D-30-001-18

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- FUN AND SUN PUMP STATION ELECTRICAL PLAN AND DETAILS
- GREY'S FARM STATION ELECTRICAL PLAN AND DETAILS
- GREY'S FARM PUMP STATION ELECTRICAL PLAN AND DETAILS

HIGHWAY STANDARDS

000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR B11

PROJECT ENGINEER: HERVE GELIN PROJECT MANAGER: PHILLIP SAWYER SQUAD LEADER: JEYCEA BOBO

618-346-3175 618-346-3275 618-346-3190

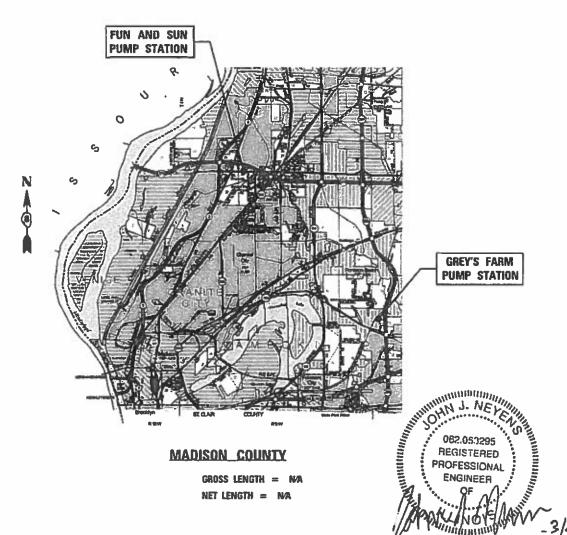
CONTRACT NO. 46526

DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAI 255 / FAI 270 (I-255/I-270) **SECTION D8 PUMP STATIONS 2019 NEW MANUAL TRANSFER SWITCHES** AND MISC. IMPROVEMENTS **MADISON COUNTY**

C-30-008-19



REGISTERED PROFESSIONAL ENGINEER STATE OF ILLINOIS NO. 062-063295 LICENSE EXPIRES NOVEMBER 30, 2019

LOCATION OF SECTION INDICATED THUS: -

KLINGNER & ASSOCIATES, P.C.

Engineers · Architects · Surveyors

Quincy, Illinois STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD, AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
- 2. THE CONTRACTOR SHALL SECURE ANY LOCAL, STATE, COUNTY PERMITS NEEDED FOR THIS PROJECT.
- 3. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION FOR THE PROJECT IN A MANNER AND SEQUENCE THAT ARE BASED ON ACCEPTED INDUSTRY STANDARDS THAT RECOGNIZE THE INTERACTION OF THE COMPONENTS THAT COMPRISE THE STRUCTURE, WITHOUT CAUSING DISTRESS, UNANTICIPATED MOVEMENTS OR IRREGULAR LOAD PATHS AS A RESULT OF THE CONSTRUCTION MEANS AND METHODS EMPLOYED.
- 4. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOAD. THE CONTRACTOR IS RESPONSIBLE FOR ALL DESIGN REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT USED IN CONSTRUCTING THIS PROJECT. SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. UTILITIES LOCATIONS / INFORMATION ON PLANS

ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

- * Ameren Illinois (GAS & ELECTRIC)
- * AT&T Illinois (COMMUNICATIONS)
- * CenturyLink, Inc. (COMMUNICATIONS)
- * City of East St. Louis (LIGHTING)
- * ILLINOIS AMERICAN WATER CO. (WATER)

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY

- 6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- 7. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIAL PROVISIONS CAREFULLY, VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS, PRIOR TO AGREEING TO PERFORM THE WORK. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE CONTRACTOR FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
- 8. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING PUMP STATION BUILDING.
- 9. DRAWINGS ARE NOT TO SCALE.
- 10. THE DEPARTMENT RESERVES THE RIGHT TO NOTIFY THE CONTRACTOR TO CHANGE THE CONSTRUCTION SCHEDULE IF NEEDED TO ENSURE PROPER DEWATERING NEEDS FOR THE DEPARTMENT.
- 11. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES, GRADUATES ARE WELL TRAINED AND READY TO BECOME PRODUCTIVE ENTRY LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

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ö	616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

			URBAN 100% STATE	CONSTR	UCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MADISON 0044	
67100100	MOBILIZATION	L SUM	1	1	
X0783300	PUMP STATION ELECTRICAL WORK	L SUM	1	1	

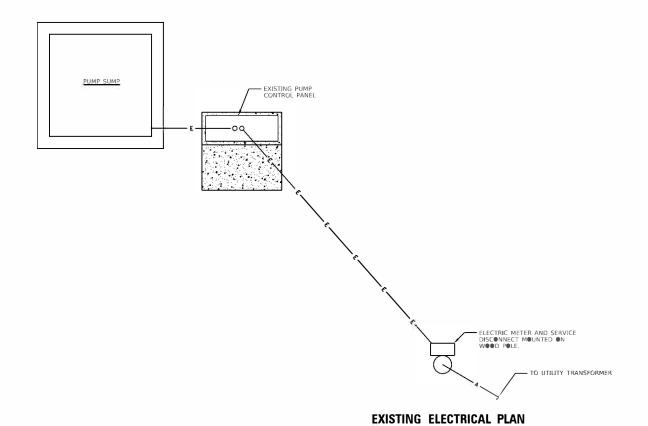
Order 02 - Phase II Pump Station Blanket Agreement\Homeland Security Transfer Switch Projects\Documents

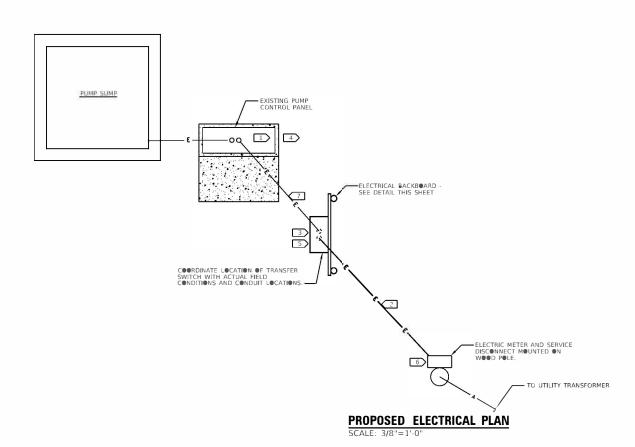
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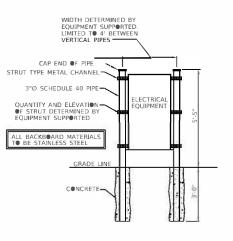
	SUMM	ARY OF	QUANTI	TIES	
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KEY NOTES (APPLICABLE TO THIS SHEET ONLY)

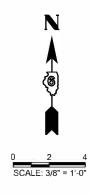
- 1 REMOVE PHASE-TO-GROUND BOND IN EXISTING CONTROL PANEL.
- 2 INSTALL NEW CONDUIT/CONDUCTORS FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH.
- 3 NEW MANUAL TRANSFER SWITCH.
- 4 CONNECT TO EXISTING GEC.
- 5 NEW GENERATOR QUICK CONNECTION ENCLOSURE.
- 6 ESTABLISH PHASE-TO-GROUND BOND WITHIN EXISTING SERVICE DISCONNECT ENCLOSURE.
- 7 MODIFY EXISTING CONDUIT/CONDUCTORS TO TERMINATE AT NEW TRANSFER SWITCH.



ELECTRICAL BACKBOARD DETAIL

TO STA.

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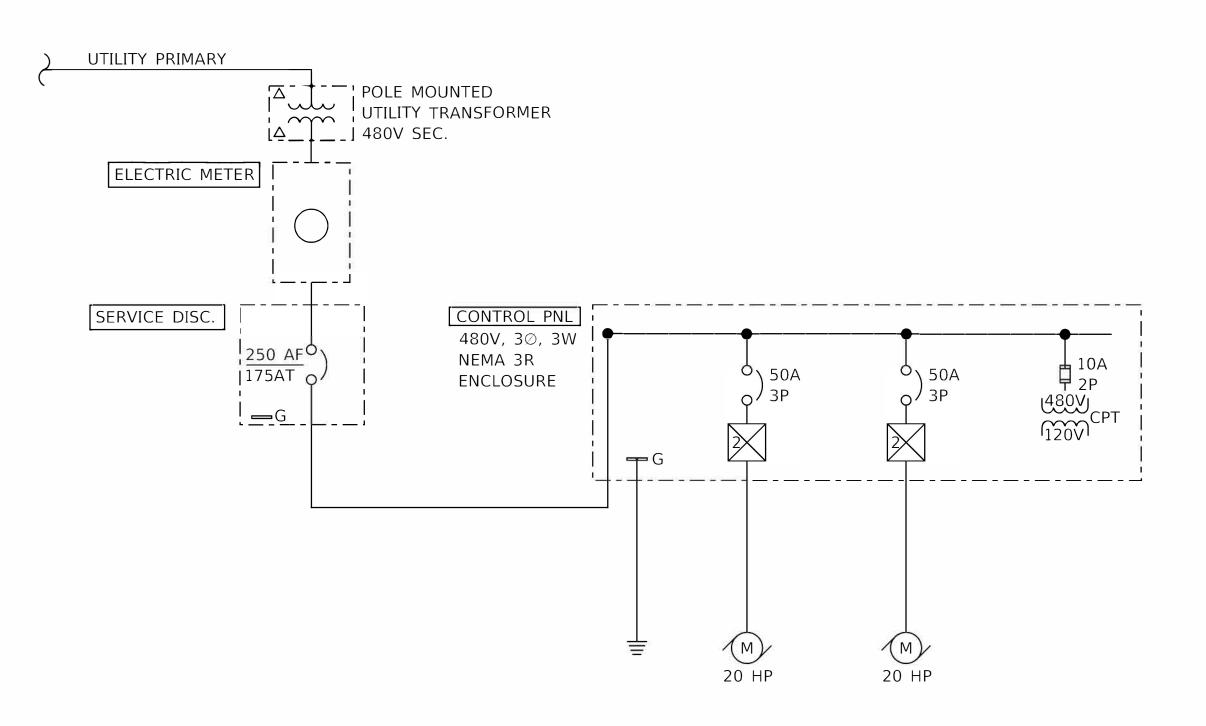
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FUN AND SUN PUMP STATION
ELECTRICAL PLAN AND DETAILS

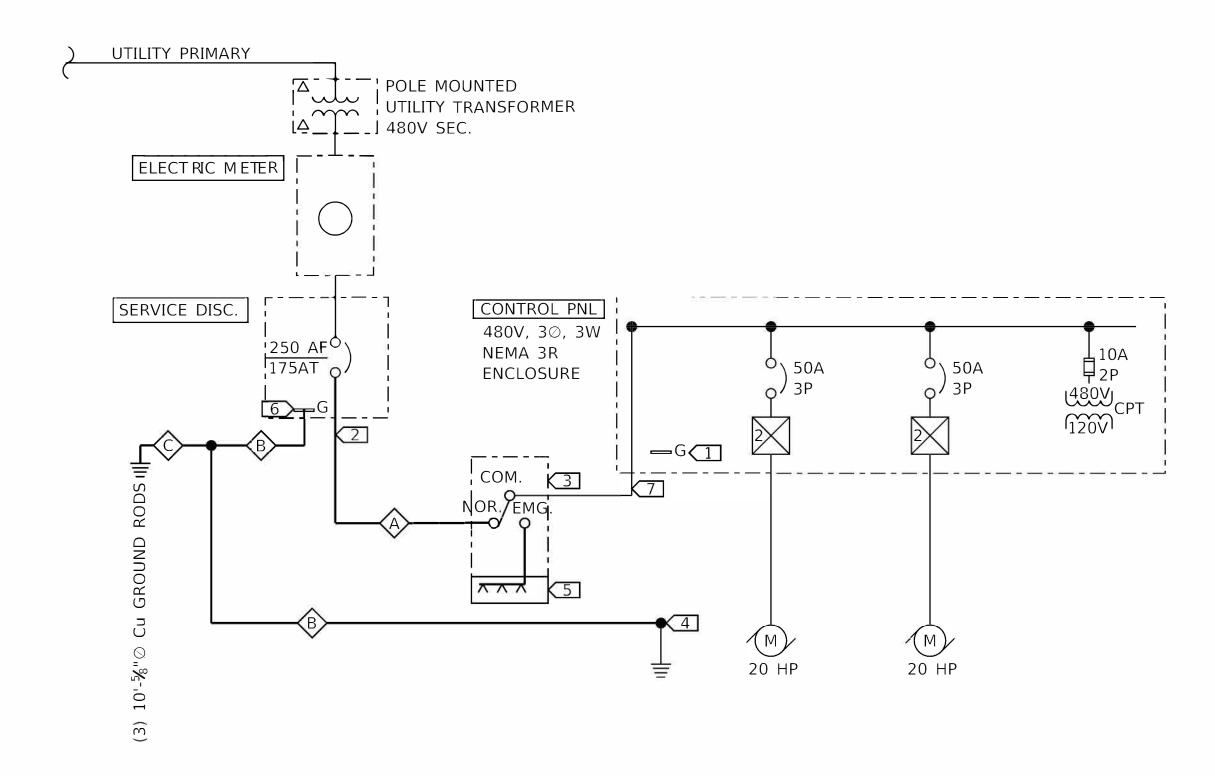
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F.A.I. SECTION COUNTY TOTAL SHEET NO.
255/270 D8 PUMP STATIONS 2019 MADISON 7 4

CONTRACT NO. 46526



EXISTING ONE-LINE DIAGRAM



	FEEDER SCHEDULE									
TAG	NUMBER	PHASE CON	NDUCTORS	NEUTRAL	EGC/	CONDUIT				
IAG	OF SETS	QUANTITY	SIZE	NLUTRAL	GEC	CONDOIL				
\Diamond	1	3	2/0 AWG	-	#6 AWG	2"				
\bigcirc B	1	1	T.	B	#4 AWG	ı				
\Diamond	1	39	300	32	#6 AWG	Ë				

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& ASSOCIATES, P.C.

Engineers • Architects • Surveyors 616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

PROPOSED ONE-LINE DIAGRAM

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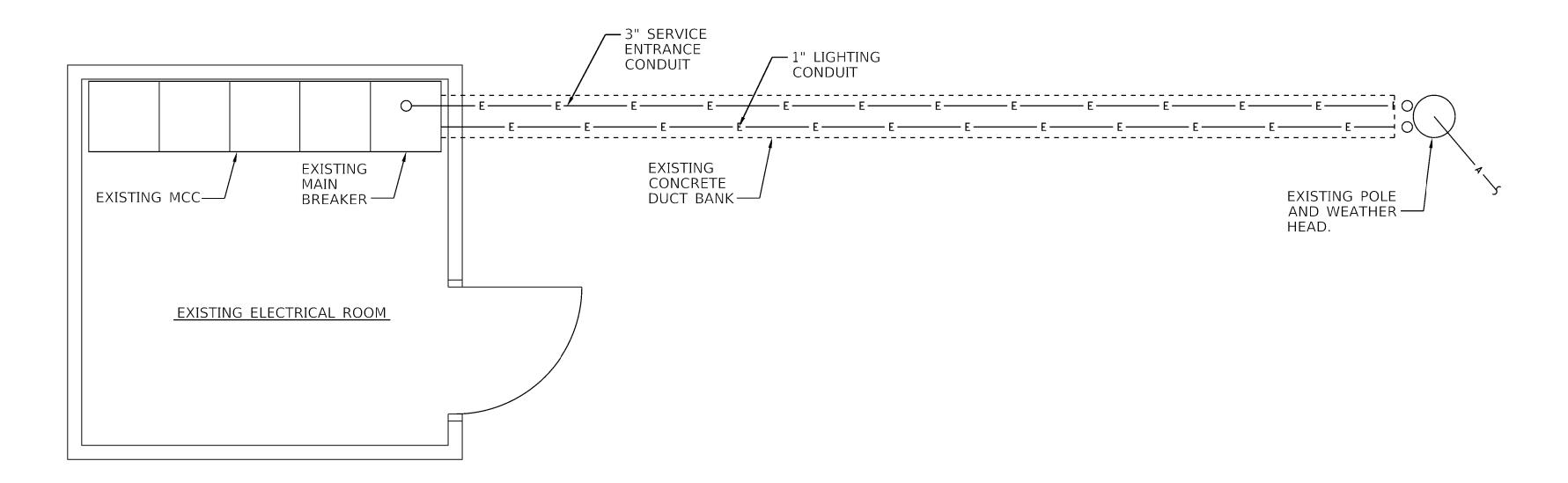
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	FUN AND SUN PUMP STATION							F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STATE OF ILLINOIS	ELECTRICAL ONE-LINE DIAGRAM						255/270	D8 PUMP STATIONS 2019	MADISON	7	5	
DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO. 4	16526	
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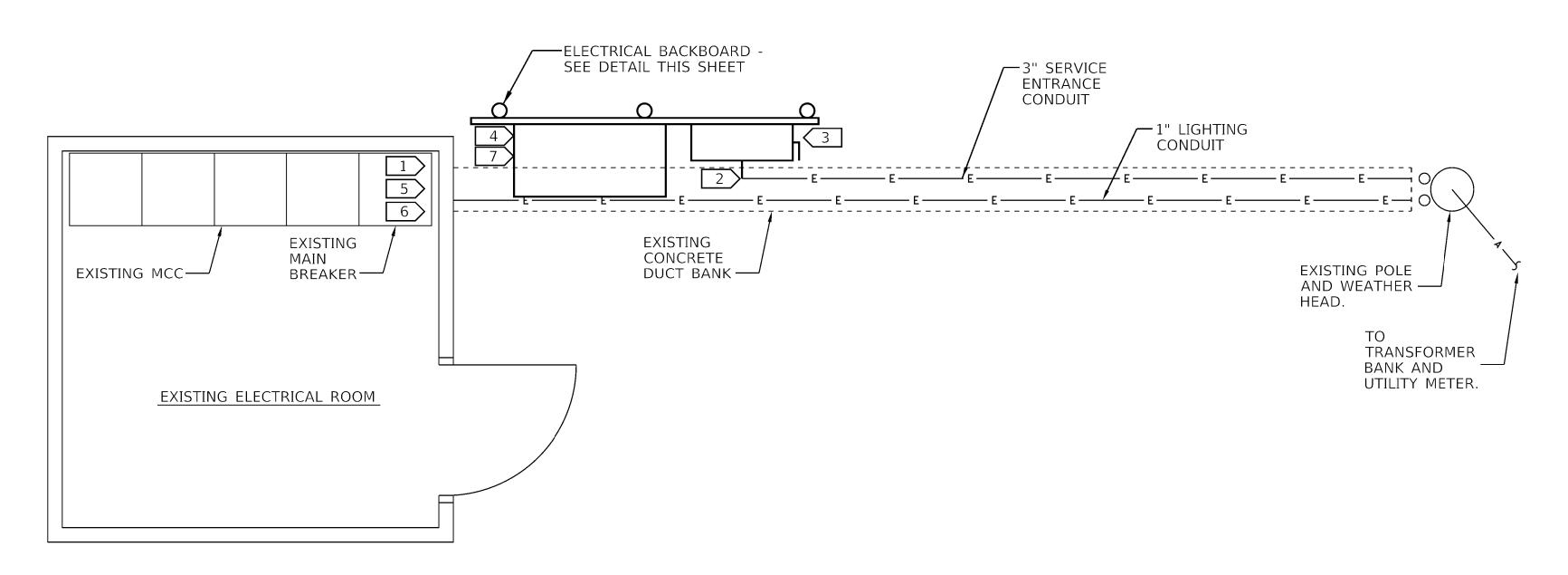
KEY NOTES (APPLICABLE TO THIS SHEET ONLY) 1 REMOVE PHASE-TO-GROUND BOND IN EXISTING CONTROL PANEL. 2 INSTALL NEW CONDUIT/CONDUCTOR FROM SERVICE DISCONNECT TO NEW TRANSFER SWITCH. 3 NEW MANUAL TRANSFER SWITCH. 4 CONNECT TO EXISTING GEC. 5 NEW GENERATOR QUICK CONNECTION ENCLOSURE. 6 ESTABLISH PHASE-TO-GROUND BOND WITHIN EXISTING SERVICE DISCONNECT ENCLOSURE. 7 MODIFY EXISTING CONDUIT/CONDUCTORS TO TERMINATE AT NEW TRANSFER SWITCH.

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EXISTING ELECTRICAL PLAN

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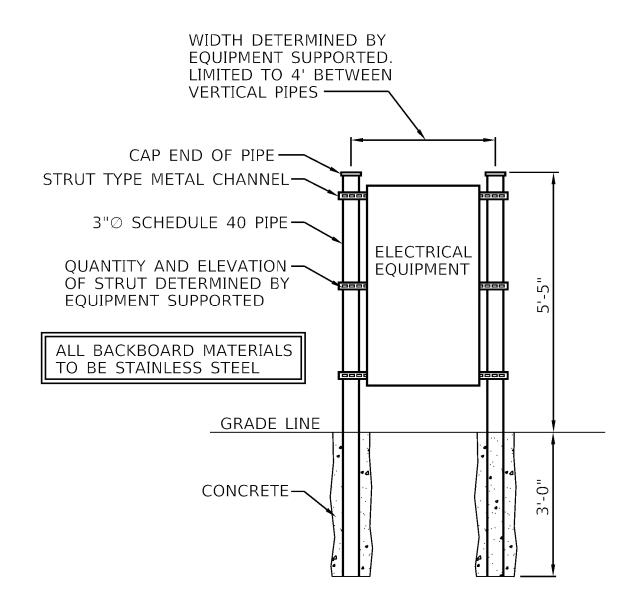


PROPOSED ELECTRICAL PLAN

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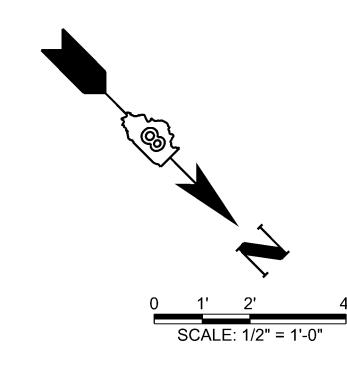
(APPLICABLE TO THIS SHEET ONLY)

- 1 REMOVE NEUTRAL-TO-GROUND BOND IN EXISTING MCC.
- 2 INTERCEPT EXISTING SERVICE ENTRANCE CONDUCTORS AND RE-ROUTE TO NEW SERVICE DISCONNECT SWITCH.
- 3 NEW SERVICE DISCONNECT SWITCH.
- 4 NEW MANUAL TRANSFER SWITCH.
- 5 PROVIDE NEW FEEDERS BETWEEN TRANSFER SWITCH AND EXISTING MCC. ROUTE THROUGH WALL OF PUMP STATION.
- 6 CONNECT TO EXISTING GEC.
- 7 NEW GENERATOR QUICK CONNECTION ENCLOSURE.



ELECTRICAL BACKBOARD DETAIL

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& ASSOCIATES, P.C.	
Engineers · Architects · Surveyors	ΡL
616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738	PL

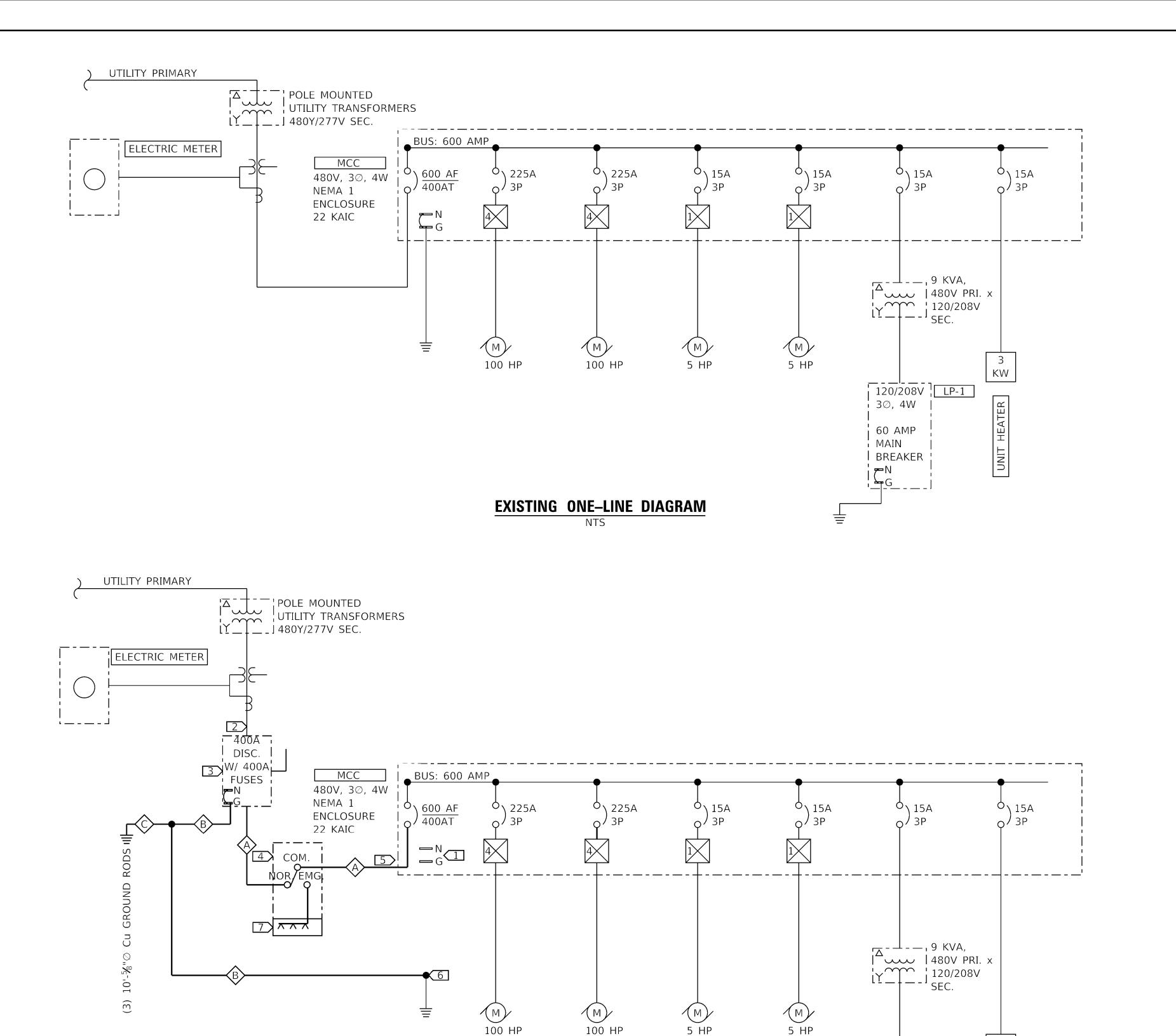
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEE'SHEETS NO.				
255/270	D8 PUMP STATIONS 2019	MADISON	7	6			
		CONTRACT NO. 46526					

ILLINOIS FED. AID PROJECT



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			FEEDER SCH	HEDULE		
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	OF SETS	QUANTITY	SIZE		GEC	
$\langle \rangle$	1	3	500 KCMIL	250 KCMIL	#3 AWG	3"
\bigcirc B \bigcirc	1	-	-	-	1/0 AWG	-
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& ASSOCIATES, P.C.

Engineers • Architects • Surveyors 616 N.24TH ST. QUINCY, ILLINOIS 62301 217.223.3670 STATE OF ILLINOIS DESIGN FIRM NO. 184-2738

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CTATE OF HILINIOIC	GREY'S FARM PUMP STATION					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
STATE OF ILLINOIS	ELECTRICAL ONE-LINE DIAGRAM					255/270	D8 PUMP STATIONS 2019	MADISON	7	7		
DEPARTMENT OF TRANSPORTATION							_		CONTRAC	T NO. 4	6526	
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(APPLICABLE TO THIS SHEET ONLY)

1 REMOVE NEUTRAL-TO-GROUND BOND IN EXISTING MCC.

RE-ROUTE TO NEW SERVICE DISCONNECT SWITCH.

3 NEW SERVICE DISCONNECT SWITCH.

4> NEW MANUAL TRANSFER SWITCH.

6 CONNECT TO EXISTING GEC.

2 INTERCEPT EXISTING SERVICE ENTRANCE CONDUCTORS AND

5 PROVIDE NEW FEEDERS BETWEEN TRANSFER SWITCH AND

7 NEW GENERATOR QUICK CONNECTION ENCLOSURE.

EXISTING MCC. ROUTE THROUGH WALL OF PUMP STATION.