

ABBREVIATIONS		
AC	ASPHALTIC CONCRETE	
ADJ	ADJUST	
AD	ADGREGATE	
BCR	BACK OF CURB	
BCR	BEGINNING OF CURB RETURN	
BE	BEHIND	
BW	BACK OF SIDEWALK	
BVC	BEGINNING OF VERTICAL CURVE	
CAVY	CABLE TV	
CCAUSD	CLARK COUNTY AREA	
CCRFCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT	
CC	CENTERLINE	
CLV	CITY OF LAS VEGAS	
CMU	CONCRETE MASONRY UNIT	
CO	CLEAN OUT	
COM	COMMUNICATIONS	
CONC	CONCRETE	
COND	CONDUIT	
CULV	CULVERT	
DC	DEPRESSED CURB	
DI	DROP INLET	
DIP	DUCTILE IRON PIPE	
DOM	DOMESTIC	
EL	ELECTRIC	
EAC	END OF AC	
EC	END OF CURVE	
ECR	EDGE OF CURB RETURN	
ELEV	ELEVATION	
EP	EDGE OF PAVEMENT	
EVC	END OF VERTICAL CURVE	
EX	EXISTING	
FAST	FREEMAN & ARTERIAL SYSTEM OF TRANSPORTATION	
FF	FINISH FLOOR	
FG	FINISH GRADE	
FI	FIRE HYDRANT	
FL	FLOW LINE	
FO	FIBER OPTICS	
FS	FINISHED SURFACE	
GS	GRADE	
GB	GRADE BREAK	
HDPE	HIGH DENSITY POLYETHYLENE	
HDWL	HEADWALL	
TH	HYDRAULIC GRADE LINE	
HP	HIGH POINT	
INV	INVERT	
IRR	IRRIGATION	
LAT	LATERAL	
LF	LINEAL FEET	
LS	LANDSCAPE	
LT	LEFT	
LVVWD	LAS VEGAS VALLEY WATER DISTRICT	
MAX	MAXIMUM	
MH	MANHOLE	
MIN	MINIMUM	
MTR	METER	
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION	
PB	PULL BOX	
PL	PROPERTY LINE	
PROP	POWER POLE	
PVC	POLY VINYL CHLORIDE PIPE	
PWMT	PAVEMENT	
RT	RIGHT	
ROW	RIGHT-OF-WAY	
SD	SANITARY SEWER	
SD	STORM DRAIN	
SNWA	SOUTHERN NEVADA WATER AUTHORITY	
STA	STATION	
STLT	STREET LIGHT	
SVZ	SIGHT VISIBILITY ZONE	
SW	SIDEWALK	
TEL	TELEPHONE	
TC	TOP OF CURB	
TF	TOP OF FOOTING	
TW	TOP OF WALL	
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS	
VG	VALLEY GUTTER	
WL	WATER LINE	

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
UTILITIES		
B.O. VALVE		
FIRE HYDRANTS		
CLEAR OUT		
GATE VALVE		
METER		
REDUCER		
CAP		
11.25' ELBOW		
22.5' ELBOW		
45' ELBOW		
90' ELBOW		
CROSS		
TEE		
MANHOLES		
ELECTRICAL		
SANITARY SEWER		
STORM DRAIN		
TELEPHONE		
STREET LIGHTS		
100W HPS STLT		
150W HPS STLT		
200W HPS STLT		
250W HPS STLT		
400W HPS STLT		
GRADING		
SPOT ELEV.		
SLOPE		
1' CONT.		
SITE		
7" CURB		
"A" CURB		
EDGE OF P.W.M.T.		
WALL		
LINE TYPES		
CL OR SECTION LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
EASEMENT LINE		
SAWTOOTH LINE		
FLOW		
SHADES		
HEAVY AC PAVEMENT		
LIGHT AC PAVEMENT		
CONCRETE PAVEMENT		

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN & CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA', AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "O" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVNYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACK-FILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES IN PAVED STREETS EIGHTY (80') R/W AND LARGER, SHALL HAVE CONCRETE COVERS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" S SALLS SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

STORMWATER MANAGEMENT NOTES:

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED INTO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CLARK COUNTY AS A RESULT OF THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY BUILDING ADMINISTRATIVE CODE 24-40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF CONTRAST TO THE SEWER TRAFFIC LINES AND OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY. THE NEVADA STORMWATER GENERAL PERMIT ACTIVITIES REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR OPERATION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY GUIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR SAVING OF EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARY FOR THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREA INDICED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA	0.1+ "	+0.0' TO -0.1'	REPORT
B. ENGINEERED FILL	0.5+ "	+0.1' TO -0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY CLEAR OF ALL OBSTACLES AND TRAFFICABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY PRIOR TO BEGINNING CONSTRUCTION. THE PUBLIC RIGHT-OF-WAY ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER OR AGENT SHALL BE NOTIFIED IMMEDIATELY BY THE CONTRACTOR AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

DEVIATIONS FROM STANDARDS

NO DEVIATIONS NEEDED.

APPROVED FOR CONSTRUCTION	
DATE	DATE
3-27-13	3-27-13
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER	
LVVWD PROJECT # 117082	
863	

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6124 FOR HYDRANT SPECIFICATIONS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA', AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND HYDRANT INSTALLATION TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK.

	A - KENNEDY - GUARDIAN MODELS K81A AND K81D	B - MUELLER - SUPERIOR CENTURION 150 AND K10	C - CLOW - MEDALLION MODEL P-2546LV0	D - TROY VALVE - PATRIOT MODEL PTB100N NEVADA HYDRANT	E - U.S. PIPE - METROFLOW/M-03
A	150	150	150	150	150
3. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FLOW. SNFC #6124, SECTION 1412.
4. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS. SNFC #6124, SECTION 507.5.7.3.
5. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TEXTS WITH PRIOR FIRE PREVENTION APPROVAL.
6. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.M.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. SNFC 507.2.1, NFPA 24.
7. PAINTING OF THE CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE ANY SPECIFIC FIRE AND RESCUE, FIRE PREVENTION DIVISION. IFC 507; SNFC 507.5.7.
8. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED. SNFC 507.5.7.1.
9. PRIOR TO THE FINAL OCCUPANCY, A FLOW TEST MUST BE WITHNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. IFC 507; SNFC 507.1.
10. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: SNFC C102

	RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED.	COMMERCIAL - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED.
11. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVISIONS OR DRIVEWAYS, FIRE TRAFFIC LINES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FEET ON AN ALTERNATING BASIS. SNFC C102.14.		

12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CL-DE-SAC.
13. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6' OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION. SNFC C102.12.
14. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FEET, AS MEASURED BY AN APPROVED ROUTE. SNFC 102.4.
15. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FEET, AS MEASURED BY AN APPROVED ROUTE. SNFC C102.7.
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FEET. SNFC 102.6.
17. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. AFTER ANY RAIN EVENT OF CONTRAST TO THE SEWER TRAFFIC LINES AND OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY. THE NEVADA STORMWATER GENERAL PERMIT ACTIVITIES REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 100000, SECTION III.A.12.
18. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. SNFC 503.2.3.
19. THE GRADIENT FOR A FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12% ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FEET PRIOR TO OR AFTER THE GRADE CHANGE, ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. SNFC 503.2.7/503.2.8.
20. THE TURNING RADIUS OF A FIRE APPARATUS ACCESS ROAD SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS. SNFC 503.2.4.
21. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROAD SHALL BE NOT LESS THAN 13 FEET 6 INCHES. SNFC 503.2.1.1/IFC 503.
22. FIRE DEPARTMENT ACCESS ROADS IN ALL RESIDENTIAL DEVELOPMENTS (EXCEPT FOR THE APARTMENT BUILDINGS) SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 36 FEET FLOW LINE (THIS WIDTH MAY BE REDUCED TO 24 FEET IF ALL BUILDINGS FRONTING STREET ARE SPRINKLERED) FOR MAIN RESIDENTIAL STREETS, WITH PARKING PERMITTED ON BOTH SIDES OF THE STREET. PRIVATE DRIVE AISLES, DRIVEWAYS, ETC. SHALL BE ALLOWED TO BE REDUCED TO A MINIMUM WIDTH OF 24 FEET FLOW FLOW LINE TO FLOW LINE WHEN SERVING NO MORE THAN 8 RESIDENCES, AND WHEN ON STREET PARKING IS DISALLOWED. SNFC 503.2.1/503.2.11.
23. ALL FIRE APPARATUS ACCESS ROADS IN COMMERCIAL DEVELOPMENTS AND APARTMENT COMPLEXES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 24 FEET (FLOW LINE TO THE FLOW LINE), PROVIDED NO PARKING IS ALLOWED ON EITHER SIDE; 32 FEET (FLOW LINE TO FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON ONE SIDE ONLY; AND 40 FEET (FLOW LINE TO FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. THESE WIDTHS MAY BE REDUCED BY 4 FEET IF ALL BUILDINGS ARE SPRINKLERED. SNFC 503.2.1.1.
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FEET IF THE BUILDING IS SPRINKLERED. IFC 503.1.1/SNFC 503.11.
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FEET, AND FOR ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY RESIDENTIAL DEVELOPMENTS. SNFC 503.1.2.
26. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 91 FEET. SNFC 503.2.5.
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE. ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS 100 FEET ALONG ALL DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROAD IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT IF CURB IS NOT PRESENT SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. SNFC 503.3.
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES. IFC/SNFC 503.6

QUANTITIES

DESCRIPTION	PUBLIC QUANTITY	PRIVATE QUANTITY
3-INCH ASPHALTIC CONCRETE PAVING	7 SF	163 SF
A CURB	LF	8 LF
L CURB	2 LF	LF
4-INCH CONCRETE SIDEWALK	10 SF	10 SF
8" 90' BEND	1 EA	1 EA
6" R/PD	1 EA	EA
6" WATER LINE	9.50 LF	90.68 LF

NOTE: THIS QUANTITY ESTIMATE IS FOR BONDING PURPOSES ONLY. CONTRACTOR TO DETERMINE INDEPENDENT ESTIMATIONS.

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST EDITION; AND OTHER APPLICABLE SPECIFICATIONS, AUTHORIZED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE, AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS, EXISTING UTILITIES AS SHOWN FROM QLY PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONS AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES, AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORILY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK, CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGN TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL CUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS CUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWINGS 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS, ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY ADJACENT LINES, AND CROSS CUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC., TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LIGHTING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION, TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE OFFSITE INSPECTION AND TESTING SECTION PRIOR TO PROJECT ACCEPTANCE. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION OF SEWER LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXITS THE PUBLIC RIGHT-OF-WAY. THE LOCATION SHALL BE DESCRIBED BY STATE PLANE COORDINATES WHICH SHALL BE BASED ON THE "NEVADA COORDINATE SYSTEM OF 1983, EAST ZONE" AS DEFINED BY THE NEVADA REVISED STATUTES CHAPTER 327, AND TIED TO THE CITY OF LAS VEGAS VERTICAL CONTROL BENCHMARK NETWORK. COORDINATES MUST BE CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO THE CITY ENGINEER. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. SANITARY SEWER SERVICE LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE SEWER SERVICE LATERAL TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY. STORM DRAIN LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE STORM DRAIN LATERAL TO THE STORM DRAIN MAIN AND WHERE THE STORM DRAIN LATERALS EXITS THE PUBLIC RIGHT-OF-WAY OR WHERE THE STORM DRAIN LATERAL CONNECTS TO A DROP INLET. THE MARKER BALL SHALL BE 3M 4" MARKER BALL 1404-XR OR APPROVED EQUAL.
23. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.
24. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 04/15/10 CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN