



FIRE FLOW CALCULATIONS

BASED ON:

SQUARE FOOTAGE:	1,600 SF
LARGEST AREA BETWEEN 4 HR. AREA SEPARATION WALL:	N/A
BUILDING HEIGHT:	18'
NUMBER OF STORIES:	1
TYPE OF CONSTRUCTION:	TYPE V-B
EXPOSURES:	N/A
SPRINKLER SYSTEM:	NO
OCCUPANCY:	B/F
FLOOR CONSTRUCTION:	METAL
FLOW REQUIRED @ 20 PSI RESIDUAL:	1,500
MAX. STORAGE HEIGHT:	18'

EX. STATIC WATER PRESSURE IS 71.30± psf IN STREET.

NOTE:
ALL SANITARY SEWER MANHOLE BASES FOR NEW PIPE MUST BE PRECAST PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS PLATE SD-26.

NOTE:
ALL WASTEWATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS*, (DACSWWS), LATEST EDITION.

NOTE:
CONTACT RICH ARNOLD / ONLY UTILITIES @ 633-1286 24 HOURS PRIOR TO BEGINNING ANY WORK FOR SCHEDULING INSPECTIONS AND APPROVALS.

**CITY OF NORTH LAS VEGAS
UTILITY DEPARTMENT DISCLAIMER**

A STATEMENT OF UNDERSTANDING BETWEEN THE CITY OF NORTH LAS VEGAS UTILITY DEPARTMENT (CITY) AND ANY AND ALL SUBSEQUENT USERS OF INFORMATION OBTAINED HEREFROM:

THE PLANS AND SUPPORTING INFORMATION IS FURNISHED BY THE CITY, AND IS ACCEPTED/USED BY THE RECIPIENT WITH THE UNDERSTANDING THAT THE CITY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY OR SUITABILITY OF SAID PLANS OR ANY SUPPORTING DATA AND FURTHER UNDERSTANDS THAT ALL USERS ARE ACTING AT THEIR OWN RISK.

THE CITY SHALL BE UNDER NO LIABILITY WHATSOEVER RESULTING FROM ANY USE OF THIS INFORMATION. THIS INFORMATION SHOULD NOT BE RELIED UPON AS THE SOLE BASIS FOR EXISTING WATER AND/OR SEWER LOCATIONS. THE ENGINEER SHALL CHECK AND VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING UTILITIES.

NOTE:
CONTRACTOR TO INCLUDE COST OF UNDERGROUND UTILITY DETECTION COMPANY TO LOCATE AND MARK ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION OR EXCAVATION. ENGINEER TO BE PROVIDED WITH AS-BUILT SKETCH OF EXISTING UTILITIES, AND IS TO BE NOTIFIED IMMEDIATELY OF ANY POTENTIAL CONFLICTS WITH PROPOSED UTILITIES AND/OR FINISHED GRADES.

A.P.N.:
139-21-102-013

BASIS OF BEARINGS:
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 21, TOWNSHIP 20 SOUTH, RANGE 61 EAST, N.M.D.M., CITY OF NORTH LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY THAT MAP ON FILE IN FILE 05 OF PARCEL MAPS, PAGE 94 IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

SAID LINE BEARS NORTH 89°13'24" EAST.

BENCHMARK:
CLV BM NO. 2L101214
BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHEAST CORNER OF CAREY AND MARTIN LUTHER KING ELEVATION: 2058.60 FEET / 627.4635 METERS (NAVY '88 DATUM)

NOTE:
LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING ARE FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO, THE WATER, FIRE, SANITARY SEWER, STORM SEWER, TELEPHONE, POWER, GAS, AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, AND THE PROJECT ENGINEER IMMEDIATELY.

- WATER CONSTRUCTION NOTES:**
- ALL WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (U.D.A.C.S.)" LATEST EDITION.
 - NOT ALL NOTES USED ON THIS SHEET
 - INSTALL 2" METER PER U.D.A.C.S. PLATE NO.10.
 - INSTALL 2" RPPA PER U.D.A.C.S. PLATE NO.11A.
 - INSTALL SLOT DRAIN W/4" SCH 40 PVC WATER, PER ARCH. PLANS
 - NOT USED
 - INSTALL FIRE HYDRANT W/GATE VALVE PER U.D.A.C.S. PLATE NO.7.
 - INSTALL 11.25" BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER U.D.A.C.S. PLATE NO.5.
 - INSTALL 90° BEND W/THRUST BLOCK (SAME SIZE AS PIPE) PER U.D.A.C.S. PLATE NO.5.
 - INSTALL TEE (SAME SIZE AS PIPES).
 - INSTALL SERVICE SADDLE & CORP STOP (SAME SIZE AS PIPE) PER U.D.A.C.S. PLATE NO.10.
 - INSTALL GATE VALVE (SAME SIZE AS PIPE).
 - INSTALL IN-LINE GATE VALVE (SAME SIZE AS PIPE) W/ANCHOR BLOCK PER U.D.A.C.S. PLATE NO.3.
 - INSTALL REDUCER (SAME SIZE AS PIPES) W/ANCHOR BLOCK PER U.D.A.C.S. PLATE NO.3.
 - INSTALL CAP (SAME SIZE AS PIPE).
 - STUB & CAP WATER SERVICE. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
 - STUB & CAP WATER SERVICE. REFER TO LANDSCAPING/IRRIGATION PLANS FOR CONTINUATION.
 - INSTALL 8" M.J. TAPPING SLEEVE W/8" TAPPING VALVE PER UDACS PLT. #22
 - INSTALL 4" PVC WATER LINE
 - INSTALL 10" M.J. TAPPING SLEEVE W/6" TAPPING VALVE PER UDACS PLT. #22

- SEWER CONSTRUCTION NOTES:**
- NOT ALL NOTES USED ON THIS SHEET
 - INSTALL 48" SANITARY SEWER MANHOLE PER DACSWWS PLATE SD-26.
 - INSTALL SEWER CLEAN-OUT PER D.C.S.W.C.S.
 - STUB SANITARY SEWER SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION.
 - INSTALL SANITARY SEWER WYE AND LATERAL PER DACSWWS PLATE SD-12.
- SEWER CONTRIBUTION:**
- PEAK DAILY DEMAND=0.0225 M.G.D.
AVG. DAILY DEMAND=0.0045 M.G.D.
- NOTE:**
ALL SANITARY SEWER MANHOLE BASES FOR NEW PIPE MUST BE PRECAST PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS PLATE SD-26.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA): (2) 2"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. 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 THE START OF CONSTRUCTION.

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

UTILITY NOTE:
THIS IS A RECORDED COMMERCIAL SUBDIVISION. ALL PROPERTY, THAT IS NOT DIRECTLY UNDER A BUILDING FOOTPRINT, IS A COMMON UTILITY EASEMENT, FOR SEWER, WATER, FIRE, AND ELECTRICAL, REGARDLESS OF ANY, AND ALL, "PROPERTY LINES".

**CITY OF NORTH LAS VEGAS
UTILITIES DIVISION
APPROVAL
-SEWER ONLY-**

[Signature] DATE: 11/30/07

UTILITIES DIVISION - ENGINEERING SERVICES DIVISION

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR CONSTRUCTION, A COMMITMENT TO SUPPLY WATER AND/OR SEWER SERVICE, OR AN APPROVAL OF ANY VIOLATION OF ONLY WATER AND/OR SEWER SERVICE RULES AND REGULATIONS OR DESIGN AND CONSTRUCTION STANDARDS.

[Signature] DATE: 12/3/07

RANDAL D. CAGLE
ONLY MANAGER, REAL PROPERTY SERVICES

NOTE:
CONTRACTOR TO PULL PERMIT PRIOR TO COMMENCING ANY WORK IN CITY OF LAS VEGAS RIGHT OF WAY.

FIRE ACCESS LEGEND:

- PAINTED CURB OR PAVEMENT
- FIRE TRUCK ACCESSIBLE ROUTE

**CITY OF LAS VEGAS
FIRE DEPARTMENT APPROVAL**

BY: *[Signature]* DATE: 12/7/07

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 COUNTY LAWS. FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PROJECT #113962

SAFETY ALERT

Call before you Dig
Before You Overhead

1-702-593-6111

utility plan
SHEET-1

DR. WILLIAM U. PEARSON
PARK
CITY OF LAS VEGAS

DATE: 09-25-07
DESIGNED BY: [Signature]
DATE: 09-25-07
DRAWN BY: [Signature]
DATE: 09-25-07
CHECKED BY: [Signature]
DATE: 09-25-07
PROJECT NO.: 081015
SCALE: 1"=30'

LOCHSA ENGINEERING
6345 SOUTH JONES BOULEVARD SUITE 100
LAS VEGAS, NV 89118
PHONE: (702) 365-9312, FAX: (702) 365-9317

architect: Deker Perich Sabatini
interiors: [Signature]
planning: [Signature]
engineering: [Signature]

PROFESSIONAL ENGINEER - STATE OF NEVADA
GUY M. MORRIS
No. 14576
Exp. 12-31-08

REV. DATE: BY: DESCRIPTION:

CL OR SURVEY LINE	EASEMENT LINE	HEAVY AC P.V.M.T.	DESCRIPTION:	CONTOUR LINES	EDGE OF PAVEMENT	"A" TYPE CURBS	"L" TYPE CURBS	WALLS	FENCES	AC PAVEMENT	CONCRETE	SPOT ELEVATIONS	SIGNS	MANHOLE W/ DESCRIPTION	MANHOLE DESCRIPTIONS	FIRE HYDRANTS	GATE VALVES	REDUCERS	CLEAN OUTS	METERS AND PULLBOXES	100W HPS STREETLIGHTS	150W HPS STREETLIGHTS	200W HPS STREETLIGHTS	250W HPS STREETLIGHTS	
PROPERTY LINE	SAWCUT LINE	LIGHT AC P.V.M.T.	EXISTING:	(---2210---)								(12.34)	19.34		① = SANITARY SEWER ② = STORM DRAIN ③ = ELECTRICAL										