City of Portland Office of Transportation

Plans for Proposed Project

Grading, Drainage, Paving & Roadside Development

N. Winchell Street

Local Improvement District

from N. Montana Avenue to N. Minnesota Avenue

Multnomah County

March 2008

INDEX OF SHEETS	
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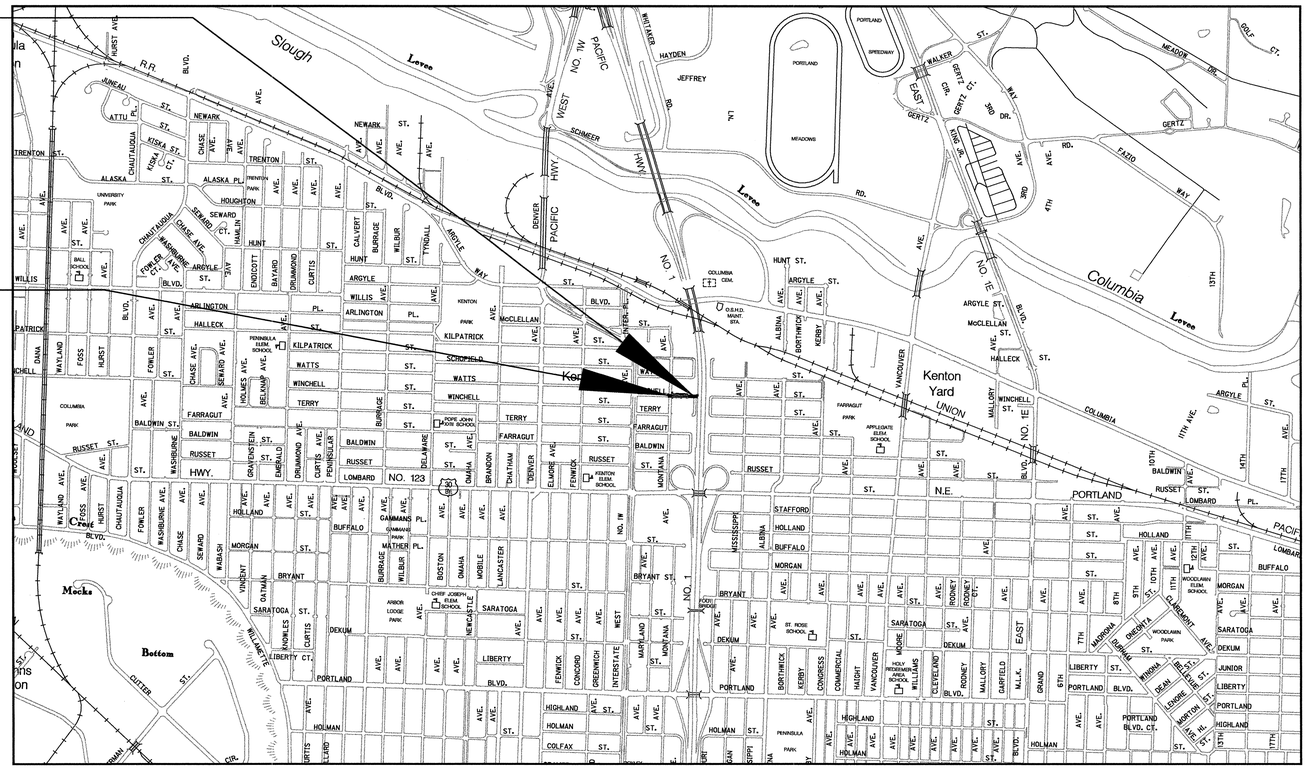
2E	Horizontal Alignment Plan
2F	Elevation Detail Plan
3	Street Plan and Profile
D-1	Stormwater Facility Details

End of Project

Sta. 2+65.15

Beginning of Project

Sta. 0+47.96



LOCATION MAP

0 1000 2000 3000 4000

FEET

Overall Length of Project - 265 Feet

N

T. 1 N., R. 1 E., W.M.

ATTENTION:

Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)

Excavators are required to notify the Center at least 2 business days, but not more than 10 business days, before commencing an excavation. To comply, call 503-246-6699 (in the local Portland area) or 1-800-332-2344.

Standard Drg. Nos.

RD366 - Concrete Inlets Type CG-1, CG-2 and Curb Inlet Channel

RD700 - Curbs
RD720 - Sidewalks
RD740 - Separated Sidewalk Driveways or Alleys (Options H, I, J)
RD755 - Sidewalk Ramp Details, Local Jurisdictions
RD760 - Sidewalk Ramp Placement

RD1000 - Construction Entrances
RD1010 - Inlet Protection (Type 1, 2 and 3)
RD1035 - Sediment Barrier (Type 3)
RD1040 - Sediment Fence (Supported and Unsupported)
RD1045 - Temporary Slope Drains

TM200 - Sign Installation Details
TM204 - Flag Board Mounting Details

TM700 - Tables, Abrupt Edge, and PCMS Details
TM705 - Intersection WorkZone Details
TM710 - 2 Lane, 2 Way Roadways
TM745 - Temporary Concrete Barrier Details
TM750 - Traffic Control Plans - Temporary Barricades
TM775 - Temporary Sign Supports

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: R. Bennett
CAD BY: C. Shearer
CHECKED BY: L. Gailey

DATE APPROVED: Feb. 2008
DIV. ENGINEER: S. Townsen

REGISTERED PROFESSIONAL ENGINEER 14,956 OREGON JULY 25, 1995 LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:

DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND OFFICE OF TRANSPORTATION

SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Cover Sheet

1/4 SECTION: 2229
PROJECT NO.: 61901 PE
SHEET NO.: 1

Plot Date: 3/4/2008 7:20:16 AM Filename: S:\...\Design\61901 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT 01COVER\PLOT_SHT_01.dgn

LEGEND

PROPOSED

- Bollard
- Catch Basin
- Centerline
- Fire Hydrant
- Flow Direction
- Light Pole
- Manhole
- Tree
- Wheelchair Ramp
- CONC BLOCK FC — Concrete Block Wall Face
- CONC WALL FC — Concrete Wall Face
- CUT LINE — Cut Line
- NEW DITCH — Ditch C/L
- Edge of Concrete
- NEW E.O.G. — Edge of Gravel
- NEW E.O.P. — Edge of Pavement
- FILL LINE — Fill Line
- NEW GRDRAIL — Guardrail
- PAVING LIMIT — Paving Limit
- PERM EASMNT — Permanent Easement
- NEW R/W — New R.O.W. Line
- Sanitary Sewer UG
- SAWCUT — Sawcut
- Silt Fence
- Skip Line
- Solid Double Stripe
- Solid Left Skip Right
- Solid Right Skip Left
- NEW STM SWR — Storm Sewer UG
- TEMP EASMNT — Temporary Easement
- NEW SLP TOE — Toe of Slope
- NEW SLP TOP — Top of Slope
- Valley Gtr

EXISTING

- GP — Poles (Utility)
- Right-Of-Way
- Sewer Inlets
- S — Sewer Manhole
- Grade Break Line
- SIGN — Street Amenities
- CP, IR — Survey Control
- UP — Utilities Surface (Power Pole)
- UP — Utilities Surface (Power Pole w/Light)
- Vegetation (Shrubs)
- Vegetation (Trees)
- MBX — Mailbox
- Fire Hydrant
- WV — Water Valve
- WM — Water Meter
- GM — Gas Meter
- AC Edge — AC Edge
- BRICK WALL FC — Brick Wall Face
- Buried Rail
- Chain Link Fence
- Combination Sewer UG
- BRICK WALL FC — Concrete Block Wall Face
- CONC WALL FC — Concrete Wall Face
- DITCH — Ditch C/L
- DITCH TOE — Ditch Toe
- DITCH TOP — Ditch Top
- CONC — Edge of Concrete
- E.O.G. — Edge of Gravel
- E.O.P. — Edge of Pavement
- Electric Fence
- E — Electric Line UG
- G — Gas Line UG
- GM Barrier
- Guardrail
- Hedge Line
- Iron Fence
- LAWN — Lawn Edge
- Metal Pipe Rail
- Overhd Wire — Overhead Wire
- Property Line
- Rail
- RIP RAP — Rip Rap
- ROCK WALL FC — Rock Wall Face
- Sanitary Sewer UG
- Scarp
- Sig — Signal Cable UG
- Skip Line
- Slide Edge
- Solid Double Stripe
- Solid Left Skip Right
- Solid Right Skip Left
- St Light — St Light Line UG
- STEEL WALL FC — Steel Wall Face
- Storm Sewer UG
- Tel-FO — Telcom Fiber Optic UG
- Tel — Telcom Line UG
- SLOPE TOE — Toe of Slope
- SLOPE TOP — Top of Slope
- TV — TV Cable UG
- Valley Gtr — Valley Gutter
- Water Edge
- W — Water Line UG
- WETLAND — Wetland Edge
- Wire Fence
- Wood Fence
- WOOD WALL FC — Wood Wall Face

ABBREVIATIONS

AC	Asphaltic Concrete
(A.P.)	As Painted
Ave	Avenue
CED	Curb Elevation Detail
CL	Centerline or Clearance
CLSM	Concrete Low Strength Mix
C-L FC	Chain-Link Fence
CIWATER	Cast Iron Water Main
D	Delta or Diameter
Dia	Diameter
ELEC	Electric or Electrical
ELEV	Elevation
EXIST	Existing
EXP	Exposure
ft	Feet or Foot
GAS	Gas Main
g	Gutter Elevation
h	Height
I.E.	Invert Elevation
L	Length
L.P.	Light Pole
LT	Left
MAX	Maximum
M.H.R.	Metal Handrail
M.P.	Metal Pillar
N.W.	Northwest
NWE CO	Northwestern Energy
NTS	Not To Scale
O.L.	Overhead Lines
PC	Point of Curve
PCC	Portland Concrete Cement or Point Of Compound Curve
PCR	Point Of Curb Return
PEP	Private Energy Partners
PGE	Portland General Electric
PI	Point Of Intersection
POVC	Point On Vertical Curve
PNB	Pacific Northwest Bell Co.
PRC	Point of Reverse Curve
PT	Point of Tangent
PT&T	Public Telephone & Telegraph
PVI	Point Of Vertical Intersection
Qwest	Qwest Communications
R	Radius
RCP	Reinforced Concrete Pipe
RT	Right
S	Slope
STEAM	Steam Pressurized Utility
ST	Street
STD	Standard
STA	Station
S/W	Sidewalk
T	Tangent Length
TC	Top Of Curb
TCI	Telecommunications Inc.
TELE	Telephone
TP	Top Of Pavement
TRACKS	Buried Streetcar Tracks
TYP	Typical
UG	Underground
W	Width
WATER	Water main

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY	R. Bennett
CAD BY	C. Shearer
CHECKED BY	L. Gailey
DATE APPROVED	Feb. 2008
DIV. ENGINEER	S. Townsen

REGISTERED PROFESSIONAL ENGINEER — 14,956 — OREGON — JULY 25, 1980 — LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:
Steve Townsen — DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE
Steve Townsen — CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND OFFICE OF TRANSPORTATION
SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

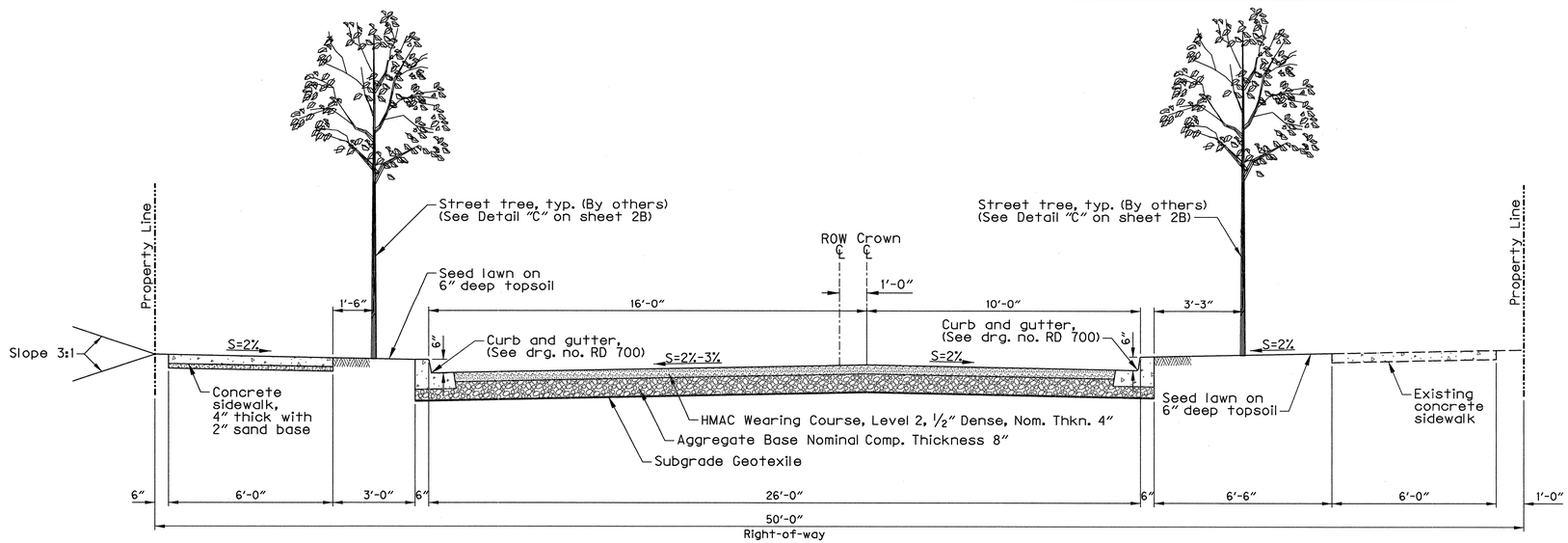
CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Symbols and Abbreviations

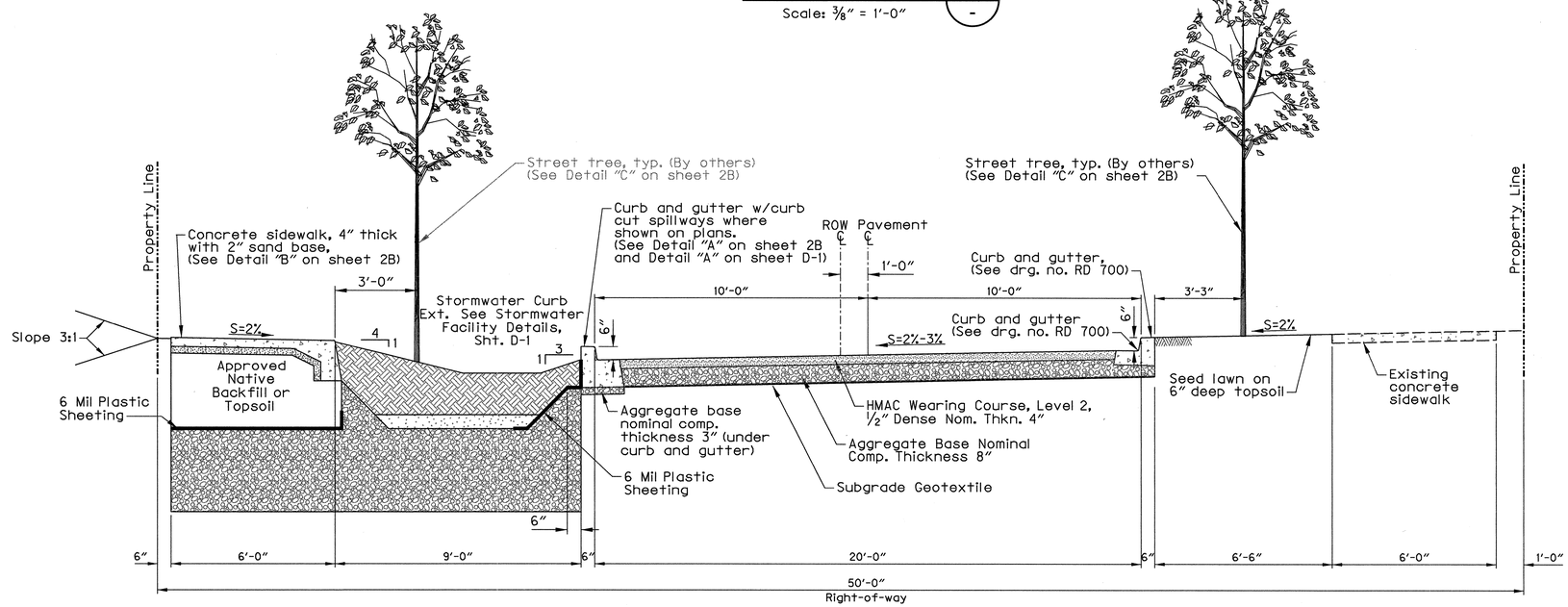
1/4 SECTION	
PROJECT NO.	61901 PE
SHEET NO.	1A

Plot Date: 3/4/2008 7:20:18 AM Filename: S:_IL_Design\61901- N Winchell St. LID\CAD\PLAN_SHEETS\SHT 01A SYMBOLS AND ABBR



"NW" Line Sta. 0+63.16 to 1+33.64
Transition from 1+33.64 to 1+47.92

Typical Section 1
Scale: 3/8" = 1'-0"



"NW" Line Sta. 1+47.92 to 1+99.31
Transition from 1+99.31 to 2+13.46

Typical Section 2
Scale: 3/8" = 1'-0"

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: R. Bennett
DATE APPROVED: Feb. 2008
CAD BY: C. Shearer
DIV. ENGINEER: S. Townsen
CHECKED BY: L. Gailey

REGISTERED PROFESSIONAL ENGINEER
14,956
OREGON
JULY 25, 1980
LOLA ANN GAILEY
Expires: 6/30/09

APPROVALS:
Steve Townsen
DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE
Steve Townsen
CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND
OFFICE OF TRANSPORTATION
SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

CITY OF PORTLAND OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Typical Sections

1/4 SECTION: 2229
PROJECT NO.: 61901 PE
SHEET NO.: 2A-1

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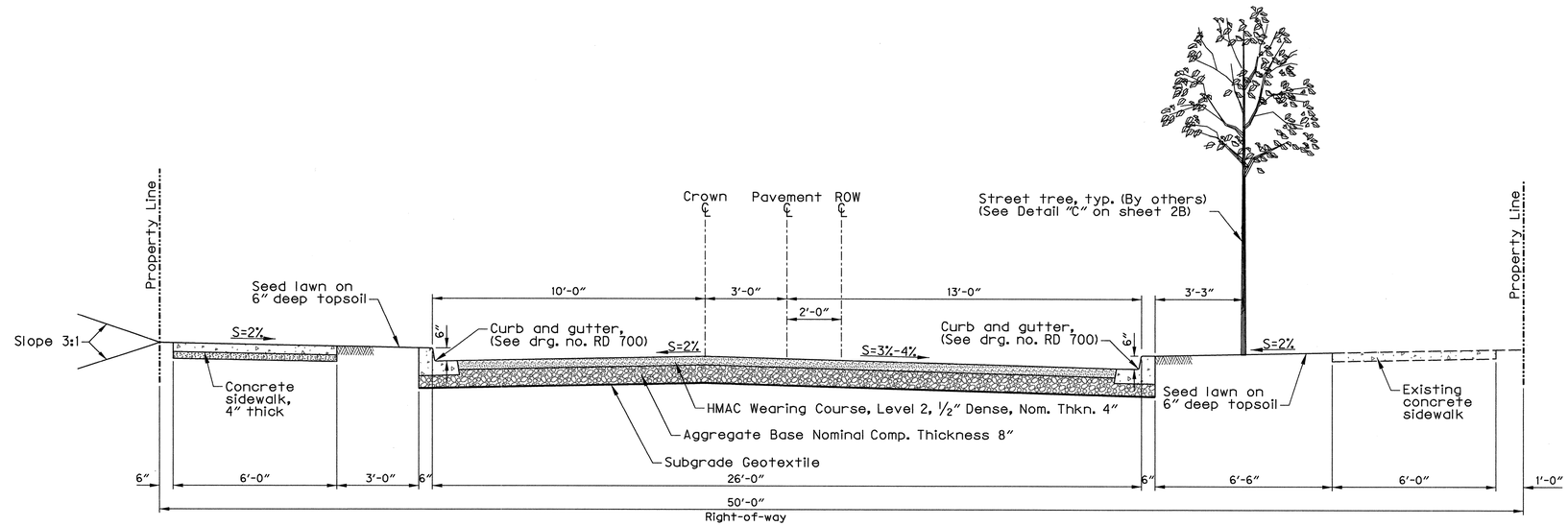

"NW" Line Sta. 2+13.46 to 2+53.78
Transition from 2+53.78 to 2+65.15

Typical Section 3
Scale: 3/8" = 1'-0" -

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: R. Bennett
DATE APPROVED: Feb. 2008
CAD BY: C. Shearer
DIV. ENGINEER: S. Townsen
CHECKED BY: L. Gailey

REGISTERED PROFESSIONAL ENGINEER
14,956
OREGON
JULY 25, 1980
LOLA ANN GAILEY
Expires 12/30/09

APPROVALS:
Steve Townsen
DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE
Steve Townsen
CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND
OFFICE OF TRANSPORTATION
SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Typical Sections

1/4 SECTION: 2229
PROJECT NO.: 61901 PE
SHEET NO.: 2A-2

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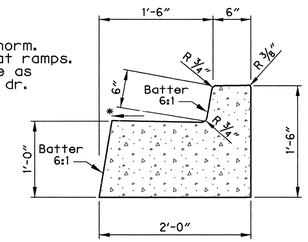
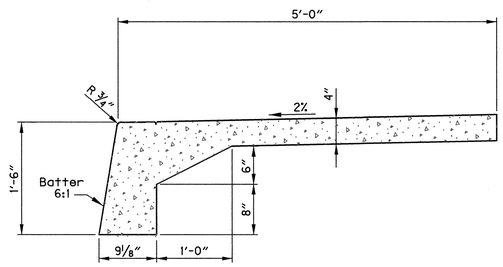
* Note:
Slope 8% norm.
Slope 4% at ramps.
Vary slope as req'd for dr.



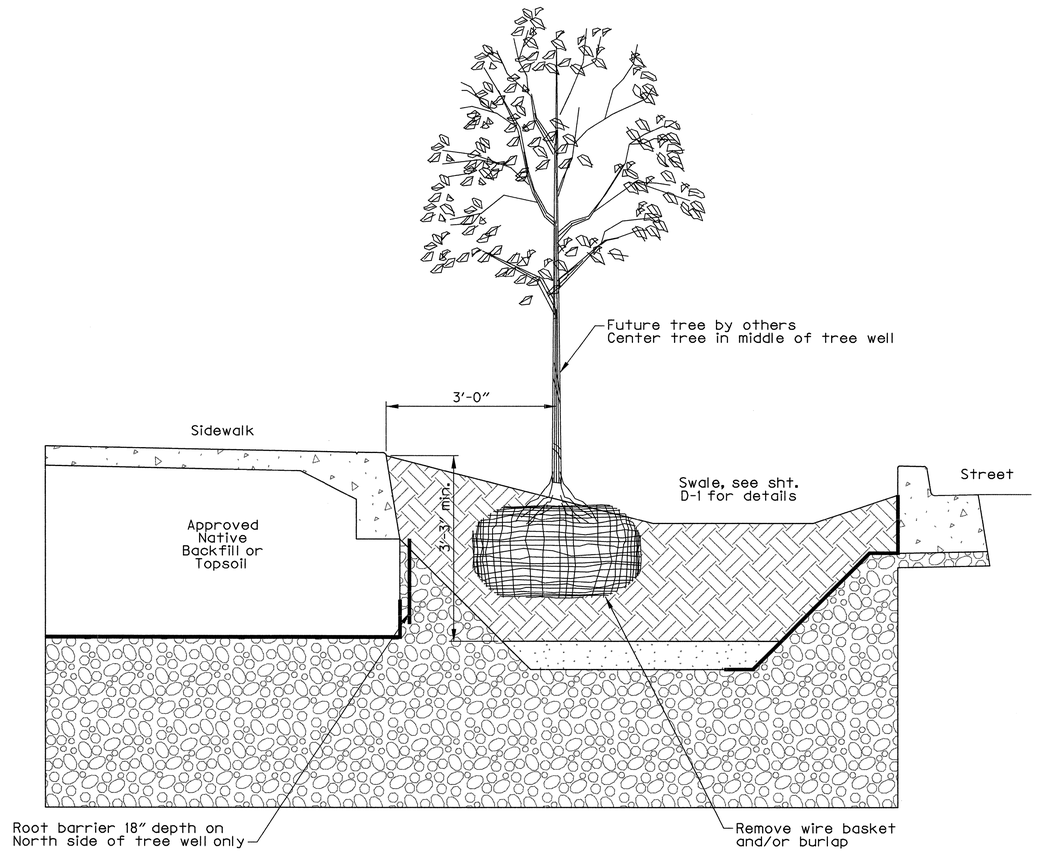
Modified Curb & Gutter — A/3

Scale: 1" = 1' - 0"



Sidewalk With Thickened Edge — B/3

Scale: 1" = 1' - 0"



Tree Detail In Swale — C/3

Scale: 3/4" = 1'

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: R. Bennett
DATE APPROVED: Feb. 2008
CAD BY: C. Shearer
DIV. ENGINEER: S. Townsen
CHECKED BY: L. Gailey

REGISTERED PROFESSIONAL ENGINEER 14,956 OREGON JULY 25, 1980 LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:
Steve Townsen — DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE
Steve Townsen — CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND OFFICE OF TRANSPORTATION
SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Construction Details

1/4 SECTION: 2229
PROJECT NO.: 61901 PE
SHEET NO.: 2B

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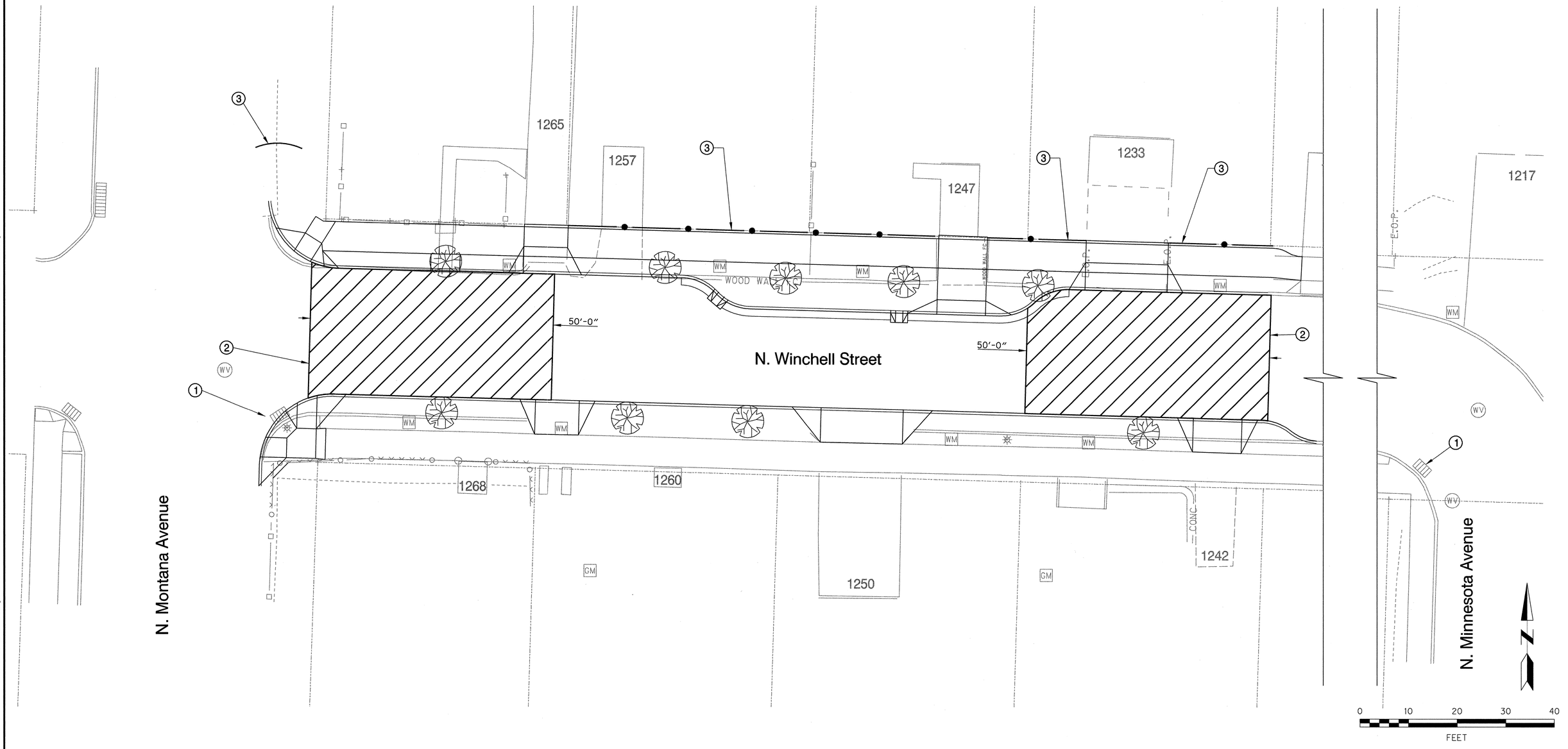
○ Construction Notes

1. Install inlet protection -2
2. Construct construction entrance -2
3. Install silt fence



NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY	R. Bennett
CAD BY	C. Shearer
CHECKED BY	L. Gailey
DATE APPROVED	Feb. 2008
DIV. ENGINEER	S. Townsen

REGISTERED PROFESSIONAL ENGINEER
14,956
OREGON
JULY 25, 1997
LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:

Steve Townsen
DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE

Steve Townsen
CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND OFFICE OF TRANSPORTATION

SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

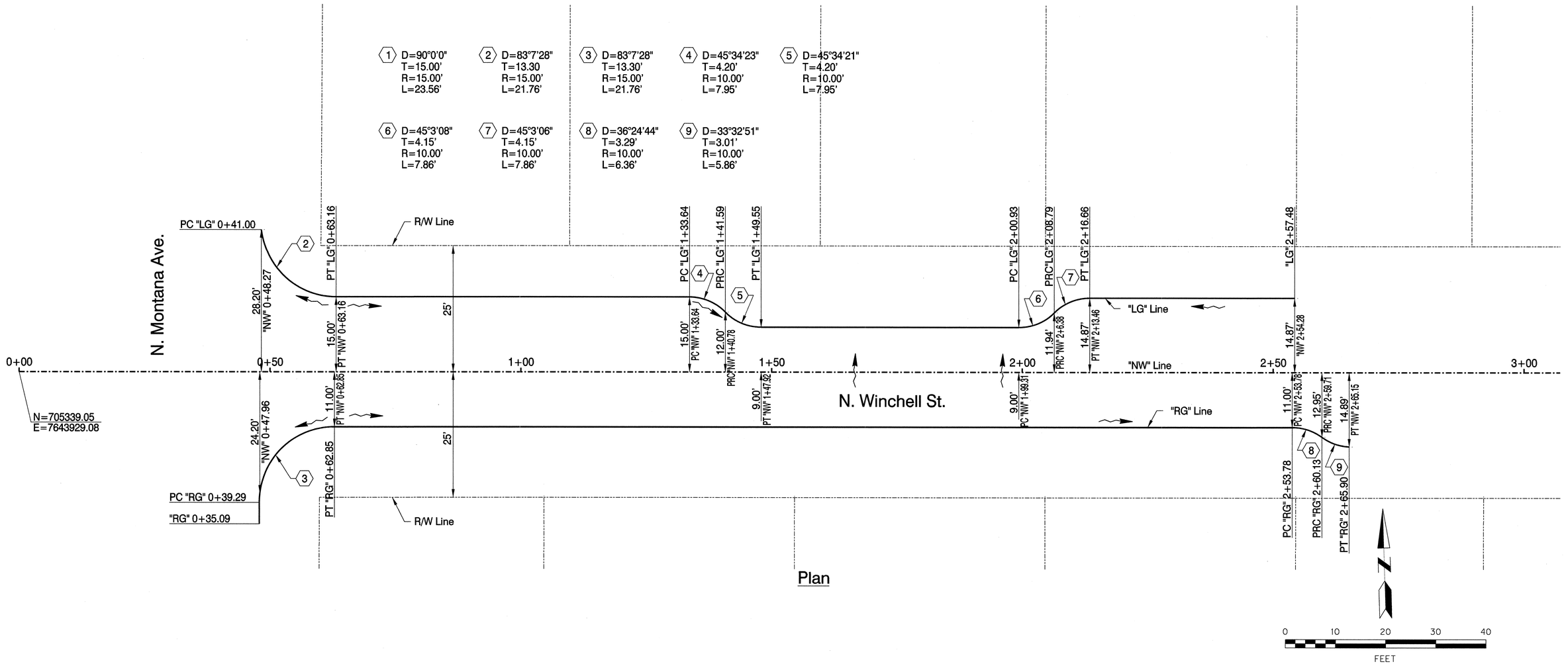
CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Erosion Control

1/4 SECTION	2229
PROJECT NO.	
SHEET NO.	2D

Plot Date: 3/4/2008 11:55:47 PM Filename: S:_IL_Design\61901 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT 02D EROSION CONTROL PLAN\PLOT_SHT_2D.dgn



Plan

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY	R. Bennett
CAD BY	C. Shearer
CHECKED BY	L. Gailey
DATE APPROVED	Feb. 2008
DIV. ENGINEER	S. Townsen

REGISTERED PROFESSIONAL ENGINEER 14,956 OREGON JULY 25, 1995 LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:

Steve Townsen
DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE

Steve Townsen
CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

CITY OF PORTLAND OFFICE OF TRANSPORTATION
SAM ADAMS, COMMISSIONER
STEVE TOWNSEN, P.E., CITY ENGINEER

CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Horizontal Alignment Plan

1/4 SECTION	2229
PROJECT NO.	61901 PE
SHEET NO.	2E

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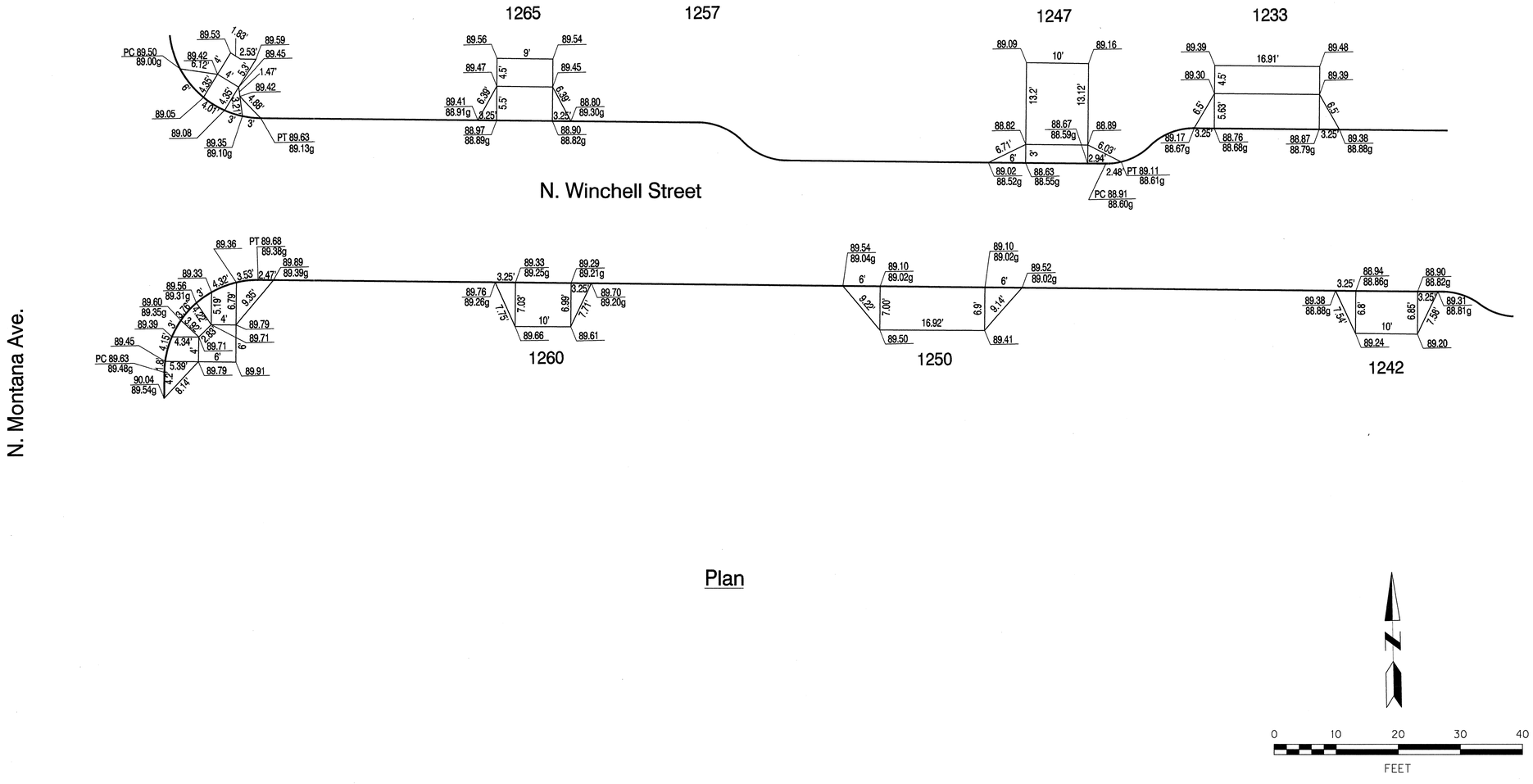

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: R. Bennett
CAD BY: C. Shearer
CHECKED BY: L. Gailey
DATE APPROVED: Feb. 2008
DIV. ENGINEER: S. Townsen

REGISTERED PROFESSIONAL ENGINEER
14,956
OREGON
JULY 25, 1980
LOIA ANN GAILEY
Expires: 6/30/09

APPROVALS:
Steve Townsen
DIVISION ENGINEER — REG. PROF. ENGR. NO. 51538PE
Steve Townsen
CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

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CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Elevation Detail Plan

1/4 SECTION: 2229
PROJECT NO.: 61901 PE
SHEET NO.: 2F

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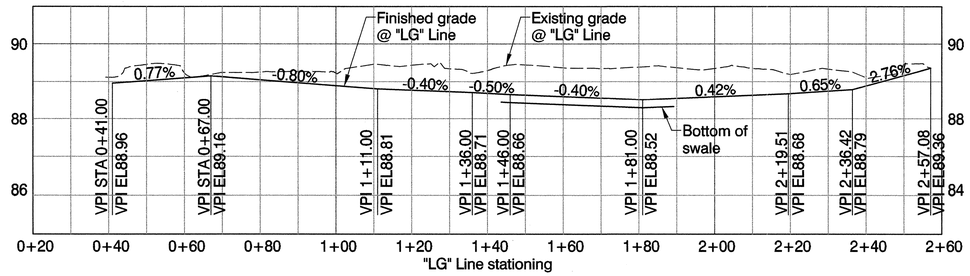
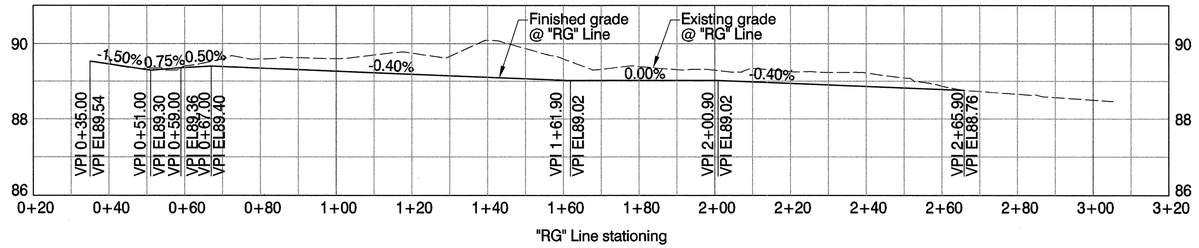


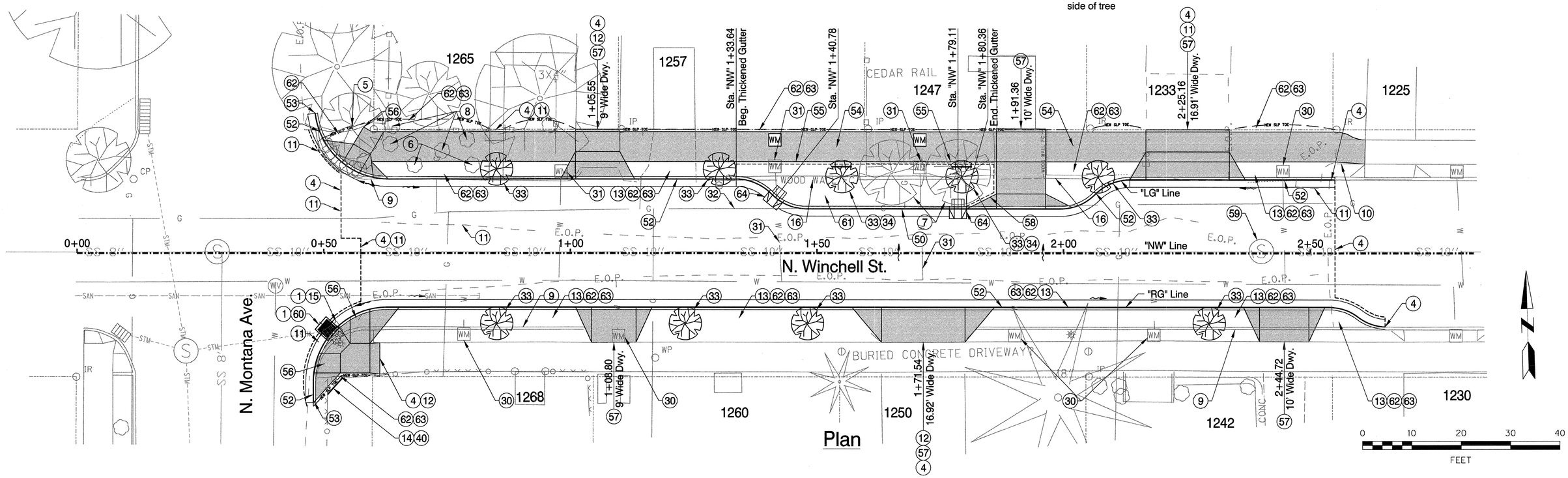
Left Profile



Right Profile

Construction Notes

1. Install inlet protection -1
4. Sawcut concrete and/or pavement
5. Save tree
6. Save brush, hedge or other vegetation
7. Remove tree
8. Remove brush, hedge or other vegetation
9. Remove curb
10. Remove sidewalk
11. Remove AC pavement
12. Remove PCC pavement
13. Remove aggregate base to subgrade
14. Remove fence post
15. Remove inlet
16. Remove landscaping timbers
30. Adjust water facility (by others)
31. Relocate water facility (by others)
32. Relocate gas facility (by others)
33. Plant tree (by others)
34. Install 4' root barrier on North side of tree
40. Reconstruct fence
50. Construct curb and gutter with 12" thick gutter - gutter width 18 in.
52. Construct curb and gutter - gutter width 18 in
53. Construct curb end
54. Construct concrete sidewalk - 4 inch thick
55. Construct concrete sidewalk with thickened edge
56. Construct curb ramp per Elevation Detail Plan (See Sheet 2F)
57. Construct concrete driveway per Elevation Detail Plan (See Sheet 2F)
58. Construct concrete driveway with thickened edge
59. Adjust manhole -1
60. Construct inlet, type CG-2 -1
61. Construct stormwater curb extension (See Sheet D-1)
62. Install topsoil - 6 inch thick
63. Install seeded lawn
64. Construct inlet, type SW -2 (See Sheet D-1)



NO.	DATE	DESCRIPTION	APPD.
		REVISION	

Bureau of Environmental Services Approval

BES JOB NO. ____
BES JOB TITLE: ____

Chief Engineer — Reg. Prof. Engr. 16,301 — Date 3/18/08

DESIGNED BY	DATE APPROVED
R. Bennett	Feb. 2008
CAD BY	DIV. ENGINEER
C. Shearer	S. Townsen
CHECKED BY	
L. Gailey	

REGISTERED PROFESSIONAL ENGINEER 14,956 Lola A. Gailey OREGON JULY 25, 1980 LOLA ANN GAILEY
Expires 6/30/09

APPROVALS:

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Steve Townsen — CITY ENGINEER — REG. PROF. ENGR. NO. 51538PE

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SAM ADAMS, COMMISSIONER
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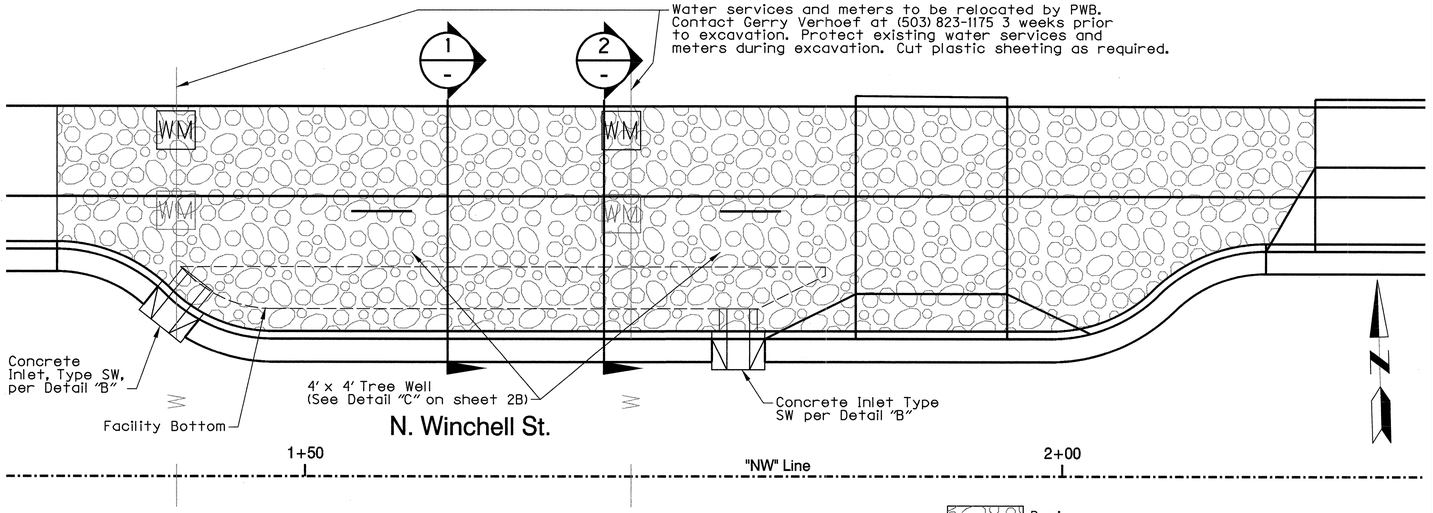
CITY OF PORTLAND, OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Street Plan and Profile

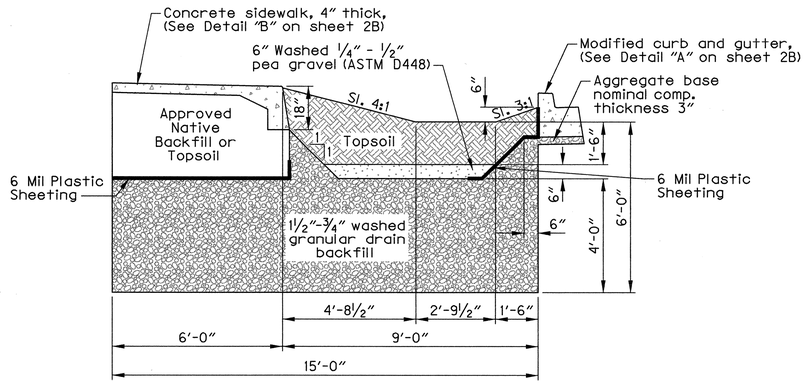
1/4 SECTION	PROJECT NO.	SHEET NO.
2229	61901 PE	3

Plot Date: 3/11/2008 8:02:30 AM Filename: Sx_lil_Design\61901 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT 03 STREET PLAN & PROFILE\PLOT_SHT_03.dgn



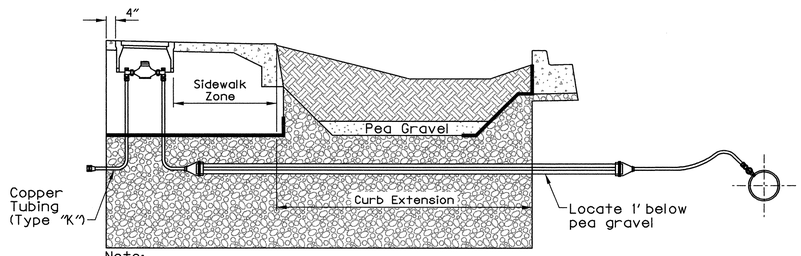
Stormwater Curb Extension Plan (A)

Scale: 1"=5'



Section (1)

Scale: 3/8" = 1'-0"



Note:
See Section 1 for Stormwater Facility Details

Section - Meter Location Detail (2)

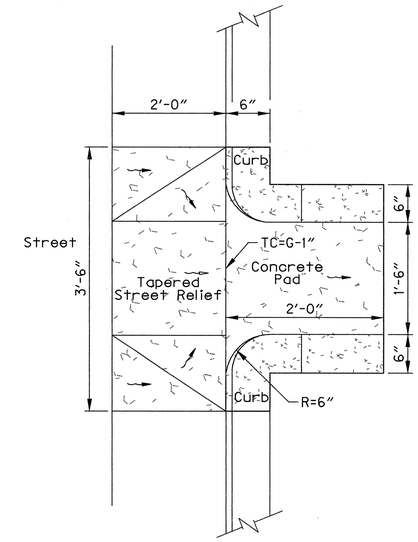
Scale: 3/8" = 1'-0"

DRAINAGE CRITERIA:
The vegetated stormwater facility is designed to store and infiltrate the 10 year storm event per the 2004 Stormwater Management Manual. Facility drainage area is the portion of R/W from approx. the West R/W line of Montana Ave. to approx. 180' W. The facility is designed for R/W drainage only and no private connection to it will be allowed.

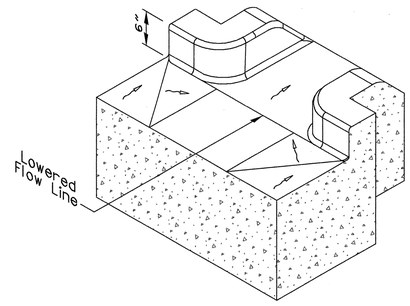
PLANTING SOIL NOTES:

1. Install topsoil in a manner that ensures adequate infiltration. Place in two equal lifts. Lifts should not be compacted, but rather placed in a manner to reduce excessive erosion or settlement. Lifts may be lightly watered to encourage natural compaction or, if necessary, rolled with a water-filled landscape roller. Slightly overfill the facility above proposed finished grade to accommodate natural settlement.
2. Topsoil shall be inspected by BES prior to placement. When topsoil is delivered, contact Brad Huard at (503) 823-4885 for an inspection at least 48 hours before installation.
3. The site shall be kept clean during construction. Upon completion of work, waste material including surplus soil, plant debris, trash, rocks and sticks shall be removed from site and disposed of legally.

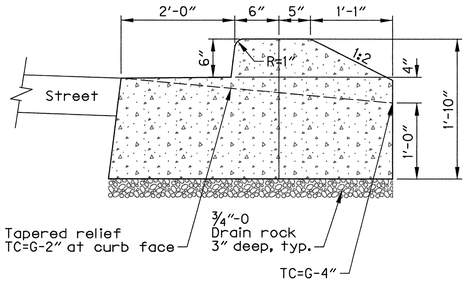
PLANTING TO BE DONE BY CITY BUREAU OF ENVIRONMENTAL SERVICES. COORDINATE WORK SCHEDULE WITH CONTRACT MANAGER.



Plan



Isometric



TC=Top of concrete
G=Gutter

Section

Concrete Inlet, Type SW (B)

NTS

N. Winchell: Montana - East LID Stormwater Facility Chart BES Job #8524							
Facility Length (feet)	Start Station (Facility Bottom)	End Station (Facility Bottom)	Concrete Inlet Type	Concrete Inlet Centerline Station	Concrete Inlet Centerline Offset	Swale Area (sf)	R/W Drainage Area (sf)
43	1+41.8	1+84.6	SW	1+41.50	11.33	380	6250
			SW	1+78.61	9.00		

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY: D. Nunamaker | DATE APPROVED: Feb. 2008
CAD BY: C. Shearer | PROGRAM MGR.: S. Gibson
CHECKED BY: D. Nunamaker | CONSTR. MGR.: M. Hutchinson
DESIGN MGR.: S. Noble

REGISTERED PROFESSIONAL ENGINEER 15,006 OREGON JULY 25, 1980 SUN W. NOBLE
Expires: 12-31-08

APPROVALS:

William F. Ryan 3/18/08
CHIEF ENGINEER — REG. PROF. ENGR. NO. 16301PE

CITY OF PORTLAND, OREGON
BUREAU OF ENVIRONMENTAL SERVICES
SAM ADAMS, COMMISSIONER
WILLIAM F. RYAN, P.E., CHIEF ENGINEER

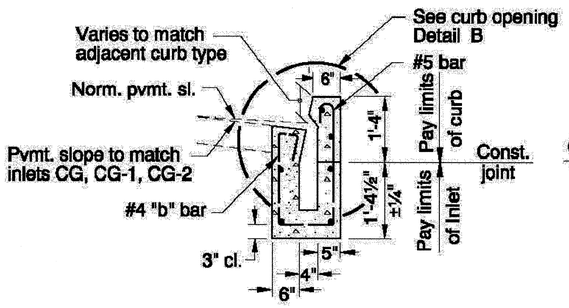
CITY OF PORTLAND OREGON 1851

N. Winchell Street
N. Montana Ave. to N. Minnesota Ave.

Stormwater Facility Details

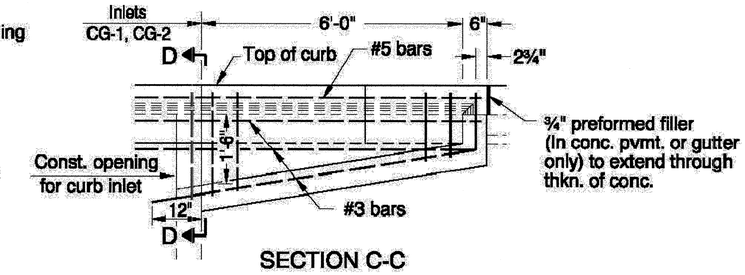
1/4 SECTION: 2229
PROJECT NO.: 8524
SHEET NO.: D-1

Plot Date: 3/11/2008 8:06:44 AM Filename: Sx_ll_Design\6190 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT D-01 STORMWATER FACILITY DETAILS PLOT_SHT_D01.dgn

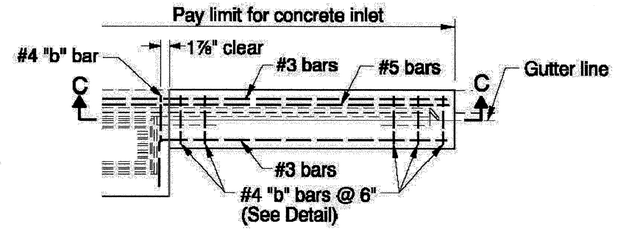


SECTION D-D

NOTES:
1. #4 "b" bar replaces #3 "a" bar of type CG-1 and CG-2 inlets.
2. #4 & #3 "b" bars to be placed during curb construction.
3. All bars to be placed 1½" clear of nearest face of concrete unless shown or noted otherwise.
4. All bar splices shall be 20 dia.



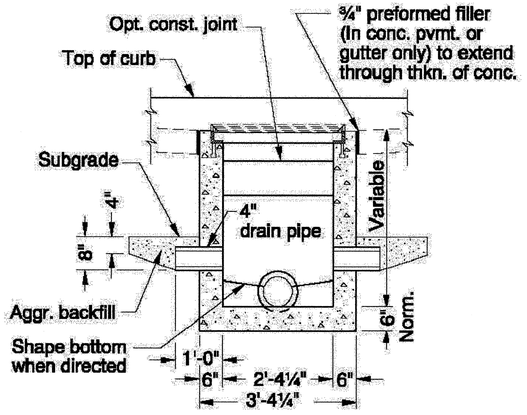
SECTION C-C



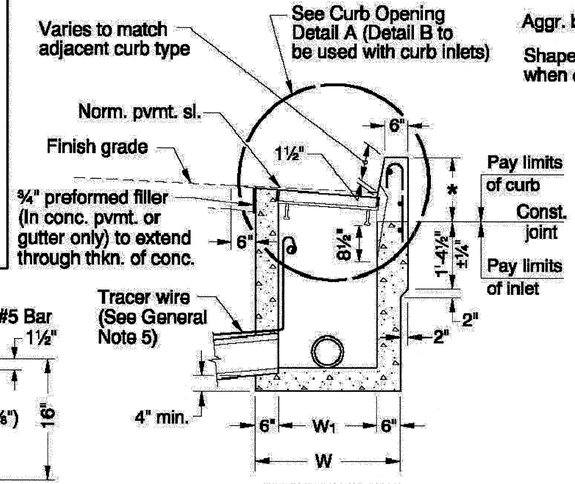
PLAN

INLET TYPE	W	W1
CG-1	2'-8⅜"	1'-8⅜"
CG-2	3'-3⅜"	2'-3⅜"

NOTES:
1. #3 "a" bars to be placed during curb construction (see note 1 for curb inlet)
2. All bars to be placed 1½" clear of nearest face of concrete unless shown or noted otherwise.
3. All bar splices shall be 20 dia.

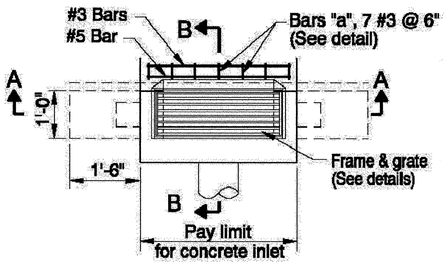


SECTION A-A

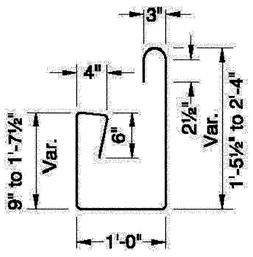


SECTION B-B

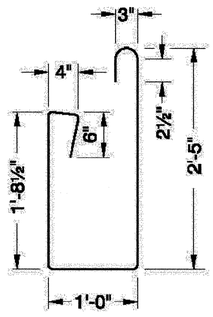
* Varies, see General Note 4



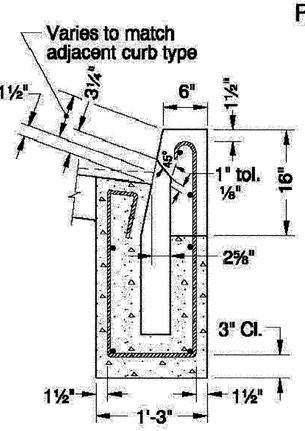
PLAN



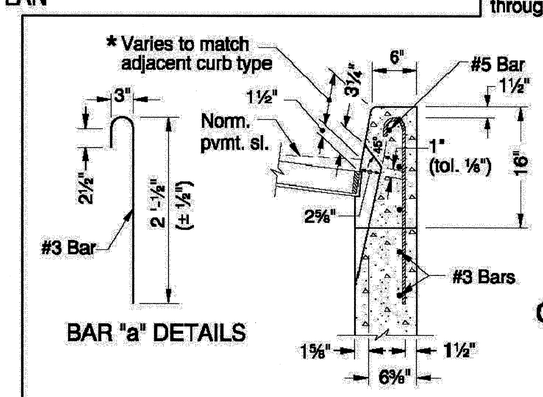
#3 "b" BAR



#4 "b" BAR



DETAIL B
CURB OPENING



BAR "a" DETAILS

DETAIL A
CURB OPENING

CURB INLET CHANNEL TYPES CG-1, CG-2

GENERAL NOTES FOR ALL DETAILS:

1. Where precast inlets are used as an alternate to cast-in-place inlets, a 4" compacted leveling bed of sand or ¼"-0 crushed aggregate shall be provided.
2. For frame and grate details, see Std. Drg. RD364.
3. For sump details, see Std. Drg. RD364.
4. For curb details, see Std. Drg. RD700.
5. See Std. Drg. RD336 for tracer wire details.

CALC. BOOK NO.

BASELINE REPORT DATE

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

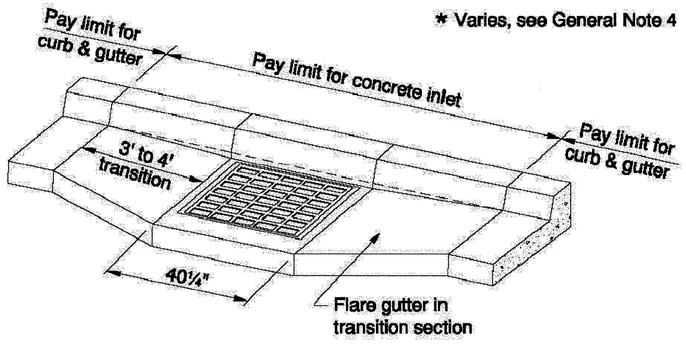
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

CONCRETE INLETS TYPE CG-1, CG-2 AND CURB INLET CHANNEL

2002

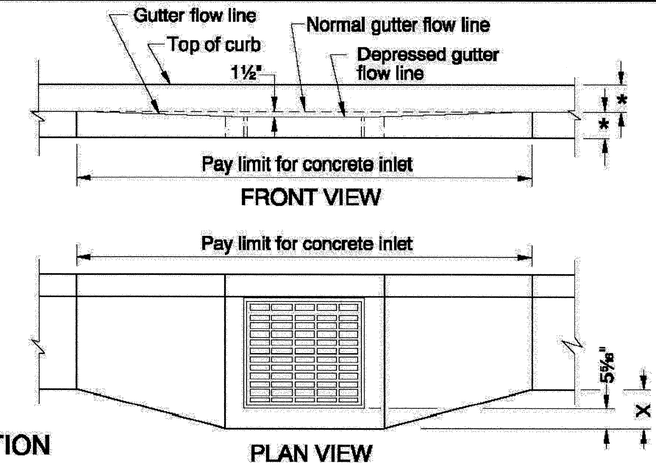
DATE	REVISION DESCRIPTION
07-2006	REMOVED DETAILS & REVISED NOTES
01-2007	REVISED DETAILS & NOTES



* Varies, see General Note 4

NOTE:
Precast top slab shown with gutter transition flare if the top slab is cast-in-place, no flare is required in the transition section: match the top front edge of the frame and the top front edge of the cast-in-place top slab to the normal pavement grade.

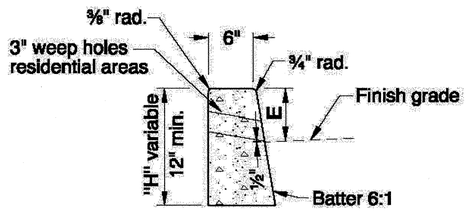
GUTTER TRANSITION SECTION



RD366

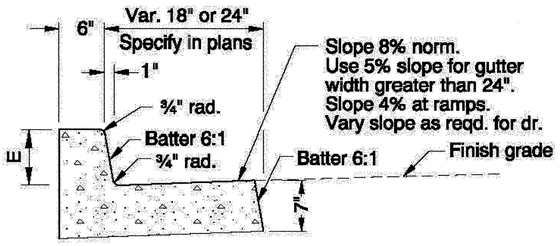
Effective Date: November 1, 2007 - May 31, 2008

RD366

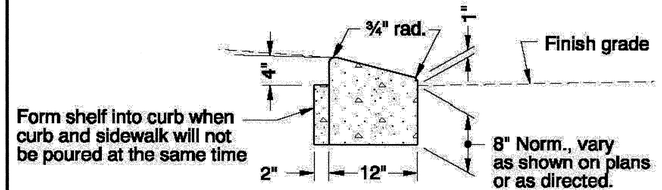


STANDARD CURB

O.D.O.T. & City of Portland Standard "H"=16"



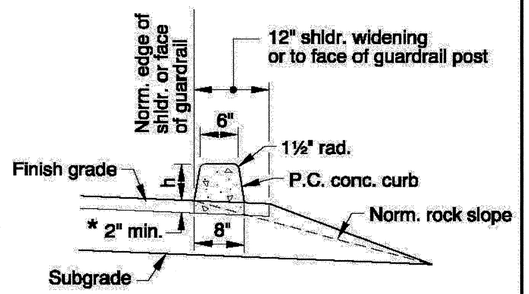
CURB AND GUTTER



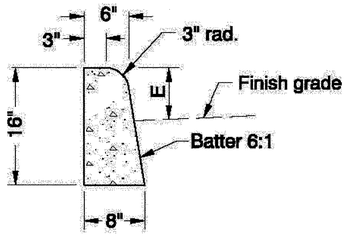
LOW PROFILE

MOUNTABLE CURB

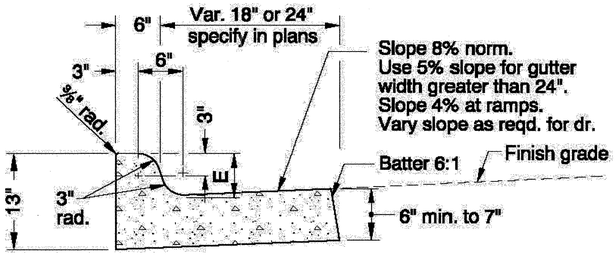
DRAINAGE CURBS



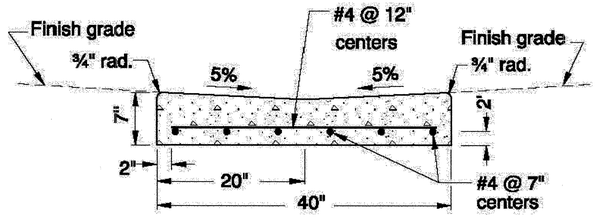
P.C. CONCRETE



MOUNTABLE CURB



MOUNTABLE CURB AND GUTTER

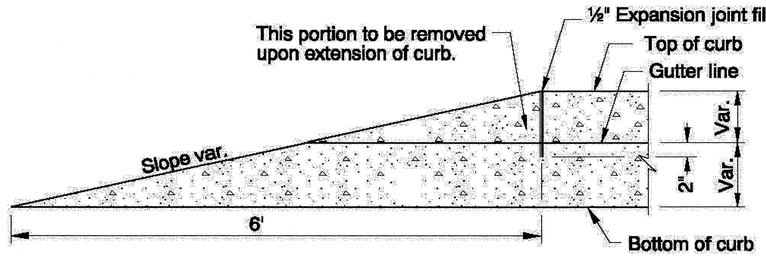


VALLEY GUTTER

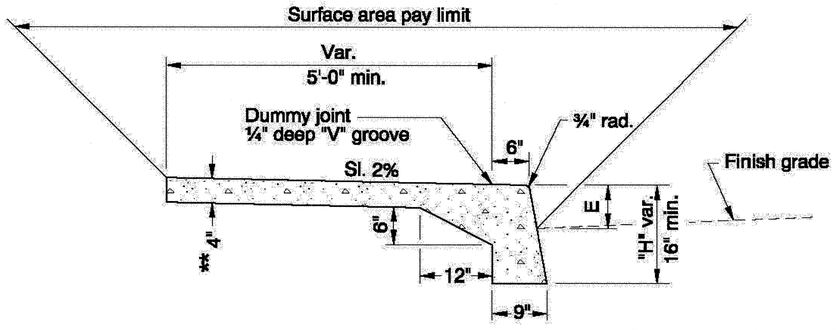
* The 2" min. curb depth below finish grade is reqd. only when the curb is placed in open-graded A.C. pvmt.

When bonding to dense graded A.C. pvmt. apply epoxy cement between surfaces.

h = 6" normal
4" when run of curb or any part thereof is placed under guardrail

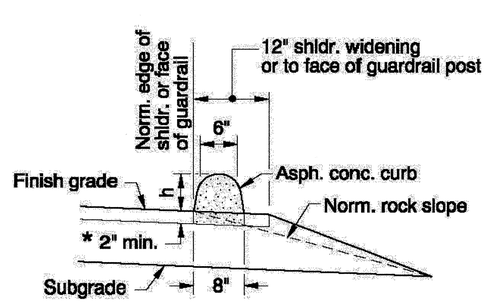


CURB ENDING DETAIL



MONOLITHIC CURB & SIDEWALK

** As specified in plans. Min. 4". If sidewalk is intended as portion of a dwy. or mountable curb is used min. thkn. 6".



ASPHALT CONCRETE

GENERAL NOTES FOR ALL DETAILS:

1. Curb exposure "E" = 6" to 9". Vary as shown on plans or as directed. O.D.O.T standard "E"=7".
2. Const. expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveway. For monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing.
3. Const. contraction joints at 15' maximum spacing, and at ends of each inlet and ramp.
4. Transitions shall be used to connect curbs of different exposures "E". ("E" Is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1" difference in "E".
5. Tops of all curbs shall slope toward the roadway at 2% normal unless otherwise shown or as directed.
6. Dimensions are nominal, vary to conform with curb machine approved by the engineer.

CALC. BOOK NO. _____

BASELINE REPORT DATE _____

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

CURBS

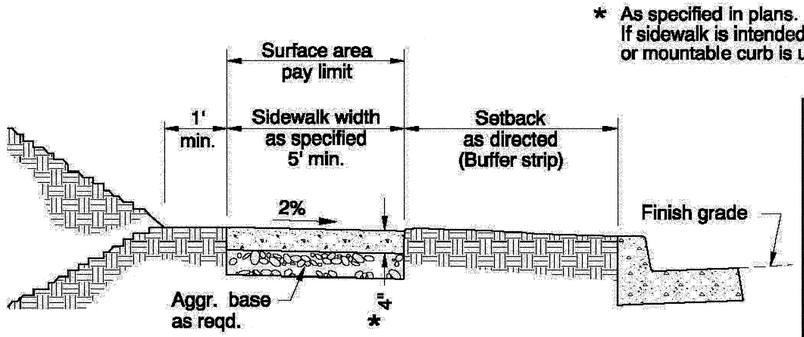
2002

DATE	REVISION DESCRIPTION
06-05	REVISED NOTES
01-06	REVISED DETAILS AND NOTES
07-2006	REVISED DETAILS AND NOTES
01-2007	ADDED & REVISED NOTES
09-2007	REVISED NOTE

Effective Date: November 1, 2007 - May 31, 2008

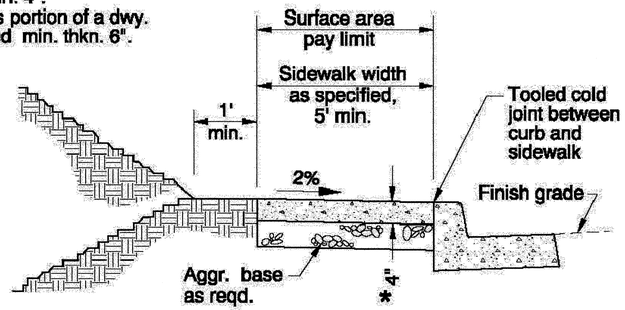
RD700

Plot Date: 3/6/2008 7:50:40 AM Filename: S:_IL\Design\6190i - N Winchell St. LID\CAD\PLAN_SHEETS\SHT RD 700 OREGON STANDARD DRAWING\PLOT_SHT_ RD 700.dgn 15-JUN-2007
rd700.dgn

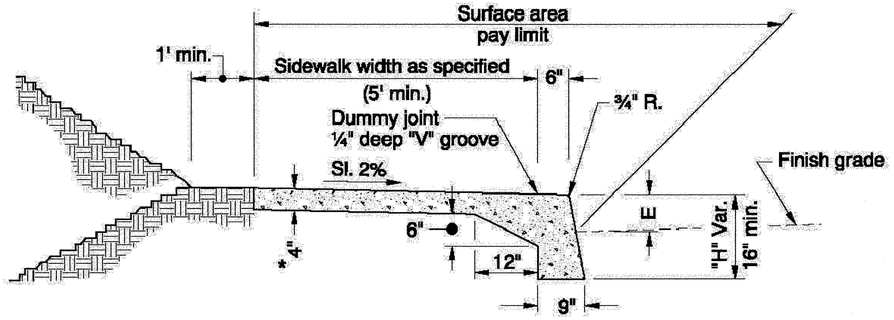


* As specified in plans. Min. 4".
If sidewalk is intended as portion of a dwy. or mountable curb is used min. thkn. 6".

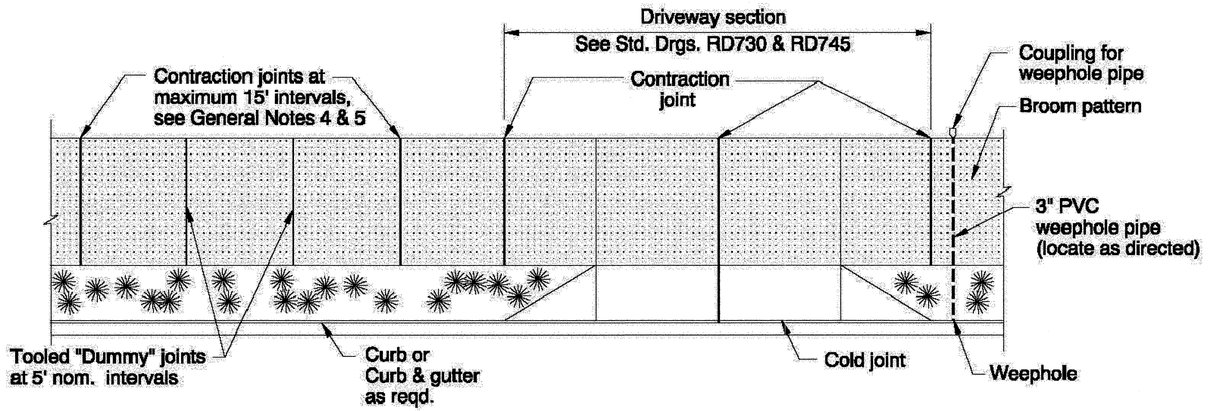
TYPICAL SETBACK SIDEWALK CROSS SECTION



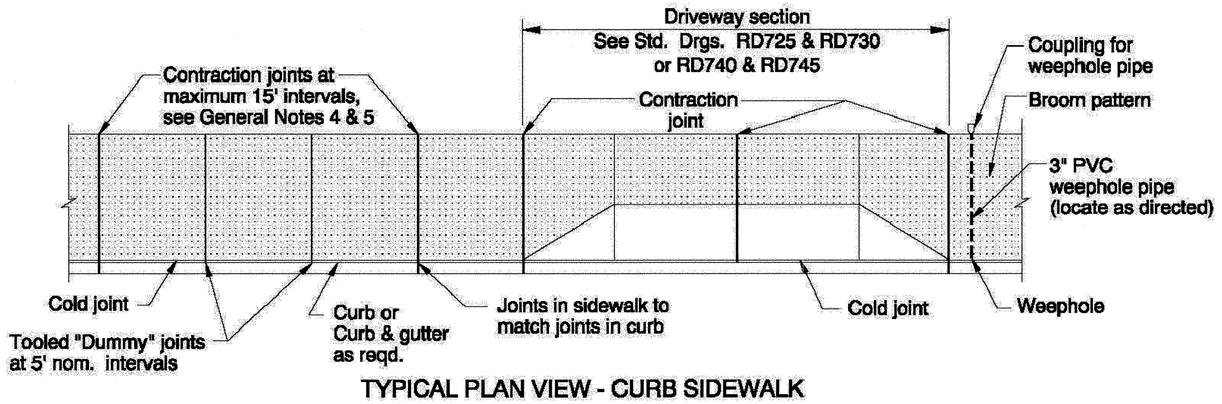
TYPICAL CURB SIDEWALK CROSS SECTION



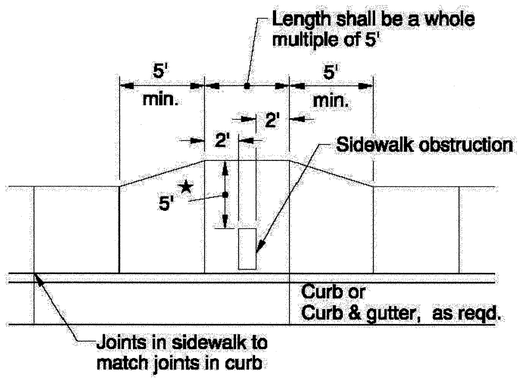
TYPICAL MONOLITHIC CURB & SIDEWALK
E = curb exposure, see General Note 6



TYPICAL PLAN VIEW - SETBACK SIDEWALK

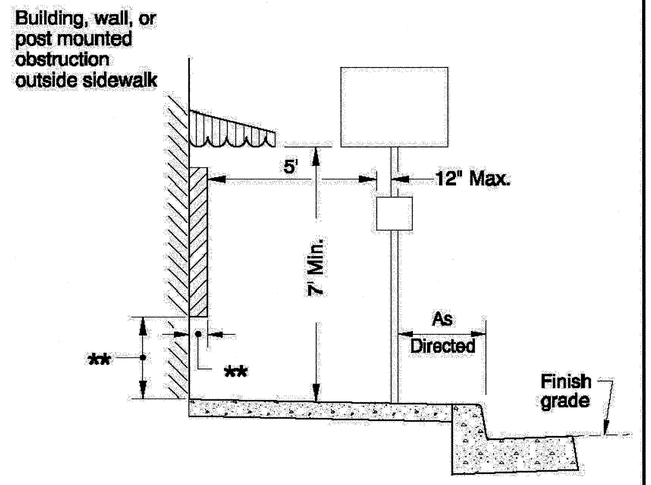


TYPICAL PLAN VIEW - CURB SIDEWALK



REQUIRED SIDEWALK WIDENING
AROUND OBSTRUCTIONS

★ When site constraints prohibit a 5' passage, the Engineer may direct this to be reduced, but no less than 3'.



CLEAR CIRCULATION PATH

** Objects with base below 2' 4" may protrude any distance as long as the 5' circulation path is maintained. When an object with a base higher than 2' 4" protrudes further than 4" provide a curb below protrusion to delineate edge.

GENERAL NOTES FOR ALL DETAILS:

1. Include additional paved or unpaved 2' clearance to vertical faces higher than 5' such as retaining walls, sound walls, fences and buildings.
2. On sidewalks 8' and wider, provide a longitudinal joint at the midpoint.
3. Install 3" pvc weephole pipes in sidewalks in locations as directed by the engineer. Place contraction joint over top of pipe.
4. Const. expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveway. For monolithic curb & sidewalk, const. expansion joints at 45' maximum spacing.
5. Const. contraction joints at 15' maximum spacing, and at ends of each driveway and ramp.
6. Curb exposure "E"=6" to 9". Vary as shown on plans or as directed. O.D.O.T. standard "E"=7".
7. For curb details, see Std. Drg. RD700.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

SIDEWALKS

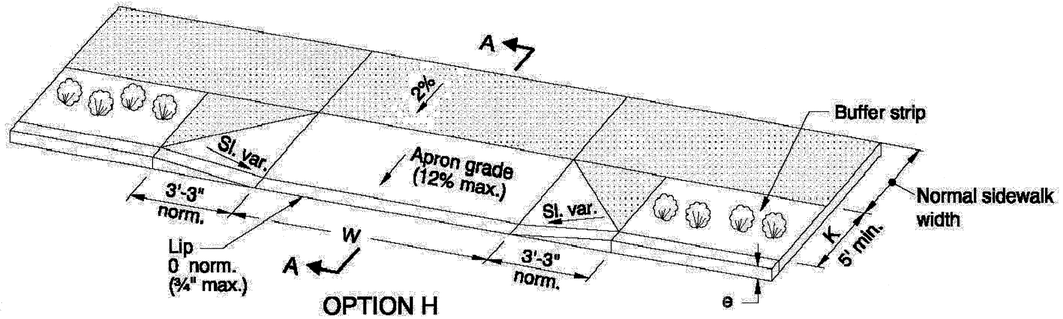
2002

REVISIONS	
DATE	DESCRIPTION
01-20-05	ADDED SURFACE AREA PAY LIMIT AND REVISED NOTES
07-2006	REVISED DETAILS AND NOTES

Effective Date: November 1, 2007 - May 31, 2008

RD720

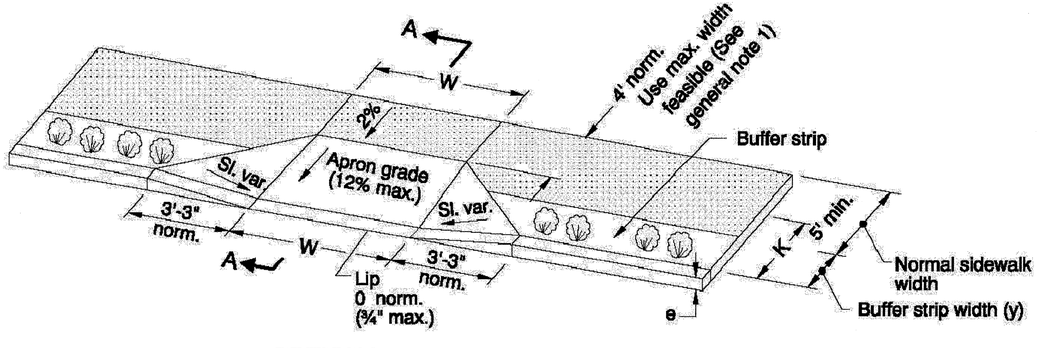
Plot Date: 3/4/2008 3:34:08 PM Filename: S:_ILDesign\6190 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT RD 720 OREGON STANDARD DRAWING\PLOT_SHT_ RD 720.dgn
rd720.dgn 30-JUN-2006
RD720



OPTION H
TYPICAL SEPARATED SIDEWALK DRIVEWAY

(Use Options I or J below if slope requirements shown in Section A-A and general note 2 can't be met)

K = Planter strip width as shown on plans

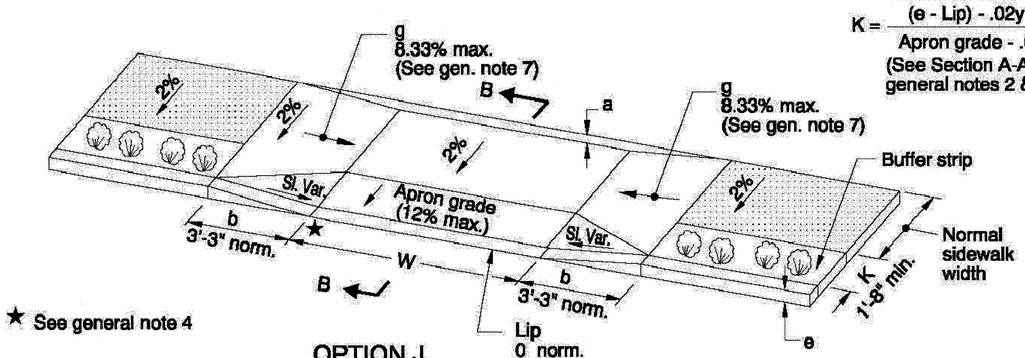


OPTION I
DRIVEWAY ENCROACHES INTO SIDEWALK

W = Width of driveway as exists behind sidewalk

$$K = \frac{(e - Lip) - .02y}{\text{Apron grade} - .02}$$

(See Section A-A & general notes 2 & 6)



★ See general note 4

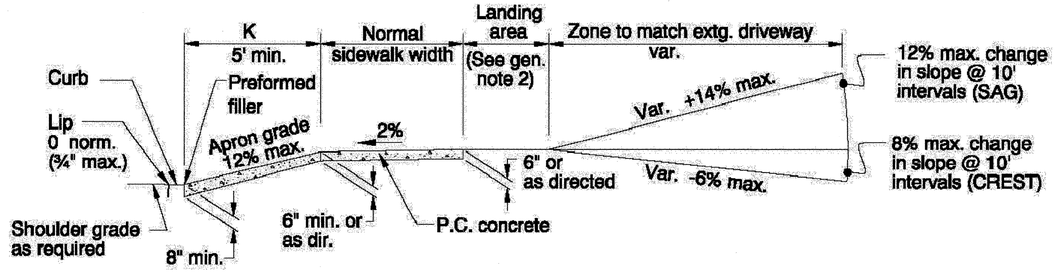
OPTION J
LOWERED SIDEWALK

K = Planter strip width as shown on plans

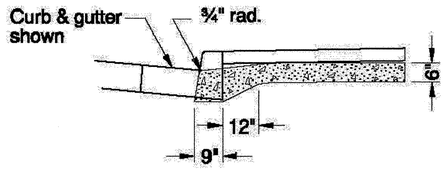
a = e - Lip - K(Apron grade - 0.02)

b = a/g

NOTE:
Dimensions a & b are nominal.
Construct driveways to meet required slopes.



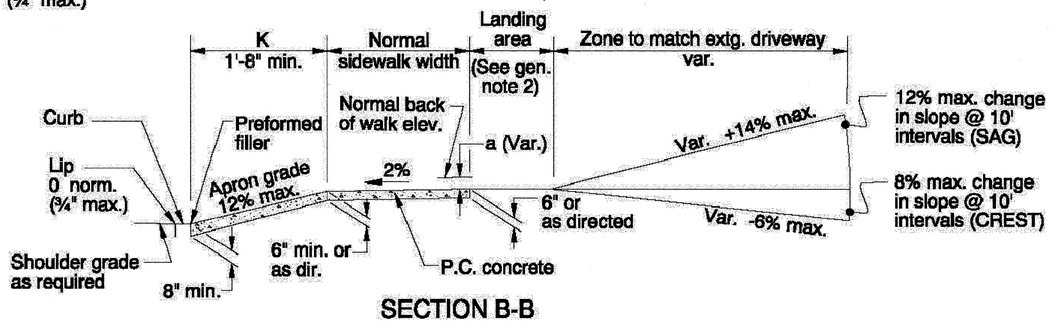
SECTION A-A



FOR DRIVEWAYS
WITH MONOLITHIC CURB & SIDEWALK

(For details not shown, see Std. Drg. RD700 & Section A-A or B-B, as appropriate.)

NOTE:
This drawing is to be used by local agencies to assist them in the design of driveways on their facilities.



SECTION B-B

GENERAL NOTES FOR ALL DETAILS:

1. 4' sidewalk width with slope of 2% is required through driveways. 3'-4" min. width is acceptable where full sidewalk width is less than 6'.
2. Width of driveway (W) and length of landing area shall be as shown on plans or as directed.
3. Where existing driveway is in good condition, and meets slope requirements, construct only as much as required for satisfactory connection with new work.
4. Check the gutter flow depth at driveway locations to assure that the design flood does not overtop the back of sidewalk at driveway. If overtopping occurs place an inlet at upstream side of driveway or perform other approved design mitigation.
5. Equations may be calculated using either feet or inches. Use same unit throughout equation.
6. Tooled joints are required at all driveway slope break lines.
7. Longitudinal slopes shown are relative to the running slope of the sidewalk.
8. Any dimensions except those of general note 1 may be amended by local agencies for their use.
9. At least 10' of the driveway behind the sidewalk should be surfaced to prevent tracking of gravel onto the sidewalk.
10. Pay limit for driveways is the outer limit of thicker structural section that is subject to vehicle loads.
11. See Std. Drg. RD700 for curbs. See Std. Drg. RD720 for sidewalks.

CALC. BOOK NO. _____ BASELINE REPORT DATE _____

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

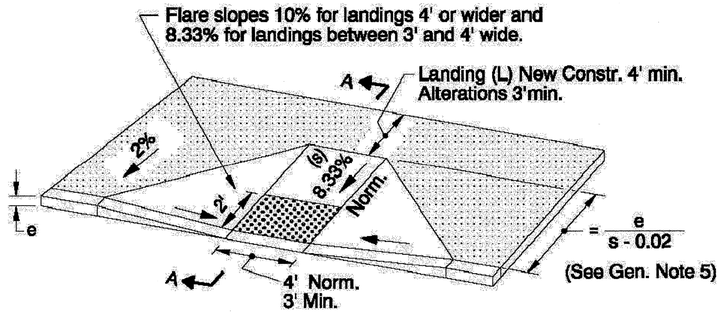
SEPARATED SIDEWALK DRIVEWAYS OR ALLEYS (OPTIONS H, I & J) LOCAL JURISDICTIONS

2002

DATE	REVISION DESCRIPTION
06-2007	REVISED DETAILS & NOTES

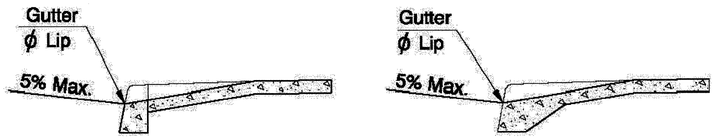
RD740

rd740.dgn 15-JUN-2007
Plot Date: 3/4/2008 3:34:13 PM Filename: S:_IL_Design\6190\- N Winchell St-_LID\CADD\PLAN_SHEETS\SHT_RD 740 OREGON STANDARD DRAWING\PLOT_SHT_ RD 740.dgn



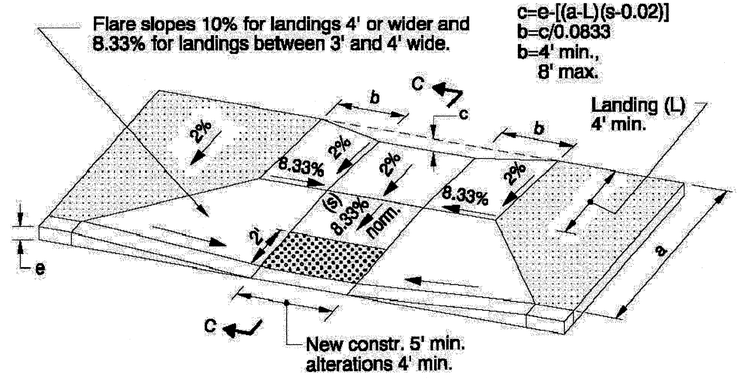
PERPENDICULAR SIDEWALK RAMP DETAIL

(Use "Parallel Sidewalk Ramp Detail" or "Combination Sidewalk Ramp Detail" when reqd. landing cannot be obtained)

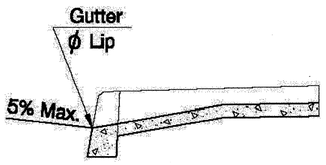


SECTION A-A

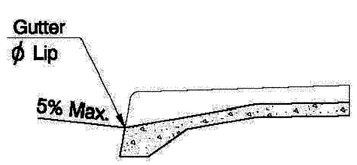
SECTION A-A
WITH MONOLITHIC CURB & SIDEWALK



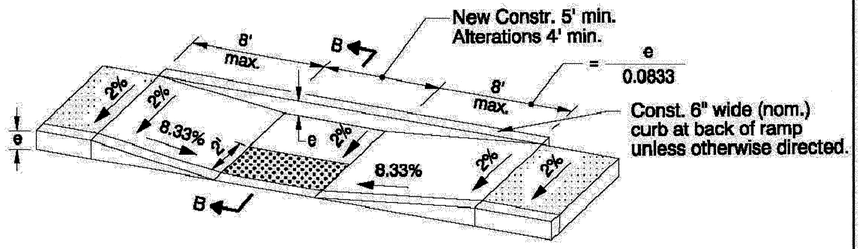
COMBINATION SIDEWALK RAMP DETAIL



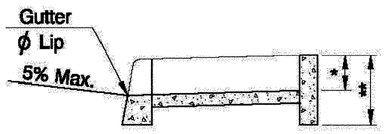
SECTION C-C



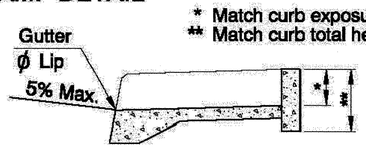
SECTION C-C
WITH MONOLITHIC CURB & SIDEWALK



PARALLEL SIDEWALK RAMP DETAIL

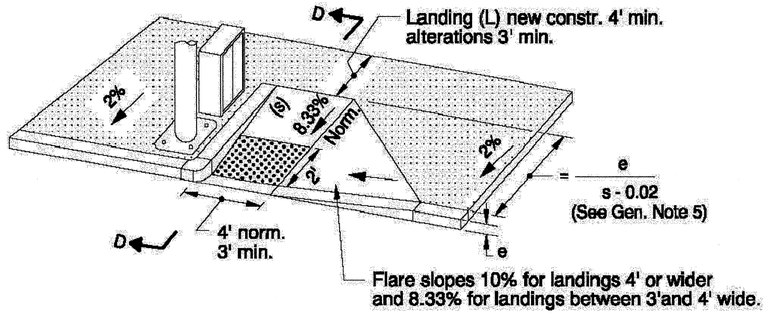


SECTION B-B



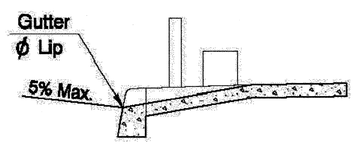
SECTION B-B
WITH MONOLITHIC CURB & SIDEWALK

* Match curb exposure
** Match curb total height

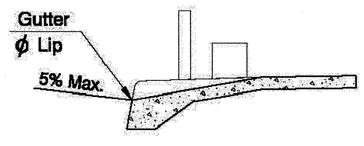


PERPENDICULAR SIDEWALK RAMP DETAIL (WITH SINGLE FLARE)

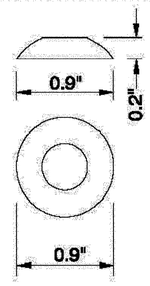
(Use "Parallel Sidewalk Ramp Detail" or "Combination Sidewalk Ramp Detail" when reqd. landing cannot be obtained)



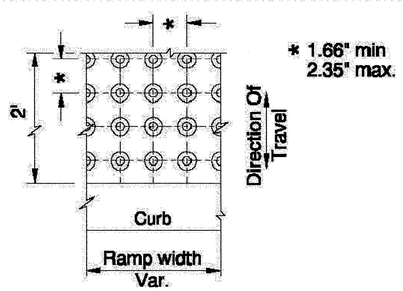
SECTION D-D



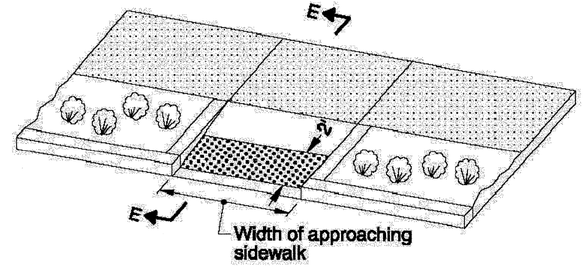
SECTION D-D
WITH MONOLITHIC CURB & SIDEWALK



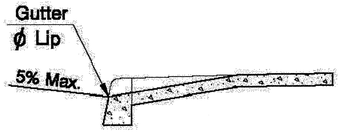
TRUNCATED DOME DETAIL



RAMP TEXTURE PATTERN DETAIL

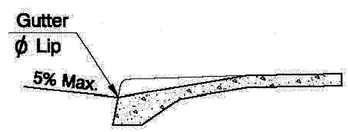


PERPENDICULAR SIDEWALK RAMP DETAIL (THROUGH BUFFER STRIP)



SECTION E-E

See Std. Drg. RD760 for Sidewalk Ramp Placement



SECTION E-E
WITH MONOLITHIC CURB & SIDEWALK

GENERAL NOTES FOR ALL DETAILS:

1. Place truncated dome detectable warning texture in the lower 2' adjacent to traffic of throat of ramp only. Arrange domes using square in-line pattern only as shown in detail below. Color of texture to be safety yellow.
2. Sidewalk curb ramp slopes shown are relative to the true level horizon (zero bubble).
3. In alterations curb ramp slope(s) may be 10% for a max. rise of 6", or 12.5% for a max. rise of 3". Curb ramps, in alterations, need not exceed 6' in length.
4. Side flares that are not part of the path of travel may be any slope. See Std. Drg. RD750, General Note 4.
5. Ramps for paths intersecting a roadway should be full width of path, excluding flares. When a ramp is used to provide bicycle access from a roadway to a sidewalk, the ramp should be 8' wide with no texturing.
6. Sidewalk ramp details are based on ORS 447.310 and the PROWAAC Final Report.
7. When 2 curb ramps are immediately adjacent as in Options A,B,C and F on Std. Drg. RD760, the curb exposure (e) between the adjacent side flares may range between 3" and full design exposure.
8. For the purpose of this drawing, a curb ramp is considered "perpendicular" if the angle between the longitudinal axis of the ramp and a tangent to the curb at the ramp center is 75° or greater.
9. Tooled joints are required at all sidewalk ramp slope break lines.
10. Sidewalk flare is not necessary where the ramp is protected from pedestrian cross-travel.
11. For curb details, see Std. Drg. RD700.
12. For sidewalk details, see Std. Drg. RD720.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

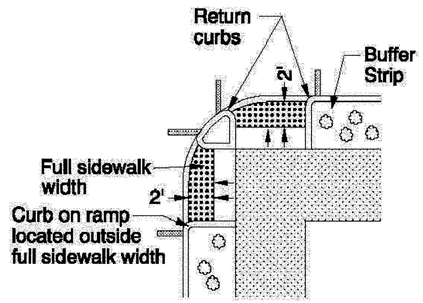
SIDEWALK RAMP DETAILS

2002

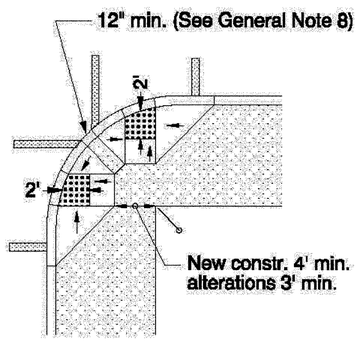
REVISIONS	
DATE	DESCRIPTION
06-03	REVISED DETAIL
04-04	REVISED DETAIL
01-20-05	REMOVED, REVISED AND ADDED NOTES
07-2006	REVISED DETAILS & NOTES

Effective Date: November 1, 2007 - May 31, 2008

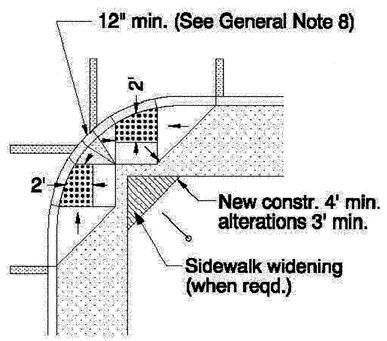
RD755



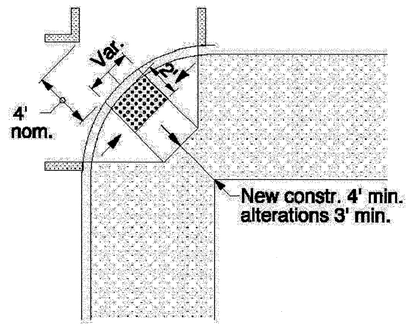
OPTION A
RAMPS WITH BUFFER STRIP



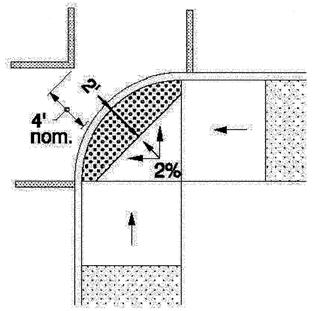
OPTION B
PERPENDICULAR RAMPS



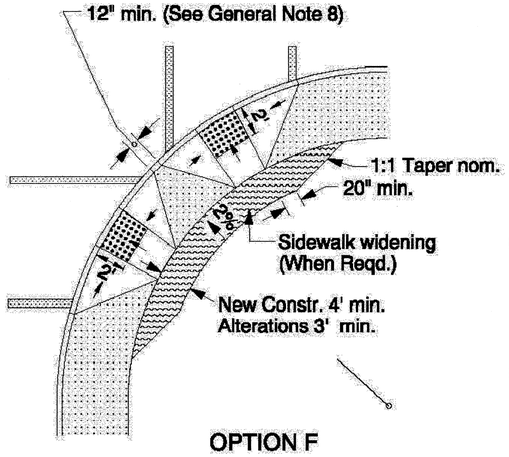
OPTION C
PERPENDICULAR RAMPS



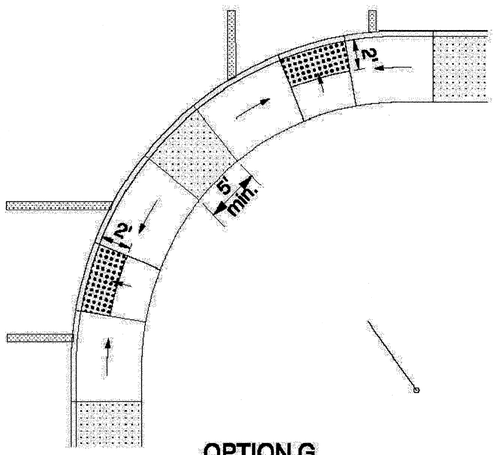
OPTION D
SINGLE DIAGONAL RAMP
Use in alterations only and when site constraints prohibit installing two ramps



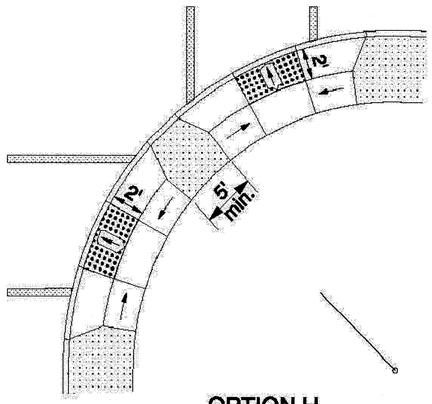
OPTION E
SINGLE PARALLEL RAMP
Use in alterations only and when site constraints prohibit installing two ramps



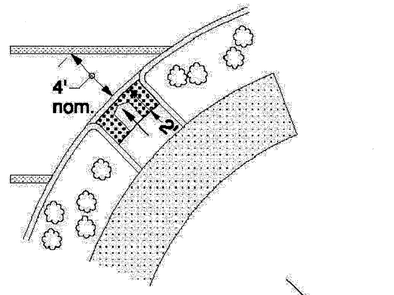
OPTION F
PERPENDICULAR RAMPS



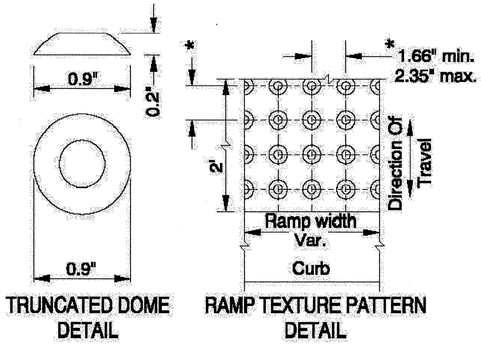
OPTION G
PARALLEL RAMPS



OPTION H
COMBINATION RAMPS



OPTION I
RAMP WITH
BUFFER STRIP



TRUNCATED DOME DETAIL

RAMP TEXTURE PATTERN DETAIL

Marked or intended crossing location

See RD755 for additional requirements and details not shown.

GENERAL NOTES FOR ALL DETAILS:

1. Place truncated dome detectable warning texture in the lower 2' of throat of ramp only. Arrange domes using square in-line pattern only as shown in detail right. Color of texture to be safety yellow. For construction of sidewalk ramps outside of public right-of-way, check with State Building Codes for requirements regarding texturing of flares.
2. Sidewalk curb ramp slopes shown are relative to the true level horizon (zero bubble)
3. In alterations curb ramp slope(s) may be 10% for a max. rise of 6" or 12.5% for a max. rise of¾". Curb ramps, in alterations, need not exceed 6' in length.
4. Side flares, if used in Option A and I, that are not part of the path of travel may be of any slope.
5. Do not slope landing more than 2% in any direction.
6. Ramps for paths intersecting a roadway should be full width of path. When a ramp is used to provide bicycle access from a roadway to a sidewalk, the ramp should be 8' wide, with no texturing.
7. Sidewalk ramp details are based on ORS 447.310 and the PROWAAC Final Report.
8. When 2 curb ramps are immediately adjacent, as in Options A, B, C and F, the curb exposure (e) between the adjacent side flares may range between 3" and full design exposure.
9. For the purpose of this drawing, a curb ramp is considered "perpendicular" if the angle between the longitudianal axis of the ramp and a line tangent to the curb at the ramp center is 75° or greater.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

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OREGON STANDARD DRAWINGS

SIDEWALK RAMP PLACEMENT

2002

REVISIONS

DATE	DESCRIPTION
10-02	REVISE DETAIL
06-03	REVISE DETAIL
04-04	UPDATE DETAIL
01-20-05	REVISED AND ADDED NOTES

Effective Date: November 1, 2007 - May 31, 2008

RD760

ERD760.dgn 01-20-05
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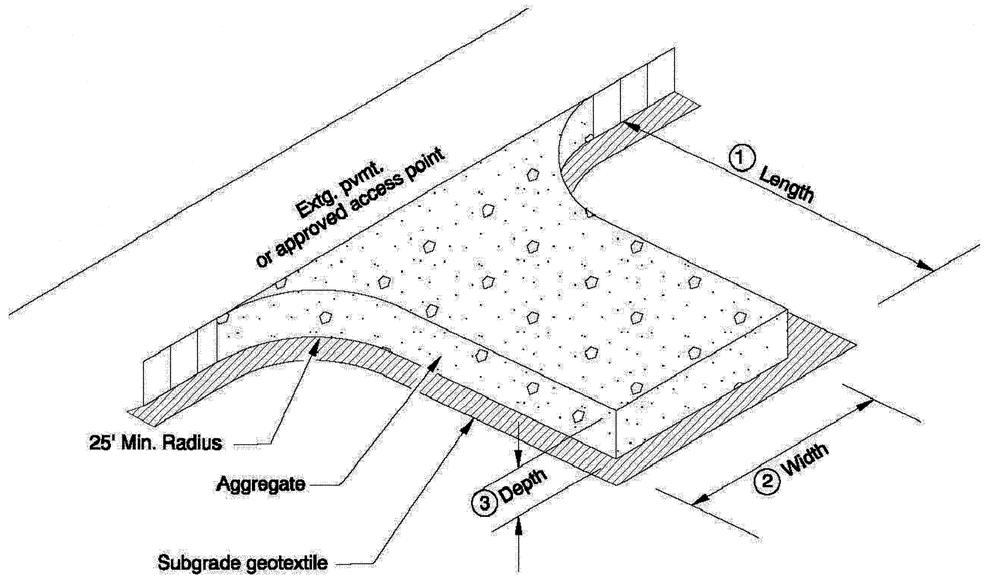

Notes:

1. Length:
   50' min. - for less than 1 acre exposed soil
   100' min. - for greater than 1 acre exposed soil
2. Width:
   20' - or width of extg. approach, whichever is greater.
3. Depth:
   8" min

NOTE: This plan is not a legal engineering document but an electronic duplicate. The original signed by the engineer and approved for publication is kept on file at the Oregon Department of Transportation. A copy may be obtained upon request.

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OREGON STANDARD DRAWINGS

CONSTRUCTION ENTRANCES

2002

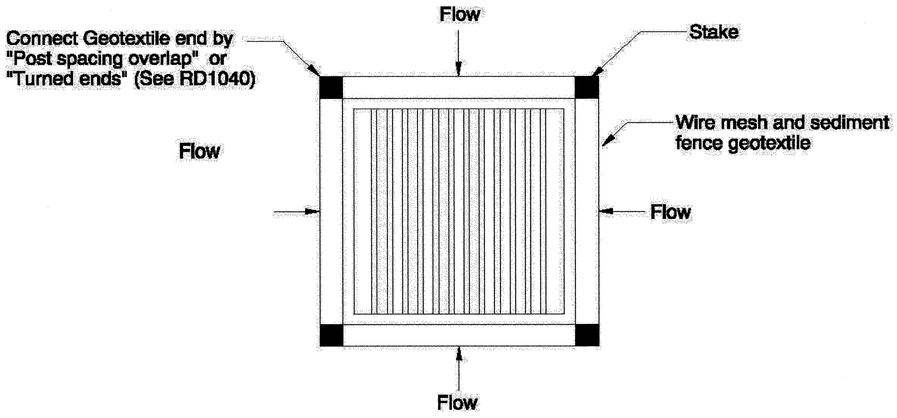
REVISIONS	
DATE	DESCRIPTION

Effective Date: November 1, 2007 - May 31, 2008

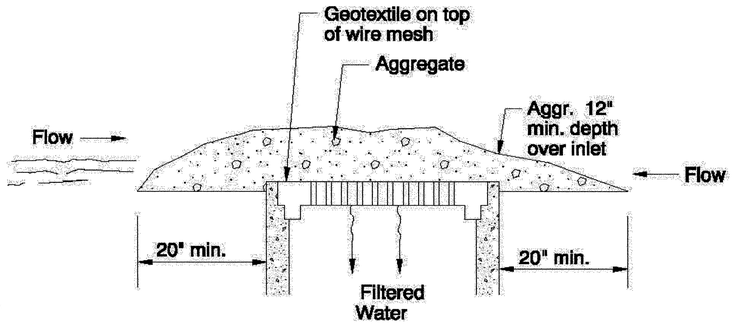
rd1000

Plot Date: 3/4/2008 3:34:26 PM Filename: S:_ILDesign\6190I - N Winchell St-LID\CAD\PLAN_SHEETS\SHT RD 1000 OREGON STANDARD DRAWING\PLOT_SHT_ RD1000.dgn

erd1000.dgn 12-6-02



PLAN

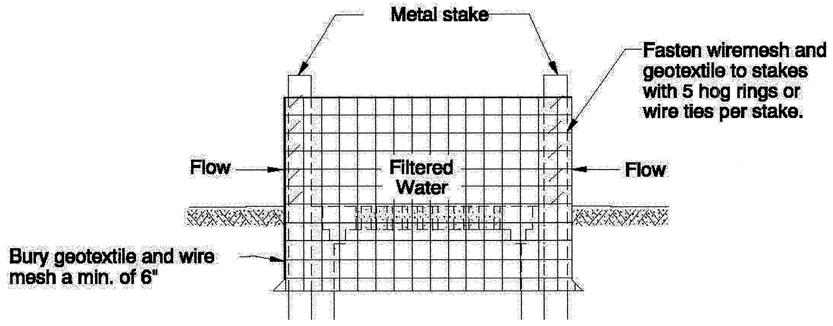


GEOTEXTILE/WIREMESH/AGGREGATE

TYPE 2

INLET PROTECTION						
Site Conditions Where Types Are Appropriate	TYPE					
	1	2	3	4	5	6
Area Drain, Soil	Y	Y	Y	Y	Y	Y
Area Drain, Pavement	N	Y	Y	Y	Y	N
Ditch Inlet, Soil	Y	N	Y	Y	N	Y
Ditch Inlet, Pavement	N	N	Y	Y	N	N
Grate Inlet Along Curb, Soil	N	Y	Y	Y	Y	Y
Grate Inlet Along Curb, Pavement	N	Y	Y	Y	Y	N
Curb Opening Inlet, Soil	N	N	N	Y	Y	Y
Curb Opening Inlet, Pavement	N	N	N	Y	Y	N

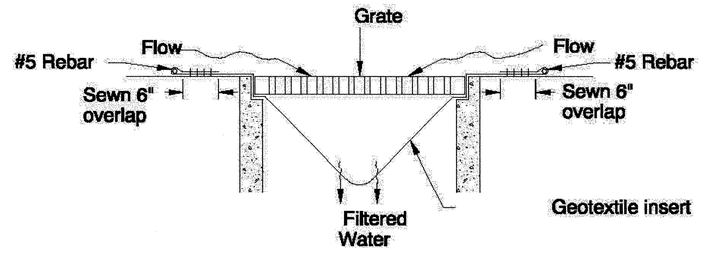
For Inlet Protection Types 4 and 5 see RD1015 and RD1020.



ELEVATION

SEDIMENT FENCE

TYPE 1



PREFABRICATED FILTER INSERT

TYPE 3

Note:
Type 1 Sediment Fence
Type 2 Geotextile/wire mesh/aggregate
Type 3 Prefabricated filter insert
Type 4 Biofilter bags
Type 5 Masonry/aggregate
Type 6 Sod

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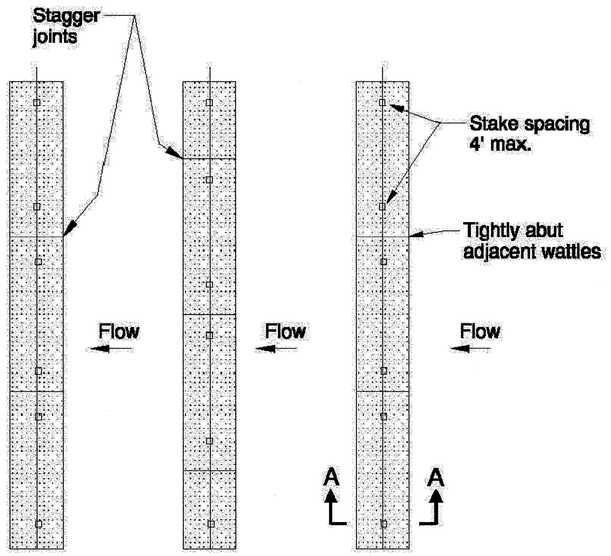
OREGON STANDARD DRAWINGS

INLET PROTECTION
(TYPE 1, 2 & 3)

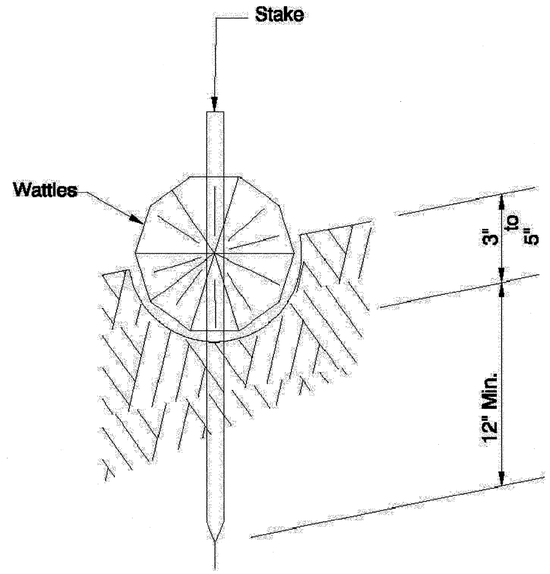
2002

REVISIONS	
DATE	DESCRIPTION
12-02	REVISE NOTE

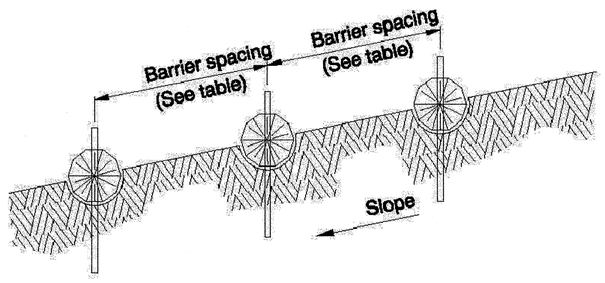
Plot Date: 3/4/2008 7:21:35 AM Filename: Sn_ll_Design\6190- N Winchell St. LID\CAD\PLAN_SHEETS\SHT RD 1010 OREGON STANDARD DRAWINGS\PLOT_SHT_ RD 1010.dgn
erd1010.dgn 12-9-02
rd1010



PLAN



SECTION A-A



PROFILE

Place wattles along slope contours.

BARRIER SPACING
FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS		
% SLOPE	% SLOPE	MAXIMUM SPACING ON SLOPE
10% Flatter	1:10 or Flatter	300'
10 > % ≥ 15	10 > X ≥ 7.5	150'
15 > % ≥ 20	7.5 > X ≥ 5	100'
20 > % ≥ 30	5 > X ≥ 3	50'
Steeper than 30%	Steeper than 1:3	25'

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OREGON STANDARD DRAWINGS

SEDIMENT BARRIER
(TYPE 3)

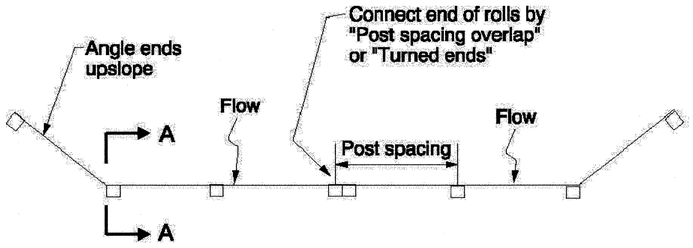
2002

REVISIONS	
DATE	DESCRIPTION
12-02	REVISE NOTE

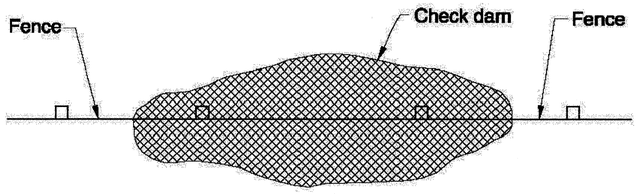
Effective Date: November 1, 2007 - May 31, 2008

rd1035

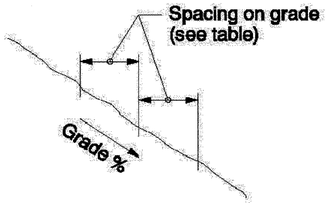
Plot Date: 3/4/2008 7:21:39 AM Filename: S:_IL_Design\6190I - N Winchell St. LID\CADYPLAN_SHEETS\SHT RD 1035 OREGON STANDARD DRAWING\PLOT_SHT_ RD1035.dgn
erd1035.dgn 12-9-02
rd1035

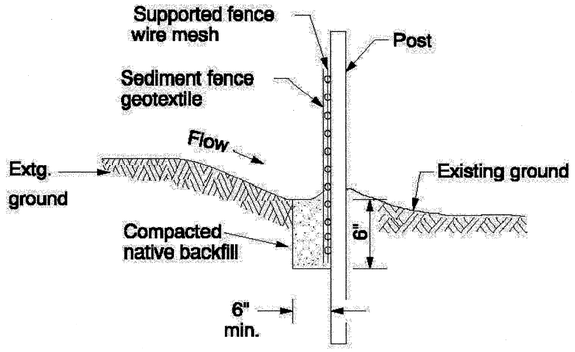


PLAN

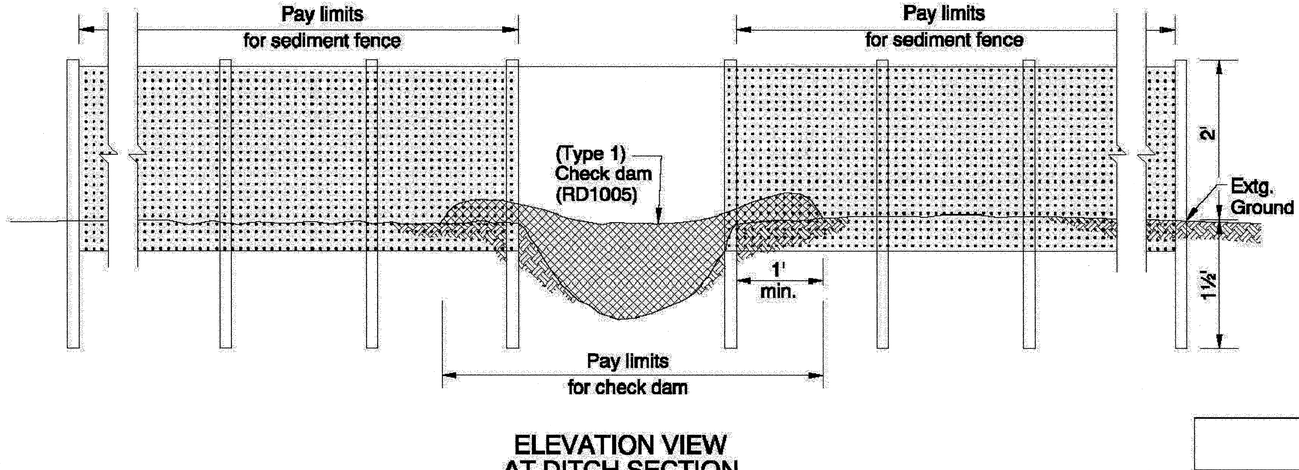


PLAN VIEW AT DITCH SECTION

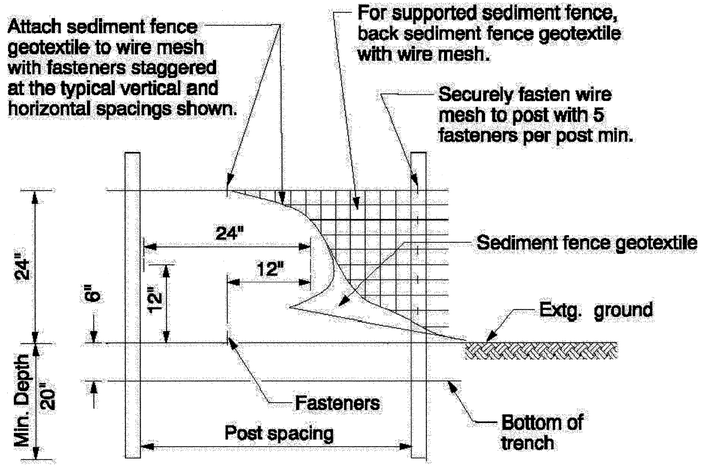




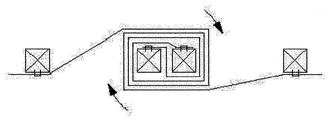
SECTION A-A



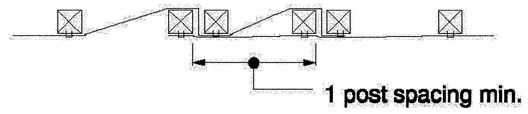
ELEVATION VIEW AT DITCH SECTION OR LOW AREAS



ELEVATION



TURNED ENDS
1 5/64 Turns



POST SPACING OVERLAP

GEOTEXTILE END CONNECTIONS

TABLE 1
FENCE SPACING
FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS	
GRADE	MAXIMUM SPACING ON GRADE
Grade < 10%	300'
10% ≤ Grade < 15%	150'
15% ≤ Grade < 20%	100'
20% ≤ Grade < 30%	50'
30% ≤ Grade	25'

TABLE 2

POST SPACING	
4'	Supported Sediment Fence
6'	Unsupported Sediment Fence with Geotextile elongation *less than 50%
4'	Unsupported Sediment Fence with Geotextile elongation *more than 50%

* Geotextile grab elongation value as documented by "Level B" manufacturer's documentation (See Standard Specifications).

NOTE: This plan is not a legal engineering document but an electronic duplicate. The original signed by the engineer and approved for publication is kept on file at the Oregon Department of Transportation. A copy may be obtained upon request.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

SEDIMENT FENCE, SUPPORTED
SEDIMENT FENCE, UNSUPPORTED

2002

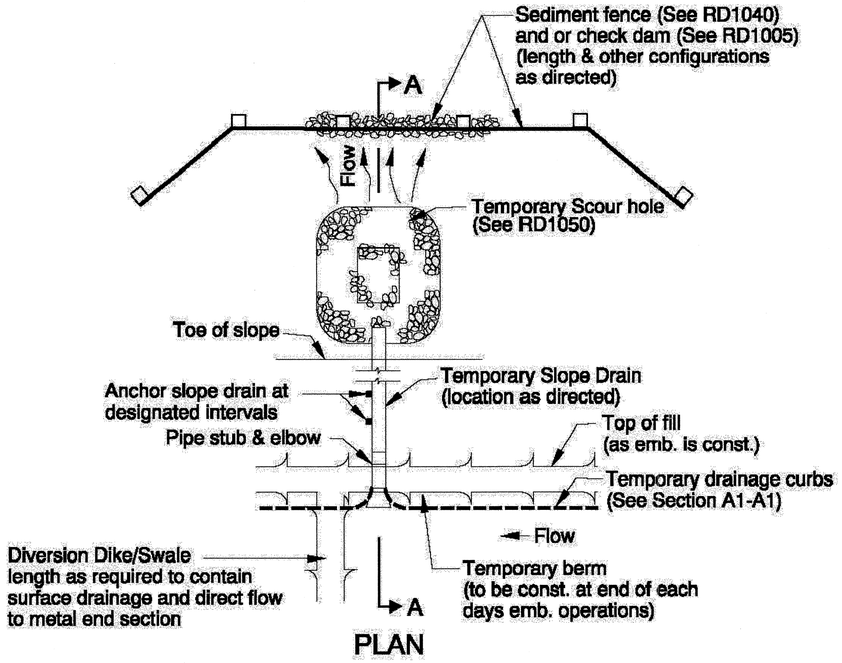
REVISIONS

DATE	DESCRIPTION
12-02	REVISE NOTE
04-05	REVISE TABLE 2

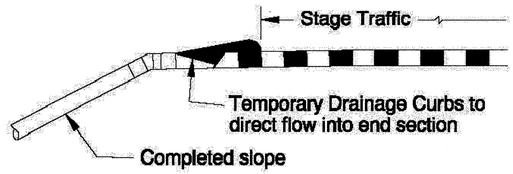
rd1040

Effective Date: November 1, 2007 - May 31, 2008

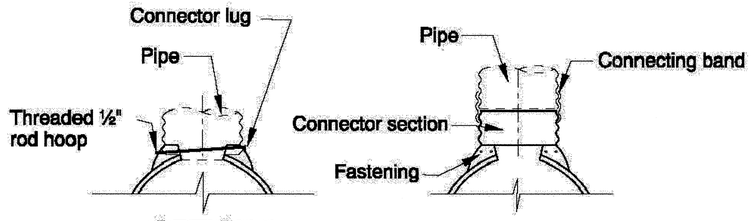
rd1040



PLAN



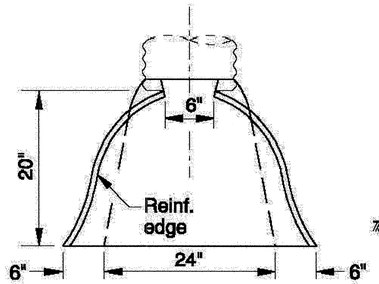
SECTION A1-A1



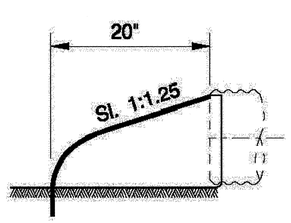
OPTION-1 OPTION-2

CONNECTION DETAILS

TABLE FOR PIPE SIZE		
PIPE		CONTRIBUTING AREA TO SLOPE DRAIN (sqft)
Slope (min.)	D in. (min.)	
3.8%	6	A < 200
2.5%	8	200 ≤ A < 500
1.9%	10	500 ≤ A < 850
1.5%	12	850 ≤ A <1400
-	SPECIAL DESIGN REQD.	1400 ≤ A



PLAN

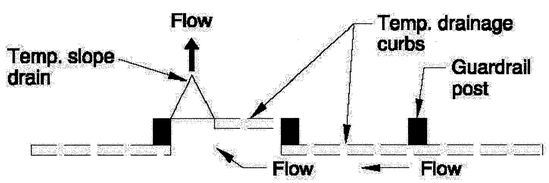


SIDE VIEW

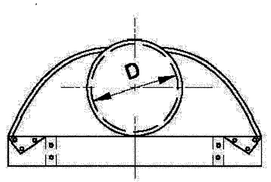
SECTION A-A

Notes:

1. Temporary Slope Drains shall be used at the top of fill slopes as the embankment is constructed to prevent erosion
2. Temporary Drainage Curbs shall be used in conjunction with Temporary Slope Drains to prevent erosion on completed slopes.
3. All dimensions not indicated will be as directed.



GUARDRAIL SECTION



FRONT VIEW
END SECTION DETAILS

NOTE: This plan is not a legal engineering document but an electronic duplicate. The original signed by the engineer and approved for publication is kept on file at the Oregon Department of Transportation. A copy may be obtained upon request.

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OREGON STANDARD DRAWINGS

TEMPORARY SLOPE DRAINS

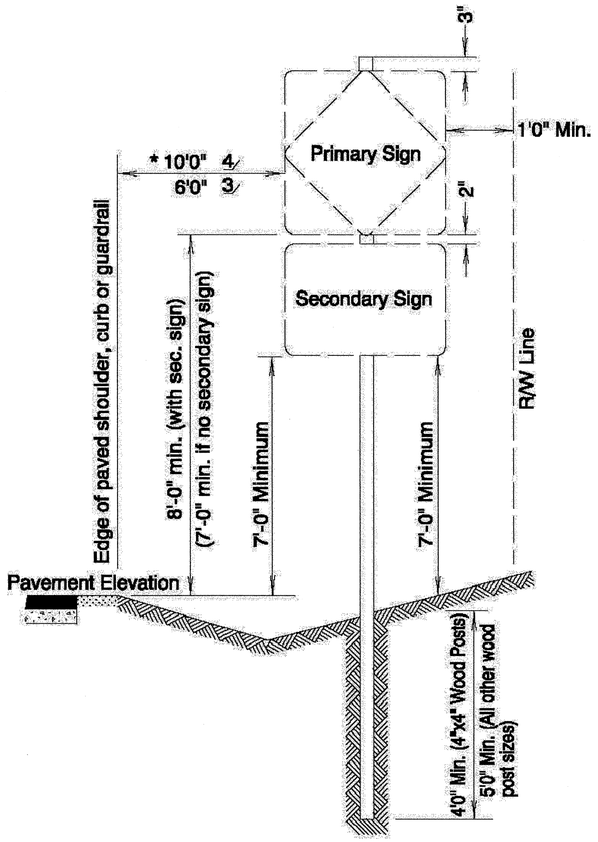
2002

REVISIONS	
DATE	DESCRIPTION

Effective Date: November 1, 2007 - May 31, 2008

rd1045

Plot Date: 3/4/2008 7:21:47 AM Filename: S:_ll_Design\6190l - N Winchell St. LID\CAD\PLAN_SHEETS\SHT RD 1045 OREGON STANDARD DRAWING\PLOT_SHT_ RD1045.dgn erd1045dgn 12-9-02 rd1045

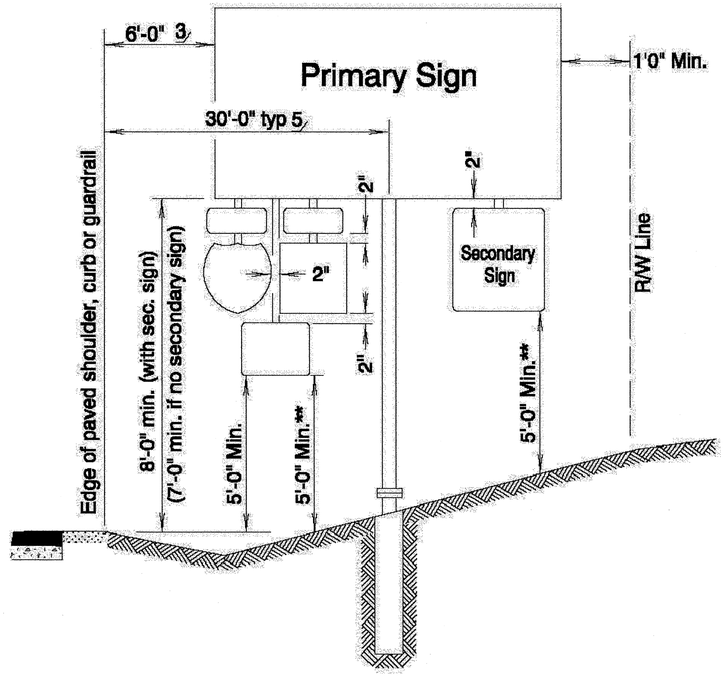


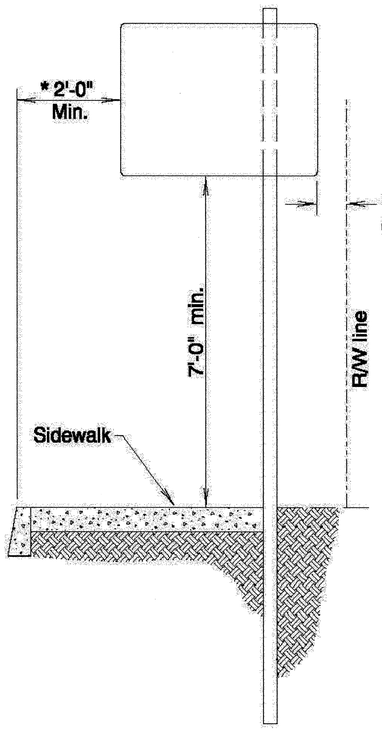
General Installation Notes:

1. Signing details shown on this sheet are intended to convey "typical" conditions only. Individual locations may require installation different from those shown.
   For guidance regarding unique installations or exceptions call the Project Sign Designer or Region Traffic Section.
2. Locate breakaway supports away from ditches to avoid problems with erosion, corrosion, debris, maintenance and breakaway performance. See Dwg. No. TM635 for more information.
3. In order to develop the maximum moment resistance of the 4" x 6" and the 6" x 8" wood post, the longer post dimension should be at right angles to the sign face. If signs are installed on more than one side of the post, the longer post dimension should be at right angle to the side with the largest area of sign face.

Vertical Clearance Notes:

1. In rural areas the secondary sign may be installed at 5'-0" minimum provided the sign is located outside the clear zone and away from pedestrian conflicts.
2. Where any sign is located over a bike route, the minimum mounting height is 8'-0" from ground line.





RESTRICTED R/W INSTALLATION

* In areas with limited right-of-way, a minimum lateral offset of 2 ft. may be used. A 1 ft. minimum offset from face of curb may be used in urban areas where sidewalk width is limited or existing poles are close to curb.

** 5'-0" applies only when the sign is located outside the clear zone

STANDARD LATERAL SIGN CLEARANCES
TO BE USED IF NO CLEARANCE IS INDICATED IN POST DATA

TYPE SIGN	BEHIND BARRIER	NOT BEHIND BARRIER
Route Signs	6'-0" 3/	10'-0" 4/
Control Signs	6'-0" 3/	10'-0" 4/
Guide Signs 1/	6'-0" 3/	30'-0" 5/
Guide Signs 2/	6'-0" 3/	20'-0" 5/

1/ Signs on main highway.
2/ Signs at ramp terminal.
3/ Distance from edge of sign to face of barrier.
4/ Distance from edge of sign to curb or edge of paved shoulder.
5/ Distance from center of nearest post to edge of travel lane.

Note: Disregard clearance if sign would extend beyond right of way.

CALC. BOOK NO. _____ BASELINE REPORT DATE _____

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

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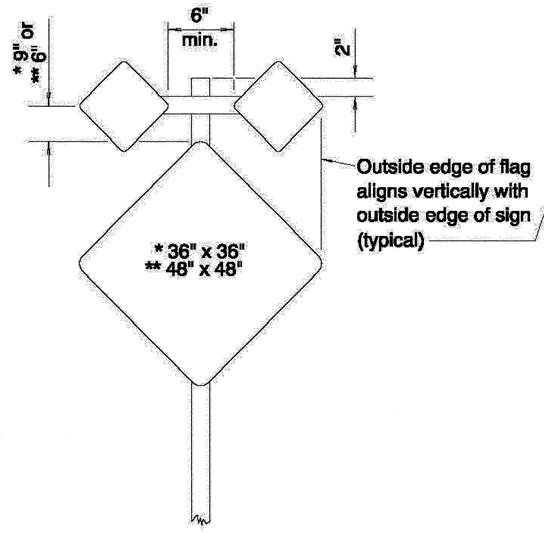
OREGON STANDARD DRAWINGS

SIGN INSTALLATION DETAILS

DATE	REVISION DESCRIPTION
12-2003	Reorganized dwgs. TM200 thru TM203; Updated reference to TM635
7-2005	Revise notes and dimensions
1-2007	Redefine 5' minimum vertical clearance; clarify rural note

tm200.dgn 06-29-2007
Plot Date: 3/4/2008 7:21:51 AM Filename: Sx_ll_Design\6190l - N Winchell St. LID\CAD\PLAN_SHEETS\SHT TM 200 OREGON STANDARD DRAWING\PLOT_SHT_ TM 200.dgn



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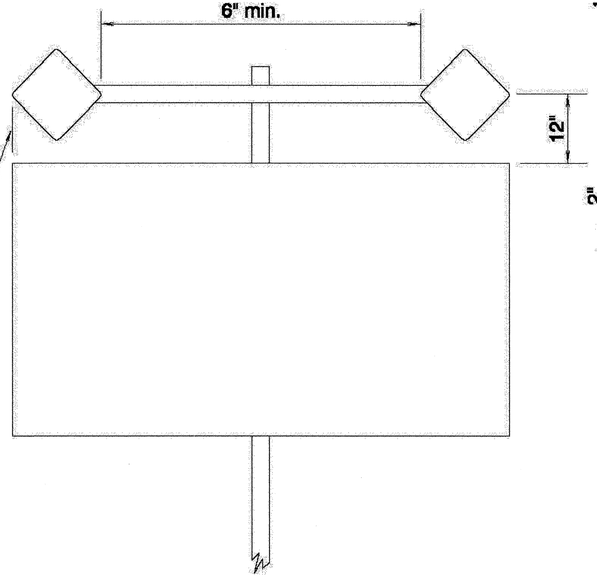
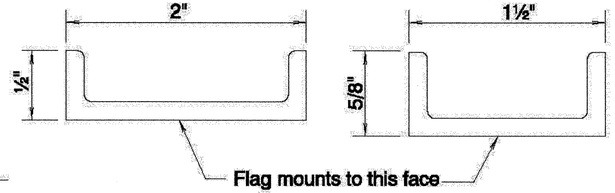
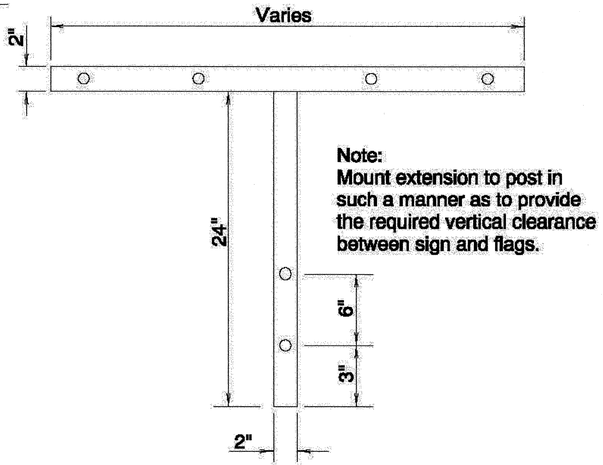


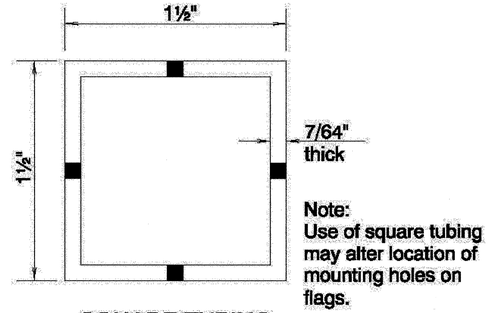
REGULATORY OR GUIDE SIGN
(1 POST)



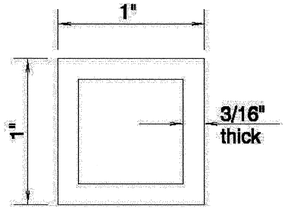
C" CHANNELS



"C" CHANNEL WITH EXTENSION

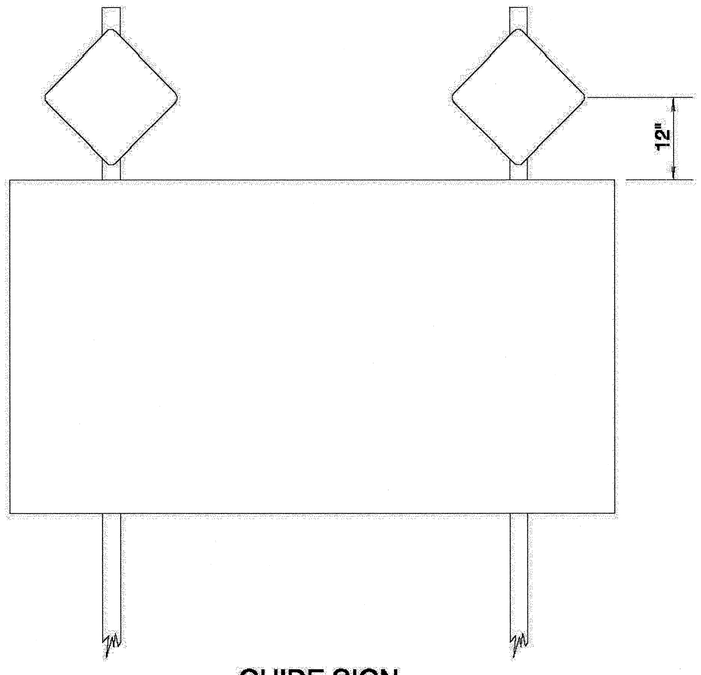


SQUARE TUBING

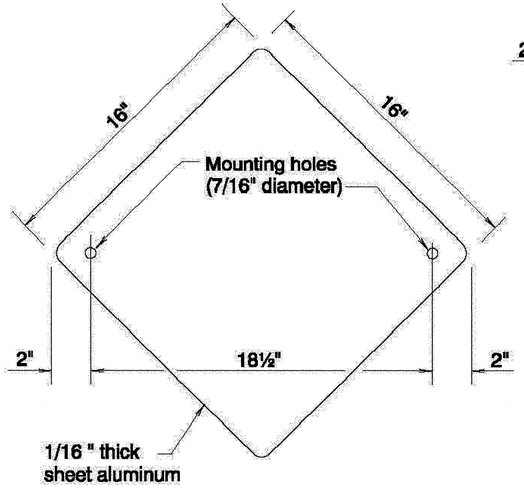


SQUARE TUBING

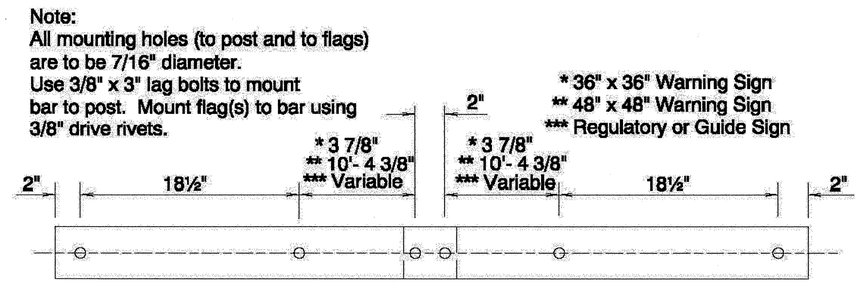
OPTIONAL MOUNTING
BAR MATERIALS



GUIDE SIGN
(2-POSTS)



FLAG DETAILS



MOUNTING BAR DETAIL

CALC. BOOK NO. _____

BASELINE REPORT DATE _____

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OREGON STANDARD DRAWINGS

FLAG BOARD MOUNTING DETAILS

DATE	REVISION DESCRIPTION
07-2006	Updated Metric Dimensions to English; updated sign sheeting type
01-2007	Adjusted paddle scale; added dimensions and changed mounting bar text

tm204.dgn 06-29-2007

TM204

★ Use Pre-Construction Posted Speed to Select the Correct Design Speed from the Tables below:

CONCRETE BARRIER FLARE RATE TABLE	
★ SPEED (mph)	FLARE RATE
70	20:1
65	19:1
60	18:1
55	16:1
50	14:1
45	12:1
40	10:1
35	9:1
30	8:1

LENGTHS TABLE					
MINIMUM LENGTHS ("L") in Feet					BUFFER "B"
★ SPEED	W = Width being closed. (Lane or Shoulder)				MIN. LENGTHS (feet)
mph	W ≤ 10	W = 12	W = 14	W = 16	"B"
25	105	125	145	165	75
30	150	180	210	240	100
35	205	245	285	325	125
40	265	320	375	430	150
45	450	540	630	720	180
50	500	600	700	800	210
55	550	660	770	880	250
60	600	720	840	960	285
65	650	780	910	1040	325
70	700	840	980	1120	365

NOTE:

- For Lane/Shoulder closure where W < 10' , Use "L" value for W = 10'

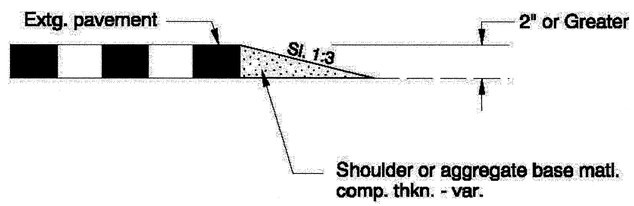
TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE				
★ Speed	Sign Spacing (ft)			Max. Channelizing Device Spacing (ft)
mph	A	B	C	
20 - 30	100	100	100	20
35 - 40	350	350	350	20
45 - 55	500	500	500	40
55 - 70 Freeway	1000	1500	2640	40

NOTE:

- For speeds less than 45 mph, place traffic control devices on 10 ft. spacings for intersection radii.
- When necessary, sign spacing may be adjusted to fit site conditions. Limit spacing adjustments to 20% of the "A" dimension for speeds < 45 mph. Limit spacing adjustments to 10% of the "A" dimension for speeds ≥ 45 mph.

NOTES:

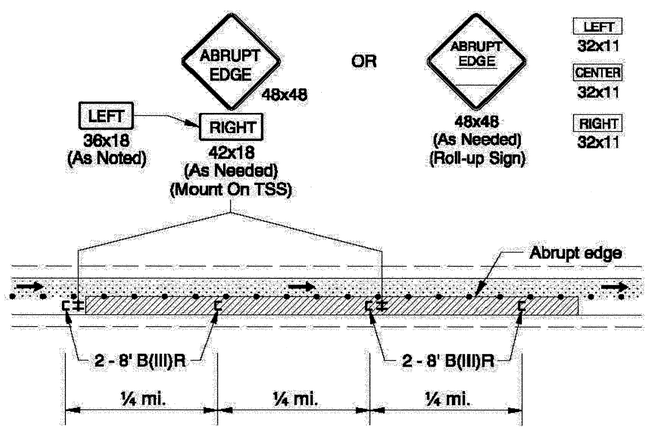
- When paved shoulders adjacent to excavations are less than four feet wide protect abrupt edge as shown.
- Use aggregate wedge when abrupt edge is 2 inches or greater.



EXCAVATION ABRUPT EDGE DETAIL

NOTES:

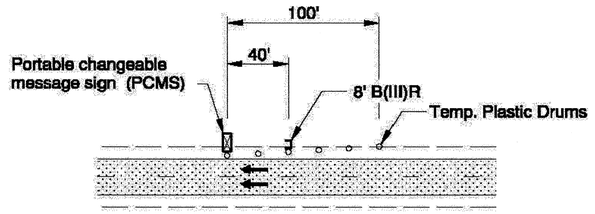
- When the excavation is located on left side of traffic, replace the 8' B(III)R barricades with 8' B(III)L barricades and replace the "RIGHT" (CW21-8C-18) riders with "LEFT" (CW21-8A-18) riders.
- Continue signing and other traffic control devices throughout excavation area at spacings shown.
- If roll-up signs are used, velcro the correct (CW21-9-11) plaques to the sign face as shown for the last line. Do not place signs behind barricades.



TYPICAL EXCAVATION ABRUPT EDGE SIGNING DETAIL

NOTES:

- Install PCMS beyond the outside shoulder, when possible.
- Use the appropriate type of barricade panels for PCMS location. Right shoulder, use Type B(III)R Left shoulder, use Type B(III)L
- Use six drums in shoulder taper on 20' spacing.
- Detail as shown is also used for Portable Traffic Signal installation.



PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) INSTALLATION DETAIL

GENERAL NOTES FOR ALL TCP DRAWINGS:

- Signs and other Traffic Control Devices (TCD) shown are the minimum required.
- Place Temporary Sign Support (TSS) approx. 10' behind barricade.
- Place Portable Changeable Message Sign (PCMS) approx. 40' behind barricade.
- Place sequential arrow approx. 20' behind barricade for posted speeds less than 45 mph.
- Place sequential arrow approx. 40' behind barricade for posted speeds 45 mph or greater.
- For work duration of greater than 3 days, remove or cover existing pavement markings, as directed.

○ ○ ○ Temp. Plastic Drums See TCD Spacing Table for max. spacing.

• • • 28" Tubular Markers See TCD Spacing Table for max. spacing.

UNDER TRAFFIC

UNDER CONSTRUCTION

To be accompanied by Drg. Nos. TM750 & TM775

CALC. BOOK NO. _____ BASELINE REPORT DATE _____

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OREGON STANDARD DRAWINGS

TABLES, ABRUPT EDGE AND PCMS DETAILS

2002

DATE	REVISION DESCRIPTION
10-01-2005	REVISED NOTES
01-01-2006	REVISED DRAWING AND NOTES
07-01-2006	REVISED DRAWING AND NOTES
01-01-2007	REVISED DRAWING AND NOTES
07-01-2007	REVISED DRAWING AND NOTES

TM700

tm700.dgn 07-01-2007
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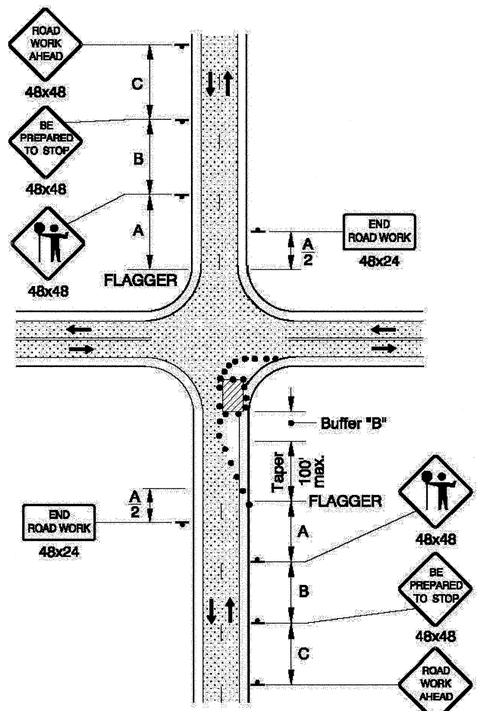
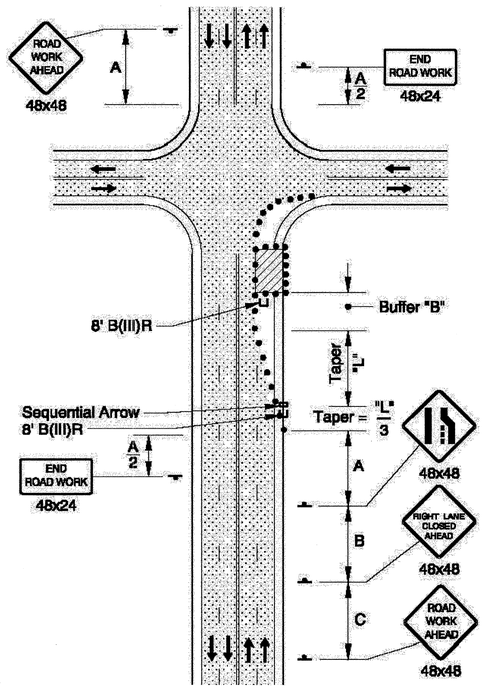
Effective Date: November 1, 2007 - May 31, 2008

TM700



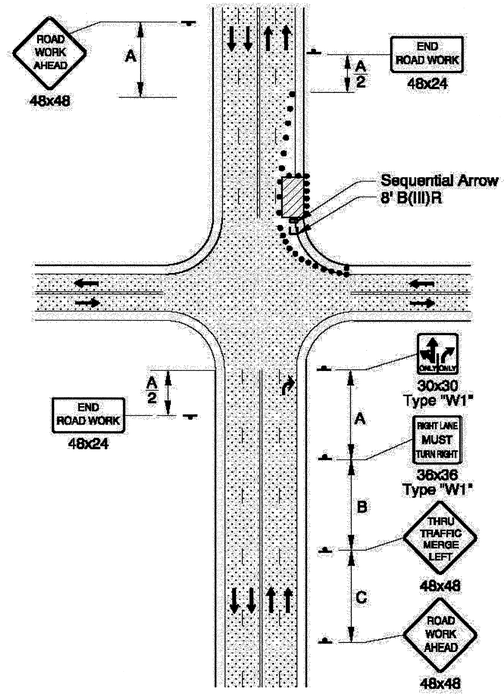
2-LANE, 2-WAY

ONE LANE CLOSURE



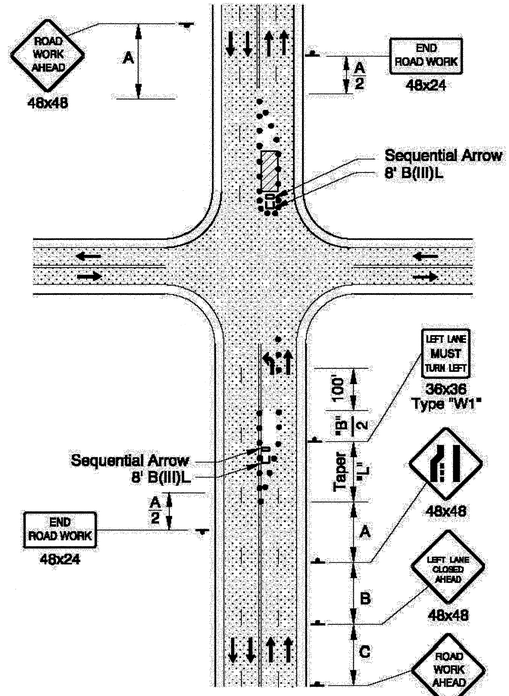
4-LANE, 2-WAY

RIGHT LANE CLOSURE, NEAR SIDE



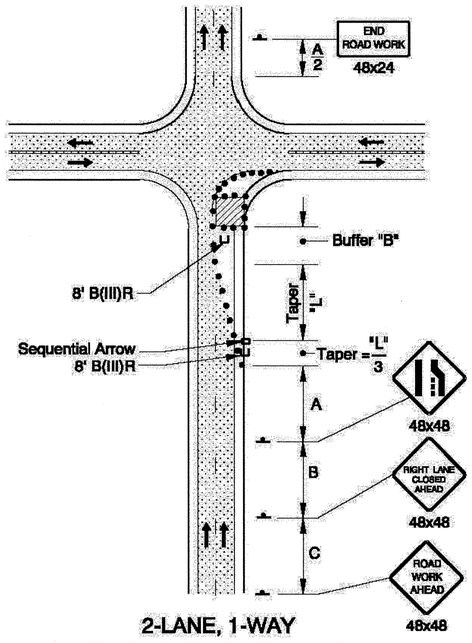
4-LANE, 2-WAY

RIGHT LANE CLOSURE, FAR SIDE



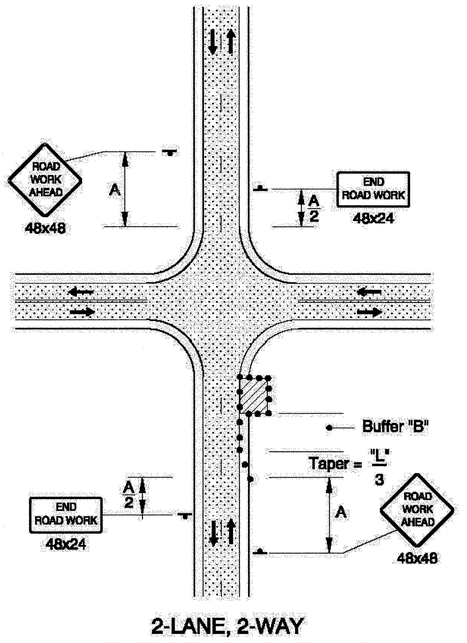
4-LANE, 2-WAY

LEFT LANE CLOSURE, FAR SIDE



2-LANE, 1-WAY

RIGHT LANE CLOSURE



2-LANE, 2-WAY

SHOULDER CLOSURE

GENERAL NOTES FOR ALL DETAILS:

- Additional Traffic Control Measures (TCM) may be required for all legs of the intersection.
- The "BE PREPARED TO STOP" sign shall be used only in conjunction with the FLAGGER symbol sign.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "LENGTHS TABLE" on Drg. No. TM700
- For left lane work, place TCD to close left lane. Use "LEFT LANE CLOSED AHEAD" sign and "LEFT LANE ENDS" (W4-2) symbol sign.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Drg. TM700.
- When a through road intersects within the work zone, place a "ROAD WORK AHEAD" sign in advance of the intersection at sign spacing A.
- Use plastic drums in lane closure tapers when the posted speed is 45 mph or greater.

• • • • • 28" Tubular Markers
See TCD Spacing Table on TM700 for max. spacings.

UNDER TRAFFIC

UNDER CONSTRUCTION

To be accompanied by Drg. Nos. TM750, TM775 & TM780

CALC. BOOK NO. _____

BASELINE REPORT DATE _____

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

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OREGON STANDARD DRAWINGS

INTERSECTION WORK ZONE DETAILS

2002

DATE	REVISION DESCRIPTION
10-01-2005	REVISED NOTES
01-01-2006	REVISED DRAWING AND NOTES
07-01-2006	REVISED DRAWING AND NOTES
01-01-2007	REVISED DRAWING AND NOTES
07-01-2007	REVISED DRAWING AND NOTES

TM705

Plot Date: 3/4/2008 7:22:07 AM Filename: S:_ILDesign\6190 - N Winchell St. LID\CAD\PLAN_SHEETS\SHT TM 705 OREGON STANDARD DRAWING\PLOT_SHT_ TM 705.dgn
tm705.dgn 07-01-2007
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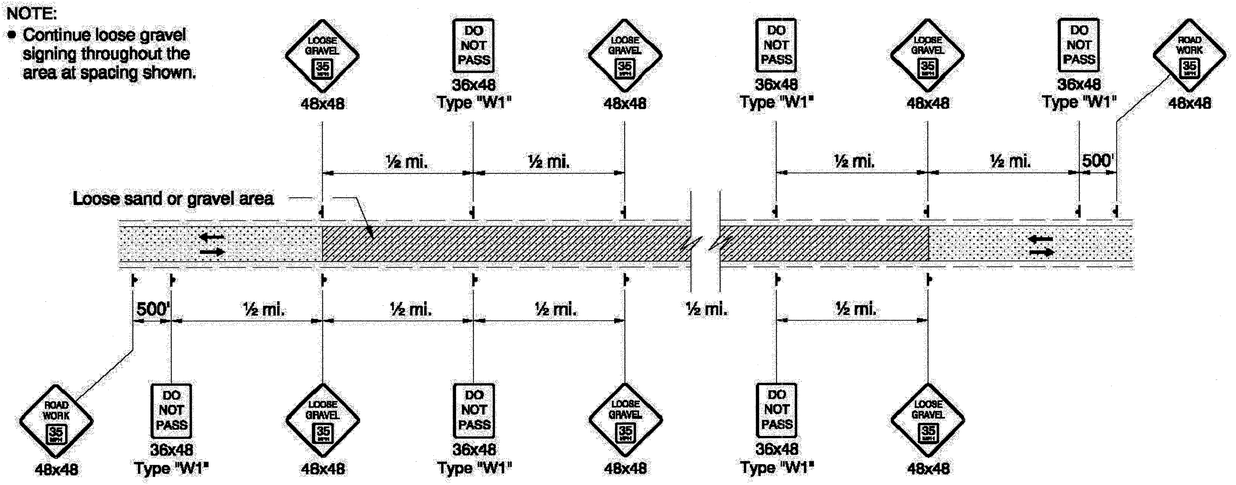
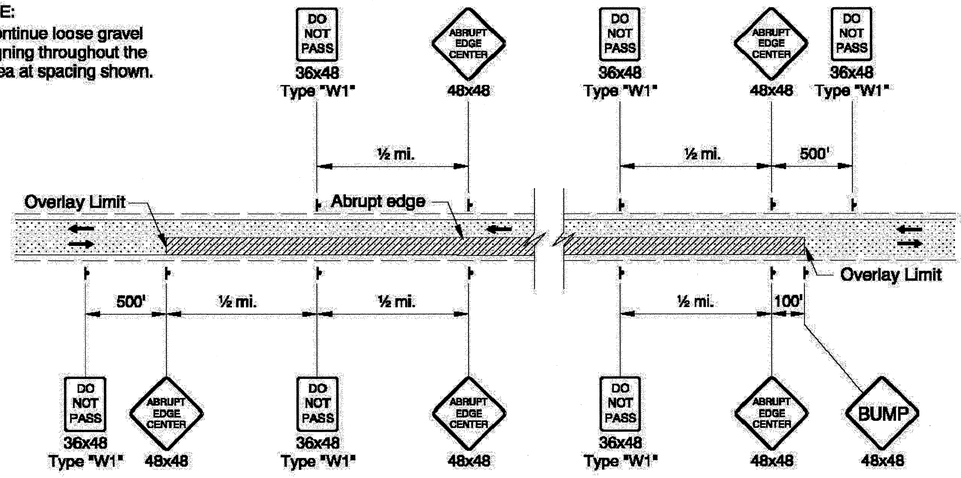
Effective Date: November 1, 2007 - May 31, 2008

NOTE:
- Continue loose gravel signing throughout the area at spacing shown.



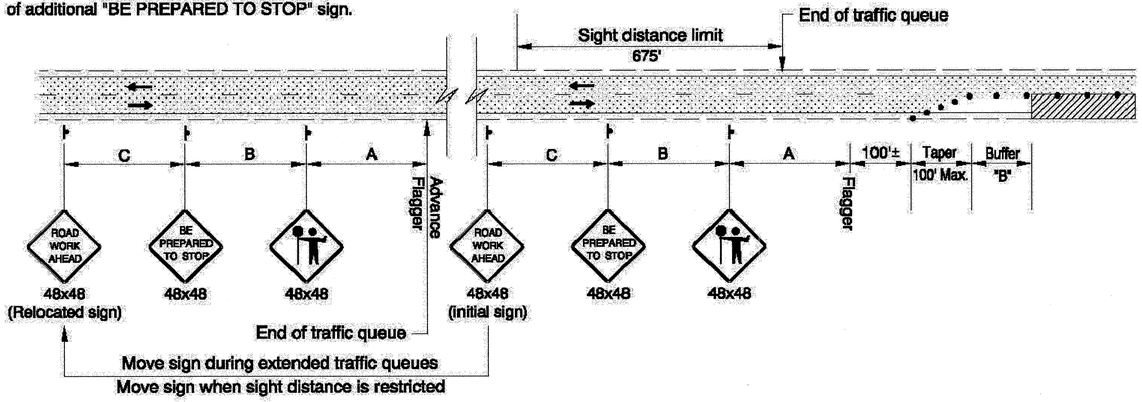
2-LANE, 2-WAY ROADWAY
LOOSE GRAVEL IN ROADWAY

NOTE:
- Continue loose gravel signing throughout the area at spacing shown.



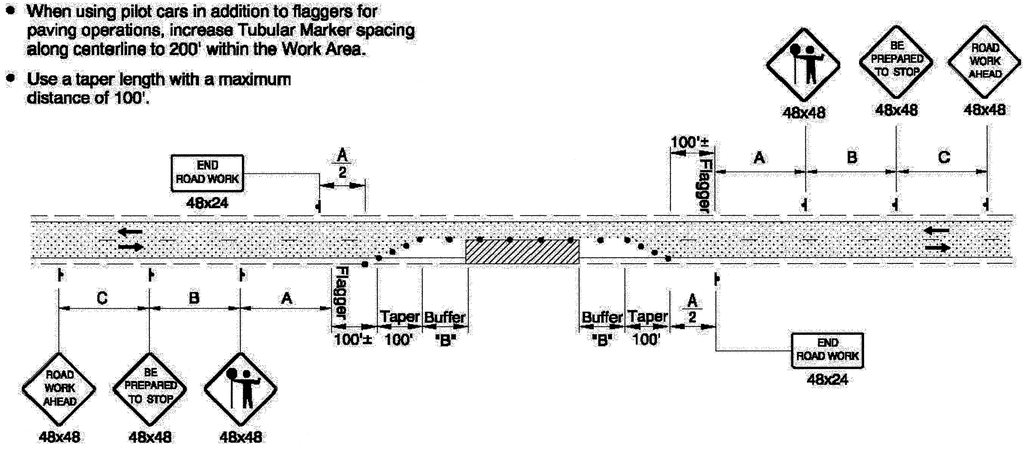
2-LANE, 2-WAY ROADWAY
OVERLAY AREA

NOTES:
- Place Advance Flagger and additional signing when traffic queues extend beyond initial warning signing OR when sight distance is restricted.
- Relocate initial "ROAD WORK AHEAD" sign in advance of additional "BE PREPARED TO STOP" sign.



EXTENDED TRAFFIC QUEUES FOR ADVANCE FLAGGING

NOTE:
- When using pilot cars in addition to flaggers for paving operations, increase Tubular Marker spacing along centerline to 200' within the Work Area.
- Use a taper length with a maximum distance of 100'.



2-LANE, 2-WAY ROADWAY
ONE LANE CLOSURE

GENERAL NOTES FOR ALL DETAILS:
- The "BE PREPARED TO STOP" sign shall be used only in conjunction with the "FLAGGER" symbol sign.
- Signing and other TCD shown to be installed in conjunction with the work areas, shall move with the work areas.
- Cover existing passing lane signing, as directed.
- Install temporary striping as required.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "LENGTHS TABLE" shown on Drg. No. TM700.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Drg. TM700.

• • • • • 28" Tubular Markers See TCD Spacing Table on TM700 for max. spacing.

• • • 28" Tubular Markers See TCD Spacing Table on TM700 for max. spacing.

UNDER TRAFFIC

UNDER CONSTRUCTION

CONSTRUCTION UNDER TRAFFIC

To be accompanied by Drg. Nos. TM775

CALC. BOOK NO. _____

BASELINE REPORT DATE _____

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

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OREGON STANDARD DRAWINGS

2-LANE, 2-WAY ROADWAYS

2002

DATE	REVISION DESCRIPTION
10-01-2005	REVISED NOTES
01-01-2006	REVISED DRAWING AND NOTES
07-01-2006	REVISED DRAWING AND NOTES
01-01-2007	REVISED DRAWING AND NOTES
07-01-2007	REVISED DRAWING AND NOTES

TM710

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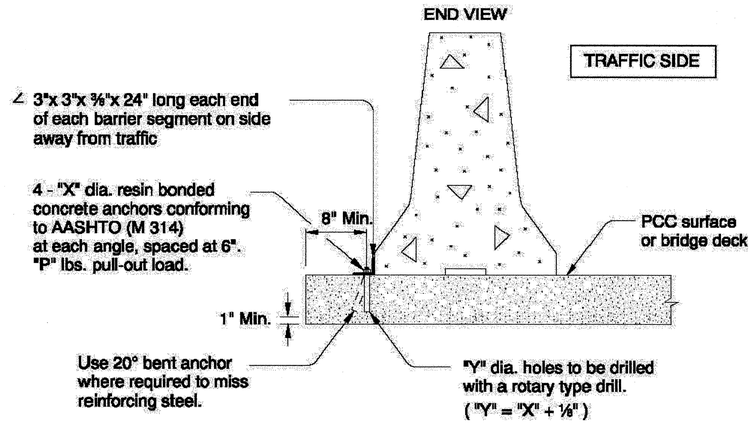
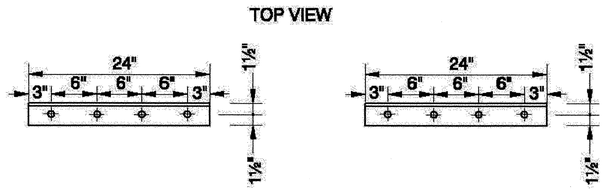
tm710.dgn 07-01-2007
\\sc-salemrev-11\hwye05m\ODOT_DATA\projects\Std Drawings\July_07\PTM710.dgn 6/29/2007 7:19:59 AM hwye05m 1:1200 - 001

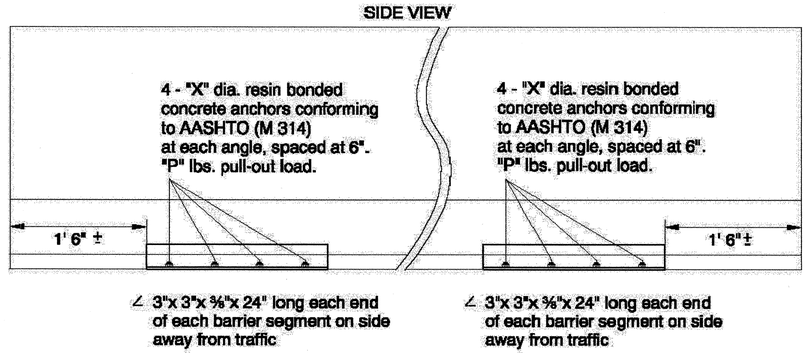
Effective Date: November 1, 2007 - May 31, 2008

NOTES:

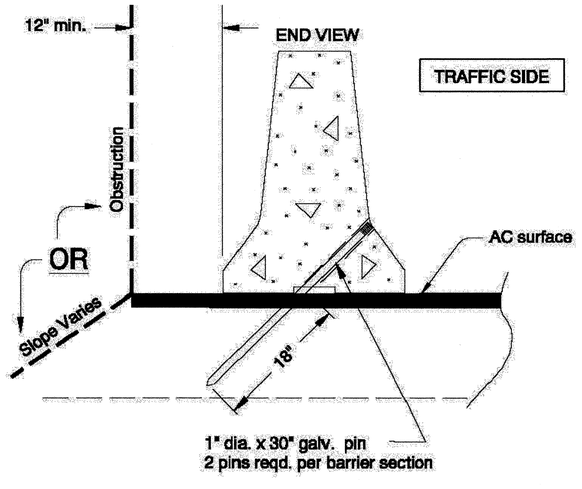
- Length, Diameter, and Grade of Anchors to be Determined by the Engineer
- Bridge rail replacement under traffic requires barrier to be restrained on bridge deck



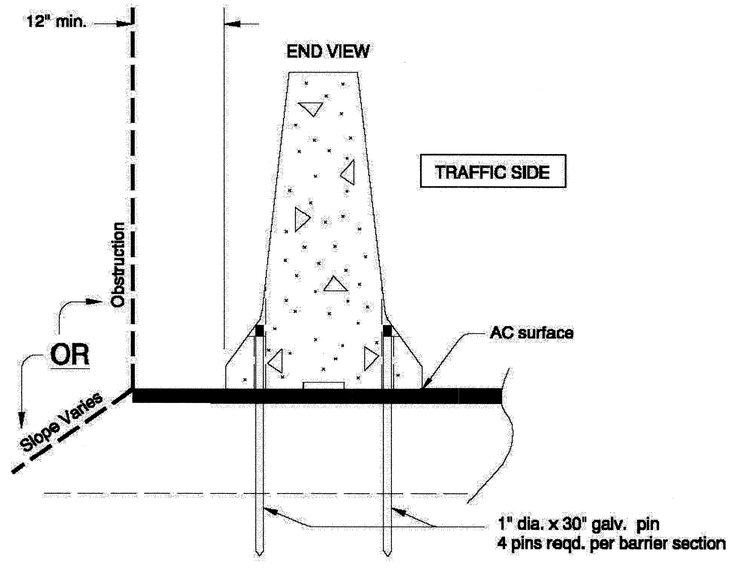




TEMPORARY CONCRETE BARRIER RESTRAINT



PINNING TEMPORARY CONCRETE BARRIER



PINNING TEMPORARY TALL 42" CONCRETE BARRIER

CALC. BOOK NO.	BASELINE REPORT DATE
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.	NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

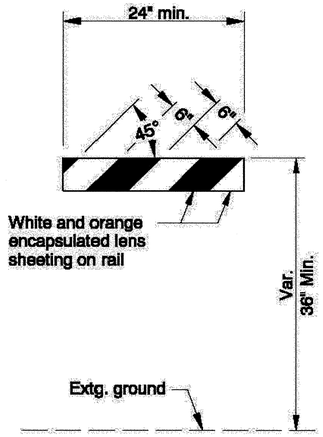
TEMPORARY CONCRETE BARRIER DETAILS

2002

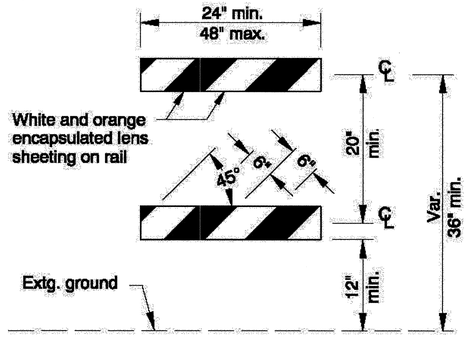
DATE	REVISION DESCRIPTION
01-20-2005	REVISED DRAWINGS AND NOTES
07-01-2005	REVISED DRAWINGS AND NOTES
07-01-2006	REVISED DRAWINGS AND NOTES
01-01-2007	REVISED DRAWINGS AND NOTES
07-01-2007	REVISED NOTES

Plot Date: 3/4/2008 7:22:15 AM Filename: S:_ll_Design\6190I - N Winchell St. LID\CAD\PLAN_SHEETS\SHT TM 745 OREGON STANDARD DRAWING\PLOT_SHT_ TM 745.dgn
tm745.dgn 07-01-2007
TM745
\\sc-salemrev-11\hwye05m\ODOT_DATA\projects\Std Drawings\July_07\PTM745.dgn 6/29/2007 7:27:51 AM hwye05m 1:1200 - 001

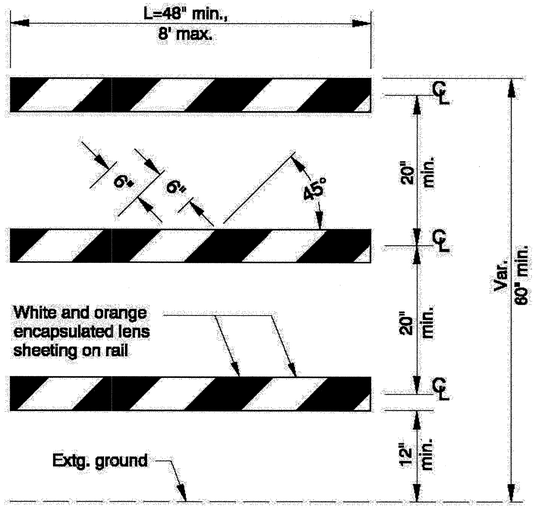
Effective Date: November 1, 2007 - May 31, 2008



TYPE I



TYPE II



TYPE III

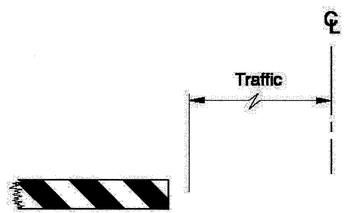
BARRICADE RAIL LAYOUT & PLACEMENT

GENERAL NOTES FOR ALL DETAILS:

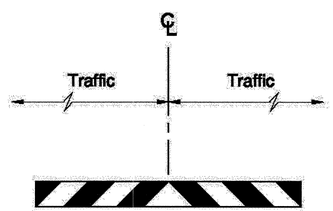
- All non-reflectorized surfaces shall be white.
- Sandbags (approximately 25 lb sack filled with sand) may be placed on lower frame to provide additional ballast.
- For rails less than 36" long, 4" wide stripes shall be used.
- Rails must be 8" min. to 12" max. in height.
- Use barricades from the current Qualified Products List (QPL).

NOTES:

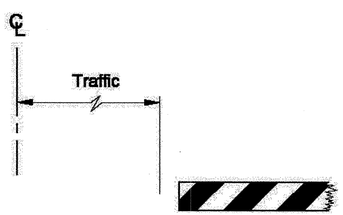
- Markings for barricade rails shall slope downward at an angle of 45° in the direction traffic is to pass.
- Where a barricade extends entirely across a roadway, it is desirable that the stripes slope downward in the direction toward which traffic must turn in detouring.
- Where both right and left turns are provided for, the chevron striping may slope downward in both directions from the center of the barricade.



LT. SIDE - L
(For approaching traffic)

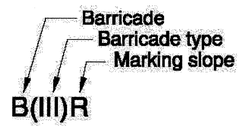


LT. / RT. - LR
(For approaching traffic)



RT. SIDE - R
(For approaching traffic)

SLOPE DIAGRAM FOR BARRICADE MARKING



BARRICADE NOTATION

CALC. BOOK NO. _____ BASELINE REPORT DATE _____

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OREGON STANDARD DRAWINGS

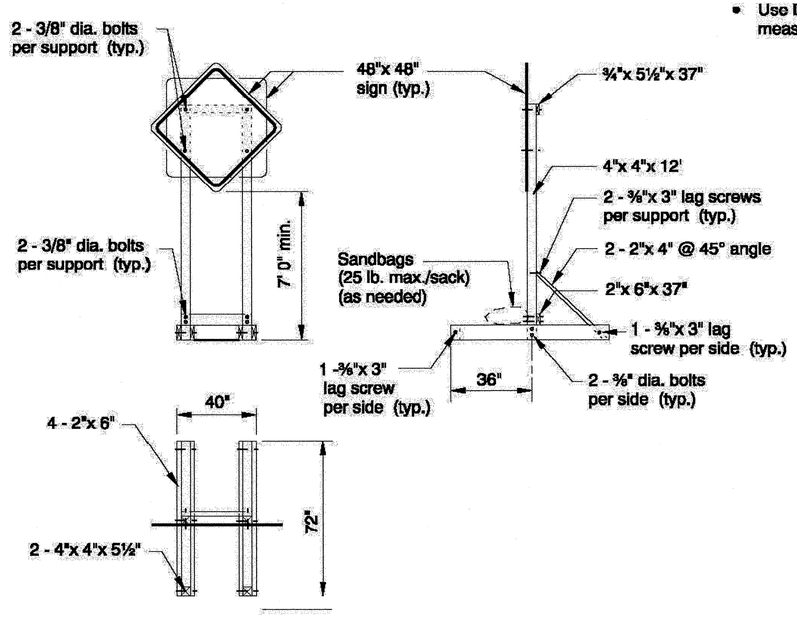
TEMPORARY BARRICADES

2002

DATE	REVISION DESCRIPTION
06-28-2004	REVISED DRAWING
01-20-2005	REVISED DRAWING AND NOTES
07-01-2006	REVISED DRAWING AND NOTES
01-01-2007	REVISED NOTES
07-01-2007	REVISED NOTES

NOTE:

- Use Double Post TSS for signs measuring a maximun of 40 sq. ft.

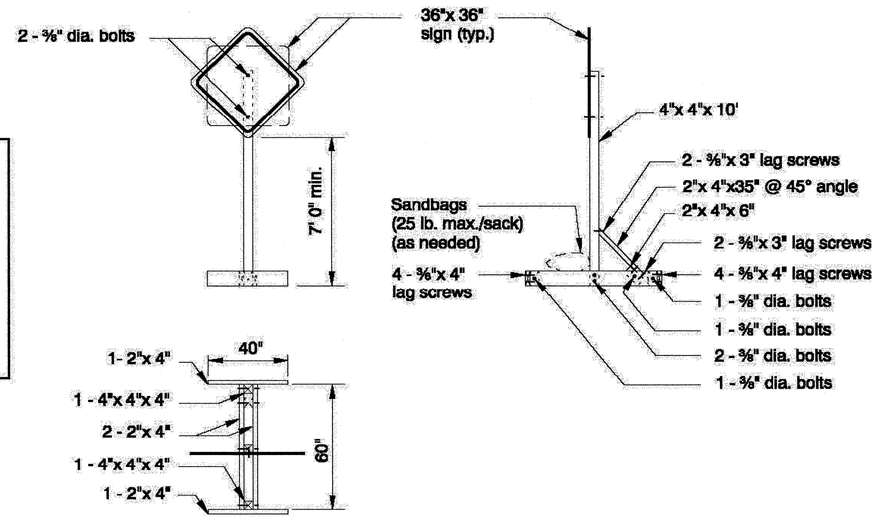


DOUBLE POST
TEMPORARY SIGN SUPPORT (TSS)

- DO NOT TIP OVER TSS.
- Position TSS 10' behind a Type (III) barricade, unless otherwise shown
- When not in use, locate TSS outside clear zone, turn away from traffic, or cover sign.
- Use either Douglas Fir or Hem Fir, which is surfaced four sides (S4S) and free of heart center (FOHC)

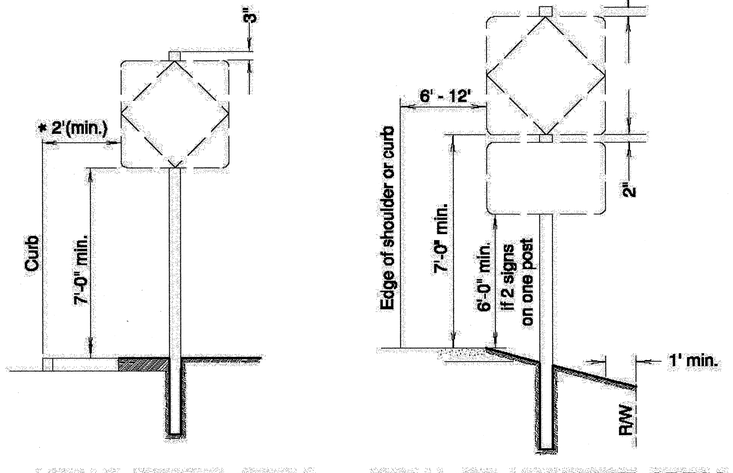
NOTE:

- Use Single Post TSS for signs measuring 9 sq. ft. or less



SINGLE POST
TEMPORARY SIGN SUPPORT (TSS)

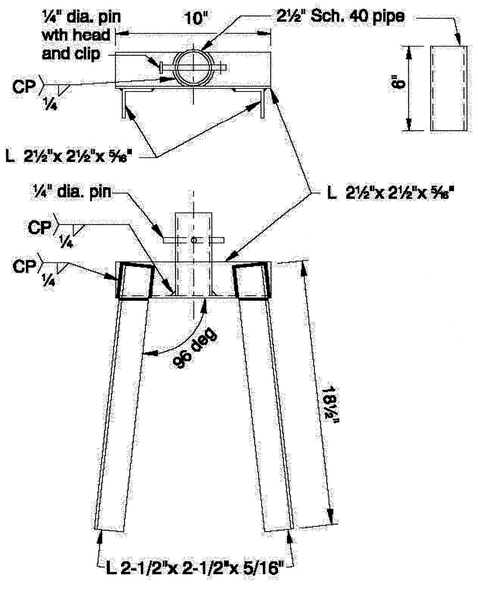
* Disregard clearance if sign would extend beyond right of way.

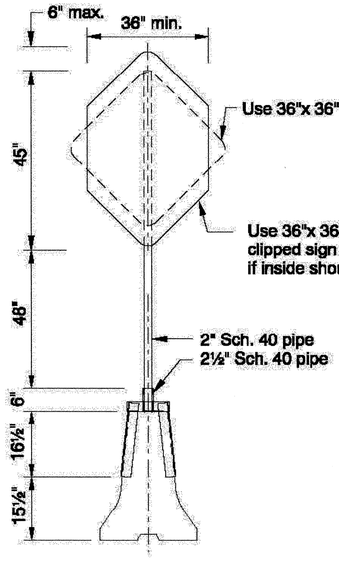


URBAN, CURBED AREAS

RURAL AND UNCURBED AREAS

TEMPORARY SIGN PLACEMENT





CONCRETE BARRIER SIGN SUPPORT

NOTES:

- Drill additional holes so sign can be rotated 90 deg and pinned when not in use.
- All structural steel shall conform to ASTM A36.
- Use of Concrete Barrier Sign Support is for signs measuring approx. 9 sq. ft. or less.
- Support fits both 32" and 42" tall "F" barrier.

CALC. BOOK NO. _____

BASELINE REPORT DATE _____

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OREGON STANDARD DRAWINGS

TEMPORARY SIGN SUPPORTS

2005

DATE	REVISION DESCRIPTION
07-01-2005	REVISED NOTES
01-01-2006	REVISED DRAWING AND NOTES
07-01-2006	REVISED DRAWING AND NOTES
01-01-2007	REVISED DRAWING AND NOTES
07-01-2007	REVISED DRAWING AND NOTES

TM775

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tm775.dgn 07-01-2007
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Effective Date: November 1, 2007 - May 31, 2008