

STATEMENT OF WORK
Pumping Plant (533)
Wyoming

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design Surveys
 - A. Topographic survey or profile of suction and discharge line.
 - B. Minimum and maximum water surface elevation at source.
 - C. Available power sources.
 - D. Required maximum discharge elevation and minimum pressure requirements.
 - E. Required discharge.
2. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
 - A. Practice purpose(s) as identified in the conservation plan.
 - B. List of required permits to be obtained by the client.
 - C. Impacts on adjacent properties and structures.
 - D. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06).
 - E. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Mechanical
 - a. Alternate elevations of hydraulic grade line.
 - b. Alternate horsepower requirements.
 - c. Pump selection based on maximum efficiency and power source available.
 - ii. Structural
 - a. Structural design for sump and pump installation.
 - b. Housing for installation.
 - iii. Appurtenances
 - a. Selection of automation and safety accessories
 - iv. Other
 - a. Records indicating NRCS obligations regarding State and Federal regulations have been met.
 - b. Quantity computations.
3. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits
 - A. Plan view of system.
 - B. Detailed plan and sectional views of all structures.
 - C. Profile of installation
 - D. Detailed view showing size and location of safety devices and appurtenances.
 - E. Diameter, type, class, thickness and coating requirements for all pipes involved.
 - F. Table of quantities
 - G. Location map.
4. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32).
5. Operation and Maintenance Plan
6. Certifications that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03(b)(2)).
7. Design modifications during installation as required.

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INSTALLATION

Deliverables

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
 - A. Alignment stakes with offset reference hubs and stakes.
 - B. Required cut stakes.
 - C. Appurtenance location stakes (if required).
4. Installation inspection (according to inspection plan as appropriate).
 - A. Actual materials used.
 - B. Inspection records
5. Facilitate and implement required design modifications with client and original designer.
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

Deliverables

1. As-Built documentation.
 - A. Extent of practice units applied
 - i. Material quality.
 - ii. Field test of installation
 - B. Drawing
 - i. Dimensions and elevations of structures.
 - ii. Data from information plate on pump and power supply.
 - iii. Location, type and size of appurtenances.
 - C. Final Quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03(c)(1)).
3. Progress reporting.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Pumping Plant, 533.
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook