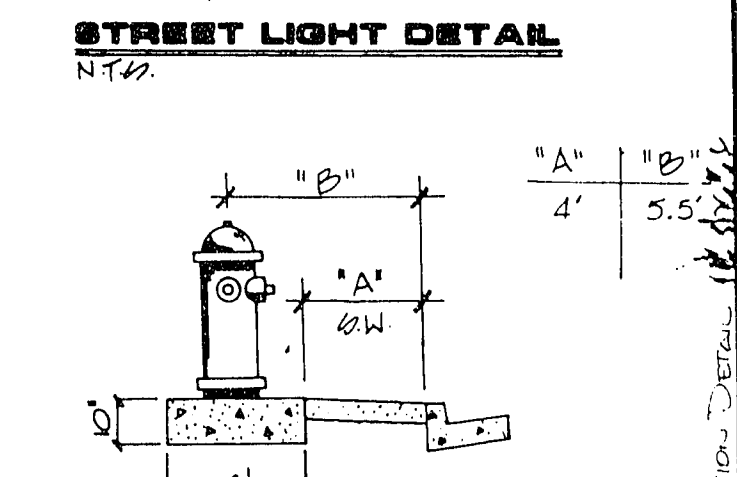
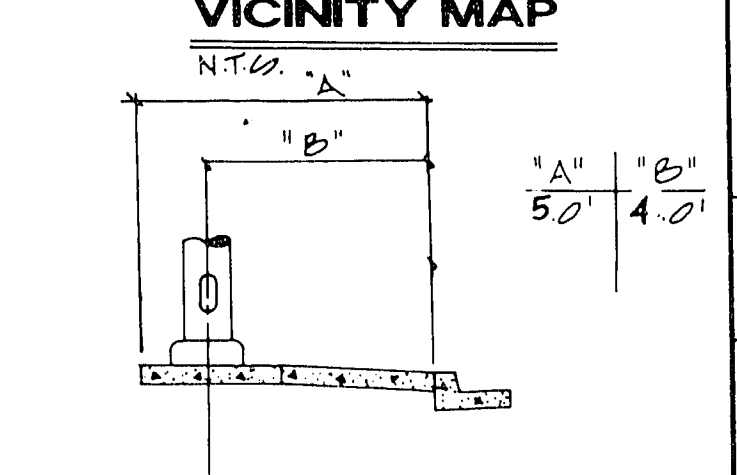
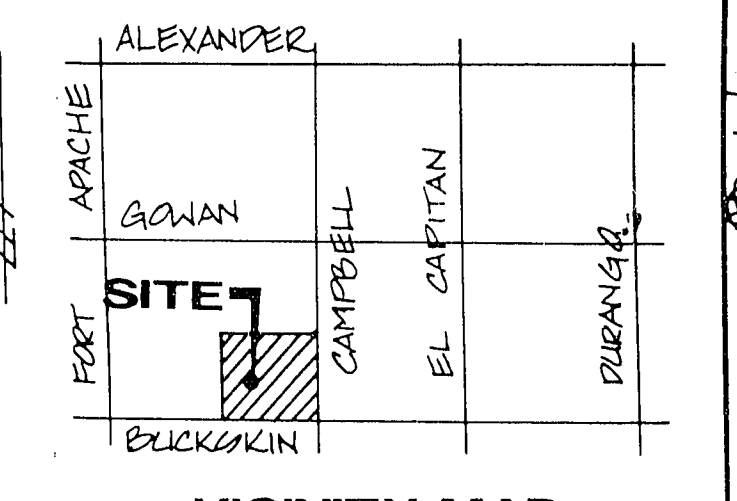
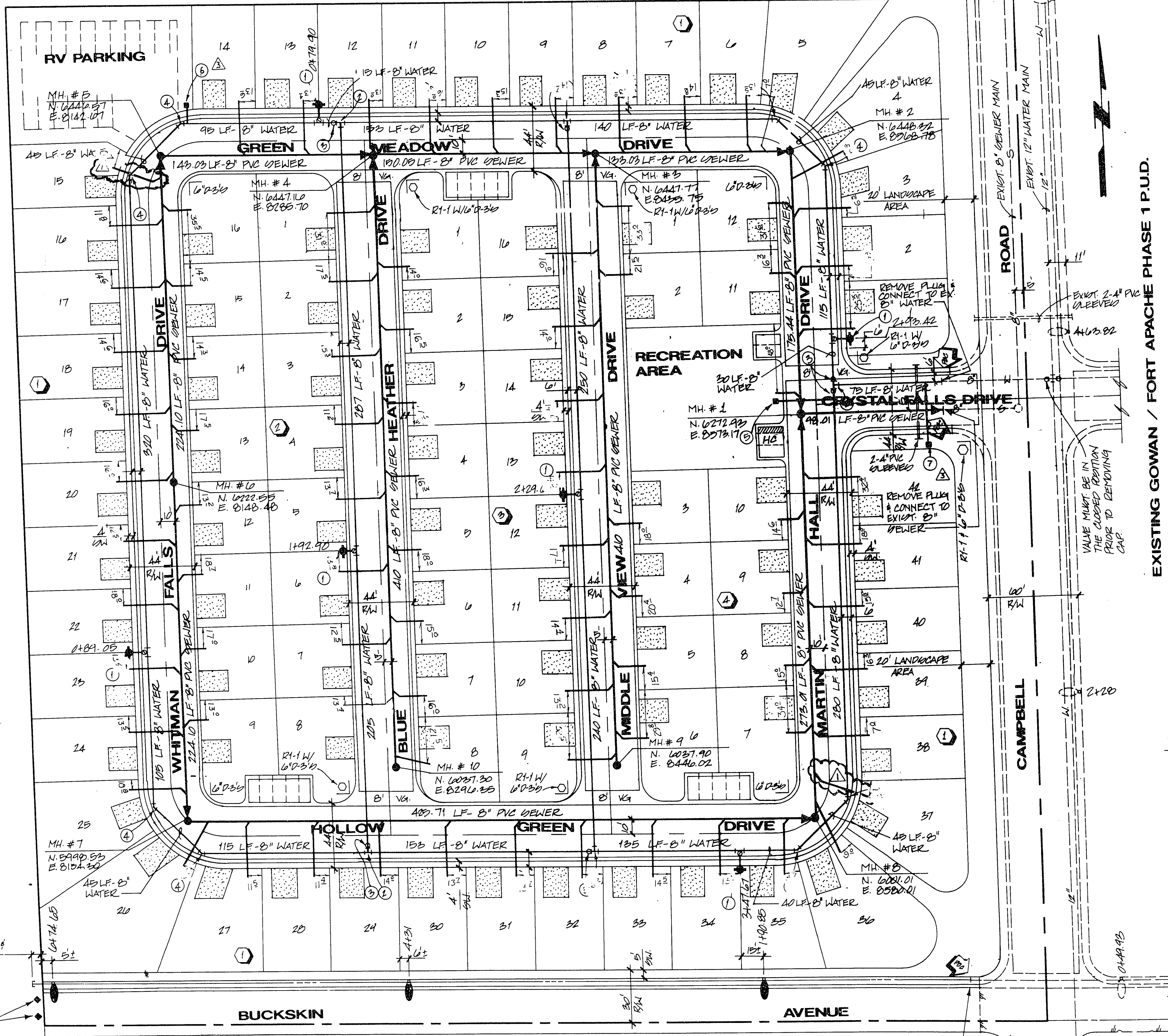


SEWER LATERAL "AS-BUILT" CERTIFICATION

STEPHEN P. GURINHES, P.L.S.
NEVADA CERT. NO. 9105

FUTURE GOWAN / FORT APACHE PHASE 3

- LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES**
- NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVWD CUSTOMER SERVICE DEPARTMENT (702-4194) 48 HOURS PRIOR TO ACTUAL SERVICE, AND 24 HOURS PRIOR TO AN INSPECTION.
 - CALL BEFORE YOU DIG 1-800-227-2600.
 - ALL WORK SHALL CONFORM TO LVWD LATEST STANDARD PLATES, DRAWINGS AND SPECIFICATIONS.
 - ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA.
 - DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
 - COVER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.
 - THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DOCTILE IRON PIPE SHALL BE AS FOLLOWS:
- | PIPE SIZE | AGE | DOCTILE IRON | DOCTILE IRON |
|--------------|-----------|--------------|------------------|
| 6 INCH | 5 DEGREES | 2.5 DEGREES | MECHANICAL JOINT |
| 8 - 12 INCH | 2.5 | 2.5 | 2.5 |
| 14 - 16 INCH | 2.0 | 1.5 | 1.5 |
| 18 - 24 INCH | N/A | 1.5 | 1.5 |
- ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BLENDED PIPE SHALL BE 16 INCHES FOR 8" PIPE, 12 INCHES FOR 10" PIPE, AND 9 INCHES FOR 12" PIPE.
- IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
 - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY CURBS.
 - DETECTOR TAP SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
 - OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB.
 - OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.
 - ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.
 - ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF WATER MAINS AND/OR LATERALS TO THE DISTRICT'S SYSTEM.
 - CONTRACTOR TO OBTAIN A METERS 24 AND SHALLERS FROM LVWD CENTRAL STORES, TELEPHONE: 758-1151 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.
- CLARK COUNTY FIRE DEPARTMENT GENERAL NOTES**
- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CLARK COUNTY ORDINANCE #1167, WITH P.S. 1987 EDITION AND THE UNIFORM FIRE CODE, 1988 EDITION.
 - ON ANY BUILDING CONSTRUCTION SITE, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE CONCRETE MATERIALS ARE DELIVERED TO THE SITE AND CONSTRUCTION COMMENCES. SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH REQUIRED WATER SUPPLY.
 - IF DURING CONSTRUCTION IT BECOMES NECESSARY TO CLOSE ANY CONTROL VALVE OR PLACE A HYDRANT OUT OF SERVICE, THE CLARK COUNTY FIRE DEPARTMENT MUST BE CONTACTED.
 - PAINTING OF CURBS AND/OR STRIPING OF ASPHALT AREAS AND PROTECTION OF HYDRANT FROM PERICAL INJURY: PER CLARK COUNTY FIRE DEPARTMENT FIRE HYDRANT INSTALLATION/SPECIFICATIONS HANDBOOK.
 - NO FIRE HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE, OR 5 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION FOR WHICH THE HYDRANT PLANTED LOCATION, AS PROTECTED BY THE HYDRANT MAINTAINING A MINIMUM OF 3 FEET FROM ITS CENTER SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES.
 - AT ALL TIMES DURING CONSTRUCTION SUITABLE EMERGENCY VEHICLE ACCESS ROADS MUST BE MAINTAINED. ROADWAYS MUST BE SMOOTH, COMPACTED AND CAPABLE OF SUPPORTING THE IMPOSED LOADS OF ALL EMERGENCY VEHICLES.
 - PRIOR TO ACCEPTANCE OF ANY PRIVATE FIRE SERVICE MAIN, A SATISFACTORY HYDROSTATIC TEST WITH DIPPING COLLARS UNCOVERED MUST BE CONDUCTED. APPROVED PLANS AND A CONTRACTOR'S MATERIALS AND TEST CERTIFICATE MUST BE PROVIDED AT TIME OF INSPECTION.
 - REFLECTIVE MARKERS INSTALLED PER SECTION 13.04.130(1) OF CLARK COUNTY ORDINANCE #1167, MUST BE PROVIDED BEFORE FINAL HYDRANT ACCEPTANCE CAN BE OBTAINED.
- CITY OF LAS VEGAS FIRE NOTES**
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS MODIFIED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
 - CHISEL "S" OR "O" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
 - POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
 - ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
 - THE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
 - A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
 - ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
- NOTE:**
CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES AND TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- NOTES:**
- ALL NOTES MUST BE LOCATED WITHIN THE SHADDED AREAS OF THE DRAWING.
 - IF FIELD CONDITIONS DON'T ALLOW BUILDING TO THESE CONDITIONS CONTACT DEVELOPER.
- BENCHMARK**
RIVET AND PLATE IN TOP OF CURB, SOUTHWEST RETURN OF CHEYENNE AVENUE AND RAMPART BLVD.
CLV BM # 01V0017N5
ELEVATION = 2448.333
- DI LOCATION FOR 50 FT. LAT**
- DI LOCATION FOR 10 FT. OR MORE WIDE**



Call before you Dig.
1-800-227-2600

ESTIMATE OF QUANTITIES

WATER	SEWER
1) STANDARD FIRE HYDRANT (INCLUDED PIPES, VALVE, TEE, & RISER)	1) STANDARD MANHOLE
2) 8" TEE	2) 8" SERVICE MAIN
3) 8" GATE VALVE	3) 8" SERVICE W/8" METER
4) 8" APPEND	4) 8" SERVICE LATERAL
5) 1" SERVICE W/1" IRRIGATION METER	WHETS
6) 1" SERVICE W/1" IRRIGATION METER	
7) 1/2" IRRIGATION METER	
STREETLIGHTS	
1) 100 WATT LUMIN.	
2) 1/4" CONDUIT	

AVERAGE SEWER FLOW: 21,750 GPD
PEAK SEWER FLOW: 34,000 GPD

APPROVALS:
DATE: 4/17/93
DATE: 4/12/93

GOWAN PROPERTIES INC.
CLARK COUNTY, NEVADA

MTN nevada

CONSULTING ENGINEERS • LAND SURVEYORS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89102-5148 PHONE (702) 873-7550 FAX (702) 362-2597

SEWER AS-BUILT

GOWAN / FORT APACHE PHASE 3 P.U.D.

DATE: 3/5/93

NO. 4182-S-PUD

BY: DE, WJR

DATE: 1/93

SCALE: 1" = 40'

SHEET: 4 OF 7 SHEETS

COUNTY OF CLARK
FIRE DEPARTMENT

APPROVED: [Signature] 4-12-93

BY: [Signature] 4-12-93

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OF NEVADA LAWS. FIRE FLOW 1,600 GPM AT 20 P.S.I. RESIDUAL.

"As Built" 307Y-4214-3RUB 29 0055