Avoid cutting underground utility lines. It's costly.

Call before you Dig
1-800-227-2600

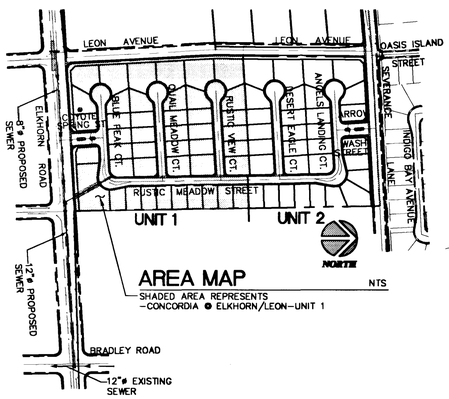
Call before you Overhead
1-702-593-6111

MANHOLE SCHEDULE

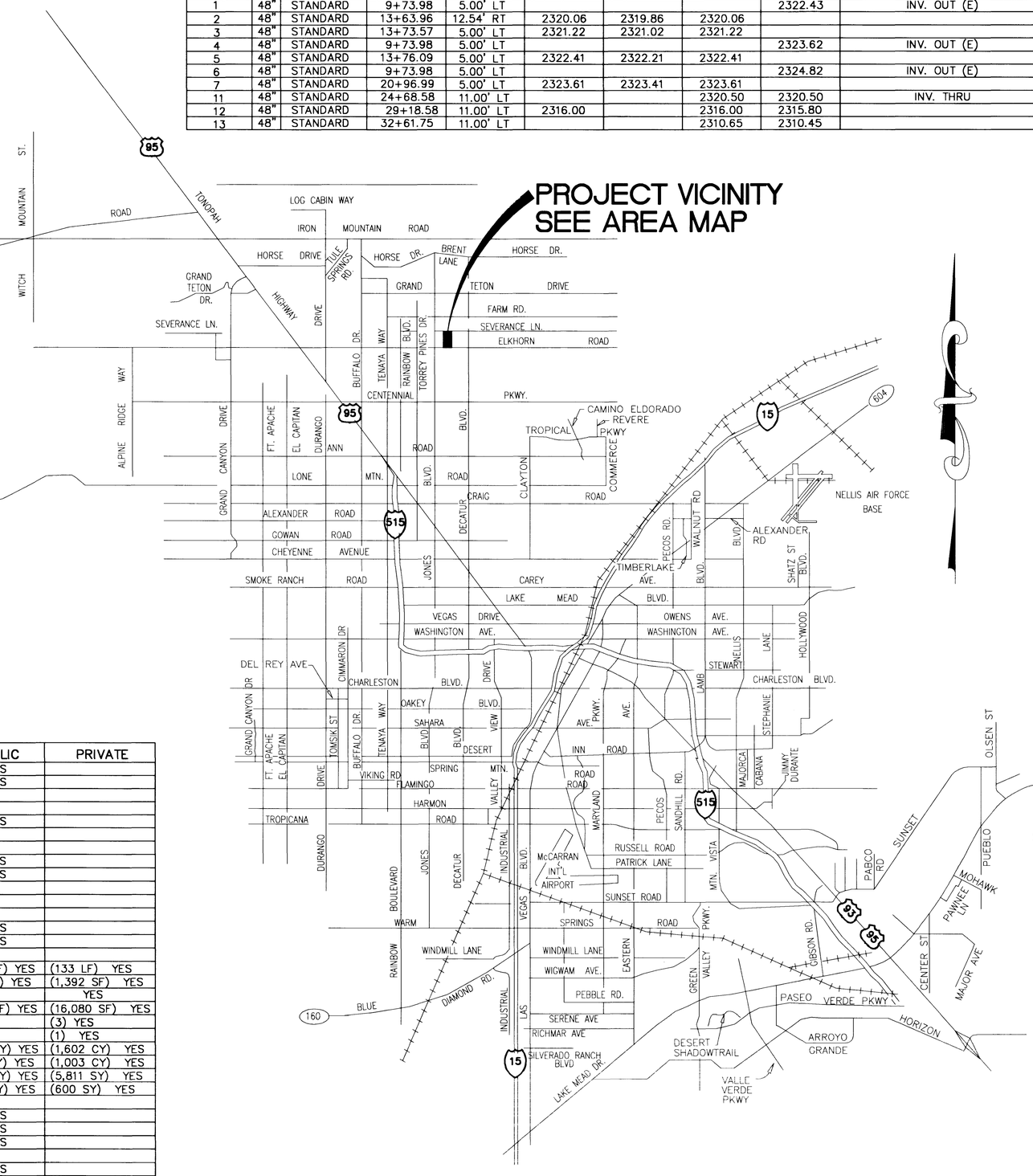
M.H.#	I.D.	TYPE	STATION	OFFSET	N. INV. EL.	S. INV. EL.	W. INV. EL.	E. INV. EL.	COMMENTS
1	48"	STANDARD	9+73.98	5.00' LT				2322.43	INV. OUT (E)
2	48"	STANDARD	13+63.96	12.54' RT	2320.06	2319.86	2320.06		
3	48"	STANDARD	13+73.57	5.00' LT	2321.22	2321.02	2321.22		
4	48"	STANDARD	9+73.98	5.00' LT				2323.62	INV. OUT (E)
5	48"	STANDARD	13+76.09	5.00' LT	2322.41	2322.21	2322.41		
6	48"	STANDARD	9+73.98	5.00' LT				2324.82	INV. OUT (E)
7	48"	STANDARD	20+96.99	5.00' LT	2323.61	2323.41	2323.61		
11	48"	STANDARD	24+68.58	11.00' LT			2320.50	2320.50	INV. THRU
12	48"	STANDARD	29+18.58	11.00' LT	2316.00		2316.00	2315.80	
13	48"	STANDARD	32+61.75	11.00' LT			2310.65	2310.45	

ABBREVIATIONS

@	-AT	GI	-GALVANIZED IRON
A	-ANODE, GAS	GM	-GAS METER
ABAN	-ABANDON	GR	-GAS PRESSURE REGULATOR
ABBR	-ABBREVIATIONS	GUT	-GUTTER
ABD	-ABANDONED	HDWL	-HEADWALL
ABUT.	-ABUTMENT	H.O.A.	-HOME OWNERS ASSOCIATION
AC	-ACRE	HORIZ.	-HORIZONTAL
AC	-ASPHALTIC CONCRETE	HP	-HIGH POINT
ACP	-ASBESTOS CEMENT PIPE	ID	-INSIDE DIAMETER
ADDD.	-ADDITION	IN	-INCH
ADJ	-ADJUSTING	INT	-INTERSECTION
AGG	-AGGREGATE	INV	-INVERT
AIP	-ABONDONED IN PLACE	ISL	-ISLAND
ALT	-ALTERNATE	JB	-JUNCTION BOX
APPD	-APPROVED	JNCT	-JUNCTION
APPROX	-APPROXIMATE	"K"	-KNUCKLE
ASB	-ASBESTOS	JT	-JOINT
ASPH	-ASPHALT	LAT	-LATITUDE
ASSN	-ASSOCIATION	LIN	-LINEAR
ASST	-ASSISTANT	LIN FT	-LINEAR FOOT
AUX	-AUXILIARY	LOC	-LENGTH OF CURB
AVE	-AVENUE	LT	-LEFT
B TO B	-BACK TO BACK	LVVWD	-LAS VEGAS VALLEY WATER DISTRICT
BC	-BACK TO CURB	MAX	-MAXIMUM
BCPA	-BITUMINOUS COATED PIPE ARCH CULVERT	MH	-MANHOLE
		MIN	-MINIMUM
BCPCMP	-BITUMINOUS COATED & PAVED CORRUGATED METAL PIPE CULVERT	MON	-MONOLITHIC
		N	-NORTH
		NE	-NORTHEAST
BCPPA	-BITUMINOUS COATED & PAVED PIPE ARCH CULVERT	N/O	-NORTH OF
		NTS	-NOT TO SCALE
		NW	-NORTHWEST
BCR	-BACK OF CURB RADIUS	OC	-ON CENTER
BDRY LINE	-BOUNDARY LINE	OD	-OUTSIDE DIAMETER
BLDG	-BUILDING	OG	-OPEN-GRADED PAVEMENT, ORIGINAL GROUND
BLVD	-BOULEVARD		
BM	-BENCH MARK	O TO O	-OUTSIDE TO OUTSIDE
BOT	-BOTTOM	P	-POWER
BS	-BACKSIGHT	PB	-PULL BOX
BVC	-BEGINNING OF VERTICAL CURVE	PCC	-POINT OF COMPOUND CURVE
C TO C	-CENTER TO CENTER	PCC.CONE	-PORTLAND CEMENT CONCRETE
CMG	-CURB AND GUTTER		
CATV	-CABLE TELEVISION	PI	-POINT OF INTERSECTION
CBC	-CITY OF BOULDER CITY	PL	-PROPERTY LINE
CC	-CLARK COUNTY	PL-G	-PLASTIC GAS
CF	-CURB FACE	PP	-POWER POLE
CI	-CAST IRON	PRC	-POINT OF REVERSE CURVE
CIP	-CAST IRON PIPE		
CL	-CENTER LINE	PRO	-PROPOSED
CLV	-CITY OF LAS VEGAS	PT	-POINT
COM	-CITY OF MESQUITE	PT	-POINT OF TANGENCY
CM	-CORRUGATED METAL	PVC	-POLYVINYL CHLORIDE
CMP	-CORRUGATE METAL PIPE	PVMT	-PAVEMENT
CMPA	-CORRUGATED METAL PIPE ARCH	R	-RADIUS
		RC	-REINFORCED CONCRETE
CNLV	-CITY OF NORTH LAS VEGAS	RCB	-REINFORCED CONCRETE BOX
COH	-CITY OF HENDERSON		
COL	-COLUMN	RCP	-REINFORCED CONCRETE PIPE
CP	-CONCRETE PIPE		
COORD	-COORDINATE	RD	-ROAD
CORR.I	-CORRUGATED IRON	REINF	-REINFORCED
XRD	-CROSS ROAD	RELOC	-RELOCATE
XSECT	-CROSS SECTION	RP	-RADIUS POINT
CU	-CUBIC	RR	-RAILROAD
CUYD.CY	-CUBIC YARD	RT	-RIGHT
CUFT.CF	-CUBIC FOOT	R/W	-RIGHT-OF-WAY
CULV	-CULVERT	S	-SOUTH
DEG	-DEGREE	SD	-STORM DRAIN
DEPT	-DEPARTMENT	SE	-SOUTHEAST
DI	-DROP INLET	SHP	-STEEL HIGH PRESSURE PIPE
DIP	-DUCTILE IRON PIPE		
DIA	-DIAMETER	SHT	-SHEET
DRWY	-DRIVEWAY	STL	-STREETLIGHT
EA	-EACH	S/O	-SOUTH OF
E	-EAST	SQ	-SQUARE
E	-ELECTRIC	SQ FT,SF	-SQUARE FOOT
EBS	-CATHODE PROTECTION BOND STATION	SQ IN	-SQUARE INCH
		SQ MILE	-SQUARE MILE
EC	-END OF CURVE	SQ YD,SY	-SQUARE YARD
ECR	-END OF CURB RETURN	SS	-SANITARY SEWER
EL	-ELEVATION	STA.	-STATION
ELEV	-ELEVATION	STD	-STANDARD
EM	-ELECTRIC METER	STRUCT	-STRUCTURAL OR STRUCTURE
EMBK	-EMBANKMENT		
E/O	-EAST OF	SURV	-SURVEY
EO	-EDGE OF OIL	SDW	-SIDEWALK
EP	-EDGE OF PAVEMENT	SW	-SOUTHWEST
ESMT	-EASEMENT	T	-TELEPHONE
EST	-ESTIMATE	TBA	-TO BE ADJUSTED
E TO E	-END TO END	TBR	-TO BE REMOVED
ETS	-CATHODE PROTECTION TEST STATION	TC	-TOP OF CURB
		TEMP	-TEMPORARY
EVC	-END OF VERTICAL CURVE	TP	-TELEPHONE POLE
		TOP	-TOP OF PIPE
EXC	-EXCAVATION	TMH	-TOP OF MANHOLE
EXP	-EXPANSION	TS	-TRAFFIC SIGNAL
EXIST	-EXISTING	TSI	-TRAFFIC SIGNAL INTERCONNECT
EXT	-EXTENSION		
FA	-FIRE ALARM	TRANS	-TRANSITION
FG	-FINISH GRADE	TYP	-TYPICAL
FH	-FIRE HYDRANT	UDACS	-UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
FIG.	-FIGURE		
FF	-FINISH FLOOR		
FL	-FLOW LINE	UG	-UNDERGROUND
FL	-FLOOR	UNO	-UNLESS NOTED OTHERWISE
FPM	-FEET PER MINUTE	VAR	-VARIABLE
FPS	-FEET PER SECOND	VC	-VERTICAL CURVE
FT	-FEET OR FOOT	VCP	-VITRIFIED CLAY PIPE
F TO F	-FACE TO FACE	VERT	-VERTICAL
GAL	-GALLON	VG	-VALLEY GUTTER
GALV	-GALVANIZED	W	-WATER
GB	-GRADE BREAK	WM	-WATER METER
		W/O	-WEST OF
		YD	-YARD



AREA MAP
NTS
-SHADED AREA REPRESENTS
-CONCORDIA @ ELKHORN/LEON-UNIT 1



QUANTITY ESTIMATES

ITEM #	DESCRIPTION	QUANTITY	PUBLIC	PRIVATE
1	4" SEWER	1,300 LF	YES	
2	8" SEWER	3,494 LF	YES	
3	12" SEWER	LF		
4	SEWER	LF		
5	SEWER MANHOLES UNDER 6 FEET	7 EA	YES	
6	SEWER MANHOLES OVER 6 FEET	3 EA		
7	SEWER MANHOLES ADJUSTMENTS	EA		
8	6" WATER MAIN	448 LF	YES	
9	8" WATER MAIN	3703 LF	YES	
10	10" WATER MAIN	LF		
11	12" WATER MAIN	692 LF		
12	WATER MAIN	LF		
13	WATER SERVICE TO LOTS	45 EA	YES	
14	FIRE HYDRANT	5 EA	YES	
15	FIRE HYDRANT RELOCATION	EA		
16	CURB & GUTTER (TYPE "L" & "A")	1,488 LF	(1,355 LF) YES	(133 LF) YES
17	VALLEY GUTTER (8' WD)	2,406 LF	(1014 SF) YES	(1,392 SF) YES
18	30" ROLL CURB	3670 LF		YES
19	SIDEWALK 4"	22,705 SF	(6,625 SF) YES	(16,080 SF) YES
20	HANDICAP RAMP	6 EA	(3) YES	(3) YES
21	SIDEWALK UNDERDRAIN	2 EA	(1) YES	(1) YES
22	TYPE I GRAVEL BASE	3,830 CY	(2,228 CY) YES	(1,602 CY) YES
23	TYPE II GRAVEL BASE	2,119 CY	(1,116 CY) YES	(1,003 CY) YES
24	2" ASPHALTIC CONCRETE PAVING	9,777 SY	(3,966 SY) YES	(5,811 SY) YES
25	3" ASPHALTIC CONCRETE PAVING	2,319 SY	(1,719 SY) YES	(600 SY) YES
26	4" ASPHALTIC CONCRETE PAVING	SY		
27	5" ASPHALTIC CONCRETE PAVING	3,228 SY	YES	
28	POWER TO LOTS	45 EA	YES	
29	TELEPHONE TO LOTS	45 EA	YES	
30	PULLBOX	4 EA		
31	STREETLIGHT (STANDARD BASE)	9 EA	YES	
32	STREETLIGHT (BREAKAWAY BASE)	EA		
33	SURVEY MONUMENTS	10 EA	YES	
34	FLOOD CONTROL	LS		
35	EXCAVATION & EMBANKMENT	1,000 CY	YES	
36	MISC. TRENCHING	LF		
37	TRAFFIC SIGNAL	LS		
38	STREET/STOP SIGNS	5 EA	YES	
37	GAS TO LOTS	45 EA	YES	
38	CABLE TO LOTS	45 EA	YES	

SHEET INDEX

SHEET #	SHEET	DESCRIPTION
1	C1	COVER SHEET
2	C2	VICINITY MAP, MANHOLE SCHEDULE ABBREVIATIONS & QUANTITIES SHEET
3	C3	GENERAL NOTES
4	C4	MASTER UTILITY PLAN / STREET LIGHT INFO. (SOUTH HALF)
5	C5	MASTER UTILITY PLAN / STREET LIGHT INFO. (NORTH HALF)
6	G1	GRADING PLAN (SOUTH HALF)
7	G2	GRADING PLAN (NORTH HALF)
8	G3	ROAD TRANSITIONS
9	S1	PLAN AND PROFILE ELKHORN ROAD
10	S2	PLAN AND PROFILE ELKHORN ROAD
11	S3	PLAN AND PROFILE LEON AVENUE
12	SS1	PLAN AND PROFILE BLUE PEAK COURT
13	SS2	PLAN AND PROFILE QUAIL MEADOW COURT
14	SS3	PLAN AND PROFILE RUSTIC VIEW COURT
15	SS4	PLAN AND PROFILE SIERRA NEVADA STREET
16	SS5	PLAN AND PROFILE COYOTE RUN STREET AND 20' DRAINAGE EASEMENT
17	D1	DETAIL SHEET

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT DATE:

NO.	REVISION	DATE	APP.
6			
5			
4			
3			
2			
1			

SCALE	JOB No.	PLOT DATE:
AS NOTED	99-9005-03	07/26/99
DRAWN BY: SSG/ekd	CHECKED BY: JWL/MS	PROJECT DATE: 02/99

CONCORDIA @ ELKHORN/LEON
CITY OF LAS VEGAS NEVADA

VICINITY MAP, MANHOLE SCHEDULE, ABBREVIATIONS & QUANTITIES
UNIT 1

DEVELOPER: CONCORDIA HOMES

SEAL: ENGINEER, LELAND W. CIVIL, No. 4932, STATE OF NEVADA, PROFESSIONAL ENGINEER, ILLINOIS

6280 S. Valley View Blvd
Suite 200
Las Vegas, NV 89118
Tel: (702) 368-3008
Fax: (702) 368-0047

CVL CONSULTANTS, INC.
ENGINEERING · PLANNING · LAND SURVEYING

SHEET C2
2 OF 17

AGENCY DWG. NO. 1074-4619-1

Call before you Dig
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Call before you Overhead
1-702-385-6102

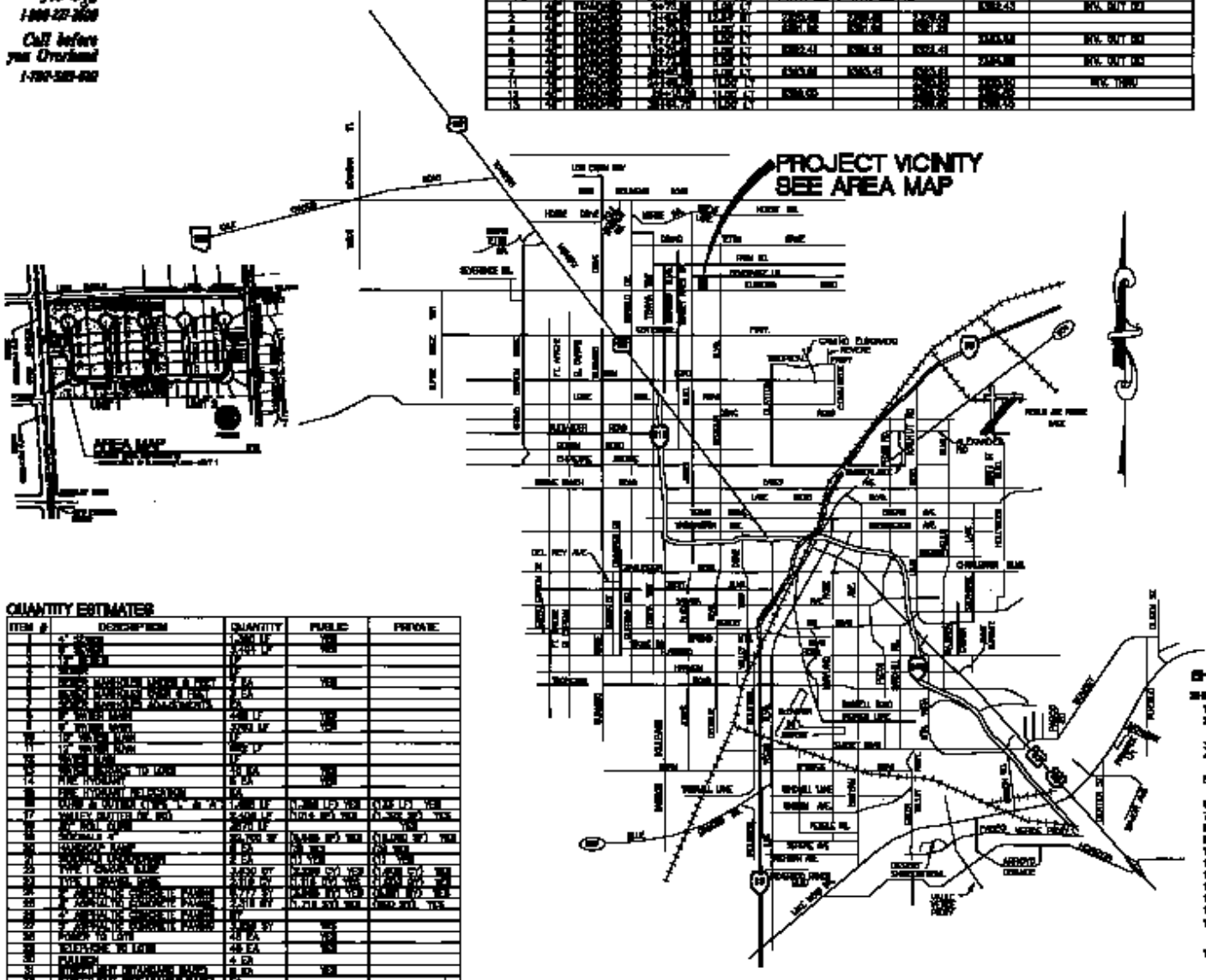
MANHOLE SCHEDULE

M.H.#	I.D.	TYPE	STATION	OFFSET	N. INV. EL.	S. INV. EL.	W. INV. EL.	E. INV. EL.	COMMENTS
1	48	[illegible]	[illegible]	[illegible]				[illegible]	INV. OUT (E)
2	48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
3	48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
4	48	[illegible]	[illegible]	[illegible]				[illegible]	INV. OUT (E)
5	48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
6	48	[illegible]	[illegible]	[illegible]				[illegible]	INV. OUT (E)
7	48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
11	48	[illegible]	[illegible]	[illegible]				[illegible]	INV. THRU
12	48	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	
13	48	[illegible]	[illegible]	[illegible]				[illegible]	

ABBREVIATIONS

[illegible]

PROJECT VICINITY
SEE AREA MAP



QUANTITY ESTIMATES

ITEM #	DESCRIPTION	QUANTITY	PUBLIC	PRIVATE
1	4" [illegible]	[illegible] LF	[illegible]	
2	6" [illegible]	[illegible] LF	[illegible]	
3	12" [illegible]	LF		
4	[illegible]	LF		
5	[illegible] MANHOLE [illegible] & [illegible]	7 EA	YES	
6	[illegible] MANHOLE [illegible] & [illegible]	2 EA		
7	[illegible] MANHOLE ADJUSTMENTS	EA		
8	8" WATER MAIN	[illegible] LF	YES	
9	6" WATER MAIN	[illegible] LF	YES	
10	12" WATER MAIN	LF		
11	16" WATER MAIN	[illegible] LF		
12	WATER [illegible]	LF		
13	WATER SERVICE TO LOTS	10 EA	YES	
14	FIRE HYDRANT	6 EA	YES	
15	FIRE HYDRANT RELOCATION	EA		
16	CURB & GUTTER (TYPE "A" & "A")	[illegible] LF	[illegible] LF YES	[illegible] LF YES
17	VALLEY GUTTER (W. 800)	[illegible] LF	[illegible] LF YES	[illegible] LF YES
18	AC ROLL CURB	[illegible] LF		YES
19	SIDEWALK 4"	[illegible] SF	[illegible] SF YES	[illegible] SF YES
20	[illegible] RAMP	8 EA	YES	YES
21	[illegible]	2 EA	YES	YES
22	TYPE I [illegible]	[illegible] SY	[illegible] SY YES	[illegible] SY YES
23	TYPE I [illegible]	[illegible] SY	[illegible] SY YES	[illegible] SY YES
24	6" [illegible] CONCRETE PAVING	[illegible] SY	[illegible] SY YES	[illegible] SY YES
25	6" [illegible] CONCRETE PAVING	[illegible] SY	[illegible] SY YES	[illegible] SY YES
26	4" [illegible] CONCRETE PAVING	SY		
27	5" [illegible] CONCRETE PAVING	[illegible] SY	YES	
28	POWER TO LOTS	48 EA	YES	
29	TELEPHONE TO LOTS	48 EA	YES	
30	[illegible]	4 EA		
31	[illegible] MONUMENT	8 EA	YES	
32	[illegible] MONUMENT	EA		
33	SURVEY MONUMENTS	10 EA	YES	
34	FLOOD CONTROL	LS		
35	EXCAVATION & EMBANKMENT	[illegible] CY	YES	
36	[illegible]	LF		
37	[illegible]	LS		
38	STREET/STOP SIGNS	6 EA	YES	
39	[illegible] TO LOTS	48 EA	YES	
40	CABLE TV LOTS	10 EA	YES	

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16	C16	PLAN AND PROFILE CONCORDIA DRIVE AND 30' DRAINAGE EASEMENT
17	D1	DETAIL SHEET

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT DATE

CONCORDIA ESTATES
VICINITY MAP, MANHOLE SCHEDULE, ABBREVIATIONS & QUANTITIES
UNIT 1

CONCORDIA

CONTINENTAL, INC.

SHEET C2
2 OF 17

JOBNUMBER 1077-4619-1