**SCOPE OF WORK**

FENCING, YARD PIPING, WATER WELL REHABILITATION, LEAK DETECTION AND APPURTENANCES.

CONSTRUCT WATER SYSTEM IMPROVEMENTS INCLUDING BOOSTER PUMP STATION, HYDRO-PNEUMATIC PRESSURE TANKS, ELECTRICAL, CONTROLS, DESIGN AND APPURTENANCES.

**DESIGN TEAM**

- **PRIME CONSULTANT**
  - ARCHITECTURAL BARRIERS ACT ACCESSIBILITY GUIDELINES; OUTDOOR DEVELOPED AREAS, NOVEMBER 25, 2013
  - US DEPT. OF JUSTICE, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
  - ACCESSIBILITY CODES
    - **D.** See SECO website for Texas Water Conservation Design Standards, Requirements and SECO Compliance Certification / Reporting Form
    - **C.** FACILITIES, STATE ENERGY CONSERVATION OFFICE (SECO), 2016
    - **B.** COMPLIANCE WITH THE WATER CONSERVATION DESIGN STANDARDS FOR STATE BUILDINGS AND INSTITUTIONS OF HIGHER EDUCATION
      - Ch.19, Subchapter C
      - WATER CONSERVATION STANDARDS FOR STATE BUILDINGS - Energy Conservation Design Standards: Texas Administrative Code, Title 34, Part 1
      - **2.** See SECO website for State Funded Buildings, New Construction and Major Renovation Requirements and SECO Compliance Certification Forms

- **IDENTIFICATION CODES**
  - **A.** COMPLIANCE WITH THE ENERGY CONSERVATION DESIGN STANDARD OF THE AMERICAN NATIONAL STANDARDS INSTITUTE
    - **1.** STATE ENERGY CONSERVATION OFFICE (SECO)/TEXAS COMPTROLLERS OFFICE
      - **C.** INTERNATIONAL BUILDING CODE 2015
        - **2.** INTERNATIONAL MECHANICAL CODE 2015
        - **3.** INTERNATIONAL PLUMBING CODE 2015
        - **4.** INTERNATIONAL LAWN AND GARDEN CODE 2015
        - **5.** INTERNATIONAL FUEL GAS CODE 2015
        - **6.** NFPA - 101    2015
        - **7.** NFPA - 1    2015
        - **8.** NATIONAL ELECTRIC CODE, NFPA-70   2020
        - **9.** LIFE SAFETY CODE
        - **10.** FIRE CODE
        - **11.** RESIDENTIAL CODE
        - **12.** CONSTRUCTION CODE
        - **13.** OFFICE PLANNING AND DESIGN CODE
        - **14.** MECHANICAL CODE
        - **15.** GAS CODE
        - **16.** STRUCTURAL CODE
        - **17.** BUILDING CODE
        - **18.** EXISTING BUILDINGS
        - **19.** INTERNATIONAL EXISTING BUILDINGS CODE 2015
        - **20.** CONSULTANT SPECIFICATIONS
        - **21.** CONSULTANT CONTRACTS
        - **22.** CONSULTANT PROPOSALS
        - **23.** CONSULTANT DRAWINGS
        - **24.** CONSULTANT ENGINEERING CALCULATIONS
        - **25.** CONSULTANT ENGINEERING REGULATIONS

- **PROJECT SITE**
  - **SITE LOCATION MAP**
  - **COUNTY LOCATION MAP**
  - **VICINITY MAP**
  - **SITE ADDRESS:** Enchanted Rock State Natural Area, PO Box 1164, Fredericksburg, TX 78624

- **NOT TO SCALE**
  - **PROJECT SITE MAP**
  - **SITES VISUALIZATION**
    - **PROJECT SITE**
    - **GENERAL STRUCTURAL NOTES**
      - **01-G001** COVER SHEET AND INDEX OF DRAWINGS
      - **01-G002** CIVIL NOTES, LEGEND AND ABBREVIATIONS
      - **01-G003** PROCESS MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS
      - **01-G004** BUILDING MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS
      - **01-G005** GENERAL STRUCTURAL NOTES
      - **01-G006** ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS
  - **SITE LOCATION MAP**
    - **01 - GENERAL**
    - **02 - COVER SHEET AND INDEX OF DRAWINGS**
    - **03 - CIVIL NOTES, LEGEND AND ABBREVIATIONS**
    - **04 - BUILDING MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS**
    - **05 - PROCESS MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS**
    - **06 - GENERAL STRUCTURAL NOTES**
    - **07 - ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS**
    - **08 - WATER STORAGE AREA**
    - **09 - HEADQUARTERS**
    - **10 - HEADQUARTER BUILDING ELECTRICAL SITE PLAN**
    - **11 - MAINTENANCE BUILDING ELECTRICAL SITE PLAN**
    - **12 - OVERALL ELECTRICAL SITE PLAN**
    - **13 - MAINTENANCE BUILDING ELECTRICAL SITE PLAN**
    - **14 - YARD PIPING - ENLARGED**
    - **15 - WATER SYSTEM - OVERVIEW**
    - **16 - BPS MECHANICAL PLAN**
    - **17 - BPS FOUNDATION PLAN/ DETAILS**
    - **18 - BPS ELECTRICAL PLAN**
    - **19 - BPS ONE LINE DIAGRAM**
    - **20 - COMFORT STATION**
    - **21 - RESTROOM**
    - **22 - ELECTRICAL DETAILS II**
    - **23 - ELECTRICAL DETAILS III**
    - **24 - ELECTRICAL DETAILS IV**
    - **25 - ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS**
    - **26 - SITE CIVIL**
    - **27 - CIVIL DETAILS II**
    - **28 - CIVIL DETAILS III
    - **29 - COUNTY LOCATION MAP**
    - **30 - VICINITY MAP**
    - **31 - PROJECT LOCATION**
1. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR SAFETY VIRGINS, OR METHODS OF THE CONTRACTOR.

2. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL APPROPRIATE AGENCIES BEFORE WORK COMMENCES TO CONFIRM THE TYPE, LOCATION, OR EXISTING UTILITIES. CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR ANY DAMAGES RESULTING FROM THE CONTRACTOR’S OPERATIONS REPLACING ANY SUCH ITEMS DAMAGED DURING CONSTRUCTION.

3. DIGITALIZED UTILITIES SHOWN ON THIS SHEET ARE THE PREVIOUSLY EXISTING UTILITIES BASED ON INFORMATION AVAILABLE FROM THE CONTRACTOR. CONTRACTOR SHALL CONFIRM ALL UTILITIES AND UNCOVER ANY EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DAMAGES RESULTING FROM THE CONTRACTOR’S OPERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

4. SIZE OF FITTINGS SHOWN ON PLANS CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIALS SHALL BE AS SPECIFIED FOR ADJACENT STRAIGHT RUN OF PIPE.

5. VIRTUAL PERIODS OF CONSTRUCTION SHALL BE AS INDICATED. SOME CASES, EXISTING CONDITIONS PROHIBIT UNIFORM GRADES BETWEEN THE SHADINGS SHOWN AND THE ELEVATIONS SHOWN, UNLESS OTHERWISE SPECIFIED. IN SOME CASES, EXISTING CONDITIONS PROHIBIT UNIFORM GRADES BETWEEN THE SHADINGS SHOWN AND THE ELEVATIONS SHOWN, UNLESS OTHERWISE SPECIFIED.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF THE EXISTING ASPHALT AND MINERAL WATERS SHALL BE UNDERCUT A MINIMUM OF 4" AND PIPE BUILT IN STONE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

7. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

8. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

9. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

10. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

11. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

12. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

13. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

14. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

15. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

16. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.

17. CONTRACTOR SHALL MAINTAIN PROTECTIVE BASED ON ANY EXISTING ASPHALT PIPE. ALL PIPE LINES SHALL BE BURIED BE ONE-PIECE FLANGED BASE. BASE. NO SCALED LINE TYPES AND SYMBOLS INDICATE PROPOSED ITEMS.
GENERAL MECHANICAL NOTES:
1. REFER TO SPECIFICATIONS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. REFER TO ALL PROJECT DRAWINGS AND TABLES FOR DETAILS OF CONSTRUCTION AND INSTALLATION REQUIREMENTS.
3. REFER TO GENERAL CONDITIONS AND SUPPLEMENTARY GENERAL CONDITIONS FOR MANDATORY CONTRACT DOCUMENTS.
4. A CONTRACTOR SHALL KEEP, PRODUCE, AND DELIVER TO THE ARCHITECT, IN A LEGIBLE MANUSCRIPT FORM, THE CONTRACT DOCUMENTS.
5. ALL DRAWINGS ARE DRAWN TO SCALE USED IN THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF EQUIPMENT AND INSTALLATION OF THE MECHANICAL SYSTEMS. FLOOR PLANS, CIVIL PLANS, AND MECHANICAL PLANS WILL BE CONSISTENT WITH THE REQUIREMENTS SHOWN ON THE CONTRACT DOCUMENTS.
6. INFORMATION AND COMPONENTS SHOWN ON JOINT PLANS BETWEEN MECHANICAL, ELECTRICAL, AND ARCHITECTURAL SUBCONTRACTORS WILL BE DELIVERED IN A DIGITAL FORMAT.
7. CONTRACTOR SHALL NOT SCALE DRAWINGS OR CHANGE LAYOUTS FROM THE CONTRACT DOCUMENTS, EXCEPT AS EXPRESSLY PERMITTED BY THE CONTRACT DOCUMENTS.
8. CONTRACTOR SHALL NOT SUBSTITUTE MATERIALS OR EQUIPMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
9. CONTRACTOR SHALL NOT ALTER ANY ELECTRICAL, PLUMBING, OR MECHANICAL INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
10. CONTRACTOR SHALL NOT SUBSTITUTE ANY MATERIALS OR EQUIPMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
11. CONTRACTOR SHALL NOT ALTER ANY ELECTRICAL, PLUMBING, OR MECHANICAL INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
12. CONTRACTOR SHALL NOT SUBSTITUTE ANY MATERIALS OR EQUIPMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
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35. CONTRACTOR SHALL NOT SUBSTITUTE ANY MATERIALS OR EQUIPMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
36. CONTRACTOR SHALL NOT SUBSTITUTE ANY MATERIALS OR EQUIPMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT.
GENERAL NOTES:
1. GENERAL NOTES AND STANDARD DETAILS SHALL NOT REPLACE OR OVERRULE ANY STRUCTURE SPECIFIC NOTE, DETAIL, OR SPECIFICATION. STRUCTURE SPECIFIC NOTES AND DETAIL, OR SPECIFICATION, STRUCTURE SPECIFIC NOTES AND STANDARD DETAILS PUBLISHED IN AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH IBC 2015.
2. CONCRETE FOR SLABS SUBJECTED TO VEHICULAR WHEEL LOADS SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
3. HORIZONTAL SLUMP OF 3 INCHES AT POINT OF DELIVERY. IF A HIGH RANGE WATER REDUCER IS USED, THE FRESH CONCRETE SLUMP MAY NOT EXCEED 6 INCHES.
4. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3/4".
5. NON-PRESTRESSED CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM A 615 GRADE 60.
6. REINFORCEMENT LAP SPLICES SHALL CONFORT TO D03/3000-100C OR D03/3000-100D.
7. CONCRETE COVER OVER REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIRED BY DETAIL D03/3000-120, UNO.
8. REINFORCEMENT DETAILS AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315.
9. NO REINFORCING BAR SHALL BE WELDED OR FIELD BENT IN ANY MANNER, UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.
10. WALKWAYS AND SIDESAILS SHALL BE POURED WITH SLIGHT SLOPE AND NO LOW SPOTS SO THEY WILL DRAIN FREE. ALL SLOPES SHALL COMPLY WITH ADA REQUIREMENTS.
11. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILD ON THE SHOP DRAWINGS FOR REVIEW UNLESS INDICATED OTHERWISE. ALL CONSTRUCTION JOINTS TO BE KEYS. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN WALLETS AND BEAMS, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
12. SUBSTUTION OF EXPANSION OR DRILLED AND GRETAED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY ENGINEER.

GENERAL CONCRETE NOTES:
1. STRUCTURAL CONCRETE FOR FOUNDATION SLABS SHALL HAVE A COMPRRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
2. CONCRETE FOR SLABS SUBJECTED TO VEHICULAR WHEEL LOADS SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
3. HOLD SLUMP TO 3 INCHES AT POINT OF DELIVERY. IF A HIGH RANGE WATER REDUCER IS USED, THE FRESH CONCRETE SLUMP MAY NOT EXCEED 6 INCHES.
4. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3/4".
5. NON-PRESTRESSED CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM A 615 GRADE 60.
6. REINFORCEMENT LAP SPLICES SHALL CONFORT TO D03/3000-100C OR D03/3000-100D.
7. CONCRETE COVER OVER REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIRED BY DETAIL D03/3000-120, UNO.
8. REINFORCEMENT DETAILS AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315.
9. NO REINFORCING BAR SHALL BE WELDED OR FIELD BENT IN ANY MANNER, UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.
10. WALKWAYS AND SIDESAILS SHALL BE POURED WITH SLIGHT SLOPE AND NO LOW SPOTS SO THEY WILL DRAIN FREE. ALL SLOPES SHALL COMPLY WITH ADA REQUIREMENTS.
11. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILD ON THE SHOP DRAWINGS FOR REVIEW UNLESS INDICATED OTHERWISE. ALL CONSTRUCTION JOINTS TO BE KEYS. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN WALLETS AND BEAMS, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
12. SUBSTUTION OF EXPANSION OR DRILLED AND GRETAED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY ENGINEER.

CONCRETE FOUNDATIONS:
1. ASSUMED ALLOWABLE BEARING PRESSURE 2,000 PSI.
2. ALL CONCRETE CORNERS SHALL BE CHAMFERED 3/4" ON THE EXTERIOR EXPOSED CORNER.
3. COMPACTION GRANULAR FILL OR BASE COURSE ROCK AS INDICATED.

POST-INSTALLED CONCRETE ANCHORS:
1. UTILIZE AN ADHESIVE SYSTEM SUCH AS HLTY-HY 300 EPOXY ADHESIVE OR AN APPROVED EQUAL.
2. THE EPOXY SYSTEM SHALL BE TESTED IN ACCORDANCE WITH IBC-ES ACCEPTANCE CRITERIA FOR POST-INSTALLED EPOXY ANCHORS.
3. THE EPOXY SYSTEM SHALL BE INSTALLED IN AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH IBC 2015.
5. THE LOCATION OF EXISTING RIBBONING BAM IN THE CONCRETE STRUCTURE SHALL BE LOCATED PRIOR TO POST-INSTALLED ANCHORS. EXISTING RIBBONING BAM SHALL BE LOCATED USING HLTY PERMANENT OR UPLADEY. ANCHOR AND EXISTING REFERENCE INTERFERENCE SHALL BE REPORTED TO THE ENGINEER.

WIND LOAD PARAMETERS:
1. MOVABLE FILE ROOMS---------------------- 150 PSF
2. RESTROOMS----------------------------------- 80 PSF
3. FLOORS:
   - ROOF WITHOUT REDUCTION------------ 20 PSF
   - INDUSTRIAL AREAS------------------------- 250 PSF
   - MOVABLE FILE ROOMS-------------------- 150 PSF
4. STRUCTURAL CONCRETE FOR FOUNDATION SLABS SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI.
GENERAL NOTES:

1. THESE NOTATIONS ARE INTENDED TO BE GENERAL IN NATURE, THEY MAY OR MAY NOT APPLY TO SOME OR ALL THE PLAN SHEETS AND SPECIFICATIONS.

2. ALL MACHINES AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND APPLICABLE LOCAL CODES.

3. CONDUCT RUNS INDICATED ON THE PLAN SHEETS ARE INTENDED TO BE SCHEMATIC ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ROUTING ALL CONDUCT RUNS AS REQUIRED TO SATISFY ALL LOCAL CODES AND NATIONAL ELECTRICAL CODE REQUIREMENTS. MACHINES AND ELECTRICAL EQUIPMENT SHALL BE SCHEMATICALLY INDICATED IN THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CORRECT INSTALLATION WITH THE ELECTRICAL ENGINEER. ALL CONDUCTS SHALL BE INSTALLED IN SUCH A MANNER AS TO NOT COMPROMISE THE STRUCTURAL INTEGRITY OF WROUGHT IRON, RINGS, ROVES, WIRE, AND OTHER CONDUCT MATERIALS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL STRUCTURAL SUPPORTING MEMBERS FOR THE INSTALLATION AND SHALL COORDINATE SUCH WORK WITH THE SYMBOLS SHOWN.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ROUTING ALL CONDUCTS NOT INDICATED ON THE PLAN SHEETS. THIS INCLUDES WIRES FOR LIGHTING, RECEPTACLES AND OTHER MISCELLANEOUS EQUIPMENT CIRCUITS.

5. ALL WIRING AND EARTH GROUNDS SHALL BE ROUTED AND SUPPORTED IN SUCH A MANNER AS TO NOT COMPROMISE THE STRUCTURAL INTEGRITY OF WROUGHT IRON, RINGS, ROVES, WIRE, AND OTHER CONDUCT MATERIALS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL STRUCTURAL SUPPORTING MEMBERS FOR THE INSTALLATION AND SHALL COORDINATE SUCH WORK WITH THE SYMBOLS SHOWN.

6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF CONDUCT ENTRENCEMENTS FOR ALL EQUIPMENT WITHIN SHOWN DRAWINGS BEFORE STUB-UP CONDUITS.

7. ALL SURFACE MOUNTED PANELS AND PANELBOARDS ON THE INTERIOR OF EXTERIOR SHELVES OR RACKS WILL BE PREPARED OR LOCATED IN SUCH A MANNER AS TO NOT MAINTAIN A 1/4" MINIMUM AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.

8. PULLBOXES, IF SHOWN ON THE PLANS, ARE SCHEMATIC IN NATURE. THE CONTRACTOR SHALL PROVIDE ADDITIONAL PULLBOXES WHERE REQUIRED TO MAKE A WORKABLE INSTALLATION.

9. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS WHETHER OR NOT THEY ARE REFERENCED ON THE DRAWINGS.

10. ALL CONDUCT RUNS PASSING THROUGH EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION-AND-DEFLECTION TYPE FITTINGS. FOR LOCATIONS OF EXPANSION JOINTS, REFER TO THE STRUCTURAL DRAWINGS.

11. THE ACCEPTANCE CRITERIA, QUALITY, AND SIZE OF WROUGHT IRON CONDUCTORS REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. IF EQUIPMENT SUPPLIED BY THE MANUFACTURER HAS A LARGER LOAD THAN THE VALUE SHOWN OR INDICATED, THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT MAY BE REQUIRED TO BE ADJUSTED AS REQUIRED TO ACCOMMODATE THE OVERLOAD REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL LOADING REQUIREMENTS FOR CONTINUOUS POWER TRANSFORMATIONS.

12. ALL MOTION STARTER CONTROL POWER TRANSFORMERS SHALL BE SIZED TO PROVIDE A SURPLUS VOLT-AMPERE CAPACITY FOR OPERATING ALL LOCAL AND REMOTE ELECTRICAL DEVICES ASSOCIATED WITH CONTROL OF THE MOTOR IN ADDITION TO THE LOAD OF THE MOTORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL LOADING REQUIREMENTS FOR CONTINUOUS POWER TRANSFORMATIONS.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE PROPERLY SIZED STARTER OVERLOADS FOR ALL EQUIPMENT INSTALLED.

14. MOTION CONTROL CENTERS AND ALL FREE STANDING PANELS SHALL BE SET ON FLAT LEVEL SURFACES. ALL Wiring AND EARTH GROUNDS SHALL BE RUN IN SUCH A MANNER AS TO NOT REDUCE THE RATING OF THE ENCLOSURE AND COVER.
NOTES:

1. WELL NO. 1: REPLACE EXISTING PRESSURE GAUGE. REHABILITATE EXISTING WELL IN ACCORDANCE WITH SECTION 33 11 17 OF THE SPECIFICATIONS. INSTALL NEW DARK SKY COMPLIANT LIGHT WITH SWITCH AT ENTRANCE TO FENCED WELL ENCLOSURE. SEE DETAIL.

2. WELL NO. 4: REPLACE EXISTING PRESSURE GAUGE AND ALL ABOVE GROUND INSULATION ON PIPING WITHIN ENCLOSURE. REHABILITATE EXISTING WELL IN ACCORDANCE WITH SECTION 33 11 17 OF THE SPECIFICATIONS. REPLACE EXISTING LIGHT POLE AND FIXTURE. SEE DETAIL.
NOTES:

1. EXISTING VALVES ARE SHOWN AT APPROXIMATE LOCATIONS BASED ON INFORMATION PROVIDED TO ENGINEER BY OWNER. CONTRACTOR SHALL CONFIRM LOCATIONS.

2. LIMITS OF CONSTRUCTION FOR WATER LINE TESTING MAY INCLUDE UP TO 5 FEET EACH SIDE OF THE EXISTING WATER LINES.

3. CONTRACTOR SHALL PRESSURE TEST EXISTING WATER MAINS IDENTIFIED 1" AND ABOVE THAT ARE SHOWN ON THIS DRAWING AS REQUIRED BY SECTION 33 11 11 OF THE SPECIFICATIONS. IDENTIFY POTENTIAL LEAKS PER TESTING RESULTS AND REPAIR AS DIRECTED BY OWNER PER SPECIFICATIONS.

4. CONTRACTOR SHALL NOT DIG OUTSIDE LIMITS OF CONSTRUCTION WITHOUT WRITTEN CONSENT FROM TPWD.

5. CONTRACTOR SHALL SUBMIT PLAN FOR TESTING EXISTING WATER SYSTEM TO BE APPROVED BY ENGINEER INCLUDING REQUIRED SHUT DOWN TIMES FOR SYSTEM.

6. SEE DRAWING NO. 20 FOR DETAIL ON REMOVAL OF BOOSTER PUMP AT MAINTENANCE BUILDING AND RESIDENCE.

05-C103 (SITE PLAN - ENLARGED) 05-C301 (YARD PIPING - ENLARGED)
1. SURVEY DATA SHOWN IS BASED ON STORAGE TANK CONSTRUCTION PROJECT AND MAY NOT COMPLETELY REFLECT EXISTING GROUND CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION AS NECESSARY.

2. DIMENSIONS ARE PROVIDED BASED ON ASSUMED BOOSTER PUMP STATION DIMENSIONS. CONTRACTOR SHALL COORDINATE FINAL LAYOUT WITH ENGINEER BASED ON SELECTED MANUFACTURER'S SYSTEM.

3. CONTRACTOR SHALL NOT DIG OUTSIDE LIMITS OF CONSTRUCTION WITHOUT WRITTEN CONSENT FROM TPWD.

4. CONTRACTOR SHALL ENSURE FINAL GRADING PROVIDES POSITIVE DRAINAGE AND DOES NOT FACILITATE STANDING WATER.

5. CONTRACTOR SHALL RESTORE AND SEED ALL DISTURBED AREA PER SPECIFICATIONS.
NOTES:

1. EXISTING PIPING AND FACILITIES ARE SHOWN FROM RECORD DRAWINGS AND PREVIOUS SURVEY INFORMATION AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION PRIOR TO CONSTRUCTION.

2. ABANDONED LINES TO OLD TANK PAD MAY BE REMOVED AS NECESSARY FOR CONSTRUCTION OF NEW WATER AND ELECTRICAL FACILITIES.

3. CONTRACTOR SHALL INSTALL NEW PIPING TO MINIMIZE SHUT DOWN TIME FOR SYSTEM.

4. ALL NEW BURIED PIPING SHALL BE SCH 80 PVC.

5. CONTRACTOR SHALL INSTALL NEW PIPING TO MINIMIZE SHUT DOWN TIME FOR SYSTEM.

6. SEE MECHANICAL DRAWINGS FOR BURIED PIPING ELEVATIONS AT PUMP STATION. MINIMUM COVER SHALL BE 3'-0" OTHERWISE AND AS NECESSARY TO TO 3'-0" TO 4'-0" TO 5'-0". ANY LOCALIZED HIGH POINT IN THE PRESSURIZED PIPING SHALL HAVE AN ADEQUATELY SIZED AIR RELEASE VALVE.

7. CONTRACTOR SHALL NOT DIG OUTSIDE LIMITS OF CONSTRUCTION WITHOUT WRITTEN CONSENT FROM TPWD.

8. SEE ELECTRICAL DRAWINGS FOR SITE ELECTRICAL IMPROVEMENTS.

9. YARD PIPING REMOVED FROM SERVICE AS PART OF THIS PROJECT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
NOTES:

1. REMOVE EXISTING WATER PUMP AND CLEANUP AREA FOR NEW MAINTENANCE BLDG. PLC PANEL. PROVIDE AND INSTALL CONDUIT AND CONDUCTOR FOR 120V 20A CIRCUIT FROM EXISTING LIGHTING PANEL TO NEW MAINTENANCE BLDG. PLC PANEL.

2. 1" CABLE FIELD ROUTE CONDUIT AND CABLE FROM ANTENNA TOWER TO RADIO IN MAINTENANCE BLDG. PLC PANEL. PROVIDE ALL REQUIRED CONDUIT SUPPORTS AND HARDWARE.

3. CONTRACTOR SHALL VERIFY ANTENNA LOCATION WITH OWNER.

4. CONTRACTOR SHALL CORE THROUGH MAINTENANCE BUILDING WALL A MINIMUM OF 2 FEET FROM FINISHED GRADE.

5. CONTRACTOR SHALL INSTALL CONDUITS ALONG BUILDING WALLS USING GALVANIZED STEEL CONDUIT STRAPS AND HARDWARE. (TYP)

6. PLC PANEL HMI TO DISPLAY GST LEVEL, GST HIGH AND LOW LEVEL ALARMS, AND BOOSTER PUMP RUNNING AND FAIL STATUS.
NOTES:

1. PROVIDE AND INSTALL GE MDS RADIO MODEL SD SERIES, RACO VERBATIM 8 CHANNEL AUTO DIALER WITH MODBUS INTERFACE MODULE, UPS (30 MINUTE RATED), AND ALL REQUIRED HARDWARE IN A NEMA 1 ENCLOSURE. CONTRACTOR TO COORDINATE WITH OWNER FOR AUTO DIALER CONNECTION TO TELEPHONE LINE. PANEL SHALL BE MOUNTED ON WALL USING STEEL UNISTRUT AND HARDWARE.

2. PROVIDE AND INSTALL 20A 1P CIRCUIT BREAKER TO EXISTING LIGHTING PANEL. CONTRACTOR TO MATCH EXISTING RATING AND TYPE.

3. CONTRACTOR SHALL INSTALL PROPOSED YAGI ANTENNA TO EXISTING ANTENNA POLE. SEE DETAIL FOR SUGGESTED HEIGHT AND LOCATION. CONTRACTOR TO ADJUST HEIGHT AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SCADA SYSTEM.

4. FT. WITH 2" X 1" STL FIELD ROUTE CONDUIT FROM EXISTING LIGHTING PANEL TO PROPOSED UPS IN THE EXISTING COMMUNICATION ROOM.

5. FT. WITH ANTENNA CABLE, FIELD ROUTE CONDUIT FROM PROPOSED YAGI ANTENNA TO PROPOSED MDS RADIO IN THE EXISTING COMMUNICATION ROOM.

6. CONTRACTOR SHALL REPLACE EXISTING LIGHT POLE AND FIXTURE.

7. CONTRACTOR SHALL CORE THROUGH HEADQUARTERS BUILDING WALL A MINIMUM OF 2 FEET FROM FINISHED GRADE.

8. CONTRACTOR SHALL INSTALL CONDUITS ALONG BUILDING WALLS USING GALVANIZED STEEL CONDUIT STRAPS AND HARDWARE.
NOTES:
1. VERIFY FINAL DIMENSIONS WITH PUMP STATION STRUCTURE MANUFACTURER.
2. POWER TROWEL TOP SURFACE OF SLAB.
3. BEB SPECIFICATIONS (SECTION 13 06 23 15) FOR ALUMINUM PUMP COVER INFORMATION.
4. BEB SPECIFICATIONS (SECTION 62 02 04 31) FOR PUMP SKID INFORMATION.
5. ANCHORAGE OF PUMP SKID & ALUMINUM ENCLOSURE TO FOUNDATION TO BE PROVIDED BY PUMP STATION MANUFACTURER.
6. ANCHORAGE OF TANKS TO FOUNDATION TO BE PROVIDED BY TANK MANUFACTURER.

See Civil Drawings for Finished Grade at Pad (2" to 4" below Top of Slab)
NOTES:
1. BOOSTER PUMP STATION BUILDING AND EQUIPMENT SHALL BE PROVIDED BY THE BOOSTER PUMP STATION MANUFACTURER. SEE SECTION 44 42 56.31 POTABLE WATER PACKAGE PUMP STATION SYSTEM FOR EQUIPMENT SPECIFICATIONS.
2. BOOSTER PUMP STATION SKID SHALL BE CONNECTED TO THE FOUNDATION PER THE BOOSTER PUMP STATION MANUFACTURER. THE FOUNDATION SHALL BE CONSTRUCTED BY CONTRACTOR. THE CONTRACTOR SHALL COORDINATE THE SLAB PIPE PENETRATION LOCATIONS WITH THE BPS MANUFACTURER.
3. SEE SHEET 10 FOR PIPING CONTINUATION.
4. FULL EXTENT OF THREADED PUMP STATION SLAB NOT SHOWN FOR CLARITY - SEE STRUCTURAL DRAWINGS.
5. EQUIPMENT TO BE PROVIDED BY BOOSTER PUMP SKID MANUFACTURER PER SECTION 44 42 56.31.

PUMP STATION KEY NOTES:
A. PROVIDE A RESTRAINED FLANGED COUPLING ADAPTER FOR CONNECTION TO BOOSTER PUMP STATION SUCTION PIPING.
B. PROVIDE A RESTRAINED FLANGED COUPLING ADAPTER FOR CONNECTION TO BOOSTER PUMP STATION DISCHARGE PIPING.
C. PRESSURE RELIEF VALVE SET AT 55 PSI, BUSHINGS, NIPPLES AND DISCHARGE PIPE TO EXTERIOR 6" MIN ABOVE GRADE. SEAL PENETRATION THROUGH WALL.
D. ELECTRICAL PANELS AND EQUIPMENT.

SECTION
(SEE DETAILS ON SHEET 14)

BOOSTER PUMP STATION FOUNDATION
(SEE DETAILS ON SHEET 14)

VERTICAL MULTISTAGE PUMP
BP01

ALUMINUM PUMP COVER
(PROVIDE PER SECTION 13 34 23.14)

4" DISMANTLING JOINT, FLG

HATCH DOOR

Louver Vent

EXHAUST FAN

4" CHECK VALVE

ISOLATION VALVE

PUMP SKID

3" WI

4" Flanged Coupling Adapter

TANK FOUNDATION
(SEE DETAILS ON SHEET 14)

(200 Gal (minimum) NSF HYDROPNEUMATIC TANK)

2.0 T , TYP.

4" SPOOL (LENGTH AS REQUIRED), PE X PE

SCH 80 PVC

4" 90° BEND

4" WI

FLOOR SLEEVES

3" WI

TANK FOUNDATION
(SEE DETAILS ON SHEET 14)

ALUMINUM PUMP COVER
(PROVIDE PER SECTION 13 34 23.14)

PUMP SKID

3" WI

4" DISMANTLING JOINT, FLG

HATCH DOOR

Louver Vent

EXHAUST FAN

4" CHECK VALVE

ISOLATION VALVE

TANK FOUNDATION
(SEE DETAILS ON SHEET 14)

(200 Gal (minimum) NSF HYDROPNEUMATIC TANK)

2.0 T , TYP.

4" SPOOL (LENGTH AS REQUIRED), PE X PE

SCH 80 PVC

4" 90° BEND

4" WI

FLOOR SLEEVES

3" WI

TANK FOUNDATION
(SEE DETAILS ON SHEET 14)
NOTES:

1. CONTRACTOR TO INSTALL NEW YAGI ANTENNA ON EXISTING GST HANDRAIL. SEE DETAIL.

2. CONTRACTOR SHALL STUB UP CONDUIT NEXT TO EXISTING GST LADDER AND INSTALL ABOVE GROUND CONDUIT WITH GALVANIZED STEEL CONDUIT STRAPS AND HARDWARE. SEE DETAIL.

3. CONTRACTOR SHALL COORDINATE WITH BOOSTER PUMP PACKAGE SYSTEM VENDOR FOR ALL CONDUIT AND CONDUCTOR CONNECTIONS.

4. CONTRACTOR SHALL coordinate WITH ELECTRIC UTILITY PROVIDER FOR ALL ELECTRIC UTILITY STANDARDS, AND INSTALLATION OF NEW SERVICE. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY FOR A FULLY FUNCTIONAL ELECTRIC SERVICE ENTRANCE.

5. CONTRACTOR SHALL MAKE ALL REQUIRED CONNECTIONS TO ENSURE A FULLY FUNCTIONAL AND COMPLETE SYSTEM.

6. PLC PANEL HMI TO DISPLAY GST LEVEL, GST HIGH AND LOW LEVEL ALARMS, AND BOOSTER PUMP RUNNING AND FAIL STATUS.

2. Coordinate all electrical work and power outages with owner and power utility.

3. The contractor shall make electrical connections to everything furnished or installed by this contract, whether indicated or not on the electrical drawings.

4. Provide lugs as required to fit wiring.

5. Contractor shall verify all motor sizes with provided equipment and provide appropriately sized overcurrent protective devices.

Key Notes:
- Verify circuit breaker and conductor requirements with supplied equipment; adjust sizes as required.
- New conduit, conductors, and service by electrical contractor. Service conductors from pole mounted transformers to weatherhead furnished and installed by utility. Electrical contractor to coordinate with electrical utility for riser and weatherhead installation requirements.
- Meter can be furnished and installed by electrical contractor. Contractor to coordinate with electrical utility for approved meter requirements and additional hardware.

General Notes:
2. Coordinate all electrical work and power outages with owner and power utility.
3. The contractor shall make electrical connections to everything furnished or installed by this contract; whether indicated or not on the electrical drawings.
4. Provide lugs as required to fit wiring.
5. Contractor shall verify all motor sizes with provided equipment and provide appropriately sized overcurrent protective devices.


Package System: 100A/2P, TM

Control Panel: 60A/2P, TM

PLC Panel: 20A/1P, TM

Pump Station: 20A/2P, TM

Hotbox: 20A/2P, TM

Heater: 20A/2P

Level Transmitter: 20A/2P

Antenna: 20A/2P

Control Panel: 30A/2P

No. 1: 3/4"Øx10'-0" C.C.

No. 2: 1"Øx4'-0" C.C.

No. 3: 1 1/2"Øx12'-0" C.C.

Ground Rod: #4 GND conductor (minimum)

%200A NEMA 3R Service Entrance Rated

%200A Main Breaker

%22 KAIC NEMA 3R DP01 - 200A, 240VAC, 1ɸ, 3W, 22kAIC

%3 HP Booster Pump 1 (BP01)

%3 HP Booster Pump 2 (BP02)
NOTES:
1. ALL FABRIC, POSTS, NAILS, BRACES, FITTINGS, AND HARDWARE FOR FENCE AND GATES SHALL CONFORM TO THE SPECIFICATIONS.
2. THERMAL EXPANSION COUPLING SHALL BE LOCATED EVERY 100'.

NOTE:
1. CONCRETE SHALL BE 3000 PSI.
2. BRACE PANEL SHALL BE PLACED A MAXIMUM OF 400 FEET CENTER TO CENTER FROM END, CORNER, OR BRACE POSTS.
ANY BREAKS IN HORIZONTAL ALIGNMENT OF MORE THAN 30 DEGREES SHALL BE CONSIDERED A CORNER.

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES WHERE REQUIRED OR AS DIRECTED BY THE ENGINEER.

NOTE:
FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN, REFER TO END PANEL.

PROJECT FACILITIES

EXTERIOR

8" DIA. (TYP LINE POST)
12" DIA. (TYP END/CORNER/PULL POSTS)
18" DIA. (TYP GATE HINGE POSTS)

POST

7'-0"
3" O.D.

TRUSS ROD
3/8" ROUND
WITH TIGHTENERS

BRACE RAIL
1-5/8" O.D.

MAX SPACING
1'-0" DIA
(TYP END POST)

CONCRETE ENCASMENT
FOOTING

GROUND LINE

3'-4"
3"

6"-0"
1'-3"

1'-3"
1'-3"

END POST, 3" OD

STRETCHER BAR
(1/4"x3/4"x(5'-11"))

STRETCHER BAR BAND
(3/4"x0.781")

TIE WIRE 9 GA.
@ 2'-0" O.C.

TOP RAIL
1 5/8" OD

8" DIA
(TYP CORNER POST)

TENSION WIRE
7 GA TIED
@ 2'-0" O.C.

TRUSS ROD 3/8"
ROUND W/TIGHTENERS

TIE WIRE 9 GA
@ 2'-0" OC

TOP RAIL
1-5/8" O.D.

8" DIA
(TYP END POST)

TIE WIRE OR HOG RING
9 GA. @ 2'-0" O.C.

TOP RAIL
1-5/8" O.D.

8" DIA
(TYP END POST)

TIE WIRE OR 9 GA.
@ 2'-0" O.C.

TOP RAIL
1-5/8" O.D.

8" DIA
(TYP LINE POST)

TIE WIRE OR HOG RING
9 GA. @ 2'-0" O.C.

TOP RAIL
1-5/8" O.D.

8" DIA
(TYP CORNER POST)

FOOTING

CONCRETE ENCASMENT

DOME TOP TO DRAIN WATER AWAY FROM POST OR BRACE POST,
3" OD
8" DIA
(TYP LINE POST)

4" CONCRETE ENCASMENT

FOOTING

TRUSS ROD
3/8" ROUND W/TIGHTENERS

TIE WIRE 9 GA
@ 2'-0" OC

TOP RAIL
1 5/8" OD

8" DIA
(TYP CORNER POST)

3'-0"

EMBEDMENT

DOME TOP TO DRAIN WATER AWAY FROM POST OR BRACE POST,
3" OD
8" DIA
(TYP LINE POST)

GENERAL NOTES:
1. CONCRETE SHALL BE 3000 PSI.
NOTES:
1. CONTRACTOR SHALL PROVIDE PLUMBING PLAN TO BE APPROVED BY ENGINEER.
2. PLACE NEW ELECTRICAL PANEL ON WALL IN EXISTING BOOSTER PUMP LOCATION IN COORDINATION WITH OWNER - SEE ELECTRICAL DRAWINGS.
1. PROVIDE RADIO SITE SURVEY TO DETERMINE ANTENNA HEIGHT.

NOTE:

- PROVIDE AND INSTALL NEW OMNI ANTENNA.
- TAPERED TOP SECTION
- GROUND BAR WITH MOUNTING B (TYPICAL/BRACKET)
- GROUND WELL
- PROTECT GROUNDING KIT TOP AND BOTTOM (TYPICAL)
- GROUND BAR WITH MOUNTING BRACKET (TYPICAL)
- #2 SOLID GROUND JUMPER (TYPICAL).

- PROVIDE AND INSTALL NEW FREESTANDING ANTENNA TOWER. WIND DESIGN: 90 MPH BY IBC ROHN #65 R-65SS040 OR APPROVED EQUAL.

- REFER TO TOWER MANUFACTURER FOR FOUNDATION DESIGN.

- APPROX. 4' SQUARE BY 4' DEEP TOWER BASE SECTION
- 2" CONDUIT TO BUILDING
- Channel Universal Pipe Strap/Clamp (TYP.)

- PROVIDE AND INSTALL NEW FREESTANDING ANTENNA TOWER. WIND DESIGN: 90 MPH BY IBC ROHN #65 R-65SS040 OR APPROVED EQUAL.

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- APPROX. 4' SQUARE BY 4' DEEP TOWER BASE SECTION
- 2" CONDUIT TO BUILDING
- Channel Universal Pipe Strap/Clamp (TYP.)
NOTES:
1. PROVIDE TRADITIONAL NEMA DEVICES AS DEFINED IN NEMA STANDARDS PUBLICATION NO. ICS 2.4.2003. IEC COMPONENTS ARE NOT ALLOWED.

2. PROVIDE NAMEPLATE ON ALL ELECTRICAL EQUIPMENT AND DEVICES.

3. INSTALL 125 MPH RATED WIND GUSTS ALUMINUM SUNSHIELD SUNSHIELDS TO EXTEND 1' BEYOND FRONT FACE OF EQUIPMENT.

ATTACH NAMEPLATE TO OUTER DOOR WITH S.S. SCREWS

NAMEPLATE

SIREN SILENCE

ON

OFF

HMI

ALARM TEST

ALARM RESET

INTERIOR

NOTES:
1. PROVIDE AND INSTALL NEW YAGI ANTENNA TO EXISTING ANTENNA POLE. VERIFY LOCATION HEIGHT AND ADJUST HEIGHT ACCORDINGLY FOR OPTIMAL SIGNAL. PROVIDE ALL REQUIRED HARDWARE FOR A SECURE MOUNTING.

2. ANTENNA CABLE TO BE SECURED TO EXISTING ANTENNA POLE WITH GALVANIZED CABLE STRAPS AND HARDWARE.

HEADQUARTERS BUILDING ANTENNA MOUNTING

PROVIDE AND INSTALL NEW YAGI ANTENNA (NOT 1).

TO CONDUIT

TYPICAL UNISTRUT RACK MOUNTING DETAIL

FINISHED GRADE

24" MIN.

BURY 24" MIN. IN CONCRETE (TYP)

2'-0"

SHEET TITLE

SHEET NUMBER

OF

PROVIDED BY:

BRAIN S. CHONG

108528

BRAIN S. CHONG

DIGITALLY SIGNED 03/05/2021

DIGITALLY SIGNED 03/15/2021

BRIAN S. CHONG

108528

BRAIN S. CHONG

DIGITALLY SIGNED 03/05/2021

DIGITALLY SIGNED 03/15/2021

TPWD PROJECT NO: 110212 / GARVER PROJECT NUMBER: 20W07000

WATER SYSTEM IMPROVEMENTS

ENCHANTED ROCK STATE NATURAL AREA

DETAILS II

ELECTRICAL
1. CONTRACTORS SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES. STAKING PLAN SHALL BE APPROVED BY OWNER AND ENGINEER PRIOR TO WORK.

2. CONTRACTORS SHALL AS SSTHE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING UTILITIES.

3. SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES. SEE ELECTRICAL PLAN SHEETS FOR QUANTITY AND SIZES.

4. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING. INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.

5. OFFSETS AND BENDS OVER 10 DEGREES AND ELBOWS IN PVC CONDUIT SHALL BE GRESS.

6. NO PVC DUCTS SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCAPSULATION. PVC DUCTS SHALL BE APPLIED UNDER CONCRETE PADS OR SURFACES AND BURIED TO A HEIGHT OF 12".

7. SPARE PVC COATED GALVANIZED STEEL CONDUITS SHALL STUB UP ABOVE TARMAC GRADE OR CONCRETE PAD SURFACE AND BE CAPPED WATERPROOF.

8. INSTALL GROUND RODS AT ENDS OF ELECTRICAL DUCT AND CONNECT TO GROUND RING.

9. INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWINGS. INSTALL FULL BORE IN ALL SPARE DUCTS.

10. MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 36".

11. MINIMUM COVER REQUIREMENTS FOR ELECTRICAL SECONDARY SERVICE DUCT BANKS SHALL BE 36".

12. MINIMUM COVER REQUIREMENTS FOR ELECTRICAL PRIMARY SERVICE DUCT BANKS SHALL BE 36".

13. VERTICAL AND HORIZONTAL DISTANCES BETWEEN DUCT BAYS SHALL BE 36".

14. DUCT BANKS TO EXTEND BELOW FLOOR SLABS.

**NOTES:**

1. ALL EXPOSED EDGES TO BE GROUND SMOOTH AND BURR FREE.

2. MOUNT HOOD BETWEEN INSTRUMENT AND MOUNTING BRACKET.

3. SELECT HOOD MATERIAL TO MATCH ENCLOSURE MATERIAL.

4. VIBRATION MAY OCCUR.

5. ELECTRICAL PLAN SHEETS AND SPECIFICATIONS.

6. VIBRA CUSHION ONLY REQUIRED WHERE NEEDED TO PREVENT METAL TO METAL CONTACT OF DISSIMILAR METAL TYPES OR WHERE EXCESSIVE VIBRATION MAY OCCUR.

7. SIMILAR FOR ALL ELECTRICAL ENCLOSURES AND PANELS.

8. TYPICAL FOR ALL ELECTRICAL ENCLOSURES AND PANELS.

9. INSTALL GROUND RODS AT ENDS OF ELECTRICAL DUCT AND CONNECT TO GROUND RING.

10. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.

11. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.

12. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.

13. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.

14. INSTALL DUCT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING.