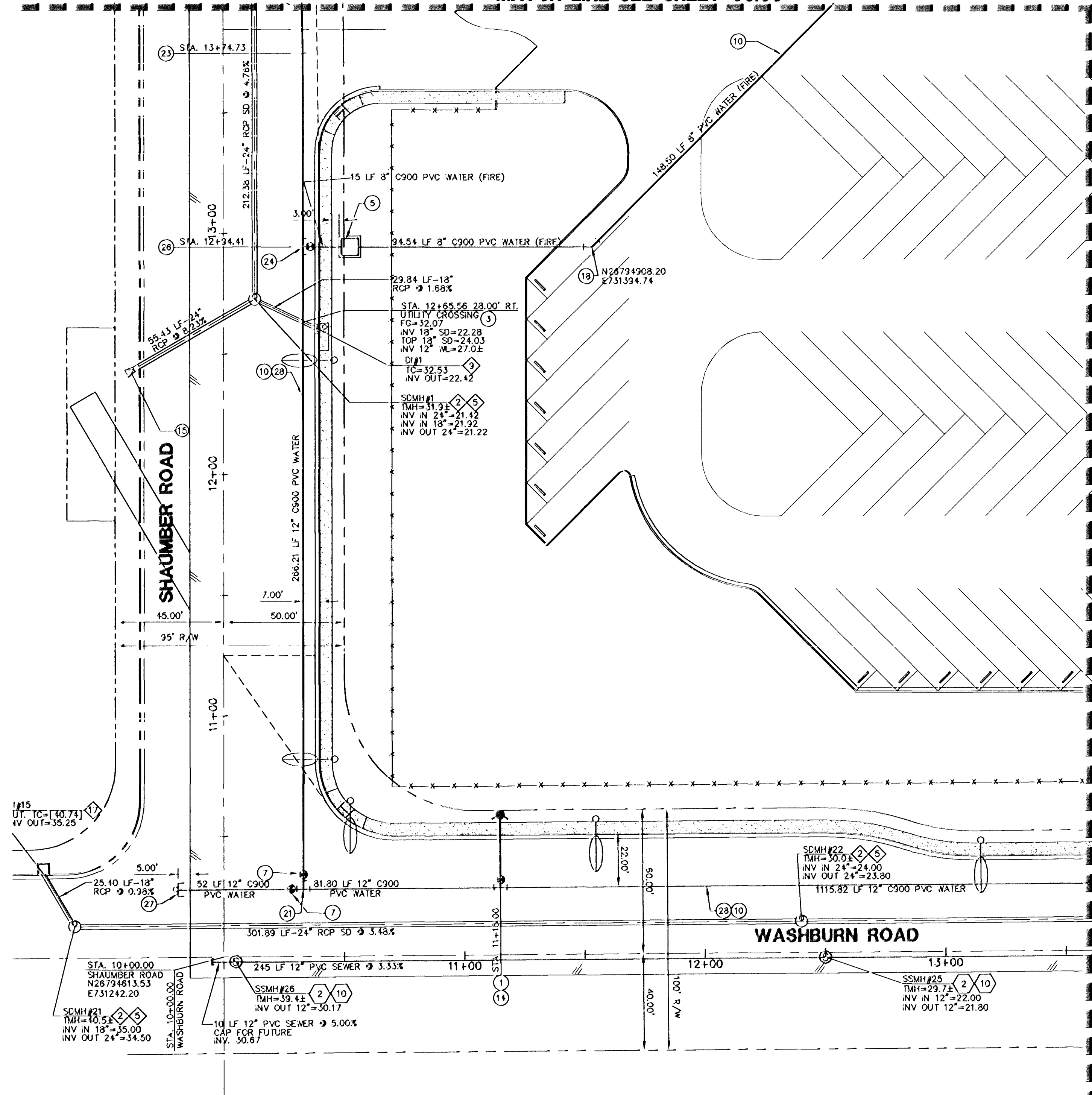
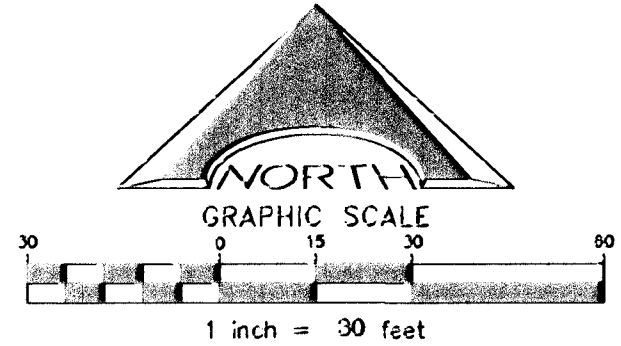


MATCH LINE-SEE SHEET C5.05



MATCH LINE-SEE SHEET C5.09



WATER KEY NOTES
NOT ALL ITEMS ARE USED ON THIS SHEET

- INSTALL 6" FIRE HYDRANT ASSEMBLY (INCLUDES 6" GATE VALVE) PER UDACS PLATE NO. 40. PROVIDE A MINIMUM 3' CLEARANCE AROUND HYDRANT.
- SEE GENERAL UTILITY CONSTRUCTION NOTE #16 ON SHEET C5.02.
- PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN WATER AND SEWER/STORM DRAIN LINES WITH SEWER/STORM DRAIN LINES BEING BELOW WATER LINES.
- INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS PLATE NO. 75.
- INSTALL 8" REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE FG, PER U.D.A.C.S. PLATE NO. 56.
- INSTALL A 2" MEIER PER UDACS PLATE NO. 4 (POTABLE).
- INSTALL A 12" GATE VALVE PER UDACS PLATE NO. 30 AND 39.
- REFER TO LANDSCAPE PLANS FOR CONTINUATION.
- INSTALL A RPPA PER UDACS PLATE NO. 8.
- CONTRACTOR TO PROVIDE A MINIMUM OF 4.0' OF COVER ABOVE TOP OF TWELVE INCH (12") AND SMALLER PIPE BASED ON FINISH GRADE FOR ON-SITE WATER LINES. OFF-SITE PUBLIC WATERLINES LINES IN RIGHT-OF-WAY TO BE A MINIMUM 3.5' (80' R/W), 4.0' (80' R/W) OF COVER BASED ON FINISH GRADE, REFER TO UDACS SECTION 2.08 AND UDACS PLATE NO. 17 FOR ADDITIONAL INFORMATION.
- REFER TO MECHANICAL/PLUMBING PLANS FOR LOCATION AND ADDITIONAL INFORMATION.
- INSTALL A 2" RPPA PER UDACS PLATE NO. 8 (POTABLE).
- INSTALL A 2x4 MANIFOLD.
- INSTALL 12"x6" TEE WITH 6" GATE VALVE W/THRUST BLOCK PER UDACS PLATE NO. 30, 31 AND 39.
- INSTALL 8"x8" TEE PER UDACS PLATE NO. 31.
- INSTALL 8"x6" TEE WITH 6" GATE VALVE PER UDACS PLATE NO. 30, 31 AND 39.
- INSTALL 8"x90" BEND W/THRUST BLOCK PER UDACS PLATE NO. 31.
- INSTALL 8"x45" BEND W/THRUST BLOCK PER UDACS PLATE NO. 31.
- INSTALL 8"x11.25" BEND W/THRUST BLOCK PER UDACS PLATE NO. 31.
- INSTALL 12"x8" REDUCER W/THRUST BLOCK PER UDACS PLATE NO. 30.
- INSTALL 12"x12" TEE W/THRUST BLOCK PER UDACS PLATE NO. 31.
- INSTALL 12"x22.5" BEND W/THRUST BLOCK PER UDACS PLATE NO. 31.
- DEFLECT PIPE JOINT 1" MAX. VERTICALLY PER UDACS 2.07.01 AND 2.07.02.
- INSTALL 8" GATE VALVE PER UDACS PLATE NO. 30 AND 39.
- INSTALL 24"x12" TEE PER UDACS PLATE NO. 31.
- INSTALL 12"x8" TEE PER UDACS PLATE NO. 31.
- INSTALL 12" CAP & 2" BLOWOFF PER UDACS PLATE NO. 36.
- TRENCH SECTION PER UDACS PLATE NO. 17.
- INSTALL 24" CAP & 2" BLOWOFF PER UDACS PLATE NO. 36.
- INSTALL 24" RESILIENT GATE VALVE PER DETAIL SHEET C8.02.
- TYPE "K" COPPER WATERLINE PER UDACS PLATE NO. 4.
- 24"x22.5" BEND W/RESTRAINED JOINTS
- INSTALL 12"x45" BEND W/THRUST BLOCK PER UDACS PLATE NO. 31.
- DEFLECT PIPE JOINT 1" MAX. HORIZONTALLY PER UDACS 2.07.01 AND 2.07.02.

STORM DRAIN KEY NOTES
NOT ALL ITEMS ARE USED ON THIS SHEET

- INSTALL A 48" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
- INSTALL A 60" TYPE I MANHOLE PER C.C.A.U.S.D. 403.
- INSTALL A 48" TYPE II MANHOLE PER C.C.A.U.S.D. 405.
- INSTALL A 60" TYPE III MANHOLE PER C.C.A.U.S.D. 406.
- INSTALL A CONCRETE COLLAR PER C.C.A.U.S.D. 408.
- INSTALL A 2.5' GRATE WITH A 10" CURB OPENING MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A JENSEN PRECAST D124248 CATCH BASIN.
- INSTALL A JENSEN PRECAST D1484872 CATCH BASIN.
- INSTALL A 0" MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A 7.5' GRATE WITH AN 11.25" CURB OPENING MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A 7.5' MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A 10" MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A 12.5' MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL A 27.5' MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL AN RCP END SECTION PER NDOT DETAIL R-2.3.1.
- INSTALL A 5' MODIFIED TYPE "CM" INLET PER C.C.A.U.S.D. 412A. INLET SHALL INCLUDE A WATER QUALITY STAMP PER C.C.A.U.S.D. 421.
- INSTALL AN NDOT TYPE 2 INLET PER DWG. NO. R-4.2.1.
- CAP FOR FUTURE USING BRICK OR CONCRETE. DO NOT USE WOOD. UNLESS OTHERWISE NOTED.

SANITARY SEWER KEY NOTES
NOT ALL ITEMS ARE USED ON THIS SHEET

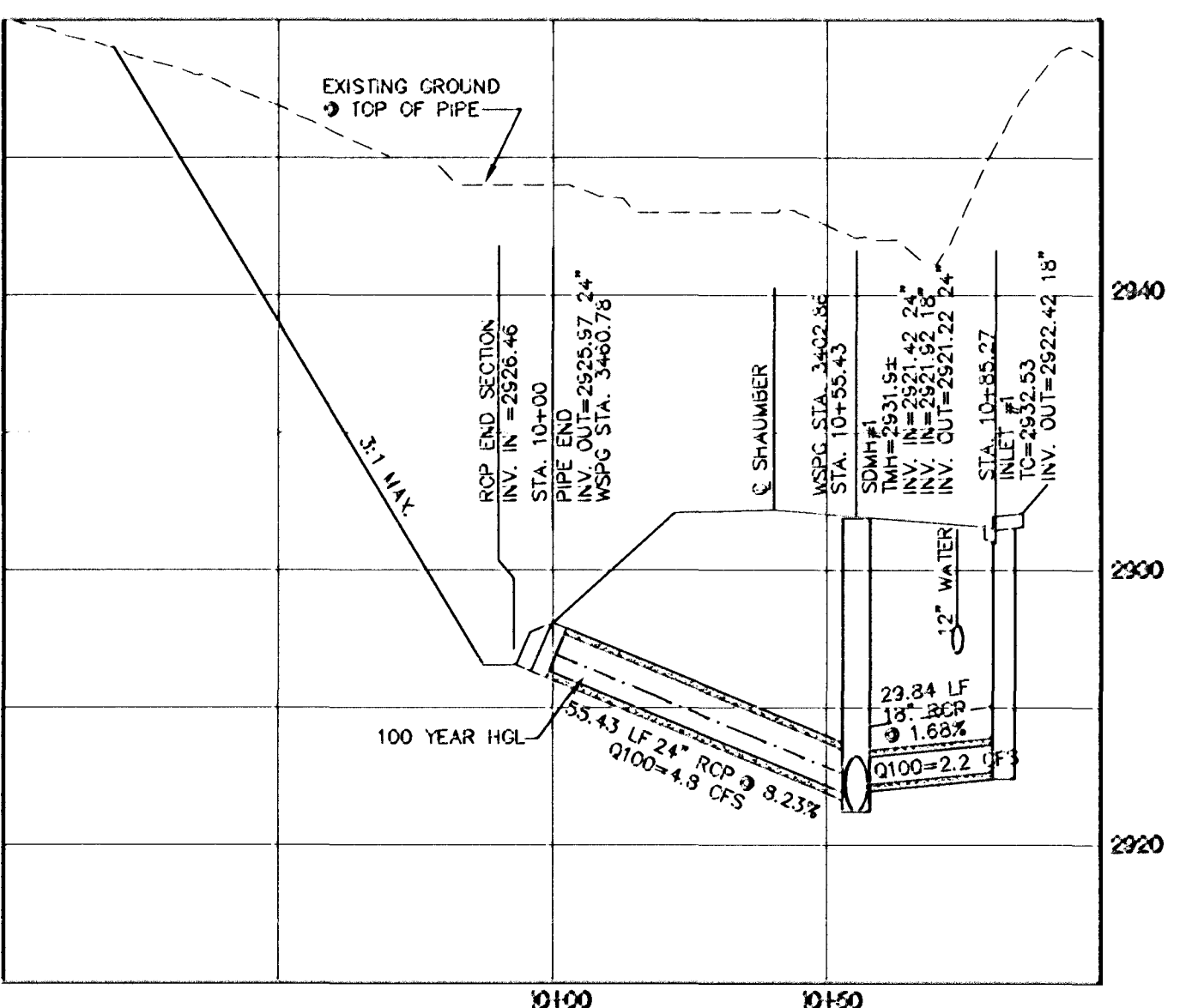
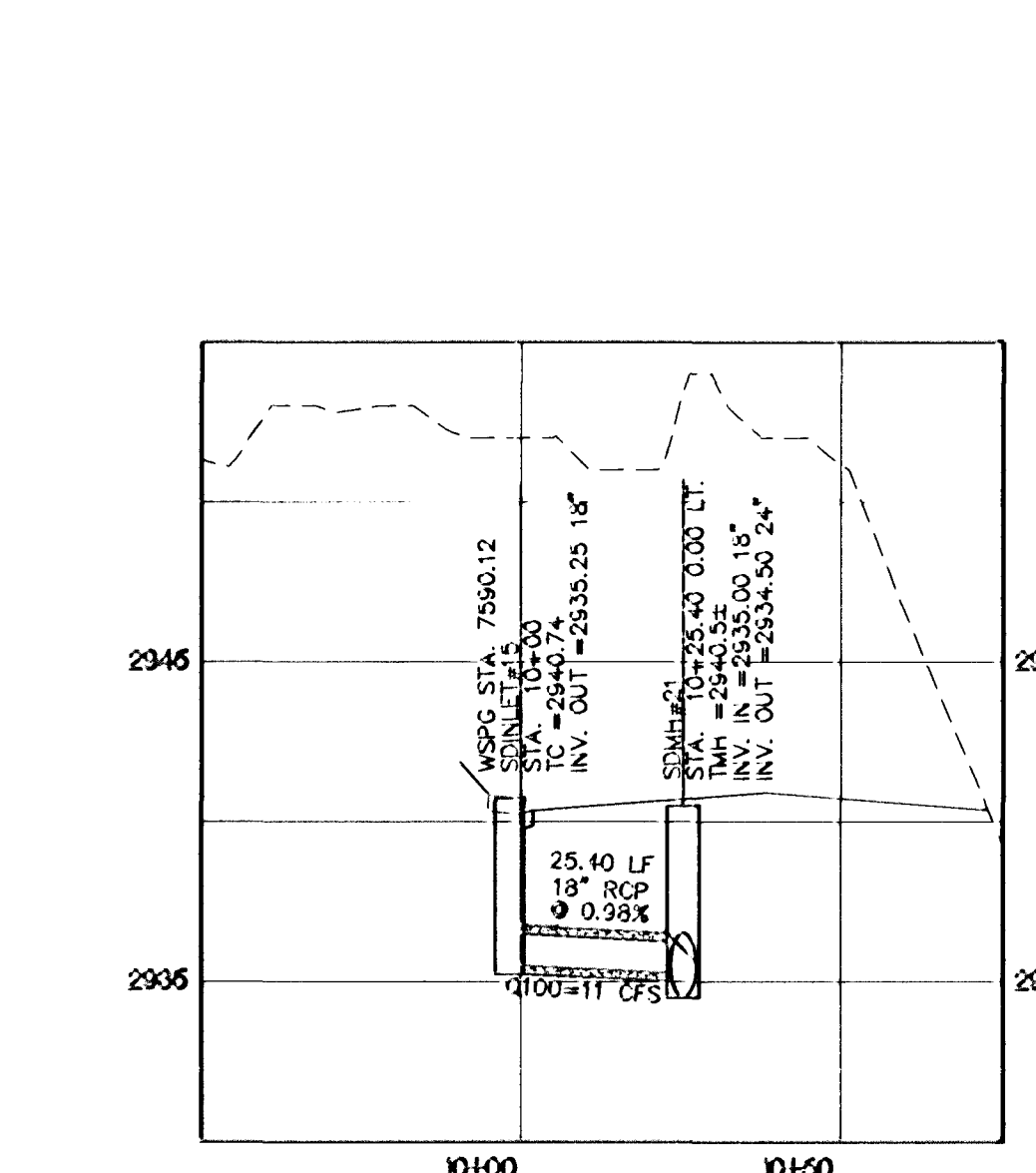
- CONSTRUCT A STANDARD 48" PRECAST MANHOLE PER DCSWCS DRAWING NO. SD-1A AND SD-1B.
- INSTALL A CONCRETE COLLAR PER DCSWCS DRAWING NO. SD-4.
- TRENCH SECTION PER DCSWCS DRAWING NO. SD-18.
- INSTALL NEW SANITARY SEWER MAIN UNDER EXISTING WATER LATERAL PER DCSWCS DRAWING NO. SD-21.
- INSTALL A STANDARD 72" PRECAST MANHOLE PER DCSWCS DRAWING NO. SD-1A AND SD-1B.
- INSTALL A LOCKING MANHOLE COVER PER CITY OF LAS VEGAS STANDARDS.
- INSTALL 30 LF OF WATER QUALITY C900 PVC.
- INSTALL 24" SS ULTRA CORR/ULTRA RIB PIPE USING A CLASS 1B (ASTM BEDDING CLASSIFICATION) BEDDING. PIPES TO BE INSTALLED PER MFR'S SPECIFICATIONS AND REQUIREMENTS FOR DEEP INSTALLATION.
- INSTALL A SPECIAL MANHOLE PER DETAIL ON SHEET C4.15. H20 RATED.
- CONSTRUCT A STANDARD 60" PRECAST MANHOLE PER DCSWCS DRAWING NO. SD-1A AND SD-1B.

NOTE

ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) (2) 8"
THE REDUCED PRESSURE DETECTOR ASSEMBLY(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS 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.

REDUCED PRESSURE PRINCIPLE ASSEMBLY - (3) 2"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLT 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 DWAO. 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.



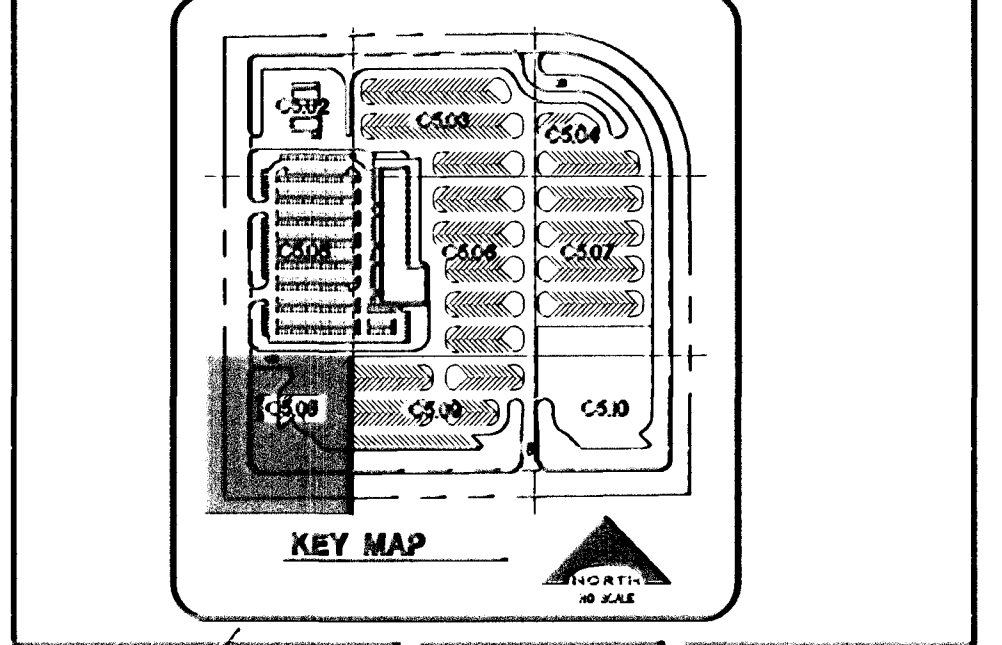
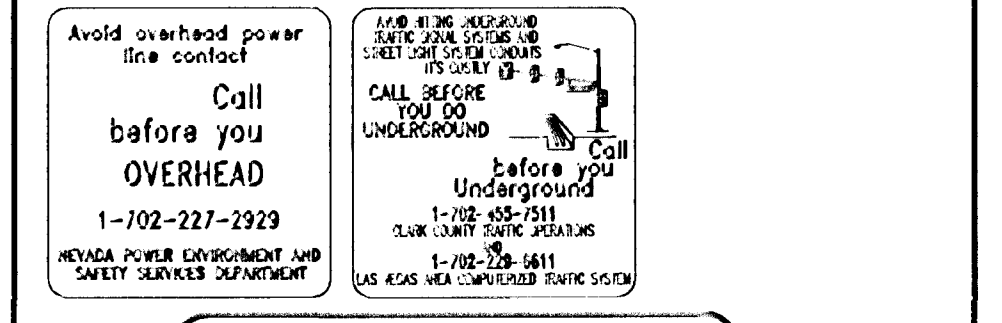
REVISIONS

| REV | DESCRIPTION | DATE | BY |
|-----|-------------|------|----|
| | | | |

DISCLAIMER NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call before you Dig
Avoid cutting underground utility lines at your own risk.
1-800-227-2600
CLARK COUNTY PUBLIC UTILITIES
1-702-452-7144



Professional Engineer Seal for HARKINS, EXP. 6/30/13, CIVIL, No. 48989, 1/7/14.

PROJECT NO. C5.08
DESIGN REVIEW
APPROVED BY
DATE
DRAWN BY
DATE OCTOBER 31, 2011
CHECKED BY
SUBMITTED
PROJECT NO. C5.08

L. R. NELSON CONSULTING ENGINEERS, INC.
3524 West Sahara Blvd., Suite 200
Las Vegas, Nevada 89110
(702) 780-7070
(702) 481-2298 FAX

CLARK COUNTY SCHOOL DISTRICT
DESIGN, MANAGEMENT / PLANNING AND DESIGN
LAS VEGAS, NEVADA 89121

KGA ARCHITECTURE
9075 West Diablo Drive, Third Floor
Las Vegas, Nevada 89148
702.367.6900
www.KGAarchitecture.com
AUSTIN

CLARK COUNTY SCHOOL DISTRICT
DESIGN, MANAGEMENT / PLANNING AND DESIGN
4170 McLEOD DRIVE
LAS VEGAS, NEVADA 89121

CCSD NORTHWEST SATELLITE TRANSPORTATION FACILITY
PROJECT
DRAWING TITLE
UTILITY PLAN

SHEET NO. **C5.08**
SHEET 64 OF 83
CLV #11249 7/5--1/83
HIE #11-19927

APPROVED FOR CONSTRUCTION
DM Cooney
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO. 116879 DATE 12/01/11