

**ENGINEER DISCLAIMER NOTE:**  
 UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES 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.

**RETAINING WALL CONVERSION TABLE**

WALL HEIGHT	NUMBER OF COURSES
0.67' - 1.33'	2
1.34' - 2.00'	3
2.01' - 2.67'	4
2.68' - 3.33'	5
3.34' - 4.00'	6
4.01' - 4.67'	7
4.68' - 5.33'	8
5.34' - 6.00'	9

**NOTE:**  
 OVER BUILD PADS PER GEOTECHNICAL REPORT.

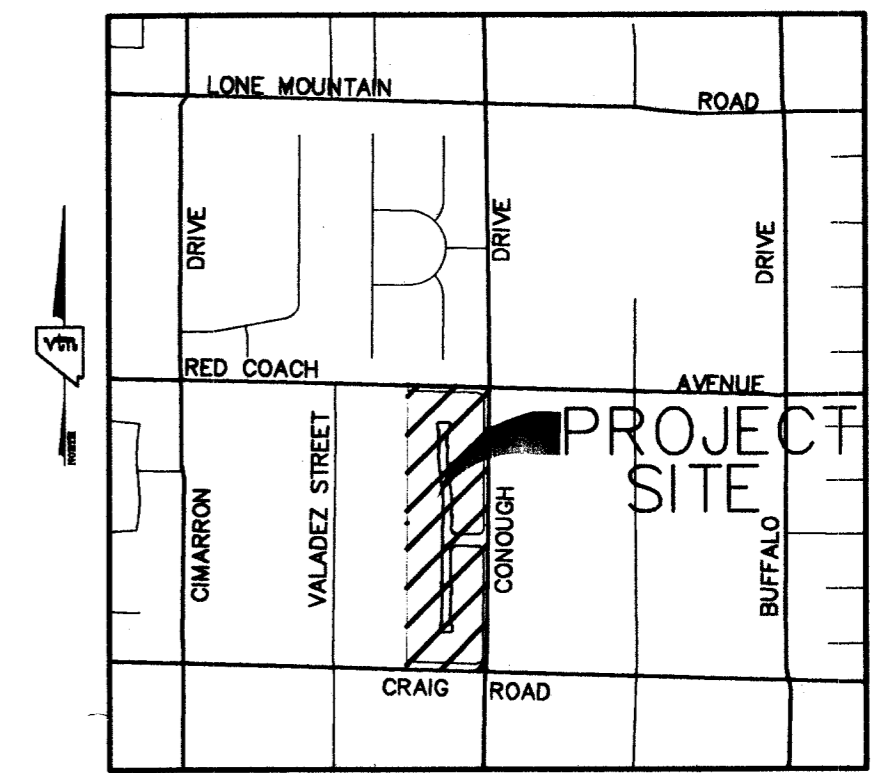
**NOTE:**  
 COMPLETION OF SECTION II OF DRAINAGE COMPLIANCE REPORT REQUIRED.

**BASIS OF BEARINGS**

THE BASIS OF BEARINGS FOR THIS PROJECT IS NORTH 00°19'04" EAST BEING EAST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 4, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN ON A FINAL MAP ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE IN FILE 9 AT PAGE 40.

**BENCHMARK**

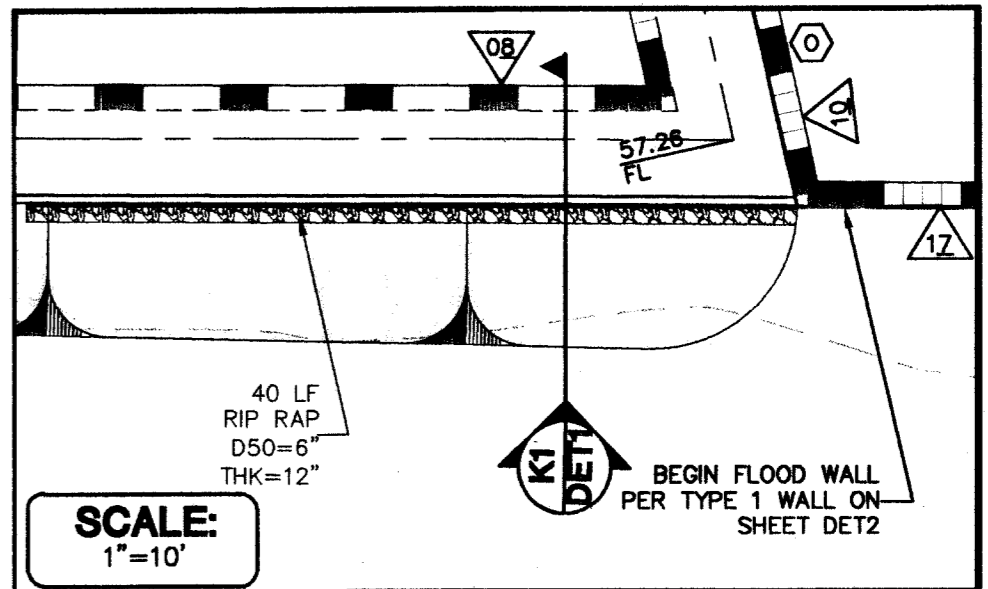
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM (NAVD88)  
 CITY OF LAS VEGAS BENCHMARK #BLV00-4E6  
 NAVD88 ELEVATION: 718.0830 METERS (2355.91 FEET)  
 RIVET AND PLATE IN CONCRETE CYLINDER AT SOUTHEAST CORNER OF CRAIG AND CONOUGH



LOCATION MAP

**LINE TABLE**

LINE	LENGTH	BEARING
L12	48.96	S00°21'30"W
L13	109.31	S00°21'30"W
L14	97.72	S00°21'30"W
L15	24.00	S00°21'30"W
L16	60.68	S00°21'30"W
L17	55.54	S00°21'30"W
L18	12.96	S30°21'30"E
L19	17.10	S00°21'30"W
L20	7.90	S00°21'30"W
L21	19.17	S89°38'30"E
L22	31.09	S89°38'30"E
L23	0.74	S89°38'30"E
L24	23.00	N00°21'30"E
L25	12.96	N29°38'30"E
L26	7.19	N00°21'30"E
L27	109.07	N00°21'30"E
L28	24.00	N00°21'30"E
L29	48.89	N00°21'30"E
L30	95.17	N00°21'30"E
L31	111.69	S89°38'30"E
L32	490.86	S00°19'04"W
L33	307.99	N88°09'42"W
L34	313.40	N00°21'30"E
L35	64.55	S00°21'30"W
L36	109.31	S00°21'30"W
L37	142.17	S00°21'30"W
L38	109.31	S00°21'30"W
L39	109.31	S00°21'30"W
L40	142.17	S00°21'30"W
L41	109.31	S00°21'30"W
L42	109.31	S00°21'30"W
L43	109.31	S00°21'30"W
L44	109.07	S00°21'30"W
L45	91.91	S00°21'30"W
L46	43.56	S00°21'30"W
L47	196.66	S89°38'30"E



DETAIL K1- BLOW-UP SECTION

**FOR ALL GRADING & STREET SECTIONS SEE DETAIL SHEET DET1**

**NOTE:**  
 NO STRUCTURE, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

**CURVE TABLE**

CURVE	LENGTH	RADIUS	DELTA	TANGENT
C21	55.41	460.04	6°51'29"	27.57
C22	8.48	19.50	24°51'34"	4.30
C23	10.22	23.50	24°57'00"	5.20
C24	8.48	19.50	24°54'33"	4.31
C25	8.48	30.00	30°00'00"	5.00
C26	7.85	5.00	90°00'00"	5.00
C27	7.85	5.00	90°00'00"	5.00
C28	15.71	30.00	30°00'00"	8.04
C29	8.48	19.50	24°51'34"	4.30
C30	10.22	23.50	24°52'06"	5.18
C31	10.22	23.50	24°54'33"	5.19
C32	8.48	19.50	24°54'33"	4.31
C33	8.48	19.50	24°54'33"	4.31
C34	31.42	20.00	90°00'00"	20.00
C35	3.63	23.50	8°51'03"	1.82
C36	6.59	23.50	16°03'30"	3.31
C37	31.42	20.00	90°01'32"	20.01
C38	31.40	20.00	89°57'34"	19.99
C39	47.92	30.00	91°31'14"	30.81
C40	53.00	440.00	6°54'06"	26.53

**LEGEND**

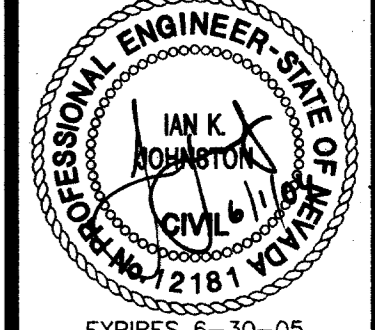
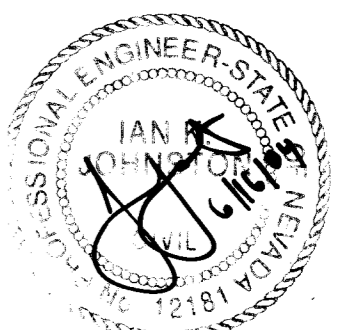
FG	FINISH GRADE	EX	EX. CONTOUR (5' INTERVAL)
FL	FLOW LINE	EX	EX. CONTOUR (1' INTERVAL)
FC	TOP OF CURB	PRO	PROPOSED CONTOUR
TRC	TOP OF ROLL CURB	PRO	PROPOSED PAD GRADE
EAC	EDGE OF ASPHALT PAVEMENT	FUT./EX.	FUT./EXIST. PAD GRADE
FUT.	FUTURE	NS	NATURAL GROUND
EXIST	EXISTING (EX.)	H.P.	HIGH POINT
VG	VALLEY GUTTER	L.P.	LOW POINT
NS	NATURAL GROUND	C/L	CENTER LINE
H.P.	HIGH POINT	O/C	OFFSET CROWN
L.P.	LOW POINT	BC	BACK OF CURB
C/L	CENTER LINE	BCR	BEHIND CURB RETURN
O/C	OFFSET CROWN	TF	TOP OF FOOTING
BC	BACK OF CURB	OB	GRADE BREAK
BCR	BEHIND CURB RETURN	PC	POINT OF CURVATURE
TF	TOP OF FOOTING	PT	POINT OF TANGENCY
OB	GRADE BREAK	PRC	POINT OF REVERSE CURVATURE
PC	POINT OF CURVATURE	PCC	POINT OF COMPOUND CURVATURE
PT	POINT OF TANGENCY	BVC	BEGIN VERTICAL CURVE
PRC	POINT OF REVERSE CURVATURE	PVI	MID-POINT OF VERTICAL CURVE
PCC	POINT OF COMPOUND CURVATURE	EVC	END VERTICAL CURVE
BVC	BEGIN VERTICAL CURVE	PRVC	POINT OF REVERSE VERTICAL CURVE
PVI	MID-POINT OF VERTICAL CURVE	VR	VERTICAL POINT OF INTERSECTION
EVC	END VERTICAL CURVE	TPW	TOP OF PLANTER WALL
PRVC	POINT OF REVERSE VERTICAL CURVE	TRW	TOP OF RETAINMENT WALL
VR	VERTICAL POINT OF INTERSECTION	TOP	TOP OF CHANNEL/SCARP
TPW	TOP OF PLANTER WALL	R/W	R/W OR P/L
TRW	TOP OF RETAINMENT WALL	IMP	EXIST. IMPROVEMENTS
TOP	TOP OF CHANNEL/SCARP	FUT.	FUTURE IMPROVEMENTS
R/W	R/W OR P/L	RET.	RETAINMENT
IMP	EXIST. IMPROVEMENTS	INT.	INTERSECTION
FUT.	FUTURE IMPROVEMENTS	D.G.	DESIGN GRADE
RET.	RETAINMENT	TSW	TOP OF SIDEWALK
INT.	INTERSECTION	FF	FINISH FLOOR
D.G.	DESIGN GRADE	FFP	GARAGE FINISH FLOOR
TSW	TOP OF SIDEWALK	BFE	BASE FLOOD ELEVATION
FF	FINISH FLOOR	R/W	RIGHT-OF-WAY
FFP	GARAGE FINISH FLOOR	S/W	SIDEWALK
BFE	BASE FLOOD ELEVATION		
R/W	RIGHT-OF-WAY		
S/W	SIDEWALK		

Call before you Dig  
 1-800-227-2600

Call before you Overhead  
 1-702-593-6111

Call before you Dig  
 1-800-227-2600

- CONSTRUCTION KEY NOTES:**  
 ( PER U.S.D.C.C.A. STANDARD DRAWINGS )
- (A) CONSTRUCT "L" CURB & GUTTER PER STD. # 216
  - (B) CONSTRUCT "A" ISLAND CURB PER STD. # 219
  - (C) CONSTRUCT SIDEWALK PER STD. # 234
  - (D) CONSTRUCT "ROLL" CURB & GUTTER PER STD. # 217A
  - (E) CONSTRUCT 8" CROSS GUTTER PER STD. # 228
  - (F) CONSTRUCT 2" SIDEWALK UNDER DRAIN PER STD. # 236
  - (G) CONSTRUCT DEPRESSED CURB PER SHEET DET1 DETAIL "O"
  - (H) CUT & MATCH 2' BEYOND EXIST. A.C.
  - (I) CONSTRUCT 10' CURB TYPE TRANSITION PER SHEET DET1 DETAIL "P"
  - (J) CONSTRUCT 4' X 16" DRAINAGE OPENING IN BLOCK WALL PER SHEET DET1 DETAILS "J" & "K"
  - (K) CONSTRUCT REMOVABLE BOLLARDS PER SHEET DET1
  - (L) CONSTRUCT CONCRETE "U" CHANNEL PER SHEET DET1 DETAILS "J" & "L"
  - (M) CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CAUSD # 235 CASE 1
  - (N) CONSTRUCT RESIDENTIAL DRIVEWAY PER STD. # 222A & 225
  - (O) CONSTRUCT 6" HIGH IRON GATE SHEET DET1 DETAILS "F" & "G"
  - (P) CONSTRUCT CHANNEL STEM WALL SEE SHEET DET1 DETAIL "M"
  - (Q) CONSTRUCT DRIVEWAY WITH MIN. LENGTH OF 25'
  - (R) CONSTRUCT DRIVEWAY WITH MIN. LENGTH OF 36'
  - (S) CONSTRUCT DRIVEWAY WITH MIN. LENGTH OF 60'
  - (T) CONSTRUCT 8" CROSS GUTTER PER STD. # 229
  - (U) CONSTRUCT RESIDENTIAL DRIVEWAY PER STD. # 222 & 223



I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH HTE# 03-28035 APPROVED DRAINAGE STUDY ON FILE AT CLARK COUNTY DEVELOPMENT SERVICES FOR THIS PROJECT.  
 IAN K. JOHNSTON NO. 12181 DATE 3/1/09

SHEET  
**GR2**  
 6 OF 17 SHEETS  
 DRAWING NO.  
**HTE# 04-15163**

DATE 3/1/09

MATCH LINE SEE SHEET GR1

D&S DEVELOPMENT  
 3638 N. RANCHO DRIVE  
 LAS VEGAS, NV 89130-3168  
 (702) 362-0566

GRADING PLAN  
 CONOUGH / CRAIG

DRAWN BY:  
 DESIGNED BY:  
 CHECKED BY:  
 PROJECT NO:  
 6502

AUG. 2003

SCALE: 1"=40' HORIZ.  
 N/A VERT.

REV. DATE BY

REVISION

PLANNERS & LAND SURVEYORS

CONSULTING ENGINEERS

PH. (702) 873-7550 FAX (702) 362-2597  
 2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148

CLARK COUNTY, NEVADA

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