

ELECTRICAL PANEL 'A'		22,000 A/C		120/208V 200A, 3P, 4W (42 BREAKERS)				
DESCRIPTION	POLE	BRK	WATTS	A B C	WATTS	BRK	POLE	DESCRIPTION
EM & EXIT LTS	1	20A	60	1	2			SPARE
SPARES	1	20A	-	3	4			
				5	6			
				7	8			
				9	10			
				11	12			
				13	14			
				15	16			
				17	18	20A	1	ROOF HVAC GFI
PARKING LOT LTS.	1	20A	800	19	20	800	20A	IRRIGATION CNTLR
EXTERIOR LTS.	1	20A	390	21	22	-	20A	SPARES
MONUMENT SIGN	1	20A	1200	23	24	-	20A	
SIGN	1	20A	1200	25	26	-	20A	
SIGN	1	20A	1200	27	28	-	20A	
TIMECLOCK/CONT	1	20A	400	29	30	-	20A	
HVAC (RTU-1)	3	40A	2904	31	32	-	20A	1
			2904	33	34	-	20A	1
			2904	35	36	-	20A	1
HVAC (RTU-2)	3	50A	3264	37	38	-	20A	1
			3264	39	40	-	20A	1
			3264	41	42	-	20A	1
			3264	43	44	-	20A	1
WATTS TOTAL			A: 9,028	B: 7,758	C: 8,528			
ADDITIONAL WORK UNDER SEPARATE PERMIT								
TOTAL: 25,314 BALANCED LOAD: 70.3 AMPS								

### Electrical Legend

- EMERGENCY BATTERY PACK TO BE INSTALLED BY CONTRACTOR SILTRON EM5R (90 MIN)
- EXIT LIGHTS W/ RED LEGEND (LED) MOUNTED ABOVE DOOR SILTRON PALS-2H SERIES (90 MIN)
- EMERGENCY BATTERY PACK W/ EXTERIOR GRADE REMOTE HEAD TO BE INSTALLED BY CONTRACTOR COOPER LIGHTING SURE-LITE #6707MMH6V W/ REMOTE BATTERY (90 MIN) LOCATE UNDER AWNING AND OVER REAR EXIT DOOR.
- WALL LIGHT "ECLIPSE LIGHTING INC." - GALILEO SIGNATURE SERIES "HERA" #HR-XL-LED30W-3K-120V-PNA, LIGHTS MTD. CTR. 8'-0" A.F.F. ON TIMER & PHOTOCELL.
- WALL PACK LIGHT FIXTURE MCGRAW-EDISON #IST-70MP-120V-2S-BZ, MTD. @ 9'-0"
- LIGHT FIXTURE MOUNTED TO RTU. GENERAL PURPOSE PARHOLDER W/ 70watt PAR38. PROVIDE WEATHERPROOF SWITCH ADJACENT TO LIGHT.
- WALL MOUNTED LED FIXTURE MCGRAW-EDISON #ISS-802-LED-E1-BL-4-BZ MTD. @ 12'-0"
- DUPLEX OUTLET
- DUPLEX OUTLET W/ GROUNDED FAULT INTERRUPTOR
- WEATHER PROOF GROUND FAULT INTERRUPTOR DUPLEX OUTLET (AT HVAC UNITS ON ROOF)
- SMOKE DETECTOR IN HVAC RETURN AIR DUCT (SEE MECHANICAL)
- WEATHER PROOF DISCONNECT BOX
- JUNCTION BOX
- ELECTRIC PANEL MOUNTED AT 48" AFF

### Electrical General Notes

It is the intent of these drawings and attached architectural and electrical specifications that the electrical contractor shall provide, deliver and install all new electrical services, equipment, temporary lighting fixtures, conduits, wiring, materials, power wiring to all equipment supplied by others, all tools and equipment necessary for complete shell installation of all electrical systems, guarantee and service. Connecting service for new building to existing electrical system to be included in contractor's work.

The general conditions, latest A.I.A. edition, supplementary general conditions and specifications are a part of this contract. Electrical contractor shall follow them along with state and local requirements for the safety of workers on the job and passers-by.

OSHA rules, regulations and requirements are a part of this contract. Electrical contractor shall follow them along with state and local requirements for the safety of workers on the job and passers-by.

Provide all necessary liability insurance policies as required by the owners specifications. Electrical contractor shall keep the architect, his consultants, and the owner of the project harmless from any claim against them until the project is completed and accepted by the owner.

All work shall be executed in strict accordance with the National Electrical code, state and local codes, accepted by the architect and left in perfect operating condition. All materials shall conform to standards established by Underwriters Laboratories, Inc..

Electrical contractor shall visit the site and become well familiar with all existing conditions prior to submitting his final bid. If there is any discrepancy notify the architect at once.

Obtain and pay all fees and permits to all private and public agencies having jurisdiction over the project.

Consult and check at all times the latest architectural, mechanical and plumbing drawings for exact location of each electrical connection.

All excavating, backfilling and patching for electrical installation shall be provided by electrical contractor.

Check and verify all voltages and safety devices of all equipment prior to final connection. Switches, starters, panels, and other equipment shall be neatly installed, true to plan and level in same location as a group.

All wiring and conductors shall be copper. No aluminum conductors allowed.

Provide cut sheets for all electrical equipment and fixtures.

**SERVICE & DISTRIBUTION :**

Contractor shall coordinate with the local utility company to furnish and install underground electrical service to the CT CAN. Any additional costs for underground service shall be paid for by the contractor. Contractor shall run conduit from the CT CAN to the meter box. All utility requirements for installation shall be provided by the contractor.

Power to the facility shall be as noted on the drawings. Size of electrical service as shown on the single line or power riser diagrams. Grounding shall be per NEC 250 and shall be inspected prior to covering.

Verify voltage drops and A.I.C. ratings for all equipment connected, and verify size of electrical system breakers, conduit, etc.

All materials shall be new and of the best quality, and they shall be listed and labeled by Underwriters Laboratories.

MC cable, armored cable, flexible metal conduit, liquid tight flexible non-metallic conduit and liquid tight steel conduit shall not exceed 6ft in length in compliance with the local Building Code.

**GROUNDING :**

Permanently ground all metallic conduit, supports, cabinets, panelboards and systems neutral conductors. Maintain continuity of equipment ground throughout the system. Ground clamps shall be approved type, specifically designed for grounding. Where grounding conductor is enclosed in conduit, ground clamp shall be of a type which grounds both conductor and conduit. All circuits in flexible metal or plastic conduit shall include a ground wire sized in accordance with NEC table 250-95.

**PANELBOARDS & SWITCHES :**

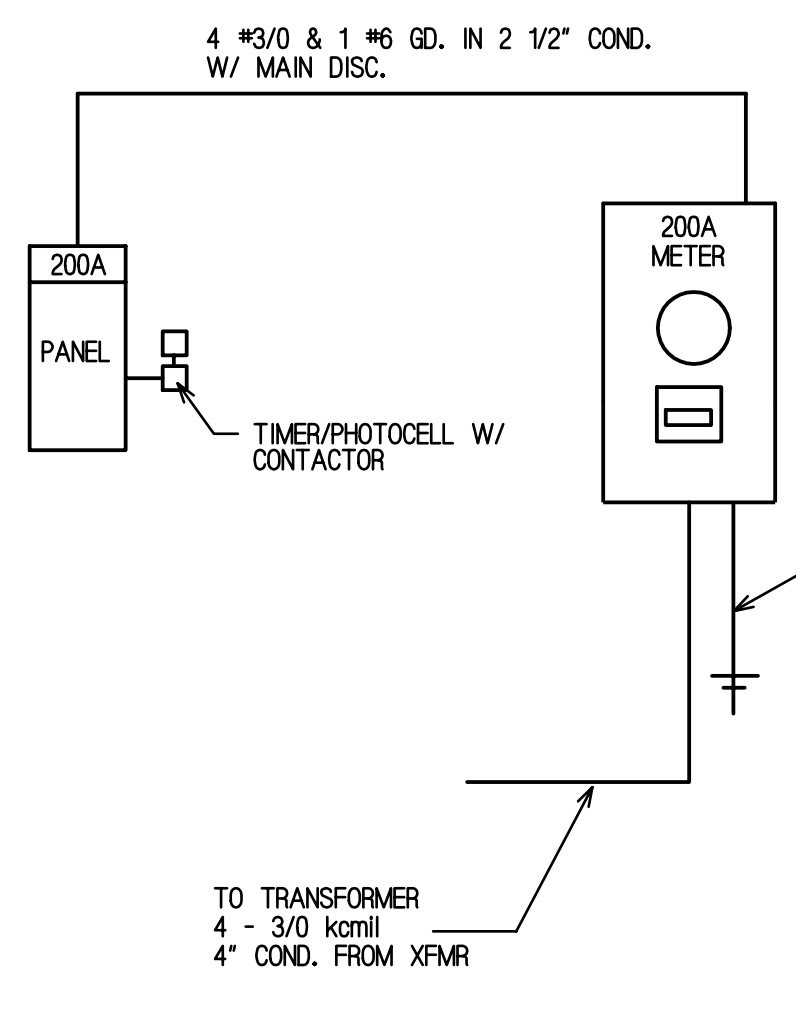
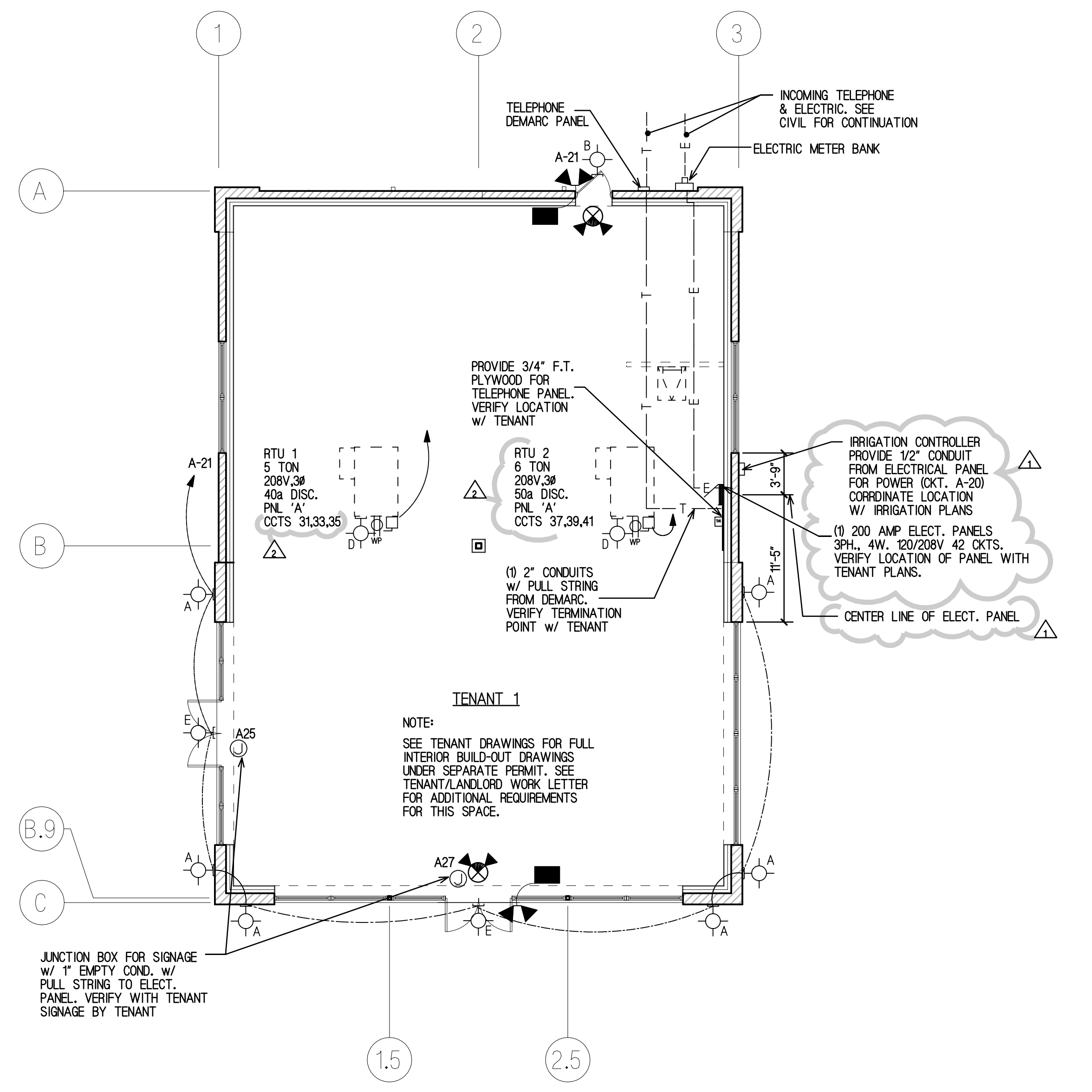
Power and lighting panels shall be safety dead front. Surface mounted panels shall be designed for 208/120 volts, 3 phase, 4 wire and shall have main bussing with main breakers. 1, 2 or 3 pole thermal magnetic circuit breakers shall be provided. Panel cabinets shall be NEMA type 1/ Manufacturers shall be Square D, GE, Westinghouse or ITE. Provide copper busses, nameplates, and typewritten panel schedules.

Switches shall be heavy-duty type, fusible or non-fusible as required. Operating mechanism shall be designed to provide a quick-make and quick-break operation. Construction shall consist of silver plated operating parts, 2" with safety interlock on door to prevent entry when in "on" position. Enclosures shall be NEMA 1. Fuse clips shall be for class RK-1 fuses. NEMA 3R enclosures shall be used for outdoor installation. Install bolt-on type breakers panels with main breakers per Ord. 2003-76 Section 408. Manufacturers shall be Square D, GE, Westinghouse or ITE.

All electrical apparatus, panels, disconnect switches, etc., shall be tagged with a bakelite nameplate. Nameplate shall show equipment designation and system voltage.

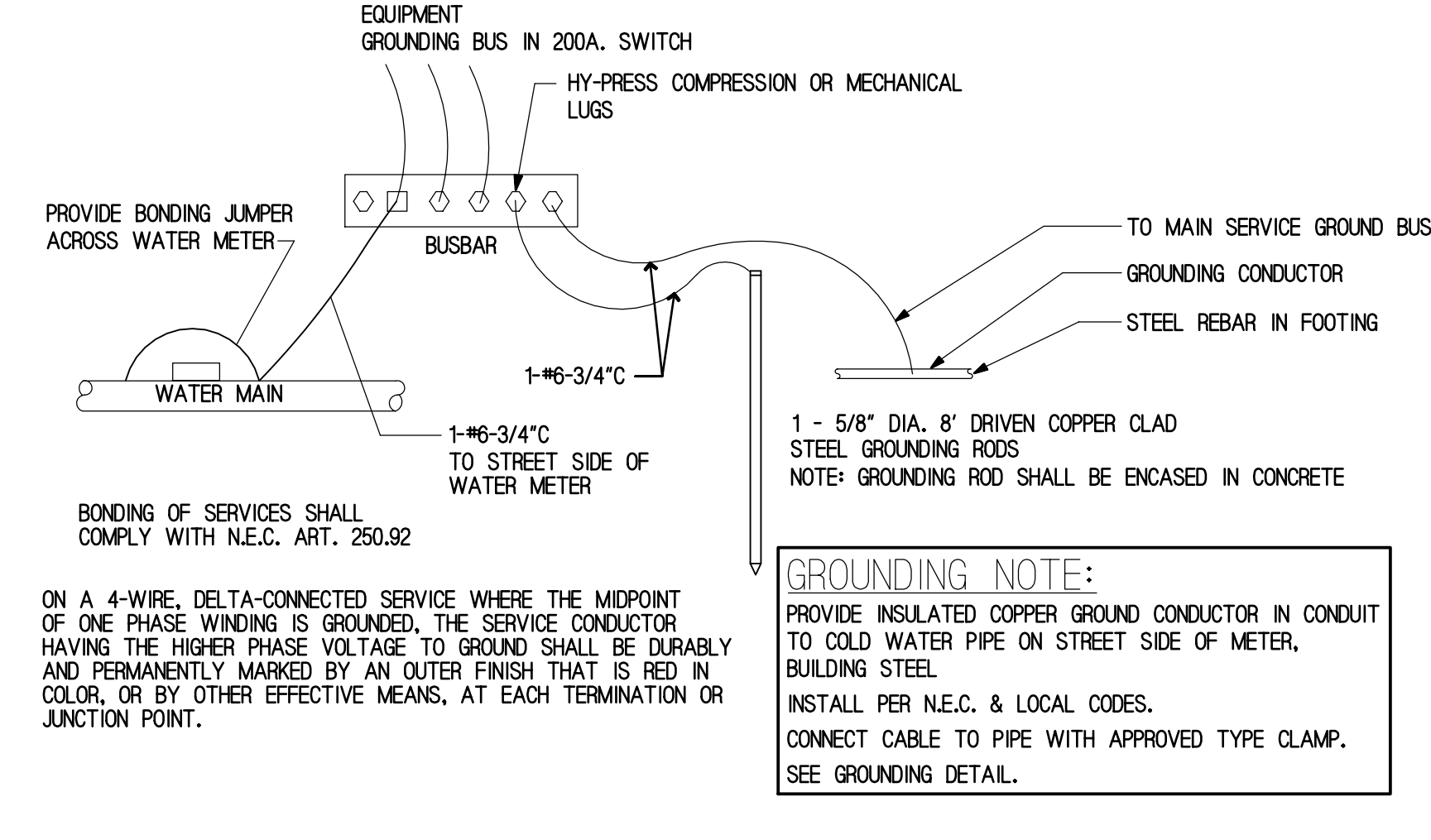
### Electrical Notes

- CONTRACTOR SHALL OBTAIN AVAILABLE FAULT CURRENT RATING AND PROVIDE PROPER PROTECTION FOR MAIN OVERCURRENT DEVICE AND ALL BRANCH DEVICES.
- ALL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES.
- CONTRACTOR SHALL CONTACT THE ELECTRIC COMPANY AND INCORPORATE ALL REQUIREMENTS FOR THE WORK.
- SERVICE GROUND SHALL BE BONDED TO THE MAIN INCOMING WATER SERVICE AHEAD OF THE WATER METER. PROVIDE BONDING JUMPER AROUND METER.
- CURRENT LIMITING MAIN FUSED PULLOUT TYPE 'T' RATED AT 100,000 A.I.C.
- PROVIDE BUSSMAN LOW PEAK FUSES FOR RTU UNITS.
- ALL CONDUIT SHALL RUN INSIDE BUILDING & NOT BE EXPOSED ON OUTSIDE WALLS.
- ALL ROOFTOP HEATING & AIR CONDITIONING UNITS ARE 208v/3ph. VERIFY FUSE SIZES W/ H.V.A.C. CONTRACTOR.
- SEE SHEET SP1 FOR ADDITIONAL REQUIREMENTS.
- ALL ELECTRICAL WIRING WITHIN COMMERCIAL AND ACCESSORY STRUCTURES SHALL BE ENCLOSED IN INTERMEDIATE METAL CONDUIT, RIGID METAL CONDUIT, LIQUID TIGHT FLEXIBLE METAL CONDUIT, RIGID NONMETALLIC CONDUIT OR ELECTRICAL METAL TUBING, ALL COMPLYING WITH N.E.C..
- PER LOCAL AMENDMENT REQUIRES THE USE OF METAL RACEWAYS WITHIN THE BUILDING. EXCEPTION: P.V.C. (RIGID NONMETALLIC) RACEWAYS USED ONLY UNDER SLAB ON GROUND WITH THE USE OF RIGID METALLIC RISERS.
- ALL CIRCUIT BREAKERS IN ELECTRICAL PANELS SHALL BE LABELED FOR THEIR INTENDED USE.



Meter Bank

NO SCALE



Service Grounding Detail

NO SCALE

REVISIONS	NOVEMBER 25, 2014
	DECEMBER 30, 2014
	JANUARY 6, 2015 (ISSUED FOR BID/CONSTRUCTION)

PROPOSED DEVELOPMENT FOR:  
**BOLINGBROOK SEMU, LLC.**  
LOCATION  
123 N. WEBER ROAD  
BOLINGBROOK, ILLINOIS

**Reitan Architects, LLC.**  
1325 Wiley Road - Suite 166 - Schaumburg, Illinois 60173  
PH. 847-519-1227 - FAX 847-519-0347  
Assumed Name No. 184-004083

THESE PLANS WERE PREPARED UNDER THE SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF IN ACCORDANCE WITH THE REQUIREMENTS OF THE ILLINOIS PROFESSIONAL ENGINEERING ACT.