

**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

VOLUME I - YEAR 2003 REVISIONS

<u>DRAWING NUMBER AND TITLE</u>	<u>PAGE NUMBER(S)</u>	<u>NATURE OF CHANGE</u>	<u>EFFECTIVE DATE</u>
235 Sidewalk Ramp	41-41C	Revision to require installation of detectable warnings on sidewalk ramp surface.	3/1/03
201.1	7.1	New drawings and revisions to existing drawings to incorporate pedestrian and bicycle improvements resulting from the Alternative Modes Needs Assessment for the Las Vegas Valley.	8/1/03
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Revised February 2004

FOREWORD

**UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION,
OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA
VOLUME I**

The following participating entities of the Clark County, Nevada area have adopted these standard drawings.

- CITY OF LAS VEGAS
Adopted by City Council action November 4, 1987
- CITY OF HENDERSON
Adopted by City Council action October 20, 1987
- CITY OF NORTH LAS VEGAS
Adopted by City Council action November 4, 1987
- CITY OF BOULDER CITY
Adopted by City Council action January 26, 1988
- CITY OF MESQUITE
Adopted by City Council action January 26, 1988
- CLARK COUNTY
Adopted by Board action April 1998
- REGIONAL STREET AND HIGHWAY COMMISSION
Adopted by Commission Action October 8, 1987

The Uniform Standard Drawings for Public Works Construction may be revised by issuance of revisions or supplements to correct errors and omissions found in these drawings and to reflect advanced thinking and the changing technology of the construction industry. Each revision will supersede any previous pertinent drawing. Upon approval by the Regional Transportation Commission, revisions will be posted to the RTC website, www.rtcsonthernnevada.com, on the first day of the month following the meeting. **This volume contains all revisions through December 2003.**

To implement this end a Specifications Committee has been established as a permanent organization to continually study and recommend changes to the standard drawings. Interested parties may address suggested changes and questions to the Regional Transportation Commission, 600 South Grand Central Parkway, Suite 350, Las Vegas, Nevada, 89106-4512.

UNIFORM STANDARD DRAWINGS, CLARK COUNTY AREA

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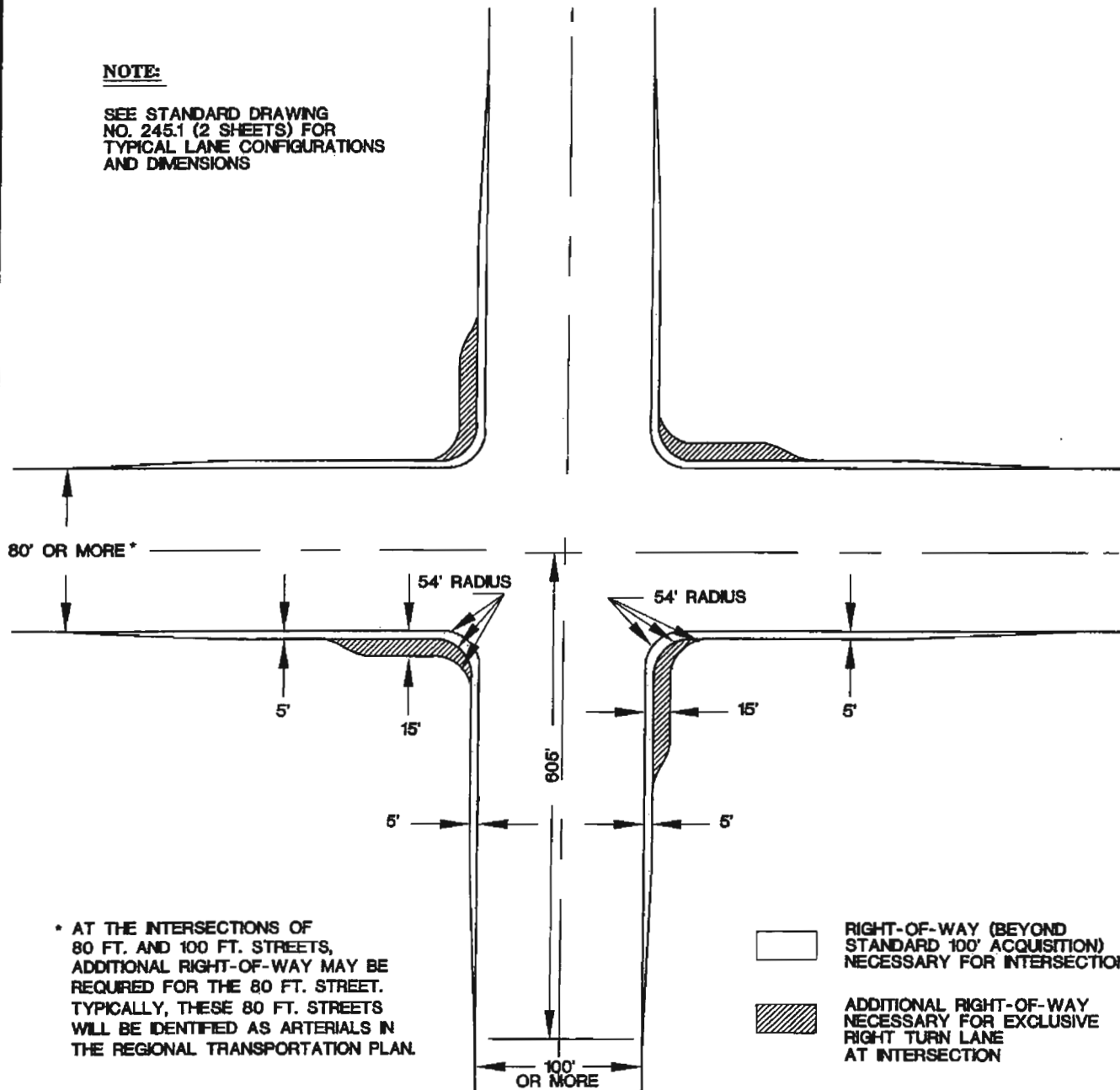
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 - Denotes revised /added in 2003.

Revised February 2004

NOTE:

SEE STANDARD DRAWING
NO. 245.1 (2 SHEETS) FOR
TYPICAL LANE CONFIGURATIONS
AND DIMENSIONS

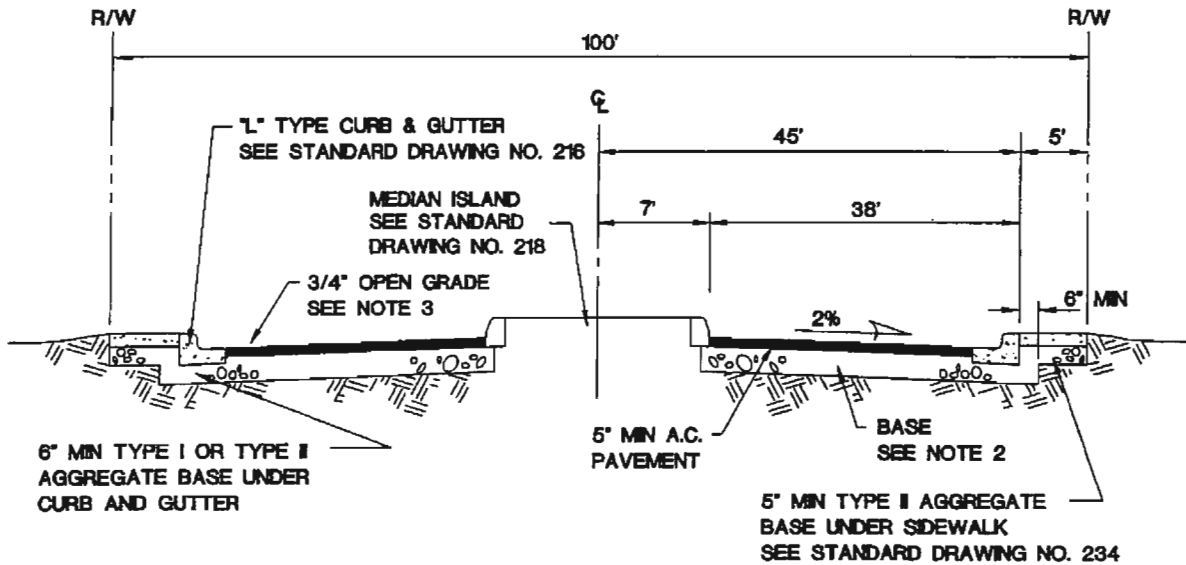


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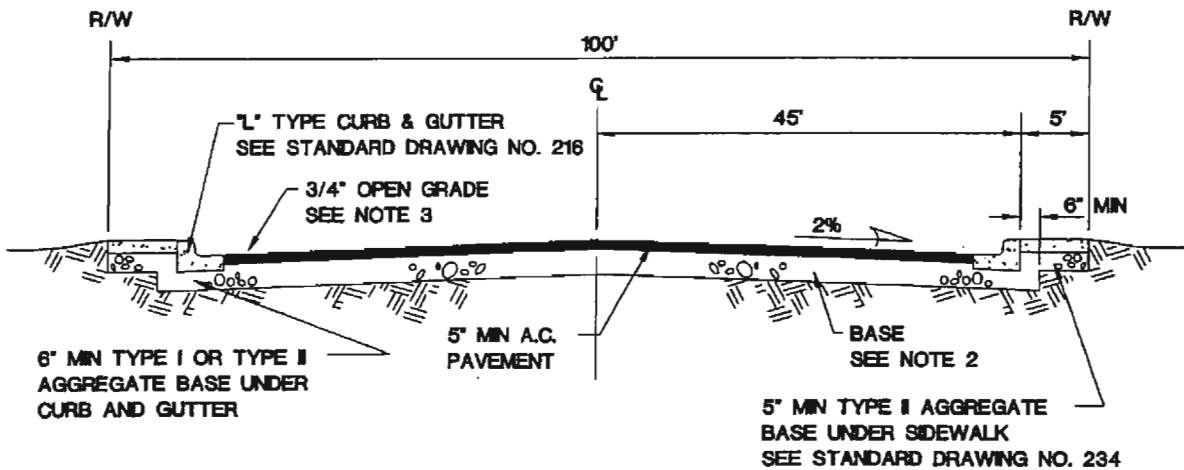
**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**ADDITIONAL RIGHT-OF-WAY REQUIRED
AT MAJOR INTERSECTIONS**

DATE 7-10-03	DWG. NO. 2011	PAGE NO. 7.1
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**ARTERIAL WITH
MEDIAN ISLAND**

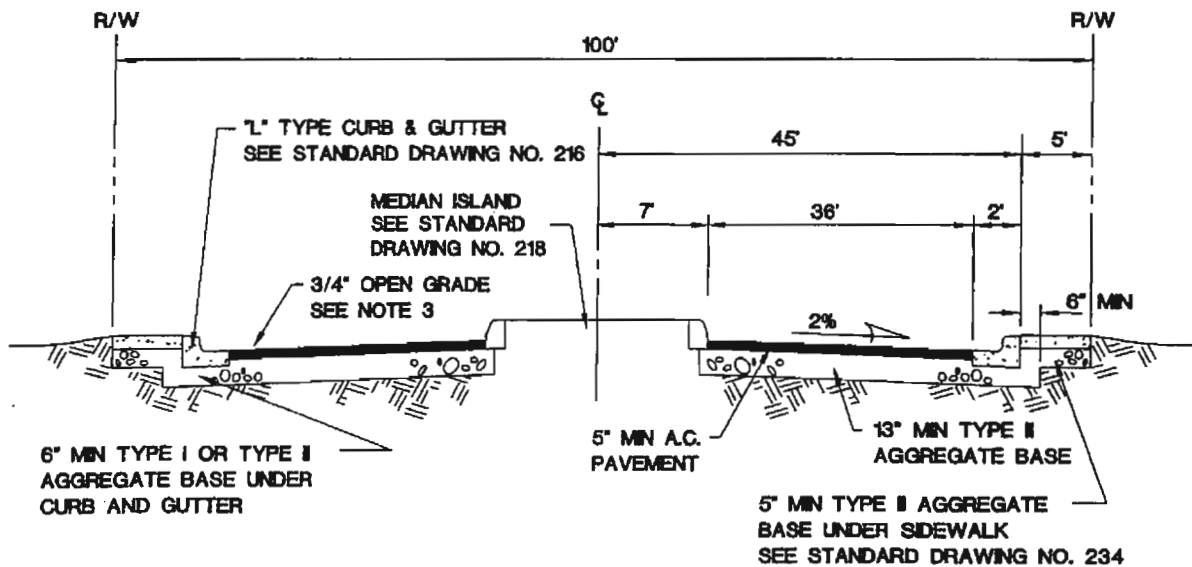


**ARTERIAL WITHOUT
MEDIAN ISLAND**

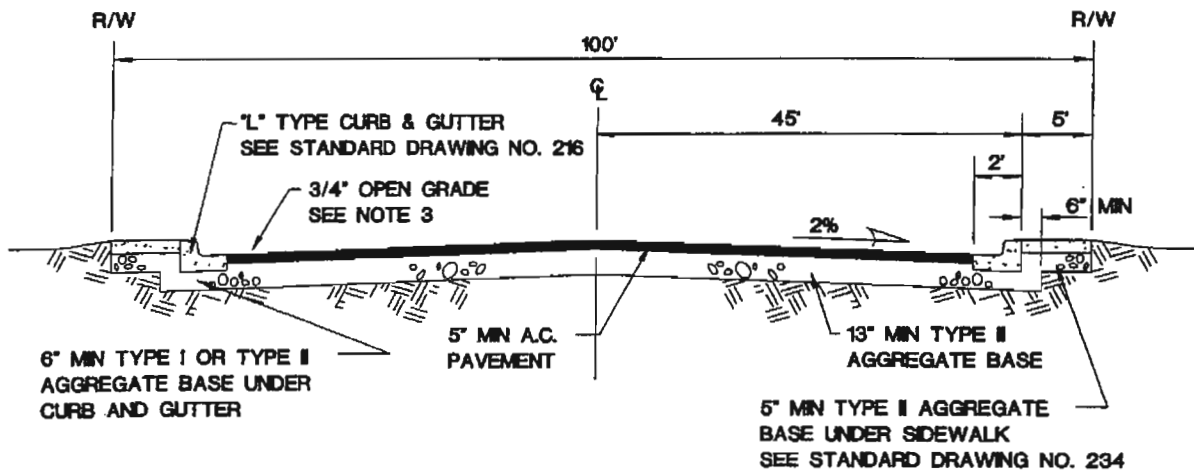
NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON A SUBGRADE "R" OR "CBR" VALUE DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 3" (ALTERNATE PAVEMENT SURFACE MAY BE ALLOWED).
3. A 3/4" OPEN GRADE MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
302	AGGREGATE BASE	HENDERSON, BOULDER CITY, MESQUITE ARTERIAL URBAN AREA STREET SECTIONS WITH CURBSIDE SIDEWALK	
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403	OPEN GRADE		
501	CONCRETE		
		DATE 7-10-03	DWG. NO. 202
		PAGE NO. 8	



**ARTERIAL WITH
MEDIAN ISLAND**

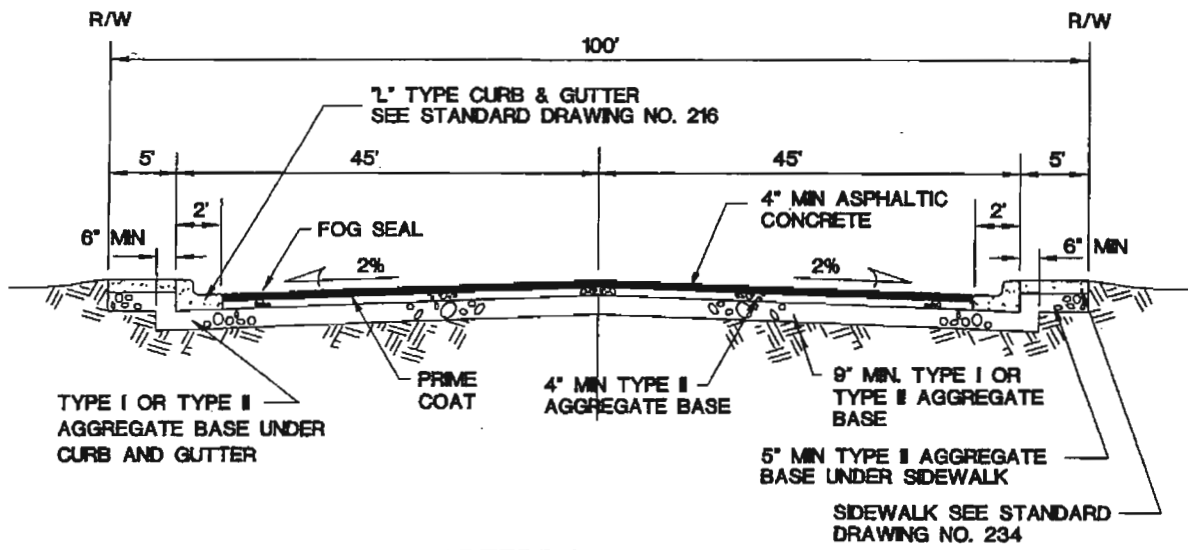


**ARTERIAL WITHOUT
MEDIAN ISLAND**

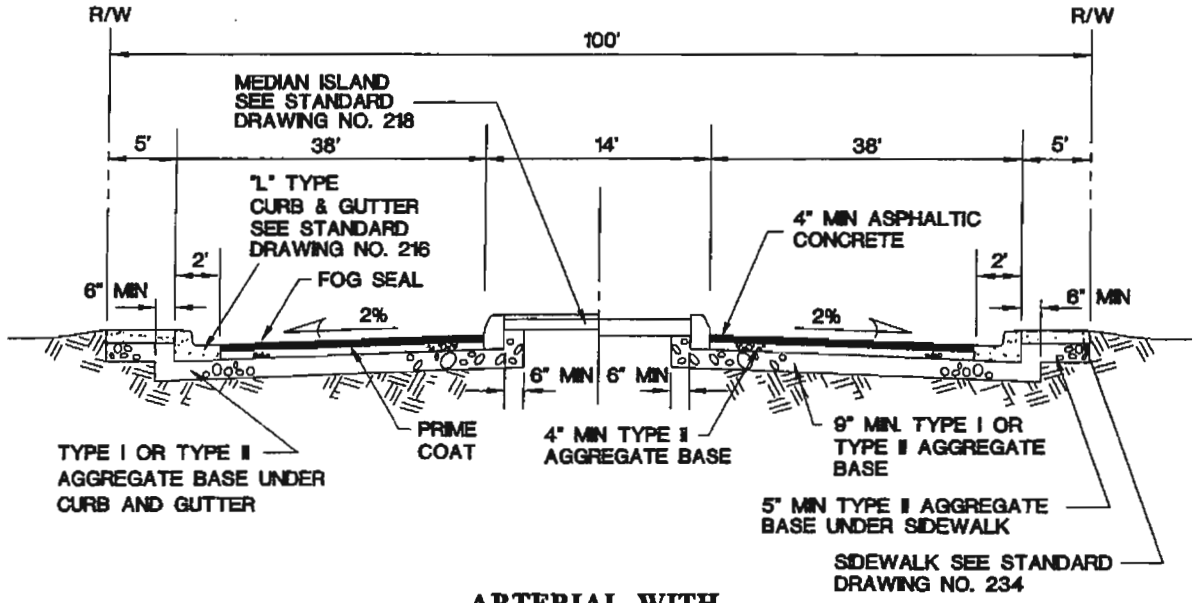
NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON A SUBGRADE "R" OR "CBR" VALUE DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 3" (ALTERNATE PAVEMENT SURFACE MAY BE ALLOWED).
3. A 3/4" OPEN GRADE MAY BE REQUIRED AS DETERMINED BY THE ENGINEER, OR IF WAIVED, SUBSTITUTED WITH DENSE GRADE A.C.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CLARK COUNTY ONLY ARTERIAL URBAN AREA STREET SECTIONS WITH CURBSIDE SIDEWALK		
401	BITUMINOUS PAVEMENT			
403	OPEN GRADE			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 2021	PAGE NO. 8.1



**ARTERIAL WITHOUT
MEDIAN ISLAND**

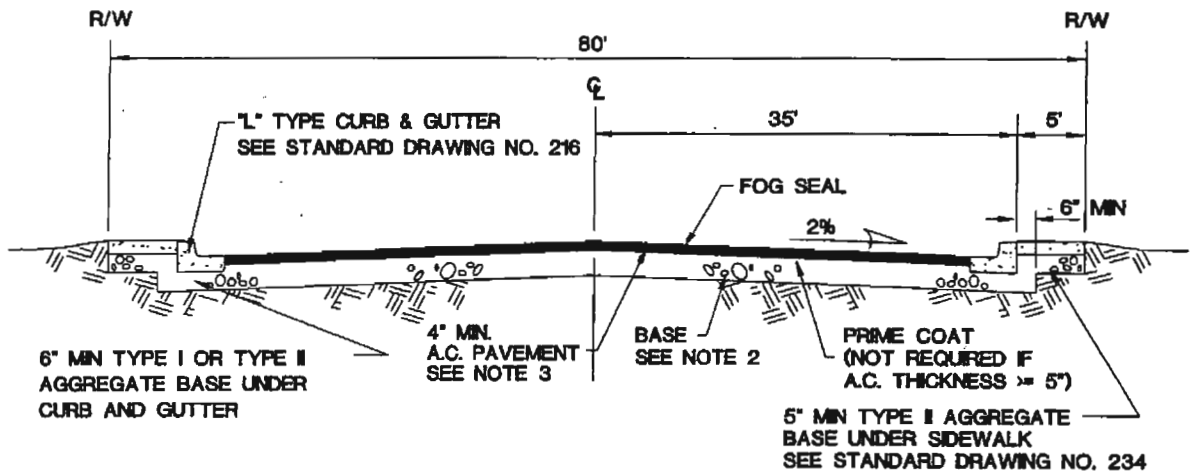


**ARTERIAL WITH
MEDIAN ISLAND**

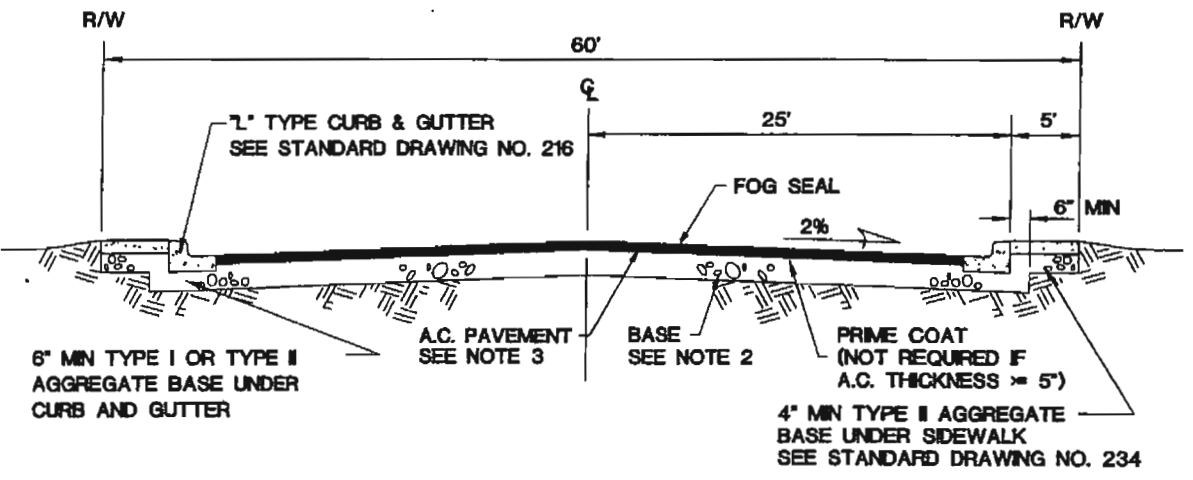
NOTES:

1. A.C. PAVEMENT TO BE 1/4" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION EXCEPT FOR GUTTER WITH DEPRESSED LP.
2. THE GRADE BREAK OCCURING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OR 20. OTHER STRUCTURAL SECTIONS MAY BE REQUIRED BASED ON ENGINEERING ANALYSIS OF "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CITIES OF LAS VEGAS AND NORTH LAS VEGAS ARTERIAL URBAN AREA STREET SECTIONS WITH CURBSIDE SIDEWALK		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 203	PAGE NO. 9



MAJOR COLLECTOR

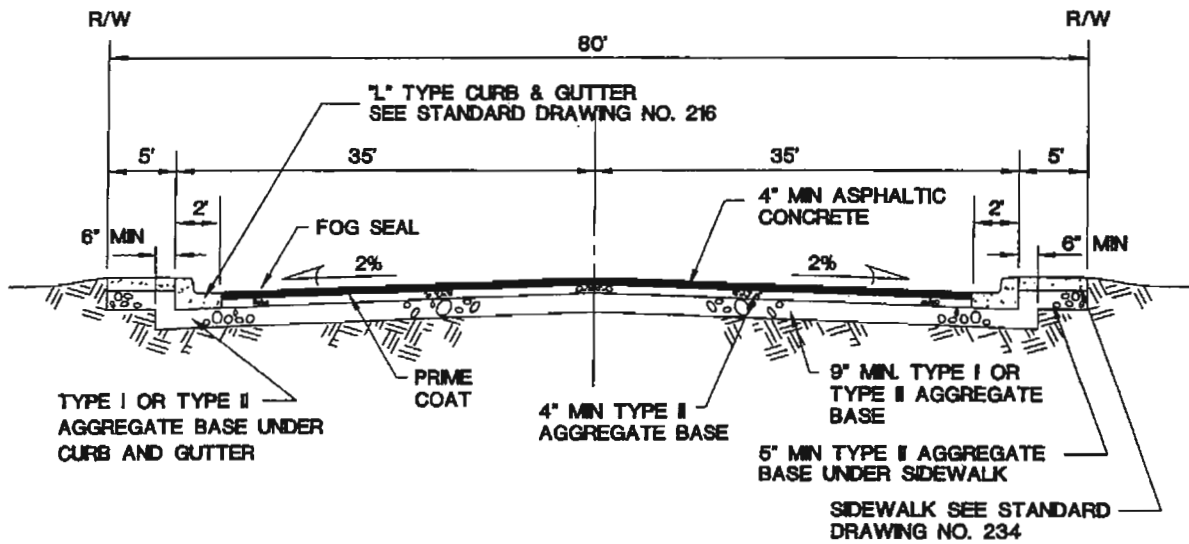


**COMMERCIAL/INDUSTRIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR**

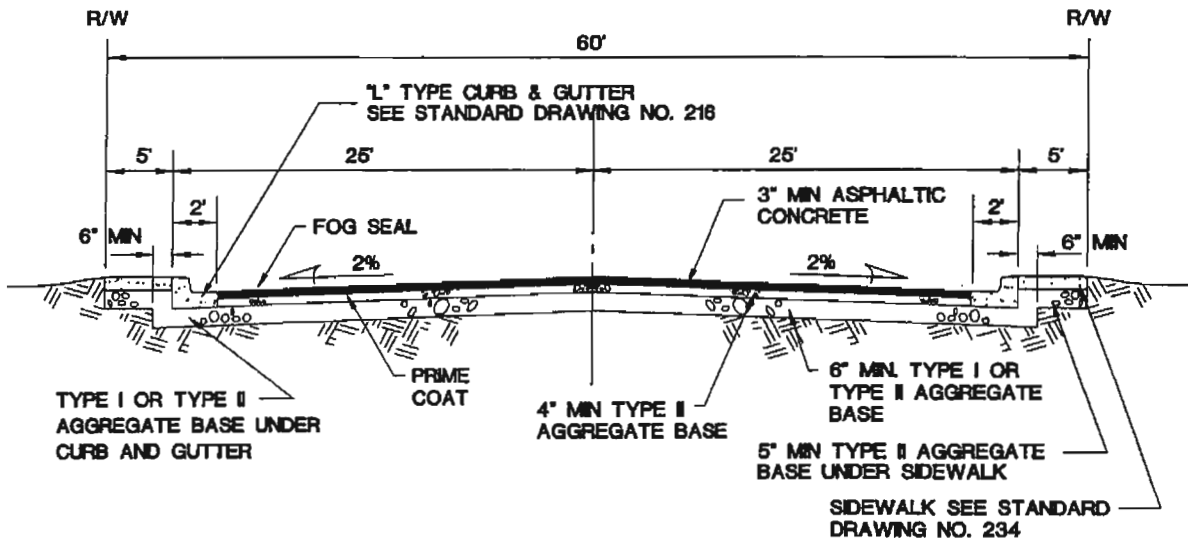
NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
2. FOR MINOR RESIDENTIAL COLLECTORS, BASE SHALL CONSIST OF 4" MIN. TYPE II AND 6" MIN. TYPE I AGGREGATE BASES. FOR MAJOR COLLECTOR AND COMMERCIAL/INDUSTRIAL LOCAL, STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN SHOWN NOR SHALL THE BASE BE LESS THAN 3". (ALT. PVMT. SURFACE ALLOWED.)
3. 2" MIN. A.C. FOR MINOR RESIDENTIAL COLLECTORS ONLY.
 3" MIN. A.C. WHEN TRAFFIC INDEX < 7.5 (FOR COMMERCIAL/INDUSTRIAL LOCAL ONLY)
 4" MIN. A.C. WHEN TRAFFIC INDEX ≥ 7.5 AND < 9
 5" MIN. A.C. WHEN TRAFFIC INDEX ≥ 9

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	HENDERSON, BOULDER CITY, MESQUITE COLLECTOR URBAN AREA STREET SECTIONS WITH CURBSIDE SIDEWALK		
401	BITUMINOUS PAVEMENT			
403	OPEN GRADE			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE	DATE 7-10-03	DWG. NO. 204	PAGE NO. 10



MAJOR COLLECTOR

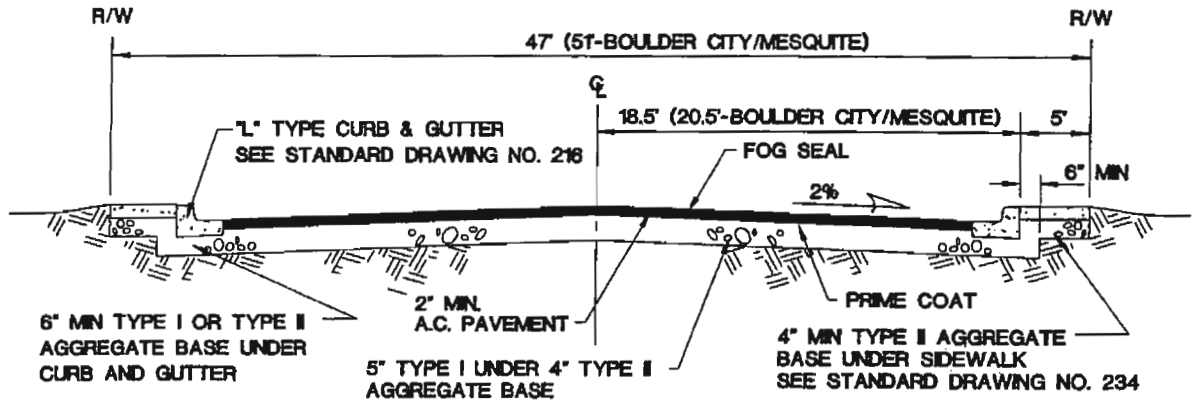


**NON-RESIDENTIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR**

NOTES:

1. A.C. PAVEMENT TO BE 1/4" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OR 20. OTHER STRUCTURAL SECTIONS MAY BE REQUIRED BASED ON ENGINEERING ANALYSIS OF "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.

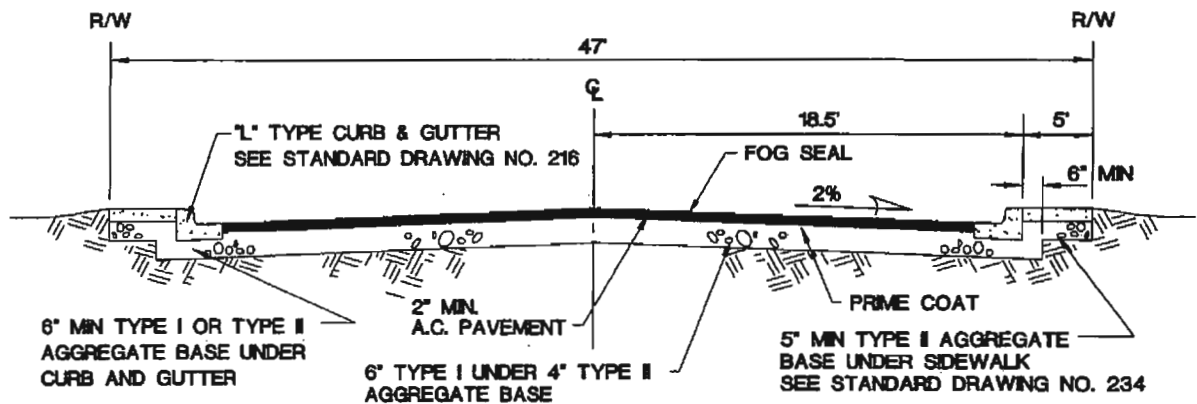
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302	AGGREGATE BASE	CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS COLLECTOR URBAN AREA STREET SECTIONS WITH CURBSIDE SIDEWALK		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 205	PAGE NO. 11



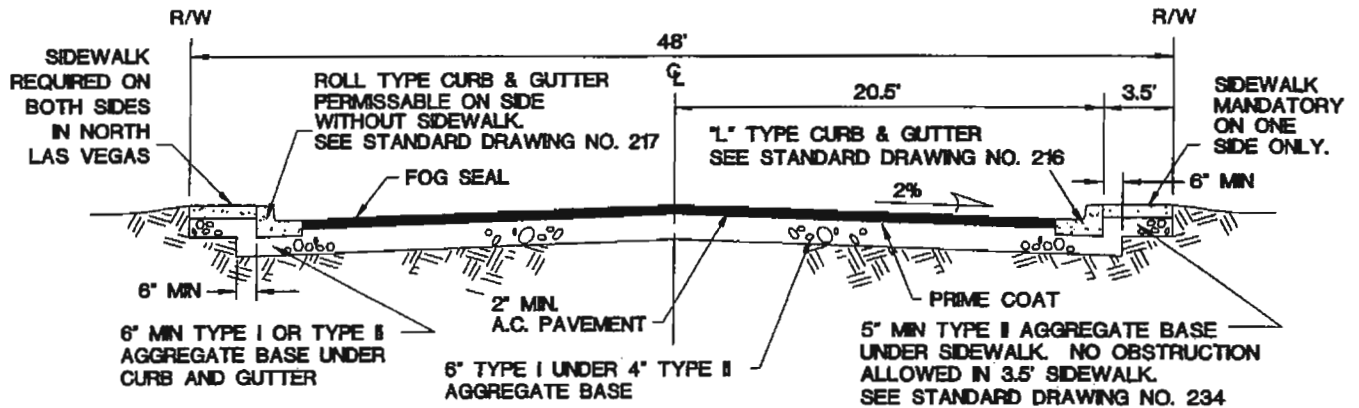
NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN.

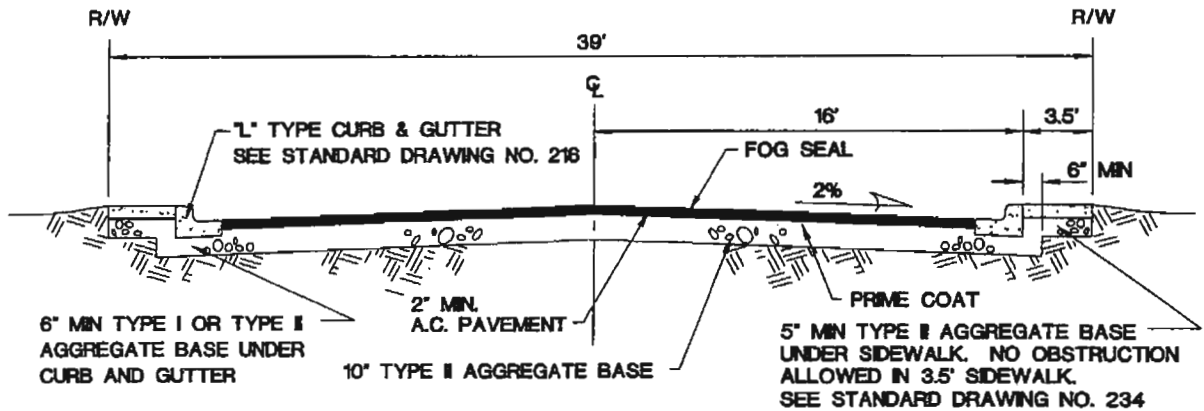
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	HENDERSON, BOULDER CITY, MESQUITE LOCAL RESIDENTIAL URBAN AREA STREET SECTION		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 206	PAGE NO. 12



**RESIDENTIAL TWO-WAY LOCAL OR CUL-DE-SAC
(OPTION "A")**



**RESIDENTIAL TWO-WAY LOCAL, CUL-DE-SAC (OPTION "B")
(NOT ALLOWED IN CLV)**

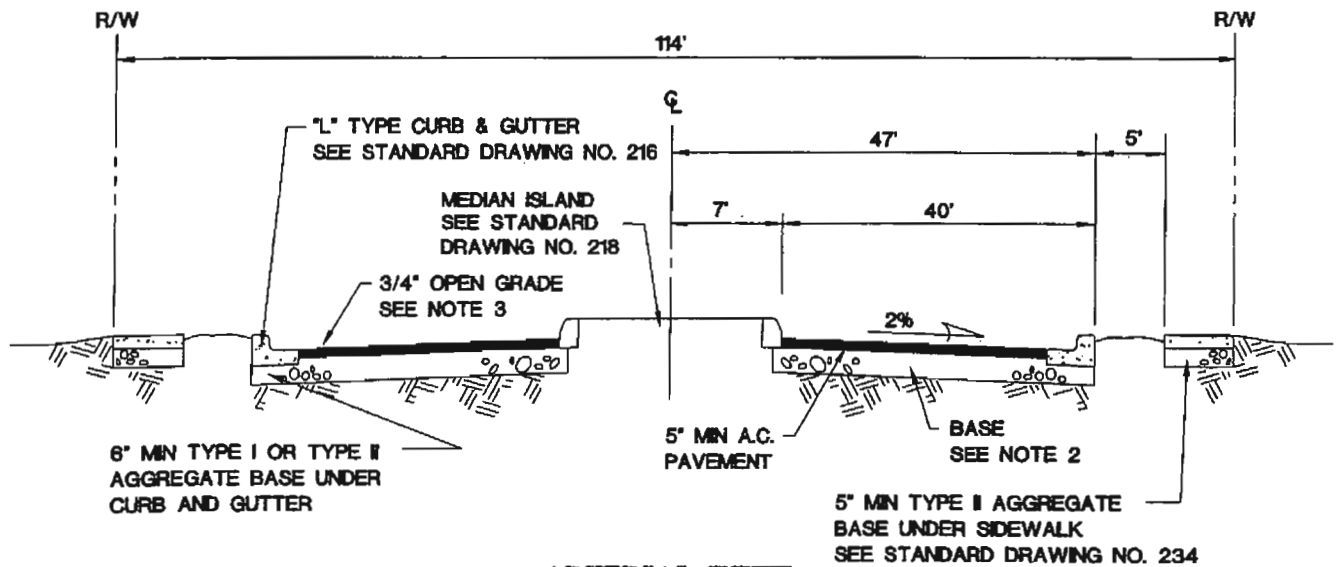


RESIDENTIAL ONE-WAY (NOT ALLOWED IN CLV)

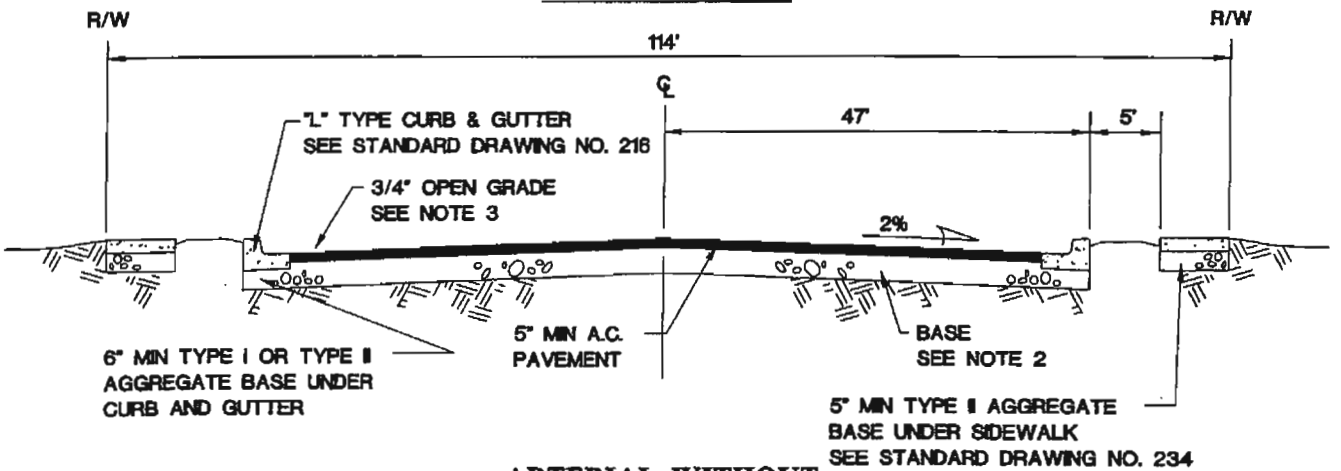
NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LP OF GUTTER.
2. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN.
3. RESIDENTIAL ONE-WAY STREET SHALL NOT EXCEED ONE THOUSAND FEET OR TWENTY RESIDENTIAL LOTS IN LENGTH WHICHEVER IS LESS.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS LOCAL RESIDENTIAL URBAN AREA STREET SECTIONS		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 207	PAGE NO. 13



**ARTERIAL WITH
MEDIAN ISLAND**

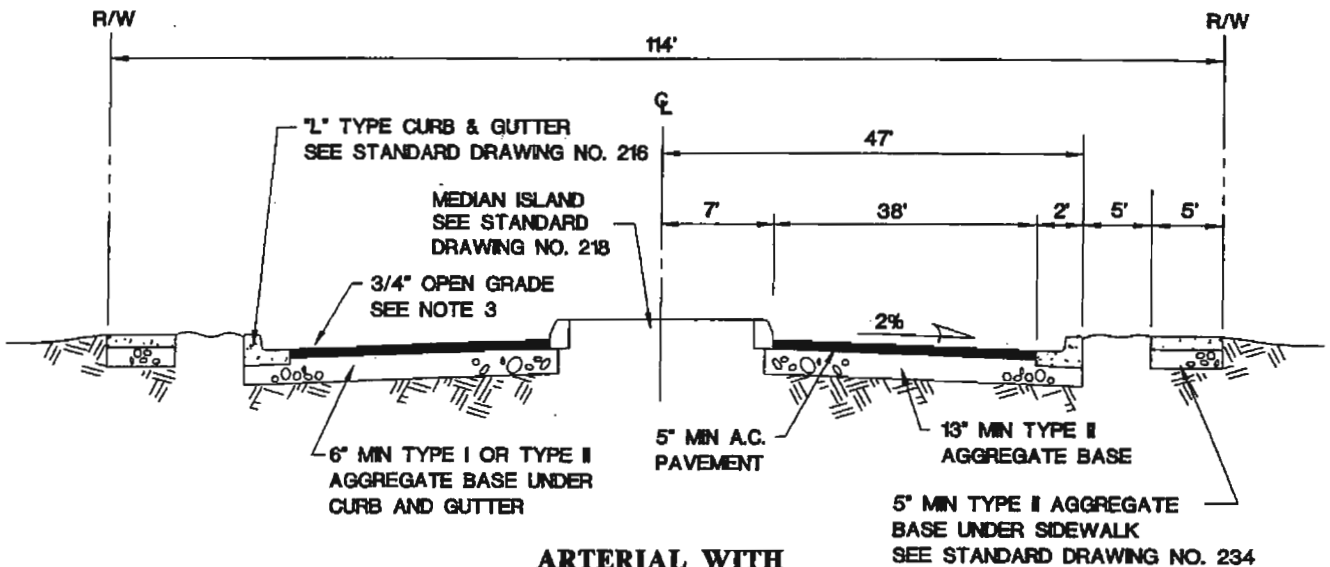


**ARTERIAL WITHOUT
MEDIAN ISLAND**

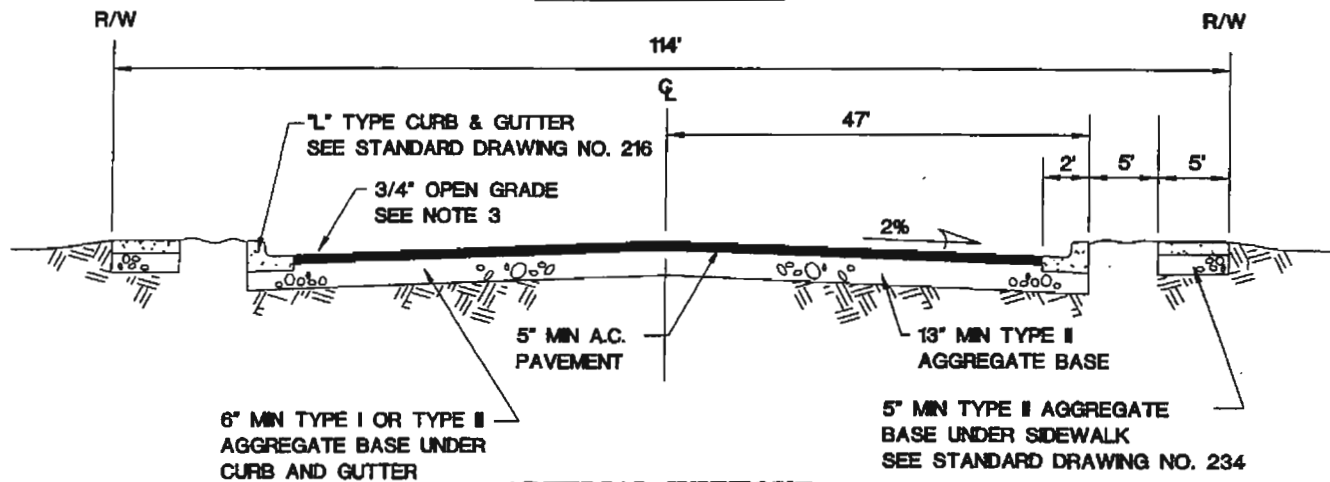
NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON A SUBGRADE "R" OR "CBR" VALUE DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 3" (ALTERNATE PAVEMENT SURFACE MAY BE ALLOWED).
3. A 3/4" OPEN GRADE MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. INCREASE PAVEMENT WIDTH BY 11 FEET ON EACH SIDE OF ROADWAY FOR AN 8 LANE CROSS SECTION.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	HENDERSON ARTERIAL ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK		
401	BITUMINOUS PAVEMENT			
403	OPEN GRADE			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 202 ALT	PAGE NO. 8ALT



**ARTERIAL WITH
MEDIAN ISLAND**

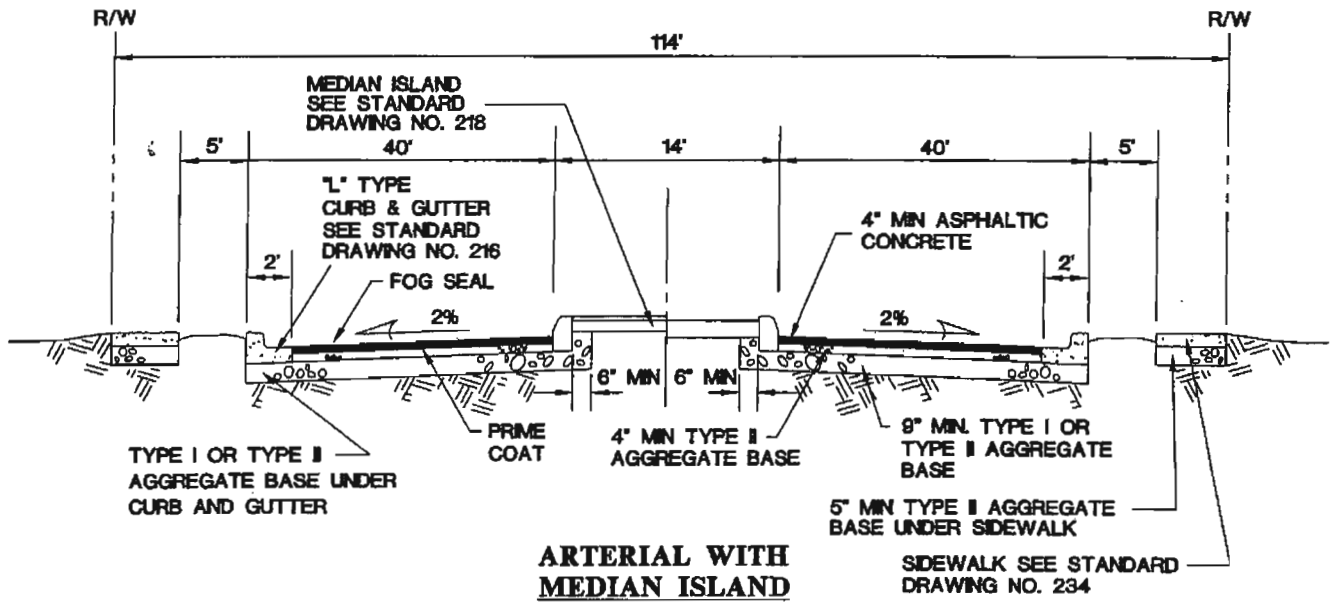
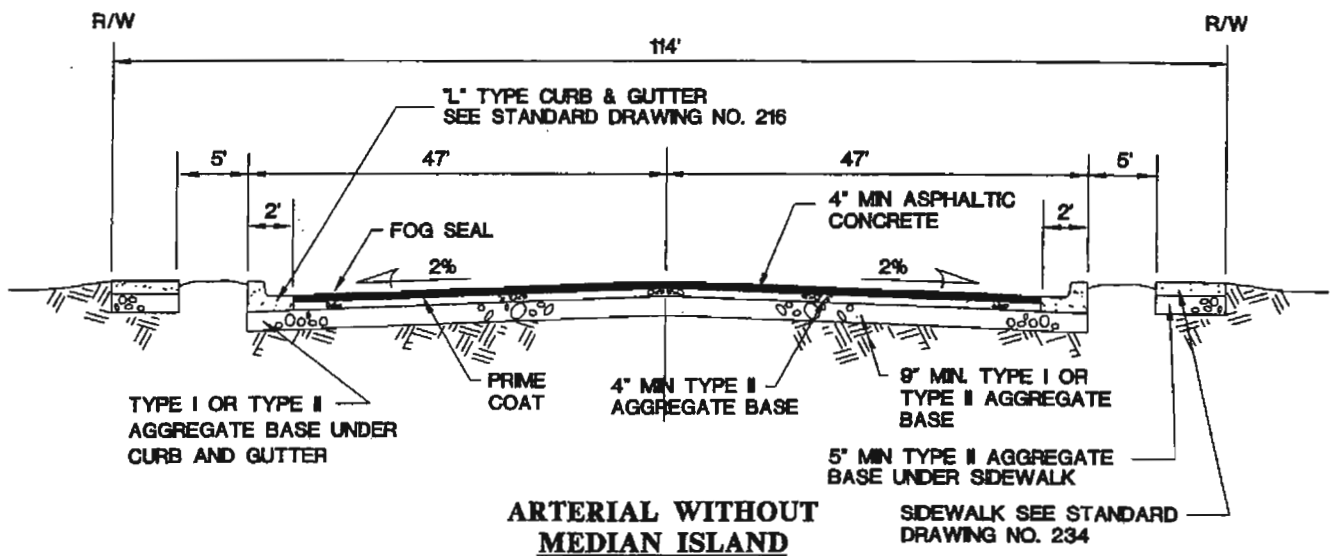


**ARTERIAL WITHOUT
MEDIAN ISLAND**

NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON A SUBGRADE "R" OR "CBR" VALUE DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 3" (ALTERNATE PAVEMENT SURFACE MAY BE ALLOWED).
3. A 3/4" OPEN GRADE MAY BE REQUIRED AS DETERMINED BY THE ENGINEER, OR IF WAIVED, SUBSTITUTED WITH DENSE GRADE A.C.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. INCREASE PAVEMENT WIDTH BY 11 FEET ON EACH SIDE OF ROADWAY FOR AN 8 LANE CROSS SECTION.

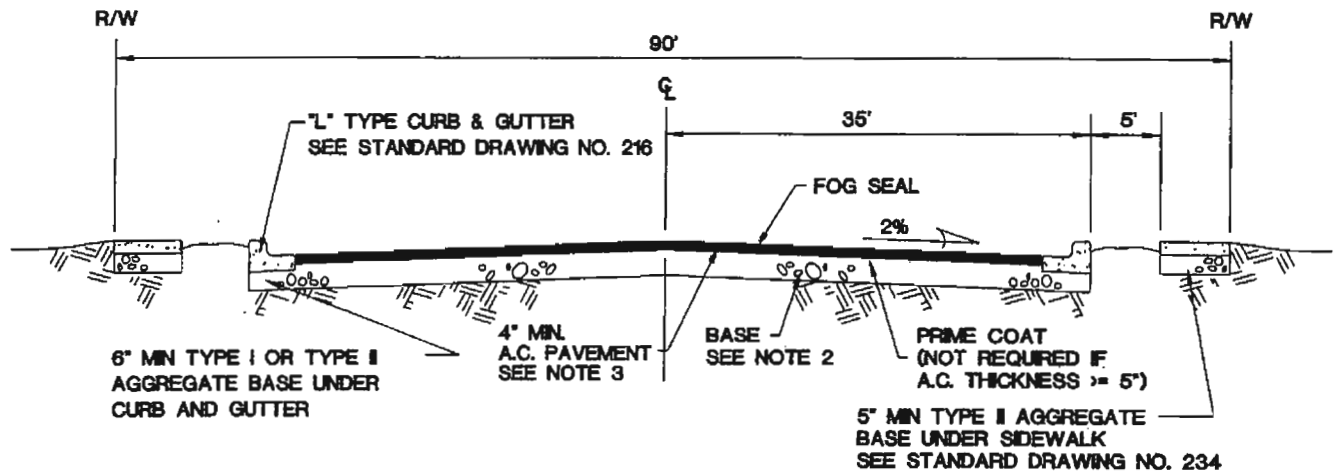
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CLARK COUNTY ONLY ARTERIAL ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK		
401	BITUMINOUS PAVEMENT			
403	OPEN GRADE			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 202.1 ALT	PAGE NO. 8.1ALT



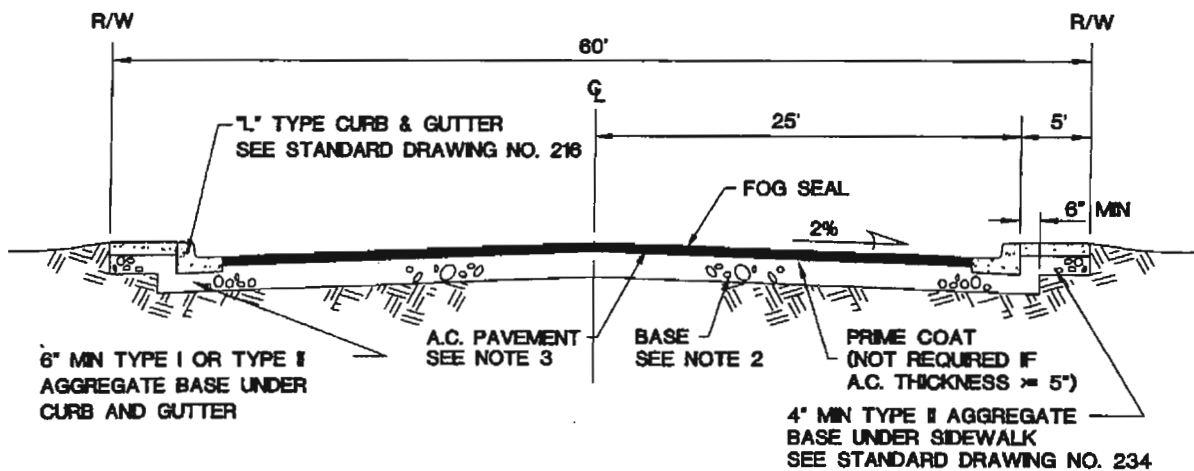
NOTES:

1. A.C. PAVEMENT TO BE 1/4" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION EXCEPT FOR GUTTER WITH DEPRESSED LIP.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE REQUIRED BASED ON ENGINEERING ANALYSIS OF "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. INCREASE PAVEMENT WIDTH BY 11 FEET ON EACH SIDE OF ROADWAY FOR AN 8 LANE CROSS SECTION.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CITIES OF LAS VEGAS AND NORTH LAS VEGAS ARTERIAL ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 203 ALT	PAGE NO. 9ALT



MAJOR COLLECTOR

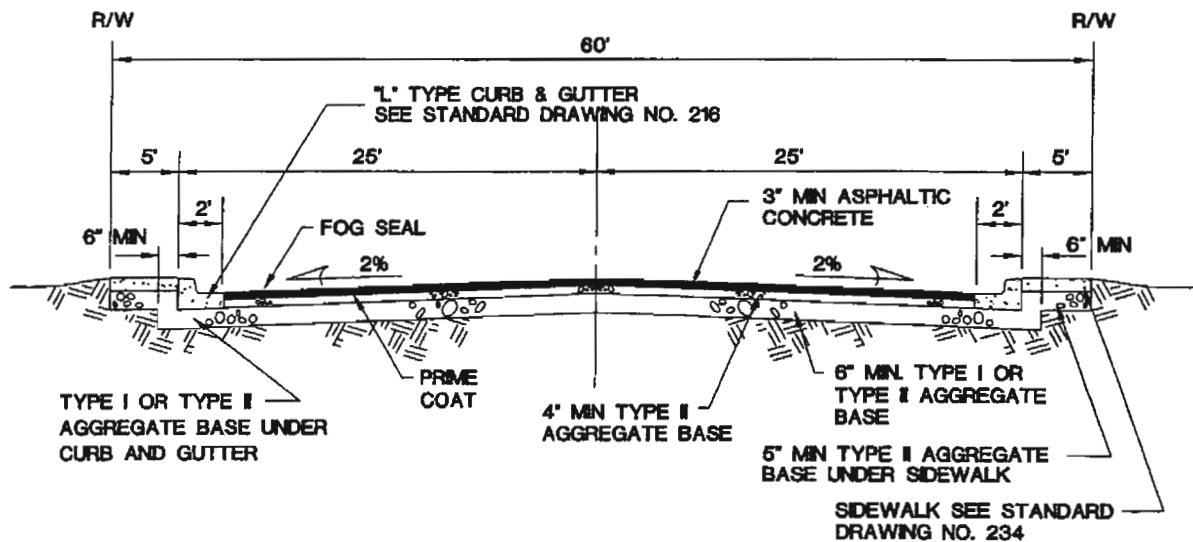
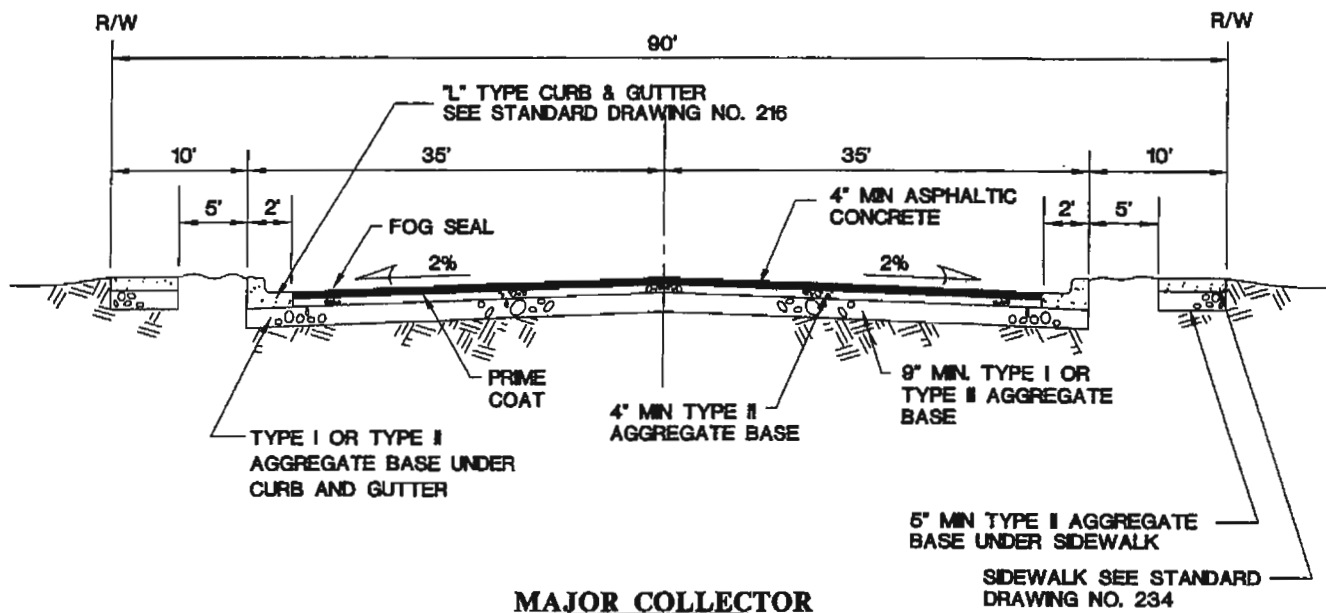


COMMERCIAL/INDUSTRIAL LOCAL OR MINOR RESIDENTIAL COLLECTOR

NOTES:

- FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
- FOR MINOR RESIDENTIAL COLLECTORS, BASE SHALL CONSIST OF 4" MIN. TYPE II AND 6" MIN. TYPE I AGGREGATE BASES. FOR MAJOR COLLECTOR AND COMMERCIAL/INDUSTRIAL LOCAL, STRUCTURAL SECTION TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN SHOWN NOR SHALL THE BASE BE LESS THAN 3". (ALT. PVMT. SURFACE ALLOWED.)
- 2" MIN. A.C. FOR MINOR RESIDENTIAL COLLECTORS ONLY.
3" MIN. A.C. WHEN TRAFFIC INDEX < 7.5 (FOR COMMERCIAL/INDUSTRIAL LOCAL ONLY)
4" MIN. A.C. WHEN TRAFFIC INDEX \geq 7.5 AND < 9
5" MIN. A.C. WHEN TRAFFIC INDEX \geq 9
- THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
- UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.

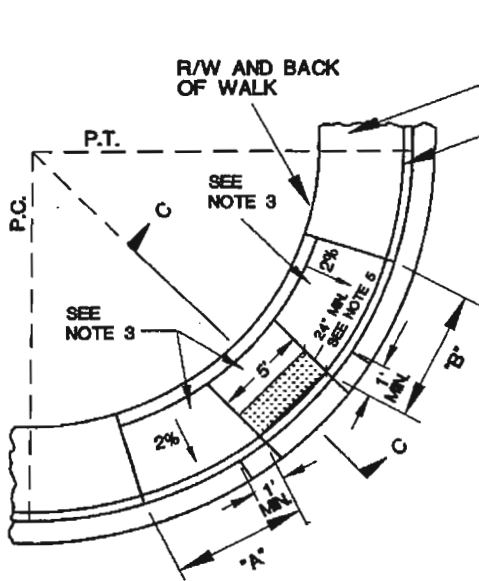
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	HENDERSON COLLECTOR ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK		
401	BITUMINOUS PAVEMENT			
403	OPEN GRADE			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE	DATE 7-10-03	DWG. NO. 204 ALT	PAGE NO. 10ALT



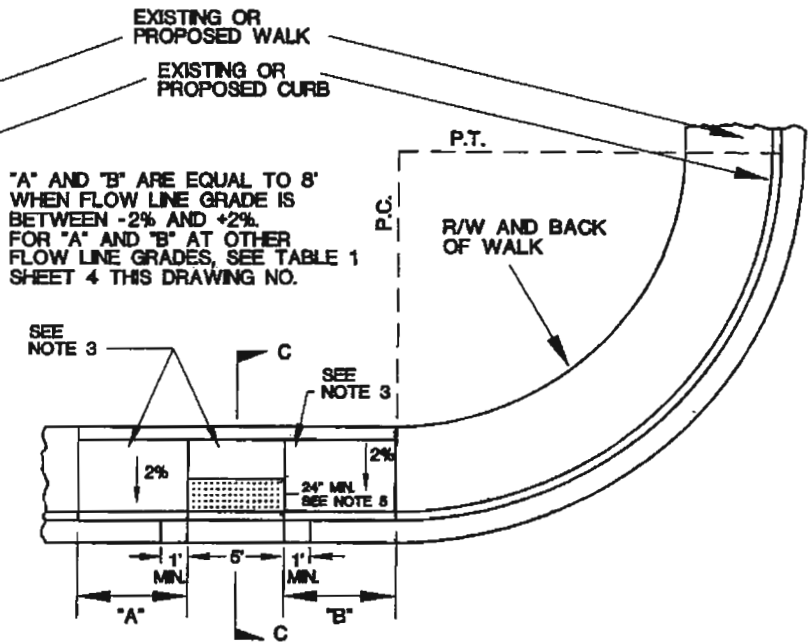
NOTES:

1. A.C. PAVEMENT TO BE 1/4" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OR 20. OTHER STRUCTURAL SECTIONS MAY BE REQUIRED BASED ON ENGINEERING ANALYSIS OF "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICTION. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.

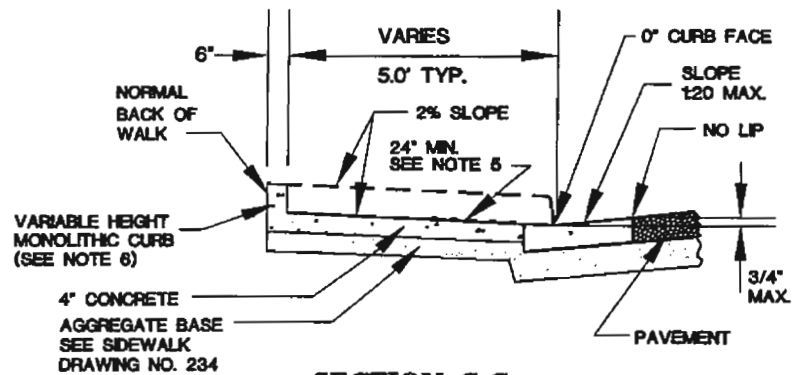
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE	CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS COLLECTOR ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK		
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
501	CONCRETE			
		DATE 7-10-03	DWG. NO. 205 ALT	PAGE NO. 11ALT



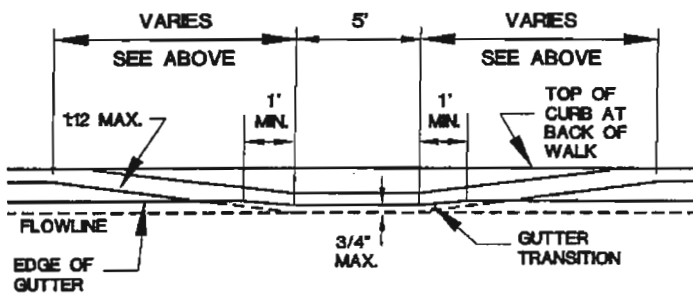
RAMP IN CURB RETURN



RAMP OUTSIDE CURB RETURN



SECTION C-C



PROFILE

NOTES:

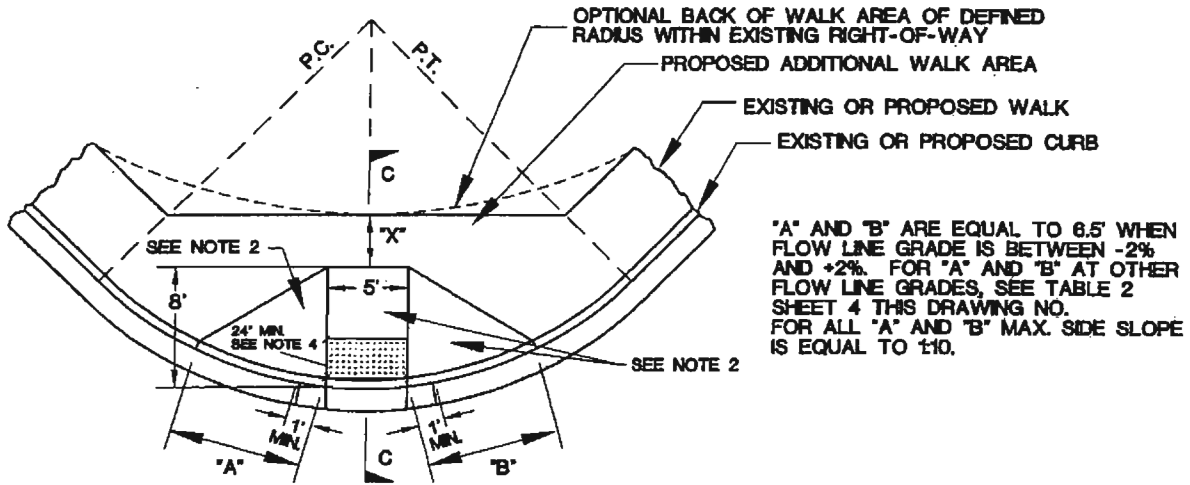
1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. SIDEWALK RAMP OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
3. RAMP SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES.
6. CURB MAY BE PLACED AND IS PREFERRED BEHIND BACK OF WALK IF SUFFICIENT RIGHT-OF-WAY OR EASEMENTS EXIST AND AS APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

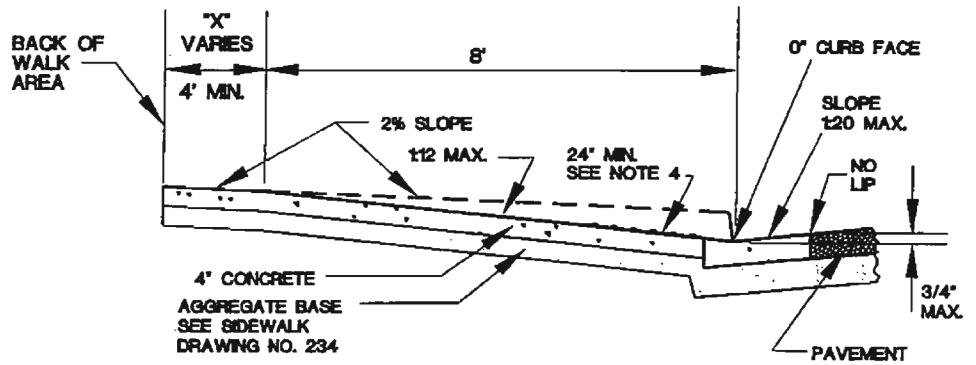
**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**SIDEWALK RAMP
CASE I**

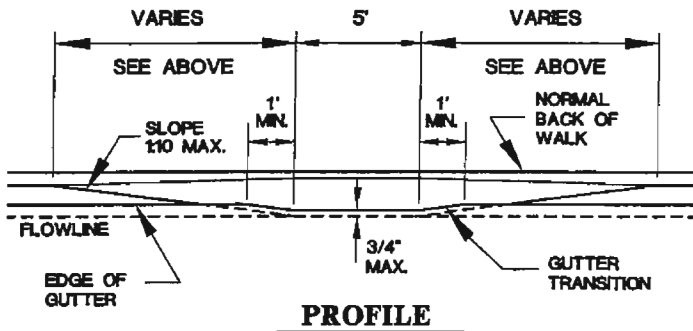
DATE 2-13-03	DWG. NO. 235 (1 OF 4)	PAGE 41
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RAMP IN CURB RETURN
 (NO BACK OF WALK DEPRESSION)



SECTION C-C



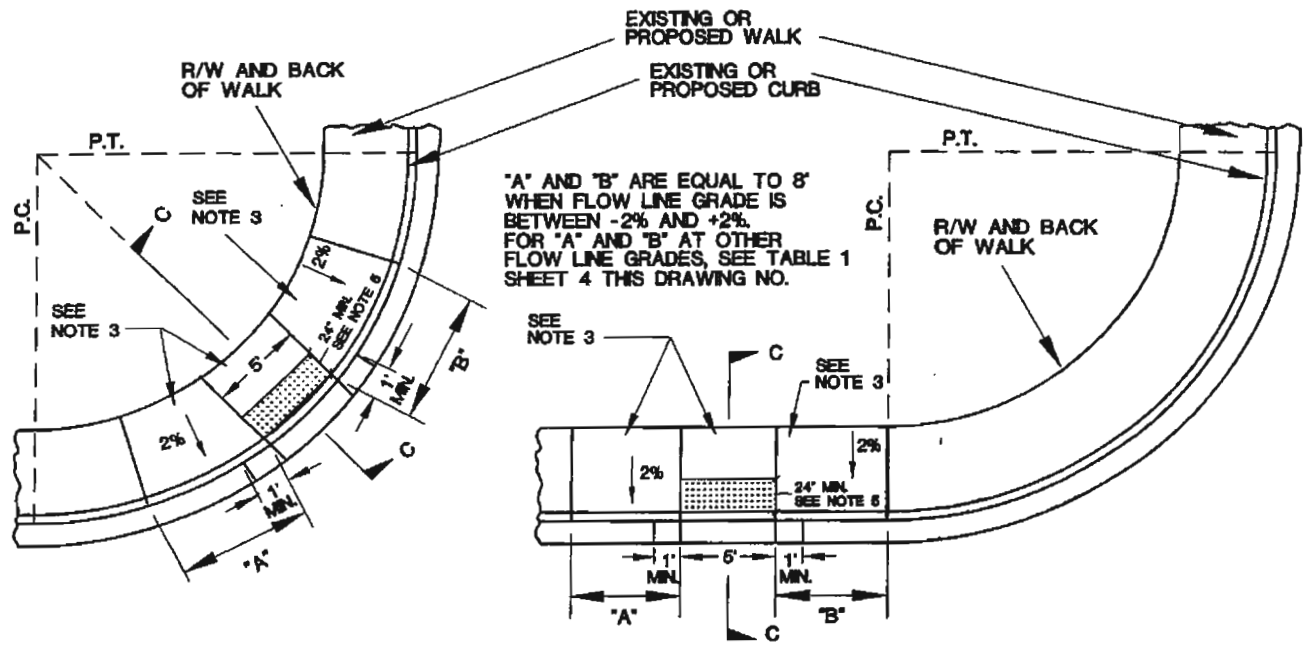
PROFILE

CASE II SHALL BE USED WHERE R/W AND FIELD CONDITIONS PERMIT.

NOTES:

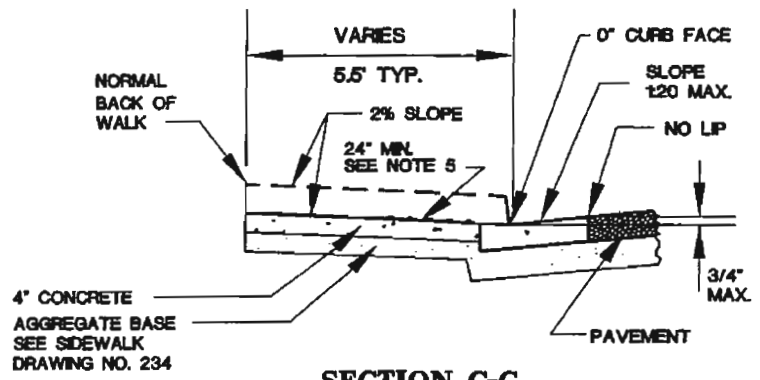
1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
302	AGGREGATE BASE	
501	CONCRETE	
502	CONCRETE STRUCTURES	
		SIDEWALK RAMP CASE II
		DATE 2-13-03 DWG. NO. 235 (2 OF 4) PAGE 41A

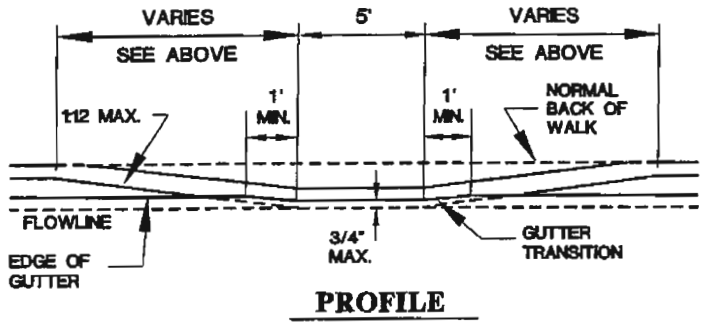


RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN



SECTION C-C



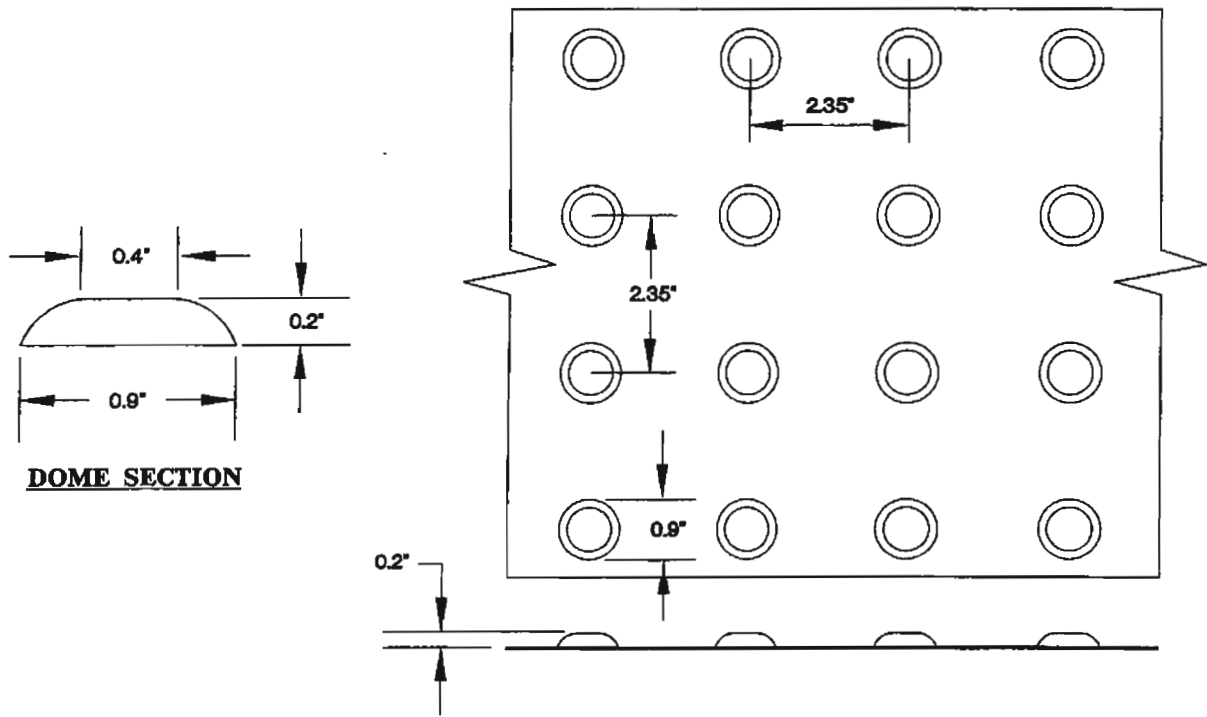
PROFILE

NOTES:

1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. SIDEWALK RAMP OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
3. RAMP SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES.

CASE III TO BE USED FOR AREAS WHERE OBSTRUCTION (I.E. BLOCK WALL) EXISTS AT BACK OF WALK ONLY WHEN APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
302	AGGREGATE BASE			
501	CONCRETE	SIDEWALK RAMP CASE III		
502	CONCRETE STRUCTURES			
		DATE 2-13-03	DWG. NO. 235 (3 OF 4)	PAGE 41B



DETECTABLE WARNING DETAILS (TRUNCATED DOMES)

GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.5	21.5
-5 TO -4.01	4.5	15.0
-4 TO -3.01	4.5	12.0
-3 TO -2.01	4.5	9.5
-2 TO 2	8.0	8.0
2.01 TO 3	9.5	4.5
3.01 TO 4	12.0	4.5
4.01 TO 5	15.0	4.5
5.01 TO 6	21.5	4.5

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

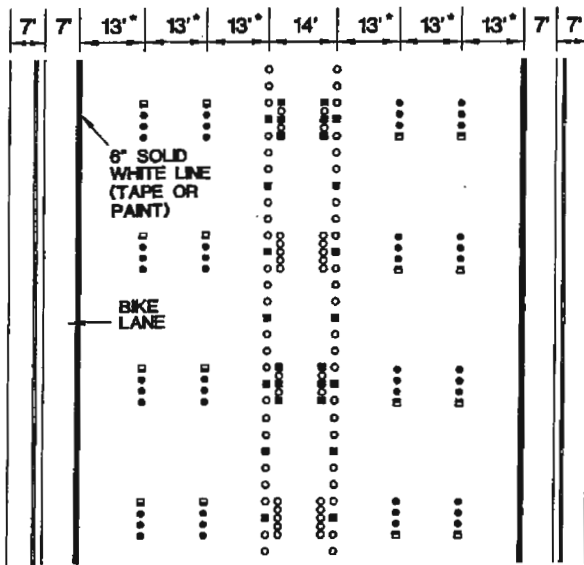
GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.0	12.5
-5 TO -4.01	4.0	10.0
-4 TO -3.01	4.0	8.5
-3 TO -2.01	4.0	7.5
-2 TO 2	6.5	6.5
2.01 TO 3	7.5	4.0
3.01 TO 4	8.5	4.0
4.01 TO 5	10.0	4.0
5.01 TO 6	12.5	4.0

TABLE 2. TRANSITION LENGTHS FOR 1:10 SIDE SLOPES

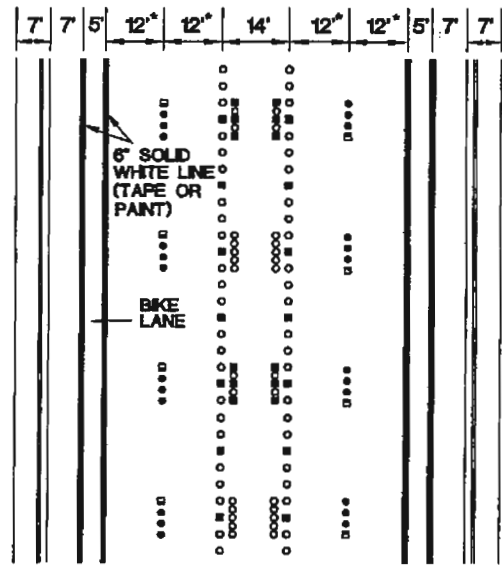
NOTE:

CHARTS APPLY TO CURB WITH 6" CURB FACE.
IF CURB HAS GREATER THAN A 6" CURB FACE,
A SPECIAL DESIGN IS REQUIRED.

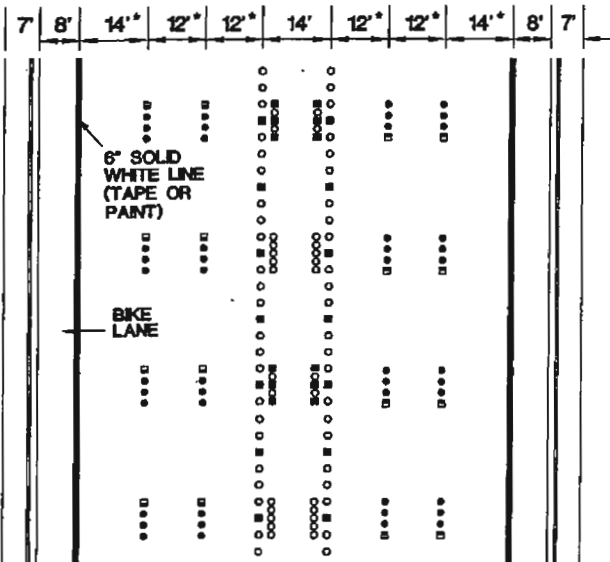
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
302	AGGREGATE BASE	SIDEWALK RAMP DETAILS	
501	CONCRETE		
502	CONCRETE STRUCTURES		
		DATE 2-13-03	DWG. NO. 235 (4 OF 4) PAGE 41C



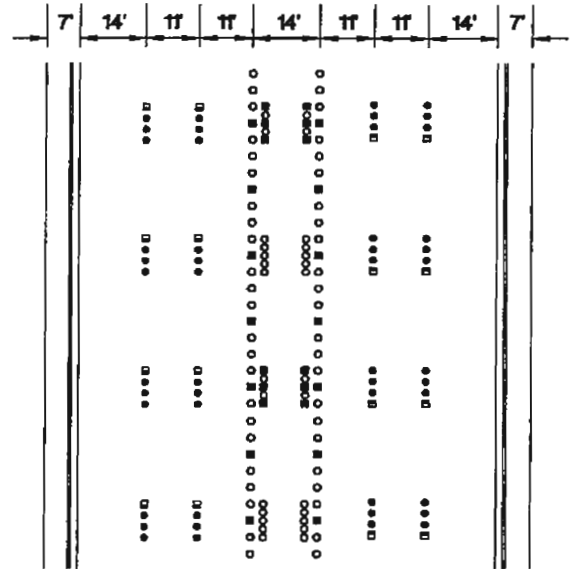
**120 FT. STREET WITH BIKE LANE
(WITHOUT PARKING)**



**100 FT. STREET WITH BIKE LANE
(WITH PARKING/EMERGENCY LANE)**



**120 FT. STREET WITH BIKE LANE
(WITHOUT PARKING)**



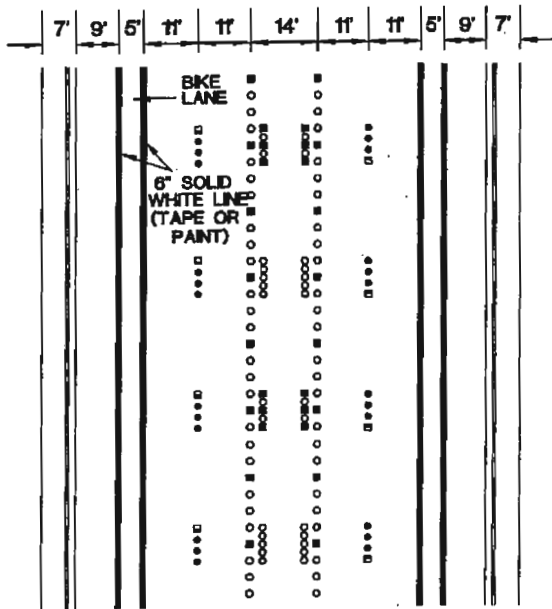
**100 FT. STREET WITH SHARED
BIKE/VEHICLE LANE (WITHOUT PARKING)**

• THE WIDTH OF TRAVEL LANES ADJACENT TO BIKE LANES MAY VARY FROM 12 FT. TO 16 FT.
WIDTHS OF INTERIOR TRAVEL LANES MAY VARY FROM 11 FT. TO 13 FT.

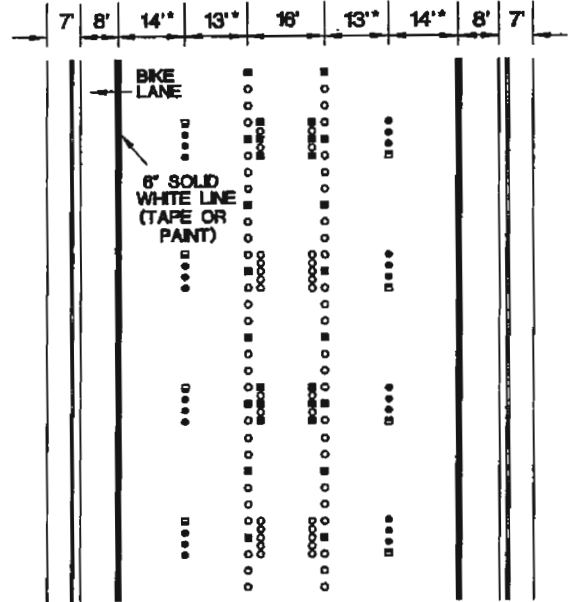
NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

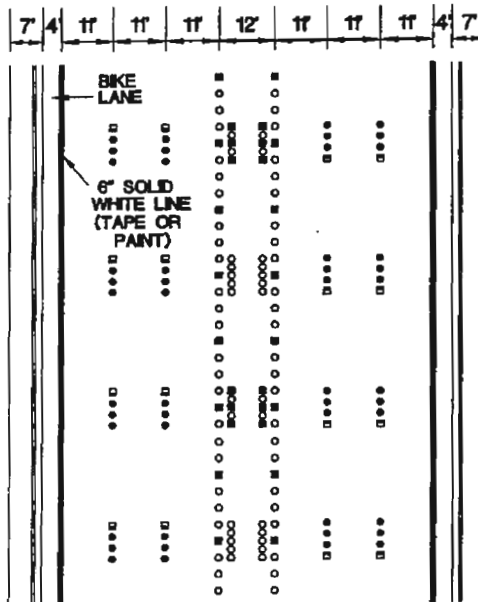
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	TYPICAL DELINEATION FOR ROADWAYS 100 FT. OR GREATER RIGHT-OF-WAY WITH CURBSIDE SIDEWALK		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 244.1	PAGE NO. 50.1



**100 FT. STREET WITH BIKE LANE
(WITH PARKING/EMERGENCY LANE)**



**100 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)**



**100 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)**

* THE WIDTH OF TRAVEL LANES ADJACENT TO BIKE LANES MAY VARY FROM 12 FT. TO 16 FT. WIDTHS OF INTERIOR TRAVEL LANES MAY VARY FROM 11 FT. TO 13 FT.

NOTES:

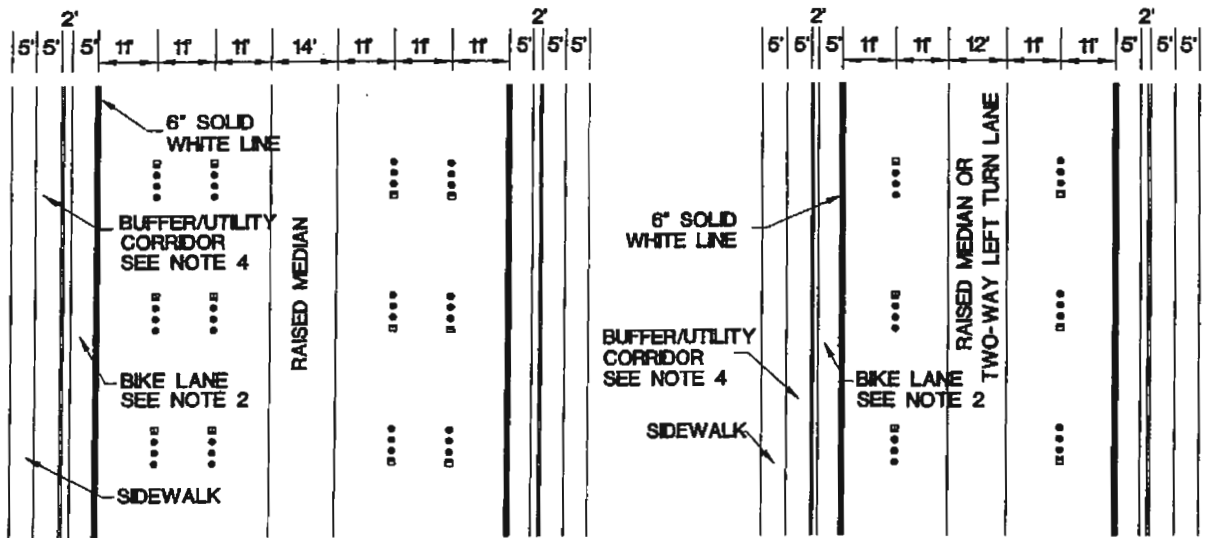
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

SPECIFICATION REFERENCE

628	PAINING TRAFFIC STRIPING
401	PAVEMENT MARKERS

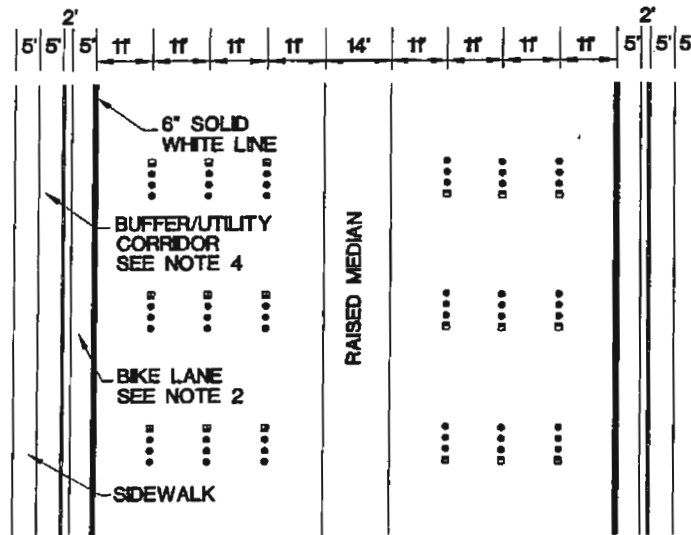
**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**TYPICAL DELINEATION FOR ROADWAYS
100 FT. RIGHT-OF-WAY
WITH CURBSIDE SIDEWALK**



114 FT. STREET

90 FT. STREET

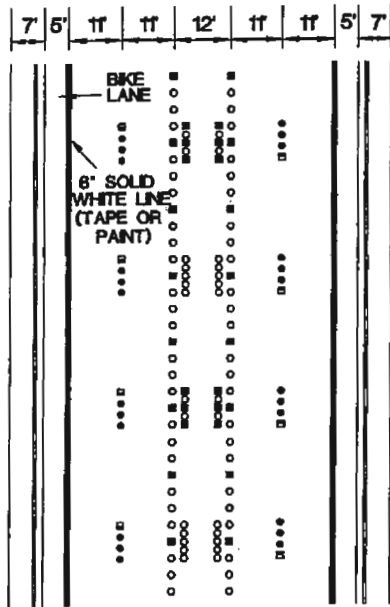


136 FT. STREET

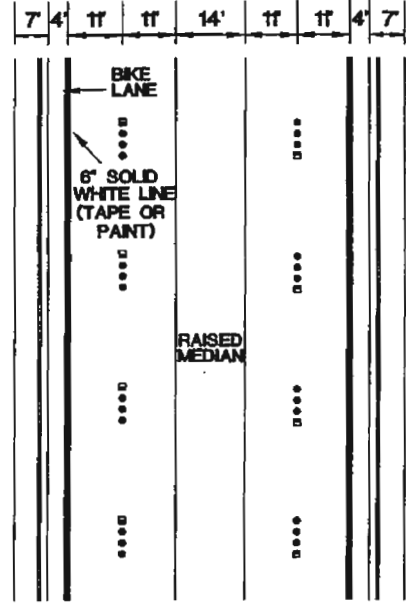
NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES TO BE PROVIDED IF SEGMENT CONNECTS TO OTHER BIKE LANES OR IF ROADWAY SEGMENT IS 1 MILE OR GREATER. IF BIKE LANE IS NOT PROVIDED, TRAVEL LANES SHOULD REMAIN AT DIMENSIONS SHOWN SO A BICYCLE LANE COULD BE PROVIDED IN THE FUTURE. SEE DRAWING NUMBER 246.1 FOR BIKE LANE SIGNING AND STRIPING DETAILS.
3. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.
4. CONTACT THE LOCAL JURISDICTIONAL FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.

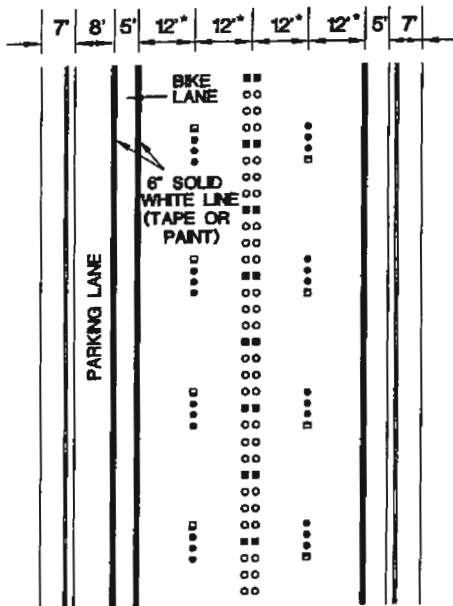
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
628	PAINTING TRAFFIC STRIPING	TYPICAL DELINEATION FOR ALTERNATE ROADWAYS WITH OFFSET SIDEWALK	
633	PAVEMENT MARKERS		
		DATE 7-10-03	DWG. NO. 244.1 ALT
		PAGE NO. 50.1ALT	



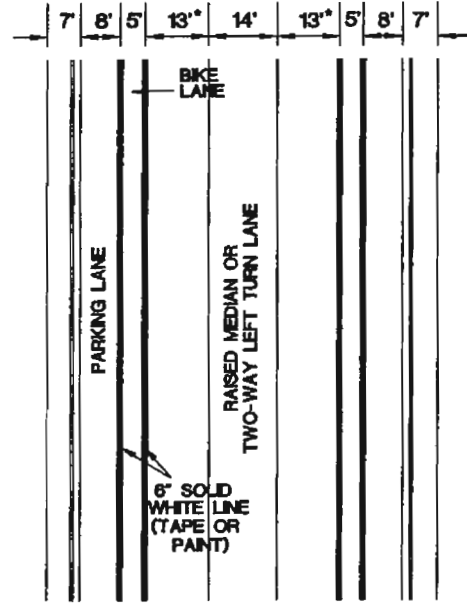
**80 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)**



**80 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)**



**80 FT. STREET WITH BIKE LANE
(WITH PARKING ON ONE SIDE)**



**80 FT. STREET WITH BIKE LANE
(WITH PARKING ON BOTH SIDES)**

* THE WIDTH OF TRAVEL LANE MAY VARY FROM 11 FT. TO 13 FT.

NOTES:

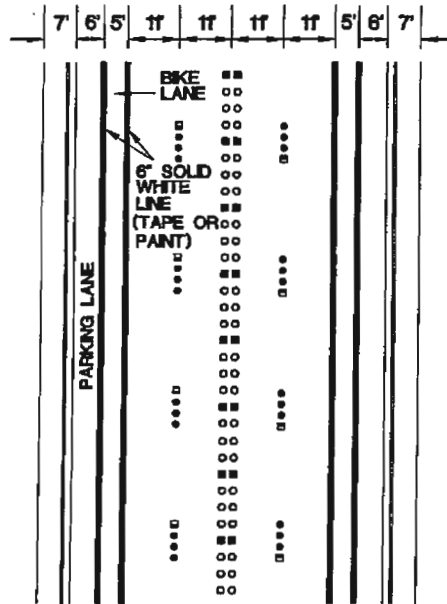
1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

SPECIFICATION REFERENCE

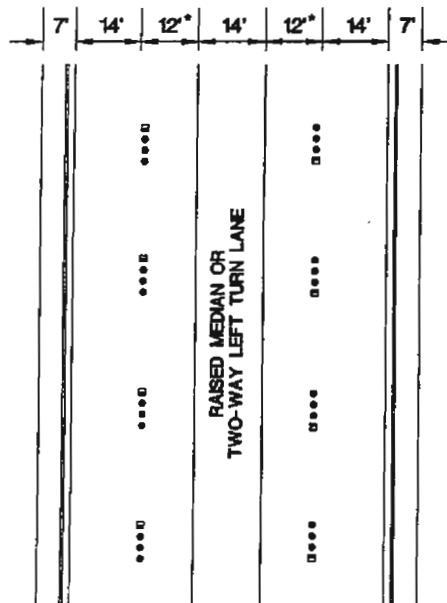
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**TYPICAL DELINEATION FOR
ROADWAYS 80 FT. RIGHT-OF-WAY
WITH CURBSIDE SIDEWALK**



**80 FT. STREET WITH BIKE LANE
(WITH PARKING ON BOTH SIDES)**



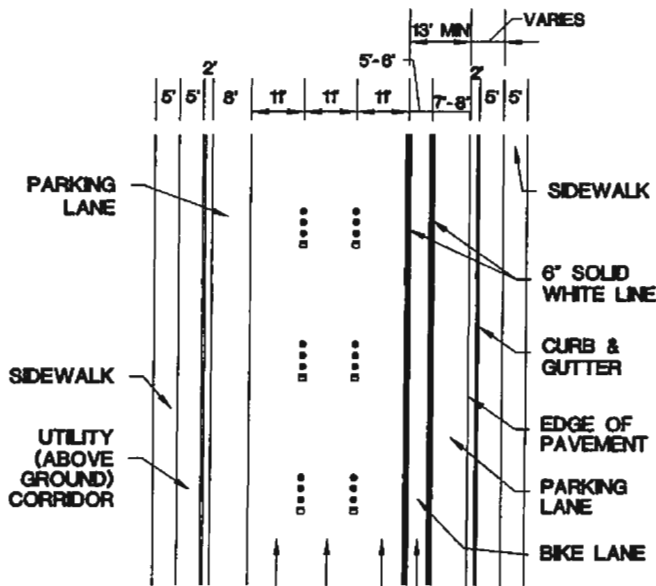
* WIDTH OF TRAVEL LANE MAY VARY FROM 11 FT. TO 12 FT.

**80 FT. STREET WITH SHARED BIKE/VEHICLE LANE
(WITHOUT PARKING/EMERGENCY LANE)**

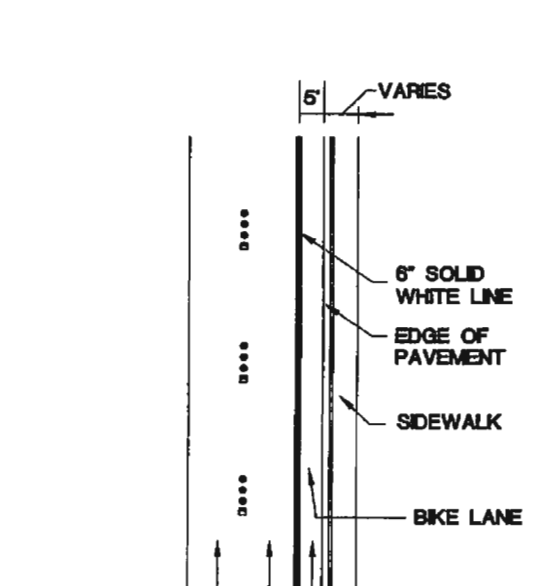
NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

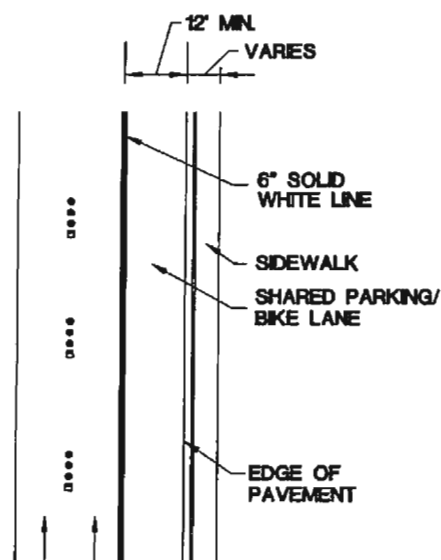
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	TYPICAL DELINEATION FOR ROADWAYS 80 FT. RIGHT-OF-WAY WITH CURBSIDE SIDEWALK		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 244.2A	PAGE NO. 50.2A



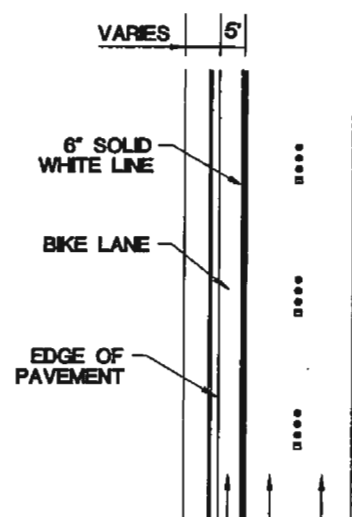
**ONE-WAY STREET WITH BIKE LANE
(WITH PARKING ON RIGHT SIDE)**



**ONE-WAY STREET WITH BIKE LANE
(WITHOUT PARKING ON RIGHT SIDE)**



**ONE-WAY STREET WITH SHARED
BIKE/PARKING LANE**

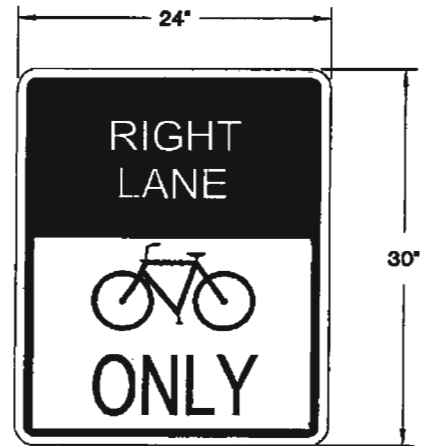
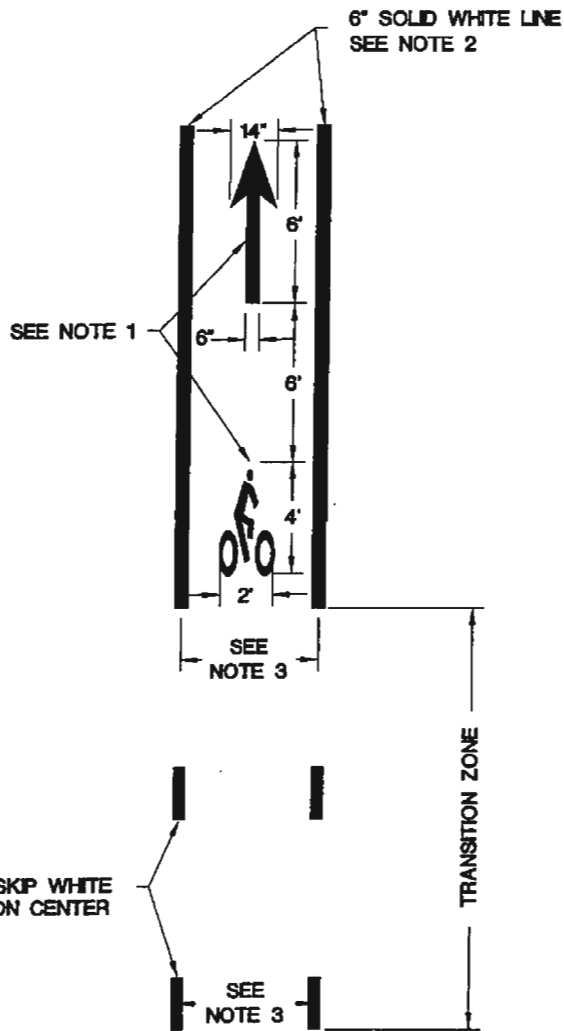


**ONE-WAY STREET WITH LEFT-SIDE
BIKE LANE (SEE NOTE 4)**

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 5 FEET WHERE ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FEET WIDE.
3. ALL CURB LANES ARE MEASURED TO THE EDGE OF PAVEMENT. THE TOP OF PAVEMENT SHALL BE FLUSH WITH GUTTER.
4. BICYCLE LANE SHALL BE ON RIGHT SIDE OF ONE-WAY ROADWAYS, EXCEPT IN LIMITED SITUATIONS, SUCH AS WHEN THERE ARE SIGNIFICANTLY LESS POTENTIAL CONFLICTS ALONG THE LEFT SIDE OF THE ROADWAY OR WHEN SIGNIFICANT BICYCLE TRIP GENERATION ARE ALONG THE LEFT SIDE OF THE ROADWAY.
5. SEE DRAWING NO. 244.5 FOR BIKE LANE SIGNAGE DETAILS.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	BICYCLE LANE DELINEATION ON ONE-WAY STREET		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 244.4	PAGE NO. 50.4



R3-17

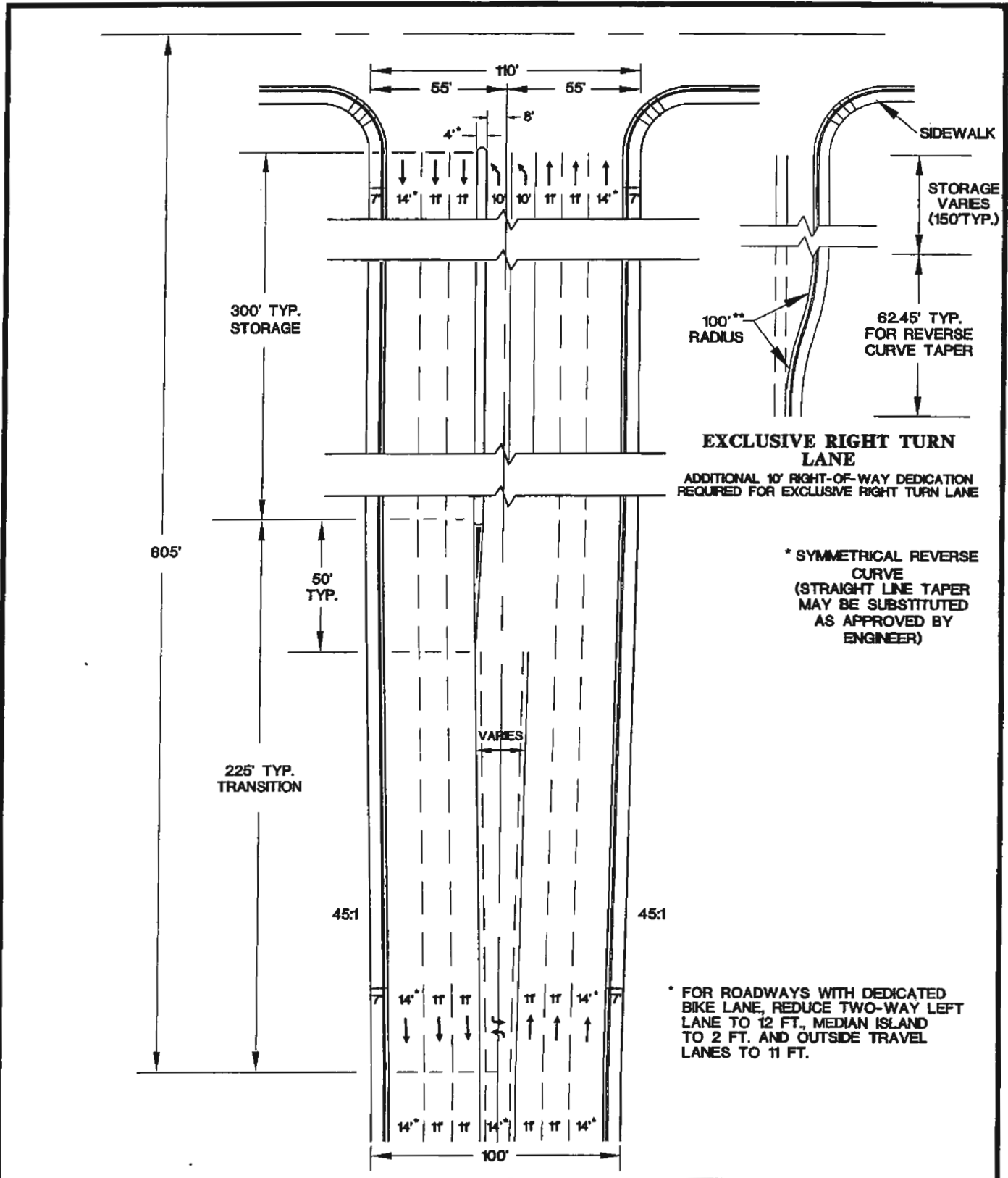
BIKE-LANE SIGNAGE

BIKE LANE DELINEATION AND LEGEND

NOTES:

1. BIKE LANE LEGENDS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
2. BIKE LANE LINES SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
3. BIKE LANES MUST BE A MINIMUM OF 5 FEET WHEN ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FT WIDE; HOWEVER A WIDTH OF 5 FEET IS PREFERRED.
4. BICYCLE LANE DELINEATION, LEGEND, AND SIGNING SHALL CONFORM TO THE MUTCD.
5. PER THE MUTCD 2000, BICYCLE LANE SIGNS SHALL BE USED IN ADVANCE OF THE BEGINNING OF A MARKED BICYCLE LANE.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	BICYCLE LANE DELINEATION, LEGEND, AND SIGNAGE
DATE 7-10-03	DWG. NO. 244.5
PAGE NO. 50.5	

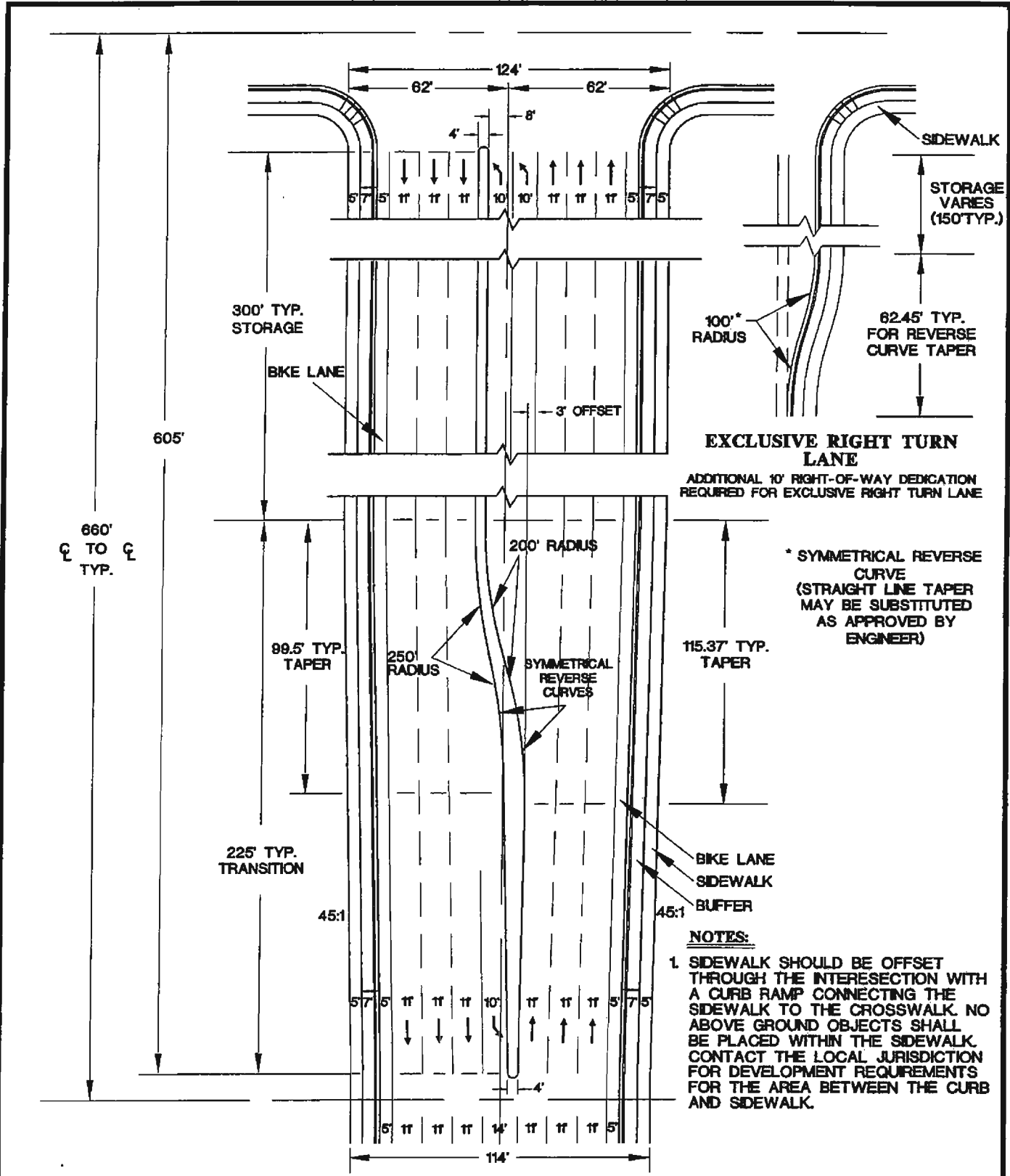


SPECIFICATION REFERENCE	

**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**TYPICAL LANE CONFIGURATION FOR
MAJOR STREET INTERSECTIONS
AND MEDIAN DETAIL
CASE II - WITH CURBSIDE SIDEWALK**

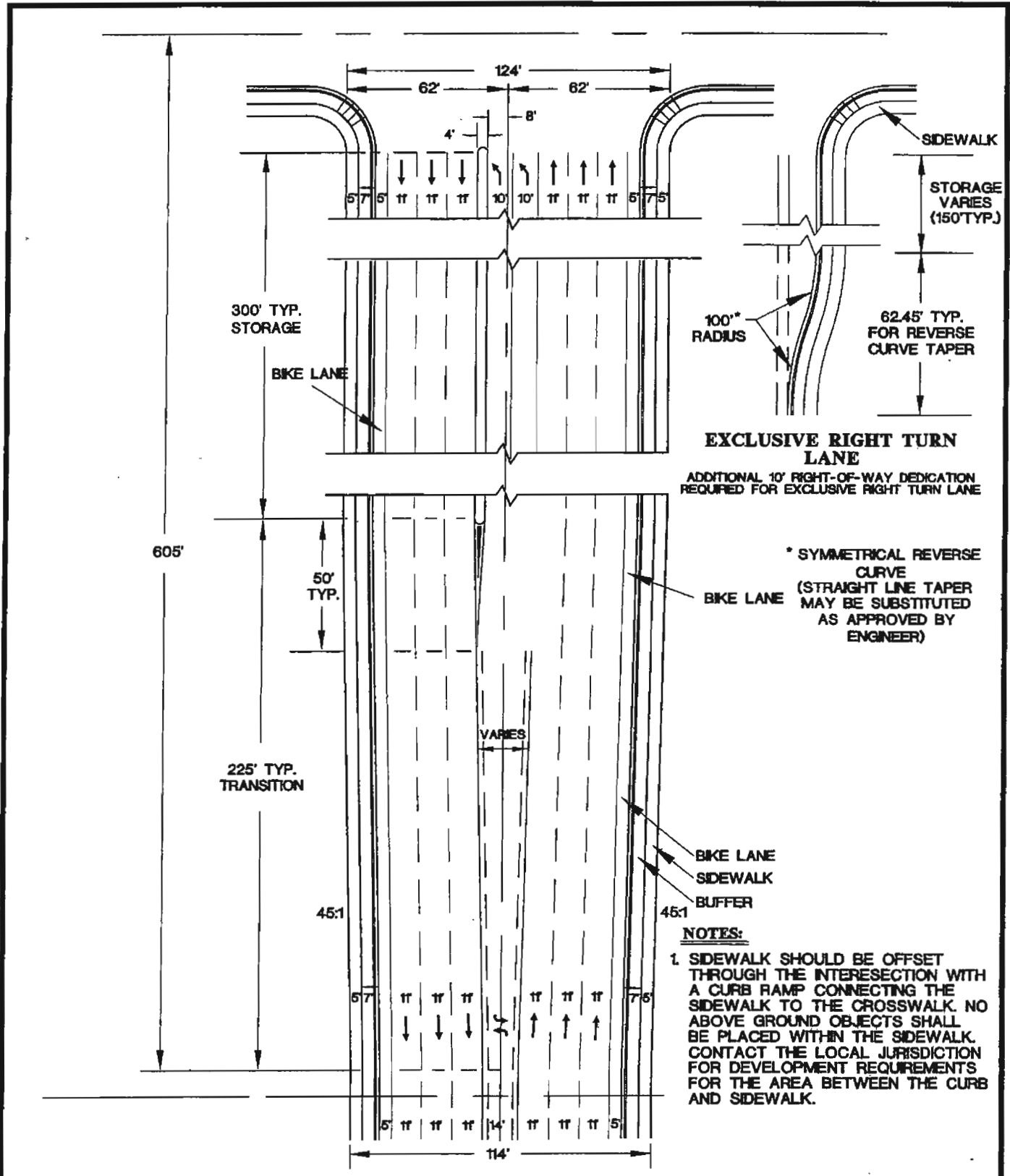
DATE 7-10-03 | DWG. NO. 245.1 (2 OF 2) | PAGE NO. 51.1A



SPECIFICATION REFERENCE	

**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**TYPICAL LANE CONFIGURATION FOR
MAJOR STREET INTERSECTIONS
AND MEDIAN DETAIL
CASE I - WITH OFFSET SIDEWALK**

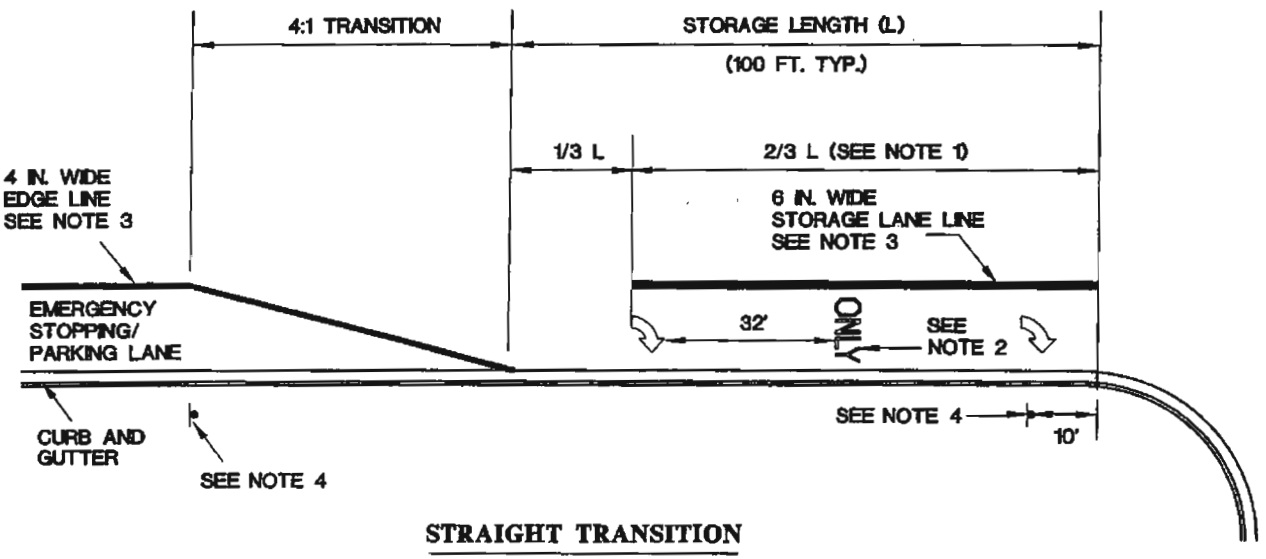
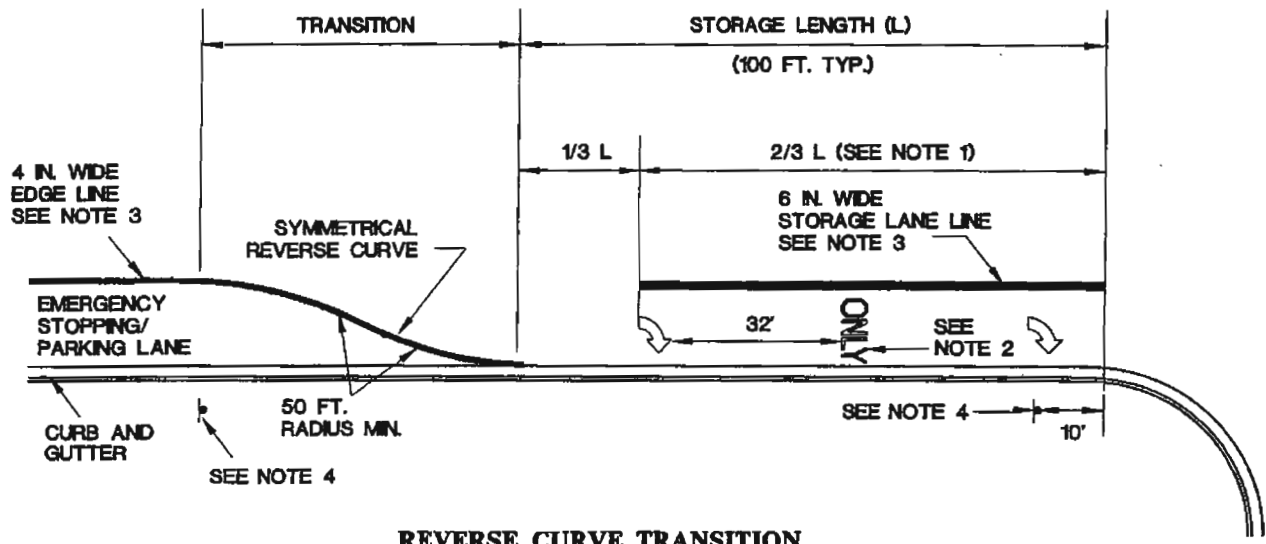


SPECIFICATION REFERENCE	

**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

**TYPICAL LANE CONFIGURATION FOR
MAJOR STREET INTERSECTIONS
AND MEDIAN DETAIL
CASE II - WITH OFFSET SIDEWALK**

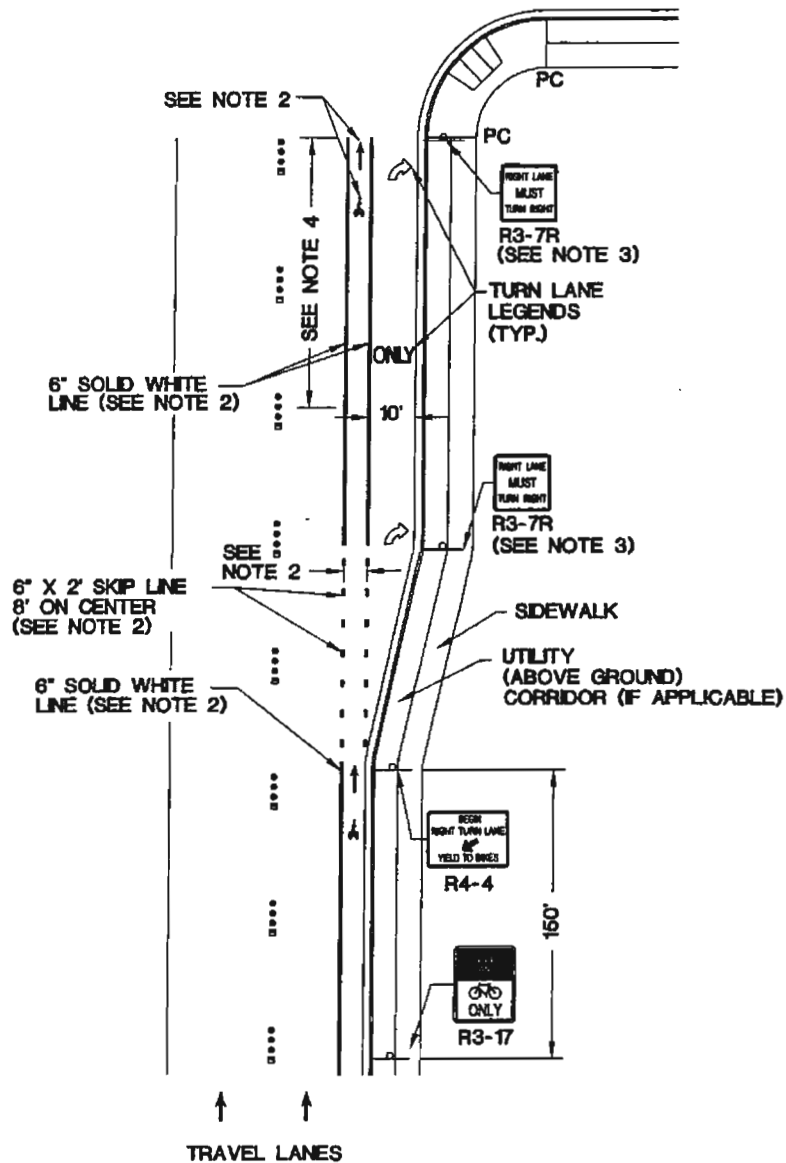
DATE 7-10-03 | DWG. NO. 245.1 ALT (2 OF 2) | PAGE NO. 511AALT



NOTES:

1. LENGTH OF STORAGE LANE LINE IS TWO THIRDS OF THE TURN LANE STORAGE LENGTH.
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE.
3. PAVEMENT MARKINGS SHALL BE TYPE 2 TAPE OR PAINT AS DIRECTED BY THE ENGINEER.
4. INSTALL "NO PARKING" SIGNS FOR ENTIRE LENGTH OF TURN LANE. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGNS.

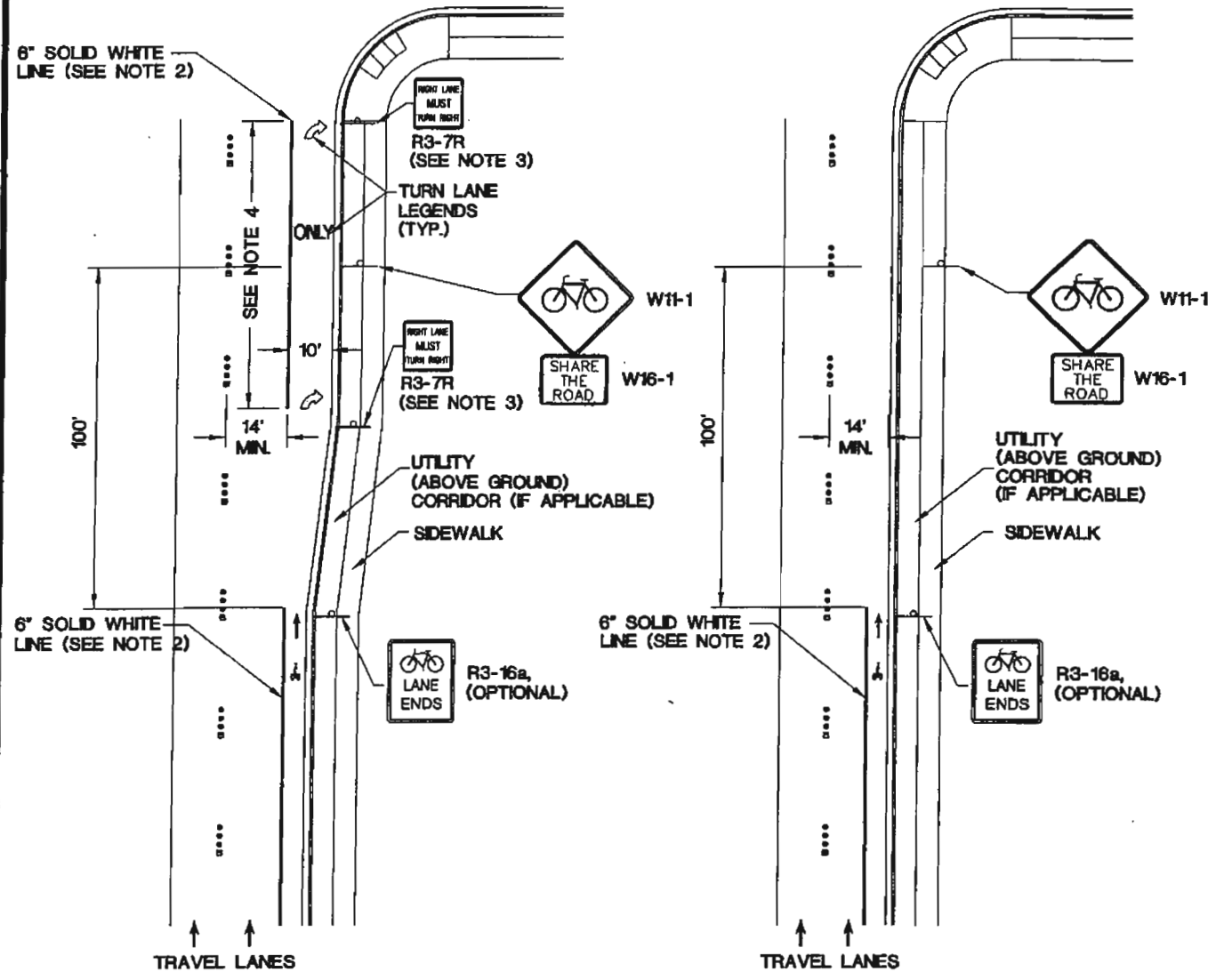
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
633	PAVEMENT MARKERS	PAVEMENT MARKING AND SIGNAGE RIGHT TURN LANE AT MINOR INTERSECTIONS (ARTERIALS WITH EMERGENCY/PARKING LANE)	
DATE 7-10-03		DWG. NO. 246B	PAGE NO. 52B



NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE TRAFFIC ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DRAWING NO. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	BICYCLE LANE APPROACH TO INTERSECTION WITH EXCLUSIVE RIGHT TURN LANE		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 246.1	PAGE NO. 52.1



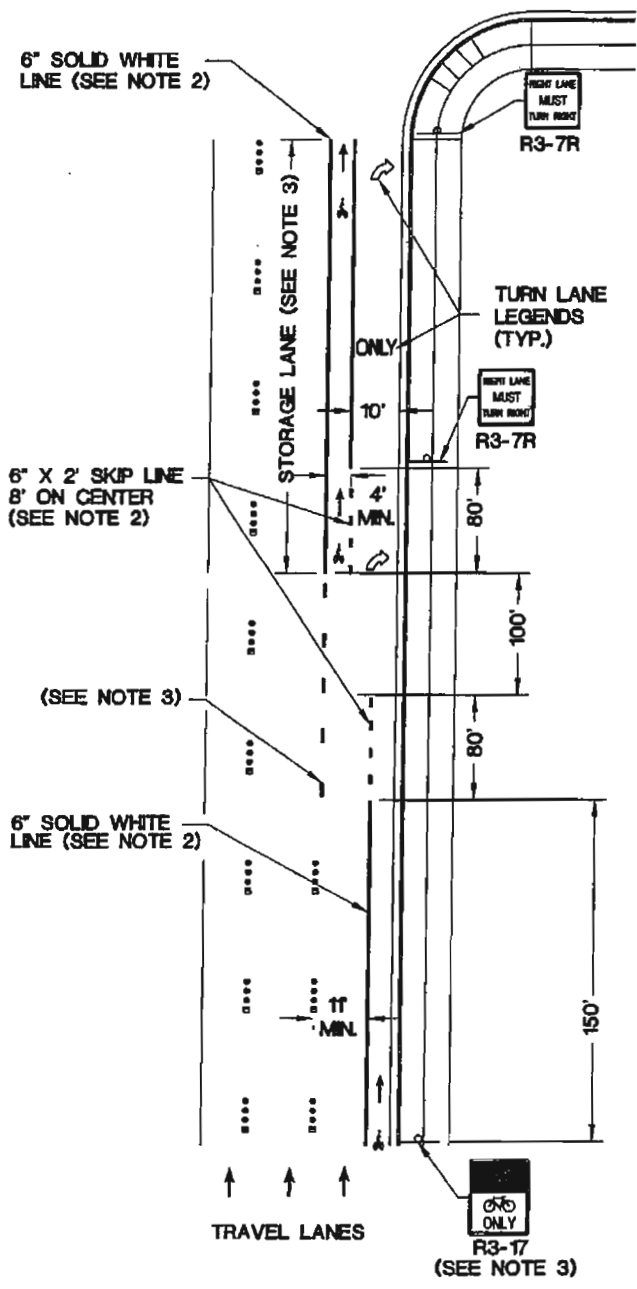
WITH EXCLUSIVE RIGHT-TURN LANE

WITHOUT EXCLUSIVE RIGHT-TURN LANE

NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DWG. 248 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.
5. THE ABOVE DETAIL SHOULD BE FOLLOWED IN SITUATIONS WHERE THERE IS NOT ADEQUATE SPACE TO PROVIDE A SEPARATE BICYCLE LANE.

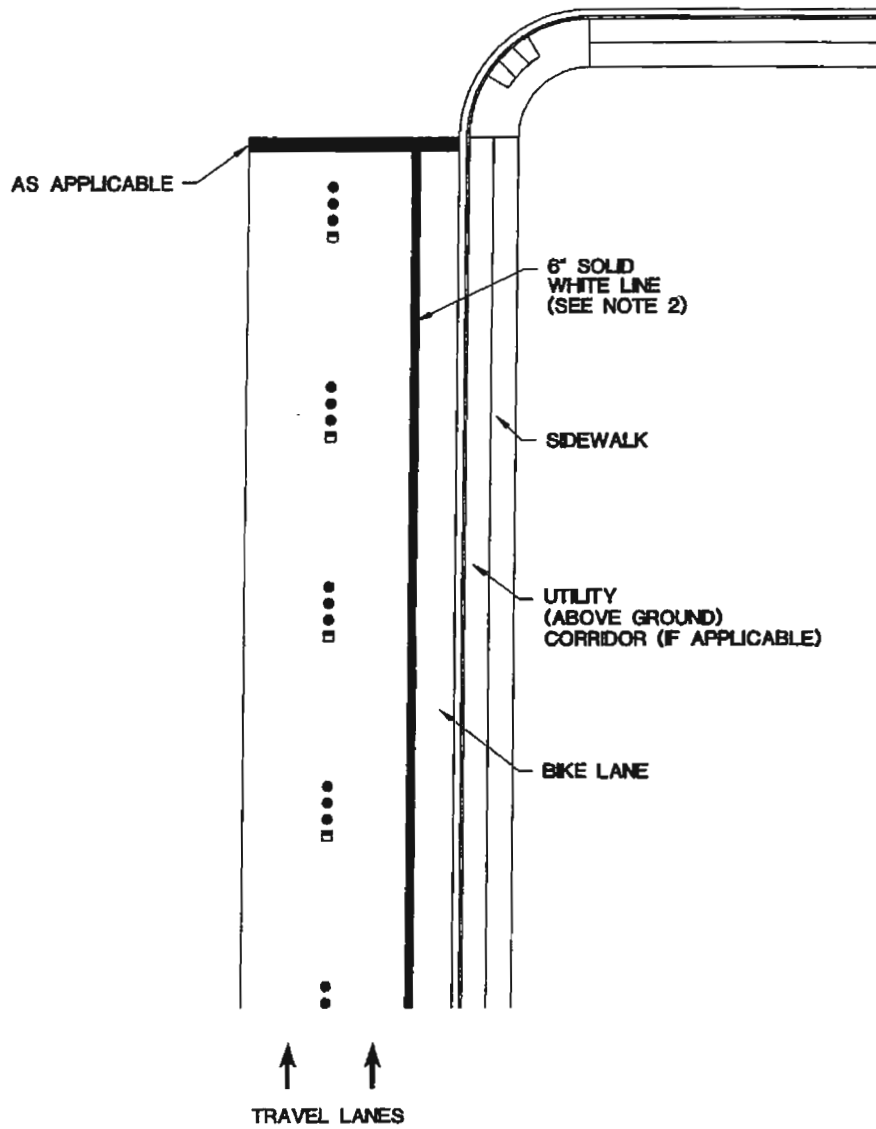
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINING TRAFFIC STRIPING	BICYCLE LANE TRANSITION TO SHARED LANE AT INTERSECTION		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 246.2	PAGE NO. 522



NOTES:

- 1. FORCED RIGHT-TURN LANES AND LONG RIGHT TURN POCKETS ARE NOT DESIRABLE FOR BICYCLISTS AND SHOULD BE AVOIDED WHEN POSSIBLE.
- 2. SEE DRAWING NO. 244.5 FOR BIKE LANE DELINEATION, LEGEND, AND SIGNAGE DETAILS.
- 3. SEE DRAWING NO. 246A FOR DETAILS ON THE FORCED TURN LANE.

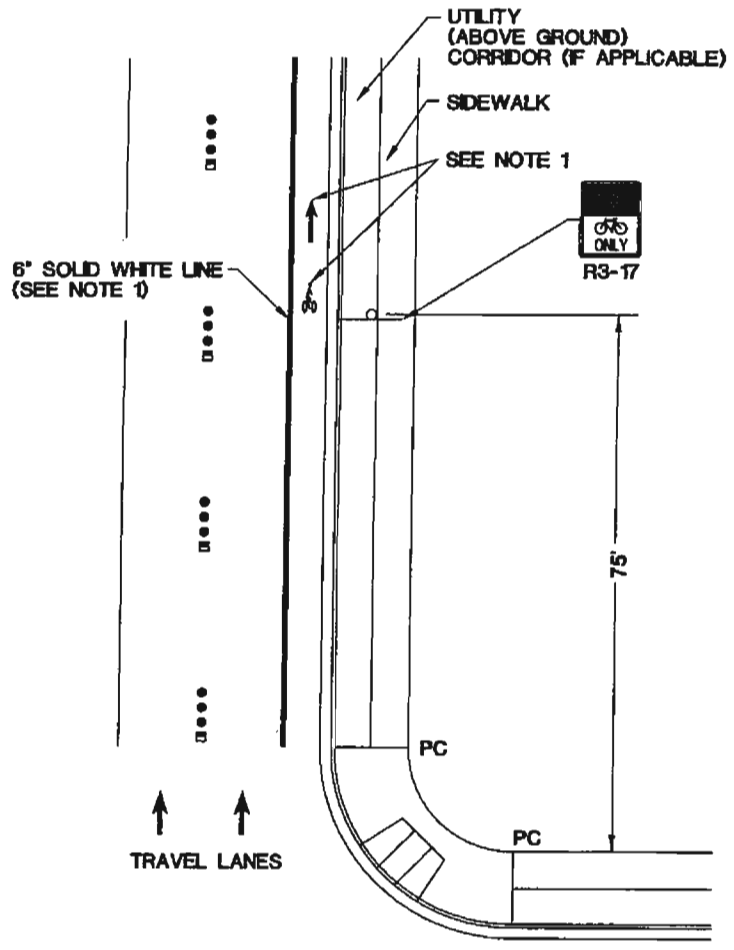
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	BICYCLE LANE AT A RIGHT TURN DROP LANE		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 246.3	PAGE NO. 523



NOTES:

1. A SOLID BICYCLE LANE STRIPE SHOULD CONTINUE ACROSS DRIVEWAY ACCESS POINTS.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.

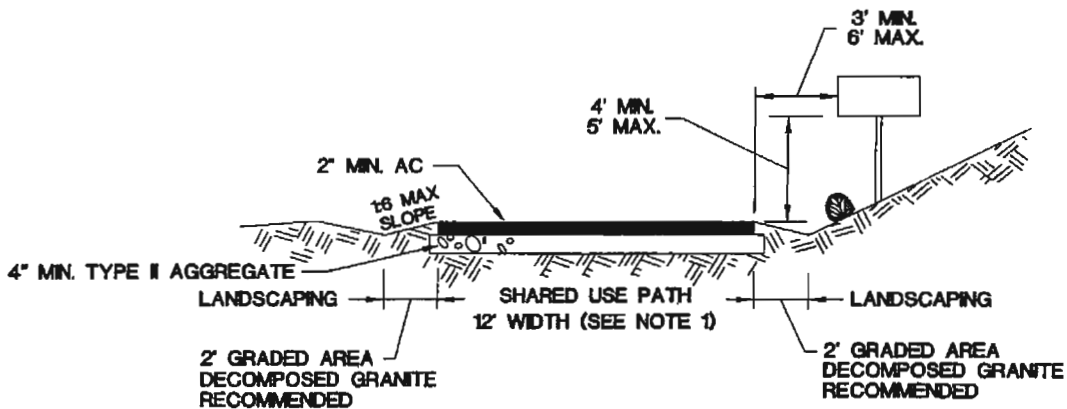
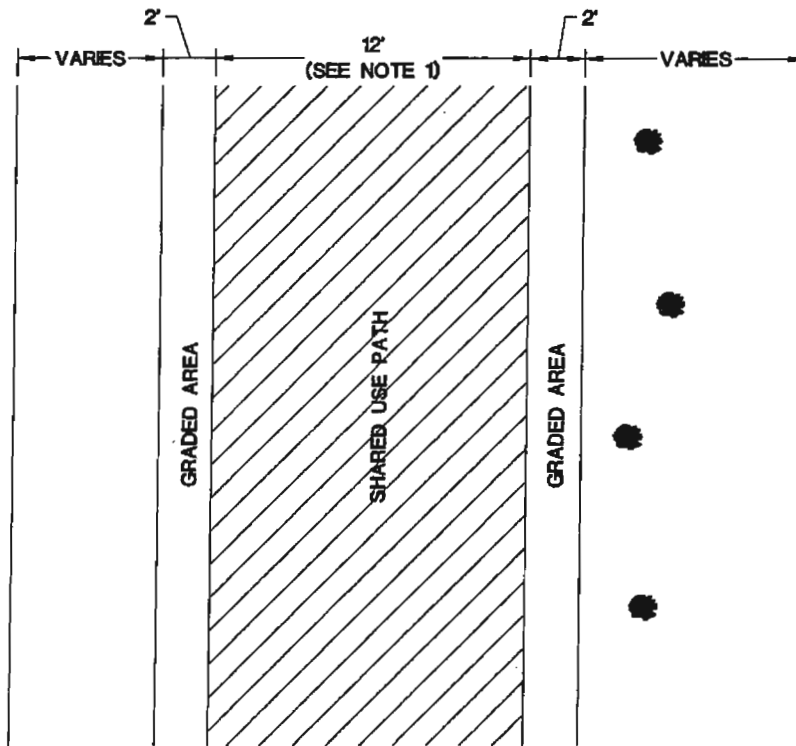
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	BICYCLE LANE DELINEATION AT APPROACH TO INTERSECTION WITHOUT EXCLUSIVE RIGHT-TURN LANE		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 246.4	PAGE NO. 52.4



NOTES:

- 1. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.
- 2. USE 2 FOOT LONG SKIP LINE, 8 FEET ON CENTER, FOR LOCATIONS WITH BUS STOPS. FOR TYPICAL BUS STOP, TRANSITION FROM SOLID LINE TO SKIP LINE FOR 150 FEET CENTERED ON BUS STOP.

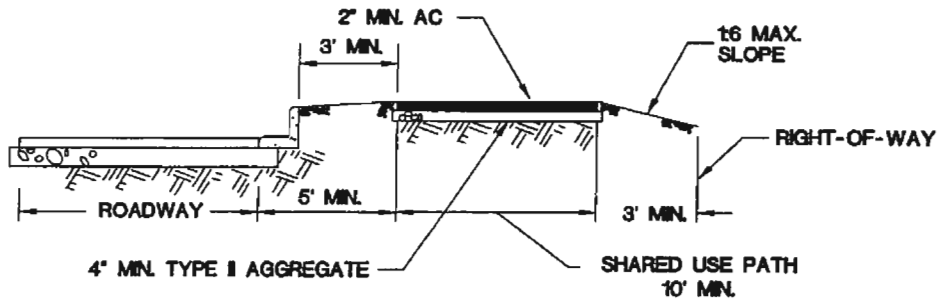
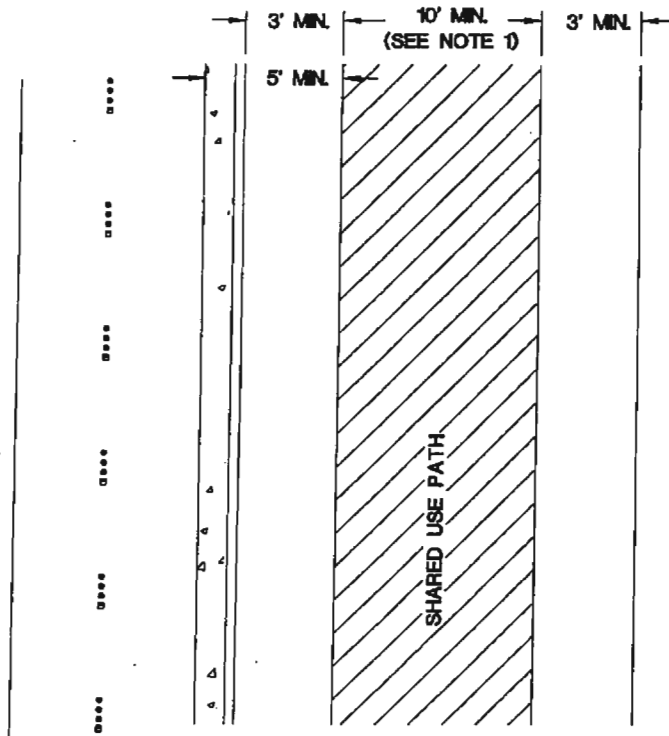
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	BICYCLE LANE DEPARTURE FROM INTERSECTIONS		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 246.5	PAGE NO. 52.5



NOTES:

1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE MAY BE USED INSTEAD OF ASPHALT.
2. SEE DRAWING NUMBER 255.1 FOR SHARED USE PATH ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AASHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.

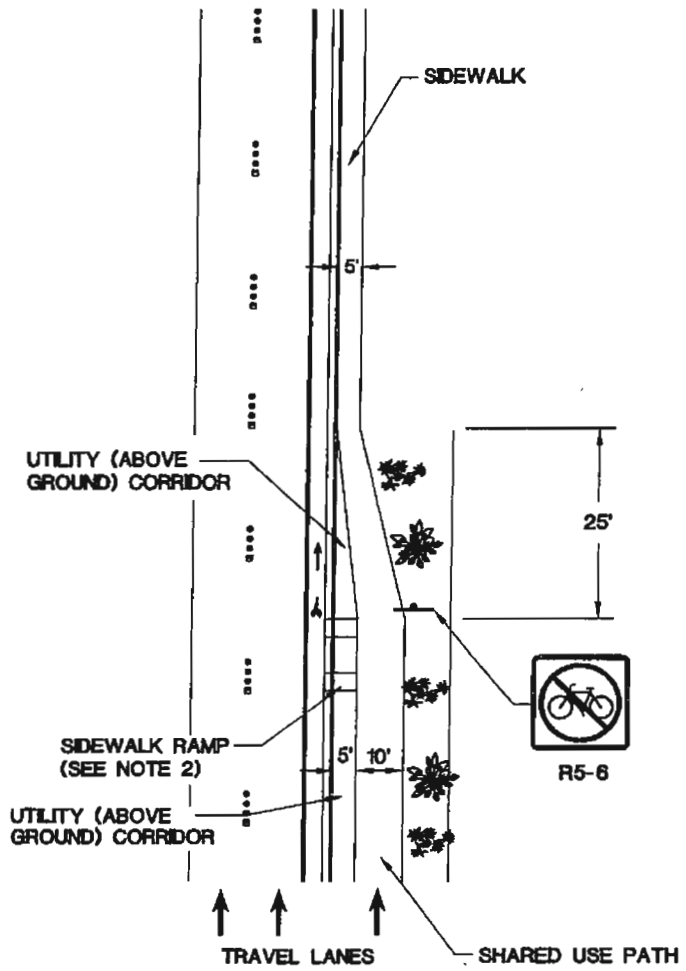
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 255	PAGE NO. 59.2



NOTES:

1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE (PCC) MAY BE USED INSTEAD OF ASPHALT AND PCC MAY BE REQUIRED BY THE LOCAL JURISDICTION.
2. SEE DRAWING NUMBER 255 FOR SHARED USE PATH NOT ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, ASSHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.
5. 3 FOOT LATERAL CLEARANCE RECOMMENDED BETWEEN EDGE OF PATH AND A FIXED OBJECT, 2 FOOT MINIMUM.
6. IF 16 FEET IS NOT AVAILABLE FROM THE BACK OF CURB TO THE RIGHT-OF-WAY LINE, A BICYCLE LANE/ROUTE AND THE SIDEWALK WILL SUBSTITUTE FOR THE PATH. PLACE A PATH ENDS SIGN (W9) 25 FEET IN ADVANCE OF THE PATH ENDING.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA			
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH ALONG A ROADWAY			
633	PAVEMENT MARKERS				
		DATE 7-10-03	DWG. NO. 255.1	PAGE NO. 59.3	



NOTES:

- 1 USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
- 2 SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMP DETAILS.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	TYPICAL TRANSITION SECTION FROM SHARED USE PATH ALONG ROADWAY TO SIDEWALK		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 255.2	PAGE NO. 59.4

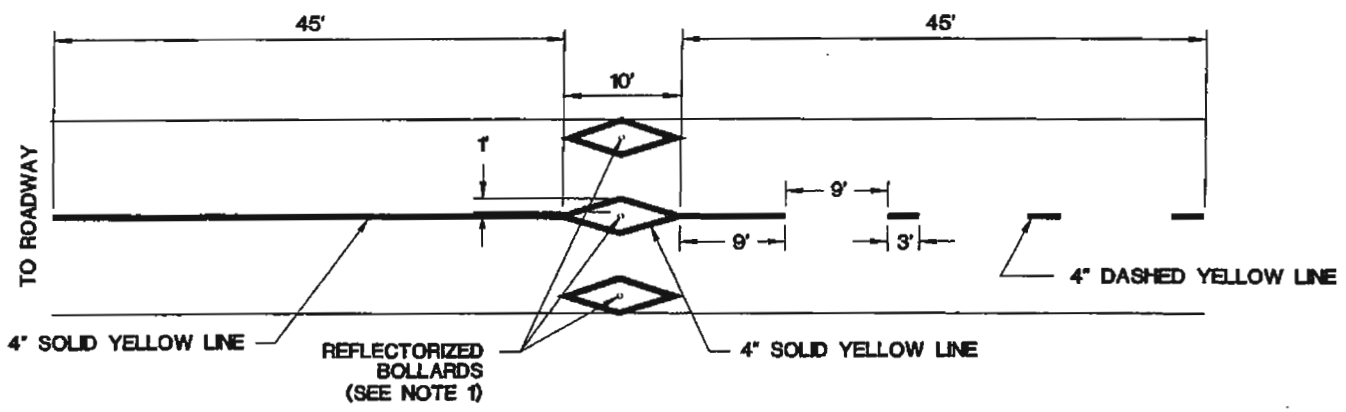
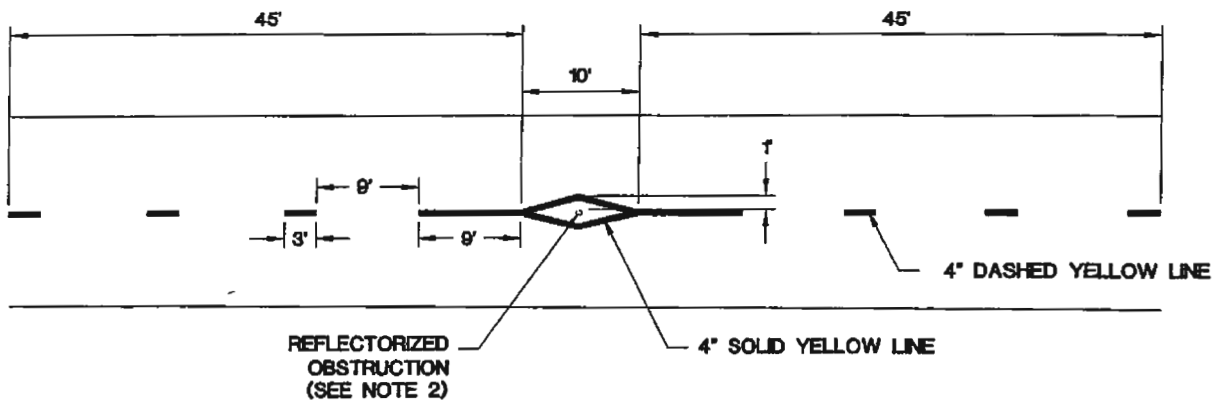
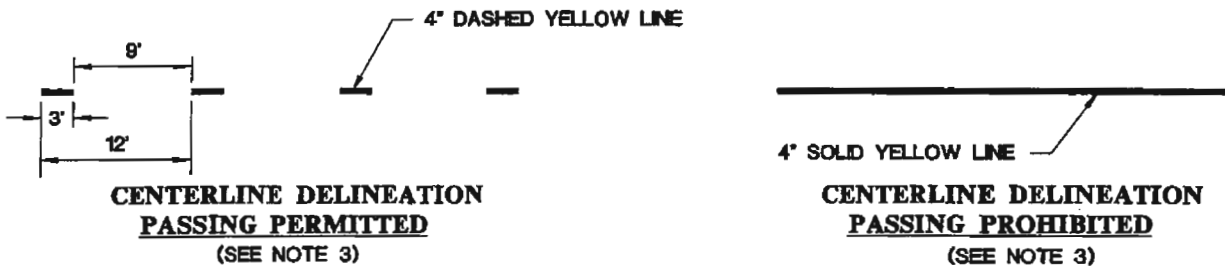
SIGN SIZES FOR SHARED-USE PATHS

<u>MUTCD CODE</u>	<u>SIGN</u>	<u>MINIMUM SIGN SIZE (IN)</u>
R1-1	STOP	18 X 18
R1-2	YIELD	24 X 24 X 24
R3-16, 16A, 17, 17A	BICYCLE LANE	24 X 30
R4-1, 2, 3, 7	MOVEMENT RESTRICTION	12 X 18
R4-4	BEGIN RIGHT TURN LANE YIELD TO BIKES	36 X 30
R5-3	NO MOTOR VEHICLES	24 X 24
R5-6	BICYCLE PROHIBITION	24 X 24
R7-9, 9A	NO PARKING BIKE LANE	12 X 18
R9-3A	PEDESTRIANS PROHIBITED	18 X 18
R9-5, 6	BICYCLE REGULATORY	12 X 18
R9-7	SHARED-USE PATH RESTRICTION	12 X 18
R15-1	RAILROAD CROSSBUCK	24 X 4.5
W1-1, 2, 3, 4, 5	TURN AND CURVE WARNING	18 X 18
W1-6, 7	ARROW WARNING	24 X 12
W2-1, 2, 3, 4, 5	INTERSECTION WARNING	18 X 18
W3-1A, 2A, 3	STOP, YIELD, SIGNAL AHEAD	18 X 18
W5-2A	ROAD NARROWS	18 X 18
W5-4	BIKEWAY NARROWS	18 X 18
W7-5	HILL SIGN	18 X 18
W8-1, 2	BUMP OR DIP	18 X 18
W8-10	BICYCLE SURFACE CONDITION	18 X 18
W10-1	ADVANCE GRADE CROSSING	18 DIA.
W11-1	BICYCLE CROSSING	18 X 18
W12-2	LOW CLEARANCE	18 X 18
W16-1	SHARE THE ROAD PLAQUE	24 X 30
D1-1	SUPPLEMENTAL BIKE ROUTE PLAQUE	24 X 6
D4-3	BICYCLE PARKING	12 X 18
D11-1	BIKE ROUTE	24 X 18
M1-8	BIKE ROUTE MARKER	12 X 18
M1-9	BIKE ROUTE MARKER	18 X 24
M4-11, 12, 13	SUPPLEMENTAL BICYCLE ROUTE GUIDE	12 X 4
M7-1, 2, 3, 4, 5, 6, 7	ROUTE MARKER SUPPLEMENTAL PLAQUES	12 X 9

NOTES:

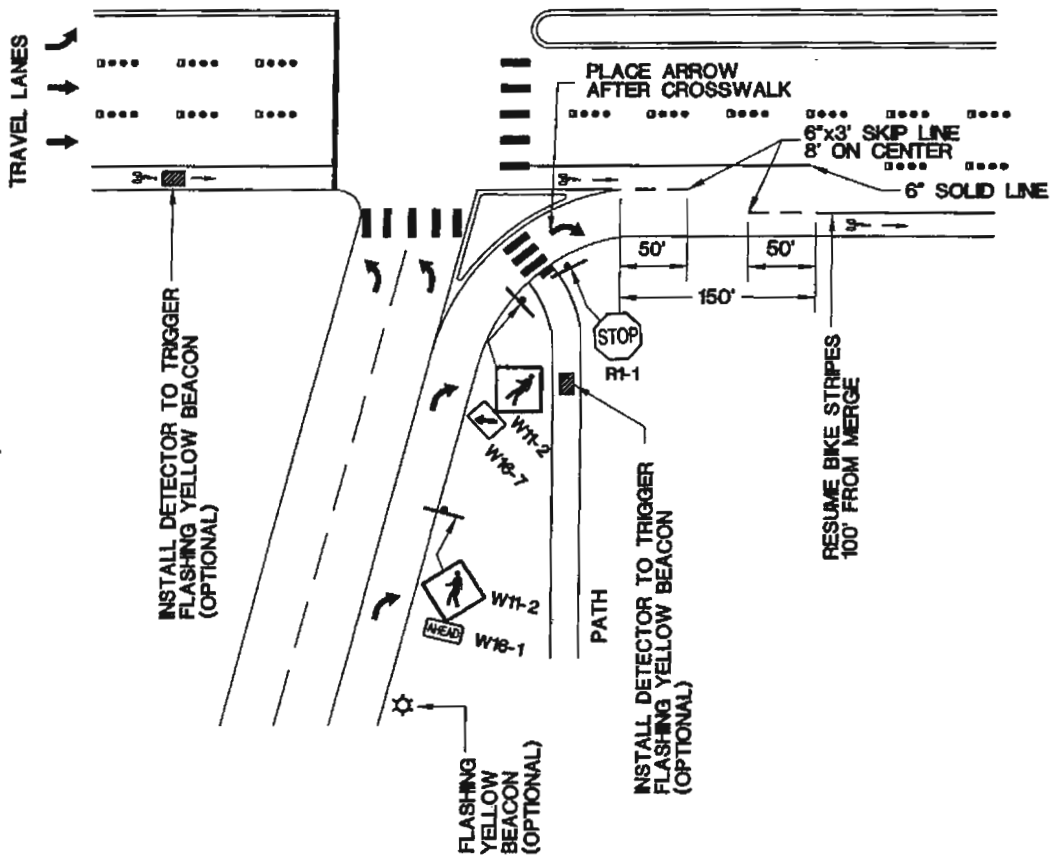
1. SIGN TABLE INSERTED FROM MUTCD FOR REFERENCE. SEE CURRENT MUTCD FOR UPDATED INFORMATION.
2. SIGNS R3-16(A), R3-17(A), R4-4, W5-2A, AND W16-1 NOT USED FOR SHARED USE PATHS.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SIGN SIZES FOR SHARED USE PATH		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 255.3	PAGE NO. 59.5



- NOTES:**
1. USE BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 (5 FOOT SPACING DESIRABLE) SIX-INCH DIAMETER BY 3 FT. TALL REFLECTORIZED BOLLARDS WHEN NECESSARY. CENTERLINE DELINEATION SHOULD BE PROVIDED AT APPROACH TO INTERSECTION EVEN WHEN BOLLARD IS NOT PROVIDED.
 2. ANY OBSTRUCTION IN PATH SHOULD BE REMOVED. IF OBSTRUCTION CANNOT BE REMOVED, OBSTRUCTION MUST BE REFLECTORIZED.
 3. USE CENTERLINE DELINEATION AT APPROACHES TO INTERSECTIONS AND AROUND OSTRUCTIONS IN ALL CASES. ONLY USE CENTERLINE DELINEATION IN OTHER CASES WHERE CONFLICTS BETWEEN USERS TRAVELING IN OPPOSITE DIRECTIONS ARE ANTICIPATED.

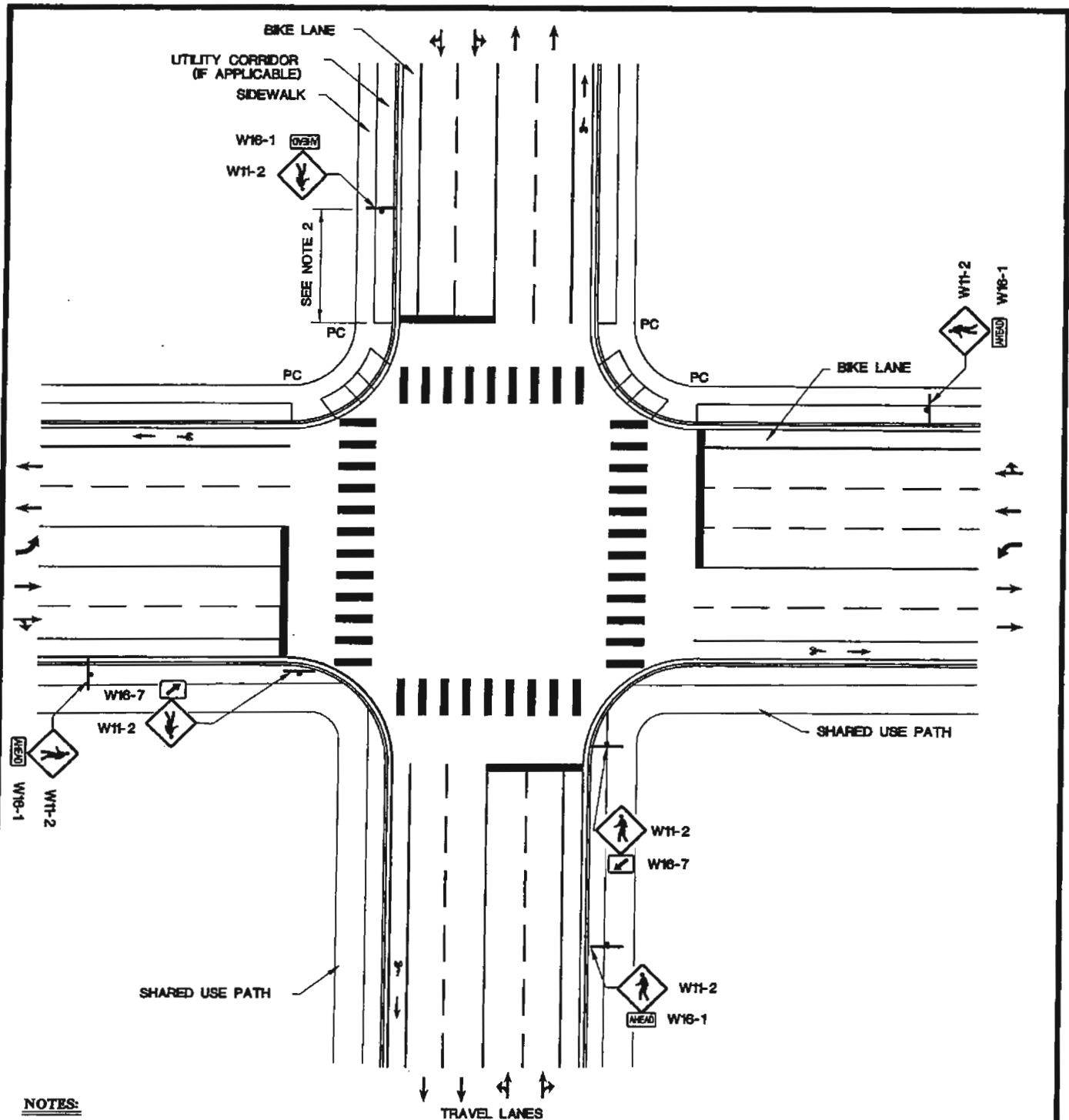
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING			
633	PAVEMENT MARKERS	DELINEATION AND BOLLARD USAGE ON SHARED USE PATH		
		DATE 7-10-03	DWG. NO. 255.4	PAGE NO. 59.6



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

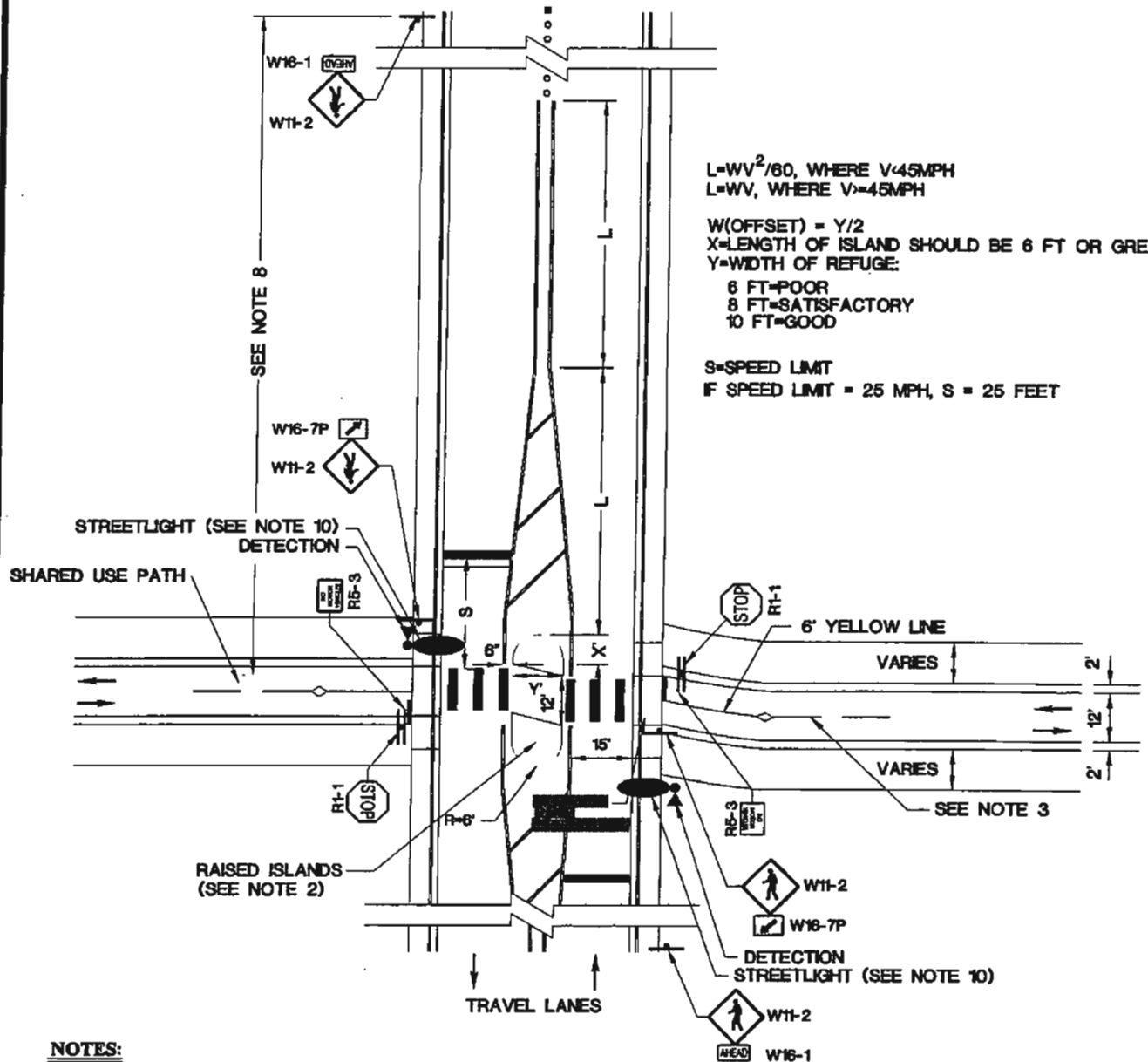
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH CROSSING OF FREE RIGHT TURN LANE		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 256	PAGE NO. 59.7



NOTES:

1. USE ENGINEERING JUDGMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD TABLE 2C-4 FOR ADVANCED WARNING PLACEMENT.
3. INSTALL BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 SIX INCH DIAMETER BY 3 FEET TALL BOLLARDS WHEN REQUIRED.
4. SEE DRAWING NO. 2012 FOR SIGHT VISIBILITY ZONES AT INTERSECTIONS.
5. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
628	PAINTING TRAFFIC STRIPING	TYPICAL SIGNAGE FOR SHARED USE PATH AT INTERSECTION	
633	PAVEMENT MARKERS		
DATE 7-10-03		DWG. NO. 256.1	PAGE NO. 59.8

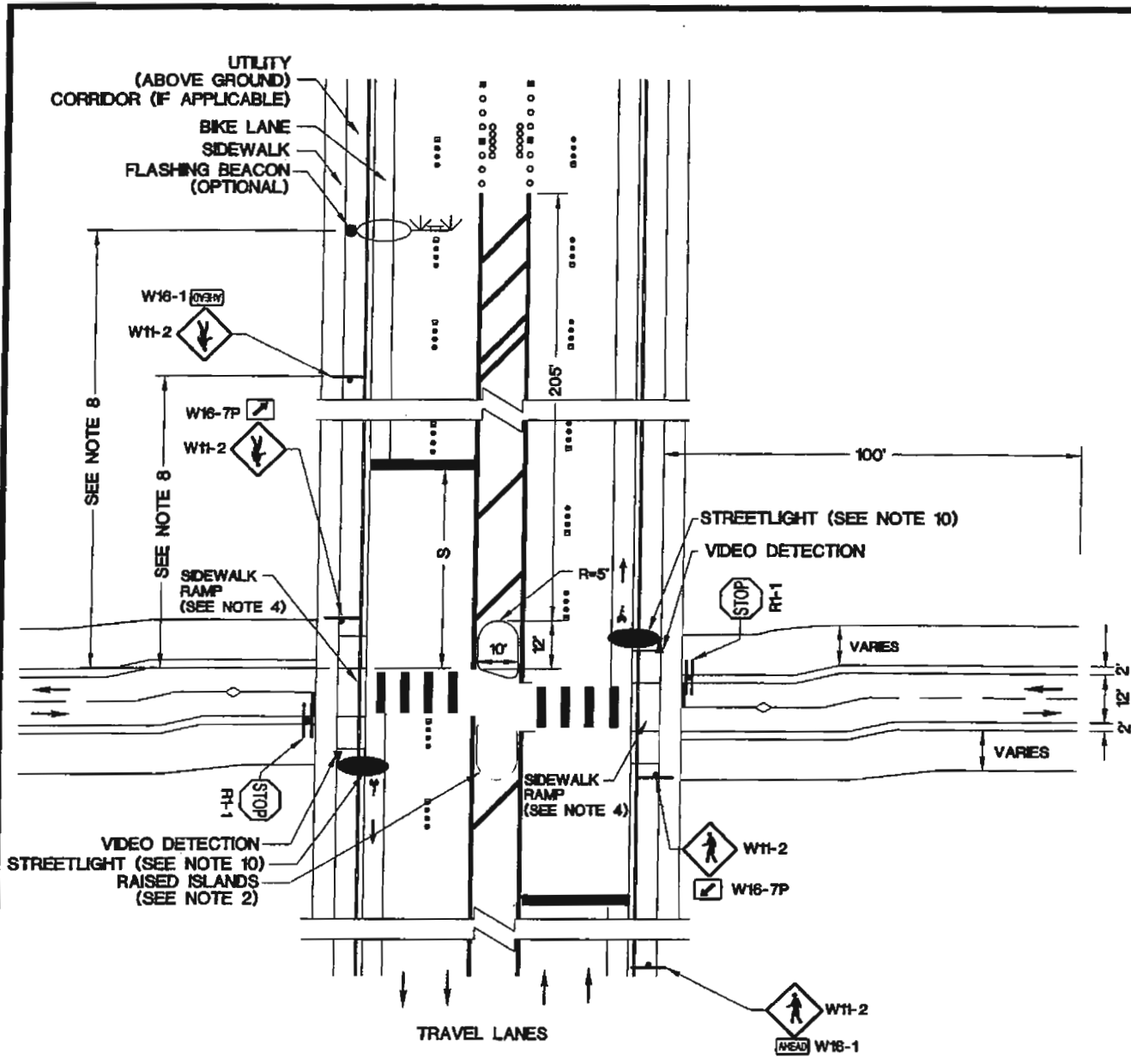


$L = WV^2/80$, WHERE $V < 45\text{MPH}$
 $L = WV$, WHERE $V > 45\text{MPH}$
 $W(\text{OFFSET}) = Y/2$
 $X = \text{LENGTH OF ISLAND SHOULD BE 6 FT OR GREATER}$
 $Y = \text{WIDTH OF REFUGE:}$
 6 FT = POOR
 8 FT = SATISFACTORY
 10 FT = GOOD
 $S = \text{SPEED LIMIT}$
 IF SPEED LIMIT = 25 MPH, $S = 25 \text{ FEET}$

NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248 FOR MEDIAN ISLAND. A 15 DEGREE SKEW ANGLING IN DIRECTION OF ONCOMING TRAFFIC IS DESIRABLE.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE DELINEATION.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE PATH WIDTH FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISIBILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

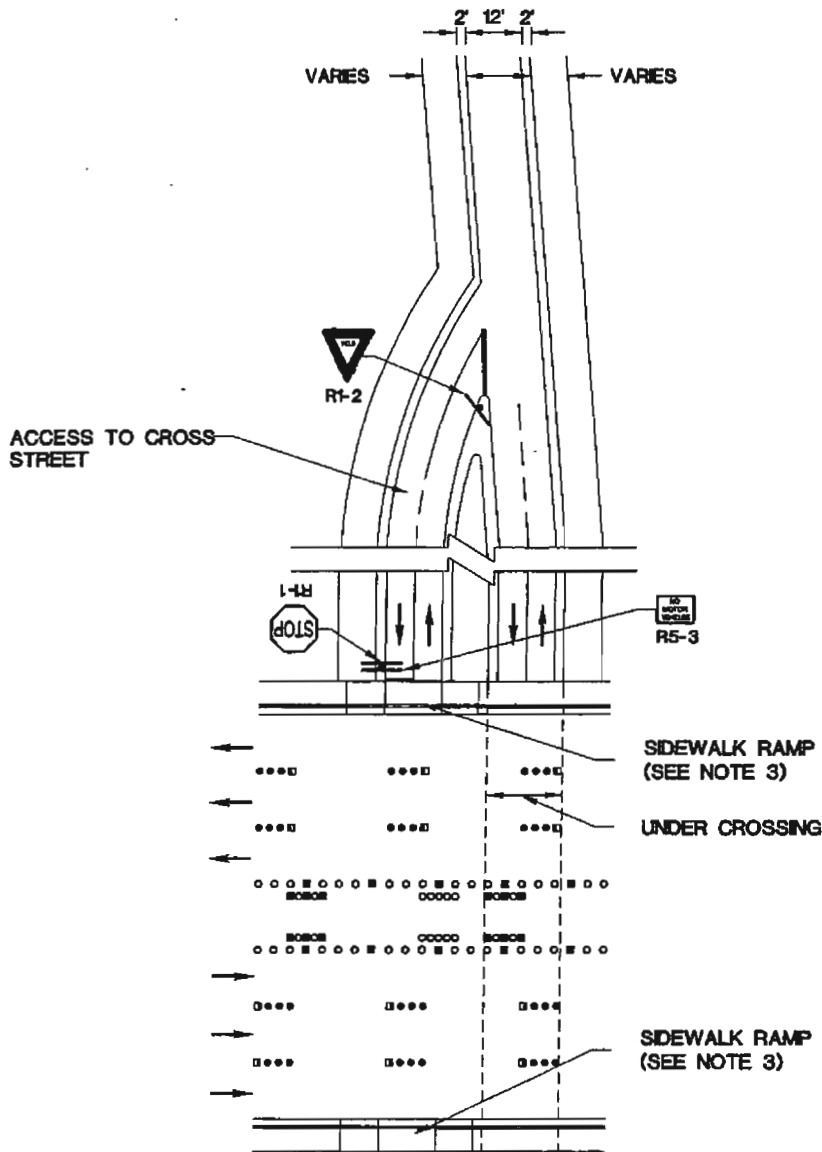
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH CROSSING TWO LANE ROADWAY		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 256.2	PAGE NO. 59.9



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248, AND 258.2 FOR MEDIAN ISLAND.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMP (USE 12 FEET INSTEAD OF 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISIBILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERENCES TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

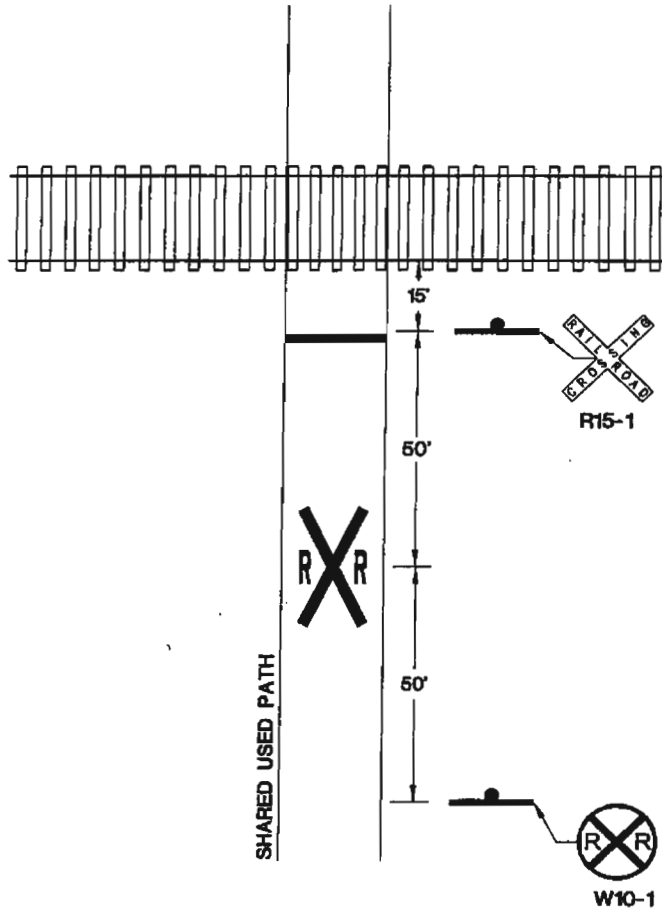
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH CROSSING 4 LANE ROADWAY		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 256.3	PAGE NO. 59.15



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
3. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET OF CENTER SECTION OF SIDEWALK).
4. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
5. SEE TABLE 2C-4 IN MUTCD FOR ADVANCE PLACEMENT OF WARNING SIGNS.
6. SEE DRAWING NO. 256.4 FOR THE AN MID-BLOCK AT-GRADE CROSSING DESIGN.
7. A MINIMUM 8 FOOT CLEARANCE IS REQUIRED FOR THE UNDER CROSSING. GRADES GREATER THAN 5 PERCENT ARE UNDESIRABLE. SEE THE 1999, OR CURRENT EDITION, AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES FOR GRADE RESTRICTIONS IF A 5 PERCENT GRADE IS EXCEEDED.

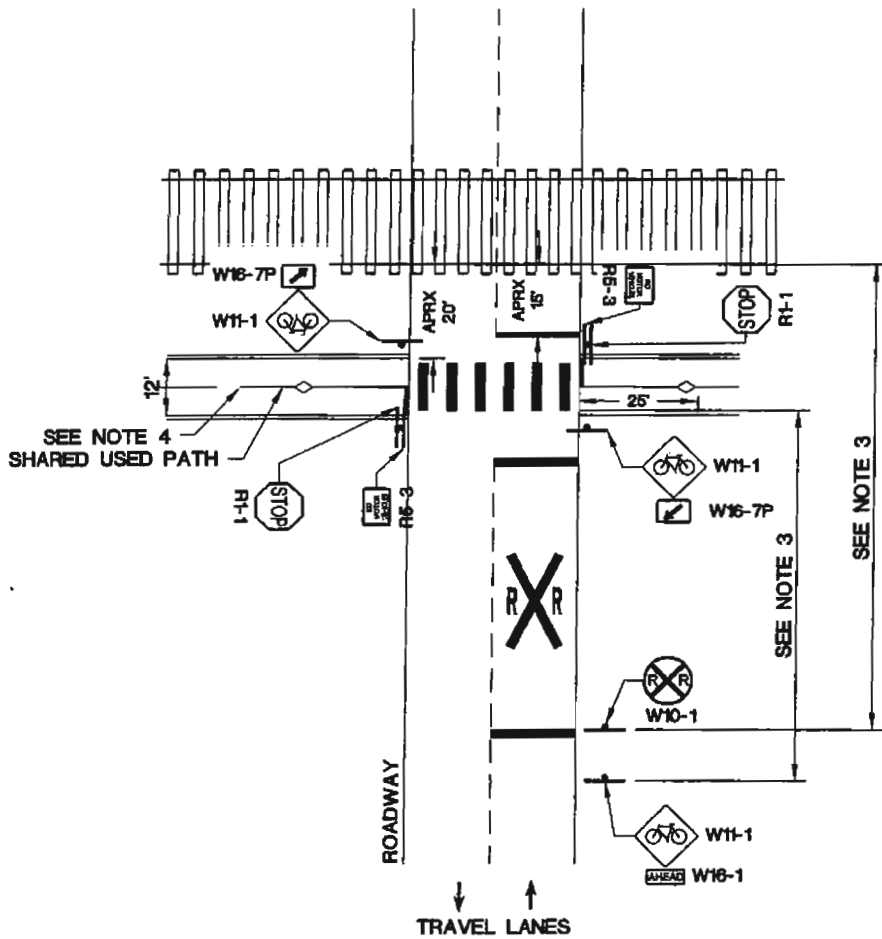
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	SHARED USE PATH UNDER CROSSING		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 256.5	PAGE NO. 59.35



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD 2000 FOR GUIDELINES REFERENCED IN FIGURE.

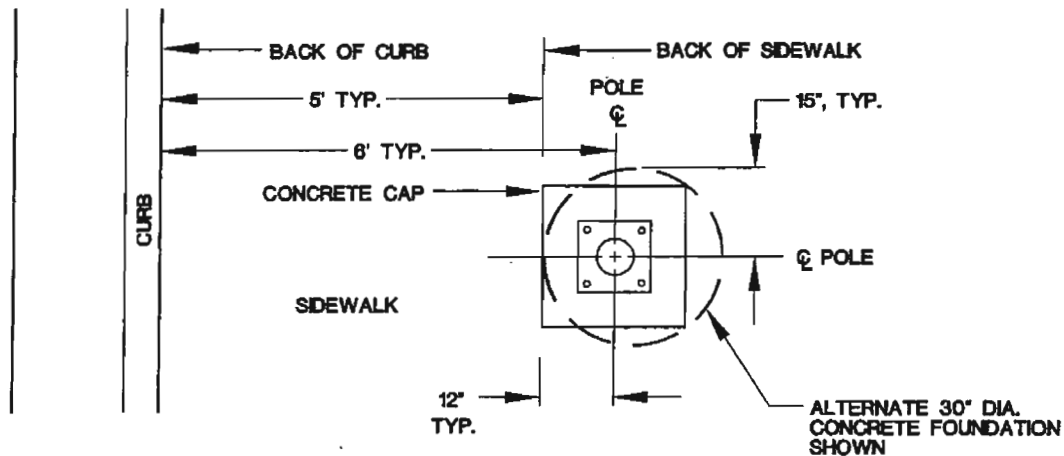
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING			
633	PAVEMENT MARKERS	SHARED USE PATH CROSSING RAILROAD		
		DATE 7-10-03	DWG. NO. 256.6	PAGE NO. 59.45



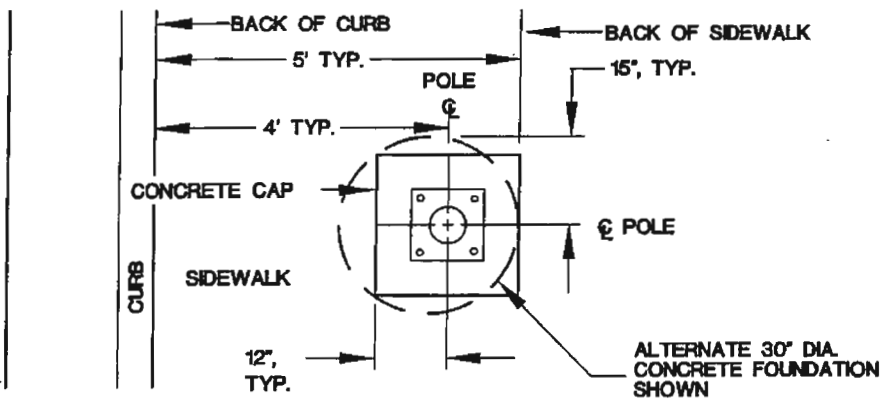
NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 1-5 FOR CROSSWALK STRIPING GUIDELINES.
3. SEE MUTCD 2000 FOR ADVANCED PLACEMENT OF WARNING SIGNS IN TABLE 2C-4.
4. SEE DRAWING NO. 255.5 FOR BOLLARDS AND CENTERLINE STRIPING.
5. SEE DRAWING NO. 256.2 - 256.4 FOR ADDITIONAL CROSSING DETAILS.

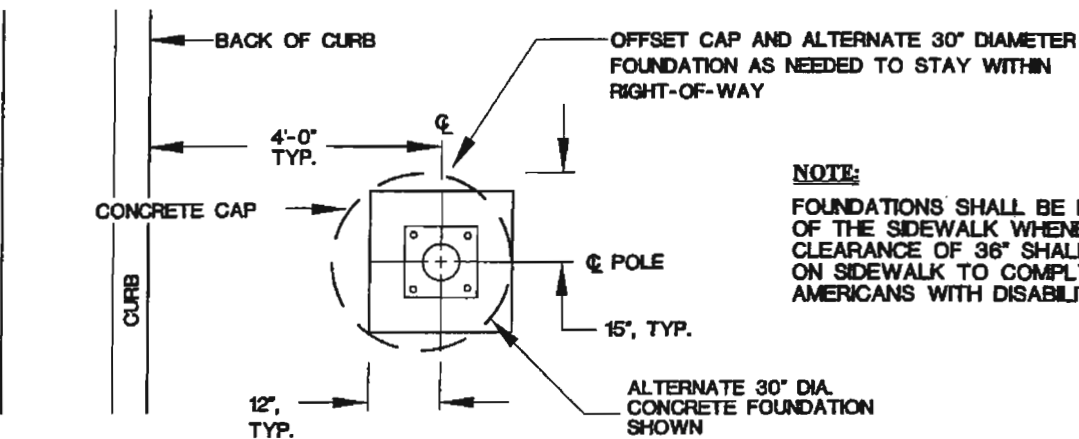
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
628	PAINTING TRAFFIC STRIPING	TYPICAL DELINEATION FOR SHARED USE PATH PARALLEL TO RAILROAD CROSSING A ROADWAY		
633	PAVEMENT MARKERS			
		DATE 7-10-03	DWG. NO. 256.7	PAGE NO. 59.55



BEHIND CURBSIDE SIDEWALK



BACK PORTION OF CURBSIDE SIDEWALK (NOT FOR NEW CONSTRUCTION)



NOTE:

FOUNDATIONS SHALL BE LOCATED OUTSIDE OF THE SIDEWALK WHENEVER FEASIBLE. A CLEARANCE OF 36" SHALL BE MAINTAINED ON SIDEWALK TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.

OPEN AREA OR BETWEEN CURB AND SIDEWALK

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
501	PORTLAND CEMENT CONCRETE			
623	TRAFFIC SIGNALS & STREETLIGHTING	LIGHTING STANDARD SETBACK		
		DATE 7-10-03	DWG. NO. 320	PAGE NO. 80