CHAPTER 12.25 ROAD DESIGN AND CONSTRUCTION SPECIFICATIONS

12.25.010 Minimum Standards Established

Except as otherwise noted, the standard specifications for design and construction contained within DCC 12.25 and standard drawings as determined by the Road Department Director are the minimum standards governing construction of roads and other improvements and facilities.

12.25.015 Authority

The Board is authorized by ORS 368.036 to adopt standards for work performed on public roads under the County's jurisdiction.

12.25.020 Implementation of Requirements

A. It is the duty of the Road Department Director ("Director"), or the Director's authorized representative, to implement the provisions and requirements of these standards in such a way as to carry out their intent and purpose.

B. For the purposes of this chapter, all references to the Director shall include the County Engineer.

12.25.025 Land Development Requirements

In addition to the standard specifications for design and construction contained within DCC12.25 and standard drawings as determined by the Director, the requirements of DCC 17.48 are the minimum standards governing construction of roads and other improvements and facilities associated with land development, including subdivisions and partitions.

12.25.030 Additional Design Requirements

The Director may impose additional design requirements as are reasonably necessary to protect the interests of the public.

12.25.040 Road Names

All roads shall be named in conformance with the provisions of the Deschutes County uniform road naming system set forth in DCC Title 16.

12.25.100 Road Design

A. The design of roads (including bridges, drainage facilities, and other appurtenant facilities) under the jurisdiction or administration of Deschutes County are to be prepared by a State of Oregon-licensed professional engineer, as the Engineer of Record, and shall, at a minimum, conform to the design standards for new or existing roads set forth in DCC 12.25 and shall otherwise conform with applicable state and/or federal standards.

B. Prior to the start of construction of any road improvements, road improvement design, including plans, reports, and other required submittals, shall be approved by the Director.

C. Road base and pavement depths set forth in DCC 12.25 may be increased by the Director if necessitated by anticipated traffic volumes or site soil characteristics or to match existing road base and pavement depths.

12.25.105 Improvement Plans

A. Improvement plan sheets shall be stamped and signed by the Engineer of Record. Engineer stamps and signatures shall comply with applicable Oregon Administrative Rules.

B. The improvement plans shall become the property of the County and will remain at the Road Department.

C. The improvement plans which shall be 24 by 36 inches must be legible and clearly readable when printed at half scale (11 by 17 inches) and shall include, but not be limited to:

1. A plan view showing:

a. Centerline alignment showing points of curve and point of tangent stationing on all curves, necessary curve data and bearing of tangents;

b. Dimensioning necessary to survey and relocate the roadway;

c. Right of way boundaries, including existing right of way boundaries and proposed right of way boundaries as shown or described in proposed conveyance instruments, including final plats and dedication deeds;

d. Existing easements and recording references;

e. Type, location and size of all existing and proposed drainage and irrigation structures and utilities within the right of way;

f. Location and type of all existing and proposed signs and barricades;

g. Vicinity map showing the complete roadway network complete with names of roads;

h. Toe and fills and top of cuts;

i. Scale;

j. North arrow; and

k. Stamp and signature of the registered engineer.

2. A profile showing:

a. Centerline grades and vertical curves, complete with point of intersection elevations and stations and length of vertical curves;

b. Original ground at centerline and extending 500 feet past the construction limits and at ditch lines if a significant transverse slope exists;

c. Curb profiles, where curbs are required;

d. Superelevation transition diagrams for horizontal curves;

e. Type, location and size of all existing and proposed drainage and irrigation structures and utilities within the right of way; and

f. Scale.

3. Typical roadway cross-section showing:

a. Width, depth and type of base;

b. Width, depth and type of paving;

c. Curbs, if required;

d. Side slopes;

e. Ditch section;

f. Crown slope; and

g. Utilities.

4. For bridge and other roadway structure improvements:

a. Plan view, elevation views, and cross section views of structure;

b. Reinforcement and other structural details;

c. Foundation design and data sheet;

d. General notes indicating design lane loading, seismic design factors, and other applicable design criteria;

e. Containment and work area isolation plans as applicable.

5. A signature box with spaces provided for County approval and for approval by all affected utility companies and irrigation districts.

6. Any other information required by the Road Department Director.

12.25.110 Horizontal Alignment

A. Horizontal curves and tangent distances shall meet current AASHTO minimum standards for all streets except arterials, which shall conform to current ODOT standards.

B. The centerline of road improvements shall coincide with the centerline of the right of way.

C. Superelevation shall be designed in accordance with current AASHTO specifications with the maximum superelevation being six percent.

12.25.115 Vertical Alignment

A. Vertical curves shall be designed to be consistent with and complimentary to the horizontal curves. Vertical curves shall be designed in accordance with current AASHTO standards or, for arterials, to current ODOT standards.

B. Maximum percent of grade shall be as given in DCC 12.25.170 through 12.25.200 (or in right of way specifications, if any, set forth for a particular zone in a zoning ordinance).

C. Minimum grade shall be one half percent.

D. Angle points shall not be allowed on grade breaks over one percent.

12.25.120 Intersections

A. All intersections shall be planned for through traffic on the road with the greatest projected average daily traffic (ADT). The side road shall be at right angles to the main road per current AASHTO standards.

B. Intersecting roads, including driveways to commercial and industrial properties, shall be separated by at least the following distances, as measured between the intersecting centerlines of the roads and/or driveways when the through road is:

1. Arterial, 500 feet;
2. Collector, 300 feet;
3. Local, 100 feet;
4. Industrial park, 250 feet; and
5. Primary access, 250 feet.

12.25.130 Minimum Right-Of-Way Width

The minimum public road right-of-way width is 60 feet unless specified otherwise in DCC 12.25 (or in any right of way specifications set forth for a particular zone in a zoning ordinance).

12.25.140 Turn Lanes

When a turn lane is required, it shall be a minimum of 14 feet in width, except where road specifications in a zoning ordinance provide for travel lanes of lesser width. Additional right of way may be required. Turn lane geometry shall be designed in accordance with current Oregon Department of Transportation (ODOT) standards.

12.25.150 Pedestrian Ways

A. General Design Criteria

1. Pedestrian ways shall be designed and constructed in accordance with the current U.S. Access Board *Public Right of Way Accessibility Guidelines (PROWAG)* and the FHWA *Manual on Uniform Traffic Control Devices* (*MUTCD*).
2. All pedestrian facilities and associated features shall be fully contained within the public right-of-way.

B. Sidewalks

1. Sidewalks shall have a minimum width of five feet.
2. Sidewalks shall be constructed of concrete with a minimum thickness of 4 inches, increasing to 6 inches in areas exposed to motor vehicles.
3. Sidewalks shall be property tight, unless otherwise approved by the County Engineer.

C. Multi-Use Paths

1. Multi-use paths are two-way facilities separated from a roadway that carry bicycle and pedestrian traffic and shall be used where aesthetic, recreation and safety considerations are primary, and where a direct route with minimal intersections can be established.

2. Multi-use paths shall be designed, constructed, and improved to the following standards:

Total Improved Surface Minimum Width (*)	*Minimium Vertical Clearance*	*Minimium Horizontal Clearance*	*Pavement Type/Minimum Depth(*)*	*Pathway Base Type/Minimum Depth (*)*	*Aggregate Shoulder Type/Mimimum Width*	*Maximum Grade (*)*	*Maximum Cross Slope (*)*
10 ft.	10 ft.	3 Ft.	Level 2, 1/2" Dense Asphalt Concrete, 2 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 6 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 1 ft. Minimum Width	5%	2%

3. When multi-use paths are utilized along arterial and collector roads where other pedestrian ways are not provided within a public right of way, multi-use paths shall be constructed on both sides of the road unless a design exception is granted by the Director based on physical, environmental, or regulatory constraints.

4. When multi-use paths are located outside of a public road right-of-way, a separate right-of-way with a minimum width of 15 feet shall be provided.

D. Curb Ramps and Blended Transitions

1. Curb ramps or blended transitions are required where pedestrian ways interface with the travelled way, including but not limited to intersections, mid-block crossings, and pedestrian pathway connections.

2. Separate curb ramps or blended transitions must be provided for each direction of pedestrian travel at intersections and positioned in front of the stop bar at intersections.

3. Curb ramps must align with the pedestrian crossing to provide a direct and accessible path of travel.

4. Curb ramps shall be designed to prevent ponding of water at the base or along the pedestrian pathway. Where positive drainage is not possible drainage features shall be incorporated to avoid water accumulation.

5. Curb ramps shall include flared sides, except in situations where space constraints or existing site conditions require the use of curbed sides.

6. Curb ramps shall be constructed of portland cement concrete (PCC).

12.25.155 Bikeways

A. General Design Criteria.

1. Bikeways shall be designed in accordance with the current standards and guidelines of the ODOT *Traffic Line Manual* and the Federal Highway Administration (FHWA) *Manual for Uniform Traffic Control (MUTCD).* All roadways identified as County Bikeways or Oregon Scenic Bikeways in the current County Transportation System Plan shall be constructed to include bikeway facilities according to the requirements of DCC 12.25.155.

2. All arterial and collector roadways not identified as County Bikeways or Oregon Scenic Bikeways in the current County Transportation System Plan shall be constructed to included shoulder bikeways at a minimum.

B. Multi-use Paths.

1. Multi-use paths shall be constructed in accordance with the requirements of DCC 12.25.150 and shall connect seamlessly with existing bicycle facilities on public roads.

2. If private roads are constructed to a width of less than 28 feet, multi-use paths shall be provided.

C. Bike Lanes.

1. Bike lanes are bikeways that provide bicycle mobility within a delineated, paved travel lane dedicated solely to bicycle use that is contiguous with the motor vehicle travel lane.

2. Bike lanes shall be implemented on new construction of curbed arterials and collectors. Curb gutter pan is not included in the bike lane width measurements.

3. Bike lanes shall be constructed to a minimum width of six feet, measured from the center of fog line to the edge of pavement.

4. Bicycle legends shall be provided in bike lanes at intervals of forty times the posted or statutory speed limit and after intersections.

D. Shoulder Bikeways.

1. Shoulder bikeways are bikeways that provide bicycle mobility within a widened paved shoulder outside of the motor vehicle travel lane.

2. Shoulder bikeways shall be implemented on new construction of uncurbed arterials and collectors.

3. Shoulder bikeways shall be constructed to a minimum width of four feet, measured from the center of fog line to the edge of pavement.

E. Shared Roadways.

1. Shared roadways are bikeways that provide bicycle mobility within the motor vehicle travel lane.

2. Shared roadways may be implemented on:

    a. New or existing local roads; or

    b. Existing arterial and collector roads where the Director determines that traffic volumes and roadway conditions are conducive to safe mixed-use by motor vehicles and bicycles.

12.25.160 Bridges and Structures

A. Bridges shall be designed in accordance with the current edition of the *AASHTO LRFD Bridge Design Specifications*.

B. At a minimum, bridges shall be designed to accommodate:

    a. Live Load

        i. HL-93 design truck loading

        ii. Additional design truck loading as required by the Director

    b. Dead Load

        i. Structure dead load (including structure, utilities, bridge rail, wearing surface, and all other appurtenant features weight)

        ii. 40 pounds per square foot (psf) additional dead load for future wearing surface and utilities.

    c. Horizontal Load

        i. Horizontal Peak Ground Acceleration for 1,000-year return period

        ii. Wind loading (including uplift loading)

C. For bridges that cross any body of water, bridge design shall be accompanied by a hydraulic report that includes:

    a. Site hydrology

    b. Hydraulic analysis comparing existing and proposed bridge and waterway conditions, and

    c. Bridge scour analysis including revetment design.

    Hydraulic report, including data collection and analysis, shall conform to the current edition of the *ODOT Hydraulics Manual*.

D. Bridge, retaining wall, and other roadway structure designs shall be accompanied by a geotechnical report that includes:

    a. Field exploration and laboratory testing information

    b. Geotechnical analysis and design

c. Foundation data sheet

Geotechnical report, including data collection and analysis, shall conform with the current edition of the *ODOT Geotechnical Design Manual*.

E. Bridge designs shall be include a load rating report in conformance with the current edition of the *ODOT LRFR Manual*.

F. All bridges and other road structures shall be designed with a minimum design life of 50 years.

12.25.170 Arterial Roads

Roads classified as "Arterial" in the current Deschutes County Transportation System Plan shall be designed, constructed, and improved according to the following standards:

Road Type	*Minimum Right of Way Width*	*Total Paved Surface Minimum Width*	*Paved Travel Lane Minimum Width*	*Paved Shoulder Minimum Width*	*Paved Median Lane Minimum Width*	*Pavement Type/Minimum Depth*	*Roadway Base Type/Minimum Depth*	*Aggregate Shoulder Type/Mimimum Width*	*Sidewalk Width*	*Maximum Grade*
Bicycle Shared Roadway or Separated Multi-Use Paths (*)	80 ft.	28 ft.	11 ft.	3 ft.	14 ft.	Level 3, 1/2" Dense Asphalt Concrete, 4 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 10 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	Not Required	6%
With Shoulder Bikeway(*)		30 ft.		4 ft.						
With Bike Lane(*)		34 ft.		6 ft.						

12.25.180 Collector Roads

Roads classified as "Collector" in the current Deschutes County Transportation System Plan shall be designed, constructed, and improved according to the following standards:

Road Type	*Minimum Right of Way Width*	*Total Paved Surface Minimum Width (*)*	*Paved Travel Lane Minimum Width*	*Paved Shoulder Minimum Width*	*Paved Median Lane Minimum Width (*)*	*Pavement Type/Minimum Depth(*)*	*Roadway Base Type/Minimum Depth (*)*	*Aggregate Shoulder Type/Mimimum Width*	*Sidewalk Width (*)*	*Maximum Grade (*)*
Rural										
Bicycle Shared Roadway or Separated Multi-Use Paths (*)	60 ft.	28 ft.	11 ft.	3 ft.	14 ft.	Level 3, 1/2" Dense Asphalt Concrete, 4 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 10 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	Not Required	8%
With Shoulder Bikeway(*)		30 ft.	11 ft.	4 ft.						
With Bike Lane(*)		34 ft.	11 ft.	6 ft.						
Unicorporated Communities										
Tumalo Commercial	60 ft.	30 ft.	11 ft.	4 ft.	14 ft.	Level 3, 1/2" Dense Asphalt Concrete, 4 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 10 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	6 ft.	8%
Tumalo Residential		36 ft.	12 ft.	6 ft.	14 ft.				Not Required	
Terrebonne TeC Commercial		24 ft.	12 ft.	Not Required	Not Required				6 ft.	
Terrebonne TeR Commercial		24 ft.	12 ft.	Not Required	Not Required				Not Required	
Terrebonne TeR Residential		24 ft.	12 ft.	Not Required	Not Required				Not Required	

12.25.190 Local Roads

A. Paved roads classified as "Local" in the current Deschutes County Transportation System Plan shall be designed, constructed, and improved according to the following standards:

Road Type	*Minimum Right of Way Width*	*Total Paved Surface Minimum Width (*)*	*Paved Travel Lane Minimum Width*	*Paved Shoulder Minimum Width*	*Pavement Type/Minimum Depth(*)*	*Roadway Base Type/Minimum Depth (*)*	*Aggregate Shoulder Type/Mimimum Width*	*Sidewalk Width (*)*	*Maximum Grade (*)*	*Minimum Cul-De-Sac ROW Radius*	*Minimum Cul-De-Sac Paved Radius*
Subdivision Access and Circuloation Routes											
Rural - Primary	60 ft.	24 ft.	10 ft.	2 ft.	Level 2, 1/2" Dense Asphalt Concrete, 3 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 8 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	Not Required	10%	55 ft.	45 ft.
Rural - Secondary and Cul-de-Sacs		20 ft.		Not Required							
Unicorporated Communities											
Tumalo Commercial	60 ft.	20 ft.	10 ft.	Not Required	Level 2, 1/2" Dense Asphalt Concrete, 3 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 8 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	Not Required	10%	55 ft.	45 ft.
Tumalo Residential		20 ft.		Not Required				Not Required			
Terrebonne TeC Commercial		24 ft.		2 ft.				6 ft.			
Terrebonne TeR Commercial		24 ft.		2 ft.				Not Required			
Terrebonne TeR Residential		24 ft.		2 ft.				Not Required			

B. Unpaved roads classified as "Local" in the current Deschutes County Transportation System Plan shall be designed, constructed, and improved according to the following standards:

Minimum Right of Way Width	*Total Improved Surface Minimum Width (*)*	*Improved Surface Type/Minimum Depth(*)*	*Sidewalk Width (*)*	*Maximum Grade (*)*	*Minimum Cul-De-Sac ROW Radius*	*Minimum Cul-De-Sac Paved Radius*
60 ft.	20 ft.	3/4"-0 or 1"-0 Aggregate, 5 in. Minimum Depth	Not Required	10%	55 ft.	45 ft.

12.25.200 Private Roads

Private roads, as permitted in land development under DCC 17.48 or applicable zoning ordinances, shall be designed, constructed, and improved to the following Standards:

Road Type	*Total Paved Surface Minimum Width (*)*	*Paved Travel Lane Minimum Width*	*Paved Shoulder Minimum Width*	*Pavement Type/Minimum Depth(*)*	*Roadway Base Type/Minimum Depth (*)*	*Aggregate Shoulder Type/Mimimum Width*	*Sidewalk Width (*)*	*Maximum Grade (*)*	*Minimum Cul-De-Sac Paved Radius*
Primary Subdivision Access and Circulation Routes	28 ft.	10 ft.	4 ft.	Level 2, 1/2" Dense Asphalt Concrete, 2 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 6 in. Minimum Depth	3/4"-0 or 1"-0 Aggregate, 2 ft. Minimum Width	Not Required	12%	45 ft.
Secondary Subdivision Access and Circulation Routes and Cul-de Sacs	20 ft.	10 ft.	Not Required						

12.25.210 Cul-De-Sacs

A. Cul-de-sacs shall have a length of less than 600 feet, unless a longer length is approved by the applicable fire protection district, and more than 100 feet from the center of the bulb to the intersection with the main road.

B. Cul-de sacs shall terminate at:

a. A cul-de-sac bulb; or

b. A turnaround facility approved by the Director and the applicable fire protection district.

C. Cul-de-sac bulbs shall be constructed to the applicable base and surfacing section standards given in DCC 12.25.150, 12.25.160, 12.25.170, or 12.25.180. Cul-de-sac bulbs shall have a minimum improved surface radius of 45 feet.

D. Cul-de-sac bulbs shall have a minimum right-of-way radius of 55 feet.

12.25.220 Traffic Control Devices

All traffic control devices on public roads shall be designed, constructed, implemented, and installed according to the requirements of the current *Manual on Uniform Traffic Control Devices* (*MUTCD*), including the Oregon Supplement to the current edition, and the current edition of the ODOT *Sign Policy and Guidelines*.

12.25.230 Drainage

A. General Requirements

1. All drainage systems for public roads shall be designed and constructed to meet or exceed the minimum standards given in the current edition of *Central Oregon Stormwater Manual (COSM) prepared by the Central Oregon Intergovernmental Council.*

2. Runoff from public roads and associated improvements must be contained within the public right-of-way and managed to prevent adverse impacts to adjacent properties and downstream systems.

B. Stormwater Management

1. Any development or improvements that alter the drainage characteristics of a public road right-of-way must submit a stormwater report meeting the requirements of the current *COSM* to the County Road Department for approval with the improvement plans. The report shall include:

a. Analysis of pre- and post-development drainage conditions.

b. Proposed stormwater management measures to mitigate impacts.

c. Documentation of compliance with COSM standards.

2. The County may require additional analysis or design modifications to address site-specific conditions or to ensure compliance with applicable laws and standards.

3. The use of underground injection control (UIC) systems in a public road right-of-way is strongly discouraged and will only be considered by the Director in exceptional circumstances where no feasible alternative exists. Any proposed UIC system must:

a. Demonstrate compliance with applicable state and federal regulations.

b. Receive explicit approval from the Director prior to installation.

12.25.240 Surveying

A. Construction Surveying and Machine Control

1. Physical locations of roads and associated road features shall be provided in accordance with the approved improvement plans.

2. All survey and machine control work shall be completed in conformance with the current edition of the ODOT *Construction Surveying Manual for Contractors*.

B. Right-of-Way Surveying

1. Right-of-way surveying shall be performed by a professional land surveyor licensed in the State of Oregon.

2. Right-of-way surveying and monumentation shall comply with the applicable provisions of with ORS 92 and ORS 209.

12.25.250 Driveway Access

Permitting and construction of driveway access to public roads shall be performed in accordance with DCC 12.28.

12.25.300 Fees

All plan review and field inspection costs shall be borne by the applicant. Fees for plan review and inspections shall be published in the County fee schedule.

12.25.310 Right of Way Activity Permit

No person, firm, or corporation shall remove, alter or construct any improvement or perform any activity within public road right-or-way over which the County has jurisdiction to regulate the matters covered by DCC 12.25 without first obtaining a permit from the County Road Department.

12.25.320 Road Improvement Agreements

A. When, in the opinion of the Director, an existing public way is significantly impacted by a proposed right of way activity, the applicant shall be required to execute an improvement agreement and file a security with the County. The improvement agreement shall include the following:

1. Improvement plans meeting the requirements of DCC 12.25;

2. A list of all contractors who will construct or complete the improvements and repairs;

3. An itemized cost estimate of the improvement and repairs;

4. Provision for the County to call upon the security for the construction or completion of the improvements and repairs, upon failure of the applicant to adhere to the schedule for improvements and repairs;

5. Provision that the County shall recover the full cost and expense of any work performed by or on behalf of the County to complete construction of the improvements and repairs, including, but not limited to, attorneys and engineering fees;

6. Provision for a one-year warranty bond that shall be deposited with the County following acceptance of the improvements and repairs. The bond shall be in the amount of 10 percent of the value of the improvements.

B. The applicant shall file with the agreement a security to assure the applicant's full and faithful performance of the improvement and repair work in the amount of 120 percent of the cost of performing the work, including related engineering, inspection, and incidental expenses, as determined by the Director. The security shall be in one of the following forms:

1. A surety bond executed by a surety company authorized to transact business in the state in a form approved by the County;

2. Cash deposit with the County; or

3. An unconditional, irrevocable standby letter of credit.

C. Default Status.

1. If the applicant fails to carry out provisions of the agreement and the County has unreimbursed costs or expenses resulting from such failure, the County shall call on the bond or cash deposit for reimbursement.

2. If the amount of the bond or cash deposit exceeds the cost and expense incurred by the County, it shall release the remainder.

3. If the amount of the bond or cash deposit is less then the cost and expense incurred by the County, the applicant shall be liable to the County for the difference.

D. The security shall not be released by the County until one year from the improvement completion date specified by the applicant.

E. The security shall not be released by the County until County inspectors have inspected the improvements and approved them in writing.

12.25.330 Insurance

During the term of authorized work within a public right of way, the applicant or their contractor, including all subcontractors, shall procure and continue to carry insurance coverages, including but not limited to commercial general liability and commercial automobile liability, from a responsible insurance provider with minimum coverage amounts as determined by the Road Department Director.

12.25.340 Indemnification

A. The applicant0shall be responsible and liable for all injuries to other persons or property resulting from any negligence or otherwise tortious acts or omissions of the licensee, its servants or agents.

B. The applicant shall indemnify the County and hold it harmless against any and all claims, demands, lawsuits, injuries, damages or costs, including litigation costs, which the County may sustain by reason of any such acts or omissions.

12.25.350 Local, State, and Federal Permits

The applicant shall be responsible for the following:

A. Obtaining all local, state, and federal permits and licenses necessary for the improvement work;

B. Paying all applicable charges, fees, and taxes;

C. Giving all notices required under applicable local, state, and federal laws; and

D. Complying with all orders and permits issued by a local, state, or federal government authority.

12.25.400 Construction; General Specifications

A. Unless otherwise detailed in DCC 12.25, all roadway work, including excavation, fill construction, subgrade preparation, aggregate base, surfacing, prime coats and paving, will be done in accordance with the current edition of the ODOT/APWA *Oregon Standard Specifications for Construction*, hereinafter referred to as the general specifications.

B. Whenever these specifications refer to the Agency, they shall be taken to mean the County, the appropriate County address, and likewise, reference to the commission or the engineer shall be taken to mean the Board of County Commissioners or the Road Department Director.

12.25.410 Construction; Quality Control

A. All materials incorporated into public road improvements shall be tested according to methods described in the current editions of the ODOT *Laboratory Manual of Test Procedure* and the ODOT *Manual of Field Test Procedures (MFTP)*.

B. All manufactured products incorporated into public road improvements shall be listed in the current publication of the ODOT Qualified Products List (QPL).

12.25.420 Construction; Temporary Traffic Control

A. All temporary traffic control measures shall conform to the standards and guidelines outlined in the current versions of the *Oregon Temporary Traffic Control Handbook (OTTCH)* and the *Manual on Uniform Traffic Control Devices (MUTCD)*.

B. The contractor shall perform the construction work in a continuous and efficient manner as to minimize the extent of disruption to road users and shall provide continuous access to emergency vehicles to greatest extent practical.

12.25.500 Road and Street Project

Design and construction standards set forth in DCC 12.25 are applicable to all road and street projects.