

GRADING NOTES

1. IN THE EVENT THAT ANY UNFORSEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN 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 CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF 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 AREAS INDICATED:

	HORIZONTAL	VERTICAL COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0' TO -0.1' AS INDICATED ON PLAN
B. ENGINEERED FILL	0.5'+	+0.1' TO -0.1' MINIMUM OF 90% OR AS SHOWN ON PLANS

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE AND COPIES OF TEST RESULTS WILL BE PROVIDED TO THE CITY.

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. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL 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 AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS," "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE NO. 3944.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - A. KENNEDY GUARDIAN
 - B. MUELLER A-423 CENTURION
 - C. CLOW MODEL 2546 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE NO. 3944 TO IDENTIFY THE FIRE HYDRANT LOCATIONS.
5. CONTRACTOR SHALL CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE BACK FILLING.
6. PAINTING OF THE CURBS AND HYDRANTS AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE, PER ORDINANCE NO. 3944, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
8. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
9. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
10. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
11. FIRE HYDRANT SPACING:
 - RESIDENTIAL -
500 FEET UNSPRINKLERED; 1,000 FEET SPRINKLERED.
 - COMMERCIAL, INCLUDING MULTI-FAMILY -
300 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
12. WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS, WHERE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, FIRE HYDRANTS SHALL BE SPACED AT MAXIMUM ONE-THOUSAND (1,000') FOOT SPACING TO PROVIDE FOR TRANSPORTATION HAZARDS.
13. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN TWENTY (20') FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANT SHALL BE LOCATED WITHIN SIX FEET (6') OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
15. TWO SOURCES OF WATER ARE REQUIRED WHENEVER THERE ARE FOUR (4) OR MORE FIRE HYDRANTS INSTALLED ON A SINGLE SYSTEM.
16. NOT MORE THAN TWO (2) HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
17. FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN TWENTY FEET (20') PROVIDED NO PARKING IS ALLOWED, NOT LESS THAN TWENTY-EIGHT FEET (28') IF PARALLEL PARKING IS ALLOWED ON ONE SIDE, AND NOT LESS THAN THIRTY-SIX FEET (36') IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. VERTICAL CLEARANCE SHALL BE NOT LESS THAN THIRTEEN-FEET-SIX-INCHES (13'6").
18. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE

GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS" CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, LATEST EDITION". REFER TO SUMMERLIN IMPROVEMENT STDS. AS APPROVED BY CLV ON 2/2/93, AND THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.
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 CLV 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 ITS 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 PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST 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 SATISFACTORY 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 ENGINEER 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. 1/2" EXPANSION JOINT REQUIRED AT ALL COLD JOINTS, AT BEGINNING & END OF RETURN AND AT 150' MAX INTERVALS FOR EXTRUDED CURB AND 30' MAX. INTERVALS FOR FORMED CURB. FOR JOINT DETAIL SEE SUMMERLIN IMPROVEMENT STDS DWG NO. S-72.
8. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. REQUIRED CURB, GUTTER AND SIDEWALKS OR WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUMMERLIN STANDARDS AND ADA STANDARDS AS ADOPTED BY THE CITY OF LAS VEGAS.
10. ALL STREET INTERSECTIONS SHALL HAVE WHEELCHAIR RAMPS CONSTRUCTION IN ACCORDANCE WITH SUMMERLIN IMPROVEMENT STANDARDS AND ADA STANDARDS AS ADOPTED BY THE CITY OF LAS VEGAS. ALTERNATIVE RAMP LOCATIONS MAY BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER AND THE SDRC.
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 LOCATIONS 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 MONUMENT. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.550.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
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 BUILDING PERMIT AND BUILDING INSPECTION.
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. ALL WALLS, MANHOLE AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDOOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK", LATEST EDITION, AND TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED. HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, FLASHERS, OTHER EQUIPMENT AND FLAG PERSONS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE NO. IS 229-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICER SHALL BE SET UP BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND 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 "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES IN PAVED STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. 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 MUST 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 SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN EIGHTEEN INCHES (18") UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE 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 AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES SPECIAL CONSTRUCTION PROCEDURES AND INSPECTIONS. CONTACT CITY OF LAS VEGAS CONSTRUCTION SERVICES 24 HOURS PRIOR TO INSTALLATION.

ABBREVIATIONS		REVISION	
AB	AGGREGATE BASE		
AC	ASPHALTIC CONCRETE		
ACP	ASBESTOS CEMENT PIPE		
ADJ	ADJUST		
AGG	AGGREGATE		
AVE	AVENUE		
BCR	BACK OF CURB		
BM	BEGIN CURB RETURN		
BVC	BEGIN OF VERTICAL CURVE		
BW	BOTTOM WALL (FG)		
CC	CLARK COUNTY		
C/L	CENTERLINE		
CF	CUBIC FEET		
CI	CURB INLET		
CIP	CAST IRON PIPE		
CMU	CONCRETE MASONARY UNIT		
CO	CLEAN OUT		
CONC	CONCRETE		
CONST	CONSTRUCT		
CONT	CONTINUOUS		
CSP	CORRUGATED STEEL PIPE		
CL	CENTERLINE		
CULV	CULVERT		
CY	CUBIC YARD		
DET	DETAIL		
DI	DROP INLET		
DIA	DIAMETER		
E	EAST		
EGL	ENERGY GRADE LINE		
ELSV	ELEVATION		
EP	EDGE OF PAVEMENT		
EASMT	EASEMENT		
EOP	EDGE OF PAVEMENT		
EVC	END OF VERTICAL CURVE		
EX	EXISTING		
FF	FLOOR FINISH		
FG	FINISH GRADE		
FH	FIRE HYDRANT		
FT	FEET OR FOOT		
FL	FLOW LINE		
G	GAS		
GA	GAUGE		
GALV	GALVANIZED		
HGL	GRADE BREAK		
HP	HYDRAULIC GRADE LINE		
IE	HIGH POINT		
INT	INVERT ELEVATION		
INV	INTERSECTION		
ISL	INVERT		
JB	ISLAND		
LF	JUNCTION BOX		
LT	LINEAR FEET		
LAT	LEFT		
LVVWD	LATERAL		
MAX	LAS VEGAS VALLEY WATER DISTRICT		
MH	MAXIMUM		
MIN	MANHOLE		
NTS	MINIMUM		
OC	NORTH		
OG	NOT TO SCALE		
P	ON CENTER		
PB	ORIGINAL GROUND		
PL	POWER		
PCC	PULL BOX		
PI	PROPERTY LINE		
PP	POINT OF CURVE		
PRC	POINT OF COMPOUND CURVE		
PRV	POINT OF INTERSECTION		
PRVC	POINT OF REVERSE CURVE		
PT	PRESSURE REDUCTION VALVE		
RV	POINT OF REVERSE VERTICAL CURVE		
RP	POINT OF TANGENCY		
RR	POINT OF VERTICAL INTERSECTION		
RT	RATE		
SD	RADIUS POINT		
SF	RAILROAD		
SHT	RIGHT		
SSMH	SLOPE		
STA	STORM DRAIN		
STD	SQUARE FEET		
SWI	STREET		
SW	SEWER LINE		
TC	SANITARY SEWER MANHOLE		
TG	STATION		
TMH	STANDARD		
TS	STORM WATER INLET		
TOW	SIDEWALK		
TY	TELEPHONE		
UVC	TOP OF CURB		
VAR	TOP OF GRATE		
VB	TOP OF MANHOLE		
VC	TRAFFIC SIGNAL		
VCP	TOP OF WALL		
VG	TYPICAL		
W	UNSYMMETRICAL VERTICAL CURVE		
WM	VARIABLE		
WS	VALVE BOX		
XX-XX	VERTICAL CURVE		
XX-XX	VITRIFIED CLAY PIPE		
e	VALLEY GUTTER		
Δ	WATER		
Δ	WATER METER		
Δ	WATER SERVICE		
Δ	EXISTING ELEVATION		
Δ	FINISHED PAVEMENT GRADE		
Δ	EXTERNAL ORDINATE		
Δ	DELTA		
Δ	DIAMETER		
Δ	DRIVEWAY		
Δ	FACE OF CURB		
Δ	MONUMENT LINE		
Δ	RIGHT OF WAY		
Δ	SIDEWALK		
Δ	TRACT LINE		

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STREETLIGHT NOTES

1. ALL STREET LIGHTS, POLES, LUMINAIRES AND APPURTENANCES WILL CONFORM WITH THE MINIMUM REQUIREMENTS OF SUMMERLIN'S STDs.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC/ELECTRIC FIELD OPERATIONS DIVISION AND THE CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.L0.03 (E) OF THE SPECIFICATIONS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL EMPTY CONDUIT SHALL HAVE PULL STRINGS INSTALLED PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE OF EIGHTEEN INCHES (18") TO THE FACE OF STREET LIGHTNING POLE ON ALL SIDES WHEN STREETLIGHT IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTNING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE ELECTRICAL SERVICES SECTION PRIOR TO ANY PER FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NEVADA POWER COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. THIS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING WORKABLE CIRCUIT TO ATTACHE TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTNING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

<u>BENCHMARK</u>	
CITY OF LAS VEGAS BENCHMARK CLVD001954 RIVET & PLATE IN TOP OF CURB NW SIDE OF TOWN CENTER DRIVE & SOUTH CIRCLE ISLAND. 2725.923 NGVD 1929 DATUM 2728.37 NAVD 1988 DATUM (831.6074 M) 2726.19 SUMMERLIN DATUM (USED IN THIS PROJECT) <i>SUMMERLIN DATUM + 2.18 = NAVD 1988 DATUM</i>	
<u>BASIS OF BEARING</u>	
NORTH 15°23'46" EAST, BEING THE BEARING OF THE CENTERLINE OF ANASAZI DRIVE AS SHOWN BY MAP THEREOF ON FILE IN BOOK #64, PAGE 67 OF PLATS, IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.	
<u>LEGEND - GRADING</u>	
FUTURE IMPROVEMENTS	
EX. IMPROVEMENTS	
BLOCK RETAINING WALL	
BLOCK WALL	
INDEX CONTOUR	
INTERMEDIATE CONTOUR	
SCARP (3:1 MAX)	
A.C. SWALE	
SETBACK LINE	
UNIT LINE	
PAD GRADE	
MATCH MASKING	

DESCRIPTION	PROPOSED	EXISTING
EXISTING STREET LIGHT OFFSITE	N/A	
EXISTING STREET LIGHT OFFSITE	N/A	
NEW STREET LIGHT		
PHOTO EYE		
ELECTRICAL PEDISTAL		
PULL BOX AS SHOWN		
GATE VALVE		
EXISTING FIRE HYDRANT OFFSITE	N/A	
NEW FIRE HYDRANT (UNLESS NOTED AS EXISTING)		
BACKWATER VALVE		N/A
SEWER MANHOLE		
STORM DRAIN MANHOLE		
SEWER AND WATER SERVICE		
STREET NAME SIGN		
STREET SIGN (SPEED LIMIT 25)		
STOP SIGN		
FUTURE IMPROVEMENTS	----	N/A
EX. IMPROVEMENTS	----	N/A
UNIT LINE		N/A
SEWER	=====	=====
WATER	=====	=====
1 1/4" STREET LIGHT CONDUIT	----	----
OM-3 MARKER		

QUANTITIES:

PUBLIC WATER QUANTITIES

8" WATER	3400 LF
8" x 12" REDUCER	1 EA
12"x8"x12" MECHANICAL TAPPING TEE	1 EA
8" TEE	6 EA
8" 45°	2 EA
8" 22.5°	-
1" LATERAL WITH 5/8" METER AND PRV	31 EA
1" LATERAL WITH 5/8" METER AND PRV (IRRIG.)	2 + EA
1" LATERAL WITH 1" METER AND PRV (IRRIG.)	2 + EA
8" GATE VALVE	4 EA
STD. F.H. ASSY. W/ 8x6x8 TEE, 6" GV AND LATERAL	6 EA
2" BLOWOFF VALVE	2 EA

PUBLIC SEWER QUANTITIES	
8" SEWER	3550 LF
48" MANHOLE	14 EA
4" LATERAL (PRIVATE)	1540 1500 LF
BACK WATER VALVE (PRIVATE)	5 EA
4" CLEAN OUT (PRIVATE)	(E)
PRIVATE STREET LIGHT QUANTITIES	
100 W H.P.S. (3B)	12 EA
150 W H.P.S. (2B)	1 EA
#3-1/2 PULLBOX	3 EA
1-1/4" CONDUIT	2000 LF
DOUBLE METER PADMOUNT & PHOTO EYE	1 EA
PUBLIC STORM DRAIN QUANTITIES	

18" RCP STORM DRAIN (CLASS III)	285 LF
30" RCP STORM DRAIN	425 LF
42" RCP STORM DRAIN	142 LF
MODIFIED TYPE 'C' DROP INLET	1 EA
4" TYPE 'A' DROP INLET	1 EA
48" STORM MANHOLE	1 EA
TYPE 3 STORM MANHOLE	1 EA
<i>JENSON PRECAST 16"x24" DROP INLET</i>	1 EA
PRIVATE	
ONSITE PAVING AND GRADING QUANTITIES	
2.5" AC PAVEMENT	67,290 SF
VALLEY GUTTER	620 SF
30" ROLL CURB AND GUTTER	3005 LF
24" "L" TYPE CURB AND GUTTER	418 LF
"A" TYPE CURB	1282 LF
4' SIDE WALK (EXCLUDING MINI PARK)	5988 SF
TYPE II BASE	961 CY

2.5" AC PAVEMENT	67,290 SF
VALLEY GUTTER	620 SF
30" ROLL CURB AND GUTTER	3005 LF
24" "L" TYPE CURB AND GUTTER	418 LF
"A" TYPE CURB	1282 LF
4' SIDE WALK (EXCLUDING MINI PARK)	5988 SF
TYPE II BASE	961 CY

NOTICE!

EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.

AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY.



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