

# AIR CONDITIONING SERVER/MDF/IDF DATA ROOMS DCS PROJECT NO. BI-RD 276

WESTERN CT STATE UNIVERSITY · DANBURY · CONNECTICUT  
MIDTOWN AND WESTSIDE CAMPUS

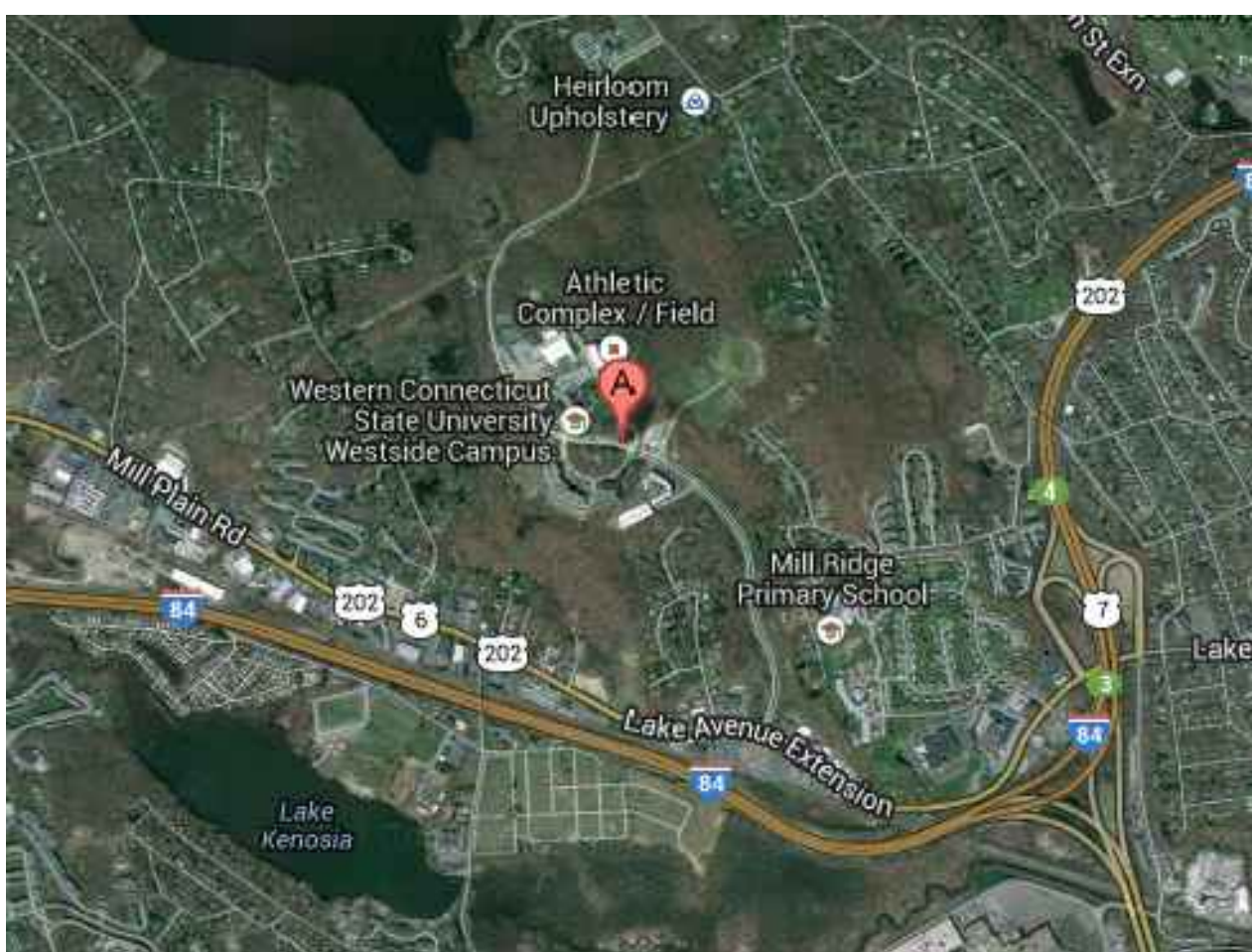
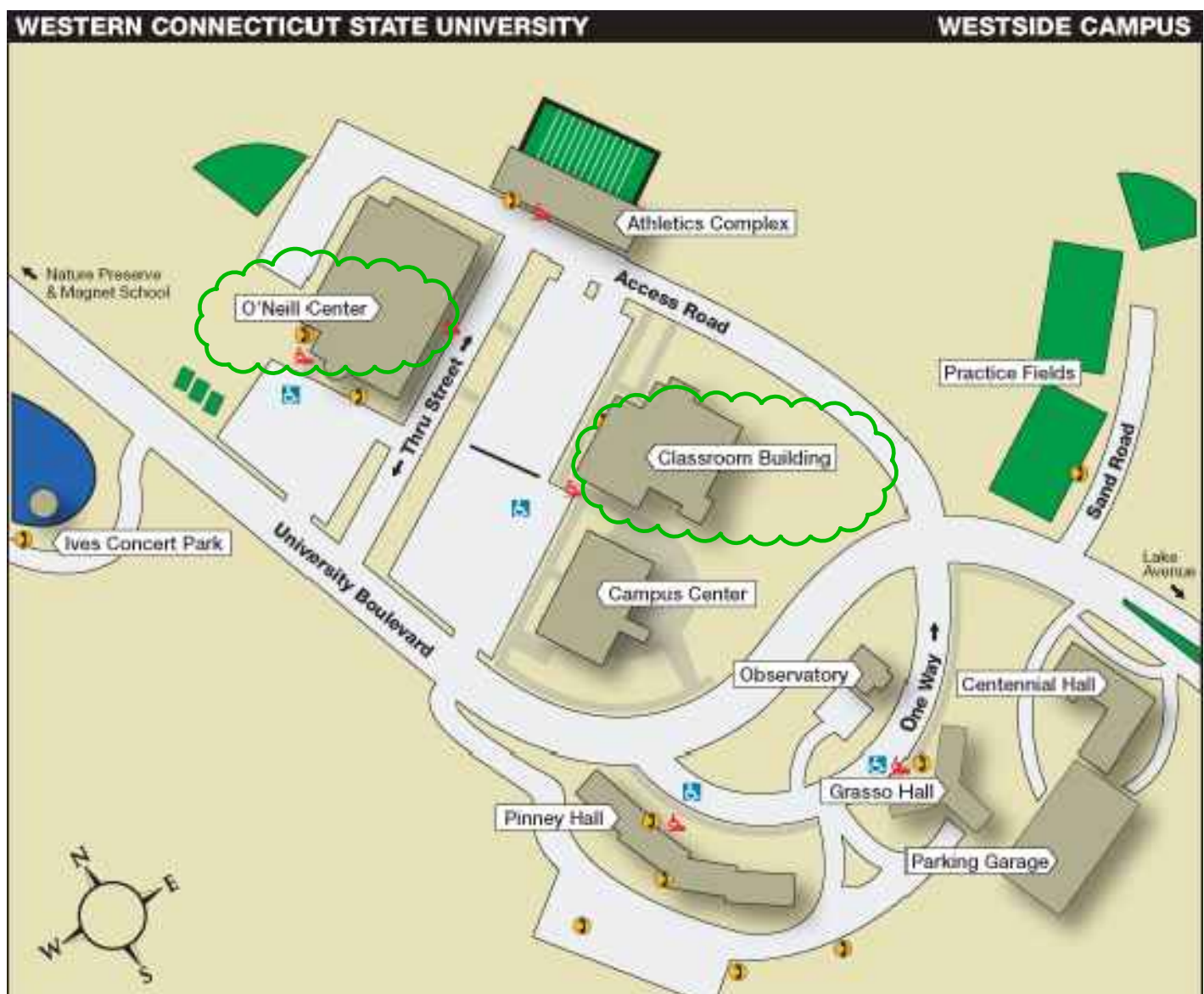
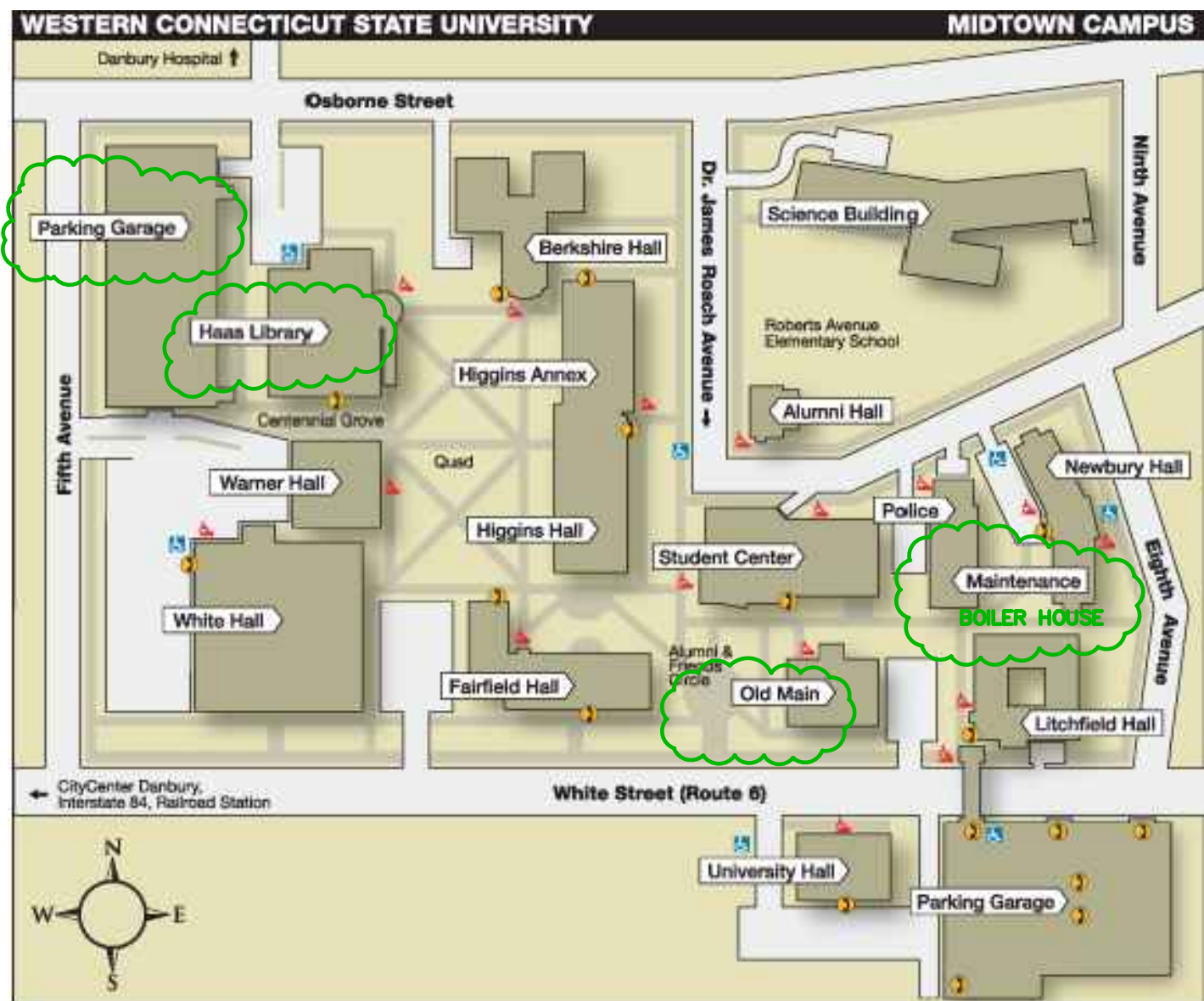
JULY 10, 2014

PREPARED FOR  
**WESTERN CONNECTICUT STATE UNIVERSITY**  
DANBURY, CT



PREPARED BY  
**FUSS & O'NEILL**  
146 HARTFORD ROAD  
MANCHESTER, CONNECTICUT 06040  
860.646.2469  
www.fando.com

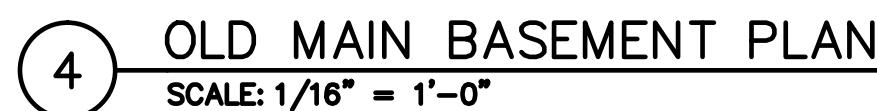
SHEET INDEX	
<u>SHEET No.</u>	<u>SHEET TITLE</u>
M-000	COVER SHEET
M-101	OLD MAIN SERVER ROOM
M-102	HASS LIBRARY COMPUTER CENTER
M-103	WESTSIDE CLASSROOMS/O'NEILL CENTER
M-104	PARKING GARAGE/BOILER HOUSE



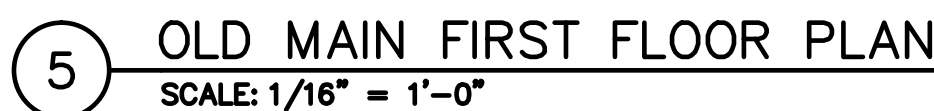
CAMPUS MAPS  
SCALE: N.T.S.

PROJ. No.: 20090988.A60  
DATE: 07/10/2014  
**M-000**







- LOCATION OF PANEL EDP.
- CHANGE EXISTING 150 AMP, 3 POLE CIRCUIT BREAKER FOR CRAC-1 TO 90 AMP, 3 POLE CIRCUIT BREAKER. EXISTING CONDUCTORS TO BE REUSED.
- CHANGE EXISTING SPARE 200 AMP, 3 POLE CIRCUIT BREAKER TO 90 AMP, 3 POLE CIRCUIT BREAKER. USE FOR CRAC-2 FEEDER. CIRCUIT SHALL BE 5-#3 AWG, THWN, CU IN 1 1/4" EMT.
- PROVIDE 20 AMP, 3 POLE CIRCUIT BREAKER FOR CRAC-2 CONDENSER. CIRCUIT SHALL BE 5-#12 AWG, THWN, CU IN 3/4" EMT.



2 HVAC SCHEDULE  
SCALE: N.T.S

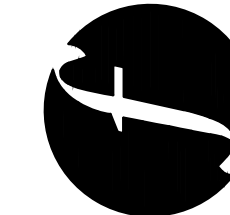
MECHANICAL LINETYPE LEGEND	
	EXISTING TO REMAIN
	NEW WORK

	JULY 10, 2014	FINAL BID DOCUMENTS
No.	DATE	DESCRIPTION REVISIONS

SCALE:	HORIZ.: 1/4" = 1'
	VERT.:
DATUM:	
	HORIZ.:
	VERT.:
1/4" 1/8" 0 1/4"	GRAPHIC SCALE

WWW.FAND0.COM

**FUSS & O'NEILL**  
*Disciplines to Deliver*



WESTERN CONNECTICUT STATE UNIVERSITY  
OLD MAIN BUILDING  
A/C UNIT INSTALLATION  
HVAC UPGRADES

DANBURY

860,646.2469

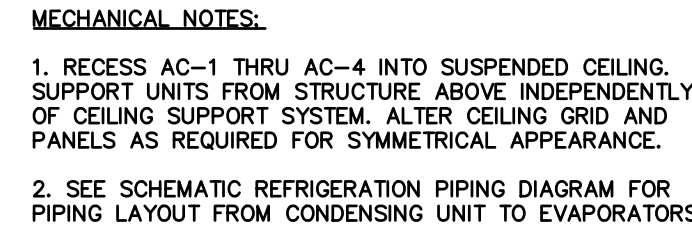
146 HARTFORD RD  
MANCHESTER, CT 06040

CONNECTICUT

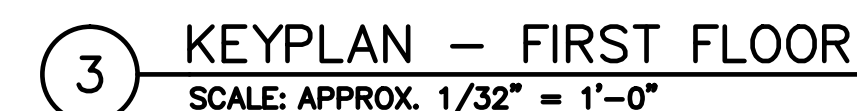
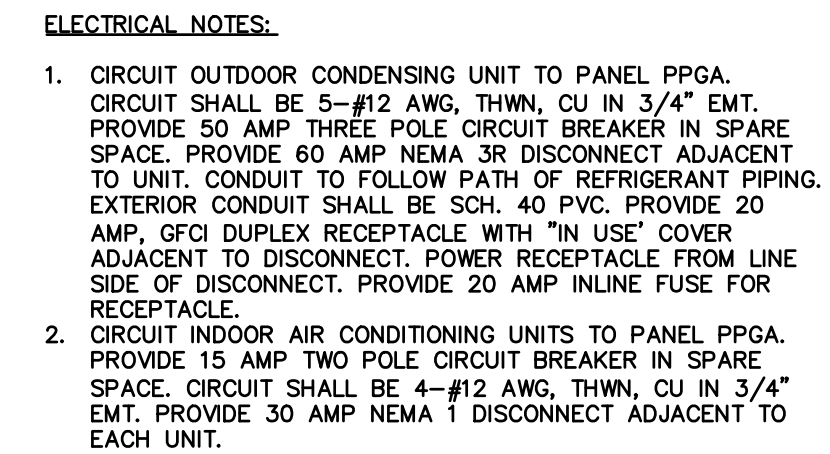
PROJ. No.: 20090988.A60  
DATE: JULY 10, 2014

M-101

<b><u>FEATURES – INDOOR UNIT</u></b> <ul style="list-style-type: none"> <li>• BUILT-IN CONDENSATE LIFT PUMP</li> <li>• 4 SPEED FAN WITH AUTO ADJUSTMENT MODE</li> <li>• LOW AMBIENT KIT</li> </ul>	<b><u>OPTIONS – INDOOR UNIT</u></b> <ul style="list-style-type: none"> <li>• MODEL PAR-30MAAU CONTROLLERS</li> <li>• T-BRANCH JOINTS CMY-Y102LS-G2</li> </ul>	PROVIDE BAGNET IP INTERFACE TO CAMPUS JCI METASYS NETWORK
--	---	--



**SCALE: N.T.S.**



**SCALE: 1/8" = 1'**



File Path: J:\DWG\2009\0988\A60\MEP\Mechanical\20090988.A60\_M-103\_WCB\_ONeill.dwg; July 10, 2014 - 10:50 AM User: FCARICCHIO  
Printer: NONE; CTB File: EQ 2008.MONO.CTB

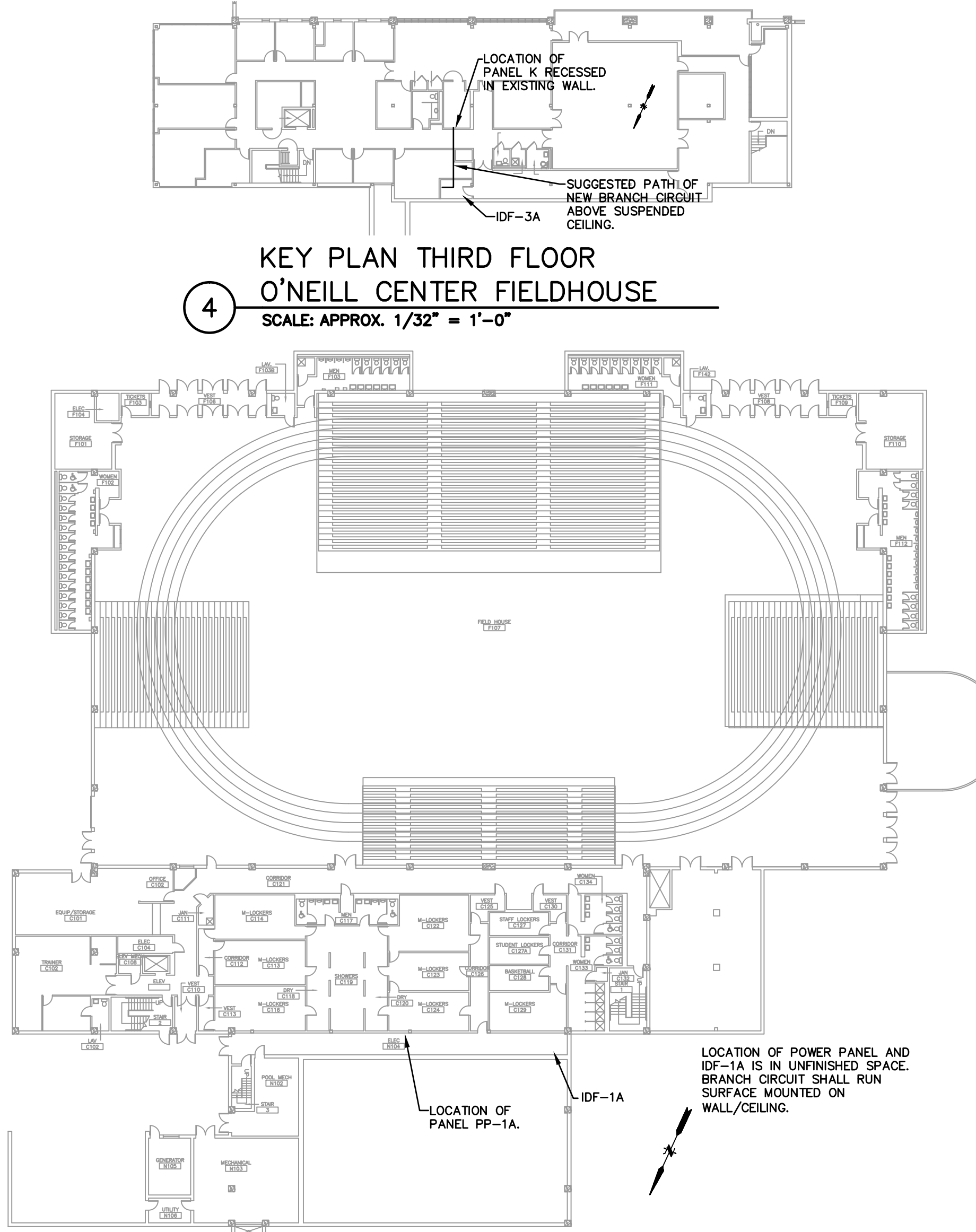
2 O'NEILL CENTER - IDF-3A  
SCALE: 1/4" = 1'

- PROVIDE FACTORY S&L INSULATED LINE SET BETWEEN INDOOR AND OUTDOOR UNITS.
- NEW INDOOR AIR CONDITIONING UNIT EQUAL TO MITSUBISHI PKA-A12HA4. WALL MOUNT 6" BELOW CEILING. PROVIDE CONDENSATE PUMP.
- MITSUBISHI PKA-A12HA4. MOUNT OUTDOOR CONDENSING UNIT PUY-A12NH44 LOCATED DIRECTLY ABOVE ON ROOF.
- FLASHED-IN EQUIPMENT SUPPORT RAIL (TYP) SEE DETAIL 6 SHEET M-101

ELECTRICAL NOTES:

1. IN PANEL RP-K, REMOVE TWO SINGLE POLE 20 AMP SPARE CIRCUIT BREAKERS. SPACE TO BE USED FOR NEW TWO POLE CIRCUIT BREAKER. CIRCUIT OUTDOOR CONDENSING UNIT TO PANEL RP-K. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT, PROVIDE 15 AMP TWO POLE CIRCUIT BREAKER. PROVIDE 30 AMP NEMA 3R DISCONNECT ADJACENT TO UNIT. CONDUIT TO FOLLOW PATH OF REFRIGERANT PIPING. EXTERIOR CONDUIT SHALL BE SCH. 40 PVC. PROVIDE 20 AMP, GFCI DUPLEX RECEPTACLE WITH "IN USE" COVER ADJACENT TO DISCONNECT. POWER RECEPTACLE FROM LINE SIDE OF DISCONNECT.
2. CIRCUIT INDOOR AIR CONDITIONING UNIT TO SAME CIRCUIT AS CONDENSING UNIT. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 30 AMP DISCONNECT ADJACENT TO UNIT.

4 KEY PLAN THIRD FLOOR  
O'NEILL CENTER FIELDHOUSE  
SCALE: APPROX. 1/32" = 1'-0"

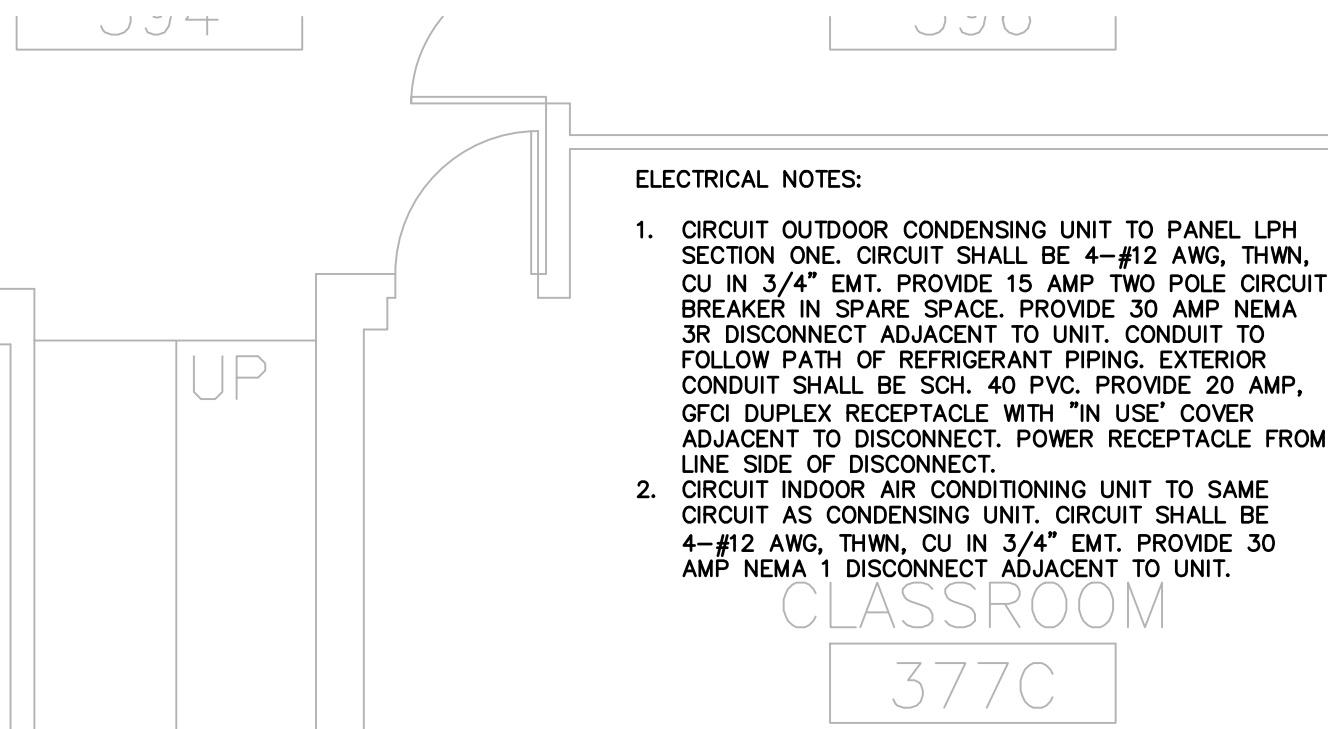


8 O'NEILL CENTER - IDF-1A  
SCALE: 1/4" = 1'

- NEW INDOOR AIR CONDITIONING UNIT EQUAL TO MITSUBISHI PKA-A12HA4. WALL MOUNT 6" BELOW CEILING.
- IDF-1A
- RUN PIPING AT CEILING.
- PIPING AND CONDUIT TO RISE UP INTO LOBBY ABOVE. CORE DRILL TO OUTSIDE 12" ABOVE GRADE. RUN TO NEW CONDENSING UNIT. PROVIDE CUSTOM ENCLOSURE FOR PIPING INSIDE LOBBY.
- 3/4" ABS CONDENSATE DISCHARGE OUTSIDE 6" ABOVE GRADE.
- NEW OUTDOOR CONDENSING UNIT EQUAL TO MITSUBISHI PUY-A12NH44. MOUNT ON GRADE. PROVIDE FACTORY OPTIONAL MOUNTING PAD.

ELECTRICAL NOTES:

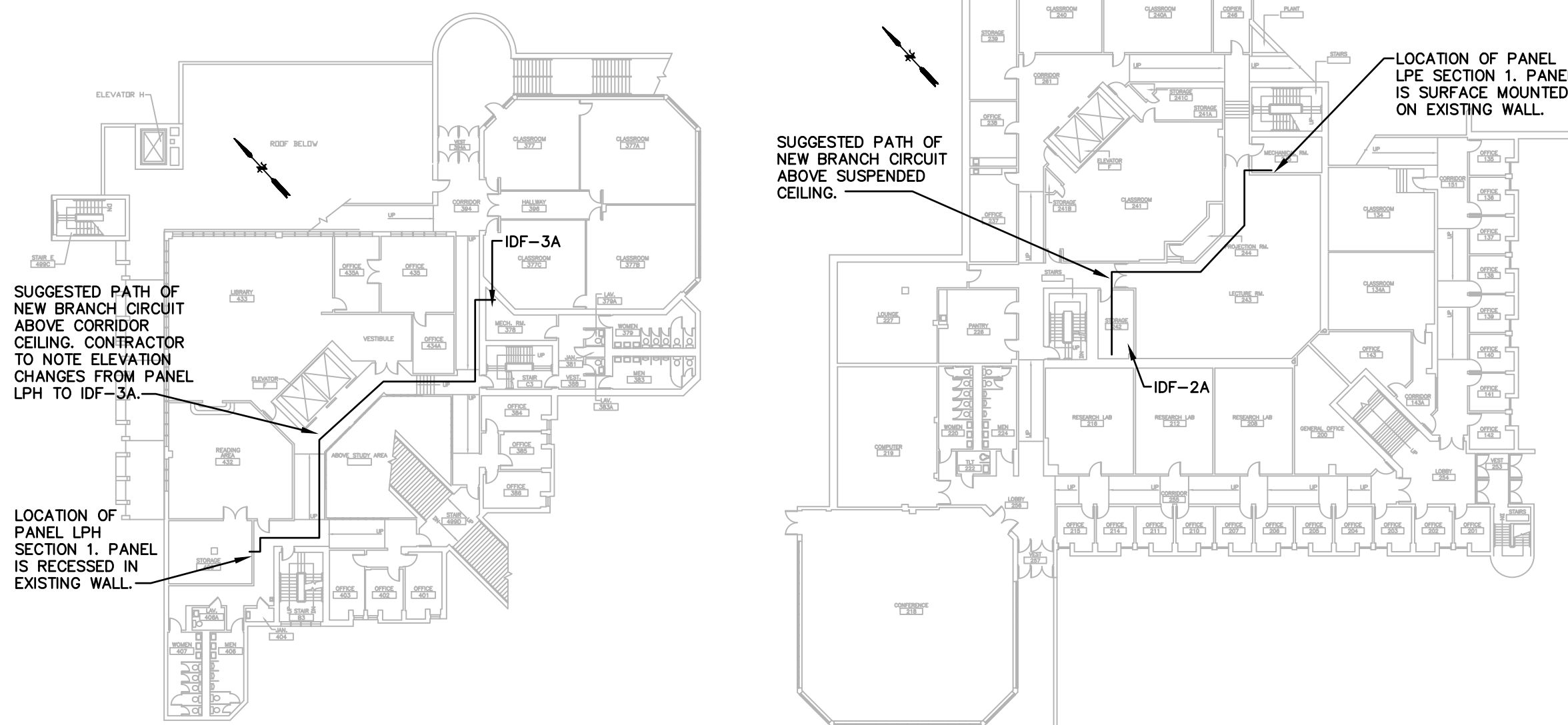
1. PROVIDE 5 KVA SINGLE PHASE TRANSFORMER 480 VOLT PRIMARY-120/240 VOLT SECONDARY. MOUNT ON WALL ADJACENT TO INDOOR UNIT. PROVIDE 30 AMP NEMA 1 DISCONNECT FOR BOTH PRIMARY AND SECONDARY FEEDERS ADJACENT TO TRANSFORMER. CIRCUIT TRANSFORMER TO PANEL PP-1A. PROVIDE 15 AMP TWO POLE CIRCUIT BREAKER IN SPARE SPACE. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT.
2. CIRCUIT OUTDOOR CONDENSING UNIT TO NEW SINGLE PHASE TRANSFORMER. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 30 AMP NEMA 3R DISCONNECT ADJACENT TO UNIT. CONDUIT SHALL FOLLOW PATH OF REFRIGERANT LINES. EXTERIOR CONDUIT SHALL BE SCH. 40 PVC. PROVIDE 20 AMP, GFCI DUPLEX RECEPTACLE WITH "IN USE" COVER ADJACENT TO DISCONNECT. POWER RECEPTACLE FROM LINE SIDE OF DISCONNECT.
3. CIRCUIT INDOOR AIR CONDITIONING UNIT TO SAME CIRCUIT AS CONDENSING UNIT. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT.



ELECTRICAL NOTES:

1. CIRCUIT OUTDOOR CONDENSING UNIT TO PANEL LPH SECTION ONE. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 15 AMP TWO POLE CIRCUIT BREAKER IN SPARE SPACE. PROVIDE 30 AMP NEMA 3R DISCONNECT ADJACENT TO UNIT. CONDUIT TO FOLLOW PATH OF REFRIGERANT PIPING. EXTERIOR CONDUIT SHALL BE SCH. 40 PVC. PROVIDE 20 AMP, GFCI DUPLEX RECEPTACLE WITH "IN USE" COVER ADJACENT TO DISCONNECT. POWER RECEPTACLE FROM LINE SIDE OF DISCONNECT.
2. CIRCUIT INDOOR AIR CONDITIONING UNIT TO SAME CIRCUIT AS CONDENSING UNIT. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 30 AMP NEMA 1 DISCONNECT ADJACENT TO UNIT.

6 KEY PLAN FIRST FLOOR  
O'NEILL CENTER FIELDHOUSE  
SCALE: APPROX. 1/32" = 1'-0"

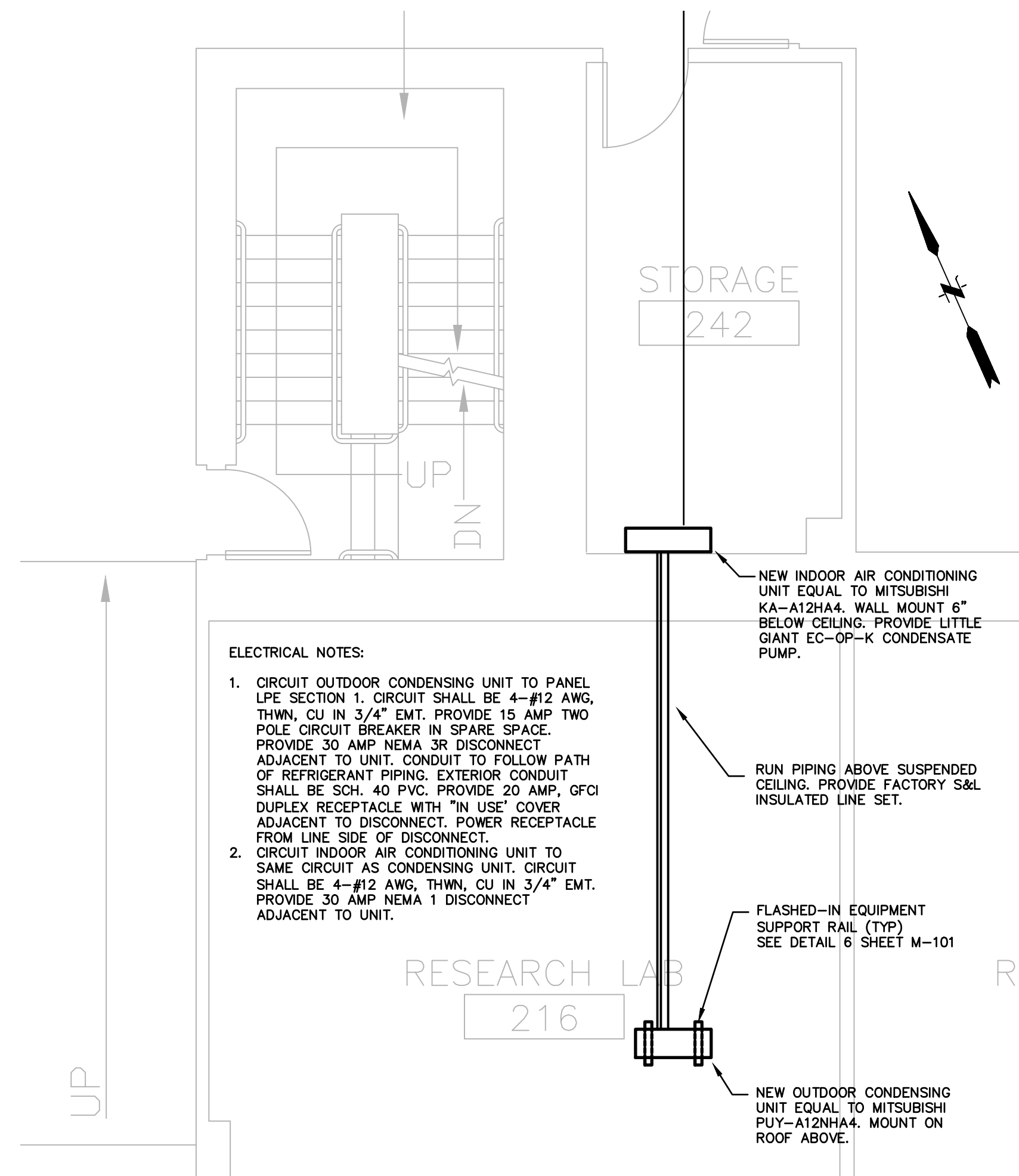


1 WESTSIDE CLASSROOM BUILDING - IDF-3A  
SCALE: 1/4" = 1'

3 KEY PLAN FOURTH FLOOR  
WESTSIDE CLASSROOM BUILDING  
SCALE: APPROX. 1/32" = 1'-0"

5 KEY PLAN SECOND FLOOR  
WESTSIDE CLASSROOM BUILDING  
SCALE: APPROX. 1/32" = 1'-0"

7 WESTSIDE CLASSROOM BUILDING - IDF-2A  
SCALE: 1/4" = 1'



ELECTRICAL NOTES:

1. CIRCUIT OUTDOOR CONDENSING UNIT TO PANEL LPE SECTION 1. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 15 AMP TWO POLE CIRCUIT BREAKER IN SPARE SPACE. PROVIDE 30 AMP NEMA 3R DISCONNECT ADJACENT TO UNIT. CONDUIT TO FOLLOW PATH OF REFRIGERANT PIPING. EXTERIOR CONDUIT SHALL BE SCH. 40 PVC. PROVIDE 20 AMP, GFCI DUPLEX RECEPTACLE WITH "IN USE" COVER ADJACENT TO DISCONNECT. POWER RECEPTACLE FROM LINE SIDE OF DISCONNECT.
2. CIRCUIT INDOOR AIR CONDITIONING UNIT TO SAME CIRCUIT AS CONDENSING UNIT. CIRCUIT SHALL BE 4-#12 AWG, THWN, CU IN 3/4" EMT. PROVIDE 30 AMP NEMA 1 DISCONNECT ADJACENT TO UNIT.

WESTERN CONNECTICUT STATE UNIVERSITY  
WESTSIDE CLASSROOM/O'NEILL CENTER  
A/C UNIT INSTALLATION  
HVAC UPGRADES

WWW.FAND0.COM

**FUSS & O'NEILL**  
*Disciplines to Deliver*

FINAL BID DOCUMENTS

JULY 10, 2014

SCALE: 1/8" = 1'

HORIZ.: 1/8" = 1'

VERT.: 1/8" = 1'

DATUM: 1/8" = 1'

VERT.: 1/8" = 1'

SCALE: 1/8" = 1'

860.646.2469

146 HARTFORD RD

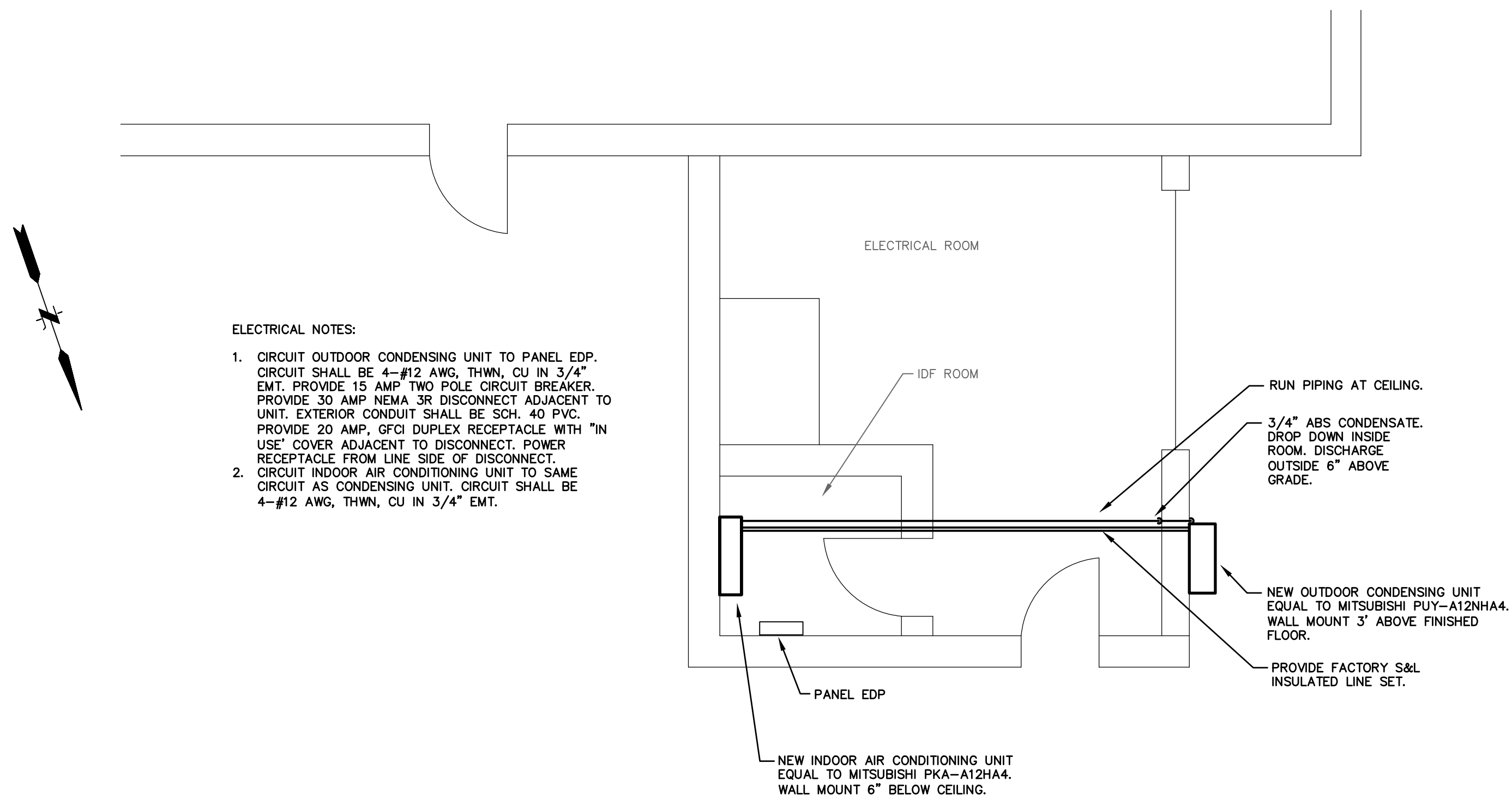
CONNECTICUT

DANBURY

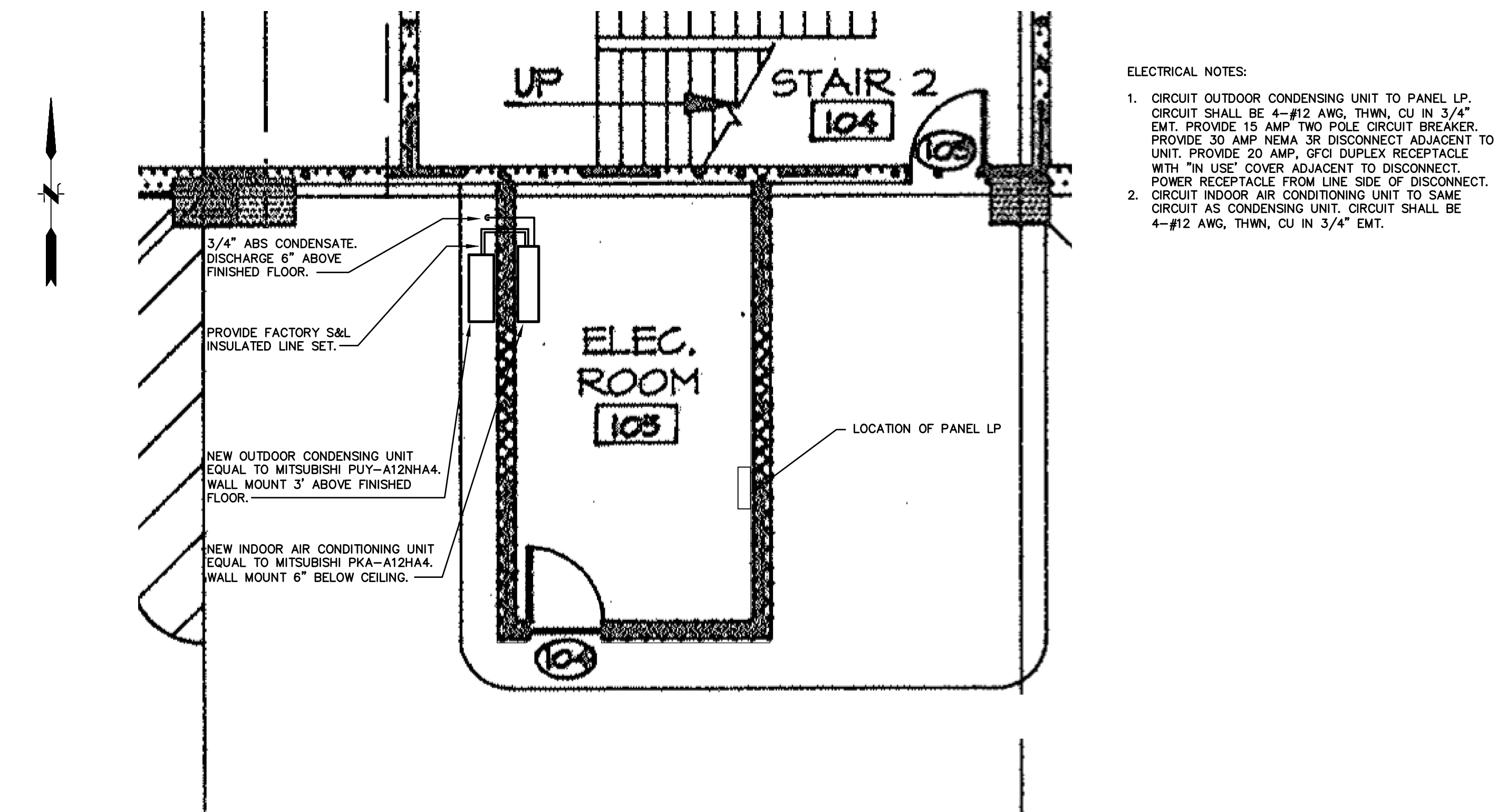
PROJ. No.: 20090988.A60  
DATE: JULY 10, 2014

M-103

J:\DWG\2009\0988\A60\MEP\Mechanical\20090988.A60\_M-104\_Garage\_Boiler\_House.dwg, 7/10/2014 10:50:20 AM, DWG To PDF.pc3



1 BOILER HOUSE PARTIAL FLOOR PLAN – IDF ROOM  
SCALE: 1/4" = 1'



1 WHITE STREET PARKING GARAGE – ELECTRIC ROOM  
SCALE: 1/4" = 1'

FINAL BID DOCUMENTS		JULY 10, 2014	
SCALE: 1/4" = 1'		HORIZ.: 1/4" = 1'	
DATE: JULY 10, 2014		VERT.: 1/8" = 1'	
DANBURY		CONNECTICUT	
WESTERN CONNECTICUT STATE UNIVERSITY		PARKING GARAGE/BOILER HOUSE	
A/C UNIT INSTALLATION		HVAC UPGRADES	
PROJ. No.: 20090988.A60		DATE: JULY 10, 2014	
M-104		FUSS & O'NEILL	
DISCIPLINES TO DELIVER		WWW.FAND0.COM	
146 HARTFORD RD		MANCHESTER, CT 06040	
860.646.2469		860.646.2469	
REVISIONS		DESCRIPTION	
No.		DATE	