



City of Cleveland
Justin M. Bibb, Mayor

Department of Finance
Division of Purchases & Supplies
601 Lakeside Avenue, Room 128
Cleveland, Ohio 44114-1080
216/664-2620 • Fax: 216/664-2177
www.cleveland-oh.gov

May 31, 2024

ADDENDUM 3

BID TITLE: File No. 55-24 Green Road Pump Station

BID DUE: Thursday, June 27, 2024 at 12 o'clock noon (Eastern Time)

Attention Bidders:

We have been requested to issue the addendum for the following:

Please ensure that a copy of this addendum is included and returned with the bid specifications furnished to you by this office, as it will have the same force and effect as if it were part of the specifications originally issued.

1. Extend the bid due date to June 27, 2024 and extend the last day for questions.
2. Announce another site visit.
3. Bid – Gross Price form – Revise the time of completion.
4. Make changes to the specifications.
5. Make changes to the contract drawings.
6. Answer questions received.

If you have any questions regarding the attached, please contact Jules Gilliam at 216-664-2621. Thank you for your prompt attention and assistance in this matter.

Signature of Potential Bidder & Name of Company

Today's Date

Thank you,

A handwritten signature in black ink, appearing to read "Donia Patterson".

Donia Patterson, Assistant Administrator
Purchases & Supplies

CC:

Attachments

GREEN ROAD PUMP STATION– FILE NO. 55-24

ADDENDUM NO. 3

The bid due date is extended to June 27, 2024 and bids must be date stamped no later than 11:59 a.m. that day.

The last day for questions is extended to June 13, 2024 by 12:00 p.m.

Site Visit:

1. Another site visit will be held on June 6, 2024 from 9:00 a.m. to 12:00 p.m.

Bid – Gross Price Form:

1. Release Addendum No. 3 – Bid – Gross Price form to extend the time of completion to seven hundred thirty (730) consecutive calendar days after Notice to Proceed (NTP). This is the form that must be submitted with the bid.

Changes to the Specifications:

1. Section 01 01 00 – Summary of Work:
 - A. 1.04 C. 1. a. – Replace 365 with 695.
 - B. 1.04 C. 2. a. – Replace 400 with 730
2. Section 40 05 51 – Valves – Basic Requirements - 3.03 A. – Replace the original schedule with the one below:

TYPE	SIZE INCHES	QTY	LOCATION	ACTUATOR	PRESSURE CLASS	SEATING OR UNSEATING	DIRECTION OF SEATING	SECTION
Gate Valve	36	2	Basement	Electric, 480 V, 3 Phase	ANSI CL 150	Seating	Upstream	40 05 61
Butterfly Valve	36	1	Basement	Manual	ANSI CL 150	Both	N/A	40 05 64
Butterfly Valve	24	4	Basement	Manual	ANSI CL 150	Seating	N/A	40 05 64
Ball Check Valve	16	4	Operations Level	Hydraulic Cylinder	ANSI CL 250	N/A	N/A	40 05 63
Butterfly Valve	16	4	Basement	Manual	ANSI CL 250	Seating	N/A	40 05 64
Ball Valve	24	2	Basement	Electric, 480 V, 3 Phase	ANSI CL 250	N/A	N/A	40 05 63
Gate Valve	24	1	Basement	Electric, 480 V, 3 Phase	ANSI CL 250	Both	N/A	40 05 61

The first gate valve has been revised and the last gate valve has been added.

GREEN ROAD PUMP STATION– FILE NO. 55-24

ADDENDUM NO. 3

Changes to the Contract Drawings:

1. G-02: updated drawing index to indicate changes to numbers and titles of I sheets
2. C-03: updated to include concrete repair detail
3. E-06: updated to show the addition of the Local Control Stations (RIOs), the Main Control Panel (PLC), and relocated RTU
4. E-11: updated to show revised LP2 Panel Schedule for addition of four LCPs and updated Main Control Panel
5. E-12: updated to show revised conduit riser for addition of four LCPs and updated Main Control Panel
6. I-04 thru I-08: updated to indicate relocation of RTU panel and installation of new PLC panel
7. I-09 and I-10: new sheets with new pump Local Control Panel detail
8. I-10A and I-10B: new sheets with new Main Control Panel details
9. I-12, I-14 thru I-22: new/updated sheets to provide networking and loop drawings for new PLC panel and pump Local Control Panels

Answers to questions received:

1. Are there American Iron and Steel Requirements for the project?

Answer: No.

2. Drawings indicate to connect to existing input/output cards in the existing relocated RTU. The specifications do not indicate or provide details for any programming of the RTU. Are all pieces of equipment and instrumentation being replaced in kind or will program modifications be required? If modifications are required will an allowance be provided for this task?-

Answer: The electrical contractor will be responsible for relocating the panel, but HSQ will be responsible for RTU modifications and programming changes. This work must be part of the overall bid for the electrical scope of work

3. Please confirm that all pipe, valves and fittings on the suction side is to have 150 lb flanges and that all pipe, valves and fittings on the discharge are to have 250 lb flanges.

Answer: Confirmed.

4. Please advise if there will be an allowance for the relocation of First Energy equipment or if this is to be included in the base bid by the electrical contractor.

Answer: There is no allowance to be included in the base bid. This work must be part of the overall bid for the electrical scope of work.

5. Is storage of materials outside of the pump station fence acceptable if the area is restored to same as existing conditions?

GREEN ROAD PUMP STATION– FILE NO. 55-24

ADDENDUM NO. 3

Answer: Additional staging areas outside of the pump station are the responsibility of the contractor. Any area disturbed due to construction activities should be repaired in kind.

6. Please provide details for concrete pavement replacement and details for repairs to occur on the site. Details for the apron replacement at Green road, repair of concrete around manhole, Remove and replace sunken concrete slab (two locations), repair raise concrete slab to be flush with the adjacent drive shown on C-02.

Answer: Concrete Pavement Detail added to sheet C-03.

7. Please provide more detail along with grades for the legend note on C-02 "Repair existing concrete driveway. Concrete driveway to be sloped away from building."

Answer: Refer to Section 01 02 50 for concrete repair requirements. Slope concrete driveway at a minimum of 1/2" per foot for positive drainage away from building.

8. The third legend item " Remove and replace existing concrete driveway as needed to perform excavation for pipe replacement and as noted in contract documents. All areas not impacted by excavation shall be repaired as per the contract documents". Please provide detail for the concrete in areas to be replaced. The second half of the legend note would lead us to believe that if it is not an area being removed and there is not a note specifically pointed to an area we are not to repair the areas. One example is that there are a number concrete joints that are deteriorated and filled with stone. There is not a detail provided for repairs, they are not called out, and the area will not be impacted by pipe replacement, therefore we would not need to perform any repairs?

Answer: Concrete Pavement Detail added to sheet C-03. Refer to Section 01 02 50 for concrete repair requirements.

9. Drawing C-02 has a note to "Replace Broken PVC Pipe and Install More Fill to Cover." Please specify pipe size, class of pipe, and minimum cover requirements.

Answer: Pipe is standard CMP, contractor to field verify size. Assume 18" for bidding purposes. Pipe cover shall be maximum based on existing elevations.

10. Drawing A-03 would appear to indicate a new roof is to be installed. Please confirm, advise on existing roofing material along with insulation thickness, and advise if the roof structure is sloped or if the slope is to be created with tapered insulation.

Answer: As noted on Drawing A-03, remove and replace all roof system, including flashing, insulation, and gutter. Existing roof structure is flat so tapered roof insulation will be required as specified in Section 07 22 16. Roof shall be sloped at 1/4" per foot.

11. Drawing M-03 would appear to indicate that the existing pipe exiting the basement is steel and the buried pipe to remain (connection point for new pipe) is DIP. Please confirm.

GREEN ROAD PUMP STATION– FILE NO. 55-24

ADDENDUM NO. 3

Answer: Confirmed.

12. The various pipe, valve and specifications contradict each other on the flange class to be used on flanged connections between pipe, pumps, valves and fittings. Please advise if all flanges are to be 150lb bolt patterns. Or if suction is to be 150lb and discharge is to be 250lb.

Answer: Design working pressure is to be 150 PSI for suction flanged connections, and 250 PSI for discharge flanged connections.

13. Please advise if a lead paint study will be provided. This was not referenced in the Asbestos and Hazardous Building Material Survey or specification 02 81 00.

Answer: This will not be provided as this facility was constructed after 1978.

14. First, the valve schedule has 17 valves of 16-inch and larger. Using the plans, we are counting 18 valves.

Answer: The 18 valves of 16-inch and larger shown in the drawings is correct. The 24" gate valve was inadvertently excluded from the schedule in 40 05 51 3.03A. Refer to updated schedule included in the changes to the specifications above.

15. Second, comparing the P&ID drawings with the Valve List, we are having trouble determining the number and size of electric actuated valves. The valve list has (2) 24" electric operated ball valves. Looking at P&ID drawings I-104 and I-104A, there are (5) valves labeled to have electric actuators: South Suction Valve, North Suction Valve, North Throttling Valve, South Throttling Valve, and Discharge Isolation Valve.

Answer: The five valves shown to have motorized actuators in the P&IDs is correct. The actuator for the 36-inch gate valves was inadvertently listed as "Manual" in the schedule in 40 05 51 3.03A. Similarly, the 24-inch gate valve that was excluded from the schedule has an electric actuator. Refer to updated schedule included in the changes to the specifications above.

16. Drawing I-04 shows a number of existing points that do not appear to be indicated on the RTU Loop Drawings. An example is the Chlorine TI-1000 point. Are these points to be landed in the "Marshalling Cabinet"? Is it to be assumed that all points new and existing shown on drawings I-04, I-04A, I-05, I-06, I-07, and I-08 are to be landed in the "Marshalling Cabinet" prior to being pulled to the RTU?

Answer: This is indicated in the updated I drawings above. Marshaling Panel drawings have been removed and PLC Panel drawings have been added.

17. Berrington Pump & Systems are the Xylem/Gould's Vertical Turbine Pump Municipal & Industrial distributors for the entire State of Ohio. We are located in Avon, Ohio on Lear Industrial Parkway in our 30,000sq ft facility. We are a stocking pump distributor and warranty repair facility for Xylem/Gould's VT's. Gould's Vertical pumps are manufactured in Lubbock, Texas and are one of our nation's largest VT manufacturers in the

GREEN ROAD PUMP STATION– FILE NO. 55-24

ADDENDUM NO. 3

US. Gould's is a BaBa manufacturer (Buy America Build America) Enclosed please find enclosed Xylem Gould's performance curves, info and clarifications which meet and or exceeds the specification requirements. We would appreciate your review and consideration to include Xylem/Gould's to your list of acceptable U.S. manufacturers for this project. We hope to hear from you – and look forward to working with you on our project .

Answer: We do not add vendors to approved lists during the bid process. When it says, "or Engineer approved equal", that means at the pre-construction meeting, the winning Contractor using Section 01 25 00 can request substitutions.

18. Can we get the attached American Marsh pumps approved as an equal for section 43 24 05 of this project?

Answer: We do not add vendors to approved lists during the bid process. When it says, "or Engineer approved equal", that means at the pre-construction meeting, the winning Contractor using Section 01 25 00 can request substitutions.

19. Can you confirm the NEMA rating for the following electrical equipment:

- o MCC-1
- o ATS-1
- o 480V Panel
- o 120V Panel (LP1, 2, 3)
- o Transformers
- o Fused Disconnects
- o Service Breaker Remote Operator Panel

Answer:

MCC-1 - NEMA 12
ATS-1 - NEMA 12
480V Panel - NEMA 12
120V Panel (LP1, 2, 3) - NEMA 12
Transformers - NEMA 12
Fused Disconnects - NEMA 4X (Located in the Basement)
Service Breaker Remote Operator Panel - NEMA 12

20. Can you please specify if there are any Corrosive, Highly Corrosive Areas, or Hazardous Areas.

Answer: There are no corrosive areas on the project. Enclosures in basement shall be NEMA 4X.

21. The summary of work states that substantial completion is 365 days from Notice To Proceed. Lead times on electrical gear is typically 50 weeks after release if not longer. Additionally pumps and large diameter valves can take 30-50 weeks are release. Please advise if the project duration is going to be modified.

GREEN ROAD PUMP STATION– FILE NO. 55-24

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Answer: See changes to the specifications above.

Answers to questions received but not answered above will be addressed in a forthcoming addendum.

NOTE: THIS BID MUST BE SIGNED IN THE SPACE INDICATED. ERASURES MAY INVALIDATE THIS BID.

CITY OF CLEVELAND

BID - GROSS PRICE

To: Tiffany Johnson

The Commissioner of Purchases and Supplies

BID FOR Green Road Pump Station

for the Department of Public Utilities, Division of Water

The Undersigned certifies that he has carefully examined the Contract Documents as defined in the General Conditions of the Invitation to Bid and has inspected the site of the projected work.

The Undersigned declares that the amount and nature of the work to be done is understood, and that at no time will misunderstanding of the Contract Documents be pleaded.

On the basis of the Contract Documents the Undersigned proposes to furnish all necessary apparatus, machinery, tools and other means of construction, to do all the work and furnish all the materials in the manner specified, to finish the entire project within the time hereinafter proposed, and to accept as full compensation therefor the sum or sums set forth on the next succeeding page or pages.

The Undersigned understands that the prices above set forth cover the cost of all materials to be furnished and work to be performed in the construction and installation of the various items of the public improvement bid upon, complete and ready for service, and includes the cost of bonds, insurance, sales tax, and every other item of expense incident to the contract.

The Undersigned further proposes to execute the Contract Agreement and to furnish satisfactory bond within five (5) days, excluding Saturdays, Sundays and holidays, after notice of award of contract has been received.

The Undersigned further proposes to begin work as specified in the General Conditions set forth in the Invitation to Bid, and to complete the work at the time fixed by the Director, which is seven hundred thirty (730) consecutive calendar days after Notice to Proceed (NTP).

The Undersigned deposits with this Bid a Bid Bond to the City of Cleveland signed by a surety company authorized to do business in Ohio, in the sum of \$ _____, or a cashier's check or certified check on a solvent bank in the sum of \$ _____, payable to the City of Cleveland, as security that if he be awarded the contract, he will enter into a written contract and secure the performance of the same by a bond of an approved surety company authorized to do business in Ohio and satisfactory to the Director of Law, in the sum equal to the total price bid and in conformity with the provisions of The Codified Ordinances of Cleveland, Ohio 1976.

The Undersigned further agrees that if the Bid is accepted and contract awarded and he shall fail to execute said contract and furnish the satisfactory bond, as required, within the time above specified, then the City may, at its option, declare the contract abandoned and this Bid null and void. Thereupon the penal sum of the Bid Bond shall become due to the City, or the certified or cashier's check shall be forfeited to and become the property of the City, as liquidated damages. Otherwise, the Bid Bond or the certified or cashier's check, or the amount of such check shall be returned to the Undersigned.

The Undersigned further certifies that he (as an individual, firm or corporation making this Bid) is not in arrears or default to the City of Cleveland upon any debt or contract, nor is a defaulter as surety or otherwise upon any obligation to said City, nor has failed to perform faithfully any previous contract with said City and that there is no suit or claim pending as to any such arrears or default.

The Undersigned agrees to be bound by this Bid until 120 days after bid due date.

THE UNDERSIGNED UNDERSTANDS THAT THE CITY RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.

SIGN HERE X _____

Title of Officer

The firm, corporation, or individual name MUST BE SIGNED IN SPACE INDICATED.

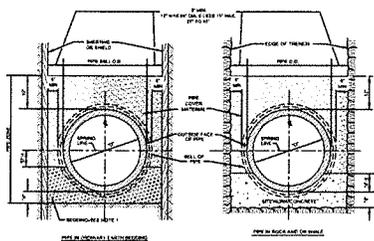
Business Address of Bidder

If the Bidder is a firm, or corporation, the title of the officer signing and the State in which incorporated must be indicated.

State where incorporated

NOTE: Bidder must fill in all blank spaces on this page with required information and signature; and must insert the price of each and every item of the work in the spaces provided in the next succeeding bid sheets and sign and insert date in the indicated spaces thereon.

ISSUED FOR BID

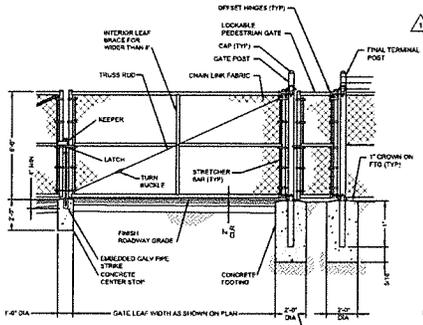
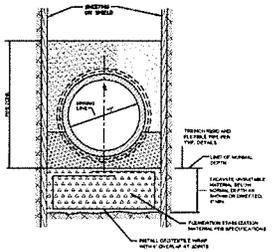


TRENCH NOTES:

- PIPE BEDDING SHALL COMPLY WITH THE FOLLOWING PROVISIONS:
 - 8" BEDDING DEPTH OF 6" TO 10" AP. PIPE
 - 8" BEDDING DEPTH OF 4" FOR PIPE SIZES GREATER THAN 6", THE MINIMUM DEPTH OF THE BEDDING SHALL BE 2" BELOW THE PIPE BELLS, & ANY, BUT IN NO CASE SHALL THE BEDDING BE LESS THAN 4"
 - PIPE DIAMETERS SMALLER THAN 4" SHALL HAVE A MINIMUM 2" BEDDING DEPTH
- ALL JOINTS WITHIN 2'-0" HORIZONTALLY OF THE ENDS OF BUILDING CONNECTIONS, BRANCHES OR STUBS AND DOWN TO A HORIZONTAL PLANE 1' BELOW THE BOTTOMS OF SUCH CONNECTIONS, BRANCHES OR STUBS SHALL BE EXCAVATED.
- REQUIREMENTS FOR TRENCH EXCAVATION AND BACKFILL BELOW NORMAL DEPTH ARE DESCRIBED IN THE SPECIFICATIONS.
- REQUIREMENTS FOR USE OF GOLF TEE ARE DESCRIBED IN THE SPECIFICATIONS.

TRENCH MATCH LEGEND:

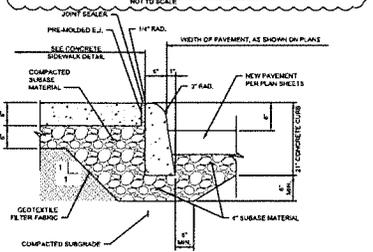
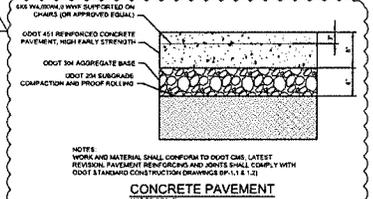
- PIPE COVER MATERIAL
- PIPE BEDDING
- SITEWORK CONCRETE
- STABILIZATION MATERIAL



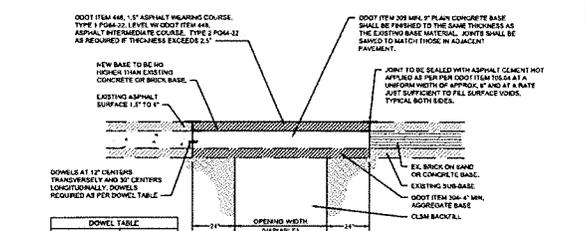
GATE POST SCHEDULE	
LEAF SPAN	NOMINAL PIPE SIZE (NPS)
2'-0"	3"
4'-0"	4"
6'-0"	6"
8'-0"	8"
10'-0"	10"

NOTE: USE 3/4" DIA CONCRETE FOOTING HOLE FOR POST DIAMETERS 3" AND LESS. USE 4" DIA CONCRETE FOOTING HOLE FOR POST DIAMETERS GREATER THAN 3".

CHAIN LINK GATE
NOT TO SCALE



6" CONCRETE CURB WITH SIDEWALK
NOT TO SCALE

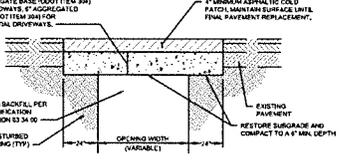


DOWEL TABLE

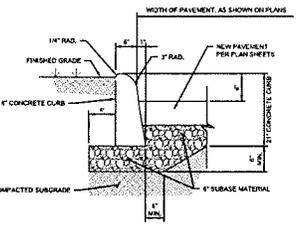
PAYMENT THICKNESS	DIAM. OF DOWEL
4" OR LESS	1/2"
4" - 6"	3/4"
6" - 8"	1"
8" - 12"	1 1/4"
OVER 12"	AS DIRECTED

DOWELS SHALL BE SPACED EVERY 30"

FULL DEPTH RESTORATION OF ASPHALT PAVEMENT ON CONCRETE OR BRICK BASE
NOT TO SCALE



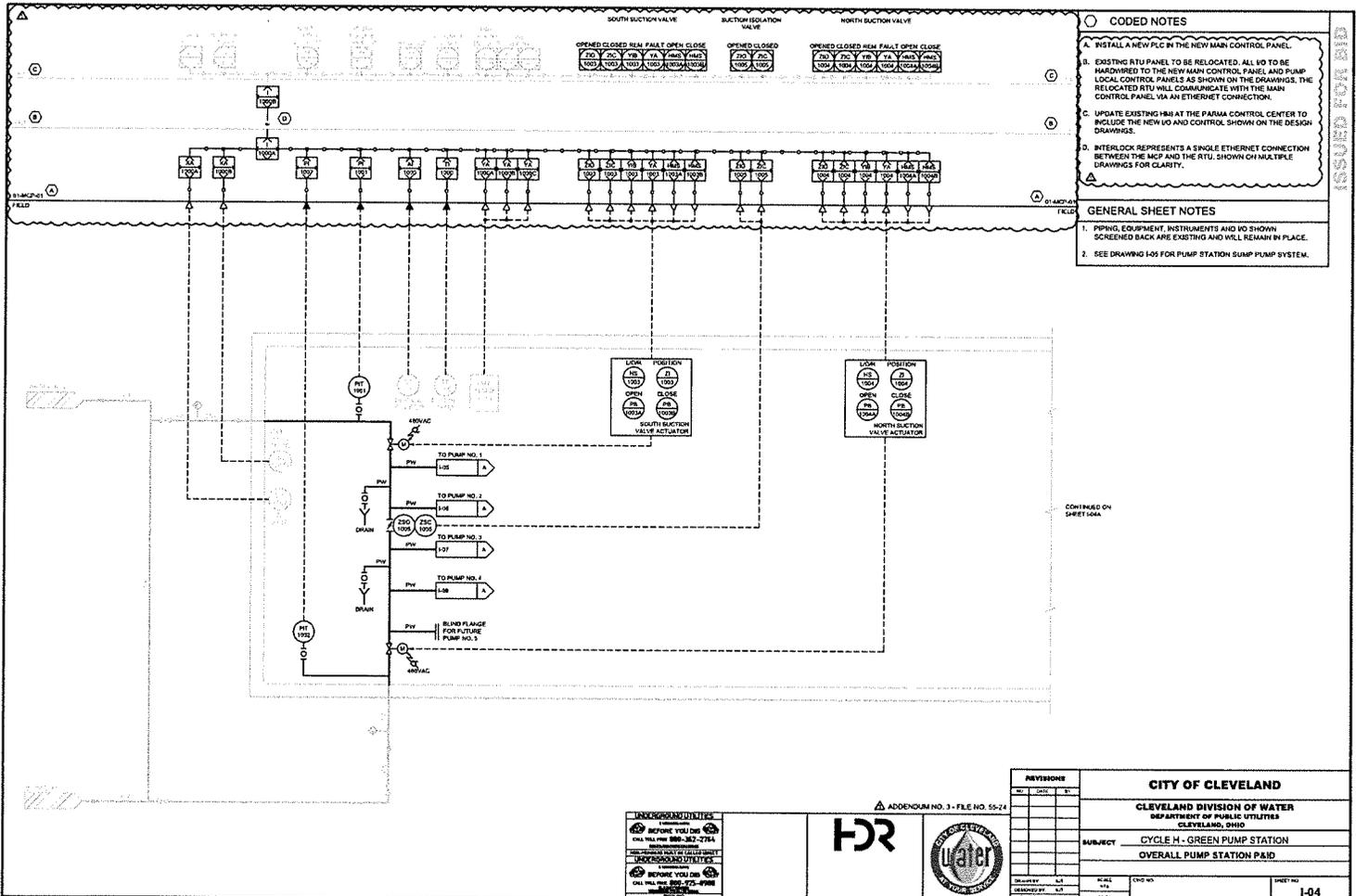
TEMPORARY ASPHALT PAVEMENT
NOT TO SCALE



6" CONCRETE CURB WITHOUT SIDEWALK
NOT TO SCALE



<p>ADDENDUM NO. 3 - F.L.E. NO. 55-24</p>		
<p>CITY OF CLEVELAND</p>		
<p>CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO</p>		
<p>SUBJECT: CYCLE H - GREEN PUMP STATION</p>		
<p>CIVIL DETAILS</p>		
<p>DESIGNED BY: [] CHECKED BY: [] DATE: 12/05/11</p>	<p>PLAN NO. [] SHEET NO. []</p>	<p>SHEET NO. [] C-03</p>



CODED NOTES

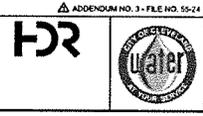
- A. INSTALL A NEW PLC IN THE NEW MAIN CONTROL PANEL.
- B. EXISTING RTU PANEL TO BE RELOCATED. ALL I/O TO BE HARDWIRED TO THE NEW MAIN CONTROL PANEL AND PUMP LOCAL CONTROL PANELS AS SHOWN ON THE DRAWINGS. THE RELOCATED RTU WILL COMMUNICATE WITH THE MAIN CONTROL PANEL VIA AN ETHERNET CONNECTION.
- C. UPDATE EXISTING I/M AT THE PARAMA CONTROL CENTER TO INCLUDE THE NEW I/O AND CONTROL SHOWN ON THE DESIGN DRAWINGS.
- D. INTERLOCK REPRESENTS A SINGLE ETHERNET CONNECTION BETWEEN THE MCP AND THE RTU. SHOWN ON MULTIPLE DRAWINGS FOR CLARITY.

GENERAL SHEET NOTES

- 1. PIPING, EQUIPMENT, INSTRUMENTS AND I/O SHOWN SCREENED BACK ARE EXISTING AND WILL REMAIN IN PLACE.
- 2. SEE DRAWING I-05 FOR PUMP STATION SUMP PUMP SYSTEM.

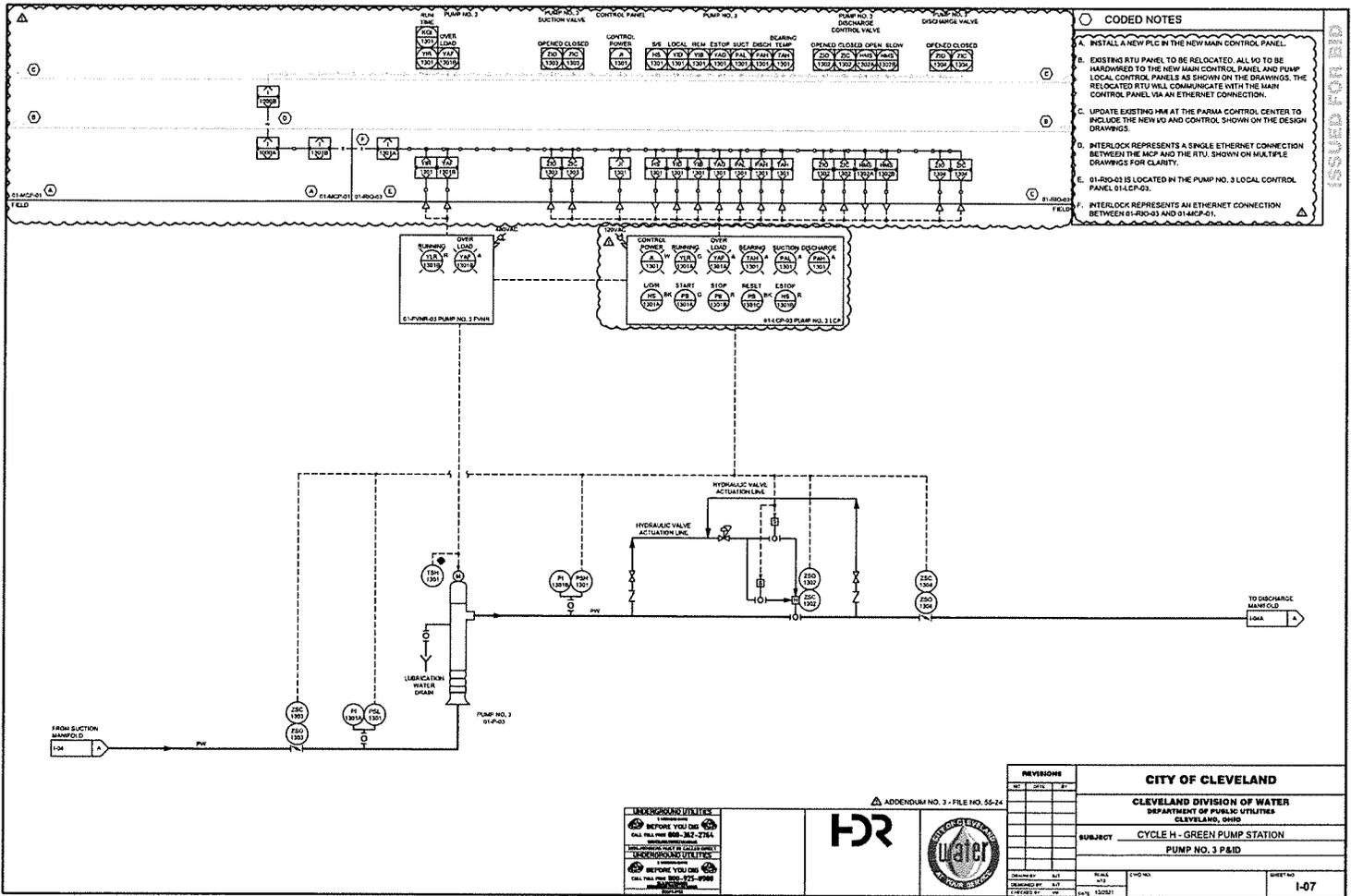
CONTINUES ON SHEET I-04

DISKING AND UTILITIES
 BEFORE YOU DISK
 CALL THE NUMBER 888-382-2764
 FOR THE DISKING SCHEDULE SHEET
 DISKING AND UTILITIES
 BEFORE YOU DISK
 CALL THE NUMBER 888-382-2764
 FOR THE DISKING SCHEDULE SHEET
 DISKING AND UTILITIES



REVISIONS NO. DATE BY		CITY OF CLEVELAND CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO
SUBJECT: CYCLE H - GREEN PUMP STATION OVERALL PUMP STATION P&ID		
DRAWN BY: L.R. CHECKED BY: L.R. DESIGNED BY: W.	SCALE: 1/8" = 1'-0" DATE: 12/20/11	SHEET NO.: I-04

ADDENDUM NO. 3 - FILE NO. 55-24

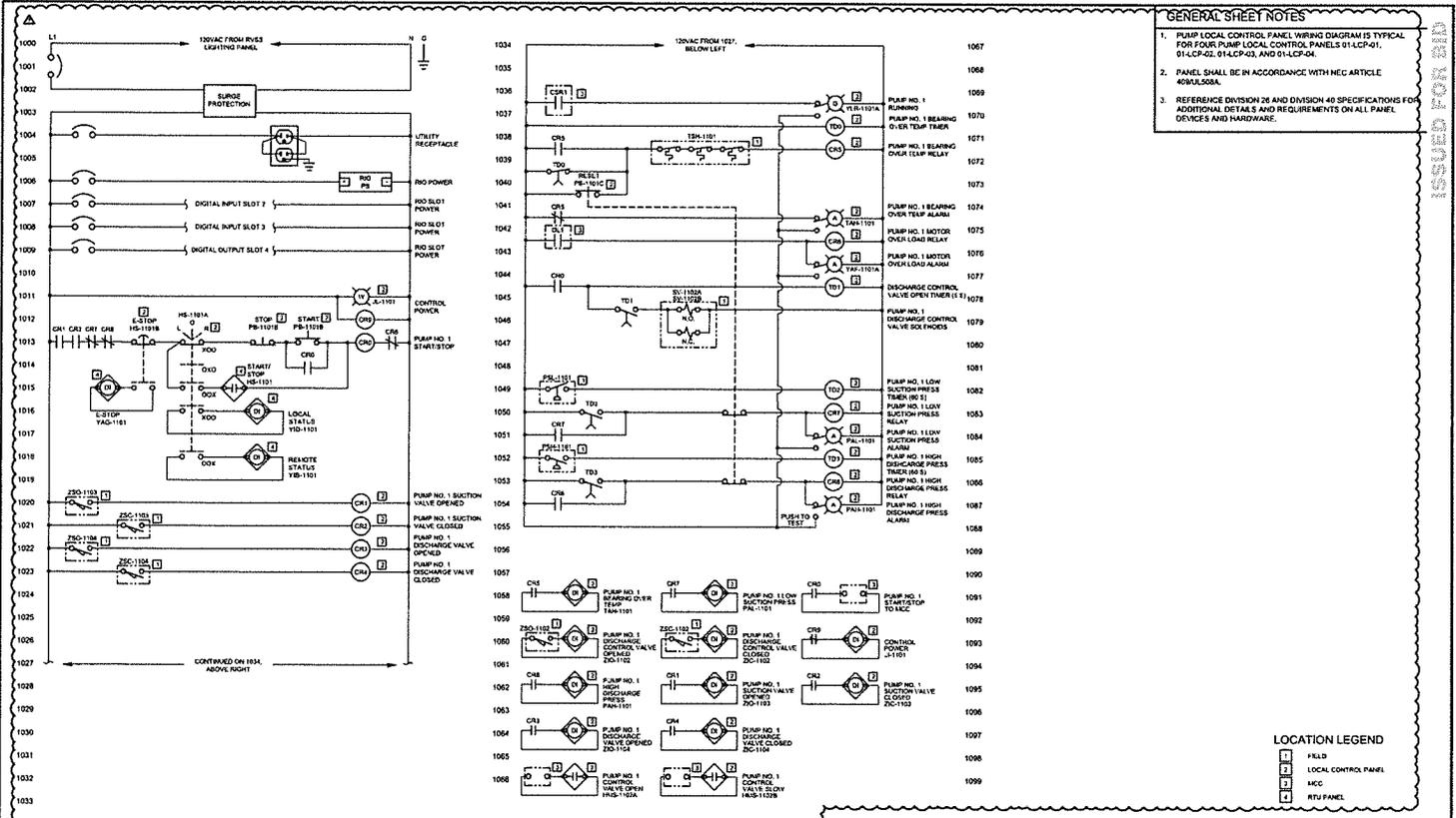


BEFORE YOU DRINK
 FROM ANY WATER SUPPLY
 CONTACT THE
 CLEVELAND DIVISION OF WATER
 DEPARTMENT OF PUBLIC UTILITIES
 CLEVELAND, OHIO



REVISIONS NO. DATE BY			CITY OF CLEVELAND CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO	
ADDENDUM NO. 3 - FILE NO. 55-24			SUBJECT: CYCLE H - GREEN PUMP STATION PUMP NO. 3 P&ID	
DRAWN BY: [blank] CHECKED BY: [blank] DATE: 12/01/11	SCALE: [blank] SHEET NO: 1-07			

- GENERAL SHEET NOTES**
1. PUMP LOCAL CONTROL PANEL WIRING DIAGRAM IS TYPICAL FOR FOUR PUMP LOCAL CONTROL PANELS 01-LCP-01, 01-LCP-02, 01-LCP-03, AND 01-LCP-04.
 2. PANEL SHALL BE IN ACCORDANCE WITH NEC ARTICLE 409.15(B).
 3. REFERENCE DIVISION 26 AND DIVISION 40 SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS ON ALL PANEL DEVICES AND HARDWARE.



PUMP NO. 1 CONTROL SCHEMATIC

ADDENDUM NO. 3 - F.E.E. NO. 55-24

WARNING/NOTICES

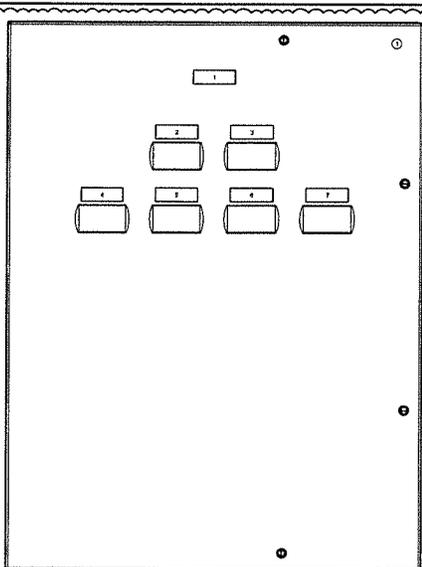
BEFORE YOU DO ANY WORK, MAKE SURE YOU HAVE THE RIGHT TOOLS AND EQUIPMENT.

BEFORE YOU DO ANY WORK, MAKE SURE YOU HAVE THE RIGHT TOOLS AND EQUIPMENT.

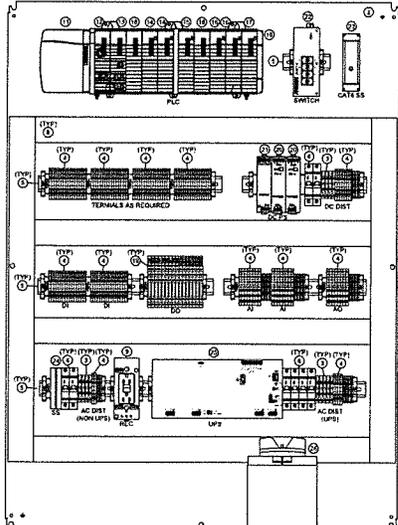
BEFORE YOU DO ANY WORK, MAKE SURE YOU HAVE THE RIGHT TOOLS AND EQUIPMENT.



REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY	CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO	
			SUBJECT: CYCLE H - GREEN PUMP STATION	
			PUMP LOCAL CONTROL PANEL DETAILS 2 OF 2	
DESIGNED BY: L.T.	SCALE: 1/8"	CAD NO:	SHEET NO: I-10	
DRAWN BY: E.T.	DATE: 12/20/11			



MAIN CONTROL PANEL FRONT DOOR LAYOUT



MAIN CONTROL PANEL BACK PANEL LAYOUT

- GENERAL SHEET NOTES**
1. PROVIDE PANEL OF SUFFICIENT SIZE TO ACCOMMODATE ALL REQUIRED TERMINAL BLOCKS, CONTROL RELAYS AND CONTROL WIRING CONDUIT ENTRIES. REFERENCE THE PAIDS FOR FIELD CONNECTIONS TO THE PUMP LOCAL CONTROL PANELS.
 2. CONTRACTOR SHALL SUPPLY THE TYPE AND QUANTITY OF PLC CHASSIS, PLC MODULES, AND ANCILLARY HARDWARE AS REQUIRED TO ACCOMMODATE ALL I/O, INCLUDING 20% FUTURE GROWTH. EXISTING GROWTH PROVISIONS.
 3. PANEL SHALL BE IN ACCORDANCE WITH NEC ARTICLE 409A.50(B).
 4. THE PLC PANEL LAYOUT DRAWING SHOWS THE GENERAL ARRANGEMENT OF THE HARDWARE. THE CONTRACTOR IS RESPONSIBLE FOR THE DETAILED PANEL DESIGN, INCLUDING PANEL SIZING AND THE QUANTITY AND TYPE OF HARDWARE SHOWN IN THE LIST OF PANEL EQUIPMENT.
 5. FOR ALL PANELS CONTAINING WIRING NOT DE-ENERGIZED BY THE PANEL MAIN DISCONNECTING MEANS OR CIRCUIT BREAKER, PROVIDE A WARNING NAMEPLATE ON THE FRONT OF THE PANEL STATING "WARNING: YELLOW WIRING NOT DE-ENERGIZED BY PANEL DISCONNECTING MEANS". THE NAMEPLATE SHALL BE YELLOW WITH BLACK 1/4" HIGH LETTER ENGRAVING AND SHALL BE ATTACHED TO THE PANEL FACE WITH STAINLESS STEEL SCREWS.
 6. SIZE UPS FOR A MINIMUM OF 15 MINUTES UP TIME.
 7. REFERENCE DIVISION 26 AND DIVISION 40 SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS ON ALL PANEL DEVICES AND HARDWARE.

MAIN CONTROL PANEL BILL OF MATERIALS

ITEM NO.	QTY	MFR	MODEL	DESCRIPTION
1	1	HOFFMANN	CD20351555 (A)	48"X36"X10" REMA 48 THE 59 PANEL (A)
2	1	HOFFMANN	CF4030	FULL BACK PANEL FOR ITEM 1
3	AR	ALLEN-BRADLEY	1841TY SERIES	TERMINAL BLOCKS, END ANCHORS, END BARRIERS AND MARKER CARDS
4	AR	ALLEN-BRADLEY	1492J SERIES	TERMINAL BLOCKS, END ANCHORS, END BARRIERS AND MARKER CARDS
5	AR	ALLEN-BRADLEY	1492JON	MODULAR DIN RAIL MOUNTING CHANNEL
6	AR	ALLEN-BRADLEY	1492JPN	MINIATURE CIRCUIT BREAKER - 1-POLE
7	8	PRECISIONDIGITAL	PD0400	DIGITAL PANEL DISPLAY
8	AR	PANDECT	PANELMAX ONO SERIES	WIREWAYS AND COVER, SIZE TO ACCOMMODATE GROWTH PROVISIONS
9	1	PHOENIX CONTACT	EO-48 SERIES	DIN RAIL MOUNTED DUPLEX RECEPTACLE
10	1	ALLEN-BRADLEY	1756-A7	PS-07 PLC CHASSIS
11	1	ALLEN-BRADLEY	1756-A2	PLC POWER SUPPLY
12	1	ALLEN-BRADLEY	1756-L32	PLC PROCESSOR
13	1	ALLEN-BRADLEY	1756-LNTR	ETHERNET COMMUNICATIONS MODULE
14	2	ALLEN-BRADLEY	1756-IB16	16-POINT DIGITAL INPUT MODULE
15	1	ALLEN-BRADLEY	1756-OB16	16-POINT DIGITAL OUTPUT MODULE
16	2	ALLEN-BRADLEY	1756-EB1	8-CHANNEL ANALOG INPUT MODULE
17	1	ALLEN-BRADLEY	1756-OB16	8-CHANNEL ANALOG OUTPUT MODULE
18	2	ALLEN-BRADLEY	1756-IB16	16-POINT DIGITAL INPUT MODULE
19	AR	ALLEN-BRADLEY	1704-PL	INTERLOCKING RELAY
20	2	ALLEN-BRADLEY	1406-KLE SERIES	24VDC POWER SUPPLY
21	1	ALLEN-BRADLEY	1406-KLE SERIES	24VDC POWER SUPPLY REDUNDANCY MODULE
22	1	ALLEN-BRADLEY	1756-IB16	16-POINT DIGITAL INPUT MODULE
23	1	EDCO	CATS-POL	ETHERNET SURGE SUPPRESSOR
24	1	EDCO	SLAG-103M	100VAC SURGE SUPPRESSOR
25	1	PHOENIX CONTACT	QUINT-UPS5 SERIES	5WATT/15MINUTE POWER SUPPLY
26	1	PHOENIX CONTACT	UPS-BAT SERIES	BATTERY MODULE FOR UNINTERRUPTIBLE POWER SUPPLY

LCP NAMEPLATE LEGEND

NAMEPLATE	NAMEPLATE TEXT
1	MAIN CONTROL PANEL
2	NORTH SUCTION MANIFOLD PRESSURE
3	SOUTH SUCTION MANIFOLD PRESSURE
4	NORTH DISCHARGE MANIFOLD PRESSURE
5	NORTH DISCHARGE MANIFOLD FLOW
6	SOUTH DISCHARGE MANIFOLD PRESSURE
7	SOUTH DISCHARGE MANIFOLD FLOW



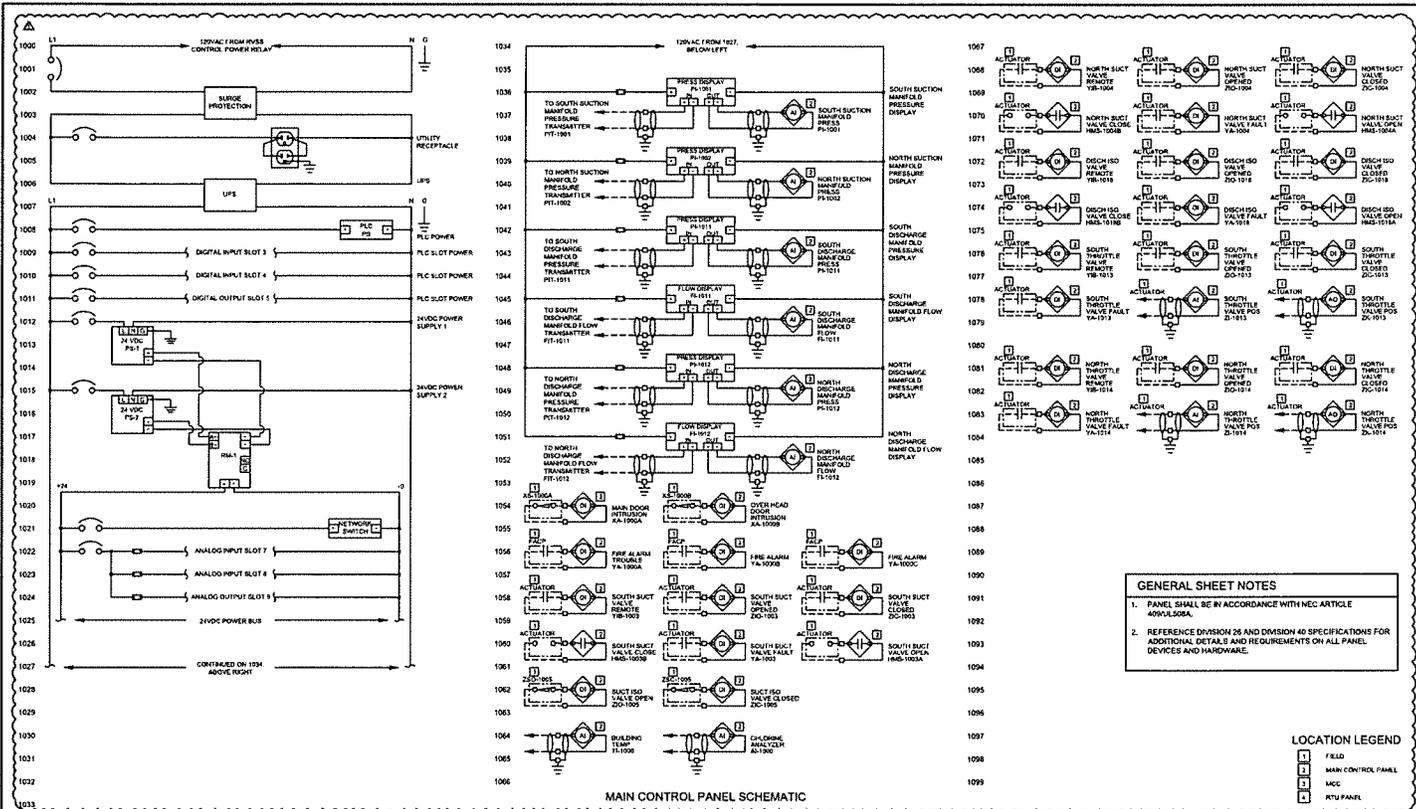
ADDENDUM NO. 3 - FILE NO. 55-24

REVISIONS		
NO.	DATE	BY

CITY OF CLEVELAND
CLEVELAND DIVISION OF WATER
 DEPARTMENT OF PUBLIC UTILITIES
 CLEVELAND, OHIO

SUBJECT: CYCLE H - GREEN PUMP STATION
 MAIN CONTROL PANEL DETAILS 1 OF 2

DESIGNED BY: BIT
 CHECKED BY: MW
 SCALE: 1/8" = 1'-0"
 DATE: 12/20/17
 SHEET NO: I-10A

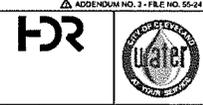


GENERAL SHEET NOTES

- PANEL SHALL BE IN ACCORDANCE WITH NEC ARTICLE 407.05(A).
- REFERENCE DIVISION 28 AND DIVISION 46 SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS ON ALL PANEL DEVICES AND HARDWARE.

LOCATION LEGEND

1	FIELD
2	MAN CONTROL PANEL
3	MCC
4	RTU PANEL

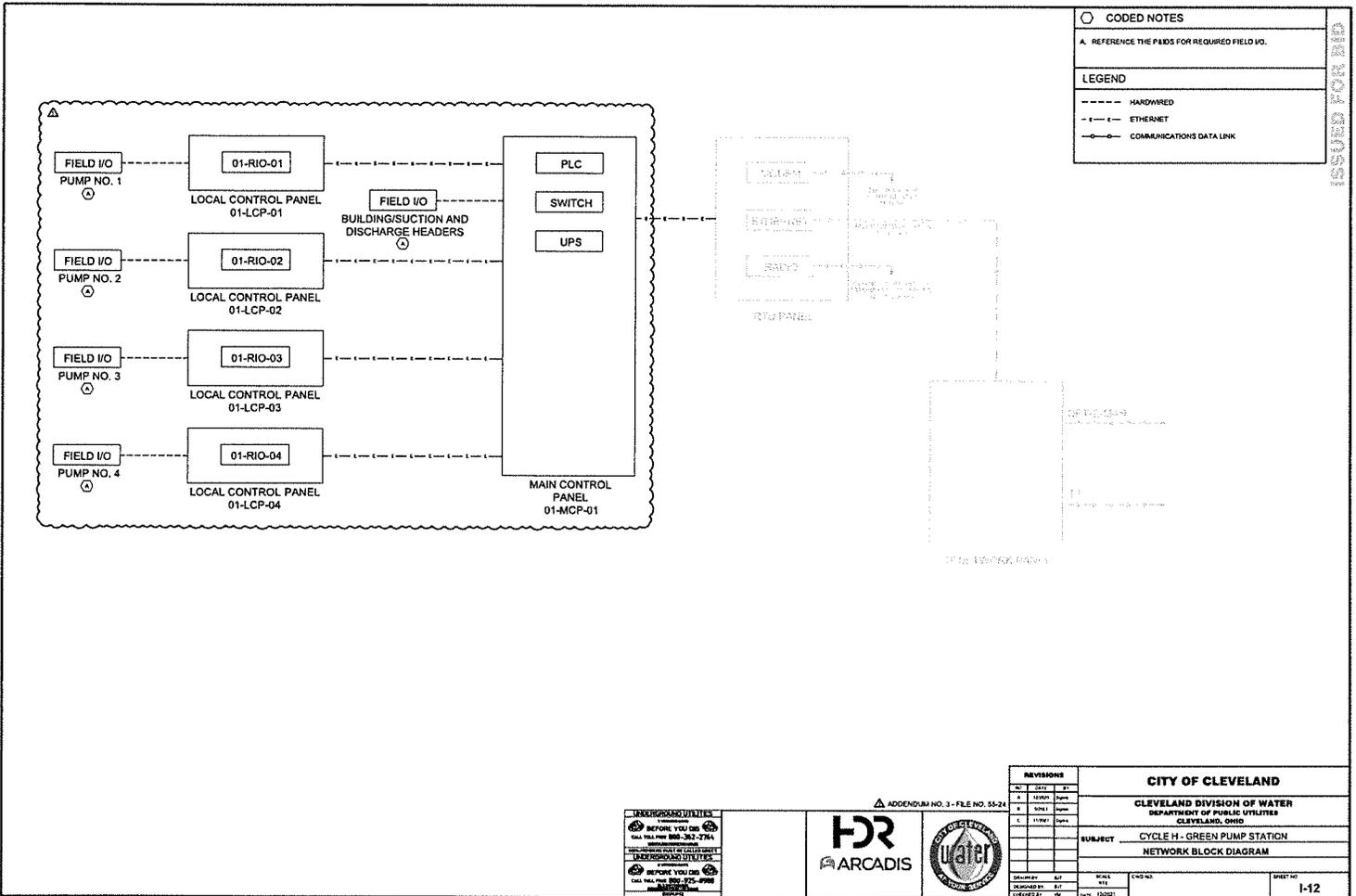


REVISIONS			
NO.	DATE	BY	DESCRIPTION

CITY OF CLEVELAND
CLEVELAND DIVISION OF WATER
 DEPARTMENT OF PUBLIC UTILITIES
 CLEVELAND, OHIO

SUBJECT: CYCLE H - GREEN PUMP STATION
MAIN CONTROL PANEL DETAILS 2 OF 2

DESIGNED BY: LIT	SCALE: NTS	CHECKED BY: LIT	SHEET NO: I-10B
DRAWN BY: LIT	DATE: 10/20/11		

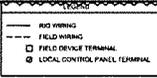


○	CODED NOTES
A.	REFERENCE THE PIDS FOR REQUIRED FIELD I/O.
LEGEND	
---	HARDWIRED
- - - -	ETHERNET
○-○	COMMUNICATIONS DATA LINK

ADDENDUM NO. 3 - FILE NO. 55-24



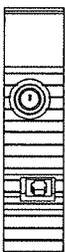
REVISIONS		CITY OF CLEVELAND	
NO.	DATE	CITY OF CLEVELAND	
A	1/1/11	CLEVELAND DIVISION OF WATER	
B	1/1/11	DEPARTMENT OF PUBLIC UTILITIES	
C	1/1/11	CLEVELAND, OHIO	
SUBJECT		CYCLE H - GREEN PUMP STATION	
SUBJECT		NETWORK BLOCK DIAGRAM	
DESIGNED BY	DATE	CHECKED BY	SHEET NO.
1/1/11	1/1/11	1/1/11	I-12



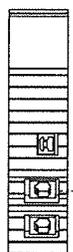
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CONTROL LOGIC
PROCESSOR
176-4018
RACK 6 SLOT 80



CONTROL LOGIC
NETWORK MODULE
176-4018
RACK 6 SLOT 51



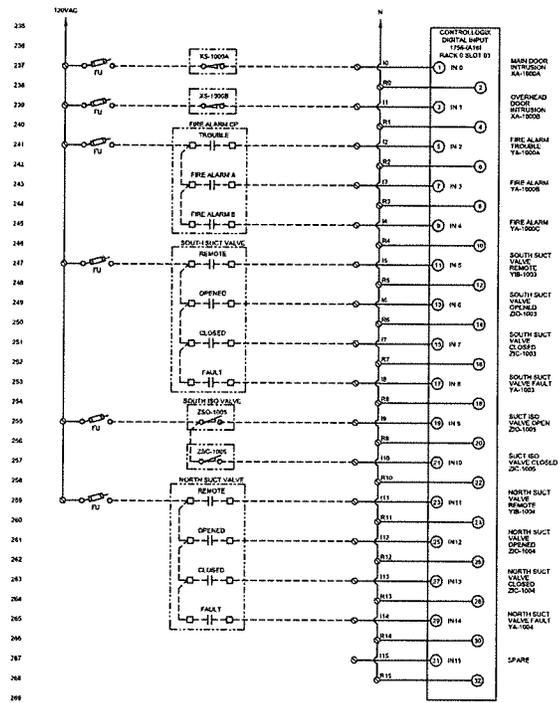
TO MAIN CONTROL PANEL
ETHERNET SWITCH

REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY	CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO	
1	10/20/11	WWS		
2	10/20/11	WWS		
SUBJECT			CYCLE H - GREEN PUMP STATION	
TITLE			MAIN CONTROL PANEL LOOP DIAGRAM 1	
DESIGNED BY	DATE	SCALE	CHECKED BY	SHEET NO.
WWS	10/20/11	1:1	WWS	1-14



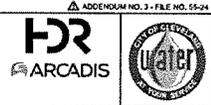
ADDENDUM NO. 3 - FILE NO. 55-24

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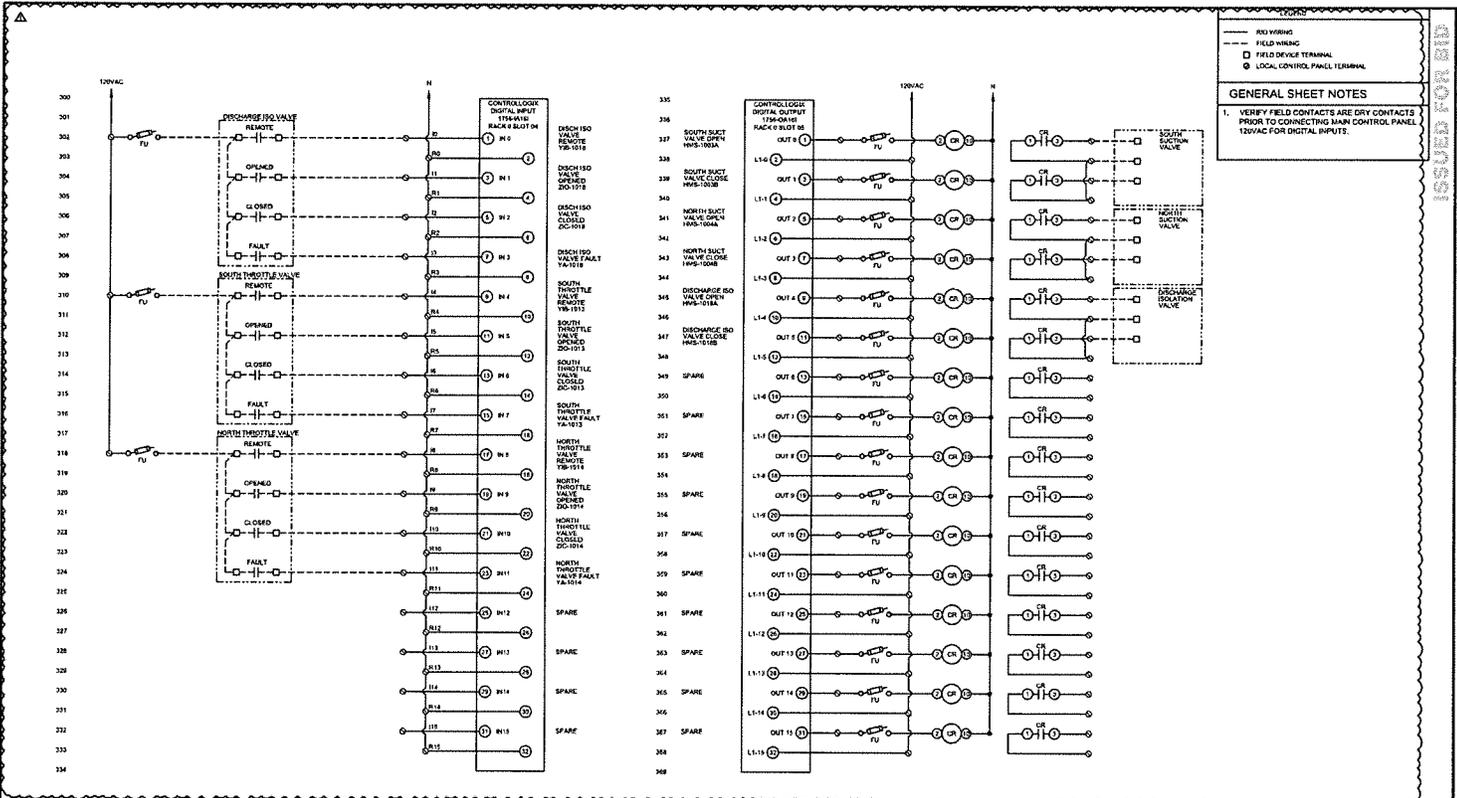


GENERAL SHEET NOTES
 1. VERIFY FIELD CONTACTS ARE DRY CONTACTS PRIOR TO CONNECTING MAIN CONTROL PANEL 120VAC FOR DIGITAL INPUTS.

UNDERGROUND UTILITIES
 BEFORE YOU DIG
 CALL TOLL FREE 888-382-5764
 OR VISIT WWW.CITYOFCLEVELAND.ORG



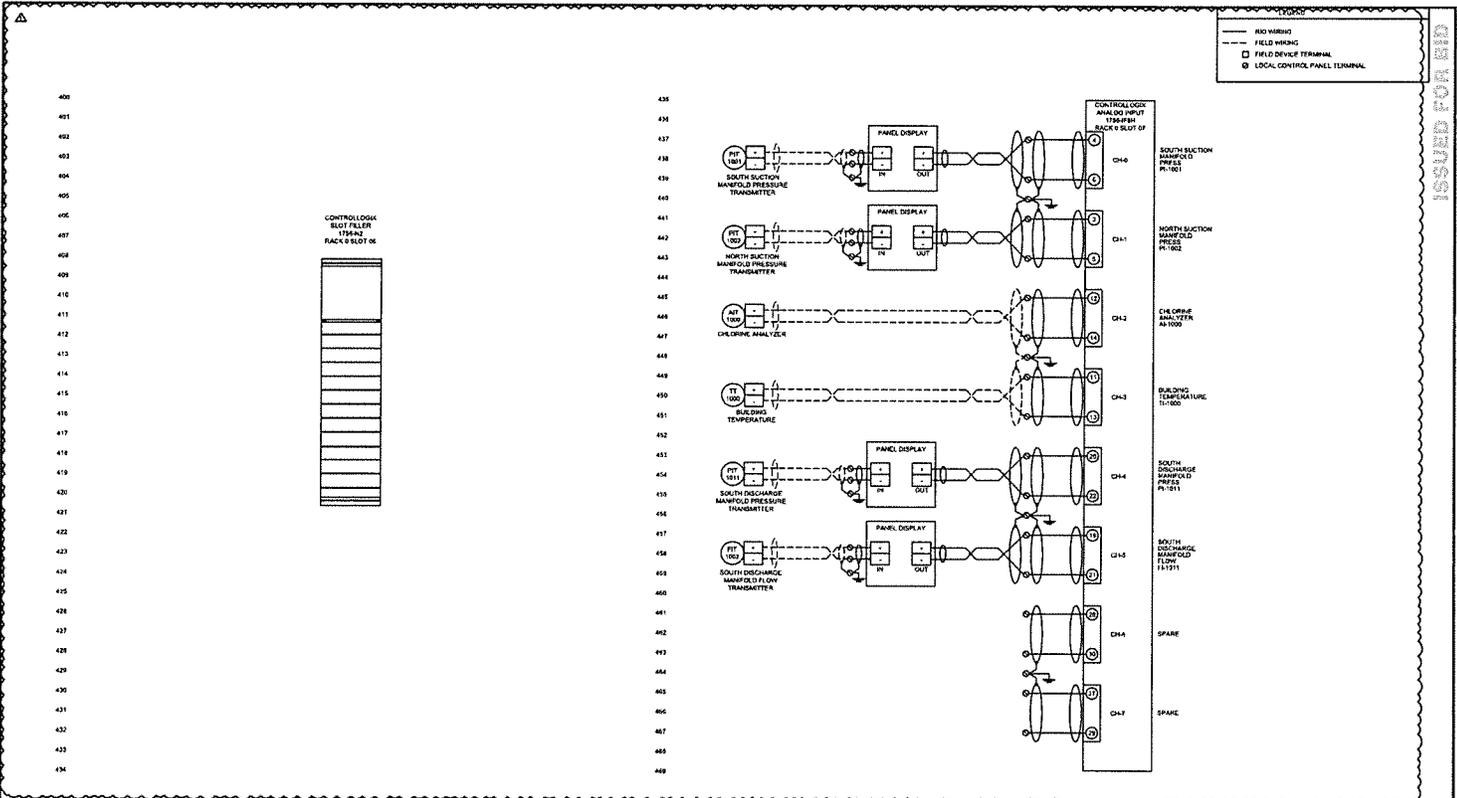
REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY		
1	1/17/20	hgm	CLEVELAND DIVISION OF WATER	
2	1/27/21	hgm	DEPARTMENT OF PUBLIC UTILITIES	
3	1/27/21	hgm	CLEVELAND, OHIO	
			SUBJECT: CYCLE H - GREEN PUMP STATION	
			MAIN CONTROL PANEL LOOP DIAGRAM 2	
DESIGNED BY	DATE	CHECKED BY	DATE	SHEET NO.
hgm	1/17/20	hgm	1/27/21	I-15



GENERAL SHEET NOTES

1. VERIFY FIELD CONTACTS ARE DRY CONTACTS PRIOR TO CONNECTING MAIN CONTROL PANEL 120VAC FOR DIGITAL INPUTS.

ADDENDUM NO. 3 - FILE NO. 35-24					
CITY OF CLEVELAND CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO					
SUBJECT: CYCLE H - GREEN PUMP STATION MAIN CONTROL PANEL LOOP DIAGRAM 3					
DESIGNED BY: LUT DRAWN BY: JET CHECKED BY: JET DATE: 12/20/11	SCALE: 1/8" = 1'-0" SHEET NO: C-10-NO DATE: 12/20/11	SHEET NO: I-16		REVISIONS NO. DATE BY 1 12/20/11 LUT 2 12/20/11 JET 3 12/20/11 JET	



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UNDERGROUND UTILITIES

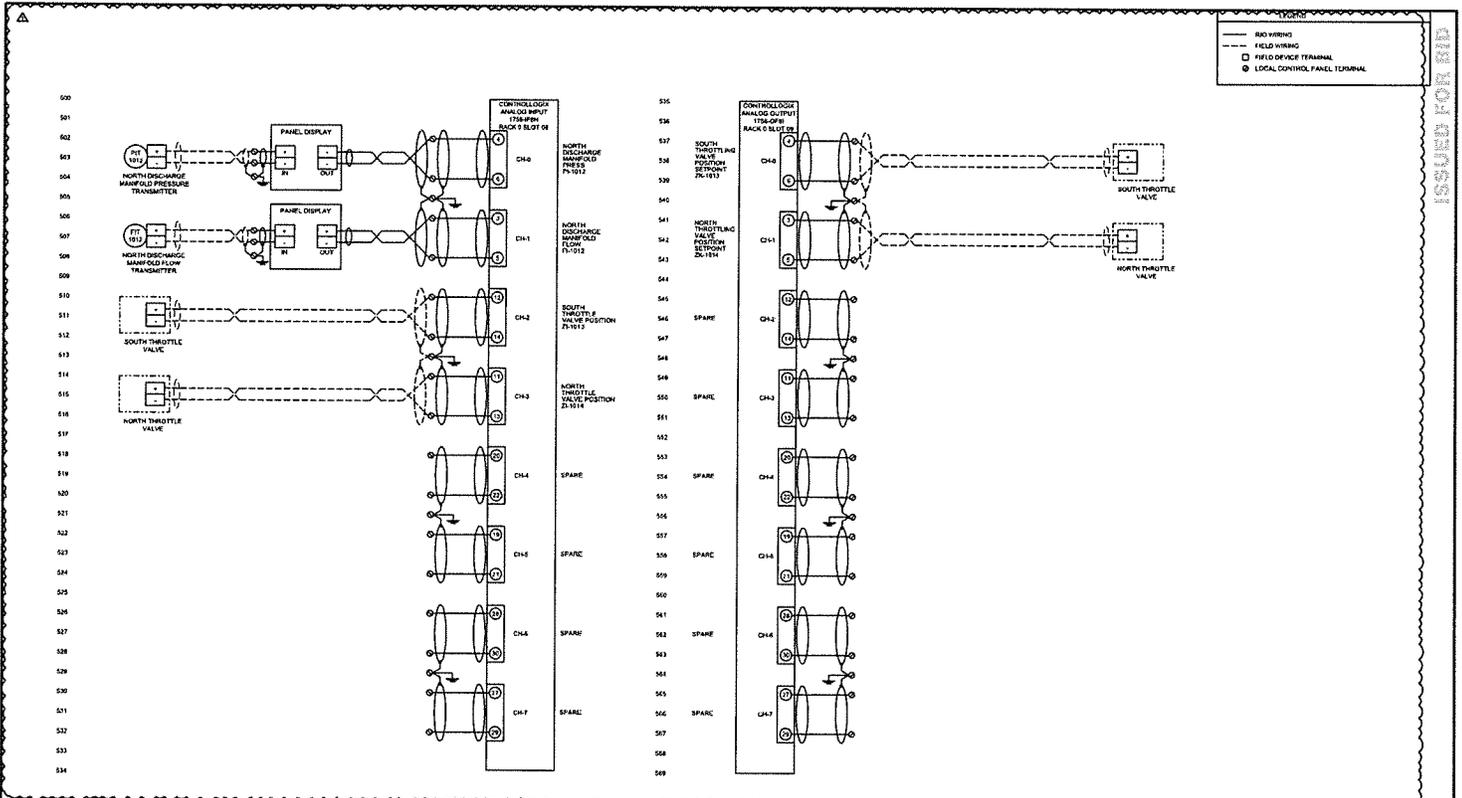
BEFORE YOU DIG
CALL TOLL FREE 888-382-7261

BEFORE YOU DIG
CALL TOLL FREE 800-325-0998



REVISIONS				CITY OF CLEVELAND			
NO.	DATE	BY	CHKD.	CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO			
A	11/20/01	hpm					
B	03/01/02	hpm					
C	01/03/03	hpm					
DESIGNED BY: JLT DRAWN BY: JLT CHECKED BY: hpm				SUBJECT: CYCLE H - GREEN PUMP STATION MAIN CONTROL PANEL LOOP DIAGRAM 4			
SHEET NO: I-17							

ADDENDUM NO. 3 - FILE NO. 55-24



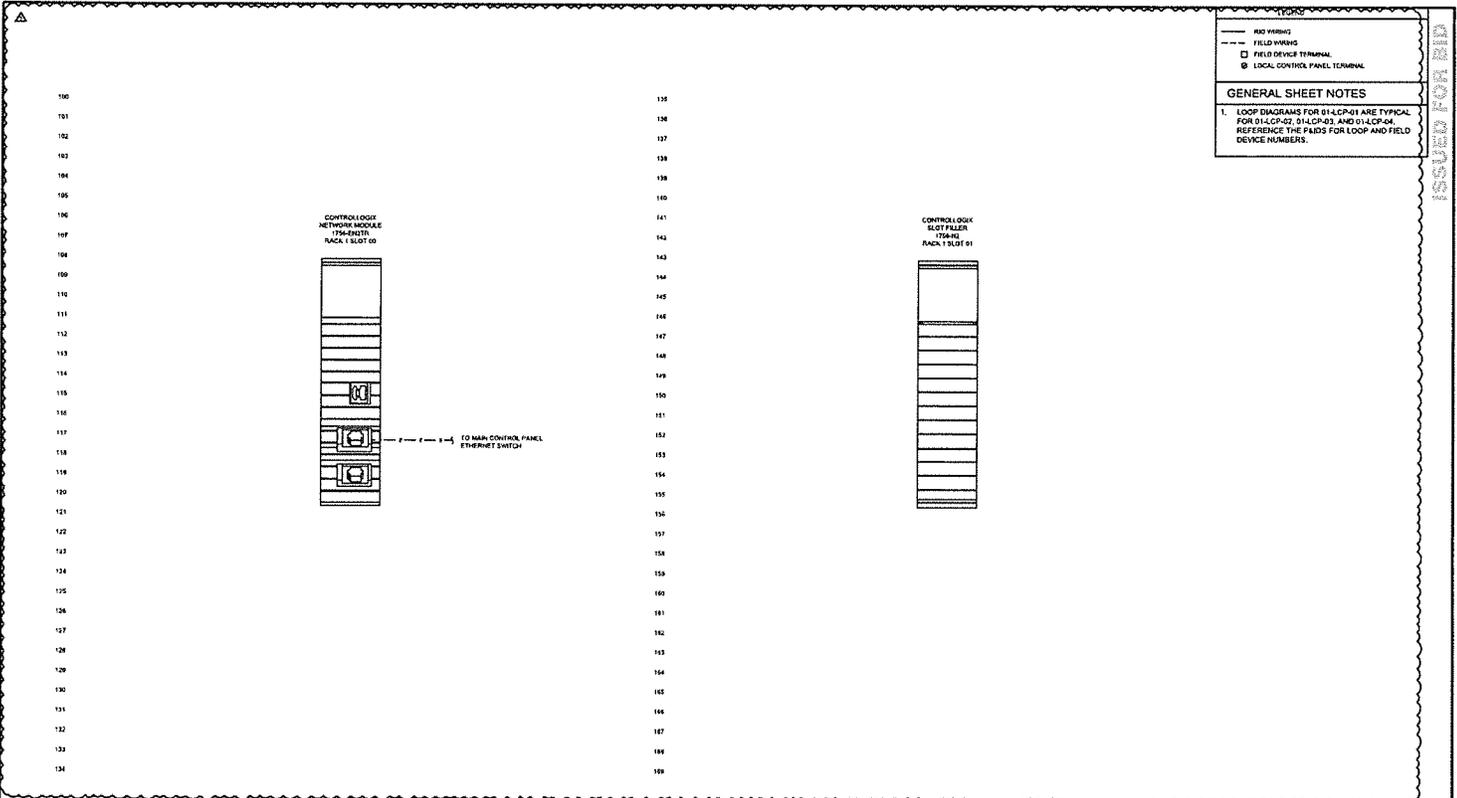
DATE PLOTTED: 01/04/2011 10:58:00 AM

BEFORE YOU DIG
 CALL 800-367-2774
 OHIO DEPARTMENT OF PUBLIC SAFETY
 DIVISION OF SURFACE MINING, RECLAMATION AND WATER CONTROL



APPENDIX NO. 3 - FILE NO. 55-24

REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY	CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO	
A	1/10/11	BJM		
B	3/20/11	BJM		
C	10/20/11	BJM		
SUBJECT			CYCLE H - GREEN PUMP STATION MAIN CONTROL PANEL LOOP DIAGRAM 5	
DESIGNED BY	DATE	PROJECT NO.	SHEET NO.	
DRAWN BY	DATE	130201	I-18	

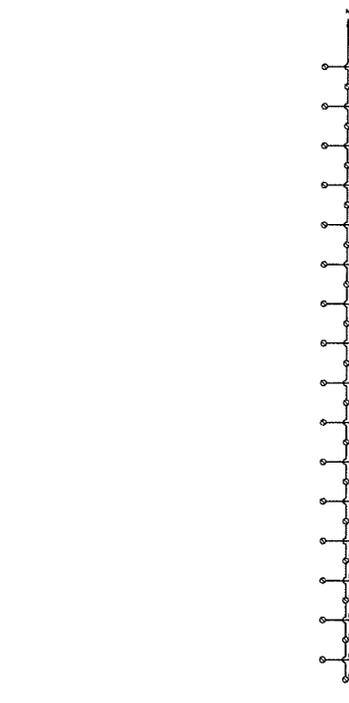
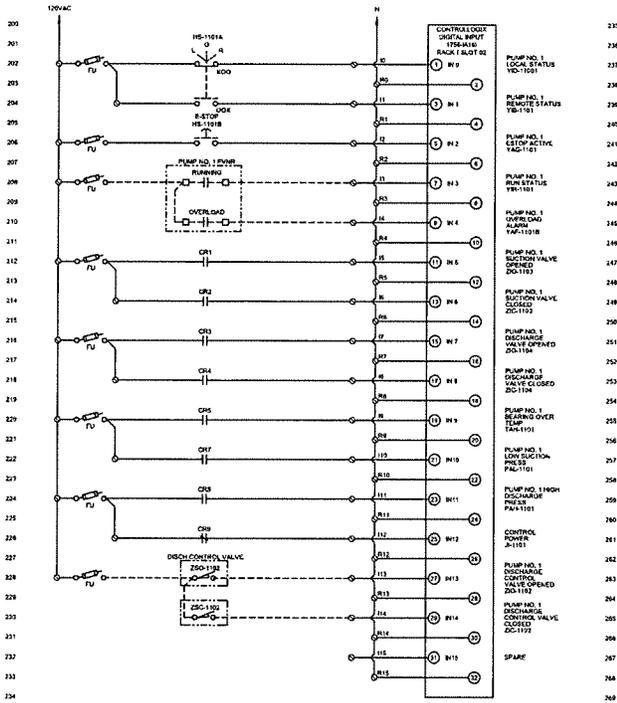


LEGEND
 --- FIELD WIRING
 □ FIELD DEVICE TERMINAL
 ⊗ LOCAL CONTROL PANEL TERMINAL

GENERAL SHEET NOTES
 1. LOOP DIAGRAMS FOR 01-4-CP-01 ARE TYPICAL FOR 01-4-CP-02, 01-4-CP-03, AND 01-4-CP-04. REFERENCE THE PFDs FOR LOOP AND FIELD DEVICE NUMBERS.

DATE PLOTTED: 11/11/2021 10:58:11 AM

<p>UNDERGROUND UTILITIES BEFORE YOU DIG CALL 800-368-5724</p> <p>UNDERGROUND UTILITIES BEFORE YOU DIG CALL 800-368-5724</p>	<p>ADDENDUM NO. 3 - FILE NO. 55-24</p> <p>HR ARCADIS</p>		<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>10/20/21</td> <td>SPM</td> </tr> <tr> <td>B</td> <td>09/21/21</td> <td>SPM</td> </tr> <tr> <td>C</td> <td>08/23/21</td> <td>SPM</td> </tr> </tbody> </table>	NO.	DATE	BY	A	10/20/21	SPM	B	09/21/21	SPM	C	08/23/21	SPM	<p>CITY OF CLEVELAND</p> <p>CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO</p> <p>SUBJECT CYCLE H - GREEN PUMP STATION LOCAL CONTROL PANEL LOOP DIAGRAM 1</p>
NO.	DATE	BY														
A	10/20/21	SPM														
B	09/21/21	SPM														
C	08/23/21	SPM														
<p>DATE PLOTTED: 11/11/2021 10:58:11 AM</p>			<p>SHEET NO. I-19</p>													

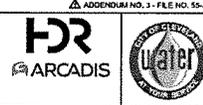


GENERAL SHEET NOTES

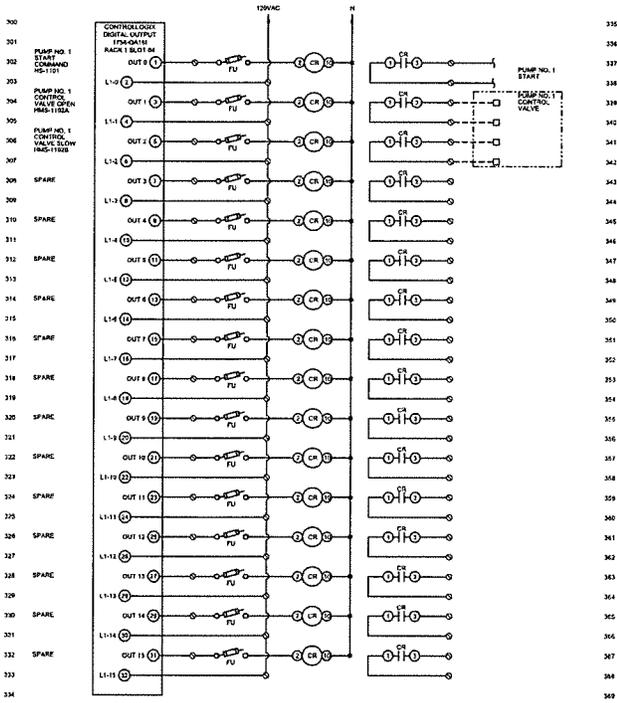
1. VERIFY FIELD CONTACTS ARE DRY CONTACTS PRIOR TO CONNECTING MAIN CONTROL PANEL 120VAC FOR DIGITAL INPUTS.
2. LOOP DIAGRAMS FOR 01-LCP-01 ARE TYPICAL FOR 01-LCP-02, 01-LCP-03, AND 01-LCP-04. REFERENCE THE PLUGS FOR LOOP AND FIELD DEVICE NUMBERS.

- - - - - NO WIRING
 - - - - - FIELD WIRING
 □ FIELD DEVICE TERMINAL
 ○ LOCAL CONTROL PANEL TERMINAL

REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY	CLEVELAND DIVISION OF WATER	
A.	10/20/10	WWT	DEPARTMENT OF PUBLIC UTILITIES	
B.	02/01/11	WWT	CLEVELAND, OHIO	
C.	11/26/11	WWT	SUBJECT: CYCLE H - GREEN PUMP STATION	
			LOCAL CONTROL PANEL LOOP DIAGRAM 2	
DESIGNED BY	DATE	CHECKED BY	SCALE	SHEET NO.
WWT	10/20/10	WWT	AS SHOWN	1-20



ADDENDUM NO. 3 - FILE NO. 55-24



— FIELD WIRING
 - - - FIELD WIRING
 ○ FIELD DEVICE TERMINAL
 ⊙ LOCAL CONTROL PANEL TERMINAL

GENERAL SHEET NOTES

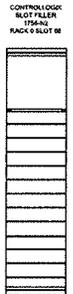
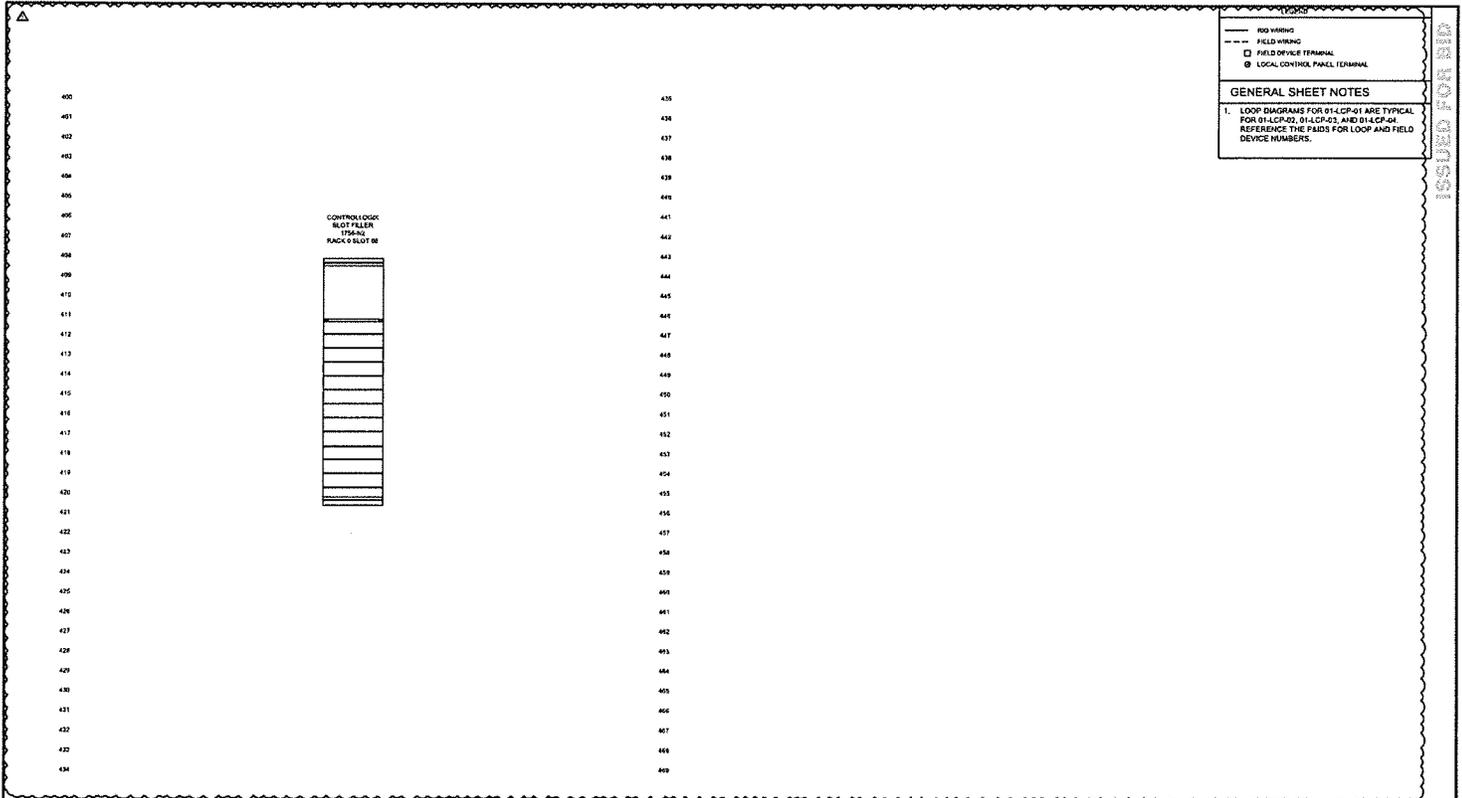
1. LOOP DIAGRAMS FOR 01-4CP-01 ARE TYPICAL FOR 01-4CP-02, 01-4CP-03, AND 01-4CP-04. REFERENCE THE PADS FOR LOOP AND FIELD DEVICE NUMBERS.



UNIVERSITY UTILITIES
 BEFORE YOU DO
 CALL THE NUMBER 800-382-2764
 UNIVERSITY UTILITIES
 BEFORE YOU DO
 CALL THE NUMBER 800-382-2764



REVISIONS			CITY OF CLEVELAND	
NO.	DATE	BY	CLEVELAND DIVISION OF WATER	
1	12/04/11	lmp	DEPARTMENT OF PUBLIC UTILITIES	
2	10/01/11	lmp	CLEVELAND, OHIO	
3	11/09/11	lmp	SUBJECT: CYCLE H - GREEN PUMP STATION	
			LOCAL CONTROL PANEL LOOP DIAGRAM 3	
DESIGNED BY	DATE	SCALE	CAD NO.	SHEET NO.
DRAWN BY	DATE	SCALE	115446	1-21



LEGEND

- FIELD WIRING
- FIELD WIRING
- FIELD DEVICE TERMINAL
- ⊙ LOCAL CONTROL PANEL TERMINAL

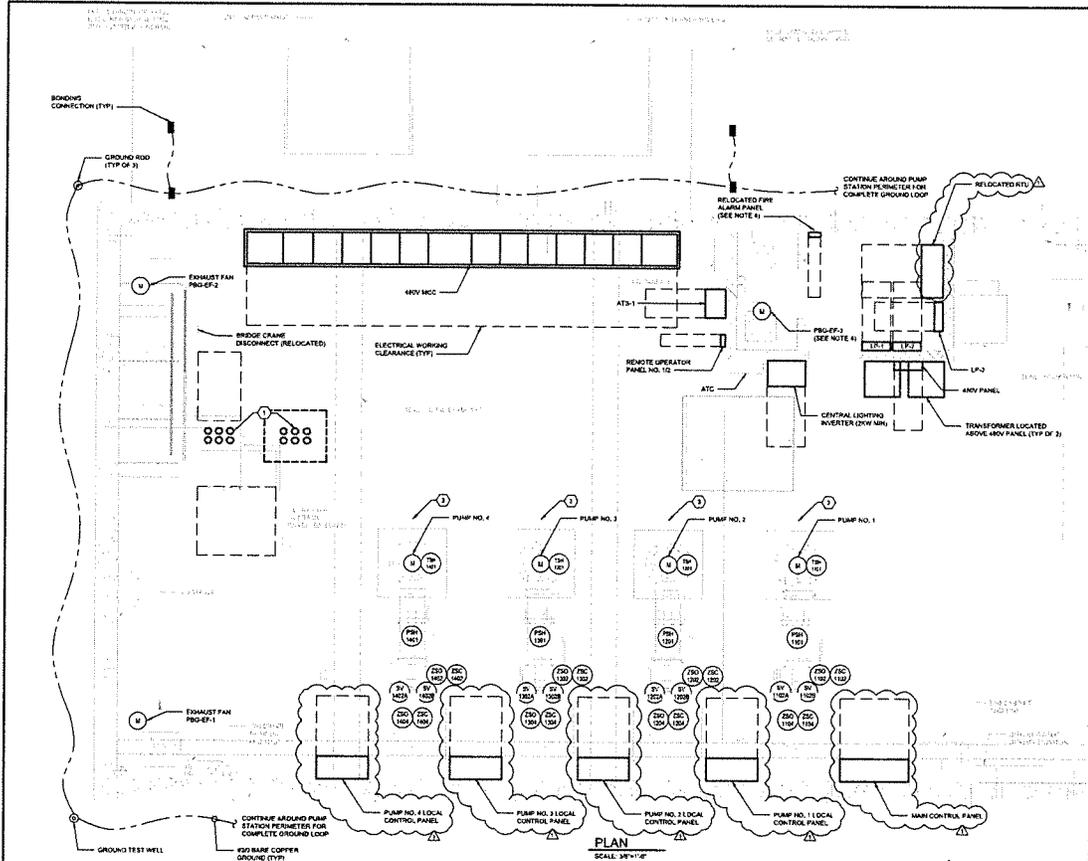
GENERAL SHEET NOTES

1. LOOP DIAGRAMS FOR 01-LCP-01 ARE TYPICAL FOR 01-LCP-02, 01-LCP-03, AND 01-LCP-04. REFERENCE THE PADS FOR LOOP AND FIELD DEVICE NUMBERS.

<p style="text-align: center;">ADDENDUM NO. 2 - FILE NO. 55-24</p> <p style="text-align: center;">FOR ARCADIS</p> <p style="text-align: center;">Water CLEVELAND DIVISION</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>10/24/11</td> <td>SPM</td> </tr> <tr> <td>B</td> <td>10/24/11</td> <td>SPM</td> </tr> <tr> <td>C</td> <td>11/24/11</td> <td>SPM</td> </tr> </tbody> </table>	REVISIONS			NO.	DATE	BY	A	10/24/11	SPM	B	10/24/11	SPM	C	11/24/11	SPM	<p style="text-align: center;">CITY OF CLEVELAND</p> <p style="text-align: center;">CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO</p> <p style="text-align: center;">SUBJECT: CYCLE H - GREEN PUMP STATION LOCAL CONTROL PANEL LOOP DIAGRAM 4</p> <p style="text-align: right;">DRAWN BY: JLT CHECKED BY: JLT DATE: 10/20/11</p> <p style="text-align: right;">SHEET NO: I-22</p>
REVISIONS																	
NO.	DATE	BY															
A	10/24/11	SPM															
B	10/24/11	SPM															
C	11/24/11	SPM															



- GENERAL SHEET NOTES**
- SEE SHEET E-01 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE SHEET E-04 FOR LINE DIAGRAM.
 - DASHED LINE REPRESENTS REQUIRED CLEARANCE IN FRONT OF PANELS.
 - PROVIDE CABLE CONDUIT, SPLICE CONNECTIONS AND JUNCTION BOXES AS REQUIRED TO SURROUND ALL THE FACE DEVICES TO THE NEW PANEL LOCATION. CONSTRUCTION SHALL FINISH TO THE TOP OF FACE.
- CODED NOTES**
- IF 4" GENERATOR POWER CONDUITS SHALL EXIT TOP OF EXISTING OPERATOR CONTROL PANEL, THEN RUN VERTICALLY THROUGH FLOOR TO LUNGS. LUNGS SHALL SUPPORT CONDUITS VERTICALLY WITH 4" CHANNEL FRAMING. INSTALL JUNCTION BOX AT LOWER LEVEL. BOX SIZE SHALL BE MINIMUM 42W x 36D x 4 1/2H.
 - BUILDING LIGHTNING PROTECTION SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION 24.41.13.
 - FIELD POSTING 3'-0" CONDUIT CORE FOR NEW PUMP WIRING EXTEND EXISTING CONDUIT TO NEW MCC PUMP STARTER LOCATION.



PLAN
SCALE: 3/4"=1'-0"

REVISIONS		
NO.	DATE	BY

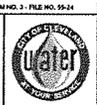
CITY OF CLEVELAND	
CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO	
SUBJECT: CYCLE H - GREEN PUMP STATION	
FIRST FLOOR	
POWER PLAN	
DATE: 10/1/2015	SHEET NO. E-06

GROUNDING UTILITIES

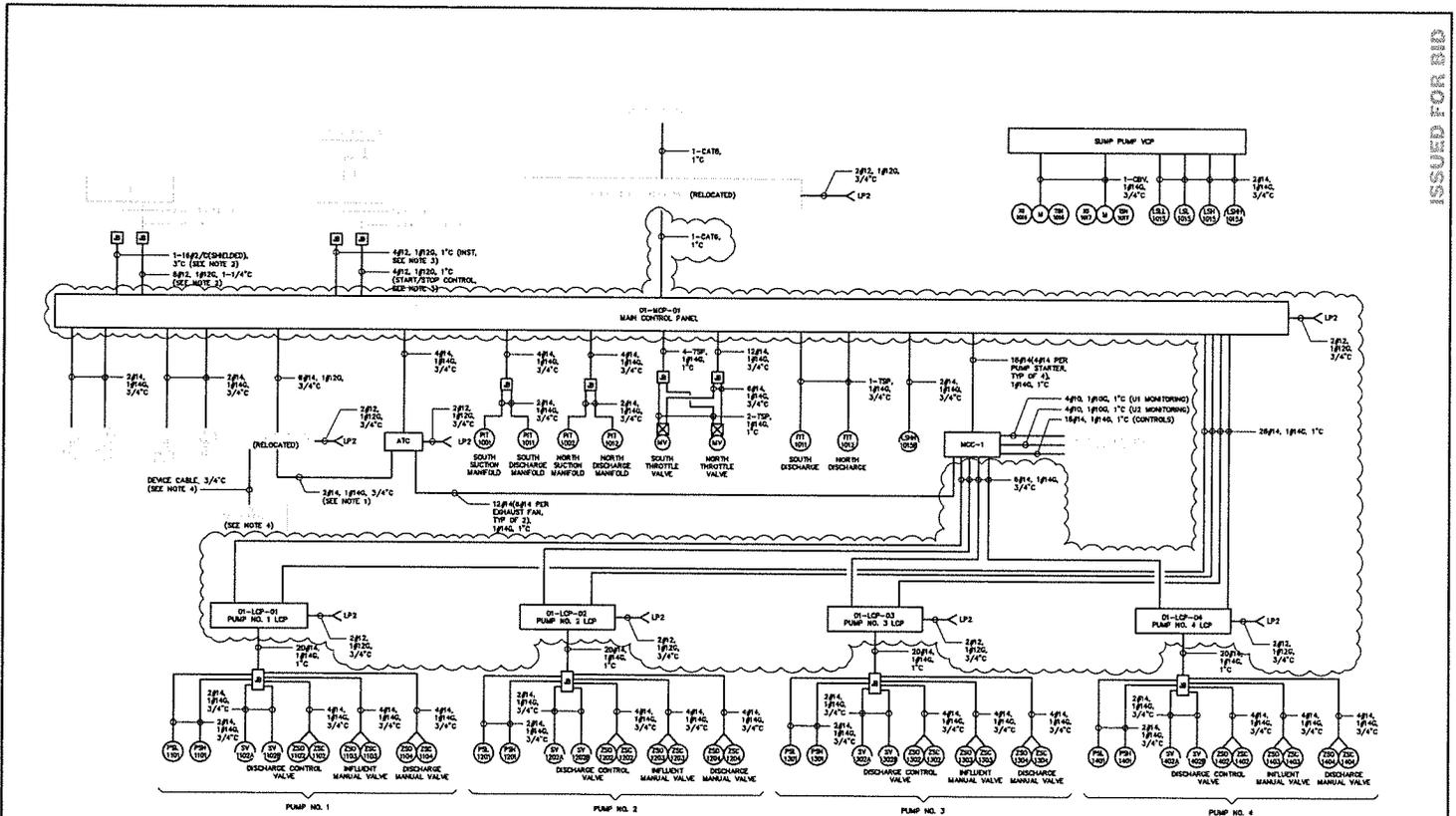
BEFORE YOU DIG CALL 800-368-7244

GROUNDING UTILITIES

BEFORE YOU DIG CALL 800-368-7244



DRAWN BY: E. LUNA
 DESIGNED BY: E. LUNA
 CHECKED BY: J. GARDNER
 SCALE: 3/4"=1'-0"
 SHEET NO.: E-06



<p>GENERAL SHEET NOTES</p> <ol style="list-style-type: none"> 1. PROVIDE CONTROL SIGNAL FROM PUMP TO ATC TO SHUT DOWN THE PUMP ON THE DETECTOR COMPANION OUTPUT FROM PUMP FOR SIGNAL TO ATC PANEL. 2. FROM JUNCTION BOX TO DATE HOUSE IS EXISTING CABLE AND CONDUIT PROVIDE CONDUIT SPLICES IN THE JUNCTION BOX TO THE EXISTING. 3. FROM JUNCTION BOX TO 3P VALVE VALVE IS EXISTING CABLE AND CONDUIT PROVIDE CONDUIT SPLICES IN THE JUNCTION BOX TO THE EXISTING. 4. PROVIDE CABLE AND CONDUIT TO EACH EXISTING PUMP DEVICE IN THE FIELD TO THE NEW PUMP LOCATION. CONTRACTOR SHALL VERIFY CABLE REQUIREMENTS AND PROVIDE CABLES, SPLICES, AND BOXES AS REQUIRED TO PUT BACK INTO SERVICE THE FIRE ALARM SYSTEM. CONTRACTOR SHALL VERIFY QUANTITY OF DEVICES, AND SIGNAL ANNUNCIATORS ON NORTH AND SOUTH INTERIOR WALLS, AND/OR SIGNAL ANNUNCIATOR ON SOUTH EXTERIOR WALL. 	<p>CODED NOTES</p> <p>○ UNDESIRABLE UTILITIES ○ BEFORE YOU DIG ○ BEFORE YOU DIG ○ BEFORE YOU DIG</p>	<p>ADDITIONAL NO. 3 - FILE NO. 50-24</p> <p>HR ARCADIS</p> <p>Water CLEVELAND WATER DEPARTMENT</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p style="text-align: center;">CITY OF CLEVELAND</p> <p style="text-align: center;">CLEVELAND DIVISION OF WATER DEPARTMENT OF PUBLIC UTILITIES CLEVELAND, OHIO</p> <p style="text-align: center;">SUBJECT: CYCLE H - GREEN PUMP STATION WIRING BLOCK DIAGRAM</p> <p style="text-align: right;">SHEET NO. E-12</p>	REVISIONS				NO.	DATE	BY	DESCRIPTION								
REVISIONS																			
NO.	DATE	BY	DESCRIPTION																