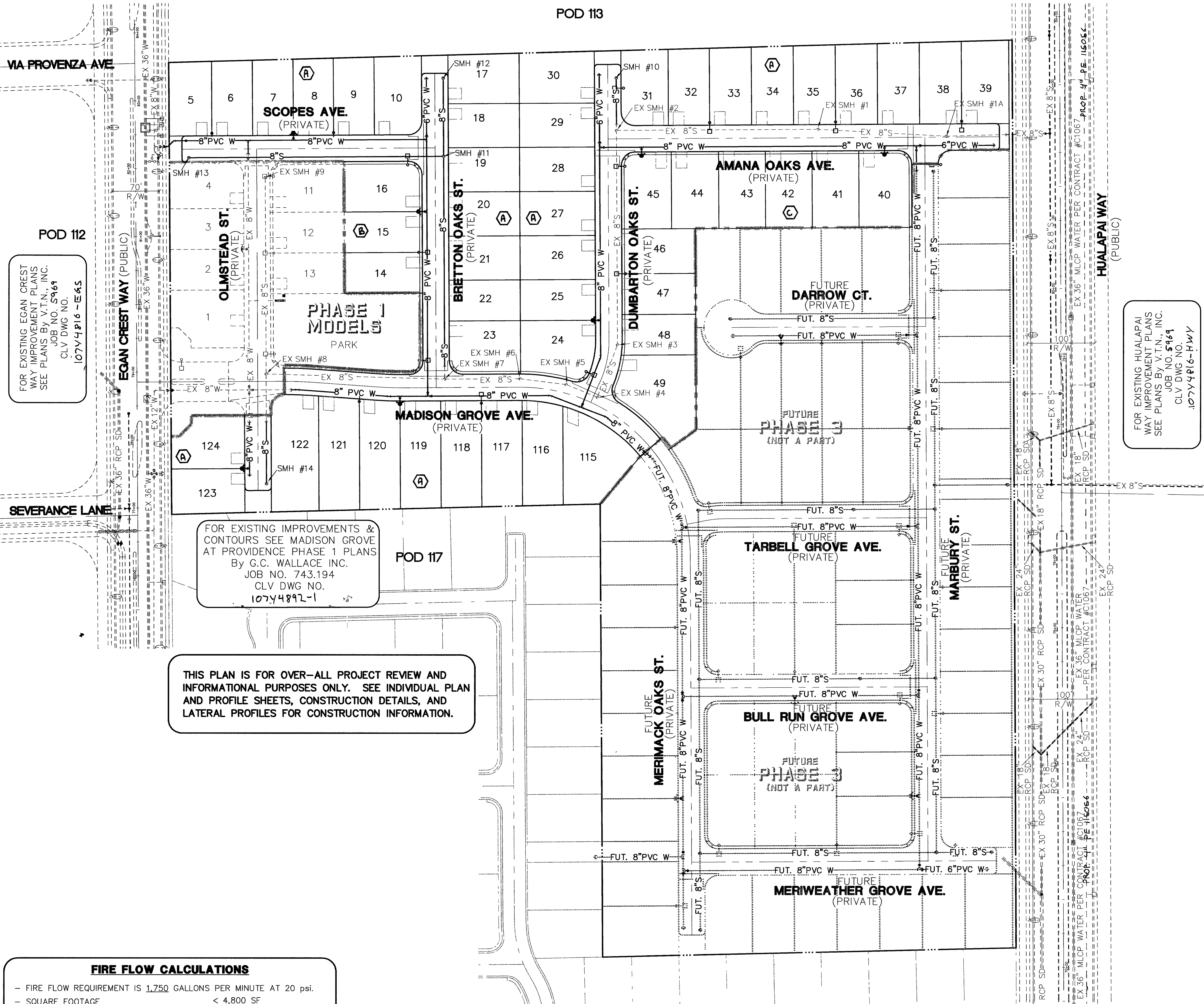


8/24/2016 10:45 AM 10/24/2016 10:45 AM



FIRE FLOW CALCULATIONS	
- FIRE FLOW REQUIREMENT IS 1,750 GALLONS PER MINUTE AT 20 psi.	
- SQUARE FOOTAGE	< 4,800 SF
- LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS	N/A
- BUILDING HEIGHT	35 FEET MAX.
- NUMBER OF STORIES	2
- TYPE OF CONSTRUCTION	5-N
- OCCUPANCY	SINGLE FAMILY
- FULL AUTOMATIC FIRE SPRINKLER SYSTEM	NO

CONDITIONAL APPROVAL OF VALVED OUTLET (6" & LARGER)

THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS IS ACCEPTABLE; HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE AGENCY'S STANDARDS AND AT THE DEVELOPER'S EXPENSE. APPROVAL OF THE VALVED OUTLET DOES NOT PROVIDE OR IMPLY A WATER COMMITMENT.

89021 2 93176

SANITARY SEWER MANHOLE SCHEDULE											
MH#	ID	TYPE	STATION	OFFSET	RIM EL	N INV EL	S INV EL	E INV EL	W INV EL	COMMENTS	
10	SD-1	14+70.88 ~ DUMBARTON OAKS ST	12.50' RT	2882.9±	2883.45	-	-	-	-		
11	SD-1	13+40.81 ~ BRETTTON OAKS ST	12.50' RT	2883.1±	2883.58	-	-	-	-		
12	SD-1	14+56.31 ~ BRETTTON OAKS ST	12.50' RT	2883.9±	2884.73	-	-	-	-		
13	SD-1	10+10.00 ~ SCOPES AVE.	12.50' RT	2885.6±	2888.47	-	-	-	-		
14	SD-1	10+10.00 ~ OLMSTEAD ST.	12.50' RT	2904.9±	2888.47	-	-	-	-		

NOTES TO CONTRACTOR

THE DISTRICT CANNOT GUARANTEE A WATER-TIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER WHICH MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUT DOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

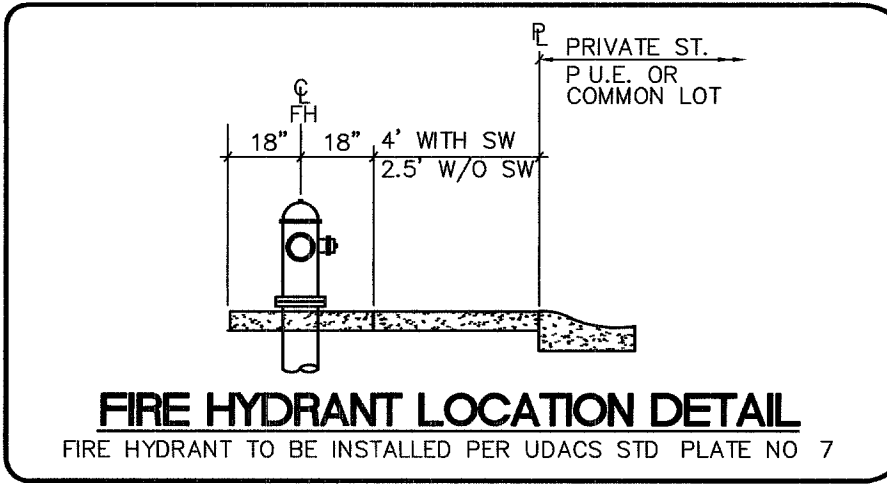
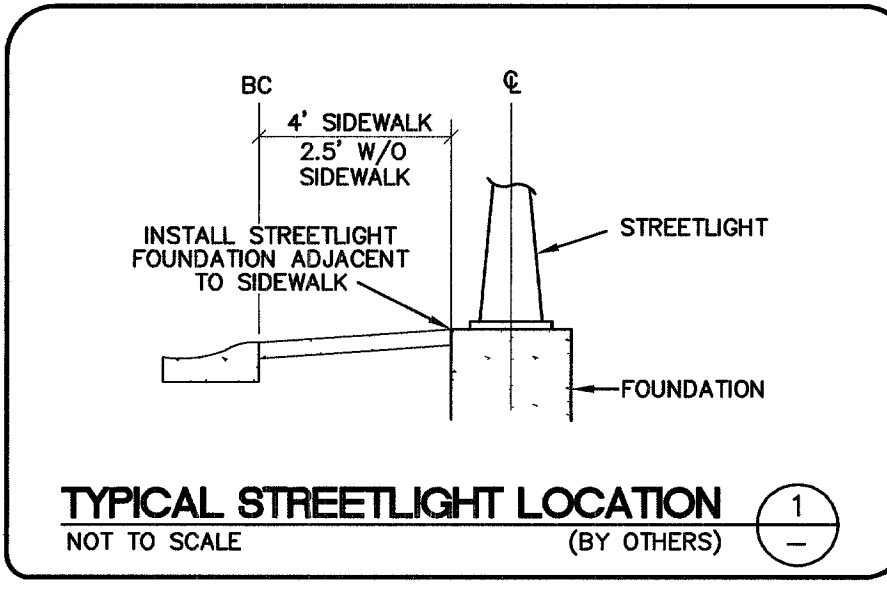
WATER MAIN JOINT DEFLECTION (PVC, 4"-24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.06.01 AND 2.06.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 27.

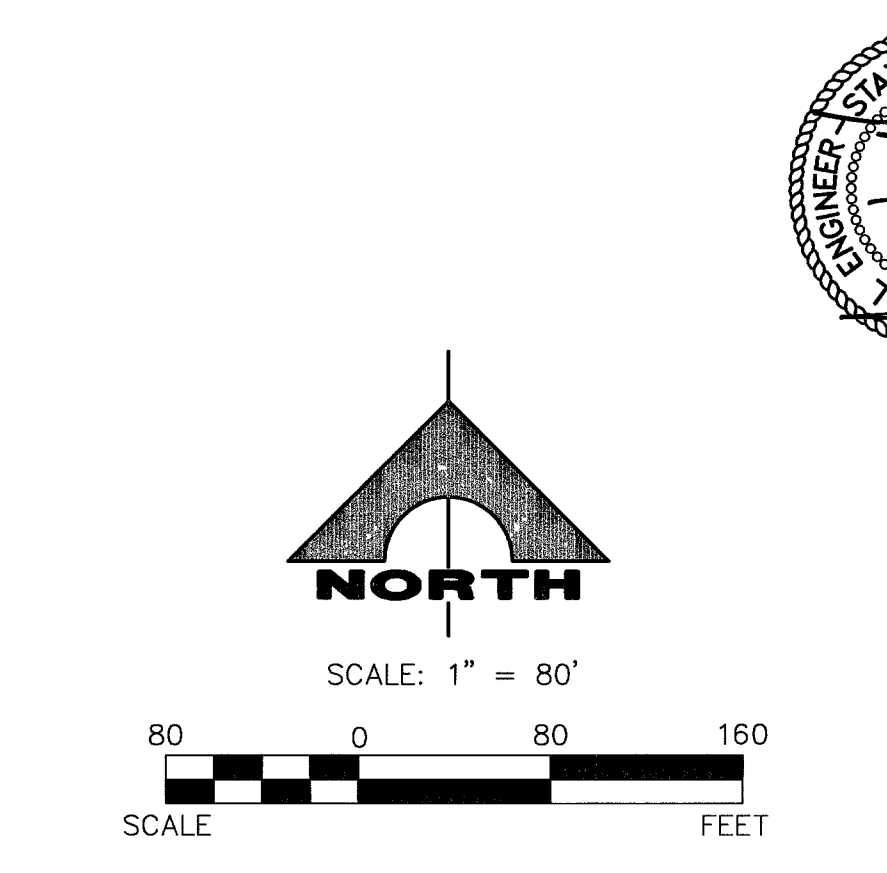
- NOTE**
- ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
 - ALL PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
 - SEE THE UTILITY PLANS (SHEETS 15, 16, & 17) FOR WATER LINE DESIGN AND CONSTRUCTION INFORMATION.
 - FOR CONSTRUCTION NOTES SEE SHEET 2.



ESTIMATED WATER QUANTITIES	
QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.	
8" DIP WATER	37 LF
8" PVC WATER	2,271 LF
6" PVC WATER	338 LF
FIRE HYDRANT ASSEMBLY	7 EA
2" MANUAL BLOW-OFF ASSEMBLY	5 EA
8" GATE VALVE	4 EA
8" x 8" TEE	6 EA
8" 45° BEND	2 EA
8" 22 1/2° BEND	3 EA
8" 5° BEND	2 EA
3/4" DOMESTIC WATER METER	52 EA
8" x 6" REDUCER	4 EA
12" x 8" REDUCER	1 EA

ESTIMATED SEWER QUANTITIES	
QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.	
4" SEWER SDR-35 PVC (PRIVATE)	1088 LF
8" SEWER SDR-35 PVC (PUBLIC)	957 LF
48" STANDARD MANHOLES (PUBLIC)	5 EA

ESTIMATED STORM DRAIN QUANTITIES	
QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.	
RIPRAP (D50 6", 1' THICK)	29 CY



NOTE

H.O.A. IS RESPONSIBLE FOR ALL WATER SERVICE LATERALS PAST THE METERS.

NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 27.

SEWER CONTRIBUTION =
AVERAGE: 52 LOTS X 250 GPD/ERU = 13,000
PEAK FLOW: 13,000 GPD X 3.4 PF = 44,200 GPD

BENCHMARK			
BM #	DESC	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 8LV99 13E4	RIVET AND PLATE IN CONCRETE CINDER AT THE NORTHWEST CORNER OF HUALAPAI WAY AND FARM ROAD	2860.79 (FEET)	871.971 (METERS)

BASIS OF BEARINGS

SOUTH 00°19'04" EAST BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 13, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA.

LEGAL DESCRIPTION:

LOT 114 OF BLOCK 7 AS SHOWN BY MAP OF "CLIFFS EDGE PARENT" ON FILE IN BOOK 118, PAGE 88 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, LYING WITHIN THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 13, TOWNSHIP 19 SOUTH, RANGE 59 EAST. M.D.M., CLARK COUNTY, NEVADA.

Avoid cutting underground utility lines. It's costly.

Call before you Dig.

1-800-227-2600

UNDERGROUND SERVICE (USA)

Avoid hitting overhead power lines. It's costly.

CALL BEFORE YOU DO OVERHEAD

CALL 1-702-227-2929

LEGEND	
	REQUIRES BACKWATER VALVE
	REQUIRES PRESSURE REDUCER VALVE
	PROPOSED DROP INLET
	EXISTING NPOC POLE
	EXISTING WATER LINE & GATE VALVE
	PROPOSED WATER LINE & GATE VALVE
	EXISTING STORM DRAIN LINE W/MH
	PROPOSED STORM DRAIN LINE W/MH
	EXISTING SEWER LINE W/MH
	PROPOSED SEWER LINE W/MH
	EXISTING BACK OF CURB
	PROPOSED BACK OF CURB
	BOUNDARY/PHASE LINE
	RESIDENTIAL LOT LINE
	RESIDENTIAL LOT NUMBER
	COMMON LOT NUMBER
	DRAINAGE FLOW DESIGNATION
	FIRE HYDRANT
	STREET LIGHT (STLT)

APPROVED FOR CONSTRUCTION

[Signature] 8/24/16
CITY OF LAS VEGAS FIRE DEPARTMENT DATE

APPROVED FOR CONSTRUCTION

[Signature] 6-2-06
LAS VEGAS VALLEY WATER DISTRICT PROJ # H10484 DATE

CLV DRAWING NO. 10744892-2

ENGINEER: SONNY NEWMAN, INC. 8/24/2016

DATE: 8/24/2016

ISSUED FOR: TOLL BROTHERS

MASTER UTILITY PLAN

DRAWING: 4

OF 20 SHEETS

JOB NO. 743194