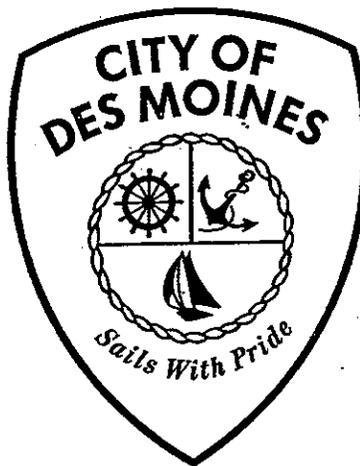

City of Des Moines
Street Development Standards
1996 Edition



Adopted by Ordinance No. 1153
Amended by Ordinance No. 1219
June 5, 1998

Amended by: **Ordinance 1284** 6/28/01
(Pacific Ridge-Appendix G and Street
Tree Standards-Appendix H) and
Ordinance 1334 2/05/04 (Gates on
Private Streets – Appendix "I")

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I. Street Construction Standards

A. Street Classifications

All public streets are classified in one of five categories as defined in this section and indicated in Table 1 and in Figure A-1. Function is the controlling element for classification and shall govern rights-of-way, road widths, and road geometrics. Other given elements such as access, arterial spacing, and average daily traffic count (or ADT) have typical values for a given classification; however, these values alone do not determine a street's classification.

The following definitions serve as the general guide used in determining street classifications:

Principal Arterial. Inter-community highways connecting community centers and major facilities. Access is often limited; spacing between parallel arterials is generally two miles or greater; and ADT is typically over 10,000 vehicles per day (vpd).

Minor Arterial. Intra-community highways connecting community centers and major facilities. Access may be partially limited, with shared access points encouraged. Spacing between parallel minor arterials is less than two miles, and ADT is typically between 5,000 and 12,000 vpd.

Collector Arterial. Streets connecting residential neighborhoods with community centers and facilities. Access may be partially limited. Spacing between collector arterials is generally a mile or less. ADT is typically between 1,000 to 3,000 vpd.

Neighborhood Collector. Streets connecting neighborhoods to the arterial classifications and providing circulation within or between neighborhoods. Access is generally not limited. Spacing is generally a half-mile or less. ADT is typically between 1,000 to 3,000 vpd.

Local Street. Streets whose primary function is to serve as access to adjacent properties and are not supportive of through traffic or circulation of traffic. Access is generally not limited. Spacing is as needed to access properties. ADT is typically under 1,000 vpd.

Note: Titles 12, 14, 16, 17, and 18 of the Des Moines Municipal Code (DMMC) also may affect proposed new development or the modification of existing development seeking necessary approval from the City's Public Works Department. If discrepancies should arise between this document and the DMMC, the DMMC shall take precedence.

B. Street Construction

Street construction on public rights-of-way shall, at a minimum, comply with the following dimensional cross-section standards:

Table 1: Street Dimensions (Minimum Standards)

Type of Street ¹	Right-of-Way Width	Pavement Width ⁶	Sidewalk Required ²	Curb/Gutter Required	Landscaping	Street Lights Required
Principal Arterial	70' or 80'	48' or 60'	Both Sides	Yes	As required in Plan Review	Yes
Minor Arterial	60' or 70'	44'	Both Sides	Yes	As required in Plan Review	Yes
Collector Arterial	60'	36'	Both Sides	Yes	As required in Plan Review	Yes
Neighborhood Collector	60'	36 ³	Both Sides	Yes	No	Yes
Local Street	40' ³ 50' ⁴ 60'	28' 28' 28' ⁵	One Side Both Sides Both Sides	Yes Yes Yes	No	Yes Yes Yes

¹ See Appendix A, Figure A-1, for existing street classifications.

² Commercially zoned areas require a 6' minimum width sidewalk and all other areas require 5' wide sidewalk area.

³40' ROW permitted only in existing platted areas. In cases where the only feasible access to a property is along an existing right-of-way of less than 40 feet, and the traffic volume is projected to be minimal, then the Public Works Director may approve a waiver.

⁴ 50' ROW permitted on cul-de-sacs only.

⁵ 36' width may be required in high density zones.

⁶ Designated bike routes require additional pavement width. See City's Bike Route Plan.

C. Public Street Cross Section Standards

Figures A-2 through A-8 depict the minimum cross section standards for each public street classification type.

The split roadway section (Fig. A-7) is permitted through design review approval for local and neighborhood collector classified streets. The applicant is required to execute a maintenance agreement for the landscaped median.

Split roadways for the higher classifications (collectors through major arterial) are permitted only in special circumstances and through design review and approval and recommendation by administration to City Council.

D. Private Streets

Private Streets in general are discouraged and will be only allowed in cases where a standard public street will not fit. In cases where they are allowed, they shall comply with all of the following standards:

The street shall provide access to no more than four (4) lots; and

The street shall be accessible at all times for emergency and public service vehicle use; and

The street shall not obstruct, nor be part of, the public neighborhood circulation plan identified in the Des Moines Comprehensive Plan, or Capital Improvement Program, or by the Public Works Director and

The location and configuration of the street shall not result in land locking of present or future parcels; and

The street shall be paved with asphalt concrete or cement concrete. Minimum width shall be twenty-two feet; and

The paved surface of the street shall be set back at least five feet (5') from any adjacent properties which do not obtain access from the private street; and

A maintenance agreement shall be recorded to insure that the street is maintained by a capable and legally responsible owner or homeowner's association or other legal entity made up of all benefited property owners; and

The street shall be permanently established by a tract that provides legal access to each lot served by the street. The tract shall be clearly described on the face of the plat, short plat, or other development authorization. The tract shall have a minimum width of twenty-five feet and must be of a sufficient width to construct all road and drainage improvements within the tract; and

Streetlights are required, at the discretion of the Public Works Director, to provide lighting for both vehicle accident reduction and crime deterrence.

A sign clearly identifying the street as "private" shall be erected where the streets intersect a public right-of-way. Des Moines will not accept private streets for maintenance as public streets unless such streets are brought into conformance with current Des Moines right-of-way street standards.

E. Construction Specifications

The WSDOT/APWA Standard Specifications for Road, Bridge, and Municipal Construction as presently constituted or as may be subsequently amended, is hereby adopted by the City of Des Moines.

Street construction within the City of Des Moines shall comply with these specifications. Subsequent references in this document to "standards" or "standard specifications" shall be interpreted as the WSDOT/APWA Standard Specifications referenced above.

F. Standard Drawings

The City of Des Moines hereby adopts the WSDOT Standard Plans. Additional Des Moines standard drawings are included in the Appendices, and are supplements to the WSDOT Standard drawings. In the event of conflict, the City of Des Moines standard shall prevail. Subsequent references in this document to "standard plans" shall be interpreted as the WSDOT Standard Plans referenced above.

II. Sidewalk Construction Standards

A. Sidewalk Construction

Sidewalk construction shall comply with Sections 8-14 of the standards and Standard Plan #F-5.

Sidewalks are required on all developments adjacent to public rights-of-way. The only exception is the construction of one single-family residence on one lot.

Sidewalks in commercially zoned areas shall be a minimum of six feet (6') in width. Sidewalks in all other zones shall be five feet (5') in width. (Actual dimension of the sidewalk does not include the top of curb, where the sidewalk is adjacent to the curb.)

B. Sidewalk Placement

Sidewalk placement shall be consistent with figures in Appendix A of these standards. The City of Des Moines recognizes that there will be individual situations where this placement is not practical. There is some flexibility in the sidewalk location, acceptable placements are indicated in Figure B-1.

Power poles and utility enclosure (i.e., fire hydrants, telephone and power pedestals) shall not encroach on the sidewalk.

Mailboxes shall not encroach on the sidewalk. Mailboxes shall be clustered together whenever practical and reasonably convenient to the houses served. When mailbox locations and sidewalk placement conflict, the developer shall anticipate these conflicts and provide the engineer with a conceptual plan to adjust the mailbox and sidewalk locations, thereby resolving the conflict. The Public Works Director shall be authorized to approve minor sidewalk adjustments to accommodate placement of the mailboxes.

In the case of new road construction or reconstruction requiring mailboxes to be moved back or rearranged, the designer and builder shall coordinate with the US Postal Service. (By mail, this contact is: Manager, Delivery and Collection, PO Box 9000, Seattle, WA 98109.) Mailbox locations approved by the post office shall be shown on approved road construction plans.

III. Curb and Gutter Construction Standards

A. Curb and Gutter Construction

Curb and gutter shall comply with Sections 8-04 of the standards and standard drawing #F-1, "Cement Concrete Curb & Gutter".

Curb and gutter is required in all land uses zones with the following exceptions:

Construction of one single family residence on one lot

The existing street grade is not the adopted final grade and construction of the curb and gutter is not feasible.

B. Curb and Gutter Placement

Curb and gutter placement shall be consistent with Section I.B. of these standards or as directed by the Public Works Director.

IV. Driveway Access Standards

A. Materials and Construction

Portland Cement Concrete driveways are the standard for all new construction, except for high volume driveways with anticipated traffic volumes in excess of 2,500 vehicles per day. All driveway access from curb or edge of the roadway to the back of the sidewalk shall be constructed of cement concrete. In the case of a high volume driveway, the driveway shall receive the same treatment as a street intersection. The sidewalk shall not extend through the driveway, and the driveway itself shall be constructed of asphalt concrete pavement. (See Appendix C, Figure C-2.) Specification of materials, and construction methods for Portland Cement and asphalt concrete, are included in Sections 5-04 and 5-05 of the standards.

B. Driveway Width and Placement

Table 2 lists in detail the suggested guidelines for access management. This table is not meant to be all-inclusive. It should be used together with good engineering judgment and thought. In many instances, ranges are given. The intent of this direction is to illustrate the suggested minimum; and, at the same time, to provide the end user some latitude in the implementation of the criteria. Special conditions may exist that require special consideration. Typically, when two criteria conflict, the user should select the higher standard.

Table 2: Driveway Width and Placement Suggested Guidelines

	Criteria	Land Use	Guidelines	
			Minimum	Maximum
1	Driveway Width ¹	Residential: Single Family MF <750 VPD Driveway Volumes MF >750 VPD Driveway Volumes	12' ²	24'
2	Distance from Intersection ³	Residential Commercial	30' 100' ⁴	
3	Distance Between Drives ⁵	Residential: Single Family Multifamily Commercial: <2,500 VPD (Small) >2,500 VPD (Large)	None 100' 100' 200'	2 access 200' 200' 500'
4	Driveway Design ⁶	Residential: Single Family and Multifamily Commercial: <2,500 VPD (Small) >2,500 VPD (Large)	4' ⁷ 10' 25'	 35' ⁸
5	Grades	High Volume Driveway >750 VPD Low Volume Driveway <750 VPD	3% approx. 6% approx.	5% total 9% total
6	Angle		75° (although 90° is typical)	

Use of this table:

The following abbreviations apply to the table: MF = Multifamily Land Uses; VPD = Vehicles (trips) Per Day.

The methods of measurement for the five criteria of Driveway Width, Distance from Intersection, Distance between Drives, Driveway Design, and Grades are illustrated in Appendix C, Figures C1 and C2.

Note that the criteria number in parentheses (#) on the above table corresponds to the number in parenthesis on Figure C-1 of Appendix C, "Driveway Measurement Criteria."

Driveway Angle is self-explanatory, and in most cases, will be perpendicular to the roadway. If unusual conditions or topography exist, a lesser angle up to 75 degrees may be used.

¹ See Appendix C, Figure C-1.

² 20' minimum in a panhandle lot.

³ See Appendix C, Figure C-1.

⁴ Or maximum attainable.

⁵ See Appendix C, Figure C-1.

⁶ See Appendix C, Figure C-2.

⁷ Wing Design (4A).

⁸ Radius Design (4B)

V. Street Ends

A. *Cul-de-Sac*

Any dead end street, public or private, greater than 150' in length shall have a cul-de-sac type turnaround constructed at the terminus. Public cul-de-sacs shall have sidewalk constructed around the entire circumference of the cul-de-sac. The paved radius of the cul-de-sac shall be 40'. Cul-de-sacs shall be no longer than 400'. Figure D-1 depicts a typical cul-de-sac installation.

B. *Hammerheads*

At the discretion of the Public Works Director, hammerheads may be used in lieu of a cul-de-sac when adverse physical or topographical conditions prevent construction of a cul-de-sac. Figure D-2 depicts a typical hammerhead installation.

C. *Temporary Dead Ends*

Where a street is temporarily dead-ended, turn around provisions must be provided when the road serves more than one lot. The turn around may be a hammerhead if the dead end is less than three hundred feet (300') in length or if the dead end occurs at a future intersecting street. If over three hundred feet long, cul-de-sac with a minimum radius of forty feet (40') is required.

VI. Half Streets

A half street is an acceptable roadway section when the subject property adjoins pre-platted, but undeveloped right-of-way on only one side OR there is a limited right-of-way on the boundary of the property.

A. *Approval*

A half-street may be permitted subject to approval by the Public Works Director when:

Such street shall not serve as primary access to more than 15 potential dwelling units;

Such alignment is consistent with or will establish a reasonable circulation pattern; and

There is reasonable assurance of obtaining the prescribed additional right-of-way from the adjoining property with topography suitable for completion of a full-section roadway.

B. *Requirements*

A half street shall meet the following requirements:

Right-of-way of the half street shall equal at least 40'; and

Roadway shall be hard surfaced asphalt to a width not less than 22' with a two foot wide gravel shoulder constructed on the undeveloped half (see Appendix A, Figure A-8);

The side of street adjacent to new development shall be finished with curbing, underground drainage, sidewalk and side slopes so as to assure proper drainage, bank stability, and traffic safety; and

Half streets shall not intersect other half streets unless so approved by the Public Works Director.

C. Reconstruction

When a half street is eventually completed to a whole street, the completing builder shall reconstruct the original half street as necessary to produce a proper full-width street of designated section. Centerline shall coincide with the center of the total right-of-way unless otherwise approved by the Public Works Director.

D. Right-of-Way Easements

The obtaining of any right-of-way or easements needed to accomplish the above shall be the responsibility of the owning builder or developer.

VII. Unpaved Streets In Pre-existing Single-family Plats

This section is provided to set minimum street development requirements for single family residential construction in pre-existing plats with unpaved streets and to provide existing property owners on unpaved streets a minimal street surface and drainage standard. These minimal standards do not apply to other types of developments other than one lot single-family residential construction in pre-existing plats.

A. Minimum Requirements:

For the construction of a single-family residence on one lot in a pre-existing plat the following street system improvements are required:

1. In the case of a development site fronting an unpaved street, the property owner shall enter into an agreement with the city waiving the right of the property owner under RCW 35.43.180 to protest formation of a local improvement district for the construction of full street system improvements and must fulfill requirement number two below.
2. In all cases, the developer shall provide the minimal street improvement as shown in Figure A-11. These improvements shall be constructed along the frontage of the development site to the nearest paved public road.
3. In the case of a corner lot development site, fronting both paved surface and unpaved surface, or where the development site is contiguous to existing paved surface, the developer is required to construct a paved street surface and drainage, as shown in Figure A-10, on the unpaved half-street section fronting the site.
4. At the time full street system improvements are constructed through participation in a local improvement district, the city council, in its discretion, may waive one or more of the street system improvement requirements. Full street system improvements may include curbs, gutters, sidewalks, and landscaping. However, at a minimum, street improvements will be required as shown in Figure A-12.

VIII. Landscaping

All arterial streets shall have a landscape strip between the curb and sidewalk, consistent with the provisions of the "Urban Forestry Notebook" by the Center for Urban Horticulture, and the Washington State Department of Natural Resources. Overhead and underground utilities shall be taken into account to avoid conflicts. Planter strips are allowed on non-arterial streets when there is an acceptable agreement for private maintenance.

IX. Street Lighting

A. *New Plats, Short Plats, and Existing Land Divisions in Residential Zones*

A street lighting system shall be installed on public streets in or abutting plats, short plats or existing land divisions. The system shall be installed as per approved plan for arterial or local streets. As a general guide, residential street light spacing is approximately 200'. The developer shall indicate street light locations on the road construction plan for the city's approval.

B. *Commercial Zone Lighting Requirements*

Street lighting is required on all public street frontages. The developer is responsible for design, installation or relocation of new or existing lighting. Commercial development shall replace existing lighting systems on power poles with a new lighting system serviced by underground power if the system will not conflict with essential distribution lines.

C. *General Considerations*

All street light installations including wiring, conduit, and power connections shall be located underground. Exception: existing residential areas with existing above ground utilities may have street lighting installed on the existing power poles, if the proper service (secondary service) is available on the existing poles.

X. Monuments

Permanent survey control monuments shall be provided for all plats and short plats at all controlling corners on the boundaries of the subdivision or short subdivision; and the beginning and ends of curves on center lines or points of intersections on tangents.

Permanent survey control monuments shall be constructed as shown in WSDOT Standard Plan H-7. Permanent survey control monuments within a street shall be set after the street is paved. Every lot corner shall be marked by a three-quarter inch galvanized iron pipe with bronze cap or approved equivalent, driven into the ground. If any land in the subdivision or short subdivision is contiguous to a meandered body of water, the meander line shall be reestablished and shown on the final plat or short plat.

XI. Alleys

A platted alley right-of-way is discouraged on new plats. There are, however, existing pre-platted alley rights-of-way within the City of Des Moines. Two widths (15' and 20') are common. It is the City's policy to vacate the unused or unopened alleys. Where pre-platted alleys exist and cannot be vacated because the alley is being used as access, the City of Des Moines requires at a minimum that new development pave the alley adjacent to the project frontage. The developer may be required to extend or pave additional alley frontage, when it is determined to be in the interest of public or emergency circulation and access. Figure A-9 depicts the minimum cross-section standard for alleys.

XII. Pavement Design

The standard street cross sections in Appendix A show minimum pavement structural layers. In some cases where traffic loads (live load) are significant and/or sub-base conditions are inadequate, the pavement section calculations must be submitted with the street development plans. Streets shall be constructed such that they will withstand the expected loading.

XIII. Traffic Calming Devices

A. Requirements

To be eligible for installation of a City approved traffic calming device, a street must meet the following two qualifications:

1. It must be classified as a residential or neighborhood collector street*, as defined in the City of Des Moines Comprehensive Transportation Plan.
2. It must have an identified speeding or cut-through problem as shown by traffic engineering studies.

*Raised crosswalks may be permitted on roadway classifications above neighborhood collector subject to approval by the Public Works Director.

B. Approved Traffic Calming Devices

- I. **Traffic Circle**—Traffic circles are an effective and attractive technique for traffic calming. They are grade-separated areas placed in the centers of intersections. They are typically planted with shrubbery, flowers, or trees. They require traffic to slow down to get around them.
- II. **Speed Hump**—Speed humps are used to slow vehicle speeds. They are used in a series to reduce speeds along a section of street.
- III. **Raised Crosswalk**—Raised crosswalks can be located at intersections or mid-block. They form an extension of the sidewalk, provide an audible warning to drivers concerning their speeds, make crosswalks more visible to drivers, and must have a smooth transition for pedestrians.
- IV. **Gateway Treatments**—Gateway treatments are positive indications of a change in environment from an arterial road to a residential or neighborhood

collector. These treatments reduce entry speeds and may provide space for landscaping in the median.

V. ~~Bulb-outs~~ ~~Bulb-outs can be used at entry points to neighborhoods to alert~~ motorists of the residential character of the upcoming streets. They are also used to enhance pedestrian visibility and reduce the distance across the roadway. By narrowing the roadway for a relatively short distance, they force drivers to slow down and pay closer attention to the edges of the traffic lanes.

VI. Road Closures—Road closures are rare and require the approval of the Des Moines City Council. They eliminate through traffic, reduce the speed of the remaining vehicles, and improve safety for all other street users.

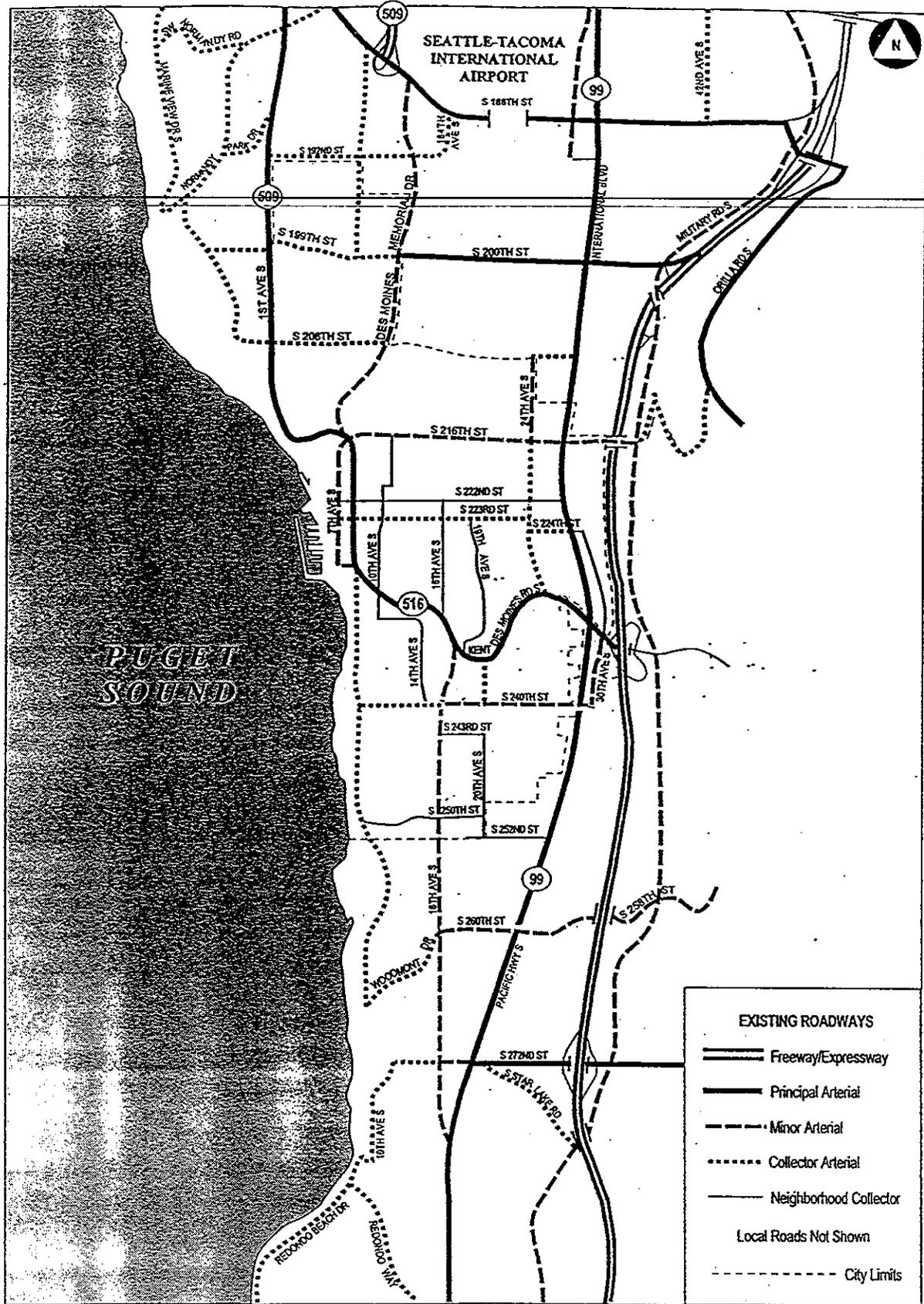
C. Standardization of Application

Through the strict adherence to standards, any given traffic device will be equally recognizable, and require the same action on the part of the motorists regardless where it is encountered. Unique, "non-standard" situations may warrant unique treatment where justifiable based on a comprehensive engineering evaluation that is approved by the Public Works Director.

The application of traffic calming devices on city streets shall ordinarily be made in accordance with the requirements set forth in these standards. However, as with other traffic control devices, good engineering judgement is essential to the proper use of traffic calming devices. Traffic engineering studies may indicate that these devices would be unnecessary or unsafe at certain locations. Data obtained from traffic engineering studies of physical and traffic related factors should be used in determining where these devices are appropriate. The vertical and horizontal alignment, sight distance, emergency vehicle access, truck traffic, snow plowing, affect on adjacent streets, right-of-way width, lack of curbs, location of ditches, parking, and other engineering considerations must be taken into account.

Appendix A

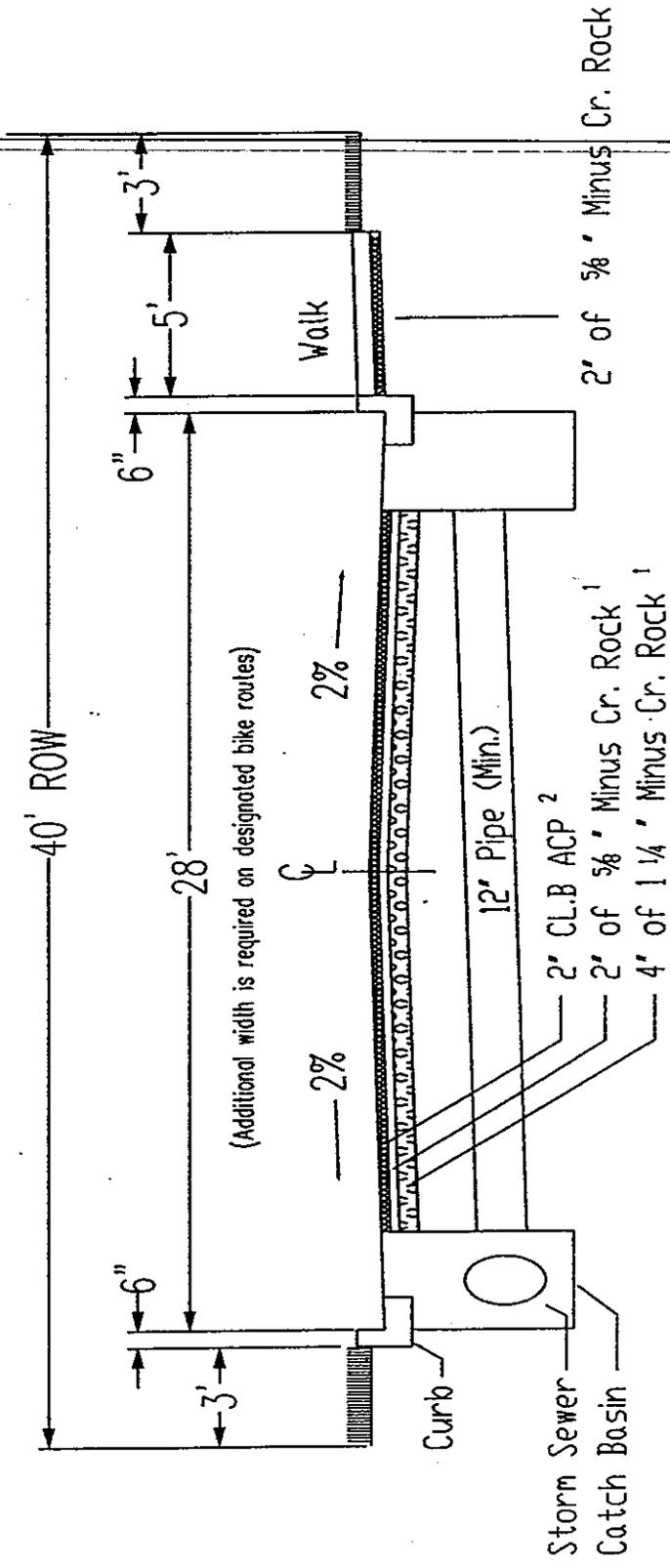
Public Streets



City of Des Moines
FIGURE A-1

ORD#1153
Adoption Date 12/15/95
Revision Date

Standard Street Cross Section - Residential (40' ROW only)



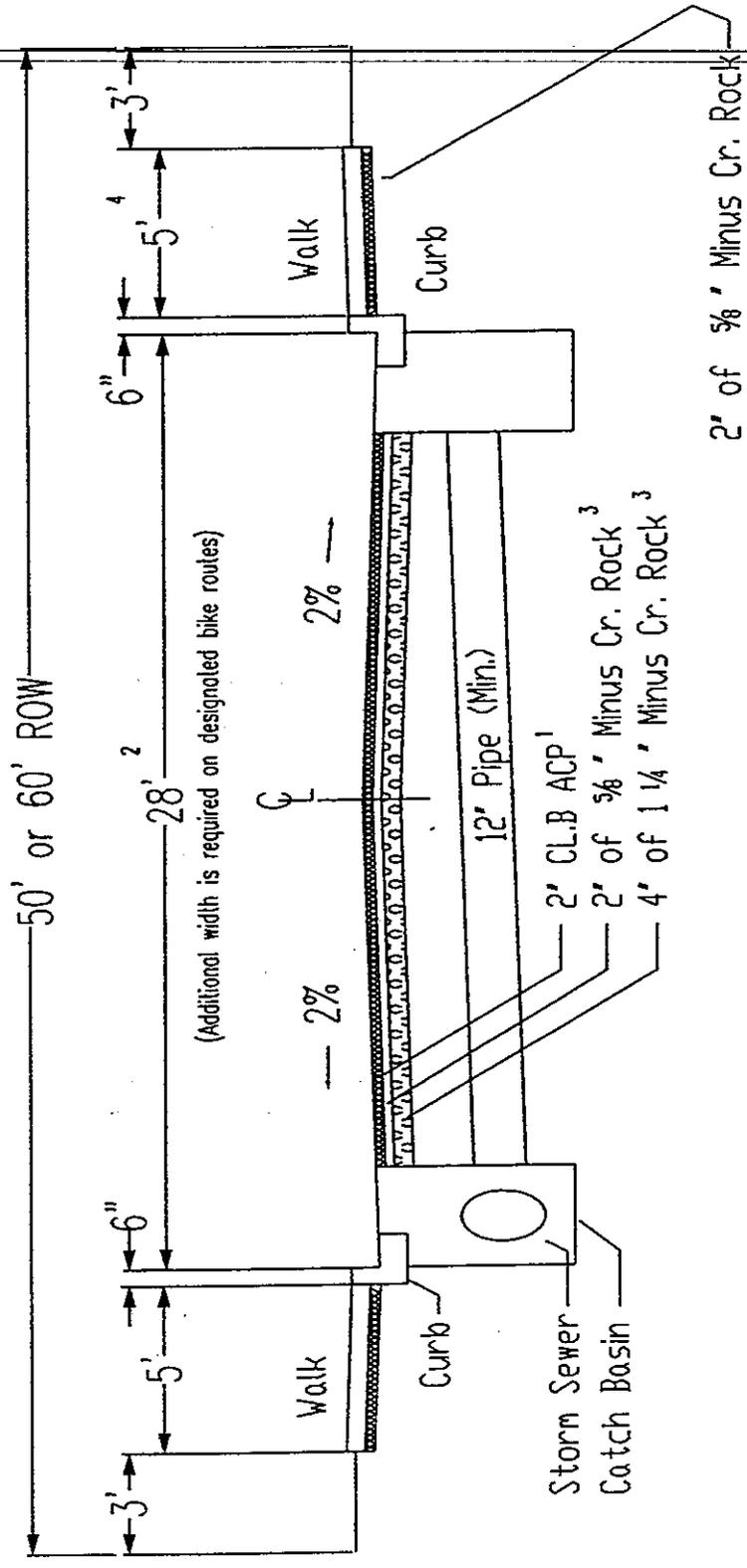
¹ Engineer may require 4" ATB in place of crushed rock, where poor subbase conditions warrant.

² Asphalt thickness may vary depending upon traffic loading.

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FIGURE A-2

Standard Street Cross Section - Residential, 50' to 60' ROW



¹ Asphalt thickness may vary depending upon traffic loading.

² May be increased to 36' in high density areas.

³ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

⁴ Sidewalk width is 6' in commercial zones.

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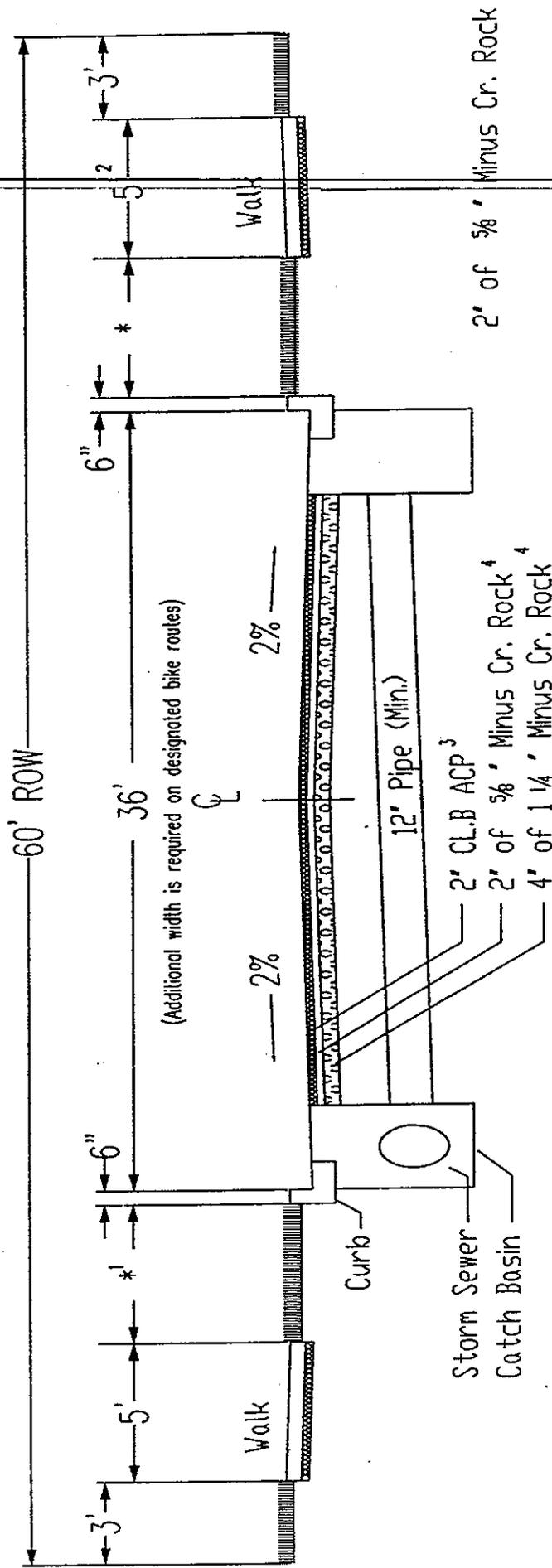
FIGURE A-3

ORD#1153

Effective Date
12/15/95

Revision Date

Standard Street Cross Section - Neighborhood Collector & Collector Arterial



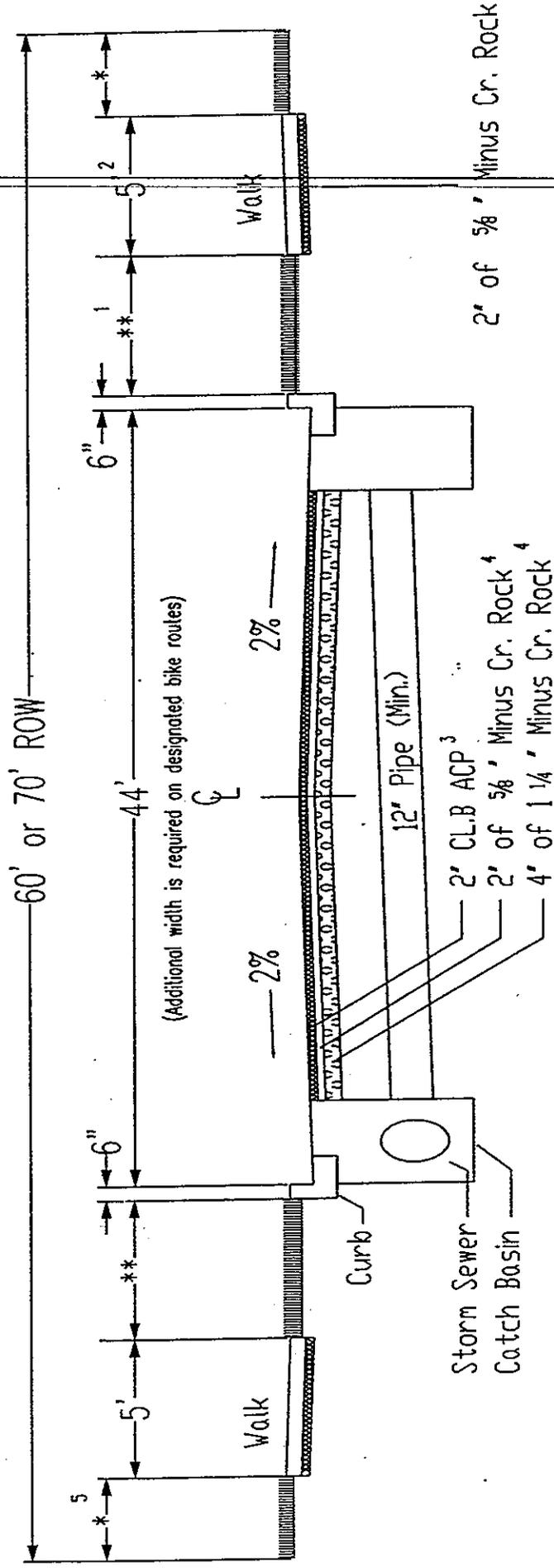
2' of 5/8" Minus Cr. Rock

- ¹ 4' Minimum landscape strip (Required on collector arterial only).
- ² Sidewalk width is 6' in commercial zones.
- ³ Asphalt thickness may vary depending upon traffic loading.
- ⁴ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

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FIGURE A-4

Standard Street Cross Section - Minor Arterial

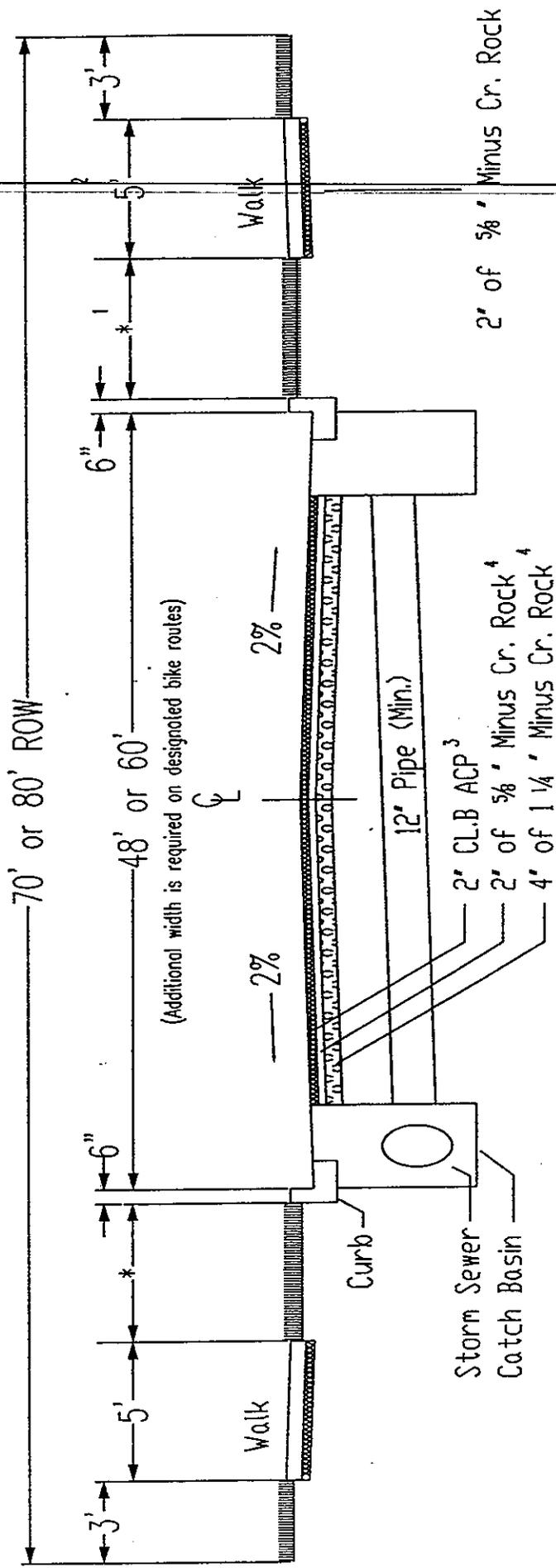


- ¹ 4' Minimum landscape strip.
- ² Sidewalk width is 6' in commercial zones.
- ³ Asphalt thickness may vary depending upon traffic loading.
- ⁴ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.
- ⁵ Dimension varies from 3' for 70' ROW to 2'6" for 60' ROW.

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FIGURE A-5

Standard Street Cross Section - Principal Arterial



¹ 4' Minimum landscape strip.

² Sidewalk width is 6' in commercial zones.

³ Asphalt thickness may vary depending upon traffic loading.

⁴ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

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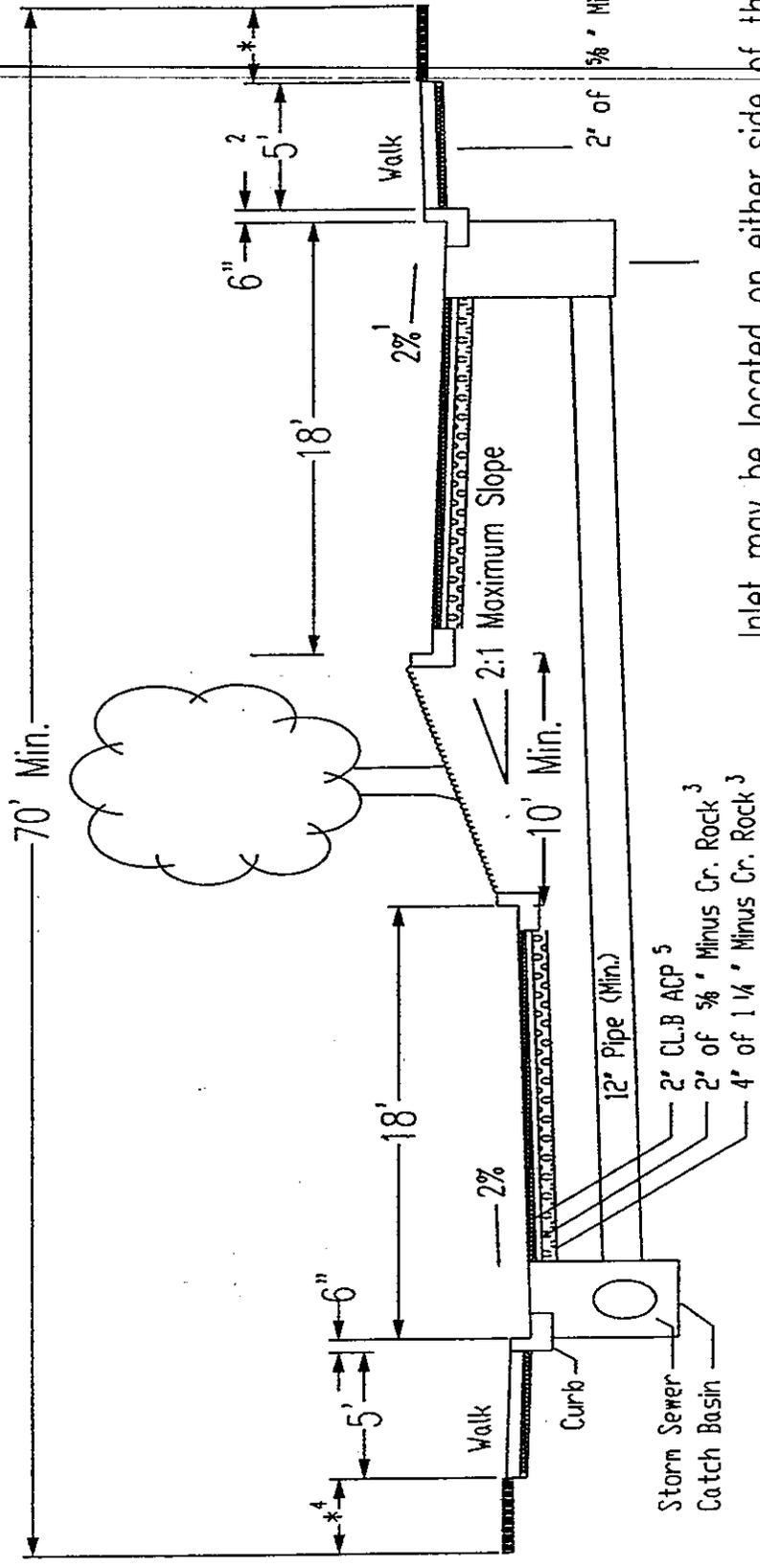
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Effective Date
12/15/95

Revision Date

FIGURE A-6

Split Street Cross Section



Inlet may be located on either side of this roadway.

¹ Direct slope at curb inlet.

² Sidewalk width is 6' in commercial zones.

³ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

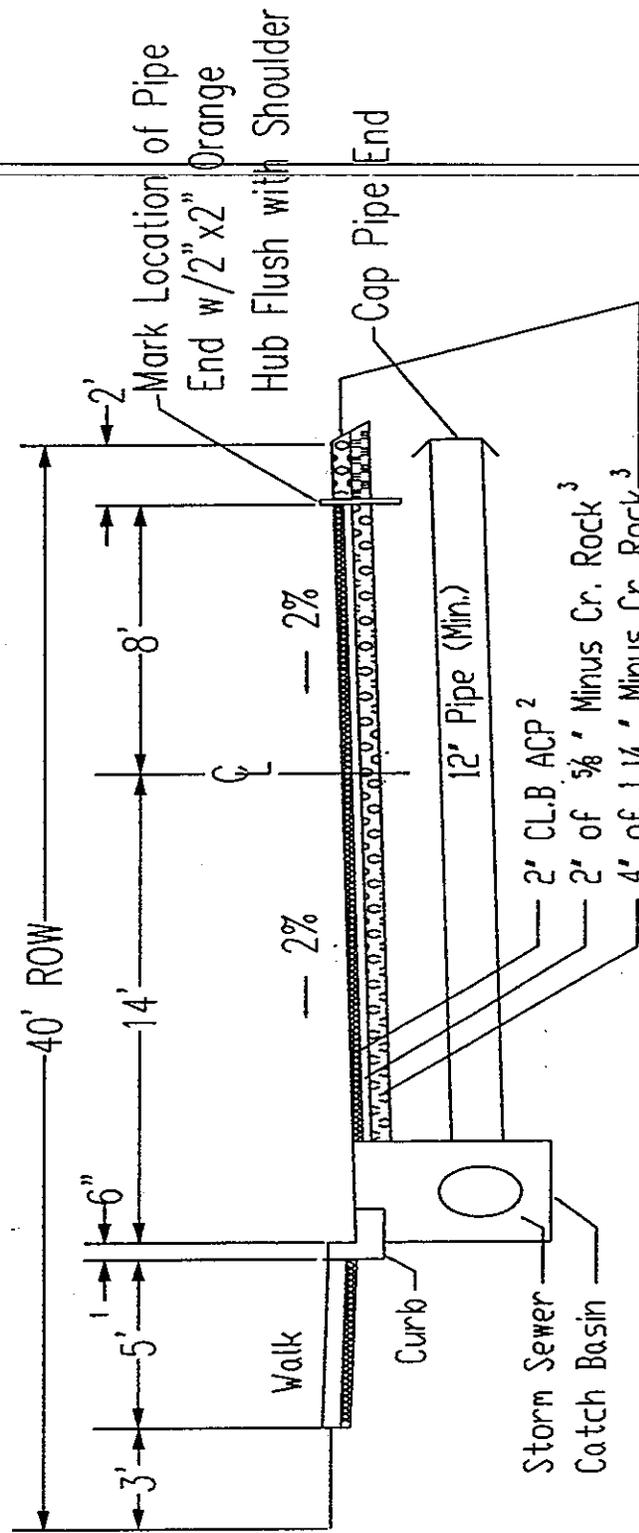
⁴ A minimum of 3' is required for a utility easement.

⁵ Asphalt thickness may vary depending upon traffic loading.

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FIGURE A-7

Half Street Section - Residential, 40' ROW (Min)



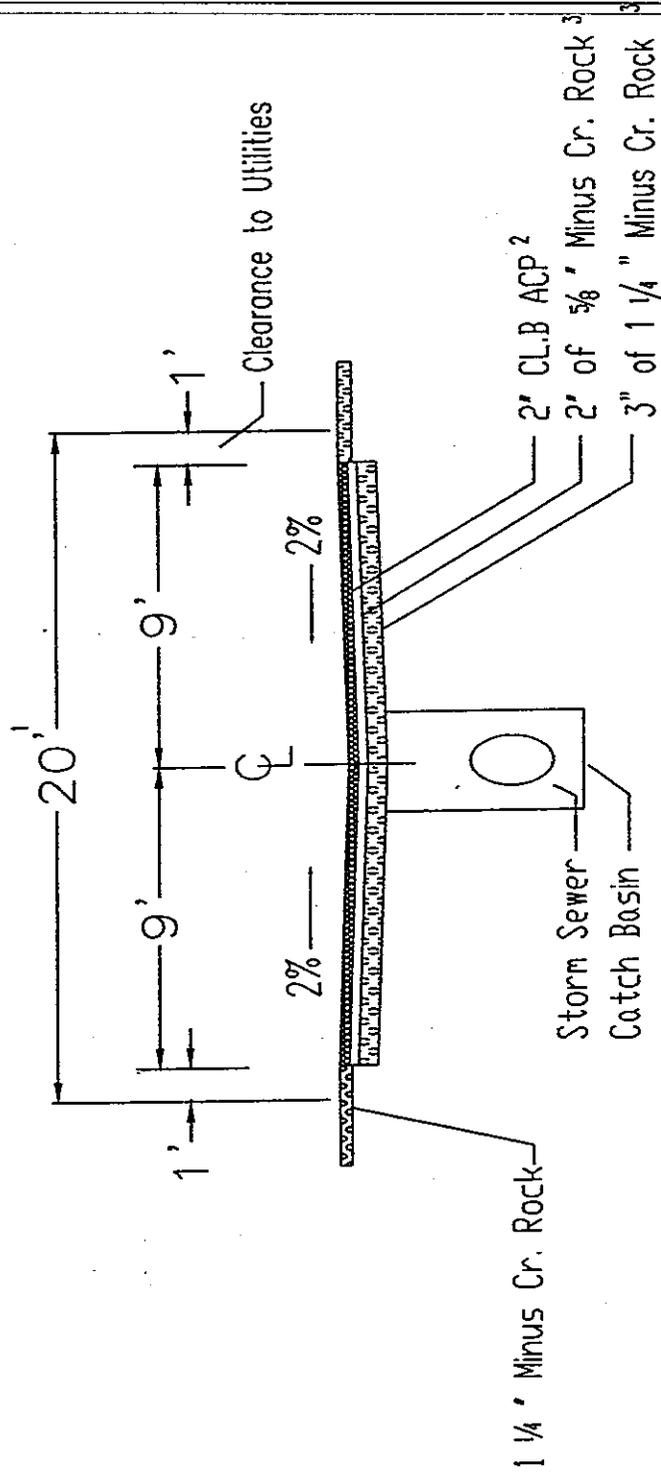
¹ Sidewalk width is 6' in commercial zones.

² Asphalt thickness may vary depending upon traffic loading.

³ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

City of Des Moines FIGURE A-8	ORD#1153
	Effective Date 12/15/95
	Revision Date

Standard Alley Cross Section



¹ In cases where the pre-platted alley R/W is 15', pave the entire R/W.

² Asphalt thickness may vary depending upon traffic loading.

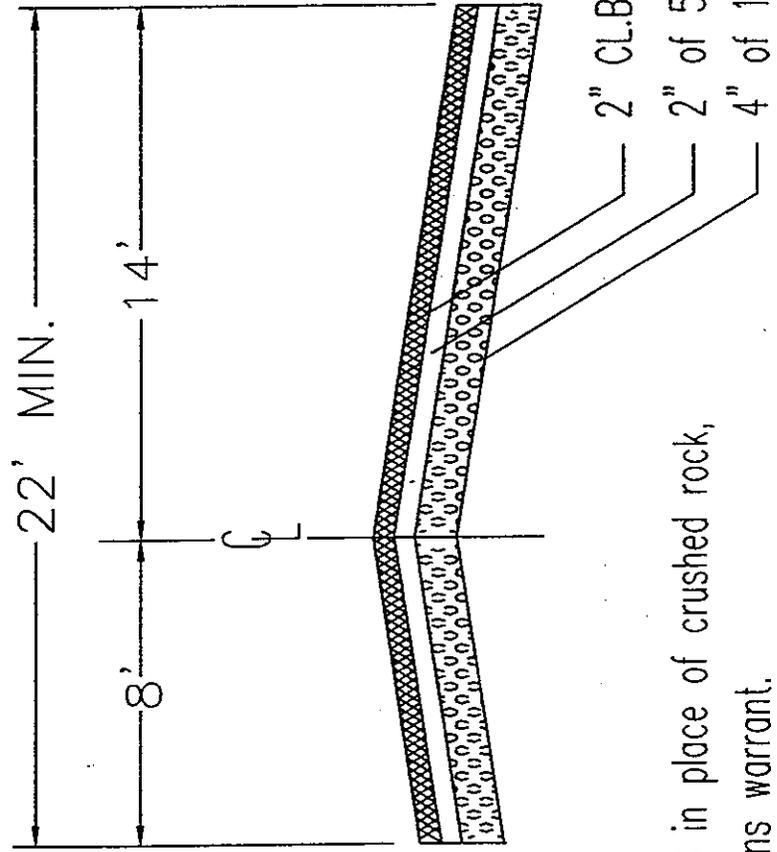
³ Engineer may require 4" ATB in place of crushed rock, where warranted by poor subbase conditions.

ORD#1153
 Effective Date
 12/15/95
 Revision Date

City of Des Moines

FIGURE A-9

Half Street Improvement Requirement



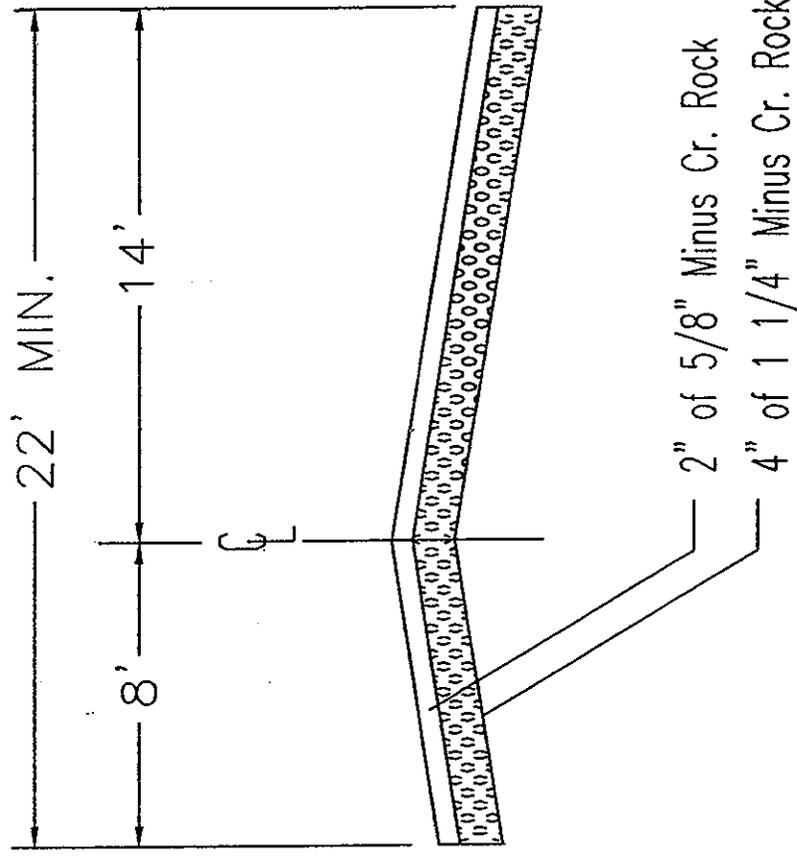
¹ Engineer may require 4" ATB in place of crushed rock, where poor subbase conditions warrant.

² Asphalt thickness may vary depending upon abutting pavement and traffic loading.

Drainage requirements to be determined through plan review.

City of Des Moines FIGURE A-10	ORD#1153
	Effective Date 12/15/95
	Revision Date

Minimum Requirements For Unpaved Roads



Drainage requirements to be determined through plan review.

City of Des Moines

FIGURE A-11

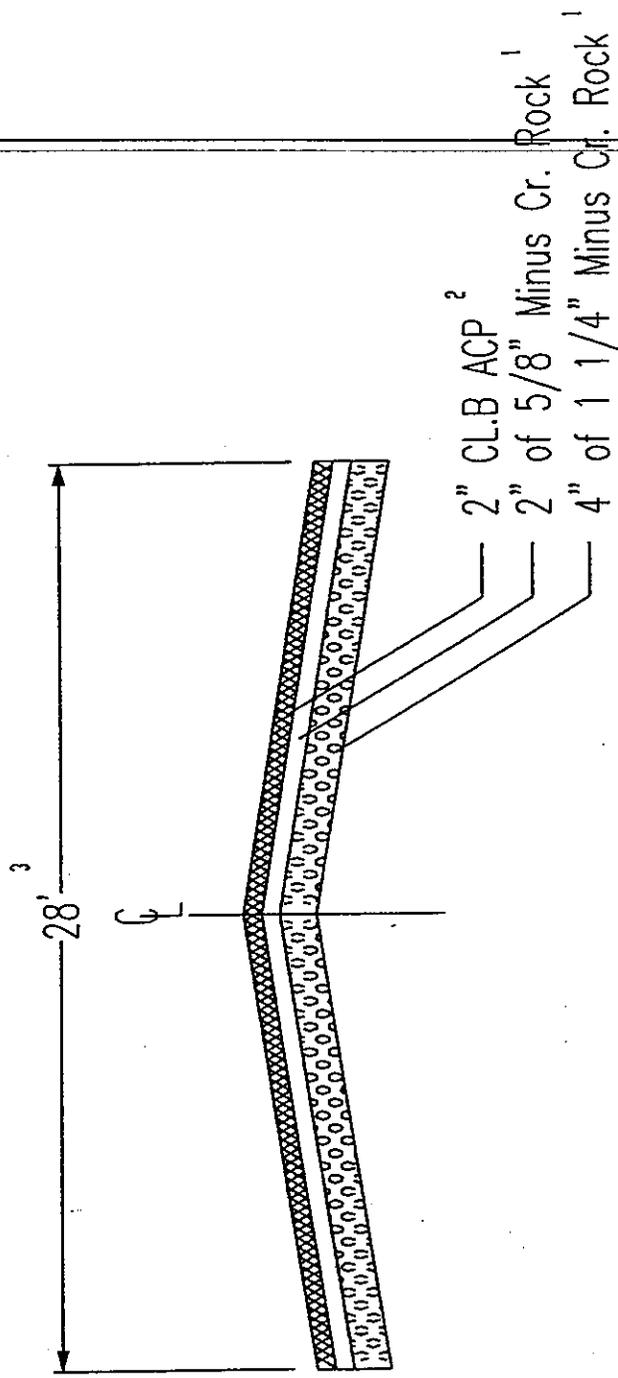
ORD#1153

Effective Date
12/15/95

Revision Date

Minimum Street Improvement Requirement

(For Unpaved Roads in Existing Single Family Plats)



¹ Engineer may require 4" ATB in place of crushed rock, where poor subbase conditions warrant.

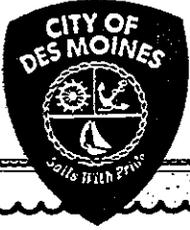
² Asphalt thickness may vary depending upon existing abutting pavement and traffic loading.

³ Width may vary depending upon existing abutting pavement width.

Drainage requirements to be determined through Plan Review.

City of Des Moines	ORD#1153
	Effective Date 12/15/95
FIGURE A-12	Revision Date

Appendix B
Sidewalks



City of Des Moines

COMMUNITY DEVELOPMENT, PUBLIC WORKS (ENGINEERING)
805 SOUTH 219TH STREET
DES MOINES, WASHINGTON 98198-6340
(206) 878-8626 FAX: (206) 870-6544



To: ALL BUILDERS/PROPERTY OWNERS

The location of the utility poles with respect to the sidewalk placement must be considered by the owner/builder as a requirement of site plan approval in design review. The City of Des Moines is to a limited degree both flexible in the sidewalk location within the right-of-way, as well as the scheduling of these improvements during the construction of the project. There are, however, conditions which are not permissible under any circumstances. You as a builder need to be aware of these conditions, which are as follows:

1. In no case shall utility poles be located within the five foot (5') walkway area, or within any area of the street. If existing poles are positioned where they conflict with either the sidewalk or street, they shall be relocated.
2. When utility pole relocations are necessary, it is the owner's responsibility to contact the utility to make the necessary arrangements, insuring timely relocation of the poles and to bear the associated costs of the pole relocation.
3. When utility pole relocations are necessary, the relocations must be completed before the sidewalk and/or street improvement is undertaken (i.e., it is unacceptable to create even a temporary conflict with existing utility poles, by constructing the street or sidewalk in advance of the pole relocation).

For your assistance in designing your project, typical configurations of sidewalk and utility pole locations which meet these requirements are detailed in the attached drawing. Underground utility placement is required in all new subdivisions. For developments adjacent to existing roadways, Alternative #1 is the preferred configuration. Alternative #2 may be used only if Alternative #1 cannot be constructed due to physical or topographical constraints.

Please note that non-compliance with these requirement will be interpreted as an incomplete project, and a certificate of occupancy will not be issued until the project is completed.

Attachments

dh/eng/constltr

EXHIBIT B-1

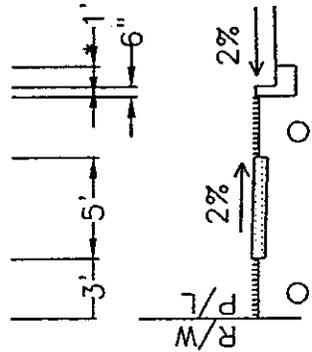
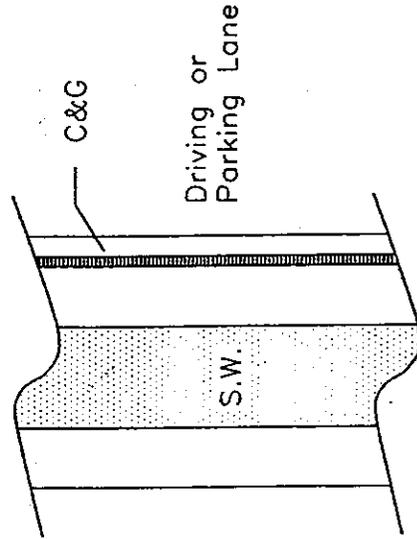
Ordinance No. 1153, Effective 12/15/95.

The Waterland City

Printed on Recycled Paper

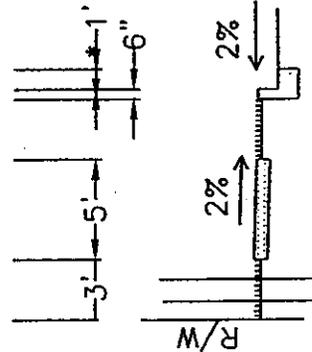
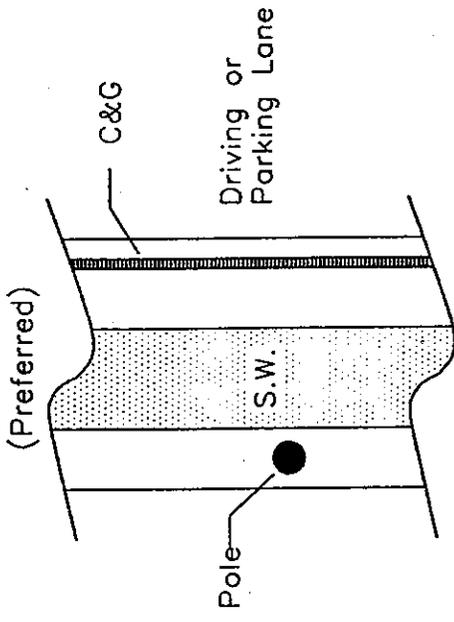
ACCEPTABLE SIDEWALK/UTILITY POLE LOCATIONS

Required for all
New Roadways



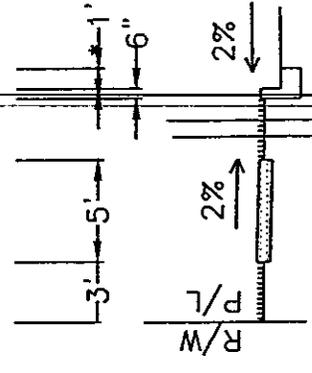
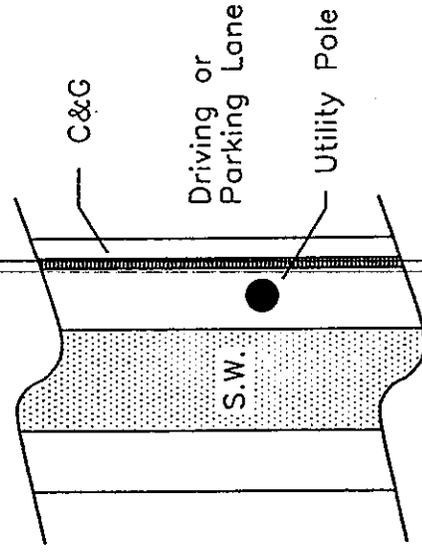
Acceptable Locations
Utilities underground in R/W
buffer, planting strip, or
parking lane.

Existing Roadway
Alternative 1.



Utility poles located behind
back edge of SW in a 3'
grass strip.

Existing Roadway
Alternative 2.



Utility poles located
between front
edge of SW and back of curb and
gutter in a grass strip.

City of Des Moines

ORD#1153

Effective Date
12/15/95

Revision Date

FIGURE B-2

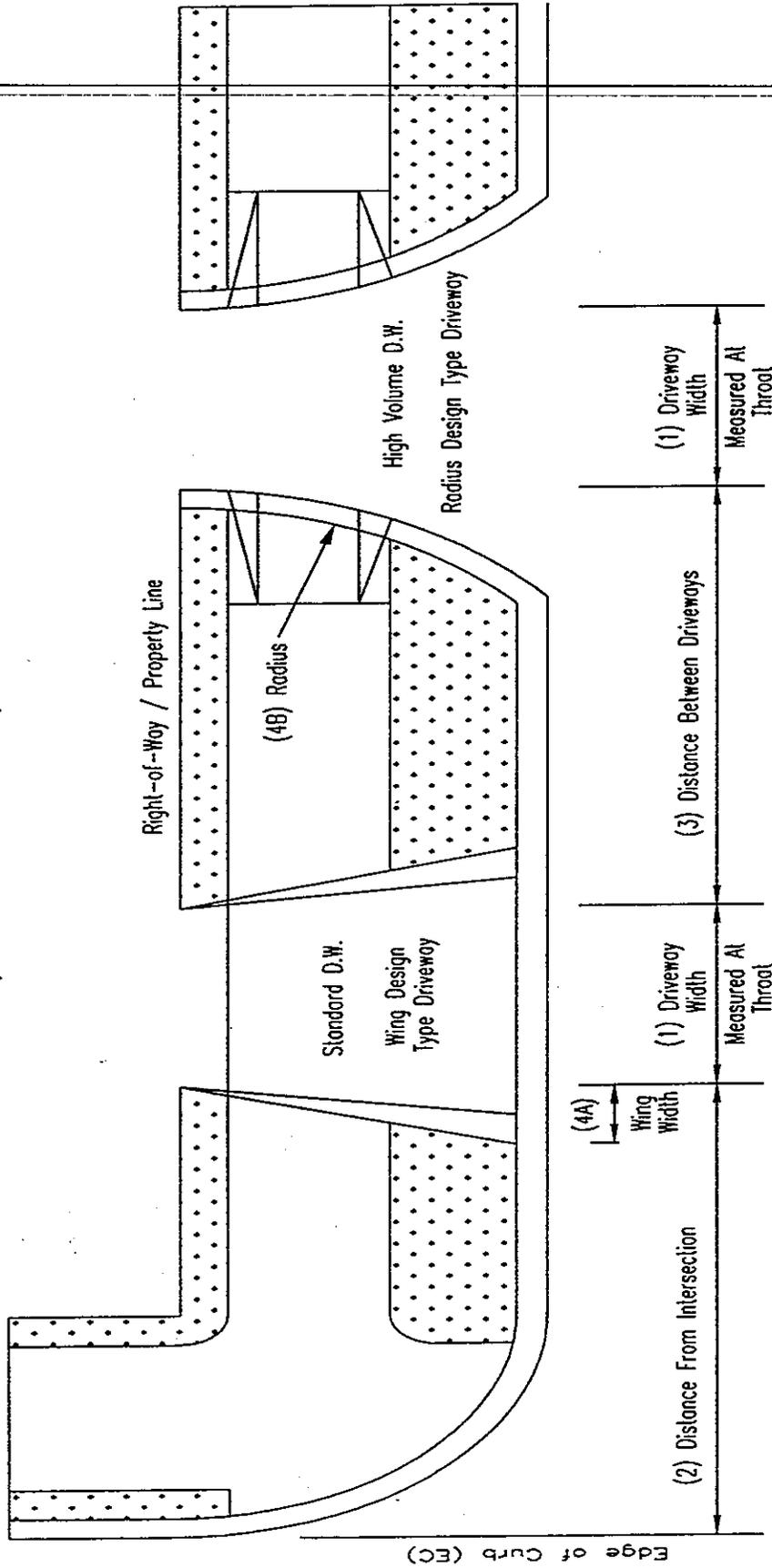
* Distance Varies.

Appendix C

Driveways

DRIVEWAY MEASUREMENT CRITERIA

(Reference Table 2)

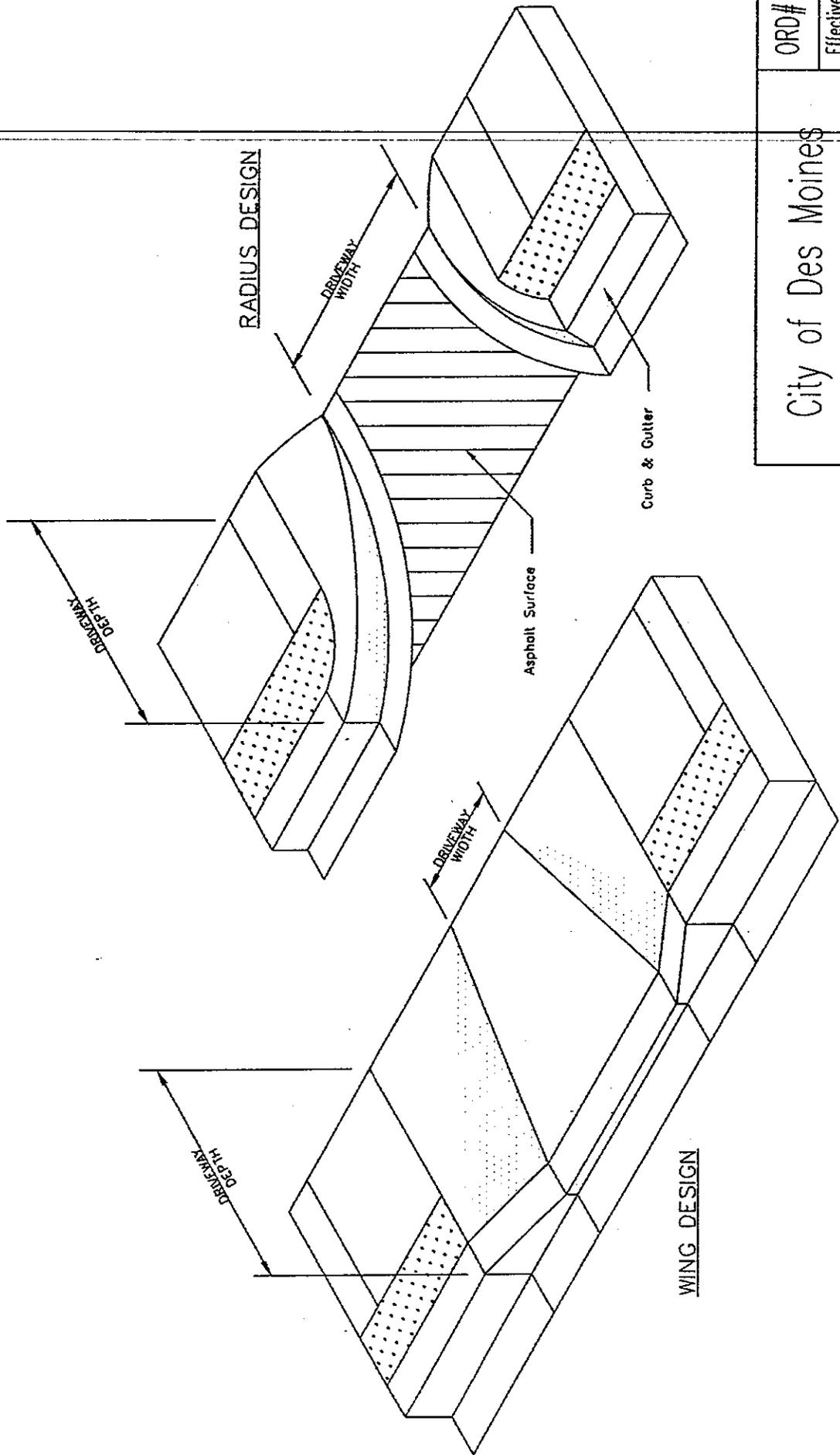


(#) Numbers in Parenthesis
Correspond to Criteria #'s in Table 2.

City of Des Moines
FIGURE C-1

ORD#1153
Effective Date 12/15/95
Revision Date

DRIVEWAY DESIGN TYPES
(Reference Table 2)



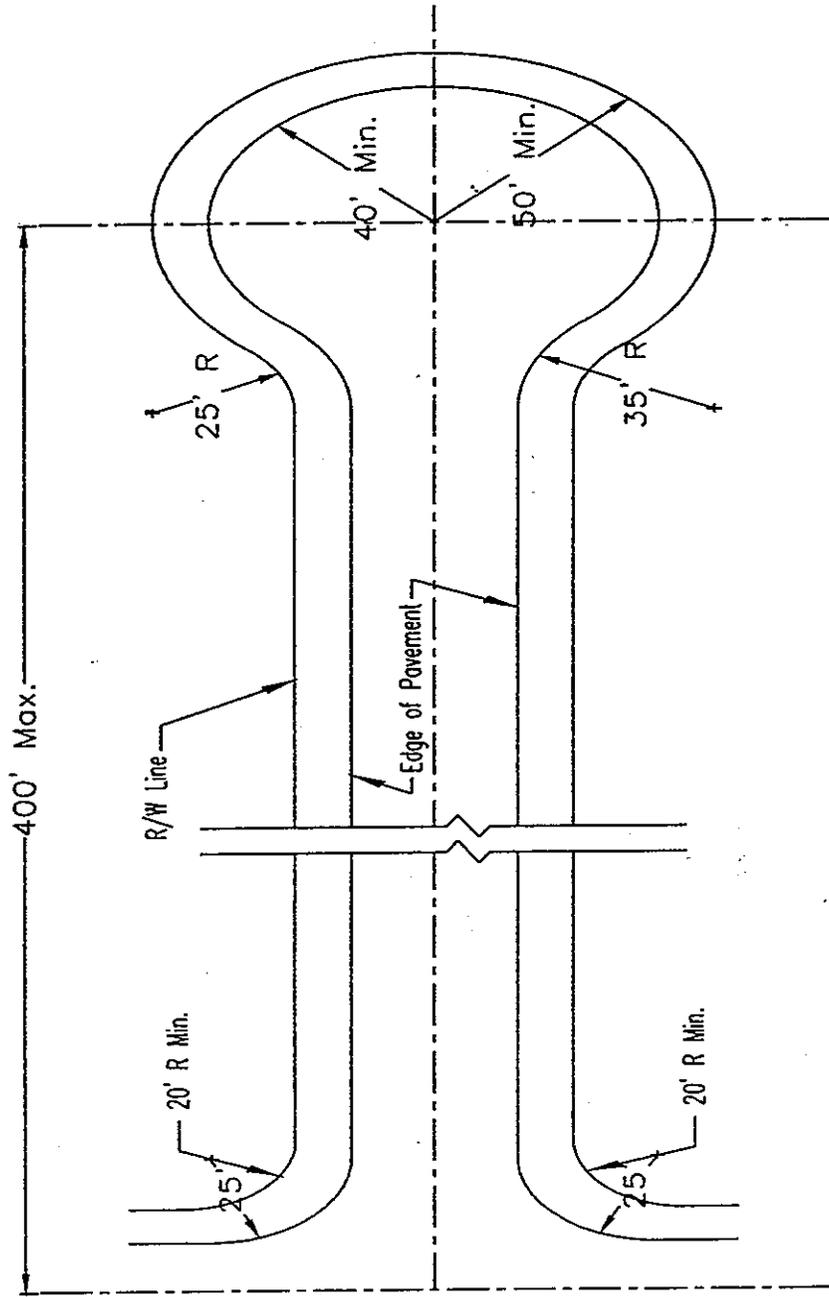
ORD#1153
Effective Date
12/15/95
Revision Date

City of Des Moines

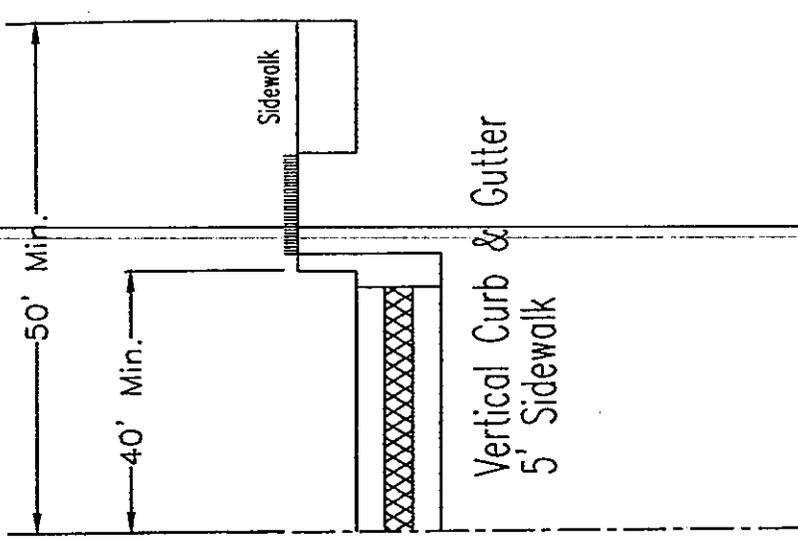
FIGURE C-2

Appendix D
Street Ends

CUL DE SAC - TURNAROUND



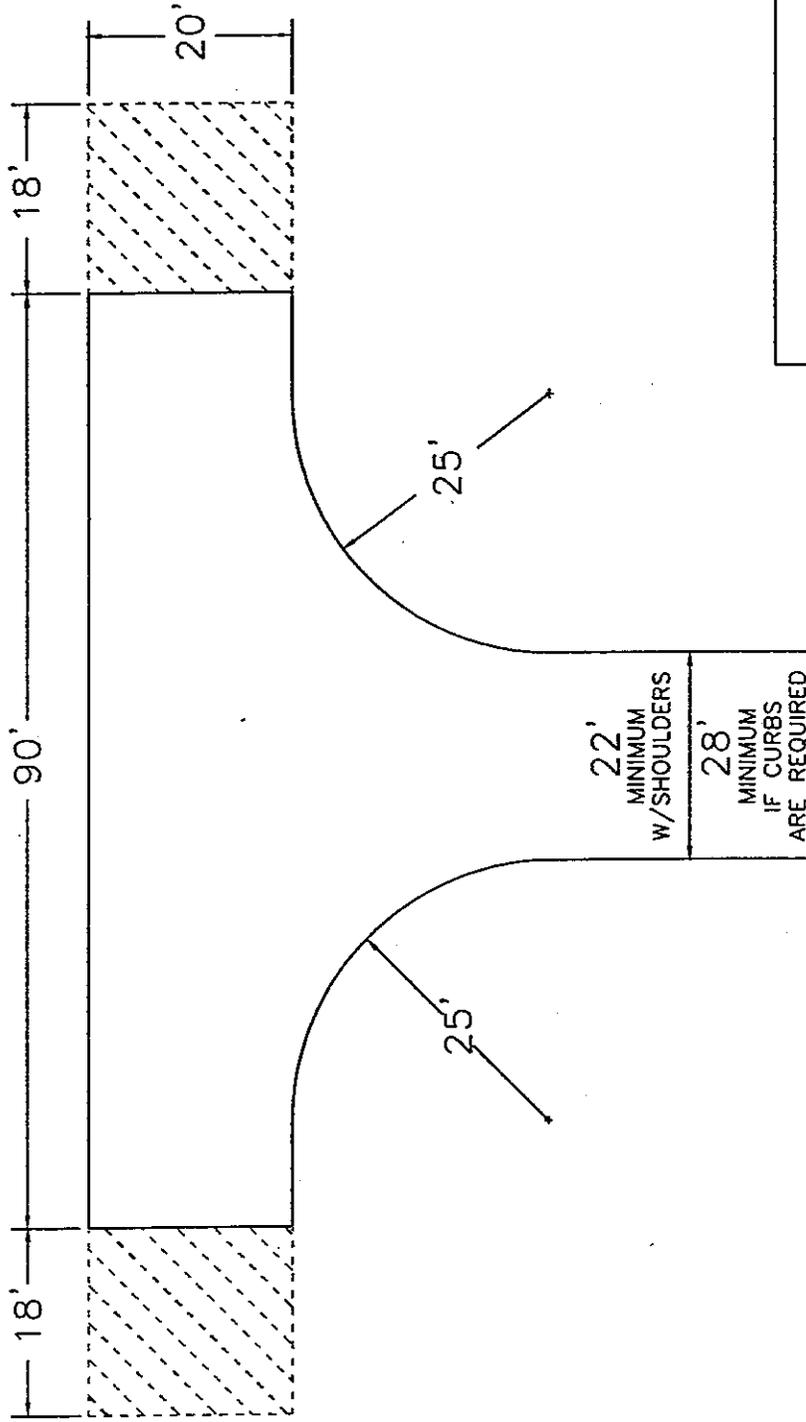
Center of Cul-De-Sac



City of Des Moines	ORD#1153
	Effective Date 12/15/95
	Revision Date

FIGURE D-1

HAMMERHEAD TURNAROUND



Overhang Area

Paving in this area is not required,
No obstructions greater than twelve
(12) inches in height are allowed.

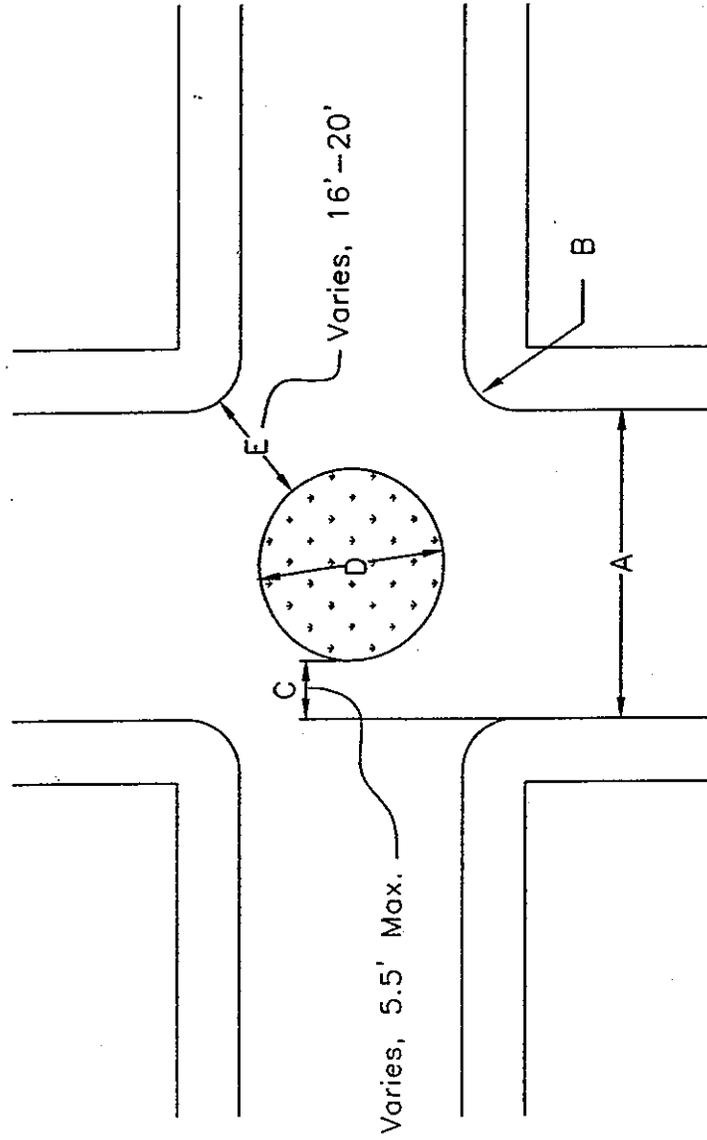
City of Des Moines	ORD#1153
	Effective Date 12/15/95
	Revision Date

FIGURE D--2

Appendix E
Traffic Calming Devices

TRAFFIC CIRCLE STANDARD

DESIGN CRITERIA



LEGEND

- A Street Width
- B Curb Return Radius
- C Off-Set Distance
- D Circle Diameter
- E Opening Width

OPTIMUM CRITERIA

Off-set Distance	Opening Width
5.5'; max	16' min
5.0'	17' +/-
4.5'	18' +/-
4.0'	19' +/-
3.5' or less	20'

Note: $A = C + D + C$

City of Des Moines

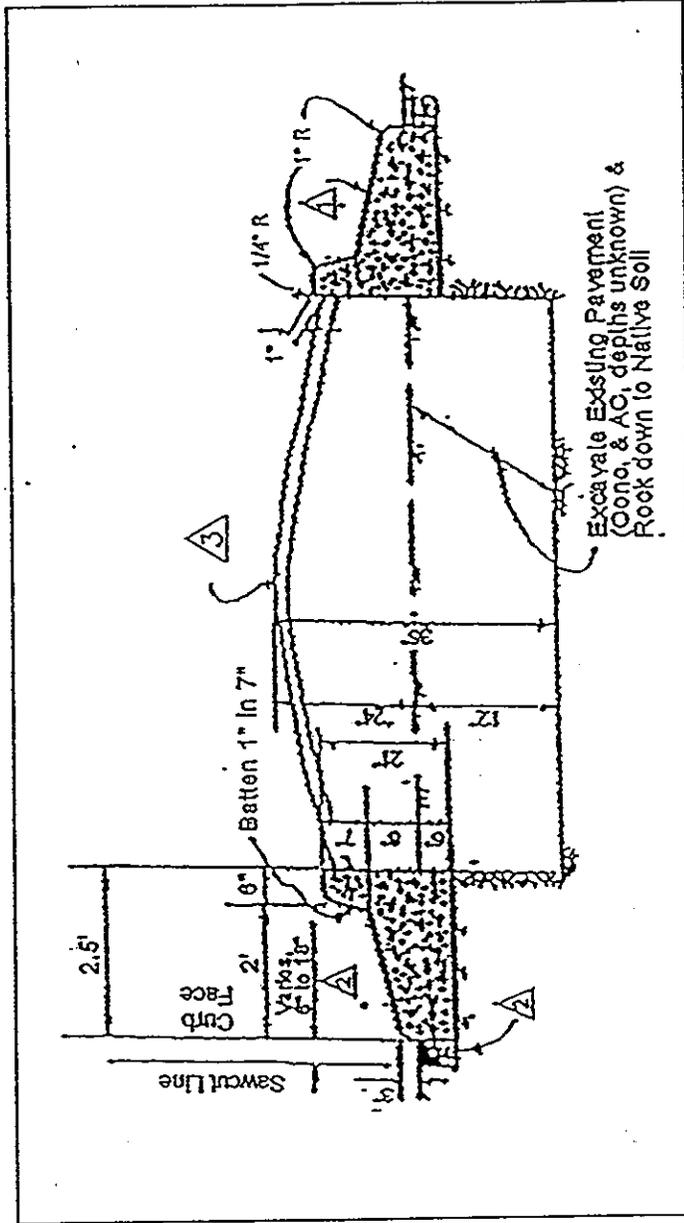
FIGURE E--1

ORD# 1219

Effective Date
06/05/98

Revision Date

TYPICAL TRAFFIC CIRCLE SECTION

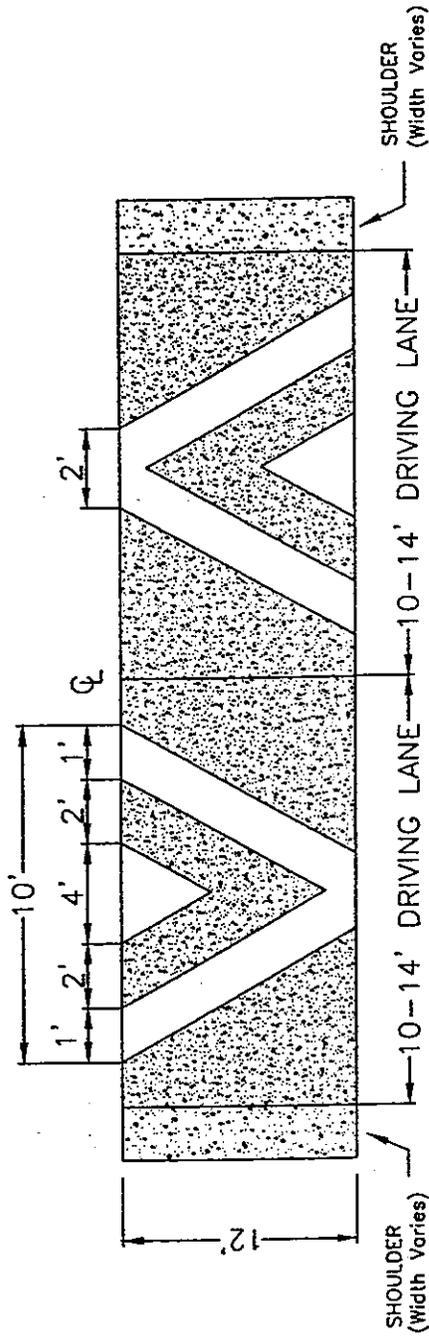


- ① Curb to be constructed of 5000 LB., 2"-4" Slump Concrete
- ② Sawcut existing pavement (depth unknown) as close to new curb line as practical. Pave space between sawcut and new curbing with 6" Class C asphalt conc. Pymt.
- ③ Landscaping requirements to be determined with input from adjacent property owners. Maintenance agreement required. Standard signs with reflectors shall be installed at the center of the circle for all approaches. All signs shall be verified by the city engineer prior to installation.

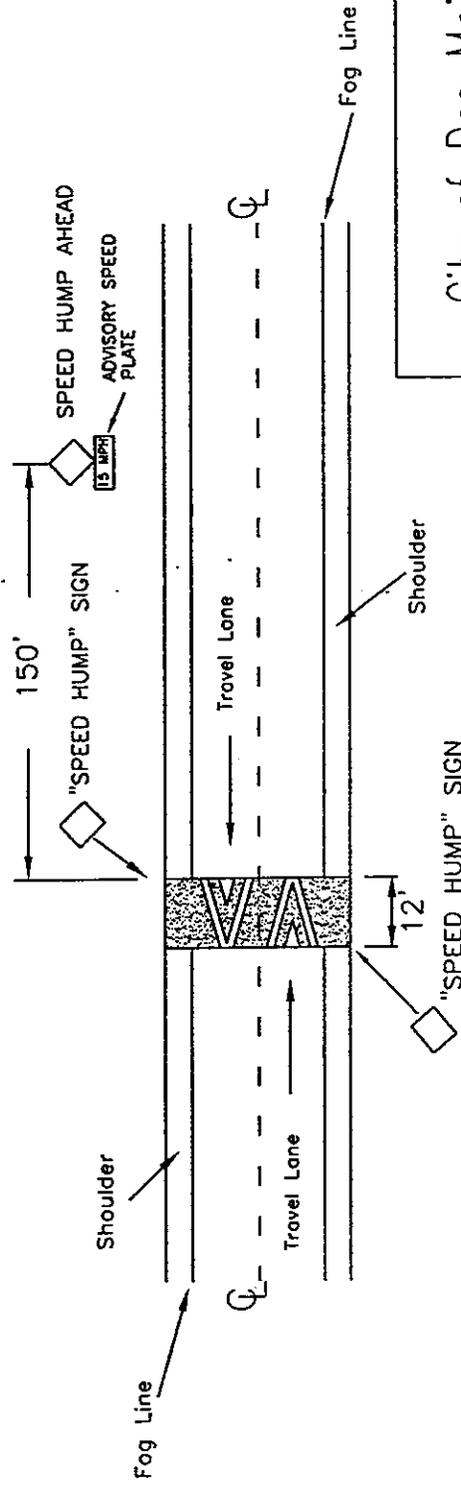
City of Des Moines		ORD# 1219
FIGURE E-2		Effective Date
		06/05/98
		Revision Date

12' SPEED HUMP MARKING & SIGNING

SPEED HUMP MARKINGS



SPEED HUMP SIGNING FOR EACH APPROACH



Note: Sign locations shall be verified by the city engineer prior to installation. Lateral clearance required per MUTCD.

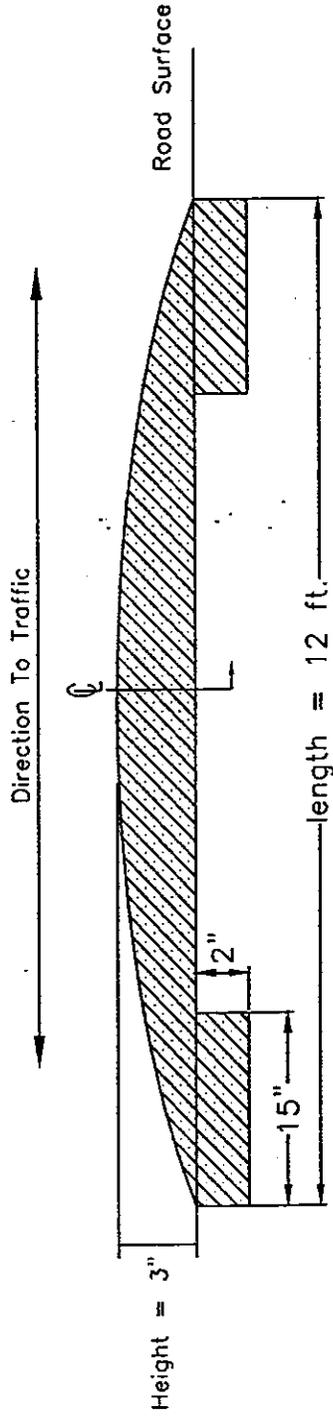
ORD# 1219
Effective Date 06/05/98
Revision Date

City of Des Moines

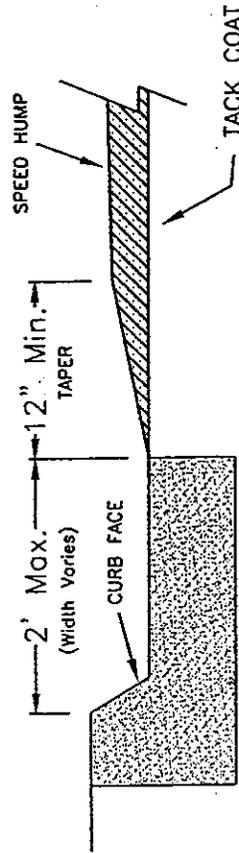
FIGURE E-3

12' LOCAL STREET SPEED HUMPS

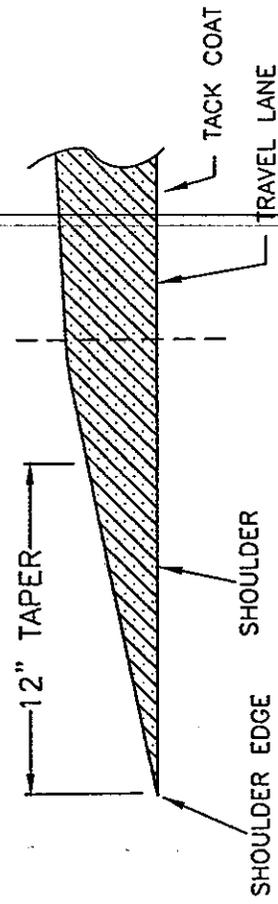
CROSS SECTION AND HUMP DIMENSIONS



CURB DETAIL



SHOULDER DETAIL (FOR STREETS WITHOUT CURBS)

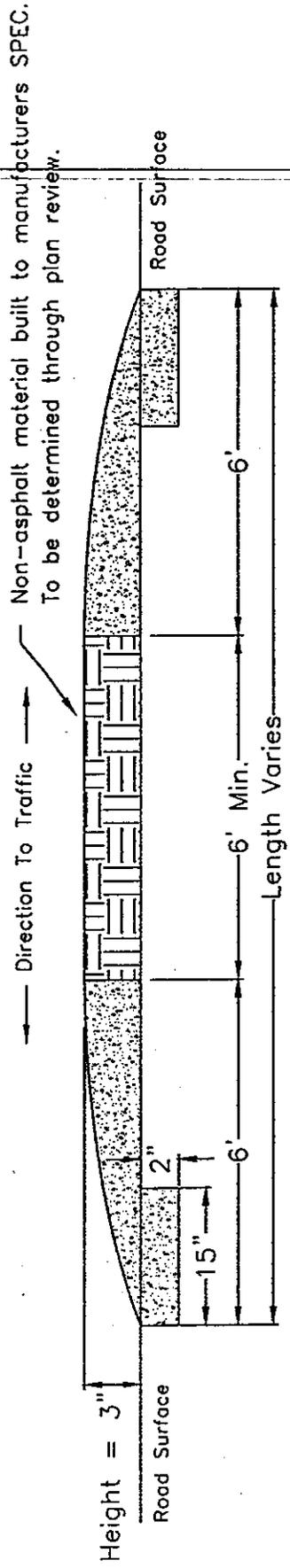


City of Des Moines
FIGURE E-4

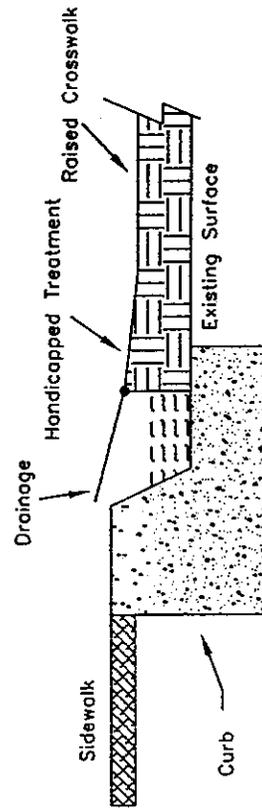
ORD# 1219	Effective Date 06/05/98	Revision Date
-----------	----------------------------	---------------

RAISED CROSSWALK

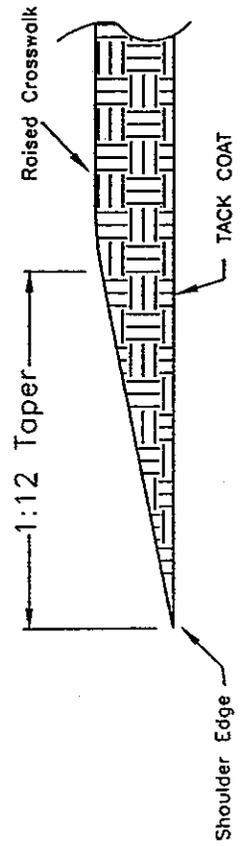
CROSS SECTION



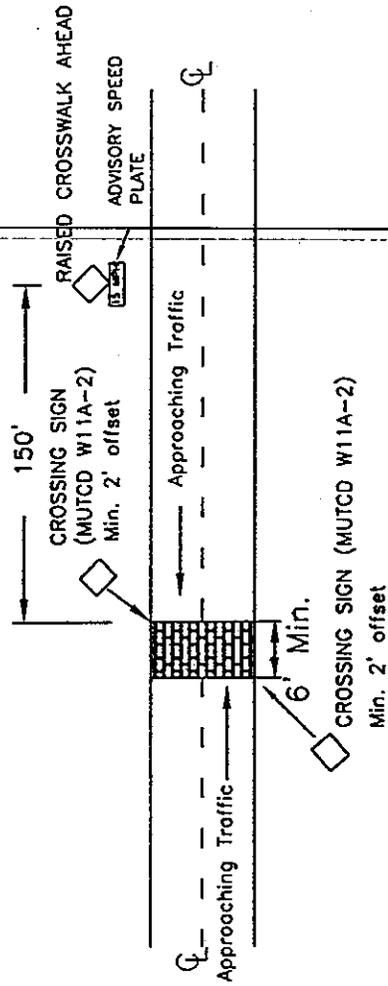
CURB DETAIL



SHOULDER DETAIL (FOR STREETS WITHOUT CURBS)



SIGNING FOR EACH APPROACH



Note: Sign locations shall be verified by the city engineer prior to installation.

City of Des Moines

FIGURE E-5

ORD# 1219

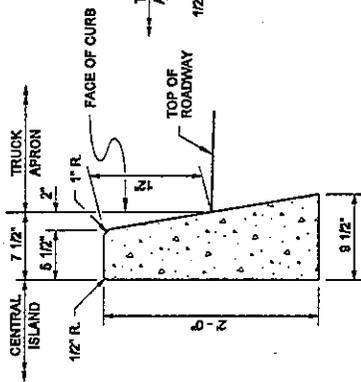
Effective Date
06/05/98

Revision Date

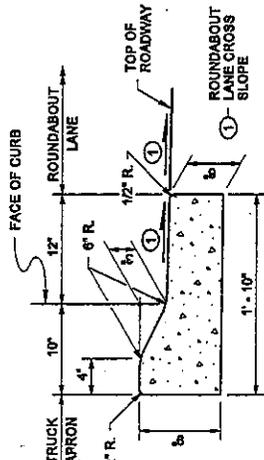
Appendix F
Supplemental Standards

GENERAL NOTE

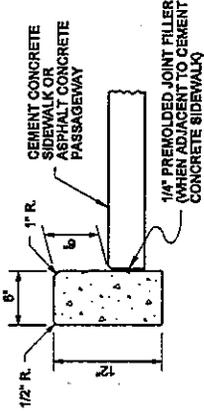
See Standard Plan F-3 for Curb Expansion and Contraction Joint spacing.



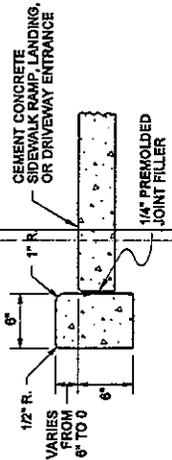
**ROUNDABOUT TRUCK APRON
INNER CEMENT CONCRETE CURB**



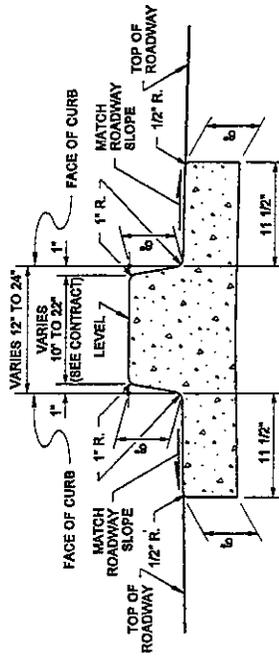
**ROUNDABOUT TRUCK APRON
OUTER CEMENT CONCRETE
CURB AND GUTTER**



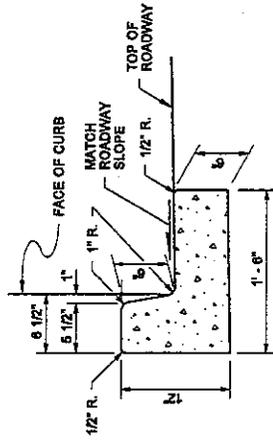
**CEMENT CONCRETE
PEDESTRIAN CURB**



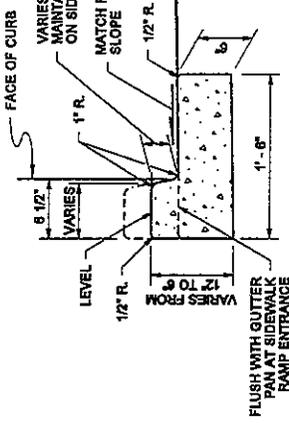
**CEMENT CONCRETE
PEDESTRIAN CURB
AT SIDEWALK RAMPS & LANDINGS,
AND DRIVEWAY ENTRANCES**



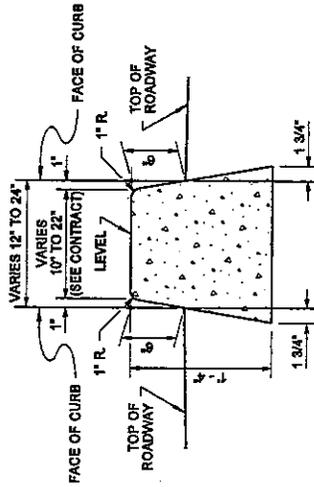
**DUAL-FACED CEMENT CONCRETE
TRAFFIC CURB AND GUTTER**



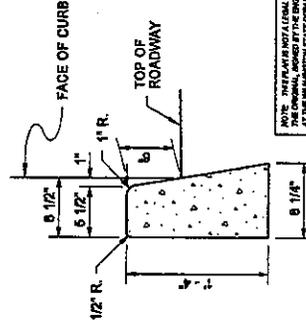
**CEMENT CONCRETE
TRAFFIC CURB AND GUTTER**



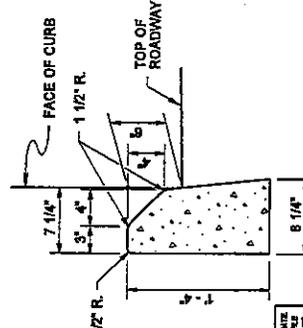
**DEPRESSED CURB SECTION
AT SIDEWALK RAMPS AND
DRIVEWAY ENTRANCES**



**DUAL-FACED CEMENT
CONCRETE TRAFFIC CURB**



**CEMENT CONCRETE
TRAFFIC CURB**



**MOUNTABLE CEMENT
CONCRETE TRAFFIC CURB**



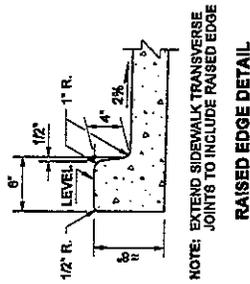
EXPIRES MAY 16, 2003

**CEMENT CONCRETE
CURBS
STANDARD PLAN F-1**

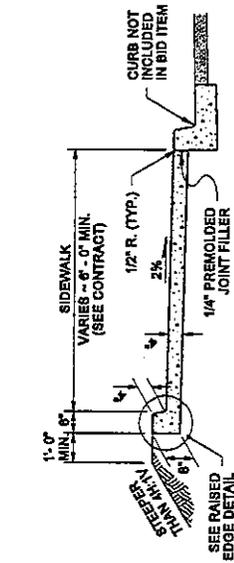
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Harold J. Petrafesso 12-17-02 DATE
 STATE ENGINEER
 Washington State Department of Transportation

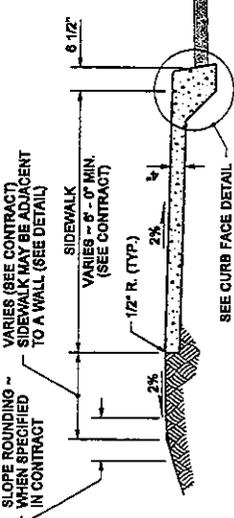
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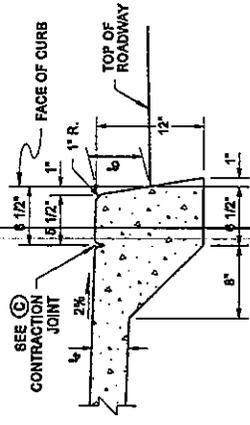
RAISED EDGE DETAIL



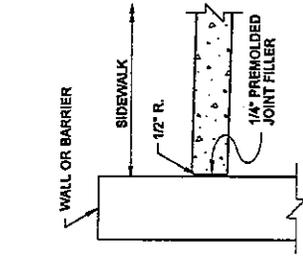
CEMENT CONCRETE SIDEWALK WITH RAISED EDGE



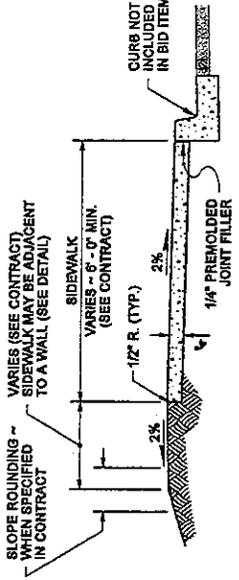
MONOLITHIC CEMENT CONCRETE CURB AND SIDEWALK CURB FACE DETAIL



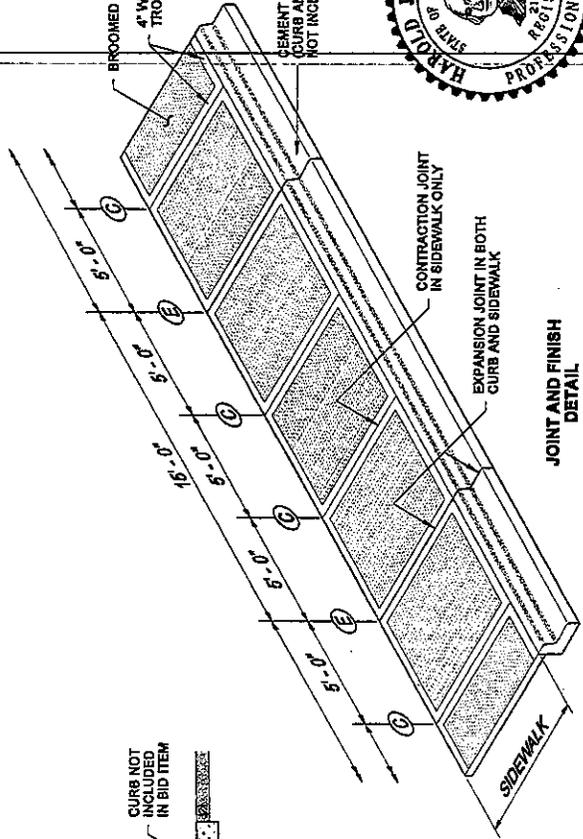
CURB FACE DETAIL



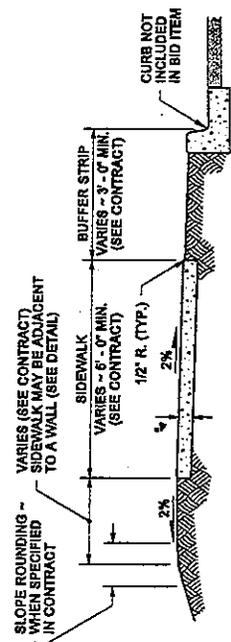
SIDEWALK ADJACENT TO WALL DETAIL



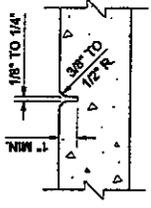
CEMENT CONCRETE SIDEWALK ADJACENT TO CURB



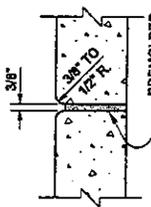
JOINT AND FINISH DETAIL



CEMENT CONCRETE SIDEWALK ADJACENT TO BUFFER STRIP



(C) CONTRACTION JOINT



(E) EXPANSION JOINT



EXPIRES MAY 16, 2003

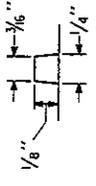
CEMENT CONCRETE SIDEWALK STANDARD PLAN F-3

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

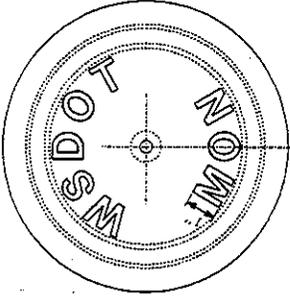
Harold J. Peterfeso
 STATE ENGINEER
 DATE: 01-13-03
 Washington State Department of Transportation

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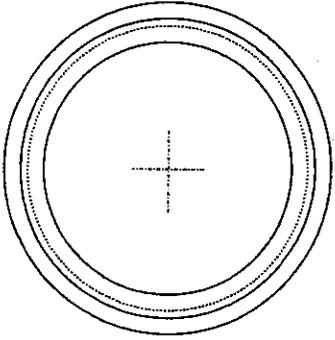


SECTION OF LETTER

APPROXIMATE WEIGHTS	
Case	60 lbs
Cover	19 lbs
Total	79 lbs

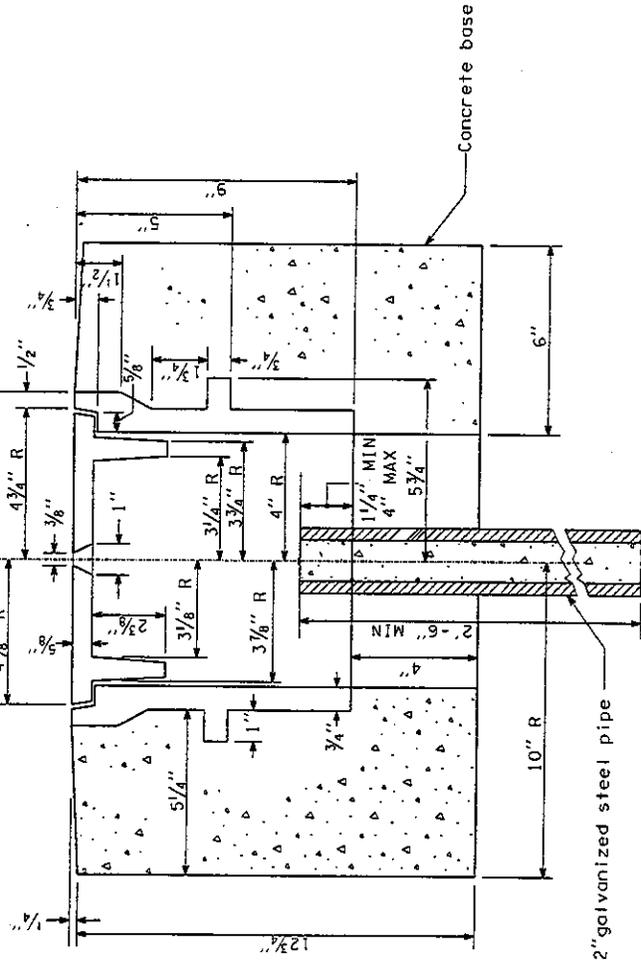


MONUMENT COVER

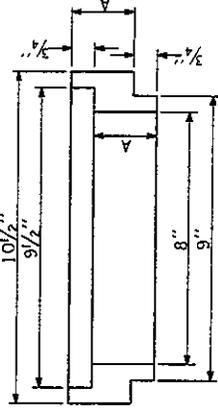


PLAN
RISER RING

RISER RING DIMENSIONS		
A (SIZE)	1 1/2"	2"
		3"



ASSEMBLY SECTION



SECTION
RISER RING



EXPIRES MAY 31, 2000

MONUMENT CASE AND COVER
STANDARD PLAN H-7

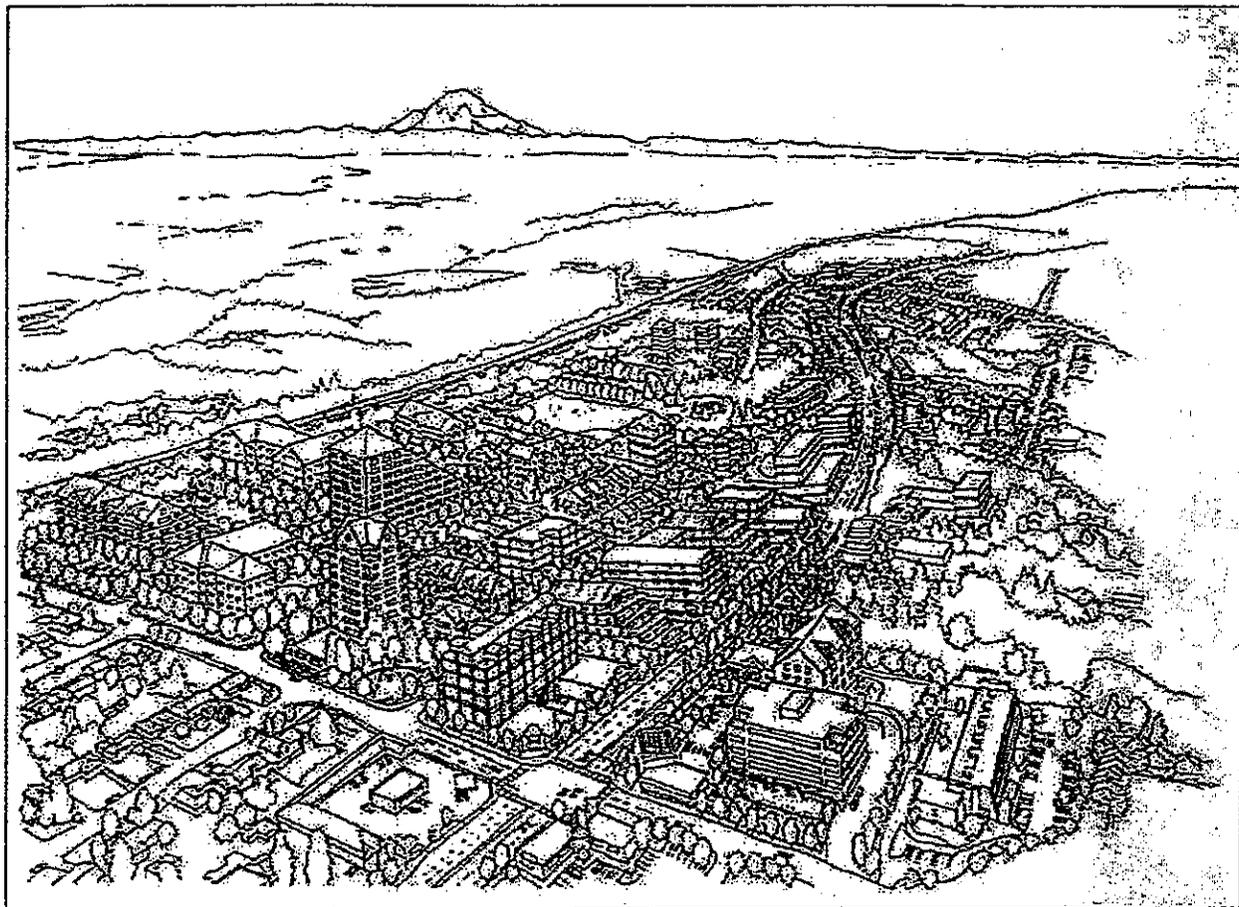
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APPROVED FOR PUBLICATION
Clifford E. Mansfield 8/10/98
DEPUTY STATE DESIGN ENGINEER DATE
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
OLYMPIA, WASHINGTON

EXHIBIT "A"
Ord. No 1284

CITY OF DES MOINES

STREET DEVELOPMENT STANDARDS FOR PACIFIC RIDGE



Sec. __, Ord. __, 2001

City of Des Moines
21630 11th Avenue South
Des Moines, WA 98198
www.ci.des-moines.wa.us



Pacific Ridge

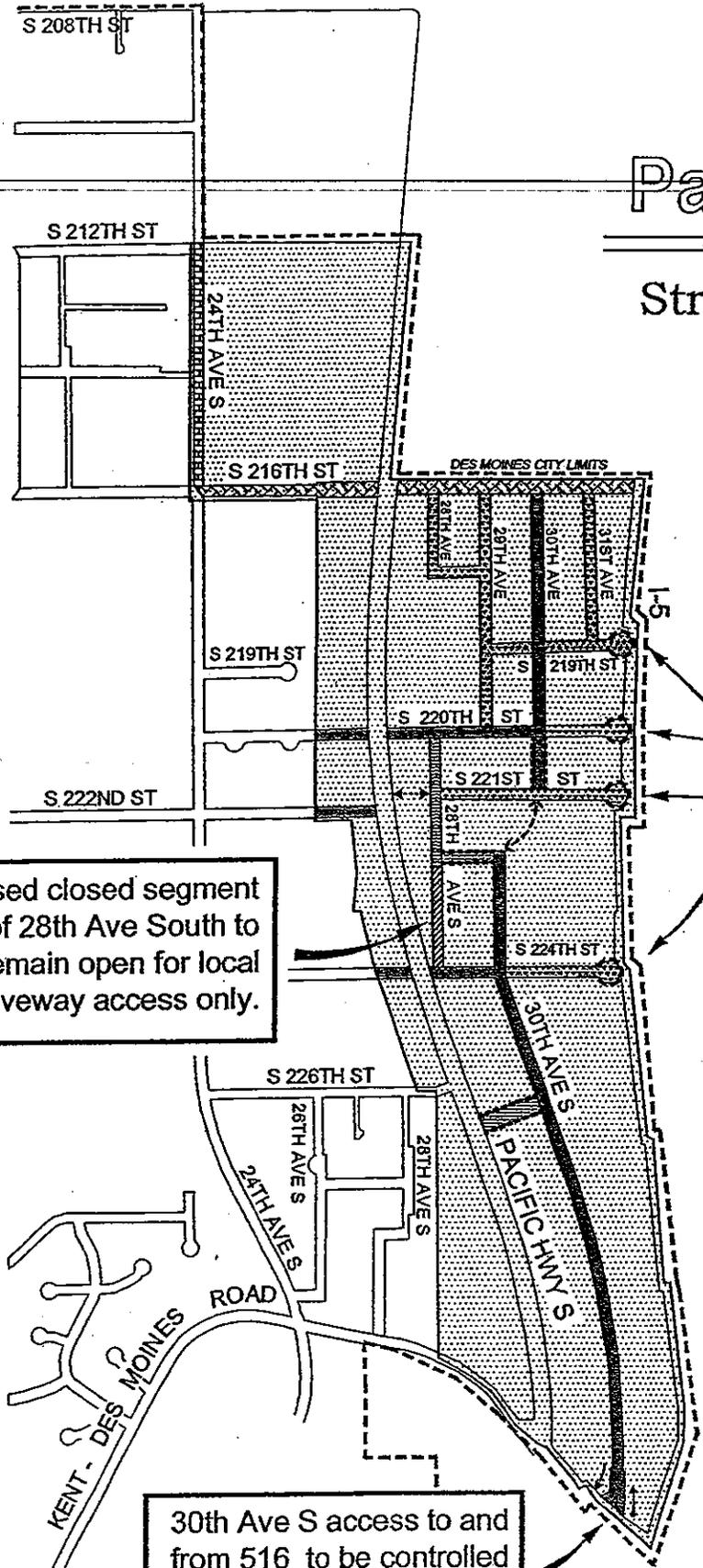
Street Development Standards

APPENDIX G: Ord. 1284 6/28/01
Pacific Ridge Develop. Standards

Proposed closed segment of 28th Ave South to remain open for local driveway access only.

Turnarounds may be relocated if additional right-of-way is required for freeway or light rail improvements.

30th Ave S access to and from 516 to be controlled (right in / right out). Future realignment of 509 may alter this configuration.



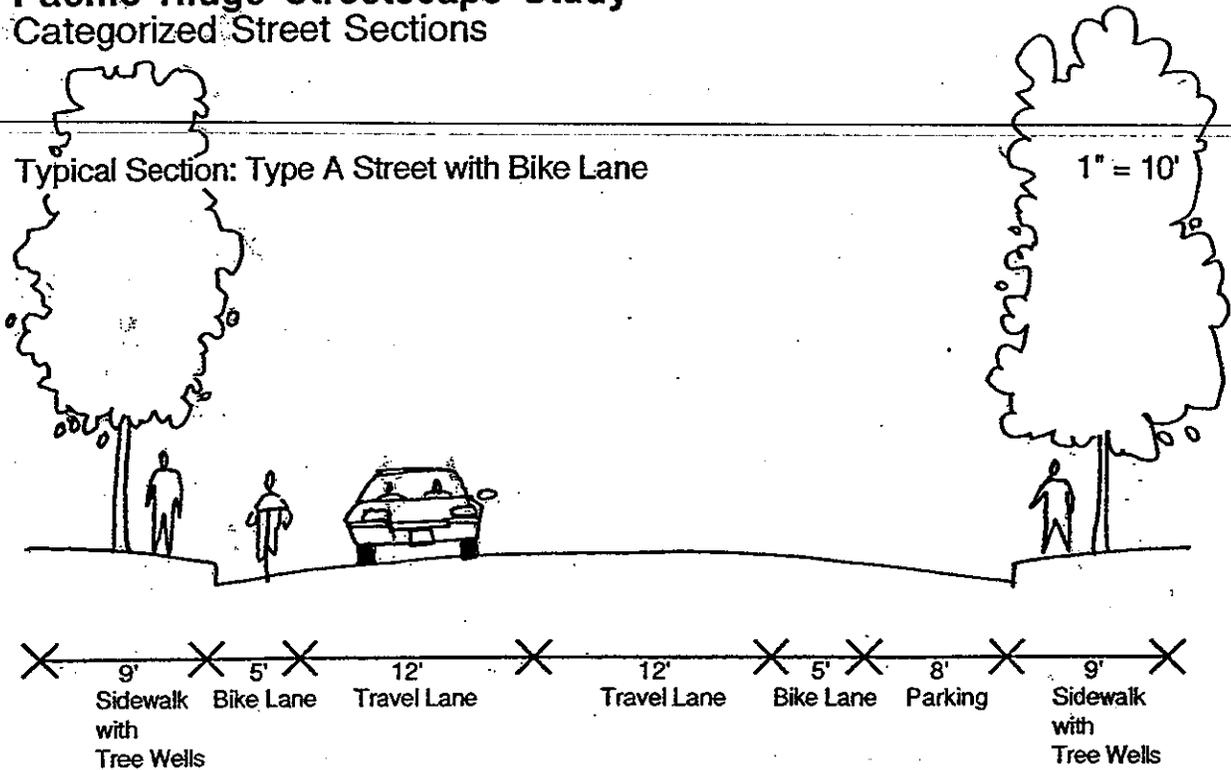
- Type A Street
- Type B Street
- Type C Street
- Type D Street
- Type E Street
- Proposed Right-of-Way Closure
- Proposed Right-of-Way
- Proposed Turnaround
- Proposed Bicycle Path
- Proposed Pedestrian Hill Climb

Des Moines
Community Development

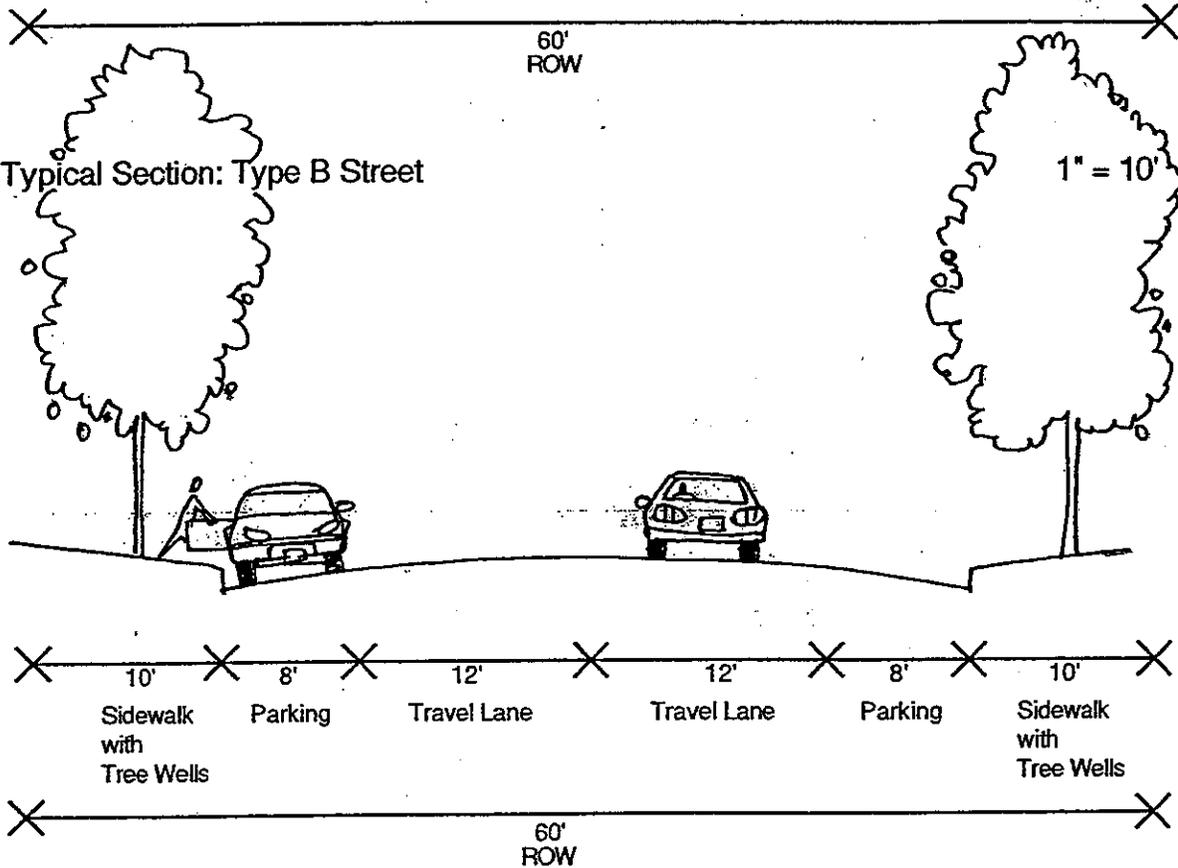
Pacific Ridge Streetscape Study

Categorized Street Sections

Typical Section: Type A Street with Bike Lane



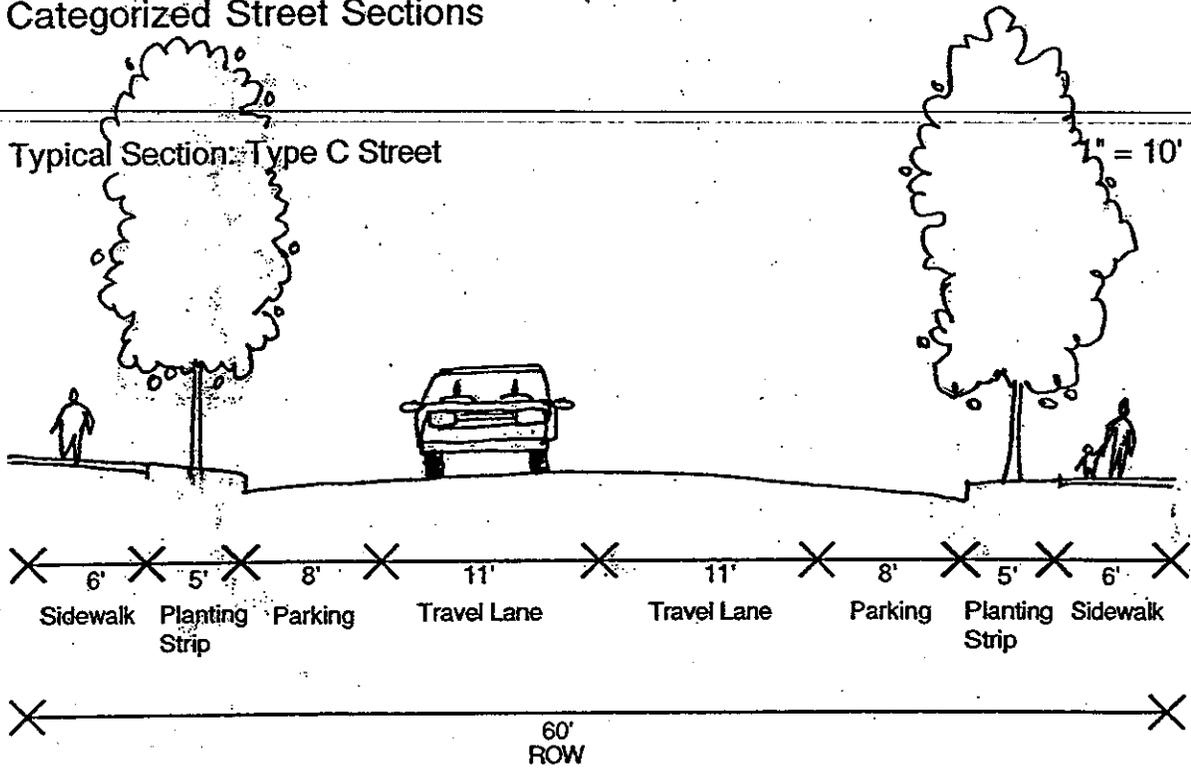
Typical Section: Type B Street



Pacific Ridge Streetscape Study

Categorized Street Sections

Typical Section: Type C Street

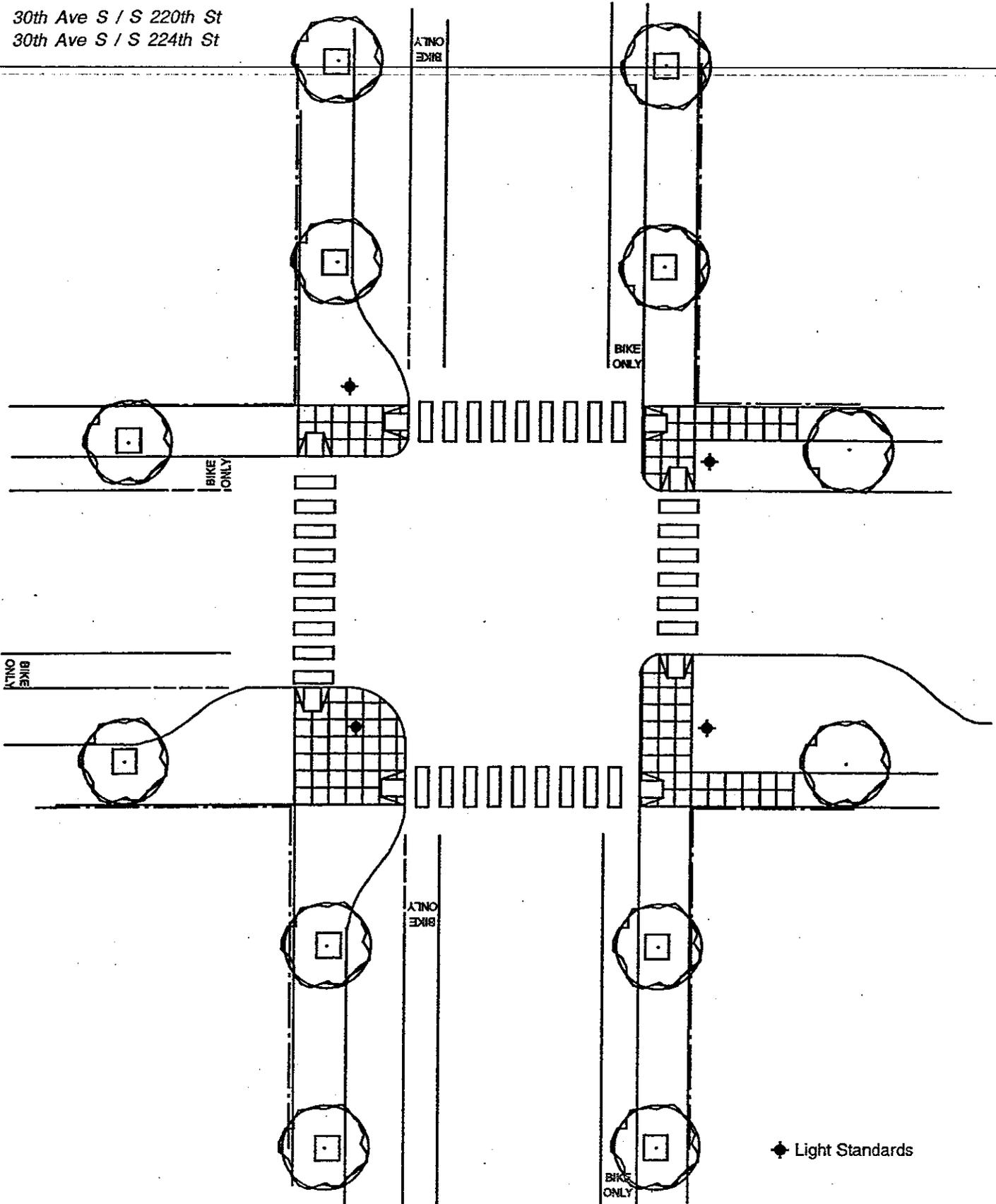


Pacific Ridge Streetscape Study

Type A and C Streets - "Regular" Intersection

1" = 20'

30th Ave S / S 220th St
30th Ave S / S 224th St



Prepared by: Madrona Planning
5604 20th Avenue NW
Seattle, Washington 98107 206.297.2106

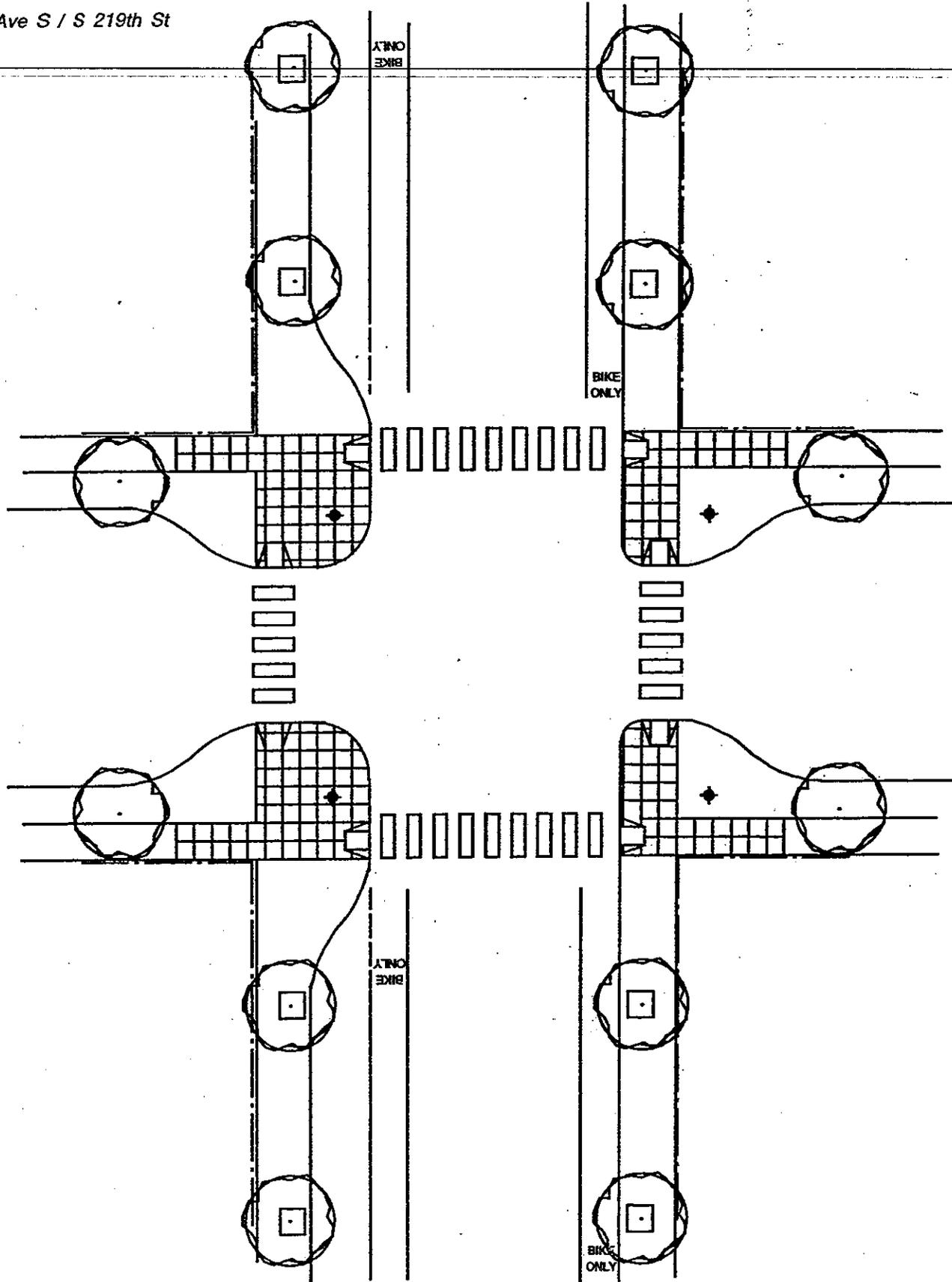
Date:
Revised: 19 June 01
Sheet ____ of ____

Pacific Ridge Streetscape Study

Type A and C Streets - "Regular" Intersection

30th Ave S / S 219th St

1" = 20'



Prepared by: Madrona Planning
5604 20th Avenue NW
Seattle, Washington 98107 206.297.2106

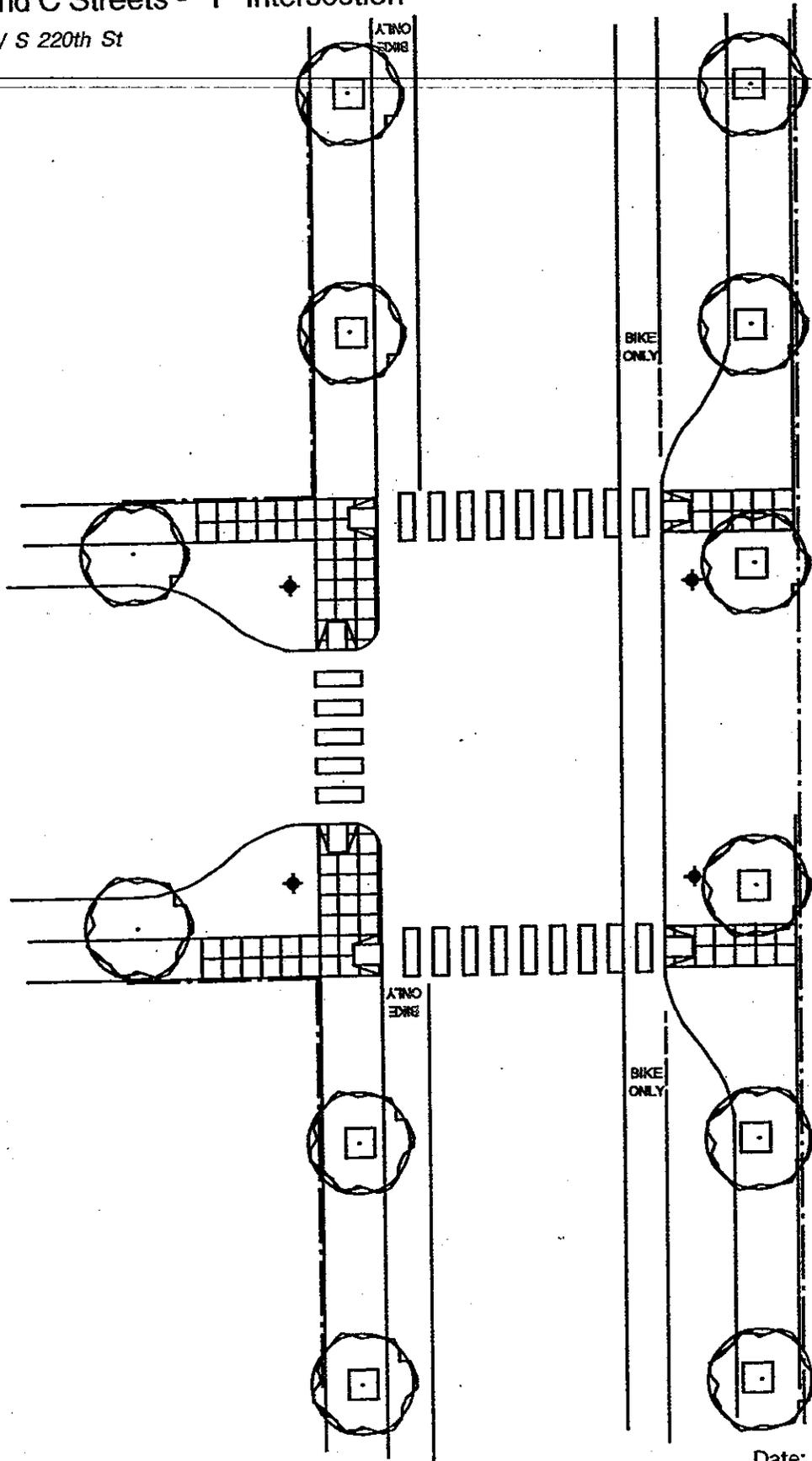
Date: _____
Revised: _____
Sheet _____ of _____

Pacific Ridge Streetscape Study

Type A and C Streets - "T" Intersection

1" = 20'

29th Ave S / S 220th St



Prepared by: Madrona Planning
5604 20th Avenue NW
Seattle, Washington 98107 206.297.2106

Date: _____
Revised: _____
Sheet _____ of _____

Pacific Ridge Streetscape Study

Type A Streets - "Arterial" Intersection

1" = 20'

30th Ave S / S 216th St

S 220th St / Pac Hwy S

S 224th St / Pac Hwy S

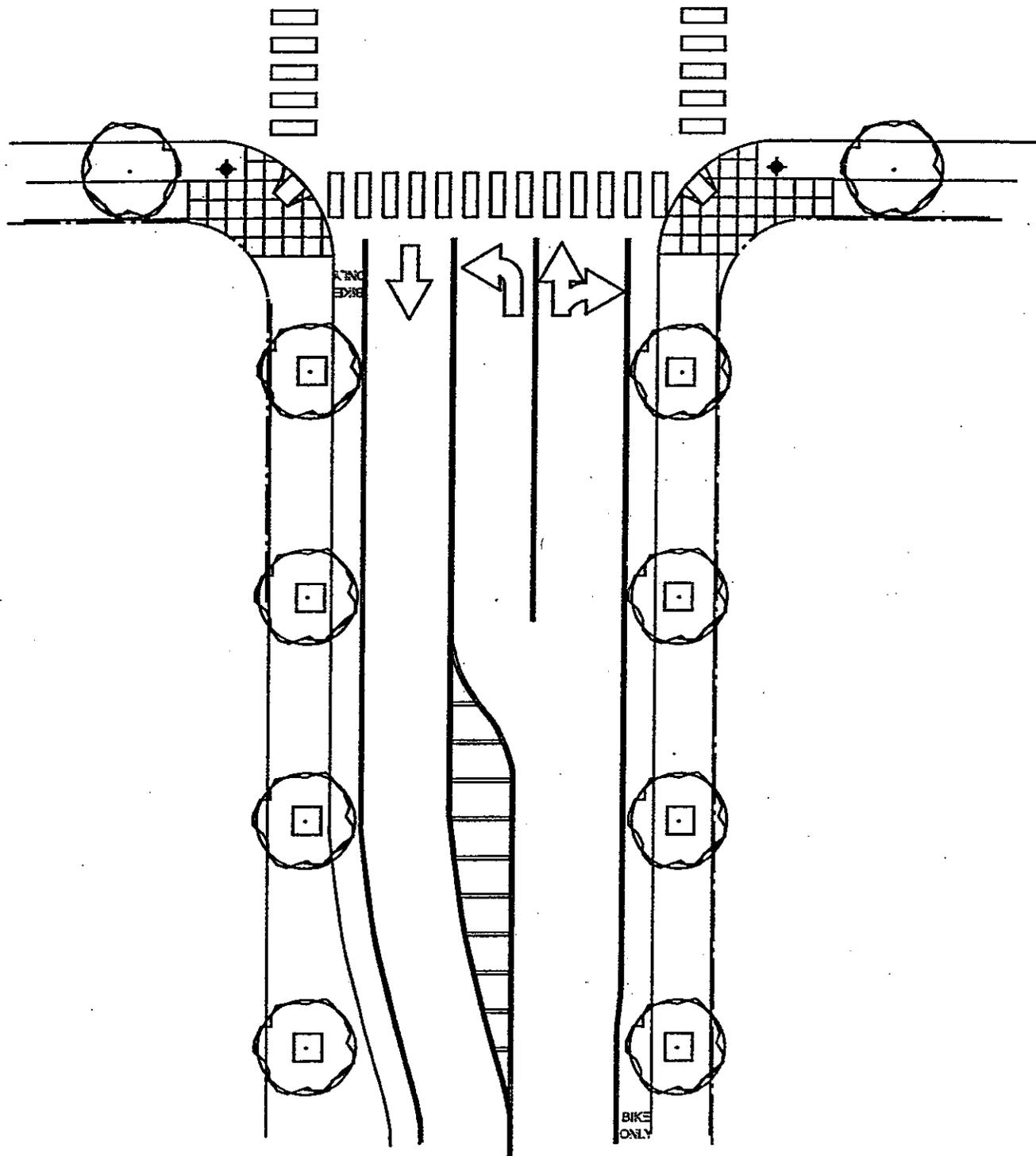


EXHIBIT "B"

APPENDIX H: Ord. 1284 6/28/01
Street Tree Standards

Appendix _____
~~City of Des Moines~~
Street Development Standards

Street Tree Standards

Purpose and Intent

The following requirements apply to the installation of street trees within the public right-of-way. The purpose of these standards is to ensure that trees planted in the public right-of-way are installed and maintained in a manner that promotes public health, safety, and welfare.

Administration

A Type C right-of-way use permit as provided by chapter 12.04 DMMC is required for the planting or removal of trees within the public right-of-way.

Street Tree Species

1. The city manager shall authorize the planting of only those species of trees deemed appropriate for the proposed location. Species characteristics to be considered include, but are not limited to: mature height; shape and span of canopy; color; limb structure and strength; rooting patterns; nuisance fruit; drought tolerance; and resistance to disease, insects, and air pollution.
2. The city manager may specify the species of street trees to be provided. In instances where the City has not specified the type of tree(s) to be planted, the city manager may consult the *Seattle Street Tree Planting Procedures* (City of Seattle Engineering Department Publication No. 520, as presently constituted or as may be subsequently amended).
3. Only small-scale canopy trees are allowed where overhead conflicts exist, including but not limited to utility lines, building overhangs, etc.
4. The following trees are prohibited for use as street trees:
 - a. *Acer negundo*, *acer saccharinum*, *acer macrophyllum* (boxelder, silver maple, bigleaf maple, and oregon maple).
 - b. *Ailanthus althissima* (tree of heaven).
 - c. *Alnus rubra* (red alder).
 - d. *Malus* (fruiting apples).
 - e. *Prunus* (fruiting cherries).

- ~~f. *Pyrus* (fruiting pears).~~
- g. *Populus spp.* (poplars and cottonwoods).
- h. *Robinia pseudoacacia* (black locust).
- i. *Salix spp.* (willows).

Design of Street Tree Planting Areas

1. The spread or width of the tree crown or canopy at maturity shall determine the appropriate spacing of street trees. Slight variation in spacing may be permitted where necessary to avoid utilities, driveways, or similar features. Small-scale trees are typically planted 20-25 feet on center. Small-to-medium scale trees are typically planted 25-30 feet on center. Medium-to-large scale trees are typically planted 30-35 feet on center. Large-scale trees are typically planted 35-40 feet on center.
2. The minimum distances allowed from the centerline of a tree are as follows:

<u>Object</u>	<u>Distance (feet)</u>
Face of curb	3
Edge of sidewalk or sidewalk landing	2
Edge of driveway at sidewalk	7.5
Streetlight poles	20
Utility poles	5-10
Fire hydrants	5
Street intersection	30
Underground utility duct or pipe	5
Grass, shrubs, flowers, weeds	2

3. Tree pits shall not be less than four feet wide and four feet long. Tree pits and grates shall conform with all applicable provisions of chapter 51-10 WAC – Barrier-free facilities, as presently constituted or as may be subsequently amended. The placement of street trees within a public sidewalk shall provide for a minimum of five feet of unobstructed sidewalk.
4. When necessary to protect sidewalks, roadways, or underground utilities from damage, the city manager may require the installation of a root barrier prior to planting of the tree.
5. All street trees installed in conjunction with new development shall be irrigated by a permanent, underground sprinkler or drip watering system complete with automatic controls. Unless waived by the city manager, irrigation systems located in the right-of-way shall be circuited independently from on-site irrigation. Installation and maintenance of the irrigation system shall be responsibility of the adjacent property owner.

6. Street trees shall be pruned to provide eight feet of clearance above a sidewalk and 14 feet of clearance above a roadway.

Minimum Tree Size at Time of Planting

1. Deciduous trees planted in the right-of-way of an arterial or collector street shall be a minimum of two inches (2") in caliper diameter and eight feet (8') in height.
2. Deciduous trees planted in the right-of-way of a residential street shall be a minimum of one inch (1") in caliper diameter and six feet (6') in height.
3. Tree caliper shall be measured at diameter at breast height (DBH) – 4.5 feet above grade.

Planting Guidelines

1. Trees shall be installed as specified by Figures 1 and 2 of these Street Tree Standards.
2. A layer of mulch two inches in depth shall be provided within a two-foot radius of the tree.

Maintenance of Street Trees

1. Unless specifically waived by the city manager, maintenance of street trees, including the irrigation system, staking, mulching, etc., shall be the responsibility of the adjacent property owner.
2. Notwithstanding the above provision, the city manager may plant, prune, maintain, and remove trees within the right-of-way to ensure public health, safety, and welfare.
3. Pruning of trees within the right-of-way shall conform to the standards set forth by the International Society of Arboriculture and the National Arborist Association.

Figure 1
 Street Tree in Planter Strip, With Staking

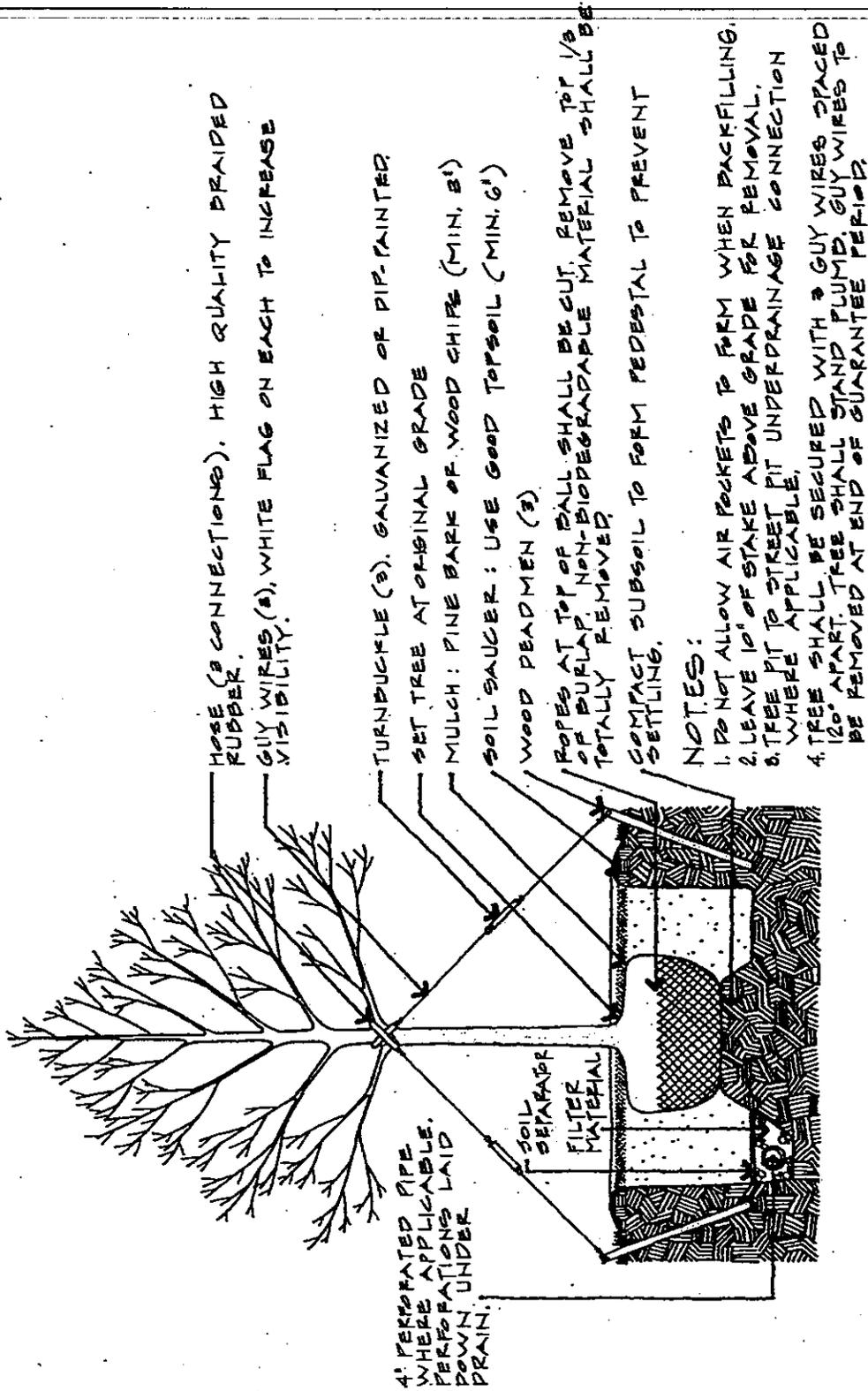


Figure 2
Planting Diagram

Street Tree in Tree Pit With Grate, and Without Staking

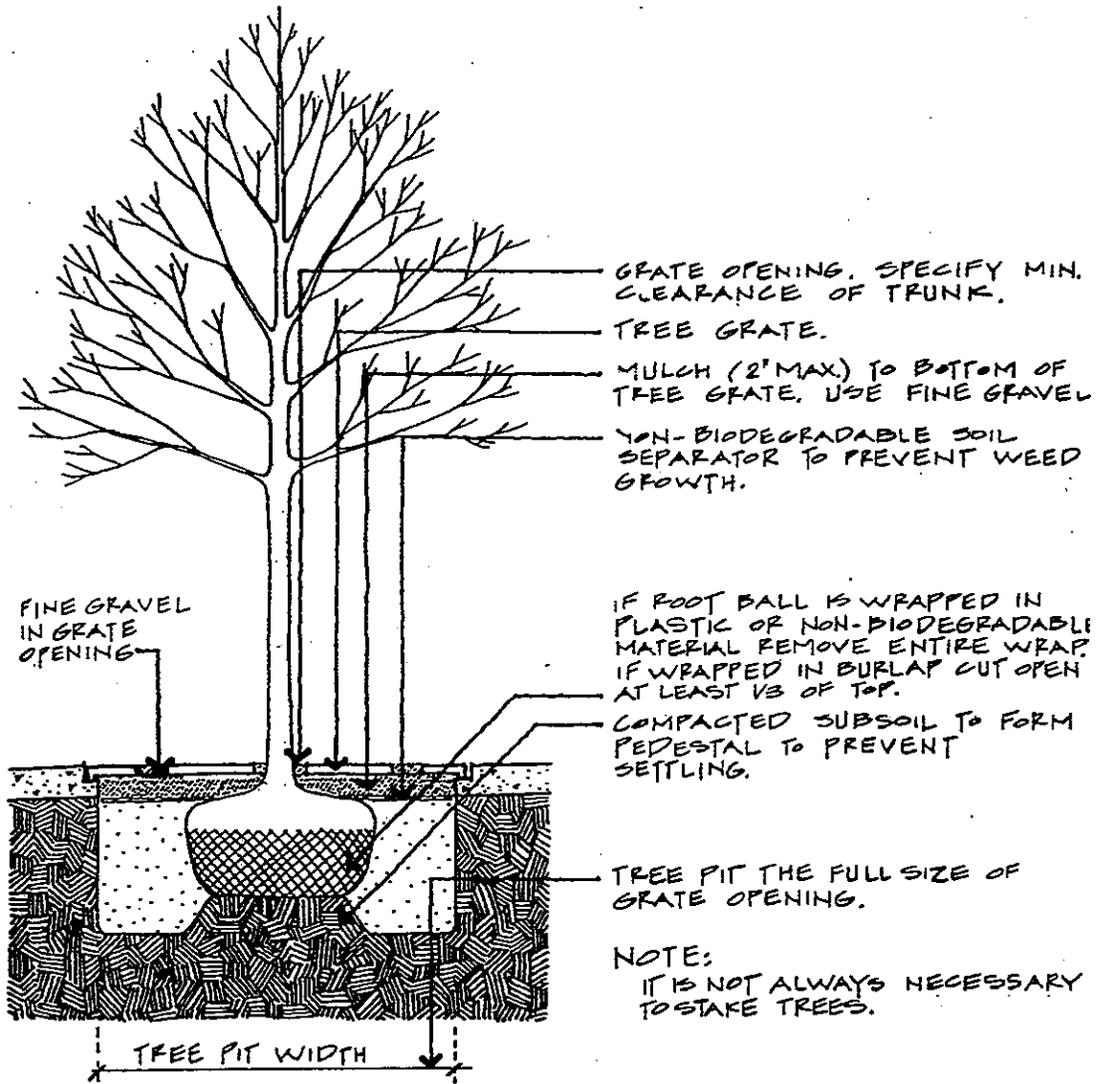
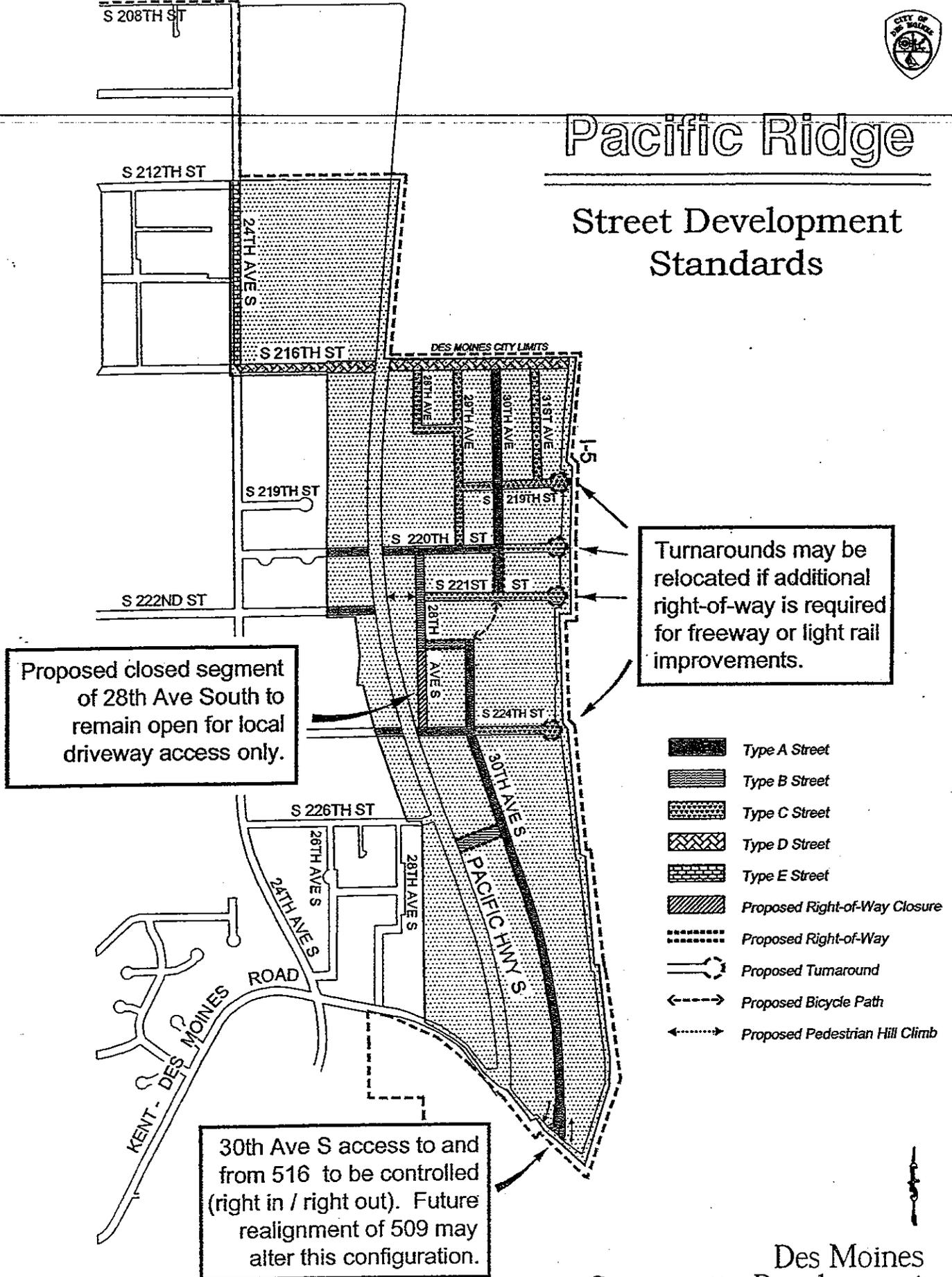


EXHIBIT "C"



Pacific Ridge

Street Development Standards

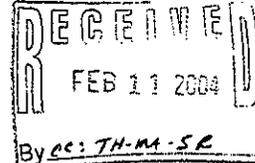


Proposed closed segment of 28th Ave South to remain open for local driveway access only.

Turnarounds may be relocated if additional right-of-way is required for freeway or light rail improvements.

30th Ave S access to and from 516 to be controlled (right in / right out). Future realignment of 509 may alter this configuration.

Des Moines
Community Development



AN ORDINANCE OF THE CITY OF DES MOINES, WASHINGTON ~~relating to street development standards, adopting findings, adopting minimum requirements for gates on private streets, amending DMMC 12.28.010 and 12.28.020, and adding Appendix "I" to "City of Des Moines Street Development Standards, 1996 Edition."~~

WHEREAS, the City Council adopted the "City of Des Moines Street Development Standards, 1996 Edition," by enactment of Ordinance No. 1153, and

WHEREAS, the City Council amended the "City of Des Moines Street Development Standards, 1996 Edition," by enactment of Ordinance No. 1219, and

WHEREAS, the City Council further amended the "City of Des Moines Street Development Standards, 1996 Edition," by enactment of Ordinance No. 1284, and

WHEREAS, the existing Street Development Standards do not prescribe standards for gates on private streets, and

WHEREAS, the City Council finds that minimum requirements for gates on private streets are needed to ensure that such gates are located, designed, and constructed so that they do not adversely affect vehicle and pedestrian travel and safety in public streets, do not interfere with other uses of public and private rights-of-way, and do not adversely affect property use and safety in surrounding neighborhoods, and

WHEREAS, the City Council finds that minimum requirements for gates on private streets must address a wide variety of physical situations created by differences in the size of the development accessed through the gate, the volume of traffic on connecting public and private streets, and variations in terrain; and must also address legal situations such as property owner consent, and gate ownership, usage, and maintenance obligations, in order to avoid involving the City in any future disputes, and

WHEREAS, the City Council finds that that adoption of minimum requirements for gates on private streets is therefore in the interest of public health, safety, and welfare, and

WHEREAS, to accomplish these public purposes, the City Council adopts a new Appendix "I" to the City of Des Moines Street Development Standards, 1996 Edition, to establish minimum requirements for gates on private streets as set forth in Exhibit "A" attached to this ordinance and incorporated herein by reference; now therefore,

THE CITY COUNCIL OF THE CITY OF DES MOINES ORDAINS AS FOLLOWS:

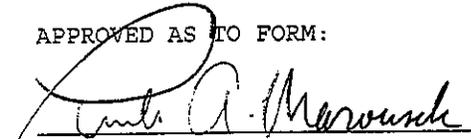
Sec. 1. Findings. Each and every of the findings expressed in the recitals to this ordinance are hereby adopted and incorporated by reference.

~~Sec. 6. Effective date. This ordinance shall take effect and be in full force thirty (30) days after its passage and approval in accordance with law.~~

PASSED BY the City Council of the City of Des Moines this 5th day of February, 2004 and signed in authentication thereof this 5th day of February, 2004.


MAYOR

APPROVED AS TO FORM:


City Attorney

ATTEST:


City Clerk

Published: February 10, 2004

Effective Date: March 6, 2004

LEGAL NOTICE

SUMMARY OF ADOPTED ORDINANCE

CITY OF DES MOINES

ORDINANCE NO. 1334, Adopted February 5, 2004.

DESCRIPTION OF MAIN POINTS OF THE ORDINANCE:

This ordinance relates to street development standards, adopts findings, adopts minimum requirements for gates on private streets, amends DMMC 12.28.010 and 12.28.020, and adds Appendix "I" to "City of Des Moines Street Development Standards, 1996 Edition."

The full text of the ordinance will be mailed without cost upon request.

Denis Staab
City Clerk

Published: February 10, 2004

Effective Date: March 6, 2004

EXHIBIT "A"
Ordinance 1334

Appendix "I"

"City of Des Moines Street Development Standards, 1996 Edition."

Private Gate Requirements – City of Des Moines

1. Private gates or other traffic barriers should be permitted only in cases where adequate provisions are made for access by fire, police, medical emergency, visitors and other public services (such as mail service, garbage collection, public utility emergency repairs, UPS/FedEx deliveries, home repair and maintenance vehicles, parking, etc.).
2. Private gates are allowed only on private streets and private driveways.
3. If, at any time, a private street is converted to, and accepted by the City, as a public street; any private gate(s) shall be removed.
4. In cases where the proposed gate or other barrier will affect 10 or more dwelling units, an engineering study will be required which addresses queuing patterns and associated questions related to items listed in No. 1 above. Recommended mitigation measures shall be submitted to the City along with the application. The traffic study shall be performed by a licensed and registered professional engineer within Washington State.
5. The entrance to the proposed gate shall be designed and stamped by a licensed and registered professional engineer within Washington State, and shall allow for a safe turnaround without backing on public right-of-way for vehicles in front of the gate in cases where the vehicle is denied entry. The design for the gated entrance shall consider the abutting public right of way and roadway alignments and grades, sight distance, posted speeds and other traffic engineering criteria relevant to designing the particular gated entrance. The gate design shall also consider current and future projects contained in the City's adopted Transportation Comprehensive Plan.
6. A sign shall be located on the private street at a point visible from the public roadway indicating "locked gate ahead".
7. All gates shall be equipped with a lockbox with momentary pushbutton switch and Opticom.
8. All gates shall include an activation system for use by private property owners. This system shall operate independently of the emergency access system, and may utilize keypads, magnetic cards, radio transmitters, or other mechanisms approved by the City of Des Moines and King County Fire District 26.
9. All gates shall include a default to unlocked, open position in the event of a power outage.
10. There shall be pedestrian access around all gates.
11. Gate construction, height and aesthetics shall be determined through the design review process, which is conducted by the Community Development Department. The gate and related equipment shall be coated in a manner to prevent corrosion. The gate shall be constructed in a manner so as to allow viewing of obstructions located within the swing path of the gate. In no event shall the moving portion of the gate exceed 10 feet in height.

12. If the gate obstructs access to public utilities or appurtenances, the utility purveyors shall be provided with sufficient activation devices, keys, or the access code to the gate as required.
13. All gates shall be erected a minimum of thirty feet from the edge of any public right of way. A property survey may be required to determine where the property line is located.
14. All gates shall include adequate provisions for illumination and/or reflectorization in order to be properly seen during periods of darkness and inclement weather conditions.
15. Any person desiring to install a gate shall apply for a gate permit from the Public Works Department. The application shall contain the following information:
 - a. A vicinity and site map of the proposed location for the gate;
 - b. A plan view and elevation of the gate installation illustrating gate dimensions and the direction of the swing path for the gate;
 - c. A plan view of the gate turnaround maneuvering plan;
 - d. The location of the access-control panel;
 - e. Control system information;
 - f. The names and addresses of all property owners affected by the restricted access;
 - g. The written consent of ALL property owners affected by the restricted access. A gate cannot be installed without 100% approval.
 - h. Both the City of Des Moines and King County Fire District 26 shall review all gate applications. Prior to any permit issuance, approvals from both entities shall be obtained.
 - i. Building permits and inspections shall be required for all gate installations;
 - j. Such other information as may be required by the Public Works Department, or other associated City departments such as Community Development, or King County Fire District 26;
 - k. The application shall be signed and dated by all co-owners of the private street.
16. Any person submitting an application for a gate shall pay a non-refundable fee to be set by administrative order of the City Manager at the time the application is submitted to cover staff review costs. This fee shall be in addition to any other development or construction fees for the subject property.
17. Upon receipt of a properly completed application for a gate installation request conforming to City standards together with the private gate application fee, the Public Works Department shall begin the review process. Upon completion of a thorough review of the application, the Public Works Director, or his designee may issue a permit authorizing the installation and construction of the gate. The City retains the right to have such gates removed and/or relocated at the applicant's sole expense should the City deem such action necessary for public safety. The applicant may appeal any removal/relocation decision to the Hearing Examiner.
18. The City shall have no liability for any damage to the gate resulting from City vehicles or City personnel accessing the property, whether responding to actual or false emergencies. Any damage sustained by City vehicles due to the gate installation shall be the responsibility of the party responsible for maintenance and repair of the gate.
19. The City shall have the right to access the property to inspect the gate on a periodic basis without being liable for trespass.
20. Maintenance and repair of the gate and related equipment shall be the responsibility of the applicant. A maintenance agreement between ALL affected property owners shall be submitted to, reviewed, and approved of, by the City prior to being recorded with King County against ALL properties involved. The applicant

may, with the consent of the City, assign the obligation for maintenance and repair of the gate and related equipment to another person or entity, including a homeowner's association.

21. Upon notification by the City of any defects in the gate installation, the party ~~responsible for maintenance and repair shall effect necessary repairs within~~ fourteen days. Failure to make repairs within the specified period shall constitute a violation of the terms of the gate permit, and in such event, the City may require removal of the gate and related equipment. An extension of the time to make necessary repairs may be granted for just cause if requested in writing by the party responsible for maintenance and repair of the gate.