

**THE SCHOOL DISTRICT OF
PHILADELPHIA SCHOOL REFORM
COMMISSION
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite
371 Philadelphia, PA 19130**

TELEPHONE: (215) 400-4730

Addendum No. 001

**Subject: Cooling Plant Replacement
SDP Contracts No. B-080C, B-081C and B-082 of 2017/18**

**Location: Thomas A. Edison High School
151 W Luzerne Street
Philadelphia, Pennsylvania 19140**

This Addendum, dated August 9, 2018, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

ARCHITECTURAL DRAWINGS

DRAWING A101

- **Modified** detail 3 to remove additional blocking above the door frame to make for a larger opening. Refer to addendum Sketch A.01
- **Modified** detail 4 to remove additional blocking above the door frame to make for a larger opening. Refer to addendum Sketch A.01

MECHANICAL DRAWINGS

DRAWING MD101

- **Added** condenser water treatment equipment and associated piping to remain to both plan and section views on drawing (piping not shown on drawing), Refer to addendum Sketch M.01
- **Added** domestic cold-water piping to both plan and section views on drawing, Refer to addendum Sketch M.01

DRAWING MD102

- **Added** detail 6 to show oil tank vents that need to be lowered. Refer to addendum Sketch M.02
- **Added** approximate location of oil tank vents to detail 1 plan view, Refer to addendum Sketch M.02

DRAWING M101

- **Removed** clouded elements from drawing for clarity. All necessary information is shown on Sheet M103, Detail 1, Refer to addendum Sketch M.03

DRAWING M102

- **Added** flow switch and solenoid valve to Chiller Piping Diagram, Refer to addendum Sketch M.04

DRAWING M103

- **Added** condenser water treatment equipment and associated piping to remain to plan view on drawing (piping not shown on drawing), Refer to addendum Sketch M.05
- **Added** domestic cold-water piping and new ball valve to plan view on drawing, Refer addendum Sketch M.05

DRAWING M104

- **Added** condenser water treatment equipment and associated piping to remain to section view on drawing (piping not shown on drawing), Refer to addendum Sketch M.06
- **Added** domestic cold-water piping and new ball valve to section view on drawing, Refer to addendum Sketch M.06

DRAWING M105

- **Changed** voltage, weight, and model number of exhaust fan, Refer to addendum Sketch M.07

DRAWING M106

- **Added** pipe saddles and modified note on wall support detail #5, Refer to addendum Sketch M.08

ELECTRICAL DRAWINGS

DRAWING ED201

- **Added** existing exit sign at the end of the mechanical room to drawing, Refer to addendum Sketch E.01
- **Added** Keynote #7 addressing work on existing exit sign, Refer to addendum Sketch E.01

DRAWING ED202

- **Added** existing exit sign at the end of corridor added to drawing, Refer to addendum Sketch E.02
- **Added** Keynote #4 addressing work on existing exit sign, Refer to addendum Sketch E.02

DRAWING E401

- **Added** existing exit sign at the end of the mechanical room to drawing. Refer to addendum Sketch E.03
- **Added** Keynote #7 addressing work on existing exit sign, Refer to addendum Sketch E.03

DRAWING E402

- **Added** Existing exit sign at the end of corridor to drawing, Refer to addendum Sketch E.04
- **Added** Keynote #6 addressing work on existing exit sign added, Refer to addendum Sketch E.04

DRAWING E600

- **Changed** Detail #4 New MCC Single Line: Circuit breaker fuse sizes and trip sizes changed for pumps P-7, P-8, P-10, P-11, Refer to addendum Sketch E.05
- **Changed** Detail #4 New MCC Single Line: Circuit breaker trip sizes changed for cooling towers CT-1A, CT-1B, Refer to addendum Sketch E.05

DRAWING E701

- **Changed** Electrical Connection Schedule: MOCP values changed for pumps P-7, P-8, P-10, P-11, Refer to addendum Sketch E.06
- **Changed** Electrical Connection Schedule: Wire and Conduit size changed for pumps P-7, P-8, P-10, P-11, Refer to addendum Sketch E.06
- **Changed** Electrical Connection Schedule: Removed Refrig Monitor from schedule, Refer to addendum Sketch E.06
- **Changed** Electrical Connection Schedule: MCA, MOCP, FLA values changed for cooling towers CT-1A, CT-1B, Refer to addendum Sketch E.06
- **Changed** Electrical Connection Schedule: Wire and Conduit size changed for cooling towers CT-1A, CT-1B, Refer to addendum Sketch E.06

BIDDER QUESTIONS SUBMITTED TO DATE & RESPONSES ARE AS FOLLOWS:

1. Can the chiller spec be opened up to Trane, Daiken and JCI?

Answer: Yes, we will allow Carrier, Trane and York Centrifugal Chillers with VFD's part load performance equal to or better than basis of design meeting ASHRAE 90.1 requirements. The Mechanical Contractor is responsible for any added costs over and above the Basis of Design installation that is associated with the installation of these centrifugal chillers including but not limited to access to the mechanical through the building, electrical changes, concrete pad changes, refrigeration leak exhaust system changes due to refrigerant charge and any other additional items. All VFDs shall be provided with Harmonic Filtering.

2. Can the ATC spec be opened up to Honeywell, Niagra and Trane?

Answer: Chiller equipment manufacturers Carrier, Trane and JCI. Vendor must provide a complete package that is fully accessible by end purchase without software keys or limited access.

3. Is heat trace required on exterior piping?

Answer: No, heat trace is not required on exterior piping.

4. Is glycol fill required?

Answer: No, Glycol fill is not required.

5. What is the refrigerant in the existing chillers?

Answer: R-11 is the refrigerant in the Existing Chillers.

6. There are details on both the mechanical drawings and the structural drawings for the pipe supports. Are those to be provided by the mechanical contractor or the GC/steel contractor?

Answer: Mechanical Contractor will provide and install supports. Supports shall be anchored as indicated on steel drawings.

7. On M102, there is a note to extend the ladder to accommodate the dunnage. Please confirm that is by the GC.

Answer: The ladder is the mechanical contractor's responsibility and is an accessory to the Cooling Tower Manufacturer.

8. On M104, there are notes “See structural drawings for new steel support details”. Please confirm that all steel work is by the GC.

Answer: Mechanical Contractor will provide and install supports. Supports shall be anchored as indicated on steel drawings.

9. Does any insulation require jacketing?

Answer: The outdoor domestic water piping serving the Cooling Tower Basin Fill is to be insulated and provided with an aluminum jacket per detail 5/M106.

10. On M102, there is a note to lower (4) existing oil tank vents, work not shown. Can a section view or picture be provided to clarify scope? Are there new supports required? Is there wall restoration to be done?

Answer: Refer to Detail 6/MD102.

11. Are inertia bases required for the pumps?

Answer: No, inertia bases are not required for pumps. Utilize existing concrete pads for mounting and grouting of pumps.

12. The “Summary of Work” lists each prime contractor responsible for final cleanup. Can the GC be responsible for final cleanup as it falls under laborer jurisdiction? Same with making the GC responsible for GC 4.1.2?

Answer: Each contractor is responsible for daily clean-up and final clean-up for their own work.

13. Confirm as to who furnishes the pump starters shown on Drawing E-600 Single Line.

Answer: Electrical Contractor provides combination starters which is indicated on drawing E-701.

INCLUDED SKETCHES – Each Sketch references Drawing Association

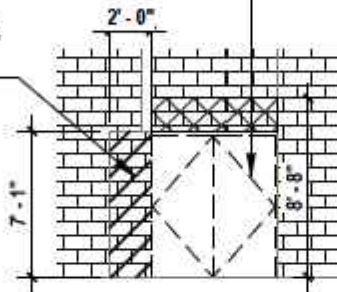
1. Sketch A.01
2. Sketch M.01
3. Sketch M.02
4. Sketch M.03
5. Sketch M.04
6. Sketch M.05
7. Sketch M.06
8. Sketch M.07
9. Sketch M.08

- 10. Sketch E.01**
- 11. Sketch E.02**
- 12. Sketch E.03**
- 13. Sketch E.04**
- 14. Sketch E.05**
- 15. Sketch E.06**

END OF ADDENDUM #001

1

DEMO EXISTING CMU WALL BACK TO DOOR OPENING TO ALLOW CHILLER INSTALLATION, REBUILD WHEN COMPLETED. PROTECT ADJACENT FINISHES. PROVIDE TEMPORARY SUPPORT FOR WALL ABOVE, REFERENCE STRUCTURAL DRAWINGS.

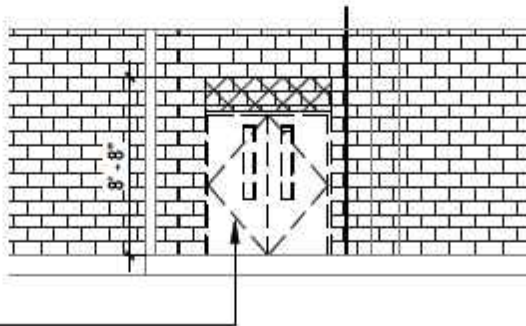


DEMO EXISTING DOOR, AND FRAME. DEMO WALL SO THAT OPENING IS ~8'-8", COORDINATE WITH HEIGHT OF NEW UNIT SUBSTATIONS. PROVIDE AND INSTALL NEW HM DOORS AND FRAMES AFTER INSTALLATION OF NEW CHILLER AND OTHER EQUIPMENT TO MATCH EXISTING FIRE RATING. PROTECT ADJACENT FINISHES. PROVIDE TEMPORARY SUPPORT FOR WALL ABOVE, REFERENCE STRUCTURAL DRAWINGS.

OVERHEAD DOOR AT LOADING

3 Elevation at Door 1
A101 1/8" = 1'-0"

DEMO EXISTING DOOR, AND FRAME. DEMO WALL SO THAT OPENING IS ~8'-8", COORDINATE WITH HEIGHT OF NEW UNIT SUBSTATIONS. PROVIDE AND INSTALL NEW HM DOORS AND FRAMES AFTER INSTALLATION OF NEW CHILLER AND OTHER EQUIPMENT TO MATCH EXISTING FIRE RATING. PROTECT ADJACENT FINISHES. PROVIDE TEMPORARY SUPPORT FOR WALL ABOVE, REFERENCE STRUCTURAL DRAWINGS.



4 Elevation at Door 2
A101 1/8" = 1'-0"

REFER TO DRAWING A101

A.01

DRAWING NO.

SPEC NO.
B-080

SCALE
AS NOTED

DATE
08/08/18

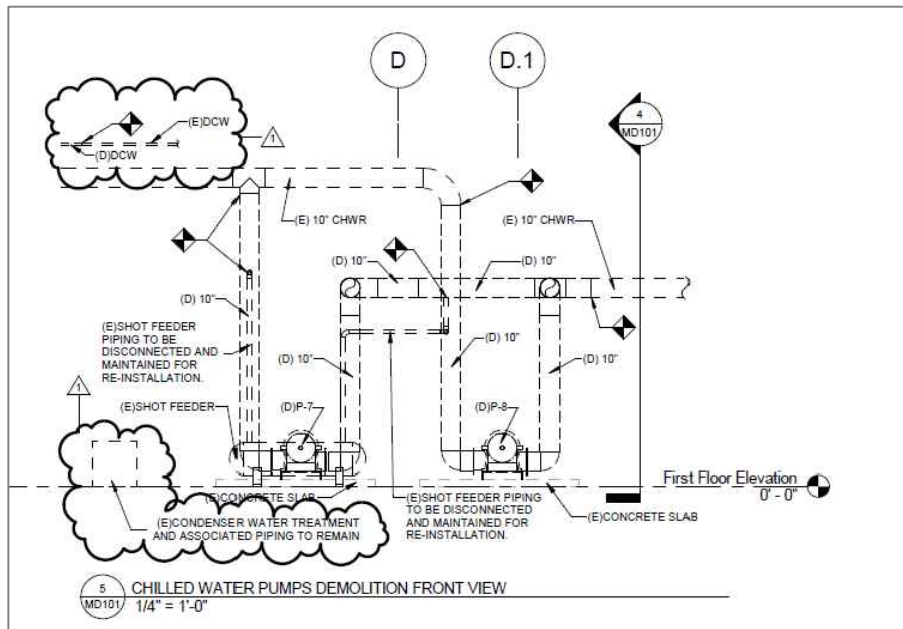
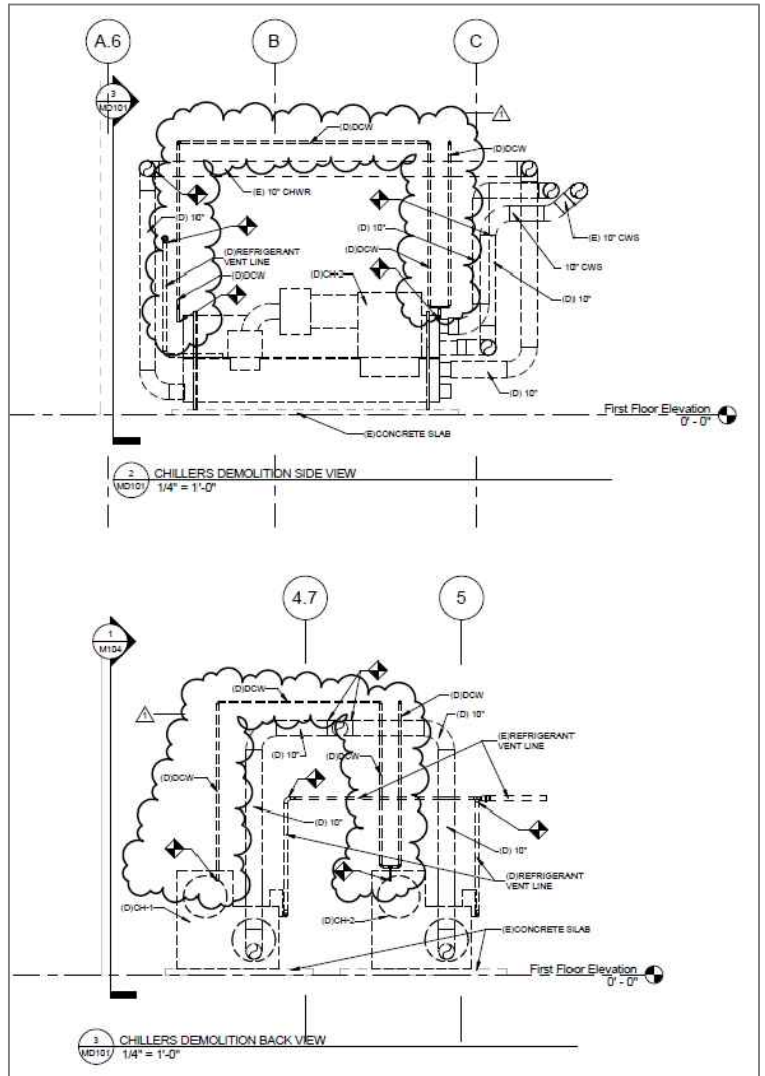
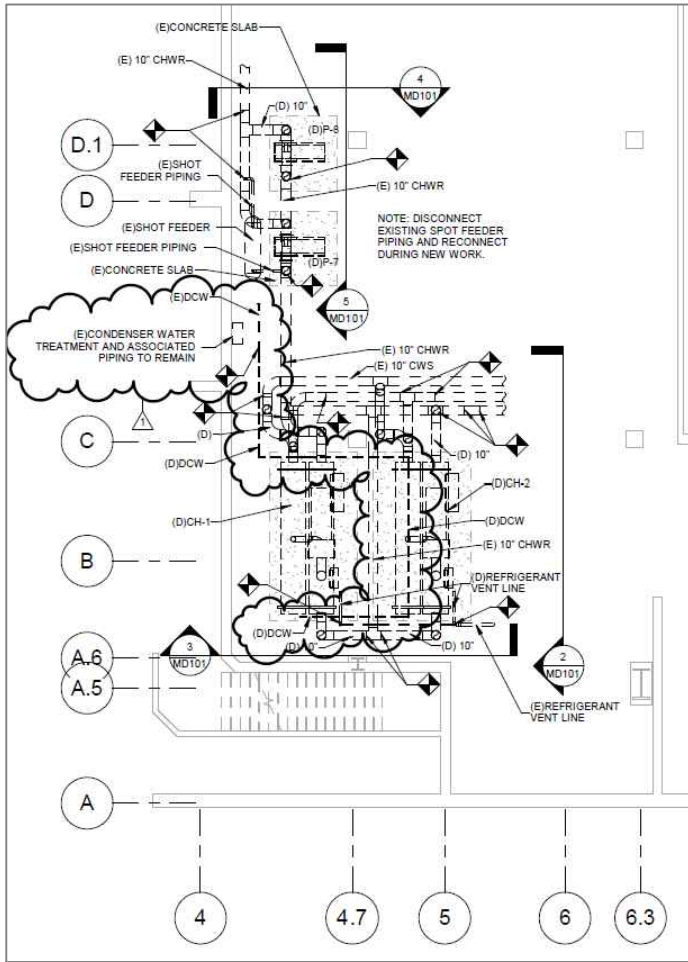
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EDISON HIGH SCHOOL

PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
ARCHITECTURAL PLANS



REFER TO DRAWING MD101

M.01

DRAWING NO.

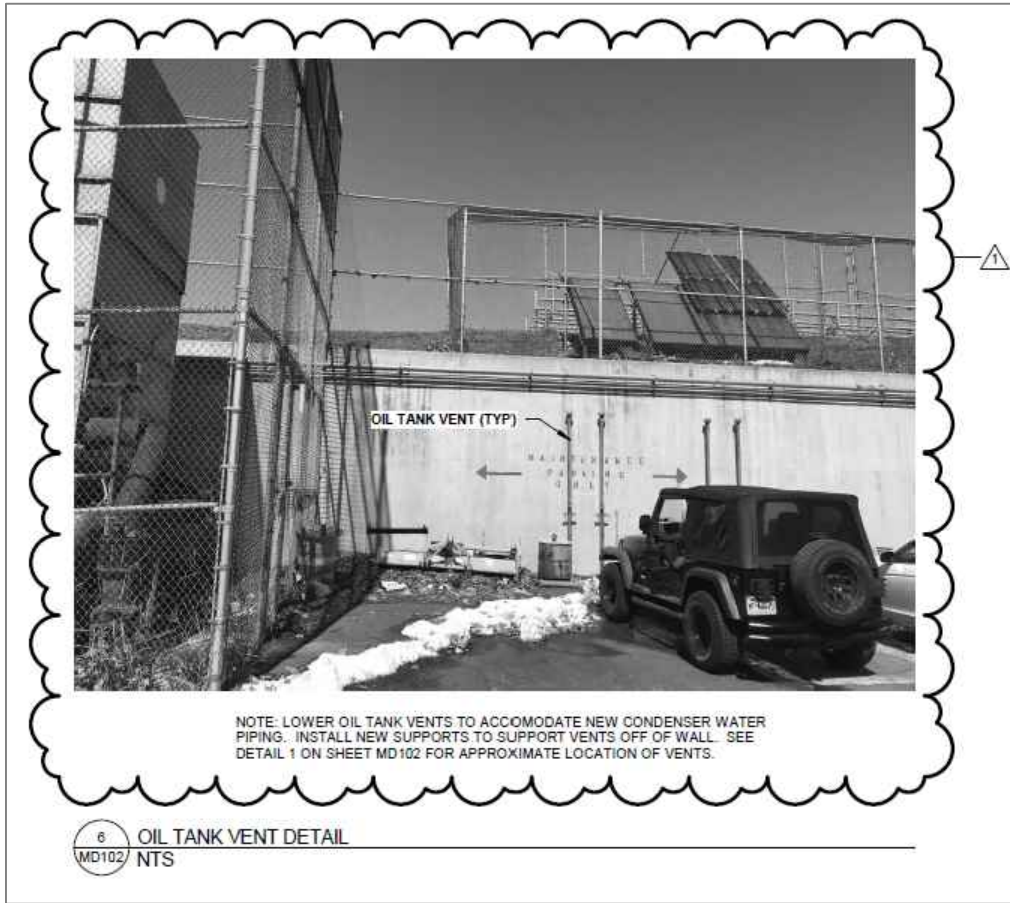
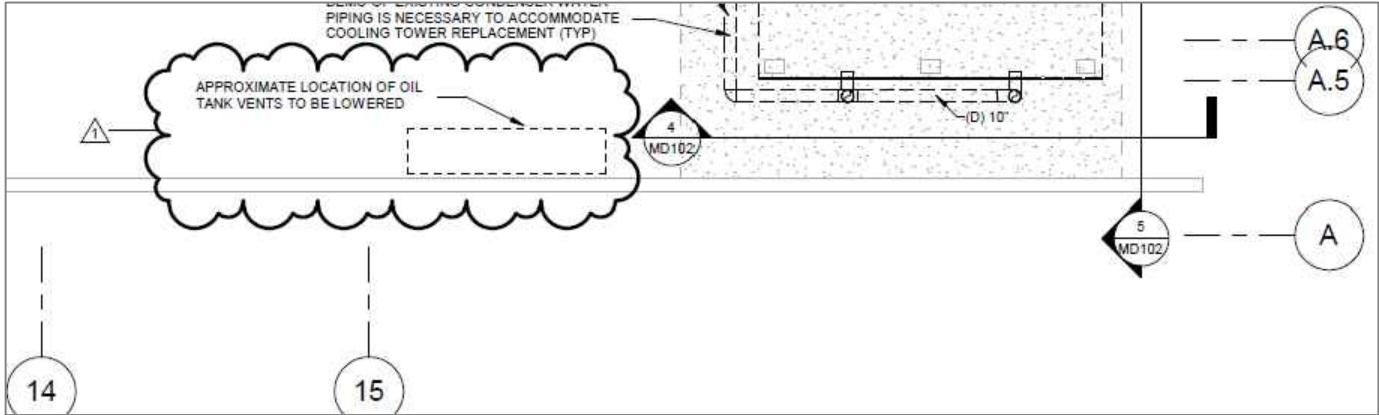
SPEC NO.
B-081

SCALE
AS NOTED

DATE
08/08/18

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 PROJECT TITLE
COOLING PLANT REPLACEMENT
 DRAWING TITLE
LEVEL 1 MECH. DEMOLITION PLAN EAST



REFER TO DRAWING MD102

M.02

DRAWING NO.

SPEC NO.
B-081

SCALE
AS NOTED

DATE
08/08/18

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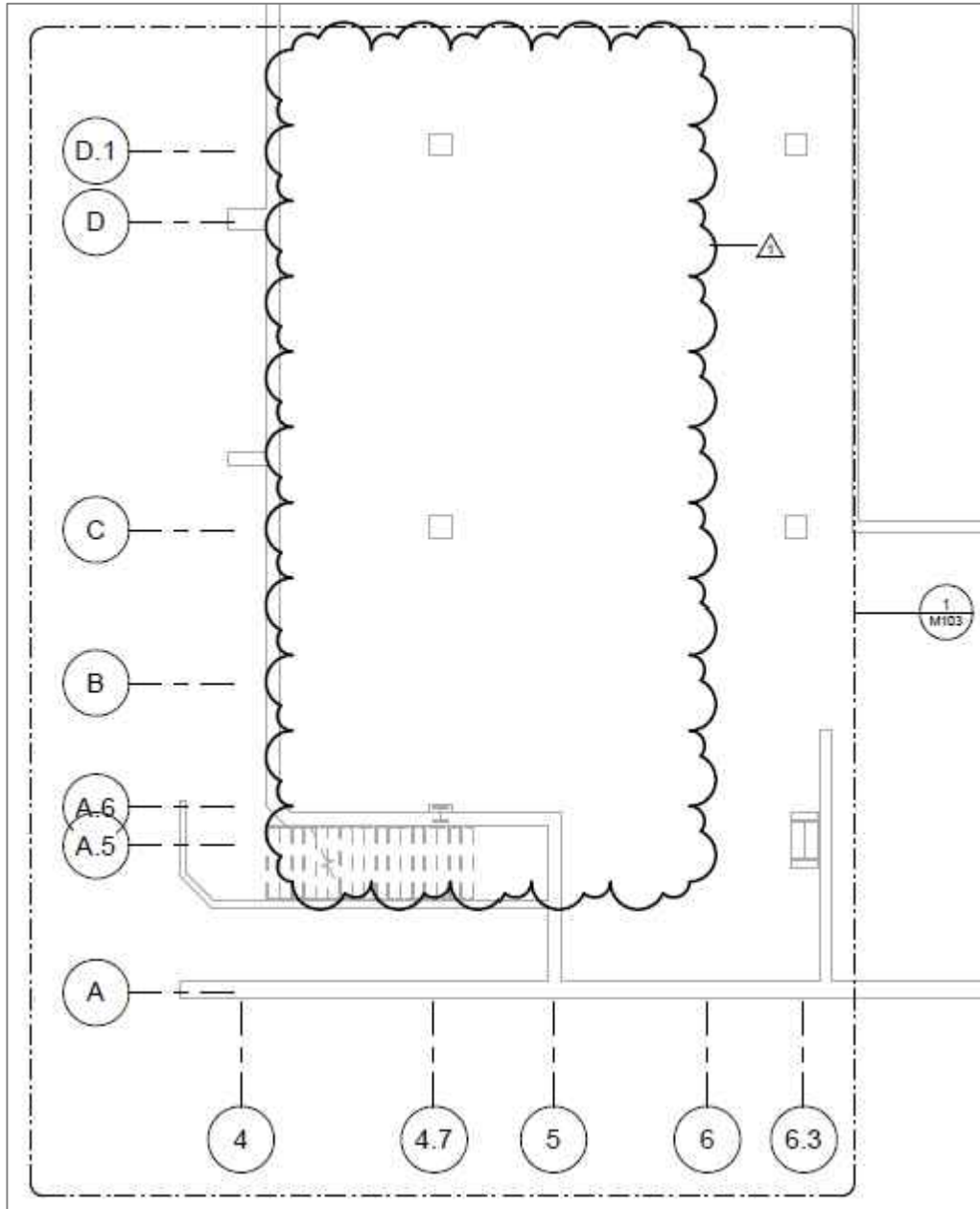
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
LEVEL 1 MECH. DEMOLITION PLAN WEST



REFER TO DRAWING M101

M.03

DRAWING NO.

SPEC NO.
B-081

SCALE
AS NOTED

DATE
08/08/18

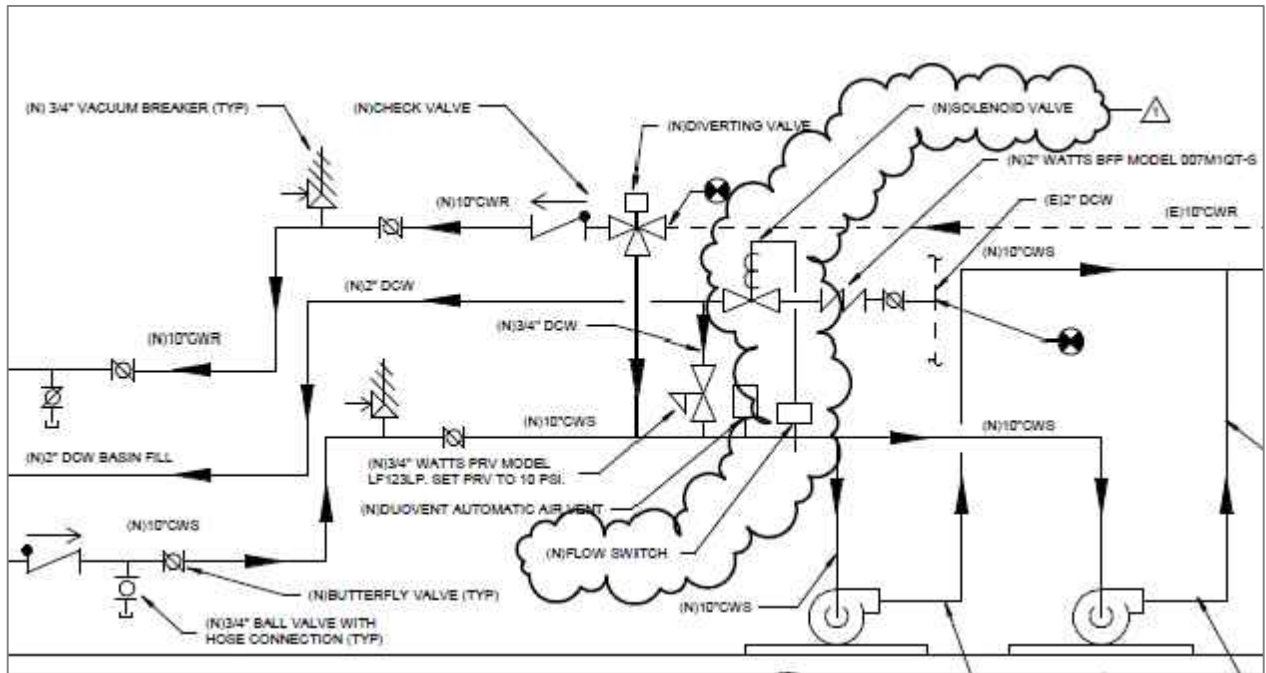
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
LEVEL 1 HVAC PLAN NEW WORK EAST



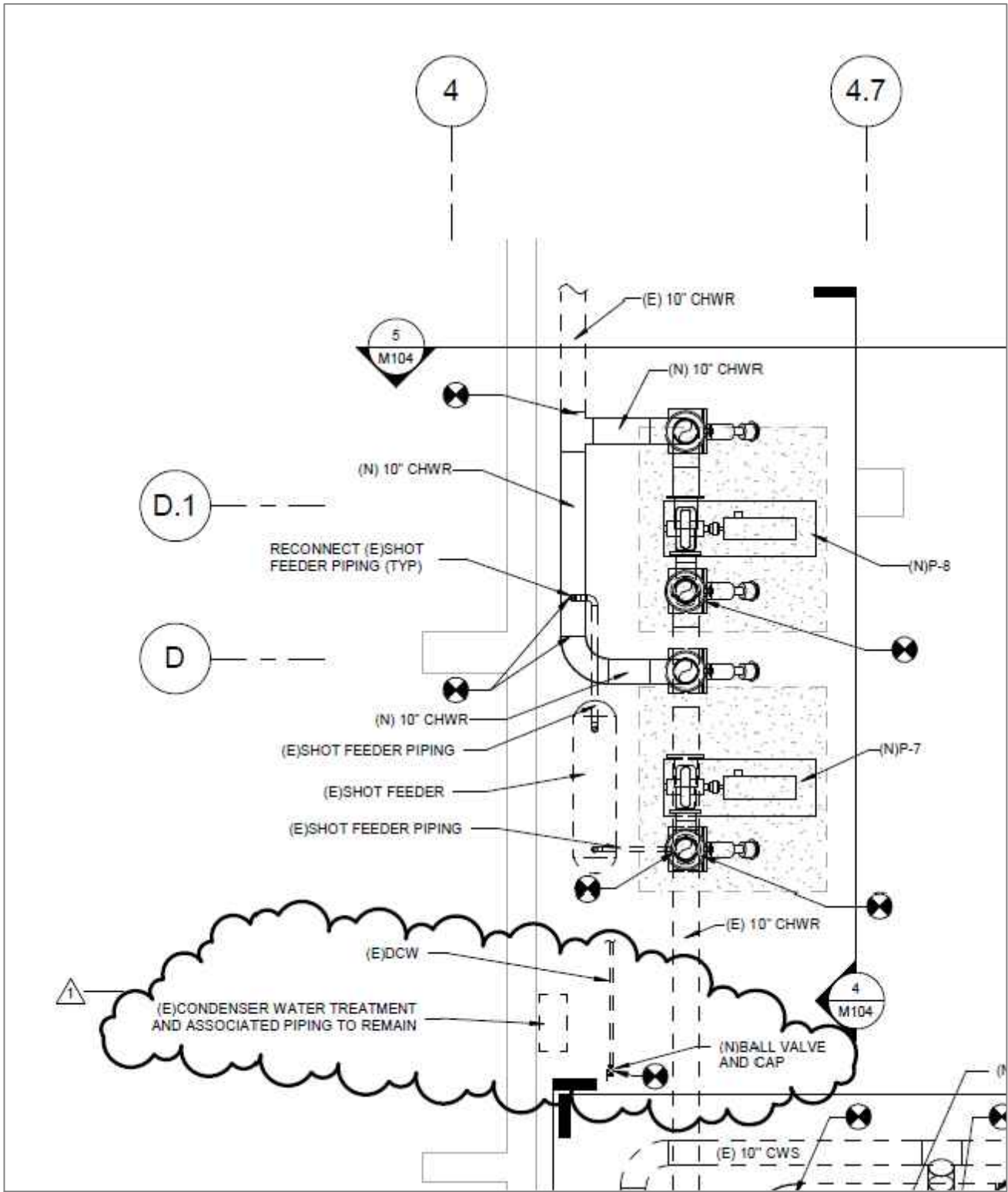
REFER TO DRAWING M102

DRAWING NO.
M.04

SPEC NO.
B-081
SCALE
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DATE
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PROJECT TITLE
COOLING PLANT REPLACEMENT
DRAWING TITLE
LEVEL 1 HVAC PLAN NEW WORK WEST



REFER TO DRAWING M103

DRAWING NO.
M.05

SPEC NO.
 B-081

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DATE
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
HVAC DETAILS VIEW

EXHAUST FAN SCHEDULE

TAG	NO.	SERVICE	TYPE	FAN (CFM)	ESP (IN. WG.)	ELECTRICAL		WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
						POWER (HP)	V / PH / HZ				
EF	1	REFRIGERANT EXHAUST	IN-LINE	4650	0.6	2	208 / 3 / 60	175	GREENHECK	BSQ-160-20	SEE BELOW

EXHAUST FAN SHALL BE PROVIDED WITH THE FOLLOWING ACCESSORIES:
 1. MOTOR WITH THERMAL OVERLOAD

REFER TO DRAWING M105

M.07

DRAWING NO.

SPEC NO.
B-081

SCALE
AS NOTED

DATE
08/08/18

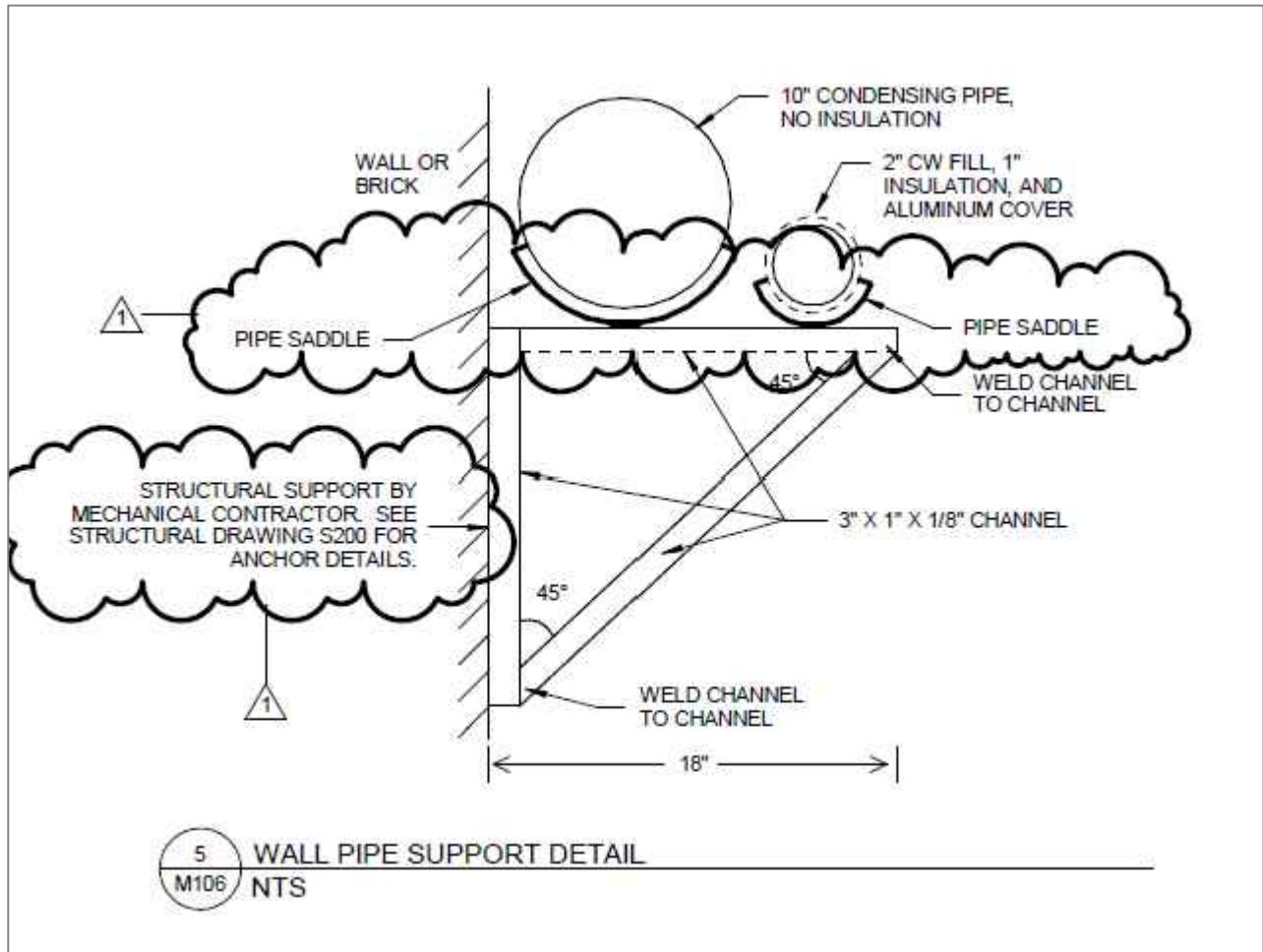
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
SCHEDULES



REFER TO DRAWING M106

M.08

DRAWING NO.

SPEC NO.
B-081

SCALE
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DATE
08/08/18

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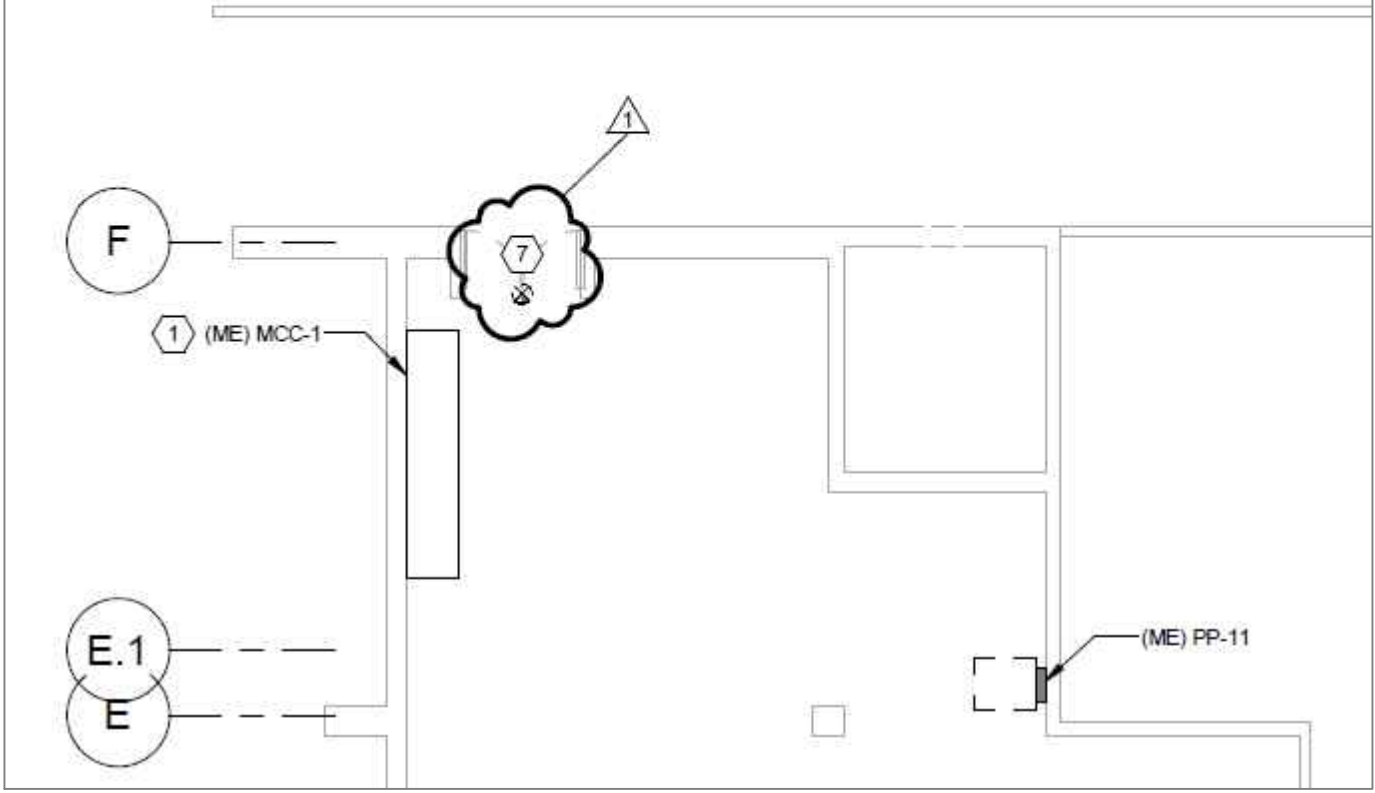
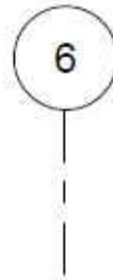
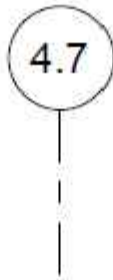
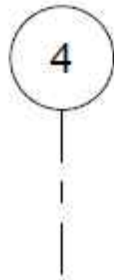
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
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
MECHANICAL DETAILS



 DEMOLISH EXISTING CONCRETE PAD AND LEVEL FLOOR.
 REMOVE EXISTING EXIT SIGN AND ASSOCIATED WIRING TO ACCOMMODATE ENLARGED DOORWAY FOR NEW CHILLER AND SUBSTATION INSTALLATION. REINSTALL EXISTING EXIT SIGN. REFER TO DRAWING E401 FOR NEW WORK. REFER TO ARCHITECTURAL DRAWINGS FOR WORK AND CHILLER/SUBSTATION INSTALLATION PATHWAY.

REFER TO DRAWING ED201

E:01

DRAWING NO.

SPEC NO.
B-082

SCALE
AS NOTED

DATE
08/08/18

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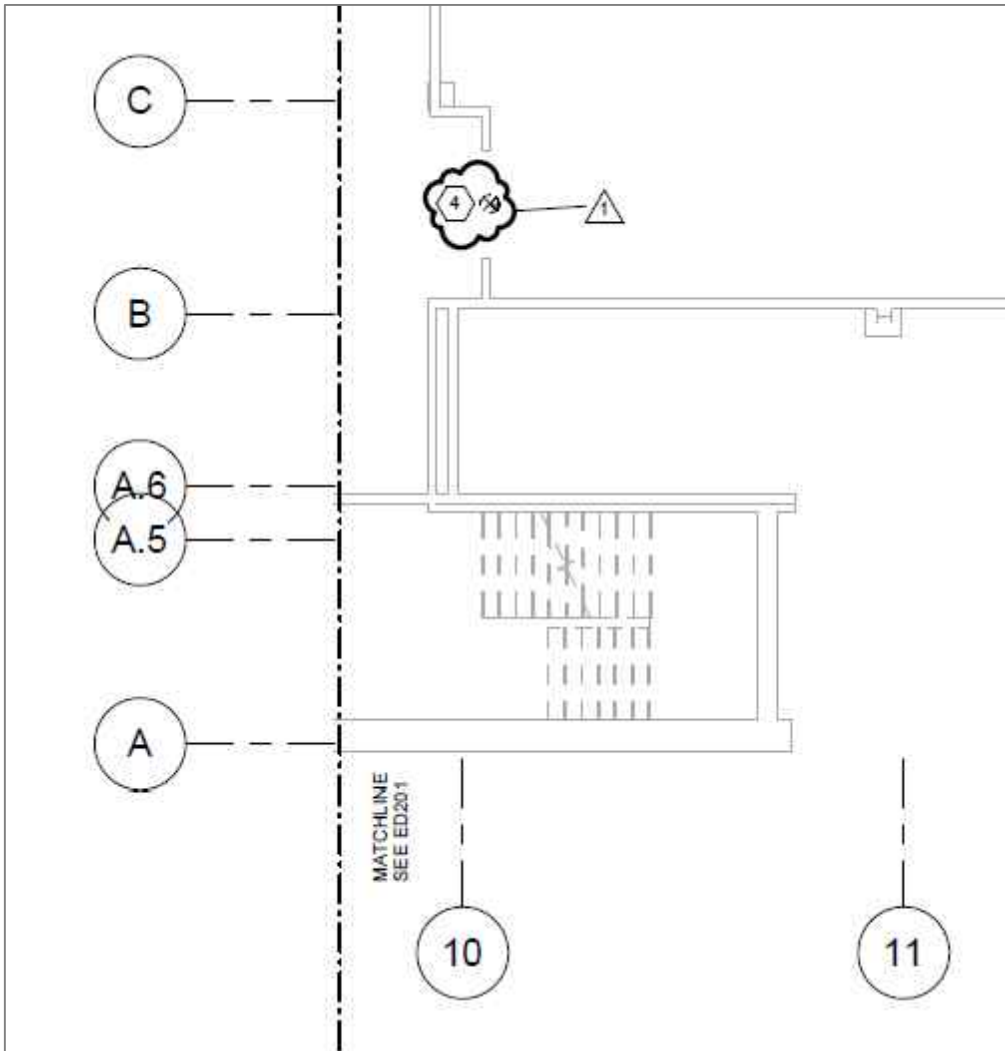
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
FIRST FLOOR EAST DEMO PLAN



3 EXISTING SUPPORT CHANNEL STRUCTURE TO REMAIN AND BE REUSED. REFER TO DRAWING E402 FOR NEW WORK.

4 REMOVE EXISTING EXIT SIGN AND ASSOCIATED WIRING TO ACCOMMODATE ENLARGED DOORWAY FOR NEW CHILLER AND SUBSTATION INSTALLATION. REINSTALL EXISTING EXIT SIGN. REFER TO DRAWING E402 FOR NEW WORK. REFER TO ARCHITECTURAL DRAWINGS FOR WORK AND CHILLER/SUBSTATION INSTALLATION PATHWAY.

REFER TO DRAWING ED202

E.02

DRAWING NO.

SPEC NO.
B-082

SCALE
AS NOTED

DATE
08/08/18

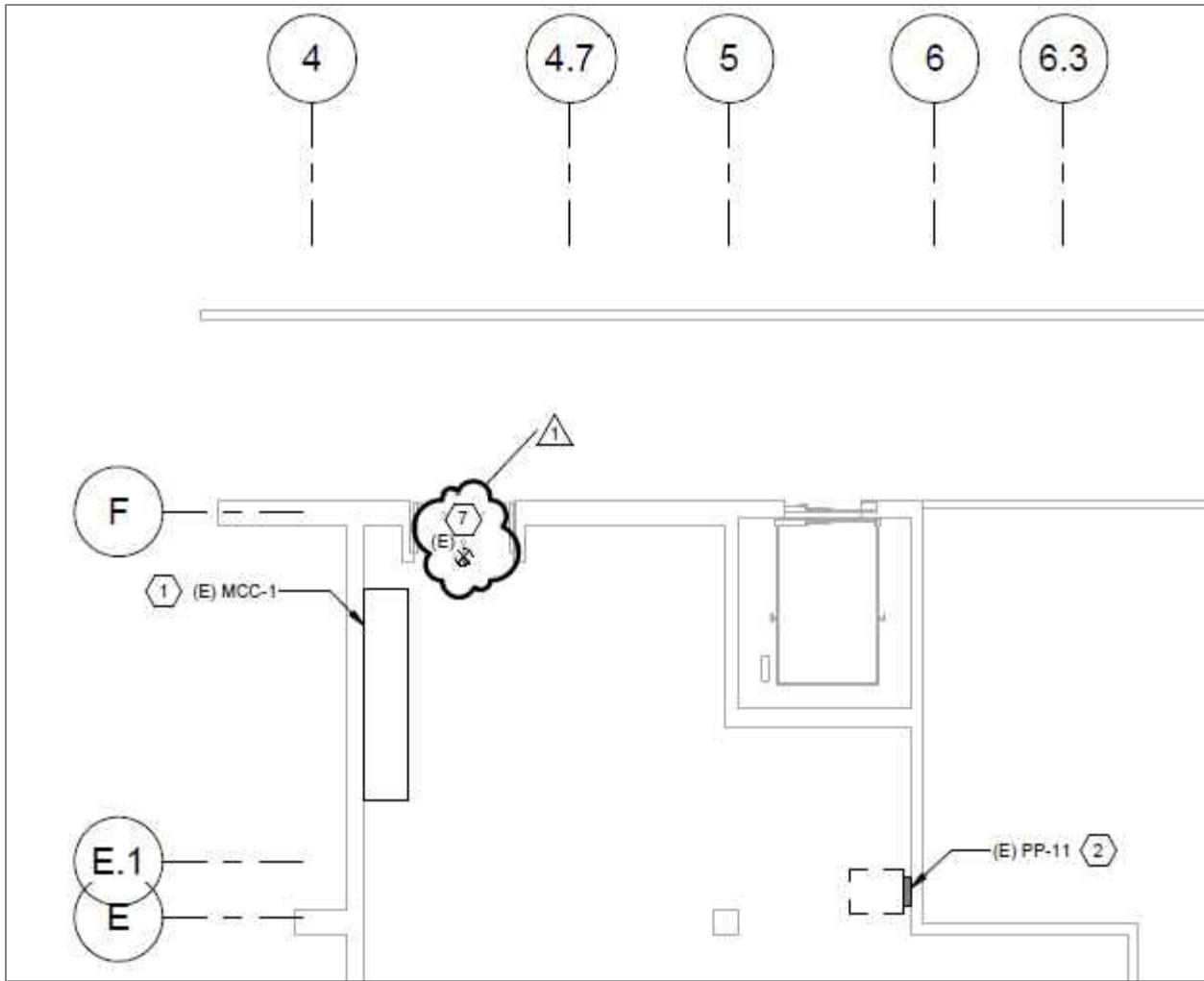
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PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
FIRST FLOOR WEST DEMO PLAN



REVIEW EC TO PROVIDE FLOOR PROTECTION ALONG PATHWAY.

7 RECONNECT EXISTING EXIT SIGN AND ASSOCIATED WIRING BACK TO EXISTING CONFIGURATION.

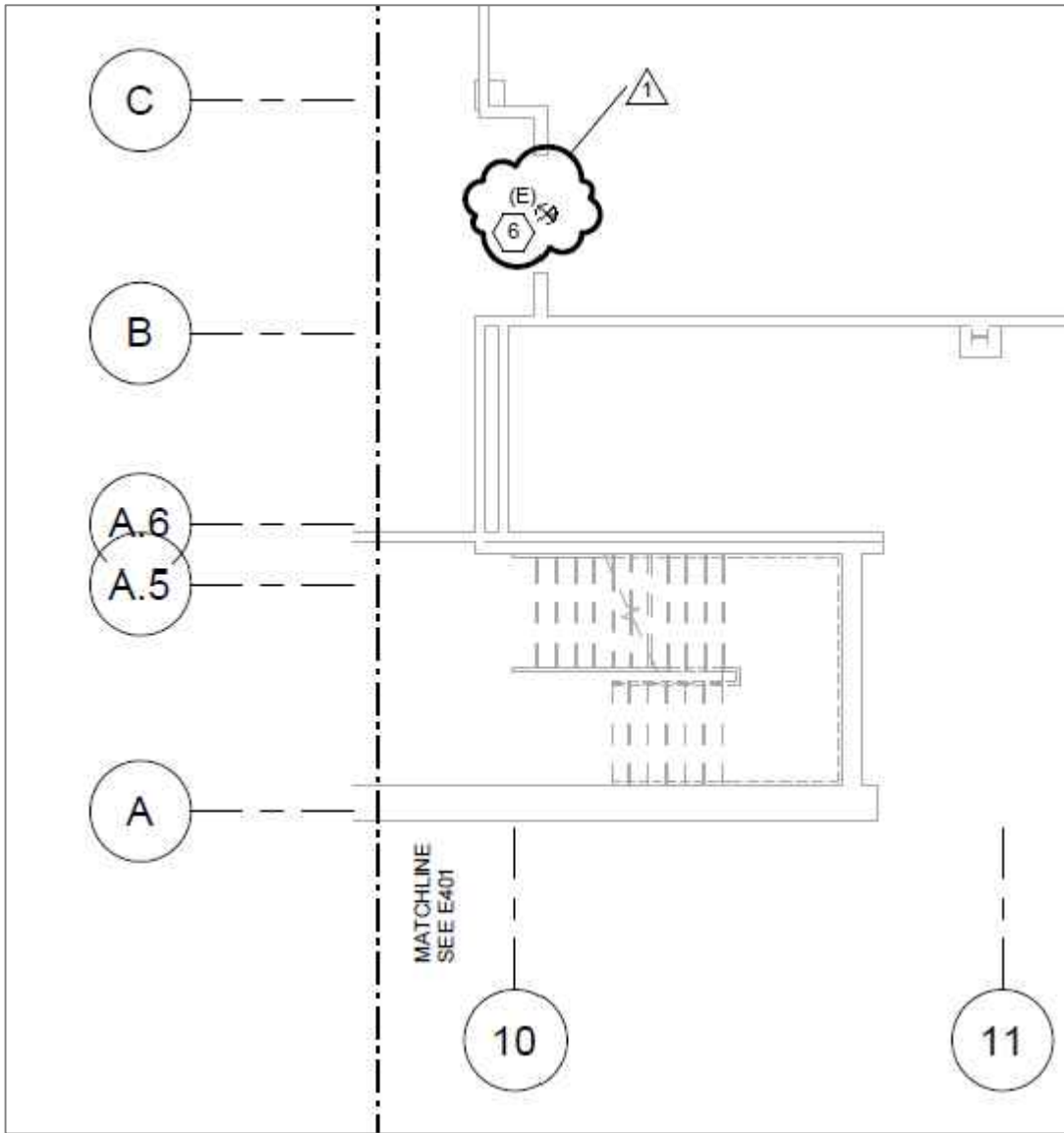
REFER TO DRAWING E401

E.03
DRAWING NO.

SPEC NO.
B-082
SCALE
AS NOTED
DATE
08/08/18

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PROJECT TITLE
COOLING PLANT REPLACEMENT
DRAWING TITLE
FIRST FLOOR EAST POWER PLAN



CONDENSATOR & CONDENSER WATER PIPING. PROVIDE DOWN SLOPE AND FEEDER WIRING IN GALVANIZED RIGID CONDUIT WITH THREADED FITTINGS.

6 RECONNECT EXISTING EXIT SIGN AND ASSOCIATED WIRING BACK TO EXISTING CONFIGURATION.

REFER TO DRAWING E402

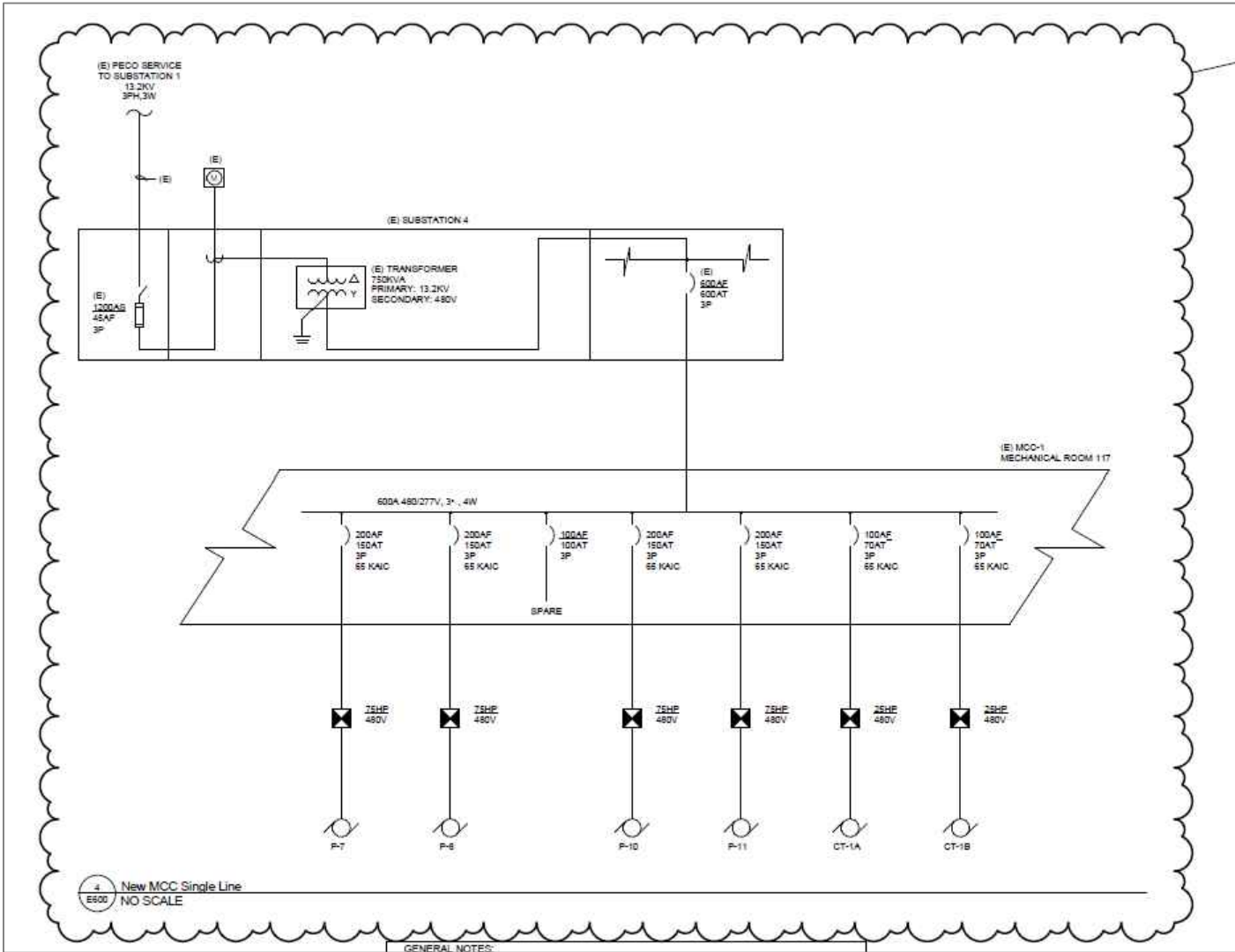
E.04

DRAWING NO.

SPEC NO.
B-082
SCALE
AS NOTED
DATE
08/08/18

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PROJECT TITLE
COOLING PLANT REPLACEMENT
DRAWING TITLE
FIRST FLOOR WEST POWER PLAN



REFER TO DRAWING E600

E.05
DRAWING NO.

SPEC NO.
B-082

SCALE
AS NOTED

DATE
08/08/18

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SCHOOL EDISON HIGH SCHOOL

PROJECT TITLE
COOLING PLANT REPLACEMENT

DRAWING TITLE
SINGLE LINE DIAGRAMS

ELECTRICAL CONNECTION SC										
ELECTRICAL CHARACTERISTICS					LOCAL DISCONNECT DEVICE					
TAG	V/PH/Hz	MCA	MOCIP	FLA	KW	HP	UNFUSED	FUSED	DIV	
							SWITCH	SWIFU		SWITCH
CH-1	480/3/60	452.9	600		2887.00		600.00			23
CH-2	480/3/60	452.9	600		2887.00		600.00			23
P-7	480/3/60	120.0	150	96.0		75				
P-8	480/3/60	120.0	150	96.0		75				
P-10	480/3/60	120.0	150	96.0		75				
P-11	480/3/60	120.0	150	96.0		75				
CT-1A	480/3/60	42.5	70	34.0		25				
CT-1B	480/3/60	42.5	70	34.0		25				
EF-1	208/3/60	9.4	20	7.5	2.70	2				

TYPE	SIZE	STARTER COMBINATION				ACCESSORIES			DIV
		SW/ UNFU	SW/ FUSE	MCP	HOA	PILOT			
FVNR	4	X	X	X	X	X	X	26	
FVNR	4	X	X	X	X	X	X	26	
FVNR	4	X	X	X	X	X	X	26	
FVNR	4	X	X	X	X	X	X	26	
FVNR	2	X	X	X	X	X	X	23	
FVNR	2	X	X	X	X	X	X	23	
FVNR	1	X	X	X	X	X	X	26	

WIRE & CONDUIT	CIRCUITING	REMARKS
20-#10 + 1-#6 IN 2 1/2" CT-1	SUBSTATION 2	MANUFACTURER TO PROVIDE INTEGRAL DISCONNECT STARTER FOR USE IN NEAR WEATHERPROOF ENCLOSURE
3-#10 + 1-#6 IN 2 1/2" CT-2	SUBSTATION 2	
3-#10 + 1-#6 IN 1" CT-CONDUIT	(E) MCC - BUCKET P7	
3-#10 + 1-#6 IN 1" CT-CONDUIT	(E) MCC - BUCKET P8	
3-#10 + 1-#6 IN 1" CT-CONDUIT	(E) MCC - BUCKET P10	
3-#10 + 1-#6 IN 1" CT-CONDUIT	(E) MCC - BUCKET P11	
3-#4 + 1-#6 IN 1" C.	(E) MCC BUCKET CT-1A	MANUFACTURER PROVIDED 2 SPEED MOTOR STARTER IN NEMA 3R WEATHERPROOF ENCLOSURE
3-#4 + 1-#6 IN 1" C.	(E) MCC BUCKET CT-1B	MANUFACTURER PROVIDED 2 SPEED MOTOR STARTER IN NEMA 3R WEATHERPROOF ENCLOSURE
3-#12 + 1-#12 IN 3/4" C.	PP11 - 33, 35, 37	

REFER TO DRAWING E701

E.06
DRAWING NO.

SPEC NO.
B-082
SCALE
AS NOTED
DATE
08/08/18

SCHOOL DISTRICT OF PHILADELPHIA
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