

PLN-2023-18146



April 12, 2024

Bob Sutter
1643 Azalea Ave.
P.O. Box 2663
McKinleyville, CA. 95519

Humboldt County Board of Supervisors
825 5th Street, Room 111
Eureka, CA 95501

Attn: Board of Supervisors

Re: Appeal of Planning Commission sidewalk requirement in a private, not public, easement

To the Humboldt County Board of Supervisors:

On April 4, 2024 the Humboldt County Planning Commission approved the Sutter Parcel Map Subdivision and Special Permits, which included a requirement for the construction of sidewalks on Azalea Ave. North, a private road. The applicant, Bob Sutter, is appealing the sidewalk requirement on Azalea Ave. North.

The basis for the appeal is the restrictions placed on minor subdivisions, such as this, by the Subdivision Map Act, Government Code Section 66411.1 and the lack of any justification or nexus to the County Road Categories and the McKinleyville Community Plan, specifically the circulation element.

Following are three conditions required by the county on exception requests:

1) There are special circumstances or conditions affecting said property

Azalea Ave. North is a private Right-of-Way, not subject to the requirements of public streets. The Department of Public Works did not address the private road legal status in the Subdivision Requirements presented to the Planning Commission. Section 66411.1 specifically states in part "**...the regulations shall be limited to the dedication of rights-of-way, easements, and the construction of reasonable offsite and onsite improvements for the parcels being created.**" The construction requirement of sidewalks on a private road easement is not a reasonable improvement for the parcels being created. If the property owners, through the Road Maintenance Association, desired sidewalks, then they could construct them at a time of their choosing. If the property owners desire some other improvement, such as landscaping, then that would be their choice as well. The county has not shown or referenced any legal document that bestows those decisions to the county. The McKinleyville Community Plan referenced in the Subdivision Requirements extracts one statement out of context from the MCP, stating that sidewalks shall be incorporated into the design of subdivisions when warranted. Azalea Ave. North is not part of the McKinleyville Community Plan Circulation and Public Facilities element. There is no connectivity with the County required sidewalk since this is a dead end sidewalk.

2) That the exception is necessary for the preservation and enjoyment of a substantial property right of the Applicant/Petitioner

The private easement containing Azalea Ave. North serves to provide the applicant and the Road Maintenance Association the right to use or develop the easement. The proposed minor subdivision is infill development consistent with planned growth for the area. The proposed project helps achieve maximum buildout for the community, and supports construction of much needed additional housing units. The new infill housing would provide valuable tax base to the County of Humboldt.



3) That the granting of the exception will not be detrimental to the public welfare or injurious to other property adjacent to where this property is located

Azalea Avenue north is a private road with no public access and will not be detrimental to the public welfare or injurious to other property to where this property is situated.

Sincerely,

A handwritten signature in blue ink, appearing to read "Keith Castonguay".

Keith Castonguay, Agent
For Bob Sutter, Applicant

- Attachments
- McKinleyville Community Plan - Circulation and Public Facilities element
 - Subdivision Map Act Government Code Section 66411.1
 - Humboldt County Subdivision Ordinance 4-2
 - Humboldt County Road Category Figures



Attachment

CHAPTER 4

PUBLIC SERVICES AND FACILITIES

4100 OVERVIEW

Publicly owned facilities should serve present and anticipated needs of a community and consequently play a major role in determining future growth and development patterns. The California Legislature has clearly established the General Plan to be the source of policy guiding public facilities and land use decisions (Government Code 65030.1 and 65400(d)).

The purpose of this Chapter is to provide objectives, goals, and policies for vehicular and non-vehicular circulation, recreation, and drainage facilities to guide the provision of these public services consistent with other applicable general plan policies. Other important public services and facilities are addressed in the General Plan in detail.

4200 CIRCULATION

In 1985 the Humboldt County Board of Supervisors and the Humboldt County Planning Commission adopted a Circulation Plan for streets and highways for McKinleyville. A revised Circulation Plan for McKinleyville was adopted as part of a 1998 Community Plan revision. The revised Circulation Plan addresses both vehicular and non-vehicular circulation, and shall be followed by developers and the County whenever new road and/or pathway construction or existing road and/or pathway reconstruction is to be performed. The Circulation Plan shall apply to both coastal and inland portions of McKinleyville.

The Circulation Plan shall provide for safe and effective vehicular, pedestrian and bicycle and equestrian travel. While some roads, bike and pedestrian projects may not be needed until McKinleyville is a larger community, it is very important that rights-of-way for these future projects be preserved now. Options for future roads, lanes and paths may be limited by future developments if they are not planned carefully to be in conformance with the newly adopted circulation plan.

To insure future circulation options for both vehicular and non-vehicular transportation, the Circulation Plan provides measures to preserve the rights-of-way to allow for future construction. To protect the continued efficiency of the Circulation Plan and public safety, the Circulation Plan requires all new arterial travelways to be public.

To improve circulation for the community of McKinleyville, the Circulation Plan provides for:

- Additional north-south and east-west arterials and collectors to facilitate circulation to and within a localized commercial core, the town center, and to avoid further development of commercial strips along arterials; and,
- Additional pathways to allow safe, pleasant, efficient circulation of pedestrians and bicyclists, and decrease dependence on automobiles.

The Circulation Plan policies are based on recommendations and information provided in the documents, *Planning for Pedestrians and Bicyclists in McKinleyville*, (RCAA, November 1991) and *McKinleyville Community Plan Draft* (Michael Corbett, April 1993). Additional information used in developing this Circulation Plan was provided by the two school districts in McKinleyville, representatives from emergency service agencies, and the County Department of Public Works.

4201 Existing Conditions

Between 1969 (when the County adopted a Master Circulation Plan) and 1985, one new arterial road was constructed which conformed to the plan (Murray Road east of Central Avenue). The reconstruction of Central Avenue was also consistent with the adopted plan.

In addition, the following routes and/or neighborhood streets (streets lined with homes and on-street parking) have been completed since 1985:

- a connection from Central Avenue to Halfway Avenue via Horrell, Little Pond, Winchester and Killdeer Streets (neighborhood streets);
- a connection from Central Avenue to First Street via Heartwood Drive (a neighborhood street);
- a connection from Central Avenue to Second Street via Holly Drive (a neighborhood street);
- a conceptually approved plan (Miller Farms) for connection of Central Avenue to McKinleyville Avenue via Heartwood Drive (a neighborhood street);
- a connection from Hiller Road to the end of Forson Road via Thiel Avenue (a neighborhood street); and
- initial construction of the southerly extension of McKinleyville Avenue to toward School Road.

4202 Future Conditions

The future circulation conditions for McKinleyville have been studied in several environmental documents. The most comprehensive of these is the *Environmental Impact Report for McKinleyville Community Services District Sewer Capacity Expansion Project* (SCH No. 91123032, Winzler & Kelly Consulting Engineers, 1993). This document developed 5- and 10-year traffic forecasts based upon a 5% per year growth rate.

Roadways are customarily evaluated by Transportation Engineers for their ability to serve moving vehicles without traffic delays. The resulting grades “A” through “F” “Level of Service” (LOS), indicate unsignalized roads that range from little or no delay to severe congestion with blocked intersections. Signalized intersections are evaluated differently. A LOS of “A” indicates an average delay of five seconds per vehicle, while a LOS of “E” averages delays of over 60 seconds per vehicle. LOS may also be estimated by evaluating the ratio of actual traffic volumes to designed capacity of the road (volume to capacity, or V/C).

Sixty-three McKinleyville road segments were evaluated in the Winzler & Kelly study. All were performing at LOS of “A” and were predicted to remain at LOS level “A” up to 100% build-out, or a population of 36, 172 by year 2013. As indicated in the *Traffic Engineers Handbook, Fourth Edition*, Chapter 5, page 123 (Institute of Traffic Engineers) this is a “desirable” level for rural road segments in communities with populations of less than 50,000. For intersections, however, the Winzler & Kelly report predicted one intersection in McKinleyville to be at LOS of “E” by 1997, a LOS of “D” and “F” were predicted to occur at intersections by the year 2006, and a LOS of “E” and “F” were predicted to occur by year 2013 if mitigation measures were taken. The *Traffic Engineering Handbook* suggests “desirable” LOS of “C” and “B” for intersections in areas under 50,000 in population.

While an LOS of C or better may be “desirable” from a strictly traffic engineering perspective, this Plan considers the needs of pedestrian and bicyclists alongside those of vehicles. To address all users, a compromise must be sought between roadways functioning at their peak performance and providing accommodations for other users. To meet these competing transit demands, this Plan sets forth a variety of policies to support multi-modal circulation throughout the community.

4203 Bicycle Facilities

Currently, McKinleyville has designated “Class II” bike lanes (signed and striped adjacent to a vehicular traveled way) only along Central Avenue between School Road and Railroad Drive, along School Road between Central Avenue and Bugenig Road (east-bound only), and along McKinleyville Avenue between Hiller and Murray Roads. With the exception of that portion of the Hammond Trail through Hiller Park, no “Class I” (minimum 12-foot-wide trails, physically separated from vehicular roadways) have been developed in the Community Planning Area. Similarly, no formal “Class III” bike routes (signed, unstriped) have been designated.

This plan calls for the eventual development of an integrated network of bicycle lanes, paths, and trails, designed to provide non-vehicular transit and to promote the healthful benefits of recreational cycling to the community (see Chapter 4300 Trails, Greenways, Parks and Recreational Facilities).

4204 Pedestrian Walkways and Intersections

This Plan includes recognition of the need for appropriately sited and improved walkways and pedestrian crossing facilities at intersection in the interest of promoting foot transit throughout the community.

4205 Bicycle and Pedestrian Safety

Promoting bicycle and pedestrian access through the community is a major focus of this Plan. To this end, policies have been developed to assure that facilities are designed and developed to encourage efficient cycling and walking opportunities throughout the community.

4206 Equestrian Pathways

Horseback riding is a common and well-received activity for many members of the community. This Plan recognizes this popular pastime and has, where appropriate, designated equestrian use of certain paths within the Trails Plan.

4220 Goal

Provide for a circulation system which will accommodate growth in the McKinleyville area and should work toward safe, convenient routes for pedestrians, bicyclists and equestrians throughout the community.

4230 Policies

1. The alignments of collector and arterial streets necessary for community circulation should be located and reserved for future development. These routes are illustrated on the Circulation Plan map.
2. Rights-of-way for new arterial and collector routes as generally shown on the Circulation Plan Map shall be dedicated to the County as condition of approval of any development permit as each area is developed, unless waived by the Planning Commission based on approval of an alternative right-of-way.
3. On street parking shall be prohibited in commercial areas and shall be prohibited where bicycle routes are planned adjacent to public street’s travel lanes.
4. New roadway design standards (for example, those identified in *Planning and Design for Bikeways in California*) should be adopted which incorporate provisions for walkways and bikeways into all road designs.

5. Design standards should be adopted for all pathways. Pathways are defined as developed portions of rights-of-way from which motor vehicles are excluded.
6. All future circulation planning shall include bicycle and pedestrian pathway routes.
7. All new roads and intersections shall be designed to provide convenient use by pedestrians, bicyclists and motor vehicles.
8. When major repairs or reconstruction occurs on existing substandard collector and arterial roads and intersections, they should be brought up to standards which provide for pedestrian, bicycle and motor vehicle use. Existing deficiencies shall be corrected prior to further development. This policy is contingent upon funding availability.
9. Priority (from the available funds provided for McKinleyville) shall be given to circulation projects which enhance safe pedestrian and bicycle access to McKinleyville's schools.
10. In subdivisions creating new interior roads, bikeways, off-street pedestrian ways, or sidewalks separate from roadways shall be incorporated when warranted into the design of the subdivision.
11. Landscape buffer strips shall be used to segregate pedestrian walkways from arterial and busy connector travelways.
12. New pathways (including sidewalks) shall be free of obstacles such as utility poles and mailboxes. Where obstacles are unavoidable on existing sidewalks or pathways, they shall be widened or otherwise designed to provide the least amount of obstruction to users.
13. Within the McKinleyville Urban Development Area, lighting should be required near new travelways, major intersections and the Commercial Core Area when recommended by governmental agencies.
14. On-street parking and driveway encroachments shall be prohibited along all new arterial roads.
15. Improvement to existing collector and arterial roadways should be designed to eliminate on-street parking.
16. Site plans for new roads, paths and trails, or improvements to existing ones shall minimize their impact to streams and wetlands, and incorporate and preserve aesthetically pleasing natural features consisting of native and non-native species.
17. A funding mechanism should be provided for the design of improved public pathways. Funding alternatives include development impact fees, user fees (such as fuel taxes and tolls), non-user fees (such as property and sales taxes), special benefit fees (such as assessment districts), joint ventures (such as public/private agreements), and debt financing (such as bonds, certificates of participation etc.).
18. All new hard surfaced walkways shall be wheelchair accessible.
19. Existing hard surfaced walkways should be improved to be wheelchair accessible when funding is available or when development projects occur on adjacent parcels.
20. Creative and flexible application of travelway design standards based upon engineering principles in new subdivisions shall be allowed if they minimally impact the natural environment.
21. New subdivisions and other major developments shall be designed to integrate with the pedestrian circulation network in the community.
22. In order to minimize travel distances for pedestrians (encouraging pathway short-cuts and non-automobile use), new subdivisions and other major developments shall provide rights-of-way for pathways consistent with the adopted Trails Plan between public streets (or other public or commercial destinations) at least every 1,320 feet (¼ mile) in R-1 neighborhoods; and every 350

feet (one city block) in higher density areas. Assessment districts, subject to voter ratification or other funding mechanisms, shall be created for all subdivisions to improve and maintain rights-of-way to pathway standards as identified in the Circulation and Trails Plans.

23. Developers shall be encouraged to dedicate landscaped buffer strips to the McKinleyville Community Services District (MCSD), accompanied by a maintenance fee assessment (pursuant to MCSD Ordinance 42).
24. Off-street parking along local streets shall be encouraged in the design of new developments. Creative on-street parking arrangements such as parking pockets or bays on local service roads are encouraged when based on engineering principles.
25. Offsite improvements along local streets shall be encouraged in the design of new developments.

4250 Implementation

1. A comprehensive circulation plan which integrates the circulation needs of pedestrians, bicyclists, and automobiles shall be adopted as part of this Community General Plan.
2. All ordinances necessary for the implementation of the policies of the circulation element of this Plan should be adopted within six months of the approval of the General Plan revision.
3. Investigate road improvement assessment districts as a means of funding priority improvements to new and existing roads including non-vehicular travelways.
4. An annual capital improvement and project priority program should be adopted within one year of the approval of this General Plan revision.

4260 ALTERNATE ROADWAY DESIGNS

Many of the newer subdivisions in McKinleyville with 5,000 square foot lot sizes employ road Category 5 and 6 design standards. The traveled way is typically 40 feet wide with two 12 foot driving lanes and two 8 foot parking lanes. There are existing roads in McKinleyville which currently are developed at widths between 26 and 32 feet.

This chapter focuses on the feasibility of reducing road widths in new subdivisions as a means of enhancing neighborhood livability. Some of the primary issues related to reducing road widths include emergency vehicle access, on- and off-street parking, bikeways, traffic and pedestrian safety, traffic volume and traffic speeds. The standards focus on residential access roads where an arterial road serves a proposed subdivision. Where the residential access streets serving the individual lots can be reduced in width, then often landscaping can be provided adjacent to the street, and sidewalks can be placed inside the landscape strip.

Alternate or conceptual road way designs are intended to show how a variety of provisions for pedestrians, bicyclists and automobiles can be combined within various right-of-way widths. It is important to note that not all alternate designs require reduced road widths. Traffic calming is an effort to reduce the speed of motor vehicles by altering the design characteristics of the roadway. In McKinleyville, alternate designs in high density residential neighborhoods may be desired as a way to reduce speeds, and make streets more pleasant for both pedestrians and bicyclists.

4261 Goal

1. To provide alternate or conceptual road way designs intended to show how a variety of provisions for pedestrians, bicyclists and automobiles should be implemented.

4262 Policies

1. All subdivision applications which propose new roads not listed in the circulation element shall submit alternate roadway designs which reflect an emphasis on pedestrian convenience. They may include reducing travelway widths within the required right-of-way easement.
2. Prior to approving a reduced roadway width, the County shall ensure that the roadway provides adequate access for emergency vehicles.
3. The County shall implement where appropriate as determined by the Public Works Department the use of traffic calming measures as a means of reducing the speed of motor vehicles, and facilitating pedestrian movement. Traffic calming measures include chicanes, curb extensions and traffic circles.
4. The County or other local agency should explore alternative financing mechanisms for landscape maintenance zones which will enhance street aesthetics and enable landscape strips with street trees within the public right-of-way.
5. All pedestrian pathways should be located adjacent to or within landscape strips or greenways. Pathways should not be located adjacent to the traveled way.
6. Subdivisions involving five or more units and zoned for under 20,000 square foot minimum parcel size are encouraged to incorporate parking bays into the design of any proposed traveled way that are not shown as collector streets on the Circulation Plan map.
7. Intersections and streets shall be designed to provide an attractive environment for multiple modes of transportation.
8. The County shall explore the use of incentives to property owners/subdividers for providing landscaping strips, maintenance programs, and parking bays. These incentives may include density bonuses.

McKinleyville

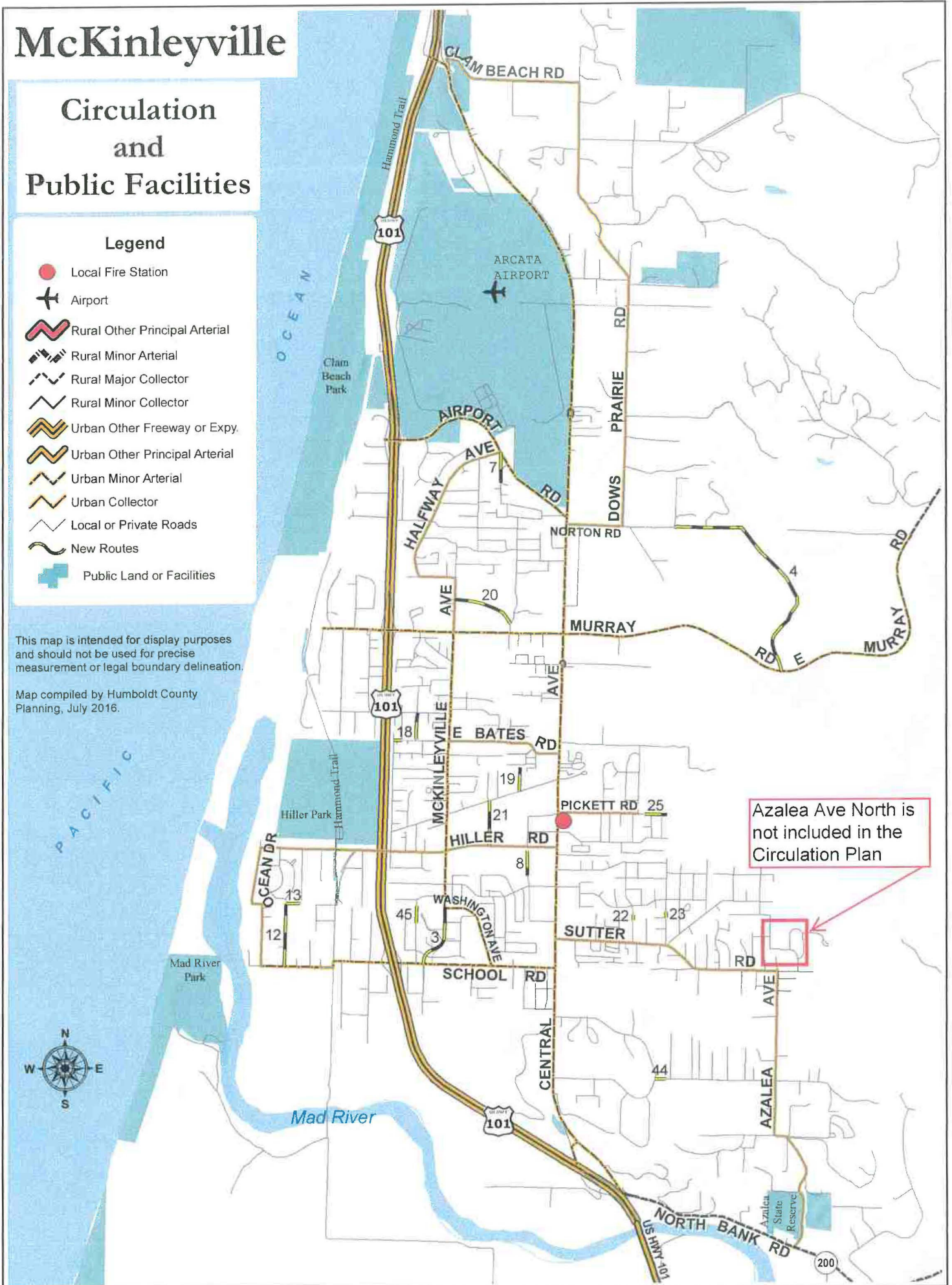
Circulation and Public Facilities

Legend

- Local Fire Station
- ✈ Airport
- ▬ Rural Other Principal Arterial
- ▬ Rural Minor Arterial
- ▬ Rural Major Collector
- ▬ Rural Minor Collector
- ▬ Urban Other Freeway or Expy.
- ▬ Urban Other Principal Arterial
- ▬ Urban Minor Arterial
- ▬ Urban Collector
- ▬ Local or Private Roads
- ~ New Routes
- ⊕ Public Land or Facilities

This map is intended for display purposes and should not be used for precise measurement or legal boundary delineation.

Map compiled by Humboldt County Planning, July 2016.



Azalea Ave North is not included in the Circulation Plan

General Plan Circulation System Improvements for the McKinleyville Community Plan

No.	Proposed Road Improvements	Area	Length (feet)	Class	Maintenance Responsibility
3	McKinleyville Avenue South Ext.	MCPA	784	Urban Collector	County of Humboldt
4	Norton Road Extension	MCPA	5,821	Urban Collector	County of Humboldt
7	Underwood Road Extension	MCPA	1,735	Urban Collector	County of Humboldt
8	City Center Road Extension	MCPA	607	Urban Collector	County of Humboldt
12	Bird Avenue Extension	MCPA	1,504	Urban Collector	County of Humboldt
13	Montana Road Extension	MCPA	330	Local	Maintenance District
14	Berg Avenue Extension	MCPA	810	Local	Maintenance District
15	Windson Road Extension	MCPA	977	Local	Maintenance District
17	West Bates Road Extension	MCPA	210	Local	Maintenance District
18	Rita Avenue Extension	MCPA	645	Local	Maintenance District
19	Terrace Road Extension	MCPA	569	Local	Maintenance District
20	Pedroni Road Extension	MCPA	1,534	Local	Maintenance District
21	Walnut Avenue Extension	MCPA	1,085	Local	Maintenance District
22	Waters Avenue Extension	MCPA	120	Local	Maintenance District
23	Lime/A Avenue Extension	MCPA	152	Urban Collector	County of Humboldt
25	Pickett Road Extension	MCPA	534	Local	Maintenance District

Azalea Ave North is not included in the Circulation Plan



GOVERNMENT CODE - GOV

TITLE 7. PLANNING AND LAND USE [65000 - 66499.58] (*Heading of Title 7 amended by Stats. 1974, Ch. 1536.*)

DIVISION 2. SUBDIVISIONS [66410 - 66499.41] (*Division 2 added by Stats. 1974, Ch. 1536.*)

CHAPTER 1. General Provisions and Definitions [66410 - 66424.6] (*Chapter 1 added by Stats. 1974, Ch. 1536.*)

ARTICLE 1. General Provisions [66410 - 66413.5] (*Article 1 added by Stats. 1974, Ch. 1536.*)

66411.1. (a) Notwithstanding Section 66428, whenever a local ordinance requires improvements for a division of land which is not a subdivision of five or more lots, the regulations shall be limited to the dedication of rights-of-way, easements, and the construction of reasonable offsite and onsite improvements for the parcels being created. Requirements for the construction of offsite and onsite improvements shall be noticed by a statement on the parcel map, on the instrument evidencing the waiver of the parcel map, or by a separate instrument and shall be recorded on, concurrently with, or prior to the parcel map or instrument of waiver of a parcel map being filed for record.

(b) Notwithstanding Section 66428, fulfillment of the construction requirements shall not be required until the time a permit or other grant of approval for development of the parcel is issued by the local agency or, where provided by local ordinances, until the time the construction of the improvements is required pursuant to an agreement between the subdivider and the local agency, except that in the absence of an agreement, a local agency may require fulfillment of the construction requirements within a reasonable time following approval of the parcel map and prior to the issuance of a permit or other grant of approval for the development of a parcel upon a finding by the local agency that fulfillment of the construction requirements is necessary for either of the following reasons:

- (1) The public health and safety.
- (2) The required construction is a necessary prerequisite to the orderly development of the surrounding area.

(Amended by Stats. 1994, Ch. 655, Sec. 1. Effective January 1, 1995.)

(3) Urban area.

4-2. GUIDELINES FOR DETERMINING ROADWAY CATEGORIES.

(a) If on-street parking is expected, then a parking lane must be provided. The parking lane need not accommodate more than three (3) vehicles if the lot frontage exceeds 120 feet. If the subdivider does not provide for on-street parking, the topography of the lots must permit normal site development and provide room for the parking of five (5) vehicles.

(b) Applicant is responsible for all drainage requirements.

(c) In estimating average daily traffic (ADT), the number of lots served by the road in urban or urbanizing areas shall be multiplied by eight (8). In rural areas, the number of lots served by the road shall be multiplied by five (5).

(d) Upon satisfactory completion, roads constructed in accordance with standards of Categories 4 through 6 would qualify for inclusion into the County maintained road system. Roads under Category 3 would qualify if surfaced with seal coat or asphalt. Roads under Categories 1, 2 and 3 (if gravel) would be considered on an individual basis. Consideration would be given to building set backs, area's density, length of road, size of parcels, if it connected to a public maintained road, and public use.

(e) Nothing herein permits the submittal of subdivision improvement plans which do not reflect sound engineering judgment and practices. The subdivider's engineer shall certify that all subdivision improvement plans represent sound engineering judgment and practices.

(f) Dead end roads shall have an adequate turnaround at their termination.

(g) Design standards herein are not intended to be all inclusive. The Roadway Categories contained in this Appendix are excerpts from the County Design Manual. The County and State Design Manuals should be referred to, when applicable. All work, including water and sewer lines, shall conform to the State Standard Specifications.

Figures.

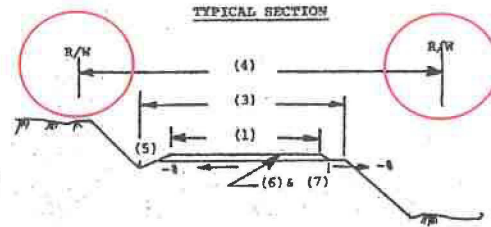
ROADWAY CATEGORY I (SINGLE LANE- NARROW TRAVELED WAY)
LENGTH LIMITATION- QUARTER MILE

Service Provided:

Mobility	Volume
Approximately 20 MPH Safe Driving Speed	0-20 ADT

Notes:

- (1) Traveled Way Width: 10 feet
- (2) Shoulder Width: -0-
- (3) Roadbed Width: As approved by the Dept. of Public Works
- (4) Right of Way Width: Minimum 40 feet
- (5) Drainage: Must be adequate to protect road and adjacent properties and approved by the Dept. of Public Works



- (6) Structural Section: Depends upon engineering analysis of materials and soil. (Approved by Public Works Department)
- (7) Surface: Native Rock or gravel. (Seal coat or A.C. may be required, depending on proposed use and parcel size.)
- (8) Ditch and Shoulders: To vary to suit conditions as approved by Department of Public Works
- (9) No Parking Permitted on Travelled Way

Geometric Standards

Element Design Speed	DESIGN SPEEDS/TERRAIN					
	Flat		Rolling		Mountainous	
	10-20	30	10-20	30	10-20	30
Grade (1)	10	8	13	10	13	11
Maximum Grade * (2)	15	12	20	15	20	17
Sight Distance						
Stopping	100'	150'	200'			
Intersection	100'	200'	300'			
Minimum Curve Radius	75'	120'	300'			
Horizontal Clearance to Obstructions	10'	10'	10'			
Surface Cross Slope	4%	4%	4%			

Notes: Length Limitation - quarter mile
Superelevation and Curve Widening Must be Considered for Short Radius Curves
Outsloping of Roadway to be Used Only When Approved by Dept. of Public Works on Un-surfaced Roads
Gutter and backup to vary to suit conditions
backup on outsloped road shall be a minimum 3 feet wide

* For short distances. (300' maximum and/or approved by the Department of Public Works)
(1) Minimum Grade 1%
(2) Maximum allowable grades may be 4% steeper for paved roads when approved by Dept. of Public Works
For further information see Humboldt County Code

Figure 1

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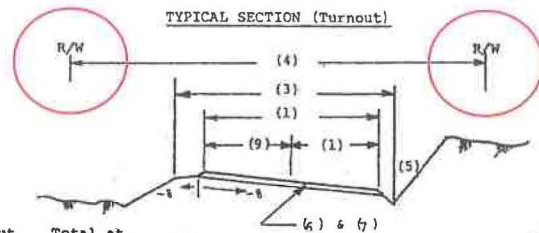
ROADWAY CATEGORY 2 (SINGLE LANE-NARROW TRAVELED WAY-TURNOUTS)

Service Provided:

Mobility	Volume
25-35 MPH Safe Driving Speed	Low 0-50 ADT

Notes:

	Traveled Way	Turnout Section	Total at Turnout
(1) Traveled Way Width:	10 - 12 ft.	10 ft.	20 - 22 ft.
(2) Shoulder Width:	-0-	-0-	-0-
(3) Roadbed Width:	As approved by Dept. of Public Works		
(4) Right of Way Width:	Minimum 40 feet		
(5) Drainage:	Must be adequate to protect road and adjacent properties, and approved by Dept. of Public Works		
(6) Structural Section:	Depends upon engineering analysis of materials and soil, must be approved by the Dept. of Public Works.		



- (7) **Surface:** Native Rock, gravel or Seal Coat (double). (A.C. may be required, depending on proposed use and parcel size)
- (8) **Ditch and Shoulders:** To vary to suit conditions as approved by the Dept. of Public Works
- (9) **Turnout Section:** 10 feet wide by 80 feet minimum length, having flared ends approved by Dept. of Public Works
- (10) **Distance Between Turnouts:** Not to exceed 1/4 mile spacing or as approved by the Dept. of Public Works.
- (11) **No Parking** on traveled way

Geometric Standards

ELEMENT	DESIGN SPEED/TERRAIN								
	Flat			Rolling			Mountainous		
	20	30	40	20	30	40	20	30	40
Grade (1)	9	8	6	12	10	8	17	11	11
Maximum Grade * (2)	13	12	9	18	15	12	20	17	17
Sight Distance	20	30	40						
Stopping	150'	200'	275'						
Intersection	200'	300'	550'						
Minimum Curve Radius	120'	300'	550'						
Horizontal Clearance to Obstructions	10'	10'	10'						
Surface Cross Slope	4%	4%	4%						

Notes: see publication "Turnout Spacing on Logging Roads" by Conrad L. Mandt (ITTE, Univ. of Calif.)
 Superelevation and Curve Widening must be considered for short radius curves.
 Gutter and backup to vary to suit conditions, Backup on outslopped roads shall be 3 feet min.

* For short distances. (300' maximum and/or approved by the Department of Public Works)
 (1) Minimum Grade 1%
 (2) Maximum allowable grades may be 4% steeper for paved road when approved by Dept. of Public Works
 For further information please see Humboldt County Code Book

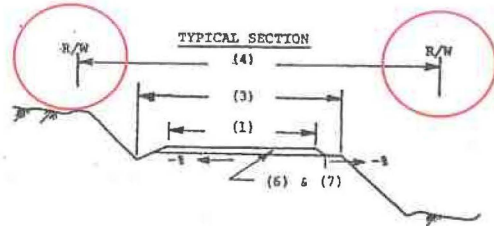
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Figure 2

ROADWAY CATEGORY 3 (ONE LANE-WIDE TRAVELED WAY)

Service Provided:

Mobility	Volume
25-35 MPH Safe Driving Speed	Low 0-100 ADT



Notes:

- (1) Traveled Way Width: 16 feet
- (2) Shoulder Width: 4 feet, when required by the Department of Public Works
- (3) Roadbed Width: As approved by the Dept. of Public Works
- (4) Right of Way Width: Minimum 40 feet.
- (5) Drainage: Must be adequate to protect road and adjacent properties, and approved by Dept. of Public Works
- (6) Structural Section: Depends upon results of engineering analysis of materials and soil, and approval by the Department of Public Works.
- (7) Surface: Gravel, Seal Coat (double) or A.C.
- (8) No Parking on Travelled Way

Notes: Gutter and backup will vary to suit conditions (3'min)
Superelevation requirements see Section 2-312 of the Roadway Design Manual

Geometric Standards:

ELEMENT	DESIGN SPEED/TERRAIN									
	Flat				Rolling				Mountainous	
	30	40	50	20	30	40	20	30	40	
Grade (1)	7	7	6	10	9	8	12	10	9	
Maximum Grade * (2)	11	11	9	15	14	12	18	15	14	
Sight Distance	20	30	40	50						
Stopping	150	200	275	350						
Passing		1100	1500	1800						
Intersection	200	300	400	500						
Minimum Curve Radius	120	300	550	850						
Horizontal Clearance to Obstructions	10	10	10	10						
Surface Cross Slope	2½*	2½*	2½*	2½*						

* For short distances. (300' maximum and/or approved by the Department of Public Works)
 * If surfaced with Seal Coat or A.C. - 4% if gravel and 4% higher if paved
 (1) Minimum Grade is
 (2) Maximum allowable grades may be 4% steeper for paved road when approved by Dept. of Public Works

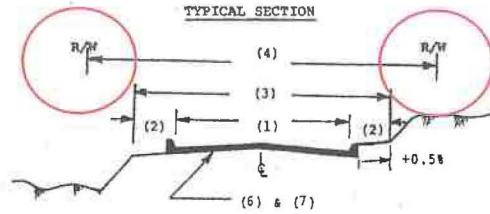
Figure 3

247

ROADWAY CATEGORY 4 (TWO LANE- NARROW TRAVELED WAY)

Service Provided:

Mobility	Volume
25-40 MPH Safe Driving Speed	Low to Moderate 0 - 800 ADT



Notes

- (1) Traveled Way Width: 18- 20 ft.
- (2) Shoulder Width: 4 ft. (when required by the Dept. of Public Works)
- (3) Roadbed Width: As approved by the Dept. of Public Works
- (4) Right of Way Width: Minimum 50 ft.
- (5) Drainage: Must be adequate to protect road and adjacent properties and approved by the Department of Public Works
- (6) Structural Section: Depends upon engineering analysis of materials and soil. Approved by the Dept. of Public Works
- (7) Surface: Seal Coat (double) or Asphalt Concrete with dikes as approved by the Department of Public Works
- (8) No Parking On Travelled Way

Geometric Standards

ELEMENT	DESIGN SPEED/TERRAIN								
	Flat			Rolling			Mountainous		
	30	40	50	30	40	50	20	30	40
Grade (1)	9	7	6	12	10	8	15	12	10
Maximum Grade*	13	11	9	18	15	12	22	18	15
	30	40	50						
Sight Distance									
Stopping	200	275	350						
Passing	1100	1500	1800						
Intersection	300	400	500						
Minimum Curve Radius	300	550	850						
Horizontal Clearance to Obstruction	10	10	10						
Surface Cross Slope	2 1/4% g	2 1/4% g	2 1/4% g						

Notes: Typical paved gutter with asphalt dike is shown in embankment condition but should only be used as required for surface drainage control.
Superelevation requirements see Section 2-312 of the Roadway Design Manual

* For short distances. (100' maximum and/or approved by the Department of Public Works)
(No gravel allowed)
(1) Minimum Grade 1%

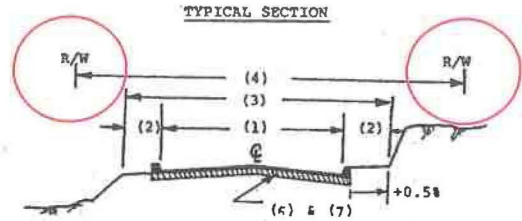
Figure 4

248

ROADWAY CATEGORY 5 (TWO LANE-WIDE TRAVELED WAY)

Service Provided:

Mobility	Volume
Moderate to High Over 40 MPH	0 -400 ADT



Notes:

- (1) Traveled Way Width: 24 ft.
- (2) Shoulder Width: 4 feet when required by Dept. of Public Works
- (3) Roadbed Width: As approved by the Dept. of Public Works
- (4) Right of Way Width: Minimum 50 ft.
- (5) Drainage: Must be adequate to protect road and adjacent properties and approved by the Department of Public Works
- (6) Structural Section: Depends upon results of engineering analysis of materials and soil, and approval by Dept. of Public Works
- (7) Surface: Asphalt Concrete (A.C.) or Double Seal with curbs as approved by the DPW
- (8) Parking Permitted as per approval of DPW

Geometric Standards:

ELEMENT	DESIGN SPEED/TERRAIN										
	Flat			Rolling			Mountainous				
	40	50	60	30	40	50	60	30	40	50	20
Grade (1)	7	6	5	12	10	8	6	12	10	9	15
Maximum Grade *	11	9	8	18	15	12	9	18	15	13	22
Sight Distance	30	40	50	65	70						
Stopping	200	275	350	600	See						
Passing	1100	1500	1800	2300	State						
Intersection	300	400	500	650	Design						
Minimum Curve Radius	300	550	850	1500	Manual						
Horizontal Clearance to obstructions	10	10	10	10							
Surface Cross Slope	2%	2%	2%	2%							

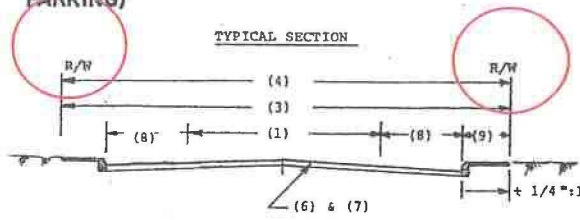
Notes: Minimum paved gutter with dike is 2' wide. Shoulder will be paved when specified by Dept. of Public Works

For super-elevation requirements see Section 2-312 of the Roadway Design Manual

Figure 5

* For short distances (300' maximum and/or approved by the Department of Public Works)
 (1) Minimum Grade 1%
 For further information see Humboldt County Road Design Manual

ROADWAY CATEGORY 6 (TWO LANE-WIDE TRAVELED WAY WITH SIDEWALKS AND ON-STREET PARKING)



Service Provided:

Mobility	Volume
Moderate to High Over 40 MPH	Over 400 ADT

Notes:

- (1) Traveled Way Width: 24 ft.
- (2) Shoulder Width: 8 feet when required by Department of Public Works
- (3) Roadbed Width: As approved by the Department of Public Works
- (4) Right of Way Width: Minimum 50 ft.
- (5) Drainage: Must be adequate to protect road and adjacent properties and approved by the Department of Public Works
- (6) Structural Section: Depends upon results of engineering analysis of materials and soil, and approval by Dept. of Public Works
- (7) Surface Recommendation: Asphalt Concrete (A.C.) or Double Seal with curbs as approved by the Department of Public Works
- (8) Parking Lane: A minimum of 8 ft. wide by 40 ft. long, or as approved by Dept. of Public Works
- (9) Curb and Sidewalk: As approved by the Department of Public Works

Notes: Minimum paved gutter with dike is 2' wide. Shoulder will be paved when specified by Dep. of Pub. Works.

Geometric Standards

ELEMENT	DESIGN SPEED/TERRAIN									
	Flat			Rolling			Mountainous			
	40	50	60	30	40	50	60	30	40	50
Grade (1)	7	6	5	12	10	8	6	12	10	15
Maximum Grade *	11	9	8	18	15	12	9	18	15	22
Sight Distance	30	40	50	65	70					
Stopping	200	275	350	600	See					
Passing	1100	1500	1800	2300	State					
Intersection	300	400	500	650	Design					
Minimum Curve Radius	300	550	850	1500	Manual					
Horizontal Clearance to obstructions	10	10	10	10						
Surface Cross Slope	2%	2%	2%	2%						

For superelevation requirements see Section 2-312 of the Roadway Design Manual

Topography may require deletion of parking on one side

* For short distances (300' maximum and/or approved by the Department of Public Works)
(1) Minimum Grade 1% or 0.5% concrete if curb and gutter constructed

For further information see Humboldt County Road Design Manual

Figure 6

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CATEGORY 1, 2, & 3 ROADS

MAXIMUM GRADES
(Percentage)

Type of Terrain	Design Speed (MPH)				
	10	20	30	40	50
Flat	10	9	8	7	6
Rolling	12	12	10	8	
Mountainous	13	13	11		

Notes: (1) Grades of relatively short lengths may be increased to a maximum 150 percent of the value shown. Exact maximum grade for the various lengths required are shown on Figure 8. (2) Grades shown are for native or gravel surface. Short length grades may be 4% steeper if paved.

CATEGORY 4, 5, & 6 ROADS

MAXIMUM GRADES
(Percentage)

Type of Terrain	Design Speed (MPH)				
	20	30	40	50	60
Flat		9	7	6	5
Rolling		12	10	8	6
Mountainous	15	12	10	9	

Note: Grades of relatively short lengths may be increased to a maximum 150 percent of the value shown. Exact maximum grade for the various lengths required are shown on Figure 9.

Figure 7