Docket No.	Project Name	Brief Description of Suggested Amendment	Who Suggested Amendment	Staff Lead	Staff Recommendation
15-04	KCC Title 12 Roads and Bridges	Road standards update, including amendments to the timing of improvements, storm water, road design and road certifications.	Commissioner Jewell	Public Works	Approve

Summary

The road standards were last updated in September, 2005. This revision includes changes throughout the document to clarify and correct, including:

- The timing of road construction is changed to be required prior to final approval, or be bonded.
- The road variance process is updated to include new appeal process and criteria.
- Bonding requirements are updated to allow all types of guarantees for private or public development.
- Development regulations within UGA's are updated to require city road and utility standards regardless of pre-annexation agreements.
- Driveway width is increased to comply with KCC 20 Fire and Life Safety.
- Private road certification process is explained and clarified.
- Stormwater regulations are updated to comply with state regulations.
- Bridge construction requirements are clarified.
- Access permit process is updated.

Draft of Amended Text

KITTITAS COUNTY PUBLIC WORKS

PROPOSED ROAD STANDARDS

September 11, 2015

Table of Contents

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; ~~and~~

2. Establish uniform criteria to guide the County's own construction of new County roads or reconstruction of existing roads; and

3. ~~These standards are intended to~~ S~~s~~upport 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 ~~needed~~ 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 ~~to be~~ measured.

The Standards cannot provide for all situations. They are intended to assist but not ~~to~~ 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~~, however,~~ 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~~land use development~~ 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 ~~land use development road,~~ public or private roads ~~or other 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~~or~~ noncompliance suits ~~may be commenced~~ for damages ~~resulting~~ to ~~the~~County roads or rights-of-way ~~of the County due to noncompliance~~.

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. ~~Any Land-use application on file with the County prior to the date of adoption of these standards shall be vested under the standards applicable at the time of application.~~ In the event of conflict with the current subdivision and zoning codes, ~~Kittitas County Code~~ KCC Titles~~Chapters~~ 16 and 17, these Standards shall control. These S~~s~~tandards do not apply to S~~s~~tate or F~~f~~ederal roads. If roads are required to be built to public standards and are inspected and certified as such, the County may~~will~~ accept these roads onto the County Road system for continued maintenance, subject to limitations as addressed in KCC 12.01.17~~8~~0.

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~~O~~ Transportation (WSDOT), as amended; however, the Director may at his discretion consider the Standards as optional goals for 3R projects. ~~The Standards shall not apply to new or planned utility facilities and emergency or non-emergency replacement of existing utility structures within Kittitas County right-of-way.~~ 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~~may~~ 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 ordinance ~~resolution~~ following a public hearing.

~~One year from the date of acceptance the Planning Commission and the Board of County Commissioners shall hold public hearings, and annually thereafter for the purpose of reviewing the Standards and receive public comment regarding any issues that have developed from the adoption of these standard~~

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 ~~the Specific Roadway Standards~~Kittitas County Road Standards. An approval by the County does not relieve the ~~owner, owner's engineer, or~~ developer from final responsibility of insuring ~~that the~~all calculations, plans, specifications, construction, and as-built drawings are in compliance with this title as stated in the developer's ~~owner'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, ~~comfort, morals, convenience, prosperity,~~ and welfare of the residents of ~~the~~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. ~~This exception shall be subject to the conditions and limitations under which the Engineer accepted said plans.~~

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~~, within each agency's documentation,~~ shall be interpreted to mean "~~c~~County ~~r~~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.~~these shall be incorporated into this document after the due process and public hearing(s) required to modify this title.~~

12.01.090 Responsibility to Provide Roadway Improvements~~.~~

A. ~~A.~~ Any ~~parcel creation,~~land use development activity which will impact the Level of S~~s~~ervice (LOS) ~~level~~, 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~~n~~ concurrency analysis ~~assessment by the County of the impacts~~ of the proposed land use development impacts. The concurrency analysis shall be prepared in accordance with KCC 12.10.

~~B.~~ Any ~~parcel creation~~land use development activity abutting and impacting existing roads shall improve the frontage of those roads in accordance with these S~~s~~tandards. 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 ~~the assessment by the County~~a concurrency analysis ~~of the impacts~~ of the proposed land use development impacts ~~-~~in accordance with KCC 12.10 ~~stated in Section A. above~~. ~~Short plats within the UGA creating only one additional lot to a tax lot with an existing dwelling unit are exempt from providing urban type street improvements but are subject to shoulder improvements providing these improvements are consistent with surrounding roads and do not present a safety problem.~~

B.

C. ~~C. Any land development or parcel creation that contains internal roads shall construct or improve those roadways to these Standards~~ 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.

When a performance guarantee is provided, building permits will not be issued until road construction is completed to the minimum requirements of the International Fire Code and certified by a civil engineer licensed in the State of Washington. Commercial occupancy permits

will not be issued until road construction is completed and certified by a civil engineer licensed in the State of Washington.

A final acceptance inspection by the Department of Public Works is required prior to acceptance of the road certification. Any noted deficiencies must be corrected prior to final acceptance.

D. ~~D. It is the County's practice that it will not allow subdivisions to be recorded unless there exists~~ Subdivisions will not be approved unless a recorded continuous public or private access easement or right-of-way to the subdivision exists. ~~Nor will the County accept a road for maintenance until the road is directly connected to a County or other publicly maintained road.~~

E. ~~E.~~ 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.

F. ~~E.~~ All public road improvement and development projects within ~~an~~ UGAs shall include pedestrian access as a part of the design in accordance with the appropriate ~~C~~city's standard~~,~~. ~~provided a pre-annexation agreement between the applicant and the appropriate City has been entered into and requires the same.~~

G. ~~F.~~ 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.

H. ~~G.~~ 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.

I. 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:
A second access is required if more than 40 lots/units will use the private road.

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.

The number of lots calculation is based on the total number of lots or units served by the entire private road system, beginning at the nearest public road.

~~At least two ingress-egress routes which are interconnected are required for all roads that serve more than 40 lots.~~

~~A.~~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.

~~B.~~

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.

~~A.~~I. All signs, signal markings, or other devices intended to regulate, warn, or guide traffic and installed or maintained on private property shall conform 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~~ninety~~ feet. Lot corners shall be rounded by an arc, the minimum radius of which shall be not less than 35 feet at street intersections.~~, or as required by the WSDOT Design Manual.~~

~~C.~~L. All ~~parcel creations~~land use development activities that access property over private lands, public lands, or road easements managed by other agencies must submit a~~n approved~~ 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 ~~or~~ limitations. ~~-~~These ~~easements and permits~~agreements shall be presented to the Department of Public Works ~~or recorded~~ prior to ~~-~~ preliminary approval. ~~final~~

~~B.~~M. ~~Irrigation and delivery water shall be relocated to the utility easement alongthe existing county road. Additional easement width may be required to accommodate the delivery or tail water. Irrigation water shall not be conveyed or drained into a new county road right- of- way.~~ 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 ~~the~~a Ccounty right ~~-~~of ~~-~~way or any piped irrigation water within the County right-of-way.

~~D.~~N. All roads crossing an irrigation ditch or canal shall have a crossing agreement with the ditch owner or irrigation entity.

~~C.~~O. All new roads shall conform to the Kittitas County Long-Range Transportation Plan~~, when published~~.

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, ~~when~~ current edition as amended~~when adopted~~.

D. Adopted Community Plans.

E. ~~Kittitas County Non-Motorized Transportation Plan, when adopted.~~

~~F.~~ Kittitas County Capital Improvement Program, current edition as amended.

~~F. Kittitas County Growth Management Program.~~

F~~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. ~~separately by the Washington State Department of Transportation (WSDOT) or jointly by WSDOT and American Association of State Highway and Transportation OFFICIALS (AASHTO).~~

A. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, current edition as amended~~. These will~~, to be referred to as the "WSDOT Standard Specifications."

B. ~~The~~ WSDOT Standard Plans ~~for Road and Bridge Construction,~~ current edition as amended, ~~to be referred to as the "WSDOT Standard Plans", Current edition as amended.~~

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 ~~which~~ 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~~, WSDOT~~, current edition as amended.

~~B.~~ WSDOT Guidelines for Urban Arterial Program~~, WSDOT~~, current edition as amended.

C. WSDOT Pavement Guide, Volume 1 – Pavement Policy, current edition as amended.

D.~~C.~~ Design criteria of federal agencies including the Federal Housing Administration, US Department of Housing and Urban Development~~, and the~~ Federal Highway Administration, ~~-~~ and US Department of Transportation.

E.~~D.~~ A Policy on Geometric Design of Highways and Streets, ~~American Association of State Highway and Transportation Officials (~~AASHTO~~)~~, current edition as amended.

F.~~E.~~ Standard Specifications for Highway Bridges, adopted by ~~the American Association of State Highway and Transportation Officials (~~AASHTO~~)~~, current edition as amended.

G.~~F.~~ Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), current edition as amended and adopted by WSDOT. ~~U. S. Department of Transportation Manual on Uniform Traffic Control Devices, as amended and approved by Washington State Department of Transportation, abbreviated as the "MUTCD" current edition.~~

H.~~G.~~ Guide for the Development of Bicycle Facilities, ~~adopted by~~ AASHTO, current edition as amended.

~~H. City and County Design Standards for the Construction of Urban and Rural Arterials and Collectors in Washington State, current edition.~~

I. Guidelines for the Geometric Design of Very Low-Volume Local Roads (ADT<400), ~~adopted by the American Association of State Highway and Transportation Officials (~~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, ~~Director of~~ Community Development Services representative, Fire Marshal~~l~~, 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 be 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 ~~such~~ the variance demonstrates the following~~s are~~:

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 developer 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 developer; 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.

~~Financial gain is not the ground or grounds for the variance;~~

~~in the public interest, and that requirements for safety, function, fire protection, appearance and maintainability based upon sound engineering judgment are fully met. Variances from the standards in this title will be considered on a case-by-case basis. If the developer, contractor, utility responsible to the County for improvements desires to design and construct such improvements in variances to these standards, such variance(s) shall be identified in a written attachment to the initial submittal of construction plans or Subdivision Application.~~

The variance request(s) shall consist of:

A. Variance fee.
B. Variance application.

~~D.~~C. Identification of the standard provision to be waived or varied.
~~E.~~D. Identification of the alternative design or construction standards to be adhered to.
~~F.~~E. A thorough justification of the variance request. ~~including impact on capital and maintenance requirements and cost.~~

Requests may be prepared by the ~~applicant~~developer, ~~or~~ 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.~~upon review and denial of the variance by the Road Variance Committee, the developer may appeal to the Board of County Commissioners (BOCC)The developer shall make appeal to the BOCC within 15 days from receipt of denial from the Director of Public Works. All notices and appeals shall be in writing.~~

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 ~~is equal to or exceeds the minimum~~ requirements set forth in these ~~s~~Standards.

12.01.150 Performance Guarantees~~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:~~CONSTRUCTION PERFORMANCE GUARANTEES:~~

In lieu of the completion of any required public or private improvements prior to final approval of a ~~final plat, short plat or other~~ land-use development activity~~action~~, 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~~design~~, construction and installation of such improvements within two years of final approval.~~a period specified by the Director.~~ 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.~~ If a surety bond, letter of credit, or cash is provided ~~for public or private roads~~, the amount ~~of the bond~~ covered shall equal ~~one hundred and thirty five~~ ~~(~~135%~~)~~ of the estimated design and construction cost. ~~When a letter of escrow or cash is used, which will be acceptable only for public roads, the amount covered shall be for one hundred fifteen percent (115%) of the estimated design and construction cost.~~ The estimated costs must be ~~as~~ reviewed and concurred by the County Engineer~~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.

~~Building Permits will not be issued until road construction is completed or bonded to the subject dwelling or structure and approved by the County or a licensed professional engineer.~~ The developer is legally and financially responsible for ensuring all roads are constructed in accordance with this code.

B. Maintenance Performance Guarantees~~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 ~~F~~final ~~C~~construction ~~A~~approval of existing facilities ~~(which ever is last)~~. The amount of the maintenance guarantee shall be ~~ten (~~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 Public Road System**~~

~~**A. General**~~

~~The Washington Revised Code (RCW 36.75.010) defines public roads as every highway or part thereof, outside the limits of incorporated cities and towns which has not been designated as a state highway orroads over private lands that have been dedicated to the public deed and accepted by the Board of County Commissioners, so long as no vacation of the road has occurred.~~

~~Public roads may or may not be maintained by the County. Kittitas County maintains only those roads, which the BOCC, by written resolution, has agreed to maintain.~~

~~The State statutes have vested Kittitas County with powers, if they so choose, to maintain, lay out, alter, add, delete, acquire property, and regulate traffic on the public roads under its jurisdiction.~~

12.01.160~~170~~ New County Roads

A. General

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

The initial approval of subdivision road construction by the County Engineer is for purposes of releasing the ~~applicant~~developer's ~~D~~development collateral and not for purposes of acceptance by the County for maintenance. The ~~applicant~~developer 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 ~~will generally~~may bring a road onto the county road maintenance system if the new road has a potential ADT greater than 400, ~~and~~ is a through road or the road is identified in the Long-Range Transportation Plan as a future corridor.~~, either to another county road or looped back at the appropriate spacing. The County will not normally consider taking on subdivision internal roads or~~c~~Cul-De-Sacs. Provided, however,~~

For roads serving proposed developments, the County shall determine which roads, if any, are intended to be added onto the ~~C~~county road system at the planning ~~or preliminary approval~~ 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 ~~P~~private ~~R~~roads.

B. Preliminary and Final Acceptance

For unconstructed roads or roads needing improvements to meet public road standards that are not part of a preliminary plat or project requiring a public hearing, the developer shall petition the BOCC by submitting an on system county road establishment application prior to construction. If approved, the road will be accepted onto the county road system upon an approved final inspection as defined in KCC 12.09.020(K).

Roads which are required to be constructed to public road standards and dedicated to the public as a condition final plat or project approval shall be added to the county road system and shall be maintained by the County upon an approved final inspection as defined in KCC 12.09.020(K) and final plat or project approval. Such roads are not subject to the requirement of a resolution by the BOCC.

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~~12.03.040~~. 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 construction.

E~~C~~. Construction and Testing Standards

Specific construction specifications~~, both~~ for materials, ~~and~~ workmanship~~,~~ and testing requirements~~,~~ are found in KCC 12.09~~4~~. The construction specifications used during~~in~~ work on the ~~C~~county ~~R~~road ~~S~~system generally comply with the WSDOT Standard Specifications ~~for Road,Bridge, and Municipal Construction~~ in force at the time of construction.

F~~D~~. 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 ~~both~~ the County, Forest Service, State, ~~and~~ city, ~~or~~ 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~~the~~ Inter-Governmental Agreements ~~(IGAs)~~ between the County and other agencies ~~the incorporated area~~ 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 ~~and inspections of~~ for all road construction and ~~for~~ installation or modification of utilities~~, which occur~~ within the County rights-of-way ~~of the County Road System~~. The ~~County Engineering~~Department of Public Works ~~Department~~ should be contacted for additional information.

E. Other agencies shall be responsible for the issuance of permits and inspections of all road construction and ~~for~~ installation or modification of utilities ~~, which occur~~ within the other agency's easements or rights-of-way ~~of the Agencies Road System.~~. The other agencies should be contacted for additional information.

~~**C. Design Standards**~~ **~~(MOVED TO 12.04)~~**

~~The design standards, which have been established in this title generally, represent minimum values. The sources for these standards include applicable standards established by the American Association of State Highway and Transportation Officials (AASHTO) and by Washington Department of Transportation (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 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 practicable:~~

~~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.~~

~~1. 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.~~

~~C. Roads should be located with appropriate regard for topography, creeks, wooded areas, and other natural features, which would enhance attractive development.~~

~~D. 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 channel thalweg (a line running along the main course of the stream).~~

~~E. 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.~~

~~F. 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.~~

~~G. Roads within subdivisions should be designed as a system of circulation routes so that the use of local roads by through traffic will be discouraged.~~

~~9. Roads shall intersect as nearly at right angles as possible. Written approval from the Engineer shall be required if an intersection is proposed that would deviate more than 10 degrees from perpendicular.~~

~~10. When a tract is divided into lots 200% or larger, 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.~~

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

~~ADA - Americans with Disabilities Act~~

C. ADT – Average Daile~~y~~y Traffic

~~2. ASTM - American Society of Testing Materials~~

D. BMP – Best Management Practice

E. BST – Bituminous Surface Treatment

F. BOCC - Board of County Commissioners of Kittitas County, Washington

~~WSDOT - Washington Department of Transportation~~

~~DA - Development Agreement~~

~~DHV - Design Hourly Volume~~

~~DOJ - Department of Justice~~

G. DPW - Kittitas County Department of Public Works

H. HMA – Hot Mix Asphalt

~~EEOC - Equal Employment Opportunity Commission~~

~~FHWA - Federal Highway Administration~~

~~GMA – Growth Management Act~~

I. IGA - Inter-Governmental Agreement

J. KCC – Kittitas County Code

K. LOS – Level of Service

~~3. SWMEA – Storm Water Manual for Eastern Washington~~

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

~~UGN – Urban Growth Node~~

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

ACCESS - That portion of the driveway or private road extending from the edge of the ~~C~~county ~~R~~road ~~or street edge~~ to the edge of ~~R~~right-of-~~W~~way.

A.

~~"ADT" Average Daily Traffic - The general unit of measure for traffic defined as the total volume during the given time period (in whole days) greater than one day and less than one year, divided by the number of days in that time period.~~

B. AGRICULTURAL ACCESS – An access that serves fields or outbuildings and is not for commercial or residential use.

C.

- ~~ALLEY - A thoroughfare or right-of-way, usually narrower than a street, which provides access to the rear boundary of two or more residential properties and is not intended for general traffic circulation.~~

- "AS-BUILT" or RECORD DRAWINGS - Set of original plans, with information superimposed upon them, showing any additions, deletions, changes, etc.

D.

- ~~AUXILARY LANE- The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.~~

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.

- ~~BULB - Round area for vehicle turnaround typically located at the end of a cul-de-sac street.~~

- H. CENTER LINE – T~~t~~he line, marked or unmarked, parallel to and equal distance ~~equidistant~~ 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 ~~duly registered as a professional engineer, according to Washington statutes,~~ 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~~ing~~ work ~~within the public right-of-way in Kittitas County~~.

- M. CORNER SIGHT TRIANGLES ~~–~~ – Specified areas along ~~intersection~~intersections that ~~approach legs and across their included corners~~ shall be clear of obstructions that might block a driver's view of potentially conflicting vehicles. ~~The length of the legs and object height. The leg distances and object heights are in accordance with current AASHTO standards.~~

- COUNTY - County of Kittitas, State of Washington.

N.

- ~~COUNTY ENGINEER - The Director of Public Works, Kittitas County, Washington, or his authorized representative, acting on behalf of the Director or the County.~~

- O. COUNTY ROAD – Every road~~highway~~ 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.

- ~~CUL-DE-SAC - Short Street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turnaround.~~

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.

- ~~DAYS - Calendar days, not normal working days unless stipulated as working days.~~

- ~~DESIGN HOURLY VOLUME - On the average rural road is ±15% of ADT; for the average urban road is ±10% of ADT.~~

- 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 D~~d~~irector of the Kittitas County Department of Public Works ~~and~~ or the County Engineer.

T. DEVELOPER - The person or persons legally responsible for the construction of infrastructure related to a land use development activity. ~~streets within a specific subdivision or planned unit development~~.

- U. DRIVEWAY – Access road used by ~~N~~no more than two privately maintained residential, commercial, agricultural or industrial properties ~~access point~~.

V. EASEMENT - A right held by one person to make specific, limited use of land owned by another person.

- W. ENGINEER, COUNTY – ~~The Director of Public Works can be the County Engineer, having authorities specified in RCW 36.75.080 and RCW 36.80 or his/her authorized representative.~~ 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.

~~• EYEBROW - A bulb or semi-circular extension of a curb on one side of a street or at an ell intersection to provide more frontages for adding more lots.~~

~~• FLAG LOT - A strip of land having a width narrower than that of the lot or parcel to be served and is designed for providing access to that lot or parcel.~~

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. IRRIGATION SYSTEM - means a man-made feature and/or an upland swale that either conveys water to an ultimate irrigation use or place of use, or that moves and/or conveys irrigation water (e.g., "run-off" from irrigation) away from irrigated lands. Irrigation systems may include the distribution system or parts thereof, consisting of manmade canals, laterals, ditches, siphons, and/or pipes, or pump systems.

DD. 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.

EE. 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.

• MAY - A permissive condition. No requirement for design or application is intended.

FF.

~~• MEDIAN RADII - The minimum radius for curbing when used for street medians; measured to flowline.~~

•GG. OFF-SYSTEM ROAD – A road or right-of-way dedicated or used by the public but not maintained by Kittitas County.

• ON-SYSTEM ROAD – A road or right-of-way dedicated or used by the public and maintained by Kittitas County.

HH.

~~OWNER'S ENGINEER - A registered engineer (State of Washington) acting for the Owner or Developer~~

II. 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.

JJ. 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).

- ~~PRIVATE ROAD – Every way or place in private ownership and used for travel of vehicles and utilities by owner or those having expressed or implied permission from the owner, but not by other persons.~~

KK. 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.

- LL. RIGHT-OF-WAY – Land, property, or property interest, usually in a strip, acquired for or devoted to transportation purposes.

- MM. 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).

- NN. SHALL - A mandatory condition. Where certain requirements in the design or application use the word "shall", it is mandatory that these requirements be met.

- OO. SHOULD - Where the word "should" is used, it is considered to be advisable usage, recommended but not mandatory.

- PP. SPECIAL DISTRICT – ~~Shall mean a~~Any recognized district within Kittitas County that may have some level of jurisdiction over some aspect of a development. A special district may include~~Possibly~~, but is not limited to, Irrigation Districts, Water Districts, and Fire Districts.

- QQ. STOPPING SIGHT DISTANCE - ~~Shall mean that~~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.

- STREET OR ROAD WIDTH ~~–~~ ~~That~~The distance measured from curb~~f~~face to curbface across a street or edge of traveled way.

RR.

- ~~SUBSTANTIAL COMPLETION - The date at which construction is sufficiently complete in accordance with the construction plans for the use in which it was intended.~~

SS. TRAVELED WAY – That part of the roadway made for vehicular traffic excluding shoulders and auxiliary lanes.

TT. UTILITY - A company or individual providing public service such as gas, electric power, irrigation, telephone, Internet~~telegraph,~~ water, sewer or cable television, whether or not such company is privately owned or owned by a governmental entity.

UU. WORKING DAYS – Days on which the Department of Public Works is open for business, typically including Monday thru Friday, not including holidays.

~~TRAVELED WAY – That part of the roadway made for vehicular traffic excluding shoulders and auxiliary lanes.~~

~~12.02030 Definition of Road Functional Classification~~

~~All roads are divided into the following functional categories for planning purposes. Typical sections showing geometric and structural features are found in Chapter 4.~~

- ~~ARTERIALS (MAJOR & MINOR) - An arterial is a continuous access controlled road for through traffic with crossings at grade.~~
- ~~COLLECTORS (MAJOR & MINOR) – A collector is a vicinity-wide continuous road for through traffic local roads to arterials.~~
- ~~LOCAL ROADS – A local access road provides direct access from abutting properties to other roads.~~

12.02.0340 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 10~~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 10~~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~~ County Engineer shall make the final decision

CHAPTER 3- ROADWAY CLASSIFICATION

12.03.010 Road Classifications.

County roads are classified functionally to define the part that they play in serving the flow of trips through the road network. The function of a road is used to determine required right-of-way width, road width, access spacing, intersection spacing, and other road geometrics. Functional classification changes or additions of county roads can be initiated by the County, but are reviewed by WSDOT and the Federal Highway Administration, who provides approval, denial, or conditional approval of functional classification requests.

More information on functional classification, including the functional classifications of county roads, can be found on the Public Works website.

~~County roads or streets are classified functionally as indicated in the following Sections 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, (ADT) are typical.~~

~~12.03.020 Classification Definitions.~~

~~BA. Rural Major Collector (Class 07)~~

1. ~~Serves county seat that is not on an arterial route,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.~~

~~CB. Rural Minor Collector (Class 08).~~

1. ~~Should bBe spaced at intervals consistent with population density, to collectaccumulate traffic from local roads and bring all developed areas within a reasonable distances of a collector roads.~~
2. ~~Should pProvide service to the remaining smaller communities; and~~
3. ~~Should lLink the locally important traffic generators with rural users.~~

~~DC. 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.~~

~~Road, which provides direct access to adjoining properties within a neighborhood. These constitute all rural mileage not classified as principal arterial, minor arterial, major collector, or minor collector mileage.~~

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 one hundred (100) or fewer vehicles.

ED. 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.

FE. 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.

GF. 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.

HG. 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			
Road #	Road Name	FROM LOCATION	TO LOCATION
94001	VANTAGE HWY	at ELLENSBURG CITY LIMITS & NAME CHANGE	at PFENNING RD
Rural Major Collector 7			
Road	Road Name	FROM LOCATION	TO LOCATION

#			
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 BMP - INT I-90	at EOR - 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	0.29 mi. NW of at ELLENSBURG CITY LIMITS	at EOR-INTX SR 97
34761	FAUST RD	at INTX SRUS 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 & PATRICK AVE (KITTITAS)
95301	MANASTASH RD	at RIVERBOTTOM RDUMPTANUM 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 INTX SRUS 97
69760	PFENNING RD	at OAKLOCUST ST	at RADIO RDat ELLENSBURG CITY LIMITS
69760	PFENNING RD	at ELLENS'BURG CITY LIMITS (ANNEX)	at GAME FARM RD
93526	REECER CREEK RD	at UNIVERSITY WAY	at 0.16 mi. South of TYLER RDBOWERS ROAD
92430	SOUTH CLE ELUM WAYRD	at CLE ELUM CITY LIMITS	at EOR-S CLE ELUM CITY LIMITS & EOR - GRANT ST
95417	THORP HWY NORTH AND SOUTH	at I-90 EXIT 106 ON/OFF RAMP	at HWY 10
96751	THRALL RD	at BMP-INTX I-82 NORTH & INTX HWYSR 821	at UPPER BADGER POCKET RD
96865	TJOSSEM RD	at CANYON RD	Aat CLEMAN RD
96937	UMPTANUM RD	0.19 mi. SW ofat ANDERSON RD	Aat RIVERBOTTOM RD
94001	VANTAGE HWY	at PFENNING RD	Aat NO. 81 RD
94126	WILSON CREEK RD	at NO. 6 RD	Aat BRICK MILL RD
	Rural Minor Collector 8		

Road	**Road Name**	**FROM LOCATION**	**TO LOCATION**

#			
23010	AIRPORT RD (CLE ELUM)	at BMP-INTX 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	0.11 mi. East of at ELLENSBURG CITY LIMITS	0.38 mi. East of ELLENSBURG CITY LIMITSat 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 ROAD391 ft. NE of ELLENSBURG CITY LIMITS
61261	BULL RD	at ELLENSBURG CITY LIMITS	at EOR – CUL DE SAC
13090	CABIN CREEK RD	at BMP-INTX I-90 ON-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 53 ft. East of ROSS RD
44760	FOX RD	at VANTAGE HWY	at LYONS RD
21900	GOLF COURSE RD	at HUNDLEY RDWESTSIDE RD	at WESTSIDE RD
65000	HAMILTON RD	at SORENSON RD	at UPPER BADGER POCKET RD
31510	HUNGRY JUNCTION RD	at BMP-INTX SRUS 97	at LOOK RD
75040	HUNTZINGER RD	at I-90 O/P ON/OFF RAMP	at EOR
12650	KACHESS LAKE RD	at BMP-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 BMP-INTX SRUS 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 53 ft. West of 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 EOR106 ft. after EOR
23030	NELSON SIDING RD	at GOLF COURSE RD	at EOR I-90 ON/OFF RAMP
96200	NO. 6 RD	at TJOSSEM RD	at 26 ft. after 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	0.16 mi. South of TYLER RD at BOWERS ROAD	at EOCR
54510	ROBINSON CANYON RD	at THORP HWY SOUTH	at KILLMORE RD
21560	SALMON LA SAC RD	at BMP END OF SR 903	at EOCR
33513	SMITHSON RD	at BMP INTX USSR 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 BMP INTX SR 970	at WESTMIDDLE FORK TEANAWAY RD
55550	THORP CEMETERY RD	at THORP HWY SOUTH	at TANEUM RD WEST
52770	THORP PRAIRIE RD	at TANEUM RD EAST	at158 ft. after 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 DRat I-90 O/P
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 TEANAWAY RD	at TEANAWAY RD	at MIDDLE FORK 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 #	**Road Name**	**FROM LOCATION**	**TO LOCATION**
15700	1ST ST (EASTON)	at KACHESS AVE	at CROSS ST
22540	1ST ST (RONALD)	at BMP INTX SR 903	21 ft. NW ofat ATLANTIC AVE

54410	1ST ST (THORP)	at THORP HWY NORTH	at GOODWIN RD
24650	1ST ST CONN	at BMP INTX 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 EOR INTX 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 EOREND OF ROAD
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 - COUNTY PRIVATE AHEAD
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	0.38 mi. East of ELLENSBURG CITYat 90 DEGREE CURVE	at TJOSSEM RD
34510	BETTAS RD	at BMP INTX SRUS 97	at EOR INTX SRUS 97
79031	BOAT RAMP RD	at MAIN ST (VANTAGE)VANTAGE HWY	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 BMP INTX SRUS 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 BMP-INTX SR 903	11 ft. SW of at SHAFT ST
64360	CARIBOU RD	at CLERF RD	at LYONS ROADVANTAGE HWY
64360	CARIBOU RD	at VANTAGE HWY	at LYONS RD
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 EOCR-SKY MEADOWS PLAT AHEAD
10530	CASCADE PLACE	at SNOQUALMIE DRCASCADE PLACE	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 ROAD	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	5 ft. West ofat PARKE CREEK RD
32011	CLARKE RD	at BMP-INTX SRUS 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 RDBEGINNING OF ROAD	at EOREND OF ROAD
95501	COVE RD	at MANASTASH RD	at EOR
65928	COYOTE RD	at UPPER BADGER POCKET RD	at EOR
34950	CREEKSEDGE 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 BMP-I-90	at THRALL RD
13220	DEPOT ST	158 ft. SW of RAILROAD ST	at EOR
63065	DODGE RD	at THRALL RD	11 ft. North of 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 EOCR BAKERS RD- COUNTY PRIVATE AHEAD
14010	EVERGREEN WAY	at KACHESS RIVER RD	0.20 mi. East ofat KACHESS RIVER RD
63500	FAIRVIEW RD	at BRIDGE #79112 & BMP I-90	at THOMAS RD
22630	FANHOUSE RD	at BMP INTX SR 903	at NELSON DAIRY RD
34761	FAUST RD	at DRY CREEK RD	at CLARKE RD
62701	FERGUSON RD NORTH	at BMP I-90	at VANTAGE HWY
62702	FERGUSON RD SOUTH	at BMP-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 RDELLENSBURG CITY LIMITS	at LOOKOUT MOUNTAIN DR
22560	FOURTH AVE	at PACIFIC AVE	at EOR158 ft. SE of PACIFIC AV
67014	FOURTH PARALLEL RD	53 ft. East ofat 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 VANTAGE HWYMAIN 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 HWYSR 10	at BETTAS RD
64261	HEMINGSTON RD	at BMP - I-90	at CLERF RD
29000	HIDDEN VALLEY RD	at BMP-INTX 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 BMP-INTX SR 903	at EOR-ROSLYN CITY LIMITS
33800	HOWARD RD	at BMP-INTX SRUS 97	at SMITHSON RD
23210	HUNDLEY RD	at INTX GOLF COURSE RD	at EOR-CUL DE SAC
55370	HUNTER RD	at KILLMORE RD	at EOR
10750	HYAK DRIVE EAST	at INTXSR 906	at EOR
64761	INDERMUHLE RD	at PARKE CREEK RD	at EOR
10510	INNSBRUCK DRIVE	at SNOQUALMIE DRIVE	at EOR
79150	JOYCE ST	at MAIN ST (VANTAGE)VANTAGE HWY	at COLUMBIA AVE
40271	JUDGE RONALD RD	at PFENNING RD	at WILSON CREEK RD
13280	KACHESS AV	at RAILROAD ST	106 ft. NE of 1ST ST (EASTON)at EOR
15000	KACHESS DAM RD	at WEST SPARKS RD	at EOR
15020	KACHESS RIVER RD	at BMP-INTX W SPARKS RD	0.39 mi. North of EVERGREEN WAYat 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 DRIVE	at HYAK DRIVE EAST	at RAMPART DRKEECHELUS DRIVE WEST
10730	KEECHELUS DRIVE WEST	at HYAK DRIVE EAST	at EOR
18730	KENDALL PLACE	at HYAK DRIVE 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 DRIVE	at EOR
34002	KLOCKE RD	at BMP-INTX HWYSR 10	at EOR
65661	KOFFMAN RD	at PARKE CREEK RD	at EOR
25040	LAKE CABINS RD	at EOR-INTX SR 903	at BMP-INTX SR 903
25010	LAKE CLE ELUM DAM RD	at LAKE CABINS RD	at EOR-GATE TO BOR DAM
75180	LAKEVIEW AVE (VANTAGE)	at WAYNE ST	at BROWN ST
22512	LAMBERT RD	at BMP-INTX 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 MTNOUNTAIN DR	at QUARTZ MTN DR	at MT DANIELS DR
34383	LOWER GREEN CANYON RD	at BMP-INTX SRUS 97	at SMITHSON RD
22770	LOWER PEOH POINT RD	at WATSON CUTOFF RD	at THORP PRAIRIE RD26 ft. NW of EOR
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-FOREST RD AHEAD
64763	MARTENSEN RD	at CARROLL RD	at EOR
23750	MARTIN RD	at BMP-INTX 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 BMP-INTX HWYSR 10	at 21 ft. South of MCMANAMY RD
31412	MCMANAMY RD	at BMP-INTX SRUS 97	at EOR
54500	MEADOW VIEW DRIVE	at ROBINSON CANYON RD	at EOR
40801	MEADOWBROOK LANE	at INTX LOOK ROAD	at EOR0.26 mi. East of INTX LOOK ROAD
56260	MELLERGAARD RD	at MANASTASH RD	at EOR
23531	MICHELETTO RD	at SWAUK PRAIRIE RD	at EOR
35060	MIDDLECREST DR	at PEAKVIEW DR	at CREEKSEDGE WAY
25220	MILL CREEK RD	at BMP-INTX 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 BMP-INTX 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 BMP-INTX SR 903	26 ft. SW ofat SHAFT ST
23520	NO. 5 MINE ROAD	at BMP-SR 903	at0.14 mi. North of BMP-SR 903

16188	NORTON RD	at SPARKS RD	at EOR
31512	O'NEIL RD	at BMP-INTX HWYSR 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 EOCR
32252	PASSMORE RD	at BMP-INTX SRUS 97	475 ft. NW of BMP-INTX SR 97at EOR
32252	PASSMORE RD	475 ft. NW of BMP-INTX SR 97	at EOR
22480	PATRICK MINE RD	at BMP-INTX 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-INTX NO 278E (VACATED)
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 RDBEGINNING OF ROAD	at EOREND OF ROAD
61290	QUARTZ MTN DR	at MT DANIELS DR	at EORLOOKOUT MOUNTAIN DR
42012	RADER RD	at WILSON CREEK RD	at SCHNEBLY RD
15740	RAILROAD ST	at BMP-I-90 ON/OFF RAMP OVERPASS	at EOR
18530	RAMPART DRIVE	at HYAK DR EASTEOR	at EOR
29600	RANCH RD	at BURKE RD	at EOR
54600	RANGE VIEW ROAD	at KILLMORE RD	at MEADOW VIEW DRIVE
74950	RECREATION DR	at VANTAGE HWY	at EOR0.29 mi. SW of EOR
74950	RECREATION DR	0.29 mi. SW of EOR	at EOR
22650	RED BRIDGE RD	at BMP-INTX HWYSR 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 0.53 mi. East of EOR
18590	ROMANS COURT	at KEECHELUS DRIVE	at EOR

		WESTRAMPART DR	
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 EOR-INTX SR 970
69610	SEATTLE ST	at WILLOW ST	at LOCUST ST
23820	SHAFT ST	at ALLIANCE RDBMP-INTX SR 903	26 ft. NE of at ROSLYN CITY LIMITS
66001	SHALE PIT RD	at STEVENS RD	at EOR
66449	SILICA RD	at UPPER BADGER POCKET RD	53 ft. South of BRIDGE #60221at EOR
13760	SILVER TRAIL	at WEST SPARKS RD	106 ft. afterat EOR
54540	SILVERTON RD	at ROBINSON CANYON RD	at EOR
56280	SISTERS RD	at THORP CEMETERY RD	at EOR
15400	SMITH DRIVE	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 DRIVE	at HYAK DR EASTBEGINNING OF ROAD	at EOR
69518	SONES RD	at PARKE CREEK RD	at EOR
66912	SORENSON RD	at EMERSON RD	at EOR
23990	SOUTH AVE	at ROSLYN CITY LIMITSBEGIN COUNTY ROAD JURISDICTION	at EOR
13530	SPARKS RD	at BMP-INTX I-90 O/P	at EOR
18910	ST. MORITZ PLACE	at CASCADE PLACE	at EOR
64860	STINGLEY RD	at CLERF RD	106 ft. after at EOR
61263	STONE RD	at CANYON RD	0.14 mi. South of at CANYON RD
61263	STONE RD	at0.14 mi. South of CANYON RD	at EOR
21005	STORIE LANE	at NELSON SIDING RD	264 ft. after 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 END OF COUNTY ROADEOCR
53210	SUSAN RD	at STRANDE RD	at EOR
29260	SWAUK PRAIRIE RD	at BMP-INTX SR 970	at EOR-INTX 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 BMP-INTX HWYSR 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 BMP INTX 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 VANTAGE HWYMAIN 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 DRIVE	at THIRD AVE (GRASSLANDS)	at EOR
55930	WADE RD	at GLADMAR RD	at EOR
69710	WASHINGTON AV	at WILLOW ST	at OAK ST
40273	WATSON RD	at NANEUM RD	at FAIRVIEW RD
56511	WATT CANYON RD	at THORP CEMETERY RD	at EOR
79090	WAYNE ST	at VANTAGE HWYMAIN 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 BMP INTX I-90 O/PSPARKS 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 ROAD	at WESTSIDE RD	at EOR

65386	WPA RD	at UPPER BADGER POCKET RD	at EOR
10360	YELLOWSTONE RD	at BMP I-90	at EOR

Urban Principal Arterial – 14

Road #	Road Name	FROM LOCATION	TO LOCATION
93041	UNIVERSITY WAY	at ELLENSBURG CITY LIMITS	at BRIDGE #88342

Urban Minor Arterial – 16

Road #	Road Name	FROM LOCATION	TO LOCATION
94026	AIRPORT RD	at ELLENSBURG CITY LIMITS	at BOWERS RD
60640	ANDERSON RD	at UMPTANUM RD	11 ft. before EOR at ELLENSBURG CITY LIMITS

Urban Collector -17

Road #	Road Name	FROM LOCATION	TO LOCATION
41010	BOWERS RD	at CASCADE CANALAIRPORT RD	158 ft. East of PIPER RD
40600	BRICK RD	at391 ft. NE of ELLENSBURG CITY LIMITS	at SANDERS RD
40315	SANDERS RD	422 ft. East of BENDER RDat ELLENSBURG CITY LIMITS	at BRICK RDat GAME FARM RD0.10 mi. West of BRIDGE #88252
40315	SANDERS RD	158 ft. East of BRIDGE #88252	at GAME FARM RD
96937	UMPTANUM RD	at ELLENSBURG CITY LIMITS	0.19 mi. SW ofat ANDERSON RD

Urban Local Access – 19

Road #	Road Name	FROM LOCATION	TO LOCATION
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 – ~~COUNTY ROAD~~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 ~~for acceptance onto the County Road System~~. It is to be used by developers and their engineers in the design of ~~county~~ 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

~~Minimum Standards –~~ 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 ~~registered professional~~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 ~~cannot be justified economically~~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 ~~Kittitas County Road Standards~~KCC 12.01.130.

12.04.030 Public Road Design Requirements

A. Road ~~S~~surfacing ~~R~~requirements shall be in accordance with ~~Table 4-1 through 4-4 and Washington Department of Transportation~~ the WSDOT Pavement Guide, Volume 1 – Pavement Policy, current edition ~~as amended~~, and tables 4-1 through 4-3 of this chapter.~~.~~

B. ~~Design Speed –~~ 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. ~~and AASHTO standards for Local Access, Collector and Arterial Roads.~~

C. Intersections

~~1. Location~~ 1. Location of new arterial and collector streets shall ~~generally~~ be in accordance with ~~the general guidelines reflected in~~ the WSDOT Design Manual. ~~table 4-1.~~

~~2. Tangent –~~ 2. All new intersections will have a minimum straight tangent length prior to beginning any curves in accordance with the WSDOT Design Manual. ~~Tables 4-1.~~

~~3. Residential streets should be designed to direct traffic to collector streets and adequately provide for circulation and movement within the subdivision.~~(moved to D.)

~~4. Intersections on Arterial Streets —~~3. The design of intersections on arterial streets shall be in accordance with WSDOT ~~Roadway~~ Design Manual. ~~(latest edition), hereinafter referred to as the "Design Manual" and Table 4-5.~~

~~5.~~ ~~4.~~ Separation of ~~i~~intersections shall be in accordance with WSDOT Design Manual~~access spacing design criteria~~.

D. Residential streets should be designed to direct traffic to collector streets and adequately provide for circulation and movement within the subdivision.

~~C.~~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. ~~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.~~ Vertical alignment designs shall be in accordance with the ~~applicable~~ WSDOT ~~or AASHTO d~~Design ~~m~~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.

~~D.~~G. Sight Triangle Standards shall be in accordance ~~applicable~~ with the WSDOT ~~or ASSHTO d~~Design ~~m~~Manuals. Site triangles shall be shown on the preliminary and final land segregation documents. Site triangles shall apply to all private and public roads. ~~Site triangles shall be in conformance with AASHTO policy on Geometric Design of Highway and Streets, 2001, Exhibit 9-50, as amended.~~ Plat notes and covenants shall reflect that site triangles shall be kept free of all trees, bushes, landscaping, fences or obstacles ~~greater than 30 inches in height~~.

~~E.~~

~~F.~~H. Street Projections into Future Adjoining Subdivisions ~~within same ownership~~.

1. The location of proposed ~~projected~~ streets shall allow for the proper conveyance ~~projection~~ of the storm drainage ~~sewer and sanitary sewer~~ system ~~into adjacent natural drainage areas~~.
2. ~~Stub Street:~~ 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 ~~does, in fact,~~ 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.

~~G.~~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

~~Local Access~~ Roadway and Right-of-Way Width Requirements

	<40 MPH Design Speed			>40 MPH Design Speed	
~~Lots~~ADT[1]	*Roadway Width*[2]	*ROW Width*		*Roadway Width*[2]	*ROW Width*
~~0-15 Lots~~	~~24~~	~~*60*~~	-	~~26~~	~~*60*~~
~~16-25 Lots~~	~~24~~	~~*60*~~	-	~~26~~	~~*60*~~
~~26-40 Lots~~0-400 ADT	24	*60*		26	*60*
> 400 ADT ~~Lots~~	26	*60*		26	*60*

[1]ADT to be determined using the most recent edition of the ITE Trip Generation manual.~~Design criteria in accordance with applicable WSDOT or AASHTO Design Manuals~~

[2]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~~

~~Local Access Road Surfacing Requirements~~

~~Lots Served~~	~~Right-of-Way Width~~	~~Roadway Width~~	~~Surface Material~~	~~Material Depth~~
~~0-40 Lots~~	~~60~~	~~24~~	~~BST/ACP~~	~~See Table 4-3 and 4-4~~
~~>40 Lots~~	~~60~~	~~26~~	~~BST/ACP~~	~~See Table 4-3 and 4-4~~

Table 4-2~~3~~ (see revised table below)

BST Surfacing and Structural Requirements

~~Number of Lots~~ ADT[1]	Subgrade Condition	~~Structural Number~~	Crushed Stone Depth	BST Surface Class A
~~0 Lots - 14 Lots~~	~~Poor~~	~~2~~	~~13.5 inches~~	~~3/4 inch nominal~~
	~~Average~~	~~1.5~~	~~9.5 inches~~	
	~~Good~~	~~1.1~~	~~6.5 inches~~	
~~15 Lots - 25 Lots~~	Poor	~~2.53~~	~~17.5~~ 20 inches	3/4 inch nominal
0 – 200 ADT	Average	~~1.93~~	~~13~~ 16 inches	
	Good	~~1.45~~	~~11~~ 16 inches	
~~26 Lots - 40 Lots~~	Poor	~~2.95~~	21 inches	3/4 inch nominal
201 – 400 ADT	Average	~~2.25~~	~~15~~ 16 inches	
	Good	~~1.71~~	~~12~~ 16 inches	
~~> 40 Lots~~	Poor	~~3.31~~	24 inches	3/4 inch nominal
>400 ADT	Average	~~2.25~~	18 inches	
	Good	~~1.93~~	~~13~~ 18 inches	

[1]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~~ACP~~ 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[2,3]

ADT[1]	Subgrade Condition[4]	Crushed Stone Depth[5]	BST Surface Class A[2]
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	

[1]ADT to be determined using the most recent edition of the ITE Trip Generation manual.

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

[3]HMA shall be used on grades exceeding 10%

[4]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

[5]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 4-34 (see revised table below)

HMA~~ACP~~ Surfacing and Structural Requirements

~~Number of Lots~~ ADT[1]	Subgrade Condition	~~Structural Number~~	HMA~~ACP~~ Surface	Crushed Stone Depth
~~0 Lots – 14 Lots~~	~~Poor~~	~~2.01~~	~~2.5 Inches~~	~~7~~
	~~Average~~	~~1.88~~	~~2.5 Inches~~	~~6~~
	~~Good~~	~~1.62~~	~~2.5 Inches~~	~~4~~
~~15 Lots – 25 Lots~~	Poor	~~2.53~~	2.5 Inches	11 Inches
0 - 200	Average	~~2.27~~	2.5 Inches	9 Inches
	Good	~~2.27~~	2.5 Inches	9 Inches
~~26 Lots – 40 Lots~~	Poor	~~2.81~~	3 Inches	~~11.5~~ 12 Inches
201 – 400 ADT	Average	~~2.36~~	3 Inches	~~8~~ 9 Inches
	Good	~~2.36~~	3 Inches	~~8~~ 9 Inches
> 400 ADT ~~Lots~~	Design for greater than 400 ADT ~~lots~~ shall be in accordance with WSDOT Pavement Policy, Volume 1, current edition ~~as amended~~.			

[1]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[1]	Subgrade Condition[2]	HMA Surface	Crushed Stone Depth[3]
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.		

[1]ADT to be determined using the most recent edition of the ITE Trip Generation manual.			
[2]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
[3]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. Roads proposed within the UGA shall conform and support the road system or grid, Transportation Plan and Comprehensive Plan of the affected city.

B. 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.

C. Utilities constructed within the UGA shall comply with the requirements of the affected city.

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

~~Roads alignments proposed within an Urban Growth Area shall conform and support the road system or grid for the affected city.~~

~~Roads constructed for the purpose of serving urban densities shall comply with the road standards of the affected city if there is an agreed pre-annexation agreement for city services.~~

~~Roads constructed for the purpose of serving urban densities, without a pre-annexation agreement shall comply with the applicable WSDOT or AASHTO Guidelines for urban roads.~~

~~Roads constructed for the purpose of initially serving rural densities shall comply with County Standards. Setbacks shall meet future urban right of way requirements.~~

~~All roads within an Urban Growth Area shall be hard surfaced.~~

~~Counties and cities shall create an inter-local agreement stipulating the road standards within the Urban Growth areas.~~

~~All lots created within an Urban Growth Area (UGA) shall conform to the applicable city road standards. If the division is creating lots at a density that is not covered by city standards then county standards shall apply, but the city shall have final approval of the road alignment and geometry. All roads within the UGA shall be city or county owned and maintained roads. No landlocked parcels will be allowed.~~

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

The design standards~~, which have been~~ established in this title ~~generally,~~ represent minimum values. The sources for these design standards include applicable standards established by ~~the American Association of State Highway and Transportation Officials (~~AASHTO~~)~~ and ~~by~~ ~~Washington Department of Transportation (~~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 ~~practicable~~:

~~12~~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.

~~13~~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.

~~14~~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.

~~15~~D. Roads should be located with appropriate regard for topography, creeks, wooded areas, and other natural features, which would enhance attractive development.

~~16~~ 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. ~~thalweg (a line running along the main course of the stream).~~

E.

~~17~~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.

~~18~~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.

~~8.~~ 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.

H.

~~9.~~ Roads shall intersect ~~as nearly~~ at right angles as possible. Written approval from the Engineer shall be required if an intersection is proposed that would deviate more than 10 degrees from perpendicular.

I.

J. ~~10.~~ When a tract is divided into lots ~~200% or larger~~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~~050~~ ~~Soils~~ Geotechnical Investigation

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

12.04.070 Private Road Design Requirements (MOVED FROM CHAPTER 12.12)

Private roads shall comply with~~meet~~ the following conditions:

A. ~~Private roads s~~Shall meet the minimum access requirements ~~of Section 902 – FIRE DEPARTMENT ACCESS –~~ 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) ~~2001~~, most recent edition ~~as now exists or hereafter amended~~, and

~~C. Shall be inspected and certified by a licensed professional engineer for conformance with the above referenced standards. In the alternative, an applicant may request the private roadway to be inspected and subject to the approval of the Public Works Director. If certification by the Public Works Director/County Engineer is desired, submission of road plans and necessary testing documentation that confirms compliance with Kittitas County Road Standards is required, and services will be performed on a reimbursable basis, and~~

~~D.~~C. Shall be ~~P~~permanently established by a ~~ed by an~~ right-of-way or easement recorded with the Kittitas County Auditor ~~or Right-of-way~~, 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, ~~and clearly~~ signed as a private road according to Public Works Road Naming & Signing Standards ~~at street location as a private street or road~~, 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:

"Kittitas County will not accept private roads for maintenance as public ~~streets or~~ roads until such ~~streets or~~ roads are brought into conformance with current Kittitas County Road Standards and formally adopted by the Kittitas County Board of County Commissioners. ~~This requirement will include the hard surface paving of any street or road surfaced originally with gravel. There is no guarantee that roads brought into conformance with Kittitas County Road Standards will be brought onto the county road system.~~

1.

2. Those notes required by KCC 12.01.095(P).

12.04.080 Private Road Design Criteria~~PRIVATE STREET DESIGN CRITERIA~~

Private roads shall comply with ~~meet~~ the design requirements of Table ~~12-1~~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[2]	Private Road[2]	Private Road[2]	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'[3]	60'[3]	60'	60'	60'
Paved Apron[1]	N/A	N/A	Req'd	Req'd	Req'd	Req'd
Roadway Width	12' or 16'[6]	12' or 16'[6]	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[4]	Gravel	Gravel	Gravel	BST/ACP		Gravel
Minimum Crushed Surfacing [5]	N/A	N/A	6"	6"		6"
Maximum Grade % [7]	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 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 any land use development activity, the entire private road system serving a development shall be certified by a civil engineer licensed in the State of Washington to meet Kittitas County Road Standards, unless a performance guarantee is provided in accordance with KCC 12.01.150. 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 required by the private road certification guidelines shall be presented for the certification to be complete.

A final acceptance inspection by the Department of Public Works is required prior to acceptance of the road certification. Any noted deficiencies must be corrected prior to final acceptance.

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.

G. General Info: Vicinity map, plat info, inspection date, construction date, applicable road standards, developer name, terrain, road maintenance agreement, photos, etc.

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 roadhighway under their respective jurisdiction from or to property adjoining a public roadhighway.

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, to maintain smooth traffic flow, to maintain roadhighway right-of-way drainage, and to protect the functional level of the public roadshighways 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 roadhighway from or to property adjoining the roadhighway 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 chapterthe section, Table 4-4, and the conditions for approval of the Kittitas County Access Permit. In no event shall an access be allowed or permitted if it is detrimental to the 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. Residential and agricultural accesses shall be designed in accordance with [Kittitas County Drawings], most recent version. All commercial and industrial accesses shall be designed in accordance with Exhibits 1340-1 and 1340-2 Driveway Design Templates of the WSDOT Design Manual and approved by the County Engineer prior to access permit issuance.

D. Commercial approaches are subject to all requirements of the Kittitas County Department of Public Works Commercial Approach Procedures.

E. 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.

A.F. Direct access from an individual lot 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. Vehicular access to or from property adjoining a Kittitas County road shall be provided to the general street system, unless such access has been acquired by a public authority. Police, fire, ambulance, and other emergency stations shall have a right to direct access to County roads. Direct access from a subdivision to the highway shall be permitted only if the proposed access meets the purpose and requirements of this section.

B.G. Lots that access easements or rights-of-way controlled by different agencies, such as State highwaysRoutes, Forest Service Roads, irrigation canals, or access R railroads easements will require separate access approvalspermits from those agencies. A copy of the access approval shall be submitted to the County prior to issuance of the County's access permit or preliminary approval for any land use development application. The County can not grant access to roads or easements it does not control.

H. All lots created having 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.

I. Access permits shall not be required for lots created upon final approval of a plat where the newly created lots access subdivision internal roads or cul-de-sacs or access to a public road is established through an access review during the subdivision process.

C.

~~Parcel creations which are adjacent to a major or minor collector/arterial (as designated by the Board) shall be provided access other than the arterial if available.~~

J. 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. ~~1)~~ The additional access would be beneficial to the public traveling the public road; and~~, or~~
2. ~~2) a~~Allowing only one access would be in conflict with local safety regulations; and
3. ~~t~~The additional access would not be detrimental to ~~the~~ public health, safety and welfare.

OR

~~1.~~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 ~~highway~~ 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. ~~Highway~~ 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~~highway~~,
   4. A subdivision zoning or development plan,
   5. Property map indicating other access and abutting public roads and streets, and
   6. Proposed access design.

~~See standard drawing.~~

B. The Department will evaluate access permit applications upon receiving the permit fee. The Department will make every effort to evaluate the permit within 15 days.

C. The Department will work cooperatively with applicants when determining requirements on access requests. Through this cooperative evaluation process, the Department may determine a variation from the access design standards is necessary due to site limitations or other existing conditions and has the authority to make that decision. However, if the applicant disagrees with the Department's requirements on an access request, the applicant will be required to request a variance to the standards according to KCC 12.01.130.

D. Prior to issuing a denial on an access permit request, the Department shall attempt to resolve the reasons for the denial with the applicant.

~~A. Upon receiving the request for access and permit fee, the Department shall evaluate use this section for evaluation of 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. by transmittal of a completed permit or of a denied request.~~

~~B. A completed access permit shall conform to all sections of this section. 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.~~

~~C.~~E. ~~Where the access design standards are not entirely applicable, the Department shall consider site specific and local conditions. Any appeal by the applicant because of denial of an access permit shall be according to the Kittitas County Public Works Division Appeals Procedures.~~

~~D.~~F. Any appeals of a denied access permit shall be resolved through the Administrative Decisions Appeals process according to KCC 15A.07.

~~If the Department approves the request, a permit shall be prepared and transmitted to the applicant for signature. After receiving a signed permit and any required fee payment, the Department shall mark the permit paid, sign the permit and return a copy to the applicant. If the applicant does not agree to all the terms and conditions of the permit, the permit shall be deemed denied.~~

12.05.050 Construction of Access

A. The issued access permit will be provided to the permittee along with the requirements for construction. The permittee will have 6 months from the date of issuance, as shown on the permit, to complete construction of the access and request inspection by the Department.

B. An extension to the access permit will only be considered if construction of the access has been substantially completed and the extension request is made prior to the permit expiration date. The permittee can request an extension to the Department in writing. The Department will determine if the approach has been substantially completed and determine the length of the extension, if granted.

~~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, he may request an extension from the Department. Any request for an extension must be submitted to the Department before the permit expires.~~

~~B.~~C. 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~~highway~~ 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.~~D. The Department shall inspect the access ~~during construction and~~ upon completion of ~~the access~~ construction to ensure that all terms and conditions of the permit are met. The Department may request to inspect the access during construction.

~~D.~~E. 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.~~F. 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.~~G. Adequate construction signing, in conformance with MUTCD, most recent edition, ~~the Manual on Uniform Traffic Control Devices for Streets and Highways, prepared by the U.S. Department of Transportation, Federal Highway Administration,~~ 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 during construction of the accessby reason of the exercise of the permit.

G.H. 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.I. 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. 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 traffic engineering analysis submitted by the applicant that considers, among other factors, intersection spacing, sight distances and traffic volumes.

J.

12.05.060 Use of Access

A. During road construction or maintenance, the Department may determine that it is necessary to reconstruct or relocate an existing access. The Department will notify affected landowners prior to performing any work on the 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 this chapterthe 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 chapterthe section, the reconstruction, relocation, and conformance of the access to this section chapter may be required at the expense of the owner.

D.C.

12.05.070 Illegal Access to the County Road

The property owner willshall be sent written notice of any illegal access location, or use. The Oowner willshall be given ten (10) days to respond to notification of pending actions., Aafter 10 days, which the Department may install barriers across or remove any access not conforming to this chapterthe section at the expense of the owner.

12.05.080 Conditions for Approval of New Driveways

1A. Driveways directly giving accessing onto arterials and major or minor collectors may be denied if alternate access is available.

B2. All abandoned driveways shall be removed at the oOwner's expensecost.

C~~3~~. Maintenance of driveway approaches shall be the responsibility of the owner whose property they serve. The County will not maintain accesses.

D~~4~~. 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~~5~~. ~~-~~For driveways crossing an open ditch that is ~~to carry~~ anticipated to carry storm~~-~~water flows, culverts shall be new corrugated metal 15 inches in diameter or larger, with beveled~~tapered~~ 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 CMP and HDPE~~. Any o~~l~~ther substitute requires the approval of the County Engineer~~Director of Public Works~~.

FG~~6~~. No driveway or road shall be constructed within five ~~5~~ feet of the side yard boundary, unless the driveway or road is ~~shown to be~~ part of an easement shared with the neighboring property owner~~ingress/egress easement~~.

Table 5-1
Access Spacing Requirements[1,2]

Road Classification (FFC[3])	Speed	Access[4] Spacing
Rural Arterial	Above 35	475~~1,000~~ ft.
Rural Major Collector	35 and below	250~~500~~ 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.

[1] Any access that cannot meet applicable spacing will require ~~a request for a~~an approved variance
[2] Residential & ~~U~~urban zones will be evaluated on a case by case basis

[3] Federal Functional Classification - Refer to KCC 12.03.030

[4] 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 (SWMMEW) 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 SWMMEW, 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 SWMMEW, 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 SWMMEW:

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 SWMMEW.
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 developer 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
~~A.~~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 development and/or permit review procedures. The County's review and approval of the stormwater plan shall not relieve the developer, 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 developer 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 6 - STORM WATER MANAGEMENT STANDARDS AND GUIDELINES~~

~~12.06.010 Purpose.~~

~~Kittitas County has found that future storm water drainage problems may be reduced or avoided if future developers, both private and public, provide for storm and surface water drainage of their respective properties. Storm Water Management Standards and Guidelines are set forth to protect life and property from loss and damage by flooding, to protect streams, creeks, and lakes from pollution and excessive flows.~~

~~The following Storm Water Management Standards and Guidelines are intended to reduce and prevent adverse storm water impacts. They represent the minimum design standards for the construction of storm water facilities and stream channel improvements within Kittitas County. Compliance with these standards does not relieve the designer, owner or developer of the responsibility to apply conservative and sound professional judgment to protect the health, safety and welfare of the general public. Special site conditions and environmental constraints and considerations, and Federal and State regulations, may require a greater level of protection than would normally be required under these standards.~~

~~12.06.020 Definitions.~~

~~**"Biofiltration"**: Vegetative devises used to reduce water velocity to filter out suspended solids and related pollutants.~~

~~**"Detention Facilities"**: Water control structures or devises that restrict flow and provide temporary storage.~~

"Hydraulics": The physical science and technology of static and dynamic behavior of fluid such as water.

"Hydrology": The scientific study of the properties, distribution and affects of water with the atmosphere, earth surfaces and in soils and rocks.

"Infiltration": The passage of water through the soil surface and lower profile.

"Impervious Surfaces": Any surface which cannot be effectively penetrated by water such as asphalt, roof tops and compacted soils.

"One Hundred Year Discharge": The volume of water measured in cubic feet per second (CFS) released from a stream or structure from a 100 year storm event.

"Pollution Generating Impervious Surface (PGIS)": Development or redevelopment greater than 5,000 SF PGIS, regardless of phasing.

"Retention Facilities": Water control structures or devices that hold and store water.

"Storm water": Rain that flows off the surface of the land without entering the soil.

"Treatment Facilities" Control structures or devices that remove pollutants from stormwater.

"Twenty Four Hour Storm": A rain storm measured in terms of a 24 hour duration.

"Volume": Accumulated run off for a given storm event.

" 'X' Year Storm": A storm representing an intensity of magnitude that could recur as follows:

Storm	**Average Recurrence During 100 Years**
2 Year	50 times
10 Year	10 times
25 Year	4 times
50 Year	2 times
100 Year	1 time

12.06.030 When Storm Water Plan or Storm Water Review is Required.

All development proposals will be evaluated based on location, size, existing runoff conditions, topography and nearest downstream tributary. Storm water plans will be required for those

development proposals which demonstrate a potential for significant storm water impacts. Specific review requirements will be addressed under Administrative Rules. Any construction practice that disturbs greater than 1 acre must apply for a DOE permit under the new NPDES rules.

12.06.040 When Plans Are Not Required.

The following development actions are exempted from a storm water review except in extreme circumstances where significant impacts are anticipated.

A. Residential Building Permits

B. Zoning Variances

Any appeal of the Director's determination of the applicability of drainage plan requirements shall be to the Board of Kittitas County Commissioners as provided in Section 12.01.030.

12.06.050 General Requirements.

All persons proposing land development and/or approvals as outlined in Section 12.01.030 shall provide a storm water plan for surface water flows entering, flowing within and leaving the subject property. The plan is to conform to the following standards and requirements:

A. The Kittitas County Director of Public Works shall require plans for storm drainage and detention facilities to be prepared by a registered Civil Engineer currently licensed by the State of Washington and qualified by experience and education in the field of hydraulics, hydrology, or a closely related field. Storm water plans or revisions to any approved plan shall be reviewed and approved by the Public Works Department prior to any construction.

B. On-site storm water improvements must be sufficient to mitigate impacts due to flooding, erosion, sedimentation or pollution.

C. All drainage system elements must provide for adequate maintenance and accessibility at all times. Storm water facilities shall be designed to eliminate interference from underground utilities and from conditions which exceed design loads for any pipe or other structural element.

D. The designer of any storm water element shall consider system reliability in terms of layout, specifications of materials and methods of installation.

E. The impact of a system failure should be analyzed both in terms of on-site and off-site effects. The impacts may be to adjacent properties or to elements of the public drainage system or other private systems.

F. No drainage originating inside of a building or structure shall be connected to the storm water or surface water systems.

G. Developer shall meet all other applicable laws for water quality prior to discharge to any wetland, stream, or lake.

H. Developers are encouraged to be innovative and give high priority to fish, wildlife, plant materials and related total resource management systems.

12.06.060 Basic Requirements.

A. Discharge at Natural Location: All surface and storm water runoff from a proposed development that would construct new or modify existing drainage facilities should be discharged at the natural location and not be diverted onto or away from the adjacent downstream property. Diversions may be allowed if it corrects an existing problem and meets Federal and State regulations.

B. Tributary Area Analysis: Proposed developments shall identify the upstream tributary drainage area and provide an analysis of the pre-existing drainage, discharge, volume and quality and an analysis of the impact of the proposal on the drainage system.

C. Proposed projects must control the peak rate runoff to not exceed the pre-development peak rates for the site (existing condition). The methods of peak rate runoff control may include detention, retention and/or infiltration. On site bio-filtration or treatment facilities in combination with infiltration systems is the preferred method for management of on-site storm water and shall be considered before transporting storm water off-site.

D. For all proposed developments requiring a drainage conveyance system, the conveyance system must be analyzed, designed and constructed to handle existing off-site tributary flows and on-site storm water flows caused by development of the project.

E. Developments involving clearing and grading and that propose new or modification of existing drainage facilities should include an erosion/sedimentation control plan providing measures to prevent sediment-laden runoff and pollutants from leaving the site during construction. Erosion/sedimentation control may be achieved by structural control measures (sediment trap or pond, or oil/water separators), covers (mulch, sodding, plastic covering) and/or construction practices (filter fabric, quarry rock driveway pads).

F. Maintenance and operation of all private storm water facilities is the responsibility of the property owner or a properly formed homeowners association and shall be done in compliance with Kittitas County maintenance standards.

G. For the construction or modification of any storm water facility other than roadside ditches, the applicant shall be required to have a construction bond. The construction bond shall be posted prior to beginning construction. The bond shall be in an amount sufficient to cover the cost of work on or off the site.

12.06.070 Drafting Standards and Contents.

The storm water plan shall be prepared in conformance with Section. 12.10.080.

12.06.080 Design Criteria.

A. Runoff Control

1. Developments shall be designed and constructed to provide control of the quality, discharge, and volume of storm water runoff both during and after construction. Erosion and sedimentation control plans shall be submitted and approved by the Public Works Department prior to the beginning of any construction. Peak discharge control and detention facilities shall be provided in accordance with the Development Standards. Biofiltration, oil/grease separation devices or other pollution control mechanisms are to be installed prior to occupancy and relapse of any performance securities held by the County.

2. The on-site drainage system including conveyance, flow restriction, detention, pollution control, and emergency overflow elements must be properly designed and sized to handle runoff from the site and conveyance through the site. The

design should be carefully analyzed for potential problems, flow impediments, construction or maintenance difficulties, and potential erosion or other property damage.

3. Allowable Release Rates
   a. The peak discharge rate from the road right of way or from the total subdivided property shall not exceed 0.2 cfs per acre for site of 5.00 acres or less.
   b. For sites with tributary basins greater than 5 acres or sites less than 5 acres in area which are deemed to have significant impacts due to runoff quantity shall be limited to the pre-development peak runoff for a "two-year" storm. Peak runoff rate shall be computed using the Soil Conservation Service TR-55 method, modified Santa Barbara Urban Hydrograph Method or other approved models.
   c. Storm water detention facilities shall be provided to store all surface water runoff in excess of the allowable peak discharge in accord with provisions for "detention facilities" of these standards up to the "100-year" discharge or meet the design criteria in Item 7 under Detention Facilities.
4. Oil Separation Devices:

Whenever paved parking or access roadway drains to an open waterway or stream, an oil/grease separation device shall be installed by the Developer. The device shall be constructed and installed consistent with current state of the art requirements. It shall be located at a point where it can be easily maintained and where it will intercept floating contaminants flowing off road surfaces, parking lots, and other sources of pollutants. Selection and sizing of oil separation device type shall be subject to approval of the Director of Public Works. The applicant should consider the use of vegetative or other natural filtration means. Effluent discharges from any oil removal treatment device to the storm sewer or surface water system shall be in compliance with State Department of Ecology regulations for discharge to storm drains or surface waters.

   a. Oil separators discharging to a storm water system or directly to a waterway require approval from the Department of Ecology.
   b. All storm water must enter the separator through an inlet pipe, unless the separator is an integral part of an approved catch basin.
   c. The property owner assumes full responsibility and liability for proper maintenance and operation of the oil separator, unless the separator is a part of a publicly operated drainage system.
   d. Access to the separator shall be maintained for inspection at all times.
   e. Oil accumulation in the oil separator compartment shall not exceed three inches at any time.
   f. Following oil removal the separator shall be backfilled with clean water to prevent oil carry over to clear well.
   g. Waste oil accumulations removed from the separator shall be disposed of in an acceptable manner and shall not be disposed or discharged to the ground water, storm drains, or streams.

h. Design of an oil separator facility shall be based upon flows from an approved detention system over the area contributory to the oil separator and provision of one hour retention time in the oil separator at that flow. In addition the oil separator must be designed with a depth to width ratio of between 0.3 and 0.5.

5. Erosion and Siltation Control:

In addition to catch basins, measures such as suggested in Section 6-E of these standards should be provided as necessary during and after construction to prevent erosion and to prevent silt from being carried off site and/or into receiving bodies of water.

B. Detention Facilities

1. All storm water runoff originally from and/or drainage to any proposed development shall be controlled and/or conveyed in accordance with all County standards and policies and as described in these standards. When existing conditions make storm water detention impossible for a portion of a site, in lieu of providing detention for such an area, at the discretion of the Director of Public Works, compensatory storage volume and reduction of allowable release rates may be provided on another portion of the site. In no case shall the runoff from the total site exceed the allowable release rate.
2. When a direct discharge of "100 year" or greater capacity in conjunction with pollution control to a major receiving body such as Yakima, Teanaway and Columbia Rivers and Keechelus, Kachess and Cle Elum Lakes is provided said control or conveyance of storm water runoffs shall be shown on a drainage plan which shall be prepared by the developer's licensed engineer and shall be submitted for review and approval by the. Washington State Department of Ecology.
3. The storm water detention requirement may be waived at the discretion of the Public Works Director if the volume of storage calculated for that development is less than 250 cubic feet and if the site has no environmental, hydraulic, or hydrologic constraints which must be mitigated by providing storage.
4. Prior occupancy of any single phase of a phased development, storm drainage facilities should be completed and operational to provide runoff control, detention, and water quality treatment for the phase for which occupancy is requested.
5. Storm water detention systems shall be designed to maximize reliability, ease of maintenance, and water quality of runoff and shall minimize hazards to persons or property (both on-site and off-site), nuisance values, and risk of failure.
6. Sufficient detention storage capacity shall be provided to store the excess runoff from the developed site during a storm event having a probability of occurrence commonly known as the "100-year storm". A non-erosive overflow path shall be provided from each detention facility to protect adjacent property from damage.
7. Detention basin performance shall be such that discharge from the development area meets the following criteria:
   a. 50% of the predevelopment two-year peak release rate for the two-year developed design storm.

b. The pre-developed 25-year peak release rate for the 25-year development design storm.

8. Sizing: In calculating the storage volume provided, "dead storage" in wet ponds shall be excluded, i.e., that volume of water which must be assumed to be present in the detention system at the commencement of the design storm. Any volume at a level below that of the outfall invert must be presumed to be dead storage, e.g. catchments.

9. Permanent pond surface area should equal 2% of the catchment area for residential and 3% of the catchment for commercial. Volume should be equal to the volume generated from two-thirds of the 2-year, 24-hour storm.

10. Controlled Overflow Requirements: All detention storage facilities should include a provision for control of overflows, and suitable data shall be provided to support the design. Under no circumstances should the overflow be overland to public right-of-way or over private property not included as part of the development without a recorded easement.

11. Site, Soil and Infiltration Data Requirements for Calculating Effective Infiltration Rates to Reduce Storage Requirements.

a. General Data Requirements:

i. The proposed site should have favorable topography to preclude high runoff rates. Engineering calculations shall be included with any submittal to show that there will be no adverse impacts due to the reduced storage. Such adverse impacts may include but not be limited to, increased frequency of overflows.

ii. A log of the soils and infiltration test data should be submitted to reveal site soil conditions and infiltration rates.

iii. An adequate number of test holes should be located over the proposed site to substantiate representative conditions for the final layout of the development, and as a minimum condition, test holes shall be located in each area and at the elevation proposed for infiltration.

iv. Groundwater depth, location, flow and general characteristics shall be considered.

v. Impervious strata shall be at a depth greater than two three feet below the bottom of the proposed infiltration area.

b. Soil Data Requirement: A soil log may be required to describe soil type and depth along with a site map showing the location of each test hole. Classification may be in general terms such as loose sand, sandy silt, clay hardpan,

rock, etc. or classification may be in specific terms as described by the U.S. Department of Agricultural. The soil log should include the depth to ground water table.

12.06.090 Review and Approval of Plan.

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

B. All storm water plans prepared in connection with any of the permits and/or approvals listed in Section 12.01.030 shall be submitted for review and approval to the Public Works Department.

C. Any applicant or property owner proposing an action that may require a storm drainage plan may request a preliminary review of the proposal by the Director and a determination of the need for a drainage plan pursuant to Section 12.01.030.

12.06.100 Bonds and Liability Insurance.

A. The construction of storm drainage facilities requires Financial Guarantees in accordance with Section 12.01.150

12.06.110 Standard Storm Water System Maintenance.

Maintenance of storm water facilities on private property shall be the responsibility of the owner(s), unless otherwise provided for under Section 12.06.120. 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 Director of Public Works determines the storm water 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.

12.06.120 County Assumption of Maintenance.

Upon petition of the Owner(s), Kittitas County with approval of the Kittitas County Board of Commissioners, may assume the maintenance of retention/detention facilities if all of the following conditions are met:

A. All of the requirements of Section 12.08.;

B. The facilities have been inspected and approved by the Public Works Director;

C. All necessary easements entitling the County to properly maintain the facility have been conveyed to the County; and

D. It is recommended by the Public Works Director that the assumption of maintenance would be in the best interests of the County.

12.06.130 Appeal Procedure.

In the event of a determination by the Director that storm water plans are required, the applicant shall have the right to have the determination reviewed by the Kittitas County Board of Commissioners or the owner may make corrective provisions to the project as necessary. Denial by the Board shall leave the owner with the choice of correcting the project as suggested by the County or appeal through the judicial process.

12.06.140 Variances.

Variances from these Storm water Standards and Guidelines may be requested by the applicant in accordance with Section12.01.130.

12.06.150 Retroactivity Relating to County Maintenance of Subdivision Facilities.

Any owner who has constructed retention/detention facilities prior to the adoption of these storm water standards and guidelines may petition for the County to assume maintenance of the constructed facilities. If it is determined to be in the overall interest of the general public, the County, upon approval by the Kittitas County Board of Commissioners may assume the maintenance of the constructed facilities provided all of the following conditions are met:

A. The owner shall demonstrate, to the Public Works Director's satisfaction, that approved plans and constructed facilities substantially comply with these storm water standards and guidelines,
B. The owner shall provide as-built plans, prepared to County standards, for all constructed facilities, and
C. The Director shall inspect the storm water facilities and approve and acknowledge that all conditions for accepting maintenance responsibility have been met.

CHAPTER 7 – BRIDGES AND MAJOR DRAINAGE STRUCTURES

12.07.010 Design Standards

A. All culvert pipe, box culverts, and bridges and major drainage structures, for which approval by the Kittitas County Public Works Department is required or which may ultimately be maintained by Kittitas County serving public or private roads and driveways shall conform to KCC 12.01.110 and 12.01.120.

AASHTO Standard Specifications for Highway Bridges, latest edition and applicable interim versions.

AASHTO Design Guidelines for Low Volume Roads, latest edition and applicable interim versions.

~~WSDOT, Standard Specifications for Road and Bridge Construction, latest edition.~~

~~WSDOT, Bridge Design Manual, latest edition.~~

~~WSDOT, Bridge Detailing Manual, latest edition.~~
~~WSDOT, Design Manual, latest edition.~~

~~B.~~A. 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.

~~C.~~B. All roadway structures must be designed in accordance with applicable WSDOT ~~D~~design ~~M~~manuals or AASHTO ~~D~~design guidelines. All new bridges and major drainage structures shall meet a minimum design load structural capacity of HL-93, ~~HS20-44~~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.

~~D.~~C. All box culverts and bridges shall have the year of construction permanently indentured 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.

~~E.~~D. All ~~box culverts and~~ bridge~~s~~ and major drainage structures ~~designs~~ shall be designed~~done~~ by a ~~registered~~ professional civil engineer licensed in the State of Washington.

F. Foundation designs shall be based upon the recommendations of a qualified geo-technical engineer. These recommendations shall be documented in the geo-technical report.

G. ~~Culvert and b~~Bridge and major drainage structure waterway opening designs shall conform to the parameters of the applicable WSDOT ~~D~~design ~~M~~manual~~, or~~ AASHTO ~~D~~design ~~G~~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 drive-way 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~~070.030~~ Structure Inspections

A. It is the developer's responsibility to ~~perform~~ ensure all materials are tested and inspected as ~~testing~~ required.

B. The developer's~~owner's~~ structural engineer or his representative, familiar ~~with assumptions inherent in~~ 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 ~~provided,~~ as frequent~~ly~~ as necessary to ensure~~assure that~~ the construction conforms to the plans and specifications. ~~Inspection shall be~~

~~by qualified technical personnel experienced in the inspection of similar structures~~. 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 ~~for Road and Bridge Construction~~, and WSDOT ~~Field~~ Materials Manual, latest edition~~s, and applicable interims~~.

E. When ~~L~~land use development activities~~applications that will~~ increase the use of existing bridges, the bridges shall be re-inspected and ~~shall provide~~ all inspection and testing ~~material~~ 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 ~~licensed professional~~ 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 ~~Inspections conducted~~ within two~~5~~ 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~~Engineering Department~~ 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 ~~professional~~ civil engineer~~,~~ licensed~~registered~~ 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 professional~~civil ~~engineer, registered in the State of Washington. The~~ Construction plans submitted for review and comment 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 ~~Registered~~licensed ~~-~~civil ~~Professional E~~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~~this manual,~~. 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 ~~County Engineering Department~~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 preliminary civil engineering plans. The plans shall be submitted at plat application. The plans shall consist of a conceptual plan and profiles plan, proposed cross section and conceptual stormwater plan as required by KCC 12.06. ~~prints together with drainage calculations and other necessary supporting information, and shall be signed and stamped by the applicant's engineer. The applicant's engineer must be a registered Civil Engineer 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.~~

B. The second submittal shall consist of two complete sets of final 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 developer's engineer. The developer's engineer must be a civil engineer licensed in the State of Washington. Review fees, when adopted and applicable, shall be paid by the developer before review of the plans by the County commences.

~~A.~~C. If corrections are required, the County will return a redlined print showing necessary corrections within 30 days of submittal.

~~B.~~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 ~~original~~final ~~M~~mylar set of plans will be signed and returned to the ~~applicant~~developer's engineer.

E. Any revisions to approved plans shall be submitted for approval prior to construction. Revisions shall be stamped and signed by the developer'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 developer's engineer.

~~C.~~F. The ~~applicant~~developer's engineer shall provide the County with a good quality reproducible ~~M~~mylar and two complete sets of prints of the approved plans and one complete set of other supporting documentation. The ~~applicant~~developer'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 ~~some form of~~ performance guarantee as outlined by KCC 12.01.150.~~.~~

~~D.~~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~~should~~ be indicated. The key map shall~~should~~ 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~~will~~ 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~~developer or agent ~~at 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

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

~~1. Plans for traffic control during construction must be accepted prior to issuing construction permits.~~
~~2. Signing/s~~Striping plans require acceptance prior to issuing construction permits.
~~3.~~A. The acceptance block shall be located in the lower right hand quadrant of the cover sheet.
~~4.~~B. 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.

_____ _____

~~Director of Public Works~~County Engineer ~~_____~~ Date

12.08~~0~~.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~~sewer~~ construction must conform to ~~the~~ Kittitas County R~~r~~oad ~~and storm water~~ S~~s~~tandards current at the time of ~~construction~~ application. Any construction occurring four years or more after final approval ~~the execution of the subdivision improvements agreement~~ 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 developer's contractor shall give ~~the Kittitas County Engineering Department~~ the Department of Public Works staff at least ~~twenty-four~~ 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 ~~or utility~~ permits from Public Works ~~the DPW~~ 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 developer must present a statement from a~~n~~ civil engineer ~~registered as a professional engineer~~ licensed in the State of Washington that the project has been completed in substantial compliance with approved plans and specifications. The developer's engineer ~~and~~ must document~~ing~~ that ~~the engineer has made~~ 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 ~~that~~ quality control testing ~~has been undertaken for the project, which testing~~ demonstrates compliance with the plans and specifications approved by Kittitas County. A final inspection by the Department of Public Works is required and all deficiencies must be corrected prior to release of collateral.

The developer 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 ~~registered~~ licensed civil~~professional~~ 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. ~~For roads under consideration for adoption to the county road system~~: Quality control test results must be submitted for all phases of the project in accordance with the ~~Washington Department of Transportation's~~ 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 ~~PHASED CONSTRUCTION~~

1. Engineer drawn plans must be submitted and approved by the C~~c~~ounty 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~~100~~ 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~~110~~ Date of Plans

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

12.08.110~~120~~ Seal and Signature

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

12.08.120~~130~~ 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 ~~the~~ Kittitas County Road~~way~~ Standards.

~~B.~~C. The County will review these requests under normal review procedures as outlined previously in these ~~Roadway~~ Standards in KCC 12.01.160.

~~C. Generally, Kittitas County will not accept maintenance responsibilities for private or public road improvements associated with land development activities. In no case shall private improvements not constructed in accordance with the applicable design and construction standards and specifications be accepted for maintenance by Kittitas County.~~

12.08.140 Requirements for Road Plan and Profile Drawings

In addition to the requirements set forth elsewhere in these ~~Road~~ 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 ~~P~~property and~~/or~~ right-of-way ~~R.O.W.~~ lines, easements~~, and/or~~ tracts and~~/or~~ irrigation ditch(s). Type and dimension of the easements or tracts are~~is~~ to be clearly labeled. Property lines and right-of-way~~R.O.W.~~ 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 and their appurtenances, including, but not limited to: Stormwater ~~sewer & appurtenances~~, fence lines and~~&~~ gates, water lines ~~& appurtenances~~, irrigation~~,~~ ditches ~~or swales~~, electric lines ~~& appurtenances~~, curbs and gutters, sewer lines ~~& appurtenances~~, pavement limits, communication lines~~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~~P.C.R.~~ 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 ~~arterial improvements. A~~any roadway improvements including intersections ~~intersecting an arterial, or any collector intersection~~ 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. For six inch vertical curb and gutter, all design elevations shall be centerline, lip of gutter, or flowline (preferred). For combination of curb, gutter and sidewalk, all design elevations shall be back of sidewalk, lip of gutter, or flowline (preferred). ~~All design elevations shall be centerline, top of curb, lip of gutter, or flowline (preferred) for 6 in. vertical curb and gutter; or back of sidewalk, or 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 ~~twenty-five (~~25~~)~~ feet. Previously approved designs are not an acceptable means of establishing existing grades.

5. ~~Existing and new utilities.~~ 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 ~~Kittitas County Engineering Inspector~~ 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 ~~i~~inspector's absence. However, Kittitas County reserves the right to not ~~to~~ 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 ~~Washington Department of Transportation'~~WSDOT Standard Specifications ~~for Road and Bridge Construction,~~ and ~~the Washington Department of Transportation 'M & S Standards,~~ WSDOT Standard Plans ~~latest edition,~~ shall ~~su~~apply.

12.08.150 Signing and Striping Plans

A. ~~Because the County may maintain the traffic control devices on public rights-of-way, 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 the responsibility of the developer.

C. Plans for traffic control during construction must be accepted prior to issuing construction permits.

D. Signing and striping plans require acceptance prior to issuing construction permits.

~~B.~~E. 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 ~~the Washington Department of Transportation~~ WSDOT Standards and Specifications. ~~The Manual on Uniform Traffic Control Devices Signal Warrants~~ MUTCD requirements shall be met for signal installation. All subdivisions, road improvement projects, and~~/or~~ 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.

~~A.~~2. Review Process - There are two steps the plans must undergo for review.

a~~1~~. The first step of review is a redline markup. Requirements will be marked where necessary and the plans returned to the developer's~~owner's~~ engineer.

b~~2~~. 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 developer's~~owner's~~ engineer to send the ~~M~~mylar cover sheet of the plans for sign off.

c~~3~~. Final plans shall, in all cases, be included along with the road construction plans, utility construction plans, ~~and a~~ grading and drainage plan, and the plat ~~or plot plan~~.

~~c. General Provisions - Traffic control devices shall conform to the Federal Manual on Uniform Traffic Control Devices (MUTCD.~~

~~d.~~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 developer's~~owner'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, ~~/~~and Benchmarks

A. All monuments delineating ~~R~~right-~~-~~of-~~ W~~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 ~~range box (Kittitas County standards)~~ shall be installed to protect and provide access to said corner.

C. If so desired, the Developer may install monument cases and covers ~~range boxes~~ 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 ~~C~~county ~~R~~roads, whether by or for a private developer, by County forces, by County ~~C~~contractor or by private contractor, shall be done in accordance with Kittitas County Road Standards and approved plans (~~Section~~ 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~~Director~~ before being implemented.

B. The County Engineer~~Director~~ 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~~Director~~ may delegate.

C. Provisions of Section 1-05 (Control of Work) of the WSDOT Standard Specifications, most recent edition, shall apply, with the term "Engineer" therein construed to be the ~~Director of Public Works~~County Engineer as defined in KCC ~~Section~~ 12.02.020 ~~of these Standards~~.

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~~Director~~, 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~~sewers~~.

D. Utility and Storm Drainage Backfill and Compaction: One working day notice before backfill and compaction of storm ~~sewers~~ 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~~Section~~ 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~~Director~~.

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 ~~photo mylar or ink-on-~~mylar set of~~or sets of blue line final,~~ 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 ~~blue line~~ sets as warranted by the type of improvement. Mylars ~~and blue line drawings~~ 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~~DOS/DXF~~ 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 KCC~~Section,~~ 12.01.150, repair of any failed facilities and the payment of any outstanding fees.

~~L.~~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 ~~the~~ County personnel. Costs of such testing and certification shall be the responsibility of ~~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 (Roadway Excavation and Embankment) of the WSDOT Standard Specifications apply in all respects to development construction unless otherwise instructed by the County Engineer~~Director~~. The following elements are cited for clarification and emphasis:

A. Embankment and Cut-Section Compaction:

Compaction of ~~the top two feet 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 (Compacting Earth Embankment) - Method B. ~~Subgrade fill below the top two feet shall be compacted to 09% of maximum density.~~

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~~professional~~ engineer licensed~~registered~~ in the State of Washington. Optimum moisture content and maximum density shall be determined by methods cited in Section 2-03.3(14)D (Compaction and Moisture Control Tests) of WSDOT Standard Specifications or by other tests approved by the County Engineer~~Director~~. 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 developer'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 developer'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~~Director~~ prior to beginning the work. Traffic control shall follow the guidelines of Section 1-07.23 (Public Convenience and Safety) of the WSDOT Standard Specifications. All barricades, signs and flagging shall conform to the requirements of the MUTCD ~~Manual~~. 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 ~~ten~~ 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~~Director~~ 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 an 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~~Director~~ 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~~Director~~ 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 County Engineer~~Director~~ 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~~ Route Agreement:

When identified as a need by the SEPA review process or by the County Engineer~~Director~~, a haul ~~road~~ route agreement shall be obtained by the ~~F~~franchised ~~U~~utility, ~~D~~developer or ~~P~~property ~~O~~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~~Director~~.

12.09.070 Call Before You Dig

Developers and contractors are responsible for notification of utilities a minimum of ~~48 hours~~ two working days ~~-~~in advance of any ~~construction in right-of-way or utility easements~~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.

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. Application~~

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~~developer 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 a~~n applicant~~developer 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 a~~n applicant~~developer, 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. ~~Applicant~~Developers 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~~developer'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) ~~or more~~ 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~~developer in writing of the denial finding. The ~~applicant~~developer 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 ~~12.10.080~~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 ~~per the requirements of 12.10.040(8)~~ 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) ~~or more~~ 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)~~12.10.050(A)(9)~~ 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~~developer 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~~developer 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 ~~to the Road Variance Committee,~~ as provided by KCC 12.10.050(B)(4)~~12.01.130~~.

~~12.10.080 Appeal~~

~~A. Any appeal of a concurrency finding shall be made to the Road Variance Committee as provided by KCC 12.01.130 within 15 days after issuance of the determination of concurrency finding.~~

~~B. Any appeal shall be accompanied by a fee as defined in the county's fee schedule.~~

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.

~~L.~~M. "Developer" means the person or persons legally responsible for the land use development activity.

~~M.~~N. "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.~~O. "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.~~P. "Director" means the public works director, or his/her designee.

~~P.~~Q. "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~~developer in a form approved by the county in a voluntary agreement.

~~Q.~~R. "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.~~S. "Growth Management Act" means the Washington State Growth Management Act (Chapter 36.70A RCW) and any adopted amendments.

~~S.~~T. "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.~~U. "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.~~V. "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.~~W. "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.~~X. "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.~~Y. "SEPA" means the State Environmental Policy Act (Chapter 43.21 RCW) as implemented by Kittitas County.

~~Y.~~Z. "Service provider" means the jurisdiction, department or agency responsible for providing the facility.

~~Z.~~AA. "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.~~BB. "Traffic engineer" means an engineer licensed in the state of Washington qualified to perform traffic impact analyses.

~~BB.~~CC. "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.~~DD. "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.

~~CHAPTER 12 – PRIVATE ROADS~~ (MOVED TO CHAPTER 4)

~~12.12.010 General~~

~~Private roads shall meet the following conditions:~~

~~Private roads shall meet the minimum access requirements of Section 902 – FIRE DEPARTMENT ACCESS – of the International Fire Code as adopted by the County, and~~

~~Shall be designed and constructed in conformance with AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT< 400) 2001, as now exists or hereafter amended, and~~

~~Shall be inspected and certified by a licensed professional engineer for conformance with the above referenced standards. In the alternative, an applicant may request the private roadway to be inspected and subject to the approval of the Public Works Director. If certification by the Public Works Director/County Engineer is desired, submission of road plans and necessary testing documentation that confirms compliance with Kittitas County Road Standards is required, and services will be performed on a reimbursable basis, and~~

~~Permanently established by an easement recorded with the Kittitas County Auditor or Right-of-way, providing legal access to each affected lot, dwelling unit, or business, and~~

~~Will not result in land locking of existing or proposed parcels, and~~

~~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~~

~~Clearly described on the face of the plat, short plat, or other development authorization and clearly signed at street location as a private street or road, for the maintenance of which Kittitas County is not responsible and a disclosure statement of the same is filed with the County Auditor, and~~

~~The following note shall be placed on the face of the plat, short plat, or other development authorization:~~

~~"Kittitas County will not accept private roads for maintenance as public streets or roads until such streets or roads are brought into conformance with current County Road Standards. This requirement will include the hard surface paving of any street or road surfaced originally with gravel."~~

~~12.12.020 PRIVATE STREET DESIGN CRITERIA~~

~~Private roads shall meet the design requirements of Table 12-1~~

Table 12-1
Private Road Minimum Design Standards

-	Private Roads					
-	Driveway		-	High-Density	-	Low Density
-	Single	Joint-Use	0 - 5 Acres Average Lot Size			5.01 Acres and Larger Average Lot Size[1]
Design Elements	- -	- -	- -	- -	- -	- - - - - - - -
Number of Lots Served	1	2	3 - 14	15 - 40	40+[2]	3 - 40+
Minimum Easement Width	0	20	40	60	60	60
Paved Apron[3]	N/A	N/A	Req'd	Req'd	Req'd	Req'd
Roadway Width	8	12	20	22	AASHTO	20
Graveled Shoulder Width	N/A	N/A	1	1	AASHTO	1
Minimum Centerline Radius (ft)	N/A	N/A	60	60	AASHTO	60
Surfacing Requirements[4]	Gravel	Gravel	Gravel	BST/ACP	AASHTO	Gravel
Minimum Crushed Stone Depth	N/A	6"	6"	6"	AASHTO	6"
Maximum Grade %[5]						
— Flat	N/A	N/A	8	8	8	12
— Rolling	N/A	N/A	12	12	12	
— Mountainous	N/A	N/A	12	12	12	
County Road Approach Permit	Req'd	Req'd	Req'd	Req'd	Req'd	Req'd
Stopping Site Distance	N/A	N/A	AASHTO	AASHTO	AASHTO	AASHTO
Entering Site Distance	N/A	N/A	AASHTO	AASHTO	AASHTO	AASHTO
Ditch Slope (inside slope)	Slopes steeper than 2:1 should only be used when achieving a 2:1 slope is impractical					

[1] Residual lots within a proposed development shall not be considered when computing average lot size

[2] Engineer design per AASHTO and/or WSDOT required for 40+ High-Density lots.

[3] Applies to all roads accessing existing paved roadway

[4] All private roadways serving three or more lots shall achieve 95% compaction and shall be inspected and certified by a licensed engineer prior to surfacing.

[5] A variance request is required for grades above 12%.

CHAPTER 12.15 – WATER ON THE ROAD

12.15.01 Conduct of Water Upon or Across County Roads.

No person, firm or corporation shall operate any irrigation system which, in still air, directs water upon or across any county road so as to endanger or impede the road or travel thereon.

12.15.02 Violation – Penalties.

Any person, firm, or corporation violating or failing to comply with any of the provisions of this chapter is subject to penalties and enforcement under Title 18 KCC.

12.15.03 Damages.

In addition to any penalties under 12.15.02, any person, firm or corporation violating the provisions of this chapter shall be responsible in damages to Kittitas County for any reasonable amount necessary to repair, replace, resurface or to otherwise restore such county road as may be affected, to the condition in which said road was prior to violating acts.

12.15.04 Provisions Supplemental.

The provisions of this chapter shall be cumulative and nonexclusive and shall not affect any other remedy of law.

12.15.05 Severability.

If any provision of this Chapter or its application to any person or circumstances is held invalid, the remainder of the Chapter or the application of the Chapter to other persons or circumstances shall not be affected.