ESTIMATE OF QUANTITIES

SEWER

	4" PVC SEWER LATERAL	35 LF±
	AVERAGE DAILY FLOW	0.001776 MGD
	PEAK DAILY FLOW	0.0060 MGD

WATER

	2" DOMESTIC SERVICE LATERAL	63 LF±
	2" METER (UDS PLATE #1C OR 1D)	1 EA
	2" RPPA (UDS PLATE #11A)	1 EA
	6" FIRE SERVICE LATERAL	101 LF±
	4" D.C.D.A. (UDS PLATE #20B)	1 EA
W1	6" 90° BEND	3 EA
W2	FIRE HYDRANT ASSEMBLY (UDS PLATE #7)	1 EA
W3	18"X6" TAPPING TEE W/ 6" TAPPING VALVE	2 EA
W4	6" GATE VALVE	1 EA

STREET LIGHTS

	1 1/4" PVC CONDUIT	652 LF±
	3" PVC CONDUIT	652 LF±
	200 W H.P.S. S.L.	3 EA
5	#5 PULL BOX	2 EA

S/W RAMP DATA

S/W RAMP DATA @ C1	S/W RAMP DATA @ C2	S/W RAMP DATA @ C18	S/W RAMP DATA @ C19
A = 8.0'	A = 4.5'	A = 8.0'	A = 9.5'
B = 8.0'	B = 12.0'	B = 8.0'	B = 4.5'
Z = 2.75"	Z = 2.75"	Z = 2.75"	Z = 2.75"

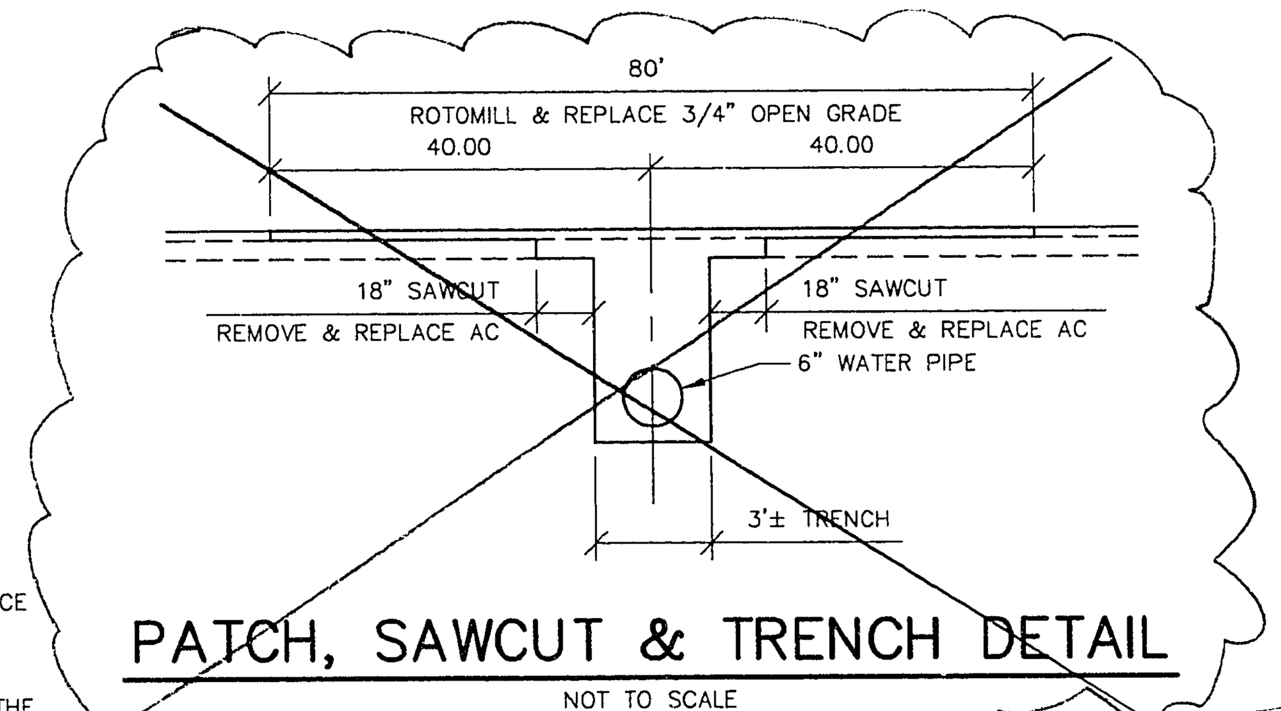
S/W RAMP DATA @ CORNER CHARLESTON & TENAYA	S/W RAMP DATA @ HC1	S/W RAMP DATA @ HC2
A = 8.0'	A = 8.0'	A = 8.0'
B = 8.0'	B = 8.0'	B = 9.5'
Z = 2.75"	Z = 2.75"	Z = 2.75"

INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY 1"–4"
THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 20B.

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.

REDUCED PRESSURE PRINCIPLE ASSEMBLY
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), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.



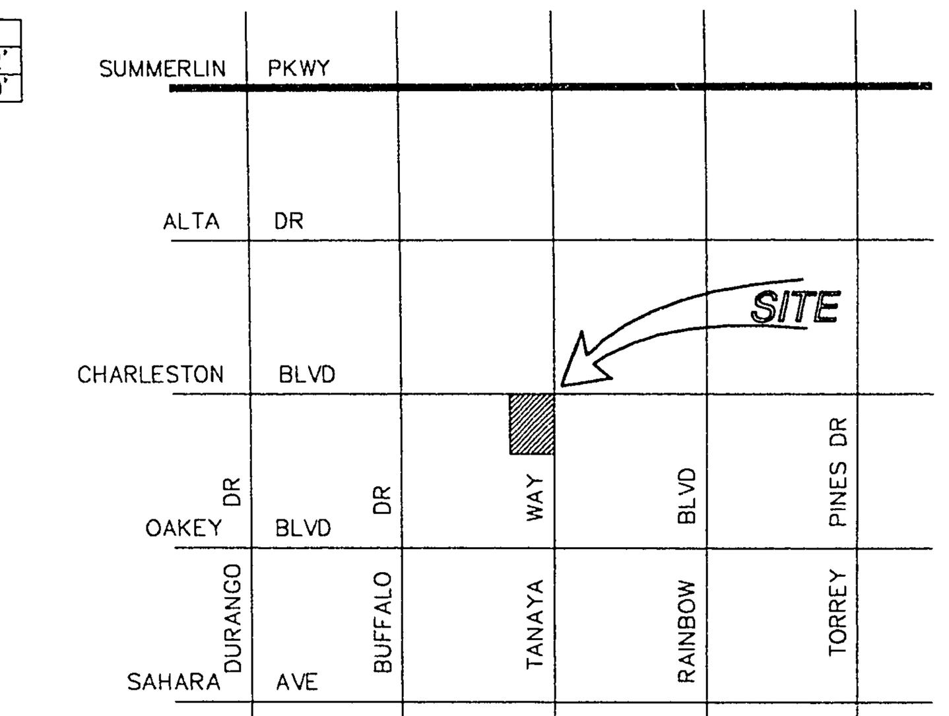
PATCH, SAWCUT & TRENCH DETAIL
NOT TO SCALE

CURVE DATA TABLE

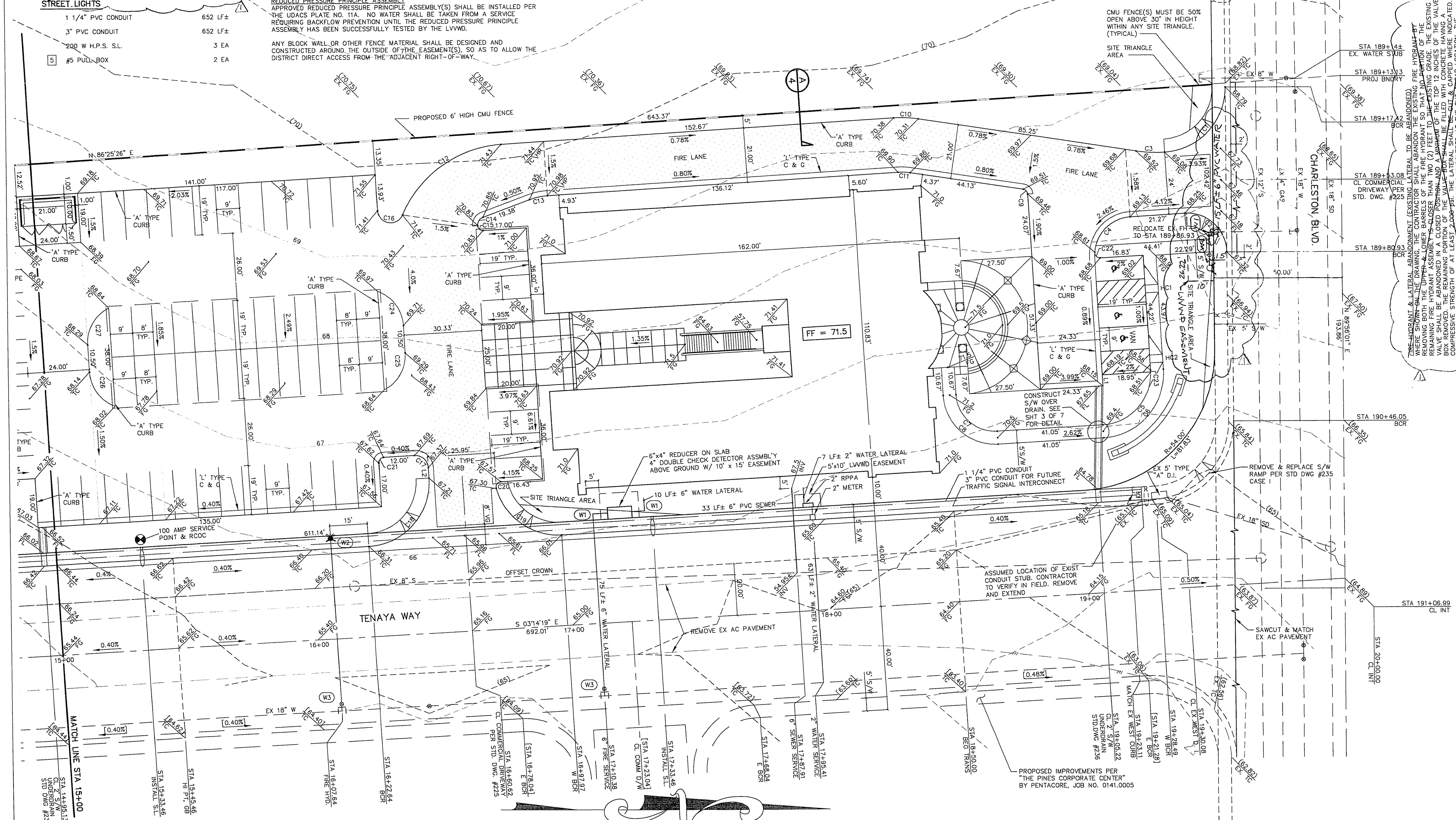
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	25.00'	37.74'	23.51'	86°29'24"
C2	15.00'	24.48'	15.95'	93°30'36"
C3	53.22'	11.21'	5.63'	12°04'16"
C4	15.00'	21.27'	12.86'	81°13'42"
C5	20.00'	30.64'	19.24'	87°46'07"
C6	25.00'	39.27'	25.00'	90°00'00"
C7	15.00'	23.56'	15.00'	90°00'00"
C8	20.00'	31.42'	20.00'	90°00'00"
C9	2.00'	2.73'	1.63'	78°15'59"
C10	45.00'	9.48'	4.76'	12°04'16"
C11	22.00'	4.64'	2.33'	12°04'16"
C12	45.00'	49.49'	27.58'	63°00'42"
C13	25.00'	7.23'	3.64'	16°33'31"
C14	3.25'	4.15'	2.41'	73°06'14"
C15	2.00'	3.14'	2.00'	90°00'00"
C16	5.00'	13.38'	21.11'	153°20'57"
C17	5.00'	7.85'	5.00'	90°00'00"
C18	25.00'	39.27'	25.00'	90°00'00"
C19	25.00'	33.70'	19.97'	77°13'53"
C20	2.00'	3.59'	2.50'	102°46'07"
C21	2.00'	3.14'	2.00'	90°00'00"
C22	2.00'	3.44'	2.32'	98°26'03"
C24	15.00'	17.39'	9.82'	66°25'19"
C25	15.00'	17.39'	9.82'	66°25'19"
C26	15.00'	17.39'	9.82'	66°25'19"
C27	15.00'	17.39'	9.82'	66°25'19"

LINE DATA TABLE

LINE	DIRECTION	DISTANCE
L1	N 86°45'41" E	4.22'
L2	N 86°45'41" E	4.00'



VICINITY MAP
N.T.S.



WHERE SHOWN ON THE DRAWING, THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT BY REMOVING BOTH THE UPPER & LOWER BARRELS OF THE FIRE HYDRANT SO THAT NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN TWO (2) FEET TO THE EXISTING GRADE. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION AND A MINIMUM OF THE TOP 12 INCHES OF THE VALVE BOX REMOVED. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST 2,000 psi. THE LATERAL SHALL BE CUT & CAPPED WHERE INDICATED. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT & CAP LOCATION, THE INSTALLATION OF A PLUG MAY BE PERMITTED, WITH THE DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CUT & CAP LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF LVVWD STANDARD PLATE NO. 5. THE EXISTING CONCRETE FIRE HYDRANT PAD SHALL BE REMOVED.

LEGEND

	MATCH LINE
	EXISTING GRADE CONTOUR
( )	EXISTING ELEVATION
1.00%	RATE & DIRECTION OF FLOW
	DRAINAGE SWALE
	SCARP (2' HOR. TO 1' VERT.) UNLESS OTHERWISE NOTED
GB	GRADE BREAK
TC	TOP OF CURB ELEVATION
FL	FLOWLINE ELEVATION
FG	FINISH GRADE ELEVATION
EP	EDGE OF AC PAVEMENT
[ ]	DESIGN ELEVATIONS BY OTHERS
	EASEMENT LINE
EX. 24" S.D.	EXISTING STORM DRAIN
24" S.D.	PROPOSED STORM DRAIN
	EXISTING DROP INLET
	PROPOSED DROP INLET
	EXISTING WATER VALVE
	PROPOSED WATER VALVE
EX. 8" W	EXISTING WATER MAIN
8" WATER	PROPOSED WATER MAIN
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING SEWER MANHOLE
EX. 8" S	EXISTING SEWER MAIN
	PROPOSED SEWER MAIN
8" SEWER	PROPOSED SEWER MAIN
	STREET LIGHT/TRAFFIC CONDUIT
	EXISTING STREET LIGHT
	PROPOSED 200 W HPS SL POLE
	EXISTING CMU FENCE
	PROPOSED CMU FENCE
	PROPOSED CMU RETAINING WALL
	PROPOSED COVERED PARKING AREA
	SITE DISTANCE TRIANGLE
67.0 TRW	TOP OF RETAINING WALL
	ROTOMILL & REPLACE OPEN GRADE

DESIGN ELEVATION NOTE:

– ADD 2700' TO ALL DESIGN ELEVATIONS

BENCHMARK

CLVBM NO.OLV00 34S4
RIVET & PLATE IN TOP OF CURB NORTHEAST RETURN OF CHARLESTON BLVD. AND ANTELOPE WAY

ELEVATION (NAVD 88) = 2447.242'

BASIS OF BEARING

THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 3, TOWNSHIP 21 SOUTH, RANGE 60 EAST, M.D.B. & M., BEARS SOUTH 89°56'01" WEST

APPROVALS

NEVADA POWER COMPANY	7-15-96 DATE
C.L.V. FIRE DEPARTMENT (FIRST APPROVAL 3/13/96)	3-13-96 DATE
L.V.V.W.D.	7/24/96 DATE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LVVWD STICKER

"I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS"
PE#6763 — 7-3-96 DATE

NOTICE TO CONTRACTOR !

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBLILTY 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.

AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY.
CALL before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

SEE SHEET 4 OF 7 FOR FIRE HYDRANT & STREET LIGHT LOCATION DETAILS

SEE SHEET 4 OF 7 FOR GRADING/UTILITY NOTES, DETAILS

G:\SDSKPROJ\950910\DWG\CT-SITE2 Wed Jul 03 08:10:24 1996 S. SPORES

NO.	DATE	BY	APP'D	REVISION DESCRIPTION
1	8/13/96	SRG		REV. FH LOCATION

PROFESSIONAL ENGINEER STATE OF NEVADA — DONALD W. MAXFIELD — CIVIL — No. 6763
STAMP DATE 7-3-96

SOUTHWEST ENGINEERING
LAND PLANNING • MAPPING • DEVELOPMENT
5426 W. VEGAS DRIVE
LAS VEGAS, NEVADA 89108
(702) 648-9700

TITLE: ROUGH GRADING & UTILITY PLAN
PROJECT: PROF. OFFICE at CHARLESTON & TENAYA

WORK ORDER NO: 950910
DESIGN BY: C.M./S.G.
DATE: 3/25/96
SCALE: 1" = 20'
CADFILE: CT-SITE2.DWG
SHEET 2 OF 7 SHEETS

29-2-74
107-V2486