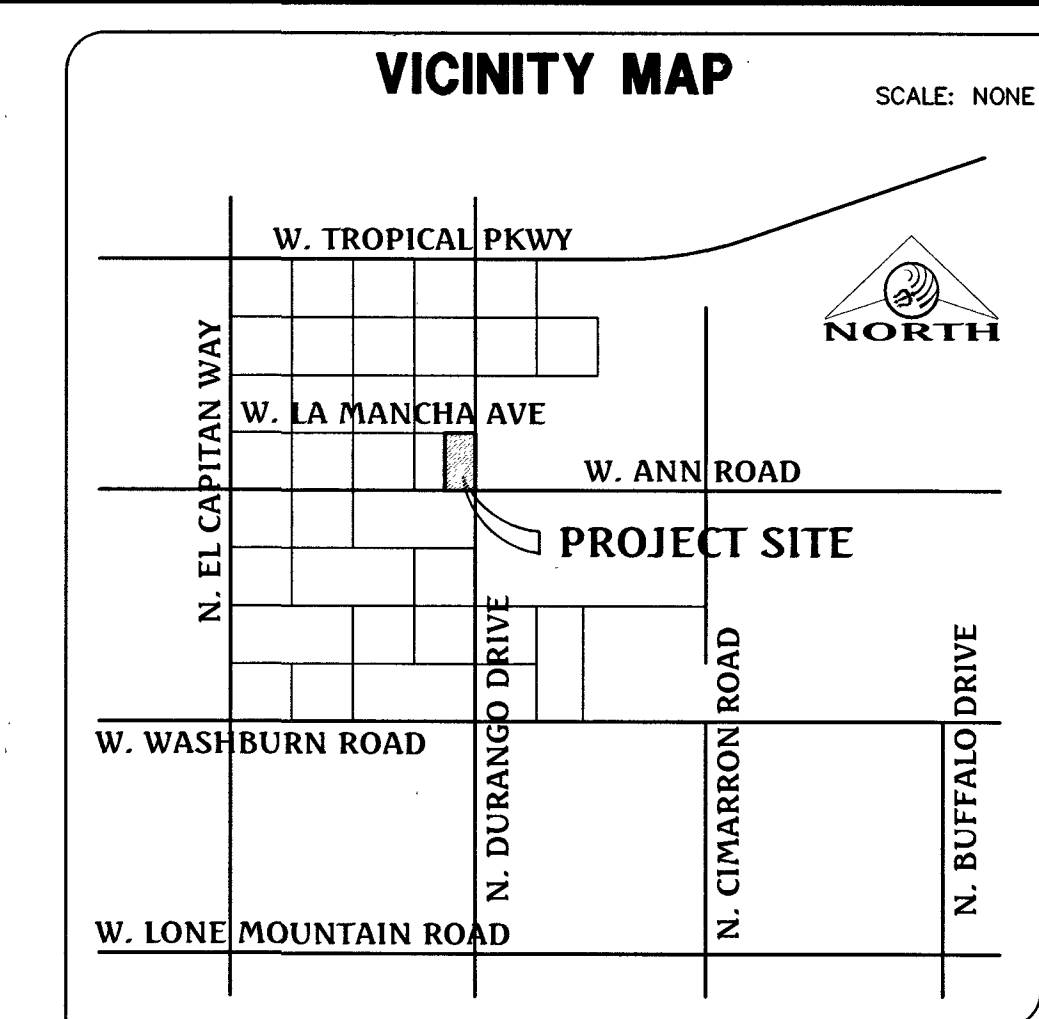
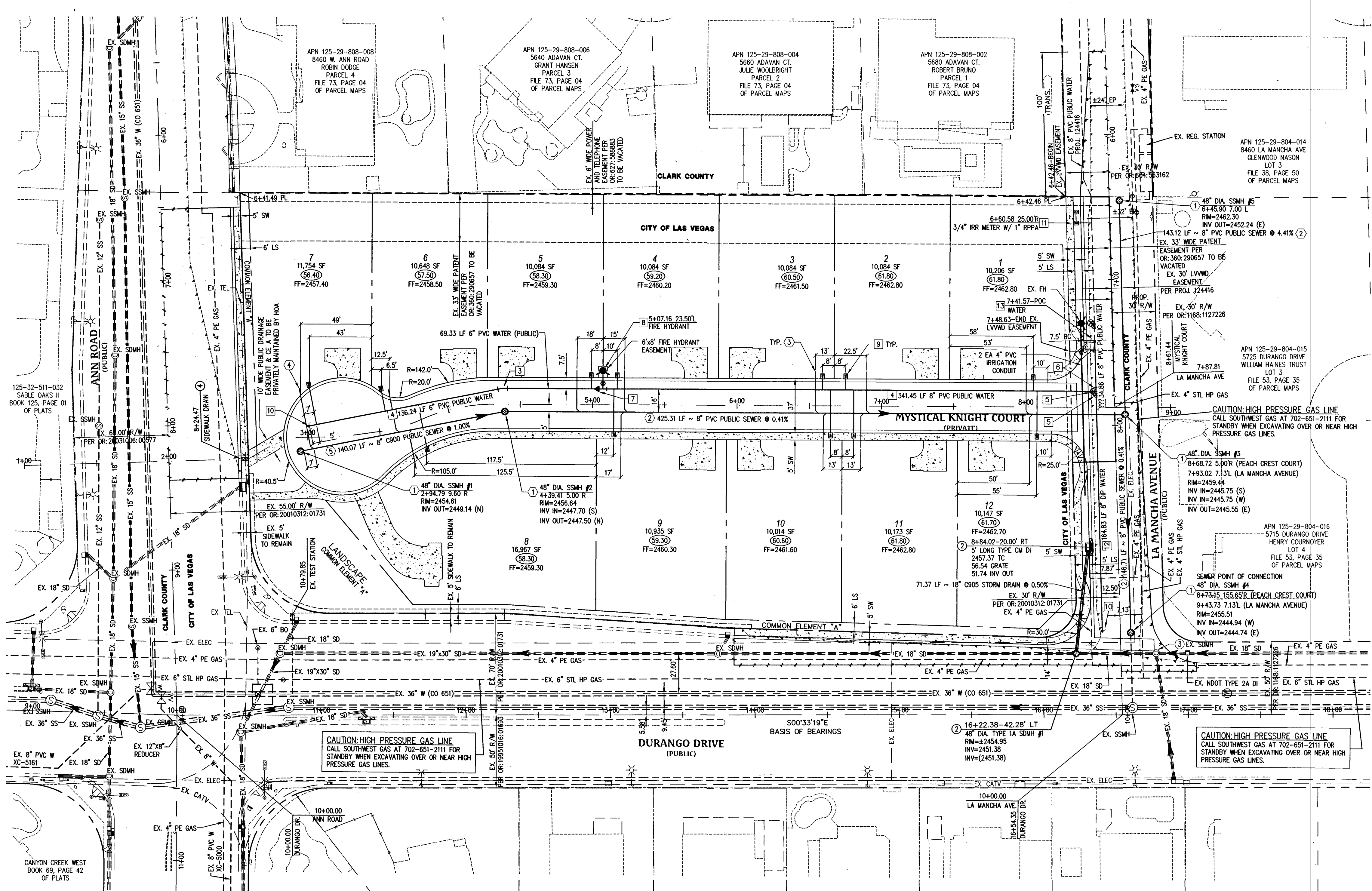




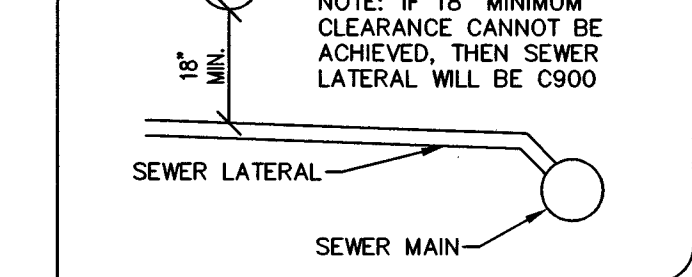
UTILITY LEGEND

EXISTING	PROPOSED	DESCRIPTION
EX. GAS	PROPOSED GAS	EXISTING GAS
EX. 10" S	PROPOSED 10" S	EXISTING SEWER MAIN
EX. 8" S	PROPOSED 8" S	PROPOSED SEWER MAIN
EX. 36" SD	PROPOSED 36" SD	EXISTING SEWER LATERAL
EX. 36" SD	PROPOSED 36" SD	PROPOSED SEWER LATERAL
EX. 8" W	PROPOSED 8" W	EXISTING WATER MAIN
EX. 8" W	PROPOSED 8" W	PROPOSED WATER MAIN
EX. 12" V	PROPOSED 12" V	EXISTING WATER LATERAL WITH 3/4" METER
EX. 12" V	PROPOSED 12" V	PROPOSED 12" V
EX. 12" V	PROPOSED 12" V	EXISTING UTILITY MANHOLE
EX. 12" V	PROPOSED 12" V	PROPOSED UTILITY MANHOLE
EX. 12" V	PROPOSED 12" V	EXISTING VALVE
EX. 12" V	PROPOSED 12" V	PROPOSED VALVE
EX. 12" V	PROPOSED 12" V	PROPOSED REDUCER
EX. 12" V	PROPOSED 12" V	PROPOSED STANDARD FIRE HYDRANT WITH 6" LATERAL, 6" GATE VALVE AND TEE
EX. 12" V	PROPOSED 12" V	BACK WATER VALVE
EX. 12" V	PROPOSED 12" V	PRESSURE REDUCING VALVE
EX. 12" V	PROPOSED 12" V	EXISTING STREET LIGHT
EX. 12" V	PROPOSED 12" V	FUTURE STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED 100' WPS STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED 150' WPS STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED 200' WPS STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED 250' WPS STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED 400' WPS STREET LIGHT
EX. 12" V	PROPOSED 12" V	PROPOSED CONCRETE DRIVEWAY

- ### SEWER NOTES
- INSTALL 48" DIA. SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-17, SD-4 WITH SINGLE LID (TYPICAL).
 - INSTALL 8" PVC SS PER DCSWCS SD-17.
 - INSTALL 4" PVC SEWER LATERAL WITH MARKER BALL & CURB MARKING PER DCSWCS SD-22 AND SD-25.
 - INSTALL 4" C-900 SEWER LATERAL WITH MARKER BALL & CURB MARKING PER DCSWCS SD-22 AND SD-25.
 - INSTALL 8" C900 SS PER DCSWCS SD-17.

- ### WATER NOTES
- POC - REMOVE EX. CAP AND CONNECT TO EX. 8" WATER LINE.
 - INSTALL 6" PVC WATER MAIN PER UDACS PLATE NO. 18.
 - INSTALL 4" 11-1/4" BEND PER UDACS PLATE NO. 18.
 - INSTALL 8" PVC WATER MAIN PER UDACS PLATE NO. 18.
 - INSTALL 8" GATE VALVE, PER UDACS PLATE NO. 30 AND 39.
 - INSTALL 8"x8" TEE PER UDACS PLATE NO. 31.
 - INSTALL 8"x8" REDUCER, PER UDACS PLATE NO. 30.
 - INSTALL FIRE HYDRANT ASSEMBLY WITH 6" LATERAL, 6" GATE VALVE AND 8"x8" TEE PER UDACS PLATE NO. 39 AND 40.
 - INSTALL 1" COPPER WATER SERVICE WITH 3/4" METER, PER UDACS PLATE NO. 2.
 - INSTALL 2" BLOW OFF ASSEMBLY WITH CAP PER UDACS PLATE NO. 36.
 - INSTALL 3/4" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4 & 8 (BRASS BETWEEN METER & RPPA).
 - INSTALL 8" DIP WATER MAIN PER UDACS PLATE NO. 18.

- ### STORM DRAIN NOTES
- INSTALL 48" DIA. TYPE 1A STORM DRAIN MANHOLE PER CCAUSD #404.
 - CONSTRUCT TYPE CM 2 GRADE DROP INLET PER CCAUSD #412.1. SEE DETAIL ON SHEET 5. STORM WATER STAMP TO BE LOCATED ADJACENT TO DROP INLET PER CCAUSD #421.
 - EXISTING STORM DRAIN MH TO BE ADJUSTED TO GRADE.
 - CONSTRUCT SIDEWALK UNDERDRAIN PER CCAUSD #236.



NOTE:
THIS PROJECT PLAN APPROVAL CONTINGENT ON "LA MANCHA FIRE HYDRANT" LVWD PROJECT #124416 PLAN APPROVAL.

FIRE DEPARTMENT APPROVAL
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVWD.

APPROVALS
LAS VEGAS FIRE AND RESCUE 11/14/16
DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE 12/22/16 PROJECT NO. 124480
LVWD APPROVED FIRE FLOW 1500 GPM @ 20 PSI RESIDUAL

NOTE:
THIS PROJECT PLAN APPROVAL CONTINGENT ON "LA MANCHA FIRE HYDRANT" LVWD PROJECT #124416 PLAN APPROVAL.

FIRE DEPARTMENT APPROVAL
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVWD.

APPROVALS
LAS VEGAS FIRE AND RESCUE 11/14/16
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LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE 12/22/16 PROJECT NO. 124480
LVWD APPROVED FIRE FLOW 1500 GPM @ 20 PSI RESIDUAL

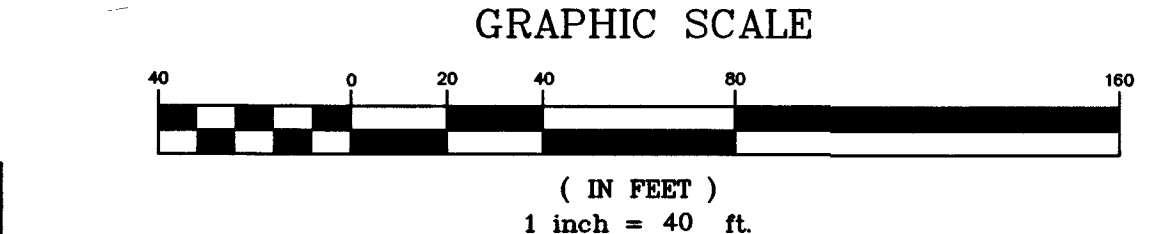
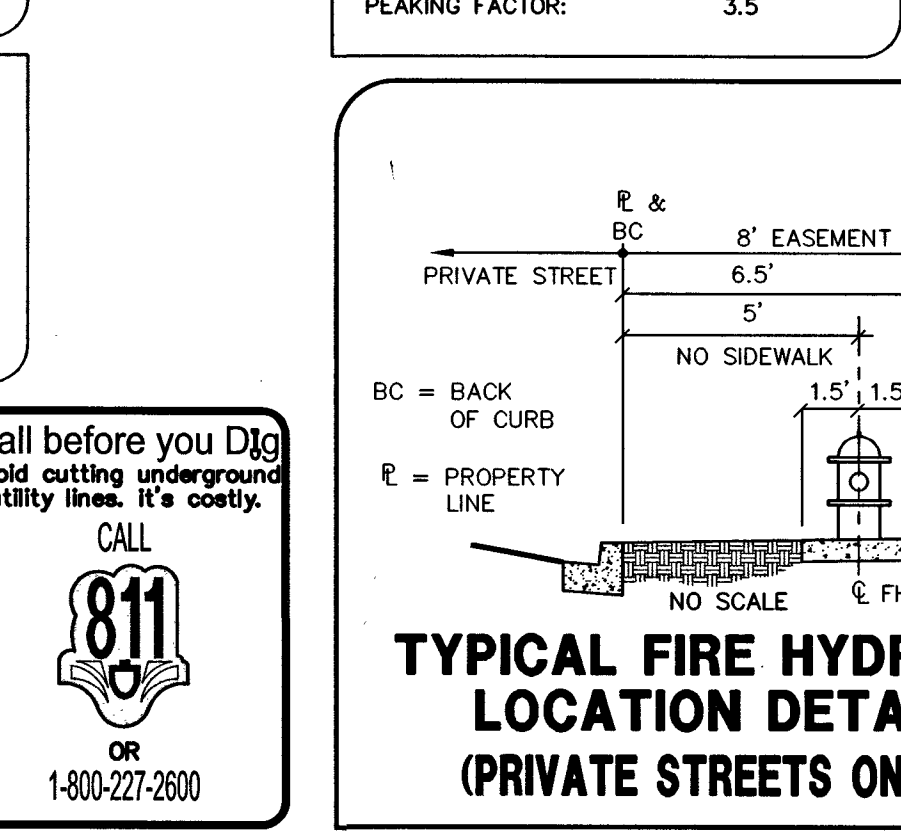
NOTE:
PROTECT IN PLACE AND ADJUST TO GRADE AS REQUIRED. ALL VALVES TO REMAIN IN SERVICE AT ALL TIMES.

BASIS OF BEARING
SOUTH 00°33'19" EAST BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 29, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 101 OF SURVEYS, AT PAGE 47.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK: 5LV90 29SES
A RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF ANN ROAD AND DURANGO DRIVE.
ELEVATION=747.621 Meters (NAVD'88)
ELEVATION=2452.82 US Survey Feet (NAVD'88 2008 ADJUSTMENT)

FAST
Call before you Dig
1-702-432-5300
Call before you Overhead
1-702-227-2929

WASTEWATER FLOW
FACILITY TYPE: SINGLE-FAMILY RESIDENTIAL
TOTAL LOTS AT BUILD OUT: 12 LOTS
AVERAGE FLOW: 0.003 MGD
PEAK FLOW: 0.003 MGD
PEAKING FACTOR: 3.5



EXCLUSIVE EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE
TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLY, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

FIRE FLOW CALCULATIONS
THE FIRE FLOW REQUIREMENT IS: 1,500 GALLONS PER MINUTE 20 PSI RESIDUAL PRESSURE.
BASED ON:
SQUARE FOOTAGE: 2,631 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQUARE FEET
BUILDING HEIGHT: 18 FEET
NUMBER OF STORIES: 1 FLOORS
TYPE OF CONSTRUCTION: V-B
OCCUPANCY: SINGLE FAMILY RESIDENTIAL
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

EXCLUSIVE EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE
TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLY, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

EXCLUSIVE EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE
TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLY, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

NOTE:
CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

NOTE:
THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE) PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRVS ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

NOTE:
LOTS WITHIN 2635 ZONE WITH A FINISH FLOOR ELEVATION LESS THAN 2450.4 WILL REQUIRE A PRV

UTILITY CROSSING NOTE
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS OF POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

NOTE:
CONTRACTOR TO INSTALL DETECTOR TAPE ON ALL SEWER LATERALS THAT ARE NOT 90° AND COMPLY WITH DCSWCS SD-22 AND SD-25.

NOTE:
CONTRACTOR TO INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

NOTE:
CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

NOTE:
CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DATE: 2/17/2015
DRAWN BY: J. PEARCE
DESIGNED BY: D.L.
CHECKED BY: D.L.
JOB NO.: 007-097
SCALE: 1" = 40'

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DR. HORTON
ANN & DURANGO
UTILITY PLAN

PROFESSIONAL ENGINEER
JAMES M. PEARCE
Exp. 12-31-17
CIVIL
No. 9552

SHEET 10 of 19
C.L.V. DWG.# 63427 10745099

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