

ADDENDA NO. 01

Date: August 07, 2019

Project Name: Los Venados Booster Pump Station
Replacement

Subject: Addenda No. 01

Project No.: CITY BID NO. 2019-82
ROE: 18012

A handwritten signature in cursive script, appearing to read "Robinson", written over the bottom portion of the professional seal.

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED
BY RENE R. OLIVAREZ, P.E. 102302

NOTICE TO PROPOSERS

- A. Receipt of this Addendum shall be acknowledged on the Proposal Form.
- B. This Addendum forms part of the Contract documents for the above referenced project and shall be incorporated integrally therewith.
- C. Each proposer shall make necessary adjustments and submit his proposal with full knowledge of all modifications, clarifications, and supplemental data included therein. Where provisions of the following supplemental data differ from those of the original Contract Documents, this Addendum shall govern.
- D. This addendum is generally separated into sections for convenience; however, all contractors, subcontractors, material men and other parties shall be responsible for reading the entire addendum. The failure to list an item or items in all affected sections of this addendum does not relieve any party affected from performing as per instructions, providing that the information is set forth one time in this addendum.

ELECTRICAL

- Item 1 Site layout was updated. Refer to sheet ES1.0.
- Item 2 Existing power pole, weather head and meter will remain. Provide new 100AF/3P/N3 disconnect. Refer to sheet E3.0 Note 4.
- Item 3 Added pressure relief switch at pipe riser before pumps. Refer to sheet ES1.0 Note 6 and ES2.0 Note 9.
- Item 4 Removed area light. Refer to sheet ES2.0.
- Item 5 Replace RTU enclosure with new NEMA 4X stainless steel enclosure provided by municipal pumps & controls. Remove existing back plate and reinstall on new enclosure. Coordinate integration and connections of equipment with Municipal Pumps & Controls, Inc. Contact at 956-790-8430. Refer to sheet ES2.0 Note 8 and E3.0 Note 5.
- Item 6 Removed schematics, one-line, and panel riser and dimensions previously on sheet E.4.0 and E5.0. Details are now on sheet E4.0. Contractor shall provide panel with necessary I/O inputs ready for Municipal Pumps & Controls, Inc. to integrate with SCADA Communications using the existing RTU.

ADDENDA

- A. The following Addenda have been received. The modifications to the Proposal Documents noted below have been considered and all costs are included in the Proposal Sum.
 - 1. ____ Addendum # 1 Dated _____.
 - 2. ____ Addendum # 2 Dated _____.
 - 3. ____ Addendum # 3 Dated _____.
 - 4. ____ Addendum # 4 Dated _____.
 - 5. ____ Addendum # 5 Dated _____.
 - 6. ____ Addendum # 6 Dated _____.

By signing below, I acknowledge receipt of all addendums.

SIGNATURE: _____ **DATE:** _____

ABBREVIATIONS

| A | | G | | P | |
|--------|------------------------------------|------|----------------------------------|-------|------------------------------------|
| ABV | AMPERES | GA | GAUGE | P | POLE, PUMP |
| A/C | ABOVE | GAL | GALLON | PH | PHASE |
| AC | AIR CONDITIONING | GALV | GALVANIZED | PNL | PANEL |
| ACC | AIR COOLED CHILLER | GC | GENERAL CONTRACTOR | POS | POINT OF SALE |
| ACCU | AIR COOLED CONDENSING UNIT | GEN | GENERATOR | PP | POWER POLE |
| AD | ACCESS DOOR | GFCI | GROUND FAULT CIRCUIT INTERRUPTER | PR | PAIR |
| ADA | AMERICANS WITH DISABILITIES ACT | GND | GROUND | PWR | POWER |
| AF | AMPERE FUSE, AMPERE FRAME | GUH | GAS UNIT HEATER | | |
| AFC | ABOVE FINISHED CEILING | | | Q | |
| AFF | ABOVE FINISHED FLOOR | | | QTY | QUANTITY |
| AFG | ABOVE FINISHED GRADE | | | R | |
| AHU | AIR HANDLING UNIT | | | R | EXISTING TO BE REMOVED |
| AIC | AMPERE INTERRUPT CAPACITY | | | RA | RETURN AIR |
| AL | ALUMINUM | | | RCP | REFLECTED CEILING PLAN |
| AM | AMMETER | | | RCPT | RECEPTACLE |
| AMP | AMPLIFIER | | | RE | REFERENCE, REFER |
| ANN | ANNUNCIATOR | | | REC | RECEPTACLE |
| AP | ACCESS PANEL, ALARM PANEL | | | REV | REVISION, REVISE |
| ARCH | ARCHITECT, ARCHITECTURAL | | | RGS | RIGID GALVANIZED STEEL |
| ASC | AMPERES SHORT CIRCUIT | | | RTU | ROOFTOP UNIT |
| AT | AMPERE TRIP RATING | | | S | |
| ATS | AUTOMATIC TRANSFER SWITCH | | | SCHED | SCHEDULE |
| AVG | AVERAGE | | | SEC | SECONDARY |
| AUX | AUXILIARY | | | SECT | SECTION |
| AWG | AMERICAN WIRE GAUGE | | | SF | SQUARE FEET |
| | | | | SPEC | SPECIFICATION |
| B | | H | | SPKR | SPEAKER |
| BC | BELOW COUNTER | | | SPDT | SINGLE-POLE, DOUBLE-THROW |
| BKR | BREAKER | | | SPST | SINGLE-POLE, SINGLE-THROW |
| BLDG. | BUILDING | | | SQ. | SQUARE |
| | | | | SW | SWITCH |
| C | | | | SWBD | SWITCHBOARD |
| C | CONDUIT, CELSIUS | | | | |
| CATV | CABLE TELEVISION SYSTEM | | | TC | TEMPERATURE CONTROL |
| CCTV | CLOSED CIRCUIT TELEVISION | | | TEL | TELEPHONE |
| CWP | CONDENSER WATER PUMP | | | TF | TRANSFER FAN |
| CH | CHILLER | | | TL | TWIST-LOCK |
| CHP | CHILLED WATER PUMP | | | TOC | TOP OF CURB |
| CIRC | CIRCULATING | | | TOS | TOP OF STEEL |
| CKT | CIRCUIT | | | TP | CHILD TAMPER PROOF DEVICE |
| CL | CENTERLINE | | | TSTAT | THERMOSTAT |
| CLG. | CEILING | | | TTB | TELEPHONE TERMINAL BOARD |
| CMU | CONCRETE MASONRY UNIT | | | TTT | TELEPHONE TERMINAL CABINET |
| COL. | COLUMN | | | TV | TELEVISION |
| CONC | CONCRETE | | | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| CONTR. | CONNECTION | | | TYP | TYPICAL |
| CONT. | CONTINUOUS, CONTINUATION | | | U | |
| | | | | UG | UNDERGROUND |
| CP | CIRCULATING PUMP | | | UH | UNIT HEATER |
| CPUC | CPU CHILLER | | | UL | UNDERWRITERS LABORATORIES, INC. |
| CRT | CATHODE RAY TUBE | | | UNO | UNLESS NOTED OTHERWISE |
| CRU | CONDENSATE RETURN UNIT | | | UPS | UNINTERRUPTABLE POWER SYSTEM |
| CT | CURRENT TRANSFORMER, COOLING TOWER | | | V | |
| CTR | CENTER | | | V | VOLT |
| CU | COPPER | | | VA | VOLT-AMPERE |
| D | | | | VAV | VARIABLE AIR VOLUME |
| JB | DECIBEL | | | VC | VOLUME CONTROL |
| DC | DIRECT CURRENT | | | VERT | VERTICAL |
| DDC | DIRECT DIGITAL CONTROL | | | VFD | VARIABLE FREQUENCY DRIVE |
| DTL | DIRECT DIGITAL CONTROL | | | VP | VACUUM PUMP |
| DIA | DIAMETER | | | VM | VOLT METER |
| DIM | DIMENSION | | | W | |
| DISC | DISCONNECT | | | W | WATT, WIRE, WIDTH |
| DN | DOWNDRAFT | | | WG | WIREGUARD |
| DP | DISTRIBUTION PANEL | | | W/ | WITH |
| DPDT | DOUBLE-POLE, DOUBLE-THROW | | | W/O | WITHOUT |
| DPST | DOUBLE-POLE, SINGLE-THROW | | | WP | WEATHERPROOF |
| DR | DROPPED RECEPTACLE | | | WS | WATER SOFTENER |
| DW | DISHWASHER | | | WT | WATER TIGHT, WEIGHT |
| DWG | DRAWING | | | WWF | WELDED WIRE FABRIC |
| DWH | DOMESTIC WATER HEATER | | | X | |
| DWP | DOMESTIC WATER PUMP | | | XFMR | TRANSFORMER |
| DXFC | DX FAN COIL UNIT | | | Z | |
| E | | | | Z | ZONE |
| (E) | EXISTING | | | O | |
| EA | EACH | | | OAF | OUTSIDE AIR FAN |
| EC | ELECTRICAL CONTRACTOR | | | OAHU | OUTSIDE AIR HANDLING UNIT |
| E.C. | EMPTY CONDUIT | | | OC | ON CENTER |
| EDF | ELECTRIC DRINKING FOUNTAIN | | | OD | OUTSIDE DIAMETER |
| EF | EXHAUST FAN | | | OHE | OVERHEAD ELECTRICAL |
| EFF | EFFICIENCY | | | OPG | OPENING |
| EHC | ELECTRIC HEATING COIL | | | P | |
| EJ | EXPANSION JOINT | | | P | POLE, PUMP |
| EL | ELEVATION | | | PH | PHASE |
| ELEC. | ELECTRICAL | | | PNL | PANEL |
| ELEV. | ELEVATOR | | | POS | POINT OF SALE |
| EMERG | EMERGENCY | | | PP | POWER POLE |
| EMS | ENERGY MANAGEMENT SYSTEM | | | PR | PAIR |
| ENCL | ENCLOSURE | | | PWR | POWER |
| ENGR | ENGINEER | | | Q | |
| EPO | EMERGENCY POWER OFF | | | QTY | QUANTITY |
| EQUIP | EQUIPMENT | | | R | |
| (ER) | EXISTING TO REMAIN | | | R | EXISTING TO BE REMOVED |
| EUH | ELECTRIC UNIT HEATER | | | RA | RETURN AIR |
| EW | ELECTRIC WATER HEATER | | | RCP | REFLECTED CEILING PLAN |
| EXH | EXHAUST | | | RCPT | RECEPTACLE |
| F | | | | RE | REFERENCE, REFER |
| FA | FIRE ALARM | | | REC | RECEPTACLE |
| FACP | FIRE ALARM CONTROL PANEL | | | REV | REVISION, REVISE |
| FCU | FAN COIL UNIT | | | RGS | RIGID GALVANIZED STEEL |
| FLA | FULL LOAD AMPS | | | RTU | ROOFTOP UNIT |
| FLUOR | FLUORESCENT | | | S | |
| FS | FUSED SWITCH, FLOW SWITCH | | | SCHED | SCHEDULE |
| FSD | MOTORIZED FIRE SMOKE DAMPER | | | SEC | SECONDARY |
| FT | FOOT, FEET | | | SECT | SECTION |
| FTL | FEED-THRU LUGS | | | SF | SQUARE FEET |
| FUT | FUTURE | | | SPEC | SPECIFICATION |
| | | | | SPKR | SPEAKER |
| | | | | SPDT | SINGLE-POLE, DOUBLE-THROW |
| | | | | SPST | SINGLE-POLE, SINGLE-THROW |
| | | | | SQ. | SQUARE |
| | | | | SW | SWITCH |
| | | | | SWBD | SWITCHBOARD |
| | | | | TC | TEMPERATURE CONTROL |
| | | | | TEL | TELEPHONE |
| | | | | TF | TRANSFER FAN |
| | | | | TL | TWIST-LOCK |
| | | | | TOC | TOP OF CURB |
| | | | | TOS | TOP OF STEEL |
| | | | | TP | CHILD TAMPER PROOF DEVICE |
| | | | | TSTAT | THERMOSTAT |
| | | | | TTB | TELEPHONE TERMINAL BOARD |
| | | | | TTT | TELEPHONE TERMINAL CABINET |
| | | | | TV | TELEVISION |
| | | | | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| | | | | TYP | TYPICAL |
| | | | | UG | UNDERGROUND |
| | | | | UH | UNIT HEATER |
| | | | | UL | UNDERWRITERS LABORATORIES, INC. |
| | | | | UNO | UNLESS NOTED OTHERWISE |
| | | | | UPS | UNINTERRUPTABLE POWER SYSTEM |
| | | | | V | VOLT |
| | | | | VA | VOLT-AMPERE |
| | | | | VAV | VARIABLE AIR VOLUME |
| | | | | VC | VOLUME CONTROL |
| | | | | VERT | VERTICAL |
| | | | | VFD | VARIABLE FREQUENCY DRIVE |
| | | | | VP | VACUUM PUMP |
| | | | | VM | VOLT METER |
| | | | | W | |
| | | | | W | WATT, WIRE, WIDTH |
| | | | | WG | WIREGUARD |
| | | | | W/ | WITH |
| | | | | W/O | WITHOUT |
| | | | | WP | WEATHERPROOF |
| | | | | WS | WATER SOFTENER |
| | | | | WT | WATER TIGHT, WEIGHT |
| | | | | WWF | WELDED WIRE FABRIC |
| | | | | X | |
| | | | | XFMR | TRANSFORMER |
| | | | | Z | |
| | | | | Z | ZONE |
| | | | | O | |
| | | | | OAF | OUTSIDE AIR FAN |
| | | | | OAHU | OUTSIDE AIR HANDLING UNIT |
| | | | | OC | ON CENTER |
| | | | | OD | OUTSIDE DIAMETER |
| | | | | OHE | OVERHEAD ELECTRICAL |
| | | | | OPG | OPENING |

ELECTRICAL SYMBOLS

MOTORS AND CONTROLS

| | |
|--|--|
| | SINGLE OR THREE PHASE MOTOR NUMBER INDICATES HORSE POWER |
| | ELECTRIC DUCT HEATER |
| | DISCONNECT (SAFETY) SWITCH "200/3/150" DENOTES AMPERES/POLE/FUSE. "N3R" DENOTES NON-FUSED "N3R" DENOTES NEMA 3R |
| | ENCLOSED CIRCUIT BREAKER- "200/3/150" DENOTES AMPERES/POLE/TRIP. |
| | MOTOR STARTER FURNISHED BY DIVISION 15 AND INSTALLED BY DIVISION 16. |
| | COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER. "30/3/15/40" DENOTES AMPERES/POLES/FUSE//STARTER SIZE. "N" DENOTES NON-FUSED. FURNISHED BY DIVISION 15 AND INSTALLED BY DIVISION 16. |
| | VARIABLE FREQUENCY DRIVE PROVIDED BY DIVISION 15 AND INSTALLED BY DIVISION 16. |
| | EMERGENCY POWER OFF BUTTON. |

RECEPTACLES AND OUTLETS

| | |
|--|---|
| | SIMPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V. |
| | DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V. "TEM" DENOTES EMERGENCY CIRCUIT. PROVIDE RED RECEPTACLE AND FACEPLATE. "GFI" DENOTES GROUND FAULT INTERRUPTER. "WP" DENOTES WEATHERPROOF. "IG" DENOTES ISOLATED GROUND. "TP" DENOTES SAFETY TYPE, (TAMPER PROOF) "DR" DENOTES DROPPED RECEPTACLE. "AC" DENOTES ABOVE COUNTER MOUNTING. SEE ARCHITECTURAL PLANS FOR EXACT MOUNTING HEIGHT. |
| | DUPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT, RED COLOR. |
| | DUPLEX WALL RECEPTACLE ON A CIRCUIT DEDICATED TO DATA PROCESSING, GRAY COLOR. PROVIDE ISOLATED GROUND TYPE RECEPTACLES WHERE NOTED. |
| | SPLIT WIRED RECEPTACLE. TOP RECEPTACLE SHALL BE SWITCHED ACCORDING TO PLANS, AND BOTTOM SHALL REMAIN UNSWITCHED. |
| | FOURPLEX (DOUBLE DUPLEX) WALL RECEPTACLE. NEMA 5-20R, 20A, 125V. |
| | FOURPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT, RED COLOR. |
| | SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED. |
| | FLUSH ELECTRICAL FLOOR OUTLET, "P" DENOTES POKE-THRU. "D" INDICATES DUPLEX RECEPTACLE, "R" INDICATES RED RECEPTACLE ON EMERGENCY POWER |
| | MULTI-OUTLET SURFACE RACEWAY. SEE ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHTS. |
| | JUNCTION BOX (SQUARE) JUNCTION BOX |
| | DUPLEX RECEPTACLE WITH HOMERUN |
| | DUPLEX RECEPTACLE (PEDESTAL MOUNTED) |
| | TWO-GANG FLOOR OUTLET |
| | THREE-GANG FLOOR OUTLET |
| | POWER POLE |
| | DIRECT CONNECTION TO EQUIPMENT |
| | PULL BOX (OVER 4" SQUARE) |
| | TENANT LIGHTING JUNCTION BOX |
| | TENANT POWER JUNCTION BOX |
| | CLOCK RECEPTACLE TO BE MOUNTED 12" BELOW FINISHED CEILING. (2) DENOTES DOUBLE SIDED CLOCK. (1) SINGLE SIDED. NO NUMBER MEANS CLOCK TO MOUNTED WITH BACK SURFACE MOUNTED ON WALL |

LIGHTING

| | |
|--|---|
| LETTER(S) DENOTE TYPE- SEE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. | |
| | 2' X 4' FLUORESCENT LIGHTING FIXTURE. |
| | 2' X 2' FLUORESCENT LIGHTING FIXTURE. |
| | 1' X 4' FLUORESCENT LIGHTING FIXTURE. |
| | 1' X 2' FLUORESCENT LIGHTING FIXTURE. |
| | 1' X 1' FLUORESCENT LIGHTING FIXTURE. |
| | FLUORESCENT STRIP LIGHTING FIXTURES. |
| | STAGGERED STRIP LIGHTING FIXTURE. |
| | INCANDESCENT, FLUORESCENT OR HID DOWNLIGHT FIXTURE. |
| | WALL MOUNTED INCANDESCENT, FLUORESCENT OR HID FIXTURE. |
| | TRACK LIGHTING FIXTURE. MOUNTED AS SHOWN ON LIGHTING FIXTURE SCHEDULE. |
| | CEILING MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE. |
| | WALL MOUNTED EXIT SIGN; ARROWS AS INDICATED. SHADED AREA DENOTES FACE. |
| | EMERGENCY WALL MOUNTED LIGHTING FIXTURE. BATTERY OPERATED UNLESS NOTED OTHERWISE. |
| | HID SECURITY WALL PACK |


RACEWAYS AND WIRING


| | |
|--|---|
| | CAP AND STAKE |
| | CONDUIT CONCEALED IN WALL OR CEILING |
| | CONDUIT UNDERSLAB OR UNDERGROUND |
| | EMERGENCY CONDUIT |
| | EXPOSED CONDUIT |
| | UNDERGROUND CONDUIT, "DB" DENOTES DUCTBANK ENCASED IN CONCRETE |
| | OVERHEAD ELECTRIC PRIMARY UTILITY POWER LINE |
| | CONDUIT TURNED UP |
| | CONDUIT TURNED DOWN |
| | HASH MARKS INDICATE NUMBER OF CONDUCTORS. LEFT TO RIGHT: PHASE/NEUTRAL/SWITCH LEG/GROUND/ISOLATED GROUND. NO HASH MARKS INDICATES 2# 12, PLUS GROUND, UNLESS NOTED OTHERWISE. |
| | HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED. |
| | PARTIAL CIRCUIT HOMERUN TO PANEL. |
| | COMMUNICATIONS CONDUIT OR CABLE: "C" DENOTES MASTER CLOCK, "CA" DENOTES MASTER CLOCK, "CR" DENOTES CASH REGISTER "D" DENOTES DATA, "FA" DENOTES FIRE ALARM, "I" DENOTES INTERCOM, "OHE" DENOTES OVERHEAD ELECTRICAL LINE. "PA" DENOTES PAGING, "S" DENOTES SECURITY, "T" DENOTES TELEPHONE, "V" DENOTES VIDEO. |
| | TELECOMMUNICATIONS CABLE TRAY TO BE CONCEALED ABOVE ACCESSIBLE CEILING. |




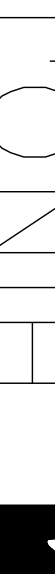
- B. GENERAL: EXCEPT FOR IRIS'S OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN EPA-APPROVED LANDFILL. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE REMOVE FROM OWNER OCCUPIED AREAS DAILY. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
- B. TRACE CIRCUITS FEEDING EXISTING TO-REMAIN PORTIONS OF THE BUILDING. DO NOT DEMOLISH CIRCUITS IN THESE AREAS. IF CIRCUITS ARE IN BOTH "TO REMAIN" AND "TO BE REMOVED" AREAS, DEMOLISH BACK TO NEAREST TO-REMAIN J-BOX.
- C. DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. COMPLETE SELECTIVE DEMOLITION OPERATIONS ABOVE EACH FLOOR OR TIER BEFORE DISTURBING SUPPORTING MEMBERS ON THE NEXT LOWER LEVEL.
- D. REMOVED AND SALVAGED ITEMS: CLEAN SALVAGED ITEMS, PACK OR CRATE ITEMS AFTER CLEANING. IDENTIFY CONTENTS OF CONTAINERS. STORE ITEMS IN A SECURE AREA UNTIL DELIVERY TO OWNER. TRANSPORT ITEMS TO OWNER'S STORAGE AREA DESIGNATED BY OWNER. PROTECT ITEMS FROM DAMAGE DURING TRANSPORT AND STORAGE.
- E. REMOVED AND REINSTALLED ITEMS: CLEAN AND REPAIR ITEMS TO FUNCTIONAL CONDITION ADEQUATE FOR INTENDED REUSE. PAINT EQUIPMENT TO MATCH NEW EQUIPMENT. PACK OR CRATE ITEMS AFTER CLEANING AND REPAIRING. IDENTIFY CONTENTS OF CONTAINERS. PROTECT ITEMS FROM DAMAGE DURING TRANSPORT AND STORAGE. REINSTALL ITEMS IN LOCATIONS INDICATED. COMPLY WITH INSTALLATION REQUIREMENTS FOR NEW MATERIALS AND EQUIPMENT. PROVIDE CONNECTIONS, SUPPORTS, AND MISCELLANEOUS MATERIALS NECESSARY TO MAKE ITEM FUNCTIONAL FOR USE INDICATED.
- F. EXISTING ITEMS TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION. WHEN PERMITTED BY ARCHITECT, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION DURING SELECTIVE DEMOLITION AND REINSTALLED IN THEIR ORIGINAL LOCATIONS AFTER SELECTIVE DEMOLITION OPERATIONS ARE COMPLETE.
- G. COORDINATE ALL DEMO ACTIVITIES WITH OWNER AND ARCHITECT AND PROVIDE 10 DAYS NOTICE FOR ANY POWER OUTAGES.
- H. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOB-SITE CONDITIONS DURING THE BIDDING PERIOD TO OBTAIN THE SCOPE OF ELECTRICAL WORK INVOLVED AS A RESULT OF ARCHITECTURAL MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF THE WORK SHALL INCLUDE MATERIALS AND OUTLETS, CONSISTING OF FIXTURES, DEVICES, EQUIPMENT OR APPARATUS, WHICH MUST BE REROUTED, RELOCATED OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE PROVIDED, SO THAT THE INDICATED REMODELING MAY BE ACCOMPLISHED. NOT ALL EXISTING OUTLETS ARE NECESSARILY INDICATED ON THE DRAWINGS.
- I. WHEN OUTLETS ARE ABANDONED, WIRE MUST BE PULLED OUT OF CONDUIT BACK TO THE NEAREST REMAINING BOX OR CABINET AND EXPOSED CONDUIT THAT HAS BEEN ABANDONED MUST BE REMOVED.
- J. PROVIDE ALL APPURTENANCES REQUIRED TO REROUTE, RELOCATED, REMOVE OR REINSTALL ALL ITEMS DESCRIBED IN THESE NOTES.
- K. REMOVE ALL OUTLETS AND WIRING ASSOCIATED WITH ALL EQUIPMENT BEING REMOVED, INCLUDING MECHANICAL AND PLUMBING EQUIPMENT.
- L. AT THE COMPLETION OF THE PROJECT, THERE SHALL BE NO ABANDONED LIGHTING FIXTURES, CONTROLS, WIRING CONDUIT, ELECTRICAL EQUIPMENT, FIRE ALARM DEVICES, INTERCOM/PA DEVICES, OR CONTRACTOR SHALL REMOVE ABANDONED MATERIALS DESCRIBED HEREINAbove. PROVIDE BLANK STAINLESS STEEL COVER PLATES FOR ABANDONED DEVICES IN WALLS SCHEDULED TO REMAIN.
- M. CONTRACTOR SHALL MAKE SAFE ALL AREAS OF THE EXISTING STRUCTURE WHICH ARE TO BE DEMOLISHED BY DISCONNECTING FEEDERS AND SERVICES TO DEMO'D AREAS.
- N. DEMOLITION WORK SHALL NOT BEGIN UNTIL NEW TANK AND PUMPS ARE OPERATIONAL. CONTRACTOR SHALL CONSTRUCT NEW WATER TANK AND PUMP YARD SHALL BE COMPLETED FIRST.

- ① EXISTING RISER POLE AND METER TO REMAIN.
- ② EXISTING RTU TO REMAIN AND REPAIRED. REFER TO ES2.0 FOR NEW SCOPE OF WORK.
- ③ EXISTING MCC TO BE DEMOLISHED. REFER TO ES2.0 FOR NEW SCOPE OF WORK.
- ④ EXISTING PUMPS TO BE DEMOLISHED. REFER TO ES2.0 FOR NEW SCOPE OF WORK.
- ⑤ CHLORINE ROOM TO REMAIN.
- ⑥ PROVIDE TAP FOR PRESSURE CONTROL SWITCH HERE. REFER TO ES2.0.

| REVISIONS / ADDENDA | DATE |
|---|--------|
| ADDENDA  | 8/7/19 |
| <ol style="list-style-type: none"> 1. SITE BACKGROUND UPDATED. 2. EXISTING METER & POLE TO REMAIN. 3. ADDED PRESSURE RELIEF VALVE. 4. REMOVED AREA LIGHT. 5. ADDED NOTES ON SCADA. 6. REMOVED SCHEMATICS & PANEL. | |


ENGINEERING, PLLC
MEP ENGINEERING & CONSTRUCTION MANAGEMENT
2705 E. DAVIS RD., Suite A
Edinburg, Texas 78504
956.292.3336 p
www.ro-engineering.com
TBE Firm Registration No. 12179

| | | | |
|--------------------|-------|----|----|
| ROE Project Number | 18012 | | |
| R.O. | -- | -- | -- |

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|---|--|--|--|--|--|
| DATE: 07/22/2019 | | | | | |
| SCALE: | | | | | |
| REVISIONS: | | | | | |
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| | | | | | |
| TITLE: LOS VENADOS BOOSTER PUMP STATION REPLACEMENT 22860 NORTH HIGHWAY 281, EDINBURG, TEXAS 78542 | | | | | |
| | | | | | |
| <p>THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RENE R. OLIVAREZ, P.E. 102302 TBPB REGISTRATION NO. 12179</p>  <p>8/07/19</p> | | | | | |
| <p>HINOJOSA ENGINEERING, INC. STRUCTURAL ENGINEERING CIVIL ENGINEERING 108 W. 18TH ST. MISSION, TEXAS (956) 581-0143 FAX: (956) 581-2074 E-MAIL: HinojosaEnginc@aol.com EXPIRATION DATE: 09/30/2019</p>  | | | | | |
| REGISTRATION NUMBER: F-908 | | | | | |
| ENGINEER: RO | | | | | |
| DESIGNER: | | | | | |
| SURVEYOR: | | | | | |
| DRAWN BY: RO | | | | | |
| JOB NO.: 18-119 | | | | | |
| BOOK NO.: | | | | | |
| SHEET: ES1.0 | | | | | |
| EXISTING ELECTRICAL SITE PLAN | | | | | |



- FURNISH AND INSTALL COMPLETE ELECTRICAL SYSTEM AS INDICATED ON PLANS. ELECTRICAL CONTRACTOR TO MAKE ALL FINAL CONNECTIONS TO ALL EQUIPMENT. MATERIAL SHALL BE AS FOLLOWS:
- A. CONDUIT: ALL ELECTRICAL CONDUCTORS SHALL BE INSTALLED IN CONDUIT COMPLYING WITH NATIONAL ELECTRICAL CODE. WHERE INSTALLED UNDERGROUND, IN POURED CONCRETE OR SUBJECT TO STRESS FROM COLLISION OR IMPACT, CONDUIT SHALL BE RIGID GALVANIZED STEEL. WHERE RIGID CONDUIT IS NOT REQUIRED, CONDUCTORS SHALL BE INSTALLED IN ELECTRIC METALLIC TUBING WITH ELECTRO-GALVANIZED OUTSIDE AND ENAMEL INSIDE.
- B. CONDUCTORS: ALL WIRE IN THE WORK SHALL BE INSULATED COPPER WIRE, EACH CONDUCTOR SHALL BE CONTINUOUS, WITHOUT WELD, SPLICE OR JOINT THROUGHOUT ITS LENGTH AND UNIFORM IN CROSS-SECTION. WIRE # 6 AND LARGER SHALL HAVE TYPE "THW" INSULATION. WIRE # 8 AND SMALLER SHALL HAVE DUAL RATED TYPE "THHN/THWN" INSULATION. MINIMUM WIRE SIZE, EXCEPT FOR CONTROL WIRING, SHALL BE # 12 AWG.
- C. OUTLETS: WALL RECEPTACLES SHALL BE DUPLEX HUBBELL # 5252 OR AN APPROVED SUBSTITUTION, AND SHALL BE MOUNTED AT 12" A.F.F. UNLESS OTHERWISE NOTED.
- D. TOGGLE SWITCHES AND SWITCH PLATES: FURNISH AND INSTALL TOGGLE SWITCHES WHERE INDICATED ON PLANS, AS FOLLOWS:
- 20 AMP /1 POLE, 120/277 VOLT: HUBBELL # 1221.
 - WHERE MORE THAN ONE SWITCH OCCURS AT THE SAME LOCATION, THEY SHALL BE SET IN GANGS WITH ONE COVERPLATE, INSTALLED IN BOXES IN UNIFORM POSITION, SET TO OPEN AND CLOSE CIRCUITS BY MOVING IN THE SAME DIRECTION THROUGHOUT THE JOB.
 - PROVIDE WEATHER PROOF BOX AND COVER FOR SWITCHES
- E. LIGHTING PANELBOARDS:
- 120/208V, 3Ø-4W: AND 277/480V: FURNISH AND INSTALL AS SHOWN ON PLANS, LIGHTING PANELBOARDS BY SQUARE D, TYPE "NQB", WITH SINGLE POLE 120V, SQUARE D "QO" TYPE BREAKERS. TWO AND THREE POLE SHALL BE COMMON TRIP.
- F. SAFETY SWITCHES AND FUSES: SAFETY SWITCHES SHALL BE FURNISHED AND INSTALLED AT ALL LOCATIONS INDICATED ON PLANS OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL SWITCHES SHALL BE HEAVY DUTY TYPE AND SHALL HAVE CLIPS FOR REJECTION TYPE FUSES AND SHALL BE BY SQUARE D, G.E., OR AN APPROVED SUBSTITUTION, FOR THE VOLTAGE AND LOAD INVOLVED. PROVIDE A COMPLETE SET OF FUSES IN ALL FUSED SWITCHES. FUSES SHALL BE CLASS RK-1 FUSES (BUSSMAN LOW PEAK OR HI-CAP FOR 601 AMPS & ABOVE) BY BUSSMAN, NO SUBSTITUTIONS.
- G. CONTRACTOR SHALL PROVIDE TYPEWRITTEN PANELBOARD DIRECTORY INSIDE OF PANELBOARD DOOR.
- H. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH BUILDING MANAGEMENT FOR ALL CONSTRUCTION STANDARDS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO STANDARD LIGHT FIXTURES, SWITCHES, RECEPTACLES, COVERPLATES, AND WIRING METHODS. AVAILABLE QUANTITIES AND TENANT ALLOWANCES MUST ALSO BE VERIFIED WITH BUILDING MANAGEMENT.
- I. THE SCOPE OF THE ELECTRICAL WORK INCLUDES FURNISHING AND INSTALLING ALL ELECTRICAL WORK FOR A COMPLETE INSTALLATION.

| PUMP SCHEDULE | | |
|--------------------------------|--------------|--------------|
| MARK | P1 | P2 |
| MANUFACTURER | GRUNDFOS | GRUNDFOS |
| MODEL NUMBER | 4095-7 LF | 4095-7 LF |
| FLOW GPM | 700 | 700 |
| HEAD (FT. H2O) | 70 | 70 |
| APPROX. PUMP EFF. (%) | 85 | 85 |
| APPROX. IMPELLER DIA. (INCHES) | 9.32 | 9.32 |
| MOTOR RPM | 1800 | 1800 |
| HORSEPOWER | 20 | 20 |
| VOLTS/PHASE/HERTZ | 230/460/3/60 | 230/460/3/60 |
| NOTES | | |


NOTES:


-

| PUMP SCHEDULE | | |
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| NOTES | | |

NOTES:

-

| REVISIONS / ADDENDA | DATE |
|--|--------|
| ADDENDA  | 8/7/19 |
| <ol style="list-style-type: none"> 1. SITE BACKGROUND UPDATED. 2. EXISTING METER & POLE TO REMAIN 3. ADDED PRESSURE RELIEF VALVE. 4. REMOVED AREA LIGHT. 5. ADDED NOTES ON SCADA. 6. REMOVED SCHEMATICS & PANEL. | |



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| ROE Project Number | | 18012 | |
| R.O. | -- | -- | -- |

[illegible]

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8/07/19

**HINOJOSA
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E-MAIL: hinojosaengr@aol.com
EXPIRATION DATE: 09/30/2019

REGISTRATION NUMBER: F-908

| | |
|-----------------------------|--|
| ENGINEER: RO | |
| DESIGNER: | |
| SURVEYOR: | |
| DRAWN BY: RO | |
| JOB NO.: 18-119 | |
| BOOK NO.: | |
| SHEET: ES2.0 | |
| NEW ELECTRICAL SITE PLAN | |

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ELECTRICAL GENERAL NOTES

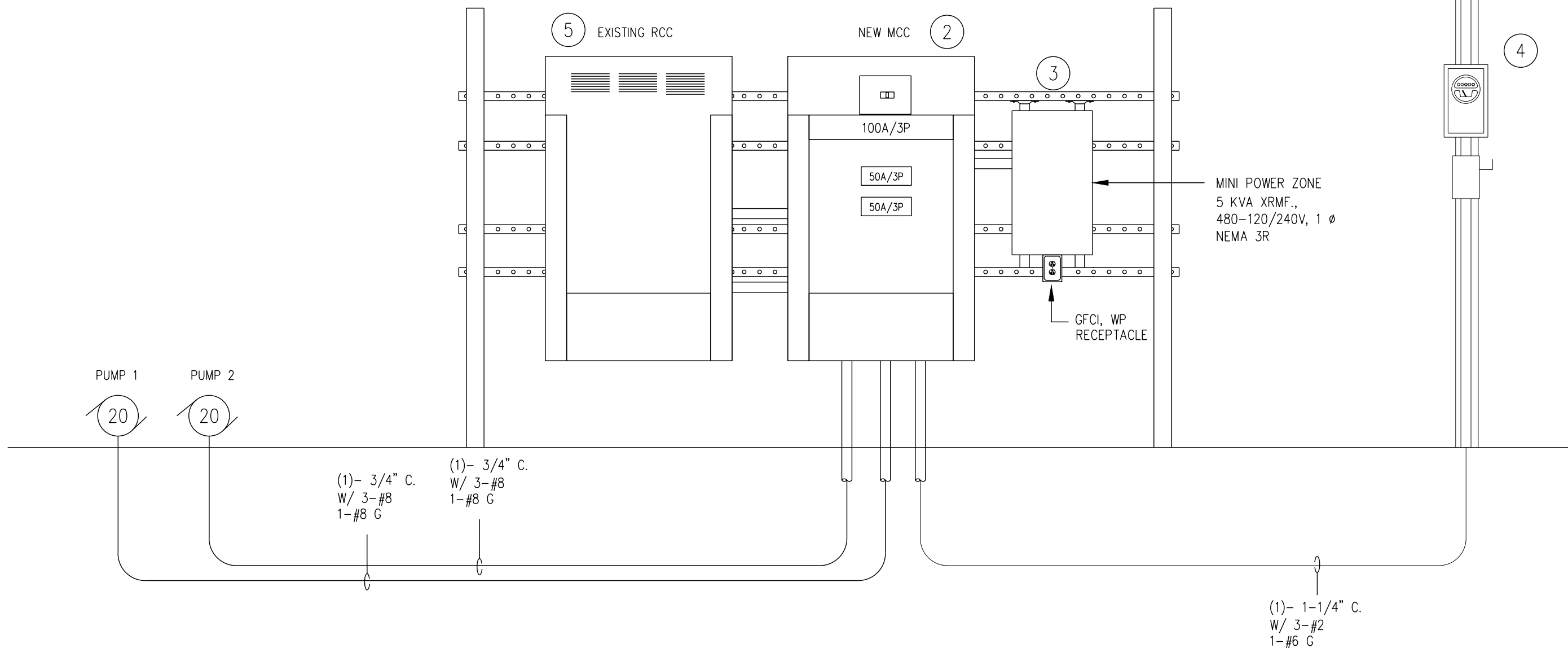
- A. COORDINATE ALL UNDERGROUND CONDUITS WITH EXISTING CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL EXISTING CONDITIONS AND UTILITIES.
- B. ALL EQUIPMENT CONNECTION POINTS ARE DIAGRAMATIC IN NATURE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT POINT OF CONNECTION. EXTEND FEEDERS IN CONDUIT AS REQUIRED.
- C. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR CONTRACTORS TO VISIT THE SITE OF THE PROPOSED CONSTRUCTION IN ORDER TO FULLY UNDERSTAND THE FACILITIES, DIFFICULTIES AND RESTRICTION ATTENDING THE EXECUTION OF THE WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED THIS CONTRACTOR FOR WORK OR ITEMS OMITTED FROM HIS ORIGINAL PROPOSAL DUE TO HIS FAILURE TO INFORM HIMSELF REGARDING SUCH MATTERS AFFECTING THE PERFORMANCE OF THE WORK IN THIS CONTRACT OR NECESSARY FOR THE INSTALLATION AND COMPLETION OF THE WORK INCLUDED HEREIN.

ELECTRICAL SERVICE SCOPE:

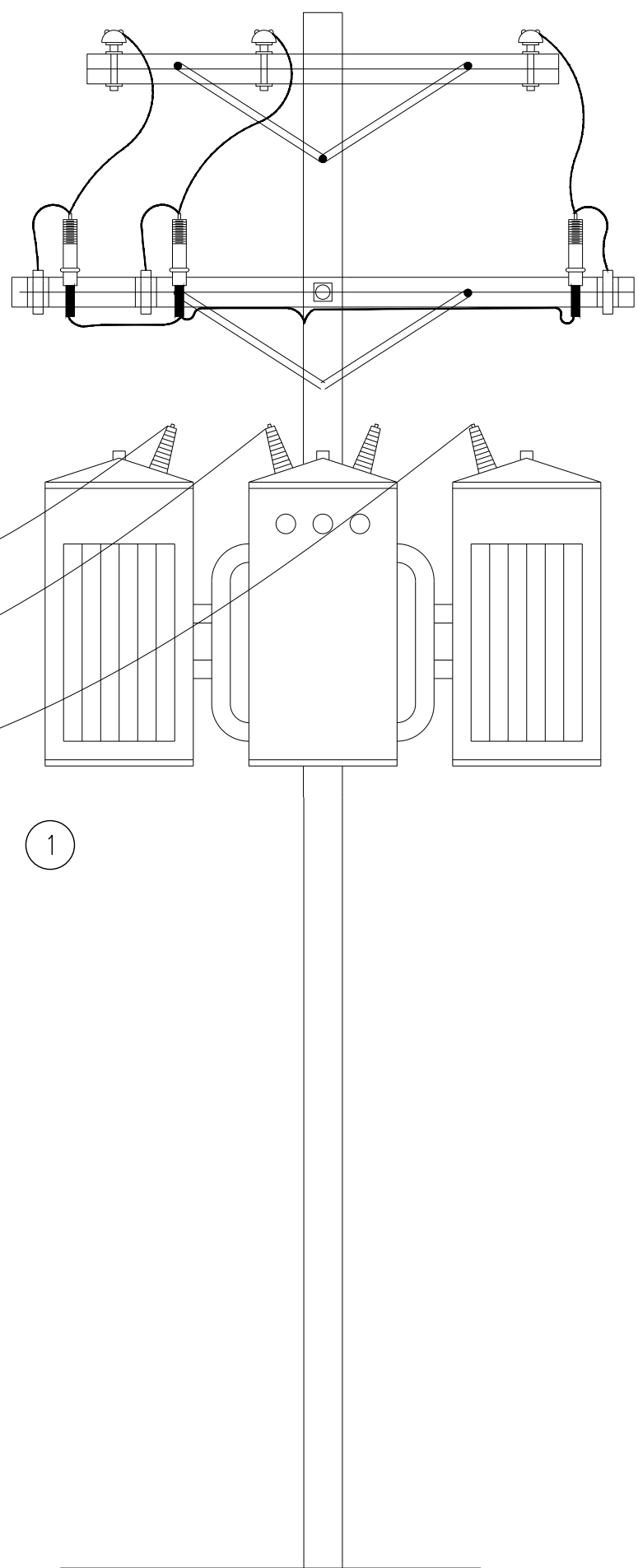
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF SERVICE TO THE NEW PUMP YARD COORDINATE ALL REQUIREMENTS AND COSTS AND LABOR W/ LOCAL UTILITY. PRIOR TO BID. ALL COSTS ASSOCIATED W/ THE DELIVERY OF ELECTRICAL SERVICE SHALL BE INCLUDED AS A PART OF THIS CONTRACT. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ELECTRICAL KEYED NOTES:

- 1 CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR ADDITIONAL REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO CT AND METER.
- 2 REFER TO DETAIL 1/E4.0.
- 3 PROVIDE MINI POWER ZONE 5 KVA XRMF., 480-120/240V, 1 ϕ , NEMA 3R, 10 SPACES ON BACKSIDE OF PANEL.
- 4 PROVIDE NEW 100AF/3P/N3 DISCONNECT. EXISTING METER TO REMAIN.
- 5 REPLACE RTU ENCLOSURE WITH NEW NEMA 4X STAINLESS STEEL ENCLOSURE. REMOVE EXISTING BACK PLATE AND REINSTALL ON NEW ENCLOSURE. COORDINATE INTEGRATION AND CONNECTIONS OF EQUIPMENT WITH MUNICIPAL PUMPS & CONTROLS, INC. CONTACT AT 956-790-8430. COORDINATE RADIO COMMUNICATIONS WITH ANTENNA TO BE INSTALLED ON NEW STANDPIPE




1 ELECTRICAL RISER DIAGRAM
N.T.S.



| ELECTRICAL LOAD ANALYSIS | | |
|--|-----------------|-----------|
| 480 / 277 , 3 -PHASE, 4 -WIRE NEW MCC | | |
| DESCRIPTION | NEC | KVA |
| LIGHTING: | | |
| INTERIOR = | 0 VA X 125% | 210.20(a) |
| EXTERIOR = | 60 VA X 125% | 210.20(a) |
| POWER: | | |
| RECEPTACLES = | 360 VA | 220.44 |
| 20 HP, PUMP1 | 22,437 VA | 430.250 |
| 20HP, PUMP2 | 22,437 VA | 430.250 |
| MISC. | 4,320 VA | |
| | | 4.3 |
| 25% LARGEST MOTOR = | 5609.25 VA | 430.24 |
| | | 5.6 |
| MCC will not have a neutral. | | 0.0 |
| | | 0.0 |
| | | 0.0 |
| | TOTAL = | 55.2 |
| | TOTAL AMPS: | 66.4 |
| | SERVICE SIZE: | 100.0 |
| | SPARE AMPACITY: | 33.6 |

- REVISIONS / ADDENDA DATE
- ADDENDA 1 8/7/19
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| ROE Project Number | 18012 |
| R.O. | -- -- -- |

DATE: 07/22/2019

SCALE:

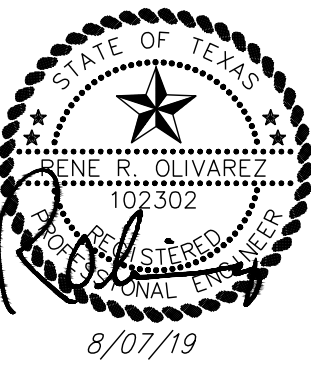
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LOS VENADOS
BOOSTER PUMP STATION
REPLACEMENT

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ENGINEER: RO

DESIGNER:

SURVEYOR:

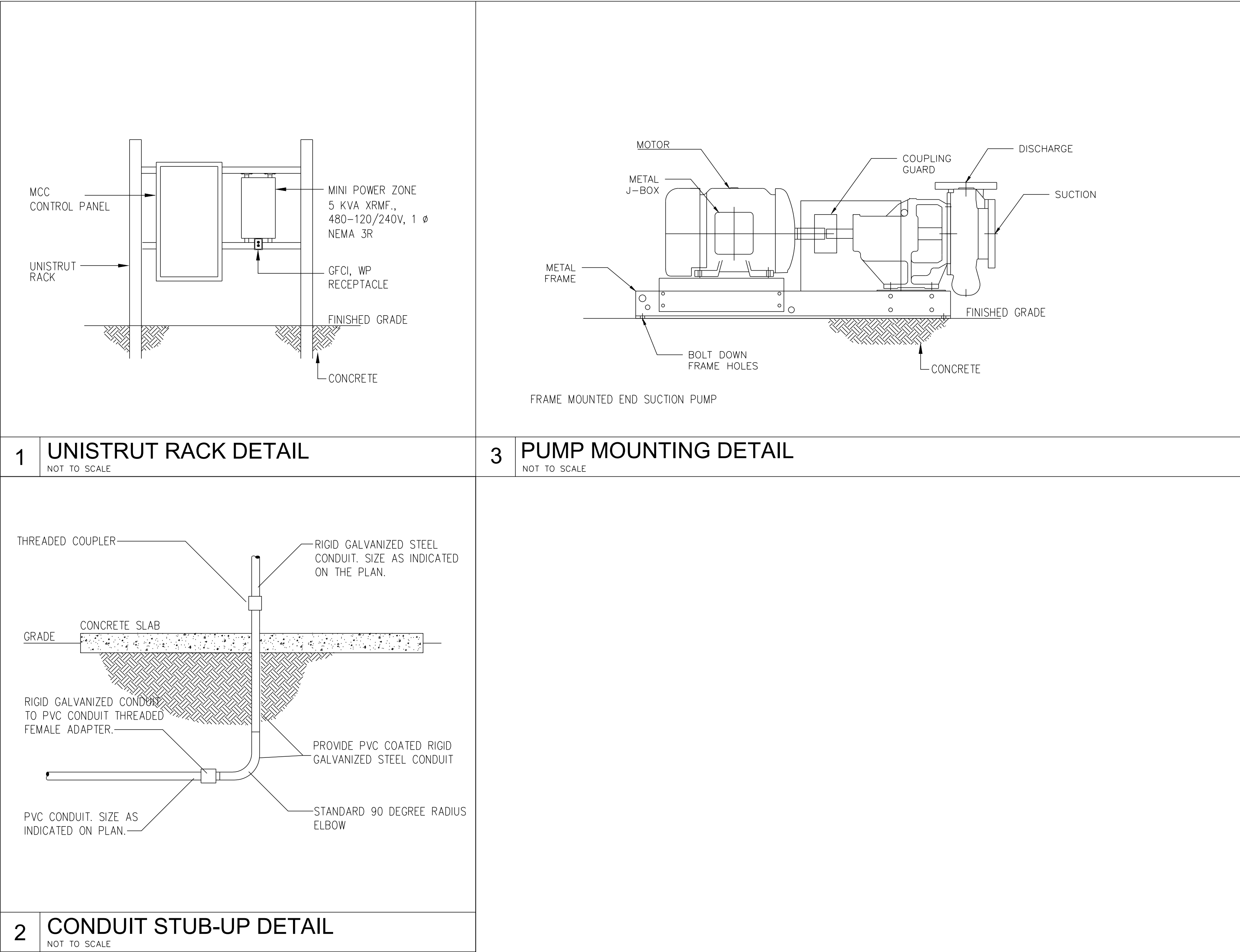
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JOB NO.: 18-119

BOOK NO.:

SHEET: **E3.0**

ELECTRICAL RISER
& LOAD SCHEDULE



- REVISIONS / ADDENDA DATE
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