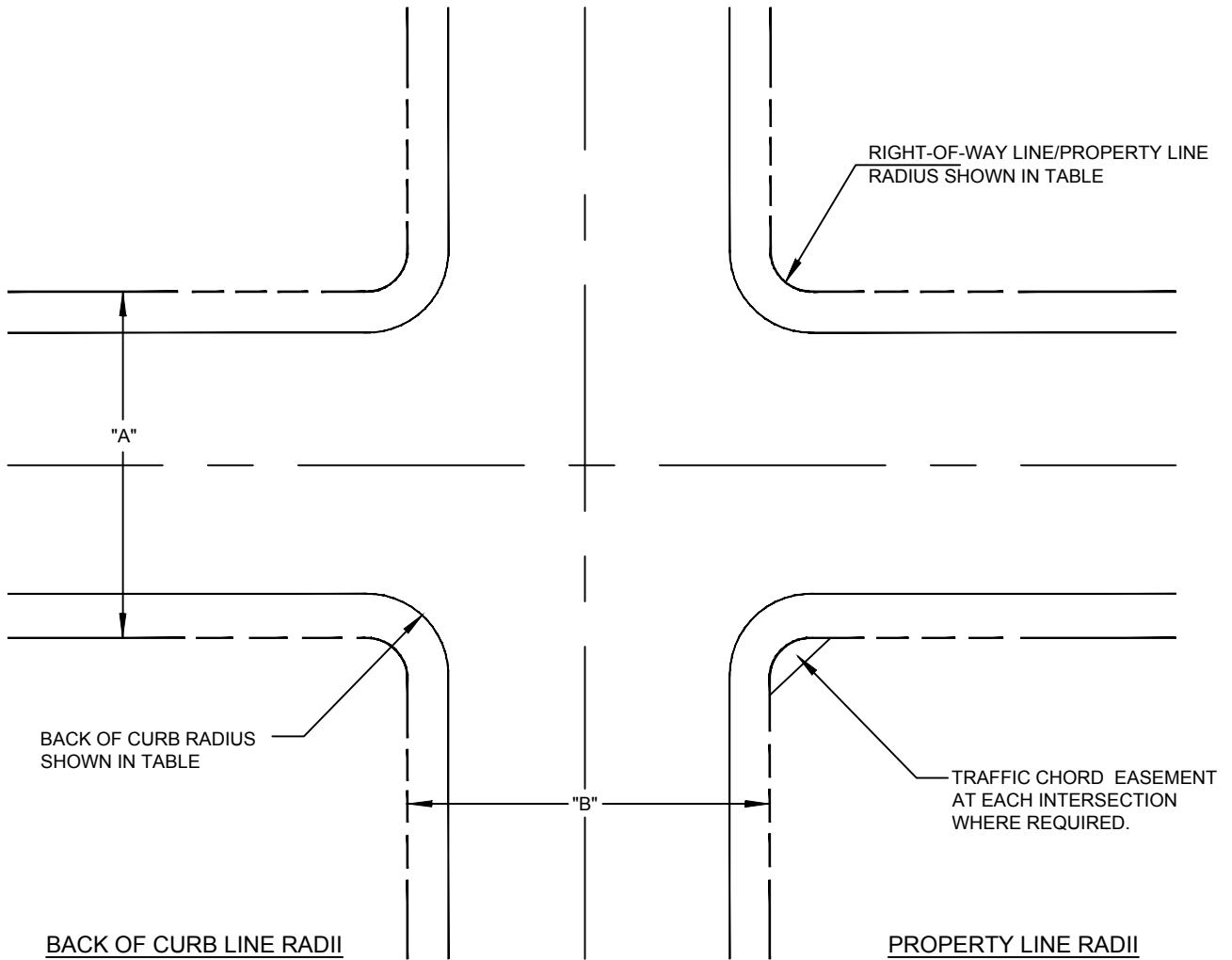


UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA, NEVADA

YEAR 2012 REVISIONS

<u>DRAWING #</u>	<u>TITLE AND REVISION SUMMARY</u>	<u>EFFECTIVE DATE</u>
201.3.S1	"Minimum Property Line and Back of Curb Radii - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
203.1.S1	"Primary Arterial - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
205.2.S1	"Major Collector - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
205.3.S1	"Minor Collector - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
206.1.S1	"Local Residential - Complete Street Alternatives" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
216.1.S1	"L" Type Curb and Gutter - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
244.6.S1	"Typical Delineation for Roadways - Complete Street Alternative" - New drawing for street cross section for the City of Las Vegas as part of their complete streets initiative.	07/01/12
244.9	"Bicycle Lane Delineation, Legend, and Signage" - Revisions to update types of sign sheeting materials, signs and pavement markings to reflect current industry standards.	07/01/12
250	"Street Name Signs Face Copy" - Revisions to update types of sign sheeting materials, signs and pavement markings to reflect current industry standards.	07/01/12
411.1	"Modified Type "A" Inlet" - Administrative correction to change gutter lip transition from 6 inches to 6 feet and "lip of curb" to "lip of gutter.	07/01/12
500.4	"Over 5 Years Pavement Restoration Longitudinal Cut - 60' R/W or Less" - Revision to change pavement removal limits from half-street width to lane width.	01/01/12
503	"Method B for Rigid and Flexible Pipe Trench Backfill - Paved Areas" - Revision to modify the material and compaction requirements for trenches.	01/01/12
503.1	"Method A for Flexible Pipe Trench Backfill - Paved Areas" - Revision to modify the material and compaction requirements for trenches.	01/01/12

503.2	"Method A for Rigid Pipe Trench Backfill - Paved Areas" - Revision to modify the material and compaction requirements for trenches.	01/01/12
506	"Utility Pothole Repair" - To allow "Farmed" keyhole plugs and allow keyhole repair as an optional method for roadways with right-of-way widths of 60 feet or less.	01/01/12
627	"Typical Application for Standard for "Double Penalties" - Signs for Use in Temporary Traffic Control Zones" - Revisions to clarify the design and typical sign placement to conform with MUTCD and NRS 484B.130.	07/01/12

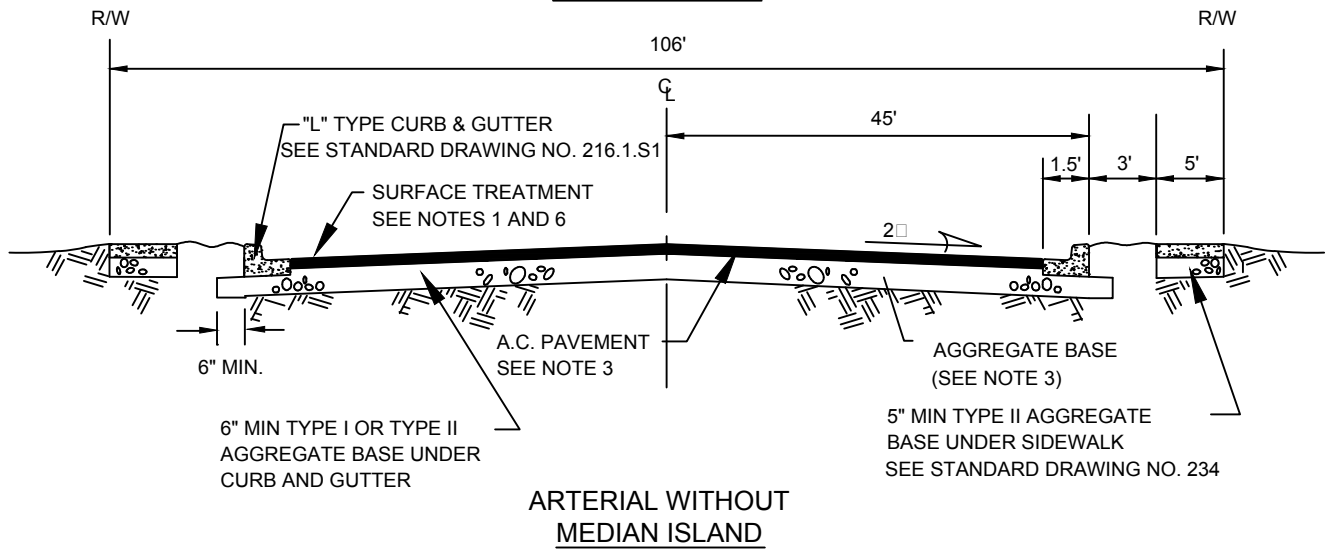
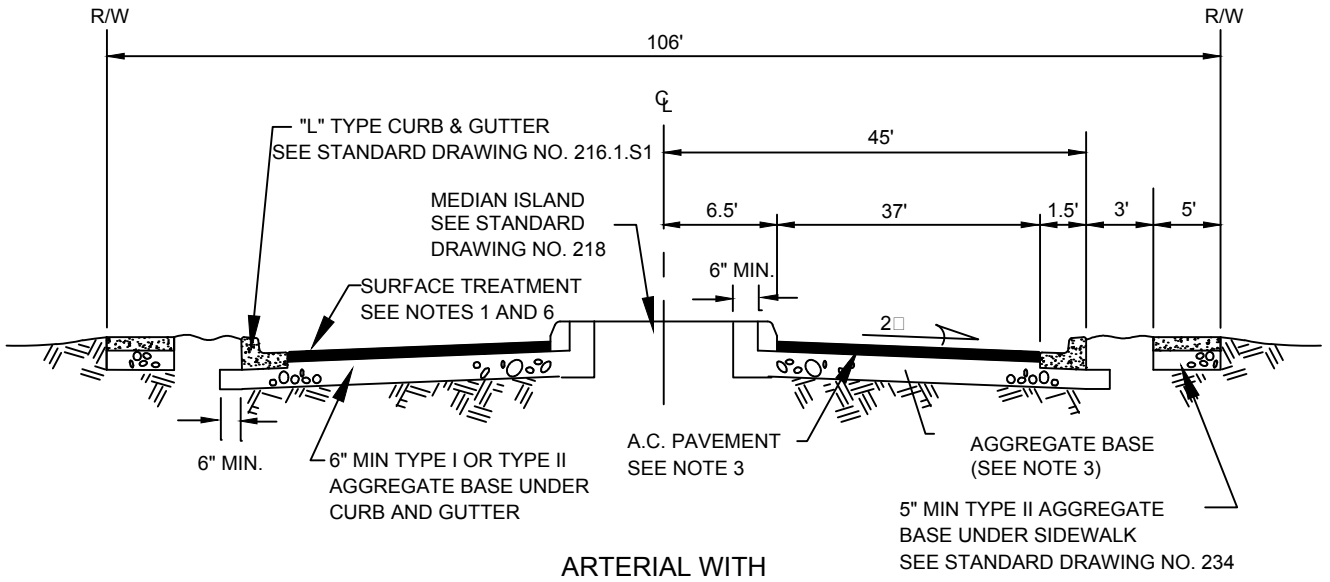


"A" \ "B"	60' OR LESS	80'	100' OR MORE
	60' OR LESS	20'	25'
80'	25'	30'	30'
100' OR MORE	30'	30'	30'

NOTES
 A TRAFFIC CHORD EASEMENT WILL BE REQUIRED AT THIS CORNER.

"A" \ "B"	60' OR LESS	80'	100' OR MORE
	60' OR LESS	15'	25'
80'	25'	<input type="checkbox"/> 35'	<input type="checkbox"/> 35'
100' OR MORE	30'	<input type="checkbox"/> 35'	<input type="checkbox"/> 35'

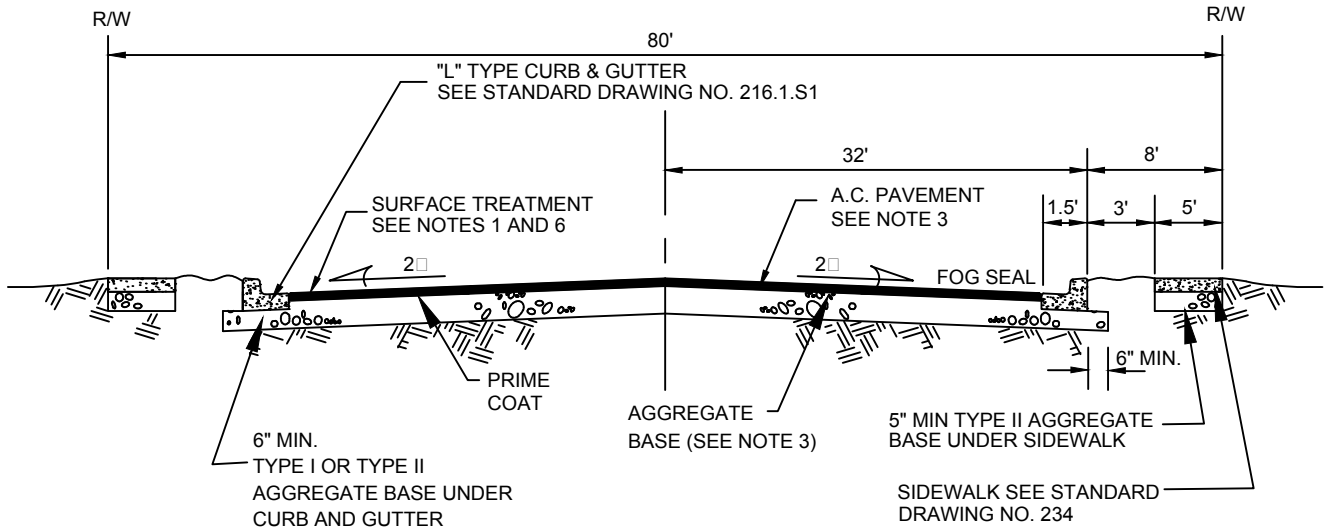
AGENCY APPROVED					L	
UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
SUPPLEMENTAL DRAWING						
MINIMUM PROPERTY LINE AND BACK OF CURB RADII COMPLETE STREET ALTERNATIVE						
DATE 07-01-12		DWG. NO.		201.3.S1		
SPECIFICATION REFERENCE						



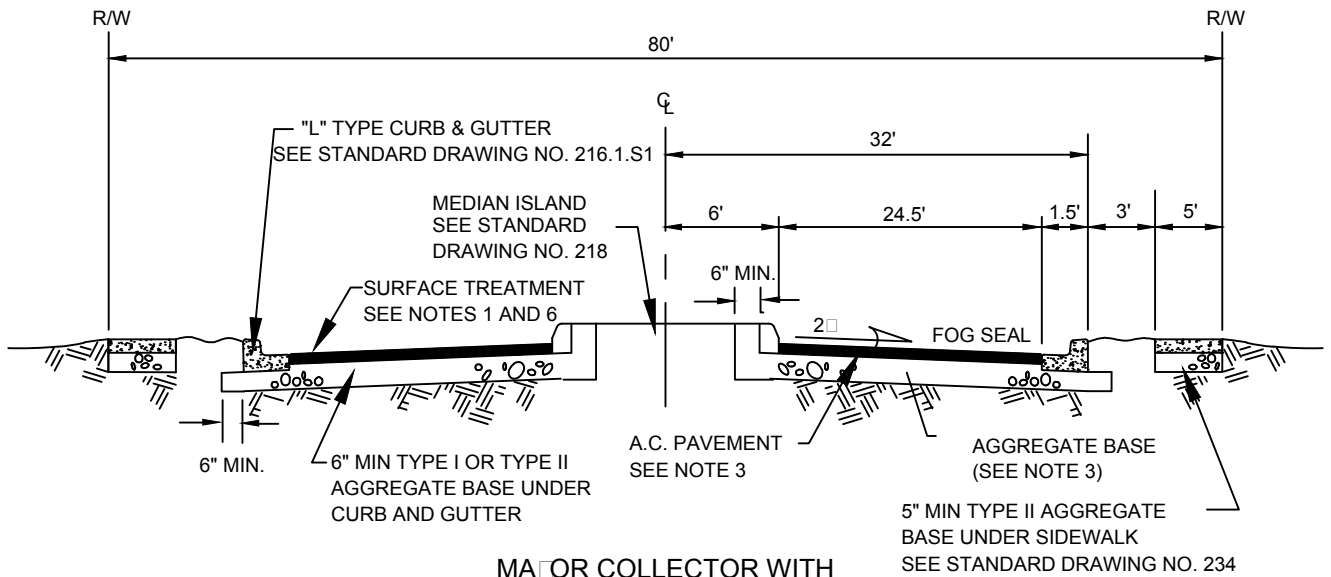
NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING UTACS OR OPEN GRADE) SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. DENSE GRADE SHALL BE FLUSH WITH LIP OF GUTTER.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200.
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 SHALL BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. OVERLAY 1" UTACS UNLESS OTHERWISE REQUIRED BY THE ENTITY.

		AGENCY APPROVED				L	
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
302	AGGREGATE BASE	SUPPLEMENTAL DRAWING					
401	BITUMINOUS PAVEMENT	PRIMARY ARTERIAL					
403	OPEN GRADE	COMPLETE STREET ALTERNATIVE					
501	CONCRETE						
		DATE 07-01/12	DWG. NO.		203.1.S1		



**MAJOR COLLECTOR WITHOUT
MEDIAN ISLAND**

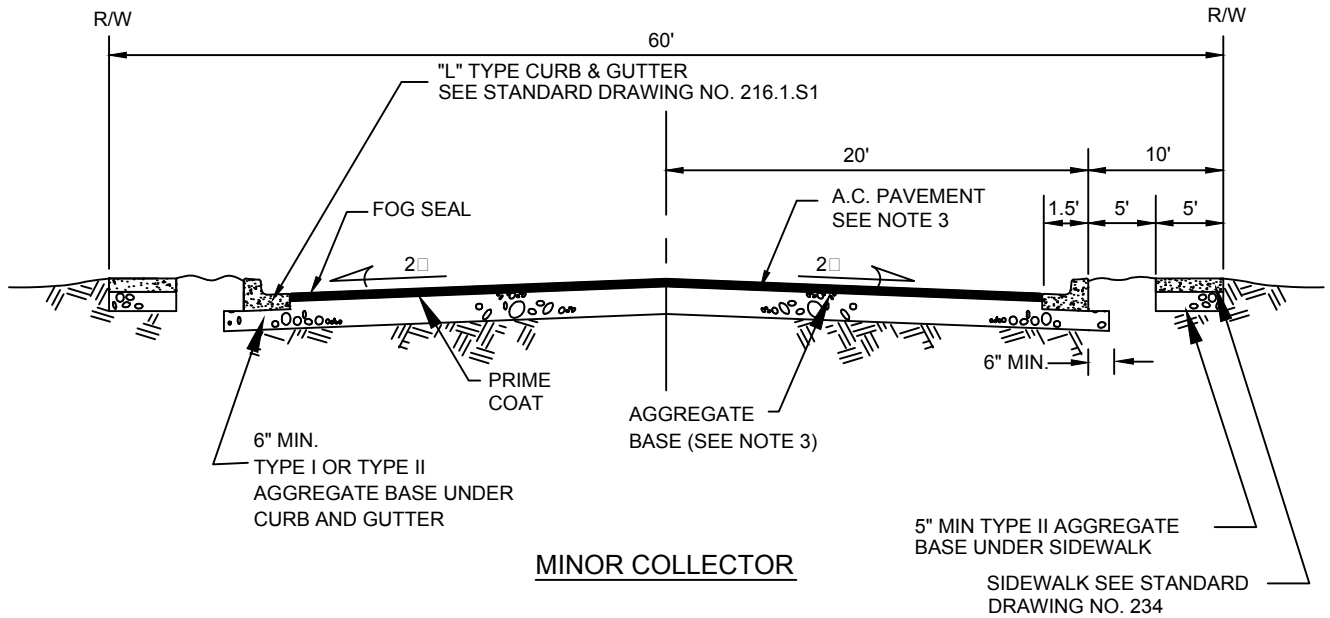


**MAJOR COLLECTOR WITH
MEDIAN ISLAND**

NOTES:

1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200.1.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICITON. 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. OVERLAY 1" UTACS UNLESS OTHERWISE REQUIRED BY THE ENTITY.

SPECIFICATION REFERENCE		AGENCY APPROVED				L
302 AGGREGATE BASE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA				
401 BITUMINOUS PAVEMENT		SUPPLEMENTAL DRAWING				
406 PRIME COAT		MAJOR COLLECTOR				
407 FOG SEAL		COMPLETE STREET ALTERNATIVE				
501 CONCRETE		DATE 07-01/12		DWG. NO. 205.2.S1		

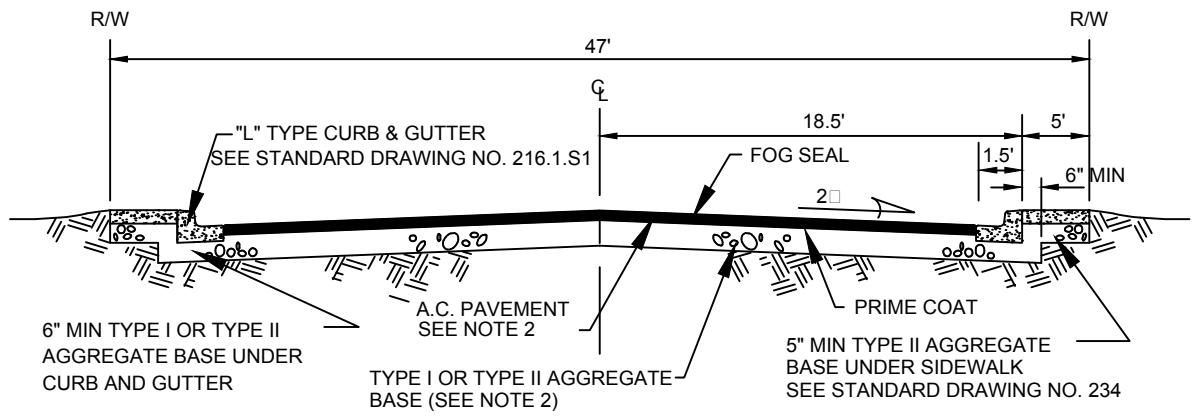


MINOR COLLECTOR

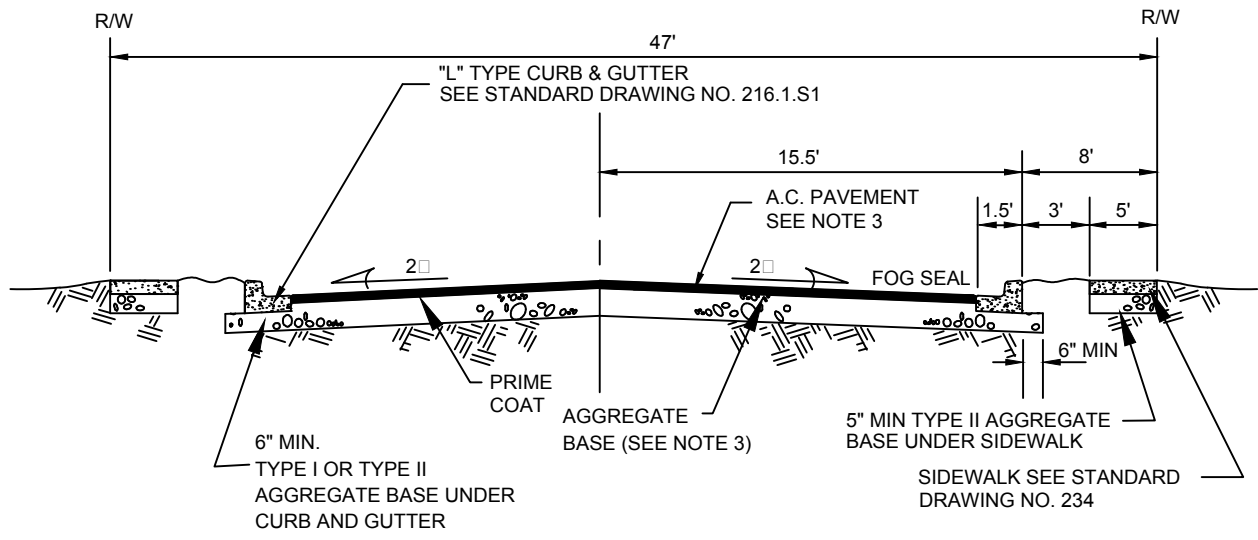
NOTES:

1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURRING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200.1.
4. THIS STANDARD IS COMPLETE STREET 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 SHALL BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.

		AGENCY APPROVED							L	
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA								
302	AGGREGATE BASE	SUPPLEMENTAL DRAWING								
401	BITUMINOUS PAVEMENT	MINOR COLLECTOR								
406	PRIME COAT	COMPLETE STREET ALTERNATIVE								
407	FOG SEAL	DATE 07-01-12		DWG. NO. 205.3.S1						
501	CONCRETE									



**RESIDENTIAL TWO-WAY LOCAL OR CUL-DE-SAC
(LOTS 40' WIDE OR LESS)**

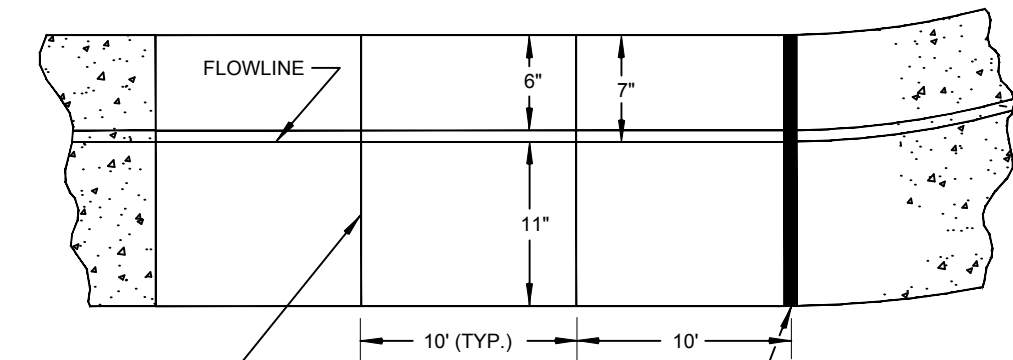
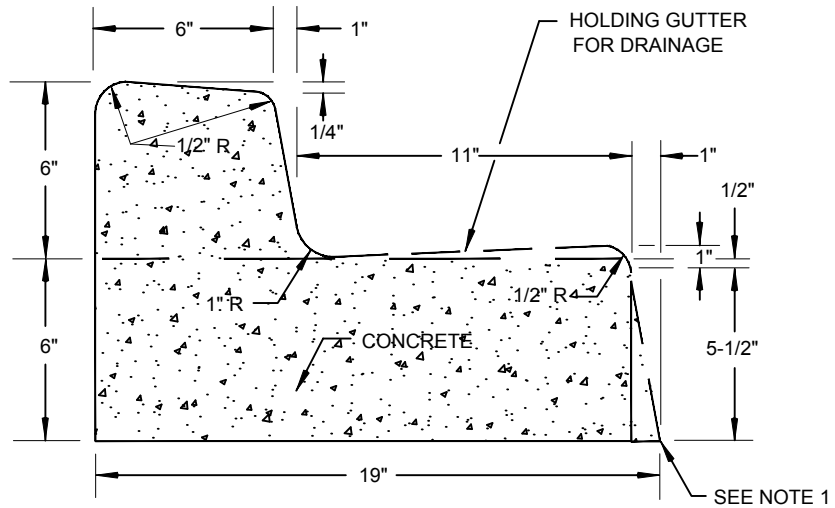


**RESIDENTIAL TWO-WAY LOCAL OR CUL-DE-SAC
(LOTS GREATER THAN 40' WIDE - SEE NOTE 3)**

NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200.1.
3. HOMES ADJACENT TO THIS STREET SECTION MAY REQUIRE SPRINKLERS PER ENTITY FIRE CODE.

SPECIFICATION REFERENCE 302 AGGREGATE BASE 401 BITUMINOUS PAVEMENT 406 PRIME COAT 407 FOG SEAL 501 CONCRETE		AGENCY APPROVED				L	
		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
		SUPPLEMENTAL DRAWING					
		LOCAL RESIDENTIAL					
		COMPLETE STREET ALTERNATIVES					
		DATE	07-01-12	DWG. NO.	206.1.S1		



WEAKENED
PLANE JOINTS
SEE STANDARD DRAWING
NUMBER 234

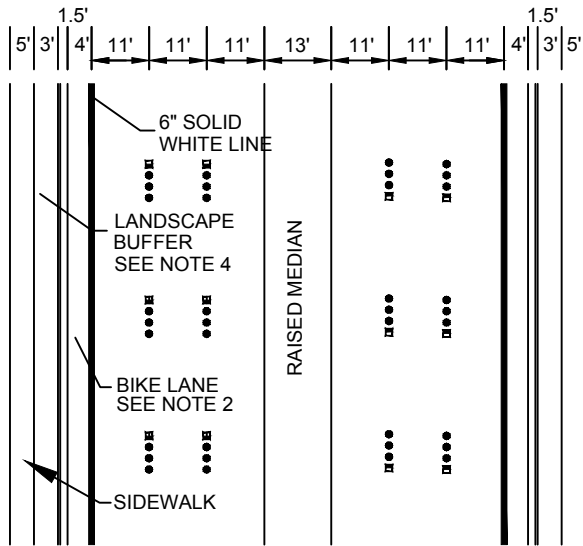
TYPICAL PLAN

1/2" EXPANSION JOINT AT
ALL COLD JOINTS, AT
BEGINNING AND END OF
RETURN AND AT 300' MAX.
INTERVALS FOR EXTRUDED
CURB AND 30' MAX. INTERVALS
FOR FORMED CURB. FOR JOINT
DETAIL SEE STANDARD DRAWING
NUMBER 234

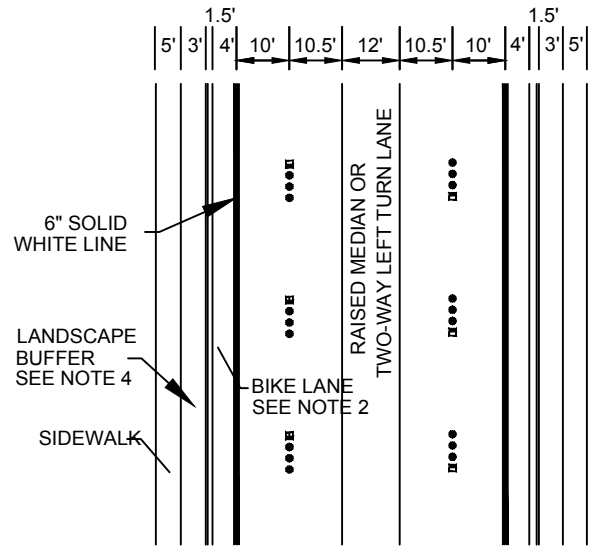
NOTES:

- 1. 1" BATTER ON GUTTER FACE OPTIONAL.

AGENCY APPROVED					L		
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
302	AGGREGATE BASE COURSE	SUPPLEMENTAL DRAWING					
501	CONCRETE	"L" TYPE CURB AND GUTTER					
707	JOINT MATERIAL	COMPLETE STREET ALTERNATIVE					
		DATE	07-01-12	DWG. NO.	216.1.S1		



106 FT. STREET

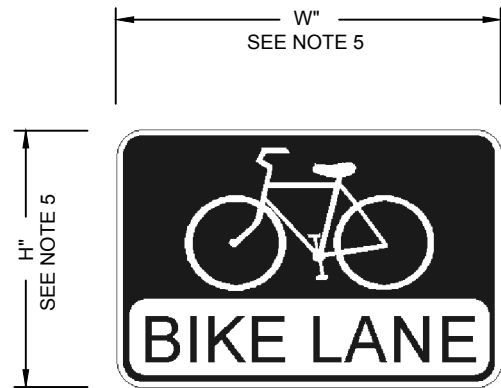
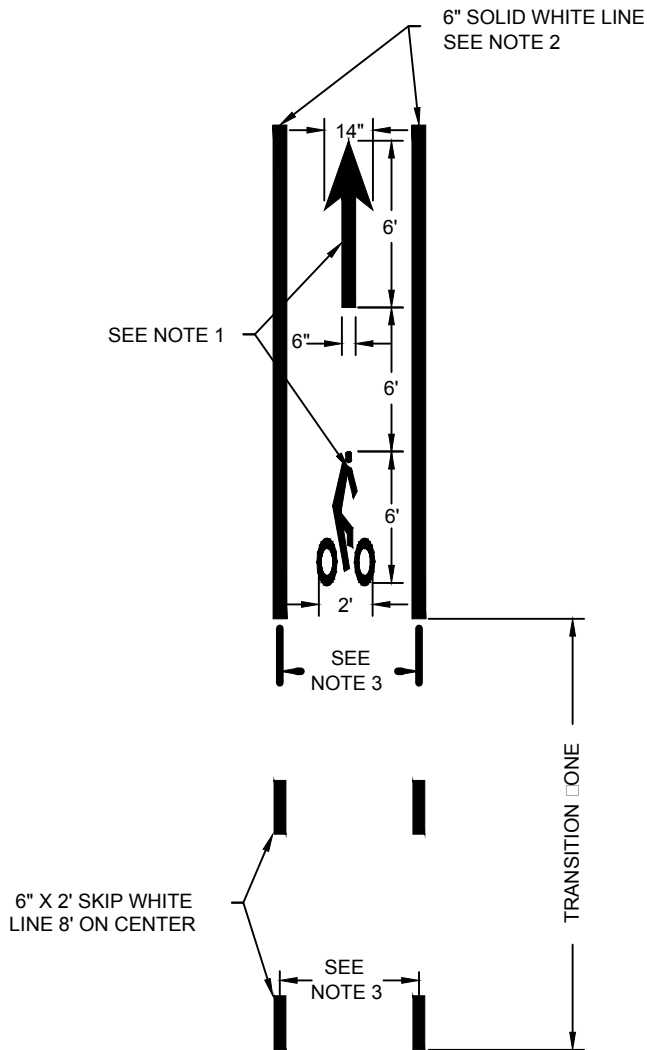


80 FT. STREET

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244.1.
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.

		AGENCY APPROVED							L		
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA									
628	PAINTING TRAFFIC STRIPING	SUPPLEMENTAL DRAWING									
633	PAVEMENT MARKERS	TYPICAL DELINEATION FOR ROADWAYS									
		COMPLETE STREET ALTERNATIVE									
		DATE 07-01-12	DWG. NO. 244.6.S1								



R3-17
(BLACK AND WHITE)

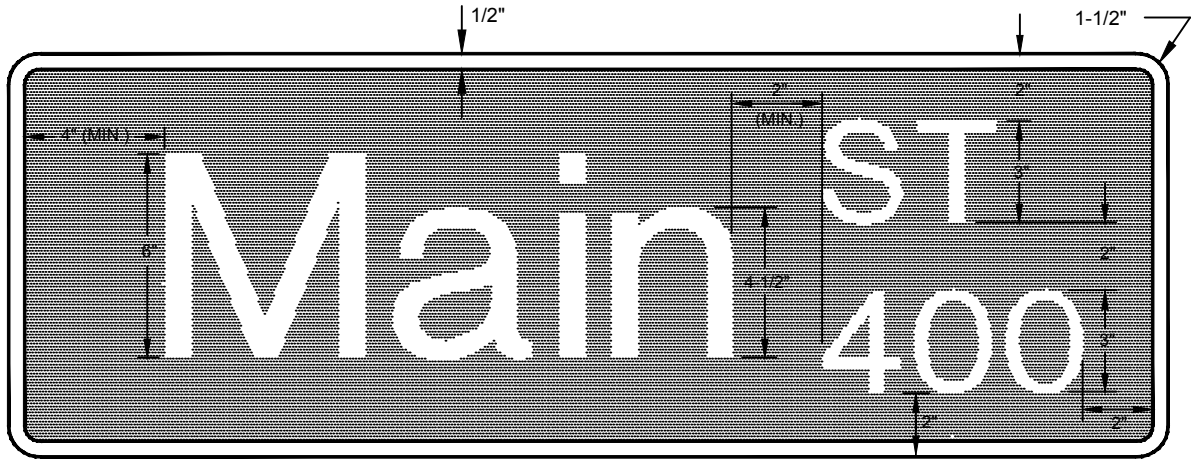
BIKE LANE SIGNAGE

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 LATEST EDITION.
5. SIGN SIZE AND PLACEMENT SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD, LATEST EDITION.
6. THE BIKE LANE SIGNAGE SHALL BE TYPE XI SHEETING.

	AGENCY APPROVED	B	C	H	L	M	N
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
	BICYCLE LANE DELINEATION, LEGEND, AND SIGNAGE						
	DATE	07-01-12	DWG. NO.	244.9			



12" (MAJOR STREETS)



9" (MINOR STREETS)

NOTES:

1. SIGN SHALL BE WHITE LETTERS AND NUMBERS ON GREEN BACKGROUND. (THE CITY OF NORTH LAS VEGAS BACKGROUND IS BLUE.) CUT-OUT LETTERS AND NUMBERS ARE NOT ACCEPTABLE (EXCEPT FOR THE BLOCK NUMBER).
2. REFLECTIVE SHEETING MATERIAL SHALL BE TYPE XI.
3. PRIMARY COPY FOR 9" AND 12" SIGNS SHALL BE 6" SERIES 'C' UPPERCASE WITH 4 1/2" SERIES 'C' LOWERCASE. HOWEVER, WHEN DESCENDERS ARE REQUIRED ON 9" SIGNS, PRIMARY COPY SHALL BE 5 1/2". ORDINAL, SUFFIX AND BLOCK NUMBER SHALL BE 3" SERIES 'C' UPPERCASE. (ORDINAL MAY BE OMITTED FROM 12" SIGNS, EXCEPT IN CLARK COUNTY.) SPACING BETWEEN LETTERS SHALL BE AS ON SHEET 2 OF THIS DRAWING.
4. THE SIGN SHALL HAVE A MINIMUM LENGTH OF 30". WHERE EXTRA LENGTH IS REQUIRED, IT SHALL BE PROVIDED IN 6" INCREMENTS. GROUND MOUNTED SIGNS SHALL HAVE A MAXIMUM LENGTH OF 42".
5. BOTH SIGNS PLACED ON MAJOR STREETS WITH RIGHTS-OF-WAY 80' OR GREATER SHALL HAVE A HEIGHT OF 12". SIGNS PLACED ON MINOR STREETS WITH RIGHTS-OF-WAY OF LESS THAN 80' SHALL HAVE A HEIGHT OF 9".
6. 12" SIGNS SHALL HAVE A 1/2" WHITE BORDER AT THE EDGE.
7. SIGN BLANKS SHALL HAVE ROUNDED CORNERS.

SPECIFICATION REFERENCE		AGENCY APPROVED	B	C	H	L	M	N
		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
631	STREET NAME SIGNS	STREET NAME SIGNS FACE COPY						
716	SIGN MATERIALS							
DATE 07/01/12		DWG. NO.		250		SHEET 1 OF 2		

SPACING OF STREET NAME SIGN LEGENDS

SPACING FOR STREET NAME SIGN LEGENDS SHALL BE OBTAINED BY MODIFICATION TO THE REQUIREMENTS OF THE FHWA STANDARD SPACING CHART FOR 6" UPPERCASE LETTERS. THE FOLLOWING STEPS SHALL BE USED TO DETERMINE REQUIRED SPACING:

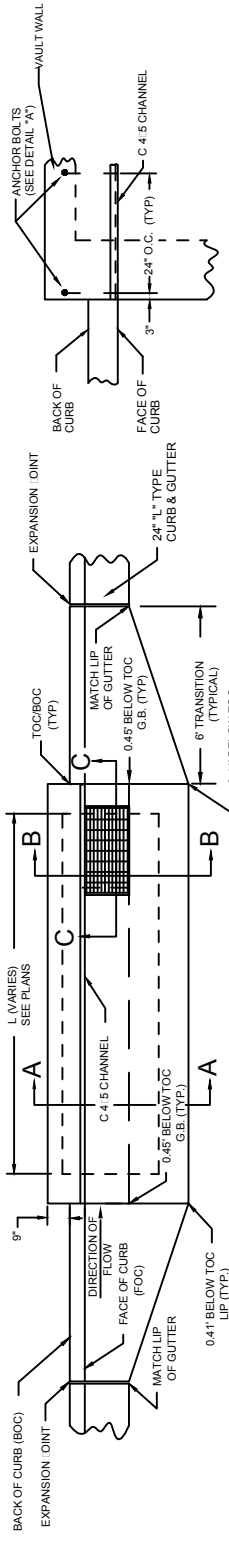
1. SIGN LAYOUT COMPUTER SOFTWARE SHALL BE EVALUATED TO DETERMINE THE "CORRECTION FACTOR" NECESSARY FOR LAYOUT SOFTWARE LETTER SPACING TO BE APPROXIMATELY EQUAL TO THE FHWA STANDARD SPACING FOR UPPERCASE LETTERS.
2. CORRECTION FACTOR SHALL BE USED TO ADJUST THE SPACING FOR THE LOWERCASE LETTERS.
3. SPACING FOR STREET NAME SIGN LEGENDS SHALL BE EQUAL TO 110% OF THE "CORRECTED" LAYOUT SOFTWARE LETTER SPACING.

(SAME STEPS ARE TO BE FOLLOWED WHEN FONT SIZE OF LEGEND IS REDUCED IN ORDER NOT TO EXCEED THE MAXIMUM LENGTH LIMITATIONS.)

IF LEGEND SPACED ACCORDING TO RECOMMENDED PROCEDURE ABOVE EXCEEDS THE MAXIMUM ALLOWABLE SIGN LENGTH (42" FOR GROUND-MOUNTED), THE FOLLOWING ACTIONS, LISTED IN PRIORITY ORDER, SHALL BE TAKEN TO REDUCE LENGTH OF THE SIGNBLANK.

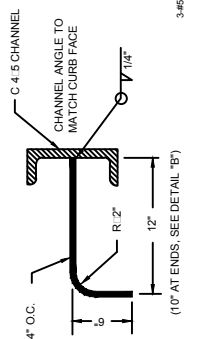
- A. REDUCE THE FONT TO 5 1/2" SERIES 'C'.
- B. REDUCE THE SPACING TO 100% OF THE "FEDERAL STANDARD".
- C. REDUCE THE FONT TO 5 1/2" SERIES "B".
- D. CONSIDER ABBREVIATING ANY LEGEND WORDS WHICH ARE EXTREMELY COMMON (I.E., "MTN" FOR "MOUNTAIN") SUCH ABBREVIATIONS MUST BE APPROVED BY THE TRAFFIC ENGINEER AND THE FIRE DEPARTMENT.
- E. REDUCE THE LEADING AND TRAILING BLANK GREEN SPACE BY 50%.
- F. CONSTRUCT THE SIGN ACCORDING TO THE STANDARD SPACING WHICH WILL BE GREATER THAN 42" IN LENGTH, AND MOUNT ON A STREETLIGHT POLE OR OTHER ELEVATED MOUNT AS APPROVED BY THE TRAFFIC ENGINEER WITH APPROPRIATE SIGN BRACING AND MOUNTING HARDWARE.

		AGENCY APPROVED	B	C	H	L	M	N
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
631	STREET NAME SIGNS	STREET NAME SIGNS LETTER SPACING						
716	SIGN MATERIALS							
		DATE 6-12-97	DWG. NO. 250		SHEET 2 OF 2			

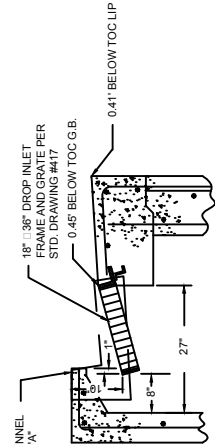


PLAN VIEW

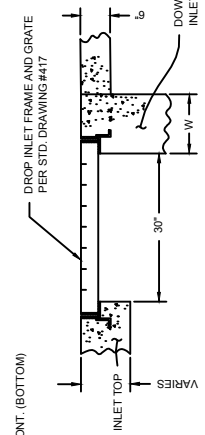
DETAIL "B"



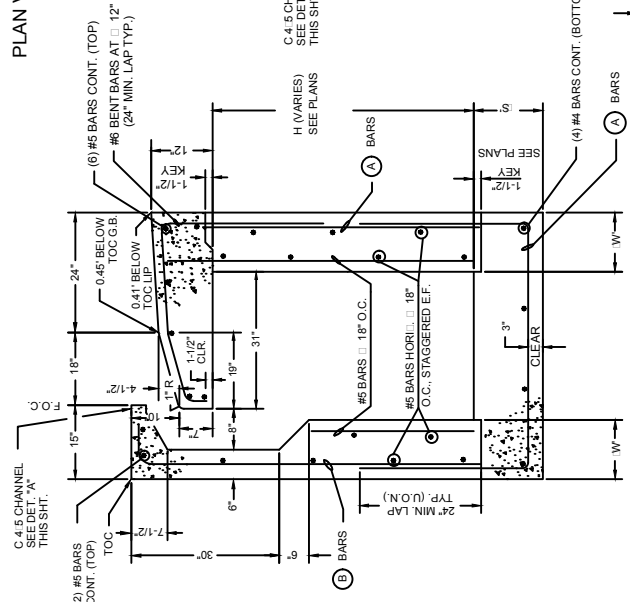
DETAIL "A"



SECTION B-B

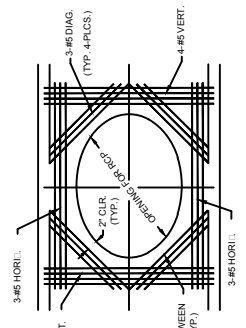


SECTION C-C



H (MAX)	SLAB DIM. 'S'	WALLS			
		DIM. 'W'	(A) BARS	(B) BARS	(C) BARS
4'-0"	8"	#4 @ 10" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.
6'-0"	8"	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.
8'-0"	8"	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.
10'-0"	8"	#6 @ 12" O.C.	#6 @ 12" O.C.	#6 @ 12" O.C.	#6 @ 12" O.C.

SECTION A-A

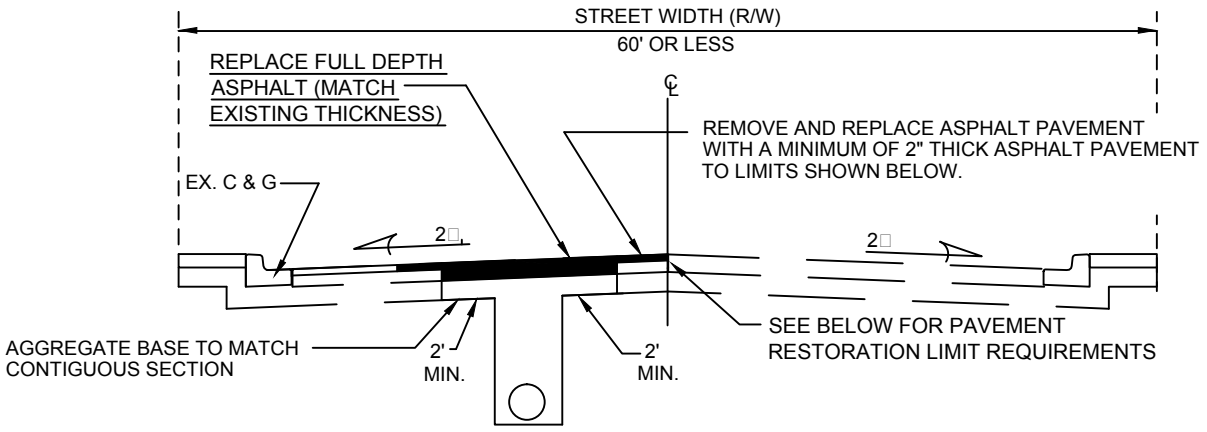


PIPE AND DROP INLET FUNCTION WALL DETAIL

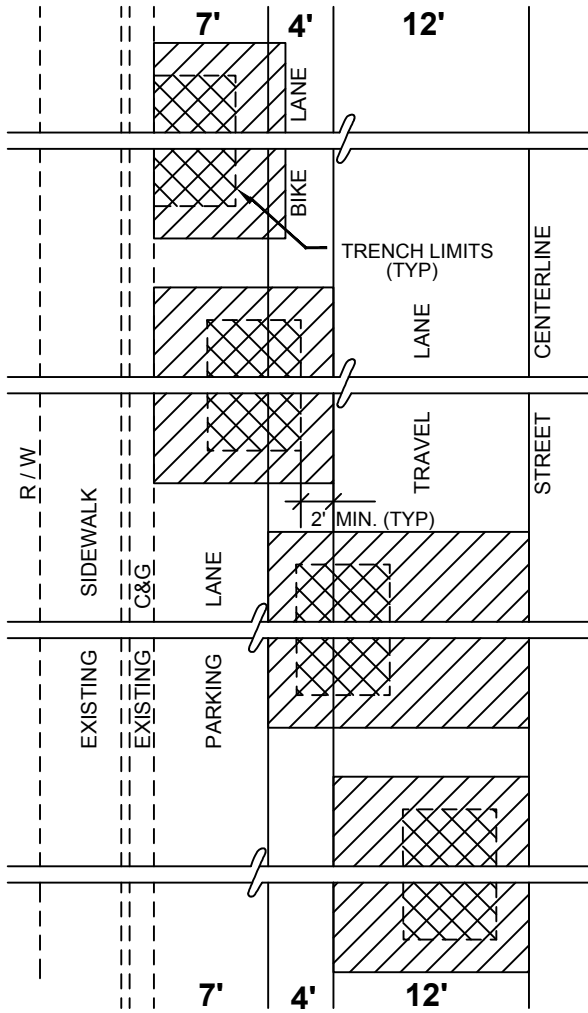
NOTES:

1. ALL REBAR SHALL HAVE 2-1/2" COVER U.O.N.
2. ALL CONCRETE SHALL BE CLASS DA 4000 PSI.
3. SEE PLANS FOR LENGTH (L) AND DEPTH (H) OF EACH INLET.
4. SEE PLANS FOR SITE AND LOCATION OF OUTLET PIPE.
5. ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANI ED.
6. ALL DAMAGED GALVANI ED STEEL SHALL BE PAINTED WITH A MINIMUM 3.5 MIL COAT OF ONE OF THE FOLLOWING: INC-RICH PAINTS: GALVONOX TYPE I LPS COLD GALVANI'E SHERWIN-WILLIAMS" INC CLAD I"
7. ALL REBAR SHALL BE GRADE 60.
8. ALL STRUCTURAL STEEL SHALL BE A36.
9. ALL ANCHOR BOLTS SHALL BE A-307.
10. BEDDING FOR DROP INLET SHALL BE 6" MIN. OF TYPE II AGGREGATE BASE COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D1557.

SPECIFICATION REFERENCE		AGENCY APPROVED					
501	CONCRETE	B	C	H	L	M	N
501	CONCRETE STRUCTURES	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
501	REINFORCING STEEL						
501	STEEL						
		MODIFIED TYPE "A" DROP INLET					
DATE 9-14-06		DWG. NO.		411.1			



LONGITUDINAL CUT RESTORATION



IF TRENCH EDGE IS 5-FT OR LESS FROM LIP OF GUTTER, THEN REPLACE 8-FT (MIN.) OF ASPHALT.

IF TRENCH EDGE IS BETWEEN 5-FT & 9-FT FROM LIP OF GUTTER, THEN REPLACE 11-FT (MIN.) OF ASPHALT.

EXCEPTION: FOR RESIDENTIAL STREETS 51-FT OR LESS, REPLACE FULL HALF STREET.

IF TRENCH EDGE IS BETWEEN 10-FT & 14-FT FROM CENTERLINE, THEN REPLACE 16-FT (MIN.) OF ASPHALT.

EXCEPTION: FOR RESIDENTIAL STREETS 51-FT OR LESS, REPLACE FULL HALF STREET.

IF TRENCH EDGE IS BETWEEN 2-FT & 10-FT FROM CENTERLINE, THEN REPLACE 12-FT (MIN.) OF ASPHALT.

NOTES:

1. IF CUT IS WITHIN A MARKED LANE, PAVEMENT RESTORATION MUST EXTEND TO THE MARKED LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.
3. MINIMUM ASPHALT REPLACEMENT WIDTH SHALL NOT BE LESS THAN THE LIMITS OF THE PAVING MACHINERY USED.

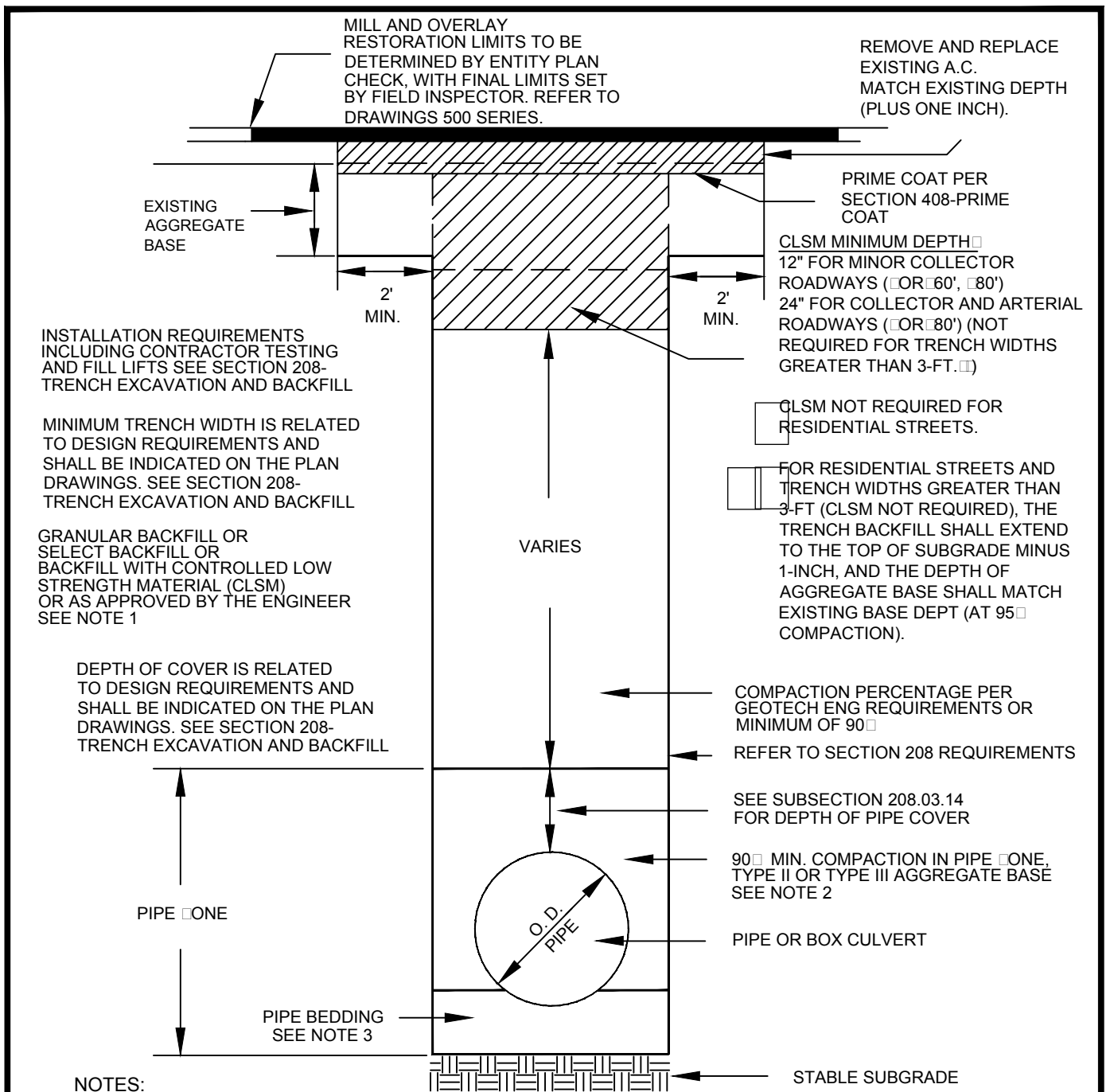
PLAN VIEW

AGENCY APPROVED	B	C	H	L	M	N
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SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
OVER 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT - 60' R/W OR LESS	

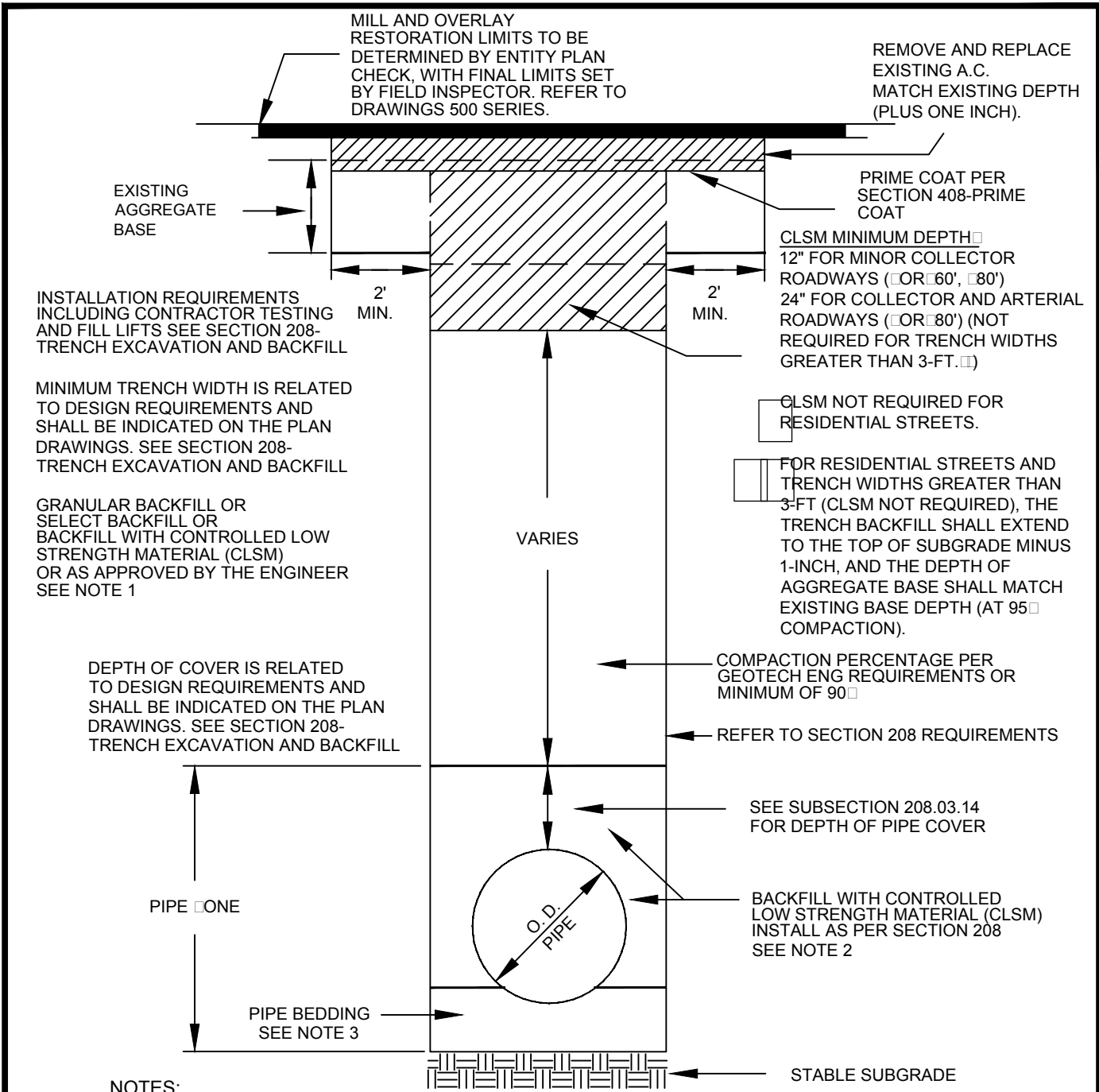
DATE 6-12-08	DWG. NO.	500.4
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NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ONE TO BE OF THE SAME MATERIAL.

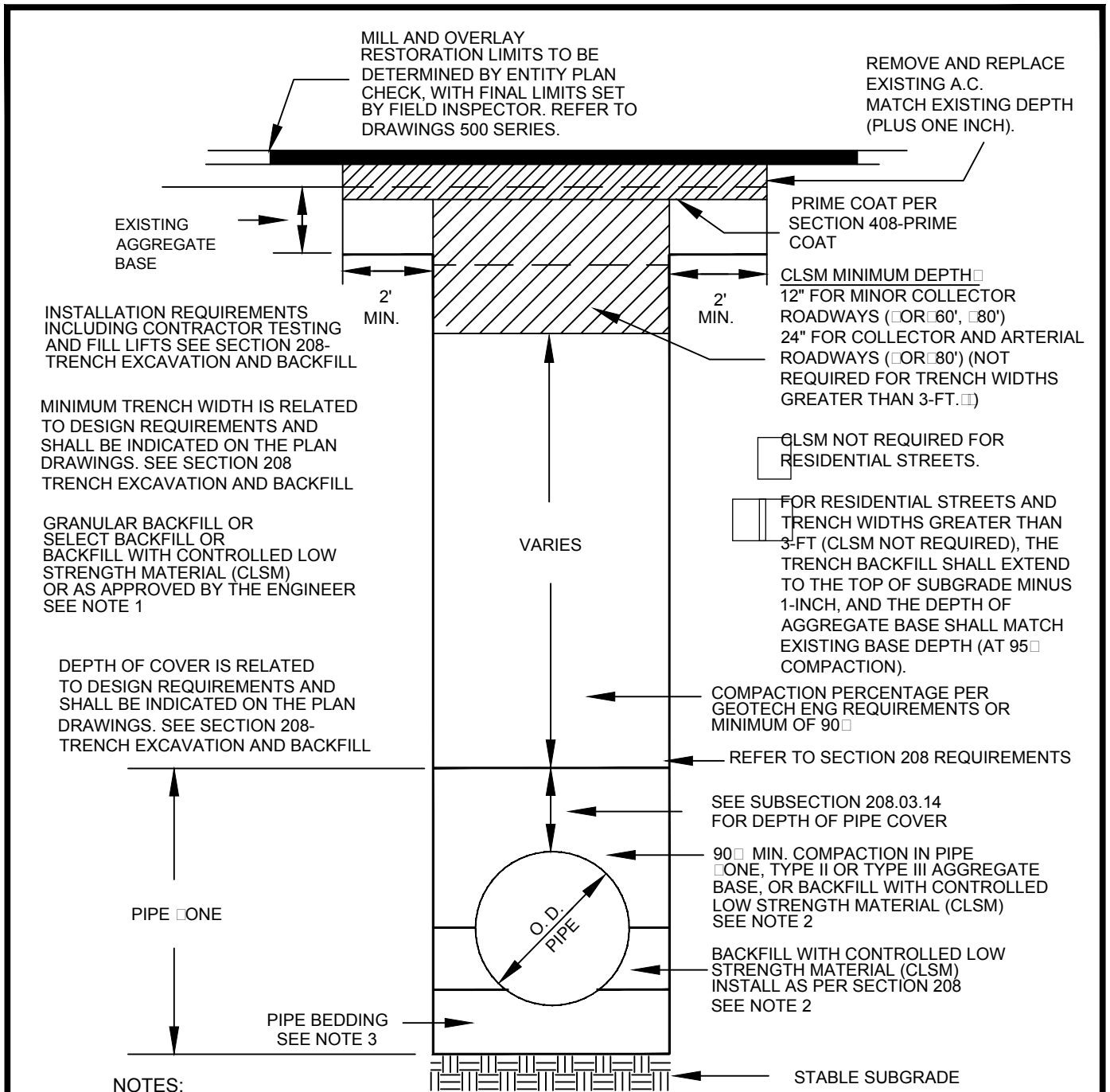
AGENCY APPROVED		B	C	H	L	M	N
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA					
208	TRENCH EXCAVATION & BACKFILL	METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS					
302	AGGREGATE BASE COURSES						
DATE 01-01-12		DWG. NO. 503					



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE □ONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE □ONE TO BE OF THE SAME MATERIAL.

	AGENCY APPROVED	B	C	H	L	M	N
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
208	METHOD A FOR FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS						
302							
	DATE 01-01-12	DWG. NO.	503.1				



INSTALLATION REQUIREMENTS INCLUDING CONTRACTOR TESTING AND FILL LIFTS SEE SECTION 208-TRENCH EXCAVATION AND BACKFILL

MINIMUM TRENCH WIDTH IS RELATED TO DESIGN REQUIREMENTS AND SHALL BE INDICATED ON THE PLAN DRAWINGS. SEE SECTION 208 TRENCH EXCAVATION AND BACKFILL

GRANULAR BACKFILL OR SELECT BACKFILL OR BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) OR AS APPROVED BY THE ENGINEER SEE NOTE 1

DEPTH OF COVER IS RELATED TO DESIGN REQUIREMENTS AND SHALL BE INDICATED ON THE PLAN DRAWINGS. SEE SECTION 208-TRENCH EXCAVATION AND BACKFILL

CLSM MINIMUM DEPTH 12" FOR MINOR COLLECTOR ROADWAYS (COR 60', 80') 24" FOR COLLECTOR AND ARTERIAL ROADWAYS (COR 80') (NOT REQUIRED FOR TRENCH WIDTHS GREATER THAN 3-FT.)

CLSM NOT REQUIRED FOR RESIDENTIAL STREETS.

FOR RESIDENTIAL STREETS AND TRENCH WIDTHS GREATER THAN 3-FT (CLSM NOT REQUIRED), THE TRENCH BACKFILL SHALL EXTEND TO THE TOP OF SUBGRADE MINUS 1-INCH, AND THE DEPTH OF AGGREGATE BASE SHALL MATCH EXISTING BASE DEPTH (AT 95% COMPACTION).

COMPACTION PERCENTAGE PER GEOTECH ENG REQUIREMENTS OR MINIMUM OF 90%

REFER TO SECTION 208 REQUIREMENTS

SEE SUBSECTION 208.03.14 FOR DEPTH OF PIPE COVER

90% MIN. COMPACTION IN PIPE ONE, TYPE II OR TYPE III AGGREGATE BASE, OR BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) SEE NOTE 2

BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) INSTALL AS PER SECTION 208 SEE NOTE 2

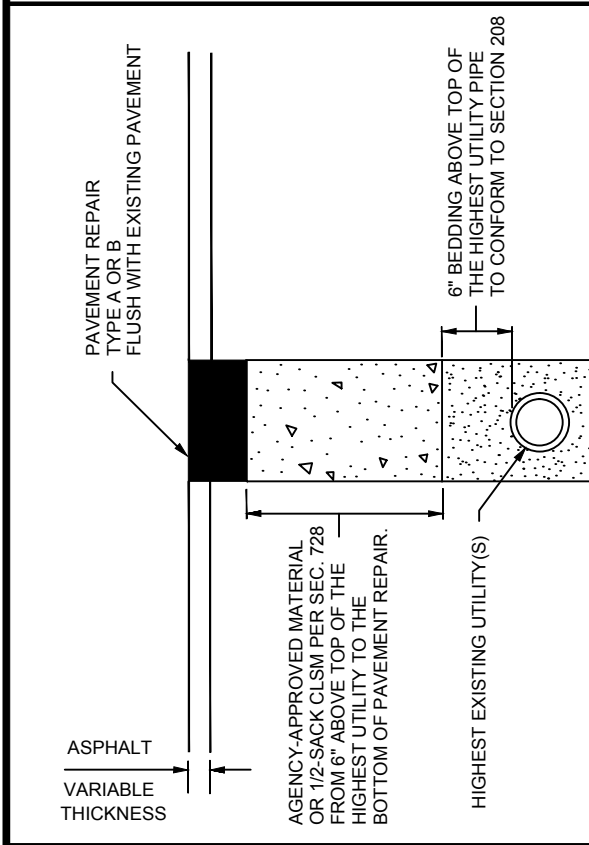
NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ONE TO BE OF THE SAME MATERIAL.

		AGENCY APPROVED	B	C	H	L	M	N
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
208	TRENCH EXCAVATION & BACKFILL	METHOD A FOR RIGID PIPE TRENCH BACKFILL - PAVED AREAS						
302	AGGREGATE BASE COURSES							
		DATE 01-01-12	DWG. NO.		503.2			

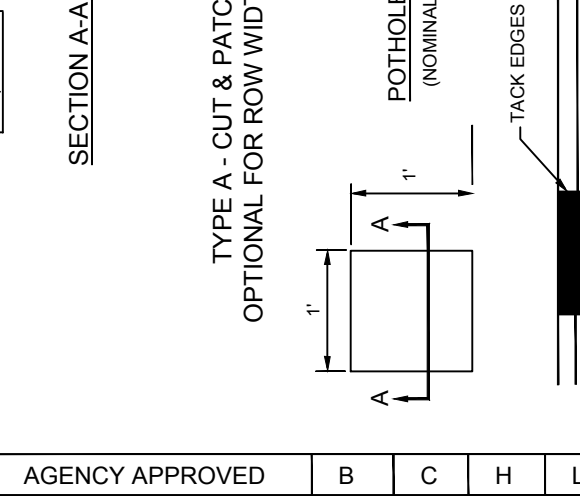
TYPE B - KEYHOLE REPAIR
REQUIRED FOR ROW WIDTH GREATER THAN 60'
OPTIONAL FOR ROW WIDTH 60' OR LESS

- NOTES:
1. CUT AND REMOVE PAVEMENT PLUG WITH AN APPROVED KEYHOLE CORING DEVICE. PAVEMENT TO BE CORED SHALL CONTAIN NO CRACKS AND SHALL BE AT LEAST 4" THICK. IF PLUG IS DAMAGED OR IS LESS THAN 4" THICK, REPLACE PLUG WITH A "FARMED" ASPHALT PLUG FROM AN APPROVED SITE. FARMED PLUGS SHALL BE AT LEAST 4" THICK AND AT LEAST ONE INCH THICKER THAN EXISTING ASPHALT.
 2. BONDING MATERIAL SHALL BE A SINGLE COMPONENT CEMENTITIOUS RAPID HARDENING, HIGH STRENGTH, WATERPROOF BONDING AGENT THAT ALLOWS THE CORE TO SUPPORT AT LEAST THREE TIMES AASHTO H-25 LOADING WITHIN 30 MINUTES OF APPLICATION. BOND AGENT MUST SHOW A MINIMUM 20 PSI BOND STRENGTH (ASTM C882) AND A MINIMUM 200 PSI COMPRESSIVE STRENGTH (ASTM C109) IN 30 MINUTES.
 3. AGENCY-APPROVED BACKFILL BELOW REPAIR SHALL BE PER SECTION 215.
 4. FILL KEYHOLE WITH BONDING MATERIAL DURING REPAIR.
 5. PRIOR AGENCY APPROVAL IS REQUIRED FOR MULTIPLE KEYHOLE REPAIRS WITHIN A GIVEN ROADWAY SEGMENT.
 6. A 5 YEAR WARRANTY IS REQUIRED ON ALL REPAIRS.



SECTION A-A

TYPE A - CUT & PATCH REPAIR
OPTIONAL FOR ROW WIDTH 60' OR LESS

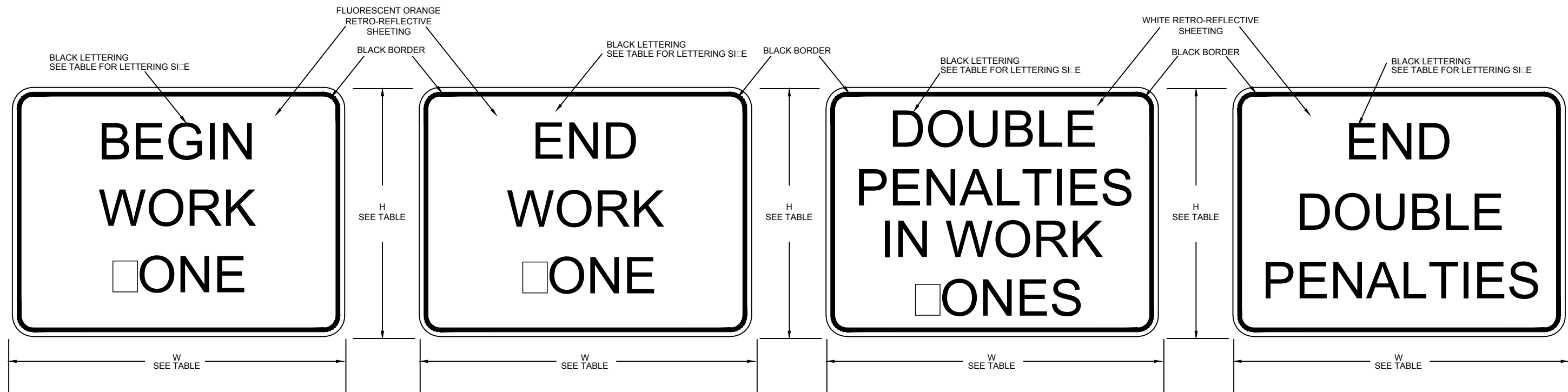


POT HOLE PLAN VIEW
 (NOMINAL DIMENSIONS)

POT HOLE PROFILE

SPECIFICATION REFERENCE	
215	KEYHOLE POT HOLE EXCAVATION AND BACKFILL

AGENCY APPROVED	B	C	H	L	M	N
UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA						
UTILITY POT HOLE REPAIR						
DATE 01-01-12	DWG. NO.	506				



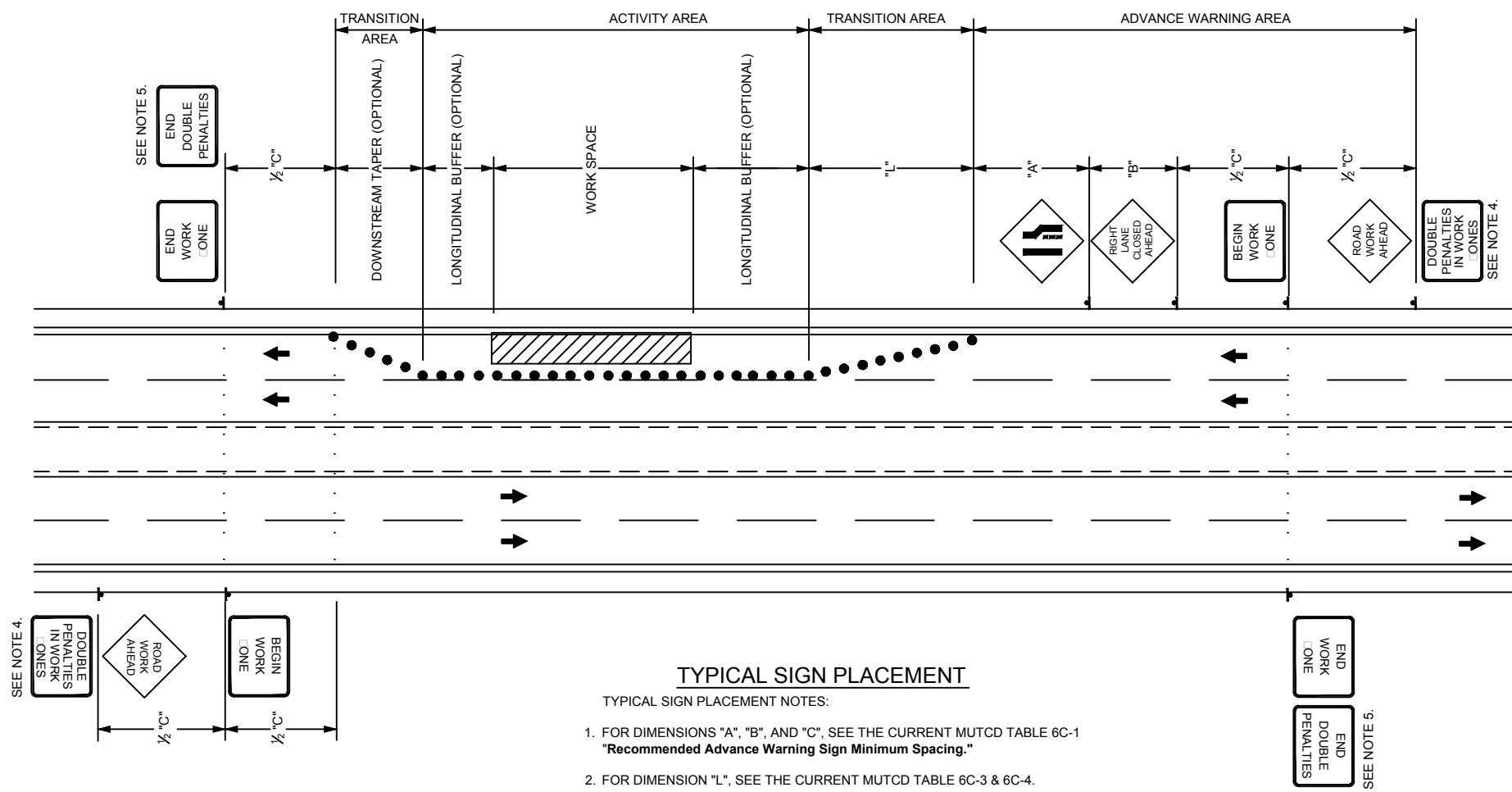
GENERAL NOTES:

1. RETRO-REFLECTIVE SIGN SHEETING SHALL CONFORM TO SECTION 716, LATEST REVISION, OF THE UNIFORM STANDARD SPECIFICATIONS.
2. SIGN LEGENDS AND BORDERS SHALL COMPLY WITH THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
3. SIGNS SHALL BE MOUNTED IN CONFORMANCE WITH PART 6, MUTCD, LATEST EDITION.
4. THE "DOUBLE PENALTIES IN WORK ONES" SIGN SHOULD BE MOUNTED WITH THE FIRST SIGN IN THE ADVANCE WARNING SIGN SERIES, TYPICALLY THE "ROAD WORK AHEAD" SIGN.
5. "END WORK ONE" SIGN SHALL BE MOUNTED AT THE END OF THE WORK ONE WITH THE "END DOUBLE PENALTIES" SIGN, IF APPLICABLE, ON THE SAME DEVICE OR POST.
6. THE DESIGNATION OF WORK ONE, INCLUDING MARKING OF THE DOUBLE PENALTIES, SHALL NOT BE REQUIRED ON STREETS POSTED AT 25 MILES PER HOUR OR LESS AND ARE THE ACCESS TO OR APPURTENANT TO A RESIDENTIAL AREA.

TYPICAL SIGN AND LETTERING SIZE TABLE

SPEED LIMIT	"DOUBLE PENALTIES IN WORK ONE" SIGN			"BEGIN WORK ONE" SIGN "END WORK ONE" SIGN "END DOUBLE PENALTIES" SIGN		
	"H" (IN.)	"W" (IN.)	LETTERING	"H" (IN.)	"W" (IN.)	LETTERING
LESS THAN 45 MPH	24	24	4 INCH SERIES "C"	18	24	4 INCH SERIES "D"
45 MPH OR GREATER OR IF MULTI-LANE	36	36	6 INCH SERIES "C"	30	36	6 INCH SERIES "D"

SEE THE CURRENT EDITION OF THE "STANDARD HIGHWAY SIGNS" MANUAL FOR SERIES "C" AND SERIES "D" LETTERING DIMENSIONS.



TYPICAL SIGN PLACEMENT

TYPICAL SIGN PLACEMENT NOTES:

1. FOR DIMENSIONS "A", "B", AND "C", SEE THE CURRENT MUTCD TABLE 6C-1 "Recommended Advance Warning Sign Minimum Spacing."
2. FOR DIMENSION "L", SEE THE CURRENT MUTCD TABLE 6C-3 & 6C-4.
3. SIGNS MAY BE OMITTED IN THE DIRECTION WORK IS NOT BEING CONDUCTED IF THE ROADWAY IS PHYSICALLY SEPARATED BY A RAISED MEDIAN OR BARRIER WALL THROUGH THE COMPLETE WORK ONE.

AGENCY APPROVED B C H L M N