

SECTION - 200

SITE PREPARATION

And

MISCELLANEOUS CONSTRUCTION

200 - SITE PREPARATION and MISCELLANEOUS CONSTRUCTION

210.00.00 – General

210.10.01 – Requirements

This section shall include all labor, equipment, plans, and materials necessary for or incidental to completing the miscellaneous items of work required for preparation of the project site for the construction of improvements, including but not limited to removal of rubble, trash, and debris, removal of existing pavements, removal of existing sidewalks, removal of existing driveways and driveway aprons, tree removal, stripping vegetation from existing surfaces and compacting the exposed surfaces which will receive fill or base materials, removal or relocation of existing culverts, coordinating with utility companies for the moving or removal of utility poles, relocating mail boxes, finish grading behind all curbs and sidewalks, construction of bicycle and/or pedestrian paths, if required, and the reconstruction of existing driveways.

210.10.02 – Violations

The City of Cave Junction, County or State Police and other designated personnel and departments shall have authority to issue citations for violation of City ordinances, regulations, rules and laws including those of the State of Oregon that may be administered by the City. Some examples pertaining to construction activities are: Tracking out of dirt and mud onto a street; Stockpiling of materials in the street; Improper or inadequate control of traffic in a construction zone; Violation of construction zone signing and speed requirements; Performance of any construction within a City Right of Way or without a Public Works Permit.

210.10.03 – References

City of Cave Junction, Department of Public Works, Standards and Specifications included herein as may apply to this section.

City of Cave Junction Municipal Code as it may apply.

Oregon Standard Specifications for Construction, latest edition

Oregon Department of Transportation (ODOT), Oregon Bicycle and Pedestrian current requirements.

Oregon State University Extension Service, Tree Protection on Construction and Development Sites: A Best Management Practices Guidebook for the Pacific Northwest.

State of Oregon, Manual of Uniform Traffic Control Devices

220.00.00 - Design

220.00.01 – General

Site preparation activities shall be limited to the area(s) shown on the approved Site Grading Plan and such activities shall be conducted in accordance with Section 800, Erosion Control and other applicable sections of these Standard Specifications. It shall be the responsibility of the Engineer to coordinate the layout and design of the Site Grading Plan with other aspects of project design, approved site plans, tentative plats, and neighborhood plans including other State or County agencies.

220.10.01 – Site Grading Plan Requirements

The Site Grading Plan shall be prepared and coordinated in conjunction with the required separate Utilities Plan and Erosion Control Plan for each project. The plan shall include the locations of all lots or building sites, existing or proposed utilities, streets, bicycle or pedestrian paths, stormwater management facilities, streams or waterways and existing buildings or other structures.

The plan shall show existing ground contours, finished grade contours including elevations at face of curb and lot corners based on city recognized benchmark elevations. Additionally where applicable, the plan shall include the flood hazard information from the community adopted Flood Insurance Rate Map (FIRM), or a community approved flood study (only where detailed flood hazard data is not available), including the regulatory flood zone boundary, the base flood elevation, and required finished floor elevations.

The plan shall identify all areas to be elevated and filled with either native or imported materials to a grade that will allow the building to have a finish floor elevation of 12" above the base flood elevation. All fill areas to be occupied by buildings shall be capable of supporting foundation loads of 1500 pounds per square foot without excessive settlement. All other fill areas not occupied by buildings, stormwater management facilities, and within a street right-of-way shall be compacted to a minimum of 90% of AASHTO T-99, method A. Stormwater management facilities shall be flagged and marked off to avoid compaction from construction equipment.

The site grading plan identify all proposed traffic control areas and show any intended barricades, traffic diverters, detours to be constructed or existing detour routes.

The site grading plan may be presented and illustrated on more than one sheet if the elements of design are confusing, e.g. the traffic control or bicycle paths could be shown on separate sheets so long as they are coordinated with the overall plan.

The plan shall clearly identify by species and size (dbh) of all trees or other shrubs to be removed while noting those to be removed. All other natural or manmade features to be removed, such as walls, fences, rock outcrops, signs, etc., shall be clearly identified.

220.10.02 – Low Impact Facilities

Low impact development facility areas must be shown on plans and be protected in place. No equipment shall be run or placed in these areas, and no material shall be placed on existing soils.

220.10.03 – Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities shall be designed in accordance with the guidelines and requirements set forth in the current Oregon Bicycle and Pedestrian Plan.

220.10.04 – Traffic Control

Traffic control areas, barricades, and other related facilities shall be designed as in accordance with applicable provisions of the Oregon, Manual of Uniform Traffic Control Devices and Oregon Short Term Work Zones publication.

220.10.05 – Quality Assurance

The Contractor shall be required to inspect the project area on at least a daily basis and more often if required to assure that the necessary requirements for traffic control and erosion control are in place and functioning properly. The PWD, upon inspection will require immediate response by the Contractor to alleviate or repair any traffic control problem or soil erosion, which it deems necessary.

The PWD will perform periodic and final inspection of any construction or re-construction of miscellaneous structures as needed to assure that plan requirements are met.

230.00.00 – Materials

230.00.01 – General

This section will include only those materials that are specific to site grading. All other materials common to other phases of public works construction are specified in Section 900, Construction Materials.

230.10.01 – On Site Materials

Rubble, Trash, and Debris: The Contractor shall make his own assessment of the types and quantities of materials to be removed under this section. All such materials shall become the property of the Contractor, and shall promptly be removed from the site.

Existing Pavements, Sidewalks, Driveway Aprons, etc.: Contractor shall examine such existing materials whether quantified and listed separately or not and shall make his own assessment of the difficulty involved in the removal of such items. Unless otherwise indicated, all such materials shall become the property of the Contractor, and shall promptly be removed from the site.

230.10.02 – Offsite and Imported Materials

Materials brought onto the project area applicable to this section or other sections of these Standard Specifications shall meet the requirements of Section 900, Construction Materials unless otherwise approved by the Public Works Department.

230.10.03 – Bicycle and Pedestrian Facilities

Materials for construction Bicycle and Pedestrian facilities shall be those generally specified in Section 900, Construction Materials. Special materials shall be approved on a case-by-case basis by the PWD, but shall include those materials commonly applied on similar projects found in the surrounding area of Josephine County or City of Cave Junction.

230.10.04 – Traffic Control

Materials specific to the traffic control industry shall meet Oregon Standard Specifications for Construction, latest edition, Section 0225.10 – 0225.17, Materials.

240.00.00 – Construction and Workmanship

240.00.01 – Requirements

This section describes the elements of work necessary to prepare the project area or site for construction and site cleanup upon project completion.

240.10.01 – Removal of Rubble, Trash, and Debris

This section includes the removal of all extraneous items of rubble, trash, and debris from all areas included within the Project Limits, including all areas which will be cut, filled, or graded, or which will receive improvements under the approved plans. In some cases the City may grant permission to burn trash on the site when-conditions permit. Before any burning will be permitted, the governing Fire District must issue a Burning Permit for that day and hour. If burning is allowed, the Contractor shall subsequently remove all ashes and remaining debris from the site.

240.10.02 – Removal of Existing Pavements, Sidewalks, Driveway Aprons, etc.

All saw cutting of designated pavement, curbs, gutters and sidewalks shall be done in accordance with Section 350.20.00 – Street Cutting including Curbs, Gutters and Sidewalks.

Where pavement or sidewalk areas are to be removed, the line describing the limits of the removal shall be saw-cut through the entire thickness unless there is an existing expansion joint at that location. Saw-cuts in sidewalks or street pavements greater than 4" in thickness shall be cut to a minimum depth of 75% of the pavement (A.C. or concrete) thickness and then shall be cleanly broken along the lines using appropriate methods and equipment. Adjacent damaged, cracked, uplifted or otherwise disturbed sections shall also be saw cut and removed. Saw-cut edges and sections shall be protected from damage by traffic or construction activity until the new materials have been installed. Chipped or broken edges will not be acceptable, and shall be re-sawn as directed.

Concrete or asphalt pavements shall be loaded and removed from the site whatever approved means the Contractor deems safe and expedient. Concrete or asphalt rubble shall not be placed in fills or used as backfill for pipe trenches or structures. Where approved by the PWD, concrete rubble may be acceptable, if carefully placed for streambed or stream bank protection.

240.10.03 – Tree Removal and Protection

The contractor shall only remove those trees on the approved site plan and construction drawings. When applicable, the Contractor shall remove the entire tree, including all roots to a minimum depth of 2' below finish grades shown on the Plan. Unless otherwise provided, all leaves, limbs, branches, logs, and roots shall become the property of the Contractor, and shall promptly be removed from the site. The Contractor shall use best management practices to actively protect all trees to remain on-site, including the tree roots, trunk and crown.

All tree(s) to remain on site, as indicated on the approved site plan and construction drawings shall be actively protected by the contractor. The contractor shall establish a tree protection zone (TPZ) that is approved by the City, and shall consist of a radius around the subject tree(s) with an area equal to twice the critical root zone (CRZ) area. The CRZ is the portion of the root system that is the minimum necessary to maintain vitality and stability of the tree. Definitions and example calculations for the CRZ and TPZ are provided in Section 100.

The contractor shall install a fence around the identified TPZ to protect the CRZ of the tree. The fence shall remain in place until the development project is complete and it must include appropriate signage to convey the importance of protecting the CRZ to workers. Throughout the course of the project the contractor shall avoid any disturbance to the tree roots, trunk or crown within the TPZ including, but not limited to the following activities: stockpiling materials and/or debris, parking vehicles, piling soil and/or mulch, trenching activities, grading, soil compaction, installing impervious surfaces and attaching anything to tree(s) using nails, screws or spikes. In the event disturbance to the tree roots within the CRZ is unavoidable, work shall be done under the onsite supervision of an International Society of Arboriculture (ISA) certified arborist. For more information regarding tree protection best management practices, refer to "Tree Protection on Construction and Development Sites: A Best Management Practices Guidebook for the Pacific Northwest" by Oregon State University Extension Service. Any trees that are required to be protected by the City shall require conveyance of a deed restriction to ensure that all future owners and/or occupants of the site are duly informed of the requirement to care for and maintain the presence of the identified significant tree."

240.10.04 – Stripping

All areas that will receive pavements, curbs, or sidewalks shall be stripped of all trash, brush, weeds and other vegetation, to include all roots and sod, to a line at least 1.5 feet outside the edges of sidewalks, or the backs of curbs where no sidewalks are planned.

Where stripped areas are to receive fill, or base materials, without additional excavation, the exposed surfaces shall be compacted to a minimum of 95% of maximum density at optimum moisture when tested in accordance with AASHTO T-99 (A) before any fill or base materials are placed.

Where soils are to be excavated from the stripped areas to a solid mineral material layer, compaction may not be required as determined by the inspector or engineer.

Where stormwater quality facilities are located adjacent to pavement, curbs or sidewalks, the minimum compaction requirements do not apply. Stormwater quality facilities shall be marked off to avoid compaction from construction equipment.

All materials removed during the stripping operation shall become the property of the Contractor, and shall promptly be removed from the site, unless otherwise specified.

240.10.05 – Relocating Existing Culverts

Existing culverts that are to be relocated shall be done in accordance with applicable sections of these Standard Specifications and/or Special Specifications that fully and specifically describe the requirements. Relocation of the culvert may consist of a lateral or grade realignment or both. The existing pipe shall be uncovered, removed, and replaced in newly prepared trenches, as detailed on the Plans. The pipe shall be bedded and backfilled to the same requirements as for new pipe with materials specified in Section 900, Construction Materials. Any pipe that is broken during removal or replacement shall be replaced in kind at no additional cost to the Owner.

240.10.06 – Relocation of Utility Poles

The Contractor shall coordinate and prepare for removal, or relocation of utility poles by the Utility Companies. The City of Cave Junction will order the work to be done by the Utility Companies, and the Applicant or Owner will pay for the moving of poles.

240.10.07 – Relocating Mailboxes

Where the alignment proposed for storm sewer, sanitary sewer, water line, utility trench or street construction will require the relocation of mailboxes, newspaper boxes, or existing fences, the Contractor shall contact the property owners and the U.S. Post Office as required, then relocate the subject facilities as directed, in a condition equal to or better than existing, with as little inconvenience as possible to the property owners.

240.10.08 – Backfilling and Finish Grading Behind Curbs and Sidewalks

After completion of sidewalk construction, or curb construction and where no sidewalks or utilities are called for on the Plans, the Contractor shall backfill, compact, and finish grade, with native materials, to a neat orderly condition. Un-compacted fills behind curbs or sidewalks will not be accepted unless the area is utilized for stormwater treatment, which shall be marked off to avoid compaction by construction equipment. Materials may be tamped, wheel-rolled, or consolidated by watering, but shall be compacted to a minimum of 85% of maximum density, AASHTO T-99 (A). Backfilling shall continue, and be neatly graded to the right-of-way limits, or as shown on the Plan.

240.10.09 – Bicycle Path Construction

The Contractor shall construct bicycle or pedestrian paths to the lines, grades and dimensions shown on the plans. The sub-grade shall be compacted to a minimum of 95% of maximum density (AASHTO T-99-D). When the compacted sub-grade and the alignment have been approved, the Contractor shall place the required crushed rock base courses with materials described in Section 900, Materials. The Contractor shall compact the base aggregate to 95% AASHTO T-99 (A). Upon inspection and approval of the base course, place, roll and compact the required thickness of Light Duty, type C

asphalt mix in accordance with Oregon Standard Specifications for Construction, latest edition, Section 00749, Miscellaneous Asphalt Concrete Structures. The finished surface shall be smoothly graded and rolled. All edges and joints shall be neatly formed.

240.10.10 – Reconstruction of Existing Driveways

Where existing driveways have been disturbed by the construction work, as shown on the Plans, the Contractor shall, as soon as reasonably possible, extend or replace the driveway from the right-of-way line to the new curb cut or driveway apron in accordance with applicable provisions of Section 300, Street Construction. The driveway throat width at the curb shall be a minimum of 12' and not greater than 30' unless otherwise shown on the plans or approved by the PWD. The width of the driveway throat at the curb shall be continued to the edge of the right-of-way then tapered to the existing width on private property.

Existing Gravel Driveways: Driveway shall be excavated or filled to an elevation 3" below finish grade and graded to a neatly contoured sub-grade. The sub-grade shall be compacted to a minimum of 95% (AASHTO T-99 (A)). After the sub-grade has been compacted, 3/4"-0 crushed rock base, conforming to Section 900, Construction Materials, shall be placed in a layer with a 3" minimum compacted thickness, and shall be compacted to a minimum of 95% of maximum density AASHTO T-99 (A). The finish surface shall be smooth and the edges shall be neat.

Existing Portland Cement Concrete driveways: Driveway shall be excavated or filled to an elevation 2" below the bottom of the required concrete slab that is replacing the removed driveway. The sub-grade shall be compacted as described above, and a 2" thick leveling course of 3/4"-0 crushed rock shall be installed and compacted as noted to the elevations required for concrete paving replacement. Concrete paving shall be minimum 3000 psi concrete and meet the requirements described in Section 930.00.00, Portland Cement Concrete (PCC).

Existing Asphalt Driveways: Driveway sub-grades shall be prepared as described above at an elevation 4" below the bottom of the asphalt paving required to replace the removed paving. The sub-grade shall be compacted as specified above, and 3/4"-0 crushed rock shall be placed and compacted to the finish grades required for paving replacement. The asphalt paving material shall be Standard Duty, Type C asphalt mix. The asphalt mix shall be placed and compacted in accordance with Oregon Standard Specifications for Construction, latest edition, Section 00749, Miscellaneous Asphalt Concrete Structures. The finished surface shall be smoothly graded and rolled. All edges and joints shall be neatly formed.

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