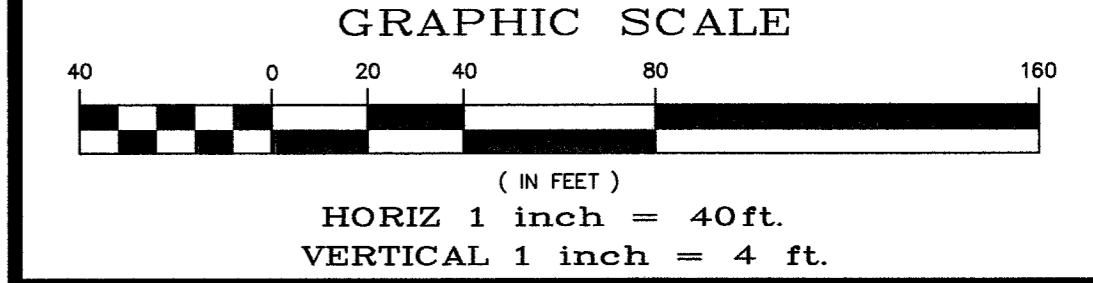
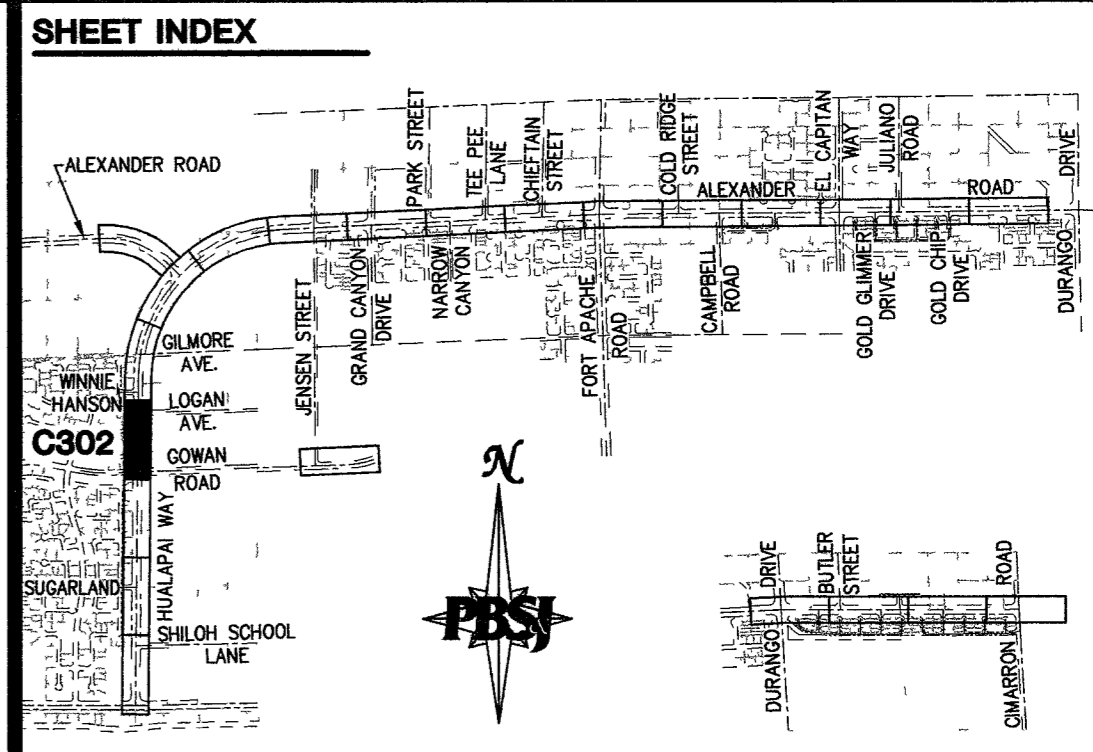
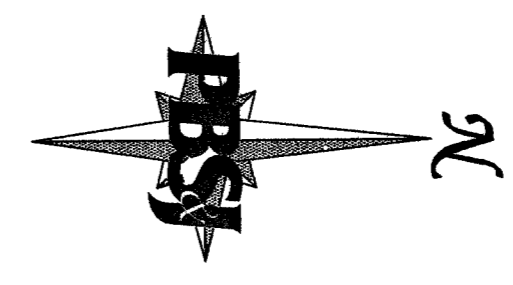


Call before you Dig  
1-800-227-2600  
Nevada Power Environment and Safety Services Department

Call before you Overhead  
1-702-593-6111  
Nevada Power Environment and Safety Services Department

**NOTE:** PROTECT WATERLINES IN PLACE. WHENEVER A WATERLINE IS WITHIN 18" ABOVE A STORM DRAIN OR SEWER, OR WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET, BACKFILL TRENCH WITH CONTROL LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REQUIREMENTS MAY APPLY PER UDACS 2.19.

**NOTE:** FINISHED GRADE ELEVATIONS FOR MANHOLES AND DROP INLETS ARE AT THE CENTER OF MANHOLE LIDS AND T.O.C. AT THE CENTER OF DROP INLETS. SET FINISHED GRADE ELEVATIONS FOR THE EDGES OF MANHOLE LIDS AND T.O.C. AT DROP INLETS PER STREET SLOPES.

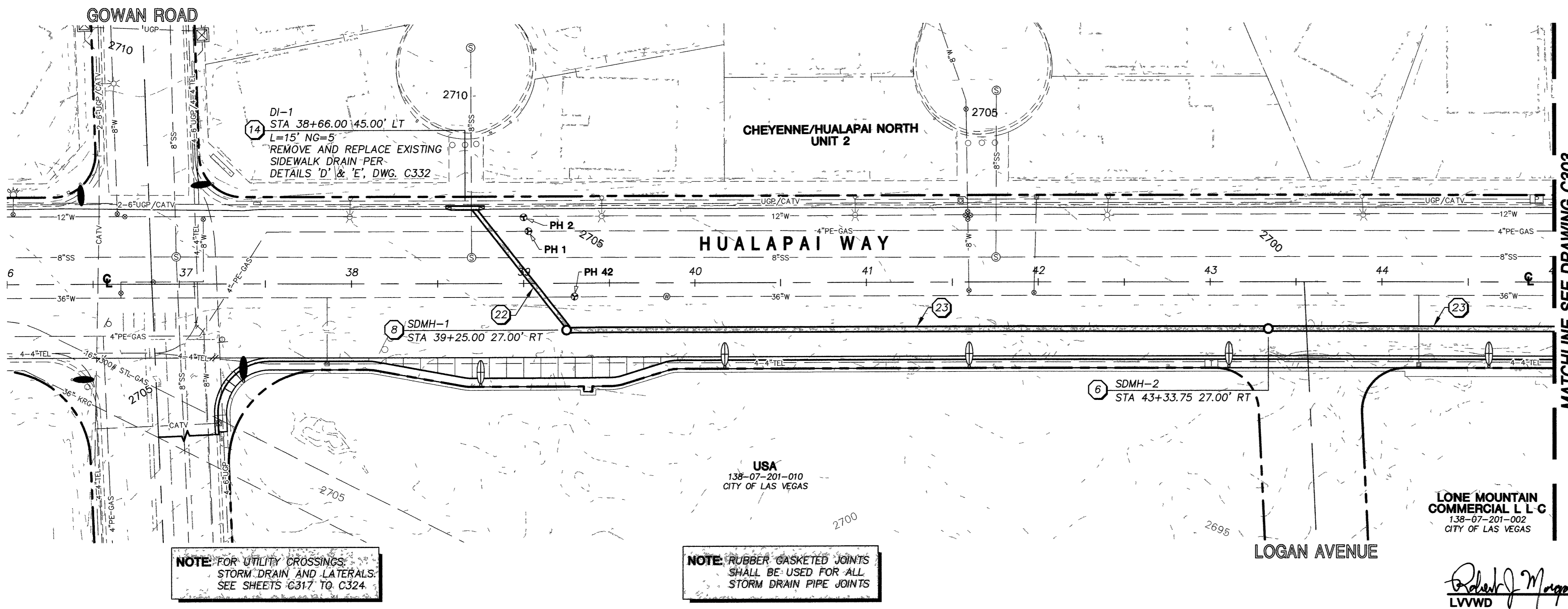


**BASIS OF BEARING**  
THE BASIS OF BEARINGS FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), DETERMINED BY GIS CONTROL POINTS, "808" AND "877" AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 88 OF SURVEYS, AT PAGE 53.

**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK NO. 9LV00 7N4 - RIVET AND PLATE IN TOP OF CURB SOUTHEAST CORNER OF ALEXANDER ROAD AND GRAND CANYON DRIVE.  
NAVD 1988 DATUM  
ELEVATION = 792.858 METERS  
2601.24 FEET

**CAUTION:**  
EXISTING UTILITIES ARE LOCATED ON THE PLANS FROM A SEARCH OF AVAILABLE RECORDS. CONTRACTOR TO VERIFY LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION.

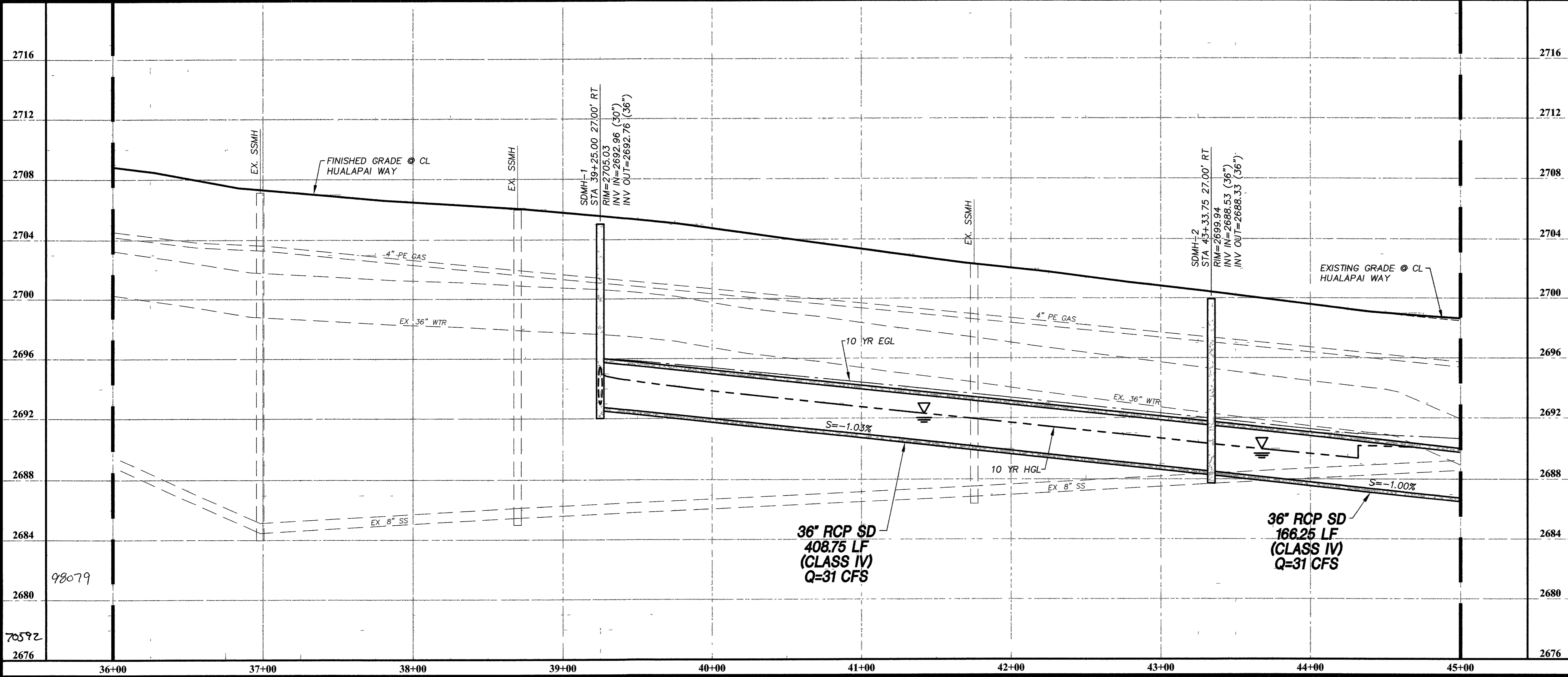
- KEY NOTES**
- REMOVE EXISTING MANHOLE.
  - REMOVE EXISTING DROP INLET/BEEHIVE INLET.
  - REMOVE EXISTING 36" STORM DRAIN PIPE.
  - REMOVE EXISTING 66" STORM DRAIN PIPE.
  - ABANDON IN PLACE EXISTING 18" STORM DRAIN PIPE.
  - INSTALL TYPE I MANHOLE PER STD. DWG. #403.
  - INSTALL TYPE II MANHOLE PER STD. DWG. #405.
  - INSTALL TYPE III MANHOLE PER STD. DWG. #406.
  - INSTALL JUNCTION MANHOLE TYPE I PER DETAIL 'A', DWG. C327.
  - INSTALL PRECAST TEE W/48" RISER PER DETAIL 'B', DWG. C331 (W/ 30" MIN. ACCESS).
  - INSTALL TYPE 'CM' DROP INLET PER DETAIL 'A', DWG. C329.
  - INSTALL TYPE 'E' DROP INLET PER DETAIL 'A', DWG. C328.
  - INSTALL TYPE 'F' DROP INLET PER DETAIL 'A', DWG. C328.
  - INSTALL NDOT TYPE 3 DROP INLET WITH BACK WALL OPENING PER DETAIL 'D' AND DETAIL 'E', DWG. C332.
  - INSTALL SWALE INLET PER DETAIL 'B', DWG. C329.
  - CONSTRUCT NDOT TYPE II HEADWALL PER NDOT STANDARD PLAN SHEET B-20.1.4.
  - INSTALL AWWA 8" C900 DRAINLINE.
  - INSTALL AWWA 12" C900 DRAINLINE.
  - INSTALL 12" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 18" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 24" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 30" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 36" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 42" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 48" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 54" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 60" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 66" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 72" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 78" RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 34"x53" HE RCP SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 3' HIGH x 6' WIDE RCB SD PER TRENCH DETAIL 'B', DWG. C330.
  - INSTALL 5' HIGH x 6' WIDE RCB SD PER TRENCH DETAIL 'B', DWG. C330.
  - RELOCATE EXISTING WATERLINE PER DETAIL 'E', DWG. C330.
  - RELOCATE EXISTING GAS (BY OTHERS).
  - RELOCATE EXISTING UNDERGROUND POWER (BY NEVADA POWER COMPANY).
  - RELOCATE EXISTING UNDERGROUND TELEPHONE (BY SPRINT TELEPHONE COMPANY).
  - RELOCATE EXISTING UNDERGROUND CATV (BY COX COMMUNICATIONS LAS VEGAS, INC.).
  - CONCRETE ENCASUREMENT PER DETAIL 'A', DWG. C330.
  - PERMANENT ASPHALT PATCH PER DETAIL 'B', DWG. C330.
  - PIPE PENETRATION PER DETAIL 'A' DWG. C332.
  - CONNECT TO EXISTING STORM DRAIN PIPE PER DETAIL 'C', DWG. C330.



**NOTE:** FOR UTILITY CROSSINGS, STORM DRAIN AND LATERALS, SEE SHEETS C317 TO C324.

**NOTE:** RUBBER GASKETED JOINTS SHALL BE USED FOR ALL STORM DRAIN PIPE JOINTS.

LVVWD *Robert M. Morgan* 9/2/04  
DATE



D:\Drawings\1400\C302-1400 \*5-19-04 07:25am \*USER: 11648 \*PREFS: 1400-BRR; 1400-TP; 1400-MP; 1400-JT; 1400-RG; 1400-SK; 1400-STL; 1400-MPS; 1400-PFS; 1400-PPR-CL; 1400-X045.WK

DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DESIGN SECTION

ALEXANDER ROAD/HUALAPAI WAY  
ROAD IMPROVEMENTS PROJECT  
CHEYENNE AVENUE TO DURANGO DRIVE

HUALAPAI WAY  
STORM DRAIN PLAN AND PROFILE  
STA 38+66.00 TO STA 45+00.00

CITY OF LAS VEGAS  
CITY ENGINEER: CHARLES KAJKOWSKI, JR., P.E.  
CITY PROJECT ENGINEER: MARVIN STINE, P.E.  
PROJECT MANAGER: ALI ZENHARI, P.E.  
DESIGN BY: WHJ  
DRAWN BY: LSB/WHJ

CHECK BY: LSB  
DATE: FEB. 11, 2004

5/25/04

SHEET: **C302**  
55 of 124  
DRAWING: 107-V-3594