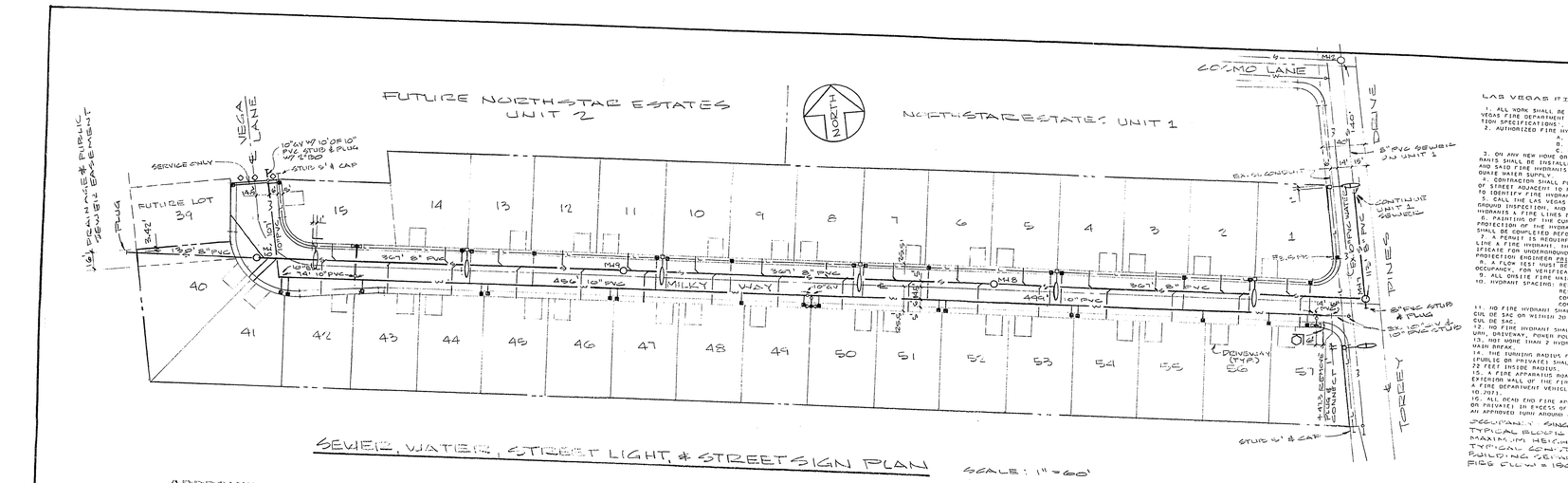


SEWER, WATER, STREET LIGHT, & STREET SIGN PLAN

SCALE: 1" = 60'

LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATION", "HYDRANT INSTALLATION SPECIFICATIONS", & ORDINANCE #3545.
2. AUTHORIZED FIRE HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY GUARDIAN
   B. MUELLER A-423 CENTURIAN
   C. CLOW MODEL 2546 MEDALLIAN
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANTS AS REQUIRED IN ORDINANCE #3545 TO IDENTIFY FIRE HYDRANT LOCATIONS.
5. CALL THE LAS VEGAS FIRE PREVENTION DEPARTMENT AT 796-2021 FOR UNDERGROUND INSPECTION, AND PERFORM A FLUSH VERIFICATION, OF ALL FIRE HYDRANTS & FIRE LINES BEFORE COVERING.
6. PAINTING OF THE CURB & HYDRANT AND ANY WORK NECESSARY FOR THE PROTECTION OF THE HYDRANT FROM PHYSICAL DAMAGE PER ORDINANCE #3545 SHALL BE COMPLETED BEFORE APPROVAL BY THE FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ONSITE MAIN LINE & FIRE HYDRANT. THE PERMIT & CONNECTIONS MATERIAL & TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO BEGINNING WORK.
8. FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT, PRIOR TO OCCUPANCY, FOR VERIFICATION OF REQUIRED ONSITE WATER SUPPLY.
9. ALL ONSITE FIRE MAIN MATERIALS MUST BE ULLISTED & FM APPROVED.
10. HYDRANT SPACING: RESIDENTIAL - 500 FEET UNSPRINKLERED
    RESIDENTIAL - 600 FEET SPRINKLERED
    COMMERCIAL/MULTIFAMILY - 300 FEET UNSPRINKLERE
    COMMERCIAL/MULTIFAMILY - 400 FEET SPRINKLERED
11. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF CUL DE SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL DE SAC.
12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 5 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT, OR ANY OTHER OBSTRUCTION.
13. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
14. THE TURNING RADIUS FOR ANY FIRE APPARATUS ROAD AND/OR FIRE LANE (PUBLIC OR PRIVATE) SHALL NOT BE LESS THAN 45 FEET OUTSIDE RADIUS & 22 FEET INSIDE RADIUS.
15. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS (SEE EXCEPTIONS IN UFC 88. SECTION 10.207).
16. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR LANES (PUBLIC OR PRIVATE) IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA (SEE ORDINANCE #3545).

DEVELOPMENT: SINGLE FAMILY DWELLINGS.
TYPICAL BLOCK AREA = 1960 SF.
MAXIMUM HEIGHT = 2 STORY.
TYPICAL CONSTRUCTION = TYPE V.
BUILDING DESIGNATION = 10'
FIRE FLOW = 1500 GPM @ 20 PSI RESIDENTIAL.

LAS VEGAS VALLEY WATER DISTRICT NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO LVVWD CUSTOMER SERVICE DEPARTMENT (702)-258-4[illegible] 48 HOURS PRIOR TO ACTUAL CONSTRUCTION. A 24 HOURS PRIOR TO AN INSPECTION.
2. CALL BEFOR YOU DIG (1-800-227-2600).
3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS, & SPECIFICATIONS.
4. 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, CLARK COUNTY AREA.
5. LVVWD APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" & 1" SERVICE SADDLES. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1½" & 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH LVVWD SPECIFICATIONS & STANDARD PLATES.
7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP & DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DIP-SLIP JOINT	DIP-MECHANICAL JOINT
4"	2.5º	2.5º	2.5º
6" TO 12"	3.5º	2.5º	3.5º
14" TO 16"	2.0º	1.5º	2.5º
18" TO 24"	1.5º	1.5º	1.5º
30"	N/A	1.5º	1.5º

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 16" FOR 6" PIPE, 12" FOR 8" PIPE, & 9" FOR 10" & 12" PIPE.
IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
8. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
9. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS & VALLEY GUTTERS.
10. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE #27 WHERE INDICATED, AND AS FOLLOWS:
    A. OVER ALL MAINS NOT INSTALLED
    B. OVER ALL SERVICE LATERALS NOT INSTALLED AT 6" FROM BACK OF CURB.
11. ALL WATER MAINS SHALL BE THREE WAYS TESTED AT 200 PSI FOR A CONTINUOUS 2-HOUR PERIOD, IN ACCORDANCE WITH LVVWD STANDARDS.
12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, & AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAINS AND/OR LATERAL(S) TO THE LVVWD SYSTEM.
13. CONTRACTOR SHALL OBTAIN ALL METERS 2" & SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE (258-3152) 48 HOURS PRIOR TO PICKUP.

FUTURE SERVICE LATERALS (3/4" THROUGH 2")

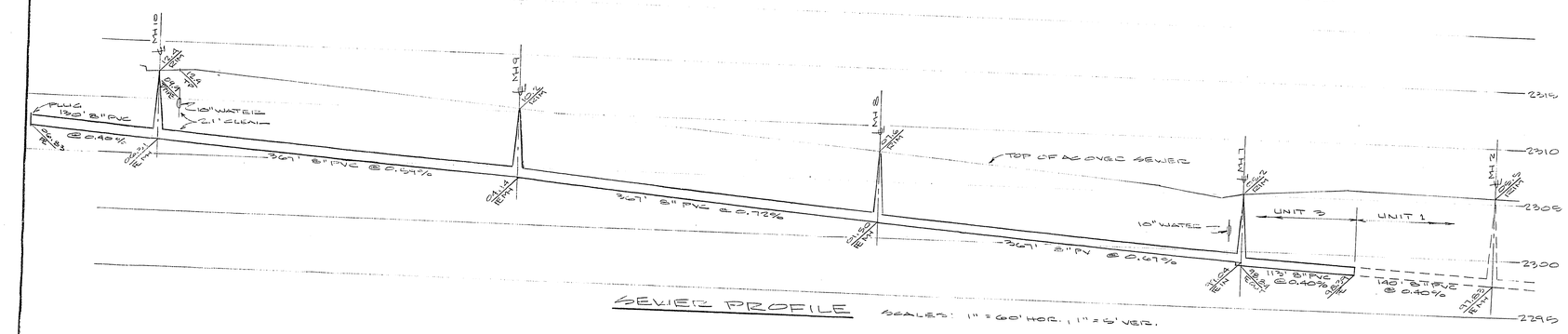
IF ANY OF THE SERVICE LATERALS TO BE INSTALLED FOR THE FUTURE LOTS ARE INCORRECTLY LOCATED OR ARE NOT USED FOR ANY REASON WHEN THE LOTS ARE DEVELOPED, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH LVVWD STANDARDS AND AT THE DEVELOPERS EXPENSE.

LAS VEGAS SANITARY SEWER NOTES

1. ALL SANITARY SEWER INSTALLATIONS SHALL CONFORM TO THE STANDARD DETAILS & SPECIFICATIONS OF THE CITY OF LAS VEGAS & "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA", LATEST EDITION, UNLESS OTHERWISE NOTED.
2. GHESEL "S" OR "G" IN CURB FACE WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
3. PVC SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS AND SHALL BE INSTALLED WITH SAND BEDDING & BACKFILL OR TYPE II AGGREGATE.
4. ALL MANHOLES IN PAVED STREETS OF 80-FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS.
5. "EZ-SADDLE" TO BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES OF UP TO 15" DIAMETER; CONNECTIONS TO 8-INCH OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
6. A SEWER LINE CROSSING OVER A WATER MAIN OR LESS THAN 1.5 FEET UNDER A WATER MAIN MUST BE REINFORCED CONCRETE ENCASED PIPE FOR A DISTANCE OF NOT LESS THAN 10 FEET TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.

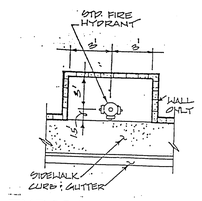
LAS VEGAS STREET LIGHT NOTES

1. ALL STREET LIGHT INSTALLATIONS SHALL CONFORM TO THE LATEST ISSUE OF THE STANDARD DETAILS & SPECIFICATIONS OF THE CITY OF LAS VEGAS & SHALL ALSO CONFORM TO "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA", LATEST EDITION, UNLESS OTHERWISE NOTED.
2. ALL HANDHOLE COVERS MUST BE INSTALLED, POLE CAPS POURED, & PULL BOX LIDS BOLTED DOWN, PRIOR TO ENERGIZING CIRCUIT.
3. ALL WIRE MUST HAVE THW INSULATION.



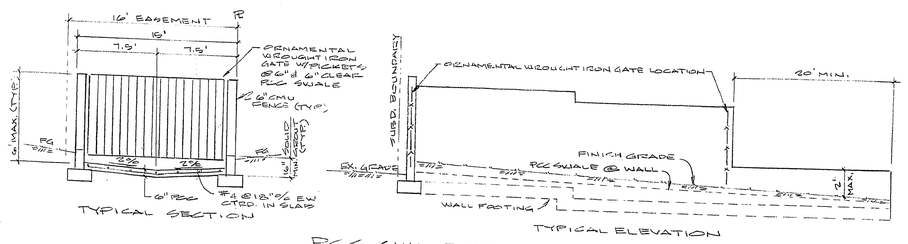
SEWER PROFILE

SCALES: 1" = 60' HOR., 1" = 5' VER.



TYPICAL FIRE HYD. LOCATION DETAIL

NO SCALE



PCC SWALE DETAIL

NO SCALE

PROJECT NAME: NORTHSTAR UNIT 3

This project water plan complies with the Las Vegas Valley Water District's technical requirements; however, this water plan is NOT APPROVED FOR CONSTRUCTION at this time.

LVVWD 1-24-92 Date

SEC. 29, T19S, R60E, MDB&M

LOCATION MAP

NO SCALE

APPROVED

Richard A. Brown — CITY OF LAS VEGAS, FIRE MARSHAL — 1-24-92 DATE

LAS VEGAS VALLEY WATER DISTRICT — 4-13-92 DATE

Rita R. Allbert — NEVADA POWER COMPANY — 1-13-92 DATE

This approval is only for the placement and clearance of street light and signal light installations.

12 OCT 1991

APPROXIMATE SEWER QUANTITIES

LEGEND	ITEM	QUANTITY
	SEWER MANHOLE, 48"	4 EA
	8" PVC SEWER MAIN	1218 LF
	4" PVC SEWER LATERAL	945 LF

APPROXIMATE WATER QUANTITIES

LEGEND	ITEM	QUANTITY
	10" PVC WATER MAIN	1165 LF
	¾" WATER SERVICE (BY OWNER)	34 EA
	¾" WATER METER (FROM LVVWD)	34 EA
	2" BLOWOFF ASSEMBLY	1 EA
	FIRE HYDRANT ASSEMBLY INCL. GV	3 EA
	10" WATER VALVE	2 EA
	10" ELL	1 EA

STREET LIGHT / SIGN QUANTITIES

LEGEND	ITEM	QUANTITY
	STREET LIGHT, 200W HPS	2 EA
	STREET LIGHT, 100W HPS	6 EA
	PULLBOX, #3.5	1 EA
	CONDUIT, 1.25" PVC	1380 LF
	R1-1 STOP SIGN, 24"	3 EA
	6" STANDARD STREET NAME SIGN	3 EA
	9" METRO STREET NAME SIGN, TORREY PINES	1 EA
	END OF ROAD MARKER	3 EA

NO.	REVISIONS DATE	REVISION

BENCHMARK
CLV BM C608 SW 35
B/C @ CENTERLINE INTERSECTION
LONE MOUNTAIN & LORENZI
ELEVATION 2320.29

OWNER/SUBDIVIDER
NORTHSTAR LTD. PARTNERSHIP
7226 NOCTURNE COURT
LAS VEGAS, NV 89128
(702) 595-7969

ENGINEER
RAY NOVATNEY, PE
4702 S. MOJAVE RD.
LAS VEGAS, NV 89121
(702) 458-8738

NORTHSTAR UNIT 3

SEWER / WATER / STREET LIGHT PLANS

LAS VEGAS, NEVADA

SHEET 2 OF 2

307Y-4175-3