

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; ANY OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE. EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS."
2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS ARE NOT SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORILY TO THE CITY ENGINEER OR OWNING UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL NOT BACKFILL ANY TRENCHES IN WHICH WATERLINES HAVE BEEN UNCOVERED UNTIL THE WATERLINES HAVE 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.
5. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS. ANY ALTERATIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
6. THE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 5000 PSI MINIMUM FOR DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION PRIOR TO USE ON THE PROJECT.
7. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL OVERHEAD INTERFERENCES, WHICH MAY AFFECT THE 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 AND/OR TELEPHONE FACILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION THEREWITH.
8. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
9. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED CURB.
10. ALL PAVEMENT TO BE 1/2" ABOVE TOP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SAW RAMPS & CROSS GUTTERS.
11. APPLY FOG SEAL ONLY AFTER ALL CORRECTIONS AND ADJUSTMENTS HAVE BEEN MADE.
12. CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
13. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 230. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
14. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO SAID CONSTRUCTION. EXTENT OF TRANSITIONS TO BE AS SHOWN ON PLANS, OR AS DESIGNATED IN THE FIELD BY A CITY INSPECTOR.
15. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER.
16. EXACT LOCATION OF ALL SAW CUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS INSPECTOR IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRED RELOCATION.
17. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.550.
18. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND VALLEY GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY.
19. IF THE SEWER MAIN IS OVER THE WATER MAIN, OR LESS THAN 18 INCHES UNDER THE WATER MAIN, THEN CONCRETE ENCASE THE SEWER MAIN 10 FEET ON BOTH SIDES OF THE WATER MAIN, OR USE WATER QUALITY SEWER PIPE.
20. THE STRUCTURAL AND ARCHITECTURAL DESIGN OF ALL WALLS (RETAINING OR NONRETAINING) MUST BE APPROVED BY THE CLV BUILDING DEPARTMENT.
21. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT ON CITY STREETS.

DEVIATIONS FROM STANDARDS

- * DISTANCE BETWEEN MANHOLE EXCEEDS 500' - SHT. 13
- * PIPE SLOPE IS LESS THAN 0.25% - SHT. 9

OWNER/DEVELOPER

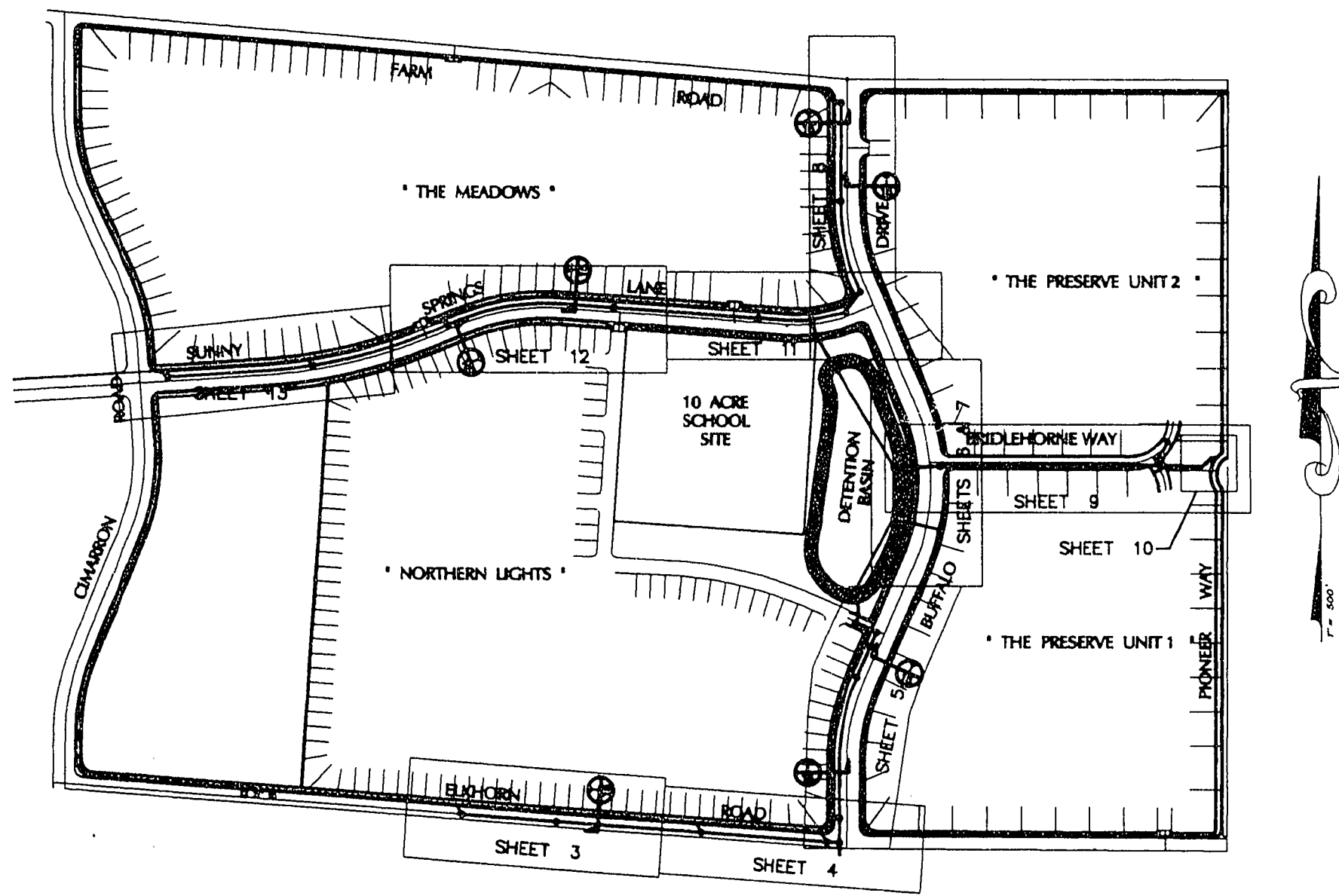
RHODES HOMES
4630 ARVILLE LANE
LAS VEGAS, NEVADA 89103
(702) 873-5338

NOTICE TO CONTRACTOR !

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

AVOID CUTTING UNDERGROUND UTILITIES - ITS COSTLY
CALL before you Dig
1-800-227-2600
UNDERGROUND SERVICE (USA)

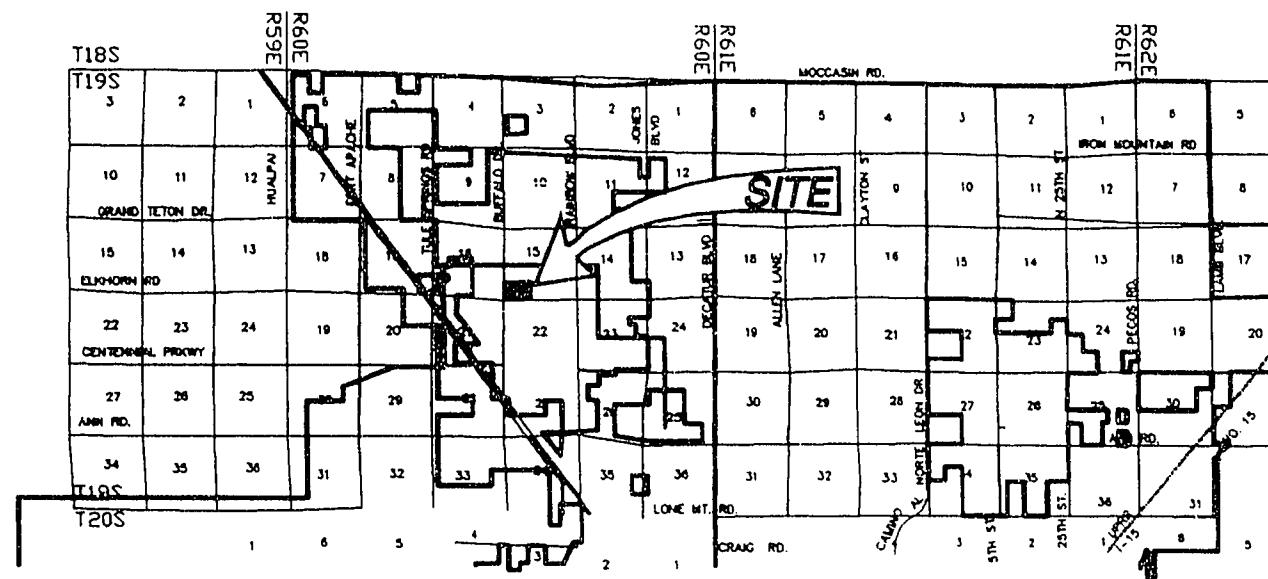
ELKHORN SPRINGS
PHASE II
STORM DRAIN PLANS
FOR
RHODES HOMES
IN
CITY OF LAS VEGAS
STATE OF NEVADA



SITE PLAN

ABBREVIATIONS

⊙	ACP	- ASBESTOS CEMENT PIPE	- AT	MAX	- MAXIMUM
AVE	AVE	- AVENUE	MLCP	MIN	- MINIMUM
BLVD	BLVD	- BOULEVARD	MTN	- MORTAR LINED & COATED PIPE	
CLV	CLV	- CITY OF LAS VEGAS	N	- NORTH	
CLR	CLR	- CLEAR	NO	- NUMBER	
CML	CML	- CEMENT MORTAR LINED	NTS	- NOT TO SCALE	
CONN	CONN	- CONNECT	OC	- ON CENTER	
CONST	CONST	- CONSTRUCT	PT	- POINT	
Δ	Δ	- DELTA ANGLE	PVC	- POLYVINYL CHLORIDE	
DEPT	DEPT	- DEPARTMENT	PP	- POWER POLE	
DI	DI	- DROP INLET	RCP	- REINFORCED CONCRETE PIPE	
DIM	DIM	- DIMENSION	RD	- ROAD	
DIST	DIST	- DISTANCE	REQ'D	- REQUIRED	
DR	DR	- DRIVE	ROW	- RIGHT-OF-WAY	
DWG	DWG	- DRAWING	SCH	- SCHEDULE	
E	E	- EAST	SDMH	- STORM DRAIN MANHOLE	
EP	EP	- EDGE OF PAVEMENT	STLT	- STREET LIGHT	
EXIST	EXIST	- EXISTING	S	- SLOPE	
FG	FG	- FINISH GRADE	S	- SOUTH	
FH	FH	- FIRE HYDRANT	SEC	- SECTION	
FL	FL	- FLOWLINE	SHT	- SHEET	
GV	GV	- GATE VALVE	SPECS	- SPECIFICATIONS	
HGL	HGL	- HYDRAULIC GRADE LINE	ST	- STREET	
HORIZ	HORIZ	- HORIZONTAL	STA	- STATION	
HPS	HPS	- HIGH PRESSURE SODIUM	STD	- STANDARD	
ID	ID	- INSIDE DIAMETER	TC	- TOP OF CURB	
INT	INT	- INTERSECTION	TEL	- TELEPHONE	
INV	INV	- INVERT ELEVATION	TYP	- TYPICAL	
LF	LF	- LINEAL FEET	VCP	- VITRIFIED CLAY PIPE	
LN	LN	- LANE	VERT	- VERTICAL	
LVVWD	LVVWD	- LAS VEGAS VALLEY WATER DIST.	W	- WEST	
MH	MH	- MANHOLE	W/	- WITH	



VICINITY MAP

SHEET INDEX

COVER SHEET	1
KEY MAP	2
STORM DRAIN PLAN & PROFILE - ELKHORN ROAD	3
STORM DRAIN PLAN & PROFILE - ELKHORN ROAD	4
STORM DRAIN PLAN & PROFILE - BUFFALO DRIVE	5
STORM DRAIN PLAN - DETENTION BASIN	6
STORM DRAIN PROFILES - DETENTION BASIN & SECTIONS	7
STORM DRAIN PLAN & PROFILE - BUFFALO DRIVE	8
STORM DRAIN PLAN & PROFILE - BRIDLEHORN WAY	9
EASEMENT & STILLING BASIN GRADING PLAN	10
STORM DRAIN PLAN & PROFILE - SUNNY SPRINGS LANE	11
STORM DRAIN PLAN & PROFILE - SUNNY SPRINGS LANE	12
STORM DRAIN PLAN & PROFILE - SUNNY SPRINGS LANE	13
STORM DRAIN NOTES & DETAILS	14
STORM DRAIN DETAILS	15

QUANTITY ESTIMATE

DESCRIPTION	PUBLIC
18" RCP STORM DRAIN	1,859 LF
24" RCP STORM DRAIN	554 LF
27" RCP STORM DRAIN	2,475 LF
36" RCP STORM DRAIN	1,825 LF
48" RCP STORM DRAIN	553 LF
60" RCP STORM DRAIN	938 LF
48" TYPE I STORM DRAIN MANHOLE	5 EA
60" TYPE I STORM DRAIN MANHOLE	8 EA
60" TYPE II STORM DRAIN MANHOLE	3 EA
60" TYPE III STORM DRAIN MANHOLE	6 EA
MODIFIED TYPE "C" DROP INLET	19 EA
JENSEN PRECAST BOX	4 EA
STILLING BASIN	4 EA

BENCHMARK

PROJECT DATUM=NGVD29 NO.14, STATION 1LV9021N6 3" BRASS CAP USC & GS BM #113 3/4 MILE NORTH OF 1LV9028N66, 50' (FT.) EAST OF OLD RAILROAD BED
ELEVATION = 2452.515 EQUATION ELEVATION = 2452.515 + 2.401' = 2454.916
(TO NAVD88) (747.526m + 0.7318m = 748.2584m)

BASIS OF BEARINGS

THE BEARING ALONG THE CL OF ELKHORN RD BETWEEN CIMARRON RD AND BUFFALO DR AS SHOWN IN ELKHORN SPRINGS - UNIT NO. 1 MAP IN BOOK 60, PAGE 72, OF PLATS ON FILE AT THE COUNTY RECORDERS OFFICE, CLARK COUNTY, NEVADA. BEARING NORTH 85°49'40" WEST

LEGAL DESCRIPTION

A PORTION OF: THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 16 TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M. A PORTION OF: THE WEST HALF (W 1/2) OF SECTION 15, TOWNSHIP 19, RANGE 60 EAST, M.D.M.

APPROVAL

Dennis Anderson 5/21/96
CITY OF LAS VEGAS, CITY ENGINEER
FOR DENNIS ANDERSON, P.E.

APPROVED FOR CONSTRUCTION

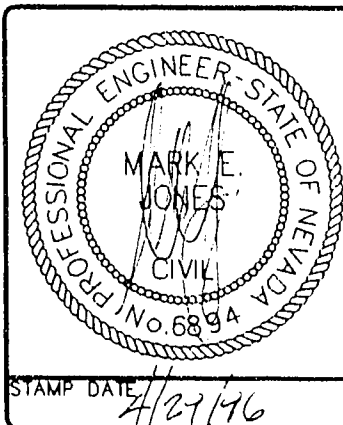
LVVWD 5/21/96 DATE

APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARDS DRAWINGS & SPECIFICATIONS, CLARK COUNTY AREA, NEVADA.

COVER SHEET

ELKHORN SPRINGS - PHASE II
STORM DRAIN PLANS

NO.	DATE	BY	APPROV.	REVISION DESCRIPTION



SOUTHWEST ENGINEERING
LAND PLANNING • MAPPING • DEVELOPMENT
5426 W. VEGAS DRIVE
LAS VEGAS, NEVADA 89108
(702) 646-9700

TITLE	PROJECT
WORK ORDER NO.	950925
DESIGN BY	M. JONES
DATE	2/15/96
SCALE	NONE
CADFILE	SDIF-COV.DWG
SHEET 1	OF 15 SHEETS