

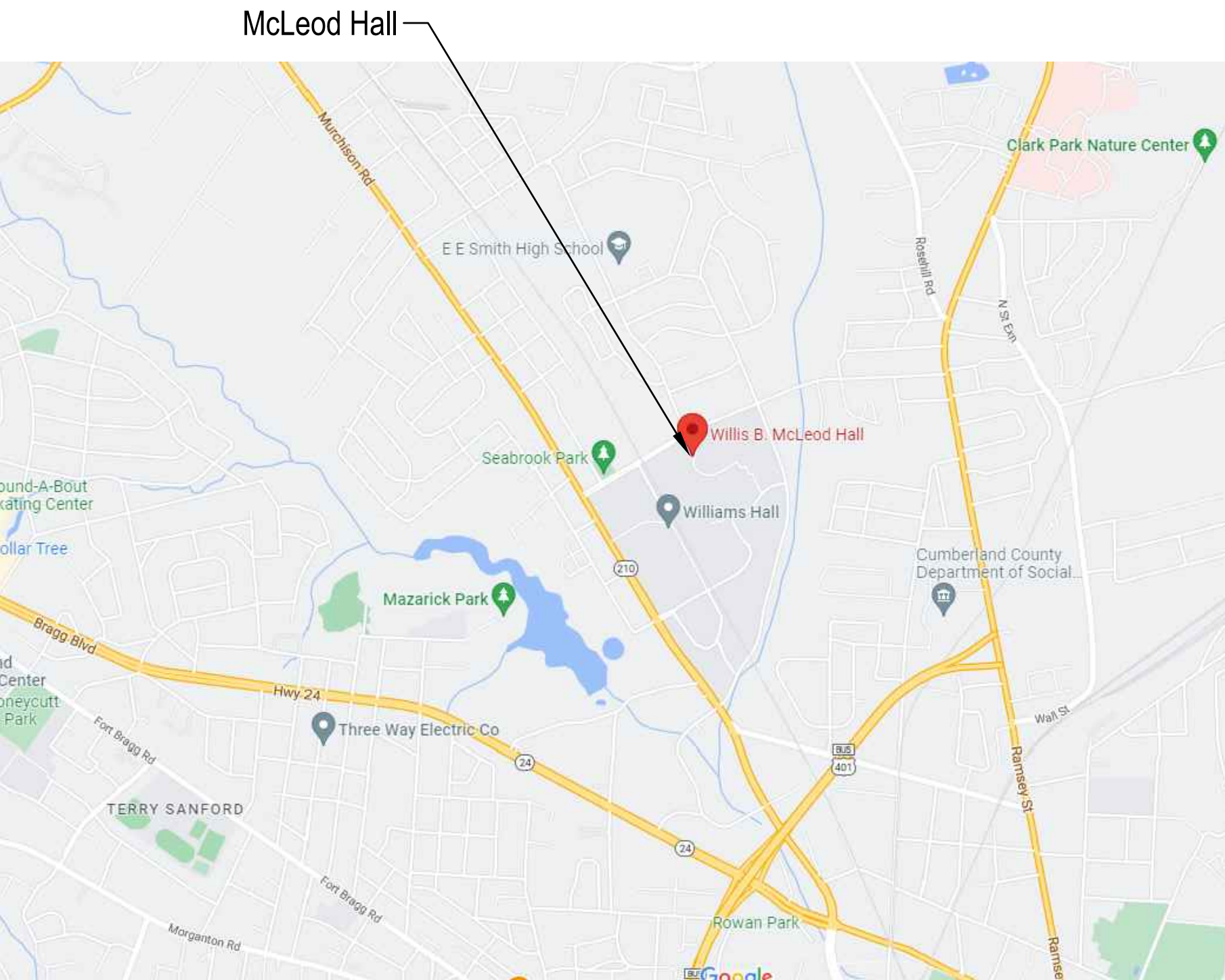
FAYETTEVILLE STATE UNIVERSITY  
MCLEOD HALL HVAC REPLACEMENT

FAYETTEVILLE, NC 28301  
CONSTRUCTION DOCUMENTS  
NOVEMBER 22, 2022  
McKIM & CREED PROJECT # 07815-0044

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MECHANICAL/ELECTRICAL ENGINEERS

**MCKIM & CREED**  
Venture IV Building, Suite 500  
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OWNER

**FAYETTEVILLE**  
STATE UNIVERSITY

ENGINEER

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ARCHITECT

**BSA**

Professional Engineer Seal for DANE J. WALLIN, License # 046612, State of North Carolina, expires 11-21-2022.

REV	REVISION DESCRIPTION	DATE

REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

COVER SHEET

**G001**



2018 APPENDIX B  
BUILDING CODE SUMMARY  
FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)  
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: McLeod Hall - HVAC Renovation  
Address: 1200 Marchion Street Fayetteville, NC  
Owner/Agent: Fayetteville State University Phone # ( 910 ) 672 - 1111 Zip Code 28301  
Owned By: ☐ City/County ☐ Private ☒ State  
Code Enforcement Jurisdiction: ☐ City ☐ County ☒ State

CONTACT:  
DISCIPLINE FIRM NAME LICENSE # TELEPHONE # E-MAIL  
Architectural BSA Life Structures Patrick D. Hines II 11876 ( 819 ) 334-7301 phines@bsalife.com  
Civil N/A  
Electrical McKim & Creed Andrew D. Sigmon 027325 ( 919 ) 233-809 ASigmon@mcimcreed.com  
Fire Alarm  
Plumbing  
Mechanical McKim & Creed Dane J. Wallin 046612 ( 919 ) 233-8091 dwallin@mcimcreed.com  
Sprinkler-Standpipe N/A  
Structural N/A  
Retaining Walls >5' High N/A  
Other N/A  
\*Others\* should include firms and individuals such as, truss, precast, pre-engineered, interior designers, etc.)

2018 NC CODE FOR: ☐ New Construction ☐ Addition ☐ Renovation  
☐ Time Interior Completion  
☐ Phased Construction - Shell/Core  
☐ Renovation  
2018 NC EXISTING BUILDING CODE: ☐ Prescriptive ☐ Repair ☐ Chapter 14  
Alteration: ☒ Level I ☐ Level II ☐ Level III  
☐ Historic Property  
CONSTRUCTED:(date) 2007 ORIGINAL OCCUPANCY(S) (Ch. 3): R-2  
RENOVATED: (date) CURRENT OCCUPANCY(S) (Ch. 3): R-2  
RISK CATEGORY (table 1604.5) Current: ☐ I ☐ II ☒ III ☐ IV  
Proposed: ☐ I ☐ II ☐ III ☐ IV

BASIC BUILDING DATA  
Construction Type: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☐ V-B  
(check all that apply)  
Sprinklers: ☐ No ☐ Partial ☒ Yes NFPA 13 ☐ NFPA 13R ☐ NFPA 13D  
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry  
Fire District: ☐ No ☒ Yes (Primary) Flood Hazard Area: ☐ No ☐ Yes  
Special Inspections Required: ☒ No ☐ Yes  
2018 NC Administrative Code and Policies Appendix B for Building

Gross Building Area:			
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
6 <sup>th</sup> Floor	NONE		
5 <sup>th</sup> Floor	NONE		
4 <sup>th</sup> Floor	15,914 SF		15,914 SF
3 <sup>rd</sup> Floor	15,914 SF		15,914 SF
2 <sup>nd</sup> Floor	15,914 SF		15,914 SF
Mezzanine	NONE		
1 <sup>st</sup> Floor	15,914 SF		15,914 SF
Basement	NONE		
TOTAL 63,656 SF (No change to existing building SF total)			

ALLOWABLE AREA  
Primary Occupancy Classification: SELECT ONE  
Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5  
Business ☐ B-1 ☐ B-2 ☐ B-3 ☐ B-4  
Factory ☐ F-1 ☐ F-2 ☐ F-3 ☐ F-4  
Hazardous ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5 ☐ H-6  
Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4  
Mercantile ☐ M-1 ☐ M-2 ☐ M-3 ☐ M-4  
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4  
Storage ☐ S-1 ☐ S-2 ☐ S-3 ☐ S-4  
Utility and Miscellaneous ☐ U-1 ☐ U-2 ☐ U-3 ☐ U-4  
Accessory Occupancy Classification(s): N/A  
Incidental Uses (Table 509): None  
Special Uses (Chapter 4 - List Code Sections) 420 GROUP R-2  
Special Provisions (Chapter 5 - List Code Sections): N/A  
Mixed Occupancy: ☐ No ☐ Yes Separation: ☐ Hr. Exception:  
☐ Non-Separated Use (508.3)  
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.  
☐ Separated Use (508.4)  
See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each story, divided by the allowable floor area for each use shall not exceed 1.  
$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} + \dots \leq 1.00$$

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N/A - NO CHANGE TO EXISTING BUILDING

STORY NO.	DESCRIPTION AND USE	BUILDING AREA PER STORY (ACTUAL)	AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup>
1				
2				
3				
4				

<sup>1</sup> Frontage area increases from Section 506.3 are computed thus:  
a. Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_\_ (F)  
b. Total Building Perimeter = \_\_\_\_\_ (P)  
c. Ratio (F/P) = \_\_\_\_\_ (F/P)  
d. W = Minimum width of public way = \_\_\_\_\_ (W)  
e. Percent of frontage increase =  $100 \times (F/P - 0.25) \times W/30$  = \_\_\_\_\_ (%)  
<sup>2</sup> Unlimited area applicable under conditions of Section 507.  
<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
<sup>4</sup> The maximum area of open parking garages must comply with Table 406.4.  
<sup>5</sup> Frontage increase is based on the unsminklered area value in Table 506.2.

N/A - NO CHANGE TO EXISTING BUILDING			
ALLOWABLE HEIGHT		BROWN OR PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	80		504.3
Building Height in Stories (Table 504.4)	4		504.4

<sup>1</sup> Provide code reference of the "Show on Plans" based on Table 504.3 or 504.4.  
<sup>2</sup> The maximum height of air traffic control to comply with Table 412.3.1  
<sup>3</sup> The maximum height of open parking garages to comply with Table 406.4.

FIRE PROTECTION REQUIREMENTS						
BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RISK CATEGORY	RATING PROVIDED (W/REMARKS)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, joists	0					
Bearing Walls						
Exterior						
North	>30FT	0				
East	>30FT	0				
West	>30FT	0				
South	>30FT	0				
Interior	>30FT	0	1 THR LAUNDRY	UL U90S		
Nonbearing Walls and Partitions						
Exterior walls	N/A					
North						
East						
West						
South						
Interior walls and partitions	>30FT	0				
Floor Construction						
Including supporting beams and joists	>30FT	0				
Floor Ceiling Assembly						
Column Supporting Floors						
Roof Construction, including supporting beams and joists	>30FT	0				
Roof Ceiling Assembly						
Column Supporting Roof						
Shed Enclosures - Exit		2 HR	2 HR	3/UL1.1	UL U90S	
Shed Enclosures - Other		2 HR	2 HR	4/UL1.1	Y2 NCBG	
Corridor Separation		1 HR	1 HR	3/UL1.1	UL U90S	
Occupancy Fire Barrier						
Party Fire Wall Separation	N/A					
Smoke Barrier Separation	N/A					
Smoke Partition						
Tenant Dwelling Unit Separation	N/A					
Incidental Use Separation						

\* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS		
FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREES OF OPENINGS PROTECTION (TABLE 702.6)	ALLOWABLE AREA (%)

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Appendix B for Building

N/A - EXISTING BUILDING TO REMAIN. NO NEW EXTERIOR WORK.

LIFE SAFETY SYSTEM REQUIREMENTS	
Emergency Lighting:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Exit Signs:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Fire Alarm:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Smoke Detection Systems:	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partial
Carbon Monoxide Detection:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

LIFE SAFETY PLAN REQUIREMENTS	
Life Safety Plan Sheet #: G210	
<input type="checkbox"/> Fire and/or smoke rated wall locations (Chapter 7)	
<input type="checkbox"/> Assumed and real property line locations (if not on the site plan) NO CHANGE TO EXISTING	
<input type="checkbox"/> Exterior wall opening area with respect to distance to assumed property lines (705.8)	
<input type="checkbox"/> Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.2)	
<input type="checkbox"/> Occupant loads for each area	
<input type="checkbox"/> Exit access travel distances (1017)	
<input type="checkbox"/> Common path of travel distances (1006.2.1 & 2006.3.2(1))	
<input type="checkbox"/> Dead end lengths (1020.4)	
<input type="checkbox"/> Clear exit widths for each exit door	
<input type="checkbox"/> Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)	
<input type="checkbox"/> Actual occupant load for each exit door	
<input type="checkbox"/> A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation and supporting construction for a fire barrier/fire partition/smoke barrier.	
<input type="checkbox"/> Location of doors with panic hardware (1010.1.10)	
<input type="checkbox"/> Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)	
<input type="checkbox"/> Location of doors with electromagnetic egress locks (1010.1.9.9)	
<input type="checkbox"/> Location of doors equipped with hold-open devices	
<input type="checkbox"/> Location of emergency escape windows (1030)	
<input type="checkbox"/> The square footage of each fire area (202)	
<input type="checkbox"/> The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)	
<input type="checkbox"/> Note any code exceptions or table notes that may have been utilized regarding the items above	

Section/Title/Note	Title
N/A	

ACCESSIBLE UNIT COUNTS						
TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TOTAL UNITS
N/A						

2018 NC Administrative Code and Policies

Appendix B for Building

ACCESSIBLE PARKING (SECTION 506)						
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	TOTAL # OF PARKING SPACES PROVIDED	PROVIDED	TOTAL # OF PARKING SPACES PROVIDED	PROVIDED
TOTAL						

NO CHANGE IN OCCUPANCY TYPE OR LOAD PER 2018 NC EXISTING BUILDING CODE SECTION 610.1 MINIMUM FIXTURES

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)									
USE	WATER CLOSETS	URINALS	LAVATORIES	SHOWERS	DRINKING FOUNTAINS	WATER CLOSETS	URINALS	LAVATORIES	SHOWERS
MALE									
FEMALE									
UNSEX									
REGULAR									
ACCESSIBLE									

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)

NOT APPLICABLE - NO CHANGE IN BUILDING ENVELOPE ENERGY SUMMARY

ENERGY REQUIREMENTS:  
The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☐ Yes (The remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Yes (Provide Code or Statutory reference)

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive  
ASHRAE 90.1 ☐ Performance ☐ Prescriptive  
(If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roofing Assembly (each assembly)  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Skylights in each assembly: \_\_\_\_\_  
U-Value of skylight: \_\_\_\_\_  
Total square footage of skylight: \_\_\_\_\_

Exterior Walls (each assembly)  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Openings (windows or doors with glazing)  
U-Value of assembly: \_\_\_\_\_  
Solar heat gain coefficient: \_\_\_\_\_  
Projection factor: \_\_\_\_\_  
Door R-Values: \_\_\_\_\_

Walls below grade (each assembly)  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

Floors over unconditioned space (each assembly)  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

Floors slab on grade  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Horizontal/Vertical requirement: \_\_\_\_\_  
Slab Heated: \_\_\_\_\_

2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

NOT APPLICABLE - NO CHANGE IN STRUCTURAL SYSTEM DESIGN LOADS:

Importance Factors: Snow (I<sub>s</sub>) \_\_\_\_\_  
Seismic (I<sub>e</sub>) \_\_\_\_\_  
Live Loads: Roof \_\_\_\_\_ psf  
Mezzanine \_\_\_\_\_ psf  
Floor \_\_\_\_\_ psf  
Ground Snow Load: \_\_\_\_\_ psf  
Wind Load: Ultimate Wind Speed \_\_\_\_\_ mph (ASCE-7)  
Exposure Category \_\_\_\_\_

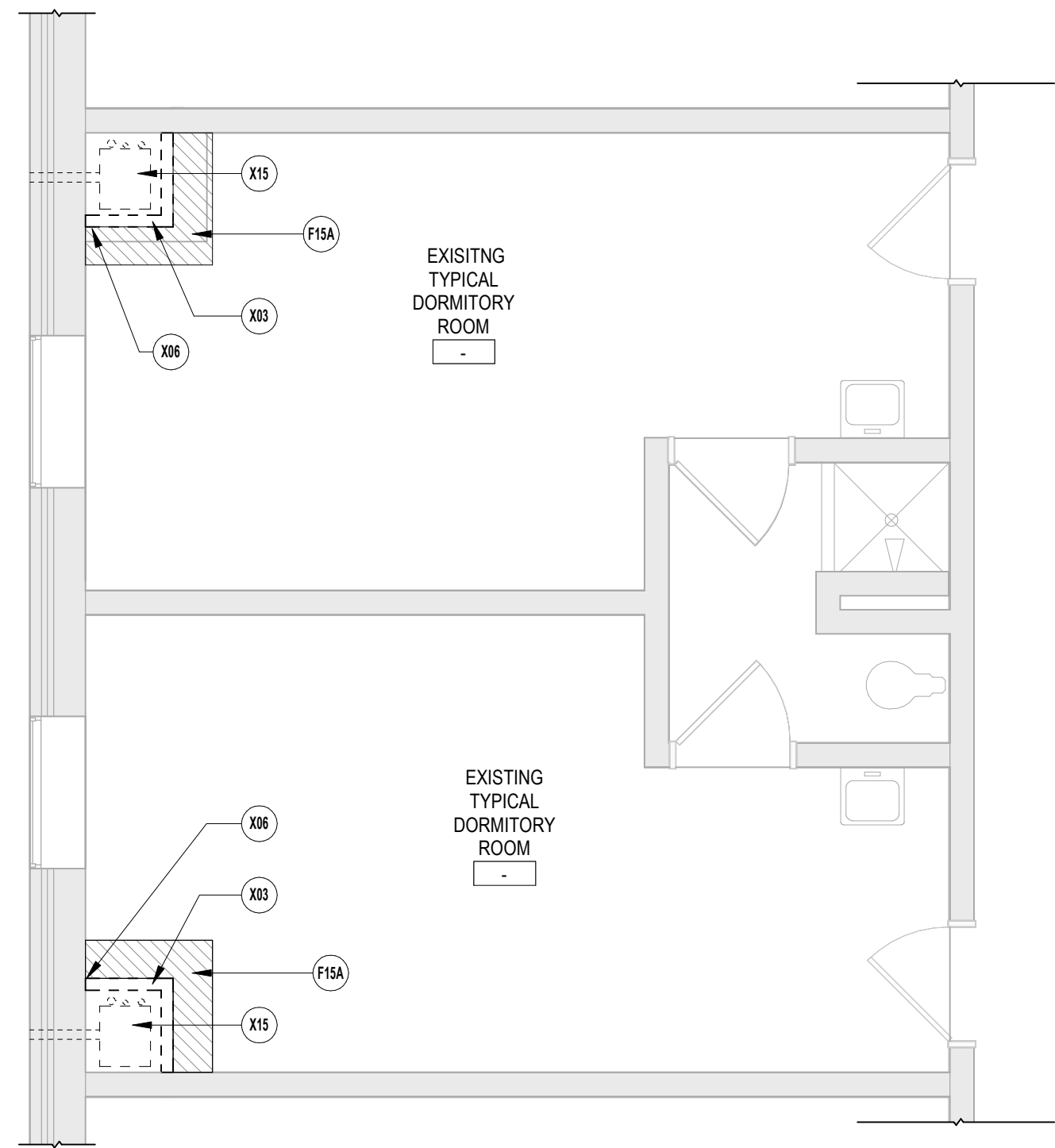
SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☐ C ☐ D  
Provide the following Seismic Design Parameters:  
Occupancy Category (Table 1604.5) ☐ III ☐ IV  
Spectral Response Acceleration S<sub>s</sub> \_\_\_\_\_ %  
Site Classification (ASCE 7) ☐ S<sub>1</sub> ☐ S<sub>2</sub> ☐ S<sub>3</sub> ☐ S<sub>4</sub> ☐ S<sub>5</sub> ☐ S<sub>6</sub> ☐ S<sub>7</sub> ☐ S<sub>8</sub> ☐ S<sub>9</sub> ☐ S<sub>10</sub> ☐ S<sub>11</sub> ☐ S<sub>12</sub> ☐ S<sub>13</sub> ☐ S<sub>14</sub> ☐ S<sub>15</sub> ☐ S<sub>16</sub> ☐ S<sub>17</sub> ☐ S<sub>18</sub> ☐ S<sub>19</sub> ☐ S<sub>20</sub> ☐ S<sub>21</sub> ☐ S<sub>22</sub> ☐ S<sub>23</sub> ☐ S<sub>24</sub> ☐ S<sub>25</sub> ☐ S<sub>26</sub> ☐ S<sub>27</sub> ☐ S<sub>28</sub> ☐ S<sub>29</sub> ☐ S<sub>30</sub> ☐ S<sub>31</sub> ☐ S<sub>32</sub> ☐ S<sub>33</sub> ☐ S<sub>34</sub> ☐ S<sub>35</sub> ☐ S<sub>36</sub> ☐ S<sub>37</sub> ☐ S<sub>38</sub> ☐ S<sub>39</sub> ☐ S<sub>40</sub> ☐ S<sub>41</sub> ☐ S<sub>42</sub> ☐ S<sub>43</sub> ☐ S<sub>44</sub> ☐ S<sub>45</sub> ☐ S<sub>46</sub> ☐ S<sub>47</sub> ☐ S<sub>48</sub> ☐ S<sub>49</sub> ☐ S<sub>50</sub> ☐ S<sub>51</sub> ☐ S<sub>52</sub> ☐ S<sub>53</sub> ☐ S<sub>54</sub> ☐ S<sub>55</sub> ☐ S<sub>56</sub> ☐ S<sub>57</sub> ☐ S<sub>58</sub> ☐ S<sub>59</sub> ☐ S<sub>60</sub> ☐ S<sub>61</sub> ☐ S<sub>62</sub> ☐ S<sub>63</sub> ☐ S<sub>64</sub> ☐ S<sub>65</sub> ☐ S<sub>66</sub> ☐ S<sub>67</sub> ☐ S<sub>68</sub> ☐ S<sub>69</sub> ☐ S<sub>70</sub> ☐ S<sub>71</sub> ☐ S<sub>72</sub> ☐ S<sub>73</sub> ☐ S<sub>74</sub> ☐ S<sub>75</sub> ☐ S<sub>76</sub> ☐ S<sub>77</sub> ☐ S<sub>78</sub> ☐ S<sub>79</sub> ☐ S<sub>80</sub> ☐ S<sub>81</sub> ☐ S<sub>82</sub> ☐ S<sub>83</sub> ☐ S<sub>84</sub> ☐ S<sub>85</sub> ☐ S<sub>86</sub> ☐ S<sub>87</sub> ☐ S<sub>88</sub> ☐ S<sub>89</sub> ☐ S<sub>90</sub> ☐ S<sub>91</sub> ☐ S<sub>92</sub> ☐ S<sub>93</sub> ☐ S<sub>94</sub> ☐ S<sub>95</sub> ☐ S<sub>96</sub> ☐ S<sub>97</sub> ☐ S<sub>98</sub> ☐ S<sub>99</sub> ☐ S<sub>100</sub> ☐ S<sub>101</sub> ☐ S<sub>102</sub> ☐ S<sub>103</sub> ☐ S<sub>104</sub> ☐ S<sub>105</sub> ☐ S<sub>106</sub> ☐ S<sub>107</sub> ☐ S<sub>108</sub> ☐ S<sub>109</sub> ☐ S<sub>110</sub> ☐ S<sub>111</sub> ☐ S<sub>112</sub> ☐ S<sub>113</sub> ☐ S<sub>114</sub> ☐ S<sub>115</sub> ☐ S<sub>116</sub> ☐ S<sub>117</sub> ☐ S<sub>118</sub> ☐ S<sub>119</sub> ☐ S<sub>120</sub> ☐ S<sub>121</sub> ☐ S<sub>122</sub> ☐ S<sub>123</sub> ☐ S<sub>124</sub> ☐ S<sub>125</sub> ☐ S<sub>126</sub> ☐ S<sub>127</sub> ☐ S<sub>128</sub> ☐ S<sub>129</sub> ☐ S<sub>130</sub> ☐ S<sub>131</sub> ☐ S<sub>132</sub> ☐ S<sub>133</sub> ☐ S<sub>134</sub> ☐ S<sub>135</sub> ☐ S<sub>136</sub> ☐ S<sub>137</sub> ☐ S<sub>138</sub> ☐ S<sub>139</sub> ☐ S<sub>140</sub> ☐ S<sub>141</sub> ☐ S<sub>142</sub> ☐ S<sub>143</sub> ☐ S<sub>144</sub> ☐ S<sub>145</sub> ☐ S<sub>146</sub> ☐ S<sub>147</sub> ☐ S<sub>148</sub> ☐ S<sub>149</sub> ☐ S<sub>150</sub> ☐ S<sub>151</sub> ☐ S<sub>152</sub> ☐ S<sub>153</sub> ☐ S<sub>154</sub> ☐ S<sub>155</sub> ☐ S<sub>156</sub> ☐ S<sub>157</sub> ☐ S<sub>158</sub> ☐ S<sub>159</sub> ☐ S<sub>160</sub> ☐ S<sub>161</sub> ☐ S<sub>162</sub> ☐ S<sub>163</sub> ☐ S<sub>164</sub> ☐ S<sub>165</sub> ☐ S<sub>166</sub> ☐ S<sub>167</sub> ☐ S<sub>168</sub> ☐ S<sub>169</sub> ☐ S<sub>170</sub> ☐ S<sub>171</sub> ☐ S<sub>172</sub> ☐ S<sub>173</sub> ☐ S<sub>174</sub> ☐ S<sub>175</sub> ☐ S<sub>176</sub> ☐ S<sub>177</sub> ☐ S<sub>178</sub> ☐ S<sub>179</sub> ☐ S<sub>180</sub> ☐ S<sub>181</sub> ☐ S<sub>182</sub> ☐ S<sub>183</sub> ☐ S<sub>184</sub> ☐ S<sub>185</sub> ☐ S<sub>186</sub> ☐ S<sub>187</sub> ☐ S<sub>188</sub> ☐ S<sub>189</sub> ☐ S<sub>190</sub> ☐ S<sub>191</sub> ☐ S<sub>192</sub> ☐ S<sub>193</sub> ☐ S<sub>194</sub> ☐ S<sub>195</sub> ☐ S<sub>196</sub> ☐ S<sub>197</sub> ☐ S<sub>198</sub> ☐ S<sub>199</sub> ☐ S<sub>200</sub> ☐ S<sub>201</sub> ☐ S<sub>202</sub> ☐ S<sub>203</sub> ☐ S<sub>204</sub> ☐ S<sub>205</sub> ☐ S<sub>206</sub> ☐ S<sub>207</sub> ☐ S<sub>208</sub> ☐ S<sub>209</sub> ☐ S<sub>210</sub> ☐ S<sub>211</sub> ☐ S<sub>212</sub> ☐ S<sub>213</sub> ☐ S<sub>214</sub> ☐ S<sub>215</sub> ☐ S<sub>216</sub> ☐ S<sub>217</sub> ☐ S<sub>218</sub> ☐ S<sub>219</sub> ☐ S<sub>220</sub> ☐ S<sub>221</sub> ☐ S<sub>222</sub> ☐ S<sub>223</sub> ☐ S<sub>224</sub> ☐ S<sub>225</sub> ☐ S<sub>226</sub> ☐ S<sub>227</sub> ☐ S<sub>228</sub> ☐ S<sub>229</sub> ☐ S<sub>230</sub> ☐ S<sub>231</sub> ☐ S<sub>232</sub> ☐ S<sub>233</sub> ☐ S<sub>234</sub> ☐ S<sub>235</sub> ☐ S<sub>236</sub> ☐ S<sub>237</sub> ☐ S<sub>238</sub> ☐ S<sub>239</sub>



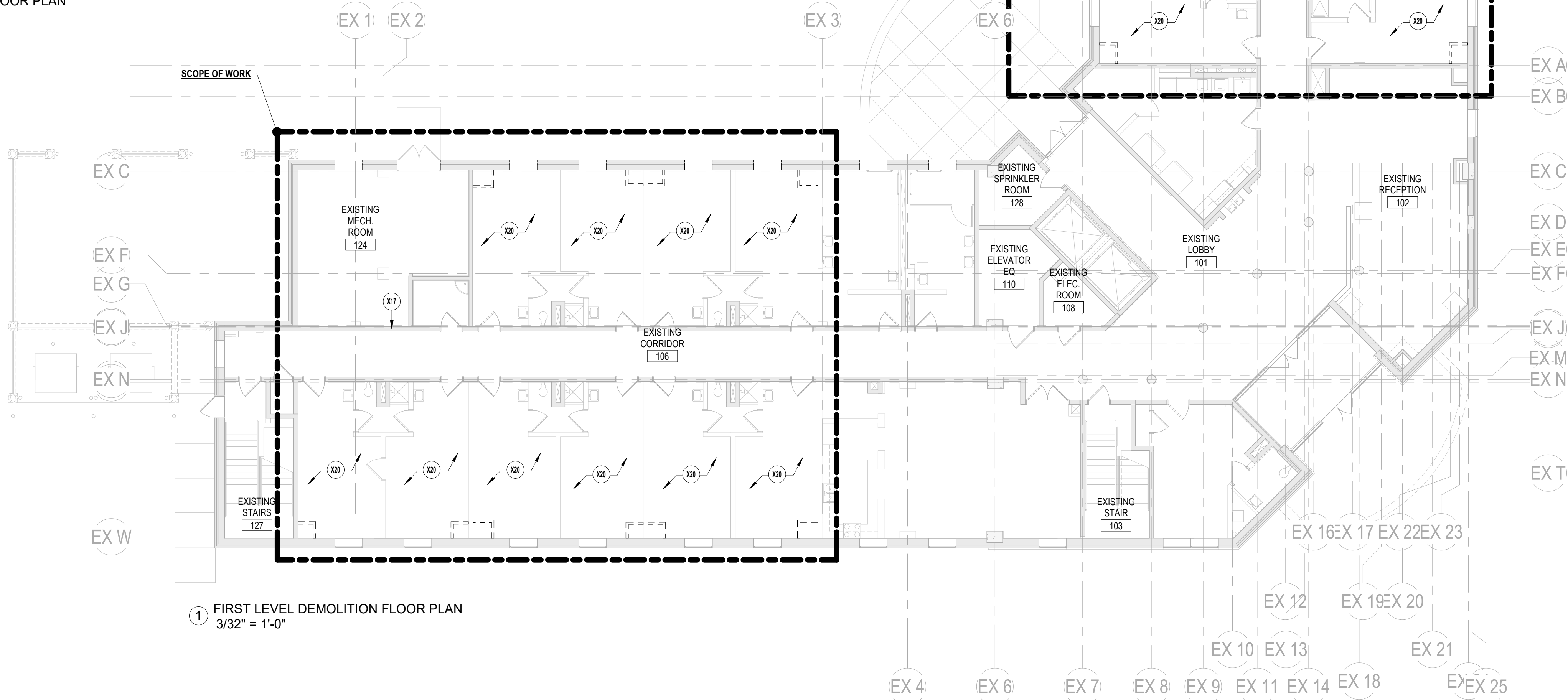




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DESIGNED Designer  
DRAWN Author  
APPROVED Approver



② TYPICAL 1ST, 2ND, 3RD, AND 4TH LEVEL  
DEMOLITION DORMITORY FLOOR PLAN  
1/4" = 1'-0"



① FIRST LEVEL DEMOLITION FLOOR PLAN  
3/32" = 1'-0"

#### ARCHITECTURAL SYMBOLS LEGEND

##### DEMOLITION SYMBOLS

- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED
- EXISTING DOOR AND FRAME TO REMAIN
- EXISTING DOOR AND FRAME TO BE REMOVED
- EXISTING WINDOW AND FRAME TO REMAIN
- EXISTING WINDOW AND FRAME TO BE REMOVED

#### GENERAL DEMOLITION NOTES

- A. ALL ITEMS SHOWN IN A BOLD DASHED LINE AND NOT OTHERWISE CALLED OUT, INDICATE EXISTING ITEMS OR WALLS TO BE DEMOLISHED. REMOVE SUCH ITEMS TOTALLY AND COMPLETELY.
- B. REMOVE ALL EXISTING WALL MOUNTED ITEMS WITHIN THE PROJECT LIMIT AREA WHICH ARE NOT NOTED TO REMAIN. DISPOSE OF THESE ITEMS AFTER INSPECTION BY THE OWNER DETERMINES THEY ARE NOT TO BE SALVAGED. IF ITEMS ARE REMOVED FROM WALLS THAT ARE TO REMAIN, PATCH WALLS AS REQUIRED TO RECEIVE NEW FINISHES AND/OR SURFACES.
- C. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL DEMOLITION INFORMATION.
- D. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL ORDINANCES AND BUILDING CODES.
- E. REMOVE EXISTING FLOORING, BASES AND WALLS WHERE NOTED ON PLANS.
- F. DO NOT CONSIDER DEMOLITION AND ALTERATION NOTES TO BE ALL INCLUSIVE. IT IS THE CONTRACTORS RESPONSIBILITY TO INSPECT AND ASSESS EACH SPACE AND TO FULFILL THE INTENT OF THE WORK INDICATED BY THE CONTRACT DOCUMENTS. VERIFY EXTENT OF ALL DEMOLITION WITHIN THE CONTRACT LIMITS. THE EXTENT OF DEMOLITION AND REMOVAL WORK SHOWN ON THE DRAWINGS AND INCLUDES, BUT IS NOT LIMITED, NECESSARILY LIMITED TO THE DEMOLITION NOTES LISTED.
- G. CAP OFF AND REROUTE UTILITIES AS REQUIRED TO MAINTAIN OPERATION OF EXISTING SERVICES AND SYSTEMS; COMPLY WITH APPLICABLE CODES AND REGULATIONS. EXACT ROUTING TO BE REVIEWED WITH OWNER, ARCHITECT, AND ENGINEER.
- H. WHERE REMOVALS LEAVE OPENING IN EXISTING BUILDING ELEMENTS, INFILL AND PATCH EXISTING CONSTRUCTION AS NEEDED FOR LEVEL, EVEN SURFACES, FIRESTOP WHERE NECESSARY TO MAINTAIN EXISTING FIRE RATED ASSEMBLIES.
- I. WHERE EXISTING CEILINGS ARE SCHEDULED TO REMAIN REMOVE EXISTING CEILING ONLY TO EXTENT SHOWN OR REQUIRED TO ACCOMMODATE HVAC, PLUMBING, ELECTRICAL, OR OTHER WORK. REMOVE SUSPENDED ACOUSTIC TILE CEILING AS INDICATED. REPAIR EXISTING CEILINGS WHERE DAMAGED BY INSTALLATION OF NEW WORK HAS OCCURRED TO THE SATISFACTION OF THE OWNER; REPLACE CEILINGS IN PART OR IN WHOLE AS NEEDED.
- J. CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- K. ALL AREAS SCHEDULED TO RECEIVE NEW FINISHES. REMOVE EXISTING APPLIED FINISHES, INCLUDING BUT NOT LIMITED TO APPLIED BASE, GLUES, ECT AS NEEDED TO ACCOMMODATE NEW WORK. EXISTING CONSTRUCTION SHALL BE PROTECTED / REPAIRED AS REQUIRED.
- L. CONTRACTOR IS TO PROVIDE ALL NECESSARY SHORING AND BRACING TO SUPPORT EXISTING STRUCTURE UNTIL PERMANENT SUPPORTS ARE ERECTED. TAKE ALL NECESSARY MEASUREMENTS TO PREVENT COLLAPSE OF WALLS, SLAB, ECT.
- M. REFER TO ELECTRICAL AND MECHANICAL PROTECTION DRAWINGS FOR ADDITIONAL DEMOLITION WORK WHERE SUCH WORK OCCURS. ARCHITECTURAL ITEMS AND FINISHES SHALL BE REMOVED ONLY TO THE EXTENT TO COMPLETE THE NEW WORK. EXISTING CONSTRUCTION SHALL BE PROTECTED/ REPAIRED AS REQUIRED.
- N. CONSTRUCTION TO REMAIN SHALL BE FULLY PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DAMAGE AND SHALL MAKE REPAIRS REQUIRED WITHOUT ADDITIONAL COST TO OWNER. FROM DAMAGE SUSTAINED DUE TO DEMOLITION ACTIVITIES.
- O. INCLUDE IN SCOPE ANY WORK, REQUIRED TO BE DONE ON FLOORS ABOVE, BELOW OR ADJACENT TO DEMOLITION AREAS, INCLUDING BUT NOT LIMITED TO ACCESSING OR ROUTING UTILITIES, EXISTING CONDITIONS TO REMAIN ARE TO BE PROTECTED FROM DAMAGE.
- P. ALL HVAC, ELECTRICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT UNCOVERED DURING THE COURSE OF DEMOLITION THAT IS NOT INDICATED ON DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER FOR REVIEW.
- Q. WHERE APPLICABLE, DAMAGED CEILING TILES ARE TO BE REMOVED AND REPLACED. WHERE NEW CEILING CONSTRUCTION IS INDICATED, REMOVE EXISTING LIGHTING FIXTURES WITHOUT DAMAGE. IF INDICATED, AND SAVE FOR USE AS DIRECTED BY OWNER. ANY DISPOSAL OF SAME TO BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL STATE AND FEDERAL REGULATIONS.
- R. EXISTING WALL FINISHES TO REMAIN INTACT, EXCEPT AS OTHERWISE NOTED. WHERE DAMAGE IS INCURRED, OR PATCHING IS REQUIRED DUE TO DEMOLITION, PROVIDE NEW FINISH TO MATCH EXISTING SURFACE. FLUSH WITH EXISTING.
- S. EXISTING WALLS SCHEDULED TO REMAIN SHALL BE PATCHED AND REPAIRED WHERE NECESSARY FOR SMOOTH, EVEN WALL SURFACES; INFILL ANY EXISTING HOLES WITH MATCHING WALL MATERIAL. PREPARE SURFACE AS NEEDED TO RECEIVE NEW WALL FINISHES.
- T. EXISTING WALLS SCHEDULED TO REMAIN SHALL BE PATCHED AND REPAIRED WHERE NECESSARY FOR SMOOTH, EVEN WALL SURFACES; INFILL ANY EXISTING HOLES WITH MATCHING WALL MATERIAL. PREPARE SURFACE AS NEEDED TO RECEIVE NEW WALL FINISHES.

#### KEYNOTE LEGEND

- REFER TO A000 FOR GENERAL NOTES
- F15A NO WORK IN THIS AREA. TYPICAL.
- X03 REMOVE EXISTING WALL IN ITS ENTIRETY AROUND EACH FCU UNIT. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION. PREPARE AREA FOR NEW WORK.
- X06 PREPARE WALL TO RECEIVE NEW BASE. PATCH AREAS OF EXISTING TO REMAIN AS NEEDED. REFER TO INTERIOR FINISH PLANS FOR ADDITIONAL INFORMATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR IF AREA EXCEEDS BEYOND THE DEMO SCOPE.
- X15 GENERAL CONTRACTOR TO REMOVE EXISTING FAN COIL UNIT (FCU) AND PREPARE AREA FOR NEW WORK. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION. TYPICAL.
- X17 CUT OPENING IN EXISTING WALL FOR NEW MECHANICAL WORK. CONTRACTOR IS RESPONSIBLE FOR CUTTING OPENING IN EXISTING WALL AND RESPONSIBLE TO MAINTAIN INTEGRITY OF ALL EXISTING FIRE PROOFING, AS WELL AS ANY NEW FIRE PROOFING NEEDED TO MAINTAIN RATING FOR WALL ASSEMBLY. REFER TO MEP DRAWINGS FOR MORE INFORMATION.
- X20 REFER TO DETAIL 2/A100 FOR TYPICAL ROOM DEMOLITION NOTES.

#### WALL RATINGS

- SMOKE PARTITION - (SP)
- 1-HOUR SMOKE BARRIER - (SB)
- 1-HOUR RATED FIRE - (1HR)
- 1-HOUR RATED FIRE + SMOKE BARRIER - (1HR)
- 2-HOUR RATED FIRE - (2HR)
- 2-HOUR RATED FIRE + SMOKE BARRIER - (2HR)
- 3-HOUR RATED FIRE - (3HR)

OWNER



ENGINEER



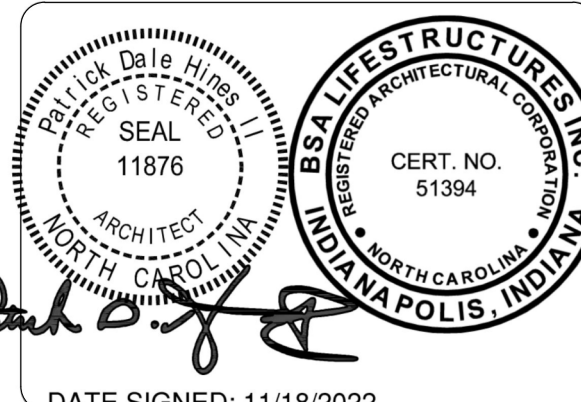
Venture IV Building, Suite 500  
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Raleigh, North Carolina 27606  
Phone: (919) 233-8091, Fax: (919) 233-8031  
NC License # 1227  
www.mckimcreed.com

ARCHITECT



BSA LifeStructures  
510 Glenwood Ave, Suite 321  
Raleigh, NC 27603-1262  
ph 191.334.7301 fx 317.819.7288

NOT FOR CONSTRUCTION



DATE SIGNED: 11/18/2022

MARK DATE DESCRIPTION

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCQ ID: 21-24131-01A CODE:42134 ITEM: 301

DATE 2022-11-22  
BSA PROJ. # 23050002  
DRAWN  
DESIGNED  
CHECKED  
PROJ. MGR.

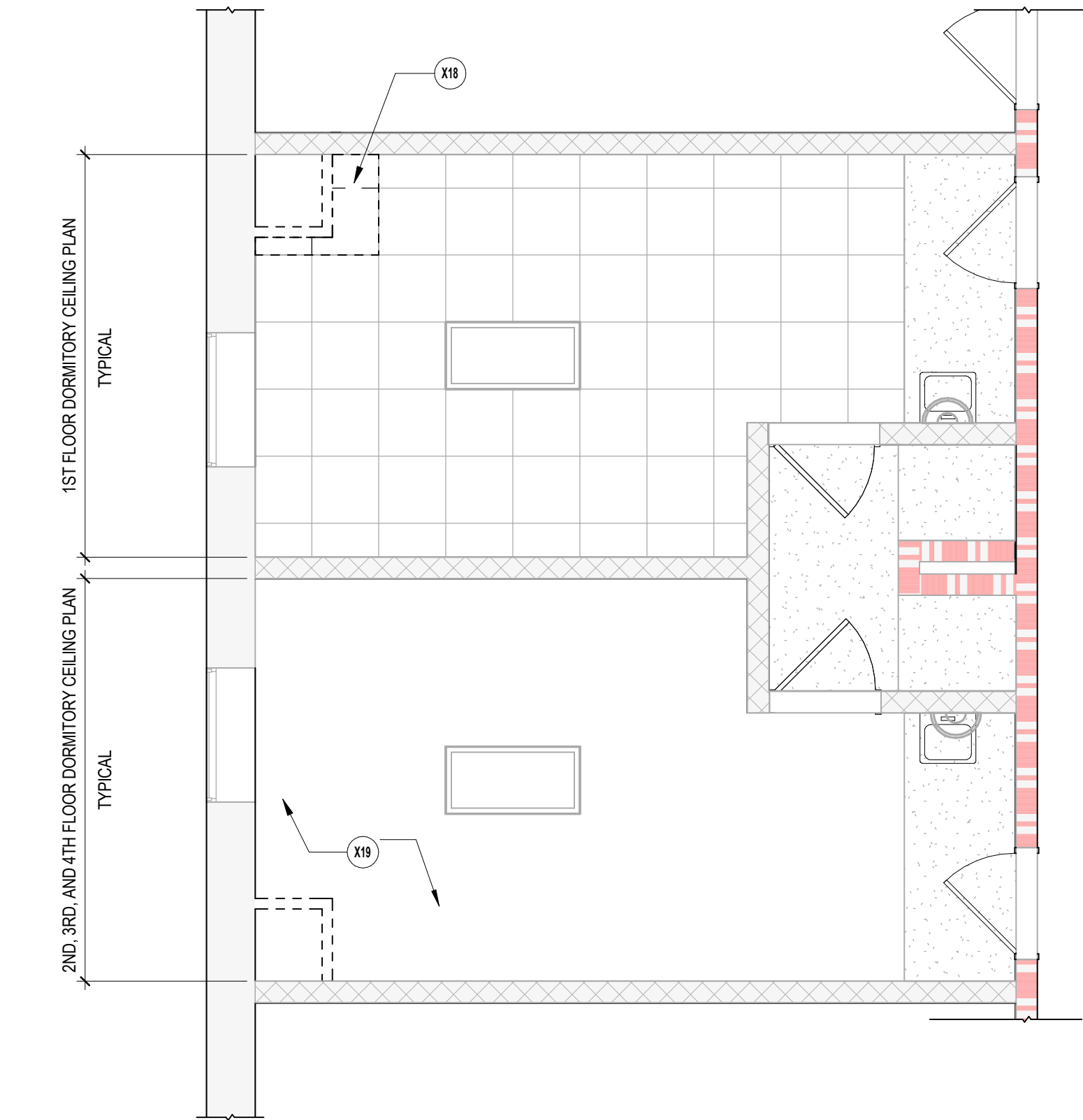
CONSTRUCTION DOCUMENTS

1ST LEVEL DEMOLITION  
FLOOR PLAN

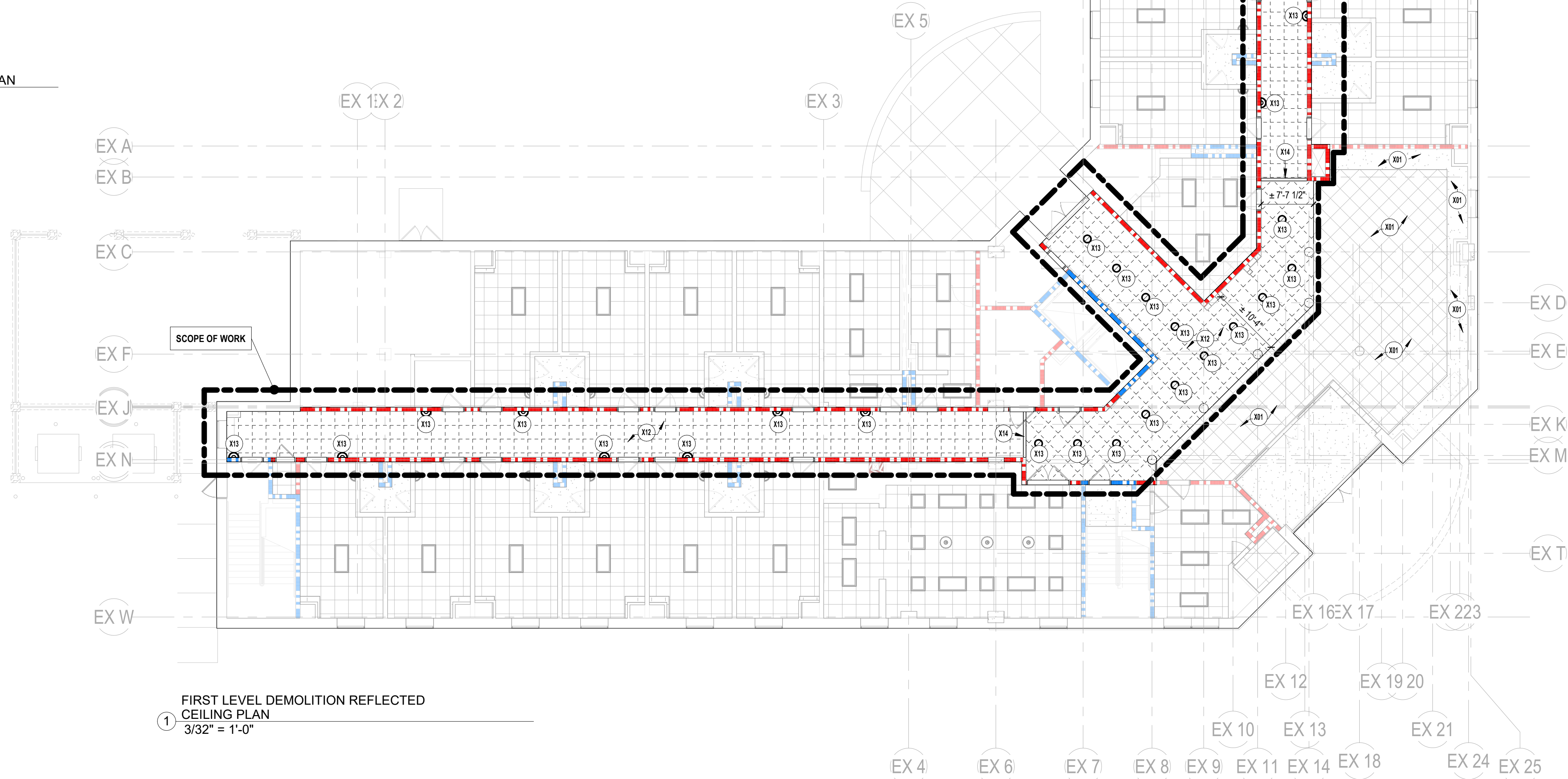
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DESIGNED Designer  
DRAWN Author  
APPROVED Approver



③ TYPICAL DORMITORY ROOM  
DEMOLITION REFLECTED CEILING PLAN  
1/4" = 1'-0"



① FIRST LEVEL DEMOLITION REFLECTED  
CEILING PLAN  
3/32" = 1'-0"

ARCHITECTURAL SYMBOLS LEGEND		GENERAL DEMOLITION NOTES					
DEMOLITION SYMBOLS		A.	ALL ITEMS SHOWN IN A BOLD DASHED LINE AND NOT OTHERWISE CALLED OUT, INDICATE EXISTING ITEMS OR WALLS TO BE DEMOLISHED. REMOVE SUCH ITEMS TOTALLY AND COMPLETELY.	F.	DO NOT CONSIDER DEMOLITION AN ALTERATION NOTES TO BE ALL INCLUSIVE. IT IS THE CONTRACTORS RESPONSIBILITY TO INSPECT AND ASSESS EACH SPACE AND TO FULFILL THE INTENT OF THE WORK INDICATED BY THE CONTRACT DOCUMENTS. VERIFY EXTENT OF ALL DEMOLITION WITHIN THE CONTRACT LIMITS THE EXTENT OF DEMOLITION AND REMOVAL WORK SHOWN ON THE DRAWINGS AND INCLUDES, BUT IS NOT LIMITED NECESSARILY LIMITED TO THE DEMOLITION NOTES LISTED.	J.	WHERE EXISTING CEILINGS ARE SCHEDULED TO REMAIN REMOVE EXISTING CEILING ONLY TO EXTENT SHOWN OR REQUIRED TO ACCOMMODATE HVAC, PLUMBING, ELECTRICAL, OR OTHER WORK. REMOVE SUSPENDED ACOUSTIC TILE CEILING AS INDICATED. REPAIR EXISTING CEILINGS WHERE DAMAGED BY INSTALLATION OF NEW WORK HAS OCCURED TO THE SATISFACTION OF THE OWNER; REPLACE CEILINGS IN PART OR IN WHOLE AS NEEDED.
	EXISTING WALL TO REMAIN	B.	REMOVE ALL EXISTING WALL MOUNTED ITEMS WITHIN THE PROJECT LIMIT AREA WHICH ARE NOT NOTED TO REMAIN. DISPOSE OF THESE ITEMS AFTER INSPECTION BY THE OWNER DETERMINES THEY ARE NOT TO BE SALVAGED. IF ITEMS ARE REMOVED FROM WALLS THAT ARE TO REMAIN, PATCH WALLS AS REQUIRED TO RECEIVE NEW FINISHES AND/OR SURFACES.	G.	CAP OFF AND REROUTE UTILITIES AS REQUIRED TO MAINTAIN OPERATION OF EXISTING SERVICES AND SYSTEMS; COMPLY WITH APPLICABLE CODES AND REGULATIONS. EXACT ROUTING TO BE REVIEWED WITH OWNER, ARCHITECT, AND ENGINEER.	K.	CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
	EXISTING WALL TO BE REMOVED	C.	REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL DEMOLITION INFORMATION	H.	REMOVE EXISTING FLOORING, BASES AND WALLS WHERE NOTED ON PLANS.	L.	ALL AREAS SCHEDULED TO RECIEVE NEW FINISHES, REMOVE EXISTING APPLIED FINISHES, INCLUDING BUT NOT LIMITED TO APPLIED BASE, GLUES ECT AS NEEDED TO ACCOMMODATE NEW WORK, EXISTING CONSTRUCTION SHALL BE PROTECTED / REPAIRED AS REQUIRED.
	EXISTING DOOR AND FRAME TO REMAIN	D.	ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL ORDINANCES AND BUILDING CODES.	I.	WHERE REMOVALS LEAVE OPENING IN EXISTING BUILDING ELEMENTS, INFILL AND PATCH EXISTING CONSTRUCTION AS NEEDED FOR LEVEL, EVEN SURFACES, FIRESTOP WHERE NECESSARY TO MAINTAIN EXISTING FIRE RATED ASSEMBLIES.	M.	CONTRACTOR IS TO PROVIDE ALL NECESSARY SHORING AND BRACING TO SUPPORT EXISTING STRUCTURE UNTIL PERMANENT SUPPORTS ARE ERECTED. TAKE ALL NECESSARY MEASUREMENTS TO PREVENT COLLAPSE OF WALLS, SLAB, ECT.
	EXISTING DOOR AND FRAME TO BE REMOVED	E.	REMOVE EXISTING FLOORING, BASES AND WALLS WHERE NOTED ON PLANS.			N.	REFER TO ELECTRICAL, MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL DEMOLITION WORK WHERE SUCH WORK OCCURS. ARCHITECTURAL ITEMS AND FINISHES SHALL BE REMOVED ONLY TO THE EXTENT TO COMPLETE THE NEW WORK. EXISTING CONSTRUCTION SHALL BE PROTECTED/ REPAIRED AS REQUIRED.
	EXISTING WINDOW AND FRAME TO REMAIN					O.	CONSTRUCTION TO REMAIN SHALL BE FULLY PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR DAMAGE AND SHALL MAKE REPAIRS REQUIRED WITHOUT ADDITIONAL COST TO OWNER.
	EXISTING WINDOW AND FRAME TO BE REMOVED					P.	INCLUDE IN SCOPE ANY WORK, REQUIRED TO BE DONE ON FLOORS ABOVE, BELOW OR ADJACENT TO DEMOLITION AREAS, INCLUDING BUT NOT LIMITED TO ACCESSING OR ROUTING UTILITIES, EXISTING CONDITIONS TO REMAIN ARE TO BE PROTECTED FROM DAMAGE.
						Q.	ALL HVAC, ELECTRICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT UNCOVERED DURING THE COURSE OF DEMOLITION THAT IS NOT INDICATED ON DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT / ENGINEER FOR REVIEW.
						R.	WHERE APPLICABLE, DAMAGED CEILING TILES ARE TO BE REMOVED AND REPLACED. WHERE NEW CEILING CONSTRUCTION IS INDICATED, REMOVE EXISTING LIGHTING FIXTURES WITHOUT DAMAGE, IF INDICATED, AND SAVE FOR USE AS DIRECTED BY OWNER. ANY DISPOSAL OF SAME TO BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
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## KEYNOTE LEGEND

REFER TO A000 FOR GENERAL NOTES

X01	EXISTING TO REMAIN.
X12	REMOVE CEILINGS WITH ALL ASSOCIATED HANGERS. PATCH AREAS OF EXISTING TO REMAIN AS NEEDED AND PREPARE AREA WITHIN SCOPE FOR NEW WORK.
X13	REMOVE EXISTING LIGHTING WITHIN NEW WORK SCOPE AREA. PREPARE AREA FOR NEW WORK. (TYP.)
X14	REMOVE EXISTING BULKHEAD. PREPARE AREA FOR NEW WORK. (TYP.)
X18	REMOVE PORTION OF EXISTING CEILING WITH ALL ASSOCIATED HANGERS. PATCH AREAS OF EXISTING TO REMAIN AS NEEDED AND PREPARE AREA FOR NEW WORK.
X19	PATCH / PAINT AREA OF EXISTING EXPOSED CEILING AS NEEDED. PREPARE AREA FOR NEW WORK. TYPICAL

## WALL RATINGS

SMOKE PARTITION- (SP)	
1-HOUR SMOKE BARRIER- (SB)	
1-HOUR RATED FIRE - (1HR)	
1-HOUR RATED FIRE + SMOKE BARRIER - (1HRS)	
2-HOUR RATED FIRE - (2HR)	
2-HOUR RATED FIRE + SMOKE BARRIER - (2HRS)	
3-HOUR RATED FIRE - (3HR)	

OWNER



ENGINEER



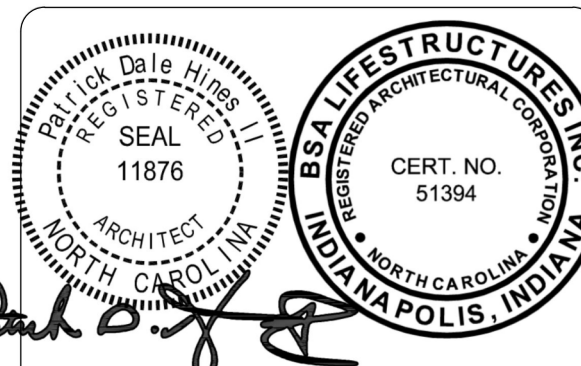
Venture IV Building, Suite 500  
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ph 191.334.7301 fx 317.819.7288

NOT FOR CONSTRUCTION



DATE SIGNED: 11/18/2022

MARK DATE DESCRIPTION

# FSU MCLEOD HALL HVAC REPLACEMENT

SCQ ID: 21-24131-01A CODE:42134 ITEM: 301

DATE	2022-11-22
BSA PROJ. #	23050002
DRAWN	
DESIGNED	
CHECKED	
PROJ. MGR.	

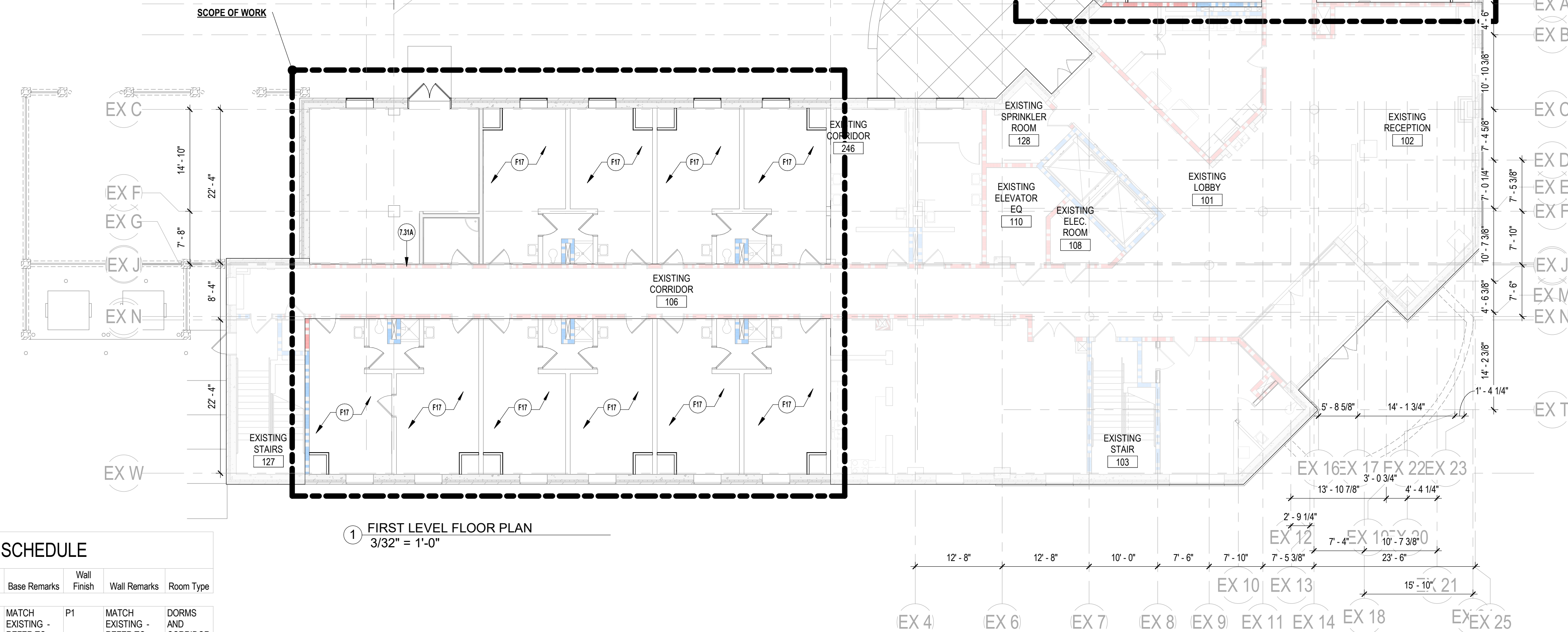
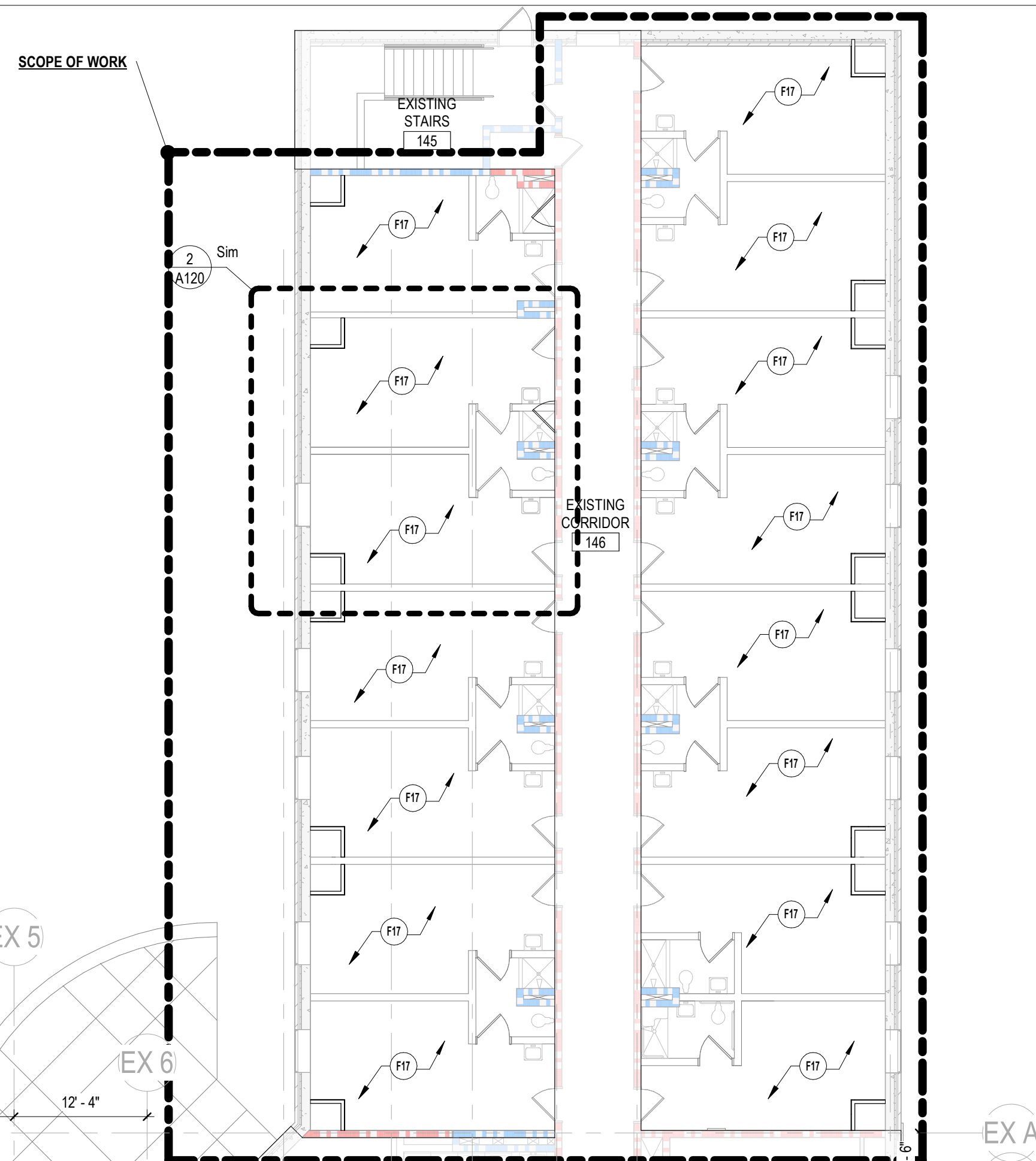
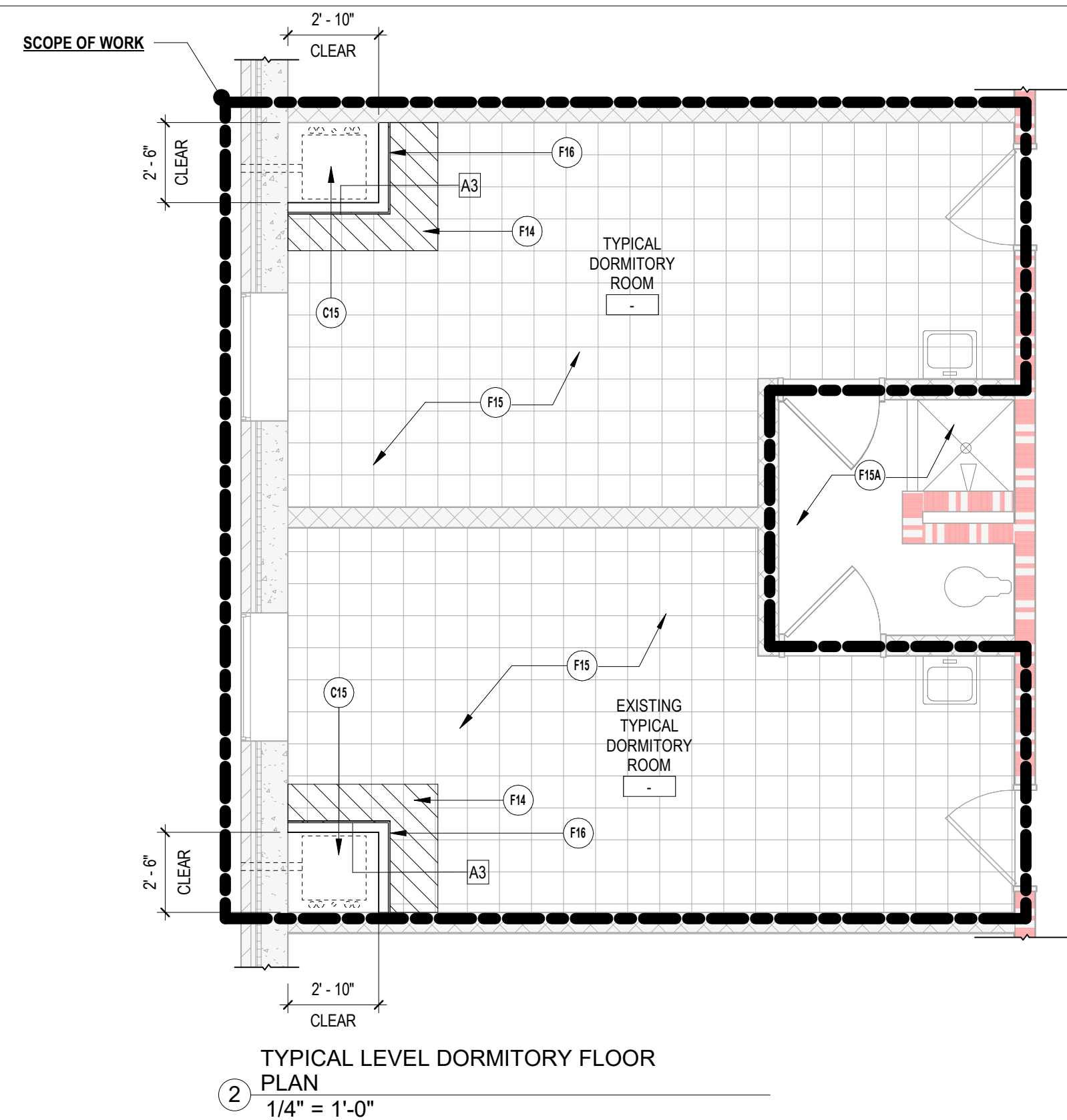
CONSTRUCTION DOCUMENTS

1ST FLOOR DEMOLITION  
REFLECTED CEILING PLAN

A103



③ INTERIOR ASSEMBLY - A-Wall  
1 1/2" = 1'-0"










INTERIORS FINISH SCHEDULE							
Name	Floor Material	Floor Remarks	Base Material	Base Remarks	Wall Finish	Wall Remarks	Room Type
TYPICAL DORMITORY ROOM	VCT1	MATCH EXISTING - REFER TO SPECS.	Plastic - Vinyl Cove Base	MATCH EXISTING - REFER TO SPECS.	P1	MATCH EXISTING - REFER TO SPECS.	DORMS AND CORRIDOR

GENERAL FINISH NOTES	
A.	PATTERN NAME, COLOR AND NUMBER FOR EACH MATERIAL ARE GIVEN WHENEVER POSSIBLE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT / INTERIOR DESIGNER TO ENSURE THAT THE CORRECT MATERIAL IS INSTALLED.
B.	PAINT ALL BULKHEADS, SOFFITS, AND GYPSUM WALLBOARD CEILING SURFACES (P1- MATCH EXISTING) U.N.O. ALL BULKHEADS, SOFFITS, AND GYPSUM WALLBOARD CEILING SURFACES SHALL BE FINISHED WITH THE SAME MATERIAL AND / OR COLOR ON ALL FACES (VERTICAL AND HORIZONTAL) U.N.O.
C.	REFER TO REFLECTED CEILING PLAN(S) FOR ADDITIONAL CEILING FINISHES.
D.	ALL FLOORING SHALL BE INSTALLED PERPENDICULAR TO ROOM WALLS U.N.O.
E.	REFER TO PROJECT MANUAL SECTION "CAST-IN-PLACE CONCRETE" FOR SPECIFICATIONS FOR SEALED CONCRETE (SC).
F.	PAINTED (P1- MATCH EXISTING), ONLY IF ADJACENT WALL IS SCHEDULED TO RECEIVE NEW PAINT / WALL FINISH OR U.N.O. REFER TO SPECIFICATIONS FOR PAINT TYPE AND FINISH.
G.	REFER TO SPECIFICATIONS FOR PAINT TYPE AND FINISH.
H.	ALL EXISTING INTERIOR HOLLOW METAL DOORS SHALL BE PAINTED (P1- MATCH EXISTING), ONLY IF ADJACENT WALL IS SCHEDULED FOR NEW PAINT / WALL FINISH OR U.N.O.
I.	THERE SHALL NOT BE PAINT CONDITIONS THAT OCCUR CAUSING FINISH OR COLOR TO TERMINATE ON AN OUTSIDE CORNER UNLESS SPECIFIED IN NOTES. IF A PAINT CONDITION OCCURS, BRING IT TO THE ATTENTION OF THE INTERIOR DESIGNER IMMEDIATELY.
J.	PATCH AND MATCH EXISTING FINISHES AS NEEDED FOR NEW CONSTRUCTION.
K.	PAINT ALL WALL MOUNTED GRILLES, VENTS, ELECTRICAL PANELS, ACCESS PANELS, ETC. TO MATCH ADJACENT WALL U.N.O.
L.	PAINT STEEL COLUMNS, BEAMS, STRUCTURE, ETC. EXPOSED TO VIEW IN FINISHED AREAS (P1- MATCH EXISTING) U.N.O.

GENERAL ARCHITECTURAL NOTES		ARCHITECTURAL SYMBOLS LEGEND	NEW CONSTRUCTION SYMBOLS
A.	VERIFY WITH OWNER REQUIREMENTS FOR ALL EQUIPMENT (MOUNTING HEIGHTS, LOCATIONS AND SIZES) INCLUDING ALL OWNER FURNISHED OWNER INSTALLED ITEMS.	<h3>GENERAL SYMBOLS</h3> <p>--- XX --- COLUMN LINE</p> <p>--- SECTION INDICATOR</p> <p>--- DETAIL INDICATOR</p> <p>--- DETAIL NUMBER</p> <p>--- SIMILAR</p> <p>--- SHEET NUMBER</p> <p>--- ELEVATION TAG</p> <p>--- ROOM NAME DESIGNATION</p> <p>--- PLAN NOTE DESIGNATION</p> <p>--- ROOM NUMBER DESIGNATION</p>	EXIT SYMBOL
B.	REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR ADDITIONAL INFORMATION.		HORIZONTAL EXIT SYMBOL
C.	VERIFY EXISTING CONDITIONS PRIOR TO ANY FABRICATION OR CONSTRUCTION. IF EXISTING CONDITIONS ARE DIFFERENT THAN SHOWN, NOTIFY ARCHITECT/ENGINEER IMMEDIATELY.		FLOOR DRAIN
D.	LOOSE FURNITURE IF SHOWN IS FOR REFERENCE PURPOSES ONLY AND IS OWNER FURNISHED AND INSTALLED.		FIRE EXTINGUISHER AND CABINET
E.	SCOPE OF CONSTRUCTION WORK IS NOT LIMITED TO WORK SHOWN ON CONSTRUCTION DRAWINGS.		EQUIPMENT DESIGNATION. REFER TO EQUIPMENT SCHEDULE.
			TOILET ACCESSORY

KEYNOTE LEGEND	
	REFER TO A000 FOR GENERAL NOTES
7.31A	GENERAL CONTRACTOR TO FIRE STOP ALL EXISTING AND NEW THRU WALL PENETRATIONS & EXTEND EXISTING GYPSUM BOARD UP TO THE BOTTOM OF DECK IN THESE LOCATIONS.
C15	NEW MECHANICAL EQUIPMENT. REFER TO MECHANICAL DRAWINGS.
F14	PATCH / INSTALL NEW FLOOR FINISH WHERE NEEDED. MATCH EXISTING. REFER TO FINISH SCHEDULE.
F15	EXISTING FLOOR TO REMAIN
F15A	NO WORK IN THIS AREA. TYPICAL.
F16	ADD NEW WALL BASE AS NEEDED. MATCH EXISTING. REFER TO FINISH SCHEDULE.
F17	REFER TO DETAIL 2/A210 FOR TYPICAL FLOOR PLAN NOTES.

## WALL RATINGS

SMOKE PARTITION- (SP)	
1-HOUR SMOKE BARRIER- (SB)	
1-HOUR RATED FIRE - (1HR)	
1-HOUR RATED FIRE + SMOKE BARRIER - (1HRS)	
2-HOUR RATED FIRE - (2HR)	
2-HOUR RATED FIRE + SMOKE BARRIER - (2HRS)	
3-HOUR RATED FIRE - (3HR)	

FINISH REMARKS	
a.	REFER TO INTERIOR FINISH PLAN NOTES FOR ACCENT WALL LOCATIONS.
b.	REFER TO INTERIOR FINISH PLANS FOR FLOOR PATTERN.

# FINISH ABBREVIATIONS

\* NOT ALL FINISHES LISTED ARE USED IN PROJECT

ACB	ACOUSTICAL CEILING	PME	PATCH TO MATCH EXISTING
ACT	ACOUSTICAL CEILING TILE	PT	PORCELAIN TILE
AF	ACCESSION FLOORING	PTB	PORCELAIN TILE BASE
AWC	ACQUAVAL WALL CARPET	QZ	QUARTZ SURFACE
BF	BAMBOO FLOORING	RB	RESILIENT BASE
BL	BLINDS	RSF	RUBBER SHEET FLOORING
BR	BUMP RAIL	RTF	RUBBER TILE FLOORING
BRK	BRICK	RR	RUB RAIL
CC	CUBIC CURTAIN	RSR	RESILIENT SHAIR TREAD
CG	CORK FLOORING	RB	ROLLER SHADE
CG	CORNER GUARD	SAP	SOUND-ABSORBING PANEL
CMU	CONCRETE MASONRY UNIT	SC	SEALED CONCRETE
CPT	CARPET	(SPEC 03300)	
CS	CAST STONE OR CULTURED STONE	SDT	STATIC DISSIPATIVE TILE
CTB	CERAMIC TILE BASE	SHC	SHOWER CURTAIN
CT	CERAMIC TILE	SS	STONE
CR	CRASH RAIL OR CHAIR RAIL	SSP	SPECIALTY COATING
DC	DECORATIVE GLASS	SS	SOLID SURFACE
DGF	DECORATIVE GLASS FILM	SSK	SOLID SURFACE SINK
DGP	DECORATIVE PANEL	STB	SOLID SURFACE WALL PANEL
EP	EPOXY PAINT	STP	STAINLESS STEEL BASE
ERB	EPOXY RESIN BASE	STN	STONE OR STONE VENEER
ERF	EPOXY RESIN FLOOR	STV	STONE SLAB WALL PANEL
ETR	EXISTING TO REMAIN	SV	SHEET VINYL
FB	FABRIC	SVT	SOLID VINYL TILE
FRP	FIBER REINFORCED PANEL	TB	TACKBOARD
FWC	FABRIC WALLCOVERING	TAC	TACKABLE THERMATIC
GB	GYPSUM BOARD	TZ	TERRAZZO FLOORING
GLT	GLASS TILE	TZB	TERRAZZO BASE
GR	GRANITE	TZT	TERRAZZO FLOOR TILE
HR	INLEAD	VB	VINYL BASE
USF	LINOLEUM SHEET FLOORING	VCT	VINYL COMBINATION TILE
LF	LINOLEUM TILE FLOORING	VET	VINYL ENHANCED TILE
LVT	LUXURY VINYL TILE	VWC	VINYL WALL COVERING
MB	MARKER BOARD	WB	WOOD BASE
MT	MOSAIC TILE	WD	WOOD PANELING
MW	MARKER WALLCOVERING	WDF	WOOD FLOORING
PA	PAINT	WP	WALL PROTECTION (SHEET)
PL	PLASTIC LAMINATE	WM	WALK-OFF MAT
		WWW	WOOD VENEER WALLCOVERING

# FLOOR TRANSITION INDICATOR

FLOOR FINISH  
TRANSITION

0712

FLOOR FINISH AS INDICATED  
IN ROOM FINISH TAG

DIFFERING FLOOR FINISH

# ROOM FINISH TAG

ROOM NAME

ROOM NUMBER

FLOOR

BASE

WALL

REMARKS COLUMN

NOTE: FINISHES INDICATED IN ROOM FINISH TAG ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS OTHERWISE NOTED BY NOTE, REMARK, DETAIL, AND/OR ELEVATION.

SYMBOL INDICATES MATERIAL / PATTERN / GRAIN DIRECTION

OWNER

  
FAYETTEVILLE  
STATE UNIVERSITY™

**ENGINEER**

 **McKIM & CREED**

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1730 Varsity Drive  
Raleigh, North Carolina 27606  
Phone: (919) 233-8091, Fax: (919) 233-8031  
NC License F-1222  
[www.mckimcreed.com](http://www.mckimcreed.com)

ARCHITECT

**BSA**

BSA LifeStructures  
510 Glenwood Ave, Suite 321  
Raleigh, NC 27603-1262  
ph 191.334.7301 fx 317.819.7288

NOT FOR CONSTRUCTION

DATE SIGNED: 11/18/2022

MARK	DATE	DESCRIPTION
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# FSU MCLEOD HALL HVAC REPLACEMENT

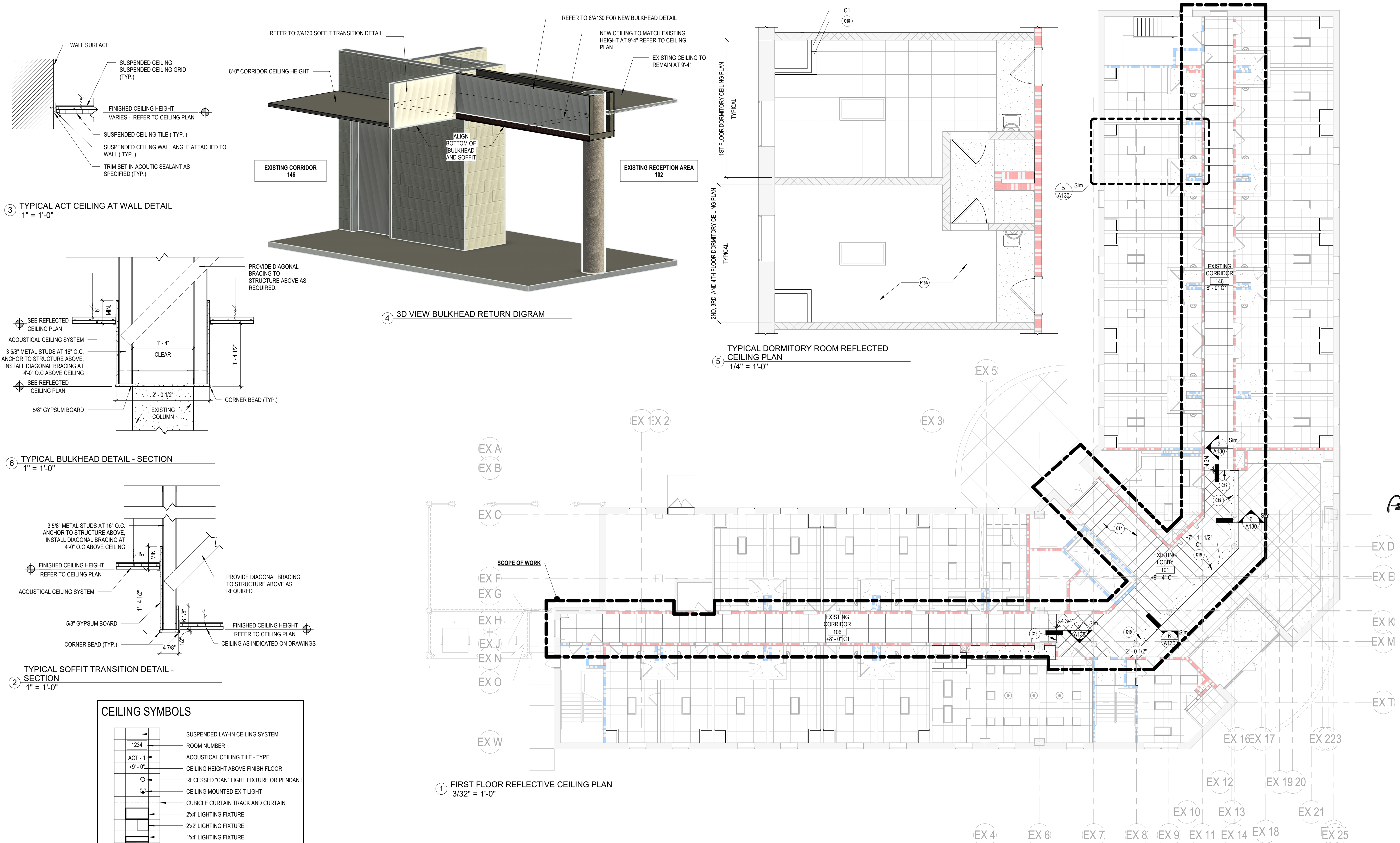
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BSA PROJ. #	23050002
DRAWN	
DESIGNED	
CHECKED	
PROJ. MGR.	

CONSTRUCTION DOCUMENTS

1ST LEVEL FLOOR PLAN

A120





OWNER

FAYETTEVILLE  
STATE UNIVERSITY

ENGINEER

MCKIM & CREED

ARCHITECT

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NOT FOR CONSTRUCTION

DATE SIGNED: 11/18/2022

MARK DATE DESCRIPTION

Paul D. [Signature]

ARCHITECT  
INDIANA POLIS, INDIANA

CERT. NO. 51394

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCQ ID: 21-24131-01A CODE:42134 ITEM: 301

DATE 2022-11-22  
BSA PROJ. # 23050002  
DRAWN  
DESIGNED  
CHECKED  
PROJ. MGR.

CONSTRUCTION DOCUMENTS

FIRST LEVEL REFLECTED  
CEILING PLAN

A130



FIRE PROTECTION ABBREVIATIONS			
A/E	ARCHITECT / ENGINEER	SS	STAINLESS STEEL
AFF	ABOVE FINISH FLOOR	TEMP	TEMPERATURE
AFG	ABOVE FINISH GRADE	TYP.	TYPICAL
AP	ACCESS PANEL		
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS		
DN	DOWN		
DWG	DRAWING		
EL	ELEVATION		
EX	EXISTING		
F	FAHRENHEIT		
GPD	GALLONS PER DAY		
GPH	GALLONS PER HOUR		
GPM	GALLONS PER MINUTE		
M	METER		
NC	NORMALLY CLOSED		
NIC	NOT IN CONTRACT		
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION		
NOM.	NOMINAL		
NTS	NOT TO SCALE		
OC	ON CENTER		
OD	OUTSIDE DIAMETER		
PSIG	POUNDS PER SQUARE INCH GAUGE		
SQFT	SQUARE FEET		

FIRE PROTECTION LEGEND	
	FIRE PROTECTION - WET
	PIPING TO BE DEMOLISHED
	EXISTING PIPING TO REMAIN
	GATE VALVE
	BALL VALVE
	CHECK VALVE
	INDICATING VALVE WITH TAMPER SWITCH
	FLOW SWITCH
	PIPING DOWN
	PIPING UP
	TEE UP
	TEE DOWN
	EXISTING UPRIGHT PENDANT SPRINKLER
	UPRIGHT PENDANT SPRINKLER TO BE DEMOLISHED
	UPRIGHT PENDANT SPRINKLER
	EXISTING PENDANT SPRINKLER
	PENDANT SPRINKLER TO BE DEMOLISHED
	PENDANT SPRINKLER
	EXISTING CONCEALED SPRINKLER
	CONCEALED SPRINKLER TO BE DEMOLISHED
	CONCEALED SPRINKLER
	PENDANT SPRINKLER WITH GUARD
	HORIZONTAL SIDE WALL SPRINKLER
	LIMITS OF DEMOLITION
	POINT OF CONNECTION TO EXISTING

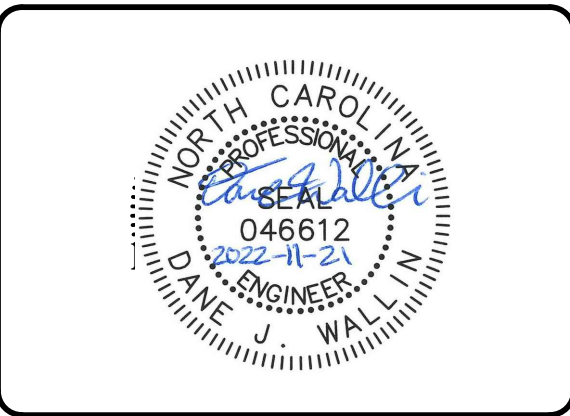
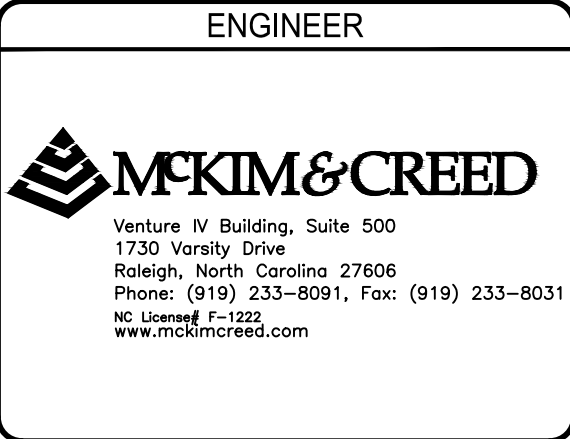
## FIRE PROTECTION GENERAL NOTES

- THESE FIRE PROTECTION DRAWINGS ARE DIAGRAMMATIC IN NATURE. HOWEVER SPRINKLER HEAD TYPES AND APPROXIMATE LOCATIONS HAVE BEEN ESTABLISHED. THE FIRE PROTECTION LAYOUT INDICATED IS FOR REFERENCE ONLY. FINAL SYSTEM LAYOUT AND PIPE ROUTING SHALL BE DETERMINED BY THE FIRE PROTECTION CONTRACTOR AND SHALL TAKE INTO CONSIDERATION THE BUILDING STRUCTURE, ARCHITECTURAL FEATURES, AND SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE WORKING DRAWINGS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 FOR REVIEW AND APPROVAL BY THE ENGINEER AND UNC HOSPITAL PROJECT MANAGER
- ANY MODIFICATION TO EXISTING SPRINKLER SYSTEMS SHALL RESULT IN A COMPLETE AND WORKING WET PIPE SPRINKLER SYSTEM THAT IS IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND NFPA 13.
- ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH NFPA 13 AND OTHER APPLICABLE CODES AND STANDARDS.
- PRIOR TO THE OPERATION (OPENING OR CLOSING) OF ANY VALVES CONTROLLING WATER TO THE DOMESTIC OR FIRE SYSTEMS, NOTIFICATION SHALL BE GIVEN TO THE PROJECT MANAGER AND APPROVAL MUST BE OBTAINED BEFORE BEGINNING WORK.
- ALL PIPING SHALL BE INSTALLED ABOVE CEILINGS IN AREAS WITH FINISHED CEILINGS. IN AREAS WITH EXPOSED STRUCTURE, PIPING SHALL BE EXPOSED AND PAINTED TO MATCH ADJACENT SURFACES. IN NO CASE SHALL ANY EXPOSED SPRINKLER PIPING BE INSTALLED BELOW THE BOTTOM HORIZONTAL PLANE OF LIGHTING FIXTURES.
- VERIFY ALL DISTANCES, HEIGHTS AND DIMENSIONS OF THE BUILDING AND IT'S SYSTEMS PRIOR TO THE START OF WORK.
- TEST SPRINKLER SYSTEM, CONTROLS, PIPING AND MONITORING IN ACCORDANCE WITH NFPA 25.
- ALL COMBUSTIBLE MATERIALS SHALL BE REMOVED FROM THE AREA OF WORK DURING DEMOLITION BEFORE SPRINKLERS ARE TAKEN OUT OF SERVICE.
- SPRINKLER SYSTEM ZONES SHALL COINCIDE WITH ALL SMOKE COMPARTMENT BOUNDARIES. REFER TO ARCHITECTURAL PLANS FOR BOUNDARIES.
- ADJUST SPRINKLERS SO THEY ARE PLACED IN THE CENTER OF THE CEILING TILE. COORDINATE SPRINKLER HEAD LOCATION WITH ALL OTHER OBJECTS IN THE CEILING GRID.
- PROVIDE PIPING OFFSETS AS REQUIRED TO AVOID DUCTWORK, STRUCTURE, OTHER TRADES, OR OTHER OBSTRUCTIONS.
- ALL VALVES SHALL BE READILY ACCESSIBLE FOR OPERATION.
- PROVIDE LOW POINT DRAINS WHEREVER NECESSARY.
- WHERE SPRINKLER PIPING PENETRATES FIRE RATED WALLS, SPRINKLER PIPES SHALL BE SLEEVED AND FIRESTOPPED IN ACCORDANCE WITH AN APPLICABLE UL DETAIL. THROUGH PENETRATION FIRESTOP SYSTEMS SHALL NOT HAVE AN F-RATING OF LESS THAN THE RATING OF THE WALL PENETRATED.
- FIRE PROTECTION EVALUATED ONLY FOR THE AREA WITHIN THE LIMITS OF WORK.
- EXISTING SPRINKLER HEADS SHALL NOT BE REUSED.

## DRAWING SYMBOLS

	←	FIXTURE TAG
	←	DEMOLITION KEYED NOTE
	←	NEW WORK KEYED NOTE
	←	DETAIL NUMBER
	←	DRAWING NUMBER WHERE DRAWN
	←	SECTION LETTER
	←	DRAWING NUMBER WHERE SHOWN

NOT TO SCALE	NOT TO SCALE														
<b>1   PENDENT SPRINKLER RETURN BEND</b>	<b>2   PENDENT SPRINKLER ARM-OVER</b>														
<table><tr><th colspan="2">SPRINKLER SYSTEMS SUMMARY</th></tr><tr><td>BUILDING HEIGHT:</td><td>4 STORIES W/ PENTHOUSE</td></tr><tr><td>SYSTEM TYPE:</td><td>WET</td></tr><tr><td>HAZARD CLASS:</td><td>LIGHT HAZARD GROUP 1</td></tr><tr><td>DESIGN AREA:</td><td>1,500 SQ FT</td></tr><tr><td>DENSITY:</td><td>0.10 GPM/SQ FT</td></tr><tr><td>HOSE STREAM ALLOWANCE:</td><td>100 GPM</td></tr></table>		SPRINKLER SYSTEMS SUMMARY		BUILDING HEIGHT:	4 STORIES W/ PENTHOUSE	SYSTEM TYPE:	WET	HAZARD CLASS:	LIGHT HAZARD GROUP 1	DESIGN AREA:	1,500 SQ FT	DENSITY:	0.10 GPM/SQ FT	HOSE STREAM ALLOWANCE:	100 GPM
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REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

FIRE PROTECTION  
LEGEND AND GENERAL  
NOTES

FP001



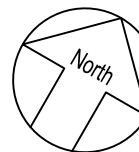
GENERAL NOTES:

1. NO SYSTEM SHALL BE SHUT DOWN WITHOUT PRIOR APPROVAL BY THE OWNER. SYSTEM SHUTDOWN REQUEST MUST BE SUBMITTED TO OWNER A MINIMUM OF 10 DAYS IN ADVANCE.
2. ALL LOCATIONS OF EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNER FOR FURTHER DIRECTION.
3. NO DEAD END OR UNUSED PIPING SHALL BE ABANDONED IN PLACE. ALL SUCH PIPING RUNS SHALL BE REMOVED BACK TO THE NEAREST ACTIVE CONNECTION AND CAPPED OR PLUGGED.
4. ALL SPRINKLER WORK INDICATED IN THESE DOCUMENTS SHALL BE AN EXTENSION OF THE EXISTING FIRE PROTECTION SYSTEM.
5. RELOCATE BRANCH PIPING AS NECESSARY FOR INSTALLATION OF MECHANICAL AND ELECTRICAL SYSTEMS.
6. PROVIDE NEW SPRINKLERS, PIPING, FITTINGS, AND ACCESSORIES AS NECESSARY TO PROVIDE A FULLY FUNCTIONAL FIRE PROTECTION SYSTEM IN ACCORDANCE WITH NFPA 13 AND THE NORTH CAROLINA FIRE PREVENTION CODE. COORDINATE NEW SPRINKLERS LAYOUT WITH THE MECHANICAL DUCTWORK AND NEW LIGHTING LAYOUT. REFER TO MECHANICAL AND ELECTRICAL SHEETS. SPRINKLER PROTECTION FOR AREAS BEYOND THE SCOPE OF WORK FOR THIS PROJECT SHALL REMAIN IN SERVICE THROUGHOUT CONSTRUCTION.
7. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPES AND HEIGHTS.
8. ALL NEW SPRINKLER HEADS SHALL BE CONCEALED TYPE.



NEW WORK NOTES:

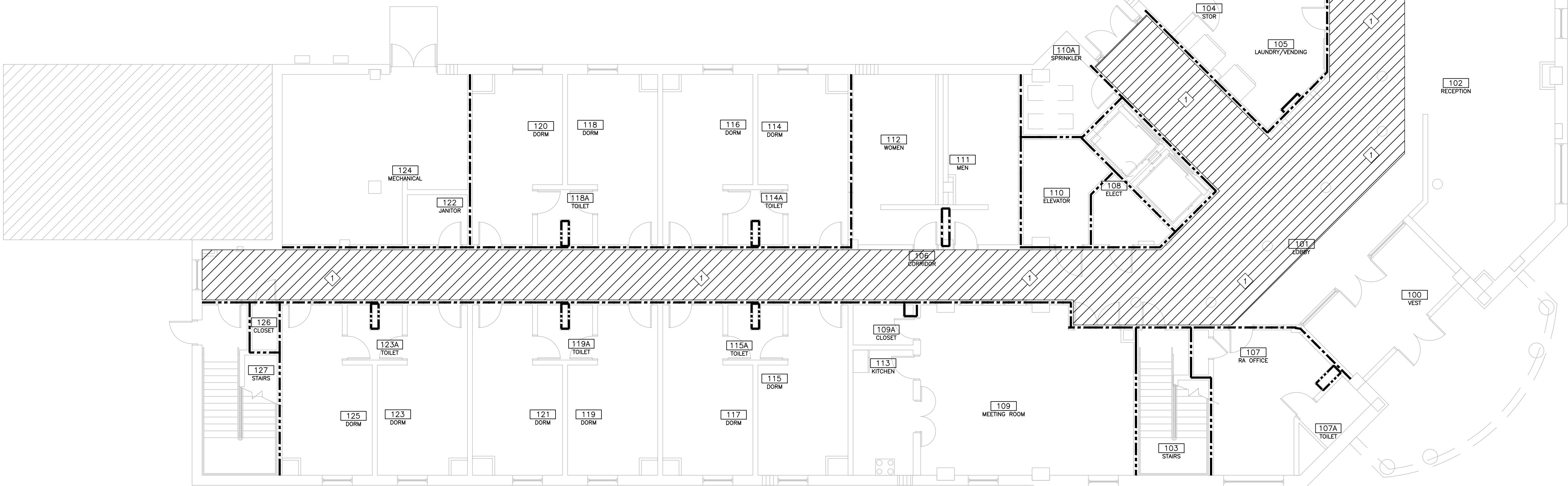
1. CEILING BEING LOWERED IN HATCHED AREA (REFER TO A SHEETS). EXTEND EXISTING SPRINKLER PIPING AND PROVIDE NEW HEADS. ADJUST SPRINKLER PIPING WHERE IT CONFLICTS WITH NEW CHW PIPING (REFER TO M SHEETS).



1  
FP100

FIRST FLOOR FIRE PROTECTION PLAN

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	3-HOUR FIRE BARRIER
	1-HOUR FIRE/SMOKE BARRIER
	2-HOUR FIRE/SMOKE BARRIER
	1-HOUR FIRE PARTITION
	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



ENGINEER



ARCHITECT



REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

FIRE PROTECTION PLAN

FP100



2018 APPENDIX B		
NC MECHANICAL SUMMARY		
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT		
Climate Zone	3A	
Thermal Zone		
winter dry bulb	23° F	
summer dry bulb	94° F	
Interior design conditions		
winter dry bulb	70° F	
summer dry bulb	75° F	
relative humidity	50%	
Building heating load	EXISTING	
Building cooling load	EXISTING	
Mechanical Spacing Conditioning System		
Unitary		
Description of unit	N/A	
heating efficiency	N/A	
cooling efficiency	N/A	
heat output of unit	N/A	
cooling output of unit	N/A	
Boiler		
total boiler output. If oversized, state reason.	N/A	
Chiller		
total chiller capacity. If oversized, state reason.	SEE EQUIPMENT SCHEDULES	
List equipment efficiencies	SEE EQUIPMENT SCHEDULES	

MECHANICAL ABBREVIATIONS			
AAV	AUTOMATIC AIR VENT	HX	HEAT EXCHANGER
ADJ	ADJUSTABLE OR ADJUSTMENT	IND	INDUCTION UNIT
AI	ANALOG IN	IWC	INCHES WATER COLUMN
AO	ANALOG OUT	JB	JUNCTION BOX
AFF	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE
AFG	ABOVE FINISHED GRADE	LPC	LOW PRESSURE CONDENSATE
AHU	AIR HANDLING UNIT	LPS	LOW PRESSURE STEAM
APD	AIRSIDE PRESSURE DROP	LWT	LEAVING WATER TEMPERATURE
BFF	BELOW FINISHED FLOOR	MAV	MANUAL AIR VENT
BLDG	BUILDING	MC	MECHANICAL CONTRACTOR
BMP	BOILER MANAGEMENT PANEL	MPC	MEDIUM PRESSURE CONDENSATE
CFM	CUBIC FEET PER MINUTE	MPS	MEDIUM PRESSURE STEAM
CMD	COMMAND	MTD	MONTH TO DATE
COND	CONDENSATE DRAINAGE	N/A	NOT AVAILABLE / NOT APPLICABLE
CV	CONSTANT VOLUME	NC	NORMALLY CLOSED
CWMU	COLD WATER MAKEUP UNIT	NIC	NOT IN CONTRACT
CHWR	CHILLED WATER RETURN	NO	NORMALLY OPEN
CHWS	CHILLED WATER SUPPLY	NTS	NOT TO SCALE
CWS	CONDENSER WATER SUPPLY	OCC	OCCUPANT OR OCCUPANCY
CWS	CONDENSER WATER RETURN	OA	OUTSIDE AIR
DI	DIGITAL IN	PC	PLUMBING CONTRACTOR
DO	DIGITAL OUT	PSI	POUNDS PER SQUARE INCH
DN	DOWN	RA	RETURN AIR
DTs	DUAL TEMP SUPPLY	RAD-X	RETURN AIR DIFFUSER - TYPE
DTR	DUAL TEMP RETURN	RTU	ROOF TOP UNIT
EA	EXHAUST AIR	SA	SUPPLY AIR
EAD-X	EXHAUST AIR DIFFUSER - TYPE	SAD-X	SUPPLY AIR DIFFUSER - TYPE
EAT	ENTERING AIR TEMPERATURE	SC	SAFETY CIRCUIT
EC	ELECTRICAL CONTRACTOR	S/S	START/STOP
ESP	EXTERNAL STATIC PRESSURE	STM COND	STEAM CONDENSATE RETURN
ETR	EXISTING TO REMAIN	TAB	TEST AND BALANCE
EWT	ENTERING WATER TEMPERATURE	TEMP	TEMPERATURE
EX	EXISTING	TSP	TOTAL STATIC PRESSURE
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
FCU	FAN COIL UNIT	UH	UNIT HEATER
FPM	FEET PER MINUTE	VEL	VELOCITY
FMD	FLOW MEASURING DEVICE	VAV	VARIABLE AIR VOLUME
GC	GENERAL CONTRACTOR	VP	VIRTUAL POINT
GPM	GALLONS PER MINUTE	WPD	WATERSIDE PRESSURE DROP
HWS	HEATING HOT WATER SUPPLY	XFMR	TRANSFORMER
HWR	HEATING HOT WATER RETURN		
HP	HORSEPOWER		
HPC	HIGH PRESSURE CONDENSATE		
HPS	HIGH PRESSURE STEAM		

CONTROLS LEGEND	
	ANALOG POINT
	DIGITAL POINT
	CARBON DIOXIDE SENSOR
<div>POINT NAME</div>	CONTROL POINT
	CONTROL RELAY
---	CONTROL WIRING
	CURRENT SWITCH
	CURRENT TRANSMITTER
	DIFFERENTIAL PRESSURE TRANSMITTER
	ELECTRO-PNEUMATIC TRANSDUCER
	EMERGENCY STOP SWITCH
	END SWITCH
	ENTHALPY SELECTOR
	FLOW SWITCH
	FLOW TRANSMITTER
	FREEZESTAT
	HIGH TEMPERATURE SWITCH
	HUMIDITY SWITCH
	HUMIDITY TRANSMITTER
	LEVEL SWITCH
	LIGHT METER
	MOTOR OPERATED DAMPER
	MOTOR STARTER
	OCCUPANCY SENSOR
	OVERRIDE SWITCH
	OXYGEN SENSOR
	PRESSURE SWITCH
	PRESSURE TRANSMITTER
	SMOKE DETECTOR
	SPACE RELATIVE HUMIDITY TRANSMITTER
	SPACE TEMPERATURE TRANSMITTER
	TIME SWITCH
	DUCT TEMPERATURE TRANSMITTER
	VARIABLE FREQUENCY DRIVE
	VELOCITY PRESSURE TRANSMITTER
	WATER DETECTION SWITCH

EQUIPMENT LEGEND	
	VAV BOX
	FAN POWERED VAV BOX
	HYDRONIC COIL
	PRESSURE GAUGE
	THERMOMETER

DRAWING SYMBOLS	
	EQUIPMENT TAG
	DEMOLITION KEYED NOTE
	NEW WORK KEYED NOTE
	DETAIL NUMBER
	DRAWING NUMBER
	SECTION LETTER
	DRAWING NUMBER

MECHANICAL LEGEND	
	LIMITS OF DEMOLITION
	POINT OF CONNECTION TO EXISTING
	ROOM TEMPERATURE SENSOR
	OCCUPANCY SENSOR
	SUPPLY DIFFUSER
	BEACON STROBE LIGHT FOR HVAC ALARM SYSTEMS.
	HUMIDITY TRANSMITTER
	CARBON DIOXIDE SENSOR
	RETURN GRILLE
	EXHAUST GRILLE
	EMERGENCY STOP SWITCH
	VERTICAL FIRE DAMPER
	HORIZONTAL FIRE DAMPER
	COMBINATION FIRE/SMOKE DAMPER
	VOLUME DAMPER
	DIFFUSER/GRILLE TAG
	AIRFLOW DIRECTION
	SUPPLY REGISTER OR GRILLE
	EXHAUST OR RETURN GRILLE
	RECTANGULAR DUCTWORK
	ROUND DUCTWORK
	EXISTING DUCTWORK
	DUCTWORK TO BE DEMOLISHED
	FLEXIBLE DUCTWORK (INSULATED)
	DUCT ACCESS DOOR
	SUPPLY DUCT (UP & DOWN)
	EXHAUST DUCT (UP & DOWN)
	RETURN DUCT (UP & DOWN)
	COMBINATION FIRE SMOKE DAMPER (PNEUMATIC - ELECTRIC)
	MOTORIZED SMOKE DAMPER
	SOUND ATTENUATOR TAG - MARK (X)
	AIRFLOW MEASURING STATION TAG - MARK (X)
	SMOKE DETECTOR
	EXISTING PIPING TO REMAIN
	PIPING TO BE DEMOLISHED
	ISOLATION VALVE
	GATE VALVE
	GLOBE VALVE
	GATE VALVE WITH 3/4" HOSE ADAPTER
	CHECK VALVE
	BUTTERFLY VALVE
	AUTOMATIC FLOW LIMITING VALVE
	CIRCUIT SETTER
	RELIEF VALVE
	WYE STRAINER
	BOILER DRAIN VALVE
	PRESSURE REGULATING VALVE
	CONTROL VALVE (2-WAY)
	CONTROL VALVE (3-WAY)
	TEST PLUG (PRESSURE/TEMPERATURE)
	PIPING DOWN
	PIPING UP
	TEE UP
	TEE DOWN
	CAPPED PIPING
	IN LINE TRIPLE DUTY VALVE
	AUTOMATIC AIR VENT
	MANUAL AIR VENT

## GENERAL NOTES

- THE DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES. THE SCALE, WHEN INDICATED IS INTENDED FOR GENERAL REFERENCE ONLY.
  - THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE PROJECT PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS WITH THE ENGINEER.
  - ALL WORK SHALL CONFORM TO ALL LOCAL, STATE, AND NATIONAL CODES. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. ANY EQUIPMENT OR MATERIAL DEVIATIONS FROM THAT SPECIFIED OR DETAILED ON THIS DRAWING SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT/ENGINEER. ALL PROPOSED EQUIPMENT DEVIATIONS SUBMITTED SHALL BE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED.
  - DESIGN IS BASED ON THE MANUFACTURER AND MODEL SCHEDULED OR THE FIRST MANUFACTURER LISTED IN THE DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL BEAR ANY AND ALL COSTS FOR ALTERING ANY OTHER CONTRACT OR SUB-CONTRACT RESULTING FROM THE USE OF ANY MANUFACTURER OR MODEL OTHER THAN THE DESIGN BASIS INCLUDING LISTED EQUALS.
  - PRIOR TO CONSTRUCTION, FABRICATING DUCTWORK, ORDERING EQUIPMENT, ETC., THE CONTRACTOR SHALL FIELD VERIFY SPACE LIMITATIONS AT THE JOB SITE AND COORDINATE WITH OTHER TRADES.
  - ALL MATERIALS, EQUIPMENT AND PRODUCTS INCORPORATED IN THE WORK UNDER THE CONTRACT SHALL BE NEW, OF A SUITABLE GRADE FOR THE PURPOSES INTENDED, AND TO THE EXTENT POSSIBLE, STANDARD PRODUCTS OF THE VARIOUS MANUFACTURES EXCEPT WHERE SPECIAL CONSTRUCTION OR PERFORMANCE FEATURES ARE CALLED FOR. THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
  - ALL MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
  - THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED BY THEIR ACTIONS. SUCH DAMAGE SHALL BE RETURNED TO ORIGINAL NORMAL WORKING CONDITION, SUBJECT TO ACCEPTANCE OF THE OWNER AND ENGINEER, WITHOUT EXTRA COST TO THE OWNER.
  - THE MECHANICAL CONTRACTOR SHALL KEEP THEIR WORK SITE AND ALL ACCESS POINTS OF THE BUILDING FREE OF RUBBISH AND WASTE MATERIAL. ALL ROOF OPENINGS IN THE BUILDING REQUIRED FOR THE MECHANICAL CONTRACT SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. ALL FRAMING AROUND ROOF OPENINGS SHALL BE BY THE GENERAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL COORDINATE SIZE OF OPENINGS AND LOCATION OF OPENINGS WITH THE GENERAL CONTRACTOR. ALL ROOF CURBS AND ROOF SUPPORT RAILS FOR MECHANICAL EQUIPMENT INSTALLED ON THE ROOF SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
  - ALL OPENINGS IN WALLS AS REQUIRED BY THE MECHANICAL SYSTEM IN THE BUILDING SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH THE GENERAL CONTRACTOR AT THE JOB SITE IN A TIMELY MANNER.
  - REFER TO ARCHITECTURAL DRAWINGS, AS AVAILABLE, FOR LOCATIONS OF ALL RATED WALL AND FLOOR ASSEMBLIES. PROVIDE FIRE DAMPERS AND/OR U.L. LISTED ASSEMBLIES AND/OR SEALANTS PER DRAWINGS, SPECIFICATIONS, AND APPLICABLE CODES AT ALL PENETRATIONS.
  - THE MECHANICAL CONTRACTOR SHALL FURNISH ACCESS DOORS FOR ALL GYPSUM BOARD CEILINGS AT VOLUME DAMPERS, EQUIPMENT, MOTOR OPERATED DAMPERS, FIRE DAMPERS, BALANCING DEVICES OR OTHER ITEMS REQUIRING BALANCING OR SERVICE. ACCESS DOORS SHALL BE INSTALLED BY THE GENERAL CONTRACTOR. SEE PLANS AND GENERAL CONSTRUCTION SPECIFICATIONS FOR ACCESS DOOR REQUIREMENTS.
  - MECHANICAL CONTRACTOR SHALL PROVIDE 6" HIGH HOUSEKEEPING PADS UNDER MAJOR MECHANICAL EQUIPMENT (I.E. CHILLERS) AND 4" HIGH HOUSEKEEPING PADS UNDER ALL OTHER FLOOR MOUNTED EQUIPMENT UNLESS NOTED OTHERWISE. PADS SHALL EXTEND BEYOND EQUIPMENT BY THE SAME DIMENSION AS THE HEIGHT OF THE PAD, UNLESS NOTED OTHERWISE.
  - ALL PIPING AND DUCTWORK (EXCEPT IN MECHANICAL ROOMS, BOILER ROOM, ETC.) SHALL BE CONCEALED UNLESS OTHERWISE SHOWN OR NOTED.
  - DO NOT INSTALL PIPING OR DUCTWORK OVER ANY ELECTRICAL SWITCHGEAR; SEE MECHANICAL DETAIL SHEET(S).
  - MC SHALL BLANK OFF UNUSED PORTIONS OF LOUVERS WITH DOUBLE WALL INSULATED PANELS.
  - REFER TO SPECIFICATIONS FOR EQUIPMENT STARTUP PROCEDURES AND REQUIREMENTS.
- DUCTWORK**
- DUCT SIZES SHOWN ON PLANS ARE FREE AREA DIMENSIONS. CONTRACTOR SHALL INCREASE SIZES AS NECESSARY TO ACCOMMODATE LINING, IF SPECIFIED.
  - BEFORE FABRICATING OR INSTALLING DUCTWORK, COORDINATE DUCT LOCATIONS WITH THE ELECTRICAL CONTRACTOR'S PANELS, CONDUIT AND RECESSED LIGHT FIXTURES, PLUMBING PIPING, AND ALL STRUCTURAL MEMBERS. THESE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT SHOP DRAWINGS. ALL OFFSETS AND TRANSITIONS REQUIRED FOR THIS PROJECT MAY NOT BE SHOWN ON THESE DRAWINGS; HOWEVER, THEY SHALL BE PROVIDED WITHOUT CHANGE TO THE BID CONTRACTS.
  - BEFORE FABRICATING OR INSTALLING DUCTWORK, COORDINATE FINAL LOCATION OF CEILING GRILLES, REGISTERS AND DIFFUSERS WITH REFLECTED CEILING PLANS AND ELECTRICAL LIGHTING PLANS.
  - ALL SURFACES SEEN THROUGH GRILLES AND DIFFUSERS SHALL BE PAINTED MATTE BLACK.
  - CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP ACCESS TO THE VOLUME DAMPERS WITHIN THE LAY-IN CEILING OR EXPOSED AREAS.
  - PROVIDE FLEXIBLE CONNECTIONS TO ALL AIR MOVING EQUIPMENT.
  - INSTALL DIFFUSERS WITH 3-WAY OR 2-WAY THROW AS REQUIRED TO AVOID BLOWING DIRECTLY ON THERMOSTATS.
  - MC SHALL CONFIRM ALL CEILING TYPES, HARD OR LAY-IN, INCLUDING NARROW TEE AND REGULAR, PRIOR TO SUBMITTAL OF SHOP DRAWINGS TO ENGINEER. ANY AIR DEVICES REQUIRING REPLACEMENT DUE TO LACK OF MC'S CONFIRMATION SHALL BE PROVIDED AT NO ADDITIONAL

- COST TO THE OWNER.
- ALL FIRE DAMPERS AND U.L. FIRE STOPS SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH MANUFACTURER'S U.L. LISTING AND INSTALLATION INSTRUCTIONS. REGARDLESS OF DUCT SIZE, FIRE DAMPERS SHALL BE MINIMUM 12"x12" OR 12"Ø IN SIZE. TRANSITION BEYOND ACCESS DOOR AS REQUIRED TO MATCH ACTUAL DUCT SIZE.

### PIPING

- FLEXIBLE PIPE CONNECTIONS SHALL BE PROVIDED AT ALL HYDRONIC PIPING CONNECTIONS AT ROTATING EQUIPMENT, INCLUDING AIR HANDLING UNITS, BASE-MOUNTED PUMPS, CHILLERS, ETC.

### INSULATION

- ANY INSULATION DAMAGED DURING THE PROJECT SHALL BE REPAIRED AND ALL VAPOR BARRIERS RESTORED.

### BUILDING AUTOMATION SYSTEM (CONTROLS)

- SOME VIRTUAL POINTS ARE SHOWN ON THE CONTROL POINTS LISTS. THESE POINTS ARE INTENDED TO SHOW MAJOR VIRTUAL POINTS BUT IS NOT AN ALL-ENCOMPASSING LIST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINAL POINT COUNTS AND SHALL ENSURE THAT THE CONTROLLERS PROVIDED ARE CAPABLE OF HANDLING ANY ADDITIONAL VIRTUAL POINTS THAT MAY BE NEEDED TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
- MOTOR CONNECTIONS AT MOTOR TERMINALS SHALL NOT BE MADE UNTIL ROTATION, HORSEPOWER, PHASE RATINGS, AND RATINGS OF ANY REQUIRED THERMAL HEATERS HAVE BEEN VERIFIED AND APPROVED AS CORRECT FOR THE INSTALLATION BY THE MC.
- INSTALL THERMOSTATS AT THE SAME HEIGHT AS THE LIGHT SWITCH WHERE INSTALLED ADJACENT AND NO HIGHER THAN PERMITTED BY ADA GUIDELINES. PROVIDE INSULATED PLATES BEHIND THERMOSTATS INSTALLED ON EXTERIOR WALLS. COORDINATE LOCATION OF WALL MOUNTED THERMOSTATS, TEMPERATURE SENSORS, WALL SWITCHES, ETC. WITH OTHER CONTRACTORS TO AVOID CONFLICTS WITH DRAWING BOARDS, ELECTRICAL DEVICES, TACK BOARDS, ETC. ALL WIRING TO WALL MOUNTED DEVICES SHALL BE CONCEALED IN WALL UNLESS NOTED OTHERWISE.

### COORDINATION

- ALL SHUTDOWNS SHALL BE COORDINATED AND APPROVED THROUGH THE OWNER'S REPRESENTATIVE AND WILL REQUIRE ADVANCE NOTICE OF ONE WEEK MINIMUM. THIS TIME/LENGTH MAY BE LONGER OR SHORTER FOR SOME SHUTDOWNS AND SHALL BE AT THE OWNER'S DISCRETION.
- ALL ROOF MOUNTED UNITS SHALL BE CAREFULLY COORDINATED WITH THE STRUCTURE. MC AND GC SHALL COORDINATE ROOF STEEL PLACEMENT AND ROOF OPENINGS WHICH SHALL MATCH UP WITH THE ACTUAL UNIT OPENING LOCATION, SIZE, WEIGHTS AND DIMENSIONS. NO WORK SHALL OCCUR UNTIL CONTRACTOR HAS APPROVED SHOP DRAWINGS.

### DEMOLITION

- THESE DRAWINGS DEFINE THE BASIC AREA OF DEMOLITION AND ARE AS ACCURATE AS WAS POSSIBLE FROM SITE INVESTIGATIONS MADE DURING THE DESIGN PROCESS. NOT ALL EXISTING MATERIALS AND EQUIPMENT ARE SHOWN. ANY MECHANICAL MATERIALS AND EQUIPMENT THAT ARE NOT BEING USED AFTER THE RENOVATION SHALL BE REMOVED WHETHER SHOWN OR NOT. NO MATERIALS OR EQUIPMENT SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED.
- ALL EQUIPMENT TO BE REUSED IS TO BE CLEANED. ANY EQUIPMENT FOUND TO BE NON-FUNCTIONING SHALL BE DOCUMENTED AND BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO COMMENCEMENT OF DEMOLITION. IF PROPER NOTIFICATION IS NOT PROVIDED THEN REPAIR OR REPLACEMENT OF THE EQUIPMENT SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- THE MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS REQUIRED FOR HIS WORK. ALL MATERIALS REQUIRED FOR TESTING (E.G. SMOKE GENERATORS) SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT. IF A PROJECT FAILS AN INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS ASSOCIATED WITH THE RE-INSPECTION.
- ANY EQUIPMENT OR MATERIAL DEVIATIONS FROM THAT SPECIFIED OR DETAILED ON THIS DRAWING SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT/ENGINEER. ALL PROPOSED EQUIPMENT DEVIATIONS SUBMITTED SHALL BE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED.
- ALL MECHANICAL EQUIPMENT SHALL BE LISTED AND LABELED BY APPROVED THIRD PARTY LISTING AGENT.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL THEIR OWN SUPPORT EQUIPMENT. SUPPORT ALL EQUIPMENT FROM STRUCTURAL MEMBERS, UNLESS NOTED OTHERWISE. LOCATIONS SHALL BE COORDINATED WITH ALL CONTRACTORS PRIOR TO INSTALLATION.
- DUCTWORK AND PIPING LAYOUTS AND LOCATIONS ARE SCHEMATIC. DO NOT SCALE THESE DRAWINGS. EXACT ROUTING OF DUCTWORK AND PIPING MUST BE DETERMINED IN THE FIELD. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR BY ACTUAL MEASUREMENT AND OBSERVATION BEFORE ORDERING OR FABRICATING ANY DUCTWORK, PIPING OR EQUIPMENT. ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS OR DIMENSIONS SHALL BE REPORTED TO THE ENGINEER BEFORE THE PERFORMANCE OF ANY WORK. FAILURE TO VERIFY AND REPORT SHALL CONSTITUTE THE CONTRACTOR'S ACCEPTANCE OF THE EXISTING CONDITIONS AS FIT FOR THE PROPER EXECUTION OF THEIR WORK.
- DUCTWORK AND PIPING SHALL BE KEPT AS CLOSE AND HIGH AS POSSIBLE TO THE BUILDING WALLS, CEILING AND FLOOR AND ROOF STRUCTURE IN ORDER THAT THE MAXIMUM AMOUNT OF SPACE IS AVAILABLE. ADDITIONAL OFFSETS, FITTINGS, ETC. NOT SHOWN BUT REQUIRED TO MAINTAIN MAXIMUM CLEARANCE SHALL BE PROVIDED AT NO ADDITIONAL COST.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE RESPONSIBILITY FOR ALL PATCHING AND CLEANING ASSOCIATED WITH THIS PROJECT WITH THE GENERAL CONTRACTOR.
- EXISTING FLOOR DRAINS SHOULD BE COVERED DURING DEMOLITION AND NEW WORK CONSTRUCTION.

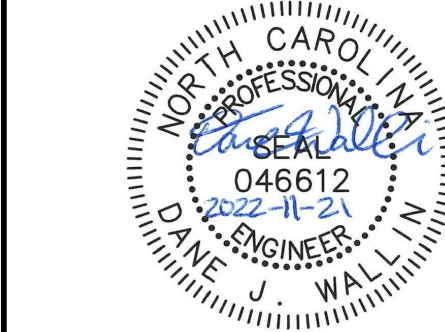


### ENGINEER



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### ARCHITECT



REV	REVISION DESCRIPTION	DATE

## FSU MCLEOD HALL HVAC REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

### CONSTRUCTION DOCUMENTS

### MECHANICAL LEGEND AND GENERAL NOTES

# M001



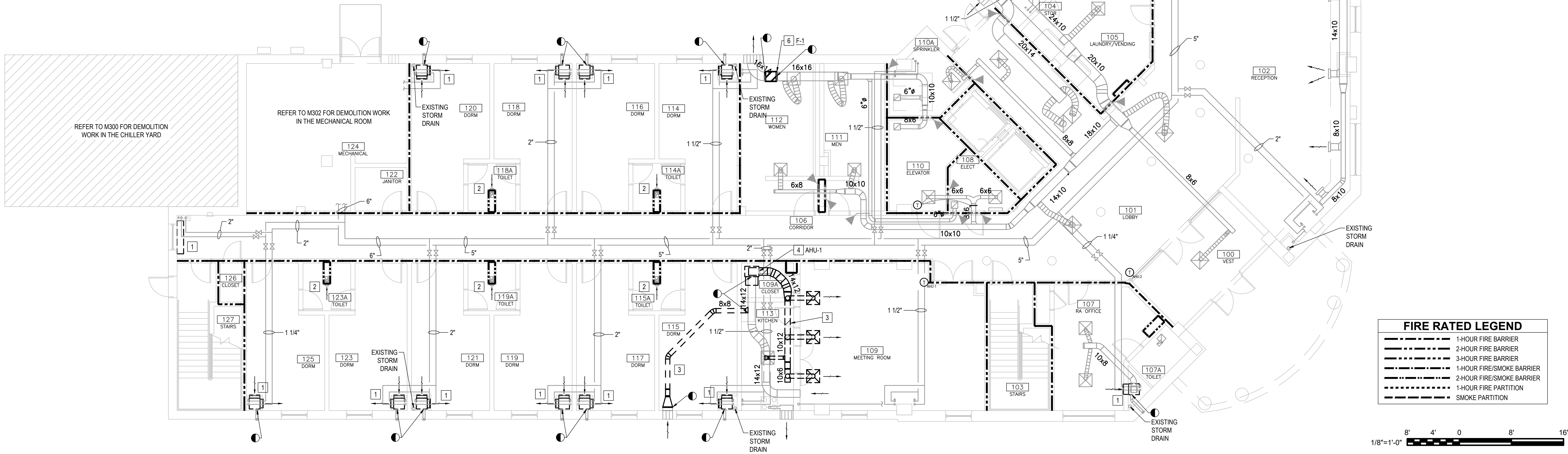
GENERAL NOTES:

- REFER TO ARCHITECTURAL SHEETS FOR AREAS OF CEILING DEMOLITION.
- ALTERNATE M3: REPLACE EXISTING ISOLATION VALVES IN DUAL TEMP PIPING, SUPPLY AND RETURN PER EACH RISER, 22 SETS.
- MECHANICAL CONTRACTOR SHALL PROTECT ALL EXISTING FLOOR DRAINS AND EXISTING PIPING TO REMAIN FROM CONSTRUCTION DEBRIS. MECHANICAL CONTRACTOR SHALL ENSURE EXISTING CONDENSATE RISER ARE CLEAN AND FREE OF OBSTRUCTIONS, AND SHALL ALSO CLEAN AT ALL GRADE CLEANOUTS OUTSIDE OF BUILDING (NOT SHOWN).

# DEMOLITION NOTES:

- DEMOLISH FAN COIL UNIT AND ASSOCIATED CONTROLS AND PIPING BACK TO THE EXISTING RISER. PIPE RISER SHALL REMAIN AND WILL BE RE-PURPOSED AS PART OF THE NEW HW SYSTEM. CONDENSATE RISERS SHALL REMAIN, INCLUDING PIPE PASSING BELOW GRADE.
- ALTERNATE M4: DEMOLISH BATHROOM EXHAUST INLET GRILLE.
- DUCTWORK TO BE DEMOLISHED.
- DEMOLISH AHU AND ASSOCIATED POWER DISCONNECT, CONTROLS, ETC. SUFFICIENT FOR INSTALLATION OF NEW UNIT. EXISTING DUCT SHALL REMAIN AND CONNECTIONS SHALL BE RECONFIGURED TO TIE IN TO NEW UNIT.
- DEMOLISH DRYER DUCT TO CEILING AND PROVIDE NEW. REPAIR CONNECTION TO DRYERS.
- ALTERNATE M5: DEMOLISH EXHAUST FAN AND ASSOCIATED DUCT CONNECTIONS, SUPPORTS, DISCONNECT, CONTROLS, ETC. SUFFICIENT FOR INSTALLATION OF NEW UNIT.

1 FIRST FLOOR DEMOLITION  
Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



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ARCHITECT

BSA



REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

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DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

FIRST FLOOR  
DEMOLITION PLAN

M100

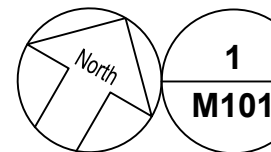


GENERAL NOTES:

1. FLOORS 2 THROUGH 4 HAVE IDENTICAL SCOPE OF WORK EXCEPT WHERE OTHERWISE NOTED.

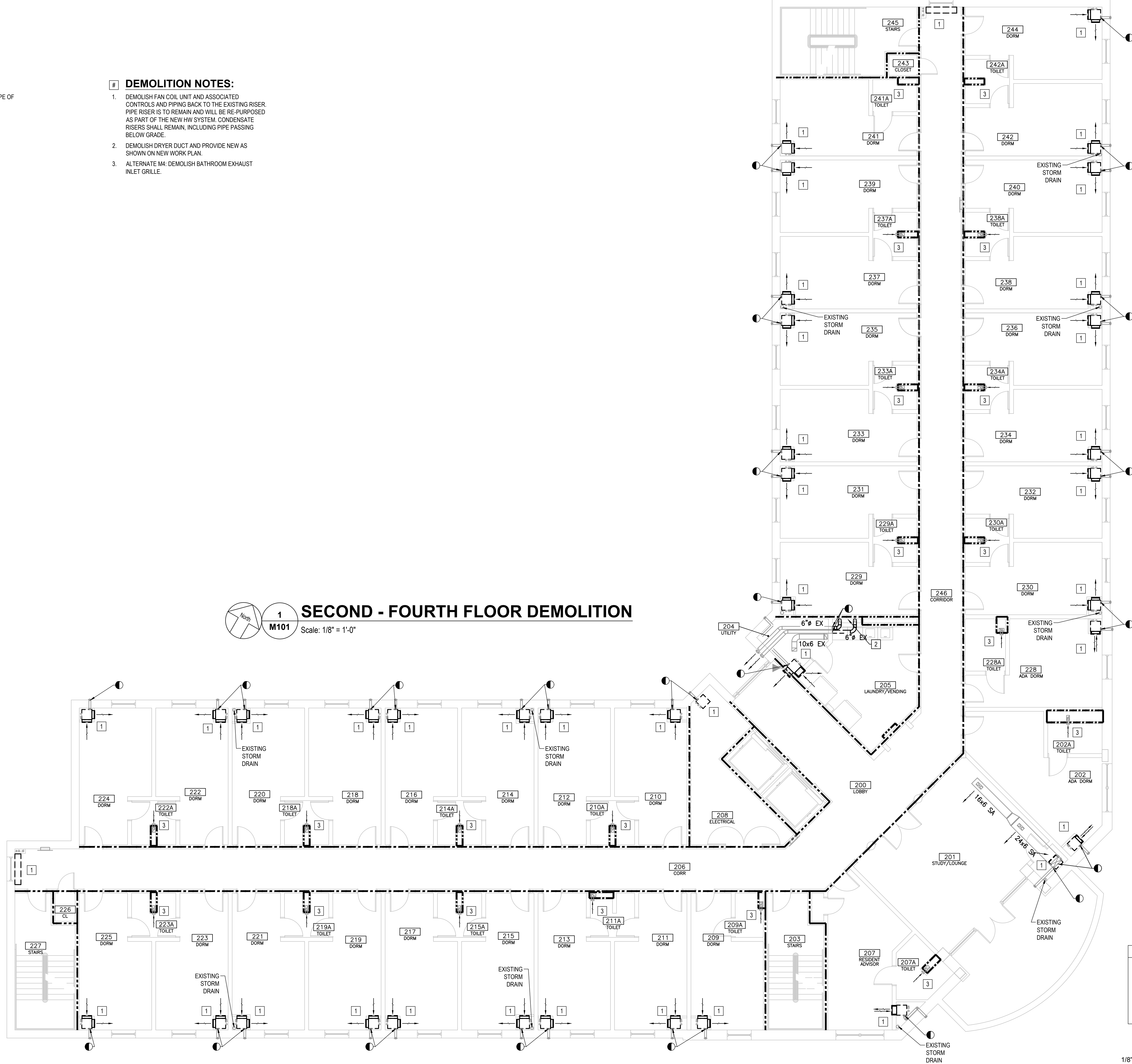
# DEMOLITION NOTES:

1. DEMOLISH FAN COIL UNIT AND ASSOCIATED CONTROLS AND PIPING BACK TO THE EXISTING RISER. PIPE RISER IS TO REMAIN AND WILL BE RE-PURPOSED AS PART OF THE NEW HW SYSTEM. CONDENSATE RISERS SHALL REMAIN, INCLUDING PIPE PASSING BELOW GRADE.
2. DEMOLISH DRYER DUCT AND PROVIDE NEW AS SHOWN ON NEW WORK PLAN.
3. ALTERNATE M4: DEMOLISH BATHROOM EXHAUST INLET GRILLE.



SECOND - FOURTH FLOOR DEMOLITION

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



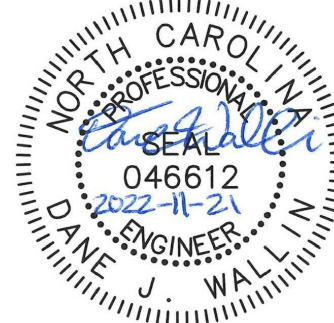
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PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

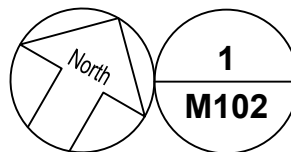
2ND, 3RD, & 4TH  
DEMOLITION PLAN

M101



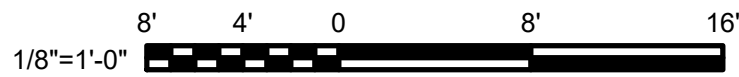
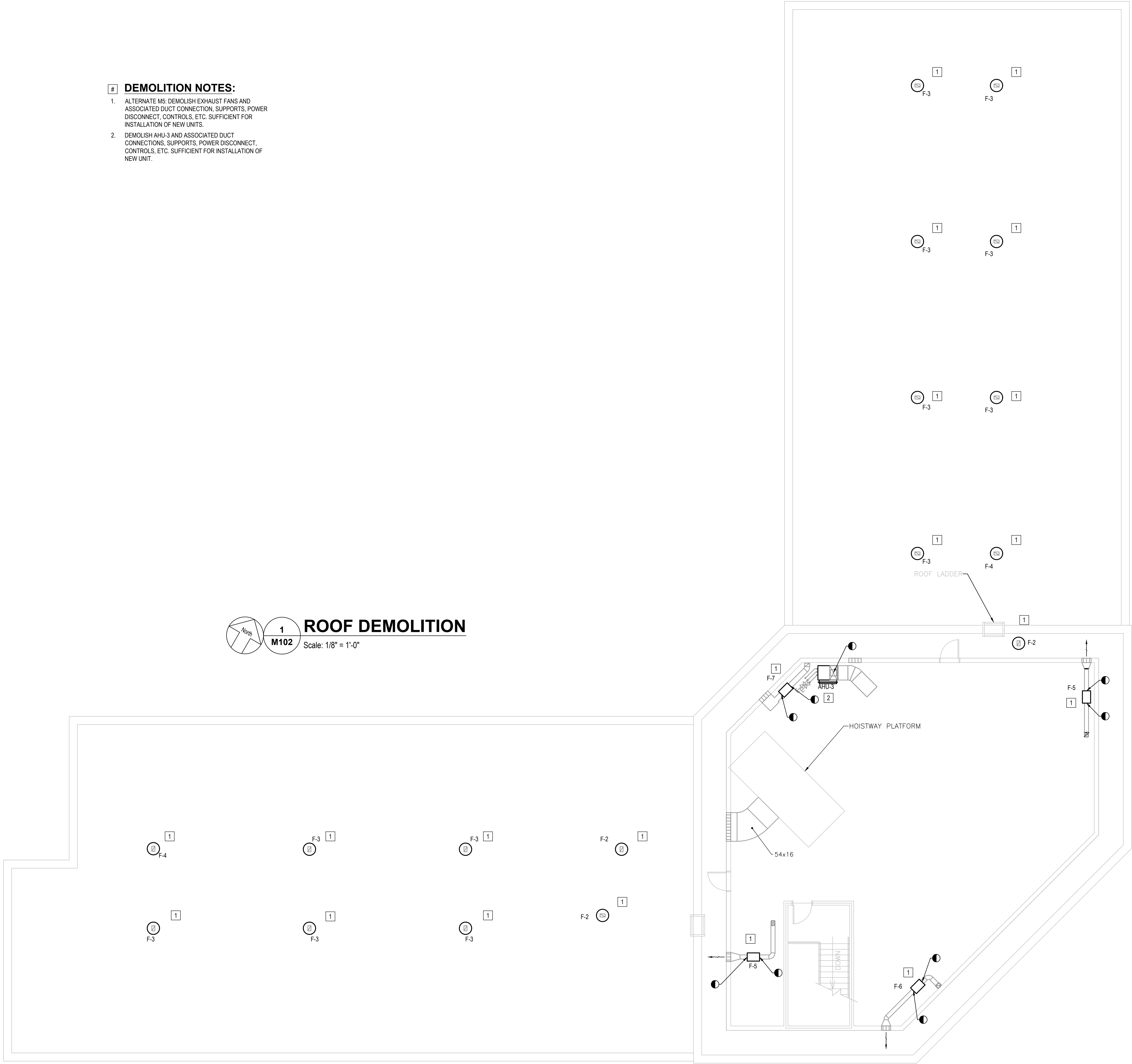
# **DEMOLITION NOTES:**

1. ALTERNATE M5: DEMOLISH EXHAUST FANS AND ASSOCIATED DUCT CONNECTION, SUPPORTS, POWER DISCONNECT, CONTROLS, ETC. SUFFICIENT FOR INSTALLATION OF NEW UNITS.
2. DEMOLISH AHU-3 AND ASSOCIATED DUCT CONNECTIONS, SUPPORTS, POWER DISCONNECT, CONTROLS, ETC. SUFFICIENT FOR INSTALLATION OF NEW UNIT.



**ROOF DEMOLITION**

Scale: 1/8" = 1'-0"



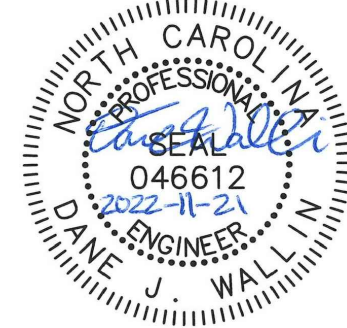
OWNER



ENGINEER



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**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

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M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ROOF DEMOLITION PLAN

**M102**

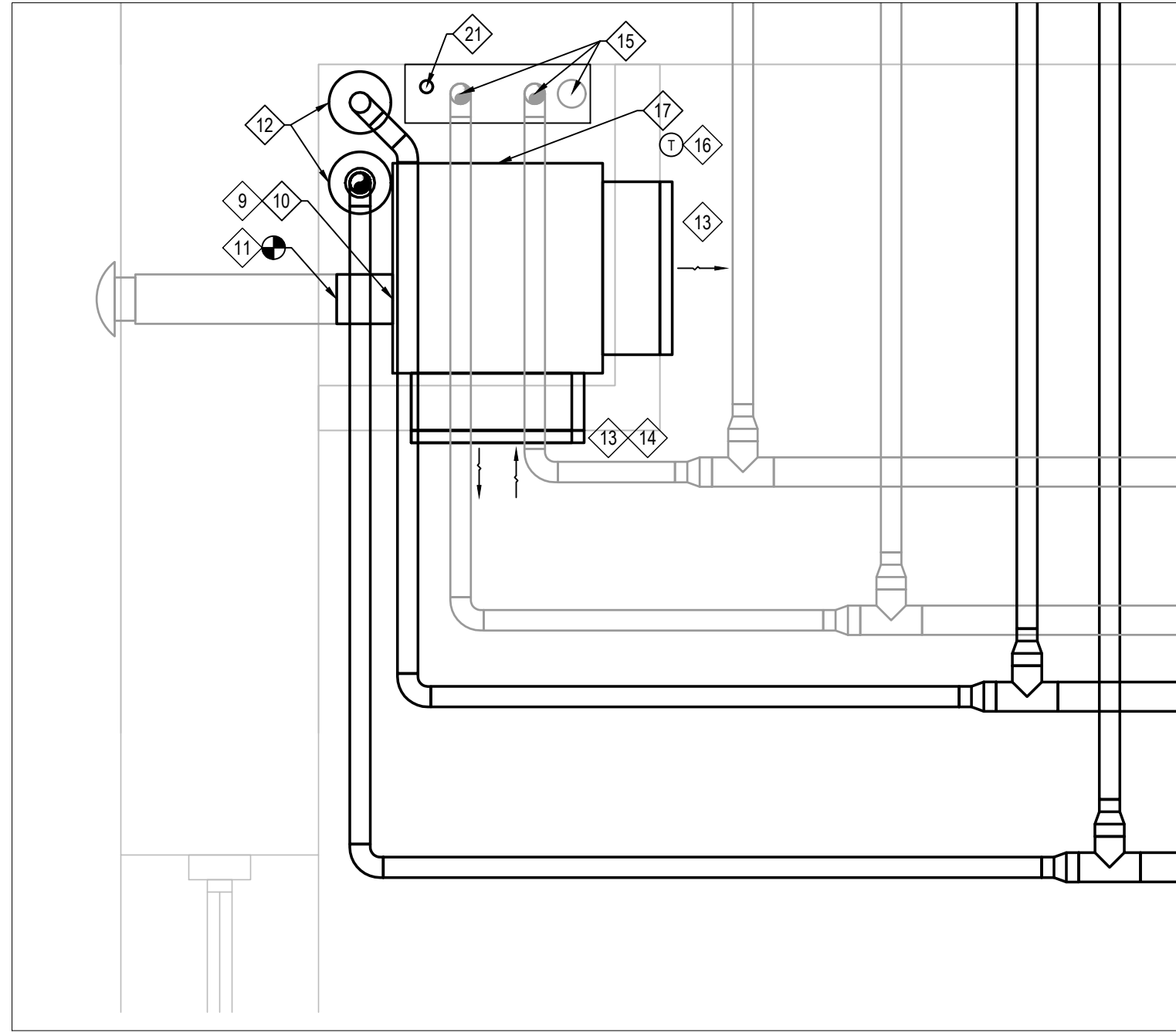


GENERAL NOTES:

- ALTERNATE M1: REMOVE ALL INSULATION ON EXISTING 2-PIPE SYSTEM AND REPLACE WITH NEW. NOTIFY THE OWNER AND ENGINEER OF ANY SECTION OF PIPE THAT APPEAR DAMAGED AND STOP WORK ON THIS SECTION SO REPLACEMENT MAY BE CONSIDERED.
- REFER TO ARCHITECTURAL NEW WORK DRAWINGS FOR FCU ENCLOSURE DIMENSIONS.
- ALL FLOOR PENETRATIONS SHALL BE FIRESTOPPED TO MAINTAIN A 2 HOUR RATING.
- CONTRACTOR SHALL PERFORM FCU INSTALLATION MOCKUP FOR REVIEW BY OWNER AND ENGINEER PRIOR TO PROCEEDING WITH FURTHER INSTALLATIONS.
- ALL FCU VALVES AND PIPING APPURTENANCES SHALL BE LOCATED WITHIN THE FCU ENCLOSURE SUCH THAT THEY ARE ACCESSIBLE THROUGH THE REMOVABLE RETURN PANEL.

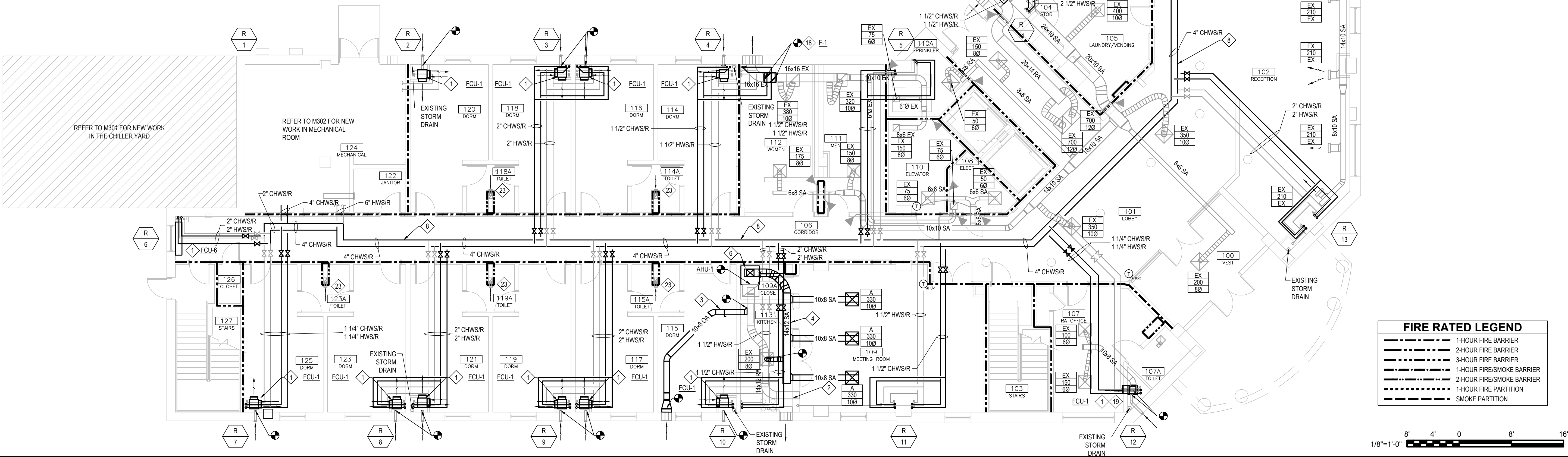
NEW WORK NOTES:

- NEW FAN COIL UNIT INSIDE NEW GYPSUM ENCLOSURE. REFER TO ENLARGED PLAN THIS SHEET FOR ADDITIONAL DETAILS.
- PROVIDE CO2 SENSOR AND BALANCING DAMPER IN RETURN DUCT.
- PROVIDE NEW 10x8 OA DUCT WITH BALANCING DAMPER.
- PROVIDE NEW SUPPLY DUCT.
- PROVIDE NEW DRYER EXHAUST DUCT FROM THE CEILING TO THE DRYERS, HARD DUCT TO 3 AFF. FLEX TO DRYER, PAINT HARD DUCT TO MATCH, CLEAN OUT EXISTING DUCT. MC SHALL VERIFY EXISTING BACKDRAFT DAMPER IS OPERATIONAL.
- PROVIDE NEW AHU-1.
- PROVIDE NEW AHU-2.
- PROVIDE NEW CHW PIPING ROUTED BELOW EXISTING PIPING AND SIZED AS INDICATED. EXISTING PIPING TO REMAIN IS TO BE CONVERTED TO HEATING HOT WATER ONLY THROUGH THIS RENOVATION (REFER TO PIPING SCHEMATICS).
- PROVIDE MOTORIZED DAMPER FOR CONTROL OF OUTSIDE AIR. DAMPER SHALL REMAIN AT A CONSTANT POSITION WHEN THE UNIT IS RUNNING AND CLOSE WHEN THE UNIT IS OFF. CONTROLS CONTRACTOR SHALL COORDINATE WITH TAB CONTRACTOR TO DETERMINE BALANCED (OPEN) POSITION TO ACHIEVE OUTSIDE AIR FLOW LISTED IN EQUIPMENT SCHEDULE. DAMPER SHALL BE ACCESSIBLE FROM WITHIN THE FAN COIL UNIT MIXING PLENUM.
- CUT 4" ROUND OPENING IN SIDE OF FAN COIL UNIT FOR DUCTING OF OUTSIDE AIR. OPENING SHALL BE LOCATED TO NOT DAMAGE ANY STRUCTURAL PART OF THE UNIT AND TO INTRODUCE THE OUTSIDE AIR UPSTREAM OF THE FILTER SUCH THAT IT MIXES WITH THE RETURN AIR PRIOR TO PASSING THROUGH THE FILTER SECTION.
- PROVIDE 4" ROUND RIGID OUTSIDE AIR DUCT. CONNECT TO EXISTING DUCT THROUGH EXTERIOR WALL AND SEAL AIRTIGHT.
- PROVIDE 5" CORED OPENING (FOR EACH CHWS/R). LOCATIONS SHOWN ARE TO BE VERIFIED BY CONTRACTOR AFTER DEMOLITION OF EXISTING UNITS. CONTRACTOR SHALL USE NON-DESTRUCTIVE EXAMINATION TECHNIQUES TO LOCATE CONCRETE REINFORCING WITHIN THE SLAB AND ADJUST CORING LOCATIONS TO AVOID CUTTING ANY MEMBERS.
- PROVIDE SUPPLY GRILLE WITH DOUBLE DEFLECTION, ADJUSTABLE BLADES.
- UNIT SHALL BE PROVIDED WITH REMOVABLE RETURN PANEL FOR ACCESS TO FILTERS, COILS, FAN, CONTROLLER, VALVES, ETC.
- EXISTING HWS/R (PREVIOUSLY DUAL TEMP) AND CONDENSATE PIPING TO REMAIN.
- COMBINATION THERMOSTAT-HUMIDISTAT TO BE MOUNTED TO THE EXTERIOR OF THE FCU ENCLOSURE ON THE SIDE NOT ADJACENT TO THE WINDOW.
- PROVIDE ALL NEW COIL PIPING KITS INCLUDING HW (PREVIOUSLY DUAL TEMP)
- ALTERNATE M5: PROVIDE NEW EXHAUST FAN F-1, ATTACH TO EXISTING EXHAUST DUCTWORK.
- PROVIDE TOP DISCHARGE UNIT FOR THIS LOCATION, CONNECT TO EXISTING SUPPLY DUCT.
- PROVIDE MINIMUM FLOW BYPASS PIPING W/ 2-WAY CONTROL VALVE AT END OF MAIN LINES FOR CHW AND HW.
- CONTROLS CONDUIT TO BE ROUTED IN EXISTING RECTANGULAR OPENING.
- CHW/HW DIFFERENTIAL PRESSURE TRANSMITTERS TO BE LOCATED IN THIS AREA.
- ALTERNATE M4: REPLACE BATHROOM EXHAUST INLET GRILLE.



2 ENLARGED FCU PLAN  
M200 Scale: 1" = 1'-0"

1 FIRST FLOOR NEW  
M200 Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
---	2-HOUR FIRE BARRIER
---	3-HOUR FIRE BARRIER
---	1-HOUR FIRE/SMOKE BARRIER
---	2-HOUR FIRE/SMOKE BARRIER
---	1-HOUR FIRE PARTITION
---	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

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DAVE J. WALL

REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

FIRST FLOOR NEW WORK  
PLAN

**M200**

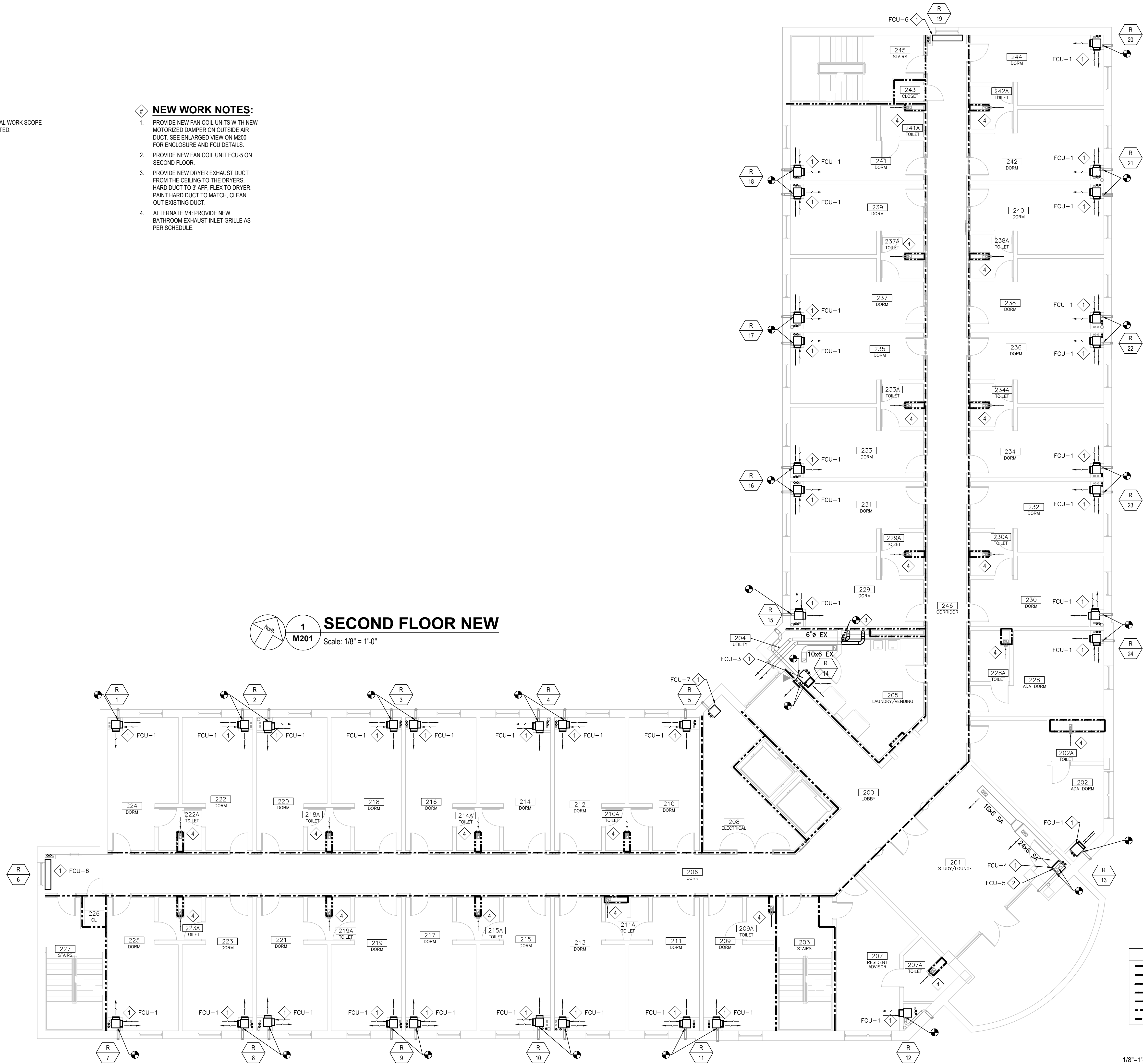


GENERAL NOTES:

1. FLOORS 2, 3, AND 4 ARE IDENTICAL WORK SCOPE EXCEPT WHERE OTHERWISE NOTED.

NEW WORK NOTES:

1. PROVIDE NEW FAN COIL UNITS WITH NEW MOTORIZED DAMPER ON OUTSIDE AIR DUCT. SEE ENLARGED VIEW ON M200 FOR ENCLOSURE AND FCU DETAILS.
2. PROVIDE NEW FAN COIL UNIT FCU-5 ON SECOND FLOOR.
3. PROVIDE NEW DRYER EXHAUST DUCT FROM THE CEILING TO THE DRYERS. HARD DUCT TO 3' AFF. FLEX TO DRYER. PAINT HARD DUCT TO MATCH, CLEAN OUT EXISTING DUCT.
4. ALTERNATE M4: PROVIDE NEW BATHROOM EXHAUST INLET GRILLE AS PER SCHEDULE.



1 SECOND FLOOR NEW  
M201 Scale: 1/8" = 1'-0"

FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

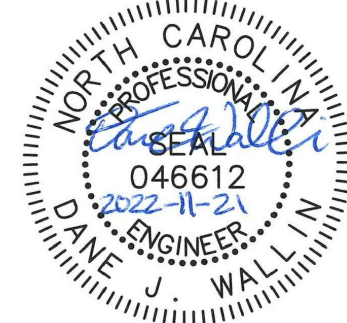
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CONSTRUCTION DOCUMENTS

2ND, 3RD, & 4TH NEW  
WORK PLAN

M201

1/8"=1'-0" 8' 4' 0 8' 16'

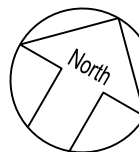


GENERAL NOTES:

1. ALL ROOFING WORK SHALL BE PERFORMED BY A CONTRACTOR CERTIFIED BY THE ROOFING MANUFACTURER TO MAINTAIN THE ROOF WARRANTY.

NEW WORK NOTES:

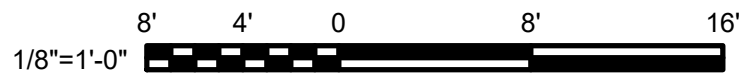
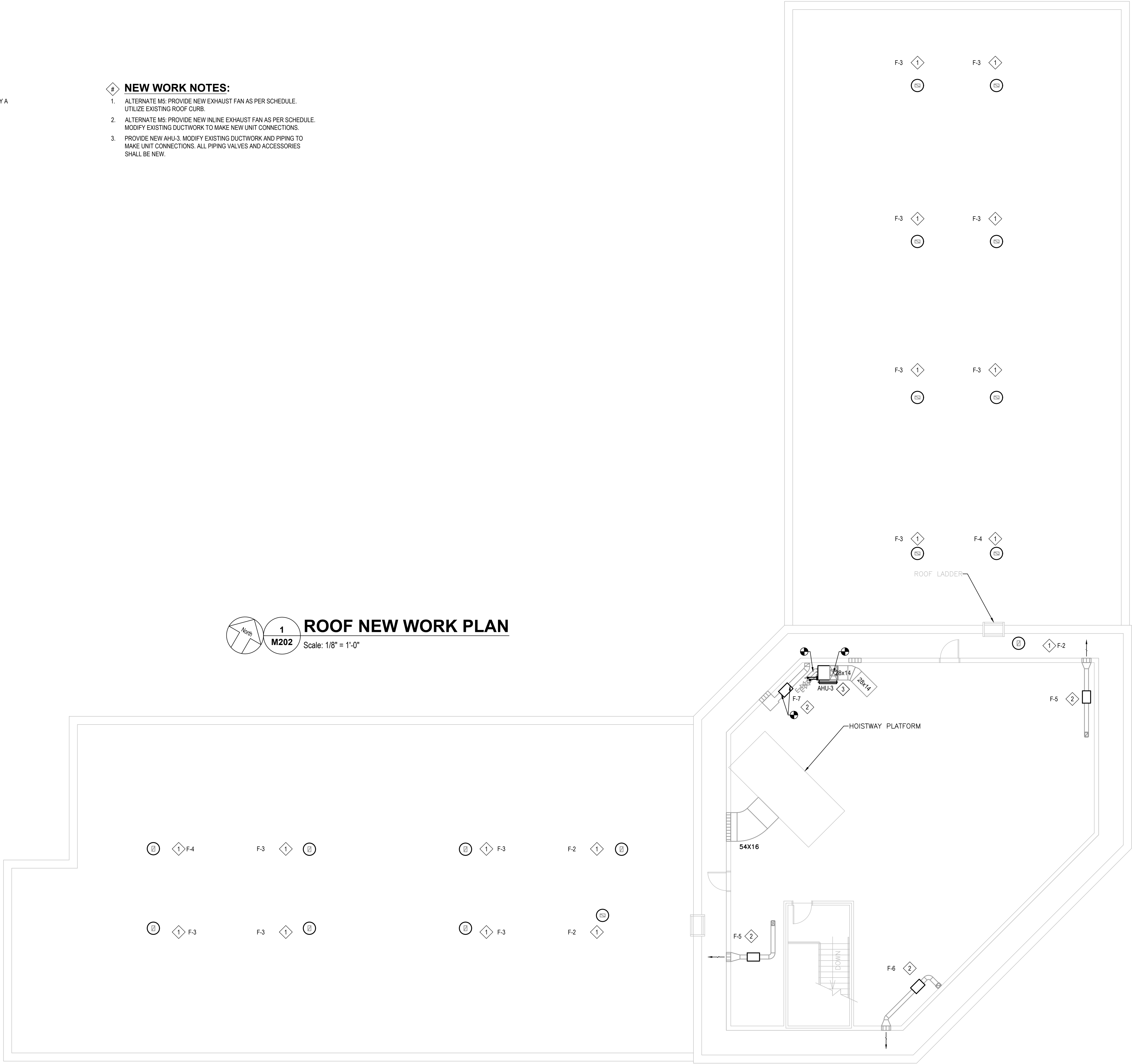
1. ALTERNATE M5: PROVIDE NEW EXHAUST FAN AS PER SCHEDULE. UTILIZE EXISTING ROOF CURB.
2. ALTERNATE M5: PROVIDE NEW INLINE EXHAUST FAN AS PER SCHEDULE. MODIFY EXISTING DUCTWORK TO MAKE NEW UNIT CONNECTIONS.
3. PROVIDE NEW AHU-3. MODIFY EXISTING DUCTWORK AND PIPING TO MAKE UNIT CONNECTIONS. ALL PIPING VALVES AND ACCESSORIES SHALL BE NEW.



1  
M202

ROOF NEW WORK PLAN

Scale: 1/8" = 1'-0"



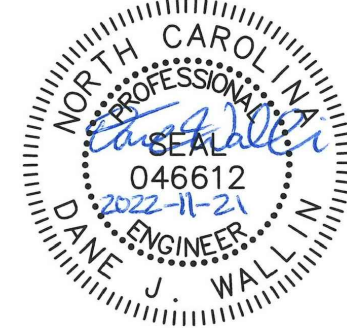
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REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

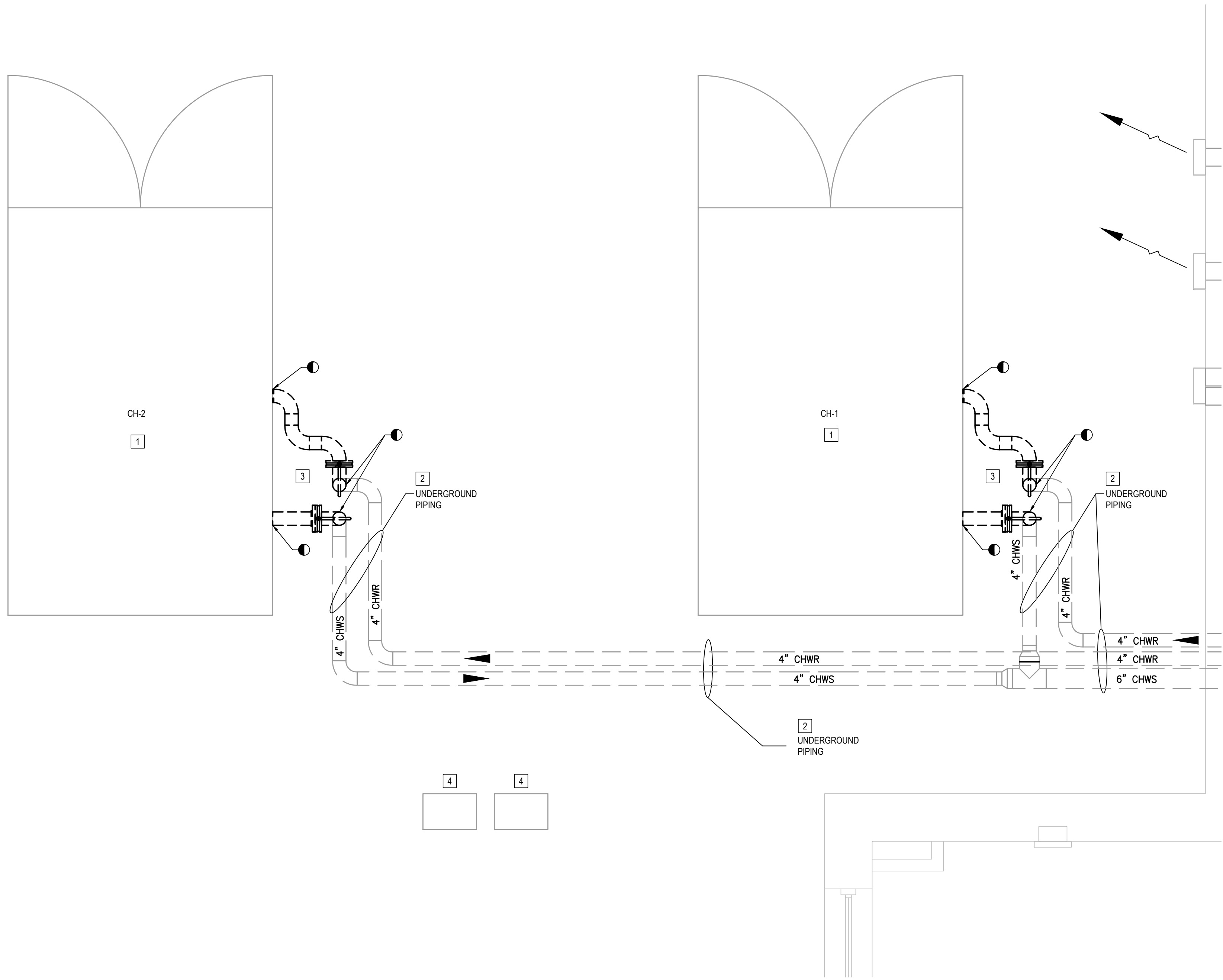
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DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ROOF NEW WORK PLAN

M202





1

M300

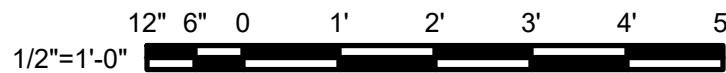
CHILLER YARD - DEMOLITION

Scale: 1/2" = 1'-0"

**GENERAL NOTES:**

1. ALL WORK ON THIS PAGE IS A PART OF ALTERNATE M2.

- # DEMOLITION NOTES:**
- DEMOLISH CHILLER AND ALL ASSOCIATED SUPPORTS, POWER, CONTROLS, PIPING, ETC. EXISTING CONCRETE PAD SHALL REMAIN.
  - SECTION OF PIPE BELOW GRADE FILLED WITH FLOWABLE FILL.
  - DEMOLISH CHW PIPING AND APPURTENANCES TO THE ELBOW BELOW GRADE WHERE PIPE TURNS HORIZONTAL. PIPE CAP AND AIR VENT AS NECESSARY TO FILL SECTION OF PIPE BELOW GRADE WITH FLOWABLE FILL. REFER TO ENLARGED MECHANICAL ROOM PLANS FOR ADDITIONAL INFORMATION ON SECTION TO BE FILLED.
  - EXISTING CHILLER DISCONNECTS SHALL REMAIN FOR REUSE.




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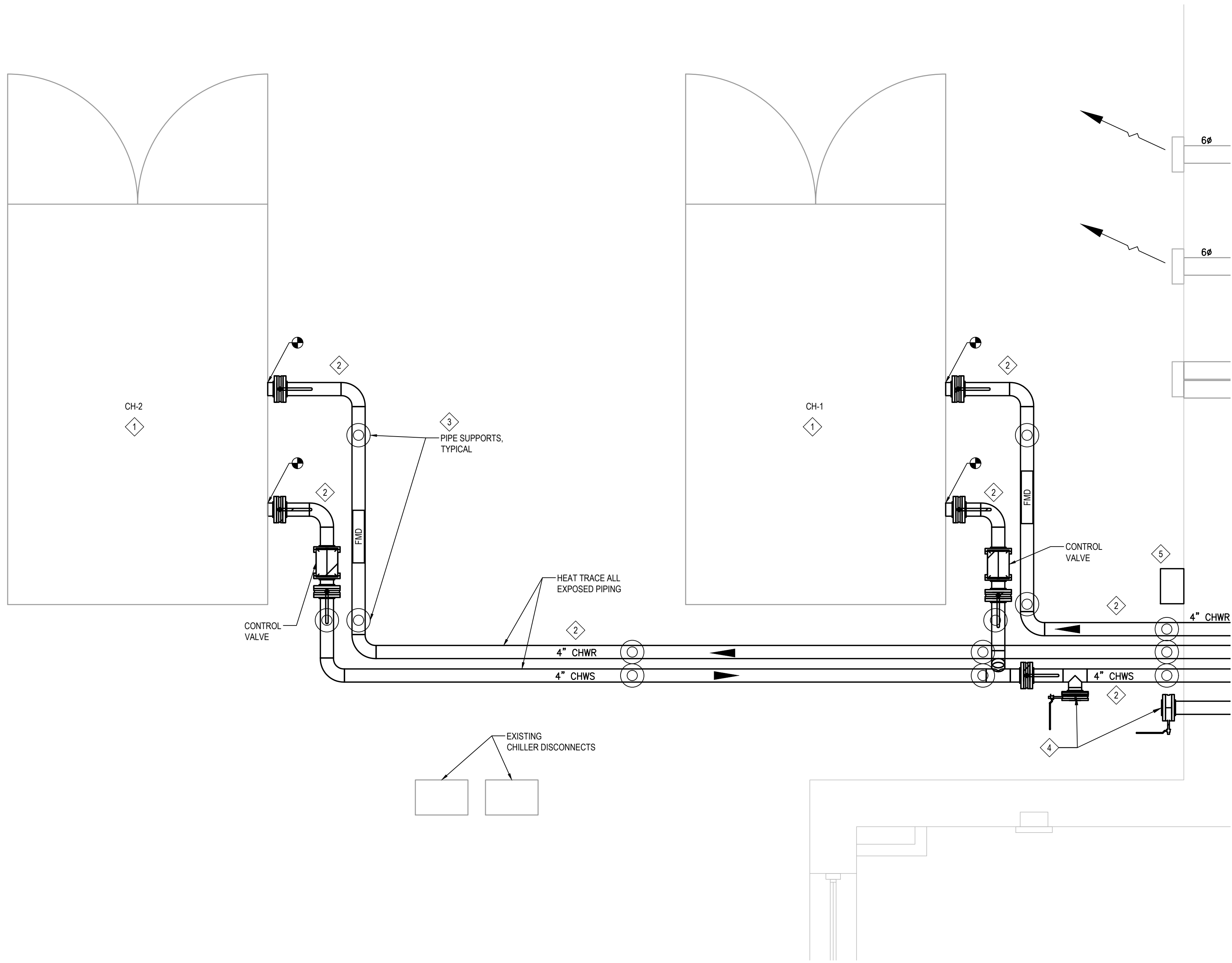
DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

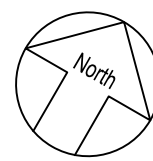
CONSTRUCTION DOCUMENTS

ENLARGED CHILLER  
YARD DEMOLITION PLAN

M300





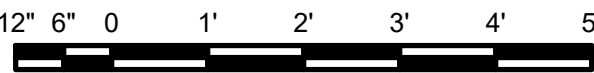
 **1** **CHILLER YARD NEW**  
Scale: 1/2" = 1'-0"

**GENERAL NOTES:**

- ALL WORK ON THIS PAGE IS A PART OF ALTERNATE M2.
- ALL EXTERNAL PIPING, VALVES, ETC. AT RISK OF FREEZING SHALL BE HEAT TRACED AT 6 W/FT. REFER TO DETAILS SHEETS FOR ADDITIONAL REQUIREMENTS.

**# NEW WORK NOTES:**

- PROVIDE NEW CHILLER ON EXISTING PAD. PROVIDE POWER FROM EXISTING DISCONNECTS. CONNECT TO EXISTING BAS.
- PROVIDE NEW CHILLED WATER PIPING AND ASSOCIATED VALVES, ETC. AS SHOWN IN DETAILS.
- PROVIDE PIPE SUPPORTS FOR ABOVE GRADE CHWS/R PIPING. 12"x12", 6" HIGH CONCRETE PADS SHALL BE ADDED FOR PIPE SUPPORTS.
- PROVIDE NEW 4" CHWS/R EMERGENCY CONNECTIONS, VALVED AND CAPPED, FOR CHILLED WATER SYSTEM.
- WALL MOUNT HEAT TRACE CONTROL PANEL IN WEATHERPROOF ENCLOSURE.


1/2"=1'-0" 

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HALL HVAC  
REPLACEMENT**

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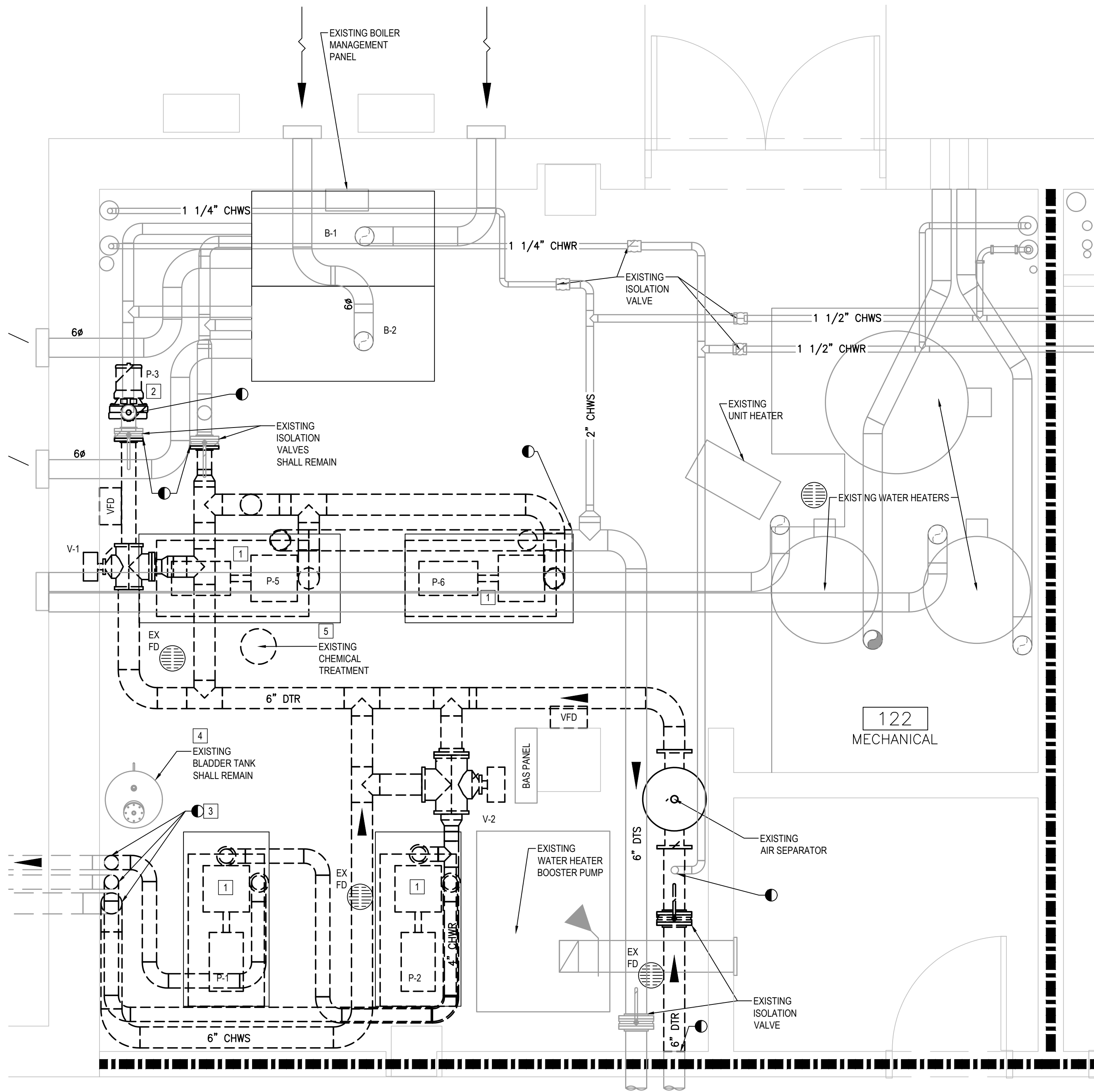
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CONSTRUCTION DOCUMENTS

ENLARGED CHILLER  
YARD NEW WORK PLAN

**M301**





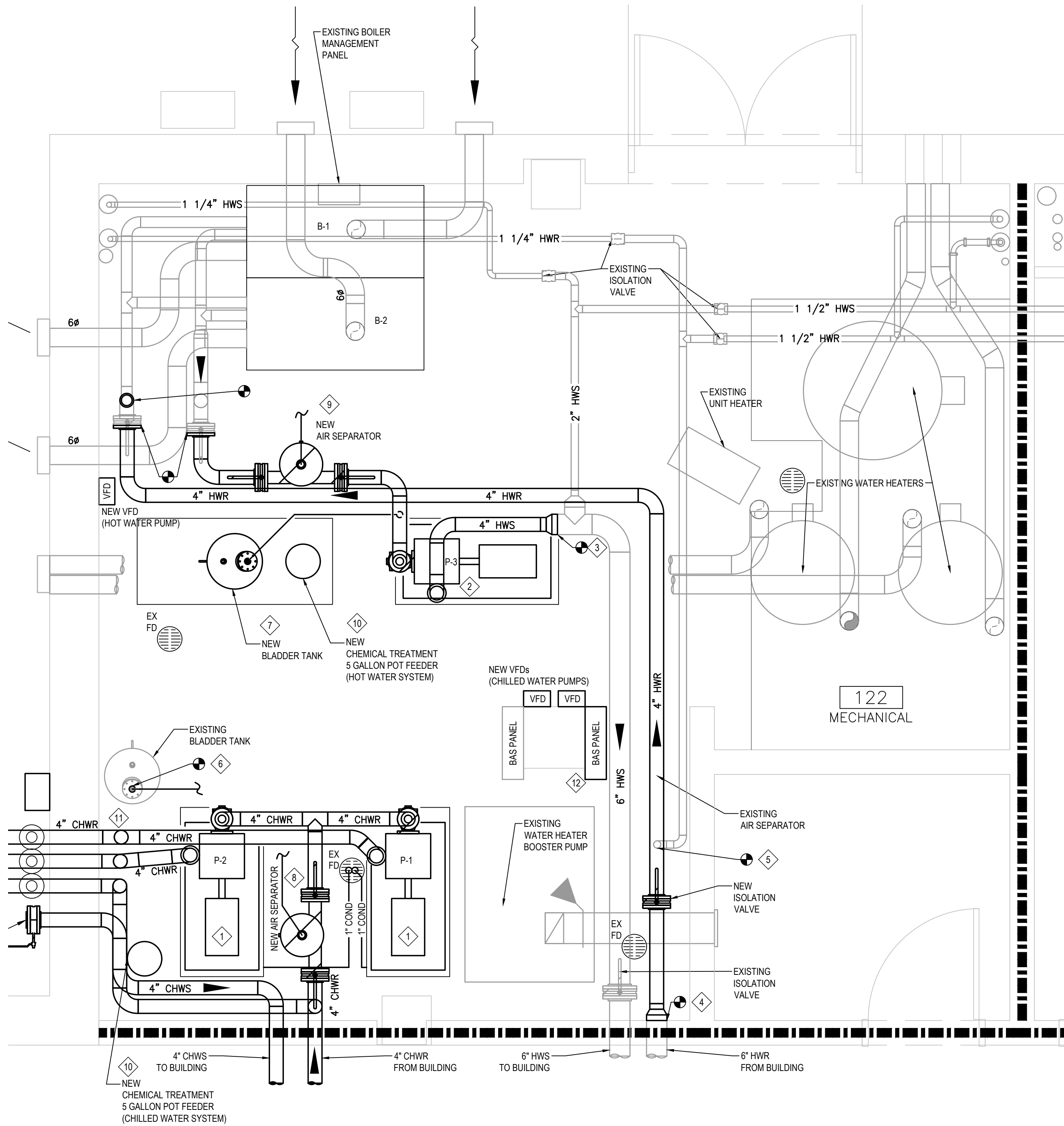
**1 MECHANICAL ROOM DEMO**  
M302 Scale: 1/2" = 1'-0"

**GENERAL NOTES:**

- THESE DRAWINGS ARE MADE IN PART FROM OWNER'S RECORD SETS FROM PREVIOUS PROJECTS. EXISTING PIPING AND DUCTWORK ARE SHOWN SCHEMATICALLY. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, PIPING, VALVES, DUCTWORK, CONDUITS, CONTROLS, ETC FOR EQUIPMENT CLEARANCES. NOT ALL EXISTING CONDITIONS ARE SHOWN AND SOME SHOWN IN PARTS. THE CONTRACTOR SHALL VISIT JOB SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO ANY WORK.
- FOR ADDITIONAL PIPING ACCESSORIES AND VALVES, REFER TO DETAILS AND SCHEMATICS.

**# DEMOLITION NOTES:**

- DEMOLISH EXISTING PUMP AND ASSOCIATED POWER (VFD/DISCONNECT) AND CONTROLS. EXISTING PUMP PAD SHALL REMAIN FOR REUSE.
- DEMOLISH EXISTING HOT WATER INLINE PUMP IN VERTICAL RISER AND ASSOCIATED POWER (VFD/DISCONNECT) AND CONTROLS. PROVIDE NEW PIPING IN PLACE OF DEMOLISHED PUMP.
- DEMOLISH EXISTING CHWS/R (QUANTITY 3) TO 12" AFF AND CAP. LEVEL OF FLOWABLE FILL IN CHW PIPES BELOW GRADE SHALL EXTEND AT A MINIMUM TO LEVEL WITH THE FINISHED FLOOR. REFER TO CHILLER YARD DEMOLITION PLAN FOR ADDITIONAL INFORMATION REGARDING FLOWABLE FILL.
- EXISTING BLADDER TANK SHALL REMAIN AND BE RE-USED FOR NEW CHILLED WATER SYSTEM.
- DEMOLISH EXISTING POT FEEDER AND ASSOCIATED PIPING.



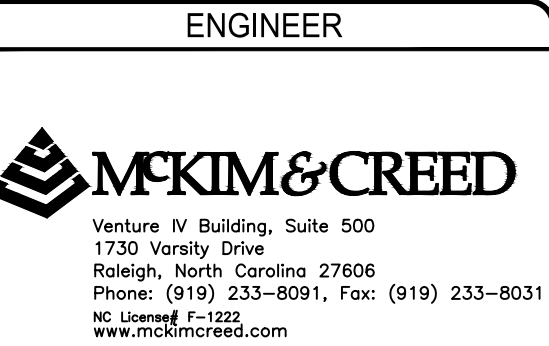
**2 MECHANICAL ROOM NEW**  
M302 Scale: 1/2" = 1'-0"

**◆ NEW WORK NOTES:**

- PROVIDE NEW CHILLED WATER PUMP AS SCHEDULED WITH NEW VFD. SECURE ON EXISTING CONCRETE PAD.
- PROVIDE NEW HOT WATER PUMP AS SCHEDULED WITH NEW VFD. SECURE ON EXISTING CONCRETE PAD.
- POINT OF CONNECTION FOR NEW HOT WATER SUPPLY PIPING.
- POINT OF CONNECTION FOR NEW HOT WATER RETURN PIPING.
- RECONNECT EXISTING HOT WATER RETURN PIPING TO NEW.
- EXISTING BLADDER TANK SHALL REMAIN AND BE RE-USED FOR NEW CHILLED WATER SYSTEM. PROVIDE NEW PIPING FROM EXISTING BLADDER TANK AND CONNECT TO COMMON CHILLED WATER RETURN.
- PROVIDE NEW BLADDER TANK FOR NEW HOT WATER SYSTEM AND CONNECT TO HOT WATER SUPPLY. SECURE ON EXISTING CONCRETE PAD.
- NEW 4" CHILLED WATER AIR SEPARATOR, ROUTE NEW PIPING TO EXISTING COLD WATER MAKE-UP.
- NEW 4" HOT WATER AIR SEPARATOR, ROUTE NEW PIPING TO EXISTING COLD WATER MAKE-UP.
- PROVIDE NEW 5 GALLON POT FEEDER FOR BOTH CHILLED AND HOT WATER SYSTEM INDEPENDENTLY. ROUTE PIPING TO COMMON SUCTION / DISCHARGE.
- BASE BID. EXISTING UNDERGROUND PIPING TO CHILLERS REMAINS. CHWS/R CONNECTIONS OCCUR APPROXIMATELY 36" AFF.
- ALTERNATE M2. NEW CHW PIPING TO/FROM CHILLERS. CHWS/R (QUANTITY 3) TURN DOWN AND EXIT EXTERIOR WALL AT 24" AFF. EXTERIOR PENETRATIONS SHALL BE CORE DRILLED AND SEALED WITH A WATERTIGHT SEAL (LINK SEAL OR EQUIVALENT).
- PROVIDE ADDITIONAL BAS PANEL AS NECESSARY FOR CONTROLS EXPANSION.

FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

12" 6" 0 1' 2' 3' 4' 5'  
1/2"=1'-0"



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

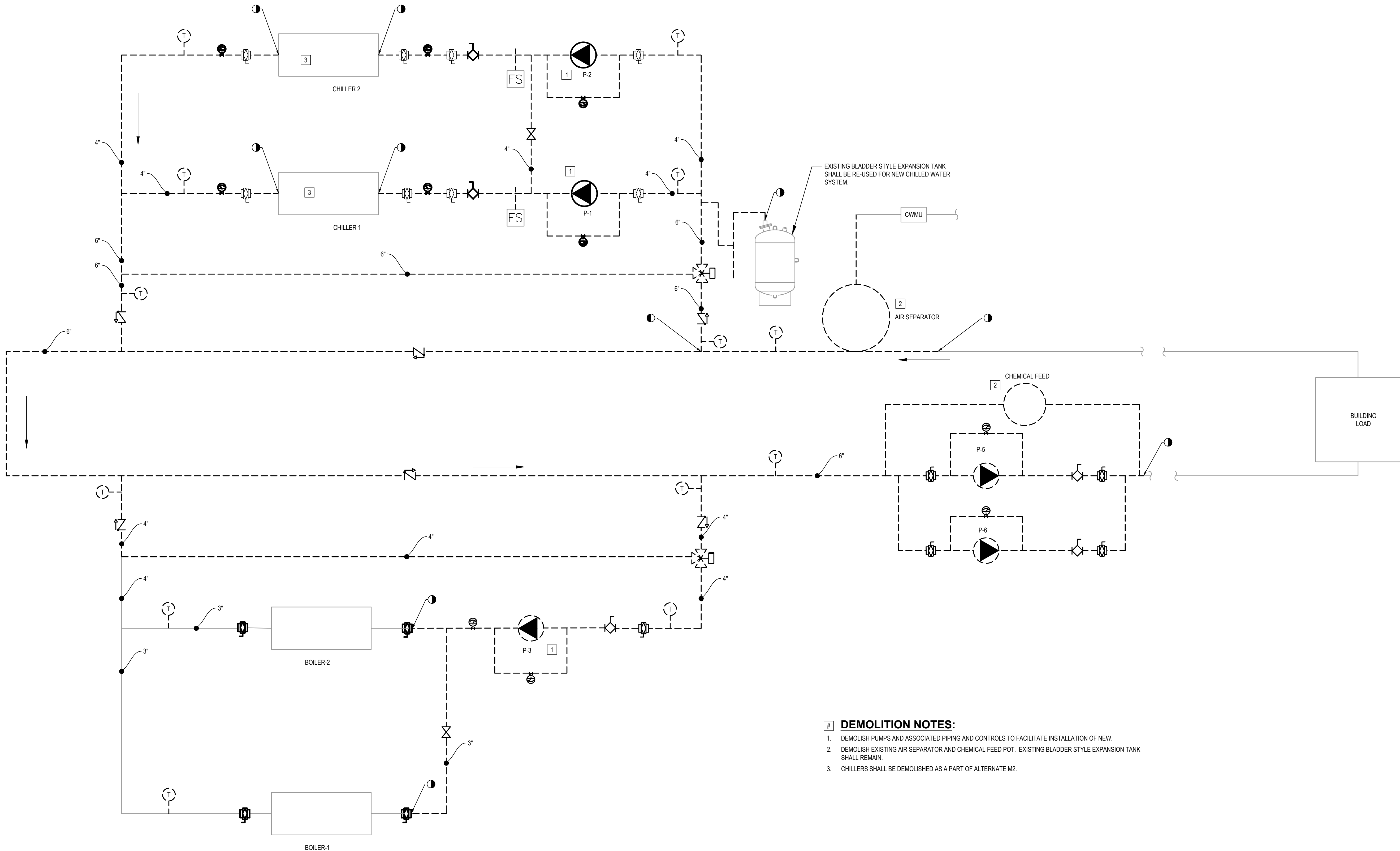
DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ENLARGED MECHANICAL  
ROOM DEMO & NEW  
WORK PLANS

**M302**





- # DEMOLITION NOTES:
- DEMOLISH PUMPS AND ASSOCIATED PIPING AND CONTROLS TO FACILITATE INSTALLATION OF NEW.
  - DEMOLISH EXISTING AIR SEPARATOR AND CHEMICAL FEED POT. EXISTING BLADDER STYLE EXPANSION TANK SHALL REMAIN.
  - CHILLERS SHALL BE DEMOLISHED AS A PART OF ALTERNATE M2.

1  
M400 HYDRONIC PIPING DIAGRAM  
Scale: N/A

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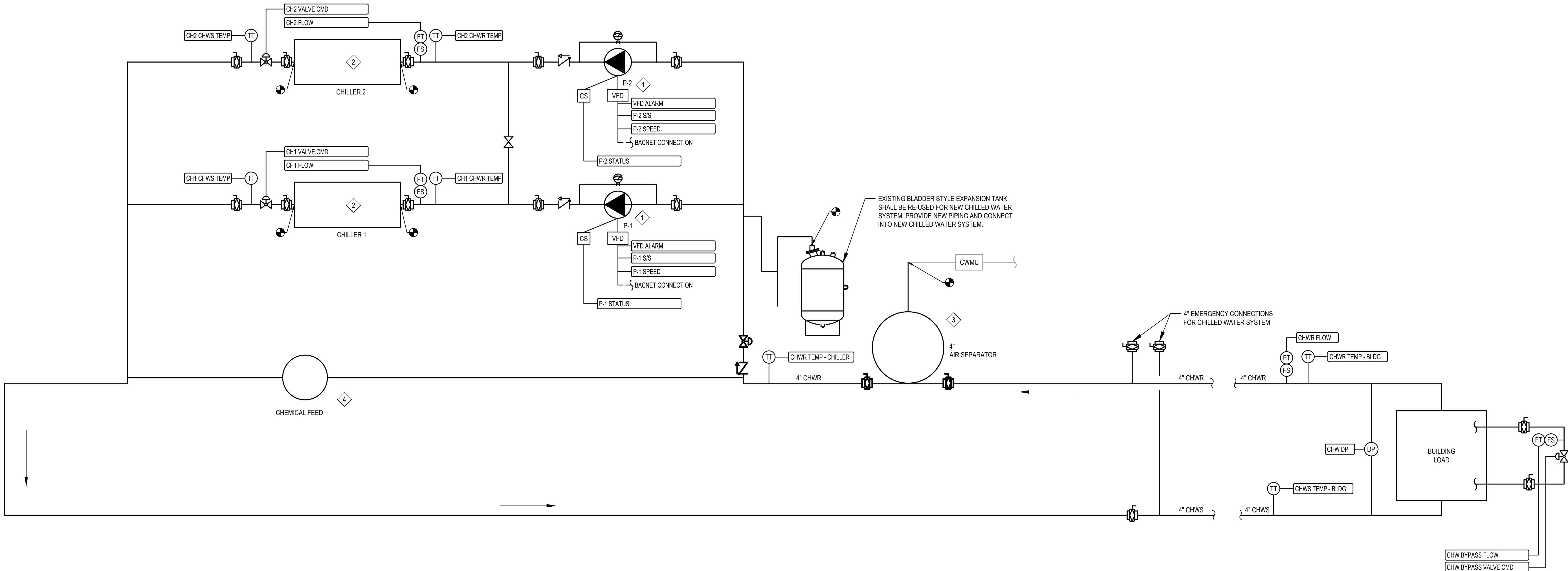
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PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

PIPING SCHEMATICS

**M400**





**1**  
**M401** **CHILLED WATER HYDRONIC PIPING DIAGRAM**  
Scale: N/A

CHW BYPASS FLOW  
CHW BYPASS VALVE CMD  
SEE SHEET M200  
FOR LOCATION OF  
MINIMUM FLOW BYPASS

POINTS LIST									
POINT DESCRIPTOR	POINT TYPE							ALARM	NOTES
	DI	AI	DO	AO	VP	TREN	CEM		
CHW DP			•					•	
CHW DP SETPOINT					•				
CHWR FLOW			•					•	
P-1 SIS				•					
P-1 SPEED				•				•	
P-1 SPEED FEEDBACK			•					•	
P-1 STATUS	•							•	
P-2 SIS			•						
P-2 SPEED				•				•	
P-2 SPEED FEEDBACK			•					•	
P-2 STATUS	•							•	
CHWR TEMP - CHILLERS			•					•	
CHWS TEMP - BLDG			•					•	
CHWR TEMP - BLDG			•					•	
CH-1 VALVE CMD				•				•	
CH-1 FLOW			•					•	
CH-2 VALVE CMD				•				•	
CH-2 FLOW			•					•	
CHW BYPASS VALVE CMD				•				•	
CHW BYPASS FLOW			•					•	
CH-1 CHWS TEMP			•					•	
CH-1 CHWR TEMP			•					•	
CH-2 CHWS TEMP			•					•	
CH-2 CHWR TEMP			•					•	

- # NEW WORK NOTES:**
1. PROVIDE PUMPS AS PER SCHEDULE.
  2. PROVIDE NEW CHILLERS AS A PART OF ALTERNATE M2.
  3. PROVIDE NEW AIR SEPARATOR IN CHILLED WATER SYSTEM.
  4. PROVIDE NEW CHEMICAL FEED POT.

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REV	REVISION DESCRIPTION	DATE

REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

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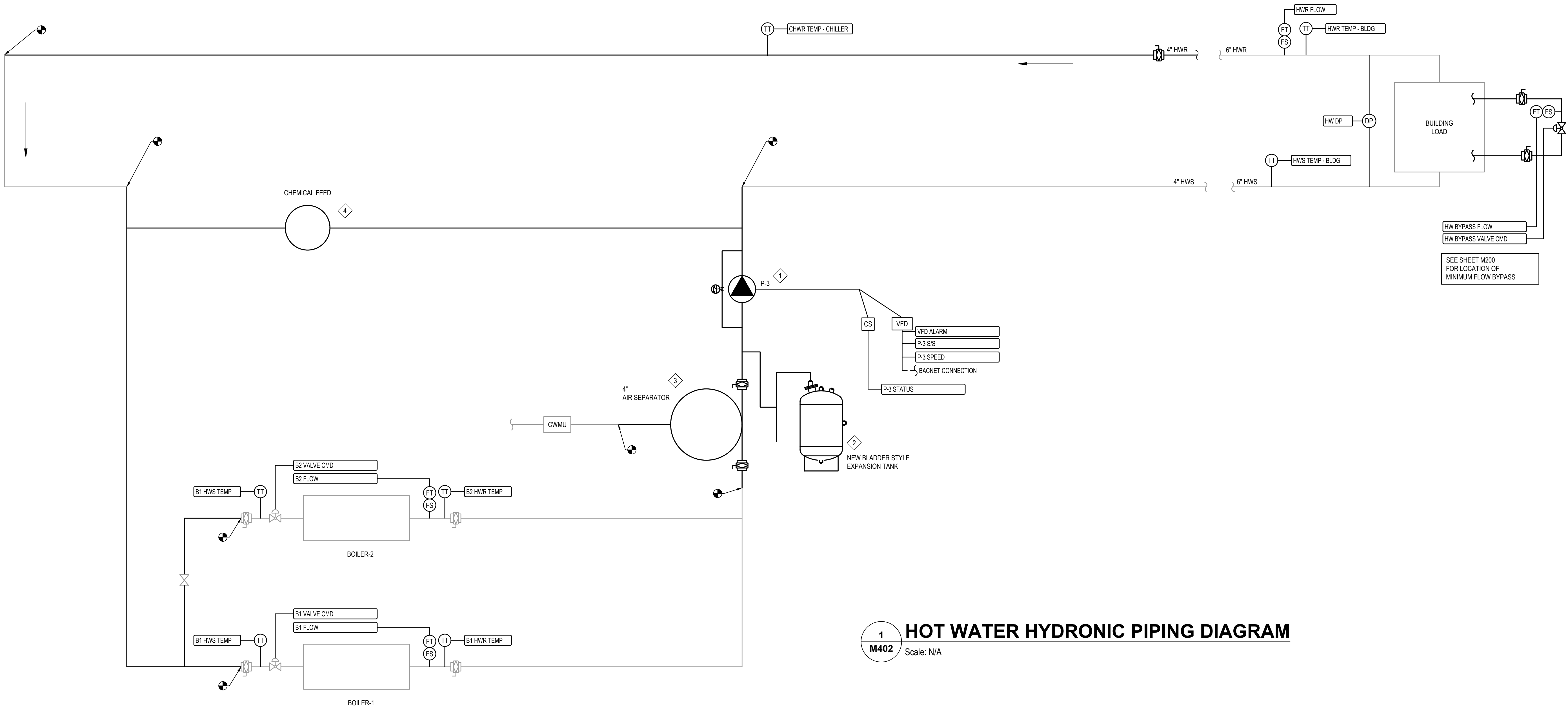
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DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

PIPING SCHEMATICS

**M401**





**1**  
**M402** **HOT WATER HYDRONIC PIPING DIAGRAM**  
Scale: N/A

POINTS LIST									
POINT DESCRIPTOR	POINT TYPE								NOTES
	DI	AI	DO	AO	VP	ALARM	TREND		
HW DP		•				•	•		
HW DP SETPOINT					•				
HWR FLOW		•					•		
P-3 S/S			•						
P-3 SPEED				•			•		
P-3 SPEED FEEDBACK		•					•		
P-3 STATUS	•					•			
HWR TEMP - BOILERS		•					•		
HWS TEMP - BLDG		•					•		
HWR TEMP - BLDG		•					•		
B-1 VALVE CMD				•			•		
B-1 FLOW		•					•		
B-2 VALVE CMD				•			•		
B-2 FLOW		•					•		
HW BYPASS VALVE CMD				•			•		
HW BYPASS FLOW		•					•		
B-1 HWS TEMP		•					•		
B-1 HWR TEMP		•					•		
B-2 HWS TEMP		•					•		
B-2 HWR TEMP		•					•		


- # NEW WORK NOTES:**
- PROVIDE PUMPS AS PER SCHEDULE.
  - PROVIDE NEW BLADDER STYLE EXPANSION TANK FOR HOT WATER SYSTEM.
  - PROVIDE NEW AIR SEPARATOR IN HOT WATER SYSTEM.
  - PROVIDE NEW CHEMICAL FEED POT.

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DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

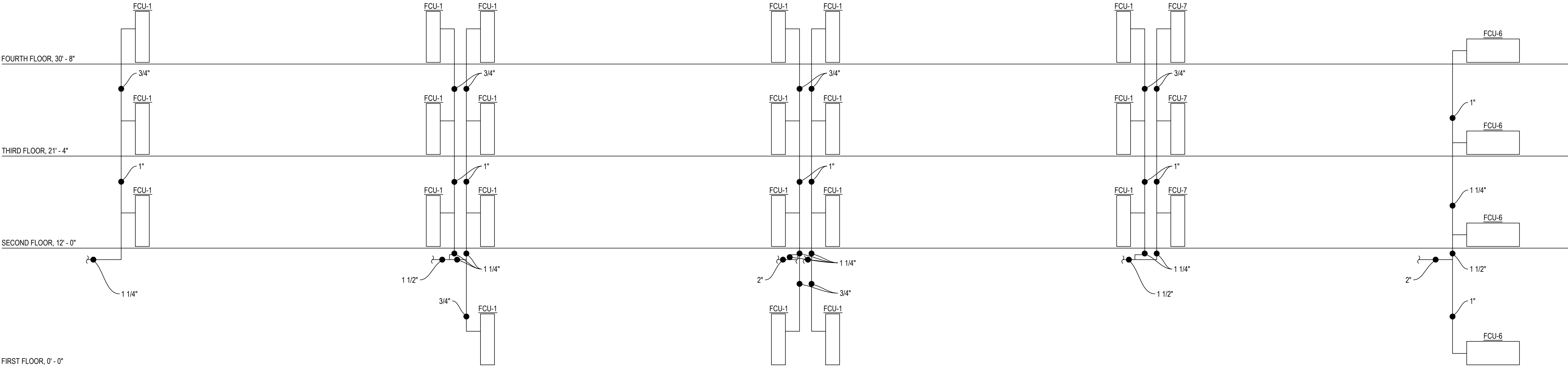
CONSTRUCTION DOCUMENTS

PIPING SCHEMATICS

**M402**



ROOF/PENTHOUSE, 40' - 0" LOW  
43' - 4" HIGH



**2 RISER R1**  
M403 Scale: N/A

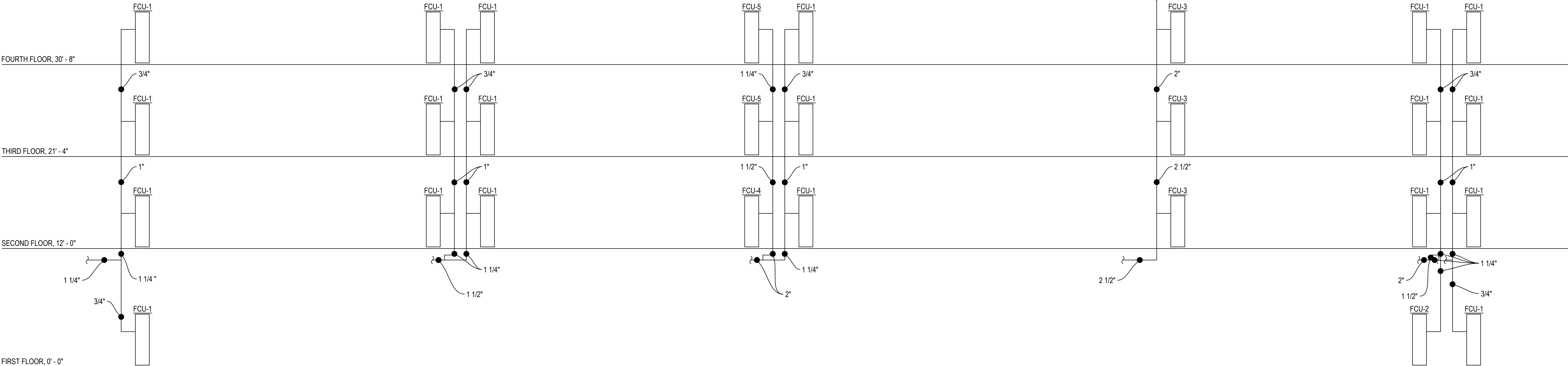
**2 RISER R2, R4, R10**  
M403 Scale: N/A

**3 RISER R3, R8, R9, R16,  
R17, R18, R21, R22, R23**  
M402 Scale: N/A

**4 RISER R5**  
M403 Scale: N/A

**5 RISER R6, R19**  
M403 Scale: N/A

ROOF/PENTHOUSE, 40' - 0" LOW  
43' - 4" HIGH



**6 RISER R7, R12, R15, R20**  
M403 Scale: N/A

**7 RISER R11**  
M403 Scale: N/A

**8 RISER R13**  
M403 Scale: N/A

**9 RISER R14**  
M403 Scale: N/A

**10 RISER R24**  
M403 Scale: N/A

**GENERAL NOTES:**

- THESE DRAWINGS ARE MADE IN PART FROM OWNER'S RECORD SETS FROM PREVIOUS PROJECT AND ARE SHOWN DIAGRAMMATICALLY ONLY.
- EXISTING TWO PIPE SYSTEM SHALL BE REPURPOSED AS NEW HW RISERS.
- HWS/R AND CHWS/R RISERS SHALL BE SAME DIAMETER PIPE.
- PROVIDE DRAIN AT BASE OF RISERS. PROVIDE AIR VENT AT TOP OF RISERS.
- INSULATION TO BE CONTINUOUS THROUGH FLOOR PENETRATIONS.

OWNER



ENGINEER



ARCHITECT



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

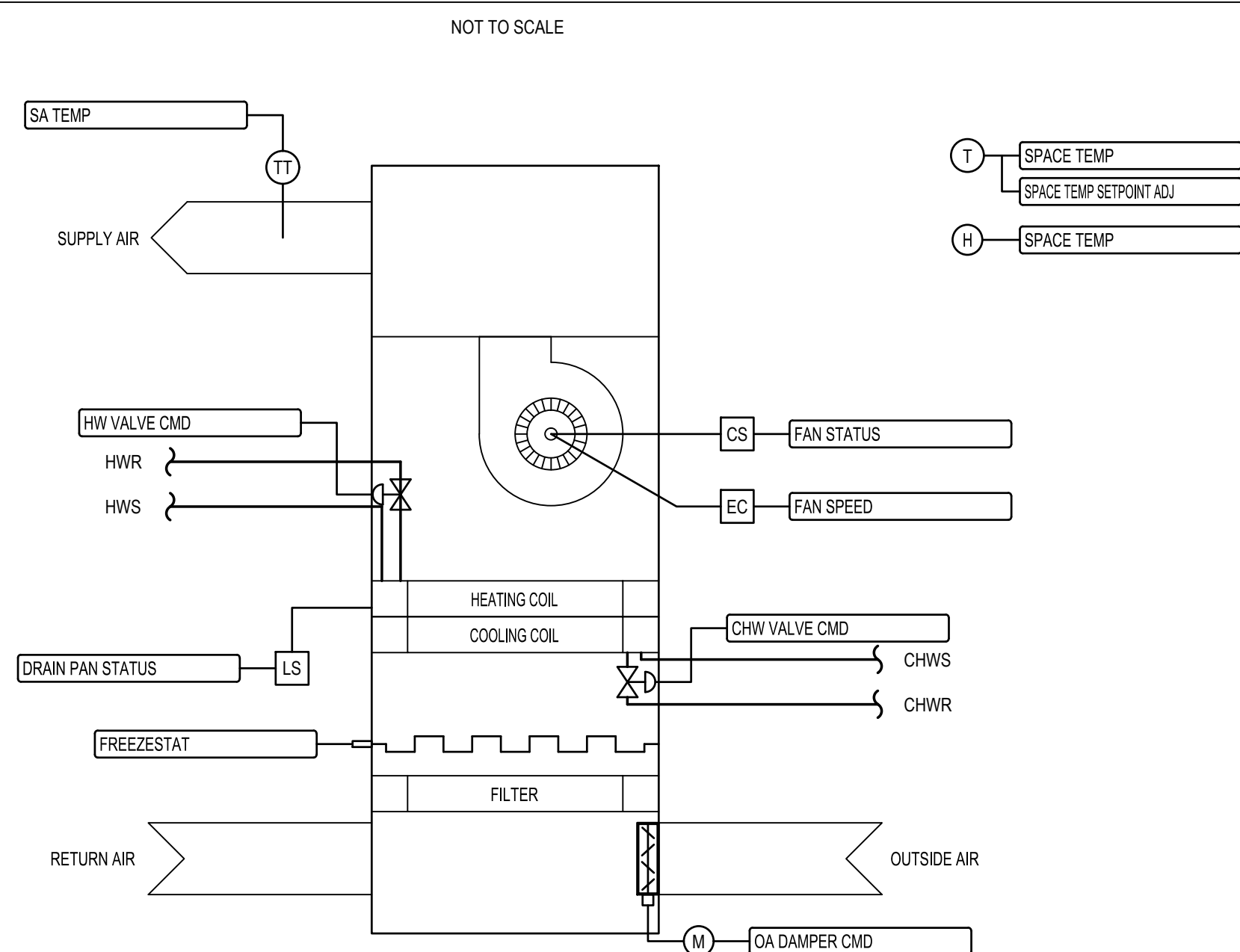
CONSTRUCTION DOCUMENTS

PIPING RISERS

**M403**



## TYPICAL FAN COIL UNIT



POINTS LIST								
POINT DESCRIPTOR	POINT TYPE					TREND	CEM	NOTES
	DI	AI	DO	AO	VP			
CHW VALVE CMD				X		X		
DRAIN PAN STATUS	X				X			
FAN SPEED				X				
FAN STATUS	X					X		
FREEZESTAT	X					X		
HWW VALVE CMD				X		X		
OA DAMPER CMD				X				
SA TEMP		X				X	X	
SPACE RELATIVE HUMIDITY		X				X		
SPACE TEMP		X				X		
SPACE TEMP SETPOINT ADJ		X				X		

**FAN OPERATION**  
FAN SPEED SHALL BE MODULATED AS INDICATED IN THE ZONE TEMPERATURE CONTROL SEQUENCE. THE FAN SHALL BE OFF WHEN THE ZONE SETPOINT IS MET. AN AIR CIRCULATION SEQUENCE SHALL TURN THE FAN ON LOW FOR 3 MINUTES EVERY 20 MINUTES TO ENSURE THE THERMOSTAT IS READING THE AVERAGE ROOM TEMPERATURE.

[illegible]

## SEQUENCE OF OPERATION

## HUMIDIFICATION

THE UNIT COMBINATION THERMOSTAT AND HUMIDISTAT SHALL MEASURE THE SPACE HUMIDITY. UPON AN INCREASE IN RELATIVE HUMIDITY ABOVE 58%, THE CHILLED WATER VALVE SHALL FULLY OPEN AND THE HOT WATER VALVE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON A DECREASE IN SPACE HUMIDITY BELOW 54%, THE UNIT SHALL RETURN TO NORMAL OPERATION.

## ZONE TEMPERATURE CONTROL

THE FAN SHALL OPERATE AT MINIMUM SPEED TO MEET THE ZONE SETPOINT. UPON AN INCREASE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT, THE CHILLED WATER VALVE SHALL MODULATE OPEN TO MAINTAIN SETPOINT. ONCE THE DISCHARGE AIR TEMPERATURE DROPS TO 55°F, THE FAN SPEED SHALL MODULATE UP TO MEET SETPOINT WHILE THE CHILLED WATER VALVE MODULATES TO MAINTAIN 55°F DISCHARGE AIR TEMPERATURE. UPON A DECREASE IN THE SPACE TEMPERATURE, THE FAN SHALL MODULATE DOWN AND THE CHILLED WATER VALVE SHALL MODULATE CLOSED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON A FURTHER DECREASE IN THE SPACE TEMPERATURE BELOW THE COOLING SETPOINT, THE CHILLED WATER VALVE SHALL FULLY CLOSE, THE OUTSIDE AIR DAMPER SHALL CLOSE, AND THE FAN SHALL SHUT OFF. UPON A DECREASE IN THE SPACE TEMPERATURE BELOW THE HEATING SETPOINT, THE HOT WATER VALVE SHALL MODULATE OPEN TO MAINTAIN SETPOINT. ONCE THE DISCHARGE AIR TEMPERATURE INCREASES TO 85°F, THE FAN SPEED SHALL MODULATE UP TO MEET SETPOINT WHILE THE HOT WATER VALVE MODULATES TO MAINTAIN 85°F DISCHARGE AIR TEMPERATURE. UPON AN INCREASE IN THE SPACE TEMPERATURE, THE FAN SHALL MODULATE DOWN AND THE HOT WATER VALVE SHALL MODULATE CLOSED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

## FAN OPERATION (AHU-1 & 2)

FAN SPEED SHALL BE MODULATED AS INDICATED IN THE ZONE TEMPERATURE CONTROL SEQUENCE. THE FAN SHALL RUN CONTINUOUSLY WHEN IN OCCUPIED MODE. IN UNOCCUPIED MODE, AN AIR CIRCULATION SEQUENCE SHALL TURN THE FAN ON LOW FOR 3 MINUTES EVERY HOUR TO ENSURE THE THERMOSTAT IS READING THE AVERAGE ROOM TEMPERATURE.

## FAN OPERATION (AHU-3)

FAN SPEED SHALL BE MODULATED AS INDICATED IN THE ZONE TEMPERATURE CONTROL SEQUENCE. THE FAN SHALL BE OFF WHEN THE ZONE SETPOINT IS MET. AN AIR CIRCULATION SEQUENCE SHALL TURN THE FAN ON LOW FOR 3 MINUTES EVERY HOUR TO ENSURE THE THERMOSTAT IS READING THE AVERAGE ROOM TEMPERATURE.

## ECONOMIZER

WHEN THE OUTSIDE AIR TEMPERATURE DROPS BELOW 55°F AND THERE IS A CALL FOR COOLING, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN BEYOND ITS MINIMUM VENTILATION SETPOINT TO MEET THE SPACE TEMPERATURE SETPOINT PRIOR TO OPENING THE CHILLED WATER VALVE.

## FREEZE PROTECTION

UPON ACTIVATION OF THE FREEZEAST, THE OUTSIDE AIR DAMPER SHALL CLOSE, THE CHILLED WATER AND HOT WATER VALVES SHALL FULLY OPEN, AND THE FAN SHALL SHUT OFF.

**GENERAL**  
UNLESS NOTED OTHERWISE, ALL SYSTEMS SHALL HAVE COMPLETE CONTROLS SURFACE GRAPHICS (INCLUDING FLOOR PLANS WITH SPACE TEMPERATURES) AND ALL SETPOINTS SHALL BE ADJUSTABLE.

**MODES**  
THE UNIT SHALL OPERATE ACCORDING TO A USER DEFINABLE SCHEDULE (DATE AND TIME) IN THE EITHER OCCUPIED MODE OR UNOCCUPIED MODE. AN EASILY ADJUSTABLE SCHEDULE SHALL BE ESTABLISHED TO ALLOW THE PROGRAMMING OF SCHEDULES FOR A MINIMUM OF 1 YEAR FROM THE CURRENT DATE.

ALL FAN COIL UNITS SHALL BE IN OCCUPIED MODE EXCEPT AS ESTABLISHED BY THE PROGRAMMABLE OCCUPANCY SCHEDULE OR MANUAL OVERRIDES. ALL UNIT OCCUPANCY STATUSES SHALL BE ADJUSTABLE INDIVIDUALLY OR ALL AT ONCE FROM THE BAS WITH A SINGLE COMMAND (I.E. NOT REQUIRING MANUAL ADJUSTMENT FOR EACH UNIT).

**ZONE SETPOINTS**  
EACH UNIT SHALL HAVE HEATING AND COOLING OCCUPIED AND UNOCCUPIED SETPOINTS. THE OCCUPIED SETPOINTS SHALL BE LIMITED BY THE BAS. INITIAL VALUES SHALL BE:

- UNOCCUPIED HEATING: 60°F
- UNOCCUPIED COOLING: 80°F
- OCCUPIED HEATING RANGE: 60°F-70°F
- OCCUPIED COOLING RANGE: 75°F-80°F

THE OCCUPANT SHALL BE ABLE TO ADJUST THE OCCUPIED HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR WITHIN THE ALLOWABLE RANGE. THE OWNER SHALL BE ABLE TO OVERRIDE THE USER SELECTED SETPOINT AND ALSO ADJUST THE UNOCCUPIED HEATING AND COOLING VALUES.

ALL SETPOINTS SHALL BE ADJUSTABLE INDIVIDUALLY OR ALL AT ONCE FROM THE BAS WITH A SINGLE COMMAND.

**OUTSIDE AIR**  
THE OUTSIDE AIR DAMPER SHALL HAVE A FIXED OPEN POSITION ESTABLISHED THROUGH TEST AND BALANCE TO MEET THE OUTSIDE AIR REQUIREMENTS OF THE SYSTEM AS LISTED. TO MAINTAIN THE SPECIFIED OUTSIDE AIR DAMPER SHALL OPEN WHEN THE FAN IS RUNNING AND CLOSE WHEN THE FAN IS OFF. IN UNOCCUPIED MODE, THE DAMPER SHALL REMAIN CLOSED EVEN WHEN THE UNIT TURNS ON TO MAINTAIN UNOCCUPIED SETPOINTS.

**ZONE TEMPERATURE CONTROL**  
THE FAN SHALL OPERATE AT MINIMUM SPEED TO MEET THE ZONE SETPOINT. UPON AN INCREASE IN THE SPACE TEMPERATURE ABOVE THE COOLING SETPOINT, THE CHILLED WATER VALVE SHALL MODULATE OPEN TO MAINTAIN SETPOINT. ONCE THE DISCHARGE TEMPERATURE RISES TO 55°F, THE FAN SPEED SHALL MODULATE UP TO MEET SETPOINT WHILE THE CHILLED WATER VALVE MODULATES TO MAINTAIN 55°F DISCHARGE AIR TEMPERATURE. UPON A DECREASE IN THE SPACE TEMPERATURE THE FAN SHALL MODULATE DOWN AND THE CHILLED WATER VALVE SHALL MODULATE CLOSE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON A FURTHER DECREASE IN THE SPACE TEMPERATURE BELOW THE COOLING SETPOINT,

THE CHILLED WATER VALVE SHALL FULLY CLOSE, THE OUTSIDE AIR DAMPER SHALL CLOSE, AND THE FAN SHALL SHUT OFF. UPON A DECREASE IN THE SPACE TEMPERATURE BELOW THE HEATING SETPOINT, THE HOT WATER VALVE SHALL FULLY OPEN TO MAINTAIN SETPOINT. ONCE THE DISCHARGE AIR TEMPERATURE INCREASES TO 85°F, THE FAN SHALL MODULATE UP TO MEET SETPOINT WHILE THE HOT WATER VALVE MODULATES TO MAINTAIN 85°F DISCHARGE AIR TEMPERATURE. UPON AN INCREASE IN THE SPACE TEMPERATURE, THE FAN SHALL MODULATE DOWN AND THE HOT WATER VALVE SHALL MODULATE CLOSED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

**FAN OPERATION**

FAN SPEED SHALL BE MODULATED AS INDICATED IN THE ZONE TEMPERATURE CONTROL SEQUENCE. THE FAN SHALL BE OFF WHEN THE ZONE SETPOINT IS MET. AN ALTERNATE OPERATION SEQUENCE SHALL TURN THE FAN ON LOW FOR 3 MINUTES EVERY 20 MINUTES TO ENSURE THE THERMOSTAT IS READING THE AVERAGE ROOM TEMPERATURE.

**DEHUMIDIFICATION**

THE UNIT COMBINATION THERMOSTAT AND HUMIDISTAT SHALL MEASURE THE SPACE HUMIDITY. UPON AN INCREASE IN RELATIVE HUMIDITY ABOVE 58%, THE FAN SHALL OPERATE AT MINIMUM SPEED, THE CHILLED WATER VALVE SHALL FULLY OPEN AND THE HOT WATER VALVE SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON A DECREASE IN SPACE HUMIDITY BELOW 54%, THE UNIT SHALL RETURN TO NORMAL OPERATION.

**ECONOMIZER**

WHEN THE OUTSIDE AIR TEMPERATURE DROPS BELOW 55°F AND THERE IS A CALL FOR COOLING, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN BEYOND ITS MINIMUM VENTILATION SETPOINT TO MEET THE SPACE TEMPERATURE SETPOINT PRIOR TO OPENING THE CHILLED WATER VALVE.

**FREEZE PROTECTION**

UPON ACTIVATION OF THE FREEZESTAT, THE OUTSIDE AIR DAMPER SHALL CLOSE, THE CHILLED WATER VALVE SHALL MODULATE CLOSED, THE HOT WATER VALVE SHALL FULLY OPEN, AND THE FAN SHALL SHUT OFF.

# FSU MCLEOD HALL HVAC REPLACEMENT

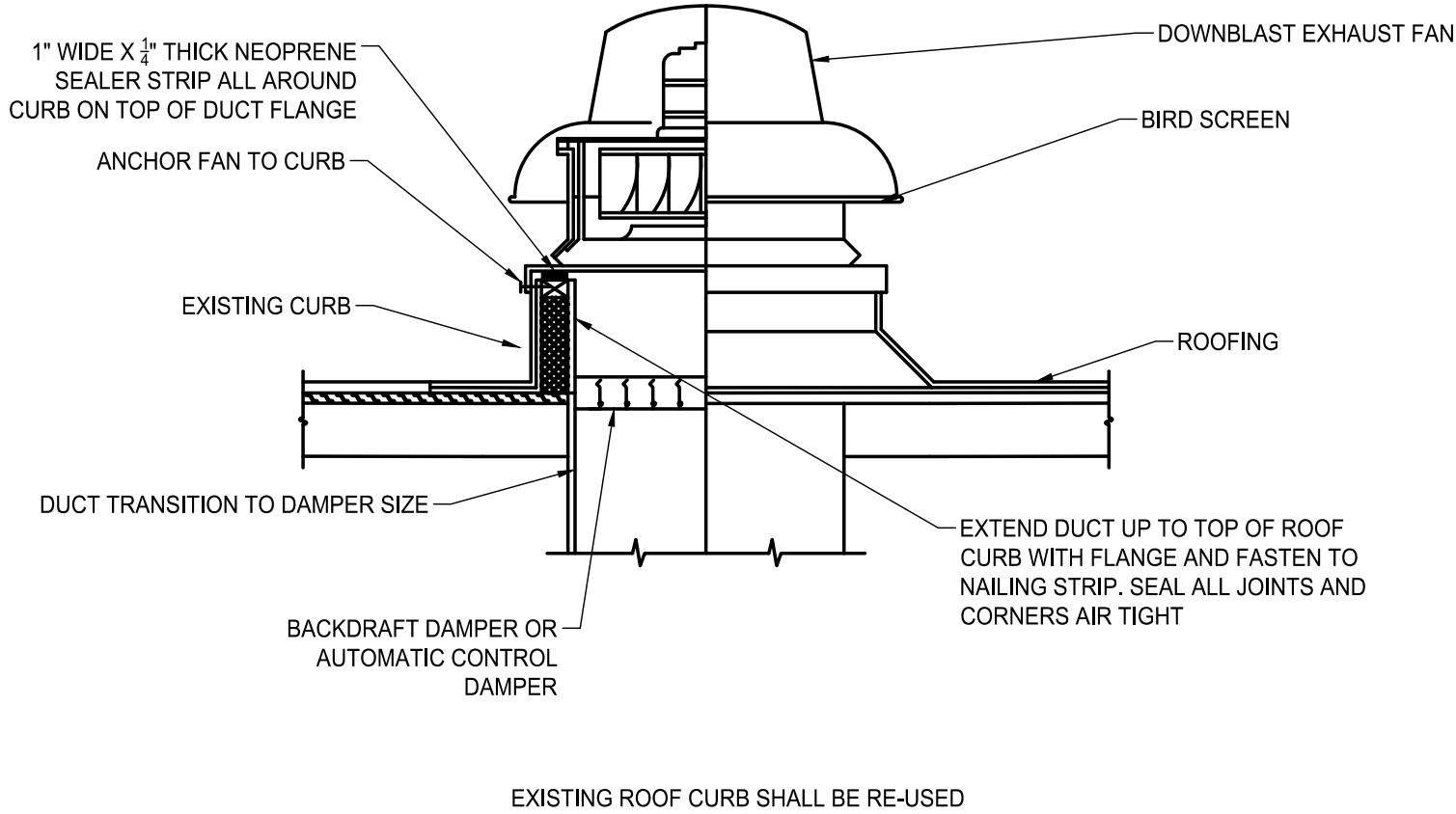
DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	XXX
DESIGNED	XXX
CHECKED	XXX
PROJ. MGR.	DJW

## CONSTRUCTION DOCUMENTS

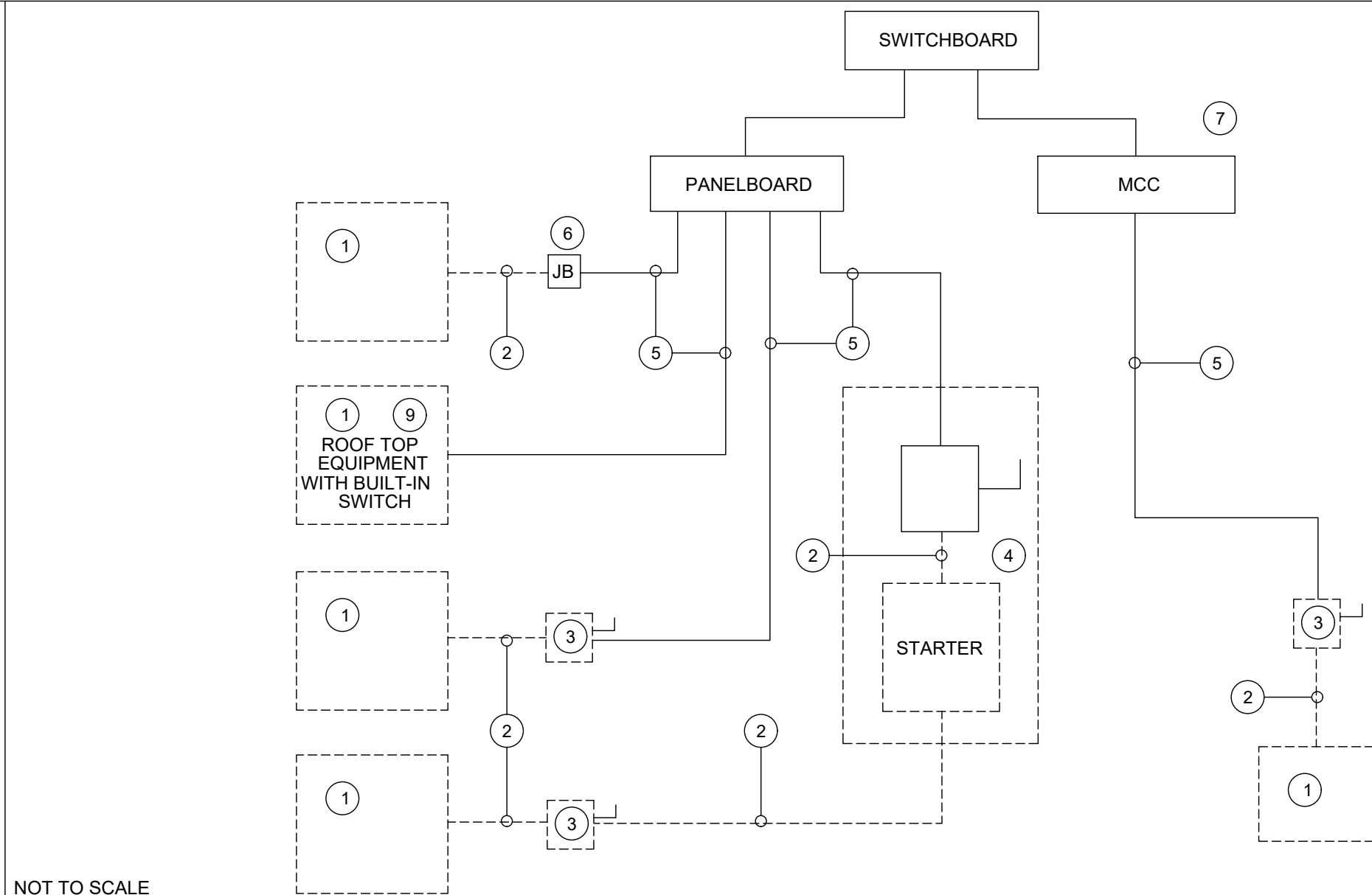
## MECHANICAL CONTROLS

# M500



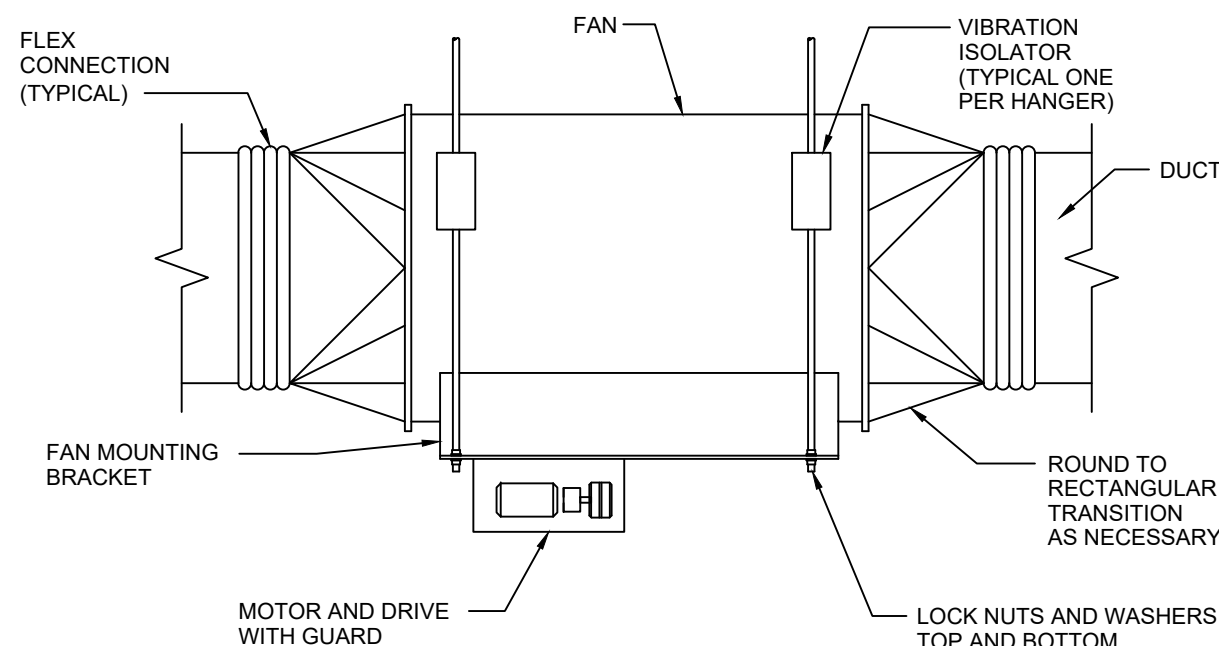


1 DOWNBLAST ROOF MOUNTED EXHAUST FAN DETAIL

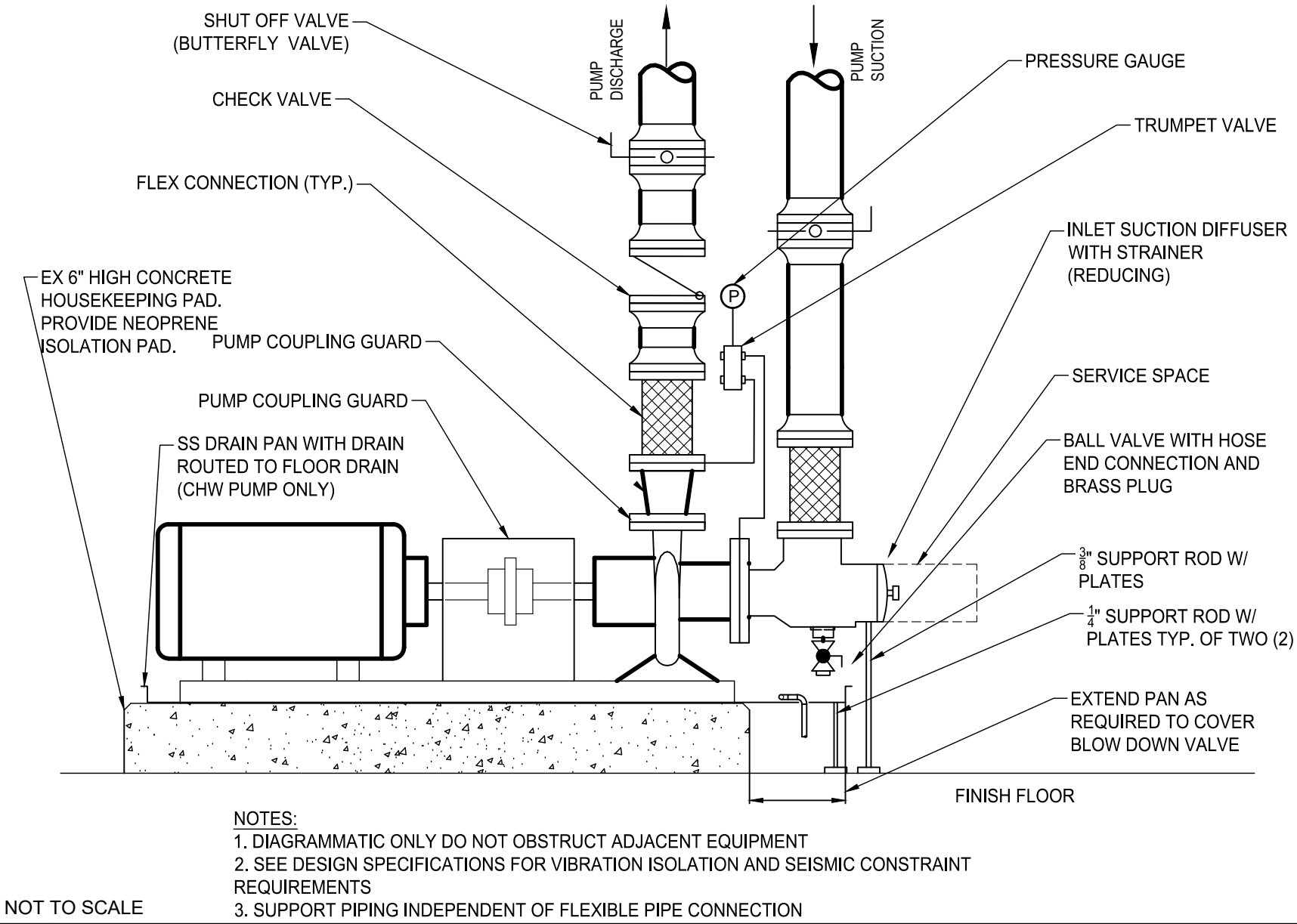


2 ELECTRICAL EQUIPMENT CONNECTIONS

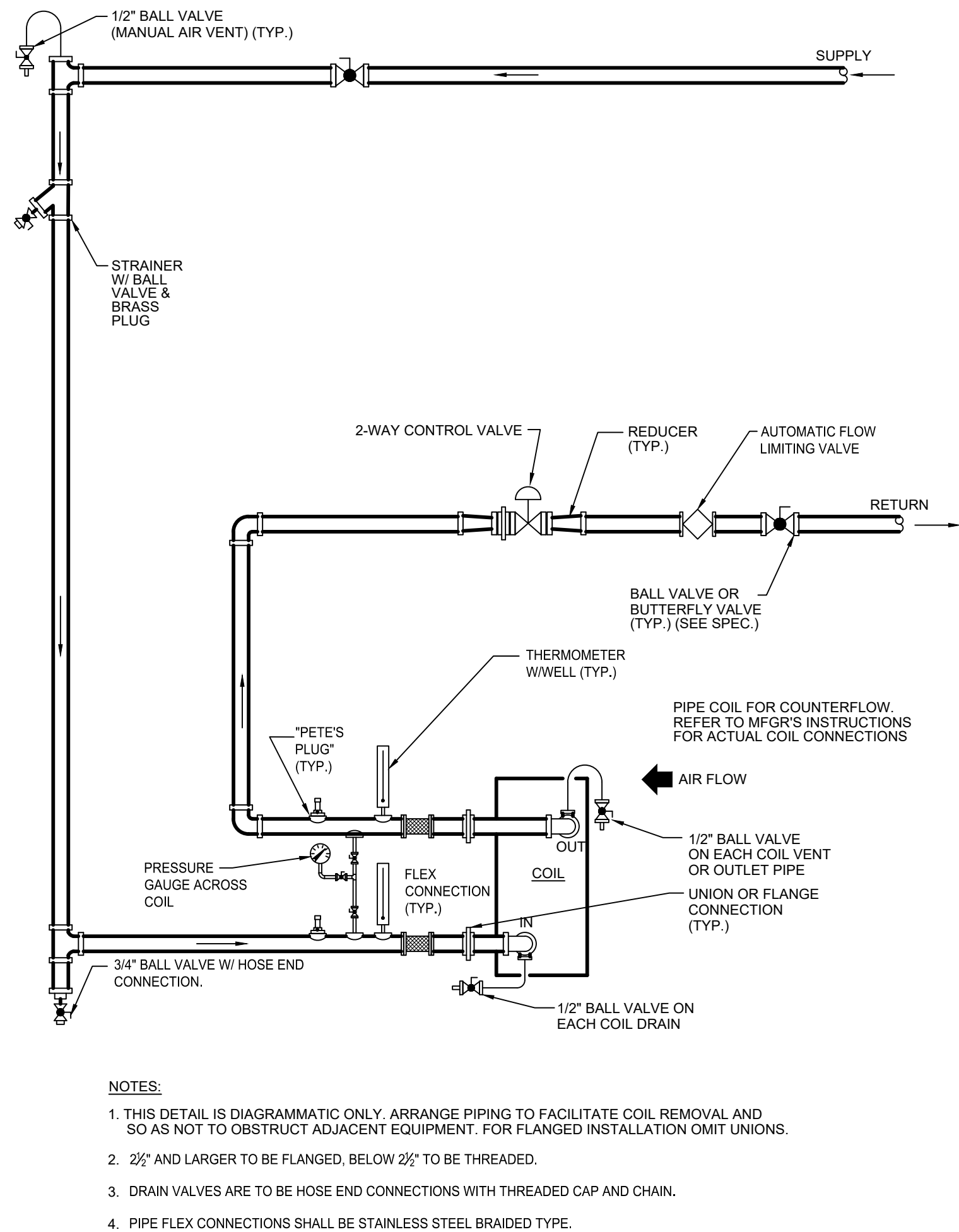
- ELECTRICAL NOTES
- UNLESS OTHERWISE NOTED ON THE PLANS:
- EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
  - CONDUIT AND WIRING BY HVAC, PLUMBING, OR OTHER TRADES.
  - IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
  - A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
  - FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
  - JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT IF NO STARTER OR DISCONNECT IS SUPPLIED. A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
  - PROJECTS UTILIZING AN MCC, THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
  - IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
  - IF THE ROOF TOP EQUIPMENT IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.



7 INLINE FAN INSTALLATION

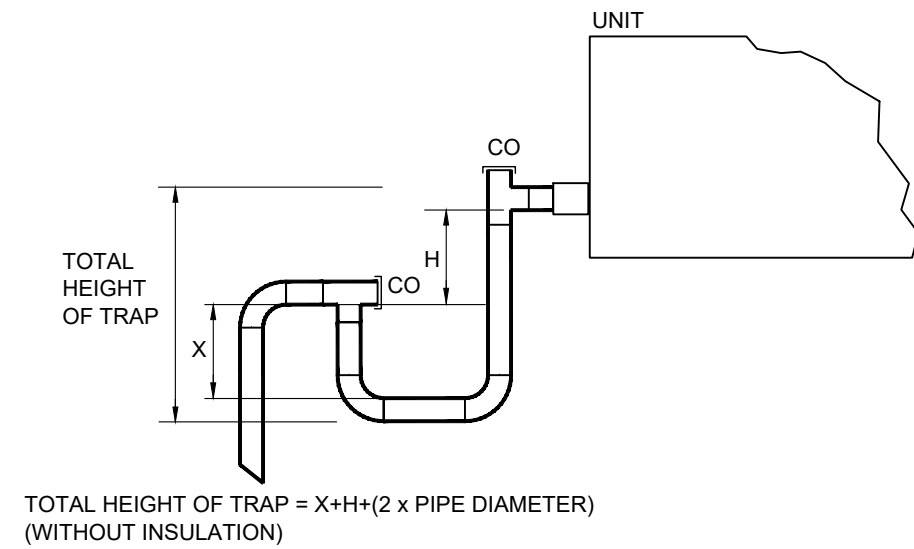


6 BASE MOUNTED PUMP PIPING DETAIL

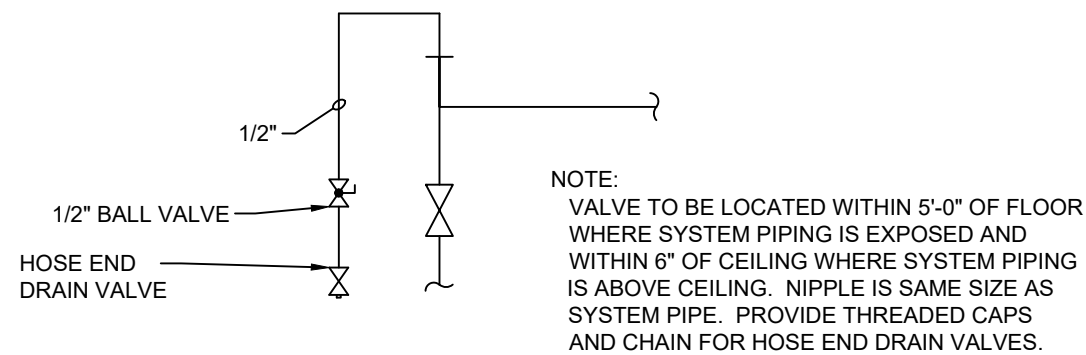


5 CHILLED / RE-HEAT HOT WATER COIL PIPING

BLOW THROUGH	DRAW THROUGH
X = MIN. 1" PLUS CASING STATIC PRESSURE	X = 1/2 "H"
H = MIN. 1"	H = MIN. 1" PLUS CASING STATIC PRESSURE



3 CONDENSATE TRAP



4 MANUAL AIR VENT



REV	REVISION DESCRIPTION	DATE

## FSU MCLEOD HALL HVAC REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

MECHANICAL DETAILS

M600



# FSU MCLEOD HALL HVAC REPLACEMENT

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

## MECHANICAL DETAILS

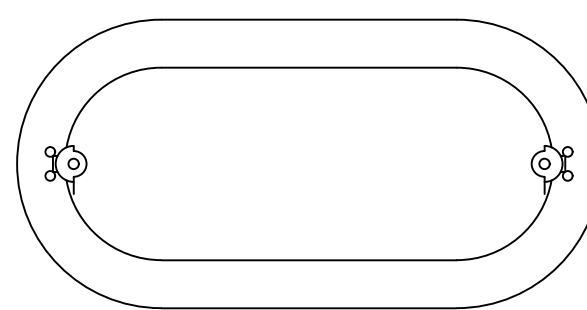
# M601



DUCT SIZE	MINIMUM DOOR SIZE	MAXIMUM LEAKAGE
< 18"	12" x 6"	0.064 CFM
18" TO 28"	18" x 10"	0.133 CFM
> 28"	21" x 14"	0.206 CFM
BODY ACCESS	25" x 17"	0.286 CFM

NOTES:

1. FIELD INSPECT EACH ACCESS DOOR LOCATION AND PROVIDE THE MAXIMUM SIZE AND SHAPE PRACTICAL.
2. ACCESS PANELS/DOORS SHALL BE FLAT OVAL INSULATED (1" THICK) AND SHALL BE SMACNA TYPE MANUFACTURED BY NAILOR MODEL NO. 0800 TYPE M1 DOUBLE FLANGE FRAME OR EQUAL.
3. KNOCK-OVER TAB FRAMES ARE NOT PERMITTED.



NOT TO SCALE

This schematic diagram illustrates the correct installation of a bladder type expansion tank. The tank is oriented vertically. Key components and connections include:

- High Capacity Automatic Air Vent:** Located at the top of the tank.
- Pressure Gage:** Connected to the top of the tank to monitor system pressure.
- Bladder Type Expansion Tank:** The central vertical component.
- Pre-Charge Bladder Type Expansion Tank to CWMU PRV Setting:** A label at the bottom of the tank.
- Union:** Located on the top side of the tank.
- From System:** The main supply line entering the tank from the side.
- Tangential Air Separator Less Strainer:** Located on the side of the tank.
- Full Size Blowdown Pipe to Floor Drain:** A pipe with a valve leading from the bottom of the tank to a floor drain.
- Leave Open and Remove Handle to Prevent Accidental Closure:** A note pointing to the blowdown valve.
- Drain Valve:** Located at the bottom of the tank.
- Automatic Air Vent:** A smaller vent located at the very bottom of the tank.
- To Other Hydronic System:** The outlet line from the top of the tank.
- B.F.V. or Ball Valve (TYP.):** A valve on the outlet line.
- To Pump Suction:** The line leading from the outlet of the tank to the pump.
- Support:** The tank is supported by hangers or from the floor, as indicated by the note: "SUPPORT SEPARATOR INDEPENDENTLY OF PIPING BY HANGERS OR FROM FLOOR."
- 1":** A dimension line indicating the pipe size for the outlet line.
- CWMU:** A component in the outlet line, likely a check valve or control valve.

NOT TO SCALE

Diagram illustrating the setup for a 5 GALLON MIXING TANK. The tank is equipped with a REMOVABLE TOP and a 1/4" VENT COCK. A SIGHT GLASS ROTOMETER STYLE valve is installed on the outlet line. The outlet line is connected to a 3/4" line, which includes a UNION and a DRAIN VALVE. The DRAIN VALVE is labeled RUN 3/4" DRAIN LINE TO FLOOR DRAIN. The inlet line is connected to a 3/4" line, which includes a UNION and a PUMP DISCHARGE connection. The outlet line also includes a UNION and a connection TO RETURN MAIN.

① CHILLED WATER CHEMICAL FEED POT IS PART OF PUMP PACKAGE.

NOT TO SCALE

UL 181 LABELED CLASS 1 INSULATED FLEX DUCT  
SEE SPECS. MAX. LENGTH 4'-0". STRETCH  
FLEX DUCT INSULATION. NO SAGS OR SHARP  
TURNS ALLOWED.

FLEX DUCT SUPPORT SADDLE  
SHALL BE 22 GAUGE SHEET  
METAL A MINIMUM OF 4"W x  
1/2" CIRCUMFERENCE OF FLEX  
DUCT. SPACE AT  
4'-0" MAXIMUM.

PROVIDE BLANKET INSULATION  
ON TOP OF SUPPLY DIFFUSER,  
MAINTAIN VAPOR SEAL.

GALV.  
SHEETMETAL  
ELBOW.

SUPPORT TO  
STRUCTURE

METAL BAND CLAMP

ROUND TO RECTANGULAR  
OR SQUARE ADAPTER  
(WHERE REQUIRED)

VOLUME DAMPER

CEILING

D=FLEX DUCT OUTSIDE DIAMETER

NOT TO SCALE

The diagram shows a piping system connecting two large cylindrical tanks. The top tank is labeled 'SUPPLY' with an arrow pointing into it. The bottom tank is labeled 'RETURN' with an arrow pointing into it. The piping starts from the bottom of the supply tank, goes down through a ball valve, then up through another ball valve to a pressure gauge. From the pressure gauge, the pipe goes down through a third ball valve to a circular component labeled 'PDT'. After the PDT, the pipe goes up through a fourth ball valve and then down through a fifth ball valve into the return tank. Labels with arrows point to the components: 'BALL VALVE, TYP.' points to the first and fourth valves; 'PRESSURE GAUGE, TYP.' points to the gauge; and 'PDT' points to the circular component.

NOTES:

- 1) GAUGES MUST BE ROTATED FOR BEST VIEWING ANGLE.
- 2) TWO BALL VALVES MAY BE DELETED IF PIPING RUN IS LESS THAN 20 FEET.

NOT TO SCALE

PIPE INSULATION

PIPE STRAPS AT APPROX. 18" INTERVALS

SELF REGULATING HEAT TRACE CABLE

ALUMINUM FOIL TAPE

WATERPROOF JACKET OR INSULATION

**SECTION THRU PIPE**  
NO SCALE

HEAT TRACE CABLE

END CAP

HEAT TRACE CABLE

N.O.

TO POWER SUPPLY DISCONNECT SWITCH

CONTACTOR

THERMOSTAT WITH AMBIENT AIR SENSOR SET ON AT 35°F

WATER TIGHT CONTROL BOX

**HEAT TRACE CONTROL PANEL DIAGRAM**  
NO SCALE

HEAT TRACE CABLE

PIPE STRAPS

1'-6"

HOT-COLD JOINT

PIPE INSULATION AND ALUMINUM FOIL TAPE NOT SHOWN

**INSTALLATION DETAIL**  
NO SCALE

VALVE

ALUMINUM FOIL TAPE AND INSULATION NOT SHOWN

SELF REGULATING TYPE HEAT TRACE CABLE

**INSTALLATION AT VALVES**  
NO SCALE

### ON THRU PIPE

## HEAT TRACE CONTROL PANEL DIAGRAM

## INSTALLATION DETAIL

### INSTALLATION AT VALVES

NOTES:  
PROVIDE WEATHER RESISTANT LABELING ON EXTERIOR OF JACKET IDENTIFYING  
PIPES AS BEING "ELECTRIC TRACED" WITH VOLTAGE INDICATED.

NOT TO SCALE

WIRING BY E.C.

LOCAL DISCONNECT PROVIDED BY M.C.

WIRING BY M.C.

CONTROL PANEL

TWIN LEAD WIRE TO HEAT TRACE

THERMOSTAT CONTROL BOX

THERMOSTAT CAPILLARY

THERMOSTATIC SENSING BULB

HEAT TRACE CABLE

INSULATION

CLAMP

NOTE:  
THERMOSTAT SHALL HAVE CURRENT CARRYING CAPACITY OF 120% OF INSTALLED WATTAGE OR A CONTACTOR PANEL SHALL BE INSTALLED

CONTROL INSTALLATION

3 LAYERS OF 15 LB. FELT

ALUMINUM JACKET

INSULATION (SEE SPECIFICATIONS)

NOTE:  
OUTDOOR INSULATION SHALL BE PER SPECIFICATIONS COVERED BY 3 LAYERS OF 15 LB. FELT HOT MOPPED IN PLACE AND COATED WITH AN ALUMINUM JACKET OF 0.016" THICKNESS.

OUTSIDE PIPE PROTECTION

VALVE

PIPE

HEAT TRACE CABLE

INSULATE VALVE AND PIPE

FORM A LOOP AND WRAP TRACER AROUND VALVE BODY TWICE AS RECOMMENDED BY TRACER MANUFACTURER

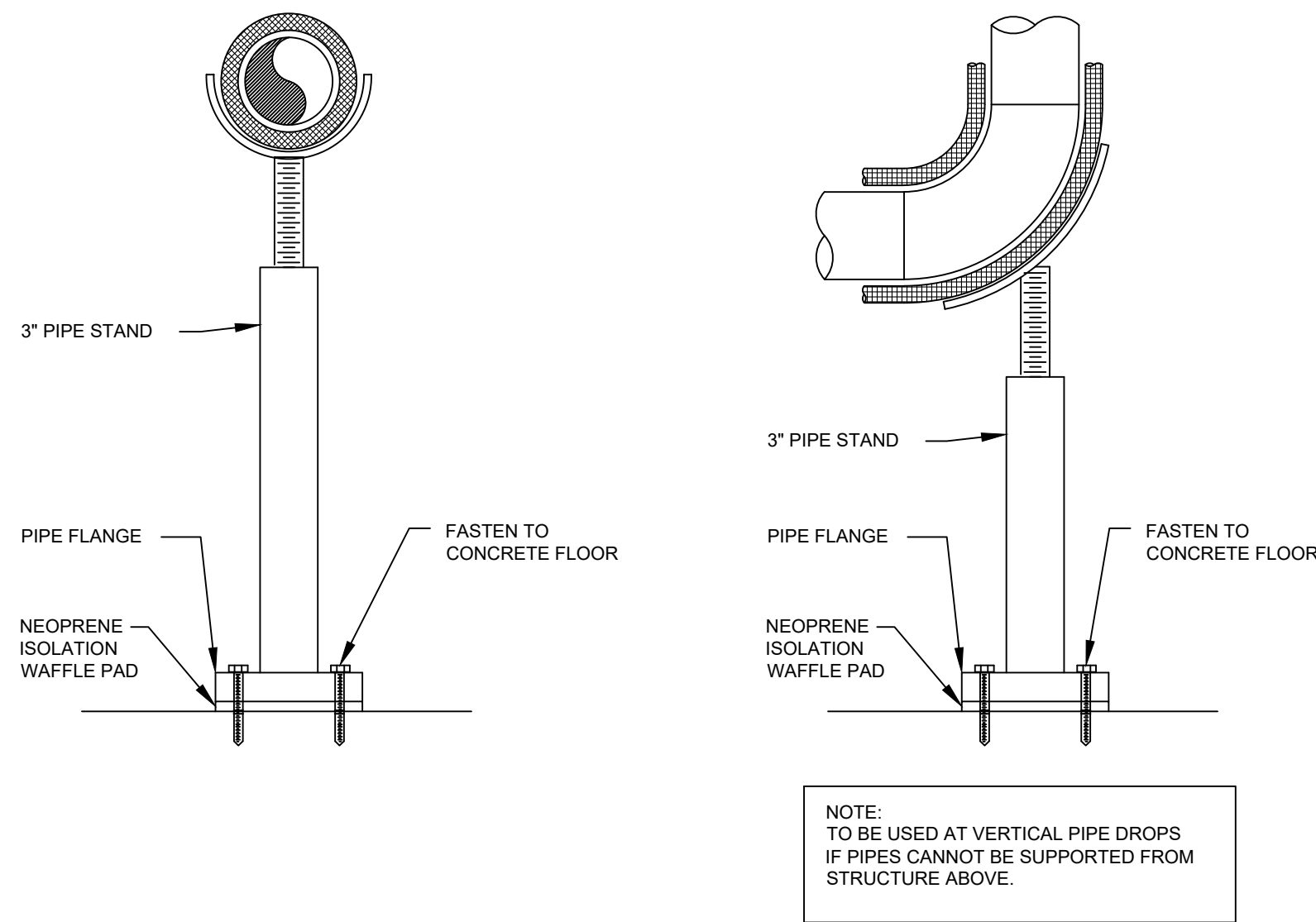
## OUTSIDE PIPE PROTECTION

### TYPICAL VALVE TRACING PATTERN

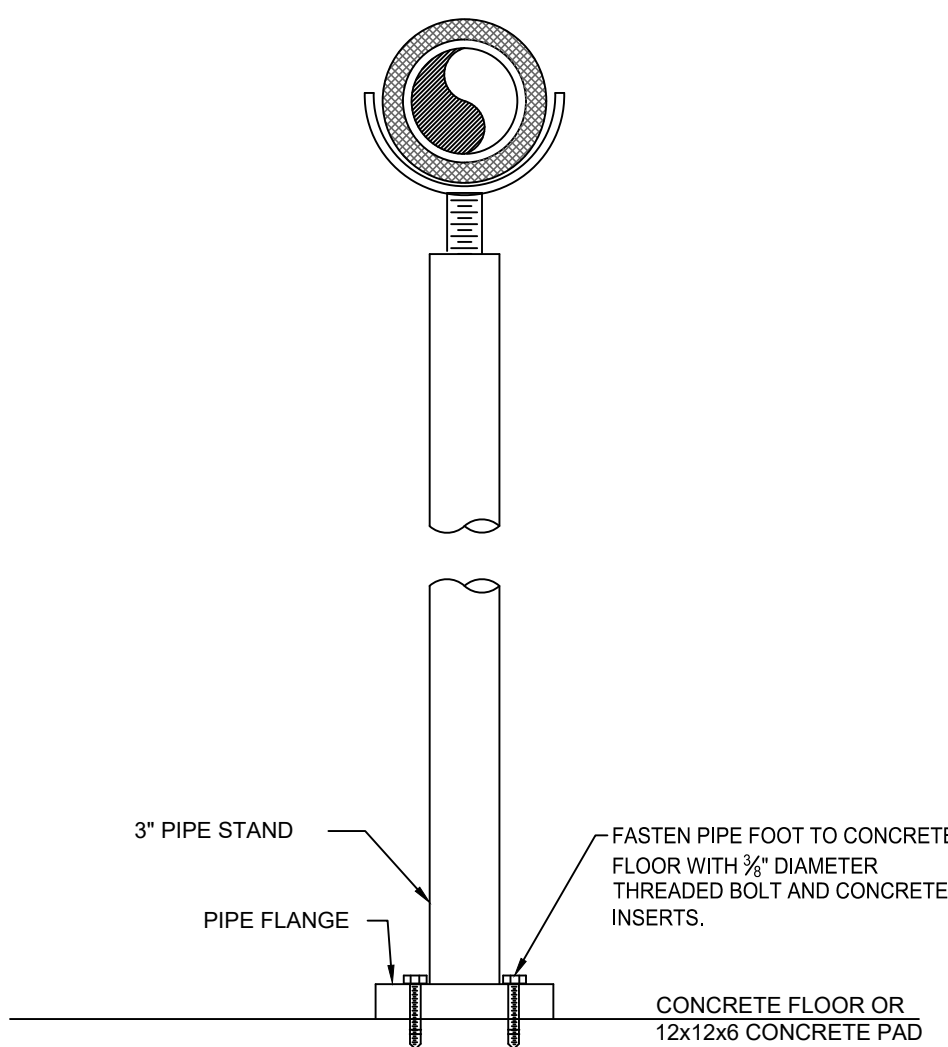
NOT TO SCALE

8	HEAT TRACE INSTALLATION DETAIL
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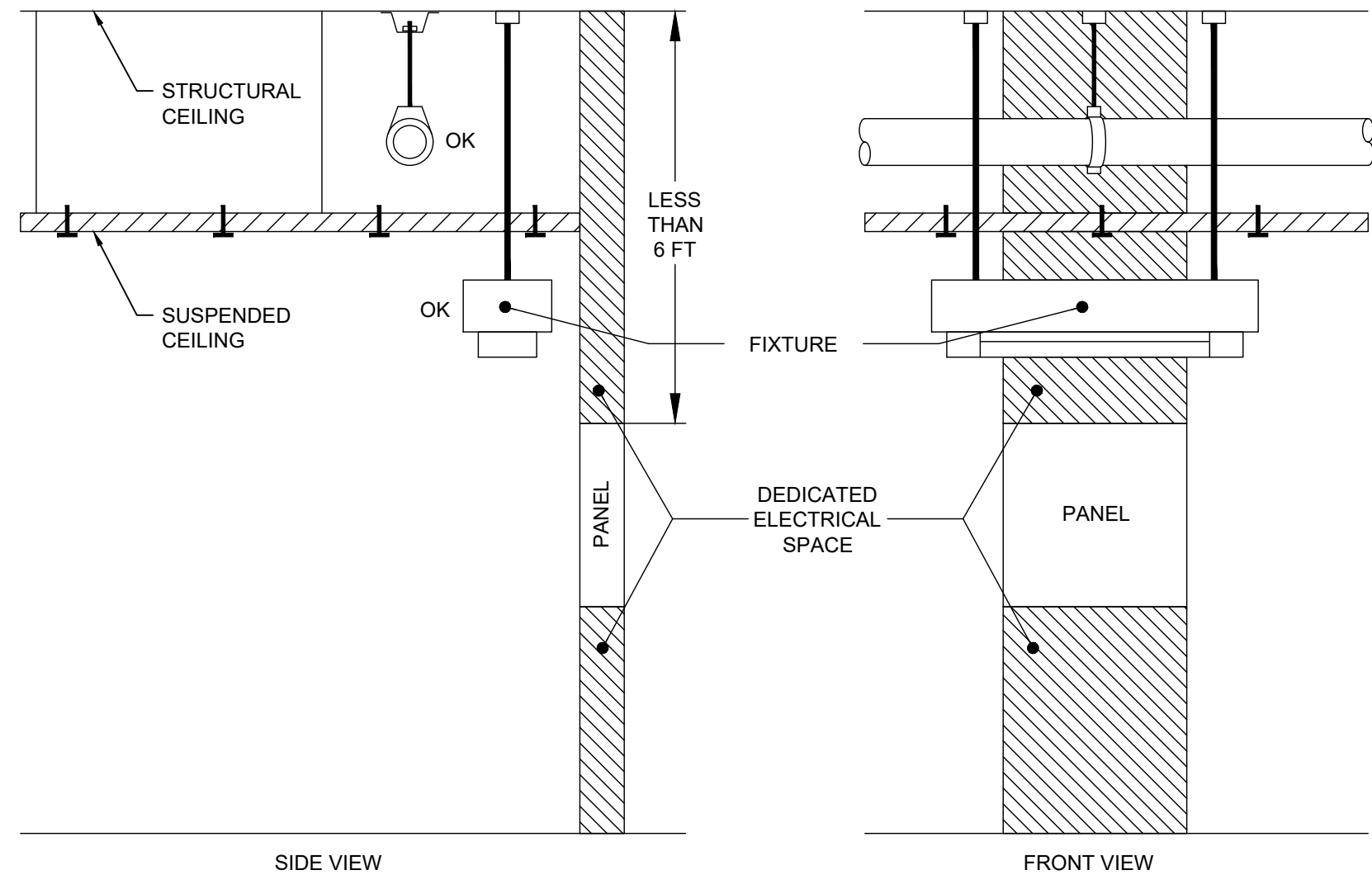




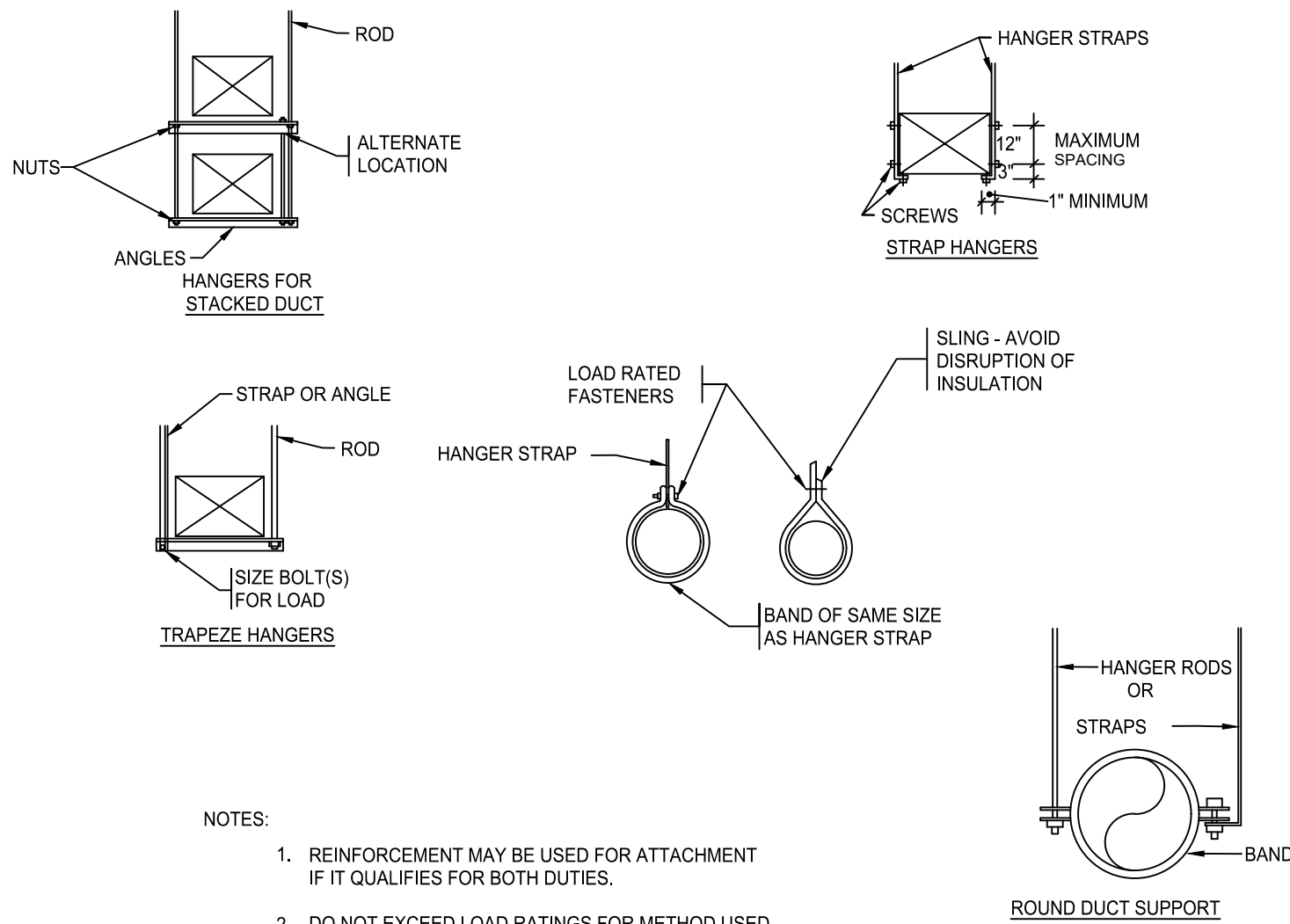
1 PIPE SUPPORT DETAIL



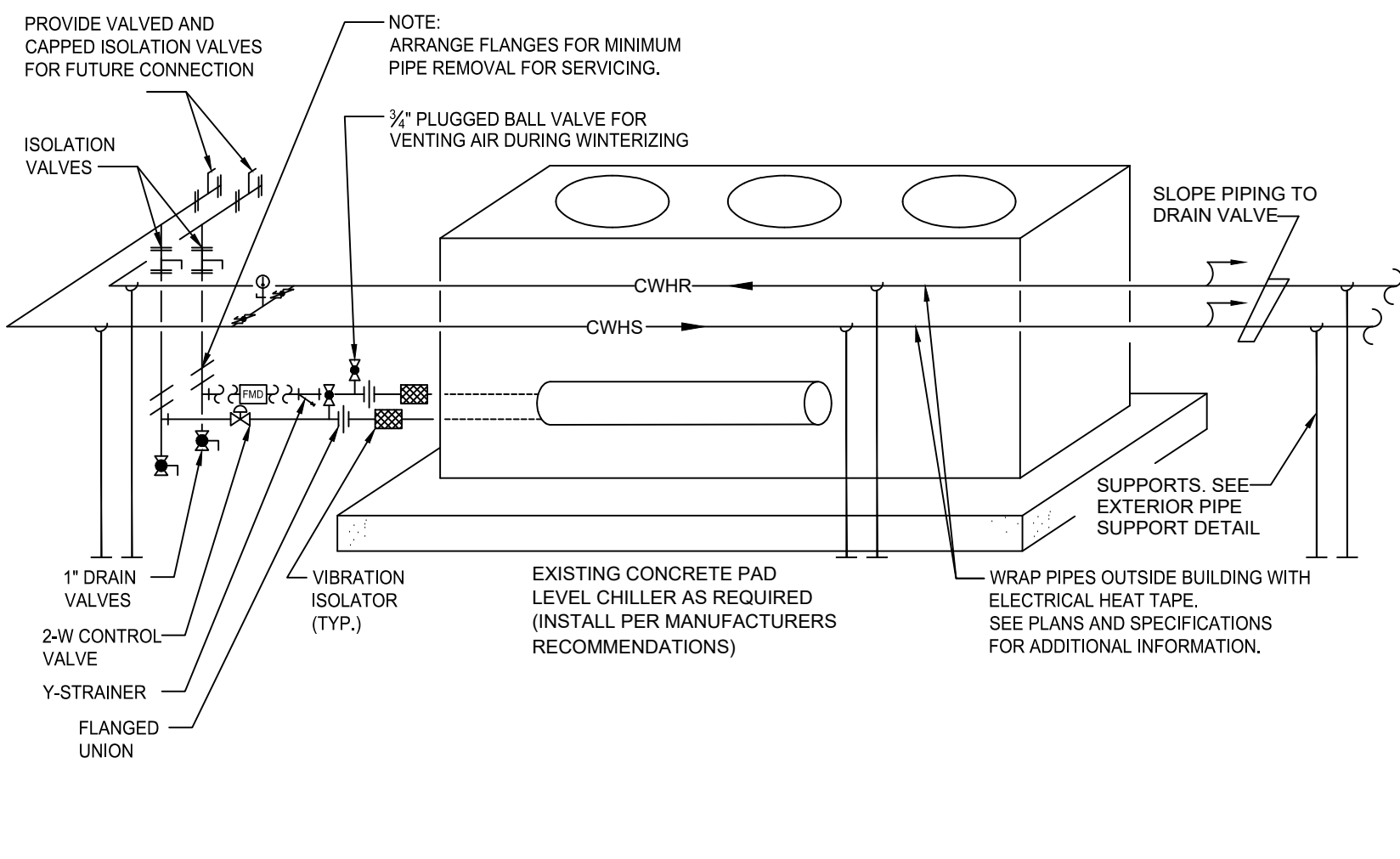
2 EXTERIOR PIPE SUPPORT DETAIL



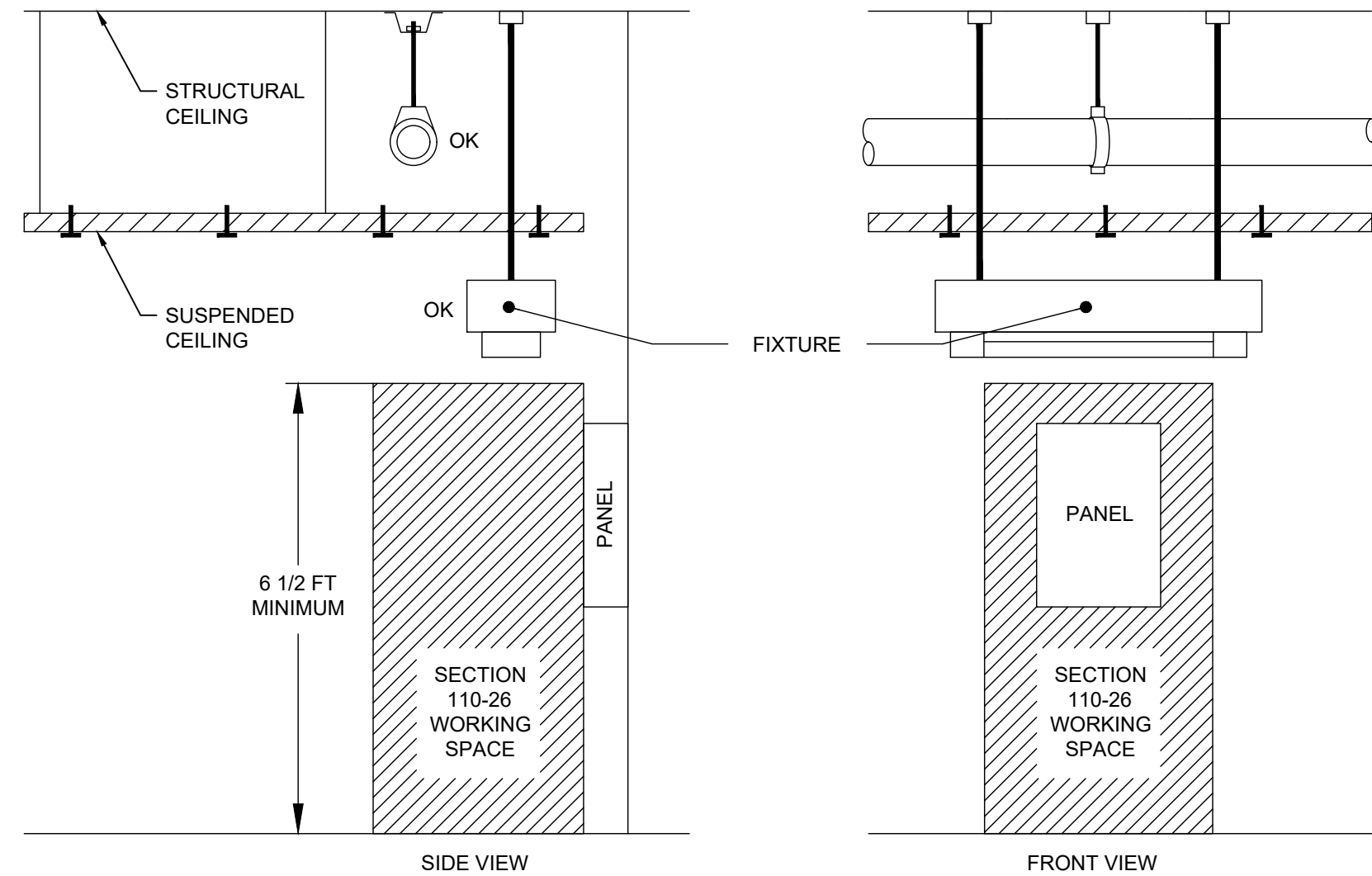
3 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT



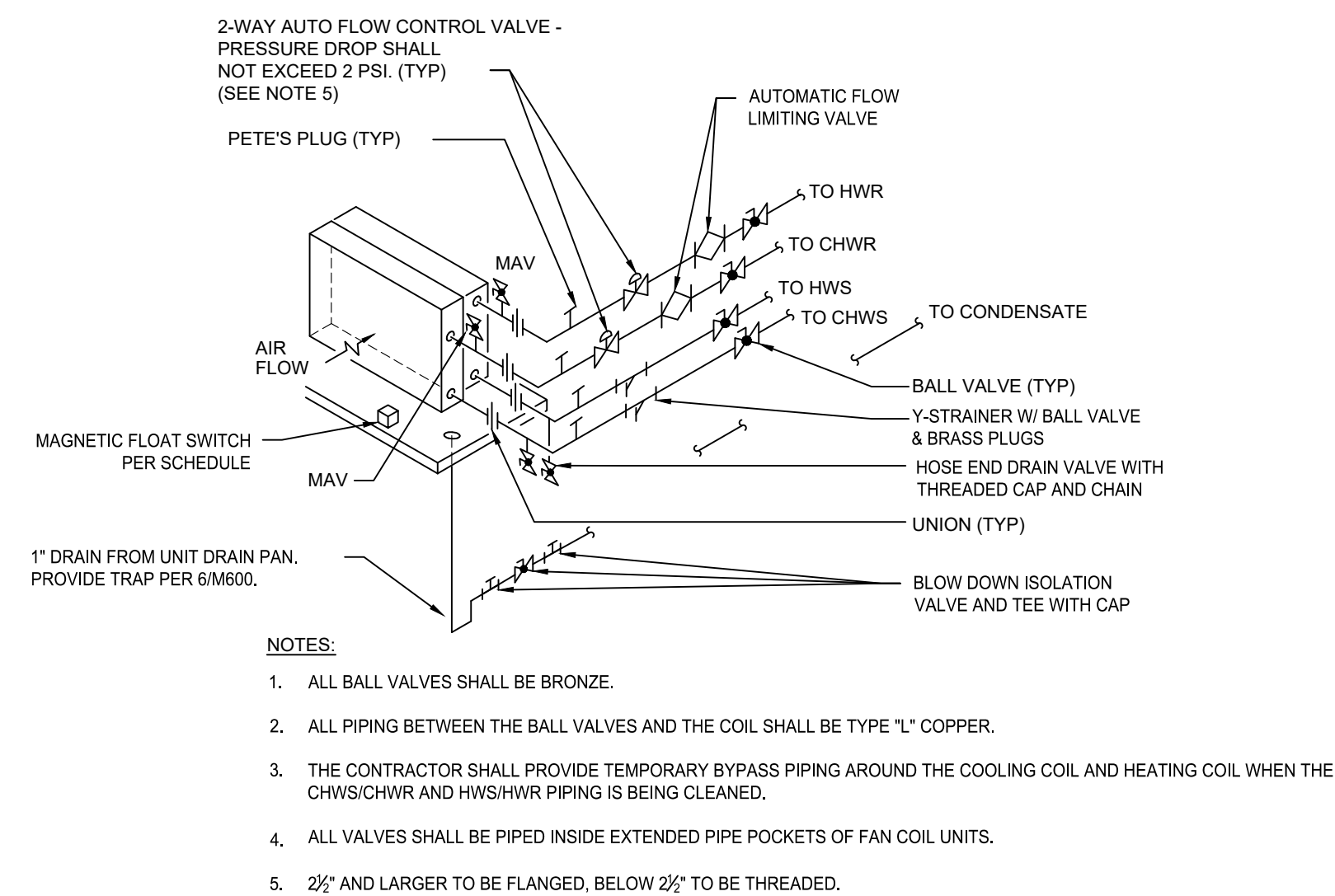
4 TYPICAL DUCT HANGERS



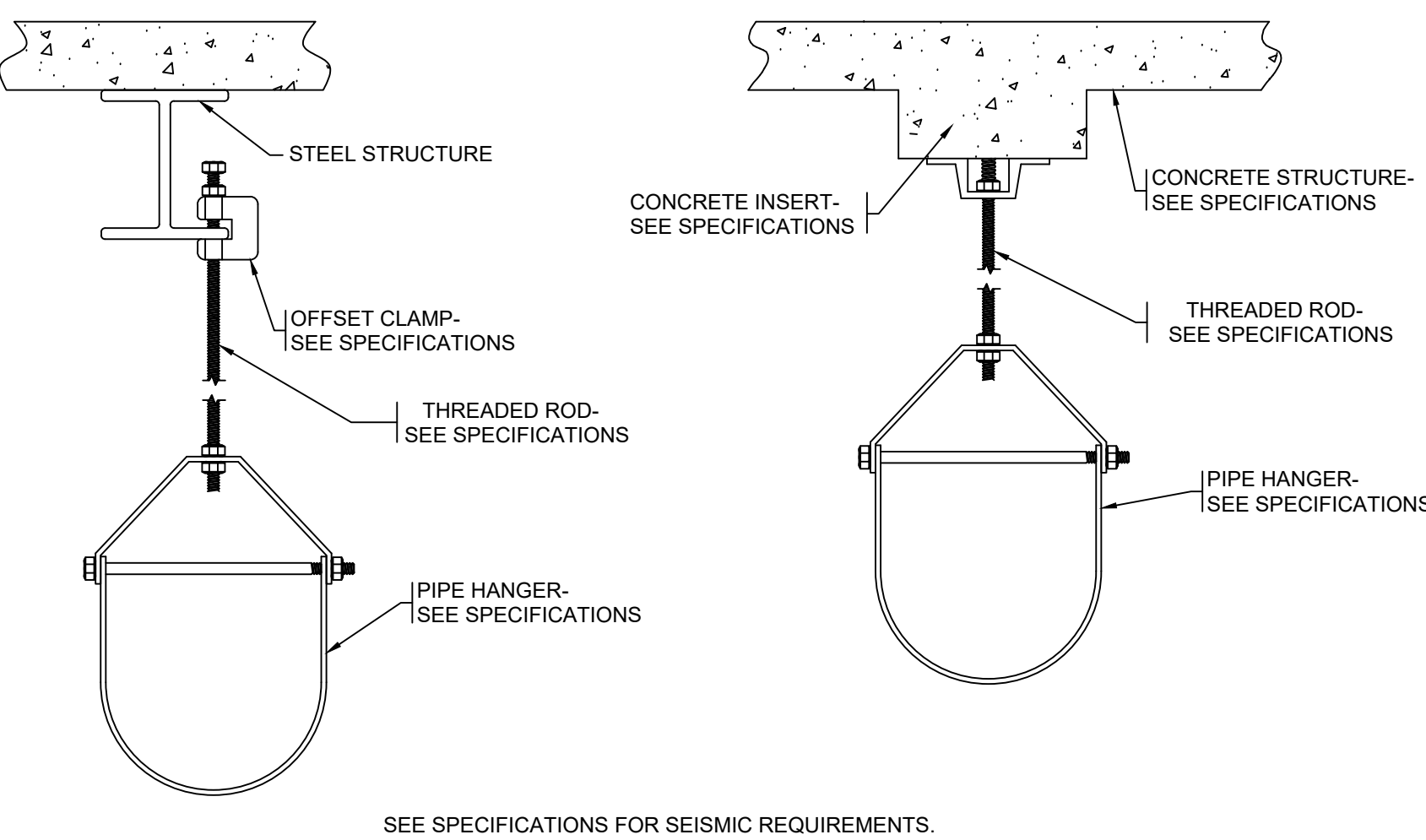
5 AIR COOLED CHILLER PIPING



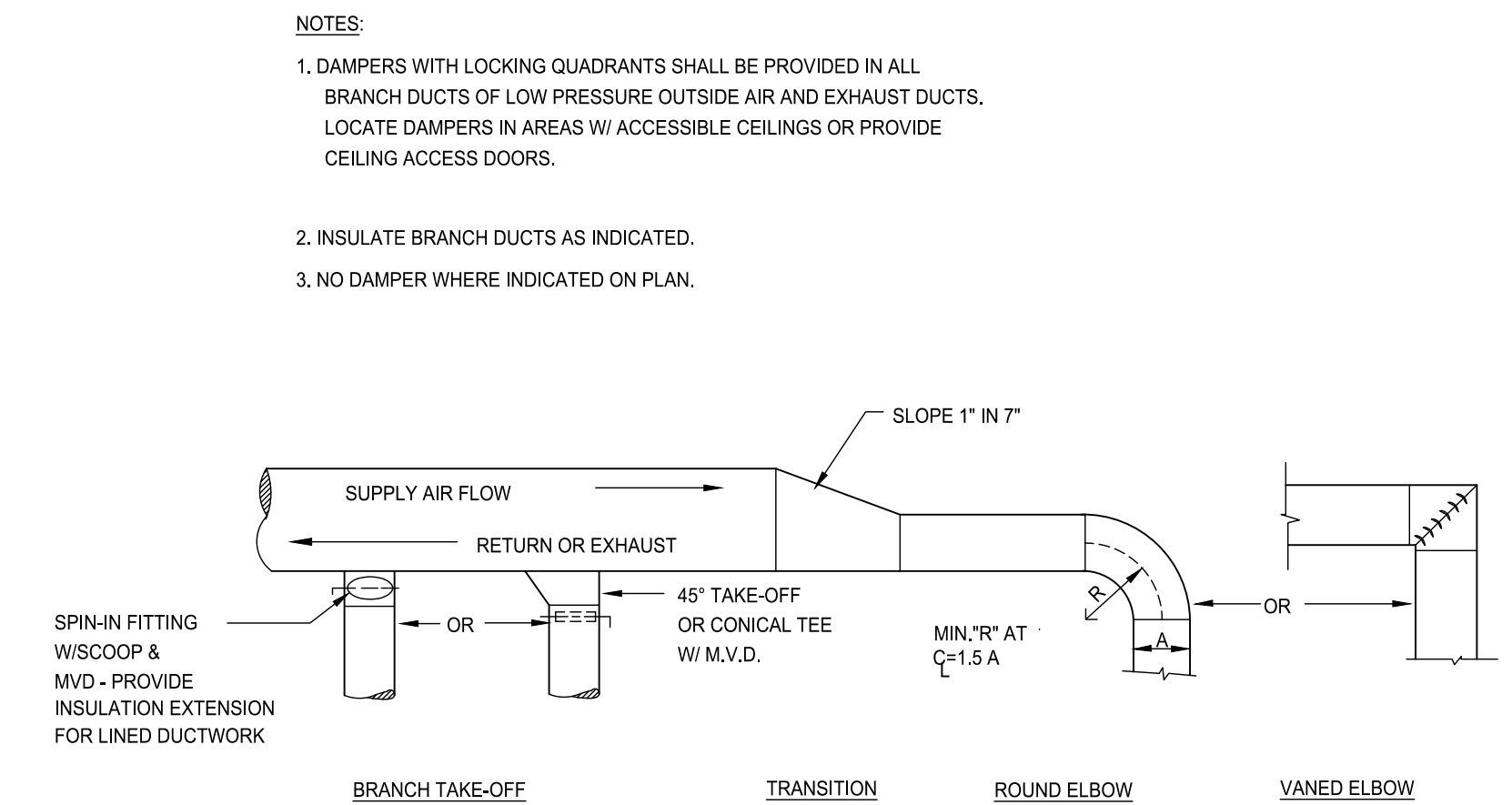
6 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT



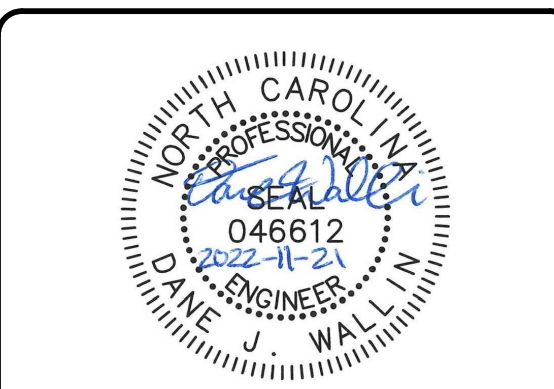
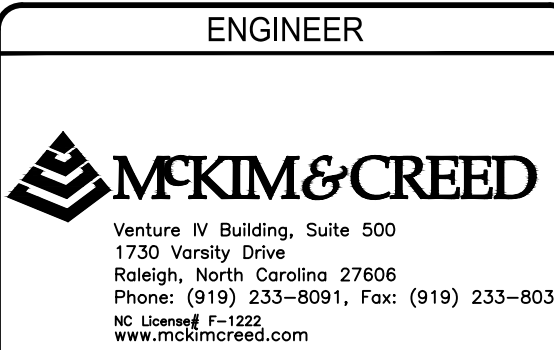
7 FOUR PIPE FAN COIL UNIT PIPING



8 HANGER DETAILS



9 LOW PRESSURE OUTSIDE AIR OR EXHAUST DUCTWORK



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD HALL HVAC REPLACEMENT**

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DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

MECHANICAL DETAILS

**M602**



SYSTEM NO. C-AJ-5001

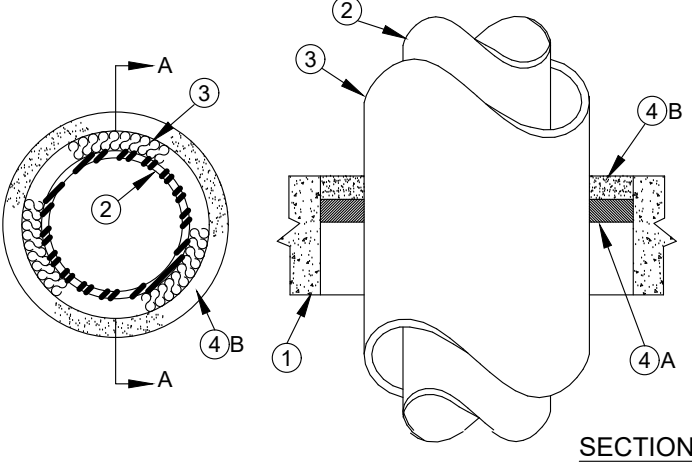
MARCH 05, 2007

F RATINGS – 1-1/2, 2 AND 3 HR (SEE ITEM 4)

T RATINGS – 0, 1/2, 3/4 AND 1 HR (SEE ITEMS 1A AND 4)

L RATING AT AMBIENT – 2 CFM PER SQ. FT.

L RATING AT 400°F – LESS THAN 1 CFM PER SQ. FT.



SECTION A-A

1. FLOOR OR WALL ASSEMBLY - MIN 2-1/2 IN. (64 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\*. MAX DIAM OF OPENING IS 18 IN. (457 MM).

SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

1A. STEEL SLEEVE - (OPTIONAL, NOT SHOWN) - NOM 10 IN. (254 MM) (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 2 IN. (51 MM) ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL. T RATING IS 0 HR WHEN SLEEVE IS USED.

2. THROUGH PENETRANT - NOM 4 IN. (102 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER PIPE, NOM 12 IN. (305 MM) DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. (305 MM) DIAM (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE OR NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE CENTERED IN THE OPENING AND RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY.

3. PIPE COVERING\* - NOM 1/2 TO 2 IN. (13 TO 51 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF OR 56 KG/M3) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT.

MIN FLOOR OR WALL THKNS, IN.	MAX PIPE DIAM, IN.	NOM PIPE COVERING THKNS, IN.	ANNULAR SPACE IN.	F RATING HR.	T RATING HR.
2-1/2 (64)	4 (102)	1 or 1-1/2 (25 or 38)	1/2 to 2-3/8 (13 to 60)	2	1
4-1/2 (114)	4 (102)	2 (51)	1/4 to 3-5/8 (6 to 92)	2	1-1/2
2-1/2 (64)	12 (305)	1 (25)	1/2 to 1-1/2 (13 to 38)	2	1/2
4-1/2 (114)	12 (305)	1 (25)	1/2 to 2-3/8 (13 to 60)	3	1
2-1/2 (64)	12 (305)	1/2 (13)	1/2 to 2-3/8 (13 to 60)	2	0

3M COMPANY - CP 25WB+ or FB-3000 WT

\* BEARING THE UL CLASSIFICATION MARK.

SEE PIPE AND EQUIPMENT COVERING - MATERIALS\* (BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

4. FIRESTOP SYSTEM - THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

A. PACKING MATERIAL - MIN 1 IN. (25 MM) THICKNESS OF FIRMLY PACKED MINERAL WOOL BATT INSULATION USED AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR SLEEVE OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM B).

B. FILL, VOID OR CAVITY MATERIAL\* - CAULK OR SEALANT - APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH THE TOP SURFACE OF THE FLOOR OR SLEEVE OR FLUSH WITH BOTH SURFACES OF WALL. WHEN NOM PIPE COVERING THICKNESS IS 2 IN. (51 MM), MIN THICKNESS OF CAULK FILL MATERIAL IS 2 IN. (51 MM). WHEN NOM PIPE COVERING THICKNESS IS 1-1/2 IN. (38 MM) OR LESS, MIN THICKNESS OF CAULK FILL MATERIAL IS 1 IN. (25 MM). THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM ARE DEPENDENT UPON THE THICKNESS OF THE FLOOR OR WALL, THE SIZE OF PIPE, THE THICKNESS OF PIPE COVERING MATERIAL AND THE SIZE OF THE ANNULAR SPACE (BETWEEN THE PIPE COVERING MATERIAL AND THE EDGE OF THE CIRCULAR THROUGH OPENING) AS SHOWN IN THE FOLLOWING TABLE:

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TYPE C-AJ-5001 IN UL FILE NUMBER BOX. CLICK ON SEARCH

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SYSTEM NO. W-L-5001

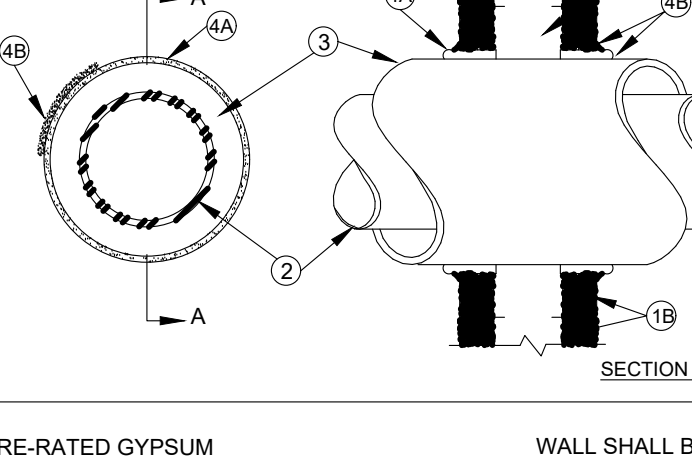
MAY 19, 2005

F RATINGS - 1 AND 2 HR (SEE ITEM 1)

T RATINGS - 3/4, 1, AND 1-1/2 HR (SEE ITEM 3)

L RATING AT AMBIENT - 2 CFM PER SQ. FT.

L RATING AT 400°F - LESS THAN 1 CFM PER SQ. FT.



SECTION A-A

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC WITH NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE BY 1-3/8 IN. (35 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.

B. GYPSUM BOARD\* - NOM 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 14-1/2 IN. (368 MM) FOR WOOD STUD WALLS AND 18 IN. (457 MM) FOR STEEL STUD WALLS.

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS 1 HR WHEN INSTALLED IN A 1 HR FIRE RATED WALL AND 2 HR WHEN INSTALLED IN A 2 HR FIRE RATED WALL.

2. THROUGH PENETRANTS - ONE METALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:

A. STEEL PIPE - NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

B. COPPER TUBING - NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

C. COPPER PIPE - NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PIPE COVERING\* - NOM 1 OR 2 IN. (25 OR 51 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF OR 56 KG/M3) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SEALED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT. WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED, THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE

WALL SHALL BE MIN 1/4 IN. (6 MM) TO MAX 3/8 IN. (10 MM) WHEN NOM 2 IN. (51 MM) THICK PIPE COVERING IS USED. THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM BOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/2 IN. (13 MM) TO MAX 3/4 IN. (19 MM)

SEE PIPE AND EQUIPMENT COVERING MATERIALS (BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 3/4 HR WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 1 HR AND 1-1/2 HR WHEN NOM 2 IN. (52 MM) THICK PIPE COVERING IS USED WITH 1 HR AND 2 HR FIRE RATED WALLS, RESPECTIVELY.

4. FIRESTOP SYSTEM - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

A. FILL, VOID OR CAVITY MATERIALS\* - WRAP STRIP - NOM 1/4 IN. (6 MM) THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS. NOM 2 IN. (51 MM) WIDE STRIP TIGHTLY WRAPPED AROUND PIPE COVERING (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX 1-1/4 IN. (32 MM) SUCH THAT APPROX 3/4 IN. (19 MM) OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE. ONE LAYER OF WRAP STRIP IS REQUIRED WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED. TWO LAYERS OF WRAP STRIP ARE REQUIRED WHEN NOM 2 IN. (51 MM) THICK PIPE COVERING IS USED.

3M COMPANY - FS-195+

B. FILL, VOID OR CAVITY MATERIALS\* - CAULK OR SEALANT-MIN 1/4 IN. (6 MM) DIAM CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER APPROX 3/4 IN. (19 MM) FROM THE WALL SURFACE.

3M COMPANY- CP 25WB+, IC 15WB+, FIREDAM 150+ CAULK OR FB-3000 WT SEALANT

\* BEARING THE UL CLASSIFICATION MARK.

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ARCHITECT



BSA



REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

MECHANICAL DETAILS

M603

I:\05815\0044\ENG\80-DRAWINGS\86-DESIGN\86H-HVAC DESIGN\M600-DETAILS.DWG 11/21/2022 17:10:01 IAN ASSENZA



AIR HANDLING UNIT SCHEDULE																																					
TAG	TYPE	SUPPLY FAN DATA											COOLING COIL DATA										HOT WATER PREHEAT COIL DATA										FILTER DATA		MANUFACTURER/ MODEL #		
		TOTAL CFM	MIN. OA CFM	STATIC (IN. WG.)		HP	BHP	RPM	TYPE	SIZE	CLASS	VOLTS/ PHASE	MAX FACE VEL. (FPM)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	MAX APD (IN. WG.)	CAP. (MBH) TOTAL/SENS	MAX ROWS	MAX FPI	GPM	MAX WPD (FT. WG.)	FLUID VEL (FPM)	MAX FACE VEL. (FPM)	EAT (°F)	LAT (°F)	MAX APD (IN. WG.)	CAP. (MBH)	MAX ROWS	MAX FPI	GPM	MAX WPD (FT. WG.)	FLUID VEL (FPM)		MERV	PD (°WG)
				ESP	TSP																																
AHU-1	VERTICAL TOP DISCHARGE	1200	300	1.5	2.9	1.5	1.095	1900	-	0.69SQFT	-	208/3	429	80	67	55.21	55.10	0.643	44.38/32.79	6	12	6.32	1.46	93	215	55	85.8	0.168	20.04	1	9	1.50	0.04	22.2	8	0.589	TRANE UCCAF03A0F0EME60000000BE500AA00000200000
AHU-2	VERTICAL TOP DISCHARGE	1950	292	1.5	2.842	1.5	1.317	1363	-	1.2SQFT	-	208/3	355	80	67	54.91	54.81	0.638	73.45/53.94	6	14	10.46	1.28	85.8	200	55	84.68	0.137	35.41	1	9	3	0.05	24.6	8	0.568	TRANE UCCAF06A0F0ENE40000000BET00AA00000200000
AHU-3	HORIZONTAL TOP DISCHARGE	2000	500	1.5	3.046	2	1.761	2366	-	1.92SQFT	-	208/3	364	80	67	54.86	54.76	0.664	75.59/55.42	6	14	10.76	1.35	88.2	200	55	84.68	0.142	35.41	1	9	3.00	0.05	24.6	8	0.570	TRANE UCCAG06A0F0ENE42000000CE879AA00000200000
NOTES:																																					
10. AHU-3: SELECTED FOR 500CFM OA FOR FUTURE CAPACITY. UNIT INSTALLATION SHALL BE FOR 0CFM OA.																																					
1. SEE SPECIFICATIONS FOR UNIT CONSTRUCTION.																																					
2. PROVIDE THREE (3) SETS OF PRE-FILTERS AS REQUIRED FOR AIR HANDLING UNIT. UNIT TOTAL SP SHALL INCLUDE "MID-LIFE" AIR PRESSURE DROP OF FILTERS WHICH IS NOT INCLUDED AS PART OF ESP.																																					
3. PROVIDE INTERNAL VIBRATION ISOLATION FOR SUPPLY FANS.																																					
4. COIL CAPACITIES DO NOT INCLUDE HEAT FROM FAN MOTOR.																																					
5. PROVIDE INDIVIDUALLY REMOVABLE COOLING AND HEATING COILS.																																					
6. PROVIDE NEMA PREMIUM EFFICIENCY MOTORS WITH RATINGS STAMPED ON NAMEPLATE. MOTORS SHALL BE INVERTER DUTY RATED, SUITABLE FOR USE WITH VFD. PROVIDE SOLID SHAFT GROUNDING RING TO PREVENT FLUTING.																																					
7. PROVIDE COOLING COIL AND HEATING COIL WITH STAINLESS STEEL CASING.																																					
8. PROVIDE MINIMUM 6" TALL BASE RAIL.																																					
9. CHILLED WATER EWT = 44°F, LWT = 54°F, HOT WATER EWT = 130°F, LWT = 106°F.																																					

CHILLER SCHEDULE														
TAG	COOLING CAPACITY TONS	EVAPORATOR					COMPRESSOR DATA				INPUT POWER (KW)	MIN CIRCUIT AMPS	MAX CIRCUIT AMPS	MANUFACTURER/ MODEL #
		GPM	EWT (°F)	LWT (°F)	PD (FT.)	FOULING	NUMBER	VOLTS	PHASE	NPLV				
CH-1	80	183.2	54	44	15.7	0.0001	4	208	3	15.14	91.07	354	400	TRANE CGAM
CH-2	80	183.2	54	44	15.7	0.0001	4	208	3	15.14	91.07	354	400	TRANE CGAM
<div>NOTES:</div> <div><div><div>1. NEW CHILLERS TO BE PROVIDED IF ALTERNATE M2 IS TAKEN.</div><div>2. CHILLER SOUND POWER LEVELS AND PRESSURE DROP SHALL BE NO GREATER THAN THOSE LISTED.</div><div>3. CONTRACTORS IS RESPONSIBLE FOR CHANGES IN WIRING, PIPING AND OTHER CHANGES REQUIRED IF ALTERNATE MANUFACTURERS OR MODELS ARE SELECTED.</div></div><div><div>4. PROVIDE WITH TWO REFRIGERANT CIRCUITS.</div><div>5. PROVIDE COMPLETE WITH ACROSS-THE-LINE STARTER AND CIRCUIT BREAKER, OPERATION CONTROL PANEL AND FULL REFRIGERATION CHARGE. PROVIDE WITH SINGLE POINT CONNECTION.</div><div>6. PROVIDE WITH COOLER HEATER, ULTRA LOW SOUND, DIGITAL COMPRESSOR, LOW AMBIENT HEAD PRESSURE CONTROL, BACNET COMMUNICATIONS, LOUVERED PANELS, AND WIND BAFFLE.</div></div><div><div>7. SOUND IS "A" WEIGHTED SOUND POWER LEVEL, dB, REF 1 PICOWATT.</div><div>8. "BASIS OF DESIGN" SHALL BE TRANE, EQUALS BY YORK AND CARRIER ARE ACCEPTABLE.</div><div>9. PROVIDE HFC-R410A OR R-134a REFRIGERANT.</div></div></div>														
SOUND PRESSURE LEVEL (dBA @ 50 FEET)														
	63	125	250	500	1000	2000	4000	8000	A-WEIGHTED LEVEL (dBA)					
100% LOAD	87	85	88	92	84	80	76	68	-					

PUMP SCHEDULE																	
MARK	SERVING	LOCATION	TYPE	SERVICE	GPM	TOTAL FT. HEAD	RPM	EFF. (%) MIN.	SUCTION (IN.)	DISCH. (IN.)	IMPELLER SIZE (IN.)	BHP	ELECTRICAL			MANUFACTURER/ MODEL NO.	NOTES
													MIN. HP	VOLTS	Ø		
P-1	MCLEOD	MECHANICAL ROOM	END SUCTION	CHILLED WATER	195	72	1627	74.2	2.5	2	9.5	4.67	7.5	208	3	BELL & GOSSET SERIES e-1510 2BD	1 THRU 7
P-2	MCLEOD	MECHANICAL ROOM	END SUCTION	CHILLED WATER	195	72	1627	74.2	2.5	2	9.5	4.67	7.5	208	3	BELL & GOSSET SERIES e-1510 2BD	1 THRU 7
P-3	MCLEOD	MECHANICAL ROOM	END SUCTION	HOT WATER	186	30	1747	76.8	3	2.5	6.125	1.78	2	208	3	BELL & GOSSET SERIES e-1510 2SAC	1 THRU 7
1. MANUFACTURER TO PROVIDE PERFORMANCE CURVES INDICATING ALL OPERATING POINTS OF PUMPING SYSTEM. CHILLED WATER PUMPS SHALL BE SELECTED FOR PARALLEL OPERATION.																	
2. MOTORS SHALL BE NON-OVERLOADING THROUGHOUT THE PUMP CURVE, PREMIUM EFFICIENCY TYPE.																	
3. PROVIDE BRONZE FITTED, INTERNALLY SELF FLUSHING MECHANICAL SEALS.																	
4. PROVIDE NEMA PREMIUM EFFICIENCY MOTOR WITH RATING STAMPED ON NAMEPLATE SUITABLE FOR VFD.																	
5. PROVIDE WITH BRONZE WEAR RINGS.																	
6. "BASIS OF DESIGN" SHALL BE BELL & GOSSETT, APPROVED EQUALS BY ARMSTRONG AND TACO ARE ACCEPTABLE.																	

EXHAUST FAN SCHEDULE														
MARK	TYPE	AREA SERVED	LOCATION	CFM	ESP (IN WG)	FAN SPEED	MAX NOISE LEVEL (INLET SONES)	FAN WHEEL	FAN TYPE	ELECTRICAL			BASIS OF DESIGN/ MODEL	REMARKS (NOTES)
										MIN. HP	VOLTS	Ø		
F-1	INLINE	TOILETS 1ST FLOOR	1ST FLOOR 112	1000	0.5	1515	8.7	-	BACKWARD INCLINED	1/4	120	1	GREENHECK SQ-100-VG	1 - 9
F-2	ROOFTOP	TOILETS 2ND THROUGH 4TH	ROOFTOP	275	0.5	1550	7.5	-	BACKWARD INCLINED	1/20	120	1	GREENHECK G-080-D	1 - 9
F-3	ROOFTOP	TOILETS 1ST THROUGH 4TH	ROOFTOP	300	0.5	1300	6.7	-	BACKWARD INCLINED	1/12	120	1	GREENHECK G-095-G	1 - 9
F-4	ROOFTOP	TOILETS 1ST THROUGH 4TH	ROOFTOP	430	0.5	1550	10.2	-	BACKWARD INCLINED	1/8	120	1	GREENHECK G-095-D	1 - 9
F-5	INLINE	TOILETS 2ND THROUGH 4TH	PENTHOUSE	275	0.5	1550	7.4	-	BACKWARD INCLINED	1/10	120	1	GREENHECK SQ-90-D	1 - 9
F-6	INLINE	TOILETS 1ST THROUGH 4TH	PENTHOUSE	350	0.5	1550	7.4	-	BACKWARD INCLINED	1/10	120	1	GREENHECK SQ-90-D	1 - 9
F-7	INLINE	LAUNDRY	PENTHOUSE	375	0.5	1550	7.4	-	BACKWARD INCLINED	1/10	120	1	GREENHECK SQ-90-D	1 - 9
<div>NOTES:</div> <div><div>1. NEW EXHAUST FANS TO BE PROVIDED IF ALTERNATE M5 IS TAKEN.</div><div>2. ALL FANS MOTORS SHALL BE NON-OVERLOADING.</div><div>3. PROVIDE ALL FANS WITH UNIT MOUNTED UL LISTED STARTER/DISCONNECT SWITCHES.</div><div>4. UNITS SHALL BEAR AMCA SEAL AND U.L. LABEL.</div><div>5. PROVIDE MOTORIZED DAMPER AND INSULATED CASING.</div><div>6. PROVIDE UNIVERSAL MOUNTING BRACKETS WITH SPRING ISOLATORS.</div><div>7. PROVIDE DIAL ON MOTOR CONTROL.</div><div>8. PROVIDE WITH HINGED CURB CAP TO BE USED ON EXISTING ROOF CURB. MC SHALL VERIFY SIZE OF ROOF CURB FOR NEW FANS AND PROVIDE CURD ADAPTOR IF NEEDED.</div><div>9. BASIS OF DESIGN IS GREENHECK; EQUALS BY COOK AND TWIN CITY ARE ACCEPTABLE.</div></div>														

GRILLE & DIFFUSER SCHEDULE				
<u>DIFFUSERS:</u>				
<table border="1"><tr><td>A</td></tr><tr><td>CFM</td></tr><tr><td>SIZE</td></tr></table>	A	CFM	SIZE	METALAIRE 5500, EXTRUDED ALUMINUM LOUVERED FACE DIFFUSER, STANDARD FINISH OFF-WHITE, SUITABLE FOR 24x24 LAY-IN CEILING. NECK SIZE, CFM, DIRECTION OF THROW(4-WAY THROW UNLESS NOTED OTHERWISE) SHALL BE AS NOTED ON PLANS. PROVIDE BAFFLES AS REQUIRED.
A				
CFM				
SIZE				
<u>GRILLES:</u>				
<table border="1"><tr><td>1</td></tr><tr><td>CFM</td></tr><tr><td>SIZE</td></tr></table>	1	CFM	SIZE	ALTERNATE M4 - FOR ALL TOILET EXHAUST GRILLES SIDEWALL EXHAUST - METALAIRE RHE, EXTRUDED ALUMINUM EXHAUST GRILLE, 45° DEFLECTION, ¾" BLADE SPACING, FIXED LOUVER FACE, ALUMINUM OPPOSED BLADE DAMPER.
1				
CFM				
SIZE				

OWNER



FAYETTEVILLE  
STATE UNIVERSITY™

ENGINEER



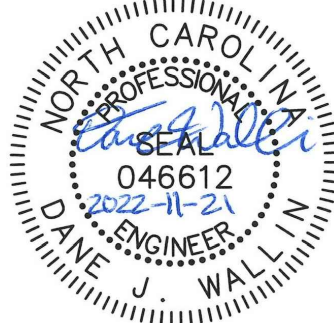
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ARCHITECT



BSA



Professional Engineer  
David Wall  
046612  
2022-11-22

REV	REVISION DESCRIPTION	DATE

REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ILA
DESIGNED	ILA
CHECKED	DJW
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

MECHANICAL SCHEDULES

M700




FAN COIL UNIT SCHEDULE																									
MARK	SERVES FLOOR - BUILDING	CFM	OA (CFM)	TYPE	ESP	COOLING							HEATING					FAN MOTOR					MANUFACTURER MODEL	NOTES	
						TOTAL (MBH)	SENS. (MBH)	GPM	WPD (FT)	EAT dB (°F)	EAT wB (°F)	LAT dB (°F)	TOTAL (MBH)	GPM	WPD (FT)	EAT (°F)	LAT (°F)	HP	VOLTS	PH	FLA	MCA			
FCU-1	DORM ROOMS	250	40	VERTICAL STACKED	0.0	9.93	6.90	2	1.34	80	67	54.69	9.00	1	1.01	55	88.22	0.240	115	1	-	4.5	TRANE MODEL FCVA040	1 THRU 7	
FCU-2	RECEPTION	850	170	VERTICAL STACKED	0.0	37.14	24.87	7.41	8.78	80	67	53.16	28.73	3	13.19	55	86.14	0.500	115	1	-	9.32	TRANE MODEL FCVA100	1 THRU 7	
FCU-3	LAUNDRY ROOM 2ND, 3RD, 4TH	500	100	VERTICAL STACKED	0.0	21.96	14.79	4.38	3.78	80	67	52.86	19.66	2.5	7.63	55	91.26	0.500	115	1	-	9.32	TRANE MODEL FCVA060	1 THRU 7	
FCU-4	SECOND FLOOR GYM	680	170	VERTICAL STACKED	0.781	28.52	19.5	5.68	6.08	80	67	53.69	22.78	2.5	7.65	55	85.88	0.500	115	1	-	9.32	TRANE MODEL FCVA080	1 THRU 7	
FCU-5	THIRD, FOURTH FL. STUDY ROOM	630	160	VERTICAL STACKED	0.722	26.79	18.24	5.34	5.43	80	67	53.44	22	2.5	7.64	55	87.18	0.500	115	1	-	9.32	TRANE MODEL FCVA080	1 THRU 7	
FCU-6	CORRIDORS	630	0	VERTICAL SLOPE TOP	0.0	25.4	17.4	5.06	12.68	80	67	54.66	14.7	3	2.41	55	76.52	0.22	115	1	-	3.88	TRANE MODEL FCJB080	1 THRU 7	
FCU-7	ELECTRIC ROOMS	280	0	VERTICAL STACKED	0.0	11	7.7	2.2	1.62	80	67	54.78	9.48	1	1.01	55	86.2	0.240	115	1	-	4.5	TRANE MODEL FCVA030	1 THRU 7	
<div>NOTES:</div> <div><div>1.</div><div>COOLING AND HEATING CAPACITY OF COILS SELECTED SHALL BE GREATER THAN OR EQUAL TO THE MINIMUM VALUES INDICATED. CHILLED WATER COILS SHALL BE SELECTED FOR EWT=44°F, LWT=54°F. HOT WATER COILS SHALL BE SELECTED FOR EWT=130°F, LWT=110°F.</div></div> <div><div>2.</div><div>WPD OF COILS SELECTED SHALL NOT EXCEED MAXIMUM VALUES INDICATED. PROVIDE WITH 2-WAY CONTROL VALVE FOR BOTH CHILLED AND HOT WATER.</div></div> <div><div>3.</div><div>PROVIDE FACTORY-WIRED, UNIT-MOUNTED, UL LISTED DISCONNECT SWITCH.</div></div> <div><div>4.</div><div>PROVIDE REMOTE THERMOSTAT WITH BACNET CAPABILITY. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.</div></div> <div><div>5.</div><div>PROVIDE UNIT WITH SECONDARY DRAIN PAN AND MAGNETIC FLOAT SWITCH FOR HIGH LEVEL CONDENSATE SHUT-OFF.</div></div> <div><div>6.</div><div>HEATING COIL SHALL BE IN THE RE-HEAT POSITION.</div></div> <div><div>7.</div><div>PROVIDE WITH MULTIPLE ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLES AS SHOWN ON PLANS AND FRAMED OUT DRYWALL RETURN AIR PANEL WITH HINGED FILTER ACCESS, STANDARD WHITE COLOR. PROVIDE REMOTE THERMOSTAT. CONTRACTOR SHALL BUILD MOCK-UP OF ONE VERTICAL FAN COIL UNIT WITH ENCLOSURE COMPLETELY FOR FSU'S APPROVAL PRIOR TO BUILDING THE REST.</div></div>																									

OWNER




FAYETTEVILLE  
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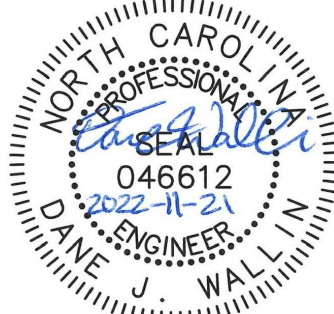
ENGINEER



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ARCHITECT





REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE2022-11-22

M&C PROJ #05815-0044

DRAWNILA

DESIGNEDILA

CHECKEDDJW

PROJ. MGRDJW

CONSTRUCTION DOCUMENTS

MECHANICAL SCHEDULES

M701



DEMOLITION NOTES	
<u>GENERAL ELECTRICAL DEMOLITION NOTES:</u>	
1.	CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES, FIRE ALARM DEVICES, AND ASSOCIATED WIRING AND CONDUIT WITHIN THE AREA TO BE DEMOLISHED OR AS REQUIRED TO FACILITATE NEW CONSTRUCTION. WIRING AND CONDUIT SHALL BE REMOVED BACK TO SOURCE. AT ELECTRIC PANELS, REMOVE CONDUCTORS COMPLETELY AND REMOVE CONDUIT BACK TO CEILING SPACE DIRECTLY ABOVE PANEL AND CAP. ABANDONED CIRCUIT BREAKERS SHALL BE TURNED OFF AND LABELED AS SPARE. CONDUIT/RACEWAYS THAT ARE TO BE REUSED FOR THIS MODIFICATION MAY REMAIN IF FOUND TO BE EQUAL TO NEW INSTALLATION (NOTE: ANY CONDUIT/RACEWAYS BEING REUSED SHALL COMPLY WITH SPECIFICATIONS). AFFECTED WIRING TO REMOVED/DEMOED DEVICES, FIXTURES, ETC. SHALL BE REMOVED BACK TO ELECT. PANEL AND REPLACED WITH NEW WIRE TO FEED NEW DEVICES, FIXTURES, ETC.
2.	EXISTING DEVICES TO REMAIN SHALL BE RE-FED AS REQUIRED TO MAINTAIN OPERATION.
3.	COORDINATE REMOVAL AND FINAL DISPOSITION OF EQUIPMENT WITH OWNER.
4.	ALL ABANDONED FLUSH JUNCTION BOXES SHALL HAVE BLANK STAINLESS STEEL COVERS INSTALLED.
5.	ITEMS REMOVED WITHIN DEMOLITION AREA THAT ARE PART OF BUT NOT LIMITED TO FIRE ALARM, LIGHTING, POWER DISTRIBUTION, GENERATOR, SECURITY OR COMMUNICATIONS SHALL BE TURNED OVER TO OWNER OR DISPOSED OF, AS DIRECTED BY OWNER.
6.	REMOVE ALL CONDUIT, WIRING, DEVICES, LIGHTING FIXTURES, EQUIPMENT AND ANY OTHER ELECTRICAL APPURTENANCES RENDERED USELESS OR ABANDONED DUE TO CONSTRUCTION. REMOVAL OF ABANDONED AND USELESS WIRING SHALL BE BACK TO THE SOURCE, EVEN IF OUTSIDE LIMITS OF CONSTRUCTION.
7.	CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.

GENERAL NOTES

A.

ALL WORK SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES AND THE NATIONAL ELECTRICAL CODE, 2020 EDITION, AND AMENDMENTS, IF ANY. AS A MINIMUM, ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL LICENSES, FEES, PERMITS, AND UTILITY CHARGES. BOTH ELECTRICAL CONTRACTOR AND INSTALLING MECHANIC ARE REMINDED THAT SINCE THE NATIONAL ELECTRICAL CODE IS BY STATUTORY INCLUSION A PART OF THE LAWS OF THE STATE THEY BEAR A PRIME RESPONSIBILITY TO COMPLY WITH IT EVEN WHEN THE DRAWINGS OR SPECIFICATIONS DENOTE AN APPARENT VIOLATION. THIS SHOULD BE OBSERVED CAREFULLY AND CONTINUOUSLY, PARTICULARLY DURING ESTIMATING FOR PROPOSAL, AND ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.

B.

ELECTRICAL CONTRACTOR SHALL MAINTAIN ON THE SITE AN ADEQUATE ADMINISTRATIVE SPACE WHERE ONE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS SHALL BE KEPT FOR THE WORK OF ALL TRADES ON THE PROJECT. THESE SHALL BE IN ADDITION TO THE SETS USED BY THE MECHANICS IN CARRYING OUT THEIR WORK ON THE PROJECT. THE PROJECTED LOCATION OF EVERY OUTLET, RACEWAY, OR ITEM OF EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT SHALL BE CHECKED AGAINST THE DRAWINGS AND SPECIFICATIONS OF ALL THE OTHER TRADES AS WELL AS BY DAY-TO-DAY CONFERENCE WITH WORKMEN AND SUPERVISORS OF ALL OTHER TRADES TO THE END THAT ANY CONFLICTS OR UNCERTAINTIES ABOUT LOCATIONS ARE RESOLVED BEFORE WORK IS INSTALLED, PARTICULARLY WITH REGARD TO THE INTERACTION OF LIGHTING FIXTURES, AIR HANDLING OPENINGS, ACCESS DOORS, SPRINKLER HEADS, ETC. CEILING CONSTRUCTION INSTALLATION SHALL BE MADE IN ACCORD WITH REFLECTED CEILING PLANS AND/OR INSTRUCTIONS BY THE ARCHITECT'S REPRESENTATIVES ON THE SITE. MOVING OF ITEMS FROM LOCATIONS SHOWN, REROUTING, OR CHANGES TO ACCOMPLISH ANY WORK AS SHOWN ON PLANS OR SPECIFICATIONS IN ORDER TO ACCOMPLISH THIS COORDINATION SHALL NOT BE CAUSE FOR CLAIM FOR ADDITIONAL COMPENSATION FOR THE WORK. PARTICULAR CARE SHALL BE TAKEN TO LOCATE BOXES SO THEY ARE NOT BACK-TO-BACK IN WALLS AND TO LOCATE OUTLETS OFF COLUMNS (UNLESS VITAL THEY BE THERE) OR OTHER PLACES WHERE THEY CONFLICT WITH STRUCTURAL STEEL OR REINFORCING BARS. ALL WORK PUT IN PLACE OTHER THAN SHOWN ON THE DESIGN AND CONSTRUCTION DOCUMENTS, SHALL BE MARKED LEGIBLY ON A CLEAN SET OF "AS-BUILT" DRAWINGS AS THE WORK IS PRODUCED.

C.

CONTRACTOR SHALL ALSO MAINTAIN AT THE SITE A COMPLETE SET OF ALL SHOP DRAWINGS, FIXTURE AND EQUIPMENT CUTS, MANUFACTURER'S WIRING DIAGRAMS AND INSTALLATION DATA. PERSONNEL SHALL STUDY THIS DATA BEFORE AND DURING INSTALLATION AND ROUGHING SO AS TO PREPARE FOR THE PROPER FIT AND FUNCTION UPON COMPLETION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND BEAR CONTRACTORS STAMP OF APPROVAL BEFORE BEING FORWARDED TO THE ENGINEER. APPROVED SHOP DRAWINGS BY THE ENGINEER/DESIGNER SHALL NOT BE CONSTRUED AS TO RELIEVING THE CONTRACTOR FROM RESPONSIBILITY WITH THE DESIGN OR TERMS OF THE CONTRACT DOCUMENTS NOR FROM RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWING.

D.

COMPLETELY ADEQUATE HOUSING SHALL BE PROVIDED ON THE SITE FOR ORDERLY AND CAREFUL STORAGE OF ALL MATERIALS AND EQUIPMENT. NOTHING SHALL BE STORED OUTSIDE EXCEPT CONDUIT, WHICH MAY BE STORED IN RACKS SO IT IS AT LEAST 12 INCHES ABOVE GROUND AND NOT SUBJECT TO MUD BEING SPATTERED ON IT.

E.

ATTENTION IS DIRECTED SPECIFICALLY TO CONTINUOUS QUALITY CONTROL TESTING.

F.

ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY A NORTH CAROLINA APPROVED THIRD PARTY TESTING AGENCY.

G.

ALL RACEWAYS SHALL BE METAL UNLESS SPECIFICALLY NOTED OR APPROVED OTHERWISE. ALL CIRCUITS SHALL BE IN RACEWAYS. CONCEAL ALL CABLE AND RACEWAYS IN FINISHED AREAS OF BUILDING. SET SCREW OR INDENTOR TYPE CONNECTOR OR COUPLING FITTINGS SHALL NOT BE PERMITTED. PROVIDE COMPRESSION GLAND TYPE FITTINGS MADE OF MALLEABLE, GALVANIZED, OR SHERARDIZED STEEL. POT-METAL OR CAST-TYPE FITTINGS SHALL NOT BE PERMITTED ON THIS PROJECT.

H.

PENETRATIONS OF REQUIRED SMOKE TIGHT PARTITIONS SHALL BE SEALED USING METHODS APPROVED UNDER THE STATE BUILDING CODE. COORDINATION WITH THE OWNER AND ENGINEER SHALL BE MAINTAINED TO ENSURE THAT THIS SMOKE STOPPING IS ACCOMPLISHED.

I.

WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE CHAPTER 7. COORDINATION WITH THE OWNER AND ENGINEER SHALL BE MAINTAINED TO ENSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. FIRE STOPPING OF PENETRATIONS IN RATED WALLS AND FLOORS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE CHAPTER 7 USING APPROVED ASSEMBLIES SUCH AS THE FOLLOWING:

CONDUIT PENETRATIONS OF 1 OR 2 HOUR GYPBOARD WALLS - U.L.#WL1001

CONDUIT PENETRATIONS OF 1 OR 2 HOUR CONCRETE OR BLOCK WALLS - U.L.#CAJ5001

CONDUIT PENETRATIONS OF 1 OR 2 HOUR CONCRETE FLOORS - U.L.#CAJ5001

J.

IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED AS REQUIRED BY U.L. COORDINATE CLOSELY WITH THE OWNER AND ENGINEER TO ENSURE THE INTEGRITY OF THE U.L. RATING IS MAINTAINED. BOXES OF 16 SQUARE INCHES OR LESS SHALL BE INSTALLED IN ACCORDANCE WITH U.L. "FIRE RESISTANCE RATINGS - ANSUL263 (BXUV) FOR WALL AND PARTITION ASSEMBLIES."

K.

CONDUCTORS SHALL BE COPPER WITH 75°C (THHN/THWN) MINIMUM INSULATION RUN IN CONDUIT, UNLESS OTHERWISE NOTED. ALL CONDUIT SHALL HAVE A GREEN GROUNDING CONDUCTOR.

L.

BRANCH CIRCUIT WIRE SIZING SHALL BE IN ACCORD WITH THE FOLLOWING TABLE: ALSO WHERE UNDERGROUND CONDUCTORS ARE INCREASED IN SIZE FROM THE MINIMUM SIZE THAT HAS SUFFICIENT AMPACITY FOR THE INTENDED INSTALLATION, WIRE-TYPE EQUIPMENT GROUNDING CONDUCTORS SHALL BE INCREASED IN SIZE PROPORTIONATELY ACCORDING TO THE CIRCULAR MIL AREA OF THE UNDERGROUND CONDUCTOR.

VOLTS	DISTANCE	HOME RUN	REMAINDER OF CIRCUIT
120/208	0' - 50'	#12	#12
	50' - 100'	#10	#12
	100' - 150'	#8	#10
277/480	0' - 125'	#12	#12
	125' - 220'	#10	#12
	220' - 330'	#8	#10

M.

ALL CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

277/480V, 3-PHASE, 4-WIRE	208/120V, 3-PHASE, 4-WIRE		
PHASE A	BROWN	PHASE A	BLACK
PHASE B	ORANGE	PHASE B	RED
PHASE C	YELLOW	PHASE C	BLUE
NEUTRAL	GRAY	NEUTRAL	WHITE

N.

ALL CIRCUITS BEING MODIFIED SHALL BE PROVIDED WITH INDIVIDUAL NEUTRALS. NO MULTI-WIRE BRANCH CIRCUITS ARE ALLOWED.

O.

ELECTRICAL CONTRACTOR SHALL VERIFY ALL VOLTAGES OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

P.

CONNECTION LOCATIONS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE ONLY. REFER TO APPROVED EQUIPMENT/SHOP DRAWINGS FOR SPECIFIC LOCATIONS.

Q.

MAKE ALL FINAL CONNECTIONS TO EACH PIECE OF EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

R.

IN GENERAL, MOUNTING HEIGHTS OF OUTLETS, SWITCHES, ETC. ARE NOT NOTED ON THE PLAN DRAWINGS. SCHEDULES AND NOTES SPECIFY "STANDARD" MOUNTING HEIGHTS FOR THESE ITEMS. STUDY CAREFULLY ELEVATIONS OF ALL WALLS AND CABINET WORK AS SHOWN ON ARCHITECTURAL DRAWINGS AND FIT OUTLETS TO SPACE AND TO AVOID CONFLICTS. OUTLETS SHALL ALWAYS BE LOCATED ABOVE, AND NOT IN, BACKSPASHES WHEREVER POSSIBLE. COORDINATE OUTLET LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS. ANY CONFLICT THAT CANNOT BE RESOLVED ON THE JOB SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER PRIOR TO ROUGHING.

S.

THE OWNER HAS THE RIGHT TO MOVE ANY AND ALL OUTLETS WITHIN 12 FEET OF THE LOCATIONS SHOWN ON THE DRAWINGS PRIOR TO THE CONTRACTOR STARTING THE ROUGH-IN FOR THE ROOM.

T.

COLOR - COORDINATE WITH OWNER/ARCHITECT.

U.

ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING BUT NOT LIMITED TO BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, AND TRANSFORMER LUGS, SHALL BE RATED FOR USE WITH 75°C CONDUCTORS SIZED IN ACCORDANCE WITH NEC TABLE 310.15(B)(16).

V.

ALL LIGHTING FIXTURES SHALL BE U.L. LISTED AND LABELED. LAMPS SHALL BE G.E., PHILLIPS/WESTINGHOUSE OR OSRAM/SYLVANIA. ALL FIXTURES SHALL BE EQUIPPED WITH LAMPS. ALL FIXTURES SHALL BE GROUNDED PER N.E.C.

W.

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EMPTY CONDUITS WITH PULL STRING.

X.

ELECTRICAL CONTRACTOR SHALL PROVIDE PHENOLIC LABELS ON ALL NEW EQUIPMENT DISCONNECTING MEANS, OR ON THE EQUIPMENT ITSELF WHERE APPLICABLE. LABEL SHALL CLEARLY INDICATE PANEL AND CIRCUIT NUMBER EQUIPMENT IS FED FROM. PANEL SCHEDULES AND MCC SHALL ALSO BE LABELED TO INDICATE EQUIPMENT SERVED. ANY OWNER STANDARDS FOR LABELING SUPERCEDE THESE REQUIREMENTS.

WIRING AND RACEWAY	
	SOLID LINES INDICATE CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILINGS, EXPOSED IN UNFINISHED AREAS. DASHED LINES INDICATE CONDUIT RUN BELOW GRADE OR BELOW FINISHED FLOOR. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	HOMERUN TO PANELBOARD. QUANTITY OF ARROWS INDICATES NUMBER OF CIRCUITS.
	GROUND ROD. SIZE AS SPECIFIED.
	CONDUIT WITH BUSHING AND CAP.
	HAZARDOUS LOCATION CONDUIT SEAL-OFF.
	CONDUIT TURNED UP.
	CONDUIT TURNED DOWN.
	SURFACE METAL RACEWAY, MOUNTING AND CONFIGURATION AS SPECIFIED.

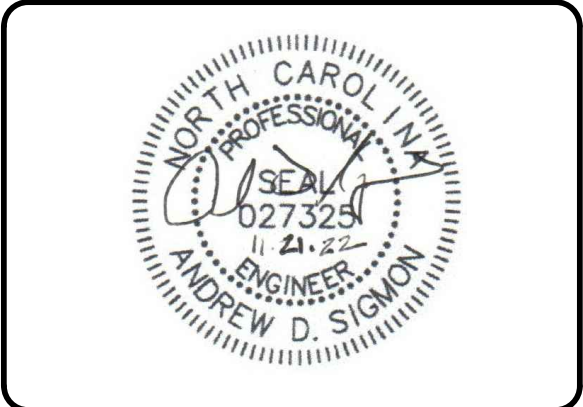
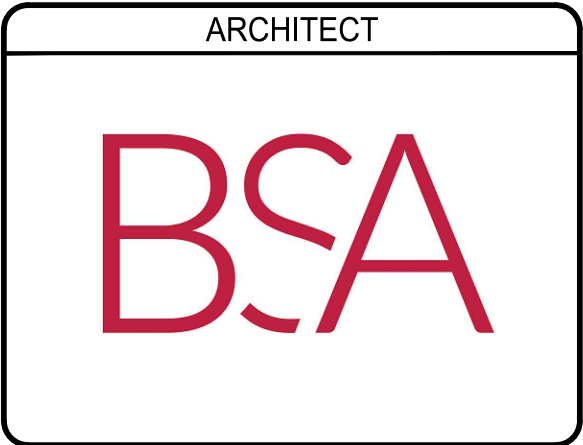
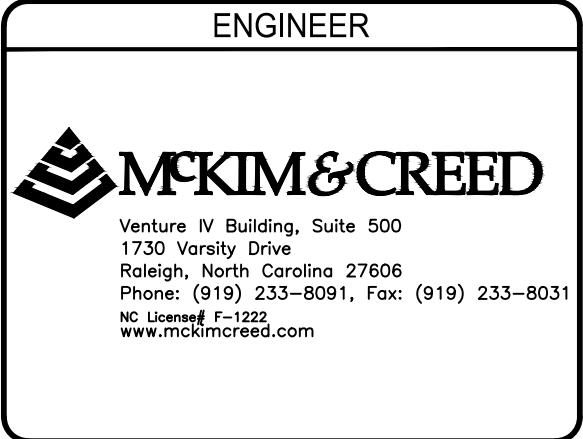
ABBREVIATIONS			
A	AMPS	EX	EXISTING
AFF	ABOVE FINISHED FLOOR	GF	GROUND FAULT INTERRUPTER
AFG	ABOVE FINISHED GRADE	HID	HIGH INTENSITY DISCHARGE
AFC	ABOVE FINISHED CEILING	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND
AIC	AMPS INTERRUPTING CAPACITY	MIN	MINIMUM
C	CONDUIT	MLO	MAIN LUGS ONLY
CL	CEILING	MCB	MAIN CIRCUIT BREAKER
EC	EMPTY CONDUIT	NIC	NOT IN CONTRACT
ECB	ENCLOSED CIRCUIT BREAKER	NTS	NOT TO SCALE
EWC	ELECTRIC WATER COOLER	RM	EXISTING TO REMAIN

SPECIAL SYSTEMS	
	MANUAL FIRE ALARM PULL STATION IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.
	FLUSH MOUNTED CEILING FIRE ALARM SYSTEM SMOKE DETECTOR.
	FIRE ALARM SYSTEM DUCT DETECTOR WITH REMOTE ALARM LAMP. FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR UNLESS OTHERWISE INDICATED.
	SECURITY SYSTEM CAMERA, SUBSCRIPT, WHEN SHOWN, INDICATES PAN, TILT, ZOOM (PTZ) CAPABILITY.

POWER	
	480/277 VOLT PANELBOARD, FLUSH AND SURFACE MOUNTED RESPECTIVELY. DESIGNATION AS INDICATED. SEE PANELBOARD SCHEDULE FOR EXACT REQUIREMENTS.
	208Y/120 OR 120/240 VOLT PANELBOARD, FLUSH AND SURFACE MOUNTED RESPECTIVELY. SEE PANEL SCHEDULE FOR DESIGN INFORMATION. DESIGNATION AS INDICATED.
	MAGNETIC MOTOR STARTER, FVNR UNLESS OTHERWISE INDICATED. SUBSCRIPT INDICATES NEMA SIZE. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	SPECIAL EQUIPMENT CONNECTION. SUBSCRIPT INDICATES NEMA CONFIGURATION, IF APPLICABLE. SEE EQUIPMENT CONNECTION SCHEDULE FOR EXACT REQUIREMENTS.
	COMBINATION MAGNETIC MOTOR STARTER, FVNR UNLESS OTHERWISE INDICATED. SUBSCRIPT INDICATES NEMA SIZE. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	FUSED SAFETY SWITCH. SIZE AND NUMBER OF POLES AS INDICATED BY SUBSCRIPTS PROVIDE FUSES PER NAMEPLATE OF EQUIPMENT SERVED UNLESS OTHERWISE INDICATED. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	NON-FUSED SAFETY SWITCH, SIZE AND NUMBER OF POLES AS INDICATED BY SUBSCRIPTS. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	SERVICE ENTRANCE RATED CIRCUIT BREAKER, SIZE AND NUMBER OF POLES AS INDICATED BY SUBSCRIPTS. SUBSCRIPT WP INDICATES IN NEMA 3R ENCLOSURE.
	BUSDUCT MOUNTED DISCONNECT. SIZE AS INDICATED BY SUBSCRIPT.
	MOTOR CONNECTION.
	VARIABLE FREQUENCY DRIVE FOR MOTOR.
	125 VOLT, 3 WIRE DUPLEX RECEPTACLE IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 18-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED. HUBBELL 8200 SERIES OR EQUIVALENT.
	125 VOLT, 3 WIRE DUPLEX RECEPTACLE IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46" ABOVE FINISHED FLOOR, 4" ABOVE DESK/COUNTERTOP, OR 2" ABOVE BACKSPASH UNLESS OTHERWISE INDICATED.
	TWO 125 VOLT, 3 WIRE DUPLEX RECEPTACLE IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 18-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED. HUBBELL 8200 SERIES OR EQUIVALENT.
	TWO 125 VOLT, 3 WIRE DUPLEX RECEPTACLE IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46" ABOVE FINISHED FLOOR, 4" ABOVE DESK/COUNTERTOP, OR 2" ABOVE BACKSPASH UNLESS OTHERWISE INDICATED.
	125 VOLT, 3 WIRE GROUND FAULT TYPE DUPLEX RECEPTACLE. MOUNTING AS INDICATED. HUBBELL 8200 SERIES OR EQUIVALENT.
	125 VOLT, 3 WIRE GROUND FAULT TYPE RECEPTACLE WITH STAINLESS STEEL WEATHERPROOF COVER. MOUNTING AS INDICATED. HUBBELL 8200 SERIES OR EQUIVALENT.
	SPECIAL EQUIPMENT CONNECTION. SUBSCRIPT INDICATES DESIGNATION. SEE EQUIPMENT CONNECTION SCHEDULE FOR EXACT REQUIREMENTS.
	JUNCTION BOX MOUNTED ABOVE CEILING OR FLUSH IN FINISHED CEILING UNLESS INDICATED OTHERWISE. SIZE PER NEC.
	FLUSH WITH COVER JUNCTION BOX IN FINISHED FLOOR. SIZE PER NEC.
	WALL MOUNTED JUNCTION BOX, SIZE PER NEC OR AS INDICATED. MOUNTING HEIGHT AS INDICATED. MOUNT FLUSH IN FINISHED SPACES OR SURFACE IN UNFINISHED SPACES UNLESS OTHERWISE INDICATED.

LIGHTING	
	SURFACE, RECESSED, OR WALL MOUNTED LIGHTING FIXTURE CONNECTED TO NORMAL BRANCH CIRCUIT. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS.
	SURFACE, RECESSED, OR WALL MOUNTED LIGHTING FIXTURE CONNECTED TO EMERGENCY BRANCH CIRCUIT. LETTER INDICATES TYPE. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS.
	CEILING MOUNTED EXIT SIGN, SHADED AREA INDICATES FACE WITH DIRECTIONAL ARROWS AS SHOWN. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED BRANCH CIRCUIT.
	WALL MOUNTED EXIT SIGN, SHADED AREA INDICATES FACE WITH DIRECTIONAL ARROWS AS SHOWN. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED BRANCH CIRCUIT.
	nLIGHT DUAL TECHNOLOGY OCCUPANCY SENSOR (PROVIDED BUILT INTO FIXTURE) OR EQUIVALENT BY LUMIWATT PRO/EATON, OR LUTRON/CRESTRON.
	EMERGENCY BATTERY PACK UNIT WITH NUMBER OF LAMPS AS INDICATED. LETTER (WHERE SHOWN) INDICATES TYPE. SEE LIGHTING FIXTURE SCHEDULE FOR EXACT REQUIREMENTS. CONNECT UNSWITCHED TO INDICATED LIFE SAFETY BRANCH CIRCUIT.
	SINGLE-POLE SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1221 SERIES OR EQUIVALENT.
	KEYED SINGLE-POLE SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1221 SERIES OR EQUIVALENT.
	THREE-WAY SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1221 SERIES OR EQUIVALENT.
	INCANDESCENT OR FLUORESCENT DIMMER CONTROL MOUNTED IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS.
	MOTOR RATED CONTACT SWITCH IN FLUSH (FINISHED SPACES) OR SURFACE (UNFINISHED SPACES) OUTLET BOX. MOUNT 46-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED OR REQUIRED BY SITE CONDITIONS. HUBBELL 1221 SERIES OR EQUIVALENT.

LIGHTING FIXTURE SCHEDULE								
TYPE	MANUFACTURER	CATALOG NUMBER	ALTERNATE MANUFACTURERS	LAMP DATA		MOUNTING	INPUT WATTS	DESCRIPTION
				TYPE	COLOR			
A	LITHONIA	2BLT2 20L ADP LP840	HUBBELL COOPER	LED	4000K	GRID	16	LOW PROFILE 2'x2' RECESSED, LED TROFFER WITH CURVED RIBBED DIFFUSER.



REV	REVISION DESCRIPTION	DATE

FSU MCLEOD HALL HVAC REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ELECTRICAL SYMBOLS  
LEGEND AND GENERAL  
NOTES

E001





FAYETTEVILLE  
STATE UNIVERSITY™



**McKIM & CREED**

BSA



# FSU MCLEOD HALL HVAC REPLACEMENT

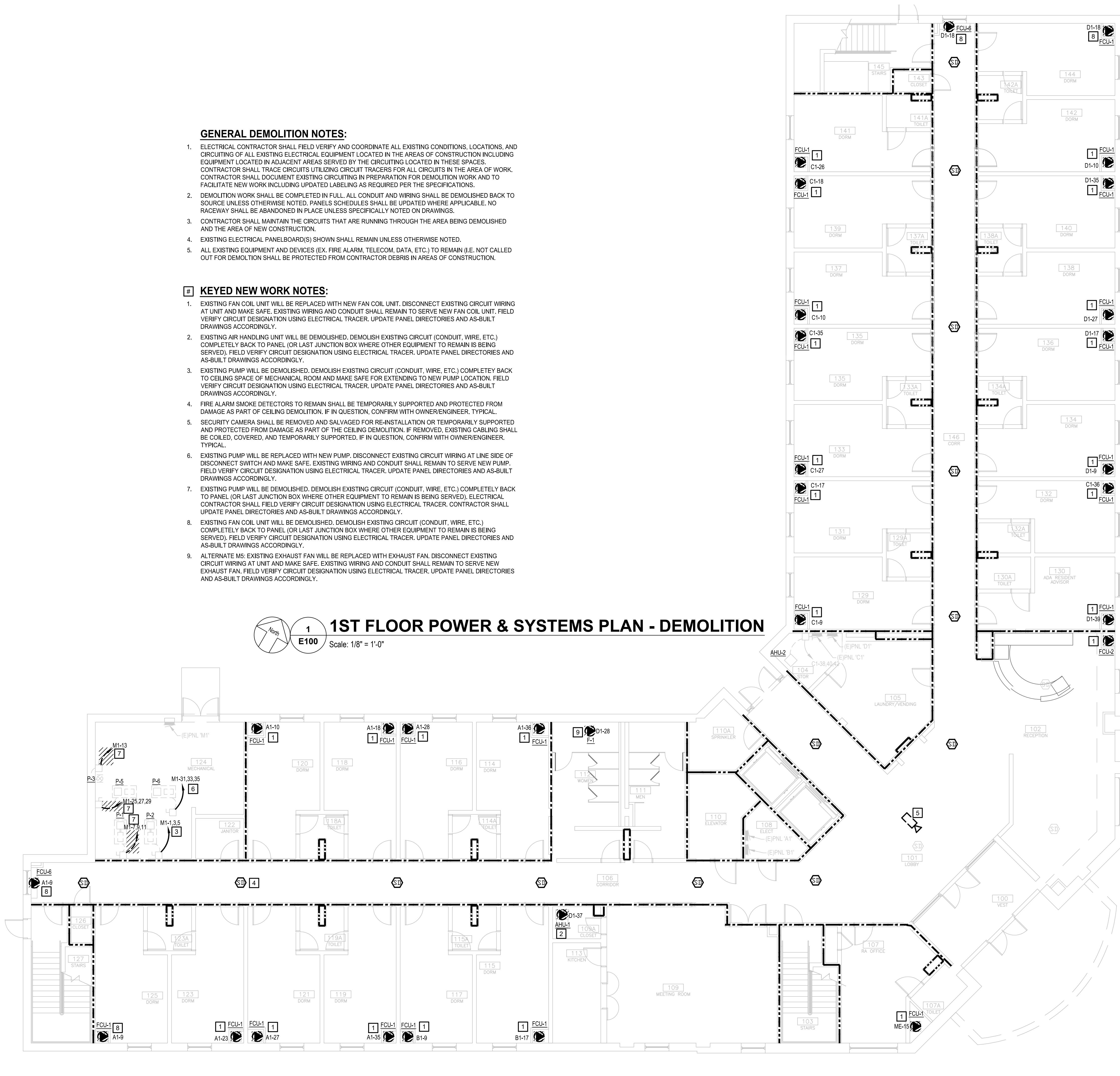
DATE	2022-11-22
M&C PROJ. #	05815-00444
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADSS
PROJ. MGR.	DJW

1ST FLOOR ELECTRICAL  
POWER & SYSTEMS PLAN  
- DEMOLITION

# E100

1. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATING LABELING AS REQUIRED PER THE SPECIFICATIONS.
2. DEMOLITION WORK SHALL BE COMPLETED IN FULL. ALL CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE UNLESS OTHERWISE NOTED, PANELS SCHEDULES SHALL BE UPDATED WHERE APPLICABLE. NO RACEWAY SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON DRAWINGS.
3. CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.
4. EXISTING ELECTRICAL PANELBOARD(S) SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
5. ALL EXISTING EQUIPMENT AND DEVICES (EX. FIRE ALARM, TELECOM, DATA, ETC.) TO REMAIN (I.E. NOT CALLED OUT FOR DEMOLITION SHALL BE PROTECTED FROM CONTRACTOR DEBRIS IN AREAS OF CONSTRUCTION.

1. EXISTING FAN COIL UNIT WILL BE REPLACED WITH NEW FAN COIL UNIT. DISCONNECT EXISTING CIRCUIT WIRING AT UNIT AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW FAN COIL UNIT. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
2. EXISTING AIR HANDLING UNIT WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
3. EXISTING PUMP WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO CEILING SPACE OF MECHANICAL ROOM AND MAKE SAFE FOR EXTENDING TO NEW PUMP LOCATION. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
4. FIRE ALARM SMOKE DETECTORS TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED FROM DAMAGE AS PART OF CEILING DEMOLITION. IF IN QUESTION, CONFIRM WITH OWNER/ENGINEER, TYPICAL.
5. SECURITY CAMERA SHALL BE REMOVED AND SALVAGED FOR RE-INSTALLATION OR TEMPORARILY SUPPORTED AND PROTECTED FROM DAMAGE AS PART OF THE CEILING DEMOLITION. IF REMOVED, EXISTING CABLEING SHALL BE COILED, COVERED, AND TEMPORARILY SUPPORTED. IF IN QUESTION, CONFIRM WITH OWNER/ENGINEER, TYPICAL.
6. EXISTING PUMP WILL BE REPLACED WITH NEW PUMP. DISCONNECT EXISTING CIRCUIT WIRING AT LINE SIDE OF DISCONNECT SWITCH AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW PUMP. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
7. EXISTING PUMP WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). ELECTRICAL CONTRACTOR SHALL FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. CONTRACTOR SHALL UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
8. EXISTING FAN COIL UNIT WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
9. ALTERNATE MS: EXISTING EXHAUST FAN WILL BE REPLACED WITH EXHAUST FAN. DISCONNECT EXISTING CIRCUIT WIRING AT UNIT AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW EXHAUST FAN. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.



1/8"=1'-0" 

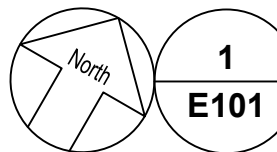


**GENERAL DEMOLITION NOTES:**

- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.
- DEMOLITION WORK SHALL BE COMPLETED IN FULL. ALL CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE UNLESS OTHERWISE NOTED. PANELS SCHEDULES SHALL BE UPDATED WHERE APPLICABLE. NO RACEWAY SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON DRAWINGS.
- CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.
- EXISTING ELECTRICAL PANELBOARD(S) SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- ALL EXISTING EQUIPMENT AND DEVICES (EX. FIRE ALARM, TELECOM, DATA, ETC.) TO REMAIN (I.E. NOT CALLED OUT FOR DEMOLITION SHALL BE PROTECTED FROM CONTRACTOR DEBRIS IN AREAS OF CONSTRUCTION.

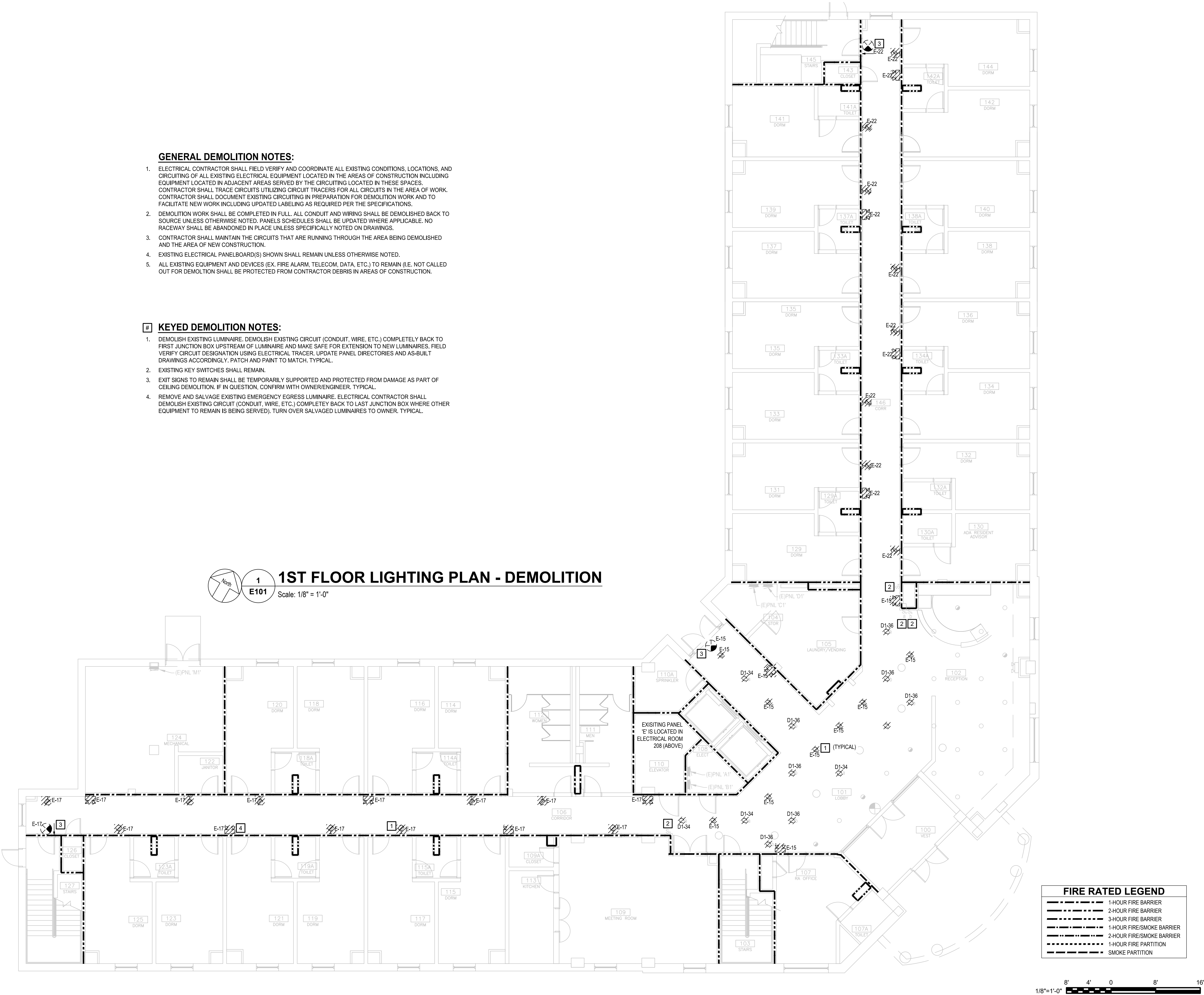
**# KEYED DEMOLITION NOTES:**

- DEMOLISH EXISTING LUMINAIRE. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO FIRST JUNCTION BOX UPSTREAM OF LUMINAIRE AND MAKE SAFE FOR EXTENSION TO NEW LUMINAIRES. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY. PATCH AND PAINT TO MATCH. TYPICAL.
- EXISTING KEY SWITCHES SHALL REMAIN.
- EXIT SIGNS TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED FROM DAMAGE AS PART OF CEILING DEMOLITION. IF IN QUESTION, CONFIRM WITH OWNER/ENGINEER. TYPICAL.
- REMOVE AND SALVAGE EXISTING EMERGENCY EGRESS LUMINAIRE. ELECTRICAL CONTRACTOR SHALL DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). TURN OVER SALVAGED LUMINAIRES TO OWNER. TYPICAL.



**1ST FLOOR LIGHTING PLAN - DEMOLITION**

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	3-HOUR FIRE BARRIER
	1-HOUR FIRE/SMOKE BARRIER
	2-HOUR FIRE/SMOKE BARRIER
	1-HOUR FIRE PARTITION
	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



ENGINEER



ARCHITECT



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

**1ST FLOOR ELECTRICAL  
LIGHTING PLAN -  
DEMOLITION**

**E101**

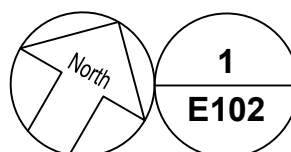


**GENERAL DEMOLITION NOTES:**

- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.
- DEMOLITION WORK SHALL BE COMPLETED IN FULL. ALL CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE UNLESS OTHERWISE NOTED. PANELS SCHEDULES SHALL BE UPDATED WHERE APPLICABLE. NO RACEWAY SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON DRAWINGS.
- CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.
- EXISTING ELECTRICAL PANELBOARD(S) SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- ALL EXISTING EQUIPMENT AND DEVICES (EX. FIRE ALARM, TELECOM, DATA, ETC.) TO REMAIN (I.E. NOT CALLED OUT FOR DEMOLITION SHALL BE PROTECTED FROM CONTRACTOR DEBRIS IN AREAS OF CONSTRUCTION.

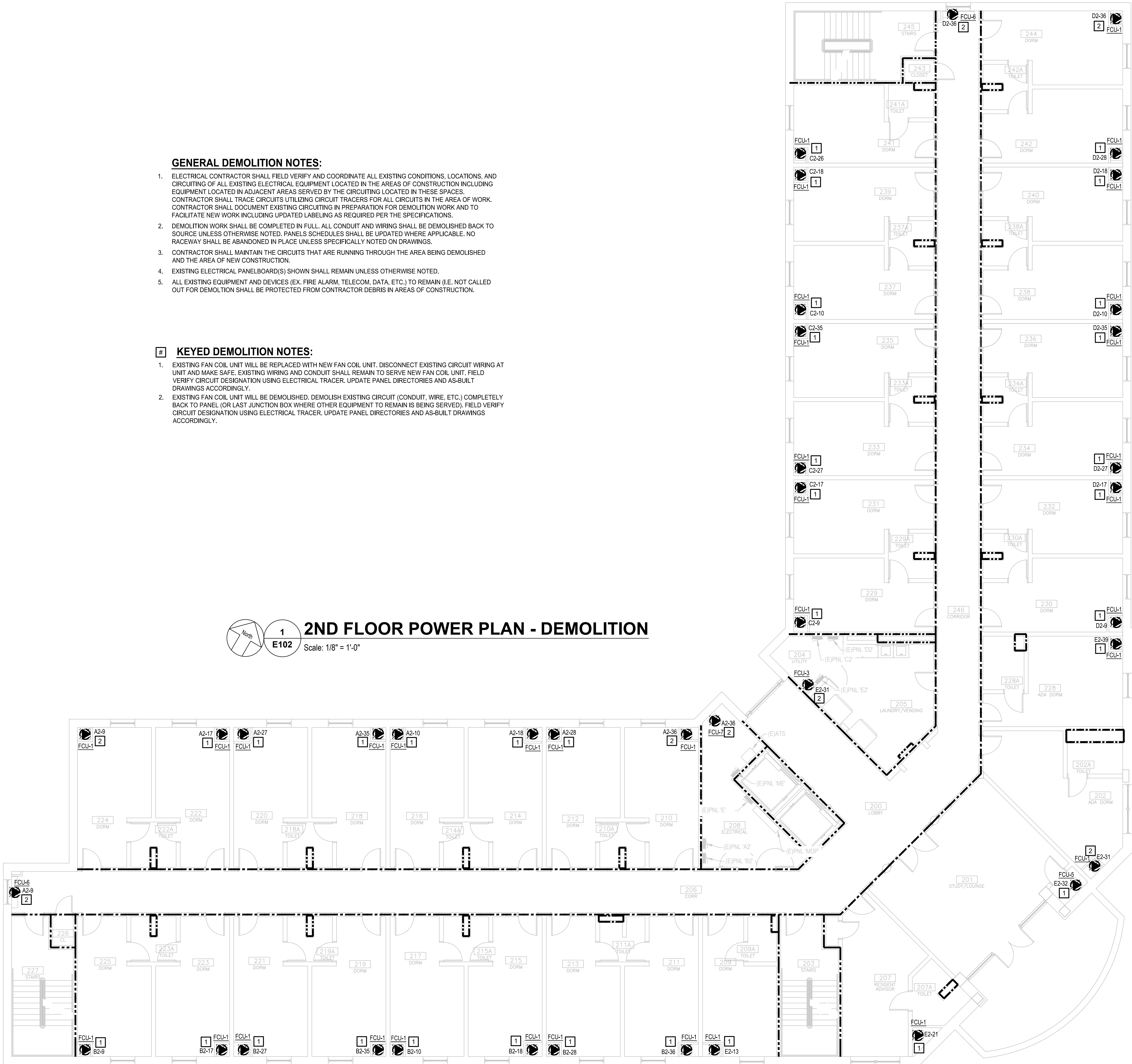
**# KEYED DEMOLITION NOTES:**

- EXISTING FAN COIL UNIT WILL BE REPLACED WITH NEW FAN COIL UNIT. DISCONNECT EXISTING CIRCUIT WIRING AT UNIT AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW FAN COIL UNIT. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
- EXISTING FAN COIL UNIT WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.



**2ND FLOOR POWER PLAN - DEMOLITION**

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



ENGINEER



ARCHITECT



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

2ND FLOOR ELECTRICAL  
PLAN - DEMOLITION

**E102**





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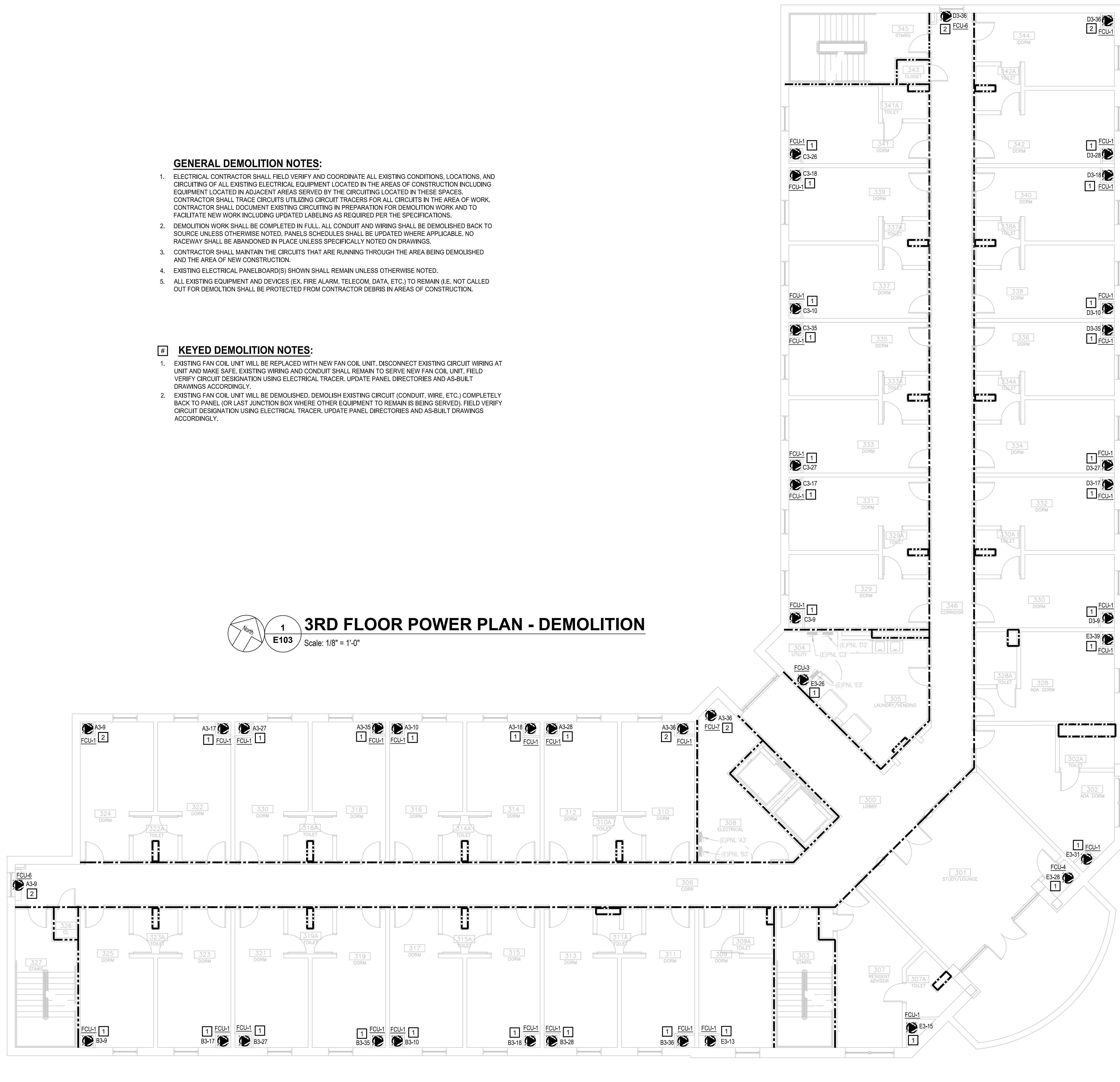
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# FSU MCLEOD HALL HVAC REPLACEMENT

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADDS
PROJ. MGR.	DJW

### 3RD FLOOR ELECTRICAL PLAN - DEMOLITION

# E103



8' 4' 0 8' 16'

1/8"=1'-0"

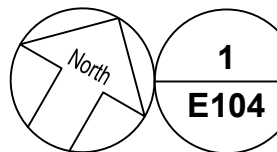


**GENERAL DEMOLITION NOTES:**

- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.
- DEMOLITION WORK SHALL BE COMPLETED IN FULL. ALL CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE UNLESS OTHERWISE NOTED. PANELS SCHEDULES SHALL BE UPDATED WHERE APPLICABLE. NO RACEWAY SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON DRAWINGS.
- CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.
- EXISTING ELECTRICAL PANELBOARD(S) SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- ALL EXISTING EQUIPMENT AND DEVICES (EX. FIRE ALARM, TELECOM, DATA, ETC.) TO REMAIN (I.E. NOT CALLED OUT FOR DEMOLITION SHALL BE PROTECTED FROM CONTRACTOR DEBRIS IN AREAS OF CONSTRUCTION.

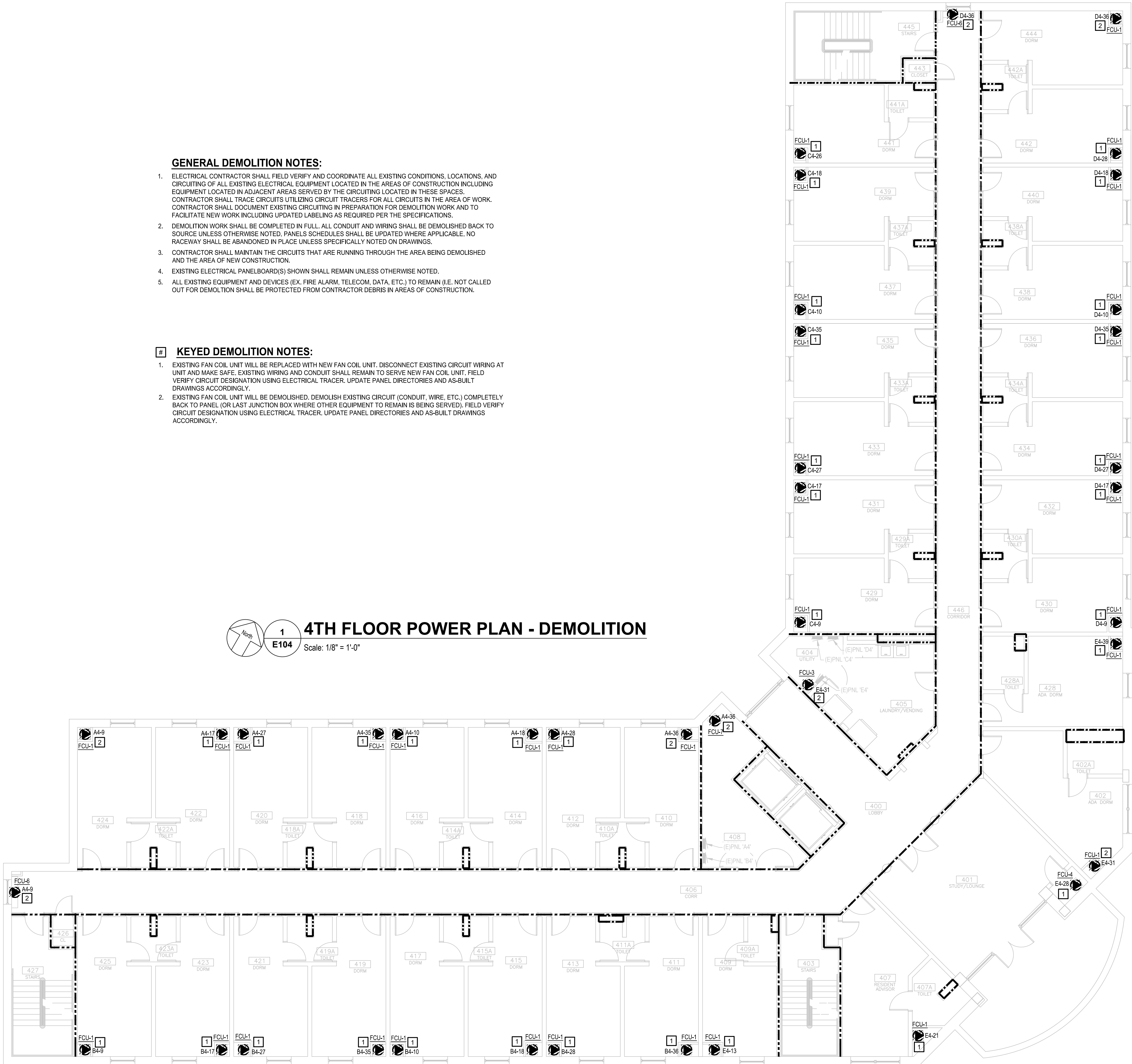
**# KEYED DEMOLITION NOTES:**

- EXISTING FAN COIL UNIT WILL BE REPLACED WITH NEW FAN COIL UNIT. DISCONNECT EXISTING CIRCUIT WIRING AT UNIT AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW FAN COIL UNIT. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
- EXISTING FAN COIL UNIT WILL BE DEMOLISHED. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.



**4TH FLOOR POWER PLAN - DEMOLITION**

Scale: 1/8" = 1'-0"







FAYETTEVILLE  
STATE UNIVERSITY™



**McKIM & CREED**  
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 NC Licensed F-1222  
[www.mckimcreed.com](http://www.mckimcreed.com)

BSA



# FSU MCLEOD HALL HVAC REPLACEMENT

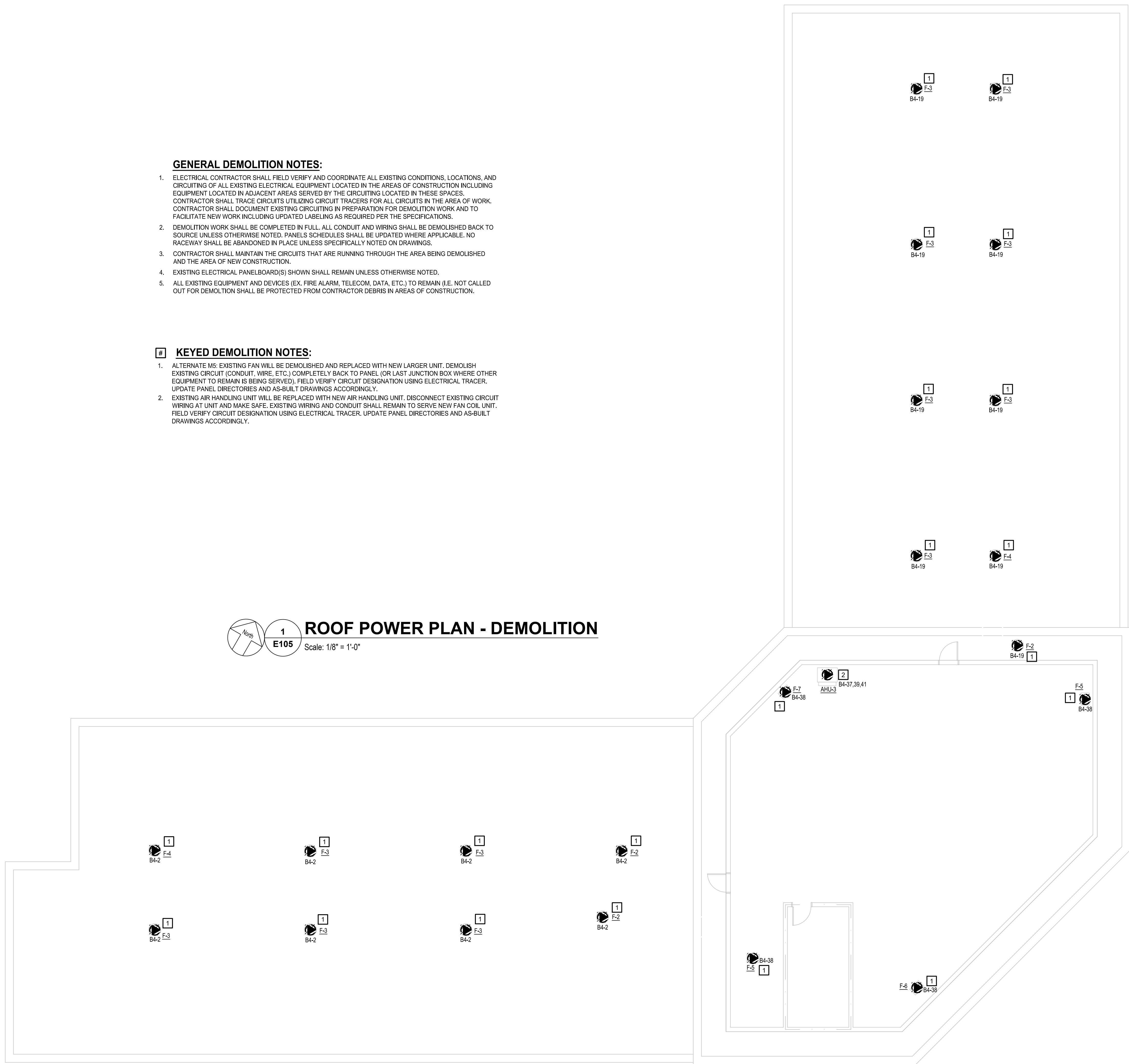
DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

## ROOF ELECTRICAL PLAN - DEMOLITION

# E105

1. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.
2. DEMOLITION WORK SHALL BE COMPLETED IN FULL. ALL CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE UNLESS OTHERWISE NOTED. PANELS SCHEDULED SHALL BE UPDATED WHERE APPLICABLE. NO RACEWAY SHALL BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED ON DRAWINGS.
3. CONTRACTOR SHALL MAINTAIN THE CIRCUITS THAT ARE RUNNING THROUGH THE AREA BEING DEMOLISHED AND THE AREA OF NEW CONSTRUCTION.
4. EXISTING ELECTRICAL PANELBOARD(S) SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
5. ALL EXISTING EQUIPMENT AND DEVICES (EX. FIRE ALARM, TELECOM, DATA, ETC.) TO REMAIN (I.E. NOT CALLED OUT FOR DEMOLITION SHALL BE PROTECTED FROM CONTRACTOR DEBRIS IN AREAS OF CONSTRUCTION.

1. ALTERNATE M55 EXISTING FAN WILL BE DEMOLISHED AND REPLACED WITH NEW LARGER UNIT. DEMOLISH EXISTING CIRCUIT (CONDUIT, WIRE, ETC.) COMPLETELY BACK TO PANEL (OR LAST JUNCTION BOX WHERE OTHER EQUIPMENT TO REMAIN IS BEING SERVED). FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.
2. EXISTING AIR HANDLING UNIT WILL BE REPLACED WITH NEW AIR HANDLING UNIT. DISCONNECT EXISTING CIRCUIT WIRING AT UNIT AND MAKE SAFE. EXISTING WIRING AND CONDUIT SHALL REMAIN TO SERVE NEW FAN COIL UNIT. FIELD VERIFY CIRCUIT DESIGNATION USING ELECTRICAL TRACER. UPDATE PANEL DIRECTORIES AND AS-BUILT DRAWINGS ACCORDINGLY.



FIRE RATED LEGEND	
=====	1-HOUR FIRE BARRIER
=====	2-HOUR FIRE BARRIER
=====	3-HOUR FIRE BARRIER
=====	1-HOUR FIRE/SMOKE BARRIER
=====	2-HOUR FIRE/SMOKE BARRIER
=====	1-HOUR FIRE PARTITION
=====	SMOKE PARTITION

8' 4' 0 8' 16'

1/8"=1'-0"

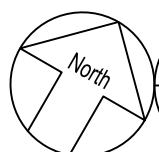


**GENERAL NEW WORK NOTES:**

1. REFER TO DRAWING E001 FOR GENERAL PROJECT NOTES, SYMBOLS & ABBREVIATIONS.
2. REFER TO E400 SERIES FOR PANEL SCHEDULES AND E501 FOR ELECTRICAL DETAILS.
3. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.

**KEYED NEW WORK NOTES:**

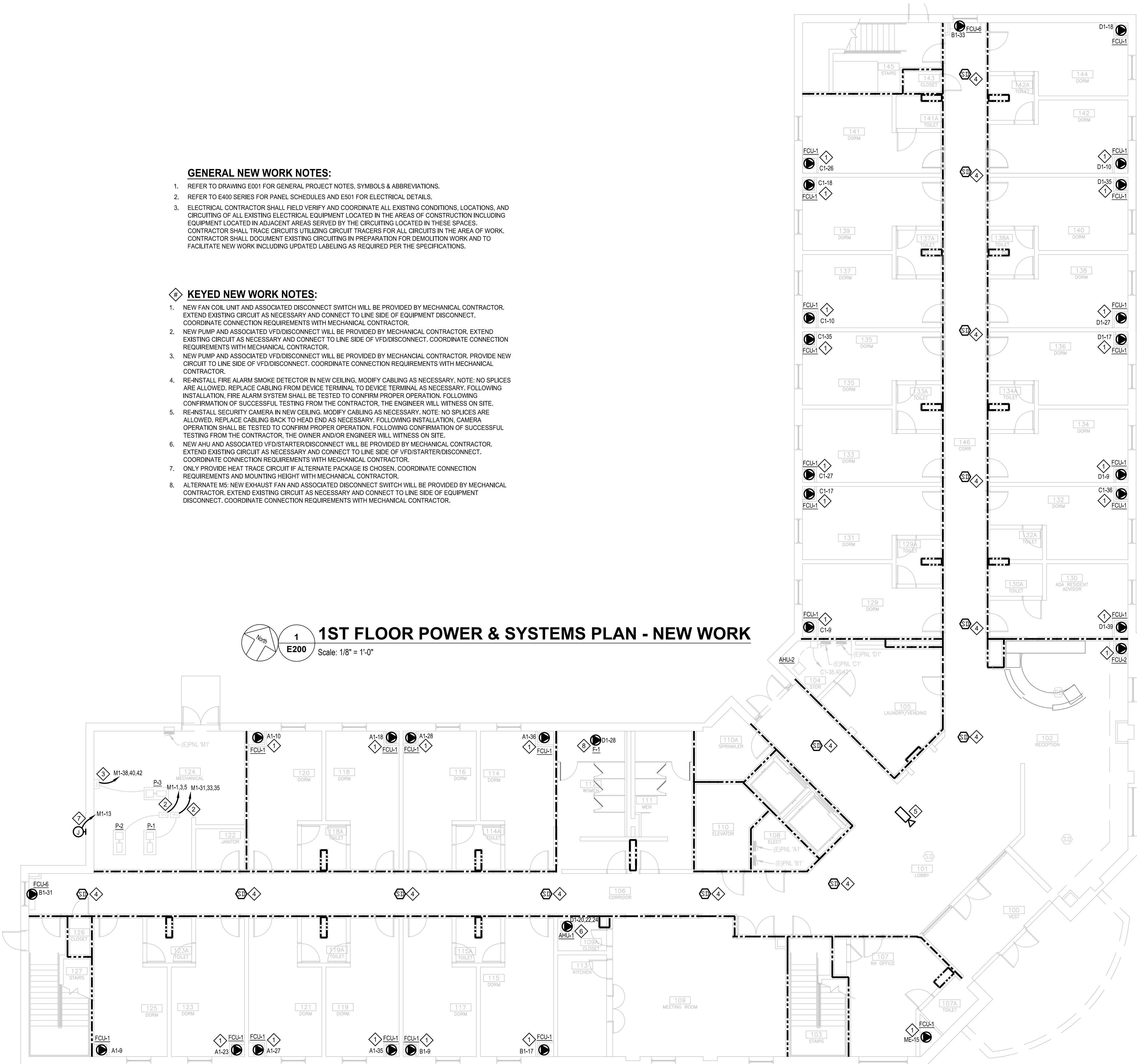
1. NEW FAN COIL UNIT AND ASSOCIATED DISCONNECT SWITCH WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF EQUIPMENT DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
2. NEW PUMP AND ASSOCIATED VFD/DISCONNECT WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF VFD/DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
3. NEW PUMP AND ASSOCIATED VFD/DISCONNECT WILL BE PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW CIRCUIT TO LINE SIDE OF VFD/DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
4. RE-INSTALL FIRE ALARM SMOKE DETECTOR IN NEW CEILING. MODIFY CABLING AS NECESSARY. NOTE: NO SPLICES ARE ALLOWED. REPLACE CABLING FROM DEVICE TERMINAL TO DEVICE TERMINAL AS NECESSARY. FOLLOWING INSTALLATION, FIRE ALARM SYSTEM SHALL BE TESTED TO CONFIRM PROPER OPERATION. FOLLOWING CONFIRMATION OF SUCCESSFUL TESTING FROM THE CONTRACTOR, THE ENGINEER WILL WITNESS ON SITE.
5. RE-INSTALL SECURITY CAMERA IN NEW CEILING. MODIFY CABLING AS NECESSARY. NOTE: NO SPLICES ARE ALLOWED. REPLACE CABLING BACK TO HEAD END AS NECESSARY. FOLLOWING INSTALLATION, CAMERA OPERATION SHALL BE TESTED TO CONFIRM PROPER OPERATION. FOLLOWING CONFIRMATION OF SUCCESSFUL TESTING FROM THE CONTRACTOR, THE OWNER AND/OR ENGINEER WILL WITNESS ON SITE.
6. NEW AHU AND ASSOCIATED VFD/STARTER/DISCONNECT WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF VFD/STARTER/DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
7. ONLY PROVIDE HEAT TRACE CIRCUIT IF ALTERNATE PACKAGE IS CHOSEN. COORDINATE CONNECTION REQUIREMENTS AND MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR.
8. ALTERNATE M5: NEW EXHAUST FAN AND ASSOCIATED DISCONNECT SWITCH WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF EQUIPMENT DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.



1  
E200

**1ST FLOOR POWER & SYSTEMS PLAN - NEW WORK**

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

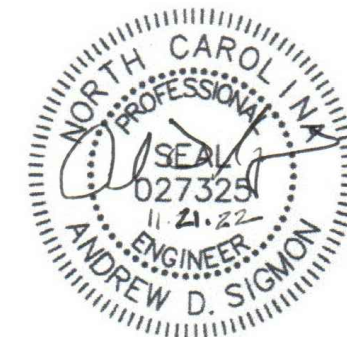
OWNER



ENGINEER



ARCHITECT



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

1ST FLOOR POWER &  
SYSTEMS PLAN - NEW  
WORK

**E200**



**GENERAL NEW WORK NOTES:**

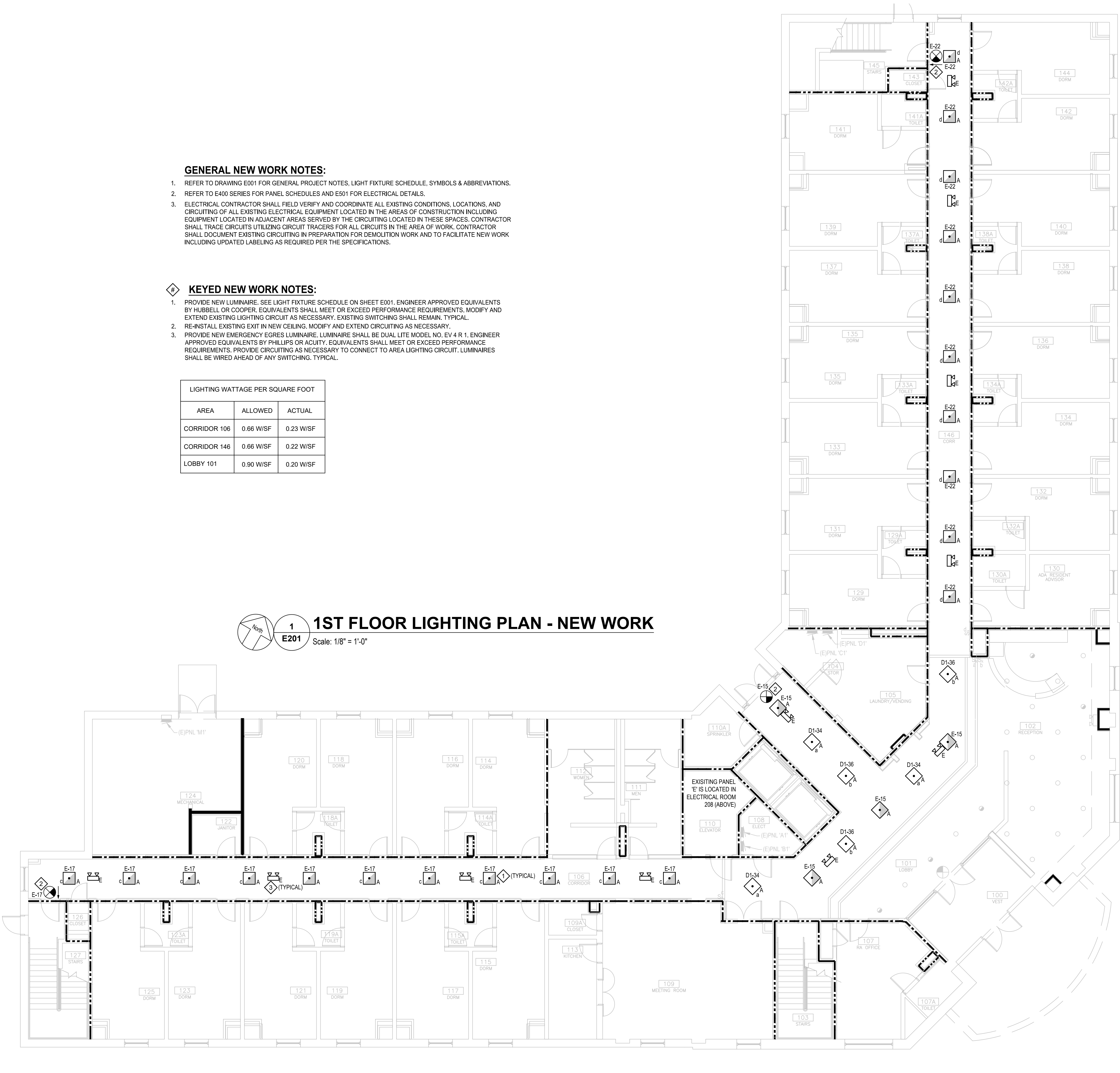
1. REFER TO DRAWING E001 FOR GENERAL PROJECT NOTES, LIGHT FIXTURE SCHEDULE, SYMBOLS & ABBREVIATIONS.
2. REFER TO E400 SERIES FOR PANEL SCHEDULES AND E501 FOR ELECTRICAL DETAILS.
3. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.

**KEYED NEW WORK NOTES:**

1. PROVIDE NEW LUMINAIRE. SEE LIGHT FIXTURE SCHEDULE ON SHEET E001. ENGINEER APPROVED EQUIVALENTS BY HUBBELL OR COOPER. EQUIVALENTS SHALL MEET OR EXCEED PERFORMANCE REQUIREMENTS, MODIFY AND EXTEND EXISTING LIGHTING CIRCUIT AS NECESSARY. EXISTING SWITCHING SHALL REMAIN. TYPICAL.
2. RE-INSTALL EXISTING EXIT IN NEW CEILING. MODIFY AND EXTEND CIRCUITING AS NECESSARY.
3. PROVIDE NEW EMERGENCY EGRES LUMINAIRE. LUMINAIRE SHALL BE DUAL LITE MODEL NO. EV 4 R 1. ENGINEER APPROVED EQUIVALENTS BY PHILLIPS OR ACUTY. EQUIVALENTS SHALL MEET OR EXCEED PERFORMANCE REQUIREMENTS. PROVIDE CIRCUITING AS NECESSARY TO CONNECT TO AREA LIGHTING CIRCUIT. LUMINAIRES SHALL BE WIRED AHEAD OF ANY SWITCHING. TYPICAL.

LIGHTING WATTAGE PER SQUARE FOOT		
AREA	ALLOWED	ACTUAL
CORRIDOR 106	0.66 W/SF	0.23 W/SF
CORRIDOR 146	0.66 W/SF	0.22 W/SF
LOBBY 101	0.90 W/SF	0.20 W/SF

**1ST FLOOR LIGHTING PLAN - NEW WORK**  
Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
---	1-HOUR FIRE BARRIER
----	2-HOUR FIRE BARRIER
-----	3-HOUR FIRE BARRIER
-.-.-.-	1-HOUR FIRE/SMOKE BARRIER
-.-.-.-	2-HOUR FIRE/SMOKE BARRIER
-.-.-.-	1-HOUR FIRE PARTITION
-.-.-.-	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



ENGINEER



Venture IV Building, Suite 500  
1730 Varsity Drive  
Raleigh, North Carolina 27606  
Phone: (919) 233-8091, Fax: (919) 233-8031  
NC License # 1-1222  
www.mkimcreed.com

ARCHITECT



REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

1ST FLOOR ELECTRICAL  
LIGHTING PLAN - NEW  
WORK

**E201**





FAYETTEVILLE  
STATE UNIVERSITY™



**McKIM & CREED**

BSA

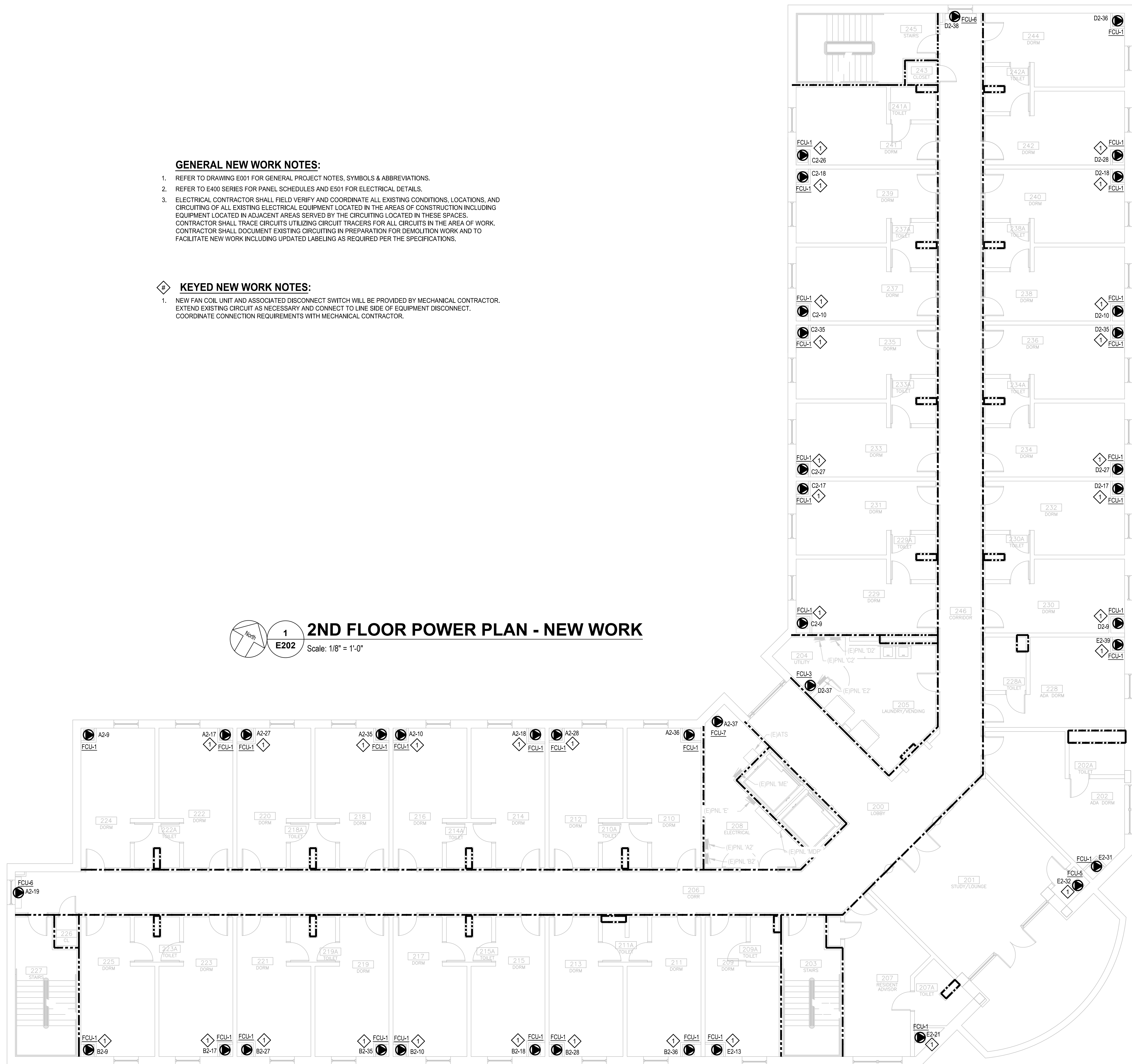
[illegible]

# FSU MCLEOD HALL HVAC REPLACEMENT

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADDS
PROJ. MGR.	DJW

## 2ND FLOOR ELECTRICAL PLAN - NEW WORK

# E202



8' 4' 0 8' 16'

1/8"=1'-0"

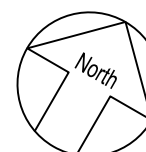


**GENERAL NEW WORK NOTES:**

- REFER TO DRAWING E001 FOR GENERAL PROJECT NOTES, SYMBOLS & ABBREVIATIONS.
- REFER TO E400 SERIES FOR PANEL SCHEDULES AND E501 FOR ELECTRICAL DETAILS.
- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.

**KEYED NEW WORK NOTES:**

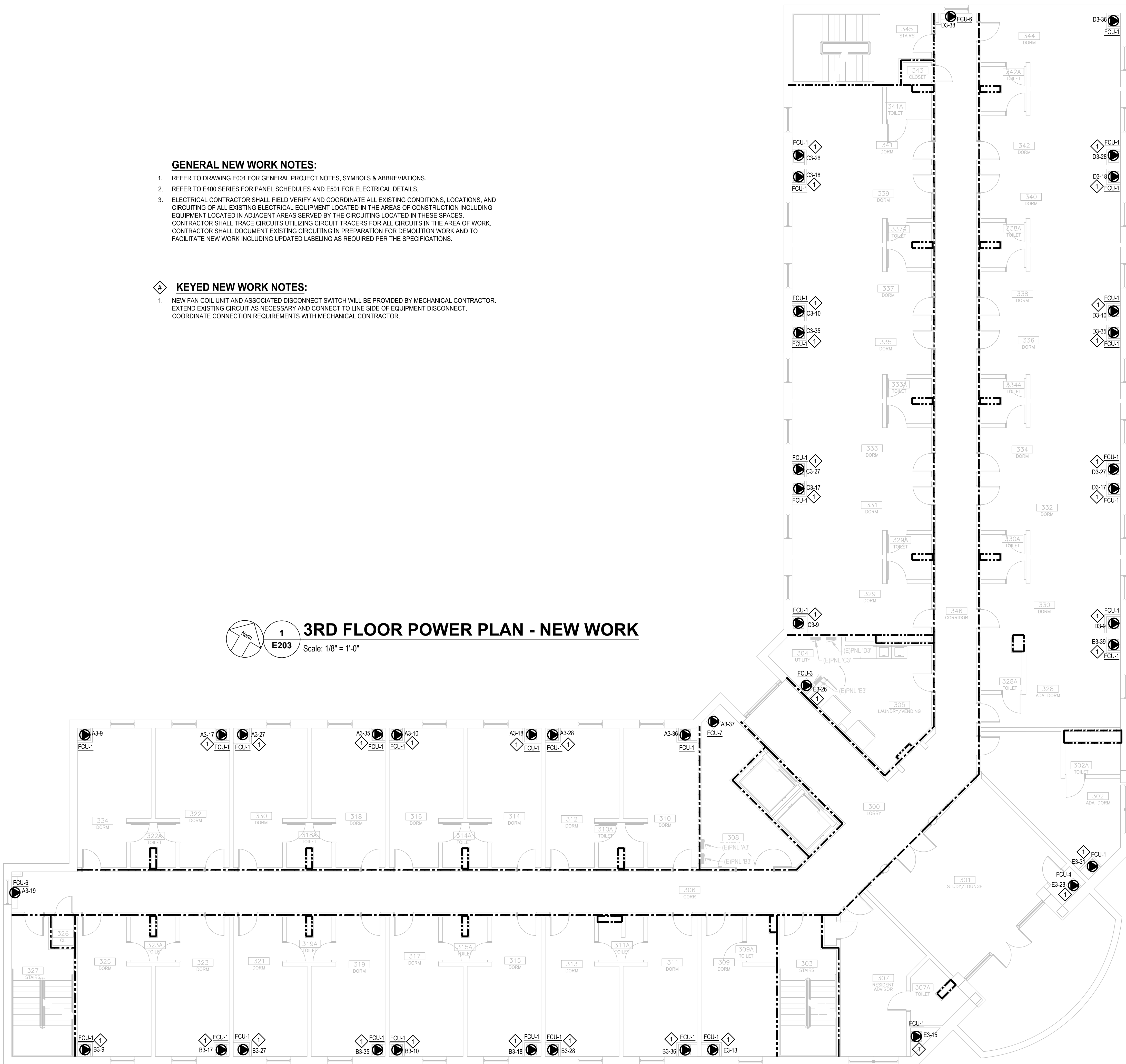
- NEW FAN COIL UNIT AND ASSOCIATED DISCONNECT SWITCH WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF EQUIPMENT DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.



1  
E203

**3RD FLOOR POWER PLAN - NEW WORK**

Scale: 1/8" = 1'-0"



FIRE RATED LEGEND	
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	3-HOUR FIRE BARRIER
	1-HOUR FIRE/SMOKE BARRIER
	2-HOUR FIRE/SMOKE BARRIER
	1-HOUR FIRE PARTITION
	SMOKE PARTITION

1/8"=1'-0" 8' 4' 0 8' 16'

OWNER



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BSA



REV	REVISION DESCRIPTION	DATE

FSU MCLEOD  
HALL HVAC  
REPLACEMENT

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

3RD FLOOR ELECTRICAL  
PLAN - NEW WORK

E203

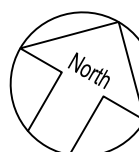


**GENERAL NEW WORK NOTES:**

1. REFER TO DRAWING E001 FOR GENERAL PROJECT NOTES, SYMBOLS & ABBREVIATIONS.
2. REFER TO E400 SERIES FOR PANEL SCHEDULES AND E501 FOR ELECTRICAL DETAILS.
3. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.

**KEYED NEW WORK NOTES:**

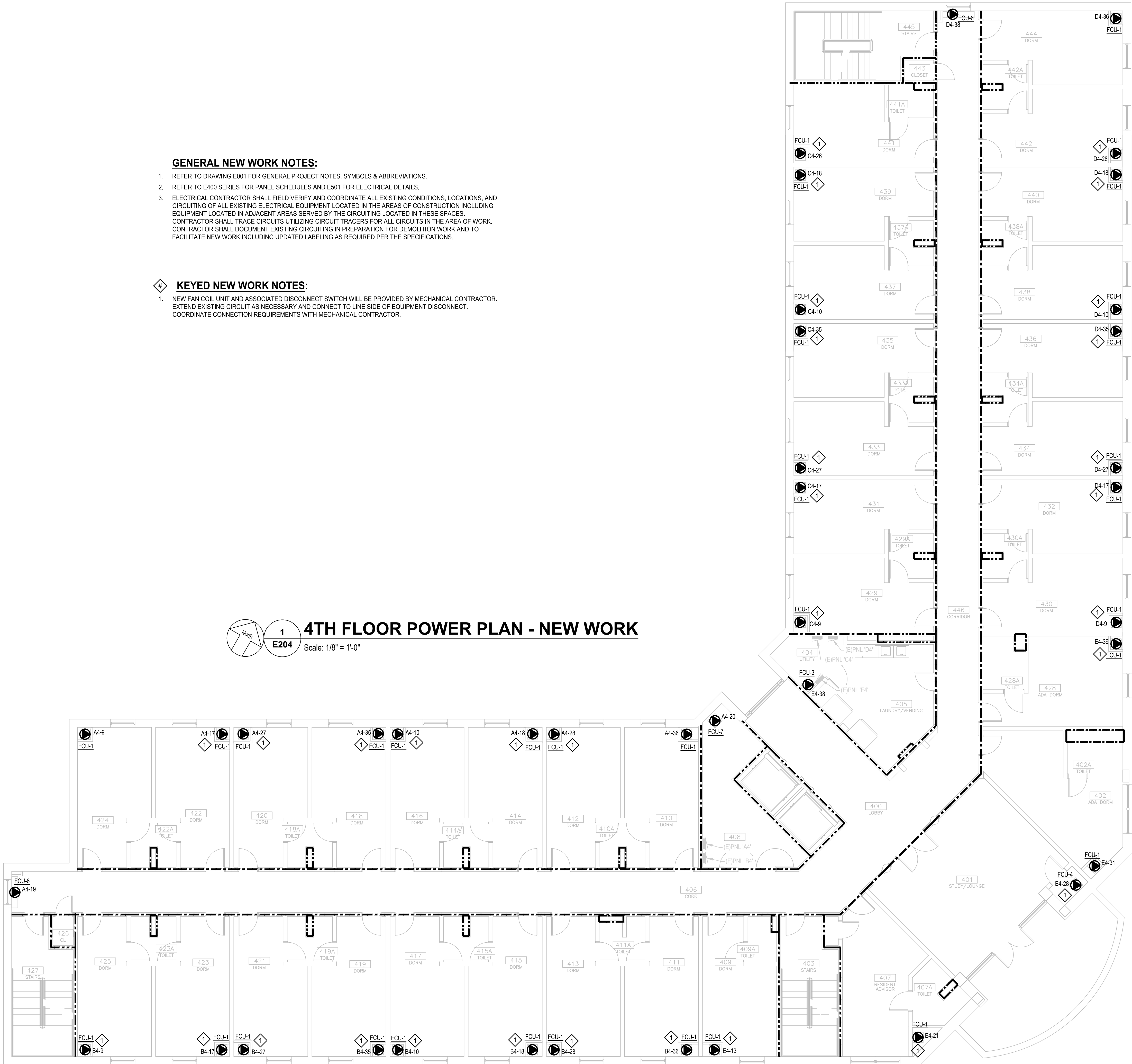
1. NEW FAN COIL UNIT AND ASSOCIATED DISCONNECT SWITCH WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF EQUIPMENT DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.



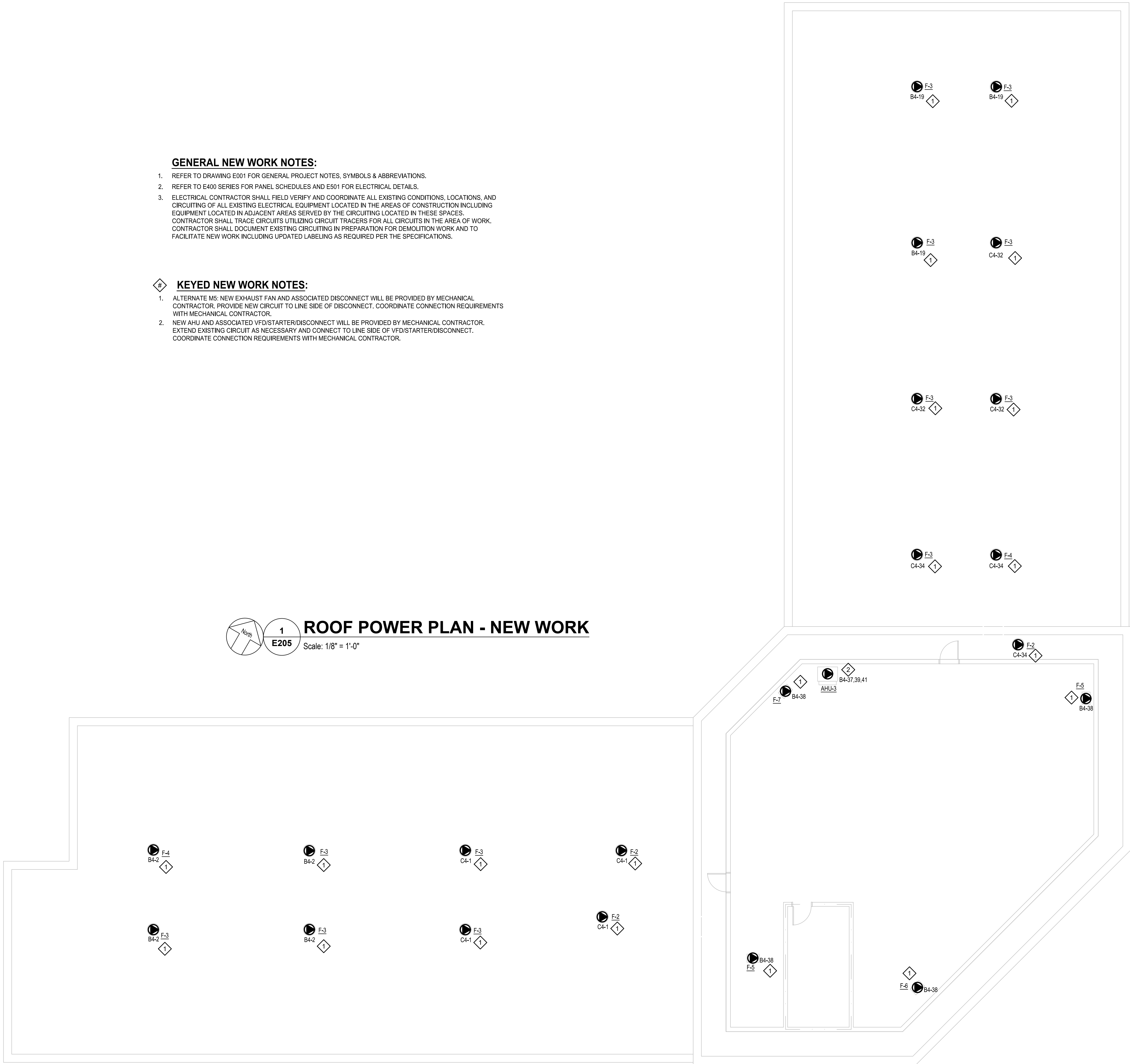
1  
E204

**4TH FLOOR POWER PLAN - NEW WORK**

Scale: 1/8" = 1'-0"





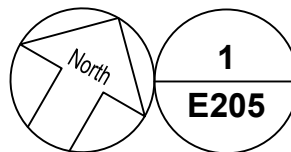


**GENERAL NEW WORK NOTES:**

1. REFER TO DRAWING E001 FOR GENERAL PROJECT NOTES, SYMBOLS & ABBREVIATIONS.
2. REFER TO E400 SERIES FOR PANEL SCHEDULES AND E501 FOR ELECTRICAL DETAILS.
3. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS, LOCATIONS, AND CIRCUITING OF ALL EXISTING ELECTRICAL EQUIPMENT LOCATED IN THE AREAS OF CONSTRUCTION INCLUDING EQUIPMENT LOCATED IN ADJACENT AREAS SERVED BY THE CIRCUITING LOCATED IN THESE SPACES. CONTRACTOR SHALL TRACE CIRCUITS UTILIZING CIRCUIT TRACERS FOR ALL CIRCUITS IN THE AREA OF WORK. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUITING IN PREPARATION FOR DEMOLITION WORK AND TO FACILITATE NEW WORK INCLUDING UPDATED LABELING AS REQUIRED PER THE SPECIFICATIONS.

**KEYED NEW WORK NOTES:**

1. ALTERNATE M5: NEW EXHAUST FAN AND ASSOCIATED DISCONNECT WILL BE PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE NEW CIRCUIT TO LINE SIDE OF DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
2. NEW AHU AND ASSOCIATED VFD/STARTER/DISCONNECT WILL BE PROVIDED BY MECHANICAL CONTRACTOR. EXTEND EXISTING CIRCUIT AS NECESSARY AND CONNECT TO LINE SIDE OF VFD/STARTER/DISCONNECT. COORDINATE CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR.



**ROOF POWER PLAN - NEW WORK**

Scale: 1/8" = 1'-0"

FIRE RATED LEGEND	
	1-HOUR FIRE BARRIER
	2-HOUR FIRE BARRIER
	3-HOUR FIRE BARRIER
	1-HOUR FIRE/SMOKE BARRIER
	2-HOUR FIRE/SMOKE BARRIER
	1-HOUR FIRE PARTITION
	SMOKE PARTITION

1/8"=1'-0"

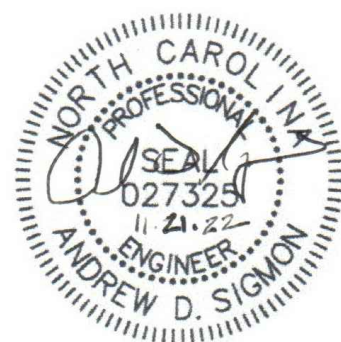
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REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

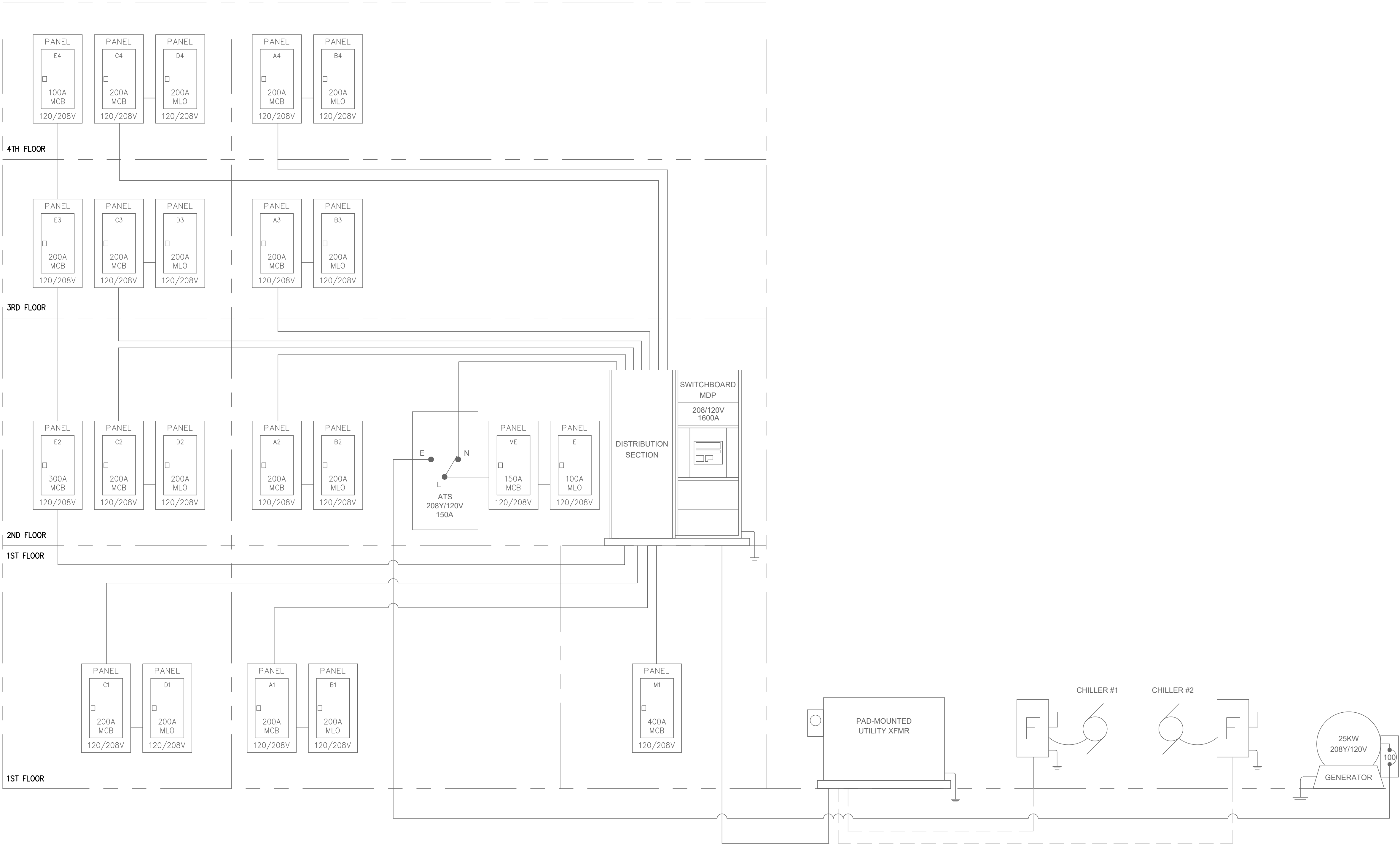
DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ROOF ELECTRICAL PLAN -  
NEW WORK

**E205**






1  
E300 **ELECTRICAL RISER DIAGRAM**  
Scale: NTS

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**MCKIM & CREED**  
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ARCHITECT



Professional Engineer  
Andrew D. Simon  
027325  
11.24.22

REV	REVISION DESCRIPTION	DATE

REV	REVISION DESCRIPTION	DATE

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ELECTRICAL RISER  
DIAGRAM

**E300**



PANELBOARD M1 (EXISTING)																								
SERVED FROM: MDP					AMPERE RATING: 400A					VOLTAGE (L-L): 208					PHASE: 3					22,000 MINIMUM RMS				
ENCLOSURE RATING: NEMA 1					MAIN BREAKER: 400A					VOLTAGE (L-N): 120					WIRE: 4					22,000 MINIMUM RMS				
MOUNTING: SURFACE					LUG OPTIONS: MCB					LOCATION: MECH. 122					SYMMETRICAL AIC RATING									
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	LOAD (KVA)	PHASE	G	CND	BRKR	BRKR	PHASE	G	CND	LOAD (KVA)	LOAD	CIR. NO.	LOAD DESCRIPTION	LTG	H/C	LOAD (KVA)	PHASE	G	CND	BRKR	BRKR
1	SPARE (ON)																							
1	PUMP-P-1			2.10	H8	#10	3/4"	40/3	A	20/1	EX	EX	EX	EX	2	WATER HEATER WH-1								
3	RCPT GR RM 117			0.36	EX	EX	EX	20/1	B	20/1	EX	EX	EX	4	WATER HEATER WH-2									
5	RCPT RM 125			0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX	6	RCPTS									
7	RCPT RM 125			0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX	8	BOILER CONTROLS									
9	PUMP-P-2			2.10	H8	#10	3/4"	40/3	B	20/1	EX	EX	EX	10	CHILLER CONTROLS									
11	RCPT GR RM 115			0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX	12	HOT WATER RECIP PUMP									
13	PUMP-P-3			0.96	H8	#12	3/4"	20/1	A	20/1	EX	EX	EX	14	HEAT TAPE									
15	BOILER 2 PUMP 4			0.96	H8	#12	3/4"	20/1	B	20/1	EX	EX	EX	16	HEAT TAPE									
17	SPACE				-	-	-	-	C	20/1	EX	EX	EX	18	HEAT TAPE									
19	SPACE				-	-	-	-	A	20/1	EX	EX	EX	20	HEAT TAPE									
21	SPACE				-	-	-	-	B					22										
23	SPACE				-	-	-	-	C	30/3	#10	3/4"		24	UNIT HEATER UH-1									
25	SPACE				-	-	-	-	A	20/1	EX	EX	EX	26										
27	PUMP-P-5			5.80	H8	#8	1"	90/3	B	20/1	EX	EX	EX	28	EXHAUST FAN & CONTROLS									
29	SPACE				-	-	-	-	C	20/1	EX	EX	EX	30	BOLLARDS									
31	SPACE				-	-	-	-	A	20/1	EX	EX	EX	32										
33	PUMP-P-6			2.10	H8	#10	3/4"	40/3	B	20/3	#12	#12	3/4"	34	E-MON/D-MON METERS									
35	SPACE				-	-	-	-	C					36										
37	SPACE				-	-	-	-	A					38	SPACE									
39	BOOSTER PUMP SKD			4.20	H8	#10	1"	60/3	B	-	-	-	-	40	SPACE									
41	SPACE			4.20	-	-	-	-	C					42	SPACE									
PANELBOARD NOTES: 1. HATCH DENOTES SCOPE OF DEMO WORK.																								
LARGEST MOTOR (KVA):					5.80																			
LOAD TOTALS (KVA):					CONNECTED					DEMAND					LOAD BALANCE									
LIGHTING/CONTINUOUS					0.32					0.40					PHASE A 99.81%									
HEATING/COOLING					0.76					0.76					PHASE B 103.45%									
MOTORS					55.83					57.28					PHASE C 96.74%									
KITCHEN					0.00					0.00					TOTAL DEMAND AMPS x					178				
RECEPTACLES					0.00					0.00					LARGEST UNBALANCE PHASE %:					1.0345				
MISCELLANEOUS					5.76					5.76														
TOTAL					62.67					64.20					LARGEST UNBALANCE PHASE AMPS:					184.34				

PANELBOARD M1 (MODIFIED)																								
SERVED FROM: MDP					AMPERE RATING: 400A					VOLTAGE (L-L): 208					PHASE: 3					22,000 MINIMUM RMS				
ENCLOSURE RATING: NEMA 1					MAIN BREAKER: 400A					VOLTAGE (L-N): 120					WIRE: 4					SYMMETRICAL AIC RATING				
MOUNTING: SURFACE					LUG OPTIONS: MCB					LOCATION: MECH. 122														
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	LOAD (KVA)	PHASE	G	CND	BRKR	BRKR	PHASE	G	CND	LOAD (KVA)	LOAD DESCRIPTION	CIR. NO.									
								RTG	RTG															
1	CHWP-P-2			2.90					A	30/1	EX	EX	EX	WATER HEATER WH-1	2									
3				2.90					B	20/1	EX	EX	EX	WATER HEATER WH-2	4									
5				2.90					C	20/1	EX	EX	EX	RCPTS	6									
7									A	20/1	EX	EX	EX	BOILER CONTROLS	8									
9	SPARE								B	20/1	EX	EX	EX	CHILLER CONTROLS	10									
11									C	20/1	EX	EX	EX	HOT WATER RECIP PUMP	12									
13	HEAT TRACE (NOTE 3 & 4)				0.60	#12	#12	3/4"	20/1	A	20/1	EX	EX	HEAT TAPE	14									
15	BOILER 2 PUMP 4			0.96	#12	#12	3/4"	20/1	B	20/1	EX	EX	EX	HEAT TAPE	16									
17	SPACE				-	-	-	-	C	20/1	EX	EX	EX	HEAT TAPE	18									
19	SPACE				-	-	-	-	A	20/1	EX	EX	EX	HEAT TAPE	20									
21	SPACE				-	-	-	-	B															
23	SPACE				-	-	-	-	C	30/3	#10	#10	3/4"											
25									A					1.67										
27	SPARE								B	20/1	EX	EX	EX	1.67										
29									C	20/1	EX	EX	EX	0.76										
31														0.32										
33	CHWP-P-1			2.90					A						1.92									
35				2.90					B	20/3	#12	#12	3/4"	1.92										
37				4.20					C						1.92									
39	BOOSTER PUMP SKD			4.20					A					1.27										
41				4.20					B	15/3	#12	#12	3/4"	1.27										
43									C					1.27										
PANELBOARD NOTES:															LOAD BALANCE									
1. BOLD TEXT DENOTES SCOPE OF NEW WORK.															LIGHTING/CONTINUOUS									
2. SQUARE D TYPE "NODP"															HEATING/COOLING									
3. ONLY PROVIDE THIS CIRCUIT IF ALTERNATE															MOTORS									
PACKAGE IS CHOSEN.															KITCHEN									
4. PROVIDE GEP BREAKER.															RECEPTACLES									
															MISCELLANEOUS									
															TOTAL									
															0.32									
															4.57									
															35.97									
															0.00									
															0.00									
															6.36									
															47.22									
															0.80									
															0.40									
															105.34%									
															96.44%									
															TOTAL DEMAND AMPS X									
															LARGEST UNBALANCE PHASE % X									
															1.0534									
															LARGEST UNBALANCE PHASE AMPS:									
															142.54									



PANELBOARD D1 (MODIFIED)																									
SERVED FROM: C1 ENCLOSURE RATING: NEMA 1 MOUNTING: SURFACE													22,000 MINIMUM RMS SYMMETRICAL AIC RATING												
AMPERE RATING: 200A MAIN BREAKER: N/A LUG OPTIONS: MLO													VOLTAGE (L-L): 208 VOLTAGE (L-N): 120 WIRE: 4 LOCATION: UTILITY 104												
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	MOT	KIT	REC	MISC	PHASE	SIZE	G	CND	BRKR	PHASE	SIZE	G	CND	LOAD (KVA)	REC	MISC	LOAD DESCRIPTION	CIR. NO.				
1	1TS RM 134, 136	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	0.35			1TS RM 142, 144	2				
3	RCPT GFI RM 134						0.36	EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36		RCPT GFI RM 142	4				
5	RCPT RM 134						0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72		RCPT RM 142	6				
7	RCPT RM 134						0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90		RCPT RM 142	8				
9	FCU-1 RM 134							#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"	0.54			FCU-1 RM 142	10				
11	RCPT GFI RM 136						0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36		RCPT GFI RM 144	12				
13	RCPT RM 136						0.72	EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72		RCPT RM 144	14				
15	RCPT RM 136						0.90	EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90		RCPT RM 144	16				
17	FCU-1 RM 136						0.54	#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"	0.54			FCU-1 RM 144	18				
19	1TS RM 140, 138	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.83			20				
21	RCPT GFI RM 138						0.36	EX	EX	EX	20/1	B	15/1	#12	#12	3/4"	0.83			AHU-1	22				
23	RCPT RM 138						0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.83			24				
25	RCPT RM 138						0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX		-		SPARE (ON)	26				
27	FCU-1 RM 138						0.54	#12	#12	3/4"	15/1	B	20/1	#12	#12	3/4"	0.70			F-1 WOMEN 112	28				
29	RCPT GFI RM 140						0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX		1.20		MICROWAVE 113	30				
31	RCPT RM 140						0.72	EX	EX	EX	20/1	A	20/1	EX	EX	EX		1.08		RCPT RM 146, CORRIDOR	32				
33	RCPT RM 140						0.90	EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.70		1TS LOBBY RM 101, 102	34				
35	FCU-1 RM 140						0.54	#12	#12	3/4"	15/1	C	20/1	EX	EX	EX		0.70		1TS LOBBY RM 101, 102	36				
37	SPARE							EX	EX	EX	20/1	A	20/1	EX	EX	EX		1.00		EXT ROLLARD & ENTRANCE LITS	38				
39	FCU-1 RM 130	0.54						#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"	0.54			FCU-1 RM 140	40				
41	SPARE (ON)							EX	EX	EX	20/1	C	20/1	EX	EX	EX		1.08		IDF, RCPT RM 143	42				
PANELBOARD NOTES: 1. BOLD TEXT DENOTES SCOPE OF NEW WORK. 2. SQUARE D TYPE 'NQD'													LOAD TOTALS (KVA): LIGHTING/CONTINUOUS 3.45 HEATING/COOLING 7.51 MOTORS 0.00 KITCHEN 1.20 RECEPTACLES 14.04 MISCELLANEOUS 0.00 TOTAL 26.20												
LARGEST MOTOR (KVA): 5.80													CONNECTED 4.31 DEMAND 7.51 LOAD BALANCE PHASE A 101.01% PHASE B 99.70% PHASE C 99.29% TOTAL DEMAND AMPS x 74 LARGEST UNBALANCE PHASE %: 1.0101												
LARGEST UNBALANCE PHASE AMPS: 74.27																									

PANELBOARD A2 (EXISTING)																									
SERVED FROM: MDP ENCLOSURE RATING: NEMA 1 MOUNTING: SURFACE													22,000 MINIMUM RMS SYMMETRICAL AIC RATING												
AMPERE RATING: 200A MAIN BREAKER: 200A LUG OPTIONS: MCB													VOLTAGE (L-L): 208 VOLTAGE (L-N): 120 WIRE: 4 LOCATION: ELEC. 208												
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)				PHASE				G	CND	BRKR	BRKR	PHASE				G	CND	LOAD (KVA)				LOAD DESCRIPTION	CIR. NO.
		LTG	H/C	MOT	KIT	REC	MISC	SIZE	IN.					RTG	RTG	SIZE	IN.			RTG	RTG	SIZE	IN.		
1	1TS RM 224, 222	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	0.35							1TS 212, 210	2
3	RCPT GFI RM 224						0.36	EX	EX	EX	20/1	B	20/1	EX	EX	EX						0.36	RCPT GFI RM 216	4	
5	RCPT RM 224						0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX						0.72	RCPT RM 216	6	
7	RCPT RM 224						0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX						0.90	RCPT RM 216	8	
9	FCU-1 RM 224, FCU-6 CORR 206	0.14						#12	#12	3/4"	15/1	B	20/1	#12	#12	3/4"	0.07							FCU-1 RM 216	10
11	RCPT GFI RM 222						0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX						0.36	RCPT GFI RM 214	12	
13	RCPT RM 222						0.72	EX	EX	EX	20/1	A	20/1	EX	EX	EX						0.72	RCPT RM 214	14	
15	RCPT RM 222						0.90	EX	EX	EX	20/1	B	20/1	EX	EX	EX						0.90	RCPT RM 214	16	
17	FCU-1 RM 222	0.07						#12	#12	3/4"	15/1	C	20/1	#12	#12	3/4"	0.07							FCU-1 RM 214	18
19	SPARE (ON)						-	-	-	-	20/1	A	20/1	-	-	-						-	SPARE (ON)	20	
21	RCPT GFI RM 220						0.36	EX	EX	EX	20/1	B	20/1	EX	EX	EX						0.36	RCPT GFI RM 212	22	
23	RCPT RM 220						0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX						0.72	RCPT RM 212	24	
25	RCPT RM 220						0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX						0.90	RCPT RM 212	26	
27	FCU-1 RM 220	0.07						#12	#12	3/4"	15/1	B	20/1	#12	#12	3/4"	0.07							FCU-1 RM 212	28
29	RCPT GFI RM 218						0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX						0.36	RCPT GFI RM 210	30	
31	RCPT RM 218						0.72	EX	EX	EX	20/1	A	20/1	EX	EX	EX						0.72	RCPT RM 210	32	
33	RCPT RM 218						0.90	EX	EX	EX	20/1	B	20/1	EX	EX	EX						0.90	RCPT RM 210	34	
35	FCU-1 RM 218	0.07						#12	#12	3/4"	15/1	C	20/1	#12	#12	3/4"	0.14							FCU-1 RM 210, FCU-5 RM 208	36
37	SPARE (ON)						-	-	-	-	20/1	A	-	-	-	-						-	DO NOT USE	38	
39	1TS 218, 220	0.35						EX	EX	EX	20/1	B	-	-	-	-						-	DO NOT USE	40	
41	1TS 214, 216	0.35						EX	EX	EX	20/1	C	-	-	-	-						-	DO NOT USE	42	
PANEL B2		0.70	0.00	0.00	0.00	6.48	0.00						A												
		0.35	0.28	0.00	0.00	5.04	0.00						C												
		0.35	0.28	0.00	0.00	4.32	0.00																		
PANELBOARD NOTES: 1. HATCH DENOTES SCOPE OF DEMO WORK.													LOAD TOTALS (KVA): LIGHTING/CONTINUOUS 2.80 HEATING/COOLING 1.26 MOTORS 0.00 KITCHEN 0.00 RECEPTACLES 31.68 MISCELLANEOUS 0.00 TOTAL 35.74												
													CONNECTED 3.50 DEMAND 1.26 LOAD BALANCE PHASE A 120.54% PHASE B 95.78% PHASE C 83.69% TOTAL DEMAND AMPS x 71 LARGEST UNBALANCE PHASE %: 1.2054												
LARGEST MOTOR (KVA): N/A													LARGEST UNBALANCE PHASE AMPS: 85.65												

PANELBOARD A2 (MODIFIED)																																			
SERVED FROM: MDP ENCLOSURE RATING: NEMA 1 MOUNTING: SURFACE													22,000 MINIMUM RMS SYMMETRICAL AIC RATING																						
AMPERE RATING: 200A MAIN BREAKER: 200A LUG OPTIONS: MCB													VOLTAGE (L-L): 208 VOLTAGE (L-N): 120 WIRE: 4 LOCATION: ELEC. 208																						
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	MOT (KVA)	REC	MISC	PHASE	SIZE	G	CND	BRKR	PHASE	SIZE	G	CND	LOAD (KVA)	REC	MISC	LOAD DESCRIPTION	CIR. NO.															
1	1TS RM 224, 222	0.35					EX	EX	EX	20/1	A	20/1	EX	EX	EX	0.35			1TS 212, 210	2															
3	RCPT GFI RM 224				0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36		RCPT GFI RM 216	4															
5	RCPT RM 224				0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72		RCPT RM 216	6															
7	RCPT RM 224				0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90		RCPT RM 216	8															
9	FCU-1 RM 224	0.54					#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"	0.54			FCU-1 RM 216	10															
11	RCPT GFI RM 222				0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36		RCPT GFI RM 214	12															
13	RCPT RM 222				0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72		RCPT RM 214	14															
15	RCPT RM 222				0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90		RCPT RM 214	16															
17	FCU-1 RM 222	0.54					#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"	0.54			FCU-1 RM 214	18															
19	FCU-6 CORR 206	0.47					#12	#12	3/4"	15/1	A	20/1	-	-	-				SPARE (ON)	20															
21	RCPT GFI RM 220				0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36		RCPT GFI RM 212	22															
23	RCPT RM 220				0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72		RCPT RM 212	24															
25	RCPT RM 220				0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90		RCPT RM 212	26															
27	FCU-1 RM 220	0.54					#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"	0.54			FCU-1 RM 212	28															
29	RCPT GFI RM 218				0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36		RCPT GFI RM 210	30															
31	RCPT RM 218				0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72		RCPT RM 210	32															
33	RCPT RM 218				0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90		RCPT RM 210	34															
35	FCU-1 RM 218	0.54					#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"	0.54			FCU-1 RM 210	36															
37	FCU-7 RM 208	0.54					#12	#12	3/4"	15/1	A	-	-	-	-				DO NOT USE	38															
39	1TS 216, 210, 206	0.35					EX	EX	EX	20/1	B	-	-	-	-				DO NOT USE	40															
41	1TS 214, 216	0.35					EX	EX	EX	20/1	C	-	-	-	-				DO NOT USE	42															
		0.70	0.00	0.00	0.00	6.48	0.00				A																								
PANEL B2		0.35	2.16	0.00	0.00	5.04	0.00	EX	EX	200/3	B																								
		0.35	2.16	0.00	0.00	4.32	0.00				C																								
PANELBOARD NOTES:																																			
1. BOLD TEXT DENOTES SCOPE OF NEW WORK.								LOAD TOTALS (KVA):								CONNECTED				DEMAND				LOAD BALANCE											
2. SQUARE D TYPE "MOD"								LIGHTING/CONTINUOUS								2.80				3.50				PHASE A 104.4%											
								HEATING/COOLING								9.65				9.65				PHASE B 100.65%											
								MOTORS								0.00				0.00				PHASE C 92.86%											
								KITCHEN								0.00				0.00															
								RECEPTACLES								201.68				201.68				TOTAL DEMAND AMPS x 94											
								MISCELLANEOUS								0.00				0.00				LARGEST UNBALANCE PHASE %: 1.0489											
LARGEST MOTOR (KVA):								N/A								TOTAL								44.13				33.99				LARGEST UNBALANCE PHASE AMPS: 98.58			



PANELBOARD C2 (EXISTING)																										
SERVED FROM: MDP				AMPERE RATING: 200A				VOLTAGE (L-L): 208				PHASE: 3				22,000 MINIMUM RMS										
ENCLOSURE RATING: NEMA 1				MAIN BREAKER: 200A				VOLTAGE (L-N): 120				WIRE: 4				SYMMETRICAL AIC RATING										
MOUNTING: SURFACE				LUG OPTIONS: MCB				LOCATION: UTILITY 204																		
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	MOT	KIT	REC	MISC	PHASE	G	CND	BRKR	BRKR	PHASE	G	CND	LOAD (KVA)	PHASE	G	CND	LOAD DESCRIPTION	CIR. NO.					
								SIZE	SIZE	IN.	RTG	RTG	SIZE	SIZE	IN.	LTG	H/C	MOT	REC	MISC						
1	LTS RM 229, 231	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	0.43				LTS 237, 239, 241	2				
3	RCPT GRM 229					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX				0.36	RCPT GRM 230	4				
5	RCPT RM 229					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX				0.72	RCPT RM 237	6				
7	RCPT RM 229					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX				0.90	RCPT RM 237	8				
9	FCU-1 RM 229			0.07				#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07				FCU-1 RM 237	10				
11	RCPT GRM 231					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX				0.36	RCPT GRM 239	12				
13	RCPT RM 231					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX				0.72	RCPT RM 239	14				
15	RCPT RM 231					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX				0.90	RCPT RM 239	16				
17	FCU-1 RM 231			0.07				#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07				FCU-1 RM 239	18				
19	LTS 233, 235	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX				0.36	RCPT GRM 241	20				
21	RCPT GRM 233					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX				0.72	RCPT RM 241	22				
23	RCPT RM 233					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX				0.90	RCPT RM 241	24				
25	RCPT RM 233					0.90		EX	EX	EX	20/1	A	20/1	#12	#12	3/4"	0.07				FCU-1 RM 241	26				
27	FCU-1 RM 233			0.07				#12	#12	3/4"	20/1	B	20/1	EX	EX	EX				0.36	RCPT GRM 246	28				
29	RCPT GRM 235					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX				0.72	RCPTS RM 246	30				
31	RCPT RM 235					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX				0.90	RCPTS RM 237	32				
33	RCPT RM 235					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX				0.90	SPARE (ON)	34				
35	FCU-1 RM 235			0.07				#12	#12	3/4"	20/1	C	20/1	EX	EX	EX				0.36	RCPTS RM 243	36				
37	DO NOT USE					-		-	-	-	-	-	-	-	-	-					SPARE (ON)	38				
39	DO NOT USE					-		-	-	-	-	-	-	-	-	-					SPARE (ON)	40				
41	DO NOT USE					-		-	-	-	-	-	-	-	-	-					SPARE (ON)	42				
PANEL D2		0.70	0.00	0.00	0.00	6.48	0.00																			
		0.35	0.28	0.00	0.00	5.04	0.00	EX	EX	EX	200/3	B														
		0.35	0.35	0.00	0.00	4.32	0.00																			
PANELBOARD NOTES:		LOAD TOTALS (KVA):				CONNECTED		DEMAND		LOAD BALANCE																
1. HATCH DENOTES SCOPE OF DEMO WORK.		LIGHTING/CONTINUOUS				2.53		3.16		PHASE A 121.86%																
		HEATING/COOLING				1.12		1.12		PHASE B 90.29%																
		MOTORS				0.00		1.45		PHASE C 87.85%																
		KITCHEN				0.00		0.00																		
		RECEPTACLES				32.04		21.02		TOTAL DEMAND AMPS x				74												
		MISCELLANEOUS				0.00		0.00		LARGEST UNBALANCE PHASE %:				1.2186												
LARGEST MOTOR (KVA):		5.80								LARGEST UNBALANCE PHASE AMPS:				90.47												

PANELBOARD C2 (MODIFIED)																														
SERVED FROM: MDP				AMPERE RATING: 200A				VOLTAGE (L-L): 208				PHASE: 3				22,000 MINIMUM RMS					SYMMETRICAL AIC RATING									
ENCLOSURE RATING: NEMA 1				MAIN BREAKER: 200A				VOLTAGE (L-N): 120				WIRE: 4																		
MOUNTING: SURFACE				LUG OPTIONS: MCB				LOCATION: UTILITY 204																						
CIR. NO.	LOAD DESCRIPTION	LTG	H/C	MOT	KIT	REC	MISC	PHASE	SIZE	G	CND	BRKR	BRKR	PHASE	SIZE	G	CND	LOAD (KVA)	PHASE	SIZE	G	CND	LOAD DESCRIPTION	CIR. NO.						
1	LTS RM 229, 231	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	0.43						LTS 237, 239, 241	2						
3	RCPT GRM 229					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36					RCPT GRM 237	4						
5	RCPT RM 229					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72					RCPT RM 237	6						
7	RCPT RM 229					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90					RCPT RM 237	8						
9	FCU-1 RM 229			0.54				#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"		0.54					FCU-1 RM 237	10						
11	RCPT GRM 231					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36					RCPT GRM 239	12						
13	RCPT RM 231					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72					RCPT RM 239	14						
15	RCPT RM 231					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90					RCPT RM 239	16						
17	FCU-1 RM 231			0.54				#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"		0.54					FCU-1 RM 239	18						
19	LTS 233, 235	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.36					RCPT GRM 241	20						
21	RCPT GRM 233					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.72					RCPT GRM 241	22						
23	RCPT RM 233					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.90					RCPT RM 241	24						
25	RCPT RM 233					0.90		EX	EX	EX	20/1	A	20/1	#12	#12	3/4"		0.54					FCU-1 RM 241	26						
27	FCU-1 RM 233			0.54				#12	#12	3/4"	15/1	B	20/1	EX	EX	EX		0.36					RCPT GRM 246	28						
29	RCPT GRM 235					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72					RCPTS RM 246	30						
31	RCPT RM 235					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90					RCPTS RM 237	32						
33	RCPT RM 235					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90					SPARE (ON)	34						
35	FCU-1 RM 235			0.54				#12	#12	3/4"	15/1	A	20/1	EX	EX	EX		0.36					RCPTS RM 243	36						
37	DO NOT USE					-	-	-	-	-	-	A	20/1	-	-	-							SPARE (ON)	38						
39	DO NOT USE					-	-	-	-	-	-	B	20/1	-	-	-							SPARE (ON)	40						
41	DO NOT USE					-	-	-	-	-	-	C	20/1	-	-	-							SPARE (ON)	42						
PANEL D2		0.70	1.59	0.00	0.00	6.48	0.00																							
		0.35	2.16	0.00	0.00	5.04	0.00	EX	EX	EX	200/3	B																		
		0.35	2.16	0.00	0.00	4.32	0.00																							
PANELBOARD NOTES:		LOAD TOTALS (KVA):				CONNECTED		DEMAND		LOAD BALANCE																				
1. BOLD TEXT DENOTES SCOPE OF NEW WORK.		LIGHTING/CONTINUOUS				2.53		3.16		PHASE A 112.22%																				
2. SQUARE D TYPE "NODD"		HEATING/COOLING				9.69		9.69		PHASE B 95.11%																				
		MOTORS				0.00		1.45		PHASE C 92.67%																				
		KITCHEN				0.00		0.00																						
		RECEPTILES				32.04		32.04		TOTAL DEMAND AMPS x				98																
		MISCELLANEOUS				0.00		0.00		LARGEST UNBALANCE PHASE %:				1.1222																
LARGEST MOTOR (KVA):		5.80								44.26		35.32																		
																							LARGEST UNBALANCE PHASE AMPS:				110.01			



SERVED FROM: A3  
ENCLOSURE RATING: NEMA 1  
MOUNTING: SURFACE

AMPERE RATING: 200A  
MAIN BREAKER: N/A  
LUG OPTIONS: MLO

VOLTAGE (L-U): 208  
VOLTAGE (L-N): 120  
LOCATION: ELEC. 308

PHASE: 3  
WIRE: 4

22,000 MINIMUM RMS  
SYMMETRICAL A/C RATING

CR. NO.	LOAD DESCRIPTION	LTG	H/C	LOAD (KVA)	CR	REC	MISC	PHASE	SIZE	G	CND	INR	BRKR	BRKR	PHASE	SIZE	G	CND	INR	LTG	H/C	LOAD (KVA)	CR	REC	MISC	LOAD DESCRIPTION	CR. NO.
1	LT5 RM 325, 323	0.35						EX	EX	EX	20/1	A	20/1	-	-	-	-	-	-							SPARE (ON)	2
3	RCPT GFI RM 325				0.36	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.36		RCPT GFI RM 317	4				2
5	RCPT GFI RM 325				0.72	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.72		RCPT RM 317	6				4
7	RCPT RM 325				0.90	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.90		RCPT RM 317	8				6
9	FCU-I RM 325		0.54		#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"			0.54						FCU-I RM 317	10				8
11	RCPT GFI RM 323				0.36	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.36		RCPT GFI RM 315	12				10
13	RCPT RM 323				0.72	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.72		RCPT RM 315	14				12
15	RCPT RM 323				0.90	EX	EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX				0.90		RCPT RM 315	16				14
17	FCU-I RM 323		0.54		#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"			0.54						FCU-I RM 315	18				16
19	SPARE (ON)				-	-	-	20/1	A	20/1	-	-	-	-	-	-						SPARE (ON)	20				18
21	RCPT GFI RM 321				0.36	EX	EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX				0.36		RCPT GFI RM 313	22				20
23	RCPT RM 321				0.72	EX	EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX				0.72		RCPT RM 313	24				22
25	RCPT RM 321				0.90	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.90		RCPT RM 313	26				24
27	FCU-I RM 321		0.54		#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"			0.54						FCU-I RM 313	28				26
29	RCPT GFI RM 319				0.36	EX	EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX				0.36		RCPT GFI RM 311	30				28
31	RCPT RM 319				0.72	EX	EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX				0.72		RCPT RM 311	32				30
33	RCPT RM 319				0.90	EX	EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX				0.90		RCPT RM 311	34				32
35	FCU-I RM 319		0.54		#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"			0.54						FCU-I RM 311	36				34
37	REC CORR 306				1.08	EX	EX	EX	EX	20/1	A	20/1	-	-	-	-						SPARE (ON)	38				36
39	SPARE (ON)				-	-	-	20/1	B	20/1	EX	EX	EX	EX	EX	EX	0.35					LT5 323, 319	40				38
41	RM 326				-	-	-	20/1	C	20/1	EX	EX	EX	EX	EX	EX	0.35					LT5 317, 315	42				40

PANELBOARD NOTES:  
1. BOLD TYPE DENOTES SCOPE OF NEW WORK.  
2. SQUARE D TYPE "NODD"

LOAD TOTALS (KVA):  
LIGHTING/CONTINUOUS 1.05 1.31  
HEATING/COOLING 4.32 4.32  
MOTORS 0.00 0.00  
KITCHEN 0.00 0.00  
RECEPTACLES 16.92 13.46  
MISCELLANEOUS 0.00 0.00  
TOTAL 22.29 19.09

CONNECTED DEMAND  
1.05 1.31  
4.32 4.32  
0.00 0.00  
0.00 0.00  
16.92 13.46  
0.00 0.00  
22.29 19.09

LOAD BALANCE  
PHASE A 106.46%  
PHASE B 101.62%  
PHASE C 91.92%  
TOTAL DEMAND AMPS x 53  
LARGEST UNBALANCE PHASE %: 1.0646

LARGEST MOTOR (KVA): N/A

LARGEST UNBALANCE PHASE AMPS: 56.42

SERVED FROM: E2

ENCLOSURE RATING: NEMA 1

MOUNTING: SURFACE

AMPERE RATING: 200A

MAIN BREAKER: 200A

LUG OPTIONS: MCB

VOLTAGE (V-I): 208

VOLTAGE (V-N): 120/240

LOCATION: UTILITY 304

PHASE: 3

WIRE: 4

22,000 MINIMUM RMS

SYMMETRICAL ARC RATING

CIR.	LOAD DESCRIPTION	LTG	H/C	MOT	MIT	LOAD (KVA)	PHASE	SIZE	G	CND	IKRK	IKRK	PHASE	SIZE	G	CND	IKRK	LOAD (KVA)	LTG	H/C	MOT	MIT	RECI	MISC	LOAD DESCRIPTION	CIR.	NO.	
1	RCPT RM 306, 308, 300					0.90	EX	EX	EX	20/1	A	30/2	EX	EX	EX			2.25							DRYER RM 305	2	4	
1	RCPT RM 346, 305					0.90	EX	EX	EX	20/1	A	30/2	EX	EX	EX			2.25									2	
5	LTS RM 309, 307	0.35				0.90	EX	EX	EX	20/1	C							2.25									6	
7	RCPT GRI RM 309					0.36	EX	EX	EX	20/1	A	30/2	EX	EX	EX			2.25							DRYER RM 305	8	10	
9	RCPT RM 309					0.72	EX	EX	EX	20/1	B	20/1	EX	EX	EX			1.20							WASHER RM 305	10	16	
11	RCPT RM 309					0.90	EX	EX	EX	20/1	C	20/1	EX	EX	EX			1.20							WASHER RM 305	12	14	
13	FCU-I RM 309	0.07				#12	#12	3/4"	20/1	A	20/1	EX	EX	EX	EX			1.00							VENDING RM 305	14	20	
15	FCU-I RM 307	0.07				#12	#12	3/4"	20/1	B	20/1	EX	EX	EX	EX			1.00							VENDING RM 305	16	22	
17	RCPT RM 297					0.54	EX	EX	EX	20/1	C	20/1	EX	EX	EX			1.08							RCPT RM 301	18	24	
19	RCPT RM 307					0.90	EX	EX	EX	20/1	A	20/1	EX	EX	EX			0.72							RCPT RM 301	20	26	
21	RCPT GRI RM 307					0.36	EX	EX	EX	20/1	B	20/1	EX	EX	EX			1.08							RCPT RM 301	22	28	
23	LTS RM 302, 328	0.35				0.36	EX	EX	EX	20/1	C	20/1	EX	EX	EX			0.72							RCPT RM 301	24	30	
25	RCPT GRI RM 302					0.36	EX	EX	EX	20/1	A	20/1	EX	EX	EX			0.07							FCU-I RM 304	26	32	
27	RCPT RM 302					0.72	EX	EX	EX	20/1	B	20/1	#12	#12	3/4"	A	0.07								FCU-I RM 301	28	34	
29	RCPT RM 302					0.72	EX	EX	EX	20/1	C	20/1	EX	EX	EX			1.32							EWG	30	36	
31	FCU-I RM 302	0.07				#12	#12	3/4"	20/1	A	20/1	-	-	-	-										SPARE (ON)	32	38	
33	RCPT GRI RM 328					0.90	EX	EX	EX	20/1	B	20/1	EX	EX	EX	0.60									LTS 301	34	40	
35	RCPT RM 328					0.72	EX	EX	EX	20/1	C	20/1	-	-	-										SPARE (ON)	36	42	
37	RCPT RM 328					0.90	EX	EX	EX	20/1	A							0.00	0.21	0.00	0.00	0.00	4.14	6.82			38	
39	FCU-I RM 328	0.07				#12	#12	3/4"	20/1	B	100/3	EX	EX	EX	EX			0.60	0.21	0.00	0.00	4.14	4.45		PANEL E4	40		
41	SPARE (ON)					-	-	-	-	20/1	C							0.70	0.00	0.00	0.00	0.00	4.68	3.45			42	

PANELBOARD NOTES:  
1. HATCH DENOTES SCOPE OF DEMO WORK.

LOAD TOTALS (KVA):  
LIGHTING/CONTINUOUS 2.60  
HEATING/COOLING 0.84  
MOTORS 0.00  
KITCHEN 0.00  
RECEPTACLES 25.92  
MISCELLANEOUS 29.44  
TOTAL 58.80

CONNECTED 3.25  
0.84  
1.46  
0.00  
17.96  
29.44  
59.94

DEMAND

LOAD BALANCE  
PHASE A 107.24%  
PHASE B 95.92%  
PHASE C 96.84%

TOTAL DEMAND AMPS x 147  
LARGEST UNBALANCE PHASE %: 1.0724

LARGEST UNBALANCE PHASE AMPS: 157.59

SERVED FROM: NIDP

ENCLOSURE RATING: NEMA 1

MOUNTING: SURFACE

AMPERE RATING: 200A

MAIN BREAKER: 200A

LUG OPTIONS: MCB

VOLTAGE (L-L): 208

VOLTAGE (L-N): 120

LOCATION: UTILITY 304

PHASE: 3

WIRE: 4

22,000 MINIMUM RMS

SYMMETRICAL AIR RATING

PANELBOARD C3 (EXISTING)																					
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)					PHASE	G	CND	BRKR	BRKR	PHASE	G	CND	LOAD (KVA)					LOAD DESCRIPTION	CIR. NO.
		LTG	H/C	MOD	REC	MISC									SIZE	IN	RTG	RTG	SIZE		
1	SPARE (ON)						-	-	-	20/1	A	20/1	EX	EX	EX	0.43				ITS 337, 339, 341	2
3	RCPT GFI RM 329				0.35		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36	RCPT GFI RM 337		4	
5	RCPT RM 331				0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72	RCPT RM 337		6	
7	RCPT RM 329				0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90	RCPT RM 337		8	
9	FCU-1 RM 329	0.07				#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07				FCU-1 RM 337	10	
11	RCPT GFI RM 331				0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36	RCPT GFI RM 339		12	
13	RCPT RM 331				0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72	RCPT RM 339		14	
15	RCPT RM 331				0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90	RCPT RM 339		16	
17	FCU-1 RM 331	0.07				#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"	0.07				FCU-1 RM 339	18	
19	ITS 333, 335	0.35				EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.36	RCPT GFI RM 341			20	
21	RCPT GFI RM 333				0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.72	RCPT RM 341		22	
23	RCPT RM 333				0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.90	RCPT RM 341		24	
25	RCPT RM 333				0.90		EX	EX	EX	20/1	A	20/1	#12	#12	3/4"	0.07				FCU-1 RM 341	26
27	FCU-1 RM 333	0.07				#12	#12	3/4"	20/1	B	20/1	EX	EX	EX	0.43					ITS 335, 338	28
29	RCPT GFI RM 335				0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	0.43				ITS 331, 329	30
31	RCPT RM 335				0.72		EX	EX	EX	20/1	A	20/1	-	-	-					SPARE (ON)	32
33	RCPT RM 335				0.90		EX	EX	EX	20/1	B	20/1	-	-	-					SPARE (ON)	34
35	FCU-1 RM 335	0.07				#12	#12	3/4"	20/1	C	20/1	EX	EX	EX		0.36	IDF				36
37	DO NOT USE				-	-	-	-	-	-	A	20/1	-	-	-					SPARE (ON)	38
39	DO NOT USE				-	-	-	-	-	-	B	20/1	-	-	-					SPARE (ON)	40
41	DO NOT USE				-	-	-	-	-	-	C	20/1	-	-	-					SPARE (ON)	42
PANEL D3		0.70	0.00	0.00	0.00	6.48	0.00					A									
		0.35	0.28	0.00	0.00	5.04	0.00	EX	EX	EX	200/3	B									
		0.35	0.35	0.00	0.00	4.32	0.00					C									
PANELBOARD NOTES:		LOAD TOTALS (KVA):										CONNECTED	DEMAND	LOAD BALANCE							
1. HATCH DENOTES SCOPE OF DEMO WORK.		LIGHTING/CONTINUOUS										3.03	3.78	PHASE A 116.17%							
		HEATING/COOLING										1.12	1.12	PHASE B 94.77%							
		MOTORS										0.00	1.45	PHASE C 89.07%							
		KITCHEN										0.00	0.00	TOTAL DEMAND AMPS x 73							
		RECEPTACLES										30.06	20.03	LARGEST UNBALANCE PHASE %: 1.1617							
		MISCELLANEOUS										0.00	0.00								
LARGEST MOTOR (KVA): 5.80		TOTAL										34.21	26.38	LARGEST UNBALANCE PHASE AMPS: 85.07							

SERVED FROM: C3

ENCLOSURE RATING: NEMA 1

MOUNTING: SURFACE

AMPERE RATING: 200A

MAIN BREAKER: N/A

LUG OPTIONS: MLO

VOLTAGE (L-L): 208

VOLTAGE (L-N): 120

LOCATION: UTILITY 304

PHASE: 3

WIRE: 4

22,000 MINIMUM RMS

SYMMETRICAL AIC RATING

PANELBOARD D3 (EXISTING)																													
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)				PHASE SIZE				G	CND	BKR	BKR	PHASE SIZE				G	CND	LOAD (KVA)				LOAD DESCRIPTION				CIR. NO.	
		LTG	H/C	MOT	KIT	REC	MISC	SIZE	SIZE					SIZE	SIZE	SIZE	SIZE			LTG	H/C	MOT	KIT	REC	MISC				
1	LTSS RM 332, 330	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX			0.35						LTSS RM 342, 344			2
3	RCPT GFI RM 330					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX						0.36			RCPT GFI RM 338			4
5	RCPT RM 330					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX						0.72			RCPT RM 338			6
7	RCPT RM 330					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX						0.90			RCPT RM 338			8
9	FCU-1 RM 330		0.07					#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"				0.07						FCU-1 RM 338			10
11	RCPT GFI RM 332					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX						0.36			RCPT GFI RM 340			12
13	RCPT RM 332					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX						0.72			RCPT RM 340			14
15	RCPT RM 332					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX						0.90			RCPT RM 340			16
17	FCU-1 RM 332		0.07					#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"				0.07						FCU-1 RM 340			18
19	SPACE					-	-	-	-	-	-	-	-	-	-	-	-									SPACE			20
21	RCPT RM 334					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX						0.36			RCPT GFI RM 342			22
23	RCPT RM 334					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX						0.72			RCPT RM 342			24
25	RCPT RM 334					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX						0.90			RCPT RM 342			26
27	FCU-1 RM 334		0.07					#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"				0.07						FCU-1 RM 342			28
29	RCPT GFI RM 336					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX						0.36			RCPT GFI RM 344			30
31	RCPT RM 336					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX						0.72			RCPT RM 344			32
33	RCPT RM 336					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX						0.90			RCPT RM 344			34
35	FCU-1 RM 336		0.07					#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"				0.14						FCU-1 RM 344, FCU-C CORR 346			36
37	SPACE					-	-	-	-	-	-	-	-	-	-	-	-									SPACE			38
39	SPACE					-	-	-	-	-	-	B	20/1	EX	EX	EX	0.35								LTSS RM 340, 338			40	
41	SPACE					-	-	-	-	-	-	C	20/1	EX	EX	EX	0.35								LTSS RM 336, 334			42	

PANELBOARD NOTES:  
1. HATCH DENOTES SCOPE OF DEMO WORK.

LOAD TOTALS (KVA):  
LIGHTING/CONTINUOUS  
HEATING/COOLING  
MOTORS  
KITCHEN  
RECEPTABLES  
MISCELLANEOUS  
TOTAL

CONNECTED  
1.40  
0.63  
0.00  
15.84  
0.00  
17.87

DEMAND  
1.75  
0.63  
1.45  
0.00  
12.92  
0.00  
16.75

LOAD BALANCE  
PHASE A 120.54%  
PHASE B 95.19%  
PHASE C 84.28%  
TOTAL DEMAND AMPS x  
LARGEST UNBALANCE PHASE %:

46  
1.2054

LARGEST UNBALANCE PHASE AMPS:

56.04

SERVED FROM: MDP										AMPERE RATING: 300A				VOLTAGE (L-L): 208				PHASE: 3				22,000 MINIMUM RMS					
ENCLOSURE RATING: NEMA 1										MAIN BREAKER: 200A				VOLTAGE (L-N): 120				WIRE: 4				SYMMETRICAL AIR RATING					
MOUNTING: SURFACE										LUG OPTIONS: MCB				LOCATION:				ELEC. 408									
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)				PHASE SIZE				G	CND	IN	BRKR	BRKR	PHASE	G	CND	IN	LOAD (KVA)				LOAD DESCRIPTION				CIR. NO.
		LTG	H/C	MOT	KIT	REC	MISC												LTG	H/C	MOT	KIT	REC	MISC			
1	LT5 RM 424, 422	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	0.35						LT5 412, 410	2	
3	RCPT GFI RM 424					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	0.36						RCPT GFI RM 416	4	
5	RCPT RM 424					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	0.72						RCPT RM 414	6	
7	RCPT RM 424, FCU-6 CORR 406					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	0.90						RCPT RM 416	8	
9	RCPT GFI RCPT RM 422	0.14						#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07								FCU-1 RM 416	10	
11	RCPT GFI RCPT RM 422					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	0.36						RCPT GFI RM 414	12	
13	RCPT RM 422					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	0.72						RCPT RM 414	14	
15	RCPT RM 422					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	0.90						RCPT RM 414	16	
17	FCU-1 RM 422	0.07						#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"	0.07								FCU-1 RM 414	18	
19	SPARE (ON)					-	-	-	-	-	20/1	A	20/1	-	-	-	-	-							SPARE (ON)	20	
21	RCPT GFI RM 420					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	0.36						RCPT GFI RM 412	22	
23	RCPT RM 420					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	0.72						RCPT RM 412	24	
25	RCPT RM 420					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	0.90						RCPT RM 412	26	
27	FCU-1 RM 420	0.07						#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07								FCU-1 RM 412	28	
29	RCPT GFI RM 418					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	0.36						RCPT GFI RM 410	30	
31	RCPT RM 418					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	0.72						RCPT RM 410	32	
33	RCPT RM 418					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	0.90						RCPT RM 410	34	
35	FCU-1 RM 418	0.07						#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"	0.14								FCU-1 RM 410, FCU-5 RM 408	36	
37	SPARE (ON)					-	-	-	-	-	20/1	A	-	-	-	-	-	-							DO NOT USE	38	
39	LT5 418, 420	0.35						EX	EX	EX	20/1	B	-	-	-	-	-	-							DO NOT USE	40	
41	LT5 314, 316	0.35	0.30	0.00	0.00	6.48	0.00	A																	DO NOT USE	42	
PANEL B4		0.35	0.28	0.00	0.00	5.04	0.00	EX	EX	EX	200/3	B															
		0.35	0.28	0.00	0.00	4.32	0.00					C															
PANEL BOARD NOTES:										LOAD TOTALS (KVA):				CONNECTED		DEMAND		LOAD BALANCE									
1. HATCH DENOTES SCOPE OF DEMO WORK.										LIGHTING/CONTINUOUS				2.45		3.06		PHASE A 33.02 29%									
										HEATING/COOLING				1.56		1.56		PHASE B 95.91%									
										MOTORS				0.00		0.00		PHASE C 83.80%									
										KITCHEN				0.00		0.00											
										RECEPTALS				31.68		20.84		TOTAL DEMAND AMPS x				71					
										MISCELLANEOUS				0.00		0.00		LARGEST UNBALANCE PHASE IS:				1.2029					
LARGEST MOTOR (KVA):										N/A				35.69		25.46											

[illegible]

PANELBOARD A4 (MODIFIED)																									
SERVED FROM: MDP ENCLOSURE RATING: NEMA 1 MOUNTING: SURFACE				AMPERE RATING: 200A MAIN BREAKER: 200A LUG OPTIONS: MCB				VOLTAGE (L-L): 208 VOLTAGE (L-N): 120 LOCATION: ELEC. 408				PHASE: 3 WIRE: 4				22,000 MINIMUM RMS SYMMETRICAL AIC RATING									
CR. NO.	LOAD DESCRIPTION	LTG	H/C	LOAD (KVA)	KTC	REC	MISC	PHASE	C	IND	BRKR	BRKR	PHASE	C	IND	LTG	H/C	LOAD (KVA)	KTC	REC	MISC	LOAD DESCRIPTION	CR. NO.		
1	LTS RM 424, 422	0.35						EX	EX	EX	201/1	A	201/1	EX	EX	EX	0.35					LTS 412, 410	2		
3	RCPT GH RM 424				0.36	EX	EX	EX	EX	EX	201/1	B	201/1	EX	EX	EX		0.36				RCPT GH RM 416	4		
5	RCPT GH RM 424				0.72	EX	EX	EX	EX	EX	201/1	C	201/1	EX	EX	EX		0.72				RCPT RM 416	6		
7	RCPT RM 424				0.90	EX	EX	EX	EX	EX	201/1	A	201/1	EX	EX	EX		0.90				RCPT RM 416	8		
9	FCU-1 RM 424	0.54				#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"		0.54						FCU-1 RM 416	10		
11	RCPT GH RCPT RM 422				0.36	EX	EX	EX	EX	201/1	C	201/1	EX	EX	EX		0.36					RCPT GH RM 414	12		
13	RCPT RM 422				0.72	EX	EX	EX	EX	201/1	A	201/1	EX	EX	EX		0.72					RCPT RM 414	14		
15	RCPT RM 422				0.90	EX	EX	EX	EX	201/1	B	201/1	EX	EX	EX		0.90					RCPT RM 414	16		
17	FCU-1 RM 422	0.54				#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"		0.54						FCU-1 RM 414	18		
19	FCU-6 CORR 406	0.47				#12	#12	3/4"	15/1	A	15/1	#12	#12	3/4"		0.54						FCU-7 RM 408	20		
21	RCPT GH RM 420				0.36	EX	EX	EX	EX	201/1	B	201/1	EX	EX	EX		0.36					RCPT GH RM 412	22		
23	RCPT RM 420				0.72	EX	EX	EX	EX	201/1	C	201/1	EX	EX	EX		0.72					RCPT RM 412	24		
25	RCPT RM 420				0.90	EX	EX	EX	EX	201/1	A	201/1	EX	EX	EX		0.90					RCPT RM 412	26		
27	FCU-1 RM 420	0.54				#12	#12	3/4"	15/1	B	15/1	#12	#12	3/4"		0.54						FCU-1 RM 412	28		
29	RCPT GH RM 418				0.36	EX	EX	EX	EX	201/1	C	201/1	EX	EX	EX		0.36					RCPT GH RM 410	30		
31	RCPT RM 418				0.72	EX	EX	EX	EX	201/1	A	201/1	EX	EX	EX		0.72					RCPT RM 410	32		
33	RCPT RM 418				0.90	EX	EX	EX	EX	201/1	B	201/1	EX	EX	EX		0.90					RCPT RM 410	34		
35	FCU-1 RM 418	0.54				#12	#12	3/4"	15/1	C	15/1	#12	#12	3/4"		0.54						FCU-1 RM 410	36		
37	SPARE (ON)										201/1	A										DO NOT USE	38		
39	LTS 418, 420	0.35									201/1	B	-	-	-							DO NOT USE	40		
41	LTS 314, 316	0.35									201/1	C	-	-	-							DO NOT USE	42		
PANEL A4				0.35	0.30	0.00	0.00	6.48	0.00																
				0.35	0.28	0.00	0.00	5.04	0.00	EX	EX	200/1	B												
				0.35	0.28	0.00	0.00	4.32	0.00				C												
PANEL BOARD NOTES:								LOAD TOTALS (KVA):				CONNECTED		DEMAND		LOAD BALANCE									
1. BOLD TEXT DENOTES SCOPE OF NEW WORK.								LIGHTING/CONTINUOUS				2.45		3.06		PHASE A 113.99%									
2. SQUARE D TYPE "NQDQ"								HEATING/COOLING				6.19		6.19		PHASE B 98.36%									
								MOTORS				0.00		0.00		PHASE C 87.65%									
								KITCHEN				0.00		0.00											
								RECEPTILES				31.68		20.84						TOTAL DEMAND PHASES x				84	
								MISCELLANEOUS				0.00		0.00						LARGEST UNBALANCE AMP %:				1.1399	
LARGEST MOTOR (KVA):								N/A				40.32		30.09											

ARCHITECT

BSA

[illegible]

**FSU MCLEOD  
HALL HVAC  
REPLACEMENT**

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

## CONSTRUCTION DOCUMENTS

## ELECTRICAL PANEL SCHEDULES

# E403



PANELBOARD B4 (EXISTING)																													
SERVED FROM: A4										AMPERE RATING: 200A										VOLTAGE (L-L): 208									
ENCLOSURE RATING: NEMA 1										MAIN BREAKER: N/A										VOLTAGE (L-N): 120									
MOUNTING: SURFACE										LUG OPTIONS: MLO										LOCATION: ELEC. 408									
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)				PHASE				G	CND	BRKR	PHASE	G	CND	LOAD (KVA)				LOAD DESCRIPTION				CIR. NO.					
1		LTG	H/C	MOT	KIT	REC	MISC	SIZE	SIZE	IN	RTG	RTG	SIZE	SIZE	IN	LTG	H/C	MOT	KIT	REC	MISC								
1	1TS RM 425, 423	0.35						EX	EX	EX	20/1	A	20/1	#12	#12	3/4"	0.10						F-2/F-3/F-4 ROOF WEST	2					
3	RCPT GFI RM 425					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36				RCPT GFI RM 417	4						
5	RCPT RM 425					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72				RCPT RM 417	6						
7	RCPT RM 425					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90				RCPT RM 417	8						
9	FCU-1 RM 425					0.07		#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07					FCU-1 RM 417	10						
11	RCPT GFI RM 423					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36				RCPT GFI RM 415	12						
13	RCPT RM 423					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72				RCPT RM 415	14						
15	RCPT RM 423					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90				RCPT RM 415	16						
17	FCU-1 RM 423					0.07		#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"	0.07					FCU-1 RM 415	18						
19	F-2/F-3/F-4 ROOF NORTH	0.10						#12	#12	3/4"	20/1	A	20/1	EX	EX	EX						UTS 413, 411	20						
21	RCPT GFI RM 421					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.36				RCPT GFI RM 413	22						
23	RCPT RM 421					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.72				RCPT RM 413	24						
25	RCPT RM 421					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.90				RCPT RM 413	26						
27	FCU-1 RM 421					0.07		#12	#12	3/4"	20/1	B	20/1	#12	#12	3/4"	0.07					FCU-1 RM 413	28						
29	RCPT GFI RM 419					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX		0.36				RCPT GFI RM 411	30						
31	RCPT RM 419					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX		0.72				RCPT RM 411	32						
33	RCPT RM 419					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX		0.90				RCPT RM 411	34						
35	FCU-1 RM 419					0.07		#12	#12	3/4"	20/1	C	20/1	#12	#12	3/4"	0.07					FCU-1 RM 411	36						
37												A	20/1	#12	#12	3/4"	0.10					F-5/F-6/F-7 ROOF	38						
39	AHU-3							#12	#12	3/4"	15/3	B	20/1	EX	EX	EX	0.35					UTS 421, 419	40						
41								C	20/1	EX	EX	C	20/1	EX	EX	EX	0.35					UTS 417, 415	42						
PANELBOARD NOTES: 1. HATCH DENOTES SCOPE OF DEMO WORK.																													
LOAD TOTALS (KVA):										CONNECTED										DEMAND									
LIGHTING/CONTINUOUS										1.05										1.31									
HEATING/COOLING										0.86										0.86									
MOTORS										0.00										0.00									
KITCHEN										0.00										0.00									
RECEPTACLES										15.84										12.92									
MISCELLANEOUS										0.00										0.00									
TOTAL										17.75										15.09									
LARGEST MOTOR (KVA):										N/A																			
																				TOTAL DEMAND AMPS x 42									
																				LARGEST UNBALANCE PHASE %: 1.2051									
																				LARGEST UNBALANCE PHASE AMPS: 50.48									

PANELBOARD D4 (EXISTING)																																																	
SERVED FROM: C4										AMPERE RATING: 200A										VOLTAGE (L-L): 208																													
ENCLOSURE RATING: NEMA 1										MAIN BREAKER: N/A										VOLTAGE (L-N): 120																													
MOUNTING: SURFACE										LUG OPTIONS: MLO										LOCATION: UTILITY 404																													
CIR. NO.	LOAD DESCRIPTION	LOAD (KVA)				PHASE SIZE				G	CND	BRKR	BRKR	PHASE SIZE				G	CND	LOAD (KVA)				LOAD DESCRIPTION				CIR. NO.																					
		LTG	H/C	MOT	KIT	REC	MISC	SIZE	IN.					RTG	RTG	SIZE	IN.			RTG	RTG	SIZE	IN.	RTG	RTG	SIZE	IN.		RTG	RTG																			
1	1TS RM 432, 430	0.35						EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	EX	EX	0.35						1TS RM 442, 444	2																					
3	RCPT GFI RM 430					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	EX	EX				0.36			RCPT GFI RM 438	4																					
5	RCPT RM 430					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	EX	EX				0.72			RCPT RM 438	6																					
7	RCPT RM 430					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	EX	EX				0.90			RCPT RM 438	8																					
9	FCU-1 RM 430				0.07			H12	H12	3/4"	20/1	B	20/1	H12	H12	3/4"					0.07						FCU-1 RM 438	10																					
11	RCPT GFI RM 432					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	EX	EX				0.36			RCPT GFI RM 440	12																					
13	RCPT RM 432					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	EX	EX				0.72			RCPT RM 440	14																					
15	RCPT RM 432					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	EX	EX				0.90			RCPT RM 440	16																					
17	FCU-1 RM 432				0.07			H12	H12	3/4"	20/1	C	20/1	H12	H12	3/4"					0.07						FCU-1 RM 440	18																					
19	SPACE							-	-	-	-	-	A	-	-	-	-	-	-	-							SPACE	20																					
21	RCPT GFI RM 434					0.36		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	EX	EX				0.36			RCPT GFI RM 442	22																					
23	RCPT RM 434					0.72		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	EX	EX				0.72			RCPT RM 442	24																					
25	RCPT RM 434					0.90		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	EX	EX				0.90			RCPT RM 442	26																					
27	FCU-1 RM 434				0.07			H12	H12	3/4"	20/1	B	20/1	H12	H12	3/4"					0.07						FCU-1 RM 442	28																					
29	RCPT GFI RM 436					0.36		EX	EX	EX	20/1	C	20/1	EX	EX	EX	EX	EX	EX	EX				0.36			RCPT GFI RM 444	30																					
31	RCPT RM 436					0.72		EX	EX	EX	20/1	A	20/1	EX	EX	EX	EX	EX	EX	EX				0.72			RCPT RM 444	32																					
33	RCPT RM 436					0.90		EX	EX	EX	20/1	B	20/1	EX	EX	EX	EX	EX	EX	EX				0.90			RCPT RM 444	34																					
35	FCU-1 RM 436				0.07			H12	H12	3/4"	20/1	C	20/1	H12	H12	3/4"					0.14						FCU-1 RM 444, FCU-6 CORR 446	36																					
37	SPARE (ON)							-	-	-	-	-	A	-	-	-	-	-	-	-							SPACE	38																					
39	SPARE (ON)							-	-	-	-	-	B	20/1	EX	EX	EX	EX	EX	EX	0.35						1TS RM 440, 438	40																					
41	SPACE							-	-	-	-	-	C	20/1	EX	EX	EX	EX	EX	EX	0.35						1TS RM 436, 434	42																					
PANELBOARD NOTES:																																																	
1. HATCH DENOTES SCOPE OF DEMO WORK.																																																	
										LOAD TOTALS (KVA):										CONNECTED										DEMAND										LOAD BALANCE									
										LIGHTING/CONTINUOUS										1.40										1.75										PHASE A 120.54%									
										HEATING/COOLING										0.63										0.63										PHASE B 59.19%									
										MOTORS										0.00										1.45										PHASE C 84.28%									
										KITCHEN																																							
										RECEPTACLES										15.84										12.92										TOTAL DEMAND AMPS x 46									
										MISCELLANEOUS										0.00										0.00										LARGEST UNBALANCE PHASE %: 1.2054									
										TOTAL										17.87										16.75										LARGEST UNBALANCE PHASE AMPS: 56.04									
LARGEST MOTOR (KVA):										5.80																																							

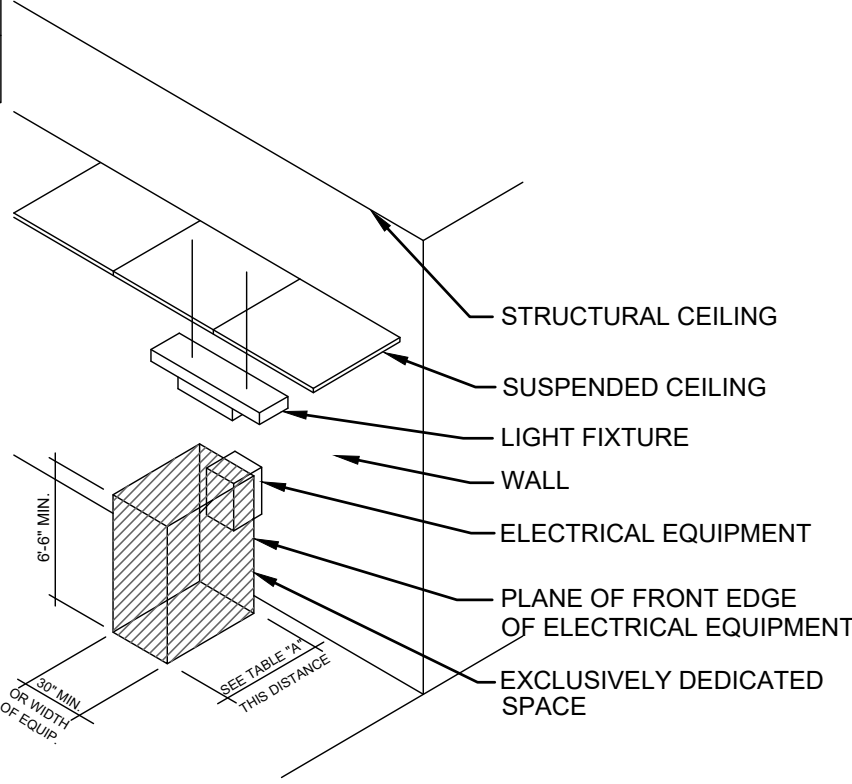


TABLE A - WORKING CLEARANCES				
VOLTAGE TO GROUND NOMINAL	CONDITION:	MINIMUM CLEAR DISTANCE (FEET)		
		1	2	3
0 - 150		3	3	3
151 - 600		3	3 1/2	4

WHERE THE "CONDITIONS" ARE AS FOLLOWS:

- EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING NOT AT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
- EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
- EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

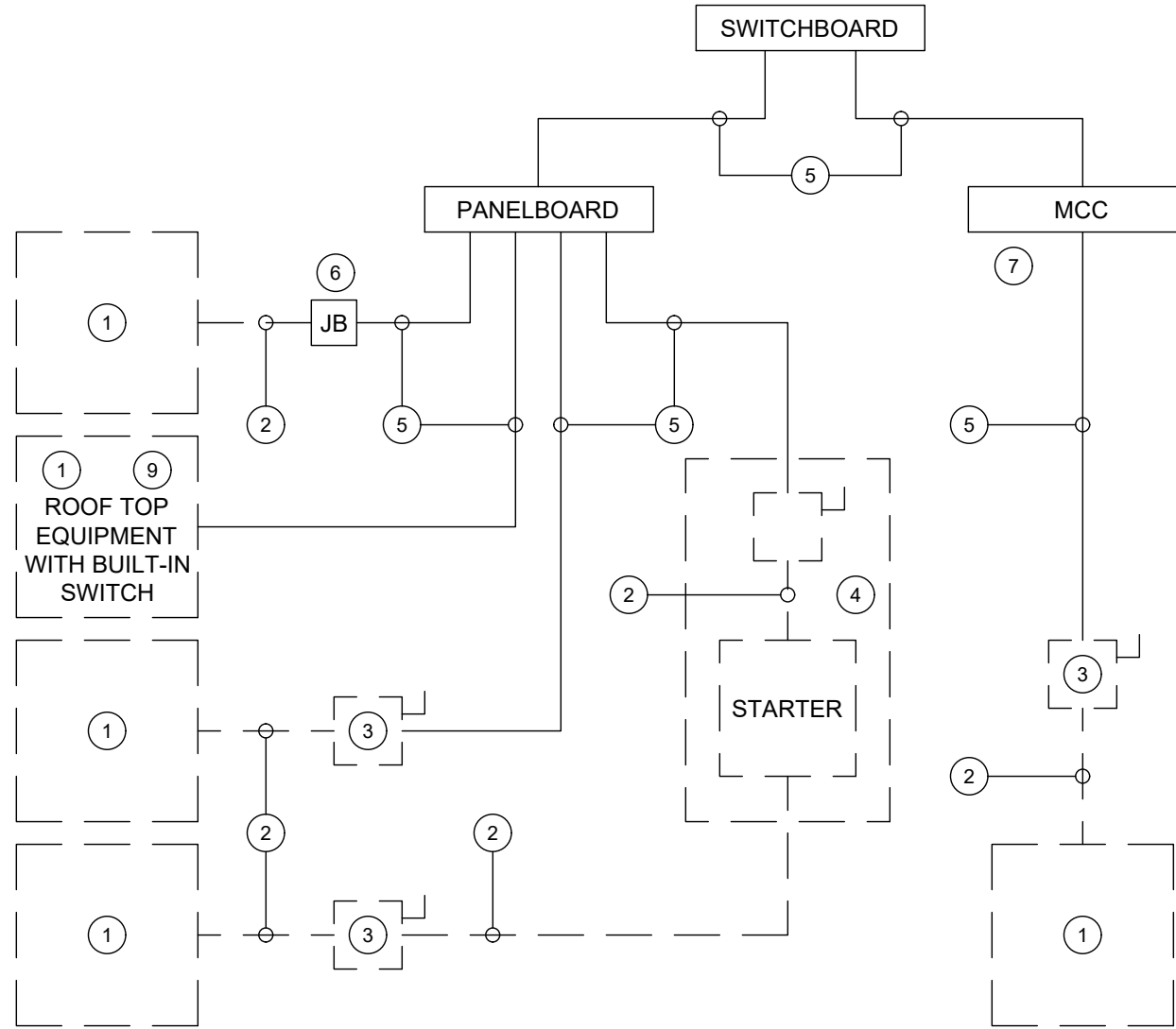
DETAIL NOTE:  
THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.



DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING PER N.E.C. ARTICLE 110-26.

EXCLUSIVELY DEDICATED SPACE OF 6 FEET. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THE 6 FEET ABOVE THE ELECTRICAL EQUIPMENT.

NOTE:  
THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.



#### EQUIPMENT CONNECTION NOTES

UNLESS NOTED OTHERWISE ON THE PLANS:

- EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
- CONDUIT AND WIRING BY HVAC, PLUMBING, OR OTHER TRADES.
- IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
- A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER IF PROVIDED WITH A LOCKABLE MEANS OF DISCONNECTION. LOCATE ADJACENT TO EQUIPMENT.
- FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
- JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT IF NO STARTER OR DISCONNECT IS SUPPLIED. A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
- PROJECTS UTILIZING AN MCC, THE STARTER, CB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
- IF THE ROOF TOP EQUIPMENT IS NOT PROVIDED WITH BUILT IN LOCKABLE SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

## 1 ELECTRICAL HORIZONTAL WORKING CLEARANCE

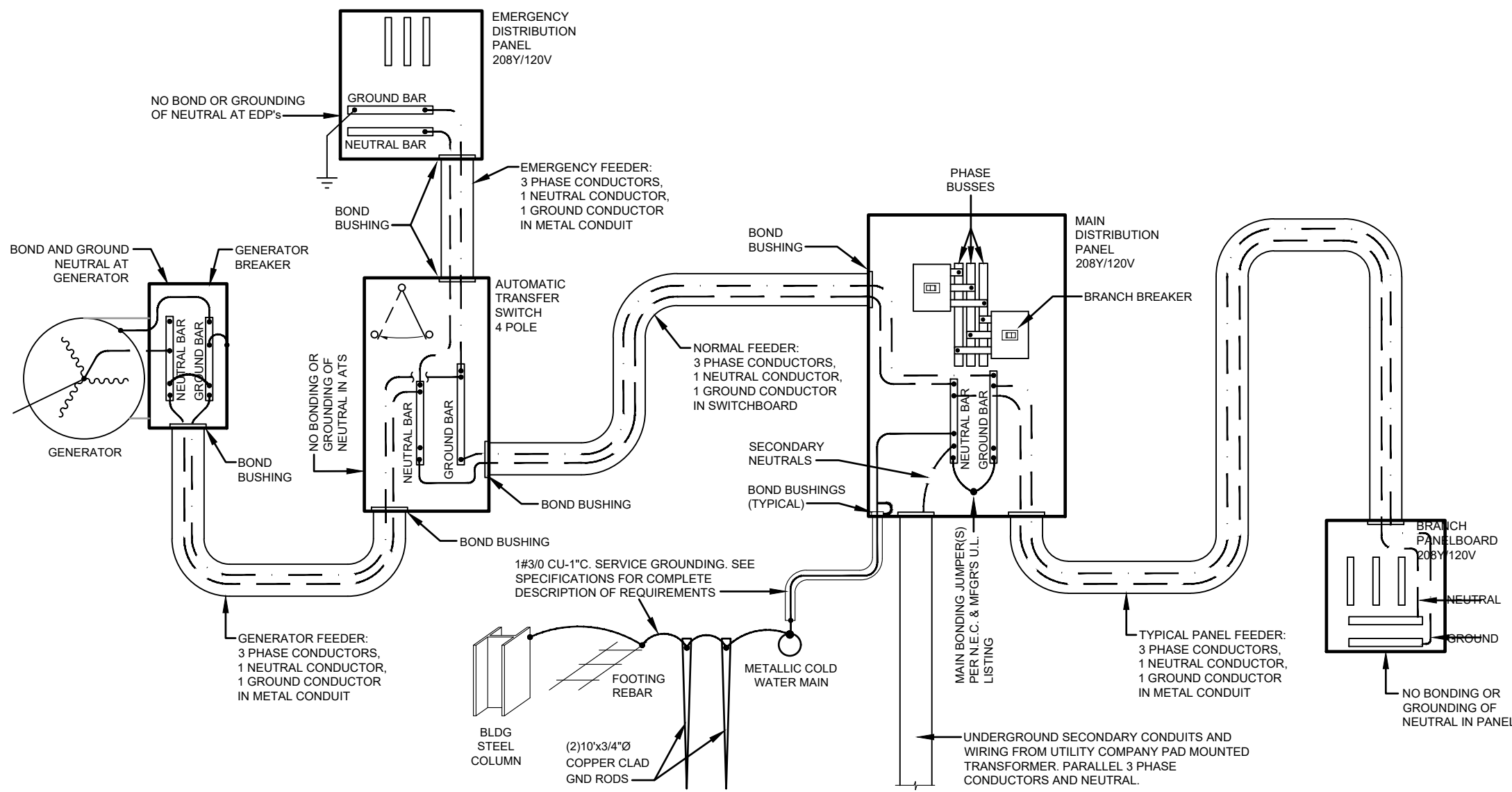
Scale: NTS

## 2 ELECTRICAL VERTICAL DEDICATED SPACE

Scale: NTS

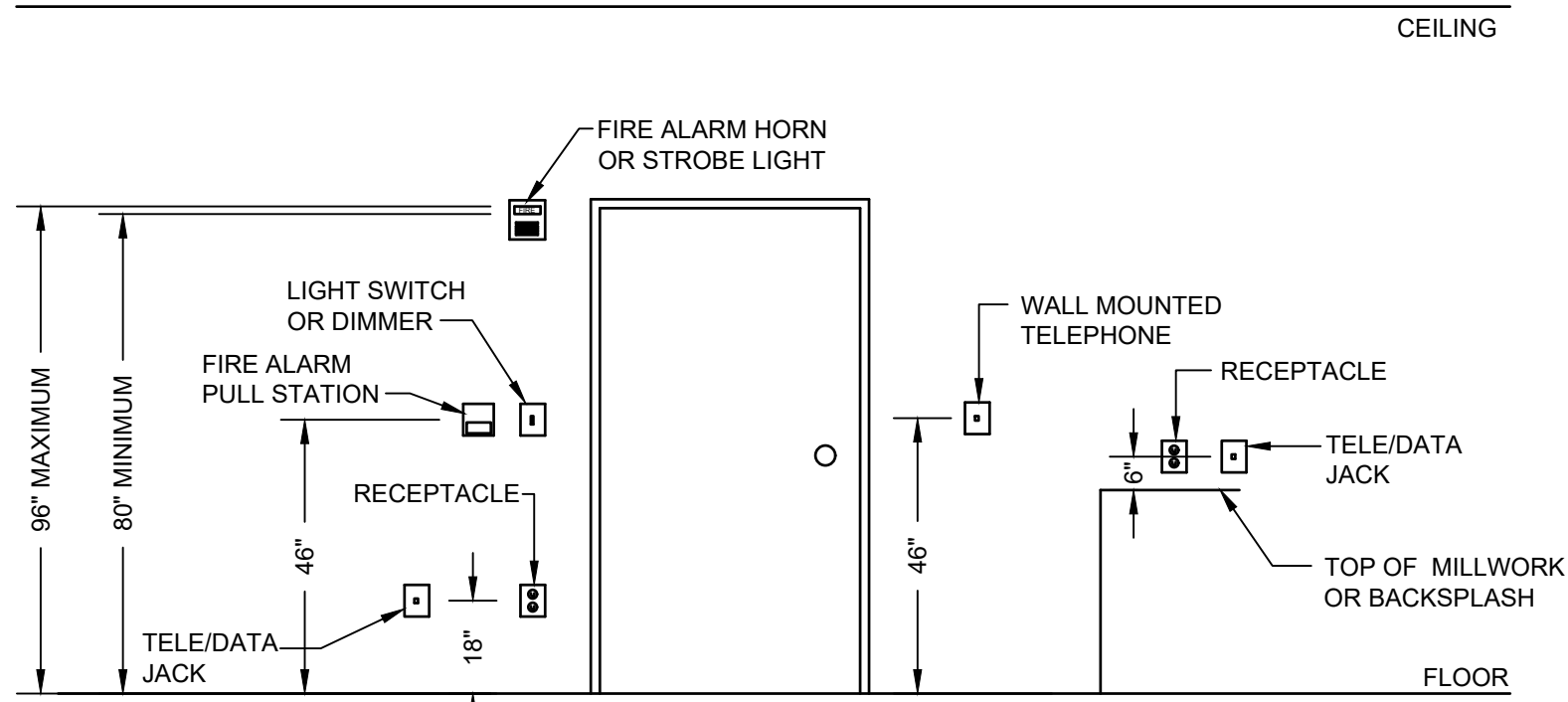
## 3 ELECTRICAL EQUIPMENT CONNECTIONS

Scale: NTS



## 4 TYPICAL SYSTEM GROUNDING & BONDING DIAGRAM

Scale: NTS

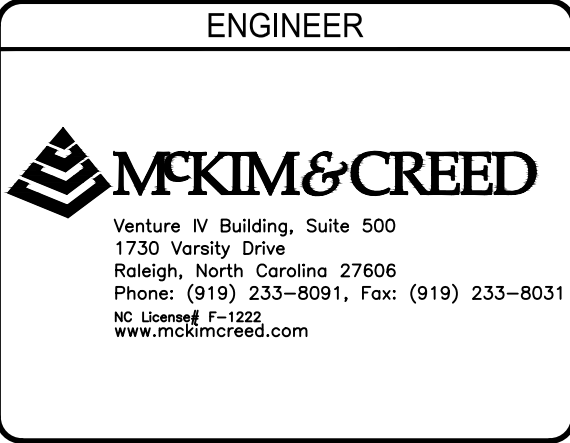
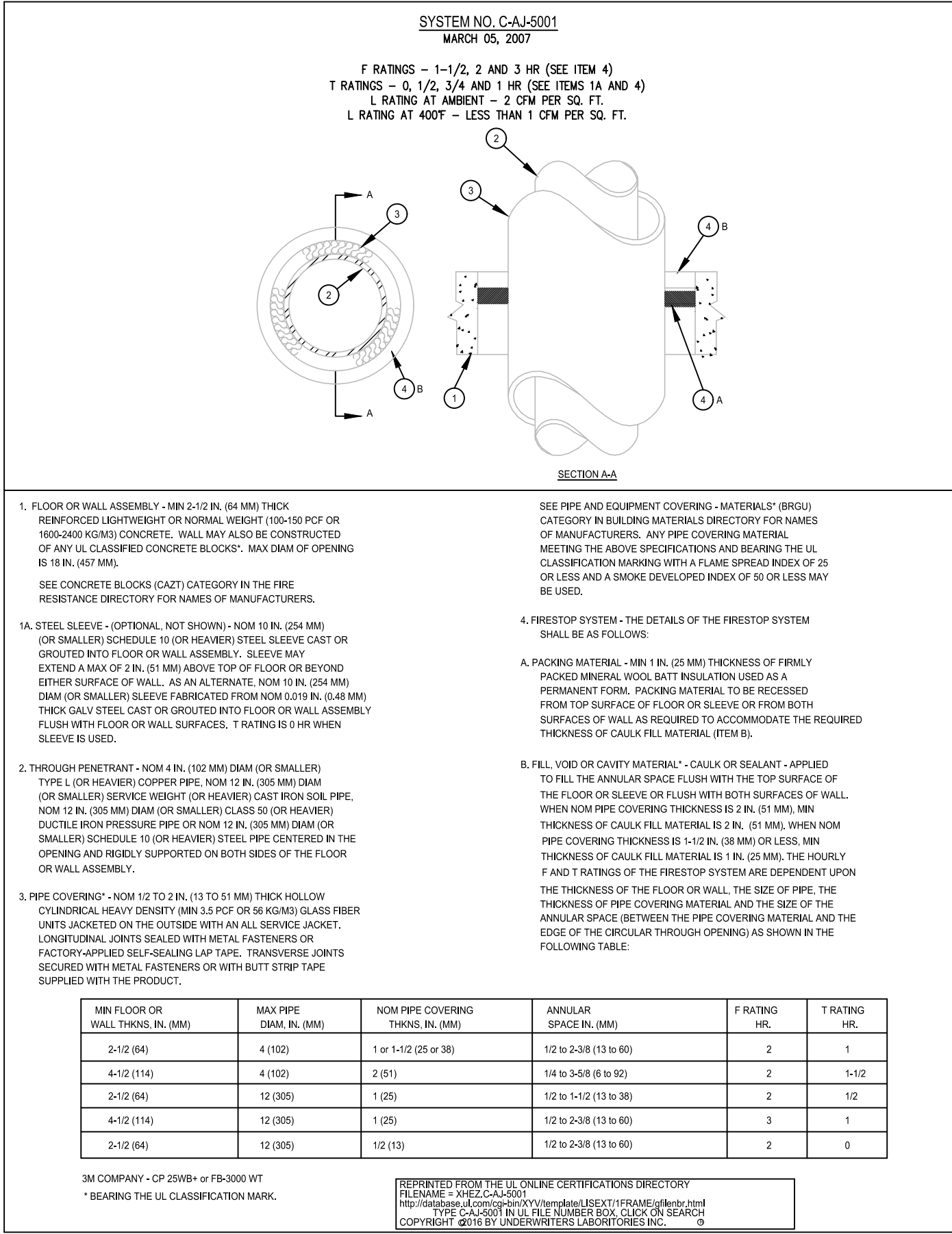
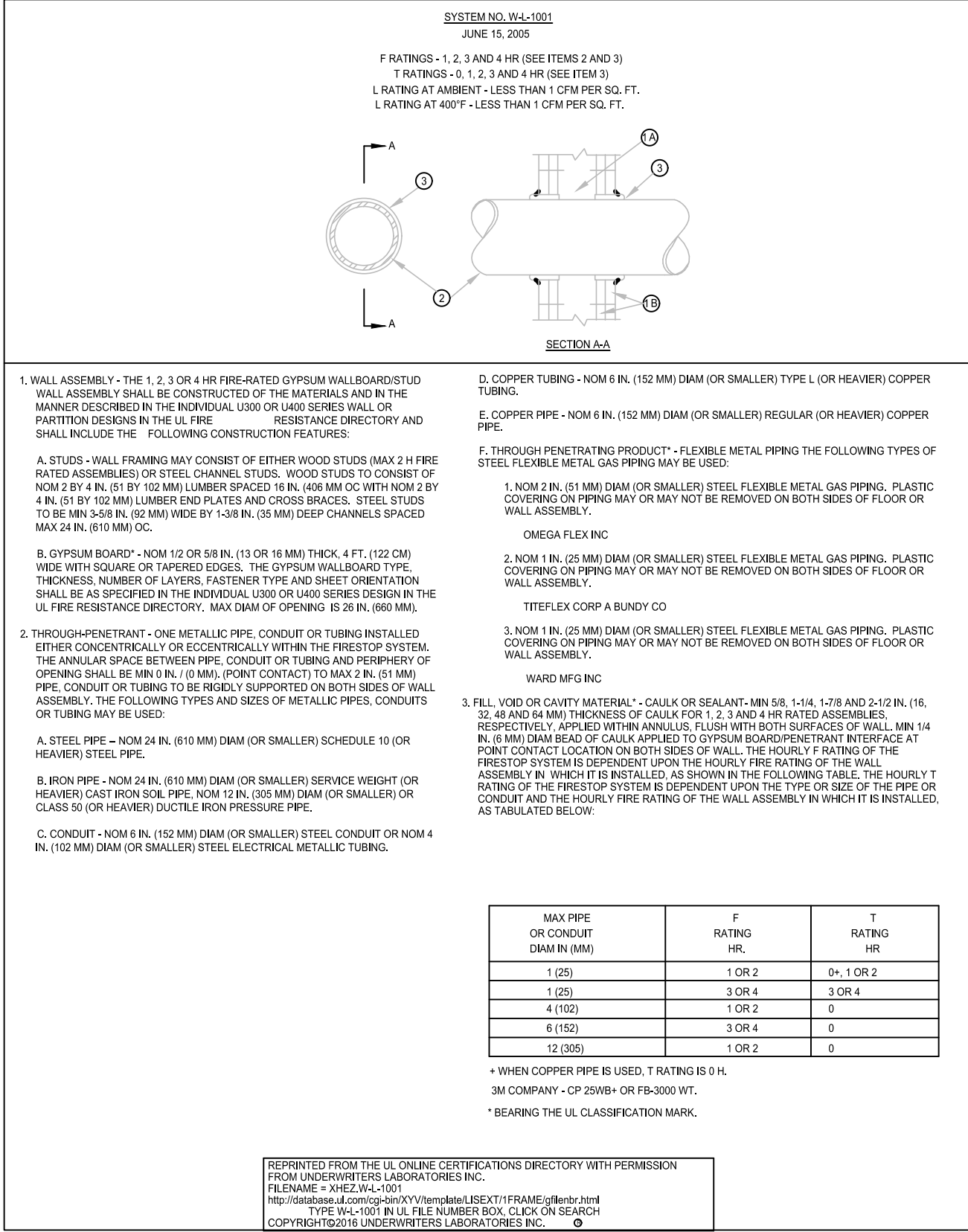


#### NOTES:

- REFER TO PLAN NOTES TO COORDINATE MOUNTING HEIGHT & LOCATION OF INDIVIDUAL (ADA) DEVICES WITH ARCHITECTURAL DRAWINGS. REFER TO ARCHITECTURAL DETAILS.

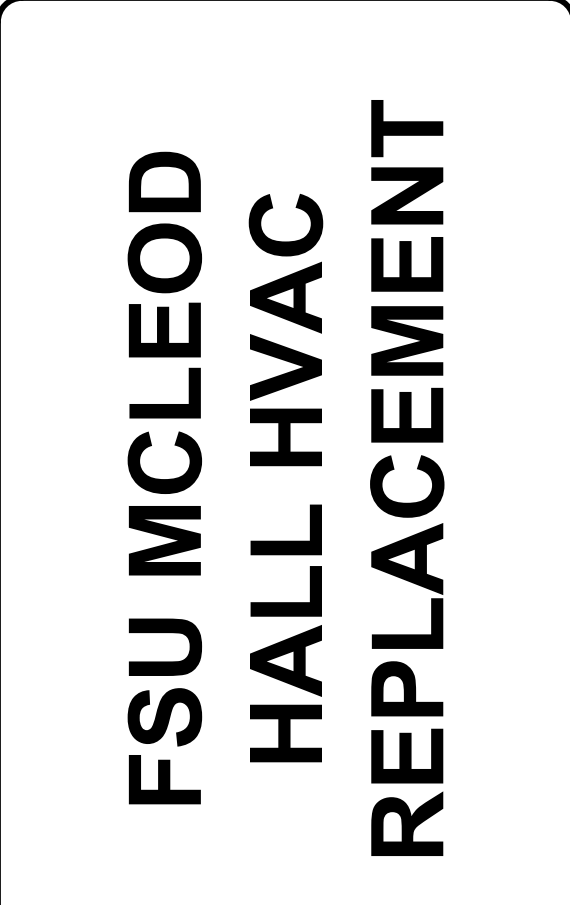
## 5 TYPICAL MOUNTING HEIGHTS OF DEVICES - ELEVATION

Scale: NTS



REV	REVISION DESCRIPTION	DATE

REV	REVISION DESCRIPTION	DATE



SCO ID: 21-24131-01A CODE: 42134 ITEM: 301

DATE	2022-11-22
M&C PROJ. #	05815-0044
DRAWN	ALL
DESIGNED	ALL
CHECKED	ADS
PROJ. MGR.	DJW

CONSTRUCTION DOCUMENTS

ELECTRICAL DETAILS

E501