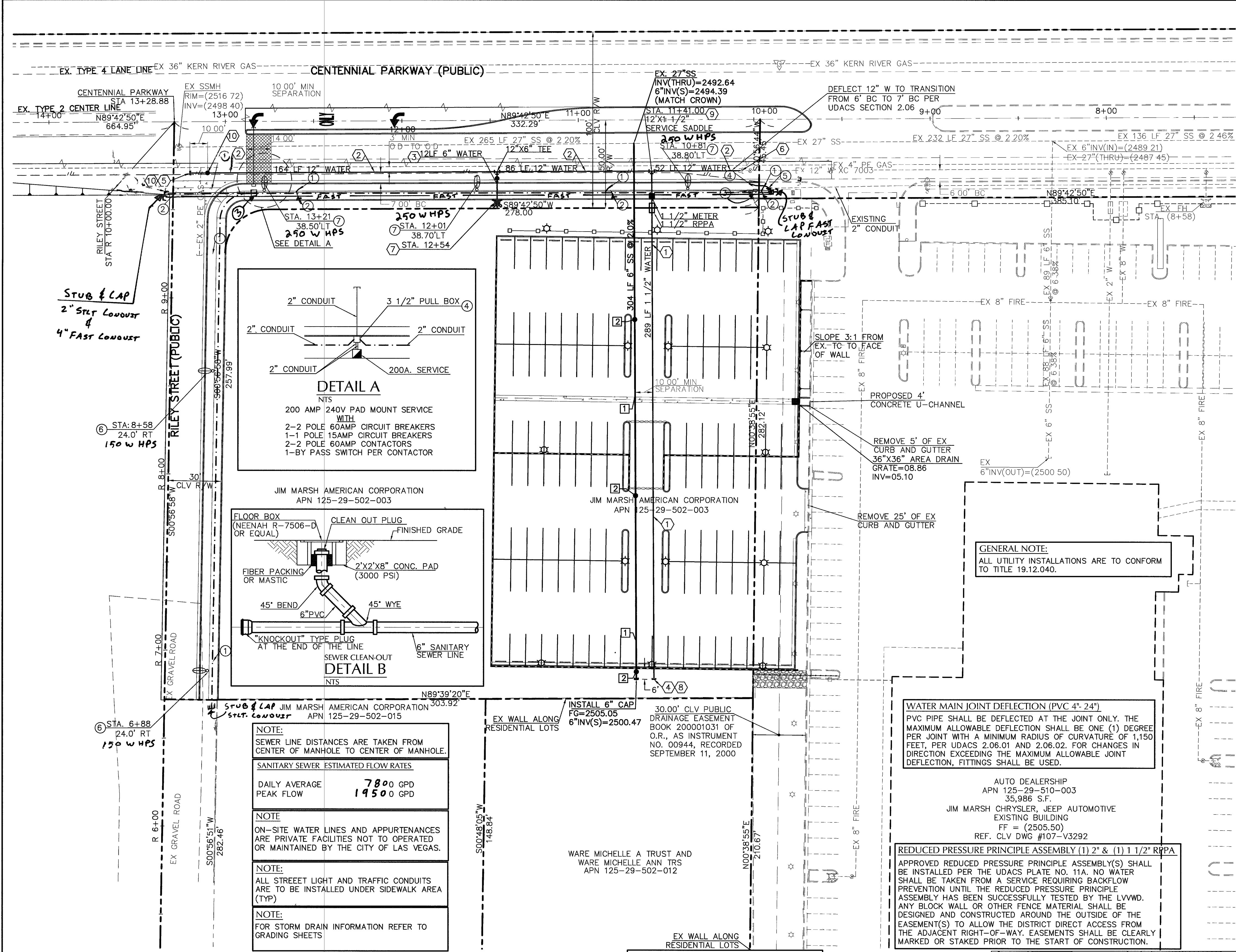




10/15/24

MARTIN & MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

Call before you dig
1-800-227-2600
Underground Utility Line (U.S.)

Call before you dig
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Underground Utility Line (U.S.)

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Underground Utility Line (U.S.)

NOTE:
SEWER LINE DISTANCES ARE TAKEN FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

SANITARY SEWER ESTIMATED FLOW RATES

DAILY AVERAGE	PEAK FLOW
7800 GPD	19500 GPD

NOTE:
ON-SITE WATER LINES AND APPURTENANCES ARE PRIVATE FACILITIES NOT TO OPERATED OR MAINTAINED BY THE CITY OF LAS VEGAS.

NOTE:
ALL STREET LIGHT AND TRAFFIC CONDUITS ARE TO BE INSTALLED UNDER SIDEWALK AREA (TYP)

NOTE:
FOR STORM DRAIN INFORMATION REFER TO GRADING SHEETS

NOTE:
SEE ARCHITECTURAL PLANS FOR ALL CONNECTION DETAILS AT THE BUILDINGS.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

NOTE (UTILITIES)
AS OF THE SUBMITTAL DATE ON THESE SEWER IMPROVEMENT PLANS, THE DOWNSTREAM CONNECTION POINT AS SHOWN ON THESE DRAWINGS HAS NOT BEEN CONSTRUCTED BY "OTHERS" AND/OR THE SEWER CONSTRUCTION BY "OTHERS" HAS NOT BEEN ACCEPTED BY THE CITY. FOR THIS PROJECT, THE DEVELOPER HAS CHOSEN TO DEPEND ON THE WORK BY "OTHERS." AT SOLE RISK, THE DEVELOPER MAY CONSTRUCT THEIR UTILITIES AS SHOWN ON THESE APPROVED PLANS PRIOR TO THE COMPLETION OF WORK BY "OTHERS," BUT OCCUPANCY PERMIT RELEASE WILL NOT BE GIVEN BY THE CITY UNTIL THE UTILITY BY "OTHERS" HAS BEEN CONSTRUCTED AND ACCEPTED BY THE CITY. IF THE WORK BY "OTHERS" IS ABANDONED OR NOT COMPLETED FOR ANY REASON, THIS PROJECT SHALL BE RESPONSIBLE FOR ANY OR ALL OF THE FOLLOWING: (1) PROVIDING RESUBMITTED AND APPROVED MAIN LINE EXTENSION DESIGN PLANS; (2) THE CONSTRUCTION OF ADDITIONAL MAIN LINE UTILITIES TO CONNECT TO AND EXISTING ACCEPTED PUBLIC UTILITY HAVING CAPACITY TO SERVE THIS PROJECT; (3) PROVIDING RIGHT-OF-WAY OR EASEMENTS AS NEEDED.

GENERAL NOTE:
ALL UTILITY INSTALLATIONS ARE TO CONFORM TO TITLE 19.12.040.

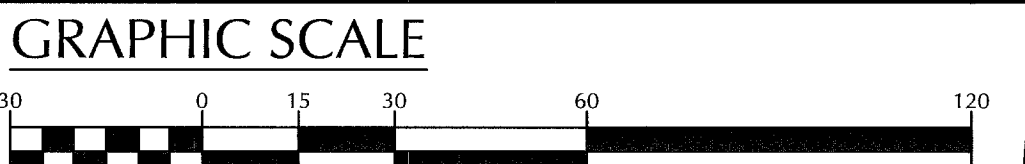
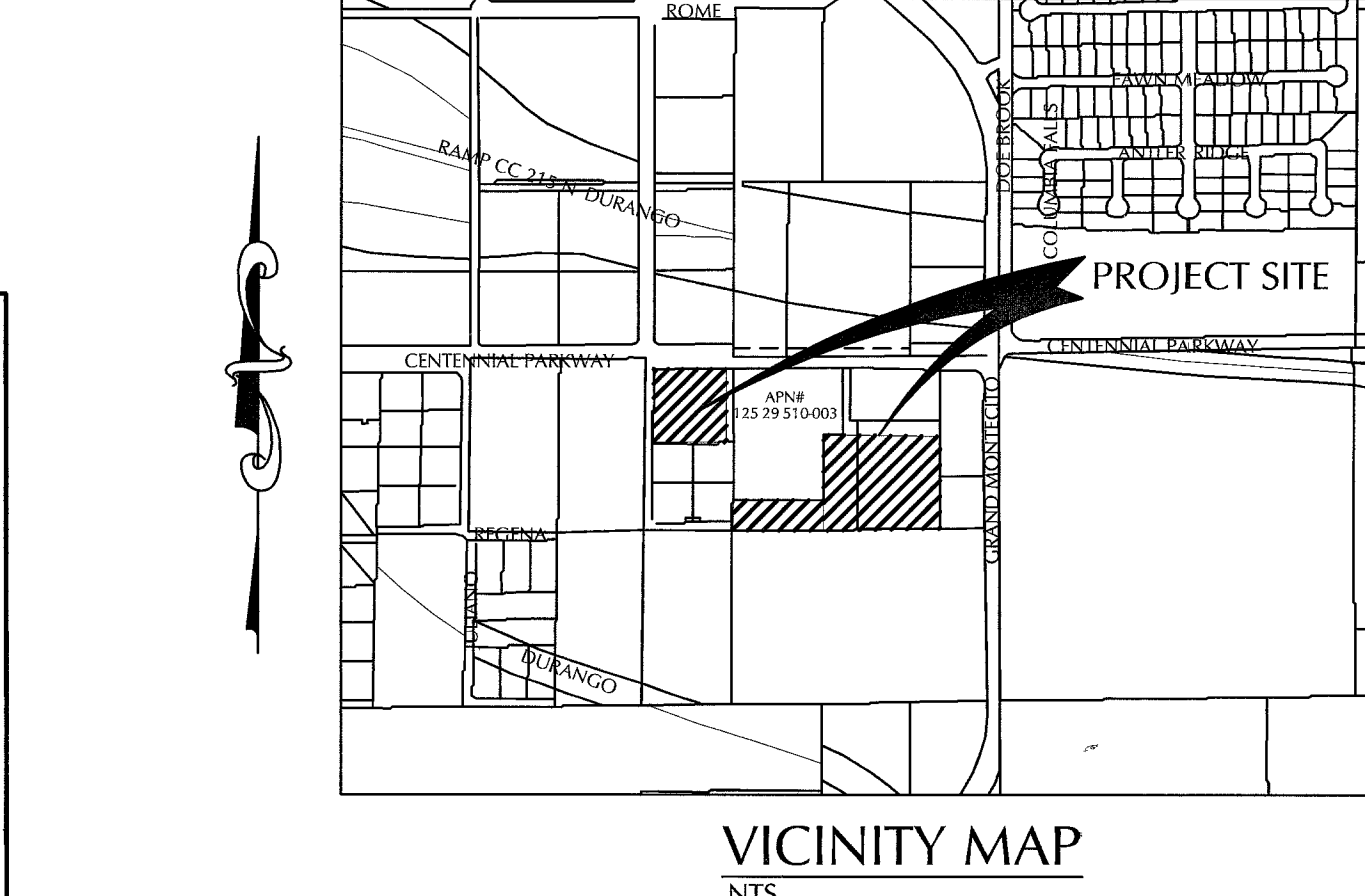
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PROJECT #113541 DATE

WATER CROSSING NOTE
WHEN PROTECTION OF THE WATERLINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF EIGHTEEN INCHES (18") MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATER LINE MUST BE PLACED UNDER THE STORM/SEWER LINE, THE STORM/SEWER LINE MUST BE CONSTRUCTED WITH ANY OF THE FOLLOWING:

A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
B. WATER SUPPLY QUALITY
C. ENCASEMENT WITH 4 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE.

EACH OF THESE PROVISIONS MUST BE EXTENDED FOR TEN FEET (10') ON BOTH SIDES OF THE WATER LINE AT 90 DEGREES TO THE CROSSING.



BASIS OF BEARING

NORTH 89°42'50" EAST BEING THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 19 SOUTH, RANGE 60, EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN, BY MAP THEREOF ON FILE 79 PAGE 08 OF PARCEL MAPS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

CLV BENCHMARK OLV90-29 NES-2002 RIVET AND PLAT IN CONCRETE PAD (BLOW-OFF) SOUTHWEST CORNER OF CENTENNIAL AND DURANGO. EL=2490.26 FEET, 759.0341 METERS (NAVD 88).

WATER CONSTRUCTION NOTES

NO.	ITEM	*UDS PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL 1 1/2" WATERLINE (PVC, C-900 CL 150) PER UDS PLATE NO. 6A & 6B (PRIVATE).	
2	INSTALL 12" WATERLINE (PVC, C-900 CL 150) PER UDS PLATE NO. 6C	
3	INSTALL 6" WATERLINE (PVC, C-900 CL 150) PER UDS PLATE NO. 6C	
4	INSTALL 2" BLOW-OFF ASSEMBLY PER UDACS PLATE NO. 4A	
5	INSTALL 12" CAP AND BLOW-OFF PER UDACS PLATE NO. 4A	
6	REMOVE CAP AND BLOW-OFF AND CONNECT PER UDACS PLATE NO. 4A.	
7	INSTALL FIRE HYDRANT INCLUDING GATE VALVE PER UDS PLATE NO. 7 (CONDITION C)	
8	INSTALL 1 1/2" CAP	
9	INSTALL 1 1/2" WATER METER AND 1 1/2" RPPA PER UDACS PLATE NO. 10 AND 11A.	
10	INSTALL 12" GATE VALVE PER UDACS PLATE NO. 3.	

SEWER CONSTRUCTION NOTES

NO.	ITEM	*SD STD. PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	INSTALL 6" DIA. PVC SDR-35 SEWER LATERAL	
2	INSTALL SEWER CLEAN OUT PER DETAIL B	

STREETLIGHT & F.A.S.T. CONSTRUCTION NOTES

NO.	ITEM
1	INSTALL 2" STREETLIGHT CONDUIT IN SIDEWALK PER CCUS SPECIFICATION SECTION 623
2	INSTALL 4" PVC FAST CONDUIT PER CCUSD 501A AND 404.1419
3	INSTALL P-30 PULLBOX PER CCUSD NO. 404.132
4	INSTALL 3 1/2" STILT PULLBOX PER CCUSD NO. 323, 326 & 328
5	TIE TO EXISTING 2" STREET LIGHT CONDUIT.
6	150W STREET LIGHT, 8" ARM INSTALL 30" BOC (TYP) PER TOWN CENTER DESIGN STANDARDS.
7	250W STREET LIGHT 10" ARM INSTALL 30" BOC (TYP) PER TOWN CENTER DESIGN STANDARDS.

FIRE FLOW CALCULATIONS

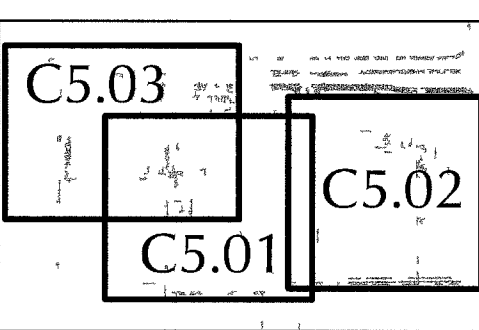
FIRE FLOW REQUIREMENTS IS: 3,375 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE (TOTAL)	43,728	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A	SQUARE FEET
BUILDING HEIGHT:	36'-10"	
NUMBER OF STORIES:	2	
TYPE OF CONSTRUCTION:	II-B	
OCCUPANCY:	B & H4	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	

REVIEW BY: [Signature] DATE: 3/19/07

* REQUIRED FIRE FLOW OF 4500 GPM IS REDUCED 25% DUE TO BEING FULLY SPRINKLERED.



LEGEND

FUTURE	EXISTING	PROPOSED	DESCRIPTION
W	SS	SS	WATER LINE
SS	SS	SS	SANITARY SEWER LINE
G	G	G	GAS LINE
SD	SD	SD	STORM DRAIN
EL	EL	EL	ELECTRIC LINE
TE	TE	TE	TELEPHONE LINE
FD	FD	FD	FIRE DEPARTMENT CONNECTION
WV	WV	WV	WATER VALVE
GV	GV	GV	GAS VALVE
MB	MB	MB	METERS/PULL BOXES
R	R	R	REDUCER
M	M	M	MANHOLE
C	C	C	CLEANOUT
SM	SM	SM	SEWER MANHOLE
UP	UP	UP	UTILITY POLE
DI	DI	DI	DRAIN INLET
AL	AL	AL	AREA LIGHT
S	S	S	SCREEN/RETAINING WALL
CL	CL	CL	CHAIN LINK FENCE
WF	WF	WF	WIRE FENCE
GR	GR	GR	GUARDRAIL
SP	SP	SP	SIGN POLE
PA	PA	PA	2' A.C. PAVING
CP	CP	CP	3' A.C. PAVING
CU	CU	CU	6" TYPE "A" CURB
CT	CT	CT	24" TYPE "A" CURB & GUTTER
CR	CR	CR	30" ROLL CURB
CO	CO	CO	CONCRETE
FI	FI	FI	FINISH FLOOR
SA	SA	SA	SAWTOOTH LINE
GB	GB	GB	GRADE BREAK
SV	SV	SV	SITE VISIBILITY ZONE
LD	LD	LD	LANDSCAPING

JIM MARSH
8555 W. CENTENNIAL PARKWAY
LAS VEGAS, NEVADA 89149
(702) 990-3532 FAX (702) 990-3531

MARTIN & MARTIN
CIVIL ENGINEERS
SUITE 120
LAS VEGAS, NV 89146
PHONE (702) 248-8000
FAX (702) 248-8070

DATE 10/24/06
JOB NUMBER 2130.00
DESIGN BY J. PATCHETT, E.I.
DRAWN BY R. MOORE
CHECKED BY T. MILLER, P.E.

UTILITY PLAN
SHEET

DATE 10/24/06
JOB NUMBER 2130.00
DESIGN BY J. PATCHETT, E.I.
DRAWN BY R. MOORE
CHECKED BY T. MILLER, P.E.

THOMAS D. MILLER
P.E. 12-31-07
CIVIL
NO. 15776

8/13/07

C5.03

SHEET 16 OF 24