

LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED
RIGHT-OF-WAY CENTERLINE	RIGHT-OF-WAY CENTERLINE	GRADE BREAK	GRADE BREAK
WATER LINE	WATER LINE	WIRE FENCE	WIRE FENCE
SANITARY SEWER LINE	SANITARY SEWER LINE	SANICUT LINE	SANICUT LINE
GAS LINE	GAS LINE	FINISH FLOOR	FINISH FLOOR
STORM DRAIN	STORM DRAIN	CLEANOUT INVERT ELEV.	CLEANOUT INVERT ELEV.
POWER LINE/POWER POLE	POWER LINE/POWER POLE	FLOW LINE	FLOW LINE
TELEPHONE LINE	TELEPHONE LINE	FINISH GRADE	FINISH GRADE
FIRE HYDRANT	FIRE HYDRANT	TOP OF AC P.W.T.	TOP OF AC P.W.T.
WATER VALVE	WATER VALVE	TOP OF FALL SURFACE	TOP OF FALL SURFACE
METERS/PULL BOXES	METERS/PULL BOXES	TOP OF CURB	TOP OF CURB
REDUCER	REDUCER	TOP OF WALL	TOP OF WALL
MANHOLE	MANHOLE	GATE	GATE
CLEANOUT	CLEANOUT	SIGN	SIGN
CONTOUR	CONTOUR	STREET LIGHTS	STREET LIGHTS
A.C. PAVING	A.C. PAVING	100 W.H.P.S.	100 W.H.P.S.
TYPE "L" CURB & GUTTER	TYPE "L" CURB & GUTTER	150 W.H.P.S.	150 W.H.P.S.
TYPE "A" CURB	TYPE "A" CURB	200 W.H.P.S.	200 W.H.P.S.
CONCRETE	CONCRETE	250 W.H.P.S.	250 W.H.P.S.
RETAINING WALL	RETAINING WALL		
CHAIN LINK FENCE	CHAIN LINK FENCE		

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, IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

LEGAL DESCRIPTION

BEING A PORTION OF THE NORTHEAST QUARTER (NE 1/4) OF THE SOUTHWEST QUARTER (SE 1/4) OF THE NORTH HALF (NORTH 1/2) OF SECTION 31, TOWNSHIP 20 SOUTH, RANGE 62 EAST, M.D.M., CLARK COUNTY NEVADA.

AP.N. 140-31-601-001

BASIS OF BEARING

N 00° 40' 10" E BEING THE EAST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 31, TOWNSHIP 20 SOUTH, RANGE 62 EAST, M.D.M., SAID LINE ALSO BEING THE CENTERLINE OF LAMB BOULEVARD AS SHOWN ON ALTA/ACSM SURVEY PRODUCED BY CARTER-BURGESS, SIGNED AND STAMPED BY MARK A. BYRD ON 2-11-99.

BENCHMARK

BM #21, 2LV02 32W466, BEING A RIVET AND PLATE IN TOP OF CURB EAST CURB LINE, 1386' NORTH OF STEWART AVE., ACROSS FROM CARPENTERS HALL LOCAL 1780. ELEV: 1778.61' (539.99 M) NAVD83

FLOOD ZONE

PROPERTY LIES WITHIN F.E.M.A. FLOOD ZONE "X". ZONE "X" IS DESCRIBED AS AREA TO BE OUTSIDE 500-YEAR FLOODPLAIN.

CONSTRUCTION NOTES

- ALL WATER LINES 4" OR GREATER TO BE CL. 150, C900 PVC. ALL WATER LINES SMALLER THAN 4" TO BE SCH. 40 PVC. ALL WATER LINES CONNECTED TO REMOTE FIRE DEPT. CONNECTIONS TO BE CL.200, C900 PVC.
- ALL GRAVITY SANITARY SEWER LINES TO BE SDR-35 PVC. ALL FORCE MAIN SANITARY SEWER LINES TO BE SCH. 40 PVC.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITY STUBS PRIOR TO CONSTRUCTION.
- STATIC WATER PRESSURE ON STREET = 91.4 PSI ±
- ALL NEW WATER VALVE TO HAVE PRECAST VALVE BOX WITH CAST IRON COVER MARKED "WATER".
- ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
- EXISTING UTILITY VALVES, MANHOLES, ETC., TO BE ADJUSTED TO GRADE AS NECESSARY.

FIRE DEPARTMENT CONNECTION

THE LOCATION OF THE FIRE DEPARTMENT CONNECTION (FDC) IS TO BE VERIFIED BY THE CONTRACTOR AND TO BE COORDINATED WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT (CLVFD). ANY REVISION RESULTING FROM CLVFD'S REQUIREMENTS IS NOT THE OWNER'S RESPONSIBILITY AND CONTRACTOR IS TO COMPLY AT HIS EXPENSE.

CLV FLOW CALCULATIONS

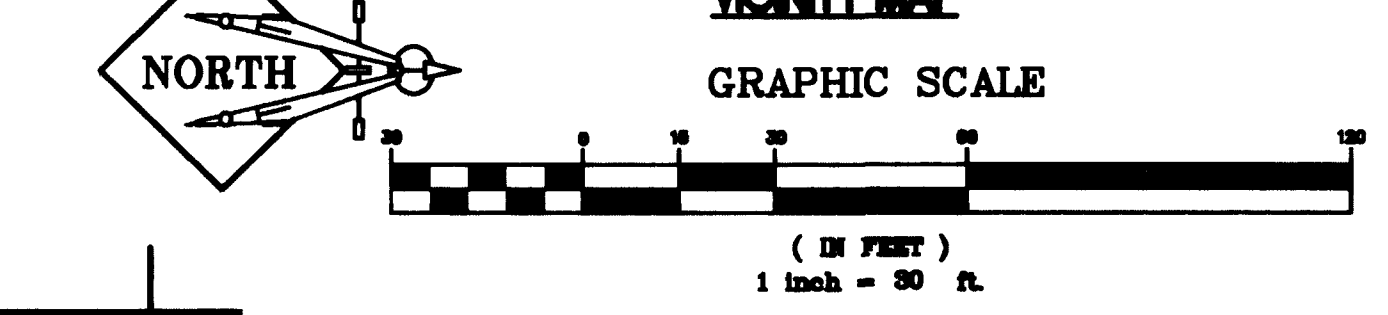
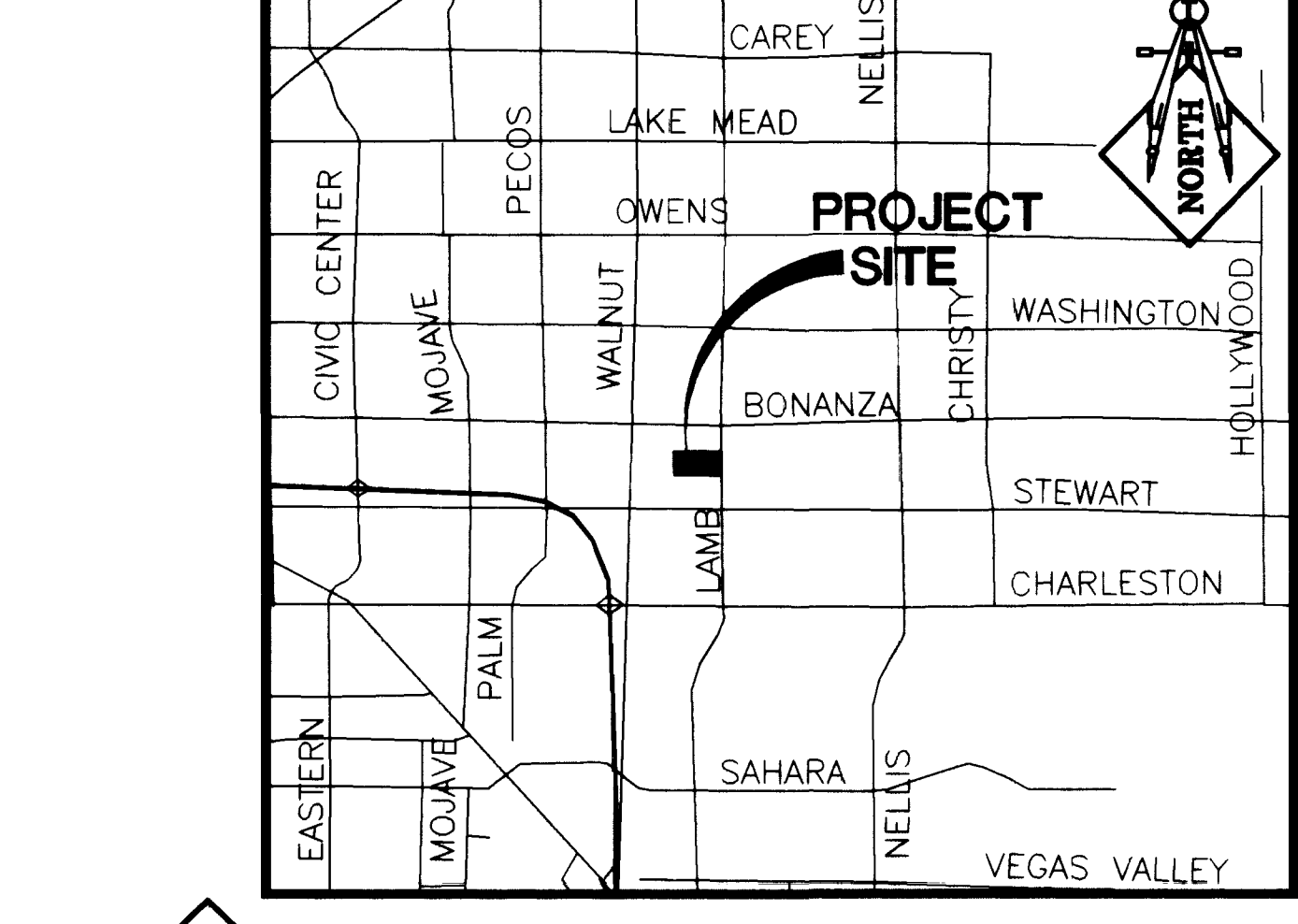
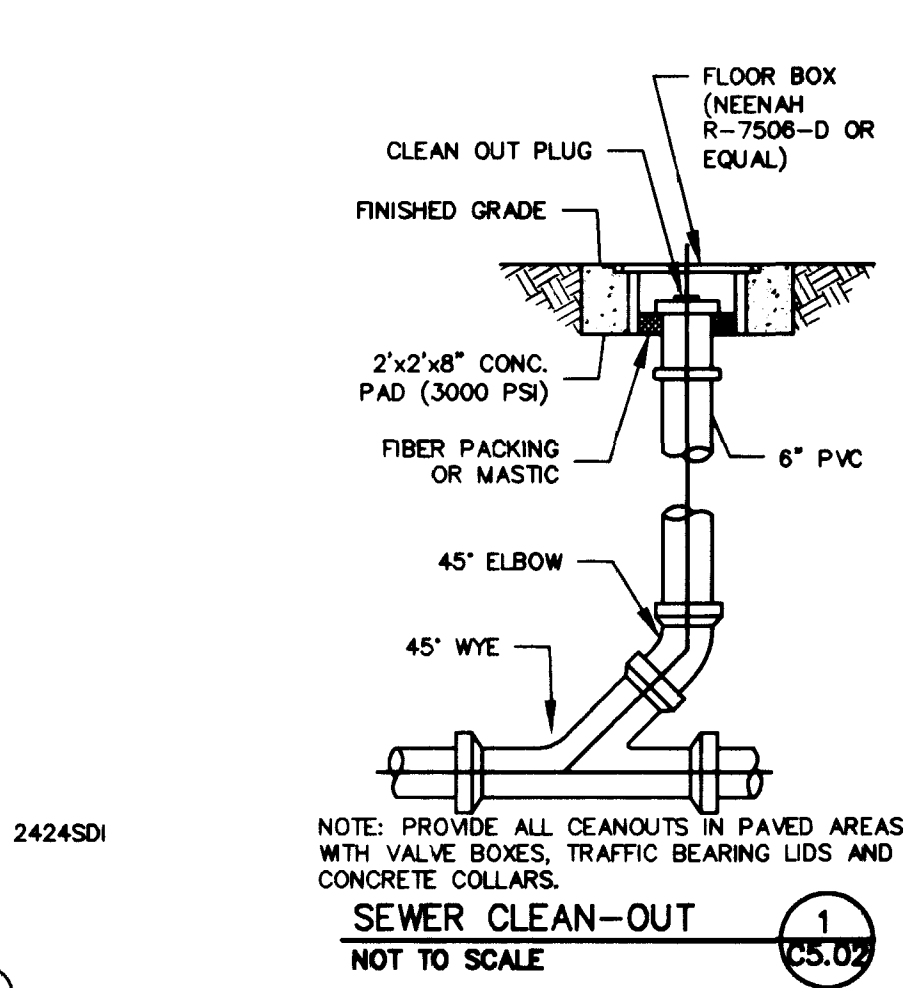
FIRE FLOW REQUIREMENT IS 2,625 GALLONS PER MINUTE AT 20 P.S.I. PRESSURE RESIDUAL.

BASED ON:

- SQUARE FOOTAGE: 60,011
- LARGEST AREA BETWEEN SEPARATION WALL: NA
- BUILDING HEIGHT: 28'-2"
- TYPE OF CONSTRUCTION: II-R
- EXPOSURES: -
- SPRINKLER SYSTEM: YES
- OCCUPANCY: -
- ROOF CONSTRUCTION: -

STORM DRAIN CONSTRUCTION NOTES:

- INSTALL JENSEN PRECAST DROP INLET MODEL 2424SD1 OR APPROVED EQUAL.
- CONNECT 4" ROOF DRAIN TO STORM DRAIN.
- CONSTRUCT STD. 48" MH (STORM DRAIN) PER UNIFORM STANDARD DWG.
- INSTALL PIPE END SECTION PER DETAIL (C5.02)
- INSTALL DRAINAGE STRUCTURE PER DETAIL (C5.02)



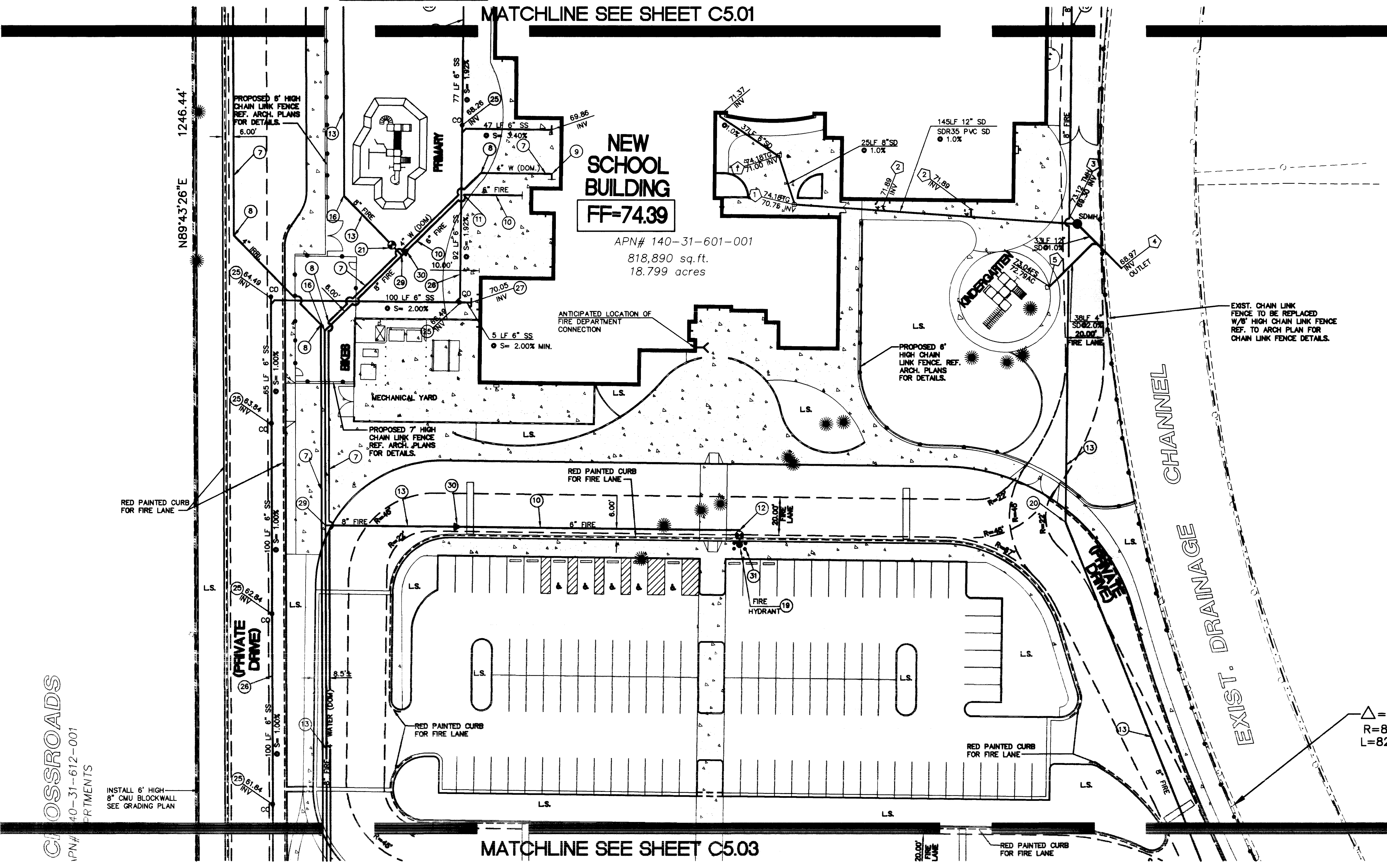
SEWAGE CONTRIBUTION

AVERAGE DAILY FLOW (ADF)
 ADF = (ERU)(250 GPD)(# STUDENTS)
 ADF = (0.1)(250 GPD)(660 STUDENTS)
 ADF = 16,500 GPD

PEAK DAILY FLOW (PDF)
 PDF = (ADF)(PEAK FACTOR)
 PDF = (16,500 GPD)(3.5)
 PDF = 57,750 GPD

JMA ARCHITECTURE
 6192 SOUTH HARTLAND PARKWAY
 SUITE 308
 LAS VEGAS, NEVADA 89146
 PHONE (702) 365-8312
 FAX (702) 365-8317

- ### UTILITY CONSTRUCTION NOTES:
- INSTALL (4) 2" WATER METERS PER UDACS PLATE NO. 1-D.
 - INSTALL (4) 2" RPPA PER UDACS PLATE NO. 11-A.
 - INSTALL 2" COPPER PIPE.
 - CONNECT 2" COPPER PIPE TO 8" WATER LINE W/ SERVICE SADDLE & CORPORATION STOP PER UDACS STD. DWG. 1D.
 - INSTALL 2" 90° SWEEPING CURVE.
 - INSTALL 2"x4" TEE W/THRUST BLOCK REF. UDACS PLATE NO. 5 FOR THRUST BLOCK (TYPICAL).
 - INSTALL 4" C900 PVC.
 - INSTALL 4" 45° BEND WITH THRUST BLOCK.
 - INSTALL 4" 90° BEND W/ THRUST BLOCK.
 - INSTALL 6" DIA. C900 PVC.
 - INSTALL 6" DIA. 45° BEND W/ THRUST BLOCK.
 - INSTALL 6" DIA. 90° BEND W/ THRUST BLOCK.
 - INSTALL 8" DIA. C900 PVC.
 - INSTALL 8" DIA. 90° BEND W/ THRUST BLOCK.
 - INSTALL 8" DCA FEBCO MODEL #876 ("N"-SHAPED) OR APPROVED EQUAL.
 - INSTALL 8" DIA. 45° BEND W/ THRUST BLOCK.
 - INSTALL 8"x6" TEE W/ THRUST BLOCK.
 - CONNECT 8" WATERLINE TO EXIST. 8" WATER W/ 90° BEND W/ THRUST BLOCK.
 - INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 7.
 - INSTALL 8" DIA 22 1/2" BEND W/ THRUST BLOCK.
 - INSTALL 8" GATE VALVE.
 - INSTALL 8" DIA SDR35 PVC(SS).
 - INSTALL 8"x6" WYE W/ 6" STUB AND CAP FOR FUTURE CONSTRUCTION.
 - INSTALL 8"x6" ECCENTRIC REDUCER.
 - CONSTRUCT STANDARD 6" SEWER CLEANOUT PER (C5.02). USE PRECAST VALVE BOX W/ CAST IRON COVER MARKED "SEWER".
 - INSTALL 6" DIA SDR35 PVC (SS).
 - INSTALL 6" x4" ECCENTRIC REDUCER.
 - INSTALL 4" x 4" TEE W/ THRUST BLOCK.
 - INSTALL 8"x8" TEE W/ THRUST BLOCK.
 - INSTALL 8" x 6" REDUCER.
 - INSTALL BOLLARDS PER UDACS PL. NO. 23
 - INSTALL 2" 90° BEND.
 - INSTALL 4" GATE VALVE
 - 10LF 8" STUB & CAP
 - 10LF 4" STUB & CAP
 - REMOVE EXIST. 8" CAP.



CROSSROADS
 140-31-612-001
 DEPARTMENTS

INSTALL 6" HIGH 8" CMU BLOCKWALL SEE GRADING PLAN

APPROVAL
 SEE SHEET 14
 LAS VEGAS VALLEY WATER DISTRICT

APPROVAL
 [Signature]
 CITY OF LAS VEGAS FIRE DEPARTMENT

REVISION BY DATE

LOCHSA ENGINEERING
 5828 Spring Mountain Rd.
 Suite 308
 Las Vegas, Nevada 89146
 Phone (702) 365-8312
 Fax (702) 365-8317

UTILITY PLAN 2

WILLIAM K. MOORE
 ELEMENTARY SCHOOL

SCALE: 1" = 30'

PROJECT NO.: 715-121

SHEET 13 OF 15 SHEETS

DATE: 9/7/99

DESIGNED BY: J.M.B. 9/7/99

CHECKED BY: M.L.H. 9/7/99

DRAWN BY: E.R.F. 9/7/99

MARK L. MOORE
 PROFESSIONAL ENGINEER-STATE OF NEVADA
 NO. 2445

