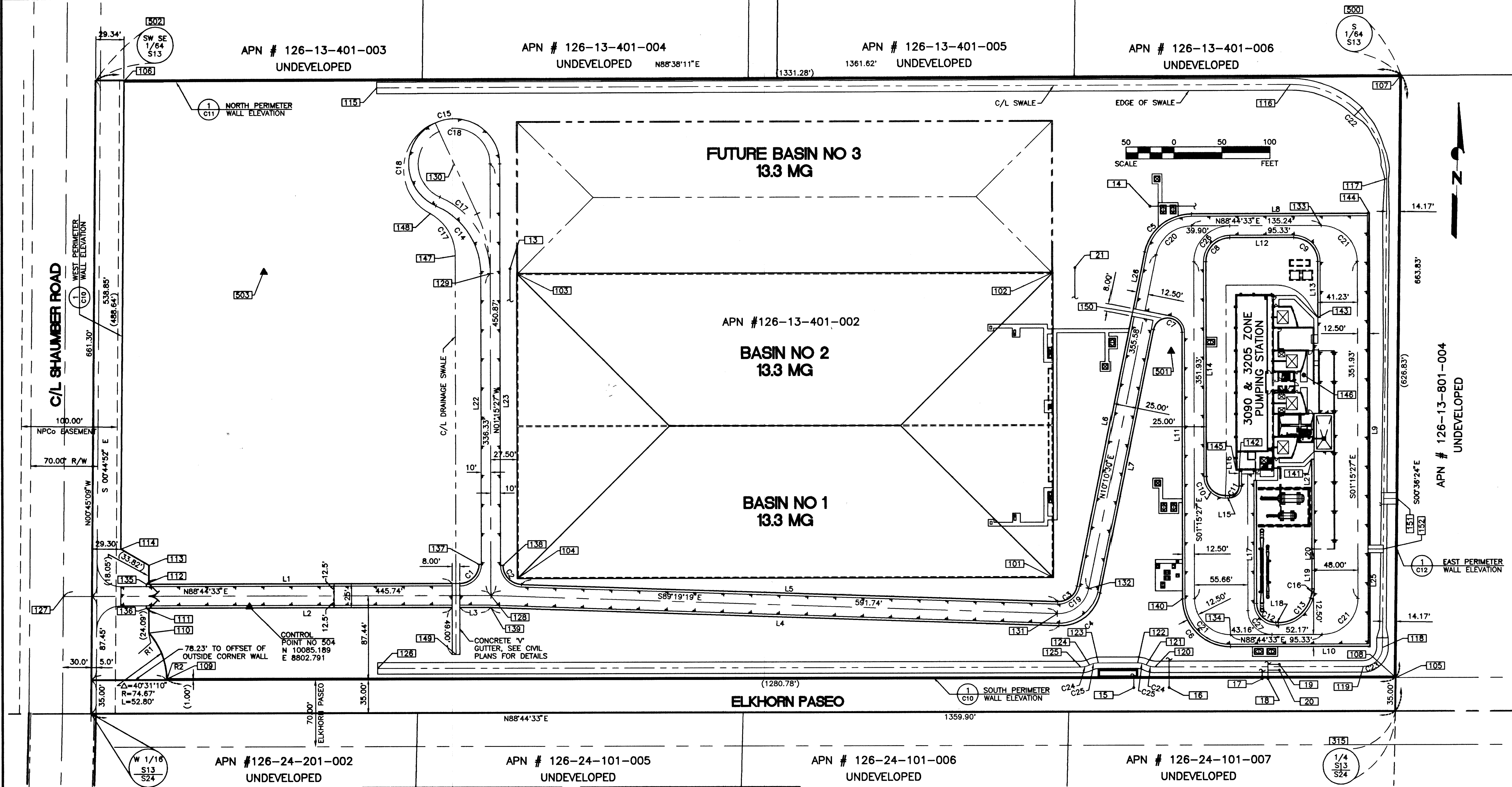




BASIS OF BEARING
N 88°44'33" E BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 13, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY NEVADA AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA RECORDERS OFFICE IN FILE 124 AT PAGE 94.

PROJECT BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CLARK COUNTY VERTICAL CONTROL: 1C00-6N6
NAVD88 ELEVATION: 787.794 METERS (2584.62 FEET)
RIVET & SQUARE ALUMINUM PLATE IN 6" CONCRETE CYLINDER, LOCATED 25' SOUTH AND 50' EAST OF GRAND CANYON DRIVE AND RED COACH AVENUE, 1' WEST OF ELECTRICAL VAULT.

CITY OF LAS VEGAS BENCHMARK
DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: BLV99:13SES
NAVD88 ELEVATION: 869.606 METERS (2853.03 FEET)
RIVET AND PLATE IN CONCRETE CYLINDER NW CORNER OF HUALAPAI AND ELKHORN

73/4/1
NOTE: ADD 0.34' TO ABOVE CITY OF LAS VEGAS BENCHMARK BLV99:13SES TO MATCH ORIGINAL PROJECT BENCHMARK, CLARK COUNTY BENCHMARK 1C00-6N6 (2584.62 FEET) AS SHOWN ON RECORD OF SURVEY FILE 124 PAGE 94.

ACCESS ROAD LINE TABLE			
LINE	LOCATION	LENGTH	BEARING
L1	BC	345.13	S88°44'33"W
L2	BC	345.35	S88°44'33"W
L3	BC	32.29	S88°44'33"W
L4	BC	593.65	S89°19'19"E
L5	BC	580.32	S89°19'19"E
L6	BC	287.92	N10°10'30"E
L7	BC	280.54	N10°10'30"E
L8	BC	183.24	N88°44'33"E
L9	BC	346.81	S01°15'27"E
L10	BC	143.33	S88°44'33"W
L11	BC	278.28	S01°15'27"E
L12	BC	66.60	N88°44'33"E
L13	BC	58.40	N01°15'27"W
L14	BC	224.25	S01°15'27"E
L15	BC	4.16	S88°44'33"W
L16	BC	15.17	S01°15'27"E
L17	BC	128.31	S01°15'27"E
L18	BC	2.67	S88°44'33"W
L19	BC	31.52	S01°15'27"E
L20	BC(TRANS)	10.00	S01°15'27"E
L21	BC	93.84	S01°15'27"E
L22	EP	303.81	N01°15'27"W
L23	EP	419.45	N01°15'27"W
L24	(NOT USED)		
L25	BC	98.02	S01°15'27"E
L26	BC	60.11	N10°10'30"E

ACCESS ROAD CURVE TABLE				
CURVE	LOCATION	DELTA ANGLE	RADIUS	LENGTH TANGENT
C1	BC	90°00'00"	20.00	31.42 20.00
C2	BC	88°03'51"	20.00	30.74 19.34
C3	BC	80°30'11"	20.00	28.10 16.93
C4	BC	80°30'11"	42.50	59.71 35.98
C5	BC	78°03'08"	50.00	68.11 40.53
C6	BC	90°00'00"	50.00	78.54 50.00
C7	BC	168°34'03"	15.00	44.13 149.85
C8	BC	90°00'00"	25.00	39.27 25.00
C9	BC	90°00'00"	25.00	39.27 25.00
C10	BC	90°00'00"	20.00	31.42 20.00
C11	BC(TRANS)	90°00'00"	10.00	15.71 10.00
C12	BC	90°00'00"	20.00	31.42 20.00
C13	BC	73°37'47"	35.00	44.98 26.20
C14	EP	66°25'19"	77.50	89.84 50.74
C15	EP	246°25'19"	47.50	204.29 72.56
C16	BC(TRANS)	16°22'13"	35.00	10.00 5.03
C17	BC	66°25'19"	87.50	101.44 57.28
C18	C/L	249°25'19"	37.50	161.28
C19	C/L	80°30'11"	32.50	45.68 27.51
C20	C/L	78°34'03"	37.50	51.42 30.68
C21	C/L	90°00'00"	37.50	58.90 37.50
C22	C/L SWALE	89°36'26"	100.00	156.39 99.32
C23	C/L SWALE	89°20'56"	20.00	31.19 19.77
C24	C/L SWALE	26°55'13"	20.00	9.40 4.79
C25	C/L SWALE	26°54'24"	20.00	9.39 4.78
C26	C/L	90°00'00"	37.50	58.90 37.50
C27	C/L	90°00'00"	25.00	39.27 25.00
C28	C/L SWALE	61°35'32"	50.00	53.75 29.80
C29	C/L SWALE	129°43'07"	52.49	118.84 111.85

LEGEND

L1 SEE LINE TABLE (THIS SHEET)
C1 SEE CURVE TABLE (THIS SHEET)
130 SEE COORDINATE TABLE (SHEET 11)
17 PROJECT BOUNDARY
17 RIGHT OF WAY
17 PIPELINE TIE-IN LOCATIONS
17 OUTSIDE CORNER BLOCK WALL DIMENSION

RADIAL TABLE		
RADIAL	BEARING	TYPE
R1	N47°27'20"E	
R2	N87°58'30"E	

ENVELOPING EXTERIOR CONTROL

THE FOLLOWING GEODETIC CONTROL POINTS WERE USED TO DERIVE THE STATE PLANE COORDINATES USED FOR THIS SURVEY.

NAME	LOCAL PROVENANCE
CLARK COUNTY GIS POINT 801	RECORD OF SURVEY FILE 88 PAGE 53
CLARK COUNTY GIS POINT 806	RECORD OF SURVEY FILE 88 PAGE 53

STATE PLANE COORDINATE NOTES

ALL STATE PLANE COORDINATES HEREON ARE BASED ON THE NEVADA STATE PLANE COORDINATE SYSTEM EAST ZONE (2701), NORTH AMERICAN DATUM OF 1983 EXPRESSED IN U.S. SURVEY FEET. ALL DISTANCES SHOWN HEREON ARE ACTUAL GROUND DISTANCES AND SHOULD BE CONVERTED TO GRID BEFORE PERFORMING ANY OPERATIONS INVOLVING STATE PLANE COORDINATES.

A. TO CONVERT GROUND DISTANCES TO GRID DISTANCES MULTIPLY BY THE MEAN PROJECT COMBINED FACTOR OF 0.99978281.
B. TO CONVERT GRID DISTANCES TO GROUND DISTANCES MULTIPLY BY THE INVERSE MEAN PROJECT COMBINED FACTOR OF 1.00021724

STATE PLANE COORDINATES ARE HEREON PROVIDED FOR USE BY THE AUTOMATED MAPPING/FACILITIES MANAGEMENT/GEOGRAPHIC INFORMATION SYSTEMS ONLY. THE "PROJECT COORDINATES" ARE INTENDED FOR PROJECT IMPROVEMENT PURPOSES, NOT THE STATE PLANE COORDINATES.

Call before you Dig
1-800-227-2600

Call before you OVERHEAD
1-702-593-6111

CLV DWG # 565-4/3
CLV CIVIL SHT 9 OF 33

LAS VEGAS VALLEY WATER DISTRICT

G. C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD., LAS VEGAS, NEVADA 89146
TELEPHONE (702) 804-2000 • FAX (702) 804-2299

VERIFY SCALE
1/2" = 0' 1/2" = 1'
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

ELKHORN 2975 ZONE RESERVOIR AND 3090 ZONE AND 3205 ZONE PUMPING STATIONS

HORIZONTAL CONTROL PLAN

CONTRACT NUMBER
C1107

DRAWING NUMBER
SHEET 9 OF 224

REVISIONS:

DRAWN BY:	J. BAIZA	DATE	04/15/04
CHECKED BY:	V. LITTLE	DATE	04/15/04
RECOMMENDED BY:	JOSEPH Y. LIN	DATE	
ACCEPTED BY:	PETER J. JAUCH	DATE	

F:\398-892\Draw\Improv\Civil\1107-008-SV2.dwg 03-12-04 10:43:03 rberger