



## **IFB ADDENDUM #2**

To: All Bidders

From: Rita V. Brousseau, Chief Procurement Officer

Date: January 12, 2024

Re: IFB 2023-10 City View Towers Electrical Upgrade

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This Addendum modifies and forms a part of the Bid Set documents dated December 13, 2023.

This Addendum consists of the following: Four (4) typed pages, revised drawings and asbestos report.

Where any items called for in the bid documents are supplemented here, the supplemental requirements shall be considered as added thereto. Where any original item is amended, voided, or superseded here, the other provisions of such items not specifically amended, voided, or superseded shall remain in effect.

THE NUMBER OF THIS ADDENDUM MUST BE ENTERED IN THE APPROPRIATE SPACE PROVIDED ON "GENERAL BID FORM."

**Extension of Bid Due Date and Time:** Bids from all vendors are due at the Lowell Housing Authority Dept. of Finance & Procurement, 350 Moody Street, Lowell, MA 01854 on or before **11:00 AM on January 31, 2024.**

**Pre-Bid Site Visits:** Additional site-visits are scheduled as listed below. Contractors shall meet in the lobby of City View Towers located at 657 Merrimack Street. Those wishing to attend should RSVP to Rita Brousseau at 978-364-5341 or at [rbrousseau@lhma.org](mailto:rbrousseau@lhma.org).

1. Wednesday, January 17, 2024 @ 1:00 p.m.
2. Thursday, January 18, 2024 @ 9:00 a.m.
3. Thursday, January 18, 2024 @ 2:00 p.m.

**Deadline for written questions:** Tuesday, January 23, 2024, by 3:00 p.m.

### **Drawings:**

#### **Drawing AD.01 - Basement Plan - Demolition**

1. Scope of Work Note R-2: Scope of Work R-2: Delete "VCT" and replace with "Ceramic Tile".  
Add sentence: - (R) All mortar and grout leaving a smooth concrete floor.



#### **Drawing E0.02 - Drawing E0.02 Electrical Abbreviations and General Notes:**

1. Add "Phasing Note: All temporary power rental equipment and associated cables shall be disconnected and removed by the rental company: Infra-Red Building & Power Service of Holbrook, MA (781) 767-0888 under a separate contract. Provide coordination of all required shutdowns between the Owner and Infra-Red BPS."

#### **Drawing E3.01 - Power Systems and Fire Alarm**

1. In Ductbank Section reference tags on Power and Systems Plan from "2" to "3".
2. In Ductbank Section - Add Tag 8 to read "Spare - 2 ½" C."
3. In Ductbank Section A - Change reference tag from "7" to "8".
4. In Ductbank Section - Change GDP feeder from 2" to 2 ½".

#### **Drawing E6.01 - Part Plans - New Work**

1. Add Drip Pan Detail.

#### **Drawing E7.02 - One Line Diagram - New Work**

1. Delete drawing in its entirety and replace with revised Drawing.

#### **Drawing E8.01 - Schedules**

1. Panelboard Schedule for Panel P2B1 to read: Mains: 400A MLO.

#### **Answers to Bidder's Questions:**

1. **Question:** Will the Housing Authority pay the utility company back charges if there are any?  
**Answer:** BMM to coordinate with LHA.
2. **Question:** Will the Housing Authority pay for the service company's charges if there are any? Pine Ridge, Rustic Fire, Infra-red, Power Up and elevator company.  
**Answer:** BMM to coordinate with LHA.
3. **Question:** Drawing AD.01 Note R2 Remove all VCT flooring except within restrooms shown to remain. During the walkthru, portion of the office spaces are ceramic tile, do we need to demo those? Since the note only mentions VCT flooring.  
**Answer:** See above.
4. **Question:** Need abatement testing report to identify what are has asbestos.  
**Answer:** See above.

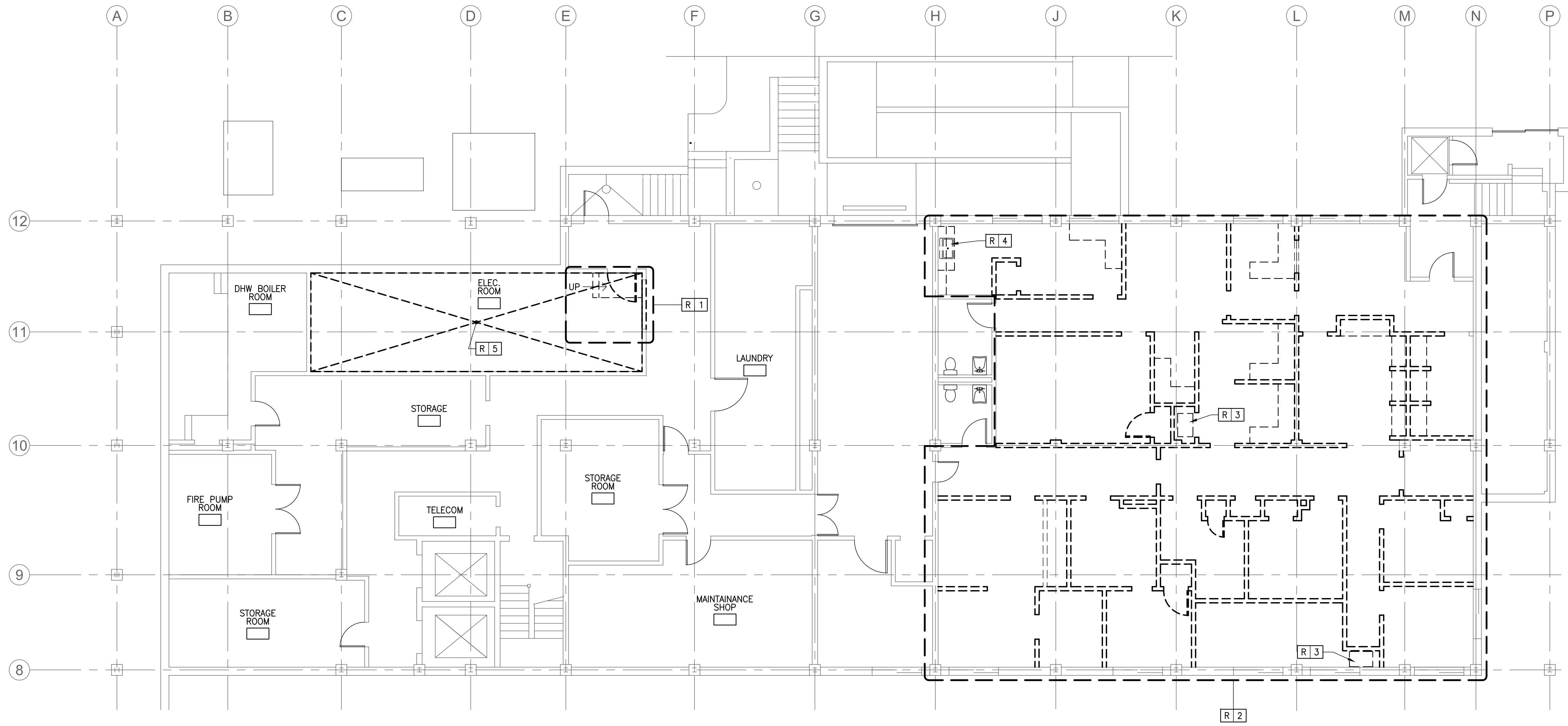


5. **Question:** What kind of wiring method for the non-demo area (From column A to column G)? Existing are sheetrock hard ceiling. Existing there are some surface mount EMT. Do all those new receptacles and lighting feeds need to be concealed or can be surface mount?  
**Answer:** Refer to Specification Section 260533.13 Paragraph 3.1.5.
6. **Question:** Is there any existing security service company that service the existing security and access system? We need to contact them for relocation of the equipment.  
**Answer:** Yes. BCM Controls Corporation, 30 Commerce Way, Woburn, MA (781) 933-8878.
7. **Question:** Request to have a second walk through with our sub-contractors.  
**Answer:** See site visit schedule above.
8. **Question:** Who is who is responsible for removing the rental power cables, Infra-Red's electrician did not know if this was carried in the original emergency contract.  
**Answer:** Rental power equipment and cables shall be removed by the rental company, coordination and phasing is required.
9. **Question:** ATS-1 is fed with 3 #6 on a 90A breaker. Please confirm this is correct.  
**Answer:** Answer: See above.
10. **Question:** ATS-2 is fed with 3 #6 on a 150A breaker. Please confirm this is correct.  
**Answer:** See above.
11. **Question:** The 45KVA for Life Safety calls for #2 on 150A. Please confirm this is correct.  
**Answer:** See above.
12. **Question:** DP2B calls for 8 conductors in (1) 1" conduit. Should this be 2 conduits?  
**Answer:** See above.
13. **Question:** Panel P2B1, L2B1, LRB1 and M2B1 do not show neutrals. Please confirm this is correct.  
**Answer:** See above.
14. **Question:** Does the vertical Bus Duct require a neutral? It is not shown on the riser.  
**Answer:** See above.
15. **Question:** There are no grounds shown on the riser. Please confirm this is correct.  
**Answer:** See above.
16. **Question:** What Fire Alarm system is currently in place? It is listed to remain.  
**Answer:** Mircom FX2000 Series.

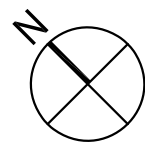


17. **Question:** Who is the company on record for the Fire Alarm in the building?  
**Answer:** Pine Ridge Technologies, 217R Main St., North Reading, MA 01864. Contact Jonathan Gonzalez (781) 246-5555.
18. **Question:** Regarding the Asbestos Abatement scope of work, is there an available Asbestos Report that can be issued via addendum?  
**Answer:** See attached.
19. **Question:** Can the quantity of devices/items to be abated be issued via addendum to ensure equal playing field for all bidders?  
**Answer:** See above.
20. **Question:** Specifications Section 024119 1.2 B lists 020800 as the Specification Section for Asbestos Abatement and Related Work. This Specification Section is not shown. Will 020800 be released via addendum to clarify scope of work?  
**Answer:** See above.

END OF ADDENDUM #2



**1 BASEMENT PLAN - DEMOLITION**  
SCALE: 1/8" = 1'-0"



#### NOTES

1. ABBREVIATIONS, LEGENDS AND NOTES REFER TO A1.01.

#### SCOPE OF WORK NOTES

**R 1** -SYMBOL DENOTES WORK TO BE DONE. NUMBER CORRESPONDS TO A SPECIFIC NOTE BELOW.

**R 1** **EXISTING ELECTRICAL ROOM**  
-(R) CONCRETE LANDING AND TREAD.  
-(R) DOOR AND FRAME  
-(R) PORTION OF CMU PARTITION FOR NEW DOOR AND FRAME.

**R 2** **EXISTING OFFICES**  
-(R) ALL PARTITIONS INDICATED BY DASHED LINE UP TO DECK ABOVE.  
-(R) ALL DOORS AS INDICATED BY DASHED LINE.  
-(R) ALL SUSPENDED CEILINGS. (E) SPRINKLER HEADS TO REMAIN  
-(R) ALL COUNTERS, CABINETS, BUILT IN DESKS, ETC.  
-(R) ALL CERAMIC TILE FLOORING EXCEPT WITHIN RESTROOMS SHOWN TO REMAIN.  
-(R) ALL MORTAR AND GROUT LEAVING A SMOOTH CONCRETE FLOOR.

**R 3** **EXISTING HVAC UNITS**  
-(R) SPLIT SYSTEM AIR CONDITIONING SYSTEM INCLUDING ALL DUCTWORK, REFRIGERANT PIPING, OUTDOOR CONDENSER, THERMOSTAT CONTROLS, AND CONDENSATE PUMP AND PIPING.

**R 4** **EXISTING KITCHEN SINK**  
-(R) SINK AND FAUCET. CUT AND CAP EXISTING PIPING STUBBED OUT OF WALL.

**R 5** **SUSPENDED GWR CEILING**  
-(R) SUSPENDED GYPSUM WALL BOARD AND FRAMING SYSTEM INCLUDING HANGERS. EXISTING PLASTER COATING CONTAINS ASBESTOS AND SHALL BE ABATED IN ACCORDANCE WITH SPECIFICATIONS.

ELECTRICAL ABBREVIATIONS

#P	NUMBER OF POLES	KVA	KILOVOLT-AMPERE
#P#W	NUMBER OF POLES, NUMBER OF WIRES	KVAR	KILOVOLT-AMPERE REACTIVE
		KW	KILOWATTS
+#	NUMERAL INDICATES MOUNTING HEIGHT TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE, IN INCHES.	LTC	LIGHTING
		LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
		LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT
A	AMPERES	LV	LOW VOLTAGE
AC	ALTERNATING CURRENT	MAX	MAXIMUM
A/E	ARCHITECT/ENGINEER	MC	METAL CLAD CABLE
AF	AMP FRAME / AMP FUSE	MCB	MAIN CIRCUIT BREAKER
AFCI	ARC-FAULT CIRCUIT INTERRUPTER	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MCP	MOTOR CIRCUIT PROTECTOR
AFG	ABOVE FINISHED GRADE	MFR	MANUFACTURER
AHJ	AUTHORITY HAVING JURISDICTION	MIN	MINIMUM
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUG ONLY
AL	ALUMINUM	MTD	MOUNTED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MTG	MOUNTING
AS	AMP SWITCH	MTS	MANUAL TRANSFER SWITCH
AT	AMP TRIP	MV	MEDIUM VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH		
AUX	AUXILIARY	NAC	NOTIFICATION APPLIANCE CIRCUIT
A/V	AUDIO / VISUAL	NC	NORMALLY CLOSED
AWG	AMERICAN WIRE GAGE	NEC	NATIONAL ELECTRIC CODE
		NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
BIL	BASIC IMPULSE LEVEL	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BLDG	BUILDING	NIC	NOT IN CONTRACT
BPS	BOLTED PRESSURE SWITCH	NM	NON-METALLIC SHEATHED CABLE
		NMC	NON-METALLIC CONDUIT
C	CONDUIT	NO	NORMALLY OPEN
CAT	CATALOG	NTS	NOT TO SCALE
CATV	CABLE TELEVISION	#	NUMBER
CCTV	CLOSED CIRCUIT TELEVISION		
CKT	CIRCUIT	O.C.	ON CENTER
CB/CKT BKR	CIRCUIT BREAKER	O/H	OVERHEAD
CL	CENTERLINE	PC	PLUMBING CONTRACTOR/ PERSONAL COMPUTER
CO	CARBON MONOXIDE		
CP	CONTROL PANEL	PH / Ø	PHASE
CT	CURRENT TRANSFORMER	PIR	PASSIVE INFRARED
CU	COPPER	PIV	POST INDICATING VALVE
		PNL/PNLBD	PANEL/PANELBOARD
Δ	DELTA	POS	POINT OF SALE
DC	DIRECT CURRENT	PRI	PRIMARY
DISC	DISCONNECT	PT	POTENTIAL TRANSFORMER
DN	DOWN	PV	PHOTOVOLTAC
DWG	DRAWING(S)	PVC	POLYVINYL CHLORIDE CONDUIT
		PWR	POWER
E	WIRED ON EMERGENCY CIRCUIT	RCP	REFLECTED CEILING PLAN
EC	ELECTRICAL CONTRACTOR	RMC	RIGID METAL CONDUIT
ELEC	ELECTRICAL	RSC	RIGID STEEL CONDUIT
EM/EMER	EMERGENCY		
EMT	ELECTRICAL METAL TUBING	SEC	SECONDARY
ENT	ELECTRICAL NON-METALLIC TUBING	SN	SOLID NEUTRAL
EOL	END OF LINE	SS	STAINLESS STEEL
EPO	EMERGENCY POWER OFF	ST	SHUNT TRIP
		STP	SHIELDED TWISTED PAIR
F	FUSE	STL	STEEL
FDR	FEEDER(S)	SW	SWITCH
FLA	FULL LOAD AMPERES	SWBD	SWITCHBOARD
FLR	FLOOR	SWGR	SWITCHGEAR
FMC	FLEXIBLE METAL CONDUIT		
		T/D	TELEPHONE/DATA
G/GND	GROUND	TEL	TELEPHONE
GC	GENERAL CONTRACTOR	TMCB	THERMAL MAGNETIC CIRCUIT BREAKER
GEN	GENERATOR	TO	TELECOMMUNICATION OUTLET
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFPE	GROUND-FAULT PROTECTION FOR EQUIPMENT		
GRSC	GALVANIZED RIGID STEEL CONDUIT	UC	UNDER-COUNTER OR UNDER-CABINET
		UG	UNDERGROUND
HP	HORSEPOWER	UL	UNDERWRITERS LABORATORIES
HV	HIGH VOLTAGE	UPS	UNINTERRUPTIBLE POWER SOURCE
HZ	HERTZ	UTP	UNSHIELDED TWISTED PAIR
IDC	INITIATING DEVICE CIRCUIT	V	VOLT/VOLTAGE
IDS	INTRUSION DETECTION SYSTEM	VT	VOLTAGE TRANSFORMER
IG	ISOLATED GROUND		
IMC	INTERMEDIATE METAL CONDUIT	W	WATT
IR	INFRARED	WH	WATT HOUR
		WP	WEATHERPROOF
JB	JUNCTION BOX	XFMR	TRANSFORMER
		XP	EXPLOSION PROOF
kcml	THOUSAND CIRCULAR MILS		
K/O	KNOCK-OUT	Y	WYE
KV	KILOVOLTS		

ELECTRICAL GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FACILITY TO MAINTAIN ACCESS AT ALL TIMES.
2. ALL WORK BEING PERFORMED SHALL NOT IN ANY WAY INTERFERE WITH THE REGULAR OPERATION OF THE FACILITY. SECURITY SHALL BE MAINTAINED AT ALL TIMES.
3. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FACILITY FOR ACCESS TO AND FROM THE FACILITY.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE BEGINNING ANY WORK OR PURCHASING ANY MATERIAL OR EQUIPMENT.
5. THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS BEFORE SUBMITTING THEIR OFFER. NO EXTRA WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THE ABOVE.
6. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT / ENGINEER OF ANY EXISTING CONDITION DISCOVERED DURING DEMOLITION THAT WILL INTERFERE WITH THE NEW WORK.

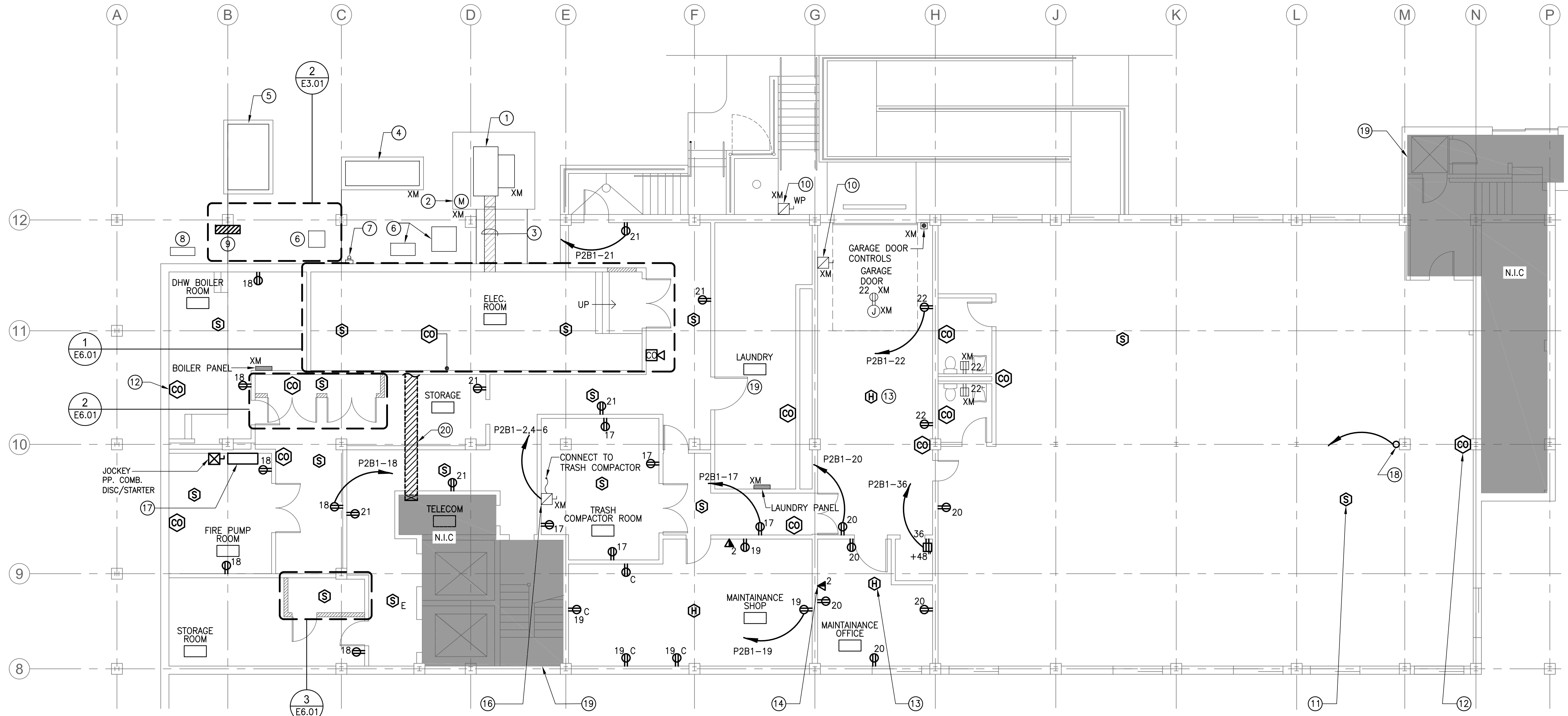
PHASING NOTE

ALL TEMPORARY POWER RENTAL EQUIPMENT AND ASSOCIATED CABLES SHALL BE DISCONNECTED AND REMOVED BY THE RENTAL COMPANY: INFRA-RED BUILDING & POWER SERVICE OF HOLBROOK MA (781)767-0888. UNDER A SEPARATE CONTRACT. PROVIDE COORDIANION OF ALL REQUIRED SHUTDOWNS BETWEEN THE OWNER AND INFRA-RED BPS.



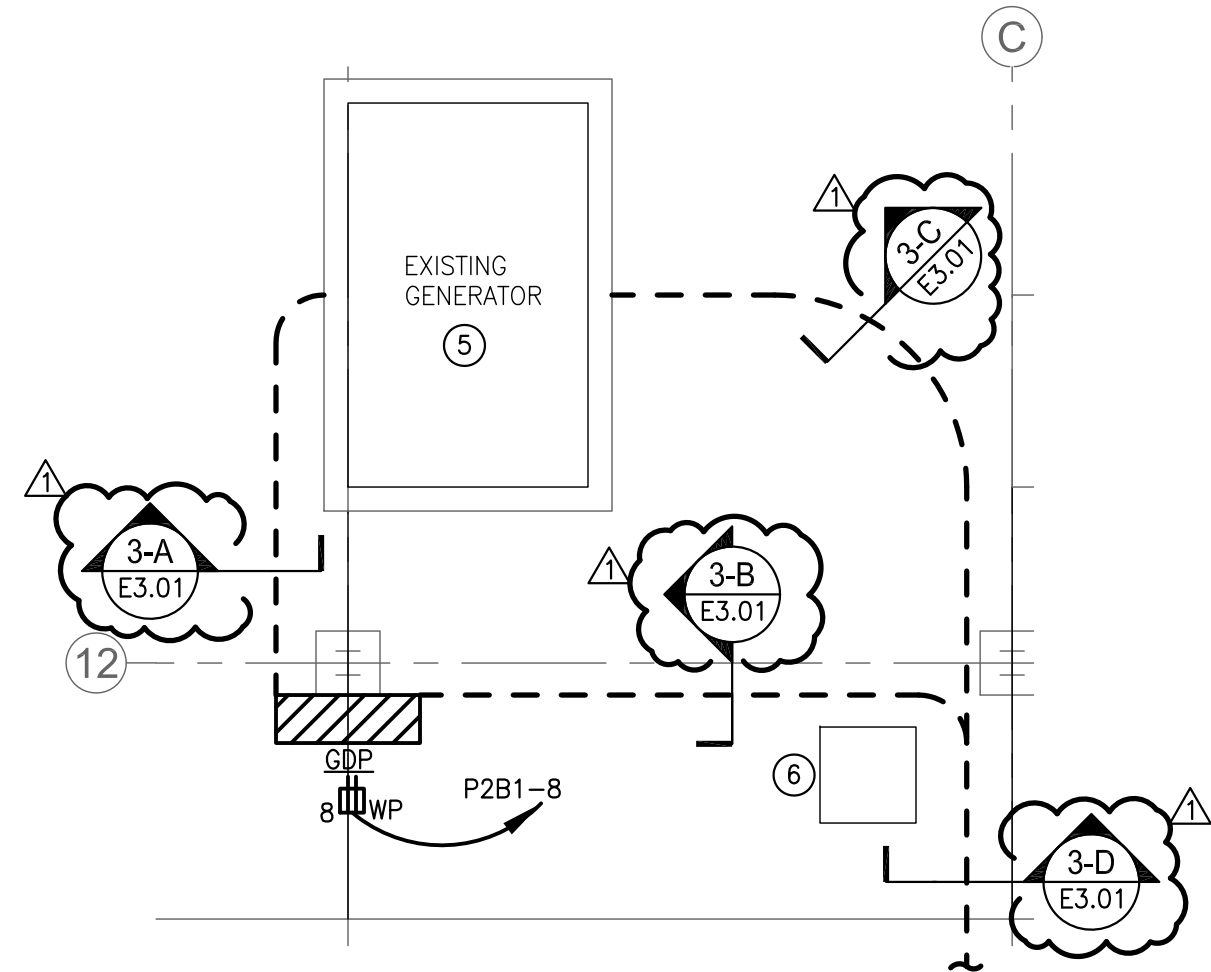


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## 1 POWER & SYSTEMS PLAN

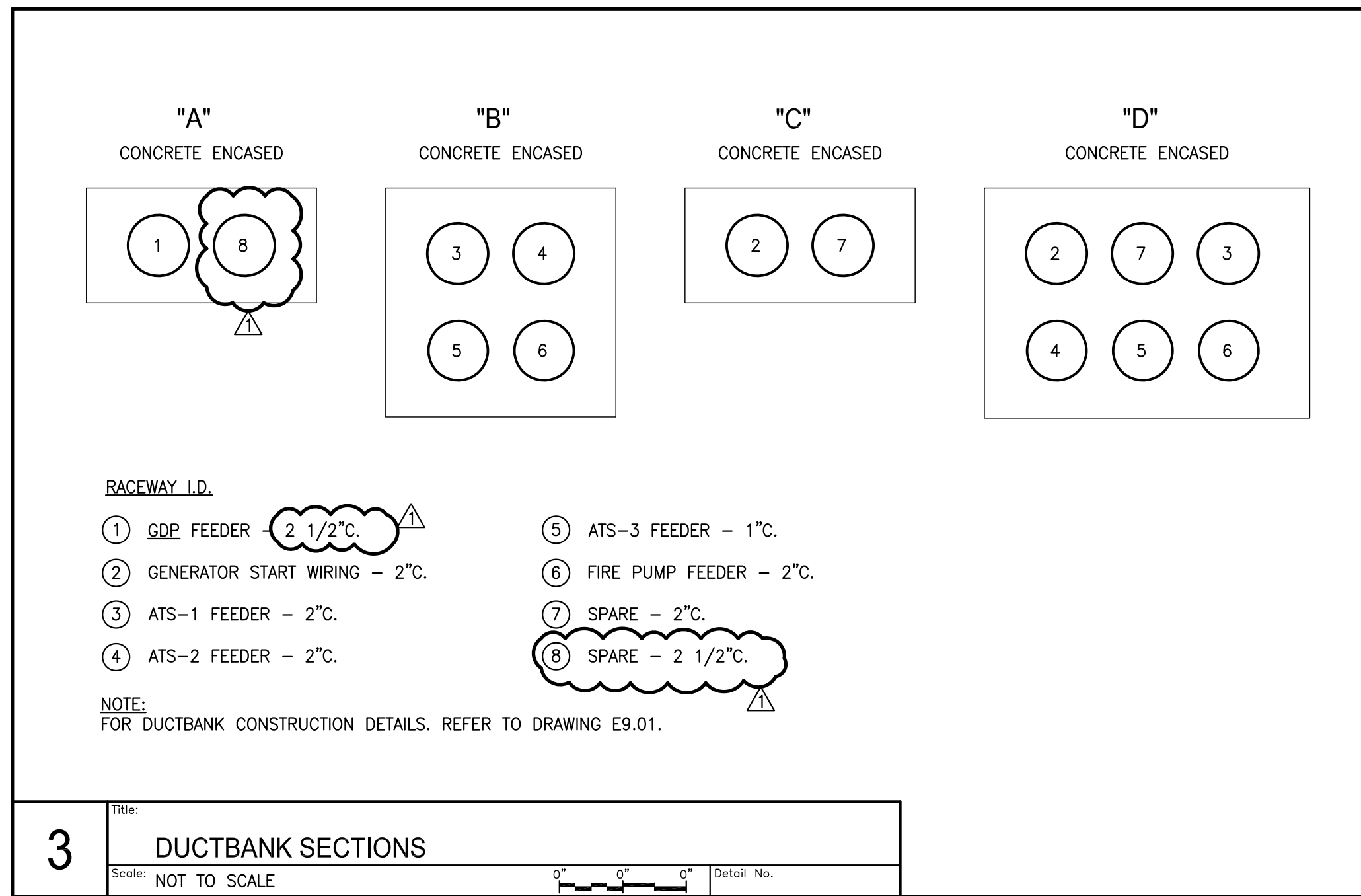
SCALE: 1/8" = 1'-0"



FOR PRECAST COMPOSITE HANDHOLE DETAIL  
REFER TO DWG E9.01.

## 2 POWER & SYSTEMS PLAN

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

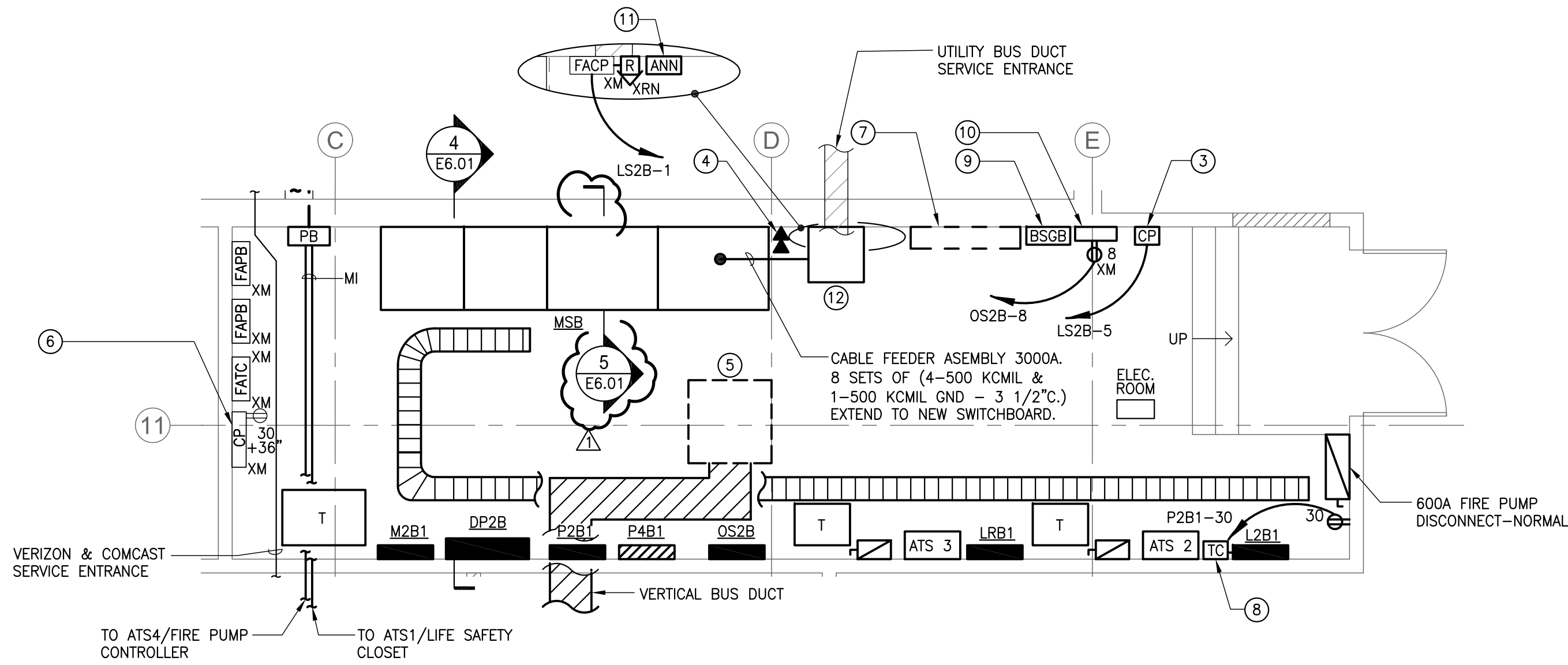


### NOTES

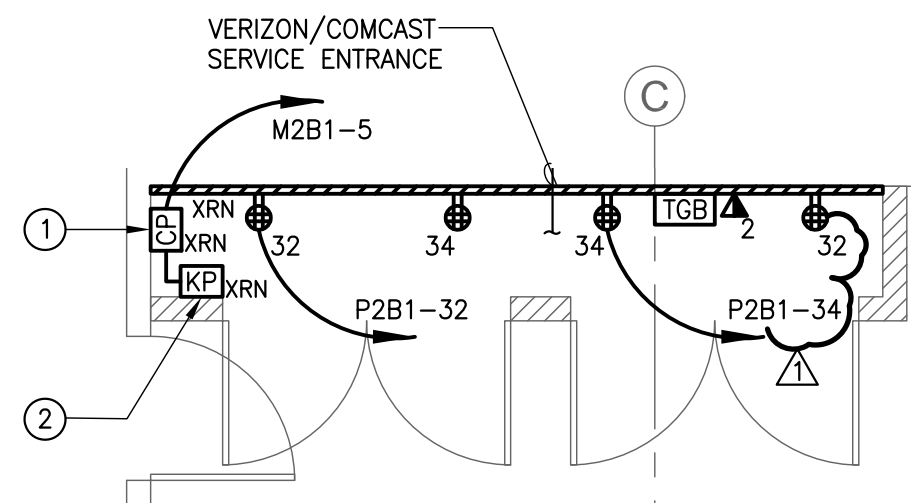
- FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES REFER TO DRAWING E0.01.
- MAINTAIN ALL EXISTING FIRE ALARM DEVICES NOT INCLUDED IN DEMOLITION. INTERCEPT AND CONNECT NEW DEVICES TO EXISTING LOOP SERVING AREA. REFER TO PARTIAL FIRE ALARM RISER DIAGRAM ON DRAWING E7.03 FOR ADDITIONAL INFORMATION.
- RECIRCUIT ALL 480V TEMP. HEATING UNITS TO PANELBOARD P4B1 AND ALL 208V TO PANELBOARD M2B1.

### KEY NOTES

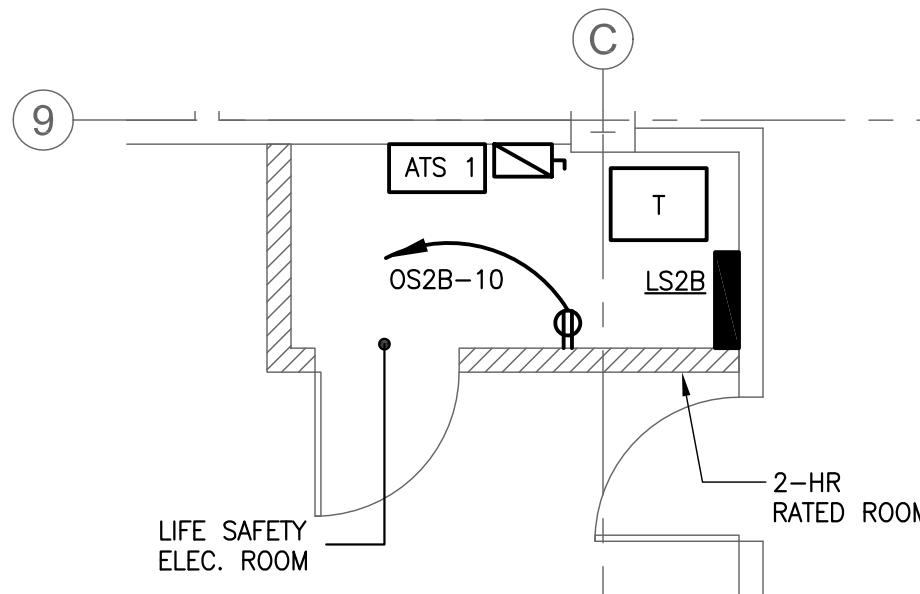
- EXISTING UTILITY CO. PAD MOUNTED TRANSFORMER TO REMAIN.
- EXISTING UTILITY CO. METER TO REMAIN.
- EXISTING SECONDARY SERVICE BUSDUCT TO REMAIN.
- EXISTING UTILITY CO. PRIMARY SWITCHGEAR TO REMAIN.
- EXISTING DIESEL FIRED GENERATOR TO REMAIN.
- EXISTING MECHANICAL EQUIPMENT TO REMAIN.
- EXISTING PORTABLE GENERATOR INLET TO REMAIN. SERVES CELL PHONE TOWER EQUIPMENT.
- EXISTING GAS METER TO REMAIN.
- NEW PANELBOARD GDP WITH NEMA 4 WEATHERPROOF ENCLOSURE MOUNTED AT EXTERIOR COLUMN B/12. PROVIDE DEDICATED WATERPROOF GFCI RECEPTACLE MOUNTED ADJACENT TO PANELBOARD.
- EXISTING DISCONNECT SAFETY SWITCH FOR MATERIAL LIFT TO REMAIN. MAINTAIN EXISTING CIRCUITING.
- PROVIDE NEW CONVENTIONAL SMOKE DETECTORS COMPATIBLE WITH MIRCOM FACP. INTERCEPT EXISTING LOOP SERVING AREA. (TYPICAL)
- PROVIDE NEW CARBON MONOXIDE DETECTOR. MACURCO #CM-6 TYPE OR APPROVED EQUAL. (TYPICAL) REFER TO CO ALARM DETAIL 3 ON DRAWING E9.01 FOR ADDITIONAL INFORMATION.
- PROVIDE NEW CONVENTIONAL HEAT DETECTORS COMPATIBLE WITH MIRCOM FACP. INTERCEPT EXISTING LOOP SERVING AREA. (TYPICAL)
- PROVIDE NEW TELECOMMUNICATIONS OUTLETS WIRED BACK TO TEL/COM CLOSET AND TERMINATED IN NEW RACK FOR A COMPLETE WORKING SYSTEM. (TYPICAL)
- PROVIDE NEW CARBON MONOXIDE HORN/STROBE AND PLAQUE. MACURCO HS-A OR APPROVED EQUAL. REFER TO CO ALARM DETAIL ON DRAWING E9.01 FOR ADDITIONAL INFORMATION.
- EXISTING DISCONNECT SAFETY SWITCH FOR TRASH COMPACTOR TO REMAIN.
- RENTAL FIRE PUMP CONTROLLER TO BE REMOVED AND REPLACED WITH NEW. SCHEDULE REMOVAL WITH RENTAL COMPANY AS NOTED. ROSEMONT ENGINEERING INCORPORATED, LOWELL, MA 01851 (978) 453-9191.
- TWO (2) 2 1/2" C. UP TO EXISTING LHA OFFICE TEL/DATA CLOSET AT 1ST FLOOR. COORDINATE EXACT LOCATION IN FIELD. HOMERUN TO NEW TEL/DATA CLOSET. REFER TO TEL/DATA RISER ON DWG. E7.03.
- INTERCEPT EXISTING BRANCH RECEPTACLE CIRCUITS IN SHADED AREA N.I.C. AND RE-FEED WITH NEW BRANCH CIRCUIT FROM PANELBOARD P2B1. REFER TO DRAWING E8.01 FOR ADDITIONAL INFORMATION. RECIRCUIT HANDICAP CHAIR LIFT TO PANELBOARD P2B1.
- APPROXIMATE ROUTING OF EXISTING 1200A BUS DUCT RISER SERVING APARTMENTS.



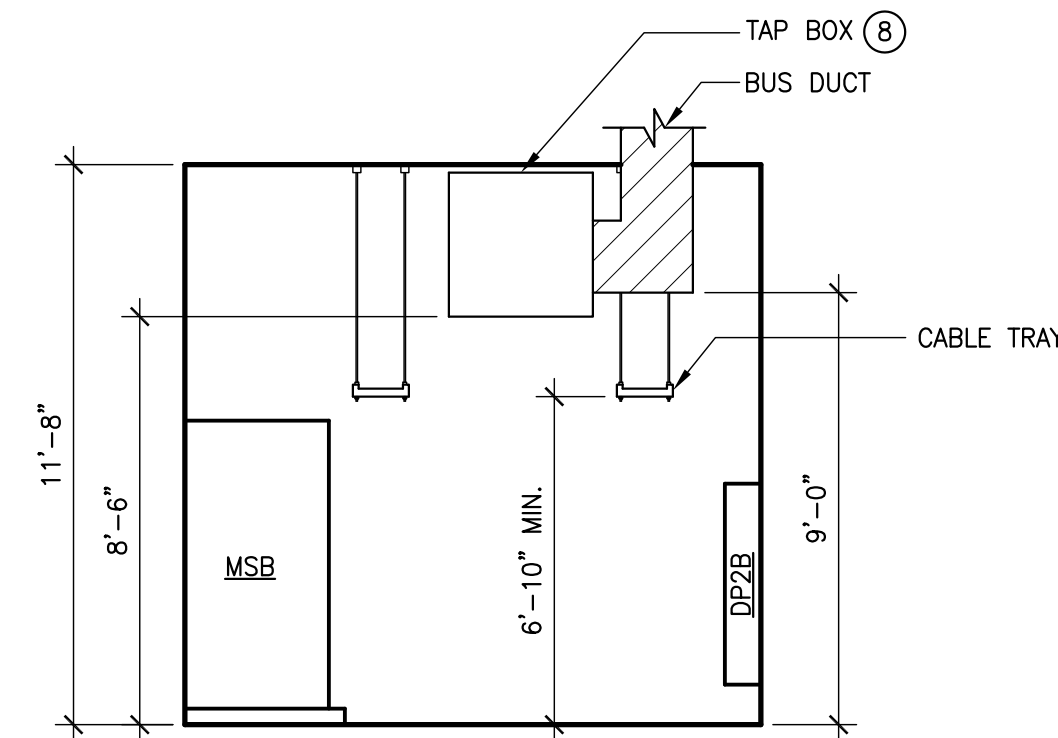
1 ELECTRICAL ROOM - NEW WORK  
SCALE: 1/4" = 1'-0"



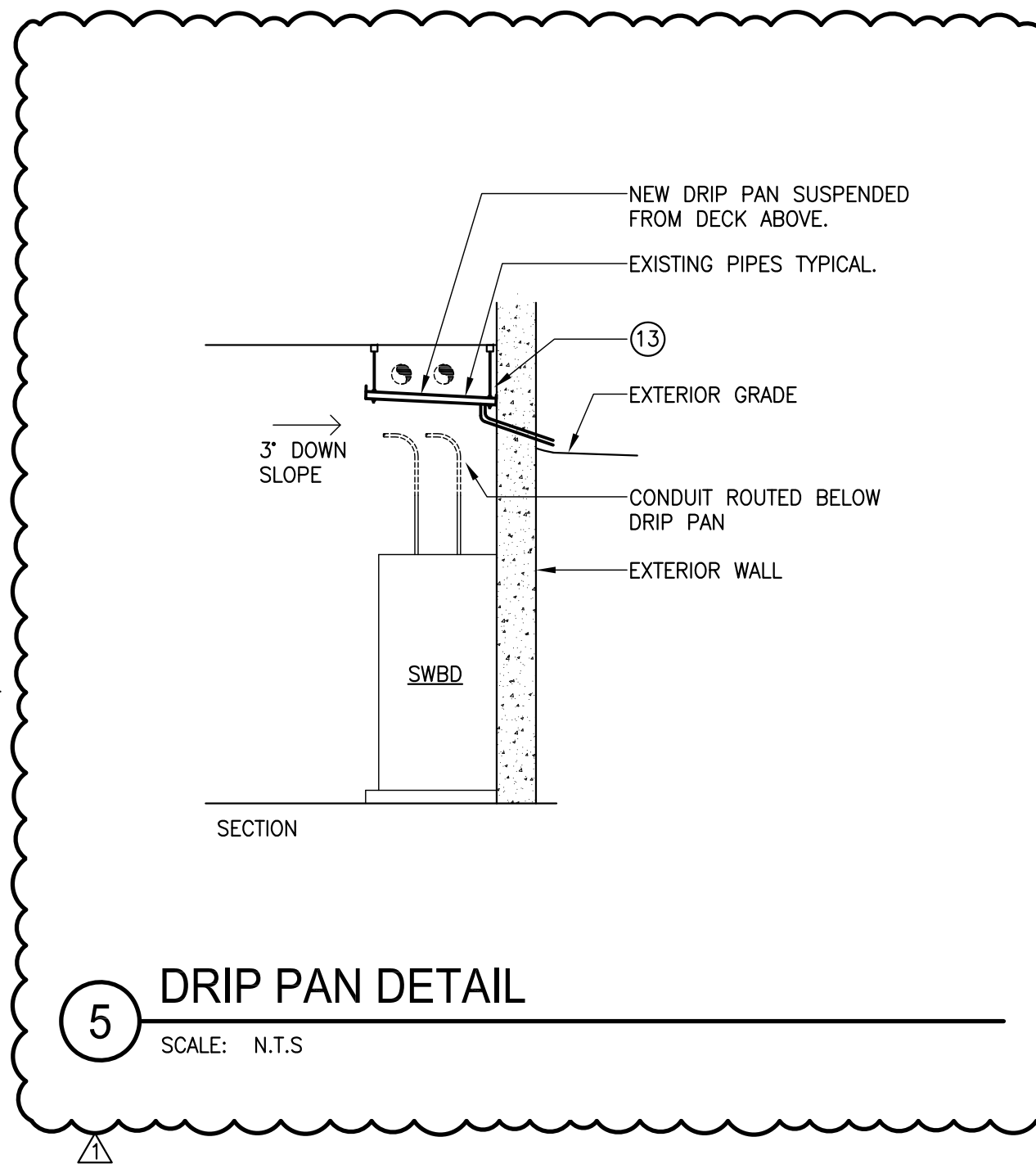
2 TEL/DATA ROOM - NEW WORK  
SCALE: 1/4" = 1'-0"



3 LIFE SAFETY ELEC. ROOM - NEW WORK  
SCALE: 1/4" = 1'-0"



4 SECTION THRU ELECTRIC ROOM  
SCALE: 1/4" = 1'-0"



5 DRAIN PAN DETAIL  
SCALE: N.T.S.

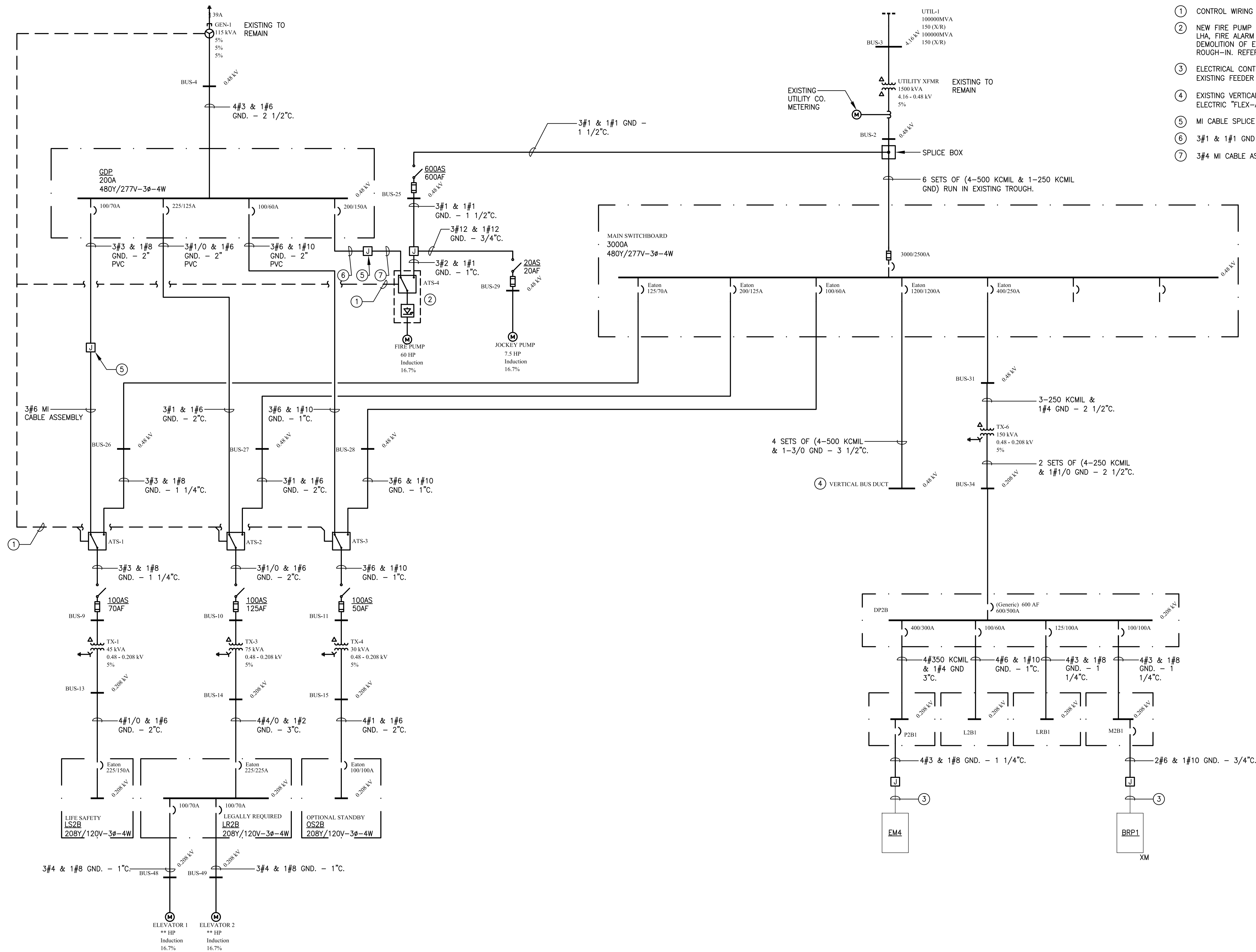
## NOTES

- FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES REFER TO DRAWING E0.01.
- IN REGARDS TO THIS SET OF DRAWINGS: "ORIGINAL" DENOTES-ITEMS IN PLACE PRIOR TO FLOODING INCIDENT. "RENTAL" DENOTES-TEMPORARY ITEMS PROVIDED BY INFRA-RED BUILDING & POWER, INC (781) 767-0888, AND RENTED BY LHA. "REPLACEMENT" OR "REBUILT" DENOTES NEW OR REFURBISHED ITEMS PROVIDED AFTER THE FLOODING INCIDENT AND OWNED BY LHA.

## KEY NOTES

- ORIGINAL SECURITY PANEL RELOCATED FROM STORAGE ROOM. REFER TO DRAWING ED.01 FOR ADDITIONAL INFORMATION.
- ORIGINAL SECURITY KEYPAD RELOCATED FROM STORAGE ROOM. REFER TO DRAWING ED.01 FOR ADDITIONAL INFORMATION.
- PROVIDE NEW CARBON MONOXIDE CONTROL PANEL FOR MANAGEMENT OF MULTIPLE CO DETECTORS. REFER TO CO ALARM DETAIL ON DRAWING E9.01 FOR ADDITIONAL INFORMATION.
- PROVIDE TWO (2) POTS TELEPHONE OUTLETS FOR CONNECTION TO FACP.
- NEW CUSTOM BUS DUCT TAP BOX MOUNTED FROM STRUCTURE ABOVE. BUS DUCT TAP BOX IS APPROX. 36"H x 36"W x 36"D. TOP OF BOX TO BE MOUNTED TIGHT TO DECK TO ENSURE BOTTOM OF TAP BOX IS ABOVE 104" AFF. CONTACT AND COORDINATE WITH SCOTT LOGAN OF A&M ASSOCIATES, SLOGAN@AMASSOC.NET FOR ADDITIONAL INFORMATION.
- SEWAGE PUMP CONTROLLER TO REMAIN. RECONNECT TO NEW PANELBOARD LRB1.
- AREA RESERVED FOR FUTURE FIRE ALARM PANEL EXPANSION.
- PROVIDE DIGITAL TIME CLOCK FOR REAR PARKING LOT LIGHTING. INTERMATIC MODEL #ETB215C OR APPROVED EQUAL.
- PROVIDE BUILDING SERVICE GROUND BAR AND BOND ELECTRICAL EQUIPMENT PER NEC. REFER TO DETAIL ON DWG E9.01 FOR ADDITIONAL INFORMATION.
- PROVIDE 18"H x 12"W x 6"D SPARE FUSE CABINET. MOUNTED OC @42" AFF.
- NEW ATS #1 (LIFE SAFETY) REMOTE ANNUNCIATOR WIRED TO FACP.
- CABLE TAP BOX AT EXISTING SECONDARY SERVICE BUS DUCT. COORDINATE IN FIELD PRIOR TO ROUGHING.
- NEW DRIP PAN SIZED TO COVER THE ENTIRE SWITCHBOARD WITH 6" ON FRONT AND SIDES. DRIP PAN SIZE TO CONTAIN MINIMUM OF THREE (3) GALLONS OF LIQUID. DRIP PAN SHALL HAVE DRAIN LOCATED ON LOWEST MOUNTED OVERHANG AND PIPED TO OUTSIDE OF EXTERIOR WALL. CORING WILL BE NECESSARY.





1

PARTIAL ONE LINE DIAGRAM  
NEW WORK

SCALE: NONE

NOTES

1. FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES REFER TO DRAWING E0.01.

KEY NOTES

- ① CONTROL WIRING FOR GENERATOR START SIGNAL.
- ② NEW FIRE PUMP CONTROLLER. COORDINATE WITH GENERAL CONTRACTOR, LHA. FIRE ALARM AND FIRE PROTECTION SERVICE CONTRACTORS FOR DEMOLITION OF EXISTING AND INSTALLATION OF NEW PRIOR TO ROUGH-IN. REFER TO DWG. E7.03 FOR ADDITIONAL INFORMATION.
- ③ ELECTRICAL CONTRACTOR SHALL VERIFY SIZE AND INTEGRITY OF EXISTING FEEDER AND INFORM A/E OF ANY ISSUES OR CONCERNS.
- ④ EXISTING VERTICAL PLUG-IN BUS DUCT 480Y/277V, 3Ø, 4W. GENERAL ELECTRIC "FLEX-A-POWER" SERIES.
- ⑤ MI CABLE SPLICE BOX.
- ⑥ 3#1 & 1#1 GND - 1 1/2".
- ⑦ 3#4 MI CABLE ASSEMBLY.

KEY NOTES

- ① PROVIDE RED CIRCUIT BREAKER FOR FIRE ALARM BRANCH CIRCUITS INCLUDING RED UNIVERSAL BREAKER LOCK WITH PADLOCK & KEY. GARVIN INDUSTRIES #UBL-3 OR APPROVED EQUAL.

PANELBOARD SCHEDULE									
PANEL: LS2B		VOLTAGE: 208/120V		PHASE: 3		WIRES: 4		MAINS: 150 MCB	
MOUNTING: SURFACE		LOCATION: LS CLOSET		FED FROM:		A.I.C.: 10K			
LOAD						LOAD			
DESCRIPTION		kVA	CKT BKR AMP/POLE	CKT NO.	Ø	CKT NO.	CKT BKR AMP/POLE	kVA	DESCRIPTION
①	FIRE ALARM CONTROL PANEL	.6	20/1P	1	A	2	20/1P	1.0	EXIT SIGNS BASEMENT
①	FIRE ALARM POWER BOOSTER PANEL	.6	20/1P	3	B	4	20/1P	1.0	EMERGENCY LIGHTING BASEMENT
	CARBON MONOXIDE CONTROL PANEL	1.2	20/1P	5	C	6	30 3P	9.6	PANEL LM-4 FOURTH FLOOR
	SPARE		20/1	7	A	8		9.6	
	SPARE		20/1	9	B	10		9.6	
	SPARE		20/1	11	C	12		20/1	
	SPARE		20/1	13	A	14	20/1		SPARE
	SPACE			15	B	16	20/1		SPARE
	SPACE			17	C	18			SPACE
	SPACE			19	A	20			SPACE
	SPACE			21	B	22			SPACE
	SPACE			23	C	24			SPACE
	SPACE			25	A	26			SPACE
	SPACE			27	B	28			SPACE
	SPACE			29	C	30			SPACE
	SPACE			31	A	32			SPACE
	SPACE			33	B	34			SPACE
	SPACE			35	C	36			SPACE
	SPACE			37	A	38			SPACE
	SPACE			39	B	40			SPACE
	SPACE			41	C	42			SPACE
PHASE A: 11.4		PHASE B: 11.4		PHASE C: 10.8		TOTAL KVA: 33.6			

PANELBOARD SCHEDULE									
PANEL: OS2B		VOLTAGE:		PHASE:		WIRES:		MAINS: 100A MCB	
MOUNTING:		LOCATION:		FED FROM:		A.I.C.: 10K			
LOAD				LOAD					
DESCRIPTION	kVA	CKT BKR AMP/POLE	CKT NO.	Ø	CKT NO.	CKT BKR AMP/POLE	kVA	DESCRIPTION	
COMPUTER ROOM	2.5	30 2	1	A	2	20 2	1.6	UNKNOWN LOAD FROM ER-1	
CONDENSING UNIT	2.5		3	B	4		1.6		
EXISTING LOAD FROM ER-1	1.2	20/1	5	C	6	20/1	1.2	SPEAKER SYSTEM	
EXISTING LOAD FROM ER-1	1.2	20/1	7	A	8	20/1	1.3	RECEPTACLE IN MER @COLUMN "E"	
EXISTING LOAD FROM ER-1	1.2	20/1	9	B	10	20/1	1.3	RECEPTACLE IN LIFE SAFETY ROOM	
SPARE		20/1	11	C	12	20/1		SPARE	
SPARE		20/1	13	A	14	20/1		SPARE	
SPARE		20/1	15	B	16	20/1		SPARE	
SPACE			17	C	18			SPACE	
SPACE			19	A	20			SPACE	
SPACE			21	B	22			SPACE	
SPACE			23	C	24			SPACE	
SPACE			25	A	26			SPACE	
SPACE			27	B	28			SPACE	
SPACE			29	C	30			SPACE	
SPACE			31	A	32			SPACE	
SPACE			33	B	34			SPACE	
SPACE			35	C	36			SPACE	
SPACE			37	A	38			SPACE	
SPACE			39	B	40			SPACE	
SPACE			41	C	42			SPACE	
PHASE A: 5.6		PHASE B: 5.1		PHASE C: 2.4		TOTAL KVA: 13.1			

PANELBOARD SCHEDULE									
PANEL: LR2B		VOLTAGE: 208Y/120V		PHASE: 3		WIRES: 4		MAINS: 225A MCB	
MOUNTING: SURFACE		LOCATION: MAIN ELEC. RM		FED FROM: GDP VIA XFMR		A.I.C.: 10K			
LOAD				LOAD					
DESCRIPTION	kVA	CKT BKR AMP/POLE	CKT NO.	Ø	CKT NO.	CKT BKR AMP/POLE	kVA	DESCRIPTION	
ELEVATOR #1	6.7	70 3	1	A	2	70 3	6.7	ELEVATOR #2	
	6.7		3	B	4		6.7		
	6.7		5	C	6		6.7		
SEWAGE EJECTOR PUMP	5.8	60 3	7	A	8	20/1P	.6	RECEPTACLE FOR SEWAGE CONTROL PANEL	
	5.8		9	B	10	20/1	.3	ELEVATOR PIT	
	5.8		11	C	12	20/1	.3	ELEVATOR PIT	
SPARE		20/1	13	A	14	20/1	.3	ELEVATOR PIT	
SPARE		20/1	15	B	16	20/1	.3	ELEVATOR PIT	
SPARE		20/1	17	C	18	20/1		SPARE	
SPARE		20/1	19	A	20	20/1		SPARE	
SPARE		20/1	21	B	22	20/1		SPARE	
SPARE		20/1	23	C	24	20/1		SPARE	
SPACE			25	A	26			SPACE	
SPACE			27	B	28			SPACE	
SPACE			29	C	30			SPACE	
SPACE			31	A	32			SPACE	
SPACE			33	B	34			SPACE	
SPACE			35	C	36			SPACE	
SPACE			37	A	38			SPACE	
SPACE			39	B	40			SPACE	
SPACE			41	C	42			SPACE	
PHASE A: 20.1		PHASE B: 19.8		PHASE C: 19.5		TOTAL KVA: 59.4			

PANELBOARD SCHEDULE									
PANEL: L2B1		VOLTAGE: 208Y/120V		PHASE: 3		WIRES: 4		MAINS: 100A	
MOUNTING: SURFACE		LOCATION: MER		FED FROM: DP2B		A.I.C.: 10K			
LOAD			CKT NO.	Ø	CKT NO.	CKT BKR AMP/POLE	LOAD		
DESCRIPTION	kVA	CKT BKR AMP/POLE					kVA	DESCRIPTION	
BASEMENT LIGHTING NORTH EAST	1.2	20/1P	1	A	2	20/1P	1.0	BASEMENT LIGHTING NORTH WEST	
BASEMENT LIGHTING NORTH	0.8	20/1P	3	B	4	20/1P	1.2	PARKING LIGHTING VIA TIME CLOCK	
SPARE		20/1	5	C	6	20/1		SPARE	
SPARE		20/1	7	A	8	20/1		SPARE	
SPARE		20/1	9	B	10	20/1		SPARE	
SPARE		20/1	11	C	12	20/1		SPARE	
SPACE			13	A	14			SPACE	
SPACE			15	B	16			SPACE	
SPACE			17	C	18			SPACE	
SPACE			19	A	20			SPACE	
SPACE			21	B	22			SPACE	
SPACE			23	C	24			SPACE	
SPACE			25	A	26			SPACE	
SPACE			27	B	28			SPACE	
SPACE			29	C	30			SPACE	
SPACE			31	A	32			SPACE	
SPACE			33	B	34			SPACE	
SPACE			35	C	36			SPACE	
SPACE			37	A	38			SPACE	
SPACE			39	B	40			SPACE	
SPACE			41	C	42			SPACE	
PHASE A: 2.2			PHASE B: 2.0			PHASE C:		TOTAL KVA: 4.2	