

APPENDIX TO TITLE III, DIVISION 2,
OF THE HUMBOLDT COUNTY CODE
ESTABLISHING SUBDIVISION DESIGN AND
IMPROVEMENT STANDARDS

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ESTABLISHING SUBDIVISION DESIGN AND
IMPROVEMENT STANDARDS

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PURPOSE

This Appendix establishes policies and standards for roadway design and other subdivision improvements. Also included are desirable design practices. These policies, standards and practices are to be used to guide and inform County employees involved in approving the design of subdivision improvements as well as for the subdivider and/or his engineer.

INTERPRETATION

The Director of Public Works shall be responsible for interpreting and enforcing this Appendix.

SECTION 1
ADMINISTRATION OF ROADWAY DESIGN

1-1. ADMINISTRATION.

It is the policy of Humboldt County that the Director of Public Works will be responsible for the administration of policies and standards contained herein.

1-2. MAINTAINABILITY.

It is the policy of Humboldt County that roadways will be designed to minimize maintenance costs while providing acceptable levels of service.

SECTION 2
BASIC DESIGN POLICIES AND GEOMETRIC STANDARDS

2-1. BASIC DESIGN OBJECTIVES.

It is the policy of Humboldt County that roadway designs will satisfy the following basic criteria: The roadway will be designed to move traffic efficiently and safely at prescribed service levels, consistent with the expected use of the roadway. This means that the design will be based upon:

- (a) Legal requirements;
- (b) Sound engineering principles and practices and engineering geological evaluation if necessary;
- (c) Traffic safety considerations;
- (d) Economy of design and maintenance; and
- (e) Allowance for the special nature of Humboldt County roads and traffic problems.

2-2. DESIGN SPEED.

It is the policy of Humboldt County that design speeds shall be adequate for mobility, yet generally remain consistent with the needs of the area being served.

SECTION 3
OTHER POLICIES

3-1. ACCESS OPENINGS.

All access openings to County roads shall be located and constructed in such a manner as to provide safe visibility and be compatible with the County road. Openings to County arterial roads shall be minimized in number.

3-2. DRIVEWAYS.

All construction to connect driveways to County roads shall be authorized by a valid permit. (See Humboldt County Code Title 4, Division 5, Encroachment Permits.) The construction, repair and maintenance of all driveways shall be the responsibility of the property owner, developer or tenant of the abutting property. This responsibility shall include the entire area of driveway from the edge of the existing pavement or traveled way to the property line.

3-3. SCENIC VALUES IN PLANNING AND DESIGN.

It is the policy of Humboldt County that scenic values be considered when planning and designing roadways. As an agreeable and natural road-side appearance is desirable, the destruction of valuable trees and growth should be avoided if suitable alternative locations are available at reasonable cost.

3-4. EROSION AND WATER POLLUTION.

It is the policy of Humboldt County that erosion or water pollution pertaining to or resulting from the construction of highways or roadways is to be held to a practical minimum and shall be temporary in nature.

The examples of Best Management Practices found within the appendix to the County Grading, Excavation, Erosion and Sediment Control regulations (Section 331-14) may be proposed by applicants or utilized by County staff in the conditioning of any development related application or approval pursuant to the County Subdivision Regulations. (Ord. 2275, § 1, 05/28/2002)

SECTION 4
DESIGN STANDARDS FOR ROADWAY CATEGORIES

4-1. INTEGRATING THE COUNTY CLASSIFICATION SYSTEM INTO THE ROADWAY DESIGN PROCESS.

It is the policy of Humboldt County that design will be based upon the following roadway classification, use and level of service factors.

The Director of Public Works is responsible for placing roads serving subdivisions into one or more of the following roadway categories:

(a) Roadway Category #1:

- (1) Single lane - low speed, less than 20 mph.
- (2) No parking permitted on traveled way.
- (3) Maximum length - 1/4 mile.
- (4) Serves maximum of four (4) parcels having no more than one dwelling unit per parcel.
- (5) Rural area only.

(b) Roadway Category #2:

- (1) Single lane - with intervisible turnouts not to exceed 1/4 mile spacing.
- (2) No parking on traveled way.
- (3) Serves a maximum of ten (10) parcels having no more than one dwelling unit per parcel.
- (4) Rural area only.
- (5) Low speed - 25 mph design.

(c) Roadway Category #3:

- (1) Single lane - will allow for vehicles to pass each other at slow speeds.
- (2) No parking on traveled way.
- (3) Serves a maximum of 20 parcels having no more than one dwelling unit per parcel.
- (4) Rural situations - low density area.
- (5) Low speed - 25 mph design.

(d) Roadway Category #4:

- (1) Two lane - narrow roadway, low to moderate speed - 25-40 mph.
- (2) No parking on traveled way.
- (3) Serves a maximum of 100 parcels with no more than one dwelling unit per parcel.
- (4) Urbanization situation. Vicinity is beginning to undergo a transition from rural to urban.

(e) Roadway Category #5:

- (1) Full two lane with at least two 4-foot shoulders.
- (2) No parking on traveled way.
- (3) Urban or urbanizing area. Vicinity normally will have intermittent high density lots and large lots or acreage.

(f) Roadway Category #6:

- (1) Full two lane with at least two 8-foot parking lanes.
- (2) Provides on-street parking and/or sidewalks as approved by Department of Public Works. Topography or design may require deletion of parking on one side as approved by Department of Public Works.
- (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.

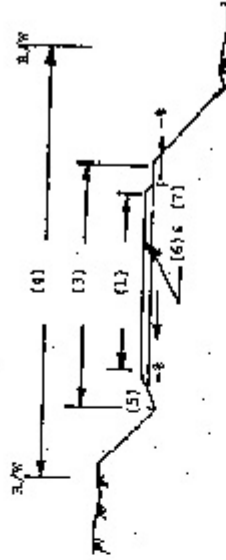
(g) Design standards herein are not intended to be all inclusive. The Roadway Categories contained in this Appendix are excerpts from the County Design Manual. The County and State Design Manuals should be referred to, when applicable. All work, including water and sewer lines, shall conform to the State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

DESIGN STANDARDS

ROADWAY CATEGORY I (SINGLE LANE - NARROW TRAVELED WAY)

LENGTH LIMITATION - QUARTER MILE

TYPICAL SECTION



Service Provided:

Mobility	Value
Approximately 20 MPH Safe Driving Speed	0-20 AD7

Notes:

- (1) Travelled Way Width: 10 feet
- (2) Shoulder Width: 0-
- (3) Shoulder Height: As approved by the Dept. of Public Works
- (4) Right of Way Width: Minimum 40 feet
- (5) Drainage: Must be adequate to protect load 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: 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/TERMINI		Minimum Radius
		10-20	30	
Grade 1% Grade + 1%	10	13	15	11
Grade 2% Grade + 1%	15	12	15	17
Sight Distance	100'	20'	30'	
Stopping	150'	30'	40'	
Intersection	200'	40'	50'	
Minimum Curve Radius	200'	300'	400'	
Horizontal Clearance to Obstructions	10'	20'	30'	
Surface Cross Slope	4%	4%	4%	

Notes: Length Limitation - quarter mile
 Superlevation and Curve Widening Must be Considered for Short Radius Curves
 Outcropping of Roadway to be Used Only When Approved by Dept. of Public Works on the surfaced roads
 Outer and backup to vary to suit conditions
 backup on outcropped toe 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 Highway Construction

Figure 1

DESIGN STANDARDS

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

Service Provided:

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

Shoulder

(1) Traveled Way Width: 10 - 12 ft. 10 ft.

(2) Shoulder Width: 0-

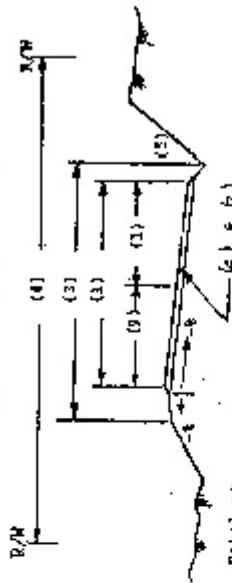
(3) Roadbed Width: As approved by Dept. of Public Works

(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.

TYPICAL SECTION (TURNOUT)



(7) Surface: Native Rock, Gravel or Seal Coat (Municipal), P.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 30 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

EASEMENT	DESIGN SPACE/STANDARD	
	Flat	Mountainous
Grade 1)	20	20
Maximum Grade + (2)	8 12 15	10 12 15
Sight Distance	200	100
Stopping Intersection	150'	275'
Minimum Curve Radius	200'	300'
Horizontal Clearance to Obstructions	120'	350'
Surface Cross Slope	10'	10'
	4%	4%

Notes: see public-action turnout spacing on Local Road by Contact L. Mandel (777E, UNIV. of Calif.)

superelevation and curve widening must be considered for short radius curves. Butter and Backup to vary to suit conditions, Backup on outcropped roads shall be 3 feet min.

* For short Distances, (300' maximum and/or approved by the Department of Public Works)

- (1) Minimum Grade is
 - (2) Maximum allowable grades may be 4% steeper for paved road when approved by Dept. of Public Works
- For further information, please see Handbook on Roadway Design.

Figure 2

DESIGN STANDARDS ROADWAY CATEGORY 3 (ONE LANE-WIDE TRAVELED WAY)

Service Provided:

Mobility	Volume
25-35 MPH Safe Driving Speed	Low 0-100 A.D.C.

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.
- (8) No Parking on Traveled Way

Notes: Cutter 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	
	Fast	Mountainous
Grade (1) Maximum	37	30
	40	40
Sight Distance	7	10
	11	14
Stopping Passing	20	30
	40	50
Minimum Curve Radius	150	200
	200	275
Horizontal Clearance to Obstructions	700	1100
	100	1500
Surface Cross Slope	10	10
	2%	2%

- * For short distances, (500' 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) maximum grade is
- (2) minimum allowable grades may be 4% steeper for paved road when approved by Dept. of Public Works

Figure 1

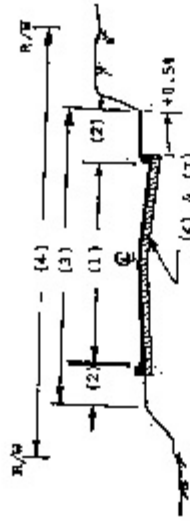
DESIGN STANDARDS

ROADWAY CATEGORY 5 (TWO LANE-WIDE TRAVELED WAY)

Service Provided:

Mobility	Volume
Moderate to High over 40 MPH	1-400 ADT

TYPICAL SECTION



- 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 Base with Curbs as approved by the DMV
 - (8) Parking: Permitted as per approval of DPW

Geometric Standards:

ELEMENT	DESIGN SPEED/TERMIN									
	Flat		Rolling		Mountbains					
Grade (1)	40	30	50	60	60	60	60	60	50	20
	7	6	5	12	10	8	6	12	10	9
Maximum Grade *	11	9	8	18	15	12	9	18	15	13
	30	40	50	65	70					
Right Distance	200	275	350	400	450	500	550	600	650	700
Stopping	1100	1500	1800	2000	2200	2400	2600	2800	3000	3200
Passing	300	400	500	600	700	800	900	1000	1100	1200
Intersection	300	400	500	600	700	800	900	1000	1100	1200
Minimum Curve Radius	10	10	10	10	10	10	10	10	10	10
Vertical Clearance	10	10	10	10	10	10	10	10	10	10
Surface Cross Slope	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

Notes: Minimum Paved gutter with dikes 24" 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

* 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

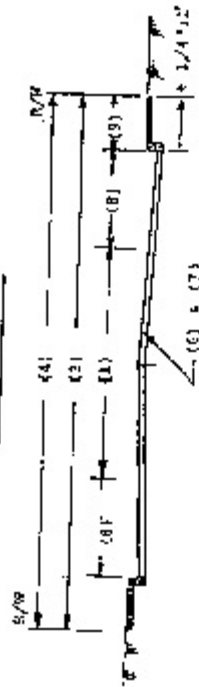
Figure 5

DESIGN STANDARDS 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

TYPICAL SECTION



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

Geometric Standards

ELEMENT	P.A.R.T.		Rolling		Mountainous	
	40	50	40	50	40	50
Grade (%)	7	5	12	10	6	12
Maximum Grade *	11	9	16	15	9	18
Sight distance	30	40	50	65	70	15
Stopping	200	275	350	500	See	22
Parking	1100	1500	1000	2000	See	15
Intersection	300	400	500	550	See	10
Minimum Curve Radius	300	550	350	1500	Manual	15
Horizontal Clearance to obstructions	10	10	10	10		15
Surface Cross Slope	2 1/2	2 1/2	2 1/2	2 1/2		22

* Where Minimum paved gutter with dike is 2" wide, shoulder may be paved when specified by Dep. of Pub. Works.

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

Topography may require deletion of parking on one side

Figure 6

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

For further information see Humboldt County Road Design Manual

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	13	12	10	8	
Mountainous	13	13	11		

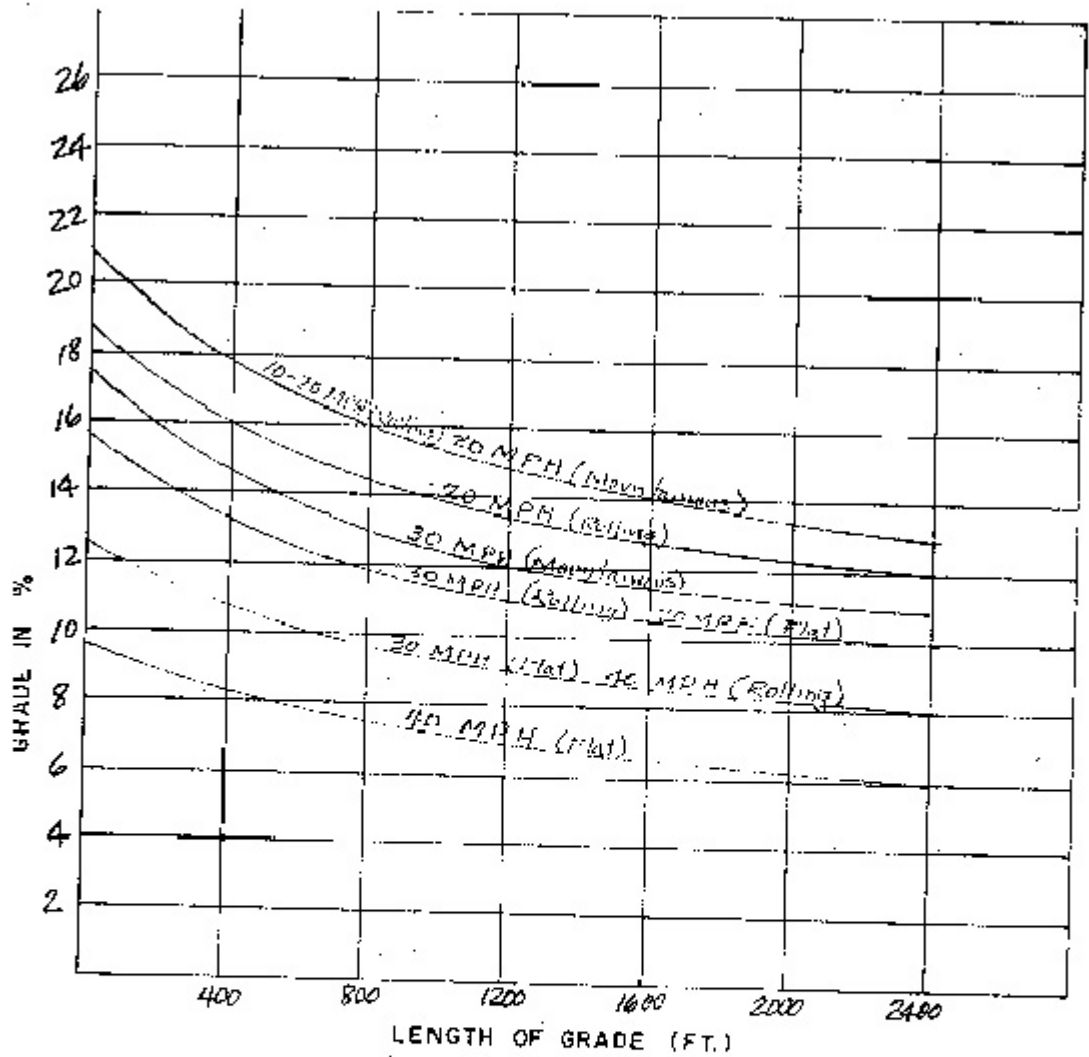
Notes: (1) Grades of relatively short lengths may be increased to a maximum 150 percent of the value shown. Exact maximum grade for the various lengths required are shown on Figure 8. (2) Grades shown are for native or gravel surface. Short length grades may be 4% steeper if paved.

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.

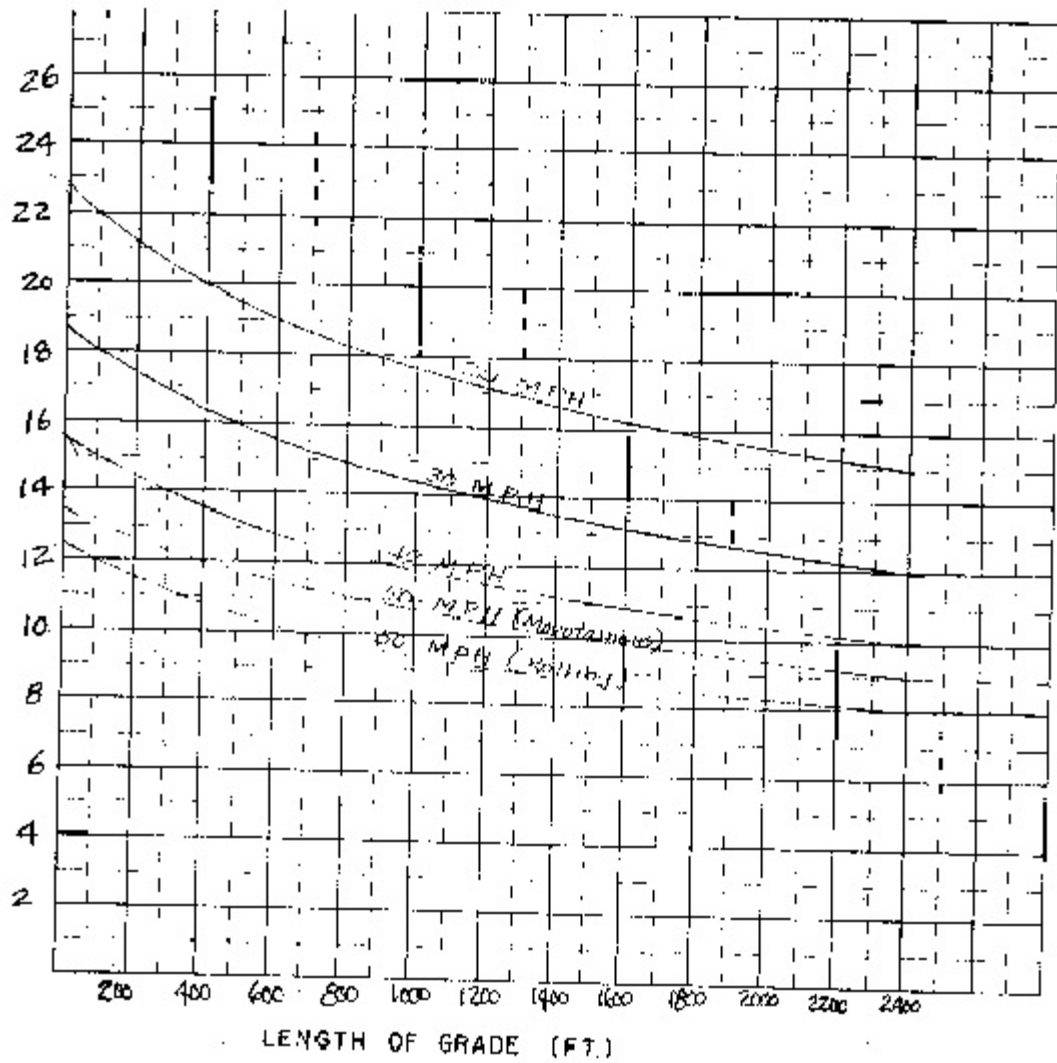


Note: Maximum grades may be 4% steeper when roadway is to be paved.

MAXIMUM GRADE FOR SPECIFIED LENGTH

ROAD CATEGORIES 1, 2 & 3
(Gravel or Native Surfaced)

FIGURE



MAXIMUM GRADE FOR LENGTH SPECIFIED
 ROAD CATEGORY 4, 5 & 6
 (Rolling & Mountainous Terrain)

FIGURE 9

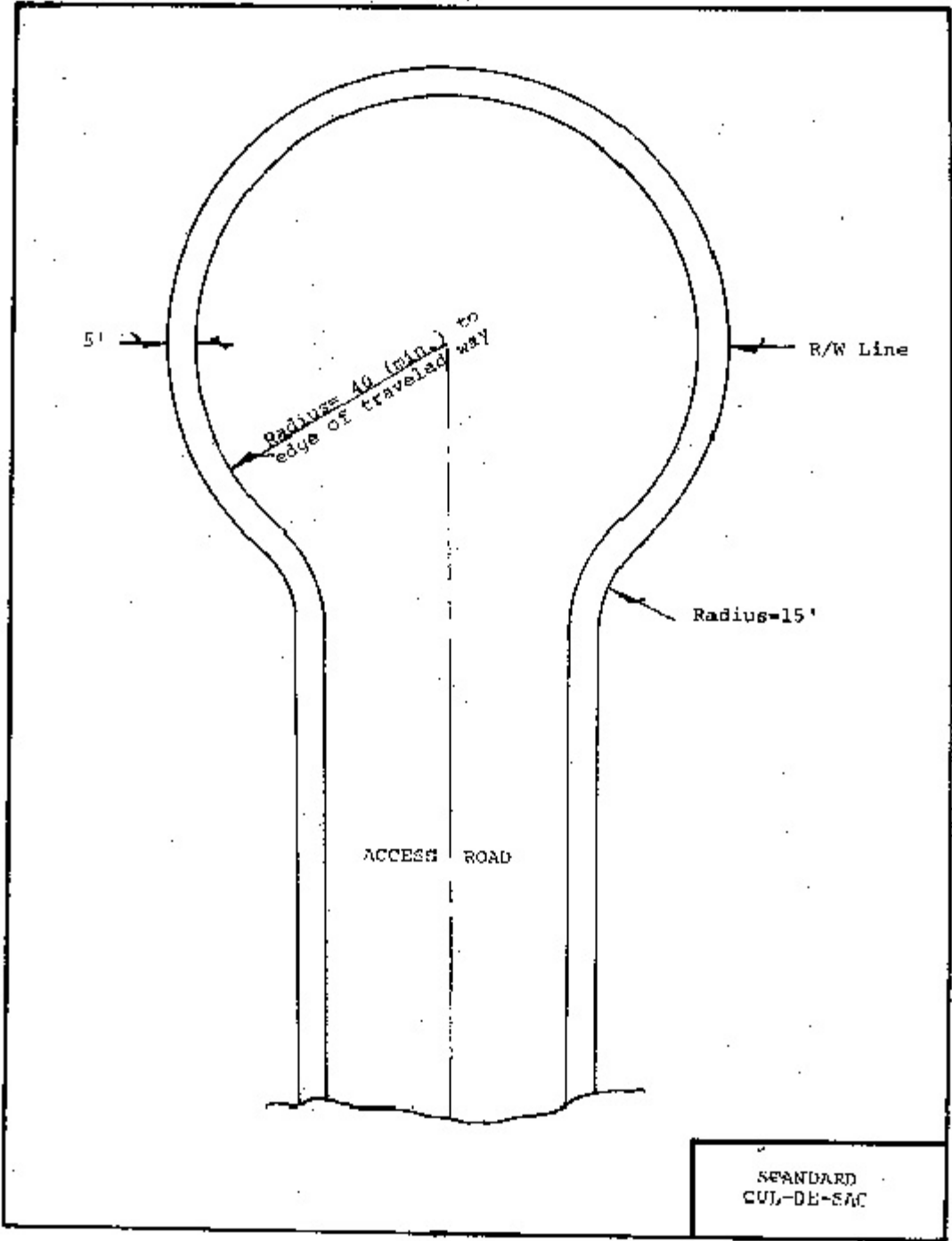


FIGURE 10

SECTION 5
STREETS AND HIGHWAYS

5-1. STREET ARRANGEMENT.

The arrangement of streets in the subdivision shall provide for the coordination of principal streets of adjoining subdivisions, and for the proper projection of principal streets into adjoining properties which are not yet subdivided, in order to make possible necessary fire protection, movement of traffic and the construction or extension, presently or when later required, of needed utilities and public services such as sewers, water and drainage facilities. When the topographic or other conditions make such continuance impracticable in the opinion of the Advisory Agency, the above requirements may be modified.

5-2. CIRCULATION ELEMENT.

The streets and highway layout of each subdivision shall be based on sections of the circulation element of the General Plan in all cases where such sections shall have been adopted for the portion of the County within which the subdivision lies.

5-3. CENTERLINES.

The centerlines of all highways shall be the continuation of the centerline of existing highways in adjacent and contiguous territory. In cases in which straight continuations are not reasonably possible, such centerlines may be continued by tangential curves.

5-4. NON-ACCESS STRIPS.

Reserved strips controlling access to public ways or to property will not be approved unless such strips are necessary for the protection of the public welfare or the orderly development of the area. Reserved strips shall be in the control and disposal of the County and shall be established as a condition by the Advisory Agency may recommend, and the Board of Supervisors may approve, a requirement that reimbursement of prorated improvements costs be a condition of relinquishing any reserved strips.

5-5. STREET CENTER SECTIONS.

Streets shall be required to intersect one another at an angle as near to the right angle as is practicable in each specified case, and no intersections of streets at angles less than forty-five degrees (45°) shall be approved, unless, in the opinion of the Director of Public Works, no practicable intersections can be developed without intersecting at an angle of less than forty-five (45°). Such intersections shall be provided with ample clear vision and turning areas to minimize traffic hazards.

SECTION 6
STREET NAMES AND SIGNS

6-1. STREET NAMES.

Street names shall be assigned by the Planning Department in accordance with Chapter 2 of Division 4 of Title 4 of this Code.

6-2. SIGNS.

Street name signs, stop signs, speed limit signs, warning signs and advisory signs shall be erected by the subdividers, as required by the Advisory Agency upon the recommendation of the Department of Public Works. At least one street name sign shall be required for each road.

SECTION 7
LOTS

7-1. GENERAL.

The size and shape of lots shall be such as is proper for the locality in which the subdivision is situated, and in conformance with the requirements of current zoning regulations and the Humboldt County General Plan.

Nothing in the Humboldt County Subdivision Division is intended to inhibit the use of imagination and ingenuity on the part of subdivision designers. It is the policy of Humboldt County to encourage subdivision design which will create pleasant places to live and work and which will reflect credit upon the designer.

7-2. EXCEPTIONS TO LOT FRONTAGE REQUIREMENTS.

(a) Diverging Side Lines. Where the design of a subdivision has lots with diverging side lines, the minimum frontage shall be measured at the building setback line, and shall be no less than required by the Zoning Division.

(b) Flag Lots. At the discretion of the Advisory Agency, lots may be allowed with a twenty foot (20') access frontage. Lots with such a narrow frontage and with a long driveway on the resultant twenty foot (20') strip are known as "flag lots." As a matter of policy:

(1) Flag lots shall be permitted only when dictated by the size and the shape of the lane to be subdivided.

(2) No more than two (2) adjacent flag lots shall front on any road or street.

(3) From (2) above, it follows that three (3) or four (4) lots can front on a street within a very short frontage distance. An example would be a fifty foot (50') frontage lot in front of and adjacent to two (2) flag lots. The result would be three (3)

driveway entrances along ninety feet (90') of street frontage. This and similar situations must be avoided. To avoid such situations a joint driveway arrangement shall be provided under which one and only one vehicular access opening is necessary. The fifty foot (50') frontage lot - with the orientation of the garage such that access shall be from the joint driveway - and both flag lots shall use the forty feet (40') of joint driveway width.

7-3. DOUBLE FRONTAGE LOTS.

Where double frontage lots are approved, the dedication of non-vehicular access along one of the lot lines, which said line will be defined as the rear lot line, may be required.

7-4. CORNER LOTS.

Corner lots shall be of sufficient size to permit the maintenance of adequate building setback lines on both front and side.

7-5. PRESERVATION OF ECOLOGICAL AND SCENIC FEATURES.

To the maximum extent possible, the preservation and enhancement of all native shrubs, trees, flora and other ecological and scenic features shall be considered.

SECTION 8
SEWAGE DISPOSAL AND WATER SUPPLY

8-1. SEWER CONNECTIONS.

In subdivisions within a reasonable distance of a sanitary disposal system, the subdivider may be required to install a complete sewage system connected therewith.

In areas where no sanitary sewage disposal system exists or where the subdivision is not within a reasonable distance of such a sanitary sewage disposal system, other methods for disposal of sewage may be approved in accordance with County health regulations.

8-2. WATER.

The subdivider shall provide information as to the source, quality and approximate quantity of water supply and general description of proposed system, and evidence as required by the County Health Department for lots less than sixty (60) acres (one and one-half [1-1/2] quarter sections) in size provided by test wells, geologists, civil engineers, licensed well drillers, or licensed surveyors when the quantity is in a measurable form, that 720 gallons of water per twenty-four (24) hour period can be developed or supplied to each parcel, together with an estimate of the cost of developing water at each site. (Ord. 2275, § 1, 05/28/2002)

The quantity of water shall be demonstrated by one of the following methods:

(a) Wells. Where water is to be supplied by individual wells, the Health Department may require one or more test wells at locations indicative of the availability of water for the entire subdivision. Existing nearby wells may be substituted upon approval of the Health Department.

(1) Pump or Bail Test Method. The water well may be pumped or bailed at any rate until the equivalent of not less than 400 gallons per twenty-four (24) hours have been removed. The total drawdown and recovery is to be reported to the Health Department.

(b) Springs. Where individual springs are proposed, a developable spring must be located on each lot or waterline easements provided for springs not on each lot and the spring must be demonstrated to produce not less than 400 gallons per twenty-four (24) hours. Because there can be significant difference in the rate of flow between winter and summer, the testing is to be conducted at such time as to reflect dry weather production.

(1) Spring Test Method. Any method can be utilized that demonstrates volumetrically that productivity complies with subsection (a) (1) above.

(c) Rivers or Creeks. Where individual connections are proposed for each lot, each connection must have an available source not less than 400 gallons per twenty-four (24) hours. Because there can be significant difference in the rate of flow between winter and summer, the testing is to be conducted at such time as to reflect dry weather production.

(1) River or Creek Test Method. Any method can be utilized that demonstrates volumetrically that productivity complies with the previous paragraph.

8-3. COLIFORM TEST. (Repealed by Ord. 1290 § 9, 12/12/78)

8-4. DEEDED WATER RIGHTS.

Deeded water rights and easements shall be acquired prior to approval of the Final or Parcel Map, where applicable, or shown thereon if created by said map.

SECTION 9 **WATER COURSES**

If the subdivision is traversed by any water course, channels, streams or creeks, the subdivider may be required to provide by dedication or otherwise rights of way or easements for storm drainage purposes conforming substantially with the lines of such water courses, channels, streams or creeks. Where design permits, the center of said easement shall be substantially the same as the center of the water course and shall serve as the common property line of abutting lots. The subdivider shall provide by dedication or otherwise further and sufficient rights of way or easements as shall be required for structures or channel changes or both, to dispose of surface and storm waters.

SECTION 10
DRAINAGE FACILITIES

Flood control and drainage facilities affording positive storm water disposal shall be designed and provided by the subdivider. The subdivider shall construct any drainage facilities that may be necessary to protect property within and affected by the subdivision. If, in the opinion of the Director of Public Works, it is impracticable to construct drainage facilities at the time of the construction of other subdivision improvements, or the construction of such drainage facilities may be deferred until a date subsequent to the construction of other improvements, the subdivider may, in lieu of constructing such drainage facilities, pay to the County of Humboldt the estimated costs, as determined by the Director of Public Works, of the construction of such drainage facilities.

Drainage facilities referred to herein are such drainage facilities as are shown on the current adopted drainage plan for the drainage area in which the subdivision is to be located. Said drainage plan shall contain an estimate of the total cost of constructing the local drainage facilities and a map of the drainage area showing its location and the type and location of proposed drainage facilities.

SECTION 11
FLOOD HAZARDS

Subdivisions located in areas subject to flood hazard shall be specially designed, engineered and constructed to provide that all public utilities and facilities, such as sewer, gas, electrical and water systems, are located, elevated and constructed to minimize or eliminate flood damage.

SECTION 12
RAILROADS AND GRADE CROSSINGS

Where railroad crossings are involved, the plan of subdivision will be considered in its relation to the probability of grade separation or other treatment, and shall be required to conform to Public Utilities Commission and railroad requirements in anticipation of such treatment.

SECTION 13
LANDSCAPING

If the subdivider desires landscaping on public rights of way, it shall meet the approval of the Public Works Department.