



ALL SEWER/STORM DRAINS CROSSING WATER TO SECTION 2.19 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

PROTECT WATERLINES IN PLACE, WHEREVER A WATERLINE IS WITHIN 18" ABOVE A STORM DRAIN OR SEWER, OR WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET, BACKFILL TRENCH WITH CONTROL LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY, ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.19.

**NOTE**  
STORM DRAIN SYSTEM DESIGNED FOR NUISANCE FLOWS ONLY

**Stantec**  
Stantec Consulting Inc.  
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- NOTES:**
- TIE BRANCH FIBER OPTIC INTO EXISTING CONTROLLER USING A FIBER OPTIC TRANCEIVER.
- CONSTRUCTION NOTES:**
- (41) TYPE 200 PULLBOX
  - (42) P30 PULLBOX
  - (54) 4" INTERCONNECT CONDUIT W/ 72 STRAND FIBER OPTIC WIRE
  - (57) 3" INTERCONNECT CONDUIT W/ 12 STRAND FIBER OPTIC WIRE
  - (58) FIBER OPTIC SPLICE
  - (59) TIE BRANCH FIBER OPTIC INTO EXISTING CONTROLLER USING A FIBER OPTIC TRANCEIVER

- LVWD NOTES:**
- WHEN A WATER LINE IS LESS THAN EIGHTEEN (18) INCHES ABOVE A SEWER OR STORM DRAIN LINE OR ANYTIME A WATER LINE IS BELOW A SEWER OR STORM DRAIN LINE THE FOLLOWING PROVISIONS SHALL APPLY:
- A REASONABLE EFFORT MUST BE MADE TO PLACE WATER AND SEWER PIPELINE JOINTS AN EQUAL DISTANCE FROM THE CROSSING POINT. THIS REQUIREMENT DOES NOT APPLY TO WELDED JOINTS.
  - A MINIMUM VERTICAL SEPARATION OF SIX (6) INCHES MUST BE MAINTAINED AND STRUCTURAL SUPPORT IN THE FORM OF A CEMENT SLURRY ENCASUREMENT WHICH WILL EXTEND UPWARD FROM THE SEWER/STORM DRAIN LINE TO THE SPRINGLINE OF THE WATER LINE.
  - THE CROSSING SHALL BE CONSTRUCTED USING ONE OF THE FOLLOWING OPTIONS:
    - THE SEWER LINE MUST BE CONSTRUCTED OF WATER SUPPLY QUALITY MATERIALS MEETING AWWA STANDARDS
    - THE SEWER OR WATER LINE SHALL BE TOTALLY ENCASED BY A MINIMUM FOUR (4) INCH THICK, 300 PSI CEMENT SLURRY, A DISTANCE OF TEN FEET ON EACH SIDE OF THE CROSSING MIDPOINT. THIS OPTION IS NOT AVAILABLE FOR ACP.
    - THE SEWER OR WATER LINE SHALL BE INSTALLED IN A SLEEVE OF WATER QUALITY PIPE OR STANDARD CASING, WITHOUT JOINTS, TEN FEET ON EACH SIDE.

LVWD: *[Signature]* DATE: 4/14/03

**Call before you OVERHEAD**  
1-702-593-6111

**Call before you Dig**  
1-800-227-2600

REVISIONS

NO.	DATE	DESCRIPTION

**DEPARTMENT OF PUBLIC WORKS**  
**ENGINEERING DESIGN SECTION**  
CITY ENGINEER: CHARLES KARKOWSKI JR., P.E.  
DESIGNED BY: J.O.DD  
DRAWN BY: DD  
CHECKED BY: MW

**CITY OF LAS VEGAS**

**ALEXANDER ROAD**  
**US 95 TO RANCHO DRIVE**  
**UTILITY PLAN + PROFILE**  
**STA. 99+00 TO STA. 109+00**

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