# LARAMIE COUNTY, WYOMING



## ROAD, STREET AND SITE PLANNING DESIGN STANDARDS

**MAY 7, 2002** 

## RESOLUTION #20507-02

"RESOLUTION REPEALING THE 1990 LARAMIE COUNTY ROAD, STREET, AND SITE PLANNING DESIGN STANDARDS AND ADOPTING THE 2002 LARAMIE COUNTY ROAD, STREET, AND SITE PLANNING DESIGN STANDARDS"

WHEREAS, Wyo. Stat. §§ 18-2-102, 18-3-504(a)(vii), 18-3-701, 18-5-201, 18-5-301, 24-1-102(b) and 24-1-104 authorize Laramie County to regulate the use, design and lay out of all public streets, roads and right of ways in unincorporated Laramie County; and

WHEREAS, the Board of Laramie County Commissioners has complied with the requirements of Wyo. Stat. § 16-3-103(a) by giving proper notice and holding public hearings on April 2 and 16, 2002; and

WHEREAS, due to the increased development and growth in unincorporated Laramie County, the 1990 Laramie County Road, Street and Site Planning Standards have been determined to be insufficient and in need of comprehensive revisions.

NOW THEREFORE BE IT RESOLVED BY THE GOVERNING BODY OF LARAMIE COUNTY, WYOMING, that Laramie County hereby repeals the 1990 Laramie County Road, Street and Site Planning Standards and adopts the 2002 Laramie County Road, Street and Site Planning Standards which are attached hereto and fully incorporated herein.

PRESENTED, READ AND ADOPTED this 7th day of May, 2002.

BOARD OF LARAMIE COUNTY COMMISSIONERS

Diane Humphrey, Chairman

ATTEST:

Debra K. Lathrop, Laramie County Clerk

Reviewed and approved as to form:

Peter H. Froelicher

Laramie County Attorney

#### **BOARD OF COUNTY COMMISSIONERS**

#### County of Laramie

I certify that the attached is a true and correct copy of the rules of the Board of County Commissioners relating to Road, Street and Site Planning Design Standards adopted in accordance with powers granted by Wyo. Stat. §§ 18-2-102, 18-3-504(a)(vii), 18-3-701, 18-5-201, 18-5-301, 24-1-102(b) and 24-1-104. This is a new rule.

Prior to adoption this rule was made available for public inspection on February 5, 2002 and notices of intended adoption were mailed to all persons requesting notice of proposed rules.

The attached rules are effective immediately upon filing with the Laramie County Clerk.

Signed this 10<sup>T1</sup> day of May, 2002.

Dane Humphrey, Chair

**Board of County Commissioners** 

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#### Chapter I

#### INTRODUCTION

- **Section 1.** <u>Purpose</u>. The purpose of these Standards is to set forth the requirements for developments and improvements that affect roadways, alleys, and access easements. The Standards are based on the State Statutes, and County Resolutions which authorize and enable the establishment of rules and regulations to guide and control transportation-related improvements and developments.
- **Section 2.** <u>Objective</u>. The objective of these Standards is to ensure that plans, policies, regulations and standards are effective, understandable, and meet the needs of the community without creating unnecessary regulation. It is intended that these Standards will serve as a clear, concise and complete guideline for developers, planners, engineers and public officials in planning roads, streets, and related infrastructure.
- **Section 3.** Effective Date. The provisions of these Standards are effective on the date designated in the actions by the Governing Body the Board of Laramie County Commissioners in adopting these Standards. Construction for which building, construction, subdivision, right-of-way, or zoning permits are applied for on or after the effective date of these Standards shall comply with these Standards. Construction that does not require a permit shall comply with these Standards if work is begun after the effective date of these Standards.
- Section 4. Application. These Standards apply to the unincorporated areas of Laramie County. The Standards are performance based so they will vary by the type and density of development. Urban standards will apply within the Urban Development Area Boundary shown at Figure 1-1 and outside the Boundary in areas where development will be dense enough to be considered urban. The urban boundary coincides approximately with the areas that can be provided domestic sewer service by the Cheyenne Board of Public Utilities or the South Cheyenne Water and Sewer District. Areas outside the boundary where urban standards apply will typically be provided domestic sewer service by privately operated systems. Rural standards apply outside the areas where urban standards apply. The Wyoming Department of Transportation (WYDOT) has full authority for roads on the State Highway System. For roads on the State Highway System, WYDOT policies supercede these Standards. Where WYDOT policies indicate local responsibility, these Standards apply.
- **Section 5.** Meanings of "Shall", "Should", and "May". In these Standards, the words "shall", "should" and "may" are used to describe specific conditions. To clarify the meanings intended by the use of these words, the following definitions apply:
- a. Shall A mandatory condition. Where certain requirements in the design or application of the standard are described with the "shall" stipulation, it is mandatory that these requirements be met.

- b. Should An advisory condition. Where the word "should" is used, it is considered to be advisable usage, recommended but not mandatory.
  - c. May A permissive condition. No requirement or recommendation is intended.

**Section 6.** <u>Appeals</u>. Applicants may appeal a decision of the Laramie County Director of Public Works by giving written notice of such appeal to the Governing Body within thirty calendar days of the decision being appealed. The written notice shall include the reasons for the appeal. Hearings on appeals under this Section shall be conducted in accordance with the Wyoming Administrative Procedure Act (W.S. 16-3-101 through 16-3-115).

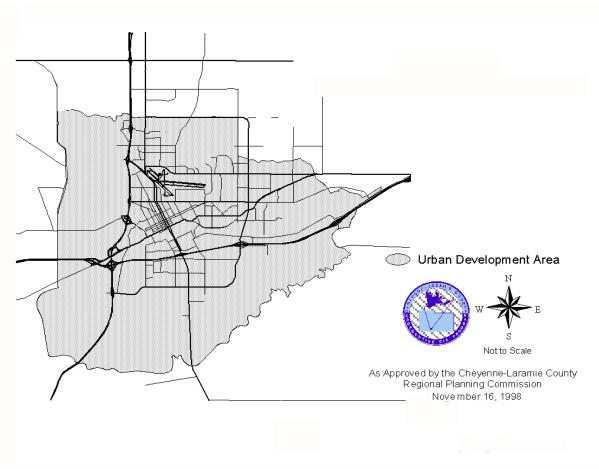


Figure 1-1
Urban Development Area Boundary

**Section 7.** <u>Waivers</u>. If an applicant wishes to seek a waiver from the requirements of these Standards, the applicant shall submit a request to that effect as an attachment or addendum to the permit, site plan, or other application for project approval. When implementation of such innovations would violate mandatory provisions of these Standards, applicants are encouraged to visit the appropriate county officials to discuss the proposed waivers prior to formal submittal of applications in an attempt to resolve waiver issues beforehand.

The request for waiver shall state specific reasons why a waiver is necessary and appropriate and include documentation to support such reasons. The request shall address the waiver criteria of this section. Waivers will not be issued for procedural requirements. Separate waiver requests may be advisable where several waivers are necessary and where the waivers may be approved in whole or in part.

In considering a waiver request, the Laramie County Director of Public Works shall determine whether the waiver would meet acceptable standards of practice for engineering, operation and safety. Waivers contrary to the public interest, or which violate local or state laws, shall not be approved.

When a waiver is approved, the Laramie County Director of Public Works shall clearly state in writing the reasons for granting the waiver. The approval document shall be included in the permit. The approval may impose conditions on the permit. For example, the permittee may be required to improve, modify, eliminate, or correct the condition giving rise to the waiver when it becomes evident that the reason for the waiver no longer exists. If the waiver is approved and the remainder of the application is in order, and the design meets all other standards and design criteria, the requested action shall be approved.

If a waiver is granted to allow direct highway access where the access proposal cannot meet access code standards, or when the property would be without reasonable access without the waiver, the access permit may contain specific terms and conditions providing for its expiration at such time as the necessity for the waiver no longer exists.

If the waiver request is denied, the Laramie County Director of Public Works shall state clearly in writing the reasons for denial, continue to process the application, and may approve the application if it can be approved without a waiver.

The decision of the Laramie County Director of Public Works regarding the waiver request shall be included as part of the permit application file.

If the waiver request is not approved the applicant may appeal the decision under the provisions of Section 6 of this Chapter.

In the event the County is the party requesting the waiver, the County official requesting the waiver shall submit the request for waiver directly to the governing body.

**Section 8.** <u>Innovation, New Technology and Non-Typical Design</u>. These Standards are based on current practice and technology. New developments in materials and methods will provide better and more economical designs and practices. Applicants and designers are encouraged to include innovative procedures, new materials, and improved design methods in facility design. Proposals for innovations and new technology should, when appropriate, be submitted as requests for waivers as described in Section 7 of this Chapter. Such requests should include as much documentation as possible of the proposed innovations, including reports of tests, documentation of successful use in other jurisdictions, calculations, publications, and any other information that will assist the official to determine if the proposal should be adopted.

**Section 9.** <u>Authority</u>. These Standards are adopted pursuant to the Board's powers granted by Wyo. Stat. §§ 18-2-102, 18-3-504(a)(vii), 18-3-701,18-5-201, 18-5-301, 24-1-102(b) and 24-1-104.

#### Chapter II

#### ROADWAY FUNCTIONAL CLASSIFICATION

**Section 1.** <u>Purpose</u>. Functional classification, developed for transportation planning purposes, is the grouping of streets by the character of service they provide. Functional classification has emerged as the primary method of grouping streets. These Standards utilize a functional classification system.

**Section 2.** <u>Classification</u>. A working copy of the current functional classification map is available at the ChATPP Office and the Development Office at 2101 O'Neil Avenue. The functional classifications used are described in the remainder of this section. These classifications are consistent between the City, County, and State. There are classification differences between urban and rural roads as shown in the table below.

Table 2-1
Urban and Rural Roadway Classifications

Urban	Rural
Principal Arterial - Interstate	Principal Arterial - Interstate
Principal Arterial - Expressway/Freeway	Principal Arterial - Expressway/Freeway
Principal Arterial-Other	Principal Arterial-Other
Minor Arterial	Minor Arterial
Collector	Collector-Major
	Collector-Minor
Local	Local

In the following discussions of each of the road classifications, the average daily traffic (ADT) for each classification is a general description only. The official classifications for individual streets are provided on the functional classification map.

**Section 3.** <u>Principal Arterials</u>. Arterials, including interstates, are the highest classification of streets. They provide the highest level of mobility at the highest speeds

for the longest distances. Direct access onto these roads are limited to varying degrees depending on use and geographic setting.

**Section 4.** <u>Interstates, Freeways & Expressways</u>. The freeways and expressways in the area are on the Interstate System. Freeways provide for the high-speed movement of large volumes of traffic with a minimum of interference. This is accomplished through the use of access control, divided roadways, and grade-separated interchanges. Freeways have the inherent characteristic of lower accident rates because of many built-in safety features such as comfortable alignment, easy grades, speed change lanes, adequate sight distance, and other geometric features that afford a continuous movement of traffic.

Expressways are generally considered an intermediate step between major arterial streets and freeway facilities. Expressways can be expected to accommodate somewhat lower volumes of traffic than are found on freeways, and are often used in corridors where anticipated volumes of traffic will need less than freeway requirements but more than conventional arterial facilities.

**Section 5.** Other Principal Arterials. These facilities emphasize the through movement of traffic and have improved geometric design and traffic control measures. Principal arterials are designed with traffic volume ranges between 15,000 and 35,000 vehicles average daily traffic (ADT).

**Section 6.** <u>Minor Arterial Streets</u>. These streets serve major traffic generators and link collector streets with the principal arterials. These streets have a design traffic volume of between 3,500 and 15,000 vehicles ADT.

**Section 7.** <u>Collectors.</u> Collectors provide a lower level of mobility than arterials at lower speeds and are of shorter distance. These streets connect local roads to arterials and have more direct access dependent on use and geographic setting. The design volume for these streets, in urban settings, ranges from 1,000 to 3,500 ADT. where parking is permitted, and from 3,500 to 5,000 ADT where parking is not permitted. In rural settings, collectors are classified as either a) 500 ADT or greater, or b) less than 500 ADT ("low volume").

The collector street system serves intermediate and short-distance travel. Traffic volumes on such facilities are usually lower than those found on arterial facilities. Although collectors provide access to residential, business, and commercial areas, they do not expedite the through movement of traffic.

**Section 8.** Local Streets. This is the lowest classification of streets. Local streets provide a high level of access to abutting land but limited mobility. Local streets function primarily to serve local traffic circulation and land access. These streets customarily accommodate shorter trips, have lower traffic volumes, and lower speeds than do collectors and arterials. Streets where design year traffic volume will be between 500 and 2,500 vehicles per day are considered "low volume" local streets. In

urban settings, narrow local streets (lanes) may be used where the volume will be less than 500 ADT. In rural settings, local streets (roads) are classified as either a) 500 ADT or greater, or b) less than 500 ADT.

For purposes of these Standards, local streets are further classified by adjacent land use for establishment of design criteria.

**Section 9.** Official Maps. Wyoming municipalities are authorized by W.S. 15-1-508 to establish "official maps" showing existing streets, and proposed new streets or street extensions, widenings, narrowings or vacations. These streets are accurately surveyed and definitely located, and frequently include areas of unincorporated Laramie County within the Cheyenne Urban Development Area. Planning and design of streets falling under the jurisdiction of these Standards shall follow the alignment and extent of such official maps.

**Section 10.** <u>Amendment Process</u>. Amendments to the official maps may be proposed either by private or public interests. The amendment, once it has been accurately surveyed with defined location by a person licensed by the Wyoming State Board of Registration for Professional Engineers and Professional Land Surveyors to practice land surveying in Wyoming, shall be submitted to the Cheyenne-Laramie County Regional Planning Commission, through the City or County Planning Office, for review and recommendation to the Governing Body. The Official Map may be amended by extending the lines of proposed new streets or street extensions, widenings, narrowings or vacations. Reasons for amending the Official Map include, but are not limited to:

- a. Request by the City, County, or others to recognize additions which have been previously platted and dedicated to the public that generally align with the proposed improvements identified on the adopted Major Roadway System Plan Map.
- b. Securing alignments of a proposed functionally classified roadway identified on the Major Roadway System Plan Map that are necessary to maintain the integrity of the major roadway system.
- c. Planning or engineering studies which recommend specific changes to the Major Roadway System Plan Map; and
- d. Other reasons presented by and through the City or County Planning Office and/or the ChATPP.

#### **Section 11. Amendment Procedures.**

a. Plan Adjustment. Where the proposed Map amendment differs substantially from the existing Major Roadway System Plan Map, the Plan Map amendment must by channeled through the City or County Planning Office and the ChATPP. The Plan Map

shall then be reviewed and adopted by the Regional Planning Commission before the City or County will consider amendments to the Official map.

#### b. Official Map Adjustment.

- (1) The applicant and/or agent shall submit a completed application, two (2) original mylars in standard format, and twenty (20) copies of an accurate survey with a defined location map amendment to the City or County Planning Office.
- (2) Prior to submittal of the application the applicant and/or agent shall notify adjacent property owners of the pending amendment.
- (3) The applicant/agent shall publish a "legal notice" in the local newspaper describing the intent of the amendment at least thirty (30) days prior to the Regional Planning Commission meeting date.
- (4) The City or County Planning office shall forward the map to pertinent agencies for notification and review. The Regional Planning Commission will review the proposed amendment at the third Monday of the Month meeting. The Planning Commission meeting constitutes the required Public Hearing.
- (5) The Regional Planning Commission will forward its recommendation to the governing body with reasons for its decision.
- (6) Official Map amendments require an ordinance (city) or resolution (county) by the governing body. The approved and signed amendment shall be filed with City Engineer's office or County Planning Department, with the two (2) mylars recorded at the City Clerk's Office (City only) and the County Clerk's Office (City or County). If the amendment is disapproved, the meeting minutes shall reflect appropriate references on which the action was based. Appeals shall be in accordance with Wyoming Statutes.

#### Chapter III

#### TRAFFIC STUDIES

**Section 1.** <u>Preface</u>. Traffic studies are necessary to assess the impact which a new development, change in land use, or an access modification will have on the existing and proposed transportation system, both at the immediate location and in the general area. Such studies are more accurately called traffic impact analyses, and usually include:

- a. The determination of the travel demand generated by a proposed development.
- b. The identification of deficiencies in the existing and proposed transportation systems.
- c. The identification of improvements necessary to maintain acceptable levels of service.

**Section 2.** Requirements. A traffic study shall be required for any site plan, preliminary plat, or access request for a development expected to generate 100 or more trips during any hour or over 200 trips per day. Traffic studies shall be prepared by a qualified civil engineer licensed by the Wyoming State Board of Registration for Professional Engineers and Professional Land Surveyors to practice engineering in Wyoming. The applicant and the engineer shall meet with the appropriate county office prior to preparation of the traffic study to discuss specific issues or concerns needing to be addressed.

**Section 3.** Standards. Traffic studies shall utilize sound and commonly accepted traffic engineering standards and procedures and shall utilize the Institute of Transportation Engineers (ITE) trip generation rates unless better information is available or can be obtained at reasonable cost.

Traffic studies shall address the following items in sufficient detail to adequately and accurately represent the traffic conditions and resultant impact of the proposed access request:

- Land Use, Site and Study Area Boundaries
- Existing and Proposed Site Uses
- Existing and Proposed Uses adjacent to the Site.
- Existing and Proposed Streets and Intersections
- Trip Generation for peak hours
- Trip Assignment, Modal splits
- Existing and Projected Traffic Volumes (Peak & Design Hour)
- Equivalent Axle Loads for pavement design
- Capacity Analysis at major approaches and intersections
- Warrants for traffic control devices

- Needed modifications of existing traffic control devices
- Reservoir space
- Driveway design
- Required lengths of left-turn bays, and speed change lanes
- Sight distances
- Maximum possible use for total build out scenario
  Conclusions and Recommendations

Three copies of the traffic study shall be submitted. Reports shall be 8-1/2 by 11 inch format, with maps no larger than 11 by 17 inches.

#### **Chapter IV**

#### **ACCESS CONTROL**

**Section 1.** <u>Preface</u>. Roadside interference with the movement of traffic affects the efficiency and safety of streets and roads. Most of the interference originates in vehicle movements to and from businesses, residences, or other adjacent development. Landowners have certain rights of access to adjacent streets. Road users have a right to safe use of public streets. In order to protect these rights, regulation and control of the location, design, and operation of access points on the public street system is necessary.

Access control regulations standardize, regulate, and control the location, size, type, construction, maintenance, and number of curb cuts, and driveway approaches. The regulations provide safe and efficient access between streets and adjacent property, safety of traffic in the streets, and safety of pedestrians on sidewalks and alongside rural roads. These Standards are intended to provide for consistency in design of new developments and to maintain a high level of service on roads and streets.

**Section 2.** <u>Permits Required</u>. No person shall commence work on the construction, alteration, repair or removal of any driveway approach or the paving of any parking strip on any street, road, alley or other public place in the county without a written permit first having been obtained from the Laramie County Public Works Department (through the Planning Department). The County shall issue permits upon approval of the application and payment by the applicant of any required fees.

A permit shall not be issued for access to parking or loading areas that require backing maneuvers in a public street right-of-way. Single family residential (including town homes) and duplexes are excepted.

**Section 3.** <u>Application</u>. To apply for a permit, the applicant shall file a written application with the County. Such application shall be made on a standard form provided for that purpose. The following information is required to be shown either on the application form or on attachments to the application:

a. A detailed plan showing the exact location of the abutting property and the exact dimensions and location of existing or proposed approaches and the relevant features adjacent to, across from, and within the limit of the frontage of such property; for example, fire hydrants, signs, sidewalks, poles, street light standards, and control boxes. The plan shall also show locations of access approaches on adjacent properties and properties on opposite sides of streets and intersections.

- b. The location of buildings, loading platforms, or off street parking facilities being served or to be served by such approaches.
- c. Existing and proposed traffic volumes for access points and adjacent access points and adjacent streets.

The County may require the filing of any other information when they determine that such information is necessary to properly enforce the provisions of these regulations.

When access points are being revised as part of a project requiring approval of site plans, applications for the site plan and the access permit shall be submitted together.

Plans shall not be approved and access permits shall not be issued where the proposed work conflicts with the provisions of these access regulations or any other applicable provision of regulations of the Governing Body. Issuance of an access permit shall not be construed as a waiver of other requirements concerning the plan.

As provided in Chapter I of these Standards, waivers of the requirements and regulations of this article may be granted where unusual conditions or strict adherence to these regulations would cause undue and extreme hardship. Decisions on requests for waivers may be appealed under the provisions of Section 6, Chapter I of these Standards.

Access onto state highways will be subject to the approval of both the Wyoming Department of Transportation district engineer (via a WYDOT access permit) and the Governing Body.

#### Section 4. Access Requirements for all Functional Classifications.

- a. Driveway Approach Profiles. Profiles shall be designed to permit entrance and exit maneuvers at safe speeds and provide sufficient underbody clearance for typical passenger cars. Driveway approach profiles shall be designed with the fewest and least severe grade changes possible. Slope criteria of the Americans with Disabilities Act shall be incorporated in the design.
- b. Roadside Topography for Roads in Rural Areas. Access approaches in rural areas shall be designed in accordance with the criteria and procedures described in "Roadside Design Guide", American Association of State Highway and Transportation Officials, January, 1996 (metric) or October 1988 (English) edition.

c. Driveway Approach Construction. Approaches in the County will be inspected prior to construction. The inspection will determine the proper size of the culvert, if applicable, and the approach grade.

Culverts shall have flared end sections at each end.

Any person performing work subject to the provisions of this section shall notify the Laramie County Public Works Department (through the Laramie County Planning Office) at least twenty-four hours in advance of the time when permitted work is to begin.

Access points shall not be constructed in such manner as to create a hazard to any existing street lighting standard, utility pole, traffic regulation device or fire hydrant. The cost of relocating any such street structure, when necessary, shall be borne by the applicant. Relocation of any street structure shall be performed only by or through the person holding authority for the particular structure involved.

The driveway approach improvement shall extend at least 20 feet or to the right of way line, whichever is greater. In the case of commercial and industrial driveway approaches, permanent pavement is required for at least 50 feet from the edge of the roadway pavement.

On County Roads, the distance from the right-of-way line to the near edge of service pumps, vendor stands, tanks, or private water hydrants shall be a minimum of 15 feet to permit free movement of large vehicles and to insure that they are entirely off the right-of-way when being serviced.

Fixed obstructions shall not be placed within county road right of way except for approved utility lines and markers, mailbox assemblies or fencing at the right-of-way line. Approach culvert headwalls are prohibited.

A driveway approach that will handle five hundred (500) or more vehicle trips per day shall be classified and constructed as a street intersection unless the Laramie County Director of Public works shall determine otherwise. A complete design of the intersection shall be submitted to the County before a permit is issued.

Driveway approach surfaces shall be paved. Exception: If the adjacent road is not paved, the driveway approach may consist of a minimum of six inches of crushed gravel of a gradation approved for road surfaces in lieu of paving.

Except as indicated above, curb cuts and driveway approach aprons in the right of way shall be constructed of Portland cement concrete of a quality and type which is in

accordance with the "Wyoming Public Works Standard Specifications" in effect at the time of such work. Curb cuts shall be permitted only with construction of adjoining Portland cement concrete aprons having a minimum depth of six inches.

Construction work on site development on rural roads shall not proceed prior to construction of the driveway approach and approval by the County.

The permittee or contractor shall maintain the driveway approach construction site in a safe manner, provide adequate barricades and lights at his own expense to protect the safety of the public using the adjacent streets or sidewalks, remove all debris, dirt, or other construction material immediately upon completion of work and shall hold the Governing Body harmless and indemnify the Governing Body from any damages incurred by permittee's operations. Such work shall be accomplished in conformance with the current editions of the "Manual on Uniform Traffic Control Devices" for Streets and Highways.

The permittee shall do all work and pay all costs in connection with the construction of access driveway approaches and their appurtenances on the right-of-way. This cost shall include the cost of any public property, including the roadway surface, damaged during construction.

Access points shall not be located so as to create a hazard to pedestrians or motorists or invite or compel illegal or unsafe movements.

Construction, alteration, or repair shall not be permitted for any driveway approach which can be used only as a parking space or which provides access only to the area between the street roadway and property lines. In such case the driveway approach shall be classified as an abandoned driveway.

- d. Maintenance of Driveway Approaches. Driveway approaches shall be well maintained to ensure that the original profile is retained, that operational speeds are not reduced by rough surfaces, and that no damage to or deterioration of the public pavement is caused by the condition of a driveway approach. Reconstruction of driveway approaches requires a permit as required in this chapter. Reconstructed driveway approaches shall conform to current regulations and the provisions of the Americans with Disabilities Act.
- e. Sight Distance. Permits shall not be issued that include any design element or allow any turning movements where the sight distance is not adequate to allow the safe movement of a motorist using or passing the access. The permittee shall maintain adequate, unobstructed sight distance in both directions from the access. This sight distance shall be the distance necessary according to the posted speed of the adjacent

road or street using the tables below. Any potentially obstructing objects such as but not limited to advertising signs, structures, trees, and bushes, shall be designed, placed and maintained at a height not to interfere with the sight distance needed by any vehicle using the access. Reconstruction of the horizontal and vertical curvature along the roadway and side slopes adjacent to the roadway may be necessary to increase sight distances to meet the requirements of Tables 4-1 and 4-2.

(1) Sight Distance along the Adjacent Road or Street. Table 4-1 shall be used to determine the required horizontal and vertical sight distance necessary as measured from the vehicle traveling on the adjacent road or street to the access. The design sight distance figures shall be used unless a design waiver is issued in accordance with Section 7, Chapter I of these Standards. However, in no case shall the sight distance used be less than the minimum sight distance set forth in Table 4-1 and adjusted for grade as required by Table 4-4.

Table 4-1
Sight Distance Along Adjacent Road or Street

Posted Speed in MPH	20	25	30	35	40	45	50	55	60	65	70
Design Sight Distance (feet)	100	150	200	250	325	400	475	550	650	725	850
Minimum Sight Distance (feet)	100	150	200	225	275	325	400	450	525	550	625

For calculating sight distance at the proposed access location, a height of 3.5 feet shall be used for the driver's eyes of a vehicle on the adjacent road or street approaching the access location. The driver's eyes shall be assumed to be at the centerline of the inside lane (inside with respect to the curve) for measurement purposes. A height of 4.25 feet shall be used for a vehicle assumed to be on the centerline of the access five feet back from the edge of the roadway.

The sight distances shown in Table 4-1 shall be adjusted for any grade of three percent or greater using the figures set forth in Table 4-4. Grade is the ratio of the change in elevation to the length of slope. Multiply the length required in Table 4-1 by the appropriate factor in Table 4-4.

(2) Entering Sight Distance. In addition to the sight distance necessary in accordance with Section 4.e. (1), it is also necessary to provide the entering vehicle adequate sight distance in order to enter or cross the adjacent road or street. Table 4-2 shall be used to establish the minimum sight distance necessary for the entering vehicle. These lengths shall be adjusted for any grade of three percent or greater using Table 4-4. The vehicle used to determine the entering sight distance necessary is selected from Table 4-3. Note: The term "Entering" means entering the public right of way from the abutting property.

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If there is no median or if the median is too narrow to safely store a left turning or crossing vehicle, a 20 foot minimum is necessary for passenger cars, both directions shall be considered from the access location. If the median can safely store the turning or crossing vehicle, then the sight distance shall be calculated assuming a two stop condition. The vehicle shall be assumed to stop once at the outside edge of the outside lane and again within the median. Each one-way roadway direction shall be considered separately.

(3) Sight Distance at Uncontrolled Intersections and Local Streets. A triangular space (the "sight distance triangle") shall be provided across corner lots for adequate sight visibility. The County Director of Public Works may approve the location of light or sign poles 12 inches or less in diameter in the sight distance triangle if visibility is not obstructed.

The sight distance triangle shall be kept free from obstructions to vision between the heights of 2 ½ and 12 feet above the street grades. Landowners are responsible to maintain this visibility.

The sight distance triangle is to be determined by a diagonal line drawn across the lot 35 feet back along the face of curb or edge of pavement from the point of intersection of the curb lines or edges of pavement. See Figure 4-1.

Table 4-2
Entering Sight Distance (in feet) for Controlled Intersections

Vehicle expected to enter or cross highway as determined from Table 4-3	Ť		ed of Ro				nea iii				
	20	25	30	35	40	45	50	55	60	65	70
	•	•	Two	Lane	Roadw	ay	•	•	•		•
Passenger Cars, Pickup Trucks	200	250	300	350	400	450	500	550	600	650	700
Single Unit Trucks Over 10,000 lb GVW	260	325	390	455	520	585	650	715	780	845	910
Multi-Unit Trucks	340	425	510	595	680	765	850	935	1020	1105	1190
			Fou	r Lane	Roadw	ay					
Passenger Cars, Pickup Trucks	240	300	360	420	480	540	600	660	720	780	840
Single Unit Trucks Over 10,000 lb GVW	300	375	450	525	600	675	750	825	900	975	1050
Multi-Unit Trucks	400	500	600	700	800	900	1000	1100	1200	1300	1400
			Six	Lane I	Roadwa	ay					
Passenger Cars, Pickup Trucks	260	325	390	455	520	585	650	715	780	845	910
Single Unit Trucks Over 10,000 lb GVW	340	425	510	595	680	765	850	935	1020	1105	1190
Multi-Unit Trucks	420	525	630	735	840	945	1050	1155	1260	1365	1470

For calculating Table 4-2 sight distance, a height of 3.5 feet shall be used for the driver's eyes at the access location and a height of 4.25 feet for the oncoming vehicle. The entering driver's eyes shall be assumed to be 15 feet back from the edge of the roadway.

Table 4-3
Design Vehicle Selection

Land use(s) Served by Access	Design Vehicle(s) to be Used for Sight Distance Calculations for Table 4-2					
Residential (access not part of a school bus route)	Passenger Cars, Pickup Trucks					
Access part of any school bus route regardless of land use	No less than Single Unit Trucks					
Office	Single Unit Trucks					
Recreational	Single Unit Trucks					
Commercial/Retail	Multi-Unit Trucks*					
Industrial	Multi-Unit Trucks*					
Public Streets & Roads	Multi-Unit Trucks*					
* If less than 2 multi-unit truck trips per day (average), use single-unit truck						

Table 4-4
Stopping and Deceleration Adjustment Factors for Highway Grade

Grade	Adjustment Factor
3% to 4.9% Upgrade	0.9
5% to 7% Upgrade	0.8
3% to 4.9% Downgrade	1.2
5% to 7% Downgrade	1.35

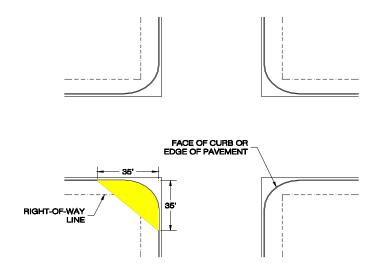


Figure 4-1.

Corner Sight Distance for Yield or No Control Intersections

f. Traffic Signals. If the traffic study determines that there is sufficient traffic (when the area is completely developed) to warrant installation of a traffic signal, traffic shall be consolidated to a single access which can be signalized. The signal shall meet traffic signal spacing requirements as specified elsewhere in these Standards.

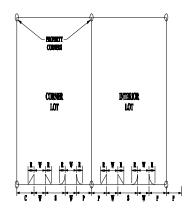
**Section 5.** Access Standards for Local Roads and Streets. The various dimensions and spacing of driveways on rural and urban local roads and streets are illustrated in Figure 4-2. Ranges of the permitted values of the various dimensions are shown in Table 4-5. In individual cases, the dimensions indicated in Table 4-5 may be adjusted by the approving authority to handle expected traffic conditions.

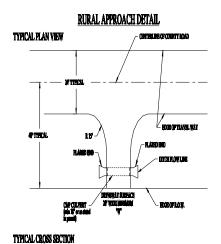
#### Section 6. Access Standards for Collectors and Arterials.

- a. Provision of Access. If a property has frontage on one or more side streets intersecting the arterial, access shall be limited to such side street(s) unless a traffic study approved by the County demonstrates that direct access to the arterial would promote improved traffic operations and/or safety.
- b. Access Spacing for Collectors and Arterials. When access is allowed from collectors or arterials, each access shall be separated at a minimum by a distance equal to the design sight distance values in Table 4-1. When speed change lanes are present, or will be needed in the future, the accesses shall be separated by a sufficient

distance so that the speed change lanes including transition tapers do not overlap or an equivalent distance if speed change lanes are not yet built. Access shall not be permitted within a speed change lane, taper or ramp.

- c. Driveway Approach Width. Driveway approach widths for collectors and arterials are determined from Table 4-5.
- d. Joint Access. For adjacent developments within the designated urban areas, joint access shall be provided through joint driveway approaches, access easements, and/or frontage roads. The Development Office may determine, on a case by case basis, that a joint access is not appropriate. All parties involved shall sign the Access Permit Application. A written mutual agreement signed by all parties involved shall be recorded in the public records of Laramie County, Wyoming. A copy of the recorded document shall be submitted with the application. All access requirements shall be met, except that the minimum distance from property line requirement shall not apply. In the event of a material breach or termination of the agreement, the access permit shall be cancelled, and the joint access shall be removed by the applicants or by the County at the expense of the applicants.





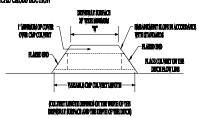


Figure 4-2
Driveway Approach Layouts

Table 4-5
Basic Driveway Approach Dimensions for Local Roads

	Dimension Reference	Residential		Comn	Industrial	
		Urban	Urban Rural		Urban Rural	
Width	W					
Minimum		10'	20'	30'	24'	40'
Maximum		36'	36'	36'	40'	50'
Radii (Curved or Flared)	R					
Minimum		5'	15'	15'	15'	20'
Maximum		10'	25'	25'	50'	50'
Minimum Spacing*						
From Property Line	Р	R	R	R		R
From Street Corner	С	R+5'	R+25'	R+10'	R+50'	R+10'
Between Driveways**	S	2 R+3'	2 R+10'	2 R+3'	2 R+20'	2 R+10'

<sup>\*</sup> Measured from extension of tangent. "R" is the width of the flare or curb return utilized at the location.

#### Notes to Table 4-5

- 1. The driveway approach surface should be paved. However, if the adjacent road has a gravel surface, the driveway approach, if not paved, may have a minimum of 6" of crushed gravel.
- 2. The permittee shall do all work and pay all costs in connection with the construction of access driveway approaches and their appurtenances on the right-of-way. This cost shall include the cost of any public property, including the roadway surface, damaged during construction.
- 3. At driveways with high traffic volumes, such as fast food restaurants and car washes, provision must be made for car storage on the premises to prevent stacking of vehicles on the roadway. See Sec. 57.022 of the Zoning Ordinance for requirements.
- 4. Where needed and feasible at high traffic volume driveways, clearly visible acceleration and/or deceleration lanes should be provided. Except for the driveway served, no other driveway accesses shall be permitted within the limits of the auxiliary lanes.
- 5. All approaches in the County will be inspected prior to construction. The inspection will determine the size of the culvert and if a culvert is required.
- 6. On County Roads, the distance from the right-of-way line to the near edge of service pumps, vendor stands, tanks, or private water hydrants should be a minimum of 15' to permit free movement of large vehicles and to insure that they are entirely off the right-of-way when being services.
- 7. Waivers from these dimensions may be approved as provided in Chapter I.
- 8. Driveway approaches shall comply with current ADA requirements.
- 9. Where properties have frontage on more than one street, the access will be granted only on the street with the lower functional classification.

<sup>\*\*</sup>If two adjacent driveways have different "R" values, the average should be used to determine the spacing.

- e. Speed Change Lanes. This Section provides standards for speed change lanes at access points. See Chapter 5 for speed change lanes standards for street intersections.
- (1) Requirements. Speed change lanes shall be installed according to the following criteria:
- (a) A left turn deceleration lane and taper with storage length is required for any access with a projected peak hour ingress turning volume greater than ten vehicles per hour. The taper length shall be included within the required deceleration length.
- (b) A right turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 25 vehicles per hour. The taper length shall be included within the required deceleration length.
- (c) A right turn acceleration lane and taper is required for any access with a projected peak hour right turning volume greater than 50 vehicles per hour when the posted speed on the adjacent road or street is greater than 40 mph. The taper length will be included within the required acceleration length. A right turn acceleration lane may also be required at signalized intersections if a free-right turn is needed to maintain an appropriate level of service.
- (d) Right turn deceleration and acceleration lanes are generally not required on roadways with three or more travel lanes in the direction of the right turn.
- (e) A left turn acceleration lane with taper may be required when unique location factors such as highway speed and traffic density, access volume, the volume of commercial trucks, the influence of nearby access, existing highway auxiliary lanes close to the access, nearby traffic control devices, available stopping sight distance, and where other topographic and highway design factors exist that determine the need. A left turn acceleration lane is generally not required where the posted speed is less than 45 mph, or the intersection is signalized, or the acceleration lane would interfere with the left turn ingress movements to any other access.
- (2) Speed Change Lane Design Criteria. Where speed change lanes are required, they shall be constructed in accordance with the following:
- (a) Where two accesses have speed change lanes that overlap, or in close proximity, a continuous lane shall be established between the accesses to improve roadway consistency and safety and maintain edge continuity.

- (b) Speed change lanes shall be 12 feet wide, exclusive of the gutter pan or shoulder. If the existing through travel lanes are less than 12 feet wide, the speed change lanes may be the width of the widest through lane, but shall in no case be less than 10 feet wide, exclusive of the gutter pan or shoulder.
- (c) Table 4-6 shall be used to determine lengths of speed change lanes. The required length of taper is obtained by multiplying the full lane width by the appropriate ratio as shown in Table 4-6. "Stop Condition" means the vehicle comes to a complete stop or very slow speed prior to making the turn into the access or is stopped before exiting the access onto the street. For deceleration lanes, a 15 mph turn is normally assumed for a curb return radius only if the radius is 40 feet or greater. A stop condition must be assumed for a curb cut type access. For an acceleration lane, a stop condition shall normally be assumed at the start of the acceleration.
- (d) Additional storage lengths are required for left turn deceleration lanes. Standards for the additional storage lengths are provided in Section 6 (e).

Table 4-6
Speed Change Lane Lengths for Right and Left Turn Lanes<sup>1</sup>

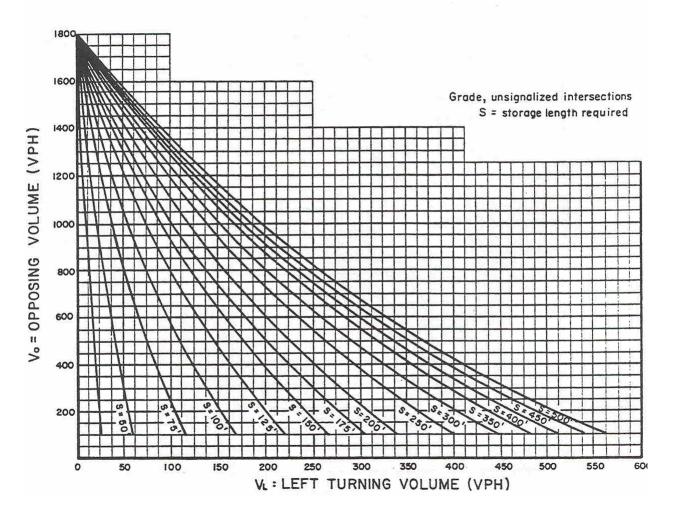
Design or Posted Speed (mph)	Stop Co	ndition	15 mph Turn		Minimum Accel Lane Taper Ratio <sup>2</sup>	Minimum Decel Lane Taper Ratio <sup>2</sup>
	Accel	Decel	Accel	Decel		
25	100	200	90	150	7.5:1	7.5:1
30	190	235	190	185	10:1	8:1
35	270	275	240	235	12.5:1	10:1
40	380	315	320	295	15:1	11.5:1
45	550	375	480	350	15:1	13:1
50	760	435	700	405	20:1	15:1
55	960	485	910	450	22.5:1	18.5:1

<sup>&</sup>lt;sup>1</sup>Distances are in feet. These distances apply to both left and right turn acceleration and deceleration lanes.

f. Left Turn Bays and Spacing. Driveways serving high generation users such as community and regional shopping centers, large industrial plants, major office building complexes, and high density apartment developments, shall provide for adequate left turn storage bays. The need for and length of left-turn storage bays shall be determined from Figure 4-3, and the highest predicted traffic volumes which will occur during the next 20 years. The provisions of this section will apply to any access location which requires left-turn storage bay of 50' or more as determined from Figure 4-3.

The requirement for left-turn bays will automatically establish a minimum spacing of successive driveways or intersections which are projected to have left turn entry or exit.

<sup>&</sup>lt;sup>2</sup>Ratio of length of taper to width of lane.



Warrants for left-turn storage lanes on four-lane, at-grade unsignalized highways. The section of graph lying between "undivided" and divided ( $V_L$  =25 to 55 vph for a V level of 200 vph) relates to a warrant for a one-space length as provided by an ordinary opening in a median about 20 feet (6m) wide.

Source: Harmclink, M. D., "Volume warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections", Highway Research Record #211, 1967

Figure 4-3
Left Turn Bays and Spacing

At driveways with high traffic volumes, for example, fast food restaurants and car washes, provision shall be made for vehicle storage on the premises to prevent stacking of vehicles on the roadway. The required stacking space shall be determined by a traffic analysis provided by the applicant.

Where needed and feasible at high traffic volume driveway approaches, clearly visible acceleration and/or deceleration lanes shall be provided. Except for the driveway served, no other driveway access shall be permitted within the limits of the auxiliary lanes.

Acceleration lanes shall not conflict with the beginning of a right turn lane. Acceleration lanes shall terminate before the end of the queue (as determined by the traffic study) at a signalized intersection. Acceleration lanes shall terminate not less than 50 feet ahead of an unsignalized intersection. If adequate length of acceleration lane cannot be provided subject to these constraints, the access will not be permitted.

The basic factors are the distance required for the median taper and the length of the storage bay. If a driveway on a major route is opposite a street, a left-turn bay for the street also should be incorporated. This will further increase the required distance between major driveway approaches, or intersections.

The distance of a major driveway, with left-turn channelization from a nearby major intersection which also has left-turn bays, will vary depending on whether the driveway is on the approach or departure side of the intersection with respect to the left-turn lane.

g. Location Coordination. The location of access to properties on opposite sides of arterial and collector roadways shall be coordinated so that they do not interfere with each other. Driveway approaches directly opposite each other are desirable. However, if this is not possible, the resulting "T" configurations shall be spaced a minimum of 100 feet apart on collectors, and 200 feet apart on arterials. This requirement may be modified by Laramie County Director of Public Works based on existing through traffic and the trip generation of the site.

## Section 7. <u>Changes in Land Use, Abandoned Driveway Approaches, and Street Reconstruction</u>.

a. Changes in Land Use. If any significant changes are made or will be made in the use of the property which will affect access operation, traffic volume, turning movements or vehicle type, the permittee or property owner shall contact the authority which issued the access permit to determine if a new access permit and modifications to the access are required. It is the responsibility of the property owner and permittee to ensure that the use of the access to the property is not in violation of these Standards. The terms

and conditions of any permit are binding upon all assigns, successors-in-interest, heirs and occupants.

If a parcel of land with direct access has been in a state of nonuse for more than four years, recommencement of access use will be considered a change in use. If the renewed use of the access exceeds its design limitations or is nonconforming with the present code, a new permit shall be required.

The Laramie County Director of Public Works may require an engineering study to establish whether a new permit is required.

- b. Abandoned Driveways. A driveway approach which has become abandoned or unused through a change of the conditions of which it was originally intended or which for any reason has become unnecessary because of any change to site configuration shall be closed and the owner shall replace any such driveway approach upon the direction of the Laramie County Director of Public Works with standard curb, gutter and sidewalk under the provisions of these regulations.
- c. Street Reconstruction. When existing streets in built-up areas are reconstructed, access points shall be reconstructed to conform to the criteria set forth in these regulations, to the extent practical and feasible.

#### Chapter V

#### STREET DESIGN

**Section 1.** <u>Preface</u>. The criteria presented in this section are intended to regulate design of road construction and reconstruction. All roads and streets in Laramie County, except State highways, shall to be designed in accordance with the standards included or referred to in this Chapter.

**Section 2.** Responsibilities. Section 80.030 of the Cheyenne-Laramie County Subdivision/Development Regulations 2000 indicates the responsibilities of the parties concerned with street design and construction.

The subdivider and/or developer is responsible for preparing, designing, processing, submitting, and accomplishing the necessary improvements, as well as the associated paperwork.

The County Director of Public Works is responsible for review of preliminary plats, sketches, and final plats as they relate to engineering considerations in their jurisdictions, approval of construction plans and specifications, and inspection and acceptance of the constructed work.

Where a street design involves a State Highway in any manner, it is necessary to coordinate with the District Engineer of WYDOT.

**Section 3.** Requirements. The location of arterial and collector streets shall be governed by the current Official Map on file at the offices of the Cheyenne Area Transportation Planning Process (ChATPP) at 2101 O'Neil Avenue, and at the offices of the County Clerk. The location of local streets shall be as required to provide access to abutting property, and in accordance with the provisions of these Standards.

Geometric and structural designs of roads and streets shall be performed by or under the direct supervision of a qualified civil engineer licensed by the Wyoming State Board of Registration for Professional Engineers and Professional Land Surveyors to practice engineering in Wyoming. All documents submitted for approval must bear the seal and signature of the responsible engineer.

Plans shall be submitted for all roads and streets. The geometric design of roads and streets, including the vertical and horizontal alignment, shall be in accordance with the provisions of these Standards, and done with the objective of providing a safe and efficient street system. The basis for geometric design is the current edition of "A Policy on Geometric Design of Highways and Streets", American Association of State Highway and Transportation Officials.

The developer or subdivider is responsible for observations and testing performed on the roadway during construction. The observation and testing shall be done under the supervision of a qualified civil engineer who will sign off on the project. The testing shall be performed in accordance with "Wyoming Public Works Standard Specifications".

Record drawings are required for all roads. Upon completion and acceptance of construction, the developer shall provide record drawings to the county showing the asconstructed roads or streets. The county may require the record drawings as a condition for acceptance. The record drawings shall be signed and sealed by a professional civil engineer and contain a statement to the effect that, to the best of the knowledge and belief of the engineer, the record drawings accurately reflect the as constructed facility. If the specifications were materially altered during construction, the submittal of the record drawings shall include revisions to the specifications.

Submittal of record drawings or revised specifications does not relieve the developer from building the road or street in accordance with the approved plans. Deviations from the proposed plans and specifications should be approved in advance by the County, and the developer assumes the risk of the expense of correcting unauthorized changes.

Other topics related to street design, including traffic studies, drainage, curb and gutters, intersection design, bike lanes, access control, sidewalks, traffic control devices, street lighting, and parking are covered in other sections of these Standards.

# Section 4. Standards.

a. Geometric Design. The standards to be used in geometric design of streets are shown in Appendix A to this Chapter.

As used in these Standards, "urban section" means a paved section with curb and gutter and sidewalk. "Rural section" means a paved or unpaved section with drainage ditches, with or without sidewalk. Street sections will be urban or rural, depending on the density of development. In general, streets in subdivisions with urban-sized lots or tracts (i.e., those served by the South Cheyenne Water and Sewer District or private water and sewer systems) will be urban sections.

Minimum right-of-way widths are based on the required width of paving plus an additional width on each side of the paving to accommodate curbs, sidewalks, and utilities. Additional widths may be needed for through lanes, turn lanes, speed change lanes, and to accommodate slopes and drainage structures. If adequate right-of-way is not provided, the County Director of Public Works may require dedication of additional right-of-way width.

The minimum centerline radius is based on the application of maximum superelevation for the indicated design speeds. The controlling factor is the design speed. Therefore, if less superelevation is used, the radius must be increased.

The angle of intersection of streets should be as close to 90 degrees as possible, and in no case should vary more than 10 degrees from a right angle.

Median design for both physical and painted medians shall be closely coordinated with the County Director of Public Works.

Cross pans (valley gutters across intersections) shall be a minimum of 12' wide. A minimum transition of 30 ft. shall be made in the street preceding the cross pan to remove the crown. Design speeds shall be maintained across cross pans. In general, cross pans should not be used across arterial or collector streets.

- b. Structural Design. Structural design shall be in accordance with AASHTO pavement design procedures (AASHTO "Guide for Design of Pavement Structures", Current Edition) and shall be based on geotechnical investigations and testing of the subgrade. The pavement design shall provide for a 20-year service life with an equivalent 18 kip axle loading based on projected traffic for the type and density of development proposed. Roadway construction plans submitted for approval shall be accompanied by a pavement design report. Roadway sections and compaction requirements shall not be less than those specified in the pavement design report. The pavement design report shall be prepared under the supervision of, and signed and sealed by a person licensed by the Wyoming State Board of Registration for Professional Engineers and Professional Land Surveyors to practice civil engineering in Wyoming. Any proposed modifications to the approved design shall be submitted for approval.
- Section 5. Rural Road Procedures and Standards. County rural roads and dedicated roads of rural subdivisions shall be constructed to these Standards before acceptance for maintenance by the County. A rural subdivision is generally a subdivision outside the Urban Development Area Boundary. For purposes of clarifying the County's intent for the construction of an acceptable road, a pre-construction review of the road with the County Director of Public Works is recommended and can be arranged on request. Upon completion, the developer shall request in writing that the road be inspected for acceptance. This request shall include the surfacing material certification, tabulated record of surfacing material delivered to road and invoice of purchased surfacing material. This request shall be made to the County Director of Public Works. The County Director of Public Works will inspect the constructed road for compliance with these Standards. When the Director of Public Works determines that the road is in compliance, the road may be accepted for maintenance by the County.
- a. Roadbed and ditch sections shall be excavated and shaped in conformity with the typical sections shown in Appendix A to this Chapter. Unstable materials and other objectionable materials, such as trash, shall be removed and replaced with acceptable roadbed building materials. Placement of frozen soil in the construction area or placement of unfrozen materials on frozen ground is prohibited. The foundation area for embankments shall be plowed or scarified to a minimum depth of six inches.
- b. Topsoil of sod and vegetable matter where used shall be placed in the bottom of embankments such that it will be at least six inches below the top of the roadbed.

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- c. Construction of the road shall be done with a motor grader, scraper or other heavy earthwork equipment, operated in such a manner as to get the maximum of compaction possible as the equipment works back and forth over the embankment. Should the earth be too dry to compact satisfactorily, it shall be wetted with water as required to provide the specified compaction. The finished roadbed grade shall be bladed with a motor grader to a smooth surface having a uniform grade and to the lines shown on the typical section.
- d. Gravel surfacing shall be crushed stone or gravel. Gradation will be as called out in the approved plans and specifications. Hardness and index properties will be as called out for "Aggregate for Untreated Sub-base and Base" in Section 02190 of the current edition of the "Wyoming Public Works Standard Specifications".
- e. The Director of Public Works may require that soil binder be added to the gravel to bind the surfacing together so that scatter of the aggregate under traffic will be minimized.
- f. A representative sample of the surfacing materials shall be submitted to a reputable testing laboratory for analysis and certificate of compliance.
- g. The truckloads of surfacing delivered to the road shall be accurately determined by weight or volume and spread the calculated distance to obtain the required thickness as shown on the typical section.
- h. A record of the truckloads of surfacing delivered to the road shall be kept. This record shall be in a tabulated form indicating the volume or tonnage of each load and the name of road where surfacing was placed. This record shall be signed by the party responsible for its correctness and shall be acknowledged by a notary public. A copy of the surfacing supplier's invoice shall also be made available for purchased surfacing material.
- i. Roadway ditches shall be graded so as to carry drainage water away from the road to natural drainages or to pipes in the case of cross drainage. Grading that will cause pockets where water will pond alongside the roadway should be avoided.
- j. Drainage pipes made of steel, aluminum or reinforced concrete of adequate strength to take the road vehicular traffic shall be installed in the road embankments wherever natural drainages are crossed that will cause large overflows of water over the road without a pipe or will damage or inundate property upstream from the road. The pipe shall be of such size that it is capable of passing the flood waters of a storm of two-year frequency without overtopping the road. The minimum acceptable pipe size is 15 inches with 18 inches the preferred minimum.
- k. The earth around any pipe installation shall be tamped with mechanical equipment in layers not exceeding eight inches.

I. To minimize snow drifting on the road, the roadbed embankment should be at least one foot above the natural terrain and cut backslopes should be no steeper than 3:1 slope.

m. Use of cattle guards is not encouraged. Cattle guards, when required, shall be of commercial manufacture having a capacity of 20 tons with the minimum dimensions of the steel frame being 7' 9" x 12' 0". The cattle guard shall be set on a reinforced concrete foundation and end wings shall be installed on each side. All plans for the cattle guard must be submitted to the County Director of Public Works for approval prior to construction.

**Section 6.** Private Access Standards. All roads constructed within new subdivisions platted pursuant to the Subdivision Regulations shall be public. In some extraordinary cases where there is no public right-of-way, and no feasible means of access to a public right-of-way, it may be necessary for property owners to provide access by means of easements or other agreements, and to construct the access road. Such private access will not be constructed, maintained, repaired, or replaced by the county. Private accesses shall meet the requirements of the county fire district for fire access.

In the event the owners of a private access wish to convert the access to public use and public maintenance, the proposed road shall be dedicated to the public and accepted by the county as provided by law. The road shall be constructed at the applicant's expense in accordance with these Standards and any additional requirements imposed by the county, and the plans, specifications, and construction approved as described above for public streets.

**Section 7.** <u>Cul-de-sacs</u>. Cul-de-sacs shall be constructed in accordance with the requirements of the County Fire District for dead-end fire apparatus access roads. Designers of subdivisions containing roads with cul-de-sacs or dead ends, and where public water supplies are provided, should consult with the water utility and the fire protection provider on the permitted length of dead end water mains.

Standards for emergency access lanes are provided in Chapter XI, Traffic Control Devices.

#### Section 8. Intersection Design.

a. Corner Radii. Corner radii at intersections should satisfy the requirements of the drivers using them to the extent practical and in consideration of the amount of right-of-way available, the angle of the intersection, numbers of pedestrians, width and number of lanes on the intersecting streets, and amounts of speed reduction. Minimum back-of-curb radii at intersections shall be as shown in Table 5-1.

Table 5-1
Minimum Back of Curb Radii

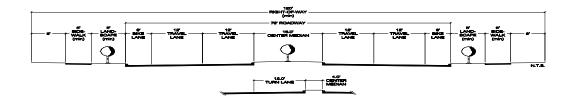
Type of Intersection	Radii (ft)	<u>Remarks</u>
Local - Local	15	See Note 1 below
Local - Collector	25	
Collector - Collector	30	See Note 2 below
Local - Arterial	30	
Collector - Arterial	30	See Note 2 below
Arterial - Arterial	30	See Note 2 below

- Note 1. At the intersections of county roads at right angles, the minimum radius at the roadbed shoulder shall be 20 feet. Intersections at angles other than 90 degrees shall have minimum radii that are equally adequate for the turning of vehicles
- Note 2. Radii of 40 ft. or more, and preferably three-centered compound curves or simple curves with tapers to fit the paths of appropriate design vehicles, should be provided where large truck combinations and buses turn frequently. Larger radii are also desirable where speed reductions would cause problems.
- Note 3. The County Director of Public Works may require greater radii when there is no parking lane adjacent to the curb.
- b. Speed Change Lanes and Intersection Sight Distance. The requirements for speed change lanes and intersection sight distance presented in Chapter IV of these Standards shall apply to street design.
- **Section 9.** <u>Street Lighting.</u> Utilize the "*American National Standard Practice for Roadway Lighting*", published by the Illuminating Engineering Society, for street lighting. The publication includes recommendations for average maintained horizontal illumination for roadway and walkway classifications by type of area.
- **Section 10.** <u>Curb and Gutter</u>. Curb and gutter is generally used for drainage control, but curb can be used for other purposes such as pavement edge delineation, delineation of pedestrian walkways, and aesthetics. Curb or curb and gutter are useful to assist in right-of-way reduction, reduction of maintenance operations, and assistance in orderly roadside development.
- a. Standards. The construction of curb and gutter is covered in the "Wyoming Public Works Standard Specifications". Standard drawings supplement the specifications.

b. Construction Sequence. Curbs, gutter crosspans and sidewalk (where attached) shall be constructed after installation of sanitary sewer and after storm sewer mains, laterals, and service lines have been installed and properly compacted. Water mains which cross curb, gutter, attached walks and driveway approaches shall also be installed and properly compacted prior to installation of concrete work. Water valve boxes and manholes shall be adjusted to final grade after installation of curb and gutter. Electrical services shall be installed after water services but prior to installation of curb radii except where previous arrangements for use of conduit have been made and approved.

# Appendix A to Chapter V Standards for Geometric Design of Roads and Streets

# **Urban Principal Arterial Street**



Roadway Width: 76'

Right-of-Way Width: 120' (min.)

Travel Lanes: 4 lanes, 12' wide.

Left Turn Lane: 12' wide.

Bike Lanes: 2 lanes, 6' wide.

Parking: None.

Parkway: 8' (min.) wide. Parkways shall be landscaped.

Sidewalk: 6' (min.) wide if detached by at least 8'. 8' (min.) attached for redevelopment. Sidewalks shall be in the public right of way.

Median: 16' wide landscaped and 4' wide landscaped in left turn lane areas.

Maximum Grade: 6 percent Minimum Grade: 0.3 percent

**Maximum Superelevation: 0.6** 

Where Used: All Urban Principal Arterial streets shown on the Master Street Plan when the traffic volume on the street is anticipated to be 15,000 to 35,000 vpd..

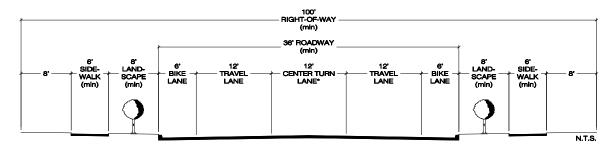
Speed Limit: 35-45 MPH.

Access: Access will be limited. See Chapter IV.

**Median Landscaping:** Landscaping shall include trees, shrubs, ground cover, mulch and irrigation and should incorporate xeriscape methods.

Curb and Gutter: Vertical Curb and Gutter.

# **Urban Minor Arterial Street**



Roadway Width: 36' (min.)

\*Continuous left turn lane as determined by the Local Entity. Additional auxiliary lanes may be needed as determined by the Local Entity.

Right-of-Way Width: 100' (min.).

Travel Lanes: 2 lanes, 12' wide. Additional auxiliary lanes may be provided for as determined by County.

Left Turn Lane: 12' wide at intersections. 12' Continuous left turn lane as determined by County.

Bike Lanes: 2 lanes, 6' wide.

Parking: None.

Parkway: 8' (min.) wide. Parkways shall be landscaped.

Sidewalk: 6' (min.) wide if detached by at least 8'. 8' (min.) attached for redevelopment. Sidewalks shall be in the

public right of way.

Median: None

Maximum Grade: 6 percent Minimum Grade: 0.3 percent

Maximum Superelevation: .04

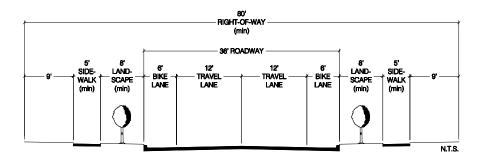
**Where Used:** All Urban Minor Arterial streets shown on the Master Street Plan when the traffic volume on the street is anticipated to be 3,500 to 15,000 vpd.

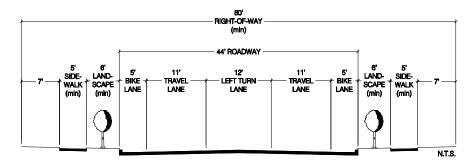
Speed Limit: 30-45 MPH

Access: Access will be limited. See Chapter IV.

Curb and Gutter: Vertical Curb and Gutter.

# **Urban Collector Street Without Parking**





At Intersections, where needed.

Roadway Width: 36'. 44' with left turn lane.

Right-of-Way Width: 80' (min.).

Travel Lanes: Two lanes, 12' wide.

Left Turn Lane: 12', at intersections where needed.

Bike Lanes: Two lanes, 6' wide. At intersections the bike lanes shall be 5' wide.

Parking: None

**Parkway:** 8' (min.) width. At intersections where a left turn lane is necessary, parkways shall be 6' (min.). Parkways shall be landscaped.

Sidewalk: 5' (min.) wide. Sidewalks shall be in the public right of way.

Median: None

Maximum Grade: 10 percent Minimum Grade: 0.3 percent

Maximum Superelevation: .04

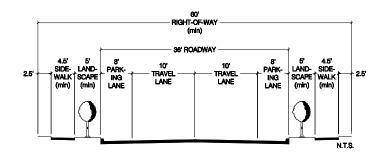
Where Used: All Urban Collector streets shown on the Master Street Plan when the traffic volume on the street is anticipated to be 3,500 to 5,000 vpd.

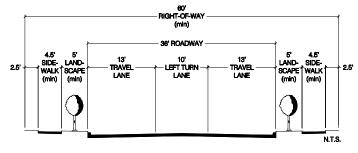
Speed Limit: 30-35 MPH

Access: Access will be limited. See Chapter IV.

Curb and Gutter: Vertical Curb and Gutter.

# **Urban Local Street**





At Intersections, where needed

Roadway Width: 36'

Right-of-Way Width: 60' (min.)

Travel Lanes: 2 lanes 10' wide

Left Turn Lane: 10' wide, provided where necessary.

**Bike Lanes**: Bicyclists shall share the roadway with motor vehicles in the travel lanes. Additional street width may be required to the parking lanes to provide 11' wide combined parking + bike lanes to accommodate bike traffic within and leading to activity area.

Parking: 2 lanes, 8' wide, Intersections only none

Parkway: 5' (min.) wide. Parkways shall be landscaped.

Sidewalk: 4.5' (min.) wide. Sidewalks shall be in the public right of way.

Maximum Grade: 10 percent Minimum Grade: 0.3 percent

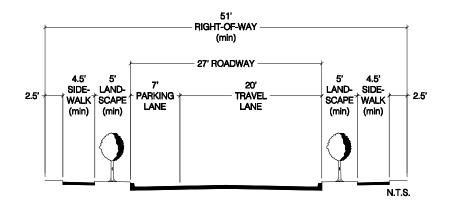
Maximum Superelevation: .04

Where Used: All Urban Local streets shown on the Master Street Plan when the traffic volume on the street is anticipated to be 500 to 2,500 vpd.

Speed Limit: 25 MPH

Curb and Gutter: Vertical Curb and Gutter.

# Urban Narrow Local Street (Lane) (used with alleys only)



Roadway Width: 27'

Right-of-Way Width: 51' (min.)

Travel Lane: One lane, 20' wide

Parking: One lane, 7' wide

Parkway: 5' (min.) wide. Parkways shall be landscaped.

Sidewalk: 4.5' (min.) wide. Sidewalks shall be in the public right of way.

Maximum Grade: 10 percent

Minimum Grade: 0.3 percent

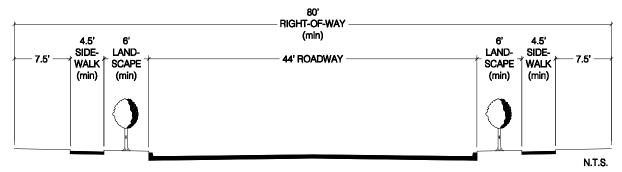
Maximum Superelevation: .04

Where Used: Residential Urban Local streets where traffic volume on the street is anticipated to be 500 vpd. or less (unless the narrow residential local street or rural residential local street standards are used)

Speed Limit: 25 MPH

Curb and Gutter: Vertical Curb and Gutter.

# **Urban Commercial/Industrial Local Street**



Roadway Width: 44'

Right-of-Way Width: 80' (min.)

Bike Lanes: Share Street

Parking: Two lanes shared with bikes. None provided at intersections

Parkway: 6' (min.) width. Parkways shall be landscaped.

Sidewalk: 4.5' (min.) width. Sidewalks shall be in the public right of way.

Median: None

Maximum Grade: 10 percent Minimum Grade: 0.3 percent

Maximum Superelevation: .04

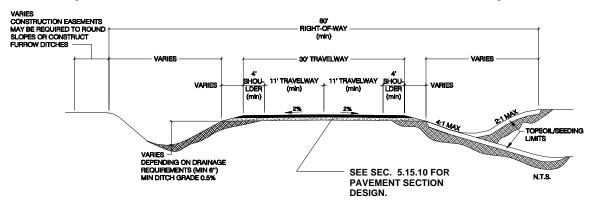
Where Used: All Urban Collector streets shown on the Master Street Plan when the traffic volume on the street is anticipated to be 1,000 to 3,500 vpd.

Speed Limit: 30-35 MPH.

Access: See Chapter IV.

Curb and Gutter: Vertical Curb and Gutter.

# RURAL COLLECTOR (DESIGN VOLUME 500 ADT OR GREATER)



SEE CHAPTER V FOR PAVEMENT SECTION DESIGN

Roadway Width: 30' (min.)

Right-of-Way Width: 80' (min.)

Travel Lanes: 2 lanes, 11' wide (min.)

Shoulder: 4' (min.)

Bike Lanes: As required by the County Director of Public Works

Parking: Not permitted

**Sidewalk:** As required by the County Director of Public Works (if sidewalk is required). Sidewalks shall be in the public right of way.

Seeding: As required by the County Director of Public Works

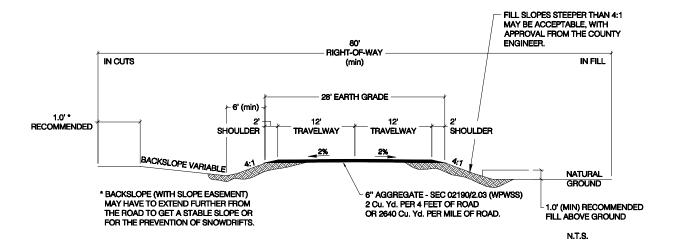
Maximum Grade: 8 percent Minimum Grade: 0.3 percent

**Maximum Superelevation: .08** 

**Where Used:** All Rural Collectors shown on the Master Street Plan when the traffic volume is anticipated to be 500 ADT or greater.

Speed Limit: As determined by the county

# RURAL COLLECTOR - LOW VOLUME (DESIGN VOLUME LESS THAN 500 ADT)



Roadway Width: 28' (min.) Earth Grade

Right-of-Way Width: 80' (min.)

Travel Lanes: 2 lanes, 12' wide (min.)

Shoulder: 2' (min.)
Bike Lanes: None

Parking: Not permitted

Sidewalk: As required by the County Director of Public Works (if sidewalk is required). Sidewalks shall be in the

public right of way.

Seeding: As required by the County Director of Public Works

Maximum Grade: 8 percent Minimum Grade: 0.3 percent

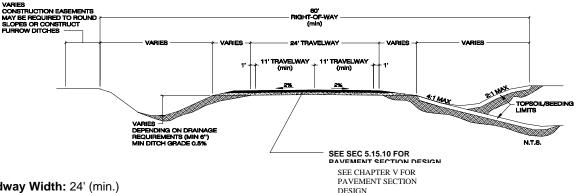
**Maximum Superelevation: .08** 

Where Used: All Rural Collectors shown on the Master Street Plan when the traffic volume is anticipated to be less

than 500 ADT

Speed Limit: As determined by the county

# LOCAL COUNTY ROAD IN RURAL SUBDIVISION (WHERE BUILDOUT VOLUME IS 500 ADT OR GREATER)



Roadway Width: 24' (min.)

Right-of-Way Width: 80' (min.)

Travel Lanes: 2 lanes, 11' wide (min.)

Shoulder: 1' (min.)

Bike Lanes: None

Parking: Not permitted

Sidewalk: As required by the County Director of Public Works (if sidewalk is required). Sidewalks shall be in the

public right of way.

Seeding: As required by the County Director of Public Works

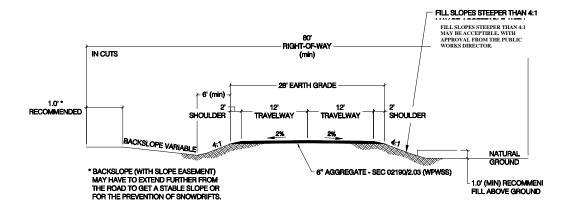
Maximum Grade: 10 percent Minimum Grade: 0.3 percent

Maximum Superelevation: .06

Where Used: Rural Subdivisions where estimated ADT is 500 or greater at maximum buildout

Speed Limit: As determined by the county

# LOCAL COUNTY ROAD IN RURAL SUBDIVISION (WHERE BUILDOUT VOLUME IS LESS THAN 500 ADT)



Roadway Width: 28' (min.) Earth Grade

Right-of-Way Width: 80' (min.)

Travel Lanes: 2 lanes, 12' wide (min.)

Shoulder: 2' (min.)
Bike Lanes: None

Parking: Not permitted

Sidewalk: As required by the County Director of Public Works (if sidewalk is required). Sidewalks shall be in the

public right of way.

Seeding: As required by the County Director of Public Works

Maximum Grade: 11 percent

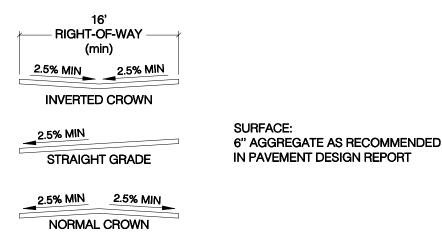
Minimum Grade: 0.3 percent

Maximum Superelevation: .06

Where Used: Rural Subdivisions where estimated ADT is less than 500 at maximum buildout

Speed Limit: As determined by the jurisdiction

# **ALLEYS**



Width: 16' minimum in residential areas; 24' in commercial and industrial areas

Parking: Not permitted

Maximum Grade: 5 percent

Minimum Grade: 0.3 percent. Grades should meet as closely as possible the existing grades of abutting land.

**Construction:** Where used, alleys in commercial and industrial areas shall be paved, with the structural section as recommended in the pavement design report. Alleys shall be designed to provide for adequate drainage. Alley cross sections may be V-shaped ("inverted crown") with transverse slopes of 2.5 percent toward a center V gutter, directing runoff to a catch basin in the alley or to connecting street gutters.

**Alignment:** Alleys shall be aligned parallel to or concentric with the street property lines. Both ends of the alley should be connected either to streets or to other alleys. Where two alleys intersect, a triangular corner cutoff of not less than ten feet along each alley property line shall be provided. Dead end alleys shall be provided with a turning area approved by the County Director of Public Works. Where an alley intersects the right of way for a street, 10' x 10' corner cuts shall be dedicated R.O.W. for visibility. These areas may be landscaped no higher than 12". No fences shall encroach into this area.

**Where Used:** Alleys are required to be used with the Narrow Residential Local Street for vehicular access to offstreet parking and garages for all lots fronting the Narrow Residential Local Street. For all other streets an alley may be used to provide secondary vehicular access to the rear of property served by a street.

Speed Limit: 15 mph or as determined by the county

# **Chapter VI**

# DRAINAGE

**Section 1.** <u>Preface</u>. Land development increases the ratio of surface area impermeable to rainfall and snowmelt infiltration; therefore, disposal of surface water becomes increasingly important. As a result, drainage studies have become a requirement on almost every development project. The purpose of this Chapter is to provide guidance on drainage requirements

**Section 2.** Responsibilities. Appendix A of the Cheyenne - Laramie County Subdivision/Development Regulations 2000 provides that "The primary responsibility for the planning, design and construction of drainage improvements required in conjunction with land development shall be vested in the person or party who is developing the land." The County shall assume the responsibility of coordinating and reviewing proposals for drainage facilities to insure compliance with these regulations and with approved plans.

**Section 3.** Requirements. For new developments of 20,000 square feet or larger in total site area, the applicant shall submit along with the site plan a detailed drainage study to the Development Office for approval prior to the issuance of a Certificate of Review. Chapter 4 of the "Stormwater Management Manual" establishes the requirements for the drainage study. For developments smaller than 20,000 square feet in total site area the following information shall be provided:

- The pre-development storm water run-off volume in cubic feet per second.
- The post-development storm water run-off volume in cubic feet per second.
- The volume in cubic feet of any proposed retention/detention area, if applicable.
- The method which will be used to retain/detain runoff, if applicable.

The Laramie County Director of Public Works may waive the requirement for a drainage study or runoff information upon determination that there are no potential drainage problems at the site, the project will not result in an increase in the impermeable area, and that the development is unlikely to create drainage problems.

**Section 4.** <u>Standards</u>. Design standards are set forth in the "*Stormwater Management Manual*" and the Subdivision/Development Regulations.

# Section 5. Related Regulations and Publications.

- a. City-County Subdivision/Development Regulations, Chapter V covers drainage objectives, drainage policy and the Drainage Plan, floodway and flood fringe zones, land development, and design standards for rural and urban areas.
- b. The Wyoming Department of Transportation publication "Rules and Regulations for Access Driveways to Wyoming State Highways" includes drainage provisions under the Design Requirements. Drainage in highway side ditches shall not be altered or impeded unless approved by the Department when drainage structures are required. The size of the opening and other design features shall be as directed by the Department, and the cost shall be borne by the grantee. The Highway Department implements this provision by requiring a drainage study when one is believed necessary, and will not issue the access permit until the drainage study is approved by the WYDOT Hydraulics Section.
- c. The "Cheyenne Stormwater Management Manual" was issued in April, 1985. The purposes of the Manual are to identify basic engineering tools that may be used for drainage planning, and to construct a systematic review mechanism sequence following existing procedures. The Manual is recommended for use in both hydrologic and hydraulic design. It includes guidance on determining a street's drainage capacity; the carrying capacity of cross pans; and information on storm sewers, inlets, outlets, and detention ponds.
- d. The Original City Drainage Project by States West Water Resources Company was completed in January, 1988. The study describes the storm sewer systems and subsystems, and indicates deficiencies in the existing storm sewer lines. The report includes recommendations for improvements and includes printouts of the data collected. The report provides useful data on storm sewer facilities in the original city existing before 1988.
- e. The "Cheyenne Drainage Master Plan" prepared by CH2M Hill et al. was published in November, 1988 in six volumes plus a summary volume. The study includes a plan to provide 100 year flood protection for high property-damage and life safety hazard areas.

# Chapter VII

#### **CONSTRUCTION ZONES**

**Section 1.** <u>Preface</u>. This Chapter establishes the minimum standards to be used for the protection of the public and of workers during periods when repair or construction necessitate the partial or complete closure of public streets and roads.

Construction or repairs often create hazardous conditions, which can result in traffic accidents if proper precautions are not taken. Good traffic control around work hazards are deterrents to such accidents.

Standard traffic control practices presented in the Manual on Uniform Traffic Control Devices (MUTCD) are easily understood by the average motorist. Control of traffic in construction areas should utilize and be based on the MUTCD. The Laramie County Director of Public Works shall be consulted in advance of construction when situations of unusual difficulty are anticipated.

**Section 2.** Responsibilities. It shall be the responsibility of the contractor or public agency doing the work to maintain the work area. This includes:

- Obtain permits.
- Notify and coordinate the work with all affected agencies and adjacent property owners.
- Install, maintain and provide required traffic control devices.
- Remove or cover traffic control devices when they are not warranted.
- Maintain existing traffic control devices in a safe and good condition.
- Schedule and expedite the work to cause the least inconvenience to adjacent property owners and the general public.
- Insure that all employees working on the street wear clothing approved by the Federal Highway Administration. (Reflective garments should be used during nighttime conditions.)
- Patrol the work area to maintain a safe, efficient and neat project.

**Section 3.** <u>Applications and Permit</u>. Contractors, public agencies, utility companies and other persons working in the right-of-way shall obtain a construction permit prior to restricting any traffic from any portion of a public street, alley or sidewalk. This permit is required for a partial or complete closure for a period of one hour or more.

For work on any public road, the County Public Works Department (through the Planning Department) should be contacted at 310 West 19<sup>th</sup> Street, Suite 400 (Historic Court House).

**Section 4.** <u>Standards</u>. Standards for traffic control in construction and maintenance areas are included in two publications:

- "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), U.
   S. Department of Transportation, 1978 (or current edition). Part VI deals with Traffic Controls for Street and Highway Construction and Maintenance Operations. Part VI includes information on fundamental principles as well as types of traffic control devices used in construction or maintenance areas.
- Work in construction zones shall comply with the relevant provisions of these manuals. Part VI of the "Traffic Control Devices Handbook" (U. S. Department of Transportation, 1983) augments the provisions for work zone traffic control of the "Manual on Uniform Traffic Control Devices".

# **Chapter VIII**

#### **BICYCLE FACILITIES**

**Section 1.** <u>Preface</u>. Bicycles are a popular form of transportation in Laramie County. Some bike routes have been signed, and shared use paths are established in some parks, in an extensive greenway system, and in some private developments. The safety of bicycle travel is enhanced by the proper design and location of bicycle facilities. Well developed shared use facilities are an increasingly important part of the transportation and recreation system.

The term "AASHTO Guide", as used in this Chapter, refers to "Guide for the Development of Bicycle Facilities", American Association of State Highway and Transportation Officials, 1999.)

**Section 2.** <u>Current Bikeway Plan</u>. The current "*On-Street Bicycle Plan*" and "*Greenway Development Plan*" are on file at the Office of the Cheyenne Area Transportation Planning Process (ChATPP), at 2101 O'Neil Avenue, Cheyenne, Wyoming. The plans are a part of the transportation plan for the area and are frequently updated.

**Section 3.** Responsibilities. Developers are encouraged to include bikeways in developments. Bikeways should be indicated on site plans and preliminary plats. It is the responsibility of the developer to conform to the standards in this Chapter and the requirements for traffic control devices in the "Manual for Uniform Traffic Control Devices".

**Section 4.** <u>Standards</u>. Bicycle facilities shall be designed in accordance with Chapter 2 of the AASHTO Guide. Traffic control shall be in accordance with the "*Manual on Uniform Traffic Control Devices*".

Unless alternate designs are approved by the Director of Public Works, pavements for bicycle facilities that are to be maintained by the jurisdiction shall be Portland cement concrete.

# **Chapter IX**

# **SIDEWALKS**

**Section 1.** <u>Preface</u>. Sidewalks are integral to the transportation system. As a minimum, sidewalks shall be provided along urban streets used for pedestrian access to schools, parks, and shopping areas.

**Section 2.** Responsibilities. The owner of a lot is responsible for sidewalk installation at the time of property improvement. Where sidewalks are not directly related to a lot, the installation of sidewalk is the responsibility of the developer.

**Section 3.** Standards. In urban areas, sidewalks shall be provided for any portion of a site which abuts a roadway. All sidewalks shall be in the public right of way. Sidewalk width will be as specified in Appendix A to Chapter V of these Standards.

Curb ramps shall be provided wherever an accessible route crosses a curb. ("ADA Accessibility Guidelines", Sec. 4.7.1) Driveways shall be constructed in accordance with "ADA Accessibility Guidelines" so that the sidewalk can be negotiated by a wheelchair.

Where there is adequate right-of-way, the construction of the sidewalk independent of the curb and gutter section is required on arterials and collectors, and recommended elsewhere. The area between the sidewalk and the back of the curb shall be appropriately landscaped.

**Section 4.** <u>Specifications</u>. Sidewalk construction and removal shall be in accordance with the "*Wyoming Public Works Standard Specifications*". Sidewalks shall be a minimum of 4 inches thick, except where traversed by driveways, in which case the driveway thickness shall govern.

NOTE: The requirements of the Americans with Disabilities Act for sidewalks, curb ramps and protruding objects change from time to time. Persons designing or building sidewalks should verify with the Laramie County Director of Public Works that they are using the current criteria.

# **Chapter X**

# SITE PLANNING

**Section 1.** <u>Site Plans</u>. Proper site planning is an important part of the long range solution to providing adequate transportation facilities. Transportation planning is generally based on land use planning, and if land use planning is not implemented through proper site planning, the transportation plan may be rendered useless.

Since a "site" can be of almost unlimited size, this Chapter includes the topics of platting, zoning, as well as the drawing of the map referred to as the "site plan". Most of the other Chapters in this Design Standards Manual also have some relationship to the subject of Site Planning.

- a. When Required. A site plan shall be submitted to, and approved by, the Development Office for each of the following:
- (1) New construction, additions that exceed ten percent of the existing floor space, and moving of a structure.
- (2) Change of use of a property or structure, except where such change does not result in the requirement for additional site improvements as required by these Standards, the Subdivision Regulations, or the Zoning Ordinance.
- (3) Modifications to previously approved site plans that alter site improvements required by these Standards, the Subdivision Regulations, or the Zoning Ordinance.
- (4) Any change or expansion of a use that may result in significant off-site impacts to public facilities as determined by the Laramie County Director of Public Works.
- b. Exceptions. A site plan is not required for single family residence, duplex, and townhouse uses.
- c. Procedure. Upon approval of the site plan, a Certificate of Review is issued by the Development Office. A Certificate of Review is required to obtain a Zoning Certificate from the County Planning Department.

Site plans are reviewed by the Board of Laramie County Commissioners if a variance is necessary, or if the application is from a government agency, or if Board approval is necessary.

The Development Office forwards copies of the site plan to all pertinent offices and agencies for their comments.

The Development Office reviews the site plan for compliance with the standards set forth in these Standards, the Zoning Ordinance, other County Resolutions and any other adopted plans, resolutions, etc. which are appropriate to the request.

Site plans are further discussed in Section 58.000 and 58.010 of the Zoning Ordinance.

**Section 2.** Responsibilities. In the development of a site the developer is responsible for obtaining the required approval and make the improvements. In addition, the developer is responsible for other costs (such as community facility fees) set forth in the Subdivision Regulations.

# Section 3. Standards.

- a. Utility Design. Off site utilities shall be designed in accordance with the design criteria of the applicable municipality or district.
- b. Streets. The arrangements, width, grade and location of all through streets shall conform to the requirements of the Board of County Commissioners. Local streets should be laid out so that their use by through-traffic will be discouraged. There should be a minimum of minor streets intersecting major thoroughfares. Permanent dead-end streets are prohibited. (For the purpose of this Section, cul-de-sacs are not dead-end streets.) If a dead-end street is temporary, a temporary turn-around easement having a right-of-way radius of 60 feet shall be provided until provisions have been made for the extension of the street.
- c. Alleys. Alleys shall be provided in commercial and industrial districts. This requirement may be waived where other provision is made for service access and parking adequate for the uses proposed. The width of alleys shall be sixteen feet in residential and twenty-four feet in industrial and commercial areas. When alleys are provided, they may be designed for the placement of utility lines. Dead-end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turn around facilities at the dead end. Alleys in commercial and industrial subdivisions shall be paved.
- d. Utilities and Easements. Easements shall be provided for all public utilities if utilities cannot be placed in public street or road rights of way. (Adapted from Cheyenne-Laramie County Subdivision/Development Regulations 2000)

Where easements are required they shall be at least sixteen feet wide. Half easements of eight feet for utilities will be acceptable on the boundary of lots which are exterior to the subdivision and on the boundary of lots which are adjacent to streets, alleys, drainage rights-of-way, pedestrian travelways and drainage easements or easements granted for other purposes.

Where a subdivision is traversed by a water course, drainage way, channel or stream, there shall be provided an adequate drainage easement.

In special circumstances where it is not feasible to comply with the provisions of this section, waivers may be granted on a case-by-case basis as provided in Chapter I of these Standards.

e. Parking. Parking is an important element in the transportation system, since most vehicles are parked most of the time. Facilities for parking often lag far behind roads and streets. This lack of balance leads to the conclusion that greater resources must be applied to the parking problem. To accomplish this, it is required that adequate parking facilities are constructed as a part of any new development.

To prevent large expanses of asphalt separating businesses from streets, developers are encouraged to locate new buildings closer to streets and to break parking areas up into modules separated by landscaping and other features. No more than fifty percent of the off-street parking area for the entire property should be located between the building and the primary abutting public street. Paved pedestrian access shall be provided from all parking areas and building entrances used for normal access.

- (1) Number of Spaces. The Zoning Ordinance indicates parking requirements related to zoning matters. The Ordinance includes space requirements for various uses, and provides for collective parking facilities in Section 57.010. Section 57.012 covers parking on other properties, and Section 57.021 lists general parking requirements. There is also information parking included for specific districts.
- (2) Stall Dimensions and Layout. Tables 10-1 and 10-2 and Figure 10-1 shall be used in the design of parking areas. The standard stall width shall be a minimum of nine feet.

**Table 10-1** 

Parking Layout Dimensions
Parking Layout Dimensions (in feet) for 9' x 18.5' Stalls at Various Angles

Dimension	Reference Dimension on Fig. 10 -1	Angle			
		45 <sup>°</sup>	60 <sup>0</sup>	75 <sup>0</sup>	90 <sup>0</sup>
Stall width, parallel to aisle	А	12.7	10.4	9.3	9.0
Stall length of line	В	27.5	23.7	20.9	18.5
Stall depth to wall	С	19.5	20.5	20.0	18.5
Aisle width between stall lines	D	12.0	16.0	23.0	26.0
Stall depth, interlock	Е	16.5	18.5	18.0	18.5
Module, wall to interlock	F	48.0	55.0	62.0	63.0
Module, interlocking	G	45.0	53.0	61.0	63.0
Module, interlock to curb face	Н	46.0	52.5	59.5	60.5
Bumper overhang (typical)	1	2.0	2.3	2.5	2.5
Offset	J	6.4	2.6	0.6	0.0
Setback	K	13.1	9.3	4.8	0.0
Cross aisle, one-way	L	14.0	14.0	14.0	14.0
Cross aisle, two-way		24.0	24.0	24.0	24.0

Source: Institute of Transportation Engineers, Transportation and Traffic Engineering Handbook, 1982, p. 650

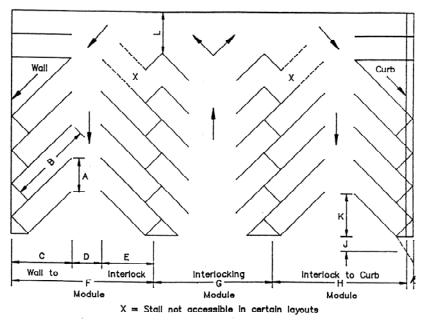


Figure 10-1

Table 10-2
Stall Layout Elements for Stalls Ranging in Width from 9.0' to 9.5'

Parking Angle	Stall Width Parallel to Aisle	Stall Depth to Wall	Stall Depth to Interlock	Aisle Width (1)	Module (2)	
					Wall to Wall	Interlock to Interlock
45 deg						
9.0' stall	12.7	19.5	16.5	12	51	45
9.5' stall	13.4	19.5	16.5	11	50	44
60 deg						
9.0' stall	10.4	20.5	18.5	16	57	53
9.5' stall	11.0	20.5	18.5	15	56	52
75 deg						
9.0 stall	9.3	20.0	19.0	23	63	61
9.5 stall	9.8	20.0	19.0	22	62	60
90 deg (3)						
9.0 stall	9.0	18.5	18.5	26	63	63
9.5 stall	9.5	18.5	18.5	25	62	62

These dimensions are for 18.5' length stalls, measured parallel to the vehicle, and are based on results of a special study to evaluate the effects of varied aisle and stall width for the different parking angles shown. The study was conducted in December 1970 by the Federal Highway Administration and Paul C. Box and Associates.

#### Note:

- (1) Measured between ends of stall lines
- (2) Rounded to nearest foot
- (3) For back-in parking, aisle width may be reduced 4.0 feet.

Source: Adapted from Institute of Transportation Engineers, <u>Transportation and Traffic Engineering Handbook</u>, 1982

# Chapter XI

# TRAFFIC CONTROL DEVICES

**Section 1.** <u>Preface</u>. The term traffic control devices includes all signs, signals, markings, and devices placed on, over, or adjacent to a street or highway by authority of a public body or official having jurisdiction to regulate, warn, or guide traffic.

The purpose of traffic control devices is to help insure highway safety by providing for the orderly movement of traffic, both motorized and non-motorized; and to provide such guidance and warnings as are needed to insure the safe and informed operation of individual elements of the traffic stream.

**Section 2.** Responsibilities. In a subdivision, the developer shall be responsible for the construction of the streets, including the traffic control devices. The developer is also responsible for the installation of street signs.

When a development impacts a street or streets to the extent that a traffic signal or other traffic control devices are necessary, the developer shall pay all or a proportionate share of the installation. Failure by the developer to pay his share may result in the County limiting turning movements at the location to prevent unsafe movements from occurring, or taking other actions to provide for safety at the location.

To facilitate striping of new streets or restriping of existing streets necessitated by a development, striping plans shall be submitted as part of the construction plans for approval. The striping plans shall utilize the lane widths and other requirements set forth in the other Chapters of these Standards.

The responsibility for traffic control devices on State Highways is indicated in the policies of the Wyoming Highway Department, cited below.

**Section 3.** <u>Standards</u>. Traffic control devices, including sign and pavement markings, which are intended for the purpose of traffic control shall conform to the specifications of the "Manual on Uniform Traffic Control Devices".

- a. Prohibition of Similar Signs. No sign which in any way resembles or contains parts which resemble any traffic control device shall be erected, altered, or maintained in any way for any purpose other than traffic control.
- b. Installation of Signs; Marking of Hazardous Pipe Ends. Stop or yield signs, warning signs, and advisory signs (as required by traffic volume) shall be installed as warranted in the "Manual of Uniform Traffic Control Devices". Hazardous pipe ends shall be marked with a reflectorized vertical steel post.
- c. Sign Construction Criteria. Street name signs shall be furnished and installed at all street intersections of the subdivision. All such street name signs shall be designed

and installed in compliance with Section 02805 of the City of Cheyenne and Board of Public Utilities Construction Standards & Specifications, March 1998 (as amended).

- d. Duplicate and Confusing Street Names Prohibited. Street and road names are subject to the approval of the Laramie County Planning Department, and meet the following standards:
- (1) Road names shall be unique when compared to names of existing roads recognized by Laramie County, including private roads and those in the incorporated areas of Laramie County and Warren Air Force Base. Consideration of uniqueness does not include the type of road, i.e. Avenue, Lane, Street, Road, etc.
  - (2) Similar sounding road names shall be avoided.
- (3) Each road shall have the same name throughout its entire length, if appropriate. Names cannot change at intersections.
- (4) Typically, roads are named within subdivisions throughout the County and numbered along section lines outside County Map and Address Area "D".
- (5) Directions cannot be part of the road name. North, South, East and West are intended to be directional features of the addressing system according to the baseline roads.
- (6) Names that are numbers must be expressed numerically, i.e., 2<sup>nd</sup> Street, not Second Street.
- (7) Road names must not contain any punctuation or symbols. Only letters of the English alphabet, numbers from 0-9 and blank spaces may be included in road names.
- (8) Abbreviations of the road name are not to be used, i.e., Mt. Meeker Road should be Mount Meeker Road.
- (9) Where a road makes a directional change of approximately ninety degrees the name shall change. Exceptions are loop drives and cul-de-sacs.
- **Section 4.** Emergency Access Lanes. Emergency access lanes are required for most large commercial and industrial land uses, and other facilities such as hospitals, schools, and large apartment buildings. Requirements for emergency access lanes are established by the County Fire Districts. When such lanes are provided, the developer is responsible for the installation and maintenance of the necessary signs and markings to delineate the lanes and prevent parking in them. Signs, at spacings not more than 25', indicating "No Parking, Fire Lane", and a similar message on the pavement within the lane are required.

# **Chapter XII**

# MAILBOX INSTALLATION POLICY

**Section 1.** Application. This policy applies only to roads on the Laramie County Road System. It does not apply to roads on the State Highway System, nor to roads within the City Limits of any incorporated City or Town in Laramie County.

**Section 2.** <u>Unauthorized Encroachment Prohibited</u>. No mailbox or newspaper delivery box (hereafter referred to as a mailbox) will be allowed to exist on the County rights-of-way if it interferes with the safety of the traveling public or the function, maintenance, or operation of the County Road System. A mailbox installation that does not conform to the provisions of this Policy will be considered an unauthorized encroachment on the public right-of-way.

**Section 3.** Permit Required. The location and construction of mailboxes shall conform to the rules and regulations of the U.S. Postal Service as well as to these standards. A permit is required from Laramie County to install a mailbox adjacent to a County Road. The application forms for a permit are available from the Laramie County Public Works Department (through the Planning Department), 310 West 19<sup>th</sup> Street, Cheyenne, WY 82001.

**Section 4.** <u>Installation Criteria</u>. A mailbox installation that conforms to the following criteria will be considered acceptable unless in the judgment of the Director of Public Works, the installation interferes with the safety of the traveling public or the function, maintenance, or operation of the highway system.

**Section 5.** Location. No mailbox will be permitted where access is obtained from the lanes of a freeway or where access is otherwise prohibited by law or regulation. Mailboxes shall be located on the right-hand side of the roadway in the direction of the delivery route except on one-way roads where they may be placed on the left-hand side. The bottom of the box shall be set at an elevation established by the U. S. Postal Service, usually between 39" and 47" above the roadway surface. The roadside face of the box shall be offset from the edge of the traveled way a minimum distance of the greater of the following: 8' (where no paved shoulder exists and shoulder cross-slope is 13% or flatter), the width of the all-weather shoulder present plus 8" to 12", or the width of an all-weather turnout specified by the Department of Public Works plus 8" to 12".

Exceptions to the lateral placement criteria may apply on residential streets and on certain designated rural roads where the Department of Public Works determines that it is in the public interest to permit lesser clearances or to require greater clearances. On curbed streets, the roadside face of the mailbox shall be set back from the face of curb a distance between 6" and 12". On residential streets without curbs or all-weather shoulders and that carry low-traffic volumes operating at low speeds, the roadside face of a mailbox shall be offset between 8" to 12" behind the edge of the pavement. On very low-volume rural roads with low operating speeds, the Department of Public Works

may determine that it is acceptable to offset mailboxes a minimum of 6.5' from the traveled ways and under some low-volume, low-speed conditions the Department may determine that clearances as low as 2.6' are acceptable.

Where a mailbox is located at a driveway entrance, it shall be placed on the far side of the driveway in the direction of the delivery route.

Where a mailbox is located at an intersecting road, it shall be located a minimum of 100' beyond the center of the intersecting road in the direction of the delivery route. This distance shall be increased to 200' when the average daily traffic on the intersecting road exceeds 400 vehicles per day.

Where a mailbox is installed in the vicinity of an existing guardrail, it should, whenever practical, be placed behind the guardrail.

**Section 6.** <u>Structure</u>. Mailboxes shall be of light sheet metal or plastic construction conforming to the requirements of the U.S. Postal Service. Newspaper delivery boxes shall be of light sheet metal or plastic construction of minimum dimensions suitable for holding a newspaper.

No more than two mailboxes may be mounted on a support structure unless the support structure and mailbox arrangement have been shown to be safe by crash testing. However, lightweight newspaper boxes may be mounted below the mailbox on the side of the mailbox support.

Mailbox supports shall not be set in concrete unless the support design has been shown to be safe by crash tests when so installed.

A single 4" x 4", or 4" diameter wooden post, or a metal post with a strength no greater than a 2" diameter standard strength steel pipe and embedded no more than 2' into the ground will be acceptable as a mailbox support. A metal post shall not be fitted with an anchor plate, but it may have an anti-twist device that extends no more than 10" below the ground surface.

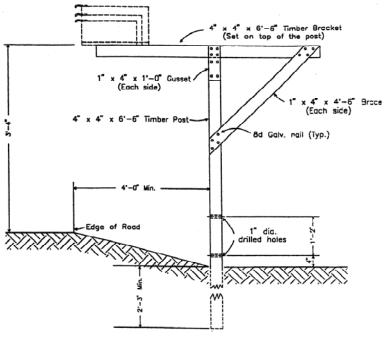
The post-to-box attachment details should be of sufficient strength to prevent the box from separating from the post top if the installation is struck by a vehicle. Figure 12-1 shows an acceptable mailbox support assembly. The exact support hardware dimensions and design may vary, such as having a two-piece platform bracket, or alternative slot and hole locations. The product shall result in a satisfactory attachment of the mailbox to the post, and all components must fit together properly.

The minimum spacing between the centers of support posts shall be three-fourths the height of the posts above the ground line.

Mailbox support designs not described in this Policy will be acceptable if approved by the Director of Public Works.

**Section 7.** Shoulder and Parking Area Construction. It will be the responsibility of the postal patron to inform the Department of Public Works of any new or existing mailbox installation where shoulder construction is inadequate to permit all-weather vehicular access to the mailbox.

**Section 8.** Removal of Nonconforming or Unsafe Mailboxes. Any mailbox that is found to violate the intent of this Policy shall be removed by the postal patron upon notification by the Department of Public Works. At the discretion of the Department of Public Works, based on an assessment of hazard to the public, the patron will be granted not less than 24 hours nor more than 30 days to remove an unacceptable mailbox. After the specified removal period has expired, the unacceptable mailbox will be removed by the Department of Public Works at the postal patron's expense.



NOTES:

- Wyoming DOT standard mailbox support (Std #202-01C or other approved equal may be used in lieu of this standard.
- No fixed objects or structures of significant mass shall be placed with 10' of road edge in urbanized areas and 30' in rural areas.
- Laramie County will remove any non-standard objects or structures not in compliance with this standard or deemed a hazard.
- 4. U.S. Postal Service approved mailbox sizes: 19"L x 6.5"W x 8.5" H 21"L x 8" W x 10.5" H 23.5"L x 11.5"W x 13.5"H
- Please Call 772-6530 for information on placement of mailbox.

Figure 12-1

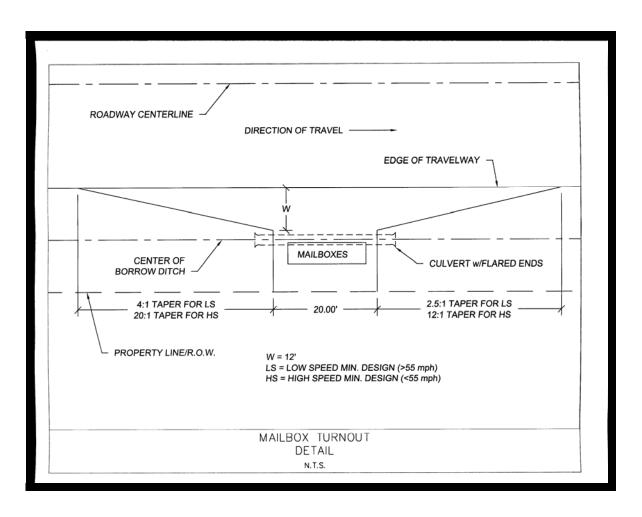


Figure 12-2

# Chapter XIII

# **LEGAL PROVISIONS**

**Section 1.** <u>Jurisdiction of the Administrative Parties</u>. The following duties must be performed by the Public Works Director, Development Director and Planning Director to assure that the provisions of these regulations are being met:

#### a. Public Works Director:

Review, or cause such review of all county development applications for compliance with these standards and compel such compliance.

Issue, or cause to be issued, permits for construction, utility installation, improvement, demolition activities within any unincorporated county public way when plans and specifications are found to be in compliance with these standards.

Inspect, test and accept, or cause such inspection, testing and acceptance of all work in county public ways for conformance with these standards.

Evaluate, or cause evaluation of traffic studies submitted when required by these regulations.

Order the closure of abandoned driveways pursuant to Chapter 4 of these standards.

Require dedication of additional right-of-way width pursuant Chapter 5 of these standards.

Issue, or cause the issuance of permits for the installation of mail boxes in any public county way pursuant to Chapter 12 of these standards.

Render final administrative decisions, interpretations and waivers pertaining to these standards.

#### b. Development Director:

Advise developers of these standards, and provide recommendation to the Planning Commission, or Board on county development applications for compliance hereof.

Compel the preparation of traffic studies when warranted by these regulations.

Determine when and where joint access is appropriate pursuant to Chapter IV of these standards.

Receive and distribute new development drainage studies for county department review pursuant to Chapter VI of these standards.

Receive and process site plans submitted pursuant to Chapter X of these standards, and issue Certificates of Review upon approval.

c. County Planning Director:

Process amendments to official maps as provided for in Chapter II of these standards.

File record drawings provided by developers showing as-constructed roads or streets.

Issue Zoning Certificates for new development with Certificates of Review pursuant to Chapter X of these standards.

Review and approve all proposed street and road names pursuant to Chapter XI of these standards.

**Section 2.** Enforcement. These Standards shall be enforced by the Public Works Director for any activity covered by these standards, within public county ways, and by the Planning Director for any activity covered by these standards, outside public county ways. Assistance of the Development Director or the County Attorney shall be provided upon request of the enforcing entity.

**Section 3.** <u>Violation and Penalties</u>. It is hereby declared to be unlawful to violate the provisions of these Regulations and Standards. Any person, firm or corporation that fails to comply with or violates any of these Regulations or Standards shall be subject to penalties prescribed by Wyo. Stat. §18-5-206 and §18-5-314.

#### Section 4. Interpretation, Conflict and Separability.

- a. Interpretation. In their interpretation and application, these provisions shall be held to be the minimum requirements for the promotion of the public health, safety and general welfare.
- b. Conflict. These provisions are intended to repeal any previous county road, street and site planning standards, but are not intended to interfere with, abrogate, or annul any other county regulation or statute. Where any of these provisions impose restrictions different from those imposed by any other county provisions, whichever are more restrictive or impose higher standards shall control. These provisions are not intended to abrogate any easement, restrictive covenant, or any other contractual agreement, private agreement or restriction.
- c. Separability. If any part of these provisions or standards, or application to any person or circumstances, is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision or application directly involved in all controversy in which such judgment shall have been rendered, and shall not affect or impair the validity of the remainder of these provisions or the

application thereof to other persons or circumstances. The Board hereby declares that it would have enacted the remainder of these provisions even without any such part, provision or application.

# Chapter XIV

# **DEFINITIONS**

**Section 1.** <u>Definitions</u>. Except as specifically defined herein, all words in these standards shall have the customary dictionary definitions. At the end of many of the definitions, there is a notation in brackets. These refer to the source of the definition and should be interpreted as follows:

- [W.S. 31-5-102] The source of the definition is Wyoming Statute Section 31-5-102.
- [MUTCD] The source of the definition is the Manual of Uniform Traffic Control Devices.
- [ASTM] The source of the definition is The American Society for Testing and Materials.
- [Zoning Ordinance] The source of the definition is the Cheyenne and Laramie County Zoning Ordinance, 1988
- [Subdivision Regulations] The source of the definition is the Cheyenne-Laramie County Subdivision/Development Regulations 2000
- a. Access Point: A driveway or intersection which provides an entrance or exit to private or publicly owned land from a public street.
- b. Alley: A minor thoroughfare, which affords only the secondary means of access to property abutting thereon. [Zoning Ordinance]
- c. Arterial Street: A road or street classified as a Principal Arterial or Minor Arterial on the current edition of the Major Street Plan Official Map.
- d. Average Daily Traffic (ADT): The total traffic volume during a 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.
- e. Bicycle: Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. [W.S. 31-5-102]
- f. Bicycle Route: A system of bikeways designated by appropriate route markers, and by the jurisdiction having authority. [MUTCD]
- g. Bicycle Trail: A separate trail or path from which motor vehicles are prohibited and which is for the exclusive use of bicycles or the shared use of bicycles and

- pedestrians. Where such trail or path forms a part of a highway, it is separated from the roadways for motor vehicle traffic by an open space or barrier. [MUTCD]
- h. Bikeway: Any road, street, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. [MUTCD]
- i. Board: The Board of Commissioners for Laramie County, Wyoming.
- j. Change of Use: A change of use constitutes at least one of the following: [Zoning Ordinance]
  - The use is appreciably different than those permitted in the zoning district in which the use is located.
  - The use is permitted in the zoning district in which the use is located, but requires more parking than the previous use.
  - The use requires a different site design than that existing for the previous use.
- k. Cheyenne Urban Development Area: That part of unincorporated Laramie County within the Urban Development Area Boundary as set forth in these standards.
- I. Collector Street:
  - A street or road designed to collect or distribute vehicular traffic from one or more residential or nonresidential areas to or from an arterial street. [Subdivision Regulations]
  - A road or street classified as a Collector on the current edition of the ChATPP Urban Roadway Functional Classification map.
- m. Controlled-Access Highway: Every highway, street or roadway in respect to which owners or occupants of abutting lands and other persons have no legal right of access to or from the same except at such points only and in such manner as may be determined by the public authority having jurisdiction over the highway, street or roadway. [W.S. 31-5-102]
- n. County: The County of Laramie, in the state of Wyoming.
- Crosswalk: Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface. [W.S. 31-5-102]

- p. Cul-de-sac: A short dead-end street terminating with a vehicular turn-around area. [Subdivision Regulations]
- q. Curb Return: The curved or flared portion of a street curb at driveway approaches.
- r. Designated Bicycle Lane: A portion of a roadway or shoulder which has been designated for use by bicyclists. It is distinguished from the portion of the roadway for motor vehicle traffic by a paint stripe, curb, or other similar device. [MUTCD]
- s. Designated Engineer: The person designated by a developer to oversee design and construction of permitted facilities. The Designated Engineer is the point of contact between the developer and the County, and is licensed by the Wyoming State Board of Registration for Professional Engineers and Professional Land Surveyors to practice engineering in Wyoming.
- t. Developer: The person who petitions the county for approval of a development action.
- u. Development: Any man-made change to real estate, including, but not limited to, the construction of buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling. [Zoning Ordinance]
- v. Development Office: The administrative office for current land use, planning and development for Laramie County and the City of Cheyenne. The Development Office is responsible for administration of zoning and land use regulations.
- w. Drive Approach, Driveway Approach: A constructed vehicle access between a road or street and adjacent property.
- x. Easement: A permanent or temporary grant of right by a property owner, to the public, a corporation, or other person(s), for the use of a strip or parcel of land for specified purposes. Ownership shall remain with the property owner. [Zoning Ordinance]
- y. Facilities: Water and sewer mains, curbs, gutters, sidewalks, street paving, storm sewers and other public improvements.
- z. Greenway: A linear open space established along either a natural corridor, such as a stream valley, or overland along a road or railroad right-of-way converted to recreational use; a natural or landscaped course for pedestrian or bicycle passage. Locally, certain designated strips or linear parks and open space connectors designated by the City of Cheyenne or Laramie County as part of the Greenway System.
- aa. Governing Body: The Board of Commissioners of Laramie County.

bb. Improvement: Includes buildings, structures and all facilities of a public nature intended for public use, including but not limited to streets, sidewalks, curbs, gutters, alleys and other public ways, parks, recreational facilities, water, sewage, solid waste disposal and other sanitary systems and facilities, and with respect to the foregoing, such additional facilities or improvements as relate or contribute to the full public use and enjoyment thereof. [W.S. 18-12-102]

#### cc. Intersection:

- The area embraced within the prolongation or connection of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. [W.S. 31-5-102 (a) (xvii) A]
- The junction of an alley with a street or highway does not constitute an intersection. [W.S. 31-5-102 (a)(xvii)C]]
- dd. Local Authorities: Every county, municipal, and other local board or body having authority to enact laws relating to traffic under the constitution and laws of this state. [W.S. 31-5-102]
- ee. Local Street: A low volume street or road designed to carry vehicular traffic from residential or nonresidential areas to or from a collector or arterial street.

  [Subdivision Regulations]
- ff. Motor Vehicle: Every vehicle which is self-propelled except vehicles moved solely by human power. [W.S. 31-5-102]
- gg. Official Traffic-Control Devices: Signs, signals, markings and devices not inconsistent with this act placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic. [W.S. 31-5-102]
- hh. Owner: The owner of record of a parcel of land, as recorded in the office of the County Clerk.
- ii. Parking Lot: An area other than a street or alley designated for the parking of five or more motor vehicles. [Zoning Ordinance]
- jj. Parking Space: A space specially designed for the parking of a motor vehicle. [Zoning Ordinance]
- kk. Pedestrian: Any person afoot. [W.S. 31-5-102]

- II. Pedestrian Vehicle: Any self-propelled conveyance designed, manufactured and intended for the exclusive use of persons with a physical disability. [W.S. 31-5-102]
- mm. Person: A natural person, firm, corporation, partnership, or association, or any combination of the above, or any other legal or commercial entity. [W.S. 18-5-302]
- nn. Planning Commission: The Cheyenne-Laramie County Regional Planning Commission.
- oo. Private Road or Driveway: Every way or place in private ownership and used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons. [W.S. 31-5-102]
- pp. Radius: The curved or flared portion of a driveway or street which connects the driveway with the highway or street.
- qq. Right-of-Way: A general term denoting land that is dedicated and set aside for use by the public.
- rr. Roadway: That portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk, berm or shoulder. [W.S. 31-5-102]
- ss. Shared Roadway: A roadway which is officially designated and marked as a bicycle route, but which is open to motor vehicle travel and upon which no bicycle lane is designated. [MUTCD]
- tt. Sidewalk: That portion of a street between curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for use of pedestrians. [W.S. 31-5-102]
- uu. Sidewalk Area: That portion of the space lying between the street, roadway or curbline and the property line that is reserved for sidewalks, either existing or proposed. [C.C. 40-44]
- vv. Site Plan: A plan of the land showing the existing and proposed features for the property.[Zoning Ordinance]
- ww. Street: The entire width between the boundary lines of every way publicly maintained or if not publicly maintained, dedicated to public use when any part thereof is open to the use of the public for purposes of vehicular travel. [W.S. 31-5-102] Any street, avenue, boulevard, road, parkway, viaduct, or other ways for the movement of vehicular traffic which is an existing federal, state, county, or municipal roadway; or a right-of-way shown upon a plat, heretofore approved, pursuant to law or approved by official action and includes the land between right-of-way lines, whether improved or unimproved, and may comprise pavement,

- shoulders, curbs, gutters, sidewalks, parking areas and other areas within the right-of-way. [Zoning Ordinance]
- xx. Subdivider: Any person who lays out any subdivision or parts thereof either for the account of the subdivider or others. [W.S. 18-5-302]
- yy. Subdivision: Means the creation or division of a lot, tract, parcel or other unit of land for the immediate or future purpose of sale, building development or redevelopment, for residential, recreational, industrial, commercial or public uses. The word "subdivide" or any derivative thereof shall have reference to the term subdivision, including mobile home courts, the creation of which constitutes a subdivision of land. [W.S. 18-5-302]
- zz. Superintendent: The Director of the [Wyoming] Department of Transportation. [W.S. 31-5-102]
- aaa. Through Highway: Every highway or portion thereof on which vehicular traffic is given preferential right-of-way, and at the entrances to which vehicular traffic from intersecting highways is required by law to yield the right-of-way to vehicles on the through highway in obedience to a stop sign, yield sign or other official traffic control devices. [W.S. 31-5-102]
- bbb. Traffic: Pedestrians, ridden or herded animals, vehicles and other conveyances either singly or together while using any highway for purposes of travel. [W.S. 31-5-102]
- ccc. Traffic-Control Signal: Any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed. [W.S. 31-5-102]
- ddd. Traffic Engineer: The Laramie County Engineer, or, if no such person is designated, a consultant retained by the County to provide traffic engineering services.
- eee. Use: The purpose for which land is designed, arranged or intended to be utilized. [Zoning Ordinance]
- fff. Variance: A variation or adjustment of the specific design standards (not uses) of a zoning district in the case of an irregular, narrow, shallow or steep lot or other physical condition applying to a lot which would result in practical difficulty or unnecessary hardship that would deprive the owner of reasonable use of the land in a manner equivalent to other landowners in the same neighborhood. [Zoning Ordinance]

transported or drawn upon a highway, except devices used exclusively upon stationary rails or tracks. [W.S. 31-5-102]

hhh. WYDOT: The Wyoming Department of Transportation

PRESENTED, READ AND ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_\_, 2002.

BOARD OF LARAMIE COUNTY COMMISSIONERS

Diane Humphrey, Chair

ATTEST:

Debra K. Lathrop, Laramie County Clerk

Reviewed and approved as to form:

Peter H. Froelicher, Laramie County Attorney

ggg. Vehicle: Every device, in, upon, or by which any person or property is or may be