

Proposed Change Order
City of Needles Well No. 11 Treatment Plant Upgrade Project



WATERWORKS
ENGINEERS

PCO NO.: 6
SUBJECT: Electrical Gear Revisions
FROM: Water Works Engineers
AUTHOR: Joe Riess

DATE REQUESTED: 3/5/2024

TO: City of Needles
Attn: Kathy Raasch
817 Third Street, Needles, CA 92363

760-326-5700 Ext. 130

WORK CHANGE REQUESTED:

1. Relocate existing Main Switchboard (MSB) as shown on the Drawings. Demolish existing concrete slab and concrete fill adjacent to wellhead and provide new buried conduit and wire from current MSB location to the new MSB location. Replace existing reinforced concrete slab and provide new concrete housekeeping pad under relocated MSB.
2. Install new Automatic Transfer Switch (ATS) inside existing Control Room. Provide new 800A breaker in ATS to accommodate the revised electrical design. Provide new conduit, wire, and appurtenances to facilitate this change.
3. Install new well pump Soft Starter inside existing Control Room. Provide a new disconnect switch adjacent to the well pump. Provide new conduit, wire, and appurtenances to facilitate this change.

JUSTIFICATION OR NEED FOR THE CHANGE:

1. The existing MSB is located 3-ft from the edge of the well pump's concrete pedestal. However, electrical code requires a minimum of 4-ft clearance in front of 460v electrical equipment for safety. Additionally, the well casing vent extends even closer to the MSB, leaving only 2-ft of clearance and the MSB enclosure's door actually hits the vent pipe, preventing the door from fully opening. Not only does the existing MSB location not meet electrical code for safety, but its proximity to the wellhead makes serving the well and well pump difficult, and extra care must be taken when pulling the pump and rehabilitating the well. Relocating the MSB to the opposite end of the wellhead area will result in an installation that meets electrical code for safety and provide more working clearances around the well head for servicing and maintenance the wellhead.
2. During project scoping the new ATS was assumed to be installed in a NEMA 3R enclosure outdoors adjacent to the existing MSB and well pump motor starter due to space constraints in the existing Control Room. During design, it was determined that there is sufficient space inside the Control Room for the ATS, which is desirable from an O&M standpoint to protect the equipment from weather (sun, rain, sand, etc.). Additionally, moving the ATS into the Control Room would locate it closer to the relocated MSB. During design, it was also determined that the existing breakers are not sufficiently sized for the connected loads, and a new 800A breaker is required.
3. Like the changes to the ATS described above, during project scoping the new well pump Soft Starter was assumed to be installed in a NEMA 3R enclosure outdoors adjacent to the existing MSB and new ATS due to space constraints in the existing Control Room. During design, it was determined that there is sufficient space inside the Control Room for the Soft Starter, which is desirable from an O&M standpoint to protect the equipment from weather (sun, rain, sand, etc.). Additionally, moving the ATS into the Control Room would require a new local disconnect for the well pump to be installed outside to meet electrical code.

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WATERWORKS
ENGINEERS

PROJECT IMPACT:

COST CHANGE, \$ \$149,298.08

TIME CHANGE, days 5

CONTRACTOR

Pacific Hydrotech Corporation

Eric Christensen

Digitally signed by Eric Christensen
DN: C=US,
E=christensen@pachydro.com,
CN=Project Manager, OU=Construction
Division, CN=Eric Christensen
Reason: I am the author of this document
Date: 2024.03.05 11:15:38-08'00'

By: _____

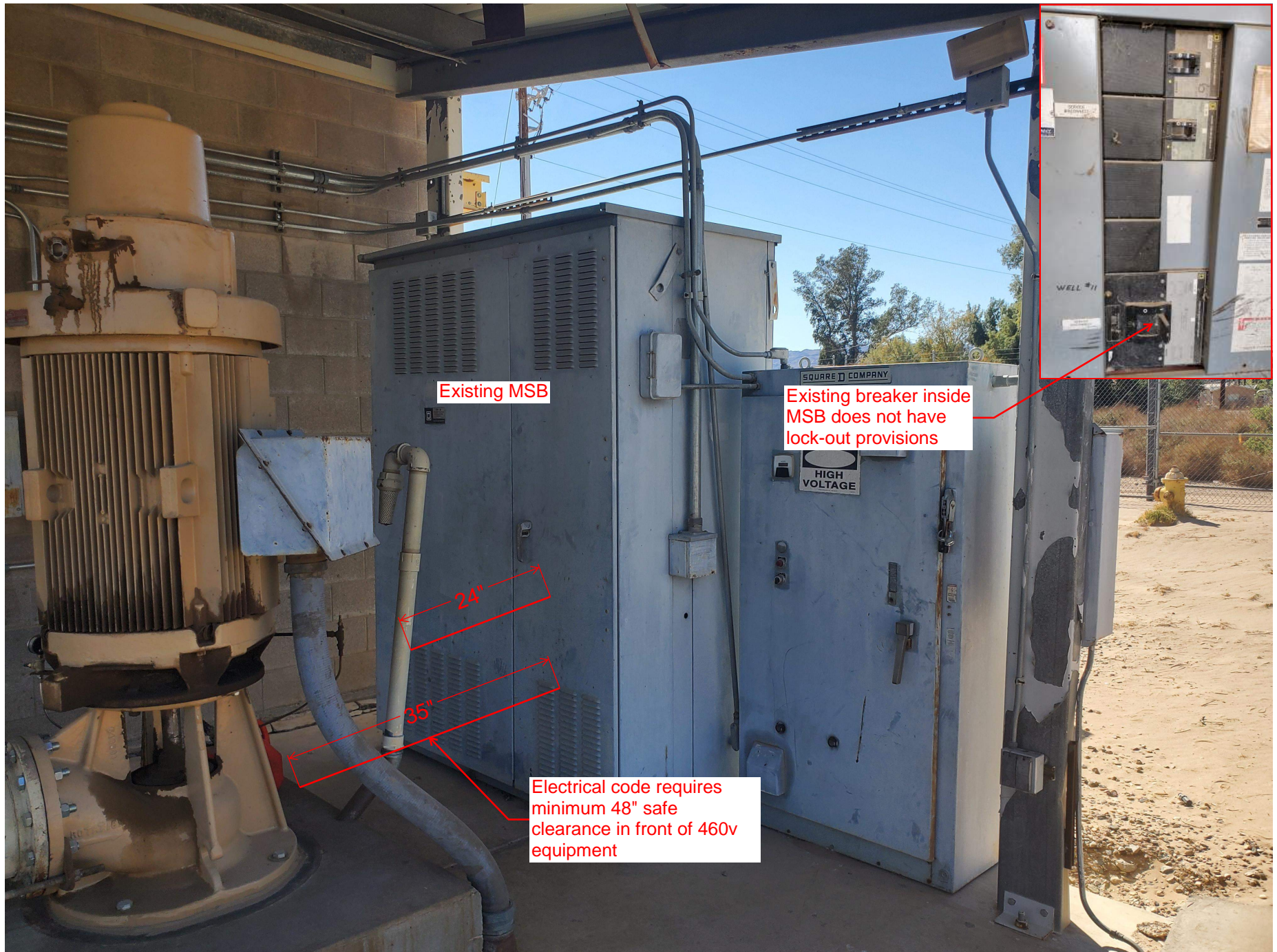
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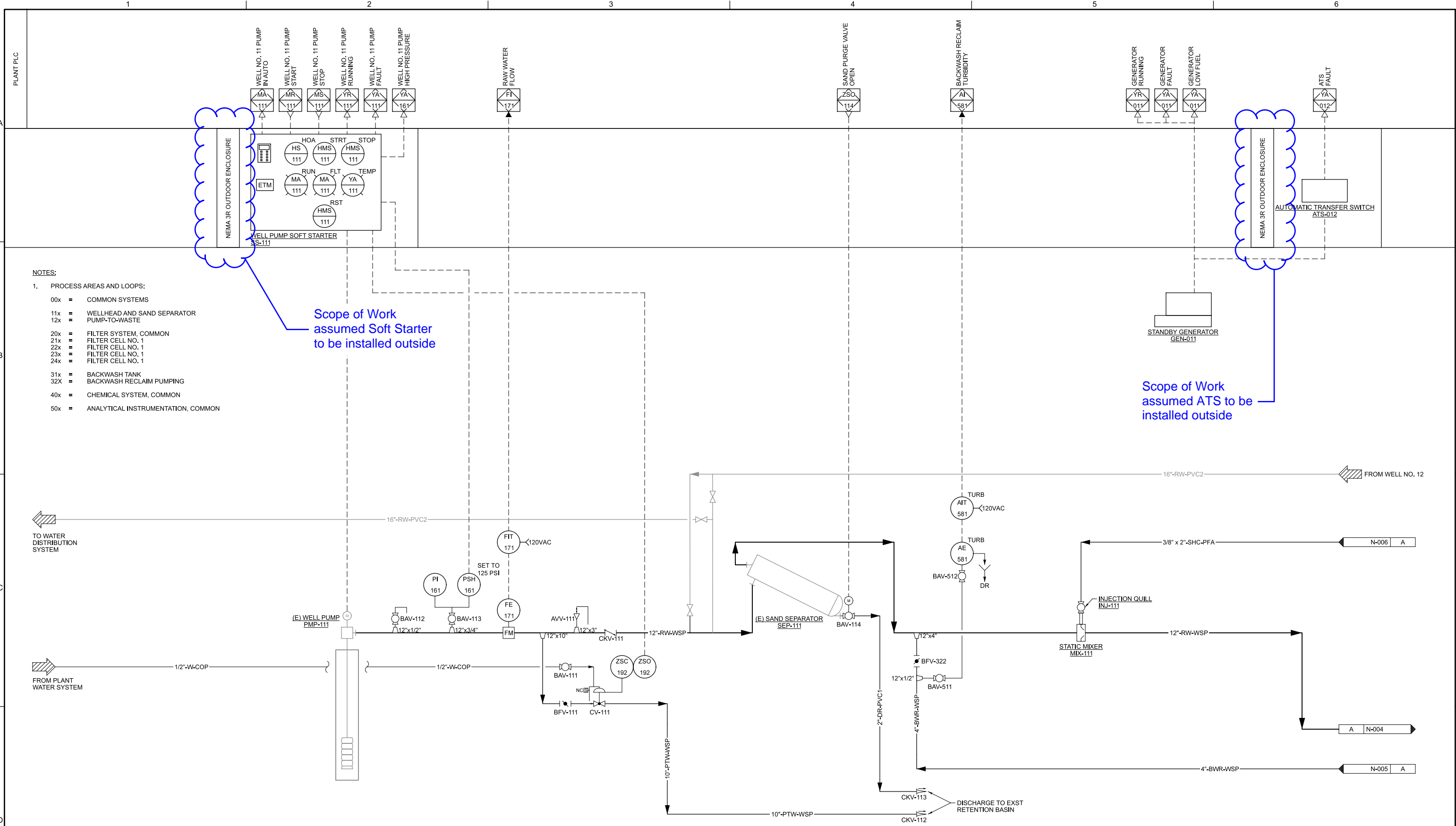
ENGINEER

Water Works Engineers, LLC

By: _____


Date: 03/05/2024

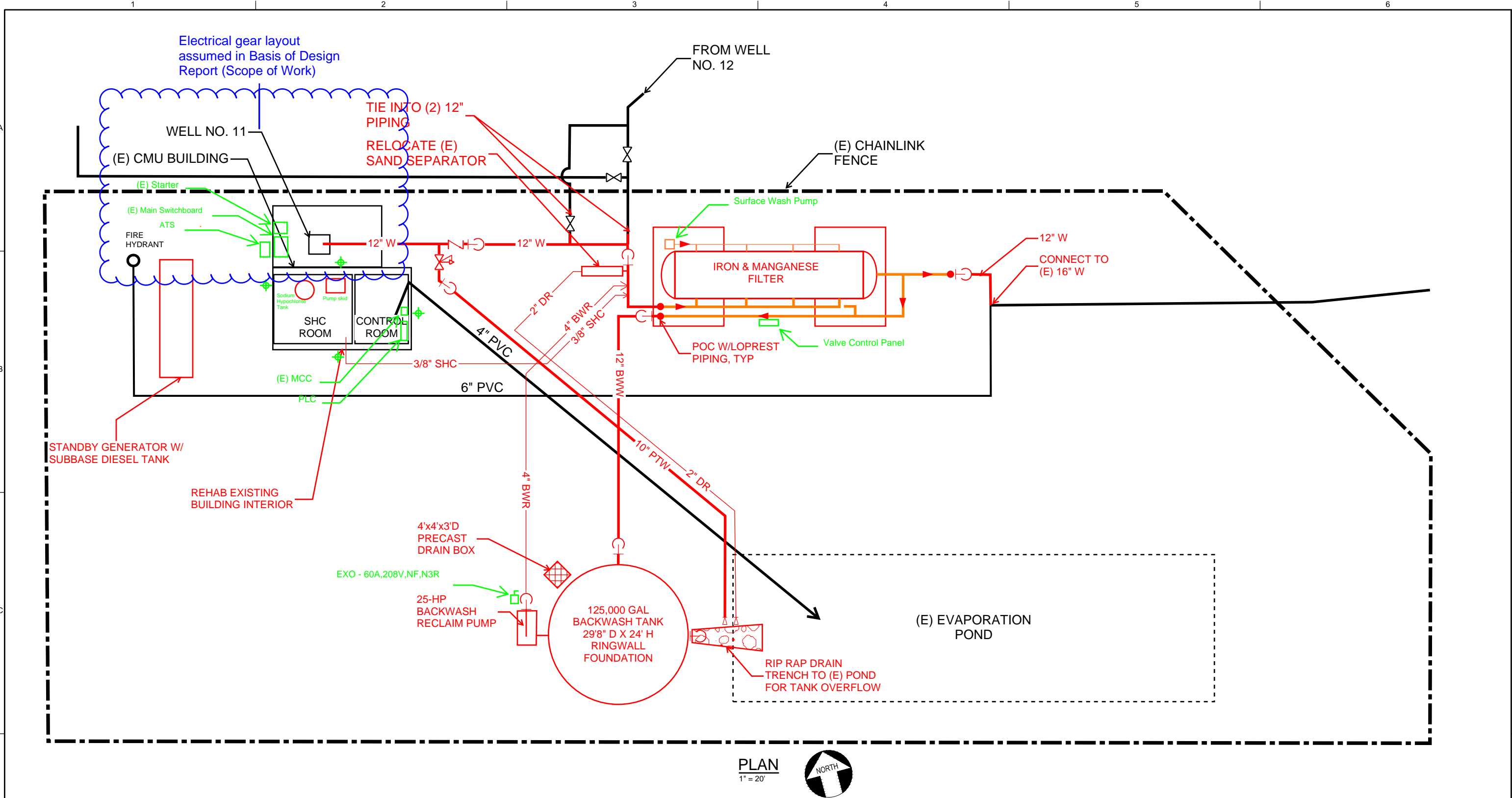




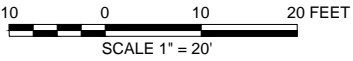
- NOTES:**
1. PROCESS AREAS AND LOOPS:
- 00x = COMMON SYSTEMS
 - 11x = WELLHEAD AND SAND SEPARATOR PUMP-TO-WASTE
 - 20x = FILTER SYSTEM, COMMON
 - 21x = FILTER CELL NO. 1
 - 22x = FILTER CELL NO. 1
 - 23x = FILTER CELL NO. 1
 - 24x = FILTER CELL NO. 1
 - 31x = BACKWASH TANK
 - 32x = BACKWASH RECLAIM PUMPING
 - 40x = CHEMICAL SYSTEM, COMMON
 - 50x = ANALYTICAL INSTRUMENTATION, COMMON


P&ID included with Basis of Design Report

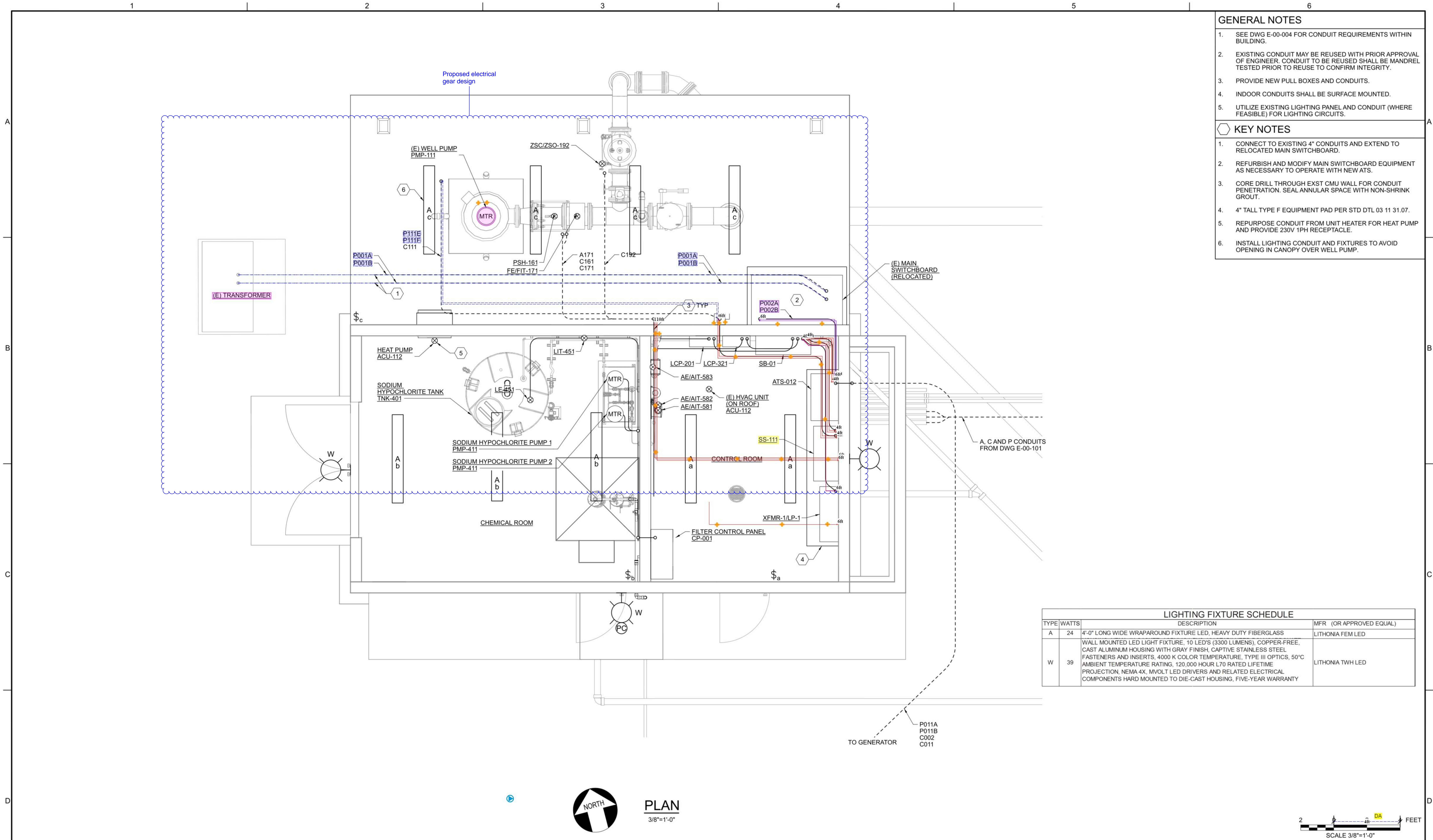
VERIFY SCALE												PRELIMINARY NOT FOR CONSTRUCTION			DESIGN J. RIESS			 <div>WATERWORKS ENGINEERS</div>			CITY OF NEEDLES WELL 11 TREATMENT PROJECT NEEDLES, CALIFORNIA			INSTRUMENTATION P&ID - WELLHEAD			DATE OCTOBER 2022		
BAR IS ONE INCH ON ORIGINAL DRAWING									DRAWN J. RIESS						PROJECT NO. TBD														
0 1"									CHECKED XXX						DRAWING NO. N-003														
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY									APPROVED XXX						SHEET NO. X														
NO	DATE	REVISION				BY	APVD	XX-XX-XX			GARDENA, CALIFORNIA				FILENAME: \$FILES\$												PLOT DATE: 10/8/2022		



NOTES:
1. SITE PLAN IS CONCEPTUAL AND NOT FOR BUDGETING PURPOSES ONLY. LOCATION, SIZE AND CONDITION OF EXISTING PIPING, STORAGE AND TREATMENT FACILITIES MUST BE VERIFIED.
2. SAMPLE LINES AND ELECTRICAL CONDUIT NOT SHOWN.
3. NOT ALL VALVES, EQUIPMENT AND INSTRUMENTS SHOWN. SEE P&IDS.



VERIFY SCALE				PRELIMINARY NOT FOR CONSTRUCTION				DESIGN J. RIESS		 WATERWORKS ENGINEERS		CITY OF NEEDLES WELL 11 TREATMENT PROJECT		CIVIL SITE PLAN		DATE SEPTEMBER 2022	
BAR IS ONE INCH ON ORIGINAL DRAWING								DRAWN J. RIESS								PROJECT NO. TBD	
0 ██████ 1"								CHECKED XXX								DRAWING NO. C-002	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY								APPROVED XXX								SHEET NO. X	
NO	DATE	REVISION						BY	APVD	GARDENA, CALIFORNIA						FILENAME: \$FILES\$	



- GENERAL NOTES
1.

SEE DWG E-00-004 FOR CONDUIT REQUIREMENTS WITHIN BUILDING.
2.

EXISTING CONDUIT MAY BE REUSED WITH PRIOR APPROVAL OF ENGINEER. CONDUIT TO BE REUSED SHALL BE MANDREL TESTED PRIOR TO REUSE TO CONFIRM INTEGRITY.
3.

PROVIDE NEW PULL BOXES AND CONDUITS.
4.

INDOOR CONDUITS SHALL BE SURFACE MOUNTED.
5.

UTILIZE EXISTING LIGHTING PANEL AND CONDUIT (WHERE FEASIBLE) FOR LIGHTING CIRCUITS.
- KEY NOTES
1.

CONNECT TO EXISTING 4" CONDUITS AND EXTEND TO RELOCATED MAIN SWITCHBOARD.
2.

REFURBISH AND MODIFY MAIN SWITCHBOARD EQUIPMENT AS NECESSARY TO OPERATE WITH NEW ATS.
3.

CORE DRILL THROUGH EXST CMU WALL FOR CONDUIT PENETRATION. SEAL ANNULAR SPACE WITH NON-SHRINK GROUT.
4.

4" TALL TYPE F EQUIPMENT PAD PER STD DTL 03 11 31.07.
5.

REPURPOSE CONDUIT FROM UNIT HEATER FOR HEAT PUMP AND PROVIDE 230V 1PH RECEPTACLE.
6.

INSTALL LIGHTING CONDUIT AND FIXTURES TO AVOID OPENING IN CANOPY OVER WELL PUMP.

LIGHTING FIXTURE SCHEDULE			
TYPE	WATTS	DESCRIPTION	MFR. (OR APPROVED EQUAL)
A	24	4'-0" LONG WIDE WRAPAROUND FIXTURE LED, HEAVY DUTY FIBERGLASS	LITHONIA FEM LED
W	39	WALL MOUNTED LED LIGHT FIXTURE, 10 LED'S (3300 LUMENS), COPPER-FREE, CAST ALUMINUM HOUSING WITH GRAY FINISH, CAPTIVE STAINLESS STEEL FASTENERS AND INSERTS, 4000 K COLOR TEMPERATURE, TYPE III OPTICS, 50°C AMBIENT TEMPERATURE RATING, 120,000 HOUR L70 RATED LIFETIME, PROJECTION, NEMA 4X, MVOLT LED DRIVERS AND RELATED ELECTRICAL COMPONENTS HARD MOUNTED TO DIE-CAST HOUSING, FIVE-YEAR WARRANTY	LITHONIA TWH LED

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

REGISTERED PROFESSIONAL ENGINEER

J. BOYLES

No. C66413

CIVIL

STATE OF CALIFORNIA

9-8-2023

DESIGN

J. BOYLES

DRAWN

J. RIESS

CHECKED

J. RIESS

APPROVED

J. RIESS

Drinking Water

WATERWORKS ENGINEERS

GARDENA, CALIFORNIA

PH

PACIFIC HYDROTECH CORPORATION

CITY OF NEEDLES

WELL 11 TREATMENT PROJECT

NEEDLES, CALIFORNIA

ELECTRICAL

WELLHEAD AND CONTROL BUILDING PLAN

DATE

SEPTEMBER 2023

PROJECT NO.

22-107

DRAWING NO.

E-10-101

SHEET NO.

43



February 8, 2024

City of Needles
817 3rd Street
Needles, CA 92363

Project: 1307 River Road - Well 11 Improvements

Reference: Demolition and relocation of the MSB Enclosure

Dear Kathy,

Find for your review and approval the attached documents for the requested relocation of the existing MSB panel per the attached plans. Costs include the demolition of the existing main switch board enclosure, breaking/removal of the existing MSB housekeeping pad, breaking/removal of the concrete block placed at the wellhead to stabilize the area during the well rehabilitation, excavation, concrete encasement of the new conduit run from the existing City of Needles transformer to the new MSB location as well as the electrical installations per the attached drawings. This change order will require an additional 5 days contract time.

Respectfully,

Eric Christensen
Pacific Hydrotech, Inc

Equipment Total Cost		\$ 4,422.04
Material Total Cost		\$ 4,550.50
Subcontracts Total Cost		\$ 133,220.85
Labor Total Cost		\$ 7,104.68
Subtotal		\$ 149,298.08
Bond	0%	\$ -
Insurance	0%	\$ -
TOTAL COSTS		\$ 149,298.08

S&S CONCRETE & MATERIALS, LLC
Mailing Address: PO BOX 23283, Bullhead City, AZ 86439
Physical Address: 3000 Pass Canyon Road, Bullhead City, AZ 86442
Telephone: 928-754-1999 Fax: 928-754-1991

PROJECT QUOTE

PROJECT: City Of Needles Wastewater
ATTN: Eric Christensen
PH: 951-704-0526
Fax:
Email: echristensen@pachydro.com

CUSTOMER: Pacific Hydrotech Corp
DATE: 1/23/2024
EXPIRES: 30 Days

Description	UNITS	UM	Unit Price	DEL/FOB
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300 Yards 4000psi

Ready Mix:

Mix Design ID # 4502CL-S4000 (4000psi)	CY	\$166.00	DELIVERED
Mix ID # 3000W5.5	CY	\$155.50	DELIVERED
Delivery Fee (Needles)	PER TRUCK	\$100.00	

Additional Charges:

Fuel Surcharge (Adjustable Quarterly)	PER TRUCK	\$39.50
SHORT LOAD < 3 YARDS	LOAD	\$150.00
SHORT LOAD 3-4 3/4 YARDS	LOAD	\$100.00
Standby charges will apply after 6 minutes per yard	MINUTE	\$1.50
Saturday Charge	CY	\$5.00

Aggregates:

TON	DELIVERED
TON	FOB

S&S Concrete & Materials reserves the right to be included on all email chains regarding test results from the awarded job.

Prices are based on the award of all concrete and construction aggregates on the job.

Prices are good when S&S Concrete & Materials, materials and mix design are accepted by project engineer on above materials.

ANY ADDITIONAL CHARGES FROM OUR ENGINEER FOR JOB SPECIFIC, STAMPED MIX DESIGN WILL BE CHARGED AT A COST + 10%

Signature

Sales Manager	Dale Abbott
Title	Name

ACCEPTED

Authorized Representative Title

Name

Date

Signature



BRANCH N23
2250 SILVER CREEK RD
BULLHEAD CITY AZ 86442-8473
928-758-5757
928-758-6966 FAX

229914674

Job site

WELL 11
1307 RIVER RD
NEEDLES CA 92363

Office: 951-943-8803 Cell: 951-704-0526

Customer # : 657917
Quote Date : 02/05/24
Estimated Out : 02/06/24 12:00 PM
Estimated In : 02/13/24 12:00 PM
UR Job Loc : 1307 RIVER RD, NEEDL
UR Job # : 337
Customer Job ID:
P.O. # : QUOTE
Ordered By : ERIC CHRISTENSON
Written By : SCOTT ARMSTRONG
Salesperson : LEE TAGGART

PACIFIC HYDROTECH CORP
314 E 3RD ST
PERRIS CA 92570-2225

**This is not an invoice
Please do not pay from this document**

RENTAL ITEMS:							
Qty	Equipment	Description	Minimum	Day	Week	4 Week	Estimated Amt.
1	9035355	SKID STEER BREAKER ***BREAKER MUST BE GREASED EVERY 4 HOURS***		205.00	558.00	2,151.00	558.00
1	907/0535	MINI EXCAVATOR BUCKET 18"					N/C
1	907/0545	MINI EXCAVATOR BUCKET 24"	1.08	1.08	3.24	12.00	3.24
1	9070062	MINI EXCAVATOR 6000-6799#		425.00	1,149.00	3,155.00	1,149.00
						Rental Subtotal:	1,710.24
SALES/MISCELLANEOUS ITEMS:							
Qty	Item		Price		Unit of Measure		Extended Amt.
1	ENVIRONMENTAL SERVICE CHARGE	[ENV/MCI]	34.140		EACH		34.14
1	DELIVERY CHARGE		135.000		EACH		135.00
1	PICKUP CHARGE		135.000		EACH		135.00
						Sales/Misc Subtotal:	304.14
						Agreement Subtotal:	2,014.38
						Tax:	145.66
						Estimated Total:	2,160.04

COMMENTS/NOTES:

CONTACT: ERIC CHRISTENSON
CELL#: 951-704-0526
Dlv/Pku loc selected by Map Pin Option

TO SCHEDULE EQUIPMENT FOR PICKUP, CALL 800-UR-RENTS (800-877-3687)
WE ARE AVAILABLE 24/7 TO SUPPLY YOU WITH A CONFIRMATION #
IN ORDER TO CLOSE THIS CONTRACT

This proposal may be withdrawn if not accepted within 30 days. The above referenced Rental Protection Plan, environmental, and tax charges are estimates and are subject to change.

NOTICE: This is not a rental agreement. The rental of equipment and any items listed above is subject to availability and subject to the terms and conditions of the Rental and Service Agreement, which are available at <https://www.unitedrentals.com/legal/rental-service-terms-US> and which are incorporated herein by reference. A COPY OF THE RENTAL AND SERVICE AGREEMENT TERMS ARE AVAILABLE IN PAPER FORM UPON REQUEST.



Proposed Change Order

Faith Electric

1980 Orange Tree Lane, Suite 106
Redlands, California 92374

Client Address:

Pacific Hydrotech Corporation

314 E. 3rd Street
Perris, California 92570

Project Name: P2305-City of Needles Well#11

Contract #: P2305

Faith Electric Job#: P2305

Client PCO #:

Faith Electric PCO#: 4

Thursday, February 01, 2024

Work Description

CO-004 Switchgear Upgrade and Relocation

Files Acknowledged:

- Needles 100% Drawings 20230908;
- ~~Needles 100% Specifications 20230908;~~ (Omitted) Faith Electric will install per code minimum requirements;

Scope of Work:

- Safe-off and remove panel MSB (E-00-004);
- Install panel MSB in new location, layout as shown on (E-10-101);
- Furnish and install (1) new 800A circuit breaker in panel MSB (E-00-004);
- F&I (1) 600A disconnect switch mounted on the Control Building to supply PMP-111 (E-10-101);
- F&I P001A, B, C: conduit and pull string only from the existing utility transformer to the relocated panel MSB (E-10-101);
- F&I conduit and circuiting for the following conduit tags: P002A, C012A, P003A, B, P111A, B, P111C, D, P111E, F;
- Conduit will be installed with the use of PVC underground, GRC & EMT aboveground, Nema-1 indoor, Nema-3R outdoor, as required per code minimum;
- Allowances have NOT been included in this proposal;

Clarifications:

- The conduit routing and grouping shown in the drawings is considered a suggestion. Faith Electric will arrange and consolidate conduits and circuits where possible, ensuring adherence to code requirements.

Exclusions:

- Contract Exclusions apply;
- Bare Copper Ground in Trench / Duct banks (ESD-001 – Detail 16030);
- Vaults or hand holes;
- Seismic Engineering;
- X-ray or core drilling;

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Contract #: P2305

Project Name: P2305

Project #: P2305-City of Needles Well 11

Client PCO #:

Our PCO #: 4

Itemized Description

Description	Qty	Total Mat. \$	Total Hours
(MSB) MAIN SWITCHBOARD	1.000	0.00	21.000
(SB-1) SWITCHBOARD-1	1.000	0.00	12.000
1"Conduit - EMT 10' Lengths	141.770	226.63	5.742
2-1/2"Conduit - EMT 10' Lengths	78.830	452.30	6.543
4"Conduit - EMT 10' Lengths	24.600	242.23	3.370
2-1/2"Conduit - LFMC Steel Gray	9.000	92.70	1.602
2-1/2"Conduit - PVC 40 10' Lengths	50.350	174.77	4.431
4"Conduit - PVC 40 10' Lengths	71.590	431.06	9.879
2"Conduit - RMC Galvanized 10' Lengths	7.000	63.28	0.735
4"Conduit - RMC Galvanized 10' Lengths	40.030	1,107.01	9.807
2-1/2"Conduit - RMC Galvanized PVC Coated Gray 10' Lengths	20.000	349.15	3.320
2-1/2"Elbow 90 Degree - EMT	12.000	156.02	3.000
4"Elbow 90 Degree - EMT	6.000	183.39	7.200
2"Elbow 90 Degree - RMC Galvanized	3.000	39.94	0.975
4"Elbow 90 Degree - RMC Galvanized	8.000	468.06	7.760
2-1/2"Elbow 90 Degree - RMC Galvanized PVC Coated	4.000	289.02	2.280
1"Coupling - EMT Compression Steel	12.000	4.26	1.320
2-1/2"Coupling - EMT Compression Steel	18.000	69.75	4.860
4"Coupling - EMT Compression Steel	8.000	54.16	3.360
2-1/2"Coupling - PVC	4.000	4.48	0.168
4"Coupling - PVC	4.000	9.23	0.288
2"Coupling - RMC Galvanized	3.000	10.91	0.126
4"Coupling - RMC Galvanized	4.000	59.82	0.392
2-1/2"Coupling - RMC Galvanized PVC Coated	5.000	212.65	0.345
1"Connector - EMT Compression Steel	8.000	3.20	1.248
2-1/2"Connector - EMT Compression Steel	8.000	27.01	2.496
4"Connector - EMT Compression Steel	4.000	26.54	1.872
2-1/2"Connector - Liquidtight Malleable	6.000	254.67	1.920
2"Bushing - Plastic 105 Degree	2.000	0.31	0.116
2-1/2"Bushing - Plastic 105 Degree	12.000	2.30	0.840
4"Bushing - Plastic 105 Degree	12.000	2.62	1.296
2-1/2"Bushing Insulated - Malleable 150 Degree	4.000	34.14	0.280
2"Locknut - Steel	4.000	1.36	0.272
2-1/2"Locknut - Steel	8.000	6.13	0.680
4"Locknut - Steel	16.000	229.60	2.016
1"LB Conduit Body - RMC Galvanized w/ Cover & Gasket	3.000	120.78	2.040
2-1/2"LB Conduit Body - RMC Galvanized w/ Cover & Gasket	2.000	332.44	2.700
4"LB Conduit Body - RMC Galvanized w/ Cover & Gasket	2.000	1,071.58	3.420
2-1/2"Female Adapter - PVC Socket to Threaded	4.000	5.45	0.920
4"Female Adapter - PVC Socket to Threaded	4.000	9.40	1.600
2"Measure Cut & Thread Labor - RMC Galvanized	1.000	0.00	0.364
4"Measure Cut & Thread Labor - RMC Galvanized	1.000	0.00	0.770

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Contract #: P2305

Project Name: P2305

Project #: P2305-City of Needles Well 11

Client PCO #:

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Description	Qty	Total Mat. \$	Total Hours
PVC Cement Standard (per US Oz)	15.321	13.79	0.490
#14 BlackWire THHN / T90 - Copper	502.440	72.35	2.160
#14 GreenWire THHN / T90 - Copper	150.740	21.71	0.648
#10 GreenWire THHN / T90 - Copper	71.030	23.23	0.401
#8 BlackWire THHN / T90 - Copper	120.240	71.82	0.842
#6 BlackWire THHN / T90 - Copper	92.850	85.50	0.826
#2 GreenWire THHN / T90 - Copper	13.000	19.97	0.161
#1 GreenWire THHN / T90 - Copper	199.180	349.03	2.689
#1/0 GreenWire THHN / T90 - Copper	104.630	226.66	1.486
#4/0 BlackWire THHN / T90 - Copper	52.000	227.48	1.123
#350 BlackWire THHN / T90 - Copper	597.540	4,364.75	18.823
#600 BlackWire THHN / T90 - Copper	418.520	5,337.46	17.745
#1Wire Lug Compression for Aluminum or Copper w/ 1-Hole - Aluminum	2.000	11.03	0.400
#350Wire Lug Compression for Aluminum or Copper w/ 1-Hole - Aluminum	6.000	66.84	2.400
1/8" Polytwine	101.590	12.80	0.305
3/8" Polyrope	101.590	21.69	0.305
1"2-Piece Strut Clamp - Universal Steel Zinc Plated Break-Apart	14.466	104.97	0.810
2"2-Piece Strut Clamp - Universal Steel Zinc Plated Break-Apart	0.714	6.66	0.061
2-1/2"2-Piece Strut Clamp - Universal Steel Zinc Plated Break-Apart	8.044	90.50	0.853
4"2-Piece Strut Clamp - Universal Steel Zinc Plated Break-Apart	6.595	89.56	1.121
2" x 3" SpacingBase Spacer - EB / DB Duct	10.070	11.75	0.302
1/2-13 x 5-1/2"Stud (Wedge) Anchor - Stainless Steel 304	4.000	73.01	0.640
1/2-13 x 5-1/2"Stud (Wedge) Anchor - Stainless Steel 316	4.000	73.01	0.640
3/8-16Beam Clamp w/ Threaded Hole - Malleable Plated	48.000	50.69	3.840
3/8-16 x 1-1/2" LHex Head Bolt - Plated Steel Grade 2	4.000	8.09	0.184
1-5/8" D1-5/8" W Channel Solid - Steel Pre-Galvanized 12 Gauge 10' Lengths	60.000	939.15	6.000
3/8-16Hex Head Nut - Plated Steel	96.000	71.74	2.304
3/8-16Threaded Rod - Plated Steel 10' Lengths	144.000	82.89	4.320
3/8" x 1-1/4"Fender Washer - Plated Steel	96.000	28.80	1.536
3/8" x 1-1/2"Fender Washer - Plated Steel	4.000	2.53	0.064
1/2" x 1-1/2"Fender Washer - Stainless Steel 304	4.000	2.53	0.096
3/8"Lock Washer - Plated Steel	100.000	3.22	1.600
1/2"Lock Washer - Stainless Steel 304	4.000	2.52	0.096
Distribution Switchgear Put Into Place	2.000	0.00	6.520
600ASafety Switch Heavy Duty Fusible 600V 3 Pole - NEMA 3R	1.000	0.00	6.800
800A 3PBBreaker Molded Case - Open	1.000	0.00	3.500
#14Motor Termination 3-Conductor to 600V w/ Ground	1.000	0.00	0.460
#350Motor Termination 3-Conductor to 600V w/ Ground	2.000	0.00	9.760
#14Power Termination Per Wire to 600V	10.000	0.00	0.700
#12Power Termination Per Wire to 600V	4.000	0.00	0.360
#10Power Termination Per Wire to 600V	3.000	0.00	0.330
#6Power Termination Per Wire to 600V	5.000	0.00	0.850
#1/0Power Termination Per Wire to 600V	2.000	0.00	0.640

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Description	Qty	Total Mat. \$	Total Hours
#350Power Termination Per Wire to 600V	3.000	0.00	1.620
#600Power Termination Per Wire to 600V	8.000	0.00	5.600
800A 1-SectionDemolition - Service Switchgear - Up to 600 Volt (per Section)	1.000	0.00	4.000
HAMMER DRILL VARIABLE 2-SPEED	8.000	0.00	0.960
Conduit Label	22.000	139.92	3.740
Totals	3,866.730	19,535.99	256.464

Proposed Change Order

Faith Electric

1980 Orange Tree Lane, Suite 106
Redlands, California 92374

Client Address:

Pacific Hydrotech Corporation

314 E. 3rd Street
Perris, California 92570

Contract Name: P2305-City of Needles Well#11

Contract #: P2305

Project Name: P2305

Project #: P2305-City of Needles Well 11

Client PCO #:

Our PCO #: 4

Summary

Extension Materials					%	Total	
Database Material						19,536.00	
Total Extension Material Cost						19,536.00	
Material Tax					7.750	1,514.04	
Total Extension Material							21,050.04
Quotes	Cost	Tax %	OH %	MU %			Total
Panel SB-1	10,415.00	7.750	0.000	0.000			11,222.16
Square-D Main Breaker 800A	7,045.00	7.750	0.000	0.000			7,590.99
600A Safety Switch	3,740.00	7.750	0.000	0.000			4,029.85
Total Quotes							22,843.00
Labor	Hours	Rate	Sub Total	%			Total
Field Labor							
477 Foreman (Zone B)	128.232	137.21	17,594.71				
477 Journeyman (Zone B)	128.232	127.93	16,404.72				
Total Field Labor							33,999.43
Indirect Labor							
477 General Foreman (Zone B)	25.646	146.49	3,756.94				
Total Indirect Labor							3,756.94
Total Labor Cost							37,756.31
Total Labor							37,756.31
General Expenses	Qty	Duration	Cost/Unit	Tax %	OH %	MU %	Total
Daily Lodging (excluding taxes) \$124 Per Day, Oct 2023-Sept 2024	256.46	0.000	15.50	0.000	0.000	0.000	4,283.27
Meals and Incidentals (M&IE) \$64 Per Day	256.46	0.000	8.00	0.000	0.000	0.000	2,051.71
Small Tools and Consumables	33,999.63	1.000	0.01	0.000	0.000	0.000	340.00
Total General Expenses							6,674.98
Equipment	Qty	Duration	Cost/Unit	Tax %	OH %	MU %	Total
Foreman Service/Tool Truck (Per Hr.)	256.464	0.500	24.70	0.000	0.000	0.000	3,167.33
Total Equipment							3,167.33
Sub Total 1							91,491.66
Global Overhead()					15.000		13,723.75
Global Markup					15.000		15,782.31
Total Global Overhead and Markup							29,506.06
Subcontracts	Cost	Tax %	OH %	MU %			Total
Coordination Studies	5,600.00	0.000	0.000	5.000			5,880.00
Total Subcontracts							5,880.00
Sub Total 2							126,877.72
Final Adj					-0.001		-0.72
Total Adjustments							-0.72

Proposed Change Order

Faith Electric
1980 Orange Tree Lane, Suite 106
Redlands, California 92374

Client Address:
Pacific Hydrotech Corporation
314 E. 3rd Street
Perris, California 92570

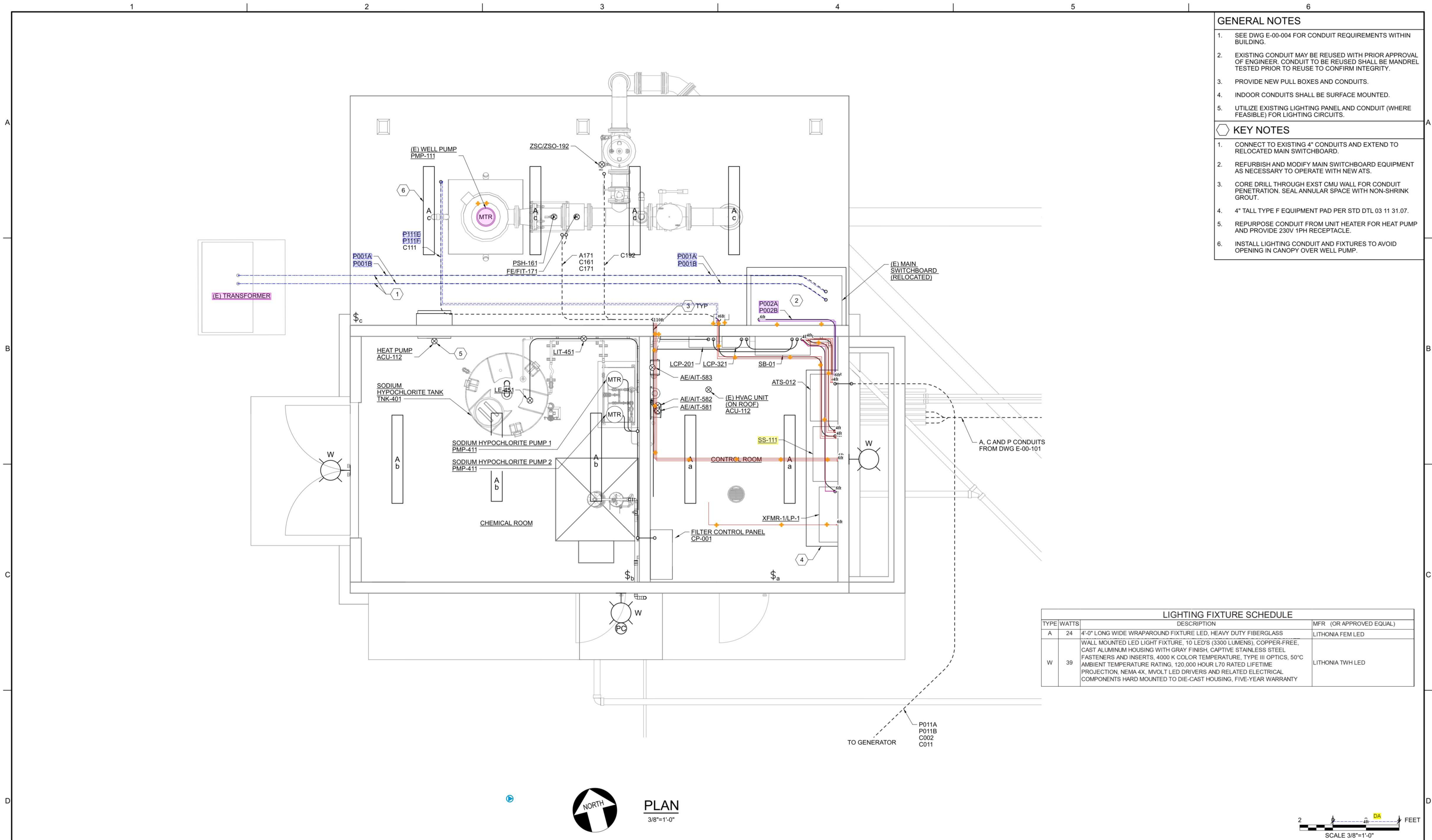
Contract Name: P2305-City of Needles Well#11
Contract #: P2305
Project Name: P2305
Project #: P2305-City of Needles Well 11
Client PCO #:
Our PCO #: 4

Total 126,877.00

Client Acceptance

PCO #:	4
Final Amount:	\$ 126,877.00
Name:	<div></div>
Date:	<div></div>
Signature:	<div></div>
Change Order #:	<div></div>

I hereby accept this quotation and authorize the contractor to complete the above described work



- GENERAL NOTES
1.

SEE DWG E-00-004 FOR CONDUIT REQUIREMENTS WITHIN BUILDING.
2.

EXISTING CONDUIT MAY BE REUSED WITH PRIOR APPROVAL OF ENGINEER. CONDUIT TO BE REUSED SHALL BE MANDREL TESTED PRIOR TO REUSE TO CONFIRM INTEGRITY.
3.

PROVIDE NEW PULL BOXES AND CONDUITS.
4.

INDOOR CONDUITS SHALL BE SURFACE MOUNTED.
5.

UTILIZE EXISTING LIGHTING PANEL AND CONDUIT (WHERE FEASIBLE) FOR LIGHTING CIRCUITS.
- KEY NOTES
1.

CONNECT TO EXISTING 4" CONDUITS AND EXTEND TO RELOCATED MAIN SWITCHBOARD.
2.

REFURBISH AND MODIFY MAIN SWITCHBOARD EQUIPMENT AS NECESSARY TO OPERATE WITH NEW ATS.
3.

CORE DRILL THROUGH EXST CMU WALL FOR CONDUIT PENETRATION. SEAL ANNULAR SPACE WITH NON-SHRINK GROUT.
4.

4" TALL TYPE F EQUIPMENT PAD PER STD DTL 03 11 31.07.
5.

REPURPOSE CONDUIT FROM UNIT HEATER FOR HEAT PUMP AND PROVIDE 230V 1PH RECEPTACLE.
6.

INSTALL LIGHTING CONDUIT AND FIXTURES TO AVOID OPENING IN CANOPY OVER WELL PUMP.

LIGHTING FIXTURE SCHEDULE			
TYPE	WATTS	DESCRIPTION	MFR. (OR APPROVED EQUAL)
A	24	4'-0" LONG WIDE WRAPAROUND FIXTURE LED, HEAVY DUTY FIBERGLASS	LITHONIA FEM LED
W	39	WALL MOUNTED LED LIGHT FIXTURE, 10 LED'S (3300 LUMENS), COPPER-FREE, CAST ALUMINUM HOUSING WITH GRAY FINISH, CAPTIVE STAINLESS STEEL FASTENERS AND INSERTS, 4000 K COLOR TEMPERATURE, TYPE III OPTICS, 50°C AMBIENT TEMPERATURE RATING, 120,000 HOUR L70 RATED LIFETIME, PROJECTION, NEMA 4X, MVOLT LED DRIVERS AND RELATED ELECTRICAL COMPONENTS HARD MOUNTED TO DIE-CAST HOUSING, FIVE-YEAR WARRANTY	LITHONIA TWH LED

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

NO	DATE	REVISION	BY	APVD

REGISTERED PROFESSIONAL ENGINEER

J. BOYLES

No. C66413

CIVIL

STATE OF CALIFORNIA

9-8-2023

DESIGN
J. BOYLES
DRAWN
J. RIESS
CHECKED
J. RIESS
APPROVED
J. RIESS

Drinking Water

WATERWORKS

ENGINEERS

GARDENA, CALIFORNIA

PH

PACIFIC HYDROTECH CORPORATION

CITY OF NEEDLES

WELL 11 TREATMENT PROJECT

NEEDLES, CALIFORNIA

ELECTRICAL

WELLHEAD AND CONTROL BUILDING PLAN

DATE
SEPTEMBER 2023

PROJECT NO.
22-107

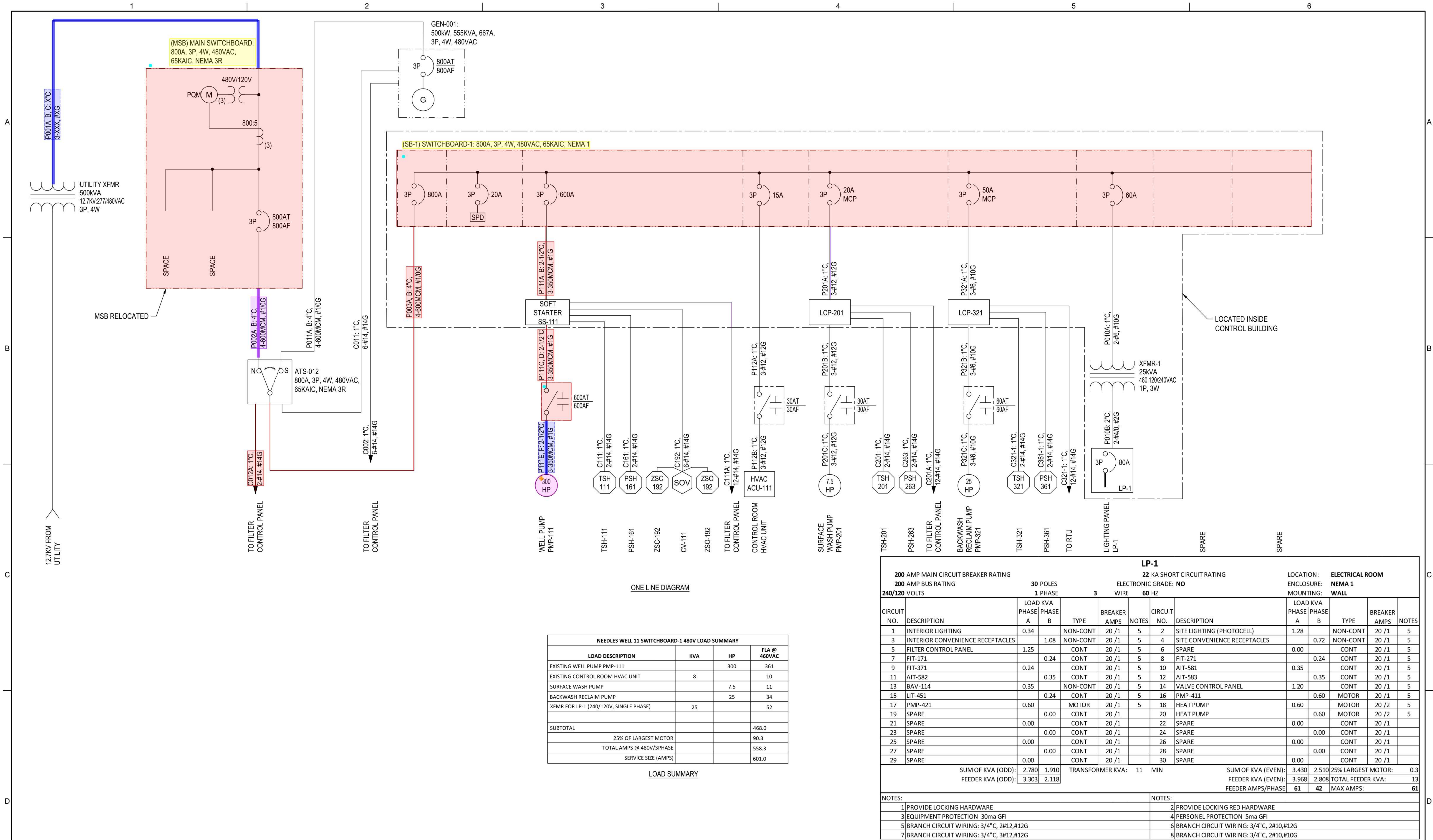
DRAWING NO.
E-10-101

SHEET NO.
43

FILENAME: L:\CAD\Projects\22-107 Needles Well 11 Treatment Plant Upgrade\07 Drawings\22-107D-E-10-101.dgn

PLOT DATE: 9/8/2023

PLOT TIME: 12:57:59 PM





Base Bid Proposal: \$41,120.00 C/N

Exceptions / Notes:

1. 100% Drawings dated June 2023.
2. Alternate utilizing Power Panel
3. Generator and ATS are F.B.O.'s.
4. LCP's are not included.
 - a. Motor Starter option includes starters as listed, below. All control and pilot devices are F.B.O.'s within the LCP's.

Bill of Material:

Item	Qty	Description
1	1	Starter, Enclosed Softstarter, PSTX, X400-B2-48-ND PSTX ENCLOSED 400HP 480V TYPE12 ND <ul style="list-style-type: none">• Door Mounted Keypad• Comm. Mod• I/O Module• 3 - Sel Sw/P.B.'s• 3 - P.T.T. Pilot Lights• CPT• ETM• 7 Control Relays• 3 - TDR's
2	1	Power Panelboard, ReliaGear neXT SB-1 \$10,415 1 Section(s), Nema 1 Enclosure 800 Amps, 3 Phase 4 Wire 480Y/277V, 50/60 Hz Minimum Interrupt Rating: 65kA Fully Rated Incoming Feed: Bottom Surface Mounted UL67 Certified Height: 72 Inches; Width: 45 Inches; Depth: 11 Inches; Est. Weight: 481 lbs 1 800 Amps Main Breaker XT6HU3800BYU000XXX 1 TMA Horiz. XT6 (3) 2/0-400 mcm, No Feed Through Lugs Main Option Details 1 Tin Plated Copper Bus Heat Rated 1 100% Rated Neutral 1 NEMA 1 Enclosure Feeders 1 Breaker Device 600 Amps 3 Poles XT5HU360BBYN000XXX 1 TMA 1 (2) 2/0 AWG - 500 MCM 1 Breaker Device 50 Amps 3 Poles XT1HU3050AYD000XXX 1 TMF 1 (1) 10 - 2/0 AWG



Project#: -4570R1

Date:10/12/2023

Project Name/Reference: City of Needles Well 11
Treatment

1 Breaker Device 35 Amps 3 Poles XT1HU3035AYD000XXX
1 TMF
1 (1) 10 - 2/0 AWG
1 Breaker Device 20 Amps 3 Poles XT1HU3020AYD000XXX
1 TMF
1 (1) 10 - 2/0 AWG
1 Breaker Device 15 Amps 3 Poles XT1HU3015AYD000XXX
1 TMF
1 (1) 10 - 2/0 AWG
1 Ground: GDBG10AL
1 Bus: IN2408NN3H4
1 Neutral: NL12I0NSTNDAL
1 Enclosure: ER7245A
1 Frame: IF2445F
1 Front 1 of 2: FT45S00135
1 Front 2 of 2: FT45S00215
1 Gutter: GC45F24NNA
1 Surge Protection: SP277Y12X402
1 Spacer: SR01BF
1 Spacer: SR02BB
4 Spacer: SR03BB
1 Spacer: SR03BF
2 Spacer: SR2XBR
1 Lifting Bar: IL45F
1 PPXT FA INT
1 PPXT FA BOX

Del. 20-22 Weeks After release to Production

- 3 1 Transformer, Copper, 9T10C1002 XFMR-1**
1 3 Phase, 60 Hz, 30 kVA
Ambient Temperature : 40°C
Coil Material : Copper
Primary Voltage : 480, Primary Connection : Delta
Secondary Voltage : 208Y/120, Secondary Connection : Wye
Temperature Rise : 150
Energy Efficiency : DOE 2016 (Std)
Enclosure : NEMA 1/NEMA 2
Taps(Nominal) : 2 above 4 below 2.5%
Impedance : 4.2%
K Factor : K1
Sound Level : Std(45dB)
UL : Yes, cUL : No, CE : No,
Accessories :
1 9T18Y1071G11 Ground Bar Kit included
1 9T18Y1072G10 Lug Kit included
Factory Individualized Transformer Test Reports :
NEMA ST-20 Sound Level Test Report - Not Required
IEEE std C57.12.91 Electrical Test Performance Report - Not Required
- 4 1 Lighting Panelboard, ReliaGear RQ LP-1**
1 Section(s), Nema 1 Enclosure
125 Amps, 3 Phase 4 Wire 208Y/120V, 50/60 Hz
Minimum Interrupt Rating: 22kA Fully Rated
Incoming Feed: Bottom
Surface Mounted



Project#: -4570R1

Date:10/12/2023

**Project Name/Reference: City of Needles Well 11
Treatment**

-
- 1 30 Circuits
 UL67 / CSA C22.2 No. 29 Certified
 cULus Certified
 Height: 31.5 Inches; Width: 20 Inches; Depth: 5.75 Inches
 60 Amps Main Breaker THHQB
 1-lug/phase 1-cable/lug #14 -#3



Item	Qty	Description
		Main Option Details
	1	Copper Bus Heat Rated
	3	Ground-Box bonded TGL2
	1	Ground main lug TGL20
	1	100% Rated Neutral
	1	NEMA 1 Enclosure
		Feeders
	23	Breaker Device 20 Amps 1 Poles THHQB
	7	Breaker Device 15 Amps 1 Poles THHQB
	1	Interior: AQF3301CBX AXB7
	1	Box: AB31B
	1	Front: AF31S
5	1	Switches and Disconnects, Heavy Duty Safety Switch, THF3366A1 \$3,470
	1	Suitable for use as Service Equipment Heavy Duty 600 Amps Fusible 3 Poles 600VAC/250VDC NEMA 1 (Indoor) For Use Size With (2) 4-600* Copper or Size (2) 4-600* Aluminum wire *600MCM restricted to side entry only Height : 54.1 Width : 24.5 Depth : 8.5 Weight : 117 Switch is NEC 2020 Article 230.62 compliant for service equipment barriers.
		Accessories :
	1	TGL6 , Equipment Ground Kit, (3) #2-250MCM CU/AL Standard Fuse Clips Supplied
	1	THAUX66DA , Aux Contact Kit-DPDT
	3	TRS600R, 600 Amps, RK5 - Time Delay
6	2	Switches and Disconnects, Heavy Duty Safety Switch, TH3361
		30A FS
	1	Suitable for use as Service Equipment Heavy Duty 30 Amps Fusible 3 Poles 600VAC/250VDC NEMA 1 (Indoor) For Use Size With 12-6 Copper or Size 12-6 Aluminum wire Height : 12.56 Width : 8.31 Depth : 4 Weight : 11 Switch is NEC 2020 Article 230.62 compliant for service equipment barriers.
		Accessories :
	1	TGL1 , Equipment Ground Kit, (4) 14-8 AWG CU/12-8 AWG AL Standard Fuse Clips Supplied
	1	THAUX64D , Aux Contact Kit-DPDT
	3	TRS30R, 30 Amps, RK5 - Time Delay
7	1	Switches and Disconnects, Heavy Duty Safety Switch, TH3362
		60A FUS. SAFETY SW
	1	Suitable for use as Service Equipment



Project#: -4570R1

Date:10/12/2023

Project Name/Reference: City of Needles Well 11
Treatment

Item	Qty	Description
		Heavy Duty 60 Amps Fusible 3 Poles 600VAC/250VDC NEMA 1 (Indoor) For Use Size With 12-2 Copper or Size 12-2 Aluminum wire Height : 21.34 Width : 9.38 Depth : 5 Weight : 18 Switch is NEC 2020 Article 230.62 compliant for service equipment barriers.
		Accessories :
1		TGL1 , Equipment Ground Kit, (4) 14-8 AWG CU/12-8 AWG AL Standard Fuse Clips Supplied
1		THAUX64D , Aux Contact Kit-DPDT
3		TRS60R, 60 Amps, RK5 - Time Delay

****GENERAL COMMENTS, CLARIFICATIONS, SPECIAL CONDITIONS –VERY IMPORTANT PLEASE
READ CAREFULLY ****

1. Payment terms are Net 30 days
2. All equipment is NEMA 1 unless otherwise noted.
3. Installation by others.
4. Price(s) quoted do not include any applicable taxes.
5. Manufacturer's standard terms and conditions of sale apply. Standard warranty is 12 months after energization not to exceed 18 months after shipment. Additional warrant is available for 2% each additional year up to 5 years max.
6. Freight is FOB shipping point, full freight allowed unless otherwise noted. Open top trucks or other special delivery requests are not included. FOB jobsite can be provided for a 2% adder to the quoted price.
7. This quotation is valid for (15) days, unless changed in the interim upon written notice from Main Power.
8. Field service, spare parts, start-up, training, seismic calculations, factory witness testing, short circuit studies, coordination studies, selective coordination, arc fault studies, harmonic studies, transformer lugs, termination products fuses, control products and safety switches are NOT included, unless listed specifically as a line item.
9. Buyer may cancel any orders for material and/or service, but is subject to each manufacturer's terms of sale and only if Main Power agrees to such cancellation in writing and only after buyer agrees to pay reasonable charges for expenses already incurred.
10. Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof. Main Electric is not responsible for storage or related costs if jobsites are closed and unable to accept deliveries.
11. Add to Existing Pricing is based on the equipment being a current design.
12. Quoted lead-times are approximations based on current factory loading and anticipated component availability. Lead times provided are not guaranteed.
13. In no circumstance does Main Electric Supply agree to pay any amount identified as a penalty or liquidated damages for failure to meet a shipping date or schedule unless expressly agreed to in writing by an officer of Main Electric Supply.
14. Defense Priorities & Allocations System (DPAS)- All prime contracts, subcontracts or purchase orders in support of an authorized program are given a priority rating. Main Electric must be notified of the priority rating and ship date at time of bid.



Project#: -4570R1

Date:10/12/2023

**Project Name/Reference: City of Needles Well 11
Treatment**



QUOTATION

REFERENCE # 109056
REVISION# 2
DATE: 12/11/2023

CUSTOMER: FAITH ELECTRIC
ATTENTION:
JOB NAME: WELL 11 TREATMENT PROJECT
LOCATION: NEEDLES, CA

CONTACT: SALVADOR CARDENAS
EMAIL: SALVADOR.CARDENAS@GRAYBAR.COM
PHONE: 909-451-4327
SALES REP: MARICELA MOYA

QUOTE VALID FOR 30 DAYS - ESCALATION NOT INCLUDED

QTY	DESCRIPTION OF MATERIAL AND/OR PART NUMBER	UNIT PRICE	UM	EXTENDED PRICE
1	LOT PER SQUARE D BOM# Q-4600427	7,045.00		7,045.00
	<p>•EXCLUDES TESTING, DISCONNECTS, GENERATORS, ATS'S, AND UPS'S UNLESS SPECIFICALLY SHOWN ON ATTACHED BOM</p> <p>•ORDERS NOT RELEASED WITHIN 30 CALENDAR DAYS OF RECEIPT OR WITHIN 30 CALENDAR DAYS OF GRAYBAR/SCHIEDER ELECTRIC DELIVERING APPROVAL DRAWINGS MAY BE SUBJECT TO PRICE ADJUSTMENTS</p>			
TOTAL:				7,045.00

SELLER SHALL NOT BE RESPONSIBLE FOR ANY FAILURE TO PERFORM, OR DELAY IN PERFORMANCE OF, ITS OBLIGATIONS RESULTING FROM THE COVID-19 PANDEMIC OR ANY FUTURE EPIDEMIC, AND BUYER SHALL NOT BE ENTITLED TO ANY DAMAGES RESULTING THEREOF

UNDER NO CIRCUMSTANCES IS GRAYBAR ELECTRIC COMPANY, INC LIABLE FOR ANY PENALTIES RELATED TO OR IDENTIFIED AS LIQUIDATED DAMAGES FOR FAILURE TO MEET A DELIVERY SCHEDULE REGARDLESS OF THE CAUSE.

UNLESS EXCEPTIONS LISTED ABOVE, QUOTE EXPIRES 30 DAYS FROM DATE OF QUOTE.
SHIPMENT TO BE ADVISED UPON REQUEST.

BILL OF MATERIAL LISTED IS QUOTED TO SHIP DIRECT TO THE JOBSITE OR ANOTHER NON-GRAYBAR LOCATION SPECIFIED BY THE CUSTOMER.
MATERIAL THAT NEEDS TO BE RESHIPED THOUGH GRAYBAR'S WAREHOUSE WILL NEED TO BE REQUOTED AND APPROVED PRIOR.
PRICE DOES NOT INCLUDE ADDITIONAL SPECIAL SERVICES.

NO SPARES ARE INCLUDED UNLESS NOTED ABOVE.
APPROXIMATE LEAD TIMES AND SHIPPING POINTS AVAILABLE UPON REQUEST.
QUOTE IS BASED STRICTLY ON INFORMATION SUPPLIED BY YOU AT BID TIME.
QUOTE IS LIMITED TO THE ABOVE AND/OR ATTACHED BILL OF MATERIAL.
SALES TAX IS NOT INCLUDED.

SEE ATTACHED GRAYBAR ELECTRIC COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.
<https://www.graybar.com/standard-terms-and-conditions>

GRAYBAR FOLLOWS A THOROUGH APPROVAL PROCESS FOR ALL SUPPLIERS IN AN EFFORT TO HELP OUR CUSTOMERS MAKE THE BEST PURCHASING DECISION. THERE ARE OCCASIONS WHERE THE APPROVAL PROCESS REQUIRES MORE TIME THAN THE QUOTATION PROCESS. ADDITIONALLY, THIS PROCESS SOMETIMES PRODUCES ISSUES WHICH MAY CAUSE OUR ORIGINAL QUOTATION TO BE ALTERED OR EVEN CANCELLED DUE TO CIRCUMSTANCES BEYOND OUR CONTROL. CONSEQUENTLY, WE ARE MAKING THIS QUOTATION TO YOU IN THE INTEREST OF TIME, BUT RESERVE THE RIGHT TO MAKE CHANGES TO OUR QUOTATION AS A RESULT OF THE APPROVAL PROCESS.

GRAYBAR ELECTRIC COMPANY, INC.

TERMS AND CONDITIONS OF SALE

(CSM 6.1)

7/14/2011

1. **ACCEPTANCE OF ORDER; TERMINATION** - Acceptance of any order is subject to credit approval and acceptance of order by Graybar Electric Company, Inc. ("Graybar") and, when applicable, Graybar's suppliers. If credit of the buyer of the goods ("Buyer") becomes unsatisfactory to Graybar, Graybar reserves the right to terminate upon notice to Buyer and without liability to Graybar.
2. **PRICES AND SHIPMENTS** - Unless otherwise quoted, prices shall be those in effect at time of shipment, which shall be made F.O.B. shipping point, prepaid and bill.
3. **RETURN OF GOODS** - Credit may be allowed for goods returned with prior approval. A deduction may be made from credits issued to cover cost of handling.
4. **TAXES** - Prices shown do not include sales or other taxes imposed on the sale of goods. Taxes now or hereafter imposed upon sales or shipments will be added to the purchase price. Buyer agrees to reimburse Graybar for any such tax or provide Graybar with acceptable tax exemption certificate.
5. **DELAY IN DELIVERY** - Graybar is not to be accountable for delays in delivery occasioned by acts of God, failure of its suppliers to ship or deliver on time, or other circumstances beyond Graybar's reasonable control, including, but not limited to, sourcing, shipment or delivery issues caused by, related to, or resulting from COVID-19 or other similar national or global health situations. Factory shipment or delivery dates are the best estimates of our suppliers, and in no case shall Graybar be liable for any consequential or special damages arising from any delay in shipment or delivery.
6. **LIMITED WARRANTIES** - Graybar warrants that all goods sold are free of any security interest and will make available to Buyer all transferable warranties (including without limitation warranties with respect to intellectual property infringement) made to Graybar by the manufacturer of the goods. GRAYBAR MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, AND SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE. UNLESS OTHERWISE AGREED IN WRITING BY AN AUTHORIZED REPRESENTATIVE OF GRAYBAR, PRODUCTS SOLD HEREUNDER ARE NOT INTENDED FOR USE IN OR IN CONNECTION WITH (1) ANY SAFETY APPLICATION OR THE CONTAINMENT AREA OF A NUCLEAR FACILITY, OR (2) IN A HEALTHCARE APPLICATION, WHERE THE GOODS HAVE POTENTIAL FOR DIRECT PATIENT CONTACT OR WHERE A SIX (6) FOOT CLEARANCE FROM A PATIENT CANNOT BE MAINTAINED AT ALL TIMES.
7. **LIMITATION OF LIABILITY** - Buyer's remedies under this agreement are subject to any limitations contained in manufacturer's terms and conditions to Graybar, a copy of which will be furnished upon written request. Furthermore, Graybar's liability shall be limited to either repair or replacement of the goods or refund of the purchase price, all at Graybar's option, and IN NO CASE SHALL GRAYBAR BE LIABLE FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES. In addition, claims for shortages, other than loss in transit, must be made in writing not more than five (5) days after receipt of shipment.
8. **WAIVER** - The failure of Graybar to insist upon the performance of any of the terms or conditions of this agreement or to exercise any right hereunder shall not be deemed to be a waiver of such terms, conditions or rights in the future, nor shall it be deemed to be a waiver of any other term, condition, or right under this agreement.
9. **MODIFICATION OF TERMS AND CONDITIONS** - These terms and conditions supersede all other communications, negotiations, and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions shall be binding upon Graybar unless made in writing and signed on its behalf by a duly authorized representative of Graybar. No conditions, usage of trade, course of dealing or performance, understanding or agreement, purporting to modify, vary, explain, or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by the party to be bound. Any proposed modifications or additional terms are specifically rejected and deemed a material alteration hereof. If this document shall be deemed an acceptance of a prior offer by Buyer, such acceptance is expressly conditional upon Buyer's assent to any additional or different terms set forth herein.
10. **REELS** - When Graybar ships returnable reels, a reel deposit may be included in the invoice. The Buyer should contact the nearest Graybar service location to return reels.
11. **CERTIFICATION** - Graybar hereby certifies that these goods were produced in compliance with all applicable requirements of Sections 6, 7, and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof. This agreement is subject to Executive Order 11246, as amended, the Rehabilitation Act of 1973, as amended, the Vietnam Veterans' Readjustment Assistance Act of 1974, as amended, E.O. 13496, 29 CFR Part 471, Appendix A to Subpart A, and the corresponding regulations, to the extent required by law. 41 CFR 60-1.4, 60-741.5, and 60-250.5 are incorporated herein by reference, to the extent legally required.
12. **FOREIGN CORRUPT PRACTICES ACT** - Buyer shall comply with applicable laws and regulations relating to anti-corruption, including, without limitation, (i) the United States Foreign Corrupt Practices Act (FCPA) (15 U.S.C. §§78dd-1, et. seq.) irrespective of the place of performance, and (ii) laws and regulations implementing the Organization for Economic Cooperation and Development's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the U.N. Convention Against Corruption, and the Inter-American Convention Against Corruption in Buyer's country or any country where performance of this agreement or delivery of goods will occur.
13. **ASSIGNMENT** - Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of Graybar, and any such assignment, without such consent, shall be void.
14. **GENERAL PROVISIONS** - All typographical or clerical errors made by Graybar in any quotation, acknowledgment or publication are subject to correction. This agreement shall be governed by the laws of the State of Missouri applicable to contracts to be formed and fully performed within the State of Missouri, without giving effect to the choice or conflicts of law provisions thereof. All suits arising from or concerning this agreement shall be filed in the Circuit Court of St. Louis County, Missouri, or the United States District Court for the Eastern District of Missouri, and no other place unless otherwise determined in Graybar's sole discretion. Buyer hereby irrevocably consents to the jurisdiction of such court or courts and agrees to appear in any such action upon written notice thereof.
15. **PAYMENT TERMS** - Payment terms be as stated on Graybar's invoice or as otherwise mutually agreed. As a condition of the sales agreement, a monthly service charge of the lesser of 1-1/2% or the maximum permitted by law may be added to all accounts not paid by net due date. Visa, MasterCard, American Express, and Discover credit cards are accepted at point of purchase only.
16. **EXPORTING** - Buyer acknowledges that this order and the performance thereof are subject to compliance with any and all applicable United States laws, regulations, or orders. Buyer agrees to comply with all such laws, regulations, and orders, including, if applicable, all requirements of the International Traffic in Arms Regulations and/or the Export Administration Act, as may be amended. Buyer further agrees that if the export laws are applicable, it will not disclose or re-export any technical data received under this order to any countries for which the United States government requires an export license or other supporting documentation at the time of export or transfer, unless Buyer has obtained prior written authorization from the United States Office of Export Control or other authority responsible for such matters.

Prepared By:

David Whitney
GRAYBAR ELECT CO
1370 Valley Vista Dr., Ste. 100
Diamond Bar, CA 91765
david.whitney@graybar.com
D:949-649-9757

Proposal Name: City of Needles Well 11 Treatment

Quote Name: City of Needles Well 11 Treatment

Proposal Number: P-230324-3645608

Quote Number: Q-4600427

Quote Date: 12/11/2023

Through Addenda Number: 0

Sales Representative: Patrick Greenwood

Conditions of Sale

This Quotation is subject to Coordinated Project Terms. See <https://www.se.com/us/en/download/document/0100PL0043/>

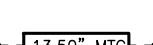
Quoted price in currencies other than U.S. Dollars is per the annual Schneider Electric exchange guidance.

Quote is valid for 30 days. Quoted lead times are approximate and subject to change.

Schneider Electric reserves the right to amend, withdraw or otherwise alter this submission without penalty or charge as a result of any event beyond its control arising from or due to the current Covid-19 epidemic or events subsequent to this epidemic / pandemic including changes in laws, regulations, by laws or direction from a competent authority.

Seq #	Qty	Product Description
1	1	Designation : MSB Product Details: 1 - HCP14508-PANELBOARD INTERIOR ILINE 800A MLO 3PH Consisting of 480V 3Ph 3W 60Hz Wye Grounded SCCR: 65kA Fully Rated Main Lug Only: 800A Incoming Conductors: 1 - (3) 3/0 - 500 kcmil AL Ground Bar Bus: 800A Rated Copper: Tin Plated 27" of Mounting Inches Type 1, Incoming: Bottom Trim: Surface with Door Box Cat No: HC4250DB Front Cat No: HCW50TSD Ref. Drawing: PBA418 Type: HCP Feeders: 4 - 250A/3P JJ Prepared Space 1 - 800AS/800AT/3P PJ Std. LSI 100% Optional Features: Standard Panel (Box Ahead),Seismic Qualification - IBC/ASCE7/CBC/NBCC,Standard Ground Bar,Standard Mains and Feeders Mechanically Restrained Branch User Placement Merchandised (RTI) 1 - PK32DGTA-PANELBOARD GP 1 - HNM4BL-PNLBD 4.5 FIL 1 - HLW4BL-PNLBD 4 1 - HLN4BL-PNLB 1 - PJA3608 1 - HC 1

REV	DESCRIPTION	BY	DATE	---	---	---	---
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CKT NO	ACCESSORIES	TYPE	RATING AMP/P	PHASE BUS CONN				PHASE BUS CONN	RATING AMP/P	TYPE	ACCESSORIES	CKT NO
1	PS 4.50" FP	JJ	250/3	A B C	C B A	250 /3	JJ	PS 4.50" FP	2			
3	Std. LSI 100%	PJ	800AS 800AT/3	A B C	C B A	250 /3	JJ	PS 4.50" FP	4			
				A B C	C B A	250 /3	JJ	PS 4.50" FP	6			
				A B C	C B A	250 /3	JJ	PS 4.50" FP	6			

PHYSICAL DATA

ENCLOSURE Type 1
Surface with Door
FRONT CAT#: HCW50TSD
BOX CAT#: HC4250DB
DIMENSIONS:
50"(1270mm)Hx42"(1067mm)Wx9.5"(241mm)D
WIRE BENDING SPACE:
TOP – 11.66"(296mm)
BOTTOM – 16.32"(415mm)
LEFT SIDE – 8.66"(220mm)
RIGHT SIDE – 8.77"(223mm)
PBA: 418
BUSSING: 800A RATED COPPER BUS
Tin Plated
OPTIONAL FEATURES:
SEISMICALLY QUALIFIED : IBC/ASCE7/CBC/NBCC
BRANCH USER PLACEMENT
ALUMINUM GROUND BAR
Maximum Panel Weight 470.
Depth Center of Gravity 9.5
(Continued on next page.)


ELECTRICAL DATA

SYSTEM: 480V 3Ph 3W 60Hz Wye
Common Point Grounded
System Ampacity: 800A
65kA SYMS. SCCR
Fully Rated
MAIN: MAIN LUGS : 800A
Bottom FEED
INCOMING CONDUCTORS(S) PER NEC, CEC, NOM:
Wire Bending Space:
Phase Lugs:1 – (3) 3/0 – 500 kcmil
-----BRANCH SUMMATION-----
4 – 250A/3P-PS JJ 1 – 800A/3P PJ STD LSI

JOB NAME:	City of Needles Well 11 Treatment	EQUIPMENT DESIGNATION:	MSB
JOB LOCATION:		EQUIPMENT TYPE:	I-Line (Circuit Breaker Type) PANEL 1 OF 1
DRAWN BY:	(Q2C)	DRAWING TYPE:	ONE LINE DIAGRAM
ENGR:			
DATE:	December 10 2023	by Schneider Electric	
DRAWING STATUS:	QUOTE	DWG#	OQ-4600427-134458639-01 PG 1 OF 2 REV -

REV	DESCRIPTION	BY	DATE	-	----	--	--/--/--
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PHYSICAL DATA CONTINUED
Elevation Center of Gravity 25.0
Vertical Center of Gravity 21.0

JOB NAME:	City of Needles Well 11 Treatment	EQUIPMENT DESIGNATION:	MSB
JOB LOCATION:		EQUIPMENT TYPE:	I-Line (Circuit Breaker Type) PANEL 1 OF 1
DRAWN BY:	(Q2C)	DRAWING TYPE:	ONE LINE DIAGRAM
ENGR:			
DATE:	December 10 2023	<small>by Schneider Electric</small>	
DRAWING STATUS:	QUOTE	DWG#	0Q-4600427-134458639-01
		PG	2 OF 2
		REV	-

REV	DESCRIPTION	BY	DATE	--	----	--	---/---/---
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REQUIREMENTS FOR SEISMIC RATING

SQUARE D PANELBOARDS HAVE BEEN TESTED TO IBC/ASCE7/CBC/NBCC.

THE PANELBOARD TYPES LISTED BELOW MEET THE IBC/ASCE7/CBC/NBCC.

PANELBOARD TYPE	ENCLOSURE TYPE
NQ	TYPE 1, 3R, 5, 12, 4/4X (SS)
NQ COLUMN WIDTH	TYPE 1
NF (STANDARD OR COLUMN WIDTH)	TYPE 1, 3R, 5, 12, 4/4X (SS)
I-LINE	TYPE 1, 3R, 5, 12, 4/4X (SS)
QMB	TYPE 1, 3R, 5, 12, 4/4X (SS)

GUIDELINES:

- 1) BOLT-ON CIRCUIT BREAKERS ARE REQUIRED ON NQ AND NF PANELBOARDS.
- 2) ENCLOSURES MUST BE SECURED TO THE WALL OR STRUCTURE BY UTILIZING ALL MOUNTING HOLES PROVIDED IN THE ENCLOSURE AND SECURED WITH SAE GRADE 5 STEEL BOLTS SIZED PER THE MOUNTING HOLES.

ANCHORING CONDITIONS

TO MAINTAIN SEISMIC QUALIFICATIONS, EQUIPMENT MUST BE INSTALLED PER MANUAL (SEE GENERAL NOTES) IN ADDITION TO ANY SEISMIC ANCHORING DETAILS PROVIDED BY OTHERS. DO NOT INSTALL EQUIPMENT BEFORE APPROVED SEISMIC ANCHORING DETAILS HAVE BEEN OBTAINED AND SITE PREPARATIONS HAVE BEEN. MADE IN ACCORDANCE WITH THE APPROVED SEISMIC ANCHORING DETAILS. ALL POST-INSTALLED ANCHORS SHALL BE APPROVED FOR SEISMIC LOADS.

CENTER OF GRAVITY:


THE CG INFORMATION PROVIDED BELOW SHOULD ONLY BE USED FOR SEISMIC ANCHORING CALCULATIONS.

ELEVATION CENTER OF GRAVITY: 25.0	"ABOVE BOTTOM OF ENCLOSURE
DEPTH CENTER OF GRAVITY: 9.5	"FROM BACK WALL OF ENCLOSURE
VERTICAL CENTER OF GRAVITY: 21.0	"FROM LEFT WALL OF ENCLOSURE

SECTION WEIGHT:

THE WEIGHTS GIVEN BELOW ARE THE MAXIMUM FOR EACH SECTION AND SHOULD BE USED FOR CALCULATING. SEISMIC ANCHORING REQUIREMENTS

MAXIMUM PANEL WEIGHT: 470. LBS / 213.KGS

JOB NAME:	City of Needles Well 11 Treatment	EQUIPMENT DESIGNATION:	MSB
JOB LOCATION:		EQUIPMENT TYPE:	I-Line (Circuit Breaker Type) PANEL 1 OF 1
DRAWN BY:	(Q2C)	DRAWING TYPE:	ONE LINE DIAGRAM
ENGR:			
DATE:	December 10 2023		
DRAWING STATUS:	QUOTE	DWG#	0Q-4600427-134458639-S1
		PG 1	OF 1
		REV	-