LEGEND

SL	EXISTING STREET LIGHT LINE
CTV	EXISTING CABLE TV LINE
UGT (T)	EXISTING TELEPHONE LINE WITH MANHOLE
18"SD (SD)	EXISTING STORM DRAIN LINE WITH MANHOLE
UGP (E)	EXISTING NEVADA POWER LINE
2"PE GAS	EXISTING GAS LINE
8"SS (S)	EXISTING SANITARY SEWER LINE WITH MANHOLE
	EXISTING UTILITY POLE AND GUY WIRE
	EXISTING POWER POLE
6"ACP	EXISTING WATER LINE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EDGE OF EXISTING PAVEMENT
	EXISTING SIDEWALK/CONCRETE
	CENTERLINE OF ROAD
	EXISTING RIGHT-OF-WAY
	EXISTING CURB & GUTTER
	EXISTING CHAINLINK OR WOOD FENCE
	EXISTING BLOCKWALL
	PROPOSED WATER LINE
	PROPOSED WATER VALVE
	PROPOSED REDUCER
	PROPOSED FIRE HYDRANT
	FUTURE CURB & GUTTER
	LIMITS OF PAVEMENT SAWCUT
	EXISTING STREET LIGHT
	EXISTING TREE OR SHRUB
TEL	EXISTING TELEPHONE BOX
ELEC	EXISTING ELECTRICAL BOX
CTV	EXISTING CABLE TV BOX
SS	EXISTING SAMPLING STATION
	EXISTING STREET LIGHT BOX
	EXISTING TRAFFIC SIGNAL BOX
UTL	EXISTING MISCELLANEOUS UTILITY BOX
P	EXISTING PARKING METER
	EXISTING TRAFFIC SIGNAL POLE
	EXISTING TRAFFIC STRIPING
WM	EXISTING WATER METER LOCATION
BF	EXISTING BACKFLOW ASSEMBLY
WM	RELOCATED OR NEW WATER METER LOCATION
BF	RELOCATED OR NEW BACKFLOW ASSEMBLY
1"	RELOCATION OF EXISTING WATER SERVICE ASSEMBLY
1"	RECONNECTION OF EXISTING WATER SERVICE ASSEMBLY

LAS VEGAS VALLEY WATER DISTRICT GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES FOR PROPER DRAINAGE, AND FOR INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITIONS TO BE DETERMINED IN THE FIELD BY THE LVVWD ENGINEER.
2. ENCASE OR WELD JOINTS (MLCP) OF NEW WATER LINE TEN (10) FEET BEYOND EACH SIDE OF ALL SEWER MAINS AND LATERALS OR STORM DRAINS WHEN REQUIRED CLEARANCES CAN NOT BE MET OR REPLACE ENTIRE SEWER MAIN FROM MANHOLE TO MANHOLE WITH APPROVED PLANS BY CCWRD. CONSTRUCTION SHALL BE PERFORMED IN THE PRESENCE OR APPROVAL OF CCWRD INSPECTOR AND CONFORM TO DESIGN AND CONSTRUCTION STANDARDS.
3. SOME WATER SERVICE LATERALS ARE NOT SHOWN. ALL WATER SERVICE LATERALS SHALL BE PROTECTED IN PLACE OR REPLACED WITH COPPER TUBING AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE UDS.
4. DURING ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN A 10 FOOT MINIMUM CLEARANCE IN ALL DIRECTIONS OF ALL OVERHEAD POWER LINES AND EQUIPMENT.
5. REMOVAL OR RELOCATION OF POWER POLES, TELEPHONE POLES, CABLE POLES OR JOINTLY-OWNED POLES AND APPURTENANCES WHICH INTERFERE WITH THE IMPROVEMENTS REQUIRED TO BE CONSTRUCTED UNDER THIS CONTRACT, SHALL BE COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE UTILITY COMPANY.
6. ALL AGENCY/UTILITY INSPECTORS SHALL BE CALLED WHENEVER WORK IS TO BE PERFORMED NEAR OR ON ANY OF THEIR FACILITIES.
7. SEWER LATERALS ARE NOT SHOWN. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS SEWER SERVICE TO CUSTOMERS. SEWER LATERALS CUT DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE PER DESIGN AND CONSTRUCTION STANDARDS OF AGENCY HAVING JURISDICTION AND IN PRESENCE OF CCWRD INSPECTOR. SEWER LATERALS SHALL BE PROTECTED IN PLACE AND A SEWER SUPPORT PLAN SHALL BE PROVIDED TO CCWRD INSPECTOR. CCWRD SHALL BE CONTACTED IMMEDIATELY UPON EXPOSURE AT 702-622-2867 (CELL) OR 702-668-8204.
8. SANITARY SEWER MANHOLES SHALL BE PROTECTED FROM DAMAGE WHEN EXCAVATING IN THEIR VICINITY.

DEVIATIONS FROM STANDARDS

THERE ARE NO DEVIATIONS FROM APPLICABLE LAS VEGAS VALLEY WATER DISTRICT STANDARDS, UNLESS STATED IN THE SPECIFICATIONS.

APPROVED BY:

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

Brianna Johnson 6-19-19
NV ENERGY DATE

THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.

Tracy Tatum 6/19/19
CENTURYLINK, D/B/A CENTURYLINK DATE

Pamela Kennison 6.20.2019
SOUTHWEST GAS DATE

Celina Lopez 6/20/19
COX COMMUNICATIONS, LAS VEGAS, INC. DATE

CCWRD PIPES #: 19.991

SIGNATURE ON THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF CLARK COUNTY WATER RECLAMATION DISTRICT RULES, REGULATIONS, OR DESIGN AND CONSTRUCTION STANDARDS.

Christine Dudas 6/17/19
CLARK COUNTY WATER RECLAMATION DISTRICT DATE

WATER FACILITIES ARE DESIGNED IN ACCORDANCE WITH UNIFORM DESIGN AND CONSTRUCTION STANDARDS (UDACS) FOR POTABLE WATER SYSTEMS, LATEST EDITION

6/20/19
LAS VEGAS VALLEY WATER DISTRICT DATE

Avoid overhead power line contact: it's easy. Call before you OVERHEAD 1-702-227-2929

Call before you Dig. Avoid cutting underground utility lines. It's easy. Call 811

L19-00133 CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE 1/2 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

LVVWD GENERAL NOTES AND LEGEND

SCALE: NONE

DRAWN BY: STEVE MILLER 1/20/2019
CHECKED BY: ROSS W. MAXWELL 1/20/2019
RECOMMENDED BY: ADRIANA VENTIMIGLIA DATE
ACCEPTED BY: RYAN C. PEARSON DATE

PROFESSIONAL ENGINEER STATE OF NEVADA ROSS W. MAXWELL Exp: 12/31/19 No. 25339 CIVIL
6/10/19

CONTRACT NUMBER C1512
DRAWING NUMBER G2
SHEET 2 OF 15

REVISIONS:

CLARK COUNTY WATER RECLAMATION DISTRICT GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS, LATEST EDITION AND THE UNIFORM STANDARDS FOR PUBLIC WORKSOFFSITE IMPROVEMENTS, CLARK COUNTY AREA, LATEST EDITION.
2. ANY CONFLICTS BETWEEN THESE DOCUMENTS AND THE STANDARDS REFERENCED IN NOTE 1 MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO PERFORMING ANY WORK.
3. ALL REVISIONS OF THE APPROVED PLANS MUST BE SUBMITTED TO THE CLARK COUNTY WATER RECLAMATION DISTRICT (DISTRICT) FOR REVIEW AND BE APPROVED PRIOR TO PROCEEDING WITH THE WORK. ALL WORK CONSTRUCTED WITHOUT THE APPROVAL OF THE DISTRICT MUST BE REMOVED AT THE CONTRACTORS EXPENSE.
4. ALL SANITARY SEWERS SHALL BE PVC SDR-35 SOLID WALL UNLESS OTHERWISE NOTED.
5. ALL SANITARY SEWER MAINS 8-INCHES AND LARGER AND ALL STUBS 8-INCHES AND LARGER ENTIRELY WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PUBLIC UNLESS OTHERWISE NOTED. ALL ON-SITE SEWER INFRASTRUCTURE SHALL BE PRIVATE UNLESS OTHERWISE NOTED.
6. ALL SANITARY SEWER MAINS SHALL BE THE SAME MATERIAL, SIZE, & SLOPE BETWEEN MANHOLES.
7. ALL SEWER MAINS SHALL BE IN THEIR OWN TRENCHES. THERE WILL BE NO SHARED TRENCHES ALLOWED.
8. THE MINIMUM SLOPES FOR ALL PIPES SHALL BE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDAROS.
9. ALL SANITARY SEWER MANHOLES MUST BE LOCATED SUCH THAT THEY ARE ACCESSIBLE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS.
10. A DEBRIS TRAP MUST BE INSTALLED IN THE EXISTING SYSTEM AT THE POINT OF CONNECTION IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS.
11. ALL EXISTING MANHOLE CORROSION PROTECTION SYSTEMS MUST BE RESTORED TO THEIR ORIGINAL CONDITION, IF MODIFIED.
12. LOCATOR RIBBON AND MARKER BALLS SHALL BE PLACED ABOVE ALL NEW SEWER MAINS AND LATERALS IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS.
13. ALL EXISTING GRADE MUST BE RAISED TO WITHIN 18-INCHES OF FINAL GRADE PRIOR TO ANY SEWER TRENCHING.
14. PRIVATE SANITARY SEWER NOT REVIEWED OR APPROVED BY CCWRD.

I CERTIFY THAT THE ONLY DEVIATIONS FROM THE DESIGN AND CONSTRUCTION STANDARDS THAT ARE APPROVED BY THE CCWRD LISTED BELOW.

- NONE

ROSS W. MAXWELL, P.E. 25339 — DATE 6/10/19

CLARK COUNTY WATER RECLAMATION DISTRICT — DATE 6/11/19

CCWRD PIPES #: 19.991

SIGNATURE ON THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF CLARK COUNTY WATER RECLAMATION DISTRICT RULES, REGULATIONS, OR DESIGN AND CONSTRUCTION STANDARDS.

REGIONAL TRANSPORTATION COMMITTEE CITIZENS AREA TRANSIT ACCESS NOTES

1. UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS, NO PUBLIC BUS OR TRANSIT STOP SHALL BE TEMPORARILY CLOSED WITHOUT THE WRITTEN CONSENT OF THE REGIONAL TRANSPORTATION COMMISSION (RTC) DIRECTOR OR HIS DESIGNEE. THE RTC SHALL BE NOTIFIED AT LEAST TEN (10) WORKING DAYS PRIOR TO THE PROPOSED TEMPORARY CLOSURE OF ANY BUS OR TRANSIT STOP, INCLUDING THOSE LISTED IN THE SPECIAL PROVISIONS.
2. NO BUS STOPS AT TRANSFER POINTS SHALL BE CLOSED DURING CONSTRUCTION. BUS STOPS AT TRANSFER POINTS CAN, HOWEVER, BE TEMPORARILY RELOCATED WITH THE APPROVAL OF THE RTC DIRECTOR OR HIS DESIGNEE.
3. IF BUS OR TRANSIT STOP IS TEMPORARILY RELOCATED, THE EXISTING BUS OR TRANSIT STOP SIGN PANELS SHALL BE RELOCATED TO TEMPORARY BUS OR TRANSIT STOPS AND SHALL REMAIN UNTIL TEMPORARY STOP IS REMOVED. TEMPORARY RELOCATION OF SIGN PANELS SHALL CONFORM TO SUBSECTION 627.03.05, "RELOCATION."
4. THE CONTRACTOR SHALL MAINTAIN ACCESS WHICH IS IN CONFORMANCE TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT TO AND FROM BUS OR TRANSIT STOPS WHICH REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION.

CLARK COUNTY TRAFFIC NOTES

1. 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.
2. 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 GROUND MOUNTED STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING COUNTY STREETS IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
3. ALL CONSTRUCTION SIGNING, BARRICADING AND PAVEMENT MARKINGS SHALL CONFORM TO THE NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK – 1986 AND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.
4. 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 COUNTY TRAFFIC MANAGER.
5. THE DEVELOPER SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CLARK COUNTY AREA STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH CLARK COUNTY AREA STANDARDS. ALL SIGNS SHALL USE CLASS VI SHEETING.
6. IF A PROPOSED STREET LIGHT STANDARD IS FIELD LOCATED TO WITHIN FIVE (5) FEET OF ANY SIGN SHOWN HEREON TO BE MOUNTED ON A SIGN POST, THEN CHANGE SIGN MOUNTING TO ONE ON THE STREET LIGHT STANDARD.
7. PRIOR TO CONSTRUCTION, THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE CURRENT PLANNING DIVISION OF THE DEPARTMENT OF COMPREHENSIVE PLANNING.
8. ALL TRAFFIC SIGNAL POLE ASSEMBLIES, STEEL PEDESTALS FOR CABINETS, AND STREET LIGHT POLES SHALL BE GALVANIZED PER ASTM A.123.
9. ALL STREET LIGHTING INSTALLATIONS EXCEPT AS NOTED ON THE STREET LIGHTING PLANS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA LATEST EDITION.
10. THE FOLLOWING CLARK COUNTY UNDERGROUND FACILITIES MAY BE LOCATED IN YOUR PROJECT AREA: STREET LIGHTING, TRAFFIC SIGNALS, AND ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.) INTERCONNECT CABLE. YOU MUST CONTACT CLARK COUNTY TRAFFIC MANAGEMENT DIVISION, OPERATIONS UNIT AT 455-7511 FOR LOCATIONS AT LEAST 48 HOURS PRIOR TO WORKING IN THE AREA. CLARK COUNTY IS NOT A MEMBER OF "CALL BEFORE YOU DIG" (UNDERGROUND SERVICE ALERT) AND A CALL TO THAT ORGANIZATION DOES NOT RELIEVE YOU OF LIABILITY FOR CLARK COUNTY FACILITIES.
11. F.A.S.T. INTERCONNECT CABLE POLICY IS IN EFFECT. INTERCONNECT CABLE MUST BE MAINTAINED AT ALL TIMES. DEVELOPER/CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD INTERCONNECT CABLE, WHILE PERMANENT CABLE IS BEING RELOCATED. TEMPORARY AERIAL INSTALLATION MUST BE ACCEPTABLE TO THE COUNTY TRAFFIC MANAGER AND TO F.A.S.T. ANY DAMAGE TO THIS CABLE IS DEEMED AN EMERGENCY BY F.A.S.T., CITY OF LAS VEGAS, CLARK COUNTY AND NDOT AND MUST BE REPAIRED IMMEDIATELY TO F.A.S.T. ACCEPTANCE. $2,500 PER DAY DAMAGE MAY BE ASSESSED AFTER 24 HOURS HAS ELAPSED FROM TIME OF BREAK OR DAMAGE.
12. ALL NEW OR REPLACEMENT TRAFFIC SIGNAL LOOPS SHALL BE INSTALLED USING CABLE-IN-DUCT WIRING, SHALL HAVE INDEPENDENT LEAD-IN WIRES FOR EACH LOOP FROM THE CONTROLLER TO THE PULL-BOX, AND EACH LEAD-IN SHALL BE INDIVIDUALLY TAGGED.
13. TRAFFIC SIGNAL PEDESTRIAN HEADS SHALL BE THE L.E.D TYPE.
14. ELECTRICAL POWER SERVICE POINT LOCATION(S) FOR STREET LIGHTING AND TRAFFIC SIGNALS MUST BE INDICATED ON THE PLANS. IF CONNECTING TO AN EXISTING CIRCUIT, INDICATE LOCATION OF EXISTING SERVICE POINT FOR EACH CIRCUIT.
15. WHEN STREET LIGHTS ARE TO BE CONNECTED TO AN EXISTING CIRCUIT, THE ENGINEER MUST CERTIFY THAT THE EXISTING CIRCUIT IS CAPABLE OF HANDLING THE ADDITIONAL CIRCUIT LOAD.
16. CLARK COUNTY RESERVES THE RIGHT TO REJECT STREET LIGHT AND TRAFFIC SIGNAL POLES AND ASSEMBLIES WHICH HAVE A "STRIPED" APPEARANCE.
17. TWO WEEKS PRIOR TO BEGINNING OF CONSTRUCTION, MODIFICATION, OR RELOCATION OF ANY TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION OF THE DATE THAT WORK WILL BEGIN.
18. THREE (3) NORMAL WORKING DAYS PRIOR TO TURN-ON OR COMPLETION OF MODIFICATION(S) TO A TRAFFIC SIGNAL SYSTEM, WRITTEN NOTICE SHALL BE SUBMITTED TO THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION OF THE DATE THAT WORK WILL BEGIN.
19. ALL OBLITERATED PAVEMENT MARKINGS AND SIGNS SHALL BE REPLACED WITH COUNTY APPROVED EQUAL.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND AERIAL UTILITIES AND INFRASTRUCTURES LIKELY TO BE AFFECTED BY HIS WORK. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED PROMPTLY IN A MANNER SATISFACTORY TO THE UTILITIES' OWNERS AT THE CONTRACTOR'S EXPENSE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING THE COMPLETE TRAFFIC SIGNAL AND/OR ELECTRICAL SYSTEMS INCLUDING ALL EXISTING POLES, CABINETS, SERVICE PEDESTALS, PULL BOXES, AND ELECTRICAL DEVICES IN ACCORDANCE WITH THE CURRENT NATIONALS ELECTRICAL CODE AND THE UNIFORM STANDARD DRAWINGS.
22. THE CONTRACTOR SHALL NOT REMOVE TREES, SHRUBS, LAWNS, WALLS, FENCES, SIGNS, STRUCTURES, LIGHTS OR ANY OTHER IMPROVEMENTS OUTSIDE THE RIGHT-OF-WAY EXCEPT WHERE REQUIRED TO DO SO BY THE CONTRACT DRAWINGS OR AS DIRECTED BY THE ENGINEER.
23. THE CONTRACTOR SHALL PRESERVE ALL SURVEY MONUMENTS AND PROPERTY STAKES, WHETHER THEY ARE SHOWN ON THE CONTRACT DRAWINGS OR NOT, EXCEPT WHERE THEIR DESTRUCTION IS DETERMINED BY THE CONTRACTING AGENCY TO BE UNAVOIDABLE. MONUMENTS AND STAKES THAT ARE DISTURBED OR DESTROYED BY THE CONTRACTOR'S OPERATIONS WITHOUT CONSENT OF THE CONTRACTING AGENCY SHALL BE REPLACED IN ACCORDANCE WITH ALL APPLICABLE NEVADA REVISED STATUTES AND CLARK COUNTY UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS BY A NEVADA PROFESSIONAL LAND SURVEYOR AT THE SATISFACTION OF THE COUNTY SURVEYOR, AND THE COST FOR SUCH REPLACEMENT SHALL BE PAID BY THE CONTRACTOR.

DEVIATIONS FROM STANDARDS

THERE ARE NO DEVIATIONS FROM APPLICABLE CLARK COUNTY STANDARDS, UNLESS STATED IN THE SPECIFICATIONS.

DEPARTMENT OF PUBLIC WORKS DEVELOPMENT REVIEW DIVISION CONSTRUCTION NOTES

1. INSPECTIONS ARE REQUIRED. CALL 24 HOURS IN ADVANCE, 455-4610. YOUR PERMIT, APPROVED PLANS, AND BARRICADE PLANS FOR THIS WORK MUST BE ON THE JOB SITE AT ALL TIMES.
2. EXACT LOCATION OF ALL SAW-CUT LINES SHALL BE DETERMINED IN THE FIELD BY A CLARK COUNTY INSPECTOR.
3. CURB AND GUTTER WITH A GRADE OF LESS THAN 4/10 OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
4. FINAL ASPHALTIC CONCRETE (AC) PAVEMENT SURFACES SHALL BE ONE-HALF (1/2") INCH ABOVE THE LIP OF THE GUTTER (INCLUDING OPEN GRADE).
5. ALL OFF-SITE IMPROVEMENT CONSTRUCTION SHALL CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS AND STANDARD DRAWINGS CLARK COUNTY AREA NEVADA AND CLARK COUNTY SUPPLEMENT TO UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, LATEST REVISION.
6. PRIVATE STREETS, CURB AND GUTTER AND VALLEY GUTTERS REFLECTED ON THESE PLANS ARE TO BE INSPECTED BY A CLARK COUNTY INSPECTOR
7. WHEEL CHAIR RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS SHALL BE DETERMINED IN THE FIELD BY CLARK COUNTY PUBLIC WORKS INSPECTOR.
8. PROPER SIGNS, BARRIERS, BARRICADES AND LIGHTS SHALL BE PLACED AND MAINTAINED IN ACCORDANCE WITH THE LATEST "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS". TRAFFIC, SCHOOL, OR STREET SIGNS OF ANY KIND ARE NOT TO BE MOVED FOR ANY REASON WITHOUT FIRST COORDINATING WITH THE DEPARTMENT OF PUBLIC WORKS INSPECTONS AT 455-4610.
9. THIS PLAN DOES NOT AUTHORIZE CLOSURE OF ANY ROAD OR STREET.
10. NO OPEN TRENCH SHALL BE ALLOWED ACROSS ANY STREET OR WITHIN TEN (10') OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. AREAS COVERED BY ACCEPTABLE STEEL PLATE ARE NOT TO BE CONSTRUED AS A TRENCH. NO OPEN TRENCH IS PERMITTED IN EXCESS OF 500 FEET OR LENGTH NECESSARY TO ACCOMMODATE PIPE INSTALLATION IN A SINGLE DAY, WHICH EVER IS GREATER. ALL TRENCH CROSSINGS AND BACKFILL SHALL MEET THE STANDARD SPECIFICATION UNLESS OTHERWISE STATED.
11. A TEMPORARY PATCH IS TO BE IN PLACE AT THE END OF EACH WORK DAY WHERE THE BACKFILL IN THE TRENCH HAS BEEN COMPLETED AND PRIOR TO OPENING THE WORK AREA BACK TO TRAFFIC AND IS TO BE MAINTAINED BY THE PERMITEE. A PERMANENT PATCH IS TO BE IN PLACE WITHIN THIRTY (30) DAYS AFTER THE INSTALLATION OF THE TEMPORARY PATCH.
12. COMPACTION TESTS ARE REQUIRED.

CLARK COUNTY FIRE DEPARTMENT BUREAU'S GENERAL NOTES

A. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CLARK COUNTY FIRE CODE AS AMENDED, AND THE CURRENT EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #24.

B. FIRE HYDRANTS AND WATER SUPPLIES FOR FIRE PROTECTION SHALL BE AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION IN ACCORDANCE WITH SECTION 1412 OF THE CLARK COUNTY FIRE CODE, AS AMENDED.

C. IF DURING CONSTRUCTION IT BECOMES NECESSARY TO CLOSE ANY CONTROL VALVE OR PLACE A HYDRANT OUT OF SERVICE, APPROVAL SHALL BE OBTAINED FROM THE FIRE PREVENTION BUREAU PRIOR TO PLACING THE HYDRANT OUT OF SERVICE.

D. PAINTING OF CURBS AND/OR STRIPING OF ASPHALT AREAS AND PROTECTION OF HYDRANTS FROM PHYSICAL INJURY SHALL BE PER THE FIRE HYDRANT INSTALLATION SPECIFICATIONS OF THE FIRE PREVENTION BUREAU.

E. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE, OR 6 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION. FOR WALL, FENCE AND PLANTER LOCATIONS, A PERIMETER AROUND THE HYDRANT MEASURING A MINIMUM OF 3 FEET FROM ITS EXTERIOR SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTION AT ALL TIMES.

F. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS, WITH A MINIMUM VEHICLE LOAD OF 33,000 POUNDS PER AXLE, AND SHALL BE SURFACED AND PAVED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. EXCEPTION: TEMPORARY ACCESS ROADS SERVING ONLY BUILDINGS UNDER CONSTRUCTION SHALL NOT BE REQUIRED TO BE PAVED, BUT SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF SECTION 503.2.3 OF THE CLARK COUNTY FIRE CODE.

G. PRIOR TO ACCEPTANCE OF ANY FIRE SERVICE MAIN, A SATISFACTORY HYDROSTATIC TEST WITH PIPING JOINTS UNCOVERED MUST BE CONDUCTED. APPROVED PLANS, AN INSTALLATION PERMIT AND A CONTRACTOR'S MATERIALS AND TEST CERTIFICATE MUST BE PROVIDED AT TIME OF INSPECTION. SCHEDULE INSPECTION AT WWW.CLARKCOUNTYNV.GOV/DEPTS/DEVELOPMENT_SERVICES/FIRE_PREVENTION.

H. FIRE HYDRANTS SHALL BE LOCATED 4' TO 7' FROM BACK OF CURB AND A MINIMUM OF 6 FEET AWAY FROM TURNS.

I. BLUE REFLECTIVE MARKERS MUST BE INSTALLED BEFORE FINAL HYDRANT ACCEPTANCE CAN BE ATTAINED (SECTION C107 OF THE CLARK COUNTY FIRE CODE, AS AMENDED).

J. HYDRANTS THAT ARE PROPOSED FOR INSTALLATION IN PUBLIC WATER SYSTEMS SHALL BE IN ACCORDANCE WITH APPROVED FIRE HYDRANTS AS ALLOWED BY THE WATER PURVEYOR. HYDRANTS PROPOSED FOR INSTALLATION ON PRIVATE WATER SYSTEMS SHALL BE IN ACCORDANCE WITH APPROVED FIRE HYDRANTS AS ALLOWED BY THE FIRE PREVENTION BUREAU.

Avoid overhead power line contact. It's costly. Call before you OVERHEAD 1-702-227-2929

Call before you Dig Avoid cutting underground utility lines. It's costly. Call 811

L19-60133 CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE 1/2 0 1/2 1 — BAR REPRESENTS ONE INCH IF NOT ONE INCH ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

CLARK COUNTY GENERAL NOTES

SCALE NONE

DRAWN BY: STEVE MILLER 1/20/2019
CHECKED BY: ROSS W. MAXWELL 1/20/2019
RECOMMENDED BY: ADRIANA VENTIMIGLIA DATE
ACCEPTED BY: RYAN C. PEARSON DATE

REVISIONS:

PROFESSIONAL ENGINEER STATE OF NEVADA — ROSS W. MAXWELL — Exp: 12/31/19 — CIVIL — No. 25339 — 6/10/19

CONTRACT NUMBER C1512

DRAWING NUMBER G3
SHEET 3 OF 15

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [IFC § 105.7.12]
4. 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 FIRE FLOW. [IFC § 3310, § 3312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]
6. 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 TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC § 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
    - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    - COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED
12. WHERE THE 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 A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]
19. 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. [IFC § 503.2.3]
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. IFC § 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [IFC § 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FT FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAN 32 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAN 24 FT WIDE, FLOW-LINE TO FLOW-LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC § 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 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [IFC § 503.1.1
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 FT. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [IFC § 503.1.2]
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. [IFC § 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 OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC § 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 IFC § 503.6 AND IFC APPENDIX M.

DEVIATIONS FROM STANDARDS

THERE ARE NO DEVIATIONS FROM APPLICABLE CITY OF LAS VEGAS STANDARDS, UNLESS STATED IN THE SPECIFICATIONS.

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 IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED 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 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 HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S 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 DESIGNS 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 (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
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 DRAWING 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 THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY, REPORT #, DATE) 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 APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:P

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, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND 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. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.

~~OR~~

~~(MAY BE USED ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE) SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. 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. 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 EDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

CITY OF LAS VEGAS 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 PAVED IN 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 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 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 C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

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 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'	SEE SOILS 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. 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.

APPROVED BY:

APPROVAL OF THESE PLANS BY THE CITY OF LAS VEGAS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE "UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA".

ALLEN PAVELKA, PE CITY ENGINEER, PE# 9029 — DATE 9-9-19

CITY OF LAS VEGAS FIRE DEPARTMENT — DATE 8-31-19

N/A

CITY OF LAS VEGAS DEPARTMENT OF PLANNING — DATE

THIS PLAN CONFORMS TO THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT

Avoid overhead power line contact. It's costly. Call before you OVERHEAD 1-702-227-2929

Call before you Dig. Avoid cutting underground utility lines. It's costly. Call 811

LZ19-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE 1/2 0 1/2 1 — BAR REPRESENTS ONE INCH AT ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

CITY OF LAS VEGAS GENERAL NOTES I

SCALE NONE

DRAWN BY: STEVE MILLER 1/20/2019
CHECKED BY: ROSS M. MAXWELL 1/20/2019
RECOMMENDED BY: ADRIANA VENTIMIGLIA DATE
ACCEPTED BY: RYAN C. PEARSON DATE

PROFESSIONAL ENGINEER STATE OF NEVADA — ROSS M. MAXWELL — Exp: 12/31/19 — CIVIL — No. 25339 — 6/12/19

CONTRACT NUMBER C1512

DRAWING NUMBER G4
SHEET 4 OF 15

REVISIONS:

DEVIATIONS FROM STANDARDS

THERE ARE NO DEVIATIONS FROM APPLICABLE CITY OF LAS VEGAS STANDARDS, UNLESS STATED IN THE SPECIFICATIONS.

REGIONAL TRANSPORTATION COMMITTEE CITIZENS AREA TRANSIT ACCESS NOTES

1. UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS, NO PUBLIC BUS OR TRANSIT STOP SHALL BE TEMPORARILY CLOSED WITHOUT THE WRITTEN CONSENT OF THE REGIONAL TRANSPORTATION COMMISSION (RTC) DIRECTOR OR HIS DESIGNEE. THE RTC SHALL BE NOTIFIED AT LEAST TEN (10) WORKING DAYS PRIOR TO THE PROPOSED TEMPORARY CLOSURE OF ANY BUS OR TRANSIT STOP, INCLUDING THOSE LISTED IN THE SPECIAL PROVISIONS.
2. NO BUS STOPS AT TRANSFER POINTS SHALL BE CLOSED DURING CONSTRUCTION. BUS STOPS AT TRANSFER POINTS CAN, HOWEVER, BE TEMPORARILY RELOCATED WITH THE APPROVAL OF THE RTC DIRECTOR OR HIS DESIGNEE.
3. IF BUS OR TRANSIT STOP IS TEMPORARILY RELOCATED, THE EXISTING BUS OR TRANSIT STOP SIGN PANELS SHALL BE RELOCATED TO TEMPORARY BUS OR TRANSIT STOPS AND SHALL REMAIN UNTIL TEMPORARY STOP IS REMOVED. TEMPORARY RELOCATION OF SIGN PANELS SHALL CONFORM TO SUBSECTION 627.03.05, "RELOCATION."
4. THE CONTRACTOR SHALL MAINTAIN ACCESS WHICH IS IN CONFORMANCE TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT TO AND FROM BUS OR TRANSIT STOPS WHICH REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION.

CITY OF LAS VEGAS STREET LIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
3. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
5. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
6. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 320A WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
7. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
8. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING 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 CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

CITY OF LAS VEGAS TRAFFIC SIGNAL NOTES

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL II.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.

CALL-BEFORE-YOU-OVERHEAD	1-702-227-2929
CALL-BEFORE-YOU-DIG	1-800-227-2600
STREETLIGHTS	1-702-229-6331
FAST	1-702-432-5300

3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. BRACKET MOUNTED (SIDE-MOUNTED) VEHICLE SIGNAL ASSEMBLIES WITH 2 OR MORE SIGNAL HEADS SHALL HAVE AN ADDITIONAL ELBOW AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 AND SHOWN AS OPTION B IN UNIFORM STANDARD DRAWING NUMBER 844, AND SHALL HAVE A MENERALLAC SUPPORT AS SHOWN IN UNIFORM STANDARD DRAWING NUMBER 863 IF ONE OF THE SIGNAL HEADS CONTAINS 4 OR MORE SIGNAL MODULES.
4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.
5. LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #8 AWG THW (GREEN).
6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE L.E.D. AS APPROVED BY THE CITY OF LAS VEGAS (CLV). DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS. INTERSECTION LIGHTING SHALL MEET THE REQUIREMENTS OF UNIFORM STANDARD DRAWING NUMBER 300.S3. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINAIRES THERE SHALL BE 2(TWO)-#4 AWG THW CONDUCTORS FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.
7. THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). THE SIGN SHALL BE WIRED TO THE LUMINAIRE DIRECTLY ABOVE IT. IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP. ALL NEW ILLUMINATED STREET NAME SIGNS SHALL HAVE LIGHT EMITTING DIODE (LED) LAMPS PER SECTION 623 T.02.16 OF THE SPECIAL PROVISIONS.
8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.
9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 705, NO. 706, AND NO. 707.
10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.
11. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE "POLARA INAVIGATOR" TYPE (2-WIRE PEDESTRIAN PUSHBUTTON SYSTEM WITH IN2 PUSH BUTTON STATIONS AND SHELF-MOUNT BIU CONTROL UNIT WITH SDLC CABLE) OR CAMPBELL COMPANY WIAPPS WIRELESS PEDESTRIAN PUSHBUTTON SYSTEM WITH APC IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS AND SECTION 623 OF THE CCA USS. PUSH BUTTON SIGNS SHALL BE R10-3E PER MUTCD, 2009 EDITION, WITH FULL MOUNTING BRACKETS, AS MODIFIED BY THE MANUFACTURER TO FIT ON A 9'X12' SIGN, AND SHALL BE PORCELAIN-ENAMELED METAL. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 10". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (1-4) LATEST EDITION. WHEN AN EXISTING SIGNAL WITH EXISTING AUDIBLE-TACILE PUSH BUTTONS IS MODIFIED, THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE AND MODEL OF ANY EXISTING EQUIPMENT SCHEDULED TO REMAIN, TO PROVIDE A FULLY FUNCTIONING SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL AND ANY REQUIRED HARNESSES, TO PROVIDE A FULLY FUNCTIONING SYSTEM.
12. THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.
13. MAST ARM R10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD. WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAST ARM R10-12F "LEFT TURN YIELD ON FLASHING YELLOW ARROW" SIGN SHALL BE MOUNTED ADJACENT TO THE M-4 SIGNAL HEAD.
14. TRAFFIC SIGNAL CABINET SHALL BE A TYPE VIII CABINET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET. THE CABINET SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN ON THE DRAWINGS. THE TRAFFIC SIGNAL CONTROLLER CABINET, SHALL BE EQUIPPED WITH 16 LOAD BAY POSITIONS,SHALL BE A 48 DETECTOR CHANNEL R CABINET AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOOP DETECTION RACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL SLOTS THAT CAN ACCOMMODATE VIDEO DETECTION CARDS. THE CABINET SHALL CONTAIN A 764 OPTICOM PHASE SELECTOR IN A 760 RACK, WITH A 768 AUXILIARY INTERFACE PANEL MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES.
15. THE CONTRACTOR SHALL SUPPLY A MALFUNCTION MANAGEMENT UNIT (MMU) AND TRAFFIC SIGNAL CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE CONTROLLER SHALL BE A NAZTEC 980 ATC TS2 TYPE 2 NTCIP COMPLIANT SIGNAL CONTROLLER WITH INTSTALLED AND LICENSED APOGEE CONTROLLER SOFTWARE, LATEST VERSION, AND THE MMU SHALL BE A MODEL MMU-1600GE AS MANUFACTURED BY RENO A&E., OR APPROVED EQUAL. THE CONTRACTOR SHALL DELIVER THE CONTROLLER AND MMU TO, AND PICKUP THE CONTROLLER AT 2985 RONEMUS DRIVE. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (229-6076) SEVEN DAYS PRIOR TO PICK UP. THE CITY, AT ITS DISCRETION, MAY PROVIDE A DIFFERENT MODEL OF MMU OR CONTROLLER FOR INITIAL TURN-ON, IN WHICH CASE CITY PERSONNEL WILL SWAP THE CONTROLLER OR MMU AFTER THE PROJECT IS ACCEPTED.
16. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.
17. ALL MAST ARMS TO BE HOT-DIP GALVANIZED BY THE MANUFACTURER THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.
18. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS AND TO SECTION 623 OF THE CCA USS. ALL PEDESTRIAN SIGNAL FACES SHALL PROVIDE 'WALKING PERSON', 'HAND', AND 'COUNTDOWN' MESSAGES AS PROVIDED BY DURALIGHT MODEL #JXM-400-VIEIL OR DIALIGHT MODEL #430-6479-001X, OR APPROVED EQUAL. THE 'COUNTDOWN' MESSAGE SHALL NOT FLASH. WHERE EXISTING SIGNALS ARE MODIFIED, THE CONTRACTOR SHALL VERIFY THAT LED PEDESTRIAN INDICATIONS FOR A SPECIFIC PHASE ARE OF THE SAME MANUFACTURE SO THAT THEY FUNCTION CORRECTLY, OR SHALL REPLACE ALL COUNTDOWN PEDESTRIAN INDICATIONS FOR THAT PHASE.
19. VIDEO DETECTION SYSTEMS WILL BE EITHER ITERIS EDGE 2 WITH EDGECONNECT PAK, (IP ADDRESSABLE); PEEK VIDEOTRAK IQ (WITH ETHERNET PORT); OR TRAFICON VIP WITH VIEWCOM (IP ADDRESSABLE). WHEN VIDEO DETECTION IS SPECIFIED ON THE TRAFFIC SIGNAL PLANS. ALL VIDEO DETECTION SYSTEMS WILL BE STAND ALONE SYSTEMS TO INCLUDE ALL NECESSARY EQUIPMENT TO PROGRAM THE VIDEO DETECTION SYSTEM. A PROGRAMMING "MOUSE", KEYPAD OR LAPTAOP COMPUTER (IF REQUIRED FOR PROGRAMMING THE VIDEO DETECTION SYSTEM) AND APPROPRIATE SOFTWARE WILL BE SUPPLIED WITH EACH VIDEO SYSTEM. PERSONAL COMPUTERS (PCS) MAY NOT BE SUBSTITUTED FOR LAPTOPS. A VIDEO MONITOR (COLOR FLAT SCREEN) 9" TO 13" WILL BE SUPPLIED WITH EACH VIDEO DETECTION SYSTEM. EACH VIDEO CAMERA WILL HAVE POWER AND VIDEO CABLE DIRECTLY FROM THE CABINET. COAXIAL CABLE WILL BE TYPE 8281 (SOLID CENTER CONDUCTOR). CAMERAS THAT USE A PREFABRICATED CABLE INTEGRATING POWER AND COAXIAL CABLE INTO A SINGLE WEATHERPROOF CONNECTOR ARE ACCEPTABLE. "BNC" ARE THE ONLY ACCEPTABLE TERMINATION OF COAXIAL CABLES. CAMERAS WILL BE MOUNTED PER MANUFACTURER'S RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. VIDEO CAMERAS SHALL BE COLOR AND SHALL BE MOUNTED ON A MINIMUM 6 FOOT RISER ON THE SIGNAL MAST ARM WITH EXTENSION BRACKETS (TYPE AB-0166-5-62 OR EQUIVALENT). THE LOCATION OF THE CAMERA ON THE MAST ARM SHALL BE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. A VIDEO FILTER (CXO6-BNYC OR EQUIVALENT) WILL BE INSTALLED IN THE SIGNAL CABINET FOR EACH CAMERA VIDEO INPUT. VIDEO DETECTION PROCESSORS AND COMMUNICATIONS CARDS SHALL BE PROVIDED WITH THE LATEST VERSIONS OF THE MANUFACTURER'S SOFTWARE. THE CONTRACTOR SHALL AIM CAMERAS AND PROGRAM AND CONFIGURE THE VIDEO DETECTION PROCESSORS TO PROVIDE A FULLY FUNCTIONING SYSTEM.

CITY OF LAS VEGAS TRAFFIC SIGNAL NOTES CONTINUED

20. WHERE NEW LOOPS WILL BE OVERLAID WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY RENO A & E OR NEVER-FAIL LOOP SYSTEMS, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL PAVEMENT LIFT. WHERE NEW LOOPS ARE INSTALLED THAT ARE NOT OVERLAID WITH NEW PAVEMENT, LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623 T.02.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOP LEAD-IN CABLE SHALL BE 6-PAIR 18 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS. ALL WIRING HARNESSES, RACK POSITIONS, AND LOOP LEAD-IN CABLE SHALL BE CLEARLY MARKED AS TO THE APPROPRIATE PHASE AND LETTER DESIGNATION TO WHICH IT BELONGS AS SHOWN ON THE TRAFFIC SIGNAL PLANS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
21. OPTICAL PREEMPTION UNITS WILL BE GLOBAL TRAFFIC TECHNOLOGIES (ENCODING CAPABLE), MODEL 764 OPTICOM PHASE SELECTOR INSTALLED IN A MODEL 760 RACK WITH A MODEL 768 AUXILIARY INTERFACE PANEL (AIP) MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES. OPTICAL SENSORS WILL BE MODEL 721 WITH ONE DETECTOR PER DIRECTION, UNLESS SHOWN OTHERWISE IN THE PLANS, AND WILL BE INTERFACED TO THE TRAFFIC SIGNAL CONTROLLER CABINET WITH M-138 CABLE. THE SOUTHBOUND OPTICOM DETECTOR SHALL BE WIRED TO INPUT PREEMPTS ON CHANNEL 1 IN THE PHASE SELECTOR, EASTBOUND ON CHANNEL 2, NORTHBOUND ON CHANNEL 3, AND WESTBOUND ON CHANNEL 4, UNLESS VARIATIONS ARE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. WHEN 764 PHASE SELECTORS ARE ADDED TO A CABINET WITHOUT A 768 AIP, THE CONTRACTOR SHALL INSTALL AND WIRE A NEW 768 AIP.
22. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.
23. INTERCONNECT CABLE SHALL BE AS SHOWN IN THE WIRE SCHEDULE.
24. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.
25. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CALL 702-229-6331 TO SPEAK TO A TRAFFIC FIELD SUPERVISOR TO ARRANGE FOR DELIVERY TIMES AND LOCATIONS.
26. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623 G.03.01N OF THE CLV SPECIAL PROVISIONS.

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM 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 "SUGGESTED ROUTE TO SCHOOL" IS ENCROACHED 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. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CCAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. 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 HERE UNDER, 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 ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
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 REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC). 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 # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

LV-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE 1/2 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

CITY OF LAS VEGAS GENERAL NOTES II

SCALE NONE

DRAWN BY: STEVE MILLER	1/20/2019	
CHECKED BY: ROSS W. MAXWELL	1/20/2019	
RECOMMENDED BY: ADRIANA VENTIMIGLIA	DATE	
ACCEPTED BY: RYAN C. PEARSON	DATE	

PROFESSIONAL ENGINEER STATE OF NEVADA ROSS W. MAXWELL Exp: 12/31/19 CIVIL No. 25339
2/10/19

CONTRACT NUMBER C1512

DRAWING NUMBER G5
SHEET 5 OF 15

REVISIONS:

– A –

A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABS	ABSOLUTE
ABUT	ABUTMENT
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ACKV	AUTOMATIC CHECK VALVE
ACP	ASBESTOS CEMENT PIPE
ACS	ACCESS
ADA	AMERICAN DISABILITY ACT
AD	AREA DRAIN
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AGGR	AGGREGATE
AHD	AHEAD
AL	ALUMINUM
ALT	ALTERNATE
AMS	ANGLE METER STOP
AMT	AMOUNT
&	AND
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
AP	ACCESS PANEL
APN, A.P.N.	ASSESSOR PARCEL NUMBER
APPROX	APPROXIMATE
APPVD	APPROVED
ASPH	ASPHALT
ASSN	ASSOCIATION
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AUX	AUXILIARY
AV	AIR VENT/AIR VALVE
AVAR	AIR VACUUM AIR RELEASE VALVE
AVE	AVENUE
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION

– B –

B/H	BUMPED HEAD
B&S	BELL & SPIGOT
BAL	BALANCE
BC	BOLT CIRCLE/BACK OF CURB
BCV	BUTTERFLY CHECK VALVE
BE	BELL END
BETW	BETWEEN
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BK	BOOK/BACK
BL–FLG	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BLM	BUREAU OF LAND MANAGEMENT
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF ASSEMBLY
BOC	BACK OF CURB
BOT	BOTTOM
BOW	BACK OF WALK
BPV	BACK PRESSURE VALVE
BRG	BEARING
BS	BACK SIGHT
BUR	BURIED
BV	BALL VALVE
BW	BOTH WAYS/BACK OF SIDEWALK

– C –

C/C	CENTER TO CENTER
C	CONDUIT
C&G	CURB & GUTTER
CAL	CALIBRATE
CAP	CAPACITY
CAV	COMBINATION AIR VALVE
CB	CATCH BASIN
CCO	CLARK COUNTY
CCWRD	CLARK COUNTY WATER RECLAIMATION DISTRICT
CEM	CEMENT
CI	CAST IRON
CIP	CAST IRON PIPE/CAST IN PLACE
CIR	CIRCLE
CIRCUM	CIRCUMFERENCE
CJP	COMPLETE JOINT PENETRATION
CL OR ℄	CENTERLINE
CL2	CHLORINE
CLG	CEILING
CLO	CLEANOUT
CLP	CLAMP
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CLV	CITY OF LAS VEGAS
CM	CENTIMETER
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNLV	CITY OF NORTH LAS VEGAS
CO	COUNTY/COMPANY/CONTRACT
COH	CITY OF HENDERSON
COL	COLUMN
COMB	COMBINATION
COMM	COMMUNICATION
COMPL	COMPLETE

– C – (CONT.)

CON	CONCENTRIC
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE OR CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CORNER
CORP STOP	CORPORATION STOP
COV PL	COVER PLATE
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE
CT	COURT
CTR	CENTER
CTV	CABLE TELEVISION
CU	CUBIC/COPPER
CUST	CUSTOMER
CV	CONTROL VALVE
CW	CLOCKWISE
CY	CUBIC YARD
CYL	CYLINDER

– D –

D OR Δ	DELTA ANGLE
D/W	DRIVEWAY
DCSWCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
DEC	DECIMETER
DEG, °	DEGREE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DEV	DEVELOPMENT
DI	DROP INLET OR DUCTILE IRON
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DISCH	DISCHARGE
DIST	DISTANCE
DISTR	DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMH	DROP MANHOLE
DN	DOWN
DR	DRIVE
DRW	DRY WELL
DUPL	DUPLICATE
DWG	DRAWING

– E –

E	EAST OR EDGE
EA	EACH
EC	EPOXY COATED/END OF CURB
ECC	ECCENTRIC
EF	EACH FACE
EL	EPOXY LINED
ELEC	ELECTRICAL
ELEV	ELEVATION
ELL	ELBOW
ENG	ENGINE/ENGINEERING
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
EQ	EQUAL OR EQUATION
EQ SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESMT	EASEMENT
EST	ESTIMATE
ETC	ETCETERA
EW	EACH WAY
EXC	EXCAVATE
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTENSION

– F –

F/F	FACE TO FACE
FABR	FABRICATION/FABRICATED
FC	FACE OF CURB
FD	FLOOR DRAIN
FDN	FOUNDATION
FEXT	FIRE EXTINGUISHER
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL OR ℄	FLOW LINE
FLG	FLANGE
FLR	FLOOR
FMCT	FLOW METER COMPOUND TORRENT
FMH	FLEXIBLE METAL HOSE
FN	FENCE
FND	FOUND
FO	FIBER OPTIC
FOC	FACE OF CURB
FOW	FACE OF WALL
FPC	FLEXIBLE PIPE COUPLING
FPM	FEET PER MINUTE

– F – (CONT.)

FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FREQ	FREQUENCY
FRP	FIRE RETARDANT POLYESTER RESIN/ FIBERGLASS REINFORCED POLYMER
FSTNR	FASTENER
FT, '	FOOT OR FEET
FTG	FOOTING
FUT	FUTURE

– G –

G/B	GRADE BREAK
G	GAS
GA	GAGE
GAL(S)	GALLON(S)
GALV	GALVANIZED
GENL	GENERAL
GIS	GEOGRAPHIC INFORMATION SYSTEM
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GRADE
GRT	GRATE
GV	GATE VALVE

– H –

H	HOUSE
H&V	HEATING & VENTILATION
HARN	HIGH ACCURACY FREQUENCY NETWORK
HB	HOSE BIBB
HD	HEAD
HDR	HEADER
HEX	HEXAGONAL
HMWPE	HIGH MOLECULAR WEIGHT POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPI	HORIZONTAL POINT OF INTERSECTION
HPG	HIGH PRESSURE GAS
HR	HOUR
HT	HEIGHT
HV	HOSE VALVE
HWY	HIGHWAY

– I –

ID	INSIDE DIAMETER
IN, "	INCH
INST	INSTALL
INSTR	INSTRUMENT
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IRR	IRRIGATION

– J –

JT	JOINT

– K –

kg	KILOGRAM
km	KILOMETER

– L –

LAD	LADDER
LB OR #	POUND
LDR	LEADER
LEN OR L	LENGTH OF CURVATURE
LF	LINEAR FOOT
LG	LONG
LN	LANE
LT	LEFT/LIGHT
LVWD	LAS VEGAS VALLEY WATER DISTRICT
LWR	LOWER

– M –

M	METER
MATL	MATERIAL
MAX	MAXIMUM
MC	MORTAR COATED
MEAS	MEASUREMENT
MECH	MECHANICAL
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIL	MILLIMETER
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MKR	MARKER
ML	MORTAR LINED
MLC	MORTAR LINED & COATED

– M – (CONT.)

MLCP	MORTAR LINED & COATED PIPE
MLCTWP	MORTAR LINED & COATED TAPE WRAPPED PIPE
MON	MONUMENT
MOV	MOTOR OPERATED VALVE
MPT	MALE PIPE THREAD
MSD	MAIN SERVICE DISTRIBUTION
MSDS	MATERIAL SAFETY DATA SHEET
MTD	MOUNTED

– N –

N	NORTH
N/A	NOT APPLICABLE
NaOCL	SODIUM HYPOCHLORITE
NAVD	NORTH AMERICAN VERTICAL DATUM
NAP	NOT–A–PART
NBS	NATIONAL BUREAU OF STANDARDS
NC	NATIONAL COARSE
NCS	NEVADA COORDINATE SYSTEM
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
NE	NORTHEAST
NF	NORTH FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NIP	NOT IN PROJECT
NO. #	NUMBER
NOM	NOMINAL
NOSHA	NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
NPC	NEVADA POWER COMPANY
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL TAPER PIPE THREAD
NRS	NEVADA REVISED STATUTES/ NON–RISING STEM
NTS	NOT TO SCALE
NW	NORTHWEST

– O –

O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFC	OFFICE
OH	OVER HEAD
OHP	OVER HEAD POWER
OHTEL	OVER HEAD TELEPHONE
OPER	OPERATOR
OPNG	OPENING
OPP	OPPOSITE
ORF	ORIFICE
ORIG	ORIGINAL
OS&Y	OUTSIDE SCREW & YOKE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVFL	OVERFLOW
oz	OUNCE

– P –

P	POLE/PRESSURE/PIPE/POWER
P/L /℄	PROPERTY LINE
PAT	PATENT
PAVMT	PAVEMENT
PB	PULL BOX
PC	PRESSURE CLASS
PCC	PORTLAND CEMENT CONCRETE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PDL	PUMP DISCHARGE LINE
PE	PLAIN END/POLYETHYLENE PIPE
PED	PEDESTAL
PERM	PERMANENT
PERP	PERPENDICULAR
PG	PRESSURE GAGE
PH	PHASE
PI	POINT OF INTERSECTION
PHYD	POST HYDRANT
PKG	PACKAGE
PKWY	PARKWAY
PL	PLACE/PLATE/PARCEL LINE
PLS	PROFESSIONAL LAND SURVEYOR
PLT	PLATE (DRAWING)
PO	PUSH–ON
POLY	POLYETHYLENE
PP	POWER POLE
PPM	PARTS PER MILLION
PR	PAIR
P/R	PATENT RESERVATION
PRC	PRECAST REINFORCED CONCRETE
PRELIM	PRELIMINARY
PRIM	PRIMARY
PROP	PROPOSED
PRV	PRESSURE REGULATING VALVE
PS	PRESSURE SWITCH/PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT/POINT OF TANGENCY
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE PIPE

– Q –

QCV	QUICK COUPLER VALVE
QDC	QUICK DISCONNECT COUPLING
QS	QUAD SHEET
QTR	QUARTER
QTY	QUANTITY

– R –

R	RADIUS
(R)	RADIAL
R/W	RIGHT–OF–WAY
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REC	RECESSED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE (DIMENSION)
REG	REGULATING (REGULATOR)
REINF	REINFORCED (REBAR)
REQD	REQUIRED
RES	RESIDENTIAL OR RESERVOIR
RET	RETURN
REV	REVISION OR REVERSE
RF	RAISED FACE
RM	ROOM
RME	RESIDENTIAL MAIN EXTENSION
RPM	REVOLUTIONS PER MINUTE
RPS	REVOLUTIONS PER SECOND
RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
RR	RAILROAD
RSGV	RESILIENT SEATED GATE VALVE
RT	RIGHT/RING TITE
RV	RELIEF VALVE

– S –

S	SOUTH/SLOPE
SA	SAMPLE LINE
S/C	SAW CUT
SCCP	STEEL CYLINDER CONCRETE PIPE
SCH	SCHEDULE
SD	STORM DRAIN
SDWK	SIDEWALK
SE	SOUTHEAST
SEC	SECTION/SECOND(ARY)
SEG	SEGMENT
SHLDR	SHOULDER
SHT	SHEET
SID	SPECIAL IMPROVEMENT DISTRICT
SIG	SIGNAL
SIM	SIMILAR
SL	SLOPE
SLV	SLEEVE
SNWA	SOUTHERN NEVADA WATER AUTHORITY
SNWS	SOUTHERN NEVADA WATER SYSTEM
SO	STUBOUT
SPC	STATE PLANE COORDINATES
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SQ FT	SQUARE FOOT (FEET)
SQ YD	SQUARE YARD
SR	SAMPLE RETURN
SRM	SINGLE RESIDENTIAL MAIN
SS	SANITARY SEWER
SSTL	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STIR	STIRRUP
STL	STEEL
STLT	STREET LIGHT
SUPPL	SUPPLEMENT
SUR	SURVEY
SV	SOLENOID VALVE
SW	SIDEWALK OR SOUTHWEST
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYS	SYSTEM

– T –

t	THICKNESS OF WELD
T	TELEPHONE/TANGENT
T&B	TOP & BOTTOM
T&G	TONGUE AND GROOVE
TAN	TANGENT
TBE	THREAD BOTH ENDS
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
THK	THICK(NESS)
THR BLK	THRUST BLOCK
THRD	THREADED
TK	TANK
TMH	TOP OF MANHOLE
TOE	THREAD ONE END
TOF	TOP OF FOOTING
TOG	TOGETHER
TOGR	TOP OF GRATE
TOP	TOP OF PIPE

– T – (CONT.)

TOR	TOP OF RIM
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOSW	TOP OF SIDEWALK
TOT	TOTAL
TOW	TOP OF WALL
TP	TELEPHONE POLE/TOP OF PIPE
TR	TRAIL OR TRACK/TOP OF RIM
TRANS	TRANSITION/TRANSMISSION
(TYP)	TYPICAL

– U –

UDS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS, CLARK COUNTY, NV
UE	UNDERGROUND ELECTRIC
UFC	UNIFORM FIRE CODE
UG	UNDERGROUND
UGC	UNDERGROUND CONDUIT
UGP	UNDERGROUND POWER
UGT	UNDERGROUND TELEPHONE
UL	UNDERWRITERS LABORATORIES
UNC	AMERICAN STANDARD UNIFIED COARSE THREAD
UNF	AMERICAN STANDARD UNIFIED FINE THREAD
UNIV	UNIVERSAL
UNO	UNLESS NOTED OTHERWISE
UPC	UNIFORM PLUMBING CODE
UPRR	UNION PACIFIC RAILROAD
USGS	UNITED STATES GEODETIC SURVEY
UTIL	UTILITIES

– V –

V	VOLT OR VALVE
VAC	VACUUM
VAR	VARIES
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VENT	VENTILATOR
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VG	VALLEY GUTTER
VHF	VERY HIGH FREQUENCY
VIB	VIBRATION
VIN	VINYL
VISC	VISCOSITY
VOL	VOLUME
VPI	VERTICAL POINT OF INTERSECTION
VS	VALVE SHEET
VT	VENT

– W –

W/	WITH
W	WEST/WATER
W/O	WITHOUT
WD	WIDTH
WDN	WASTE DRAIN
WF	WIDE FLANGE
WH	WALL HYDRANT
WI	WROUGHT IRON
WL	WASTE LINE
WLD	WELDED
WM	WATER METER
WP	WORK POINT/WEATHER PROOF
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WSTP	WATER STOP
WT	WEIGHT
WTR	WATER
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

– X –

XARM	CROSS ARM
XFMR	TRANSFORMER
XFR	TRANSFER
XSEC	CROSS SECTION

– Y –

YD	YARD
YH	YARD HYDRANT
YLD	YIELD

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L19-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE

1/2 0 1/2 1

BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

ABBREVIATION LIST

SCALE NONE

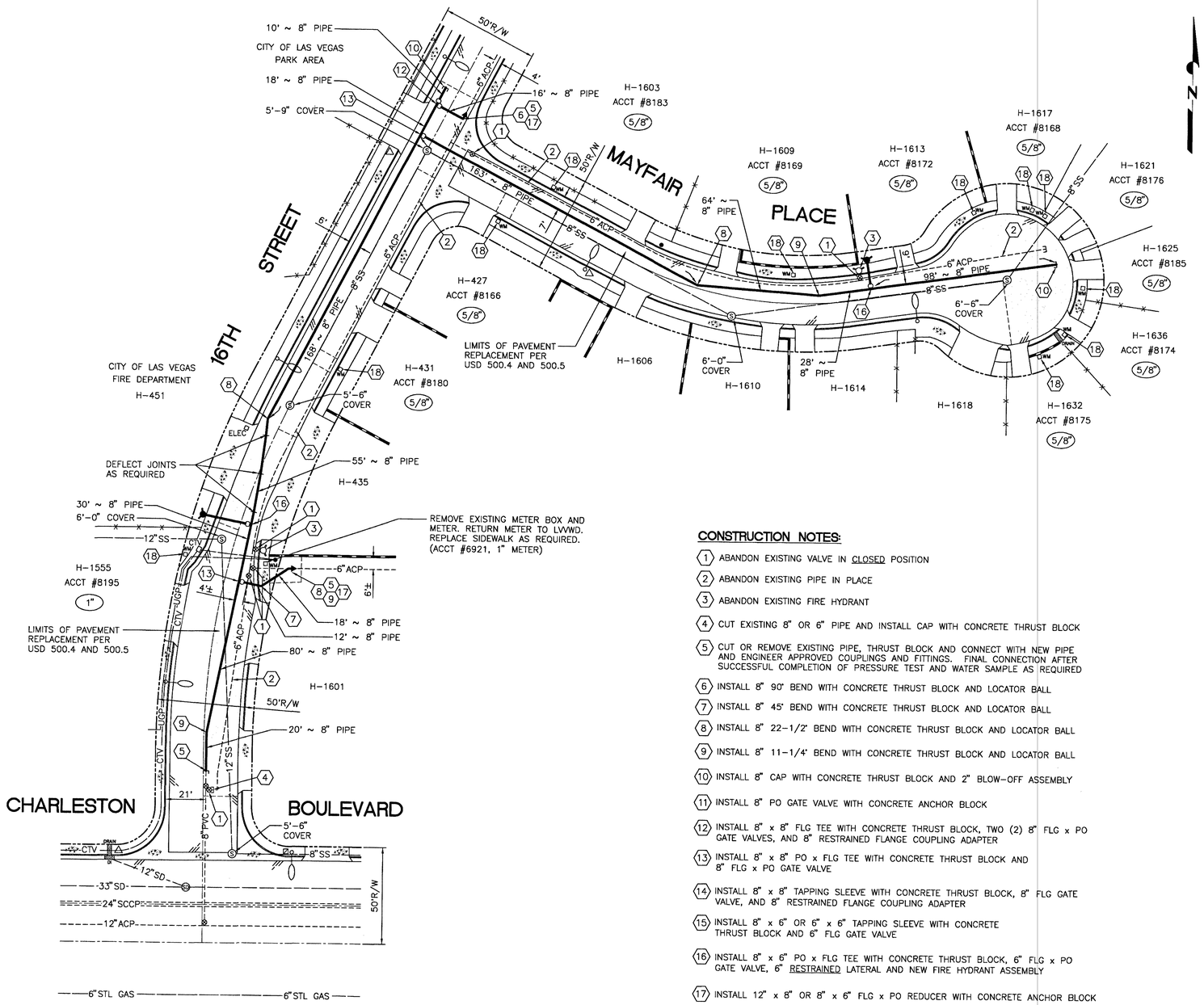
DRAWN BY:	JESSE MILLER	1/20/2019
CHECKED BY:	ROSS W. MAXWELL	1/20/2019
RECOMMENDED BY:		DATE
ADRIANA VENTIMIGLIA		DATE
ACCEPTED BY:		
RYAN C. PEARSON		DATE

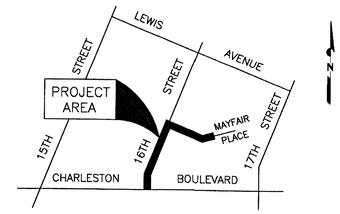
PROFESSIONAL ENGINEER, STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
CIVIL
No. 25339
12/19/19

CONTRACT NUMBER
C1512

DRAWING NUMBER G6
SHEET 6 OF 15

REVISIONS:





VICINITY MAP
NOT TO SCALE

CITY OF LAS VEGAS

CAUTION TO CONTRACTOR:
THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF THE PERFORMANCE OF ANY WORK.

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PROTECT IN PLACE ALL SOUTHWEST GAS MAINS AND SERVICES FOR ALL WATER/GAS CROSSINGS. MAINTAIN A MINIMUM OF 12 INCHES HORIZONTAL AND VERTICAL CLEARANCE BETWEEN GAS AND NEW WATERLINE

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LIA-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

16TH STREET AND MAYFAIR PLACE

SCALE 1" = 30'

	DATE
DRAWN BY: STEVE MILLER	1/20/2019
CHECKED BY: ROSS W. MAXWELL	1/20/2019
RECOMMENDED BY: ADRIANA VENTIMIGLIA	DATE
ACCEPTED BY: RYAN C. PEARSON	DATE

PROFESSIONAL ENGINEER STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
CIVIL
No. 25339
6/16/19

CONTRACT NUMBER
C1512

DRAWING NUMBER C1
SHEET 7 OF 15

REVISIONS:

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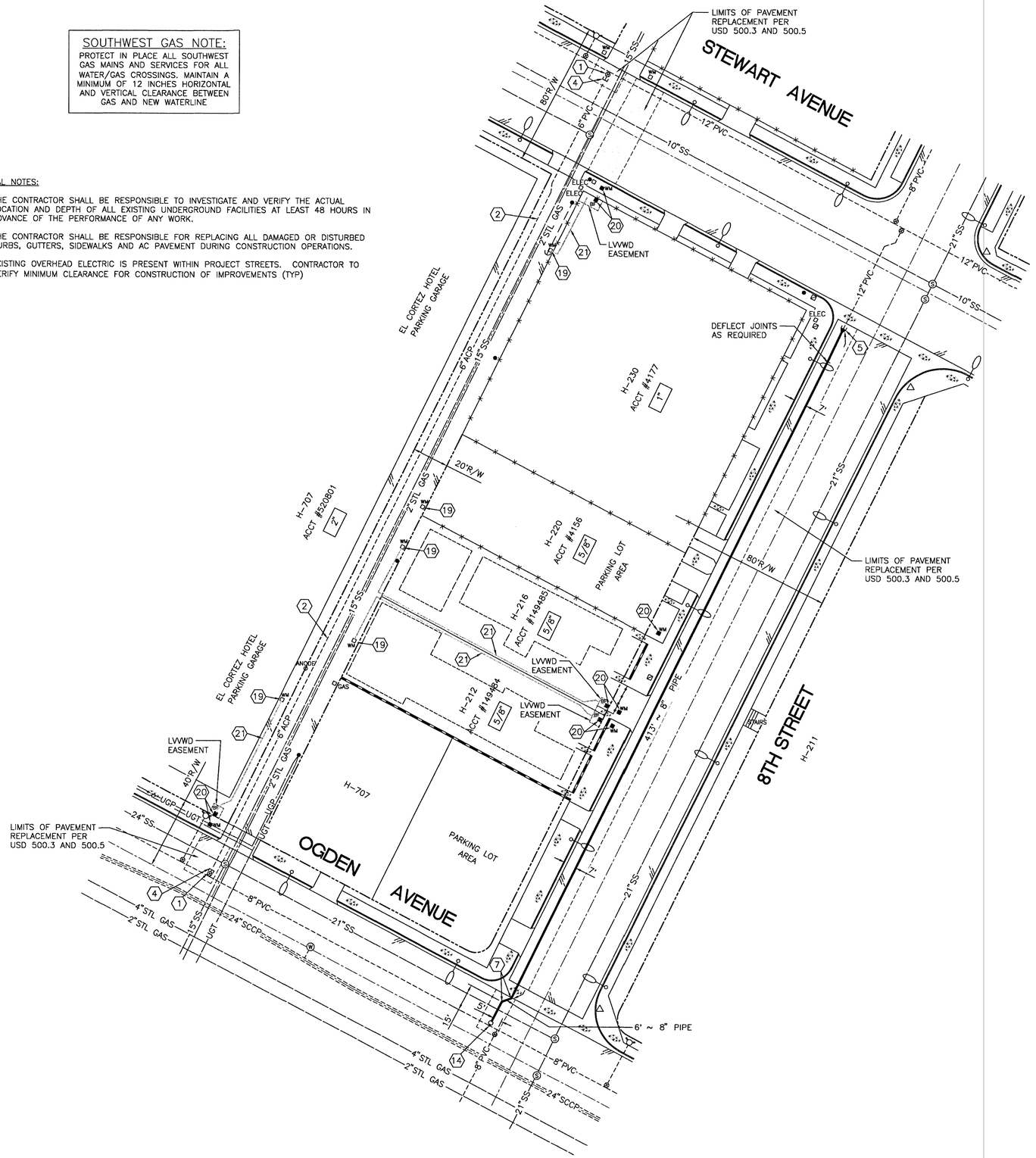

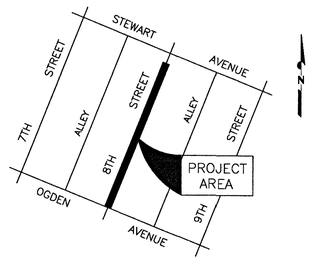

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NOT TO SCALE

CITY OF LAS VEGAS

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1/2 0 1/2 1
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MISCELLANEOUS PIPE INSTALLATIONS

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SCALE 1" = 30'

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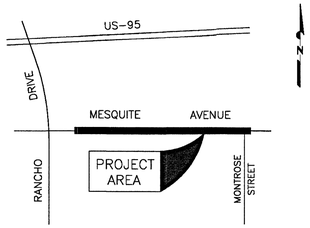
ACCEPTED BY: RYAN C. PEARSON DATE

PROFESSIONAL ENGINEER STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
CIVIL
No. 25339
1/10/19

REVISIONS:

CONTRACT NUMBER
C1512
DRAWING NUMBER C2
SHEET 8 OF 15



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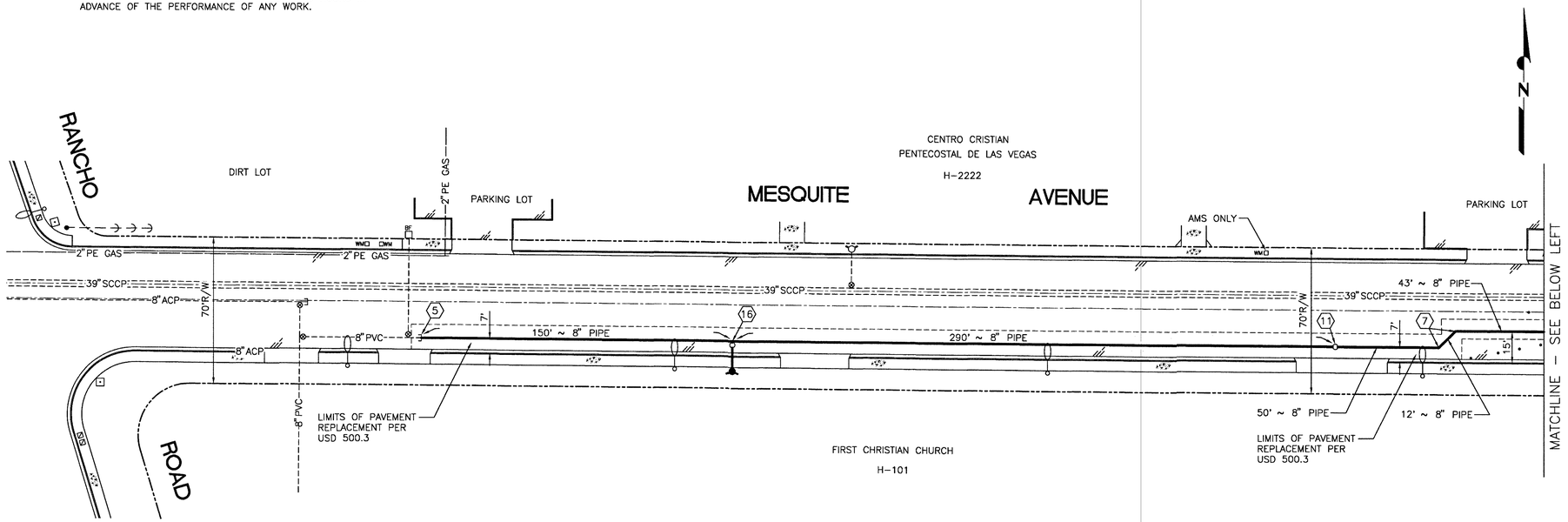
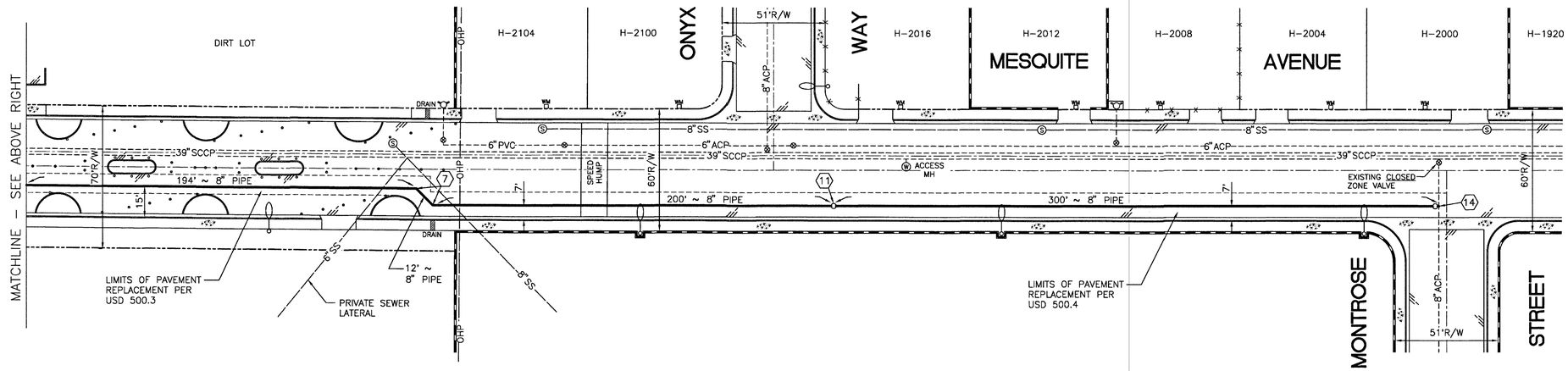




Avoid overhead power line contact. It's costly. Call before you OVERHEAD 1-702-227-2929

Call before you Dig. Avoid cutting underground utility lines. It's costly. Call 811

L19-00133
CLV DWG # 565-534

REVISIONS:

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE

BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

MESQUITE AVENUE

SCALE 1" = 30'

		DATE
DRAWN BY:	STEVE MILLER	1/20/2019
CHECKED BY:	ROSS W. MAXWELL	1/20/2019
RECOMMENDED BY:	ADRIANA VENTIMIGLIA	DATE
ACCEPTED BY:	RYAN C. PEARSON	DATE

PROFESSIONAL ENGINEER - STATE OF NEVADA - ROSS W. MAXWELL - No. 25339 - Exp.: 12/31/19 - CIVIL

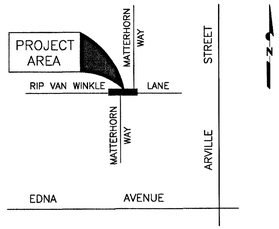
6/10/14

CONTRACT NUMBER

C1512

DRAWING NUMBER C3

SHEET 9 OF 15



VICINITY MAP

NOT TO SCALE

CITY OF LAS VEGAS

CAUTION TO CONTRACTOR:

THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF THE PERFORMANCE OF ANY WORK.

GENERAL NOTES:

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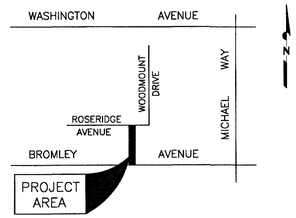
3. EXISTING OVERHEAD ELECTRIC IS PRESENT WITHIN PROJECT STREETS. CONTRACTOR TO VERIFY MINIMUM CLEARANCE FOR CONSTRUCTION OF IMPROVEMENTS (TYP)

SOUTHWEST GAS NOTE:

PROTECT IN PLACE ALL SOUTHWEST GAS MAINS AND SERVICES FOR ALL WATER/GAS CROSSINGS. MAINTAIN A MINIMUM OF 12 INCHES HORIZONTAL AND VERTICAL CLEARANCE BETWEEN GAS AND NEW WATERLINE



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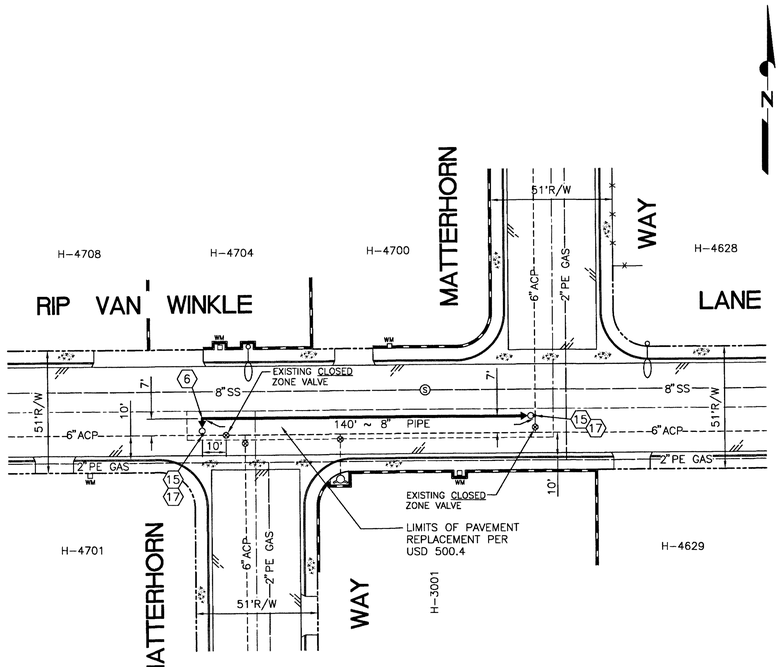

CONSTRUCTION NOTES:

1. ABANDON EXISTING VALVE IN CLOSED POSITION
2. ABANDON EXISTING PIPE IN PLACE
3. ABANDON EXISTING FIRE HYDRANT
4. CUT EXISTING 8" OR 6" PIPE AND INSTALL CAP WITH CONCRETE THRUST BLOCK
5. CUT OR REMOVE EXISTING PIPE, THRUST BLOCK AND CONNECT WITH NEW PIPE AND ENGINEER APPROVED COUPLINGS AND FITTINGS. FINAL CONNECTION AFTER SUCCESSFUL COMPLETION OF PRESSURE TEST AND WATER SAMPLE AS REQUIRED
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7. INSTALL 8" 45° BEND WITH CONCRETE THRUST BLOCK AND LOCATOR BALL
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12. INSTALL 8" x 8" FLG TEE WITH CONCRETE THRUST BLOCK, TWO (2) 8" FLG x PO GATE VALVES, AND 8" RESTRAINED FLANGE COUPLING ADAPTER
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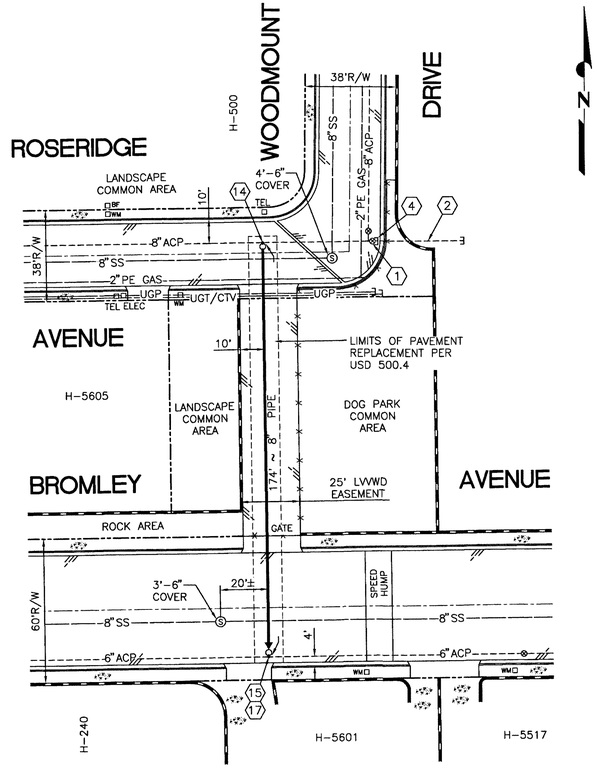

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L19-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE
1/2 0 1/2 1
BAR REPRESENTS ONE INCH ON ORIGINAL
IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

MISCELLANEOUS PIPE INSTALLATIONS

RIP VAN WINKLE LANE, ROSERIDGE AVENUE AND BROMLEY AVENUE

SCALE 1" = 30'

DRAWN BY: STEVE MILLER 1/20/2019
CHECKED BY: ROSS W. MAXWELL 1/20/2019
RECOMMENDED BY: ADRIANA VENTIMIGLIA DATE
ACCEPTED BY: RYAN C. PEARSON DATE

PROFESSIONAL ENGINEER STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
No. 25339
CIVIL
7/10/19

CONTRACT NUMBER
C1512

DRAWING NUMBER C4
SHEET 10 OF 15

REVISIONS:

CLARK COUNTY WATER RECLAMATION DISTRICT

Christine Dudas 10/17/19

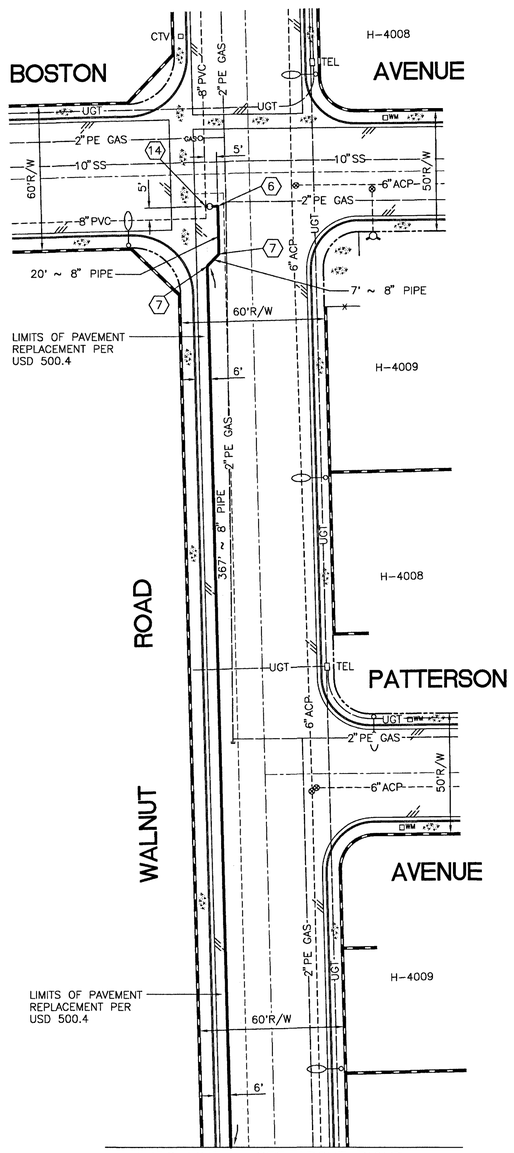
CLARK COUNTY WATER RECLAMATION DISTRICT — DATE

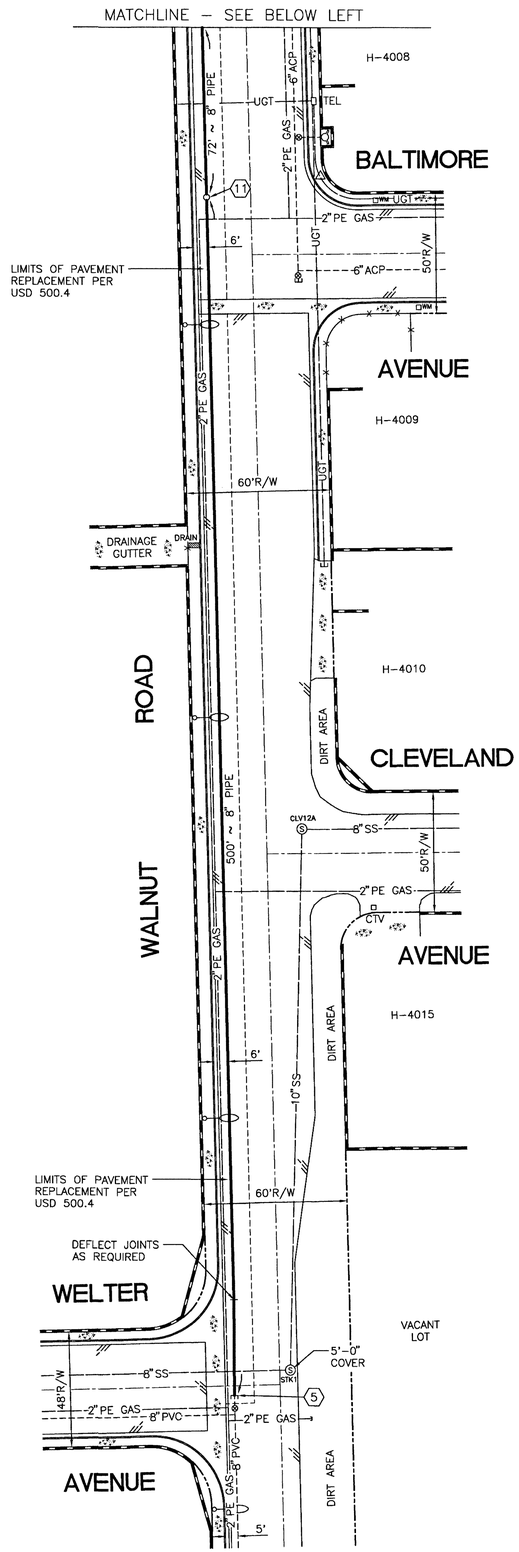
CCWRD PIPES #: 19.991

SIGNATURE ON THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR AN APPROVAL OF ANY VIOLATION OF CLARK COUNTY WATER RECLAMATION DISTRICT RULES, REGULATIONS, OR DESIGN AND CONSTRUCTION STANDARDS.

CLARK COUNTY WATER RECLAMATION DISTRICT NOTES:

1. CONTRACTOR SHALL CONTACT CCWRD INSPECTIONS AT (702) 668-8205 (OFFICE), 24 HOURS IN ADVANCE OF ANY WORK.
2. CONTRACTOR SHALL POTHOLE ALL CCWRD SANITARY SEWER CROSSINGS TO ENSURE CLEARANCE REQUIREMENTS. POTHOLE INFORMATION SHALL BE SUBMITTED TO CCWRD PRIOR TO ANY EXCAVATION.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION OF 5' FROM SANITARY SEWER MANHOLES AND WATER LATERALS.
4. NO THRUST BLOCKS WITHIN 8' OF SEWER INFRASTRUCTURE.
5. ADJUST MANHOLES PER DCSWCS DWG NO. SD4 AND SD5 AS REQUIRED.





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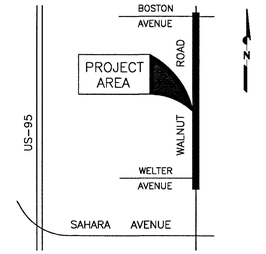

VICINITY MAP

NOT TO SCALE

CLARK COUNTY

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LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE 0 1/2 1 — BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

WALNUT ROAD

SCALE 1" = 30'

DRAWN BY: STEVE MILLER	1/20/2019	
CHECKED BY: ROSS W. MAXWELL	1/20/2019	
RECOMMENDED BY: ADRIANA VENTIMIGLIA	DATE	
ACCEPTED BY: RYAN C. PEARSON	DATE	

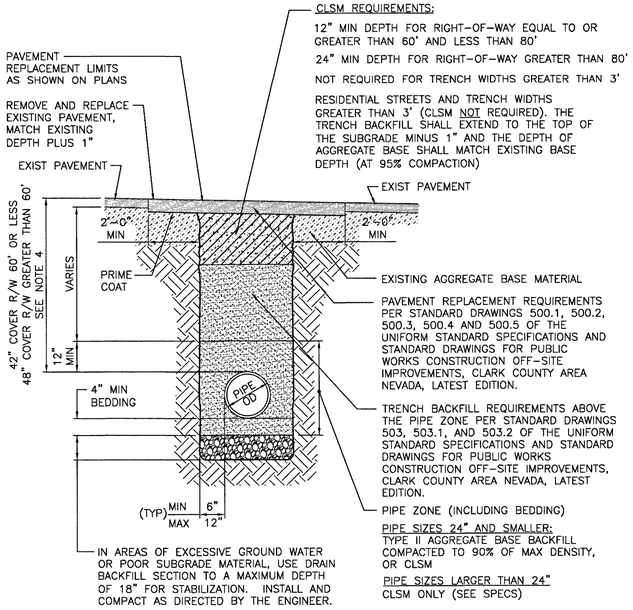
PROFESSIONAL ENGINEER - STATE OF NEVADA — ROSS W. MAXWELL — Exp: 12/31/19 — CIVIL — No. 25339 — 6/11/19

CONTRACT NUMBER C1512

DRAWING NUMBER C5 SHEET 11 OF 15

REVISIONS:

L19-00133 CLV DWG # 565-534



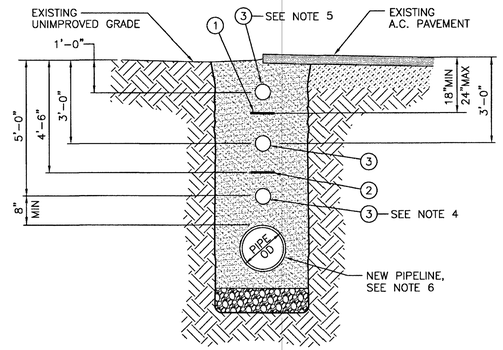
TRENCH BACKFILL - PAVED AREAS

NOT TO SCALE

1 CD1

NOTES FOR PAVED AND UNPAVED AREAS

1. REFERENCES:
   UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA NEVADA, LATEST EDITION.
   INTERAGENCY QUALITY ASSURANCE COMMITTEE (IQAC)
2. SEE SPECS SEC 31 20 00 FOR ACCEPTABLE METHODS OF COMPACTION.
3. TRENCH EXCAVATION: COMPLY WITH THE CURRENT REGULATIONS AS DETERMINED BY NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
4. DURING CONSTRUCTION 24" MINIMUM COVER MUST BE MAINTAINED FROM TOP OF PIPE TO GRADE.
5. MINIMUM COVER IS REFERENCED TO FUTURE FINISHED FINAL GRADES AT PIPE OR TOP OF CASING UNLESS OTHERWISE SHOWN ON PROFILE DRAWINGS.
6. SUPPORT PIPE AND FIBER OPTIC CONDUITS (IF REQUIRED) WITH SANDBAGS AND SPOT LOAD AS REQUIRED DURING INSTALLATION OF CLSM IN PIPE ZONE AND PIPE BEDDING AREAS.
7. DIAGONAL PAVEMENT REPLACEMENT IS NOT PERMITTED.
8. INSTALL CONCRETE DAMS AT MAXIMUM INTERVALS OF 400' TO THE HEIGHT OF THE DRAIN ROCK AS REQUIRED.
9. IN THE EVENT OF A CONFLICT BETWEEN THE ABOVE REQUIREMENTS AND THE NDOT PERMIT, THE PERMIT REQUIREMENTS WILL TAKE PRECEDENCE.
10. SEE SPECIFICATIONS FOR APPROVED CLSM MIX REQUIREMENTS.



1. PIPE LOCATOR RIBBON – 3" WIDTH
2. PIPE LOCATOR RIBBON – 3" WIDTH (INSTALLED WHEN COVER OF NEW PIPELINE IS 7'-0" OR GREATER)
3. LOCATOR BALL – SEE NOTES

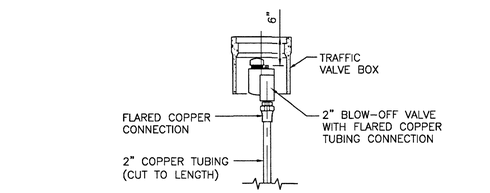
NOTES:

1. CENTER PIPE LOCATOR RIBBON IN TRENCH AND PLACE OVER ENTIRE LENGTH OF ALL TYPES, SIZES AND LOCATIONS OF WATER MAINS
2. LOCATOR BALLS REQUIRED AT ALL HORIZONTAL BENDS OR DEFLECTIONS, CASING ENDS, EVERY 400 FEET OF PIPELINE, OR WHERE REQUESTED BY ENGINEER.
3. IF A.C. PAVEMENT EXISTS INSTALL LOCATOR BALL AT 3'-0" (TYP).
4. IF A CUT TO FINISH GRADE IS ANTICIPATED INSTALL LOCATOR BALLS AT BOTH 3'-0" AND 5'-0" (TYP).
5. IF A FILL TO FINISH GRADE IS ANTICIPATED INSTALL LOCATOR BALLS AT BOTH 1'-0" AND 3'-0" (TYP).
6. RIBBON FOR RESTRAINED JOINTS/PIPE TO BE TAPED EVERY 20 FEET DIRECTLY TO TOP OF PIPE OR USE SELF-ADHERING RIBBON.

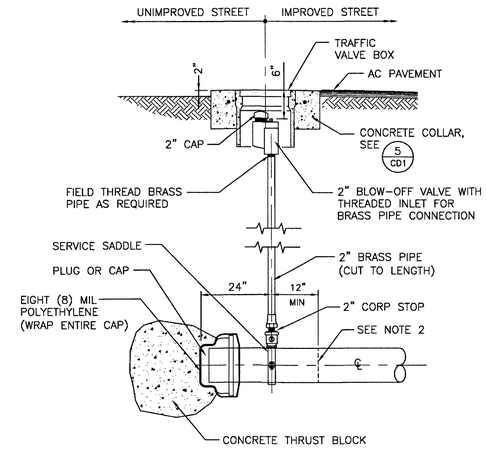
PIPE LOCATOR RIBBON AND LOCATOR BALL INSTALLATION

NOT TO SCALE

2 CD1



COPPER TUBING ALTERNATE INSTALLATION



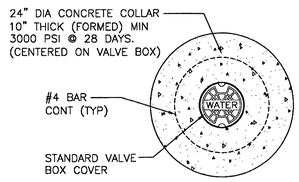
NOTES:

1. ALL COPPER TUBING AND BRASS PIPE SHALL BE WRAPPED WITH TWO LAYERS OF SIX (6) MIL POLYETHYLENE AND BACKFILLED ALL AROUND WITH 4" MINIMUM OF SAND.
2. CUT AND REMOVE EXISTING PIPE 12" MIN BEYOND EXISTING BLOW-OFF SERVICE SADDLE PRIOR TO CONNECTING TO EXISTING PIPELINES.

BLOW-OFF ASSEMBLY

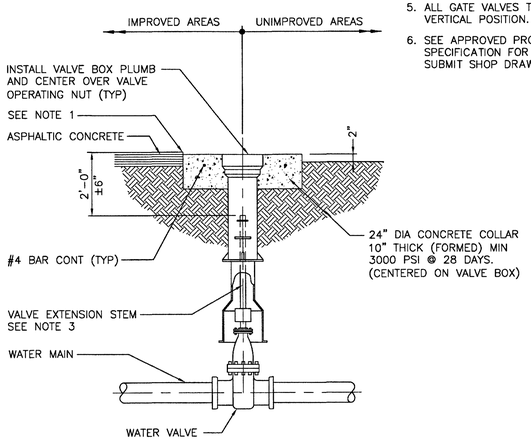
NOT TO SCALE

3 CD1



NOTES:

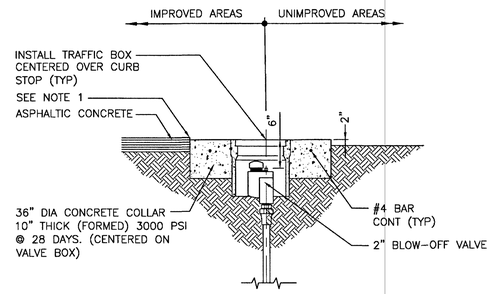
1. FINAL RIM ELEVATION TO BE 1/8" TO 1/4" BELOW FINAL STREET GRADE.
2. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE VALVE BOX INSTALLATION LOCATION.
3. A VALVE EXTENSION STEM SHALL BE PROVIDED WHERE THE DEPTH TO THE OPERATING NUT EXCEEDS FIVE (5) FEET.
4. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
5. ALL GATE VALVES TO BE INSTALLED IN VERTICAL POSITION.
6. SEE APPROVED PRODUCTS LIST AND SPECIFICATION FOR ALL MATERIALS. SUBMIT SHOP DRAWINGS AS REQUIRED.



VALVE BOX INSTALLATION

NOT TO SCALE

4 CD1



NOTES:

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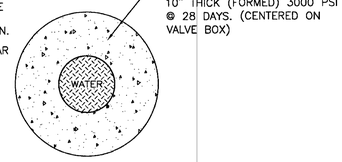
2. MORE STRINGENT INSTALLATION REQUIREMENTS MAY BE IMPOSED BY THE ENTITY HAVING THE JURISDICTION OVER THE TRAFFIC BOX INSTALLATION LOCATION.
3. CONTRACTOR TO FORM CONCRETE COLLAR IN UNIMPROVED AREAS WITH SONOTUBE AND REMOVE PRIOR TO BACKFILL INSTALLATION (TYP).
4. SEE SPECIFICATIONS FOR ALL APPROVED PRODUCTS.



TRAFFIC BOX INSTALLATION

NOT TO SCALE

5 CD1

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE
1 1/2 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

STANDARD DETAILS I

SCALE AS SHOWN

DRAWN BY: STEVE MILLER	1/20/2019	
CHECKED BY: ROSS W. MAXWELL	1/20/2019	
RECOMMENDED BY: ADRIANA VENTIMIGLIA	DATE	
ACCEPTED BY: RYAN C. PEARSON	DATE	

PROFESSIONAL ENGINEER STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
CIVIL
No. 25339
4/10/19

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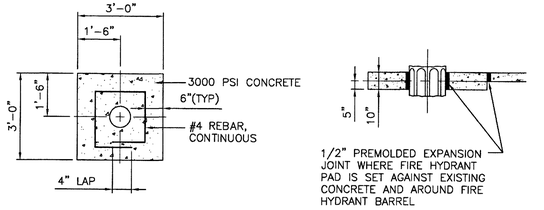
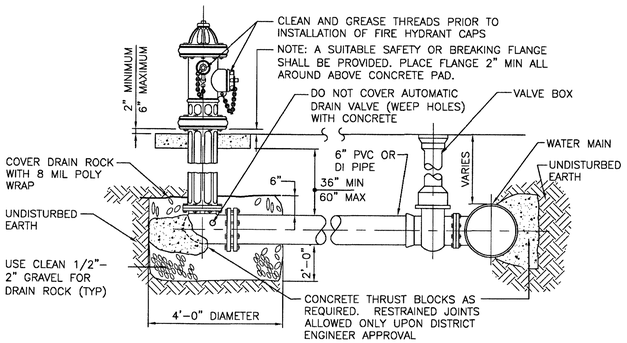
CLV DWG # 565-534

REVISIONS:

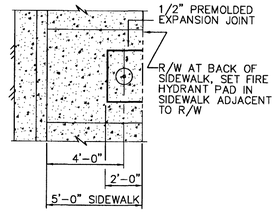
CONTRACT NUMBER
C1512
DRAWING NUMBER CD1
SHEET 12 OF 15



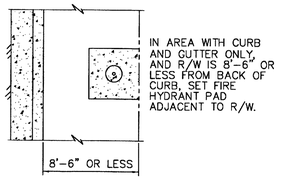
PAD DETAIL



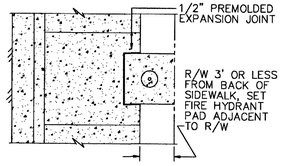
STANDARD HYDRANT ASSEMBLY DETAIL



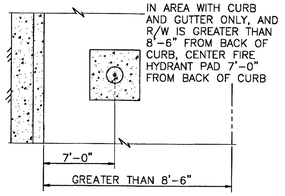
CONDITION A



CONDITION D



CONDITION B



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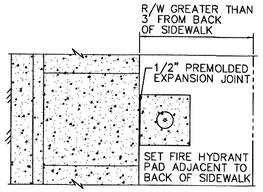
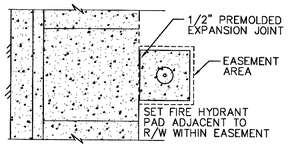


CONDITION C

IF NO SIDEWALK, CURB AND GUTTER EXISTS, SET FIRE HYDRANT PAD ADJACENT TO R/W AS SHOWN IN CONDITION D ABOVE.

CONDITION F



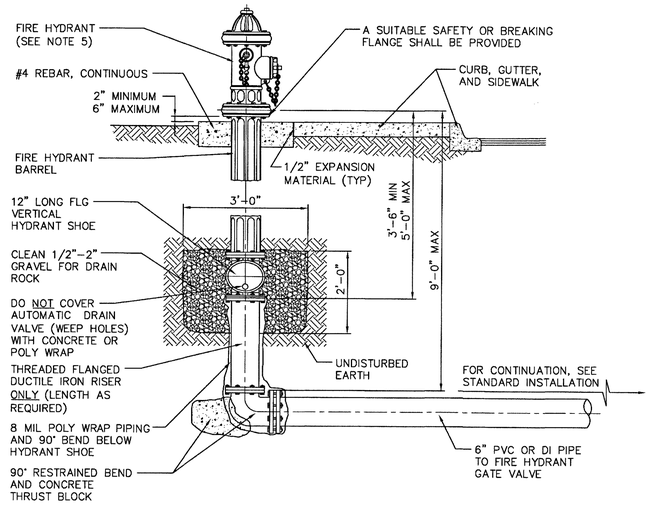
CONDITION G

HYDRANT LOCATION CONDITIONS

FIRE HYDRANT ASSEMBLY INSTALLATION

NOT TO SCALE

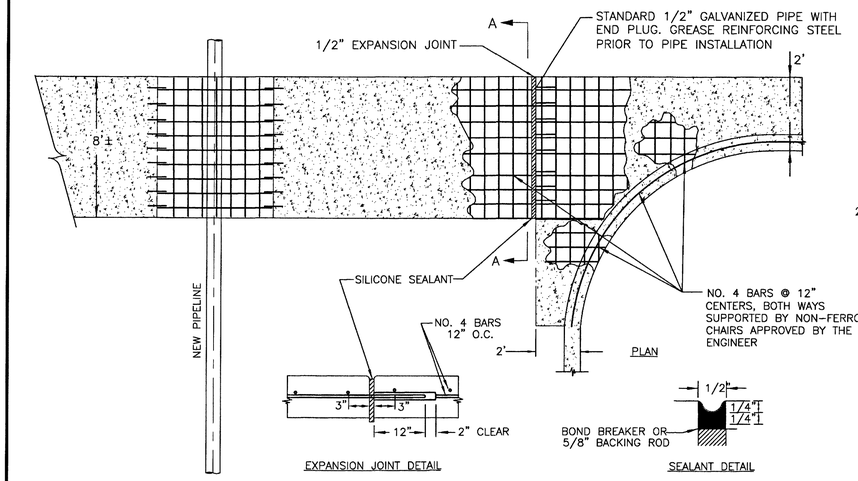
1 / CD2

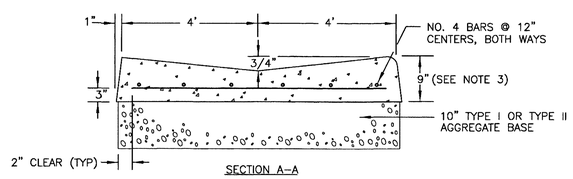


DEEP HYDRANT ASSEMBLY DETAIL

FIRE HYDRANT INSTALLATION NOTES:

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT OR THE CLARK COUNTY FIRE DEPARTMENT REQUIREMENTS.
2. NO HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE OR 6 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION. FOR WALLS, FENCE, AND PLANTER LOCATIONS, A PERIMETER AROUND THE HYDRANT MEASURING A MINIMUM OF 3 FEET FROM ITS CENTER SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES. HYDRANTS MUST BE LOCATED A MINIMUM OF 6 FEET AWAY FROM THE BEGINNING OF A TURNING RADIUS.
3. 6" FIRE HYDRANT LATERAL SHALL BE THE SAME PRESSURE CLASS AS THE DISTRIBUTION MAIN.
4. DUCTILE IRON PIPE AND FITTINGS TO BE ENCASED WITH TWO (2) LAYERS EIGHT MILS THICK POLYETHYLENE FILM. DO NOT ENCASE FIRE HYDRANT BARREL OR SHOE.
5. ALL FIRE HYDRANTS SHALL BE PAINTED OSHA SAFETY YELLOW AFTER FINAL INSTALLATION.
6. ALL CURBS SHALL BE PAINTED OSHA RED 10' BOTH SIDES OF NEW FIRE HYDRANTS LOCATIONS.
7. NO FIRE HYDRANT BARREL SHALL BE LONGER THAN 5'-0". USAGE OF FIRE HYDRANT BARREL EXTENSIONS MUST HAVE PRIOR DISTRICT APPROVAL.
8. INSTALL 45° BENDS IN FIRE HYDRANT LATERAL AS REQUIRED WITHIN RIGHT-OF-WAY TO ACHIEVE FIRE HYDRANT LATERAL DEPTH REQUIREMENTS. VERTICAL ADJUSTMENT BENDS ARE NOT TO BE INSTALLED UNDER CURB, GUTTER OR SIDEWALK AREAS.





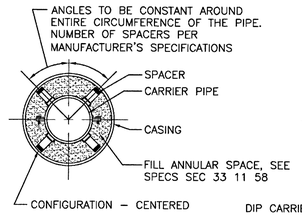
NOTES:

1. FOR WATERLINE INSTALLATION, REMOVE CROSS GUTTER AT CONTROL JOINTS. IF NO CONTROL JOINTS ARE PRESENT, SAWCUT CROSS GUTTER FOR WATERLINE INSTALLATION.
2. INSTALL NO. 4 REBAR DOWELS INTO EXISTING CONCRETE TO TIE IN NEW CONCRETE AT CONTROL JOINTS OR SAWCUTS.
3. IF REMOVING PORTION OF CROSS GUTTER AT SPANDREL EXPANSION JOINT, REINSTALL PER STANDARD 1/2" EXPANSION JOINT DETAIL (ABOVE).
4. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
5. CONCRETE THICKNESS FOR REPLACEMENT PORTION OF CROSS GUTTER SHALL MATCH EXISTING CROSS SECTION.
6. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.

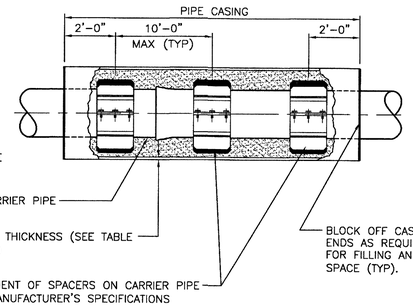
CROSS GUTTER RESTORATION DETAIL

NOT TO SCALE — USDCCA DWG. NO. 228 MODIFIED

2 / CD2



CROSS-SECTION



NOTES:

1. DI PIPE JOINTS INSIDE PIPE CASING TO BE RESTRAINED (TYP).
2. INTERIOR OF CASING TO BE GROUND SMOOTH AND LUBRICATED FOR SPACER INSTALLATION.
3. ALL CONDUITS AND FITTINGS INSTALLED WITHIN CASING IN ACCORDANCE WITH SPECS SEC 33 81 26.
4. ENTIRE PIPE CASING TO BE INSTALLED LEVEL (6"±) UNLESS OTHERWISE SHOWN ON DRAWINGS. SEE SPECS SEC 33 11 06 FOR FURTHER REQUIREMENTS.

CASING TABLE		
PIPE SIZE	CASING OD	THICKNESS
6"	16"	1/4"
8"	18"	1/4"

CASING ASSEMBLY DETAIL

NOT TO SCALE

3 / CD2

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Call before you OVERHEAD 1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811

L19-00133
CLV DWG # 565-534

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE
1/2 0 1/2 1
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

SCALE AS SHOWN

MISCELLANEOUS PIPE INSTALLATIONS

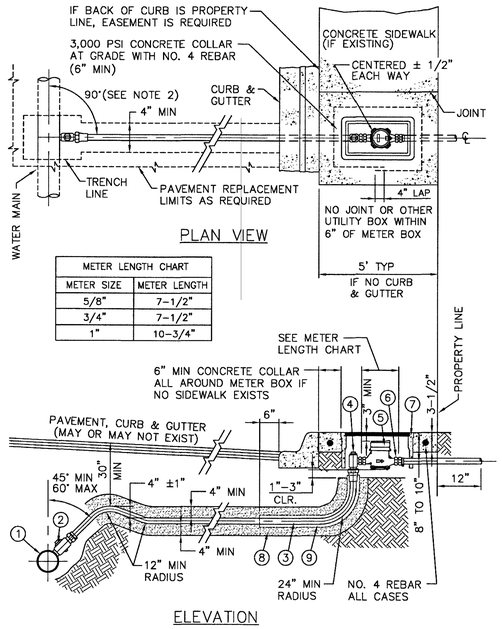
STANDARD DETAILS II

DRAWN BY:	STEVE MILLER	1/20/2019
CHECKED BY:	ROSS W. MAXWELL	1/20/2019
RECOMMENDED BY:	ADRIANA VENTIMIGLIA	DATE
ACCEPTED BY:	RYAN C. PEARSON	DATE

PROFESSIONAL ENGINEER STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/15
CIVIL
No. 25339
6/10/14

CONTRACT NUMBER
C1512
DRAWING NUMBER CD2
SHEET 13 OF 15

REVISIONS:



METER LENGTH CHART	
METER SIZE	METER LENGTH
5/8"	7-1/2"
3/4"	7-1/2"
1"	10-3/4"

LEGEND:

1. SERVICE SADDLE
2. CORPORATION STOP (BALL TYPE).
3. SERVICE LATERAL. SIZE TO MATCH METER (1" MIN)
4. UPSTREAM BALL ANGLE METER STOP TO MATCH METER SIZE (1" x 1" MIN) WITH LOCK WING AND WITHOUT LEVER HANDLE. FOR ALL 5/8" AND 3/4" METERS USE A 1" x 3/4" ADAPTER.
5. NEW DISPLACEMENT TYPE WATER METER. (DISTRICT PROVIDED, CONTRACTOR INSTALLED)
6. EXISTING TAIL PIECE
7. METER BOX INSTALLED AS NEAR TO FUTURE FINAL GRADE POSSIBLE (1" MIN).
8. SAND BACKFILL FULL WIDTH OF TRENCH
9. PREFORMED POLYFOAM PIPE INSULATION (1/2" MIN), MAY BE USED IN LIEU OF SAND BACKFILL AT METER BOX

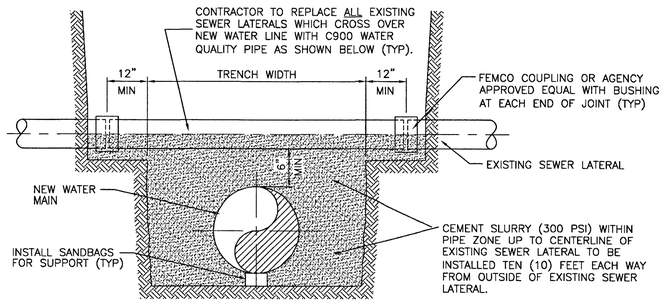
NOTES:

1. ONE ADDITIONAL FLARED COUPLING, OR COMPRESSION COUPLING IS ALLOWED BETWEEN THE CORPORATION STOP, AND THE ANGLE METER STOP IF THE TOTAL LATERAL LENGTH IS GREATER THAN 40'.
2. CUL-DE-SAC SERVICE LATERALS MUST FOLLOW THE MOST DIRECT ROUTE POSSIBLE BETWEEN SERVICE SADDLE AND ANGLE METER STOP, HORIZONTAL BENDING RADIUS ALLOWED FOR 1" TUBING IS 12" MIN. AND 24" MIN. FOR 1-1/2" AND 2" TUBING. MAXIMUM DEFLECTION ANGLE ALLOWED IS 90°.
3. PROTECT SERVICE LATERAL DURING CONSTRUCTION. DAMAGED SERVICE LATERALS WILL REQUIRE ENTIRE LATERAL REPLACEMENT FROM ANGLE METER STOP TO CORPORATION STOP.
4. FLUSH LATERAL PRIOR TO SETTING METER.
5. METERS SHALL BE LOCATED OUTSIDE OF DRIVEWAYS WITHIN EXISTING OR FUTURE SIDEWALK AREAS
6. INSTALL SAND BACKFILL AROUND WATER SERVICE LATERAL PRIOR TO INSTALLATION OF TRENCH BACKFILL WHEN CLSM IS USED OR REQUIRED.
7. ALL COPPER TUBING SHALL BE WRAPPED WITH TWO (2) LAYERS OF SIX (6) MIL POLYETHYLENE AND BACKFILLED ALL AROUND WITH 4" MINIMUM OF SAND.
8. CONTRACTOR SHALL HAVE A PROFESSIONAL LAND SURVEYOR ESTABLISH CORRECT LOCATION OF METER AND CONCRETE COLLAR (AS COORDINATED WITH LVVWD INSPECTOR AND HOME OWNER) WITHIN RIGHT-OF-WAY OR EASEMENT AREAS.
9. SEE APPROVED PRODUCTS LIST AND SPECIFICATION FOR ALL MATERIALS. SUBMIT SHOP DRAWINGS AS REQUIRED.

SERVICE INSTALLATION FOR 5/8", 3/4", AND 1" METER SIZES

NOT TO SCALE

1 / CD3



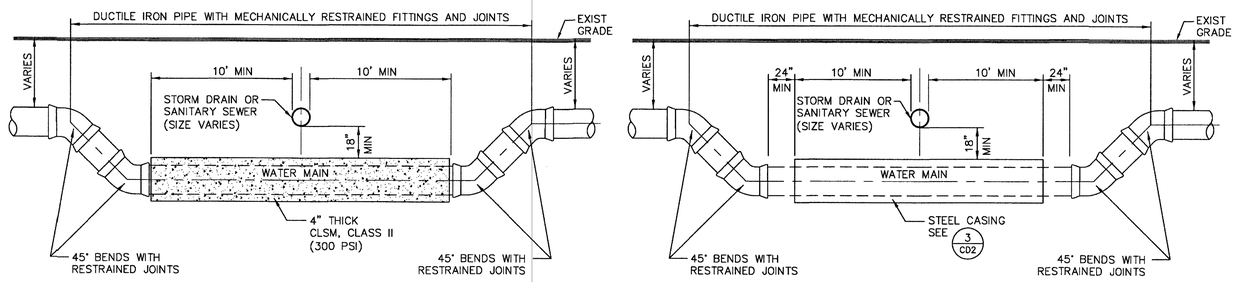
NOTES:

1. CONTRACTOR SHALL MAINTAIN CONTINUOUS SEWER SERVICE TO CUSTOMERS. SEWER LATERALS CUT/DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS EXPENSE PER DESIGN AND CONSTRUCTION STANDARDS OF THE AGENCY HAVING JURISDICTION.
2. CONTACT CCWRD INSPECTIONS IMMEDIATELY UPON UNCOVERING SANITARY SEWER AT (702) 668-8205. CCWRD INSPECTOR SHALL BE PRESENT PRIOR TO PERFORMING ANY WORK ASSOCIATED WITH SANITARY SEWER.
3. ALL WORK TO CONFORM WITH DCSWCS, DWG. NO. SD20
4. BACKFILL OF SEWER LATERAL SHALL NOT OCCUR WITHOUT CCWRD INSPECTOR PRESENCE OR APPROVAL.
5. MAINTAIN POSITIVE SLOPE ON SEWER LATERAL.

EXISTING SEWER SERVICE LATERAL REPLACEMENT

NOT TO SCALE

3 / CD3



NOTES:

1. IDENTIFY TRANSITION FROM DUCTILE IRON PIPE TO REMAINING PIPE ON PLANS IF PIPE MATERIAL CHANGES.
2. PROVIDE SANITARY SEWER SUPPORT PLAN TO CCWRD INSPECTION.
2. CONTACT CCWRD INSPECTIONS IMMEDIATELY UPON UNCOVERING SANITARY SEWER AT (702) 668-8205. CCWRD INSPECTOR SHALL BE PRESENT PRIOR TO PERFORMING ANY WORK ASSOCIATED WITH SANITARY SEWER.
3. VERTICAL CLEARANCE LESS THAN 18" SHALL COMPLY WITH DCSWCS, DWG. NO. SD20.
4. BACKFILL OF SEWER LATERAL SHALL NOT OCCUR WITHOUT CCWRD INSPECTOR PRESENCE OR APPROVAL.
5. INSTALL ADDITIONAL RESTRAINED JOINTS UPSTREAM AND DOWNSTREAM OF THE SEWER/STORM CROSSING AS REQUIRED

SEWER/STORM DRAIN CROSSING ENCASEMENT

NOT TO SCALE

4 / CD3

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE

1/2 0 1/2 1

BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

SCALE AS SHOWN

MISCELLANEOUS PIPE INSTALLATIONS

STANDARD DETAILS III

DRAWN BY: STEVE MILLER 1/20/2019

CHECKED BY: ROSS W. MAXWELL 1/20/2019

RECOMMENDED BY: _____ DATE _____

ADRIANA VENTIMIGLIA

ACCEPTED BY: _____ DATE _____

RYAN C. PEARSON

PROFESSIONAL ENGINEER - STATE OF NEVADA - ROSS W. MAXWELL Exp: 12/31/19 CIVIL No. 25339

6/10/19

Avoid overhead power lines overhead. It's easily.

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Call before you Dig avoid cutting underground utility lines. It's easily.

Call 811

619-00133 CLV DWG # 565-534

REVISIONS:

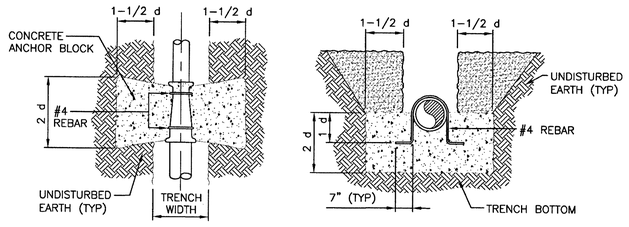
CONTRACT NUMBER

C1512

DRAWING NUMBER CD3

SHEET 14 OF 15

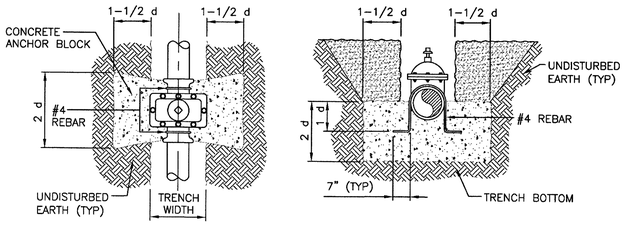
LEGEND: d = LARGER DIAMETER PIPE SIZE



PLAN VIEW ELEVATION

IN-LINE REDUCERS

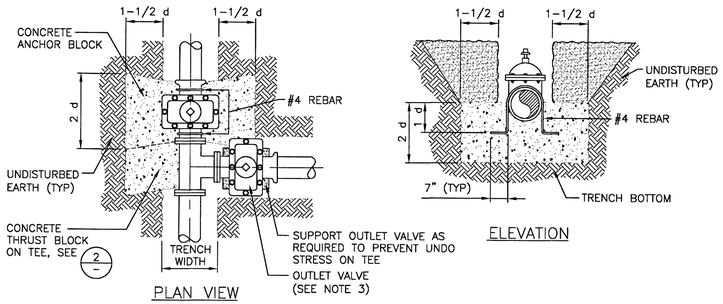
LEGEND: d = NOMINAL PIPE SIZE



PLAN VIEW ELEVATION

IN-LINE GATE VALVES

LEGEND: d = NOMINAL PIPE SIZE



PLAN VIEW ELEVATION

TEE GATE VALVES

NOTES:

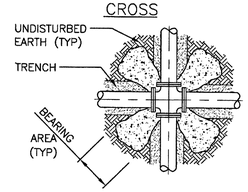
1. ALL CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAYS COMPRESSIVE STRENGTH
2. ALL VALVES AND EXPOSED REBAR TO BE COATED AND WRAPPED IN ACCORDANCE WITH SECTION 09 96 00 OF THE LVVWD SPECS, PROTECTIVE COATINGS.
3. WHEN PIPE IS INSTALLED BETWEEN TEE AND OUTLET VALVE AN ADDITIONAL CONCRETE ANCHOR BLOCK WILL BE REQUIRED ON THE OUTLET VALVE.

ANCHOR BLOCK DETAILS FOR REDUCERS AND GATE VALVES

NOT TO SCALE

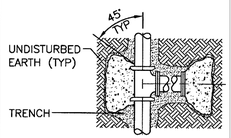
1 / CD4

CROSS



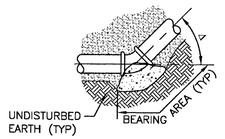
(FIGURE 1)

TEE, PLUG OR CAP



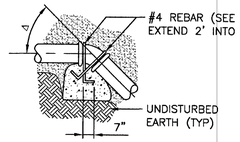
(FIGURE 2)

HORIZONTAL OR UPWARD VERTICAL BEND



(FIGURE 3)

DOWNWARD VERTICAL BEND



(FIGURE 4)

NOTE:

COAT AND WRAP ALL METAL SURFACES IN ACCORDANCE WITH SECTION 09 96 00 OF THE SPECIFICATIONS. ALL CONCRETE SHALL BE 3000 PSI MINIMUM, 28 DAYS COMPRESSIVE STRENGTH. CONCRETE IS TO BE PLACED AGAINST UNDISTURBED EARTH. TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN CALCULATIONS ARE TO BE SUBMITTED TO LVVWD FOR APPROVAL IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 PSF. ALL VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.

	BEARING AREA IN SQ FT						CONC/CU YDS		
PIPE ID	FIGURE 1	FIGURE 2	FIGURE 3, Δ				FIGURE 4, Δ		
			90°	45°	22½°	11¼°	45°	22½°	11¼°
4"	2	2	2	2	1	1	1.0	0.5	0.5
6"	2	3	4	2	1	1	1.5	1.0	0.5
8"	3	5	7	4	2	1	3.0	1.5	1.0
10"	4	8	11	6	3	2	4.0	2.5	1.5
12"	6	11	15	8	4	2	6.0	3.0	1.5
16"	10	20	28	15	8	4	10.5 *	6.0	3.0
18"	13	25	35	19	10	5	13.5 *	7.5	3.5
20"	16	31	44	24	12	6	16.0 **	9.0	4.5
24"	22	44	63	34	17	9	23.5 **	12.5 *	6.5

* #5 REBAR ** #6 REBAR

THRUST BLOCK INSTALLATION

NOT TO SCALE

2 / CD4

NOTE:

THRUST BLOCKS SHALL NOT BE INSTALLED WITHIN 8' OF SANITARY SEWER FACILITIES (TYP).

LAS VEGAS VALLEY WATER DISTRICT

VERIFY SCALE

BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

MISCELLANEOUS PIPE INSTALLATIONS

STANDARD DETAILS IV

SCALE AS SHOWN

DRAWN BY: STEVE MILLER 1/20/2019
CHECKED BY: ROSS W. MAXWELL 1/20/2019
RECOMMENDED BY: DATE
ADRIANA VENTIMIGLIA
ACCEPTED BY: DATE
RYAN C. PEARSON

PROFESSIONAL ENGINEER - STATE OF NEVADA
ROSS W. MAXWELL
Exp: 12/31/19
CIVIL
No. 25339
4/10/19

REVISIONS:

CONTRACT NUMBER C1512

DRAWING NUMBER CD4
SHEET 15 OF 15

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1-702-227-2929

Call before you Dig
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Call 811

L19-00133
CLV DWG # 565-534