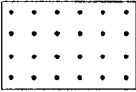
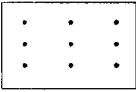
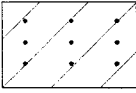
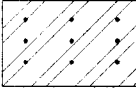
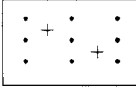
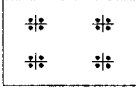
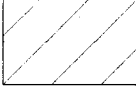
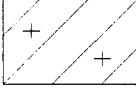
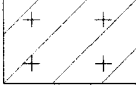
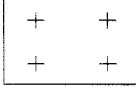
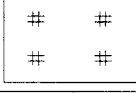
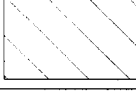
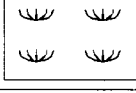
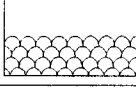



Design Standard Plates

PLATE #	TITLE	SIGNATURE DATE	STD. SPECS. REFERENCE	COMMODITY CODE
G-D	Soil & Soil-Aggr. Mixtures	2/7/2002	-	-
G-E	Geotextile Selection	10/10/2000	-	-
D-22	Storm Drain Inlet Selection	11/14/2000	-	-
R-I-1	Minor Rural Street	9/12/2000	-	-
R-I-2	24' Rural Thoroughfare	2/7/2002	-	-
R-J-1	Minor Residential Streets	9/12/2000	-	-
R-J-2	24' & 27' Sts.(50'R/W)w/MC	2/7/2002	-	-
R-J-3	24' & 27' Sts.(60'R/W)w/MC	2/7/2002	-	-
R-J-4	Minor Residential Street	9/12/2000	-	-
R-K-1	24' Collector Street	2/7/2002	-	-
R-K-2	24' Thoroughfare	2/7/2002	-	-
R-L-1	24' Rd.(80'R/W)w/Perp.Pkg	2/7/2000	-	-
R-L-2	Minor St.Garaged TH's	1/2/2007	-	-
R-L-3	Minor St.Gar.&Non-G.TH's	1/2/2007	-	-
R-N-1	Temp. Tee Turnaround	2/7/2002	-	-
R-N-2	Perm.Tee Turnaround-RC	2/7/2002	-	-
R-N-3	Perm.Tee Turnaround-Min.	2/7/2002	-	-
R-N-4	Perm.Tee Turnaround-DR	2/7/2002	-	-
R-P	Panhandle Drv-Urban Zone	2/22/2006	501, 504, 520	-
R-Q	Panhandle Drv-Rural Zone	3/18/2002	501, 504, 520	-
R-R	Panhandle Drv<300', 1 Lot	2/22/2006	501, 504, 520	-
R-S	Minor Residential Street Stds.	7/28/2000	-	-
R-T	Pedestrian Ramps	12/20/2002	-	-

SYMBOLS	TYPICAL GRADING	TYPICAL PHYSICALS	REMARKS
A - 3 SAND 	C.S. = 22% F.S. = 48% SILT = 20% CLAY = 8% COLL. = 2%	LL. = N.P. P.I. = N.P.	SAND - 53% MIN. % - #200 - 20% MAX. P.I. - N.P. LL. - MUST BE N.P.
A - 2 SAND & FINES 	C.S. = 20% F.S. = 43% SILT = 19% CLAY = 10% COLL. = 8%	LL. = 22 P.I. = 2 S.L. = 18	SAND - 53% MIN. 5 - #200 - 20% MAX. P.I. - 7 MAX. LL. - 34 MAX. (MUST HAVE LL.)
A - 2 - 4 SILTY SAND 	C.S. = 25% F.S. = 30% SILT = 32% CLAY = 7% COLL. = 6%	LL. = 24 P.I. = 2 S.L. = 21	SAND - 53% MIN. % - #200 - 21% MIN. - 30% MAX. P.I. - 7 MAX. LL. - 34 MAX. (MAY BE N.P.)
A - 4 - 2 SANDY SILT 	C.S. = 23% F.S. = 28% SILT = 33% CLAY = 10% COLL. = 6%	LL. = 25 P.I. = 3 S.L. = 21	SAND - 48% MIN. % - #200 - 31% MIN. P.I. - 7 MAX. LL. - 40 MAX. (MAY BE N.P.)
A - 2 - 7 CLAYEY SAND 	C.S. = 38% F.S. = 31% SILT = 15% CLAY = 8% COLL. = 8%	LL. = 31 P.I. = 10 S.L. = 18	SAND - 48% MIN. CLAY - 29% MAX. P.I. - 8 - 14 LL. - 40 MAX.
A - 7 - 2 SANDY CLAY 	C.S. = 20% F.S. = 29% SILT = 17% CLAY = 21% COLL. = 13%	LL. = 39 P.I. = 17 S.L. = 16	SAND - 48% MIN. CLAY - 17% - 35% P.I. - 15 MIN. LL. - 30 MIN.
A - 4 SILT 	C.S. = 20% F.S. = 22% SILT = 40% CLAY = 10% COLL. = 8%	LL. = 30 P.I. = 6 S.L. = 19	SAND - 47% MAX. CLAY - 29% MAX. P.I. - 9 MAX. LL. - 40 MAX.
A - 4 - 7 CLAYEY SILT 	C.S. = 8% F.S. = 17% SILT = 40% CLAY = 23% COLL. = 12%	LL. = 33 P.I. = 11 S.L. = 18	SAND - 47% MAX. CLAY - 25% MIN. P.I. - 14 MAX. LL. - 40 MAX.
A - 7 - 4 SILTY CLAY 	C.S. = 18% F.S. = 20% SILT = 35% CLAY = 12% COLL. = 15%	LL. = 39 P.I. = 15 S.L. = 16	SAND - 47% MAX. CLAY - 29% MAX. P.I. - 15 MIN. LL. - 30 MIN.
A - 7 CLAY 	C.S. = 18% F.S. = 22% SILT = 23% CLAY = 22% COLL. = 15%	LL. = 40 P.I. = 17 S.L. = 15	SAND - 47% MAX. CLAY - 30% - 59% P.I. - 15 MIN. LL. - 35 MIN.
A - 6 COLLOIDAL CLAY 	C.S. = 6% F.S. = 7% SILT = 18% CLAY = 33% COLL. = 36%	LL. = 50 P.I. = 33 S.L. = 14	CLAY - 60% MIN. P.I. - 25 MIN. LL. - 45 MIN.
A - 5 MICA, DIATOMS, DECOMPOSED ROCK 	C.S. = 15% F.S. = 35% SILT = 30% CLAY = 15% COLL. = 5%	LL. = 35 P.I. = 4 S.L. = 26	GRAD. NOT SIGNIFICANT P.I. - LOW, L.L. - HIGH S.L. - 26 MIN. VISUAL INSPECTION NECESSARY TO DETERMINE TYPE.
A - 8 SWAMP MUCK 	C.S. = 18% F.S. = 26% SILT = 45% CLAY = 7% COLL. = 4%	LL. = 52 P.I. = 7 S.L. = 38	ORGANIC CONTENT - 4% MIN. P.I. - LOW LL. - HIGH, WHEN OBTAINABLE S.L. - 26 MIN.
ROCK REFUSAL 			



APPROVED

 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

DEPARTMENT OF PUBLIC WORKS
 GENERAL DESIGN
**SOIL & SOIL-AGGREGATE
 MIXTURES DESIGNATIONS**

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:
 PLATE
G-D

GEOTEXTILE SELECTION CRITERIA

August, 1995

SELECTION CRITERIA:

Class E Geotextile - Suitable for projects with all types of soils and fabric protected

Class D Geotextile - Suitable for coarse grained soil projects only and fabric protected

Class C Geotextile - Suitable for projects with all types of soils and fabric unprotected

Class B Geotextile - Suitable for coarse grained soil projects only and fabric unprotected

Class A Geotextile - Suitable for Projects with all types of soils and special heavy applications (armor stone)

DEFINITIONS:

Coarse Grained Soils - Soils with 50% or less passing the #200 sieve.

Fine Grained Soils - Soils with more than 50% passing the #200 sieve.

Coarse Grained Soil Project - More than 90% of soil samples are coarse grained soils.

Fine Grained Soil Project - All projects not defined as a Coarse Grained Soil Project.

Fabric Protected -

Non-Drain Applications - Fabric protected from aggregate placement by a layer of sand.

Drain Applications - Rounded aggregate in non-rock area of state.

Fabric Unprotected - All other applications



APPROVED
DIRECTOR
William E. Hargan
BUR. OF ENGINEERING/CONSTRUCTION
10/10/2000
DATE

DEPARTMENT OF PUBLIC WORKS
GENERAL DESIGN
GEOTEXTILE SELECTION

ISSUED: September 13, 2000
REVISED: _____
REVISED: _____

PLATE
G-E

INLET TYPE	STD. DETAIL	DESIGN PLATE	CURB & GUTTER STREET		ALLEY	OPEN SECTION ROAD		YARD	SWALE	NOTES
			IN SUMP	ON GRADE		ROADSIDE	MEDIAN			
A, B	D-2.00 thru D-2.05	D-11 (Sump) SHA 611-4310, 1 (On-Grade)	●	Note 1		Note 4			Note 7	A-1, B-1: Use With Lateral Pipe A-2, B-2: Use With Longitudinal Pipe Behind Curb
E Grate	D-2.06	D-16			●			●		Preferred Alley Inlet
E Comb., Dbl. E Comb.	D-2.07, 9, 10	D-11, 12, 13	●	●		Note 4			Note 7	Curb & Gutter Street Inlet for Use Where Parking Is Prohibited & ADT ≥ 5000. Note 2.
J Inlet, Mod. Grate	D-2.13, 4	Size Spillway Weirs Under Grates				Note 3	●		●	
Special K	D-2.15	Size Spillway Weirs Under Grates							●	Non-Traffic Bearing - Not For Use Near Road Shoulder
S Single Grate	D-2.16A, B	D-16			●		●	●	●	
Type S Comb.	D-2.18	D-11 (Sump)	●	●		Note 4			Note 7	Note 2.
S Dbl. Grate Tandem	D-2.19A, B	D-16			●		●	●	●	
S Comb.-Dbl. Grate Tandem	D-2.20	D-11, 14, 15	●	●		Note 4			Note 7	Note 2.
Y-1	D-2.22A, B	Check Weirs Cap'y. Vs. Pipe Cap'y.						●		<div>Not For Use Adjacent to Wooded Areas.</div> <div>For Use In Sump Only</div> <div>Non-Traffic Bearing - Not For Use On or Near Road or Shoulder</div>
Y-2	D-2.23	Note 5						●		
Y-3	D-2.24A, B	$Q_{MAX} = 3.0$ cfs						●		
Y-4	D-2.25A, B	$Q_{MAX} = 3.0$ cfs						●		
Y-5	D-2.25C	Check Weirs Cap'y. Vs. Pipe Cap'y.						●		
MDSHA COG	MDSHA 374.51 Through	SHA 611-4310		* Note 1						* For Use in MdsHA Right-of-Way Only
MDSHA COS	MDSHA 374.67	SHA 611-4311	*							

- NOTES:
1. Use Curb Opening Inlets on grade only where utilities are too close to curb to allow placement of a Type E Combination or a Type S Combination Inlet.
 2. Indicated Combination inlets to be depressed per Standard Detail D-2.26 only when so noted on plans.
 3. Type J Inlet for use in roadside swale only where curb and gutter will not be added later.
 4. Set face of inlet curb piece at ultimate location of curb and gutter.
 5. Use BPR "Hydraulic Capacity of Grate Inlet in Sump" (rev. 8/68) with A = 2.7 sf and P = 8.8 ft. Assume 50% clogging.
 6. The Director of Public Works will consider waiving any requirements hereon for reasonable cause upon receipt of a written request.

7. Where swale is intercepted by road drain system, an opening in the rear wall of inlet under headpiece or top slab is used to collect swale flow. Show special design on Plans.



APPROVAL

 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 11/14/2000
 DATE

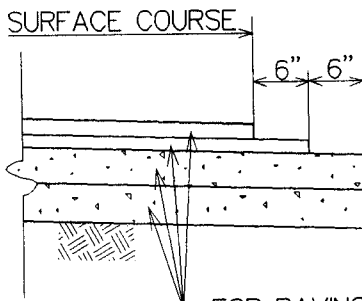
DEPARTMENT OF PUBLIC WORKS
 STORM DRAIN DESIGN
STORM DRAIN INLET
 SELECTION

ISSUED: September 20, 2000
 REVISED:
 REVISED:

PLATE
D-22

DETAIL "A"

NOTES

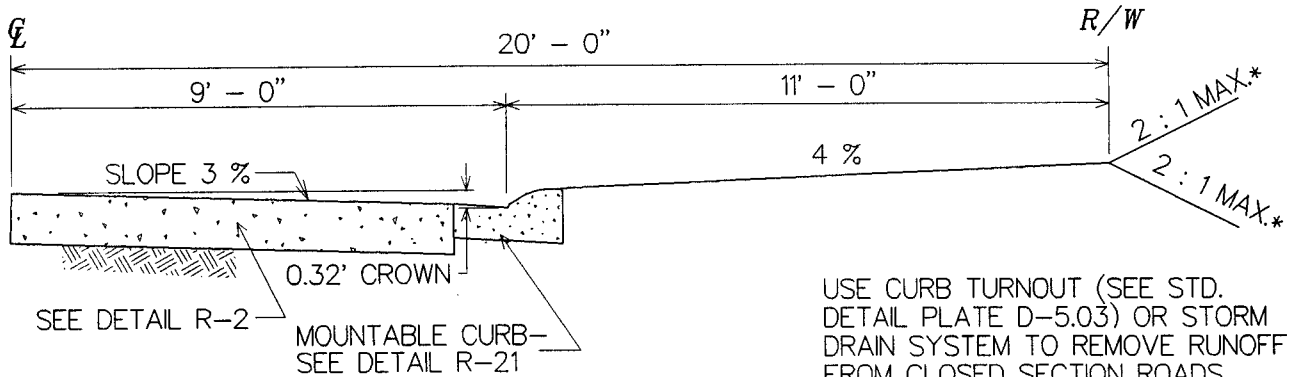
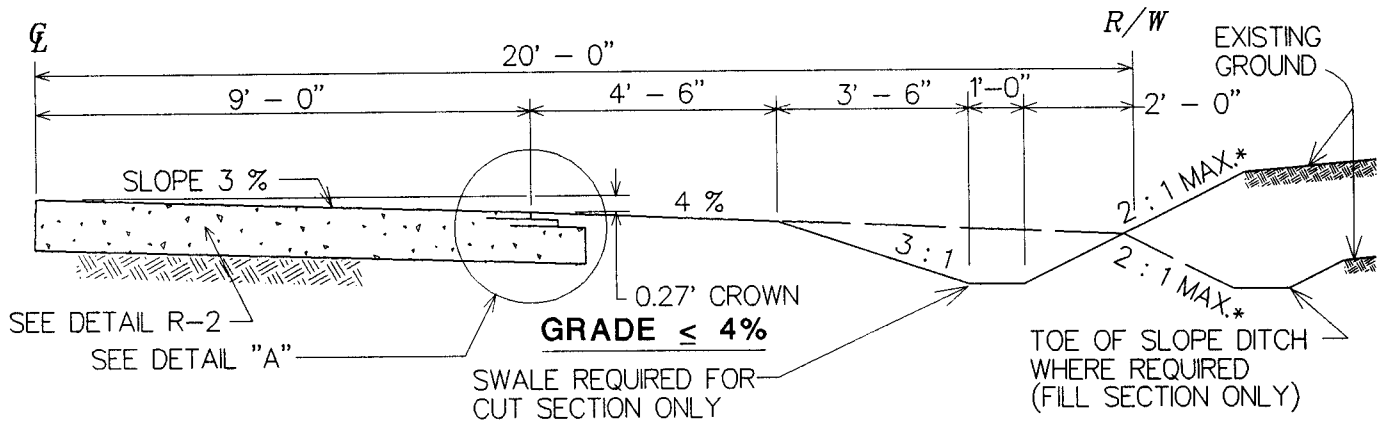


FOR PAVING SECTION, SEE DETAIL R-2

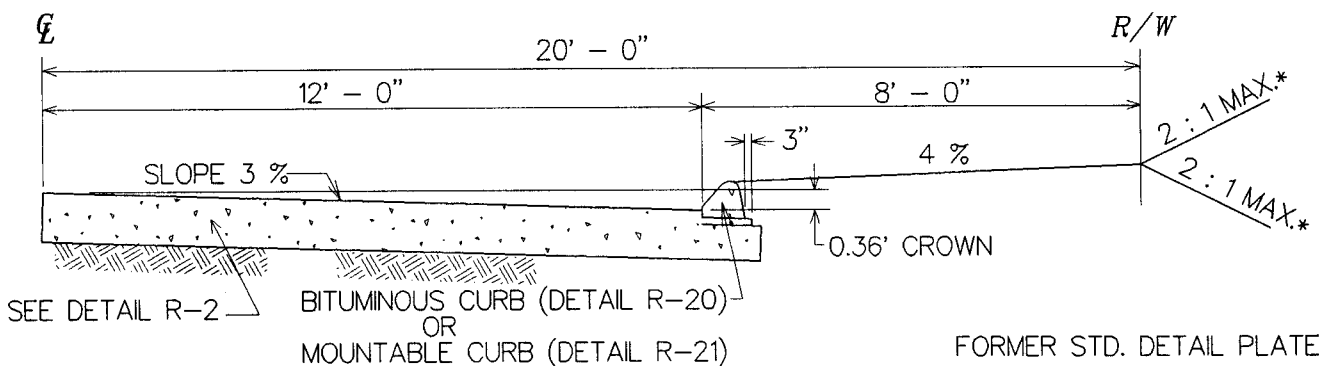
THIS DETAIL SHALL BE USED ONLY IN RC ZONES.

STABILIZATION OF SLOPES & GRADES SHALL BE IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.



USE CURB TURNOUT (SEE STD. DETAIL PLATE D-5.03) OR STORM DRAIN SYSTEM TO REMOVE RUNOFF FROM CLOSED SECTION ROADS.



FORMER STD. DETAIL PLATE R-3

APPROVAL
William Hopman
 DIRECTOR
 BUR. OF ENGINEERING CONSTRUCTION
 9/12/00
 DATE

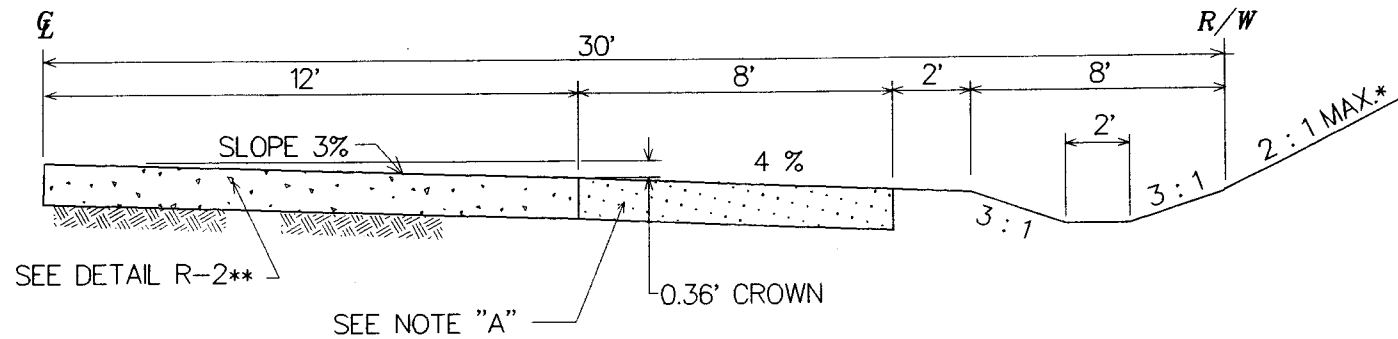
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
MINOR RURAL STREET
 LOTS ≥ 1 ACRE & FRONTAGE ≥ 150 FEET

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:
 PLATE
R-I-1

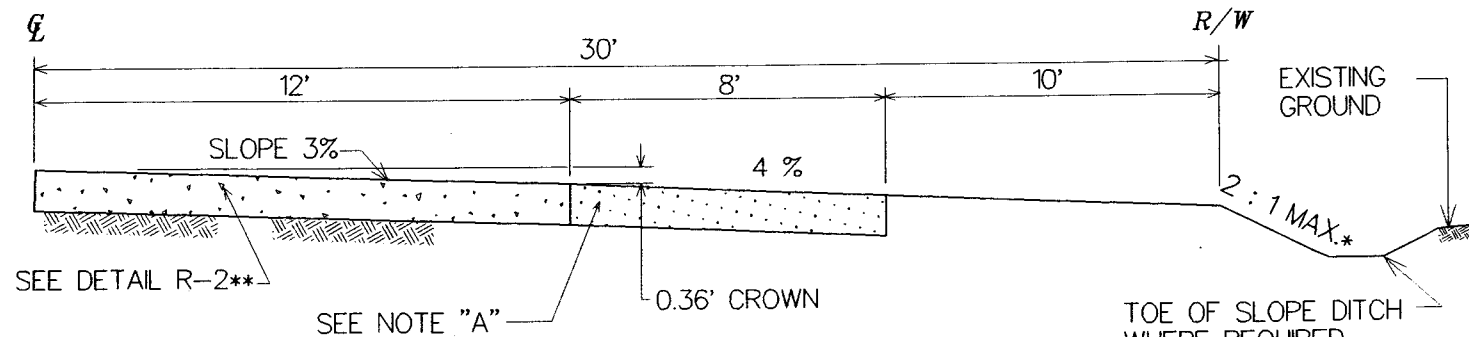


** SPECIAL DESIGN FOR DEVELOPMENT
PROJECTS HAVING ULTIMATE ROAD
WIDTH GREATER THAN 39'.

* CUT & FILL SLOPE GRADES SHALL
BE IN ACCORDANCE WITH RECOM-
MENDATIONS OF A REGISTERED
GEOTECHNICAL ENGINEER.



CUT SECTION



FILL SECTION

NOTE "A": THE SHOULDER PAVING SECTION SHALL HAVE THE SAME
OVERALL THICKNESS AS THE ROADWAY PAVING SECTION.
THE MINIMUM BITUMINOUS CONCRETE SURFACE THICKNESS
SHALL BE 3". THE ROADWAY PAVING SECTION MAY BE
SPECIFIED FOR USE AS THE SHOULDER SECTION.

FORMER STD. DETAIL PLATE R-5



APPROVAL
William E. Brown
DIRECTOR
BUR. OF ENGINEERING CONSTRUCTION
2/7/02
DATE

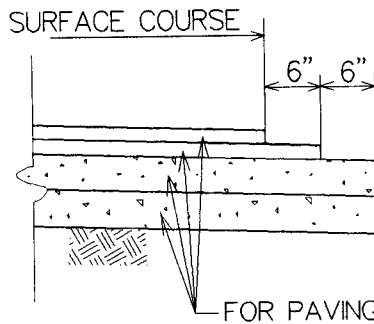
DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN
24' RURAL THOROUGHFARE
(60' R/W)

ISSUED: AUGUST, 1997
REVISED: _____
REVISED: _____

PLATE
R-I-2

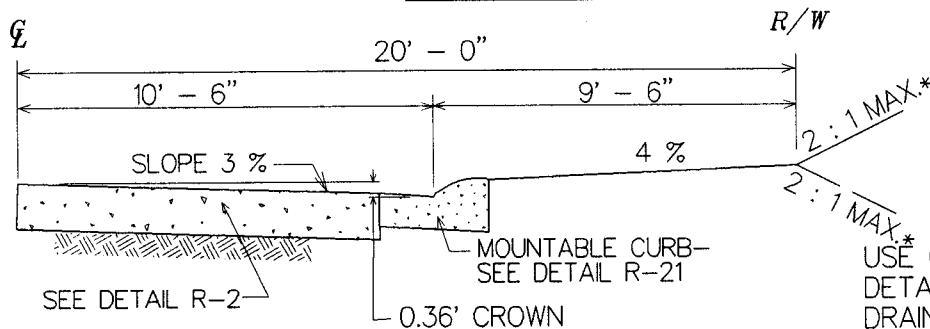
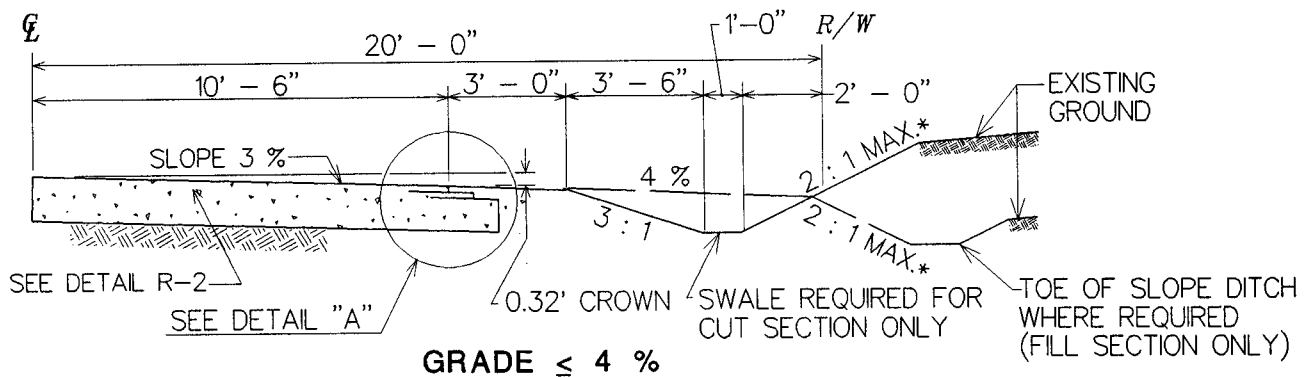
DETAIL "A"

NOTES

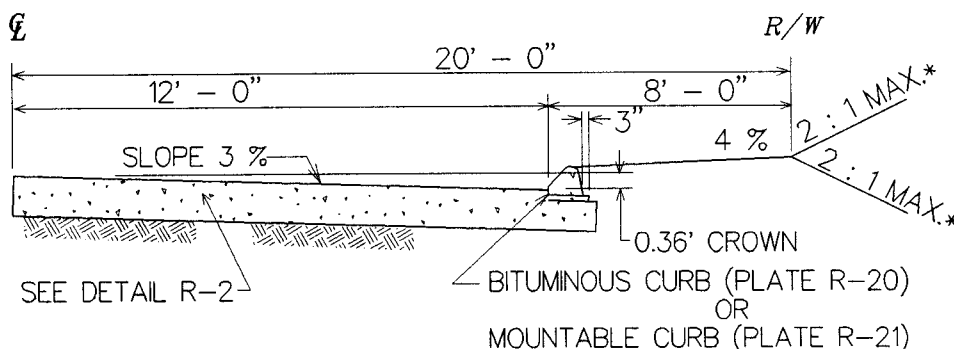


STABILIZATION OF SLOPES & GRADES SHALL BE IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.



USE CURB TURNOUT (SEE STD. DETAIL PLATE D-5.03) OR STORM DRAIN SYSTEM TO REMOVE RUNOFF FROM CLOSED SECTION ROADS.



FORMER STD. DETAIL PLATE R-4



APPROVAL
Richard C. Alford
 DIRECTOR
William J. Kopman
 BUR. OF ENGINEERING/CONSTRUCTION
 9/12/00
 DATE

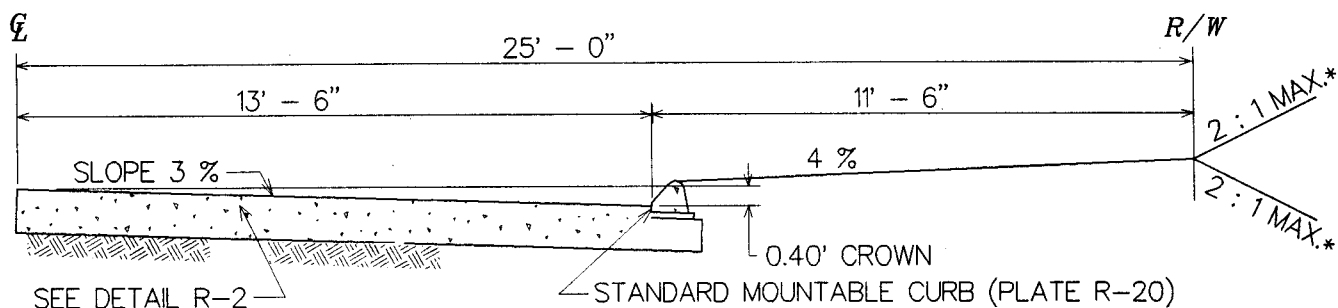
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN

MINOR RESIDENTIAL STREET
 FRONTAGE ≥ 100 FEET

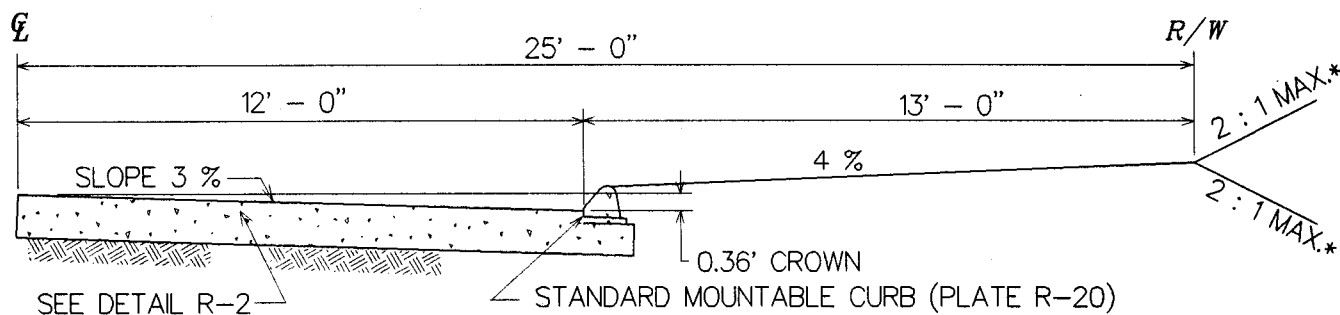
ISSUED: DECEMBER 20, 1989
 REVISED: MARCH, 2000
 REVISED:

PLATE
R-J-1

* CUT & FILL SLOPE GRADES SHALL
BE IN ACCORDANCE WITH RECOM-
MENDATIONS OF A REGISTERED
GEOTECHNICAL ENGINEER.



27' PAVEMENT



24' PAVEMENT

FORMER STANDARD DETAIL PLATE R-8



APPROVAL
DIRECTOR
William K. Korman
BUR. OF ENGINEERING CONSTRUCTION
2/7/02
DATE

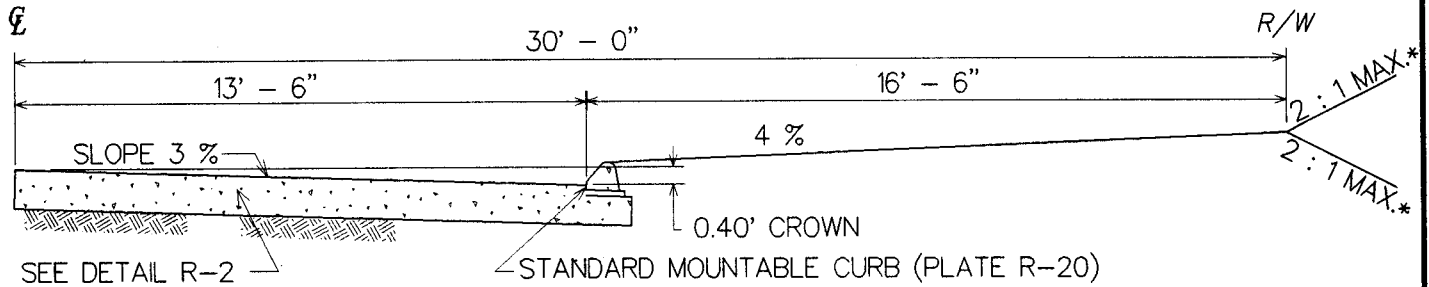
DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN

24' & 27' STREETS ON 50' R/W
USING MOUNTABLE CURB

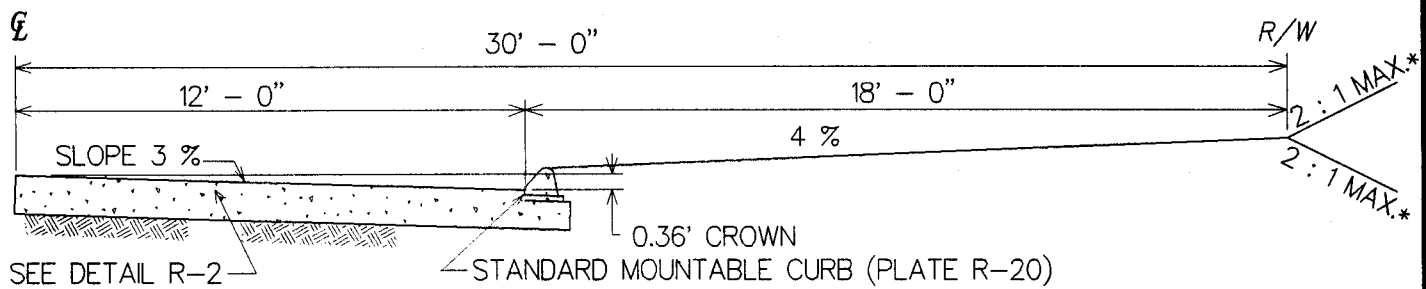
ISSUED: AUGUST, 1997
REVISED:
REVISED:

PLATE
R-J-2

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.



27' PAVEMENT



24' PAVEMENT

FORMER STANDARD DETAIL PLATE R-9



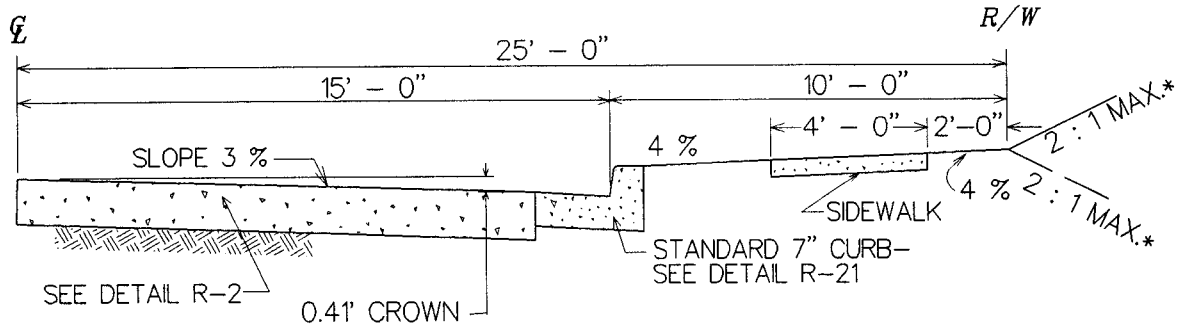
APPROVAL
William Koppen
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
 24' & 27' STREETS ON 60' R/W
 USING MOUNTABLE CURB

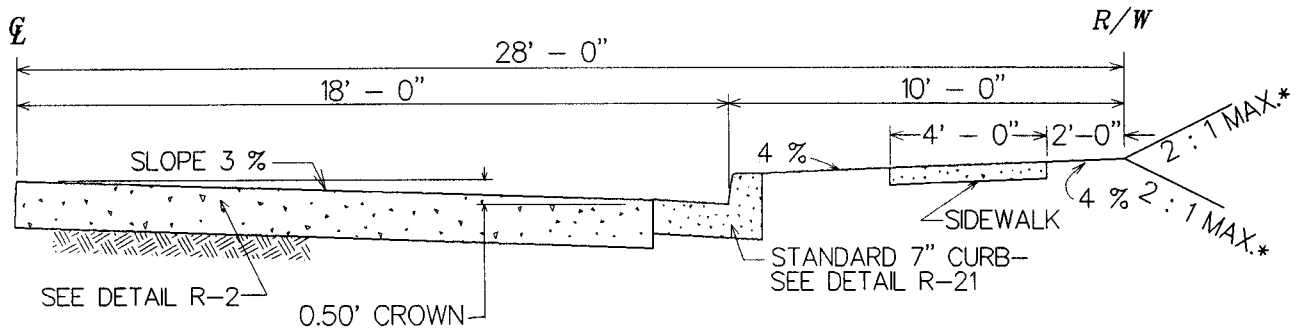
ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

PLATE
R-J-3

INDIVIDUAL HOUSING (Frontage < 100'):



DUPLEX HOUSING & GROUP HOUSING WITH PARALLEL PARKING:



NOTES

STABILIZATION OF SLOPES & GRADES SHALL BE IN ACCORDANCE WITH THE PLANS OR AS DIRECTED BY THE ENGINEER.

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.

USE CURB TURNOUT (SEE STD. DETAIL D-5.03) OR STORM DRAIN SYSTEM TO REMOVE RUNOFF FROM CLOSED SECTION ROADS.

SIDEWALK LOCATION PER STANDARD DETAIL PLATE R-19



APPROVAL
Robert C. Algest

DIRECTOR
William E. Brennan

BUR. OF ENGINEERING / CONSTRUCTION
9/12/00

DATE

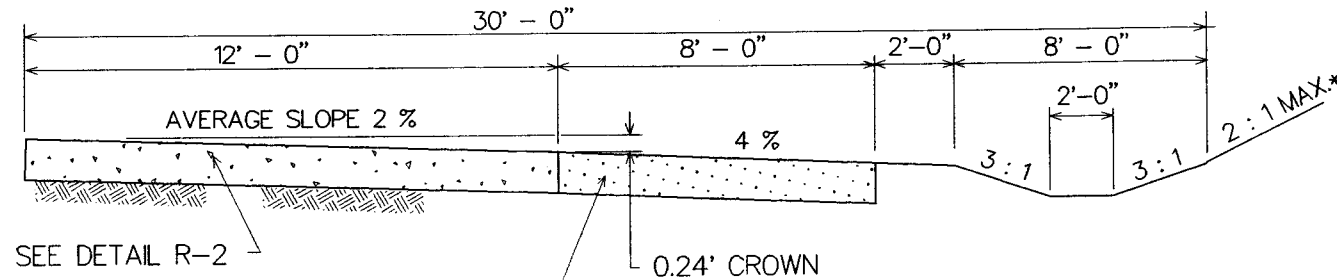
DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN
MINOR RESIDENTIAL STREET
30' STREET ON 50' R/W
36' STREET ON 56' R/W

ISSUED: AUGUST, 1997
 REVISED: _____
 REVISED: _____

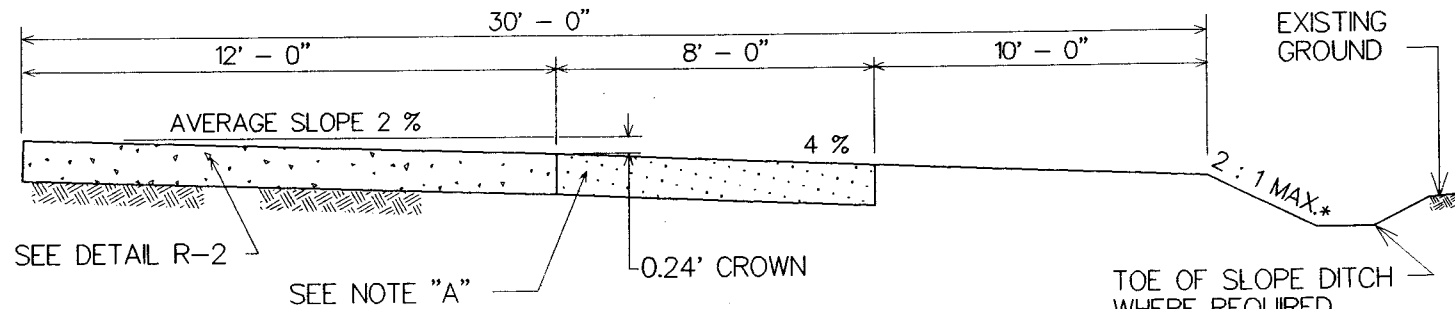
PLATE
R-J-4

STG 0001 HCNYV

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.



CUT SECTION



FILL SECTION

NOTE "A": THE SHOULDER PAVING SECTION SHALL HAVE THE SAME OVERALL THICKNESS AS THE ROADWAY PAVING SECTION. THE MINIMUM BITUMINOUS CONCRETE SURFACE THICKNESS SHALL BE 3". THE ROADWAY PAVING SECTION MAY BE SPECIFIED FOR USE AS THE SHOULDER SECTION.

FORMER STANDARD DETAIL PLATE R-6



APPROVAL
William Kypman
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

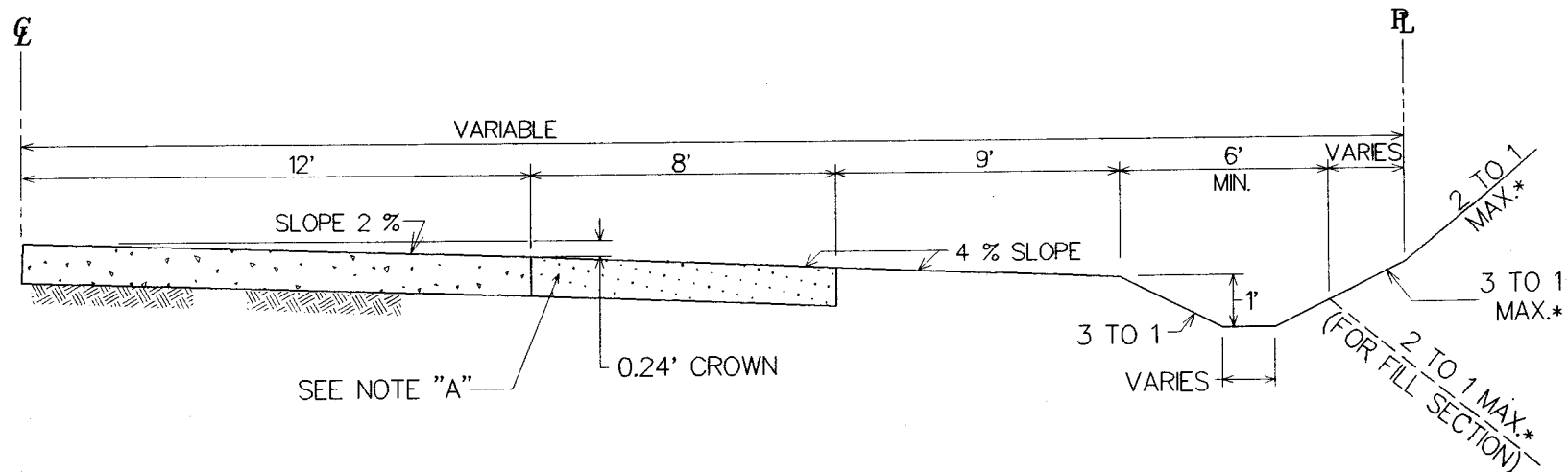
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN

24' COLLECTOR STREET

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

PLATE
 R-K-1

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.



NOTE "A": THE SHOULDER PAVING SECTION SHALL HAVE THE SAME OVERALL THICKNESS AS THE ROADWAY PAVING SECTION. THE MINIMUM BITUMINOUS CONCRETE SURFACE THICKNESS SHALL BE 3". THE ROADWAY PAVING SECTION MAY BE SPECIFIED FOR USE AS THE SHOULDER SECTION.

FORMER STANDARD DETAIL PLATE R-7



APPROVAL
 DIRECTOR
 William K. Korman
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

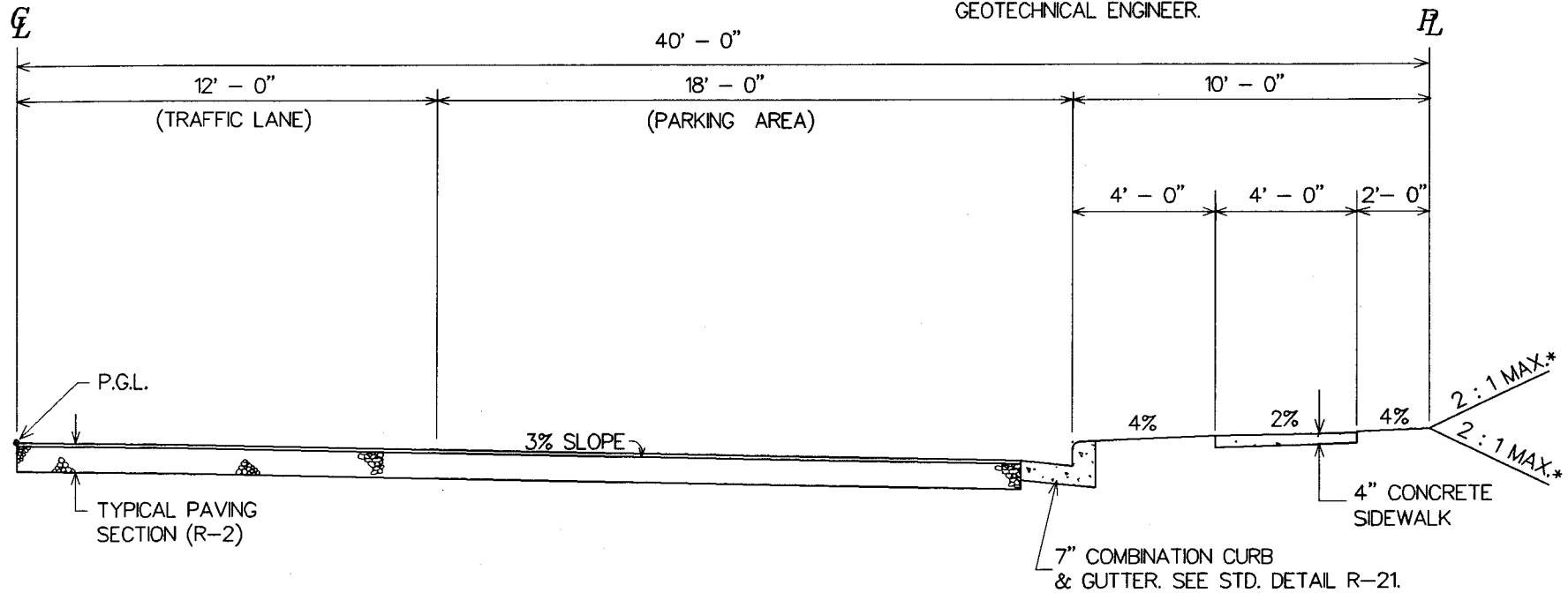
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN

24' THOROUGHFARE

ISSUED: AUGUST 1997
 REVISED:
 REVISED:

PLATE
 R-K-2

* CUT & FILL SLOPE GRADES SHALL
BE IN ACCORDANCE WITH RECOM-
MENDATIONS OF A REGISTERED
GEOTECHNICAL ENGINEER.



- NOTES:**
1. CONCRETE SIDEWALKS TO BE BUILT BY OTHERS, EXCEPT AS NOTED.
 2. SET TOP OF CURB 0.35' LOWER THAN ROAD P.G.L.

FORMER STANDARD DETAIL PLATE R-5A

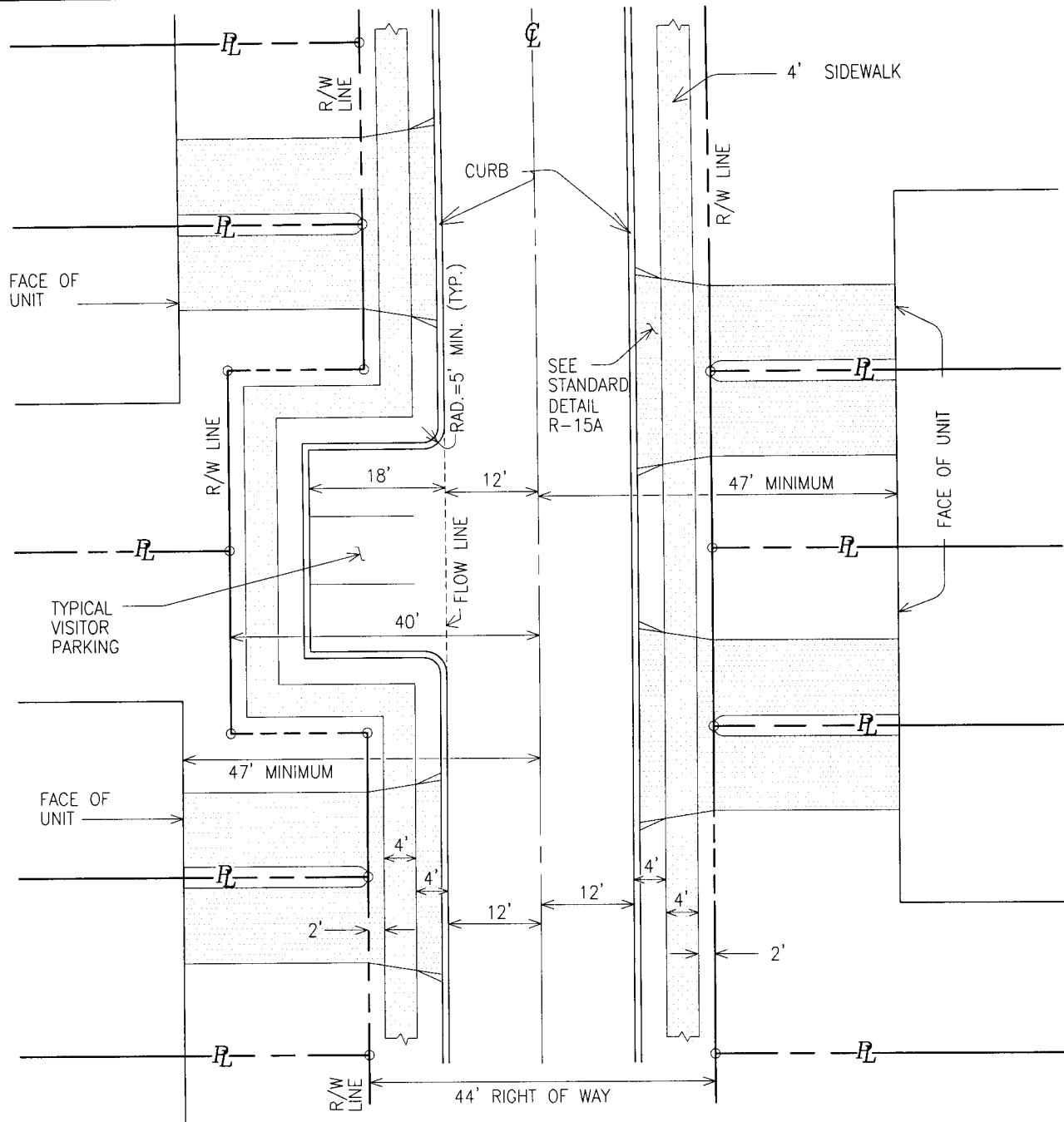


APPROVAL
Charles A. Johnson
DIRECTOR
William J. Johnson
BUR. OF ENGINEERING/CONSTRUCTION
2/7/2006
DATE

DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN
24' STREET (80' R/W)
WITH PERPENDICULAR PARKING
BOTH SIDES

ISSUED: AUGUST 1997
REVISED:
REVISED:

PLATE
R-L-1



TYPICAL LAYOUT FOR GARAGED TOWNHOUSE DEVELOPMENT NOTES:

1. MINIMUM SETBACK WINDOW TO RIGHT OF WAY LINE 13'.
2. VISITOR PARKING SHALL EQUAL 30 % OF OFF-STREET REQUIREMENT FOR GARAGED UNITS.
3. REAR YARDS FOR GARAGED UNITS - 500 SQ. FT. MINIMUM.
4. PLACE 3' CONCRETE VALLEY GUTTER ALONG INDICATED FLOW LINE IF LONGITUDINAL GRADE IS LESS THAN 2%.

FORMER STD. DETAIL PLATE R-5B

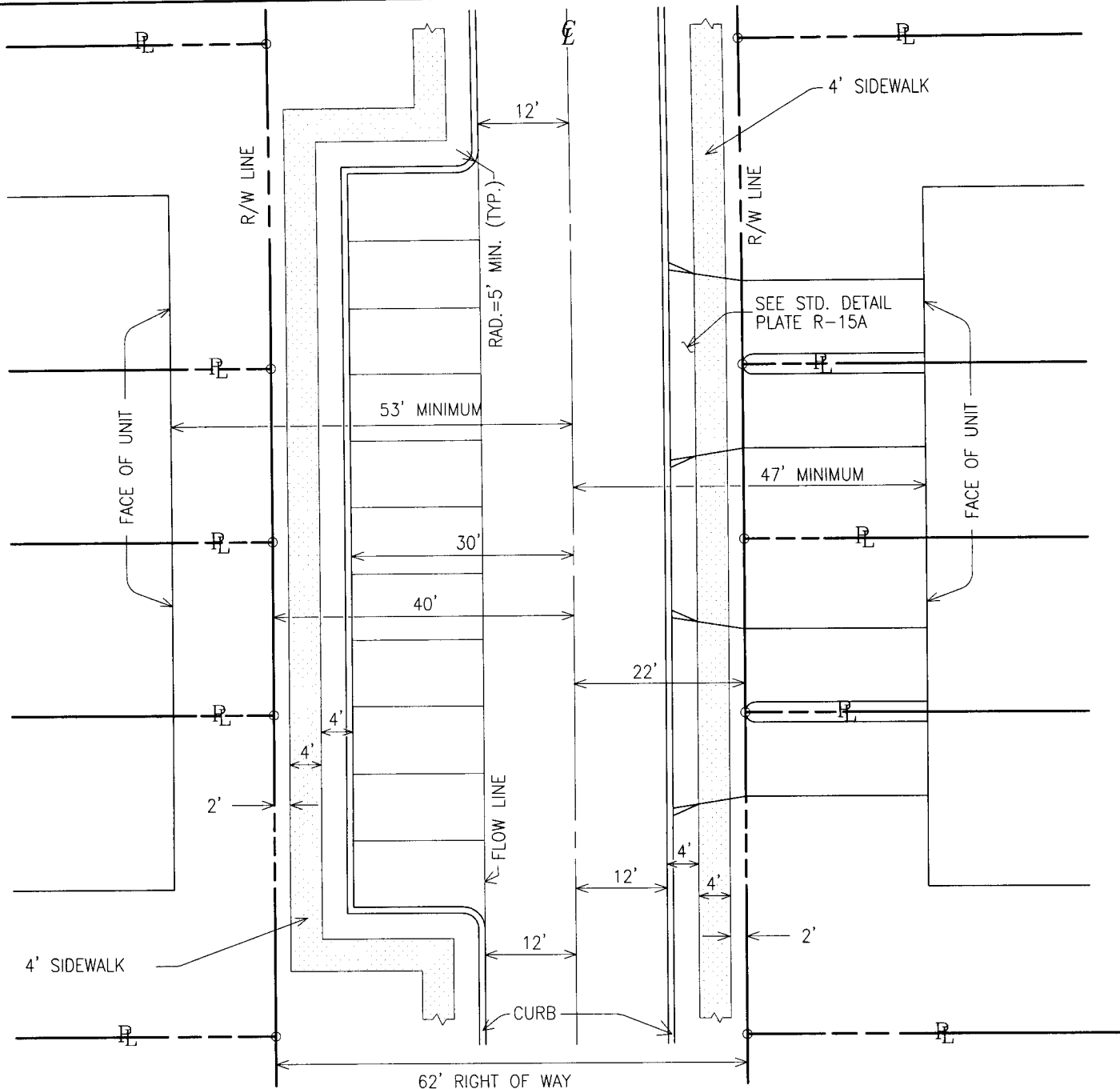


APPROVAL
[Signature]
DIRECTOR
BUR. OF ENGINEERING/CONSTRUCTION
1-2-07
DATE

DEPARTMENT OF PUBLIC WORKS
ROAD & STREET DESIGN
MINOR STREET
GARAGED TOWNHOUSES

ISSUED: AUGUST, 1997
REVISED: SEPTEMBER, 2006
REVISED:

PLATE
R-L-2



TYPICAL LAYOUT FOR MIXED GARAGED & NON-GARAGED TOWNHOUSE DEVELOPMENTS

NOTES:

1. MINIMUM SETBACK WINDOW TO RIGHT OF WAY LINE 13'.
2. VISITOR PARKING SHALL EQUAL 30 % OF OFF-STREET REQUIREMENT FOR GARAGED UNITS.
3. REAR YARDS FOR GARAGED UNITS - 500 SQ. FT. MINIMUM.
4. PLACE 3' CONCRETE VALLEY GUTTER ALONG INDICATED FLOW LINE IF LONGITUDINAL GRADE IS LESS THAN 2%.

FORMER STD. DETAIL PLATE R-5C



APPROVAL

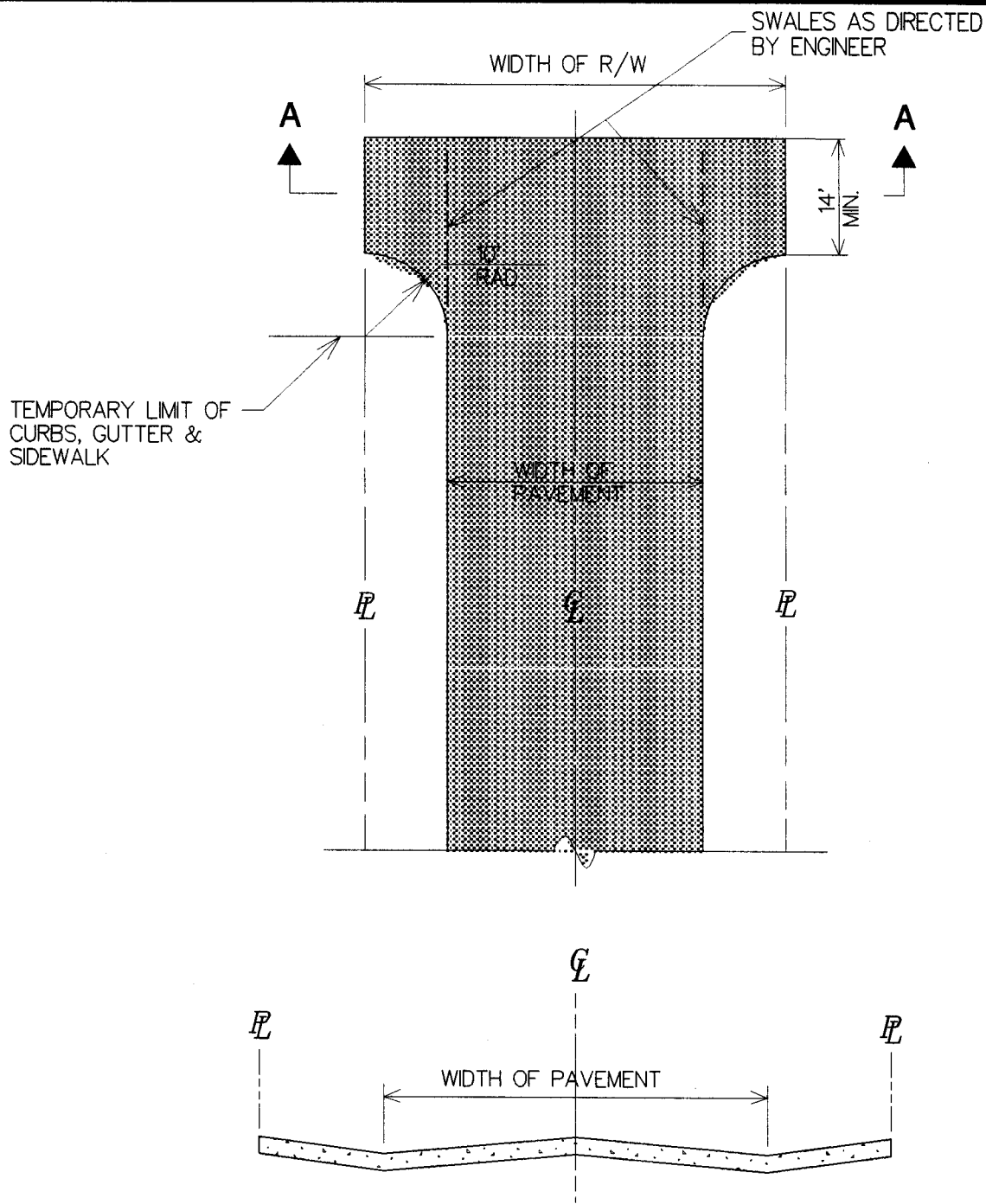
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 1-2-07
 DATE

DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
MINOR STREET
 MIXED GARAGED & NON-GARAGED
 TOWNHOUSES

ISSUED: AUGUST, 1997
 REVISED: SEPTEMBER, 2006
 REVISED: _____

PLATE

R-L-3



SECTION A - A

NOTES:

A TEMPORARY TEE TURN-AROUND SHALL BE USED IN LIEU OF A CUL-DE-SAC ONLY IF THE STREET IS TO BE EXTENDED IN THE FUTURE.

FORMER STANDARD DETAIL PLATE R-16



APPROVAL
 DIRECTOR
 William Kopman
 BUR. OF ENGINEERING CONSTRUCTION
 2/7/02
 DATE

DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN

TEMPORARY
 TEE TURN-AROUND

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

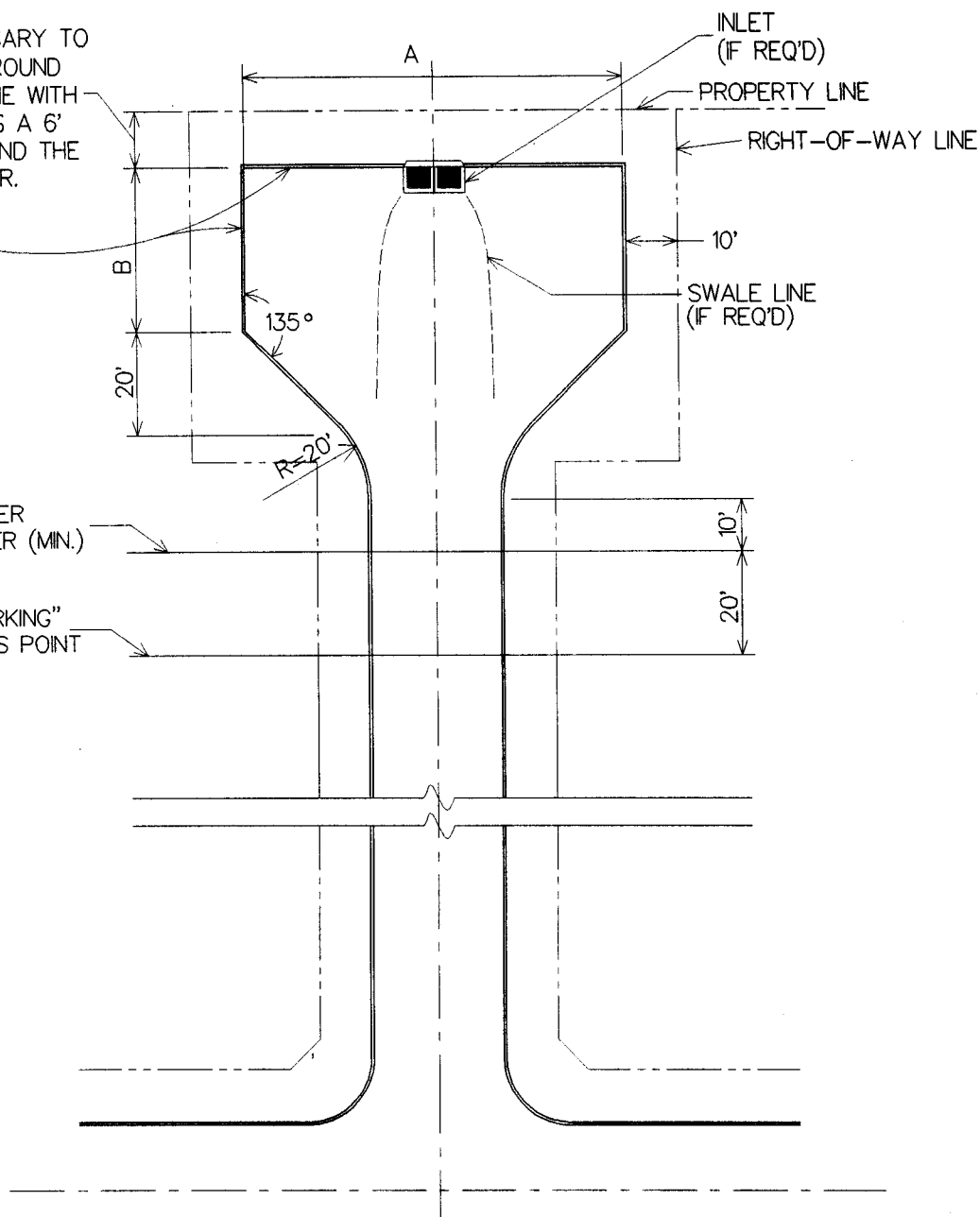
PLATE
 R-N-1

DISTANCE NECESSARY TO MEET EXISTING GROUND AT PROPERTY LINE WITH A 2:1 SLOPE PLUS A 6' LEVEL AREA BEHIND THE CURB AND GUTTER.

CONCRETE CURB AND GUTTER

LIMIT OF PERIMETER CURB AND GUTTER (MIN.)

"NO PARKING" BEYOND THIS POINT



NOTES

1. GUARD POSTS TO BE PLACED AROUND PERIMETER OF TEE AND 6' MINIMUM BEHIND CURB AND GUTTER WHERE NECESSARY.
2. "NO PARKING" TO BE POSTED WITHIN 20' OF TEE.
3. SEE PLATE R-2 FOR TYPICAL PAVING SECTION.

A	B	
70'	30'	WITH 4' CONC. WALK AND 2' LEVEL AREA
80'	40'	WITHOUT WALK

FORMER STANDARD DETAIL PLATE R-16A

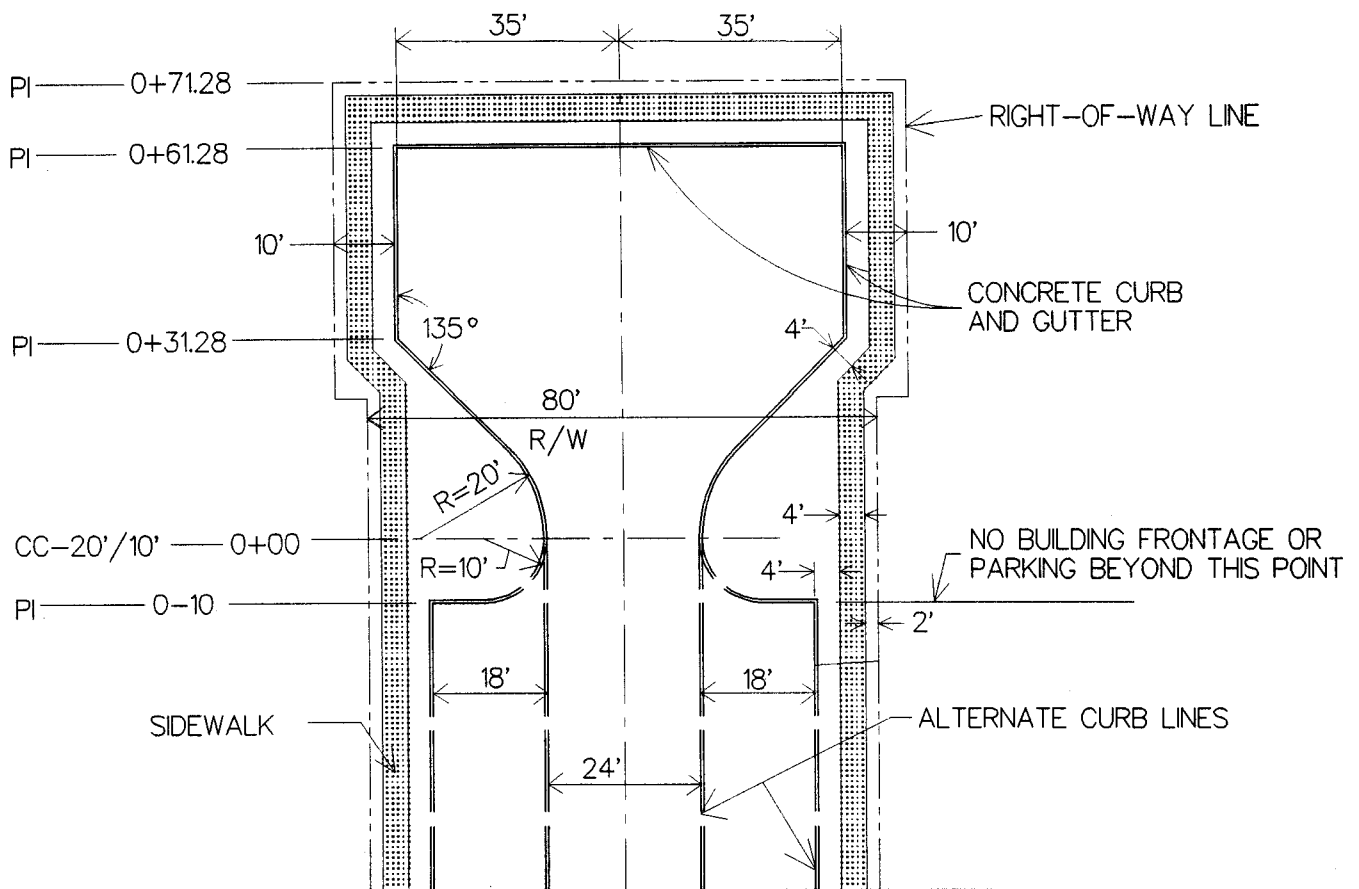


APPROVAL
William J. Finneran
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
**PERMANENT
 TEE TURN-AROUND**
 R C ZONE

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

PLATE
R-N-2



1. NO OBSTRUCTIONS ABOVE GRADE WITHIN RIGHT-OF-WAY, STATION 0-10 TO STATION 0+71.28. OBSTRUCTIONS INCLUDE FIRE HYDRANTS, SIGNS, MAIL BOXES, NEWSPAPER DISPENSERS, UTILITY JUNCTION BOXES, ETC.
2. SURFACE DRAINAGE SHALL BE BY DESIGN FOR THE SPECIFIC PROJECT.

FORMER STD. DETAIL PLATE R-16B

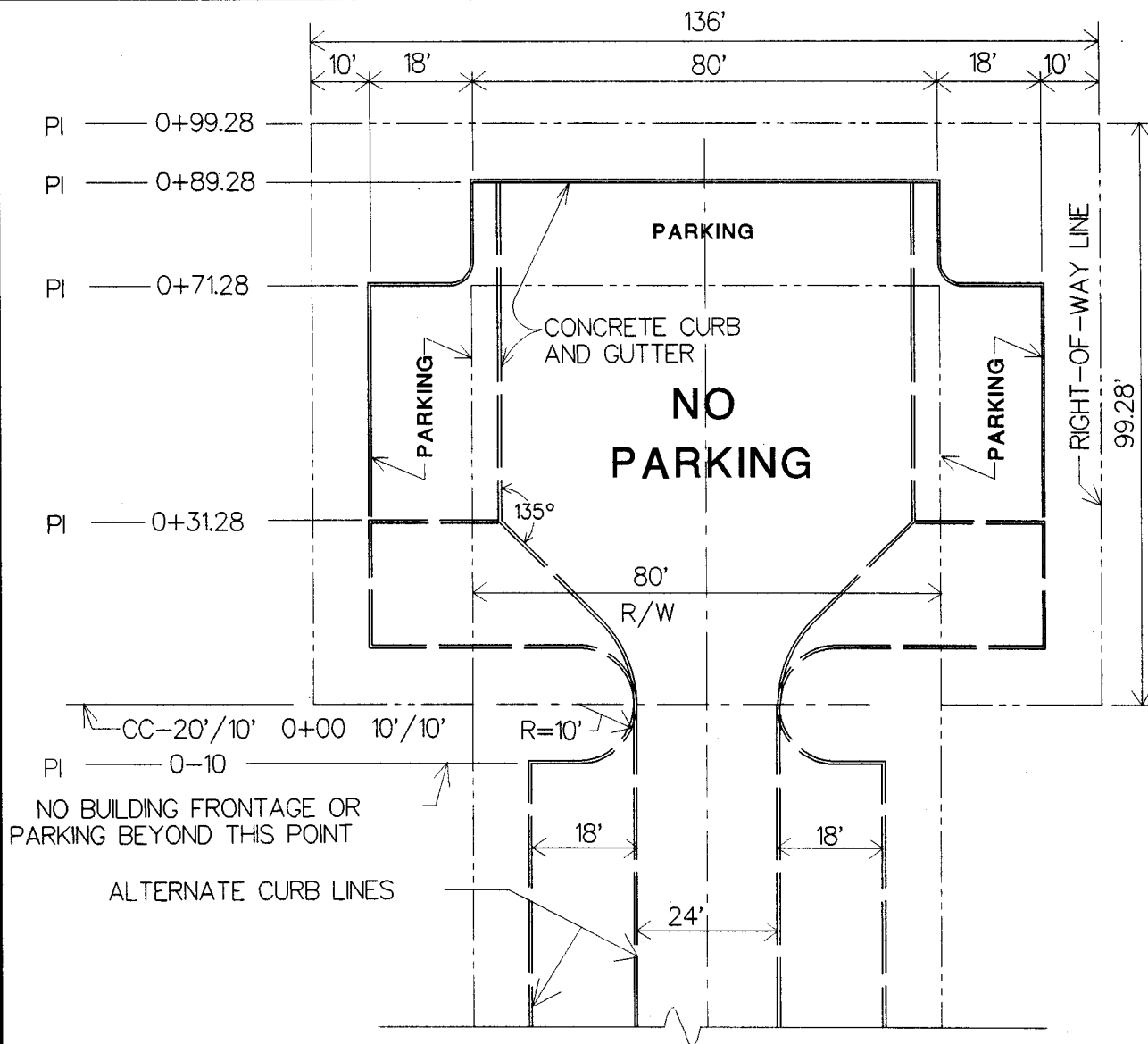


APPROVAL
 DIRECTOR
 William K. Korman
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
PERMANENT TEE TURNAROUND
 MINIMUM REQUIREMENTS

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

PLATE
R-N-3



NOTES

1. NO OBSTRUCTIONS ABOVE GRADE WITHIN RIGHT-OF-WAY, STATION 0-10 TO STATION 0+71.28. OBSTRUCTIONS INCLUDE FIRE HYDRANTS, SIGNS, MAIL BOXES, NEWSPAPER DISPENSERS, UTILITY JUNCTION BOXES, ETC.
2. THIS DETAIL IS NOT FOR USE WITH SINGLE FAMILY DETACHED HOUSES OR DUPLEXES.
3. 18' PARKING BAYS SHOWN HERE MAY BE REDUCED TO 16.5' WHERE PERMITTED BY ZONING REGULATIONS.
4. ANY COMBINATION OF PARKING BAYS MAY BE USED WITH MINIMUMS SHOWN ON PLATE R-N-3.
5. SURFACE DRAINAGE SHALL BE BY DESIGN FOR THE SPECIFIC PROJECT.

FORMER STANDARD DETAIL PLATE R-16C

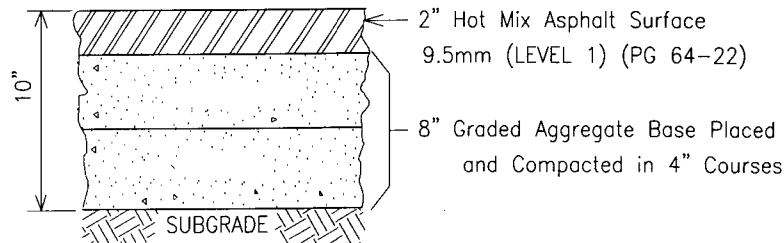
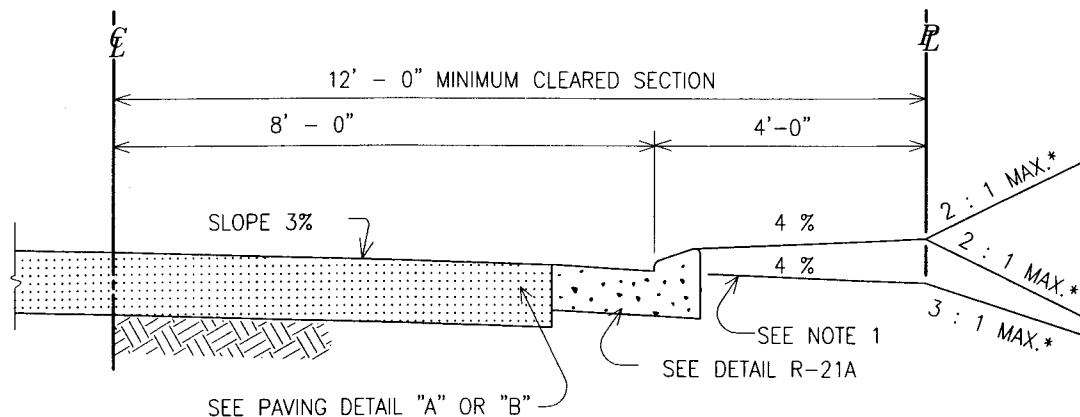


APPROVAL
William R. Hoffman
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 2/7/02
 DATE

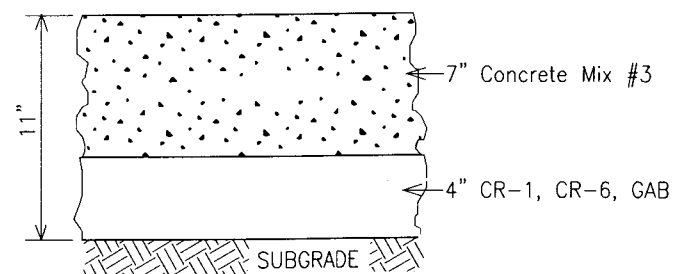
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
PERMANENT 'TEE' TURNAROUND
 PARKING ALTERNATIVES
 DR ZONES

ISSUED: AUGUST, 1997
 REVISED:
 REVISED:

PLATE
R-N-4



DETAIL "A"



DETAIL "B"



NOTES

1. STORM WATER FROM DRIVEWAY MAY BE REMOVED BY INSTALLATION OF COMBINATION INLETS CONNECTED TO THE CULVERT UNDER THE DRIVEWAY, OR BY USE OF CURB TURNOUTS SIMILAR TO DETAIL PLATE D-5.03, DISCHARGING TO A STABILIZED DRAINAGE SWALE.
2. MINIMUM HORIZONTAL CURVATURE = 30 FOOT \mathcal{E} RADIUS
3. MAXIMUM ABRUPT CHANGE IN GRADE \mathcal{E} AT ROAD R/W LINE = 8° OR 13%.
4. MAXIMUM VERTICAL CURVATURE ON \mathcal{E} PROFILE SHALL BE ESTABLISHED BY PLOTTING A 3-1/2" RADIUS CIRCULAR CURVE ON A 5 FOOT VERTICAL SCALE BY 50 FOOT HORIZONTAL SCALE PROFILE (20 MILE / HOUR DESIGN SPEED).
5. SIDEWALKS MAY BE DEPRESSED 4 INCHES BELOW STANDARD GRADE THROUGH PANHANDLE PROFILE.
6. MAXIMUM GRADE = 14%.
7. A RURAL PANHANDLE DESIGN (SEE PLATE R-Q) MAY BE PERMITTED WHEN DRAINAGE AND OTHER CONDITIONS NOT ADVERSE TO RESIDENTIAL CONSTRUCTION ARE FOUND TO ENCOURAGE DISPERSION AND/OR INFILTRATION OF RUNOFF.
8. LIMIT GROUND IRON BLAST FURNACE SLAG CONTENT TO 35% MAXIMUM IN MIX #3 CONCRETE.

* CUT & FILL SLOPE GRADES SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF A REGISTERED GEOTECHNICAL ENGINEER.

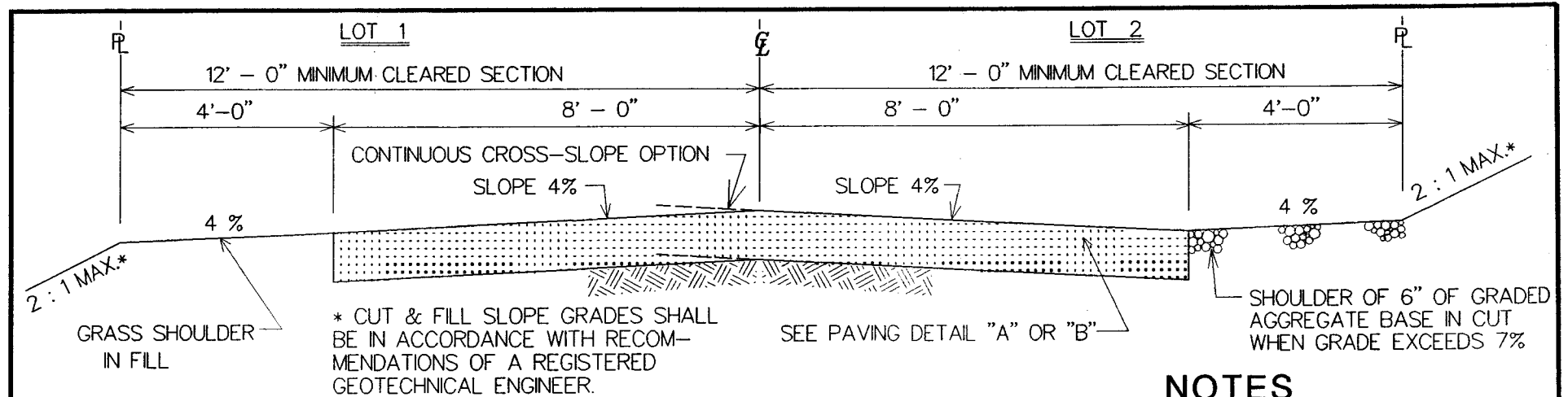
FORMER STANDARD DETAIL PLATE R-45.



APPROVAL

 DIRECTOR

 BUR. OF ENGINEERING/CONSTRUCTION
 2-22-06
 DATE

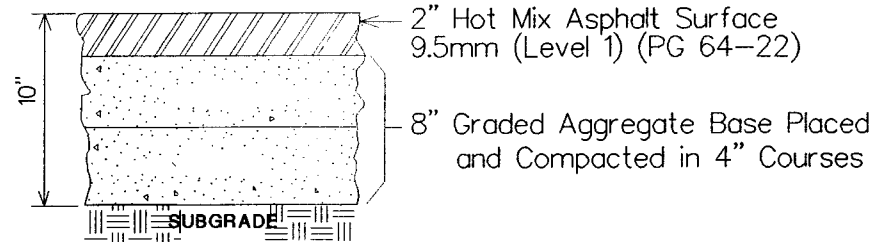
DEPARTMENT OF PUBLIC WORKS
 STANDARD ROAD & STREET DESIGN
PANHANDLE DRIVEWAY
 URBAN ZONING

ISSUED: AUGUST, 1997
 REVISED: MARCH, 2002
 REVISED: NOVEMBER, 2005
 PLATE
R-P

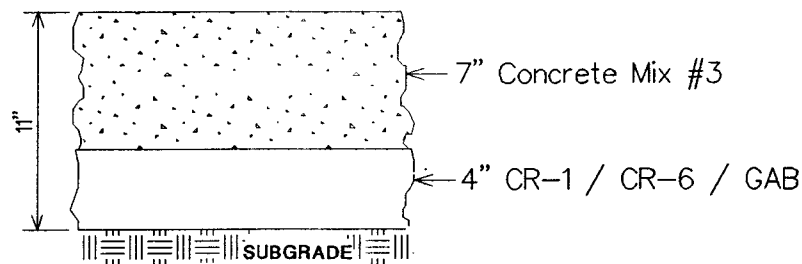


NOTES

1. STORM WATER FROM DRIVEWAY SUMPS MAY BE REMOVED BY REVERSED SLOPE SHOULDERS DRAINING TO NATURAL, STABLE DRAINAGE COURSES.
2. MINIMUM HORIZONTAL CURVATURE = 30 FOOT ϵ RADIUS
3. MAXIMUM ABRUPT CHANGE IN GRADE ϵ AT ROAD R/W LINE = 8° OR 13%.
4. MAXIMUM VERTICAL CURVATURE ON ϵ PROFILE SHALL BE ESTABLISHED BY PLOTTING A 3-1/2" RADIUS CIRCULAR CURVE ON A 5 FOOT VERTICAL SCALE BY 50 FOOT HORIZONTAL SCALE PROFILE (20 MILE PER HOUR DESIGN SPEED)
5. MAXIMUM GRADE = 14%.
6. WHERE DRAINAGE, ENVIRONMENTAL PROTECTION AND OTHER CONDITIONS PERMIT, A NON-CROWN SECTION WITH CROSS-SLOPE AT 4% (1/2" TO 1") MAY BE UTILIZED TO ENCOURAGE DISPERSION AND/OR INFILTRATION OF RUNOFF.
7. DESIGN STANDARD PLATE R-P MAY BE UTILIZED IN ALL RURAL ZONES.



DETAIL "A"



DETAIL "B"

FORMER STANDARD DETAIL PLATE R-46.



APPROVAL
William Koppman
DIRECTOR
BUR. OF ENGINEERING/CONSTRUCTION
3/19/02
DATE

DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN
**PANHANDLE DRIVEWAY
RURAL ZONING**

ISSUED: AUGUST, 1997
REVISED: MARCH, 2002
REVISED:

PLATE
R-Q



THE FOLLOWING TABLE INDICATES MINIMUM STANDARDS FOR RESIDENTIAL DEVELOPMENT LOCAL STREET CROSS-SECTION.
THIS TABLE SUPERSEDES PAGE E-29 OF THE *DEVELOPMENT PROCEDURES & POLICY MANUAL* (11/18/85, REV. 3/26/93)

LOT SIZE	WIDTH R/W	GRADE	WIDTH TRAFFIC WAY & PARKING LANE	CURB & GUTTER	SIDEWALK WIDTH	DESIGN STD.	REMARKS
GROUP HOUSING							
PARALLEL PARKING	56'	0.6% to 10%	2 - 18' Lanes	7" Std. (1)	4'	R-J-4	Less than 1501 ADT + alley access for off street parking
PERPENDICULAR PARKING	80'	0.6% to 5%	2 - 12' Lanes + 18' Bays	7" Std. (1)	4'	R-L-1	
(Parking on one side only - less than 800 ADT) (Parking on both sides - less than 600 ADT)							
GARAGE TOWNHOUSE	44'	-	2 - 12' Lanes	Mountable (2)	4'	R-L-2, 3	No Parking
(An additional 30 % of the Development's parking requirements must be provided within the street system)							
DUPLEX HOUSING	56'	-	2 - 18' Lanes	7" Std. (1)	4'	R-J-4	Less than 1501 ADT
INDIVIDUAL HOUSING							
Frontage Less Than 100' DR ZONES	50'	-	2 - 15' Lanes	7" Std. (1)(5)	4'	R-J-4	Less than 1501 ADT
Frontage Greater Than or Equal to 100'	40'	0.6% to 4%	2 - 10.5' Lanes (4)	None (4)	-	R-J-1	Less than 751 ADT
	40'	0.6% to 10%	2 - 10.5' Lanes	Mountable (2)	-	R-J-1	Less than 751 ADT
	40'	1.0% to 10%	2 - 12' Lanes	Bituminous (3)	-	R-J-1	Less than 1501 ADT
Frontage Greater Than or Equal to 150' AND 1 Acre or Larger; ONLY IN RC ZONES	40'	0.6% to 4%	2 - 9' Lanes (4)	None (4)	-	R-I-1	Less than 251 ADT
	40'	0.6% to 12%	2 - 9' Lanes	Mountable (2)	-	R-I-1	Less than 251 ADT
	40'	1.0% to 12%	2 - 12' Lanes	Bituminous (3)	-	R-I-1	Less than 1501 ADT

NOTES

MOUNTABLE CURB & GUTTER SHALL NOT BE USED ON DEVELOPER
PROJECTS UNLESS EXPLICITLY APPROVED ON A CASE-BY-CASE
BASIS BY BUREAU OF DEVELOPMENT PLANS REVIEW.

THE DIRECTOR OF PUBLIC WORKS RESERVES THE RIGHT TO REQUIRE
HIGHER STANDARDS AND / OR GREATER WIDTHS THAN THOSE
INDICATED HEREON.

LOCAL COLLECTOR STREETS AND THOROUGHFARES WILL BE CON-
STRUCTED TO SECTIONS DEVELOPED BY THE DIRECTOR OF PUBLIC
WORKS BASED UPON LOCAL CONDITIONS, FUNCTION AND PRESENT
AND FUTURE TRAFFIC VOLUMES.

FOOTNOTES

- (1) - See Standard 7" Curb & Gutter, Detail R-21
- (2) - See Mountable Curb & Gutter, Detail R-21
- (3) - See HMA or Extruded Concrete Mountable Curb, Detail
R-20A or B, or Mountable Curb and Gutter, Detail R-21
- (4) - Emergency Stopping Only - No On-Street Parking Lane
is provided. Grade and clear for 6' minimum grass shoulder
on each side of pavement or as required for sight distance.
- (5) - Mountable Curb and Gutter (Detail R-21) may be used
where proposed ADT < 251



APPROVAL
William J. Hopman
DIRECTOR
BUREAU OF ENGINEERING CONSTRUCTION
7/28/06
DATE

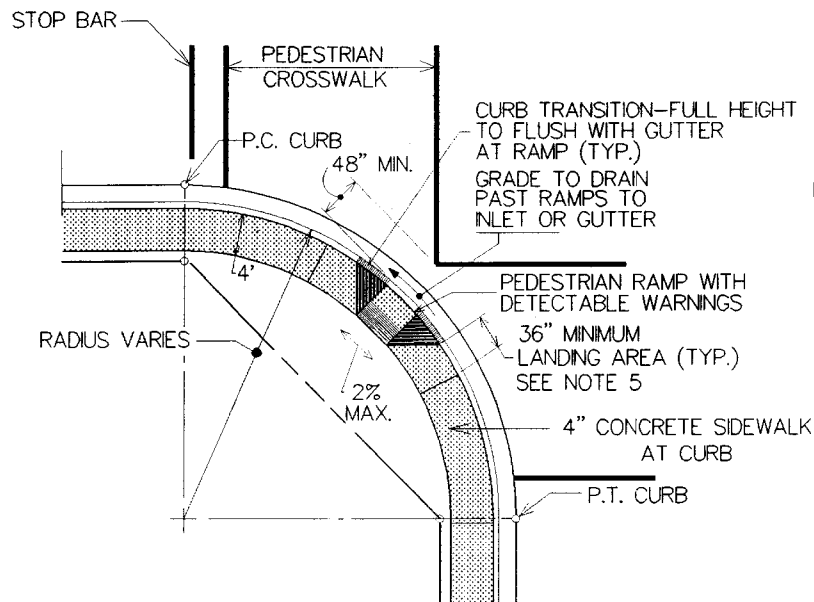
DEPARTMENT OF PUBLIC WORKS
STANDARD ROAD & STREET DESIGN

MINOR RESIDENTIAL STREET STDS.

ISSUED: November 18, 1985
REVISED: March 26, 1993
REVISED: March, 2000

PLATE
R-S

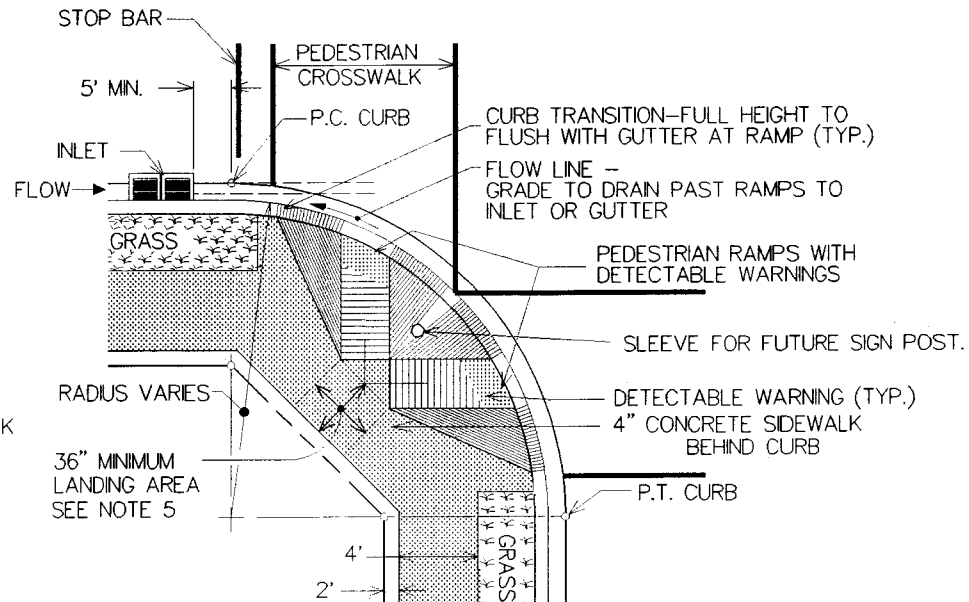
MARCH 2000 DJS



MINOR STREETS OR AS DIRECTED

NOTES :

1. PEDESTRIAN RAMPS SHALL BE PROVIDED WHEREVER A PUBLIC SIDEWALK CROSSES A CURB. ALIGN RAMPS AND LEVEL AREAS AS MUCH AS POSSIBLE WITH THE CENTER LINES OF APPROACHING SIDEWALKS.
2. MINIMUM 36" CLEAR SIDEWALK AND RAMP REQUIRED AROUND ALL OBSTRUCTIONS. REMOVE OR RELOCATE PROTRUDING OBJECTS, EXISTING HYDRANTS, POLES, INLETS AND OTHER OBSTRUCTIONS WITHIN 36" MINIMUM SPACE WHEREVER PRACTICAL. AVOID ANY PROTRUSIONS OVER 4" (12" IF ON POLE). PEDESTRIAN RAMPS REQUIRE SPECIAL DESIGN AT SUMPS TO AVOID RAMP FLOODING AND SILTATION FOLLOWING STORMS.
3. NO SLOPE SHALL EXCEED 8.3% (1 VERTICAL TO 12 HORIZONTAL) ON RAMP (1 TO 10 ON FLARES).
4. MINIMUM RAMP WIDTH = 36" EXCLUSIVE OF FLARED SIDES.
5. LANDING AREAS SHALL HAVE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS. LANDING AREA ON MINOR STREETS MAY



THOROUGHFARES & COLLECTOR ROADS (PREFERRED CONFIGURATION)

6. BE LOCATED AS SHOWN FOR THOROUGHFARES IF SIDEWALK IS SUFFICIENTLY BEHIND CURB TO ALLOW 36" MINIMUM LANDING WIDTH AT THIS LOCATION.
7. USE OF A CURB RETURN IN LIEU OF FLARES IS ALLOWED ONLY WHERE THE CURB RETURN WILL BE PARALLEL TO PEDESTRIAN FLOW.
8. ALL PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF MUTCD.
9. SIDEWALK RAMPS, FLARES & TRANSITION AREAS ADJACENT TO DEPRESSED CURB SHALL BE 7" THICK CONCRETE. SIDEWALK BEHIND FULL HEIGHT CURB SHALL BE 4" THICK CONCRETE, EXCEPT WHERE ENGINEER DETERMINES THAT SIDEWALK COULD BE SUBJECT TO TRAFFIC LOADING REQUIRING 7" THICKNESS.



APPROVAL
William J. Freeman
 DIRECTOR
 BUR. OF ENGINEERING/CONSTRUCTION
 12/20/02
 DATE

DEPARTMENT OF PUBLIC WORKS ROAD & STREET DESIGN PEDESTRIAN RAMPS

ISSUED: OCTOBER, 2002
 REVISED:
 REVISED:

PLATE

R-T