CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY

MAYOR – JAMES F. KENNEY

MANAGING DIRECTOR – BRIAN ABERNATHY

COMMISSIONER OF DEPARTMENT OF PUBLIC PROPERTY – BRIDGET COLLINS-GREENWALD

COMMISSIONER OF DEPARTMENT OF PUBLIC HEALTH – THOMAS FARLEY, MD, MPH

HEALTH CARE CENTER NO. 10 – PHASE 2 INTERIOR IMPROVEMENTS
STAGE 2: FIRST FLOOR ADDITIONS AND RENOVATIONS

2230 COTTMAN AVENUE, PHILADELPHIA, PA 19149

PROJECT NO. 14-18-4745-01

ARCHITECT

BOLENDER ARCHITECTS
2118 LOCUST STREET
PHILADELPHIA, PA 19103
215-731-0390

MECHANICAL/PLUMBING/ELECTRICAL AND LIFE SAFETY ENGINEER

SERA ENGINEERING
1700 SANSOM STREET
PHILADELPHIA, PA 19103
215-438-4464

STRUCTURAL ENGINEER

ANN ROTHMANN STRUCTURAL ENGINEERING, LLC
100 E. LANCASTER AVE., SUITE 203
WAYNE, PA 19087
610 688-2566

ABBREVIATIONS / SYMBOLS

1 / A2.1 — DETAIL REFERENCE MARKER
Upper number indicates detail
Lower number indicates sheet location

1 / 4 A3 2 / 3 — INTERIOR ELEVATION REFERENCE MARKER
Outer numbers indicates detail
Center number indicates sheet location

013 / 1 — DOOR TYPE REFERENCE MARKER

A — WALL TYPE REFERENCE MARKER

1 / A6.1 — SECTION DETAIL MARKER

EXISTING ITEMS ARE SO DESIGNATED. ALL OTHER NOTES REFER TO NEW ITEMS THAT WILL BE PROVIDED AND INSTALLED BY CONTRACTOR.

KEY:

ACP	ACOUSTIC CEILING PANEL
ALUM	ALUMINUM
CPT	CARPET
CT	CERAMIC TILE
CBB	CEMENTITIOUS BACKER BOARD
EX'G	EXISTING FINISH TO REMAIN
FBO	FURNISHED BY OWNER
FRP	FIBERGLASS REINFORCED PLASTIC
GWB	GYPSUM WALLBOARD, PAINTED
HM	HOLLOW METAL
PT	PAINT EXISTING SURFACE
VIN	4" VINYL COVE BASE
VCT	VINYL COMPOSITION TILE
UON	UNLESS OTHERWISE NOTED
WRB	WATER-RESISTIVE BARRIER

DRAWING LIST

PERMIT – 05.21.19

ARCHITECTURAL
- CS.1 COVER SHEET, LOCATION MAP, SITE PLAN, KEY
- CS.2 BUILDING AND EGRESS PLANS AND NOTES
- D1.1 DEMOLITION PLANS
- A1.1 FIRST FLOOR PLANS
- A1.2 SCHEDULES, PARTITION TYPES & DOOR DETAILS
- A1.3 PARTIAL ROOF PLANS
- A2.1 FIRST FLOOR REFLECTED CEILING PLANS
- A3.1 EXTERIOR ELEVATIONS
- A4.1 BUILDING SECTIONS & DETAILS

STRUCTURAL
- S1.1 FOUNDATION PLAN
- S1.2 ROOF FRAMING PLAN
- S2.1 GENERAL NOTES AND FOUNDATION DETAILS
- S2.2 FRAMING DETAILS AND NOTES

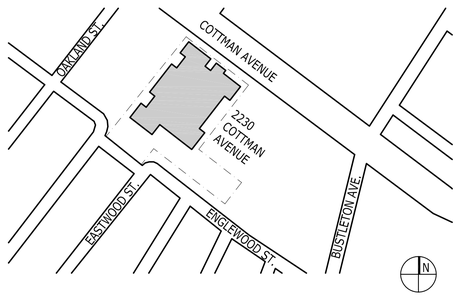
MECHANICAL
- M0.0 HVAC SYMBOLS AND ABBREVIATIONS
- M1.1 HVAC FIRST FLOOR DUCTWORK PLANS
- M1.2 HVAC FIRST FLOOR ROOF & DEMOLITION PLANS
- M1.3 HVAC FIRST FLOOR PIPING PLANS
- M2.1 HVAC DETAILS
- M3.1 HVAC SCHEDULES
- M4.1 CONTROL DIAGRAMS
- M4.2 CONTROL DIAGRAMS

PLUMBING
- P0.0 PLUMBING COVER SHEET
- P1.1 PLUMBING FIRST FLOOR DEMOLITION PLAN
- P1.2 PLUMBING FIRST FLOOR PLAN
- P1.3 PLUMBING ROOF PLAN
- P2.1 PLUMBING DETAILS AND SCHEDULES

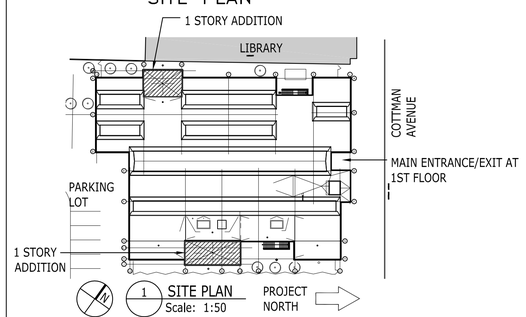
PRICING – 04.24.19

ELECTRICAL
- E0.0 ELECTRICAL COVER SHEET
- E1.1 ELECTRICAL FIRST FLOOR DEMOLITION PLAN
- E1.2 ELECTRICAL FIRST FLOOR POWER AND SIGNAL PLAN
- E1.3 ELECTRICAL FIRST FLOOR LIGHTING PLAN
- E1.4 ELECTRICAL ROOF PLAN

LOCATION MAP



SITE PLAN



PROJECT APPROVED

COMMISSIONER/DEPARTMENT OF PUBLIC PROPERTY

DEPUTY COMMISSIONER/DEPARTMENT OF PUBLIC PROPERTY

PROJECT DIRECTOR/DPP-CAPITAL PROJECTS DIVISION

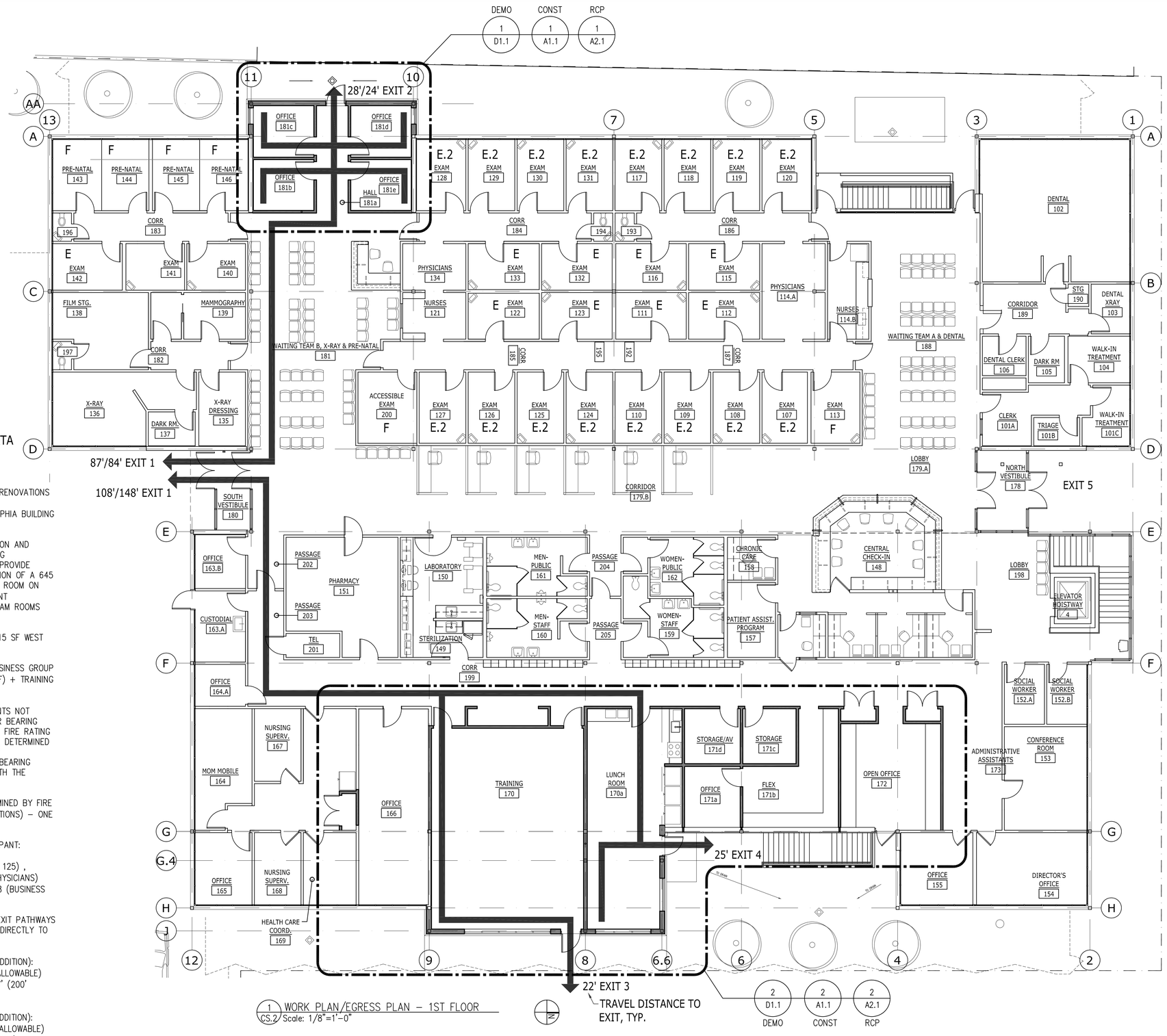
ART COMMISSION

SEALS

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT NO: 14-18-4745-01	DRAWING NO: CS.1
DATE: 05.30.19 PERMIT	
DRAWN BY: –	
CHECKED BY: –	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



SCOPE OF WORK KEY

"E" (9) REFURBISH
"E.2" (16) REFURBISH, MOVE ELEC/DATA
"F" RENOVATE

HC10 PHASE 2 STAGE 2: FIRST FLOOR ADDITIONS AND RENOVATIONS

BUILDING CODE INFORMATION BASED ON 2018 PHILADELPHIA BUILDING CODE

PROJECT DESCRIPTION: THIS PROJECT MAKES AN ADDITION AND RENOVATIONS TO ADMINISTRATIVE AREAS OF AN EXISTING CITY-OWNED OUTPATIENT CLINIC, AND AN ADDITION TO PROVIDE PATIENT COUNSELING OFFICES. WORK INCLUDES PROVISION OF A 645 SF ADDITION TO CREATE A STAFF TRAINING AND LUNCH ROOM ON THE EAST SIDE AND A 515 SF ADDITION FOR (4) PATIENT CONSULTATION OFFICES ON THE WEST SIDE. PATIENT EXAM ROOMS WILL BE REFURBISHED.

AREA: 18,573 EXISTING + 645 SF EAST ADDITION + 515 SF WEST ADDITION = 19,733 SF

304.1 OCCUPANCY: BUSINESS GROUP B – CLINIC, BUSINESS GROUP B / PROFESSIONAL SERVICES / PHYSICIANS) (18,633 SF) + TRAINING AND SKILL DEVELOPMENT (1,100 SF)

TABLE 601 CONSTRUCTION TYPE IIB: BUILDING ELEMENTS NOT PROTECTED, NOT FIRE-RESISTANCE RATED, NO EXTERIOR BEARING WALLS. NO FIRE RATING REQUIRED ON EXTERIOR WALLS; FIRE RATING OF WALL, INCLUDING PERCENTAGE OF OPEN WALL AREA, DETERMINED BY TABLE 602 FIRE SEPARATION DISTANCE. ONE-STORY UNPROTECTED STEEL FRAME BUILDING WITH NON-LOAD BEARING MASONRY WALLS. THE BUILDING IS UNSPRINKLERED, WITH THE EXCEPTION OF THE PHARMACY AND BASEMENT.

TABLE 602 EXTERIOR WALL RATING OF 1 HOUR DETERMINED BY FIRE SEPARATION DISTANCE OF 6'-0" (EAST AND WEST ADDITIONS) – ONE HOUR FIRE RESISTANCE RATING REQUIRED

1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT:
CALCULATED LOAD: 198 @ 19,733 SF

- OCCUPANT LOAD FACTOR 18,633 SF/150 GROSS = 125) , BUSINESS GROUP B: PROFESSIONAL SERVICES / PHYSICIANS)
- OCCUPANT LOAD FACTOR 1,100 SF/150 GROSS = 8 (BUSINESS GROUP B: TRAINING AND SKILL DEVELOPMENT

1016.2 EXIT ACCESS THROUGH INTERVENING SPACES: EXIT PATHWAYS PASS THROUGH EXISTING UNPROTECTED CORRIDORS OR DIRECTLY TO A SIDE YARD WITH DIRECT ACCESS TO PUBLIC WAY.

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE (WEST ADDITION):
– MAXIMUM TRAVEL DISTANCE TO EXIT 2 IS 28' (200' ALLOWABLE)
– MAXIMUM TRAVEL DISTANCE TO EXISTING EXIT IS 1 87' (200' ALLOWABLE)

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE (EAST ADDITION):
– MAXIMUM TRAVEL DISTANCE TO EXIT 1 IS 148' (200' ALLOWABLE)
– MAXIMUM TRAVEL DISTANCE TO EXIT 3 OR 4 IS 25' (200' ALLOWABLE)

1104.5 INTERIOR ACCESSIBLE ROUTE: AN ACCESSIBLE ROUTE IS PROVIDED TO SPACES IN WEST AND EAST ADDITIONS AND TO EXISTING EAST COURTYARD. WEST COURTYARD IS NOT USABLE SPACE.

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

BOLENDER ARCHITECTS
2118 LOCUST STREET
PHILADELPHIA, PA 19103
215-731-0390

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS
FIRST FLOOR

DRAWING TITLE:
BUILDING AND EGRESS PLANS AND NOTES

PROJECT NO: 14-18-4745-01
DRAWING NO: CS.2
DATE: 05.30.19 PERMIT
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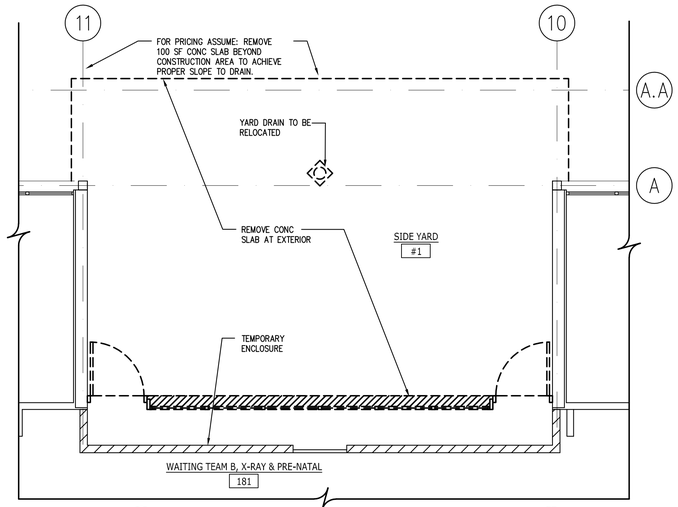


1 / D1.1 DEMOLITION PLAN - WEST ADDITION
Scale: 1/4"=1'-0"

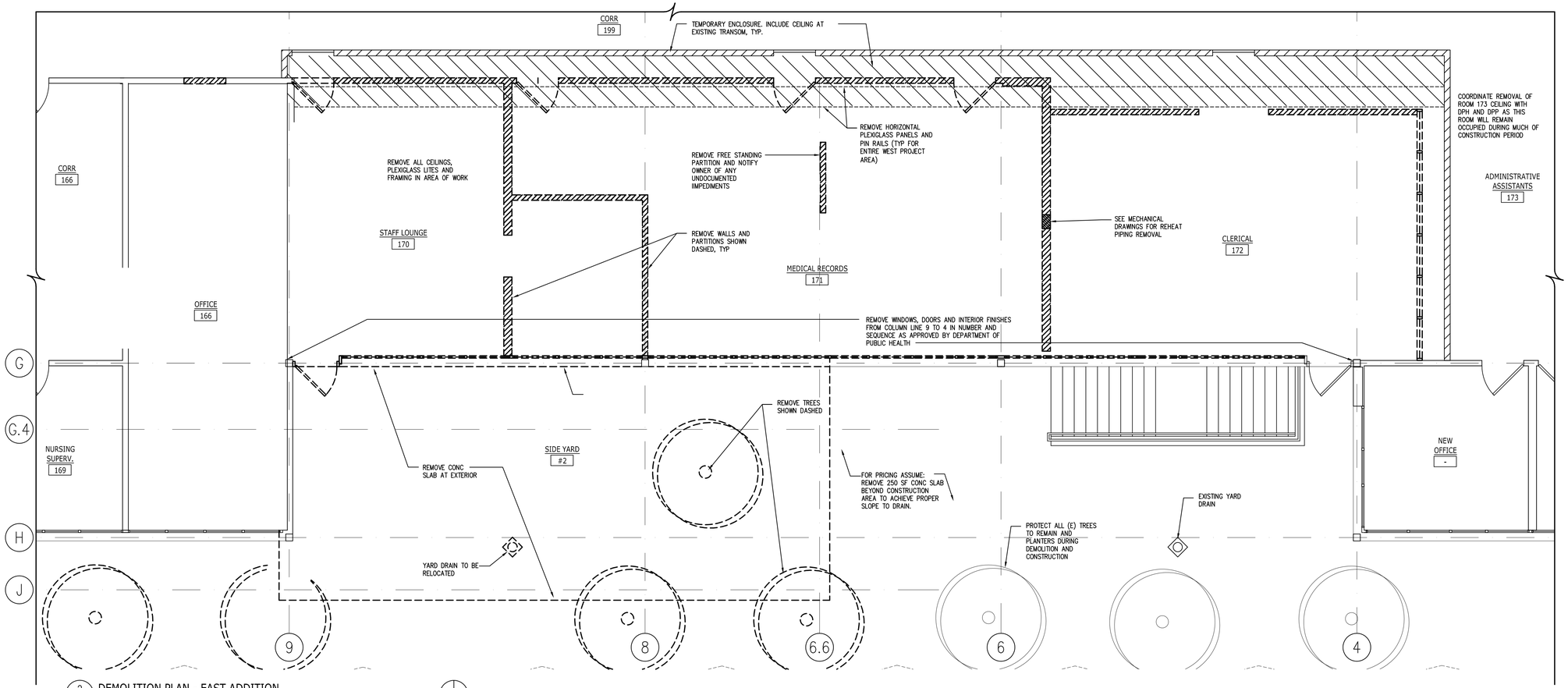
GENERAL DEMOLITION AND SALVAGE NOTES

SALVAGE ALL FLAT ALUMINUM FASCIA IN AREA OF WORK AND STORE OFF-SITE FOR POTENTIAL REINSTALLATION AT WEST ADDITION (ALTERNATE)

EXAMINE ALL EXPOSED SOIL (FROM BUILDING OR PATIO DEMO) TO DEPTH OF 3'-0" AND REMOVE ALL ROOTS, TRUNKS AND SCRAP WOOD

PROTECT EXISTING BUILDING AND FINISHES PER PROJECT MANUAL REQUIEMENTS

SALVAGE, REMOVE MORTAR AND STORE IN BASEMENT (80) INTACT BRICKS FOR FUTURE USE BY OWNER



2 / D1.1 DEMOLITION PLAN - EAST ADDITION
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

BOLENDER ARCHITECTS
2118 LOCUST STREET
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215-731-0390

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS
FIRST FLOOR

DRAWING TITLE:
DEMOLITION PLANS

PROJECT NO: 00-00-0000-00
DRAWING NO: D1.1
DATE: 05.30.19 PERMIT
DRAWN BY: -
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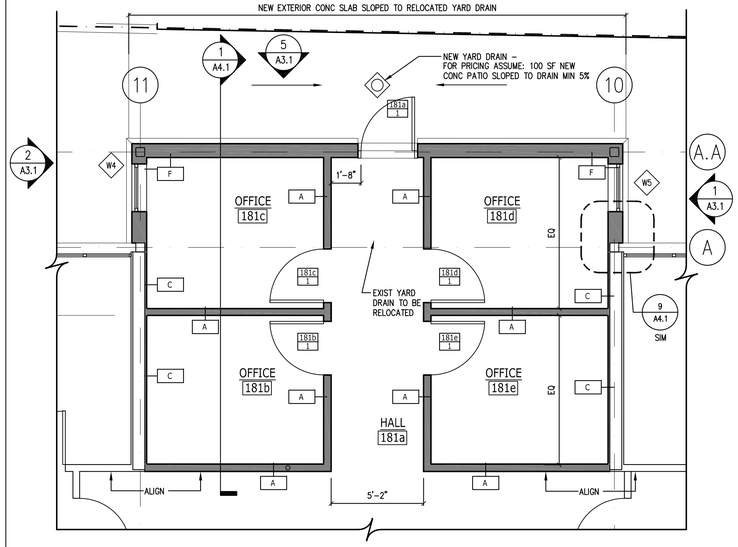
NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



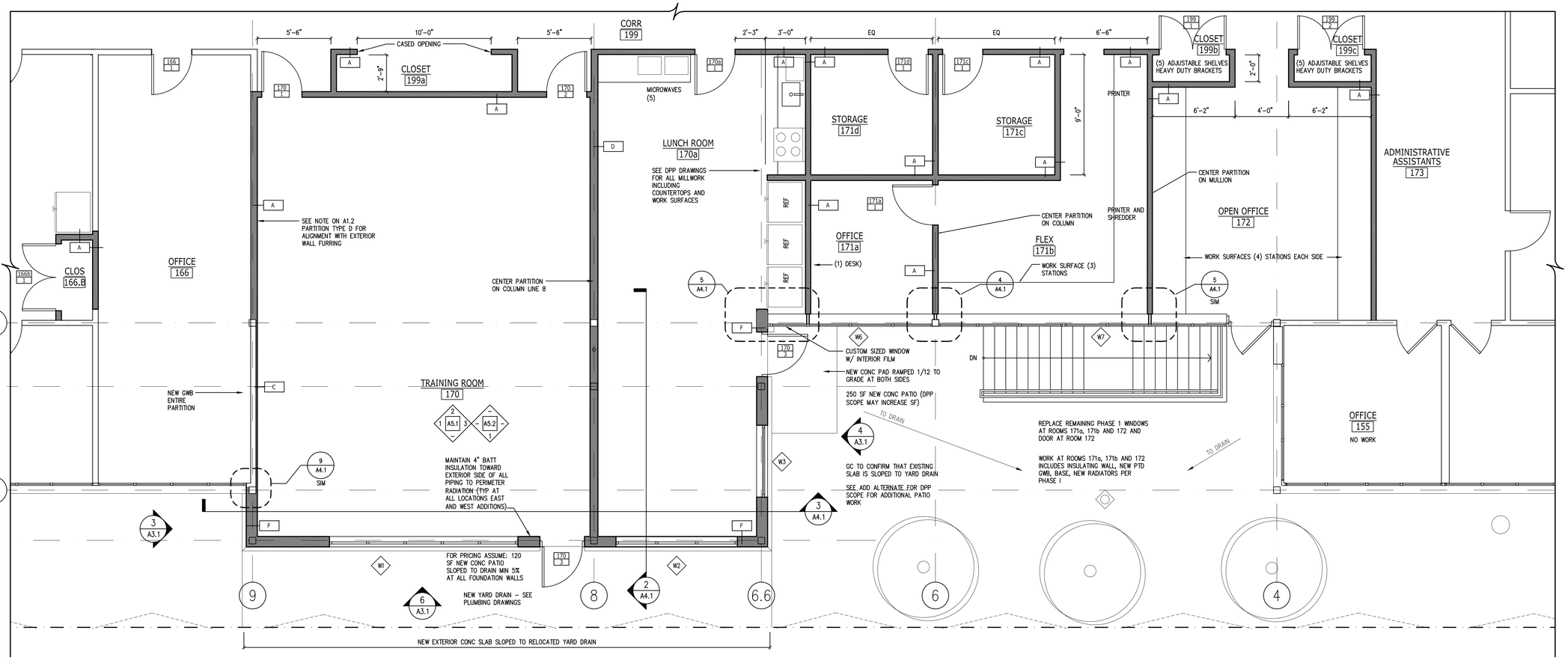
1 A1.1 FLOOR PLAN - WEST ADDITION
Scale: 1/4"=1'-0"

FLOOR PLAN KEY:

- EXISTING PARTITION TO REMAIN
- NEW PARTITION OR FURRING, SEE DWG A1.2 FOR PARTITION TYPES.
- DEMOLITION
- A — WALL TYPES

NOTES:

1. ALL DIMENSIONS ARE TO FINISH FACE OF GWB UON
2. BLOCKING IS REQUIRED AT ALL WALL-SUPPORTED CABINETS AND COUNTERS
3. APPLIANCES ARE BY OWNER, INSTALLATION IS BY CONTRACTOR



2 A1.1 FLOOR PLAN -EAST ADDITION AND RENOVATIONS
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR: ME

SEAL:

CONSULTANT:

BOLENDER ARCHITECTS
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PHILADELPHIA, PA 19103
215-731-0390

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
FIRST FLOOR PLAN

PROJECT NO: 14-18-4745-01
DRAWING NO: A1.1
DATE: 05.30.19 PERMIT
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NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

ARCHITECTURAL ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	BASE OR WAINSCOT	WALLS				RUB RAIL	CEILING	REMARKS
				N	E	S	W			
166	OFFICE	VCT	BASE	GWB	PT	PT	PT		ACT	GWB (NEW) ENTIRE LENGTH OF NORTH WALL
170	TRAINING ROOM	VCT	BASE	GWB	GWB	GWB	GWB	85 LF	ACT	WALL COLOR WILL CHANGE BELOW RUB RAIL
170a	LUNCH ROOM	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	CORIAN BACKSPLASH AT KITCHENETTE
171a	OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	20 LF	ACT	
171b	FLEX	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
171c	STORAGE	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
171d	STORAGE	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
172	OPEN OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
173	-	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
181a	HALL	VCT	BASE	GWB	GWB	GWB	GWB	-	ACT	
181b	OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	20 LF	ACT	
181c	OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	20 LF	ACT	
181d	OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	20 LF	ACT	
181e	OFFICE	VCT	BASE	GWB	GWB	GWB	GWB	20 LF	ACT	
199	CORRIDOR	VCT	BASE	PT EXG	PT EXG	PT EXG	PT EXG	-		

INTERIOR DOOR SCHEDULE

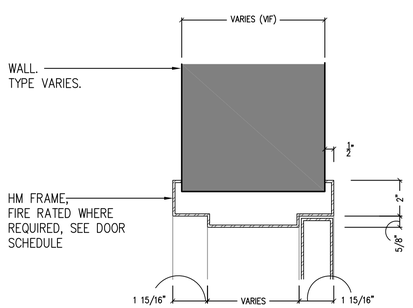
ROOM	No	TYPE	GLASS	MAT'L	SIZE	FINISH	FRAME	HARDWARE SET	STOP	Hold-Open	CLOSER		LEAF: NEW / EXISTING	REMARKS
CLOSET 166A	166b.1	1	-	WOOD	60 X 84	CLEAR	HM	SEE NOTE 7	(1)				NEW	PAIR, KICK PLATE ON EXTERIOR ONLY
OFFICE 166	166.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	HINGE STOP
LUNCH 170A	170a.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	
LUNCH 170A	170a.2	1	-	STEEL	36 X 84	PTD	HM	1	YES		YES		NEW	HINGE STOP
TRAINING 170	170.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES	YES			NEW	
TRAINING 170	170.2	1	-	WOOD	36 X 84	CLEAR	HM	6	YES	YES			NEW	
TRAINING 170	170.3	3	-	STEEL	36 X 84	PTD	HM	1	-		YES		NEW	
TRAINING 170	170.4	2	YES	STEEL	36 X 84	PTD	HM	1	-		YES		NEW	FACTORY PAINTED
OFFICE 171A	171a.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	(2) COAT HOOKS
STORAGE 171C	171c.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	
STORAGE 171D	171d.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	
HALL 181A	181a.1	2	YES	STEEL	36 X 84	PTD	HM	1	YES				NEW	FACTORY PAINTED
OFFICE 181B	181b.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	(2) COAT HOOKS
OFFICE 181C	181c.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	(2) COAT HOOKS
OFFICE 181D	181d.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	(2) COAT HOOKS
OFFICE 181E	181e.1	1	-	WOOD	36 X 84	CLEAR	HM	6	YES				NEW	(2) COAT HOOKS
CORRIDOR 199	199.1	1	-	WOOD	60 X 84	CLEAR	HM	SEE NOTE 7	NO				NEW	PAIR, KICK PLATE ON EXTERIOR ONLY
CORRIDOR 199	199.2	1	-	WOOD	60 X 84	CLEAR	HM	SEE NOTE 7	NO				NEW	PAIR, KICK PLATE ON EXTERIOR ONLY

FINISH NOTES:

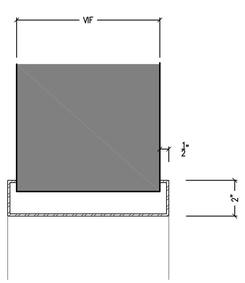
1. PAINT ALL HM DOOR FRAMES ON WALLS THAT WILL BE RECEIVING NEW PAINT.
2. RESTORE ALL FINISHES DAMAGED BY DEMOLITION AND INSTALLATION
3. VCT PATTERN LAYOUT WILL BE ISSUED AT START OF CONSTRUCTION W/ PATTERNS SIMILAR TO PHASE 1
4. VIN: MATCH PHASE I
5. RUB RAIL BOD: PROTEK CR-46 RIGID 6" VINYL RUB RAIL ADHERED PER MANUFACTURER'S INSTRUCTIONS; PRE-DRILLED, ATTACHED W/ STAINLESS STEEL SCREWS

GENERAL DOOR AND HARDWARE NOTES:

1. ALL NEW DOORS AND FRAMES TO MATCH PHASE 1 SPECIFICATIONS
2. HARDWARE SCHEDULE IN PROJECT MANUAL ARCHITECTURAL ADDENDUM
3. VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD
4. DOOR MATERIAL, FINISH AND LITE TO MATCH PHASE I
5. PROVIDE DOOR STOPS AT ALL DOORS
6. WALL AND DOOR SIGNAGE FBO, INSTALLED BY CONTRACTOR
7. CLOSET DOOR HARDWARE – DUMMY LEVERS AND MAGNETIC CATCHES
8. PHASE I CONTRACT INCLUDED (4) EXTERIOR STEEL DOORS THAT WERE NOT INSTALLED. THIS CONTRACT INCLUDES (2) DOORS W/ RECTANGULAR LITES AND (2) FLUSH DOORS
9. DOOR REMAINING FROM PHASE 1 IS NOT SCHEDULED
10. PRE-INSULATE ALL STUDS AT EXTERIOR DOOR JAMBS PRIOR TO INSTALLATION
11. DO NOT PAINT NEW OR EXISTING HINGES OR OTHER HARDWARE



1/1 TYPICAL DOOR HEAD/ JAMB DETAIL
Scale: 3"=1'-0"

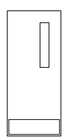


2/1 TYPICAL CASED OPENING HEAD/ JAMB DETAIL
Scale: 3"=1'-0"

DOOR TYPES:

1

SOLID CORE WOOD DOOR WITH KICK PLATES, CLEAR FINISH BOTH SIDES EACH: (2) 10X34 PLATES UON



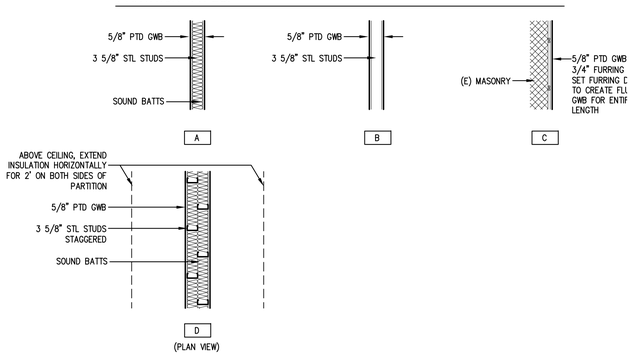
2

EXTERIOR PTD INSULATED STEEL DOOR W/ RECTANGULAR LITE 45 MIN FIRE RATED DOOR AND FRAME

3

EXTERIOR PTD INSULATED STEEL DOOR – 45 MIN FIRE RATED DOOR AND FRAME

PARTITION TYPES:



REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

BOLENDER ARCHITECTS
2118 LOCUST STREET
PHILADELPHIA, PA 19103
215-731-0390

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS
FIRST FLOOR

DRAWING TITLE:
SCHEDULES, PARTITION TYPES AND DOOR DETAILS

PROJECT NO: 14-18-4745-01
DRAWING NO: A1.2
DATE: 05.30.19 PERMIT
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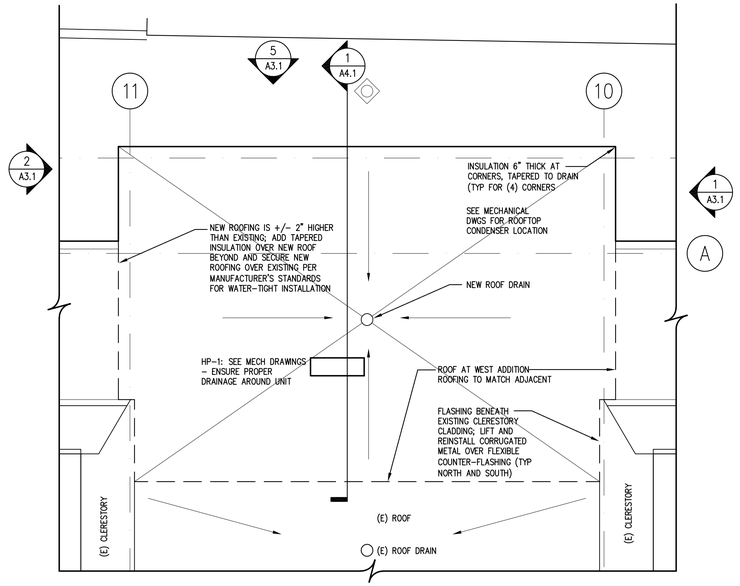
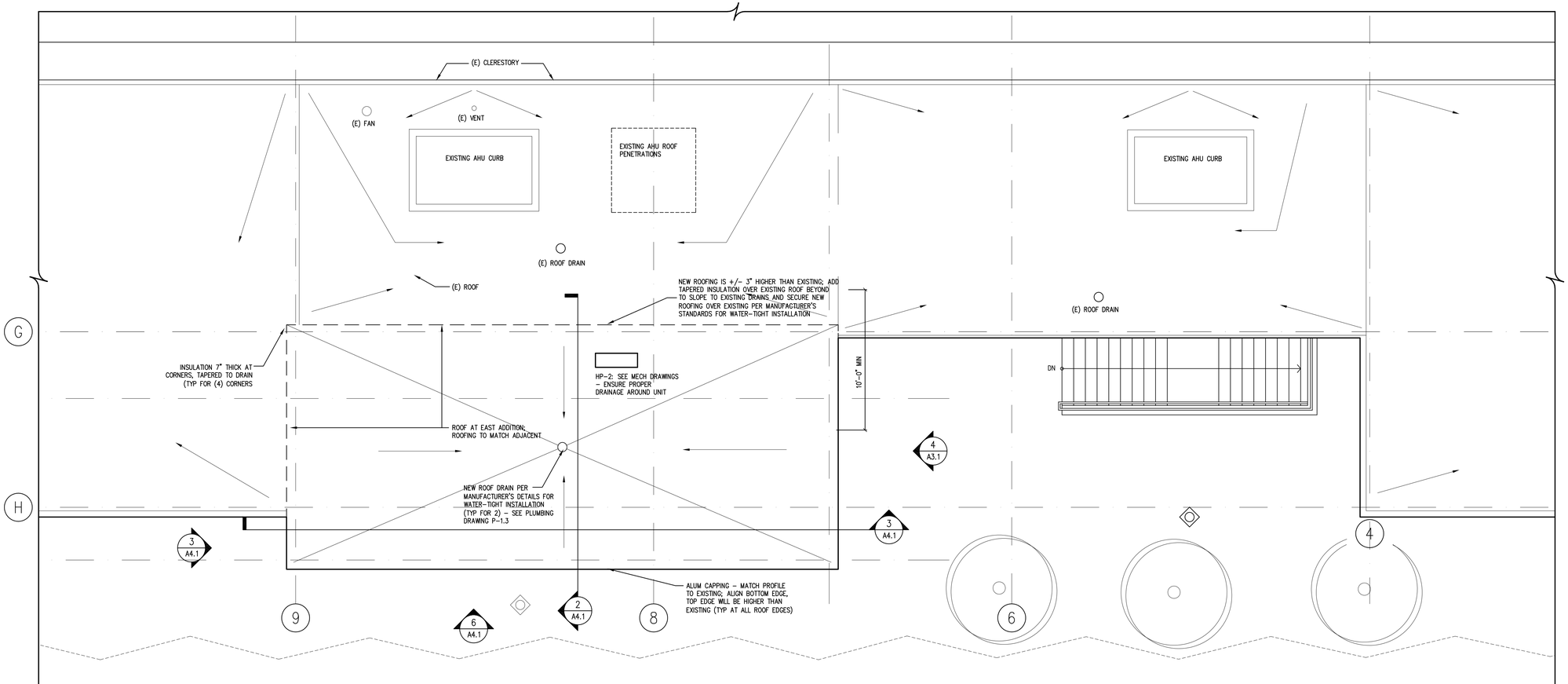


1 A1.3 PARTIAL ROOF PLAN - WEST ADDITION
Scale: 1/4"=1'-0"



2 A1.3 PARTIAL ROOF PLAN - EAST ADDITION
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:
ME

SEAL:

CONSULTANT:

BOLENDER ARCHITECTS
2118 LOCUST STREET
PHILADELPHIA, PA 19103
215-731-0390

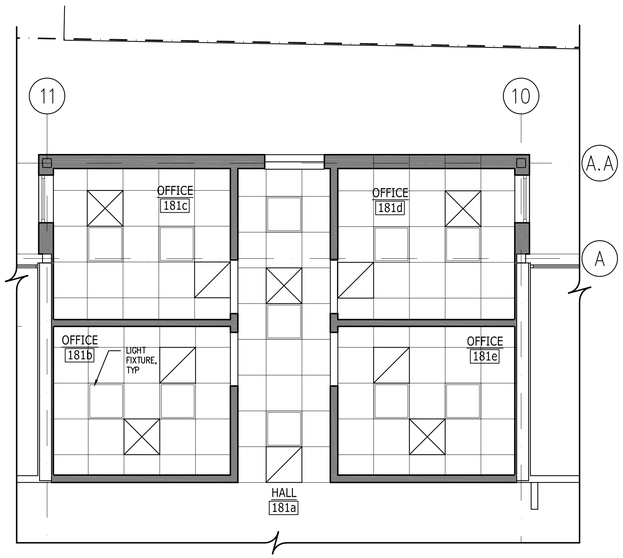
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS FIRST FLOOR

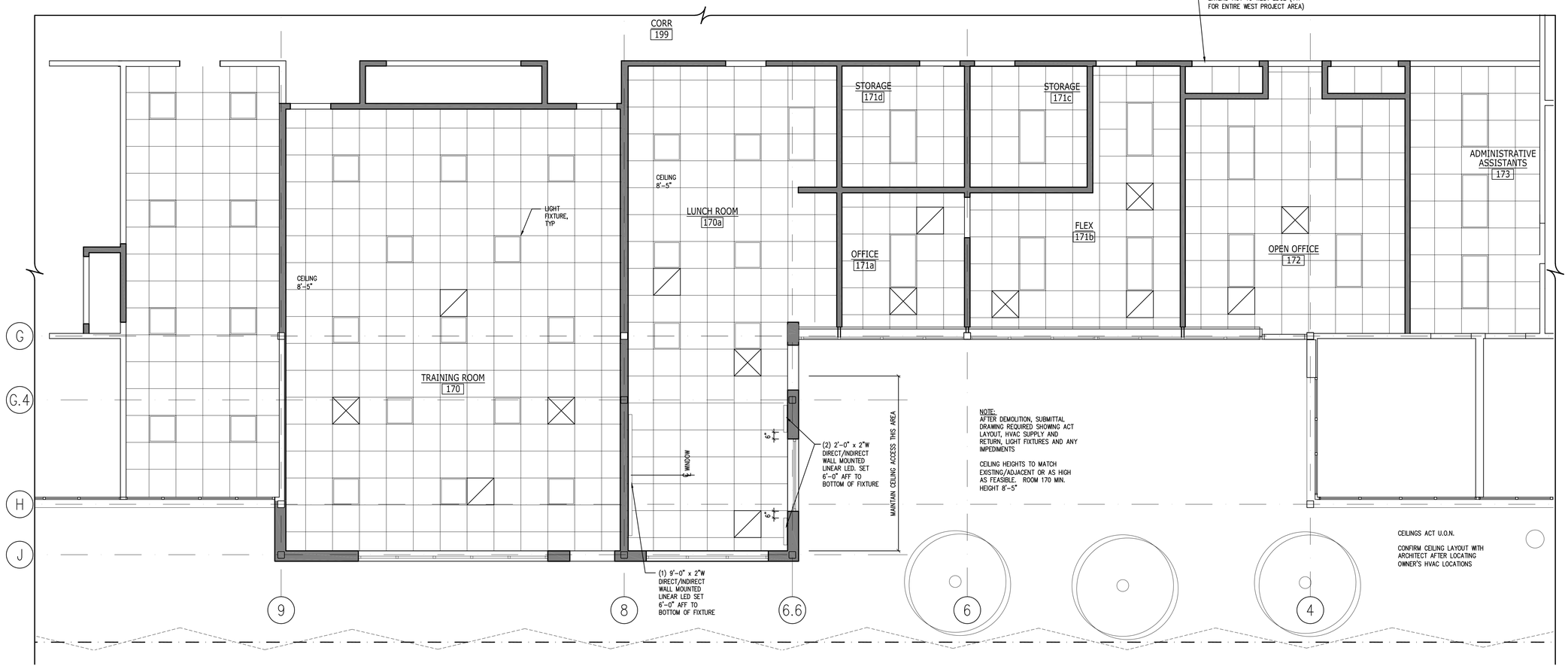
DRAWING TITLE:
PARTIAL ROOF PLANS

PROJECT NO: 14-18-4745-01
DRAWING NO: A1.3
DATE: 05.30.19 PERMIT
DRAWN BY: –
CHECKED BY: –
FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 / A2.1 REFLECTED CEILING PLAN - EAST ADDITION
Scale: 1/4"=1'-0"



2 / A2.1 REFLECTED CEILING PLAN - EAST ADDITION
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:
ME

SEAL:

CONSULTANT:

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2118 LOCUST STREET
PHILADELPHIA, PA 19103
215-731-0390

CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS FIRST FLOOR

DRAWING TITLE:
FIRST FLOOR REFLECTED CEILING PLAN

PROJECT NO: 14-18-4745-01
DRAWING NO: A2.1
DATE: 05.30.19 PERMIT
DRAWN BY: -
CHECKED BY: -
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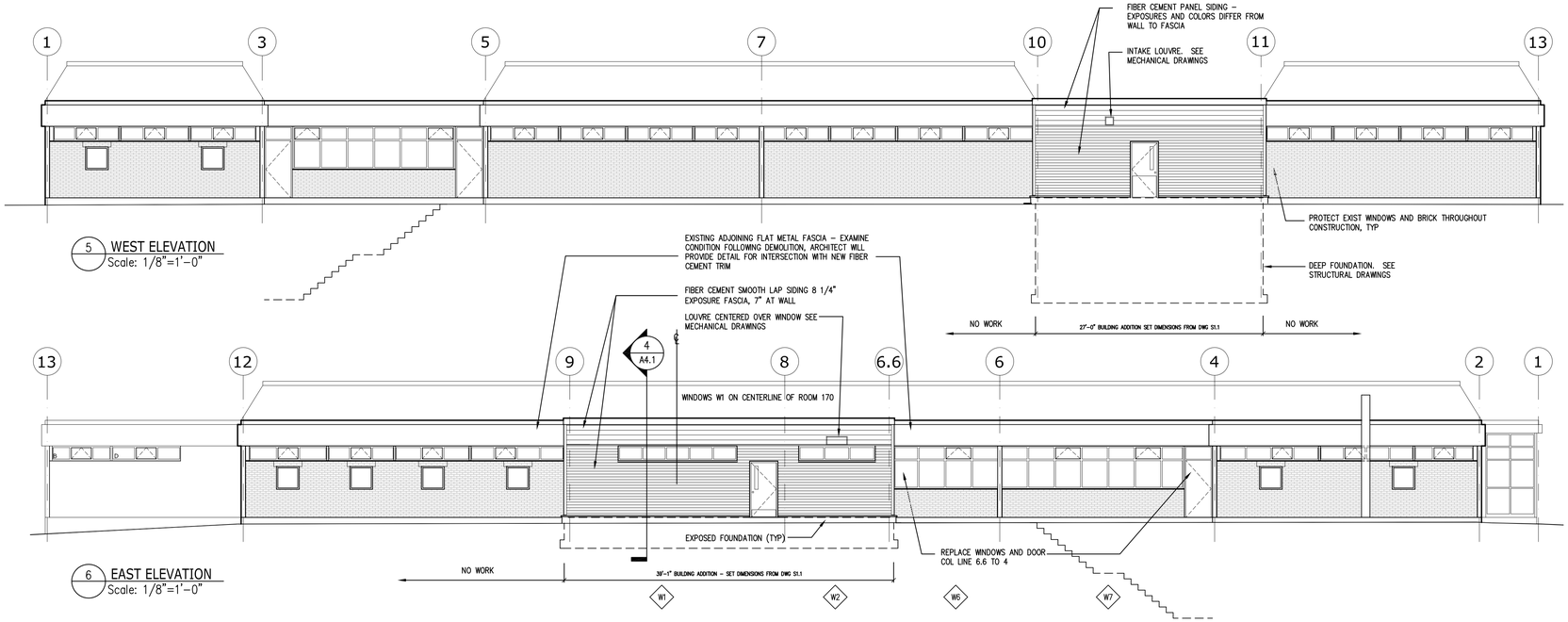
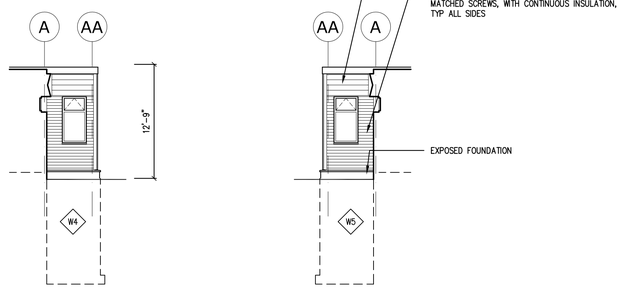
NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



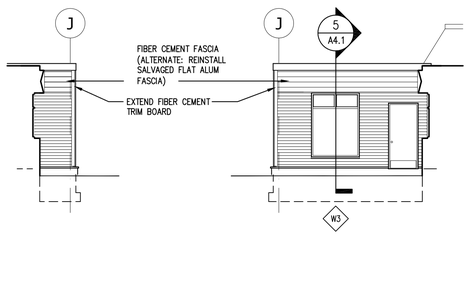
5 WEST ELEVATION
Scale: 1/8"=1'-0"

6 EAST ELEVATION
Scale: 1/8"=1'-0"



1 SIDE ELEVATION - WEST
Scale: 1/8"=1'-0"

2 SIDE ELEVATION - WEST
Scale: 1/8"=1'-0"

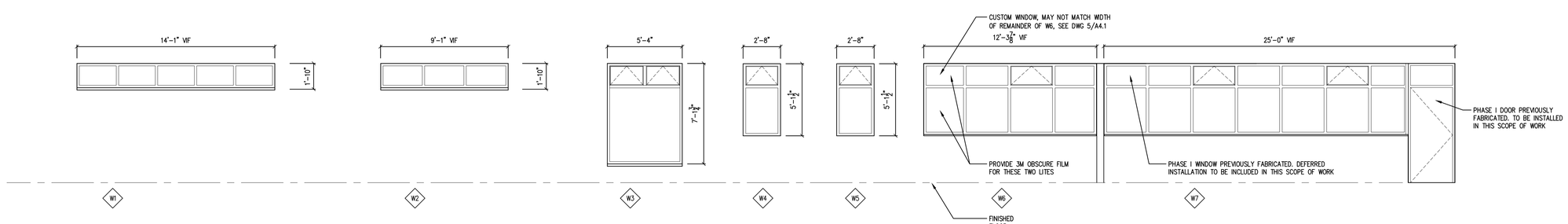


3 SIDE ELEVATION - EAST
Scale: 1/8"=1'-0"

4 SIDE ELEVATION - EAST
Scale: 1/8"=1'-0"

CONTRACTOR WILL PROVIDE ARCHITECT WITH SIZES AND QUANTITY OF PHASE 1 WINDOWS TO BE INSTALLED IN PHASE 2, ALONG WITH SAMPLE WINDOW

CONTRACTOR WILL PROVIDE NEW WINDOWS IF SIZES ARE NOT AVAILABLE TO FIT THESE ELEVATIONS. NO PARTITIONS WILL INTERSECT WINDOWS. ARCHITECT TO APPROVE DETAILED DRAWING OF FULL LAYOUT PRIOR TO INSTALLATION



1 WINDOWS
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS
FIRST FLOOR

DRAWING TITLE:
EXTERIOR ELEVATIONS

PROJECT NO:	DRAWING NO:
00–00–0000–00	A3.1
DATE: 05.30.19 PERMIT	
DRAWN BY: –	
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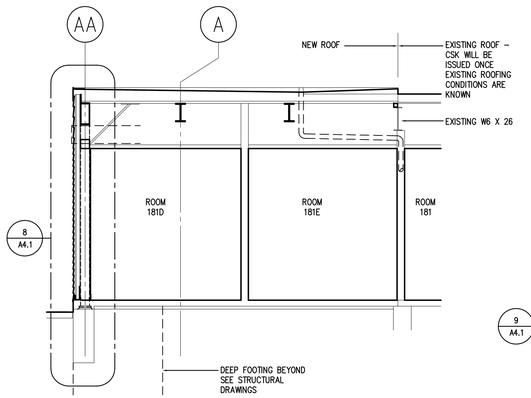
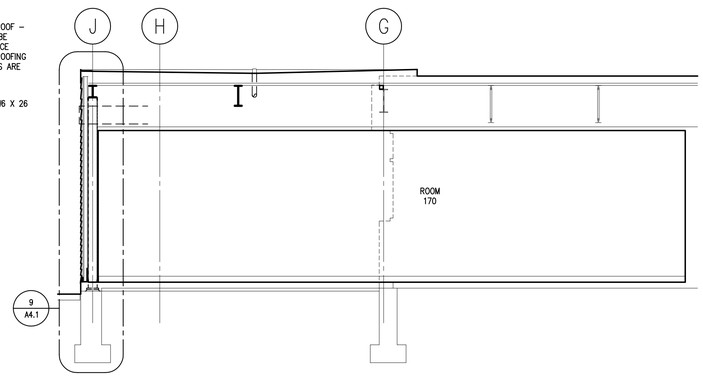
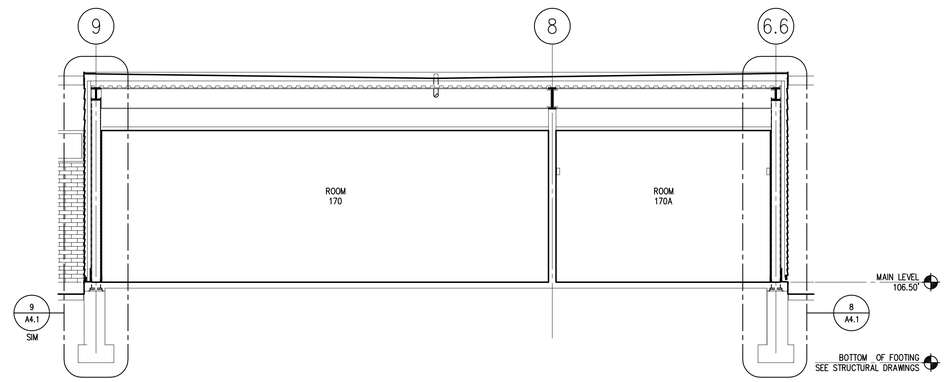
NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



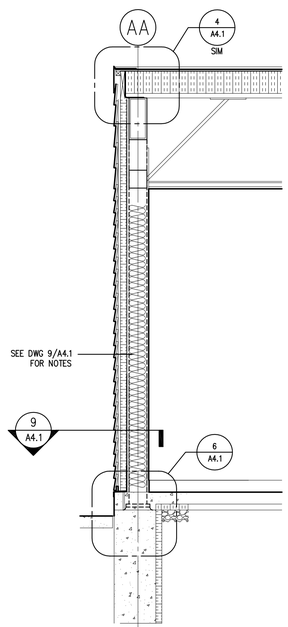
1 A4.1 BUILDING SECTION AT WEST ADDITION
Scale: 1/4"=1'-0"



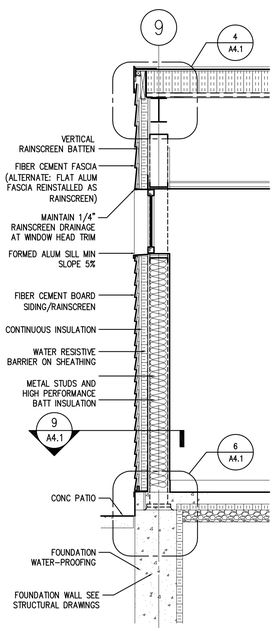
2 A4.1 BUILDING SECTION AT EAST ADDITION FACING SOUTH
Scale: 1/4"=1'-0"



3 A4.1 BUILDING SECTION AT EAST ADDITION FACING WEST
Scale: 1/4"=1'-0"



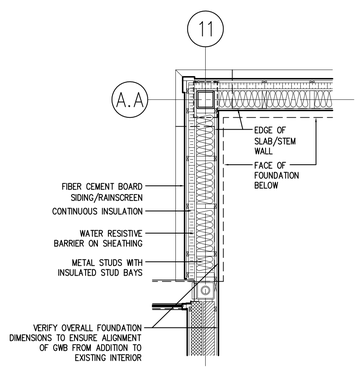
8 A4.1 SECTION DETAIL @ WEST ADDITION
Scale: 1/2"=1'-0"



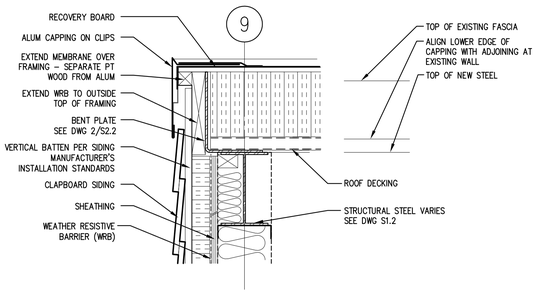
9 A4.1 SECTION DETAIL @ EAST ADDITION
Scale: 1/2"=1'-0"

3. BLUESKIN VP100 WATER RESISTIVE BARRIER BY HENRY COMPANY
4. STUD CAVITY: CERTAINTEED R-21 HIGH PERFORMANCE BATT INSULATION

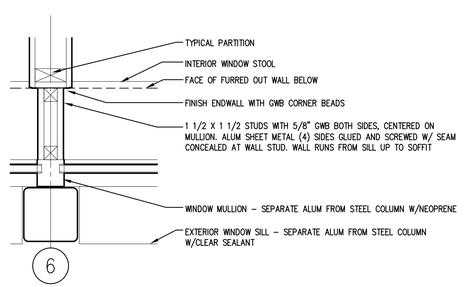
5. DOW UNFACED 7 1/2" POLYSTYRENE SILL SEAL
6. GALVANIZED STEEL TERMITE SHIELD BARRIER STRIP SET IN MASTIC SPANNING ALL TOP EDGES OF VERTICAL UNDER-SLAB INSULATION AND TOP OF FOUNDATION WALL OR TERM FLEXIBLE SILL MOISTURE/TERMITE BARRIER
7. SHEET POLYETHYLENE VAPOR BARRIER MIN 10 MIL OVER UNDER-SLAB INSULATION
8. POLYSTYRENE (XPS) 2" UNDER-SLAB INSULATION UNDER ENTIRE SLAB AND VERTICAL AT FOUNDATION UNDER FOOTINGS
9. TERMIDOR FIPRONIL-BASED GROUND TREATMENT OVER ENTIRE AREA OF EARTH UNDER SLAB AND FOOTING



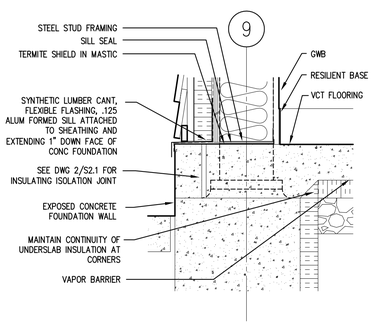
10 A4.1 PLAN DETAIL @ WEST ADDITION
Scale: 1/2"=1'-0"



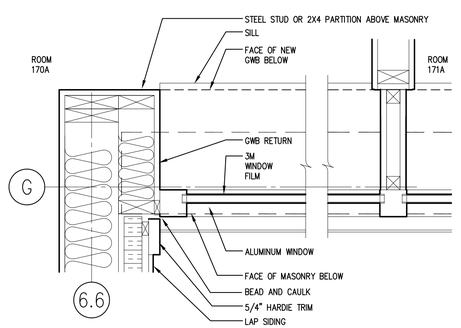
4 A4.1 DETAIL AT ROOF EDGE
Scale: 1 1/2"=1'-0"



INTERIOR DETAIL AT PARTITION BETWEEN ROOMS 171B AND 172 SIMILAR
5 A4.1 PLAN DETAIL AT COLUMN LINE 6
Scale: 1 1/2"=1'-0"



6 A4.1 DETAIL AT BASE
Scale: 1 1/2"=1'-0"



7 A4.1 PLAN DETAIL AT CORNER
Scale: 1 1/2"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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CITY OF PHILADELPHIA
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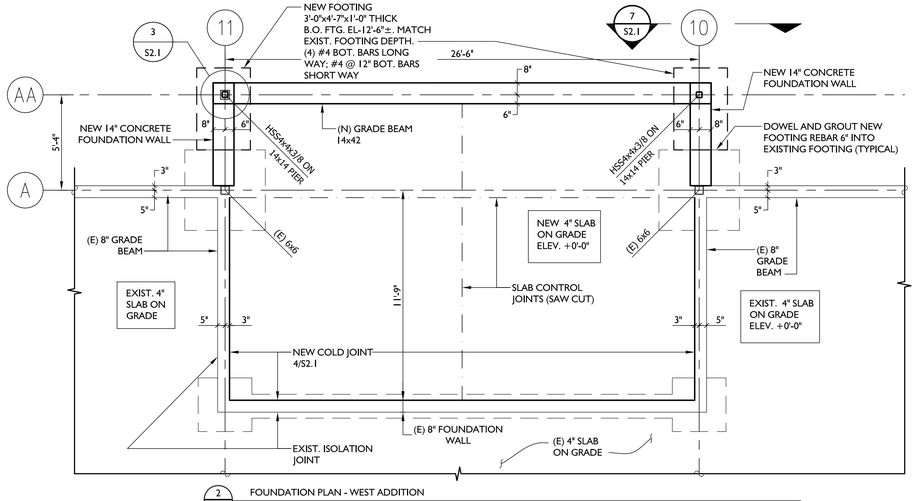
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 ADDITIONS AND RENOVATIONS
FIRST FLOOR

DRAWING TITLE:
BUILDING SECTIONS AND DETAILS

PROJECT NO: 14-18-4745-01
DRAWING NO: A4.1
DATE: 05.30.19 PERMIT
DRAWN BY: –
CHECKED BY: –
FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

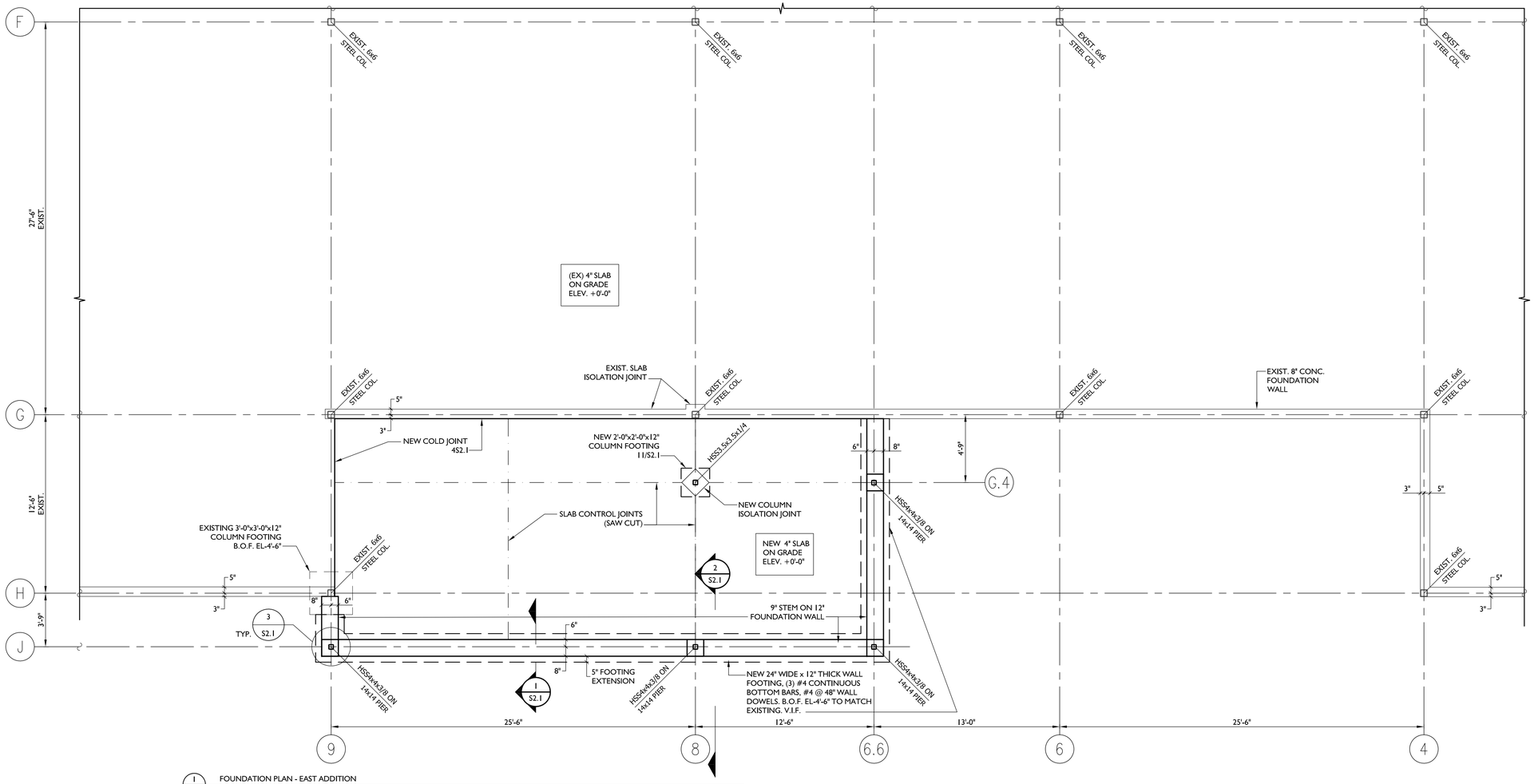


2 S1.1 FOUNDATION PLAN - WEST ADDITION

SCALE: 1/4"= 1'-0"

NOTES:

1. ELEVATIONS DENOTED +X'-XX" ARE RELATIVE TO REFERENCE ELEVATION 106.5.
2. REFER TO S2.1 FOR TYPICAL CONCRETE FOUNDATION DETAILS AND NOTES.



1 S1.1 FOUNDATION PLAN - EAST ADDITION

SCALE: 1/4"= 1'-0"

NOTES:

1. ELEVATIONS DENOTED +X'-XX" ARE RELATIVE TO REFERENCE ELEVATION 106.5.
2. REFER TO S2.1 FOR TYPICAL CONCRETE FOUNDATION DETAILS AND NOTES.

NORTH

REVISIONS

ISSUE	DATE	REVISIONS
	06/11/2019	REV 1

PHILADELPHIA MANETO

PERMIT SET

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED
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Ann Rothmann, PE

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
1515 ARCH STREET
11TH FLOOR, ONE PARKWAY BUILDING
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:

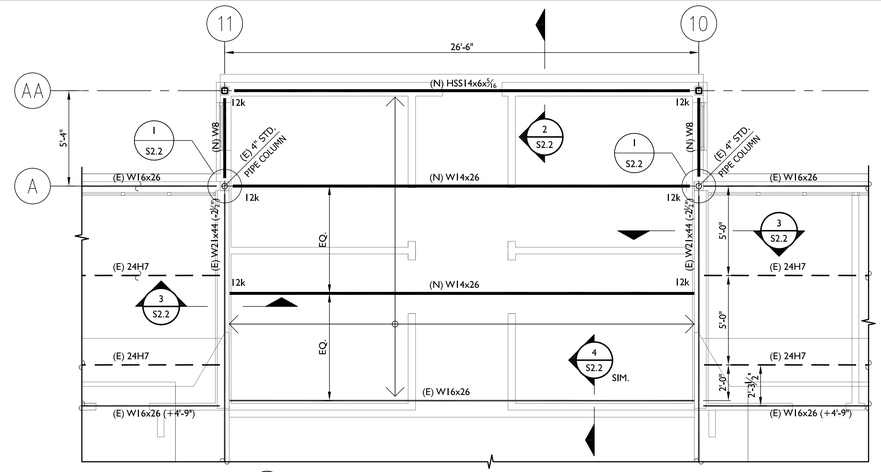
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:

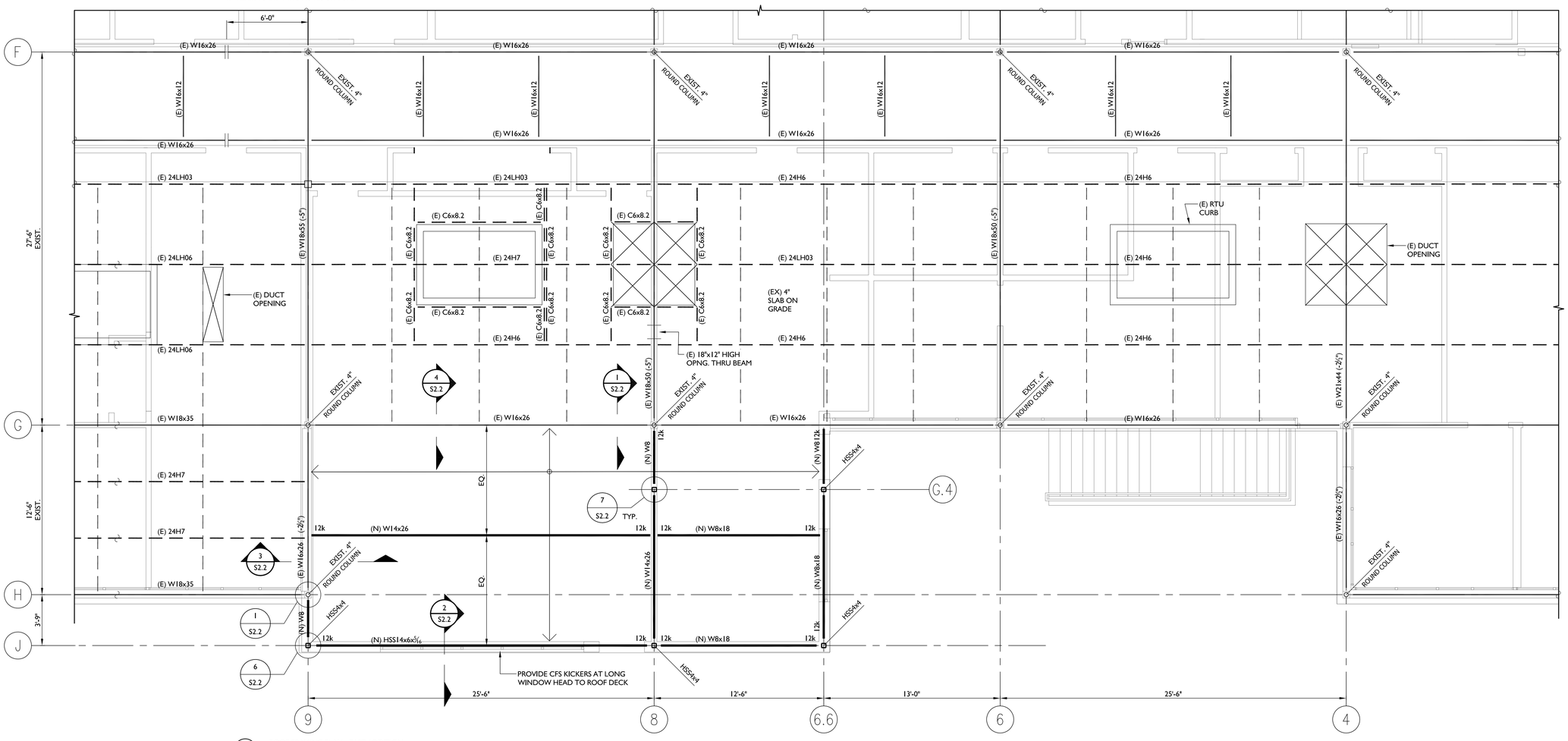
FOUNDATION PLAN

PROJECT NO:	DRAWING NO:
14-18-4745-01	S1.1
DATE: 05.30.2019	
DRAWN BY: SH	
CHECKED BY: AR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



2 S1.2 ROOF FRAMING PLAN - WEST ADDITION
SCALE: 1/4"=1'-0"
NOTE:
1. REFER TO DRAWING NOTES ON 1/S1.2.



1 S1.2 ROOF FRAMING PLAN - EAST ADDITION
SCALE: 1/4"=1'-0"
NOTES:

1. 1½" - 20 GAGE WIDE RIB ROOF DECK
2. (N) W8 DENOTES W8x18, U.N.O.
3. (E) DENOTES EXISTING
4. (N) DENOTES NEW
5. REFER TO S2.2 FOR TYPICAL STEEL NOTES AND DETAILS.
6. [K] DENOTES ASD VERTICAL BEAM REACTION IN KIPS.
7. TOP OF NEW ROOF STEEL ELEVATION TO MATCH EXISTING, AT +10'-10⅜" ABOVE FLOOR SLAB, V.I.F.

NORTH

REVISIONS

ISSUE	DATE	REVISIONS
	06/11/2019	REV 1

PHILADELPHIA MANETO

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PROJECT COORDINATOR:

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Ann Rothmann, PE

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
1515 ARCH STREET
11TH FLOOR, ONE PARKWAY BUILDING
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
ROOF FRAMING PLAN

PROJECT NO:	DRAWING NO:
14-18-4745-01	S1.2
DATE: 05.30.2019	
DRAWN BY: SH	
CHECKED BY: AR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

GENERAL NOTES

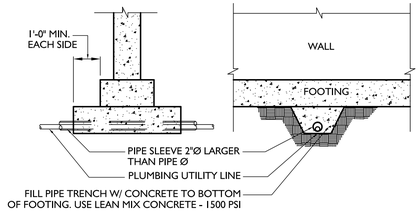
1. THIS PROJECT HAS BEEN DESIGNED USING THE 2018 INTERNATIONAL BUILDING CODE (IBC), AND APPLICABLE LOCAL REGULATIONS.
2. THESE DRAWINGS REPRESENT THE COMPLETED PROJECT WHICH HAS BEEN DESIGNED FOR THE WEIGHTS OF THE MATERIALS INDICATED ON THE DRAWINGS AND FOR THE SUPERIMPOSED LOADS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION OF FALSE WORK, FORMWORK, STAGING, BRACING, SHEETING, AND SHORING, ETC.
3. TAKE FIELD MEASUREMENTS AND VERIFY DIMENSIONS ON DRAWINGS BEFORE ORDERING MATERIALS.
4. NOTIFY ENGINEER IMMEDIATELY IF ANY EXISTING CONDITIONS CONFLICT WITH STRUCTURAL INFORMATION SHOWN IN THE CONSTRUCTION DOCUMENTS.
5. IMPLEMENTING JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. SECTIONS AND DETAILS SHOWN, WHILE DRAWN FOR SPECIFIC LOCATIONS, ARE INTENDED TO ESTABLISH THE GENERAL TYPES OF DETAILS TO BE USED THROUGHOUT. IF THE CONTRACTOR WISHES TO USE DETAILS OTHER THAN THOSE SHOWN ON THE DRAWINGS, SUCH DETAILS SHALL BE SUBMITTED FOR APPROVAL, AND APPROVAL CONFIRMED, BEFORE SHOP DRAWINGS ARE COMMENCED.
7. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED HIMSELF WITH ALL EXISTING CONDITIONS. ANY QUESTIONS OR DISCREPANCIES FOUND WITH REGARD TO THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER.
8. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR WORK THAT SHE DOES NOT REVIEW AND/OR WORK NOT COMPLETED IN ACCORDANCE WITH STRUCTURAL ENGINEER'S PLANS AND/OR SPECIFICATIONS.
9. THE STRUCTURAL ENGINEER'S REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO FOLLOW THE INTENT OF THE CONTRACT DRAWINGS, UNLESS A WRITTEN REQUEST FOR A CHANGE HAS BEEN PREVIOUSLY SUBMITTED AND APPROVED BY THE STRUCTURAL ENGINEER.
10. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, DETAILS AND SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR CLARIFICATION.
11. STRUCTURAL SPECIAL INSPECTIONS ARE A REQUIREMENT FOR THIS PROJECT. A QUALIFIED INDEPENDENT INSPECTION AGENCY REGISTERED WITH THE CITY OF PHILADELPHIA SHALL BE SELECTED TO PERFORM THESE SERVICES. ALL INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE IBC ARE REQUIRED, AS A MINIMUM. SEE MATERIAL NOTES FOR SPECIFIC INSPECTIONS REQUIRED.
12. THE INDEPENDENT INSPECTIONS AGENCY SHALL PERFORM INSPECTIONS AND SUBMIT REPORTS THE ENGINEER OF RECORD (EOR) WITHIN 72 HOURS OF INSPECTION. ANY INADEQUACIES FOUND BY THE INSPECTOR SHALL BE REPORTED TO THE EOR WITHIN 24 HOURS. THE CONTRACTOR SHALL FACILITATE THESE INSPECTIONS BY SCHEDULING THE INSPECTIONS TO COORDINATE WITH THE WORK BEING PERFORMED BY THEIR SUB-CONTRACTORS

DIVISION 2 - EARTHWORK & FOUNDATIONS

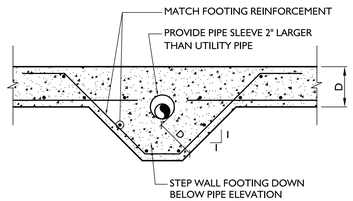
1. FOUNDATIONS HAVE BEEN DESIGNED AND FOOTING ELEVATIONS ESTABLISHED BASED ON GEOTECHNICAL DATA PROVIDED IN THE 1973 BUILDING CONSTRUCTION SET.
2. SPECIAL INSPECTIONS OF EARTHWORK BY A QUALIFIED GEOTECHNICAL ENGINEER, IS REQUIRED IN ACCORDANCE WITH IBC 2018 CHAPTER 17.
3. BUILDING FOUNDATIONS SHALL BEAR ON DENSE UNDISTURBED SOIL HAVING MINIMUM BEARING CAPACITY OF 3000 PSF. ADEQUACY OF BEARING STRATUM SHALL BE VERIFIED IN FIELD BY A QUALIFIED GEOTECHNICAL ENGINEER. ADJUST BOTTOM OF FOOTING ELEVATIONS AS REQUIRED.
4. ALL SLABS ON GRADE SHALL BEAR ON UNDISTURBED OR MECHANICALLY COMPACTED SOIL CAPABLE OF SUPPORTING 1000 PSF. EXISTING FILL AND SOFT RESIDUAL SOILS SHOULD BE UNDERCUT AND REPLACED WITH STRUCTURAL FILL AND THE SLAB BASE COURSE. THE SLAB BASE COURSE SHALL CONSIST OF AT LEAST 6" OF PA DOT NO. 57 OR 67 COMPACTED CRUSHED STONE UNDER A 10MIL (MINIMUM) POLYETHYLENE SHEET OR EQUIVALENT.
5. AT ALL FOUNDATIONS, SLABS ON GRADE AND PAVEMENTS REQUIRING ENGINEERED COMPACTED STRUCTURAL FILL MATERIALS, PROVIDE THE FOLLOWING: REMOVE EXISTING UPPER STRATUM OF UNSATISFACTORY SOIL INCLUDING ORGANIC MATERIAL. PROOF ROLL SUBGRADE TO OBTAIN UNIFORMLY DENSIFIED SUBSTRATA PRIOR TO PLACING FILL MATERIAL EVENLY IN 8" THICK MAXIMUM LAYERS AND COMPACTING TO REQUIRED DENSITY. SATISFACTORY FILL MATERIALS FOR SITE WORK SHALL COMPLY WITH ASTM D2487, GROUPS GW, GP, GM, SM, SW AND SP. ON SITE BORROW SHALL BE TESTED TO DETERMINE SUITABILITY FOR USE AS FILL MATERIAL. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY OF MODIFIED PROCTOR (ASTM D1557). FILL AND BACKFILL THAT IS PLACED FOR SITE GRADING IN NON-STRUCTURAL LANDSCAPE AREAS MAY BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY OF MODIFIED PROCTOR. ALL COMPACTED FILL PLACEMENT SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER.
6. STRUCTURAL FILL MATERIALS SHALL BE FREE OF ORGANIC MATTER, ASH, CINDERS, FROZEN MATERIALS, AND DEMOLITION DEBRIS. ITS PLASTICITY INDEX SHALL BE LESS THAN 10. IT SHALL BE LESS THAN 15 PERCENT BY WEIGHT ROCK FRAGMENTS LARGER THAN 3", LESS THAN 30 PERCENT BY WEIGHT LARGER THAN ¼", AND LESS THAN 30 PERCENT BY WEIGHT SMALLER THAN THE NO.200 SIEVE.
7. CONCRETE FOR FOUNDATIONS SHALL BE POURED ON THE SAME DAY SUBGRADE APPROVAL IS GIVEN BY THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A REPORT DETAILING SUBGRADE APPROVAL FOR THE EOR'S REVIEW.
8. ALL EXTERIOR FOOTINGS AND GRADE BEAMS SHALL BE PLACED A MINIMUM OF 3'-0" BELOW FINAL GRADE.
9. FOOTINGS SHALL BE PLACED AT THE DEPTH OF ADJOINING FOOTINGS.
10. EXCAVATIONS FOR ANY PURPOSE SHALL NOT REMOVE LATERAL SUPPORT FROM ANY FOOTING OR FOUNDATION WITHOUT PROTECTING THE FOOTING OR FOUNDATION AGAINST SETTLEMENT OR LATERAL TRANSLATION.
11. RIPPING AND HAMMERING MAY BE NECESSARY TO FACILITATE THE SITE EXCAVATION WHERE DECOMPOSED SCHIST IS ENCOUNTERED. NO BLASTING SHALL BE PERMITTED.
12. EXCAVATIONS SHALL HAVE A MAXIMUM ALLOWABLE SLOPE FROM THE HORIZONTAL OF 1:1 FOR COHESIVE SOILS, AND 1.5:1 FOR GRANULAR SOILS. ADDITIONALLY, EXCAVATIONS SHALL MEET OSHA REQUIREMENTS FOR SLOPING AND BENCHING.

DIVISION 3 - CONCRETE

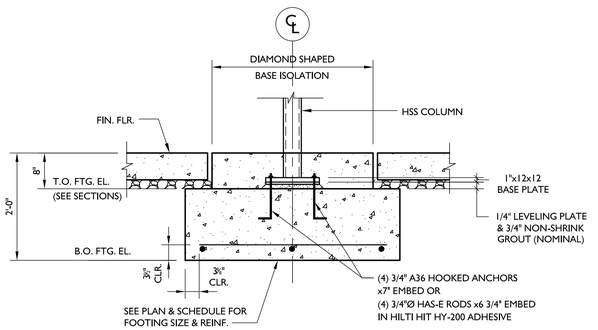
1. ALL CONCRETE WORK SHALL CONFORM TO THE ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, LATEST EDITION AND TO ACI 301, "SPECIFICATIONS FOR CONCRETE FOR BUILDINGS", AND ALL RECOMMENDED PRACTICES CONTAINED THEREIN SHALL BE CONSIDERED MANDATORY FOR THIS PROJECT.
2. CONCRETE ADMIXTURES CONTAINING CALCIUM CHLORIDE OR OTHER CHLORIDE SALTS SHALL NOT BE USED, EXCEPT WHEN WATER SOLUBLE CHLORIDE ION CONTENT IS LIMITED TO 0.30 PERCENT BY WEIGHT OF CEMENT.
3. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'C) AT 28 DAYS OF 4000 PSI.
4. GROUT BENEATH BASE PLATES, SHALL BE NON-SHRINK (ASTM C1107) WITH A ONE DAY COMPRESSIVE STRENGTH OF 3000 PSI.
5. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI MANUAL OF STANDARD PRACTICE (ACI 315), LATEST EDITION.
6. WELDED WIRE REINFORCING (WWR) SHALL CONFORM TO ASTM A185, WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 70,000 PSI.
7. PROVIDE CRACK CONTROL JOINTS (OF DEPTH = 1/4 THE SLAB THICKNESS) FOR SLABS ON GRADE AT 15 FEET O.C. MAXIMUM SPACING. AT UNEXPOSED SLABS, JOINTS SHALL BE SAW-CUT WITHIN THE FIRST 12 HOURS OF CONCRETE PLACEMENT. AT EXPOSED SLABS, JOINTS SHALL BE FORMED. TERMINATE CONTROL JOINTS AT COLUMN AND WALL ISOLATION JOINTS.
8. BONDING AGENT SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE.
9. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 304, LATEST EDITION. CONCRETE SHALL NOT BE SUBJECT TO DROPS IN EXCESS OF 5 FEET.
10. SPECIAL INSPECTIONS OF CONCRETE WORK ARE REQUIRED IN ACCORDANCE WITH IBC 2018 CHAPTER 17, AS FOLLOWS:
    PERIODIC INSPECTION: OF WALLS AND GRADE BEAMS, (FOOTINGS AND SLABS ON GRADE DO NOT REQUIRE SPECIAL INSPECTIONS):
    - REBAR AND CAST-IN- PLACE ANCHOR PLACEMENT;
    - USE OF SPECIFIED DESIGN MIX, INCLUDING CONCRETE SAMPLING AND TESTING;
    - CURING TEMPERATURE AND TECHNIQUES.
    CONTINUOUS INSPECTION:
    - OBSERVE INSTALLATION OF ALL POST-INSTALLED-ANCHORS.



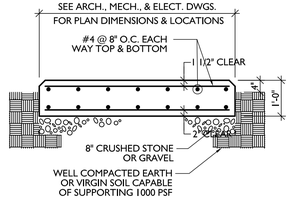
9 / S2.1 UTILITY PIPE UNDER WALL FOOTING
SCALE: N.T.S.



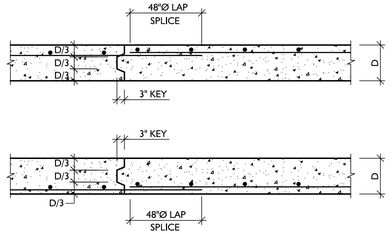
8 / S2.1 UTILITY PIPE THRU WALL FOOTING
SCALE: N.T.S.



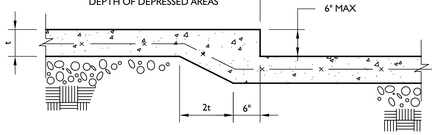
11 / S2.1 TYPICAL INTERIOR COLUMN DETAIL
SCALE: N.T.S.



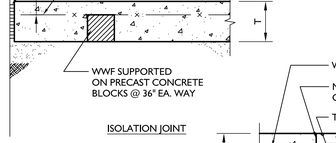
12 / S2.1 EQUIPMENT PAD
1. COORDINATE SIZE & LOCATION WITH EQUIPMENT REQUIREMENTS.
2. CHAMFER ALL EDGES 1" TYPICAL.



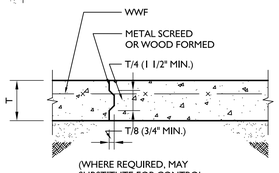
10 / S2.1 WALL FOOTING CONSTRUCTION JOINT
SCALE: N.T.S.



DEPRESSED SLAB DETAIL (6" OR LESS)

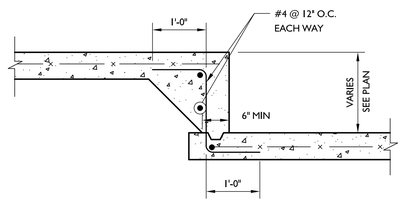


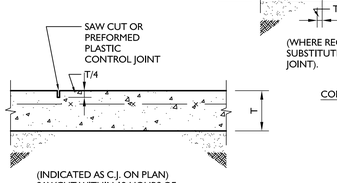
ISOLATION JOINT



(WHERE REQUIRED, MAY SUBSTITUTE FOR CONTROL JOINT).

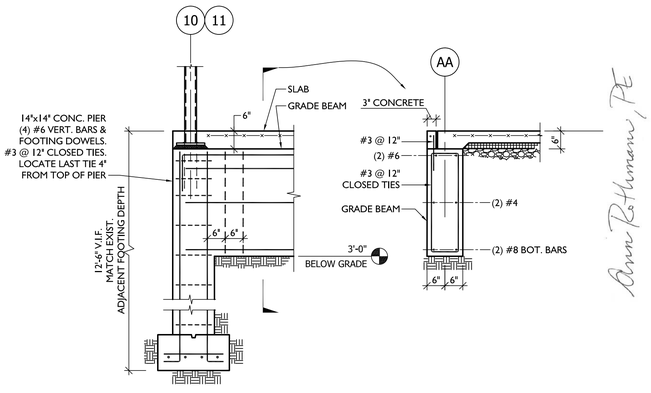
CONSTRUCTION JOINT



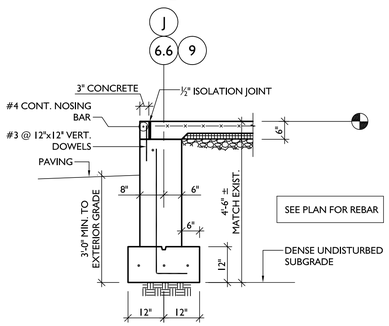


(INDICATED AS C.J. ON PLAN) SAWCUT WITHIN 12 HOURS OF CASTING SLAB. DO NOT CUT WWF.

CONTROL JOINT



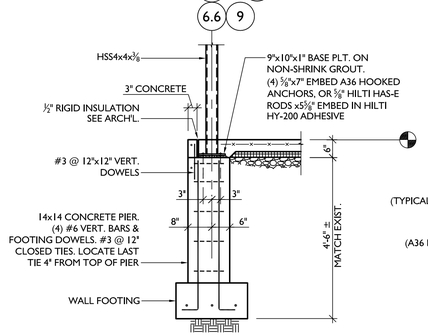
7 / S2.1 WEST ADDITION FOUNDATION
SCALE: 1/2"= 1'-0"



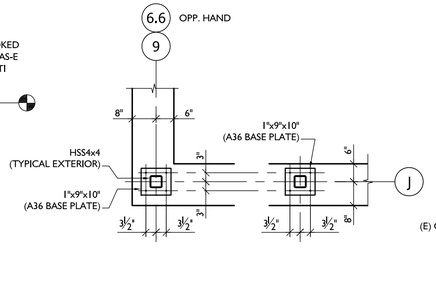
1 / S2.1 TYPICAL FOUNDATION SECTION - EAST ADDITION
SCALE: 1/2"= 1'-0"

5 / S2.1 DEPRESSED SLAB DETAILS
SCALE: N.T.S.

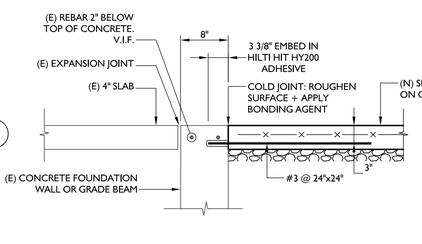
6 / S2.1 SLAB ON GRADE JOINT DETAILS
SCALE: N.T.S.



2 / S2.1 COLUMN PIER - EAST ADDITION
SCALE: 1/2"= 1'-0"



3 / S2.1 COLUMN BASES - PLAN VIEW
SCALE: 1/2"= 1'-0"



4 / S2.1 INTERFACE NEW SLAB TO EXIST. FOUNDATION
SCALE: 1"= 1'-0"

REVISIONS

ISSUE	DATE	REVISIONS
	06/11/2019	REV 1

PHILADELPHIA MANETO

PERMIT SET

PROJECT COORDINATOR:

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
1515 ARCH STREET
11TH FLOOR, ONE PARKWAY BUILDING
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
GENERAL NOTES AND FOUNDATION DETAILS

PROJECT NO: 14-18-4745-01	DRAWING NO: S2.1
DATE: 05.30.2019	
DRAWN BY: SH	
CHECKED BY: AR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

STEEL NOTES

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   A. AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," CURRENT EDITION.
   B. THE AMERICAN WELDING SOCIETY (AWS D1.1) "CODE FOR WELDING IN BUILDING CONSTRUCTION," CURRENT EDITION.
2. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED STRUCTURAL STEEL WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
3. FABRICATOR QUALIFICATIONS: ENGAGE A FIRM EXPERIENCED IN FABRICATING STRUCTURAL STEEL SIMILAR TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
4. DELEGATED DESIGN OF STEEL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE FABRICATOR. DESIGN FOR SERVICE LOAD (ASD) REACTIONS NOTED ON PLANS. SUBMIT CONNECTION DETAIL CALCULATIONS, SEALED BY A PA REGISTERED ENGINEER, AND CROSS REFERENCED WITH SHOP DRAWINGS, FOR EOR REVIEW.
5. CONNECTION DETAILS SHOWN IN THE CONSTRUCTION DOCUMENTS ARE CONCEPTUAL, AND ALTERNATIVE DETAILS PREPARED BY THE FABRICATOR SHALL BE CONSIDERED.
6. SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH AISC 360, AS FOLLOWS:
   PERIODIC INSPECTION:
   - SHOP FABRICATION OF WELDED CONNECTIONS, AND VERIFICATION OF ASTM MATERIAL STANDARDS. NOTE: THIS INSPECTION IS NOT REQUIRED FOR AISC CERTIFIED FABRICATORS;
   -VISUAL INSPECTION OF ALL FIELD-BOLTED AND FIELD-WELDED CONNECTIONS.
   CONTINUOUS INSPECTION: MULTI-PASS WELDS IN THE FIELD.
7. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
   A. PLATES AND ANGLES: ASTM A36, FY=36 KSI.
   B. W, WT & C SHAPES: ASTM A992, FY=50 KSI.
   C. HSS STRUCTURAL TUBING: ASTM A500 GRADE B, FY=46 KSI.
   D. BOLTED CONNECTIONS (STEEL TO STEEL): ASTM A325-N, (3/4" DIAM.), U.N.O.
8. BOLTS TO BE USED ON THE EXTERIOR SHALL BE HOT DIPPED GALVANIZED AND FIELD PAINTED.
9. ANCHORAGE BOLTS AND FITTINGS IN CONCRETE SHALL BE GALVANIZED.
10. ALL STEEL BEAMS, GIRDERS, AND SPANDRELS SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP.
11. WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED BY THE A.W.S. SUBMIT WELDER CERTIFICATES TO ENGINEER FOR RECORD.
12. WELDING ELECTRODES SHALL BE ASTM A233, CLASS E70XX. ALL WELDING SHALL CONFORM TO THE A.W.S. STANDARD CODE.
13. ALL SHOP AND FIELD WELDS SHALL BE 1/4" FILLET WELDS MINIMUM, U.N.O.
14. MINIMUM CENTER-CENTER SPACING BETWEEN BOLTS SHALL BE 3". MINIMUM EDGE DISTANCE SHALL BE 1-1/4" FROM CENTER OF BOLTS TO EDGE OF STEEL.
15. GAS CUTTING OF MAIN STRUCTURAL MEMBERS IN THE FIELD SHALL NOT BE PERMITTED.
16. SHOP PRIME ALL STEEL.
17. TOUCH UP FIELD WELDS AND ANY DAMAGED AREAS OF PAINT WITH A ZINC RICH PAINT, IN FIELD AFTER WELDING.
18. SHOP DRAWINGS FOR ALL MATERIALS TO BE SUBMITTED TO THE OWNER & ENGINEER FOR REVIEW PRIOR TO START OF FABRICATION OR COMMENCEMENT OF WORK. INCLUDE ERECTION LAYOUT, PIECE DRAWINGS, MATERIAL SPECIFICATIONS, AND CONNECTION DETAILS. INDICATE PROFILES, SIZES, SPACING, LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, SHEAR STUDS, STUD ANCHORS, ATTACHMENTS, AND FASTENERS. INDICATE WELDED CONNECTIONS WITH AWS A2.4 WELDING SYMBOLS. INDICATE NET WELD LENGTHS.

STEEL DECK NOTES

1. ALL STEEL DECK WORK SHALL CONFORM TO THE AISC "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
2. ROOF DECK SHALL BE 1-1/2" - 20 GAGE GALVANIZED (G60) WIDE RIB (TYPE B) STEEL DECK BY 36" WIDE PANELS.
3. ROOF DECK TO BE CONTINUOUS OVER 2 SPANS MINIMUM.
4. ALL STEEL DECK UNITS AND ACCESSORY ITEMS SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A446 OR A611 WITH A MINIMUM YIELD STRENGTH OF 33 KSI. BEFORE FORMING, THE STEEL SHEET SHALL RECEIVE A PROTECTIVE METAL COATING OR ZINC CONFORMING TO ASTM A525, GRADE 60.
5. ALL UNFRAMED DECK OPENINGS LARGER THAN 6" SHALL BE REINFORCED AS FOLLOWS:
   A. HOLES 6" - 12": 16 GAUGE FLAT SHEET EXTENDING 6" BEYOND HOLE ON ALL SIDES.
   B. HOLES 12"- 18": 1-3/4" X 1-3/4" X 1/4" STEEL ANGLES EXTENDING 16" BEYOND HOLE IN BOTH DIRECTIONS.
   NOTE: ALL REINFORCEMENT SHALL BE WELDED ALL AROUND TO TOP SIDE OF DECK.
6. ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED STEEL DECK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
7. PLACE DECK PANELS ON SUPPORTING FRAMING AND ADJUST TO FINAL POSITION WITH ENDS ACCURATELY ALIGNED AND BEARING ON SUPPORTING FRAMING BEFORE BEING PERMANENTLY FASTENED. DO NOT STRETCH OR CONTRACT SIDE LAP INTERLOCKS.
8. INSTALL DECK ENDS OVER SUPPORTING FRAMING WITH A MINIMUM END BEARING OF 1-1/2 INCHES.
9. CONTINUOUSLY SUPPORT DECK SIDE EDGES.
10. FASTEN TO SUPPORTING FRAMING WITHOUT WARP OR DEFLECTION WITH 5/8" PUDDLE WELDS OR MECHANICAL FASTENERS @ 12" OC, AND AT BEARING ENDS, AND AT EVERY OTHER TRANSVERSE FLUTE.
11. FASTEN AT SIDE LAPS @ 24" OC, WITH CORROSION-RESISTANT, HEXAGONAL WASHER HEAD; SELF-DRILLING, CARBON STEEL SCREWS, NO. 10 MINIMUM DIAMETER, OR APPROVED EQUAL.
12. PREPARE AND REPAIR DAMAGED GALVANIZED COATINGS ON BOTH SURFACES WITH GALVANIZED REPAIR PAINT ACCORDING TO ASTM A 780 AND THE MANUFACTURER'S INSTRUCTIONS.
13. DO NOT INSTALL WELD WASHERS FOR STEEL 22 GAGE OR THICKER.
14. PERIODIC SPECIAL INSPECTIONS OF STEEL DECK INSTALLATION SHALL BE REQUIRED IN ACCORDANCE WITH SDI QA/QC.

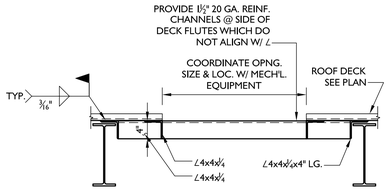
DESIGN CRITERIA

1. OUTPATIENT CLINIC RISK CATEGORY II.
2. WIND DESIGN: 115 MPH, EXPOSURE B

DESIGN WEIGHTS

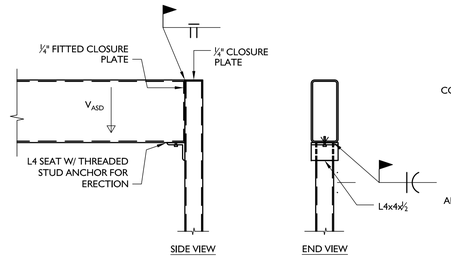
AREA				
COMPONENT	FIRST FLOOR SLAB ON GRADE	EXISTING ROOF	NEW ROOF	EXTERIOR WALLS
RIGID INSULATION (.25 PSF/PER INCH)			2	
BUILT UP MEMBRANE		2	2	
3.5" AVG GYPCRETE ON 1.5" FORMBOARD & BULB TEES		28		
STEEL ROOF DECK			2	
4" CONCRETE SLAB ON GRADE	50			
FLOOR FINISHES				
LIGHTS AND PLUMBING		5	5	
HVAC		5	5	
CEILING		2	2	
PARTITIONS	20		0	
TOTAL DEAD LOAD	70	42	18	
LIVE LOAD *	100	20	20	
TOTAL LOAD	170	62	38	

* not including areas of snow drift

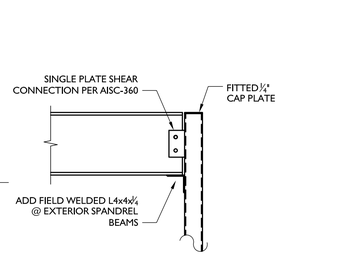


NOTE:
1. PROVIDE FRAME AT OPENING WHERE ANY DIMENSION EXCEEDS1'-0".
2. WHEN JOIST SPACING EXCEEDS 6'-0", VERIFY ALL ANGLE SIZE W/ ENGINEER.
3. WHERE ROOF STEEL SLOPES, CURB HEIGHTS MUST VARY TO PROVIDE A LEVEL SURFACE.
4. COORDINATE DIMENSIONS & LOCATIONS W/ ARCH'L. & MECH'L. DWGS.

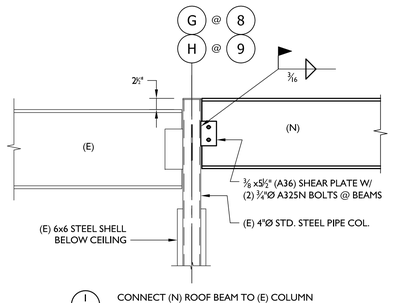
5 / S2.2 FRAMING AT ROOF OPENING
SCALE: N.T.S.



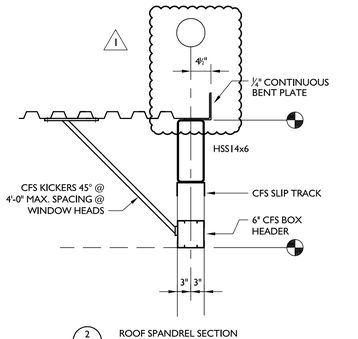
6 / S2.2 TYPICAL HSS SPANDREL TO HSS COLUMN CONNECTION
SCALE: 3/4"=1'-0"



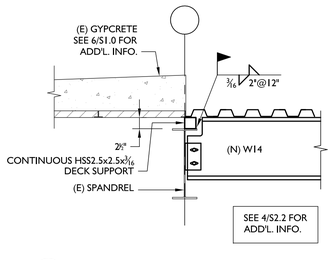
7 / S2.2 TYPICAL WIDE FLANGE GIRDER TO HSS COLUMN DETAIL
SCALE: 3/4"=1'-0"



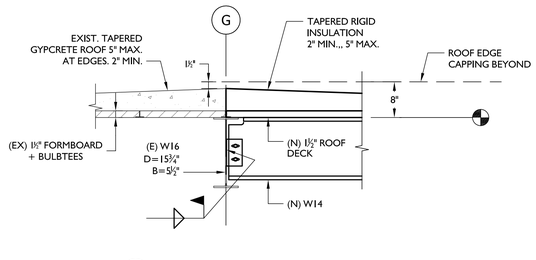
1 / S2.2 CONNECT (N) ROOF BEAM TO (E) COLUMN
SCALE: 3/4"=1'-0"



2 / S2.2 ROOF SPANDREL SECTION
SCALE: 3/4"=1'-0"



3 / S2.2 NEW ROOF FRAMING AT EXISTING LOW SPANDREL
SCALE: 3/4"=1'-0"



4 / S2.2 NEW ROOF FRAMING AT EXISTING SPANDREL
SCALE: 3/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS
	06/11/2019	REV 1

PHILADELPHIA MANETO

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CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
1515 ARCH STREET
11TH FLOOR, ONE PARKWAY BUILDING
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
FRAMING DETAILS AND NOTES

PROJECT NO:	DRAWING NO:
14-18-4745-01	S2.2
DATE: 05.30.2019	
DRAWN BY: SH	
CHECKED BY: AR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACFM	ACTUAL CUBIC FEET PER MINUTE
ACU	AIR COOLED CONDENSING UNIT
ACV	AIR VOLUME CONTROL VALVE
AD	ACCESS DOOR
AF	AIRFOIL
AFF	ABOVE FINISHED FLOOR
AFP	ROOM TEMPERATURE & AIRFLOW TRACKING PRESSURIZATION CONTROL PANEL
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AL	ACOUSTICAL LINING
AMB	AMBIENT
AMS	AIR FLOW MEASURING STATION
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
AVB	AIR VOLUME CONTROL BOX
AVG	AVERAGE
AVU	AIR VOLUME CONTROL UNIT
AWT	AVERAGE WATER TEMPERATURE
B OR BLR	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BDS	BLOWDOWN SEPARATOR
BDT	BOILER BLOWDOWN TANK
BFS	BOILER FEED SYSTEM
BHP	BRAKE HORSEPOWER OR BOILER HORSEPOWER
BI	BACKWARD INCLINED
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
C	CONVECTOR
CAP	CAPACITY
CAC	COMPUTER ROOM AIR CONDITIONING UNIT
CC	COOLING COIL
CCO	CAPPED CURB OPENING
CD	CEILING DIFFUSER
CE	CONSTANT AIR VOLUME EXHAUST UNIT
CEIL	CEILING
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CLG	COOLING
CMPR	COMPRESSOR
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTION
CONT	CONTINUATION
CP	CONDENSATE PUMP
CR	CONSTANT AIR VOLUME RETURN UNIT
CS	CONSTANT AIR VOLUME SUPPLY UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	AUTOMATIC CONTROL VALVE
(D)	DEMOLISH
D	DROP/DRAIN
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DI	DIGITAL INPUT
DIA	DIAMETER
DISCH	DISCHARGE
DN	DOWN
DO	DIGITAL OUTPUT
DRC	DRY COOLER
DS	DUAL INLET AIR VOLUME SUPPLY CONTROL UNIT
DSP	DEAERATOR, SURGE TANK & PUMP
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
DWG	DRAWING
(E) OR ETR	EXISTING TO REMAIN
EA	EXHAUST AIR OR EACH
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
ELEC	ELECTRIC
ELEV	ELEVATION
ENT	ENTERING
ER/EG	EXHAUST REGISTER/GRILLE
ERAD	ELECTRIC RADIATION
ERC	EXHAUST ENERGY RECOVERY COIL
ERU	ENERGY RECOVERY UNIT
ERW	ROTARY HEAT WHEEL
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EVC	EVAPORATIVE COOLER
EWB	ENTERING WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST	EXISTING
EXT	EXTERNAL
F&T	FLOAT AND THERMOSTATIC STEAM TRAP
FA	FACE AREA
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FD	FIRE DAMPER OR FLOOR DRAIN
FIN	FINAL
FLEX	FLEXIBLE
FLR	FLOOR
FLTR	FILTER
FM	FLOW METERING DEVICE
FO	FUEL OIL
FOB	FLAT ON BOTTOM
FOF	FUEL OIL FILL
FOO	FUEL OIL OVERFLOW
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY/SUCTION
FOT	FLAT ON TOP
FOV	FUEL OIL VENT
FPB	FAN POWERED AIR VOLUME CONTROL BOX
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FLASH TANK OR FOOT OR FEET
FTR	FINNED TUBE RADIATION
FUT	FUTURE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDIFIER
HAV	HEAT ACTUATED SHUTOFF VALVE
HC	HEATING COIL
HG	MERCURY
HO	HUB OUTLET
HP	HORSEPOWER
HPR	HEAT PUMP RETURN WATER
HPS	HEAT PUMP SUPPLY WATER
HTG	HEATING
HV	HEATING & VENTILATING UNIT
HWG	HOT WATER GENERATOR
HX	HEAT EXCHANGER
IB	INVERTED BUCKET STEAM TRAP
ID	INSIDE DIAMETER
IN	INCHES
INIT	INITIAL
INV	INVERT ELEVATION
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LD	LINEAR DIFFUSER
LDB	LEAVING DRY BULB TEMPERATURE
LF	LINEAR FOOT
LG	LINEAR GRILLE
LOC	LOCATION
LVG	LEAVING
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAI	MAKE-UP AIR INTAKE
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MER	MECHANICAL EQUIPMENT ROOM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM OR MINUTE
MOD	MOTOR OPERATED DAMPER
MXB	MIXING BOX
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OED	OPEN ENDED DUCT
OPNG	OPENING
OPRTNG	OPERATING
P	PUMP
PBD	PARALLEL BLADE DAMPER
PC	PUMPED CONDENSATE
PD	PRESSURE DROP
PFHX	PLATE & FRAME HEAT EXCHANGER
PHC	PREHEAT COIL
PLN	PLENUM
POS	POSITION
PR	WATER PRESSURE REDUCING VALVE
PRESS	PRESSURE
PRV	STEAM PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH-ABSOLUTE
PSIG	POUNDS PER SQUARE INCH-GAGE

SYMBOLS

- ø — DIAMETER
- OVAL
- BFP — BACK FLOW PREVENTOR ASSEMBLY
- DUPLEX STRAINER
- FLEXIBLE PIPING CONNECTOR
- FLOW CONTROL DEVICE
- M — FLOW METER
- PIPE ANCHOR
- PIPE CAP, DUCT CAP, OR BLIND FLANGE
- PIPE RISER UP AND DOWN OR ELBOW UP
- PIPE RISER OR ELBOW DOWN
- PRESSURE GAUGE (WATER) W/ SNUBBER AND NEEDLE VALVE
- PRESSURE GAUGE (STEAM) W/ SIPHON AND NEEDLE VALVE
- CAPPED PRESSURE GAUGE TAP W/ NEEDLE VALVE
- P/T — PRESSURE/TEMPERATURE TEST PLUG
- PUMP
- PSD — PUMP SUCTION DIFFUSER
- REDUCER OR INCREASER, CONCENTRIC
- REDUCER OR INCREASER, ECCENTRIC STRAIGHT CROWN OR INVERT AS SHOWN
- STEAM TRAP ASSEMBLY WITHOUT BYPASS; SEE DETAIL
- STEAM TRAP ASSEMBLY WITH BYPASS; SEE DETAIL
- T — STEAM TRAP
- THERMOMETER
- THERMOMETER WELL ONLY
- UNION OR PAIR OF FLANGES
- V — VACUUM BREAKER
- AUTOMATIC AIR VENT W/ SHUTOFF VALVE, PIPE TO DRAIN
- M — 1/2" MANUAL AIR OR STEAM VENT W/ SHUTOFF VALVE AND CAP

- 2 WAY CONTROL VALVE
- 3 WAY CONTROL VALVE
- CALIBRATED BALANCING VALVE
- BOILER BLOWDOWN VALVE
- CHECK VALVE
- NS — NONSLAM CHECK VALVE
- DRAIN VALVE W/ CAPPED HOSE END OR NIPPLE, 3/4" UNLESS OTHERWISE SPECIFIED
- LOCK SHIELD SHUTOFF VALVE
- NEEDLE VALVE
- PRESSURE REDUCING OR REGULATING VALVE
- SAFETY RELIEF VALVE
- SAFETY RELIEF VALVE W/ DRIP PAN ELBOW; SEE DETAILS
- SHUTOFF VALVE
- HEAT ACTUATED SHUTOF VALVE
- SOLENOID VALVE
- STOP AND CHECK VALVE
- THROTTLING VALVE
- TRIPLE-DUTY VALVE
- Y-TYPE STRAINER W/ CAPPED HOSE END OR NIPPLE
- Y-TYPE STRAINER W/ TAPPING SIZE SHUTOFF VALVE TO 1" W/ CAPPED HOSE END OR NIPPLE
- RETURN AIR REGISTER/GRILLE
- EXHAUST AIR REGISTER/GRILLE
- CEILING DIFFUSER-DIFFUSER NECK SIZE, AIR QUANTITY & DIRECTION OF BLOW AS NOTED
- CONNECTION OF FLEXIBLE ROUND DUCT TO RECTANGULAR DUCT
- MANUAL VOLUME DAMPER
- FLEXIBLE DUCT CONNECTION
- SUPPLY AIR DUCT UP/DOWN

- EXHAUST DUCT UP/DOWN
- RETURN DUCT UP/DOWN
- SD — SMOKE DAMPER W/ ACCESS DOOR
- DUCT ACCESS DOOR
- R — DUCT RISE
- D — DUCT DROP
- U — UNDERCUT DOOR
- L — DOOR LOUVER
- MOD — MOTORIZED DAMPER W/ ACCESS DOOR
- BDD — GRAVITY BACKDRAFT DAMPER W/ ACCESS DOOR
- DUCT-MOUNTED REHEAT COIL
- AIR CONTROL DEVICE
  PROVIDE TRANSITIONS BETWEEN COMPONENTS
  SEE SCHEDULES FOR COMPONENTS
  ACCESS SPACE SHOWN DOTTED-DO NOT BLOCK W/ PIPING, CONDUITS, DUCTWORK, ETC.
  (ACCESS SPACE IS FROM CEILING TO TOP OF AIR CONTROL DEVICE-COORDINATE WITH ALL TRADES)
- CO_2 — SPACE CO2 SENSOR
- DP — ROOM PRESSURE MONITOR (OR'S AND ISOLATION ROOMS)
- T — SPACE THERMOSTAT OR SPACE TEMPERATURE SENSOR
- T_N — NIGHT THERMOSTAT OR SPACE TEMPERATURE SENSOR
- SD — SMOKE DETECTOR W/ DUCT ACCESS DOOR
- TT — TEMPERATURE TRANSMITTER
- HT — HUMIDITY TRANSMITTER
- DPSE — DIFFERENTIAL PRESSURE TRANSMITTER - WATER
- DPT — DIFFERENTIAL PRESSURE TRANSMITTER - WATER
- SW — FAN SPEED SWITCH
- OS — OCCUPANCY SENSOR
- PT — PRESSURE TRANSMITTER
- H — SPACE HUMIDISTAT OR SPACE HUMIDITY SENSOR

- THERMOSTATIC AIR VENT W/ SHUTOFF VALVE, PIPE TO DRAIN
- V — VALVE IN PIPE RISER IN PIPE DOWN
- V — VALVE IN PIPE RISER
- FD — FIRE DAMPER W/ ACCESS DOOR
- FD/SD — COMBINATION FIRE/SMOKE DAMPER W/ ACCESS DOOR
- SPT — STATIC PRESSURE TRANSMITTER - AIR W/ DUCT ACCESS DOOR
- POINT OF CONNECTION NEW-TO-EXISTING
- EXTENT OF DEMOLITION-TO-EXISTING WORK TO REMAIN
- SECTION LETTER
  DRAWING NUMBER WHERE SECTION IS DRAWN
- EQUIPMENT DESIGNATION-REFER TO SCHEDULES

QTY	QUANTITY
(R)	RELOCATE
R	RISE
RA	RETURN OR RELIEF AIR
RCP	RADIANT CEILING PANEL
RET	RETURN
REV	REVISION
RF	RETURN FAN
RH	RELIEF HOOD OR RELATIVE HUMIDITY
RHC	REHEAT COIL
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR/RG	RETURN REGISTER/GRILLE
RV	RELIEF VALVE
SA	SUPPLY AIR
SCP	STEAM CONDENSATE PUMP
SD	SMOKE DAMPER OR DETECTOR
SEC	SECOND
SENS	SENSIBLE
SF	SUPPLY FAN
SO	SCREENED OPENING
SP	STATIC PRESSURE IN WG
SPD	STEAM PRESSURE DROP
SR/SG	SUPPLY REGISTER/GRILLE
SRC	SUPPLY ENERGY RECOVERY COIL
SRV	SAFETY RELIEF VALVE
SSF	SIDESTREAM FILTER
ST	SOUND ATTENUATOR
STM	STEAM
SUP	SUPPLY
TD	THERMODYNAMIC STEAM TRAP
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TOT	TOTAL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VD	MANUAL VOLUME DAMPER
VE	VARIABLE AIR VOLUME EXHAUST UNIT
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIV	VARIABLE INLET VALVES
VR	VARIABLE AIR VOLUME RETURN UNIT
VS	VARIABLE AIR VOLUME SUPPLY UNIT
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WB	WET BULB
WCU	WATER COOLED CONDENSING UNIT
WG	WATER GAUGE
WHP	WATER SOURCE HEAT PUMP
WMS	WIRE MESH SCREEN
WPD	WATER PRESSURE DROP

GENERAL NOTES

1. ACCESSORIES & DEVICES: FLOW DIAGRAMS, EQUIPMENT COMPONENT DIAGRAMS & FLOOR PLANS DO NOT SHOW ALL ACCESSORIES AND DEVICES AT EQUIPMENT. PROVIDE AS SPECIFIED AND AS SHOWN ON DETAIL DRAWINGS.
2. OPENINGS: COORDINATE THE SIZE AND LOCATION OF ALL WALL, FLOOR AND ROOF OPENINGS REQUIRED WITH THE GENERAL CONTRACTOR.
3. RISES AND DROPS: ALL REQUIRED DUCT & PIPING RISES & DROPS MAY NOT BE SHOWN. PROVIDE ALL RISES AND DROPS AS REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.
4. REVIEW AND REFERENCE: REVIEW & REFER TO ALL MECHANICAL (HVAC), PLUMBING, ELECTRICAL, & STRUCTURAL DRAWINGS SHOWING ORIGINAL DESIGN AND/OR EXISTING CONDITIONS IN THE BUILDING BEFORE THE START OF ANY NEW WORK.
5. EXISTING SYSTEM SHUTDOWNS: CLOSELY COORDINATE SHUTDOWNS WITH THE OWNER AND OBTAIN WRITTEN PERMISSION NOT LESS THAN TWO WEEKS AHEAD OF TIME.
6. EXISTING CONDITIONS & DIMENSIONS: CHECK & VERIFY EXISTING CONDITIONS & DIMENSIONS IN THE BUILDING BEFORE THE START OF ANY NEW WORK. NEW DUCTWORK & PIPING SHALL NOT BE FABRICATED BEFORE THIS IS DONE & SUBMITTALS REVIEWED.

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL SURVEY AND VERIFY EXISTING CONDITIONS PRIOR TO BIDDING AND COMMENCEMENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR REPORTING UPON DISCOVERY OF ANY CONDITIONS THAT VARY FROM THE CONSTRUCTION DOCUMENTS OR A POSSIBLE CAUSE FOR CHANGE IN THE WORK SCOPE TO THE OWNER AND ENGINEER.
2. CONTRACTOR SHALL PATCH ALL HOLES IN ROOF, WALLS AND FLOORS RESULTING FROM REMOVAL OF ABANDONED OR REMOVED EQUIPMENT, PIPING, DUCTWORK, CONDUIT/WIRING, ETC. ALL PATCHING WORK SHALL PROVIDE FIRE RATING AND FIRE STOPPING AT PARTITION AND FLOOR ASSEMBLIES AS REQUIRED BY BUILDING CODES.
3. CONTRACTOR SHALL FORM NEW OPENINGS AND PATCH ALL HOLES IN ROOF, WALLS AND FLOORS RESULTING FROM INSTALLATION OF NEW WORK. ALL PATCHING WORK SHALL PROVIDE FIRE RATING AND FIRE STOPPING AT EXISTING AND NEW PARTITION AND FLOOR ASSEMBLIES AS REQUIRED BY BUILDING CODES.
4. PATCH ROOF WITH LIKE MATERIALS AND BY CONTRACTOR APPROVED TO MAINTAIN WARRANTY ON EXISTING ROOFING SYSTEM.
5. CONTRACTOR SHALL REMOVE ALL MATERIALS IN A SAFE WORKMANLIKE MANNER AND LEGALLY DISPOSE OF ALL DEMOLISHED MATERIALS OFF SITE.

APPLICABLE CODES

Contractor to adhere to all applicable codes:

International Mechanical Code 2018
International Energy Conservation Code 2018
Philadelphia Existing Building Code 2018

LINE DESIGNATIONS

BBD	BOILER BLOWDOWN (INTERMITTENT OR OR CONTINUOUS)
BFW	BOILER FEEDWATER
CF	CHEMICAL FEED
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CTR	WATER RETURN (TO OPEN COOLING TOWER)
CTS	WATER SUPPLY (FROM OPEN COOLING TOWER)
CWR	CONDENSER WATER RETURN (TO CLOSED COOLING TOWER)
CWS	CONDENSER WATER SUPPLY (FROM CLOSED COOLING TOWER)
D	DRAIN
DCW	DOMESTIC COLD WATER
DTWR	DUAL TEMPERATURE WATER RETURN
DTWS	DUAL TEMPERATURE WATER SUPPLY
FOG	FUEL OIL GAUGE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY/SUCTION
FOV	FUEL OIL VENT
G	GAS
HPS	HEAT PUMP SUPPLY
HPR	HEAT PUMP RETURN
HTHWR	HIGH TEMPERATURE HOT WATER RETURN
HTHWS	HIGH TEMPERATURE HOT WATER SUPPLY
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM (0-15 PSIG)
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM (16-50 PSIG)
MW	MAKE UP WATER
PC	PUMPED CONDENSATE
PCHWR	PRIMARY CHILLED WATER RETURN
PCHWS	PRIMARY CHILLED WATER SUPPLY
PCWS	PROCESS COOLING WATER SUPPLY
PCWR	PROCESS COOLING WATER RETURN
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RV	REFRIGERANT VENT
V	VENT

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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CONSULTANT:

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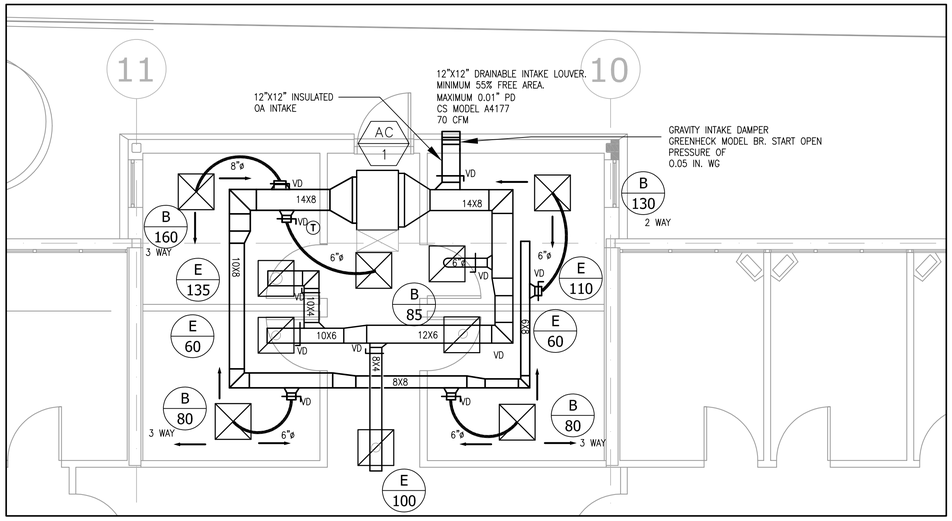
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
1515 ARCH STREET
11TH FLOOR, ONE PARKWAY BUILDING
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

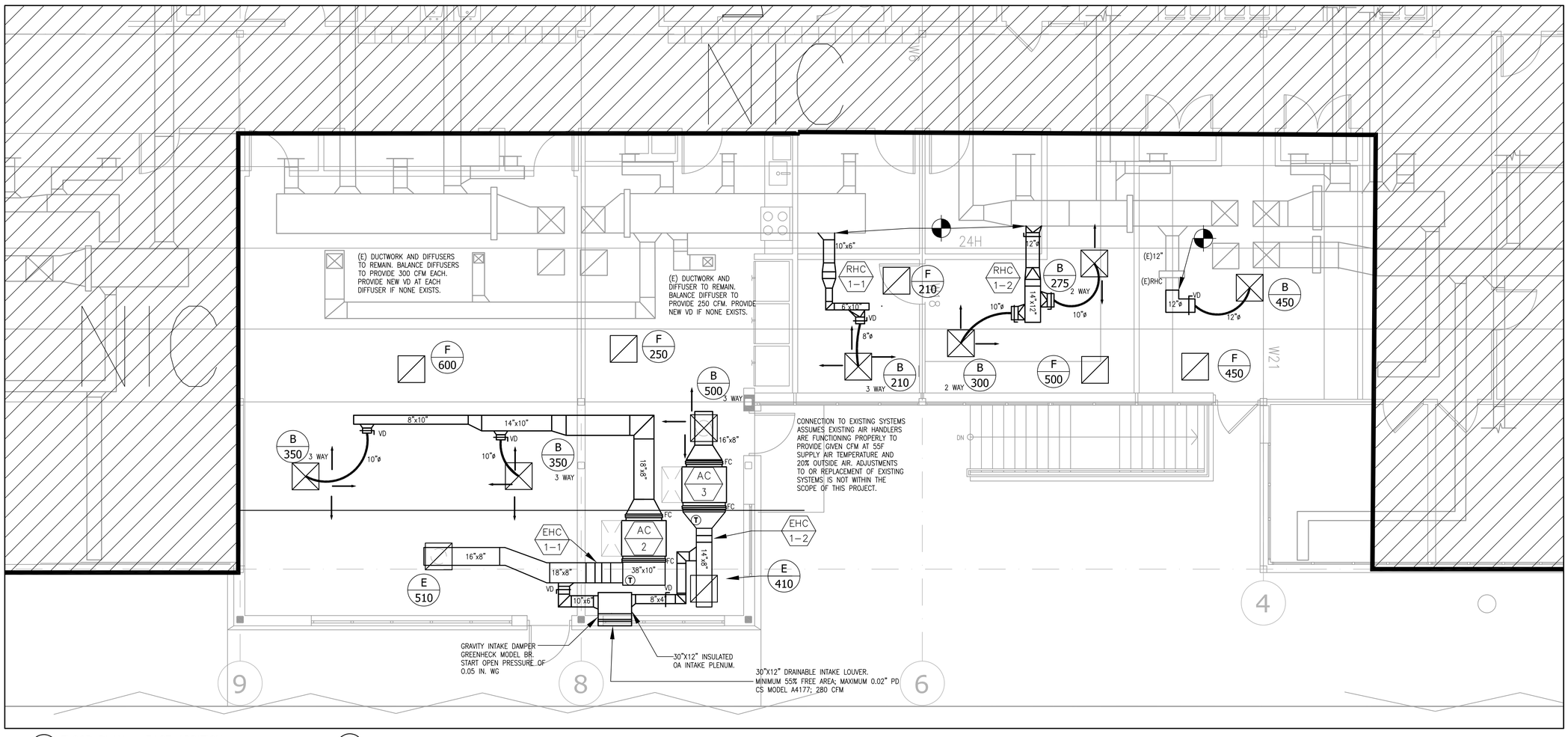
DRAWING TITLE:
HVAC SYMBOLS AND ABBREVIATIONS

PROJECT NO: 14-18-4745-01	DRAWING NO: M-0.0
DATE: 04/30/2019	
DRAWN BY: KI	
CHECKED BY: CR	FILE PATH/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 FLOOR PLAN – WEST ADDITION
M-1.1 Scale: 1/4"=1'-0"



2 FLOOR PLAN – EAST ADDITION
M-1.1 Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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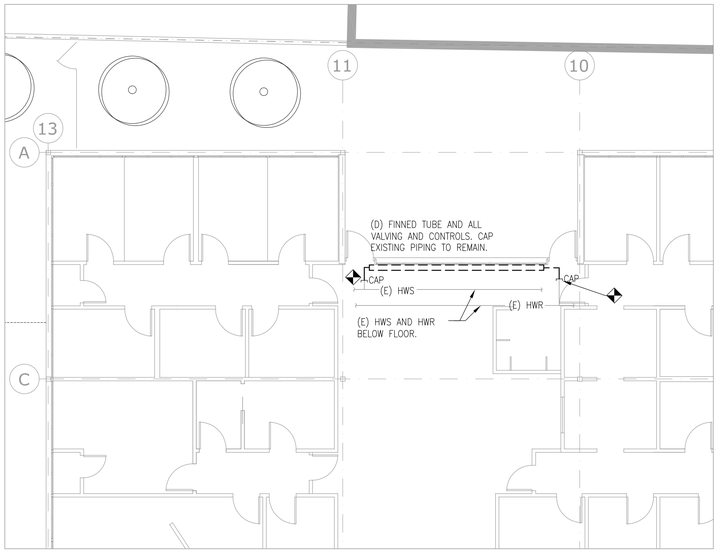
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

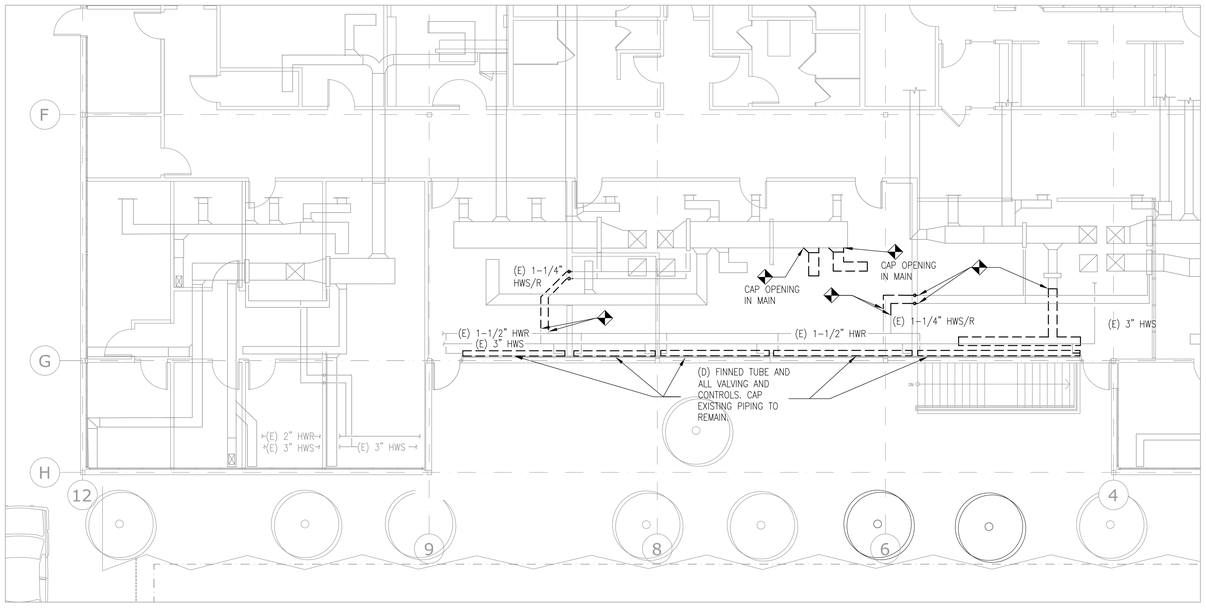
DRAWING TITLE:
HVAC FIRST FLOOR DUCTWORK PLANS

PROJECT NO: 14-18-4745-01	DRAWING NO: M–1.1
DATE: 04/30/2019	
DRAWN BY: KI	
CHECKED BY: CR	FILE PATH/

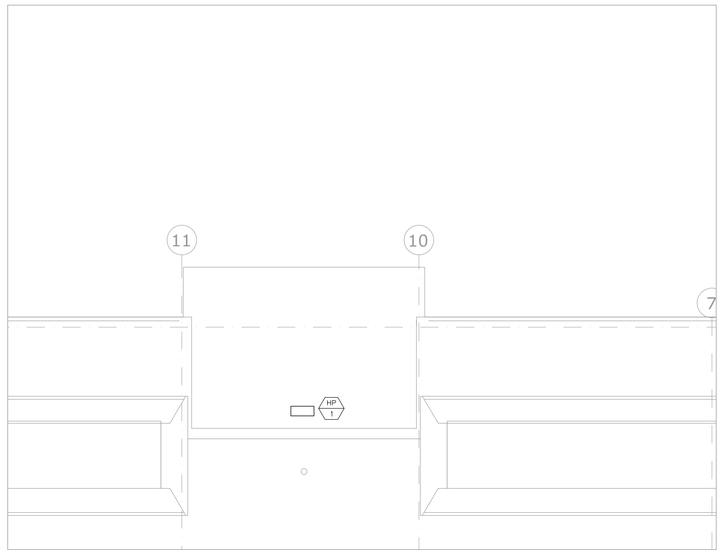
NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



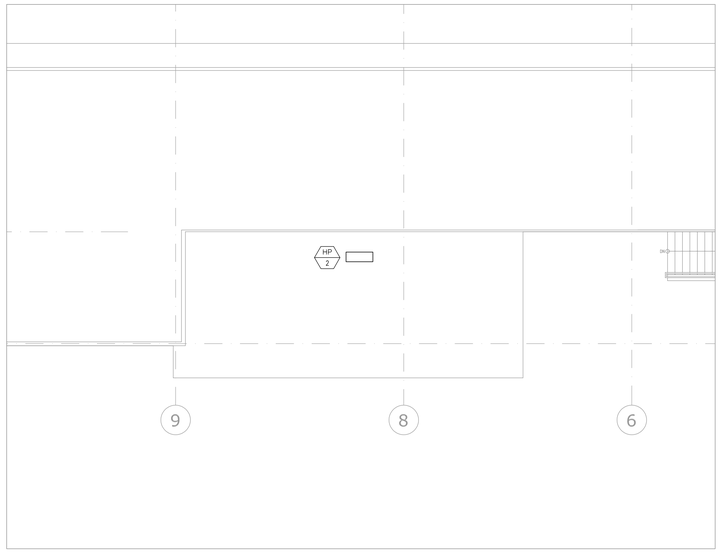
1 HVAC FLOOR PLAN– FIRST FLOOR WEST DEMOLITION
M-1.2 Scale: 1/8"=1'-0"



2 HVAC FLOOR PLAN– FIRST FLOOR EAST DEMOLITION
M-1.2 Scale: 1/8"=1'-0"



3 HVAC FLOOR PLAN– ROOF WEST
M-1.2 Scale: 1/8"=1'-0"



4 HVAC FLOOR PLAN– ROOF EAST
M-1.2 Scale: 1/8"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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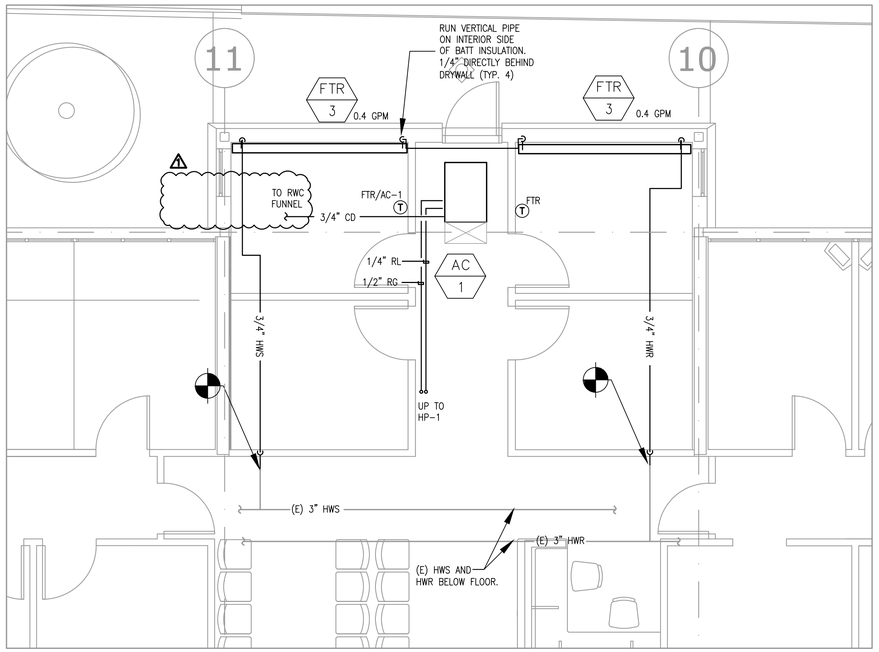
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

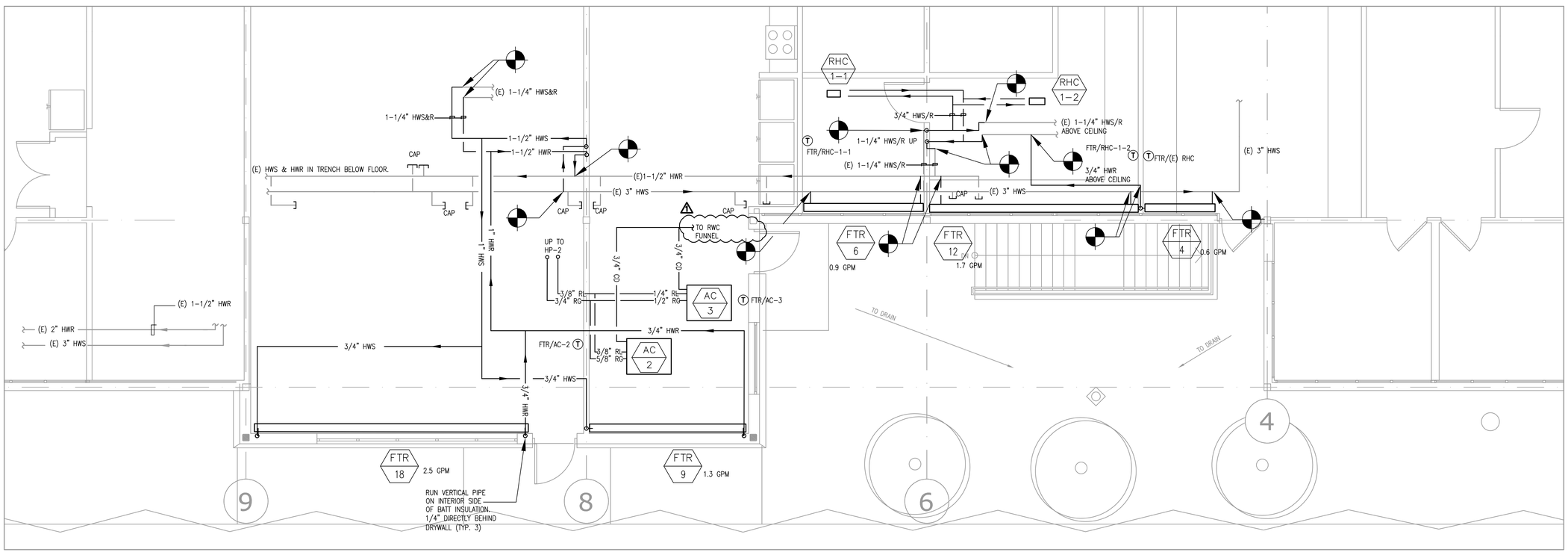
DRAWING TITLE:
HVAC ROOF AND
DEMOLITION PLANS

PROJECT NO: 14–18–4745–01	DRAWING NO: M–1.2
DATE: 04/30/2019	
DRAWN BY: KI	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 / M-1.3 FLOOR PLAN – WEST ADDITION
Scale: 1/4"=1'-0"



2 / M-1.3 FLOOR PLAN – EAST ADDITION
Scale: 1/4"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS
1	05-30-19	

PHILADELPHIA MANETO

PROJECT COORDINATOR:

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CONSULTANT:

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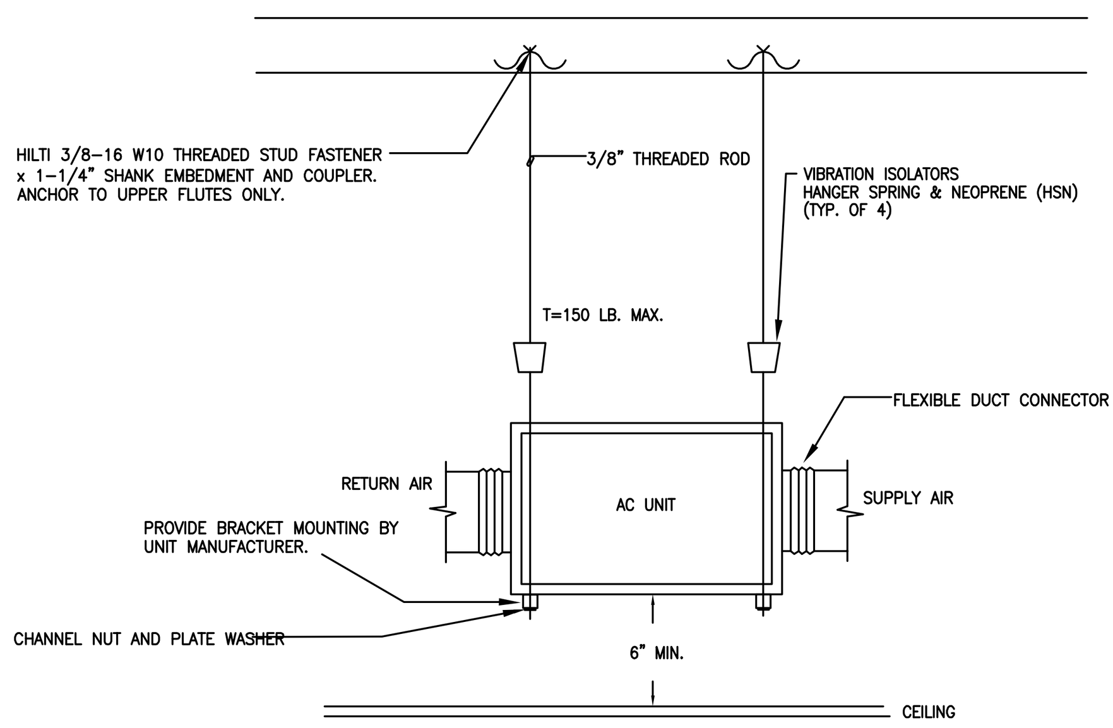
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

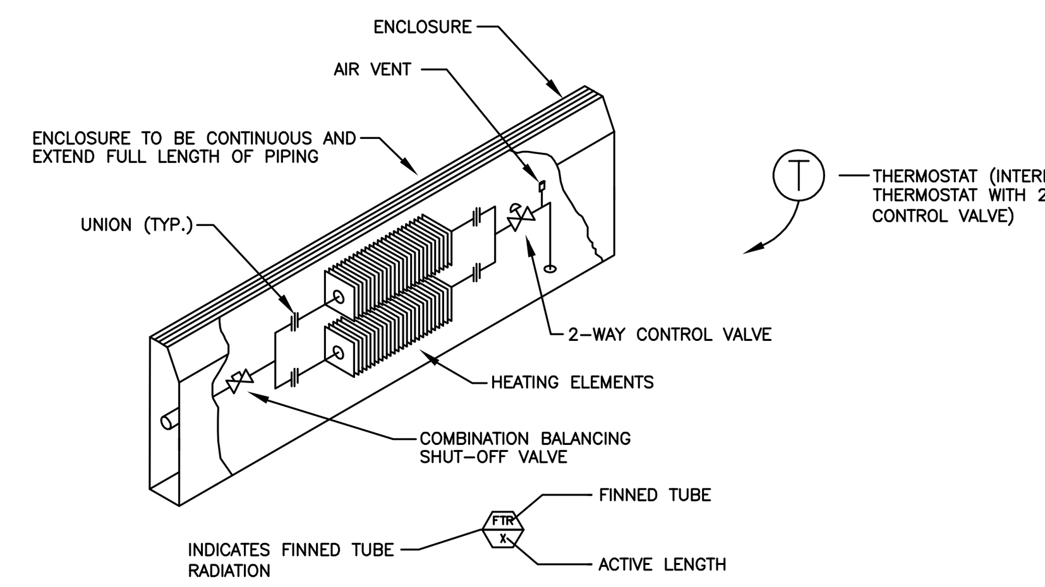
DRAWING TITLE:
HVAC FIRST FLOOR PIPING PLANS

PROJECT NO: 14-18-4745-01	DRAWING NO: M-1.3
DATE: 04/30/2019	
DRAWN BY: KI	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



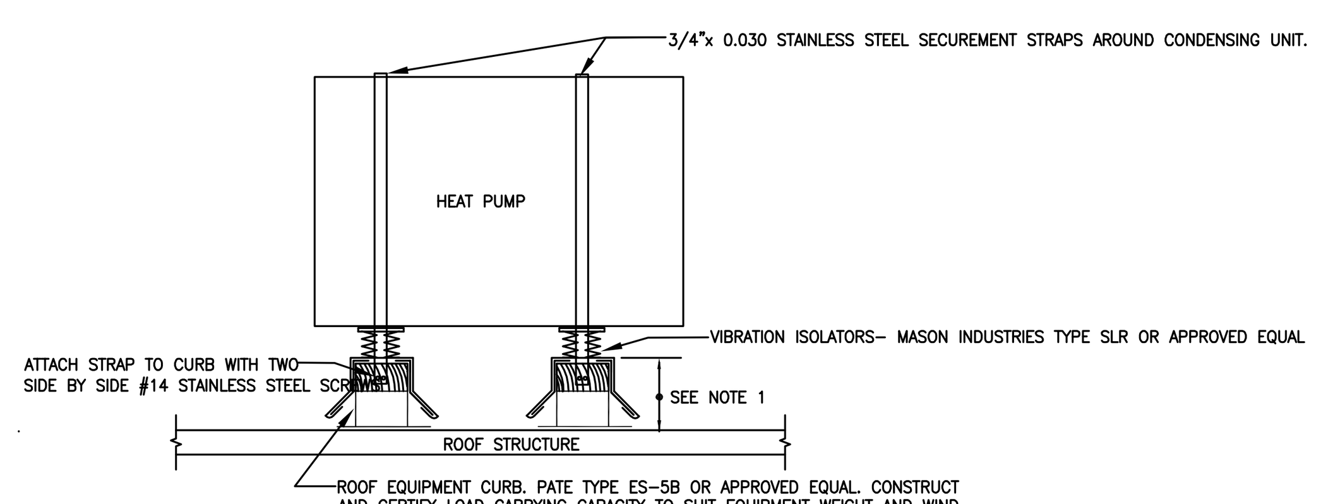
12 INDOOR AC SUPPORT DETAIL
NTS



FTR NOTES:

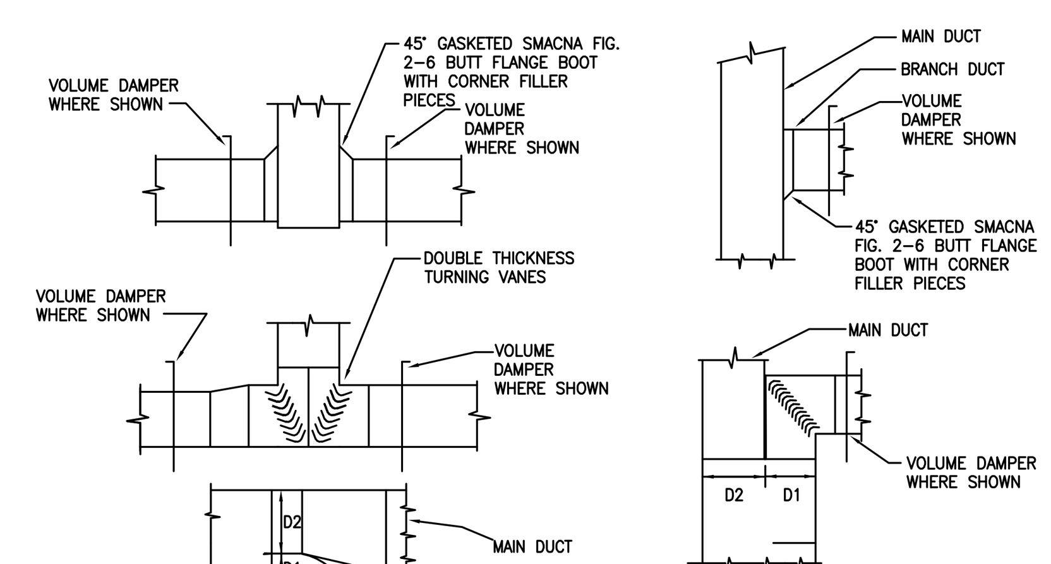
1. FOR FINNED TUBE RADIATORS PIPED IN SERIES PROVIDE 2-WAY CONTROL VALVE AND AIR VENT AT HWR CONNECTION TO LAST ELEMENT IN SERIES. PROVIDE BALANCING AND BALL VALVE AT HWS INLET OF FIRST ELEMENT IN SERIES. PROVIDE UNIONS AROUND EACH ELEMENT.

9 FIN TUBE RADIATION



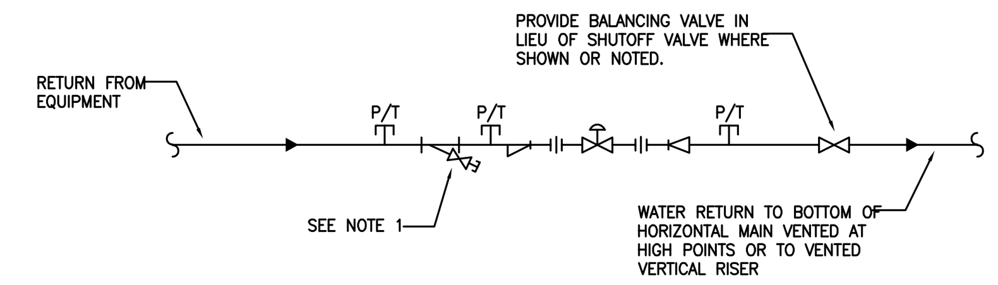
NOTES: 1. HEIGHT OF EQUIPMENT CURB MIN 24" ABOVE FINISHED SURFACE OF ROOFING OR BALLAST AS APPLICABLE.

10 ROOF MOUNTED CONDENSING UNIT



NOTES: 1. SELECTION OF TYPE OF BRANCH CONNECTION IS AT CONTRACTOR'S OPTION FOR SINGLE LINE DUCTWORK.
2. SIZE D1 AND D2 PROPORTIONAL TO AIR FLOW.

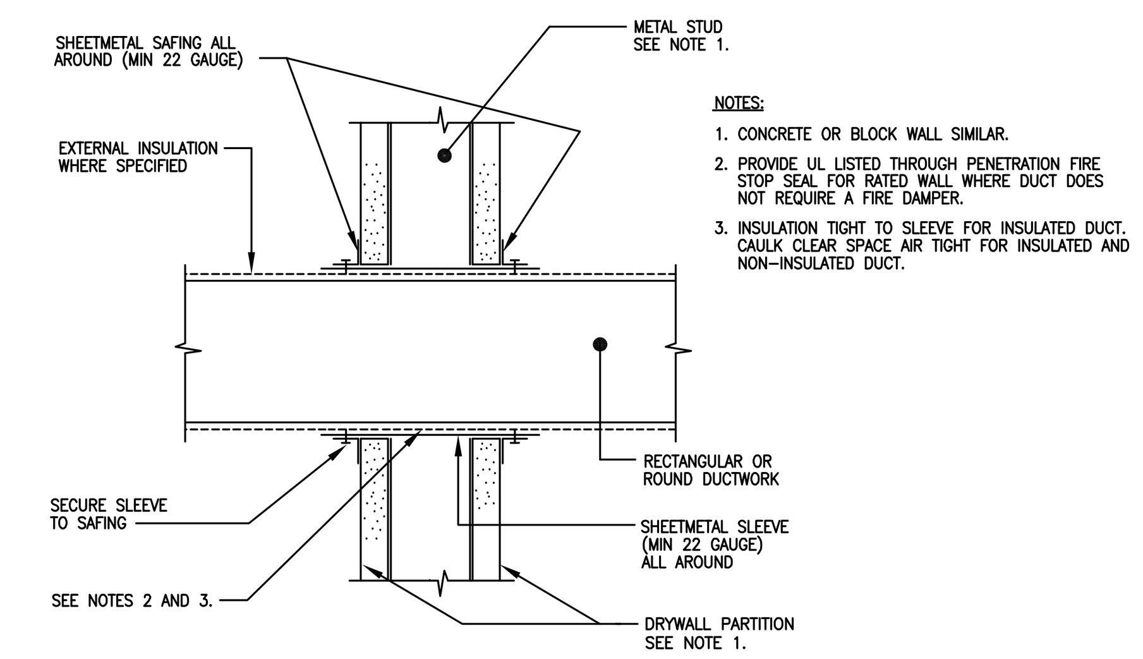
11 RECTANGULAR BRANCH DUCT CONNECTIONS



NOTES:

1. OMIT STRAINER AND ITS INLET P/T PLUG IF SUPPLY TO EQUIPMENT INCLUDES A STRAINER.
2. PROVIDE ADDITIONAL VALVES AND/OR ACCESSORIES AS SHOWN ON PLANS, FLOW DIAGRAMS, DETAILS.
3. THE SYMBOL (control valve symbol) IN WATER PIPING ON DRAWINGS OR DETAILS INDICATES CONTROL VALVE TO BE INSTALLED AS SHOWN ON THIS DETAIL.

6 TWO WAY WATER CONTROL VALVE PIPING



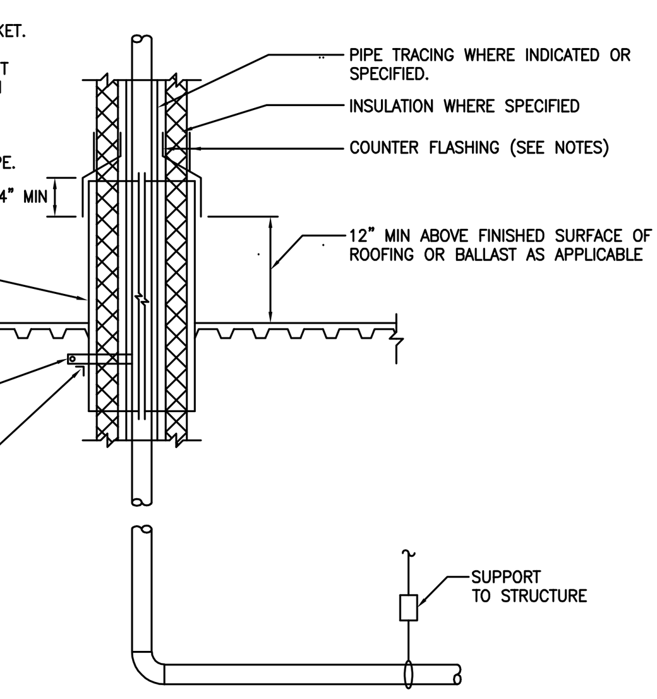
NOTES:

1. CONCRETE OR BLOCK WALL SIMILAR.
2. PROVIDE UL LISTED THROUGH PENETRATION FIRE STOP SEAL FOR RATED WALL WHERE DUCT DOES NOT REQUIRE A FIRE DAMPER.
3. INSULATION TIGHT TO SLEEVE FOR INSULATED DUCT. CAULK CLEAR SPACE AIR TIGHT FOR INSULATED AND NON-INSULATED DUCT.

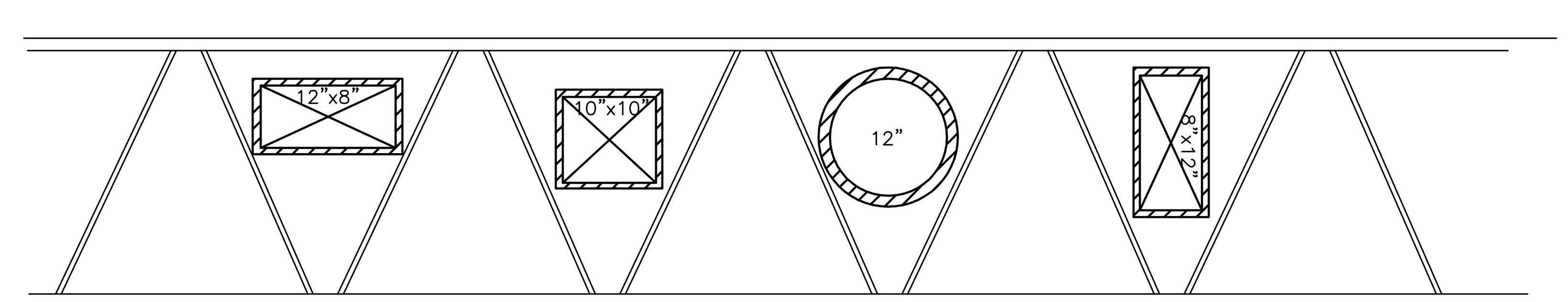
7 DUCT PENETRATION THRU WALL W/O FIRE DAMPER

NOTES:

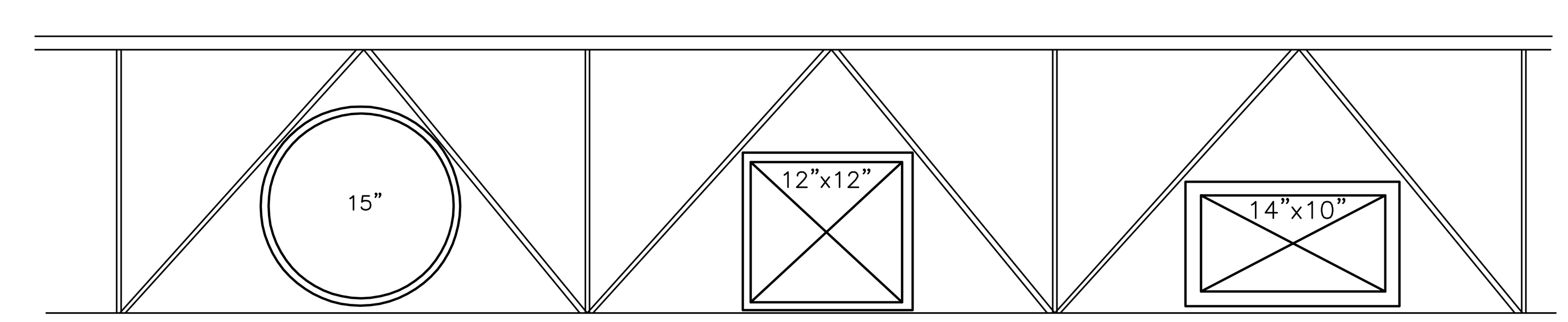
1. FOR INSULATION WITH A METAL JACKET, SECURE FLASHING WATER TIGHT TO JACKET.
2. FOR ELASTOMERIC INSULATION, SECURE COUNTER FLASHING WATER TIGHT DIRECTLY TO PIPE AND SEAL INSULATION WATER TIGHT TO TOP AND BOTTOM OF COUNTER FLASHING.
3. FOR UNINSULATED PIPING, SECURE COUNTER FLASHING WATER TIGHT TO PIPE.



8 PIPE PENETRATION THROUGH ROOF

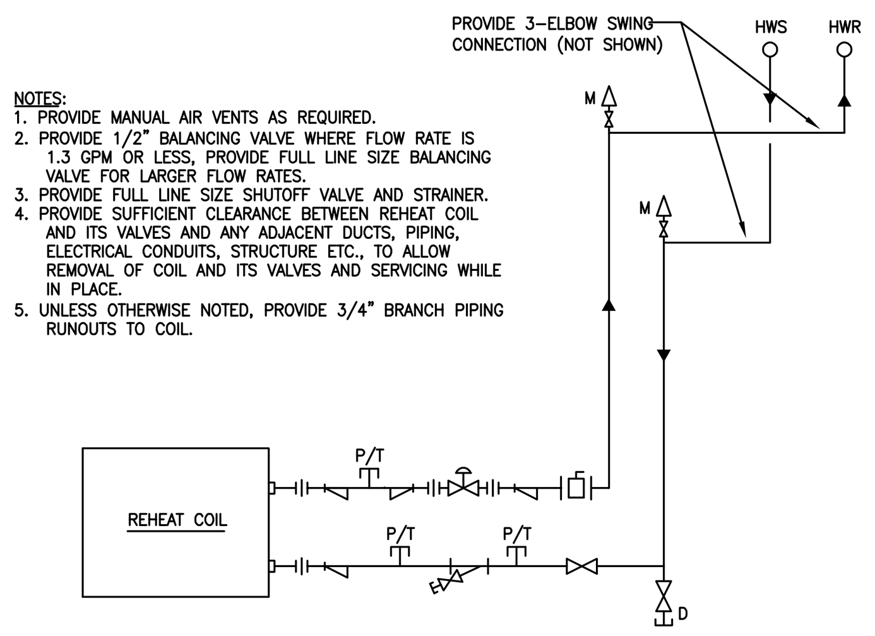


4 TYPICAL SECTION THRU 24H OPEN WEB JOISTS
(MAXIMUM DUCT SIZES SHOWN)



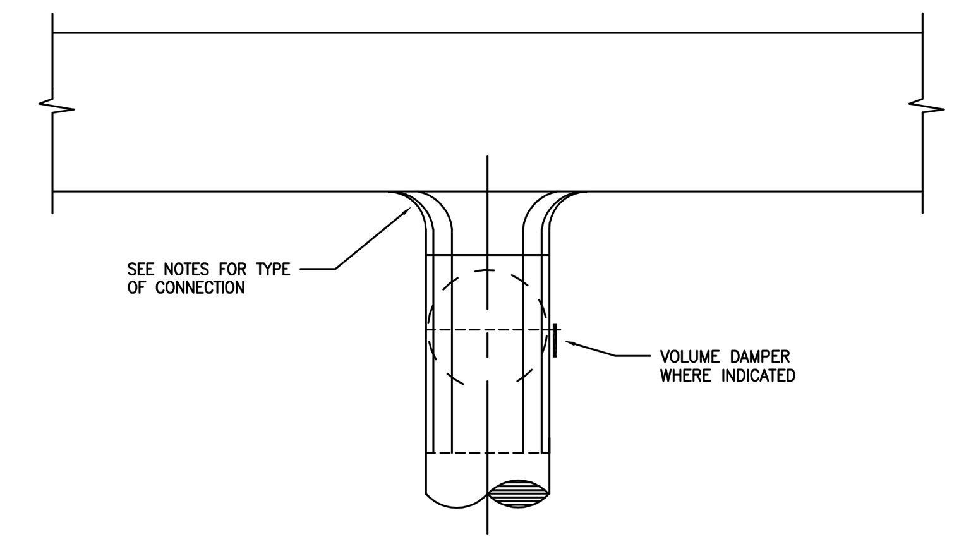
5 TYPICAL SECTION THRU 24LH OPEN WEB JOISTS
(MAXIMUM DUCT SIZES SHOWN)

NOTES:
1. PROVIDE MANUAL AIR VENTS AS REQUIRED.
2. PROVIDE 1/2" BALANCING VALVE WHERE FLOW RATE IS 1.3 GPM OR LESS, PROVIDE FULL LINE SIZE BALANCING VALVE FOR LARGER FLOW RATES.
3. PROVIDE FULL LINE SIZE SHUTOFF VALVE AND STRAINER.
4. PROVIDE SUFFICIENT CLEARANCE BETWEEN REHEAT COIL AND ITS VALVES AND ANY ADJACENT DUCTS, PIPING, ELECTRICAL CONDUITS, STRUCTURE ETC., TO ALLOW REMOVAL OF COIL AND ITS VALVES AND SERVICING WHILE IN PLACE.
5. UNLESS OTHERWISE NOTED, PROVIDE 3/4" BRANCH PIPING RUNOUTS TO COIL.

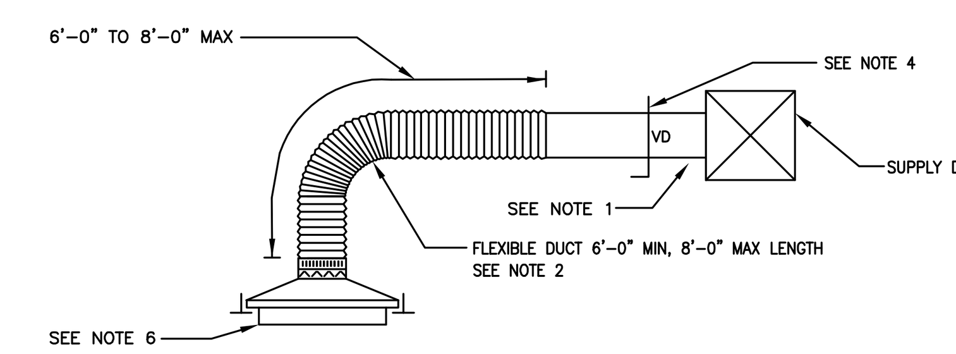


1 HOT WATER REHEAT COIL PIPING – 2 WAY CONTROL VALVE
CEILING DUCT OR AIR VOLUME CONTROL BOX MOUNTED

NOTES:
1. LOW PRESSURE ROUND TO RECTANGULAR (2" WG OR LESS STATIC PRESSURE): GASKETED BELL MOUTH (SHOWN) OR HETO FITTING AT CONTRACTOR'S OPTION, EXCEPT AS NOTED IN NOTE 3 BELOW. CAULK SPIN IN AIR TIGHT.
2. MEDIUM AND HIGH PRESSURE ROUND TO RECTANGULAR (GREATER THAN 2" WG STATIC PRESSURE): GASKETED BELL MOUTH CONNECTION ONLY, EXCEPT AS NOTED IN NOTE 3.
3. WHERE RECTANGULAR DIMENSION IS NOT LARGE ENOUGH FOR 1 AND 2 ABOVE WITHOUT BENDING FLANGES, EITHER INCREASE DUCT DIMENSION OR PROVIDE EQUIVALENT AREA RECTANGULAR 45° SMACNA BOOT CONNECTION WITH CORNER FILLER PIECES AND RECTANGULAR TO ROUND TRANSITION.
4. ROUND TO ROUND (ALL PRESSURES): CONICAL TEE



2 ROUND BRANCH DUCT CONNECTIONS



NOTES:
1. SIDE BRANCH CONNECTION SHOWN. USE SIMILARLY ARRANGED TOP OR BOTTOM CONNECTION AS REQUIRED. SEE BRANCH CONNECTION DETAILS.
2. SUPPORT FLEXIBLE DUCT AT 2'-0" OC MAX. CLAMPS AND HANGERS NOT SHOWN.
3. PROVIDE SHEET METAL TRANSITION AS REQUIRED BETWEEN FLEXIBLE DUCT AND DIFFUSER COLLAR IF DIFFUSER DOES NOT HAVE ROUND CONNECTION.
4. PROVIDE CEILING ACCESS DOOR WHERE VD IS LOCATED ABOVE INACCESSIBLE CEILING. COORDINATE LOCATIONS WITH REFLECTED CEILING PLAN. ARRANGE DUCTWORK LAYOUT TO ALIGN DAMPER WITH COORDINATED ACCESS DOOR LOCATION.
5. DIFFUSER SHOWN, REGISTER OR GRILLE SIMILAR.
6. PROVIDE BORDER STYLE AND DIFFUSER FACE COMPATIBLE WITH CEILING SYSTEM.
7. ROUND BRANCH DUCT SHOWN. RECTANGULAR BRANCH DUCT SIMILAR WITH APPROPRIATE CONNECTIONS/TRANSITIONS.

3 CEILING SUPPLY DIFFUSER, REGISTER AND GRILLE INSTALLATION

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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1515 ARCH STREET
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PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
HVAC DETAILS

PROJECT NO: 14-18-4745-01
DRAWING NO: M-2.1
DATE: 04/30/2019
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NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

HEAT PUMP UNIT SCHEDULE

HP XXX

TAG NO	LOCATION	SERVICE	MIN TONS	MINIMUM IEER	REFRIG	AMBIENT AIR °F CLG MAX	CLG BTUH	AMBIENT AIR °F HTG MIN	HTG BTUH	COMPRESSER DATA QTY	COMPRESSER DATA TYPE	COMPRESSER DATA CAPACITY CONTROL	COMPRESSER DATA RLA	ELECTRICAL SERVICE V/PH	ELECTRICAL SERVICE MCA	ELECTRICAL SERVICE MOCP	DISCONNECT BY	STARTER BY	BASIS OF DESIGN
HP-1	NEW ROOF-WEST	AC-1	1.5	17.5	410-A	95	18,000	10	20,000	1	INVERTER	35-100%	7.1	230/1	16.5	20	DIV. 23	DIV. 23	DAIKIN RZQ18PVJU9
HP-2	NEW ROOF-EAST	AC-2, AC-3	5	18	410-A	95	53,365	10	46,725	1	INVERTER	35-100%	23.2	230/1	29.1	35	DIV. 23	DIV. 23	DAIKIN RXTQ60TAJU

PROVIDE UNIT MOUNTED DISCONNECT SWITCH, LOW AMBIENT WIND BAFFLE AND DRAIN PAN HEATER.

INDOOR AC UNIT

AC XXX

TAG NO	LOCATION	SERVICE	TYPE	SENSIBLE COOLING CAPACITY BTU/HR	COOLING EAT DB/WB °F	HEATING CAPACITY BTU/HR	HEATING EAT DB °F	FAN AIRFLOW CFM	FAN ESP IN WG	ELEC CONN	MIN. CIRCUIT AMPS	BASIS OF DESIGN
AC-1	HALL 181A CEILING	OFFICES	DUCTED CONCEALED	10,500	77.5/64.3	20,000	61	535	0.5	230/1/60	1.6	DAIKIN FBQ18PVJU
AC-2	RM 170A CEILING	TRAINING RM 170	DUCTED CONCEALED	16,040	78/65.5	29,340	62	700	0.6	230/1/60	1.8	DAIKIN FXSQ24TAVJU
AC-3	RM 170A CEILING	RM 170A	DUCTED CONCEALED	12,175	76.5/64.1	21,840	62	500	0.6	230/1/60	1.6	DAIKIN FXSQ18TAVJU

NOTES:
1. PROVIDE WALL MOUNTED, WIRED, BACNET COMPATIBLE CONTROLLER
2. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE MERV 13 FILTER KIT
4. PROVIDE INTEGRAL CONDENSATE PUMP

FIN TUBE RADIATION SCHEDULE

FTR XXX

TAG NO	LOCATION	SERVICE	TUBE SIZE (IN.)	FIN SIZE (IN.)	FINS PER FT.	TIERS	INSTALLED HEIGHT (IN.)	ELEMENT LENGTH (FT.)	BTUH PER LF	GPM	EWT	BASIS OF DESIGN
FTR-X	ROUND GRILLE LOW PROFILE	OFFICES	3/4	2-3/4x4	40	2	18	SEE PLANS	1400	SEE PLANS	190	RITTLING MODEL FR3

NOTES:
1. COLOR TO BE APPROVED BY ARCHITECT.
2. PROVIDE CONTINUOUS WALL TO WALL ENCLOSURES WITH END CAPS, SPLICE PLATES AND ACCESS PANELS.
3. PROVIDE PIPING AS PER DETAIL XXX

HEATING COIL AND REHEAT COIL SCHEDULE

RHC XXX

TAG NO	LOCATION	CFM	APPROX FACE HxL IN	MAX FACE VEL FPM	MIN FACE AREA SQ FT	HTG MBH	AIR MAX. APD IN WG	AIR EAT °F	AIR LAT °F	WATER GPM	WATER MAX. WPD FT WG	WATER EWT °F	WATER LWT °F
RHC-1-1	FIRST FLOOR DUCTWORK	210	12x6	500	0.5	5.7	0.1	55	80	0.5	2	190	160
RHC-1-2	FIRST FLOOR DUCTWORK	575	14x12	500	1.2	18.6	0.1	55	85	1.3	2	190	160

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG	TYPE	CFM RANGE	NECK DIA. (IN)	SIZE FACE (IN)	LINEAR DATA NO. SLOTS	LINEAR DATA SLOT WIDTH	LINEAR DATA SLOT LENGTH	MAX. PD (IN. WG)	MAX NOISE (NC)	BASIS OF DESIGN	REMARKS
A	SQUARE CEILING DIFFUSER	50-80	5	12x12	-	-	-	0.1	15	TITUS OMNI	
B	SQUARE CEILING DIFFUSER	75-140	6	24x24	-	-	-	0.1	15	TITUS OMNI	
		141-240	8	24x24	-	-	-	0.1	15		
		241-360	10	24x24	-	-	-	0.1	15		
		361-450	12	24x24	-	-	-	0.1	15		
		451-640	14	24x24	-	-	-	0.1	15		
C	SUPPLY REGISTER	50-75	8x6					0.1	15	TITUS 301RL	
		155-205	12x6					0.1	15		
D	EXHAUST REGISTER	75-100	8x6		-	-	-	0.1	18	TITUS 350RL	
E	RETURN REGISTER	75-130	6	24x24	-	-	-	0.1	18	TITUS OMNI	
		131-220	8	24x24	-	-	-	0.1	18		
		221-325	10	24x24	-	-	-	0.1	18		
		326-425	12	24x24	-	-	-	0.1	18		
		426-600	14	24x24	-	-	-	0.1	18		
F	RETURN REGISTER	ALL	15	24x24	-	-	-	0.1	18	TITUS OMNI	

NOTES:
1. PROVIDE FRAME TO MATCH FINISHED CEILING OR WALL TYPE.
2. VOLUME DAMPERS FOR SUPPLY REGISTERS SHALL BE OPPOSED BLADE, ADJUSTABLE THROUGH THE FACE AND SHALL LOCK IN PLACE BY BALANCER.
3. CEILING DIFFUSERS ARE 4-WAY BLOW UNLESS INDICATED OTHERWISE ON DRAWINGS OR SCHEDULE.

ELECTRIC DUCT MOUNTED HEATING COIL SCHEDULE

EHC XXX

TAG NO	LOCATION	CFM	DUCT SIZE HxL IN	MAX FACE VEL FPM	HTG KW	AIR MAX. APD IN WG	AIR EAT °F	AIR LAT °F	BASIS OF DESIGN
EHC-1-1	AC-2 DUCTWORK	700	18x8	700	3.0	0.03	49	62	INDEECO QUA
EHC-1-2	AC-3 DUCTWORK	500	14x8	700	1.2	0.03	55	62	INDEECO QUA

NOTES: 1. PROVIDE DISCONNECT SWITCH, THERMAL CUTOUTS, NEGATIVE PRESSURE AIRFLOW SWITCH, CONTROL TRANSFORMER, SCR, AND DUCT MOUNTED SCR CONTROLLED PROPORTIONAL ELECTRONIC THERMOSTAT.

REVISIONS

ISSUE	DATE	REVISIONS

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PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
HVAC SCHEDULES

PROJECT NO: 14-18-4745-01
DRAWING NO: M-3.1
DATE: 04/30/2019
DRAWN BY: KI
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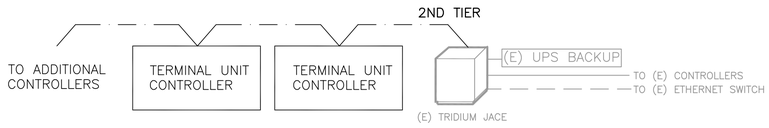
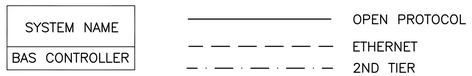
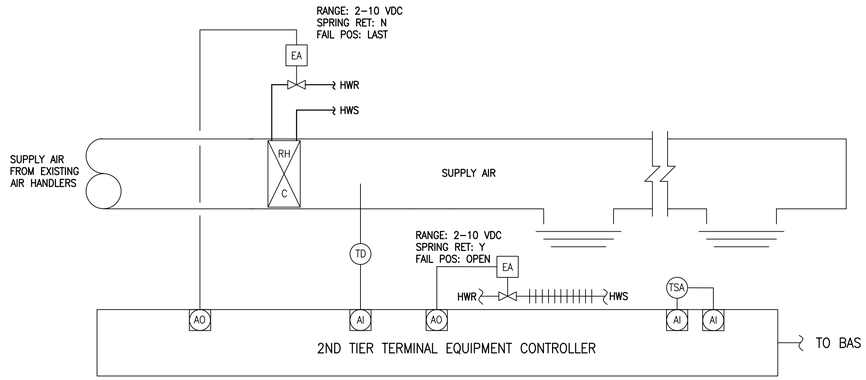
FILE PATH:

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK





1 M-4.1 BUILDING AUTOMATION SYSTEM ARCHITECTURE
Scale: NTS



BAS POINT DESCRIPTION	INPUTS		OUTPUTS		ALARMS				UNITS	FIELD MOUNTED DEVICE
	ANALOG	BINARY	ANALOG	BINARY	ANALOG HIGH ALARM	ANALOG LOW ALARM	DIGITAL ALARM CONDITION	ALARM DELAY (SEC.)		
SPACE TEMPERATURE	1				+5	-5	ALARM	30	°F	YES
SPACE TEMPERATURE SETPOINT ADJUSTMENT	1								°F	YES
REHEAT COIL DISCHARGE AIR TEMPERATURE	1								°F	YES
REHEAT COIL CONTROL VALVE			1						%OPEN	YES
FINNED TUBE RADIATION CONTROL VALVE			1						%OPEN	YES

HOT WATER REHEAT COIL (RHC) AND PERIMETER RADIATION SEQUENCE OF OPERATION - GENERAL PURPOSE (TYPICAL)

1. GENERAL
   - A. THE REHEAT COIL CONTROL VALVE AND PERIMETER RADIATION CONTROL VALVE SHALL BE ON "EMERGENCY" POWER.
   - B. SPACE TEMPERATURE TARGET RESET
     1) HEATING: THE SPACE TEMPERATURE SHALL BE CONTROLLED TO THE HEATING SETPOINT OF 70°F (ADJUSTABLE).
     2) SPACE TEMPERATURE SLIDER ADJUSTMENT: EACH SPACE TEMPERATURE SENSOR SHALL BE EQUIPPED WITH SLIDER FOR LOCAL SPACE TEMPERATURE SETPOINT ADJUSTMENT. WHEN THE SLIDER IS PLACED IN THE CENTER OF ITS TRAVEL, THE SPACE TEMPERATURE ADJUSTMENT SHALL BE 0°F. WHEN THE SLIDER IS PLACED IN THE LEFT MOST POSITION, THE SETPOINT SHALL LOWER 5°F. IF THE SLIDER IS PLACED IN THE RIGHT MOST POSITION, THE SETPOINT SHALL RAISE 5°F. THE NUMBER OF °F OF +/- RESET CAN BE ADJUSTED VIA THE BAS.
2. NORMAL OPERATION MODE
   - A. REHEAT COIL VALVE AND PERIMETER RADIATION CONTROL
     1) ON A FALL IN SPACE TEMPERATURE BELOW THE REHEAT SETPOINT OF 72F, THE HOT WATER REHEAT COIL VALVE SHALL MODULATE OPEN. ON A CONTINUED FALL IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT, THE PERIMETER RADIATION VALVE SHALL MODULATE OPEN. ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE REVERSE SHALL OCCUR.
3. FAILURE MODES
   - A. POWER LOSS: UPON LOSS OF POWER, THE REHEAT COIL CONTROL VALVE SHALL REMAIN IN ITS LAST POSITION PRIOR TO SHUTTING DOWN.. THE PERIMETER RADIATION CONTROL VALVE SHALL OPEN.
   - B. EMERGENCY POWER RESTART: UPON CONFIRMATION OF "EMERGENCY" POWER AVAILABILITY, THE REHEAT COIL CONTROL VALVE AND PERIMETER RADIATION CONTROL VALVE SHALL RESUME THEIR NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.
   - C. NORMAL POWER RESTART: UPON RESUMPTION OF "NORMAL" POWER TO THE BUILDING, THE REHEAT COIL CONTROL VALVE AND PERIMETER RADIATION CONTROL VALVE SHALL RESUME THEIR NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.

3 M-4.1 TYPICAL HOT WATER REHEAT COIL WITH PERIMETER RADIATION CONTROL DIAGRAM
Scale: NTS

INPUT/OUTPUT DESIGNATIONS

(AI) = ANALOG INPUT

(BI) = BINARY INPUT

(AO) = ANALOG OUTPUT

(BO) = BINARY OUTPUT

ACTUATORS

RANGE: mA OR VDC
SPRING RET: Y/N
FAIL POS: NO,NC
(EA) = ELECTRONIC ACTUATOR (4-20mA OR 0-10 VDC)

KEY FOR BAS DEVICES

(TSA) = SPACE SENSOR WITH BUILT-IN SETPOINT ADJUSTMENT

(TD) = DUCT TEMPERATURE SENSOR, SINGLE POINT

2 M-4.1 SYMBOLS AND ABBREVIATIONS
Scale: NTS

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
CONTROL DIAGRAMS

PROJECT NO: 14-18-4745-01	DRAWING NO: M-4.1
DATE: 04/30/2019	
DRAWN BY: KI	
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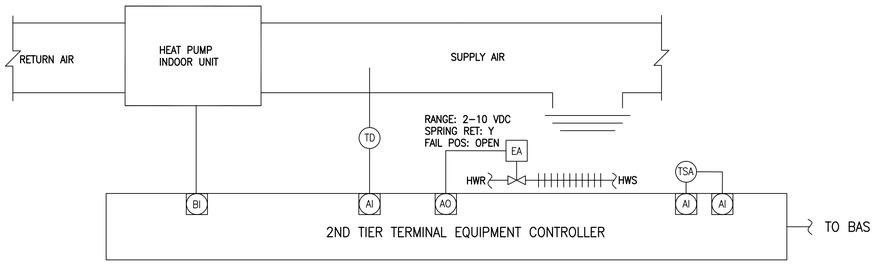
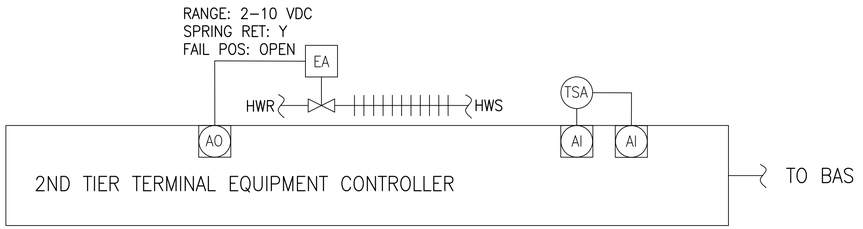


BAS POINT DESCRIPTION	INPUTS		OUTPUTS		ALARMS				UNITS	FIELD MOUNTED DEVICE
	ANALOG	BINARY	ANALOG	BINARY	ANALOG HIGH ALARM	ANALOG LOW ALARM	DIGITAL ALARM CONDITION	ALARM DELAY (SEC.)		
SPACE TEMPERATURE	1				+5	–5	ALARM	30	°F	YES
SPACE TEMPERATURE SETPOINT ADJUSTMENT	1								°F	YES
HEAT PUMP DISCHARGE AIR TEMPERATURE	1								°F	YES
HEAT PUMP GENERAL ALARM		1							NORMAL/ALARM	YES
FINNED TUBE RADIATION CONTROL VALVE			1						%OPEN	YES

HEAT PUMP/PERIMETER RADIATION SEQUENCE OF OPERATION – GENERAL PURPOSE (TYPICAL)

1. GENERAL
   - A. THE HEAT PUMP AND PERIMETER RADIATION CONTROL VALVE SHALL BE ON "EMERGENCY" POWER.
   - B. SPACE TEMPERATURE TARGET RESET
     - 1) HEATING: THE SPACE TEMPERATURE SHALL BE CONTROLLED TO THE HEATING SETPOINT OF 70°F (ADJUSTABLE).
     - 2) COOLING: THE SPACE TEMPERATURE SHALL BE CONTROLLED TO THE COOLING SETPOINT OF 75°F (ADJUSTABLE).
     - 3) SPACE TEMPERATURE SLIDER ADJUSTMENT: EACH SPACE TEMPERATURE SENSOR SHALL BE EQUIPPED WITH SLIDER FOR LOCAL SPACE TEMPERATURE SETPOINT ADJUSTMENT. WHEN THE SLIDER IS PLACED IN THE CENTER OF ITS TRAVEL, THE SPACE TEMPERATURE ADJUSTMENT SHALL BE 0°F. WHEN THE SLIDER IS PLACED IN THE LEFT MOST POSITION, THE SETPOINT SHALL LOWER 5°F. IF THE SLIDER IS PLACED IN THE RIGHT MOST POSITION, THE SETPOINT SHALL RAISE 5°F. THE NUMBER OF °F OF +/– RESET CAN BE ADJUSTED VIA THE BAS.
2. NORMAL OPERATION MODE
   - A. HEAT PUMP AND PERIMETER RADIATION CONTROL VALVE CONTROL
     - 1) THE HEAT PUMP SHALL BE CONTROLLED THROUGH ITS INTEGRAL CONTROLS PROVIDE BY THE HEAT PUMP UNIT MANUFACTURER.
     - 2) THE BAS SHALL CONTINUOUSLY MONITOR/ALARM THE HEAT PUMP UNIT GENERAL ALARM CONTACTS.
     - 3) THE HEAT PUMP INDOOR FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
     - 4) ON A RISE IN SPACE TEMPERATURE ABOVE COOLING SETPOINT, THE HEAT PUMP OUTDOOR UNIT SHALL BE ENERGIZED TO COOLING MODE. ON A FALL IN SPACE TEMPERATURE BELOW THE COOLING SETPOINT THE HEAT PUMP OUTDOOR UNIT SHALL BE DEENERGIZED. ON A FALL IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT THE HEAT PUMP OUTDOOR UNIT SHALL BE ENERGIZED TO HEATING MODE. ON A CONTINUED FALL IN SPACE TEMPERATURE THE PERIMETER RADIATION VALVE SHALL MODULATE OPEN. ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE REVERSE SHALL OCCUR.
3. FAILURE MODES
   - A. POWER LOSS: UPON LOSS OF POWER THE PERIMETER RADIATION CONTROL VALVE SHALL OPEN.
   - B. EMERGENCY POWER RESTART: UPON CONFIRMATION OF "EMERGENCY" POWER AVAILABILITY, THE HEAT PUMP AND PERIMETER RADIATION CONTROL VALVE SHALL RESUME THEIR NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.
   - C. NORMAL POWER RESTART: UPON RESUMPTION OF "NORMAL" POWER TO THE BUILDING, THE HEAT PUMP AND PERIMETER RADIATION CONTROL VALVE SHALL RESUME THEIR NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.

1 M-4.2 TYPICAL HEAT PUMP WITH PERIMETER RADIATION CONTROL DIAGRAM
Scale: NTS

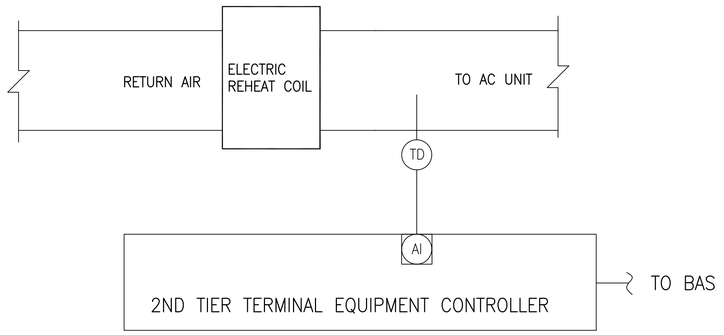


BAS POINT DESCRIPTION	INPUTS		OUTPUTS		UNITS	FIELD MOUNTED DEVICE
	ANALOG	BINARY	ANALOG	BINARY		
SPACE TEMPERATURE	1				°F	YES
SPACE TEMPERATURE SETPOINT ADJUSTMENT	1				°F	YES
FINNED TUBE RADIATION CONTROL VALVE			1		%OPEN	YES

PERIMETER RADIATION ONLY SEQUENCE OF OPERATION – GENERAL PURPOSE (TYPICAL)

1. GENERAL
   - A. THE PERIMETER RADIATION CONTROL VALVE SHALL BE ON "EMERGENCY" POWER.
   - B. SPACE TEMPERATURE TARGET RESET
     - 1) HEATING: THE SPACE TEMPERATURE SHALL BE CONTROLLED TO THE HEATING SETPOINT OF 70°F (ADJUSTABLE).
     - 2) SPACE TEMPERATURE SLIDER ADJUSTMENT: EACH SPACE TEMPERATURE SENSOR SHALL BE EQUIPPED WITH SLIDER FOR LOCAL SPACE TEMPERATURE SETPOINT ADJUSTMENT. WHEN THE SLIDER IS PLACED IN THE CENTER OF ITS TRAVEL, THE SPACE TEMPERATURE ADJUSTMENT SHALL BE 0°F. WHEN THE SLIDER IS PLACED IN THE LEFT MOST POSITION, THE SETPOINT SHALL LOWER 5°F. IF THE SLIDER IS PLACED IN THE RIGHT MOST POSITION, THE SETPOINT SHALL RAISE 5°F. THE NUMBER OF °F OF +/– RESET CAN BE ADJUSTED VIA THE BAS.
2. NORMAL OPERATION MODE
   - A. PERIMETER RADIATION CONTROL VALVE CONTROL
     - 1) ON A DROP IN SPACE TEMPERATURE BELOW THE HEATING SETPOINT, THE PERIMETER RADIATION VALVE SHALL MODULATE OPEN. ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE REVERSE SHALL OCCUR.
3. FAILURE MODES
   - A. POWER LOSS: UPON LOSS OF POWER THE PERIMETER RADIATION CONTROL VALVE SHALL OPEN.
   - B. EMERGENCY POWER RESTART: UPON CONFIRMATION OF "EMERGENCY" POWER AVAILABILITY, THE PERIMETER RADIATION CONTROL VALVE SHALL RESUME ITS NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.
   - C. NORMAL POWER RESTART: UPON RESUMPTION OF "NORMAL" POWER TO THE BUILDING, THE PERIMETER RADIATION CONTROL VALVE SHALL RESUME ITS NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.

2 M-4.2 TYPICAL PERIMETER RADIATION ONLY CONTROL DIAGRAM
Scale: NTS



ELECTRIC DUCT REHEAT COIL – GENERAL PURPOSE (TYPICAL)

1. GENERAL
   - A. THE ELECTRIC DUCT REHEAT COIL SHALL BE ON "EMERGENCY" POWER.
2. NORMAL OPERATION MODE
   - A. ELECTRIC REHEAT COIL CONTROL
     - 1) THE ELECTRIC REHEAT COIL SHALL BE CONTROLLED THROUGH ITS INTEGRAL CONTROLS PROVIDE BY THE UNIT MANUFACTURER.
     - 2) ON A DROP IN DUCT TEMPERATURE BELOW THE DUCT TEMPERATURE TARGET OF 61F, THE ELECTRIC REHEAT COIL SHALL BE ENERGIZED. ON A RISE IN DUCT TEMPERATURE ABOVE 62F, THE REVERSE SHALL OCCUR.
3. FAILURE MODES
   - A. EMERGENCY POWER RESTART: UPON CONFIRMATION OF "EMERGENCY" POWER AVAILABILITY, THE REHEAT COIL SHALL RESUME ITS NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.
   - B. NORMAL POWER RESTART: UPON RESUMPTION OF "NORMAL" POWER TO THE BUILDING, THE REHEAT COIL SHALL RESUME ITS NORMAL OPERATION AS DESCRIBED UNDER "NORMAL OPERATION" MODE.

3 M-4.2 TYPICAL ELECTRIC DUCT REHEAT COIL CONTROL DIAGRAM
Scale: NTS

REVISIONS

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PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
CONTROL DIAGRAMS

PROJECT NO: 14–18–4745–01	DRAWING NO: M–4.2
DATE: 04/30/2019	
DRAWN BY: KI	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

GENERAL LINE TYPES

IW	INDIRECT WASTE
	SANITARY
	VENT
	STORM
AW	ACID WASTE
AV	ACID VENT
LW	LAB WASTE
LV	LAB VENT
PD	PUMPED DISCHARGE
	COLD WATER
	HOT WATER
	HOT WATER RETURN
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LHWR	LABORATORY HOT WATER RETURN
PCW	PROCESS COLD WATER
PHW	PROCESS HOT WATER
PHWR	PROCESS HOT WATER RETURN
TW	TEMPERED HOT WATER
TWR	TEMPERED HOT WATER RETURN
G	NATURAL GAS
DI	DEIONIZED WATER
RO	REVERSE OSMOSIS WATER
WFI	WATER FOR INJECTION
O2	OXYGEN
MA	MEDICAL AIR
CA	COMPRESSED AIR
CCA	CLEAN COMPRESSED AIR
IA	INSTRAMENT AIR
MV	MEDICAL VACUUM
SV	SURGICAL VACUUM
VAC	LAB VACUUM
HE	HELIUM
N	NITROGEN
N2O	NITROUS OXIDE
CO2	CARBON DIOXIDE
AR	ARGON
	UNDERGROUND PIPING
?	HEAT TRACED LINE E = ELECTRIC S = STEAM
X X X X	CAPILLARY LINE TO INSTRUMENT

GENERAL SYMBOLS

- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK.
- POINT OF DEMOLITION BETWEEN EXISTING AND TO BE REMOVED WORK.
- W/V / ? — WASTE/VENT STACK; STACK NUMBER
- RWC / ? — RAINWATER CONDUCTOR; RWC NUMBER
- AW/AV / ? — ACID WASTE/VENT STACK; STACK NUMBER
- DETAIL NUMBER; DETAIL DRAWING NUMBER
- SECTION LETTER; SECTION DRAWING NUMBER

ABBREVIATIONS

@	AT
ABV	ABOVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
AR	ARGON
AV	ACID VENT
AVG	AVERAGE
AW	ACID WASTE
BLDG	BUILDING
BLW	BELOW
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BTU/H	BRITISH THERMAL UNIT PER HOUR
BV/BW	BIO VENT/BIO WASTE
C	COMMON
CA	COMPRESSED AIR
CC	CONTAMINATED CONDENSATE
CCA	CLEAN COMPRESSED AIR
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CLG	CEILING
CO	CARBON MONOXIDE OR CLEANOUT
COL	COLUMN
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUES
CO2	CARBON DIOXIDE
CS	CUP SINK
CU FT	CUBIC FOOT
CW	COLD WATER
CYL	CYLINDER
(D)	DEMO
DI	DEIONIZED WATER
DIA	DIAMTER
DN	DOWN
DS	DOWN SPOUT
DW	DISTILLED WATER
DWG	DRAWING
EEW	EMERGENCY EYE WASH
EFF	EFFICIENCY
ELEV	ELVATOR OR ELEVATION
EQUIP	EQUIPMENT
ESS	EMERGENCY SAFETY SHOWER
(E)	EXISTING
F	FIRE
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FS	FLOOR SINK
FLEX	FLEXIBLE
FP	FIRE PROTECTION
FPS	FEET PER SECOND
FU	FIXTURE UNIT
G	NATURAL GAS
GAL	GALLON
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
H2	HYDROGEN
HD	HEAD
HE	HELIUM
HP	HORSEPOWER
HT	HEIGHT
HTR	HEATER
HW	HOT WATER
HWR	HOT WATER RETURN
IA	INSTRAMENT AIR
INV EL	INVERT ELEVATION
IV	INDUSTRIAL VENT
IW	INDUSTRIAL WASTE OR INDIRECT WASTE
KW	KILOWATT
LAB	LABORATORY
LB	POUND
LCO2	LIQUID CO2
LG	LENGTH
LN2	LIQUID NITROGEN
LPG	LIQUIFIED PETROLEUM GAS
LPTO	LOCK OUT / TAG OUT
LS	LAB SINK
MA	MEDICAL AIR
MAX	MAXIMIM
MBH	MILLION BTU'S PER HOUR
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MFR	MANUFACTURER
MH	MAN HOLE
MV	MEDICAL VACUUM
(N)	NEW
NC	NORMALLY CLOSED
N2	NITROGEN
NIC	NOT IN CONTRACT
N2O	NITROUS OXIDE
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O2	OXYGEN
OSW	OVERFLOW STORM WATER
OS&Y	OUTSIDE SCREW & YOKE
PCT	PERCENT
PCW	PROCESS COLD WATER
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PUR	PURIFIED WATER
PV	PROCESS VENT
PW	PROCESS WASTE
RD	ROOF DRAIN
REC	RECEIVER
RECIRC	RECIRCULATING
(R)	REMOVE & RELOCATE
RM	ROOM
RO	REVERSE OSMOSIS
ROR	REVERSE OSMOSIS RETURN
RPM	REVOLUTIONS PER MINUTE
RWC	RAINWATER CONDUCTOR
SA	SHOCK ABSORBER
SAN	SANITARY
SC	SAMPLE CONNECTION
SCH	SCHEDULE
SEC	SECOND
SECT	SECTION
SF	SAFETY FACTOR
SFT	SOFT WATER
SG	SPECIFIC GRAVITY
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT	SQUARE FOOT
SOLV	SOLVENT
SSD	SUB-SOIL DRAIN
STD	STANDARD
ST STL	STAINLESS STEEL
STRUCT	STRUCTURE
SUCT	SUCTION
SW	SOFT WATER
TEMP	TEMPERATURE
TOP	TOP OF PIPE
T&P	TEMPERATURE AND PRESSURE
TP	TRAP PRIMER
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UM	MICRON
UTIL	UTILITY
V	VENT
V	VOLTS
VAC	VACUUM (LABORATORY)
VAR	VARIABLE
VIF	VERIFY IN FIELD
VOL	VOLUME
VTR	VENT THROUGH ROOF
W	WASTE
W/	WITH
W/O	WITH OUT
WFI	WATER FOR INJECTION
WFIA	WATER FOR INJECTION AMBIENT
WFIC	WATER FOR INJECTION COLD
WFIH	WATER FOR INJECTION HOT

VALVES

- BALANCE VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GATE VALVE
- GAUGE COCK
- GLOBE VALVE
- NEEDLE VALVE
- OSY — OUTSIDE SCREW & YOKE
- OSY — OUTSIDE SCREW & YOKE (SUPERVISED)
- PUMP DISCHARGE VALVE
- BACKFLOW PREVENTER WITH DRAIN
- DOUBLE CHECK ASSEMBLY
- AV — AUTOMATIC AIR VENT
- MV — MANUAL AIR VENT
- VACUUM BREAKER
- GAS COCK
- ANGLE VALVE
- TEMPERATURE/PRESSURE RELIEF VALVE
- M — MOTOR OPERATED ACTUATOR
- S — SOLENOID ACTUATOR
- ??PSIG — BACK PRESSURE REGULATOR (SELF-CONTAINED)
- ??PSIG — PRESSURE REDUCING VALVE (SELF-CONTAINED)

EQUIPMENT DESIGNATION

XXXXX — EQUIPMENT DESIGNATION
XX## — EQUIPMENT NUMBER FORMAT
AREA IDENTIFICATION
SEQUENTIAL IDENTIFICATION

PLUMBING PLAN REQUIREMENTS (FOR PERMIT)

- ☒ PLAN LAYOUTS FOR EACH FLOOR SHOWING WATER DISTRIBUTION AND DRAIN-WASTE-VENT PIPING AND ALL DETAILS, PIPE SIZES WITH FIXTURE UNIT LOAD (FROM TABLE P-904.4 OF THE CODE) AND SCHEDULES NECESSARY TO DEFINE THE SYSTEMS BEING INSTALLED.
- ☒ FLOOR PLANS SHALL INCLUDE ROOM NAMES/NUMBERS FOR EACH FLOOR.
- ☒ ON BUILDINGS 2 STORIES OR MORE, PROVIDE ISOMETRIC DIAGRAMS AND/OR SCHEMATIC RISER DIAGRAMS FOR SUPPLY AND WASTE/VENT PIPING AND IDENTIFY THE RISERS BY NUMBER (E.G. R1, R2, ETC.); SHOW WHERE RISER BASE TERMINATIONS CONNECT TO THE BUILDING DRAIN (ALONG WITH ALL INTERCONNECTED PIPING ON EACH FLOOR PLAN); ALL PIPE SIZES MUST BE CLEARLY DEFINED.
- ☒ INCLUDE INTERCEPTORS AS APPLICABLE (GREASE, OIL, LINT, ACID, SAND) AND SIZE BY FLOW RATE, MANUFACTURER AND MODEL NUMBER. NOTE: NONE REQUIRED
- ☒ INCLUDE FIXTURE AND EQUIPMENT SCHEDULE SHOWING FIXTURE NUMBER, DETAILED DESCRIPTION, HOT WATER, COLD WATER, WASTE AND VENT CONNECTION SIZES AND OTHER PERTINENT INFORMATION
- ☒ IDENTIFY ALL FIXTURES ON FLOOR PLANS AND IN RISER DIAGRAMS WITH THE PLUMBING FIXTURE SCHEDULE NUMBER.
- ☒ SHOW WATER, SANITARY DRAIN-WASTE-VENT PIPING AND STORM LEADERS/DRAINS, INDICATING SIZES AND MATERIALS FOR ABOVE AND BELOW GRADE INSTALLATIONS.
- ☒ INDICATE SLOPE OF HORIZONTAL SANITARY AND STORM DRAINS.
- ☒ INDICATE ROOF DRAINS AND EMERGENCY ROOF DRAINS/SCUPPERS WITH THE AREAS THEY IMPACT.
- ☒ PROVIDE TOILET ROOM LAYOUTS WITH MINIMUM ¼" = 1 FOOT SCALE AND INDICATE COMPLIANCE WITH ALL ACCESSIBILITY REQUIREMENTS. NOTE: NO TOILET ROOM WORK
- ☒ PROVIDE LOCATION OF DRINKING FOUNTAINS AND INDICATE COMPLIANCE WITH ALL ACCESSIBILITY REQUIREMENTS. NOTE: REFER TO ARCHITECTURAL DRAWINGS SUBMITTED FOR BUILDING PERMIT)
- ☒ PROVIDE DETAILS ON SEALING THROUGH-PENETRATIONS OF FIRE RATED ASSEMBLIES AND INDICATE COMPLIANCE WITH ALL ACCESSIBILITY REQUIREMENTS.
- ☒ PROVIDE MINIMUM FACILITIES CALCULATIONS.

PIPING SYMBOLS

- UNION
- FLANGED CONN.\BLIND FLANGE
- PIPE CAP
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- DIRECTION OF FLOW
- PIPE DROP/PIPE RISE
- BOTTOM OUTLET TEE
- TOP OUTLET TEE
- QUICK CONNECT\DISCONNECT
- COMPRESSION FITTING
- FLEXIBLE HOSE
- STRAINER ("Y" TYPE)
- STRAINER ("Y" TYPE) WITH BLOWDOWN
- BASKET STRAINER
- RT — RUNNING TRAP
- HB — HOSE BIBB
- WH — WALL HYDRANT
- CO — CLEAN OUT
- SD — STANDING DRAIN
- VTR — VENT THRU ROOF
- FD-? — FLOOR DRAIN & SPEC REFERENCE
- FS-? — FLOOR SINK & SPEC REFERENCE
- RD-? — ROOF DRAIN & SPEC REFERENCE
- ESS — EMERGENCY SHOWER
- PUMP
- GUIDE
- ANCHOR
- BALL JOINT
- EXPANSION JOINT
- EXPANSION LOOP
- FLEXIBLE CONNECTOR
- FS — FLOW SWITCH
- PS — PRESSURE SWITCH
- PSI — PRESSURE GUAGE
- THERMOMETER
- SA — SHOCK ABSORBER
- AQUASTAT
- TRAP PRIMER
- TD-? — TRENCH DRAIN & SPEC REFERENCE
- VTR — VENT THRU ROOF
- VTW — VENT THRU WALL
- BRANCH TOP CONNECTION
- BRANCH BOTTOM CONNECTION
- BRANCH SIDE CONNECTION
- DOUBLE CONTAINMENT PIPE
- PIPE SLEEVE
- SLOPE — DIRECTION OF DOWNWARD SLOPE
- AD — ACCESS DOOR IN CEILING/WALL

GENERAL NOTES (PHL)

1. THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH THE PHILADELPHIA PLUMBING CODE.
2. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC, SPRINKLER, PLUMBING, STRUCTURAL AND GENERAL ARCHITECTURE. CONTRACTOR SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
3. THESE PLANS ARE DIAGRAMMATIC, CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSET, TEES, ELBOWS, TRAP, STOPS ETC FOR A COMPLETE WORKING PLUMBING SYSTEM.
4. THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, TAPS, ETC.
5. CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.
6. ALL UTILITY PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS, IN CASEWORK OR CONNECTED TO FIXTURES, UNLESS NOTED OTHERWISE FOR THE FLOOR PLAN SHOWN.
7. ALL WASTE PIPING SHOWN IS BELOW SLAB/WITHIN WALLS, IN CASEWORK, OR CONNECTED TO FIXTURES, UNLESS NOTED OTHERWISE. ALL VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.
8. ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY THE PHILADELPHIA PLUMBING CODE AND MANUFACTURER'S RECOMMENDATIONS.
9. ALL PIPING PENETRATIONS THRU NEW/EXISTING WALLS/FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW/EXISTING WALL OR FLOOR.
10. THE PLUMBING CONTRACTOR SHALL COORDINATE ALL UNDER SLAB PLUMBING PIPING WITH ALL STRUCTURAL FOUNDATIONS AND WITH SITE UTILITY ELEVATION INVERTS.
11. BACK FLOW PREVENTION DEVICES SHALL BE INSTALLED AS REQUIRED PER LOCAL AUTHORITY.
12. THE ENTIRE DOMESTIC WATER SYSTEM (EXISTING/NEW) SHALL BE DISINFECTED AND TESTED IN ACCORDANCE TO THE PHILADELPHIA PLUMBING CODE.
13. PIPING SHALL NOT PASS THROUGH ELECTRICAL CLOSETS, COMMUNICATIONS CENTERS, AND ELEVATOR SHAFTS. PROVIDE DRIP PANS AS REQUIRED FOR PIPING LOCATED IN ELECTRICAL & TELE/DATA AREAS.
14. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE DOCUMENTATION SHOWN ON THE PLANS & ACTUAL FIELD CONDITIONS.
15. EXACT SIZES, LOCATIONS AND ELEVATIONS OF ALL EXISTING PIPING SHALL BE VERIFIED IN FIELD PRIOR TO ANY PIPE INSTALLATION.
16. ALL HORIZONTAL SOIL, WASTE & STORM PIPING 3" & UNDER SHALL SLOPED @1/4"/FT. ALL HORIZONTAL SOIL, WASTE & STORM PIPING 4" & ABOVE SHALL BE SLOPED @1/8"/FT UNLESS OTHERWISE NOTED.

DEMOLITION NOTES

1. EXISTING WORK WHICH IS TO BE DEMOLISHED IS SHOWN WHERE INDICATED. ALL OTHER WORK SHOWN IS EXISTING-TO-REMAIN.
2. REMOVE EXISTING EQUIPMENT, FIXTURES AND PIPING TO THE EXTENT INDICATED, AND DISPOSE OF IT OFF-SITE IN A SAFE AND LEGAL MANNER WHERE SUCH WORK IS INDICATED TO BE "DEMOLISHED."
3. THE PURPOSE OF DEMOLITION DRAWINGS IS TO INDICATE THE SCOPE OF THE DEMOLITION WORK TO PERMIT THE INSTALLATION OF NEW WORK INDICATED ON SUBSEQUENT PLANS. COORDINATE ACTUAL DEMOLITION WORK WITH BOTH THE NEW WORK INDICATED AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED.
4. ANY SHUTDOWNS OF EXISTING PLUMBING SYSTEMS SHALL BE BRIEF AND OCCUR WHEN USAGE IS NONEXISTENT OR VERY LIGHT, OR METHODS SHALL BE EMPLOYED WHICH PERMIT SYSTEMS TO STAY IN OPERATION AVOIDING SHUTDOWNS ALTOGETHER. THE OWNER SHALL DETERMINE WHEN AND IF AN EXISTING MECHANICAL SYSTEM MAY BE SHUT DOWN.
5. ALL EQUIPMENT INDICATED TO BE DEMOLISHED SHALL FIRST BE OFFERED TO THE OWNER FOR HIS RETENTION. THE SCOPE OF DEMOLITION WORK, HOWEVER, SHALL INCLUDE THE DISPOSAL OF ALL DEMOLISHED EQUIPMENT OFF-SITE IN A SAFE AND LEGAL MANNER, REGARDLESS OF WHETHER THE OWNER EVENTUALLY DECIDES TO RETAIN ANY EQUIPMENT.
6. PIPING WHICH SERVES OTHER AREAS, ENTERING AND PASSING THROUGH THE AREA WHERE DEMOLITION WORK IS INDICATED, SHALL REMAIN.
7. CAP ANY EQUIPMENT, DUCTWORK OR PIPING ABANDONED-IN-PLACE AIR/WATER TIGHT.
8. UNLESS NOTED OTHERWISE, PIPING INDICATED TO BE DEMOLISHED SHALL BE DEMOLISHED BACK TO THE NEAREST ACTIVE MAIN. THE MAIN, OR OTHER TERMINATION POINT, SHALL BE CAPPED AIR/WATER TIGHT. PIPING WITHIN WALLS, WHICH IS TO REMAIN WITHIN THE WALLS, SHALL BE CAPPED FAR ENOUGH INSIDE THE WALL TO ALLOW FOR PATCHING AND FINISHING OF THE WALL.
9. WHERE EXISTING CEILINGS REMAIN, CAREFULLY REMOVE AND REINSTALL EXISTING CEILING TILES, AS REQUIRED, IN ORDER TO GAIN ACCESS TO DEMOLITION WORK.
10. REFER TO AND COORDINATE PLUMBING DEMOLITION WORK WITH THAT OF OTHER DISCIPLINES AS SHOWN ON ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DEMOLITION DRAWINGS.
11. IF ANY MATERIAL IS UNCOVERED WHICH THE CONTRACTOR, SUBCONTRACTOR OR TRADESMAN SUSPECTS TO BE ASBESTOS, THEN WORK IN THE AREA SHALL CEASE UNTIL THE OWNER'S REPRESENTATIVE IS CONTACTED FOR A DETERMINATION OF WHETHER THE MATERIAL IS SAFE, SHOULD BE TESTED, OR SHOULD BE REMOVED.
12. CAP THE OPEN END OF EXISTING-TO-REMAIN PIPING AND EQUIPMENT IMMEDIATLY AFTER OPENING PIPE/EQUIPMENT CONNECTIONS TO PREVENT DEBRIS FROM CONTAMINATING EXISITING-TO-REMAIN ITEMS.

REVISIONS

ISSUE	DATE	REVISIONS

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PROJECT COORDINATOR:

SEAL:

CONSULTANT:

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215-438-4464

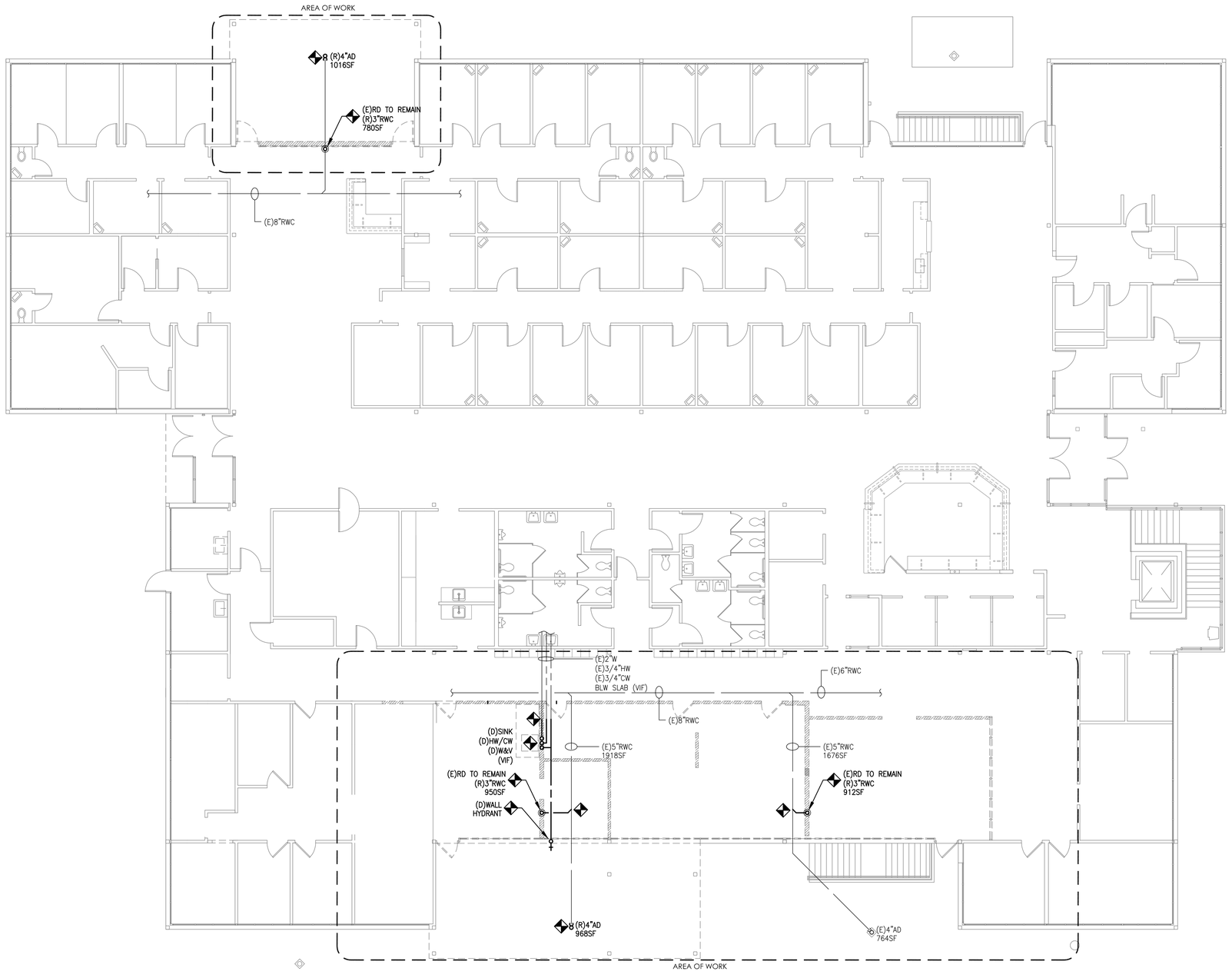
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
PLUMBING
COVER SHEET

PROJECT NO: 14-18-4745-01	DRAWING NO: P-0.0
DATE: 04/30/2019	
DRAWN BY: SZ	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 P-1.1 FIRST FLOOR DEMOLITION PLAN
1/8"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

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DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
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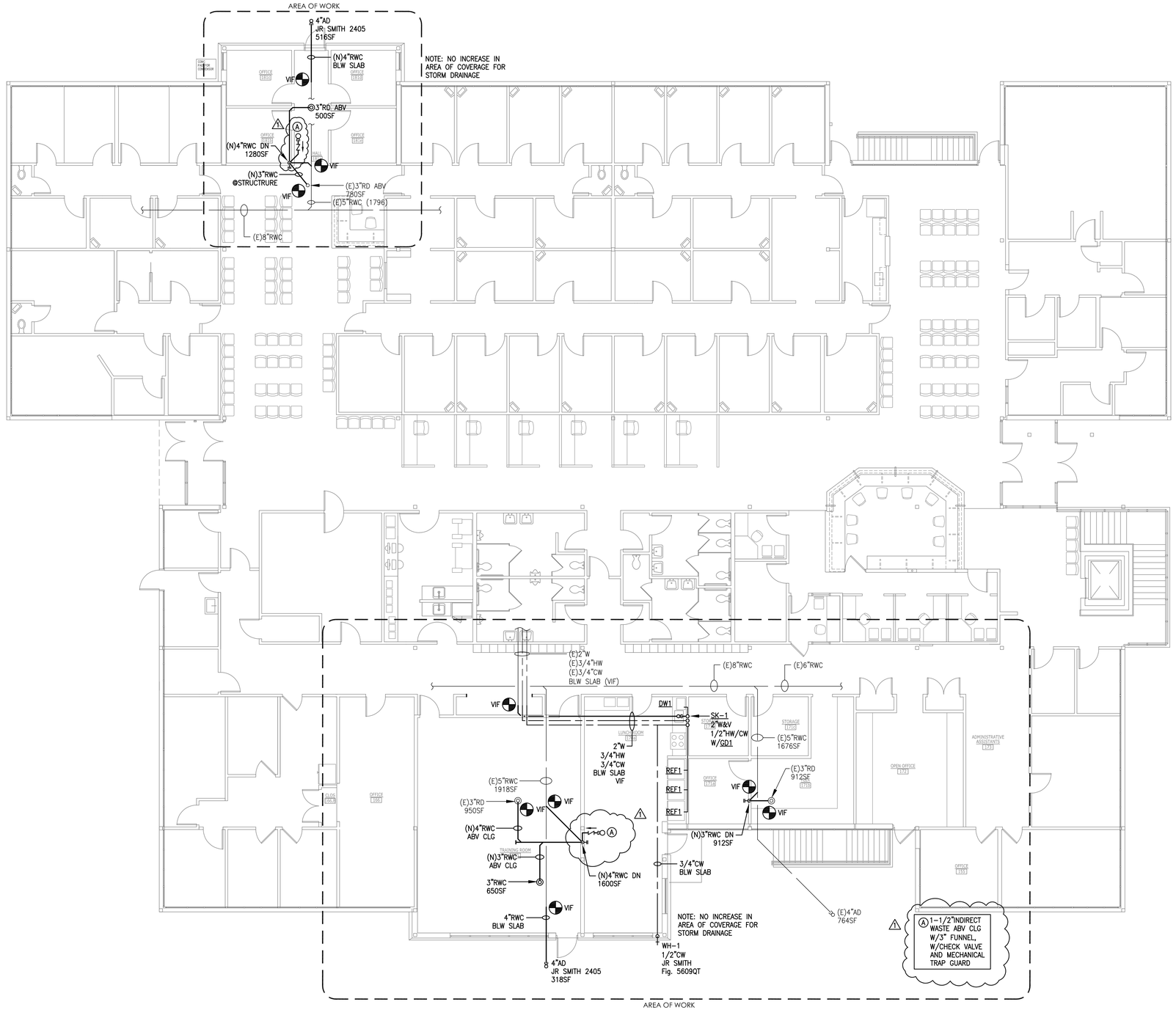
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
PLUMBING
FIRST FLOOR DEMO PLAN

PROJECT NO: 14-18-4745-01	DRAWING NO: P-1.1
DATE: 04/30/2019	
DRAWN BY: SZ	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 / P-1.2 FIRST FLOOR NEW WORK PLAN
1/8"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS
1	05-30-19	

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

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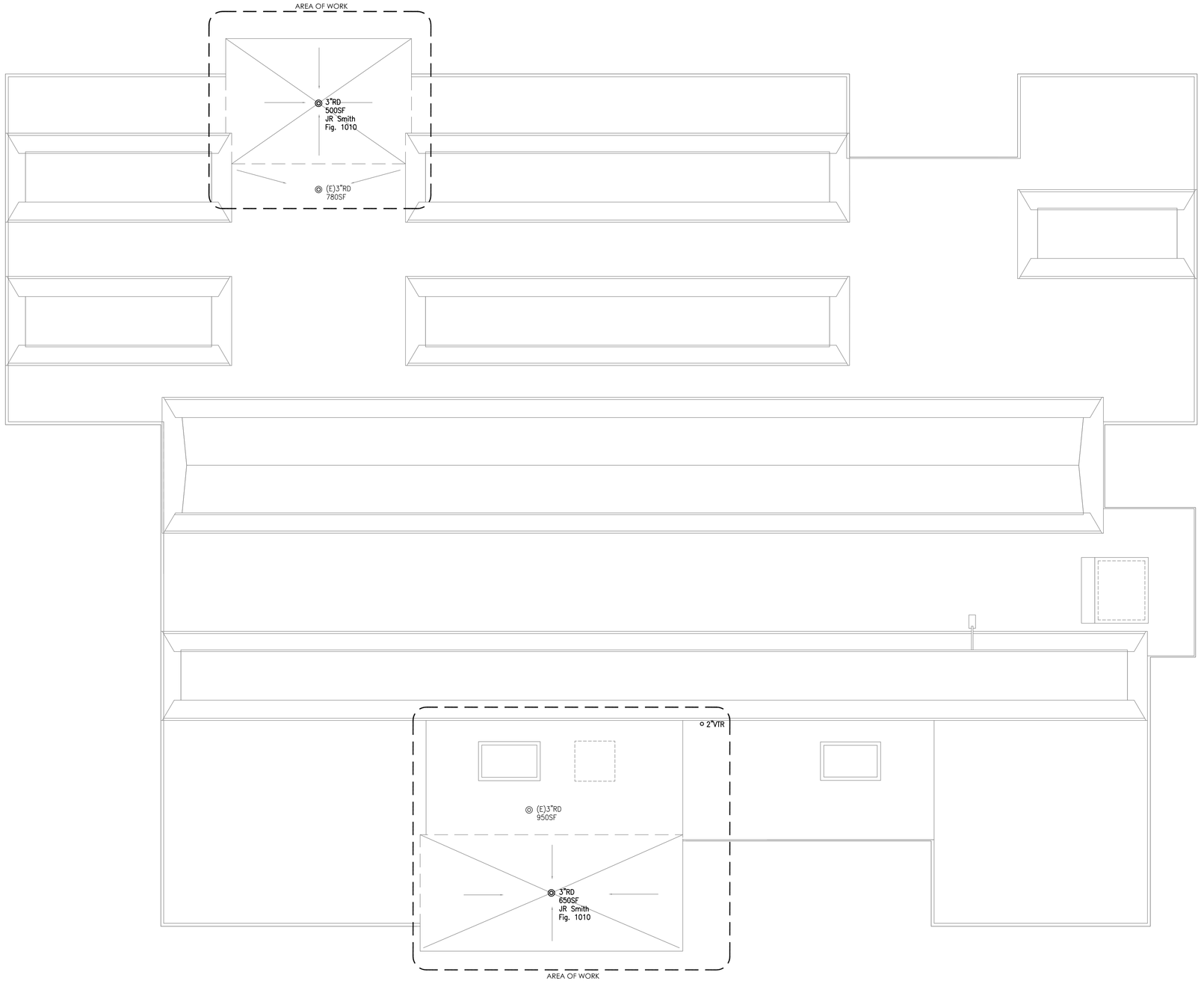
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
PLUMBING
FIRST FLOOR PLAN

PROJECT NO:	DRAWING NO:
14-18-4745-01	P-1.2
DATE: 04/30/2019	
DRAWN BY: SZ	
CHECKED BY: CR	FILE PATH/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 P-1.3 ROOF PLAN
1/8"=1'-0"

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
PLUMBING
ROOF PLAN

PROJECT NO:	DRAWING NO:
14-18-4745-01	P-1.3
DATE: 04/30/2019	
DRAWN BY: SZ	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

PLUMBING FIXTURE SCHEDULE

*FIXTURES TO BE MOUNTED IN ACCORDANCE WITH LOCAL PLUMBING CODES AND ADA REQUIREMENTS

TAG NO.	FIXTURE	DESCRIPTION	CW	HW	DRAIN	SPECIFICATIONS
SK-1	SINK	PANTRY SINK ADA	1/2"	1/2"	1-1/2"	ELKAY LUSTERTON MODEL LRAD-2219, SINGLE COMPARTMENT, SELF RIM, STAINLESS STEEL SINK. 22"x19"x6". 3-1/2" DRAIN OPENING. LK-18 DRAIN FITTING. TRAP TO BE 1-1/2" CHROME PLATED FLEXIBLE SUPPLIES WITH WALL FLANGES AND LOOSE KEY STOPS. DELTA FAUCET 300-WFTP DECK MOUNT WITH SPRAY INSULATION KIT, TRUEBRO 102

APPLIANCE CONNECTION SCHEDULE

ID	DESCRIPTION	HW	CW	DRAIN	MANUFACTURER	MODEL	COMMENTS
DW-1	DISHWASHER	1/2"	–	5/8"	–	–	TENANT PROVIDED
REF-1	REFRIGERATOR	–	1/2"	–	–	–	TENANT PROVIDED
BFP-1	BEVERAGE BACKFLOW DEVICE	–	1/2"	–	CONBRACO	4P-300	–
GD-1	GARBAGE DISPOSAL	–	–	1-1/2"	INSINKERATOR	EVOLUTION COMPACT	3/4 HP / 120V

PIPE SCHEDULE

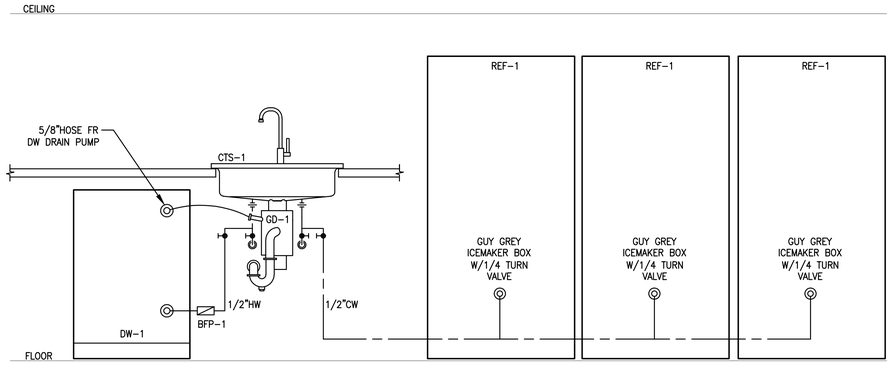
SYSTEM	PIPE SIZE	MATERIAL	JOINTS	FITTINGS	VALVES	REMARKS
DOMESTIC WATER (ABOVE GRADE)	1/2" TO 3"	COPPER-TYPE L	SOLDER 95TA	WROUGHT COPPER	BALL	NA
DOMESTIC WATER (BELOW GRADE)	1/2" TO 3"	COPPER-TYPE K	SOLDER 95TA	WROUGHT COPPER	BALL	NA
STORM & SANITARY ABOVE GRADE	2" TO 2-1/2" 3" TO 8"	COPPER DWV CAST IRON	SOLDER 95TA HUBLESS	COPPER DWV CAST IRON	NA NA	NA NA
STORM & SANITARY BELOW GRADE	1-1/4" TO 2-1/2" 3" TO 8"	COPPER DWV CAST IRON	SOLDER 95TA HUB & SPIGOT	COPPER DWV CAST IRON	NA NA	NA NA

PIPE HANGER CHART

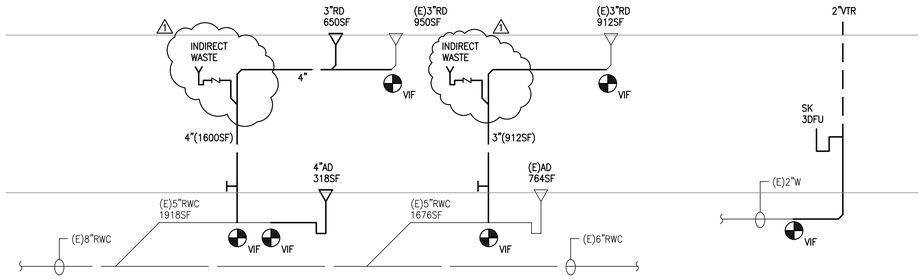
PIPE DIA	STEEL PIPE WATER SERVICE	STEEL PIPE WATER VAPOR	COPPER WATER SERVICE	COPPER WATER VAPOR	ROD SIZE
1/2"	7	8	5	6	3/8"
3/4"	7	9	5	7	3/8"
1"	7	9	6	8	3/8"
1-1/4"	7	9	7	9	3/8"
1-1/2"	9	12	8	10	3/8"
2"	10	13	8	11	3/8"
2-1/2"	11	14	9	13	1/2"
3"	12	15	10	14	1/2"
3-1/2"	13	16	11	15	1/2"
4"	14	17	12	16	5/8"

ALL SANITARY & VENT PIPING ABOVE GRADE SHALL BE SUPPORTED AT EACH PIPE LENGTH OR EVERY 10 FEET AND AT ALL TURNS.

ALL VERTICAL RISERS, ALL SIZES, SHALL BE SUPPORTED VERTICALLY AT EACH FLOOR NOT TO EXCEED 15 FEET.



N.T.S. 7 P-4 PANTRY ELEVATION DETAIL



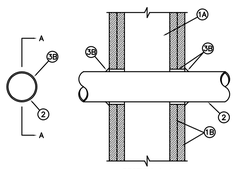
N.T.S. 6 P-2.1 PARTIAL DRAINAGE RISERS

N.T.S. 5 P-2.1 VENT PIPE THRU ROOF

1. WALL ASSEMBLY-THE 1, OR 2 HR. FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY ARCHITECTURAL SECTION SHOULD ADDRESS WALL CONSTRUCTION. SLEEVE SHOULD BE 2 TIMES LARGER THEN PIPE
   1/2"=3"
   4"=6"
   6"=8"
   8"=10"
2. PIPE OR CONDUIT-NOM. 6 IN. DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 6 IN. DIAM. (OR SMALLER) STEEL CONDUIT, NOM 6 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 6 IN. DIAM (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 4 IN. DIAM. (OR SMALLER) STEEL EMT OR NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE PIPE OR CONDUIT AND THE CIRCULAR CUTOUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/4 IN. TO MAX. 3/8 IN. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY.
3. FIRESTOP SYSTEM-INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
   A. FILL, VOID OR CAVITY MATERIAL*-WRAP STRIP - NOM 1/4 IN. THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. WIDE STRIPS. NOM 2 IN. WIDE STRIP TIGHTLY WRAPPED AROUND PIPE OR CONDUIT 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. SUCH THAT APPROX. 3/4 IN. OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE. ONE LAYER OF WRAP STRIP IS REQUIRED.
   MINNESOTA MINING & MFG. CO. - FS 195 +
   B. FILL, VOID OR CAVITY MATERIAL*-CAULK OR PUTTY - NOM 1/4 IN. DIAM. CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER APPROX. 3/4 IN. FROM THE WALL SURFACE. MINNESOTA MINING & MFG. CO. - CP 25WB + CAULK, MPS-2+ PUTTY.

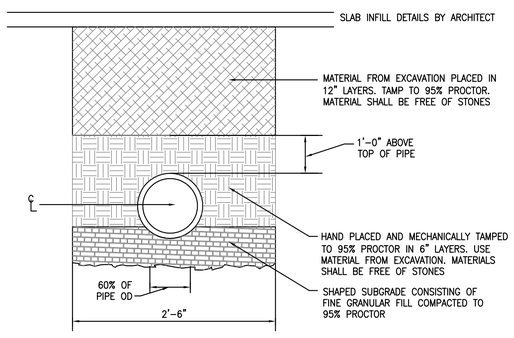
*BEARING THE UL CLASSIFICATION MARKING.

CAST IRON/STEEL PIPING THRU GYPSUM WALLBOARD

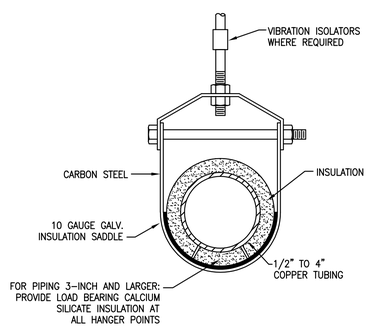


SYSTEM NO. WL1002 (FORMERLY SYSTEM NO. 147-B) F RATINGS - 1, AND 2 HR. (SEE ITEM 3) T RATINGS - 0 HR.

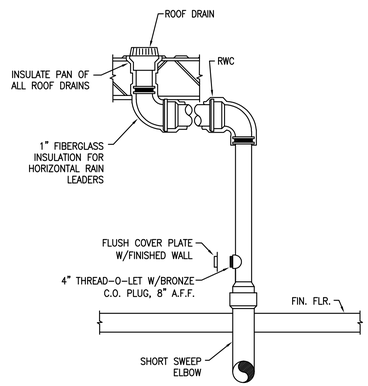
N.T.S. 1 P-2.1 PIPING PENETRATION DETAIL



SECTION THRU
N.T.S. 2 P-2.1 PIPE TRENCH METALIC PIPE



N.T.S. 3 P-2.1 CLEVIS HANGER



N.T.S. 4 P-2.1 ROOF DRAIN PIPING DETAIL

REVISIONS

ISSUE	DATE	REVISIONS
1	05-30-19	

PROJECT COORDINATOR:

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CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
PLUMBING
DETAILS & SCHEDULES

PROJECT NO:	DRAWING NO:
14-18-4745-01	P-2.1
DATE: 04/30/2019	
DRAWN BY: SZ	
CHECKED BY: CR	FILE PATH:

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK

ABBREVIATIONS

@	AT
A OR AMP	AMPERE
AF	AMP FRAME
A.F.C.	ABOVE FINISHED CEILING
A.F.F.	ABOVE FINISHED FLOOR
A.I.C.	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALT.	ALTERNATE
ANNUN.	ANNUNCIATOR
AS	AMMETER SWITCH
AT	AMP TRIP
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AUX.	AUXILIARY
BD	BUS DUCT
C. OR CDT.	CONDUIT
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
CLG.	CEILING
CU.	COPPER
DEMO.	DEMOLITION
DIA.	DIAMETER
DISC.	DISCONNECT
DIST.	DISTRIBUTION
DWG.	DRAWING
E	EMERGENCY
EA.	EACH
E.C.	ELECTRICAL CONTRACTOR
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
ENCL.	ENCLOSURE
E.R.	EXISTING RELOCATED
EQUIP.	EQUIPMENT
EX.	EXISTING TO REMAIN
F/A	FIRE ALARM
FL.	FLOOR
FLUOR.	FLUORESCENT
G	EQUIPMENT GROUND CONDUCTOR
G.C.	GENERAL CONTRACTOR
G.F.I.	GROUND FAULT INTERRUPTER
GND.	GROUND
H.I.D.	HIGH INTENSITY DISCHARGE
H.O.A.	HAND–OFF–AUTOMATIC
H.P.	HORSEPOWER
HT.	HEIGHT
H.V.	HIGH VOLTAGE
HVAC	HEATING, VENTILATING, AIR CONDITIONING
JB	JUNCTION BOX
KVA	KILOVOLT–AMPERE
KW	KILOWATT
KWH	KILOWATT–HOUR
LTG.	LIGHTING
LV	LOW VOLTAGE
MAX.	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MIN.	MINIMUM
M.L.O.	MAIN LUGS ONLY
MTD.	MOUNTED
N	NEUTRAL
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN CONTRACT
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
P	POLE
PB	PULL BOX
RE	REMOVE EXISTING
SLD.	SINGLE LINE DIAGRAM
SPEC.	SPECIFICATION
S.T.	SHUNT TRIP
SW.	SWITCH
SWGR.	SWITCHGEAR
SYS.	SYSTEM
TEL.	TELEPHONE
TV	TELEVISION
TYP.	TYPICAL
UC	UNDERCOUNTER
U/F	UNFUSED
U.L.	UNDERWRITERS' LABORATORY
U.O.N.	UNLESS OTHERWISE NOTED
U.P.S.	UNINTERRUPTIBLE POWER SYSTEM
V	VOLT
VERT.	VERTICAL
W	WIRE
W	WATT
WP	WEATHERPROOF

PLAN SYMBOLS

- RECESSED OR SURFACE MOUNTED FLUORESCENT FIXTURE (ACTUAL SIZE) — NUMBER INDICATES CIRCUIT, LETTER INDICATES SWITCH LEG (TYP)
- FLUORESCENT FIXTURE MOUNTED UNDERCOUNTER, PENDANT, ETC. (N.T.S.)
- DOWNLIGHT FIXTURE, CEILING OR WALL MOUNTED
- DIRECTIONAL FIXTURE, CEILING OR WALL MOUNTED
- TRACK SYSTEM WITH DOWNLIGHT OR FLOOD LIGHTING
- EXIT FIXTURE, CEILING OR WALL MOUNTED
- EXIT FIXTURE, WITH EMERGENCY LIGHTING BATTERY UNIT
- EM — EMERGENCY LIGHTING BATTERY UNIT
- (E) — INDICATES FIXTURE ON EMERGENCY CIRCUIT
- S — SINGLE POLE TOGGLE SWITCH
- S_3 S_4 — THREE AND FOUR WAY TOGGLE SWITCH
- S_D — SINGLE POLE DIMMING SWITCH
- S_M — MANUAL MOTOR STARTER SWITCH
- S_{OS} — OCCUPANCY SENSOR SWITCH
- DUPLEX RECEPTACLE
- QUADRAPLEX RECEPTACLE
- DUPLEX GROUND FAULT RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- DUPLEX RECEPTACLE – CEILING MOUNTED
- QUADRUPLEX RECEPTACLE – CONNECTED TO EHR UPS (RED YOKE AND COVER PLATE)
- FLUSH FLOOR OUTLET WITH DEVICE AS SHOWN
- (P) — FLOOR OUTLET – FIREPROOF POKE THRU
- (J) — CONCEALED JUNCTION BOX
- [J] — SURFACE MOUNTED JUNCTION BOX
- PUSH BUTTON
- BUZZER
- MOTOR BY DIV. 23
- UNFUSED SAFETY DISCONNECT SWITCH
- SE — FUSED SAFETY DISCONNECT SWITCH (INDICATES FUSE TYPE)
  - DE – DUAL ELEMENT
  - CL – CURRENT LIMITING TIME DELAY
- BRANCH CIRCUIT WIRING CONCEALED IN WALL OR ABOVE CEILING CONSTRUCTION
- 5 — BRANCH CIRCUIT WIRING TO PANEL CIRCUIT NUMBER AT PANELBOARD

- ELECTRICAL PANELBOARD
- CR — CARD READER
- ES — ELECTRIC STRIKE
- OS — ULTRASONIC OCCUPANCY SENSOR SWITCH
- WAP — WIRELESS ACCESS POINT
- KP — SECURITY KEY PAD
- EML — ELECTROMAGNETIC LOCK
- COMMUNICATIONS SYSTEM PANEL/CABINET
- VOICE/DATA OUTLET ROUGH–IN
- L — DUAL–LANGUAGE TELEPHONE OUTLET ROUGH–IN
- TV — TELEVISION ANTENNA OUTLET
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM STROBE
- FIRE ALARM HORN/STROBE
- F — FIRE FIGHTERS PHONE
- ELECTRIC DOOR HOLDER
- PE — AUTOMATIC DETECTOR (DETECTOR CONTROL FUNCTION)
  - S – AREA SMOKE, IONIZATION
  - PE – SMOKE REFRACTION, PHOTO ELECTRIC
  - D – DUCT MOUNTED, SMOKE IONIZATION
  - R – THERMAL, RATE OF RISE
  - F – THERMAL, FIXED TEMPERATURE
- SD — 24VDC SMOKE DAMPER, PROVIDE INTERFACE. POWERED BY FIRE ALARM SYSTEM.
- N — NURSE CALL PATIENT STATION
- N — NURSE CALL EMERGENCY PULL CORD
- N — NURSE CALL CODE BLUE STATION
- N — NURSE CALL DUTY/STAFF STATION
- NURSE CALL DOME INDICATOR LIGHT
- NCM — NURSE CALL MASTER STATION
- ST — NURSE CALL STAFF TERMINAL

SINGLE LINE DIAGRAM SYMBOLS

- M — KILOWATTHOUR/DEMAND METER (FURNISHED BY UTILITY COMPANY)
- (CT) CURRENT TRANSFORMER
- (PT) POTENTIAL TRANSFORMER
- GF — GROUND FAULT TRIPPING MECHANISM
- GFSC — GROUND FAULT SENSING COIL
- CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR
- DISCONNECT SWITCH
- FUSE
- TRANSFORMER
- 25 — MOTOR BY DIV. 23 (NUMBER DENOTES HP)
- PANEL — SINGLE SECTION PANELBOARD (ADDITIONAL SECTIONS SHOWN, IF REQUIRED)
- CONTROL PANEL — WITH INTEGRAL DISCONNECT SWITCH BY DIV.23

GENERAL NOTES:

1. ALL DEVICE SYMBOLS AND ABBREVIATIONS ON THIS DRAWING MAY NOT NECESSARILY APPEAR ON THE FLOOR PLANS AND DETAIL SHEETS. ONLY THOSE SYMBOLS INDICATED ON THE FLOOR PLANS ARE USED FOR THIS PROJECT. ALL OTHERS ARE TO BE CONSIDERED "NOT USED" AND SHOULD BE IGNORED.
2. FOR DESCRIPTION OF SYMBOLS, SEE "SYMBOL LIST" AND ELECTRICAL SPECIFICATIONS.
3. MOUNTING HEIGHTS SHALL BE AS INDICATED IN THE "MOUNTING HEIGHTS" SCHEDULE OR AS SHOWN ON THE ARCHITECTURAL PLANS, SECTIONS AND ELEVATIONS. IN THE EVENT OF A MOUNTING HEIGHT CONFLICT, CONTACT THE ARCHITECT PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL VERIFY ALL DOOR SWINGS BEFORE INSTALLING SWITCH BOXES.
5. FOR MOUNTING HEIGHTS OF UNDER CABINET LIGHTING FIXTURES AND OTHER TASK LIGHTING, REFER TO ARCHITECTURAL DETAILS.
6. REFER TO HEATING, VENTILATING, AIR–CONDITIONING AND PLUMBING SECTIONS OF THE SPECIFICATIONS AND DRAWINGS FOR REQUIRED CONTROL WIRING OF MECHANICAL EQUIPMENT.
7. UNLESS OTHERWISE NOTED, ALL PANELS, CABINETS AND THE LIKE IN ELECTRICAL CLOSETS OR EQUIPMENT ROOMS ARE TO BE MOUNTED ON STRUCTURAL CHANNEL FRAMING WHICH SHALL BE SECURED TO THE STRUCTURAL FLOOR AND CEILING SLABS.
8. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DOCUMENTS FOR WORK OF OTHER TRADES THAT REQUIRES ELECTRICAL WORK SUCH AS, BUT NOT LIMITED TO, DUCT DETECTORS, TAMPER/FLOW SWITCHES, CONTROL CIRCUITS, ETC. ALL WORK SHALL BE INCLUDED IN THE BASE BID.

MOUNTING HEIGHTS

STANDARD MOUNTING HEIGHTS
(OR AS SHOWN ON ARCHITECTURAL DRAWINGS)

8'–0"	PENDANT–HUNG INDUSTRIAL LIGHT FIXTURES
7'–6"	TOP OF BACK–MOUNTED WALL EXIT FIXTURES (NOT MOUNTED ABOVE DOORS)
6'–8"	ILLUMINATED FIRE SIGNALS (TO BOTTOM OF DEVICE)
6'–6"	TOP OF ELECTRICAL LIGHTING OR POWER PANELBOARDS
centered above door or window opening	WARNING AND SIGNALING FIXTURES/SIGNS
4'–6"	WALL–MOUNTED TELEPHONES AND PAY STATIONS (3'–6" AT HANDICAP LOCATIONS)
4'–0"	WALL–MOUNTED ELECTRICAL DEVICE LIGHTING SWITCHES, MANUAL MOTOR STARTERS, THERMOSTATS AND FIRE ALARM PULL STATIONS
3'–6"	NURSE CALL DEVICES (COORDINATE WITH HEADWALL ELEVATIONS)
18"	ELECTRICAL RECEPTACLE TELEPHONE OUTLETS COMPUTER OUTLETS
00"	FINISHED FLOOR

NOTES:

1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. IN MASONRY CONSTRUCTION THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR REFERENCE TO NEAREST BLOCK OR BRICK COURSING.
2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWINGS OR SPECIFICATIONS.
3. A + SYMBOL BESIDE A DEVICE INDICATES DEVICE MOUNTED ABOVE COUNTER OR CASEWORK. REFER TO ARCHITECTURAL AND CASEWORK DETAILS FOR ACTUAL ELEVATION.
4. WHERE DEVICE HEIGHT OF 48" OCCURS AT POINT OF CHANGE OF FINISH, THE DEVICE SHALL BE LOWERED TO OCCUR IN ONE FINISH.
5. WHERE DEVICES OCCUR IN BRICK, TILE, OR BLOCK WALLS, THEY SHALL BE MOUNTED AT A VERTICAL MASONRY JOINT AND IN BOTTOM HORIZONTAL JOINT CLOSEST TO THE MOUNTING HEIGHT.

Panel Name: Panel CP-1 (existing - UPS power) — 100A MCB — 42 pole — 22 KAIC — 208/120V–3PH–4W — First Floor

Cir. No.	Cir. Bkr.	Wire Size	Description	Load (VA) A	Load (VA) B	Load (VA) C	Load (VA) A	Load (VA) B	Load (VA) C	Description	Wire Size	Cir. Bkr.	Cir. No.
1	20/1	EX	Rec.– Reception	720			1000			Power Pole	EX	20/1	2
3	20/1	EX	Rec.– Clerical		720			720		Rec.– Clerical	EX	20/1	4
5	20/1	EX	Rec.– Dir. Office			720			720	Rec.– Nurses Station	EX	20/1	6
7	20/1	EX	Rec.– Pharmacy	720			720			Rec.– Pharmacy	EX	20/1	8
9	20/1	EX	Rec.– Registration		720			720		Rec.– Social Worker	EX	20/1	10
11	20/1	EX	Rec.– Nurses Station			720			720	Rec.– Nurses Station	EX	20/1	12
13	20/1	EX	Rec.– Med Records	720			720			Rec.– Nurses Station	EX	20/1	14
15	20/1	EX	Rec.– Corridor		720			720		Rec.– Meeting Rm	EX	20/1	16
17	20/1	2#10	Rec.– Office Suite 181			720			1080	Rec.– Computer Area (basement)	EX	20/1	18
19	20/1	2#10	Rec.– Office 166	720			1440			Rec.– Exam Rms (basement)	EX	20/1	20
21	20/1	2#10	Rec.– Office 166		720			1440		Rec.– Exam Rms (basement)	EX	20/1	22
23	20/1	2#10	Rec.– Office 166			720			1440	Rec.– Exam Rms (basement)	EX	20/1	24
25	20/1	2#10	Rec.– Office 166	360			1440			Rec.– Exam Rms (basement)	EX	20/1	26
27	20/1	2#12	Rec.– Office 171		720			720		Rec.– Reception Desk	EX	20/1	28
29	20/1	2#12	Rec.– Office 172			720			0	Spare		20/1	30
31	20/1	2#12	Rec.– Office 172	720			0			Spare		20/1	32
33	20/1	2#12	Rec.– Office 173		360			0		Spare		20/1	34
35	20/1		Spare			0			0	Spare		20/1	36
37	20/1		Spare	0			0			Spare		20/1	38
39	20/1		Spare		0			0		Spare		20/1	40
41	20/1		Spare			0			0	Spare		20/1	42

Load Summary (by phase):

A	9280
B	8280
C	7560
Total	25120

Notes:

69.8 Connected Amps

DRAWING LIST:

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
ELECTRICAL
COVER SHEET

PROJECT NO: 14–18–4745–01

DRAWING NO: E–0.0

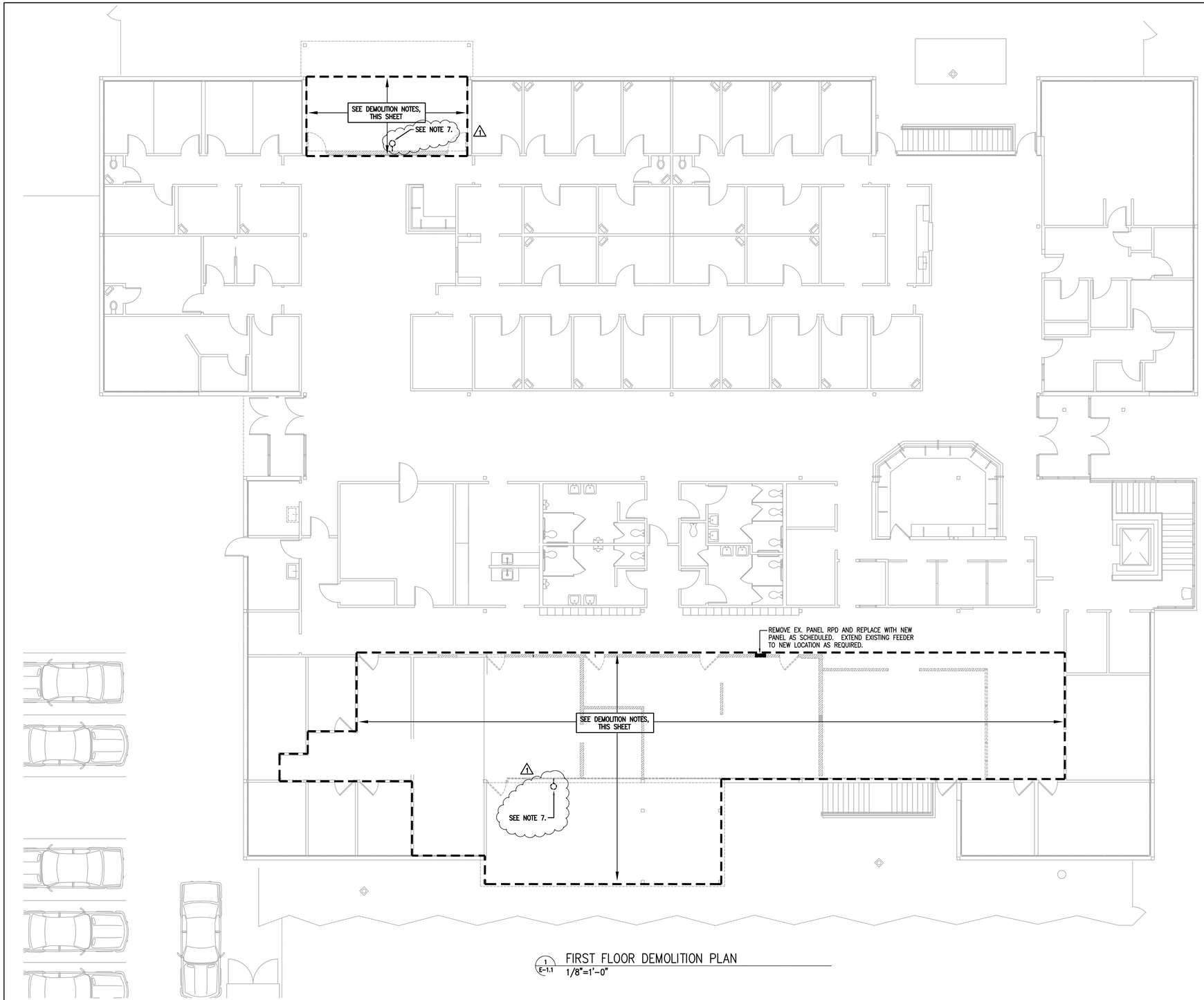
DATE: 04/30/2019

DRAWN BY: GG

CHECKED BY: CR

FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 E-1.1 FIRST FLOOR DEMOLITION PLAN
1/8"=1'-0"

DEMOLITION NOTES:

1. FOR SYMBOLS AND ABBREVIATIONS, REFER TO DRAWING E-0.
2. UNLESS OTHERWISE NOTED, ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A LIGHT LINE WEIGHT IS EXISTING TO REMAIN.
3. UNLESS OTHERWISE NOTED, ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK, DASHED LINE WEIGHT IS TO BE REMOVED UNDER THIS CONTRACT.
4. FOR ALL WIRING DEVICES INDICATED TO BE REMOVED (RE), REMOVE DEVICE AND CONDUIT AND WIRE BACK TO SOURCE OR NEAREST ACTIVE POINT. NOTE THAT 'NEAREST ACTIVE POINT' MAY BE BEYOND THE "PROJECT SCOPE" INDICATED ON THE PLANS. PUT BACK IN SERVICE ANY EXISTING DEVICES AFFECTED BY DEMOLITION, BUT THAT ARE OUTSIDE THE DEMOLITION SCOPE. FOR BRANCH CIRCUITS THAT ARE REMOVED BACK TO SOURCE IN THEIR ENTIRETY, MARK CIRCUIT AS SPARE AND IDENTIFY FOR REUSE IN NEW WORK PLAN IF APPLICABLE.
5. REFER TO ADDITIONAL NOTES ON ARCHITECTURAL DRAWINGS.
6. REMOVE ALL EXISTING, ABANDONED VOICE/DATA AND BRANCH CIRCUIT CABLING FROM THE PROJECT AREA.
7. 1 REMOVE EXISTING WALL MOUNTED EXTERIOR LIGHT. RETAIN EXISTING BRANCH CIRCUIT FOR RE-USE. SEE DRAWING E-3 FOR NEW LOCATIONS OF NEW EXTERIOR LIGHT FIXTURES.

REVISIONS

ISSUE	DATE	REVISIONS
1	05-30-19	

PROJECT COORDINATOR:

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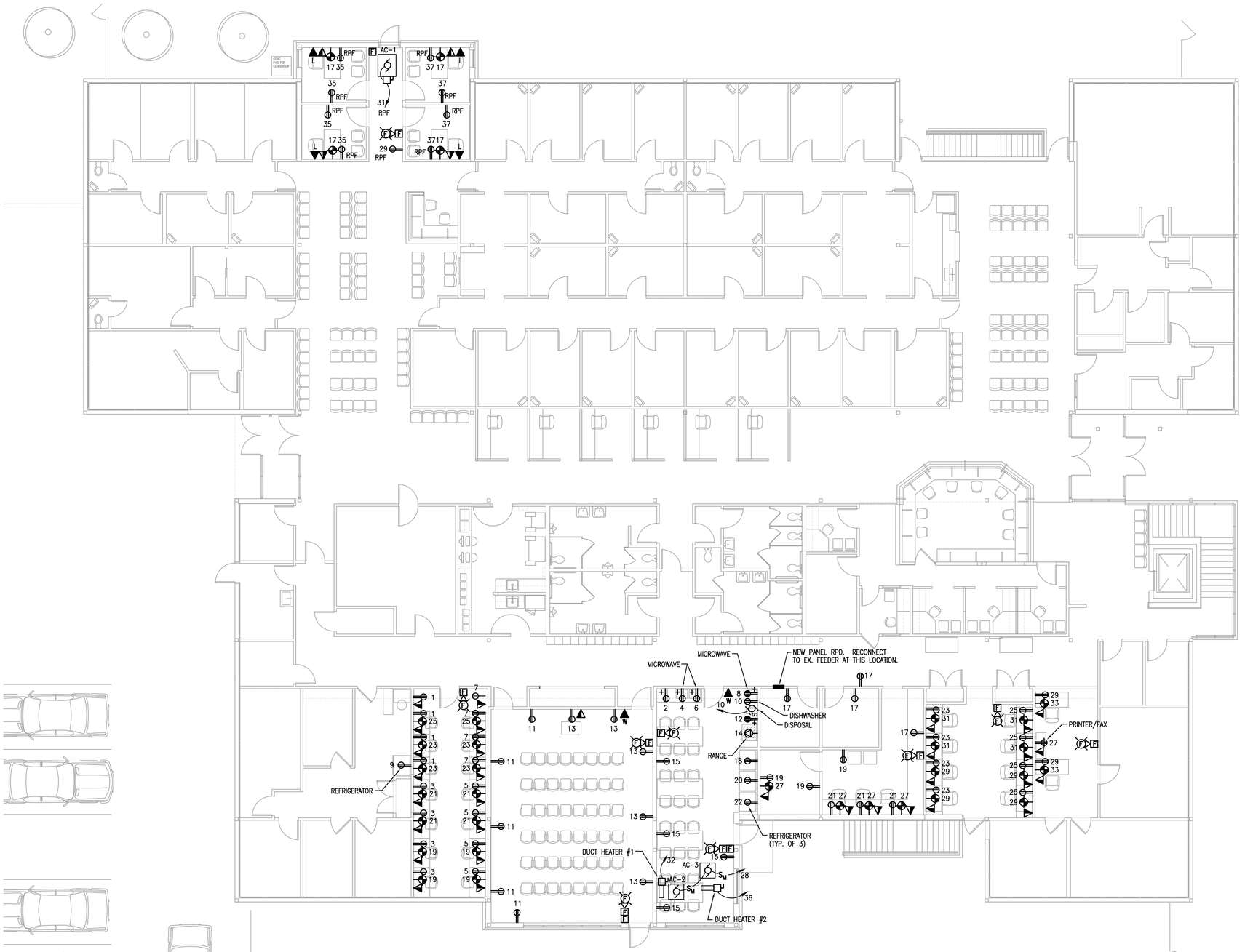
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
ELECTRICAL FIRST FLOOR DEMOLITION PLAN

PROJECT NO: 14-18-4745-01	DRAWING NO: E-1.1
DATE: 04/30/2019	
DRAWN BY: GG	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 E-1.2 FIRST FLOOR POWER & SIGNAL PLAN
1/8"=1'-0"

POWER & SIGNAL NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND MOUNTING HEIGHTS, REFER TO DRAWING E-0.0. COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS AND DETAILS. IN THE EVENT OF A DISCREPANCY, THE ARCHITECTURAL DRAWINGS TAKE PRECEDENT.
2. NUMERICAL DESIGNATIONS BESIDE A WIRING DEVICE INDICATE THE BRANCH CIRCUIT BREAKER NUMBER AT THE PANELBOARD.
3. UNLESS OTHERWISE NOTED, CONNECT ALL NORMAL POWER BRANCH CIRCUITS INDICATED TO EXISTING PANELS RPD AND RPF ON THE GROUND FLOOR.
4. UNLESS OTHERWISE NOTED, CONNECT ALL UPS POWER BRANCH CIRCUITS INDICATED TO EXISTING PANEL CP-1 ON THE GROUND FLOOR.
5. ELECTRICAL AND DATA OUTLETS SHALL BE GANGED NO GREATER THAT 8" APART ON-CENTER.
6. CENTER DEVICES VERTICALLY WHERE POSSIBLE. COORDINATE WITH ARCHITECTURAL ELEVATIONS, SECTIONS AND DETAILS.

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

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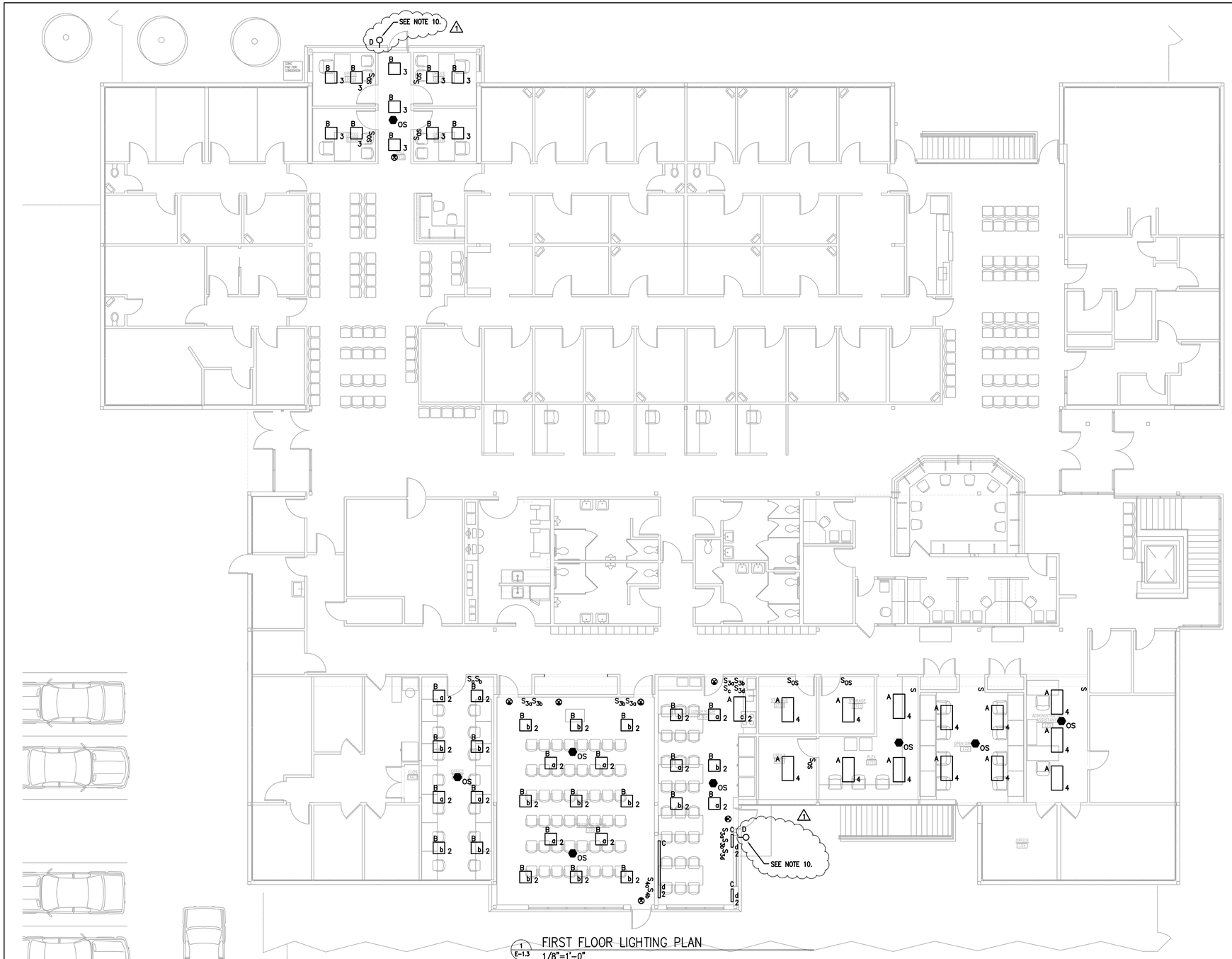
PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
ELECTRICAL FIRST FLOOR POWER AND SIGNAL PLAN

PROJECT NO: 14-18-4745-01	DRAWING NO: E-1.2
DATE: 04/30/2019	
DRAWN BY: GG	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



LIGHTING NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND MOUNTING HEIGHTS, REFER TO DRAWING E-0. COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS AND DETAILS. IN THE EVENT OF A DISCREPANCY, THE ARCHITECTURAL DRAWINGS TAKE PRECEDENT.
2. NUMERICAL DESIGNATIONS BESIDE A WIRING DEVICE INDICATE THE BRANCH CIRCUIT BREAKER NUMBER AT THE PANELBOARD.
3. UNLESS OTHERWISE NOTED, CONNECT ALL NORMAL POWER BRANCH CIRCUITS INDICATED TO PANEL LPB. RE-USE EXISTING LIGHTING BRANCH CIRCUITS TO POWER NEW LIGHTING INDICATED.
4. NOTE THAT THE BUILDING SERVICE IS BACKED UP IN ITS ENTIRETY BY A STANDBY GENERATOR.
5. FOR LIGHTING FIXTURE DESCRIPTIONS, REFER TO LUMINAIRE SCHEDULE ON DRAWING E-0.
6. FOR EXACT LOCATION OF CEILING-MOUNTING LIGHT FIXTURES, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
7. UNLESS OTHERWISE NOTED, LIGHT SWITCHES SHALL BE GANGED TOGETHER UNDER A COMMON FACEPLATE.
8. WALL-MOUNTED OCCUPANT SWITCHES SHALL BE DUAL-TECHNOLOGY, HUBBELL LIGHTHAWK SERIES RATED FOR THE AREA SERVED.
9. CEILING-MOUNTED OCCUPANT SENSORS SHALL BE DUAL-TECHNOLOGY, HUBBELL OMNI-DT SERIES. PROVIDE POWER PACKS AS REQUIRED BY MANUFACTURER. SWITCHES SHALL BE AUTOMATIC/MANUAL SELECTABLE, WITH THE INITIAL SETTING BEING "MANUAL ON/AUTOMATIC OFF". OCCUPANT SENSOR SHALL BE WIRED AHEAD OF ANY LOCAL SWITCHING INDICATED.

1

10. PROVIDE NEW TYPE D LED WALL PACK IN LOCATION SHOWN. CONNECT TO EXISTING CIRCUIT RETAINED FROM DEMOLITION (SEE DRAWING E-1.) PROVIDE PHOTOCELL FOR CONTROL IF EXISTING CIRCUIT IS NOT ALREADY AUTOMATICALLY CONTROLLED.

1 E-1.3 FIRST FLOOR LIGHTING PLAN
1/8"=1'-0"

LUMINAIRE SCHEDULE

Type	Description	Manufacturer	Catalog Number	Lamps No.	Lamps Type	Watts per Fixture	Voltage	Mounting	Alternate Manufacturers	Remarks
A	2FT x 4FT recessed LED troffer, white steel housing, white angled reflectors, soft opal center diffuser, 0-10V dimming driver, 4800 lumens.	Day-Brite	2EVG48L830-4-D-UNV-DIM	–	LED 3000K	48	277	Recessed	--	
B	Same as Type A, except 2FT x 2FT, 3800 lumens.	Day-Brite	2EVG38L830-2-D-UNV-DIM	–	LED 3000K	33	277	Recessed	--	
C	2" wide linear wall-mounted LED direct/indirect fixture, extruded aluminum housing, white finish, acrylic lens, 0-10V dimmable driver, 2FT and 3FT length.	Mercury	MLS1-WDI-24/108-825-825-30K-HTA-1%-1C-U	–	LED 3000K	32/146	277	Wall	--	See architectural drawings for mounting height.
1 D	Exterior LED wall pack, die-cast aluminum housing, tempered glass lens, bronze finish, 4,200 lumens, integral driver, UL for wet locations.	PLT	PLT-11188	–	LED 5000K	35	120/277	Wall	--	Connect to existing exterior wall lighting circuit formerly serving that area.
EXIT	LED edge lit exit sign, match building standard.	--	Match Building Standard	–	LED	3	120/277	Universal	Approved Equal	

Note: CONFIRM DESIRED LAMP COLOR TEMPERATURE WITH OWNER PRIOR TO SUBMISSION OF SHOP DRAWINGS.

REVISIONS

ISSUE	DATE	REVISIONS
1	05-30-19	

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

SERA ENGINEERING
1700 SANSOM STREET
PHILADELPHIA, PA 19103
215-438-4464

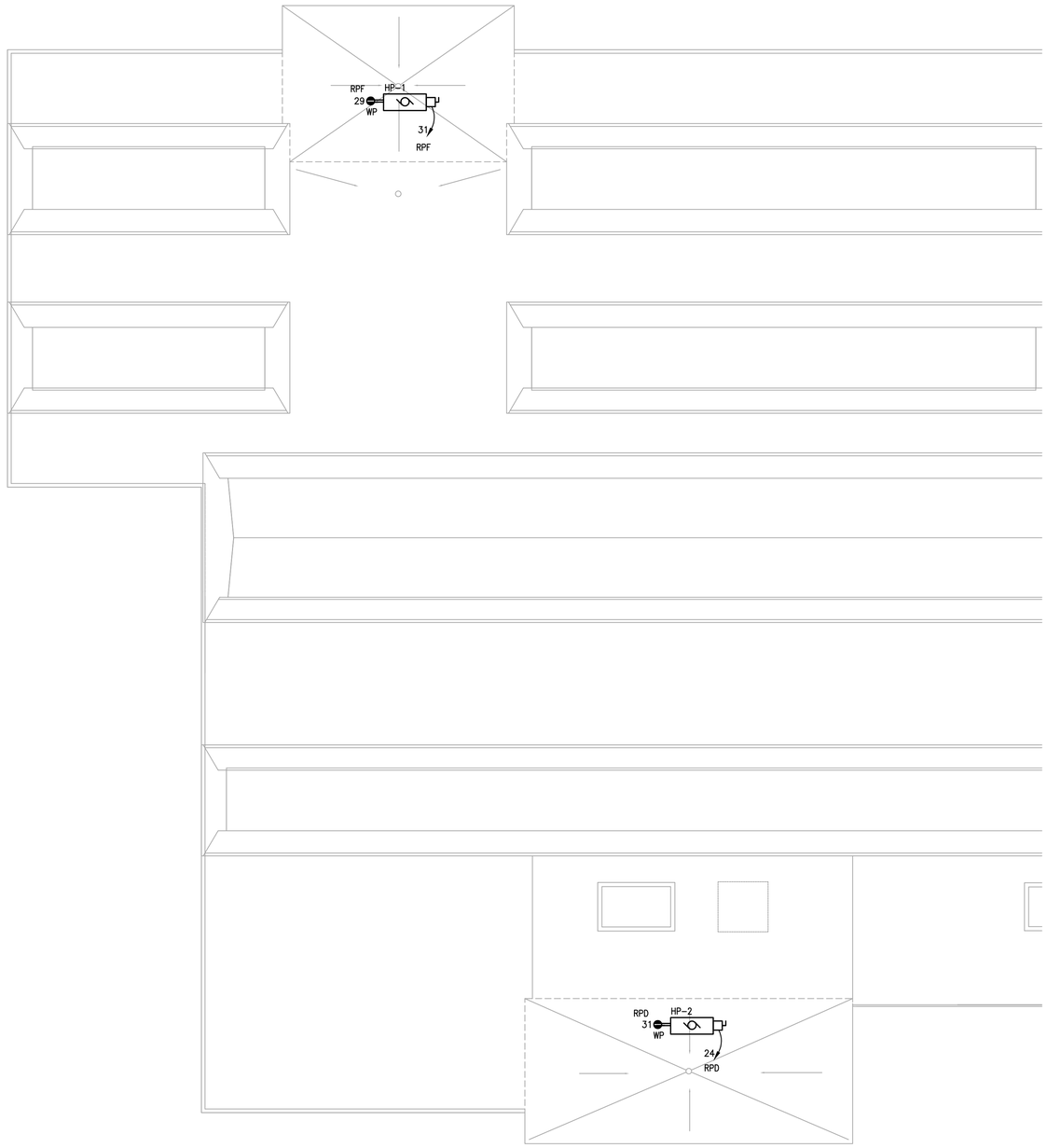
CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC PROPERTY
CITY HALL
7TH FLOOR
PHILADELPHIA PENNSYLVANIA

PROJECT TITLE:
HEALTH CARE CENTER NO. 10
PHASE 2 INTERIOR IMPROVEMENTS
1ST FLOOR

DRAWING TITLE:
ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT NO:	DRAWING NO:
14-18-4745-01	E-1.3
DATE: 04/30/2019	
DRAWN BY: GG	
CHECKED BY: CR	FILE PATH:/

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK



1 E-1.4 PARTIAL ROOF PLAN
1/8"=1'-0"

POWER & SIGNAL NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND MOUNTING HEIGHTS, REFER TO DRAWING E-0.0. COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS AND DETAILS. IN THE EVENT OF A DISCREPANCY, THE ARCHITECTURAL DRAWINGS TAKE PRECEDENT.
2. PROVIDE INTERCONNECTING LOW VOLTAGE TRANSMISSION CABLING BETWEEN THE OUTDOOR HEAT PUMP UNITS AND THE INDOOR FAN COIL UNITS PER MANUFACTURER INSTRUCTIONS.

Panel Name: Panel RPD (new, connect to ex. feeder) — 225A MLO — 84 pole — 10 KAIC — 208/120V-3PH-4W — Hallway — Ground Floor

Cir. No.	Cir. Bkr.	Wire Size	Description	Load (VA) A	Load (VA) B	Load (VA) C	Load (VA) A	Load (VA) B	Load (VA) C	Description	Wire Size	Cir. Bkr.	Cir. No.
1	20/1	2#12	Rec.- Office 166	720			1500			Rec.- Lunchroom Counter	2#12	20/1	2
3	20/1	2#12	Rec.- Office 166		720			1500		Rec.- Microwave	2#12	20/1	4
5	20/1	2#12	Rec.- Office 166			720			1500	Rec.- Microwave	2#12	20/1	6
7	20/1	2#12	Rec.- Office 166	720			1500			Rec.- Microwave	2#12	20/1	8
9	20/1	2#12	Rec.- Refrigerator 166b		1000			1200		Dishwasher / Disposal	2#12	20/1	10
11	20/1	2#12	Rec.- Training 170			900			1500	Rec.- Lunchroom Counter	2#12	20/1	12
13	20/1	2#12	Rec.- Training 170	900			4000			Range	2#8	50/2	14
15	20/1	2#12	Rec.- Lunchroom 170a		720			4000			#10G		16
17	20/1	2#12	Rec.- Storage, Corridor, Flex			720			1000	Rec.- Refrigerator	2#12	20/1	18
19	20/1	2#12	Rec.- Office 171a, Flex 171b	540			1000			Rec.- Refrigerator	2#12	20/1	20
21	20/1	2#12	Rec.- Flex 171b		540			1000		Rec.- Refrigerator	2#12	20/1	22
23	20/1	2#12	Rec.- Office 172			720			2413	HP-2	2#8	35/2	24
25	20/1	2#12	Rec.- Office 172	720			2413				#10G		26
27	20/1	2#12	Rec.- Printer/Fax 173		800			180		AC-2 / AC-3	2#12	20/2	28
29	20/1	2#12	Rec.- Office 173			360			180		#12G		30
31	20/1	2#12	Rec.- Roof	180			1500			Duct Heater #1	2#12	20/2	32
33	20/1	EX	Ex. Load		500			1500			#12G		34
35	20/1	EX	Ex. Load			500			600	Duct Heater #2	2#12	20/2	36
37	20/1	EX	Ex. Load	500			600				#12G		38
39	20/1	EX	Ex. Load		500			500		Ex. Load	EX	20/1	40
41	20/1	EX	Ex. Load			500			500	Ex. Load	EX	20/1	42
43	20/1	EX	Ex. Load	500			500			Ex. Load	EX	20/1	44
45	20/1	EX	Ex. Load		500			500		Ex. Load	EX	20/1	46
47	20/1	EX	Ex. Load			500			500	Ex. Load	EX	20/1	48
49	20/1	EX	Ex. Load	500			500			Ex. Load	EX	20/1	50
51	20/1	EX	Ex. Load		500			500		Ex. Load	EX	20/1	52
53	20/1	EX	Ex. Load			500			500	Ex. Load	EX	20/1	54
55	20/1	EX	Ex. Load	500			500			Ex. Load	EX	20/1	56
57	20/1	EX	Ex. Load		500			500		Ex. Load	EX	20/1	58
59	20/1	EX	Ex. Load			500			500	Ex. Load	EX	20/1	60
61	20/1		Spare	0			0			Spare		20/1	62
63	20/1		Spare		0			0		Spare		20/1	64
65	20/1		Spare			0			0	Spare		20/1	66
67	20/1		Spare	0			0			Spare		20/1	68
69	20/1		Spare		0			0		Spare		20/1	70
71	20/1		Spare			0			0	Spare		20/1	72
73	20/1		Spare	0			0			Spare		20/1	74
75	20/1		Spare		0			0		Spare		20/1	76
77	20/1		Spare			0			0	Spare		20/1	78
79	20/1		Spare	0			0			Spare		20/1	80
81	20/1		Spare		0			0		Spare		20/1	82
83	20/1		Spare			0			0	Spare			84

Load Summary (by phase):

A	19793
B	17660
C	15113
Total	52566

Notes: Connect any existing branch circuits remaining after demolition activities to "Ex. Load" spaces shown above.

146.0 Connected Amps

Load Calculation (volt-amps)

General Receptacles (100% to 10kVA):	10000	VA
Remainder of Receptacles (50%):	6240	VA
HVAC (100%):	9386	VA
Kitchen Equipment (65%):	13455	VA
Total Demand Load:	39081	VA
Panel Load:	108 amps at 208V/3PH	

Panel Name: Panel RPF (existing) — 225A MLO — 42 pole — 10 KAIC — 208/120V-3PH-4W — Hallway — Ground Floor

Cir. No.	Cir. Bkr.	Wire Size	Description	Load (VA) A	Load (VA) B	Load (VA) C	Load (VA) A	Load (VA) B	Load (VA) C	Description	Wire Size	Cir. Bkr.	Cir. No.
1	20/1	EX	Ex. Load	800			750			Ex. Load	EX	20/1	2
3	20/1	EX	Ex. Load		950			750		Ex. Load	EX	20/1	4
5	20/1	EX	Ex. Load			900			750	Ex. Load	EX	20/1	6
7	20/1	EX	Ex. Load	1440			750			Ex. Load	EX	20/1	8
9	20/1	EX	Ex. Load		1500			750		Ex. Load	EX	20/1	10
11	20/1	EX	Ex. Load			750			750	Ex. Load	EX	20/1	12
13	20/1	EX	Ex. Load	750			750			Ex. Load	EX	20/1	14
15	20/1	EX	Ex. Load		750			750		Ex. Load	EX	20/1	16
17	20/1	EX	Ex. Load			750			750	Ex. Load	EX	20/1	18
19	20/1	EX	Ex. Load	750			750			Ex. Load	EX	20/1	20
21	20/1	EX	Ex. Load		750			750		Ex. Load	EX	20/1	22
23	20/1	EX	Ex. Load			750			750	Ex. Load	EX	20/1	24
25	20/1	EX	Ex. Load	750			750			Ex. Load	EX	20/1	26
27	20/1	EX	Ex. Load		750			750		Ex. Load	EX	20/1	28
29	20/1	2#12	Rec.- Corridor / Roof			360			750	Ex. Load	EX	20/1	30
31	25/2	2#10	HP-1 / AC-1	950			750			Ex. Load	EX	20/1	32
33		#10G			950			750		Ex. Load	EX	20/1	34
35	20/1	2#12	Rec.- Office 181b, 181c			720			750	Ex. Load	EX	20/1	36
37	20/1	2#12	Rec.- Office 181a, 181d	720			750			Ex. Load	EX	50/3	38
39	30/2	EX	Ex. Load		1000			750					40
41						1000			750				42

Load Summary (by phase):

A	11410
B	11900
C	10480
Total	33790

Notes: Provide new circuit breaker for HP-1/AC-1 circuit. Verify available circuit breakers prior to rough-in.

93.9 Connected Amps

REVISIONS

ISSUE	DATE	REVISIONS

PROJECT COORDINATOR:

SEAL:

CONSULTANT:

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CITY OF PHILADELPHIA
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