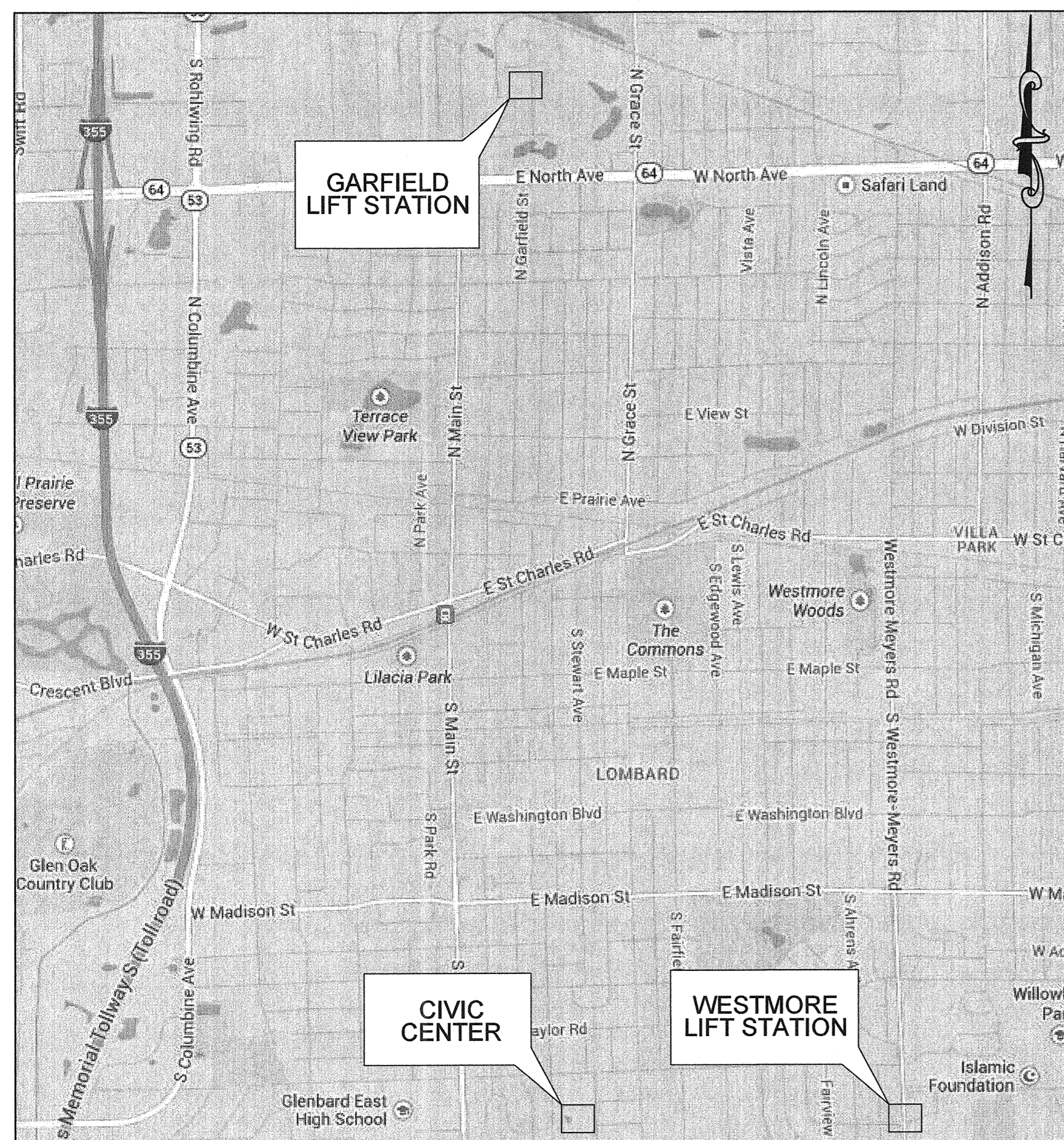
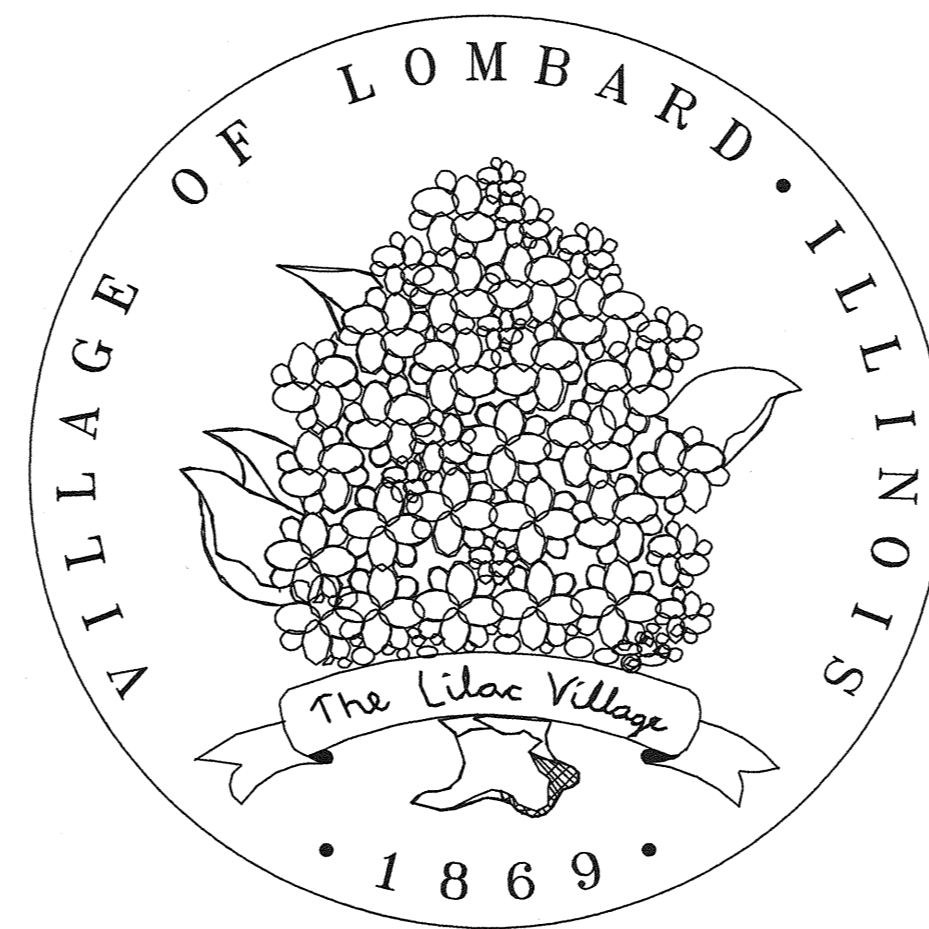


CALL J.U.L.I.E. BEFORE YOU DIG
 J.U.L.I.E. PHONE NUMBER "811" OR 1-800-892-0123



Village of Lombard Civic Center Reservoir Facility, Garfield Lift Station & Westmore Lift Station Standby Generator Improvements Project Number WA 1302



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CIVIC CENTER:

T-39-N, R-11-E, SEC. 17
 YORK TOWNSHIP
 DUPAGE COUNTY

GARFIELD LIFT STATION:

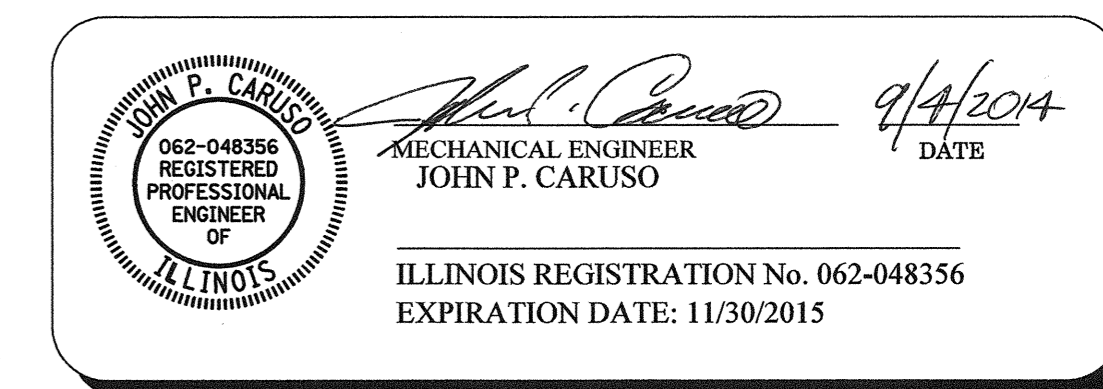
T-40-N, R-11-E, SEC. 32
 ADDISON TOWNSHIP
 DUPAGE COUNTY

WESTMORE LIFT STATION:

T-39-N, R-11-E, SEC. 16
 YORK TOWNSHIP
 DUPAGE COUNTY

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR
 JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION
 AND MEANS/METHODS OF CONSTRUCTION

FOR BID
 9-4-2014



PLANS PREPARED BY:

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

PROFESSIONAL DESIGN FIRM NO.: 184-001175
 EXPIRATION DATE: APRIL 30, 2015

NO.	DATE	REVISION	BY	SCALE: NO SCALE	Village of Lombard Department of Public Works PHONE (630) 620-5740 FAX (630) 620-5982	PROJECT: LIFT STATION AND CIVIC CENTER RESERVOIR FACILITY GENERATOR DESIGN	TITLE: COVER SHEET	DATE: 9/3/2014
				DRAWN BY: LRR DATE: 9/3/2014				SHEET 1 OF 27
				CHECKED BY: AJD DATE:				FILE: \\Lombard\9829\West\CR\1302.dwg
				APPROVED BY: JPC DATE:				

GENERAL NOTES

1. THE OWNER AND OWNER'S REPRESENTATIVE, SHALL BE NOTIFIED IN WRITING AT LEAST (5) FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. UTILITIES EXIST IN THE AREA WHERE WORK IS PROPOSED. ACTUAL DEPTH OF UTILITIES ARE UNKNOWN. SHOULD ANY GIVEN UTILITY INTERFERE WITH THE PROPOSED WORK, PIPE ROUTING, ETC., THE CONTRACTOR SHALL, AT NO EXTRA COST TO THE OWNER, RESOLVE ANY AND ALL INTERFERENCE PROBLEMS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK AS REQUIRED.
3. ALL UTILITY COMPANIES SHALL BE CONTACTED AND THEIR FACILITIES SHALL BE LOCATED PRIOR TO ANY WORK IN ANY EASEMENT, RIGHT-OF-WAY, OR SUSPECTED UTILITY LOCATION.
4. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LINE AND GRADES SHOWN ON THE CONTRACT DRAWINGS. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY REPORT SAME TO THE OWNER PRIOR TO PERFORMING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK AS REQUIRED.
5. ALL ELEVATIONS SHOWN ON THE CONTRACT DRAWINGS ARE BASED ON ESTABLISHED DATUM AT EACH SITE UNLESS OTHERWISE SPECIFIED.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
 - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT, LATEST EDITION
 - B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION.
 - C. OWNER AND CURRENT VILLAGE CODES
 - D. NATIONAL ELECTRICAL CODE.

WHERE CONTRADICTIONS OCCUR BETWEEN THE ABOVE LISTED SPECIFICATION, CODES AND/OR CONTRACT DOCUMENTS, THE MORE STRINGENT SHALL APPLY

7. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DOCUMENTS, AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DOCUMENTS BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF/HERSELF OF ALL CONDITIONS. THE CONTRACT PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS THE TOTAL COST FOR THE COMPLETE PROJECT. NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED DUE TO THE CONTRACTOR'S FAILURE TO UNDERSTAND THE SCOPE OF WORK.
9. APPROXIMATE 100 YEAR FLOOD ELEVATION, IF APPLICABLE, IN THE AREA OF CONCERN IS SHOWN ON THE SITE PLANS.
10. IT SHALL BE NECESSARY TO PERFORM WORK ADJACENT TO EXISTING UTILITIES. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR EXISTING UTILITIES IN CONFORMANCE WITH THE AFFECTED UTILITY COMPANIES REQUIREMENTS AS MAY BE REQUIRED TO PERFORM THE WORK OF THIS CONTRACT.
11. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
12. ORIENTATION OF PIPING, CONDUITS, EQUIPMENT, ETC. MAY VARY. CONTRACTOR TO COORDINATE SAME WITH THE OWNER.
13. ANY AND ALL DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. SOIL EROSION PROTECTION SHALL BE IN ACCORDANCE WITH IEPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. ALL DISTURBED AREAS SHALL BE FINE GRADED, TOP-SOIL RESTORED (MIN. 4 INCHES), AND SOD APPLIED UNLESS OTHERWISE SPECIFIED ON THE PLANS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TECHNIQUES OF CONSTRUCTION. OWNER'S REPRESENTATIVE/ ENGINEER'S REVIEW OF SAME DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY AND JOB SITE SAFETY.

GENERAL NOTES (CONT.)

16. LIMITS OF CONSTRUCTION SHALL BE SUBJECT TO OWNER'S APPROVAL AND SHALL NOT IMPACT EXISTING ROADWAY PAVEMENT EXCEPT WHERE IMPROVEMENTS ARE SHOWN BY DRAWINGS. LIMITS OF CONSTRUCTION (OTHER THAN ACROSS ROADWAY PAVEMENT) SHALL BE FENCED OFF WITH ORANGE CONSTRUCTION FENCING, SUBJECT TO THE OWNER'S APPROVAL.
17. ANY AND ALL BY-PASS PUMPING AS MAY BE REQUIRED FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND MATERIALS PROVIDED SHALL COMPLY WITH OWNER'S DESIGN REQUIREMENTS.
19. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AS REQUIRED PRIOR TO PERFORMING ANY WORK RELATED TO THIS CONTRACT.
20. THE CONTRACTOR SHALL SECURE A NO FEE PERMIT FOR EACH LOCATION FOR THE ELECTRICAL WORK.
21. CONTRACTOR SHALL TAKE UPMOST CARE TO PROTECT TREES WITHIN WORK ZONES (SEE SECTION 107.24 IN THE SPECIFICATIONS) NO TRIMMING UNLESS AUTHORIZED BY THE VILLAGE.
22. RESTORATION PLAN- SEED AND BLANKET ARE ALLOWED AT ALL SITES. CONTRACTOR RESPONSIBLE FOR 10 WATERINGS OF SEED/BLANKET. COORDINATE WITH VILLAGE IF HYDRANT METER IS NEEDED.
23. ALL WIRES SHALL BE TAGGED AT EVERY TERMINATION POINT USING OIL & WATER PROOF TAGS WITH INDELIBLE MARKING. SHORT WIRE LENGTHS (LESS THAN 8") WHERE THE ENTIRE CONDUCTOR IS VISIBLE MAY BE TAGGED AT JUST ONE END. WIRE TAG NUMBERS SHALL BE AS INDICATED IN THE DRAWINGS.
24. DO NOT ROUTE ANY COMMUNICATION CABLES WITH 120VAC WIRING. ROUTE ALL THESE CABLES AWAY FROM 120VAC WIRING. WHERE 120VAC WIRING CONDUCTORS MUST BE CROSSED, DO SO AT RIGHT ANGLES AND PROVIDE AT LEAST 1" SEPARATION.
25. EXISTING GARFIELD CONTROL CABINET SHALL BE RETURNED TO THE VILLAGE; ALL OTHER ITEMS SHALL BE DISPOSED OF BY THE CONTRACTOR.
26. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE & WORK WITH THE VILLAGE'S SCADA INTEGRATION ENERGENECS/KAMP TO ENSURE ENOUGH LEAD TIME IS GIVEN FOR INTEGRATION OF NEWLY INSTALLED EQUIPMENT CAN OCCUR.

RECORD DRAWINGS & UTILITY NOTES

1. CERTAIN INFORMATION SHOWN ON THESE DRAWINGS HAS BEEN OBTAINED FROM DRAWINGS OF RECORD. CONTRACTOR SHALL VERIFY SUCH INFORMATION PRIOR TO ACTUAL START OF WORK. WHERE DISCREPANCIES ARE DISCOVERED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. FAILURE BY THE CONTRACTOR TO IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES SHALL RESULT IN THE CONTRACTOR BEARING THE FULL BURDEN OF ALL RISKS/COSTS ATTRIBUTED TO THE DISCOVERED DISCREPANCY.
2. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHT-OF-WAYS ARE SHOWN ON THE DRAWINGS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS.
3. THE EXISTING BURIED UTILITY LINES, PUBLIC AND PRIVATE, ARE SHOWN ON THE DRAWINGS ACCORDING TO INFORMATION AVAILABLE FROM RECORDS. THE LOCATION AND DEPTH OF EXISTING BURIED UTILITY LINES SHOWN ON THE DRAWINGS IS THEREFORE APPROXIMATE AND MAY VARY FROM FIELD CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION AND DEPTH OF BURIED UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES TO MARK THE LOCATION OF BURIED UTILITIES IN THE FIELD BEFORE BEGINNING EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES AND SHALL REPAIR ANY UTILITY LINES HE DAMAGES AT HIS OWN EXPENSE.
4. BEFORE INSTALLING ANY BURIED PIPE, THE CONTRACTOR SHALL CAREFULLY UNCOVER ALL EXISTING BURIED UTILITY LINES WHICH CROSS NEW CONSTRUCTION SO HE CAN DETERMINE THEIR EXACT LOCATION AND DEPTH. IF EXISTING BURIED UTILITY LINES ARE ENCOUNTERED THAT CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE SO THAT THE CONFLICT MAY BE RESOLVED.

EXCAVATION AND BACKFILL NOTES

1. THE CONTRACTOR SHALL EXAMINE THE CONTRACT DRAWINGS THOROUGHLY PRIOR TO BEGINNING ANY EXCAVATION, AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT ONCE OF ANY DISCREPANCIES.
2. ALL WORK AREAS SHALL BE PROPERLY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION AND TRAFFIC.
3. THE EXCAVATION FOR STRUCTURE AND/OR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING STRUCTURE/PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY EXCAVATIONS/TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR AND THE COST OF SUCH SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS TO WHICH THEY PERTAIN.
4. A TRENCH BOX SHALL BE UTILIZED IN ACCORDANCE WITH OSHA STANDARDS.
5. SUITABLE EXCAVATED MATERIALS SUBJECT TO THE REVIEW OF THE OWNER'S REPRESENTATIVE MAY BE USED TO BACKFILL THE EXCAVATED AREAS OF THE SITE UNLESS SHOWN OTHERWISE.
6. NO UNDERGROUND WORK SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED BY OWNER.
7. TRENCH BACKFILL SHALL BE PROVIDED FOR THE FULL DEPTH ABOVE PIPELINES UNDER PROPOSED OR EXISTING PAVEMENTS, UTILITIES, DRIVEWAYS, AND SIDEWALKS. THE TRENCH BACKFILL SHALL CONSIST OF A GRANULAR MATERIAL MEETING IDOT CRUSHED STONE CA-6 GRADATION SPECIFICATIONS. THE TRENCH BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS AND SHALL EXTEND A MINIMUM OF TWO FEET ON EITHER SIDE OF THE PIPE CENTERLINE, OR AS OTHERWISE SHOWN OR SPECIFIED HEREIN.
8. BACKFILL IN PIPE TRENCHES IN OPEN AREAS AND LANDSCAPED AREAS SHALL CONSIST OF SUITABLE EXCAVATED MATERIALS PLACED IN LIFTS AND COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE PER ASTM D 1557.
9. THE CONTRACTOR SHALL REMOVE ALL EXCESS UTILITY SPOIL. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE OR LOCAL TIPPING FEES.
11. VILLAGE WILL PRETEST AND CONFIRM SOIL CONDITIONS AT EACH LOCATION PRIOR TO START OF PROJECT.

FINAL ACCEPTANCE AND INSPECTION

1. UPON COMPLETION OF ALL SPECIFIED WORK AND THE INSTALLATION OF EQUIPMENT, THE CONTRACTOR SHALL PERFORM FINAL TESTS OF THE EQUIPMENT TO VERIFY THAT THE INSTALLATION PERFORMS SATISFACTORILY. ACCEPTANCE TESTS CONDUCTED ON THE COMPLETED INSTALLATION WILL BE WITNESSED AND SUBJECT TO THE APPROVAL OF THE OWNER. NO SEPARATE PAYMENT WILL BE MADE FOR FINAL TESTING. THE COST OF FINAL TEST SHALL BE CONSIDERED INCIDENTAL TO THE WORK. AS A MINIMUM TESTING SHALL INCLUDE BUT NOT BE LIMITED TO OPERATIONAL TESTING OF ALL DEVICES AND EQUIPMENT. EQUIPMENT SUPPLIERS SHALL PROVIDE FACTORY TRAINED FIELD PERSONNEL FOR FINAL CHECK-OUT, START-UP AND TESTING. PRIOR TO SUCH FINAL TESTING ALL PIPING SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH INDUSTRY STANDARDS.
2. WHEN ALL THE WORK AS SHOWN ON THE DRAWINGS AND INCLUDED IN THE SPECIFICATIONS HAS BEEN COMPLETED AND THE EQUIPMENT HAS BEEN INSTALLED, TESTED, PLACED INTO OPERATION, AND SUBSEQUENTLY HAS SATISFACTORILY OPERATED FOR 15 DAYS, A THOROUGH INSPECTION OF THE EQUIPMENT WILL BE MADE BY THE OWNER IN THE COMPANY OF THE CONTRACTOR, AND IF THE WORK IS FOUND TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS, THE WORK WILL BE FORMALLY ACCEPTED AND THE CONTRACTOR SO NOTIFIED AS TO THE FINAL ACCEPTANCE OF THE WORK BY THE OWNER. NOTIFICATION OF FINAL ACCEPTANCE WILL BE IN WRITING.
3. SHOULD ANY WORK BE FOUND TO BE INADEQUATE, FAULTY, OR OTHERWISE NOT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT SUCH WORK AT HIS/ HER OWN EXPENSE, PRIOR TO FINAL ACCEPTANCE.
4. THE PERIOD OF EQUIPMENT AND WORKMANSHIP GUARANTEES SHALL COMMENCE IMMEDIATELY AFTER FINAL ACCEPTANCE OF THE WORK. UPON BEING NOTIFIED OF THE FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL SUPPLY TO THE OWNER, A CERTIFICATE OF GUARANTEE WHICH SHALL GUARANTEE ALL EQUIPMENT AND WORKMANSHIP UNDER THE CONTRACTOR'S SCOPE OF WORK FOR A PERIOD OF ONE YEAR.
5. UPON FINAL ACCEPTANCE THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF THE WORK.

SHOP DRAWING REVIEW NOTES

1. THE CONTRACTOR SHALL SUBMIT FOR REVIEW DIMENSIONED OUTLINE SHOP DRAWINGS SHOWING THE GENERAL ARRANGEMENT OF THE EQUIPMENT TO BE FURNISHED, AND ITEMS TO BE INSTALLED. AS A MINIMUM FOUR COPIES OF ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
2. BEFORE PROCEEDING WITH MANUFACTURE OF THE EQUIPMENT, THE CONTRACTOR SHALL SUBMIT FOR REVIEW GENERAL ASSEMBLY SHOP DRAWINGS, SUBASSEMBLY SHOP DRAWINGS, DETAIL SHOP DRAWINGS, CALCULATIONS, DESIGN DATA, CATALOG CUTS AND SIMILAR ENGINEERING DOCUMENTS REQUIRED TO DEMONSTRATE FULLY THAT ALL PARTS WILL CONFORM TO THE PROVISIONS AND INTENT OF THE DRAWINGS AND SPECIFICATIONS AND TO THE REQUIREMENTS OF THEIR INSTALLATION, OPERATION, AND MAINTENANCE. THESE SHOP DRAWINGS SHALL SHOW ALL NECESSARY DIMENSIONS AND FABRICATION DETAILS, INCLUDING THE DESIGN OF WELDED AND BOLTED JOINT CONNECTIONS, TOLERANCES ON FITS AND CLEARANCES, AND ALL FIELD JOINTS AND SUBASSEMBLIES IN WHICH THE CONTRACTOR PROPOSES TO SHIP THE EQUIPMENT. DESIGN CRITERIA, CALCULATIONS, AND DETAILED SPECIFICATIONS, SHALL BE SUBMITTED FOR THE DESIGN OF ALL MAJOR COMPONENTS AND FOR OTHER FEATURES OR DETAILS WHEN REQUESTED BY THE OWNER.
3. ALL SUBMITTALS BY THE CONTRACTOR SHALL BE CERTIFIED BY THE RESPECTIVE EQUIPMENT MANUFACTURER.
4. THE CONTRACTOR SHALL SUBMIT COMPLETE FULL-LINE WIRING DIAGRAMS COVERING ALL EQUIPMENT FURNISHED BY HIM. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS OF SWITCH DEVELOPMENTS FOR ALL INSTRUMENT AND CONTROL SWITCHES AND INTERNAL CONNECTION DIAGRAMS FOR ALL INSTRUMENTS, RELAYS, REGULATORS, ETC.
5. SHOP DRAWINGS SHALL INCLUDE ELECTRICAL DEVICES, ACCESSORIES AND WIRING FURNISHED AS COMPONENT PARTS OF MECHANICAL EQUIPMENT AND SHALL SHOW ARRANGEMENT AND DIMENSIONS.
6. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL WORK AREAS, INDICATING SOLUTIONS TO SPACE PROBLEMS AND COORDINATION WITH REQUIREMENTS OF EXISTING CONDITIONS.
7. PRIOR TO FINAL INSPECTION PROVIDE THREE DUPLICATE LOOSE LEAF THREE RING BOUND COPIES OF OPERATIONS AND MAINTENANCE MANUALS IN DURABLE COVERS OF THE FOLLOWING ITEMS ORGANIZED AND TAB INDEXED IN ACCORDANCE WITH THE SPECIFICATIONS FORMAT AS FOLLOWS:
 - A. MAINTENANCE AND OPERATING INSTRUCTIONS AS PUBLISHED BY THE MATERIAL SUPPLIERS AND/OR EQUIPMENT MANUFACTURERS.
 - B. SPECIFIED EQUIPMENT GUARANTEES AND WARRANTIES.
 - C. EMERGENCY INSTRUCTIONS.
 - D. WIRING DIAGRAMS.
 - E. SHOP DRAWINGS AND PRODUCT DATA.
 - F. INSPECTION PROCEDURES AND SERVICE RECOMMENDATIONS.
 - G. ASSEMBLY DRAWINGS AND PARTS LISTS WITH IDENTIFICATION SYMBOLS OR PART NUMBERS FOR ALL REPLACEABLE PARTS AND ASSEMBLIES.
 - H. TEST REPORTS.

SUBSURFACE OPERATION PLAN

BEFORE COMMENCING ACTIVITY AT THE SITE THE CONTRACTOR SHALL PREPARE AN "OPERATION PLAN" DRAWING SHOWING THE SEQUENCE OF OPERATION AND TIMING THAT IS PROPOSED FOR THE SUBSURFACE WORK. THIS PLAN DRAWING SHALL BE EXCLUSIVE OF ALL OTHER PLANS AND SCHEDULES REQUIRED UNDER THE CONTRACT. THE PLAN SHALL SHOW IN PLAN AND PROFILE SUPPLEMENTED BY SKETCHES, TEXT AND BAR DIAGRAMS THE EXTENT AND SEQUENCE OF WORK REQUIRED FOR THE SUBSURFACE CONSTRUCTION. THE PLAN SHALL SHOW ALL EXCAVATION, SHEETING, PROTECTION, DEWATERING PROCEDURES, UTILITIES SUPPORT, DRAINS AND ALL OTHER FEATURES REQUIRED TO PERFORM THE SUBSURFACE OPERATION. THE PLAN SHALL BE SUBMITTED TO THE OWNERS REPRESENTATIVE FOR REVIEW. INsofar AS POSSIBLE ALL INFORMATION SHALL BE SHOWN ON THE PLAN FOR CONVENIENCE OF INTERPRETATION UNDER FIELD CONDITIONS. THE PLAN SHALL BE SEALED BY AN ILLINOIS REGISTERED STRUCTURAL ENGINEER.

ALL SHEETING/SHORING AND EARTH RETENTION/PROTECTION OF THE EXCAVATIONS, AROUND THE PROJECT WORK SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
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(847) 823-0500



VILLAGE OF LOMBARD

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default
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DSGN.	AJD	TITLE:
DWN.	LRR	
CHKD.	JPC	
SCALE:	N.T.S.	
PLOT DATE:	9/3/2014	
CAD USER:	lr_eynolds	

**LIFT STATION & CIVIC CENTER
GENERATOR DESIGN
GENERAL NOTES**

PROJ. NO. 140120
DATE: 9/3/2014
SHEET 2 OF 27
DRAWING NO.
GN

NOTES:

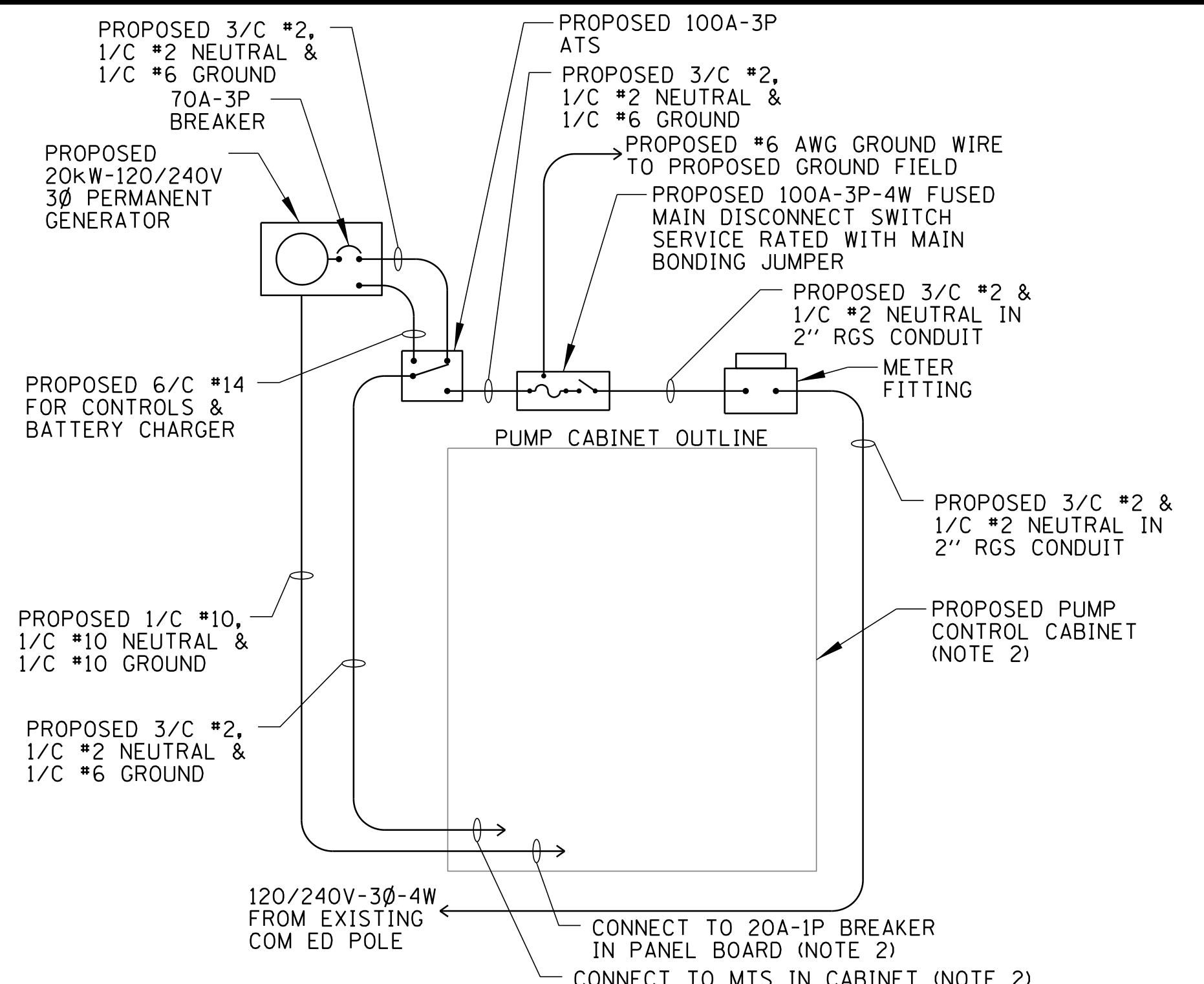
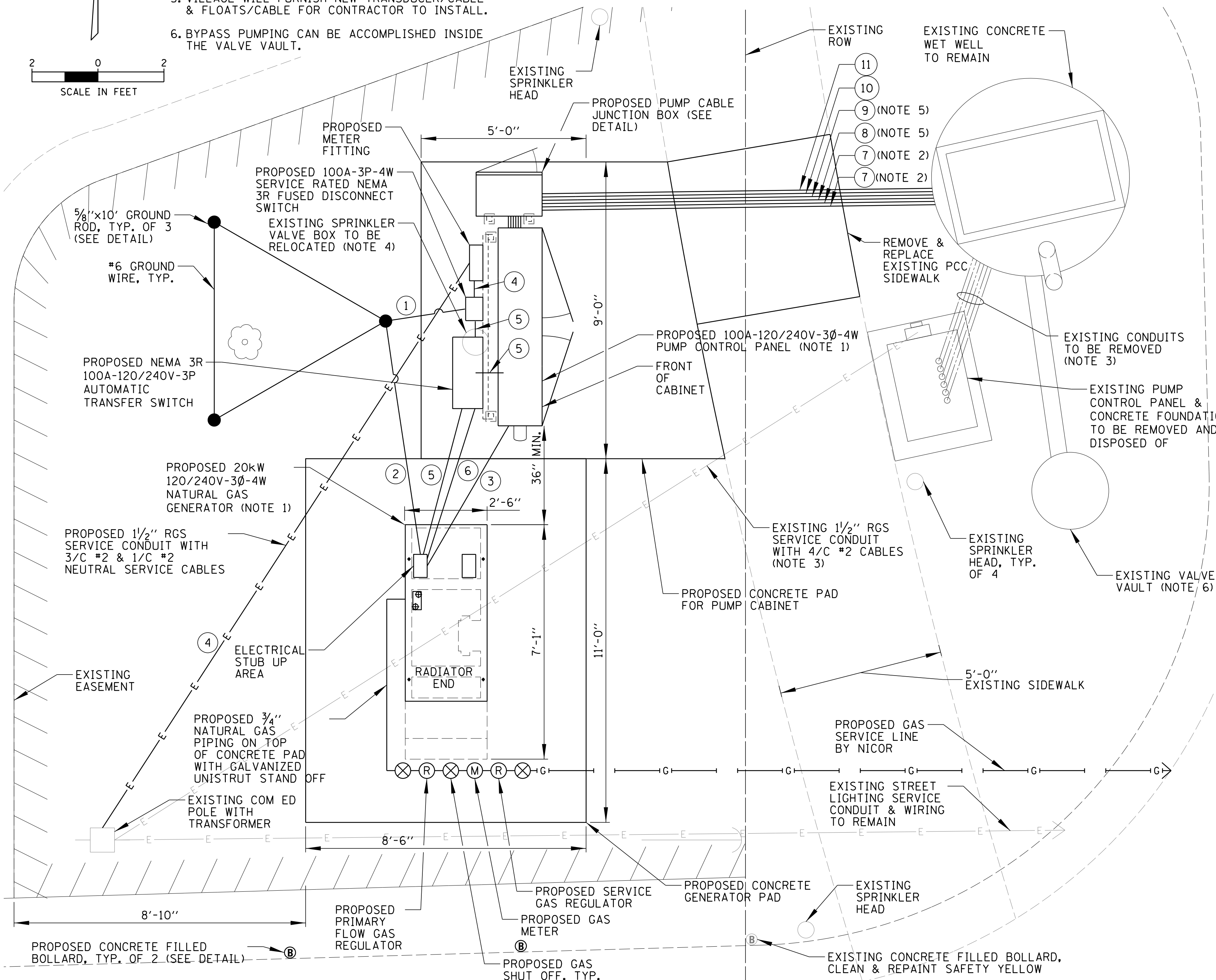
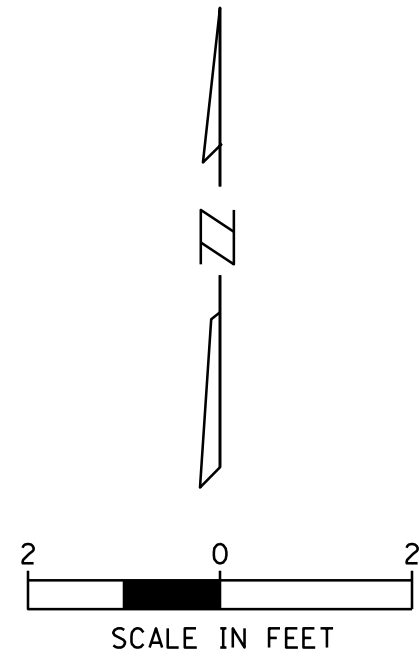
- GENERATOR WITH ENCLOSURE, AUTOMATIC TRANSFER SWITCH & PUMP CONTROL CABINET FURNISHED BY THE VILLAGE & INSTALLED BY THE CONTRACTOR. THE VILLAGE WILL DELIVER BUT THE CONTRACTOR WILL BE RESPONSIBLE FOR OFFLOADING & INSTALLATION INCLUDING COORDINATING & FURNISHING CRANE.
- EXISTING PUMP CABLES HAVE SLACK COILED UP INSIDE WET WELL. CONTRACTOR TO DISCONNECT CABLES, REMOVE & REROUTE TO PROPOSED CABINET AND RECONNECT.
- EXISTING CABLES SHALL BE DISCONNECTED & REMOVED. EXISTING CONDUIT SHALL BE REMOVED TO AT LEAST 1' BELOW GRADE, PLUGGED AND ABANDONED.
- CONTRACTOR SHALL REMOVE/RELOCATE EXISTING SPRINKLER VALVE, PIPING & HEADS AS REQUIRED.
- VILLAGE WILL FURNISH NEW TRANSDUCER/CABLE & FLOATS/CABLE FOR CONTRACTOR TO INSTALL.
- BYPASS PUMPING CAN BE ACCOMPLISHED INSIDE THE VALVE VAULT.

CONDUIT/CABLE SCHEDULE

ID	CONDUIT	CABLE	DESCRIPTION
1	1" RGS	1/C #6 BARE	SERVICE GROUNDING ELECTRODE CONDUCTOR
2	1" RGS	1/C #6 BARE	GENERATOR GROUNDING ELECTRODE CONDUCTOR
3	1" RGS	1/C #10, 1/C #10 NEUTRAL & 1/C #10 GND	GENERATOR BLOCK HEATER
4	1 1/2" RGS	3/C #2 & 1/C #2 NEUTRAL	SERVICE CABLES
5	1 1/2" RGS	3/C #2, 1/C #2 NEUTRAL & 1/C #6 GND	SERVICE CABLES
6	1" RGS	6/C #14	CONTROL CABLES & BATTERY CHARGER
7	2" RGS	REUSE EXISTING (NOTE 2)	PUMP POWER & CONTROLS
8	2" RGS	NOTE 5	LEVEL TRANSDUCER
9	2" RGS	NOTE 5	FLOAT SWITCHES
10	2" RGS	EMPTY	SPARE
11	1" RGS	1/C #6	HATCH & GUIDE RAIL GROUND

NOTES:

- ALL ABOVE GRADE CONDUITS/FITTINGS SHALL BE PVC COATED RIGID GALVANIZED STEEL.

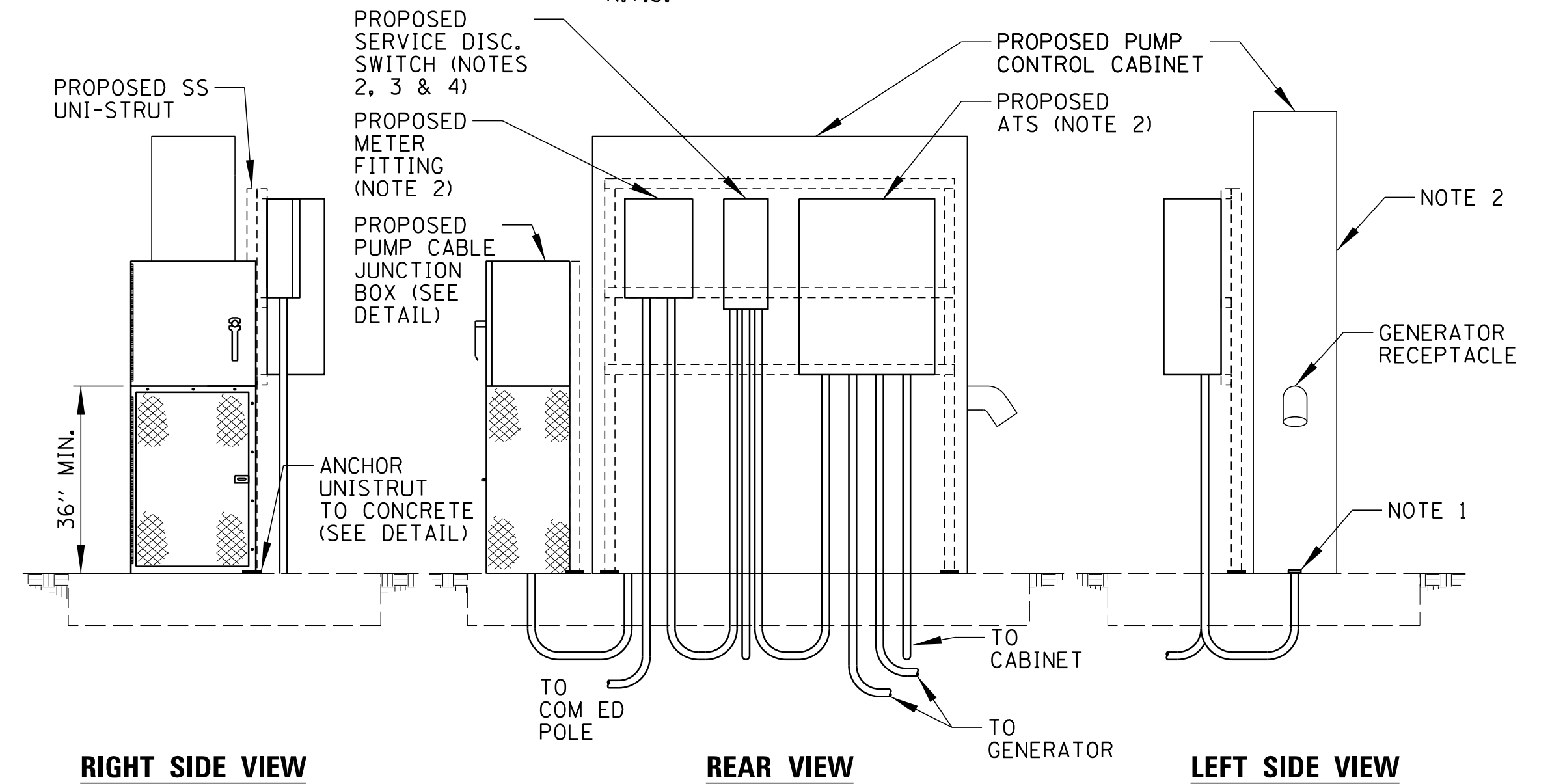


NOTES:

- REMOVE MAIN BONDING JUMPER IN PUMP CONTROL CABINET IF EQUIPPED. MAIN BONDING JUMPER TO BE LOCATED IN MAIN DISCONNECT SWITCH.
- SEE GARFIELD PUMP CONTROLLER DRAWINGS FOR DETAILED WIRING DIAGRAMS.

ONE LINE DIAGRAM

N.T.S.



NOTES:

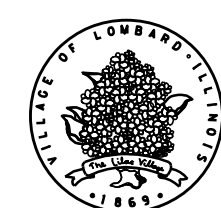
- ALL CONDUITS SHALL HAVE GROUNDING BUSHINGS WITH #6 COPPER WIRE BONDED TO ALL CONDUITS, ENCLOSURES & EQUIPMENT
- INSTALL LABEL ON ENCLOSURE TO READ "CAUTION-B PHASE HAS 208 VOLTS TO GROUND".
- INSTALL LABEL ON ENCLOSURE TO READ "SERVICE DISCONNECT".
- INSTALL LABEL ON ENCLOSURE TO READ "CAUTION-ON SITE GENERATOR".
- ALL LABELS SHALL BE PER NEC 110.21 & 110.22.

PROPOSED PUMP CONTROL CABINET

N.T.S.

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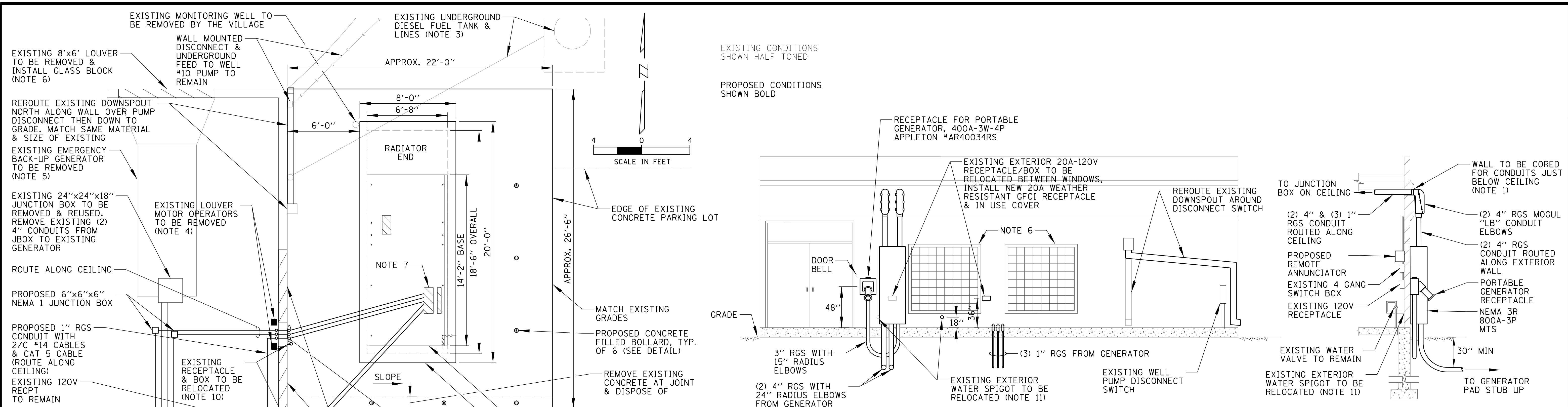
CLIENT:



VILLAGE OF LOMBARD

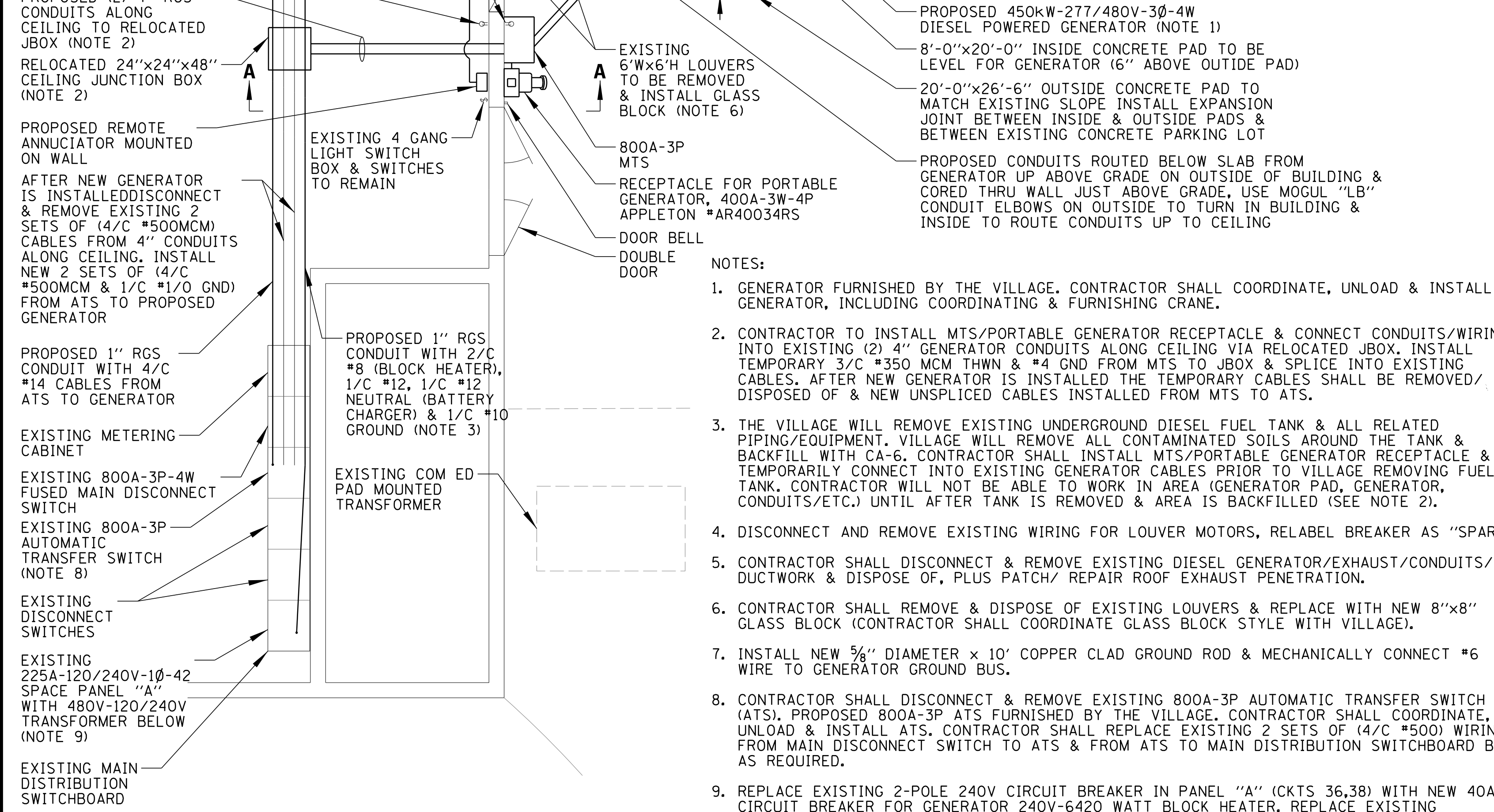
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FILE NAME:		N:\Lombard\140120\Mech\E_140120_03.sht		

DSGN:	AJD	TITLE:	PROJ. NO. 140120
DWN:	LRR	LIFT STATION & CIVIC CENTER GENERATOR DESIGN PROPOSED LAYOUT - GARFIELD ST	DATE: 9/3/2014
CHKD:	JPC		SHEET 3 OF 27
SCALE:	2"		DRAWING NO.
PLOT DATE:	9/3/2014		E1
CAD USER:	lrreynolds		

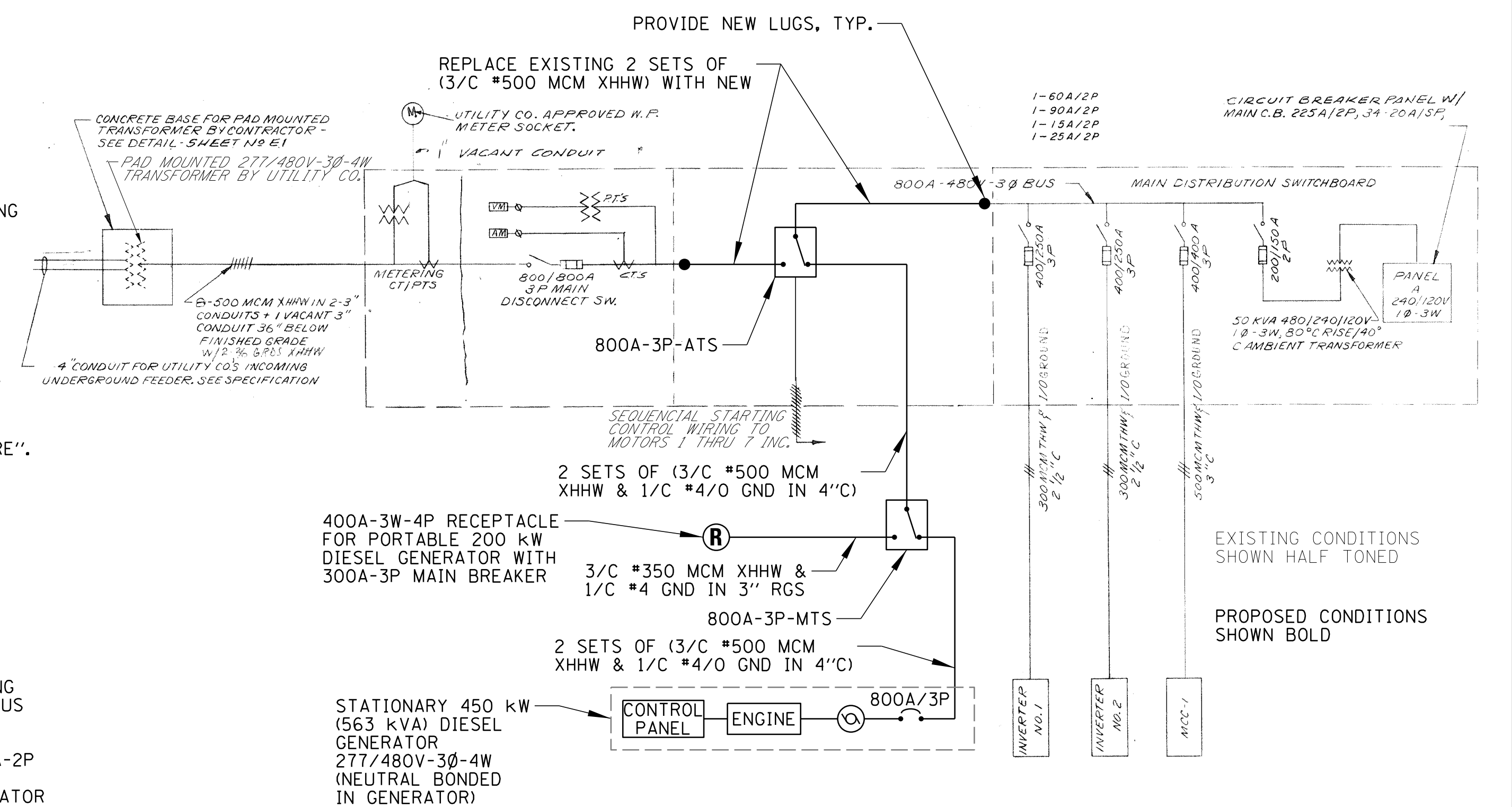


EAST WALL ELEVATION

WALL SECTION A-A



SITE PLAN



CIVIC CENTER SINGLE LINE DIAGRAM

- NOTES:**
1. GENERATOR FURNISHED BY THE VILLAGE. CONTRACTOR SHALL COORDINATE, UNLOAD & INSTALL GENERATOR, INCLUDING COORDINATING & FURNISHING CRANE.
 2. CONTRACTOR TO INSTALL MTS/PORTABLE GENERATOR RECEPTACLE & CONNECT CONDUITS/WIRING INTO EXISTING (2) 4" GENERATOR CONDUITS ALONG CEILING VIA RELOCATED JBOX. INSTALL TEMPORARY 3/C #350 MCM THWN & #4 GND FROM MTS TO JBOX & SPLICE INTO EXISTING CABLES. AFTER NEW GENERATOR IS INSTALLED THE TEMPORARY CABLES SHALL BE REMOVED/DISPOSED OF & NEW UNSPLICED CABLES INSTALLED FROM MTS TO ATS.
 3. THE VILLAGE WILL REMOVE EXISTING UNDERGROUND DIESEL FUEL TANK & ALL RELATED PIPING/EQUIPMENT. VILLAGE WILL REMOVE ALL CONTAMINATED SOILS AROUND THE TANK & BACKFILL WITH CA-6. CONTRACTOR SHALL INSTALL MTS/PORTABLE GENERATOR RECEPTACLE & TEMPORARILY CONNECT INTO EXISTING GENERATOR CABLES PRIOR TO VILLAGE REMOVING FUEL TANK. CONTRACTOR WILL NOT BE ABLE TO WORK IN AREA (GENERATOR PAD, GENERATOR, CONDUITS/ETC.) UNTIL AFTER TANK IS REMOVED & AREA IS BACKFILLED (SEE NOTE 2).
 4. DISCONNECT AND REMOVE EXISTING WIRING FOR LOUVER MOTORS, RELABEL BREAKER AS "SPARE".
 5. CONTRACTOR SHALL DISCONNECT & REMOVE EXISTING DIESEL GENERATOR/EXHAUST/CONDUITS/ DUCTWORK & DISPOSE OF, PLUS PATCH/ REPAIR ROOF EXHAUST PENETRATION.
 6. CONTRACTOR SHALL REMOVE & DISPOSE OF EXISTING LOUVERS & REPLACE WITH NEW 8"x8" GLASS BLOCK (CONTRACTOR SHALL COORDINATE WITH VILLAGE).
 7. INSTALL NEW 3/8" DIAMETER x 10' COPPER CLAD GROUND ROD & MECHANICALLY CONNECT #6 WIRE TO GENERATOR GROUND BUS.
 8. CONTRACTOR SHALL DISCONNECT & REMOVE EXISTING 800A-3P AUTOMATIC TRANSFER SWITCH (ATS). PROPOSED 800A-3P ATS FURNISHED BY THE VILLAGE. CONTRACTOR SHALL COORDINATE, UNLOAD & INSTALL ATS. CONTRACTOR SHALL REPLACE EXISTING 2 SETS OF (4/C #500) WIRING FROM MAIN DISCONNECT SWITCH TO ATS & FROM ATS TO MAIN DISTRIBUTION SWITCHBOARD BUS AS REQUIRED.
 9. REPLACE EXISTING 2-POLE 240V CIRCUIT BREAKER IN PANEL "A" (CKTS 36,38) WITH NEW 40A-2P CIRCUIT BREAKER FOR GENERATOR 240V-6420 WATT BLOCK HEATER. REPLACE EXISTING 1-POLE-120V CIRCUIT BREAKER IN PANEL "A" (CKT 21) WITH NEW 20A-1P BREAKER FOR GENERATOR BATTERY CHARGER.
 10. INSTALL NEW 20A-120V GFI RECEPTACLE WITH IN USE COVER.
 11. INSTALL NEW ANTISIPHON FROST FREE BRASS SILCOCK.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CLIENTS:

VILLAGE OF LOMBARD

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
				Default
FILE NAME	N:\Lombard\140120\Mech\140120_04.sht			

DSGN. AJD
 DWN. LRR
 CHKD. JPC
 SCALE: 4"
 PLOT DATE: 9/3/2014
 CAD USER: lreynolds

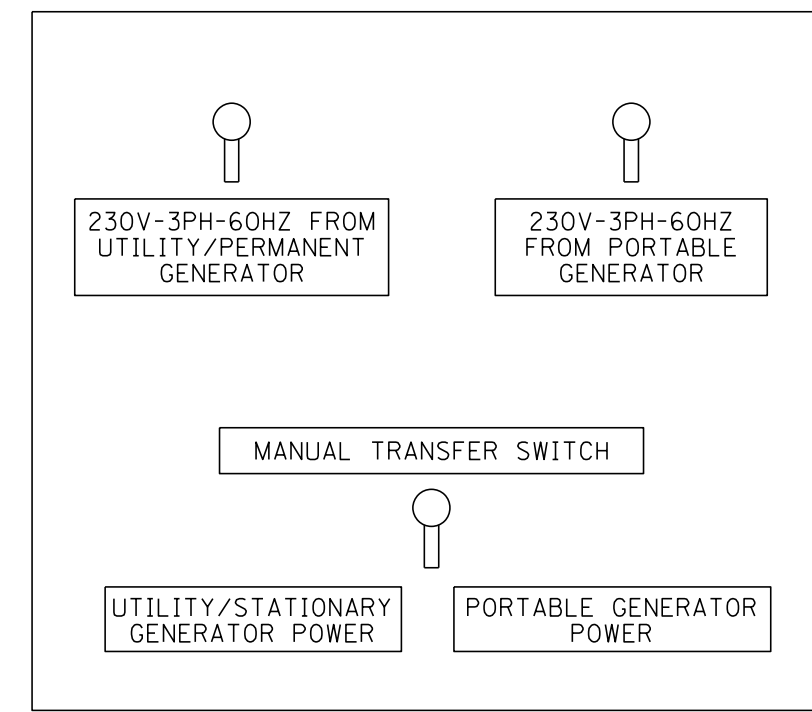
TITLE:
**LIFT STATION & CIVIC CENTER
 GENERATOR DESIGN
 PROPOSED LAYOUT - CIVIC CENTER**

PROJ. NO. 140120
 DATE: 9/3/2014
 SHEET 4 OF 27
 DRAWING NO. **E2**

CONDUIT/CABLE SCHEDULE

ID	CONDUIT	CABLE	DESCRIPTION
1	1" RGS	1/C #6 BARE	SERVICE GROUNDING ELECTRODE CONDUCTOR
2	1" RGS	1/C #6 BARE	GENERATOR GROUNDING ELECTRODE CONDUCTOR
3	1" RGS	1/C #10, 1/C #10 NEUTRAL & 1/C #10 GND	GENERATOR BLOCK HEATER
4	1 1/2" RGS	3/C #2 & 1/C #2 NEUTRAL	SERVICE CABLES
5	1 1/2" RGS	3/C #1/0, 1/C #1/0 NEUTRAL & 1/C #6 GND	SERVICE CABLES
6	1" RGS	6/C #14	CONTROL CABLES & BATTERY CHARGER

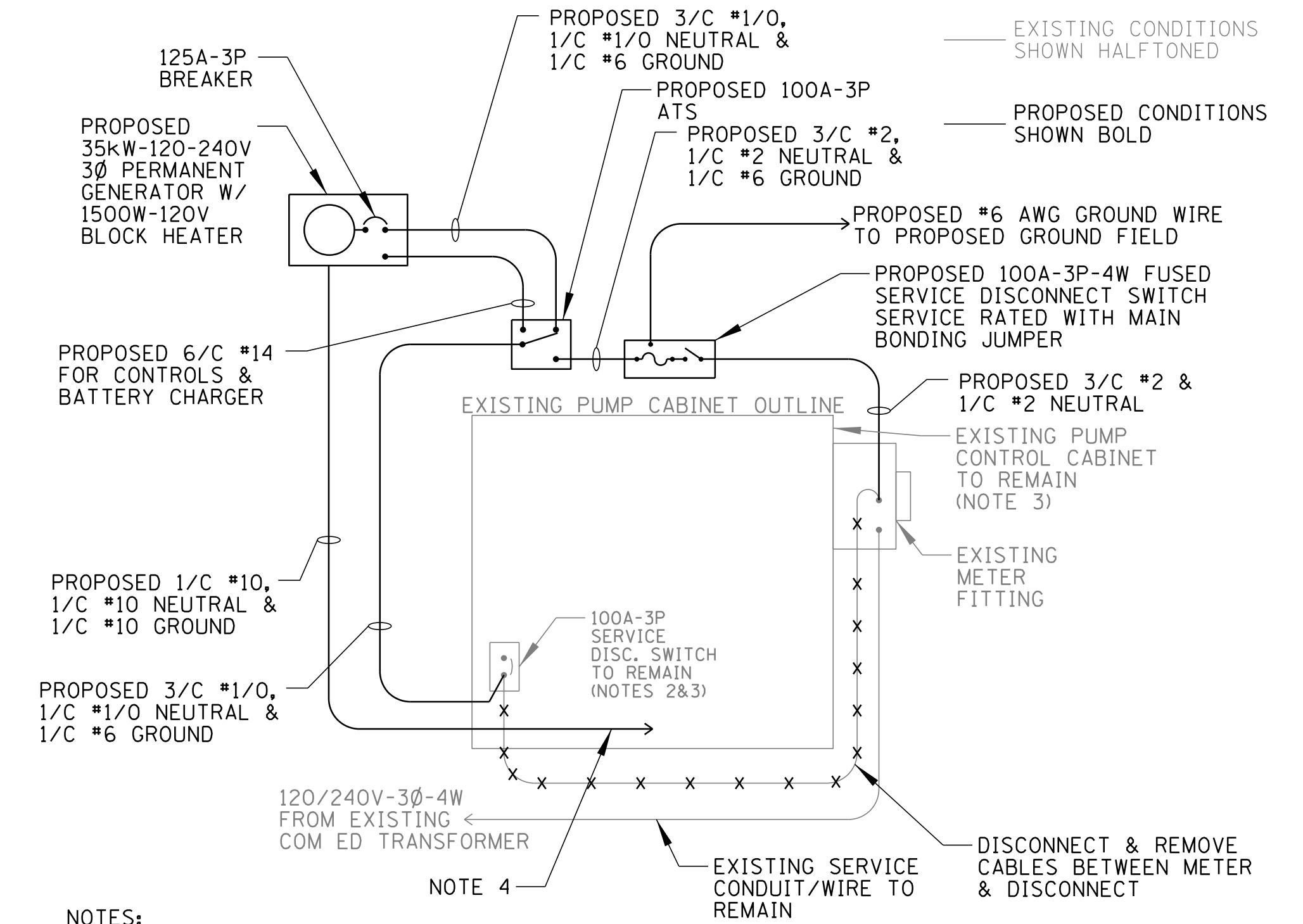
NOTES:
1. ALL ABOVE GRADE CONDUITS/FITTINGS SHALL BE PVC COATED RIGID GALVANIZED STEEL.



NOTES:
1. NEW LABELS SAME TYPE AS EXISTING WITH REVISED TEXT AS SHOWN.

RELABELING EXISTING SWITCHES

N.T.S.

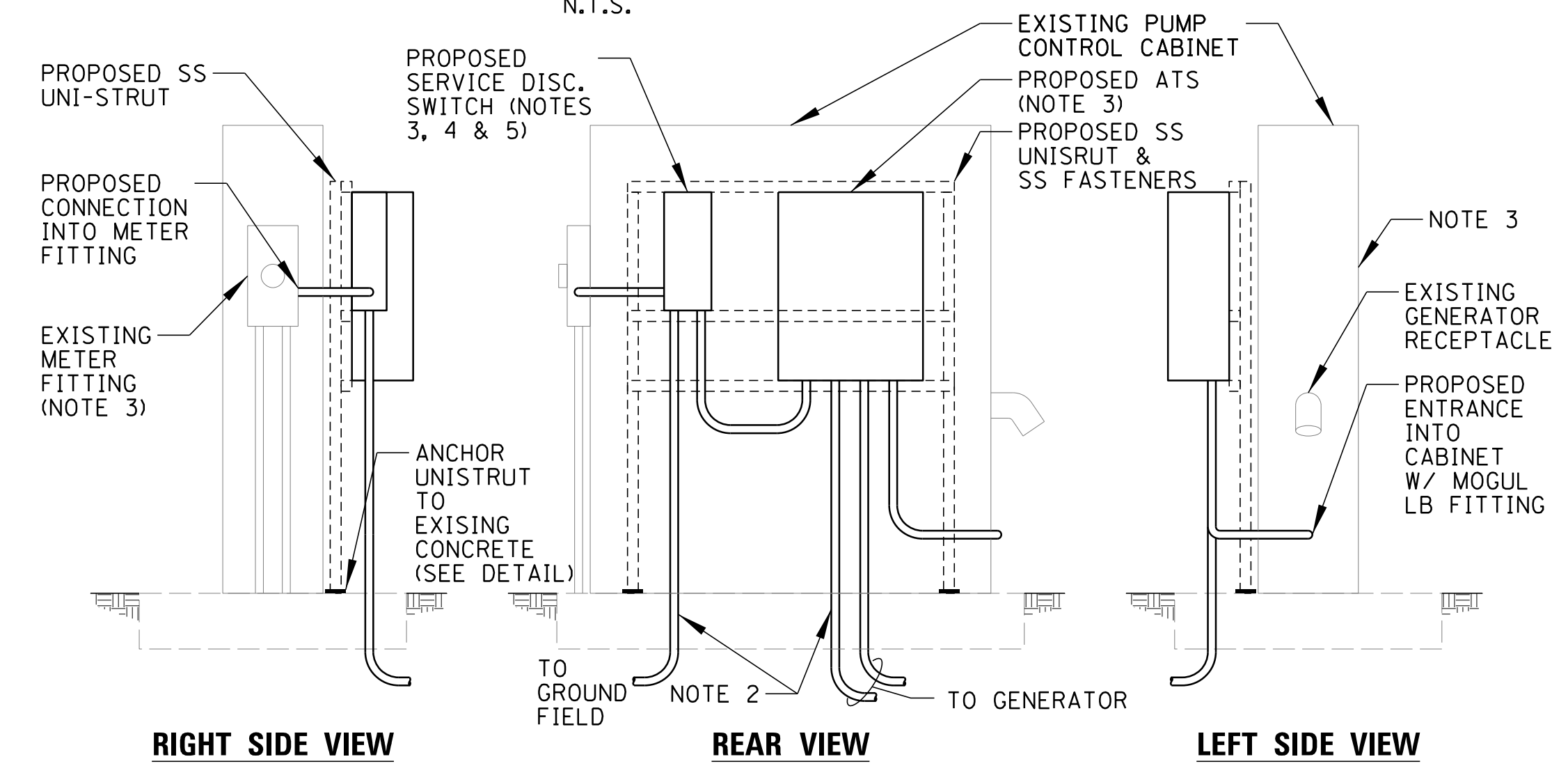


NOTES:

1. REMOVE EXISTING MAIN BONDING JUMPER IN EXISTING CABINET, REMOVE EXISTING GROUNDING ELECTRODE CONDUCTOR. PROVIDE MAIN BONDING JUMPER INSTALLED IN PROPOSED SERVICE DISCONNECT SWITCH.
2. SEE DETAIL FOR RELABELING EXISTING SWITCHES.
3. SEE WESTMORE PUMP CONTROL DRAWINGS FOR EXISTING DETAILED WIRING DIAGRAMS.
4. FURNISH & INSTALL NEW 20A-1P CIRCUIT BREAKER (5KAIC) IN PANELBOARD PB-1 & LABEL "GENERATOR BLOCK HEATER". CONNECT WIRING FROM BLOCK HEATER TO NEW BREAKER.

ONE LINE DIAGRAM

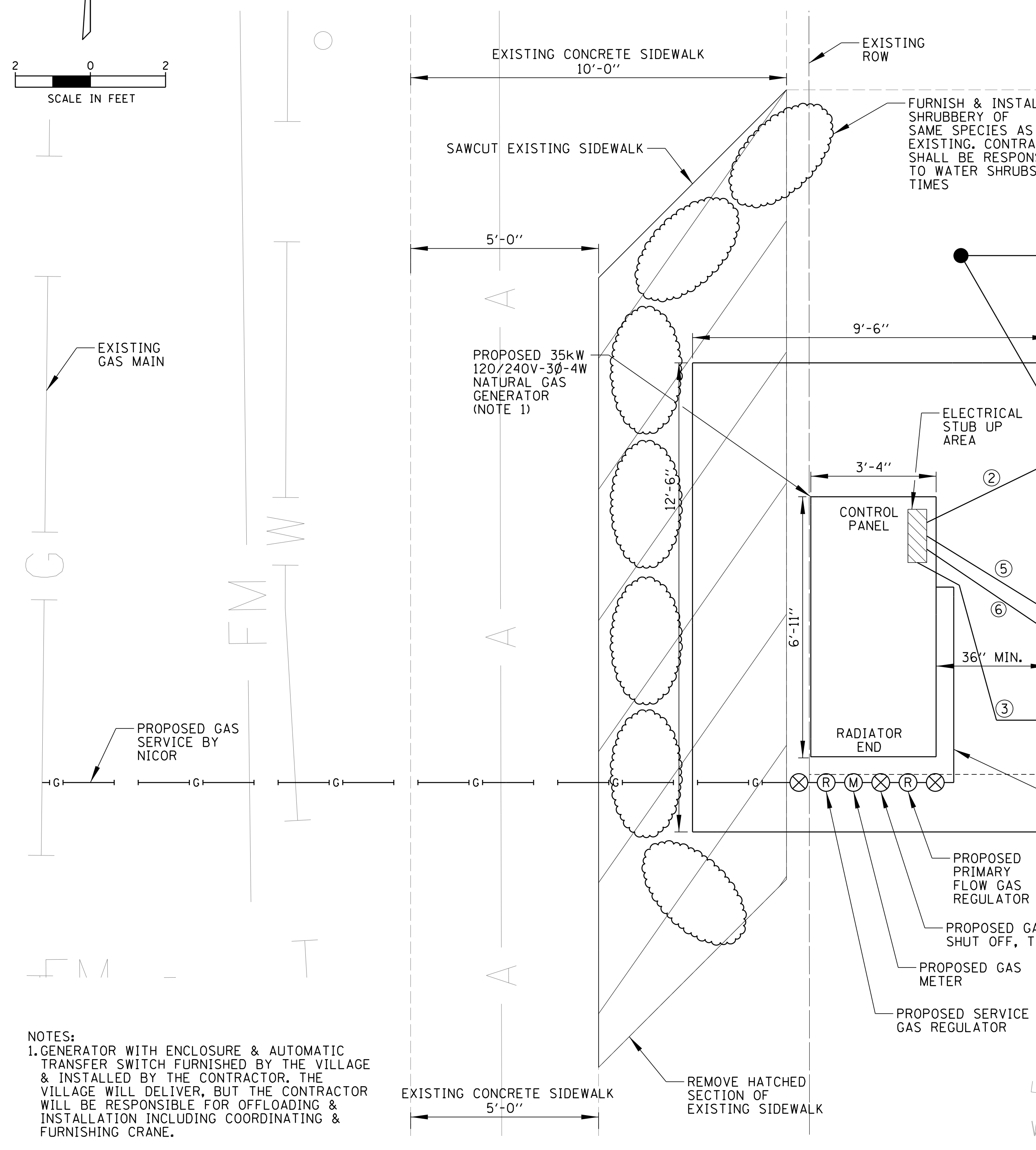
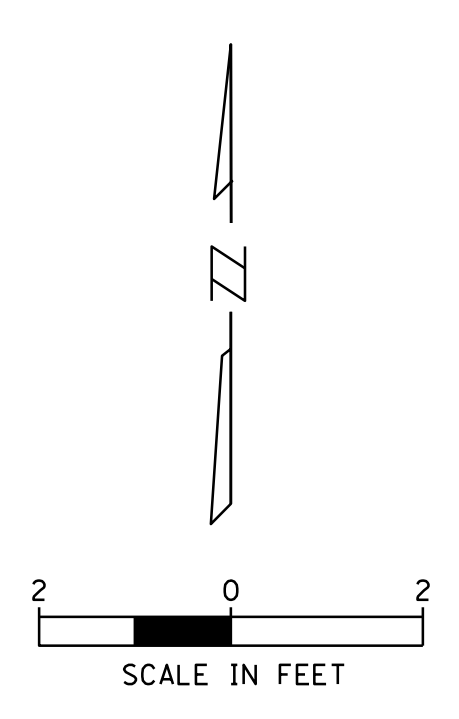
N.T.S.



- NOTES:
1. PROPOSED CONDUIT ENTRY'S SHALL HAVE GROUNDING BUSHINGS WITH #6 COPPER WIRE BONDED TO ALL CONDUITS, ENCLOSURES & EQUIPMENT.
 2. CORE EXISTING CONCRETE SLAB AS REQUIRED FOR PROPOSED CONDUITS.
 3. INSTALL LABEL ON ENCLOSURE TO READ "CAUTION-B PHASE HAS 208 VOLTS TO GROUND".
 4. INSTALL LABEL ON ENCLOSURE TO READ "SERVICE DISCONNECT".
 5. INSTALL LABEL ON ENCLOSURE TO READ "CAUTION-ON SITE GENERATOR".
 6. ALL LABELS SHALL BE PER NEC 110.21 & 110.22.

EXISTING PUMP CONTROL CABINET

N.T.S.



NOTES:
1. GENERATOR WITH ENCLOSURE & AUTOMATIC TRANSFER SWITCH FURNISHED BY THE VILLAGE & INSTALLED BY THE CONTRACTOR. THE VILLAGE WILL DELIVER, BUT THE CONTRACTOR WILL BE RESPONSIBLE FOR OFFLOADING & INSTALLATION INCLUDING COORDINATING & FURNISHING CRANE.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

CLIENT:
VILLAGE OF LOMBARD

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME:	N:\Lombard\140120\Mech\N_140120_05.sht			Default

TITLE:
**LIFT STATION & CIVIC CENTER
GENERATOR DESIGN
PROPOSED LAYOUT - WESTMORE RD**

PROJ. NO. 140120
DATE: 9/3/2014
SHEET 5 OF 27
DRAWING NO. **E3**

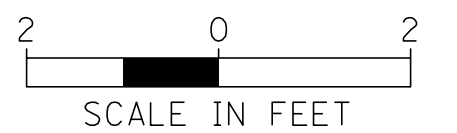
SIZE	QTY	TYPE	SERVICE	IDENTIFIER
2"	3	A	POWER TO SSP-1, SSP-2 AND 1 SPARE TO WET WELL	①
2"	1	A	TRANSDUCER	②
1"	4	A	VALVE VAULT SUMP PUMP, FLOAT SWITCH HIGH WATER, PLUS CONDUIT FOR 2 CHECK VALVES OPTION, AND 1 SPARE FOR V.V.	③
2-1/2"x3"	1	A	INCOMING POWER FROM LOCAL UTILITY	④
2"	1	A	SPARE CUT AND CAPPED WITHIN 5 FT OF PREFAB. CONT. CABINET	⑤
1"x2"	1	A	DIGITAL TELEPHONE SERVICE	⑥
2"	1	A	FLOAT CABLES HIGH AND LOW BYPASS	⑦
1-1/2"	1	A	GROUND GRID	⑧
1"	1	A	FLOW METER	⑨
1"	1	A	SPARE TO METER VAULT	⑩

WHERE BELOW GRADE CONDUITS TRANSITION TO ABOVE GRADE (I.E. INCOMING UTILITY POWER) COUPLINGS SHALL BE PROVIDED TO TRANSITION FROM PVC TO GALVANIZED STEEL.

CONDUIT TYPES
A - PVC COATED GALVANIZED RIGID STEEL

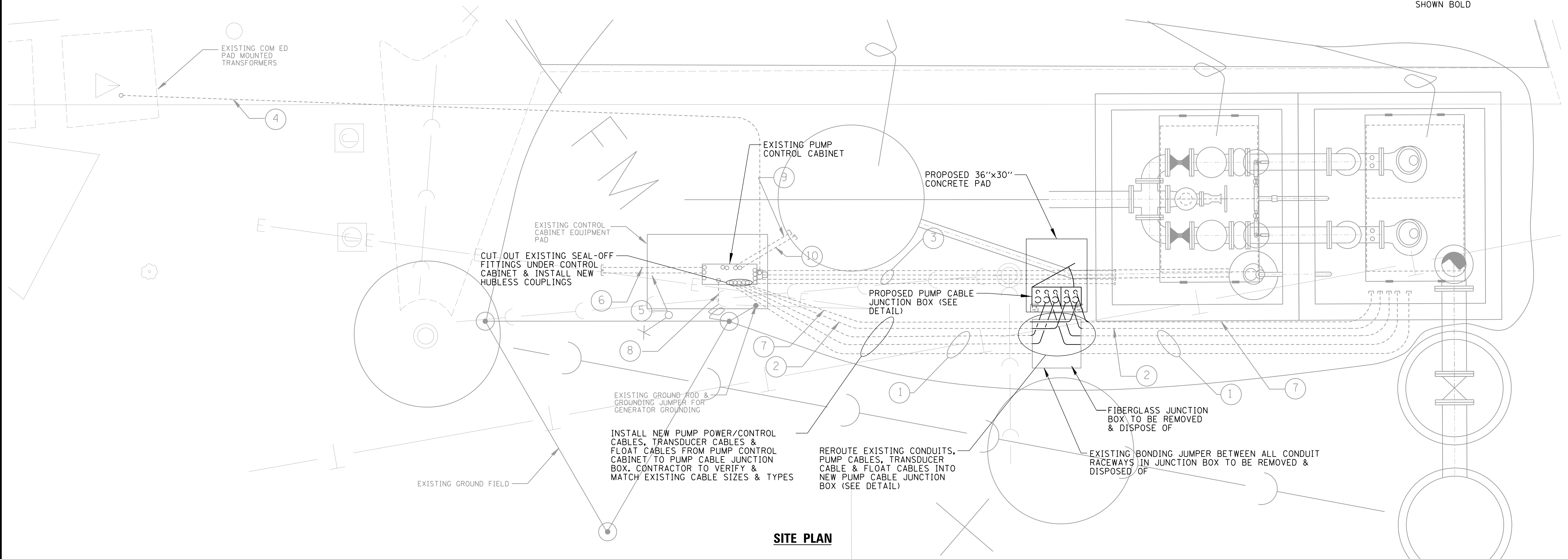
WHERE USED
DIRECT BURIED

CONDUIT SCHEDULE



EXISTING CONDITIONS
SHOWN HALFTONED

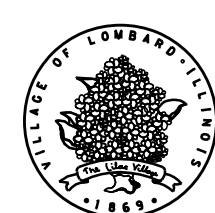
PROPOSED CONDITIONS
SHOWN BOLD



SITE PLAN

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(847) 823-0500

CLIENT:



VILLAGE OF LOMBARD

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME	N:\Lombard\140120\Mech\E_140120_06.sht			
DSGN.	AJD			
DWN.	LRR			
CHKD.	JPC			
SCALE:	2"			
PLOT DATE:	9/3/2014			
CAD USER:	lreynolds			
MODEL:	Default			

TITLE:

**LIFT STATION & CIVIC CENTER
GENERATOR DESIGN
WESTMORE PUMP CABLE JUNCTION BOX**

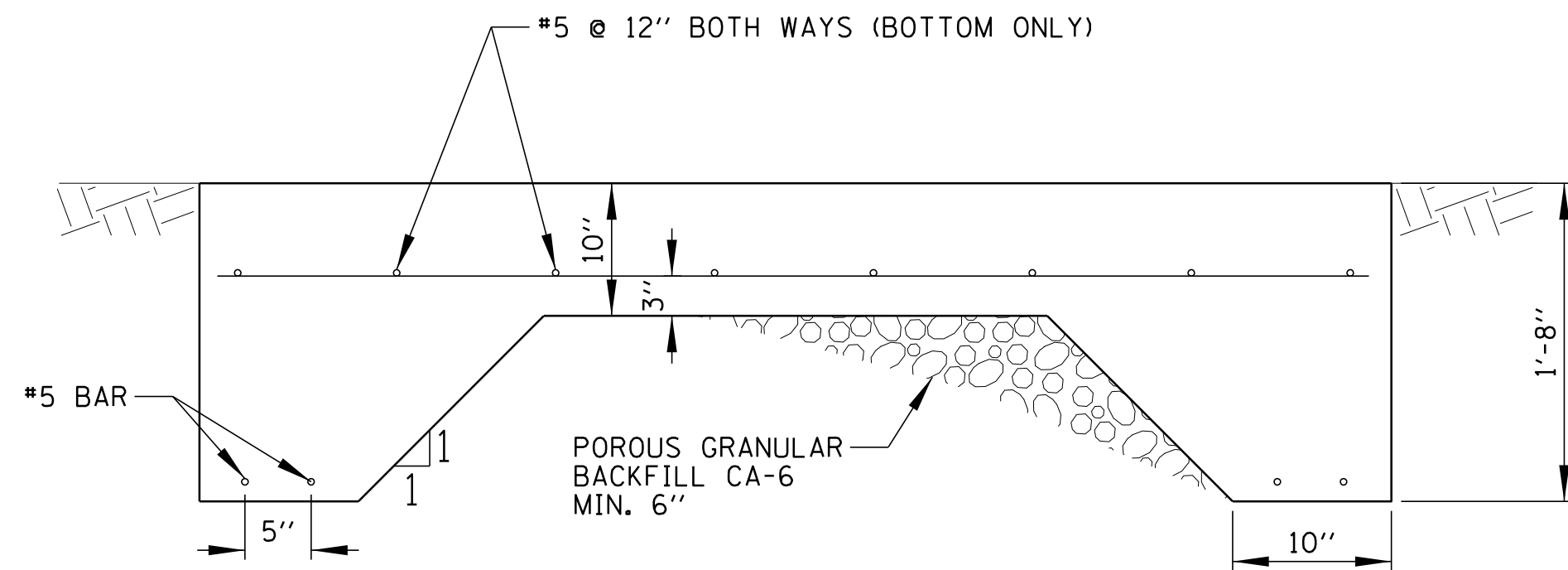
PROJ. NO. 140120

DATE: 9/3/2014

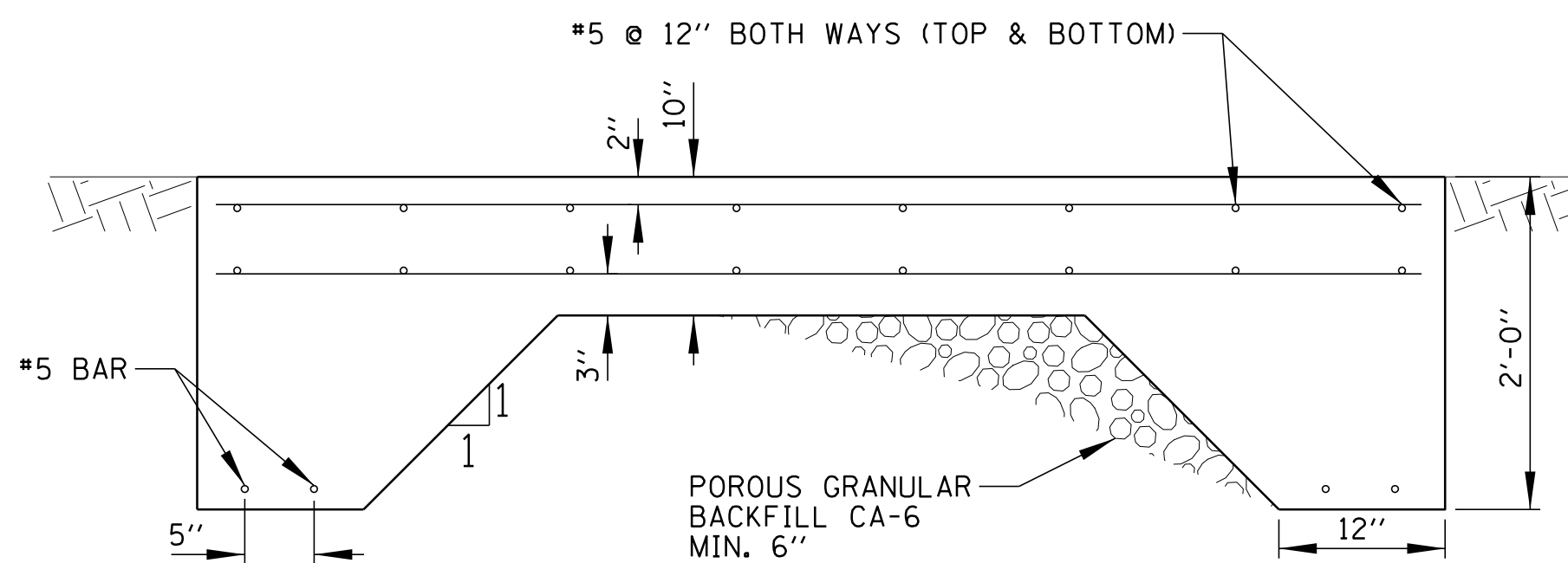
SHEET 6 OF 27

DRAWING NO.

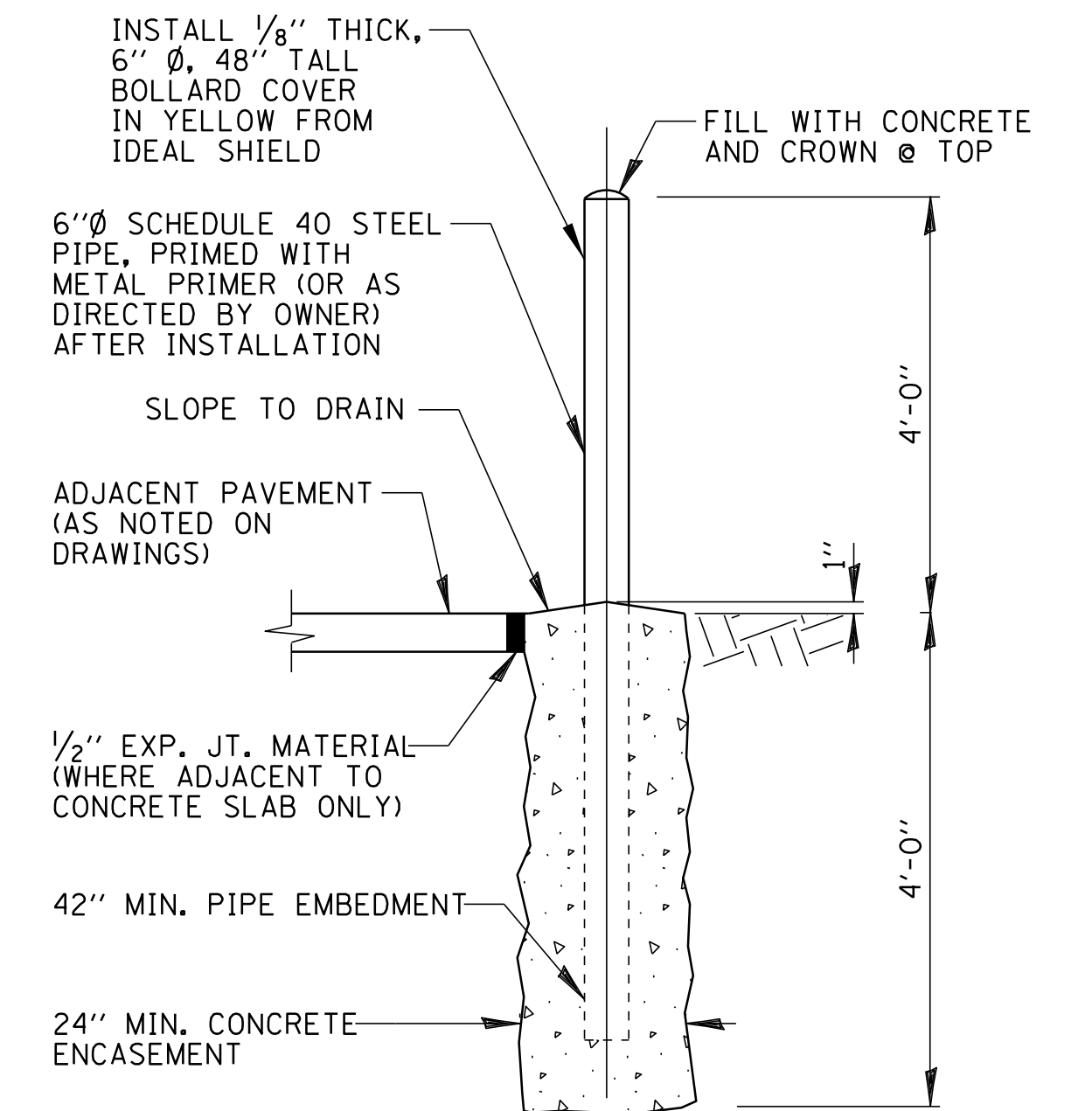
E4



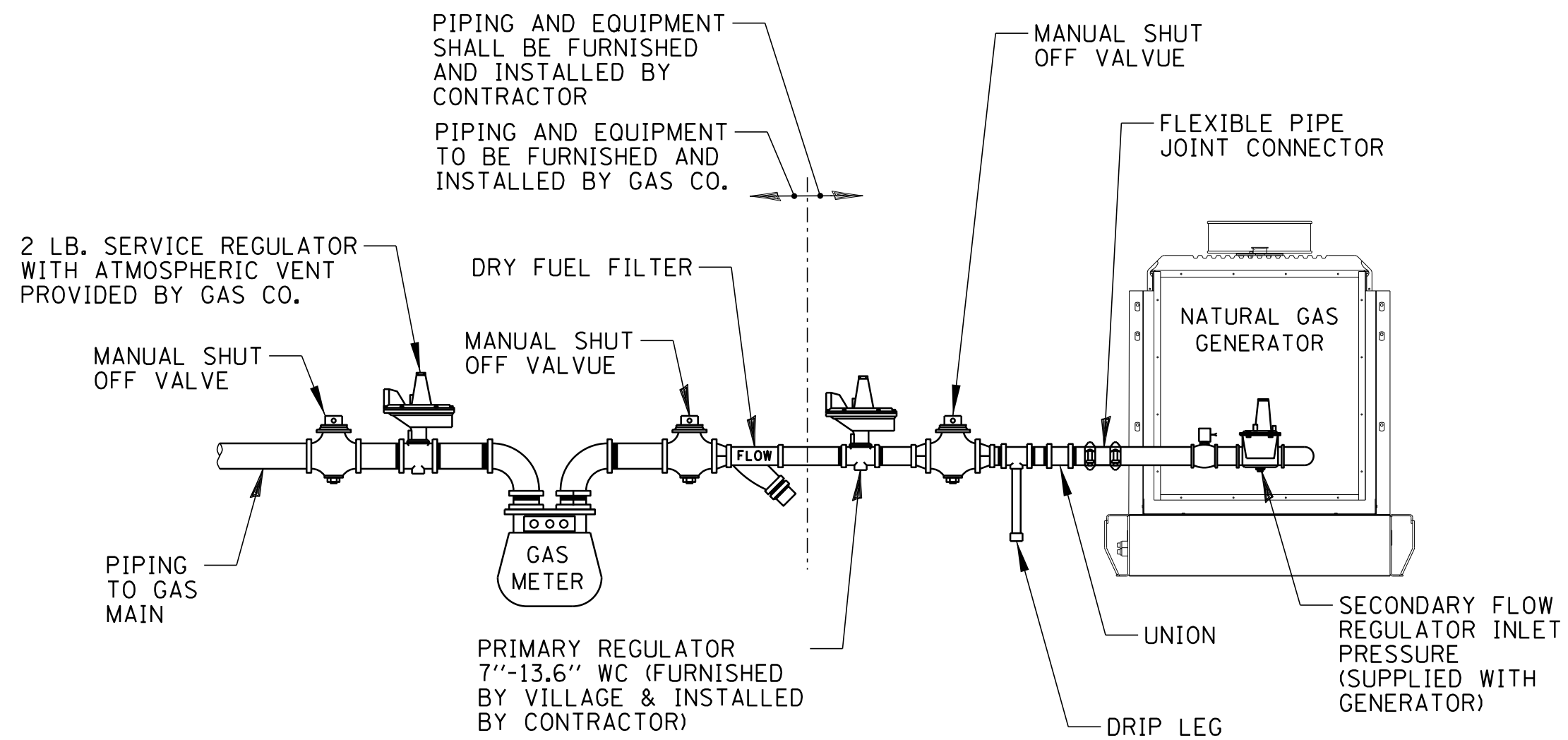
GENERATOR CONCRETE PAD DETAIL
GARFIELD ST & WESTMORE RD
 N.T.S.



CIVIC CENTER GENERATOR PAD DETAIL
 N.T.S.

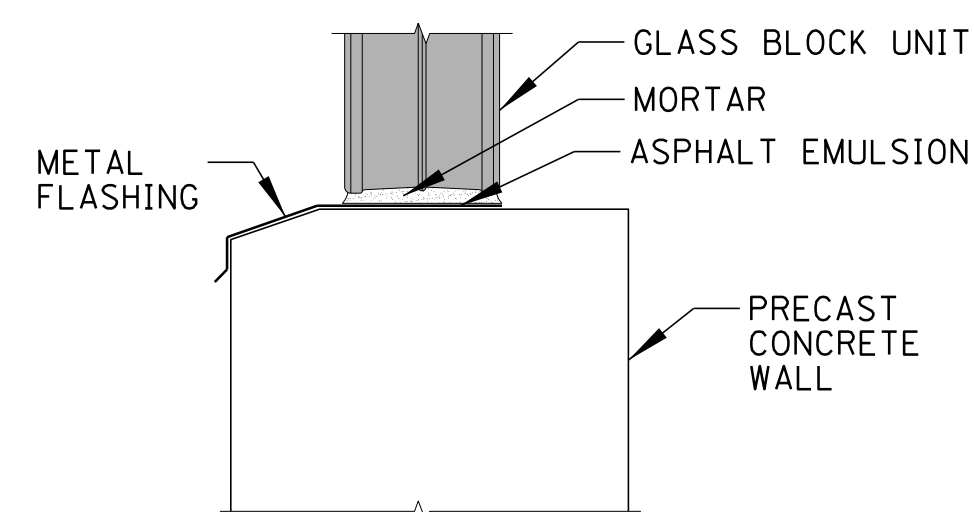


BOLLARD DETAIL
 N.T.S.

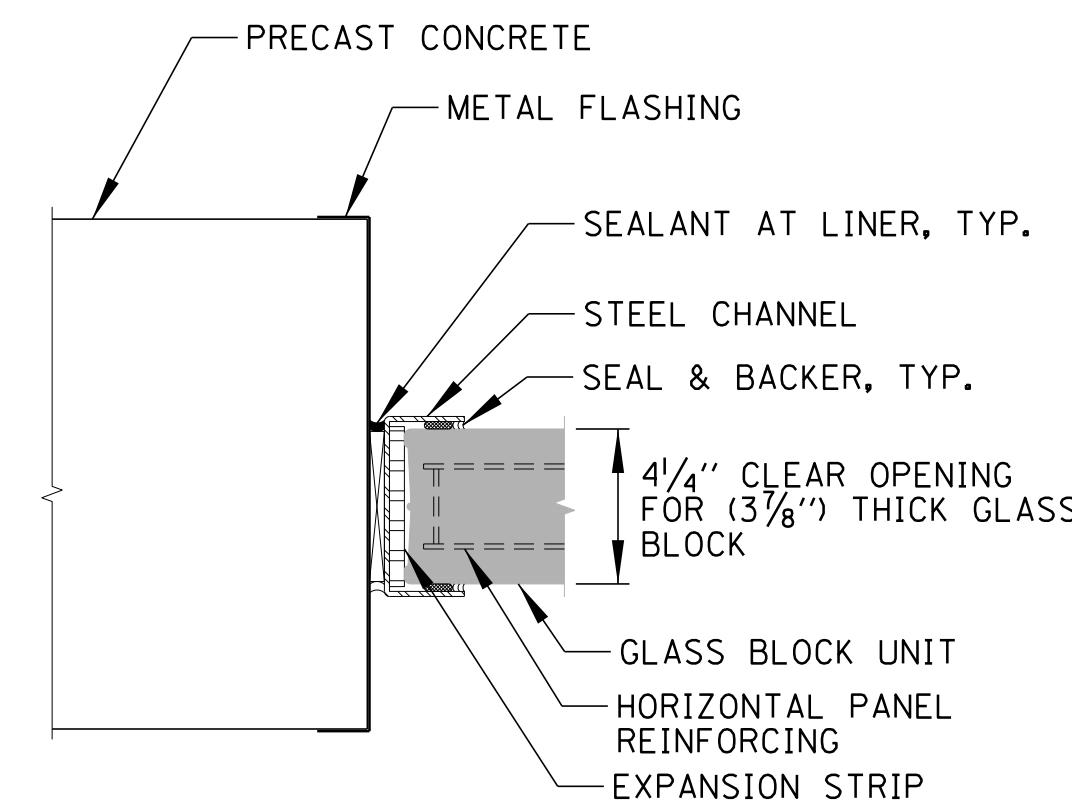


- NOTES:**
1. ALL NATURAL GAS FUEL PIPING REQUIRED FOR THE INSTALLATION OF THE WORK SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF NFPA 58.
 2. ALL PIPING, TUBING, FITTING AND VALVES USED IN THE PIPING INSTALLATION SHALL BE SUITABLE FOR 125 PSIG WORKING PRESSURE.
 3. CAST IRON PIPING AND FITTINGS ARE NOT PERMITTED.
 4. FLEXIBLE CONNECTORS SHALL BE USED TO ISOLATE HARMFUL VIBRATIONS FROM THE PIPING INSTALLATION.
 5. THE PIPING INSTALLATION SHALL BE TESTED AFTER ASSEMBLY AND PROVEN FREE FROM LEAKS. FLAME TESTING FOR LEAKS IS NOT PERMITTED.
 6. THE CONTACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COORDINATION, MATERIAL & INSTALLATION OF ALL EQUIPMENT REQUIRED TO CONNECT TO THE EXISTING GAS MAIN INCLUDING ASSOCIATED METERING DEVICES, ADDITIONAL REGULATORS, FITTINGS, PIPING, ETC.
 7. ALL ABOVE GRADE PIPING/FITTINGS/VALVES SHALL BE PRIMED & PAINTED USING A RUST RESISTANT COATING AS DIRECTED BY OWNER.

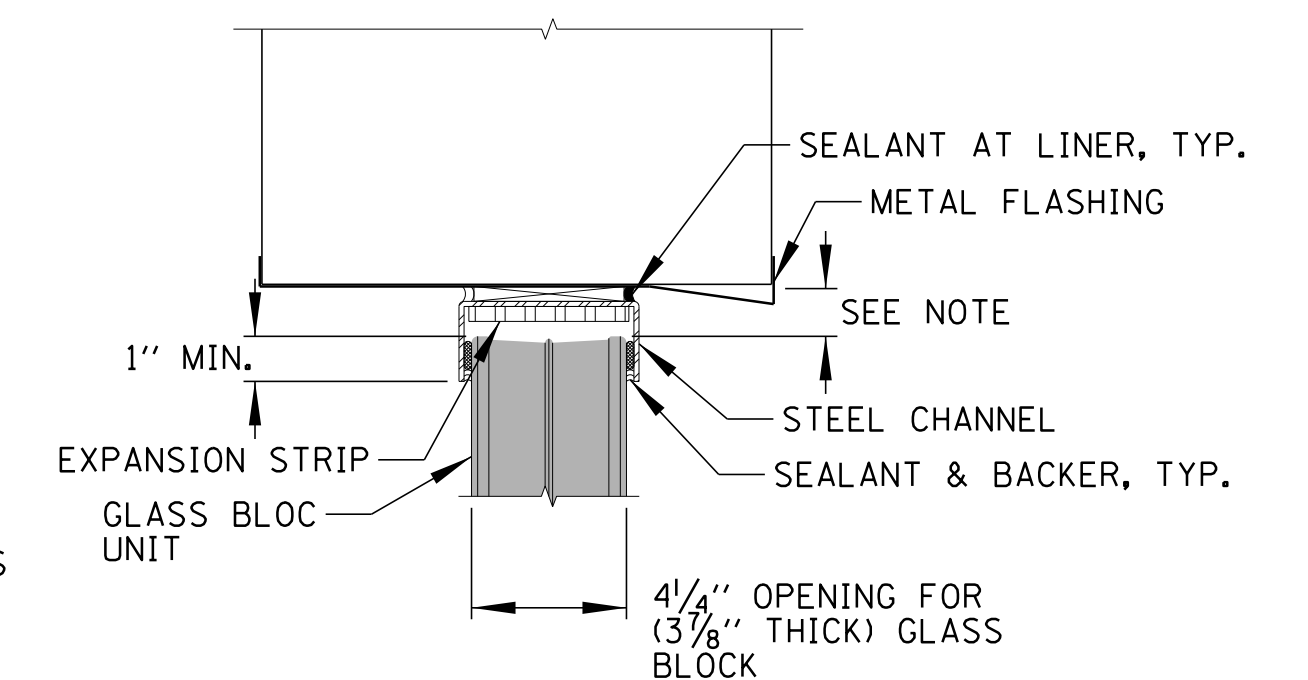
NATURAL GAS FUEL PIPING DETAIL
 N.T.S.



SILL DETAIL



JAMB DETAIL

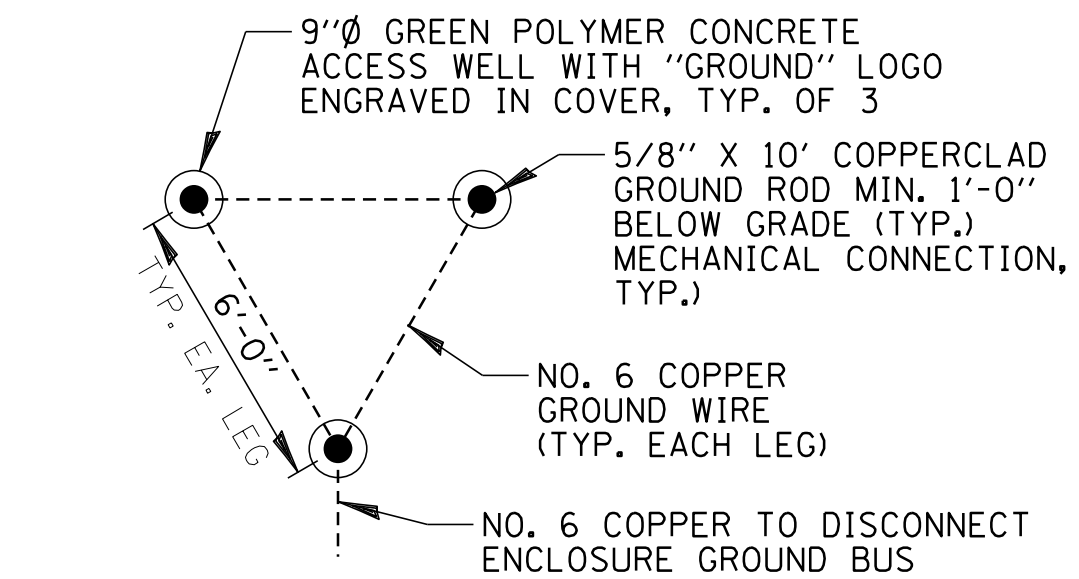
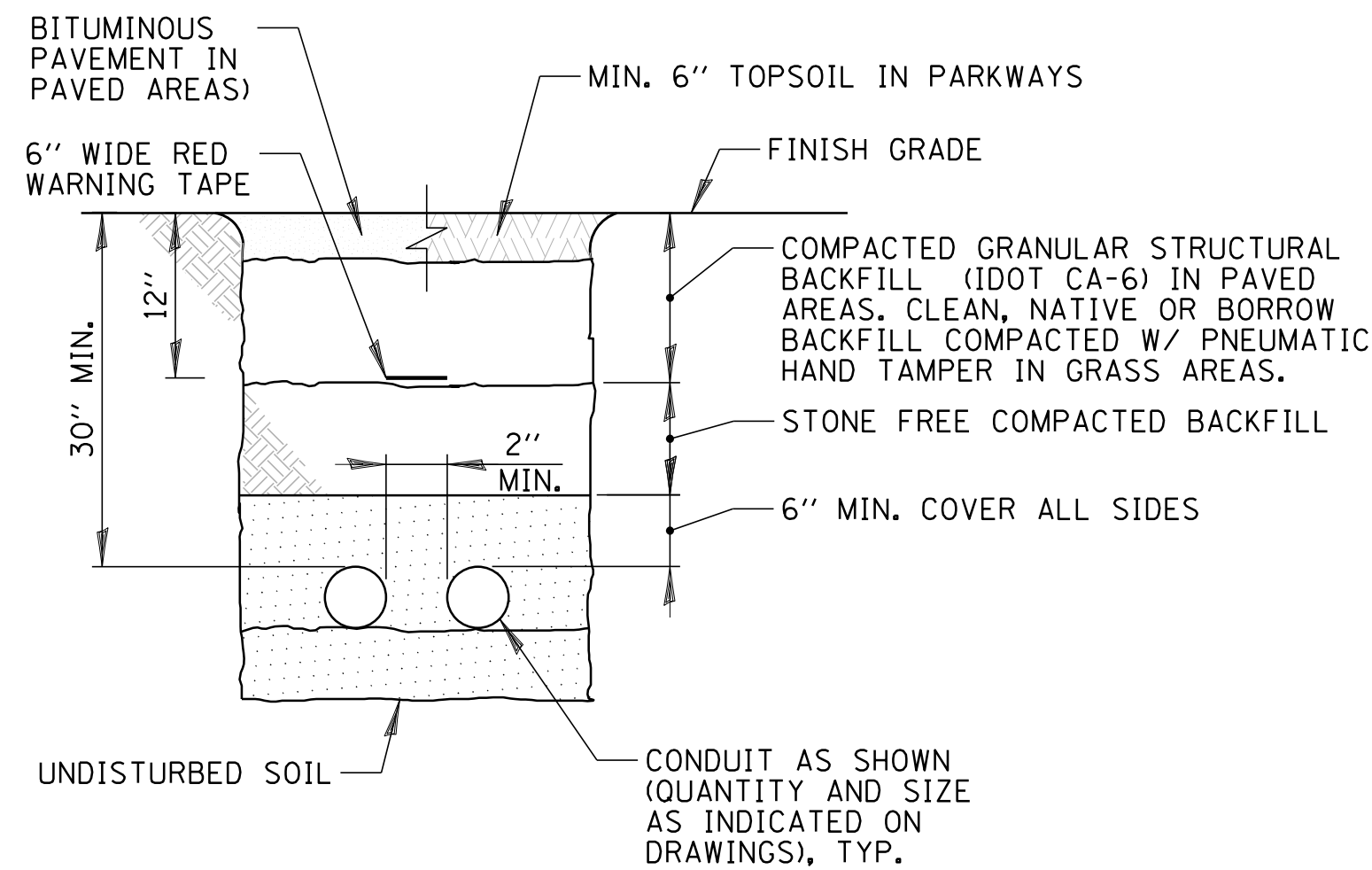


HEAD DETAIL

GLASS BLOCK DETAIL
 N.T.S.

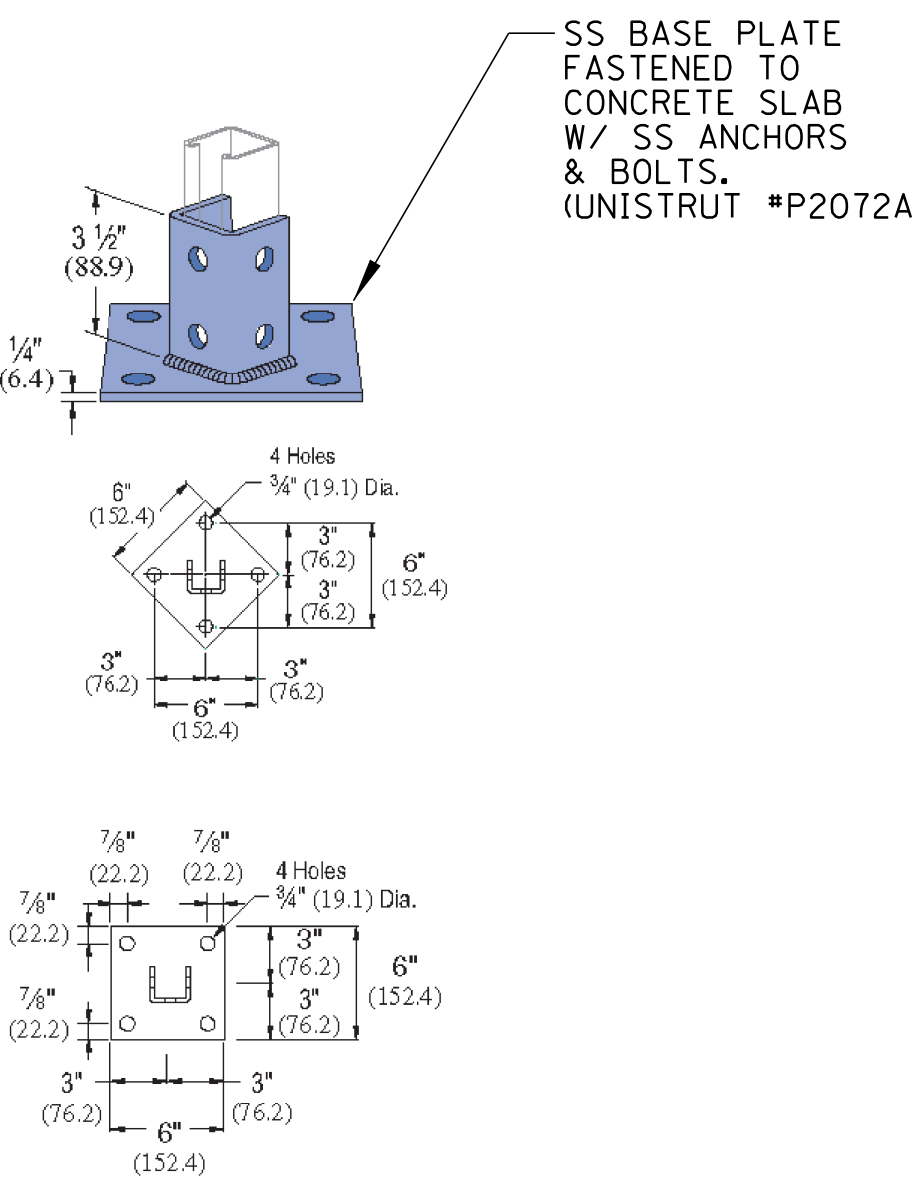
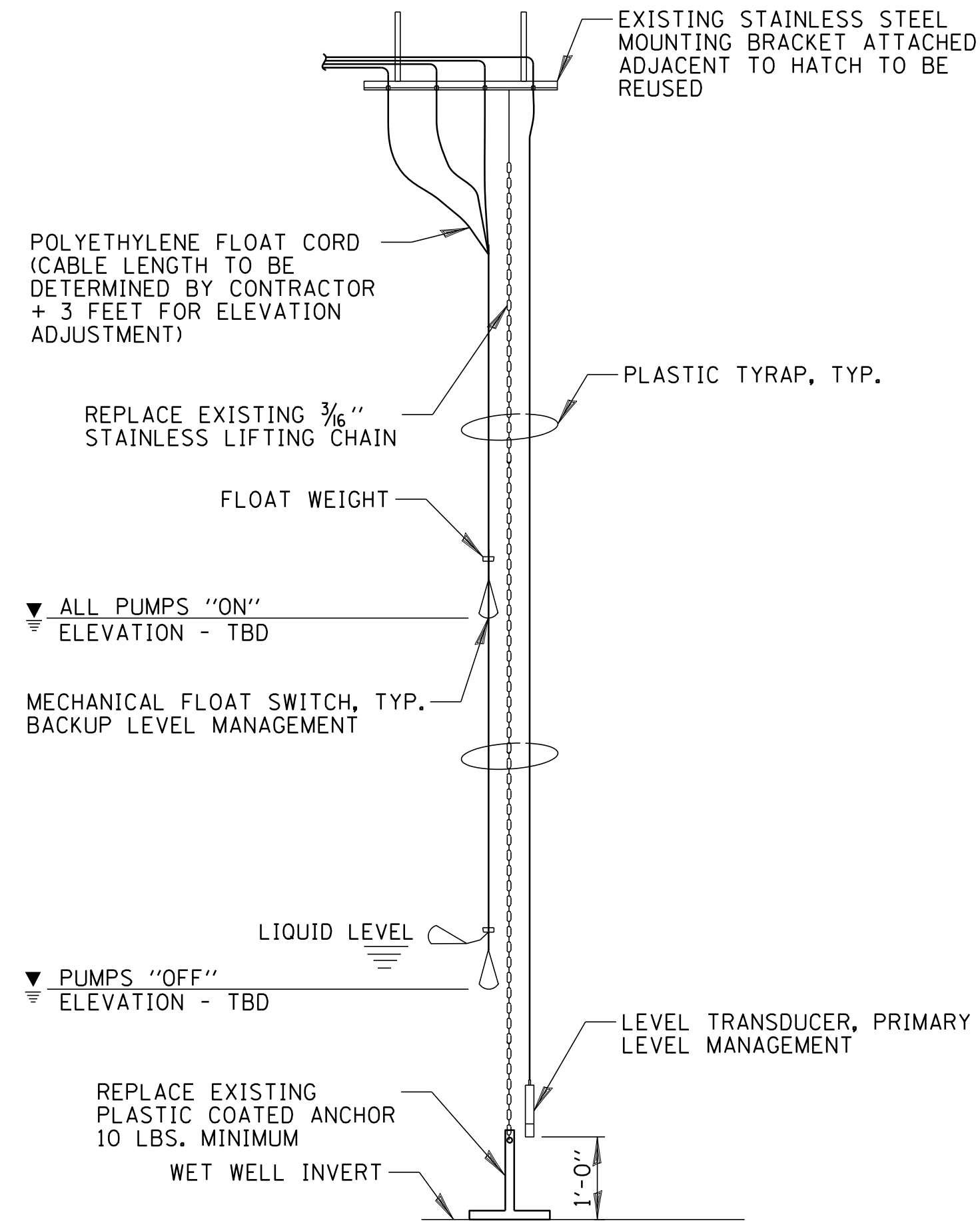
- NOTES:**
- THIS DIMENSION IS DETERMINED BY THE ANTICIPATED DEFLECTION OF THE STRUCTURAL MEMBER ABOVE THE GLASS BLOCK.

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME	N:\Lombard\140120\Mech\DET_140120_07.sht			
DSGN.	AJD			
DWN.	LRR			
CHKD.	JPC			
SCALE:	N.T.S.			
PLOT DATE:	9/3/2014			
CAD USER:	lrreynolds			
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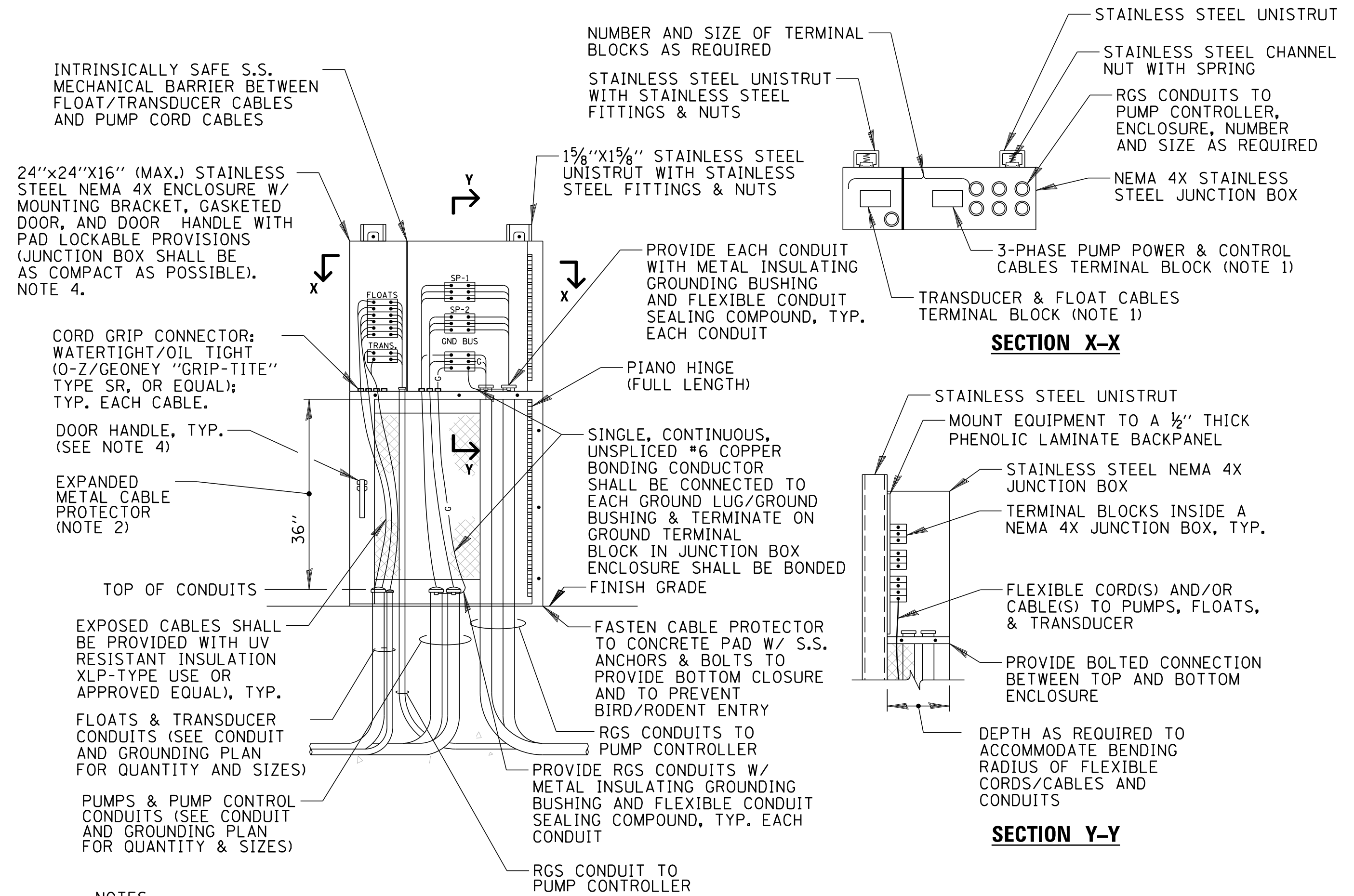
**GARFIELD/WESTMORE LIFT STATION
GROUND FIELD DETAIL (TYP.)**
N.T.S.

ELECTRICAL CONDUIT INSTALLATION
N.T.S.



UNISTRUT SUPPORT DETAIL
N.T.S.

**GARFIELD LIFT STATION LEVEL MANAGEMENT
SYSTEM IN WET WELL**
N.T.S.



- NOTES:**
1. PROVIDE MECHANICAL BARRIER TO SEPARATE POWER CABLES FROM INTRINSICALLY SAFE CABLES.
 2. HINGED CABLE PROTECTION COVER SHALL BE 14 GA. TYPE 304 FLATTENED STAINLESS STEEL WITH A DIAMOND PATTERN, 75% OPEN AREA & CLOSED (BOND) EDGE CONFIGURATION, FORMED TO MATCH DEPTH OF THE JUNCTION BOX (WIDTH AS REQUIRED).
 3. SEAL AROUND EXPANDED METAL CABLE PROTECTOR TO PREVENT BIRD/RODENT ENTRY.
 4. TOP ENCLOSURE (JUNCTION BOX) SHALL BE PROVIDED WITH 3 POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP AND BOTTOM. BOTH JUNCTION BOX AND EXPANDED METAL CABLE ENCLOSURE SHALL BE PROVIDED WITH A STAINLESS STEEL DOOR HANDLE WITH PADLOCK PROVISIONS.
 5. ENCLOSURE SHALL BE AS MANUFACTURED BY J&A SHEET METAL, INC., CHICAGO, IL OR APPROVED EQUAL.
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE REQUIRED SIZE AND NUMBER OF TERMINAL BLOCKS, CORD GRIPS, CONDUITS, ETC. NECESSARY FOR PROPOSED DESIGN. THE ABOVE DETAIL IS SCHEMATIC IN NATURE AND DOES NOT DETAIL EXACT QUANTITIES AND SIZES OF PUMP POWER AND CONTROL CABLES AND CONDUITS.
 7. ALL ENCLOSURES, CONDUITS & EQUIPMENT SHALL BE BONDED WITH NEC COMPLIANT SIZING (250.122)

GARFIELD LIFT STATION PUMP CABLE JUNCTION BOX DETAIL
N.T.S.

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Rosemont, Illinois 60018
(847) 823-0500

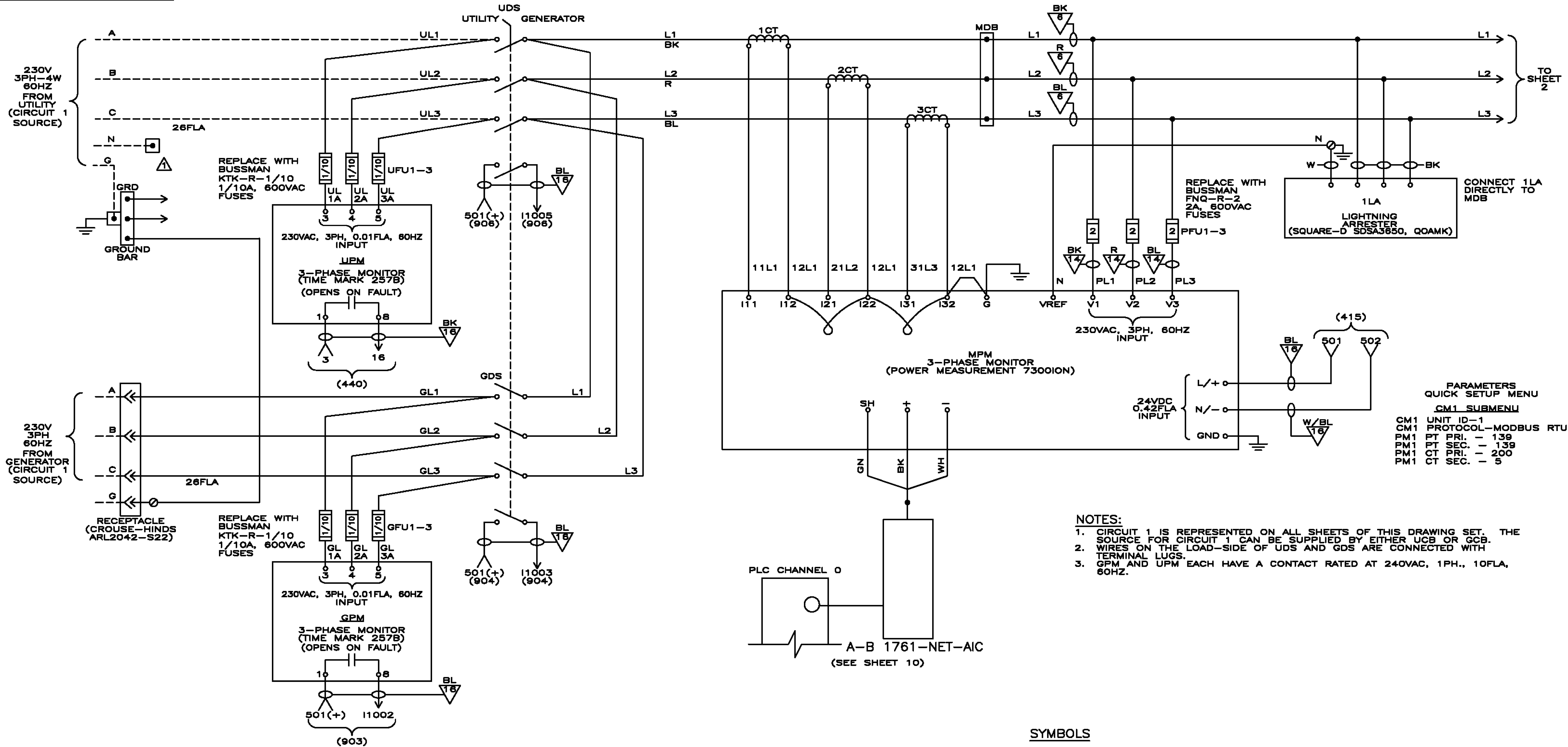
CLIENT:

VILLAGE OF LOMBARD

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME	N:\Lombard\140120\Mech\DET_140120_08.sht			

TITLE:
**LIFT STATION & CIVIC CENTER
GENERATOR DESIGN
DETAILS - 2**

PROJ. NO. 140120
DATE: 9/3/2014
SHEET 8 OF 27
DRAWING NO.
D2



- NOTES:**
1. CIRCUIT 1 IS REPRESENTED ON ALL SHEETS OF THIS DRAWING SET. THE SOURCE FOR CIRCUIT 1 CAN BE SUPPLIED BY EITHER UCB OR GCB.
 2. WIRES ON THE LOAD-SIDE OF UDS AND GDS ARE CONNECTED WITH TERMINAL LUGS.
 3. GPM AND UPM EACH HAVE A CONTACT RATED AT 240VAC, 1PH., 10FLA, 60HZ.

PARAMETERS QUICK SETUP MENU

GM1 SUBMENU

CM1 UNIT ID-1
 CM1 PROTOCOL-MODBUS RTU
 PM1 PT PRI. - 139
 PM1 PT SEC. - 139
 PM1 CT PRI. - 200
 PM1 CT SEC. - 5

SYMBOLS

- - TERMINALS IN LIFT/PUMP STATION CONTROL PANEL.
- - PANEL WIRING
- - FIELD WIRING

WIRE CHART:

DESIGNATION	GAUGE (MIN)	COLOR	SYMBOL
230VAC PHASE A	AWG #14	BLACK	BK
230VAC PHASE B	AWG #14	RED	R
230VAC PHASE C	AWG #14	BLUE	BL
230VAC NEUTRAL	AWG #14	WHITE	W
120VAC CONTROL	AWG #16	BLACK	BK
120VAC NEUTRAL	AWG #16	WHITE	W
24VAC CONTROL	AWG #16	ORANGE	OR
24VAC NEUTRAL	AWG #16	ORANGE	OR
DC CONTROL	AWG #16	BLUE	BL
DC NEUTRAL	AWG #16	WHITE W/BLUE	W/BL
REMOTE VOLTAGES	AWG #16	YELLOW	Y
GROUND	AWG #16	GREEN W/YEL	GR/Y

USE 600V ≥ 60°C MTW WIRE (INTERNAL WIRING)
 USE PANDUIT S075X150VATY MARKERS

COLOR/GAUGE SYMBOL
 EXAMPLE

BK - WIRE COLOR
 14 - WIRE GAUGE

The **FLOLO Corporation** **FLOLO Systems Group**

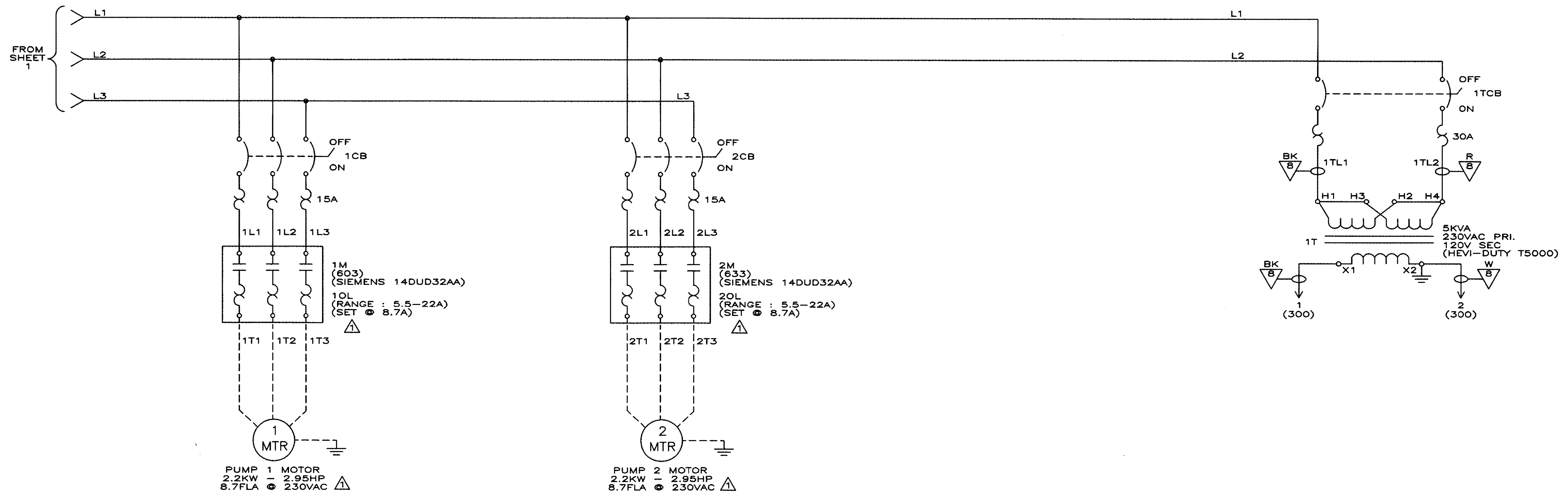
11594
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY
1	ADDED NEUTRAL TERMINATION	08/28/14	M*M

TITLE

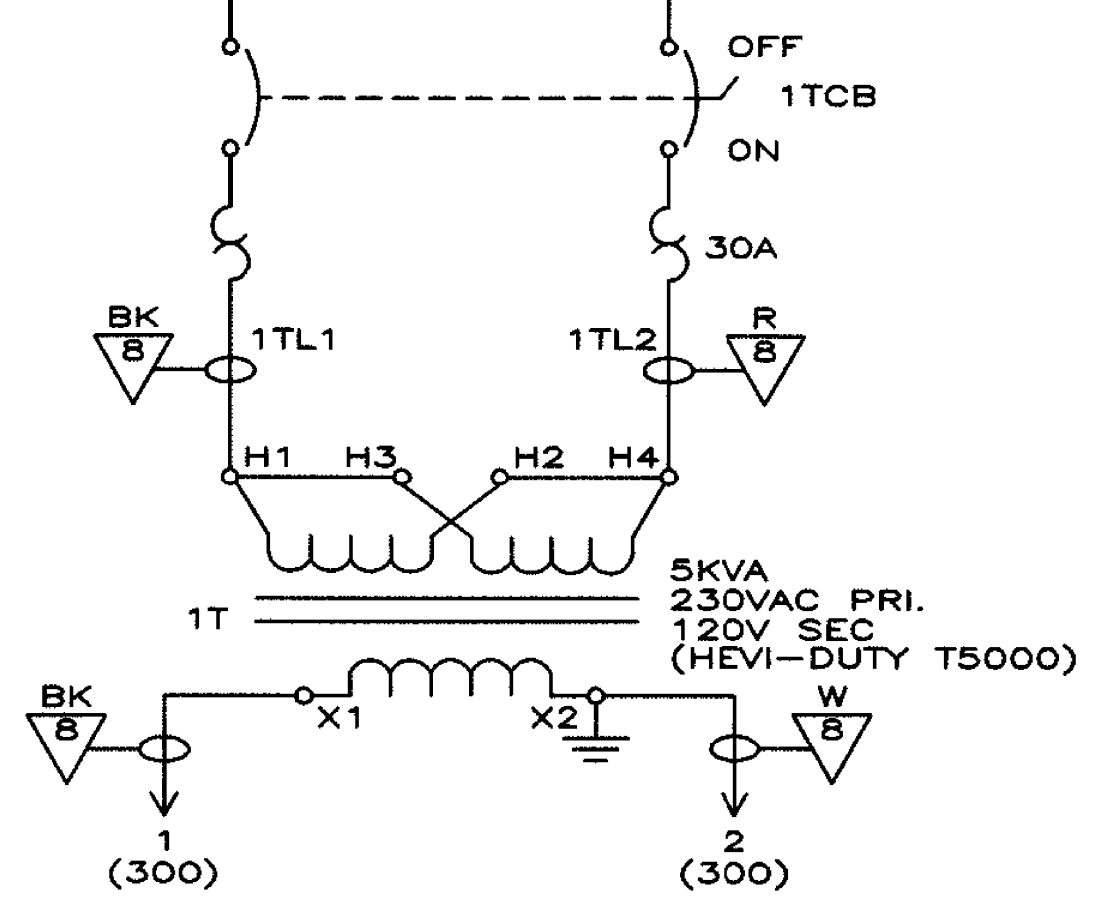
VILLAGE OF LOMBARD
 GARFIELD
 LIFT/PUMP STATION

DWN BY WRJ CHKD BY DATE 04/17/14
 SCALE APPROVED
 SHEET 1 OF 13 DWG. NO. 11594-01B



- TRIP CLASS - 20
- PHASE UNBALANCE - OFF
- PHASE LOSS - ON
- RESET MODE - MANUAL
- GROUND FAULT - OFF

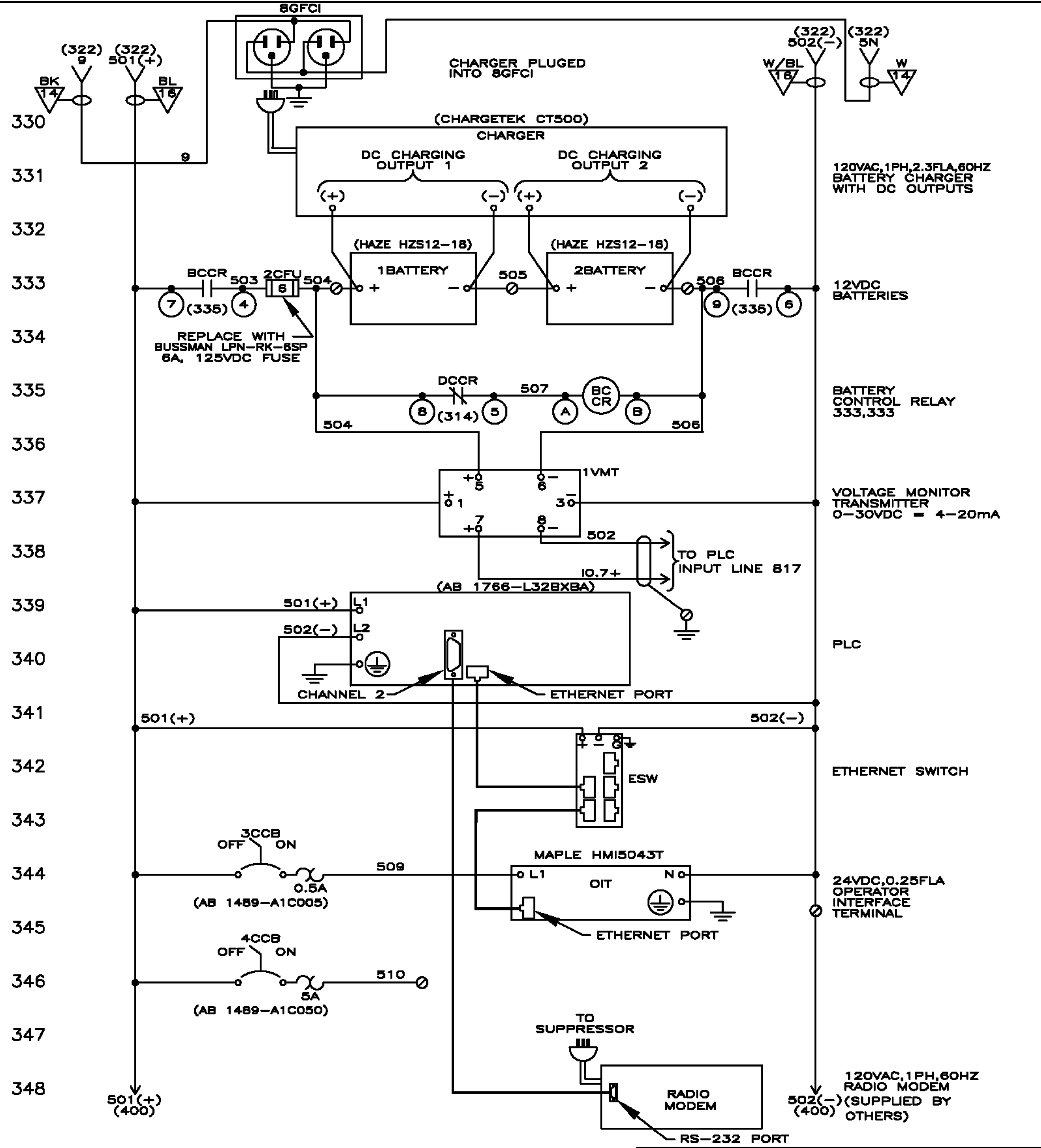
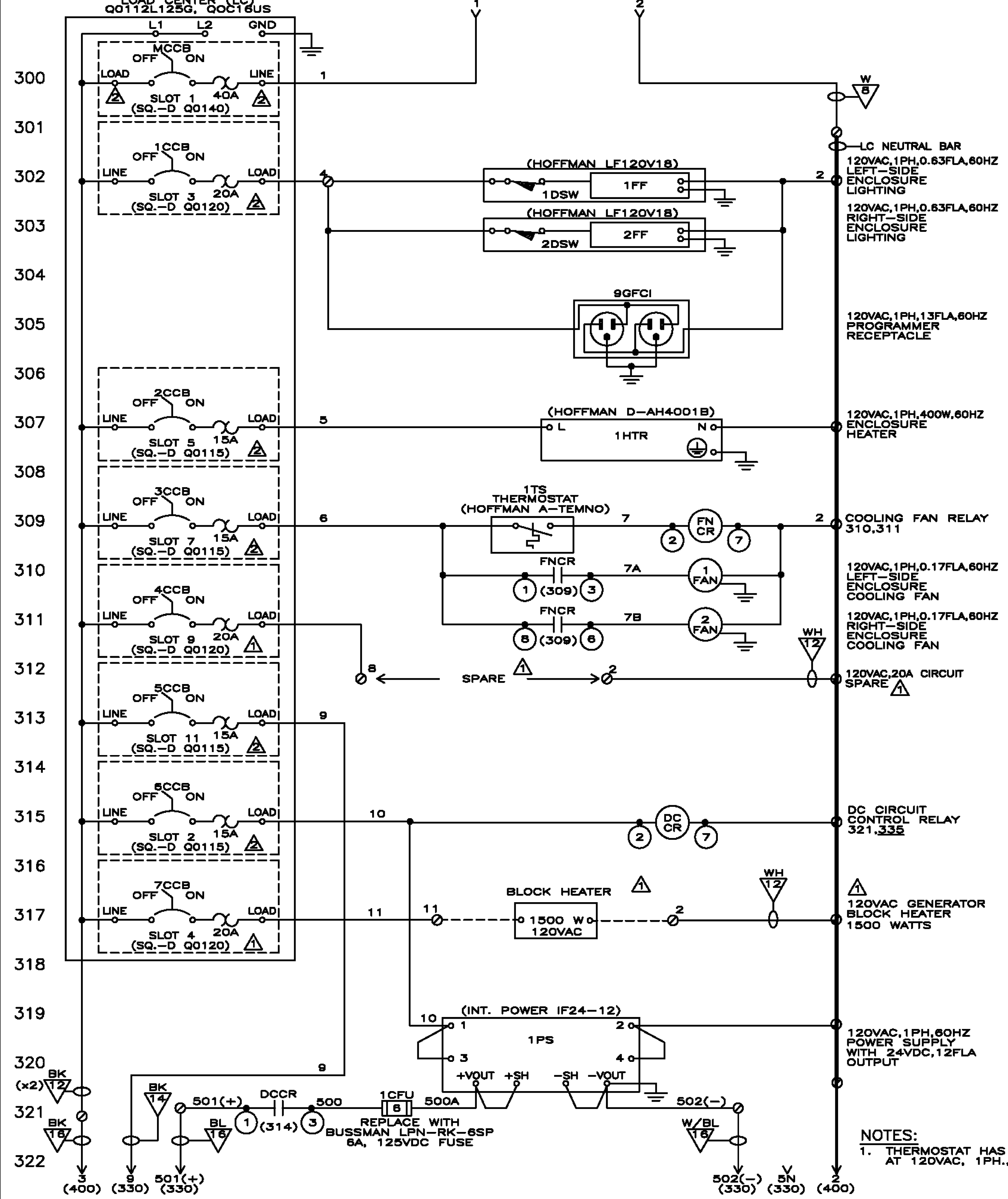
INDICATES SWITCH POSITION



The FLOLO Corporation FLOLO Systems Group

1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
1	Added Motor N/P Data	08/04/14	M*M	VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
DWN BY WRJ		CHKD BY	DATE 04/17/14	
SCALE		APPROVED		
SHEET 2 OF 13			DWG. NO. 11594-01B	

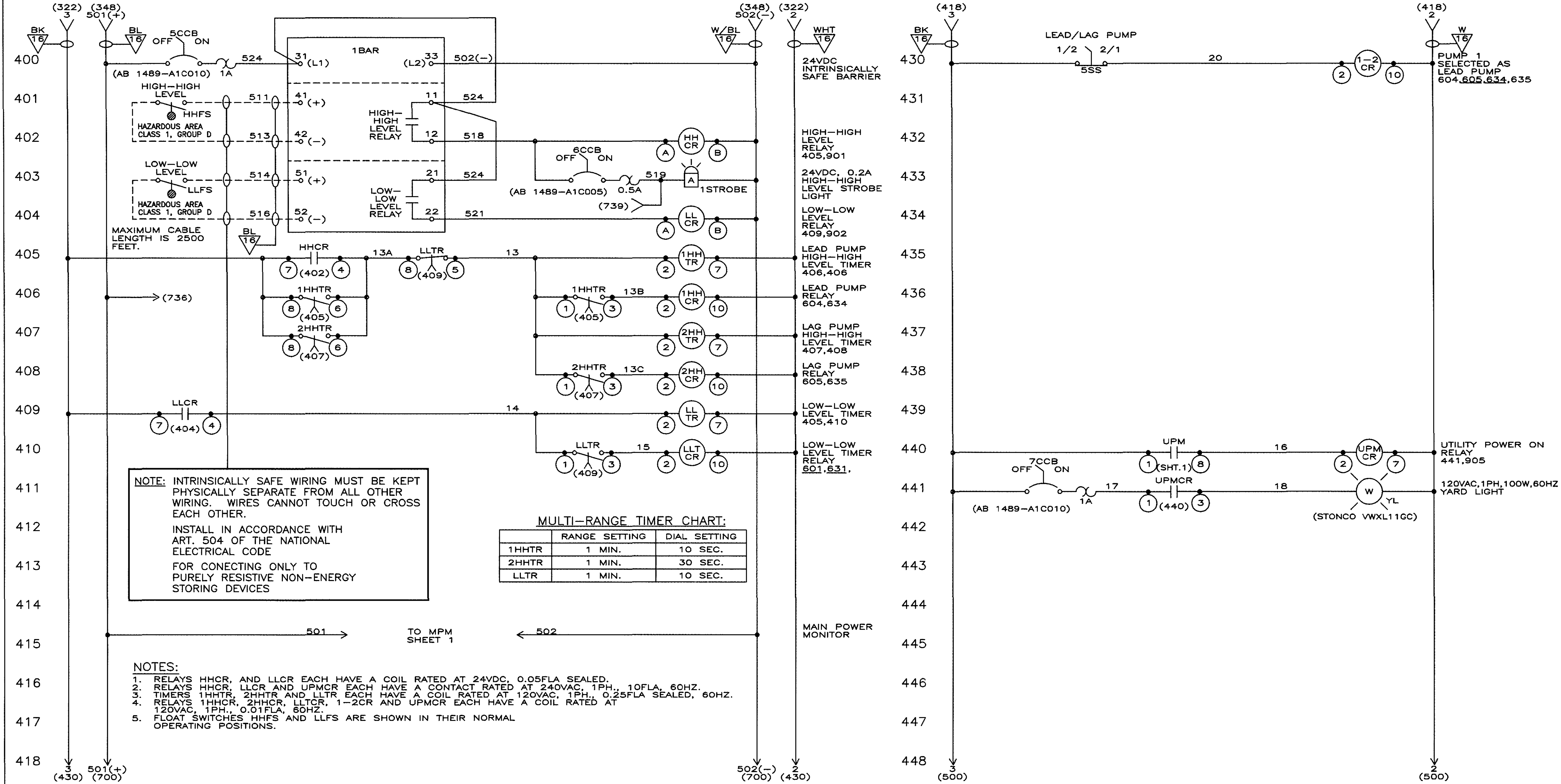


NOTES:
1. THERMOSTAT HAS A CONTACT RATED AT 120VAC, 1PH., 15FLA RESISTIVE, 60HZ.

The FLOLO Corporation FLOLO Systems Group
1081 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE		
1	REALLOCATE 4CCB & 7CCB	07/30/14	M*M	VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION		
2	REPLACE GFI C/B'S & MCCB TAGS	08/27/14	M*M			
				DWN BY WRJ	CHKD BY	DATE 04/17/14
				SCALE APPROVED		
				SHEET 3 OF 13		DWG. NO. 11594-02B

PRINTED 08/28/2014



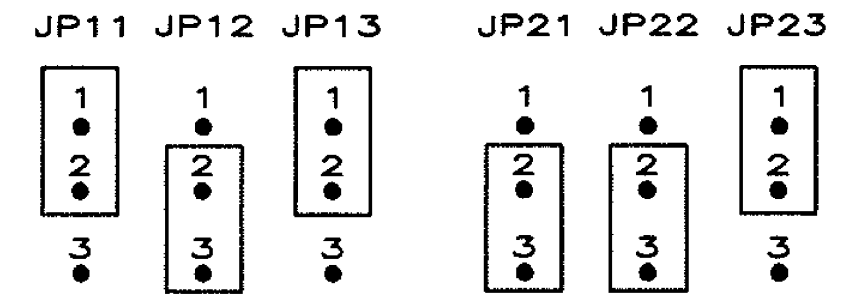
NOTE: INTRINSICALLY SAFE WIRING MUST BE KEPT PHYSICALLY SEPARATE FROM ALL OTHER WIRING. WIRES CANNOT TOUCH OR CROSS EACH OTHER.
 INSTALL IN ACCORDANCE WITH ART. 504 OF THE NATIONAL ELECTRICAL CODE
 FOR CONECTING ONLY TO PURELY RESISTIVE NON-ENERGY STORING DEVICES

MULTI-RANGE TIMER CHART:

	RANGE SETTING	DIAL SETTING
1HHTR	1 MIN.	10 SEC.
2HHTR	1 MIN.	30 SEC.
LLTR	1 MIN.	10 SEC.

- NOTES:**
- RELAYS HHCR, AND LLCR EACH HAVE A COIL RATED AT 24VDC, 0.05FLA SEALED.
 - RELAYS HHCR, LLCR AND UPMCR EACH HAVE A CONTACT RATED AT 240VAC, 1PH, 10FLA, 60HZ.
 - TIMERS 1HHTR, 2HHTR AND LLTR EACH HAVE A COIL RATED AT 120VAC, 1PH, 0.25FLA SEALED, 60HZ.
 - RELAYS 1HHCR, 2HHCR, LLTR, 1-2CR AND UPMCR EACH HAVE A COIL RATED AT 120VAC, 1PH, 0.01FLA, 60HZ.
 - FLOAT SWITCHES HHFS AND LLFS ARE SHOWN IN THEIR NORMAL OPERATING POSITIONS.

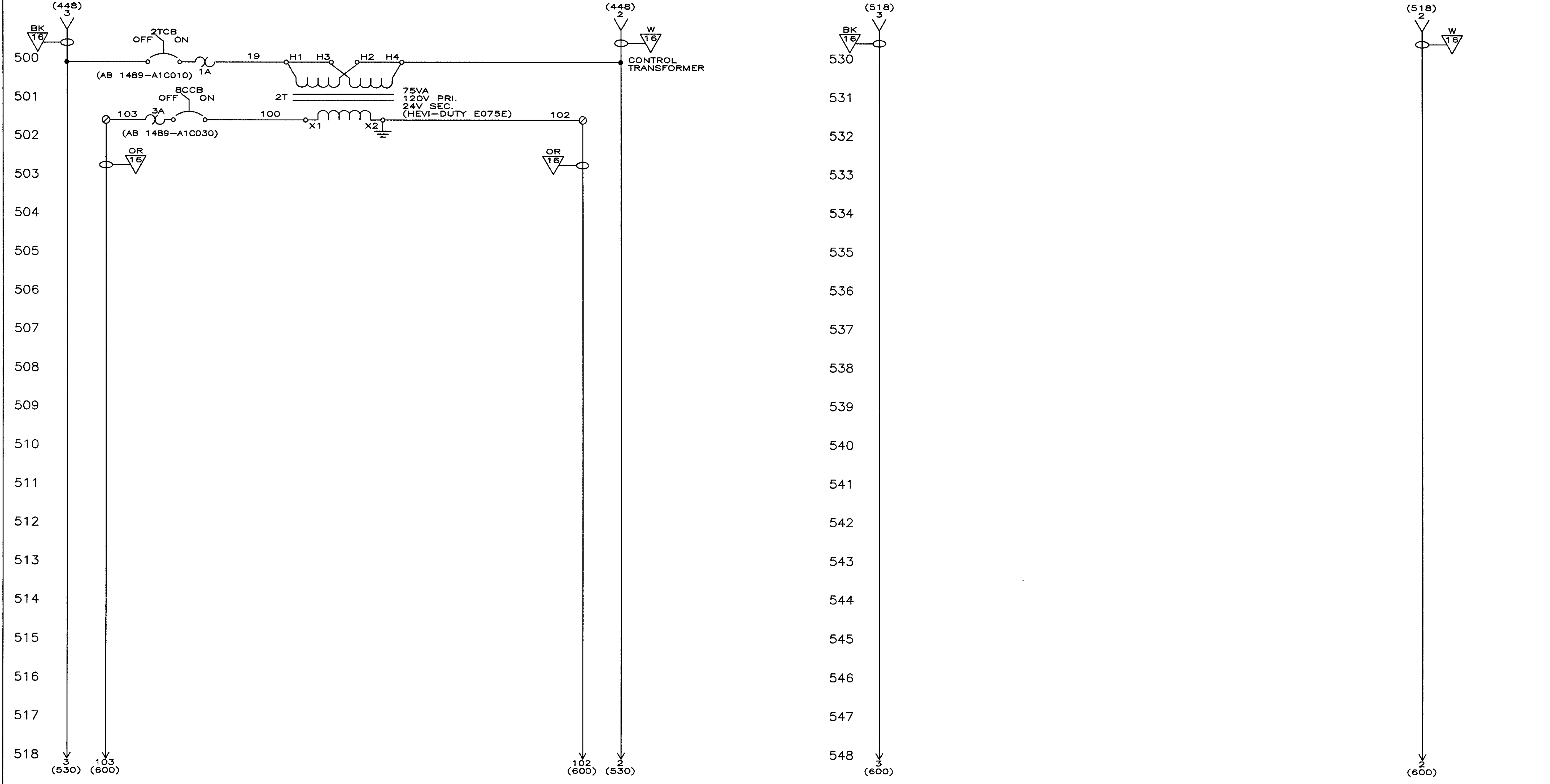
1BAR JUMPER SETTINGS:



The FLOLO Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

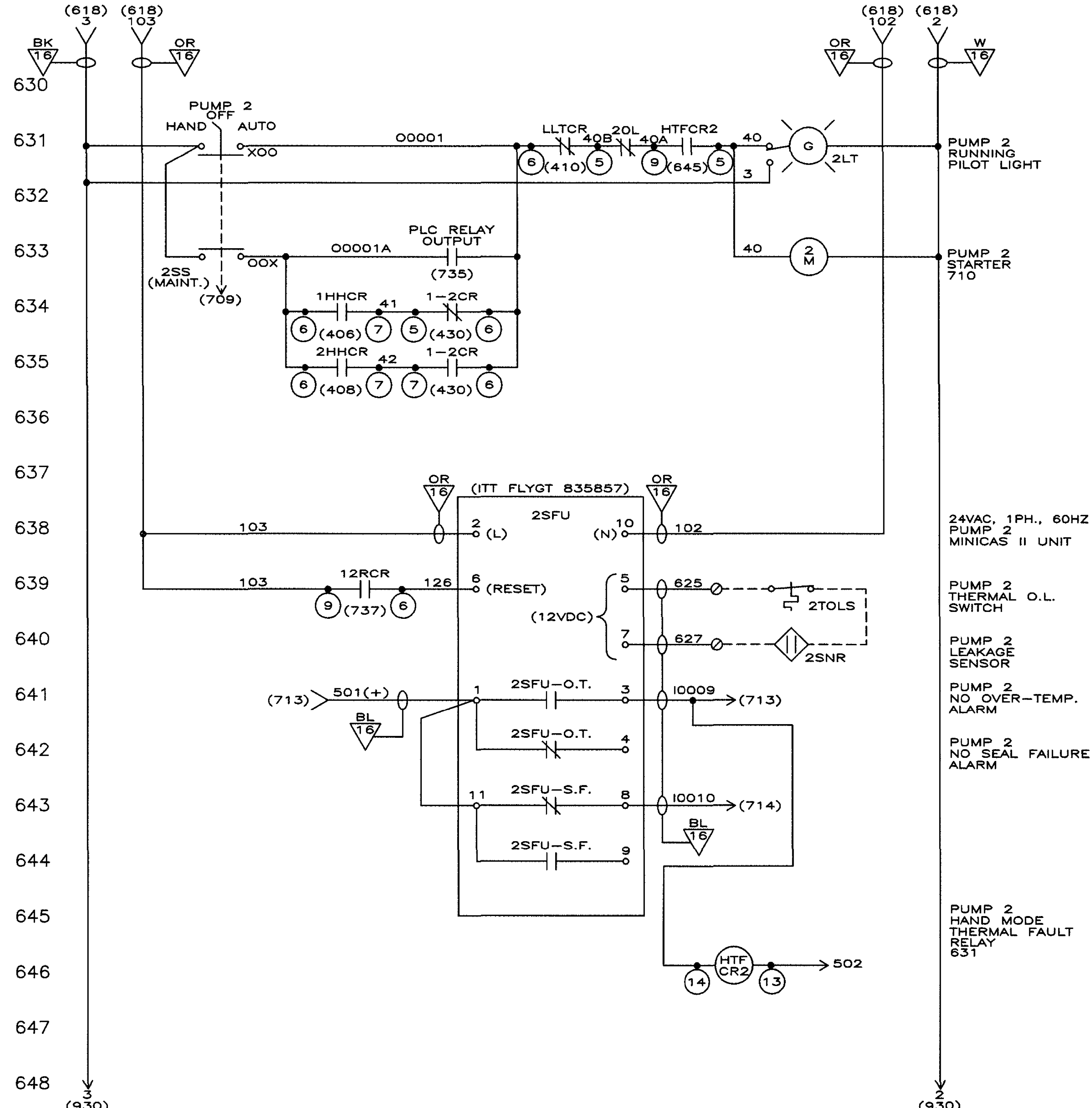
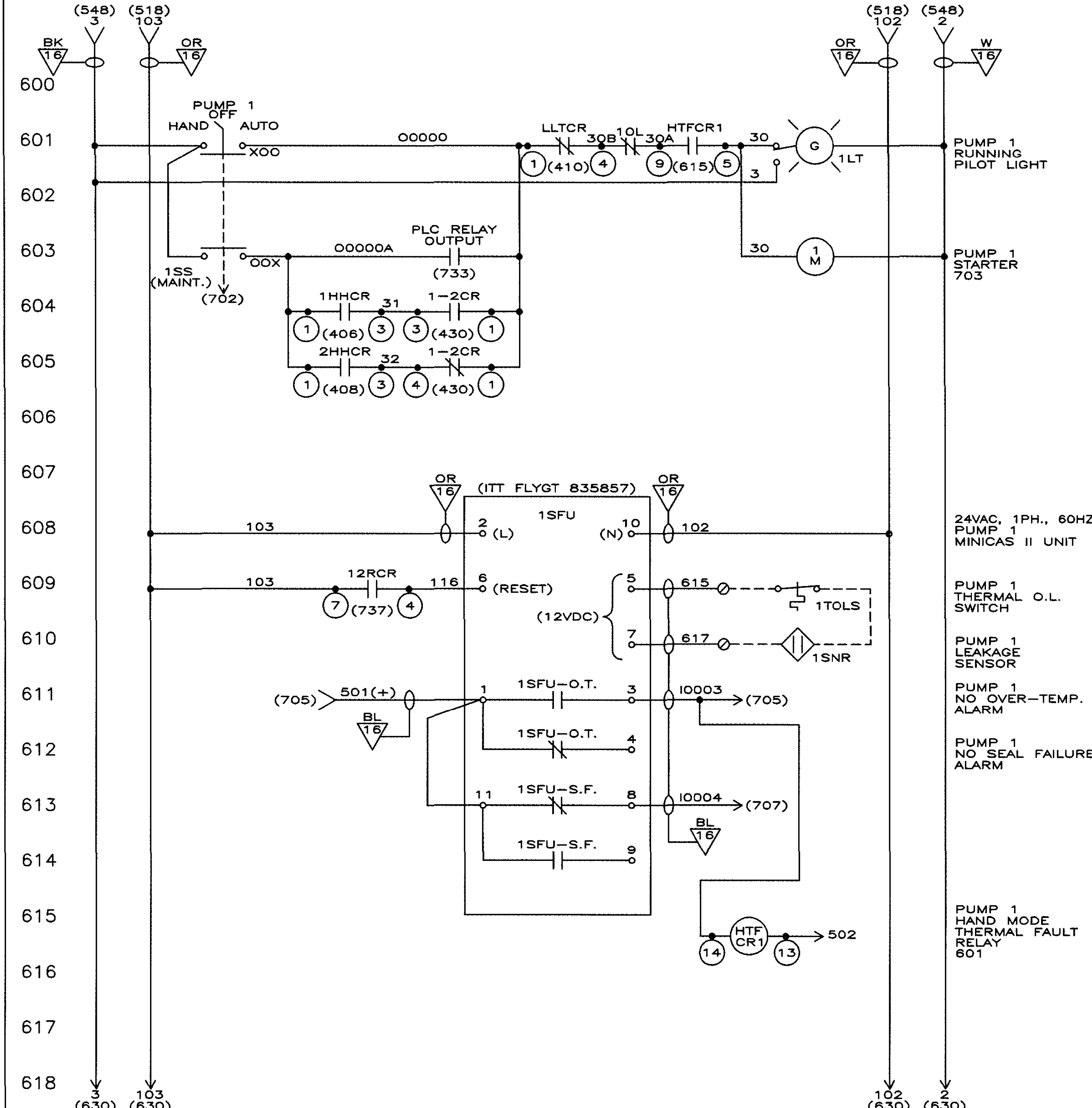
SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/2014
				SCALE APPROVED
				SHEET 4 OF 13 DWG. NO. 11594-00B

PRINTED 08/05/2014



The FLOLO Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 5 OF 13 DWG. NO. 11594-00B



NOTES:

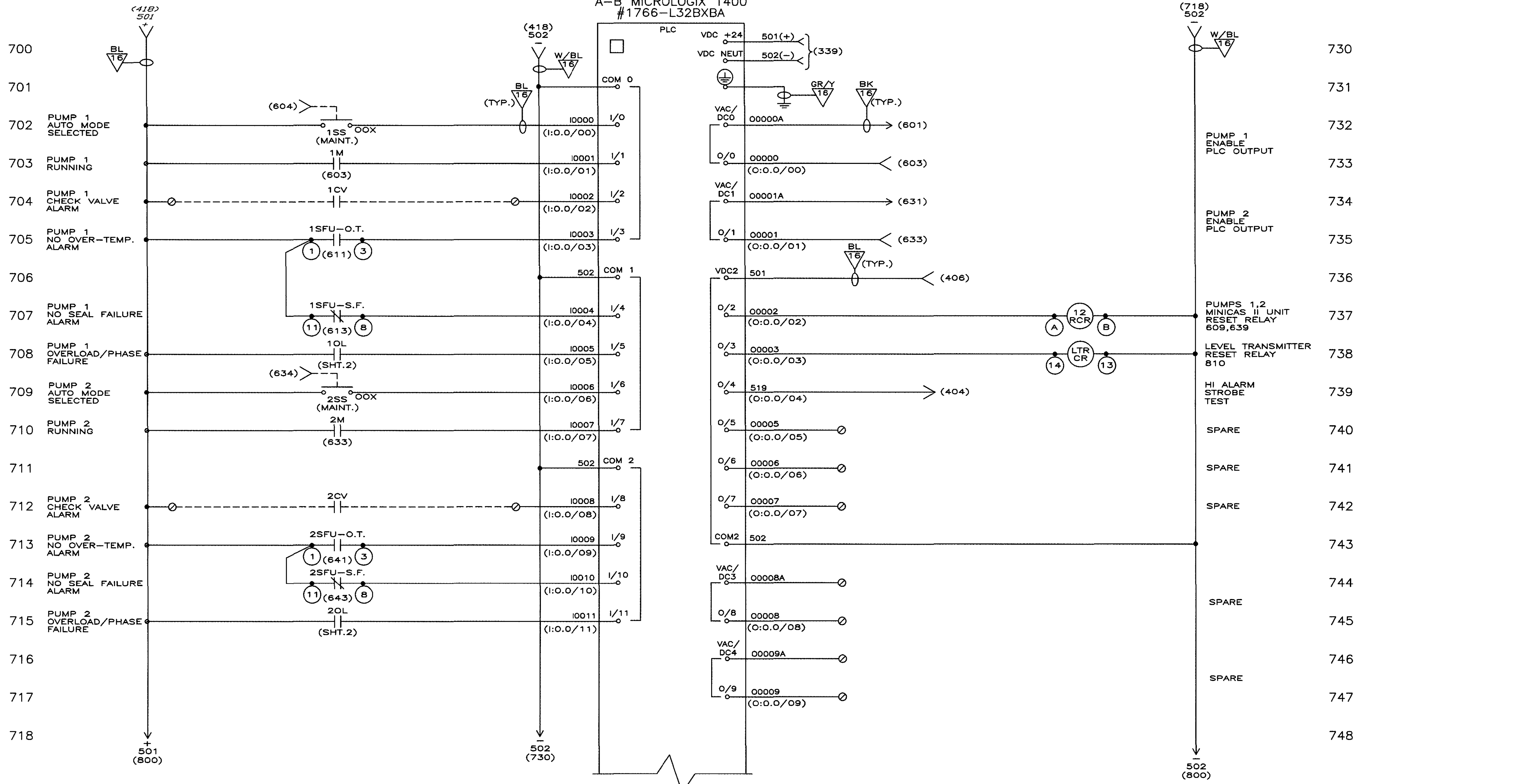
1. PILOT LIGHTS 1LT AND 2LT EACH HAVE A TRANSFORMER RATED AT 120VAC, 1PH., 0.025FLA, 60HZ
2. MOTOR STARTERS 1M, AND 2M EACH HAVE COILS RATED AT 120VAC, 1PH., 0.21FLA, 60HZ.
3. RELAYS 1-2CR AND LLTCR EACH HAVE A CONTACT RATED AT 240VAC, 1PH., 10FLA, 60HZ.
4. TIMERS 1HHTR, AND 2HHTR EACH HAVE A CONTACT RATED AT 250VAC, 1PH., 10FLA, 60HZ.
5. PLC RELAY OUTPUT CONTACTS RATED AT 240VAC, 1PH., 5FLA, 60HZ EACH.
6. RELAY 1-2CR HAS A CONTACT RATED AT 240VAC, 1PH., 10FLA, 60HZ.
7. 1SFU-O.T., 1SFU-S.F., 2SFU-O.T., AND 2SFU-S.F. EACH HAVE A CONTACT RATED AT 250VAC, 1PH., 5FLA, 60HZ.
8. IF THE THERMAL OVERLOAD SWITCH (1TOLS, 2TOLS) INSTALLED IN THE PUMP MOTOR STATOR WINDING OPENS DUE TO OVERHEATING, THEN THE UNDERCURRENT RELAY (1SFU-O.T., 2SFU-O.T.) WILL DE-ENERGIZE.
9. IF THE PUMP LEAKAGE SENSOR (1SNR, 2SNR) ACTIVATES, THE CURRENT THROUGH THE SENSOR WILL INCREASE AND THE OVERCURRENT RELAY (1SFU-S.F., 2SFU-S.F.) WILL ENERGIZE.

The FLOLO Corporation FLOLO Systems Group

1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 6 OF 13 DWG. NO. 11594-00B

PRINTED 08/05/2014



NOTES:

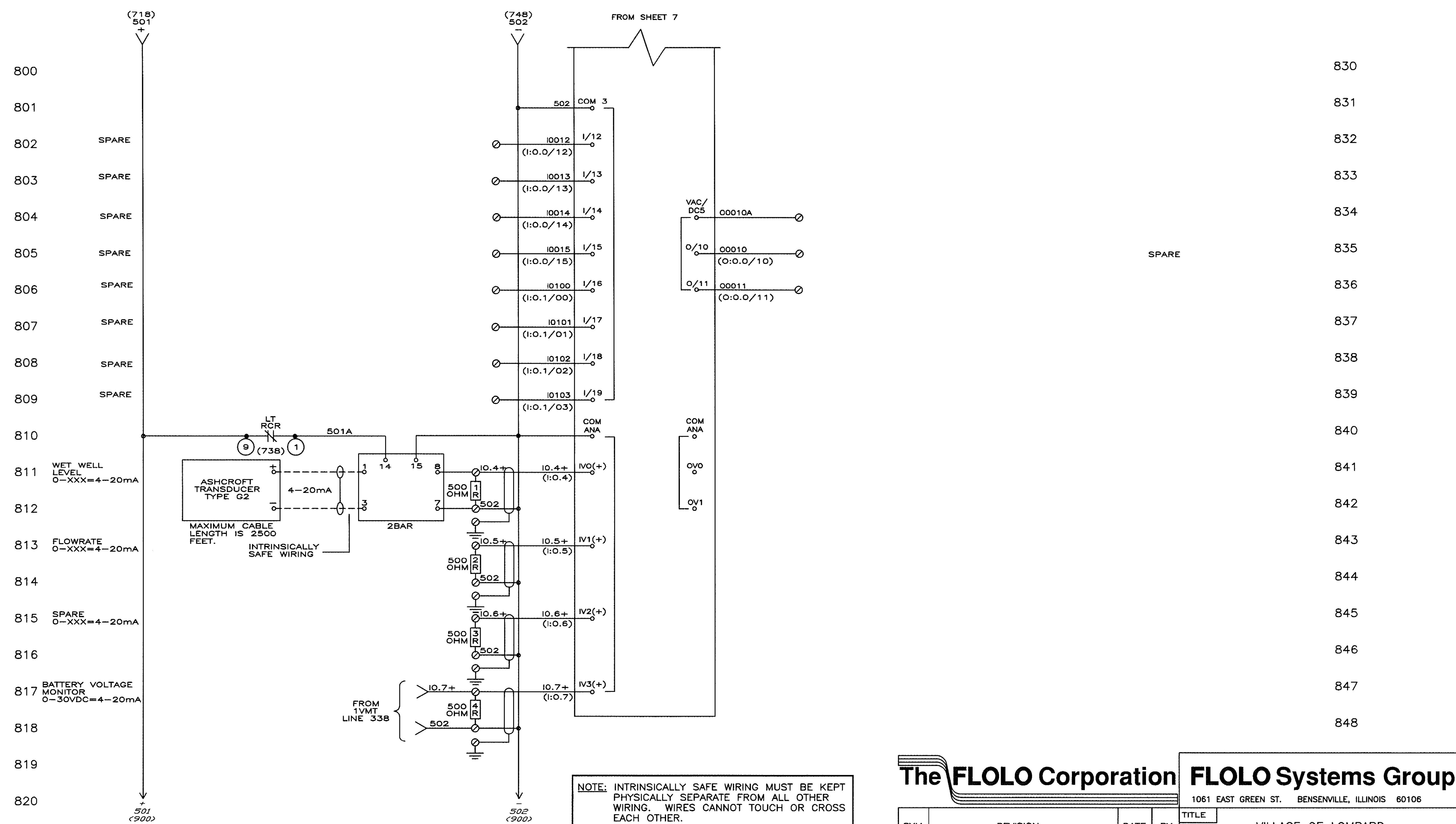
1. SELECTOR SWITCHES 1SS AND 2SS EACH HAVE A CONTACT RATED AT 600VAC, 1PH., 10FLA, 60HZ.
2. STARTERS 1M AND 2M EACH HAVE AN AUXILIARY CONTACT RATED AT 120VAC, 1PH., 10FLA, 60HZ.
3. OVERLOAD RELAYS 1OL AND 2OL EACH HAVE AN AUXILIARY CONTACT RATED AT 120VAC, 1PH., 10FLA, 60HZ.
4. MINICAS II UNIT CONTACTS 1SFU-O.T., 1SFU-S.F., 2SFU-O.T. AND 2SFU-S.F. EACH HAVE A RATING OF 250VAC, 1PH., 8FLA, 60HZ.
5. RELAYS HHCR, LLCR AND UPMCR EACH HAVE A CONTACT RATED AT 240VAC, 1PH., 10FLA, 60HZ.
6. MONITOR GPM, HAS A CONTACT RATED AT 240VAC, 1PH., 10FLA, 60HZ.
7. TRANSFER SWITCHES GDS, AND UDS EACH HAVE AN AUXILIARY CONTACT RATED AT 600VAC, 1PH., 10FLA, 60HZ.

TO SHEET 8

The FLOLO Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
			DWN BY WRJ	CHKD BY
			SCALE	APPROVED
			SHEET 7 OF 13	DWG. NO. 11594-00B

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NOTE: INTRINSICALLY SAFE WIRING MUST BE KEPT PHYSICALLY SEPARATE FROM ALL OTHER WIRING. WIRES CANNOT TOUCH OR CROSS EACH OTHER.

INSTALL IN ACCORDANCE WITH ART. 504 OF THE NATIONAL ELECTRICAL CODE

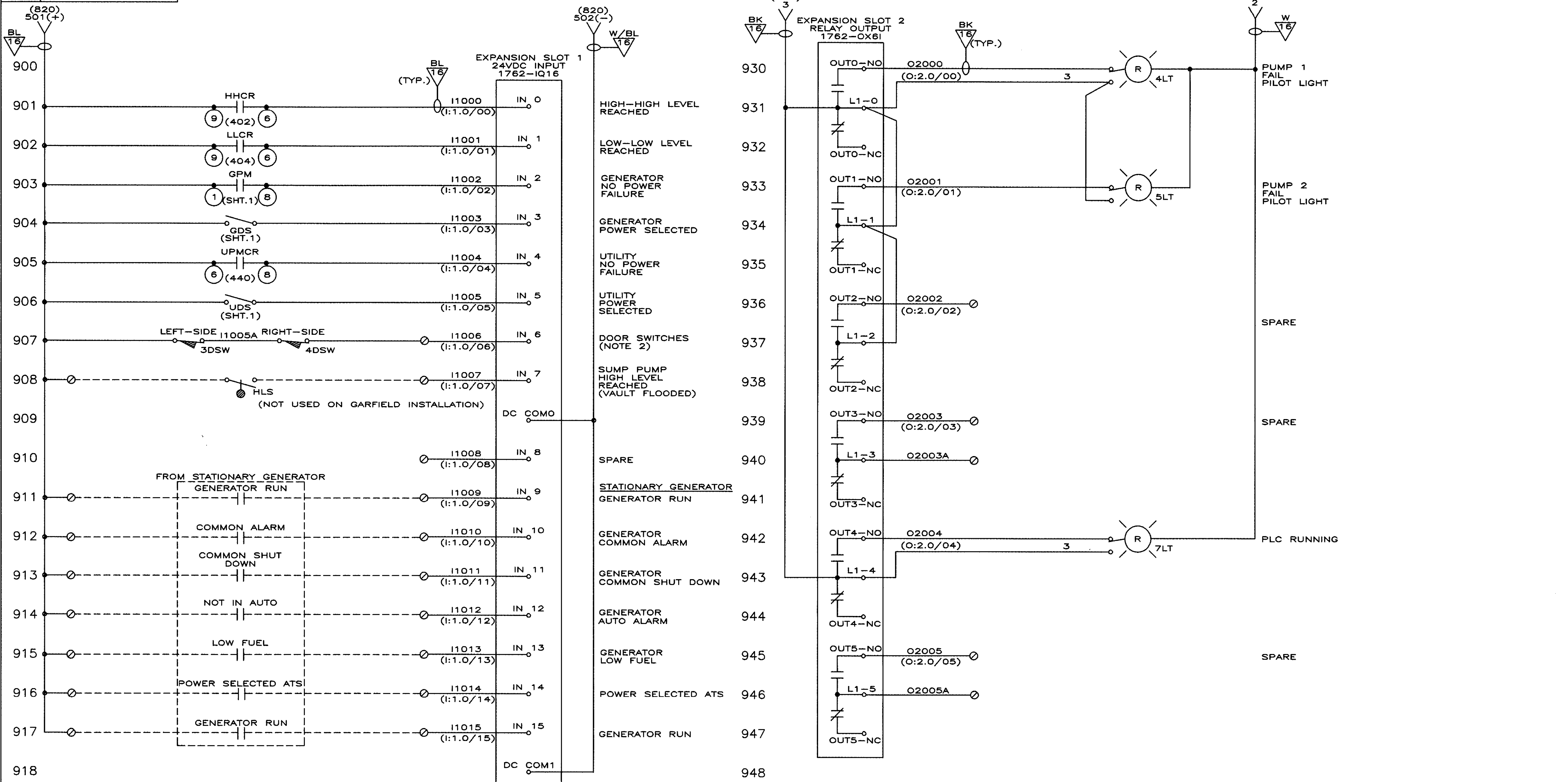
FOR CONNECTING ONLY TO PURELY RESISTIVE NON-ENERGY STORING DEVICES

The FLOLO Corporation FLOLO Systems Group

1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
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				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 8 OF 13 DWG. NO. 11594-00B

PRINTED 08/05/2014



NOTES:

1. PILOT LIGHTS 4LT, 5LT AND 7LT EACH HAVE A TRANSFORMER RATED AT 120VAC, 1PH, 0.025FLA, 60HZ.
2. DOOR SWITCHES 3DSW & 4DSW ARE SHOWN IN THE "DOOR CLOSED" POSITION.
3. DOOR SWITCHES 3DSW, AND 4DSW EACH HAVE A CONTACT RATED AT 120VAC, 1PH., 10FLA, 60HZ.

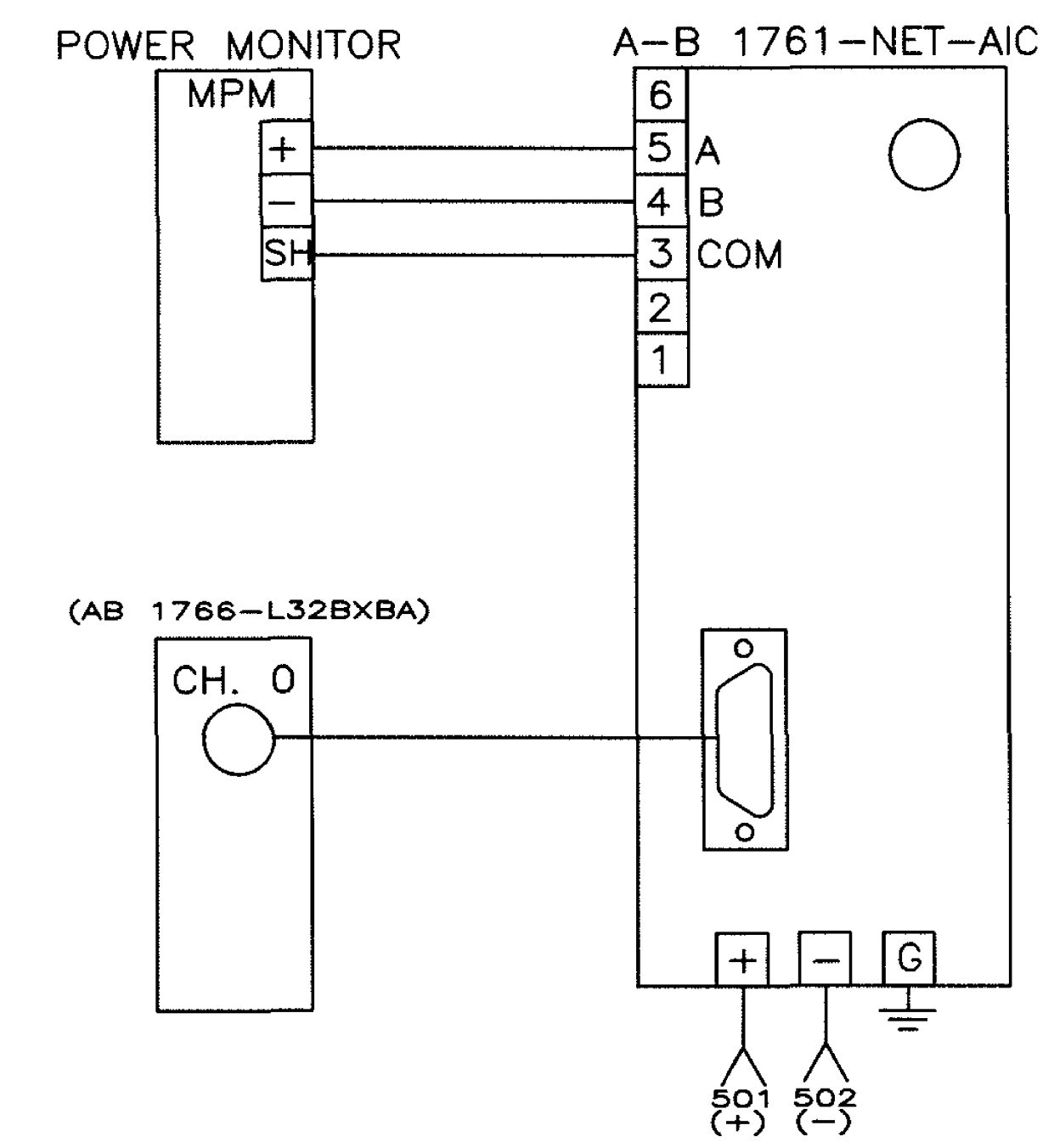
The FLOLO Corporation FLOLO Systems Group

1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 9 OF 13 DWG. NO. 11594-00B

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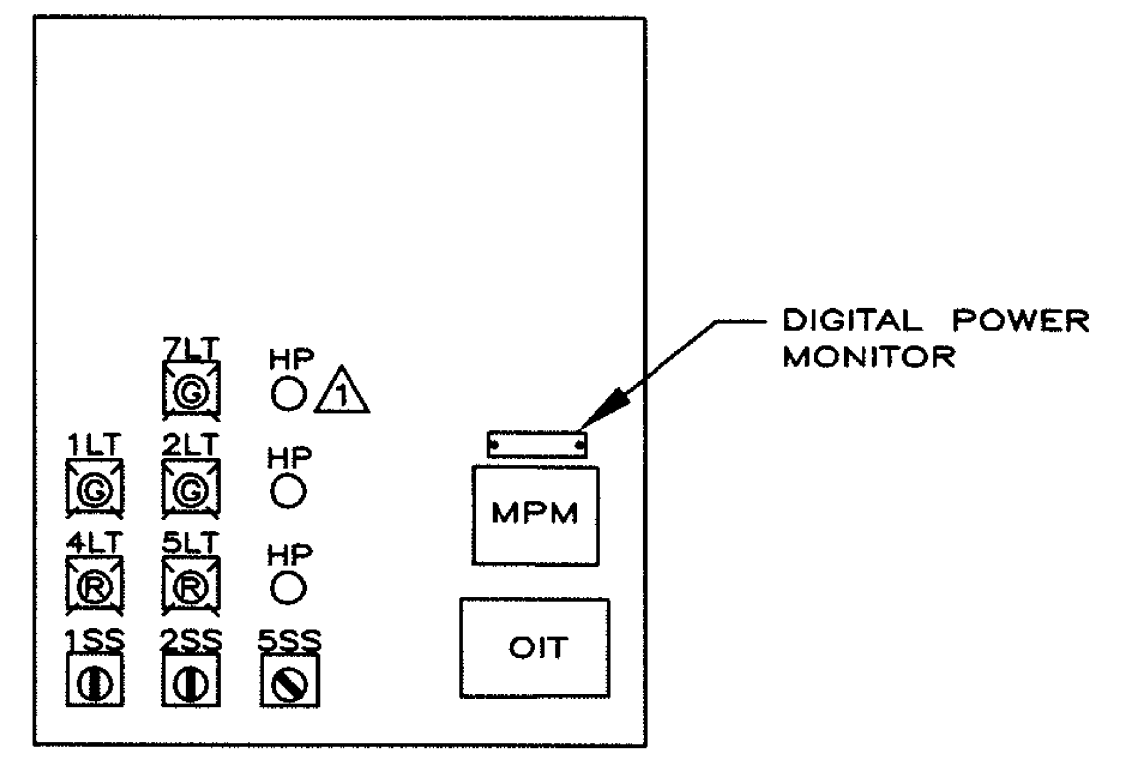
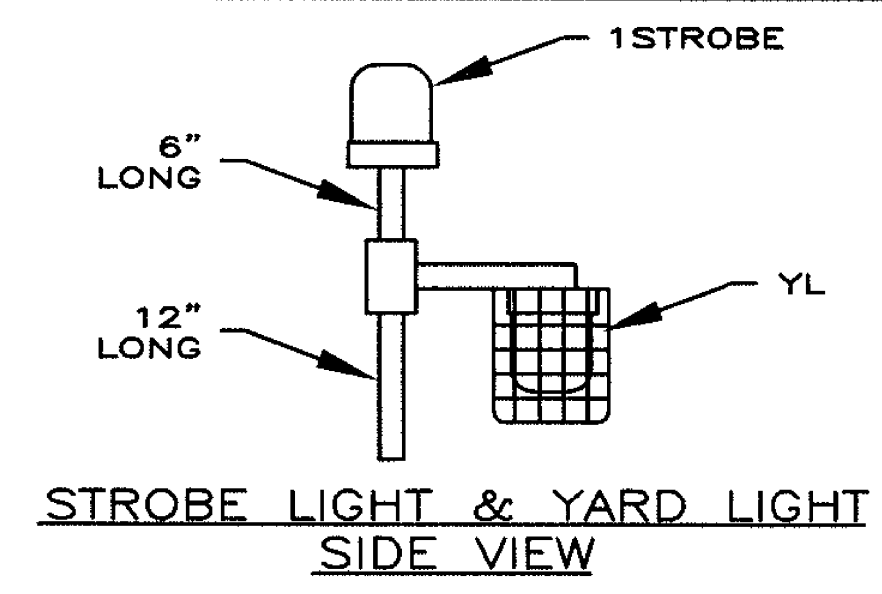
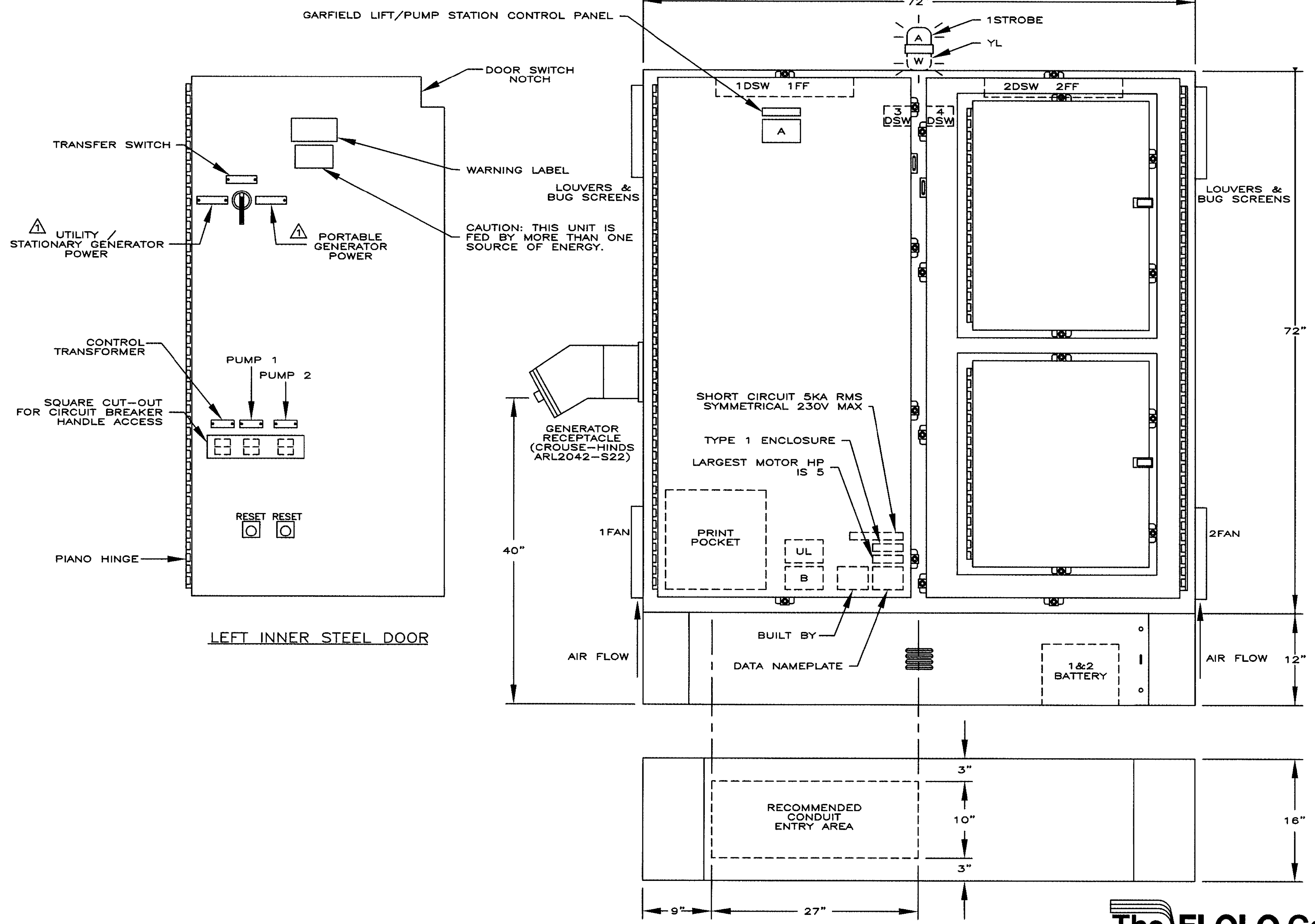
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The FLOLO Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
			DWN BY WRJ	CHKD BY DATE 04/17/14
			SCALE	APPROVED
			SHEET 10 OF 13	DWG. NO. 11594-00B

FRONT VIEW
 16" DEEP
 NEMA 4X CONSTRUCTION WITH VENTILATION AND FAN OPENINGS
 TYPE 304 STAINLESS STEEL

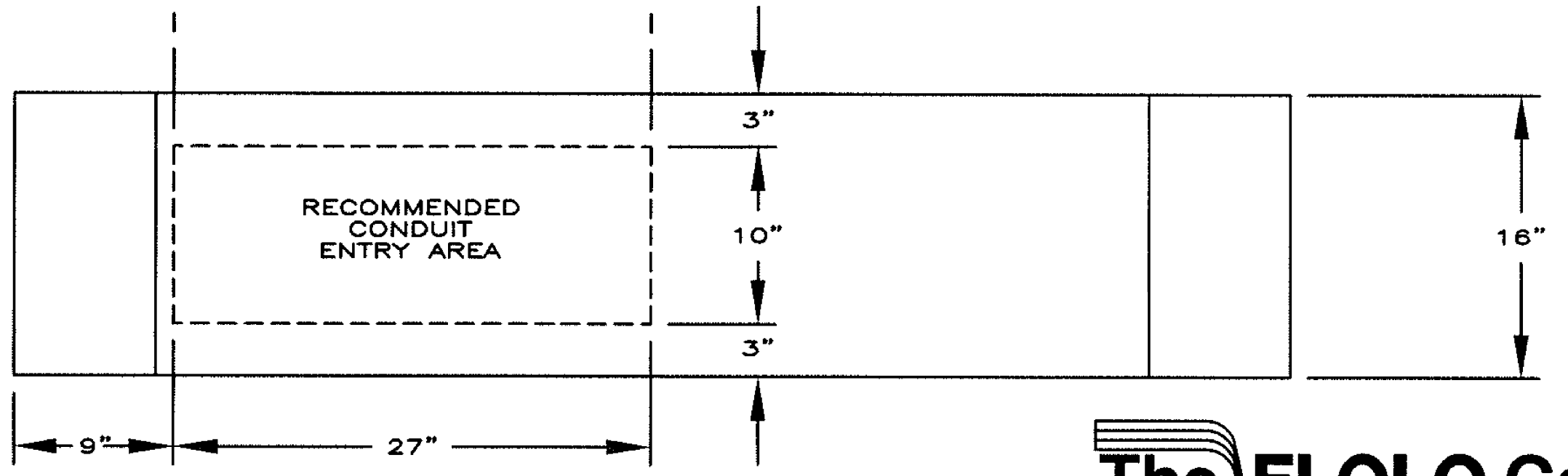


OPERATOR PLATE
 LOCATED BEHIND
 RIGHT UPPER DOOR

- LEGENDS:**
- 1SS - PUMP 1 - HAND/OFF/AUTO
 - 2SS - PUMP 2 - HAND/OFF/AUTO
 - 5SS - LEAD LAG P1/2 P2/1
 - 1LT - PUMP 1 RUNNING
 - 2LT - PUMP 2 RUNNING
 - 4LT - PUMP 1 FAULT
 - 5LT - PUMP 2 FAULT
 - 7LT - PLC RUNNING

A - CAUTION! MULTIPLE SUPPLY SOURCES ARE PROVIDED AND EACH SHOULD BE DISCONNECTED BEFORE SERVICING. FUSIBLE DISCONNECTS PROVIDED BY OTHERS. CIRCUIT 1: 26 AMP, 230V-3PH-60HZ

B - PROVIDES INTRINSICALLY SAFE CIRCUIT EXTENSIONS FOR USE IN CLASS 1, GROUP D, HAZARDOUS LOCATIONS WHEN CONNECTED PER INSTALLATION INSTRUCTIONS ON UNIT.
 WARNING: TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING.



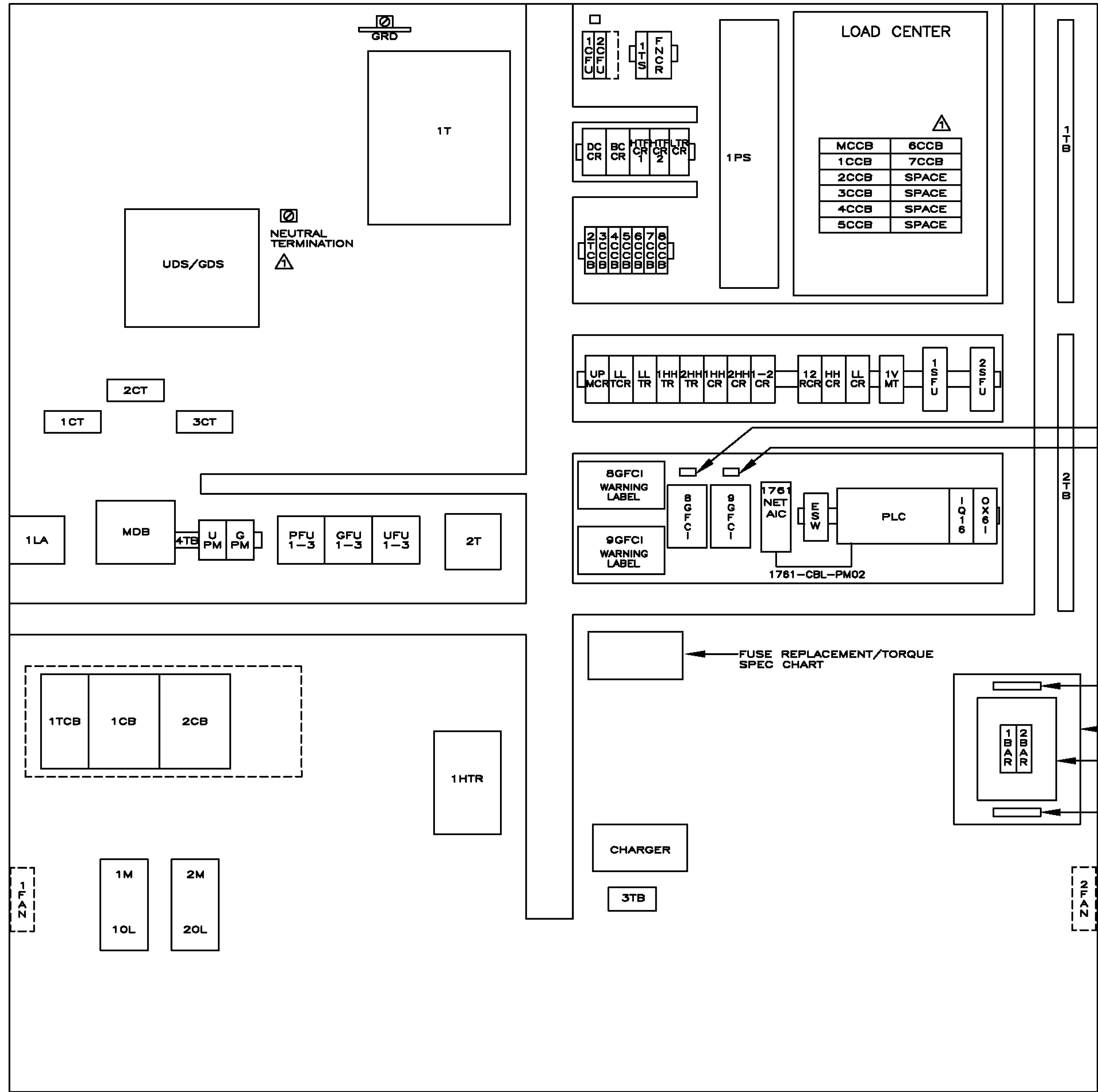
BOTTOM VIEW

- NOTES:**
- 1 - ENCLOSURE WELD AREAS ARE GROUND AND POLISHED.
 - 2 - ENCLOSURE DOORS AND ENCLOSURE BODY POLISHED.
 - 3 - RIGHT LOWER DOOR PROVIDES ACCESS TO ENCLOSURE SUB PANEL.
 - 4 - DOOR STOPS ON ALL DOORS WELDED SECURELY.

The FLOLO Corporation FLOLO Systems Group
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
1	Remove 6SS Street Light Switch	07/30/14	M*M	VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
DWN BY WRJ CHKD BY DATE 04/14/14				
SCALE 1/16"=1" APPROVED				
SHEET 11 OF 13				DWG. NO. 11594-01B

PRINTED 08/05/2014



FOR BATTERY CHARGER ONLY
FOR PROGRAMMING EQUIPMENT ONLY

WARNING: SUBSTITUTION OF COMPONENTS
MAY IMPAIR INTRINSIC SAFETY

ENCLOSURE

WINDOW

INTRINSICALLY SAFE FIELD WIRING
TERMINALS ONLY

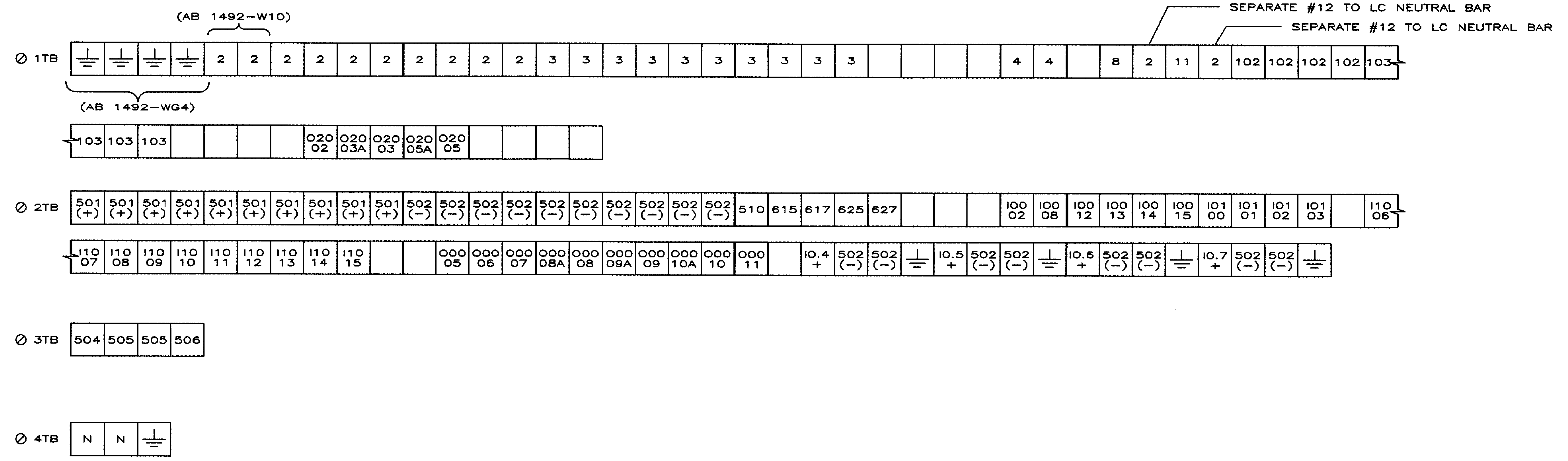
NOTE:
1HTR REQUIRES AN AIR SPACE OF 6" ON TOP,
1" ON BOTTOM, AND 1" ON SIDES.

The FLOLO Corporation FLOLO Systems Group
1081 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
1	REPLACE GFI C/B's & NEUTRAL	08/28/14	M*M	VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 12 OF 13 DWG. NO. 11594-01B

SUB PANEL

TERMINAL LAYOUT:

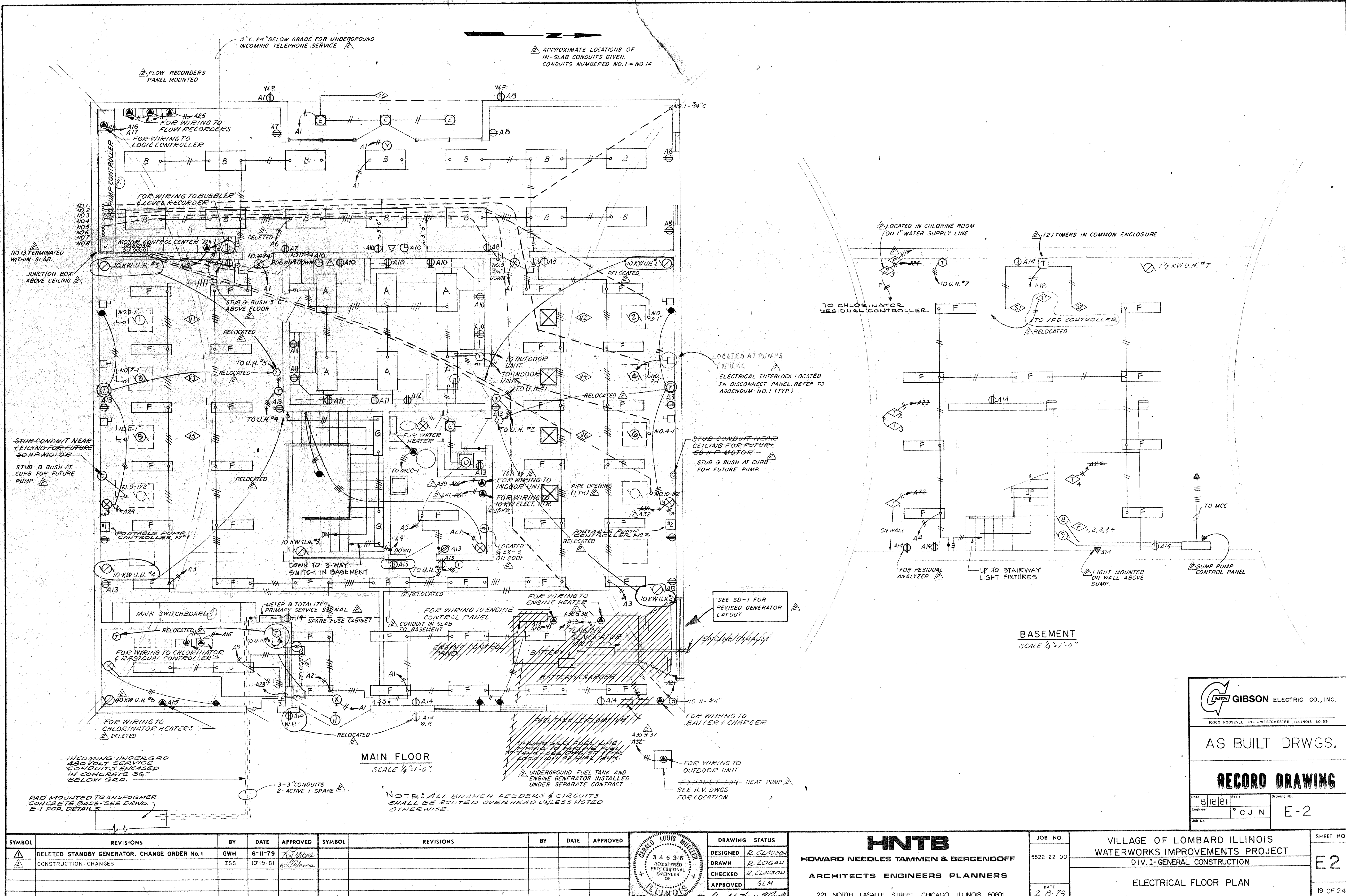


- NOTES:
- 1 - USE 60° DEGREE CELSIUS COPPER FIELD WIRE MINIMUM.
 - 2 - TERMINALS ARE AB 1492-W4 UNLESS NOTED OTHERWISE.
 - 3 - AB 1492-W4 TERMINAL BLOCK SCREW TIGHTENING TORQUE=5 TO 5.6 IN-LB.
 - 4 - AB 1492-WG4 TERMINAL BLOCK SCREW TIGHTENING TORQUE=5.6 TO 6.8 IN-LB.
 - 5 - AB 1492-W10 TERMINAL BLOCK SCREW TIGHTENING TORQUE=132.8 IN-LB.

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 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
				VILLAGE OF LOMBARD GARFIELD LIFT/PUMP STATION
				DWN BY WRJ CHKD BY DATE 04/17/14
				SCALE APPROVED
				SHEET 13 OF 13 DWG. NO. 11594-00B

PRINTED 08/05/2014



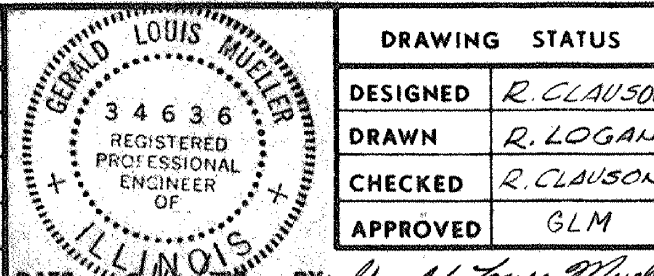
GIBSON ELECTRIC CO., INC.
 10500 ROOSEVELT RD. • WESTCHESTER, ILLINOIS 60153

AS BUILT DRWGS.

RECORD DRAWING

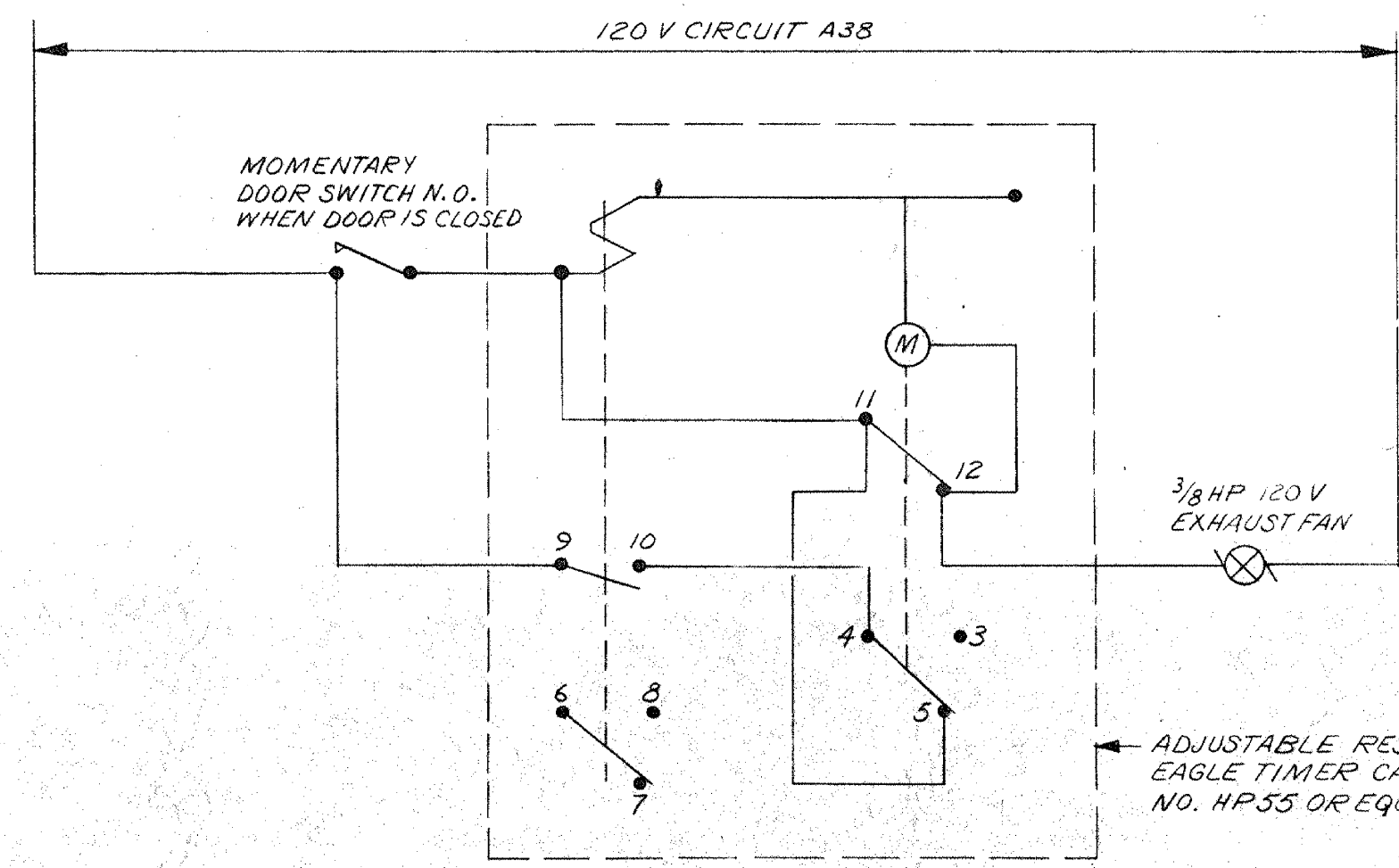
Date	8/16/81	Scale	Drawing No.
Engineer	C J N	By	E-2
Job No.			

SYMBOL		REVISIONS			REVISIONS		BY			DATE			APPROVED			DRAWING STATUS			JOB NO.	VILLAGE OF LOMBARD ILLINOIS WATERWORKS IMPROVEMENTS PROJECT DIV. I-GENERAL CONSTRUCTION		SHEET NO.
▲	DELETED	STANDBY GENERATOR	CHANGE ORDER No. 1	GWH	6-11-79										DESIGNED	R. CLAUSON	5522-22-00	ELECTRICAL FLOOR PLAN		E2		
▲	CONSTRUCTION	CHANGES		ISS	10-15-81									DRAWN	R. LOGAN		ELECTRICAL FLOOR PLAN					
														CHECKED	R. CLAUSON		ELECTRICAL FLOOR PLAN					
														APPROVED	GLM		ELECTRICAL FLOOR PLAN					
													DATE		2/8/79			19 OF 24				

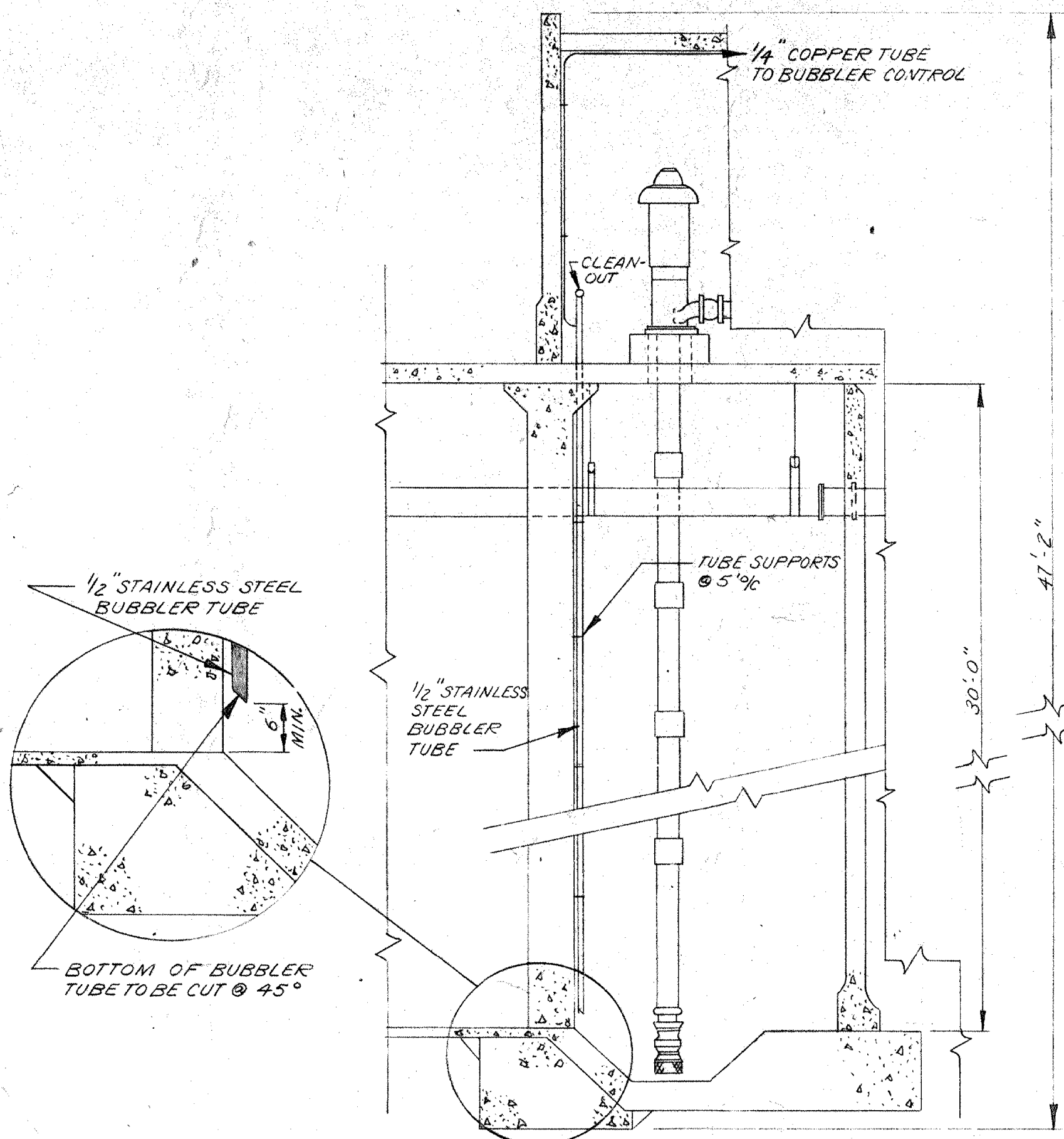


HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
 ARCHITECTS ENGINEERS PLANNERS
 221 NORTH LASALLE STREET, CHICAGO, ILLINOIS 60601

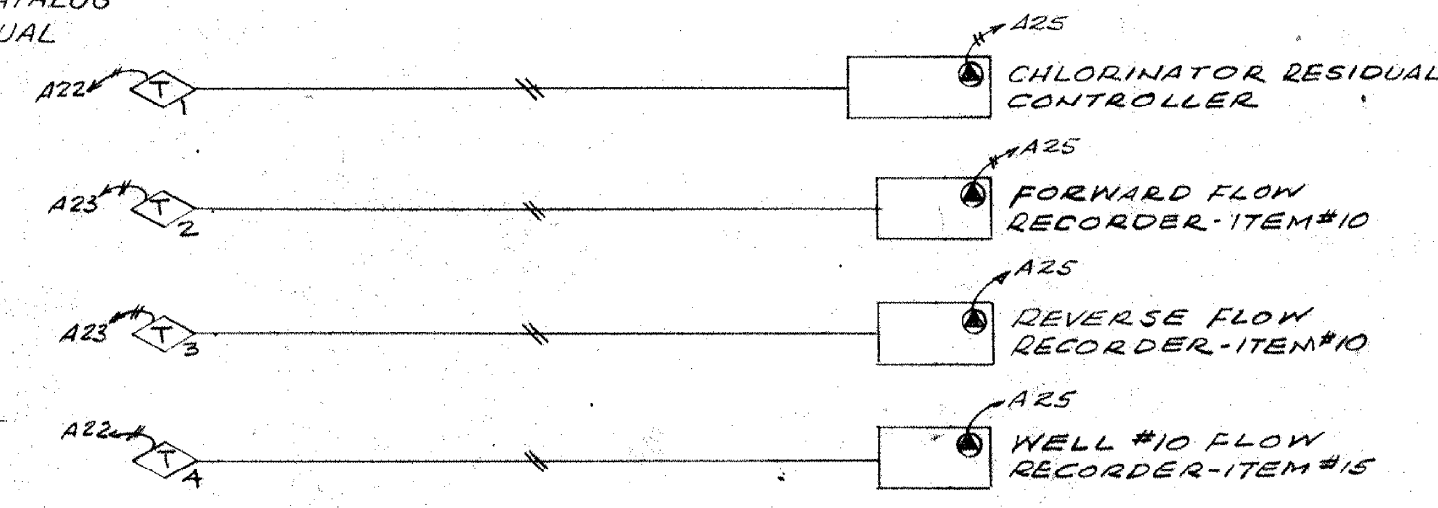
CIVIC CENTER RECORD DRAWING - ELECTRICAL FLOOR PLAN



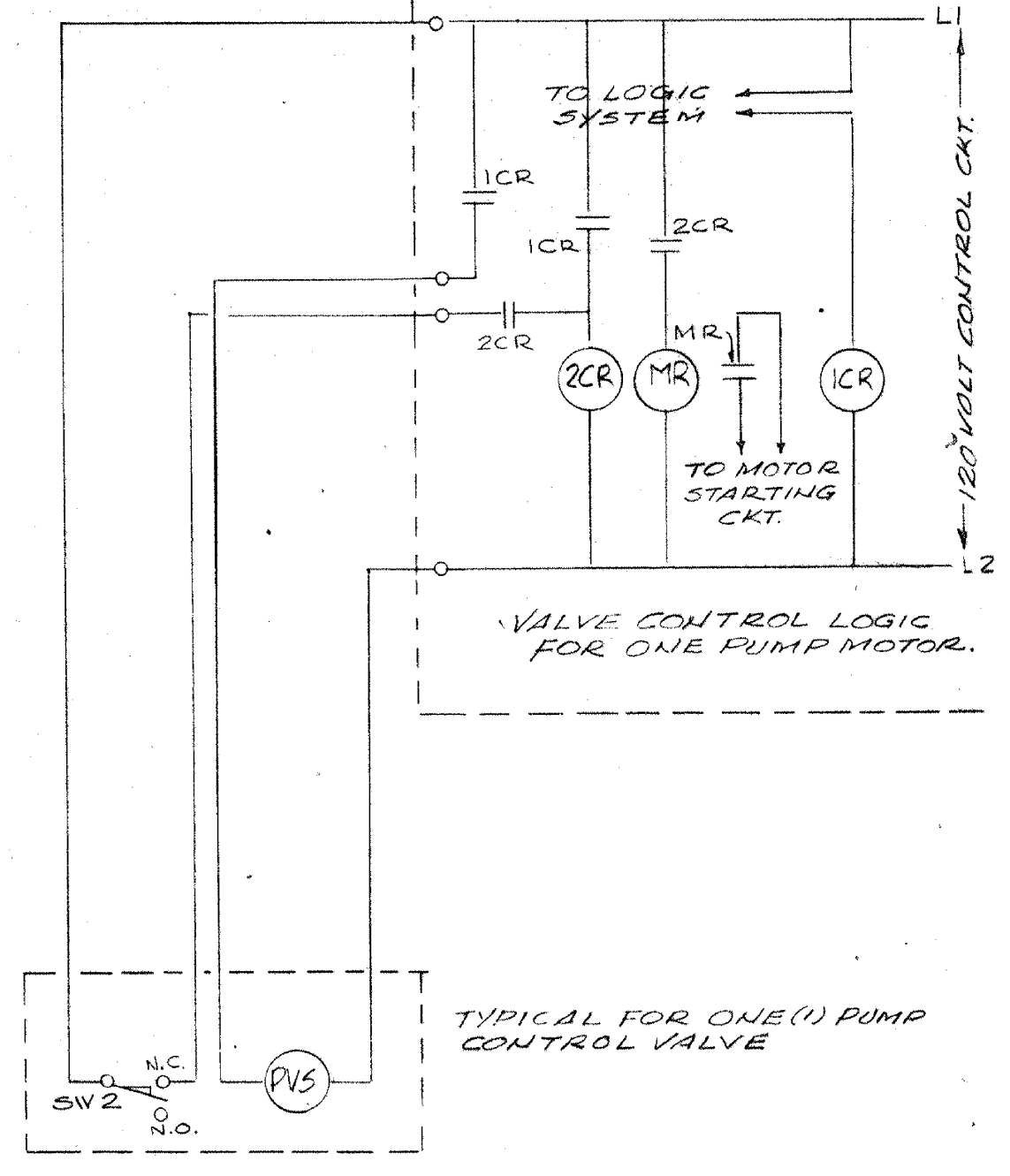
CHLORINE RM. EXHAUST FAN CONTROL
N.T.S.



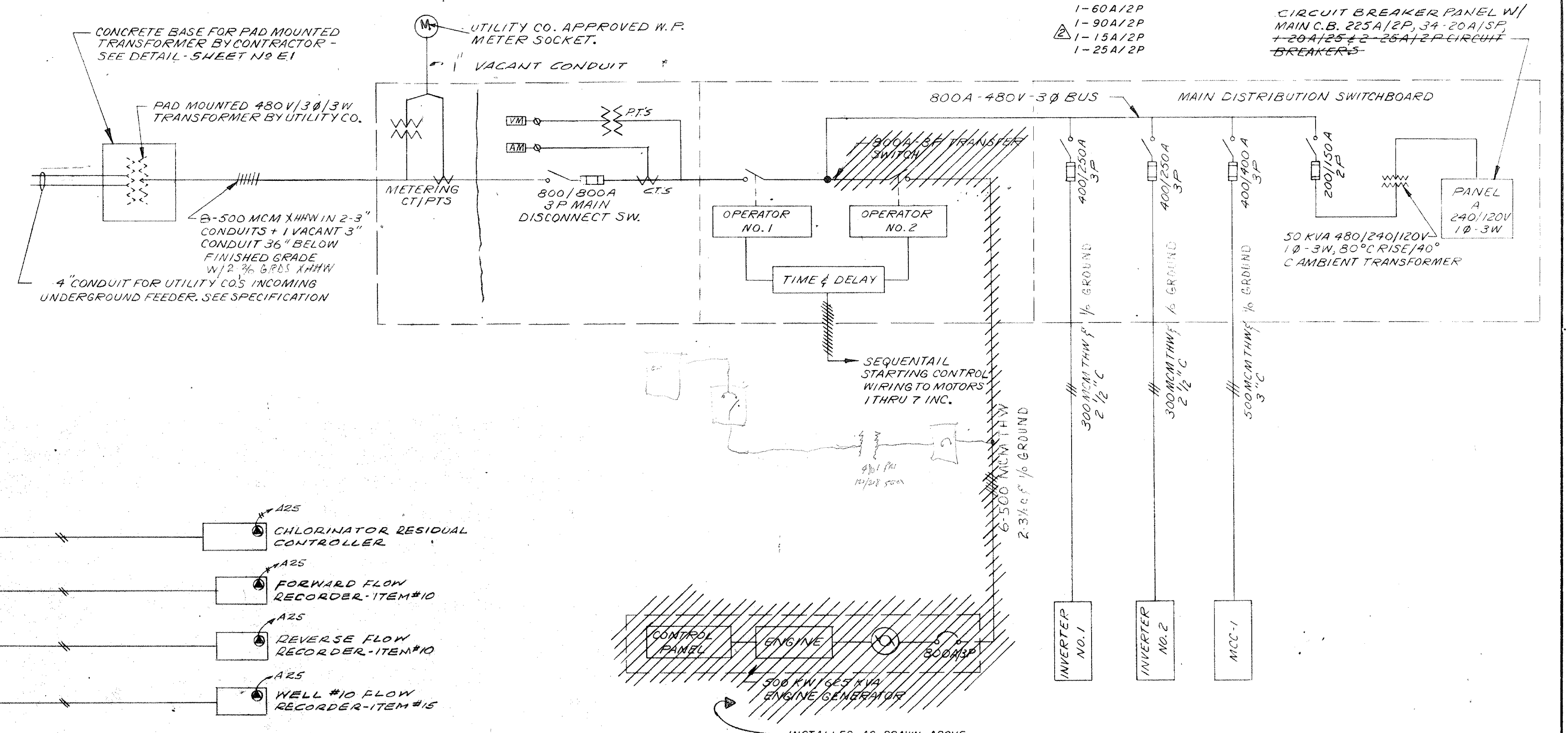
BUBBLER TUBE DETAIL
N.T.S.



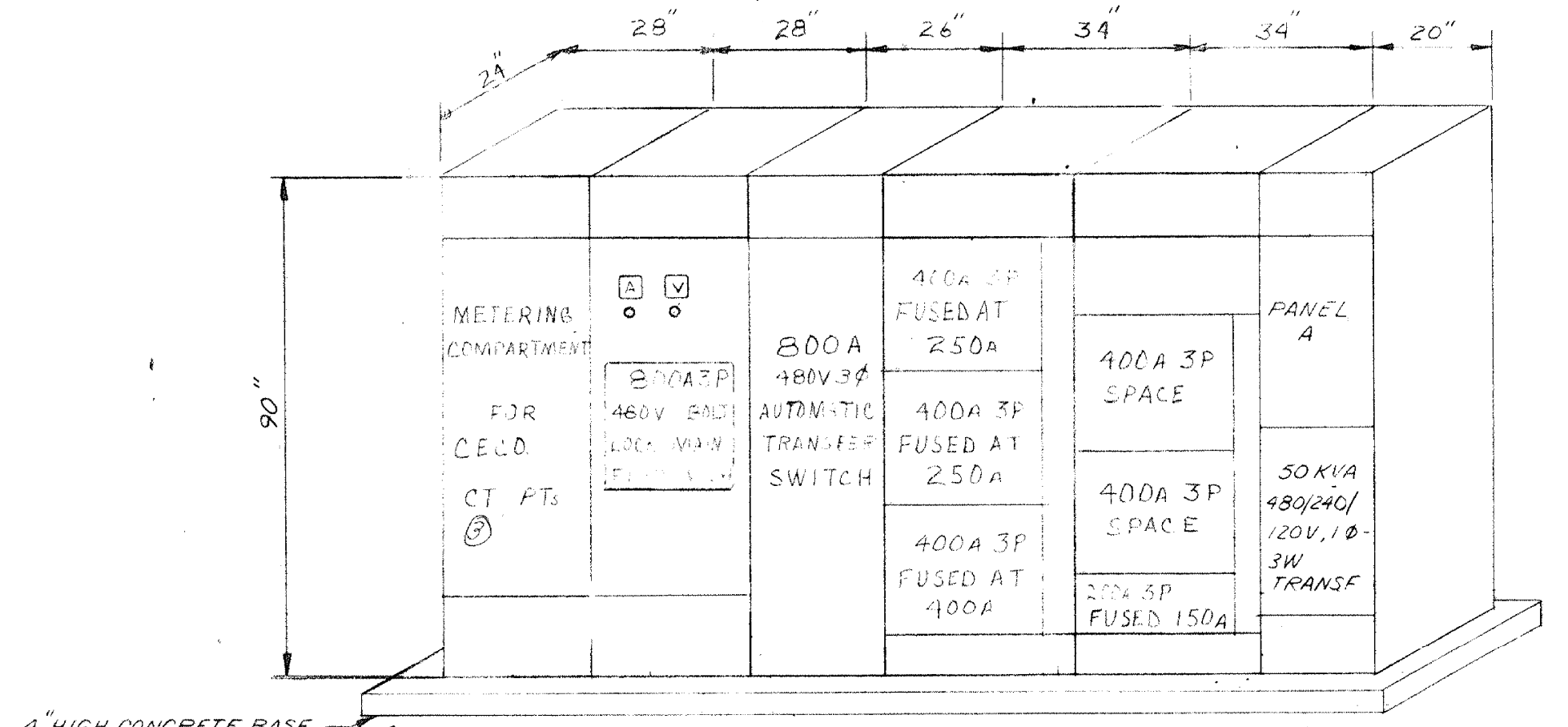
'SINGLE LINE DIAGRAM FOR FLOW RECORDING SYSTEM
N.T.S.



PUMP CONTROL VALVE WIRING



SINGLE LINE DIAGRAM
N.T.S. INSTALLED AS DRAWN ABOVE UNDER SEPARATE CONTRACT

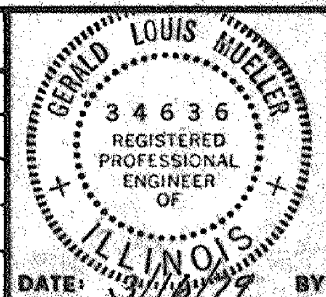


MAIN DISTRIBUTION SWITCHBOARD 480/277V 4W
N.T.S. REFER TO JEMISON SHOP DRAWINGS - TRANSMITTAL # 29C FOR ADDITIONAL DETAILS. AUTOMATIC TRANSFER SWITCH INSTALLED UNDER SEPARATE CONTRACT.

RECORD DRAWING

GIBSON ELECTRIC CO., INC. 10300 ROOSEVELT RD. WESTCHESTER, ILLINOIS 60153	AS BUILT	DATE 8 18 81	JOB NO.
	DRWGS.	BY C J N	DRW. NO.

SYMBOL	REVISIONS	BY	DATE	APPROVED	SYMBOL	REVISIONS	BY	DATE	APPROVED
⚠	DELETED STANDBY GENERATOR. CHANGE ORDER No. 1	GWH	6-11-79	<i>[Signature]</i>					
⚠	CONSTRUCTION CHANGES	ISS	10-15-81	<i>[Signature]</i>					



DESIGNED	R. CLAVSON
DRAWN	R. LOGAN
CHECKED	R. CLAVSON
APPROVED	GLM

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS
221 NORTH LASALLE STREET, CHICAGO, ILLINOIS 60601

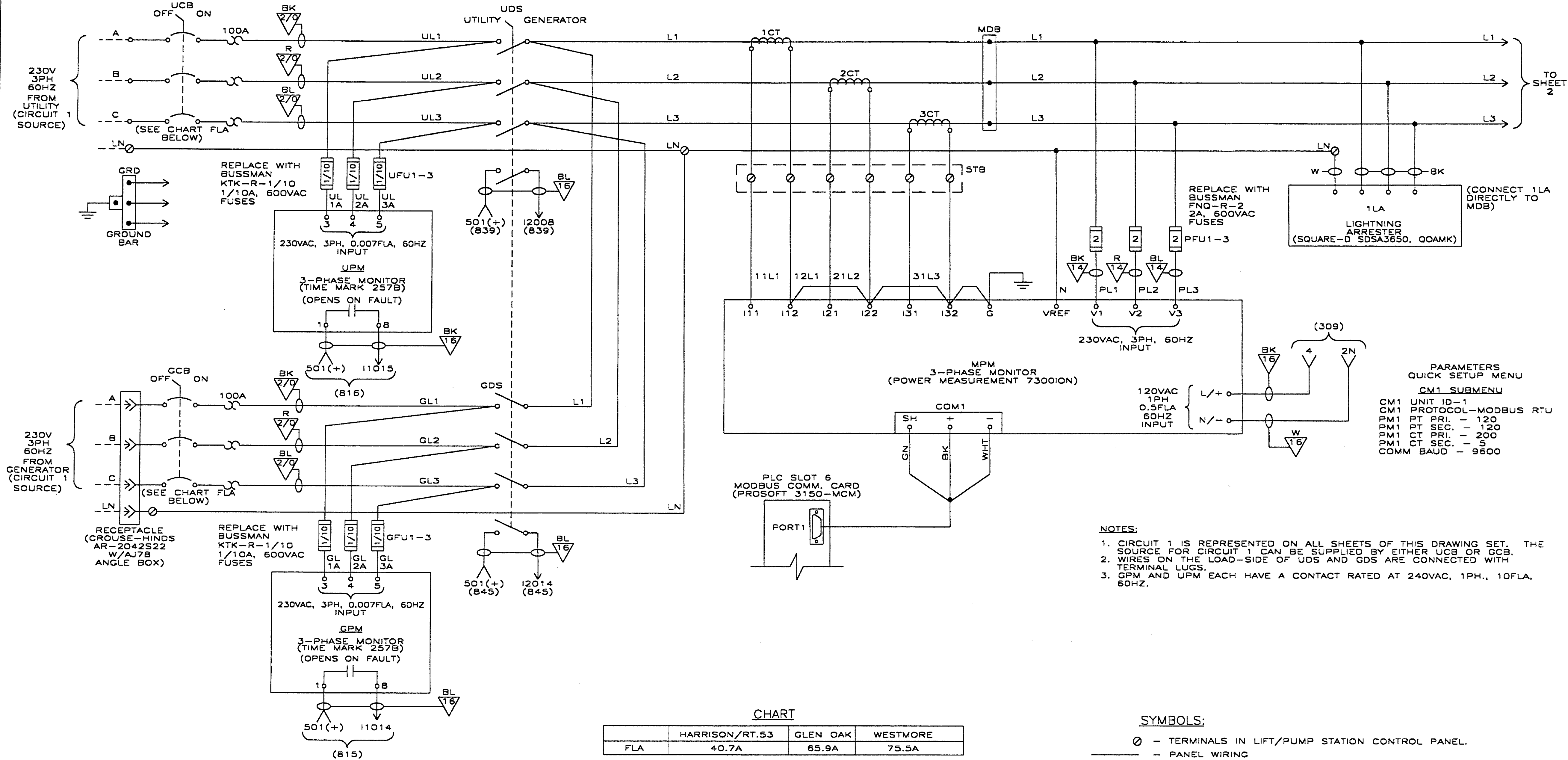
JOB NO.	5522-22-00
DATE	2 8 79

VILLAGE OF LOMBARD ILLINOIS
WATERWORKS IMPROVEMENTS PROJECT
DIV. I-GENERAL CONSTRUCTION
DISTRIBUTION SINGLE LINE
DIAGRAMS & DETAILS

SHEET NO.	E 4
21 OF 24	

ORIGINAL

CAD FILE 9409-01



CHART

FLA	HARRISON/RT.53 40.7A	GLEN OAK 65.9A	WESTMORE 75.5A
-----	-------------------------	-------------------	-------------------

SYMBOLS:

- - TERMINALS IN LIFT/PUMP STATION CONTROL PANEL.
- - PANEL WIRING
- - - - - FIELD WIRING

WIRE CHART:

DESIGNATION	GAUGE (MIN)	COLOR	SYMBOL
230VAC PHASE A	AWG #12	BLACK	BK
230VAC PHASE B	AWG #12	RED	R
230VAC PHASE C	AWG #12	BLUE	BL
230VAC NEUTRAL	AWG #12	WHITE	W
120VAC CONTROL	AWG #16	BLACK	BK
120VAC NEUTRAL	AWG #16	WHITE	W
24VAC CONTROL	AWG #16	ORANGE	OR
24VAC NEUTRAL	AWG #16	ORANGE	OR
DC CONTROL	AWG #16	BLUE	BL
DC NEUTRAL	AWG #16	WHITE W/BLUE	W/BL
REMOTE VOLTAGES	AWG #16	YELLOW	Y
GROUND	AWG #16	GREEN W/YEL	GR/Y

USE 600V ≥ 60°C MTW WIRE (INTERNAL WIRING)
USE DATAB DAT-7-292 MARKERS

COLOR/GAUGE SYMBOL
EXAMPLE

BK - WIRE COLOR
14 - WIRE GAUGE

The FLOLO Corporation FLOLO Systems Group
1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

VILLAGE OF LOMBARD
HARRISON/RT.53, GLEN OAK, & WESTMORE
LIFT/PUMP STATIONS

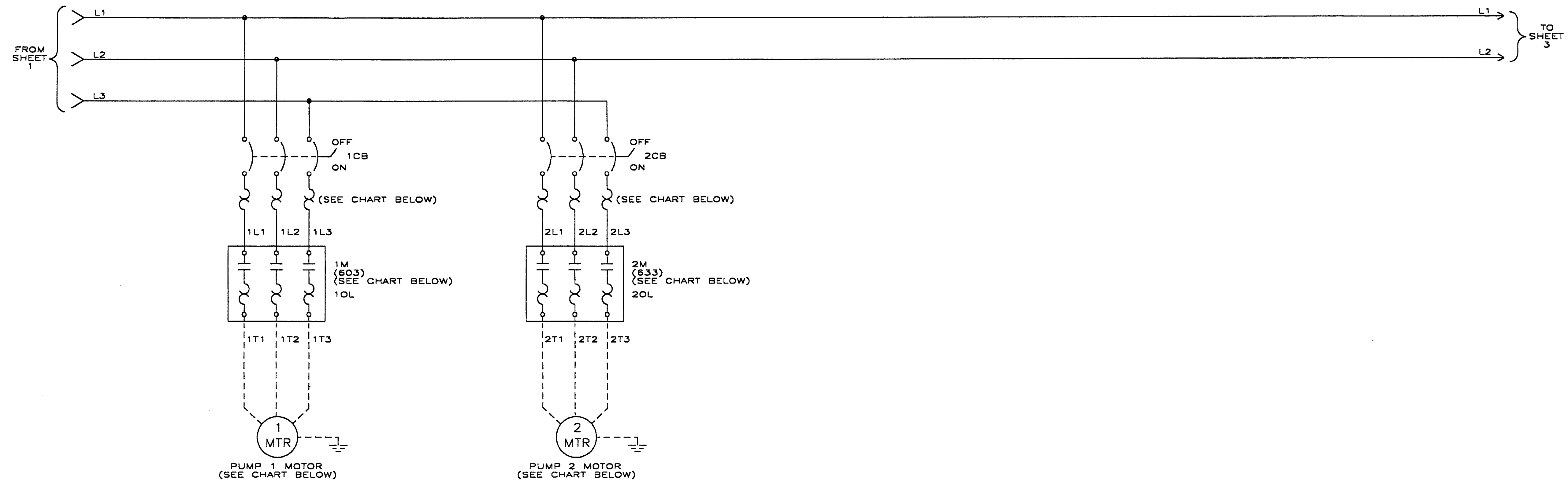
SYM.	REVISION	DATE	BY	TITLE
01	AS BUILT	3/7/02	VF	VILLAGE OF LOMBARD HARRISON/RT.53, GLEN OAK, & WESTMORE LIFT/PUMP STATIONS
02	NO CHANGE	12/06/02	A.H.	

DWN BY J.S. CHKD BY [Signature] DATE 7/30/01
SCALE APPROVED
SHEET 1 OF 13 DWG. NO. 9409-02B

9409-02B SHT. 1 OF 13

ORIGINAL

CAD FILE 9409-02



CHART

DEVICE	HARRISON/RT.53	GLEN OAK	WESTMORE
1CB	15A	40A	70A
2CB	15A	40A	70A
1MTR	3HP, 9.4FLA @ 230VAC	7.5HP, 22FLA @ 230VAC	10HP, 26.8FLA @ 230VAC
2MTR	3HP, 9.4FLA @ 230VAC	7.5HP, 22FLA @ 230VAC	10HP, 26.8FLA @ 230VAC
1M/1OL	SIEMENS/FURNAS 14DSE32AA	SIEMENS/FURNAS 14DSF32AA	SIEMENS/FURNAS 14ESG32AA
2M/2OL	SIEMENS/FURNAS 14DSE32AA	SIEMENS/FURNAS 14DSF32AA	SIEMENS/FURNAS 14ESG32AA
1OL	RANGE: 9-18A	RANGE: 13-37A	RANGE: 20-40A
2OL	RANGE: 9-18A	RANGE: 13-37A	RANGE: 20-40A

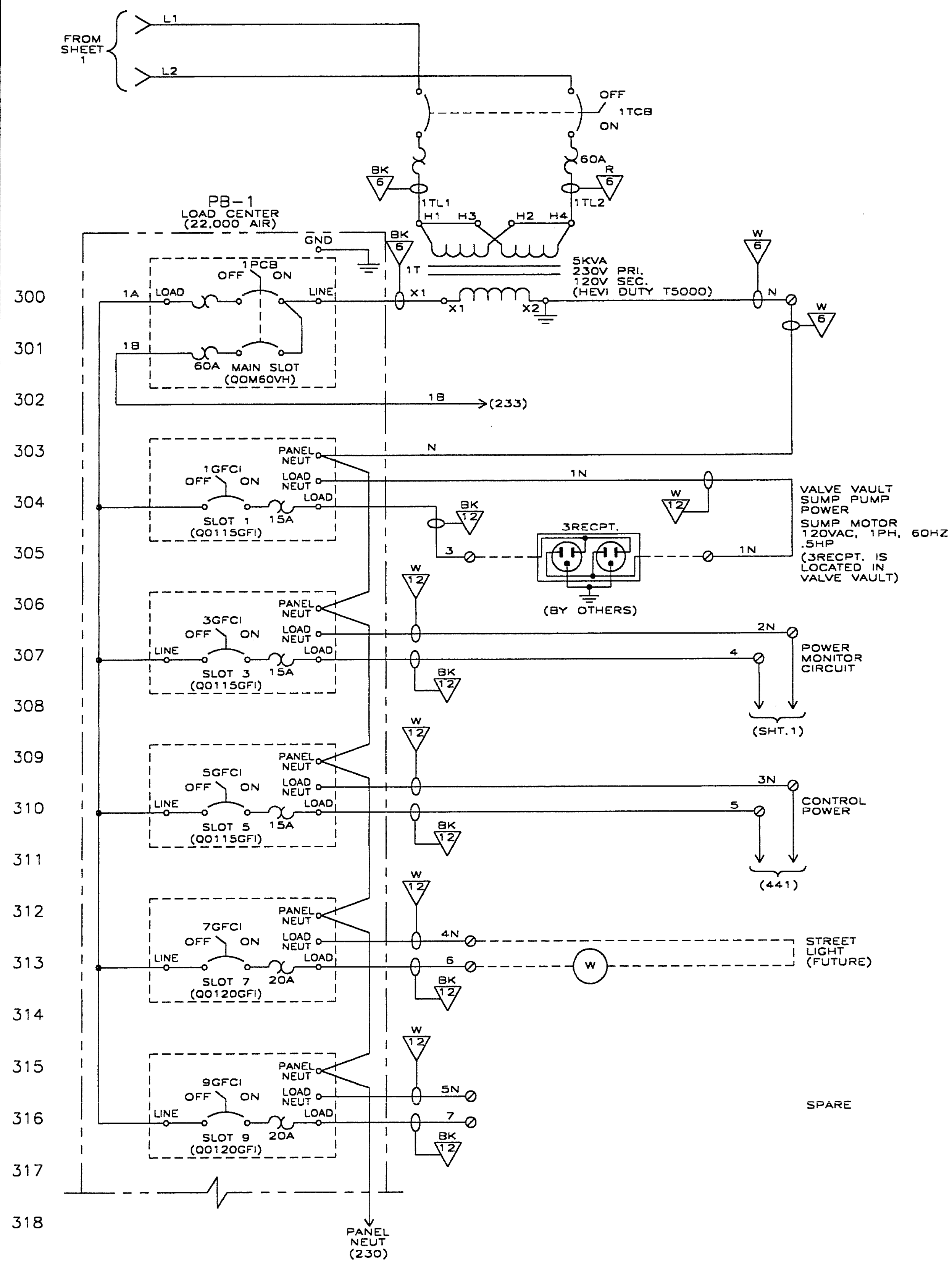
9409-02B SHT. 2 OF 13

The FLOLO Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

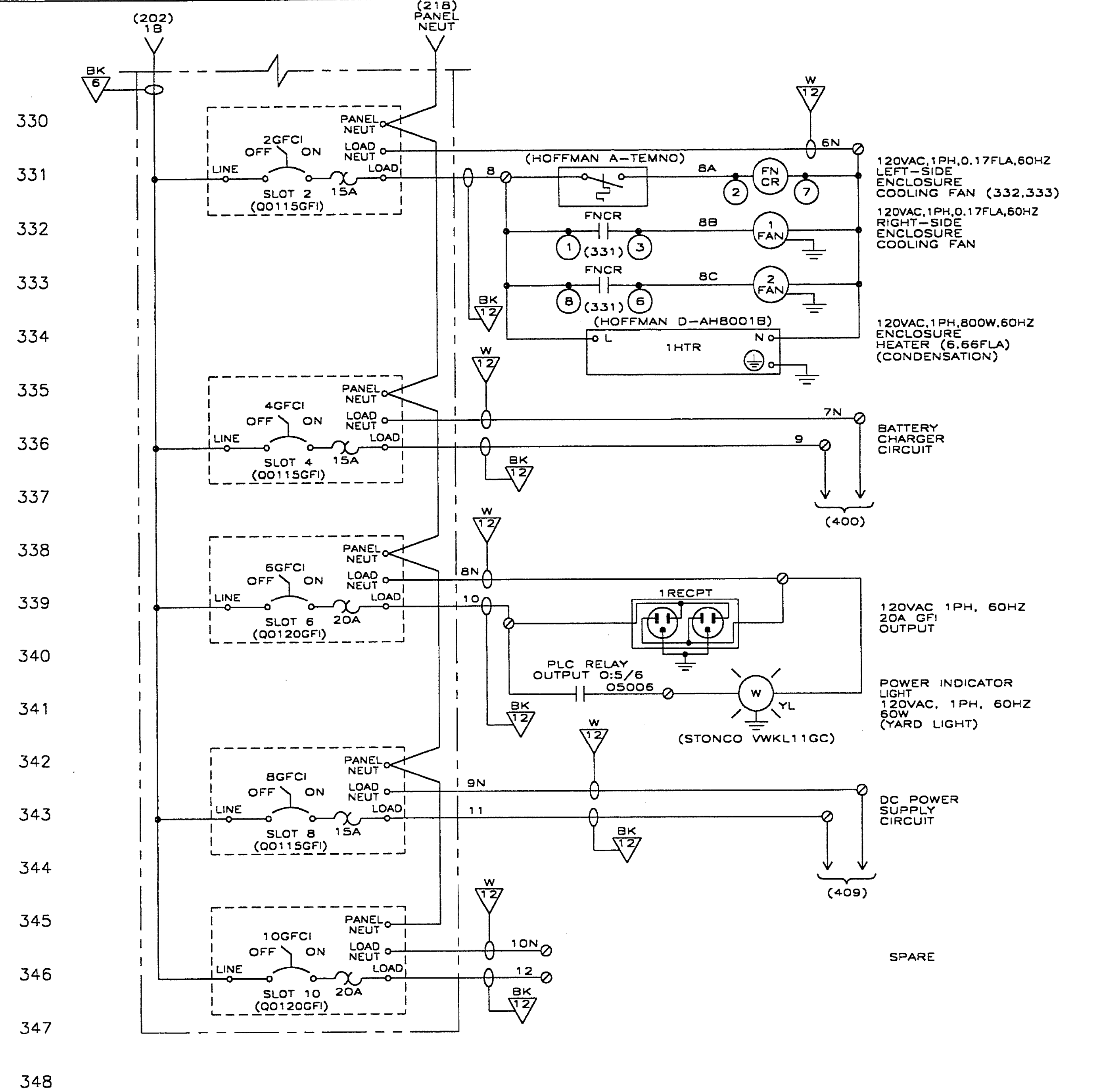
SYM.	REVISION	DATE	BY	TITLE
01	AS BUILT	3/7/02	VF	VILLAGE OF LOMBARD HARRISON/RT.53, GLEN OAK, & WESTMORE LIFT/PUMP STATIONS
02	NO CHANGE	12/06/02	A.H.	
DWN BY J.S. CHKD BY <i>[Signature]</i> DATE 7/30/01				
SCALE APPROVED				
SHEET 2 OF 13				DWG. NO. 9409-02B

ORIGINAL

CAD FILE 9409-03



9409-02B SHT. 3 OF 13

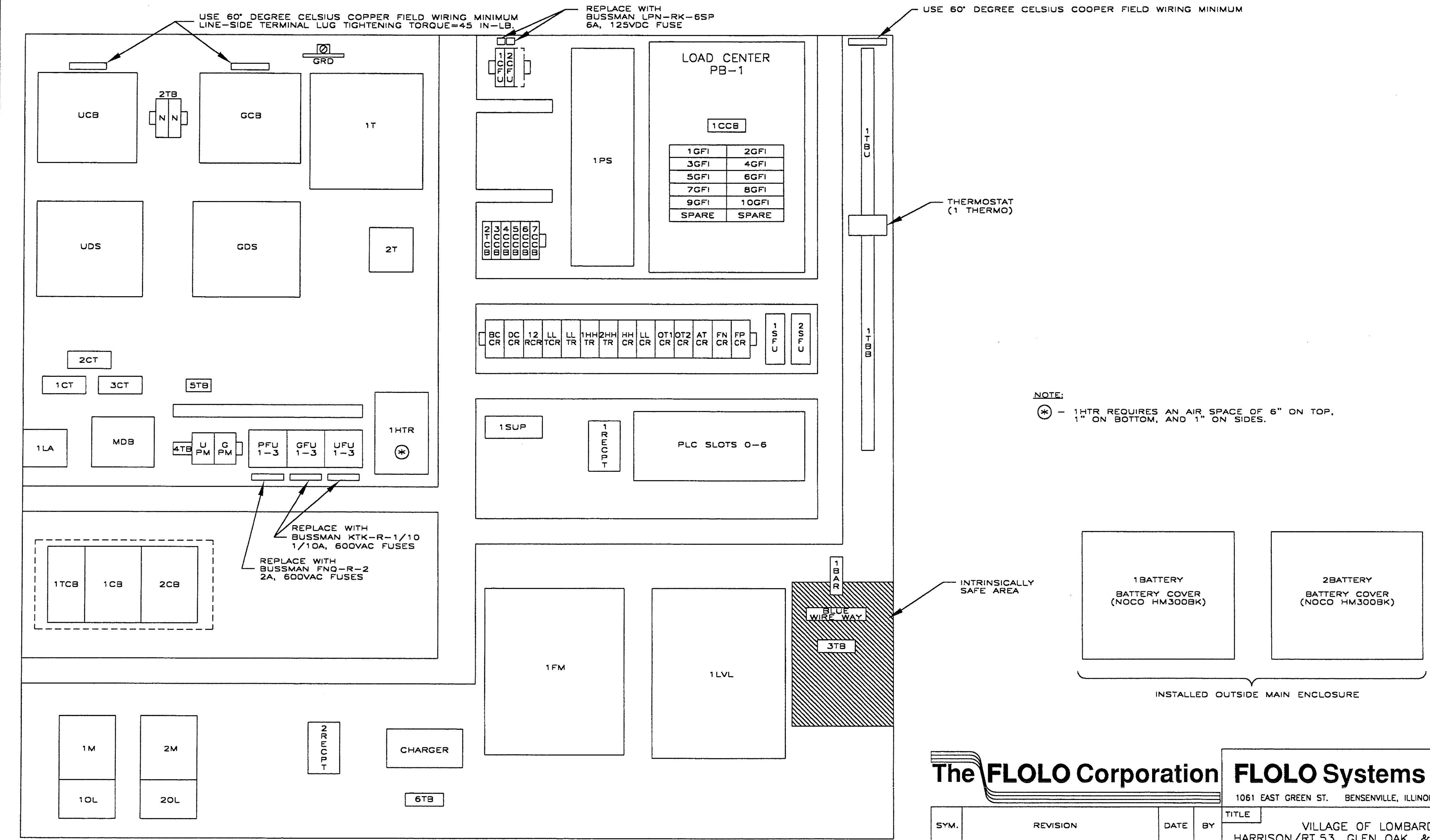


The **FLOLO** Corporation **FLOLO Systems Group**
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
01	AS BUILT	3/7/02	VF	VILLAGE OF LOMBARD HARRISON/RT.53, GLEN OAK, & WESTMORE LIFT/PUMP STATIONS
02	NO CHANGE	12/06/02	A.H.	
DWN BY J.S. CHKD BY <i>[Signature]</i> DATE 7/30/01				SCALE APPROVED
SHEET 3 OF 13				DWG. NO. 9409-02B

ORIGINAL

CAD FILE 9409-12



NOTE:
 (*) - 1HTR REQUIRES AN AIR SPACE OF 6" ON TOP, 1" ON BOTTOM, AND 1" ON SIDES.

SUB_PANEL

9409-02B SHT. 12 OF 13

The FLOLO Corporation FLOLO Systems Group
 1061 EAST GREEN ST. BENSENVILLE, ILLINOIS 60106

SYM.	REVISION	DATE	BY	TITLE
01	AS BUILT	3/7/02	VF	VILLAGE OF LOMBARD HARRISON/RT.53, GLEN OAK, & WESTMORE LIFT/PUMP STATIONS
02	NO CHANGE	12/06/02	A.H.	
DWN BY J.S. CHKD BY <i>[Signature]</i> DATE 7/30/01				
SCALE 1/8"=1" APPROVED				
SHEET 12 OF 13 DWG. NO. 9409-02B				