

DEPARTMENT OF PUBLIC WORKS

Mayor:
CAROLYN G. GOODMAN

City Council:
STEVEN D. ROSS (Mayor Pro-Tem)
LOIS TARKANIAN
RICKI Y. BARLOW
STAVROS S. ANTHONY
BOB COFFIN
BOB BEERS

City Manager:
ELIZABETH N. FRETWELL

Director of Public Works:
DAVID N. BOWERS, P.E., P.T.O.E.

City Engineer:
ALLEN E. PAVELKA, P.E.



CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE

Funded By:
CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

Reviewed By:

Allen Pavelka 6-28-17
CLV CITY ENGINEER DATE

Randy McNeil 6/28/17
CLV PROJECT MANAGER DATE

Frank Kardal 6-28-17
CLV CITY TRAFFIC ENGINEER DATE

Al E. Hansen 6/28/17
CLV CONSTRUCTION MANAGER DATE

MRD 6/27/2017
CLARK COUNTY REGIONAL
FLOOD CONTROL DISTRICT DATE

W. G. Smith 6/15/17
SOUTHWEST GAS CORPORATION DATE

Jerome Aguero 6/27/17
CENTRAL TELEPHONE COMPANY DATE
d/b/a CENTURYLINK

THE AFFIXED CENTURYLINK NEVADA APPROVAL DOES NOT ASSUME OR GUARANTEE
LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED
IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO
LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION
STANDARD REGULATIONS.

Amir Alabi 6/15/17
COX COMMUNICATIONS LAS VEGAS, INC. DATE

Barbara Garrison 6-15-17
NV ENERGY - DISTRIBUTION DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE
SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY
RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL
DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL
BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND
REGULATIONS.

Donna Hany 6-15-17
NV ENERGY - TRANSMISSION DATE

APPROVED FOR CONSTRUCTION
Jeffrey Douglas
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT # 125067
SHEETS: LBCV-01, LBCV-02, LBCV-03 TO LBCV-09, LBU-01 TO LBU-03

THE SIGNATURE ABOVE ACKNOWLEDGES THAT THE UTILITY COMPANY
REPRESENTATIVE HAS REVIEWED THE PLANS, AND THAT TO THE BEST OF
HIS OR HER KNOWLEDGE THE UTILITY LINES ARE SHOWN IN THE CORRECT
LOCATIONS AND ARE THE CORRECT SIZES. WHILE SUCH DATA HAS BEEN
COLLECTED WITH REASONABLE CARE, THERE IS NO EXPRESSED OR
IMPLIED GUARANTEE THAT THE LOCATIONS ARE EXACT. THE CONTRACTOR
SHALL BEAR THE RESPONSIBILITY OF OBTAINING THE ACTUAL FIELD
LOCATIONS.

THE SIGNATURE ABOVE FURTHER ACKNOWLEDGES THAT THE UTILITY
COMPANY DOES NOT ANTICIPATE CONSTRUCTION OR MAINTENANCE IN
THE PROJECT AREA FOR FIVE (5) YEARS IN CONFORMANCE WITH THE CLV
NO-CUT POLICY.

PREPARED BY

**Louis Berger**
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.756.6632 - Fax: 702.407.1305

DESIGNED BY: LDN

DRAWN BY: FME

CHECKED BY: JSD

DATE: 6/15/2017

SUBMITTAL STAGE

CITY OF LAS VEGAS

H# 60223

DATE: 6/15/2017

SUBMITTAL STAGE

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

COVER SHEET

JEFFREY DOUGLAS
Exp.: 12/31/18
CIVIL
No. 18417

6/15/17

SHEET

LBCV-01

01 OF 62

DRAWING NO.
731-96

NO.

DATE

REVISIONS

PROJ: 125067

AGR: 116389

QS: 125-17-SW

LVVWD STANDARD NOTES

- LVVWD PROJECT # 120567
- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT# IDENTIFIED ABOVE.
 - ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
 - ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
 - A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
 - ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
 - ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
 - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
 - ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
 - ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
 - THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802. TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
 - ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
 - ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
 - TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600
 - THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL FACILITIES WILL INCLUDE THE PLACEMENT OF ANY APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

APPROVED FOR CONSTRUCTION
DATE: 6/22/17 PROJECT# 125067

ABBREVIATIONS

@	AT	LF	LINEAL FOOT, LINEAR FEET
AB	ABANDONED	LIE	LOWER INVERT ELEVATION
AC	ASPHALTIC CONCRETE	LT	LEFT
ACP	ASBESTOS CEMENT PIPE	LVVWD	LAS VEGAS VALLEY WATER DISTRICT
AEP	AUTHORIZATION TO ENTER PROPERTY	MH	MANHOLE
APPROX	APPROXIMATE	MLCP	MULTI-LAYER COMPOSITE PIPE
AVAR	AIR VALVE ASSEMBLY	MTR	METER
B/C	BACK OF CURB	NDOT	NEVADA DEPT OF TRANSPORTATION
BCR	BACK OF CURB RADIUS	NTS	NOT TO SCALE
BM	BENCHMARK	NVE	NV ENERGY
BOT	BOTTOM	OH	OVERHEAD POWER LINE
BR	BACK OF RAMP	OHU	OVERHEAD UTILITIES
C & G	CURB AND GUTTER	PB	PULL BOX
CALCD	CALCULATED	PC	POINT OF CURVATURE
CATV, TV	CABLE TELEVISION	P.I.P.	PROTECT IN PLACE
CC	CLARK COUNTY	PP	POWER POLE
CCPW	CLARK COUNTY PUBLIC WORKS	PRC	POINT OF REVERSE CURVE
CIPP	CURED-IN-PLACE PIPE	PT	POINT OF TANGENCY
CL	CENTERLINE	R, PL	PROPERTY LINE
CLSM	CONTROLLED LOW STRENGTH MATERIAL	R RADIUS	RT RIGHT
CLV	CITY OF LAS VEGAS	R.W., R.O.W.	RIGHT OF WAY
COMP	CORRUGATED METAL PIPE	SCCP	STEEL CYLINDER CONCRETE PIPE
CONC	CONCRETE	SD	STORM DRAIN
COND	CONDUCTOR	SF	SQUARE FOOT
CPM	CAPITAL PROJECT MANAGEMENT	SP	SPECIAL PROVISIONS
D, DIA	DIAMETER	SS	SANITARY SEWER
DCSWCS	DESIGN & CONSTRUCTION STDS FOR WASTEWATER COLLECTION SYSTEMS	STA	STATION
DG	DECOMPOSED GRANITE	STD	STANDARD
DIP	DUCTILE IRON PIPE	STL	STREET LIGHT
DW	DRIVEWAY	SV	SPRINKLER VALVE
DWG	DRAWING	S/W	SIDEWALK
ECR	END OF CURB RETURN (AT B/C)	SWG	SOUTHWEST GAS
ELEC	ELECTRIC	SY	SQUARE YARD
ELEV	ELEVATION	T, TEL	TELEPHONE
EOP, EP	EDGE OF PAVEMENT	TC	TOP OF CURB
EX	EXISTING	TCE	TEMP. CONSTRUCTION EASEMENT
FAST	FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (INTERCONNECT)	TEMP.	TEMPORARY
FC	FACE OF CURB	TRC	TRANSITION
FD	FOUND	TS	TOP OF RAMP CURB
FG	FINISHED GRADE	TYP.	TRAFFIC SIGNAL
FT, HYD	FOOT, FEET	UDACS	TYPICAL
G	GAS	UIE	UPPER INVERT ELEVATION
GM	GAS METER	USD	UNIFORM STANDARD DRAWING
GV	GAS VALVE	USS	UNIFORM STD SPECIFICATIONS
GW	GUY WIRE	W	WATER LINE
HP	HIGH PRESSURE	WC	WHEEL CHAIR
INT	INTERSECTION	WM	WATER METER
IRR	IRRIGATION	WW	WATER VALVE
L	LENGTH	W/	WITH
		A	INCLUDED DELTA ANGLE

RTC NOTES

- THE CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE MORE THAN ONE CONSECUTIVE BUS STOP ON THE SAME SIDE OF THE STREET. TEMPORARY CLOSURES SHALL BE PWD (PERSONS WITH DISABILITY) ACCESSIBLE BEFORE ANY BUS STOP CAN BE CLOSED. THE CONTRACTOR SHALL NOTIFY CARL SCARBROUGH AT (702) 676-1608 OR ERIC TRAASDAHL AT (702) 676-1633, AT LEAST SEVEN WORKING DAYS IN ADVANCE.
- THE CONTRACTOR SHALL SUBMIT A BUS STOP CLOSURES SCHEDULE WITH THE TRAFFIC CONTROL PLAN. THE BUS STOP CLOSURE SCHEDULE SHALL IDENTIFY SPECIFIC DURATIONS AND TIMES OF THE DAY FOR ALL PROPOSED BUS STOP CLOSURES. BUS STOP CLOSURES ARE NOT TO EXCEED TWO CONSECUTIVE STOPS AT ONE TIME, OR MORE THAN 1,000 FEET AT A TIME. PERSONS WITH DISABILITIES SHALL HAVE ACCESS TO BUS STOPS. THE CONTRACTOR SHALL PROVIDE A 100 FOOT LONG BY 10 FEET WIDE GRAVELED TURN OUT AT TEMPORARY BUS STOPS.

REVISED FEBRUARY 14, 2013

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000 METERS
FALSE EASTING: 100,000 METERS
STANDARD PARALLEL SCALE: 1.0001
LINEAR UNIT: US SURVEY FOOT (SFT)

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)
BENCHMARK: CITY OF LAS VEGAS 5LV9020NE6
NAV88 ELEVATION: 773.168 METERS (2536.64 FEET)
RIVET & PLATE IN HEAD WALL AT PARK ENTRANCE SW CORNER OF MOUNTAIN RIDGE PARK AND OSO BLANCA

LEGEND

---	CENTERLINE	☼	AREA LIGHT
---	RIGHT OF WAY LINE	⊕	BENCHMARK
---	PROPERTY LINE	⊞	ELEC. VAULT/CABINET
---	AUTHORIZATION TO ENTER PROPERTY (AEP)	⊞	ELECTRIC MANHOLE
---	PATCH / SAWCUT LINE	⊞	ELECTRIC METER
☼	STORM DRAIN INLET	⊞	FIRE HYDRANT
⊕	STORM DRAIN MH	⊞	FOUND MONUMENT
⊞	STREET LIGHT	⊞	GAS METER
STL	STREET LIGHT PB	⊞	GAS VALVE
⊞	TELEPHONE MH	⊞	IRR. CONTROLLER
TEL	TELEPHONE PB	⊞	IRR. VALVE
⊞	TRAFFIC SIGNAL POLE	⊞	LOOP DETECTOR
TSB	TRAFFIC SIGNAL PB	⊞	SANITARY SEWER MH
TV	TV PULLBOX	⊞	SET MONUMENT
⊞	UTILITY POLE	⊞	SIDEWALK RAMP
⊞	UTILITY POLE GUY WIRE	⊞	SIGN
⊞	UTILITY VAULT		
⊞	WATER VAULT/CABINET		
⊞	WATER MANHOLE		
⊞	WATER METER		
⊞	WATER VALVE		

ALIGNMENT ABBREVIATIONS

"FR"	FARM ROAD STORM DRAIN
"GA"	GILCREASE AVENUE STORM DRAIN
"GT"	GRAND TETON DRIVE STORM DRAIN
"L1"	LATERAL CONNECTION (12x4' RCB)
"L2"	LATERAL CONNECTION (6x3' RCB)
"SD"	MAINLINE STORM DRAIN

SHEET INDEX

1	LBVC-01	COVER SHEET
2	LBGN-01	GENERAL NOTES
3	LBGN-02	NOTES, LEGEND & VICINITY MAP
4	3	SUMMARY OF SURFACE AND BASE QUANTITIES
5-6	3A - 3B	SUMMARY OF EARTHWORK
7-9	LBHC-01 - LBHC-03	HORIZONTAL CONTROL PLAN
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20-23	LBLP-01 - LBLP-04	LATERAL PROFILES
24-26	LBU-01 - LBU-03	UTILITY PLAN
27-32	LBRC-01 - LBRC-06	ROADWAY PLAN
33-45	LBTD-01 - LBTD-13	TYPICAL DETAILS
46	LBTD-14	"GT" REMOVAL DETAIL
47	LBTD-15	"GT" GRADING DETAIL
48	LBTD-16	"SD" GRADING DETAIL
49-59	LBS-01 - LBS-11	HYDRAULIC STRUCTURE LIST
60-62	LBS-12 - LBS-14	ROADWAY STRUCTURE LIST

REFERENCE DRAWINGS

CLV-CENTENNIAL PARKWAY CHANNEL WEST
(US95-CC215) I-215 AND DURANGO

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929



VICINITY MAP

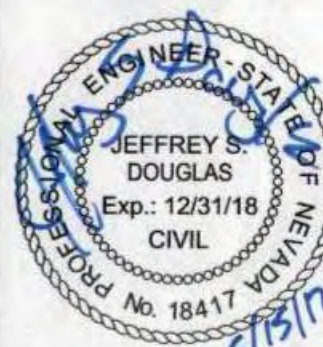
NOT TO SCALE

PREPARED BY

CITY OF LAS VEGAS

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET



SHEET

LBGN-02

03 OF 62

DRAWING NO.
731-96

LOUIS BERGER

444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 • Fax: 702.407.1305

DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

DATE: 6/15/2017
SUBMITTAL STAGE:

REVISIONS

SUMMARY OF BASE AND SURFACE QUANTITIES															STATE	PROJECT NO.	COUNTY	SHEET NO.	
NOTE: QUANTITIES SHOWN IN THE SUMMARIES FOR BASE AND SURFACE MATERIALS ARE THEORETICAL AND - USED FOR ESTIMATING PURPOSES ONLY. ACTUAL SPREADS SHALL BE VARIED AS REQUIRED TO OBTAIN - THE DEPTHS OF VARIOUS COURSES SHOWN ON THE TYPICAL SECTIONS.															NEVADA	NHP-STP-095-2(062)	CLARK	3	
LOCATION	LENGTH STATIONS	BASE AGGREGATE (TYPE 1 CLASS B) INCLUDES SLOPE ALLOWANCE AND 1' WIDENING (includes 8% for moisture)				PLANTMIX DENSE GRADE SURFACE TYPE 2C (WET) INCLUDES ANGLE OF REPOSE				PLANTMIX OPEN GRADE SURFACE 3/4-INCH (WET)				COLD MILLING					
		WIDTH	DEPTH	TONS	UNIT	WIDTH	DEPTH	TONS	UNIT	WIDTH	DEPTH	TONS	UNIT	UNIT					
		FEET	INCH	PER STA.	TONS	FEET	INCH	PER STA.	TONS	FEET	INCH	PER STA.	TONS	SQYD					
<u>OSO BLANCA AT GILCREASE</u>																			
"GA" 13+55.05 to "GA" 14+23.40	0.68	9.50 to 13.66	4.50	72.84	50	13.50 to 17.66	4.00	69.77	48	13.50 to 17.66	0.75	16.83	12	1,122					
<u>OSO BLANCA AT FARM</u>																			
"FR" 8+24.19 to "FR" 9+06.01	0.82	25.67 to 25.67	4.50	67.86	56	29.67 to 29.67	4.00	65.05	53	29.67 to 29.67	0.75	13.19	11	1,016					
<u>OSO BLANCA AT GRAND TETON</u>																			
"GT" 41+48.07 to "GT" 41+89.33	0.41	29.43 to 29.43	4.50	74.52	31	33.43 to 33.43	4.00	71.37	29	33.43 to 33.43	0.75	14.23	6						
<u>GILCREASE AVENUE</u>																			
"GA" 10+97.43 to "GA" 13+55.05	2.58	8.92 to 13.66	4.50	47.54	122	12.92 to 17.66	4.00	45.79	118					1,593					
<u>FARM ROAD</u>																			
"FR" 5+09.99 to "FR" 8+24.19	3.14	8.92 to 26.21	4.50	69.94	220	12.92 to 30.21	4.00	67.03	211					1,974					
<u>Connection "L1"</u>																			
"L1" 50+39.81 to "L1" 50+66.64	0.27	15.00 to 15.00	4.50	13.63	4	15.00 to 15.00	4.00	13.64	4	15.00 to 15.00	0.75	3.55	1	37					
				Sub Total:	482					Sub Total:	463					Sub Total:	29.11	5,743	

SUMMARY OF EARTHWORK



STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NHP-STP-095-2(062)	CLARK	3A

STRUCTURE EXCAVATION

"SD" RCB	38,765 CUYD
"FR" RCB	9,883 CUYD
"L1" RCB	659 CUYD
"L2" RCB	8 CUYD

TOTAL:	49,315 CUYD
USE TOTAL:	49,320 CUYD

GRANULAR BACKFILL

"SD" RCB	2,739.70 CUYD
"FR" RCB	158.60 CUYD
"L1" RCB	15.1 CUYD
"L2" RCB	1.3 CUYD

TOTAL:	2,915 CUYD
USE TOTAL:	2,920 CUYD

REV 1	REVISED 9/15/2017
REVISED THE GRANULAR BACKFILL QUANTITIES	



STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NHP-STP-095-2(062)	CLARK	3B

THEORETICAL APPLICATION OF SURFACE MATERIALS		
ASPHALT CEMENT GRADE PG76-22NV		
(1/2" SIZE) OPEN-GRADE.....	5.5%	
(TYPE 2C) DENSE-GRADE.....	4.5%	
MINERAL FILLER	1.5%	
SPECIFIC GRAVITY	2.70	
EMULSIFIED ASPHALT TYPE SS-1H (DILUTED)		
TACK COAT (BETWEEN PBS LIFTS).....	0.06	gal/yd ²
TACK COAT (OVER MILLED SURFACES).....	0.10	gal/yd ²
TACK COAT (UNDER OPEN GRADE).....	0.07	gal/yd ²
SEAL COAT (ISLAND AND APPROACH).....	0.12	gal/yd ²
LIQUID ASPHALT TYPE MC-70NV		
PRIME COAT.....	0.28	gal/yd ²
AGGREGATE BASE UNIT WEIGHT (INCLUDES 8% MOISTURE)	141.00	lb/ft ³
COLD MILLED MATERIAL TO BE USED AS SHOULDERING MATERIAL	1.69	ton/yd ³
COLD MILLED UNIT WEIGHT	1.76	ton/yd ³
PLANTMIX UNIT WEIGHT		
OPEN-GRADED.....	1.92	ton/yd ³
DENSE-GRADED.....	2.03	ton/yd ³

GENERAL NOTES

- 1 Refer to Nevada Department of Transportation Standard Specifications for Road and Bridge Construction, 2001 Edition, for specifications except as modified by these plans and special provisions.

2 Traffic control devices shall conform to the requirements of the M.U.T.C.D. 2009 Edition.

3 Depth of base and surface is minimum compacted thickness.

4 Remove all existing guide posts and object markers at no direct payment.

5 Type 3 object markers to be placed as directed.

6 For curb and gutter sections place top of open grade flush with the gutter pan.

7 All highway signs, including overhead signs, including overhead signs, inappropriate to the traffic control are to be covered or removed and reset as directed by the engineer, no direct payment.
- 8 Construction signs shall be removed, laid down, or covered when the specified operation are not being performed.

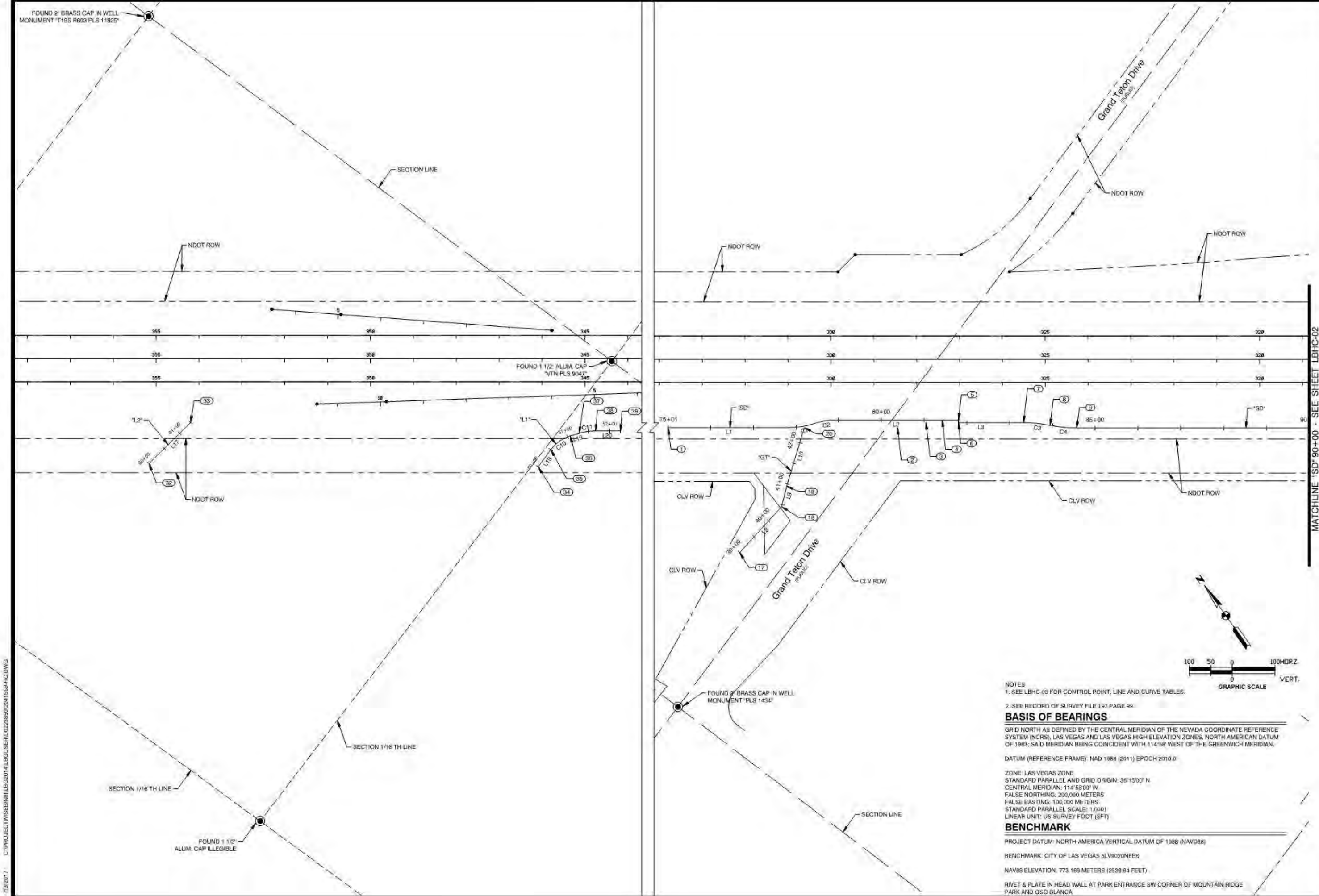
9 The locations of approaches and signs are approximate only and shall be adjusted as necessary, as directed by the engineer.

10 Transverse ramps of 1:50 must be in place at the end of the paving shift, no direct payment.

11 Furnish and install all mileposts (posts only). The state shall furnish and install all milepost panels.

12 Profile grade line (PGL) is the top of dense grade.

C:\PROJECTS\SEB\N\LBH-01\4\LBH-01\0223550\2041569-HC.DWG 7/3/2017



NOTES
1. SEE LBHC-03 FOR CONTROL POINT, LINE AND CURVE TABLES.

2. SEE RECORD OF SURVEY FILE 197 PAGE 98.

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000 METERS
FALSE EASTING: 100,000 METERS
STANDARD PARALLEL SCALE: 1.0001
LINEAR UNIT: US SURVEY FOOT (SFT)

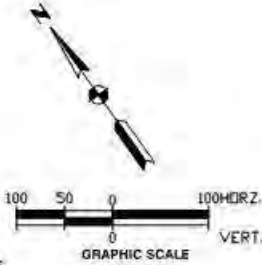
BENCHMARK

PROJECT DATUM: NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88)

BENCHMARK: CITY OF LAS VEGAS 5LV9020NEES

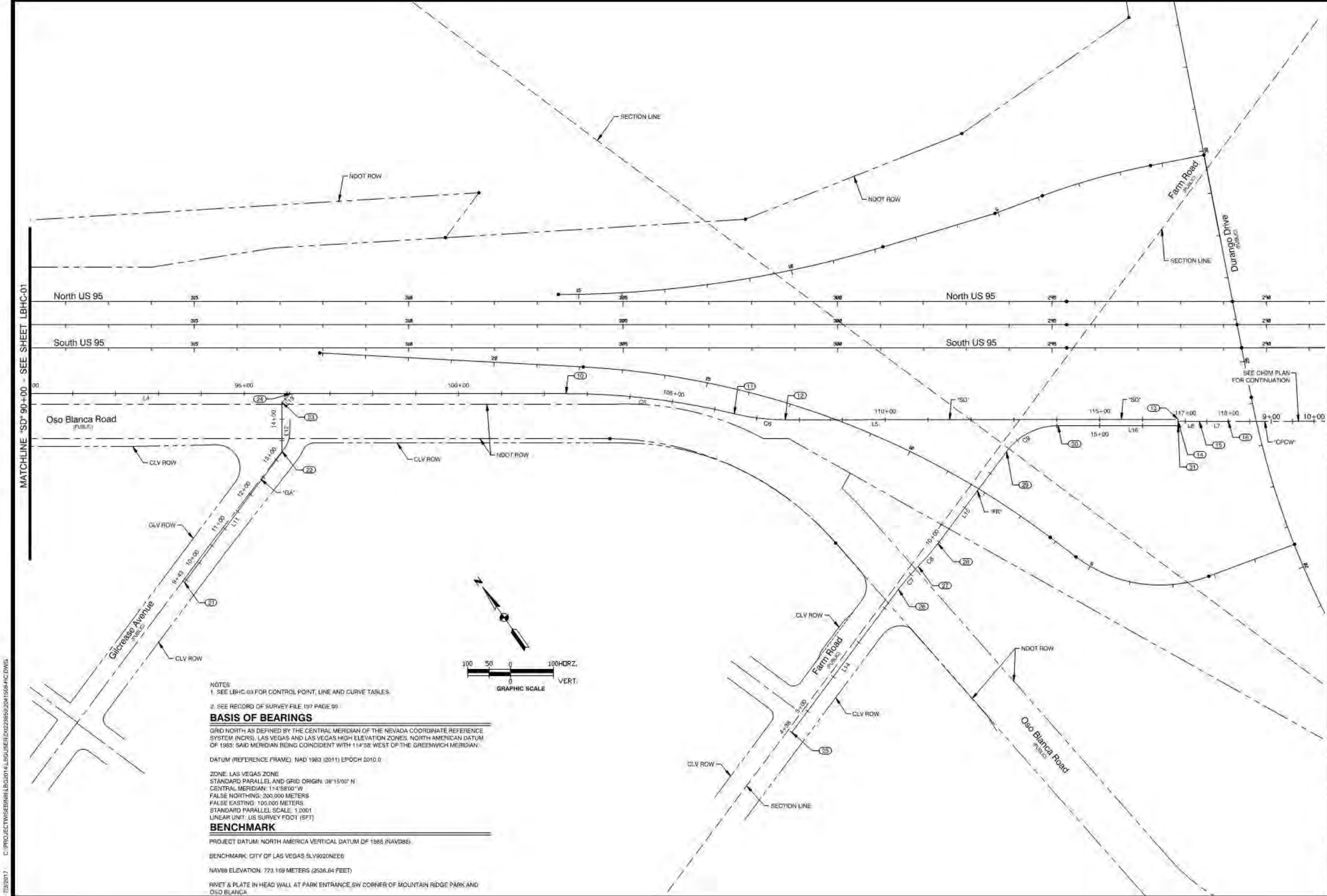
NAVD88 ELEVATION: 773.169 METERS (2538.64 FEET)

RIVET & PLATE IN HEAD WALL AT PARK ENTRANCE SW CORNER OF MOUNTAIN RIDGE PARK AND OSO BLANCA



PREPARED BY		DESIGNED BY		DRAWN BY		CHECKED BY	
LOUIS BERGER		LDN		FME		JSD	
444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6832 - Fax: 702.407.1305		DATE: 6/15/2017		SUBMITTAL STAGE		JSD	
CITY OF LAS VEGAS		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
HORIZONTAL CONTROL PLAN		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
SHEET		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
LBHC-01		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
07 OF 62		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
DRAWING NO.		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	
731-96		H# 60233		DATE: 6/15/2017		SUBMITTAL STAGE	

C:\PROJECTS\SEB\N\LBHC-01.dwg 7/3/2017 10:22:35 AM 15684101



NOTES
1. SEE LBHC-03 FOR CONTROL POINT, LINE AND CURVE TABLES.
2. SEE RECORD OF SURVEY FILE 137 PAGE 99

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011), EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000 METERS
FALSE EASTING: 100,000 METERS
STANDARD PARALLEL SCALE: 1.0001
LINEAR UNIT: US SURVEY FOOT (SFT)

BENCHMARK

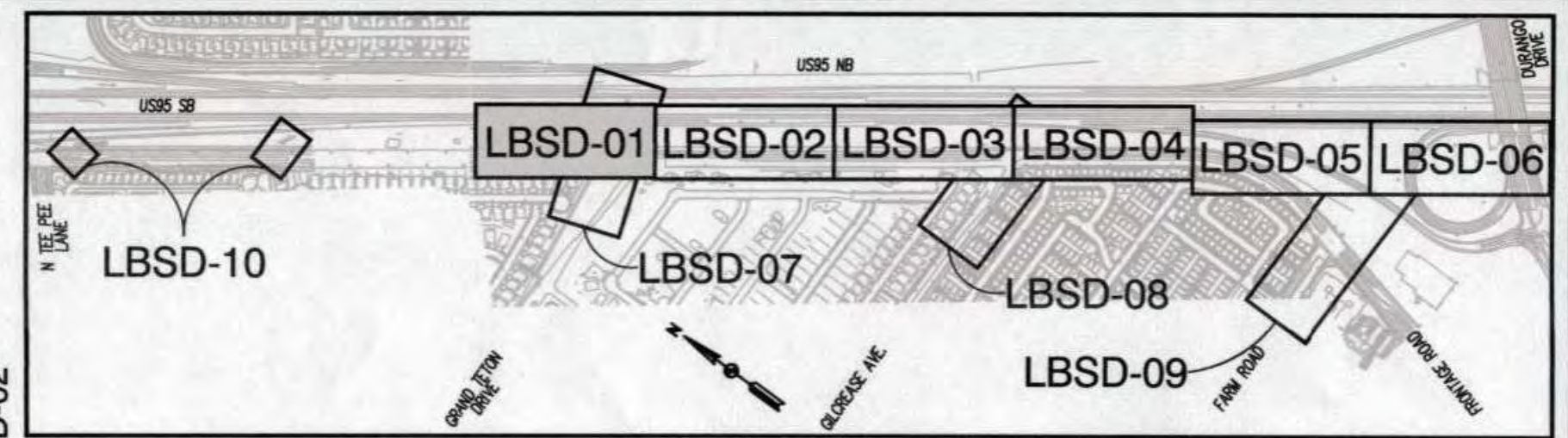
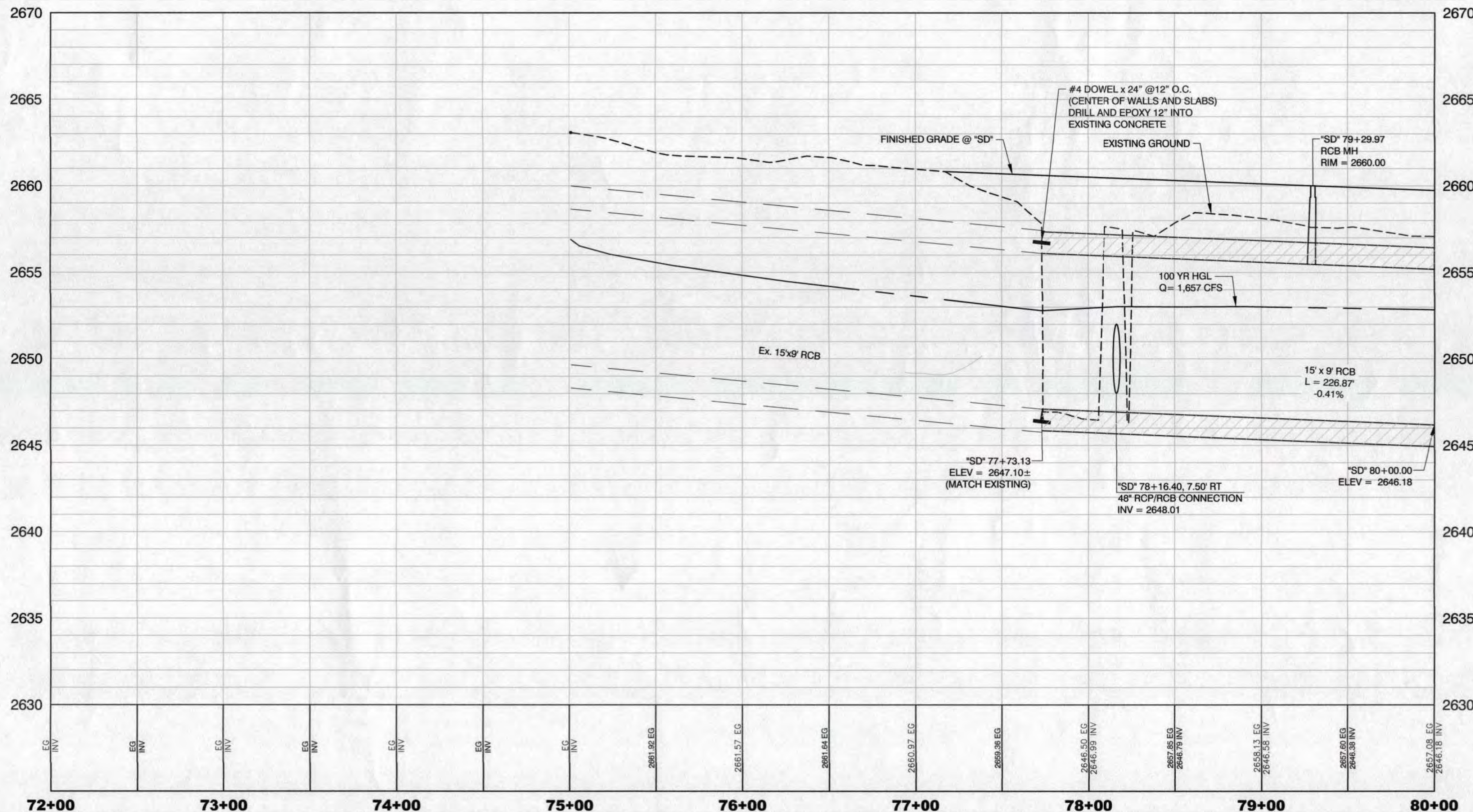
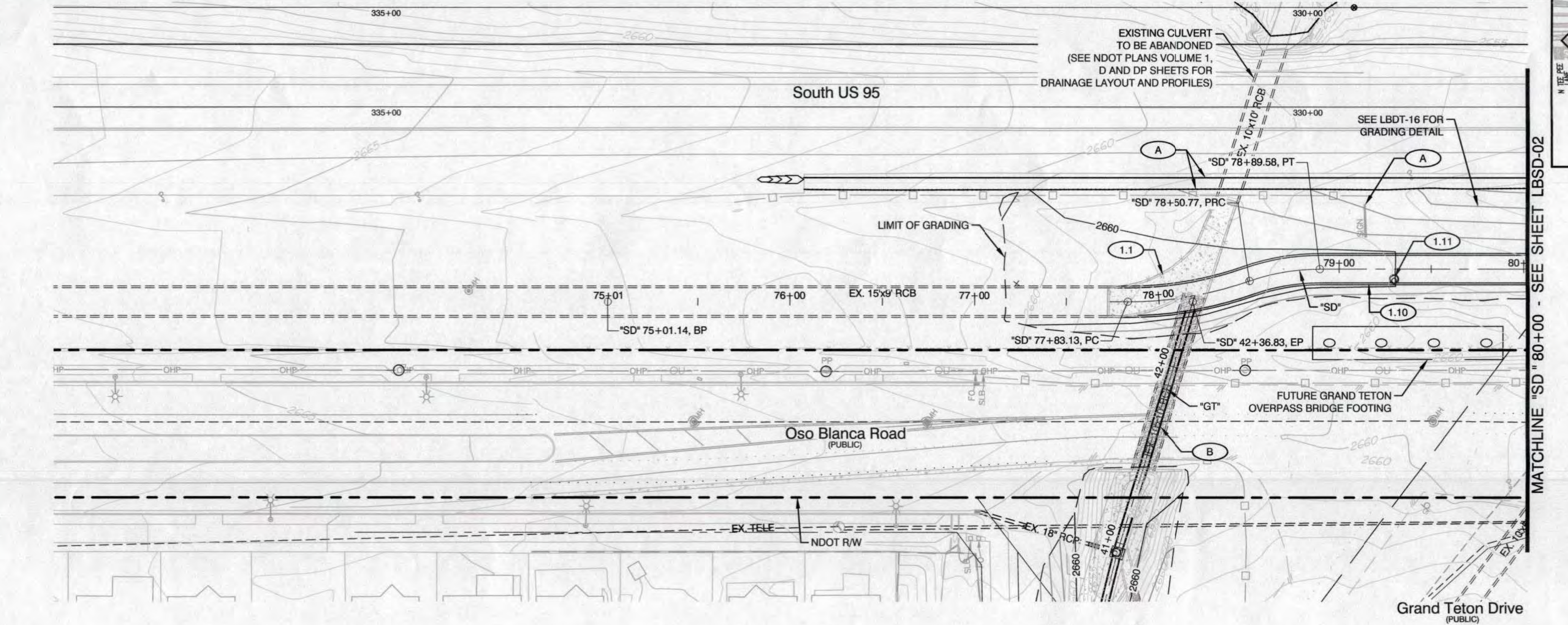
PROJECT DATUM: NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88)

BENCHMARK: CITY OF LAS VEGAS 5LV9020NEE8

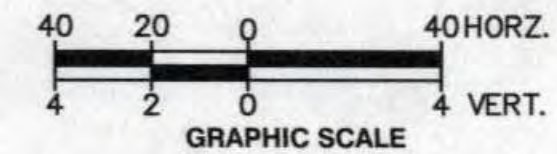
NAVD88 ELEVATION: 773.109 METERS (2536.64 FEET)

RIVET & PLATE IN HEAD WALL AT PARK ENTRANCE SW CORNER OF MOUNTAIN RIDGE PARK AND OSO BLANCA

PREPARED BY		DESIGNED BY		DRAWN BY		CHECKED BY	
LOUIS BERGER		LDN		FME		JSD	
444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.0812 - Fax: 702.407.1305		DATE: 6/15/2017		SUBMITTAL STAGE:			
CITY OF LAS VEGAS		H# 60223		DATE: 6/15/2017		SUBMITTAL STAGE:	
CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE		SHEET		HORIZONTAL CONTROL PLAN			
SHEET		LBHC-02		08 OF 62		DRAWING NO. 731-96	
7/3/2017		7/3/2017		7/3/2017		7/3/2017	



SHEET KEY



CONSTRUCTION NOTES

- (1.1) "SD" 77+73.13 TO "SD" 78+53.03, 46.06' LT REMOVE CONCRETE CHANNEL (SEE SHEET LBSD-13).
- (1.10) "SD" 77+73.13 TO "SD" 80+00.00 CONSTRUCT 15' x 9' x 226.87' RCB. (SEE SHEET LBSD-10).
- (1.11) "SD" 79+30.00 CONSTRUCT RCB MANHOLE, 5.50' RT (COVER ELEV= 2660.00', H = 4.50'). (SEE SHEET LBSD-08).
- (A) SEE NDOT PLANS VOLUME 1: 2 SHEETS FOR TYPICAL SECTIONS AND PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT
- (B) SEE SHEET LBSD-07 FOR GRAND TETON IMPROVEMENTS

NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2929

APPROVED FOR CONSTRUCTION
DATE: 6/22/17
PROJECT# 125067

PREPARED BY
LOUIS BERGER
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone 702.736.6692 Fax 702.407.1305

DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

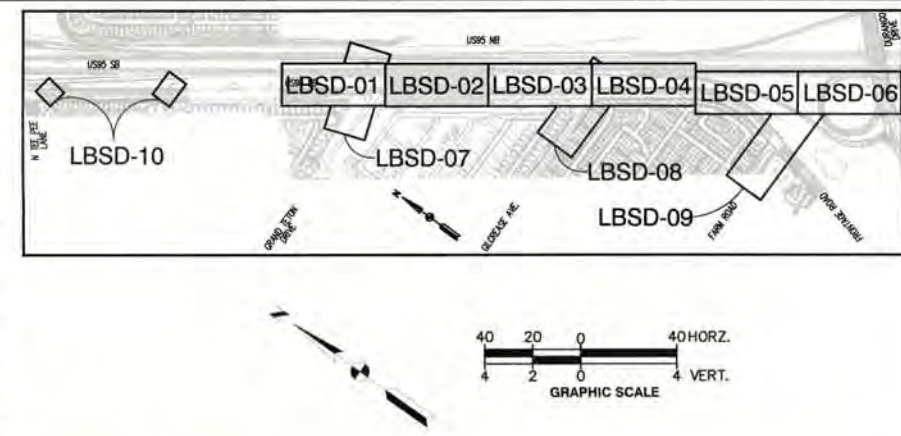
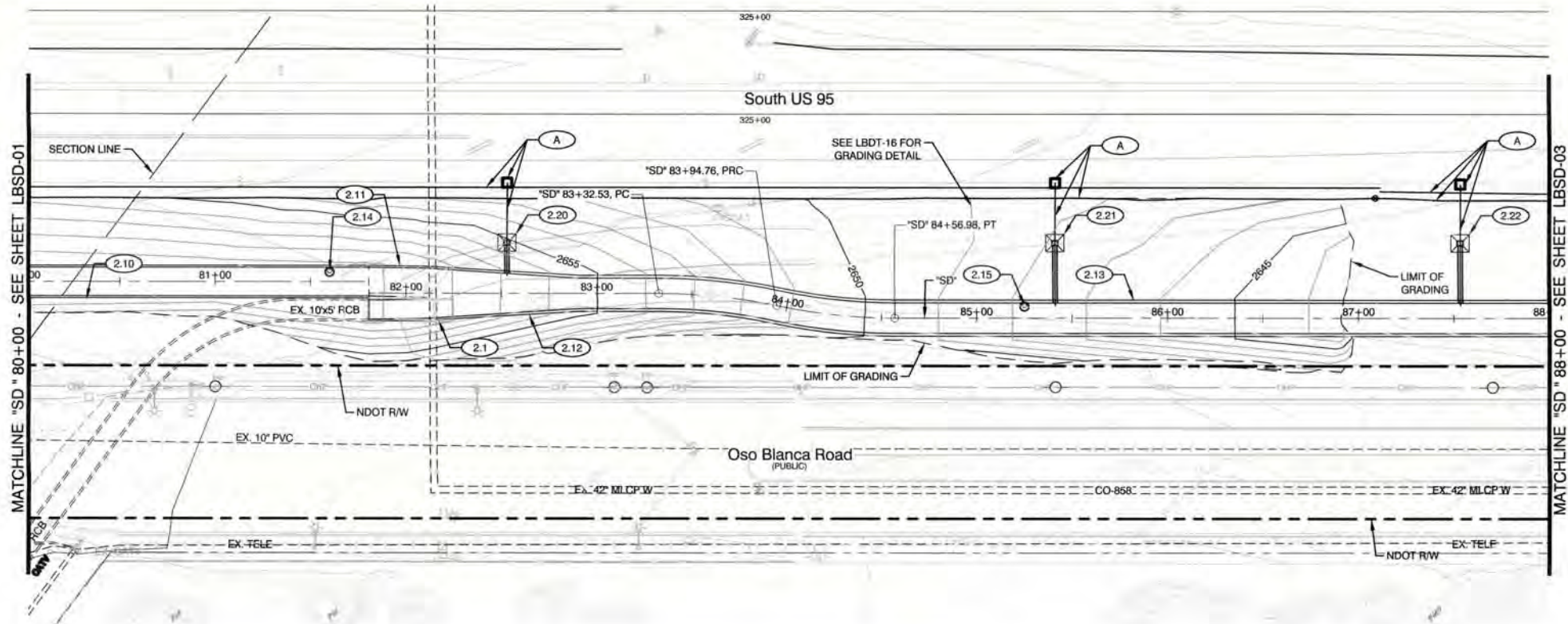
CITY OF LAS VEGAS
H# 60223
DATE: 6/15/2017
SUBMITTAL STAGE:

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE
STORM DRAIN PLAN AND PROFILE
"SD" 72+00.00 TO "SD" 80+00.00

JEFFREY S. DOUGLAS
Exp.: 12/31/16
CIVIL
No. 18417

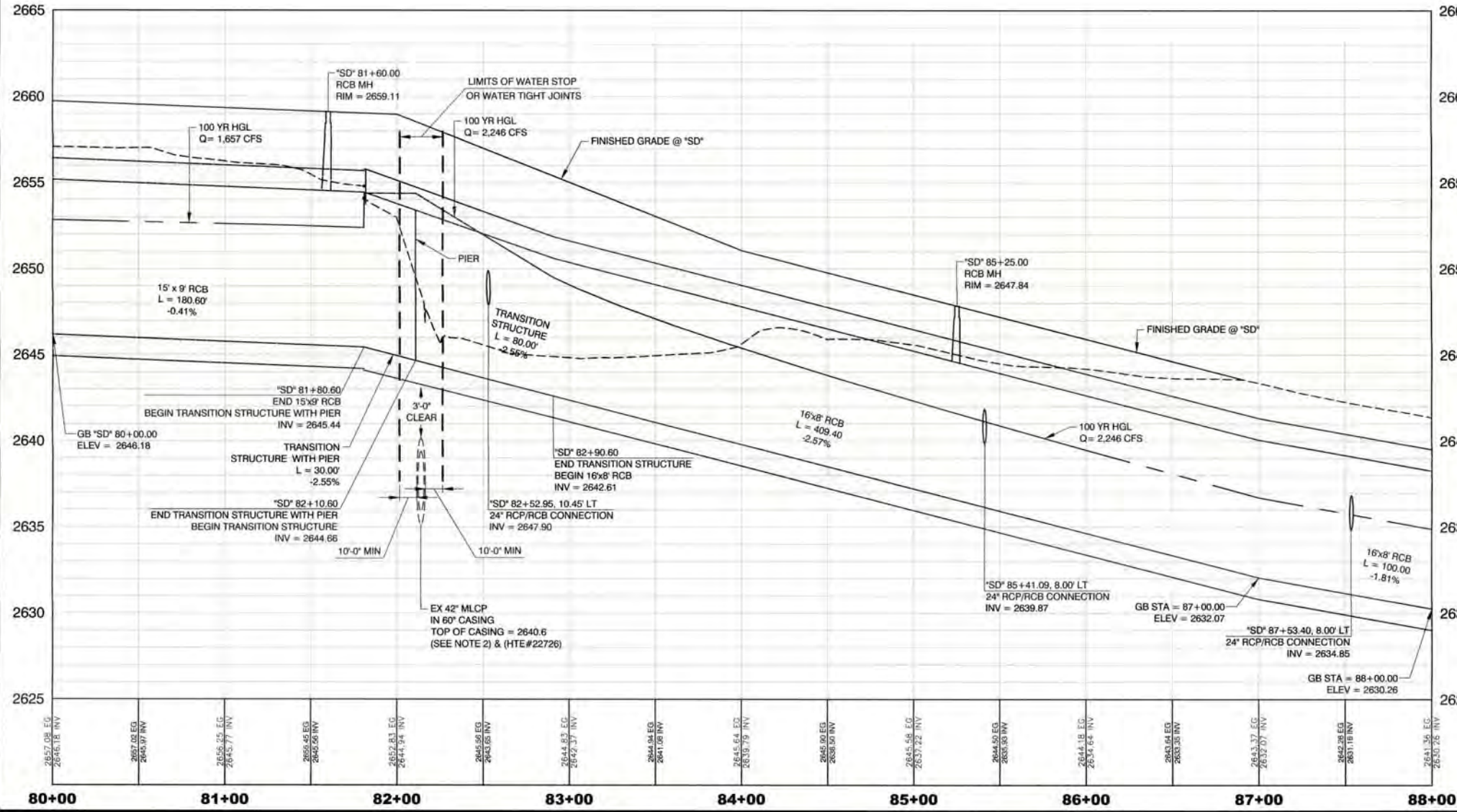
10 OF 62
DRAWING NO.
731-96

REVISIONS
NO. DATE



CONSTRUCTION NOTES

- (2.1) "SD" 81+80.60, 8.67' RT TO REMOVE CONCRETE CHANNEL (SEE SHEET LBDT-05).
- (2.10) "SD" 80+00.00 TO "SD" 81+80.60 TO CONSTRUCT 15' x 9' x 180.60' RCB. (SEE SHEETS LBDT-05 AND LBDT-10).
- (2.11) "SD" 81+80.60 TO "SD" 82+10.60 TO CONSTRUCT TRANSITION STRUCTURE WITH PIER (SEE SHEET LBDT-05).
- (2.12) "SD" 82+10.60 TO "SD" 82+90.60 TO CONSTRUCT TRANSITION STRUCTURE (SEE SHEET LBDT-05).
- (2.13) "SD" 82+90.60 TO "SD" 88+00.00 TO CONSTRUCT 16' x 8' x 509.40' RCB (SEE SHEET LBDT-10).
- (2.14) "SD" 81+60.00 TO CONSTRUCT RCB MANHOLE, 5.00' LT. (COVER ELEV= 2659.11', H = 4.58'). (SEE SHEET LBDT-08).
- (2.15) "SD" 85+25.00 TO CONSTRUCT RCB MANHOLE, 6.00' LT. (COVER ELEV= 2647.84', H = 3.33'). (SEE SHEET LBDT-08).
- (2.20) "SD" 82+52.94 TO CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 26.43' LT. (GRATE ELEV= 2654.77', INV ELEV= 2648.20', H = 6.57'). INSTALL 24" X 16" RCP FROM "SD" 82+52.94, 26.43' LT (UIE= 2648.20') TO "SD" 82+52.95, 10.45' LT (LIE= 2647.90'). CONSTRUCT 24" RCP CONNECTION, 10.45' LT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-03 AND LBDT-09).
- (2.21) "SD" 85+41.09 TO CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 39.40' LT. (GRATE ELEV= 2647.39', INV ELEV= 2642.53', H = 4.86'). INSTALL 24" X 32" RCP FROM "SD" 85+41.09, 39.40' LT (UIE= 2642.53') TO "SD" 85+41.09, 8.00' LT (LIE= 2639.87'). CONSTRUCT 24" RCP CONNECTION, 8.00' LT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-03 AND LBDT-09).
- (2.22) "SD" 87+53.40 TO CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 39.40' LT. (GRATE ELEV= 2641.96', INV ELEV= 2637.46', H = 4.50'). INSTALL 24" X 32" RCP FROM "SD" 87+53.40, 39.40' LT (UIE= 2637.46') TO "SD" 87+53.40, 8.00' LT (LIE= 2634.85'). CONSTRUCT 24" RCP CONNECTION, 8.00' LT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-03 AND LBDT-09).
- NOTE:
SEE NDOT PLANS VOLUME 1:
2 SHEETS FOR TYPICAL SECTIONS,
PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT
AND D AND DP SHEETS FOR DRAINAGE LAYOUT AND PROFILES



- NOTE:
- SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA
 - IN AREAS WHERE THE EXCAVATION IS LESS THAN THREE FEET (3 FT) FROM THE TOP ON THE LVWD 42" TRANSMISSION WATER MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT, WILL BE ALLOWED WITHIN 10 FEET (10 FT) OF THE TRANSMISSION WATER MAIN. IN THESE AREAS, CONTRACTOR TO PLACE A CONCRETE BARRIER, I.E. JERSEY RAIL, TO IDENTIFY THE "NO EQUIPMENT ZONE"

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
	F.A.S.T.	702-432-5300
BEFORE YOU UNDERGROUND	CLARK COUNTY TRAFFIC OPERATIONS	702-456-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

APPROVED FOR CONSTRUCTION
D. SHADY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 7/16/17
FIRST APPROVAL DATE: 6/22/2017
PROJECT # 120607

PREPARED BY
Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 - Fax: 702.407.1305

CITY OF LAS VEGAS

BID #
60223

DESIGNED BY: LDN

DRAWN BY: FME

CHECKED BY: JSD

DATE: 6/15/2017

SUBMITTAL STAGE:

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET
LBSD-02

11 OF 62

DRAWING NO.
731-96

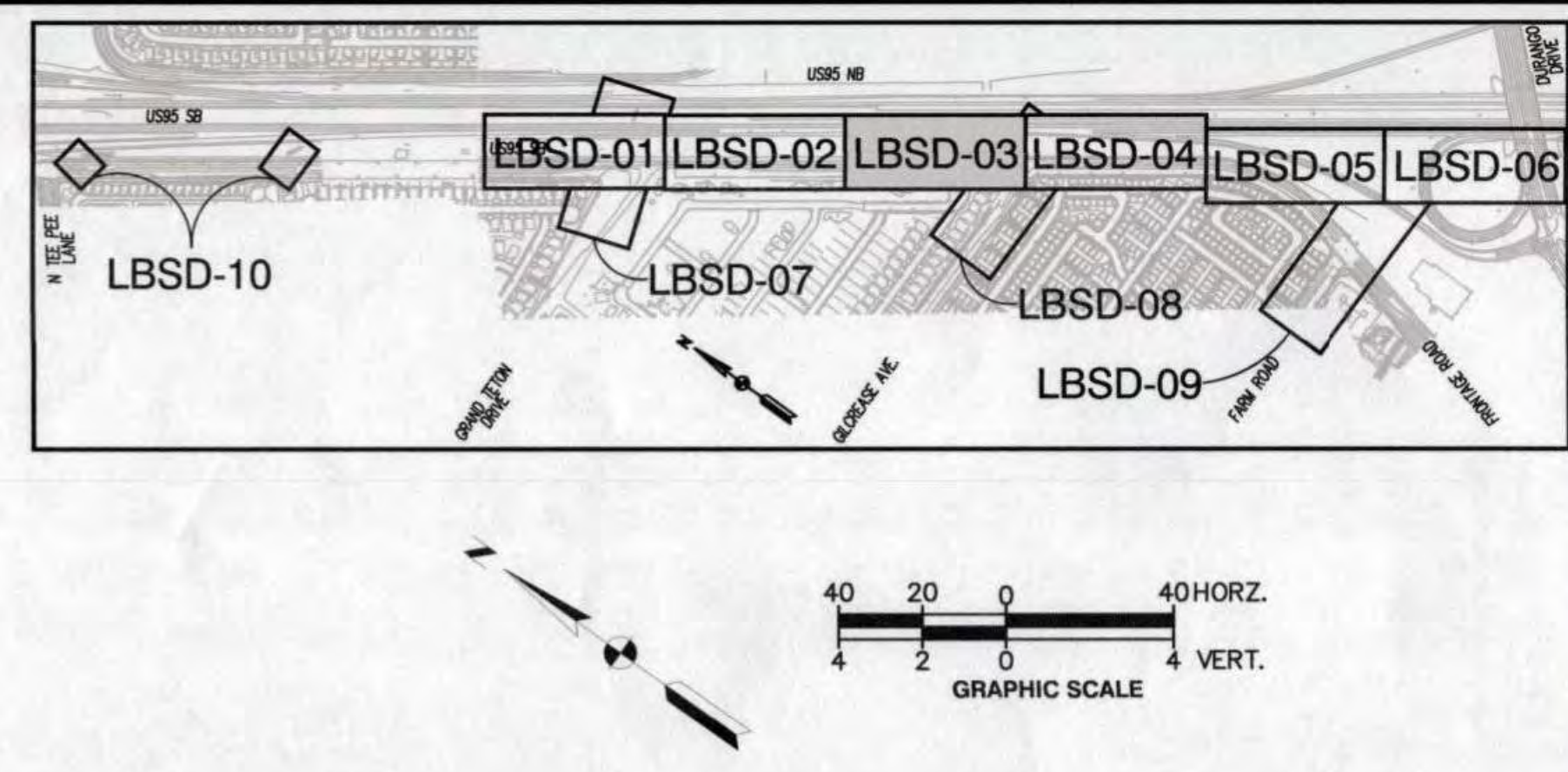
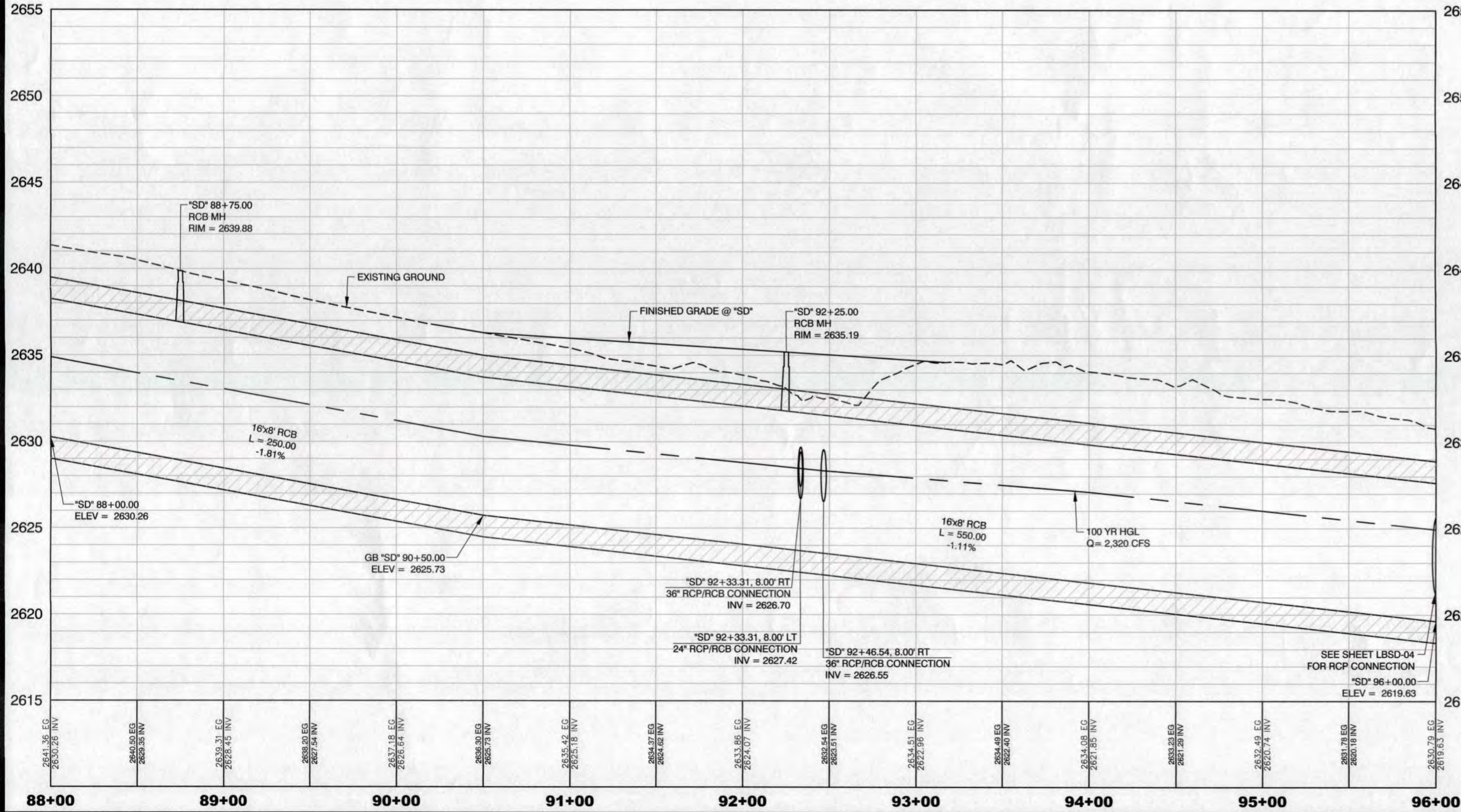
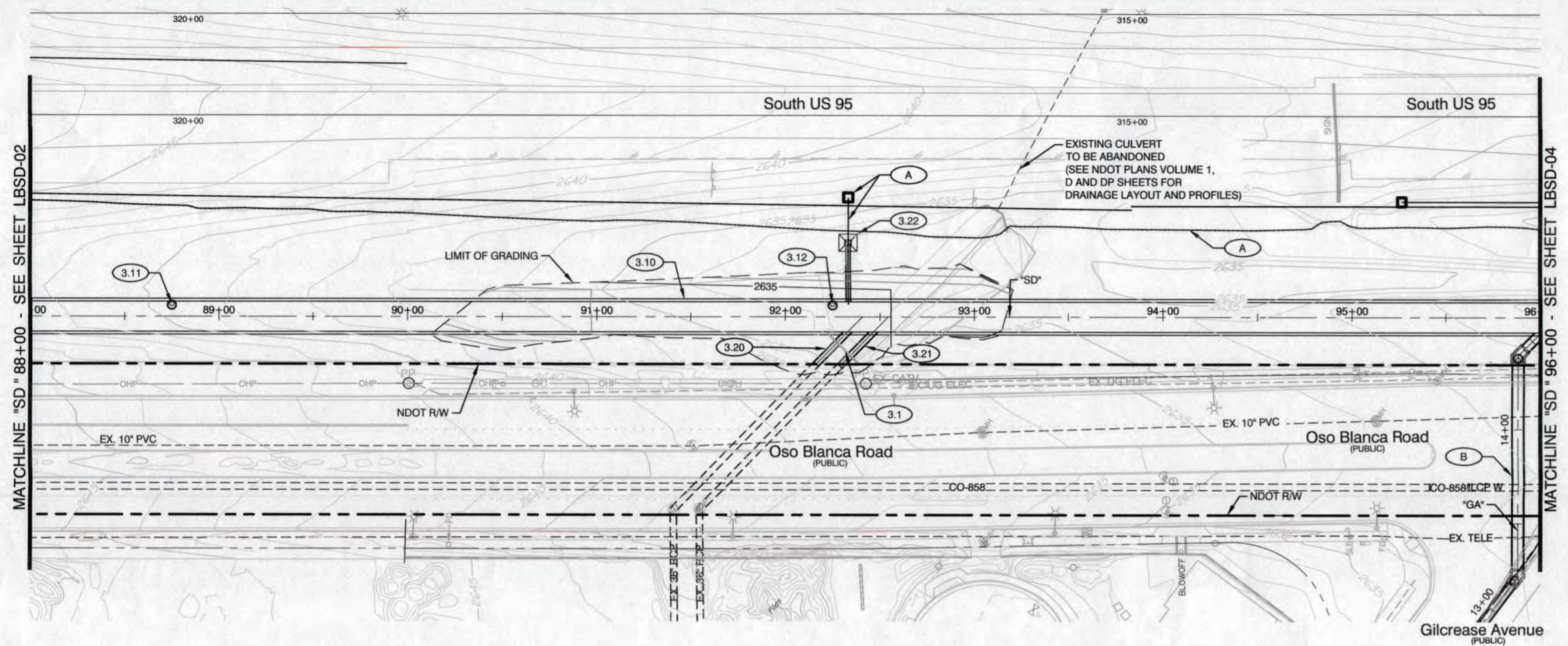
STORM DRAIN PLAN AND PROFILE
"SD" 80+00.00 TO "SD" 88+00.00

JEFFREY S. DOUGLAS
Exp: 12/31/18
CIVIL

NO. DATE

REVISIONS

6/19/2017 C:\PROJECT\WISB\B\EG2014\LBG2014\LBG2014\1569-SD01.DWG



CONSTRUCTION NOTES

- 3.1 "SD" 92+30.80, 16.98' RT REMOVE HEADWALL
- 3.10 "SD" 88+00.00 TO "SD" 96+00.00 CONSTRUCT 16' x 8' x 800' RCB. (SEE SHEET LBSD-10).
- 3.11 "SD" 88+75.00 CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2639.88', H = 3.00'). (SEE SHEET LBSD-08).
- 3.12 "SD" 92+25.00 CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2635.19', H = 3.41'). (SEE SHEET LBSD-08).
- 3.20 "SD" 92+16.31 INSTALL 36" X 24' RCP FROM "SD" 92+16.31, 25.00' RT (UIE= 2630.77') TO "SD" 92+32.91, 8.00' RT (LIE= 2626.70'). CONSTRUCT 36" RCP CONNECTION, 8.00' RT. (SEE SHEET LBSD-04 AND LBSD-09).
- 3.21 "SD" 92+28.88 INSTALL 36" X 26' RCP FROM "SD" 92+28.88, 26.09' RT (UIE= 2630.76') TO "SD" 92+46.54, 8.00' RT (LIE= 2626.55'). CONSTRUCT 36" RCP CONNECTION, 8.00' RT. (SEE SHEET LBSD-04 AND LBSD-09).
- 3.22 "SD" 92+33.31 CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 39.40' LT (GRATE ELEV= 2632.26', INV ELEV= 2628.03', H = 4.23'). INSTALL 24" X 32' RCP FROM "SD" 92+33.31, 39.40' LT (UIE= 2628.03') TO "SD" 92+33.31, 8.00' LT (LIE= 2627.42'). CONSTRUCT 24" RCP CONNECTION, 8.00' LT. (SEE SHEET LBSD-03 AND LBSD-09).
- A SEE NDOT PLANS VOLUME 1: 2 SHEETS FOR TYPICAL SECTIONS, PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT AND D AND DP SHEETS FOR DRAINAGE LAYOUT AND PROFILES
- B SEE SHEET LBSD-08 FOR GILCREASE AVENUE IMPROVEMENTS

NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT# 125067

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2929

PREPARED BY
Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6621 Fax: 702.407.1305

PREPARED FOR
CITY OF LAS VEGAS

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

SHEET
LBSD-03

DESIGNED BY: LDN
DATE: 6/15/2017
SUBMITTAL STAGE:

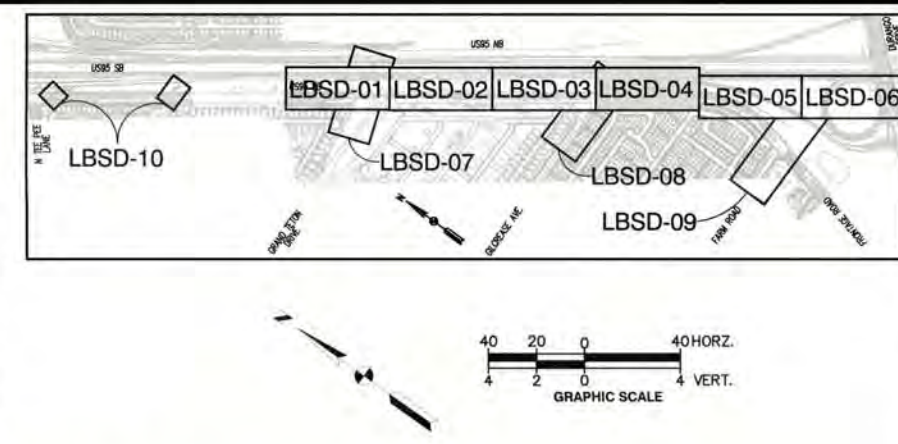
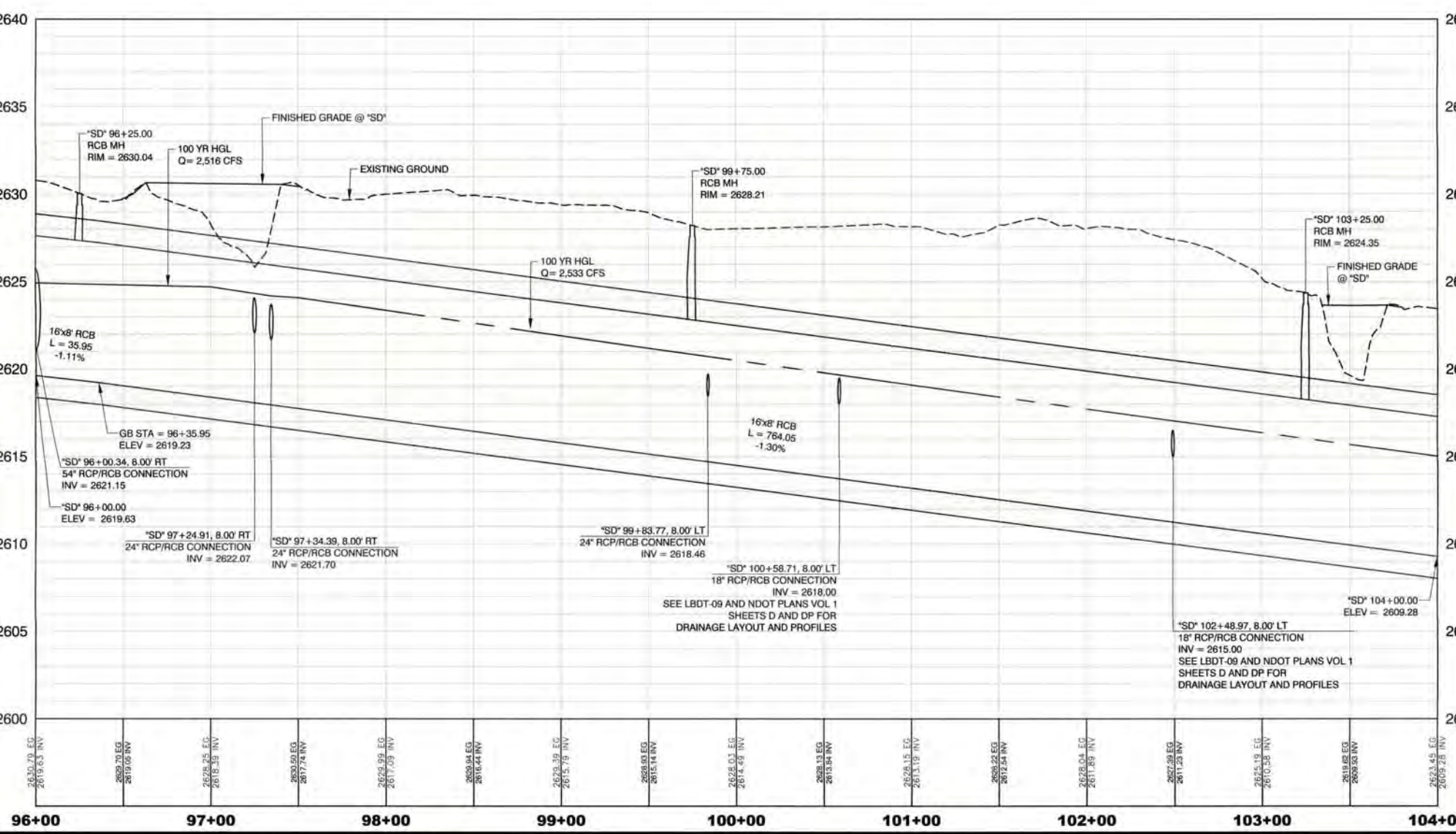
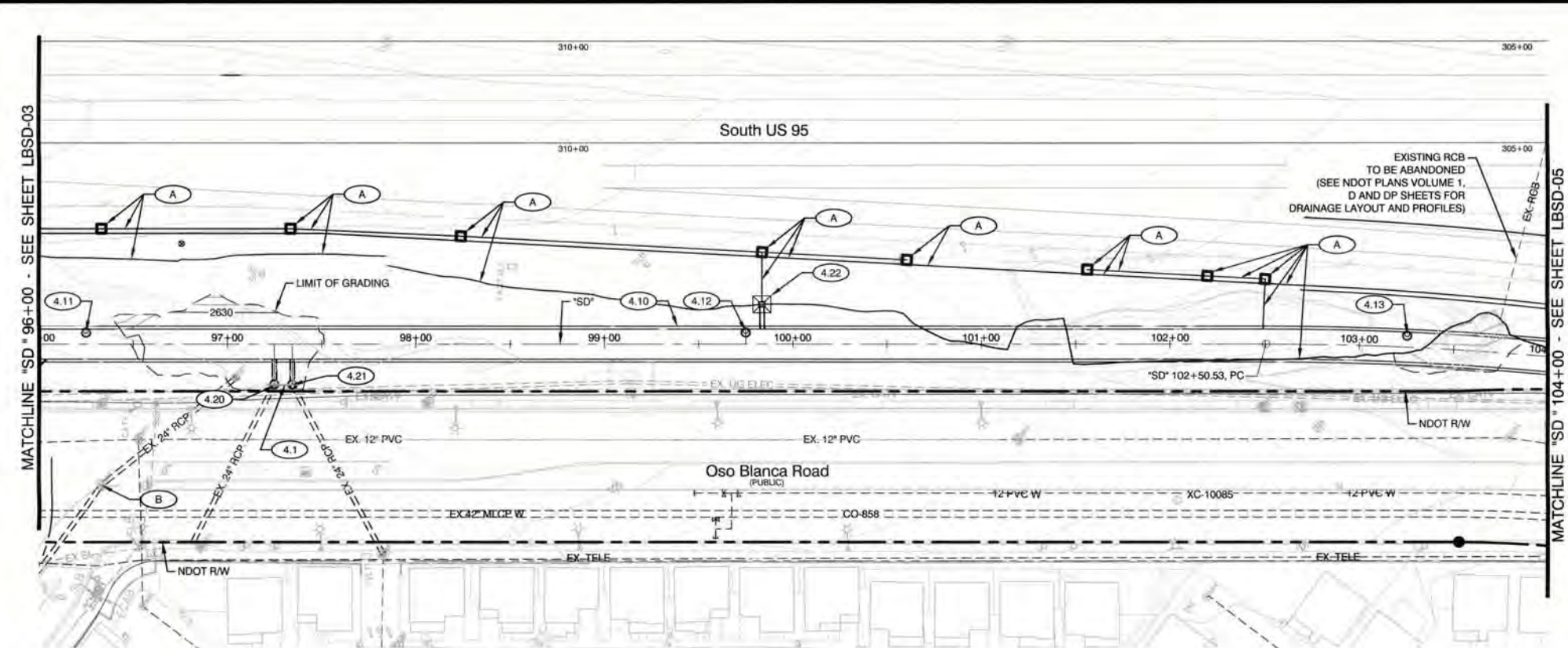
DRAWN BY: FME
CHECKED BY: JSD

12 OF 62
DRAWING NO.
731-96

REVISIONS
NO. DATE

PROJECT# 125067 AGR:116389 QS:125-17-SW

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CONSTRUCTION NOTES

- (4.1) "SD" 97+29.43, 21.43' RT REMOVE HEADWALL
- (4.10) "SD" 96+00.00 TO "SD" 104+00.00
CONSTRUCT 16" x 8" x 800' RCB. (SEE SHEETS LBSD-10).
- (4.11) "SD" 96+25.00
CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2630.04', H = 2.66'). (SEE SHEET LBSD-08).
- (4.12) "SD" 99+75.00
CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2628.21', H = 5.41'). (SEE SHEET LBSD-08).
- (4.13) "SD" 103+25.00
CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2624.35', H = 6.08'). (SEE SHEET LBSD-08).
- (4.20) "SD" 97+24.91
CONSTRUCT TYPE 1 MANHOLE MODIFIED, 21.46' RT (RIM ELEV= 2630.58', INV ELEV= 2625.81', H = 4.77'). INSTALL 24" X 14" RCP FROM "SD" 97+24.91, 21.46' RT (UIE= 2625.81') TO "SD" 97+24.91, 8.00' RT (LIE= 2622.07'). CONSTRUCT 24" RCP CONNECTION, 8.00' RT. (SEE SHEET LBSD-04, LBSD-08 AND LBSD-09).
- (4.21) "SD" 97+34.39
CONSTRUCT TYPE 1 MANHOLE MODIFIED, 21.49' RT (RIM ELEV= 2630.43', INV ELEV= 2625.16', H = 5.27'). INSTALL 24" X 14" RCP FROM "SD" 97+34.39, 21.49' RT (UIE= 2625.16') TO "SD" 97+34.39, 8.00' RT (LIE= 2621.70'). CONSTRUCT 24" RCP CONNECTION, 8.00' RT. (SEE SHEETS LBSD-04, LBSD-08 AND LBSD-09).
- (4.22) "SD" 99+83.77
CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 21.24' LT (GRATE ELEV= 2626.85', INV ELEV= 2621.52', H = 5.33'). INSTALL 24" X 14" RCP FROM "SD" 99+83.77, 21.24' LT (UIE= 2621.52') TO "SD" 99+83.77, 8.00' LT (LIE= 2618.46'). CONSTRUCT 24" RCP CONNECTION, 8.00' LT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBSD-03 AND LBSD-09).
- (A)
SEE NDOT PLANS VOLUME 1: 2 SHEETS FOR TYPICAL SECTIONS, PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT AND D AND DP SHEETS FOR DRAINAGE LAYOUT AND PROFILES
- (B)
SEE SHEET LBSD-08 FOR GILCREASE AVENUE IMPROVEMENTS

NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 7/6/17
FIRST APPROVAL DATE: 6/22/2017

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-3300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2929

PREPARED BY: Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 • Fax: 702.407.1305

CITY OF LAS VEGAS	BID#	DESIGNED BY: LON	DRAWN BY: FME	CHECKED BY: JSD
H# 60223	DATE: 6/15/2017	SUBMITTAL STAGE:		

TITLE: CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET: LBSD-04
13 OF 62

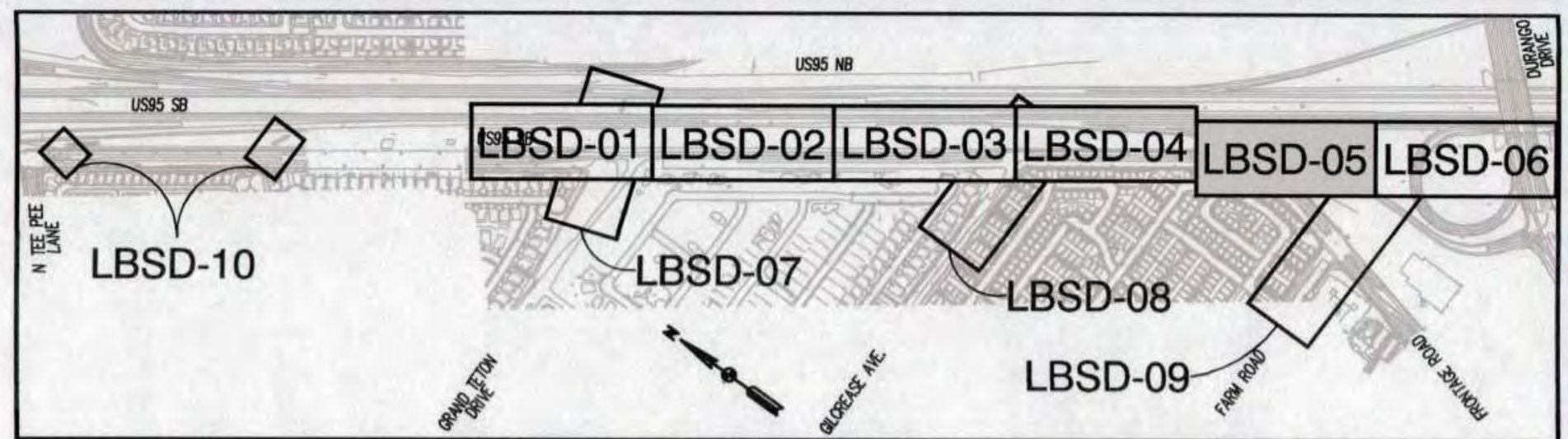
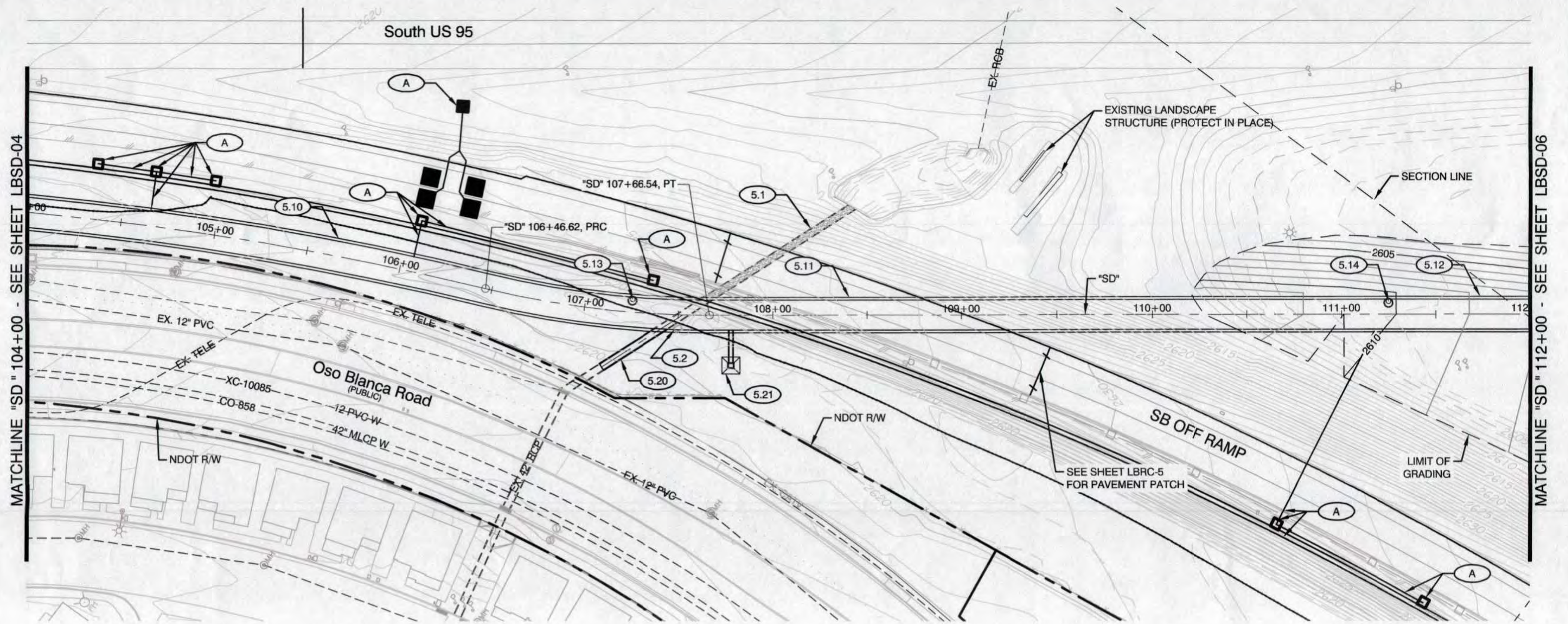
DRAWING NO: 731-96

ENGINEER: JEFFREY S. DOUGLAS
Exp: 12/31/18
CIVIL

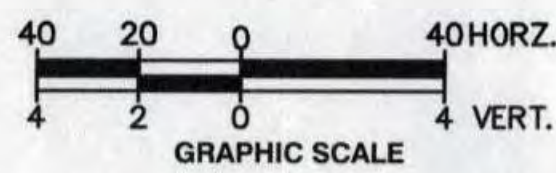
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NO.	DATE	REVISIONS

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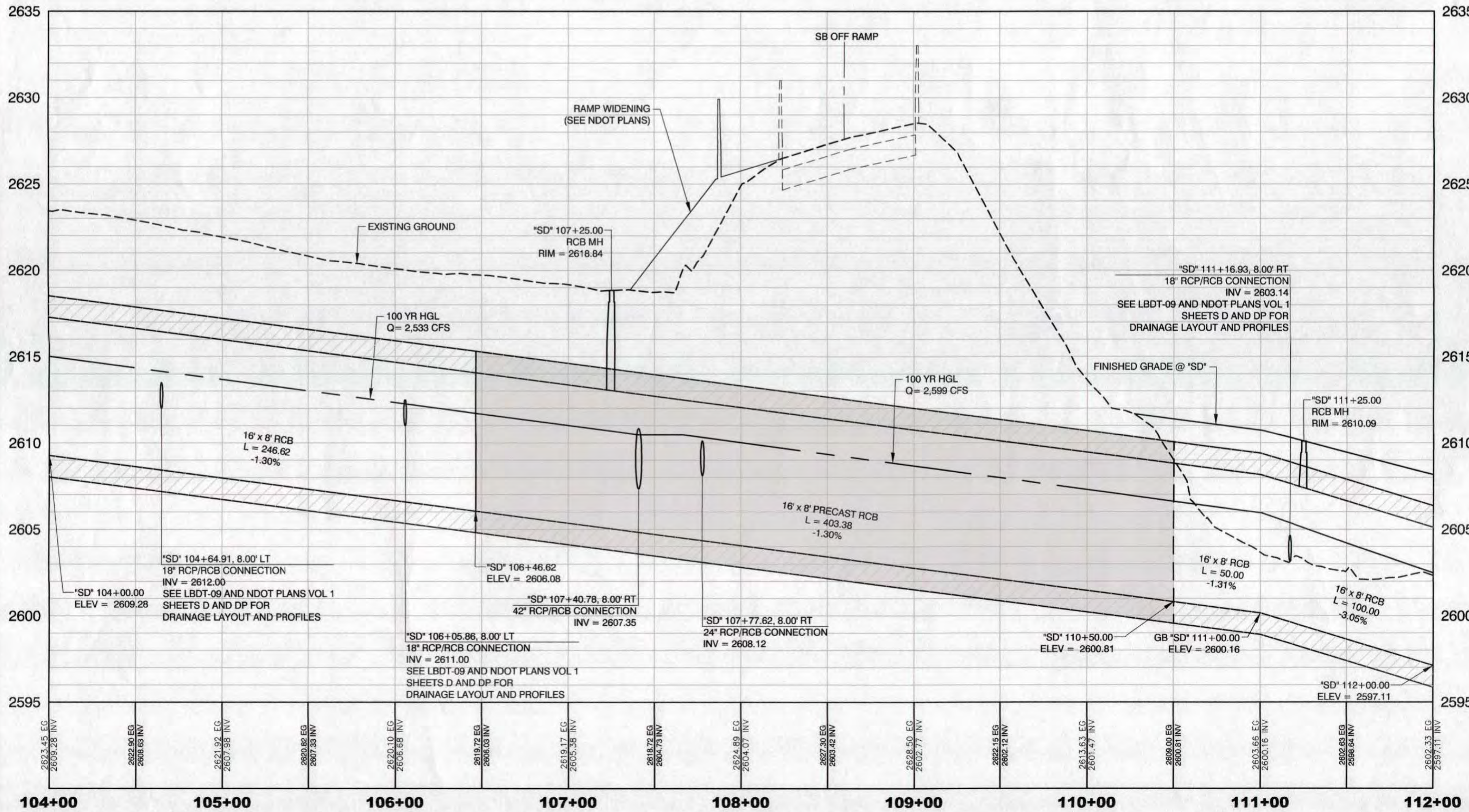


SHEET KEY



CONSTRUCTION NOTES

- (5.1) "SD" 107+71.44, 12.43' LT TO "SD" 108+42.51, 57.63' LT ABANDON 42" x 84" RCP (SEE SHEET LBRC-06).
- (5.2) "SD" 107+12.03, 30.55' RT TO "SD" 107+71.44, 12.43' LT REMOVE DROP INLET AND 42" x 75' RCP (SEE SHEET LBRC-06).
- (5.10) "SD" 104+00.00 TO "SD" 106+46.62 TO CONSTRUCT 16' x 8' x 246.62' RCB. (SEE SHEETS LBDT-10 AND LBDT-12).
- (5.11) "SD" 106+46.62 TO "SD" 110+50.00 INSTALL PRECAST 16' x 8' x 403.38' RCB.
- (5.12) "SD" 110+50.00 TO "SD" 112+00.00 CONSTRUCT 16' x 8' x 150' RCB. (SEE SHEETS LBDT-10 AND LBDT-12).
- (5.13) "SD" 107+25.00 CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2618.84', H = 5.75'). (SEE SHEET LBDT-08).
- (5.14) "SD" 111+25.00 CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2610.09', H = 2.66'). (SEE SHEET LBDT-08).
- (5.20) "SD" 107+12.03 INSTALL 42" x 38' RCP FROM "SD" 107+12.03, 30.55' RT (UIE= 2614.89') TO "SD" 107+40.78, 8.00' RT (LIE= 2607.35').
- (5.21) "SD" 107+77.62 CONSTRUCT 42" RCP CONNECTION, 8.00' RT. (SEE SHEET LBLP-04, LBDT-08 AND LBDT-09).
- (A) CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 26.71' RT (GRATE ELEV= 2618.38', INV ELEV= 2612.55', H = 5.83'). INSTALL 24" x 19' RCP FROM "SD" 107+77.62, 26.71' RT (UIE= 2612.55') TO "SD" 107+77.62, 8.00' RT (LIE= 2608.12'). CONSTRUCT 24" RCP CONNECTION, 8.00' RT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-03 AND LBDT-09).
- SEE NDOT PLANS VOLUME 1: 2 SHEETS FOR TYPICAL SECTIONS, PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT AND DETECTOR LOOPS AND D AND DP SHEETS FOR DRAINAGE LAYOUT AND PROFILES



NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2929

APPROVED FOR CONSTRUCTION
J. DISHADI
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT# 125067

PREPARED BY
CITY OF LAS VEGAS

DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

BID# 60223
DATE: 6/15/2017
SUBMITTAL STAGE:

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

SHEET
LBSD-05

14 OF 62
DRAWING NO.
731-96

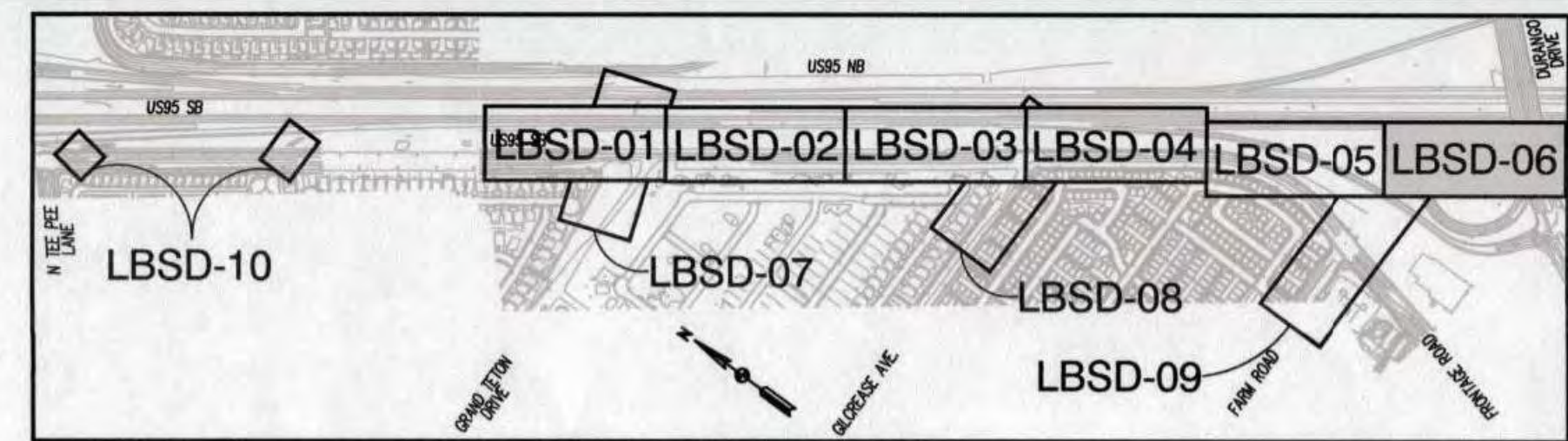
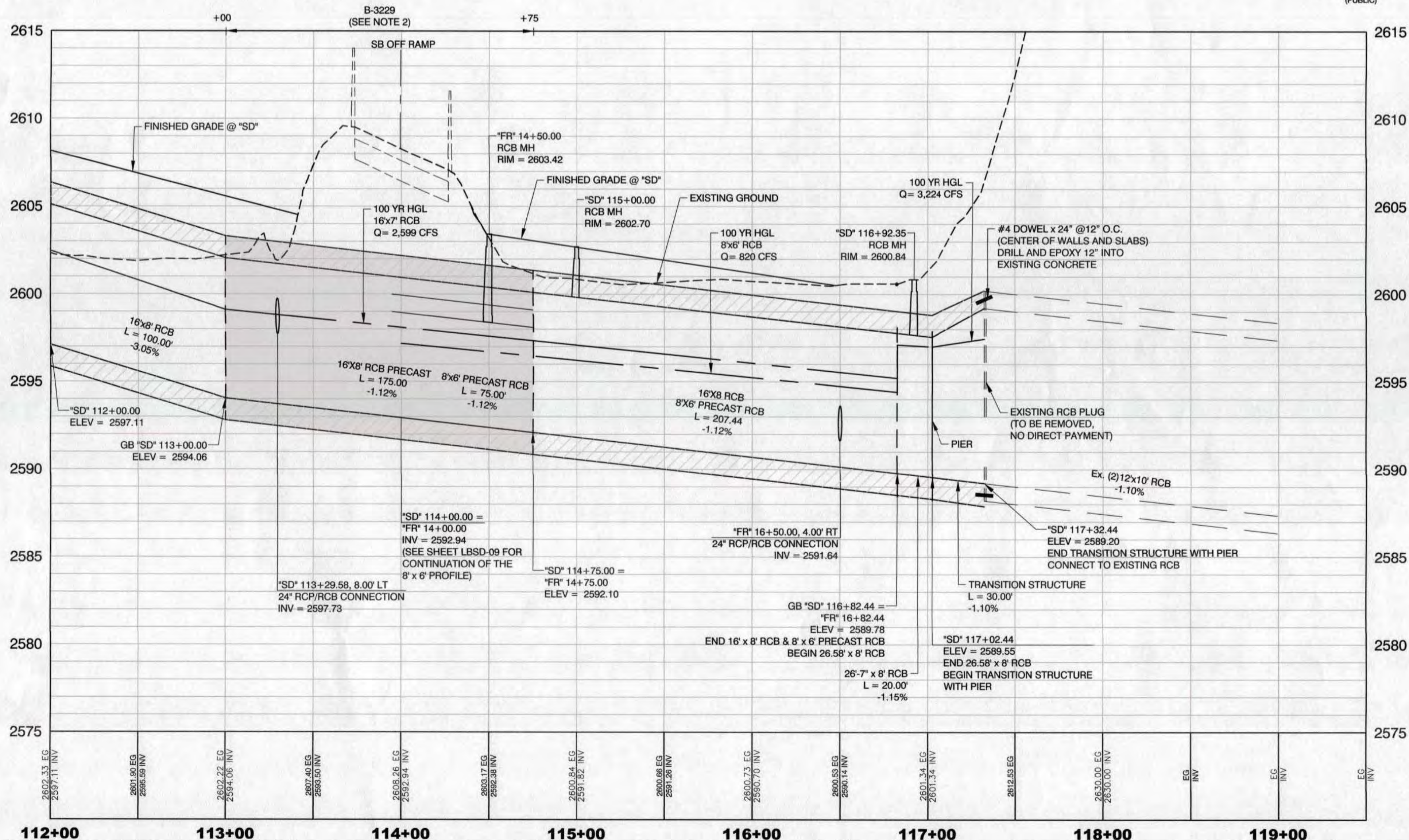
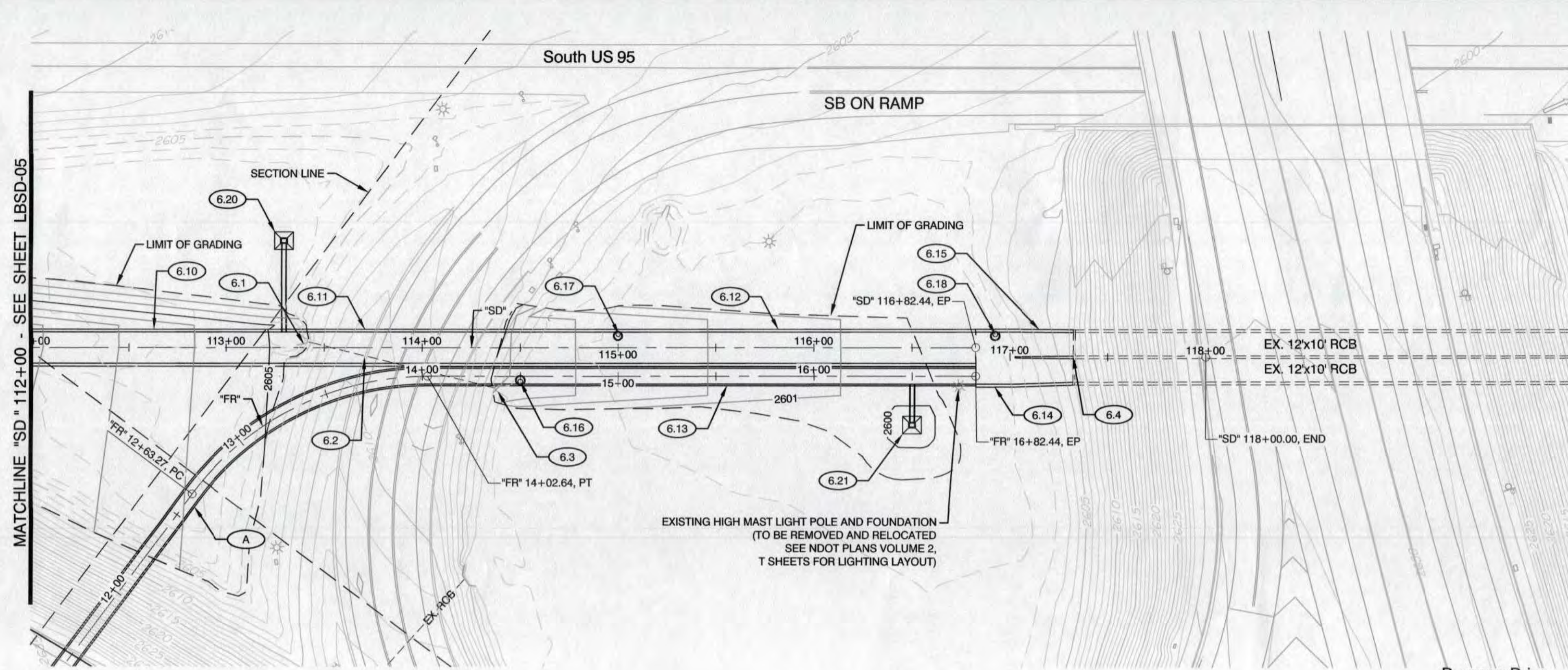
LOUIS BERGER
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 • Fax: 702.407.1305

PROFESSIONAL ENGINEER
JEFFREY S. DOUGLAS
Exp. 12/31/18
CIVIL
No. 18417

PROJECT# 125067 AGR:116389 QS:125-17-SW

REVISIONS
NO. DATE

6/19/2017 C:\PROJECT\WISB\LBG2014\LBG\USER\00180266\2041589-SD01.DWG



SHEET KEY

CONSTRUCTION NOTES

- 6.1 "SD" 113+41.50, 2.82' LT REMOVE END SECTION (SEE SHEET LBRC-05).
- 6.2 "SD" 113+41.50, 2.82' LT TO REMOVE 98' STORM DRAIN PIPE (SEE SHEET LBRC-05).
- 6.3 "SD" 114+36.99, 20.55' RT REMOVE END SECTION (SEE SHEET LBRC-05).
- 6.4 "SD" 117+32.44 REMOVE (2) 12' x 10' RCB PLUGS.
- 6.10 "SD" 112+00.00 TO CONSTRUCT 16' x 8' x 100' RCB. (SEE SHEETS LBDR-10 AND LBDR-12).
- 6.11 "SD" 113+00.00 TO INSTALL PRECAST 16' x 8' x 175' RCB.
- 6.12 "SD" 114+75.00 TO CONSTRUCT 16' x 8' x 207.46' RCB. (SEE SHEETS LBDR-10 AND LBDR-12).
- 6.13 "FR" 14+00.00 TO INSTALL PRECAST 8' x 6' 282.44' RCB.
- 6.14 "SD" 116+82.44 TO CONSTRUCT 26.58' x 8' x 20' RCB. (SEE SHEET LBDR-06).
- 6.15 "SD" 117+02.44 TO CONSTRUCT TRANSITION STRUCTURE WITH PIER (SEE SHEET LBDR-06).
- 6.16 "FR" 14+50.00 CONSTRUCT RCB MANHOLE, 2.00' RT (COVER ELEV= 2603.42', H = 3.00'). (SEE SHEET LBDR-08).
- 6.17 "SD" 115+00.00 CONSTRUCT RCB MANHOLE, 6.00' LT (COVER ELEV= 2602.70', H = 2.83'). (SEE SHEET LBDR-08).
- 6.18 "SD" 116+92.35 CONSTRUCT RCB MANHOLE, 10.52' LT (COVER ELEV= 2600.84', H = 3.16'). (SEE SHEET LBDR-08).
- 6.20 "SD" 113+29.58 CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 54.70' LT (GRATE ELEV= 2602.39', INV ELEV= 2598.64', H = 3.75'). INSTALL 24" x 47' RCP FROM "SD" 113+29.58, 54.70' LT (UIE= 2598.64') TO "SD" 113+29.58, 8.00' LT (LIE= 2597.73'). CONSTRUCT 24" RCP CONNECTION, 8.00' LT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-01 AND LBDR-09).
- 6.21 "FR" 16+50.00 CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 25.00' RT (GRATE ELEV= 2599.15', INV ELEV= 2594.15', H = 5.00'). INSTALL 24" x 20' RCP FROM "FR" 16+50.00, 25.00' RT (UIE= 2594.15') TO "FR" 16+50.00, 4.00' RT (LIE= 2591.64'). CONSTRUCT 24" RCP CONNECTION, 4.00' RT. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBLP-04 AND LBDR-09).
- A SEE SHEET LBSD-09 FOR FARM ROAD IMPROVEMENTS

NOTES:

- SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA.
- PRECAST RCB MANUFACTURER SHALL PROVIDE A LRFD LOAD RATING MEETING NDOT REQUIREMENTS.

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
	NV ENERGY	702-227-2829

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT# 125067

PREPARED BY
Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 Fax: 702.407.1305

PREPARED FOR
CITY OF LAS VEGAS

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

SHEET
LBSD-06

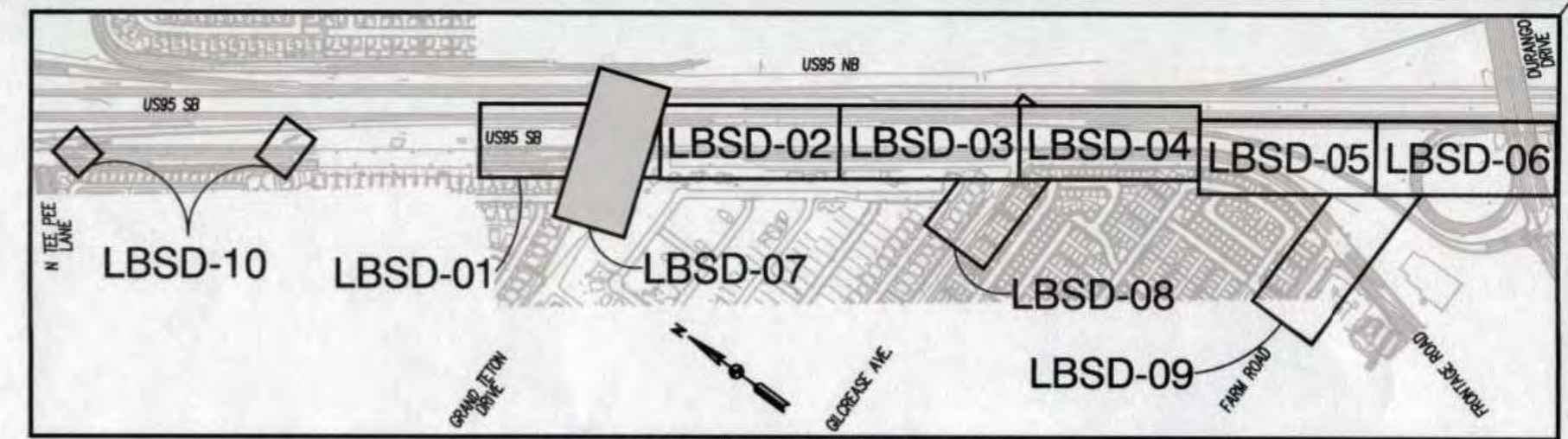
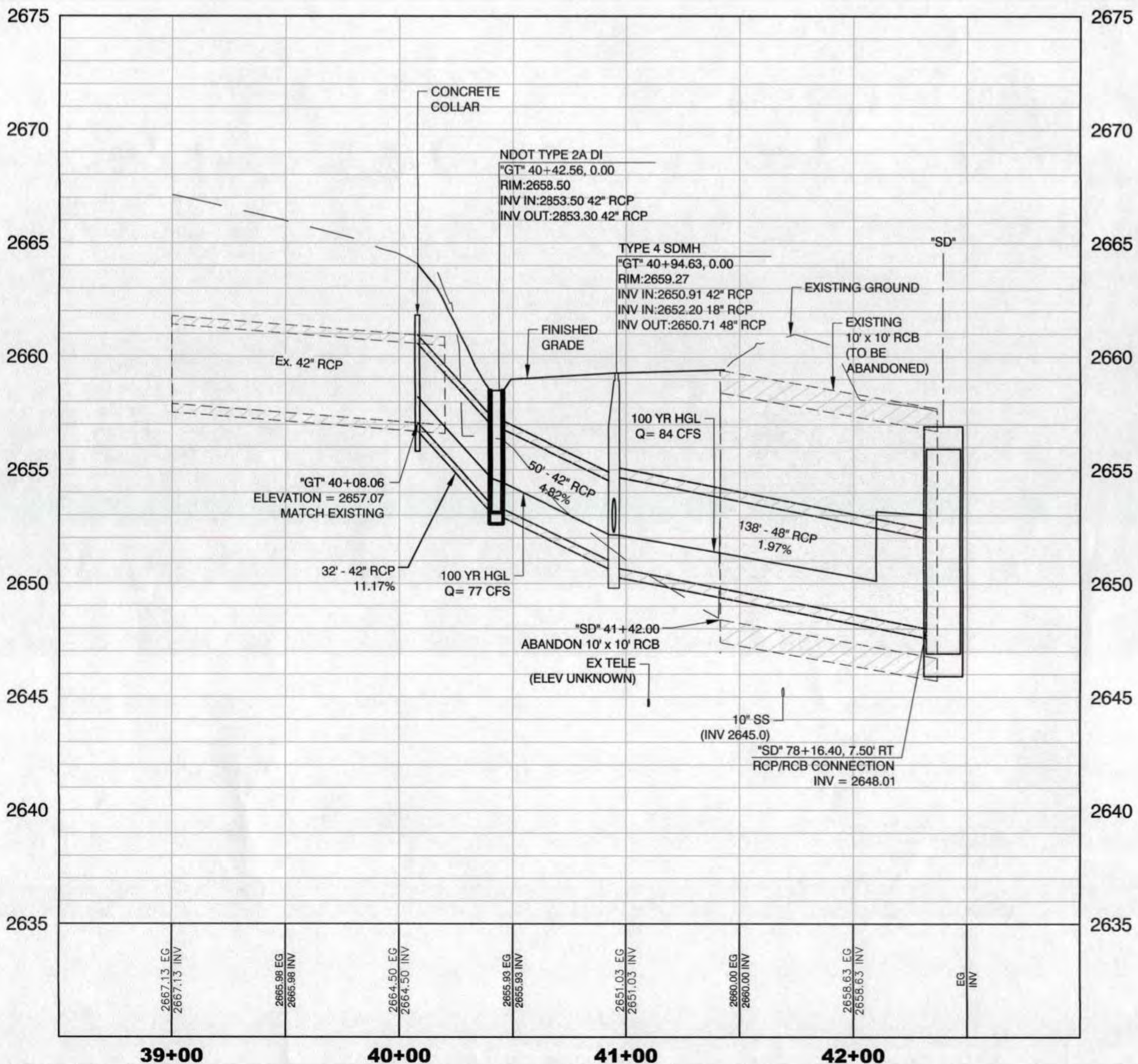
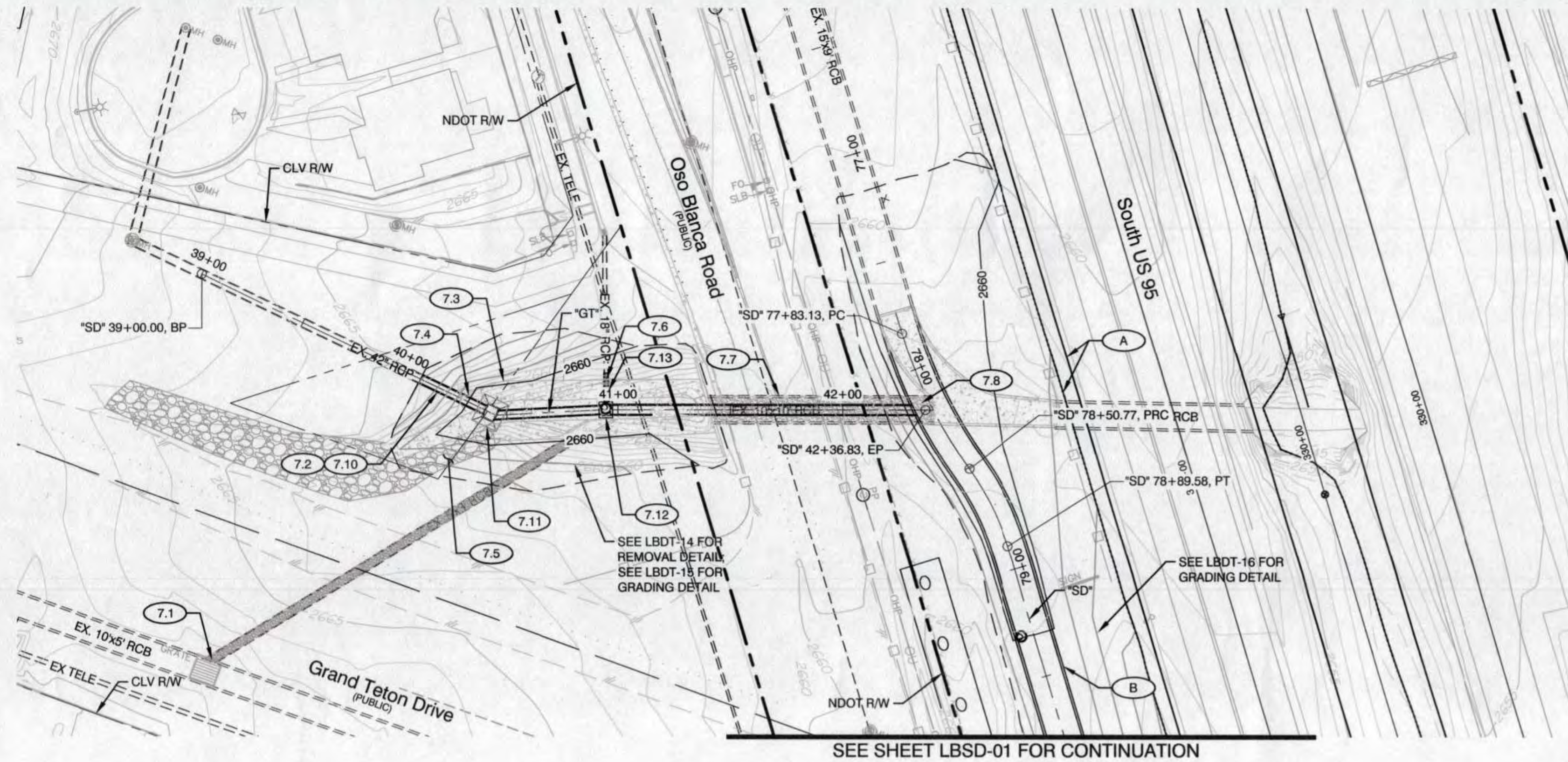
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DRAWING NO.
731-96

REVISIONS
NO. DATE

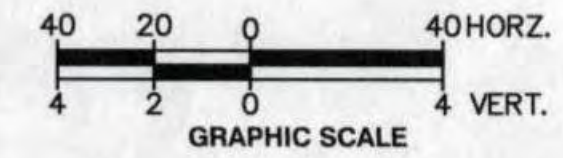
DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

DATE: 6/15/2017
SUBMITTAL STAGE:

PROJECT# 125067 AGR:116389 QS:125-17-SW



SHEET KEY



CONSTRUCTION NOTES

- (7.1) "GT" 39+77.97, 154.40' RT TO "GT" 40+80.32, 11.89' RT REMOVE FLOW CONTROL WEIR AND ABANDON 5' x 3' x 190' RCB (SEE SHEETS LBSD-02 AND LBSD-03)
- (7.2) "GT" 40+08.06 TO "GT" 40+28.10 REMOVE 42" x 20' RCP (SEE SHEET LBSD-04)
- (7.3) "GT" 40+11.08, 34.92' RT TO "GT" 41+43.24 REMOVE CONCRETE CHANNEL (SEE SHEET LBSD-05)
- (7.4) "GT" 40+28.10 REMOVE END SECTION (SEE SHEET LBSD-06)
- (7.5) "GT" 40+13.98, 37.57' RT TO "GT" 40+45.60, 3.96' RT REMOVE GROUDED RIPRAP (SEE SHEET LBSD-07)
- (7.6) "GT" 40+94.74, 13.86' LT REMOVE END SECTION (SEE SHEET LBSD-08)
- (7.7) "GT" 41+43.24 TO "SD" 78+11.52, 17.82' RT ABANDON 10' x 10' x 80' RCB (SEE SHEET LBSD-09 AND LBSD-10)
- (7.8) "SD" 78+11.52, 17.82' LT TO "SD" 78+19.98, 0.12' LT REMOVE 10' x 10' x 20' RCB (SEE SHEET LBSD-11 AND LBSD-12)
- (7.9) "GT" 40+08.06 INSTALL 42" x 32' RCP FROM "GT" 40+08.06 (UIE= 2657.07') TO "GT" 40+42.56 (LIE= 2653.50'). CONNECT TO TYPE 2A DROP INLET. (SEE SHEET LBSD-13)
- (7.10) "GT" 40+42.56 CONSTRUCT TYPE 2A DROP INLET WITH CONCRETE APRON, 0.00' LT (GRATE ELEV= 2658.50', INV ELEV= 2653.30', H = 5.20'). INSTALL 42" x 50' RCP FROM "GT" 40+42.56 (UIE= 2653.30') TO "GT" 40+94.63 (LIE= 2650.91'). CONNECT TO TYPE 4 MANHOLE. (SEE NDOT STANDARD PLANS R-4.2.1.1 AND R-4.2.7, SHEET LBSD-09).
- (7.11) "GT" 40+94.63 CONSTRUCT TYPE 4 MANHOLE (COVER ELEV= 2659.27', INV ELEV= 2650.71', H = 8.56'). INSTALL 48" x 138" RCP FROM "GT" 40+94.63 (UIE= 2650.71') TO "SD" 78+16.40 (LIE= 2648.01'). CONSTRUCT 48" RCP CONNECTION, 7.50' LT. (SEE SHEET LBSD-10).
- (7.12) "GT" 40+94.74 INSTALL 18" x 17' RCP FROM "GT" 40+94.74, 16.39' LT (UIE= 2655.19') TO "GT" 40+94.63 (LIE= 2652.20'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBSD-02 AND LBSD-08).
- (A) SEE NDOT PLANS VOLUME 1: 2 SHEETS FOR TYPICAL SECTIONS, PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT
- (B) SEE SHEETS LBSD-01 - LBSD-06 FOR MAINLINE PLAN AND PROFILE

NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
	F.A.S.T.	702-432-5300
BEFORE YOU UNDERGROUND	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

APPROVED FOR CONSTRUCTION
6/22/17
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: PROJECT# 125067

PREPARED BY

LOUIS BERGER

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PREPARED FOR

CITY OF LAS VEGAS

BID#

60223

DESIGNED BY

LDN

DRAWN BY

FME

CHECKED BY

JSD

DATE

6/15/2017

SUBMITTAL STAGE

TITLE

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET

LBSD-07

16 OF 62

DRAWING NO.
731-96

PROFESSIONAL ENGINEER

JEFFREY S. DOUGLAS

Exp.: 12/31/16

CIVIL

18417

PROJ#

125067

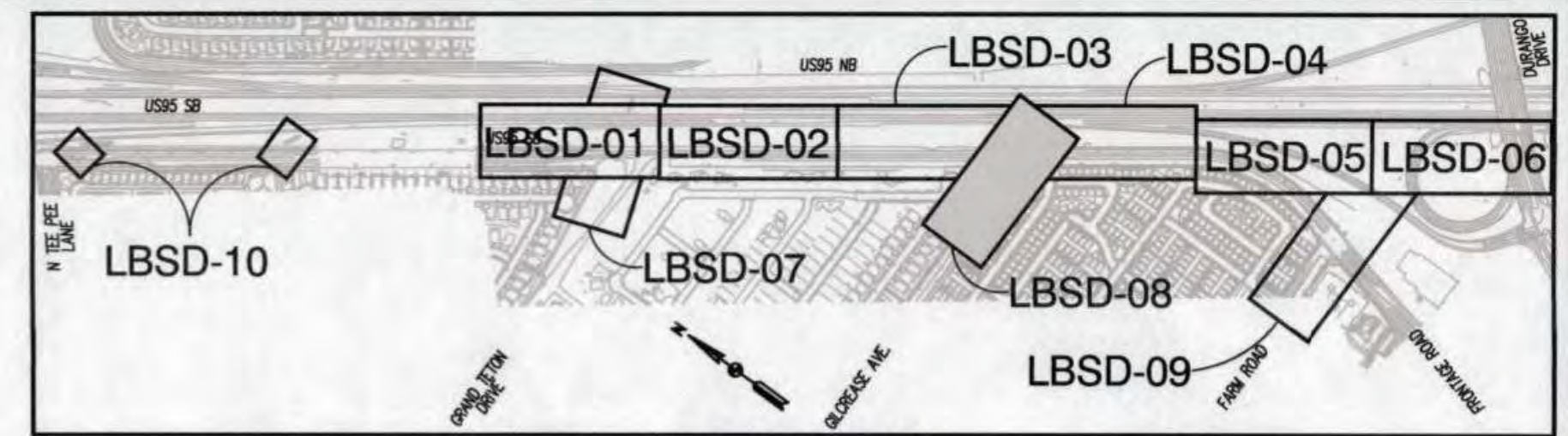
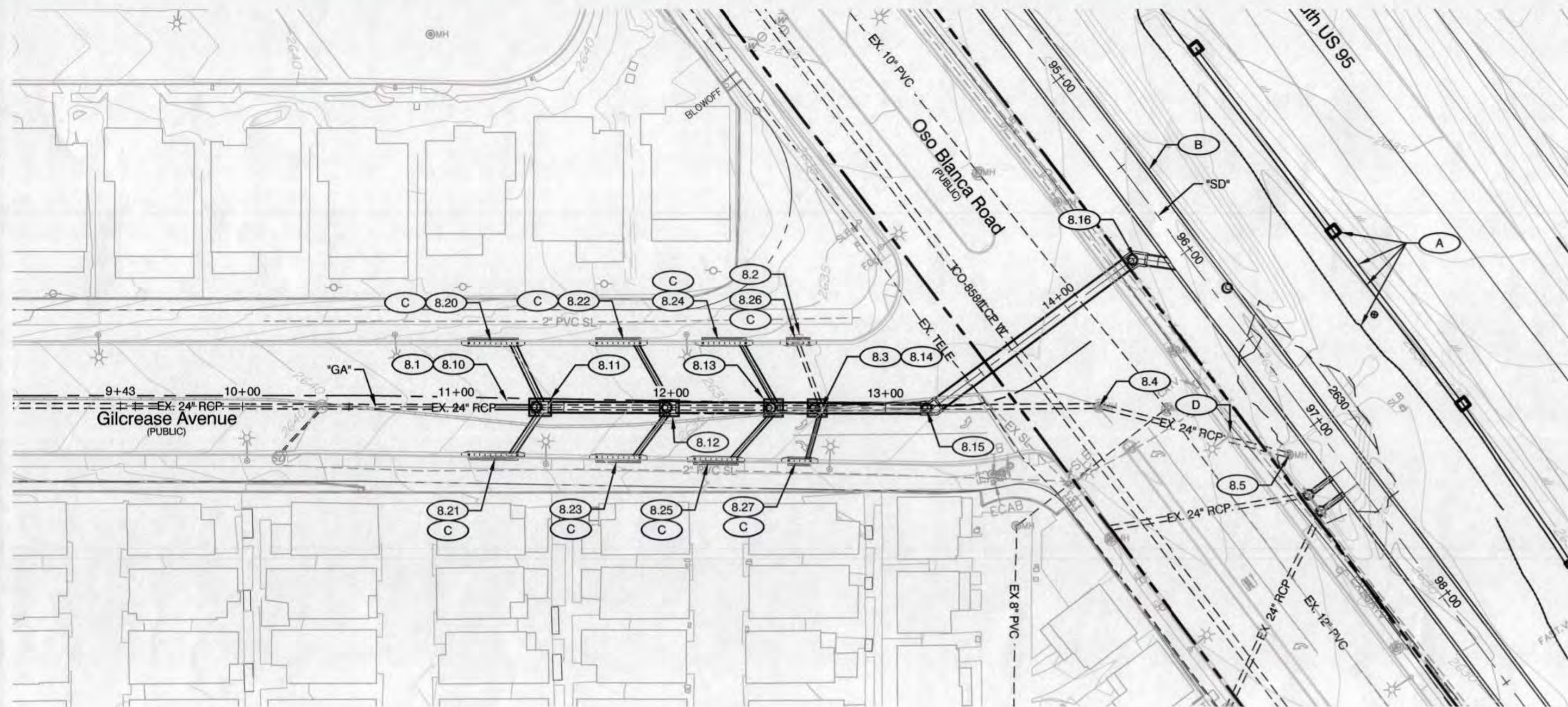
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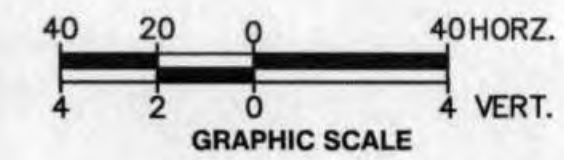
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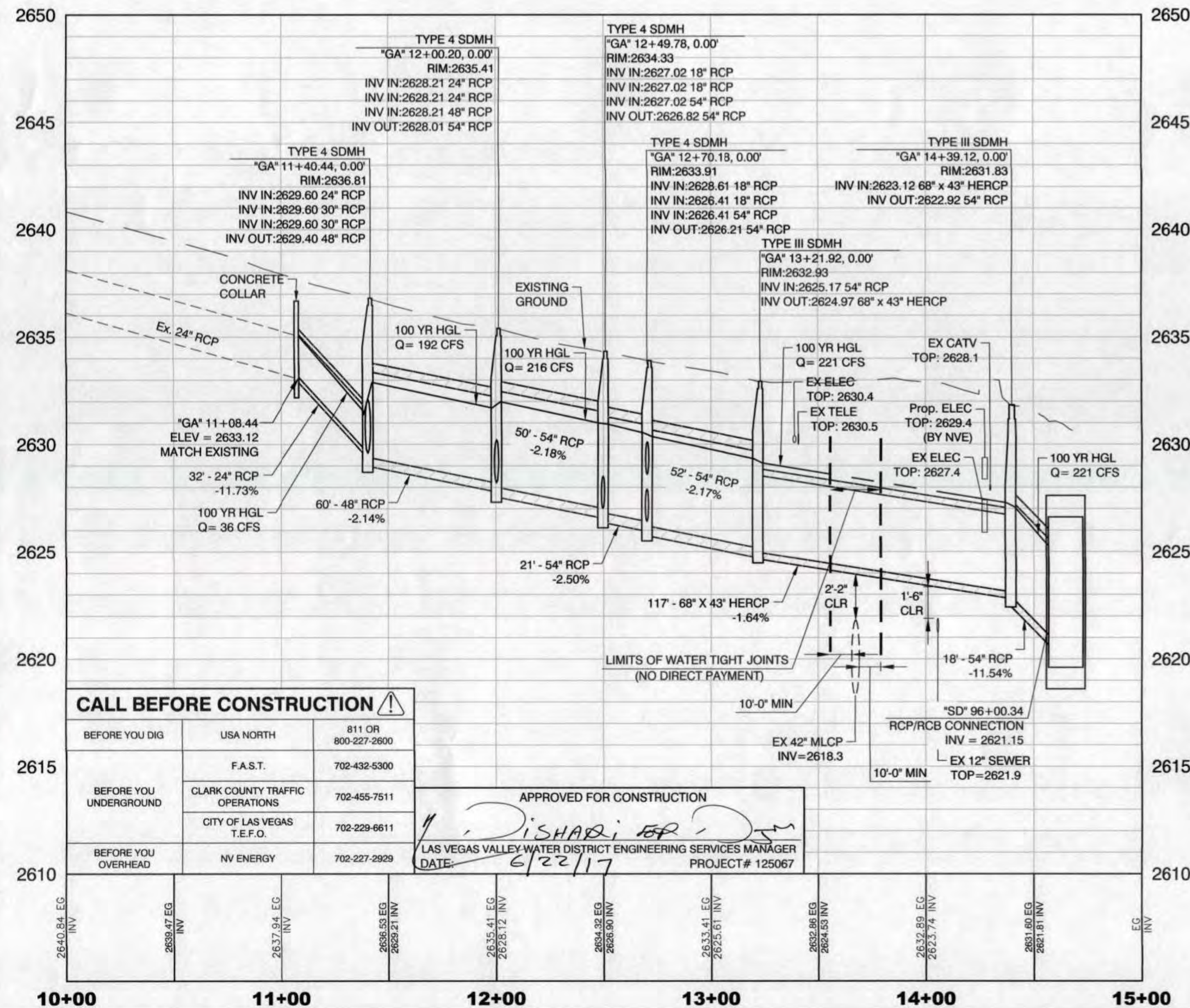


SHEET KEY



CONSTRUCTION NOTES

- 8.1 "GA" 11+08.44 TO "GA" 12+70.18 REMOVE 24" X 162' RCP
- 8.2 "GA" 12+58.69, 30.10' LT REMOVE DROP INLET
- 8.3 "GA" 12+70.18 REMOVE MANHOLE AND 24" X 129' RCP.
- 8.4 "GA" 13+84.34, 45.37' RT REMOVE MANHOLE AND 24" X 62' RCP.
- 8.5 "SD" 97+04.62, 17.68' RT TO "SD" 96+81.77, 36.01' RT REMOVE MANHOLE AND ABANDON 24" X 30' RCP.



- 8.10 "GA" 11+08.44 INSTALL 24" X 32' RCP FROM "GA" 11+08.44 (UIE= 2633.12') TO "GA" 11+40.44 (LIE= 2629.60'). CONNECT TO EXISTING 24" RCP (SEE SHEET LBTD-08)
- 8.11 "GA" 11+40.44 CONSTRUCT TYPE 4 MANHOLE (COVER ELEV= 2636.81', INV ELEV= 2629.40', H = 7.41'). INSTALL 48" X 60' RCP FROM "GA" 11+40.44 (UIE= 2629.40') TO "GA" 12+00.20 (LIE= 2628.21'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEET LBTD-07).
- 8.12 "GA" 12+00.20 CONSTRUCT TYPE 4 MANHOLE (COVER ELEV= 2635.41', INV ELEV= 2628.01', H = 7.40'). INSTALL 54" X 50' RCP FROM "GA" 12+00.20 (UIE= 2628.01') TO "GA" 12+49.78 (LIE= 2627.02'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEET LBTD-07).
- 8.13 "GA" 12+49.78 CONSTRUCT TYPE 4 MANHOLE (COVER ELEV= 2634.33', INV ELEV= 2626.82', H = 7.51'). INSTALL 54" X 21' RCP FROM "GA" 12+49.78 (UIE= 2626.82') TO "GA" 12+70.18 (LIE= 2626.41'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEET LBTD-07).
- 8.14 "GA" 12+70.18 CONSTRUCT TYPE 4 MANHOLE (COVER ELEV= 2633.91', INV ELEV= 2626.21', H = 7.70'). INSTALL 54" X 52' RCP FROM "GA" 12+70.18 (UIE= 2626.21') TO "GA" 13+21.92 (LIE= 2625.17'). CONNECT TO TYPE III MANHOLE. (SEE SHEET LBTD-07).
- 8.15 "GA" 13+21.92 CONSTRUCT TYPE III MANHOLE (COVER ELEV= 2632.93', INV ELEV= 2624.97', H = 7.96'). INSTALL 68" X 43' HERCP FROM "GA" 13+21.92 (UIE= 2624.97') TO "GA" 14+39.12 (LIE= 2623.12'). CONNECT TO TYPE III MANHOLE. (SEE SHEET LBTD-07).
- 8.16 "GA" 14+39.12 CONSTRUCT TYPE III MANHOLE (COVER ELEV= 2631.83', INV ELEV= 2622.92', H = 8.91'). INSTALL 54" X 18' RCP FROM "GA" 14+39.12 (UIE= 2622.92') TO "SD" 96+00.34 (LIE= 2621.15'). CONSTRUCT 54" RCP CONNECTION, 8.00' RT. (SEE SHEETS LBTD-07 AND LBTD-09).

- 8.20 "GA" 11+16.98 CONSTRUCT "DM" DROP INLET (L= 22.5'), 29.71' LT (GRATE ELEV= 2636.88', INV ELEV= 2630.88', H = 6.00'). INSTALL 30" X 33' RCP FROM "GA" 11+16.98, 29.71' LT (UIE= 2630.88') TO "GA" 11+40.44 (LIE= 2629.60'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.21 "GA" 11+17.18 CONSTRUCT "DM" DROP INLET (L= 22.5'), 22.11' RT (GRATE ELEV= 2637.01', INV ELEV= 2631.01', H = 6.00'). INSTALL 30" X 26' RCP FROM "GA" 11+17.18, 22.11' RT (UIE= 2631.01') TO "GA" 11+40.44 (LIE= 2629.60'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.22 "GA" 11+75.29 CONSTRUCT "DM" DROP INLET (L= 20'), 30.02' LT (GRATE ELEV= 2635.42', INV ELEV= 2630.42', H = 5.00'). INSTALL 24" X 34' RCP FROM "GA" 11+75.29, 30.02' LT (UIE= 2630.42') TO "GA" 12+00.20 (LIE= 2628.21'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.23 "GA" 11+75.49 CONSTRUCT "DM" DROP INLET (L= 20'), 23.15' RT (GRATE ELEV= 2635.42', INV ELEV= 2630.42', H = 5.00'). INSTALL 24" X 28' RCP FROM "GA" 11+75.49, 23.15' RT (UIE= 2630.42') TO "GA" 12+00.20 (LIE= 2628.21'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.24 "GA" 12+24.77 CONSTRUCT "DM" DROP INLET (L= 20'), 30.18' LT (GRATE ELEV= 2634.15', INV ELEV= 2630.15', H = 4.00'). INSTALL 18" X 34' RCP FROM "GA" 12+24.77, 30.18' LT (UIE= 2630.15') TO "GA" 12+49.78 (LIE= 2627.02'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.25 "GA" 12+21.19 CONSTRUCT "DM" DROP INLET (L= 20'), 24.08' RT (GRATE ELEV= 2634.23', INV ELEV= 2630.23', H = 4.00'). INSTALL 18" X 32' RCP FROM "GA" 12+21.19, 24.08' RT (UIE= 2630.23') TO "GA" 12+49.78 (LIE= 2627.02'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.26 "GA" 12+59.45 CONSTRUCT "DM" DROP INLET (L= 10'), 30.88' LT (GRATE ELEV= 2633.14', INV ELEV= 2629.56', H = 3.58'). CONNECT TO EXISTING 18" RCP (SEE SHEETS LBLP-01 AND LBTD-11).
- 8.27 "GA" 12+60.23 CONSTRUCT "DM" DROP INLET (L= 10'), 24.38' RT (GRATE ELEV= 2633.46', INV ELEV= 2630.46', H = 3.00'). INSTALL 18" X 25' RCP FROM "GA" 12+60.23, 24.38' RT (UIE= 2630.46') TO "GA" 12+70.18 (LIE= 2626.41'). CONNECT TO TYPE 4 MANHOLE. (SEE SHEETS LBLP-01 AND LBTD-11).

NOTES:

1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA
2. IN AREAS WHERE THE EXCAVATION IS LESS THAN THREE FEET (3 FT) FROM THE TOP ON THE LVWD 42" TRANSMISSION WATER MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT, WILL BE ALLOWED WITHIN 10 FEET (10 FT) OF THE TRANSMISSION WATER MAIN. IN THESE AREAS, CONTRACTOR TO PLACE A CONCRETE BARRIER, I.E. JERSEY RAIL, TO IDENTIFY THE "NO EQUIPMENT ZONE"

SEE NDOT PLANS VOLUME 1:
2 SHEETS FOR TYPICAL SECTIONS,
PLAN AND PROFILE SHEETS FOR BARRIER LAYOUT AND DP
SHEETS FOR DRAINAGE LAYOUT AND PROFILES

SEE SHEETS LBSD-01 - LBSD-06
FOR MAINLINE PLAN AND PROFILE

EXISTING IRRIGATION SHALL BE PROTECTED IN PLACE.
EXISTING LANDSCAPING SHALL BE REMOVED AND REPLACED
(SEE NDOT PLANS VOLUME 1: SECTION L).

EXISTING STREETLIGHT (PROTECT IN PLACE)

PREPARED BY
Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone 702.730.6602 - Fax 702.407.1305

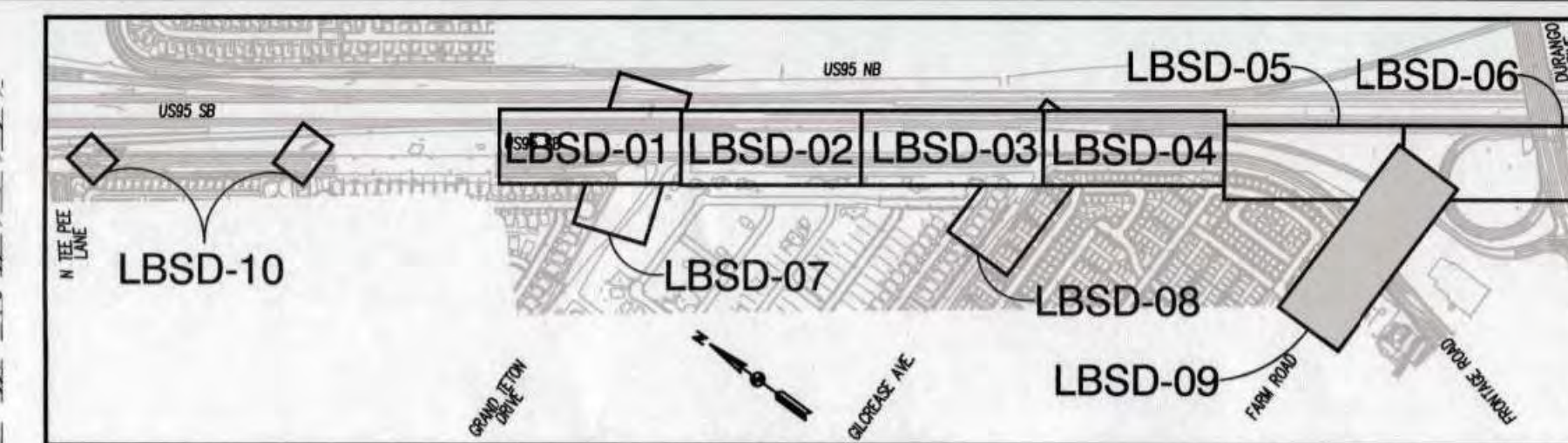
CITY OF LAS VEGAS
DESIGNED BY: LBN
DRAWN BY: FME
CHECKED BY: JSD
DATE: 6/15/2017
SUBMITTAL STAGE:

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE
STORM DRAIN PLAN AND PROFILE
"GA" 9+00.00 TO "GA" 15+00.00

JEFFREY S. DOUGLAS
Exp: 12/31/18
CIVIL
18417

SHEET
LBSD-08
17 OF 62
DRAWING NO.
731-96

PROJ# 125067 AGR:116389 QS:125-17-SW



APPROVED FOR CONSTRUCTION

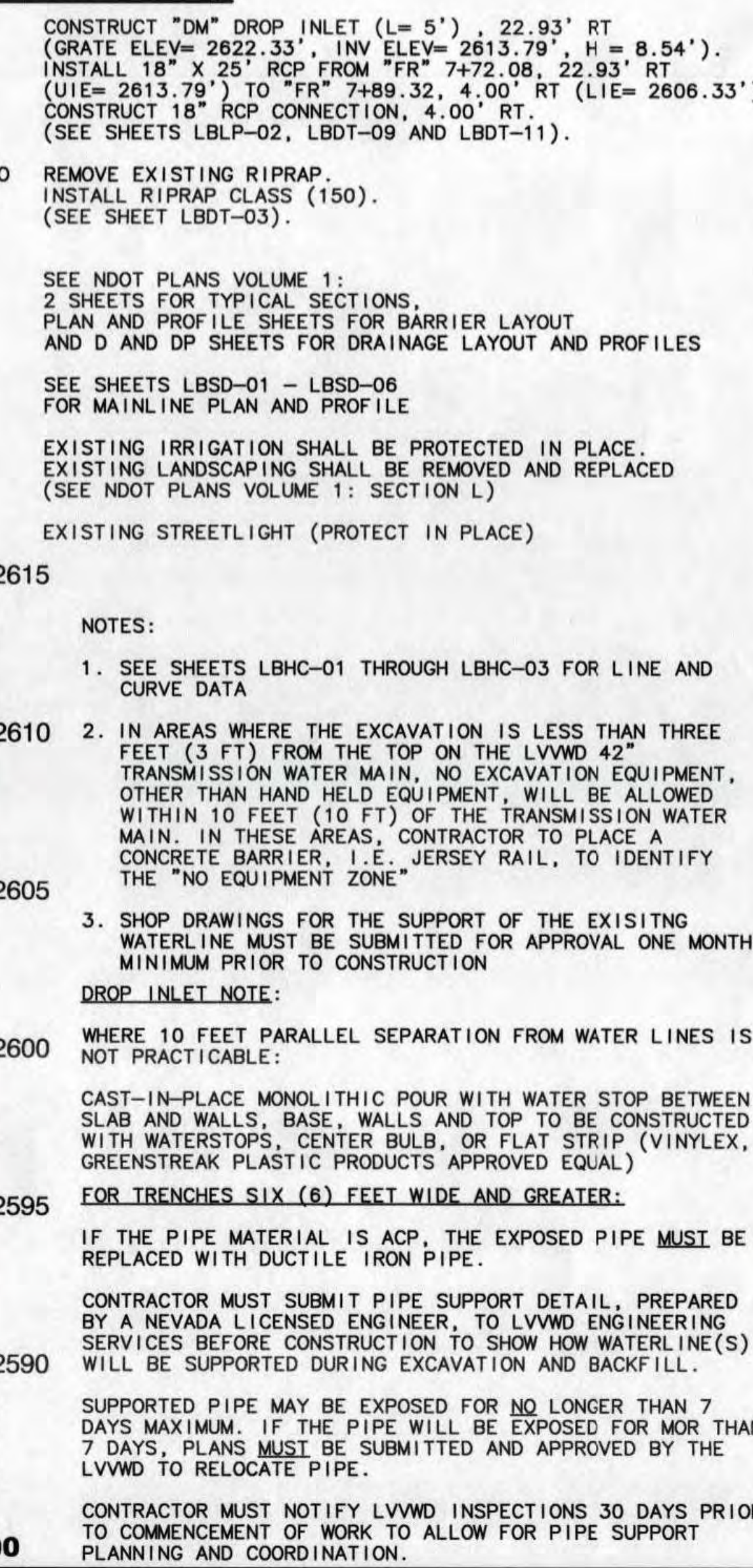
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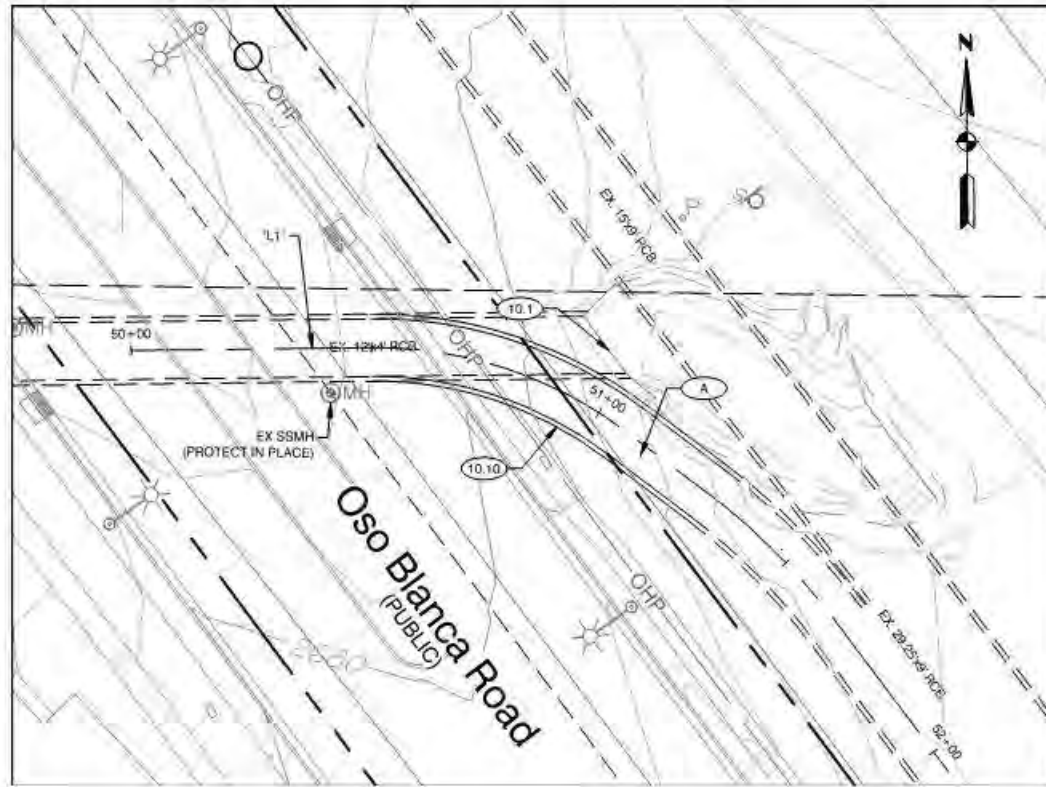
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DATE: 6/23/17 PROJECT# 12506

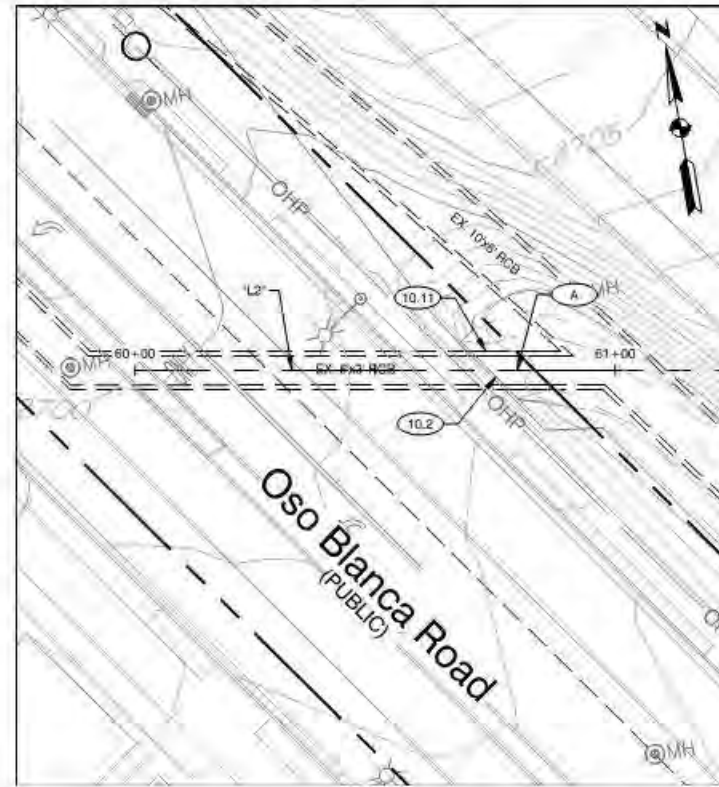
CALL BEFORE CONSTRUCTION 		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

⑨.23 "FR" 7+72.08

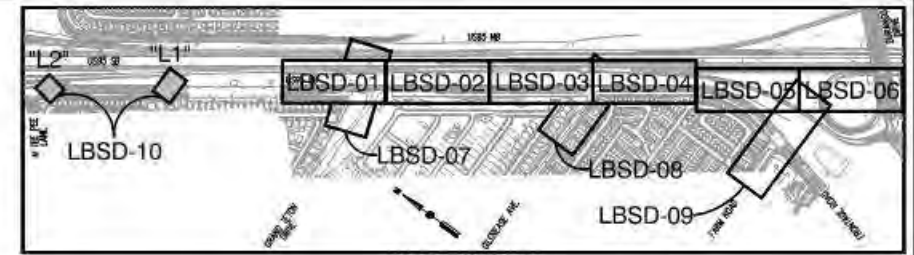




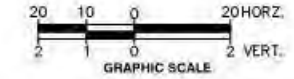
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"L2"

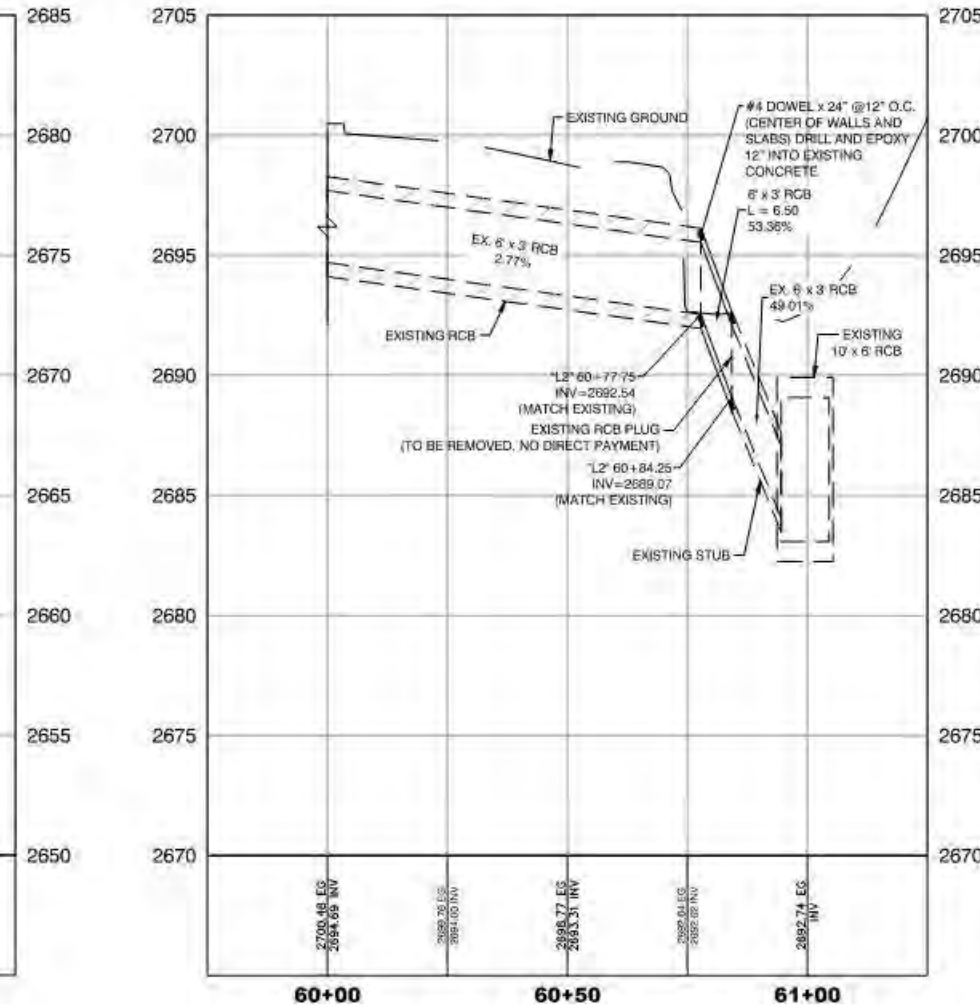
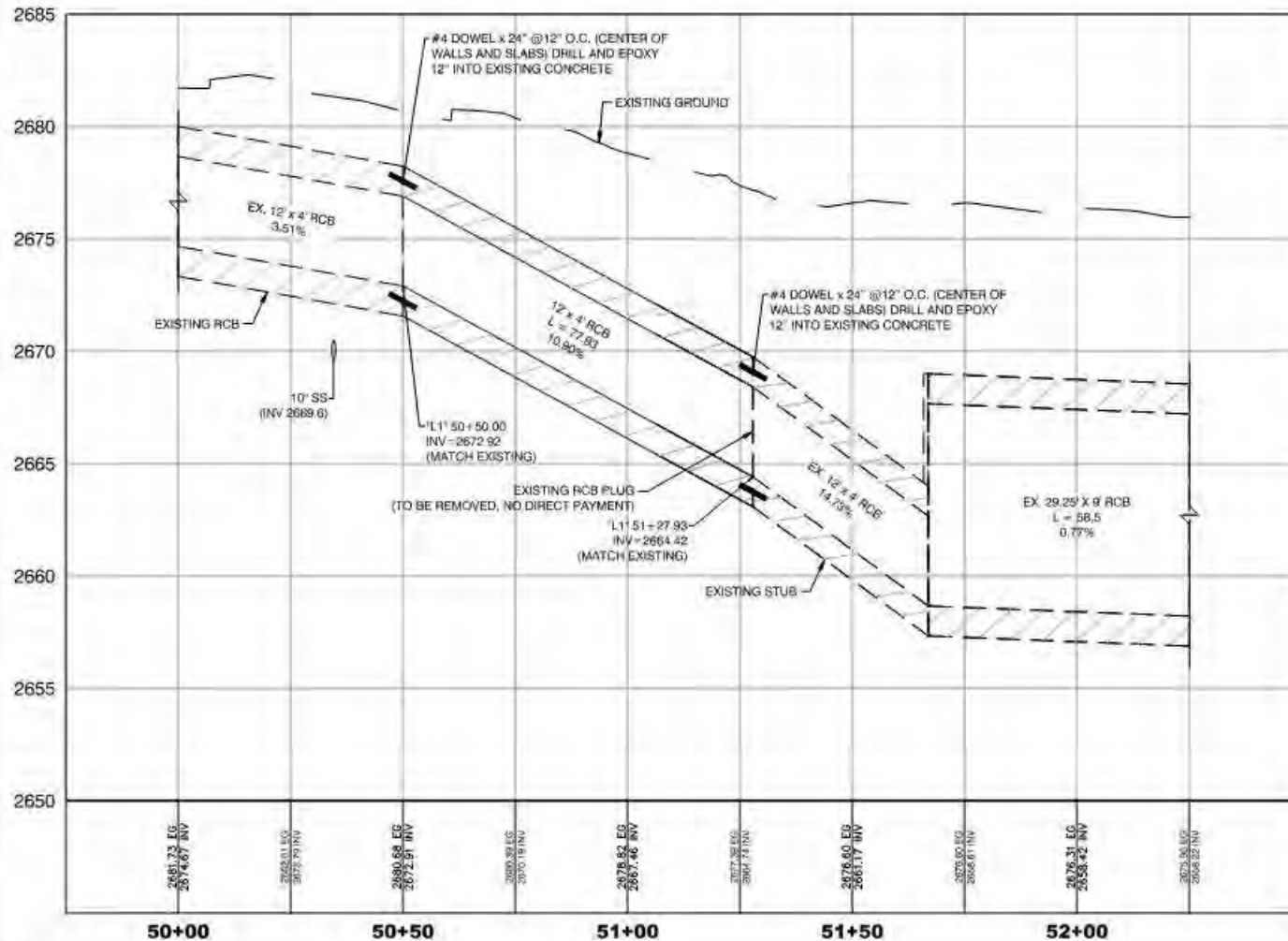


SHEET KEY



CONSTRUCTION NOTES

- (10.1) "L1" 50+50.00 TO "L1" 50+95.01, 13.29' LT REMOVE HEADWALL AND 12' x 4' x 50' RCB.
- (10.2) "L2" 60+73.77 REMOVE HEADWALL.
- (10.10) "L1" 50+50.00 TO "L1" 51+27.93 REMOVE RCB PLUG AND CONSTRUCT 12' x 4' x 77.93' RCB. (SEE SHEET LBOT-10).
- (10.13) "L2" 60+77.75 TO "L2" 60+84.25 REMOVE RCB PLUG AND CONSTRUCT 6' x 3' x 6.5' RCB. (SEE SHEET LBOT-10).
- (A) EXISTING IRRIGATION SHALL BE PROTECTED IN PLACE. EXISTING LANDSCAPING SHALL BE REMOVED AND REPLACED (SEE NDOT PLANS VOLUME 1, SECTION L)



NOTE:
1. SEE SHEETS LBHC-01 THROUGH LBHC-03 FOR LINE AND CURVE DATA

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	511 OR 800-227-2650
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5308
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-459-7511
	CITY OF LAS VEGAS T&E	702-229-4611
	NV ENERGY	702-227-2629

PREPARED FOR
CITY OF LAS VEGAS

BID#
H# 60223

DESIGNED BY: LDN

DRAWN BY: FME

CHECKED BY: JSD

DATE: 6/15/2017

SUBMITTAL STAGE:

NO. DATE

REVISIONS

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

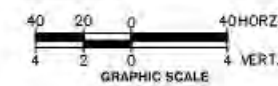
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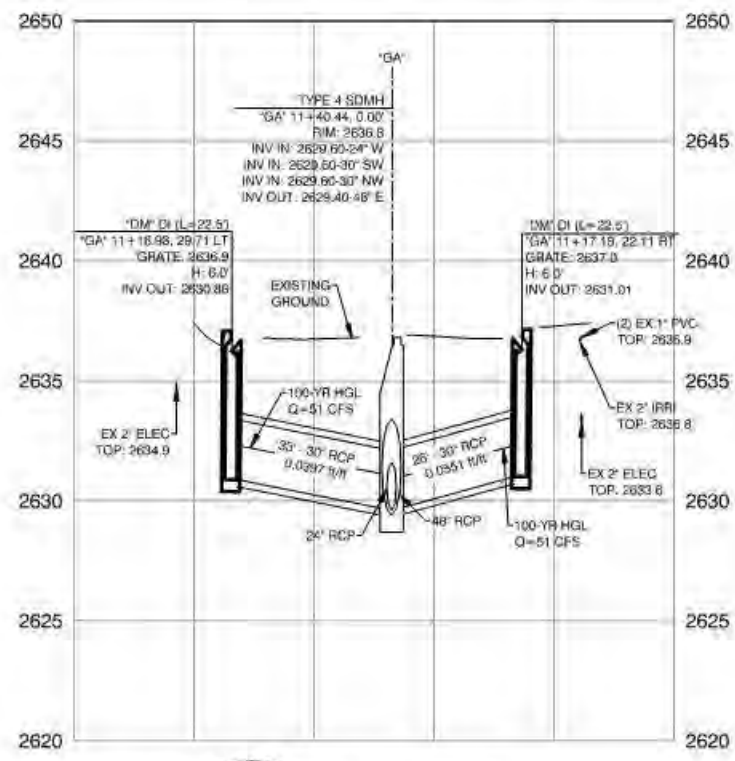
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RCB CONNECTION DETAILS

DRIVING NO.
731-96

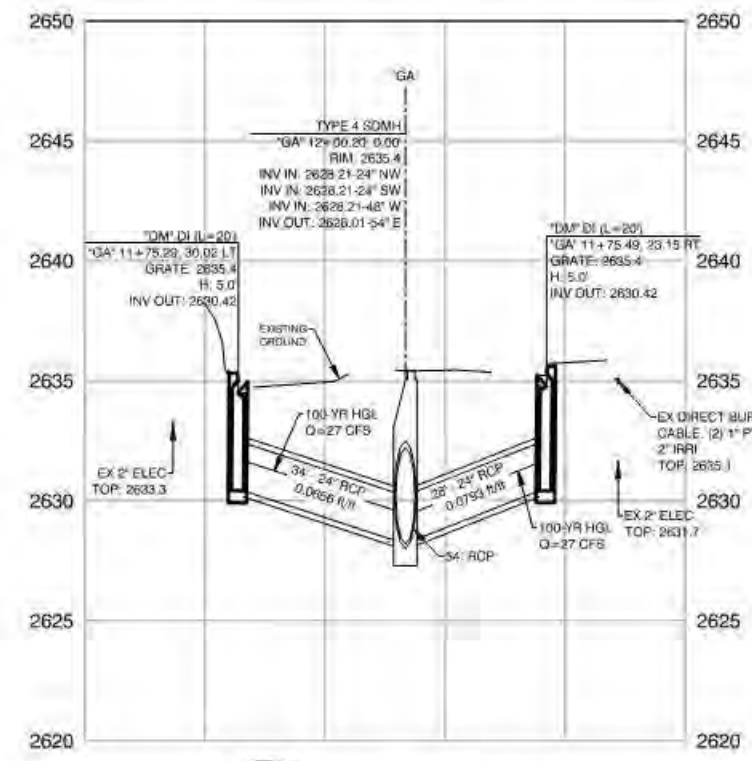
LOUIS BERGER
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Las Vegas, Nevada 89119
Phone: 702.736.6812 Fax: 702.407.1305



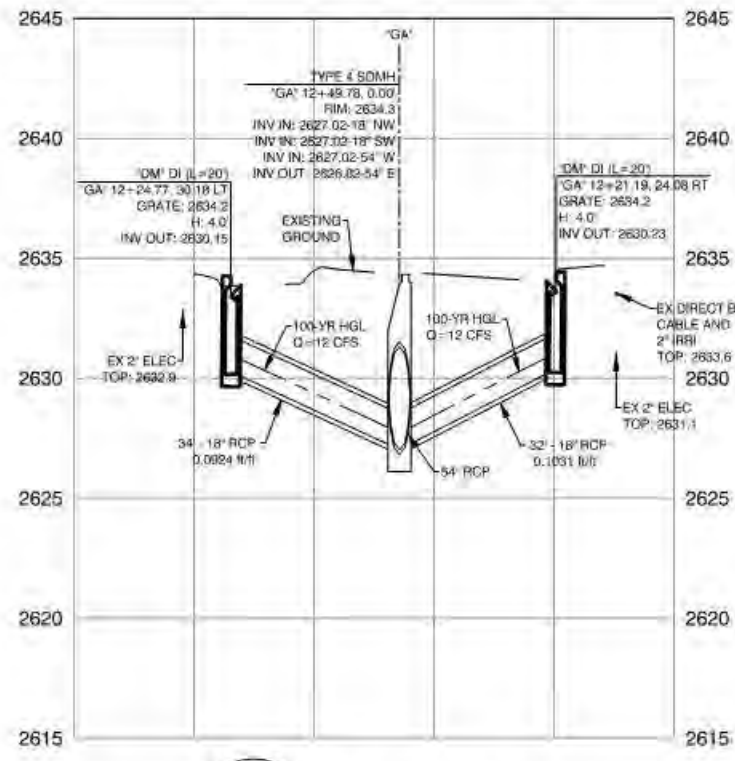
CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	311 OR 920-222-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.P.D.	702-225-6611
BEFORE YOU CUT/HEAD	NV ENERGY	702-227-2829



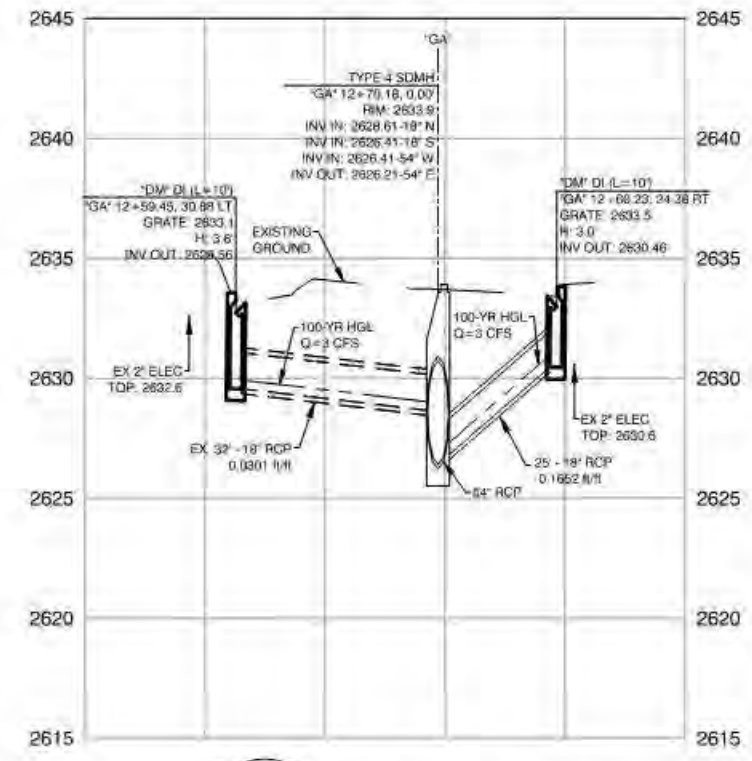
LBLP-01 "GA" 11+40.44
1 NOTES 8.20 & 8.21



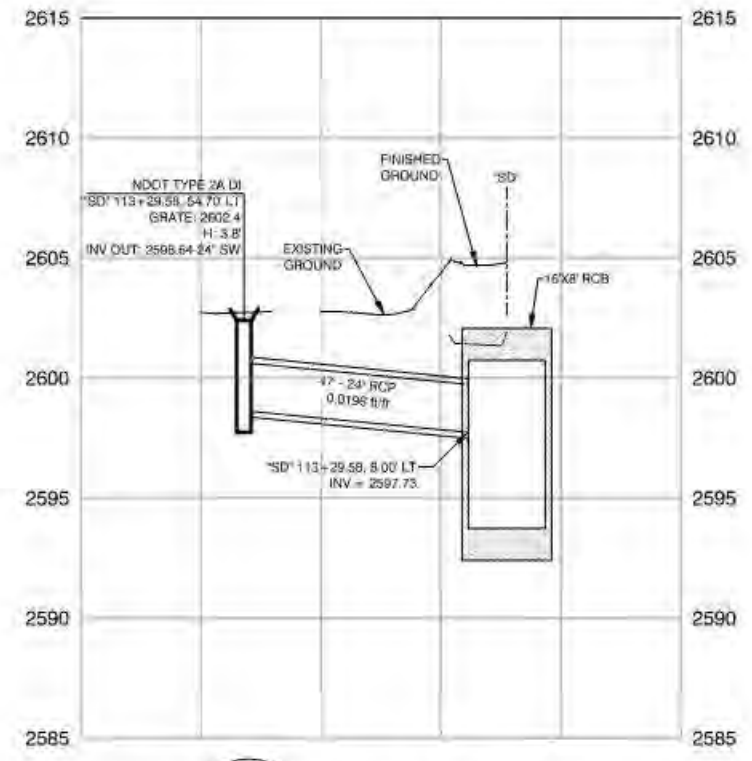
LBLP-01 "GA" 12+00.20
2 NOTES 8.22 & 8.23



LBLP-01 "GA" 12+49.78
3 NOTES 8.24 & 8.25



LBLP-01 "GA" 12+70.18
4 NOTES 8.26 & 8.27



LBLP-01 "SD" 113+29.58
5 NOTE 6.20

PREPARED BY
Louis Berger
444 East Warm Springs Road, Ste. 100
Las Vegas, Nevada 89119
Phone: 702.735.0512 - Fax: 702.407.1305

REVISIONS

NO.	DATE	REVISIONS

FOR CITY OF LAS VEGAS

BUD# 60223

DESIGNED BY: LON

DRAWN BY: FME

CHECKED BY: JSD

DATE: 6/15/2017

SUBMITTAL STAGE

TITLE

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET

LATERAL PROFILES
GILCREASE AVENUE

ENGINEER

JEFFREY S. DOLAN

Exp: 12/31/18

CIVIL

Professional Seal

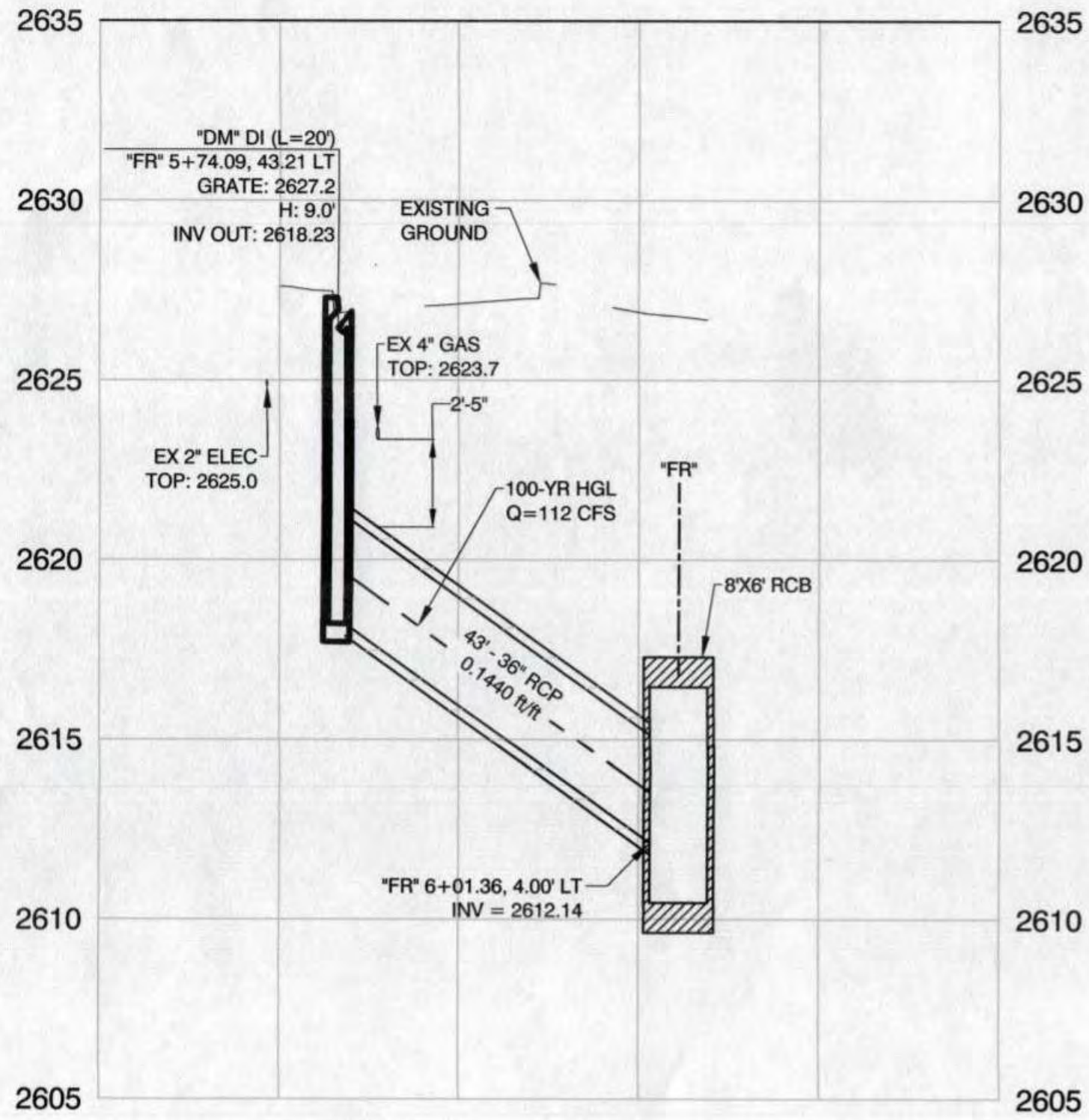
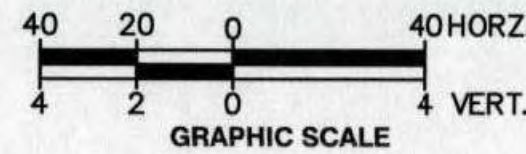
SHEET

LBLP-01

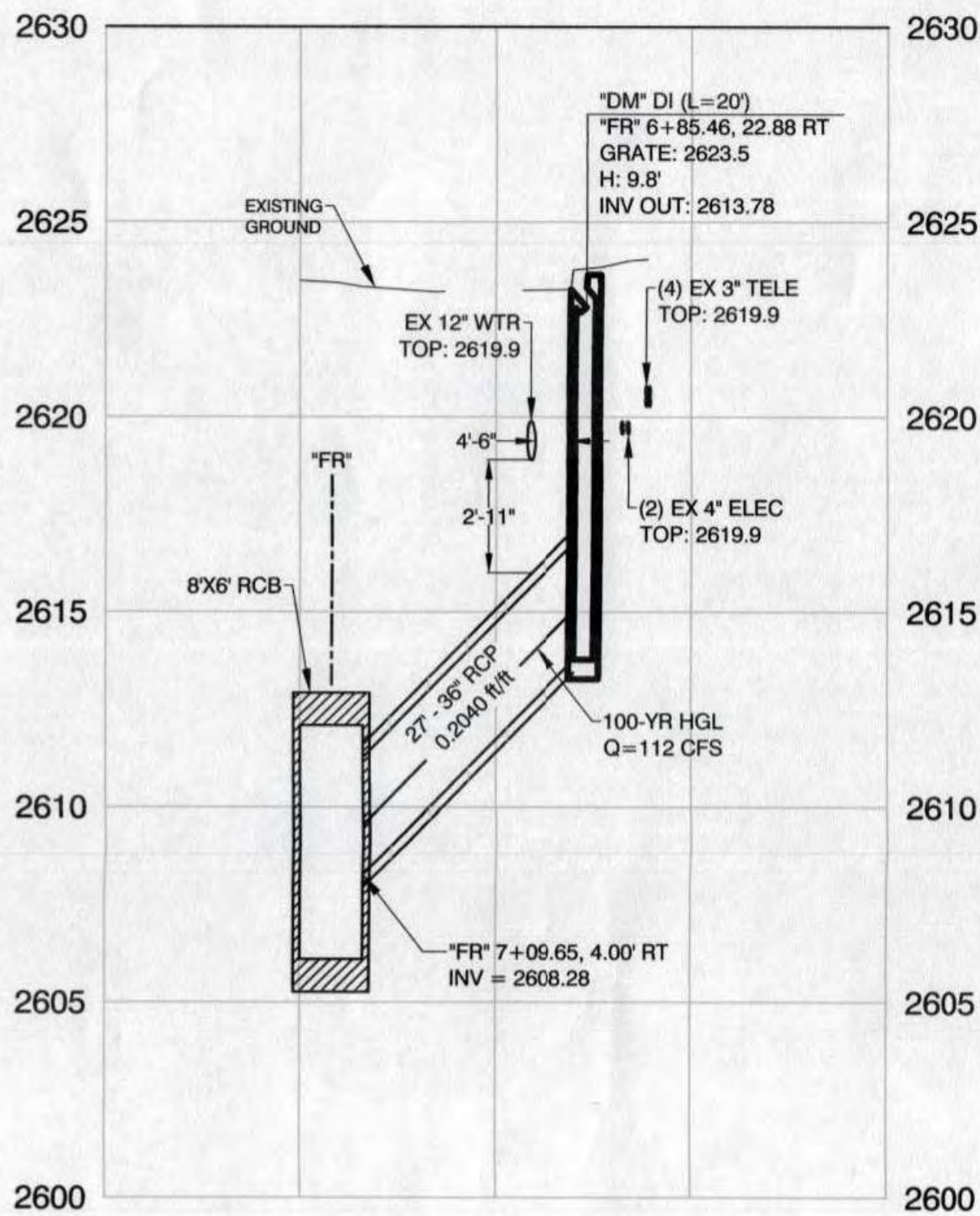
20 OF 62

DRAWING NO.

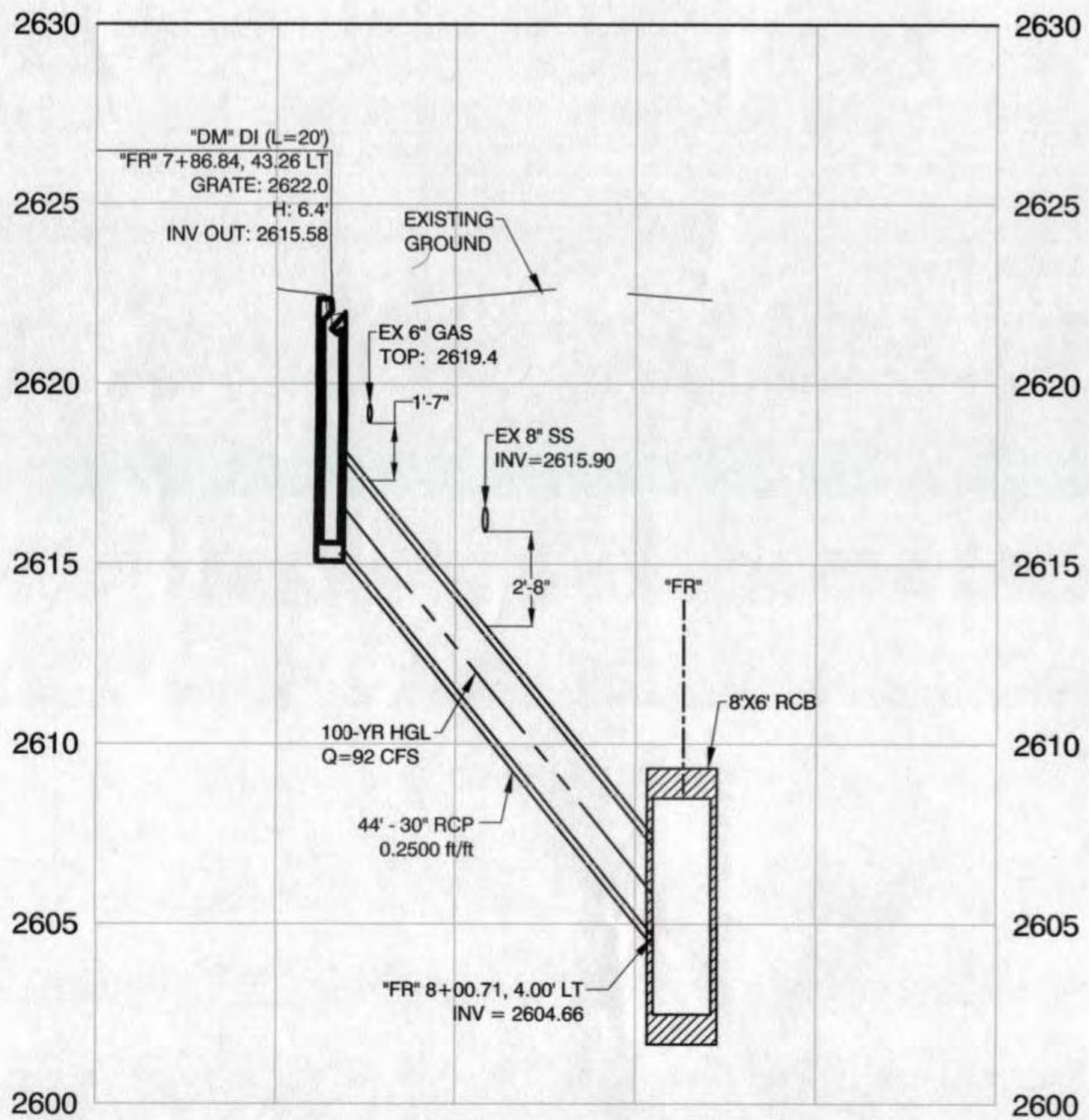
731-96



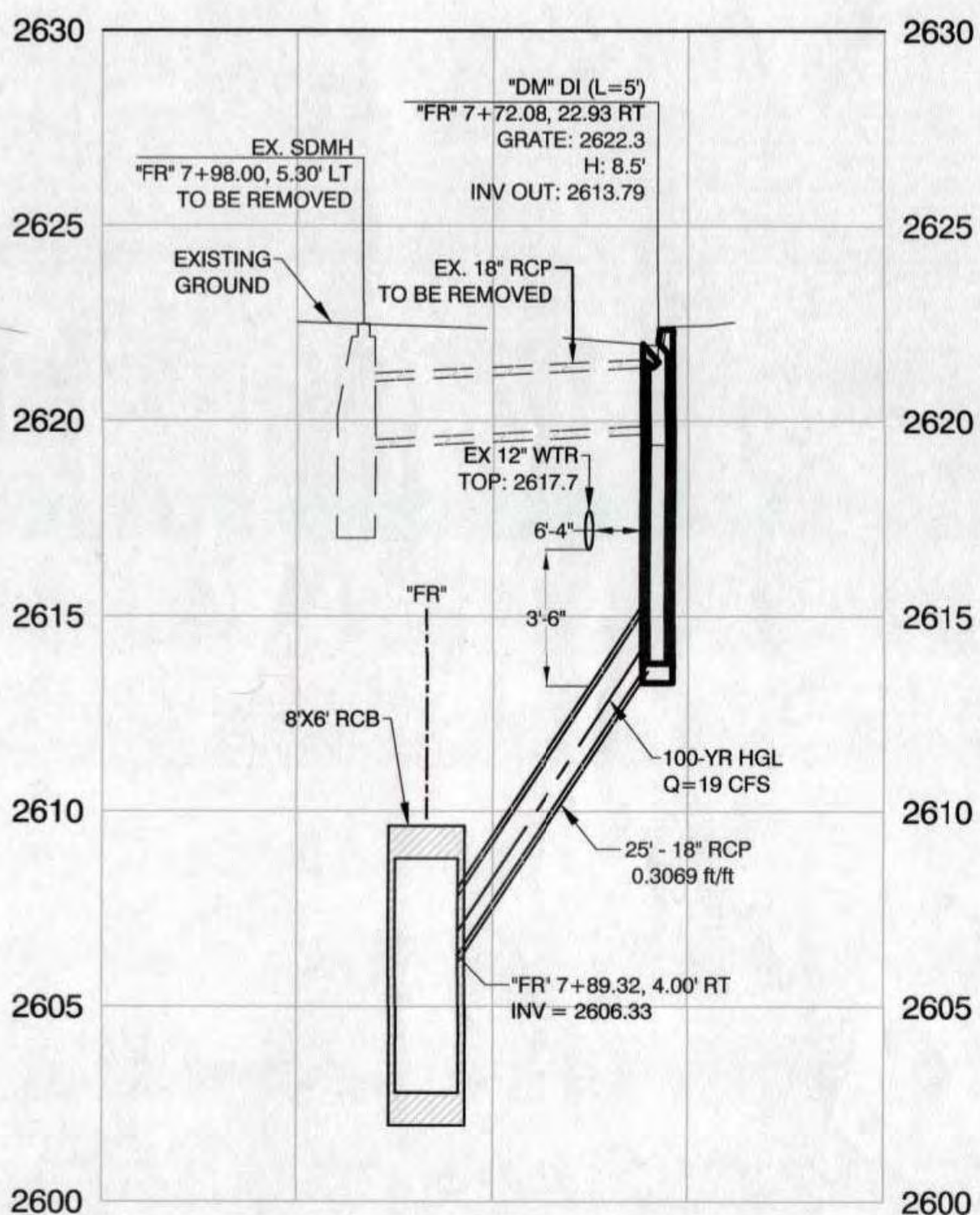
LBLP-02 "FR" 6+01.36
1 NOTE 9.20



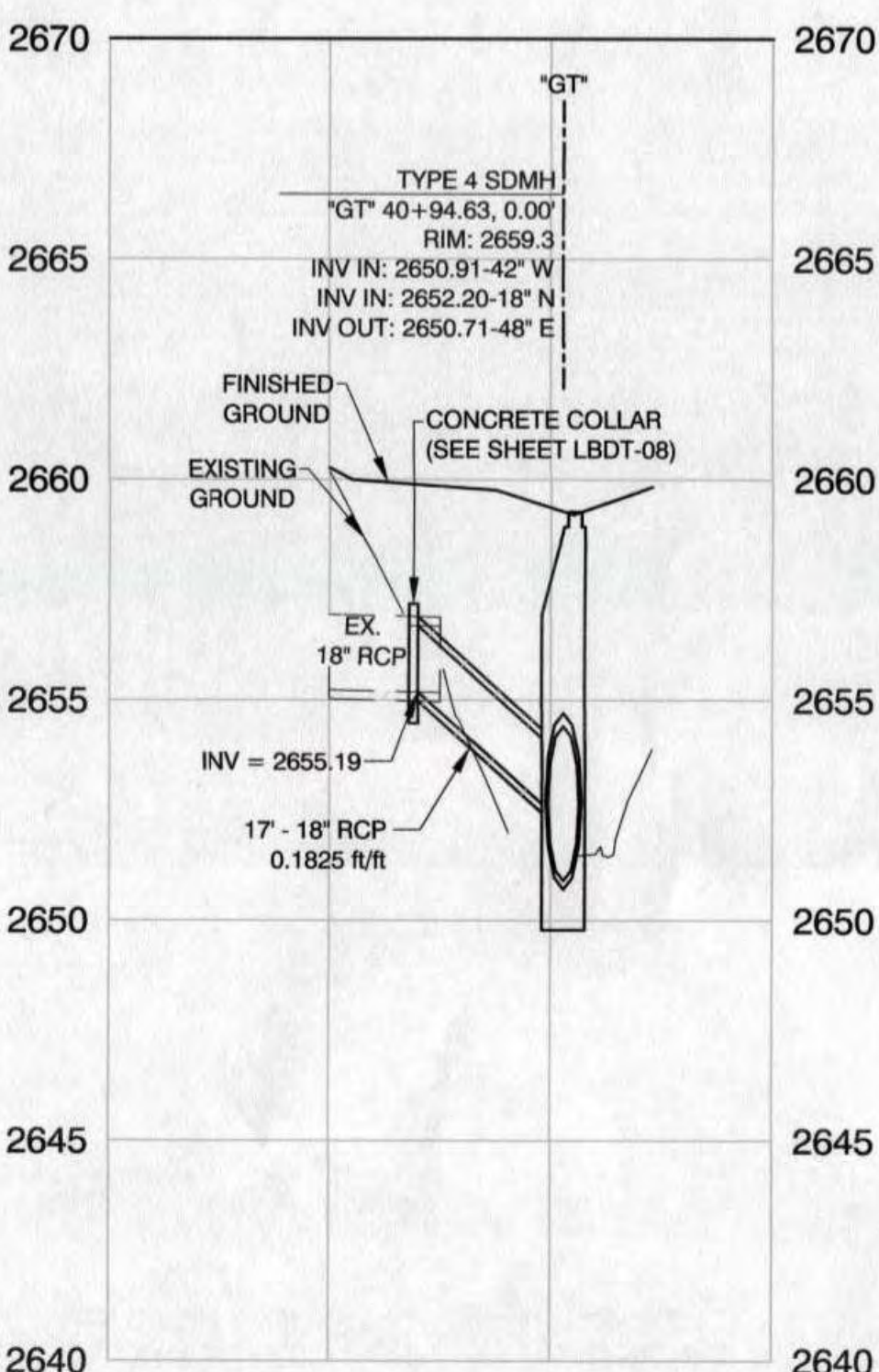
LBLP-02 "FR" 7+09.65
2 NOTE 9.21



LBLP-02 "FR" 8+00.71
3 NOTE 9.22



LBLP-02 "FR" 7+89.32
4 NOTE 9.23



LBLP-02 "GT" 40+94.63
8 NOTE 7.13

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6811
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION FROM WATER LINES IS NOT PRACTICABLE:
CAST-IN PLACE MONOLITHIC POUR WITH WATER STOP BETWEEN SLAB AND WALLS, BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATER STOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT# 125067

PREPARED BY

Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 - Fax: 702.407.1305

PREPARED FOR
CITY OF LAS VEGAS

BID#
H# 60223

DESIGNED BY: LDN
DATE: 6/15/2017

DRAWN BY: FME
SUBMITTAL STAGE:

CHECKED BY: JSD

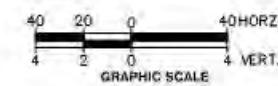
TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

SHEET
**LATERAL PROFILES
FARM ROAD/GRAND TETON DRIVE**

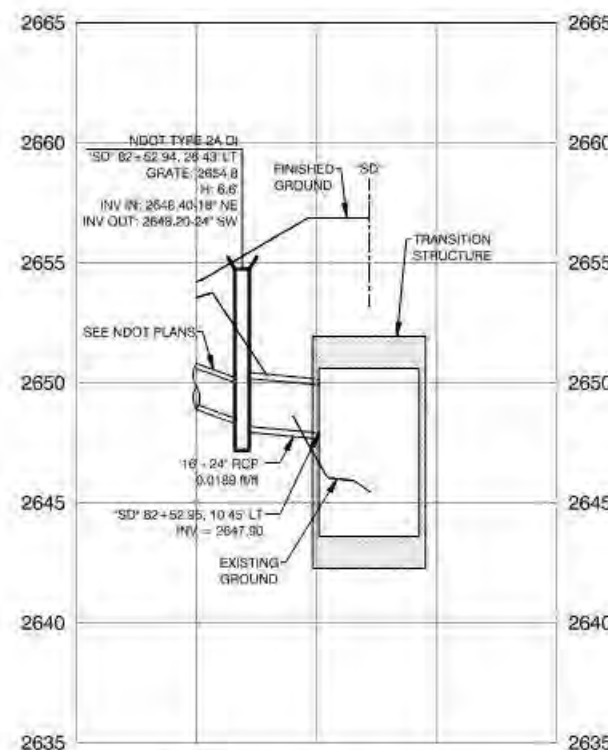
LBLP-02
21 OF 62
DRAWING NO.
731-96

REVISIONS
NO. DATE

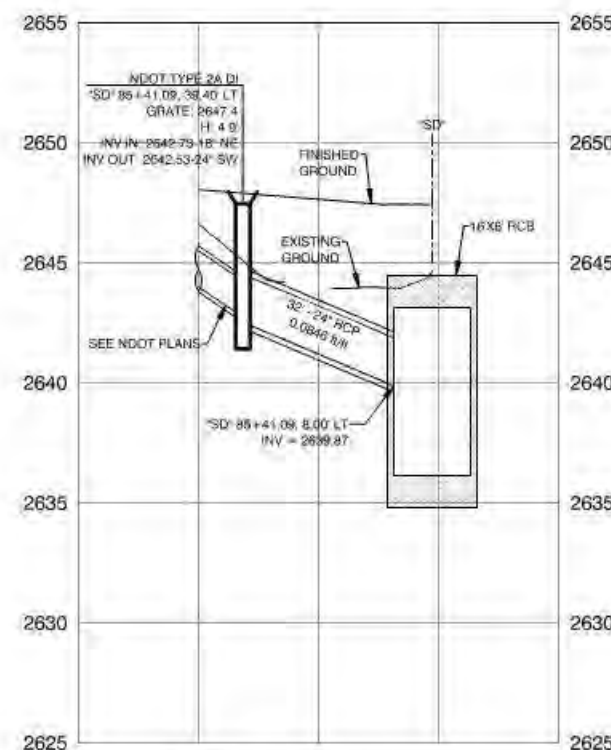
PROJECT# 125067 AGR:116389 QS:125-17-SW



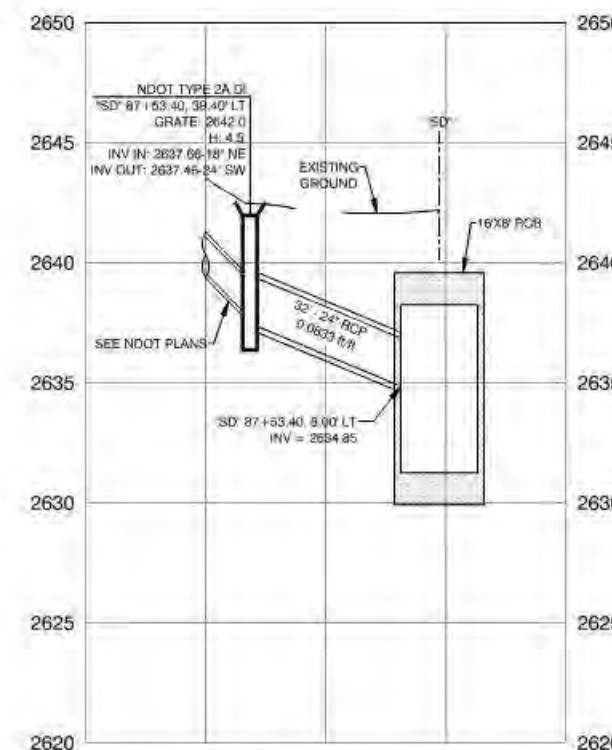
CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	311 OR 920-222-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-452-5300
BEFORE YOU CUT/HEAD	CLARK COUNTY TRAFFIC OPERATIONS	702-452-7511
	CITY OF LAS VEGAS T.E.P.D.	702-223-6611
	NV ENERGY	702-227-2829



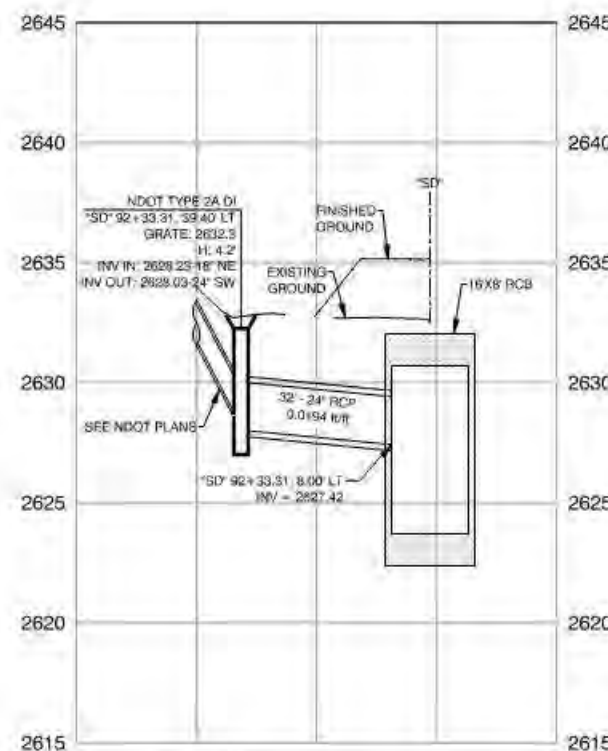
LBLP-03 "SD" 82+52.95
1 NOTE 2.20



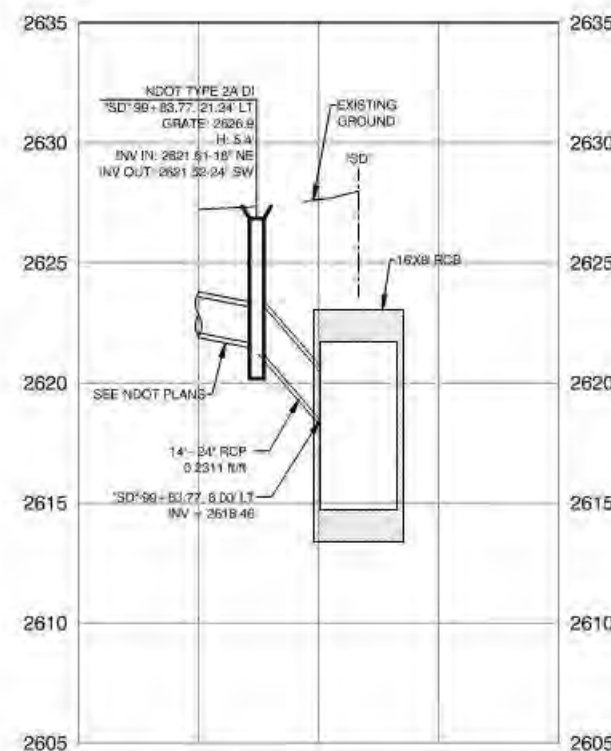
LBLP-03 "SD" 85+41.09
2 NOTE 2.21



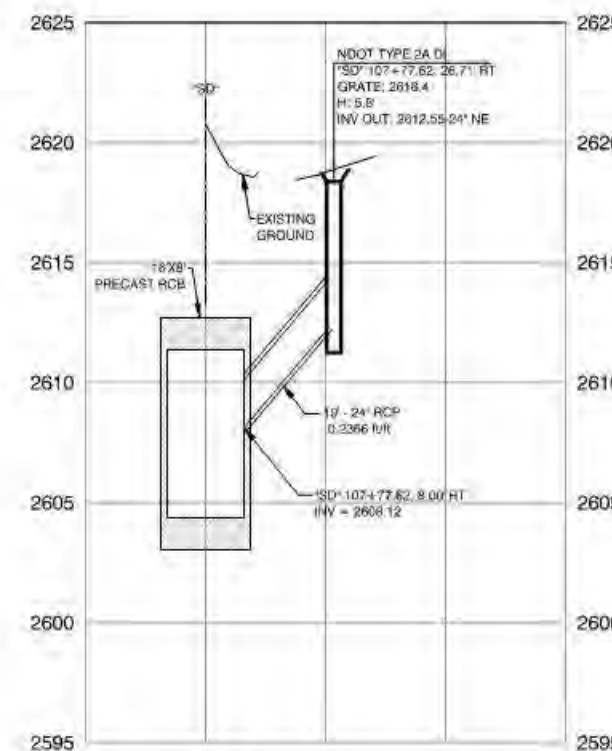
LBLP-03 "SD" 87+53.40
3 NOTE 2.22



LBLP-03 "SD" 92+33.31
4 NOTE 3.22



LBLP-03 "SD" 99+83.77
5 NOTE 4.22



LBLP-03 "SD" 107+77.62
6 NOTE 5.21

PREPARED BY
City of Las Vegas
R# 16223

DESIGNED BY: LDN
DATE: 6/15/2017

DRAWN BY: FME
SUBMITTAL STAGE

CHECKED BY: JSD

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

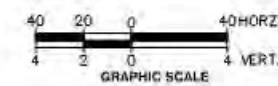
LATERAL PROFILES
MAINLINE FIELD INLETS

ENGINEER
JEFFREY S. DOLGAS
Exp: 12/31/18
CIVIL
No. 16417

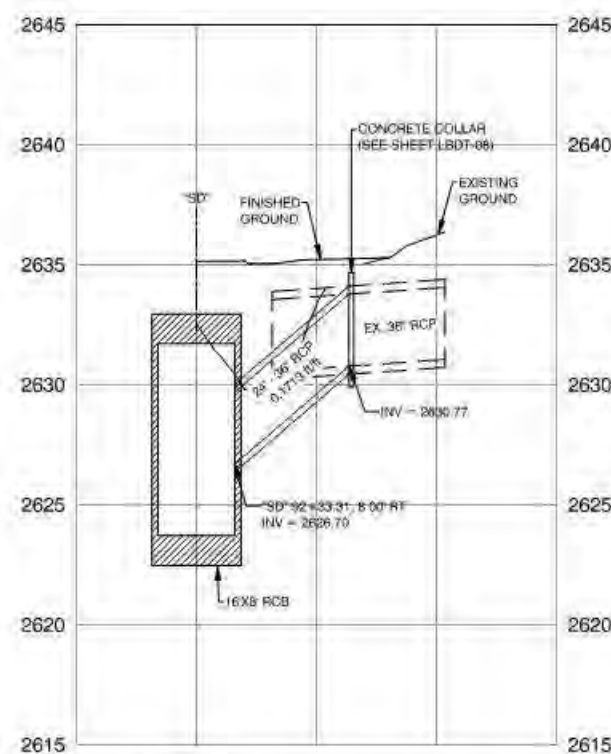
SHEET
LBLP-03
22 OF 62
DRAWING NO.
731-96

REVISIONS
NO. DATE

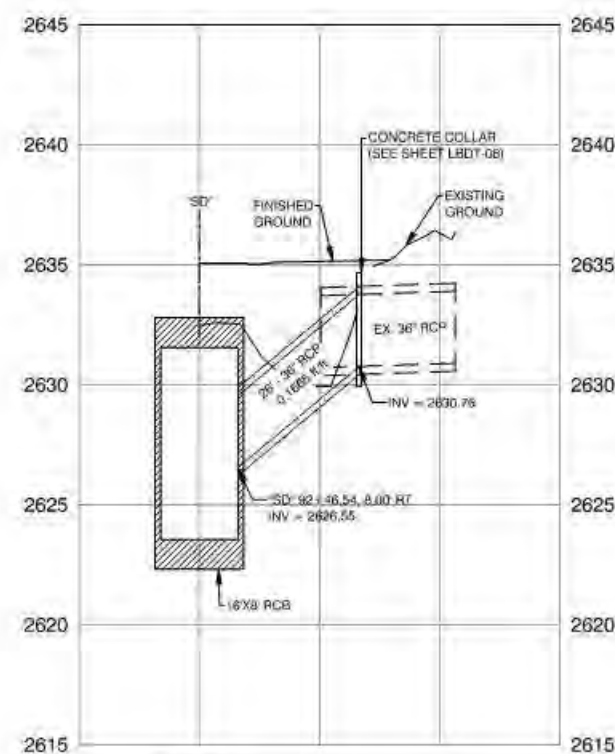
LOUIS BERGER
444 East Warm Springs Road, Ste. 118
Las Vegas, Nevada 89119
Phone: 702.735.0512 Fax: 702.407.1305



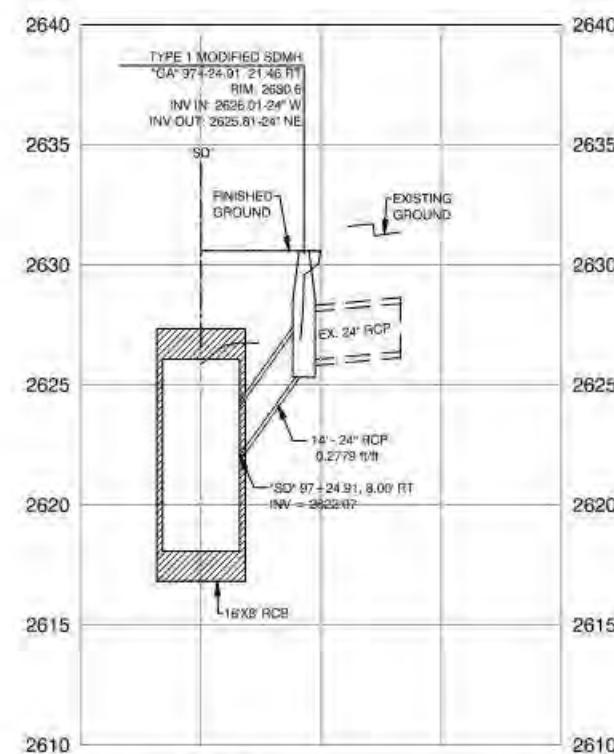
CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-5800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-2511
	CITY OF LAS VEGAS T.E.P.D.	702-225-6611
BEFORE YOU C/OVERHEAD	NV ENERGY	702-227-2829



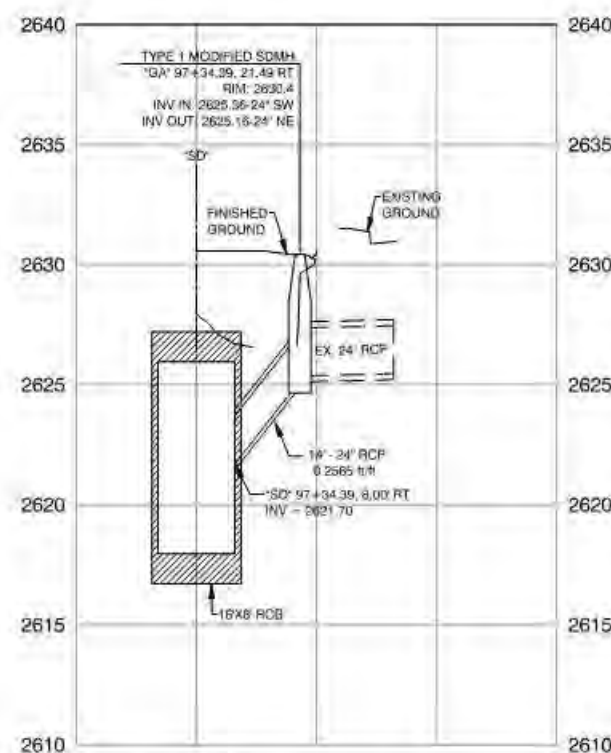
LBLP-04 "SD" 92+33.31
NOTE 3.20



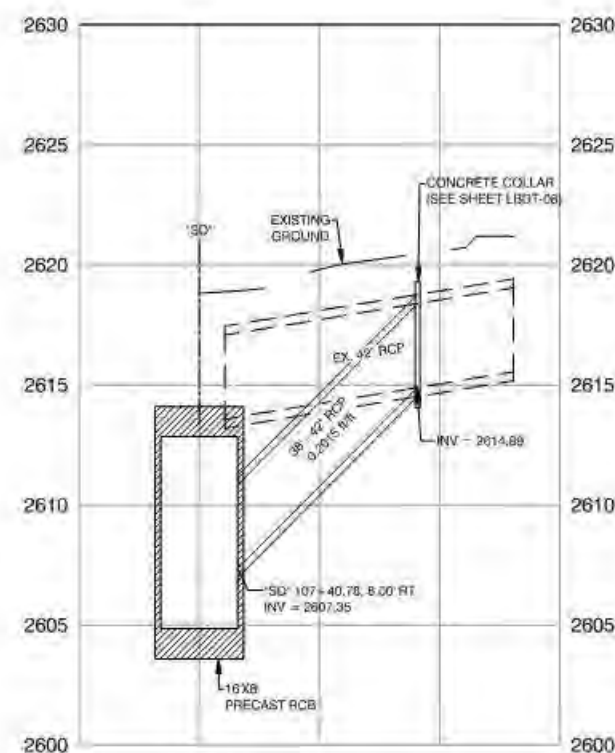
LBLP-04 "SD" 92+46.54
NOTE 3.21



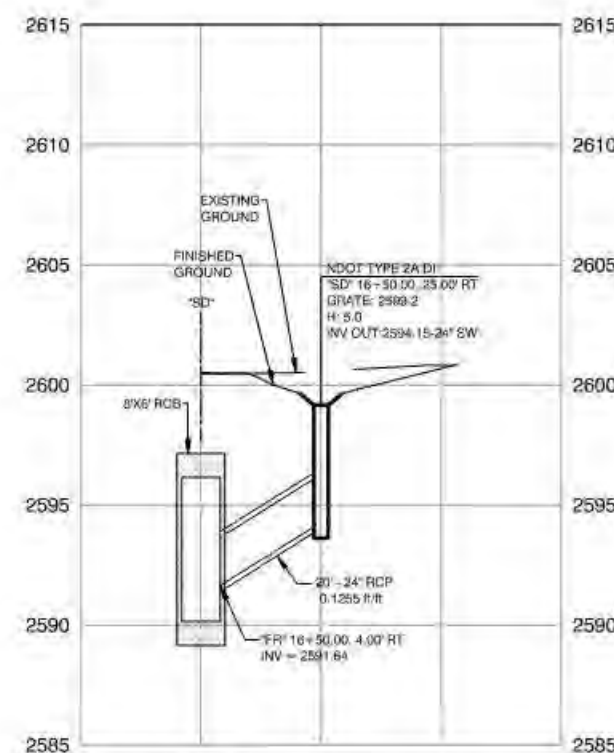
LBLP-04 "SD" 97+24.91
NOTE 4.20



LBLP-04 "SD" 97+34.39
NOTE 4.21



LBLP-04 "SD" 107+40.78
NOTE 5.20



LBLP-04 "FR" 16+50.00
NOTE 6.21

REVISIONS

NO. DATE

PREPARED BY

LOUIS BERGER

444 East Warm Springs Road, Ste. 118
Las Vegas, Nevada 89119
Phone: 702.735.5832 Fax: 702.407.1305

PREPARED FOR

CITY OF LAS VEGAS

BUD#

18223

DESIGNED BY

LDN

DRAWN BY

FME

CHECKED BY

USD

DATE

6/15/2017

SUBMITTAL STAGE

TITLE

CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

SHEET

LATERAL PROFILES
MAIN LINE PIPE CONNECTIONS

ENGINEER

JEFFREY S. DOLAN

Exp: 12/31/18

CIVIL

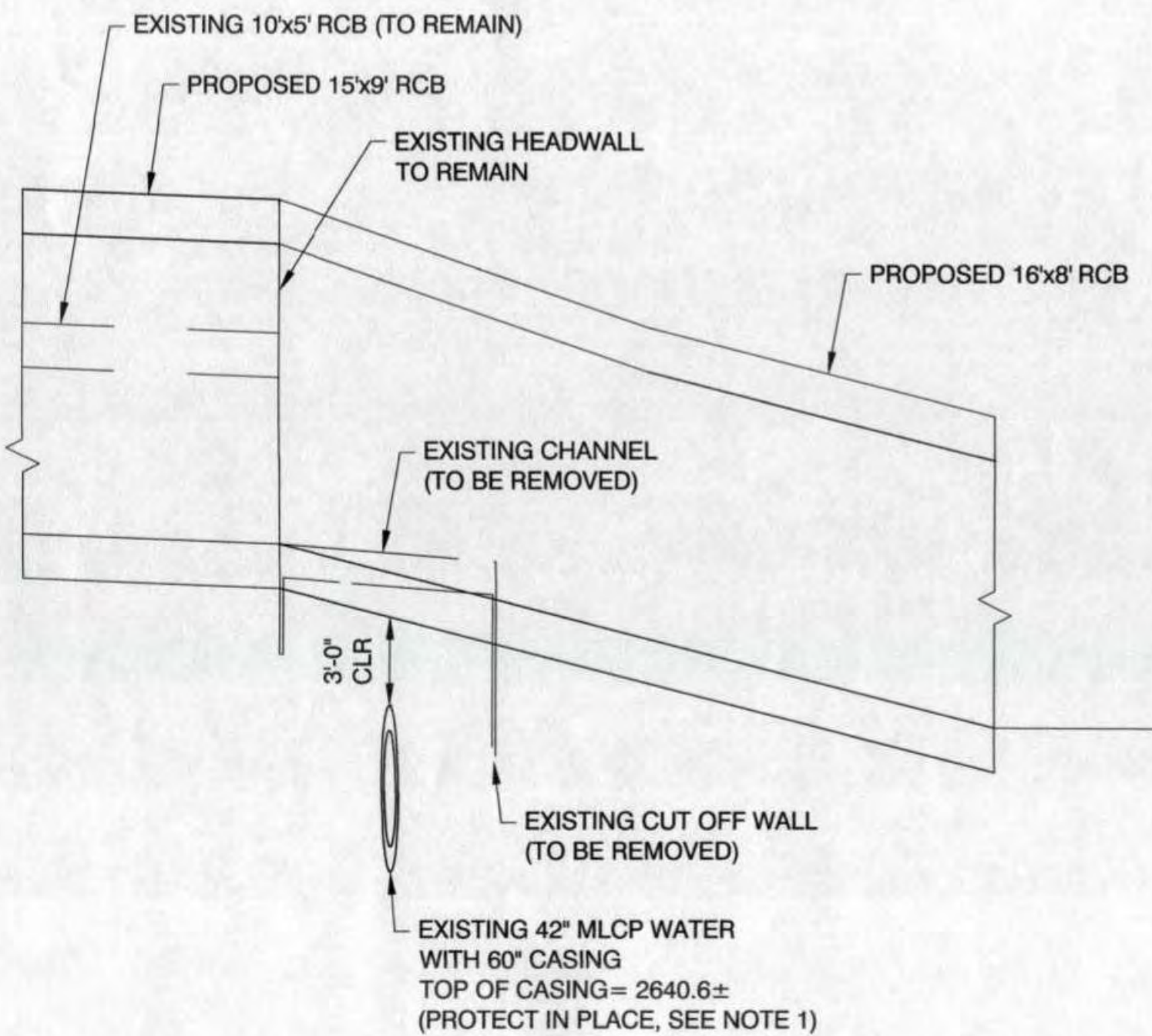
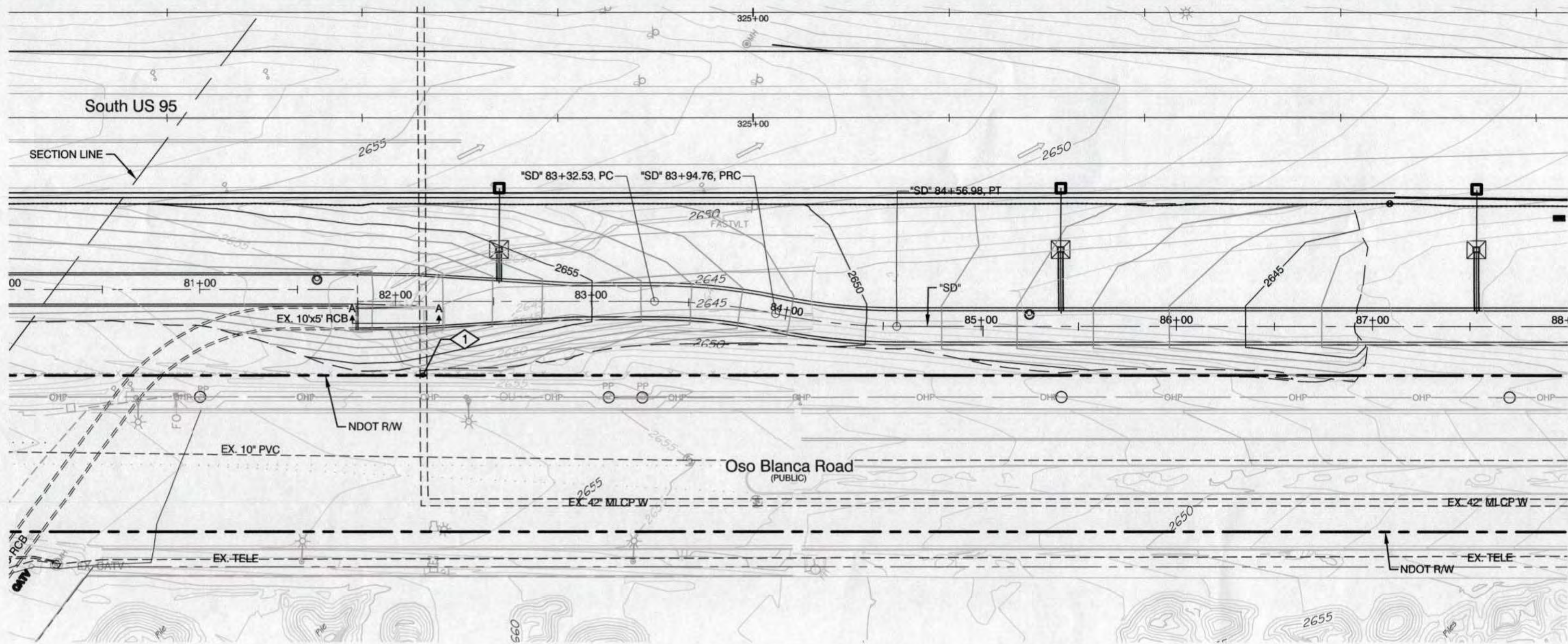
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SHEET

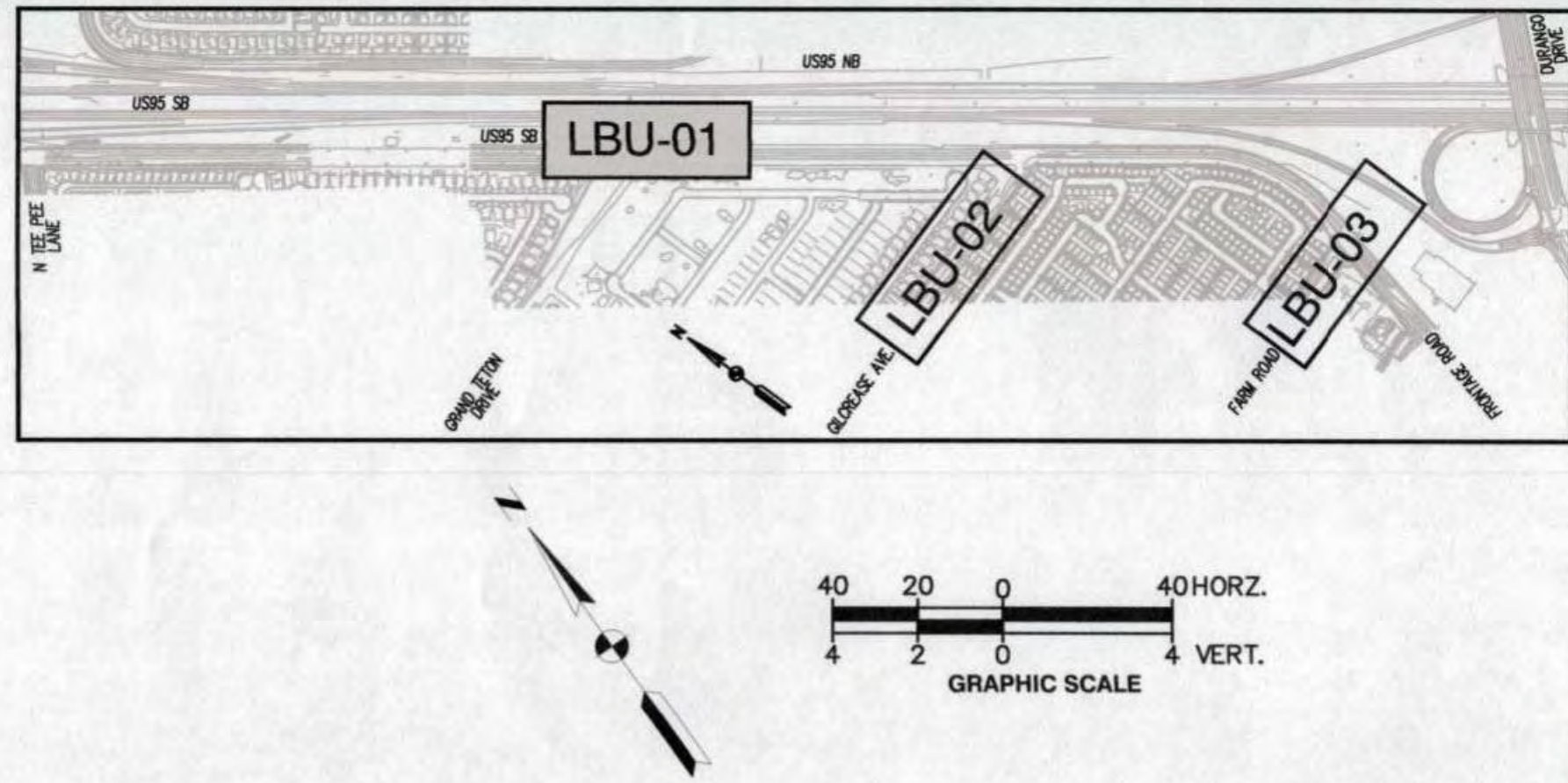
23 OF 62

DRAWING NO.

731-96



SECTION A-A
NTS



PH No.	Utility			Depth to Top (ft)	Top Elev
	Type	Size (inches)	Width (inches)		
1	Water	42	42		2640.6

NOTE:

1. IN AREAS WHERE THE EXCAVATION IS LESS THAN THREE FEET (3 FT) FROM THE TOP ON THE LVWD 42" TRANSMISSION WATER MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT, WILL BE ALLOWED WITHIN 10 FEET (10 FT) OF THE TRANSMISSION WATER MAIN. IN THESE AREAS, CONTRACTOR TO PLACE A CONCRETE BARRIER, I.E. JERSEY RAIL, TO IDENTIFY THE "NO EQUIPMENT ZONE"

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

APPROVED FOR CONSTRUCTION
DATE: 6/22/17
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT # 125067

PREPARED BY

Louis Berger
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6692 Fax: 702.407.1305

PREPARED FOR

CITY OF LAS VEGAS

BID#

60223

DESIGNED BY:

LDN

DRAWN BY:

FME

CHECKED BY:

JSD

DATE:

6/15/2017

SUBMITTAL STAGE:

TITLE

CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE

SHEET

UTILITY PLAN

ENGINEER

JEFFREY S. DOUGLAS
Exp.: 12/31/18
CIVIL

SHEET

LBU-01

24 OF 62

DRAWING NO. 731-96

PROJ. #

125067

AGR

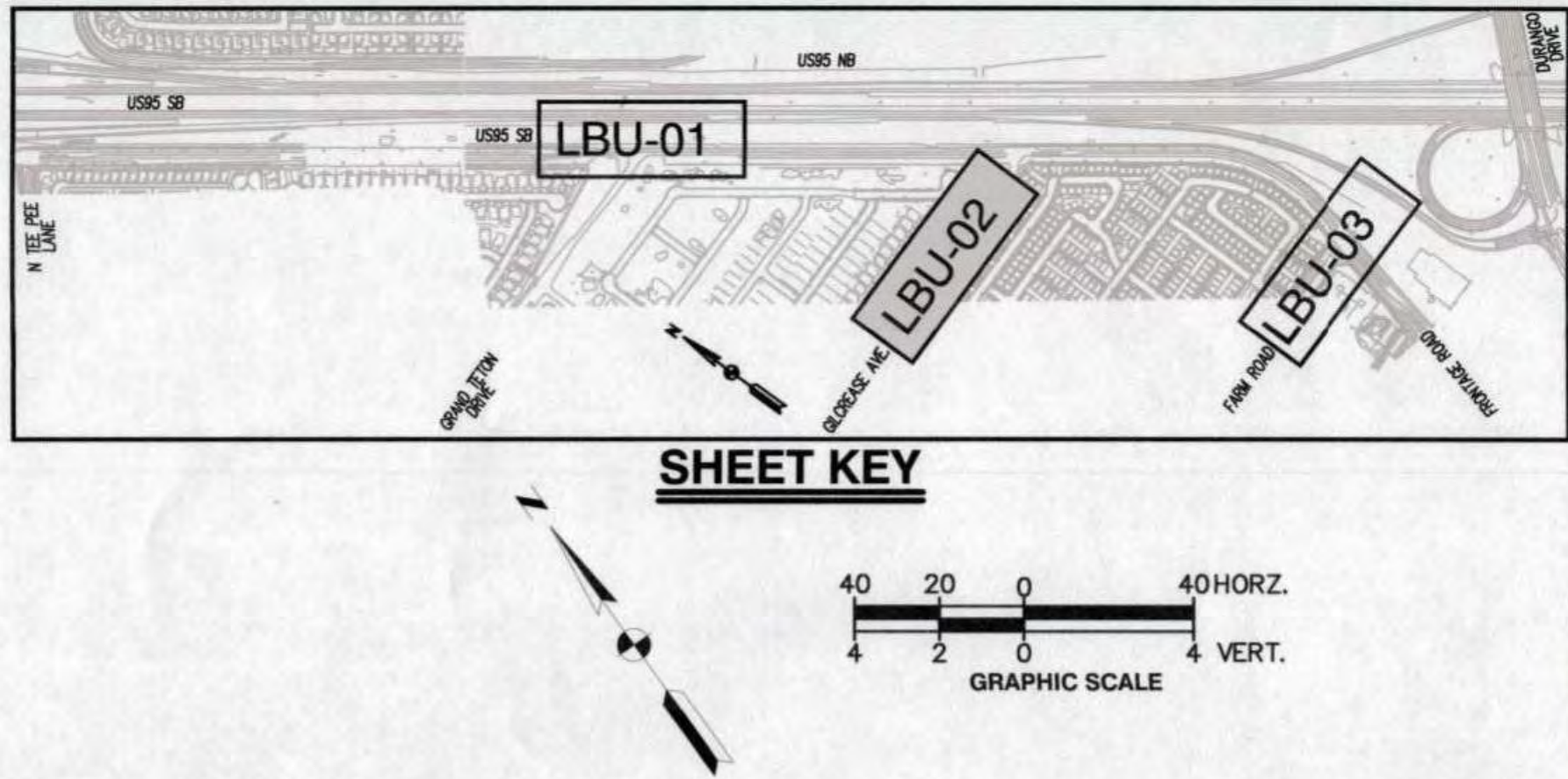
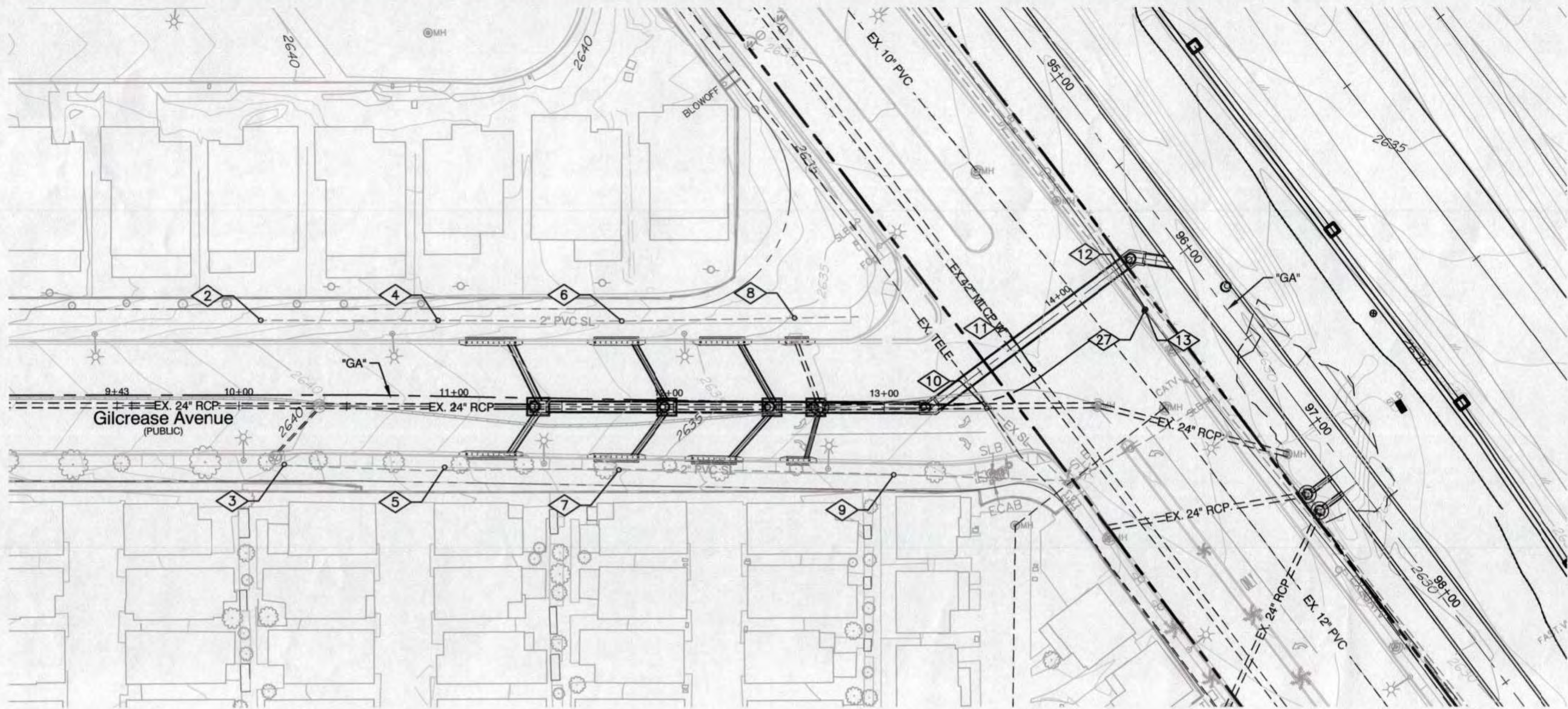
116389

QS

125-17-SW

REVISIONS

NO.	DATE	REVISIONS
-----	------	-----------



PH No.	Utility			Depth to Top (ft)	Top Elev
	Type	Size (inches)	Width (inches)		
2	Electric	2	2	4.01	2637.8
3a	Irrigation	2	2	0.33	2640.0
3b	(2) Plastic	1	1	0.25	2640.1
3c	Electric	2	2	3.84	2636.5
4	Electric	2	2	3.68	2635.8
5a	Direct Buried Cable	1	1	<.58	2637.7
5b	Irrigation	2	2	0.58	2637.7
5c	Electric	2	2	3.83	2634.5
6	Electric	2	2	3.95	2633.3
7a	Direct Buried Cable	.5	.5	<1	2635.1
7b	Irrigation	2	2	<1	2635.1
7c	Electric	2	2	4.37	2631.7
8	Electric	2	2	2.37	2632.6
9	Electric	2	2	3.40	2630.0
10a	(3) Fiber Optic	2	4	2.14	2630.5
10b	(4) Electric	3,4	16	2.16	2630.4
11	Water	42	42	11.17	2621.8
12	(2) Electric	3	3	4.56	2628.1
13	Electric	0	29	5.25	2627.4
27	Electric	2	2	2.24	2630.5

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/22/17 PROJECT# 125067

CALL BEFORE CONSTRUCTION		
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

PREPARED FOR
CITY OF LAS VEGAS

DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

DATE: 6/15/2017
SUBMITTAL STAGE:

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

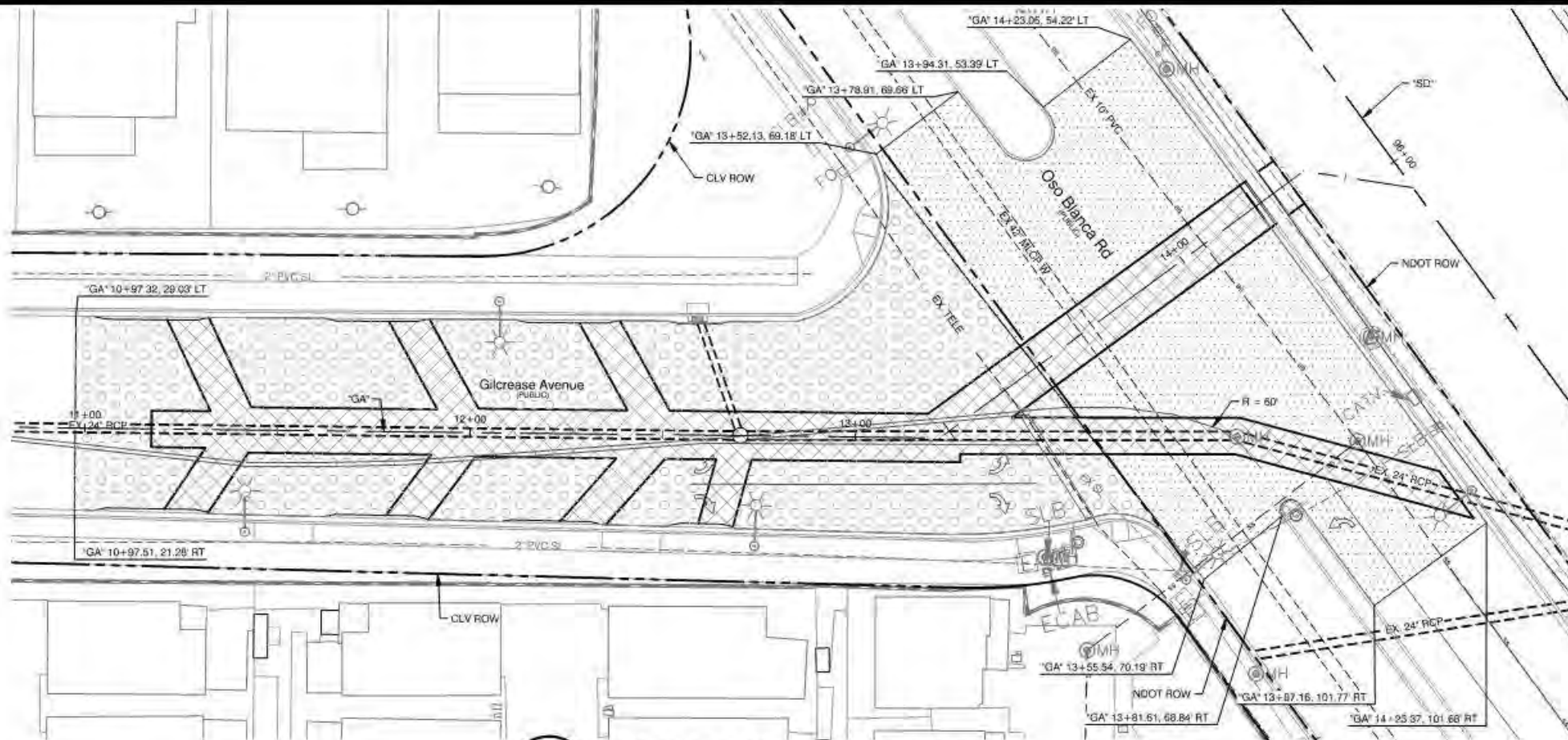
SHEET
UTILITY PLAN

PROFESSIONAL ENGINEER
JEFFREY S. DOUGLAS
Exp.: 12/31/18
CIVIL
No. 18417

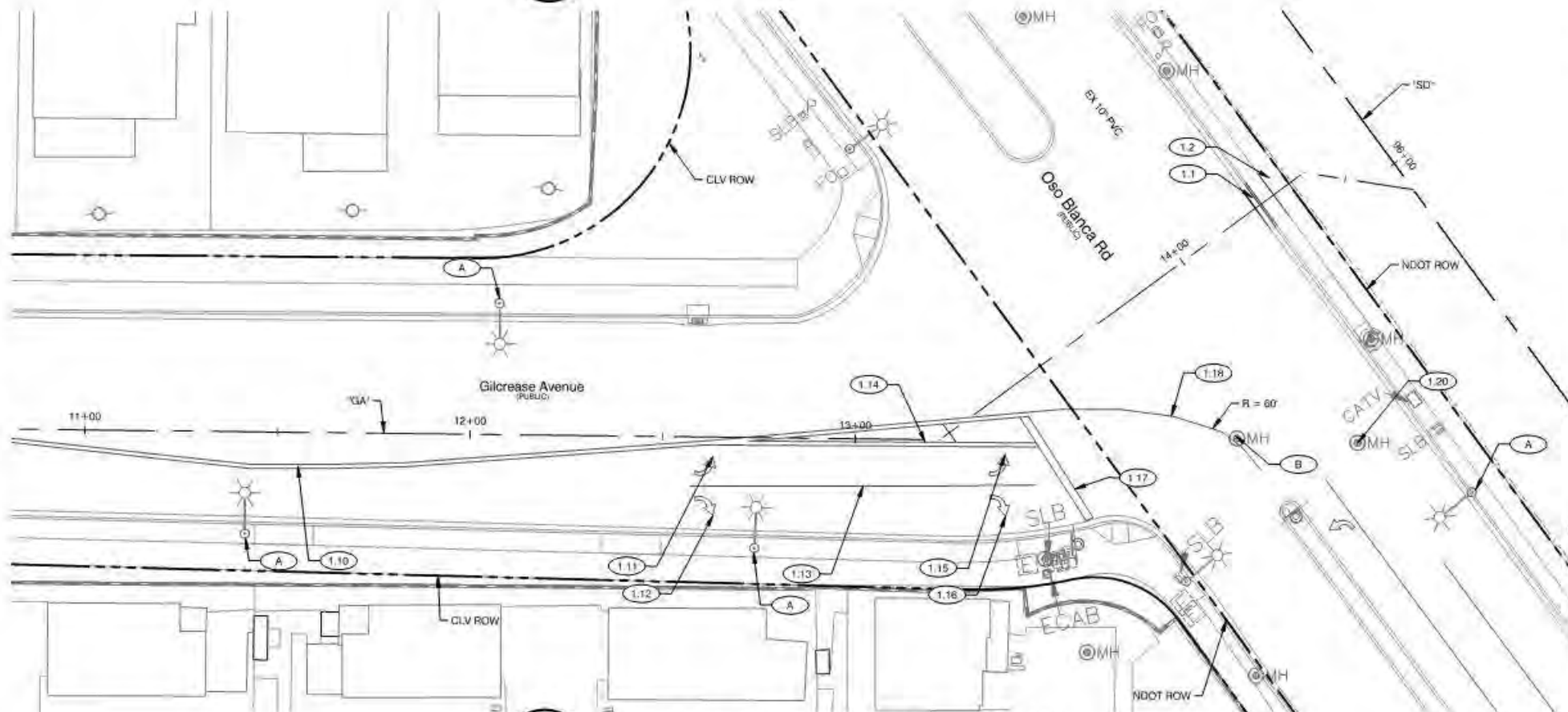
LBU-02
25 OF 62
DRAWING NO.
731-96

LOUIS BERGER
444 East Warm Springs Road, Suite 118
Las Vegas, NV 89119
Phone: 702.735.6632 Fax: 702.407.1305

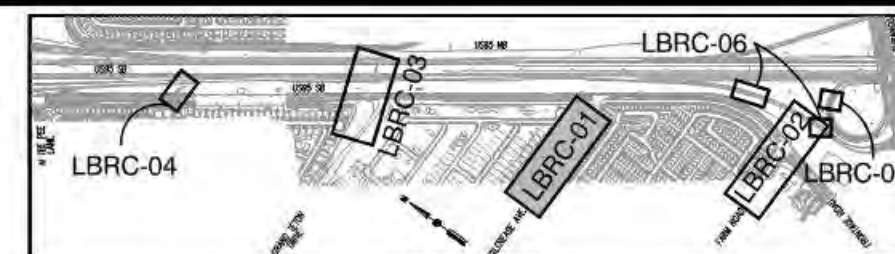
REVISIONS
NO. DATE



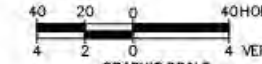
1 GILCREASE AVENUE PAVING PLAN
LBRC-01



2 GILCREASE AVENUE STRIPING PLAN
LBRC-01



SHEET KEY



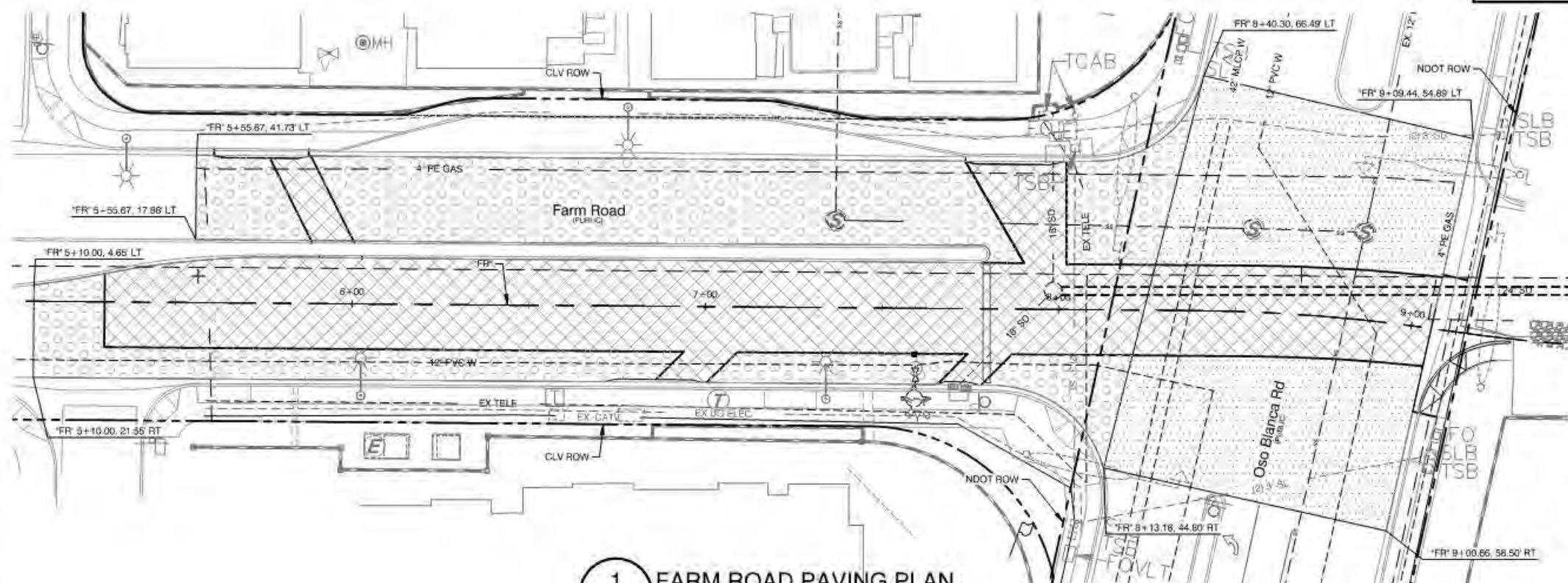
LEGEND

- LIMITS OF TRENCH
- LIMITS OF 2" MILL AND OVERLAY
- LIMITS OF 3/4" MILL AND OVERLAY

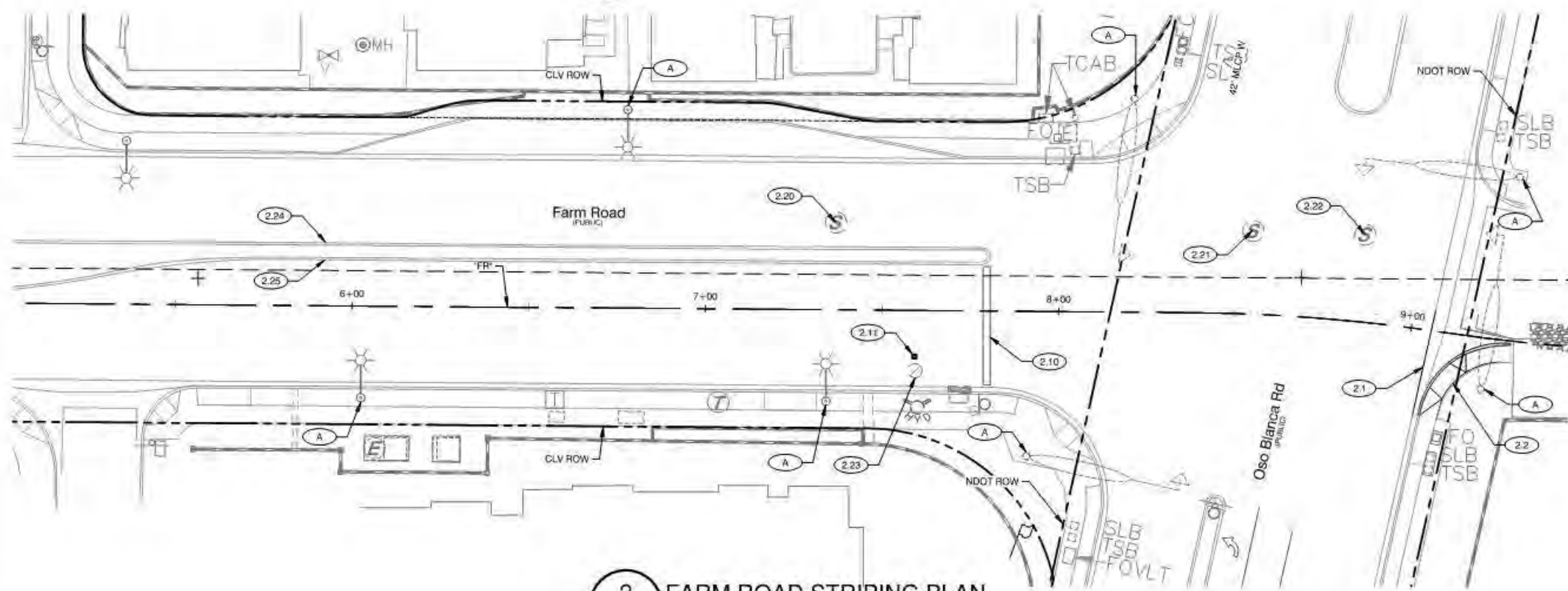
CONSTRUCTION NOTES

- 1.1 "GA" 14+25.40, 6.83' LT TO "GA" 14+25.40, 6.83' RT REMOVE AND RECONSTRUCT "L" TYPE CURB AND GUTTER PER USDCCA DWG No. 216.
- 1.2 "GA" 14+34.26, 6.83' LT TO "GA" 14+34.26, 6.83' RT REMOVE AND RECONSTRUCT DECORATIVE SIDEWALK PER DETAIL 3/LBRC-03.
- 1.10 "GA" 10+97.45, 5.08' RT TO "GA" 13+44.02, 8.68' RT REMOVE AND REPLACE TYPE 1 CENTERLINE PER USDCCA DWG No. 244.
- 1.11 "GA" 12+63.11, 5.02' RT REMOVE AND REPLACE LEFT ARROW SYMBOL PER USDCCA DWG No. 246.
- 1.12 "GA" 12+63.26, 20.31' RT REMOVE AND REPLACE RIGHT ARROW SYMBOL PER USDCCA DWG No. 246.
- 1.13 "GA" 12+57.24, 12.72' RT TO "GA" 13+35.10, 24.25' RT REMOVE AND REPLACE STORAGE LANE LINE PER USDCCA DWG No. 246.
- 1.14 "GA" 12+72.64, 0.94' RT TO "GA" 13+41.57, 16.05' RT REMOVE AND REPLACE TYPE 1 CENTERLINE PER USDCCA DWG No. 244.
- 1.15 "GA" 13+33.29, 13.14' RT REMOVE AND REPLACE LEFT ARROW SYMBOL USDCCA DWG No. 246.
- 1.16 "GA" 13+23.99, 26.08' RT REMOVE AND REPLACE RIGHT ARROW SYMBOL USDCCA DWG No. 246.
- 1.17 "GA" 13+44.02, 8.68' RT TO "GA" 13+42.05, 39.79' RT REMOVE AND REPLACE STOP BAR.
- 1.18 "GA" 13+44.31, 7.62' RT TO "GA" 13+84.52, 55.58' RT REMOVE AND REPLACE CAT TRACK PER DETAIL 2/LBRC-03.
- 1.19 "GA" 14+34.98, 6.83' LT TO "GA" 14+35.10, 6.83' RT REMOVE AND REPLACE CHAINLINK FENCE PER NDOT STANDARD PLAN R-6.3.2.1.
- 1.20 "GA" 14+08.87, 64.82' RT ADJUST MANHOLE TO GRADE.
- A EXISTING STREETLIGHT (PROTECT IN PLACE)
- B EXISTING MANHOLE TO BE REMOVED (SEE SHEET LBSD-08)

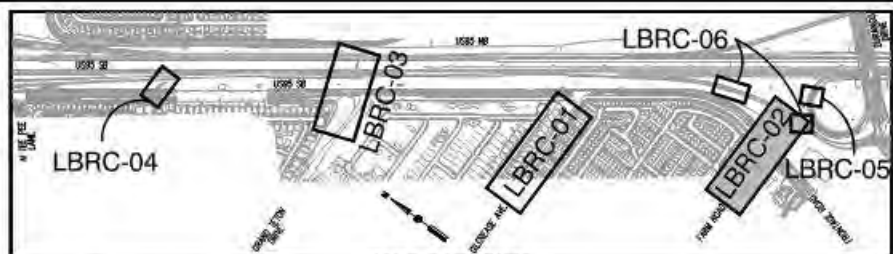
 Louis Berger 444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6832 Fax: 702.407.1305	
PREPARED BY: [Blank] DESIGNED BY: LON DRAWN BY: FME CHECKED BY: JSD	NO. DATE [Blank] [Blank]
CITY OF LAS VEGAS CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE	ROADWAY PLAN "GA" 9+00.00 TO "GA" 15+00.00
	SHEET LBRC-01 27 OF 62 DRAWING NO. 731-96



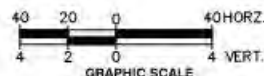
1 FARM ROAD PAVING PLAN
LBRC-02



2 FARM ROAD STRIPING PLAN
LBRC-02



SHEET KEY



LEGEND

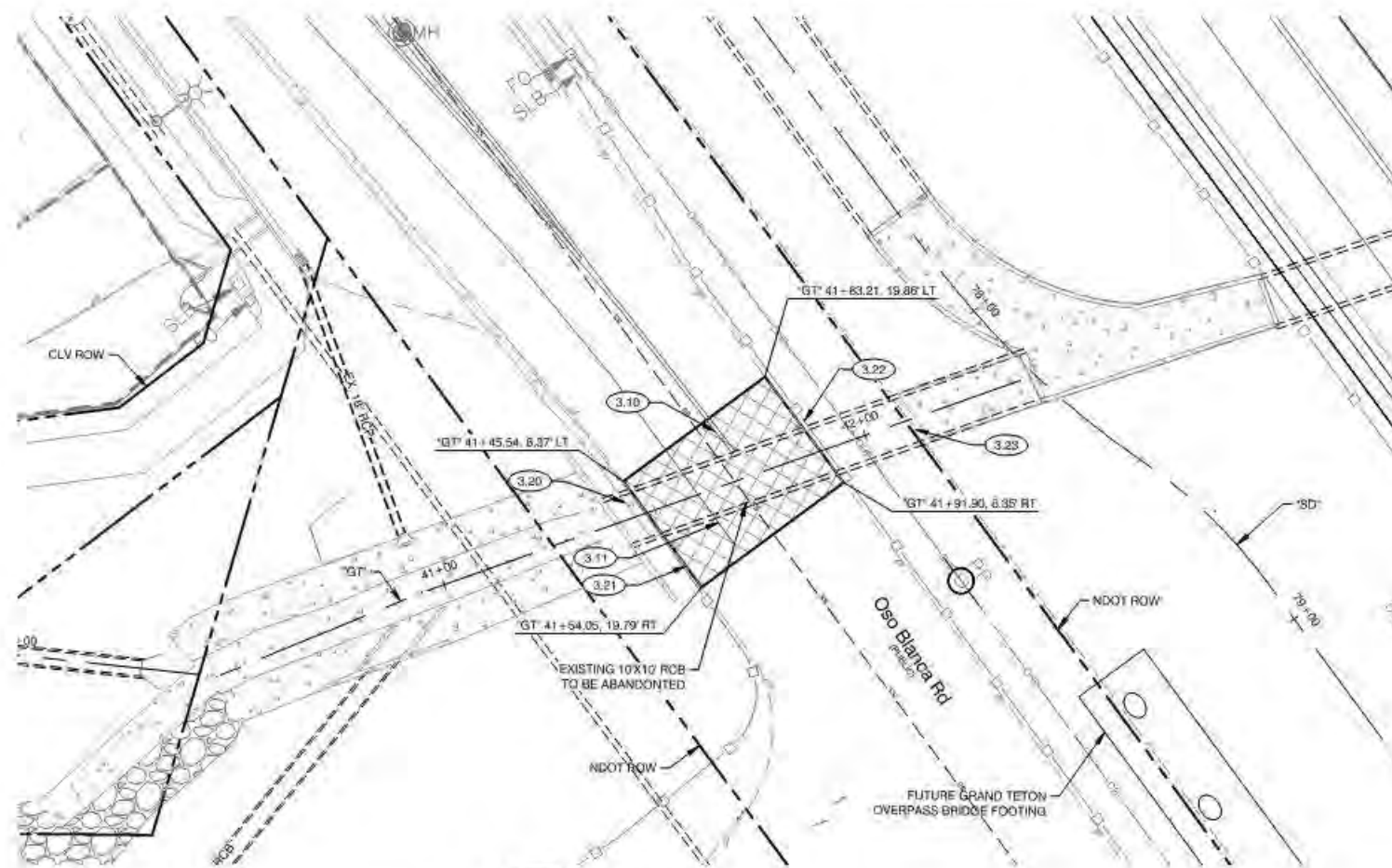
- LIMITS OF TRENCH
- LIMITS OF 2" MILL AND OVERLAY
- LIMITS OF 3/4" MILL AND OVERLAY

CONSTRUCTION NOTES

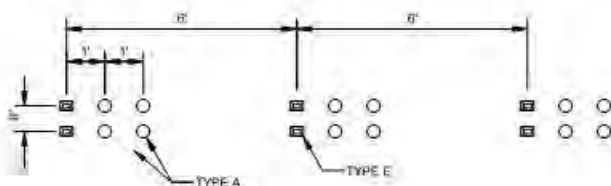
- 2.1 "FR" 9+03.78, 24.06' RT TO "FR" 9+06.85, 15.50' LT REMOVE AND RECONSTRUCT CROSS GUTTER PER USDCCA DWG No. 228.
- 2.2 "FR" 9+10.77, 24.57' RT TO "FR" 9+29.29, 6.07' RT REMOVE AND RECONSTRUCT SIDEWALK RAMP CASE PER USDCCA DWG No. 235.
- 2.10 "FR" 7+79.50, 12.61' LT TO "FR" 7+79.77, 20.91' RT REMOVE AND REPLACE STOP BAR.
- 2.11 "FR" 7+59.31, 13.01' RT INSTALL BLUE REFLECTIVE MARKER.
- 2.20 "FR" 7+36.78, 24.75' LT ADJUST MANHOLE TO GRADE.
- 2.21 "FR" 8+53.92, 23.62' LT ADJUST MANHOLE TO GRADE.
- 2.22 "FR" 8+84.33, 24.75' LT ADJUST MANHOLE TO GRADE.
- 2.23 "FR" 7+59.58, 18.79' RT ADJUST VALVE COVER TO GRADE PER UDACS PLATE No. 39.
- 2.24 "FR" 5+88.33, 17.82' LT TO "FR" 6+00.04, 17.81' LT REMOVE AND REPLACE "A" CURB.
- 2.25 "FR" 5+90.76, 13.65' LT TO "FR" 6+02.74, 13.64' LT REMOVE AND REPLACE "A" CURB.
- A EXISTING STREETLIGHT AND/OR TRAFFIC SIGNAL ARM (PROTECT IN PLACE)

LOUIS BERGER 444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6812 - Fax: 702.407.1305	
PREPARED BY: [Signature] DESIGNED BY: LDN DRAWN BY: FME CHECKED BY: JSD	NO. DATE REVISIONS
CITY OF LAS VEGAS CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE ROADWAY PLAN "FR" 5+50.00 TO "FR" 9+50.00	SHEET LBRC-02 28 OF 62 DRAWING NO. 731-96

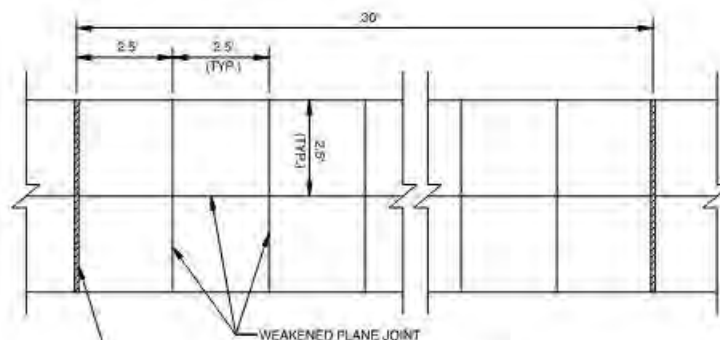




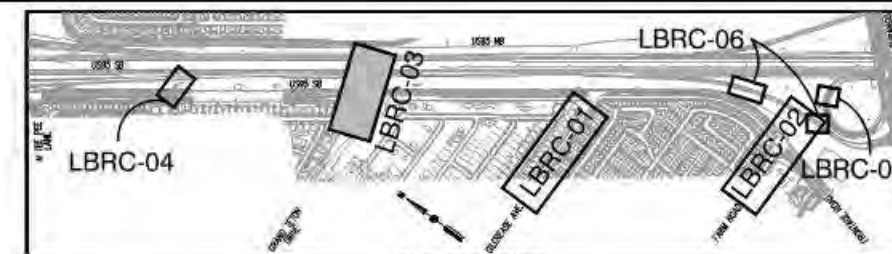
1 "GT" PAVING PLAN
LBRC-03



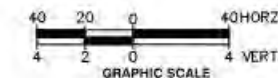
2 CAT TRACK
LBRC-03 NTS



3 DECORATIVE SIDEWALK
LBRC-03 NTS



SHEET KEY



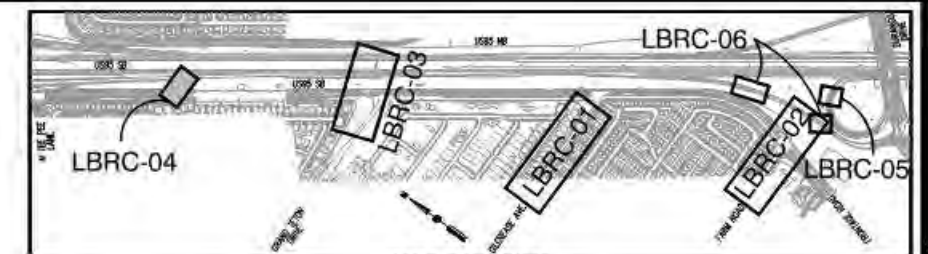
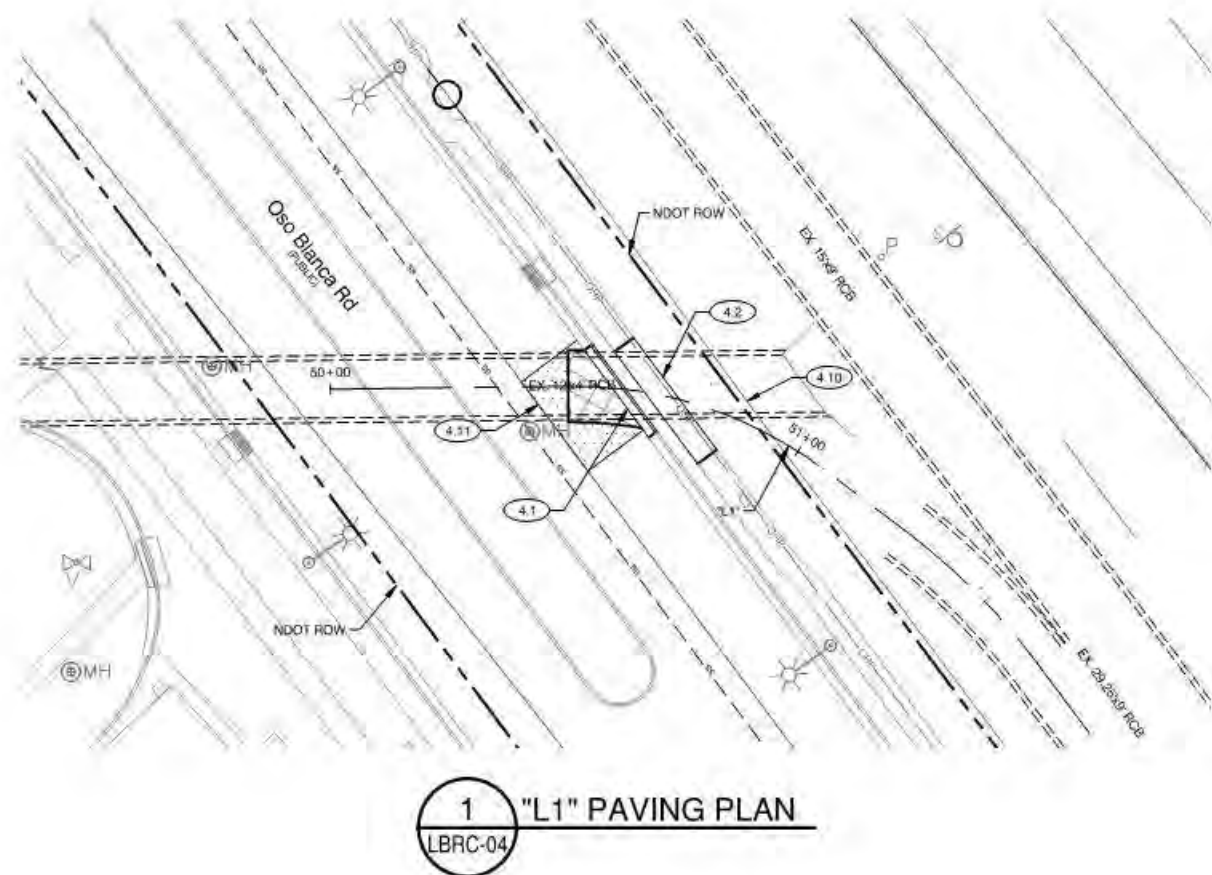
LEGEND

LIMITS OF TRENCH

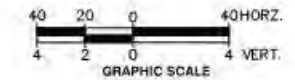
CONSTRUCTION NOTES

- 1. "GT" 41+67.97, 15.22' LT TO "GT" 41+70.78, 6.84' LT REMOVE AND REPLACE DOUBLE SOLID YELLOW LINE PER NDOT STANDARD PLAN T-37.1.1.
- 2. "GT" 41+56.76, 11.79' LT TO "GT" 41+64.26, 13.41' RT REMOVE AND REPLACE 8" SOLID WHITE LINE.
- 3. "GT" 41+45.93, 5.37' LT TO "GT" 41+49.22, 5.50' RT REMOVE AND RECONSTRUCT CONCRETE BARRIER RAIL (TYPE A) PER NDOT STANDARD PLAN R-8.6.1.
- 4. "GT" 41+49.22, 5.50' RT TO "GT" 41+53.31, 19.86' RT REMOVE AND RECONSTRUCT GUARDRAIL PER NDOT STANDARD PLAN R-8.4.1.
- 5. "GT" 41+88.88, 5.36' LT TO "GT" 41+92.14, 5.35' RT REMOVE AND RECONSTRUCT GUARDRAIL PER NDOT STANDARD PLAN R-8.4.1.
- 6. "GT" 42+08.57, 5.36' LT TO "GT" 42+11.05, 5.35' RT REMOVE AND REPLACE CHAINLINK FENCE PER NDOT STANDARD PLAN R-6.3.2.1.

LOUIS BERGER 444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6832 Fax: 702.407.1305	
CITY OF LAS VEGAS PREPARED FOR H# 60223	DESIGNED BY: LDN DRAWN BY: FME CHECKED BY: JSD DATE: 6/15/2017 SUBMITTAL STAGE
CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE SHEET	ROADWAY PLAN "GT" 40+00.00 TO "GT" 43+00.00 SHEET
LBRC-03 29 OF 62 DRAWING NO. 731-96	



SHEET KEY



LEGEND

-  LIMITS OF TRENCH
-  LIMITS OF 3/4" MILL AND OVERLAY

CONSTRUCTION NOTES

- | | | |
|------|--|--|
| 4.1 | "L1" 50+54.33, 8.86' LT TO
"L1" 50+69.82, 7.50' RT | REMOVE AND RECONSTRUCT "L" TYPE CURB AND GUTTER
PER USDOCA DWG No. 216. |
| 4.2 | "L1" 50+58.54, 7.50' LT TO
"L1" 50+84.10, 7.50' RT | REMOVE AND RECONSTRUCT SIDEWALK PER USDOCA DWG
No. 234. |
| 4.10 | "L1" 50+85.54, 8.00' LT TO
"L1" 51+16.45, 8.00' RT | REMOVE AND REPLACE CHAINLINK FENCE PER NDOT
STANDARD PLAN R-6.3.2.1. |
| 4.11 | "L1" 50+39.81, 1.05' LT TO
"L1" 50+54.41, 17.74' RT | REMOVE AND REPLACE BROKEN WHITE LINE PER NDOT
STANDARD PLAN T-37.1.1. |

PREPARED BY

PREPARED FOR
CITY OF LAS VEGAS

Item #	60223	BID #
--------	-------	-------

DATE: 6/15/2017	DESIGNED BY: LDN
-----------------	------------------

SUBMITTAL STAGE: _____ DRAWN BY: _____ FINE _____

CHECKED BY: JSD

TITLE
CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

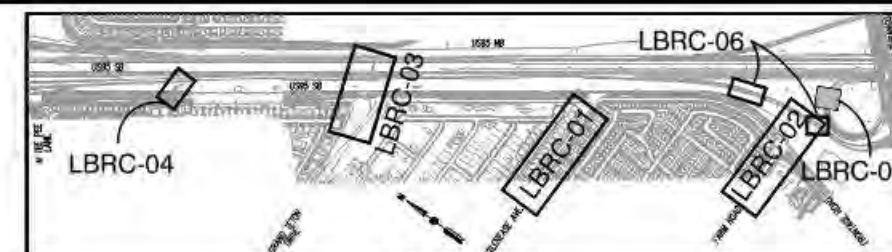
ROADWAY PLAN
"L1" 50+00.00 TO "L1" 51+00.00



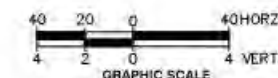
SHEET
LBRC-04
30 OF 62
DRAWING NO.
731-96

Louis Berger
614 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6632 • Fax: 702.407.1305

[illegible]



SHEET KEY

[illegible]

Louis Berger

404 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.735.6632 Fax: 702.407.1305

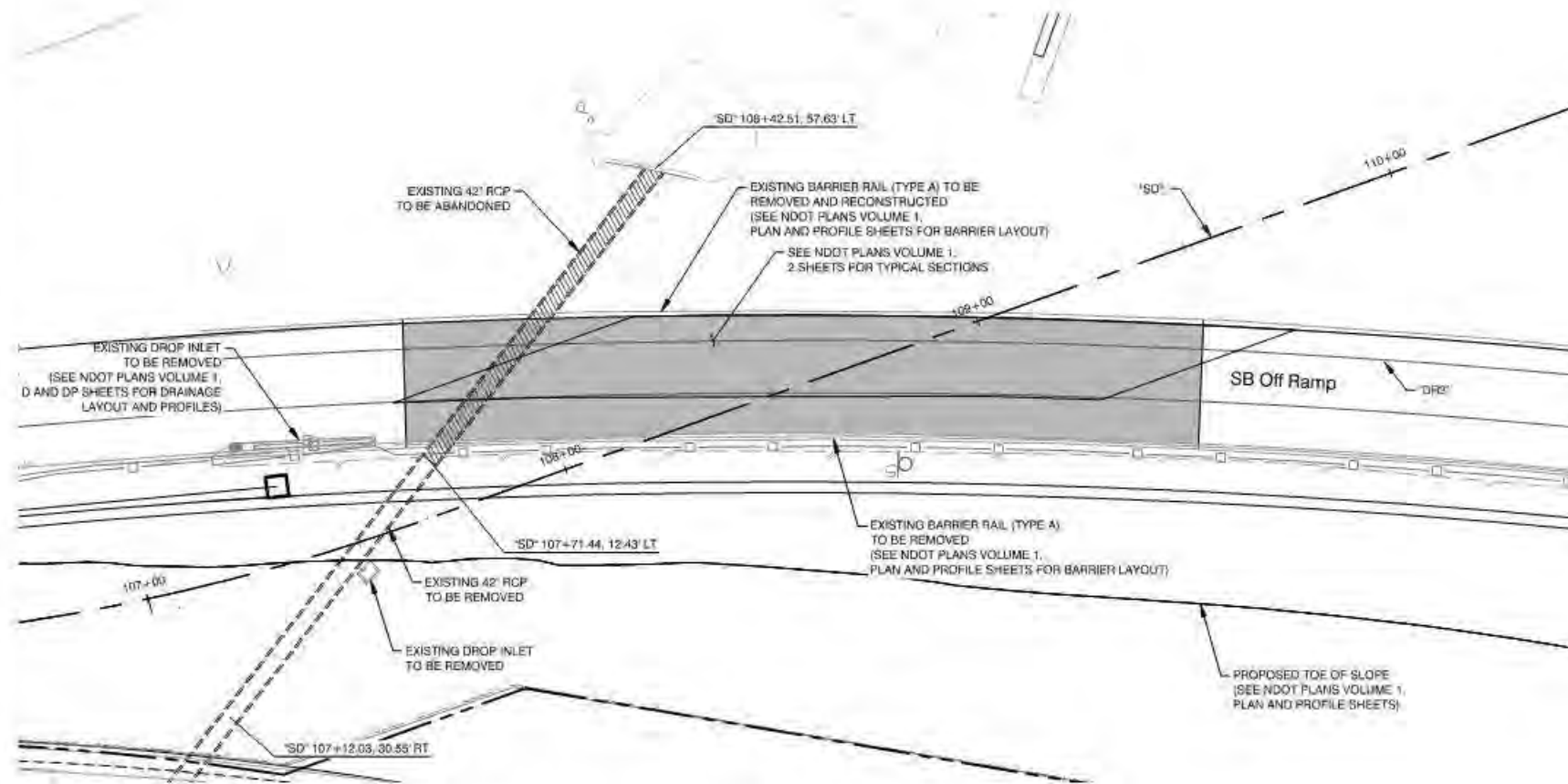
PREPARED FOR:	BID#	DESIGNED BY:	DRAWN BY:	CHECKED BY:
CITY OF LAS VEGAS	160223	LON	FME	USD
SUBMITTAL STAGE:				

TITLE: CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE

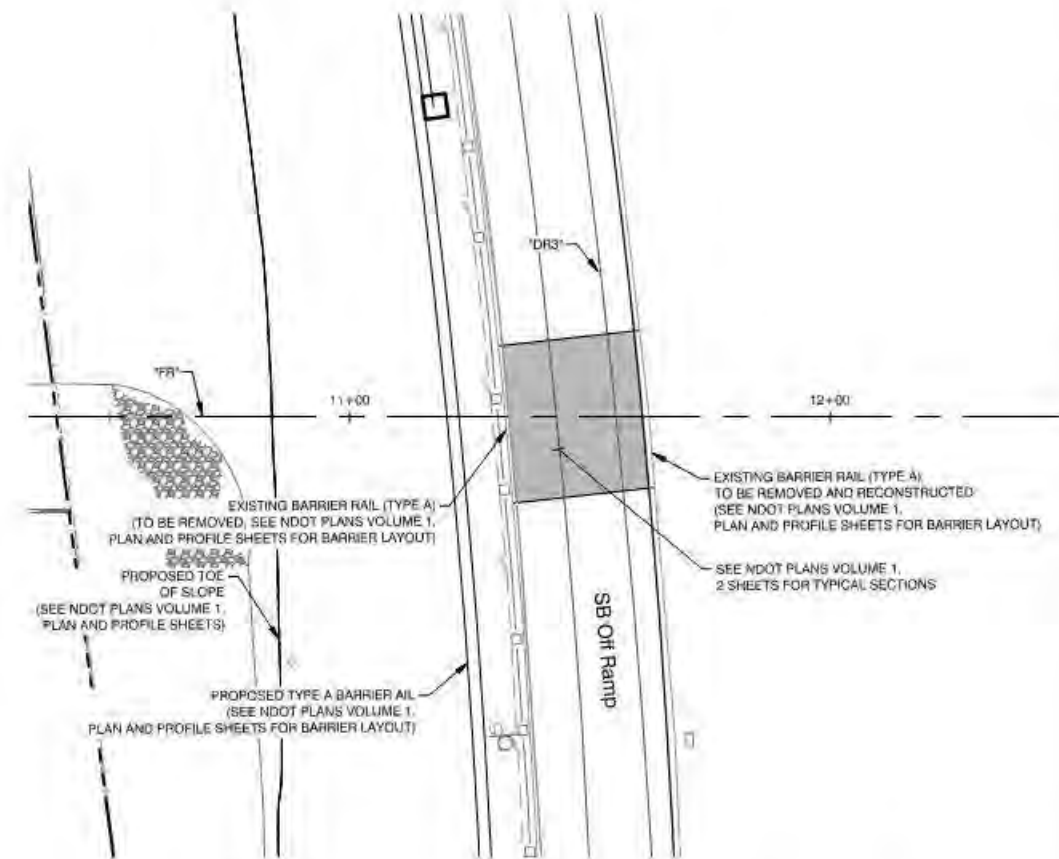
SHEET: "FR"/"SD" RCB SOUTHBOUND
ON RAMP PAVEMENT PATCH



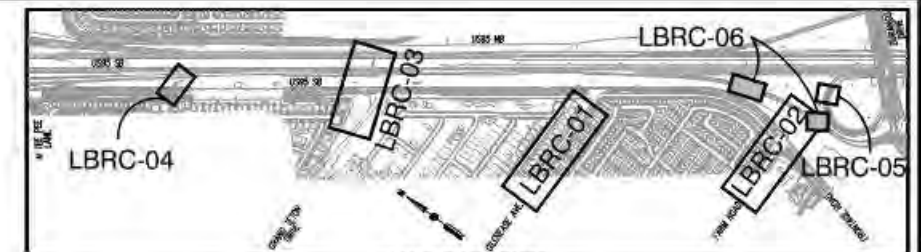
SHEET
LBRC-05
31 OF 62
DRAWING NO.
731-96



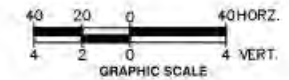
1 SB OFF RAMP @ "SD" ROADWAY PLAN
LBRC-06



2 SB ON RAMP @ "FR" ROADWAY PLAN
LBRC-06



SHEET KEY



PREPARED BY: **Louis Berger**
444 East Warm Springs Road, Ste 118
Las Vegas, Nevada 89119
Phone: 702.736.6832 - Fax: 702.407.1305

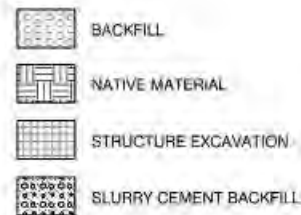
NO.	DATE	REVISIONS

CITY OF LAS VEGAS	
DESIGNED BY: LDN	DRAWN BY: FME
CHECKED BY: JSD	
DATE: 6/15/2017	SUBMITTAL STAGE
BID# 68223	

CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE	
"FR"/"SD" RCB SOUTHBOUND OFF RAMP PAVEMENT PATCH	
TITLE	SHEET

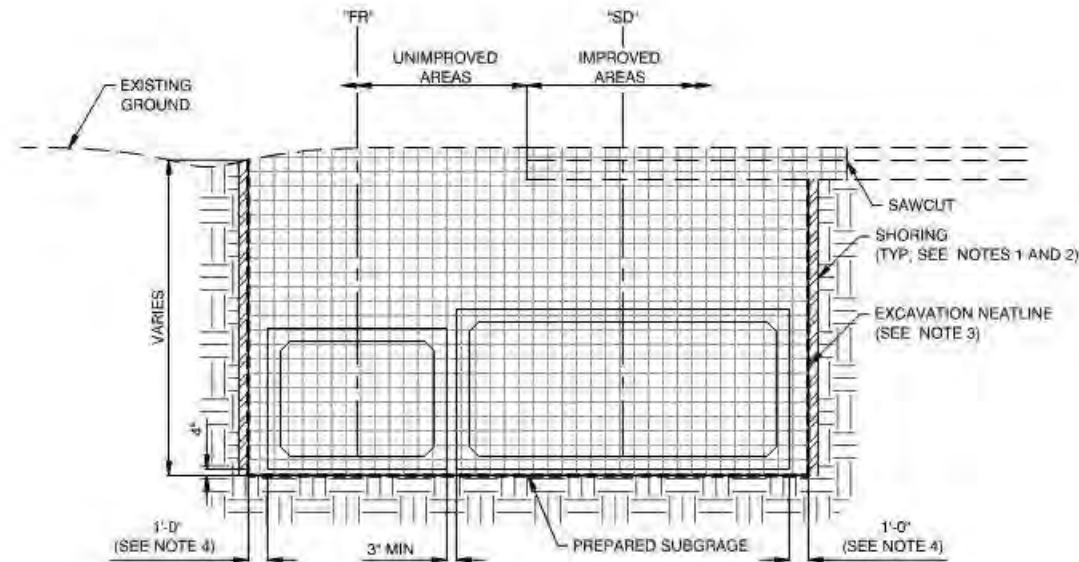


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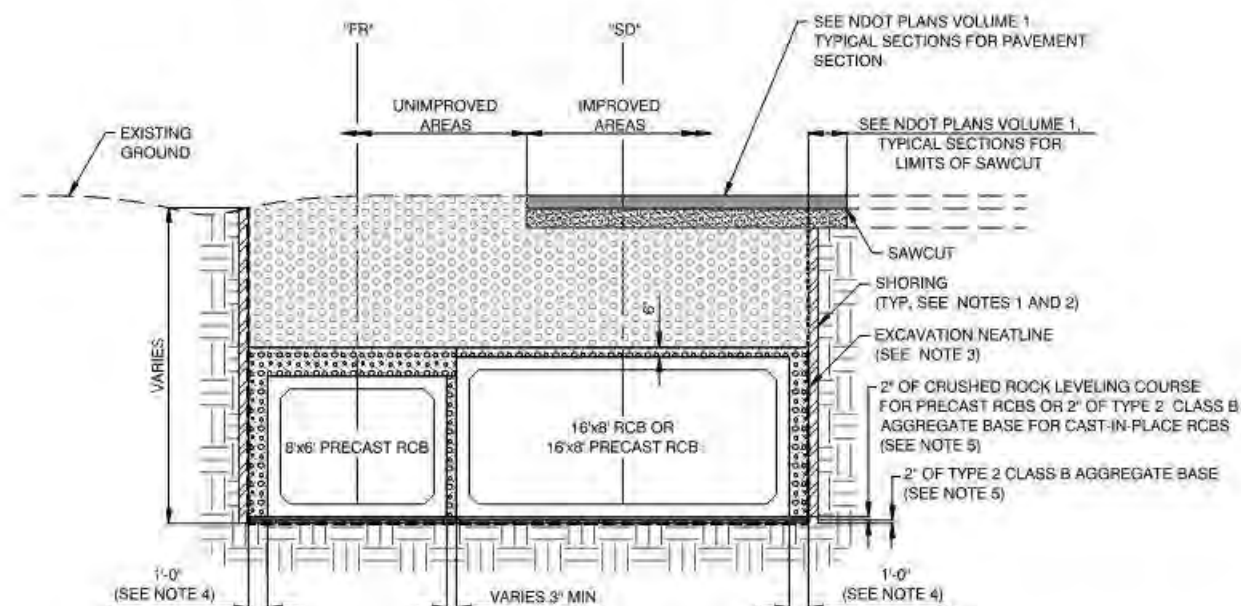


NOTES:

1. TRENCH WALLS SHALL BE APPROPRIATELY SHORED PER OSHA REQUIREMENTS.
2. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION MADE BEYOND THE INSIDE FACE OF SHORING SHOWN ABOVE.
3. EXCAVATION NEATLINE FOR PAYMENT OF STRUCTURE EXCAVATION IS INSIDE FACE OF SHORING AND SUBGRADE.
4. 6" MINIMUM IS ALLOWABLE FOR PRECAST RCB.
5. TYPE 2 CLASS B AGGREGATE BASE AND CRUSHED ROCK USED FOR BEDDING SHALL BE PAID FOR AS GRANULAR BACKFILL.



1 DUAL RCB AS CONSTRUCTED SECTION
LBDT-01 NTS "SD" 113+50.00 TO "SD" 116+82.44
"FR" 13+50.00 TO "FR" 16+82.44



2 DUAL RCB TYPICAL SECTION OF IMPROVEMENT
LBDT-01 NTS "SD" 113+50.00 TO "SD" 116+82.44
"FR" 13+50.00 TO "FR" 16+82.44

NOTES:

1. DESIGN SPECIFICATIONS: "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" 7TH EDITION 2017 WITH REVISIONS TO DATE.
2. CONTRACT SPECIFICATIONS: STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2014". EXCEPT AS NOTED BELOW AND IN THE SPECIAL PROVISIONS FOR THIS CONTRACT.
3. ALL CONCRETE FOR REINFORCED CONCRETE BOX CULVERTS (PRECAST AND CAST-IN-PLACE), CONFLUENCE STRUCTURES AND TRANSITION STRUCTURES, SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI. ALL OTHER CONCRETE SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI. ALL CONCRETE SHALL HAVE TYPE V CEMENT. ALL CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED TO 1/4" AMPLITUDE, UNLESS OTHERWISE NOTED ALL REINFORCING BARS SHALL HAVE 2" CLEAR CONCRETE COVER. CHAMFER ALL EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
4. THE INVERT SLAB FOR ALL REINFORCED CONCRETE BOX CULVERTS, CONFLUENCE STRUCTURES, AND TRANSITION STRUCTURES SHALL BE CLASS A CONCRETE MODIFIED. CLASS A CONCRETE MODIFIED FOR THE WALLS, PIERS AND TOP SLAB MAY BE SUBSTITUTED WITH CLASS D CONCRETE AT NO ADDITIONAL COST.
5. CONCRETE CONSTRUCTION JOINTS DESIGNATED AS A "PERMISSIBLE JOINT" OR AS AN "OPTIONAL CONSTRUCTION JOINT" MAY BE INCORPORATED INTO THE CONSTRUCTION AT THE CONTRACTORS OPTION. JOINTS DESIGNATED AS A "CONSTRUCTION JOINT" ARE CONSIDERED MANDATORY AND SHALL BE INCORPORATED INTO THE CONSTRUCTION UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.
6. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, DEFORMED. (WHEN CONSIDERED AS BARS TO CONTROL TEMPERATURE, SHRINKAGE AND DISTRIBUTION STRESSES BY THE ENGINEER, MAY BE ADJUSTED BY THE CONTRACTOR UPON CONCURRENCE AND APPROVAL OF THE ENGINEER.) DIMENSIONS RELATING TO BAR SPACING ARE CENTER TO CENTER OF BAR.
7. UNLESS OTHERWISE NOTED, THE FOLLOWING TABLE APPLIES TO ALL REINFORCED CONCRETE DRAINAGE STRUCTURES.

BAR SIZE	LAP DISTANCE
#4	2'-0"
#5	2'-4"
#6	2'-9"
#7	3'-6"
#8	4'-7"
#9	5'-10"
#10	7'-4"

8. DEAD LOAD: MAXIMUM COVER WITH EARTH LOAD MODIFICATION FACTOR.
9. ALL STRUCTURES AND THEIR COMPONENTS SUPPORTING TRAFFIC LOADS SHALL BE DESIGNED FOR AASHTO HL-93 LOADING+IMPACT.
10. UNLESS OTHERWISE NOTED ALL STRUCTURAL STEEL PLATES AND SHAPES SHALL BE ASTM A36, GRADE 50 STEEL MAY BE SUBSTITUTED FOR GRADE 36 AT NO ADDITIONAL COST.
11. GEOTECHNICAL DESIGN PARAMETERS:
 - a. ALLOWABLE SOIL BEARING PRESSURE: 2,600 PSF FOR EMBEDMENT DEPTH 12" MINIMUM BELOW ADJACENT FINISH GRADE FOR A WIDTH OF 12" MINIMUM.
 - b. UNIT WEIGHT OF RETAINED SOIL: 145pcf (RCBs)

ACTIVE PCF	RESTRAINED		SURCHARGE
	EARTHQUAKE		
60	Peq TOP 32H	Peq BOTTOM 8H	0.44q

12. PRECAST RCB MANUFACTURER SHALL PROVIDE A LRFR LOAD RATING MEETING NDOT REQUIREMENTS FOR THE 16'x8' BOX LOCATED AT "SD"113+00 TO "SD"114+75

3 GENERAL DRAINAGE STRUCTURE NOTES
LBDT-01 NTS



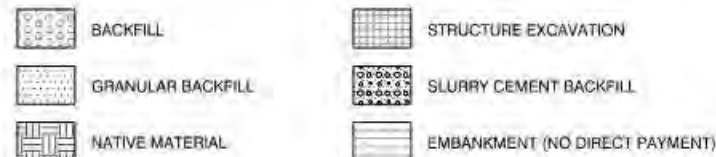
CITY OF LAS VEGAS		BUD#	DESIGNED BY	DATE	DRAWN BY	CHECKED BY
CENTENNIAL PARKWAY CHANNEL WEST		60223	LDN	6/15/2017	FME	USD
DURANGO DRIVE TO GRAND TETON DRIVE						

CENTENNIAL PARKWAY CHANNEL WEST		DURANGO DRIVE TO GRAND TETON DRIVE	
SHEET		TYPICAL DETAILS	



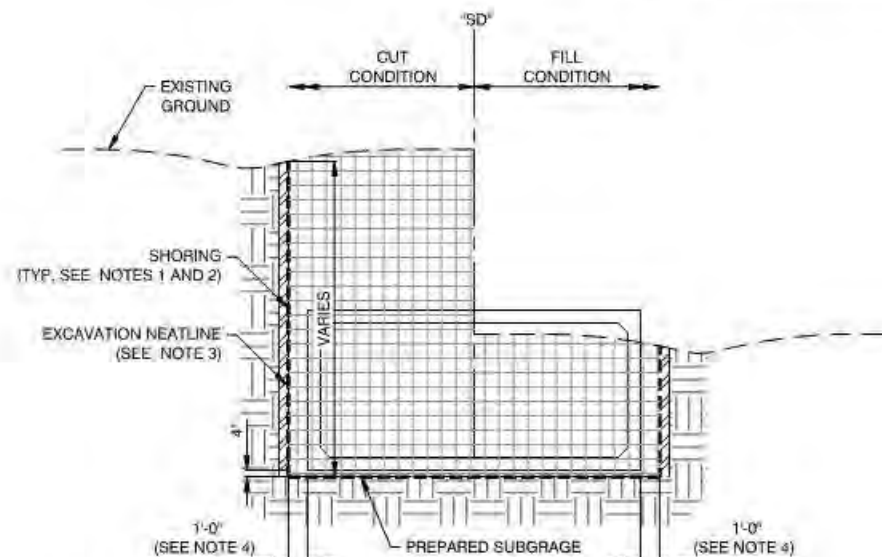
SHEET	LBDT-01
33 OF 62	
DRAWING NO.	731-96

LEGEND

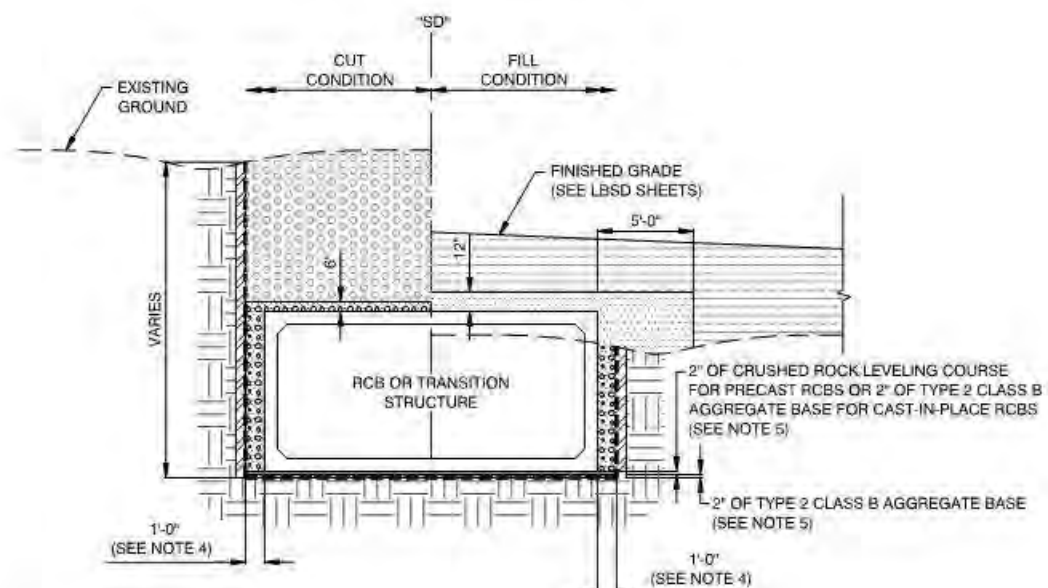


NOTES:

1. TRENCH WALLS SHALL BE APPROPRIATELY SHORED PER OSHA REQUIREMENTS.
2. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION MADE BEYOND THE INSIDE FACE OF SHORING SHOWN ABOVE.
3. EXCAVATION NEATLINE FOR PAYMENT OF STRUCTURE EXCAVATION IS INSIDE FACE OF SHORING AND SUBGRADE.
4. 1'-0" MINIMUM IS ALLOWABLE FOR PRECAST RCB.
5. TYPE 2 CLASS B AGGREGATE BASE AND CRUSHED ROCK USED FOR BEDDING SHALL BE PAID FOR AS GRANULAR BACKFILL.

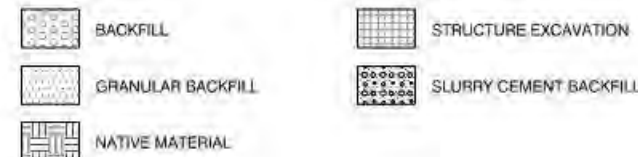


1 RCB AND TRANSITIONS AS CONSTRUCTED SECTION
LBDT-02 NTS



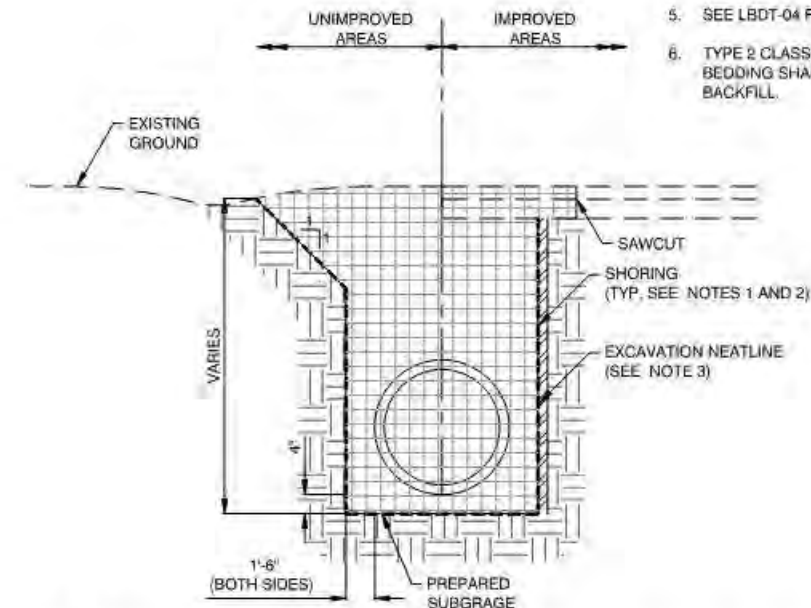
2 RCB AND TRANSITIONS TYPICAL SECTION OF IMPROVEMENT
LBDT-02 NTS
"SD" 110+50.00 TO "SD" 113+50.00
"SD" 77+75.13 TO "SD" 107+50.00

LEGEND

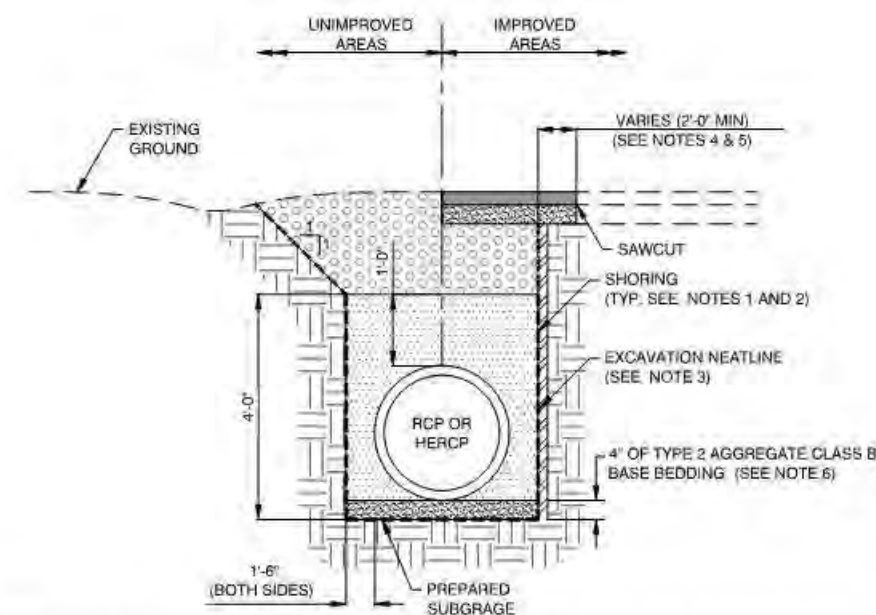


NOTES:

1. TRENCH WALLS SHALL BE APPROPRIATELY SHORED PER OSHA REQUIREMENTS.
2. NO ADDITIONAL PAYMENT SHALL BE MADE FOR EXCAVATION MADE BEYOND THE INSIDE FACE OF SHORING SHOWN ABOVE.
3. EXCAVATION NEATLINE FOR PAYMENT OF STRUCTURE EXCAVATION IS INSIDE FACE OF SHORING AND SUBGRADE.
4. SEE LBRC SHEETS FOR PAVEMENT LIMITS.
5. SEE LBDT-04 FOR PAVEMENT SECTIONS.
6. TYPE 2 CLASS B AGGREGATE BASE USED FOR BEDDING SHALL BE PAID FOR AS GRANULAR BACKFILL.



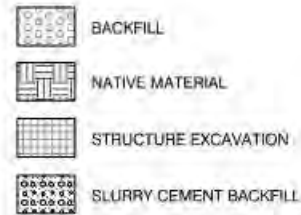
3 RCP AND HERCP AS CONSTRUCTED SECTION
LBDT-02 NTS



4 RCP AND HERCP TYPICAL SECTION OF IMPROVEMENT
LBDT-02 NTS

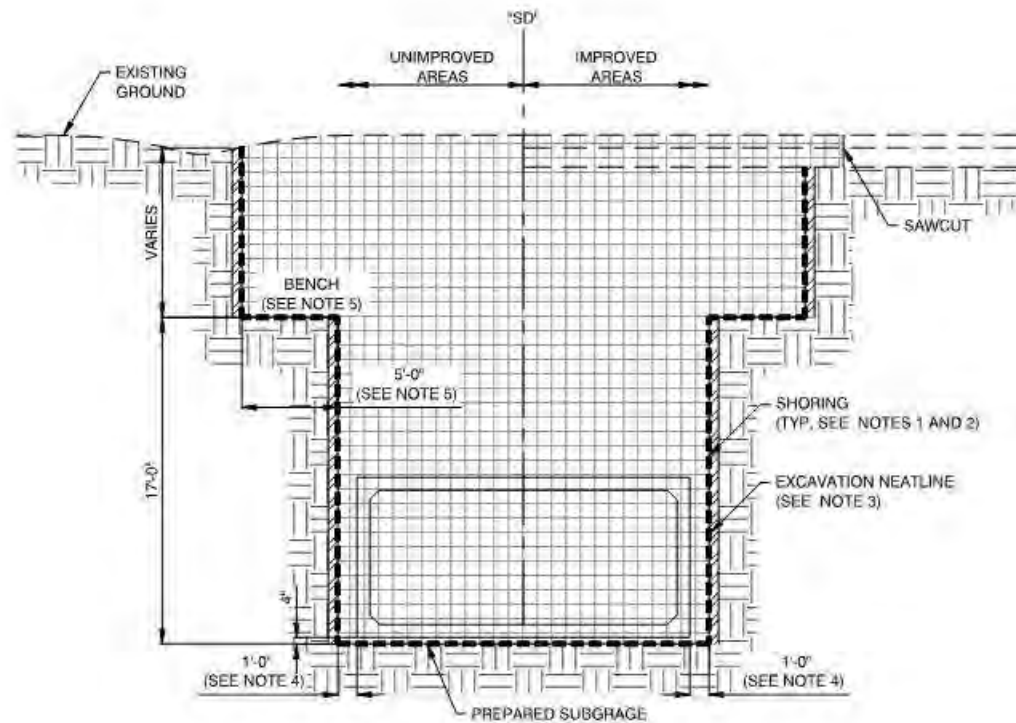
LOUIS BERGER 444 East Warm Springs Road, Ste. 100 Las Vegas, Nevada 89119 Phone: 702.736.6832 Fax: 702.407.1305	
PREPARED BY: LOUIS BERGER DESIGNED BY: LDN DRAWN BY: FME CHECKED BY: USD	NO. 34 OF 62 DATE 6/15/2017 SUBMITTAL STAGE
CITY OF LAS VEGAS PREPARED FOR: CITY OF LAS VEGAS PROJECT: CENTENNIAL PARKWAY CHANNEL WEST SHEET: DURANGO DRIVE TO GRAND TETON DRIVE TYPICAL DETAILS	
ENGINEER JEFFREY S. DOLGAS Exp. 12/31/18 CIVIL No. 16417	
SHEET LBDT-02 34 OF 62 DRAWING NO. 731-96	

LEGEND

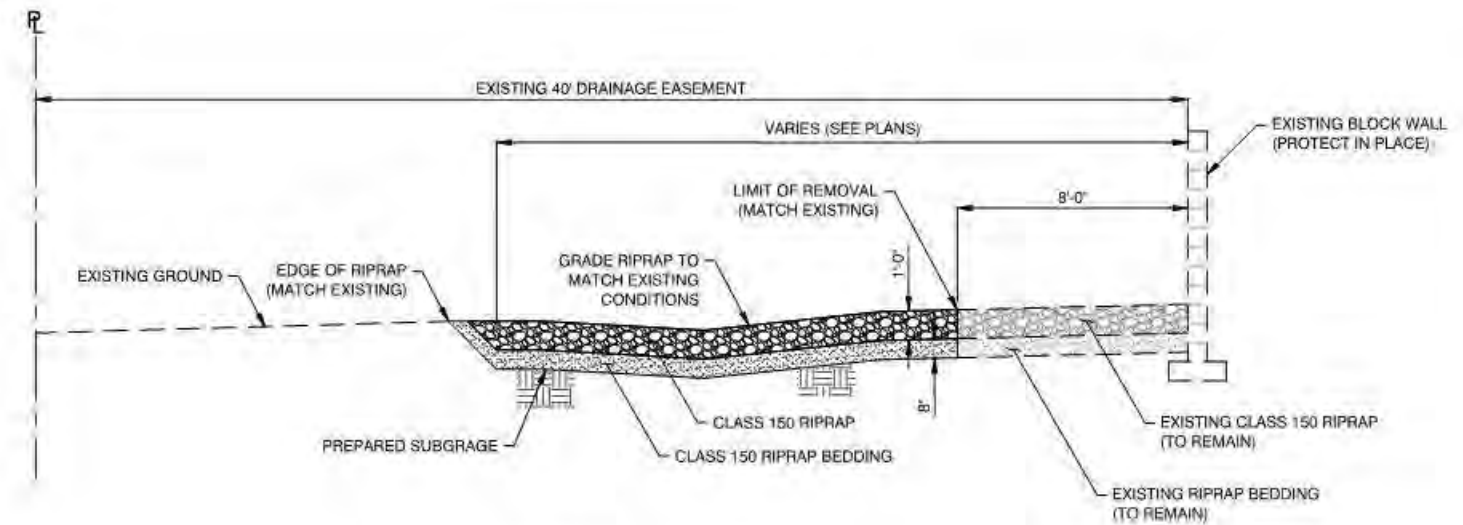


NOTES:

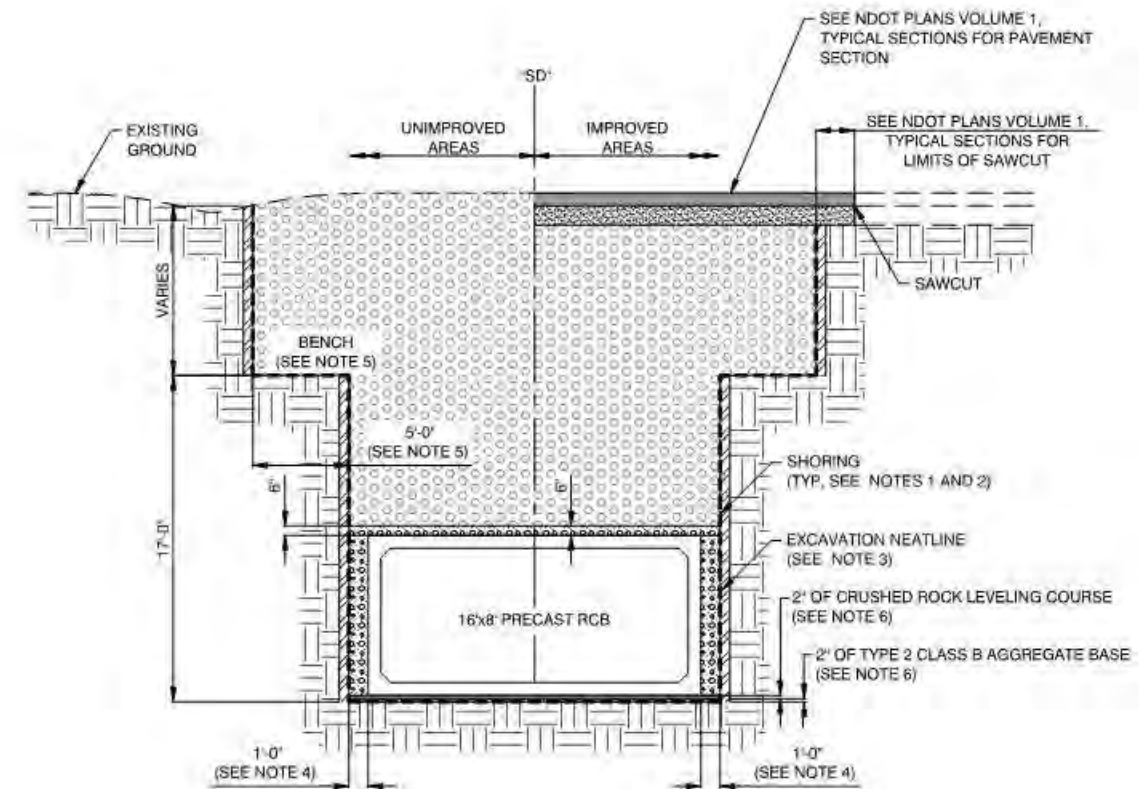
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3. EXCAVATION NEATLINE FOR PAYMENT OF STRUCTURE EXCAVATION IS INSIDE FACE OF SHORING AND SUBGRADE.
4. 6" MINIMUM IS ALLOWABLE FOR PRECAST RCB.
5. BENCH WIDTH AND HEIGHT ARE FOR QUANTITY CALCULATION PURPOSES ONLY. NO ADDITIONAL PAYMENT WILL BE MADE FOR WIDER AND/OR ADDITIONAL BENCHES.
6. TYPE 2 CLASS B AGGREGATE BASE AND CRUSHED ROCK USED FOR BEDDING SHALL BE PAID FOR AS GRANULAR BACKFILL.



1 "SD" RCB AS CONSTRUCTED SB OFF RAMP SECTION
LBDT-03 NTS "SD" 107+50.00 TO "SD" 110+50.00



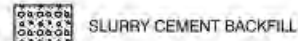
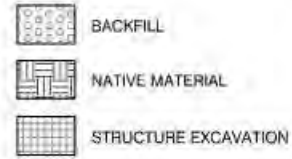
3 RIPRAP SECTION
LBDT-03 NTS



2 "SD" RCB TYPICAL SB OFF RAMP SECTION OF IMPROVEMENT
LBDT-03 NTS "SD" 107+50.00 TO "SD" 110+50.00

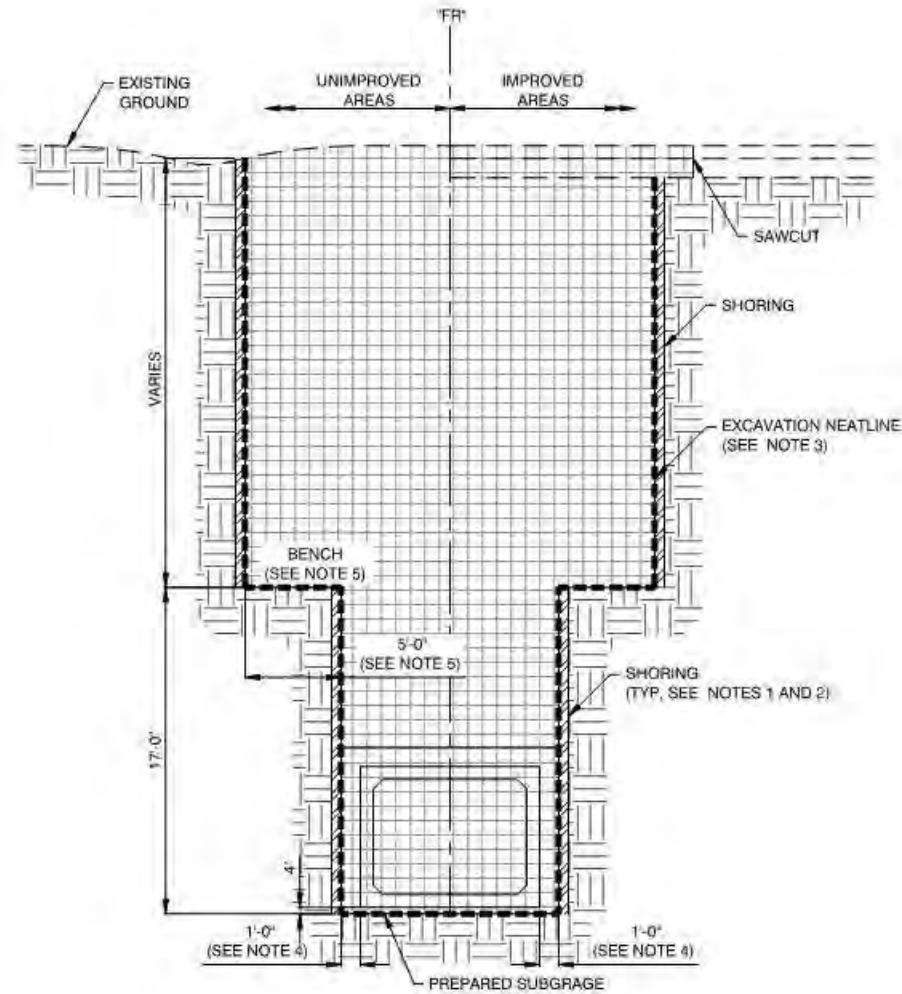
LOUIS BERGER 444 East Warm Springs Road, Ste. 100 Las Vegas, Nevada 89119 Phone: 702.736.0832 Fax: 702.407.1305	
PREPARED BY: [Signature] DESIGNED BY: LBN DRAWN BY: FME CHECKED BY: JSD	NO. 1 DATE
CITY OF LAS VEGAS R# 18223 DATE: 6/15/2017 SUBMITTAL STAGE	REVISIONS
CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE	
TYPICAL DETAILS	
SHEET LBDT-03 35 OF 62 DRAWING NO. 731-96	

LEGEND



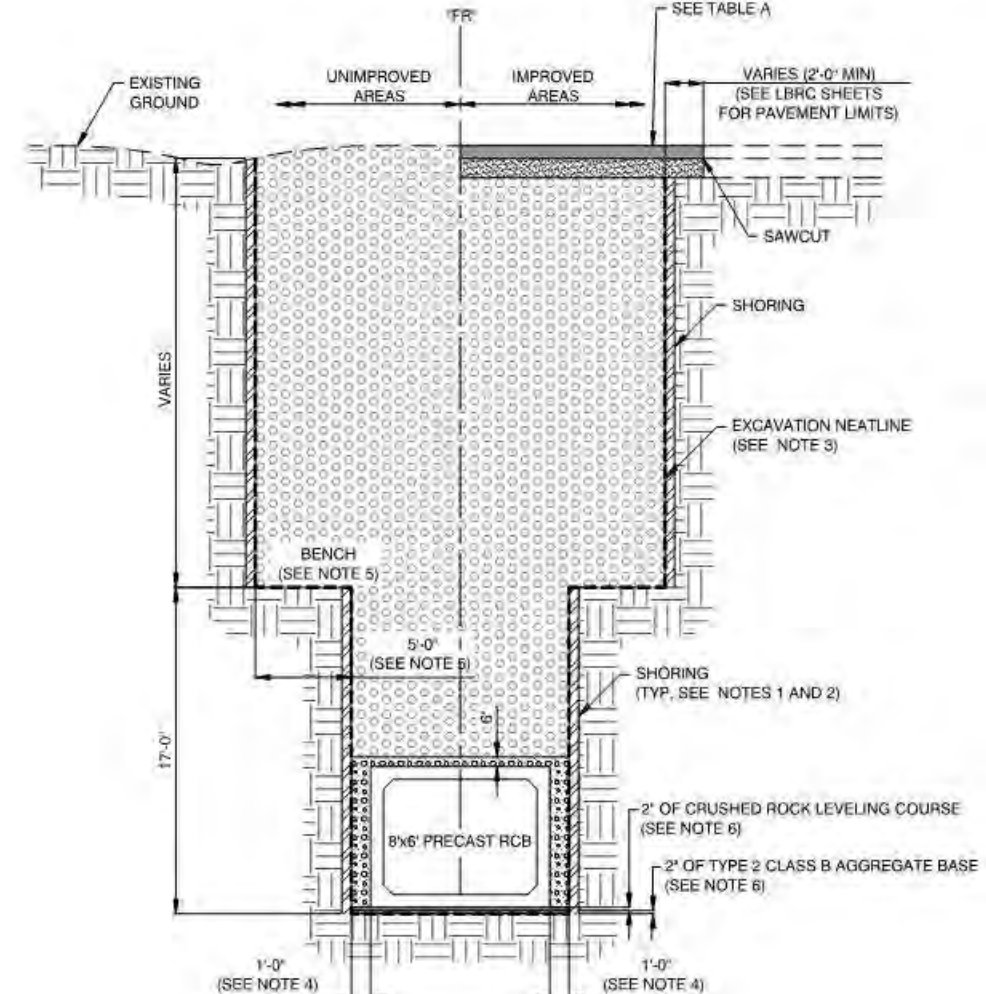
NOTES:

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6. TYPE 2 CLASS B AGGREGATE BASE AND CRUSHED ROCK USED FOR BEDDING SHALL BE PAID FOR AS GRANULAR BACKFILL.



1 "FR" RCB AS CONSTRUCTED SECTION
LBDT-04 NTS "FR" 5+50.00 TO "FR" 13+50.00

STREET	OPEN GRADE THICKNESS	AC PAVEMENT THICKNESS	TYPE 1 CLASS B AGGREGATE THICKNESS
FARM ROAD		4"	4 1/2"
OSO BLANCA ROAD		4"	4 1/2"
SB OFF RAMP	SEE NDOT PLANS VOLUME 1 TYPICAL SECTIONS FOR PAVEMENT SECTION		



2 "FR" RCB TYPICAL SECTION OF IMPROVEMENT
LBDT-04 NTS "FR" 5+50.00 TO "FR" 13+50.00

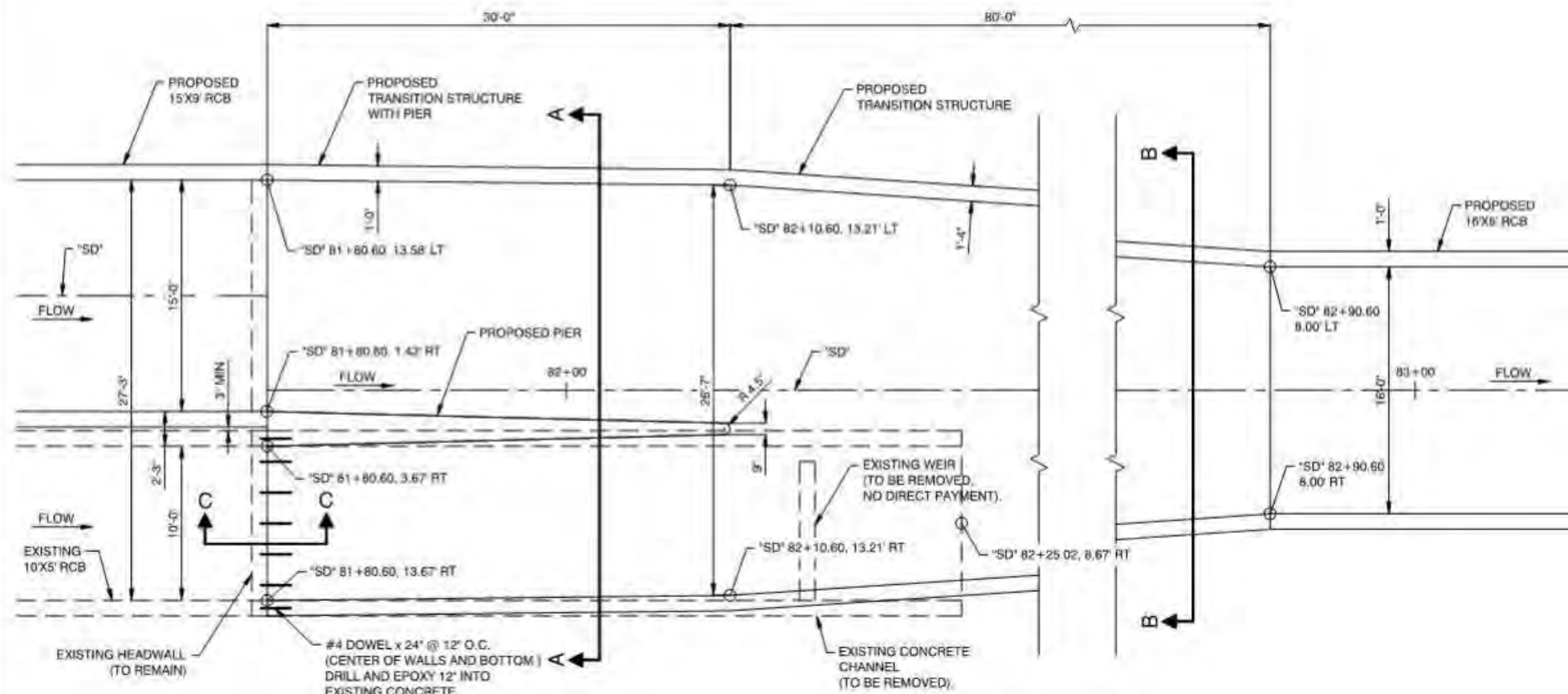


PREPARED BY	DESIGNED BY	DRAWN BY	CHECKED BY
CITY OF LAS VEGAS	LDN	FME	USD
BUD#	DATE	SUBMITTAL STAGE	
80223	6/15/2017		

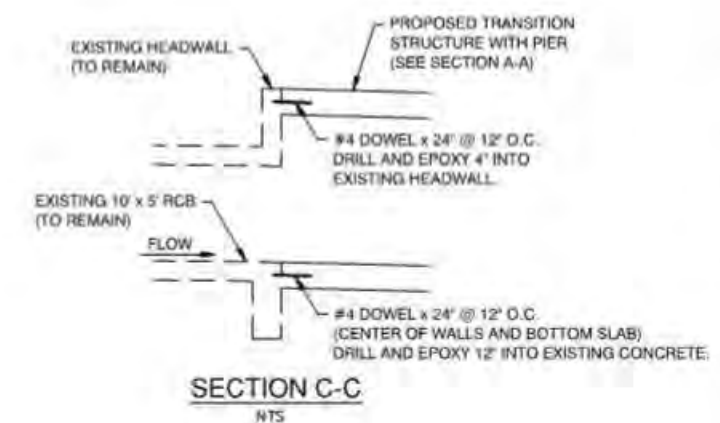
TITLE
CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE
SHEET
TYPICAL DETAILS



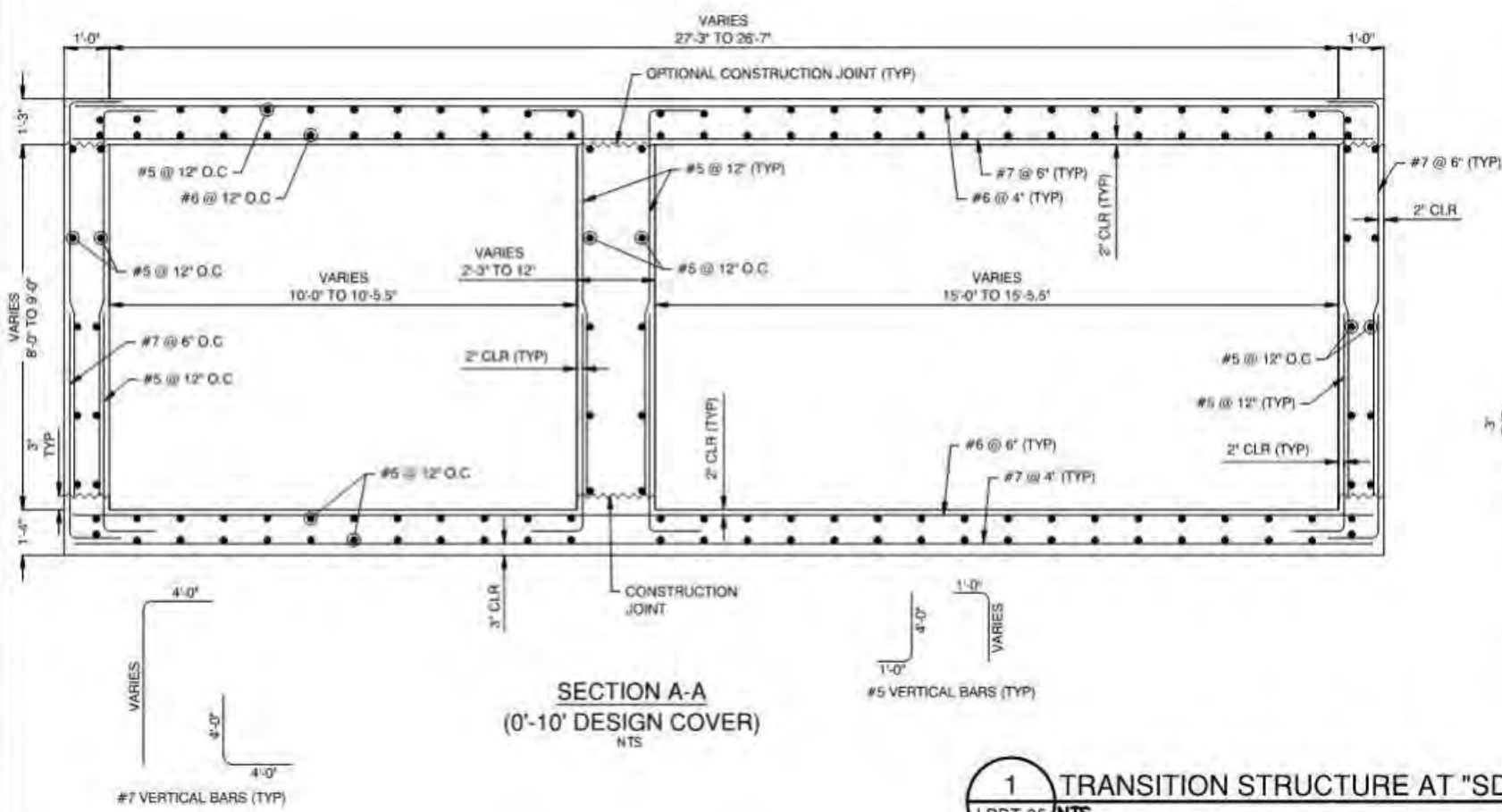
SHEET
LBDT-04
36 OF 62
DRAWING NO.
731-96



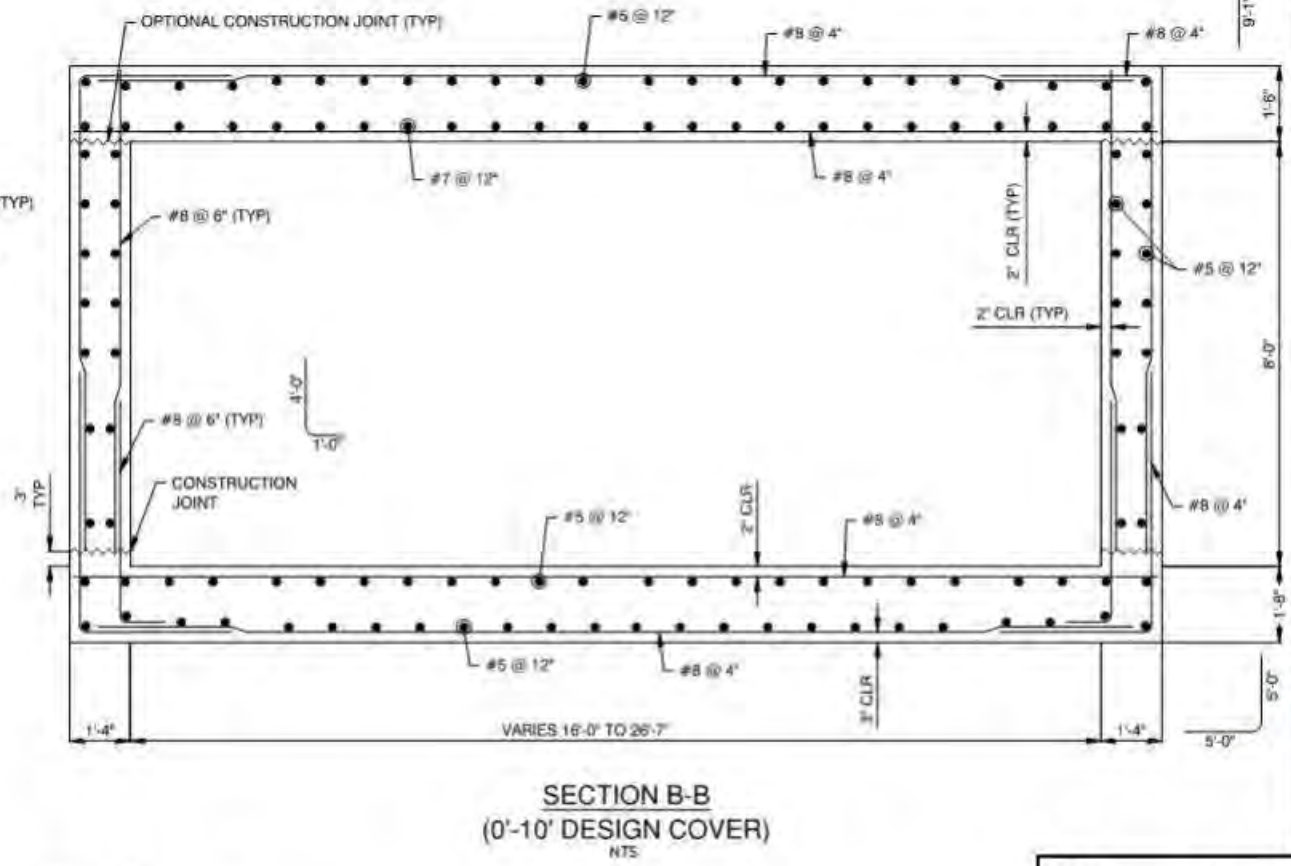
PLAN VIEW
NTS



SECTION C-C
NTS



SECTION A-A
(0'-10' DESIGN COVER)
NTS



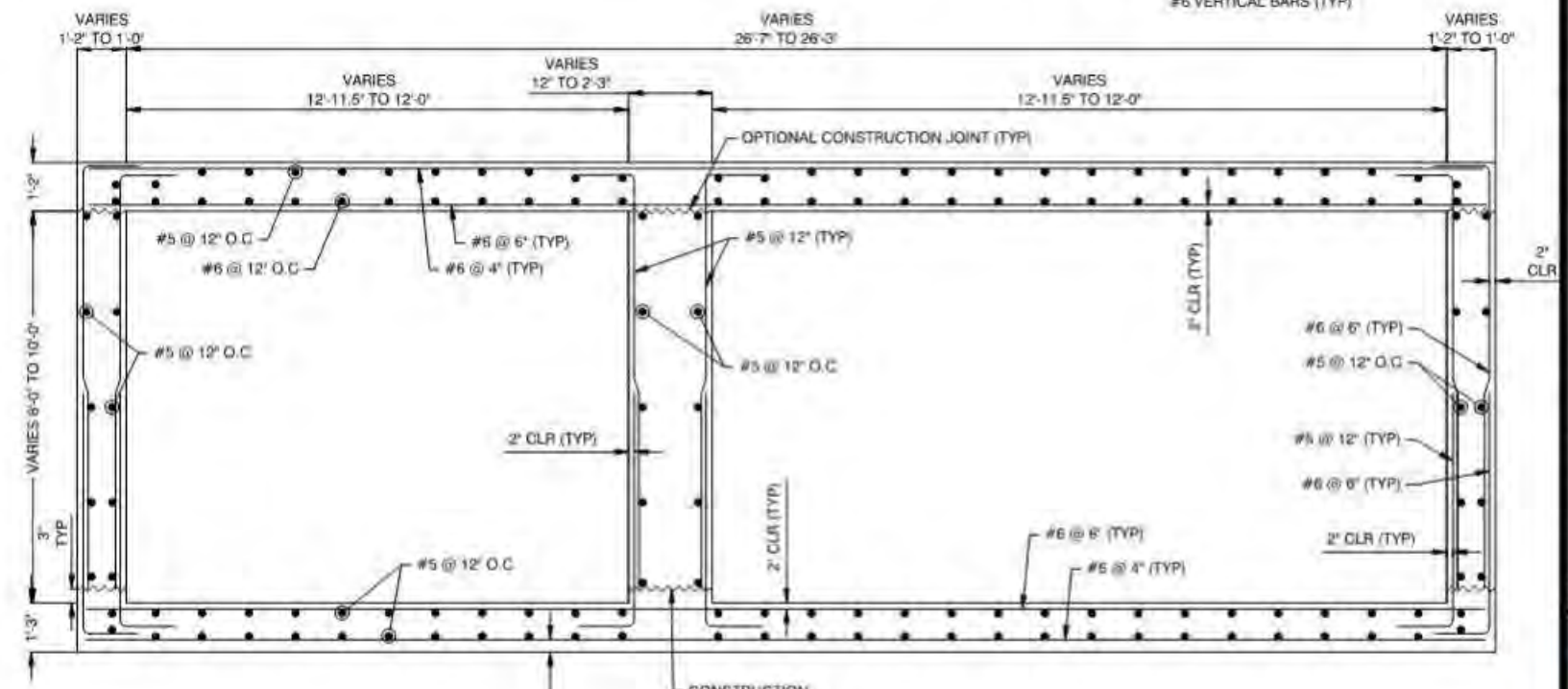
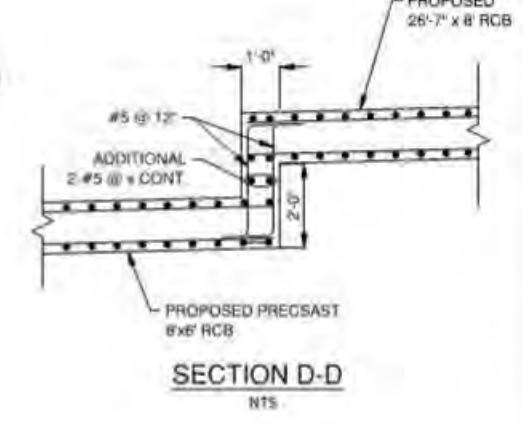
SECTION B-B
(0'-10' DESIGN COVER)
NTS

1 TRANSITION STRUCTURE AT "SD" 81+80.60
LBDT-05 NTS

Louis Berger 444 East Warm Springs Rd., Suite 118 Las Vegas, NV 89119 Phone: 702.736.6632 Fax: 702.736.6704		PREPARED BY: _____ DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ NO. DATE REVISIONS
PREPARED FOR CITY OF LAS VEGAS	SHEET LBDT-05	TITLE CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE
PROJECT NO. 62223	DATE 6/16/2017	SUBMITTAL STAGE FINE
TYPICAL DETAILS		

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Las Vegas, NV 89119
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SECTION B-B
(0'-10' DESIGN COVER)
NTS



NOTES:

1. SEE STD DWG NO 406.1 FOR ADDITIONAL DETAILS NOT SHOWN.
2. MANHOLE STEPS SHALL BE SPACED FROM 12" TO 16" VERTICAL DISTANCE BETWEEN THE TOP OF MANHOLE AND FIRST STEP SHALL BE A MAXIMUM OF 16". VERTICAL DISTANCE BETWEEN THE RCP CENTERLINE AND LAST STEP SHALL BE A MAXIMUM OF 16".

FRAME AND COVER PER STD. DWG. NO. 409.1 UNLESS OTHERWISE NOTED

STREET GRADE AS SHOWN ON PLANS

30"

SEE STD. DWG NO 403.1 AND 404.1 FOR DIMENSIONS AND DETAILS

FOR TOP SLAB REINFORCING SEE DETAIL A

CONSTR JOINT (TYPICAL)

MANHOLE STEP, TYP PER STD DWG NO 410

2 1/2"

48"

6"

4" MIN

12"

4" MIN

72" MAX RCP

FLOW

2" CLR TYP

72" MAX

#4 BARS @ 18" OC

SLOPE TO DRAIN, ALL DIRECTIONS

#6 BARS @ 6" OC

12" TYP

5" TYP

12" TYP

18" TYP

(OD OF RCP)

(SEE STORM DRAIN PROFILE)

SECTION A-A
NTS



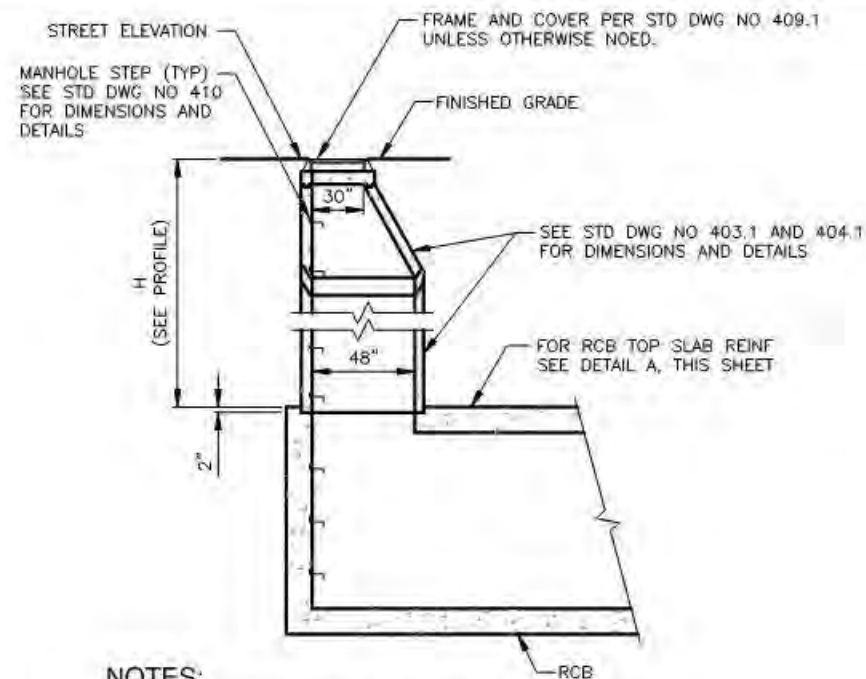
NTS
(TOP SLAB REINFORCING)



- NOTES:

1. SHAPE FLOW LINE IN MANHOLE TO OUTLET PIPE AND PROVIDE A MINIMUM 10H:1V SLOPE IN ALL DIRECTIONS TOWARDS FLOW LINE.
2. USE FLAT SLAB PER CCAUSD NO. 404.1 WHERE REQUIRED FOR LOW COVER SITUATIONS.

2 NDOT TYPE 4 MANHOLE
LBDT-07/NTS



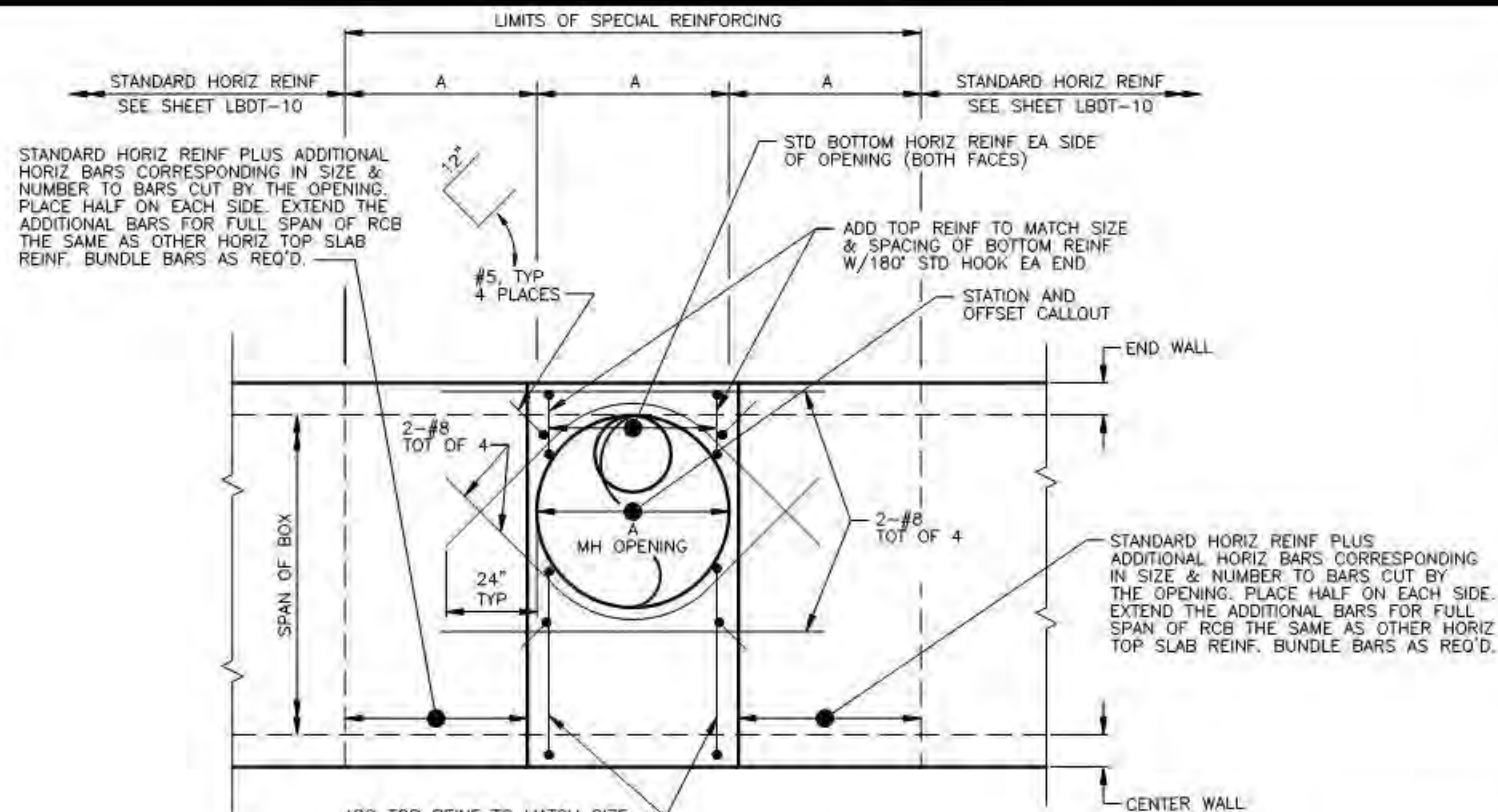
NOTES:

1. USE LOW COVER SITUATION STD DWG NO 404.1 WHERE TAPERED SECTION WILL NOT FIT.
2. STEPS SHALL BE EVENLY SPACED FROM 12" TO 16". VERTICAL DISTANCE BETWEEN THE TOP OF MANHOLE AND FIRST STEP SHALL BE A MAXIMUM OF 16". VERTICAL DISTANCE BETWEEN THE INVERT OF MANHOLE AND LAST STEP SHALL BE A MAXIMUM OF 16".

ELEVATION

1 RCB MANHOLE

LBDT-08 NTS



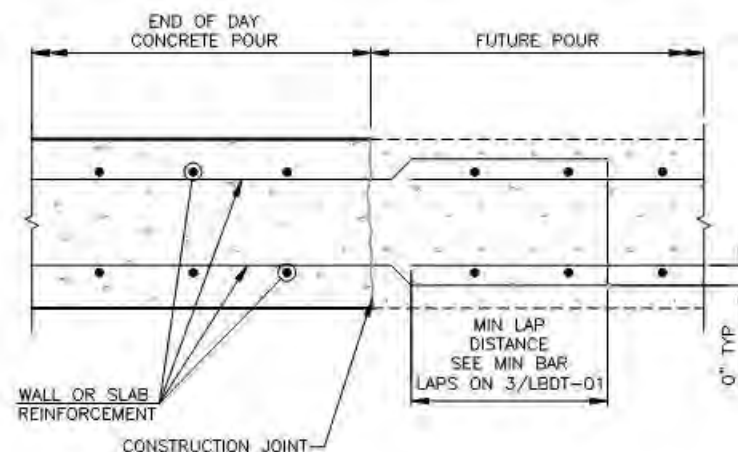
DETAIL A

RCB MANHOLE - TOP SLAB REINFORCING

MAX SIZE OF OPENING "A" = 4'-0"

NOTES:

1. ALL REINFORCING TO CLEAR OPENING BY 2" MINIMUM.

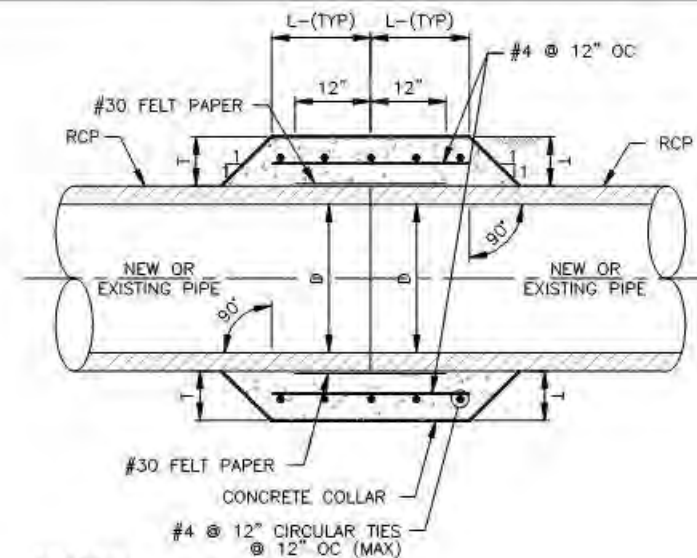


NOTES:

1. SEE RCB DETAIL FOR ADDITIONAL REINFORCING AND DIMENSIONS NOT SHOWN.
2. STAGGER ALL SPLICES SO THAT NO MORE THAN 50% OF BARS ARE SPLICED ON ANY PLANE.
3. NO LONGITUDINAL CONSTRUCTION JOINTS MAY BE USED UNLESS SHOWN ON THE PLANS.

2 CONSTRUCTION JOINT AT END OF DAY POUR

LBDT-08 NTS



TABLE

D (IN)	L (FT)	T (IN)
< 24	1.0	6
24-60	1.75	12

NOTES:

1. FIELD CLOSURES OF PIPE OF THE SAME DIAMETER AND WITHOUT CHANGE IN GRADE OR ALIGNMENT SHALL BE MADE WITH A CONCRETE COLLAR.
2. BACKFILL MATERIAL ALL AROUND COLLAR FOR A DISTANCE OF 12" MIN TO 90% OF MAX DRY DENSITY.
3. TROWEL INVERT TO A SMOOTH FINISH BETWEEN PIPES.
4. OMIT REINFORCING ON PIPE 24" IN DIAMETER OR LESS.
5. USE #30 FELT PAPER TO PREVENT CONCRETE FROM SEEPING INTO JOINT.

3 CONCRETE COLLAR

LBDT-08 NTS

REVISIONS

NO. DATE

PREPARED BY: Louis Berger

DESIGNED BY: LON

DRAWN BY: FME

CHECKED BY: JSD

DATE: 6/15/2017

SUBMITTAL STAGE

PROJECT: CENTENNIAL PARKWAY CHANNEL WEST

LOCATION: DURANGO DRIVE TO GRAND TETON DRIVE

SHEET: 40 OF 62

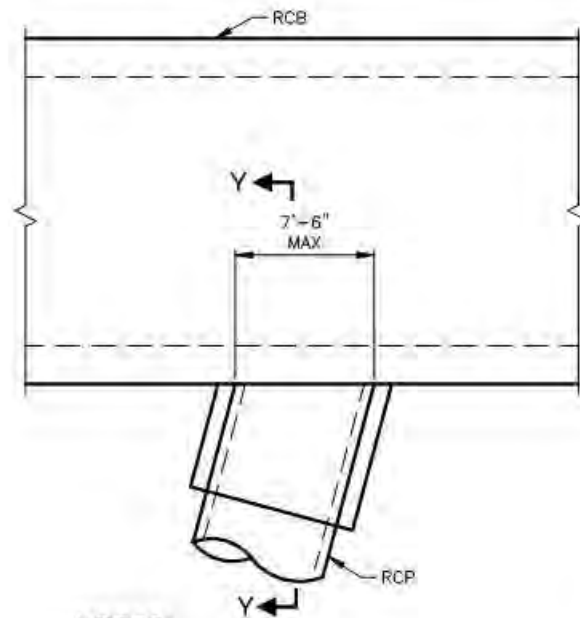
DRAWING NO: 731-96

ENGINEER: JEFFREY S. DOLGAS

EXPIRATION: 12/31/18

CIVIL

NO. 16417

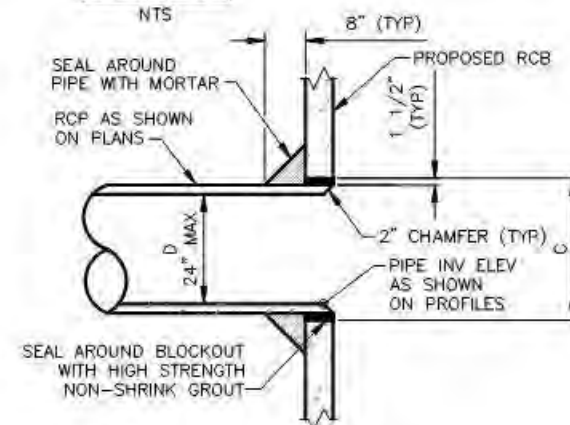


NOTES:

1. WALL & SLAB REINFORCEMENT OF RCB AND RCP NOT SHOWN FOR CLARITY.
2. OUTER RCP SURFACE TO BE ROUGHENED ALONG LENGTH OF COLLAR.

PLAN VIEW

NTS



NOTES:

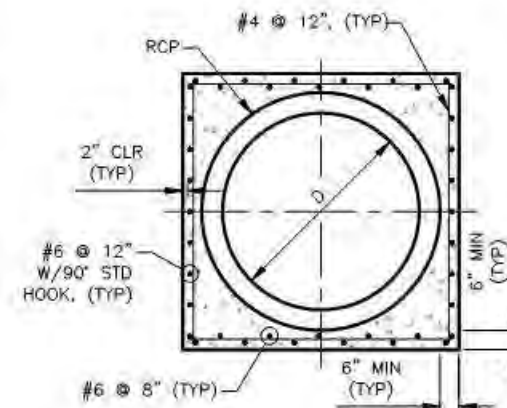
1. DIMENSION C = PIPE O.D. + 3\" FOR PERPENDICULAR PIPE CONNECTION. ADJUST BLOCKOUT DIMENSION TO ACCOUNT FOR PIPE SKEW.
2. FORM PIPE BLOCKOUT AS PART OF WALL.
3. SEE RCB PROFILE FOR CONNECTION LOCATIONS.
4. ADD REINFORCEMENT BARS EQUIVALENT TO BARS CUT BY OPENING. VERTICAL BARS SHALL EXTEND FULL HEIGHT OF WALL. HORIZONTAL BARS SHALL EXTEND 24\" PAST THE OPENING. SEE NOTE 5 FOR BAR SPACING.
5. ADD ADDITIONAL VERTICAL WALL REINFORCEMENT AT 3\" OC EACH SIDE OF RCP OPENING IN ADDITION TO TYPICAL VERTICAL REINFORCEMENT.

METHOD A, D ≤ 24"

SECTION Y-Y

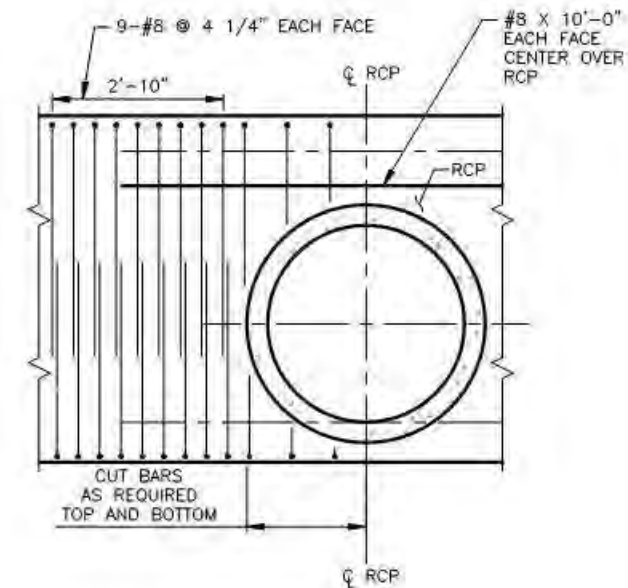
NTS

1 RCP/RCB CONNECTION
LBDT-09/NTS



SECTION X-X

NTS

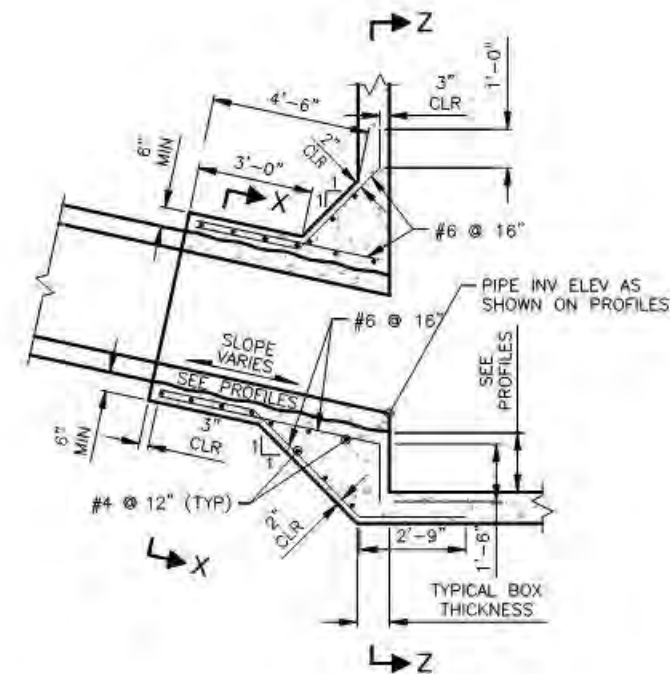


NOTES:

1. RCP COLLAR NOT SHOWN
2. HORIZONTAL BARS NOT SHOWN. CUT AS REQUIRED TO CLEAR RCP.

SECTION Z-Z

NTS



METHOD B, D > 24"



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PREPARED BY
CITY OF LAS VEGAS

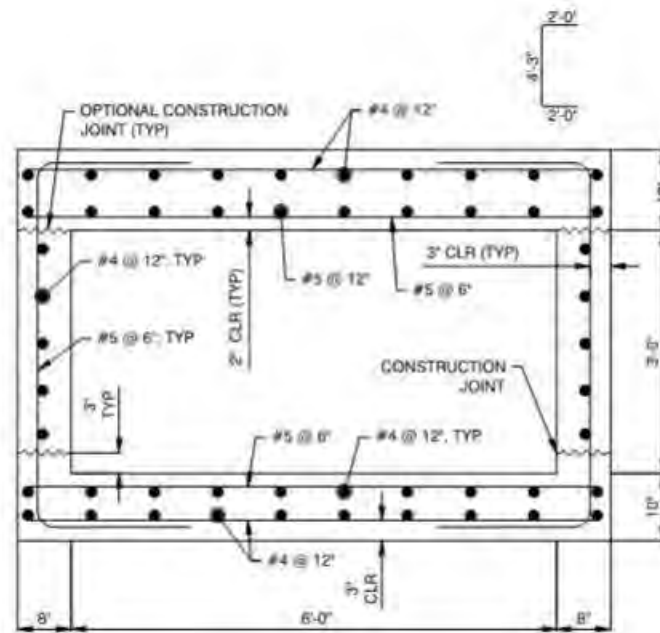
BUD#
DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD
DATE: 6/15/2017
SUBMITTAL STAGE

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**

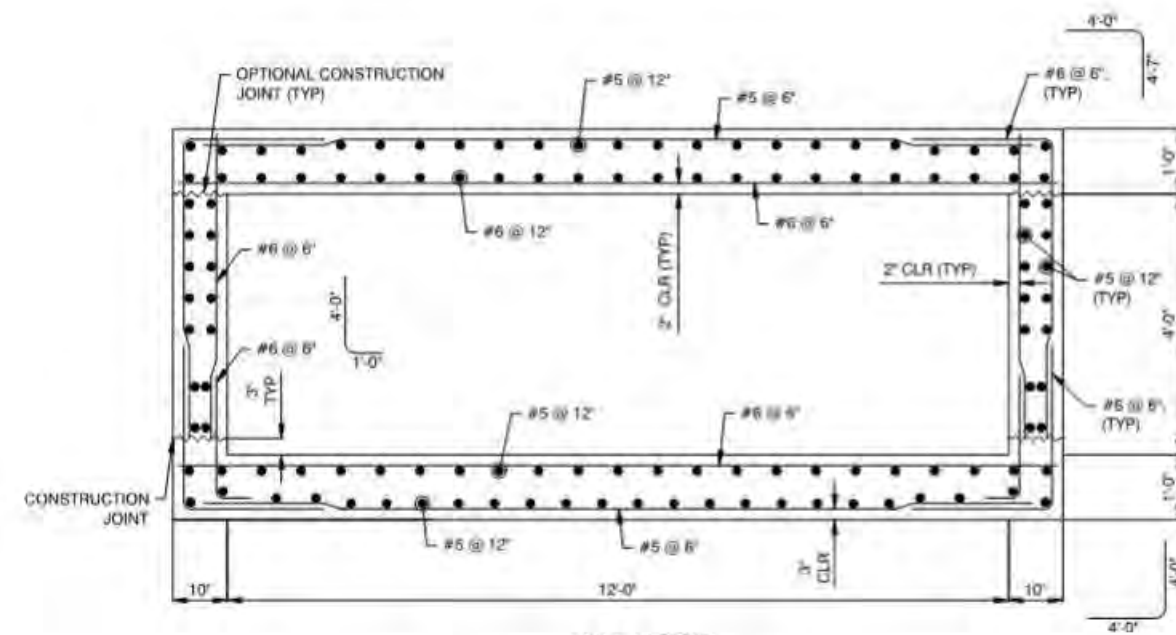
SHEET
TYPICAL DETAILS



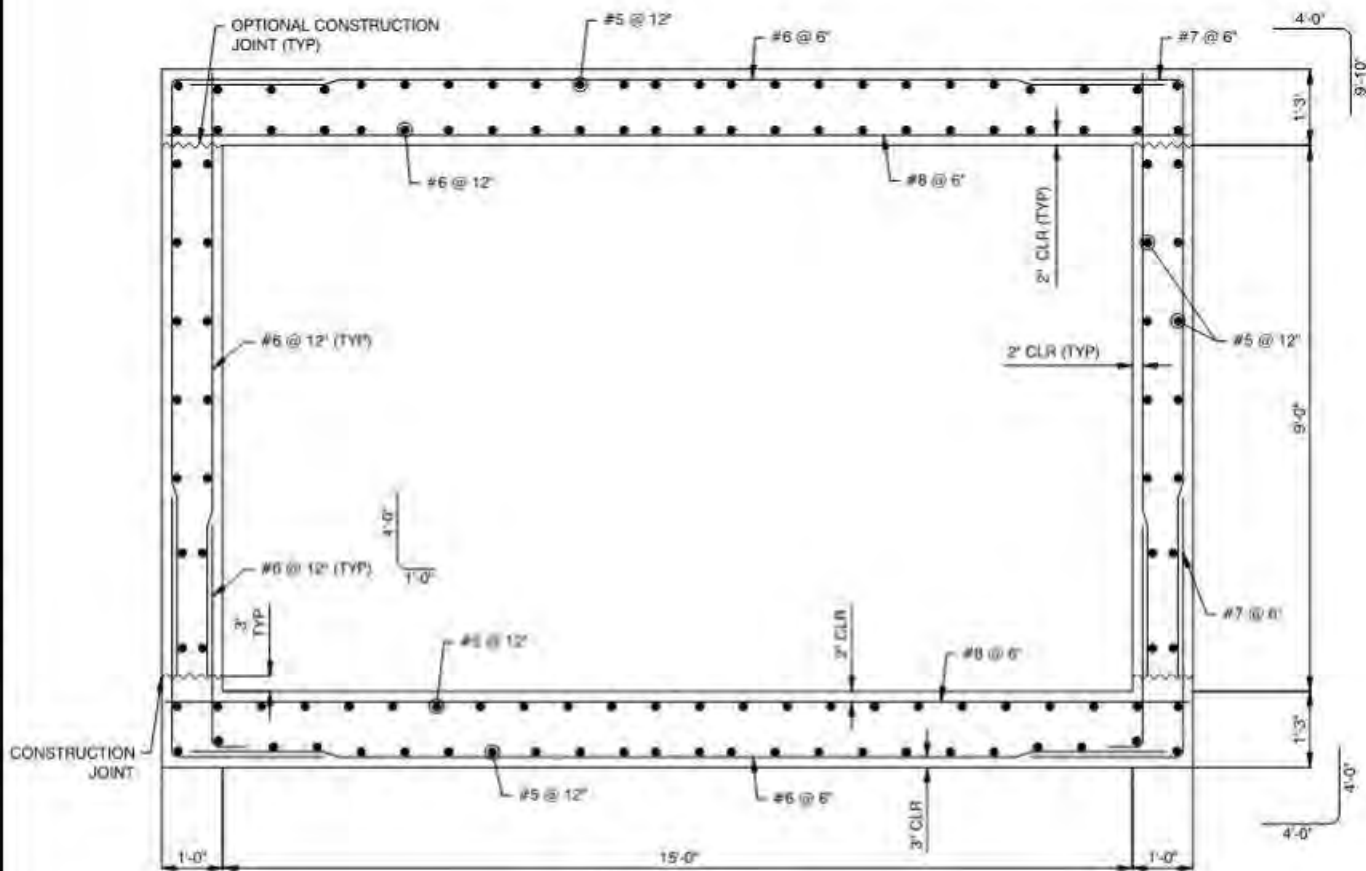
SHEET
LBDT-09
41 OF 62
DRAWING NO.
731-96



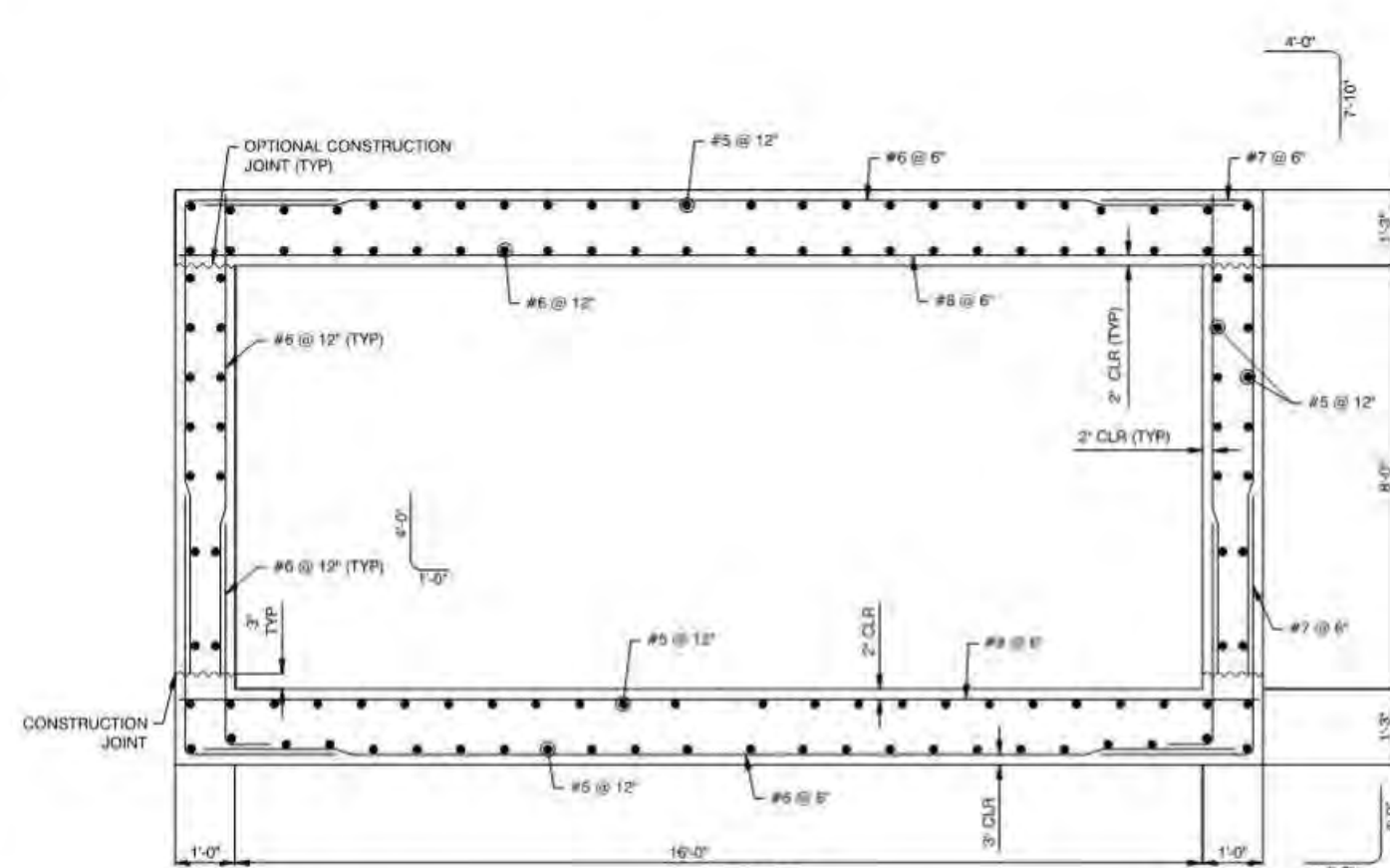
6' x 3' RCB
(0'-10' DESIGN COVER)
NTS



12' x 4' RCB
(0'-10' DESIGN COVER)
NTS



15' x 9' RCB
(0'-10' DESIGN COVER)
NTS



16' x 8' RCB
(0'-10' DESIGN COVER)
NTS

NOTES:

1. SEE SHEET LBOT-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET LBOT-08 FOR CONSTRUCTION JOINT DETAILS.
3. SEE SHEET LBOT-12 FOR PRECAST/CAST-IN-PLACE TRANSITION DETAILS.

1 RCB CULVERT
LBOT-10 NTS

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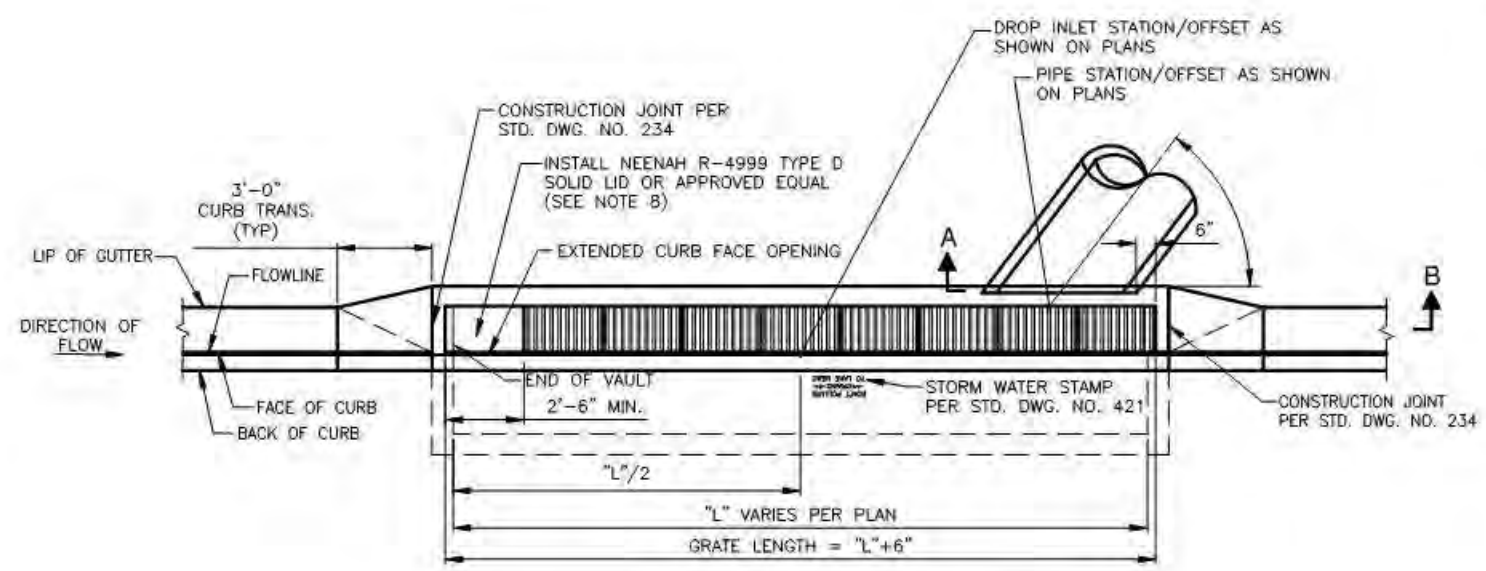
SHEET
LBOT-10
42 OF 62
DRAWING NO.
731-96

TITLE
**CENTENNIAL PARKWAY CHANNEL WEST
DURANGO DRIVE TO GRAND TETON DRIVE**
SHEET
TYPICAL DETAILS

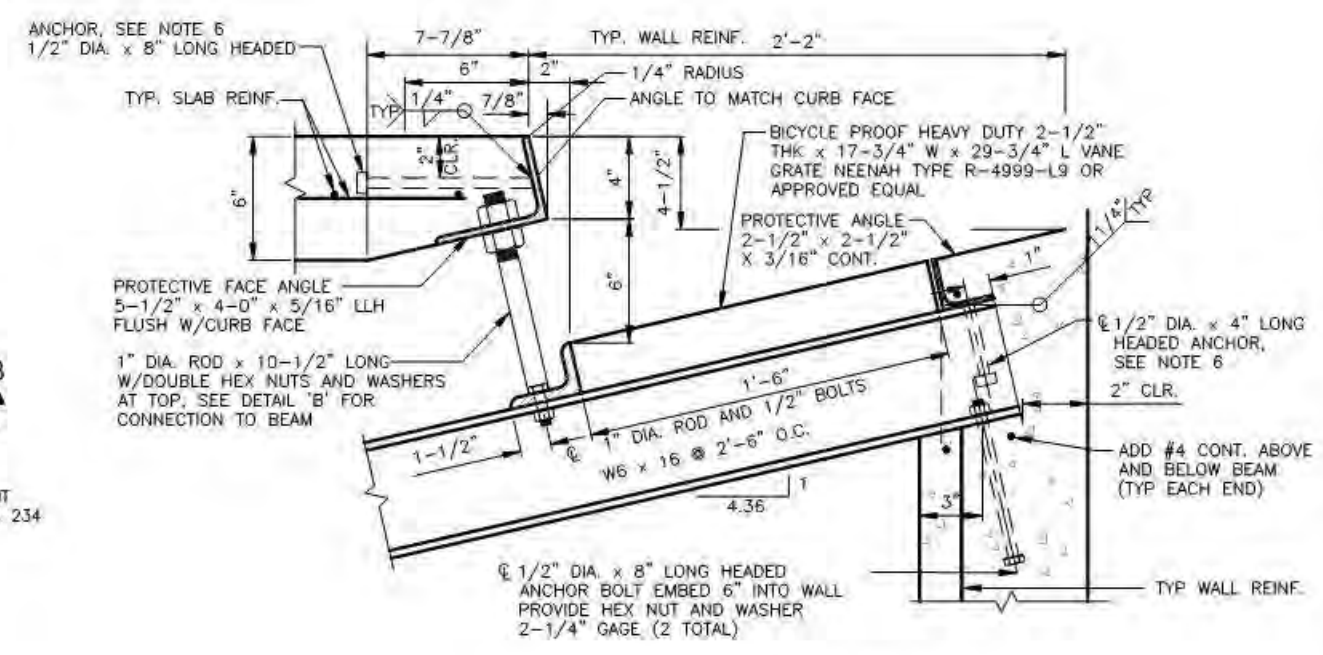
PREPARED FOR
CITY OF LAS VEGAS
H# 6223
DATE: 6/16/2017
SUBMITTAL STAGE:
DESIGNED BY: LDN
DRAWN BY: FME
CHECKED BY: JSD

PREPARED BY
Louis Berger
444 East Warm Springs Rd, Suite 118
Las Vegas, NV 89119
Phone: 702.736.6632 Fax: 702.736.6794

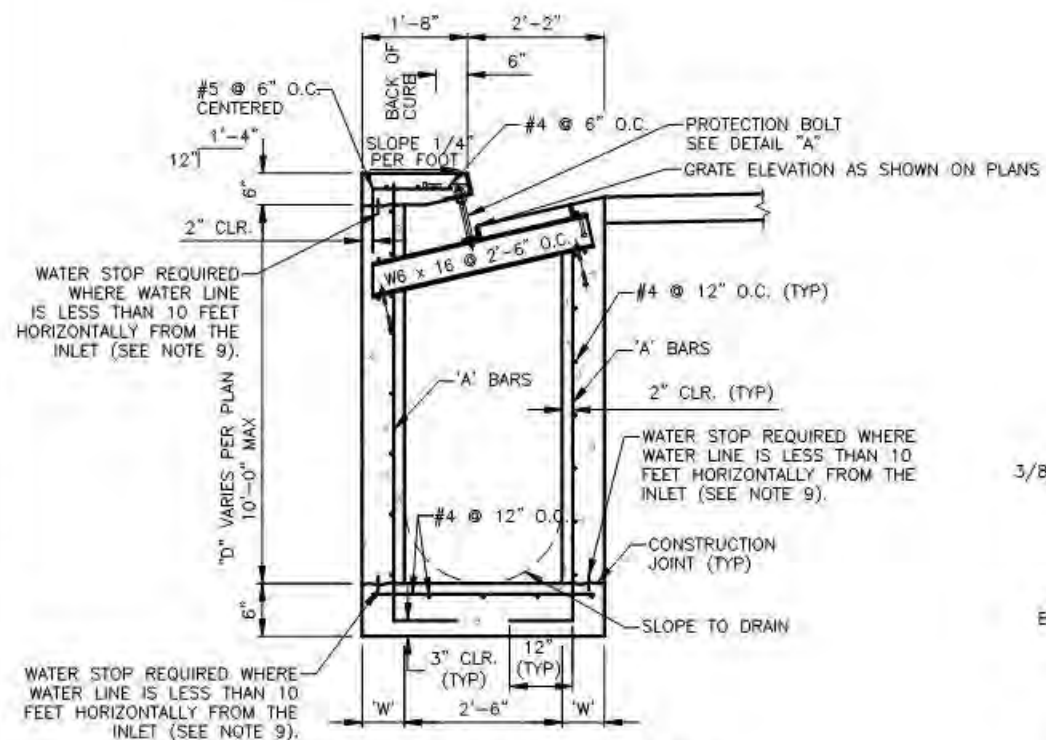
NO.	DATE	REVISIONS



DROP INLET LAYOUT PLAN

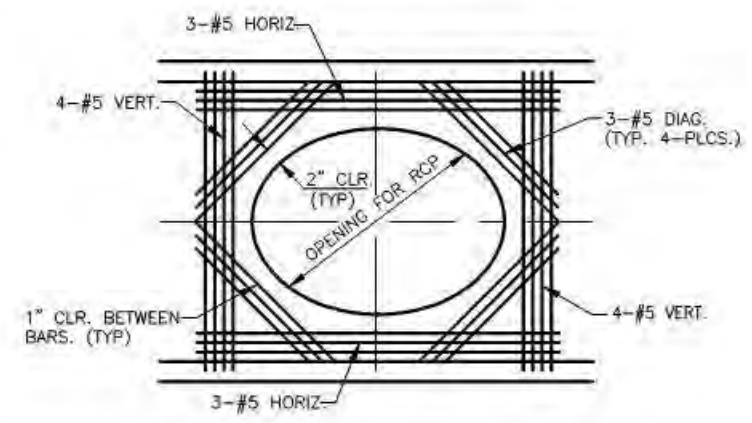


PROTECTIVE FACE & ROD - DETAIL "A"

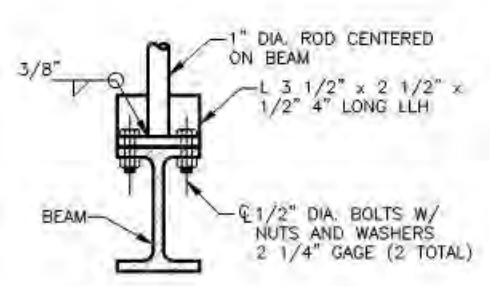


TYPE "DM" DROP INLET SECTION

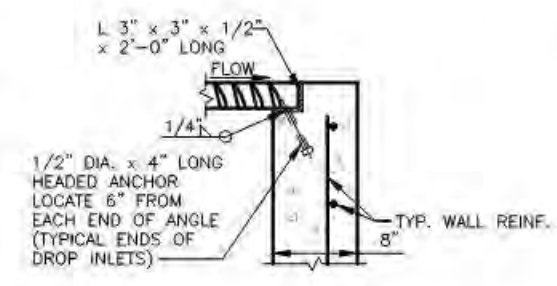
D (MAX)	DIM. 'W'	(A) BARS
4'-0"	6"	#4 @ 12" O.C.
6'-0"	6"	#4 @ 12" O.C.
8'-0"	8"	#5 @ 12" O.C.
10'-0"	8"	#5 @ 6" O.C.



SECTION "A"



DETAIL "B"



SECTION "B"

NOTES:

1. ALL EXPOSED METALS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. PROVIDE 1/2" (MIN.) CLEARANCE ALL AROUND THE STEEL BEAM, DRY PACK AFTER INSTALLATION.
3. WHEN REQUIRED BY LENGTH OF OPENING, PLATE ANGLE MAY BE DELIVERED IN SECTIONS AND BUTT WELDED IN PLACE.
4. ALL GALVANIZED DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF GALVALLOY OR EQUAL.
5. CONCRETE SHALL BE MODIFIED CLASS DA 4000 PSI, SEE SPECIAL PROVISIONS SECTION 501.
6. ANGLE ANCHORS SHALL BE EMBEDDED MIDPOINT IN EACH ENDWALL AND EVENLY SPACED, (MAXIMUM SPACING OF 2").
7. THE MAXIMUM ALLOWABLE SPACING BETWEEN GRATES SHALL BE 1/2".
8. IF L ≤ 5' THEN SUBSTITUTE VANE TYPE GRATE FOR SOLID GRATE.
9. BASE WALLS AND TOP SLAB SHALL BE CONSTRUCTED WITH MECHANICAL WATER STOPS, CENTER BULB OR FLAT STRIP (VINYLEX, GREESTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

1 TYPE "DM" MODIFIED DROP INLET
LBDDT-11/NTS

PREPARED BY: **LOUIS BERGER**

DESIGNED BY: **LDN**

DRAWN BY: **FME**

CHECKED BY: **USD**

DATE: **6/15/2017**

SUBMITTAL STAGE:

CITY OF LAS VEGAS

CENTENNIAL PARKWAY CHANNEL WEST

DURANGO DRIVE TO GRAND TETON DRIVE

TYPICAL DETAILS

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

BY: **LDN**

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

BY: **LDN**

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

BY: **LDN**

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

BY: **LDN**

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

BY: **LDN**

PROJECT: **WATER MAIN**

DATE: **6/15/2017**

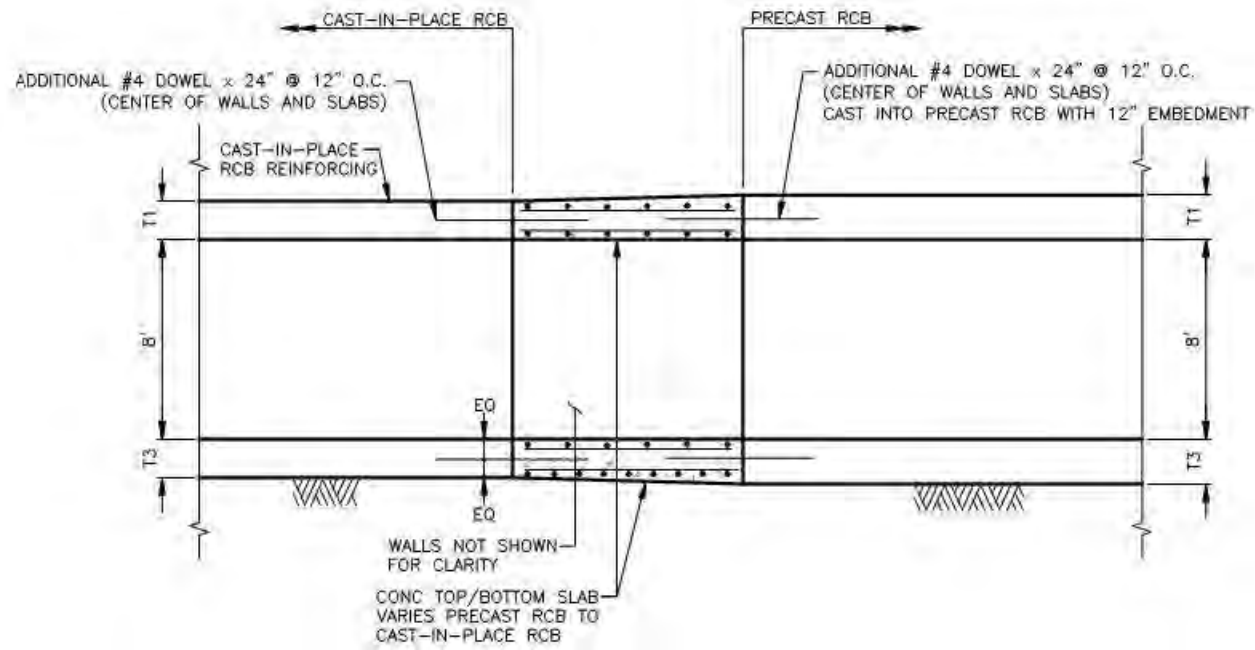
BY: **LDN**

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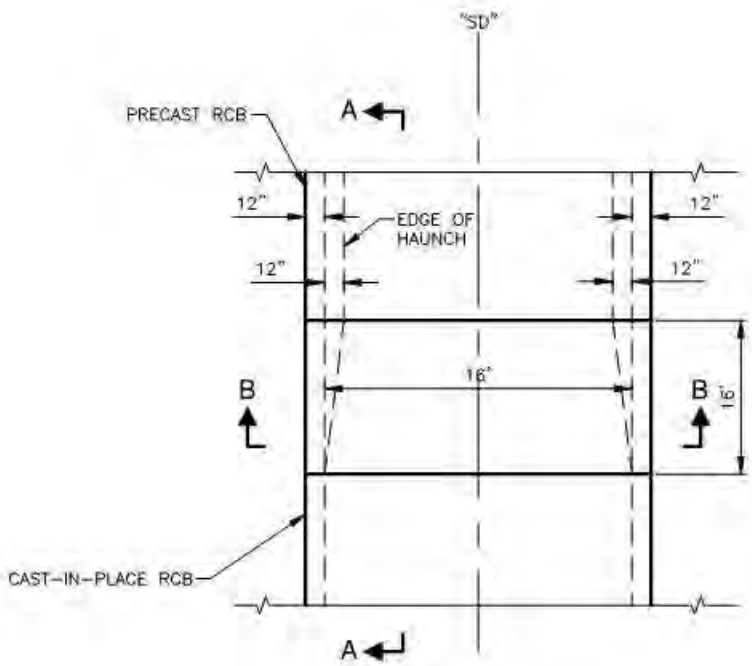
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NOTES:

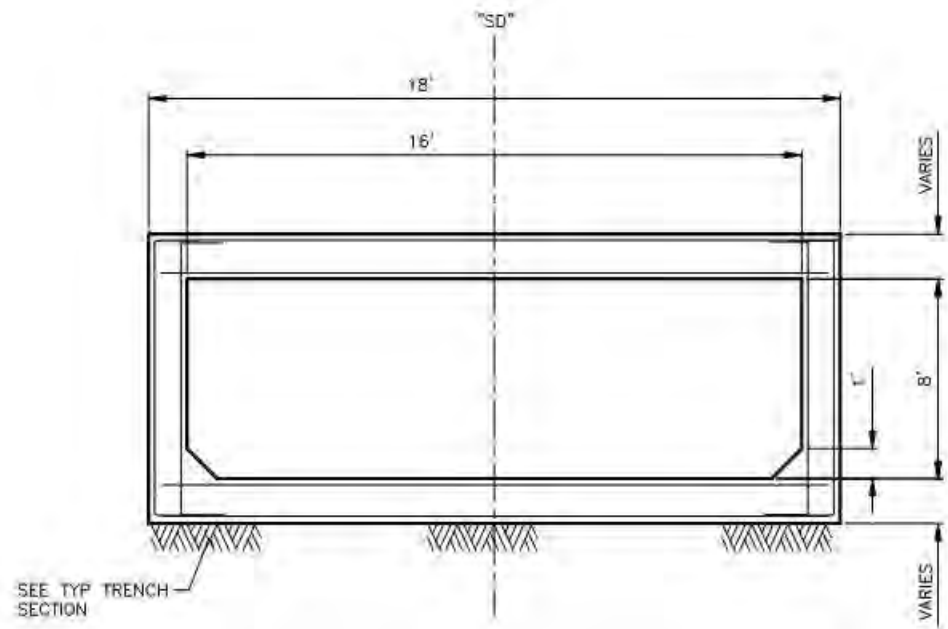
1. SEE SHEETS LBDT-06 OR LBDT-10 FOR ADDITIONAL RCB REINFORCING AND DETAILS NOT SHOWN.
2. PRECAST PRE-ENGINEERED RCB MANUFACTURER/SUPPLIER SHALL PROVIDE STRUCTURAL DESIGN CALCULATIONS AND SHOP DRAWINGS WET STAMPED BY A LICENSED CIVIL ENGINEER IN THE STATE OF NEVADA FOR ENGINEERS REVIEW AND APPROVAL.
3. TRANSITION SHALL NOT BE CONSTRUCTED WITHIN 10' EITHER SIDE OF A RCP/RCB CONNECTION, OR RCB MANHOLE.



SECTION A-A



PLAN VIEW

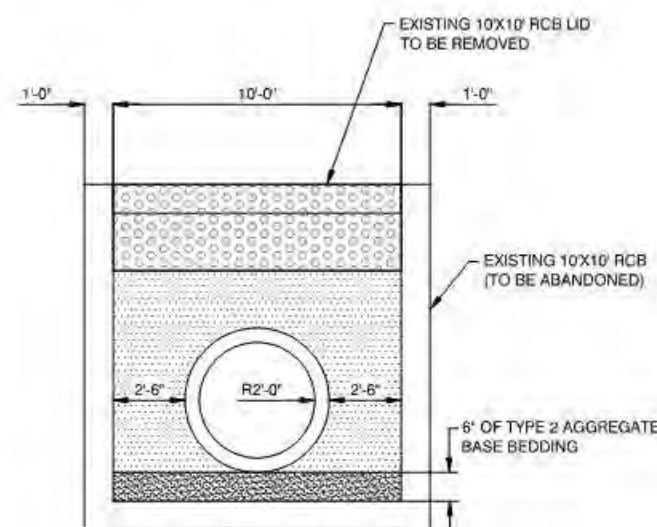
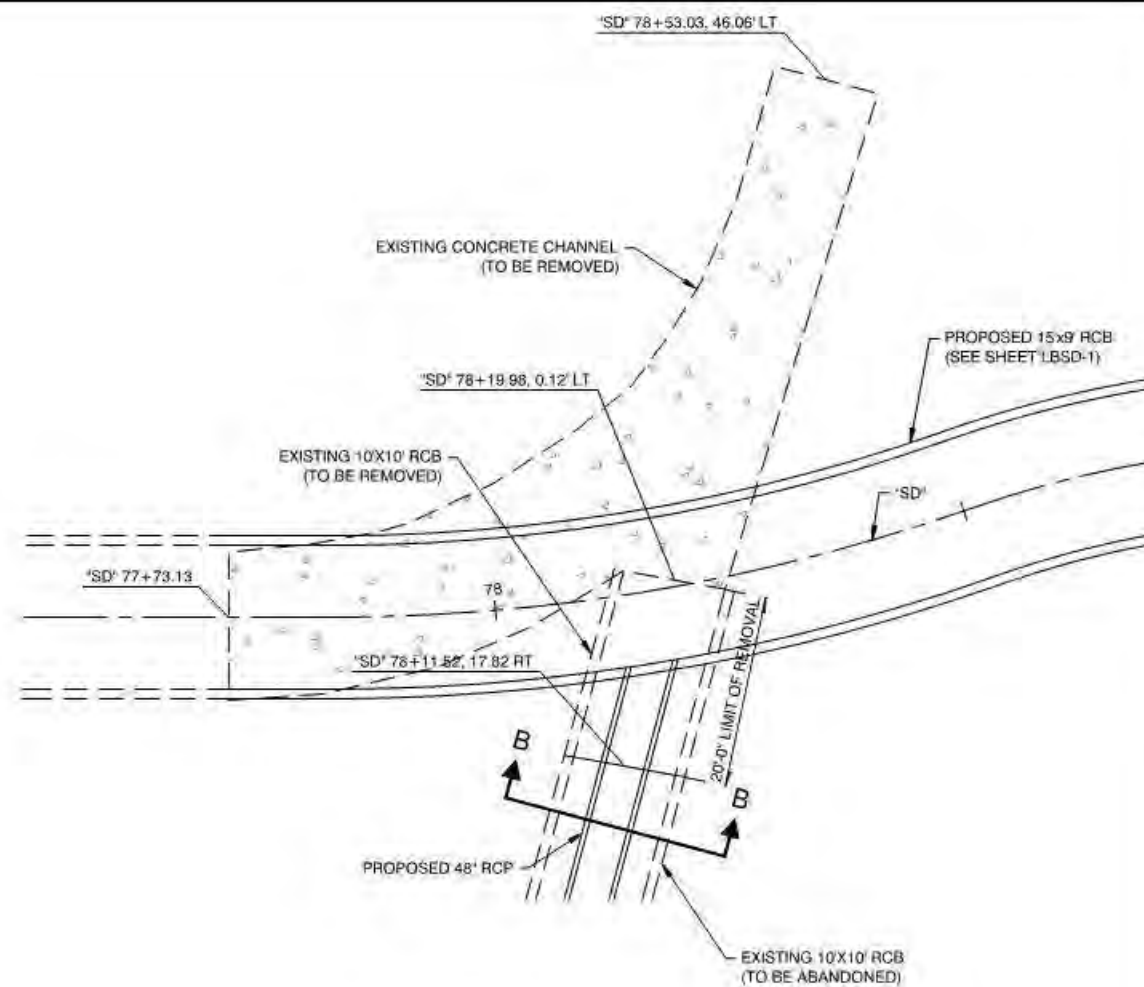


SECTION B-B

1 PRECAST/CAST-IN-PLACE TRANSITION
LBDT-12/NTS

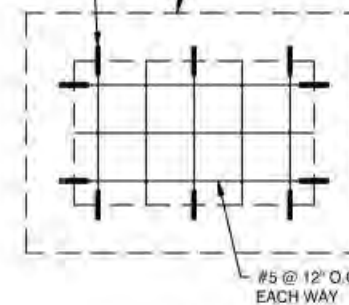
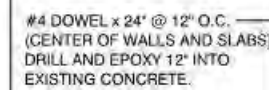
PREPARED BY		CITY OF LAS VEGAS		TITLE		CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE		SHEET		LBDT-12		44 OF 62		DRAWING NO. 731-96	
DESIGNED BY: LON		DATE: 6/15/2017		SUBMITTAL STAGE:		TYPICAL DETAILS		ENGINEER'S SEAL		JEFFREY S. DOLAN		Exp: 12/31/18		CIVIL	
DRAWN BY: FME		CHECKED BY: JSD		BUD#		R# 60223		PROJECT NO. 10417		REVISIONS		NO.		DATE	

LOUIS BERGER
444 East Warm Springs Road, Ste. 100
Las Vegas, Nevada 89119
Phone: 702.735.0832 Fax: 702.707.1305

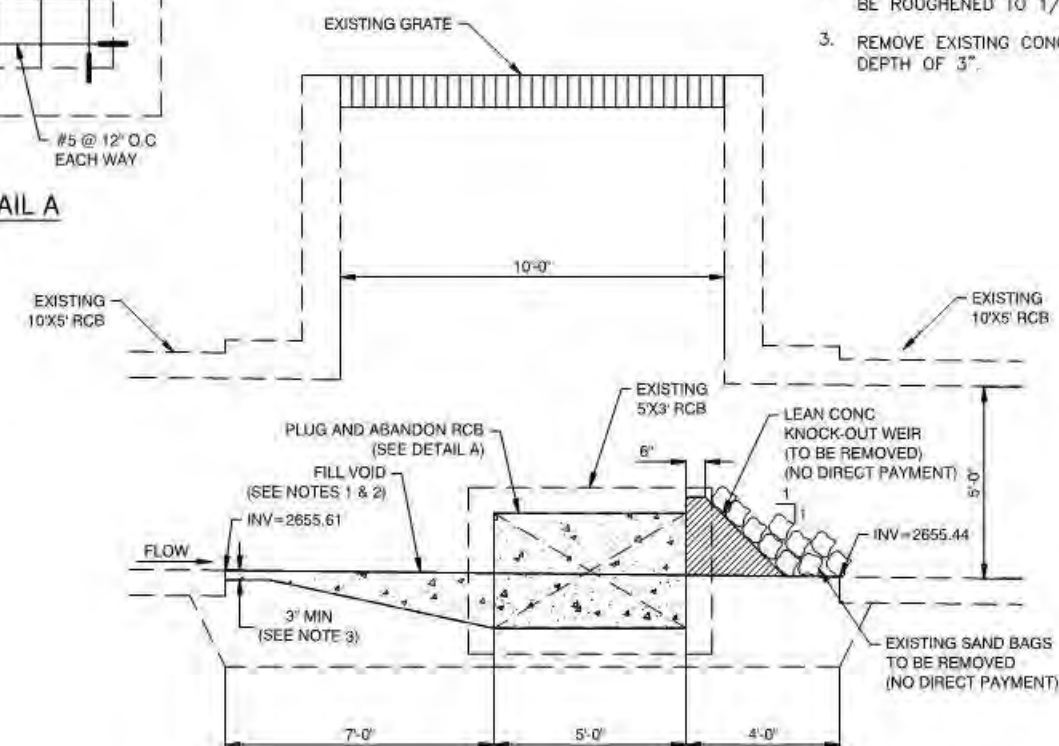


SECTION B-B

1 CHANNEL REMOVAL
LBDT-13 NTS



DETAIL A



SECTION B-B

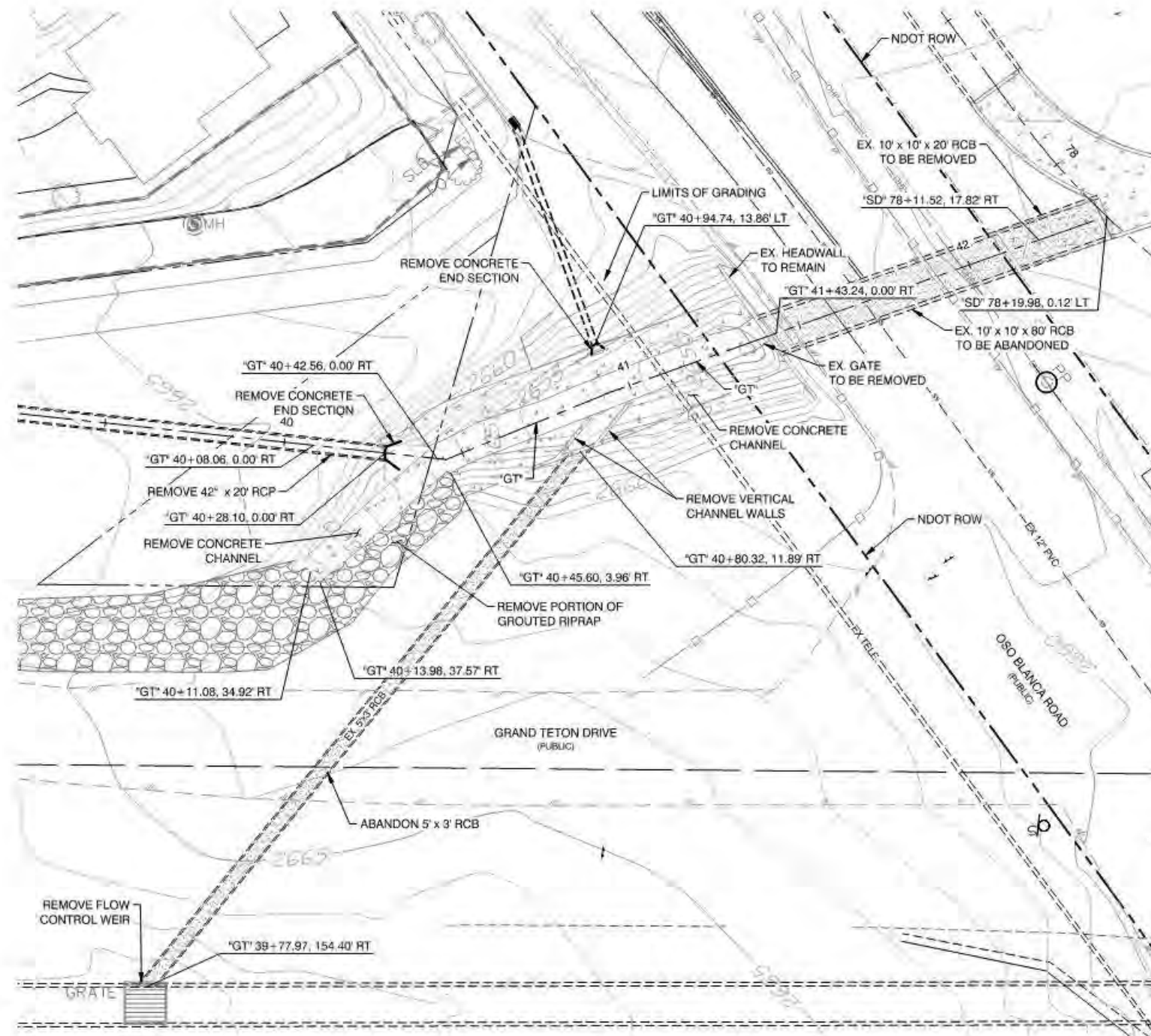
2 WEIR REMOVAL
LBOT-13 NTS

NOTES:

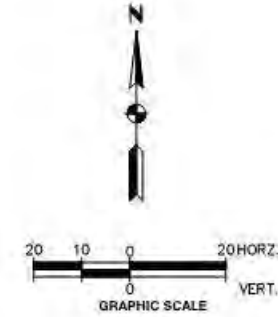
1. VOID SHALL BE FILLED WITH CLASS A CONCRETE, MODIFIED (MINOR).
2. EXISTING CONCRETE SURFACE SHALL BE ROUGHENED TO 1/4" AMPLITUDE.
3. REMOVE EXISTING CONCRETE TO A DEPTH OF 3".

TITLE CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE		SHEET TYPICAL DETAILS	
		PREPARED FOR CITY OF LAS VEGAS	
LBDT-13 45 OF 62 DRAWING NO. 731-96		BID# 144 102223	
DATE 6/15/2017		DESIGNED BY LDN	
SUBMITTAL STAGE:		DRAWN BY FME	
CHECKED BY JSD		NO. DATE	
REVISIONS		NO. DATE	

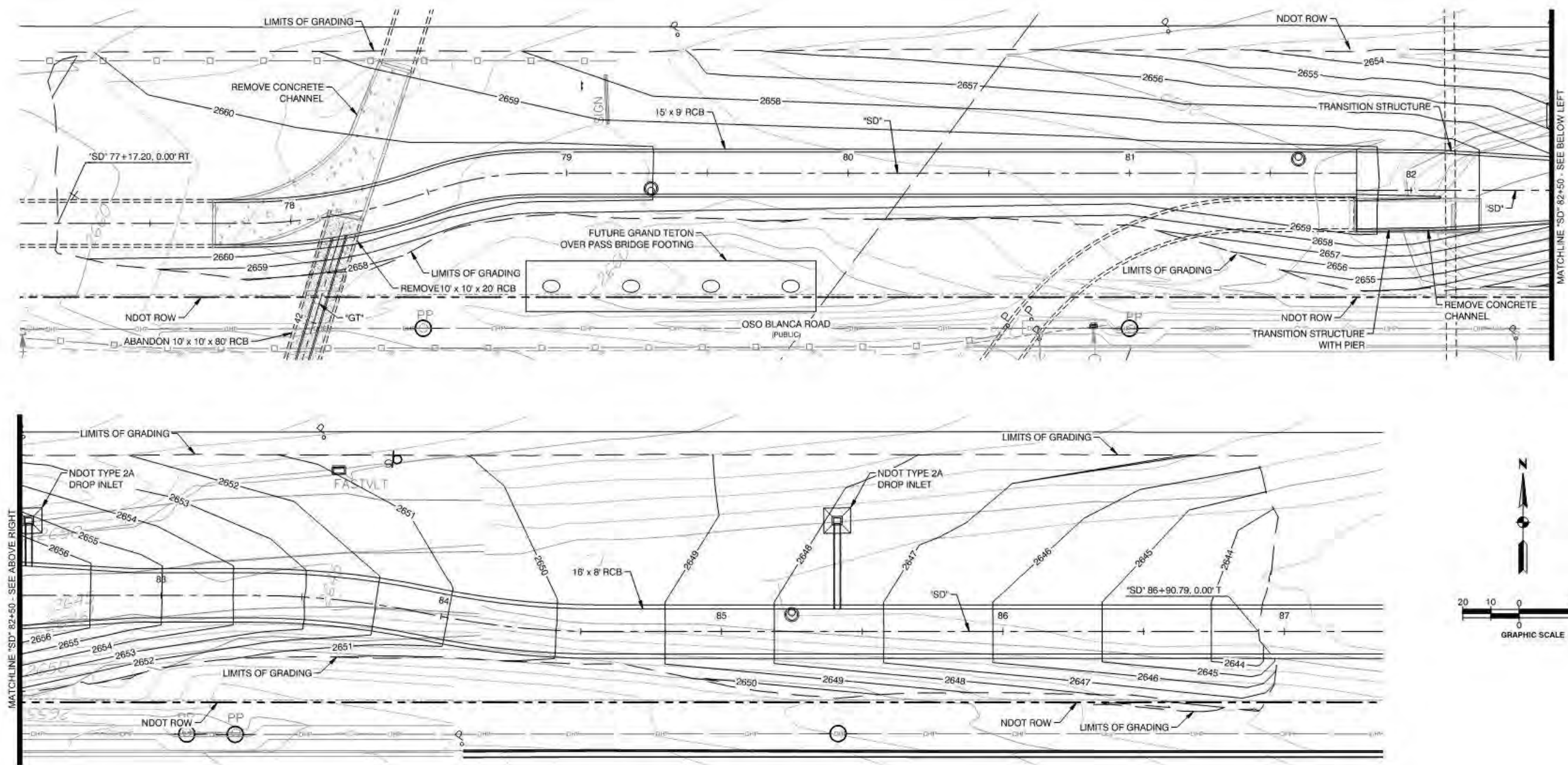
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1 "GT" CHANNEL REMOVAL DETAIL
LBQDT-14 SCALE: 1" = 20'



PREPARED BY		CITY OF LAS VEGAS		CENTENNIAL PARKWAY CHANNEL WEST DURANGO DRIVE TO GRAND TETON DRIVE		SHEET		7/3/2017	
DESIGNED BY: LDN		DATE: 6/15/2017		SUBMITTAL STAGE:		TITLE		LBQDT-14	
DRAWN BY: FME		CHECKED BY: JSD				SHEET		46 OF 62	
LOUIS BERGER		444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6812 - Fax: 702.407.1305		JEFFREY S. DOUGLAS Exp: 12/31/18 CIVIL		DRAWING NO.		731-96	
NO.		DATE		REVISIONS					



1 "SD" GRADING
LBDT-15 SCALE: 1" = 20'

Louis Berger 444 East Warm Springs Road, Ste 118 Las Vegas, Nevada 89119 Phone: 702.736.6832 - Fax: 702.407.1305	
PREPARED BY: [blank]	NO. DATE
DESIGNED BY: LDN	NO. DATE
DRAWN BY: FME	NO. DATE
CHECKED BY: JSD	NO. DATE
PREPARED FOR: CITY OF LAS VEGAS	
TITLE: CENTENNIAL PARKWAY CHANNEL WEST	
SHEET: DURANGO DRIVE TO GRAND TETON DRIVE	
"SD" GRADING DETAIL	
SHEET: LBDT-16	
48 OF 62	
DRAWING NO. 731-96	

[illegible]

[illegible]

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[illegible]

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