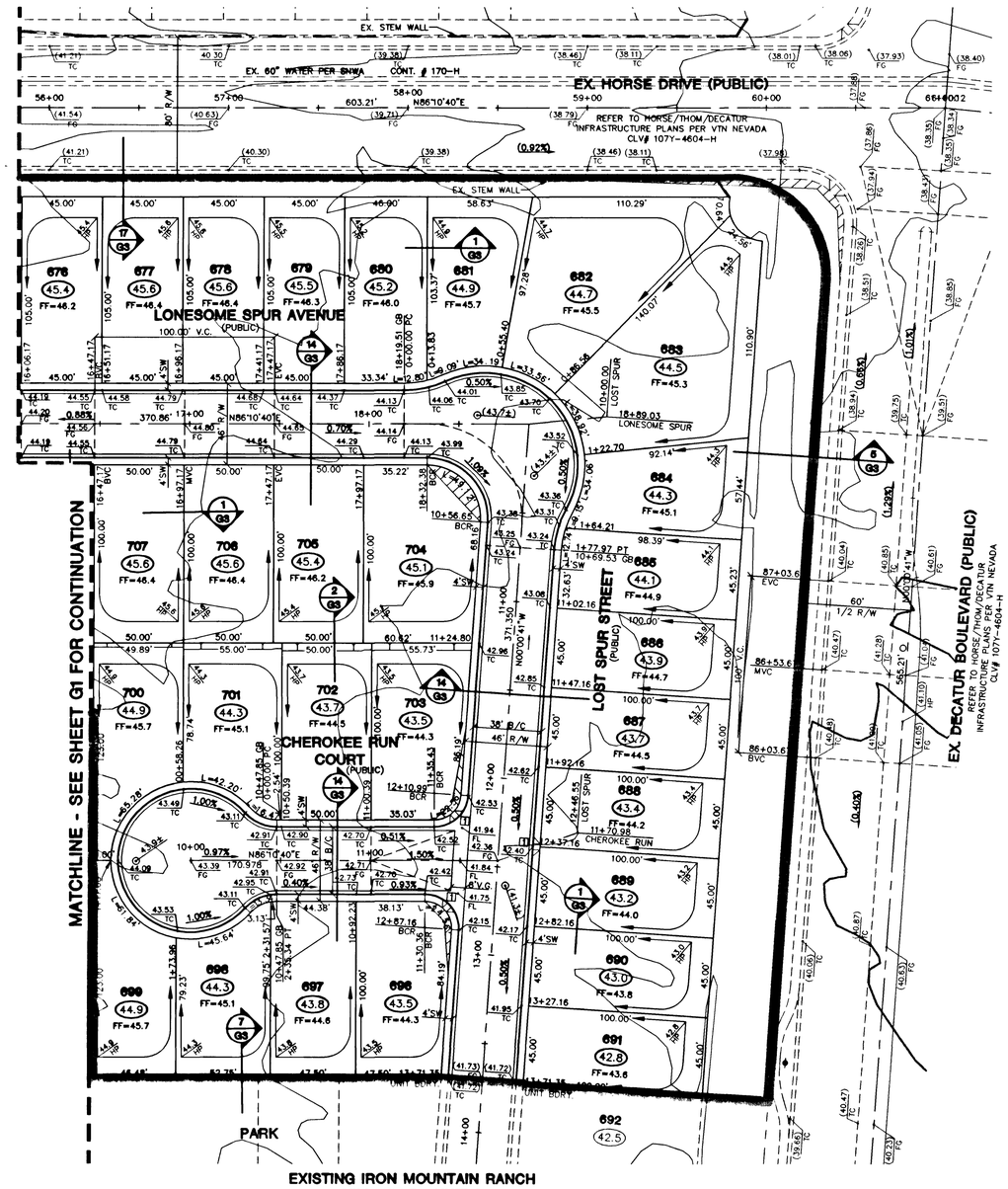


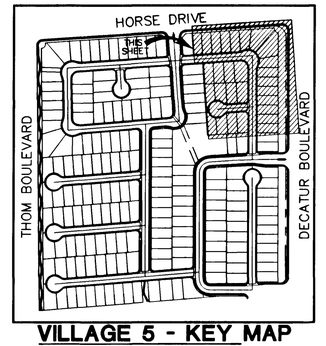
SNWA CONSTRUCTION NOTES:

CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NO LIMITED TO AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTORS EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AND AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 862-3444 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

12/27/02

SOUTHERN NEVADA WATER AUTHORITY — DATE

SNWA APPROVAL IS VALID FOR ONE YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OF RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.



VILLAGE 5 - KEY MAP

NOT TO SCALE

GRAPHIC SCALE

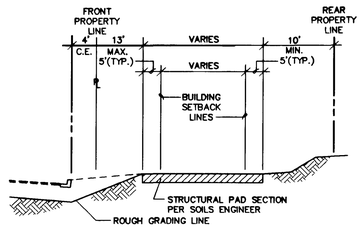
40 0 20 40 80

1" = 40'

SIDEWALK RAMPS TABLE

PER STD. DWG 235 CASE I

NO.	DIM "A"	DIM "B"	CASE
1	8.0'	8.0'	I
2	9.5'	4.5'	I



TYPICAL GRADING SECTION

STANDARD SINGLE FAMILY DETACHED — NO SCALE

NOTE: ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 8" BELOW THE TOP OF THE SIDEWALK.

TOP OF RETAINING WALL TO BE AT OR ABOVE UPPER PAD ELEVATION.

RETAINING WALL CONVERSION TABLE

	STANDARD RETAINER	RETAINER NEXT TO SIDEWALK
1	0.4-0.7'	N/A
2	0.71-0.83'	N/A
3	0.84-1.5'	0.7-1.17'
4	1.51-2.17'	1.18-1.83'
5	2.18-2.83'	1.84-2.5'
6	2.84-3.5'	2.51-3.17'
7	3.51-4.17'	3.18-3.83'
8	4.18-4.83'	3.84-4.5'
9	4.84-5.5'	4.51-5.17'
10	5.51-6.17'	5.18-5.83'
11	6.18-6.83'	5.84-6.5'
12	6.84-7.5'	6.51-7.17'

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORSEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

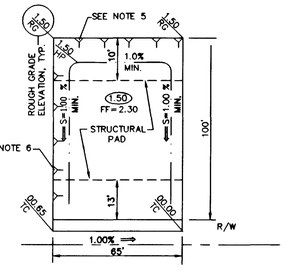
	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0'to-0.1'	See Soils Report
B. ENGINEERING FILL	0.5'+	+0.1'to-0.1'	See Soils Report

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNITL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM ALL T E PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, TEC.

NOTES:

1. STRUCTURAL PAD SHALL BE 5' BEYOND BLDG. SETBACK SEE TYPICAL GRADING SECTION.
2. REFER TO GENERAL NOTE 1.
3. REAR LOT CORNER GRADES ARE EQUAL TO ADJACENT LOTS UNLESS SHOWN OTHERWISE.
4. MINIMUM SIDEYARD X-SLOPE SHALL BE 2%.
5. MAXIMUM REAR YARD SLOPE IS 2:1 AS SHOWN, EXCEPT THAT WITHIN 15' OF THE HOUSE, THE MAXIMUM SLOPE IS 12:1
6. MAXIMUM SIDEYARD SLOPE IS 3:1 AS SHOWN EXCEPT THAT WITHIN 5' OF THE HOUSE, THE MAXIMUM SLOPE IS 12:1 . MINIMUM 1% DRAINAGE AWAY FROM BUILDING PAD.



TYPICAL GRADING PLAN

PROJECT BENCHMARK

PROJECT DATUM: NAVD88

(OLD) CITY OF LAS VEGAS BENCHMARK 1LV90-13NES
NAVD88 ELEVATION: 710.9608 METERS (2332.54 FEET)
PROJECT DESIGNED USING OLD BENCHMARK

(NEW) CITY OF LAS VEGAS BENCHMARK 1LV90-13NES
NAVD88 ELEVATION: 710.9181 METERS (2332.40 FEET)

(-0.14 FEET) TO GET NEW PUBLISHED DATUM

CNLV BM 413148, NAVD 88 ELEV=710.953
METERS (2332.52 FEET) 3" DIAMETER CONCRETE MONUMENT 77 FEET SOUTH & 54 FEET WEST OF N.E. CORNER SEC. 13T19R60E 10' EAST OF LARGE POWER POLE.

BASIS OF BEARINGS

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 CLARK COUNTY GIS CONTROL POINTS 802, 803, 804, AND 805, AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE, IN BOOK 88 OF SURVEYS, AT PAGE 53.

Avoid cutting underground utility lines. It's costly.
Call before you Dig
1-800-227-2600

Avoid overhead power line contact. It's costly.
Call before you Overhead
1-702-593-6111

LEGEND

8	LOT NUMBER	VG	VALLEY GUTTER
8	BLOCK NUMBER	FG	FINISH GRADE
		FL	FLOW LINE
4400	EX. CONTOUR (5' INTERVAL)	TC	TOP OF CURB
	EX. CONTOUR (1' INTERVAL)	TRC	TOP OF ROLL CURB
	PROPOSED CONTOUR	BC	BACK OF CURB
	CONCRETE BLOCK WALL	BCR	BEGIN CURB RETURN
	RETAINING WALL	EX.	EXISTING
	EXISTING WALL	GB	GRADE BREAK
00.0	PROPOSED PAD GRADE	PC	POINT OF CURVATURE
(00.0)	EX./FUTURE PAD GRADE	PRC	POINT OF REVERSE CURVATURE
	SCARP AREA	PCC	POINT OF COMPOUND CURVATURE
	SIDEWALK RAMP	BVC	BEGIN VERTICAL CURVE
3:1	PAD SLOPES	MVC	MID-POINT OF VERTICAL CURVE
0.5%	DIRECTION & RATE OF SLOPE	EVC	END VERTICAL CURVE
		PRVC	POINT OF REVERSE VERTICAL CURVE
		PT	POINT OF TANGENCY
		NG	NATURAL GROUND
		TF	TOP OF FOOTING

"I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT"

KEN NICHOLSON PE#10539 — 12.9.02 DATE

REV	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			

CITY OF LAS VEGAS

KB HOME
750 PILOT ROAD, SUITE F
LAS VEGAS, NV 89119
(702) 614-2500

vtn nevada CONSULTING ENGINEERS ● PLANNERS ● LAND SURVEYORS
2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148
PH. (702) 873-7550 FAX (702) 362-2597

GRADING PLAN

IRON MOUNTAIN RANCH
VILLAGE 5
UNIT 3

DRAWN BY: RMS — AUGUST '02
DESIGNED BY: RMS — AUGUST '02
CHECKED BY: KFN — AUGUST '02
PROJECT NO: 5919-3
SCALE: 1"=40' HORIZ., N/A VERT.

PROFESSIONAL ENGINEER — KENNETH F. NICHOLSON — CIVIL — No. 10539 — STATE OF NEVADA — 12-9-02 — EXPIRES 12-31-03

SHEET
G2
8 OF 14 SHEETS

DRAWING NO.
1674-4604-5-3

H:\5407\VILLAGES\UNIT3\5919GR03.DWG(GR2)

98398