

ROME BLVD (PUBLIC)

THOM BLVD (PUBLIC)

UTILITY CROSSING NOTE

THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:

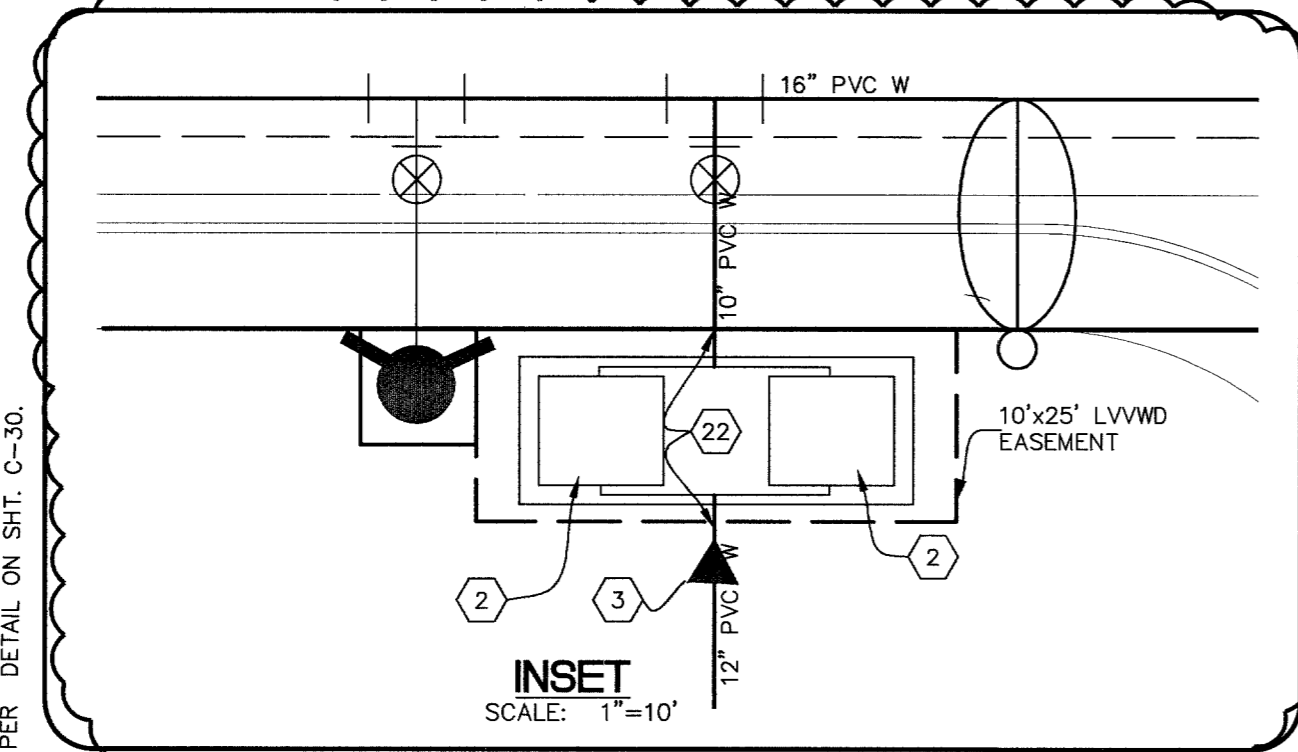
A MINIMUM OF EIGHTEEN (18") INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:

- POTABLE WATER SUPPLY QUALITY MATERIAL.
- ENCASEMENT, WITH FOUR (4") INCH CONCRETE (MINIMUM).
- SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.

EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM OF 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.

MAJOR A
148,000 SF
FF=303.0
PAD=302.0

TIRE CENTER
5,200 S.F.
FF=303.00



REMOVE 8" DCDA, 8" x 12" REDUCER AND 8" PIPE TO VALVE. INSTALL 8" x 10" REDUCER, 10" DCDA AND 10" x 12" REDUCER.

DUAL DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (2) 10"

THE DUAL DOUBLE CHECK DETECTOR ASSEMBLY(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 11D.

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.

NOTE

- ALL ON-SITE SEWER/WATER IS PRIVATELY OWNED AND MAINTAINED.
- ON-SITE LIGHTING PER ARCHITECT PLANS.
- WATERLINE TYP. 3.5' BELOW FG UNLESS OTHERWISE NOTED, I.E., @ UTIL. CROSSINGS

WATER MAIN JOINT DEFLECTION (4'-24')

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM 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.

STORM DRAIN NOTE (MAJOR A ONLY)

1 6" SD LATERAL (TYPICAL), INVERT 3' BELOW FINISHED FLOOR

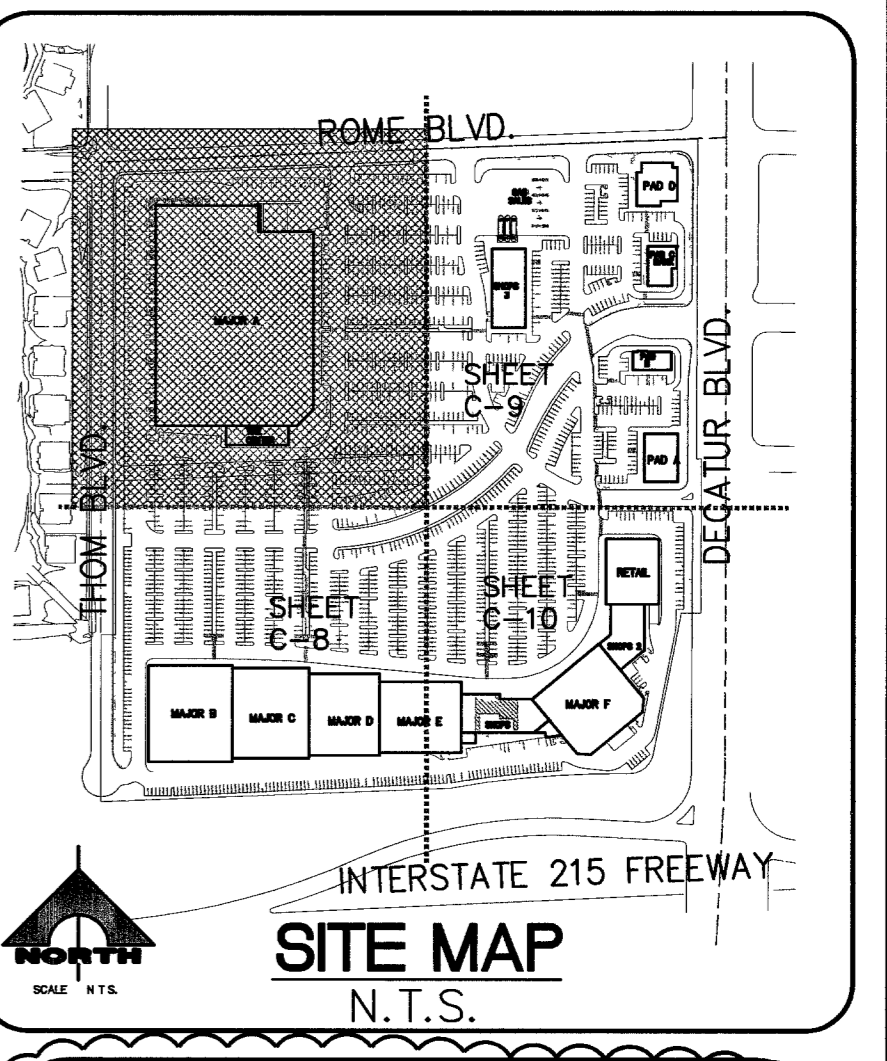
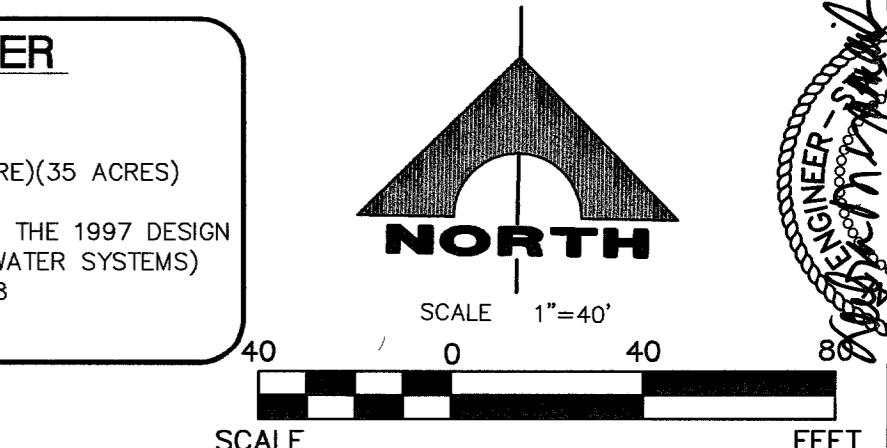
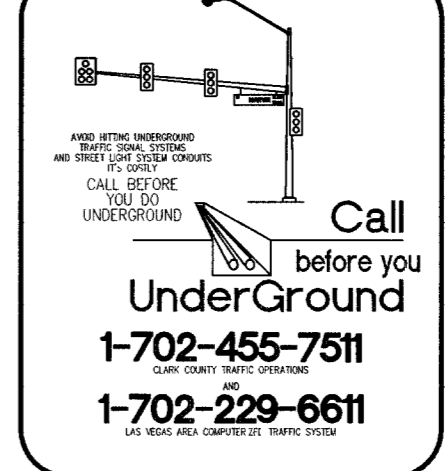
- UTILITY NOTES**
- INSTALL 16"x16"x10" TEE W/ 10" GATE VALVE PER PREVIOUSLY DELETED NOTE
 - INSTALL DUAL 10" DCDA PER UDACS PLATE 11C ON 18"x7" SLAB.
 - INSTALL 10"x12" REDUCER.
 - INSTALL SEE PLAN FOR SIZE.
 - INSTALL 90° ELBOW (SEE PLAN FOR SIZE)
 - INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 7.
 - INSTALL CAP (SEE ARCHITECTURAL PLANS FOR CONTINUATION).
 - INSTALL 8" GATE VALVE
 - INSTALL 10" x 12" REDUCER
 - INSTALL 10" DCDA PER UDACS PLATE NO. 11C PREVIOUSLY DELETED NOTE
 - INSTALL 18"x18" TEE W/ 8" GATE VALVE PER UDACS PLATE NO. 3 & 8
 - INSTALL SERVICE SADDLE WITH CORPORATION STOP PER UDACS PLATE NO. 22
 - INSTALL 2" WATER METER PER UDACS PLATE NO. 1D PREVIOUSLY DELETED NOTE
 - INSTALL 2" RPPA PER UDACS PLATE NO. 11B PREVIOUSLY DELETED NOTE
 - INSTALL CAP WITH BLOWOFF PER UDACS PLATE NO. 4A
 - INSTALL 11.25" BEND (SEE PLAN FOR SIZE).
 - INSTALL 2"x4" REDUCER PREVIOUSLY DELETED NOTE
 - INSTALL 45° ELBOW (SEE PLAN FOR SIZE).
 - INSTALL 12"x12" MJ TAPPING SLEEVE W/ 12" TAPPING VALVE PER UDACS PLATE NO. 22
 - INSTALL 16"x12" REDUCER
 - INSTALL 16"x10" REDUCER
 - REMOVE CAP AND BLOW OFF PER UDACS PLATE NO. 4A, NOTE NO. 1 AND CONNECT TO EXISTING MAIN.
 - INSTALL 12" GATE VALVE.
 - FIRE DEPARTMENT CONNECTION AND FIRE RISER PREVIOUSLY DELETED NOTE
 - PER UDACS SECTION 2.19.02 PARAGRAPH 2) & 3) LETTER C STORM DRAIN SHALL BE IN 4" CEMENT SLURRY, 10" EA. SIDE OF W.L. FC=300 P.S.I. SEE ALSO UTILITY CROSSING NOTE
 - INSTALL 1-1/2" WATER METER (IRRIGATION PER UDACS PLATE NO. 1D (PRIVATE)
 - INSTALL 1-1/2" RPPA PER UDACS PLATE NO. 11A
 - INSTALL GREASE INTERCEPTOR MODEL PER MECHANICAL PLAN
 - INSTALL SAND-OIL INTERCEPTOR PER MECHANICAL PLAN
 - INSTALL 48" SANITARY SEWER MANHOLE PER STD DWG. NO SD-1. (CLARK COUNTY DESIGN AND CONSTRUCTION STANDARDS FOR WASTE WATER COLLECTION SYSTEMS).
 - INSTALL 12" GATE VALVE.
 - INSTALL 6" CLEAN OUT PER DETAIL "A"
 - INSTALL (3) - 6" IRRIGATION SLEEVES STUB OUT BEYOND 5' BACK OF CURB.
 - INSTALL CAP AT THE END OF STUB OUT
 - INSTALL 2" x 1-1/2" REDUCER
 - INSTALL 2" BRASS WATER LINE

PEAK FLOW FOR SEWER

ASSUME 2000 GAL/DAY/ACRE DEMAND
PROJECT ACREAGE = 35 ACRES
AVERAGE DAILY FLOW = (2000 GAL/DAY/ACRE)(35 ACRES) = 70,000 GAL/DAY
PEAKING FACTOR = 3.38 (REFERENCED FROM THE 1997 DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER SYSTEMS)
PEAK DAILY FLOW = 70,000 GAL/DAY X 3.38 = 236,600 GAL/DAY



Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (USA)



QUANTITIES ESTIMATE (PUBLIC)

DESCRIPTION	UNIT
1. 6" D.C.D.A.	3 EA.
2. 10" D.C.D.A.	2 EA.
3. 2" R.P.P.A.	3 EA.
4. 16" PVC WATER LINE	1025 LF.
5. 8" PVC WATER LINE	11 LF.
6. 2" PVC WATER LINE	11 LF.
7. 2" METER	2 EA.
8. 16" PVC WATER LINE	1990 LF.
9. FIRE HYDRANT ASSEMBLY	5 EA.
10. 1-1/2" R.P.P.A.	1 EA.

FIRE FLOW CALCULATIONS (MAJOR A ONLY)

FIRE FLOW REQUIREMENT IS: 6,000 UFC GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE:	153,200	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	153,200	SQUARE FEET
BUILDING HEIGHT:	30.5'	FEET
NUMBER OF STORIES:	1	FLOOR
TYPE OF CONSTRUCTION:	V-N	UFC
OCCUPANCY:	M, 3-3	1BC
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	

REVIEWED BY: *[Signature]* DATE 7-29-05

FIRE FLOW CALCULATIONS (MAJOR B)

FIRE FLOW REQUIREMENT IS: 2000 UFC GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE

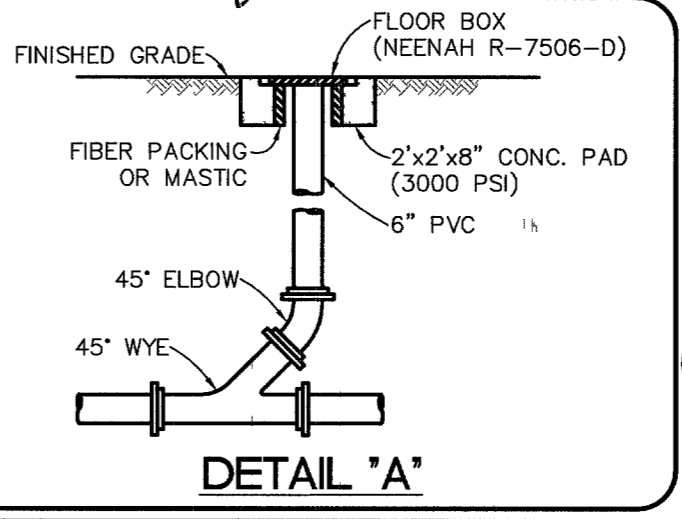
BASED ON:

SQUARE FOOTAGE:	35,000	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	35,000	SQUARE FEET
BUILDING HEIGHT:	36'	FEET
NUMBER OF STORIES:	1	FLOOR
TYPE OF CONSTRUCTION:	III-N	UFC
OCCUPANCY:	M	1BC
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	

REVIEWED BY: *[Signature]* DATE 7-29-05

CONNECTION TO EXISTING NOTE

"PRIOR TO THE CONTRACTOR INSTALLING ANY (STORM OR SANITARY) SEWER ON SITE, THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE EXISTING INVERTS AND IF THERE IS MORE THAN 0.05" DIFFERENCE BETWEEN THE CONTRACTOR'S EXISTING INVERT AND DESIGN INVERT, THE ENGINEER SHALL BE NOTIFIED SO THAT ADJUSTMENTS CAN BE MADE TO THE SEWER PRIOR TO ANY CONSTRUCTION"



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), BACK FLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1)-1/2" AND (3)-2"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A & 11B. 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

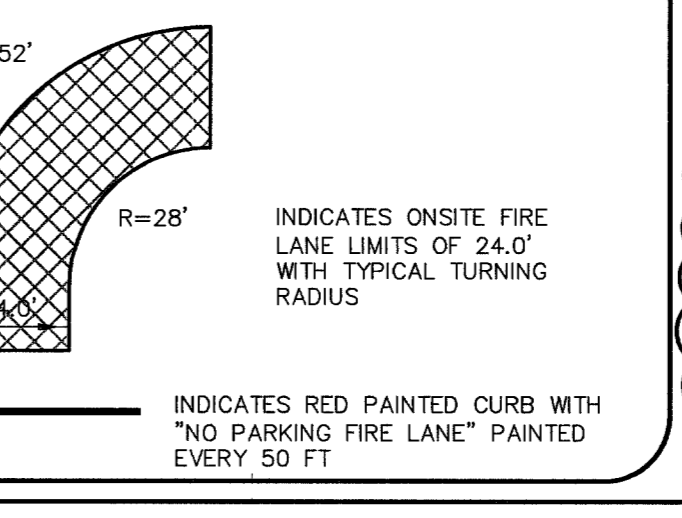
DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (3) 8"

THE DOUBLE CHECK DETECTOR ASSEMBLY(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 11C

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

FIRE LANE LEGEND



BASIS OF BEARINGS

SOUTH 00°46'17" EAST, BEING THE BEARING OF THE CENTERLINE OF DECATUR BOULEVARD BETWEEN CENTENNIAL PARKWAY AND DEER SPRINGS WAY AS SHOWN BY MAP THEREOF ON FILE IN FILE 52, PAGE 70 OF SURVEYS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK QLV90 25M6
RIVET AND ROUND PLATE IN TOP OF CURB, SOUTHWEST CORNER OF BRADLEY ROAD AND AZURE AVE. NEAR THE POINT OF BRADLEY ROAD
ELEVATION 700.832 METERS 2299.313 FEET

APPROVED FOR CONSTRUCTION
[Signature] 7-29-05
CITY OF LAS VEGAS FIRE DEPARTMENT DATE

APPROVED FOR CONSTRUCTION 1st. App'd 7-14-05
[Signature]

APPROVED FOR CONSTRUCTION
[Signature] 8-01-05
LAS VEGAS VALLEY WATER DISTRICT DATE
PROJ # 1109637 10744861

SHADOW MOUNTAIN MARKETPLACE
UTILITY PLAN 1

G.C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD., LAS VEGAS, NEVADA 89148
TELEPHONE: (702) 864-2000 • FAX: (702) 864-2289
F. 9308-2725 Nevada State Board of Professional Engineers

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DRAWING
C-7
7 OF 32 SHEETS