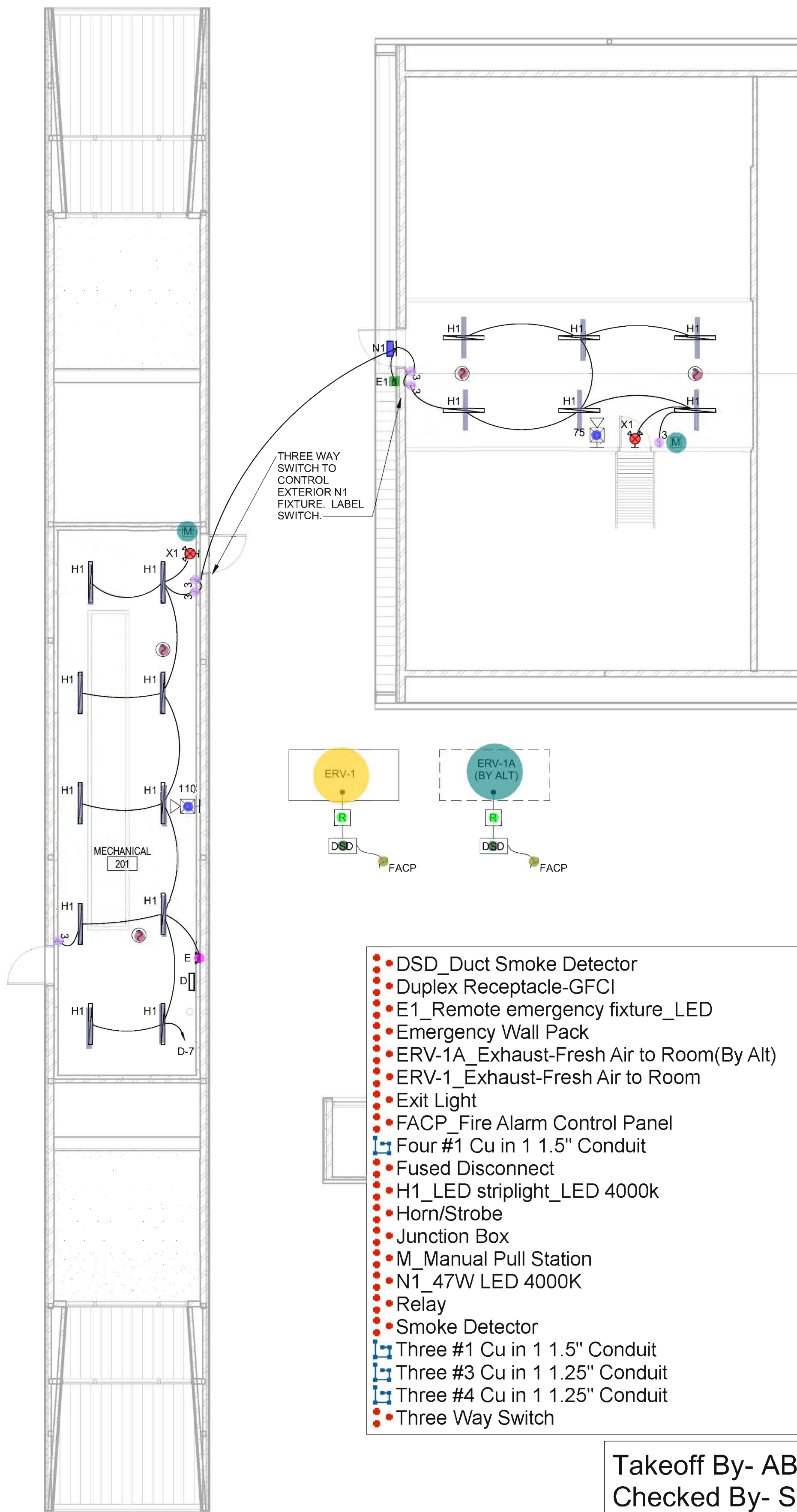
TYPICAL DOOR WIRING ROUGH-IN		
DEVICE	EC PROVIDE	
DOOR STRIKE		1/2" CONDUIT FROM STRIKE TO ACCESSIBLE CEILING ABOVE DOOR
DOOR POSITION SWITCH		1/2" CONDUIT FROM FRAME TO ACCESSIBLE CEILING ABOVE DOOR AND PROVIDE AND INSTALL EDWARDS 44 DOOR SWITCH WITH CONDUCTORS INSTALLED ABOVE CEILING
POWER TRANSFER HINGE		1/2" CONDUIT FROM FRAME TO ACCESSIBLE CEILING ABOVE DOOR
CARD READERS		3/4" CONDUIT TO ACCESSIBLE CEILING, 44 DOOR SWITCH WITH SINGLE 600V 40 AMP CIRCUIT
DOOR OPERATOR		120V CONNECTION TO OPERATOR, AND FURTHER CONDUIT TO ABOVE CEILING FOR SECURITY CONTRACTOR
JUNCTION BOX		120V CIRCUIT TO J-BOX ABOVE DOOR FOR SECURITY CONTRACTOR

Takeoff By: Nishikan
Checked By: Sen
Date: 11 Mar, 2016



HP-1, HP-2 & DSC-1 Drain Pan Heating (EH-3) Detail
NOT TO SCALE

N
MEZZANINE POWER & DATA PLAN
1/8" = 1'-0"



- DSD_Duct Smoke Detector 2.0 EA
- Duplex Receptacle-GFCI 6.0 EA
- E1_Remote emergency fixture_LED 1.0 EA
- Emergency Wall Pack 1.0 EA
- ERV-1A_ Exhaust-Fresh Air to Room(By Alt) 2.0 EA
- ERV-1_ Exhaust-Fresh Air to Room 2.0 EA
- Exit Light 2.0 EA
- FACP_Fire Alarm Control Panel 2.0 EA
- Four #1 Cu in 1 1.5" Conduit 12.7 FT
- Fused Disconnect 8.0 EA
- H1_LED striplight_LED 4000k 16.0 EA
- Horn/Strobe 2.0 EA
- Junction Box 2.0 EA
- M_Manual Pull Station 2.0 EA
- N1_47W LED 4000K 1.0 EA
- Relay 2.0 EA
- Smoke Detector 4.0 EA
- Three #1 Cu in 1 1.5" Conduit 71.1 FT
- Three #3 Cu in 1 1.25" Conduit 73.9 FT
- Three #4 Cu in 1 1.25" Conduit 58.1 FT
- Three Way Switch 6.0 EA

Takeoff By- AB
Checked By- Sen
Date : 11 Mar, 2016

N
MEZZANINE LIGHTING & SPECIAL SYSTEMS PLAN
1/8" = 1'-0"

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PROJECT:
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ABERDEEN, SOUTH DAKOTA

SHEET TITLE:
MEZZANINE ELECTRICAL PLAN

Panel: A										
Location: JANITOR 113 Mounting: Surface				Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: 22 KAIC Mains Type: MLO Rating: 400 A		
CKT	LOAD	CKT BRK	POLES	A	B	C	POLES	CKT BRK	LOAD	CKT
1	Rm 112B Outlets	20 A	1	...			1	20 A	Receptacle Rm 111, 104	2
3	Rm 112B Media Outlets	20 A	1		...		1	20 A	Receptacle Rm 110, 111	4
5	Rm 112B Floor boxes	20 A	1	...		...	1	20 A	Refrigerator Rm 114 - GFCI BRK	6
7	Rm 112A Outlets	20 A	1	...			1	20 A	Receptacle Rm 114	8
9	Rm 112A Media Outlets	20 A	1	...	...		1	20 A	Receptacle Rm 114	10
11	Rm 112A Floor boxes	20 A	1	...		...	2	50 A	Range	12
13	Receptacle Rm 110, 101A	20 A	1	...			--	--	--	14
15	Receptacle Rm 110	20 A	1		...		1	20 A	Receptacle Rm 114	16
17	Receptacle Rm 110	20 A	1			...	1	20 A	Receptacle Rm 114	18
19	Range	50 A	2	...			1	20 A	Disposal/Dishwasher - GFCI BRK	20
21	--	--	--	...	...		1	20 A	Receptacle Rm 114	22
23	Receptacle Rm 114A, 114	20 A	1		...		1	20 A	Receptacle Rm 114	24
25	Receptacle Rm 114	20 A	1			...	1	20 A	Receptacle Rm 114	26
27	Receptacle Rm 104, 114A	20 A	1		...		1	20 A	Receptacle Rm 123A	28
29	Receptacle Rm 103, 105, 106	20 A	1		...	...	1	20 A	Receptacle Rm 123A	30
31	Receptacle Rm 103	20 A	1	...			1	20 A	Receptacle Rm 123A	32
33	Receptacle Rm 103	20 A	1		...		1	20 A	Receptacle Rm 123A	34
35	Coffee Receptacle Rm 103	20 A	1			...	1	20 A	Receptacle Rm 123A	36
37	Coffee Receptacle Rm 103	20 A	1	...			1	20 A	Receptacle Rm 123A	38
39	Receptacle Rm 113, 131	20 A	1		...		1	20 A	Receptacle Rm 121, 120	40
41	Receptacle Rm 123	20 A	1			...	1	20 A	FACP	42
43	Receptacle Rm 122, 120	20 A	1	...			2	30 A	WH-1	44
45	Receptacle Rm 121, 122	20 A	1				--	--	--	46
47	Security Power	20 A	1			...	2	20 A	FC-17	48
49	Women's Hand Dryers	20 A	2	...			--	--	--	50
51	--	--	--	...	...		2	20 A	FC-18	52
53	Men's Hand Dryers	20 A	2		...	...	--	--	--	54
55	--	--	--	...	...		2	20 A	FC-20,28	56
57	Lighting Room 112A	20 A	1		...		--	--	--	58
59	Lighting Room 112A	20 A	1			...	1	20 A	Lighting Room 112B	60
61	Elec Heat Rm 131	30 A	2	...			1	20 A	Lighting Room 112B	62
63	--	--	--		...		1	20 A	Lighting Room 114, 114A, 113	64
65	Door Power	20 A	1			...	1	20 A	Lighting Room 111, 104, 110A	66
67	Door Power	20 A	1	...			1	20 A	Lighting Room 110	68
69	FC-14,15,16,19	20 A	2		...		1	20 A	Lighting Room 123A, 105, 131	70
71	--	--	--			...	1	20 A	Lighting Room 122, 121, 106	72
73	OPEN OFFICE 120	20 A	1	...			1	20 A	Lighting Room 123, 126, 124, 125	74
75	Lighting Room 130, 129, 128, 127	20 A	1		...		1	20 A	EF-1 & EF-2	76
77	Receptacle STORAGE 114A	20 A	1		...	...	1	20 A	Receptacle STORAGE 110A	78
79	SPARE	20 A	1	...			1	20 A	SPARE	80
81	SPARE	20 A	1		...		1	20 A	SPARE	82
83	SPARE	20 A	1			...	1	20 A	SPARE	84
Notes: USE SEPARATE NEUTRAL FOR ALL CIRCUITS										

Panel: D										
Location: MECHANICAL 201 Mounting: Surface				Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: 22 KAIC Mains Type: MLO Rating: 125 A		
CKT	LOAD	CKT BRK	POLES	A	B	C	POLES	CKT BRK	LOAD	CKT
1	UH-1	20 A	 1	...				 30 A	DSC-1 & DSA-1	2
3	UH-2	20 A	 1	...	...		---	---	---	4
5	UH-3	20 A	 1	...		...	1	 20 A	Receptacle Room 201	6
7	Lighting Room 200, 201	20 A	 1	...		...	1	 20 A	Receptacle Room 200	8
9							1	 20 A	EH-3 UNDER HP-1 - EGFCI BRK	10
11							1	 20 A	EH-3 UNDER HP-2 - EGFCI BRK	12
13										14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
Notes: USE SEPARATE NEUTRAL FOR ALL CIRCUITS										

Panel: B

Location: JANITOR 113
Mounting: Surface

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22 KAIC
Mains Type: MLO
Rating: 225 A

CKT	LOAD	CKT BRK	POLES	A	B	C	POLES	CKT BRK	LOAD	CKT
1	Rm 125 Refrigerator - GFCI BRK	20 A	1	...			1	20 A	Receptacle Rm 124, 120	2
3	Receptacle Rm 125	20 A	1	...			1	20 A	Receptacle Rm 125	4
5	Dishwasher/Disposal - GFCI BRK	20 A	1	...			1	20 A	Receptacle Rm 125	6
7	Receptacle Rm 125	20 A	1	...			1	20 A	Receptacle Rm 129, 130	8
9	Receptacle Rm 125	20 A	1	...			1	20 A	Receptacle Rm 128, 129	10
11	Receptacle Rm 120	20 A	1	...			1	20 A	Receptacle Rm 128, 120	12
13	Receptacle Rm 120	20 A	1	...			1	20 A	Receptacle Rm 127	14
15	Receptacle Rm 120	20 A	1	...			1	20 A	Receptacle Rm 126	16
17	Receptacle Rm 140	20 A	1	...			1	20 A	Receptacle Rm 120	18
19	Receptacle Rm 140	20 A	1	...			1	20 A	Receptacle Rm 140	20
21	Receptacle Rm 146	20 A	1	...			1	20 A	Receptacle Rm 141, 140	22
23	Receptacle Rm 145, 144, 142	20 A	1	...			1	20 A	Receptacle Rm 140	24
25	Receptacle Rm 144, 143, 142, 141	20 A	1	...			1	20 A	Receptacle Rm 140	26
27	Receptacle Rm 140	20 A	1	...			1	20 A	Receptacle Rm 140	28
29	Receptacle Rm 140	20 A	1	...			1	20 A	Receptacle Rm 151, 147, 141	30
31	Receptacle Rm 140	20 A	1	...			1	20 A	Receptacle Rm 151	32
33	Security Power	20 A	1	...			1	20 A	Receptacle Rm 141	34
35	Hand Dryer STAFF TOILET 124	20 A	2	...			1	20 A	Receptacle Rm 151	36
37	--	--	--	...			1	20 A	Receptacle Rm 150	38
39	Elec Heat Rm 123	30 A	2	...			1	20 A	Microwave Rm 125	40
41	--	--	--	...			1	20 A	Receptacle Rm 147	42
43	Elec Heat Rm 124	20 A	2	...			1	20 A	Data Outlet Rm 142	44
45	--	--	--	...			1	20 A	Receptacle Rm 140	46
47	Elec Heat Rm 130	30 A	2	...			1	20 A	Receptacle Rm 140	48
49	--	--	--	...			1	20 A	Receptacle Rm 140	50
51	Door Power	20 A	1	...			1	20 A	Outdoor Receptacles & Flag Light	52
53	Floor Box OPEN OFFICE 120	20 A	1	...			2	20 A	Hand Dryer FAMILY TOILET 143	54
55	Floor Box OPEN OFFICE 120	20 A	1	...			--	--	--	56
57	Floor Box OPEN OFFICE 120	20 A	1	...			2	20 A	FC-10,11,12	58
59	FC-23,24,25,26,27	20 A	2	...			--	--	--	60
61	--	--	--	...			2	20 A	FC-13	62
63	FC-21,22	20 A	2	...			--	--	--	64
65	--	--	--	...			1	20 A	SPARE	66
67	Receptacle Rm 140	20 A	1	...			1	20 A	SPARE	68
69	Receptacle Rm 140	20 A	1	...			1	20 A	SPARE	70
71	Receptacle Rm 140	20 A	1	...			1	20 A	SPARE	72
73	SPARE	20 A	1	...			1	20 A	SPARE	74
75	SPARE	20 A	1	...			1	20 A	SPARE	76
77	SPARE	20 A	1	...			1	20 A	SPARE	78
79	SPARE	20 A	1	...			1	20 A	SPARE	80
81	SPARE	20 A	1	...			1	20 A	SPARE	82
83	SPARE	20 A	1	...			1	20 A	SPARE	84

Notes:
USE SEPARATE NEUTRAL FOR ALL CIRCUITS

Panel: H

Location: JANITOR 113
Mounting: Surface

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22 KAIC
Mains Type: MLO
Rating: 225 A

CKT	LOAD	CKT BRK	POLES	A	B	C	POLES	CKT BRK	LOAD	CKT
1	SNOW MELT	20 A	2	...			2	20 A	SNOW MELT	2
3	--	--	--	...	...		--	--	--	4
5	SNOW MELT	20 A	2	...			2	20 A	SNOW MELT	6
7	--	--	--	...	...		--	--	--	8
9	SNOW MELT	20 A	2	...			2	20 A	SNOW MELT	10
11	--	--	--	...	...		--	--	--	12
13				...			2	20 A	SNOW MELT	14
15				...			--	--	--	16
17				...			2	20 A	SNOW MELT	18
19				...			--	--	--	20
21				...			2	20 A	SNOW MELT	22
23				...			--	--	--	24
25				...			2	20 A	SNOW MELT	26
27				...			--	--	--	28
29				...						30
31				...						32
33				...						34
35				...						36
37				...						38
39				...						40
41				...						42

Notes:
USE SEPARATE NEUTRAL FOR ALL CIRCUITS
*ALL SNOW MELT CIRCUITS ARE GFCI EQUIPMENT PROTECTION BREAKERS

Panel: C										
Location: JANITOR 113				Volts: 120/208 Wye				A.I.C. Rating: 22 KAIC		
Mounting: Surface				Phases: 3				Main's Type: MLO		
				Wires: 4				Rating: 400 A		
CKT	LOAD	CKT BRK	POLES	A	B	C	POLES	CKT BRK	LOAD	CKT
1	Rm 150 Floor boxes	20 A	1	...			1	20 A	Rm 150 Floor boxes	2
3	Rm 150 Floor boxes	20 A	1		...		1	20 A	Rm 150 Floor boxes	4
5	Rm 152 Floor boxes	20 A	1			...	1	20 A	Rm 150 Floor boxes	6
7	Rm 150 Floor boxes	20 A	1	...			1	20 A	Rm 150 Floor boxes	8
9	Rm 150 Floor boxes	20 A	1		...		1	20 A	Rm 150 Floor boxes	10
11	Rm 150 Floor boxes	20 A	1			...	1	20 A	Rm 150 Floor boxes	12
13	Receptacle Rm 159	20 A	1	...			1	20 A	Rm 150 Floor boxes	14
15	Receptacle Rm 158, 150	20 A	1		...		1	20 A	Rm 150 Floor boxes	16
17	Receptacle Rm 150	20 A	1			...	1	20 A	Rm 150 Floor boxes	18
19	Receptacle Rm 156, 155	20 A	1	...			1	20 A	Lighting Room 102A, 102	20
21	Receptacle Rm 157, 154	20 A	1		...		1	20 A	Lighting Room 103	22
23	Receptacle Rm 153	20 A	1			...	1	20 A	Lighting Room 101A, 101	24
25	Rm 152 Floor boxes	20 A	1	...			1	20 A	Exterior Lighting	26
27	Rm 152 Floor boxes	20 A	1		...		1	20 A	NEON Sign	28
29	FC-1,2,3	20 A	2		...		1	20 A	Lighting Room 140	30
31	--	--	--	...			1	20 A	Lighting	32
33	FC-4	20 A	2		...		1	20 A	Lighting 144, 145, 146, 143,142,151	34
35	--	--	--	...			1	20 A	Lighting Room 151	36
37	FC-5,7,8,9	20 A	2		...		1	20 A	Lighting Room 141	38
39	--	--	--	...			1	20 A	Lighting Room 140	40
41	FC-6	20 A	2		...		1	20 A	Lighting Room 140	42
43	--	--	--	...			1	20 A	Lighting Room 140	44
45	Lighting - Exterior	20 A	1				1	20 A	Lighting Room 140	46
47	Lighting - Exterior	20 A	1		...		1	20 A	Lighting Room 140	48
49	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	Light157,156,155,153,154,158,159	50
51	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	52
53	Lighting ADULT SERVICES 150	20 A	1			...	1	20 A	SPARE	54
55	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	SPARE	56
57	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	58
59	Lighting ADULT SERVICES 150	20 A	1			...	1	20 A	SPARE	60
61	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	SPARE	62
63	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	64
65	Lighting ADULT SERVICES 150	20 A	1			...	1	20 A	SPARE	66
67	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	SPARE	68
69	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	70
71	Lighting ADULT SERVICES 150	20 A	1			...	1	20 A	SPARE	72
73	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	SPARE	74
75	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	76
77	Lighting ADULT SERVICES 150	20 A	1			...	1	20 A	SPARE	78
79	Lighting ADULT SERVICES 150	20 A	1	...			1	20 A	SPARE	80
81	Lighting ADULT SERVICES 150	20 A	1		...		1	20 A	SPARE	82
83	SPARE	20 A	1			...	1	20 A	SPARE	84
Notes:										
USE SEPARATE NEUTRAL FOR ALL CIRCUITS										

ELECTRIC HEATER SCHEDULE

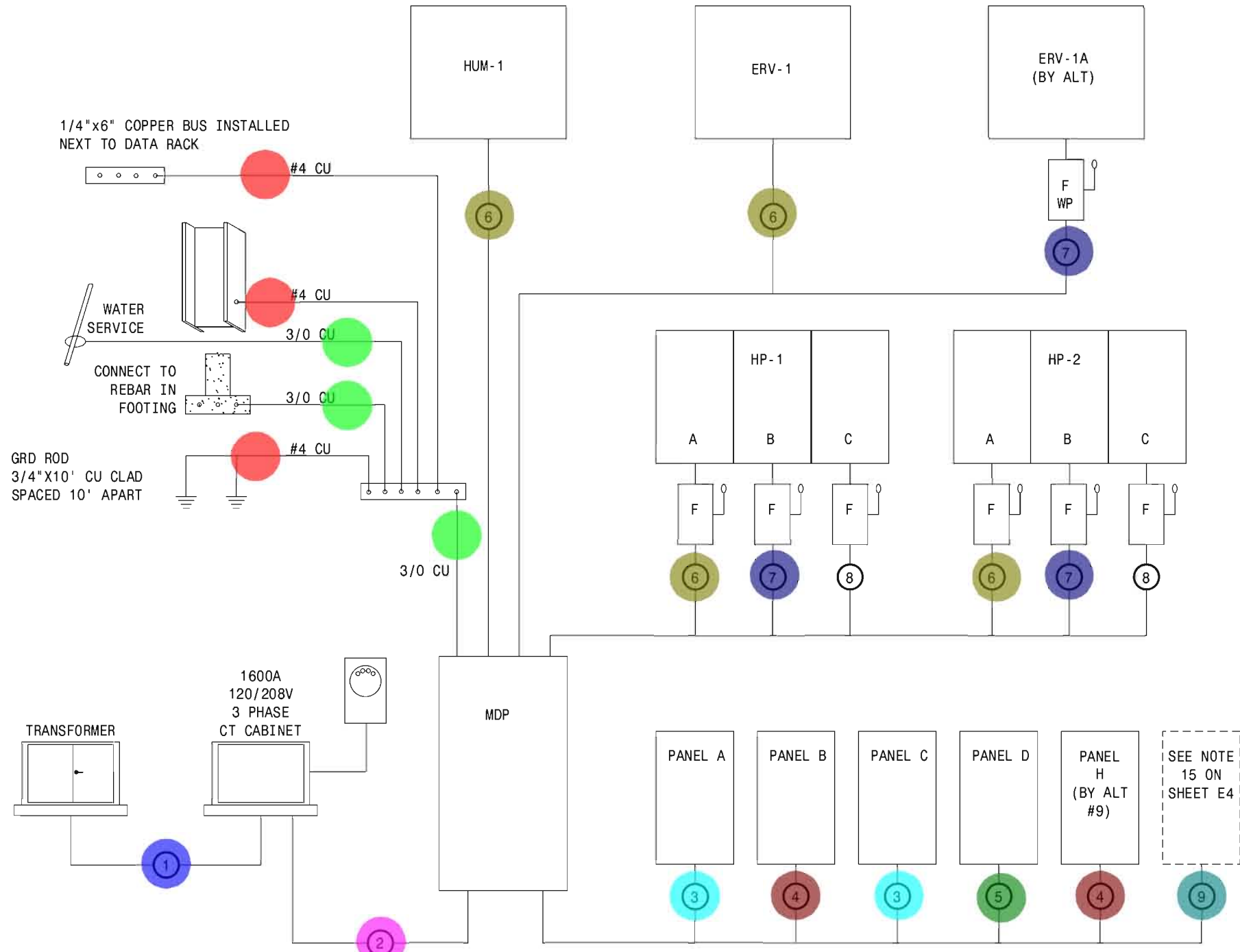
EQUIP. NO.	MANUFACTURER & MODEL	VOLTS/PHASE	WATTS	NOTES
EH-1	BERKO QFF4004	208V/1 PHASE	3000W	CONTROL WILL BE PROVIDED BY T.C.
EH-2	BERKO RCC9008C	208V/1 PHASE	900W	CONTROL WILL BE PROVIDED BY T.C.
EH-3	EASYHEAT SR51J	120V/1 PHASE	5W/FT	SELF-REGULATING HEATING CABLE, INSTALL 330 FT. IN THE DRAIN PAN BELOW EACH HEAT PUMP.
NOTES:				

OCCUPANCY SENSOR SWITCH SCHEDULE

TYPE	MANUFACTURER	CAT. NO.	REMARKS
OS1	WATT STOPPER, OR EQUAL	CI-200	PASSIVE INFRARED CEILING SENSOR, EXTENDED RANGE LENS INCLUDE POWER PACK
OS2	WATT STOPPER, OR EQUAL	WT-2200	ULTRASONIC CEILING SENSOR INCLUDE POWER PACK
S ⁰	WATT STOPPER, OR EQUAL	PW-101-COLOR	PASSIVE INFRARED WALL SWITCH SENSOR. AUTOMATIC ON/OFF OPERATION.
S ^V	WATT STOPPER, OR EQUAL	RS-150BA-N-COLOR	PASSIVE INFRARED WALL SWITCH VACANCY SENSOR WITH NIGHTLIGHT. MANUAL ON, AUTOMATIC OFF OPERATION.
NOTES:			

FEEDER SIZES

FEEDER NO.	AMPACITY	PHASE	VOLTAGE	NO. OF CONDUITS	CONDUIT SIZE (INCHES)	PHASE AND NEUTRAL CONDUCTORS	EQUIPMENT GROUNDING CONDUCTOR
1	N/A	3	120/208	AS REQUIRED BY THE UTILITY COMPANY	AS REQUIRED BY THE UTILITY COMPANY	EC TO PROVIDE THE TRANSFORMER PAD AND INSTALL UTILITY PROVIDED CONDUITS BETWEEN THE TRANSFORMER AND CT CABINET. PROVIDE AND INSTALL A 13 TERMINAL CT RATED METER SOCKET.	N/A
2	1600	3	120/208	5	4	FOUR 750 MCM AL	N/A
3	400	3	120/208	2	2.5	FOUR 250 MCM AL	#3 CU
4	200	3	120/208	1	2.5	FOUR 250 MCM AL	#6 CU
5	125	3	120/208	1	1.5	FOUR #1 CU	#6 CU
6	125	3	120/208	1	1.5	THREE #1 CU	#6 CU
7	100	3	120/208	1	1.25	THREE #3 CU	#6 CU
8	80	3	120/208	1	1.25	THREE #4 CU	#6 CU
9	N/A	N/A	N/A	1	2.5	EMPTY CONDUIT INSTALLED BELOW GRADE SET IN POSITION FOR FUTURE PANEL.	



NOTE: NOT ALL MDP LOADS ARE SHOWN ON RISER

Power Riser Diagram

NOT TO SCALE

LMCP PANEL SCHEDULE			
CIRCUIT NUMBER	RELAY	LOAD	CONTROL FUNCTION
C-32	1	RM 147	ON/OFF TIME OF DAY
C-40	2	RM 140	ON/OFF TIME OF DAY
C-42	3	RM 140	ON/OFF TIME OF DAY
C-44	4	RM 140	ON/OFF TIME OF DAY
C-46	5	RM 140	ON/OFF TIME OF DAY
C-48	6	RM 140	ON/OFF TIME OF DAY
C-38	7	RM 141	ON/OFF TIME OF DAY
C-30	8	RM 140	ON/OFF TIME OF DAY
C-28	9	NEON SIGN	DUSK TO DAWN
C-26	10	ENTRANCE LED	DUSK TO DAWN
C-20	11	RM 102 & 102A	ON/OFF TIME OF DAY
C-22	12	RM 103	ON/OFF TIME OF DAY
C-24	13	RM 101 & 101A	ON/OFF TIME OF DAY
C-45	14	BOLLARDS & NORTH LIGHTS	DUSK TO TIME OF DAY
C-47	15	PARKING LOT	DUSK TO TIME OF DAY
C-49	16	RM 150	ON/OFF TIME OF DAY
C-51	17	RM 150	ON/OFF TIME OF DAY
C-53	18	RM 150	ON/OFF TIME OF DAY
C-55	19	RM 150	ON/OFF TIME OF DAY
C-57	20	RM 150	ON/OFF TIME OF DAY
C-59	21	RM 150	ON/OFF TIME OF DAY
C-61	22	RM 150	ON/OFF TIME OF DAY
C-63	23	RM 150	ON/OFF TIME OF DAY
C-65	24	RM 150	ON/OFF TIME OF DAY
C-67	25	RM 150	ON/OFF TIME OF DAY
C-69	26	RM 150	ON/OFF TIME OF DAY
C-71	27	RM 150	ON/OFF TIME OF DAY
C-73	28	RM 150	ON/OFF TIME OF DAY
C-75	29	RM 150	ON/OFF TIME OF DAY
C-77	30	RM 150	ON/OFF TIME OF DAY
C-79	31	RM 150	ON/OFF TIME OF DAY
C-81	32	RM 150	ON/OFF TIME OF DAY
	33	SPARE	
	34	SPARE	
	35	SPARE	
	36	SPARE	
	37	SPARE	
	38	SPARE	
	39	SPARE	
	40	SPARE	
	41	SPACE	
	42	SPACE	
	43	SPACE	
	44	SPACE	
	45	SPACE	
	46	SPACE	
	47	SPACE	
	48	SPACE	

NOTES:
LMCP PANEL IS WATTSTOPPER LMCP48, OR PRE-APPROVED EQUAL.
ON-SITE FACTORY STARTUP IS REQUIRED.

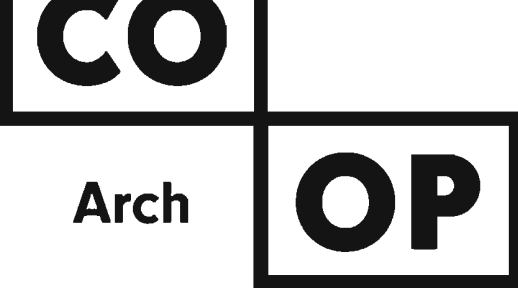
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Checked By- Sen
Date : 11 Mar, 2016

FIXTURE SCHEDULE

TYPE	MANUFACTURERS	CAT. NO.	LAMPS	REMARKS
A	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 2R01-2BX40-RP-UNV	2-BX40/41K	2X2 CENTER BASKET, INSTANT START BALLAST
A1	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 2R01-2BX40-RP-UNV	2-BX40/41K	2X2 CENTER BASKET WITH PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
A & A1 ALT	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 22EN LD1 43 UNV L840 CD1	47-4W LED 4000K	
B	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 230IP (CABLE LENGTH 144") · 1X2 T8 RXX-U EM S93S	3-F32T8/41K	DIRECT/INDIRECT CABLE SUSPENDED FIXTURE, CONTINUOUS RUN, SEE PLAN FOR LENGTHS. NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN FOR LOCATIONS. PROVIDE FIXTURE SUPPORT LOCATIONS IN THE SHOP DRAWINGS.
B ALT	COLUMBIA, LITHONIA, METALUX, LSI	CORELITE DS1-WS-3L40-1E-UNV-AC120"-XX	56-9W LED 4000K	DIRECT/INDIRECT CABLE SUSPENDED FIXTURE, CONTINUOUS RUN, SEE PLAN FOR LENGTHS. NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN FOR LOCATIONS. PROVIDE FIXTURE SUPPORT LOCATIONS IN THE SHOP DRAWINGS.
B1	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 230IP (CABLE LENGTH 144") · 1X2 T8 RXX-U DB EM S93S	3-F32T8/41K	DIRECT/INDIRECT CABLE SUSPENDED FIXTURE, CONTINUOUS RUN, SEE PLAN FOR LENGTHS. NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN FOR LOCATIONS. PROVIDE FIXTURE SUPPORT LOCATIONS IN THE SHOP DRAWINGS.
B1 ALT	COLUMBIA, LITHONIA, METALUX, LSI	CORELITE DS1-WS-3L40-10E-UNV-AC120"-XX	56-9W LED 4000K	DIRECT/INDIRECT CABLE SUSPENDED FIXTURE, CONTINUOUS RUN, SEE PLAN FOR LENGTHS. NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN FOR LOCATIONS. PROVIDE FIXTURE SUPPORT LOCATIONS IN THE SHOP DRAWINGS.
C	COLUMBIA, LITHONIA, METALUX, LSI	HALO COMMERCIAL P06 18 ED010 PD06 840 61V WB	29-5W LED 4000K	RECESSED 6-INCH LED LENS DOWNLIGHT
D	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY S23DR 2T8 4" UDBS1S S93 - EM	2-F32T8/41K	NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN.
D ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY S23DR 2L40 4" UDD01 S93S - EM	LED 4000K	NOT ALL FIXTURES HAVE EMERGENCY OPERATION, SEE PLAN.
E	DUAL-LITE, SURE-LITES, LITHONIA, LSI, MULE LIGHTING	SURE-LITES LEM-S0	LED	
E1	DUAL-LITE, SURE-LITES, LITHONIA, LSI, MULE LIGHTING	MULE LIGHTING MAKO-LED EM XX 1H	LED	REMOTE EMERGENCY FIXTURE WITH BATTERY HEATER TO -22 DEG F. & SELF DIAGNOSTICS. COLOR BY ARCHITECT.
E2	MULE LIGHTING, OR APPROVED EQUAL	MULE LIGHTING ELD-BB-10L2-X-DG-DP	LED	X-CUSTOM COLOR
F1	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 2FC8-3BX40A125-UNV-ER81-U	2-BX40/41K	2X2 TROFFER WITH PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
F1 (ALT)	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 22EN LD1 43 UNV L840 CD1	47-4W LED 4000K	INCLUDE FLANGE KIT
G	COLUMBIA, LITHONIA, METALUX, LSI	METALUX W4432A-UNV-EBR1-U	4-F32T8/41K	CHAIN HANG WHERE NECESSARY, PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
G ALT	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 4SLWP4040ND-UNV	46-5W LED 4000K	CHAIN HANG WHERE NECESSARY
H	COLUMBIA, LITHONIA, METALUX, LSI	METALUX SSF-232-UNV-EBB1-U	2-F32T8/41K	CHAIN HANG WHERE NECESSARY
H ALT	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 4SLSTP4040DD-UNV	LED 4000K	CHAIN HANG WHERE NECESSARY
H1	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 4SLSTP4040DD-UNV	LED 4000K	LED STRIPLIGHT. CHAIN HANG WHERE NECESSARY
J	SHAPER, OR APPROVED EQUAL	461-A LD/840 UNV NA XX	LED 4000K	ARCHITECT TO VERIFY COLOR AND LENGTH
K	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 232T8 26"1 U EB S1	2-F32T8/41K	FIELD VERIFY LENGTH BEFORE ORDERING. PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
K ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 2L40 26"1 UNV STD 1 W	LED 4000K	FIELD VERIFY LENGTH BEFORE ORDERING
K1	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 232T8 14"3 U EB S1	2-F32T8/41K	FIELD VERIFY LENGTH BEFORE ORDERING. PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
K1 ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 2L40 14"3 UNV STD 1 W	LED 4000K	FIELD VERIFY LENGTH BEFORE ORDERING
K2	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 232T8 5"10 U EB S1	2-F32T8/41K	FIELD VERIFY LENGTH BEFORE ORDERING. PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
K2 ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 2L40 5"10 UNV STD 1 W	LED 4000K	FIELD VERIFY LENGTH BEFORE ORDERING
K3	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 232T8 16"11 U EB S1	2-F32T8/41K	FIELD VERIFY LENGTH BEFORE ORDERING. PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
K3 ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 2L40 16"11 UNV STD 1 W	LED 4000K	FIELD VERIFY LENGTH BEFORE ORDERING
K4	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 232T8 28"9 U EB S1	2-F32T8/41K	FIELD VERIFY LENGTH BEFORE ORDERING. PROGRAMMED START BALLAST FOR USE WITH OCCUPANCY SENSORS
K4 ALT	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY 79PF 2L40 28"9 UNV STD 1 W	LED 4000K	FIELD VERIFY LENGTH BEFORE ORDERING
L	COLUMBIA, LITHONIA, METALUX, LSI	METALUX 2SLWP2040ND-120V	23W LED 4000K	CHAIN HANG WHERE NECESSARY
M	COLUMBIA, LITHONIA, METALUX, LSI	MOGRAW-EDISON GLEON AE 03 LED E1 SL3 B2 (SINGLE HEAD)	1-157W LED 4000K	MOUNT ON 25' POLE RSSM25SF (ONE HEAD)
M1	COLUMBIA, LITHONIA, METALUX, LSI	MOGRAW-EDISON GLEON AE 03 LED E1 SL3 B2 (DOUBLE HEAD)	2-157W LED 4000K	MOUNT ON 25' POLE RSSM25SF (TWO HEADS)
N	COLUMBIA, LITHONIA, METALUX, LSI	MOGRAW-EDISON ISS-E02-LED-E1-BL3-B2-P	47W LED 4000K	
N1	COLUMBIA, LITHONIA, METALUX, LSI	MOGRAW-EDISON ISS-E02-LED-E1-BL3-B2	47W LED 4000K	
P	BIRCHWOOD LIGHTING, OR APPROVED EQUAL	VANESSA LEFT: VAN-LED-400-HL0-40-CR25' -DR-WM-EFX-FINISH-FW-120-EB TOP-VAN-LED-400-HL0-40-CR14' -DR-CN-EF2-FINISH-FW-120-EB RIGHT: VAN-LED-400-HL0-40-CR25' -DR-WM-EFX-FINISH-FW-120-EB	LED 4000K	THIS FIXTURE CONSISTS OF THREE SECTIONS LEFT, TOP AND RIGHT. IT LOOKS CONTINUOUS WITH NO VISIBLE BREAKS. DIMENSIONS MUST BE FIELD VERIFIED BEFORE ORDERING.
Q	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY S23DR 2L40 SR 2' UDD S1 S93SW	LED 4000K	
Q1	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY S23DR 2L40 SR 4' UDD S1 S93SW	LED 4000K	
Q2	COLUMBIA, LITHONIA, METALUX, LSI	NEO-RAY S23DR 2L40 SR 6' UDD S1 S93SW	LED 4000K	
R	COLUMBIA, LITHONIA, METALUX, LSI	CORELITE 10S83T8 2C UNV AC 120" X 28"	3-F32T8/41K	INBOARD/OUTBOARD SWITCHING
R (ALT)	COLUMBIA, LITHONIA, METALUX, LSI	CORELITE DS1-WS-3L40-1D-UNV-AC120"-X-28"	56-9W LED 4000K	AS PART OF ALT. IN ROOMS 112A & 112B REPLACE SWITCHES WITH DIMMER SWITCH FOR EACH.
T	COLUMBIA, LITHONIA, METALUX, LSI	LITHONIA LIGHTING		

- #4 Cu Ground Bus
- 3/0 Cu Ground Bus
- Feeder from CT Cabinet 4#750 MCM Al in 5 4" Conduits
- Feeder from MDP 2-1/2" Empty Conduit Below Grade
- Feeder from MDP 3#1 Cu in 1 1.5" Conduit
- Feeder from MDP 3#3 Cu in 1 1.25" Conduit
- Feeder from MDP 4#1 Cu in 1 1.5" Conduit
- Feeder from MDP 4#250 MCM Al in 1 2.5" Conduit
- Feeder from MDP 4#250 MCM Al in 2 2.5" Conduits
- Feeder from Transformer As required
- Relay

- 3.0 EA
- 3.0 EA
- 1.0 EA
- 4.0 EA
- 3.0 EA
- 1.0 EA
- 2.0 EA
- 2.0 EA
- 1.0 EA
- 32.0 EA



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Aberdeen, SD 57401
Phone: 605-725-4852

300 N. Phillips Ave. 120
Sioux Falls, SD 57104
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www.co-oparch.com



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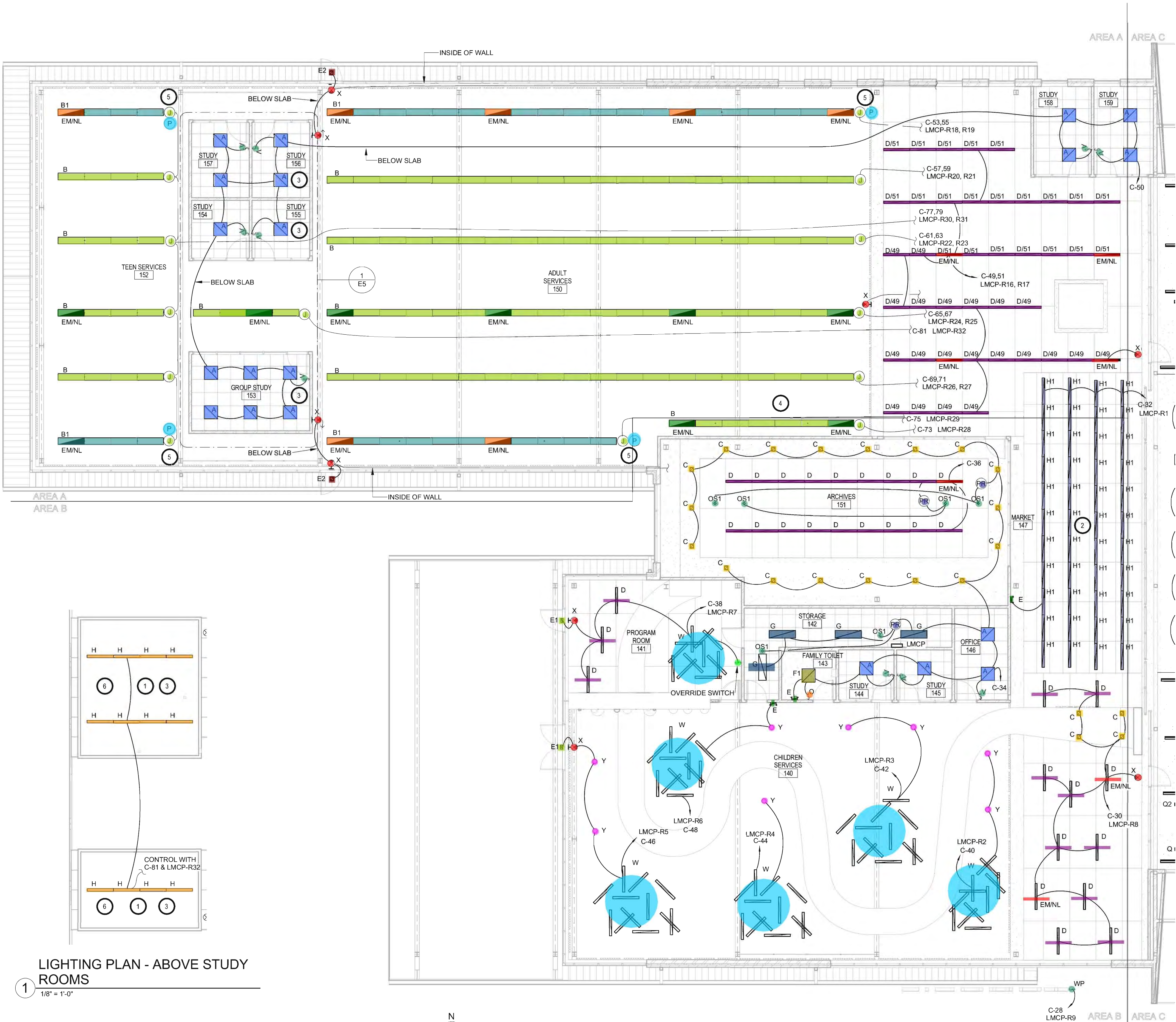
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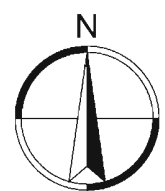
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ELECTRICAL DETAILS

E11



LIGHTING PLAN - ABOVE STUDY ROOMS

1/8" = 1'-0"



LIGHTING PLAN - AREA A & B

1/8" = 1'-0"

KEYNOTES

- TYPE H LIGHTING FIXTURES ARE TO UPLIGHT THE CEILING, INSTALL FACING UPWARDS. PROVIDE STRUT TO SPAN WALL TO WALL FOR MOUNTING THE FIXTURES.
- H1 FIXTURES ARE MOUNTED TO THE BOTTOM OF THE BUILDING STRUCTURE APPROXIMATELY 12" ABOVE THE DECORATIVE CEILING SYSTEM.
- ALL POWER, LIGHTING, DATA, FIRE ALARM, DCC, ETC., MUST BE SUPPLIED TO THESE AREAS BELOW SLAB. THERE WILL NOT BE ANY CONDUIT OR WIRING EXTENDING FROM THE STUDY ROOMS UP TO THE STRUCTURAL CEILING.
- ALL CONDUITS ON THE ROOF DECK OF ROOMS 140, 150 & 152 MUST FOLLOW THE PURLINS AND MINIMIZE THE AMOUNT OF CONDUIT ON THE DECK. THE CROSSING POINTS AT THE I-BEAMS WILL NEED TO BE DRILLED. PAINT ALL CONDUIT & BOXES TO MATCH ROOF DECK BEFORE INSTALLING; TOUCH UP AS NEEDED AFTER INSTALLATION.
- THE LIGHTING ROWS CLOSEST TO THE WINDOWS ARE DIMMED USING A DAYLIGHT SENSOR, LMLS-400, AND A ROOM CONTROLLER LMRC-210, TO THE LMCP PANEL WHICH WILL THEN TURN LIGHTS ON/OFF BASED ON TIME OF DAY. USE ONE ROOM CONTROLLER PER CIRCUIT AND INSTALL NEXT TO THE PANEL.
- INSTALL STRUT ABOVE ACT CEILING.

GENERAL NOTES

- SUPPORT ALL LIGHTING FIXTURES IN THE 4X8 CEILING TILES TO THE BUILDING STRUCTURE INDEPENDENT OF THE CEILING TILE AND GRID SYSTEM.

GENERAL NOTES:

- IN ROOMS WITH EXPOSED STRUCTURAL CEILING PANELS, NOTHING CAN BE ATTACHED DIRECTLY TO THE PANELS. ALL ELECTRICAL ITEMS MUST BE ATTACHED EITHER TO THE I-BEAMS OR THE TUBE STEEL PROVIDED BY G.C.

- A_2X2 Center Basket, Instant Start Ballast_2-BX40/41K
- B1_Direct /Indirect cable suspended fixture_3-F32T8/41K
- B1_EM/NL_Direct /Indirect cable suspended fixture_3-F32T8/41K
- B_Direct /Indirect cable suspended fixture_3-F32T8/41K
- B_EM/NL_Direct /Indirect cable suspended fixture_3-F32T8/41K
- C_Recessed 6-inch LED lens downlight_29.5W LED 4000K
- D_2-F32T8/41K
- D_EM/NL_2-F32T8/41K
- E1_Remote emergency fixture_LED
- E2_Custom Colour_mule lighting ELD-BB-10L2-X-DG-DP
- E_LED
- F1_2X2 Troffer with programmed start ballast for use with occupancy sensors_2-BX40/41K
- G_Chain hang where necessary_4-F32T8/41K
- H1_LED spotlight_LED 4000K
- H_Chain Hang Where Necessary_2-F32T8/41K
- J_Architect to verify colour and length_LED 4000K
- OS1_Occupancy Sensor -Ceiling Mounted
- Override Switch
- P_Photo Control
- PR_Power Pack For Low Voltage Occupancy Sensor
- Single Pole Switch
- W_This Fixture Consists of 12 Individual 4' Fixtures That Are Hung At Varying Heights Ands Angles
- Wall Occupancy Sensor
- X_Exit Light
- Y_Color By Architect_2-42W CFTR

Lighting Fixture Mounting Detail

NOT TO SCALE

Takeoff By- Sen
Checked By- AB
Date : 11 Mar, 2016

CO

Arch

OP

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Aberdeen, SD 57401
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Sioux Falls, SD 57104
Phone: 605-334-9999

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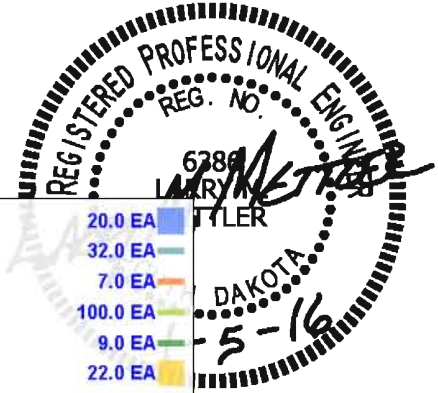
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Minneapolis, MN 55401
Phone: 612-375-0336
Fax: 612-342-2216

www.msrdesign.com

METTLER
SICHELLE
ENGINEERING

Electrical & Mechanical Engineering
801 Railroad Ave. SE
Aberdeen, SD 57401
Phone: 605-225-4344
www.mseng.biz

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5.0	REVISION	5.0	AB	5.0	11/03/2016
6.0	REVISION	6.0	AB	6.0	11/03/2016
7.0	REVISION	7.0	AB	7.0	11/03/2016
8.0	REVISION	8.0	AB	8.0	11/03/2016
9.0	REVISION	9.0	AB	9.0	11/03/2016
10.0	REVISION	10.0	AB	10.0	11/03/2016
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ABERDEEN LIBRARY
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SHEET TITLE:
LIGHTING PLAN - AREA A & B

E5

OF-11