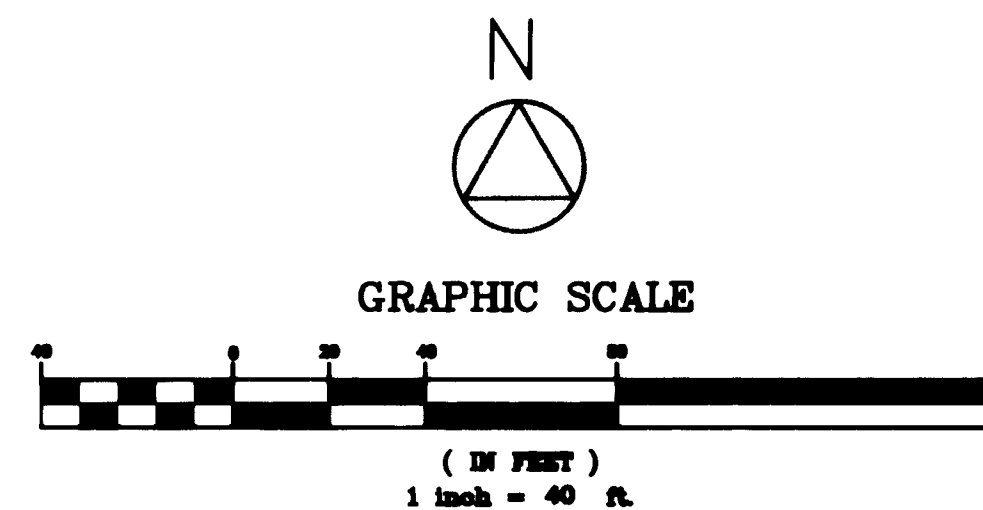
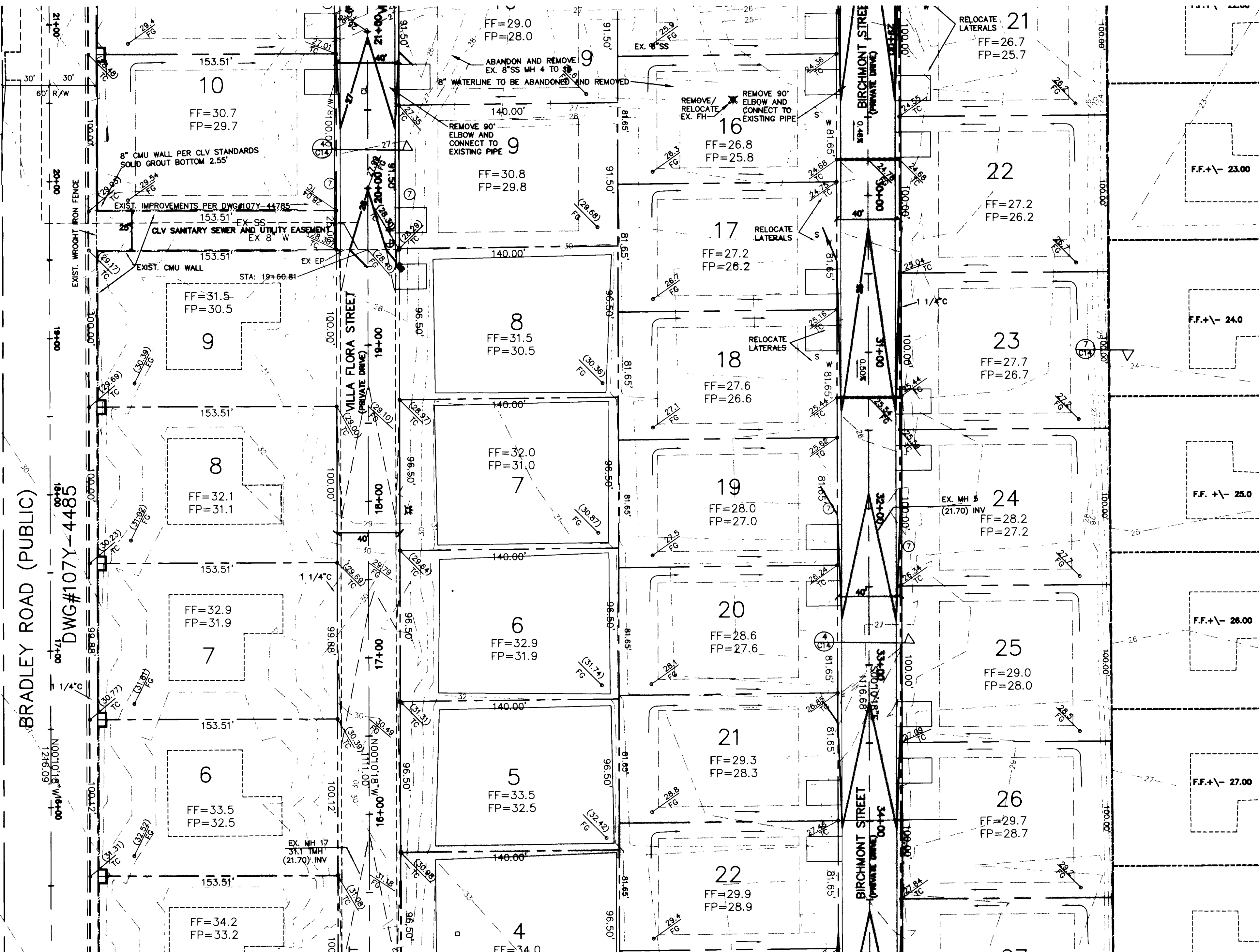




NOTES

- EXISTING WILLOWDALE PARK IMPROVEMENTS PER DWG#107Y-44785
- SEE SHEET C4 FOR LINE AND CURVE TABLES.
- ALL PRIVATE DRIVES ARE P.U.E.'S, PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

NOTES

- RELOCATE EXISTING POWER POLE - COORDINATE WITH NEVADA POWER COMPANY
- INSTALL SIDEWALK RAMP PER STANDARD DRAWING NO. 235
- SAWCUT AND MATCH EXISTING FG
- INSTALL SIDEWALK PER STANDARD DRAWING NO. 234
- INSTALL 'L' CURB PER STANDARD DRAWING NO. 216
- INSTALL 8" VALLEY GUTTER PER STANDARD DRAWING NO. 228
- INSTALL 30" ROLL CURB PER STANDARD DRAWING NO. 217A

CONTRACTOR GRADING NOTES

- SLOPES 4:1 OR STEEPER AND FINE-GRAINED MATERIALS THAT HAVE BEEN DISTURBED (SANDY AND SILTY MATERIALS) SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICATIONS OR THE SOILS REPORT.
- CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXCAVATION QUANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOULD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL NOTIFY DELTA ENGINEERING WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. DELTA ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.
- CONTRACTOR TO ENSURE POSITIVE DRAINAGE. NO PONDING ALLOWED.
- CONTRACTOR TO FOLLOW RECOMMENDATIONS AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING AND COMPACTION. REFER TO THE REPORT PREPARED BY GEOTECH, INC. DATED FEBRUARY 19, 1999 WORK ORDER#517-LV

LINE	LENGTH	BEARING
L1	8.04	N00°28'45"W
L2	18.14	N82°22'00"E
L3	15.88	N88°47'40"E
L4	16.67	N88°47'40"E
L5	3.28	N08°04'04"W
L6	16.74	S07°39'53"W
L7	10.00	S00°10'18"E
L8	7.25	S00°10'18"E
L9	11.48	N82°48'11"W

CURVE	LENGTH	RADIUS	TANGENT	DELTA
C1	25.87	452.00	12.84	031°15'14"
C2	23.17	15.00	14.81	88°22'20"
C3	23.80	15.00	15.33	91°15'00"
C4	9.68	15.00	5.01	30°34'30"
C29	11.24	15.00	5.90	42°58'50"
C30	11.92	15.00	6.30	45°32'30"
C31	14.47	15.00	7.86	56°17'20"
C32	13.78	100.00	8.90	07°53'40"
C40	24.33	25.00	13.22	58°24'10"
C41	24.20	25.00	13.14	58°27'50"
C42	14.64	15.00	7.96	50°56'30"
C43	13.88	100.00	8.85	07°50'12"
C44	13.78	100.00	8.90	07°53'40"
C45	12.24	51.00	6.15	13°46'17"
C46	4.27	100.00	2.13	02°28'41"
C47	9.51	100.00	4.76	05°27'08"
C48	13.88	100.00	8.85	07°50'11"
C49	10.97	51.00	5.30	11°52'22"
C50	10.08	51.00	5.08	11°20'13"
C51	13.88	100.00	8.85	07°50'11"
C52	13.77	100.00	8.89	07°53'18"

ESTIMATE OF PUBLIC QUANTITIES

3" AC PAVING 2856 SY
24" L C&G 983 LF
CONC. S/W 6404 SF
CONC. VALLEY GUTTER 1216 SF
TYPE II SIDEWALK UNDERDRAIN 1064 CY
HANDICAP RAMP 2 EA
DRAINAGE CHANNEL 1 EA

BENCHMARK

CITY OF LAS VEGAS # 46, 1LV00 12N4, BEING A RIVET AND PLATE IN WATER METER PAD, 5401 W. ALEXANDER ROAD AT BRADLEY ROAD, N.A.V.D. 88 DATUM ELEVATION 581.6670 METERS (2236.4358 FEET).

BASIS OF BEARINGS

NORTH 00°10'18" WEST BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 1, TOWNSHIP 20S, RANGE 60E, W.D.M. WEST LINE ALSO BEING THE CENTERLINE OF BRADLEY ROAD AS SHOWN ON BOOK 79 PAGE 9 OF PLATS OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

DRAINAGE STUDY CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FILED WITH THE CITY OF LAS VEGAS FLOOD CONTROL

WILLIAM S. CROCKETT, P.E. 6777
DATE 8/10/01

EXISTING	PROPOSED	EXISTING	PROPOSED
RIGHT-OF-WAY	RIGHT-OF-WAY	RETAINING WALL	RETAINING WALL
PROPERTY LINE	PROPERTY LINE	CHAIN LINK FENCE	CHAIN LINK FENCE
CENTERLINE	CENTERLINE	GRADE BREAK	GRADE BREAK
WATER LINE	WATER LINE	WIRE FENCE	WIRE FENCE
SANITARY SEWER LINE	SANITARY SEWER LINE	FINISH FLOOR	FINISH FLOOR
GAS LINE	GAS LINE	CLEANOUT INVERT ELEV.	CLEANOUT INVERT ELEV.
STORM DRAIN	STORM DRAIN	FLOW LINE	FLOW LINE
CO. INV.	CO. INV.	FINISH GRADE	FINISH GRADE
POWER LINE/POWER POLE	POWER LINE/POWER POLE	TOP OF CURB	TOP OF CURB
TELEPHONE LINE	TELEPHONE LINE	TOP OF WALL	TOP OF WALL
FIRE HYDRANT	FIRE HYDRANT	GATE	GATE
WATER VALVE	WATER VALVE	SIGN	SIGN
SEWER/POW. BOXES	SEWER/POW. BOXES		
MANHOLE	MANHOLE		
CLEANOUT	CLEANOUT		
CONTOUR	CONTOUR		
TYPE "L" CURB & GUTTER	TYPE "L" CURB & GUTTER		
TYPE "A" CURB	TYPE "A" CURB		
CONCRETE	CONCRETE		

AVOID CUTTING UNDERGROUND UTILITY LINES. ITS COSTLY.
Call before you Dig- 1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)

AVOID OVERHEAD POWER LINE CONTACT
Call before you OVERHEAD 1-702-593-6111
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

DELTA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT, OWNER'S REPRESENTATIVE OR ENGINEER IMMEDIATELY.

EMERALD DEVELOPMENT

1304 ALPINE DRIVE
BOULDER CITY, NEVADA 89005
(702) 293-1619

GRADING PLAN PHASE I
SHEET

TITLE

WILLOWDALE PARK
UNIT I AND II

TITLE

DRAWN BY: 9/30/99
DESIGNED BY: 9/30/99
CHECKED BY: 9/30/99
PROJECT NO.: 9802

SCALE: 1"=40'

SEAL

WILLIAM S. CROCKETT, P.E.

CLW

8/10/01

SHEET

C4

4 OF 14 SHEETS

DRAWING NO.

107Y-4670