

UNDERGROUND OUTLET DESIGN AND CONSTRUCTION CHECKLIST

DESIGN

1. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06).
2. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - a. Required Capacity
 - b. Inlet Type
 - c. Conduit Type
 - d. Outlet Type
 - e. MaterialsDocument design using appropriate forms or approved computer programs.
3. Construction Specifications:
 - a. Construction specification for earthwork
 - b. Construction specifications for vegetation
 - c. Material specifications for all materials incorporated into the work
4. Plans
 - a. Plan view showing location of underground outlets and associated practices
 - b. Typical sections showing inlets, conduits and outlets
4. Operation and Maintenance Plan
5. Certifications that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03(b)(2)).
6. Design modifications during installation as required.

INSTALLATION

1. Pre Installation conference with landowner.
2. Staking and layout according to plans and specifications including applicable layout notes.
3. Installation inspection
 - a. Actual materials used meet specifications
 - b. Installation methods and location meet plans and specifications
4. Facilitate and implement required design modifications with landowner
5. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

1. As-Built documentation.
 - a. Measurements to document the quantity and type of materials used in the installation
 - b. Statement certifying the adequacy and condition of the vegetation
 - c. Final quantities calculations
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03(c)(1)).

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Underground Outlet, 620
- NRCS O&M Plan, Underground Outlet, 620