

DESIGN STANDARDS AND SPECIFICATIONS
FOR
PLAT ROADS

COUNTY COMMISSIONER'S RESOLUTION NO. 32A

ADOPTED THIS 4th DAY OF AUGUST, 1969

Martin Quast
Chairman

William O. Hunter

John Barkman
BOARD OF COUNTY COMMISSIONERS
YACON COUNTY, WASHINGTON

GENERAL REQUIREMENTS

A plan and profile of the proposed road, showing the following data, shall be submitted to the Mason County Engineer for approval prior to construction.

PLAN

1. Road alignment in stations of 100-foot intervals.
2. Bearings on road centerline.
3. Curve data on all horizontal curves.
4. Right-of-way lines and widths for proposed road and side streets.
5. All topography within the right-of-way limits, include all utilities.
6. Label all streets and adjoining subdivisions.
7. Typical roadway section of proposed road.
8. Existing and proposed drainage structures (indicate direction of flow.)
9. Suggested map scale 1"=100' or 1"=50'.

PROFILE

1. Original ground line.
2. Stationing in intervals of 100 feet.
3. Control elevation on border of sheet.
4. Grade line showing grade percents and vertical curves.
5. Indicate datum used and all bench marks.
6. Profile scale shall be Vertical 1"=10', Horizontal 1"=100' or Vertical 1"=5', Horizontal 1"=50'.

NOTE: Profile scale shall be 10:1 ratio, Horizontal to Vertical. Plan and profile sheets shall be submitted on 23" x 36" sheets, or 23" x 18".

DEFINITIONS AND TERMS

COUNTY ARTERIAL - A County road primarily serving through traffic to, from and between principal population, commercial or industrial areas; such arterial routes are designated on the County's Arterial System. (Such "County Arterials" may be "Major Arterials", "Secondary Arterials" or Collector Arterials"; these terms are NOT to be confused with the classification of streets within the plat below the grade of "County Arterial."

PRIMARY COLLECTOR - A road or street that carries traffic from Secondary Collectors, Local Access and Marginal Access roads or streets to the major system of arterial streets and highways. Generally, Primary Collectors will serve an area containing more than 100 lots.

SECONDARY COLLECTOR - A road or street that carries traffic from Local Access and Marginal Access roads or streets to the Major Collectors. Generally, Secondary Collectors will serve areas containing more than 25 and less than 100 lots.

LOCAL ACCESS ROAD OR STREET - A road or street that serves primarily a limited number of abutting properties. Generally, Local Access roads or streets will serve 25 or fewer lots.

NOTE: Probability and possibility of future function of street will be of prime importance in establishing classification.

SPECIFIC REQUIREMENTS

GENERAL NOTES:

All construction, except as modified herein shall conform to Standard Specifications for Road and Bridge Construction, Washington State Highway Department Current Edition and all current amendments thereto.

Design Standards, Washington State Highway Department, Current Edition, including current revisions and the Standard Specifications shall be used to define and qualify all terms used herein.

Special soil or terrain conditions may necessitate design and construction exceeding these minimum standards.

Traffic signs, warning and regulatory, as required by the County Engineer and in conformity with the Washington State Highway Department, Manual for Signing, current edition, shall be provided. Informational signs shall be erected only upon approval by the County Engineer.

BASIC REQUIREMENTS TABULATED
(See Footnote Indicated)

CLASS	LOCAL ACCESS	SECONDARY COLLECTOR	PRIMARY COLLECTOR	COUNTY ARTERIAL
Horizontal Curves				
Maximum Degree/Min/Rad.				
Flat terrain		20°/287'	10°/573'	7°/819'
Rolling terrain		26°/220'	15°/382'	10°/573'
Mountainous terrain		38°/150'	23°/249'	20°/287'
Superelevation	0.03 ft/ft	0.03 ft/ft	0.06 ft/ft max. 35 mph	0.08 ft/ft max. 50 mph
Gradient - Maximum Percent				
Flat terrain	10	8	6	6
Rolling terrain	12	10	8	8
Mountainous terrain	18	15	10	10

Bridges

Clear Width, ft. Min.	22	24	30	(Shoulder Width)
Design Load AASHO	HS-10	HS-15	HS-15	HS-15

All bridges shall be of permanent-type construction.

Pavement (See Note 1)

Width - Min. ft.	18	20	20	22
Type - Min.	BST Cl. "A"	BST Cl. "A"	BST Cl. "A"	BST Cl. "A"

Stopping Sight Distance Min./MPH

Flat terrain	200/25	275/35	350/40	475/50
Rolling terrain	160/25*	200/30	275/35	350/50*
Mountainous terrain	100/20	160/25*	240/30	275/35

*Less-than-desirable sight distance

Road Bed (See Note 1)

Width - Minimum	24	28	30	34 (See
Compacted Gravel Base	4"	6"	6"	6" Note 6)
Crushed (or screened) Gravel Surfacing				
Compacted Thickness				
Inches	2"	2"	2"	2"
Right-of-way - Minimum (See Note 2)	40	60	60	80

Culverts - 12" minimum diameter (including access driveways) sized adequately to accommodate runoff.

Materials: Reinforced concrete, corrugated aluminum; corrugated steel.
(Metal culverts shall be asphalt-coated whenever they will be, in the opinion of the County Engineer, subjected in service to acid conditions.)

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Slopes - Steepest Allowable
(See Notes 1 & 3)

Downslope in Cut Section	3:1	3:1	3:1	3:1
Downslope in Fill Section	1 1/2:1	1 1/2:1	1 1/2:1	1 1/2:1
Backslope in Cut	1:1	1:1	1 1/2:1	1 1/2:1

Side Ditches - Minimum
(See Note 4)

Depth below finished shoulder, ft.	1 1/2	1 1/2	1 1/2	1 1/2
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Out-to-Road

Pavement Diameter ft.	54	54
Roadway Diameter ft.	60	60
Right-of-way Diam. ft.	100	100

Intersections
(See Note 5)

Minimum Angle, Deg.	75	75	75	75
Minimum Shoulder Rad.	20	20	30	55
Minimum R/W Radius	30	30	40	70

NOTES:

1. Pavement and roadbed on all curves sharper than 10° and flatter than 15° shall be widened two feet; three feet for curves sharper than 15°. Pavement on all grades 12 percent and steeper shall be asphalt concrete at least 1 1/2" thick laid on BST C1. "A" Prime Coat only.
2. All fills less than 3 feet in height from toe to shoulder shall be no steeper than 3:1; fills 3 feet to 10 feet shall be widened each shoulder one (1) foot; fills over 10 feet shall be widened two (2) feet each shoulder.
3. Right-of-way shall contain all cut and fill slopes; exceptions may be permitted when coordinated with site grading.
4. Backslopes may be steepened if actual soil tests conclusively indicate that material will conform permanently to a steeper slope.
5. "Turnpike" or Curb & Gutter sections may be used on approval of Planning Commission and the County Engineer. Special sections shall be designed so that initial drainage will be effected and so improvement to urban-type (curb, gutter and storm drain) street section will be facilitated.
6. Deceleration lanes may be required - See Washington State Highway Department Standards.

In general, intersections shall be located and designed so as to avoid significant transverse slope for any traffic path and crown or superelevation of major roads shall be uninterrupted by minor intersecting roads.

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6. Minimum shoulder widths will be, in each case, dictated by anticipated traffic demands and County Standards for Arterials.

County "Arterial" standards will be required for all arterial routes for which construction or reconstruction is necessitated by the proposed subdivision development. (Developer will not be required to reconstruct existing county roads solely because of proximity.) Minimum stipulated right-of-way widths will be required in all instances.