

LIGHTING FIXTURE SCHEDULE												
TYPE MARK	CLASSIFICATION	DESCRIPTION	MOUNTING	LAMP QUANTITY	LAMP TYPE	LAMP WATTAGE	COLOR TEMP	BALLAST/DRIVER QUANTITY	BALLAST/DRIVER	VOLTAGE	MAX SYS LOAD	NOTES
A	FLUORESCENT TROFFER	FLUORESCENT LIGHTING FIXTURE, 2' x 4' x 3.34" RECESSED STATIC TROFFER, GLR FUSING, ACRYLIC K9 LENS, PAINT AFTER FABRICATION, 7% MINIMUM FIXTURE EFFICIENCY, FUSING	LAY-IN GRID	3	T8	32 W	3500 K	2	INSTANT START	UNV	58 W	
B	FLUORESCENT TROFFER	2' x 2' x 3.34" DIRECT INDIRECT WITH ROUND EXTRUDED CENTER OPTIC, SINGLE PIECE (NO HANGING "BASKET") LENS/REFLECTOR, PROTECTED LENS, PRISMATIC INLAY, 80% MINIMUM FIXTURE EFFICIENCY, FUSING	LAY-IN GRID	2	T8	14 W	3500 K	1	RAPID START	UNV	28 W	
C1	FLUORESCENT TROFFER	2' x 4' x 3.34" DIRECT INDIRECT WITH ROUND EXTRUDED CENTER OPTIC SINGLE PIECE (NO HANGING "BASKET") LENS/REFLECTOR, PROTECTED LENS, PRISMATIC INLAY, 80% MINIMUM FIXTURE EFFICIENCY, FUSING	LAY-IN GRID	2	T8	32 W	3500 K	1	INSTANT START	UNV	64 W	
C2	FLUORESCENT TROFFER	2' x 4' x 3.34" DIRECT INDIRECT WITH ROUND EXTRUDED CENTER OPTIC, SINGLE PIECE (NO HANGING "BASKET") LENS/REFLECTOR, PROTECTED LENS, PRISMATIC INLAY, 80% MINIMUM FIXTURE EFFICIENCY, FUSING	LAY-IN GRID	3	T8	32 W	3500 K	2	INSTANT START	UNV	96 W	
D	FLUORESCENT TROFFER	FLUORESCENT LIGHTING FIXTURE, 2' x 4' x 3.34" RECESSED STATIC TROFFER, GLR FUSING, ACRYLIC K9 LENS, PAINT AFTER FABRICATION, 7% MINIMUM FIXTURE EFFICIENCY, FUSING	LAY-IN GRID	4	T8	32 W	3500 K	2	INSTANT START	UNV	128 W	
E	DECORATIVE FLUORESCENT DOWNLIGHT	180A DSBW'S 10" OPENING x 3.34" RECESSED DECORATIVE DISRUPTIVE SHADE DOWNLIGHT WITH FLUORESCENT LAMP, SPECULAR CLEAR REFLECTOR FINISH AND WHITE POLYMER TRIM, 6% MINIMUM FIXTURE EFFICIENCY	RECESSED	1	TTT	42 W	3500 K	1	ELECTRONIC BALLAST	UNV	48 W	DO NOT DIMMER
F	FLUORESCENT PERIMETER	CONTINUOUS CUSTOM LENGTH X 6" W X 6" H - PERIMETER DIRECT FIXTURE FOR CONTINUOUS WITH STAGGERED LAMPS, CLEAR ACRYLIC LENS, FIXTURES MARKED "LS" SHALL HAVE UNSWITCHED LIFE SAFETY CIRCUIT TO ONE OF FIXTURES BALLASTS.	REFER TO ARCHITECTURAL DETAILS	2	T8HO	28 W	3500 K	1	INSTANT START	277V	34 W	
G	FLUORESCENT DOWNLIGHT	4.1/2" X 4.1/2" x 8.25" RECESSED SQUARE OPEN DOWNLIGHT WITH FLUORESCENT LAMP, SPECULAR CLEAR REFLECTOR FINISH AND WHITE POLYMER TRIM, 45% MINIMUM FIXTURE EFFICIENCY	RECESSED	1	TTT	42 W	3500 K	1	ELECTRONIC BALLAST	UNV	43 W	
H	FLUORESCENT DOWNLIGHT	8" DIA x 8.25" RECESSED LENSED DOWNLIGHT WITH FLUORESCENT LAMP, SPECULAR CLEAR REFLECTOR FINISH AND WHITE POLYMER TRIM, 65% MINIMUM FIXTURE EFFICIENCY	RECESSED	1	TTT	42 W	3500 K	1	ELECTRONIC BALLAST	UNV	42 W	
I-1	FLUORESCENT DIRECT LINEAR	2' X 3.34" X 4" EXTRUDED ALUMINUM HOUSING, TRIMLESS LAY-IN WHITE HIGH TRANSMISSION DIFFUSER, WHITE POWDER COATED ACRYLIC FINISH, 57% MINIMUM FIXTURE EFFICIENCY	GYP/PLUM BOARD	1	T8HO	34 W	3500 K	1	RAPID START	277V	27 W	
I-2	FLUORESCENT DIRECT LINEAR	4' X 3.34" X 4" EXTRUDED ALUMINUM HOUSING, TRIMLESS LAY-IN WHITE HIGH TRANSMISSION DIFFUSER, WHITE POWDER COATED ACRYLIC FINISH, 57% MINIMUM FIXTURE EFFICIENCY	GYP/PLUM BOARD	1	T8HO	68 W	3500 K	1	RAPID START	277V	80 W	
J-1	FLUORESCENT DIRECT LINEAR	8' X 3.34" X 4" EXTRUDED ALUMINUM HOUSING, TRIMLESS LAY-IN WHITE HIGH TRANSMISSION DIFFUSER, WHITE POWDER COATED ACRYLIC FINISH, 57% MINIMUM FIXTURE EFFICIENCY	GYP/PLUM BOARD	1	T8HO	136 W	3500 K	1	RAPID START	277V	160 W	
J-2	FLUORESCENT DIRECT LINEAR	12' X 3.34" X 4" EXTRUDED ALUMINUM HOUSING, TRIMLESS LAY-IN WHITE HIGH TRANSMISSION DIFFUSER, WHITE POWDER COATED ACRYLIC FINISH, 57% MINIMUM FIXTURE EFFICIENCY	GYP/PLUM BOARD	2	T8HO	204 W	3500 K	1	RAPID START	277V	240 W	
M	FLUORESCENT TROFFER	FLUORESCENT LIGHTING FIXTURE, 2' x 4' x 3.34" RECESSED STATIC TROFFER, GLR FUSING, ACRYLIC K9 LENS, PAINT AFTER FABRICATION, 7% MINIMUM FIXTURE EFFICIENCY	LAY-IN GRID	2	T8	32 W	3500 K	1	INSTANT START	UNV	64 W	
N	FLUORESCENT TROFFER	2' x 4' x 3.34" RECESSED STATIC TROFFER, GLR FUSING, ACRYLIC K9 LENS, PAINT AFTER FABRICATION, 7% MINIMUM FIXTURE EFFICIENCY	LAY-IN GRID	2	T8	32 W	3500 K	1	INSTANT START	UNV	64 W	
O	FLUORESCENT DOWNLIGHT	8" DIA x 8.25" RECESSED OPEN DOWNLIGHT WITH FLUORESCENT LAMP, SPECULAR CLEAR REFLECTOR FINISH AND WHITE POLYMER TRIM, 45% MINIMUM FIXTURE EFFICIENCY	RECESSED	1	TTT	32 W	3500 K	1	ELECTRONIC DIMMING BALLAST 100%/0%	UNV	38 W	
P	FLUORESCENT PERIMETER	CONTINUOUS CUSTOM LENGTH X 6" W X 6" H - PERIMETER FIXTURE CONCEALING LAMP AND CREATES A "FLOATING CEILING" EFFECT AT THE JUNCTION OF THE CEILING AND WALL, DIE FORMED AND WELDED STEEL HOUSING WITH HIGH REFLECTANCE ALUMINUM WALL SHAL FOR CONTINUOUS SUPPORT AND ALIGNMENT OF FIXTURES WITH A SEMI-SPECULAR REFLECTOR, 40% MINIMUM FIXTURE EFFICIENCY, UL LISTED.	REFER TO ARCHITECTURAL DETAILS	1	T8	28 W	3500 K	1	INSTANT START	UNV	34 W	
Q	LED PENDANT	4" DIA x 7.75" PENDANT FIXTURE WITH LED LAMP, TRANSLUCENT CYLINDER OVER A WHITE CASE GLASS CYLINDER, HIGHLIGHTED WITH THREE METAL DETAILS, WITH 6FT OF FIELD-CUTTABLE SUSPENSION CABLE	RECESSED	1	LED	18 W	3500 K	1	LED 0-10V DIMMING	UNV	20 W	TECH #750-ECF OR APPROVED EQUAL
R	FLUORESCENT WALL BRACKET	4" DIA x 7.75" PENDANT FIXTURE WITH LED LAMP, TRANSLUCENT CYLINDER OVER A WHITE CASE GLASS CYLINDER, HIGHLIGHTED WITH THREE METAL DETAILS, WITH 6FT OF FIELD-CUTTABLE SUSPENSION CABLE	WALL	1	T8	32 W	3500 K	1	PROGRAM START	120V	32 W	
S	UNDER-SHINET LED FIXTURE	CUSTOM LENGTH X 2" DIA HEIGHT - SOLID FRONT FIXTURES CONTINUOUSLY MOUNTED, ACRYLIC LENS, WHITE POWDER COAT PAINT FINISH, UL LISTED FOR BOTH DIRECT-WIRED INSTALLATIONS	SURFACE	1	LED	10 W	3500 K	1	INTEGRAL DRIVER	120V	10 W	
T	UNDER-SHINET LED FIXTURE	CUSTOM LENGTH X 2" DIA HEIGHT - SOLID FRONT FIXTURES CONTINUOUSLY MOUNTED, ACRYLIC LENS, WHITE POWDER COAT PAINT FINISH, UL LISTED FOR BOTH DIRECT-WIRED INSTALLATIONS	SURFACE	1	LED	10 W	3500 K	1	INTEGRAL DRIVER	120V	10 W	
U	FLUORESCENT TROFFER	2' x 4' x 3.34" RECESSED STATIC TROFFER, GLR FUSING, ACRYLIC K9 LENS, PAINT AFTER FABRICATION, 7% MINIMUM FIXTURE EFFICIENCY	UNBUILT	2	T8	32 W	3500 K	1	INSTANT START	UNV	64 W	
V	DECORATIVE WALL SCENE	12" W X 12" H DECORATIVE WALL SCENE	PARTIALLY RECESSED IN WALL	1	28W LED	25 W	3500 K	1	LED DRIVER	277	25 W	SP #400/1023 OR APPROVED EQUAL

GENERAL LIGHTING INSTALLATION NOTES

1. REFER TO ELECTRICAL SPECIFICATIONS FOR FLUORESCENT LAMP COLOR AND BALLAST TYPE.
2. CONTRACTOR SHALL COORDINATE LIGHTING FIXTURE TYPE (GRID OR FLANGE) WITH ACTUAL CEILING TYPE PRIOR TO ORDERING FIXTURES. CONTACT ENGINEER IF QUESTIONS SHOULD ARISE CONCERNING CEILING TYPES.
3. CONTRACTOR SHALL VERIFY ALL BALLAST QUANTITIES WITH SWITCHING SHOWN ON PLANS PRIOR TO ORDERING FIXTURES. ADJUST BALLAST QUANTITIES AS REQUIRED TO MATCH SWITCHING.
4. VERIFY LIGHTING CIRCUIT VOLTAGE (277V-1 PHASE OR 120V-1 PHASE) PRIOR TO ORDERING LIGHTING FIXTURES OR STARTING ROUTING OF BRANCH CIRCUITS. IMMEDIATELY CONTACT ENGINEER WITH ANY DISCREPANCIES. CONTRACTOR IS RESPONSIBLE FOR ORDERING THE PROPER VOLTAGE FOR LIGHTING FIXTURES, REGARDLESS OF VOLTAGE SHOWN ON LIGHTING FIXTURE SCHEDULE.
5. CONTRACTOR SHALL VERIFY ALL FIXTURES TO BE CONTROLLED BY DIMMER SWITCHES AS SHOWN ON PLANS PRIOR TO ORDERING FIXTURES. PROVIDE ARCHITECTURAL DIMMING BALLASTS (FLUORESCENT) OR DIMMER LEDS WITH DIMMING RANGE FROM AS SHOWN TABLE ABOVE, AND COMPATIBLE DIMMER CONTROLS WHERE DIMMING IS INDICATED ON PLANS.
6. PROVIDE 100 HOURS BURN-IN TIME AT FULL BRIGHTNESS FOR ALL LAMPS IN DIMMED FLUORESCENT LIGHTING FIXTURES.
7. PROVIDE DISCONNECTING MEANS FOR ALL FLUORESCENT FIXTURES THAT UTILIZE DOUBLE ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE. THE DISCONNECTING MEANS SHALL BE ACCESSIBLE AND SHALL SIMULTANEOUSLY BREAK ALL THE SUPPLY CONDUCTORS TO THE BALLAST (INCLUDING THE GROUND CONDUCTOR).
8. REFER TO ELECTRICAL SPECIFICATIONS FOR LED COLOR TEMPERATURE AND DRIVER TYPE.
9. LINEAR FLUORESCENT LAMPS SHALL HAVE A CRI OF 82 OR GREATER.
10. COMPACT FLUORESCENT LAMPS SHALL HAVE A CRI OF 80 OR GREATER.
11. BURN-IN LAMP AND BALLAST OUT SHEETS WITH SHIP DRAWINGS FOR REVIEW.
12. IF BALLAST - LINEAR FLUORESCENT LAMP BALLAST, ALL 4' FT T8 BALLASTS SHALL HAVE NEMA PREMIUM EFFICIENCY RATING.
13. INSTANT START PROVIDE FOR ALL NEW FIXTURES BQQ CONNECTED TO OCCUPANCY SENSOR.
14. PROGRAM START PROVIDE FOR ALL NEW FIXTURES CONNECTED TO OCCUPANCY SENSOR.

CONSTRUCTION BID DOCUMENTS FULLY SPRINKLERED

CONSTRUCTION BID DOCUMENTS 05/09/2014 Date		CONSULTANTS:  FREDERICK, HUEBEL & MILLER ENGINEERS, INC. 10000 W. 12TH AVE., SUITE 100 DENVER, CO 80202		ARCHITECTS/ENGINEERS: ARCHITECTURAL PROJECT # 18500  7850 Freeway Circle 440.243.2000 Cleveland, OH 44130 440.243.3305		Drawing Title LIGHTING FIXTURE SCHEDULE Approved: Project Director		Project Title VA Pittsburgh Healthcare System UD, EXPAND MEDICAL AND SURGICAL CLINICS Location UNIVERSITY DRIVE DIVISION		Project Number 646-372 Building Number Drawing Number E0-2 Date 05/06/2014 Checked MPL Drawn TWM Dwg. of		Office of Construction and Facilities Management 	
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GENERAL NOTES:

- G1. PHOTOGRAPHS ARE SHOWN FOR INFORMATION PURPOSES ONLY REGARDING THE STYLE OF THE FIXTURE.
- G2. REFER TO LIGHTING FIXTURE SCHEDULE 1-E3 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.



TYPES A,D,M,N



TYPES S



TYPE V



TYPES U



TYPES T



TYPE H,O



TYPE B,C1,C2



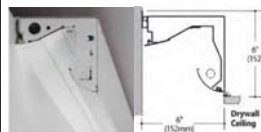
TYPE G



TYPE R



TYPE E



TYPE F,P



TYPE W



TYPE L1,L2,L3,L4

CONSTRUCTION BID DOCUMENTS

FULLY SPRINKLERED

CONSTRUCTION BID DOCUMENTS	05/30/2014
Revisions	Date

CONSULTANTS:

2ND FLOOR PLAN
KEY PLAN

ARCHITECTS/ENGINEERS:

ARCHITECTURAL PROJECT #18500



7850 Freeway Circle
440.243.2000 f

Cleveland, OH 44130
440.243.3305 f

Drawing Title
LIGHTING FIXTURE DETAILS

Approved: Project Director

Project Title
VA Pittsburgh Healthcare System
UD, EXPAND MEDICAL AND
SURGICAL CLINICS

Location
UNIVERSITY DRIVE DIVISION

Date
05/06/2014

Checked

Drawn

Project Number
646-372

Building Number

Drawing Number

E0-3

Dep. of

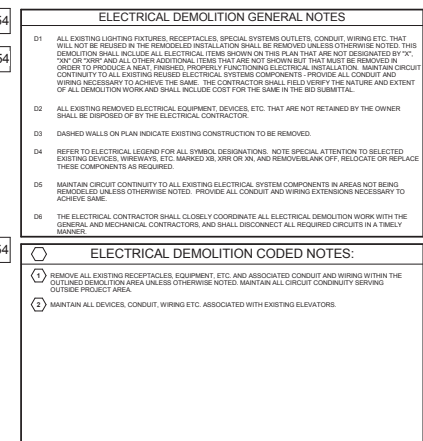
Office of
Construction
and Facilities
Management

Department of
Veterans Affairs



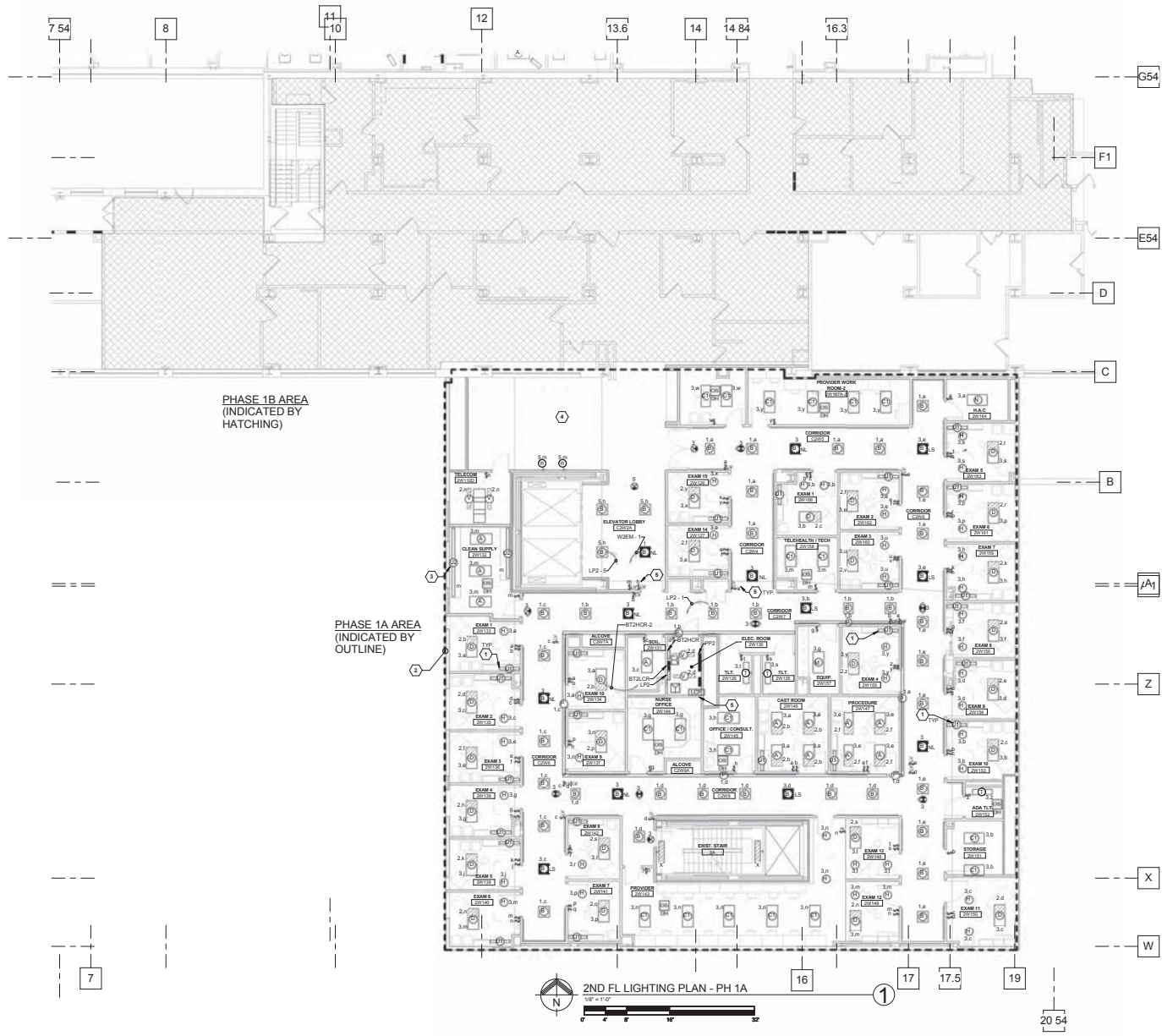
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 Department of
Veterans Affairs



CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED

		CONSULTANTS:		ARCHITECTS/ENGINEERS:		ARCHITECTURAL PROJECT # 18500		Drawing Title 2ND FL. ELECTRICAL DEMOLITION PLAN - PH 1A		Project Title VA Pittsburgh Healthcare System UD, EXPAND MEDICAL AND SURGICAL CLINICS		Project Number 646-372		Office of Construction and Facilities Management			
		 FREDERICK, FREDERICK & KELLER ENGINEERS, INC. 44000 Freeway, Cleveland OH 44130-1002		 2ND FLOOR PLAN KEY PLAN		 STATE OF OHIO M.P. LONG ARCHITECTURAL DESIGN		 7850 Freeway Circle Cleveland, OH 44130 440.243.2000 f		Approved: Project Director		Location UNIVERSITY DRIVE DIVISION				Drawing Number E2-1 Dwg. of	
CONSTRUCTION BID DOCUMENTS		05/06/2014								Date 05/06/2014		Checked MPL		Drawn TWM		 Department of Veterans Affairs	







- LIGHTING GENERAL NOTES**
1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR FINAL LOCATION OF ALL NEW CEILING MOUNTED LIGHTING FIXTURES. CLOSELY COORDINATE LOCATION OF LIGHTING FIXTURES AND SMOKE DETECTORS WITH HVAC DUCTS, DIFFUSERS, SPRINKLERS, PLUMBING, ETC. AND ADJUST LOCATION OF SELECTED ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ENGINEER'S INSTRUCTIONS.
 2. REFER TO THE ARCHITECTURAL PLANS FOR EQUIPMENT LAYOUT. CLOSELY COORDINATE THE EXACT LOCATION OF ALL OUTLETS AND DEVICES WITH ARCHITECTURAL ELEVATION ADJUST LOCATIONS AND MOUNTING HEIGHTS WHERE NECESSARY TO PREVENT INTERFERENCE WITH FURNITURE, FIXED CASEWORK, EQUIPMENT, ETC. VERIFY ALL CHANGES PRIOR TO POURING SLAB.
 3. REFER TO ELECTRICAL DETAILS PLANS FOR OCCUPANCY SENSOR WIRING DIAGRAMS AND PROGRAM SCHEDULE FOR ADDITIONAL INFORMATION.
 4. A DEDICATED NEUTRAL SHALL BE PROVIDED FOR EACH AND EVERY 120V AND 277V BRANCH CIRCUIT. MULTIWIRE BRANCH CIRCUITS WITH SHARED NEUTRALS ARE NOT PERMITTED.
 5. NO MORE THAN (3) SINGLE PHASE BRANCH CIRCUITS SHALL BE INSTALLED IN ANY ONE CONDUIT. DIFFERENT POWER SYSTEMS (NORMAL, CRITICAL, LIFE SAFETY) SHALL NOT BE INSTALLED IN THE SAME CONDUIT.
 6. #12 CONDUCTORS (QUANTITY AS REQUIRED FOR WIRING INDICATED) LIGHTING IN CORRIDORS, ENTRANCE VESTIBULES, STAIRWELLS AND WAITING AREAS ARE CONTROLLED VIA LIGHTING CONTROL PANEL IN NEW ELECTRICAL ROOM BY 120V FIXTURES SHALL BE CONTROLLED VIA TIMECLOCK AND RELAYS. REFER TO LIGHTING CONTROL PANEL DETAIL FOR ADDITIONAL INFORMATION AND WORK REQUIREMENTS.

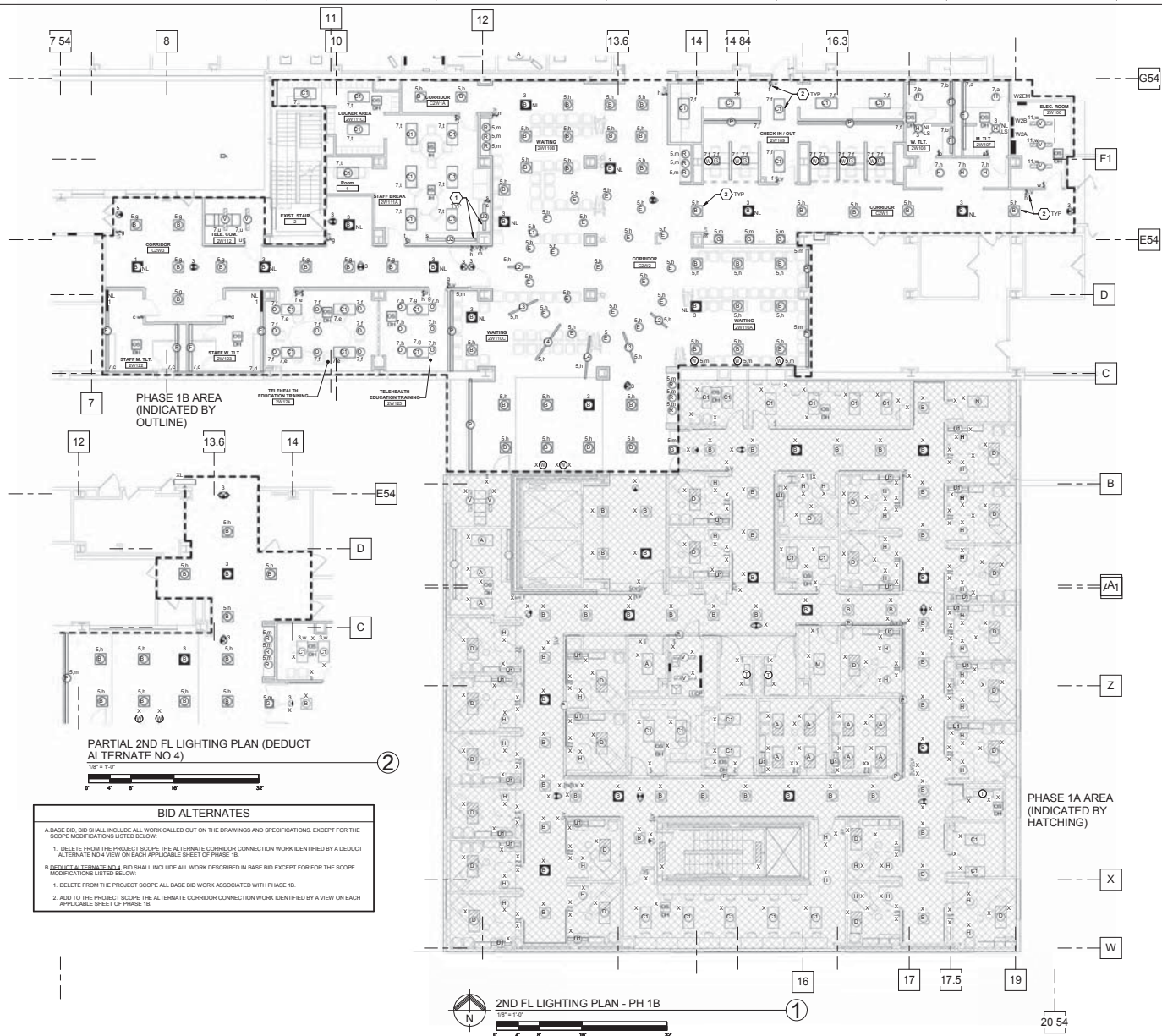
- LIGHTING CODED NOTES**
1. INSTALL UNDERCABINET LIGHT PER SYSTEM FURNITURE MANUFACTURER'S REQUIREMENTS. TYPICAL OF ALL "U" TYPE FIXTURES.
 2. CONNECT ALL LIFE SAFETY LIGHTING FIXTURES IN BED TOWER AREA DESIGNATED BY MARK "L" TO SPARE BREAKER IN EXISTING THIRD FLOOR PANEL "N63".
 3. CONNECT HARDWIRED UNDERCABINET LIGHTING TO LOCAL NORMAL RECEPTACLES HARDWIRED 120V-1P CIRCUIT. TYPICAL OF ALL "U" TYPE FIXTURES.
 4. WAITING AREA CEILING AND DEVICES TO BE INSTALLED UNDER PHASE 1B.
 5. PROVIDE LIGHTING CONTROL PANEL "LCP-381" TO CONTROL LIGHTING IN CORRIDORS AND WAITING AREAS. REFER TO TYPICAL ON DRAWING IS-3 FOR ADDITIONAL REQUIREMENTS.

PANEL CIRCUIT DESIGNATIONS

PANEL NAME	POWER DISTRIBUTION SYSTEM
ELSA	LIFE SAFETY
BTCHCR	CRITICAL
LP2	NORMAL

CONSULTANTS:  FREDERICK, K. & SELLER ENGINEERS, INC. ARCHITECTURAL ENGINEERING 10000 W. 10TH AVE. DENVER, CO 80202		ARCHITECTS/ENGINEERS:  CBLH 7850 Freeway Circle 440.243.2000 Cleveland, OH 44130 440.243.3305		ARCHITECTURAL PROJECT # 18500		Drawing Title 2ND FL LIGHTING PLAN - PH 1A		Project Title VA Pittsburgh Healthcare System UD, EXPAND MEDICAL AND SURGICAL CLINICS		Project Number 646-372		Office of Construction and Facilities Management	
CONSTRUCTION BID DOCUMENTS Revisions		KEY PLAN 				Approved: Project Director		Location UNIVERSITY DRIVE DIVISION		Drawing Number E3-1		Department of Veterans Affairs	
05/09/2014 Date		2ND FLOOR PLAN		05/09/2014 Date		05/06/2014 Date		MPL Checked		TWM Drawn		Dwg. of	

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User: jkelly
Title: 2ND FL LIGHTING PLAN - PH 1A
Plot: 2ND FL LIGHTING PLAN - PH 1A
Scale: 1/8" = 1'-0"
Sheet: 1 of 1
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- LIGHTING GENERAL NOTES**
1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR FINAL LOCATION OF ALL NEW CEILING MOUNTED LIGHTING FIXTURES. CLOSELY COORDINATE LOCATION OF LIGHTING FIXTURES AND SMOKE DETECTORS WITH HVAC DUCTS, DIFFUSERS, SPRINKLERS, PLUMBING, ETC. AND ADJUST LOCATIONS OF SELECTED ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ENGINEER'S INSTRUCTIONS.
 2. REFER TO THE ARCHITECTURAL PLANS FOR EQUIPMENT LAYOUT. CLOSELY COORDINATE THE EXACT LOCATION OF ALL OUTLETS AND DEVICES WITH ARCHITECTURAL ELEVATIONS. ADJUST LOCATIONS AND MOUNTING HEIGHTS WHERE NECESSARY TO PREVENT INTERFERENCE WITH FURNITURE, FINED CASEWORK, EQUIPMENT, ETC. VERIFY ALL CHANGES PRIOR TO ROUGH IN.
 3. REFER TO ELECTRICAL DETAILS PLANS FOR OCCUPANCY SENSOR WIRING DIAGRAMS AND PROGRAM SCHEDULE FOR ADDITIONAL INFORMATION.
 4. A DEDICATED NEUTRAL SHALL BE PROVIDED FOR EACH AND EVERY 120V AND 277V BRANCH CIRCUIT. MULTIWIRE BRANCH CIRCUITS WITH SHARED NEUTRALS ARE NOT PERMITTED.
 5. NO MORE THAN (3) SINGLE-PHASE BRANCH CIRCUITS SHALL BE INSTALLED IN ANY ONE CONDUIT. DIFFERENT POWER SYSTEMS (NORMAL, CRITICAL, LIFE SAFETY) SHALL NOT BE INSTALLED IN THE SAME CONDUIT.
 6. CONNECT ALL NEW LIGHTING TO 277V LIGHTING CIRCUIT INDICATED FROM PANELBOARDS INDICATED VIA 34°C AND #12 CONDUCTORS QUANTITY AS REQUIRED FOR SWITCHING INDICATED. LIGHTING IN CORRIDORS, ENTRANCE VESTIBULES, STAIRWELLS AND WAITING AREAS ARE CONTROLLED VIA LIGHTING CONTROL PANEL IN NEW ELECTRICAL ROOM 2011. FIXTURES SHALL BE CONTROLLED VIA TIMELOCK AND RELAYS. REFER TO LIGHTING CONTROL PANEL DETAIL FOR ADDITIONAL INFORMATION AND WORK REQUIREMENTS.

- LIGHTING CODED NOTES**
1. CONNECT HARDWIRED UNDERCABINET LIGHTING TO LOCAL NORMAL RECEPTABLE HARDWIRED 120V-1P CIRCUIT. TYPICAL OF ALL 1/2" TYPE FIXTURES.
 2. CONNECT LIGHTING IN CORRIDORS AND WAITING AREAS TO LIGHTING CONTROL PANEL, LCP-2BT. REFER TO TO DETAIL ON DRAWING E2-2 FOR ADDITIONAL REQUIREMENTS.

PANEL CIRCUIT DESIGNATIONS	
PANEL NAME	POWER DISTRIBUTION SYSTEM
EL2A	LIFE SAFETY
BT2HCR	CRITICAL
LP2	NORMAL

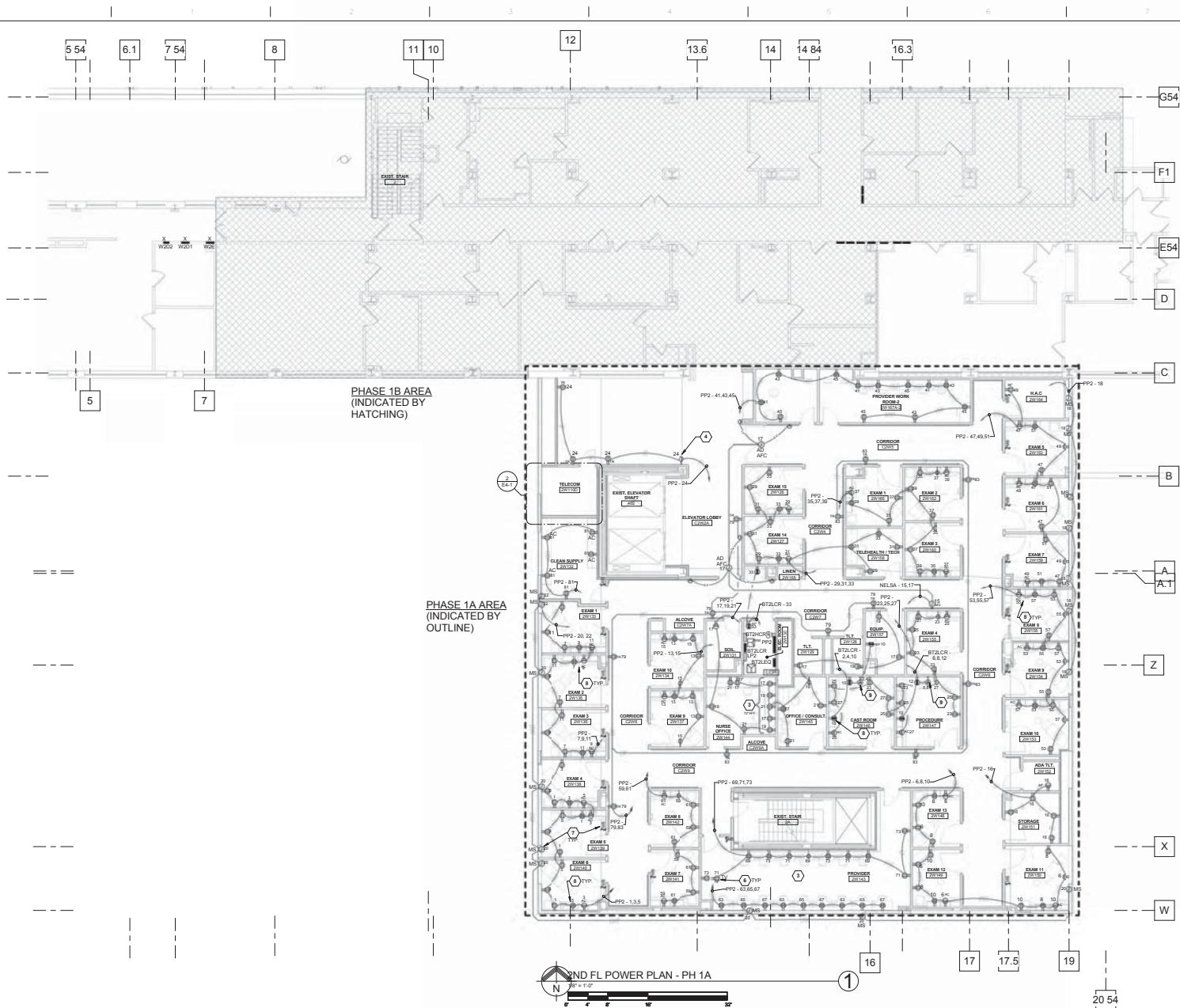
PARTIAL 2ND FL LIGHTING PLAN (DEDUCT ALTERNATE NO 4)

- BID ALTERNATES**
- A. BASE BID SHALL INCLUDE ALL WORK CALLED OUT ON THE DRAWINGS AND SPECIFICATIONS, EXCEPT FOR THE SCOPE MODIFICATIONS LISTED BELOW.
1. DELETE FROM THE PROJECT SCOPE THE ALTERNATE CORRIDOR CONNECTION WORK IDENTIFIED BY A DEDUCT ALTERNATE NO 4 VIEW ON EACH APPLICABLE SHEET OF PHASE 1B.
 2. DEDUCT ALTERNATE NO 4. BID SHALL INCLUDE ALL WORK DESCRIBED IN BASE BID EXCEPT FOR THE SCOPE MODIFICATIONS LISTED BELOW.
- B. DELETE FROM THE PROJECT SCOPE ALL BASE BID WORK ASSOCIATED WITH PHASE 1B.
- C. ADD TO THE PROJECT SCOPE THE ALTERNATE CORRIDOR CONNECTION WORK IDENTIFIED BY A VIEW ON EACH APPLICABLE SHEET OF PHASE 1B.

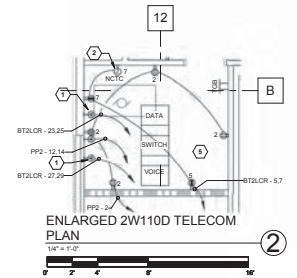
2ND FL LIGHTING PLAN - PH 1B
1/8" = 1'-0"

CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED

CONSULTANTS: FREDERICK, HEISER & MILLER ENGINEERS, INC. ARCHITECTS/ENGINEERS 10000 W. 12TH AVE., SUITE 100 DENVER, CO 80202		ARCHITECTS/ENGINEERS: Architecture Planning Interior Design 7850 Freeway Circle Cleveland, OH 44130 440.243.2000 T 440.243.3305 F		ARCHITECTURAL PROJECT # 18500 Drawing Title 2ND FL LIGHTING PLAN - PH 1B Approved: Project Director		Project Title VA Pittsburgh Healthcare System UD, EXPAND MEDICAL AND SURGICAL CLINICS Location UNIVERSITY DRIVE DIVISION Date 05/06/2014 Checked MPL Drawn TWM		Project Number 646-372 Building Number Drawing Number E3-2 Dwg. of		Office of Construction and Facilities Management 	
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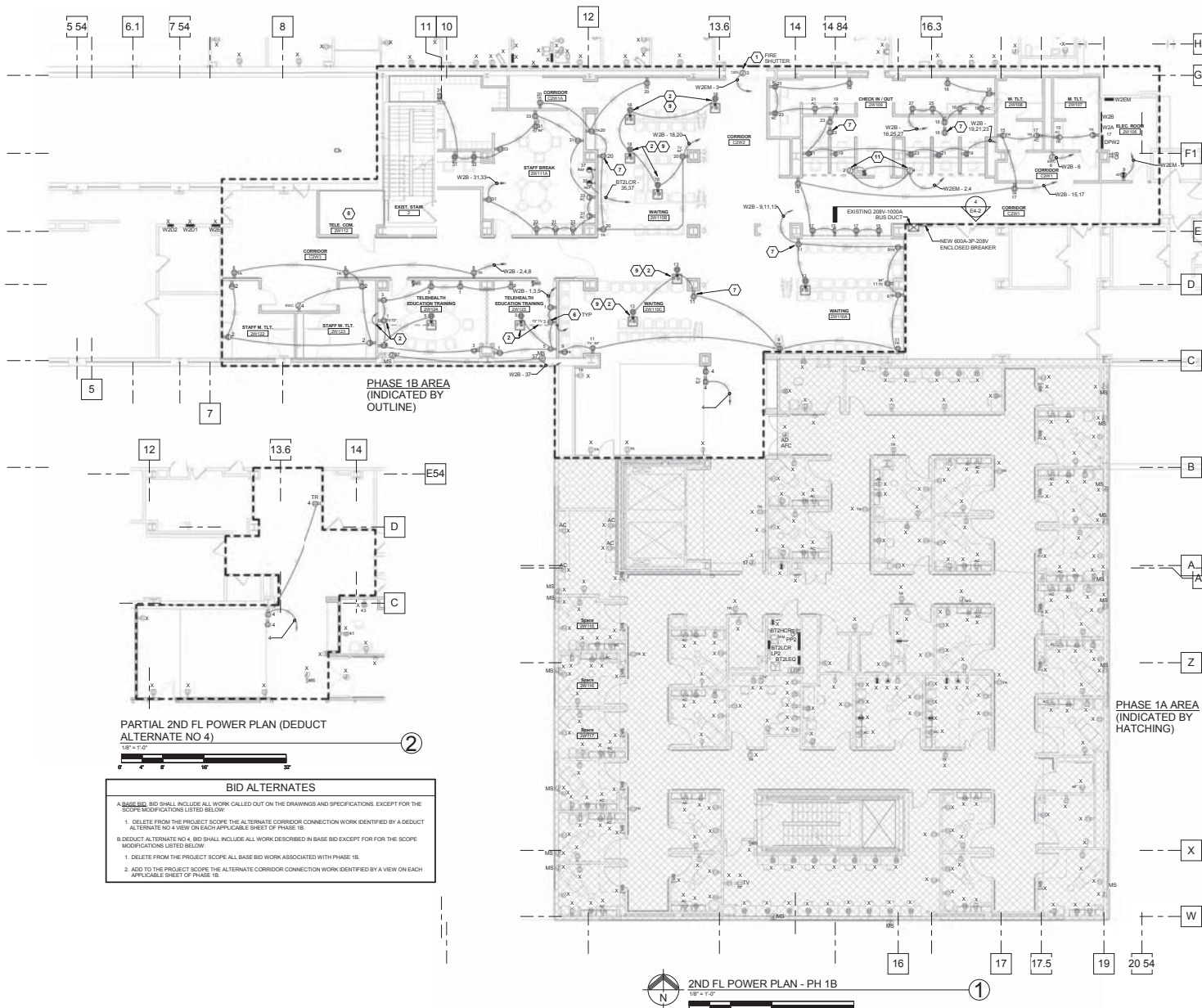


- POWER GENERAL NOTES**
- P1 REFER TO THE ARCHITECTURAL PLANS FOR EQUIPMENT LAYOUT. CLOSELY COORDINATE THE EXACT LOCATION OF ALL OUTLETS AND DEVICES WITH ARCHITECTURAL ELEVATIONS. ADJUST LOCATIONS AND MOUNTING HEIGHTS WHERE NECESSARY TO PREVENT INTERFERENCE WITH FURNITURE, FIXED CASEWORK, EQUIPMENT, ETC. VERIFY ALL CHANGES PRIOR TO ROUGH-IN.
 - P2 ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, AND CONNECTION REQUIREMENTS (RECEPTACLES, SWITCHES, DISCONNECTS) WITH EQUIPMENT VENDOR PRIOR TO ROUGH-IN. A DEDICATED NEUTRAL SHALL BE PROVIDED FOR EACH AND EVERY 120V AND 277V BRANCH CIRCUIT. MULTIWIRE BRANCH CIRCUITS WITH SHARED NEUTRALS ARE NOT PERMITTED.
 - P4 PROVIDE #12 SIZE CONDUCTORS FOR 80A-100V CIRCUITS WITH DISTANCE LENGTHS THAT EXCEED 100 FT.
- POWER CODED NOTES:**
- ① PROVIDE (3) 208V 1P/3A 2P TWIST LOCK RECEPTACLES @ 30% WITH CIRCUITS INDICATED FOR TELECOM EQUIPMENT AND CONNECT COMPLETE VIA 3/4" - 2 #10 AND 1 #10 EGS.
 - ② PROVIDE JUNCTION BOX WITH 120V EMERGENCY CIRCUIT INDICATED AND HARD WIRED CONNECTION TO NURSE CALL TERMINAL CABINET. CONNECT COMPLETE VIA 3/4" - 2 #10 AND 1 #10 EGS.
 - ③ COORDINATE EXACT MOUNTING LOCATION WITH FURNITURE VENDOR PRIOR TO ROUGH-IN.
 - ④ FIELD COORDINATE EXACT RECEPTACLE MOUNTING HEIGHT WITH PATIENT TRACKING MONITOR.
 - ⑤ COORDINATE ALL WORK (LOCATIONS, OUTLET CONFIGURATIONS, ETC.) WITH VA/ITD DEPT PRIOR TO ROUGH-INS.
 - ⑥ FIELD COORDINATE EXACT MOUNTING HEIGHTS OF ALL TELEVISION MONITORS (MARKED TV) WITH COR PRIOR TO ROUGH-INS.
 - ⑦ PROVIDE CAT 6 CABLE FROM MOTORIZED SHADE TO LOCAL CONTROL SWITCH. REFER TO MANUFACTURER WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.
 - ⑧ DEVICE TO BE MOUNTED IN SYSTEM FURNITURE BACKBOX. PROVIDE JUNCTION BOX BEHIND FURNITURE AND CONNECT COMPLETE TO FURNITURE SYSTEM DEVICES. VERIFY EXACT REQUIREMENTS AND LOCATIONS WITH FURNITURE MANUFACTURER PRIOR TO ROUGH-IN. TYPICAL OF EXAM ROOMS AND DERMATOLOGY PROCEDURE ROOMS.
 - ⑨ PROVIDE 208V 3A 2P TWIST LOCK NEMA 14-30 RECEPTACLE FOR LASER OUTLET. COORDINATE NEMA CONFIGURATION WITH VA C.O.S. PRIOR TO ORDERING/ROUGH-IN.



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CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED



PARTIAL 2ND FL POWER PLAN (DEDUCT ALTERNATE NO 4)
1/8" = 1'-0"

BID ALTERNATES

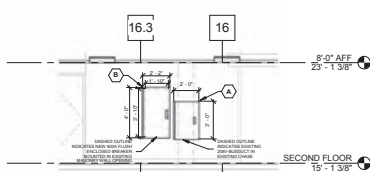
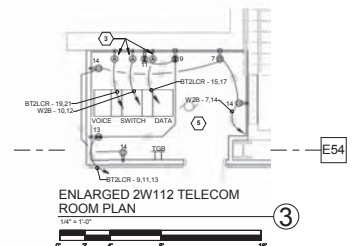
A BASE BID SHALL INCLUDE ALL WORK CALLED OUT ON THE DRAWINGS AND SPECIFICATIONS, EXCEPT FOR THE SCOPE MODIFICATIONS LISTED BELOW:

1. DELETE FROM THE PROJECT SCOPE THE ALTERNATE CORRIDOR CONNECTION WORK IDENTIFIED BY A DEDUCT ALTERNATE NO 4 VIEW ON EACH APPLICABLE SHEET OF PHASE 1B.
2. DEDUCT ALTERNATE NO 4. BID SHALL INCLUDE ALL WORK DESCRIBED IN BASE BID EXCEPT FOR THE SCOPE MODIFICATIONS LISTED BELOW:
1. DELETE FROM THE PROJECT SCOPE ALL BASE BID WORK ASSOCIATED WITH PHASE 1B.
2. ADD TO THE PROJECT SCOPE THE ALTERNATE CORRIDOR CONNECTION WORK IDENTIFIED BY A VIEW ON EACH APPLICABLE SHEET OF PHASE 1B.

2ND FL POWER PLAN - PH 1B
1/8" = 1'-0"

- POWER GENERAL NOTES**
1. REFER TO THE ARCHITECTURAL PLANS FOR EQUIPMENT LAYOUT. CLOSELY COORDINATE THE EXACT LOCATION OF ALL OUTLETS AND DEVICES WITH ARCHITECTURAL ELEVATIONS. ADJUST LOCATIONS AND MOUNTING HEIGHTS WHERE NECESSARY TO PREVENT INTERFERENCE WITH FURNITURE, FIXED CASEWORK, EQUIPMENT, ETC. VERIFY ALL CHANGES PRIOR TO ROUGH-IN.
 2. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, AND CONNECTION REQUIREMENTS (RECEPTACLES, SWITCHES, DISCONNECTS) WITH EQUIPMENT VENDOR PRIOR TO ROUGH-IN. A DEDICATED NEUTRAL SHALL BE PROVIDED FOR EACH AND EVERY 120V AND 277V BRANCH CIRCUIT. MULTIPLE BRANCH CIRCUITS WITH SHARED NEUTRALS ARE NOT PERMITTED.
 3. PROVIDE #10 SIZE CONDUCTORS FOR 200A/120V CIRCUITS WITH STANCE LENGTHS THAT EXCEED 100 FT.
- POWER CODED NOTES:**
1. FIRE SHUTTER - PROVIDE JUNCTION BOX WITH 120V LIFE SAFETY CIRCUIT INDICATED AND HARD-WIRED CONNECTION PER MANUFACTURER'S WIRING DIAGRAM. INTERFACE WITH FIRE ALARM SYSTEM TO CLOSE FIRE SHUTTER UPON ACTIVATION OF FIRE ALARM SYSTEM. REFER TO FIRE ALARM PLAN FOR ADDITIONAL WORK REQUIREMENTS.
 2. PROVIDE 2" CORE DRILL THRU SECOND FLOOR FOR NEW FIRE-RATED POKE-THRU ROUTE POWER CIRCUITS ASSOCIATED WITH FIRE ALARM. FIRST FLOOR FINISH CEILING AND OVER TO NEAREST 2ND FLOOR STUD WALL PARTITION. CONTINUE ROUTING IN WALL TO ABOVE 2ND FLOOR CEILING TO CIRCUIT INDICATED. REMOVE/REINSTALL 1ST FLOOR CEILING AND NEUTRAL ELECTRICAL DEVICES TO ACCOMMODATE THIS WORK.
 3. PROVIDE (3) 200A/1PH-3ØA TWIST-LOCK RECEPTACLES (2-3ØA) WITH CIRCUITS INDICATED FOR TELECOM EQUIPMENT AND CONNECT COMPLETE VIA 3/4" - 2 #10 AND 1 #10 EGS.
 4. PROVIDE JUNCTION BOX WITH 120V EMERGENCY CRITICAL CIRCUIT INDICATED AND HARD-WIRED CONNECTION TO NURSE CALL TERMINAL CABINET. CONNECT COMPLETE VIA 3/4" - 2 #10 AND 1 #10 EGS.
 5. COORDINATE ALL WORK LOCATIONS, OUTLET CONFIGURATIONS, ETC. WITH VA IT DEPARTMENT PRIOR TO ROUGH-INS. FIELD COORDINATE EXACT MOUNTING HEIGHTS OF ALL TELEVISIONS/MONITORS (MARKED TV) WITH COR PRIOR TO ROUGH-INS.
 6. FIELD COORDINATE EXACT RECEPTACLE MOUNTING HEIGHT WITH PATIENT TRACKING MONITOR.
 7. SEE ENLARGED 2W112 TELECOM ROOM PLAN FOR WORK REQUIREMENTS.
 8. FIELD COORDINATE EXACT CORE DRILL LOCATION WITH FURNITURE LAYOUT PROVIDED BY VA PRIOR TO WORK - PREP.
 9. NEW ELECTRICAL ROOM 2N108 CONSTRUCTION AND INSTALLATION OF NEW POWER DISTRIBUTION EQUIPMENT SHALL BE COMPLETED PRIOR TO DEMOLITION OF EXISTING PANELS. NEW PANELS SHALL REFLECT EXISTING LOADS TO REMAIN. REFER TO DRAWINGS 2ND FL POWER PLAN - PH 1B AND 2ND (CORRIDOR BUILDING) PH1B ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
 10. PROVIDE POWER FOR MOTORISED ROLL DOWN SECURITY GATE. COORDINATE WORK WITH MANUFACTURER'S WIRING DIAGRAM/REQUIREMENTS PRIOR TO ROUGH-INS.

2W - PANEL CIRCUIT DESIGNATIONS	
PANEL NAME	POWER DISTRIBUTION SYSTEM
BT2LCR	CRITICAL
W2C	NORMAL

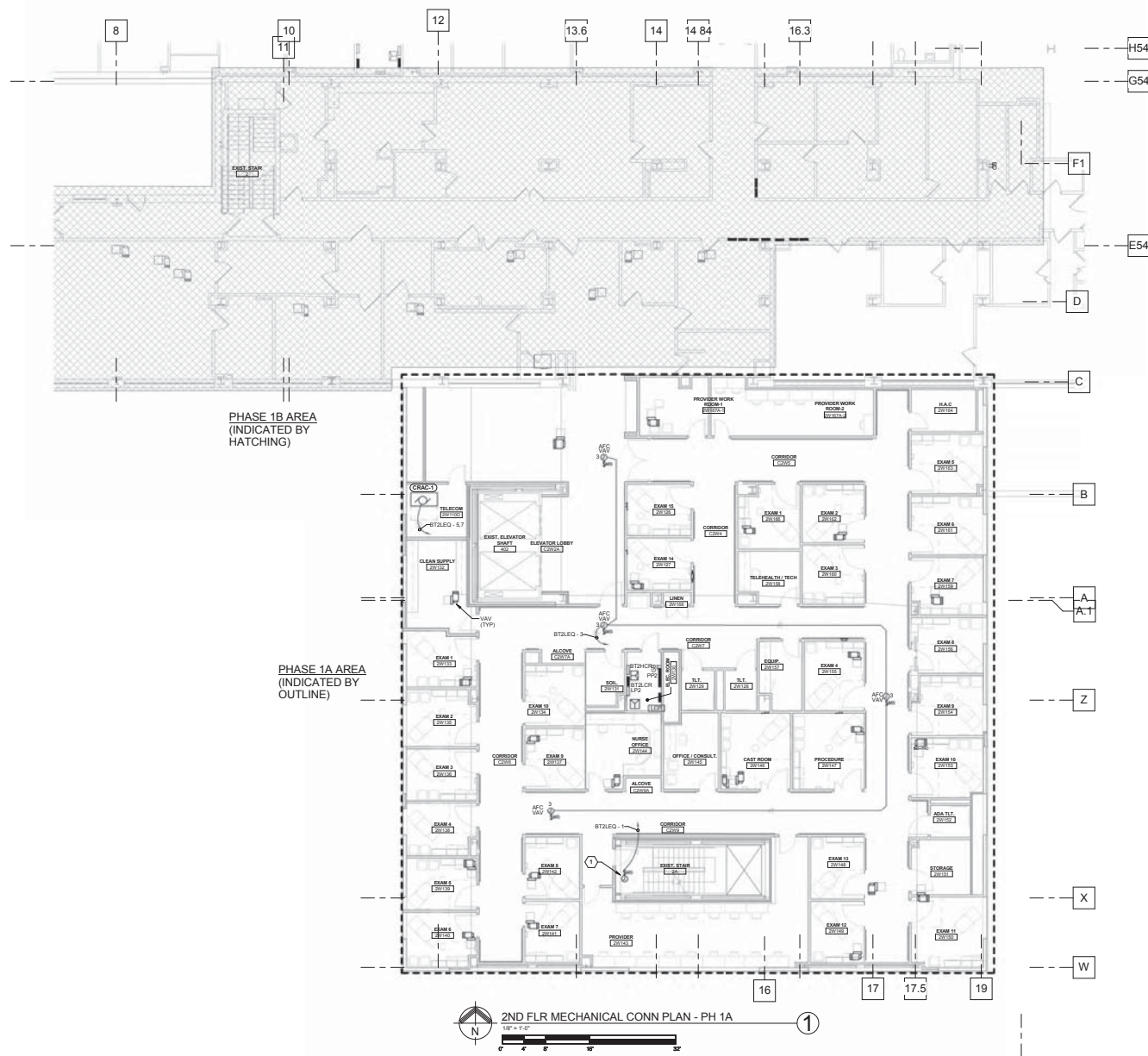


CORRIDOR C2W1 WALL SECTION
1/4" = 1'-0"

**CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED**

CONSULTANTS: FRIEDMAN, KESSLER & MILLER ENGINEERS, INC. 10000 W. 12TH AVE., SUITE 100 DENVER, CO 80202		ARCHITECTS/ENGINEERS: ARCHITECTURAL PROJECT # 18500 7850 Freeway Circle 440.243.2000 T Cleveland, OH 44130 440.243.3305 F		Drawing Title 2ND FL POWER PLAN - PH 1B Approved: Project Director		Project Title VA Pittsburgh Healthcare System UD EXPAND MEDICAL AND SURGICAL CLINICS Location UNIVERSITY DRIVE DIVISION		Project Number 646-372 Building Number Drawing Number E4-2 Date 05/06/2014		Office of Construction and Facilities Management 	
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 Title: 2ND FL POWER PLAN - PH 1B



MECHANICAL EQUIPMENT GENERAL NOTES:

M1. MECHANICAL EQUIPMENT SHALL BE CONNECTED COMPLETE PER MANUFACTURER'S WIRING DIAGRAMS AND DETAILS UNLESS OTHERWISE NOTED ON DRAWINGS.

M2. CONTRACTOR SHALL CONCEAL CONDUIT AND WIRING IN WALLS AND ABOVE CEILING AND PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR FINAL CONNECTION TO MECHANICAL EQUIPMENT. PROVIDE RIGID ALUMINUM CONDUITS AT EXTERIOR LOCATIONS. SEAL ALL ROOF PENETRATIONS WATER-TIGHT AND ALL WALL PENETRATIONS TO MAINTAIN FIRE RATING.

M3. CONTRACTOR SHALL PROVIDE ALL LOCAL DISCONNECTING MEANS FOR ALL MECHANICAL EQUIPMENT. UNLESS EQUIPMENT IS NOTED TO BE FURNISHED WITH INTEGRAL DISCONNECTS, LABEL ALL DISCONNECT SWITCHES TO INDICATE POWER SOURCE AND EQUIPMENT SERVED.

M4. COORDINATE EXACT INSTALLATION LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL PLANS PRIOR TO INSTALLATION.

M5. CONDUITS SHALL BE RIGID ALUMINUM AT EXTERIOR LOCATIONS.

M6. SHARED NEUTRALS ARE NOT PERMITTED FOR BRANCH CIRCUITS.

M7. CONTRACTOR SHALL INSTALL CONCRETE HOUSEKEEPING PAD FOR ALL ELECTRICAL EQUIPMENT MOUNTED ON FLOOR IN ELECTRICAL ROOMS, TRANSFORMERS, SWITCHGEAR, TRANSFER SWITCHES, UPS EQUIPMENT, MOTOR CONTROL CENTERS, ETC., REFER TO TYPICAL HOUSEKEEPING PAD DETAIL ON SUBSEQUENT DRAWINGS FOR ADDITIONAL REQUIREMENTS.

M8. CONTRACTOR IS RESPONSIBLE FOR RIDGING METHOD TO RAISE/LOWER ALL EQUIPMENT PROVIDED. COORDINATE EQUIPMENT ENTRY LOCATION WITH OWNER.

MECHANICAL EQUIPMENT CODED NOTES:

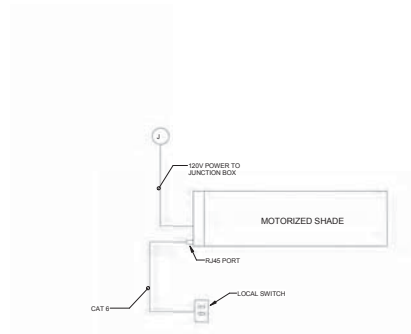
① PROVIDE 150V-1P CONNECTION TO FIRE SUPPRESSION COMPRESSOR. FIELD COORDINATE EXACT LOCATION OF MECHANICAL EQUIPMENT CONNECTION.

2ND FLR MECHANICAL CONN PLAN - PH 1A
1/8" = 1'-0"

CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED

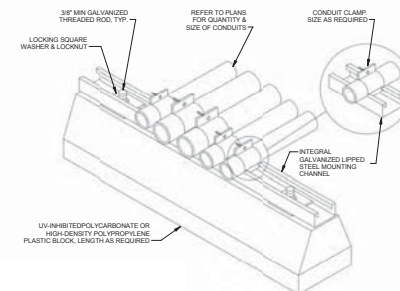
CONSULTANTS:		ARCHITECTS/ENGINEERS:		ARCHITECTURAL PROJECT # 18500		Drawing Title 2ND FL MECHANICAL CONNECTION PLANS - PH 1A		Project Title VA Pittsburgh Healthcare System UD EXPAND MEDICAL AND SURGICAL CLINICS		Project Number 646-372		Office of Construction and Facilities Management	
FREDERICK, FREDERICK & MILLER ENGINEERS, INC. ARCHITECTS/ENGINEERS 10000 WILSON ROAD COLUMBIA, MD 21046		CBLH Architecture Planning Interior Design 7850 Freeway Circle Cleveland, OH 44130 440.243.2000 T 440.243.3305 F		Approved: Project Director		Location UNIVERSITY DRIVE DIVISION		Date 05/06/2014		Checked MPL		Drawn TWM	
CONSTRUCTION BID DOCUMENTS Revisions		05/09/2014 Date		E5-2 Dwg. of		Department of Veterans Affairs							

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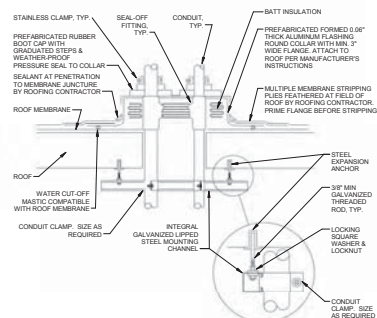
MOTORIZED SHADE DETAIL
NOT TO SCALE

⑤



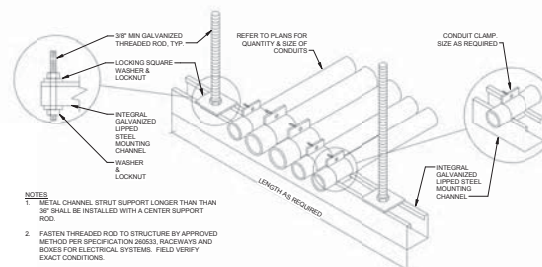
ROOF CONDUIT SUPPORT DETAIL
NOT TO SCALE

④



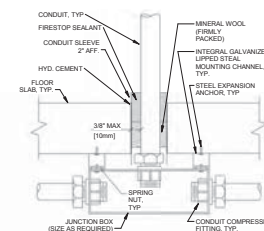
ROOF PENETRATION DETAIL
NOT TO SCALE

③



CONDUIT TRAPEZE MOUNTING DETAIL
NOT TO SCALE

②



FLOOR PENETRATION DETAIL
NOT TO SCALE

①

CONSTRUCTION BID DOCUMENTS FULLY SPRINKLERED

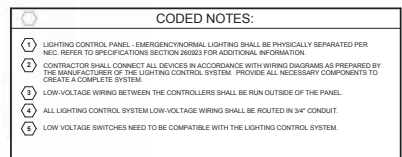
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OCCUPANCY SENSOR WITH SINGLE SWITCHING TYPICAL WIRING DIAGRAM



LIGHTING CONTROL PANEL DETAIL LCB-2BT
NOT TO SCALE



Office of
Construction
and Facilities
Management

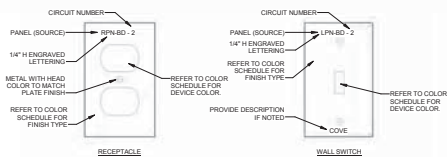
WALL PLATE DETAIL NOTES:

1. EACH EMERGENCY AND NORMAL WALL PLATE SHALL BE MACHINE ENGRAVED WITH THE PANEL NAME AND CIRCUIT NUMBER OF THE POWER SOURCE THAT SUPPLIES EACH DEVICE.
2. "STICK-ON" LABELS ARE NOT ACCEPTABLE.
3. DO NOT BACKFILL ENGRAVED LETTERING WITH COLOR.
4. SEE SPECIFICATIONS SECTION "WIRING DEVICES."

DEVICE COLOR SCHEDULE FOR RECEPTACLES AND WALL SWITCHES:

NORMAL POWER
WHITE DEVICE/WHITE NYLON PLATE - OFFICES & ADMINISTRATIVE RMS (NONVITABLE/STAINLESS STEEL PLATE - TAMPER PROOF RECEPTACLES (EXAM/PROCEDURE ROOMS & PUBLIC AREAS))

EMERGENCY POWER
RED DEVICE/RED NYLON PLATE - OFFICES & ADMINISTRATIVE RMS (RED DEVICE/STAINLESS STEEL PLATE - PATIENT CARE (EXAM/PROCEDURE ROOMS) & PUBLIC AREAS)



DEVICE AND WALL PLATE DETAIL

NOT TO SCALE

④



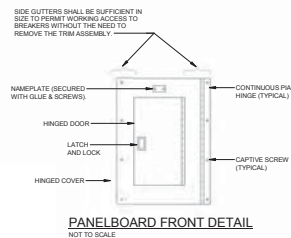
NAMEPLATE REQUIREMENTS:

1. PROVIDE AN IDENTIFICATION SIGN WHICH CLEARLY INDICATES ELECTRICAL SYSTEM INFORMATION FOR PANELBOARDS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, AUTOMATIC TRANSFER SWITCHES.
2. PROVIDE ENGRAVED 12" H (MIN.) LETTERING ON PHENOLIC NAMEPLATE WITH THE FOLLOWING COLOR FORMAT:
 - A. 208/120 VOLTS (NORMAL) - GREEN BACKGROUND, WHITE LETTERS
 - B. 480/277 VOLTS (NORMAL) - BLACK BACKGROUND, WHITE LETTERS
 - C. 208/120 VOLTS (EMERG.) - WHITE BACKGROUND, RED LETTERS
 - D. 480/277 VOLTS (EMERG.) - RED BACKGROUND, WHITE LETTERS
3. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

DISTRIBUTION EQUIPMENT NAMEPLATE DETAIL

NOT TO SCALE

③



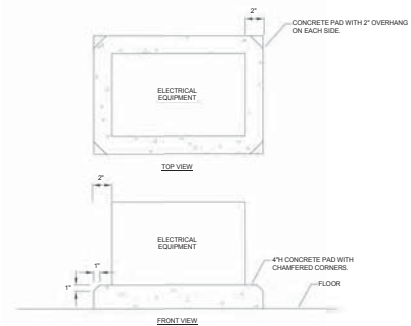
PANELBOARD CONSTRUCTION DETAIL

NOT TO SCALE

②

PANELBOARD CONSTRUCTION NOTES:

- A. ALL NEW PANELBOARDS SHALL BE PROVIDED WITH SUB-FEED LUGS AND SUFFICIENT SIZE WIRING OUTLETS TO ACCOMMODATE ALL FEEDERS (INCLUDING FUTURE) IN A CODE COMPLYING MANNER. FEED THROUGH LUGS ARE NOT ACCEPTABLE.
- B. ALL NAMEPLATES SHALL BE ENGRAVED PHENOLIC WITH WHITE LETTERS AND BLACK (RED FOR EMERGENCY) BACKGROUND. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- C. REFER TO SPECIFICATIONS FOR PANELBOARD CONSTRUCTION REQUIREMENTS REGARDING BUS, DIRECTORIES, FIDUCIALS, ETC.
- D. ONE MONTH AFTER OCCUPANCY BY THE OWNER, THE ELECTRICAL CONTRACTOR SHALL MEASURE AND RECORD THE FEEDER PHASE CURRENTS FOR ALL NEW AND EXISTING PANELBOARDS ASSOCIATED WITH THIS PROJECT, AND SHALL SUBMIT DATA TO ENGINEER.
- E. PROVIDE UPDATED TYPE SCHEDULES IN EXISTING PANELS, AND NEW SCHEDULES IN NEW PANELS. SCHEDULE DESCRIPTIONS SHALL INCLUDE TYPE (RECEPTACLES, LIGHTING, ETC., ETC.) AND ROOM NUMBER WHERE LOAD IS LOCATED.
- F. CIRCUIT ASSIGNMENTS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY AVAILABILITY PRIOR TO ROUGH-IN AND ORDERING ENGRAVED COVERPLATES. REPORT ANY DEVIATIONS TO ENGINEER FOR APPROVAL.



NOTE: CONTRACTOR SHALL INSTALL CONCRETE HOUSEKEEPING PAD FOR ALL ELECTRICAL EQUIPMENT MOUNTED ON FLOOR IN ELECTRICAL ROOMS (TRANSFORMERS, SUBSTATIONS, SWITCHBOARDS, TRANSFER SWITCHES, UPS EQUIPMENT, MOTOR CONTROL CENTERS, ETC.).

HOUSEKEEPING PAD

NOT TO SCALE

①

CONSTRUCTION BID DOCUMENTS FULLY SPRINKLERED

<p>CONSTRUCTION BID DOCUMENTS</p> <p>05/06/2014</p> <p>Revisions</p>	<p>CONSULTANTS:</p> <p>FREDERICK, HENNING & MILLER ENGINEERS, INC.</p> <p>2ND FLOOR PLAN</p> <p>KEY PLAN</p>	<p>ARCHITECTS/ENGINEERS:</p> <p>ARCHITECTURAL PROJECT # 18500</p> <p>CBLH</p> <p>7850 Freeway Circle</p> <p>440.243.2000 T</p> <p>Cleveland, OH 44130</p> <p>440.243.3305 F</p>	<p>Drawing Title</p> <p>ELECTRICAL DETAILS</p> <p>Approved: Project Director</p>	<p>Project Title</p> <p>VA Pittsburgh Healthcare System</p> <p>UD, EXPAND MEDICAL AND SURGICAL CLINICS</p> <p>Location</p> <p>UNIVERSITY DRIVE DIVISION</p> <p>Date</p> <p>05/06/2014</p> <p>Checked</p> <p>MPL</p> <p>Drawn</p> <p>TWM</p>	<p>Project Number</p> <p>646-372</p> <p>Building Number</p> <p>Drawing Number</p> <p>E6-3</p> <p>Day of</p>	<p>Office of Construction and Facilities Management</p> <p>Department of Veterans Affairs</p>
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CONSTRUCTION BID DOCUMENTS	05/30/2014
Revisions	Date

CONSULTANTS:



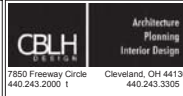
PROWSE, FRANKS & HILLER
INC.
4400 W. 12TH STREET
SUITE 200
CLEVELAND, OH 44130
TEL: 216.441.1100
WWW.PFHILLER.COM



KEY PLAN



ARCHITECTS/ENGINEERS:



7850 Freeman Circle
440 243 2000 1
Cleveland, OH 44130
440 243 3305 1

ARCHITECTURAL PROJECT #18500

Drawing Title
ONE-LINE DIAGRAM LEGEND

Approved: Project Director

Project Title
VA Pittsburgh Healthcare System
UD, EXPAND MEDICAL AND
SURGICAL CLINICS

Location
UNIVERSITY DRIVE DIVISION

Date
05/06/2014

Checked
MPL

Drawn
TWM

Project Number
640-372

Building Number

Drawing Number
E7-1

Dwg. of

Office of
Construction
and Facilities
Management

Department of
Veterans Affairs

FEEDER SCHEDULE

ONE-LINE TAG	CONDUIT AND WIRE SIZE
30A-2W	0.75" - 2 #10 AND 1 #10EG
30A-3W	0.75" - 3 #10 AND 1 #10EG
40A-2W	0.75" - 2 #8 AND 1 #10EG
40A-3W	0.75" - 3 #8 AND 1 #10EG
40A-4W	0.75" - 4 #8 AND 1 #10EG
50A-3W	0.75" - 3 #6 AND 1 #10EG
60A-2W	1" - 2 #4 AND 1 #8EG
60A-3W	1" - 3 #4 AND 1 #8EG
60A-4W	1" - 4 #4 AND 1 #8EG
70A-3W	1" - 3 #4 AND 1 #8EG
100A-3W	1" - 3 #2 AND 1 #8EG
100A-4W	1.25" - 4 #2 AND 1 #8EG
120A-3W	1.5" - 3 #1/0 AND 1 #8EG
150A-4W	1.5" - 4 #1/0 AND 1 #8EG
175A-4W	2" - 4 #2/0 AND 1 #8EG
225A-4W	2.5" - 4 #4/0 AND 1 #4EG
225A-6W	2.5" - 3 #4/0 N, 1 #4/0 H, 1 #4/0 G, 1 #4/0 EG
250A-3W	2.5" - 3 #4/0 AND 1 #4EG
250A-4W	2.5" - 4 #4/0 AND 1 #4EG
300A-4W	2.5" - 4 #500KCM AND 1 #4EG
400A-3W	2.5" - 3 #500KCM AND 1 #2EG
400A-4W	3" - 4 #500KCM AND 1 #2EG
600A-3W	(2)2.5" - 3 #500KCM AND 1 #1/0 EG (2-SETS OF #500KCM IN PARALLEL)
600A-4W	(2)3" - 4 #500KCM AND 1 #1/0 EG (2-SETS OF #500KCM IN PARALLEL)
800A-3W	(2)3" - 3 #500KCM AND 1 #1/0 EG (2-SETS OF #500KCM IN PARALLEL)
800A-4W	(2)3" - 4 #500KCM AND 1 #1/0 EG (2-SETS OF #500KCM IN PARALLEL)

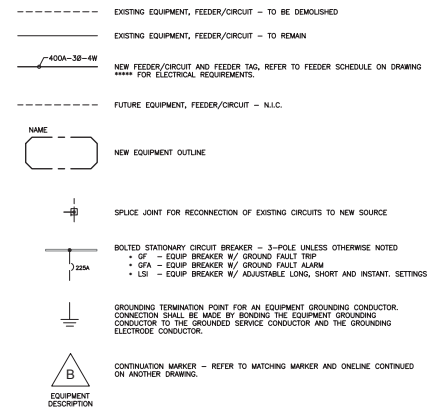
BRANCH CIRCUIT AND FEEDER RECONNECTION TABLE

BRANCH CIRCUIT INFORMATION									
TAG	LOAD DESCRIPTION	POWER CLASS	VOLTAGE	O.C.P. OR STARTER SIZE	EXIST. SOURCE	NEW SOURCE	NEW CIRCUIT NUMBERS	CONDUIT SIZES	CONDUCTORS
01	PANEL W022.W021	N	480V	225A-3P	BUS DUCT	OPW2	1,3,5	2.5"	4 #40H & 1 #4EG
02	PANEL W01P.W02B	N	480V	225A-3P	BUS DUCT	OPW2	7,9,11	2.5"	4 #40H & 1 #4EG
03	(1) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W02C1	W2A	9	1"	1 #10H, 1 #10N & 1 #10EG
04	(2) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	OTC	W2A	2,4	1"	2 #10H, 2 #10N & 1 #10EG
05	(3) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W02B	W2A	1,1,13	1"	2 #10H, 2 #10N & 1 #10EG
06	(4) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W02B	W2A	1,7,10,14	1"	4 #10H, 4 #10N & 1 #10EG
07	(5) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W02B	W2A	12,14	1"	2 #10H, 2 #10N & 1 #10EG
08	(6) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W2A	W2A	6,10	1"	1 #10H, 1 #10N & 1 #10EG
09	(7) REMAINING 20A-1P BRANCH CIRCUITS	N	120V	20A-1P	W2A	W2A	6	1"	1 #10H, 1 #10N & 1 #10EG

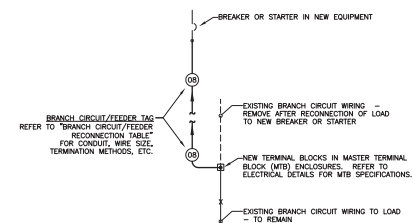
NOTES:

- ELECTRICAL CONTRACTOR SHALL IDENTIFY ALL EXISTING CIRCUITS FED OUT OF EXISTING ELECTRICAL ROOM PRIOR TO DISCONNECTING. TRACE EXISTING CIRCUITS WITH AN ADVANCED WIRE TRACER THAT WORKS WITH ENERGIZED OR DE-ENERGIZED AND IS CAPABLE OF INJECTING TRACE SIGNAL WITH CLAMP-ON ATTACHMENTS FOR NON-CONTACT OPERATION. IN GENERAL, CIRCUITS MUST BE TRACED WHILE ENERGIZED.
- A WRITTEN "LOAD IDENTIFICATION" REPORT OF ALL EXISTING CIRCUITS FED FROM THIS ROOM SHALL BE SUBMITTED TO THE C.O.T.R. FOR REVIEW WITH THE FACILITIES MAINTENANCE DEPARTMENT. THE REPORT SHALL INDICATE: SOURCE EQUIPMENT NAME, CIRCUIT NUMBER, CIRCUIT RATING, LOAD DESCRIPTION, LOAD LOCATION, DATE OF TRACE AND INITIAL OF PERSON COMPLETING TRACE.
- PERFORM ALL CUT-OVER WORK OF RECONNECTED BRANCH CIRCUITS/FEEDERS DURING VAMC "OFF-HOURS" THIS WORK SHALL BE SCHEDULED WITH THE C.O.T.R. AT LEAST 14 DAYS IN ADVANCE. ALL PREMIUM COST (LABOR, EQUIPMENT RENTAL/ETC) ASSOCIATED WITH PERFORMING THIS WORK DURING SECOND SHIFTS, THIRD SHIFTS OR WEEKENDS SHALL BE INCLUDED IN THE CONTRACTORS BID PRICE.
- QUANTITY OF BREAKERS AND LENGTH OF CONDUCTOR RUNS IN FLOOR SLAB ARE AN APPROXIMATION. CONTRACTOR SHALL FIELD VERIFY EXACT QUANTITY OF BREAKERS AND LENGTH OF CONDUCTORS PRIOR TO DEMOLITION OF EXISTING PANELBOARDS. REPORT AN DISCREPANCIES TO ENGINEERS.
- CONTRACTOR SHALL TRACE EXISTING BRANCH CIRCUIT CONDUCTORS AND COORDINATE SHUT-DOWNS OF ALL EXISTING ELECTRICAL SYSTEMS WITH OWNER.
- FOR EXISTING MULTIPLE BRANCH CIRCUIT LOADS ROUTED IN THE FLOOR SLAB, THE CONTRACTOR SHALL TRACE THE CIRCUITS AND CONNECT THE NEW BRANCH CIRCUIT CONDUCTOR TO THE FIRST OUTLET/JUNCTION BOX IN THE CIRCUIT IN ORDER TO MAINTAIN ALL EXISTING CIRCUITING.
- CONTRACTOR SHALL RECONNECT ALL EXISTING (REMAINING) ACTIVE CIRCUITS TO NEW ELECTRICAL DISTRIBUTION. REFER TO BRANCH CIRCUIT RECONNECTION DETAILS FOR ELECTRICAL REQUIREMENTS.

LEGEND: POWER DISTRIBUTION ONE-LINE



BRANCH CIRCUIT RECONNECTION DETAIL - TYPICAL

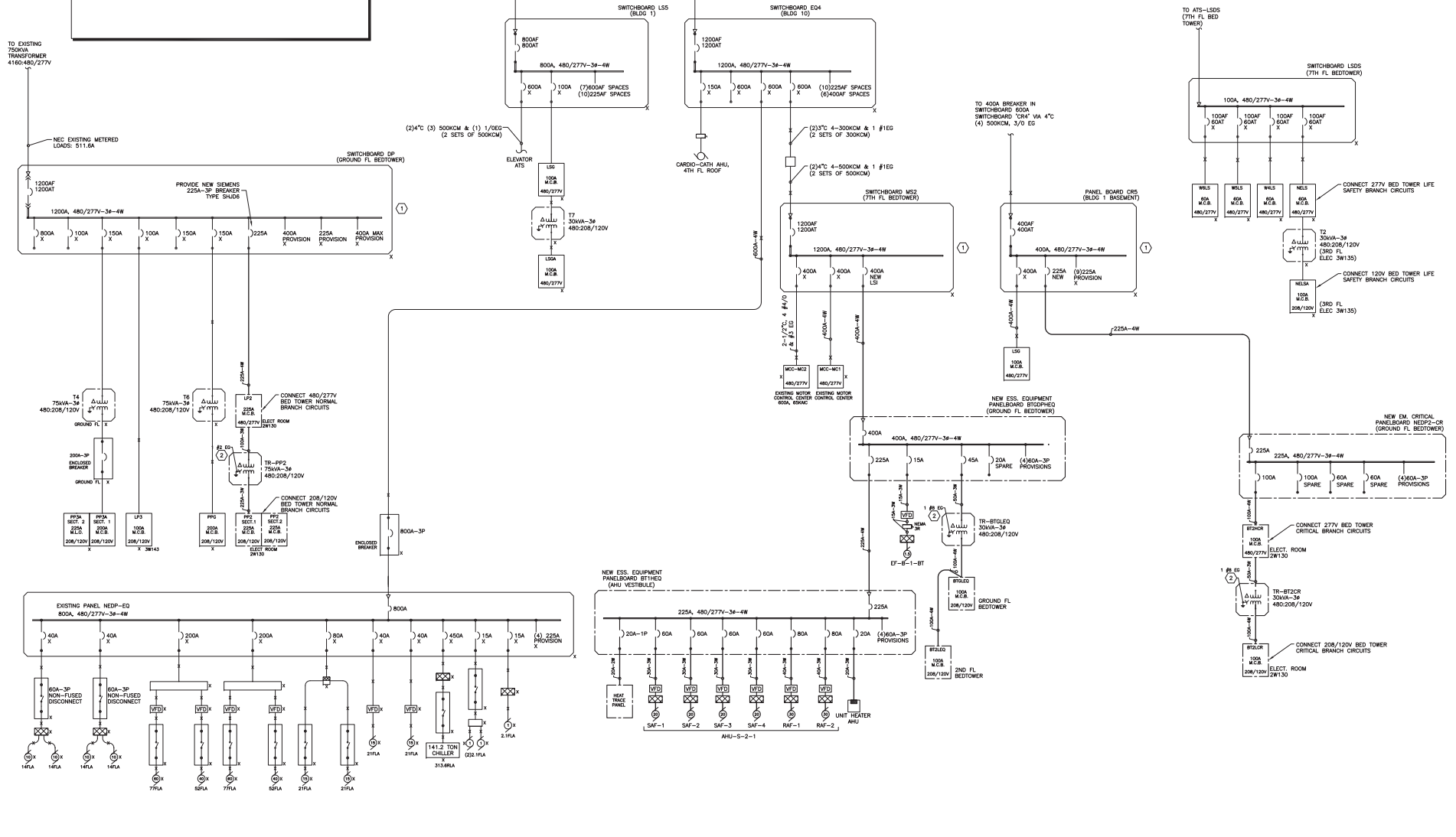
CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED

CODED NOTES:

- COORDINATE ALL SHUT-DOWNS OF EXISTING ELECTRICAL SYSTEMS WITH OWNER A MINIMUM OF FOURTEEN (14) WORKING DAYS IN ADVANCE. ALL SHUT-DOWNS SHALL OCCUR DURING WEEKENDS OR BETWEEN 8:00PM AND 7:00AM ON WEDNESDAYS ("OFF-HOURS"). INCLUDE ALL PREMIUM TIME CHARGES IN BID.
- CONNECT TO GROUNDING ELECTRODE (BUILDING STEEL) PER NEC 250. PROVIDE SAME SIZE BONDING JUMPER FROM GROUNDING CONDUCTOR TO NEUTRAL.

TO 800A BREAKER IN 2000A SWITCHBOARD "LS4" VIA (2) 4°C - (4) 500KCM, 1/0 EG (2 SETS OF 500KCM)

TO 1200A/1140AT BREAKER IN SWITCHBOARD 2000A SWITCHBOARD "LS4" VIA (3) 4°C - (4) 500KCM, 3/0 EG



2BT (BED TOWER) ONE-LINE DIAGRAM 1

**CONSTRUCTION BID DOCUMENTS
FULLY SPRINKLERED**

<p>CONSTRUCTION BID DOCUMENTS</p> <p>05/30/2014</p> <p>Revisions</p>	<p>CONSULTANTS:</p> <p>PROVINCIA, PETERSON & HILLER</p> <p>440.243.2000</p> <p>440.243.3305</p> <p>KEY PLAN</p>	<p>ARCHITECTS/ENGINEERS:</p> <p>ARCHITECTURAL PROJECT #18500</p> <p>CBLH</p> <p>7850 Freeman Circle</p> <p>440.243.2000</p> <p>Cleveland, OH 44130</p> <p>440.243.3305</p>	<p>Drawing Title</p> <p>2B (BED TOWER) PH 1A ONE-LINE DIAGRAM</p> <p>Approved: Project Director</p>	<p>Project Title</p> <p>VA Pittsburgh Healthcare System</p> <p>UD, EXPAND MEDICAL AND</p> <p>SURGICAL CLINICS</p> <p>Location</p> <p>UNIVERSITY DRIVE DIVISION</p> <p>Date</p> <p>05/06/2014</p> <p>Checked</p> <p>MPL</p> <p>Drawn</p> <p>TMM</p>	<p>Project Number</p> <p>640-372</p> <p>Building Number</p> <p>E7-2</p> <p>Dwg. of</p> <p>Office of Construction and Facilities Management</p> <p>Department of Veterans Affairs</p>
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DEDUCT ALTERNATE NO 4

DPW2-120/208 Wye-3Φ-4W											
Location: ELEC ROOM 2W105				OCP: 600 A							
Mounting: Surface				Main: MCB							
Comments: DPW2				A.I.C Rating: 22 KVAIC							
CKT	Circuit Description	Tripp	Poles	A (KVA)	B (KVA)	C (KVA)	Poles	Tripp	Circuit Description	CKT	
1	PNL W2A	225 A	3	0.0	0.0	0.0	3	225 A	W2B	4	
2	PROV	225 A	3	0.0	0.0	0.0	3	225 A	PROV	5	
3	PNL W2D1 W2D2	225 A	3	0.0	0.0	0.0	3	100 A	PROV	10	
4	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	12	
5	PNL W2E W2F	225 A	3	0.0	0.0	0.0	3	100 A	PROV	14	
6	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	16	
7	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	18	
8	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	19	
9	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	20	
10	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	21	
11	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	22	
12	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	23	
13	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	24	
14	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	25	
15	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	26	
16	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	27	
17	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	28	
18	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	29	
19	PROV	225 A	3	0.0	0.0	0.0	3	100 A	PROV	30	
Total New Load:				8.1 KVA	6.8 KVA	5.5 KVA					
Total New Demand:				6.5 A	5.4 A	4.6 A					
Total New Demand Amps:				43 A							