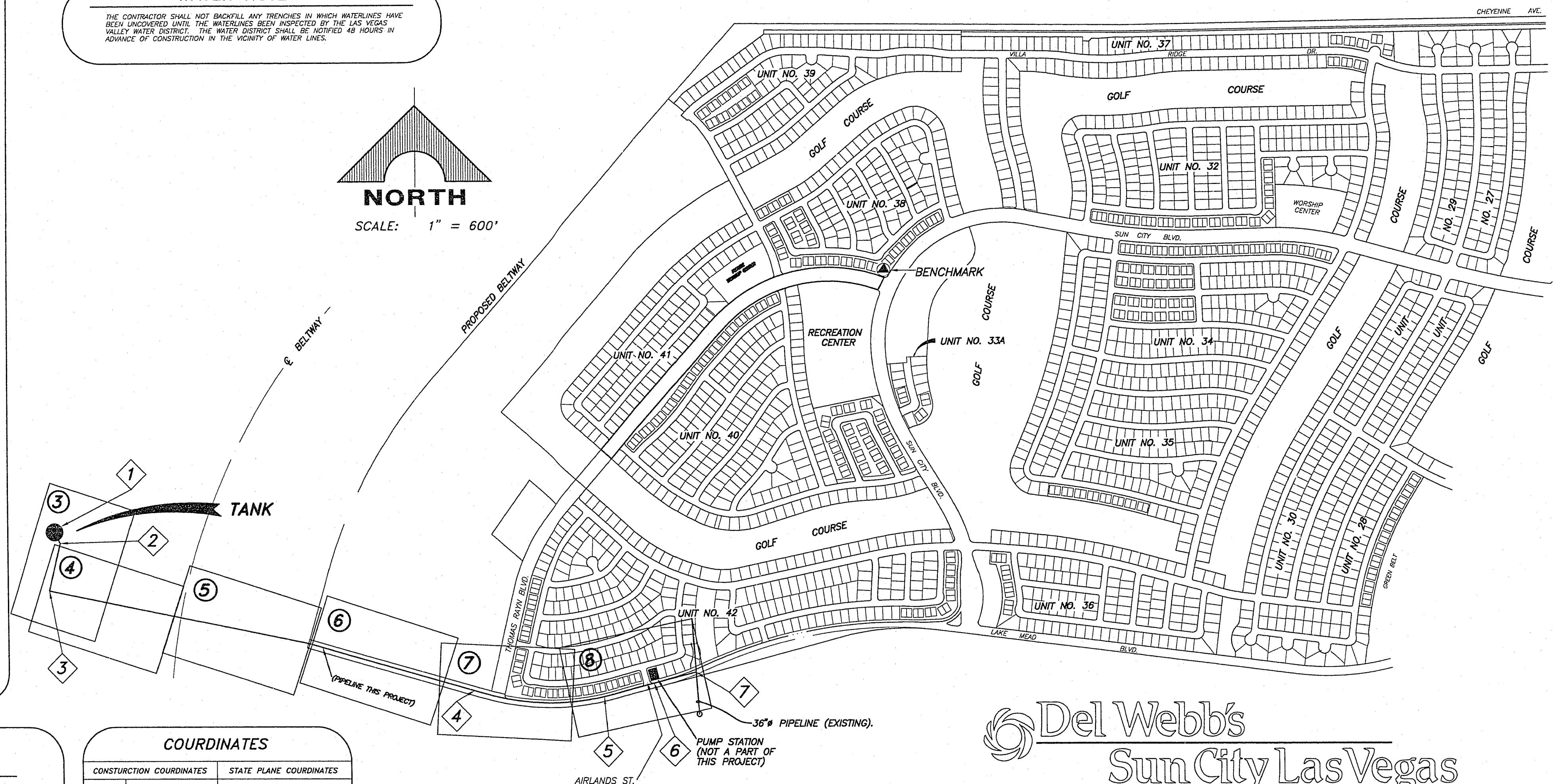


	PROPOSED PIPELINE
	PROPOSED ACCESS ASSEMBLY
	PROPOSED BLOWOFF
	PROPOSED AIR VALVE
	PROPOSED VALVE VAULT STRUCTURE
	PROPOSED DIRECT BURY VALVE
	PROPOSED TEST STATION
	EXISTING WATER
	EXISTING SEWER
	EXISTING STORM DRAIN
	EXISTING GAS
	EXISTING UNDERGROUND CABLE TV
	EXISTING UNDERGROUND POWER
	EXISTING OVERHEAD POWER
	EXISTING UNDERGROUND TELEPHONE
	EXISTING FENCE
	EXISTING GATE VALVE
	EXISTING MANHOLE
	EXISTING POWER POLE
	EXISTING STREET LIGHT
	EXISTING GUY AND ANCHOR
	EXISTING BLOCK WALL
	BENCHMARK
	CONTROL POINT
	EXISTING CONTOUR
	PROPOSED CONTOUR
	CENTERLINE
	EASEMENT LINE
	RIGHT-OF-WAY
	ASPHALT PAVEMENT
	CONCRETE
	SAND
	GRAVEL
	EARTH
	STEEL
	ALUMINUM
	WOOD

THE CONTRACTOR SHALL NOT BACKFILL ANY TRENCHES IN WHICH WATERLINES HAVE BEEN UNCOVERED UNTIL THE WATERLINES BEEN INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT. THE WATER DISTRICT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF CONSTRUCTION IN THE VICINITY OF WATER LINES.

NORTH

SCALE: 1" = 600'



NO WORK SHALL BE DONE ON THE WATER PANS UNTIL THEY HAVE BEEN
PREPARED FOR CONSTRUCTION BY THE LIVING. FOLLOWING APPROVAL OF
THESE SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR
MAINTAINING THE WATER PANS IN ACCORDANCE WITH THE ACTUAL
CONSTRUCTION AND 24 HOURS PER HOUR AT THE INSPECTION.

2. CALL BEFORE YOU DIG 1-800-227-2720.

3. ALL WORK SHALL CONFORM TO LIVING LATEST STANDARD PRACTICES, DRAWINGS
AND SPECIFICATIONS.

4. NO WORK EXCEPT AS MODIFIED HEREON BY NOTED PLANS. NO 3. SHALL BE DONE
WITHOUT THE WRITTEN AUTHORITY OF THE LIVING. THE CONTRACTOR SHALL
OBTAIN THE LATEST EDITIONS OF THE LIVING'S STANDARD SPECIFICATIONS FOR
UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
AND SPECIFICATIONS FOR CLASSIFIED CONTRACTS.

5. THE MAXIMUM ALLOWABLE UNIFORM DEFLECTION FOR ARCH AND DUCTILE IRON
PIPE SHALL BE AS FOLLOWS:

PIPE SIZE	DUCTILE IRON	DUCTILE IRON	DUCTILE IRON
24" - 30" INCH	2 DEGREES	2 DEGREES	12.5 DEGREES
36" - 42" INCH	2 DEGREES	2 DEGREES	12.5 DEGREES
48" - 54" INCH	2 DEGREES	2 DEGREES	12.5 DEGREES
60" - 72" INCH	2 DEGREES	1.5 DEGREES	12.5 DEGREES
78" - 90" INCH	2 DEGREES	1.5 DEGREES	12.5 DEGREES

ON PVC PIPE, THE MAXIMUM DEFLECTION FOR A 20' LENGTH OF FACTORY
SPECIFIED PIPE SHALL BE AS FOLLOWS: 1/4" INCH DEFLECTION FOR 12
INCHES FOR 10" PIPE AND 5" FOR 12" PIPE.

6. ALL WATER TRENCH BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREA
AND ALL OUTLET.

7. DUCTILE IRON SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREA AND
ALL OUTLET.

8. NEUTRALIZATION IS REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO.
100.

9. A) OVER ALL MANHOUS NOT INSTALLED 8 FEET FROM BACK OF CURB.
B) 12 INCHES LATERAL FROM CURB.

10. ALL WATER MAINS TO BE PRESERVED IN ACCORDANCE WITH
SECTION 909 OF THE SPECIFICATIONS.

11. ALL MATERIALS AND WORKMANSHIP SHALL BE INSPECTED AND APPROVED
AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO ACCEPTANCE
FOR THE PROJECT.

CONSTRUCTION COORDINATES		STATE PLANE COORDINATES
1	N530866.94 E370831.58	26777549.14947 726742.869121
2	N530771.01 E378768.51	26777433.21947 734679.799212
3	N530355.04 E370768.51	26777017.24947 726679.799212
4	N529374.78 E374167.07	26776036.98947 730098.359212
5	N529365.56 E575243.69	26776027.76947 731154.979212
6	N529471.93 E375640.66	26776134.13947 731551.949212
7	N529591.9 E57569.46	26776253.39947 731880.749212

CLV BENCHMARK: TOP OF CURB AT END OF CURB, WEST SIDE
OF DURANGO DRIVE, 250' SOUTH OF WESTCLIFF BOULEVARD.
ELEVATION: 2610.16

 PROJECT BENCHMARK: BRASS CAP IN IRON PIPE,
102' NORTH AND 64' WEST OF THE INTERSECTION
OF SUN CITY BLVD. AND THOMAS W. RYAN BLVD..
N 26, 779, 232, 4731, E 733, 227, 9711
ELEVATION: 2851.66

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, SEWERAGE AND WASTE WATER" LATEST EDITION, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA WARDEN", LATEST EDITION AND THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA WARDEN", LATEST EDITION, AND THE "UNIFORM BUILDING CODE" AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSURANCE.

2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE RECORDS OF THE CITY OF CLARK COUNTY. EXISTING UTILITY SERVICES, MATERIALS MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO ANY UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITIES NEAR OVERHEAD OR UNDERGROUND POWER GAS AND/OR OTHER UTILITIES SO AS TO PREVENT ANY DAMAGE TO ANY UTILITIES AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITIES, STRUCTURES, AND ADJACENT PROPERTIES. CONTRACTOR SHALL REMAIN IN PLACE FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL BE SATISFACTORY TO THE CITY ENGINEER OR OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE PRIOR WRITTEN APPROVAL.

5. ALL CONSTRUCTION SHALL BE DONE IN 8" OF 8" OF CONCRETE WORK. CONCRETE TO BE 2000 P.S.I., MINIMUM, 28 DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION PRIOR TO CONSTRUCTION.

6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSURANCES REQUIRED FOR THIS CONSTRUCTION.

7. EXPANSION JOINTS SHALL BE MAINTAINED EVERY 30' IN EXTENDED TYPE CURB.

8. C/P PAYMENT TO BE 1/2" ABOVE UP OF ALL GUTTERS AT CURBLINE, EXCEPT AT SIDEWALK RAUPTS.

9. ALL JOINTS OF SEAT COAT SEAL JOINTS AFTER ALL CORRECTIONS AND ADJUSTMENTS HAVE BEEN MADE.

10. CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER THAT IS NOT WATER TESTED SHALL BE RECONSTRUCTED AND REPERMITS REQUIRED.

1. THE L.V.V.W.D. STD. PLATES INCLUDED IN THE CONTRACT VOLUME ARE A PART OF THESE DRAWINGS AS IF ATTACHED HERETO.
2. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND POWER, CABLE TV AND/OR TELEPHONE FACILITIES. SEE SPECIFICATIONS, GENERAL AND SPECIAL CONDITIONS.
3. EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. EXISTING UTILITY SERVICE LATERALS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR TO VERIFY THE EXACT LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. SEE SPECIFICATIONS, GENERAL AND SPECIAL CONDITIONS.
4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT ALL EXISTING IMPROVEMENTS, WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED SATISFACTORY TO THE OWNER OF THE EXISTING IMPROVEMENT. SEE SPECIFICATIONS, GENERAL AND SPECIAL CONDITIONS.
5. ALL CONSTRUCTION AND MATERIAL FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF "THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", EXCEPT AS MODIFIED BY THESE SPECIFICATIONS AND DRAWINGS.
6. ALL BARRICADING AND TEMPORARY TRAFFIC CONTROL DEVICES OR METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK", PUBLISHED BY THE CLARK COUNTY, NEVADA, DEPARTMENT OF TRANSPORTATION. AT THE TIME OF PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL FURNISH FOR APPROVAL, A BARRICADING PLAN WHICH SHALL COMPLY WITH APPLICABLE PORTIONS OF SECTION 624 AND 625 OF THE STANDARD SPECIFICATION, THE TRAFFIC CONTROL MANUAL AND APPLICABLE CITY AND COUNTY ORDINANCES.
7. ALL UTILITIES SHOWN ARE BASED ON SEARCH OF RECORDS AND ARE NOT VERIFIED BY POTHOLES.
8. ALL STATIONS SHOWN ON PLANS ARE CENTERLINE OF PIPE STATIONS UNLESS OTHERWISE NOTED.
9. GRADES SHOWN ON PROFILE ARE AT PIPE CENTERLINE UNLESS OTHERWISE NOTED. PLACE VALVE BOXES, ETC. AT EXISTING GRADE AT THE TIME OF CONSTRUCTION, UNLESS OTHERWISE SHOWN.

Avoid cutting underground
utility lines. It's costly.

**Call
before you
Dig.**

1-800-227-2600
UNDERGROUND SERVICE (USA)

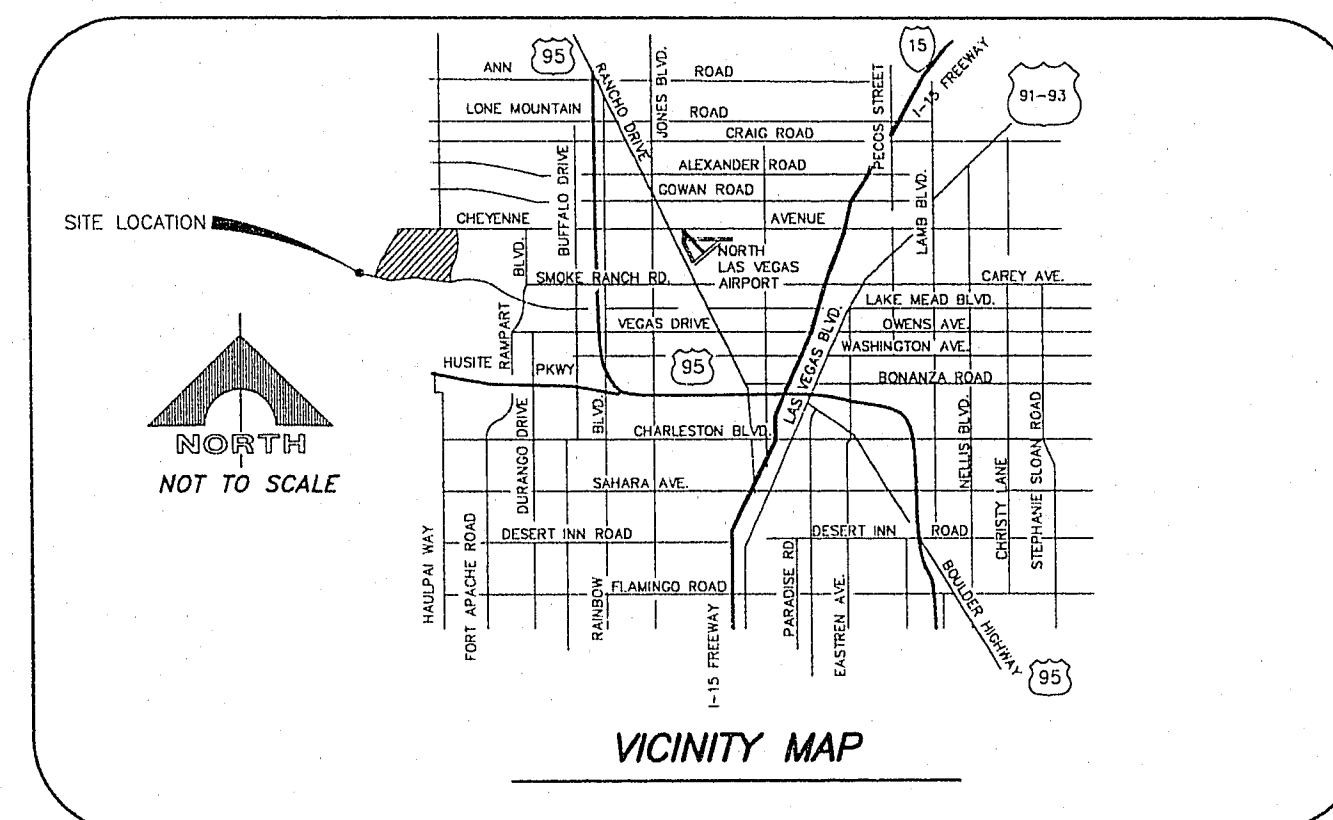
1. CONSTRUCTION SURVEY:

GRADES ARE GIVEN FROM TOP OF STAKES OR NAILS. THE CONTRACTORS ARE OBLIGED TO OBTAIN THE FOLLOWING RULES BY USING THE GRADE STAKES GIVEN BY THIS OFFICE. THREE (3) CONSECUTIVE POINTS THAT ARE SHOWN TO BE ON THE SAME RATE OF SLOPE MUST BE USED IN COMMON IN ORDER THAT ANY VARIATION OUT OF A PERFECT STRAIGHT GRADE MAY BE DETECTED IN CASE ANY SUCH DISCREPANCY IS FOUND. THE SAME MUST BE REPORTED OTHERWISE THIS OFFICE WILL NOT BE RESPONSIBLE FOR ANY ERROR IN THE GRADE OF THE FINISHED WORK.

2. THESE PLANS SHALL BE ON THE JOBSITE AT ALL TIMES.

AC	ASPHALTIC CONCRETE	DIP	DUCTILE IRON PIPE
ACC	ACCESS	DET	DETAIL
ACP	ASBESTOS CEMENT PIPE	DIA	DIAMETER
ADJ	ADJUSTABLE	DIAG	DIAGNAL
ASSY	ASSEMBLY	DRIVE	DRIVE
ASTM	AMERICAN SOCIETY FOR	E	EAST
	TESTING & MATERIAL	EA	EACH
AWG	AMERICAN WIRE GAUGE	EC	END CURVE
BC	BACK OF CURB	ECC	ECCENTRIC
	BEGIN CURVE	EXIST.	EXISTING
BF	BLIND FLANGE	FLG	FLANGE
BM	BENCH MARK	GALV	GALVANIZED
BV	BUTTERFLY VALVE	GRD	GROUND, GRADE
BOT	BOTTOM	GV	Gate VALVE
C	CENTERLINE	HD	HIGH
CL	CAST IRON	HMWPE	HIGH MOLECULAR WEIGHT
CLR	CLEAR		POLYETHYLENE
CLV	CITY OF LAS VEGAS	HORIZ	HORIZONTAL
MLCP	MORTAL LINED & COATED	ID	INSIDE DIAMETER
	PIPE	INV	INVERT
CON	CONCENTRIC	LG	LENGTH
CONCRETE	CONCRETE	LONG	LONG
CONST	CONSTRUCT	LONGT	LONGITUDINAL
CONT	CONTINUOUS	LT	LEFT
CORP STOP	CORPORATION STOP	LWWD	LAS VEGAS VALLEY WATER DISTRICT
CPL	COUPLING	MAX	MAXIMUM
CTR	CENTER	MECH	MECHANICAL

NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES
3	PLAN AND PROFILE 0+00 TO STATION 4+95.25
4	PLAN AND PROFILE STATION 190+3.94 TO 201+00
5	PLAN AND PROFILE STATION 201+00 TO 213+00
6	PLAN AND PROFILE STATION 213+00 TO 225+00
7	PLAN AND PROFILE STATION 225+00 TO 237+00
8	PLAN AND PROFILE STATION 237+00 TO 249+00
9	PIPING DETAILS
10	PIPING DETAILS
11	PIPING DETAILS
12	DETAILS
13	DETAILS
14	DETAILS



AGENCY	REVIEWED BY	DATE
SOUTHWEST GAS	<i>[Signature]</i>	04/13/94
NEVADA POWER COMPANY	<i>[Signature]</i>	04/14/94
CENTRAL TELEPHONE CO.	<i>[Signature]</i>	04/13/94
COMMUNITY CABLE TV	<i>[Signature]</i>	4-13-94

Gerald M. Robbins 4/15/64
GERALD M. ROBBINS DATE


 4-20-
 DATE
 DENNIS ANDERSON
 CITY ENGINEER
 CITY OF LAS VEGAS, NEVADA

Thomas A. Wimmerman 4/18/94
LAS VEGAS VALLEY WATER DISTRICT DATE



G.C. WALLACE, INC.
Engineering/Architecture

DEL WEBB COMMUNITIES, INC.
SUN CITY LAS VEGAS
33320 ZONE FACILITIES PIPELINE.
GENERAL NOTES

SHEET

565 - 230