

**KITTITAS COUNTY PUBLIC WORKS**

**PROPOSED ROAD STANDARDS**

**January 25, 2012**

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**CHAPTER 1 - GENERAL INFORMATION**

**12.01.010                      Purpose**

Kittitas County has adopted these Road Standards to:

1. Set forth specific and consistent road design elements for developers and other private parties constructing or modifying road or right-of-way facilities which require County approvals;
2. Establish uniform criteria to guide the County's own construction of new County roads or reconstruction of existing roads; and
3. Support Kittitas County's goals for achieving affordable housing, providing adequate facilities for development in an efficient manner, and to balance these goals with the general safety and mobility needs of the traveling public.

In adopting the Road Standards, the County has sought to encourage standardization of road design elements where necessary for consistency and to assure, so far as practical, that the motoring, bicycling, equestrian and pedestrian public safety needs are met. Considerations include safety, convenience, pleasant appearance, proper drainage and economical maintenance. The County's permitting and licensing activities require the adoption of specific, identifiable standards to guide private individuals and entities in the administrative process of securing the necessary County approval. The County must have flexibility to carry out its general duty to provide streets, roads and highways for the diverse and changing needs of the traveling public. Accordingly, these standards are not intended to represent the legal standard by which the County's duty to the traveling public is measured.

The Standards cannot provide for all situations. They are intended to assist but not substitute for competent work by design professionals. It is expected that land surveyors, engineers and architects will bring to each project the best of skills from their respective disciplines. These Standards are also not intended to limit unreasonably any innovative or creative effort, which could result in better quality, better cost savings, or both. Any proposed departure from the Standards will be judged on the likelihood that such variance will produce a compensating or comparable result.

In order to remain current with technological changes and public needs, these standards are subject to revisions. This manual is printed in a format that can be easily updated. This edition will be current at the time of issuance; however, it is incumbent for the holder to keep the manual current with revisions to the standards.

**12.01.020                      Scope**

This title is not a textbook or a substitute for engineering knowledge, experience, or judgment. It is intended to aid in deciding those factors needed to intelligently plan, design, construct, upgrade, and maintain public and private roads in the County.

The requirements contained in this title apply to all new construction, improvements to existing roads, or other work done on, over, or under any public or private roads within the County.

Requirements of the title shall be enforced in the same manner as other Kittitas County Codes (KCC), including injunctions resulting in work stoppage and noncompliance suits for damages to County roads or rights-of-way.

#### **12.01.030                      Applicability**

This title shall apply to all land within the unincorporated areas of the County except where superseded by other governmental jurisdiction.

These Standards shall apply to all newly constructed public and private roads and right-of-way facilities required by land use development approvals within Kittitas County. In the event of conflict with the current subdivision and zoning codes, KCC Titles 16 and 17, these Standards shall control. These Standards do not apply to State or Federal roads. If roads are required to be built to public standards and are inspected and certified as such, the County may accept these roads onto the County system for continued maintenance, subject to limitations as addressed in KCC 12.01.170.

The Standards may apply to modifications of roadway features of existing facilities which are within the scope of reconstruction or capital improvement projects when so required by Kittitas County or to the extent they are expressly referred to in project plans and specifications. The Standards are not intended to apply to "resurfacing, restoration and rehabilitation (3R)" projects as those terms are defined in the Local Agency Guidelines, Washington State Department of Transportation (WSDOT), as amended; however, the Director may at his discretion consider the Standards as optional goals for 3R projects. Every new utility facility and all planned, non-emergency replacement of existing utility structures within Kittitas County right-of-way shall be governed by the most current version of the Manual on Accommodating Utilities in Kittitas County Rights-of-Way.

#### **12.01.040                      Amendments and Remissions**

The standards shall be amended as required. The Board of County Commissioners (BOCC), following the recommendations of the Director of Public Works and Planning Commission, may consider revisions and/or amendments to this title. The revisions will be adopted by resolution following a public hearing.

#### **12.01.050                      Enforcement and Responsibility**

It shall be the duty of the Board of County Commissioners, acting through the Director of Public Works or his/her designee, to enforce the provisions of this title.

#### **12.01.060                      Review and Approval**

The County will review all land use development applications for general compliance with Kittitas County Road Standards. An approval by the County does not relieve the applicant, applicant's engineer, agent or developer from final responsibility of insuring all calculations, plans, specifications, construction, and as-built drawings are in compliance with this title as stated in the applicant's engineer's certification provided in accordance with KCC 12.08.020.

**12.01.070 Interpretation**

In the interpretation and application of the provisions of this title, the following shall govern:

- A. In its interpretation and application, the provisions shall be regarded as the minimum requirements for the protection of the public health, safety, and welfare of the residents of Kittitas County.
- B. Whenever a provision of this title or any provision in any law, ordinance, resolution, rule, or regulation of any kind, contain any restrictions covering any of the same subject matter, whichever standards are more restrictive or impose higher standards or requirements shall govern.
- C. The standards in this title shall not modify or alter any road construction plans, which have been filed with and accepted by the County prior to the effective date of this title.
- D. Any ambiguities in the interpretation of material contained in this title shall be resolved through the appeals process.

**12.01.080 Relationship to Other Standards**

When applicable Washington Administrative Code (WAC), Revised Code of Washington (RCW), American Association of State Highway and Transportation Officials (AASHTO) standards, and/or Washington State Department of Transportation (WSDOT) standards are referenced, any reference to "State highways", or the like shall be interpreted to mean "county road". This in no way should be interpreted that Kittitas County will require all roads to be built to State highway standards.

Since the County is the approval authority for land use changes, this title, which stipulates certain minimum conditions for land use changes, shall apply. If special districts or other agencies impose more stringent standards, this difference is not considered a conflict; the more stringent standard shall apply. If the State or Federal Government imposes more stringent standards, criteria, or requirements, those standards shall be incorporated into the conditions of approval of the project.

**12.01.090 Responsibility to Provide Roadway Improvements**

- A. Any land use development activity which will impact the Level of Service (LOS), safety, or operational efficiency of abutting or serving roadways, or is required by other County Code or ordinance to improve such roadways, shall improve those roadways in accordance with these Standards. The extent of the off-site improvements to roads serving a development shall be based on a concurrency analysis of the proposed land use development impacts. The concurrency analysis shall be prepared in accordance with KCC 12.10.

- B. Any land use development activity abutting and impacting existing roads shall improve the frontage of those roads in accordance with these Standards. If the proposed development is found to impact areas located beyond the development, improvements to these areas shall be required. The extent of improvements shall be based on a concurrency analysis of the proposed land use development impacts in accordance with KCC 12.10.
- C. All road improvement requirements for a land use development activity shall be constructed to these Standards prior to the issuance of final approval, unless a performance guarantee is provided as outlined in KCC 12.01.150.
- D. Building permits will not be issued until road construction is completed and certified by a civil engineer licensed in the State of Washington. Commercial occupancy permits and final approvals will not be issued until road construction is completed and certified by a civil engineer licensed in the State of Washington.
- E. Subdivisions will not be approved unless a recorded continuous public or private access easement or right-of-way to the subdivision exists.
- F. All land use development activities proposing public or private roads located within Urban Growth Areas (UGA) shall follow the guidelines of KCC 12.04.040.
- G. All public road improvement and development projects within UGAs shall include pedestrian access as a part of the design in accordance with the appropriate city's standard.
- H. All road improvements planned or specified in any adopted Growth Management plan of the County, including but not limited to the most current Kittitas County Comprehensive Plan and Kittitas County Long-Range Transportation Plan, shall be planned and constructed in accordance with these Standards.
- I. Contiguous parcels, parcels under the same ownership and/or parcels sharing access easements/roads that submit any land use development application, shall be reviewed as one development for transportation and road improvement purposes.
- J. Public roads that are not maintained by the County or other agency and that are used to access new land use development activities shall be improved by the developer to comply with KCC 12.04.070 Private Road Standards.

**12.01.095                      General Requirements**

- A. The road circulation system within a proposed plat shall provide for access to adjacent properties whenever such provision is reasonable and practical.
- B. Second access requirements:
  - 1. A second access is required if more than 100 lots/units will use the private road.
  - 2. A second access is required OR all buildings within the new development must have sprinklers if:

- i. 100 or less lots/units will use the private road, and
  - ii. The proposed single development has more than 30 lots/units.
- 3. No second access or sprinklers are required if:
  - i. 100 or less lots/units will use the private road, and
  - ii. The proposed single development has 30 or less lots/units.

If the second access is restricted to emergency access only, it must meet or exceed the following requirements: 60' easement, 20' roadway width, all-weather surface and a paved apron. Access restrictions such as gates or bollards must be approved by the Fire Marshal. If the second access is to be used for ingress and egress, it must meet the same standards of the first access.

- C. Roads to be dedicated to the County shall be constructed as specified by the public road standards in KCC 12.04. All roads to be dedicated to the County shall be connected to an on-system county or other publicly maintained road.
- D. Gated accesses shall be approved by the Fire Marshal and meet the requirements of the International Fire Code and KCC 20.03.010 as adopted by the County. Gates shall comply with minimum width and emergency opening device requirements as required by the Fire Marshal.
- E. When a road extends more than 150' from the centerline of a County or other publicly maintained road or serves more than three lots, a turnaround shall be provided. The turnaround shall be a cul-de-sac for roads serving five or more lots/units. The turnaround may be a hammerhead for roads serving four or less lots/units or for a land use development activity occurring prior to the end of the road. Cul-de-sac and hammerhead designs must conform to the specifications of the International Fire Code. A cul-de-sac shall have an easement diameter of at least 110 feet and a driving surface of at least 96 feet in diameter.
- F. Any public road whose rights have been acquired by deed easement or prescription shall not be closed off or otherwise made inaccessible in any way.
- G. Roads serving six or more lots shall be named according to the Kittitas County Private Road Naming & Signing Standards. Road names shall be subject to the approval of the Department of Public Works and KITTCOM. Private roads shall be signed with a Manual on Uniform Traffic Control Devices (MUTCD) approved road name sign at all times.
- H. All private roads shall be signed with a stop sign at the intersection with a County road. Stop signs shall conform to the requirements of the MUTCD.
- I. No person shall install or maintain in any area of private property used by the public any sign, signal, marking, or other device intended to regulate, warn, or guide traffic unless it conforms to the MUTCD.
- J. All public or private development impacting County roads shall comply with the traffic control and haul route requirements in KCC 12.09.050.
- K. Corner lots shall have no dimension less than 90 feet. Lot corners shall be rounded by an arc, the minimum radius of which shall be not less than 35 feet at street intersections.

- L. All land use development activities that access property over private lands, public lands, or road easements managed by other agencies must submit a recorded easement, permit, road maintenance agreement, or other document from the land owners or road/easement managers that specifically address access, maintenance, seasonal restrictions and other restrictions and limitations. These agreements shall be presented to the Department of Public Works prior to preliminary approval.
- M. New irrigation ditches shall not be constructed within new or existing County rights-of-way. A franchise agreement will be required for irrigation water crossing a County right-of-way or any piped irrigation water within the County right-of-way.
- N. All roads crossing an irrigation ditch or canal shall have a crossing agreement with the ditch owner or irrigation entity.
- O. All new roads shall conform to the Kittitas County Long-Range Transportation Plan.
- P. The following notes shall be placed on the face of the plat, short plat, or other development authorization:
  1. "Maintenance of the access is the responsibility of the property owners who benefit from its use."
  2. "Any further subdivision or lots to be served by proposed access may result in further access requirements. See Kittitas County Road Standards."
  3. "An approved access permit shall be required from the Department of Public Works prior to creating any new driveway access or performing work within the County right-of-way."

**12.01.100                      General References**

The Standards implement and are intended to be consistent with:

- A. Kittitas County Code, as amended.
- B. Kittitas County Comprehensive Plan, current edition as amended.
- C. Kittitas County Long-Range Transportation Plan, current edition as amended.
- D. Adopted Community Plans.
- E. Kittitas County Capital Improvement Program, current edition as amended.
- F. Kittitas County Growth Management Program.
- G. Kittitas County Manual on Accommodating Utilities within the Right-of-way

**12.01.110                      Primary Design and Construction Reference Documents**

Except where these Standards provide otherwise, design detail, construction materials and workmanship shall be in accordance with the most current editions of the following publications produced by WSDOT.

- A. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, current edition as amended, to be referred to as the "WSDOT Standard Specifications."
- B. WSDOT Standard Plans for Road, Bridge, and Municipal Construction, current edition as amended, to be referred to as the "WSDOT Standard Plans."
- C. WSDOT Design Manual, current edition as amended.
- D. WSDOT Bridge Design Manual, current edition as amended.

**12.01.120 Other Specifications**

Other specifications include, but are not limited to, the most current editions of the following publications. These publications shall be applicable when pertinent, when specifically cited in the Standards, or when required by State or Federal funding authority.

- A. WSDOT Local Agency Guidelines, current edition as amended.
- B. WSDOT Guidelines for Urban Arterial Program, current edition as amended.
- C. WSDOT Pavement Guide, Volume 1 – Pavement Policy, current edition as amended.
- D. Design criteria of federal agencies including the Federal Housing Administration, US Department of Housing and Urban Development, Federal Highway Administration, and US Department of Transportation.
- E. A Policy on Geometric Design of Highways and Streets, AASHTO, current edition as amended.
- F. Standard Specifications for Highway Bridges, adopted by AASHTO, current edition as amended.
- G. Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), current edition as amended and adopted by WSDOT.
- H. Guide for the Development of Bicycle Facilities, AASHTO, current edition as amended.
- I. Guidelines for the Geometric Design of Very Low-Volume Local Roads (ADT<400), AASHTO, current edition as amended.

**12.01.130 Variances (Departures from the Standards) and Appeals**

Variances from these Standards may be granted by the Road Variance Committee, comprised of the Public Works Director, Community Development Services representative, Fire Marshal, or designees, and three citizens appointed by the BOCC.

The granting of a variance shall be in the public interest. When the need for a variance can be identified in advance, the variance should be proposed at preliminary plat stage and included for consideration during

plan review and public hearing. Variances from the standards in this title will be considered on a case-by-case basis. Variances will be granted only upon evidence that the variance demonstrates the following:

- A. Unusual circumstances or conditions apply to the property and/or the intended use that do not apply generally to other property in the same vicinity or district; and
- B. Such variance is necessary for the preservation and enjoyment of a substantial property right of the applicant possessed by the owners of other properties in the same vicinity or district; and
- C. The authorization of such variance will not be materially detrimental to the public welfare or injurious to property in the vicinity or district in which the property is located; and
- D. Special conditions and circumstances do not result from the actions of the applicant; and
- E. The granting of such variance will not adversely affect the realization of the Kittitas County Comprehensive Plan, Long-Range Transportation Plan or this title.

The variance request(s) shall consist of:

- A. Variance fee.
- B. Variance application.
- C. Identification of the standard provision to be waived or varied.
- D. Identification of the alternative design or construction standards to be adhered to.
- E. A thorough justification of the variance request.

Requests may be prepared by the applicant, professional civil engineer licensed to practice in Washington, or professional land surveyor licensed to practice in Washington. To appeal the denial or imposition of conditions of a variance decision, an appeal shall be filed per KCC 15A.07 or KCC 15A.08, based on the underlying land use decision in accordance with Ch. 36.70B RCW.

#### **12.01.140 Authority of the Public Works Director**

The Director of Public Works or his/her designee shall have the authority, on behalf of the County, to ascertain that all design and construction complies with the requirements set forth in these Standards.

#### **12.01.150 Cost Estimates and Construction Bonds**

Failure to comply with these Standards may result in denial of plan or development permit approval, revocation of prior approvals, or legal action for forfeiture of performance guarantee.

- A. Construction Performance Guarantees:

In lieu of the completion of any required improvements prior to final approval of a land-use development action or the issuance of a residential or commercial building permit, the developer shall provide a performance guarantee in an amount and with satisfactory surety and conditions providing for and securing to Kittitas County the actual professional services, construction and installation of such improvements within two years of final approval. The Director will enforce the guarantee through appropriate legal and equitable remedies. All performance guarantees shall be prepared in accordance with the Department of Public Works Performance Guarantee Form.

1. Private Roads: A surety bond or letter of credit will be accepted for private roads. The amount of the bond shall equal 135% of the estimated design and construction cost, and the letter of credit shall equal 115% of the estimated design and construction cost.
2. Public Roads: If a surety bond is provided, the amount of the bond shall equal 135% of the estimated design and construction cost. When a letter of credit or cash is used the amount covered shall be for 115% of the estimated construction cost as reviewed and concurred by the Public Works Director.

The amount of the financial guarantee may be reduced during construction proportionally to the amount of work completed, as said work is approved by the Public Works Director.

The developer is legally and financially responsible for ensuring all roads are constructed in accordance with this code.

B. Maintenance Performance Guarantees:

The successful performance of public improvements shall be guaranteed for a period of not less than two years from the date of acceptance as an on-system road or final construction approval of existing facilities. The amount of the maintenance guarantee shall be 10% of the construction cost and the form of the maintenance financial guarantee shall be approved by the Public Works Director. Maintenance guarantees will not be required when the required performance guarantee is \$1,000.00 or less.

### **12.01.160                      New County Roads**

A. General

New roads may be added to the county road system by resolution passed by the BOCC. Sources of new roads are additions, realignments, relinquished State Highways and Forest Service roads, subdivision and other development. Before a new road becomes a part of the county road system, it passes through seven steps: planning, design, right-of-way acquisition or dedication, construction, inspection, acceptance through resolution, and warranty period.

The initial approval of subdivision road construction by the County Engineer is for purposes of releasing the applicant's development collateral and not for purposes of acceptance by the County for maintenance. The applicant shall construct all roads proposed in any development to the required standard with no liability or obligation for such construction or maintenance by the County.

The County may bring a road onto the county road maintenance system if the new road has a potential ADT greater than 400, is a through road or the road is identified in the Long-Range Transportation Plan as a future corridor.

For roads serving proposed developments, the County shall determine which roads, if any, are intended to be added onto the county road system at the planning stage of a proposed development. Any roads not intended to be added onto the County road system shall be privately developed and maintained in accordance with Kittitas County Road Standards for private roads.

B. Provisional and Final Acceptance

For unconstructed roads or roads needing improvements to meet public road standards to be brought on system, the developer shall petition the BOCC prior to construction to provisionally accept the road onto the county road maintenance system. For roads being constructed for plats that require approval of the BOCC, provisional acceptance will occur during the preliminary approval process. A provisional acceptance does not guarantee the road will be brought on system. The road will not be brought on system until all testing and inspection reports indicate the road has been constructed as specified in the approved plans. After construction and approval by the County Engineer, the developer shall petition the BOCC for final approval to bring the road onto the county road system for maintenance.

C. Planning Standards

Prior to the design of a new road, the functional classification, terrain classification, and the design speed must be determined. The functional classification and terrain classification are defined in KCC 12.03.020 and 12.02.030. The design speeds are addressed under KCC 12.04.

The road systems of proposed new developments must correspond to the definitions given previously. If the developer's engineers have any questions in regard to the classification type of a particular road or roads within a proposed development, they should contact the County Engineer for clarification.

D. Design Standards

Roads must be designed as required by KCC 12.08. Road plans and profiles, signing plans and striping plans must be approved by the County Engineer before starting any construction.

E. Construction and Testing Standards

Specific construction specifications for materials, workmanship and testing requirements are found in KCC 12.09. The construction specifications used during work on the county road system generally comply with the WSDOT Standard Specifications in force at the time of construction.

F. Construction Warranty and Collateral

The developer shall guarantee all portions of construction work done in the right-of-way in accordance with KCC 12.01.150.

**12.01.170                      Joint Review**

Situations may arise in which the County, Forest Service, State, city, town, utility, or other agency will become involved in the review of public or private roads in a given development. This shall occur in situations such as, but not limited to, developments located within UGAs, accessed by State highways or Forest Service easements, or affected by utility easements or rights-of-way. The following procedures shall then apply:

- A. The conditions of any Inter-Governmental Agreements between the County and other agencies shall be complied with.
- B. The County shall refer development plans to other involved agencies for review and comment.
- C. The other agencies shall be responsible for the issuance of access and utility permits and inspections of their respective roads and utilities. Preliminary approval of a development application will not be issued by the County until a valid permit or agreement from the other agencies is received by the Department of Public Works.
- D. The County shall be responsible for the issuance of permits for all road construction and installation or modification of utilities within the County rights-of-way. The Department of Public Works should be contacted for additional information.
- E. Other agencies shall be responsible for the issuance of permits and inspections of all road construction and installation or modification of utilities within the other agency's easements or rights-of-way. The other agencies should be contacted for additional information.

(MOVED TO 12.04)

**CHAPTER 2 - DEFINITIONS AND ABBREVIATIONS**

**12.02.010                      Abbreviations**

Where the following words, phrases, or abbreviations appear in these specifications they shall have the following meanings:

- A. 3R – Resurfacing, Restoration, and Rehabilitation.
- B. AASHTO - American Association of State Highway and Transportation Officials
- C. ADT – Average Daily Traffic
- D. BMP – Best Management Practice
- E. BST – Bituminous Surface Treatment
- F. BOCC - Board of County Commissioners of Kittitas County, Washington

- G. DPW - Kittitas County Department of Public Works
- H. HMA – Hot Mix Asphalt
- I. IGA - Inter-Governmental Agreement
- J. KCC – Kittitas County Code
- K. LOS – Level of Service
- L. MUTCD - Manual on Uniform Traffic Control Devices
- M. PC - Point of Curvature
- N. PI - Point of Intersection
- O. PRC – Point of Reverse Curve
- P. PT - Point of Tangency
- Q. RCW – Revised Code of Washington
- R. ROW - Right-of-Way
- S. SWMMEW – Stormwater Management Manual for Eastern Washington
- T. TIA – Traffic Impact Analysis
- U. UGA - Urban Growth Area
- V. USGS - United States Geologic Survey
- W. VPC - Vertical Point of Curvature
- X. VPI - Vertical Point of Intersection
- Y. VPT - Vertical Point of Tangency
- Z. WAC – Washington Administrative Code
- AA. WSDOT – Washington State Department of Transportation

**12.02.020                      Definitions**

- A. ACCESS - That portion of the driveway or private road extending from the edge of the county road to the edge of right-of-way.

- B. AGRICULTURAL ACCESS – An access that serves fields or outbuildings and is not for commercial or residential use.
- C. ALL WEATHER SURFACE – A road surface over which emergency vehicles can pass in all types of weather.
- D. AS-BUILT or RECORD DRAWINGS - Set of original plans, with information superimposed upon them, showing any additions, deletions, changes, etc.
- E. AVERAGE DAILY TRAFFIC – The average 24-hour traffic volume on a roadway.
- F. AVERAGE LOT SIZE – The total number of acres divided by the total number of existing and proposed lots or dwelling units to be served by a private road, from the end of the private road to the county, city, or state maintained road.
- G. BRIDGE – A structure that measures at least 20' in length along the centerline, generally.
- H. CENTER LINE – The line, marked or unmarked, parallel to and equal distance from the sides of a two-way traffic roadway of a highway except where otherwise indicated by painted lines or markers.
- I. CITY - Any incorporated area within Kittitas County, Washington.
- J. CONSTRUCTION PLANS - Detailed and working plans including plan and profile, details, notes and any other information necessary for complete construction of the required improvements.
- K. CONSULTANT - A person, partnership, or corporation who is hired by the landowner or developer and is empowered to act as his agent.
- L. CONTRACTOR - A person, partnership or corporation who is hired to perform work.
- M. CORNER SIGHT TRIANGLES– Specified areas along intersections that shall be clear of obstructions that might block a driver's view of potentially conflicting vehicles.
- N. COUNTY - County of Kittitas, State of Washington.
- O. COUNTY ROAD – Every road or part thereof, outside the limits of incorporated cities and towns and which has not been designated as a state highway, that has been accepted by resolution by the BOCC onto the county road system.
- P. COUNTY ROAD SYSTEM – Those roads or rights-of-way maintained by Kittitas County.
- Q. CUL DE SAC - A cul-de-sac is the end of a dead-end street or alley that widens to provide a circular turnaround for vehicles.
- R. DESIGN SPEED - A speed determined for design and correlation of the physical features of a street that influence vehicle operation; the maximum safe speed maintainable on a specified section of street when conditions permit design features to govern.

- S. DIRECTOR or DIRECTOR OF PUBLIC WORKS – The Director of the Kittitas County Department of Public Works or the County Engineer.
- T. DEVELOPER - The person or persons legally responsible for the construction of streets within a specific subdivision or planned unit development.
- U. DRIVEWAY – Access road used by no more than two privately maintained residential, commercial, agricultural or industrial properties.
- V. EASEMENT - A right held by one person to make specific, limited use of land owned by another person.
- W. ENGINEER, COUNTY – The statutorily required position of county engineer appointed under RCW [36.80.010](#). The County Engineer may also be the Director of Public Works when the person in that position also meets the requirements of a licensed professional engineer and is duly appointed by the county legislative authority under RCW [36.80.010](#).
- X. ENGINEER, OWNER, APPLICANT, OR DEVELOPER’S – A civil engineer licensed in the State of Washington, acting for the owner, applicant or developer.
- Y. FUNCTIONAL CLASSIFICATION – A classification system for roads with specific definitions in KCC 12.03.
- Z. HAMMERHEAD – A T-shaped turnaround for vehicles.
- AA. HIGHWAY – Every way, lane, road, street, boulevard, and every way or place in the State of Washington open as a matter of right to public vehicular travel both inside and outside the limits of incorporated cities and towns.
- BB. INSPECTOR - An authorized representative of the County Engineer assigned to make inspections for contract performance, standards, and contract compliance.
- CC. LAND USE DEVELOPMENT ACTIVITY – Any activity requiring a land use permit from Kittitas County as defined in KCC 15A.02.080, including, but not limited to, Administrative Segregations, Boundary Line Adjustments and Conditional Use Permits.
- DD. MAJOR DRAINAGE STRUCTURE - A device composed of a virtually nonerodible material such as concrete, steel, plastic, or such material that conveys water from one place to another by intercepting the flow and carrying it to a release point for storm-water management, drainage control, or flood control purposes.
- EE. MAY - A permissive condition. No requirement for design or application is intended.
- FF. OFF-SYSTEM ROAD – A road or right-of-way dedicated or used by the public but not maintained by Kittitas County.

- GG. ON-SYSTEM ROAD – A road or right-of-way dedicated or used by the public and maintained by Kittitas County.
- HH. PRIMITIVE ROAD – County roads without the requirement to be maintained, that have a gravel or earth surface, and average annual daily traffic of 100 or fewer vehicles, and meets the requirements of RCW 36.75.300.
- II. PRIVATE ROAD - An access road serving three or more lots, residences or multi-family units that is privately owned and maintained for the use of the owner(s) or those having expressed or implied permission from the owner(s).
- JJ. PUBLIC ROAD - Any street or road which is open to or dedicated to the use of the public. Public Roads may be privately maintained or maintained by a public agency such as Kittitas County, Washington State Department of Transportation or the United States Forest Service.
- KK. RIGHT-OF-WAY – Land, property, or property interest, usually in a strip, acquired for or devoted to transportation purposes.
- LL. ROAD OR STREET - A general term denoting a public or private way for purposes of vehicular travel and utilities, including the entire area within the right-of-way (includes alleyways).
- MM. SHALL - A mandatory condition. Where certain requirements in the design or application use the word "shall", it is mandatory that these requirements be met.
- NN. SHOULD - Where the word "should" is used, it is considered to be advisable usage, recommended but not mandatory.
- OO. SPECIAL DISTRICT – Any recognized district within Kittitas County that may have some level of jurisdiction over some aspect of a development. A special district may include, but is not limited to, Irrigation Districts, Water Districts, and Fire Districts.
- PP. STOPPING SIGHT DISTANCE - The distance required to safely stop a vehicle traveling at design speed. It is measured from the driver's eye, 3.5 feet above the pavement to the top of an object 2.0 feet high on the pavement anywhere on the road as defined in AASHTO.
- QQ. STREET OR ROAD WIDTH – The distance measured from curbface to curbface across a street or edge of traveled way.
- RR. TRAVELED WAY – That part of the roadway made for vehicular traffic excluding shoulders and auxiliary lanes.
- SS. UTILITY - A company or individual providing public service such as gas, electric power, irrigation, telephone, Internet water, sewer or cable television, whether or not such company is privately owned or owned by a governmental entity.
- TT. WORKING DAYS – Days on which the Department of Public Works is open for business, typically including Monday thru Friday, not including holidays.

### **12.02.030 Terrain Classification**

For the purposes of this manual, the terrain in Kittitas County is divided into three categories:

- A. FLAT - highway sight distances, as governed by both horizontal and vertical restrictions, are generally long or can be made to be so without construction difficulty or major expense. The slope of existing terrain is from 0% to and including 5%.
- B. ROLLING TERRAIN - natural slopes consistently rise above and fall below the road or street grade, and occasional steep slopes offer some restriction to normal horizontal and vertical roadway alignment. The slope of the existing terrain is from 5% to and including 15%.
- C. MOUNTAINOUS TERRAIN - longitudinal and transverse changes in the elevation of the ground with respect to the road or street are abrupt, and benching and side hill excavation is frequently needed to obtain acceptable horizontal and vertical alignment. The slope of the existing terrain exceeds 15%.

Terrain classification pertains to the general character of the specific route corridor. Roads in valleys or passes of mountainous areas that have all the characteristics of roads traversing flat or rolling terrain should be classified as flat or rolling. In rolling terrain, trucks reduce their speeds below those of passenger cars on some sections of roadway. Mountainous terrain is responsible for some truck operation at crawl speeds. In cases where the terrain classification is in question, the Director shall make the final decision

## **CHAPTER 3- ROADWAY CLASSIFICATION**

### **12.03.010 Road Classifications**

County roads are classified functionally as indicated in the following Section 12.03.020. Function is the controlling element for classification and shall govern right-of-way, road width and road geometrics. Other given elements such as access, arterial spacing, and average daily traffic count are typical.

### **12.03.020 Classification Definitions**

- A. Rural Minor Arterial (Class 06)
  - 1. Link cities and larger towns (and other traffic generators, such as major resort areas, that are capable of attracting travel over similarly long distances) and form an integrated network providing interstate and intercounty service.
  - 2. Be spaced at such intervals, consistent with population density, so that all developed areas of the State are within a reasonable distance of an arterial highway.
  - 3. Provide (because of the two characteristics defined immediately above) service to corridors with trip lengths and travel density greater than those predominantly served by rural collector or local systems. Minor arterials therefore constitute routes whose design should be expected to provide for relatively high overall travel speeds, with minimum interference to-through movement.

B. Rural Major Collector (Class 07)

1. Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, and important mining and agricultural areas;
2. Link these places with nearby larger towns or cities, or with routes of higher classification; and
3. Serve the more important intracounty travel corridors.

C. Rural Minor Collector (Class 08)

1. Be spaced at intervals consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road.
2. Provide service to the remaining smaller communities; and
3. Link the locally important traffic generators with rural users.

D. Rural Local Access (Class 09)

1. Serve primarily to provide access to adjacent land.
2. Provide service to travel over relatively short distances as compared to collectors or other higher systems. Local roads will, of course, constitute the rural mileage not classified as part of the principal arterial, minor arterial, or collector systems.

In accordance with RCW 36.75.300, a county road may be designated as a primitive road under the following criteria:

1. Roads which are not classified as part of the county primary road system,
2. Roads which have a gravel or earth driving surface, and
3. Roads which have an average annual daily traffic volume of 100 or fewer vehicles.

E. Urban Principal Arterial (Class 14)

Route serving the major centers of activity of urbanized areas, the highest traffic volume corridors, and the longest trip desires and carries a high proportion of the total urban area travel on a minimum of mileage.

F. Urban Minor Arterial (Class 16)

Route interconnects with and augments the urban principal arterial system. It accommodates trips of moderate length at a somewhat lower level of travel mobility than principal arterials do. More emphasis is placed on land access. It provides intercommunity continuity but ideally does not penetrate identifiable neighborhoods.

G. Urban Collector (Class 17)

Route providing both land access and traffic circulation within residential neighborhoods and commercial and industrial areas. It may penetrate residential neighborhoods, distributing trips from the arterials through the area to their ultimate destination.

H. Urban Local Access (Class 19)

Route providing primarily direct access to abutting lands and connects to the higher-level systems. It offers the lowest level of mobility. Service to through-traffic movement usually is deliberately discouraged.

**12.03.030 Roadways by Classification**

**Rural Minor Arterial**

**6**

<u>Road #</u>	<u>Road Name</u>	<u>FROM LOCATION</u>	<u>TO LOCATION</u>
94001	VANTAGE HWY	at ELLENSBURG CITY LIMITS	at PFENNING RD

**Rural Major Collector**

**7**

<u>Road #</u>	<u>Road Name</u>	<u>FROM LOCATION</u>	<u>TO LOCATION</u>
93075	BENDER RD	at REECER CREEK RD	0.16 mi. East of PIONEER RD
41010	BOWERS RD	at REECER CREEK RD	at CASCADE CANAL
41271	BRICK MILL RD	at WILSON CREEK RD	at NO. 81 RD
95630	BRONDT RD	at MANASTASH RD	at BROWN RD
95611	BROWN RD	at HANSON RD	at UMPTANUM RD
92275	BULLFROG RD	at I-90	at – SR 903
96076	CANYON RD	at ELLENSBURG CITY LIMITS	at SR 821 & THRALL RD
96400	CLEMAN RD	at ELLENSBURG CITY LIMITS	at THRALL RD
95501	COVE RD	at THORP HWY SOUTH	at MANASTASH RD
93025	DRY CREEK RD	at ELLENSBURG CITY LIMITS	at SR 97
34761	FAUST RD	at US 97	at DRY CREEK RD
94051	GAME FARM RD	at SANDERS RD	at WILSON CREEK RD
95600	HANSON RD	at THORP HWY SOUTH	at COVE RD
96951	KITTITAS HWY	at ELLENSBURG CITY LIMITS	at KITTITAS CITY LIMITS
95301	MANASTASH RD	at UMPTANUM RD	at COVE RD
96200	NO. 6 RD	at VANTAGE HWY	at TJOSSEM RD
94326	NO. 81 RD	at 4TH AV (KITTITAS)	at BRICK MILL RD
93047	OLD HIGHWAY TEN	at REECER CREEK RD	at US 97
69760	PFENNING RD	at OAK ST	at ELLENSBURG CITY LIMITS
69760	PFENNING RD	at ELLENSBURG CITY LIMITS	at GAME FARM RD

93526	REECER CREEK RD	at UNIVERSITY WAY	at BOWERS ROAD
92430	SOUTH CLE ELUM WAY	at CLE ELUM CITY LIMITS	at S CLE ELUM CITY LIMITS
95417	THORP HWY NORTH AND SOUTH	at I-90 EXIT 106ON/OFF RAMP	at HWY 10
96751	THRALL RD	at SR 821	at UPPER BADGER POCKET RD
96865	TJOSSEM RD	at CANYON RD	at CLEMAN RD
96937	UMPTANUM RD	at ANDERSON RD	at RIVERBOTTOM RD
94001	VANTAGE HWY	at PFENNING RD	at NO. 81 RD
94126	WILSON CREEK RD	at NO. 6 RD	at BRICK MILL RD

**Rural Minor Collector**

**8**

**Road**

<b><u>#</u></b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
23010	AIRPORT RD (CLE ELUM)	at SR 903	At MASTERSON RD
42271	ALFORD RD	at LOOK RD	At WILSON CREEK RD
68910	BADGER POCKET RD	at ELLENSBURG CITY LIMITS	at CARROLL RD
69010	BERRY RD	at ELLENSBURG CITY LIMITS	at 90 DEGREE CURVE
68930	BOYLSTON RD	at PRATER RD	at STEVENS RD
41271	BRICK MILL RD	at 475' EAST OF LOOK RD	at WILSON CREEK RD
41271	BRICK MILL RD	at NO. 81 RD	at COLOCKUM RD
40600	BRICK RD	at ELLENSBURG CITY LIMITS	at SANDERS ROAD
61261	BULL RD	at ELLENSBURG CITY LIMITS	at EOR – CUL DE SAC
13090	CABIN CREEK RD	at I-90ON-OFF RAMP	at EOR-BEGIN USFS RD
68515	CARROLL RD	at BADGER POCKET RD	at PRATER RD
43512	CHARLTON RD	at WILSON CREEK RD	at NANEUM RD
63501	DENMARK RD	at THRALL RD	at FOURTH PARALLEL RD
63003	EMERSON RD	at SORENSON RD	at THRALL RD
63500	FAIRVIEW RD	at VANTAGE HWY	at BRICK MILL RD
62702	FERGUSON RD SOUTH	at TJOSSEM RD	at SORENSON RD
67014	FOURTH PARALLEL RD	at DENMARK RD	at ROSS RD
44760	FOX RD	at VANTAGE HWY	at LYONS RD
21900	GOLF COURSE RD	at HUNDLEY RD	at WESTSIDE RD
65000	HAMILTON RD	at SORENSON RD	at UPPER BADGER POCKET RD
31510	HUNGRY JUNCTION RD	at US 97	at LOOK RD
75040	HUNTZINGER RD	at I-90 ON/OFF RAMP	at EOR
12650	KACHESS LAKE RD	at I-90 ON-OFF RAMP	at EOR-USFS RD BEGINS
54250	KILLMORE RD	at THORP HWY SOUTH	at ROBINSON CANYON RD

38350	LIBERTY RD	at US 97	at EOR-INTX USFS RD #2102
40761	LOOK RD	at SANDERS RD	at ALFORD RD
34383	LOWER GREEN CANYON RD	at SMITHSON RD	at REECER CREEK RD
22770	LOWER PEOH POINT RD	at S. CLE ELUM CITY LIMITS	at WATSON CUTOFF RD
40772	LYONS RD	at WILSON CREEK RD	at FOX RD
40600	MAIN ST (VANTAGE)	at I-90 ON/OFF RAMP	at RECREATION DR
95301	MANASTASH RD	at COVE RD	at EOR
26510	MASTERSON RD	at AIRPORT RD (CLE ELUM)	at RED BRIDGE RD
29510	MIDDLE FORK TEANAWAY RD	at WEST FORK TEANAWAY RD	at EOR
22350	MOHAR RD	at UPPER PEOH POINT RD	at WESTSIDE RD
42000	NANEUM RD	at VANTAGE HWY	at EOR
23030	NELSON SIDING RD	at GOLF COURSE RD	at I-90 ON/OFF RAMP
96200	NO. 6 RD	at TJOSSEM RD	at THRALL RD
25880	NORTH FORK TEANAWAY RD	at TEANAWAY RD	at EOR-USFS RDS
69370	PARKE CREEK RD	at KITTITAS CITY LIMITS	at VANTAGE HWY
65002	PRATER RD	at PARKE CREEK RD	at SORENSON RD
93526	REECER CREEK RD	at BOWERS ROAD	at EOGR
54510	ROBINSON CANYON RD	at THORP HWY SOUTH	at KILLMORE RD
21560	SALMON LA SAC RD	at SR 903	at EOGR
33513	SMITHSON RD	at US 97	at REECER CREEK RD
69460	STEVENS RD	at PARKE CREEK RD	at BOYLSTON RD
56770	TANEUM RD EAST	at THORP HWY NORTH	at THORP CEMETERY RD
56770	TANEUM RD WEST	at THORP CEMETERY RD	at EOR-BEGINS USFS 1902
28500	TEANAWAY RD	at SR 970	at WEST FORK TEANAWAY RD
55550	THORP CEMETERY RD	at THORP HWY SOUTH	at TANEUM RD WEST
52770	THORP PRAIRIE RD	at TANEUM RD EAST	at UPPER PEOH POINT RD
96751	THRALL RD	at UPPER BADGER POCKET RD	at HAMILTON RD
96937	UMPTANUM RD	at RIVERBOTTOM RD	at EOR-COUNTY LINE
64756	UPPER BADGER POCKET RD	at THRALL RD	at SILICA RD
24610	UPPER PEOH POINT RD	at LOWER PEOH POINT RD	at THORP PRAIRIE RD
94001	VANTAGE HWY	at NO. 81 RD	at RECREATION DR
44381	VENTURE RD	at LYONS RD	at BRICK MILL RD
25620	WATSON CUTOFF RD	at LOWER PEOH POINT RD	at UPPER PEOH POINT RD
25480	WEST FORK	at TEANAWAY RD	at MIDDLE FORK TEANAWAY RD

	TEANAWAY RD		
22710	WESTSIDE RD	at SOUTH CLE ELUM CITY LIMITS	at GOLF COURSE RD
94126	WILSON CREEK RD	at BRICK MILL RD	at CHARLTON RD
22790	ZREBIEC RD	at WESTSIDE RD	at EOR

**Rural Local Access 9**

**Road**

<b>#</b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
15700	1ST ST (EASTON)	at KACHESS AVE	at CROSS ST
22540	1ST ST (RONALD)	at SR 903	at ATLANTIC AVE
54410	1ST ST (THORP)	at THORP HWY NORTH	at GOODWIN RD
24650	1ST ST CONN	at SR 903	at 1ST ST (RONALD)
15660	2ND ST (EASTON)	at CABIN CREEK RD	at EOR
54330	2ND ST (THORP)	at CHESTER ST	at EOR
22600	3RD ST (RONALD)	at FANHOUSE RD	at EOR
54310	3RD ST (THORP)	at MAIN ST (THORP)	at CHESTER ST
23010	AIRPORT RD (CLE ELUM)	at MASTERSON RD	at SR 970
42272	ALFORD CONNECTION	at ALFORD RD	at WILSON CREEK RD
68020	ALKALI RD	at MOE RD	at EMERSON RD
54570	ALLEGRO WAY	at HANSON RD	at EOR
22580	ALLEY ST (RONALD)	at ATLANTIC AVE	at PACIFIC AVE
24590	ARCTIC AVE	at 1ST ST (RONALD)	at 3RD ST (RONALD)
18610	ARLBERG PLACE	at SNOQUALMIE DRIVE	at EOR
52590	ASPEN DRIVE	at COVE RD	at EOR
24510	ATLANTIC AVE	at 1ST ST (RONALD)	at ALLEY ST (RONALD)
68910	BADGER POCKET RD	at CARROLL RD	at FOURTH PARALLEL RD
22110	BAKERS RD	at MOREL RD	at EOCR
23370	BALLARD HILL RD	at TEANAWAY RD	at SWAUK PRAIRIE RD
42512	BAR 14 RD	at WILSON CREEK RD	at NANEUM RD
65504	BARE RD	at THRALL RD	at EOR
53650	BARNES RD	at BROWN RD	at HANSON RD
68720	BENTLY RD	at STEVENS RD	at EOR
69010	BERRY RD	at 90 DEGREE CURVE	at TJOSSEM RD
34510	BETTAS RD	at US 97	at US 97
79031	BOAT RAMP RD	at MAIN ST (VANTAGE)	at EOR
66188	BOHANNON RD NORTH	at UPPER BADGER POCKET RD	at EOR
66189	BOHANNON RD SOUTH	at UPPER BADGER POCKET RD	at EOR

65687	BORLAND RD	at UPPER BADGER POCKET RD	at EOR
68257	BOSTON RD	at PRATER RD	at EOR
68930	BOYLSTON RD	at STEVENS RD	0.20 mi. East of STEVENS RD
62100	BROADVIEW RD	at KITTITAS HWY	at WILLIS RD EAST
56111	BROWN RD CONNECTION	at BROWN RD	at UMPTANUM RD
79270	BROWN ST	at GINKO AVE	at LAKEVIEW AVE (VANTAGE)
66689	BUFFALO LN	at UPPER BADGER POCKET RD	at EOR
30000	BURKE RD	at US 97	at EOR
67777	BUSCH RD	at HAMILTON RD	at EOR
66018	BYNUM RD	at UPPER BADGER POCKET RD	at EOR
53790	CAMAS LN	at HANSON RD	at EOR
65686	CAMION RD	at FOURTH PARALLEL RD	at MORRISON RD
68970	CAMOZZY RD	at PRATER RD	at EOR
23630	CAREK RD	at SR 903	at SHAFT ST
64360	CARIBOU RD	at CLERF RD	at LYONS ROAD
56060	CARRAHER RD	at THORP HWY SOUTH	at EOR
68515	CARROLL RD	at PRATER RD	at EOR
26180	CASASSA RD	at UPPER PEOH POINT RD	at EOOR
10530	CASCADE PLACE	at SNOQUALMIE DR	at EOR
33212	CATTAIL RD	at HOWARD RD	at EOR
53270	CEDAR COVE RD	at COVE RD	at EOR
10590	CHAMONIX PLACE	at SNOQUALMIE DRIVE	at EOR
22800	CHANDLER RD	at WOODS & STEELE ROAD	at EOR
43512	CHARLTON RD	at NANEUM RD	at EOR
56420	CHESTER ST	at 3RD ST (THORP)	at 2ND ST (THORP)
40519	CHRISTENSEN RD	at FOX RD	at PARKE CREEK RD
32011	CLARKE RD	at US 97	at EOR
30530	CLEARVIEW DR	at OLD HIGHWAY TEN	at DRY CREEK RD
69511	CLERF RD	at 4TH AV (KITTITAS)	at PARKE CREEK RD
69591	COHOE RD	at NO. 6 RD	at EOR
42777	COLEMAN CREEK RD	at COOKE CANYON RD	at EOR
44263	COLOCKUM RD	at BRICK MILL RD	at EOR-BEGINS CHELAN CO RD
75120	COLUMBIA AVE	at WAYNE ST	at BROWN ST
43883	COOKE CANYON RD	at BRICK MILL RD	at EOR
54580	COVE LANE	at MANASTASH RD	at EOR
95501	COVE RD	at MANASTASH RD	at EOR
65928	COYOTE RD	at UPPER BADGER POCKET RD	at EOR
34950	CREEKEDGE WAY	at CLEARVIEW DR	at MIDDLECREST DR
13080	CROSS ST	at RAILROAD ST	at 1ST ST (EASTON)
41350	CURLEW RD	at GAME FARM RD	at EOR

23430	DANKO RD	at WHITE ROAD	at EOR
61780	DELTA ST	at QUARTZ MTN DR	at EOR
63501	DENMARK RD	at I-90	at THRALL RD
13220	DEPOT ST	158 ft. SW of RAILROAD ST	at EOR
63065	DODGE RD	at THRALL RD	at EOR
33480	DUDLEY RD	at THORP HWY NORTH	at EOR
56761	DURR RD	at UMPTANUM RD	at EOR
51600	ELK HEIGHTS RD	at THORP PRAIRIE RD	at EOR
29001	EMERICK RD	at HIDDEN VALLEY RD	at EOR
24770	EVERGREEN VALLEY LOOP RD	at BAKERS RD	at BAKERS RD
14010	EVERGREEN WAY	at KACHESS RIVER RD	at KACHESS RIVER RD
63500	FAIRVIEW RD	at I-90	at THOMAS RD
22630	FANHOUSE RD	at SR 903	at NELSON DAIRY RD
34761	FAUST RD	at DRY CREEK RD	at CLARKE RD
62701	FERGUSON RD NORTH	at I-90	at VANTAGE HWY
62702	FERGUSON RD SOUTH	at I-90	at TJOSSEM RD
68610	FERN RD	at NO. 6 RD	at EOR
41380	FIELDS RD	at VANTAGE HWY	at EOR
54520	FIELDSTONE COURT	at RANGE VIEW ROAD	at EOR
69770	FIRST AVE (GRASSLANDS)	at PFENNING RD	at LOOKOUT MOUNTAIN DR
22560	FOURTH AVE	at PACIFIC AVE	at EOR
67014	FOURTH PARALLEL RD	at ROSS RD	at EOR
22520	FOWLER CREEK RD	at WESTSIDE RD	at PASCO RD
61700	FROST MOUNTAIN DR	at QUARTZ MTN DR	at EOR
42517	GAGE RD	at COOKE CANYON RD	at COLOCKUM RD
94051	GAME FARM RD	at WILSON CREEK RD	at NANEUM RD
18890	GARMISCH PLACE	at CASCADE PLACE	at EOR
43752	GILBERT RD	at LYONS RD	at BRICK MILL RD
75090	GINKO AVE	at MAIN ST (VANTAGE)	at BROWN ST
56270	GINNY LANE	at BROWN RD	at EOR
54690	GLADMAR RD	at THORP HWY NORTH	at EOR
69070	GLOVER RD	at PRATER RD	at EOR
22380	GOBBLERS KNOB RD	at WESTSIDE RD	at WESTSIDE RD
25502	GODAWA LANE	at LOWER PEOH POINT RD	at EOR
56290	GOODWIN RD	at MAIN ST (THORP)	at EOR
24003	GRAHAM RD	at MOHAR RD	at EOR
34363	GREEN SPUR RD	at LOWER GREEN CANYON RD	at EOR
41016	GRINROD RD	at GILBERT RD	at VENTURE RD
22610	GROESCHELL RD	at UPPER PEOH POINT RD	at PAYS RD

35541	HANNAH RD	at BENDER RD	at EOR
95600	HANSON RD	at COVE RD	at EOR
64436	HAROLD RD	at FOURTH PARALLEL RD	at EOR
27230	HART RD	at TAYLOR RD	at EOR
29500	HARTMAN RD	at SWAUK PRAIRIE RD	at EOR
66187	HAYES RD	at MORRISON RD	at BYNUM RD
32040	HAYWARD RD	at SR 10	at BETTAS RD
64261	HEMINGSTON RD	at I-90	at CLERF RD
29000	HIDDEN VALLEY RD	at SR 970	at EOR
79010	HOLIDAY AVE	at BOAT RAMP RD	at EOR
52260	HORLICK RD	at THORP PRAIRIE RD	at EOR
25850	HORVATT RD	at SR 903	at ROSLYN CITY LIMITS
33800	HOWARD RD	at US 97	at SMITHSON RD
23210	HUNDLEY RD	at GOLF COURSE RD	at EOR
55370	HUNTER RD	at KILLMORE RD	at EOR
10750	HYAK DR EAST	at SR 906	at EOR
64761	INDERMUHLE RD	at PARKE CREEK RD	at EOR
10510	INNSBRUCK DR	at SNOQUALMIE DR	at EOR
79150	JOYCE ST	at MAIN ST (VANTAGE)	at COLUMBIA AVE
40271	JUDGE RONALD RD	at PFENNING RD	at WILSON CREEK RD
13280	KACHESS AV	at RAILROAD ST	at EOR
15000	KACHESS DAM RD	at WEST SPARKS RD	at EOR
15020	KACHESS RIVER RD	at W SPARKS RD	at EOR
65046	KAMIAKIN RD	at UPPER BADGER POCKET RD	at EOR
65186	KATEN RD	at UPPER BADGER POCKET RD	at EOR
64186	KAYNOR RD	at FOURTH PARALLEL RD	at EOR
10522	KEECHELUS DR	at HYAK DR EAST	at RAMPART DR
18730	KENDALL PLACE	at HYAK DR EAST	at EOR
66766	KERN RD	at LAWRENCE RD	at EOR
35503	KERR RD	at HUNGRY JUNCTION RD	at EOR
56210	KEVINA RD	at BROWN RD	at EOR
79190	KITTITAS ST (VANTAGE)	at COLUMBIA AVE	at LAKEVIEW AVE (VANTAGE)
10570	KITZBUHEL PLACE	at SNOQUALMIE DR	at EOR
34002	KLOCKE RD	at SR 10	at EOR
65661	KOFFMAN RD	at PARKE CREEK RD	at EOR
25040	LAKE CABINS RD	at SR 903	at SR 903
25010	LAKE CLE ELUM DAM RD	at LAKE CABINS RD	at GATE TO DAM
75180	LAKEVIEW AVE	at WAYNE ST	at BROWN ST

	(VANTAGE)		
22512	LAMBERT RD	at SR 970	at EOR
65505	LARSEN RD	at THRALL RD	at FOURTH PARALLEL RD
64686	LAWRENCE RD	at FOURTH PARALLEL RD	at EOR
40790	LENES RD	at LOOK RD	at EOR
43663	LESTER RD	at BRICK MILL RD	at SCHNEBLY RD
29261	LEY RD	at SWAUK PRAIRIE RD	at EOR
61340	LOCUST ST	at WASHINGTON AVE	at SEATTLE ST
61740	LOOKOUT MTN DR	at QUARTZ MTN DR	at MT DANIELS DR
34383	LOWER GREEN CANYON RD	at US 97	at SMITHSON RD
22770	LOWER PEOH POINT RD	at WATSON CUTOFF RD	at THORP PRAIRIE RD
56400	MAIN ST (THORP)	at THORP HWY NORTH	at 1ST ST (THORP)
69650	MANITOBA ST	at LOCUST ST	at EOR
66261	MANSPERGER RD	at STEVENS RD	at EOR
25503	MARKOVICH RD	at UPPER PEOH POINT RD	at EOR
64763	MARTENSEN RD	at CARROLL RD	at EOR
23750	MARTIN RD	at SR 903	at SHAFT ST
61680	MATTHEWS RD	at KITTITAS HWY	at MT DANIELS DR
69251	MCCULLOUGH RD	at NO. 6 RD	at EOR
25860	MCDONALD RD	at LOWER PEOH POINT RD	at EOR
63946	MCDOWELL RD	at FOURTH PARALLEL RD	at EOR
34003	MCMANAMY CUT-OFF RD	at SR 10	at MCMANAMY RD
31412	MCMANAMY RD	at US 97	at EOR
54500	MEADOW VIEW DR	at ROBINSON CANYON RD	at EOR
40801	MEADOWBROOK LANE	at LOOK RD	at EOR
56260	MELLERGAARD RD	at MANASTASH RD	at EOR
23531	MICHELETTO RD	at SWAUK PRAIRIE RD	at EOR
35060	MIDDLECREST DR	at PEAKVIEW DR	at CREEKEDGE WAY
25220	MILL CREEK RD	at SR 903	at LAKE CABINS RD
53200	MISSION RD	at WATT CANYON RD	at EOR
62502	MOE RD	at TJOSSEM RD	at THRALL RD
42380	MOREAU RD	at BRICK MILL RD	at EOR
24820	MOREL RD	at SR 903	at BAKERS RD
66517	MORRISON RD	at UPPER BADGER POCKET RD	at EOR
61620	MT DANIELS DR	at THIRD AVE (GRASSLANDS)	at EOR
61520	MT STUART AVE	at FIRST AVE (GRASSLANDS)	at EOR
22611	NELSON DAIRY RD	at ROSLYN CITY LIMITS	at FANHOUSE RD

66520	NICOLAI RD	at LAWRENCE RD	at EOR
23690	NO. 245 RD	at SR 903	at SHAFT ST
23520	NO. 5 MINE RD	at SR 903	at SR 903
16188	NORTON RD	at SPARKS RD	at EOR
31512	O'NEIL RD	at SR 10	at MCMANAMY RD
61440	OAK ST	at PFENNING RD	at EOR
67511	ORCHARD RD	at THRALL RD	at DODGE RD
24530	PACIFIC AVE	at 1ST ST (RONALD)	at FOURTH AVE
69370	PARKE CREEK RD	at VANTAGE HWY	at EOR
22250	PASCO RD	at FOWLER CREEK RD	at EOR
32252	PASSMORE RD	at US 97	at EOR
22480	PATRICK MINE RD	at SR 903	at EOR
22200	PATRICK'S PARK DR	at EVERGREEN VALLEY LOOP RD	at WHITE PINE DR
63245	PAYNE RD	at THRALL RD	at EOR
22510	PAYS RD	at UPPER PEOH POINT RD	at LOWER PEOH POINT RD
30570	PEAKVIEW DR	at CLEARVIEW DR	at MIDDLECREST DR
24580	PEASE RD	at LOWER PEOH POINT RD	at EOR
12950	PELTON AVE	at 2ND ST (EASTON)	at EOR
62705	PERRY RD	at ORCHARD RD	at EOR
35562	PIONEER RD	at BENDER RD	at EOR
67258	PUMPING PLANT RD	at LARSEN RD	at EOR
27560	QUAIL VALLEY ROAD	at LAMBERT RD	at EOR
61290	QUARTZ MTN DR	at MT DANIELS DR	at EOR
42012	RADER RD	at WILSON CREEK RD	at SCHNEBLY RD
15740	RAILROAD ST	at I-90 ON/OFF RAMP	at EOR
18530	RAMPART DR	at HYAK DR EAST	at EOR
29600	RANCH RD	at BURKE RD	at EOR
54600	RANGE VIEW RD	at KILLMORE RD	at MEADOW VIEW DRIVE
74950	RECREATION DR	at VANTAGE HWY	at EOR
22650	RED BRIDGE RD	at SR 970	at TEANAWAY RD
22300	RED CEDAR DR	at EVERGREEN VALLEY LOOP RD	at EOR
61640	RED MOUNTAIN DR	at FIRST AVE (GRASSLANDS)	at EOR
69131	REIN RD	at NO. 6 RD	at EOR
61503	RINGER LOOP	at CANYON RD	at CANYON RD
53010	RIVERBOTTOM RD	at UMPTANUM RD	at UMPTANUM RD
35285	ROBBINS RD	at REECER CREEK RD	at EOR
35286	ROBBINS WYE RD	at ROBBINS RD	at SMITHSON RD
54510	ROBINSON CANYON RD	at KILLMORE RD	at EOR
18590	ROMANS COURT	at RAMPART DR	at EOR
65926	ROSS RD	at FOURTH PARALLEL RD	at EOR

43163	SCHNEBLY RD	at BRICK MILL RD	at COOKE CANYON RD
40130	SEATON RD	at LAMBERT RD	at SR 970
69610	SEATTLE ST	at WILLOW ST	at LOCUST ST
23820	SHAFT ST	at ALLIANCE RD	at ROSLYN CITY LIMITS
66001	SHALE PIT RD	at STEVENS RD	at EOR
66449	SILICA RD	at UPPER BADGER POCKET RD	at EOR
13760	SILVER TRAIL	at WEST SPARKS RD	at EOR
54540	SILVERTON RD	at ROBINSON CANYON RD	at EOR
56280	SISTERS RD	at THORP CEMETERY RD	at EOR
15400	SMITH DR	at WEST SPARKS RD	at EOR
33513	SMITHSON RD	at REECER CREEK RD	at EOR
40516	SNODGRASS RD	at NO. 81 RD	at EOR
10600	SNOQUALMIE DR	at HYAK DR EAST	at EOR
69518	SONES RD	at PARKE CREEK RD	at EOR
66912	SORENSEN RD	at EMERSON RD	at EOR
23990	SOUTH AVE	at ROSLYN CITY LIMITS	at EOR
13530	SPARKS RD	at I-90	at EOR
18910	ST. MORITZ PLACE	at CASCADE PLACE	at EOR
64860	STINGLEY RD	at CLERF RD	at EOR
61263	STONE RD	at CANYON RD	at CANYON RD
61263	STONE RD	at CANYON RD	at EOR
21005	STORIE LANE	at NELSON SIDING RD	at EOR
56160	STRANDE RD	at BARNES RD	at EOR
61860	STRANGE RD	at VANTAGE HWY	at EOR
53260	STUART VIEW LN	at TANEUM RD EAST	at EOR
51750	SUNLIGHT DRIVE	at THORP PRAIRIE RD	at EOCR
53210	SUSAN RD	at STRANDE RD	at EOR
29260	SWAUK PRAIRIE RD	at SR 970	at SR 970
61720	TABLE MOUNTAIN DR	at THIRD AVE (GRASSLANDS)	at EOR
20500	TALMADGE RD	at NELSON SIDING RD	at EOR
22240	TAYLOR RD	at SR 10	at LAMBERT RD
69910	THIRD AVE (GRASSLANDS)	at PFENNING RD	at EOR
43132	THOMAS RD	at WILSON CREEK RD	at FAIRVIEW RD
56010	THORP DEPOT RD	at THORP HWY NORTH	at GOODWIN RD
57210	THORP PRAIRIE CUT- OFF RD	at THORP PRAIRIE RD	at EOR
96751	THRALL RD	at HAMILTON RD	at BARE RD
40263	TIPTON RD	at HUNGRY JUNCTION RD	at LOOK RD
68750	TJOSSEM CONNECTION	at NO. 6 RD	at TJOSSEM RD

40331	TOLMAN RD	at PFENNING RD	at EOR
62505	TOZER RD	at ORCHARD RD	at EOR
23510	TRANSFER STATION RD	at SR 903	at EOR
31150	TYLER RD	at REECER CREEK RD	at EOR
64756	UPPER BADGER POCKET RD	at SILICA RD	at EOR
35012	UPPER GREEN CANYON RD	at REECER CREEK RD	at EOR
56080	VALLEY VIEW CIRCLE	at CAMAS LN	at EOR
63686	VANDERBILT RD	at FOURTH PARALLEL RD	at EOR
79030	VANTAGE PARK RD	at MAIN ST (VANTAGE)	at EOR
13700	VIA KACHESS RD	at KACHESS LAKE RD	at EOR
64503	VIEW LANE RD	at CARROLL RD	at EOR
69880	VILLAGE DR	at THIRD AVE (GRASSLANDS)	at EOR
55930	WADE RD	at GLADMAR RD	at EOR
40273	WATSON RD	at NANEUM RD	at FAIRVIEW RD
56511	WATT CANYON RD	at THORP CEMETERY RD	at EOR
79090	WAYNE ST	at MAIN ST (VANTAGE)	at LAKEVIEW AVE (VANTAGE)
54150	WEAVER RD	at THORP HWY SOUTH	at EOR
25480	WEST FORK TEANAWAY RD	at MIDDLE FORK TEANAWAY RD	at EOR
13550	WEST SPARKS RD	at SPARKS RD	at EOR
69753	WEST WILLIS RD	at NO. 6 RD	at EOR
22710	WESTSIDE RD	at GOLF COURSE RD	at NELSON SIDING RD
24670	WHITE PINE DR	at PATRICK'S PARK DR	at EOR
25500	WHITE RD	at AIRPORT RD (CLE ELUM)	at EOR
61760	WILLETT RD	at VANTAGE HWY	at EOR
69752	WILLIS RD EAST	at NO. 6 RD	at EOR
40811	WILLOWDALE RD	at WILSON CREEK RD	at EOR
94126	WILSON CREEK RD	at CHARLTON RD	at EOR
68520	WOODHOUSE LOOP	at CANYON RD	at CANYON RD
22860	WOODS & STEELE RD	at WESTSIDE RD	at EOR
65386	WPA RD	at UPPER BADGER POCKET RD	at EOR
10360	YELLOWSTONE RD	at I-90	at EOR

**Urban Principal Arterial 14**

**Road**

<b><u>#</u></b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
93041	UNIVERSITY WAY	at ELLENSBURG CITY LIMITS	at BRIDGE #88342

**Urban Minor Arterial 16**

**Road**

<b><u>#</u></b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
94026	AIRPORT RD	at ELLENSBURG CITY LIMITS	at BOWERS RD
60640	ANDERSON RD	at UMPTANUM RD	at ELLENSBURG CITY LIMITS

**Urban Collector 17**

**Road**

<b><u>#</u></b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
41010	BOWERS RD	at CASCADE CANAL	158 ft. East of PIPER RD
40600	BRICK RD	at ELLENSBURG CITY LIMITS	at SANDERS RD
40315	SANDERS RD	at ELLENSBURG CITY LIMITS	at BRICK RD
96937	UMPTANUM RD	at ELLENSBURG CITY LIMITS	at ANDERSON RD

**Urban Local Access 19**

**Road**

<b><u>#</u></b>	<b><u>Road Name</u></b>	<b><u>FROM LOCATION</u></b>	<b><u>TO LOCATION</u></b>
40300	BEECH RD	at BOWERS RD	at FALCON RD
40240	BOWERS BUSINESS LOOP	at AIRPORT RD	at BOWERS RD
41010	BOWERS RD	158 ft. East of PIPER RD	at EOR
40360	CESSNA RD	at BOWERS RD	at FALCON RD
40970	ELMVIEW RD	at AIRPORT RD	at PIPER RD
40910	FALCON RD	at AIRPORT RD	at CESSNA RD
40400	PIPER RD	at BOWERS RD	at ELMVIEW RD

**CHAPTER 4 – ROAD DESIGN CRITERIA**

**12.04.010    Scope**

The purpose of this chapter is to present Kittitas County criteria for the design of public and private roads and streets. It is to be used by developers and their engineers in the design of roads for which approval by the Kittitas County Department of Public Works is required, or which are required to be constructed by a land use development activity.

**12.04.020    General**

The provisions stipulated in this section are general in nature and shall be considered as applicable to all parts of these specifications, including any supplements and revisions.

All road construction within the public or private right-of-way shall be designed by or under the direct supervision of a civil engineer, licensed to practice in the State of Washington as required by KCC 12.08. All drawings and support data submitted to the County for approval must bear his/her seal and signature. The design criteria, as presented, are intended to aid in preparation of plans and specifications, and shall be considered as minimum standards.

As with any design criteria, occasions may arise where the minimum standards are either inappropriate or not feasible due to unusual circumstances. In these cases a variance to these criteria shall be considered. Variance requests shall follow the procedures outlined in KCC 12.01.130.

#### **12.04.030                      Public Road Design Requirements**

- A. Road surfacing requirements shall be in accordance with the WSDOT Pavement Guide, Volume 1 – Pavement Policy, current edition, and tables 4-1 through 4-3 of this chapter.
  
- B. The minimum design speed for all roads shall be 25 MPH. Design speeds shall be based upon WSDOT Design Manual, current edition. Entire road segments shall be designed at the same speed.
  
- C. Intersections
  1. Location of new arterial and collector streets shall be in accordance with the WSDOT Design Manual.
  2. All new intersections will have a minimum straight tangent length prior to beginning any curves in accordance with the WSDOT Design Manual.
  - (moved to D.)3. The design of intersections on arterial streets shall be in accordance with WSDOT Design Manual.
  4. Separation of intersections shall be in accordance with WSDOT Design Manual.
  
- D. Residential streets should be designed to direct traffic to collector streets and adequately provide for circulation and movement within the subdivision.
  
  
- E. Vertical Alignment - Connection with existing streets shall be smooth transitions and existing grades shall be shown for at least 150 ft on all sides of the connection. Vertical alignment designs shall be in accordance with the WSDOT Design Manual.
  
- F. The grade and ground lines of all streets that dead-end, except cul-de-sacs, shall be continued for 500 ft beyond the proposed construction, unless that property is under different ownership. The grade and ground lines of all arterials shall be designed to continue 1000 ft beyond the end of proposed construction unless that property is under different ownership.
  
  
- G. Sight Triangle Standards shall be in accordance with the WSDOT Design Manuals. Site triangles shall be shown on the preliminary and final land segregation documents. Site triangles shall apply to all private and public roads. Plat notes and covenants shall reflect that site triangles shall be kept free of all trees, bushes, landscaping, fences or obstacles.
  
  
- H. Street Projections into Future Adjoining Subdivisions.

1. The location of proposed streets shall allow for the proper conveyance of the storm drainage system.
  2. Where a street is indicated to dead end into an adjacent unplatted area, the developer shall provide written approval from the adjacent landowner to discharge his storm drainage from the street onto the adjacent land if such drainage occurs.
  3. Stub streets shall end at the property line with a cul-de-sac unless the Engineer recommends otherwise.
  4. Type III barricades shall be permanently installed at the end of all stub streets that do not end in a cul-de-sac.
- I. The County Engineer may determine that the AASHTO's Policy on Geometric Design of Highway and Streets, current edition, can be substituted for the WSDOT Design Manual on a case-by-case basis.

Table 4-1

Roadway and Right-of-Way Width Requirements

ADT <sup>1</sup>	<40 MPH Design Speed		>40 MPH Design Speed	
	Roadway Width <sup>2</sup>	ROW Width	Roadway Width <sup>2</sup>	ROW Width
0-400 ADT	24	60	26	60
> 400 ADT	26	60	26	60

<sup>1</sup>ADT to be determined using the most recent edition of the ITE Trip Generation manual.

<sup>2</sup>Additional roadway or shoulder width may be required on roads with steep side slopes or roads designated as bicycle routes in the Long-Range Transportation Plan.

Table 4-2 (see revised table below)

BST Surfacing and Structural Requirements

ADT <sup>1</sup>	Subgrade Condition		Crushed Stone Depth	BST Surface Class A

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	Poor		20 inches	3/4 inch nominal
0 – 200 ADT	Average		16 inches	
	Good		16 inches	

	Poor		21 inches	3/4 inch nominal
201 – 400 ADT	Average		16 inches	
	Good		16 inches	

	Poor		24 inches	3/4 inch nominal
>400 ADT	Average		18 inches	
	Good		18 inches	

<sup>1</sup>ADT to be determined using the most recent edition of the ITE Trip Generation manual.

BST Class A is a Bituminous Surface Treatment Class A as defined in WSDOT Standard Specifications 5-02.1(1), current edition.

HMA should be used on grades exceeding 10%

Subgrade Conditions	Poor	Mr =5000 psi	AASHTO SOIL	A4, A5, A6, A7
	Average	Mr =10000 psi	AASHTO SOIL	A2
	Good	Mr= 20000 psi	AASHTO SOIL	A1, A3

Design assumes the area is well drained and not susceptible to frost.

Crushed stone depth may be reduced based upon on-site soils investigation.

Table 4-2 (revised table)  
 BST Surfacing and Structural Requirements<sup>2,3</sup>

ADT <sup>1</sup>	Subgrade Condition <sup>4</sup>	Crushed Stone Depth <sup>5</sup>	BST Surface Class A <sup>2</sup>
0 – 200 ADT	Poor	20 inches	3/4 inch nominal
	Average	16 inches	
	Good	16 inches	
201 – 400 ADT	Poor	21 inches	3/4 inch nominal
	Average	16 inches	
	Good	16 inches	
> 400 ADT	Poor	24 inches	3/4 inch nominal
	Average	18 inches	
	Good	18 inches	

<sup>1</sup>ADT to be determined using the most recent edition of the ITE Trip Generation manual.

<sup>2</sup>BST Class A is a Bituminous Surface Treatment Class A as defined in WSDOT Standard Specifications 5-02.1(1), current edition.

<sup>3</sup>HMA should be used on grades exceeding 10%

<sup>4</sup>Subgrade Conditions  
Poor: Mr = 5000 psi      AASHTO SOIL A4, A5, A6, A7  
Average: Mr = 10000 psi      AASHTO SOIL A2  
Good: Mr = 20000 psi      AASHTO SOIL A1, A3

<sup>5</sup>Crushed stone depth may be reduced based upon on-site soils investigation.  
Design assumes the area is well drained and not susceptible to frost.

Table 4-3 (see revised table below)

HMA Surfacing and Structural Requirements

ADT <sup>1</sup>	Subgrade Condition		HMA Surface	Crushed Stone Depth

	Poor		2.5 Inches	11 Inches
0 - 200	Average		2.5 Inches	9 Inches
	Good		2.5 Inches	9 Inches

	Poor		3 Inches	12 Inches
201 – 400 ADT	Average		3 Inches	9 Inches
	Good		3 Inches	9 Inches

> 400 ADT	Design for greater than 400 ADT shall be in accordance with WSDOT Pavement Policy, Volume 1, current edition.			
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<sup>1</sup>ADT to be determined using the most recent edition of the ITE Trip Generation manual.

Subgrade Conditions	Poor	Mr =5000 psi	AASHTO Soil	A4, A5, A6, A7
	Average	Mr =10000 psi	AASHTO Soil	A2
	Good	Mr= 20000 psi	AASHTO Soil	A1, A3
Design assumes the area is well drained and not susceptible to frost.				
Crushed stone depth may be reduced based upon on-site soils investigation.				

Table 4-3 (revised table)  
HMA Surfacing and Structural Requirements

ADT <sup>1</sup>	Subgrade Condition <sup>2</sup>	HMA Surface	Crushed Stone Depth <sup>3</sup>
0 - 200 ADT	Poor	2.5 Inches	11 Inches
	Average	2.5 Inches	9 Inches
	Good	2.5 Inches	9 Inches

201 – 400 ADT	Poor	3 Inches	12 Inches
	Average	3 Inches	9 Inches
	Good	3 Inches	9 Inches

> 400 ADT	Design for greater than 400 ADT shall be in accordance with WSDOT Pavement Policy, Volume 1, current edition.
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<sup>1</sup> ADT to be determined using the most recent edition of the ITE Trip Generation manual.		
<sup>2</sup> Subgrade Conditions	Poor: Mr = 5000 psi	AASHTO SOIL A4, A5, A6, A7
	Average: Mr = 10000 psi	AASHTO SOIL A2
	Good: Mr = 20000 psi	AASHTO SOIL A1, A3
<sup>3</sup> Crushed stone depth may be reduced based upon on-site soils investigation.		
Design assumes the area is well drained and not susceptible to frost.		

**12.04.040 Design Criteria within an Urban Growth Area**

- A. The County and cities shall create an interlocal agreement stipulating the road standards within the Urban Growth Areas (UGA). Until interlocal agreements are entered into, the more stringent standards shall apply.
- B. Roads proposed within the UGA shall conform and support the road system or grid, Transportation Plan and Comprehensive Plan of the affected city.
- C. Roads constructed within the UGA shall comply with the road standards of the affected city or Kittitas County Road Standards, whichever is more stringent. The city shall have the final approval of the road alignment, geometry and construction requirements.
- D. Utilities constructed within the UGA shall comply with the requirements of the affected city.

**12.04.050 Design Standards (MOVED FROM CHAPTER 12.01.170(C))**

The design standards established in this title represent minimum values. The sources for these design standards include applicable standards established by AASHTO and WSDOT. Every effort has been made in this title to provide consistent, accepted, and established standards to follow, which will result in a safe and efficient public and private road system at a reasonable cost to construct and maintain, while at the same time minimizing adverse environmental impacts.

In addition to the specific design standards found throughout other parts of this title, the following general design principals shall be adhered to insofar as practical :

- A. Layout of lots and blocks should provide desirable settings for structures by making use of natural contours and maintaining existing views, affording privacy for the residents and protection from adverse noise and vehicular traffic. Natural features and vegetation of the area should be preserved where practical. The resulting road system must, however, provide for the safe and efficient movement of people and goods and also allow for proper construction and maintenance practices to occur.

- B. Tree masses and large individual trees should be preserved. The system of roadways, sidewalks, bicycle and equestrian trails, and the lot layout should be designed to take advantage of visual qualities of the area.
- C. In high-density development particularly, pedestrian ways, bike paths, and equestrian trails should be separated from roadways used by vehicular traffic. Sidewalks should be designed to provide all residential building sites with direct access to all neighborhood facilities, including schools and school collection points, parks and playgrounds, churches and shopping areas.
- D. Roads should be located with appropriate regard for topography, creeks, wooded areas, and other natural features, which would enhance attractive development.
- E. Roads should not be located so as to closely parallel streams or be subject to flooding. There should be a vegetated strip to trap soil carried by runoff between the toe of fill and the stream channel.
- F. In mountainous terrain, it may be preferable to provide more right-of-way than the minimum required to construct the road itself. The road will be permitted to wind around within the right-of-way to reduce cuts and unnecessary scarring, provided minimum standards are met. This higher standard right-of-way will permit improvements of the alignment as traffic warrants.
- G. Existing roads, including roads in subdivisions having preliminary plat approval in adjoining properties, shall be continued at equal or greater width and in similar alignments by roads proposed in the subdivision, unless variations are approved.
- H. Roads within rural subdivisions should be designed as a system of circulation routes so that the use of local roads by through traffic will be discouraged.
- I. Roads shall intersect at right angles as much as possible. Written approval from the Engineer shall be required if an intersection is proposed that would deviate more than 10 degrees from perpendicular.
- J. When a tract is divided into lots which are twice as large on average than the underlying zoning, such lots or parcels shall be arranged to permit the logical location and opening of future streets or roads.

**12.04.060 Geotechnical Investigation**

Geotechnical conditions shall be investigated and tested in accordance with WSDOT Geotechnical Design Manual or AASHTO design manuals. The County Engineer may require additional geotechnical investigation based upon specific site conditions.

**12.04.070 Private Road Design Requirements (MOVED FROM CHAPTER 12.12)**

Private roads shall comply with the following conditions:

- A. Shall meet the minimum access requirements of the International Fire Code as adopted by the County, KCC 20, or Kittitas County Road Standards, whichever is more stringent, and
- B. Shall be designed and constructed in conformance with AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT< 400), most recent edition, and
- C. Shall be permanently established by a right-of-way or easement recorded with the Kittitas County Auditor, providing legal access to each affected lot, dwelling unit, or business, and
- D. Stormwater generated by roads shall be managed and retained on-site with a stormwater system that conforms to the specifications of the most current version of the Stormwater Management Manual for Eastern Washington and KCC 12.06. The stormwater system construction shall be certified by a licensed engineer. The certification shall be included with the road certification, and
- E. Will not result in land locking of existing or proposed parcels, and
- F. Will be maintained by the developer or legally responsible owner or homeowners' association or other legal entity made up of all benefited property owners, under the provisions of an acceptable and recorded "Private Road Maintenance Agreement", and
- G. Clearly described on the face of the plat, short plat, or other development authorization, signed as a private road according to Public Works Road Naming & Signing Standards, and a disclosure statement filed with the County Auditor stating that Kittitas County is not responsible for the maintenance, and
- H. The following notes shall be placed on the face of the plat, short plat, or other development authorization, as appropriate:
  - 1. "Kittitas County will not accept private roads for maintenance as public roads until such roads are brought into conformance with current Kittitas County Road Standards and formally adopted by the Kittitas County Board of County Commissioners. There is no guarantee that roads brought into conformance with Kittitas County Road Standards will be brought onto the county road system.
  - 2. Those notes required by KCC 12.01.095(P).

**12.04.080 Private Road Design Criteria**

Private roads shall comply with the design requirements of Table 4-4. Note to reviewer: See Chapter 12 for the original table 12-1.

Table 4-4 Private Road Minimum Design Standards						
Design Elements	Road Type					
	Driveway	Joint-Use Driveway	Private Road <sup>(2)</sup>	Private Road <sup>(2)</sup>	Private Road <sup>(2)</sup>	Private Road
			Average Lot Size <= 10.0 acres.			Average Lot Size > 10.0 acres.
Number of Parcels and/or Units	1	2	3-14	15-40	41+	2+
Minimum Easement Width	0	30 <sup>(3)</sup>	60 <sup>(3)</sup>	60'	60'	60'
Paved Apron <sup>(1)</sup>	N/A	N/A	Req'd	Req'd	Req'd	Req'd
Roadway Width	12' or 16' <sup>(6)</sup>	12' or 16' <sup>(6)</sup>	20'	22'	22'	20'
Shoulder Width	N/A	N/A	1'	1'	2'	1'
Minimum Centerline Radius (ft)	N/A	N/A	60	60		60
Surfacing Requirements <sup>(4)</sup>	Gravel	Gravel	Gravel	BST/ACP		Gravel
Minimum Crushed Surfacing <sup>(5)</sup>	N/A	N/A	6"	6"		6"
Maximum Grade % <sup>(7)</sup>	15	15	10	10		10
Cul-de-Sac Required	N/A	N/A	Req'd	Req'd		Req'd
County Road Approach Permit	Req'd	Req'd	Req'd	Req'd		Req'd
Stopping Site Distance	N/A	N/A	AASHTO	AASHTO		AASHTO
Ditch Slope (inside slope)	2:1	2:1	2:1	2:1		2:1
(1) Applies to all roads accessing existing paved roadway.						
(2) All private roads shall be inspected and certified by a civil engineer licensed in the State of Washington for conformance with the current edition of the Kittitas County Road Standards.						
(3) Existing road easements may be a minimum of 40'. New road easements shall be a minimum of 60'. Existing driveway easements may be a minimum of 20'. New driveway easements shall be a minimum of 30'.						
(4) Crushed surfacing per WSDOT Standard Specifications.						
(5) Additional depth may be required for roads that are to be public roads.						
(6) Any new driveway longer than 150' in length shall have a width of no less than 16'. New driveways less than 150' in length shall have a width of no less than 12'. If KCC 20.02.020 is stricter, the stricter standard shall apply.						
(7) A variance request is required for private road grades between 10-12%.						

### **12.04.090 Private Road Construction Control, Inspection and Certification**

Prior to final approval of and land use development activity, the entire private road serving a development shall be certified by a civil engineer licensed in the State of Washington to meet Kittitas County Road Standards or be bonded for final improvements in accordance with KCC 12.01.150. Building permits will not be issued until road construction is completed and certified by a civil engineer licensed in the State of Washington. The certification shall include all private roads used to access the development from a County or other publicly maintained road. The certification shall be prepared in accordance with the Department of Public Works private road certification guidelines. All information from the private road certification guidelines shall be presented for the certification to be complete.

The following provides road certification guidelines:

- A. Compaction Testing: Materials used to construct private roads shall be compacted as specified by KCC 12.09.040. Testing methods and results shall be included in the road certification.

- B. Bridges: Bridges serving private roads shall have a certified live load rating of at least 75,000 pounds or as required by KCC 20.02.050. Certification of bridges shall follow the guidelines of KCC 12.07.020. All inspection and testing results shall be included in the road certification.
- C. Road Grade: Maximum grade shall not exceed 10%. The County Engineer may require profile sheets or grade between stations to be included in the road certification.
- D. Stormwater Management: Stormwater generated by roads shall be managed and retained on-site with a stormwater system that conforms to the specifications of the most current version of the Stormwater Management Manual for Eastern Washington and KCC 12.06. The stormwater system construction shall be certified by a licensed engineer. The certification shall be included with the road certification.
- E. Geotechnical Analysis: Geotechnical conditions shall be investigated and tested in accordance with WSDOT Geotechnical Design Manual or AASHTO design manuals. The County Engineer may require additional geotechnical investigation based upon specific site conditions. Results shall be included in the road certification.
- F. As-built Plans: As-built plans or design plan markups of the constructed road shall be submitted with the road certification.

## **CHAPTER 5 DRIVEWAYS AND ACCESSES**

### **12.05.010 Authority**

Pursuant to RCW 36.75.130, local governments are authorized to regulate vehicular access to and from any public road under their respective jurisdiction from or to property adjoining a public road.

### **12.05.020 Purpose**

It is the purpose of this section to provide the procedures and standards necessary to protect the public health, safety and welfare, maintain smooth traffic flow, maintain road right-of-way drainage, and protect the functional level of the public roads while meeting state, regional, local, and private transportation needs and interests.

### **12.05.030 Implementation**

- A. No person shall construct any access providing direct movement to or from any Kittitas County maintained road from or to property adjoining the road without an access permit issued by the Kittitas County Department of Public Works, hereinafter called the "Department".
- B. Access permits shall be issued only in compliance with this chapter, Table 4-4, and the conditions for approval of the Kittitas County Access Permit. Accesses shall be designed as shown in Exhibits 1340-3, 1340-4, 1340-5 and 1340-6 of the WSDOT Design Manual, most recent version. In no event shall an access be allowed or permitted if it is detrimental to public health, welfare and safety. Spacing requirements for all access points are shown in Table 5-1. Site distance requirements are shown in Table 5-2.

- C. Direct access from an individual lot within a subdivision to the County Road shall not be permitted unless no other alternative exists. Newly created lots shall access onto an internal road system and not directly onto a County Road, unless approved by the County Engineer. Lots adjoining County Roads shall access from the lowest classified road or from a joint-use driveway, when possible. Police, fire, ambulance, and other emergency stations shall have a right to direct access to County roads..
- D. Lots that access State Routes, Forest Service Roads, railroad or other easements or rights-of-way will require separate access permits from those agencies. These permits shall be required before preliminary approval can be given to any land use development application. The County cannot grant access to roads or easements it does not control.
- E. All lots created that will have direct access to a County road must show the proposed driveway access locations that conform to access/spacing requirements on the face of the plat, unless the County Engineer decides the location may be determined through the access permit application process.
- F. No more than one access shall be granted to an individual parcel or to continuous parcels under the same ownership unless it can be shown that:
  - 1. The additional access would be beneficial to the public traveling the public road; and
  - 2. Allowing only one access would be in conflict with local safety regulations; and
  - 3. The additional access would not be detrimental to public health, safety and welfare.

OR

- 4. The additional access is for agricultural use only and the access location meets spacing and site distance requirements. Any change of use of the agricultural access will require the access to be reevaluated to meet the conditions of Kittitas County Road Standards.

#### **12.05.040                      Obtaining a Permit**

- A. Persons wishing to apply for direct access to a County road should contact the Kittitas County Department of Public Works. The Department may require any of the following items when relevant to the evaluation of an access:
  - 1. Road and driveway plan and profile,
  - 2. Complete drainage plan of the site that impacts the road right-of-way,
  - 3. Map and letters detailing utility locations before and after development in and along the road,
  - 4. A subdivision zoning or development plan,
  - 5. Property map indicating other access and abutting public roads and streets, and
  - 6. Proposed access design.
- B. Upon receiving an access permit application and permit fee, the Department shall evaluate the request. The Department shall work cooperatively with the applicant and attempt to resolve all difficulties prior to taking final action on the request. The Department shall act upon the request within 15 days.
- C. A completed access permit shall conform to Kittitas County Road Standards. Before denying an access request, the Department shall discuss the reasons for the denial with the applicant and attempt to resolve the reasons for the denial. Where the access design standards are not

entirely applicable, the Department shall consider site specific and local conditions or resolution through the road variance process according to KCC 12.01.130.

- D. Any appeals of a denial of an access permit shall be resolved through the Administrative Decisions Appeals process according to KCC 15A.07.

#### **12.05.050                      Construction of Access**

- A. The permit shall be deemed expired and null and void if the access is not under construction before the expiration of any time limits noted on the permit. When the permittee is unable to begin construction within the authorized time limits of the permit, the permittee may request an extension from the Department. Any request for an extension must be submitted to the Department before the permit expires.
- B. The expected dates of construction and use of the access shall be included on the request for an access. The permittee shall notify the Department at least 48 hours prior to any construction in County right-of-way. The access shall be completed in an expeditious and safe manner and shall be finished within the time limits established on the permit.
- C. The Department shall inspect the access upon completion of construction to ensure that all terms and conditions of the permit are met. The Department may request to inspect the access during construction.
- D. The construction of the access and its appurtenances as required by the terms and conditions of the permit shall be completed at the expense of the permittee.
- E. It is the responsibility of the permittee to complete the construction of the access according to the terms and conditions of the permit. The Department may order a halt to any unauthorized construction or use.
- F. Adequate construction signing, in conformance with MUTCD, most recent edition, is required at all times during access construction. This may include, but is not limited to, the use of signs, flashers, barricades and flaggers. The Department and its duly appointed agents and employees shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise of the permit.
- G. The hours of work on or immediately adjacent to the highway may be restricted due to peak hour traffic demands and other pertinent roadway operating restrictions.
- H. A copy of the permit shall be available for review at the construction site. If necessary, minor changes and additions may be ordered by the Department to meet unanticipated site conditions.
- I. All commercial and industrial driveways shall be constructed in accordance with Figure 1340-4 or 1340-5 of the WSDOT Design Manual, most recent addition, as amended by Kittitas County. For commercial or industrial driveways with heavy traffic volumes or a significant number of trucks, the Engineer may require construction of the access as a road intersection. This requirement will be based on a concurrency analysis that considers, among other factors, intersection spacing, sight distances and traffic volumes. The concurrency analysis shall be completed in conformance with KCC 12.10.

#### **12.05.060                      Use of Access**

- A. Where, in the course of construction by any Kittitas County Department it is necessary to reconstruct, relocate, or bring into conformance with this section an existing access, that Department shall initiate the appropriate procedures and agreements.

- B. It is the responsibility of the property owner to ensure that the use of the access to the property is not in violation of the section, permit terms and conditions. The terms and conditions of the permit are binding upon all assigns, successors-in-interest and heirs.
- C. When there are changes in property use which result in changes in the type of access operation and/or the access is not in conformance with this section, the reconstruction, relocation, and conformance of the access to this section may be required at the expense of the owner.

**12.05.070                      Illegal Access to the County Road**

The property owner shall be sent written notice of any illegal access location or use. The owner shall be given 10 days notification of pending actions, after which the Department may install barriers across or remove any access not conforming to this section at the expense of the owner.

**12.05.080                      Conditions for Approval of New Driveways**

- A. Driveways directly accessing arterials and major or minor collectors may be denied if alternate access is available.
- B. All abandoned driveways shall be removed at the owner’s expense.
- C. Maintenance of driveway approaches shall be the responsibility of the owner whose property they serve. The County will not maintain accesses.
- D. Maintenance of any driveway culvert shall be the responsibility of the owner whose property they serve. Damaged or failing culverts must be replaced by the owner whose property they serve. If the culvert is in need of replacing, the county may give the property owner 30 days notice to replace the culvert. After such time the County may replace the culvert and charge the owner the cost of the replacement. The County will not maintain accesses. The county may clear the culvert to allow water to pass.
- E. For driveways crossing an open ditch that is anticipated to carry stormwater flows, culverts shall be 15 inches in diameter or larger, with beveled ends. The beveled ends shall have a 4:1 slope. The culvert type, diameter and length shall be constructed as required by the County and noted on the Access Permit. Approved materials for culverts are new galvanized steel with beveled ends or new HDPE pipe with beveled ends. Any other substitute requires the approval of the Director of Public Works.
- F. Driveways crossing an irrigation ditch, railroad or a WSDOT-owned road shall receive approval by the appropriate agency prior to issuance of the County’s access permit.
- G. No driveway or road shall be constructed within five feet of the side yard boundary, unless the driveway or road is shown to be part of an ingress/egress easement.

**Table 5-1**  
**Access Spacing Requirements<sup>(1,2)</sup>**

Road Classification (FFC <sup>(3)</sup> )	Speed	Access <sup>(4)</sup> Spacing
Rural Arterial	Above 35	475 ft.
Rural Major Collector	35 and below	250 ft.
Rural Minor Collector	Above 35	300 ft.
	35 and below	150 ft.
Rural Local Access All Urban Classifications	Above 35	100 ft.
	35 and below	100 ft.

<sup>(1)</sup> Any access that cannot meet applicable spacing will require an approved variance

<sup>(2)</sup> Residential & urban zones will be evaluated on a case by case basis

<sup>(3)</sup> Federal Functional Classification - Refer to KCC 12.03.030

<sup>(4)</sup> Includes public and private roads and all other access points

**Table 5-2**

**Sight Distance Requirements**

Posted Speed Limit	Distance
25 Mph	150 ft.
35 Mph	250 ft.
50 Mph	475 ft.

## **Chapter 6 - STORM WATER MANAGEMENT STANDARDS AND GUIDELINES**

### **12.06.010 Purpose**

This chapter establishes stormwater standards and guidelines for use in Kittitas County. They will be used by the development community and others who will create stormwater runoff through land-disturbing activities. The purpose of this chapter will be met through the following:

- A. Adopting the Stormwater Management Manual for Eastern Washington (SWMMMEW) as now and hereafter amended, for use within Kittitas County.
- B. Prevent accelerated soil erosion and control stormwater runoff resulting from land disturbing activities both during and after construction through the use of best management practices.
- C. Eliminate the need for costly maintenance and repairs to roads, embankments, ditches, streams, wetlands, and stormwater control facilities due to inadequate soil erosion and stormwater runoff control.
- D. Reduce stormwater runoff rates and volumes, soil erosion, sediment, and nonpoint source pollution from development and redevelopment through stormwater Best Management Practices (BMP).
- E. Provide long-term responsibility for and maintenance of stormwater BMPs.
- F. Protect the conditions of state (and U.S.) waters for all reasonable public uses and ecological functions.
- G. Facilitate compliance with state and federal standards and permits by owners of construction sites, developments, and permanent stormwater BMPs within Kittitas County.

**12.06.020                      Specifications**

All stormwater facilities shall be designed in accordance with the current editions of Washington State Department of Ecology’s SWMMMEW, WSDOT’s Highway Runoff Manual and Hydraulics Manual, current editions, using the most restrictive specifications.

**12.06.030                      Exemptions**

Projects exempt from this code include the exemptions and partial exemptions listed in the SWMMMEW, Sections 2.1.3, 2.1.5 and 2.1.6, current edition. Local exemptions shall be determined through the variance process outlined in KCC 12.06.080.

**12.06.040                      General Requirements**

The following requirements shall be implemented in accordance with the SWMMMEW:

- A. Core Element No. 1: Prepare a stormwater site plan prior to final plat approval that will be reviewed by the County Engineer according to all of the applicable core elements as defined below.
- B. Core Element No. 2: Construction Stormwater Pollution Prevention. Prepare and maintain a construction stormwater pollution prevention plan on site during the entire project and amend as necessary.
- C. Core Element No. 3: Source Control of Pollution. Apply all known, available and reasonable source control BMPs. Operational and structural source control BMPs shall be selected, designed and maintained according to the SWMMMEW.
- D. Core Element No. 4: Preservation of Natural Drainage Systems. Preserve natural drainage systems to the extent possible at the site.
- E. Core Element No. 5: Runoff Treatment. Projects that result in five thousand square feet or more of new pollutant-generating impervious surfaces shall design, size, construct, operate and maintain runoff treatment at the site.

- F. Core Element No. 6: Flow Control. Projects that result in ten thousand square feet or more of new impervious surfaces shall design, size, construct, operate and maintain stormwater flow control facilities at the site.
- G. Core Element No. 7: Operation and Maintenance. Projects that utilize structural BMPs shall prepare an operation and maintenance plan that is prepared in accordance with the SWMMEW.
- H. Core Element No. 8: Local Requirements. Projects that meet the requirements of Kittitas County Road Standards will meet any optional requirements that are adopted as a part of this chapter or required by Kittitas County Public Works.
- I. Conveyance systems shall be analyzed and designed to manage the twenty-five-year peak flows from core element Nos. 5 and 6.

**12.06.050                      Drainage Facilities**

Culverts with a minimum diameter of 15 inches must be installed at all County road intersections and at all crossings of well defined natural drainage courses, unless other provisions are made to handle the passage of surface run-off through the roadway prism. BMPs shall be used during construction to manage stormwater. All internal development roads shall handle all stormwater within the development.

All drainage facilities within current or future County right-of-way must be of the type and nature that can be easily maintained by the County. All stormwater facilities within the development and outside the County’s right-of-way shall be maintained by the applicant or homeowner’s association.

**12.06.060                      Submittal Requirements**

Submittal Requirements for Stormwater Site Plans (Reference Ch.3 of the SWMMEW):

- A. Preliminary Submittal Requirements
  - 1. Collect and Analyze Information on Existing Conditions
    - i. Downstream Analysis
    - ii. Identify areas of high erosion and sediment depositions
    - iii. Locations of sensitive and critical areas
  - 2. Determine Applicable Core Elements
  - 3. Prepare a Conceptual Stormwater Control Plan
    - i. Identify Stormwater Conveyance System
    - ii. Identify Stormwater Detention/Retention Area & Methods
- B. Final Submittal Requirements
  - 1. Apply preliminary subdivision conditions relating to stormwater
  - 2. Prepare a Final Stormwater Control Plan
  - 3. Provide a Drainage Report with supporting calculations
  - 4. Prepare a Construction Stormwater Pollution Prevention Plan
- C. Provide a copy of recorded Notice to Title – For maintaining private stormwater drainage system prior to final project approval. The Notice to Title is available at the Public Works Department.

**12.06.070                      Review and Approval of Plan**

The stormwater plan and supporting calculations will be reviewed by the Department of Public Works using the Department’s construction plan review procedures in coordination with all other County I and development and/or permit review procedures. The County’s review and approval of the stormwater plan shall not relieve the applicant, owner and/or designer of liability for errors or omissions in the design of storm drainage facilities.

**12.06.080                      Variances**

Variances from these Stormwater standards and guidelines may be requested by the applicant in accordance with Section 12.01.130. Variances shall be issued only when the following criteria exist:

- A. There are special physical circumstances or conditions affecting the property such that would prohibit the strict application of these provisions; and
- B. Every effort has been made to find alternative ways to meet the objectives of the Core Elements; and
- C. The granting of the exception or variance will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and
- D. The exception is the least possible exception that could be granted to comply with the intent of the Core Elements.

**12.06.090                      Stormwater System Maintenance**

All newly constructed stormwater systems will be maintained at the expense of the property owner, developer or other legal entity. The County will not maintain systems constructed for the purpose of storage, conveyance, collection or treatment of stormwater generated on privately owned properties. This responsibility and the provision for maintenance shall be clearly stated on subdivision and short plat plans, property conveyance documents, and/or drainage improvement plans.

In the event the owner(s) does not provide property maintenance and the County Engineer determines the stormwater facility represents a public safety threat, the Director will give 30-day notice to the owner(s) to correct the deficiencies. If the deficiencies are not corrected within 30-days the County may enter upon the property to perform the necessary maintenance at the owner(s) expense. This provision for access will be included as a provision of plat or plan approval.

**CHAPTER 7 – BRIDGES AND MAJOR DRAINAGE STRUCTURES**

**12.07.010                      Design Standards**

- A. All bridges and major drainage structures serving public or private roads and driveways shall conform to KCC 12.01.110 and 12.01.120. Bridge and major drainage structure clear width shall

accommodate the full width of the traveled lanes and shoulders of approach roads. Bikeway and pedestrian walkways shall be provided where justified.

- B. All roadway structures must be designed in accordance with applicable WSDOT design manuals or AASHTO design guidelines. All new bridges and major drainage structures shall meet a minimum design load structural capacity of HS-25, or as required by KCC 20.02.050. The load rating for privately owned bridges shall be posted as required by KCC 20.02.050.
- C. All box culverts and bridges shall have the year of construction permanently indented on the downstream headwall face in legible numbers. The numbers shall be 3" high by 1-1/2" wide by approximately 3/8" deep in the headwall face.
- D. All bridge and major drainage structures shall be designed by a professional civil engineer licensed in the State of Washington.
- F. Foundation designs shall be based upon the recommendations of a qualified geotechnical engineer. These recommendations shall be documented in the geotechnical report.
- G. Bridge and major drainage structure waterway opening designs shall conform to the parameters of the applicable WSDOT design manual, AASHTO design guidelines, and the guidelines and regulations of any agency, such as the Washington Department of Fish and Wildlife and Army Corps of Engineers.
- H. Bridges and major drainage structures that function as a driveway must meet the standards set forth in the most current version of the International Fire Code for minimum width and load as required by KCC 20.02.050.

#### **12.07.020      Structure Inspections**

- A. It is the developer's responsibility to ensure all materials are tested and inspected as required.
- B. The developer's structural engineer or his representative, familiar with the structure's design, shall review the construction in sufficient detail to confirm that the construction is as specified.
- C. Inspection of construction shall be conducted as frequent as necessary to ensure the construction conforms to the plans and specifications. . A written log or report of all work shall be furnished to the County Engineer at completion of the structure.
- D. Testing of materials shall conform to the requirements of WSDOT Standard Specifications, and WSDOT Materials Manual, latest editions, and applicable interims.
- E. When land use development activities increase the use of existing bridges, the bridges shall be re-inspected and all inspection and testing results provided to the Department of Public Works. Re-inspection of privately owned bridges shall be included in the road certification.
- F. Inspection of existing bridges shall be conducted by a civil engineer licensed in the State of Washington familiar with bridge design, construction and load ratings. The engineer shall submit

a report indicating the existing bridge meets the requirements set forth in these standards in regards to load rating, function, superstructure and abutments. Bridges inspected within two years do not need to be re-inspected unless there is obvious damage or deterioration to the sub-structure, superstructure or the approach.

## **CHAPTER 8 - SUBMITTAL REQUIREMENTS FOR CONSTRUCTION PLANS**

### **12.08.010 General**

The following documentation is required in conjunction with the submittal of construction plans for any public or private roadway or storm drainage improvement for which approval by the Kittitas County Department of Public Works is required.

### **12.08.020 Certification**

A. All construction plans and drainage reports, soils reports and pavement designs shall be prepared by, or under the direction of, a civil engineer licensed in the State of Washington, and shall be reviewed for the minimum requirements set forth herein. The engineer should be aware that whenever unusual or serious problems are anticipated in conjunction with a proposed construction project, additional information and analysis beyond the minimum requirements of these specifications and criteria would be required.

B. Construction plans submitted for review and comment shall be prepared by a civil engineer licensed in the State of Washington. The plans must include the following statement on the cover sheet:

*These construction plans for (name of subdivision, development, or project) were prepared by me (or under my direct supervision) in accordance with the requirements of the Kittitas County Road Standards.*

*Name of Engineer*

*Name of Firm*

*Date*

The statement shall be signed and stamped by the licensed civil engineer who prepared or directed preparation of the construction plans.

C. Unless otherwise identified or noted, all construction plan submittals are assumed to comply with the provisions of these standards. Failure to follow prescribed procedures may result in return of submittals, additional review fees, or both.

D. Kittitas County shall not be responsible for the accuracy and adequacy of the design or dimensions and elevations on the plans. Kittitas County, through the acceptance of the

construction plan or drainage report, assumes no responsibility for the completeness and/or accuracy of the construction plan or drainage report. The cover sheet shall bear the following statement:

*The engineer who has prepared these plans, by execution and/or seal hereof does hereby affirm responsibility to the County, as a beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the Department of Public Works shall not relieve the engineer who has prepared these plans of any such responsibility.*

### **12.08.030 Submittal Procedure**

Plans for proposed road and drainage construction shall be submitted to the Department of Public Works as follows:

- A. The first submittal shall consist of two complete sets of 30% civil engineering plans. The plans shall be submitted at plat application for subdivisions over 4 lots. The plans shall consist of a conceptual plan and profiles plan, proposed cross section and conceptual stormwater plan as required by KCC 12.06.
- B. The second submittal shall consist of two complete sets of 90% civil engineering plans together with a final grading plan and profile plans, final stormwater plan, construction details, temporary erosion and sediment control plan or SWPPP, and any supporting documents such as stormwater calculations, geotechnical reports, environmental studies and traffic impact analysis. The plans shall be signed and stamped by the applicant's engineer. The applicant's engineer must be a civil engineer licensed in the State of Washington. Review fees, when adopted and applicable, shall be paid by the applicant before review of the plans by the County commences.
- C. If corrections are required, the County will return a redlined print showing necessary corrections within 30 days of submittal.
- D. Subsequent submittals shall also contain two complete sets of plans and other supporting information, if corrected. When all corrections have been made to the County Engineer's satisfaction, the final mylar set of plans will be signed and returned to the applicant's engineer.
- E. Any revisions to approved plans shall be submitted for approval prior to construction. Revisions shall be stamped and signed by the applicant's engineer. Proposed revisions shall be indicated on a copy of the original approved construction plans that includes the County Engineer's signature. The proposed revision shall be clearly shown by strikeout of text, cross-out of items, and/or clouding as appropriate, and by posting the drawing revision block. If the proposed revisions are to the satisfaction of the County Engineer, the revised mylar set of plans will be signed and returned to the applicant's engineer.
- F. The applicant's engineer shall provide the County with a good quality reproducible mylar and two complete sets of prints of the approved plans and one complete set of other supporting documentation. The applicant's engineer shall also provide a quantity take-off and engineer's

cost estimate of proposed construction when the project is to be secured by a performance guarantee as outlined by KCC 12.01.150.

- G. Plans will be reviewed by the County according to the date they were submitted. Previously reviewed or approved plans submitted to the County for a revision will be considered a new submittal. Approved plans under construction will be considered a resubmittal and will be reviewed prior to new submittals.

**12.08.040 Vicinity Map**

- A. Minimum scale is 1"=1000' showing the location and name of all arterial roadways within one mile of the proposed construction, and all other roadways in the vicinity of the proposed construction. Shading shall indicate the project area. This map is required on the cover sheet or first sheet of all submittals, if no cover sheet has been used. The vicinity map shall show all arterial roadways and major drainage ways. Section, Township, and Range shall also be shown.
- B. Minimum size of vicinity map shall be 10" x 10".

**12.08.050 Key Map**

- A. Minimum scale is 1"=500' showing the location and name of all roadways within and adjacent to the proposed construction and all future roadways. Scale shall be indicated. The key map shall be oriented consistent with detail in the sheet, i.e. same north.
- B. The key map is to appear on every sheet showing proposed roadway, storm drainage or grading improvements. The roadway or area that the design pertains to shall be shaded.

**12.08.060 Title Block**

A title block is required on every sheet and cover sheet submitted for review and acceptance. The subdivision name and filing number; Planned Unit Development name (if applicable); the type of improvement; name, address, including zip code, and telephone number and name of the consulting engineer; name, address, including zip code, telephone number and name of the contact person for the developer; and sheet number (consecutive, beginning with the cover sheet) shall be included in the title block.

The title block shall be located in the extreme lower right hand corner, the right side margin, or along the bottom edge of the sheet.

**12.08.070 Acceptance Block**

All roadway construction plans, stormwater or other drainage improvement construction plans, and privately or publicly maintained stormwater detention or retention facility construction plans must show the acceptance signature of the designated representative of the Kittitas County Department of Public Works.

- A. Plans for traffic control during construction must be accepted prior to issuing construction permits.
- B. Signing/stripping plans require acceptance prior to issuing construction permits.
- C. The acceptance block shall be located in the lower right hand quadrant of the cover sheet.
- D. Acceptance block shall be as follows:

“These plans have been reviewed by Kittitas County Department of Public Works and have been accepted for complying with the requirements of Kittitas County Road Standards.

\_\_\_\_\_  
County Engineer

\_\_\_\_\_  
Date

**12.08.080 General Standards for Subdivision Final Construction Plans**

The following general standards shall be met for final construction plans.

- A. All road and storm water construction must conform to Kittitas County Road Standards current at the time of application. Any construction occurring four years or more after final approval shall require reexamination of the plans by the Engineer who may require that they be made to conform to standards and specifications current at that time.
- B. The applicant’s contractor shall give the Department of Public Works staff at least 24-hours advance notice before beginning road construction. Road paving or aggregate base course placement shall not start until the subgrade is proof rolled inspected and compaction test results for the subgrade and any utility trenches are submitted and approved by the County Engineer.
- C. The contractor shall obtain separate access, work in the right-of-way or franchise permits from Public Works before undertaking any construction work in the existing County right-of-way.
- D. All traffic control devices must conform to the Manual on Uniform Traffic Control Devices (MUTCD), current edition at the time of construction.
- E. Prior to release of collateral by Kittitas County the applicant must present a statement from a civil engineer licensed in the State of Washington that the project has been completed in substantial compliance with approved plans and specifications. The applicant’s engineer must document that regular on-site inspections were conducted during the course of construction, and the field plans utilized were the same as those approved by Kittitas County. The engineer shall also state quality control testing demonstrates compliance with the plans and specifications approved by Kittitas County. The applicant must also submit the following items prior to release of collateral or final approval:
  - 1. "As-built" plans for the improvements must be submitted with the road certification or at the time the letter requesting collateral release is submitted. The "as-built" plans must be clearly labeled as such, and must be signed and dated by a licensed civil engineer. They may

be design plan markups and must show any deviations from the approved plans. Release of collateral will not occur if the County Engineer determines deviations are present which have not received prior approval.

2. A letter or letters of acceptance and responsibility for maintenance of the improvements by the appropriate utility company, special district, city, or town for all utilities and roads.
3. A letter from the appropriate fire authority stating that fire hydrants are in place in accord with the approved plans. The letter shall also state that the fire hydrants are operational and provide the results of fire flow tests.
4. : Quality control test results must be submitted for all phases of the project in accordance with the schedule for minimum materials sampling, testing, and inspection as found in the WSDOT Materials Manual. The Department of Public Works shall review and approve a proposed schedule of testing before commencement of construction.

#### F. Phased Construction

1. Engineer drawn plans must be submitted and approved by the County for the entire development.
2. The construction may be phased. Final approval of a phase will be granted once the road is constructed and inspected or the construction is bonded.
3. Phased construction must result in a safe and usable facility at the end of the current phase. Temporary road construction or safety features may be required until the next phase is completed.

#### **12.08.090 Scale**

Scales listed are the minimum. More detailed scales may be required where necessary to clearly show details.

- A. Plan and profile plans: Horizontal 1"=50', Vertical 1"=5'.
- B. Master, preliminary, and final drainage plans; site plans, etc.: from 1"=50' to 1"=100'.

#### **12.08.100 Date of Plans**

The original date of the plans and any subsequent revisions must be shown in the title block.

#### **12.08.110 Seal and Signature**

The seal and signature of the applicant's engineer, under whose supervision the plans were prepared, shall be located next to the acceptance block on each sheet.

#### **12.08.120 Underground Utilities**

The type, size, location and number of all underground utilities shall be shown. Field verified elevations and locations may be required on the construction plans for all underground utilities that will potentially affect the design or construction. It will be the responsibility of the contractor to verify the existence

and location of all underground utilities along their route of work prior to commencing any new construction.

### **12.08.130 Private Improvements**

- A. Private improvements such as roadways, driveways, utilities, etc. shall be clearly shown and labeled as such on each sheet of the construction plans. The note below shall appear on the cover sheet of the construction plans for private improvements:

*Kittitas County shall not be responsible for the maintenance of roadway and appurtenant improvements, including storm drainage structures and pipes, for the following private roads: (list).*

- B. When a request is made for the County to assume maintenance of any private improvement, it shall be the responsibility of the person(s) making the request to satisfactorily demonstrate that the private improvement is in fact constructed in accordance with Kittitas County Road Standards.
- C. The County will review these requests under normal review procedures as outlined previously in these Standards in KCC 12.01.160.

### **12.08.140 Requirements for Road Plan and Profile Drawings**

In addition to the requirements set forth elsewhere in these Standards, the following information shall be shown on all roadway plans submitted for review and approval.

- A. Plan View - The plan view shall include, but not be limited to, the following:
1. Existing and proposed property and right-of-way lines, easements, tracts and irrigation ditch(s). Type and dimension of the easements or tracts are to be clearly labeled. Property lines and right-of-way lines are to be dimensioned.
  2. Survey lines and stations shall normally be based on centerline of street; other profiles may be included but shall be referenced to centerline stationing. Stationing is to be equated to flowline stationing at cul-de-sacs.
  3. Roadways and roadway names.
  4. Existing utilities and structures, including, but not limited to:  
Stormwater & appurtenances, fence lines & gates, water lines & appurtenances, irrigation, ditches or swales, electric lines & appurtenances, curbs and gutters, sewer lines & appurtenances, pavement limits, telephone lines & appurtenances, bridges or culverts, CATV lines & appurtenances, guardrails, signs, gas lines & appurtenances, etc.

5. Station and critical elevation (flowline, invert of pipe, etc.) of all existing and proposed utility or drainage structures. Location of utilities shall be dimensioned horizontally and vertically from roadway centerline profile grade.
6. Storm drainage flow direction arrows, particularly at intersections and all high and low points.
7. Match lines and consecutive sheet numbers, beginning with cover sheet.
8. Station and elevation of all horizontal curves including PI, PC's, PT's, etc.; high or low point and PI of all vertical curves; existing and proposed, centerline bearings, distances, and complete curve data.
9. Curb return radii, existing and proposed; stations and elevations of all curb returns; mid point elevations, flowline-flowline intersection elevations, and percent of grade from the PRC to flowline-flowline intersections of all crosspans.
10. Mid-block handicap ramp locations at tee intersections.
11. Centerline stations of all non-single family residential driveways and all intersecting roadways.
12. Survey tie lines to section corners or quarter corners, consistent with that shown on the plat.
13. Typical roadway cross section for all roadways, existing or proposed, within and adjacent to the proposed development. These cross sections shall appear on the detail sheet, or if no detail sheet has been used, on the first sheet of the submittal showing roadway design. They shall indicate type of roadway(s), profile grade design point (centerline, flow-line, top of curb, lip of gutter, etc.), roadway width, right-of-way, type of curb, gutter and sidewalk as required, pavement cross slope, pavement thickness, and structural material components of the pavement, base and subbase, together with specifications for treatment of subgrade and installation of pavement structural members.
14. Construction plans for any roadway improvements including intersections requiring signalized traffic control. The construction plans shall include construction and lane details for the new construction and existing facilities a minimum of 150 ft beyond the limits of construction.
15. Basis of plan view and profile elevations shall be the same, i.e. flowline and flowline, top of curb and top of curb, etc.

B. Profile

The profile shall include, but not be limited to, the following:

1. Original ground (dashed) and design grade (heavy, solid). Both grades are to be plainly labeled.
2. All design elevations shall be centerline, top of curb, or flowline (preferred) for 6 inches vertical curb and gutter; or back of sidewalk, lip of gutter, or flowline (preferred) for combination curb, gutter and walk. The basis of record drawing information shall be the same as the design (both flowline or both top of curb, etc.).
3. Stationing continuous for the entire portion of the roadway shown in the plan view, with the centerline station of all non-single family driveways and all intersecting roadways clearly labeled.
4. All existing curbs, gutters, sidewalks and pavement adjacent to the proposed design. Basis for existing grades shall be as-built elevations at intervals not to exceed 25 feet. Previously approved designs are not an acceptable means of establishing existing grades.
5. Elevation and location of all existing and new utilities in the immediate vicinity of the construction shall be shown on the plans.
6. Station and elevation of all vertical grade breaks, existing (as-built) and proposed.
7. Distance and grade between VPI's.
8. Vertical curves, when necessary, with VPI, VPC, and VPT, high or low point (if applicable) stations and elevations. All vertical curves shall be labeled with length of curve (L) and  $K=L/A$  where A is the algebraic difference in slopes, in percent.
9. Profiles for all curb returns (except medians).

C. Notes

In addition to other notes required in these Standards, the following notes shall appear on the cover sheet of all submittals containing roadway plans. If a cover sheet has not been used, they shall be put on the sheet of the plans containing roadway design criteria.

1. Inspection: Construction shall not begin until permits have been issued. If a Department of Public Works site inspector is not available after proper notice of construction activity has been provided, the permittee may commence work in the inspector's absence. However, Kittitas County reserves the right to not accept the improvement if subsequent testing reveals an improper installation.
2. Paving shall not start until the mix design is accepted by the County Engineer.
3. All stationing is based on centerline of roadways unless otherwise noted.

4. All elevations are on USGS DATUM with date. Point monument shall be shown on construction location plans.
5. Except where otherwise provided for in these plans and specifications, the most current editions of the WSDOT Standard Specifications and WSDOT Standard Plans shall apply.

### **12.08.150 Signing and Striping Plans**

- A. All traffic control devices shall be fabricated and installed in accordance with MUTCD, current edition at the time of construction.
- B. All signage and striping costs shall be borne by the applicant.
- C. Permanent signage and striping shall be complete and in place before any new roadway is opened to the public. Traffic signal installation and equipment shall conform to WSDOT Standards and Specifications. MUTCD requirements shall be met for signal installation. All subdivisions, road improvement projects, and commercial development must incorporate a separate signage and striping plan in accordance with the following criteria:
  1. Submittal - Separate signage and striping plans are to consist of an overall area map noting all specific use areas, such as schools, parks, recreation centers, library, commercial, industrial, etc. The pages following the area map are to be broken down into road segments, for notation of signage and striping details.
  2. Review Process - There are two steps the plans must undergo for review.
    - a. The first step of review is a redline markup. Requirements will be marked where necessary and the plans returned to the applicant's engineer.
    - b. Second, the revised plans and the marked preliminary plans must be resubmitted for final review with a signature box included for the County Engineer. If the final submittal is acceptable, the County Engineer will notify the applicant's engineer to send the mylar cover sheet of the plans for sign off.
    - c. Final plans shall, in all cases, be included along with the road construction plans, utility construction plans, grading and drainage plan, and the plat or plot plan.
  3. Sign Warrants - Traffic control devices which are not warranted by MUTCD shall not be installed. When MUTCD guidelines are not applicable for a given case, a traffic engineering study by the applicant's engineer will be required. This study will address the existing conditions, safety issues, and the applicable warrants.

### **12.08.160 Range Points/Property Monuments/Benchmarks**

- A. All monuments delineating right-of-way boundaries of property or witness thereof shall be set in accordance with this section and all applicable State of Washington laws and regulations.
- B. Any "aliquot corner" (section corner, quarter corner, etc.), as described in the Public Land Survey System, shall be monumented per Washington State Statutes. If such a corner falls within concrete or asphalt, a monument case and cover shall be installed to protect and provide access to said corner.
- C. If so desired, the applicant may install monument cases and covers in asphalt or concrete for property monuments, range points, benchmarks, etc., if the boxes comply with Kittitas County standards.

## **CHAPTER 9 – PUBLIC ROAD CONSTRUCTION CONTROL AND INSPECTION**

### **12.09.010 Basis for Control of the Work**

- A. Work performed in the construction or improvement of County roads, future county roads, whether by or for a private developer, by County forces, by County contractor or by private contractor, shall be done in accordance with Kittitas County Road Standards and approved plans (KCC 12.08). **IT IS EMPHASIZED THAT NO WORK MAY BE STARTED UNTIL SUCH PLANS ARE APPROVED.** Any revision to such plans shall be approved by the County Engineer before being implemented.
- B. The County Engineer will have authority to enforce the Standards as well as other referenced or pertinent specifications. He will appoint project engineers, assistants and inspectors as necessary to inspect work and they will exercise authority as the County Engineer may delegate.
- C. Provisions of Section 1-05 of the WSDOT Standard Specifications, most recent edition, shall apply, with the term "Engineer" therein construed to be the County Engineer as defined in KCC 12.02.020.

### **12.09.020 Subdivision, Commercial and Right-of-Way Development Inspection**

On all road and drainage facility construction open to the public or maintained by the public, proposed or in progress for adoption onto the county road system, which relates to subdivision, commercial and right-of-way development, control and inspection will be done by the Department of Public Works. Unless otherwise instructed by the County Engineer, construction events which require monitoring or inspection are identified as follows, with prior notification to the Department of Public Works office (Telephone 509-962-7523).

- A. Preconstruction Conference: Three working days prior notice. Conference must precede the beginning of construction and include contractor, designing engineer, utilities and other parties affected. Plan approvals and permits must be in hand prior to the conference.

- B. Clearing and Temporary Erosion/Sedimentation Control: One working day notice prior to initial site work involving drainage and installation of temporary water retention/detention and siltation control. Such work to be in accordance with the approved plans.
- C. Utility and Storm Drainage Installation: One working day notice prior to trenching and placing of storm drainage systems.
- D. Utility and Storm Drainage Backfill and Compaction: One working day notice before backfill and compaction of storm drainage systems.
- E. Subgrade Completion: One working day notice at stage that underground utilities and roadway grading are complete, to include placement of gravel base if required. Inspection to include compaction tests and certifications described in KCC 12.08.
- F. Curb and Sidewalk Forming: One working day notice to verify proper forming and preparation prior to pouring concrete.
- G. Curb and Sidewalk Placement: One working day notice to check placement of concrete.
- H. Crushed Surfacing Placement: One working day notice to check placement and compaction of crushed surfacing base course and top course.
- I. Paving: Three working days notice in advance of paving with asphalt or Portland cement concrete.
- J. Structural: Three working days notice prior to each of critical stages such as placing foundation piling or footings, placement and assembly of major components, and completion of structure and approaches. Tests and certification requirements will be as directed by the County Engineer.
- K. Final Inspection: Five working days prior to overall check of roadway or drainage project site, to include completion of paving and associated appurtenances and improvements, cleaning of drainage system and all necessary clean-up. Prior to approval of construction work, acceptance for maintenance and release of construction performance bonds, the developer/contractor shall pay any required fees, submit any required maintenance and defect financial guarantees, provide certification of monumentation and submit one mylar set of corrected plans (as-built) reflecting all minor and design plan changes of the roadway and drainage systems. The Department of Public Works shall specify the number of mylar sets as warranted by the type of improvement. Mylars shall not have any shading or adhesive addition in any areas. If original plans were completed on a CADD system, the developer/contractor shall submit, in addition to mylars, a copy of the CADD drawing files in .DWG format.
- L. Final Maintenance Inspection: 30 days prior to the end of the maintenance period. Prior to release of the maintenance guarantee, there shall be successful completion of the maintenance period as described in KCC12.01.150, repair of any failed facilities and the payment of any outstanding fees.

- M. Quality Control: Contractor shall retain the services of an independent testing agency to perform quality control/quality assurance (QC/QA). Inspection reports and testing results shall be submitted to the Department of Public Works before close of the next working day.

**12.09.030 Penalties for Failure to Notify for Development Inspection**

Timely notification by the developer as noted is essential for the County to verify through inspection that the work meets the standard. Failure to notify in time may oblige the County to arrange appropriate sampling and testing after-the-fact, with certification either by a qualified private engineer or by County personnel. Costs of such testing and certification shall be borne by the developer. If the County Engineer requires further sampling, testing or certification, further work on the development may be prohibited or limited until all directed tests have been completed and corrections made to the satisfaction of the County Engineer. If necessary the County may take further legal actions.

**12.09.040 Embankment Construction Control in Developments**

The provisions of Section 2-03 of the WSDOT Standard Specifications apply in all respects to development construction unless otherwise instructed by the County Engineer. The following elements are cited for clarification and emphasis:

A. Embankment and Cut-Section Compaction:

Compaction of all fill subgrade and the top six inches of cut native subgrade shall meet a minimum 95% of maximum density in accordance with WSDOT Standard Specifications Section 2-03.3(14)C - Method B.

B. Testing for Density:

1. Prior to placing any surfacing material on the roadway, it will be the responsibility of the developer or contractor to provide density test reports certified by a civil engineer licensed in the State of Washington. Optimum moisture content and maximum density shall be determined by methods cited in Section 2-03.3(14)D of WSDOT Standard Specifications or by other tests approved by the County Engineer. In fill sections a minimum of one test shall be taken every 1,000 cubic yards or fraction thereof and on each lift of embankment. In cut sections the interval shall be every 100 feet of roadway. For work to be accepted, tests must show consistent uniform density as required by the tests referenced above.
2. In cases where tests do not meet the minimum standard, corrective action shall be taken such as adding water, aerating, replacing material or applying more compactive effort as directed by the applicant's engineer. Retests shall show passing densities prior to placing the next lift of subgrade fill.

C. Finishing Subgrade:

After subgrade preparation has been completed, it shall be thoroughly checked by the developer or contractor using a level, string line, crown board or other means to determine that the subgrade conforms to the typical section or special plan conditions prior to placing any surfacing material.

**12.09.050 Traffic Control in Development Construction**

A. Interim Traffic Control:

The applicant's contractor shall be responsible for interim traffic control during construction on or along traveled County roadways. When roadway or drainage work is to be performed on County roadways that are open to traffic, the contractor will be required to submit a traffic control plan for approval by the County Engineer prior to beginning the work. Traffic control shall follow the guidelines of Section 1-07.23 of the WSDOT Standard Specifications. All barricades, signs and flagging shall conform to the requirements of the MUTCD. Signs must be legible and visible and should be removed at the end of each workday if not applicable after construction hours.

B. Temporary Road Closures and Detours:

When temporary road closures cannot be avoided the contractor shall post "To Be Closed" signs and place a legal notice in the newspaper a minimum of five working days prior to the closing. The types and locations of the signs shall be shown on a detour plan. A detour plan must be prepared and submitted to the Department of Public Works at least 10 working days in advance of the proposed closure, and approved prior to closing any County roadway. In addition, the contractor must notify, in writing, local fire, school, law enforcement authorities, postal service and any other affected persons as directed by the County Engineer at least five working days prior to the closing.

C. Haul Routes:

The County Engineer may require the contractor to submit a pavement analysis of the proposed haul route, prior to and immediately after construction ends. The pavement analysis shall be performed by a engineer licensed in the State of Washington. If the final pavement analysis determines that the roadway has been damaged, the contractor shall be responsible for restoration of the roadway.

If the construction of a proposed development is determined by the County Engineer to require special routing of large trucks or heavy construction equipment to prevent impacts to surrounding roads, residences or business, the contractor shall be required to develop and use an approved haul route.

When required, the haul route plan must be prepared and submitted to the County Engineer and approved prior to beginning or continuing construction. The haul route plan shall address routing, hours of operation, signing, flagging and daily maintenance.

If the contractor's equipment or suppliers fail to use the designated haul route, the Engineer may prohibit or limit further work on the development until such time as the requirements of the haul route are complied with.

D. Haul Road Agreement:

When identified as a need by the SEPA review process or by the County Engineer, a haul road agreement shall be obtained by the franchised utility, developer or property owner establishing restoration procedures to be performed upon completion of the haul operation.

**12.09.060 County Forces and County Contract Road Inspection**

Road construction performed by County forces or by contract for the County will be inspected under supervision of the County Engineer.

**12.09.070 Call Before You Dig**

Developers and contractors are responsible for notification of utilities a minimum of two working days in advance of any excavation, or as required by RCW 19.122. The utility One-Call Center phone number **1-800-424-5555** or **811** should be prominently displayed at the work site. Notifications may also be entered online at [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org).

**Chapter 12.10 TRANSPORTATION CONCURRENCY MANAGEMENT**

**12.10.010 Purpose**

The purpose of this chapter is to ensure that adequate transportation facilities are available or provided concurrent with development, in accordance with the Growth Management Act (RCW 36.70A.070) and consistent with WAC 365-195-510 and 365-195-835. No development permit shall be issued except in accordance with this chapter.

**12.10.020 Authority**

The public works director, or his/her designee, shall be responsible for implementing and enforcing this chapter.

**12.10.030 Level of Service Standards**

The transportation level of service standards for purposes of concurrency review are described and contained in the Kittitas County Comprehensive Plan, Long Range Transportation Plan and any adopted modifications.

**12.10.040 Concurrency Evaluation**

- A. The County review of all applications for development permits shall include a concurrency evaluation.
- B. The County shall monitor what the impact of approving concurrency will be on the capacity of transportation facilities.
- C. A concurrency evaluation shall be required for all development applications in which the proposed development is projected to have an impact upon any affected transportation corridor or intersection. A transportation impact analysis (TIA) shall be required for all development that will generate more than nine (9) peak hour vehicle trips unless the requirement for a study has been waived by the Public Works director.
- D. The TIA shall be prepared by and/or under the supervision of a registered engineer in the State of Washington.
- E. To establish the scope of the TIA, the applicant shall follow the Public Works Department TIA guidelines and shall provide a preliminary, limited scope analysis documenting the estimated trip generation and distribution for the proposed development application. The director or his designee will review and adjust, if necessary, this information for use in establishing the analysis locations for the TIA for the concurrency evaluation. The TIA shall, at a minimum, provide the following information for the identified concurrency locations:
  - 1. Number of peak hour trips generated by the development according to the ITE trip generation manual or other method approved by the director;
  - 2. Anticipated trip distribution;
  - 3. The current calculated level of service of all impacted transportation facilities;
  - 4. The future calculated level of service of all impacted transportation facilities, as identified by the county, incorporating traffic volumes from the proposed development;
  - 5. Any proposed mitigation; and
  - 6. The future calculated level of service of all impacted transportation facilities with the incorporation of proposed development traffic volumes and any proposed mitigation.
  - 7. Any adverse effects or safety hazards that are created or worsened by trips generated by the development and the effect these trips may have on the structural integrity of the transportation facilities.
- F. The TIA shall be based on traffic counts obtained within twelve (12) months of the fully complete date of the development application as determined under Section 15A.03.040.

The traffic counts shall reflect representative traffic conditions within transportation corridors and at intersections.

- G. The Public Works director reserves the right to require an applicant to provide data and/or analysis as part of a particular TIA, where the Public Works director determines that additional information or analysis is required to implement the standards and requirements contained in this section.
- H. The concurrency evaluation and determination shall be completed prior to:
  - 1. Issuance of administrative approval/denial of the project permit if SEPA review is not a requirement of the project; or
  - 2. Issuance of the DNS, MDNS or DS if SEPA review is a requirement of the project; or
  - 3. Issuance of the staff report to the hearings examiner if there is a hearing before the hearings examiner and SEPA review is not a requirement of the project.
- I. Development permits for phased developments shall have the concurrency evaluation completed for the entire project. A developer may elect to have the concurrency evaluation undertaken for less than the entire project if and only if:
  - 1. The director agrees to such limited evaluation; and
  - 2. Each phase shall include all of the infrastructure to service that phase; and
  - 3. There is a written note included in the preliminary approval for such phased development that the traffic concurrency evaluation is limited only to the specific phases for which approval has been provided.
- J. Upon the written request of an applicant, the Public Works director may waive the requirement for a TIA where potential transportation impacts upon the affected transportation corridor(s) and/or intersections have been adequately analyzed in prior research or reports and/or are not projected to cause a reduction in the operating level of affected transportation corridors and/or intersections. Applicants must provide justification for their request to include, but not be limited to, the number of trips that will be generated by the development, where these trips will access transportation facilities, and the distribution of the trips when entering onto transportation facilities at multiple access points.
- K. The County may undertake an independent TIA to confirm or revise the results of the applicant's TIA.
- L. The County may reserve capacity on its transportation facilities for future developments considered high priority by the County.

### **12.10.050      Concurrency Determination**

The county shall not approve a development permit unless there are adequate transportation facilities to meet the level of service standards for existing and approved uses, based on the forecast peak hour traffic volumes and the committed transportation system. Concurrency requires adequate transportation facilities to be in place at the time of development or that a financial commitment is in place to complete the improvements or strategies needed for adequate transportation facilities within six years.

- A. If the concurrency evaluation shows that the ratio of the forecast peak hour traffic volume to the capacity of each transportation facility is equal to or less than the adopted level of service standard for each impacted transportation facility, the director shall issue a determination of concurrency finding, according to the provisions of KCC 12.10.060. This determination of concurrency finding shall include a certificate of transportation capacity for developments that are expected to generate more than nine (9) peak hour vehicle trips.
- B. If the concurrency evaluation shows that the ratio of the forecast peak hour traffic volume to the capacity of any transportation facility exceeds the adopted level of service standard for any impacted transportation facility, the concurrency test is not passed and the director shall notify the applicant in writing of the denial finding. The applicant may:
  - 1. Amend the application within 90 days in such a way to ensure that the ratio of the forecast peak hour traffic volume to the capacity of each transportation facility does not exceed the adopted level of service standard for each impacted transportation facility. To meet the foregoing, amendments may include one or more of the following:
    - a. Modify the project to reduce the impact on affected facilities;
    - b. Phase the project to coincide with planned improvements that will ensure concurrency;
    - c. Mitigate the impacts of the project to ensure concurrency;
    - d. Arrange with the service provider to provide the additional capacity of facilities required; and/or
    - e. Propose transportation strategies that will reduce the demand for capacity;
  - 2. Ask the director for formal reconsideration of the concurrency evaluation in accordance with the provisions of KCC 12.10.070;
  - 3. Withdraw the application and reapply for an evaluation when concurrency can be ensured; or
  - 4. Appeal the denial or imposition of conditions per KCC 15A.07 or KCC 15A.08, based on the underlying land use decision in accordance with Ch. 36.70B RCW.

### **12.10.060      Determination of Concurrency Finding**

- A. A determination of concurrency finding shall be issued by the County for the development permit for which a concurrency evaluation was conducted. If applicable, payment of a fee shall be a condition prior to issuing the determination of concurrency finding.
- B. The determination of concurrency finding will include a certificate of transportation capacity for proposed developments that are expected to generate more than nine (9) peak hour vehicle trips. This certificate shall apply only to the specific land uses, densities, intensities and development projects described in the approved development permit. In the event that, subsequent to issuance of the certificate, the approved development is modified to generate lower traffic impacts on the transportation system, the certificate shall be modified to reflect the reduced traffic impact. In no event shall the certificate of transportation capacity be for a greater amount of capacity than is needed for the development proposed in the underlying permit application, except as provided for phased development.
- C. Phasing. The determination of concurrency finding shall be issued for all phases of a development permit, except when the conditions set forth in KCC 12.10.040(I) have been fulfilled. In this case the certificate shall be conditioned to note that certificates are required for future phases. The certificate shall specifically identify the amount, extent and timing of any required traffic mitigation.
- D. Transferability. A certificate of transportation capacity is not transferable to other land. The certificate of transportation capacity, once issued, shall become part of the development permit and shall be transferred to new owners of the original land, if and only if the development permit is so transferred to the new owners.
- E. Capacity Allocations. The applicant may, as part of a development permit application, designate in writing the amount of capacity to be allocated to portions of the property, such as lots, blocks, parcels, or tracts included in the application. Any such allocation shall be reflected in the certificate of transportation capacity. Capacity may be reassigned or allocated within the boundaries of the original property by application to the director. The director shall amend the certificate accordingly.
- F. Life Span of Certificate. A certificate of transportation capacity shall expire when the accompanying development permit expires or is revoked. The certificate may be extended according to the same terms and conditions as the accompanying development permit. If the development permit is granted an extension, so shall the certificate of transportation capacity. If the accompanying development permit does not expire, the certificate of transportation capacity shall be valid for four years from the date of issuance. The director may approve an extension of up to one year.
- G. Unused Capacity. Any capacity that is not used because the developer voluntarily surrenders the certificate, decides not to develop, or the accompanying development permit expires, shall be returned to the available pool of capacity.

**12.10.070 Administrative Reconsideration**

- A. The applicant may request reconsideration of the results of the concurrency evaluation within 15 days of the written notification of the evaluation results by filing a formal request for reconsideration specifying the grounds thereof, using forms authorized by the department.
- B. The director shall reconsider the evaluation results and issue a determination within 30 days of the filing of such request either upholding the original determination or amending it.
- C. The results of an administrative reconsideration may be appealed as provided by KCC 12.10.050(B)(4).

**12.10.090 Definitions**

- A. "Adequate transportation facilities" means transportation facilities which have the capacity to serve development while meeting the county's established level of service standards.
- B. "Calculated level of service" means the ratio of the forecast peak hour traffic volume to the capacity of a transportation facility.
- C. "Capacity" means the estimated directional rate of traffic flow that can be accommodated by a given transportation facility within the peak hour and is expressed in terms of vehicles per hour. The capacity used in the concurrency evaluation is defined by the county and based on the committed transportation system.
- D. "Capacity allocation" is a measure of the traffic generated by a development that is assigned to use a transportation facility.
- E. "Capacity pool" is a measure of the remaining capacity available on a transportation facility that can be allocated to future developments.
- F. "Certificate of transportation concurrency" is the final document issued by Kittitas County, confirming availability and reserving capacity on the county's transportation facilities specific to the proposed development or development permit.
- G. "Committed transportation system" means the system of transportation facilities used to calculate the level of service relative to a development proposal. It includes existing transportation facilities and proposed facilities which are fully funded for construction in the most currently adopted six-year transportation improvement program or for which voluntary financial commitments have been secured in an amount sufficient to complete the particular facility improvement. The county may make adjustments to the committed transportation system for corrections, updates, and modifications concerning costs, revenue sources, acceptance of facilities pursuant to dedications consistent with the adopted Comprehensive Plan, or the date of construction (scheduled for completion within the six-year period) of any facility enumerated in the six-year transportation improvement program. The committed transportation system includes:

1. County roads;
  2. State highways and freeways within the county;
  3. Bus routes;
  4. Park and ride lot locations;
  5. Trails, pathways, or other nonmotorized transportation facilities;
  6. High occupancy vehicle exclusive lanes; and
  7. Projects to be provided by the state, cities or other jurisdictions may become part of the committed transportation system upon decision of the county.
- H. “Change in use” means a modification to an existing building or site to accommodate a more intensive use. A change in use is subject to concurrency determination for the new increase in traffic only.
- I. “Concurrency” means that adequate transportation facilities are in place at the time of development or that a financial commitment is in place to complete the improvements or strategies needed for adequate transportation facilities within six years.
- J. “Concurrency evaluation” means the process to determine if a proposed development’s impact on transportation facilities meets the county’s level of service standards set for those affected roadways, as defined in this chapter.
- K. “Determination of concurrency” means a determination by the director based on a concurrency evaluation that shows that the development’s impacts on the transportation system will not result in the level of service of a transportation facility falling below the adopted level of service standard for the facility.
- L. “Department” means the Kittitas County Department of Public Works.
- M. “Development permit” means any order, permit or other official action of the county granting, or granting with conditions, an activity that requires federal, state, or local approval for the use or modification of land or its resource. These activities include, but are not limited to, subdivision and short subdivisions; binding site plans; planned unit developments; variances; shoreline substantial development; and conditional use permits. Building or construction permits are not considered for a concurrency determination unless they create a more intensive change in use because the lot sites for building or construction permits have already been evaluated for concurrency during the lot creation process.
- N. “Development units” means the proposed quantity of development measured by dwelling units for residential development and square feet for specific nonresidential use categories, which are the basis of the calculations of level of service for the determination of concurrency.

- O. "Director" means the public works director, or his/her designee.
- P. "Financial commitment" consists of the following:
1. Revenue designated in the most currently adopted six-year transportation improvement program for transportation facilities or strategies comprising the committed transportation system. Projects to be used in defining the committed transportation system shall represent those projects that are identified as funded for construction in the six years of the six-year transportation improvement program;
  2. Revenue from federal or state grants for which the county has received notice of approval; and
  3. Revenue that is assured by an applicant in a form approved by the county in a voluntary agreement.
- Q. "Forecast peak hour traffic volume" means a forecast peak hour traffic volume that includes existing traffic, ambient traffic growth, traffic from other future development projects that were applied for prior to the subject development application based on Kittitas County records, and the traffic anticipated from the subject development.
- R. "Growth Management Act" means the Washington State Growth Management Act ([Chapter 36.70A](#) RCW) and any adopted amendments.
- S. "ITE trip generation manual" means the manual prepared by the Institute of Transportation Engineers, latest edition, for the purpose of assigning numbers of vehicle trips associated with various land uses.
- T. "Level of service standard" means the transportation level of service standard as adopted in the Kittitas County Comprehensive Plan based on the ratio of forecast peak hour traffic volumes to capacity.
- U. "Mitigation" means transportation demand management strategies and/or facility improvements constructed or financed by a developer which fully offset the subject development's impacts to a facility so that: a.) The level of service for a transportation facility with a preexisting level of service deficiency is not further degraded; or b.) The level of service for a transportation facility without a preexisting level of service deficiency is not reduced below the approved level of service.
- V. "Peak hour project trips" means the traffic estimated by a traffic engineer to be generated by a proposed development during the one-hour period during which the greatest volume of traffic uses the road system.
- W. "Peak hour traffic" means traffic volumes during the one-hour period during which the greatest volume of traffic uses the road system, as identified separately for each segment of a transportation facility.

- X. "SEPA" means the State Environmental Policy Act (Chapter 43.21 RCW) as implemented by Kittitas County.
- Y. "Service provider" means the jurisdiction, department or agency responsible for providing the facility.
- Z. "Six-year transportation improvement program" means the expenditures programmed by the county for capital purposes over the next six-year period in the six-year transportation improvement program pursuant to RCW 36.81.121
- AA. "Traffic engineer" means an engineer licensed in the state of Washington qualified to perform traffic impact analyses.
- BB. "Transportation facilities" means all principal arterials, minor arterials, collector arterials, major collectors, minor collectors and local accesses in Kittitas County as defined in KCC 12.03.
- CC. "Transportation strategies" means transportation demand management strategies and other techniques or programs that reduce single-occupant vehicle commute travel or improve the capacity of a transportation facility and that are approved by the director. Strategies may include but are not limited to vanpooling, carpooling, public transit, access management, signalization and channelization.

**(MOVED TO CHAPTER 4)**