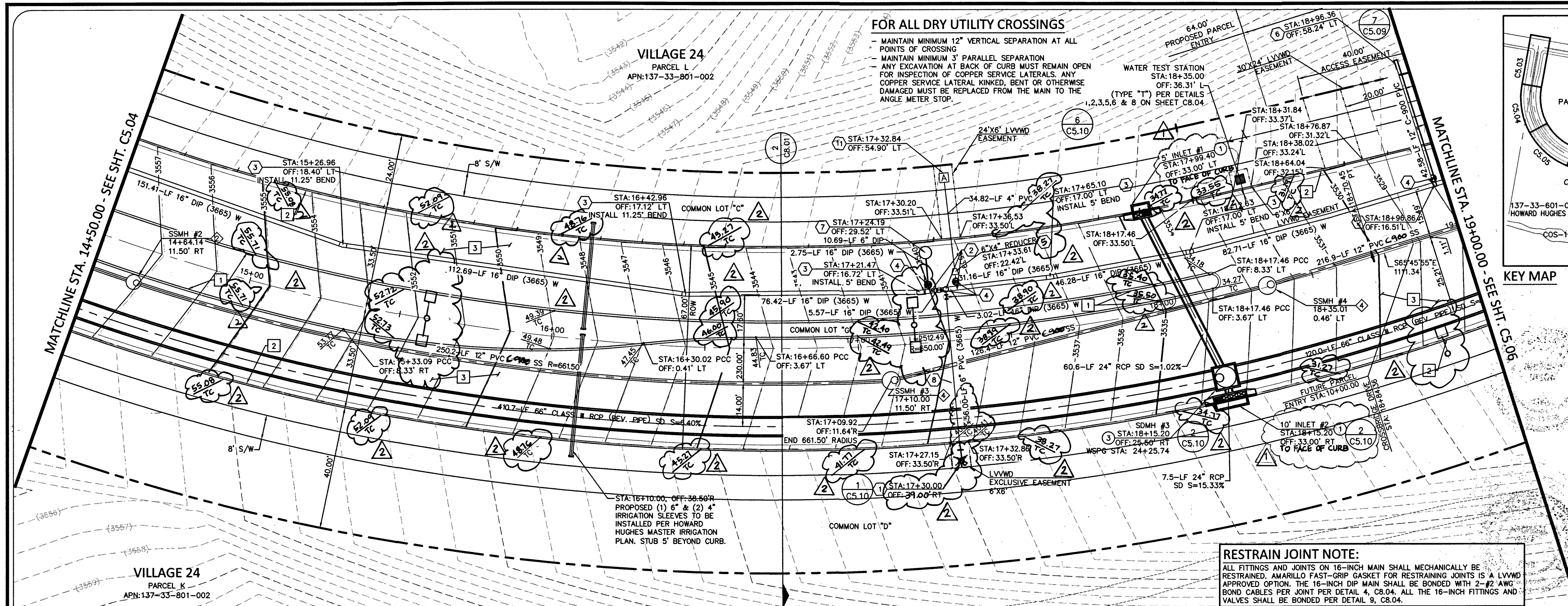




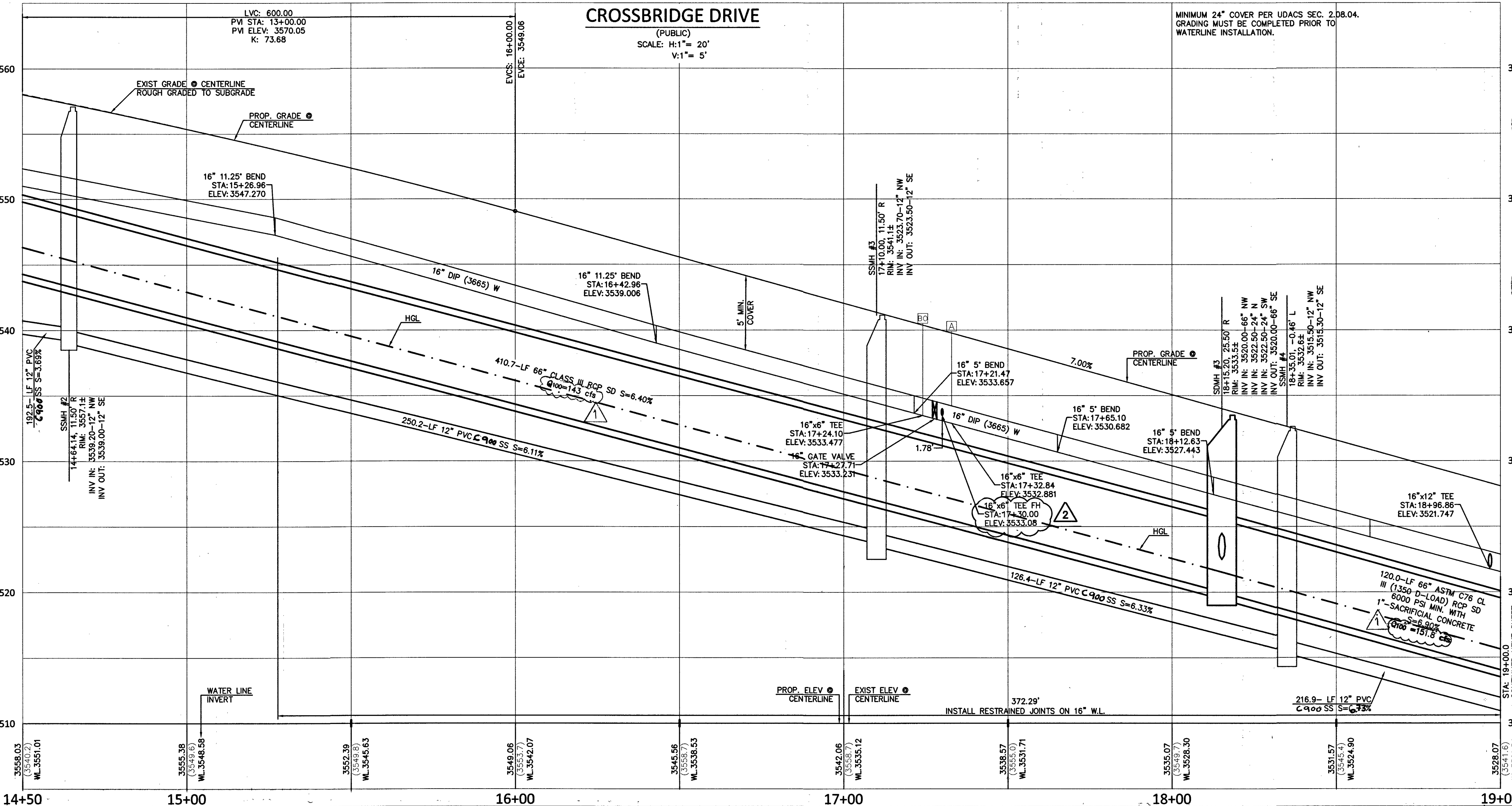
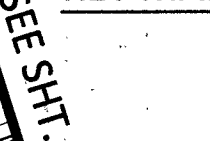
#### FOR ALL DRY UTILITY CROSSINGS

- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
- MAINTAIN MINIMUM 3' PARALLEL SEPARATION
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

#### RESTRAIN JOINT NOTE:

ALL FITTINGS AND JOINTS ON 16-INCH MAIN SHALL MECHANICALLY BE RESTRAINED. AMARILLO FAST-GRIP GASKET FOR RESTRAINING JOINTS IS A LVWD APPROVED OPTION. THE 16-INCH DIP MAIN SHALL BE BONDED WITH 2-#2 AWG BOND CABLES PER JOINT PER DETAIL 4, C8.04. ALL THE 16-INCH FITTINGS AND VALVES SHALL BE BONDED PER DETAIL 9, C8.04.

#### KEY MAP



#### CROSSBRIDGE DRIVE

(PUBLIC)  
SCALE: H:1"= 20'  
V:1"= 5'

#### MINIMUM 24" COVER PER UDACS SEC. 2.08.04.

GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

#### CONSTRUCTION NOTES:

- ITEM: USDOCA: UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
- INSTALL "A" TYPE ISLAND CURB PER USD DWG NO. 219
- INSTALL "L" TYPE CURB & GUTTER PER USD DWG NO. 216
- INSTALL A.C. PAVEMENT PER TYPICAL STREET SECTION DETAILS
- INSTALL HANDICAP RAMP CURB DEPRESSION (BY OTHERS)
- VERIFY LOCATION AND ELEVATION OF EXISTING IMPROVEMENT. IF DISCREPANCY EXISTS, NOTIFY ENGINEER PRIOR TO CONSTRUCTION

#### WATER CONSTRUCTION NOTES:

- ITEM: UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARD FOR WATER DISTRIBUTION SYSTEMS
- INSTALL FIRE HYDRANT & ASSEMBLY (TEE & 6" GV) PER UDACS PLT. NO. 40 OR 41
- INSTALL TEE PER UDACS PLT. NO. 31 (\*)
- INSTALL BEND PER UDACS PLT. NO. 31. (SEE PLAN FOR L) (\*)
- INSTALL GATE VALVE PER UDACS PLT. NO. 30 AND 39 (\*)
- INSTALL REDUCER PER UDACS PLT. NO. 30 (\*)
- INSTALL CAP W/ 2" BLOW-OFF ASSY PER UDACS PLT. NO. 36 (\*)
- INSTALL 6" MANUAL BLOW OFF ASSY PER UDACS PLT. NO. 37
- CLSM CLASS 1 BACKFILL IN THE TRENCH ZONE PER UDACS PLATE NO. 17 & 19
- INSTALL VERT. 45° BEND PER UDACS PLT. NO. 31 (WITH RESTRAINED JOINTS)
- REMOVE CAP & BLOWOFF PER UDACS PLT. NO. 36 AND CONNECT TO EXISTING WATER LINE
- INSTALL 4" COMBINATION AIR VALVE PER UDACS PLT. NO. 38
- INSTALL 1 1/2" METER & RPPA PER UDACS PLT. NO. 4 & 8 & DETAIL SHEET C5.02 (BRASS BETWEEN METER & RPPA)
- INSTALL CROSS PER UDACS PLT. NO. 31 (\*)

#### SEWER CONSTRUCTION NOTES:

- ITEM: UDACS: DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
- INSTALL 48" SEWER MANHOLE WITH SINGLE LID NOT USED
- INSTALL 60" SEWER MANHOLE WITH SINGLE LID
- INSTALL 48" SEWER MANHOLE W/CORROSION PROTECTION WITH SINGLE LID
- INSTALL 60" SEWER MANHOLE W/CORROSION PROTECTION WITH SINGLE LID
- INSTALL TEMPORARY PLUG AND CAP SEWER STUB
- INSTALL ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS PER UDACS 4.9.7
- REMOVE EXISTING PLUG AND CONNECT TO EXISTING SEWER LINE

#### STORM DRAIN CONSTRUCTION NOTES:

- ITEM: UDACS: PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARD FOR WATER DISTRIBUTION SYSTEMS
- INSTALL TYPE 2 MODIFIED "CM2" DROP INLET PER USDOCA DWG. NO. 412.1 AND 421
- NOT USED
- INSTALL CAST-IN-PLACE MANHOLE PER DETAIL 7 SHEET C8.02
- INSTALL PRECAST MANHOLE TEE W/ 48" RISER
- INSTALL PRECAST MANHOLE TEE W/ 60" RISER
- INSTALL PRECAST ELBOW (SEE PLAN FOR L)
- INSTALL TEMPORARY PLUG AND CAP STORM DRAIN LINE
- NOT USED
- INSTALL WATER TIGHT ELASTOMERIC JOINTS PER UDACS 2.22.02
- REMOVE EXISTING PLUG AND CONNECT TO EXISTING STORM DRAIN LINE
- NOT USED

#### CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EXISTING STORM DRAIN LINE

#### SEWER CONNECTION NOTE:

ONE OR MORE SEGMENTS OF THE DOWNSIDE SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND OR ACCEPTANCE OF THE DOWNSIDE SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSIDE SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

#### WATER MAIN JOINT DEFLECTION (DIP 14"-24")

DIP PIPE SHALL BE DEFLECTED AT JOINT ONLY. FOR PUSH-ON AND MECHANICAL TYPE DIP JOINTS, MAXIMUM DEFLECTION SHALL BE (1.5) DEGREES PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 690 FEET FOR 18 FEET OF PIPE LENGTHS AND 765 FEET FOR 20 FEET PIPE LENGTHS. PER UDACS 2.07.03. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

APPROVED FOR CONSTRUCTION

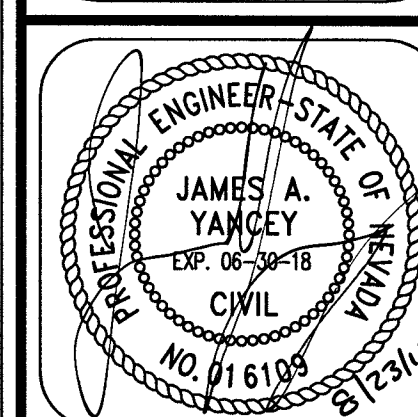
*ISHAR K. P.*

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE: 8/31/17 PROJECT NO: 124806

LVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

**COLLINS ENGINEERS**  
3330 S. DURANGO DR., SUITE 404  
LAS VEGAS, NV 89117  
PHONE: (702) 248-8070  
FAX: (702) 248-8070  
WWW.COLLINSENG.COM



**IMPROVEMENT PLANS FOR**  
**THE HOWARD HUGHES COMPANY, LLC**  
APN: 137-33-601-001  
UTILITY PLAN & PROFILE  
STA. 14+50.00 TO 19+00.00  
SUMMERLIN VILLAGE 24 - CROSSBRIDGE DRIVE UNIT 3  
CITY OF LAS VEGAS

| NO. | DATE     | DESIGN BY   | DESCRIPTION                                            |
|-----|----------|-------------|--------------------------------------------------------|
| 1   | 12/27/17 | APPD BY: Jm | ADDED SD INFO                                          |
| 2   | 02/12/18 | APPD BY: Jm | REVISED FH LOCATION, ADJUSTED ST LIGHTS, ADDED TO ELEV |

CEI PROJECT: 9106

DESIGN BY: J. SALDIVAR

DRAWN BY: J. SALDIVAR

CHECKED BY: K. YAMADA

DATE: 04/20/17

SCALE: 1" = 20'

SHEET NUMBER  
C5.05  
10717063  
SHEET 10 OF 26  
H65276