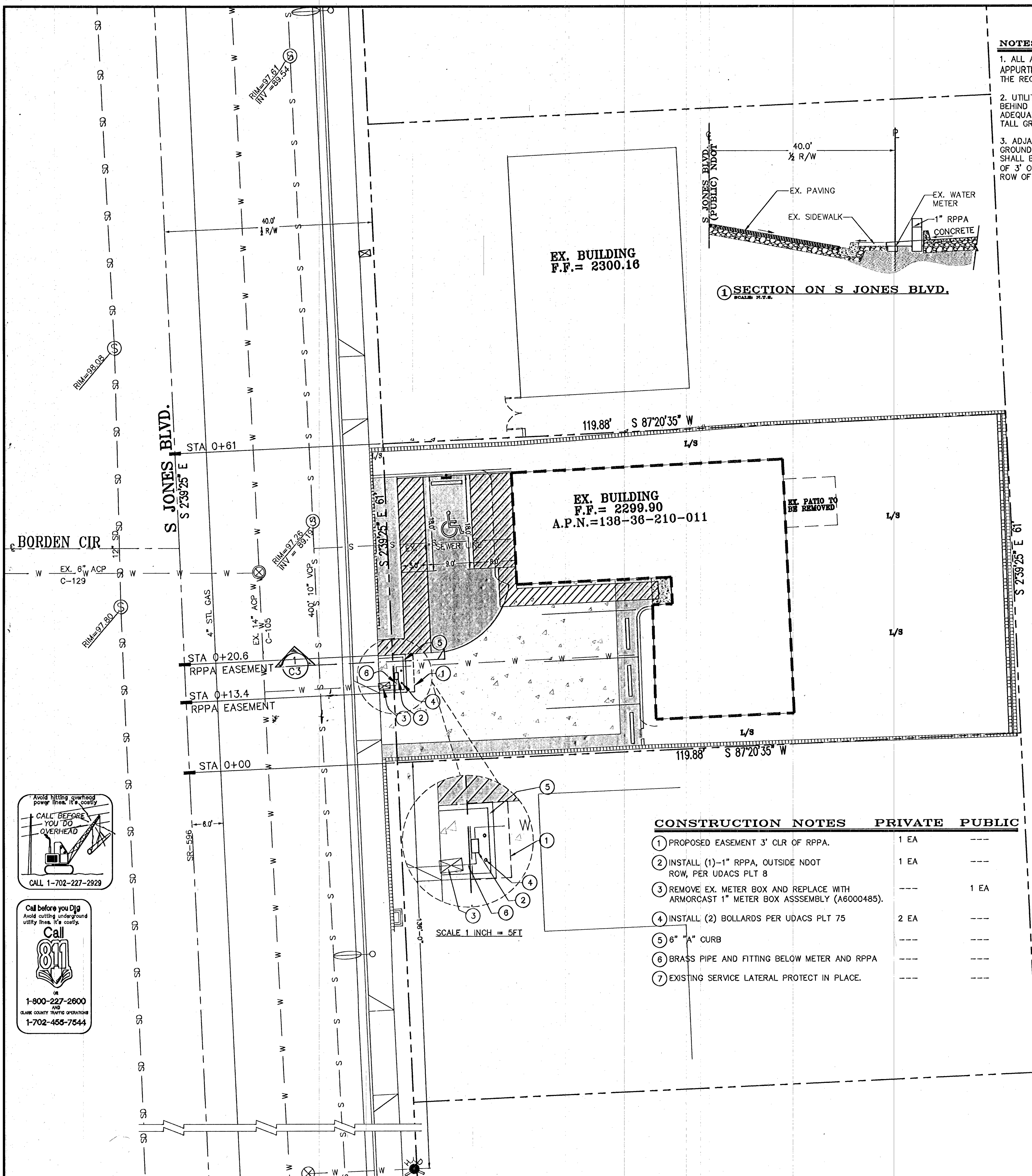
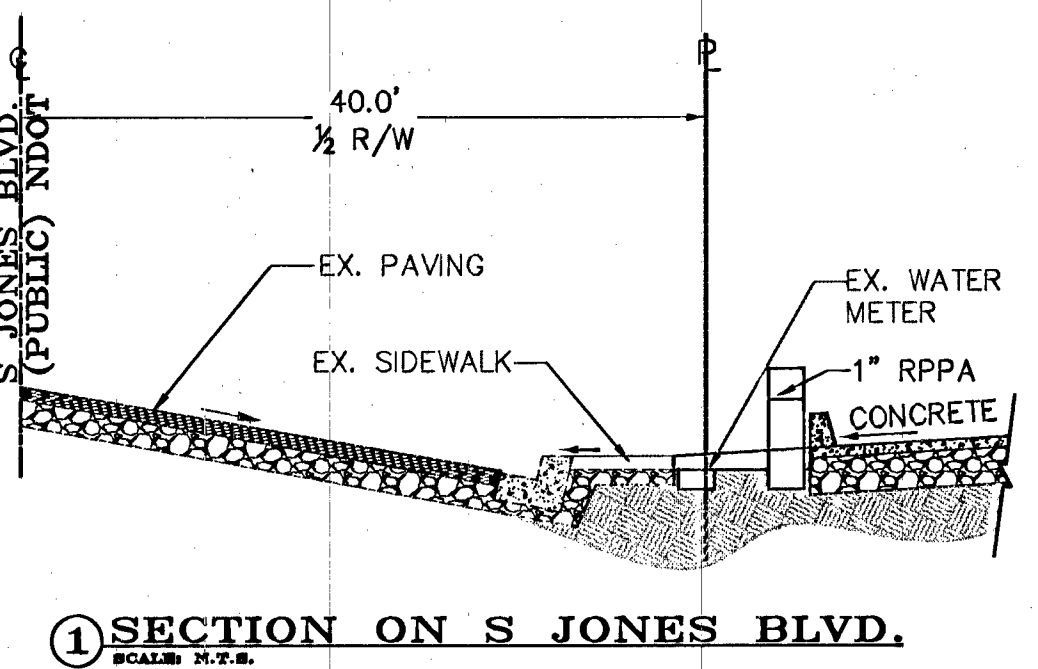




- NOTES:**
1. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.08.
 2. UTILITY BOXES MUST BE 3' BEHIND PROPERTY LINE. PROVIDE ADEQUATE SCREENING OF BOX WITH TALL GRASSES AND SHRUBBERY.
 3. ADJACENT TO COMMERCIAL ABOVE GROUND UTILITY INSTALLATIONS SHALL BE SETBACK WITH A MINIMUM OF 3' OF LANDSCAPE FROM PUBLIC ROW OF SIDEWALK.



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 ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY. ESN.008 REVISED 6/1/04

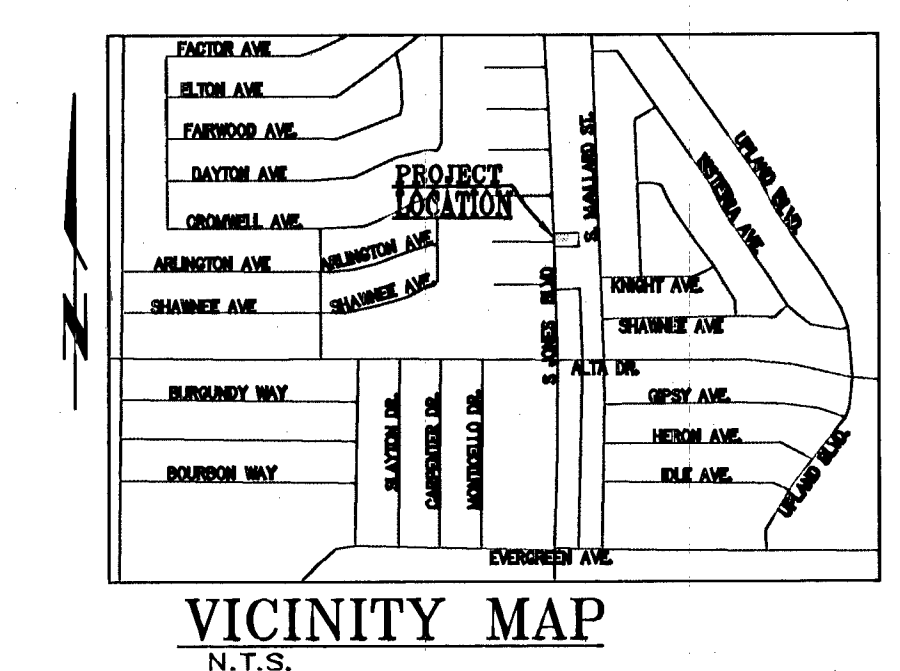
FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE. BASED ON:

SQUARE FOOTAGE OF LARGEST BUILDING	1270 SQ. FT.
LARGEST AREA BETWEEN 4-HR SEPARATION WALL	
BUILDING HEIGHT	16'-0"
NUMBER OF STORIES	1 STORY
TYPE OF CONSTRUCTION	V-B
OCCUPANCY	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	NO

NOTICE TO CONTRACTOR 1

IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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.



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 LVVWD.

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.

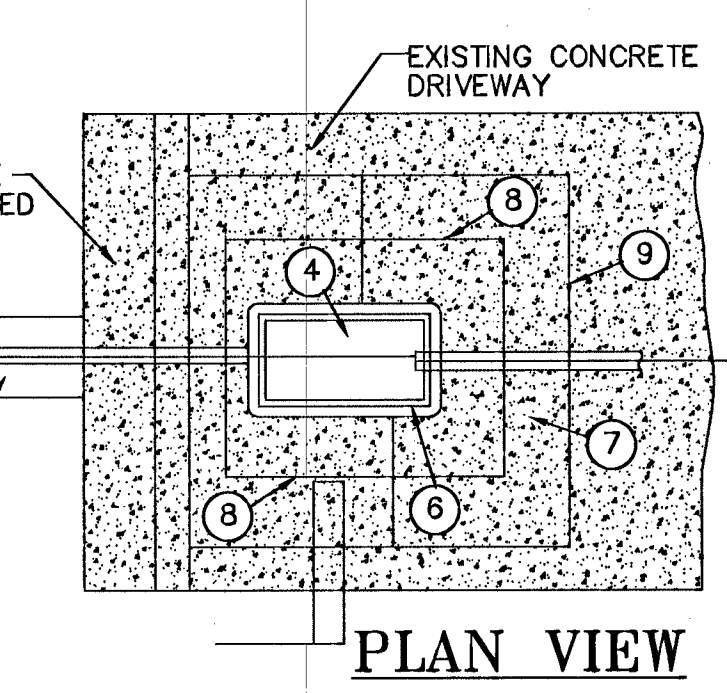
EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO START OF CONSTRUCTION.

FIRE WATER AT DOMESTIC WATER CROSSINGS

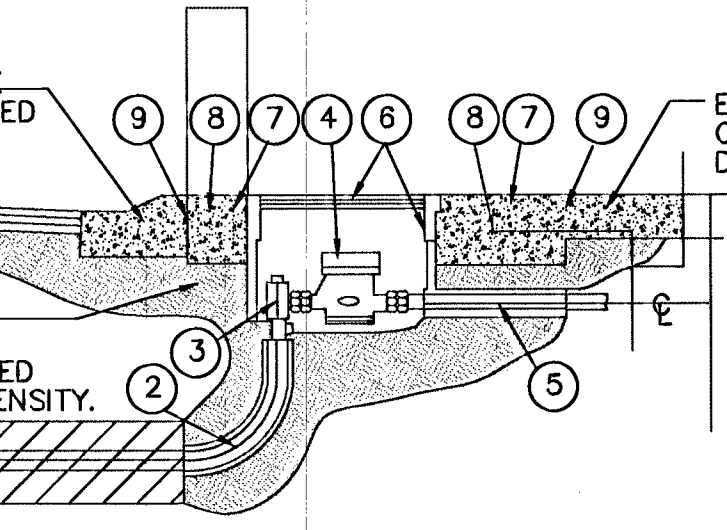
ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH "A" VERTICAL SEPARATION OF NO LESS THAN SIX INCHES ... AND IN ACCORDANCE WITH UDACS 2.20.01, 2.04.05, 2.19.02.B1, AND 2.19.02.B2."

LEGEND:

- | | | | |
|--|---------------------------------|--|---------------------------------|
| | EXISTING FIRE HYDRANT | | PROPOSED SANITARY SEWER MANHOLE |
| | EXISTING WATER VALVE | | PROPOSED STREET LIGHT |
| | EXISTING SANITARY SEWER MANHOLE | | PROPOSED WATER LINE |
| | EXISTING EDGE OF PAVEMENT | | PROPOSED SEWER LINE |
| | EXISTING STREET LIGHT | | PROPERTY LINE |
| | EXISTING WATER LINE | | CENTERLINE |
| | EXISTING SEWER LINE | | EASEMENT LINE |
| | EXISTING GAS LINE | | PARCEL LINE |
| | EXISTING BLOCK WALL | | SAWCUT LINE |
| | EXISTING FENCE | | HANDICAP ACCESSIBLE ROUTE |
| | PROPOSED GAS LINE | | NEW PAVING |
| | PROPOSED FIRE HYDRANT | | SEWER FLOW DIRECTION |
| | PROPOSED WATER VALVE | | |



- LEGEND:**
- 1 EXISTING SERVICE LATERAL ENCASED IN SAND BACKFILL
 - 2 SERVICE LATERAL (1" DIAMETER MIN.) COVERED WITH PREFORMED POLYFOAM PIPE INSULATION
 - 3 BALL ANGLE METER STOP WITH LOCK WING AND WITHOUT LEVER HANDLE
 - 4 APPROVED DISPLACEMENT TYPE WATER METER, AGENCY SUPPLIED, CONTRACTOR INSTALLED
 - 5 TAIL PIECE COUPLING, COVERED WITH PREFORMED POLYFOAM PIPE INSULATION
 - 6 ARMORCAST 1" METER BOX ASSEMBLY (A6000485)
 - 7 FORMED CONCRETE COLLAR (6" THICK)
 - 8 #4 REBAR IN CONCRETE COLLAR (INSTALL 2" FROM BOTTOM AND CENTERED WITHIN EACH SIDE OF CONCRETE COLLAR)
 - 9 1/2" EXPANSION JOINT MATERIAL (AROUND ENTIRE COLLAR)



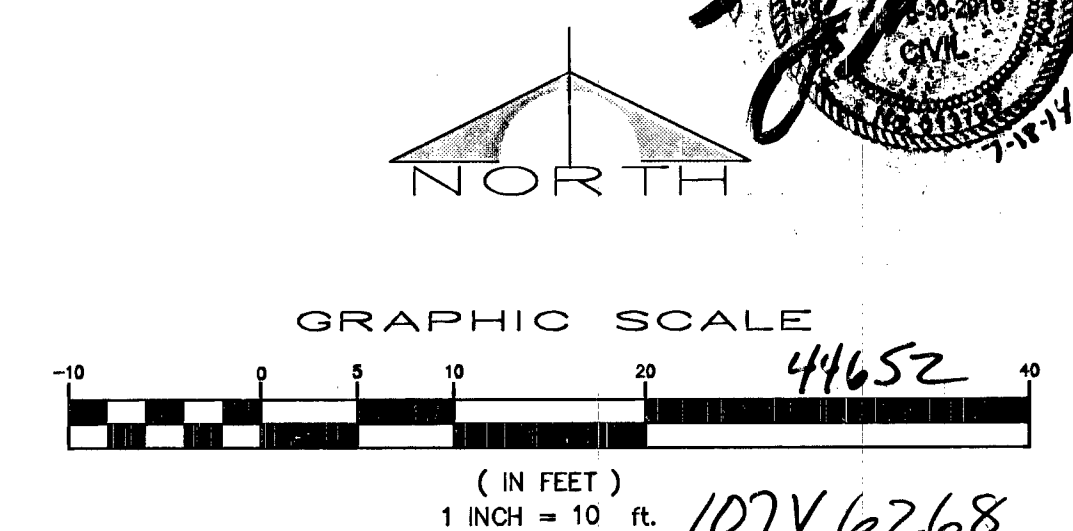
- NOTES:**
- 1 SEUDACS PLATES 2 AND 4 FOR FURTHER INSTALLATION REQUIREMENTS.
 - 2 CONTACT LVVWD INSPECTION DIVISION, 258-7171, FOR INSPECTION OF THE SERVICE, BACKFILL AND DENSITY TESTING PRIOR TO CONSTRUCTING THE CONCRETE COLLAR, AND FOR THE FINAL INSPECTION.

RETROFIT FOR WATER SERVICE INSTALLATIONS LOCATED WITHIN EXISTING DRIVEWAY AREAS

NOT TO SCALE

APPROVAL BLOCKS:

BY: <i>[Signature]</i>	DATE: 10/24/13
CITY FIRE DEPARTMENT	
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR CLARK COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL.	
<i>[Signature]</i>	11/25/13
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER	(PROJECT # 122148)



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1-800-227-2600

CLARK COUNTY TRAFFIC OPERATIONS

1-702-455-7544

REVISIONS:

REVISION	ISSUE	DATE

ACE Engineering

6283 Dean Martin Drive, Suite B
LAS VEGAS, NEVADA 89118
Phone: (702) 396-5114 Fax: (702) 446-8155

UTILITY PLAN

OFFICE

344 SOUTH JONES BOULEVARD
LAS VEGAS, NV

A.P.N.=138-36-210-011

C3

SHEET 4 OF 5

DATE: 10/24/2013
JOB: 11-016
DWG. BY: HS
CHK. BY: MG