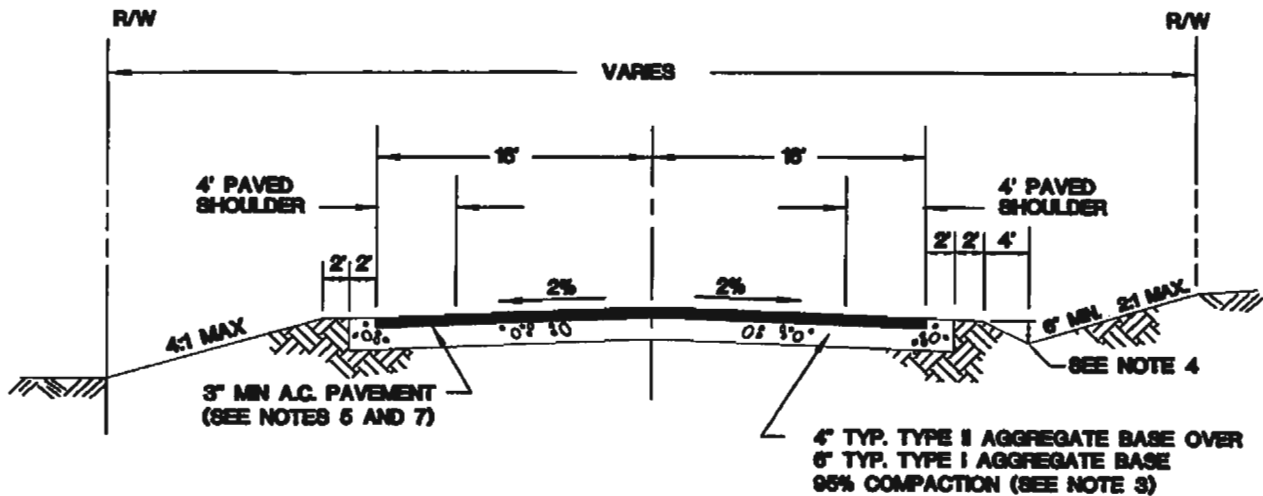


**UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA**

VOLUME I - YEAR 2004 REVISIONS

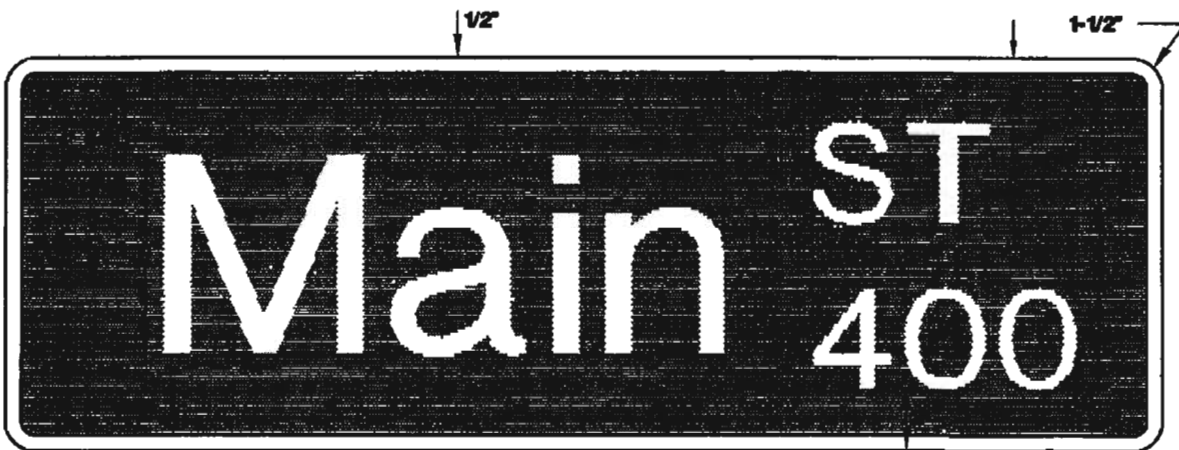
Drawing Number	Title	Nature of Change	Effective Date
209	Access Roads (For use in Hydrographic Basin No. 212) (PM-10 Non-Attainment Areas)	Revised Note 7 to clarify minimum acceptable paving width.	06/01/04
249	Standard Street Name Sign Post Installation	Drawings revised to require all street name signs in the City of Mesquite to be 9 inch standard.	06/01/04
250	Standard Street Name Signs Face Copy/Letter Spacing	Drawings revised to require all street name signs in the City of Mesquite to be 9 inch standard.	06/01/04
251	Street Name Signs Blanks	Drawings revised to require all street name signs in the City of Mesquite to be 9 inch standard.	06/01/04
313	Streetlight Standard General Notes	Revision to change concrete cap requirements for foundations.	08/01/04
320	Lighting Standard Setback	Revision to change concrete cap requirements for foundations.	08/01/04
321	Lighting Standard Foundation	Revision to change concrete cap requirements for foundations.	08/01/04
325	Modified Existing Streetlight Foundation For Installation Of Underground Conduit (City Of Las Vegas And Clark County Only)	Revision to change concrete cap requirements for foundations.	08/01/04
410	Standard Manhole Steps	Revision to change embedment depth and require steps to be epoxied in place during installation.	04/01/04
502	Trench Backfill - Unpaved Areas and Areas Outside Existing Or Future Proposed Street Right-of-Way	Revision to identify the subgrade.	08/01/04
503	Trench Backfill Paved Areas (Streets With 60' Or Less R/W)	Revision to identify the subgrade.	08/01/04
504	Trench Backfill With Controlled Low Strength Material (CLSM) Paved Areas (Streets Greater Than 60' R/W)	Revision to identify the subgrade.	08/01/04
505	Pipe Trench Bedding Methods	Revision to identify the subgrade.	08/01/04



NOTES

1. INTERSECTIONS SHALL HAVE 34 FOOT MINIMUM EDGE OF A.C. RETURN RADI.
2. COMPACTION OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE UNIFORM STANDARD SPECIFICATIONS.
3. 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 "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.
4. CULVERTS MAY BE REQUIRED AT DRIVEWAYS.
5. A.C. PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE UNIFORM STANDARD SPECIFICATIONS. ALTERNATE PAVING MATERIALS MAY BE USED AT THE DISCRETION OF THE ENTITY.
6. PAVEMENT MARKINGS MAY BE REQUIRED AND INCLUDE DOUBLE YELLOW CENTERLINE, RAISED PAVEMENT MARKERS OR YELLOW PAINT, AND 4' OFFSET WHITE PAINTED EDGELINES.
7. PAVEMENT WIDTH AND PAVEMENT THICKNESS MAY BE REDUCED TO 26 FEET (14 FEET EACH DIRECTION) AND 2 INCHES RESPECTIVELY BASED UPON A DETERMINATION BY THE LOCAL ENTITY THAT THE REDUCED WIDTH AND THICKNESS WILL PROVIDE SATISFACTORY LIFE AND A SAFE ROADWAY.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
302	AGGREGATE BASE	
401	BITUMINOUS PAVEMENT	
		ACCESS ROADS (FOR USE IN HYDROGRAPHIC BASIN NO. 212) (PM-10 NON-ATTAINMENT AREAS)
		DATE 5-20-04 DWG. NO. 209 PAGE NO. 15



12" (MAJOR STREETS)

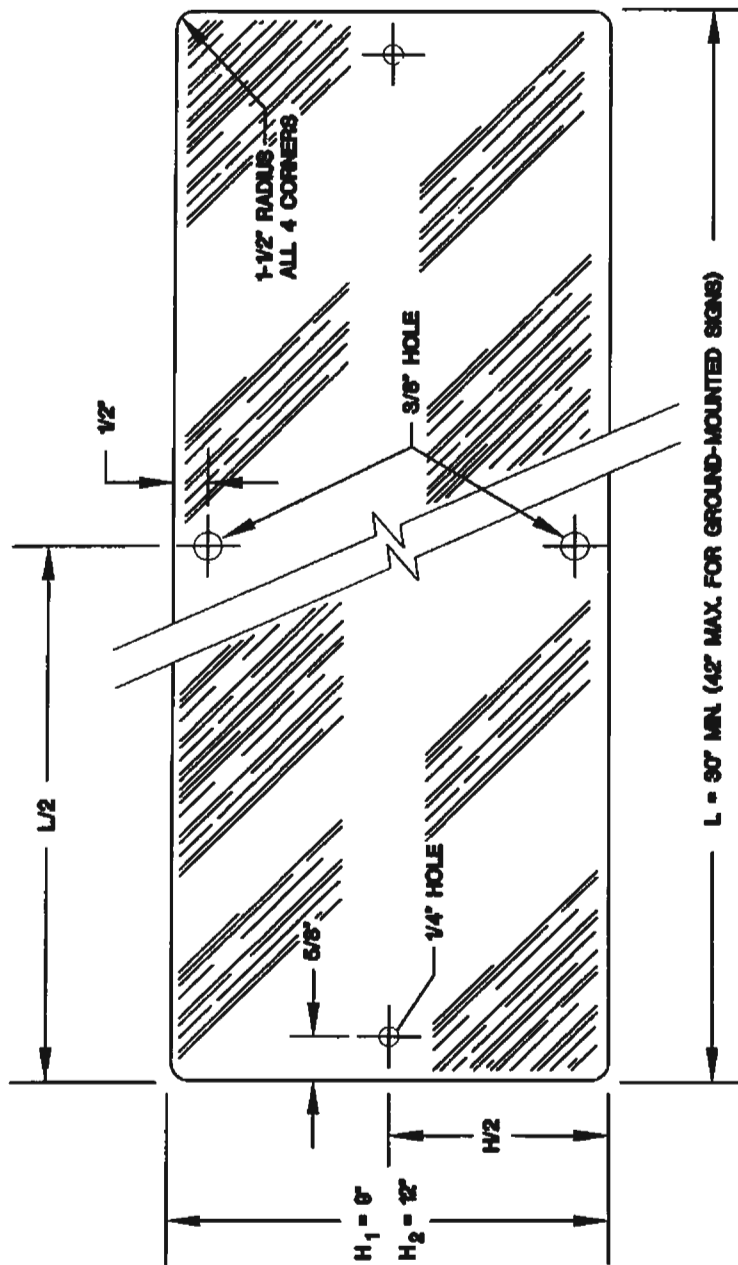


9" (MINOR STREETS)

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 CLASS 6.
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.
8. ALL STREET NAME SIGNS SHALL BE 9 INCH STANDARD IN THE CITY OF MESQUITE ONLY.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
631	STREET NAME SIGNS	STREET NAME SIGNS FACE COPY	
718	SIGN MATERIALS		
		DATE 6-20-04	DWG. NO. 250 (1 OF 2) PAGE NO. 56



ALUMINUM BLANK

6062-H36 OR 6061-T6, HEAT-TREATED, HIGH TENSILE, DEGREASED AND ALCOHOL 1200 FINISH. THICKNESS TO BE 0.080" FOR SIGNS LESS THAN 36" AND 0.100" FOR SIGNS 36" AND LONGER.

NOTE

1. FOR SIGN FACE SPECIFICATIONS SEE STANDARD DRAWING NO. 250.
2. ALL STREET NAME SIGNS SHALL BE 9 INCH STANDARD IN THE CITY OF MESQUITE ONLY.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA	
631	STREET NAME SIGNS	STREET NAME SIGN BLANKS	
716	SIGN MATERIALS		
		DATE 5-20-04	DWG. NO. 251
			PAGE 57

1. ALL STREETLIGHT STANDARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE STANDARD SPECIFICATIONS AND AS INDICATED ON THESE DRAWINGS.

2. ALL COMPONENTS OF THE STREETLIGHT STANDARD INCLUDING THE POLE, ARM, HANDHOLE COVER, BASE COVER AND THE POLE CAP SHALL BE FERROUS METAL AND HOT-DIP GALVANIZED AFTER CONSTRUCTION IN ACCORDANCE WITH ASTM A123; ALUMINUM OR ALUMINUM ALLOY IS NOT ACCEPTABLE. FLAWS IN THE APPEARANCE OF THESE GALVANIZED COMPONENTS (i.e. "TIGER-STRIPED", "ZEBRA-STRIPED"), SHALL BE CAUSE FOR REJECTION. NON-METALLIC TYPE BASE COVERS MAY BE ACCEPTABLE AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. CONCRETE POLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

3. ALL FASTENING HARDWARE SHALL BE NON-CORROSIVE, CADMIUM-PLATED, OR EQUAL, APPROVED BY THE ENGINEER. FASTENERS SHALL BE OF THE SIZE AND CONFIGURATION NOTED ON THE DRAWINGS.

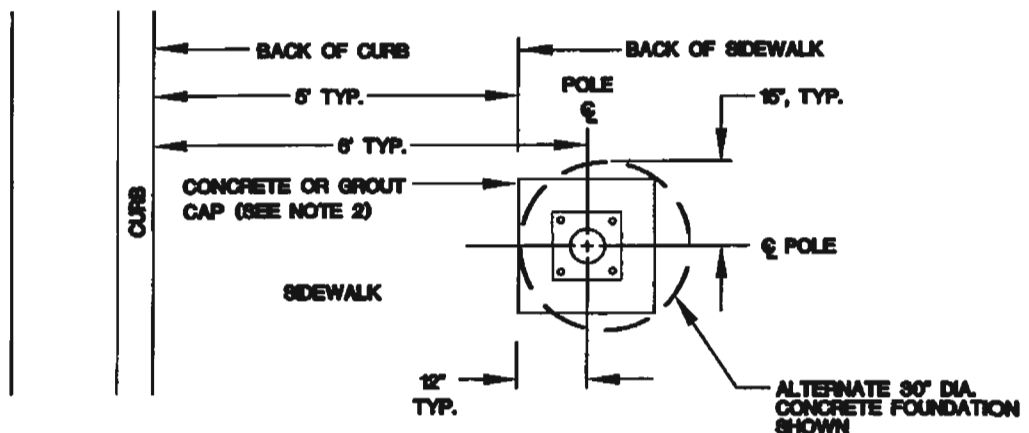
4. CONCRETE POLE FOUNDATIONS SHOULD BE POURED AGAINST UNDISTURBED, NATURAL SOIL OR IF FORMING MATERIAL IS USED IT SHALL BE STRIPPED AWAY FROM THE FOUNDATION AT LEAST ONE (1) FOOT BELOW FINISHED GRADE.

5. POLES SHALL BE INSTALLED ON CONCRETE FOUNDATIONS WITH ANCHOR BOLTS. EACH BOLT SHALL BE INSTALLED WITH TWO (2) HEX NUTS AND TWO (2) FLAT WASHERS. EXCEPT FOR "H" AND "L" FOUNDATIONS, THE ANCHOR BOLTS SHALL BE 1" X 36" X 4" FOR ELEVEN (11) GAGE POLES AND 1 1/8" X 40" X 4" FOR SEVEN (7) GAGE POLES. THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED. THE POLE SHALL BE PLUMBED PRIOR TO PLACING THE GROUT OR CONCRETE CAP. USE OF GROUT OR CONCRETE FOR CAP SHALL BE DESIGNATED BY ENTITY ENGINEER. SHIMS OR WEDGES OF ANY KIND ARE NOT ACCEPTABLE TO PLUMB THE POLE AFTER THE CAP HAS BEEN PLACED.

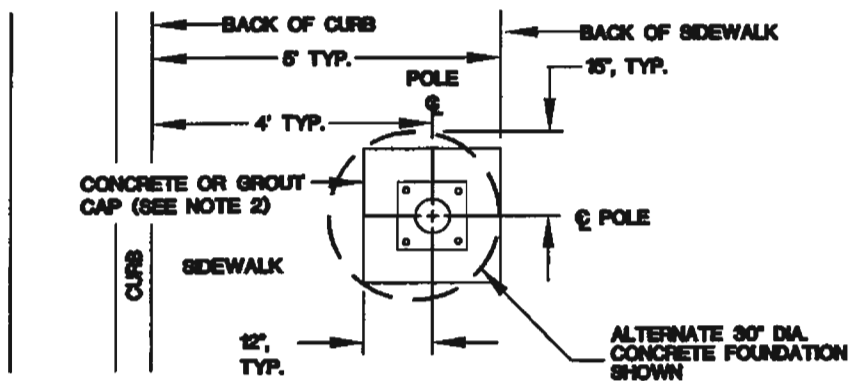
6. ALL UNDERGROUND CONDUIT INSTALLED SHALL HAVE RED, CONTINUOUS MARKING TAPE INSTALLED IN THE TRENCH AT 12" BELOW FINISHED GRADE.

7. WHERE SIGNALS AND STANDARDS ARE INSTALLED UNDER OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRICAL SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.

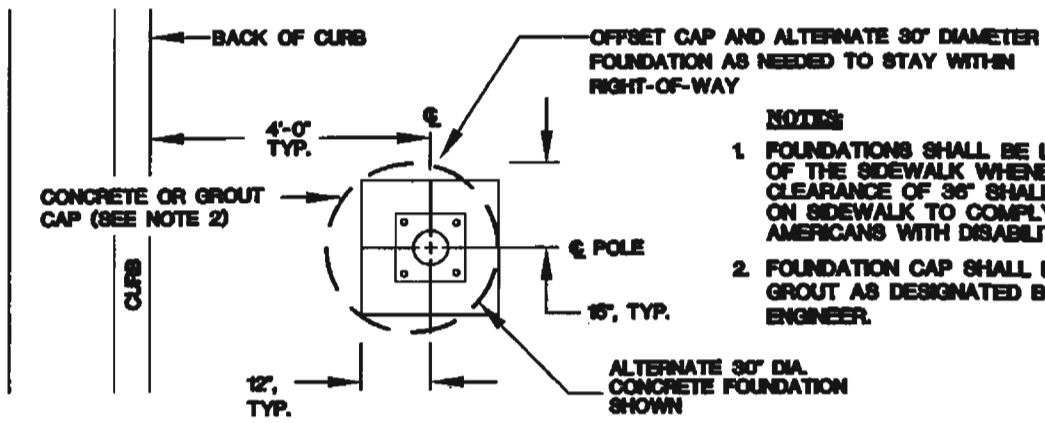
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
623	TRAFFIC SIGNALS & STREETLIGHTING	STREETLIGHT STANDARD GENERAL NOTES		
		DATE 7-8-04	DWG. NO. 313	PAGE NO. 73



BEHIND CURBSIDE SIDEWALK



BACK PORTION OF CURBSIDE SIDEWALK (NOT FOR NEW CONSTRUCTION)



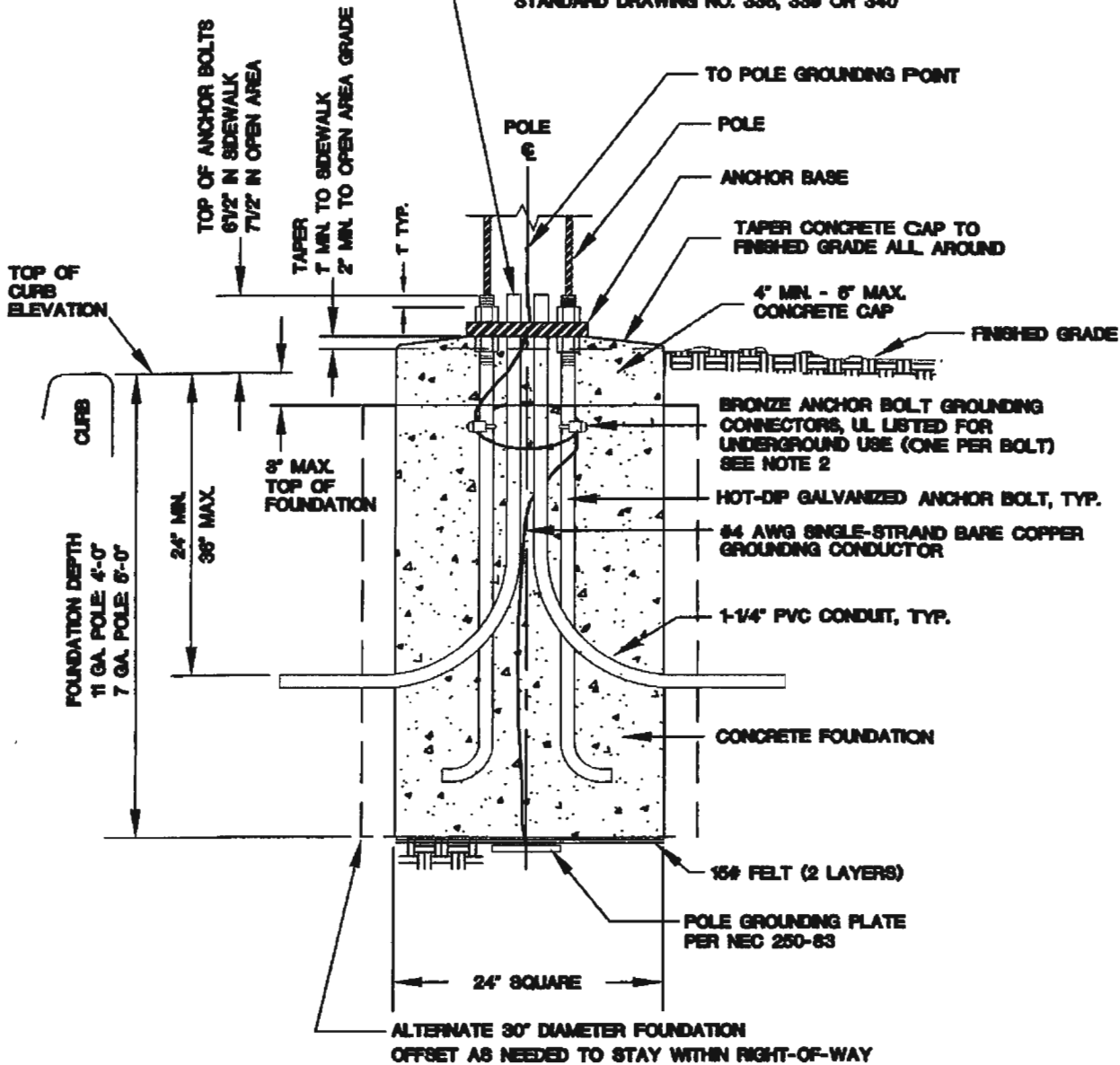
OPEN AREA OR BETWEEN CURB AND SIDEWALK

NOTES:

1. 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.
2. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY THE ENTITY ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
501	PORTLAND CEMENT CONCRETE			
623	TRAFFIC SIGNALS & STREETLIGHTING	LIGHTING STANDARD SETBACK		
		DATE 7-8-04	DWG. NO. 320	PAGE NO. 80

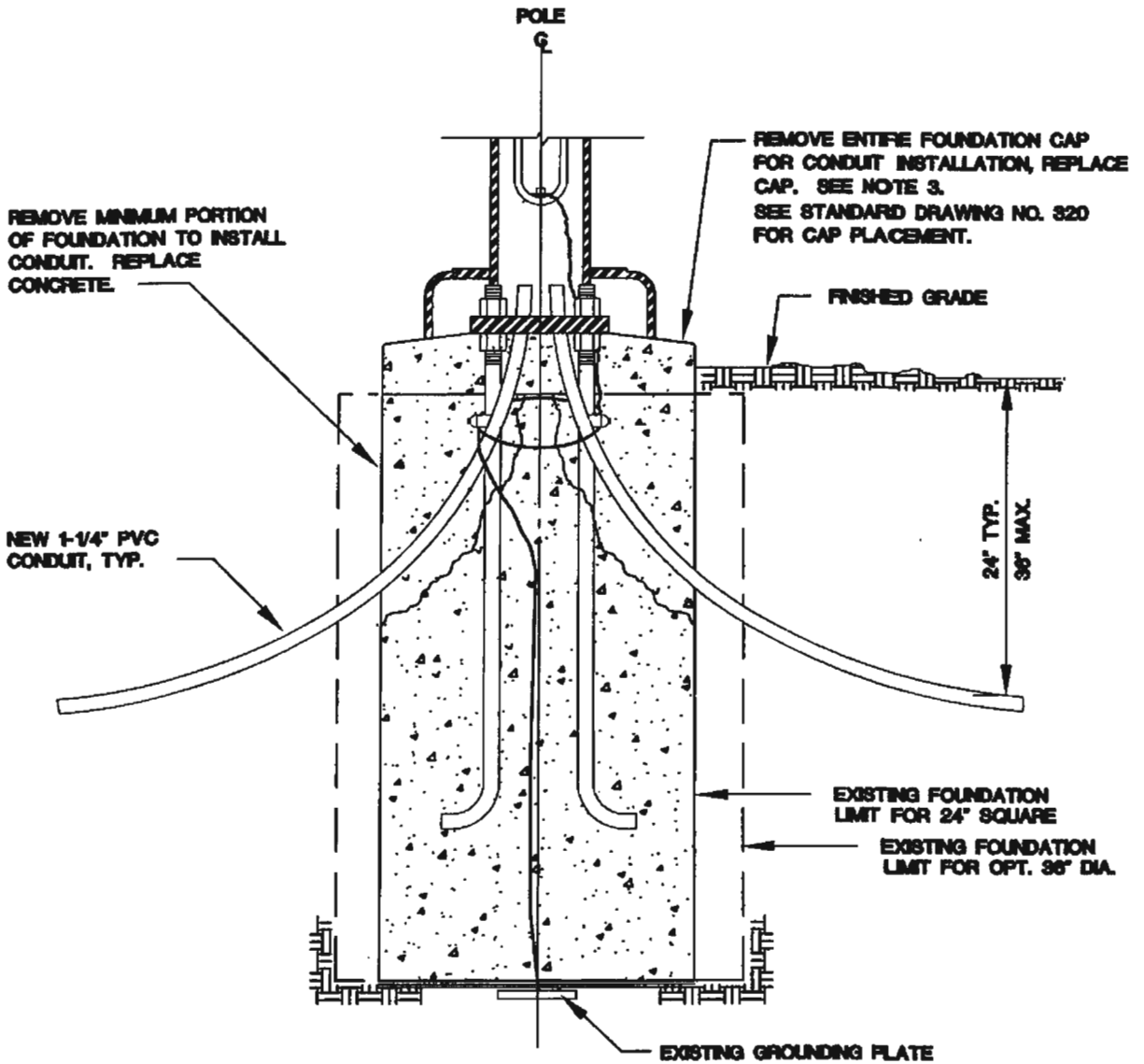
FOR CONDUIT LENGTH, SEE
STANDARD DRAWING NO. 338, 339 OR 340



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313
2. CONTINUOUS BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE POLE GROUNDING PLATE.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY THE ENTITY ENGINEER.

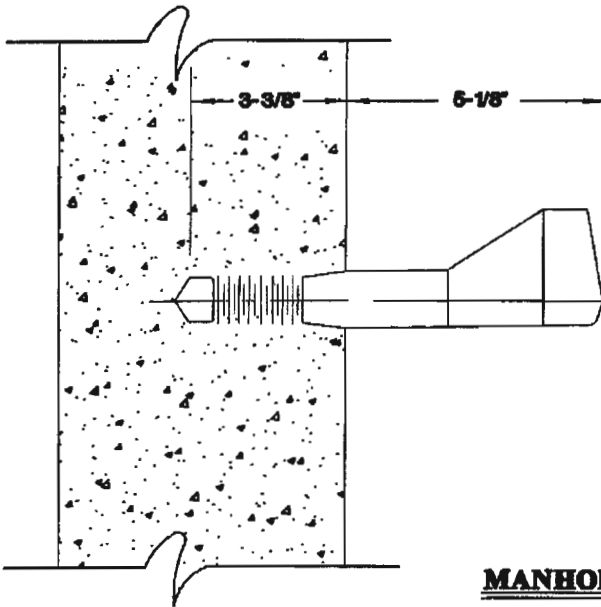
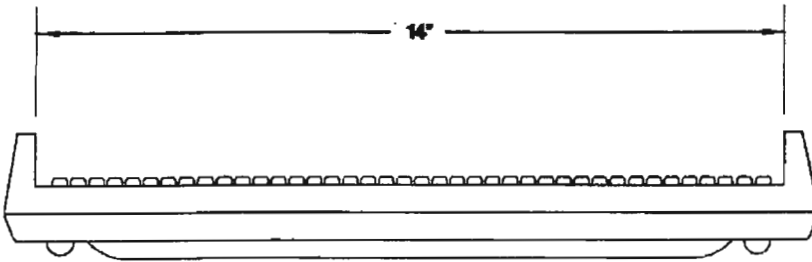
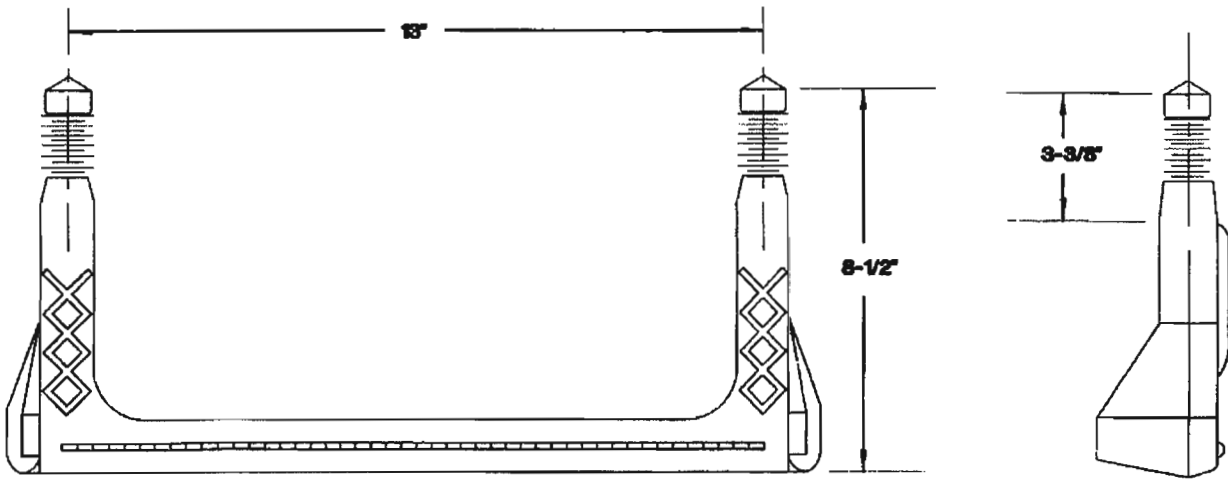
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
601	PORTLAND CEMENT CONCRETE	LIGHTING STANDARD FOUNDATION		
623	TRAFFIC SIGNALS & STREETLIGHTING			
		DATE 7-8-04	DWG. NO. 321	PAGE NO. 61



NOTES:

1. WHEN NO GROUNDING ELECTRODE EXISTS, 5/8 IN. DIA. SOLID COPPER GROUNDING ROD, 8 FT. IN LENGTH, SHALL BE INSTALLED.
2. ANCHOR BOLTS SHALL BE CONTINUOUS AND HAVE A MINIMUM 1 IN. FREE THREAD.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY ENTITY ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
501	PORTLAND CEMENT CONCRETE			
623	TRAFFIC SIGNALS & STREETLIGHTING	MODIFIED EXISTING STREETLIGHT FOUNDATION FOR INSTALLATION OF UNDERGROUND CONDUIT (CITY OF LAS VEGAS AND CLARK COUNTY ONLY)		
		DATE 7-8-04	DWG. NO. 325	PAGE NO. 85

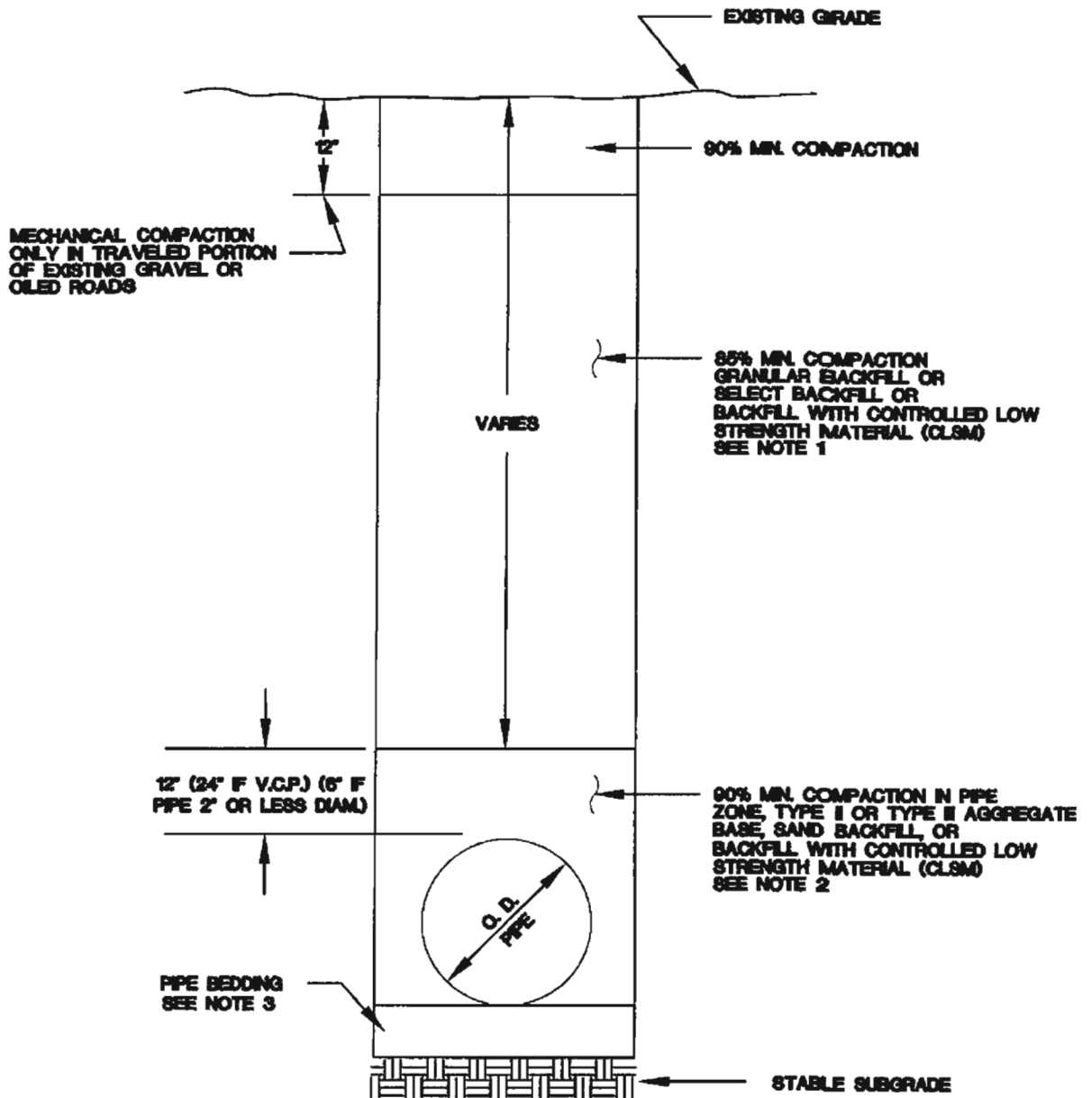


NOTES:

1. MANHOLE STEP SHALL CONFORM TO A.S.T.M. C-475 AND C-487.
2. ALUMINUM STEPS SHALL BE SOLID, MADE FROM MATERIAL IN CONFORMANCE WITH A.S.T.M. B221 (ALLOY 6005-T8).
3. REINFORCED PLASTIC STEPS SHALL BE POLYPROPYLENE PLASTIC, WITH NO. 3 (MIN) DEFORMED STEEL ROD (GRADE 60/A.S.T.M. A-615).
4. STEPS SHALL BE EVENLY SPACED FROM 12" TO 18".
5. ALL STEPS MUST BE EPOXIED IN PLACE DURING THE INSTALLATION PROCESS.

MANHOLE STEPS

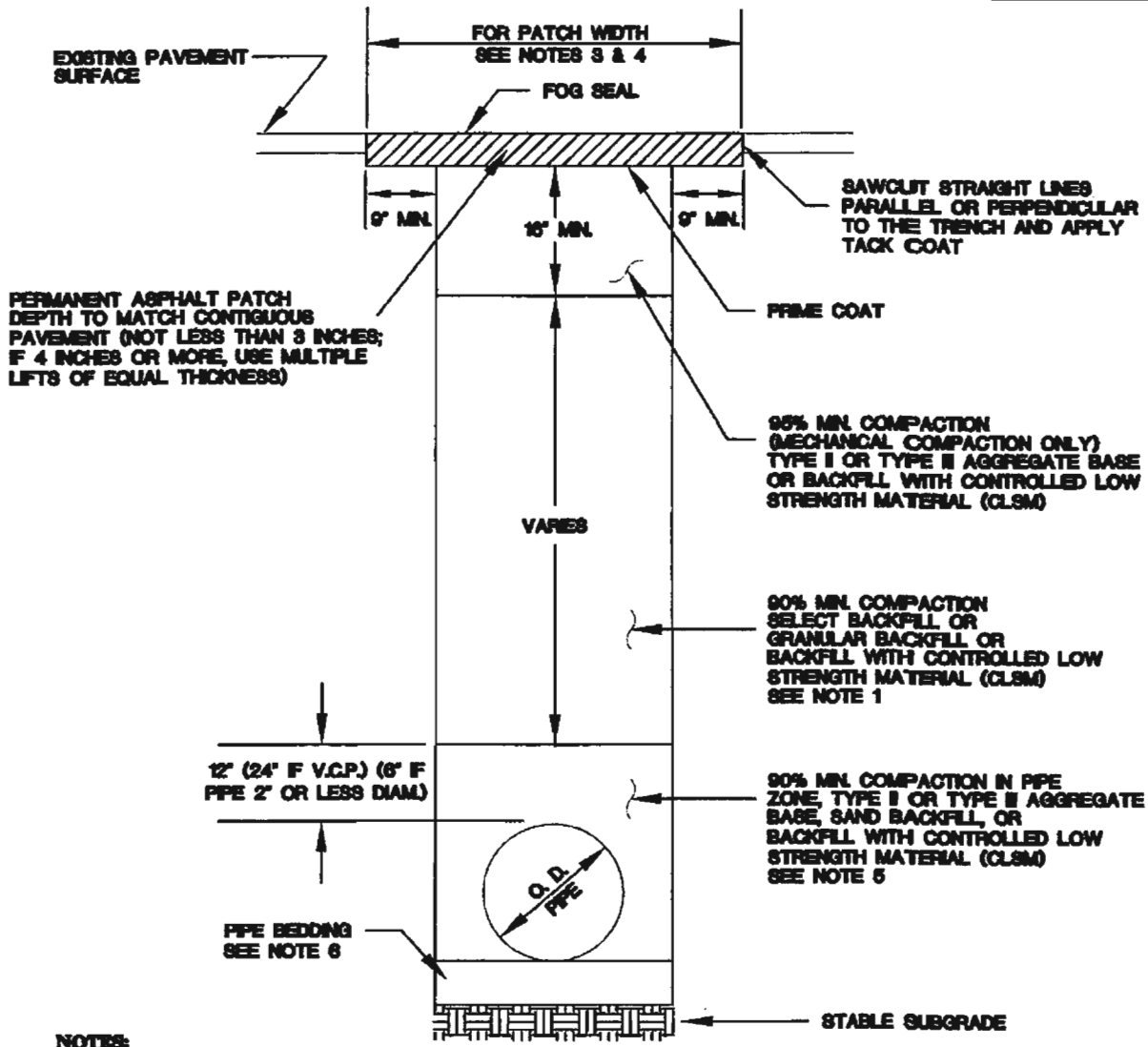
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	STANDARD MANHOLE STEPS
	DATE 3-11-04 DWG. NO. 410 PAGE NO. 110



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2" OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY 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 ZONE TO BE OF THE SAME MATERIAL.

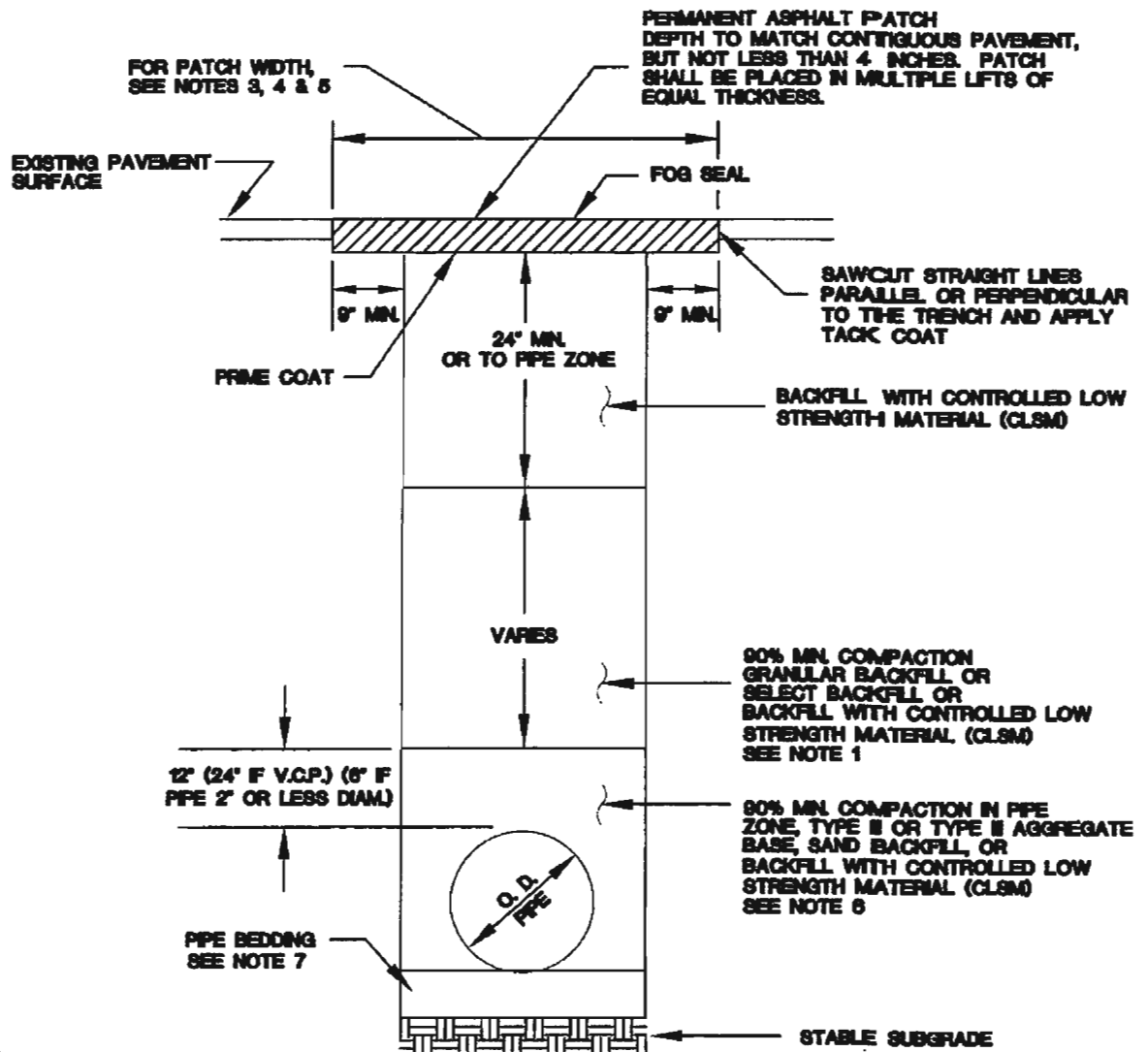
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
208	TRENCH EXCAVATION & BACKFILL	TRENCH BACKFILL - UNPAVED AREAS AND AREAS OUTSIDE EXISTING OR FUTURE PROPOSED STREET RIGHT-OF-WAY		
302	AGGREGATE BASE COURSES			
		DATE 7-8-04	DWG. NO. 502	PAGE 122



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. PATCHES SHALL BE WIDTH (4 FEET MINIMUM) SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT USING AGENCY APPROVED SPREADER BOX OR PAVING MACHINE, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11. SAWCUTS SHALL NOT BE PLACED IN THE WHEEL PATH AREA.
4. FOR CONDUIT TRENCHES 6 INCHES WIDE OR LESS WITHIN 2 FEET OF THE CURB, PATCHES SHALL EXTEND A MINIMUM OF 4 FEET FROM LIP OF GUTTER AND PAVEMENT SHALL BE REMOVED TO CURB AND GUTTER; WIDTH SHALL BE SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT USING AGENCY APPROVED SPREADER BOX OR PAVING MACHINE, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11. SAWCUT SHALL NOT BE PLACED IN WHEEL PATH AREA.
5. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS.
6. 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.
7. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

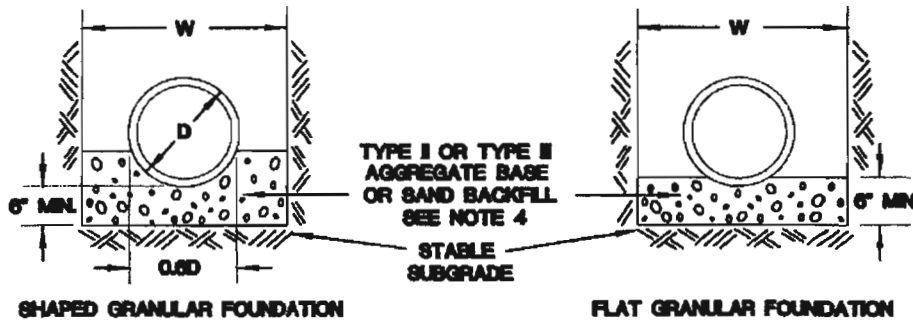
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
207	BACKFILL	TRENCH BACKFILL PAVED AREAS (STREETS WITH 60' OR LESS R/W)		
208	TRENCH EXCAVATION & BACKFILL			
302	AGGREGATE BASE COURSES			
401	BITUMINOUS PAVEMENT			
406	PRIME COAT			
407	FOG SEAL			
		DATE 7-8-04	DWG. NO. 503	PAGE 123



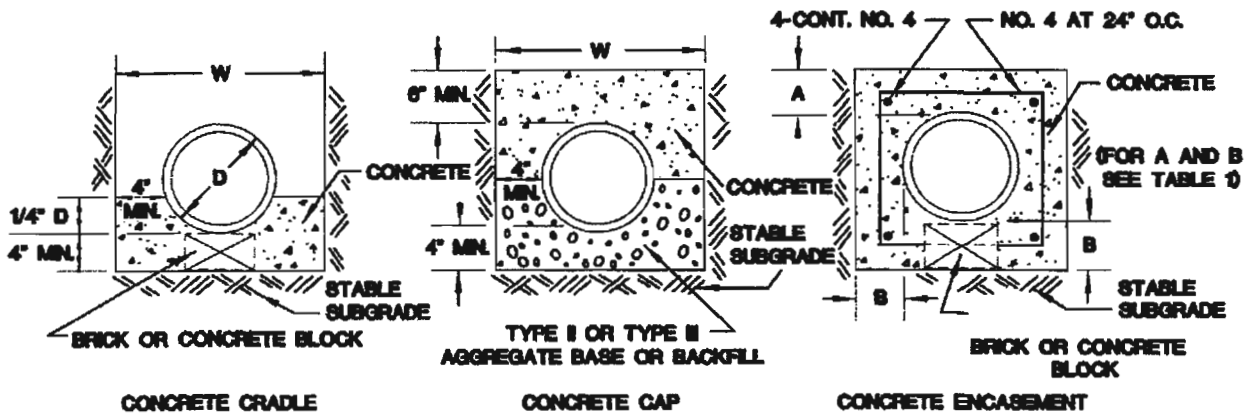
NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. TRANSVERSE PATCHES SHALL BE WIDTH (4 FEET MINIMUM) SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11.
4. LONGITUDINAL PATCHES SHALL BE ONE TRAVEL LANE IN WIDTH; SAWCUTS ARE TO BE MADE AT THE EDGE OF THE TRAVEL LANE.
5. FOR CONDUIT TRENCHES 6 INCHES WIDE OR LESS WITHIN 2 FEET OF THE CURB, PATCHES SHALL EXTEND A MINIMUM OF 4 FEET FROM LIP OF GUTTER AND PAVEMENT SHALL BE REMOVED TO CURB AND GUTTER; WIDTH SHALL BE SUFFICIENT TO ACCOMMODATE MECHANICAL PLACEMENT USING AGENCY APPROVED SPREADER BOX OR PAVING MACHINE, ROLLING AND COMPACTION PER UNIFORM STANDARD SPECIFICATION SECTION 401.03.11. SAWCUT SHALL NOT BE PLACED IN WHEEL PATH AREA.
6. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS.
7. 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.
8. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
207	BACKFILL	TRENCH BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) PAVED AREAS (STREETS GREATER THAN 60' R/W)		
208	TRENCH EXCAVATION & BACKFILL			
302	AGGREGATE BASE COURSES			
401	BITUMINOUS PAVEMENT			
408	PRIME COAT			
407	FOG SEAL	DATE 7-8-04	DWG. NO. 504	PAGE 124



CLASS B BEDDING (NORMAL BEDDING)



CLASS A BEDDING (CONCRETE BEDDING)

TABLE 1					
PIPE SIZE	PIPE		PIPE SIZE	PIPE	
	B	A		B	A
6"	4"	4"	24"	6"	6"
8"	4"	4"	27"	7"	6"
10"	4"	4"	30"	8"	6"
12"	4"	4"	33"	8"	6"
15"	4"	4"	36"	8"	6"
18"	5"	5"	39"	8"	6"
21"	5"	5"	42"	10"	6"

D = OUTSIDE DIAMETER OF PIPE
W = OUTSIDE DIAMETER OF PIPE + 24" MAXIMUM

NOTES:

1. PIPE BEDDING TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY. SUBGRADE SHALL CONFORM TO RESPECTIVE ENTITY REQUIREMENTS.
2. INDICATED THICKNESS OF BEDDING MATERIAL TO BE CONSTRUCTED UNDER THE BARREL. SUBGRADE TO BE EXCAVATED TO PROVIDE 2" CLEARANCE UNDER THE BELL.
3. OTHER BEDDING METHODS MAY BE SPECIFIED OR APPROVED.
4. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
208	TRENCH EXCAVATION & BACKFILL	PIPE TRENCH BEDDING METHODS		
302	AGGREGATE BASE COURSES			
501	CONCRETE			
505	REINFORCEMENT STEEL			
		DATE 7-8-04	DWG. NO. 505	PAGE NO. 125