

GENERAL CONSTRUCTION SPECIFICATIONS FOR LAND DEVELOPMENT & IMPROVEMENT PROJECTS IN MONO COUNTY

Mono County Department of Public Works

The following specifications have been compiled for application on grading, drainage, street, and other development projects being constructed in the unincorporated areas of Mono County. The project engineer shall select those specifications that are applicable to the project and incorporate them into project plans and specifications. Specifications may be added or modified by the project engineer to reflect site conditions or design requirements, but any such addition or modification is subject to review and approval by the Mono County Department of Public Works. Mono County reserves the right to require specifications deemed necessary to protect public health and welfare and the environment.

GENERAL

1. Contractor shall perform project activities in conformance with Mono County ordinances and standards and the conditions of approval of applicable grading and encroachment permits issued by the Mono County Department of Public Works. All work in the Mono County Right-of-Way shall be subject to an encroachment permit from the Mono County Department of Public Works.
2. All work shall conform to these plans, specifications, Mono County Standards, and the "Standard Specifications" (July 2002 edition) issued by the California Department of Transportation (Caltrans). In the event of a conflict between the preceding documents, the most stringent shall prevail.
3. Contractor shall conduct all grading operations in conformance with the Construction Safety Orders of the State of California, Department of Industrial Relations, Division of Industrial Safety. Contractor shall comply with all requirements of general OSHA Standards for the protection of workmen and the general public.
4. Contractor shall call USA Alert at (800) 642-2444 at least 48 hours prior to starting work. Utilities shown on these plans are located based on available records and field measurements. It is the Contractor's responsibility to verify the exact location and depth of all utilities prior to construction.
5. Any evidence of the historical presence of man found during construction shall be brought to the attention of the Mono County Community Development Department and all construction activities shall cease until authorized by that department.
6. Contractor shall contact the Mono County Department of Public Works at (760) 932-5440 to arrange a pre-construction meeting at the project site at least seven days prior to commencing site activities.

7. To request service or inspection, Contractor shall notify the following companies or agencies at least 48 hours in advance:

<u>Construction Staking:</u> [Specify Name, Phone]	<u>Soils Testing:</u> [Specify Name, Phone]	<u>Inspection:</u> [Specify Name, Phone]
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8. Construction activities shall be limited to the hours of 7:00 am to 8:00 pm Monday through Saturday (no operations allowed on Sundays). Contractor shall keep noise levels of construction equipment to a minimum, using sound muffling devices in accordance with prevailing requirements. Site preparation and construction shall be conducted so as to minimize excessive noise, dust, debris and disturbance to neighbors within 500 feet.
9. The limits of construction specified on these plans shall be carefully and fully flagged prior to start of construction in a manner to prevent damage to vegetation and disturbance to soils outside of the construction area. Site-disturbing activities shall be restricted to the identified boundaries of the project.
10. Restrictions on the movements of heavy equipment shall be accomplished through the establishment of designated travel routes and barriers which prevent cutting, scarring and root damage to trees and shrubs not being removed.
11. Contractor shall be responsible for, and will bear the cost of, resetting any survey stakes or monuments destroyed by his operations.

GRADING

12. Areas to be graded shall be cleared of brush, vegetation, large boulders, and other deleterious materials. Waste materials shall be disposed of by the contractor to a location approved and permitted to receive such material.
13. Topsoil removed during clearing activities shall be stockpiled within the approved limits of construction for re-application to slopes and disturbed areas upon project completion. Stockpile location shall be in accordance with the approved Storm Water Pollution Prevention Plan (SWPPP), if applicable.
14. Surplus or waste material shall not be placed in drainage ways.
15. Contractor shall take all necessary measures to control dust in construction areas and on site access roads. Water shall be applied to disturbed surfaces at a sufficient frequency and quantity for dust control purposes. All exposed soil surfaces will be moistened as required to avoid nuisance conditions and inconveniences for local residents, businesses, and travelers of nearby roadways.
16. Cut and fill slopes shall not exceed a steepness of 2:1 unless otherwise noted on these plans and supported by a site-specific soils report or geotechnical investigation.
17. Finished grades in all areas shall be constructed in accordance with these plans. No areas shall be left such that a ponding condition occurs, unless otherwise specified.

EROSION CONTROL

18. Construction activities shall be performed in accordance with the approved Storm Water Pollution Prevention Plan (SWPPP) and/or Report of the Waste Discharge, as applicable. Stockpiled materials and equipment storage areas shall be located as specified in the approved report. Temporary erosion control facilities shall be in place prior to commencing any grading operations. Upon completion of construction, permanent erosion control facilities shall be placed as designed in the approved report. It is the responsibility of the contractor to maintain a copy of the SWPPP on site.
19. Construction activities shall cease by October 15 and the project shall be prepared for winter conditions at that time, including stabilization of all exposed soil surfaces with adequate erosion control measures.
20. During construction, temporary erosion control measures such as berms, silt fences, fiber rolls, erosion control blankets, or other methods shall be installed as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff. Similar measures shall be installed on or around any soil stockpile located adjacent to public roadways, residences, or businesses, in the vicinity of bodies of water, or when remaining on-site for an extended period.
21. Contractor shall take all such measures necessary to retain soil and sediment on-site and to prevent tracking of mud and dirt onto public roadways.
22. All exposed soil surfaces to remain shall be stabilized and/or reseeded in accordance with an approved landscape plan or an approved Storm Water Pollution Prevention Plan (SWPPP), as applicable. In the event neither document is required by Mono County or the Lahontan Regional Water Quality Control Board, stockpiled topsoil shall be spread evenly to a minimum depth of 6 inches over slopes and disturbed areas and seeded to prevent erosion with the following mixture and application rates [engineer may modify as necessary for specific area]:
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|-----------------------|------------|
| Hard Fescue Grass | 20 lb/acre |
| Lupin | 5 lb/acre |
| Crested Wheat Grass | 20 lb/acre |
| Sagebrush | 5 lb/acre |
| Pubescent Wheat Grass | 20 lb/acre |
23. Seeded slopes shall be protected by installation of an erosion control blanket, "North American Green SC150," or approved equal, secured in accordance with manufacturer's recommendations.
24. At no time shall the contractor dewater the project site by pumping into bodies of water, storm drains, or a subdrain system.

MATERIALS

25. Contractor shall contact the Mono County Department of Public Works to schedule field observation prior to backfilling any utility trench or culvert and prior to paving or installation of concrete.

26. Compaction testing shall be performed by the geotechnical engineer or testing firm identified in these specifications on each lift of fill. All compaction tests required by these specifications shall be performed pursuant to ASTM D-1557-00 (or most recent edition). Should any compaction test fail to meet the specified minimum density, the deficiency shall be corrected at the expense of the contractor prior to any additional work.
27. Subgrade in areas to receive fill shall be scarified, moisture-conditioned, and compacted to a minimum of 90% of the material's maximum dry density for the upper 12 inches.
28. Subgrade in areas to be paved shall be scarified, moisture-conditioned, and compacted to a minimum of 95% of the material's maximum dry density for the upper 12 inches.
29. Structural fill material shall be placed in maximum 8-inch lifts and compacted to a minimum of 90% of the material's maximum dry density (non-structural fill will be compacted to a minimum 85% of the material's maximum dry density). Existing slopes of 5:1 or steeper to receive fill shall be keyed with equipment-width benches prior to compaction and fill placement.
30. Earthen material imported or excavated on the property may be utilized in the fill, provided that each material has been determined to be suitable by the geotechnical engineer. All fill material shall be free of rocks greater than 4 inches in diameter and organic and other deleterious material. Soils of poor gradation, expansion potential, or strength characteristics shall be placed in areas designated by the engineer or shall be mixed with other soils to serve as satisfactory fill material as determined by the geotechnical engineer.
31. Aggregate base shall be Class 2, 3/4-inch maximum grading, and conform to the provisions of Section 26, "Aggregate Bases," of the 2002 Caltrans "Standard Specifications." Aggregate base shall be moisture-conditioned and compacted to a minimum of 95% of the material's maximum dry density.
32. Asphalt concrete paving shall be Grade AR-2000 with 3/4" maximum, medium grading, conforming to the provisions of Section 39, "Asphalt Concrete," of the 2002 Caltrans "Standard Specifications." Pavement lifts shall not exceed 2.5" in thickness and shall be compacted to a minimum of 95% of the material's maximum dry density.
33. A fog seal coat of SS-1 or CSS-1 asphalt shall be applied at a rate of 0.05 to 0.15 gallons per square yard to the final surface of all asphalt concrete paving. A tack coat of SS-1 or CSS-1 asphalt shall be applied between pavement lifts at a rate of 0.10 gallons per square yard. Seal coat and tack coat materials and application shall conform to the provisions of Section 94, "Asphaltic Emulsions," of the 2002 Caltrans "Standard Specifications."
34. Concrete shall be Class A conforming to the provisions of Section 90, "Portland Cement Concrete," of the 2002 Caltrans "Standard Specifications." Concrete shall contain 4% to 5% entrained air and shall have a minimum 28-day compressive strength of 5,000 psi, unless otherwise noted. Reinforcing steel shall be deformed billet-steel bars conforming to specifications of ASTM A 615 Grade 60.

35. Corrugated metal pipe shall be 14 Gauge and its fabrication and installation shall conform to the provisions of Section 66, "Corrugated Metal Pipe," of the 2002 Caltrans "Standard Specifications."
36. Fabrication and installation of corrugated plastic pipe shall conform to the provisions of Section 64, "Plastic Pipe," of the 2002 Caltrans "Standard Specifications."
37. Flared end sections, drop inlets, and grates shall conform to the provisions of Section 75, "Miscellaneous Metal," and Section 70, "Miscellaneous Facilities," of the 2002 Caltrans "Standard Specifications."
38. Backfill and bedding material for culverts and utility trenches shall comply with project plans and applicable provisions of the Caltrans "Standard Specifications," 2002 edition. Slurry cement backfill shall conform to the provisions of Section 19-3.062, "Slurry Cement Backfill," of the 2002 Caltrans "Standard Specifications."