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UTILITY NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

CALL BEFORE YOU DIG: 1-800-642-2444

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE) PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOTE BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF THE LAS VEGAS VALLEY WATER DISTRICT FACILITIES.

NOTICE OF INTENT NOTE

NOTE: ALL LAND SURFACE AREA DISTURBANCES OVER 1 ACRE REQUIRE A STORMWATER DISCHARGE PERMIT ISSUED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP). A PHASED CONSTRUCTION UNIT IN A CONTIGUOUS SUBDIVISION IS CONSIDERED UNDER CONSTRUCTION UNTIL ALL STRIPPED SURFACE AREAS HAVE BEEN COVERED BY PAVING, BUILDING CONSTRUCTION OR PLANTING. A STORMWATER DISCHARGE PERMIT APPLICATION AND ASSOCIATED INFORMATION MAY BE DOWNLOADED FROM THE WEB SITE: HTTP://WWW.STATE.NV.US/BWPC/STORM01.HTM PROJECTS THAT DISTURB MORE THAN ONE ACRE OF LAND MUST SUBMIT TO NDEP A "NOTICE OF INTENT" FOR INCLUSION UNDER STORMWATER PERMIT NO. NVR100000 ALONG WITH APPROPRIATE FILLING FEE.

PROPOSED RIGHT-OF-WAY ACREAGE
6.94 AC.

PROPOSED DISTURBED AREA ACREAGE
7.02 AC.

GEOTECHNICAL ENGINEER
PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES
4480 W. HACIENDA AVENUE, SUITE 104, LAS VEGAS, NV 89118
PHONE: 702-873-3478
PROJECT NO.: G-19-183
DATED: OCTOBER 21, 2019 AND SUBSEQUENT UPDATE LETTER DATED: JANUARY 18, 2022

PUBLIC EARTHWORK QUANTITIES (RAW)
CUT: 1100
FILL: 6700

SUMMERLIN WEST VILLAGE 27 IMPROVEMENT PLANS FOR:

PARK DRIFT TRAIL
(LAKE MEAD BOULEVARD TO SUNSET RUN DRIVE),

SUNSET RUN DRIVE
(PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD),
AND

CALICO BEND DRIVE
(LAKE MEAD BOULEVARD TO SUNSET RUN DRIVE)
FUTURE SID PROJECT

APN: 137-22-101-005, 137-21-501-001,
AND 137-22-301-005.

SUMMERLIN®

OWNER /DEVELOPER

CONTACT: BRIAN WALSH
HOWARD HUGHES COMPANY LLC, A DELAWARE LIMITED LIABILITY COMPANY
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135

BRIAN WALSH, SR. VICE PRESIDENT — DATE

ENGINEER / CONSULTANT

CONTACT: NICOLAS BARCOS P.E.
ATKINS
2270 CORPORATE CIRCLE SUITE 200
HENDERSON, NEVADA 89074
(702) 263-7275

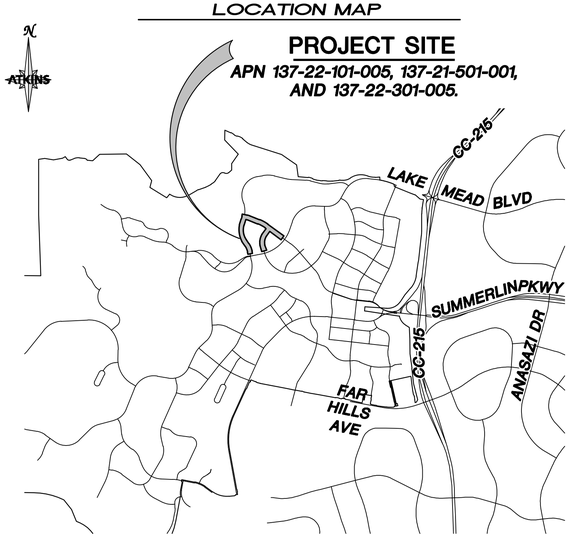
NPDES PERMIT NOTE

THE ENGINEER SHOULD CONTACT THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) TO OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PRIOR TO CONSTRUCTION. ALL CONSTRUCTION PROJECTS ONE ACRE OR LARGER MUST APPLY FOR THE PERMIT THROUGH NDEP. ALL QUESTIONS REGARDING THE NPDES PERMIT REQUIREMENTS SHOULD BE DIRECTED TO THE NDEP AT (775) 687-9429.

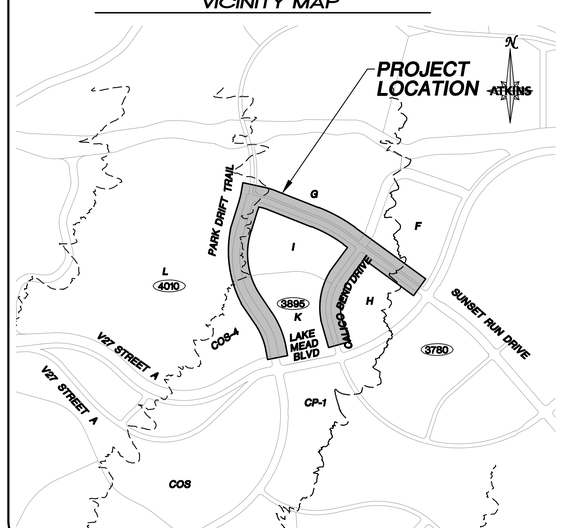
FEMA FLOOD ZONE INFORMATION

THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED ZONE X (UNSHADED) AS DEPICTED ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 32003C2150E, DATED 9/27/2002. A ZONE X (UNSHADED) IS DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN.

LOCATION MAP



VICINITY MAP



APPROVALS

CITY OF LAS VEGAS ENGINEERING

CITY OF LAS VEGAS DEPARTMENT OF PLANNING

NOTE:
THIS PLAN CONFORMS TO THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT.

LAS VEGAS FIRE AND RESCUE

CENTRAL TELEPHONE COMPANY d/b/a CENTURYLINK — DATE

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

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

SHEETS: _____

NV ENERGY — DATE

NV ENERGY HAS ACKNOWLEDGED 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 RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA UTILITY COMMISSION'S RULES AND REGULATIONS.

SOUTHWEST GAS CORPORATION — DATE

COX COMMUNICATIONS OF LAS VEGAS, INC — DATE

BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000 M (984,250.0000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:

1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

LEGAL DESCRIPTION

BEING A PORTION OF LOT 4 AS SHOWN ON THE MAP THEREOF IN BOOK 126 OF PLATS, PAGE 16, OFFICIAL RECORDS, CITY OF LAS VEGAS CLARK COUNTY, NEVADA

FAST Call before you UnderGround 1-702-432-5300 PROJECT AND OPERATIONAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING, UNCOVERING OR DAMAGING UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID VEHICLE OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD... 1-702-227-2929

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY JOSEPH ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN®

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD),
SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD),
AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)
COVER SHEET

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	NONE
VERT.:	NONE
DATE:	SEPTEMBER, 2022
DRAWING NO.	1 / 69
JOB NO.	100069474B

00000000
L00-00000

C:\pw_work\atkinsn01\dms585537\6947478-01-TITL-C1.dwg LAYOUT: C1 Sep 07, 2022 - 1:50PM

@	AT
#	NUMBER
AB	ABANDONED
AC	ASPHALTIC CONCRETE
ACP	ASBESTOS CEMENT PIPE
AGG	AGGREGATE
AIP	ABANDON IN PLACE
ALT	ALTERNATE
AP	ANGLE POINT
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS INTERNATIONAL
AV/AR	AIR VACUUM AIR RELIEF VALVE
BC	BACK OF CURB
BCR	BACK OF CURB RETURN
BLK	BLOCK
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF
BP	BOTTOM OF PIPE
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION
BVCS	BEGINNING OF VERTICAL CURVE STATION
BW	BOTTOM WIDTH
C&G	CURB AND GUTTER
C–C	CENTER TO CENTER
CATV	CABLE TELEVISION
CCAUSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWING
CCRFCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT
CF	CUBIC FOOT
CIP	CAST IRON PIPE OR CAST IN PLACE
CL	CENTERLINE
CLR	CLEAR
CLV	CITY OF LAS VEGAS
CM	CONSTRUCTION MANAGER
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNDT	CONDUIT
CNLV	CITY OF NORTH LAS VEGAS
CO	CLEANOUT
COH	CITY OF HENDERSON
COL	COLUMN
CON'T	CONTINUATION
CONC	CONCRETE
CONST	CONSTRUCT OR CONSTRUCTION
COR	CORNER
COS	COMMUNITY OPEN SPACE
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
CU	CUBIC
CULV	CULVERT
CY	CUBIC YARD
D	DEPTH
DCSWCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
DET, DTL	DETAIL
DEPT	DEPARTMENT
DG	DESIGN GRADE
DI	DROP INLET
DIA	DIAMETER
DIAG	DIAGONAL
DIP	DUCTILE IRON PIPE
DOC	DOCUMENT
DW	DRIVEWAY
DWG	DRAWING
E	EAST
EA	EACH
EB	EASTBOUND
EC	END OF CURVE
ECR	END CURB RETURN
EF	EACH FACE
EG	EXISTING GROUND
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBK	EMBANKMENT
EOP	EDGE OF PAVEMENT
EP	EDGE OF PAVEMENT ALIGNMENT END
EQ	EQUAL
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EVCS	END VERTICAL CURVE STATION
EW	EACH WAY
EX, EXST	EXISTING
EXP, JT	EXPANSION JOINT
FA	FIRE ALARM
FC	FACE OF CURB
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FLOW LINE
FO	FIBER OPTIC
FT	FOOT OR FEET
G	GAS LINE
GALV	GALVANIZED
GB	GRADE BREAK
GL	GRATE LENGTH
GM	GAS METER
GUT	GUTTER
GV	GATE VALVE
H	HEIGHT
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDWL	HEADWALL
HE	HORIZONTAL ELLIPTICAL
HGL	HYDRAULIC GRADE LINE
HOA	HOMEOWNER'S ASSOCIATION
HOR	HORIZONTAL
HP	HIGH POINT
ID	INSIDE DIAMETER
IN	INCH(ES)
INT	INTERSECTION
INV	INVERT
IQAC	INTERAGENCY QUALITY ASSURANCE COMMITTEE
IRR	IRRIGATION
ISL	ISLAND
JB	JUNCTION BOX
JCT	JUNCTION
JT	JOINT
K	VERTICAL CURVE K VALUE
L	LENGTH
LB	POUND(S)
LF	LINEAR FEET
LIN	LINEAR
LIN #	CCWRD MANHOLE NUMBER
LOC	LENGTH OF CURVE
LOL	LAYOUT LINE
LP	LOW POINT
LS	LANDSCAPE
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
MAS	MASONRY
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MON	MONOLITHIC, MONUMENT
MTL	MATERIAL
ME	MATCH EXISTING
MUE	MUNICIPAL UTILITY EASEMENT
N	NORTH
NAP	NOT A PART
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
NF	NEAR FACE
NG	NUMBER OF GRATES, NATURAL GRADE
NIC	NOT IN CONTRACT
No.	NUMBER
NTS	NOT TO SCALE
NVE	NV ENERGY
OC	ON CENTER
OD	OUTSIDE DIAMETER
OG	OPEN GRADE
OH	OVERHEAD
OHP	OVERHEAD POWER
OS	OFFSET
P	POWER
PB	PULL BOX
PBS	PLANTMIX BITUMINOUS SURFACE
PC	POINT OF CURVATURE
PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PG	PROPOSED GRADE
PGL	PROFILE GRADE LINE
PH	POT HOLE
PI	POINT OF INTERSECTION
PIP	PROTECT IN PLACE
PL	PROPERTY LINE
PLCS	PLACES
PMF	PAVEMENT MARKING FILM
POC	POINT OF CONNECTION
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PT	POINT, POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
QTY	QUANTITY
(R)	RADIAL
R/W,ROW	RIGHT OF WAY
R	RADIUS
RC	REINFORCED CONCRETE
RCB	REINFORCED CONCRETE BOX
RCC	ROLLER COMPACTED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REINF	REINFORCED OR REINFORCEMENT
RELOC	RELOCATE
REV	REVISION
RG	ROUGH GRADE
RP	RADIUS POINT
RPM	RAISED PAVEMENT MARKER
RR	RAILROAD
RT	RIGHT
SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT/SQUARE FEET
SHLD	SHOULDER
SHT	SHEET
SHP	STEEL HIGH PRESSURE PIPE
SMFO	SINGLE MODE FIBER OPTIC
SNWA	SOUTHERN NEVADA WATER AUTHORITY
SQ	SQUARE
SS	SANITARY SEWER OR SIDE SLOPE
SSD	SUMMERLIN STANDARD DRAWING
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STLT	STREETLIGHT
SDHW	STORM DRAIN HEADWALL
STRUCT	STRUCTURAL OR STRUCTURE
SUM #	CCWRD MANHOLE NUMBER
SURV	SURVEY
SVZ	SIGHT VISIBILITY ZONE
SW	SIDEWALK
SY	SQUARE YARD
T	TELEPHONE LINE
TAN	TANGENT
TB	TOP OF BOX
TBA	TO BE ADJUSTED
TBC	TOP OF BACK OF CURB
TBR	TO BE REMOVED
TC	TOP OF CURB
TCD	TRAFFIC CONTROL DEVICE
TDS	TECHNICAL DRAINAGE STUDY
TEL	TELEPHONE
TEMP	TEMPORARY
TF	TOP OF FOOTING
THK	THICK
THR	THRUST
THW	TOP OF HEADWALL
TOF	TOP OF FACE
TOP	TOP OF BANK
TW/TOW	TOP OF WALL
TP	TOP OF PIPE
TRANS	TRANSITION
TS	TRAFFIC SIGNAL
TSI	TRAFFIC SIGNAL INTERCONNECT
TW	TOP OF WALL
TYP	TYPICAL
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
UG	UNDERGROUND
UGP	UNDERGROUND POWER
UIE	UPPER INVERT ELEVATION
UNO	UNLESS NOTED OTHERWISE
UPRR	UNION PACIFIC RAILROAD
USD	UNIFORM STANDARD DRAWING
UTACS	ULTRA THIN ASPHALT CONCRETE SURFACE
USTCDE	UTILITY, STREETLIGHT, TRAFFIC CONTROL DEVICE EASEMENT
V	VOLT
VAR	VARIABLE
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
W	WEST, WATER
W/	WITH
WB	WEST BOUND
WL	WATER LINE
WM	WATER METER
W/O	WITHOUT
WPJ	WEAKENED PLANE JOINT
WV	WATER VALVE
WW	WING WALL
YD	YARD(S)

NOTE TO CONTRACTOR

- QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE INTENDED TO ILLUSTRATE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT QUANTITIES INVOLVED.

CITY OF LAS VEGAS STORM WATER MANAGEMENT NOTES

1. STANDARD NOTE NO. 1: THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. STANDARD NOTE NO. 2: ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE LVMC 14.18.130 AND CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT'S HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL SECTION 1500 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. STANDARD NOTE NO. 3: TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. STANDARD NOTE NO. 4: AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. STANDARD NOTE NO. 5: ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY
6. HAS BEEN REDUCED BY 50 PERCENT OR MORE.

REVISED 06/04/2018

	EXISTING	PROPOSED	FUTURE
DAYLIGHT LINE			
FLOWLINE			
CENTERLINE			
PARCEL LINE			
RIGHT OF WAY			
PAVEMENT STRIPING			
OVERHEAD POWER	—OHP—	—OHP—	
UNDERGROUND POWER	—UGP—	—UGP—	
SANITARY SEWER	—S—	15" SS	
WATER		24"W (3550)	
STORM DRAIN			
GAS	—G—	—G—	
CABLE T.V.	—CATV—	—CATV—	
TELEPHONE	—T—	—T—	
STREETLIGHT CONDUIT	—STLT—	STLT	
STOP BAR			
CONCRETE ENCASEMENT			
FENCE			
BLOCK WALL			
RETAINING WALL			
SAWCUT PAVEMENT			
CONTOUR	(3000)	3005	
SPOT ELEVATION	x 3011.6	x 3011.67	
CURB AND GUTTER			
EDGE OF PAVEMENT			
EASEMENT			
MATCHLINE			
SIGN			
DOUBLE POST SIGN			
STORM DRAIN MANHOLE	SD		
STORM DRAIN STRUCTURE			
DROP INLET			
BEEHIVE INLET		OR	
SEWER MANHOLE	S	S	
FIRE HYDRANT			
CAP AND BLOWOFF			
GATE VALVE			
REDUCER			
STREETLIGHT	OR		
PULLBOX			
SIGNAL POLE			
ELEVATION	(0000.0) EG	0000.00 FG	
WATER PRESSURE ZONE BOUNDARY			
WATER PRESSURE ZONE		0000	
HARDSCAPE			
EXISTING RED ROCK			

ROADWAY ALIGNMENT DESIGNATIONS

"PDT" = PARK DRIFT TRAIL
"SRD" = SUNSET RUN DRIVE
"CBD" = CALICO BEND DRIVE
"LMB" = LAKE MEAD BOULEVARD

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 NEVADA811.COM SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING & DAMAGING UTILITY LINES. IT'S COSTLY. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

LEGEND AND ABBREVIATIONS

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

00000000
L00–00000
DATE: SEPTEMBER, 2022
DRAWING NO. 2 / 69
JOB NO. 1000694748

C:\pw_work\atkrom01\dms585371\6947748-02-LGND-C2.dwg LAYOUT: C2 Sep 07, 2022 – 1:50PM

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHELL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY, REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
16. WALL NOTES: ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. ~~AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.~~

    SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 06/04/2018

CITY OF LAS VEGAS GRADING NOTES

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

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'+	+0.0' TO −0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'+	+0.1' TO −0.1'	SEE SOILS REPORT

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

REVISED 04/15/10

PLAN CONCURRENCE NOTE

THE FOLLOWING SEPARATE SUMMERLIN WEST ROADWAY IMPROVEMENT PLANS ARE TO BE CONSTRUCTED CONCURRENTLY AND ARE SHOWN AS FUTURE (BY OTHERS):

1. V25 LAKE MEAD BOULEVARD (SUNSET RUN DRIVE TO PARK DRIFT TRAIL)
2. V27 ROUGH GRADING PACKAGE
3. V27 LAKE MEAD BOULEVARD (SCURRY BEND DRIVE TO SUNSET RUN DRIVE)
4. V27 STREET A (PARK DRIFT TRAIL TO MOUNTAIN RUN DRIVE)
5. V27 PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

DEVIATIONS FROM STANDARDS

NONE.

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6631 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. IFC § 105.6.15
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. IFC § 3310, § 3312
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. IFC § 507.5.7.3
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. IFC § 106.3
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. IFC § 507.2.1, NFPA 24
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. IFC § 507
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. IFC § 507.5.7.1
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. IFC § 507
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: IFC § C102
    - RESIDENTIAL – 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    - COMMERCIAL – 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. IFC § C102.8
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. IFC § C102.10
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § 102.4
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. IFC § C102.7
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. IFC § C102.6
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. FOR SYSTEMS REQUIRED TO HAVE TWO (2) SOURCES OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. FOR SYSTEMS PERMITTED TO HAVE ONE SOURCE OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 3 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-IN CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. IFC § C104
19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. IFC § 503.2.3
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. IFC § 503.2.7; 503.2.8
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. IFC § 503.2.4
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. IFC § 503.2.1
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 33 FT WITH PARKING ON BOTH SIDES MEASURED TO FACE OF CURB. NOT LESS THAN 28 FT WIDE WITH PARKING RESTRICTED TO ONE SIDE MEASURED TO FACE OF CURB. NOT LESS THAN 24 FT WIDE WITH NO PARKING ON EITHER SIDE MEASURED TO FACE OF CURB. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. IFC § 503.2.1.1
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. IFC § 503.1.1
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT. CLV REGULATION AND MOU
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. CLV REGULATION
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. IFC § 503.3
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. IFC § 503.6
29. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS, OR HAVING FOUR OR MORE TRAVEL LANES AND A TRAFFIC COUNT OF MORE THAN 30,000 VEHICLES PER DAY, ALL HYDRANTS BEINGS UTILIZED TO DELIVER FIRE FLOW TO THE PROPOSED LOCATION SHALL BE LOCATED ON THE SAME SIDE OF THE STREET AS THE PROPOSED DEVELOPMENT. CLV REGULATION

REVISED FEBRUARY 4, 2019

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CCAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC). IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED JUNE 4, 2018

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y"'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.
11. SEWER SERVICES AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVE ADDITIONAL PARCELS OR STRUCTURES WHICH MAY BE CREATED IN THE FUTURE. IN THE EVENT THAT THE PARCEL AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE SEPARATE SEWER SERVICE TO EACH.

REVISED 09/16/2020

CITY OF LAS VEGAS STREET LIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
3. LUMINAIRES SHALL BE MARKED TO INDICATE INSTALLATION ORIENTATION, AND SHALL HAVE EXTERNAL LABELS PER ANSI C136 THAT INDICATE WATTAGE AND ARE CLEARLY VISIBLE FROM STREET LEVEL.
4. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
5. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
6. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
7. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 320A WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
8. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
9. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
10. NEW STREETLIGHT SERVICES SHALL BE 200 AMP PADMOUNT AND SHALL PROVIDE CAPACITY FOR 20 OR 24 AVAILABLE CIRCUITS.
11. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.
12. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED MAY 19, 2020 (LD VERSION)

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

SOUTHWEST NEVADA - SOUTHWEST GAS CORPORATION

GENERAL NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS
    A. ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES
3. FOR VALVE ADJUSTMENT CONTACT 702-528-7881 14 DAYS PRIOR TO CONSTRUCTION
4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099
5. FOR STANDBY WHEN EXCAVATING (INCLUDING SAW CUTTING AND PAVEMENT REMOVAL) OVER OR NEAR HIGH PRESSURE GAS LINES CONTACT 702-278-8451 48 HOURS PRIOR TO CONSTRUCTION.

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION HIGH PRESSURE NOTES ON THE NOTES SHEET AND ALL SHEETS DEPICTING HIGH PRESSURE NATURAL GAS MAINS AS INDICATED BELOW:

CAUTION: HIGH PRESSURE GAS!!
CALL SOUTHWEST GAS AT 702-278-8451 FOR STANDBY WHEN EXCAVATING
(INCLUDING SAW CUTTING AND PAVEMENT REMOVAL) OVER OR NEAR HIGH
PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

SOUTHWEST GAS CORPORATION ____________ DATE

GRADING NOTES

1. INDICATED GRADES OTHER THAN TC, FG & GUTTER FL ARE ROUGH GRADES.
2. THE ROUGH GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES. THE ROUGH GRADING SHALL BE FINISHED IN CONFORMANCE WITH THE LINES AND GRADES SHOWN ON THE PLANS. THE GRADING QUANTITIES ARE BASED ON THE ELEVATION AND DETAILS SHOWN ON THE PLANS. ANY DEVIATIONS FROM THE PLAN WILL RESULT IN QUANTITY CHANGES.
3. SOILS REPORT PREPARED BY: NOVA GEOTECHNICAL & INSPECTION SERVICES, 4480 W. HACIENDA AVENUE, SUITE 104, LAS VEGAS, NV 89118, PHONE: 702-873-3478, PROJECT NO. : G-20-059, DATED: OCTOBER 7, 2020.
4. EARTHWORK QUANTITIES (RAW):

    -CUT = 1100 CUBIC YARDS
    -FILL = 6700 CUBIC YARDS

A. THE ABOVE QUANTITIES DO NOT REFLECT LOSSES DUE TO SUBSIDENCE OR SHRINKAGE.
B. THE ABOVE QUANTITIES DO REFLECT USING NATIVE MATERIAL IN LIEU OF TYPE 1 GRAVEL BASE MATERIAL FOR STREET SECTIONS.
C. THE ABOVE QUANTITIES DO NOT REFLECT ANY EARTHWORK WHICH MAY BE REQUIRED BY THE ENGINEER TO CONSTRUCT ADDITIONAL PROTECTIVE DITCHES OR BERMS NOT SHOWN ON THESE DRAWINGS.

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED PUBLIC ENTITIES, THE PROJECT ENGINEER AND THE CITY OF LAS VEGAS AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK.
2. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE CONTRACT DRAWINGS. ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER.
3. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.
4. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM INFORMATION RECEIVED FROM THE APPLICABLE UTILITY COMPANIES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN, OR NOT IN THE LOCATION SHOWN ON THE DRAWINGS. CONTRACTOR TO VERIFY EXACT LOCATION OF UTILITIES PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR'S RESPONSIBILITY REGARDING UTILITIES SHALL BE AS REQUIRED UNDER SECTION 107.17 OF THE "UNIFORM STANDARD SPECIFICATIONS FOR CLARK COUNTY AREA, NEVADA" AND AS PROVIDED IN THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT EXISTING UTILITY LINES, STRUCTURES, AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE. ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE COUNTY ENGINEER OR OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL NOT REMOVE TREES, SHRUBS, LAWNS, WALLS, FENCES, SIGNS, STRUCTURES, LIGHTS, OR ANY OTHER EXISTING IMPROVEMENTS OUTSIDE OF STREET RIGHT-OF-WAY, EXCEPT WHERE REQUIRED TO DO SO BY THE CONTRACT DRAWINGS OR THE PROJECT ENGINEER. REPLACEMENT, RELOCATION OR RECONSTRUCTION OF ALL EXISTING IMPROVEMENTS INCLUDING SPRINKLER SYSTEMS, LAWNS, FENCES, WALLS, SIGNS, STEPS, SIDEWALKS, DRIVEWAYS, LAWN LIGHTS, AND ALL OTHER ITEMS APPLICABLE TO THIS CONTRACT SHALL BE REQUIRED BY THE PROJECT ENGINEER.
7. THE CONTRACTOR SHALL BACKFILL AND FINE GRADE ALL CUT OR FILL SLOPES TO MATCH EXISTING CONDITIONS TO THE SATISFACTION OF THE PROJECT ENGINEER. WHERE EXISTING LAWNS ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS THE CONTRACTOR WILL SOD THE AFFECTED AREA TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE AS SHOWN PER CONTRACT DRAWINGS.
9. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.550.
10. THE ACTUAL LOCATIONS OF SAW CUT LINES, LIMITS OF COLD MILLING, LIMITS OF DRIVEWAY TRANSITIONS, AND LANDSCAPE REPAIR SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT PROJECT REPRESENTATIVE.
11. THE ACTUAL LIMITS OF EXISTING OPEN GRADE REMOVAL AND UDACS APPLICATION SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT PROJECT REPRESENTATIVE.
12. ALL STANDARD DRAWINGS REFERENCED IN THIS SET ARE BASED ON THE CURRENT "UNIFORM STANDARD DRAWINGS REVISION SET II-1997 RELEASE".
13. UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OR RELOCATION OF ALL WATER SERVICES AND METERS WHICH INTERFERE WITH IMPROVEMENTS SHOWN ON THE CONTRACT DRAWINGS.
14. THE CONTRACTOR SHALL MAINTAIN AN ONGOING REMOVAL PROCESS OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
15. CURB AND GUTTER OF A GRADE OF LESS THAN 4/10 OF ONE PERCENT SHALL BE CONSTRUCTED BY FORMING. EACH JOINT SHALL BE CHECKED FOR GRADE PRIOR TO CONSTRUCTION AND WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION.
16. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL DIMENSIONS, EXISTING CONDITIONS AND POINTS OF CONNECTION WITH ADJOINING PROPERTY (PUBLIC AND PRIVATE). ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
17. REMOVAL OR RELOCATION OF POWER POLES, TELEPHONE POLES, JOINTLY-OWNED POLES, AND APPURTENANCES WHICH INTERFERE WITH IMPROVEMENTS REQUIRED TO BE CONSTRUCTED UNDER THIS CONTRACT, SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE UTILITY COMPANY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE UTILITY COMPANIES FAR ENOUGH IN ADVANCE SO AS TO NOT IMPACT THE SCHEDULE.
18. COX COMMUNICATIONS SHALL BE RESPONSIBLE FOR THE VERTICAL OR HORIZONTAL ADJUSTMENT OF ALL CATV FACILITIES WHICH INTERFERE WITH IMPROVEMENTS SHOWN ON THE CONTRACT DRAWINGS, UNLESS NOTED OTHERWISE.
19. NV ENERGY SHALL BE RESPONSIBLE FOR THE RELOCATION OF UNDERGROUND OR OVERHEAD POWER LINES THAT INTERFERE WITH THE REQUIRED IMPROVEMENTS AS SHOWN ON THE CONTRACT DRAWINGS.
20. EMBARQ SHALL BE RESPONSIBLE FOR THE VERTICAL OR HORIZONTAL ADJUSTMENT OF ALL TELEPHONE FACILITIES WHICH INTERFERE WITH IMPROVEMENTS SHOWN ON CONTRACT DRAWINGS, UNLESS NOTED OTHERWISE.

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) NOTES

LVVWD PROJECT #000000
(REVISED 01/27/2021)

1. 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.**
2. 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 SUPERCEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.**
3. 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.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE **2010** EDITION OF THE **UDACS.**
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. 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.
11. 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.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS..
13. TELEPHONE **USA NORTH** 811 "CALL BEFORE YOU DIG" AT "811" OR 1-800-642-2444.
14. THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARD, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN 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 DIRING 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.
15. **NO LEAD COMPLIANCE NOTE:**
    TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT.THE OLD LEADED PRODUCT MAY NOT BE REUSED.

ESN.032 **REVISED 01/27/2021**

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. XXXXXX FIRST APPROVED DATE: ____________

LVVWD APPROVED FIRE FLOW XXXX GPM AT 20PSI RESIDUAL

PROFESSIONAL ENGINEER STATE OF NEVADA
ANTHONY J. ORTIZ
EXP. 12-31-23
CIVIL
No. 18849

REV.	DESCRIPTION	BY	DATE	APPROVAL

REVISIONS

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD),
SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD),
AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

GENERAL NOTES

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE
00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. **3/69**
JOB NO. 100069474B

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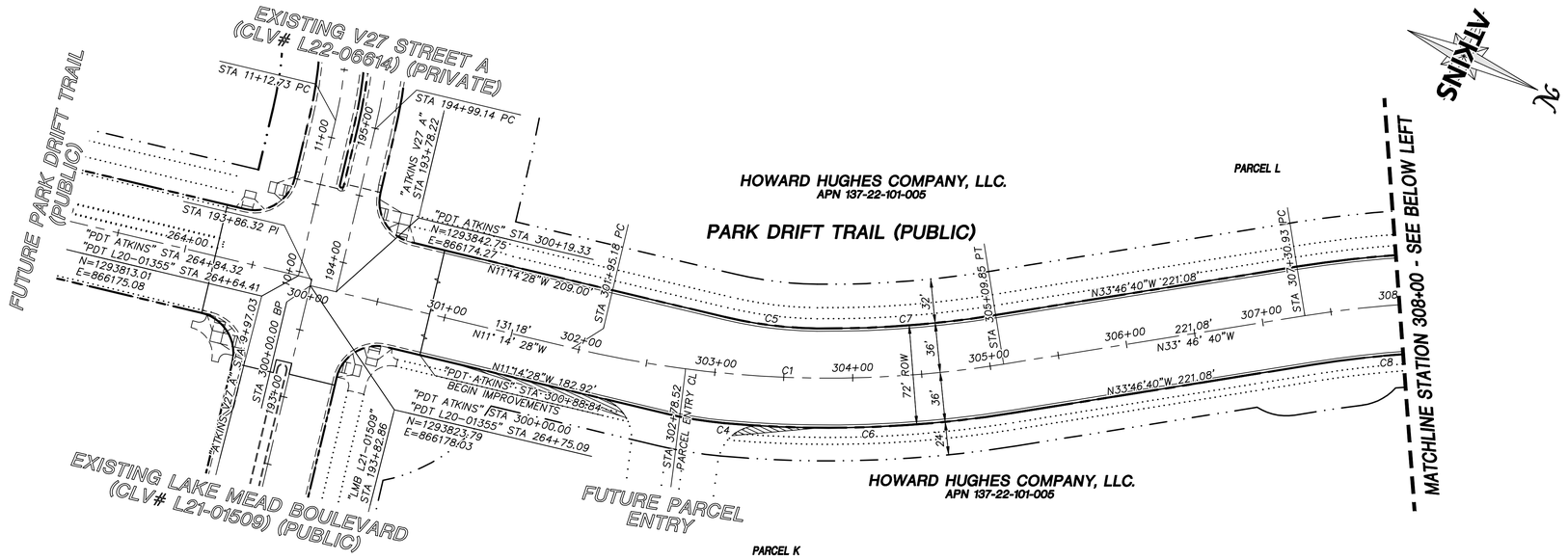
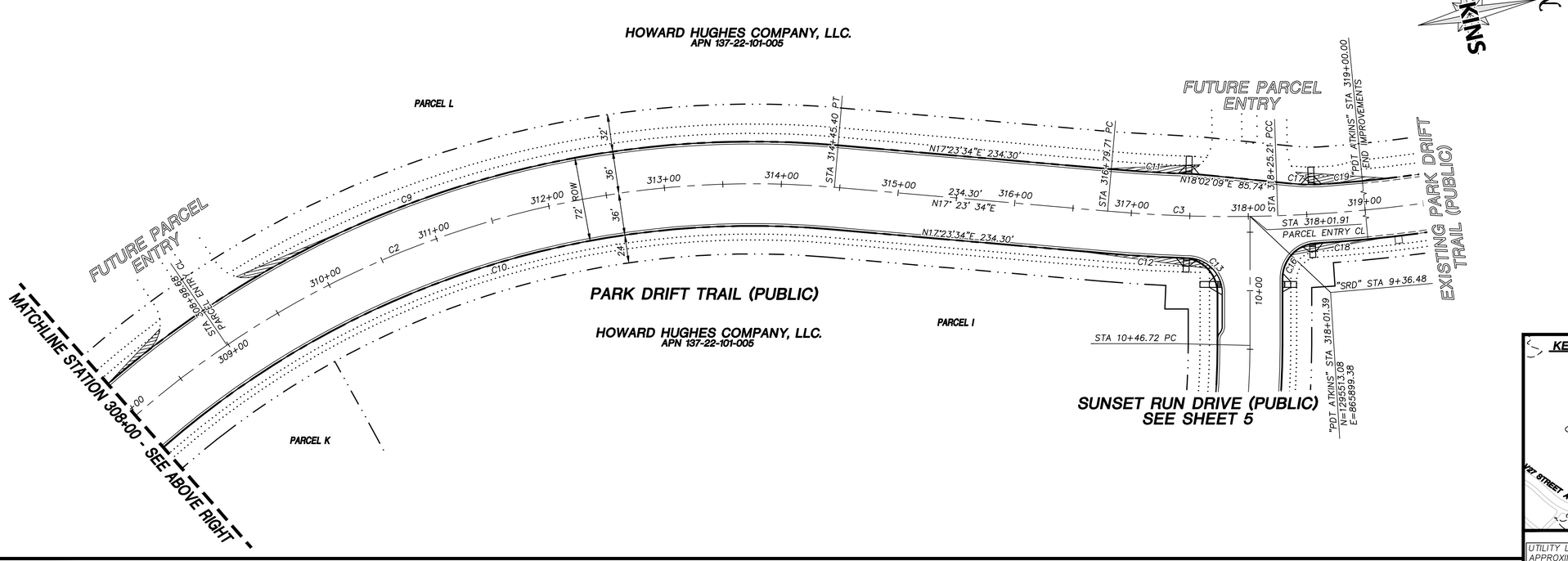




SUMMARY OF QUANTITIES

DESCRIPTION	QUANTITY	UNIT
ROADWAY		
4" BITUMINOUS A.C.	13840	SY
3" BITUMINOUS A.C.	16400	SY
4" TYPE II AGGREGATE	3600	CY
TYPE "L" CURB AND GUTTER	9590	LF
TYPE "A" MEDIAN CURB	560	LF

ROADWAY NOTES

1. SEE SHEETS 59-61 FOR TYPICAL SECTIONS, DETAILS
2. SEE SHEET 2 FOR ROADWAY ALIGNMENT ABBREVIATIONS

CENTERLINE CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C1	800.00'	22°32'13"	314.67'	159.40'
C2	800.00'	51°10'14"	714.48'	383.04'
C3	1200.00'	5°48'35"	121.68'	60.89'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C4	836.00'	14°19'18"	208.97'	105.03'
C5	300.00'	12°46'58"	66.93'	33.61'
C6	836.00'	14°19'18"	208.97'	105.03'
C7	764.00'	9°45'14"	130.06'	65.19'
C8	764.00'	8°01'07"	106.92'	53.55'
C9	836.00'	51°10'14"	746.63'	400.28'
C10	764.00'	43°09'07"	575.40'	302.12'
C11	1164.00'	3°28'56"	70.74'	35.38'
C12	1236.00'	3°20'07"	71.95'	35.98'
C13	30.00'	88°11'27"	46.18'	29.07'
C16	30.00'	86°35'38"	45.34'	28.27'
C17	143.00'	9°27'57"	23.63'	11.84'
C18	1225.00'	2°06'18"	45.01'	22.51'
C19	1175.00'	1°42'28"	35.02'	17.51'

GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

BASIS OF BEARING

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

BENCHMARK

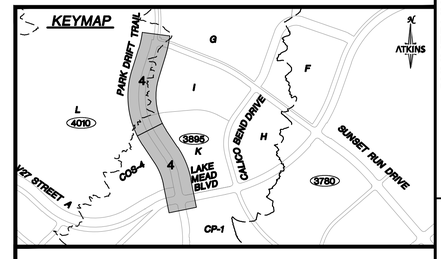
CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REGIONAL AND NATIONAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID OUTAGE & UNDERGROUND UTILITY CABLE CUTS. DON'T DIG. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

KEYMAP



UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTEGA EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

HORIZONTAL CONTROL PLAN
PARK DRIFT TRAIL

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 4 /69

JOB NO. 100069474B

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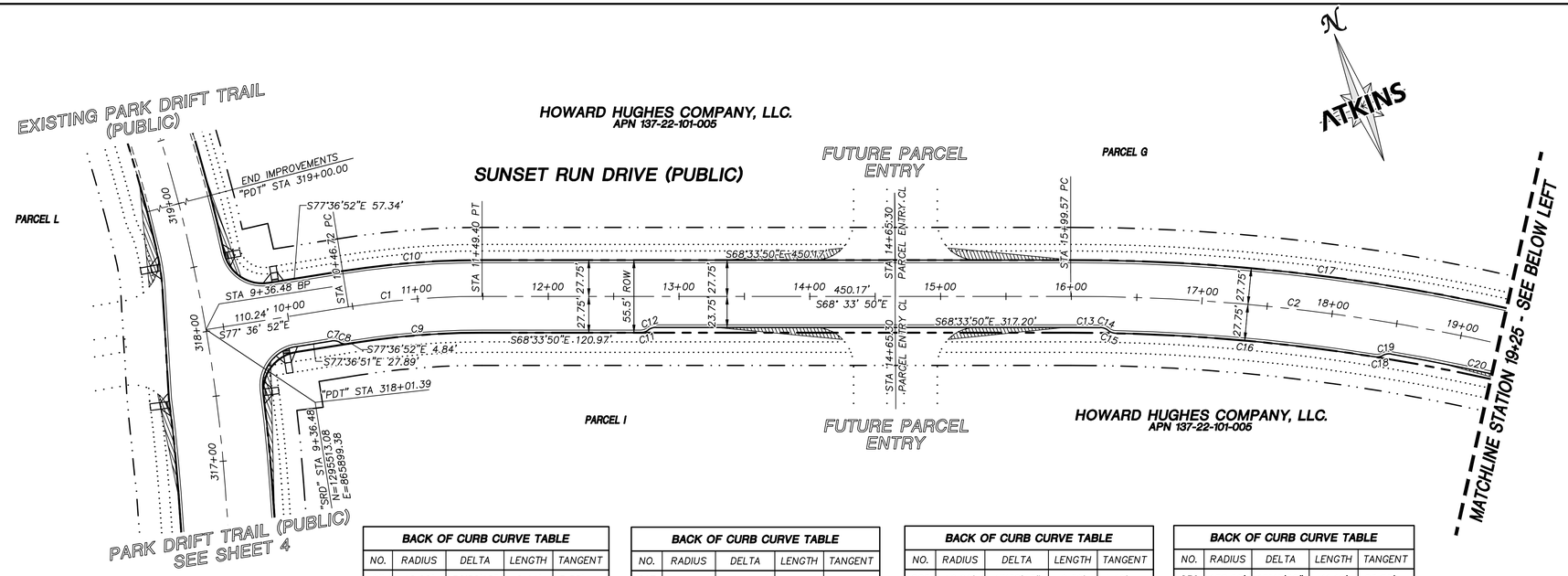
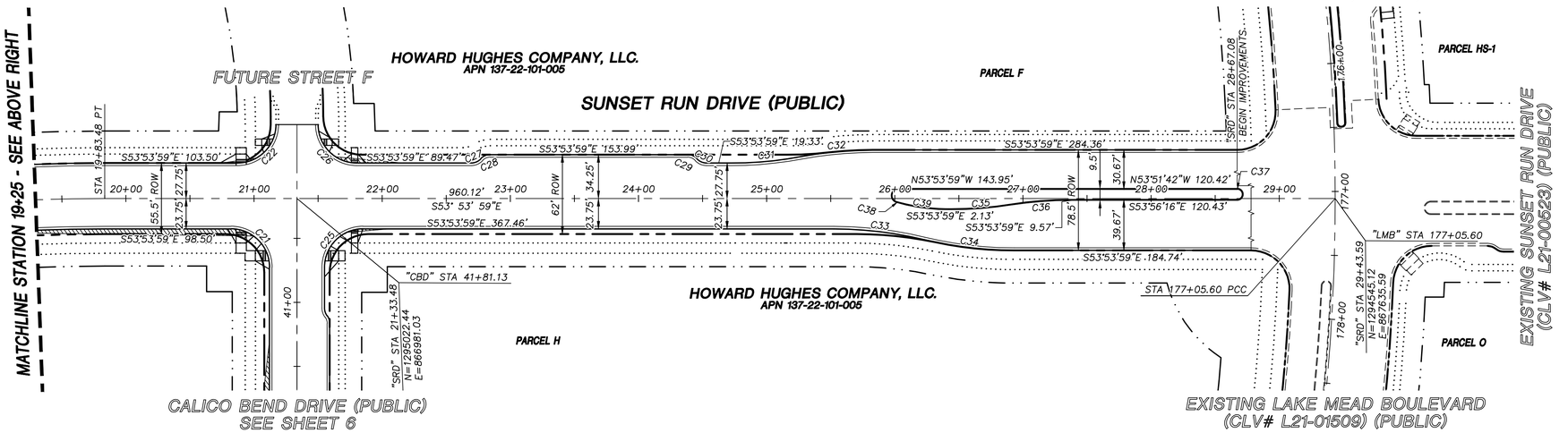




ROADWAY NOTES

1. SEE SHEET 59–61 FOR TYPICAL SECTIONS, DETAILS
2. SEE SHEET 2 FOR ROADWAY ALIGNMENT ABBREVIATIONS

CENTERLINE CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C1	650.00'	9°03'01"	102.67'	51.44'
C2	1500.00'	14°39'52"	383.91'	193.01'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C7	10.00'	36°52'12"	6.44'	3.33'
C8	10.00'	36°52'12"	6.44'	3.33'
C9	622.25'	9°03'01"	98.29'	49.25'
C10	677.75'	9°03'01"	107.06'	53.64'
C11	10.00'	36°52'12"	6.44'	3.33'
C12	10.00'	36°52'12"	6.44'	3.33'
C13	1476.25'	0°52'05"	22.36'	11.18'
C14	10.00'	37°06'13"	6.48'	3.36'
C15	10.00'	36°38'14"	6.39'	3.31'
C16	1472.25'	7°44'55"	199.11'	99.71'

BACK OF CURB CURVE TABLE

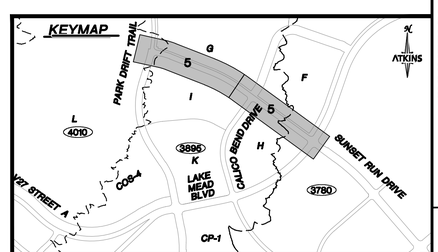
NO.	RADIUS	DELTA	LENGTH	TANGENT
C17	1527.75'	14°39'52"	391.01'	196.58'
C18	10.00'	36°38'14"	6.39'	3.31'
C19	10.00'	37°06'13"	6.48'	3.36'
C20	1476.25'	5°06'54"	131.79'	65.94'
C21	30.00'	90°00'00"	47.12'	30.00'
C22	30.00'	90°00'00"	47.12'	30.00'
C25	30.00'	89°42'37"	46.97'	29.85'
C26	30.00'	90°00'00"	47.12'	30.00'
C27	10.00'	47°32'48"	8.30'	4.40'
C28	10.00'	47°32'45"	8.30'	4.40'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C29	10.00'	47°32'45"	8.30'	4.40'
C30	10.00'	47°32'46"	8.30'	4.40'
C31	300.00'	10°36'21"	55.53'	27.85'
C32	300.00'	10°36'21"	55.53'	27.85'
C33	300.00'	13°34'17"	71.06'	35.70'
C34	300.00'	13°34'13"	71.05'	35.69'
C35	300.00'	8°54'58"	46.68'	23.39'
C36	300.00'	8°54'58"	46.68'	23.39'
C37	4.00'	179°55'26"	12.56'	6018.43'
C38	150.00'	15°42'02"	41.10'	20.68'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C39	150.00'	15°42'02"	41.10'	20.68'



GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

BASIS OF BEARING

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

BENCHMARK

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 EMERGENCY AND INTERNAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ Exp. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

HORIZONTAL CONTROL PLAN
SUNSET RUN DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 5 / 69
JOB NO. 100069474B

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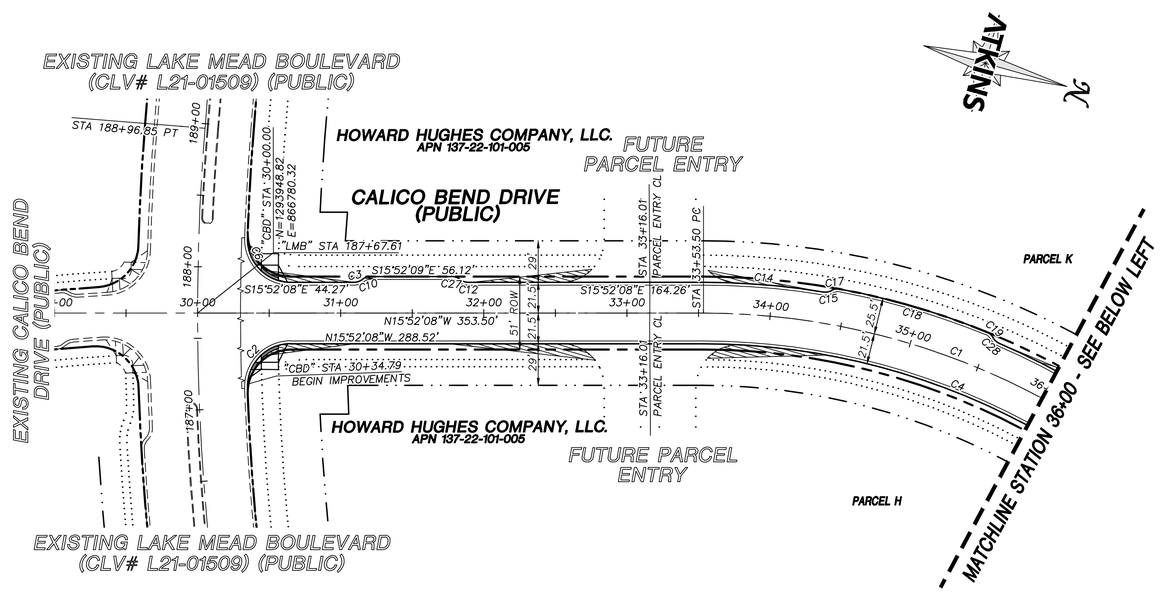

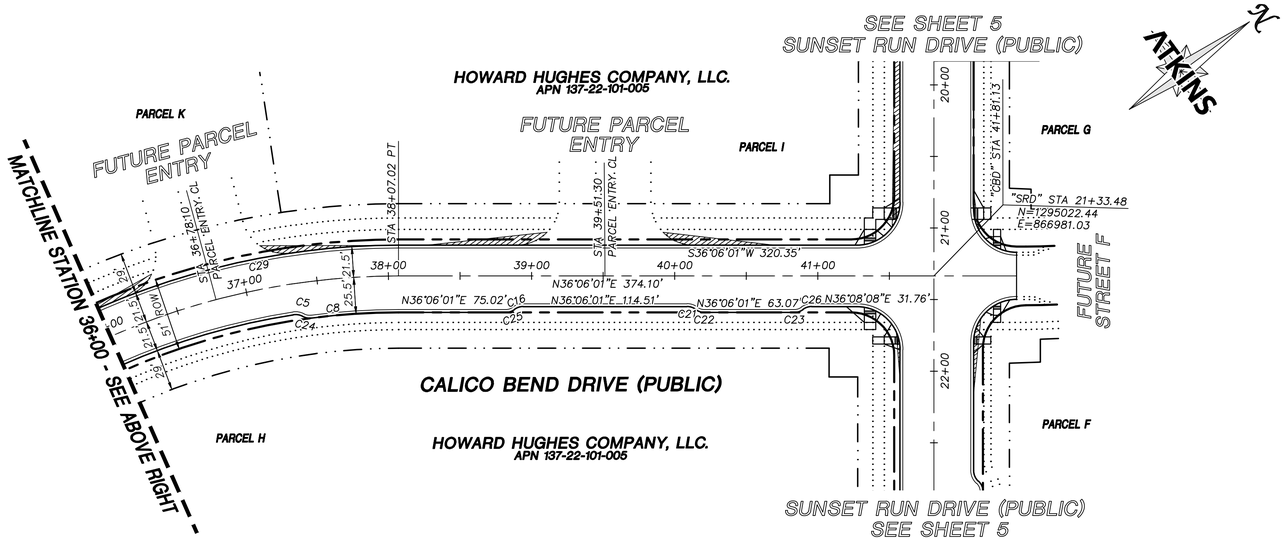

ROADWAY NOTES

1. SEE SHEET 59–61 FOR TYPICAL SECTIONS, DETAILS
2. SEE SHEET 2 FOR ROADWAY ALIGNMENT ABBREVIATIONS

CENTERLINE CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C1	500.00'	51°58'10"	453.52'	243.70'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C2	30.00'	92°36'56"	48.49'	31.40'
C3	10.00'	36°52'12"	6.44'	3.33'
C4	478.50'	43°08'34"	360.30'	189.18'
C5	10.00'	37°35'51"	6.56'	3.40'
C6	30.00'	90°12'48"	47.24'	30.11'
C8	474.50'	7°23'00"	61.15'	30.62'
C10	10.00'	36°52'12"	6.44'	3.33'
C12	10.00'	36°52'12"	6.44'	3.33'
C14	521.50'	9°11'31"	83.66'	41.92'
C15	10.00'	36°13'05"	6.32'	3.27'
C16	10.00'	36°52'12"	6.44'	3.33'
C17	10.00'	37°31'54"	6.55'	3.40'
C18	525.50'	11°32'51"	105.91'	53.14'
C19	10.00'	37°31'54"	6.55'	3.40'
C21	10.00'	36°52'15"	6.44'	3.33'
C22	10.00'	36°52'13"	6.44'	3.33'
C23	10.00'	36°52'12"	6.44'	3.33'

BACK OF CURB CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C24	10.00'	36°09'16"	6.31'	3.26'
C25	10.00'	36°52'12"	6.44'	3.33'
C26	10.00'	36°52'12"	6.44'	3.33'
C27	10.00'	36°52'12"	6.44'	3.33'
C28	10.00'	36°13'05"	6.32'	3.27'
C29	521.50'	28°36'10"	260.34'	132.94'

GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

BASIS OF BEARING

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

BENCHMARK

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(REVISED 2008)
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(3,246.63 FEET)
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T21S,R59E,S03

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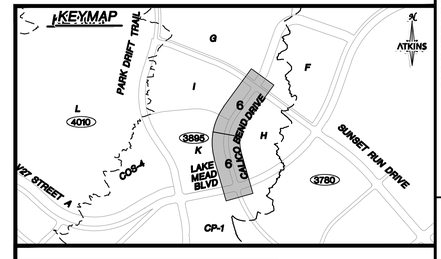
KEYMAP


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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

HORIZONTAL CONTROL PLAN
CALICO BEND DRIVE

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 6 / 69	HORIZ.: 1"=50' VERT.: NONE

JOB NO. 100069474B

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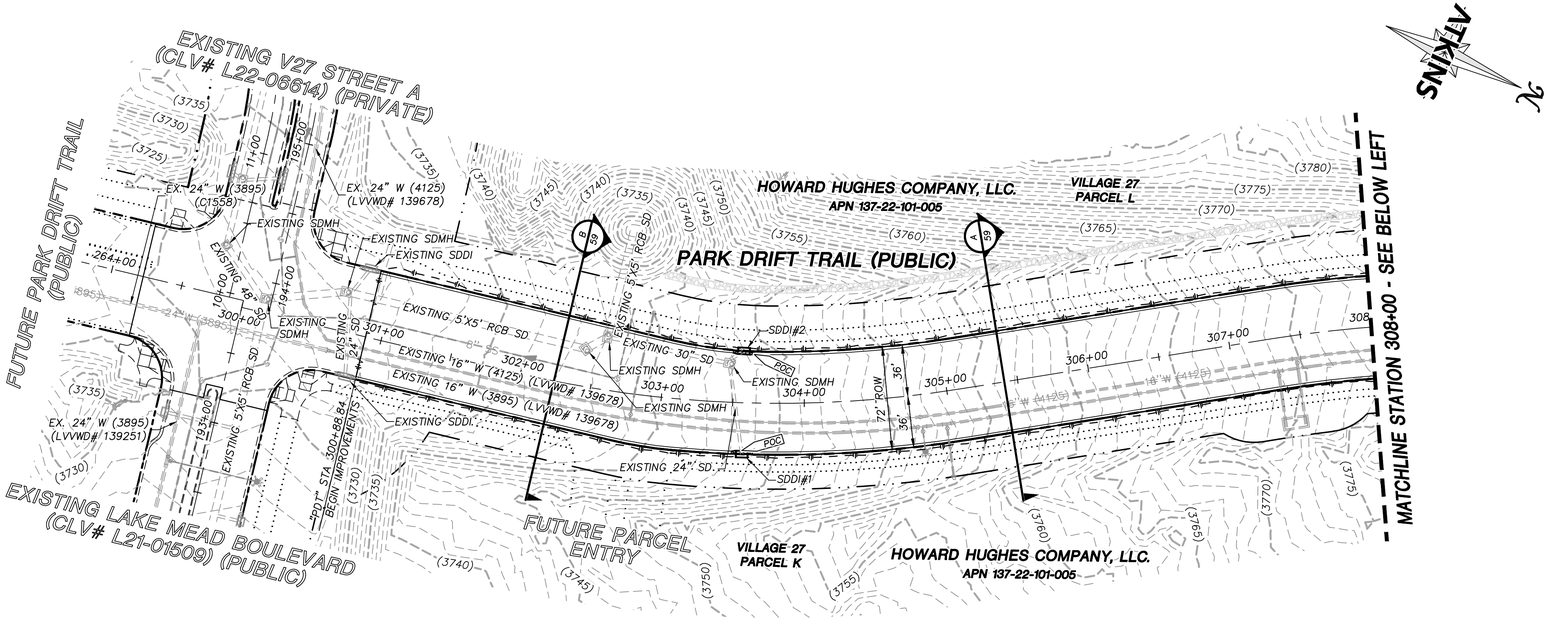

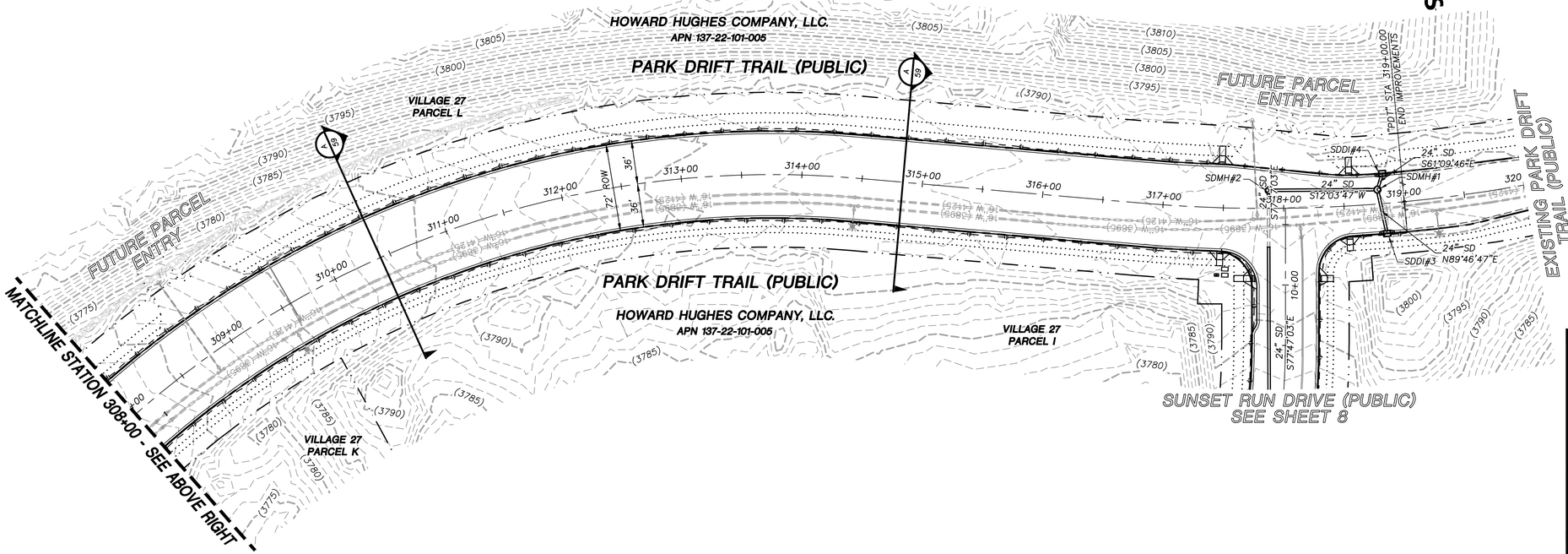

SUMMARY OF QUANTITIES

DESCRIPTION	QUANTITY	UNIT
DRAINAGE		
24" CLASS III RCP	1550	LF
30" CLASS III RCP	1230	LF
42" CLASS III RCP	10	LF
48" CLASS III RCP	180	LF
48" CLASS IV RCP	590	LF
TYPE I MANHOLE	6	EACH
TYPE III MANHOLE	8	EACH
7.5' TYPE CM DROP INLET	4	EACH
4'X4' NDOT TYPE 2 DROP INLET	2	EACH
5' TYPE CM DROP INLET	7	EACH
10' TYPE CM DROP INLET	2	EACH

MASTER PLAN NOTE

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY. IT IS AN OVERALL REPRESENTATION OF THE UTILITY FOR REVIEW AND COORDINATION WITH OTHER PROJECT DETAILS WITHIN THIS PLAN SET.

STORM DRAIN NOTES

1. SEE PROFILE SHEETS FOR CONSTRUCTION NOTES AND INFORMATION RELATED TO PIPE SIZE (INNER DIAMETER), MANHOLE BASE SIZE (INSIDE DIMENSIONS), AND DROP INLET LENGTHS (CURB OPENING).
2. ALL STORM DRAIN MATERIAL TO BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED IN PROFILES.
3. CONTRACTOR TO PROVIDE 6" MINIMUM OF CLEARANCE BETWEEN OUTSIDE OF PIPE TO INSIDE WALL OF STORM DRAIN STRUCTURES.

GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

SOILS REPORT

BY NOVA
PROJECT NO. G-20-059
DATED 10/7/20
EARTHWORK QUANTITIES (RAW):
CUT= 1100 CU YDS
FILL= 6700 CU YDS

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

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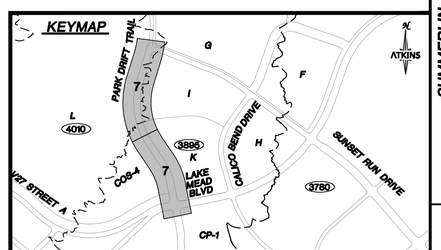

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NEVADA SIGNATURE ENGINEER STATE OF NEVADA ANTHONY LEE ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
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MASTER DRAINAGE PLAN
PARK DRIFT TRAIL

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 7 / 69
JOB NO. 100069474B

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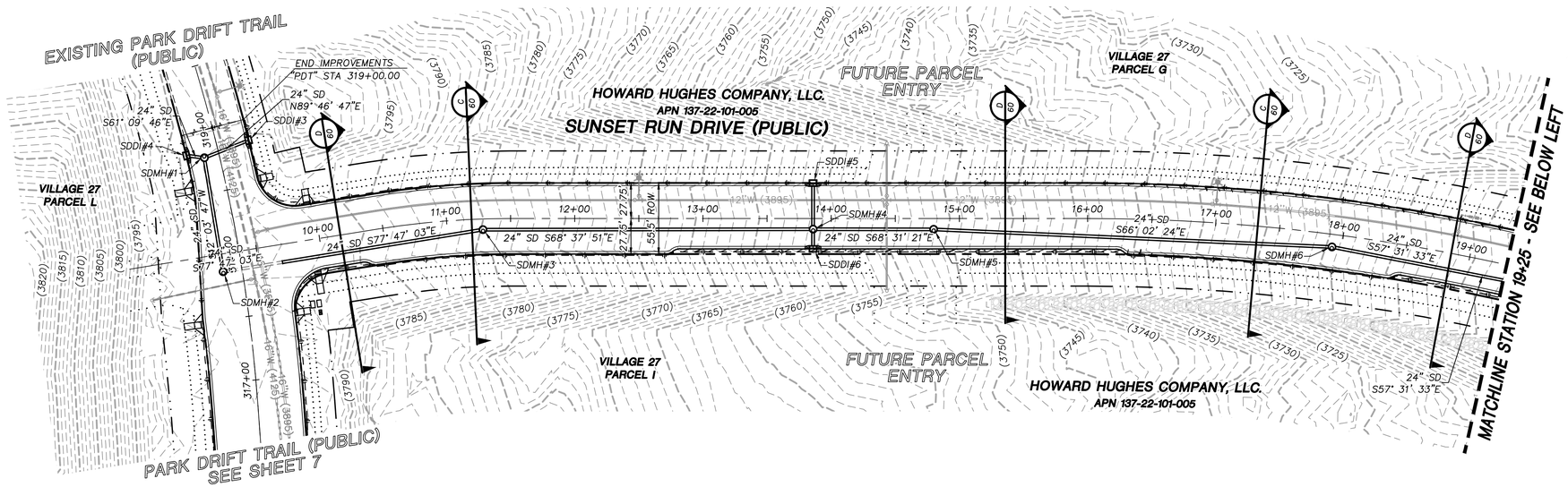

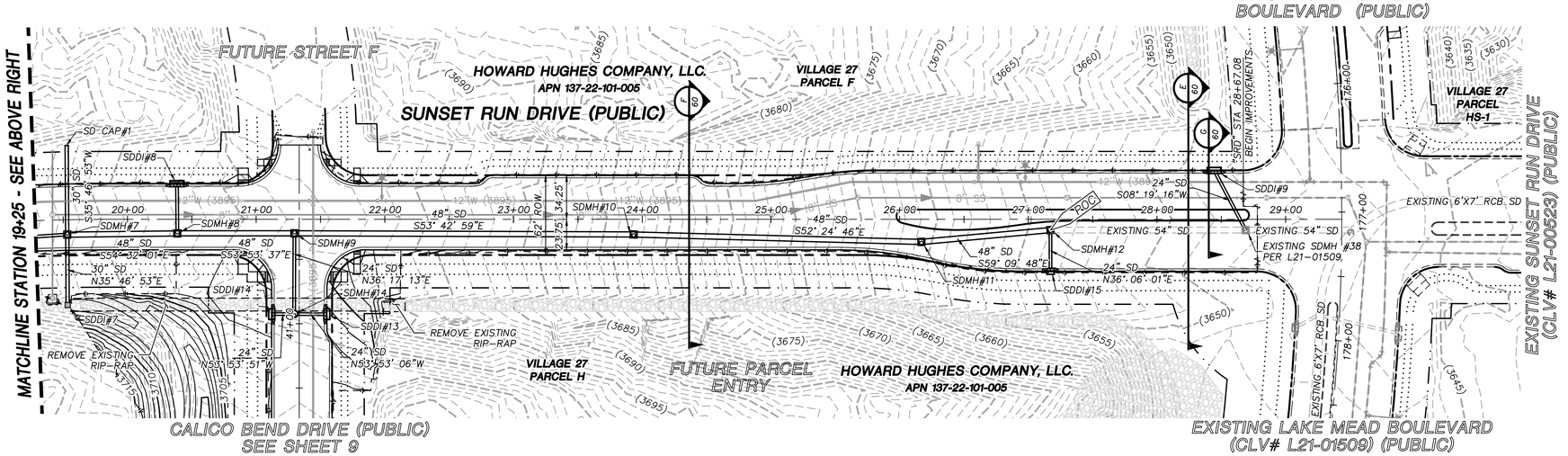

MASTER PLAN NOTE

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GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

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T21S,R59E,S03

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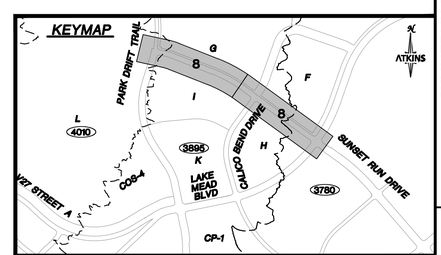
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

MASTER DRAINAGE PLAN
SUNSET RUN DRIVE

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 8 / 69	HORIZ.: 1"=50' VERT.: NONE

JOB NO. 1000694748

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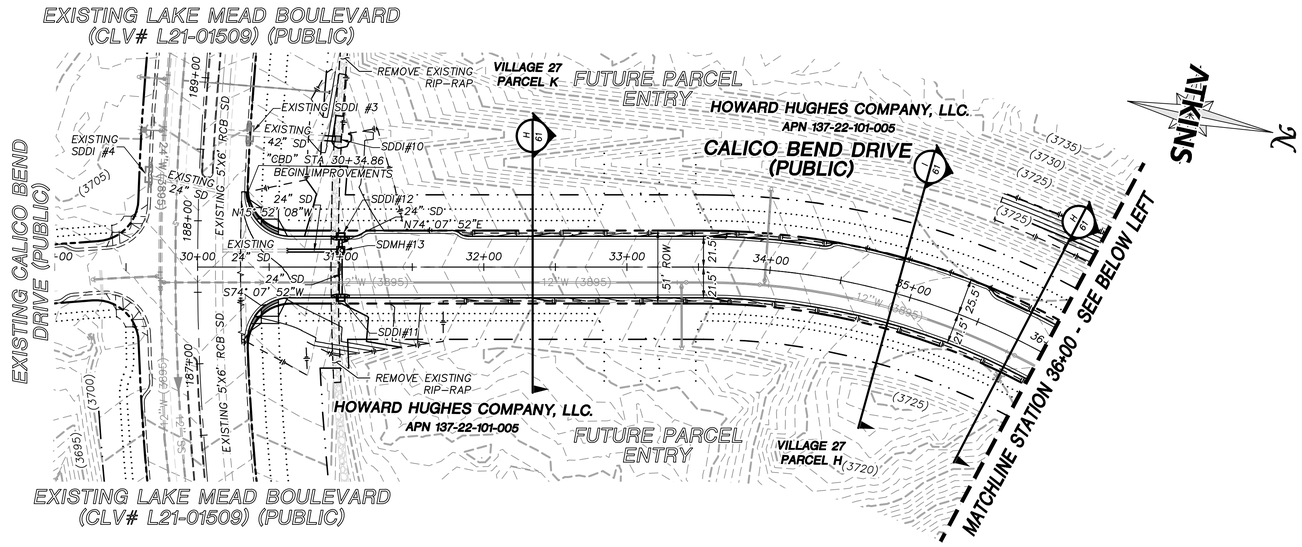

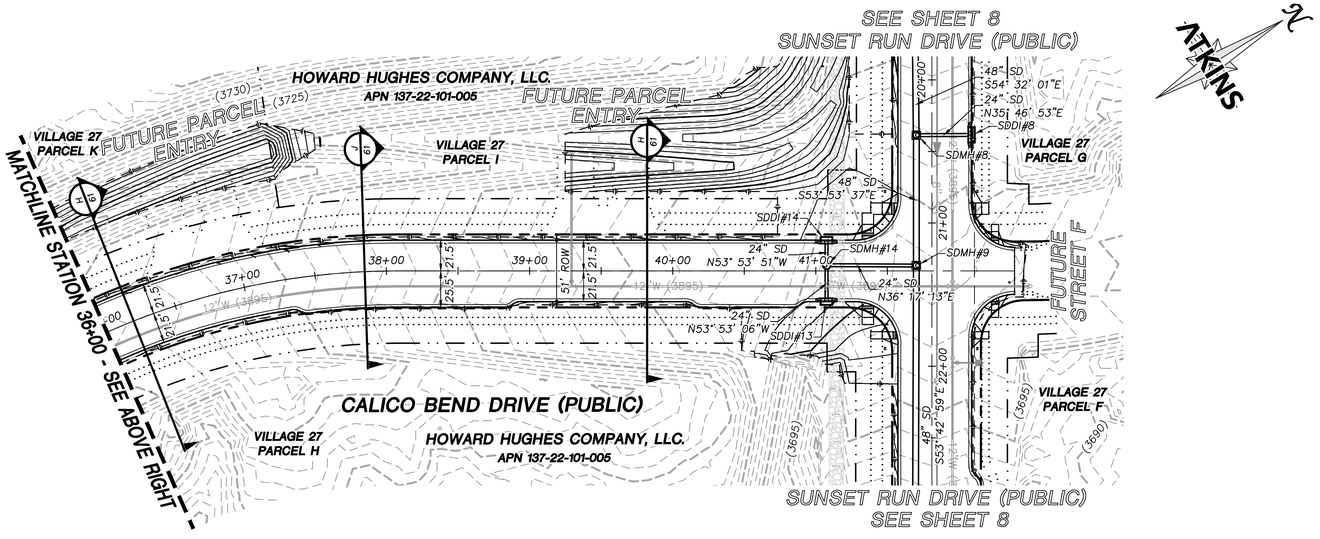

MASTER PLAN NOTE

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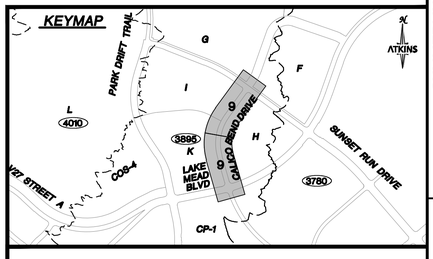
STORM DRAIN NOTES

1. SEE PROFILE SHEETS FOR CONSTRUCTION NOTES AND INFORMATION RELATED TO PIPE SIZE (INNER DIAMETER), MANHOLE BASE SIZE (INSIDE DIMENSIONS), AND DROP INLET LENGTHS (CURB OPENING).
2. ALL STORM DRAIN MATERIAL TO BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED IN PROFILES.
3. CONTRACTOR TO PROVIDE 6" MINIMUM OF CLEARANCE BETWEEN OUTSIDE OF PIPE TO INSIDE WALL OF STORM DRAIN STRUCTURES.



GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REGIONAL AND NATIONAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING ALL BURIED UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REV.	DESCRIPTION	BY	DATE	APPROVAL
	REVISIONS			

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

MASTER DRAINAGE PLAN
CALICO BEND DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

00000000
L00-00000

DATE: SEPTEMBER, 2022
DRAWING NO. 9/69

JOB NO. 1000694748

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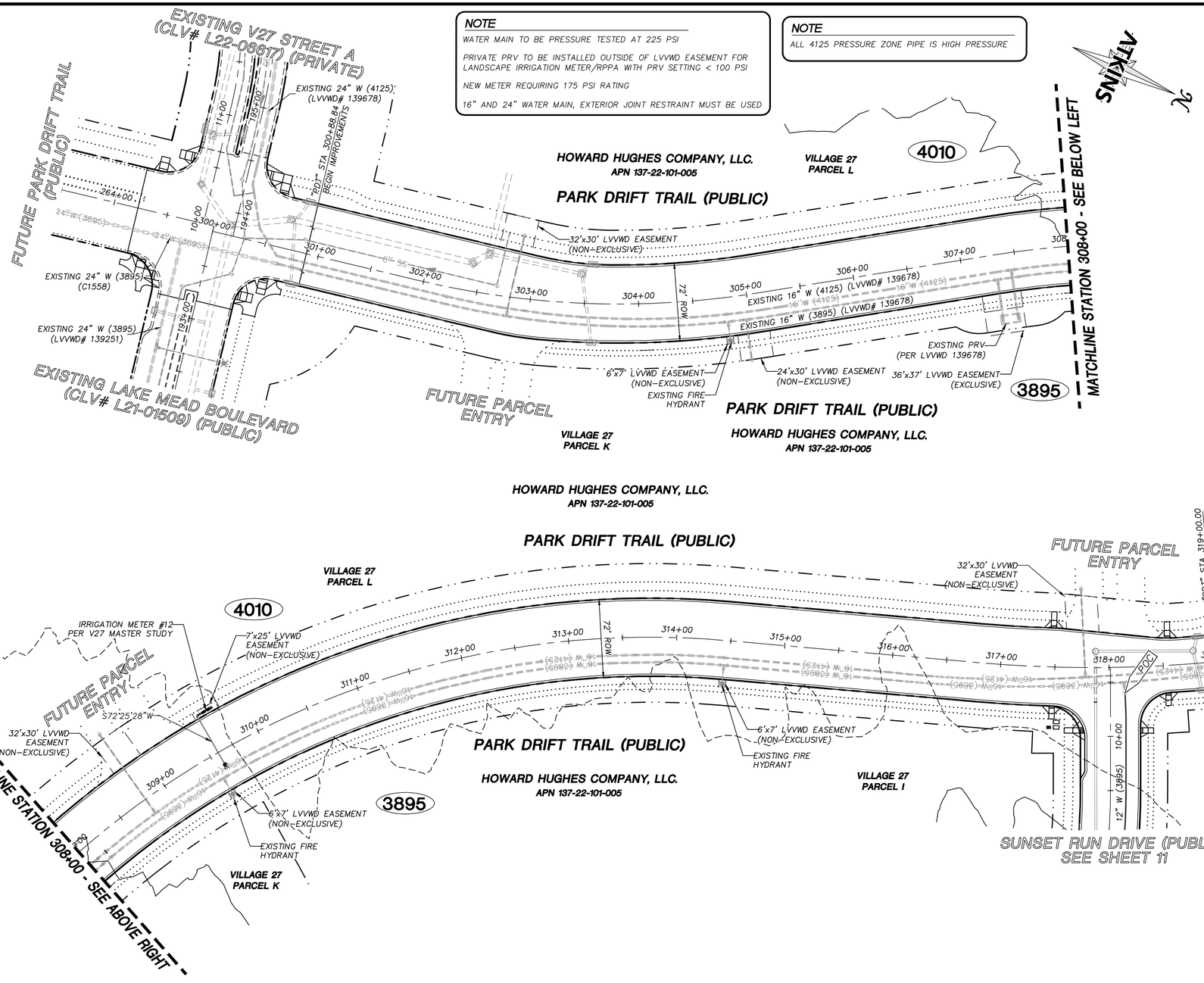

SUMMARY OF QUANTITIES

DESCRIPTION	QUANTITY	UNIT
WATER		
12" DIP	1400	LF
6" DIP	85	LF
12" C-900	2050	LF
12"X12" TEE	4	EACH
12"X12" CROSS	2	EACH
12"X6" TEE	5	EACH
16"X6" TEE	1	EACH
12" GATE VALVE	21	EACH
1.5" IRRIGATION WATER METER	2	EACH
FIRE HYDRANT ASSEMBLY	5	EACH
12" CAP W/ 2" BLOWOFF	6	EACH
IRRIGATION SLEEVES	1150	LF

MASTER PLAN NOTE

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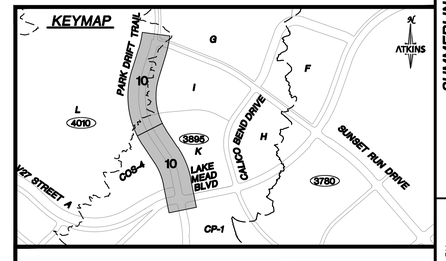
WATER NOTES

1. SEE ROAD PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES AND INFORMATION RELATED TO PIPE SIZE, LENGTH, AND SIZE OF FITTINGS.
2. ALL WATER PIPE MATERIAL TO BE WATER QUALITY RATED AWWA DIP, UNLESS OTHERWISE NOTED IN PROFILES.
3. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE #15.
4. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
5. SEE SHEET 68 FOR WATER DETAILS.
6. ALL DUCTILE IRON PIPE FITTINGS TO BE MECHANICALLY RESTRAINED PER UDACS 2.15.
7. CONTRACTOR TO INSTALL PIPE BENDS AS NECESSARY IN ORDER TO ACHIEVE EQUIVALENT PIPE CENTERLINE RADIUS PER UDACS SECTION 2.07 WATER MAIN JOINT DEFLECTION.
8. ALL MEASUREMENTS ARE FROM CENTER OF FITTING TO CENTER OF FITTING.
9. THIS PROJECT PROVIDES FOR THE INSTALLATION OF OFF-SITE WATER MAINS ONLY, AND DOES NOT PROVIDE OR IMPLY ANY WATER COMMITMENT.
10. ALL SEWER AND STORM DRAIN UTILITY CROSSINGS TO COMPLY WITH UDACS SECTION 2.22.
11. IN ROUGH GRADING AREAS, RIM ELEVATIONS FOR STRUCTURES ARE SET AT 8.5" ABOVE ROUGH GRADE.

IRRIGATION METER TABLE

NO.*	STA/OFF	FG ELEVATION	OWNER
11	18+87.44/30.87L	3706.75	HOA

*NOTE: METER NUMBERING SET BY SMP IRRIGATION MASTER PLAN DATED 12/12/2019



GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
1215,859E,503

FAST Call before you UnderGround 1-702-432-5300 (FIBERBOX AND ANTENNA SYSTEMS OF TRANSPORTATION)

Call before you Dig AVOID CUTTING INTO BURIED UTILITY LINES. IT'S QUICK! Call 811 OR 1-800-642-2444

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

MASTER WATER PLAN
PARK DRIFT TRAIL

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

0000000000
L00-00000

DATE: SEPTEMBER, 2022

DRAWING NO. 10/69

JOB NO. 1000694748

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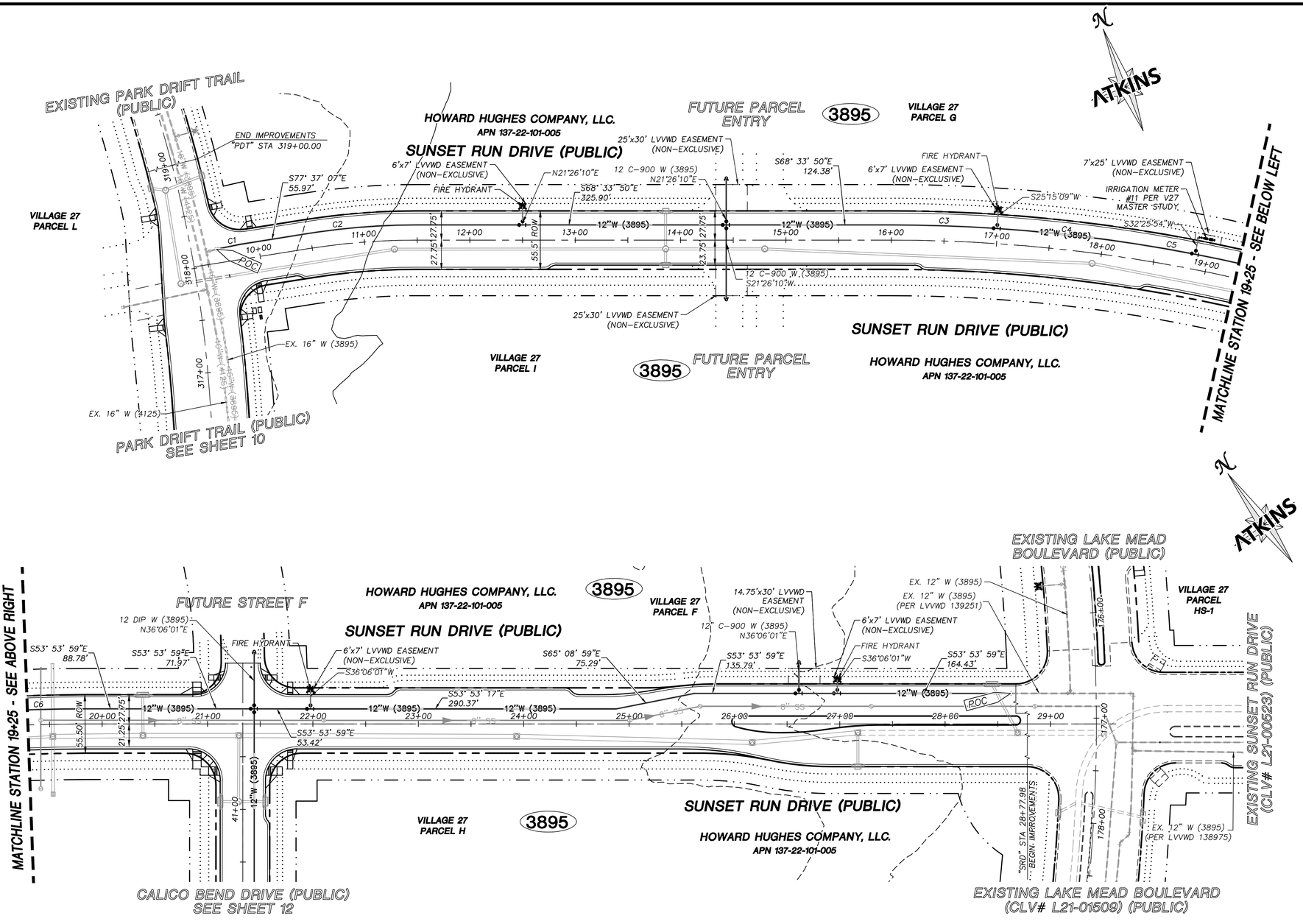

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11. IN ROUGH GRADING AREAS, RIM ELEVATIONS FOR STRUCTURES ARE SET AT 8.5" ABOVE ROUGH GRADE.

WATERLINE CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C1	484.91'	3°37'17"	30.65'	15.33'
C2	645.68'	9°18'44"	104.94'	52.59'
C3	1514.37'	3°48'45"	100.77'	50.40'
C4	1514.37'	4°59'20"	131.86'	65.97'
C5	1514.37'	2°11'26"	57.90'	28.95'
C6	1514.37'	3°40'07"	96.96'	48.50'

GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

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T21S,R59E,S03

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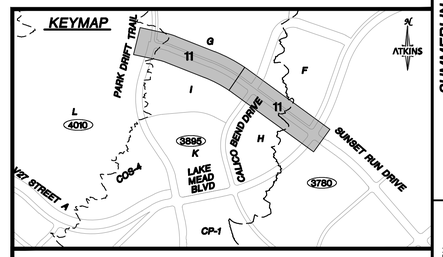

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 6-30-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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MASTER WATER PLAN
SUNSET RUN DRIVE

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 11/69	HORIZ.: 1"=50' VERT.: NONE

JOB NO. 100069474B

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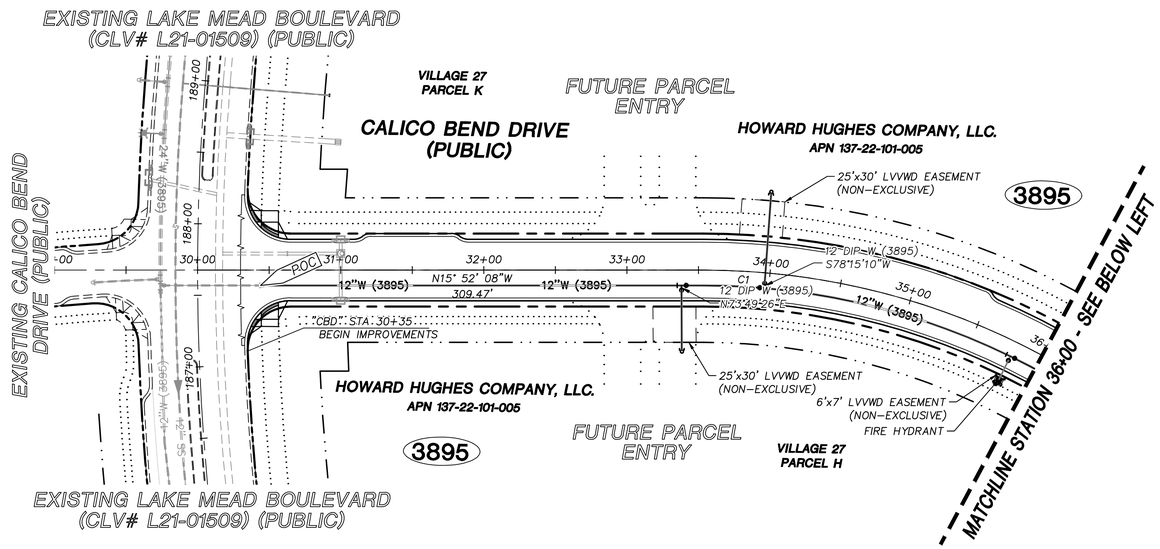

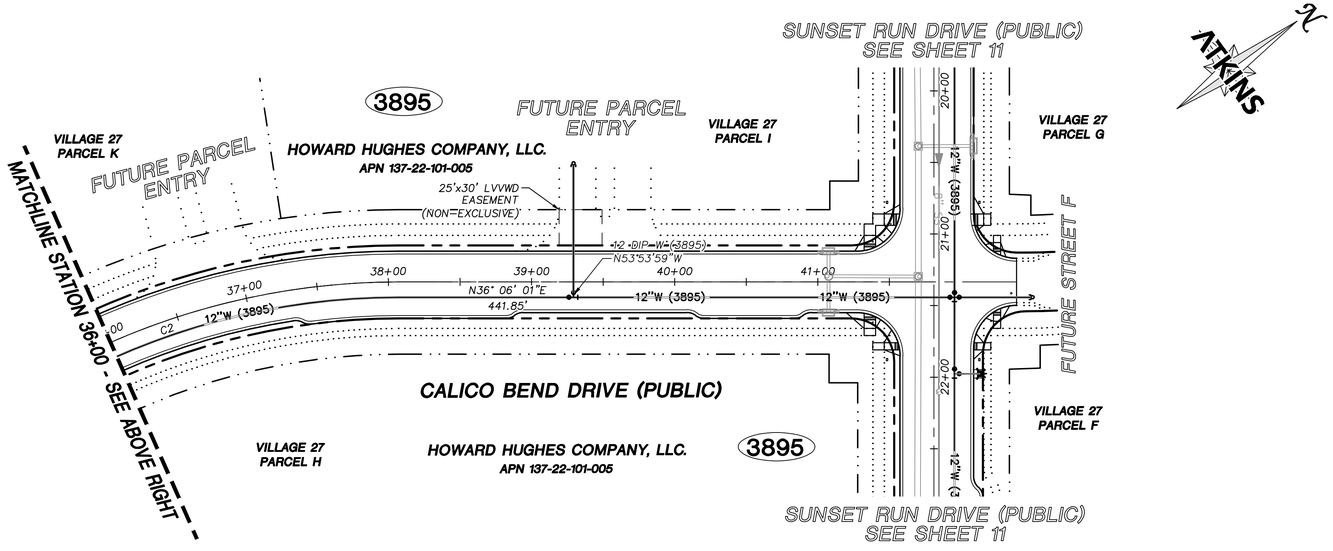

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WATERLINE CURVE TABLE

NO.	RADIUS	DELTA	LENGTH	TANGENT
C1	489.25'	4°58'50"	42.53'	21.28'
C2	489.25'	46°59'19"	401.24'	212.67'

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

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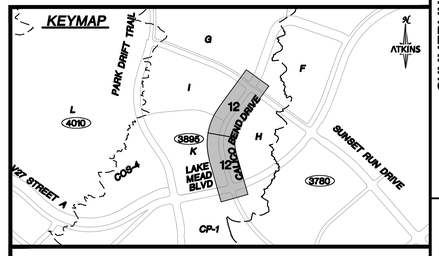
MASTER WATER PLAN
CALICO BEND DRIVE

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA
ANTHONY L. ORTIZ
EXP. 12-31-23
CIVIL
No. 18849

GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN. 1215,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S QUICK! Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S QUICK! CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 12/69	HORIZ.: 1"=50' VERT.: NONE

JOB NO. 1000694748

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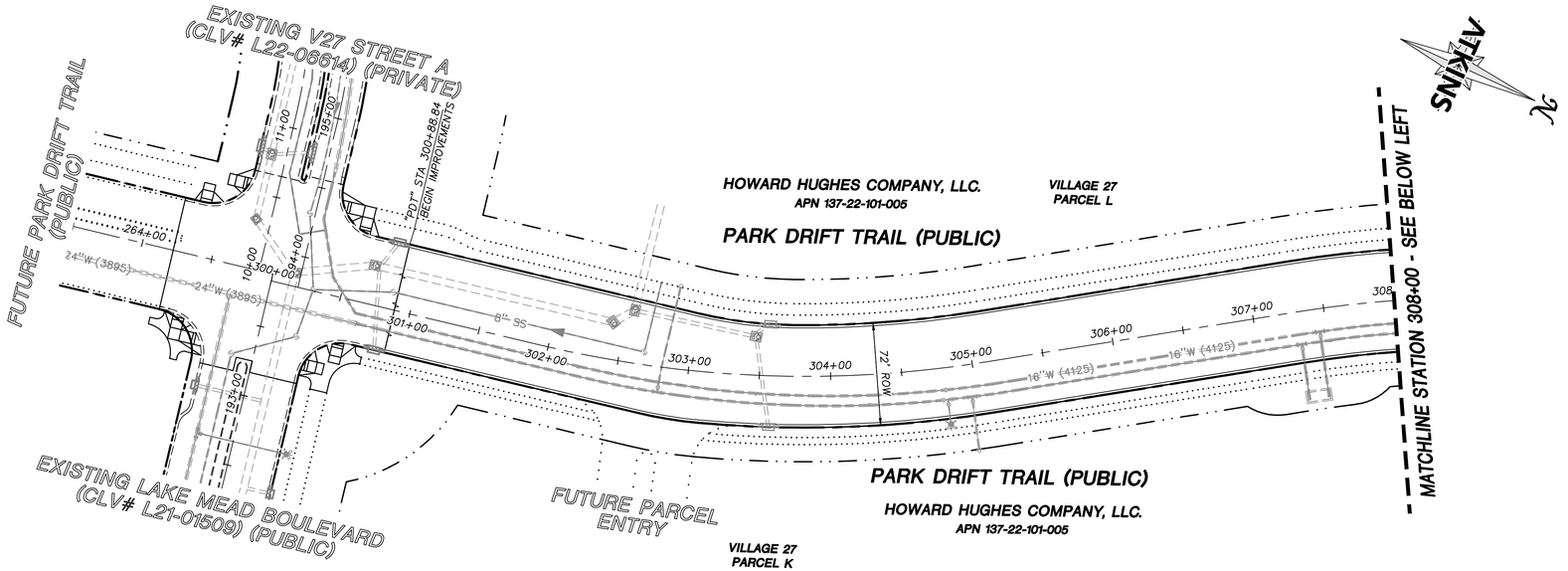

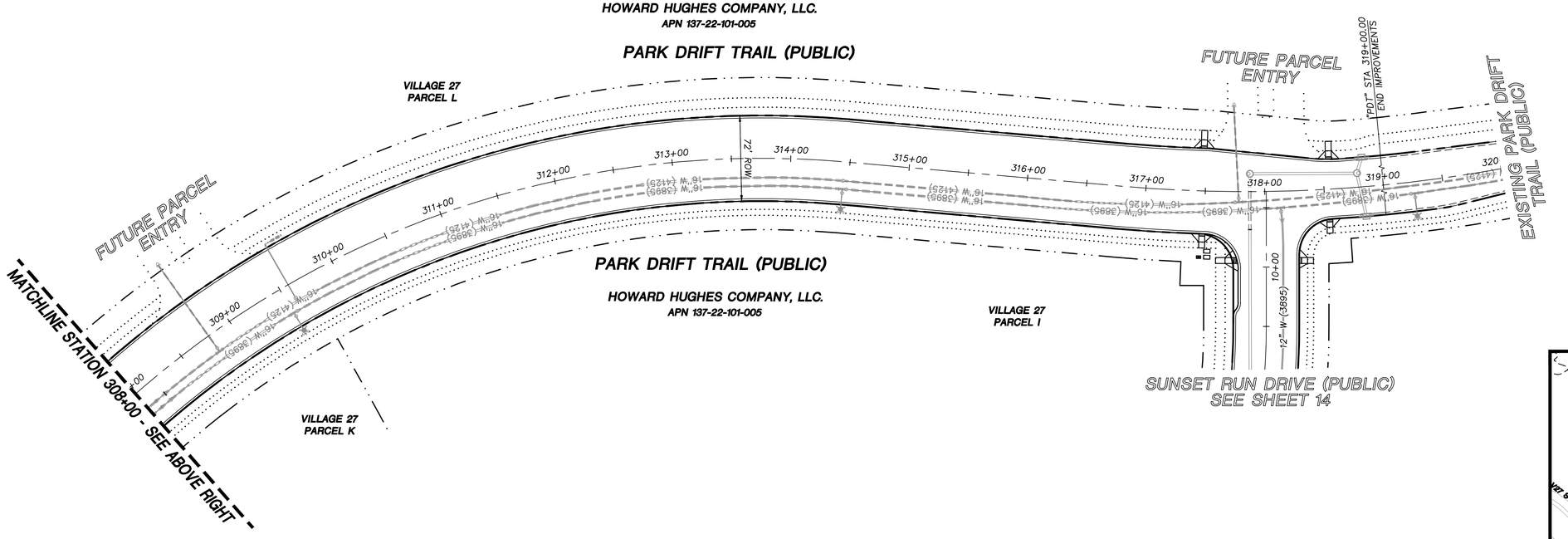

SUMMARY OF QUANTITIES

DESCRIPTION	QUANTITY	UNIT
SEWER		
8" C-900	1070	LF
SEWER CAP	1	EACH
SEWER MANHOLE	6	EACH

MASTER PLAN NOTE

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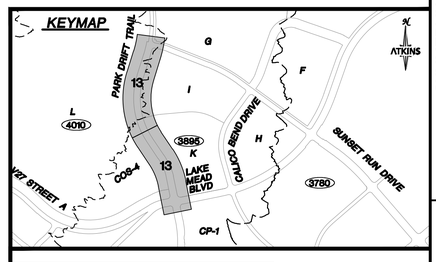
SEWER NOTES

1. SEE ROADWAY PLAN AND PROFILE SHEETS FOR CONSTRUCTION NOTES AND INFORMATION RELATED TO PIPE SIZE, SLOPE, INVERT, RIM INFORMATION, AND MANHOLE BASE SIZE.
2. ALL SEWER PIPE MATERIAL TO BE WATER QUALITY RATED AWWA C-900, UNLESS OTHERWISE NOTED IN PROFILES.
3. ALL SEWER MANHOLES TO BE POLYMER LINED AND ALL JOINTS TO HAVE SIKAFLEX 2C NS SEALANT BETWEEN COMPONENTS.
4. ALL SEWER MANHOLES GREATER THAN 20' DEEP TO BE LINED WITH CORROSION PROTECTION PER DCSCWS STANDARD PLATE SD-1.



GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1"= 50'

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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NEVADA PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

MASTER SEWER PLAN
PARK DRIFT TRAIL

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=50'
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 13/69

JOB NO. 1000694748

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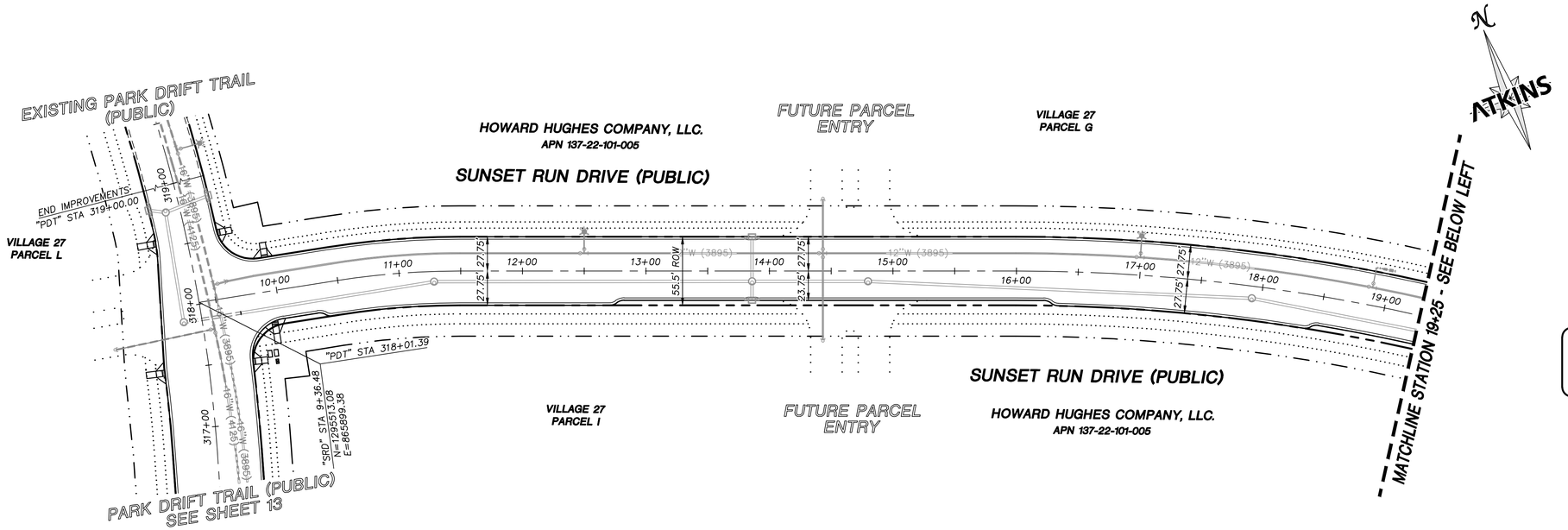

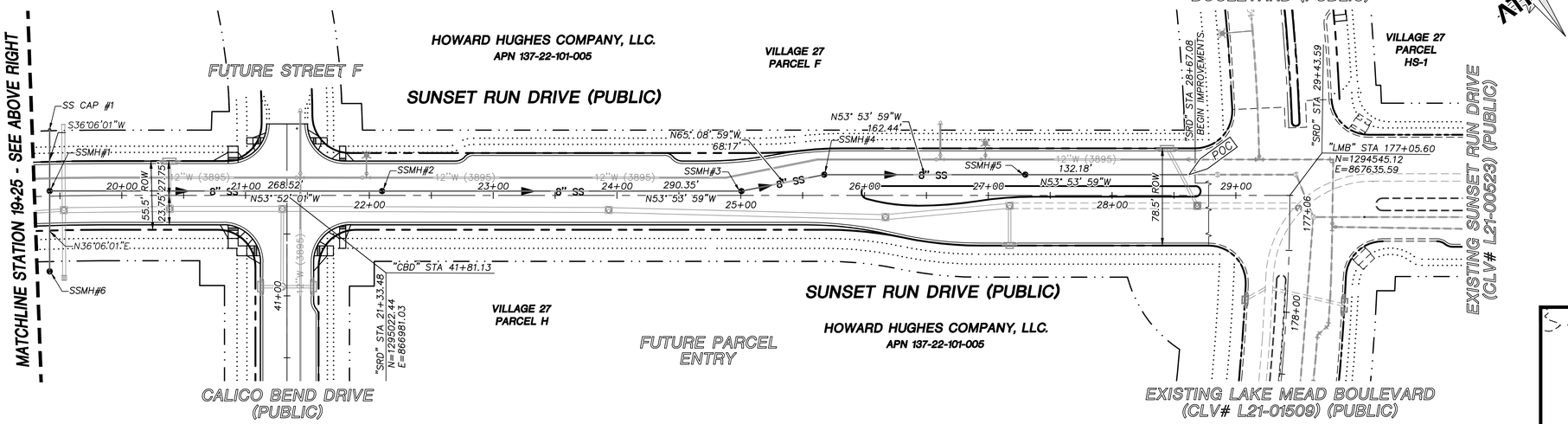

MASTER PLAN NOTE

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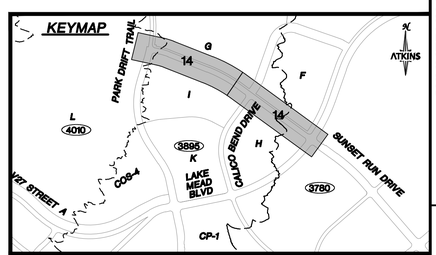
4. ALL SEWER MANHOLES GREATER THAN 20' DEEP TO BE LINED WITH CORROSION PROTECTION PER DCSCWS STANDARD PLATE SD-1.



GRAPHIC SCALE
50 0 25 50 100
HORIZONTAL: 1" = 50'

BASIS OF BEARING

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

BENCHMARK

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(REVISED 2008)
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(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 PRIMARY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID OUTAGES, INTERRUPTIONS, UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID VICTIMS! OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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MASTER SEWER PLAN
SUNSET RUN DRIVE

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=50'
VERT.:	NONE
00000000	L00-00000
DATE:	SEPTEMBER, 2022
DRAWING NO.	14/69
JOB NO.	1000694745

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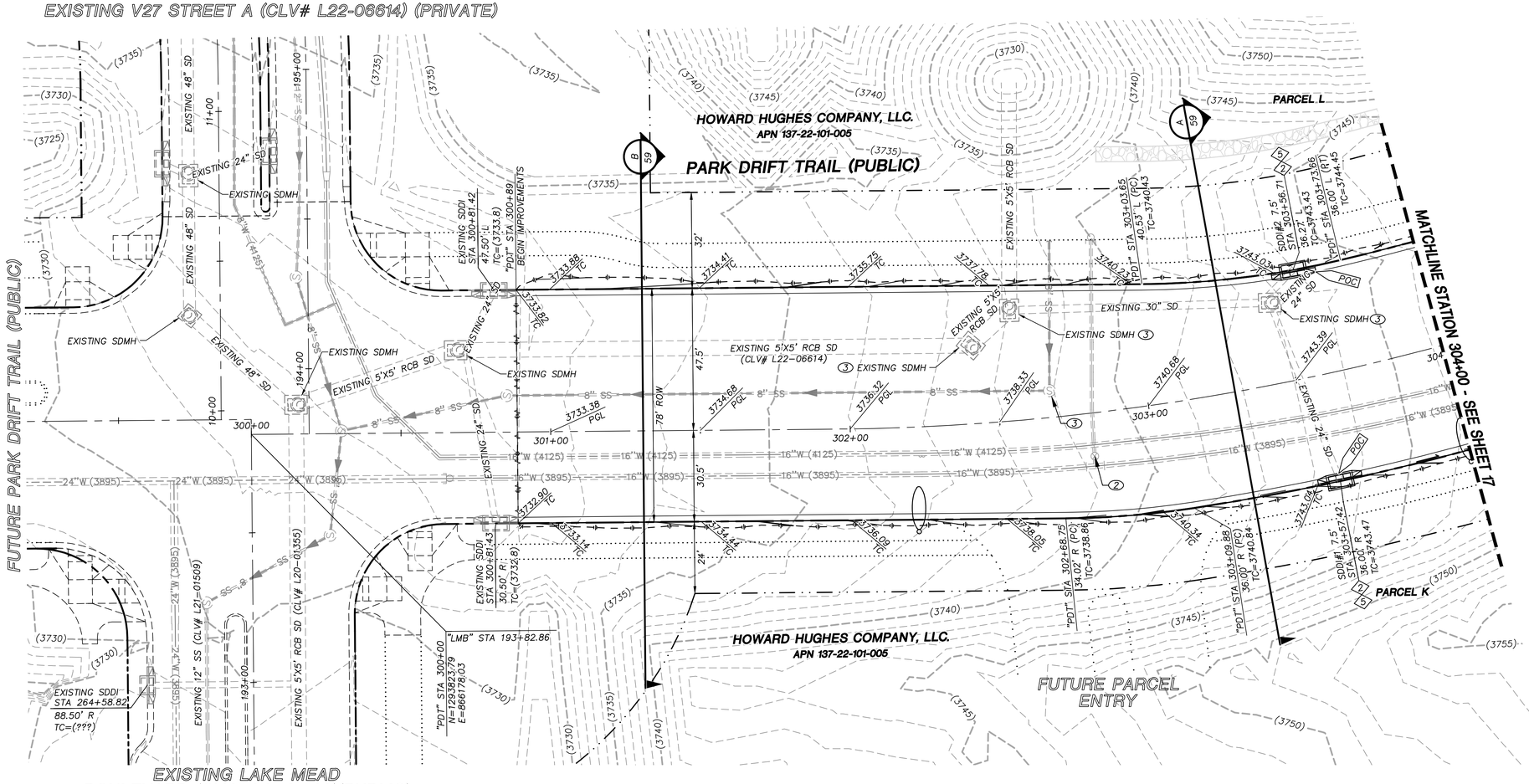

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

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T21S,R59E,S03

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Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COURTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COURTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

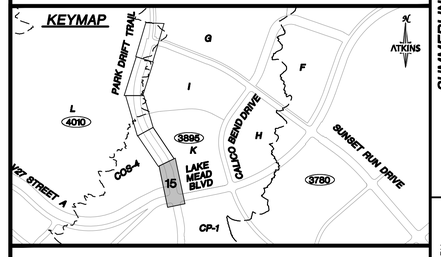
STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY J. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY GRADING PLAN

PARK DRIFT TRAIL - BEGIN TO STA 304+00

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ: 1"=20' VERT: NONE

00000000 L00-00000

DATE: SEPTEMBER, 2022

DRAWING NO. 15/69

JOB NO. 1000694748

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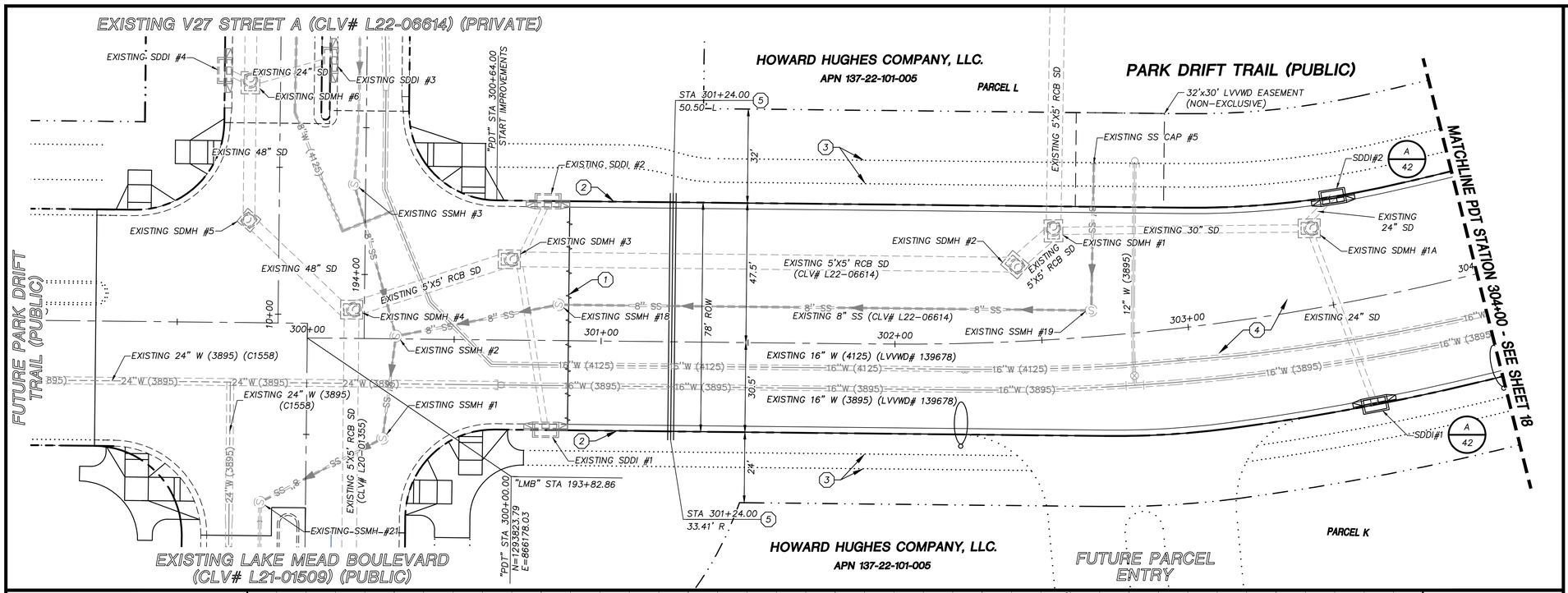

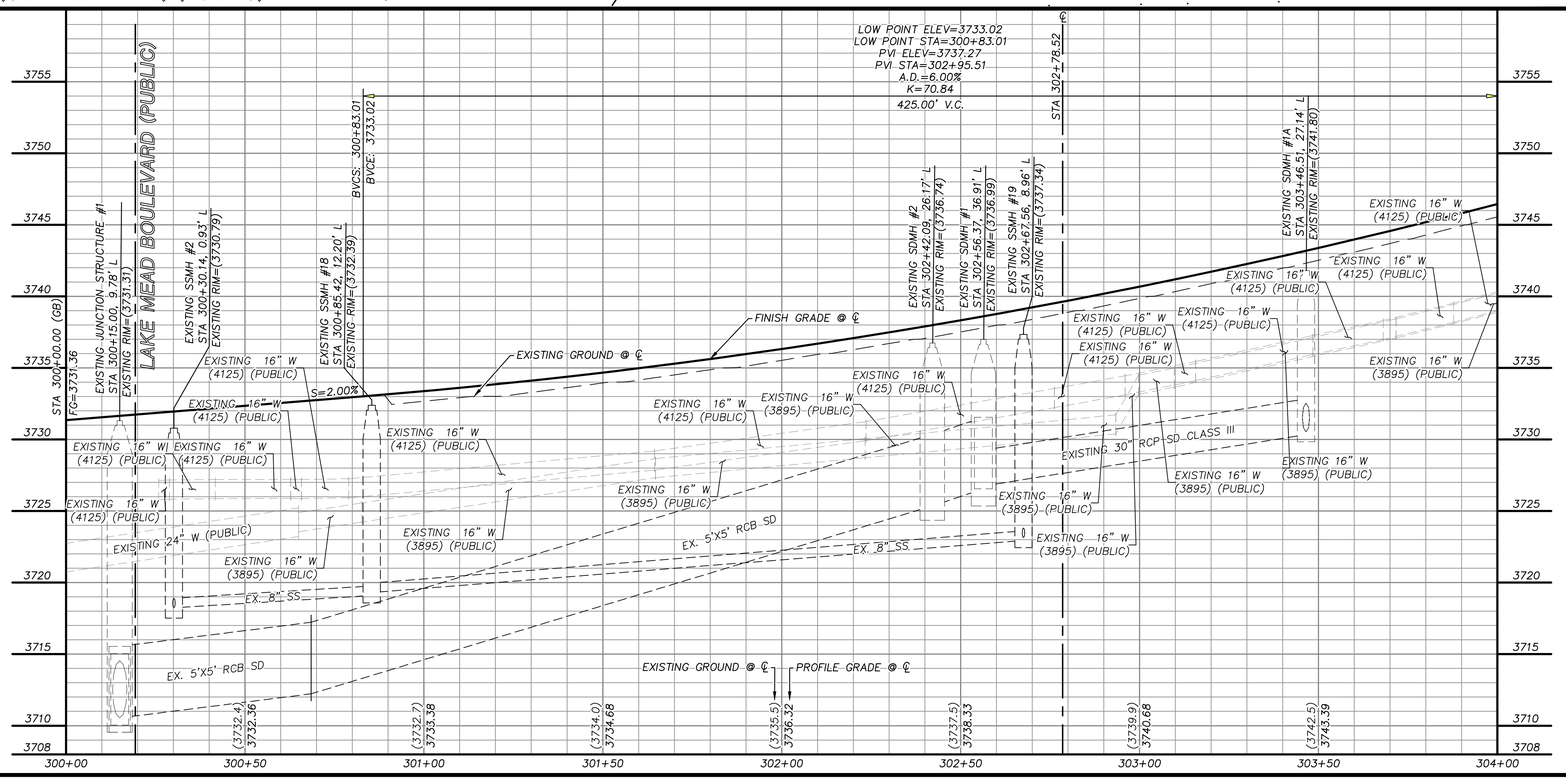

STORM DRAIN CONSTRUCTION NOTES

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8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

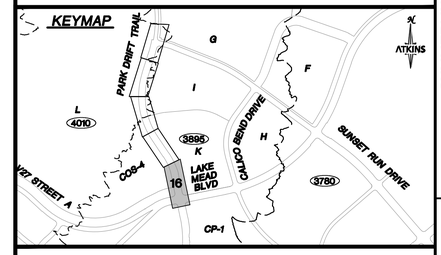
WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



GRAPHIC SCALE

10 0 5 10 20
HORIZONTAL: 1"=20'
5 0 2.5 5 10
VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 (FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION)

Call before you Dig AVOID CUTTING TELECOMMUNICATION UTILITY CABLES IN YOUR AREA. Call 811 or 1-800-642-2444

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NEVADA PROFESSIONAL ENGINEER ANTHONY J. ORTIZ EXP. 12-31-23 CIVIL No. 18849 STATE OF NEVADA

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
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SUMMERLIN

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ROADWAY PLAN & PROFILE

PARK DRIFT TRAIL - BEGIN TO STA 304+00

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
JOB NO.	100069474B
DATE:	SEPTEMBER, 2022
DRAWING NO.	16/69

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L00-00000

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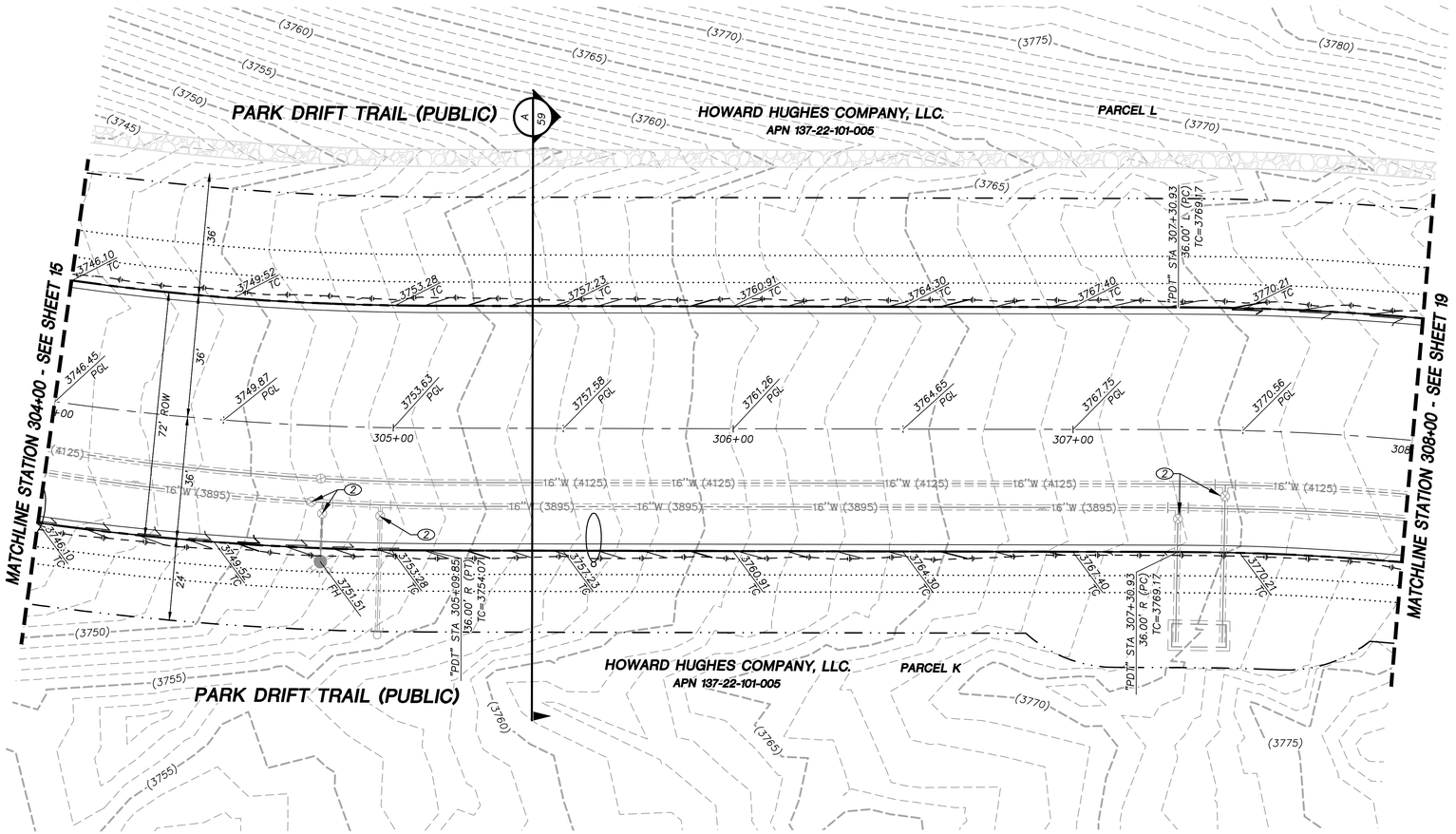

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

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T21S,R59E,S03

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Call before you Dig AVOID CUTTING NEIGHBORHOOD UTILITY LINES. DON'T DO IT. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS DEADLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

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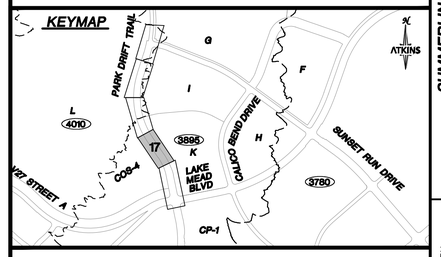
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

KEYMAP



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Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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ROADWAY GRADING PLAN

PARK DRIFT TRAIL - STA 304+00 TO STA 308+00

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 17/69	HORIZ.: 1"=20' VERT.: NONE

JOB NO. 100069474B

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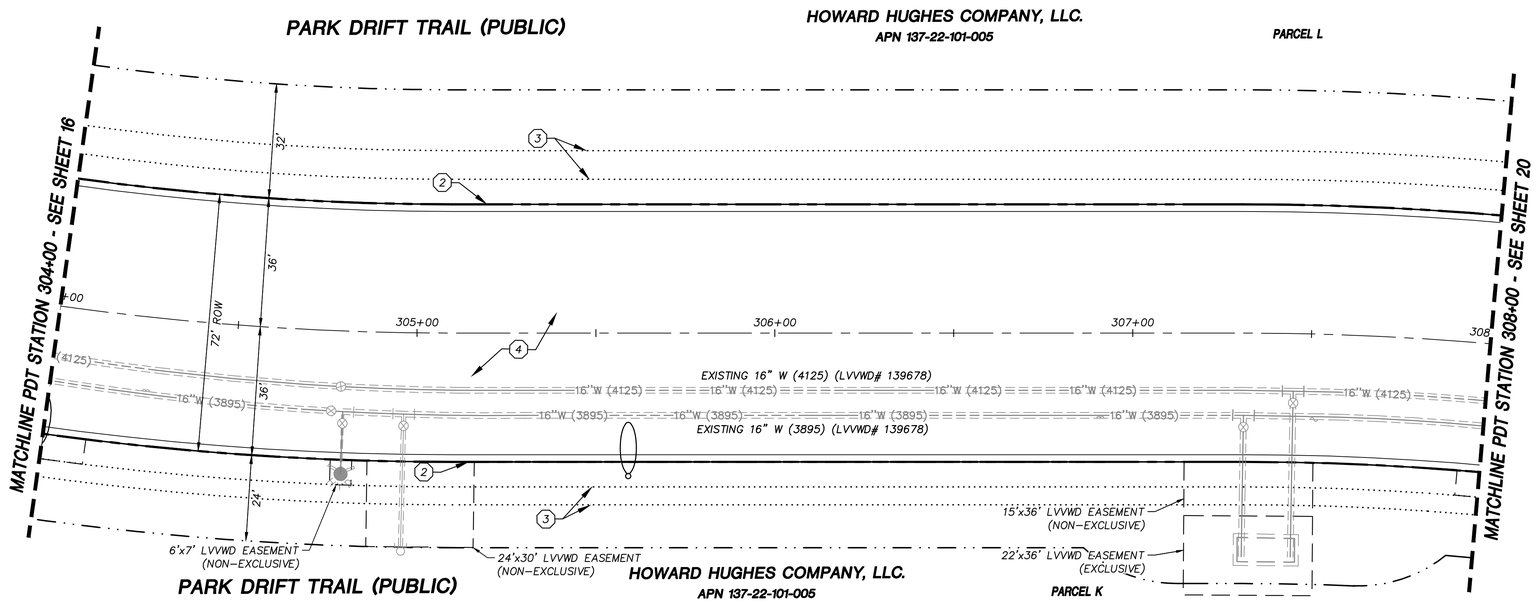
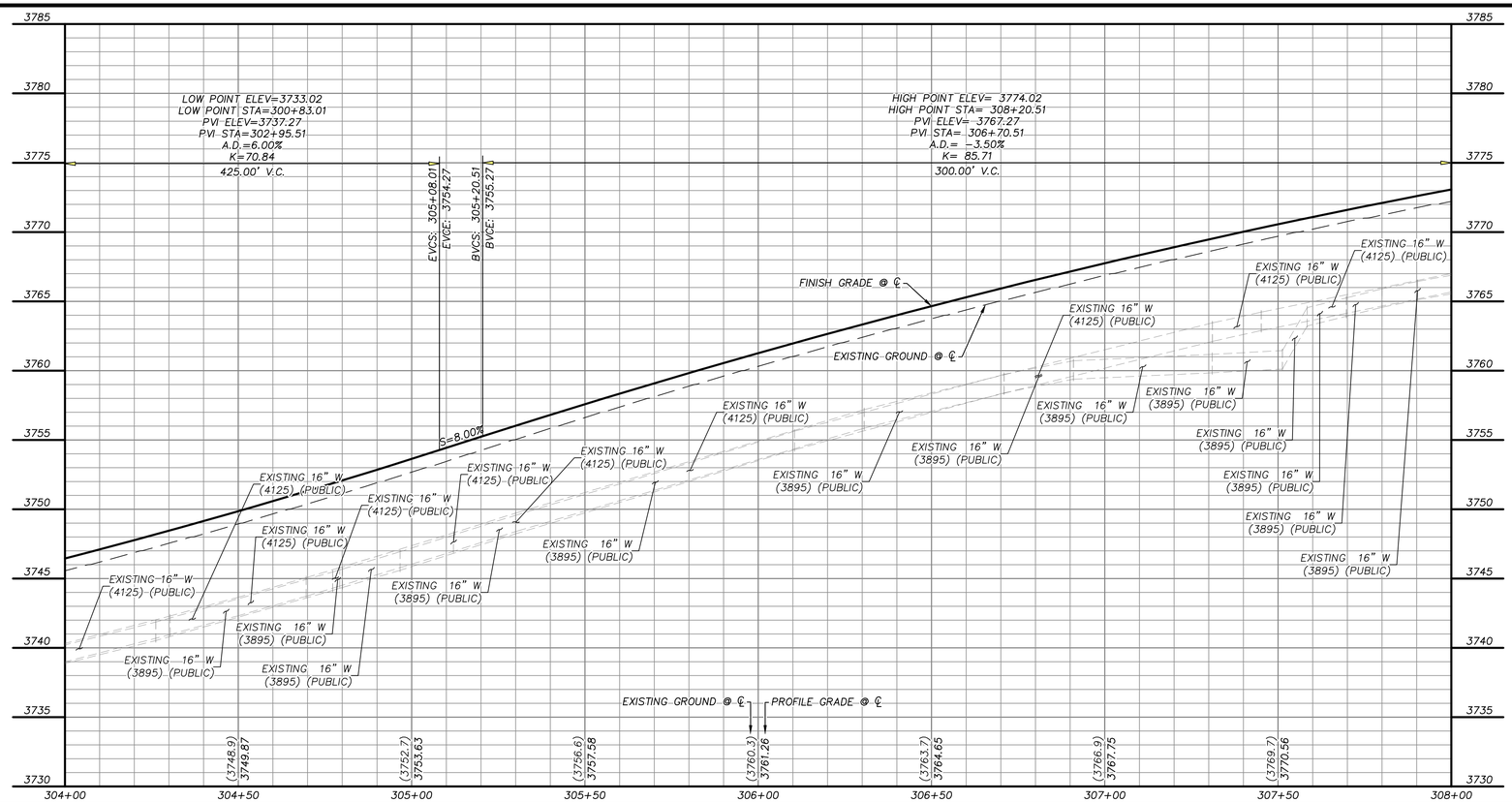




GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 TIMELY AND ACCURATE SYSTEM OF TRANSFORMATION

Call before you Dig AVOID OUTAGES, HAZARDS AND UTILITY DAMAGE FINES. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

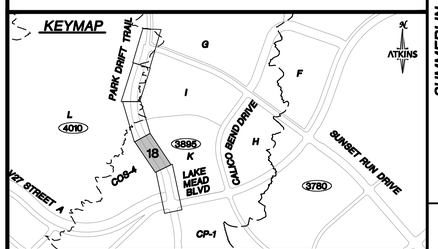
WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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NEVADA PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

PARK DRIFT TRAIL - STA 304+00 TO STA 308+00

ROADWAY PLAN & PROFILE

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	18/69

JOB NO. 100069474B

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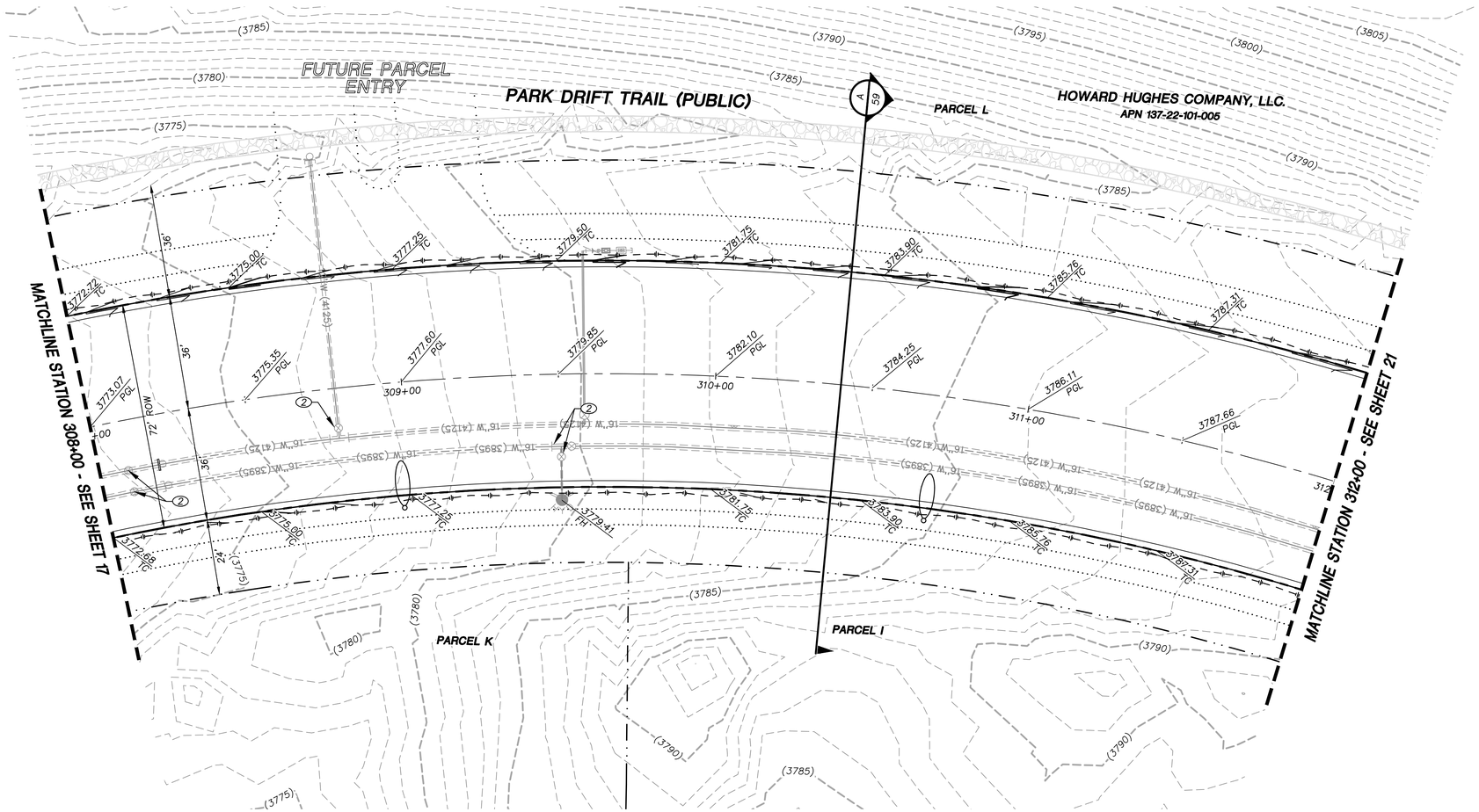

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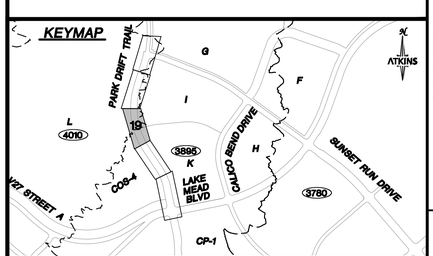
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY GRADING PLAN
PARK DRIFT TRAIL - STA 308+00 TO STA 312+00

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	NONE
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	19/69

JOB NO. 1000694748

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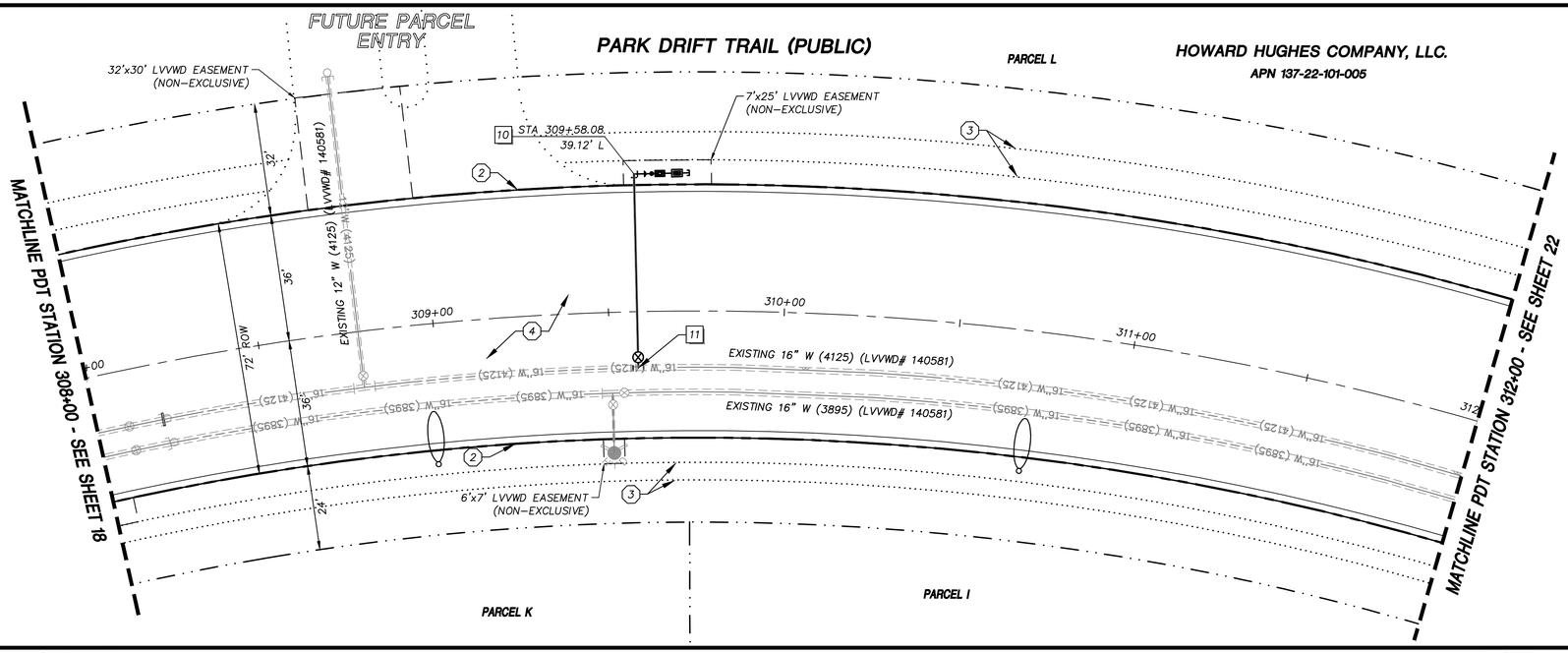

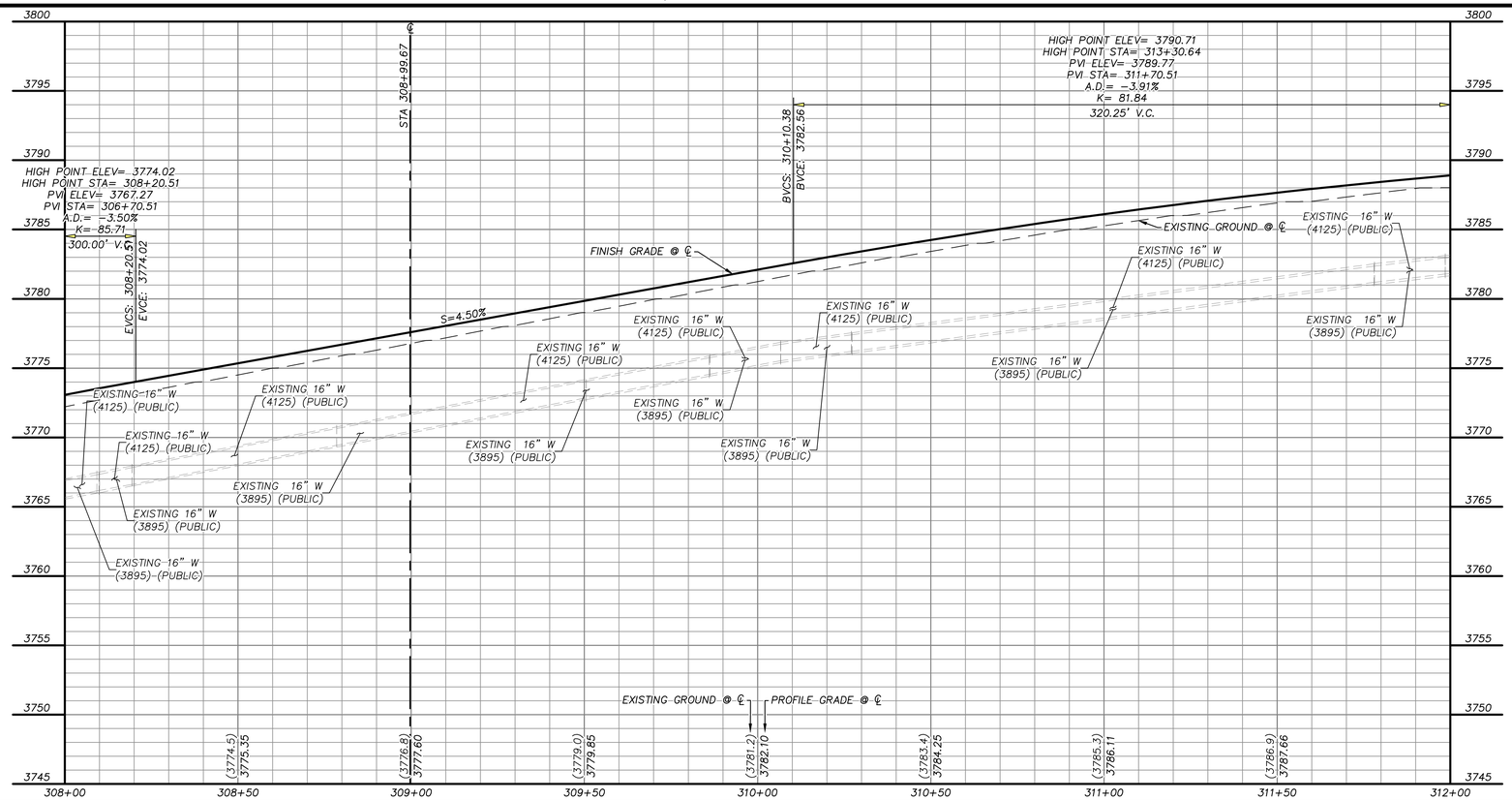

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 EMERGENCY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING HYDROVACUUM UTILITY LINES. ITS COURTLY. Call 811 OR 1-800-642-2444

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2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
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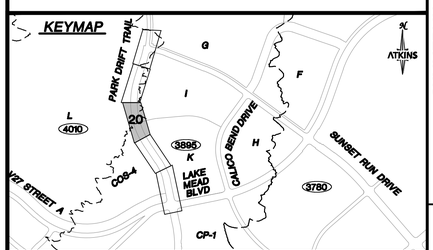
KEYMAP



REV.	DESCRIPTION	BY	DATE	APPROVAL

REVISIONS

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD),
SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD),
AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE
PARK DRIFT TRAIL - STA 308+00 TO STA 312+00

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=20'
VERT.: 1"=4'

00000000
L00-00000

DATE: SEPTEMBER, 2022

DRAWING NO. 20/69

JOB NO. 1000694748

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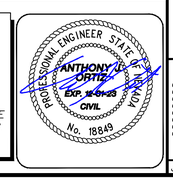

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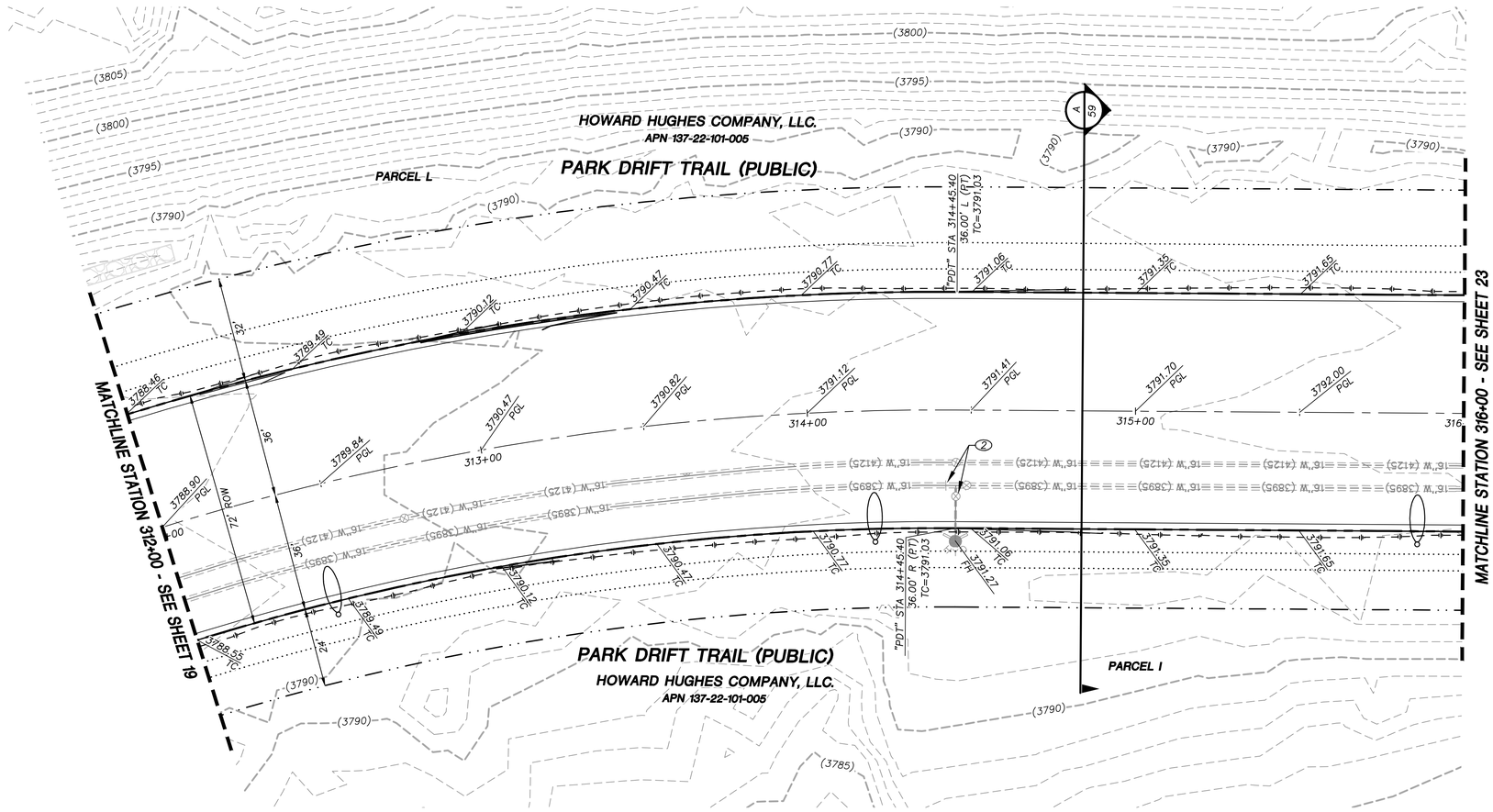

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2. ADJUST EXISTING GATE VALVE TO GRADE
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REVISIONS			
REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

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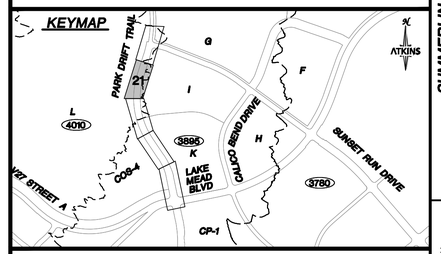
PARK DRIFT TRAIL - STA 312+00 TO STA 316+00
ROADWAY GRADING PLAN

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA
ANTHONY ORTIZ
Exp. 12-31-23
CIVIL
No. 18849

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=20'
VERT.: NONE
DATE: SEPTEMBER, 2022
DRAWING NO. 21/69
JOB NO. 100069474B

GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

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(REVISED 2008)
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(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

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Call before you Dig AVOID CUTTING HAZARDOUS UTILITY LINES 72HRS (3 DAYS) Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S DEADLY. CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

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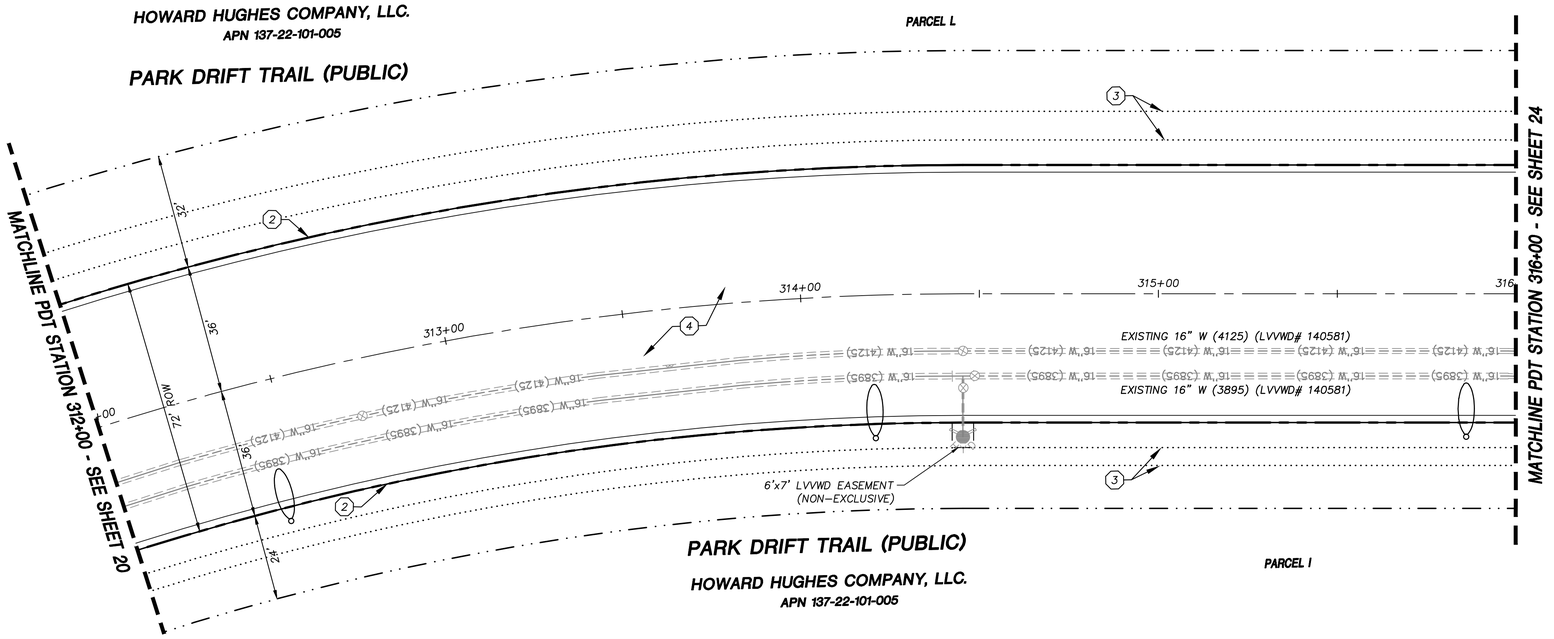
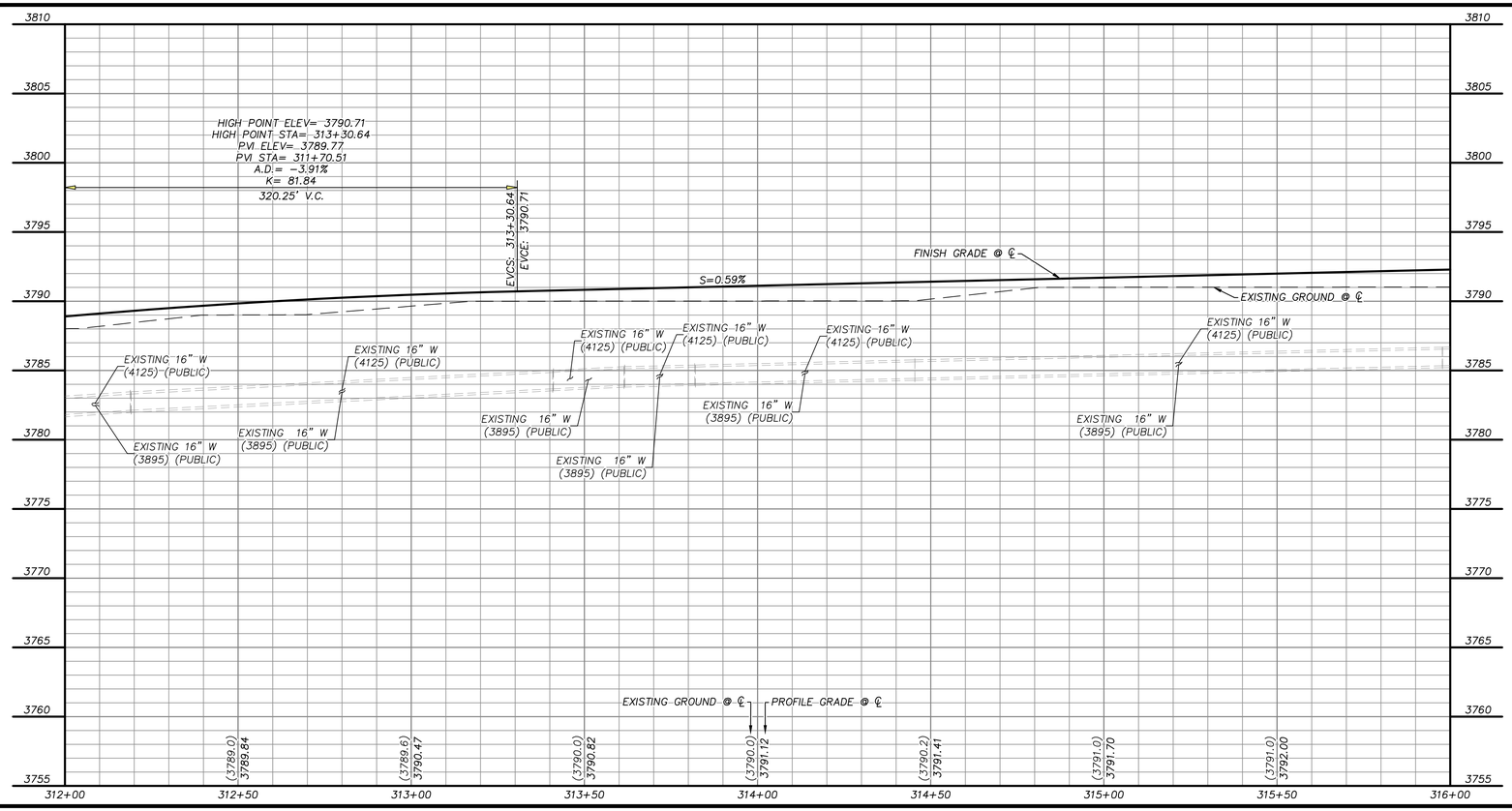




GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. ITS COURTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS COURTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

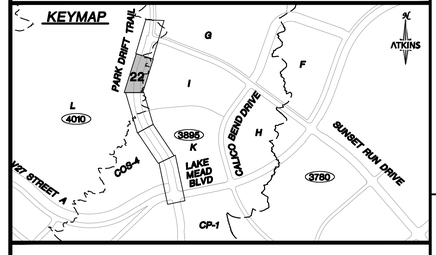
WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REV.	DESCRIPTION	BY	DATE	APPROVAL
	REVISIONS			

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

PARK DRIFT TRAIL - STA 312+00 TO STA 316+00
ROADWAY PLAN & PROFILE

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	22/69

JOB NO. 1000694748

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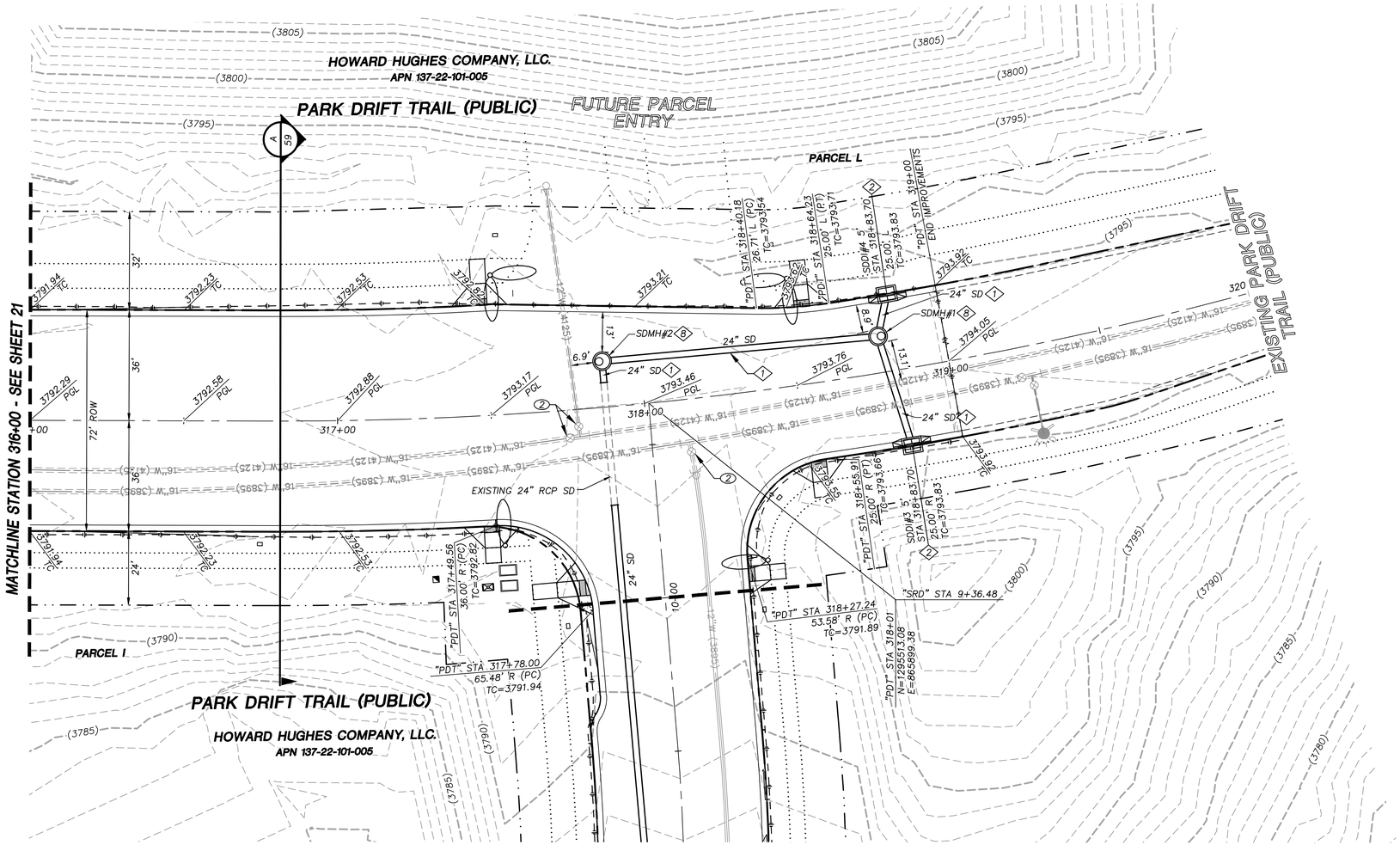

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8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
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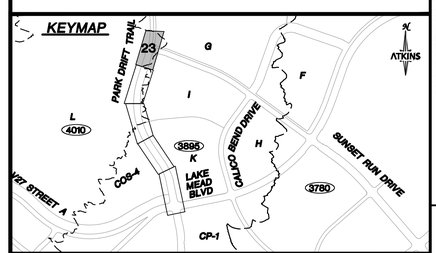
EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

KEYMAP



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 EMERGENCY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. ITS COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
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ROADWAY GRADING PLAN
PARK DRIFT TRAIL - STA 316+00 TO END

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	NONE
00000000	L00-00000
DATE:	SEPTEMBER, 2022
DRAWING NO.	23/69

JOB NO. 1000694748

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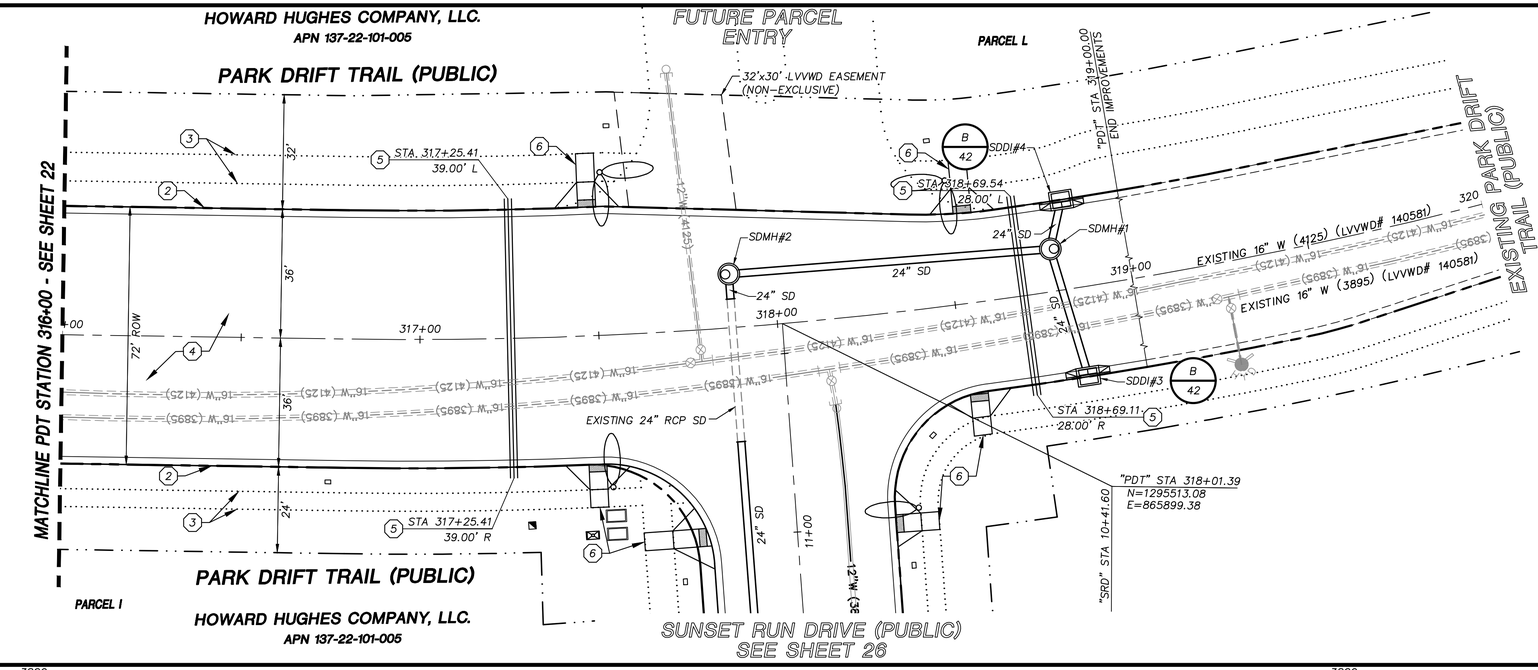

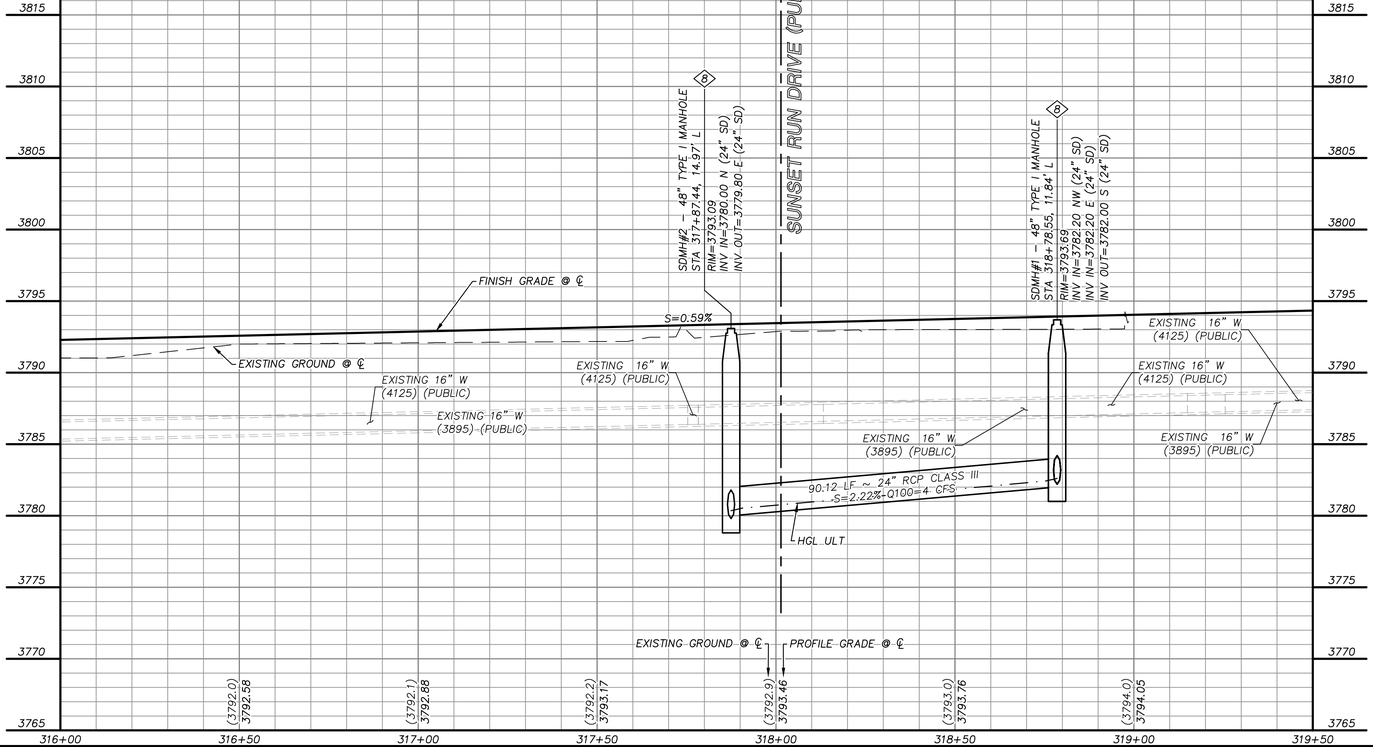

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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T21S,R59E,S03

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Call before you Dig AVOID CUTTING, BLASTING OR UTILITY CONTACTS. DON'T! Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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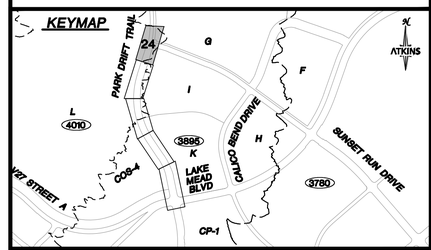

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

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ROADWAY PLAN & PROFILE

PARK DRIFT TRAIL - STA 316+00 TO END

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
DATE:	SEPTEMBER, 2022
DRAWING NO.	24/69

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L00-00000

JOB NO. 1000694748

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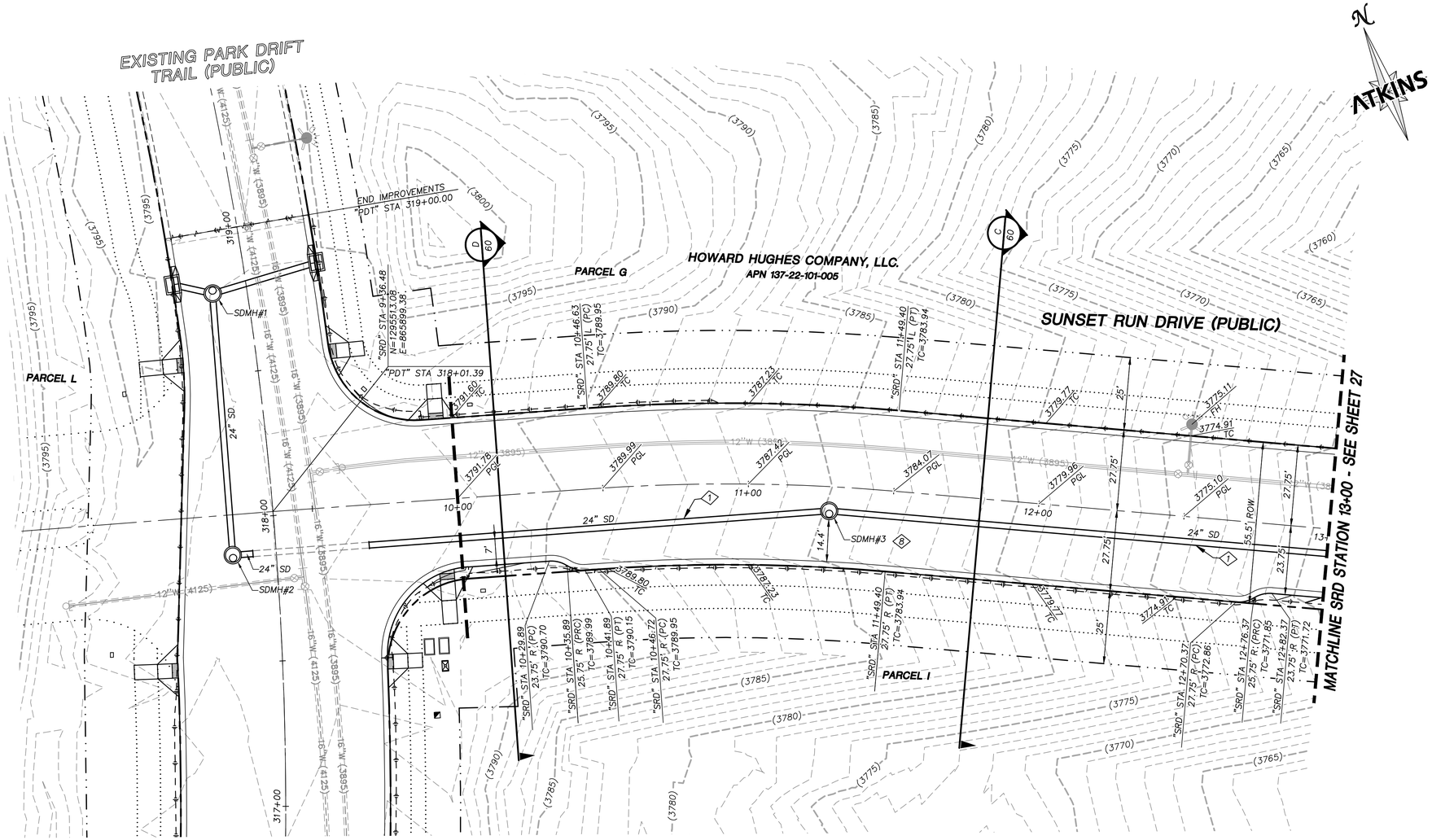

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EXISTING UTILITY CONSTRUCTION NOTES

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2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

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(3,246.63 FEET)
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T21S,R59E,S03

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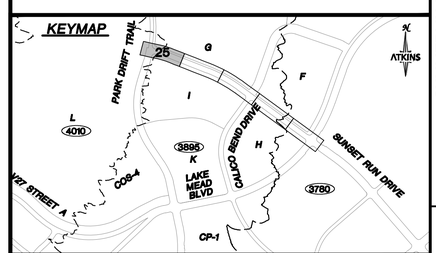
KEYMAP



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ROADWAY GRADING PLAN
SUNSET RUN DRIVE - BEGIN TO STA 13+00

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	25/69

JOB NO. 1000694748

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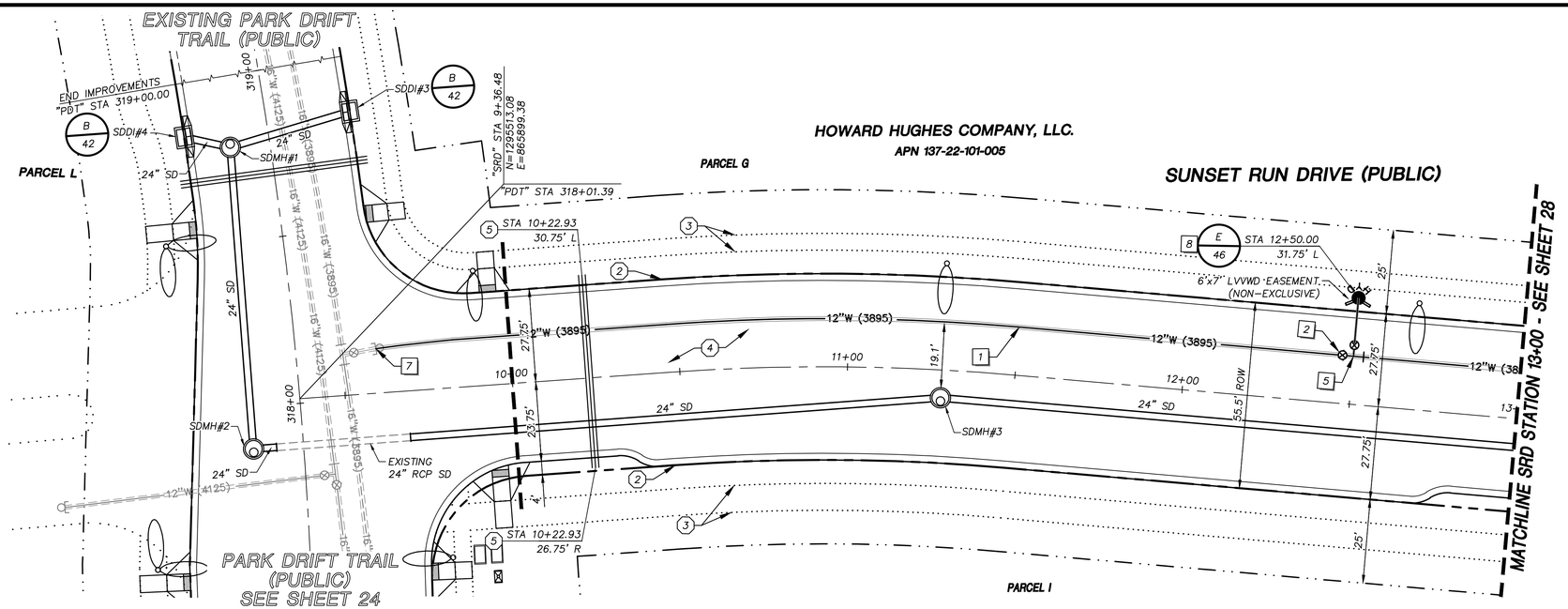

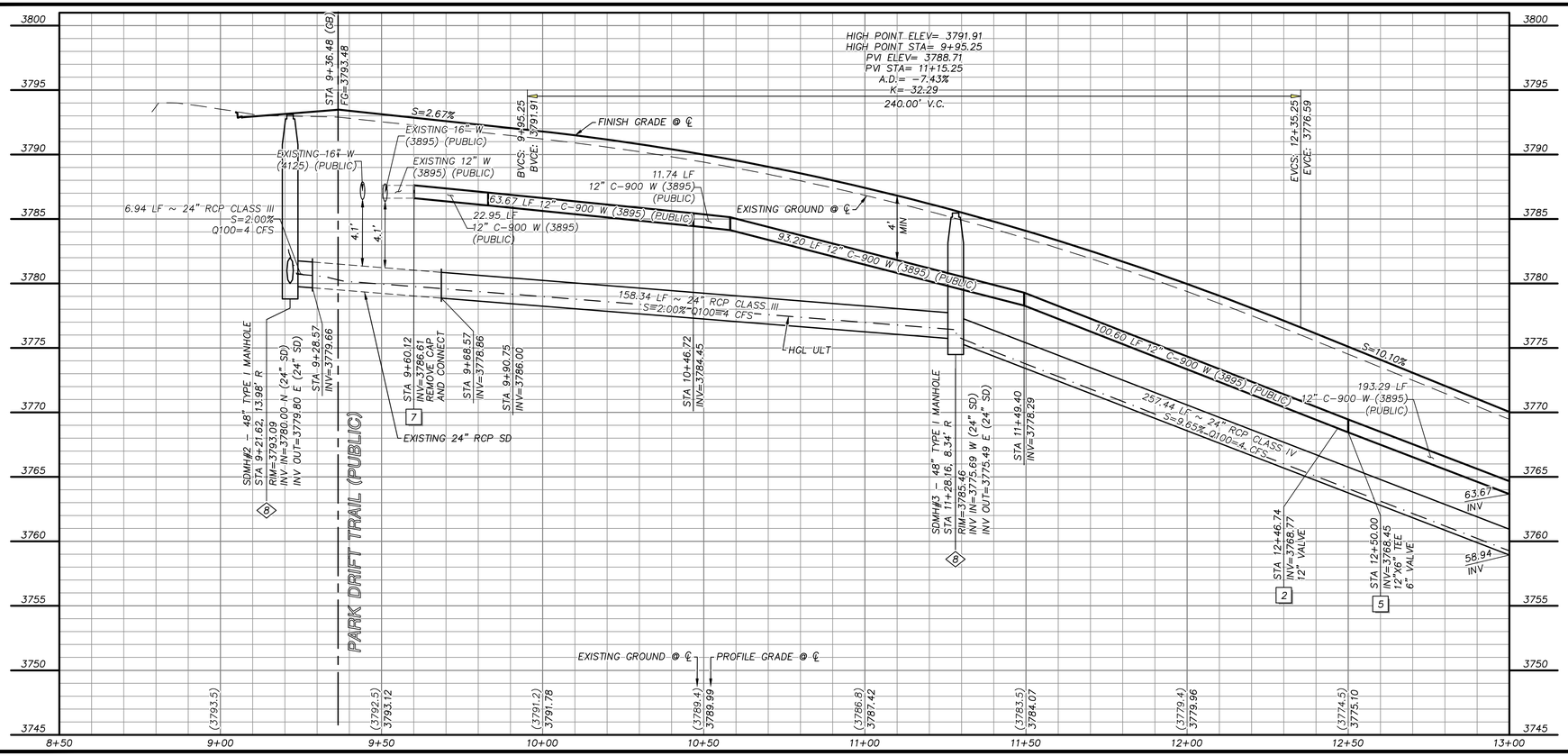

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6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
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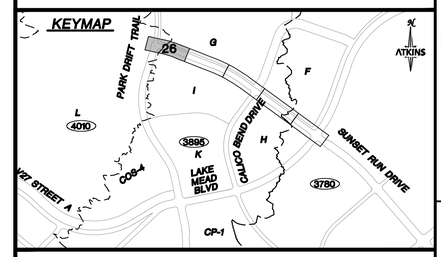
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



GRAPHIC SCALE

10 0 5 10 20
HORIZONTAL: 1"=20'
5 0 2.5 5 10
VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REMOTE AND NATIONAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING OR DAMAGING UTILITY LINES. IT'S COSTLY. Call 811 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTEGA EXP. 6-30-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

SUNSET RUN DRIVE - BEGIN TO STA 13+00

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 26/69	HORIZ.: 1"=20' VERT.: 1"=4'

JOB NO. 1000694748

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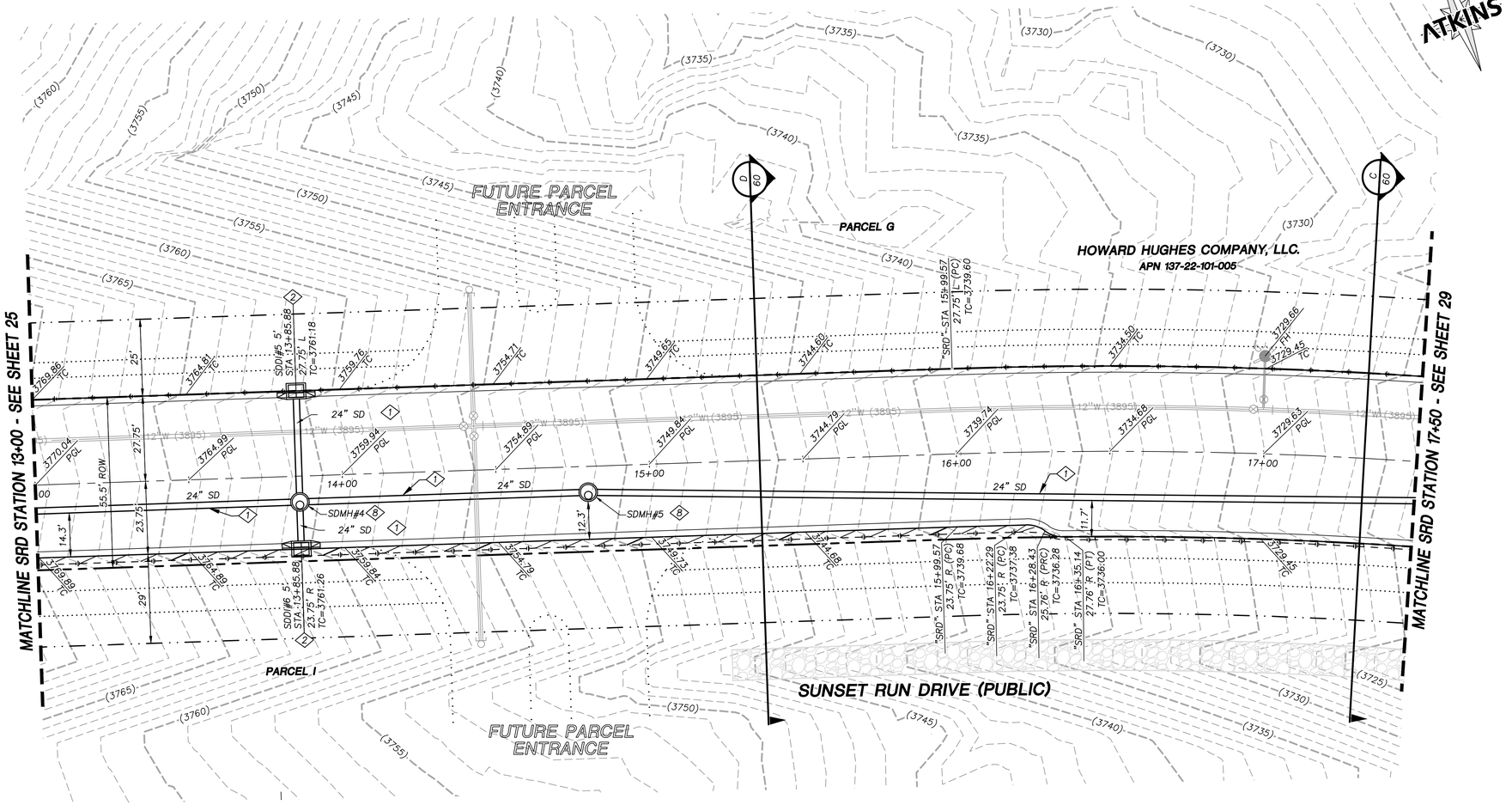


STORM DRAIN CONSTRUCTION NOTES

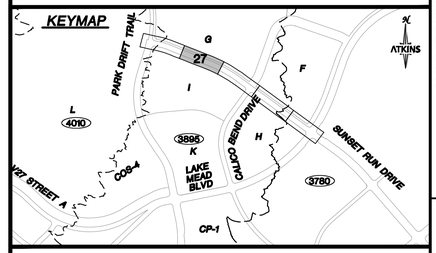
1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT. DS#0000

BASIS OF BEARING

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

BENCHMARK

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(REVISED 2008)
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T21S,R59E,S03

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Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES ITS QUIETLY. Call 811 OR 1-800-642-2444

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY GRADING PLAN
SUNSET RUN DRIVE - STA 13+00 TO STA 17+50

00000000 L00-00000	DESIGNED BY: D. SMITH	DRAWN BY: C. HONEY	CHECKED BY: N. BARCOS
DATE: SEPTEMBER, 2022	DRAWING NO. 27/69	HORIZ.: 1"=20' VERT.:	

JOB No. 100069474B

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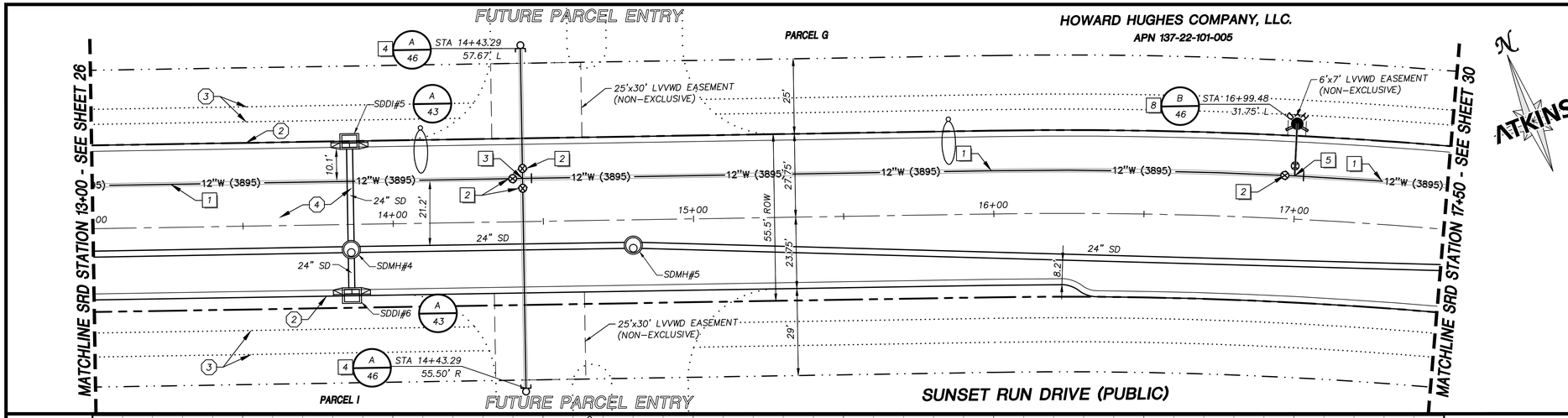

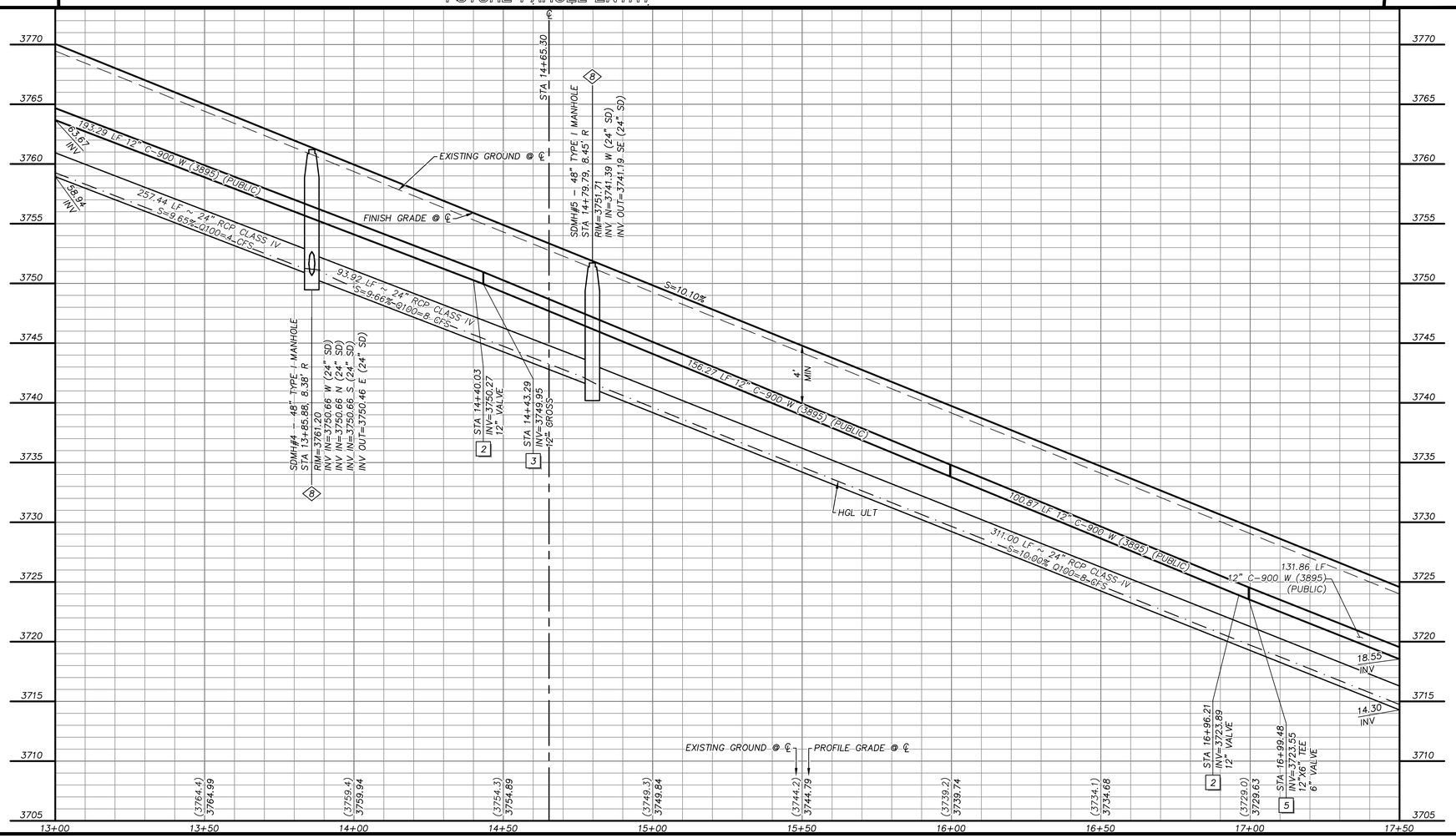

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REMEMBER AND ANTERIOR SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES, ITS QUICK! Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, ITS QUICK! CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
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13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
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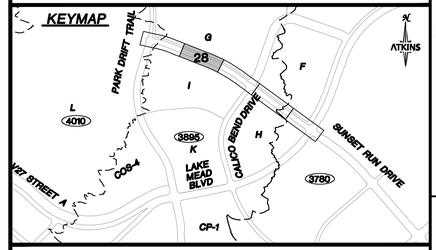
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

SUNSET RUN DRIVE - STA 13+00 TO STA 17+50

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	28/69
JOB NO.	1000694748

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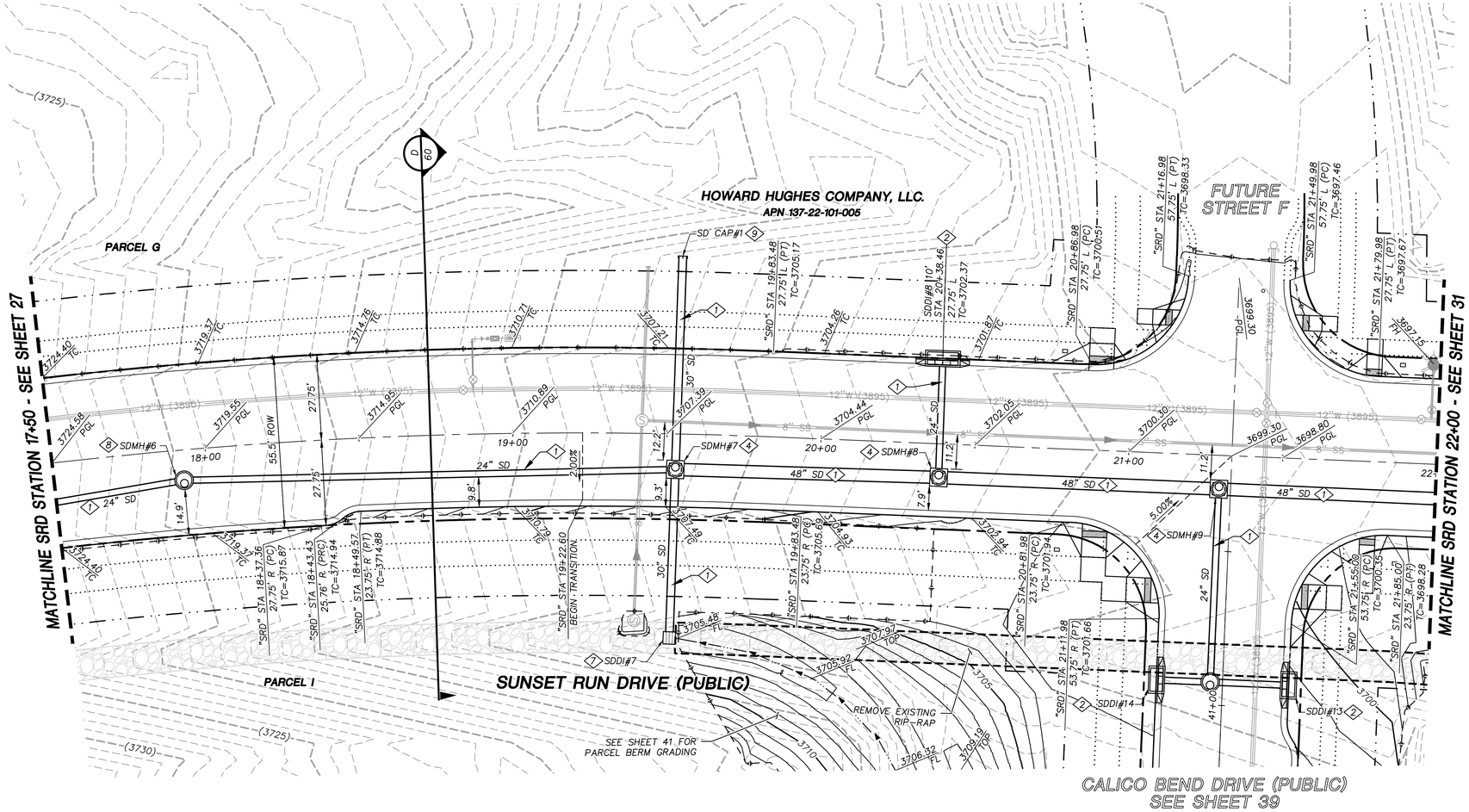

STORM DRAIN CONSTRUCTION NOTES

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2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
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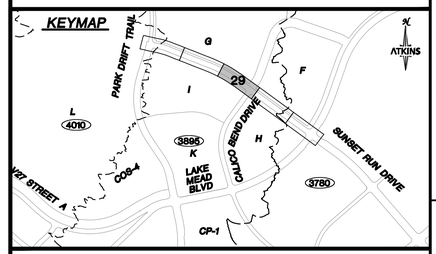
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS			
REV.	DESCRIPTION	BY	DATE	APPROVAL

KEYMAP



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

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ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
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SUMMERLIN

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ROADWAY GRADING PLAN
SUNSET RUN DRIVE - STA 17+50 TO STA 22+00

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=20'
VERT.:
DATE: SEPTEMBER, 2022
DRAWING NO. 29/69
00000000 L00-00000
JOB NO. 1000694748

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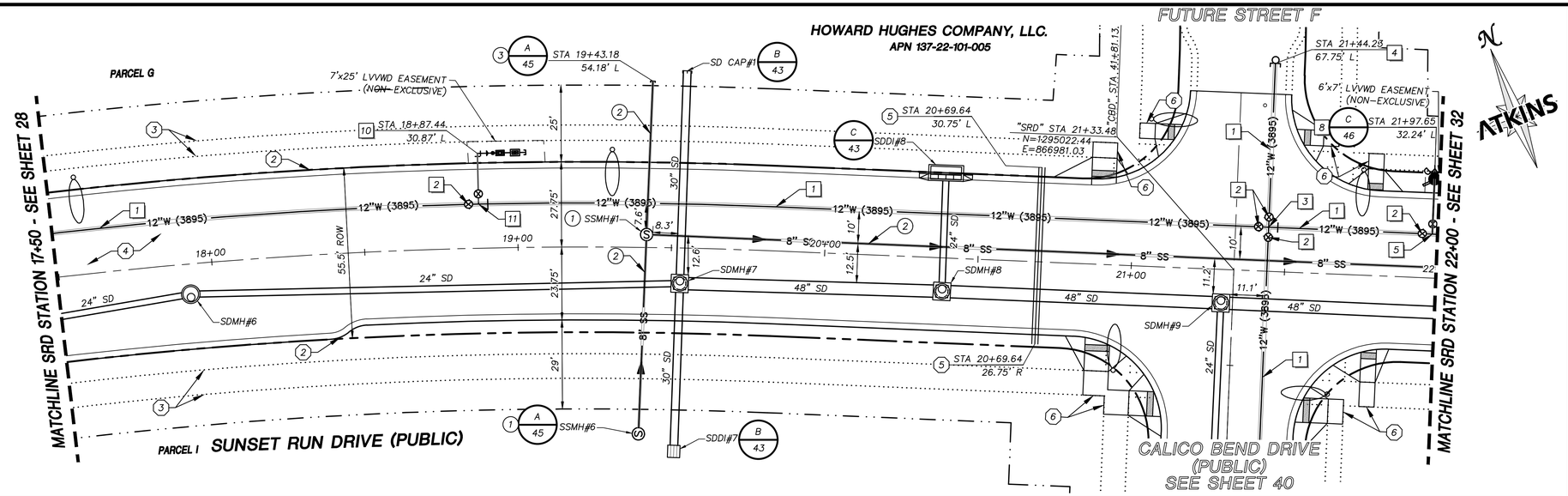

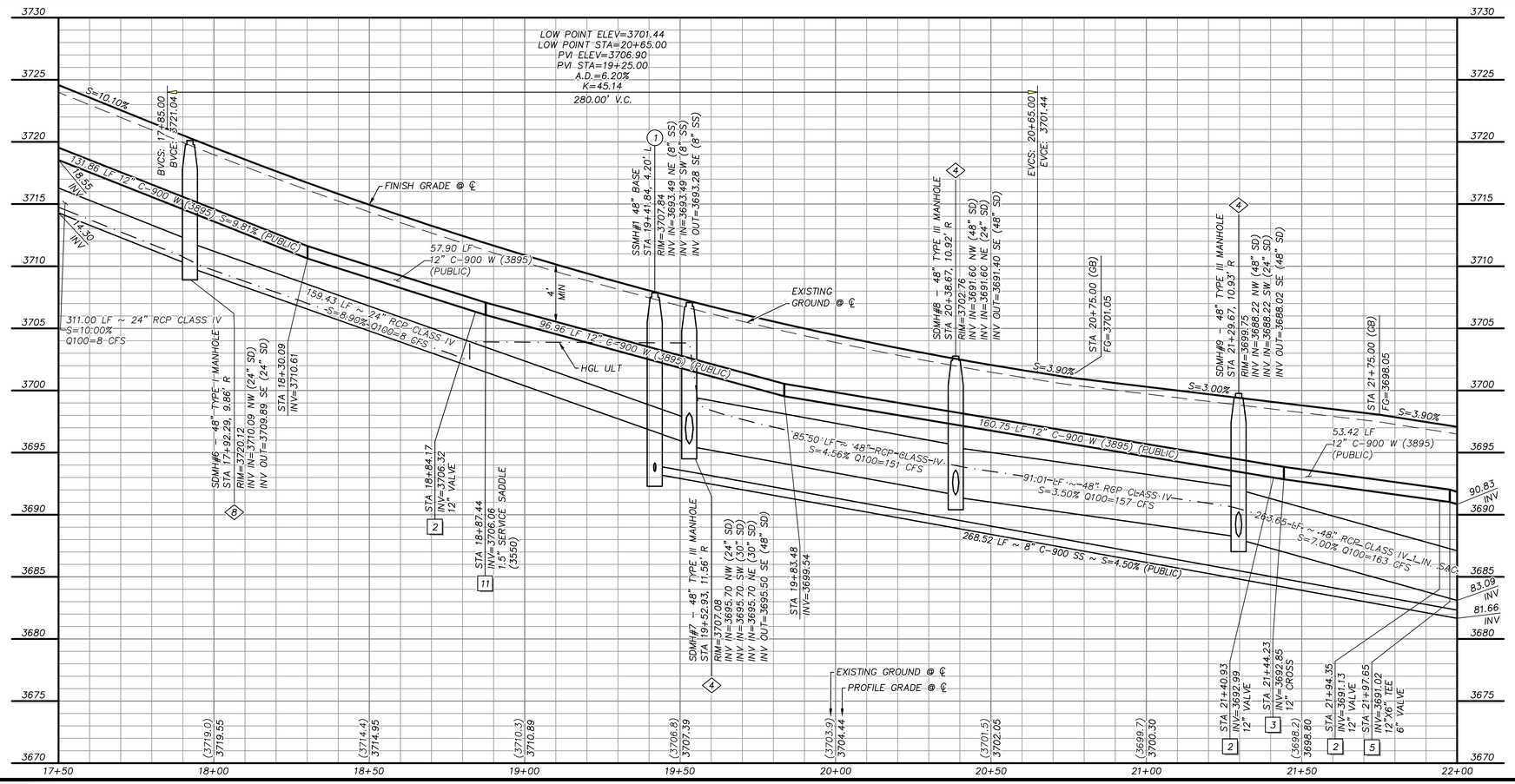

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

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NAVD88 ELEVATION: 989.574 METERS
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T21S,R59E,S03

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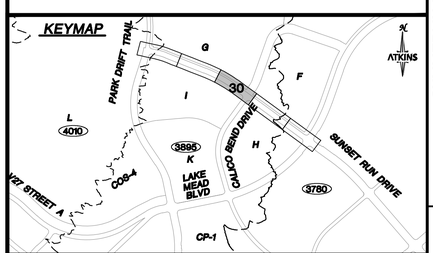
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS			
REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

SUNSET RUN DRIVE - STA 17+50 TO STA 22+00

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'

00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	30/69

JOB NO. 1000694748

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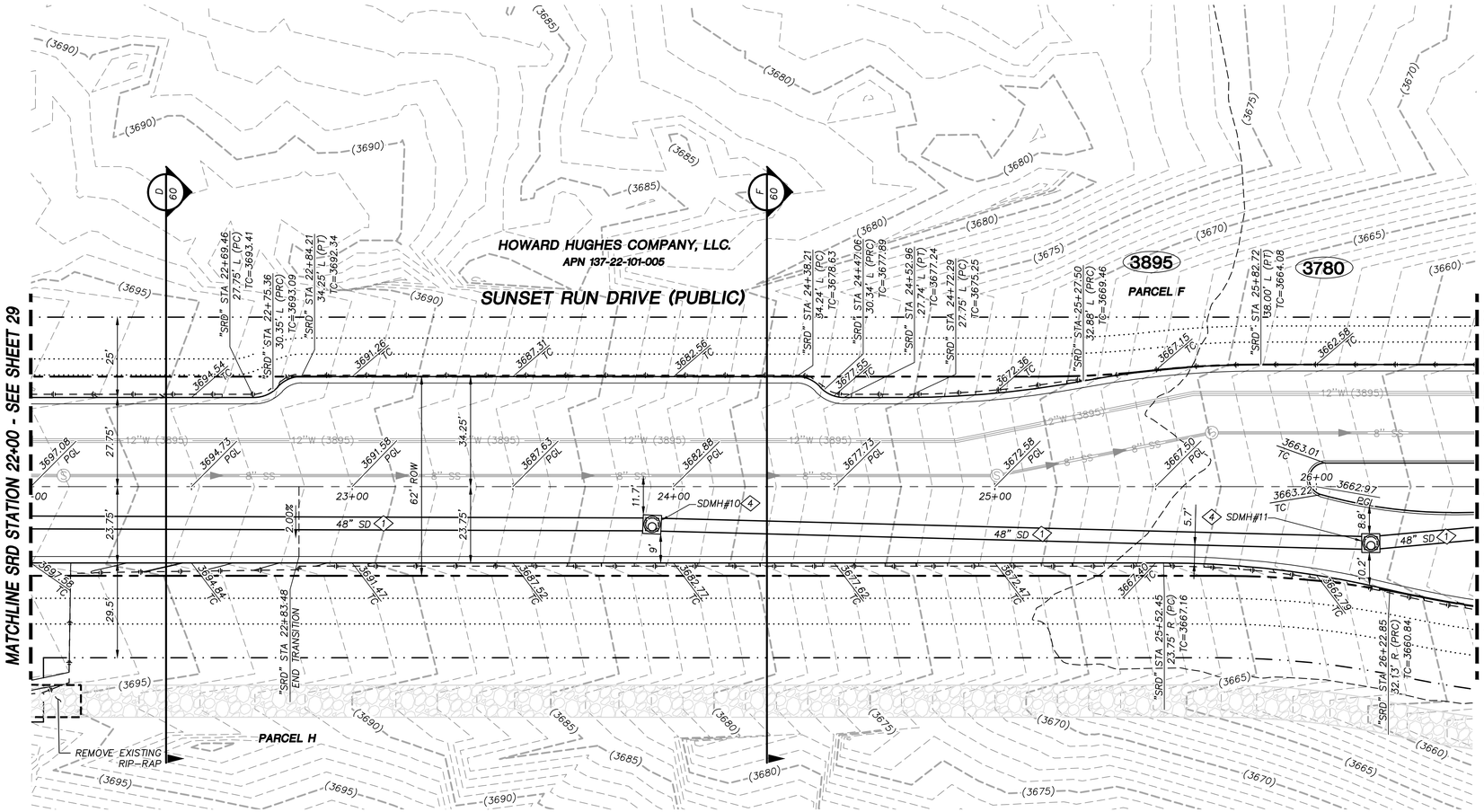

STORM DRAIN CONSTRUCTION NOTES

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2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
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4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

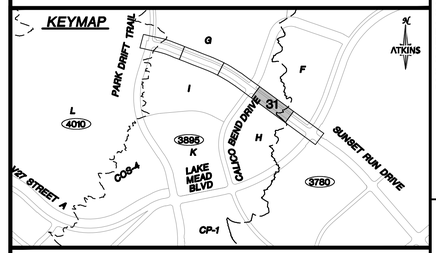
EXISTING UTILITY CONSTRUCTION NOTES

1. ADJUST EXISTING BLOW OFF VALVE TO GRADE
2. ADJUST EXISTING GATE VALVE TO GRADE
3. ADJUST EXISTING MANHOLE TO GRADE

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

KEYMAP



GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES, ITS QUICK! Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, ITS QUICK! CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

ATKINS
2270 Corporate Circle Suite 200
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Telephone: +1.702.263.7275
Fax: +1.702.263.7200

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ROADWAY GRADING PLAN

SUNSET RUN DRIVE - STA 22+00 TO STA 26+50

00000000 L00-00000	DESIGNED BY: D. SMITH	DRAWN BY: C. HONEY	CHECKED BY: N. BARCOS
DATE: SEPTEMBER, 2022	DRAWING NO. 31/69	HORIZ.: 1"=20'	VERT.:

JOB NO. 100069474B

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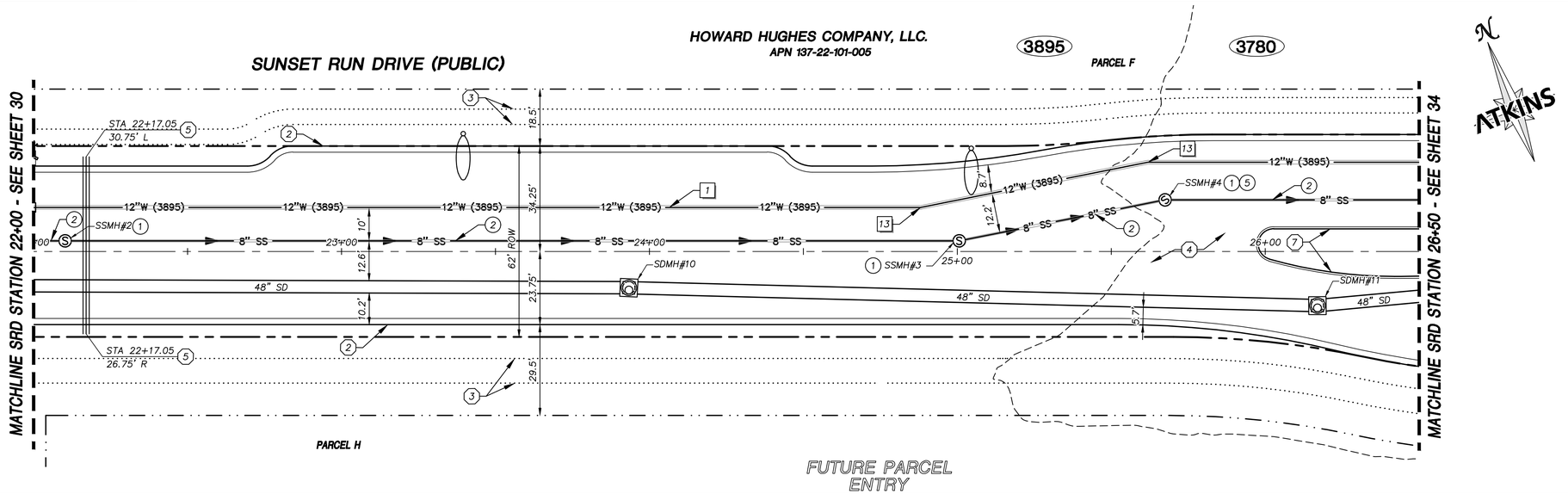

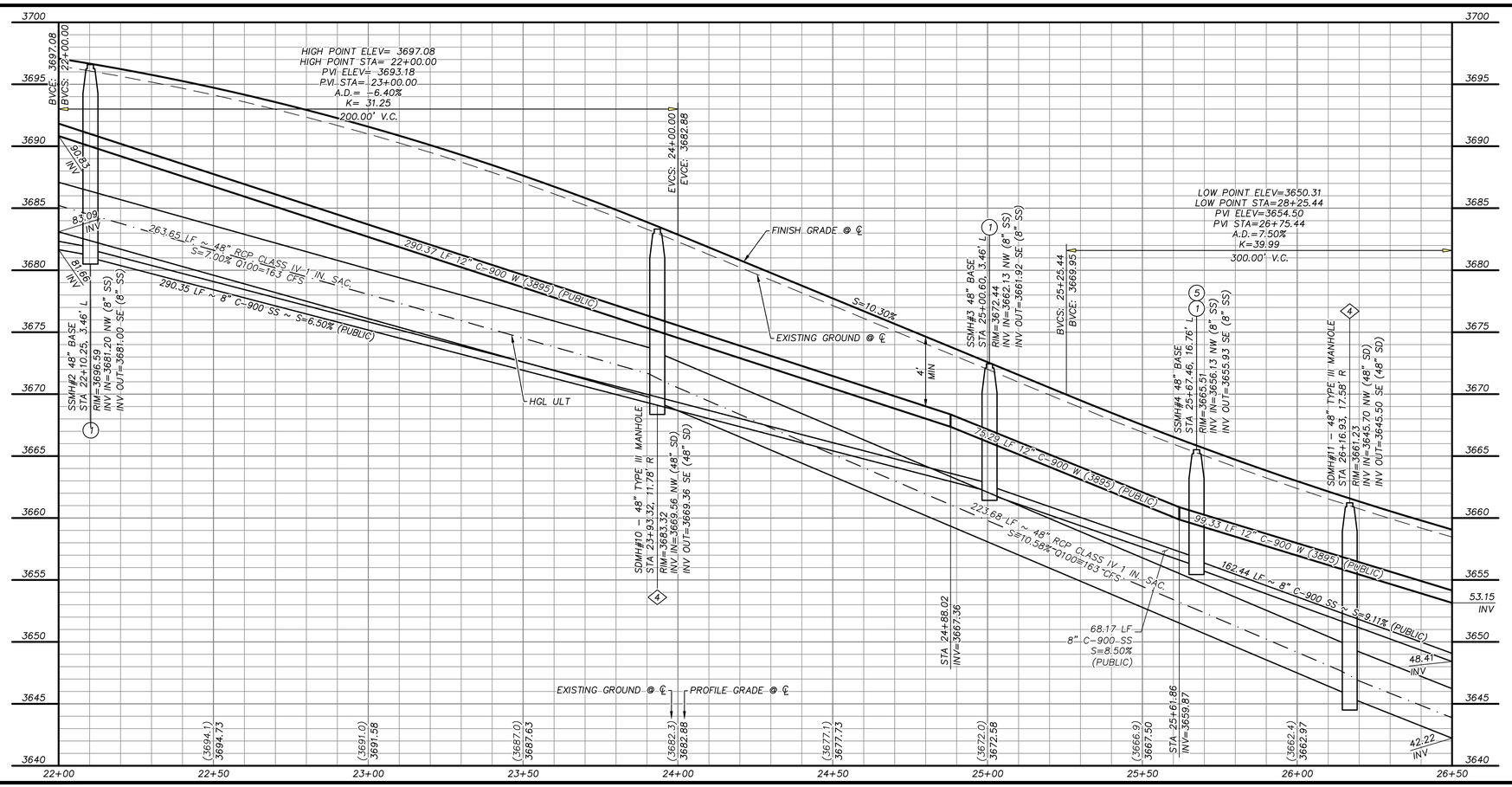

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REMEMBER AND REFERENCE SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES IN CLARK COUNTY. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS CLARK COUNTY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
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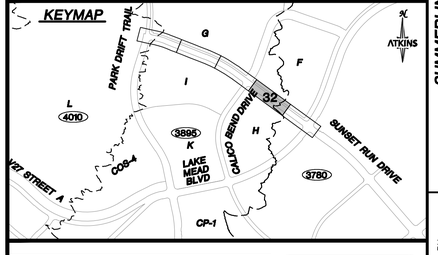
KEYMAP



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NEVADA PROFESSIONAL ENGINEER ANTHONY J. ORTIZ EXP. 12-31-23 CIVIL No. 18849 STATE OF NEVADA

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

SUNSET RUN DRIVE - STA 22+00 TO STA 26+50

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: 1"=20'
VERT.: 1"=4'

00000000
L00-00000

DATE: SEPTEMBER, 2022

DRAWING NO. 32/69

JOB NO. 100069474B

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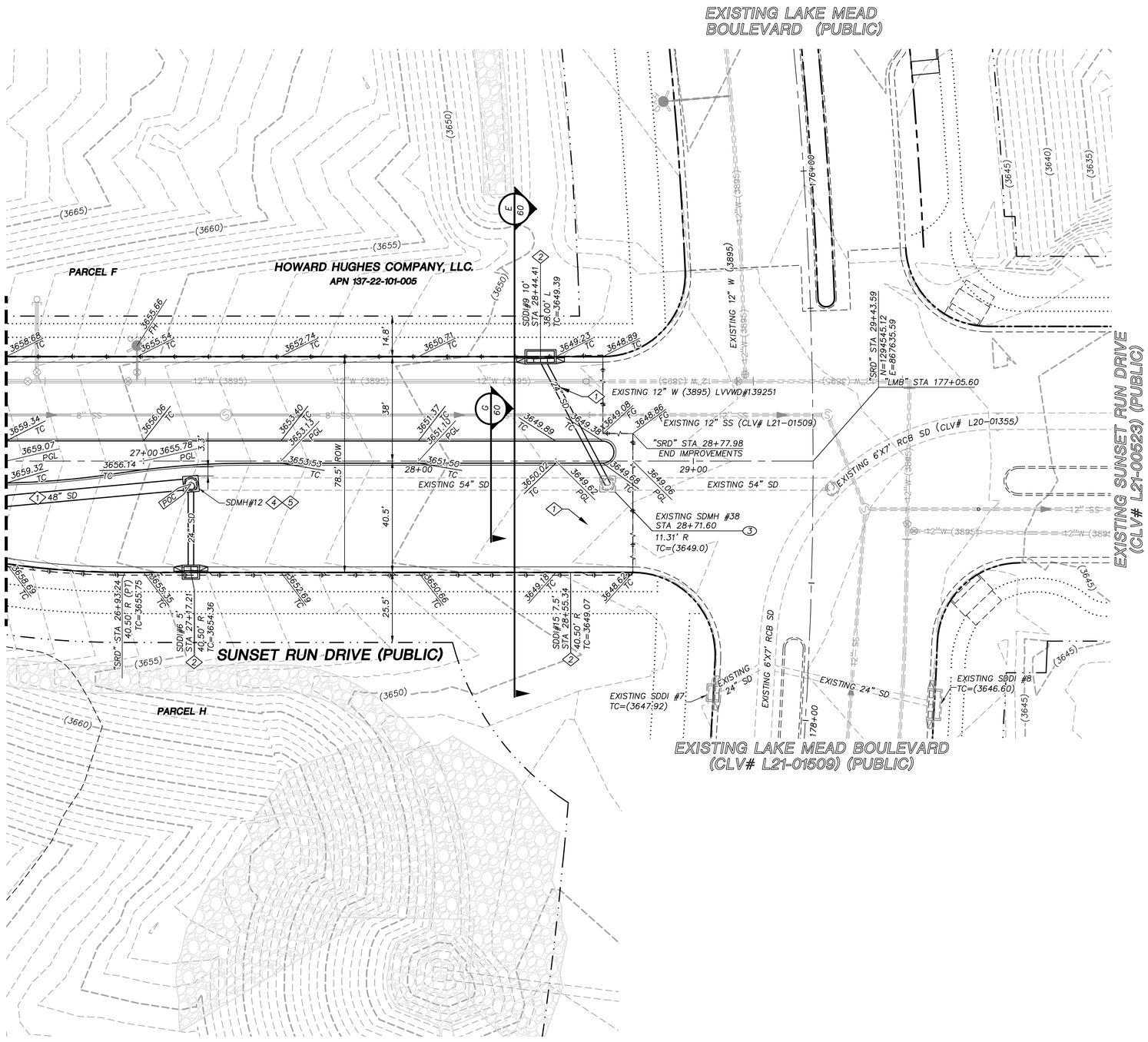

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

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T21S,R59E,S03

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STORM DRAIN CONSTRUCTION NOTES

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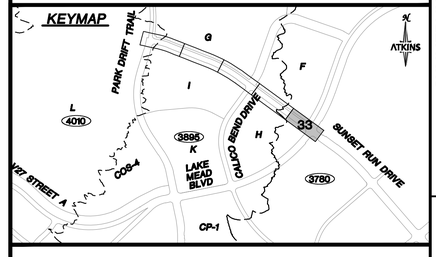
KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

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ROADWAY GRADING PLAN

SUNSET RUN DRIVE - STA 26+50 TO END

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	
0000000 L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	33/69
JOB NO.	1000694748

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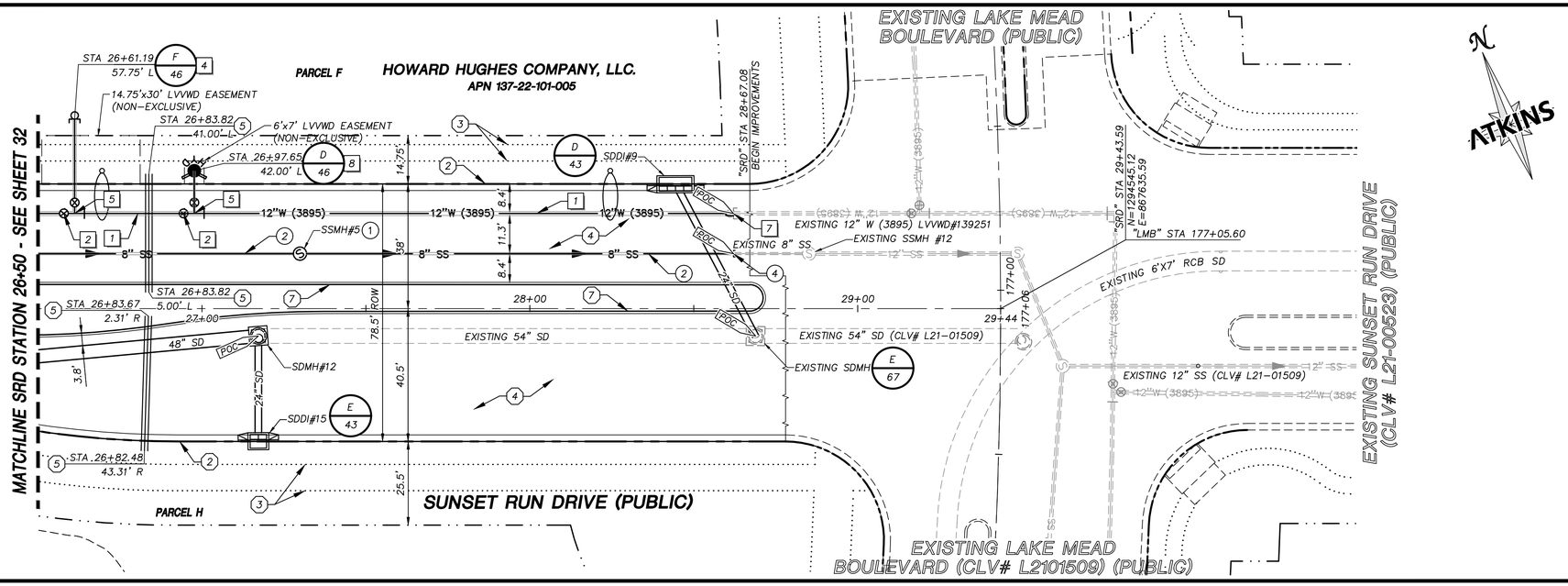

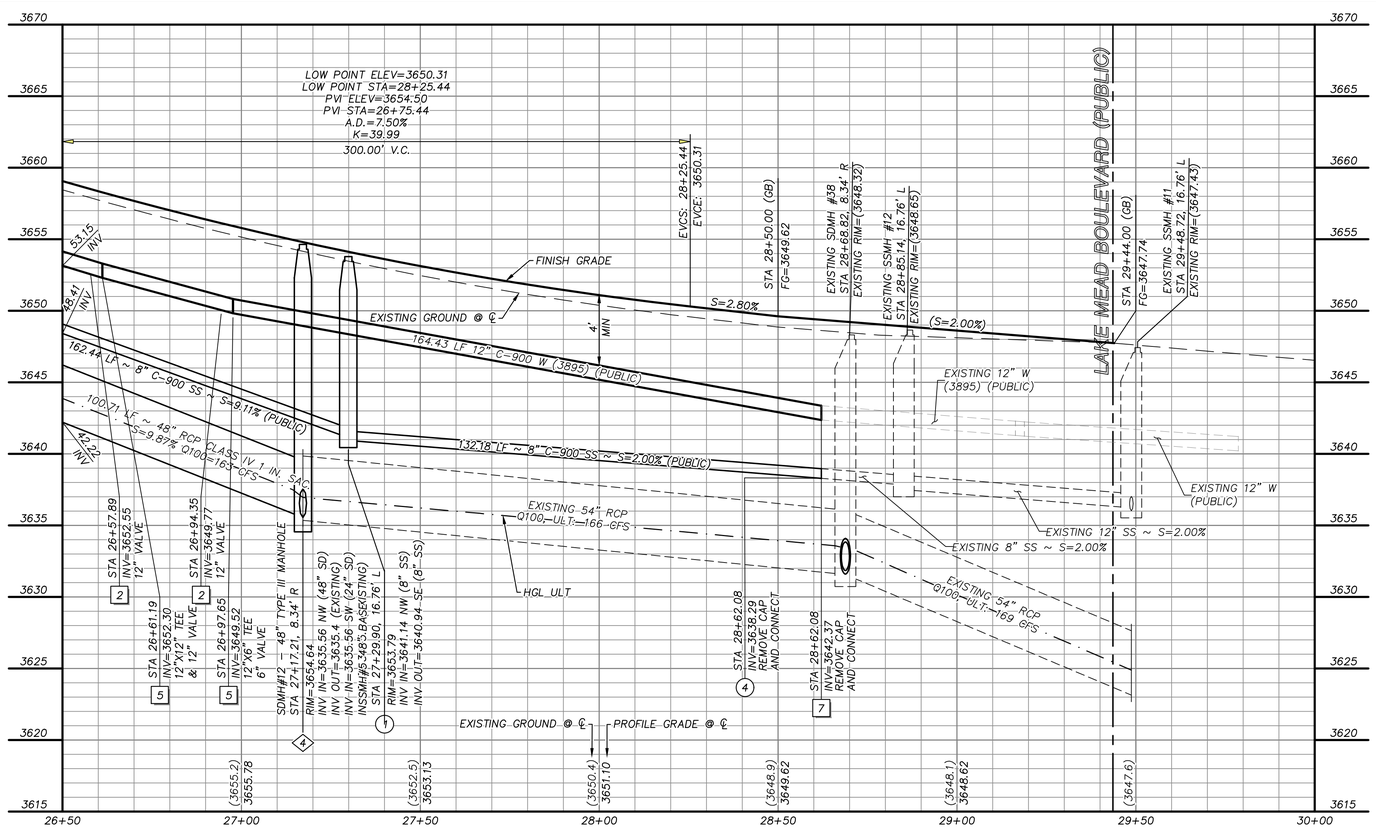

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

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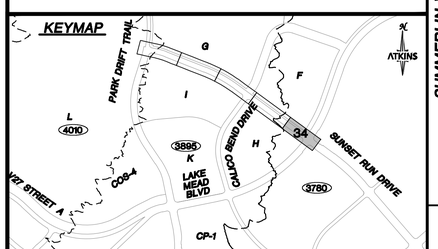
KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

SUNSET RUN DRIVE - STA 26+50 TO END

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	34/69

JOB NO. 1000694748

C:\pw_work\atkinsv01\dms58537\694748-11-PLAN-P2.dwg LAYOUT: 5 Sep 07, 2022 - 2:02PM

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
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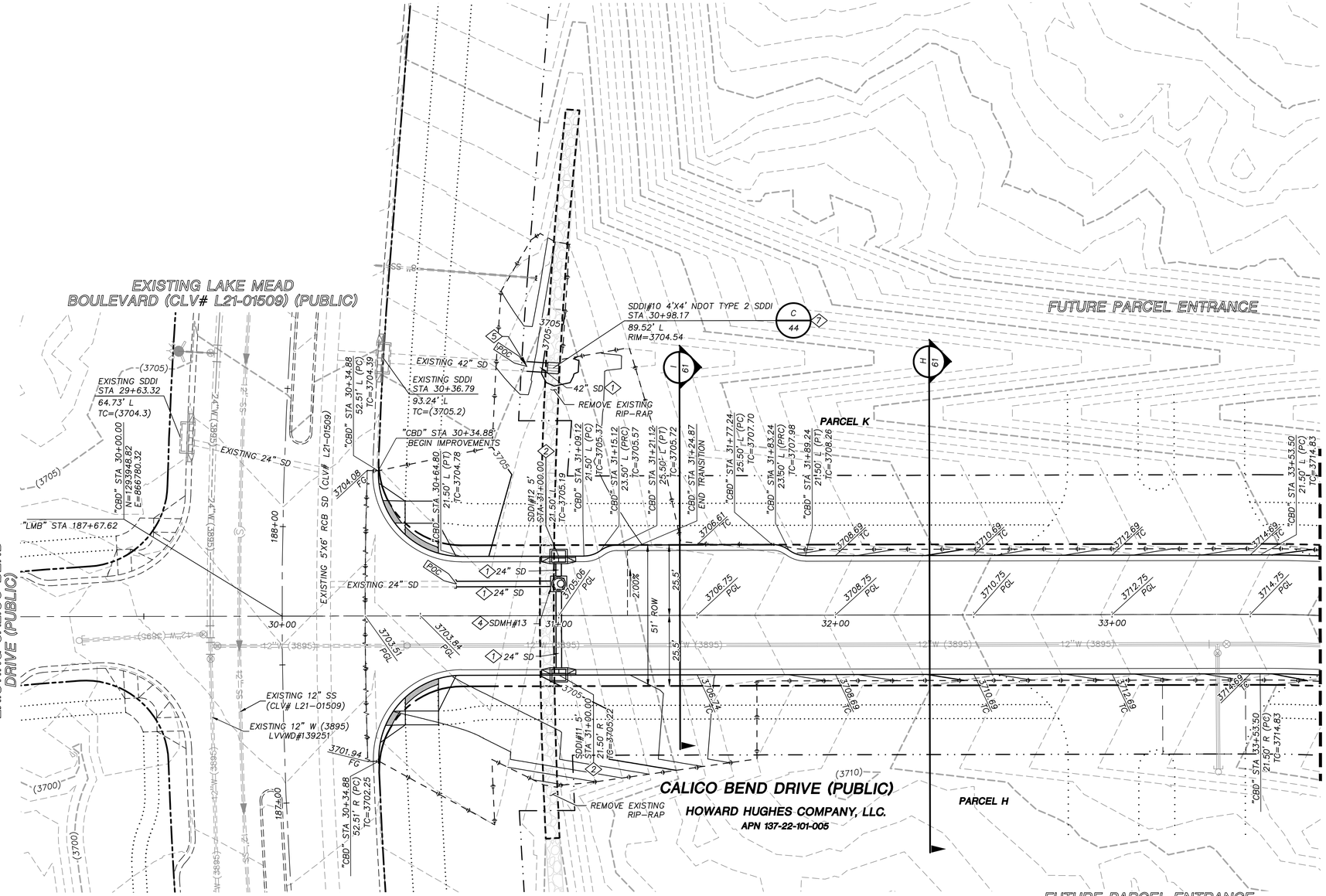
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 EMERGENCY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

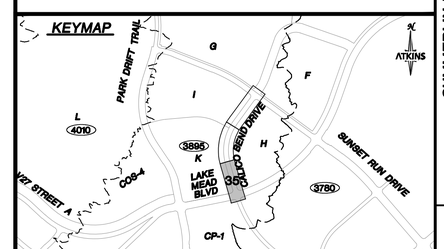
ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY GRADING PLAN
CALICO BEND DRIVE - BEGIN TO STA 33+75

KEYMAP



DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
DATE:	SEPTEMBER, 2022
HORIZ.:	1"=20'
VERT.:	
DRAWING NO.	36/69
JOB NO.	1000694745

00000000
L00-00000

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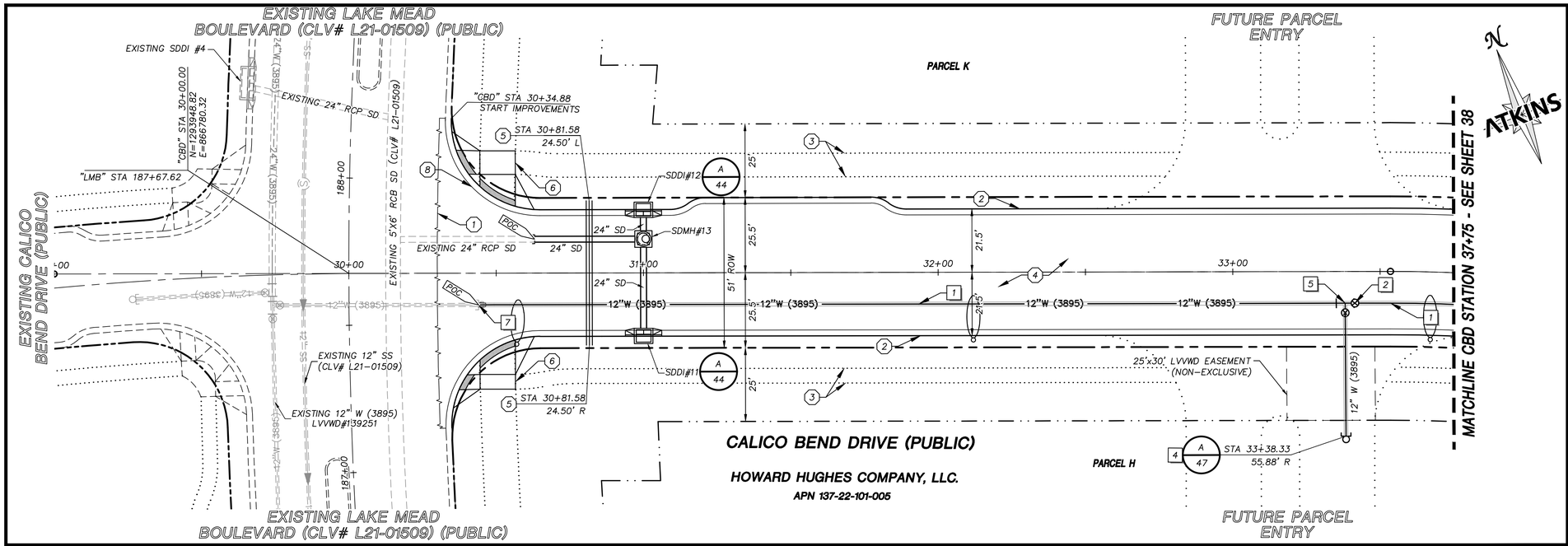

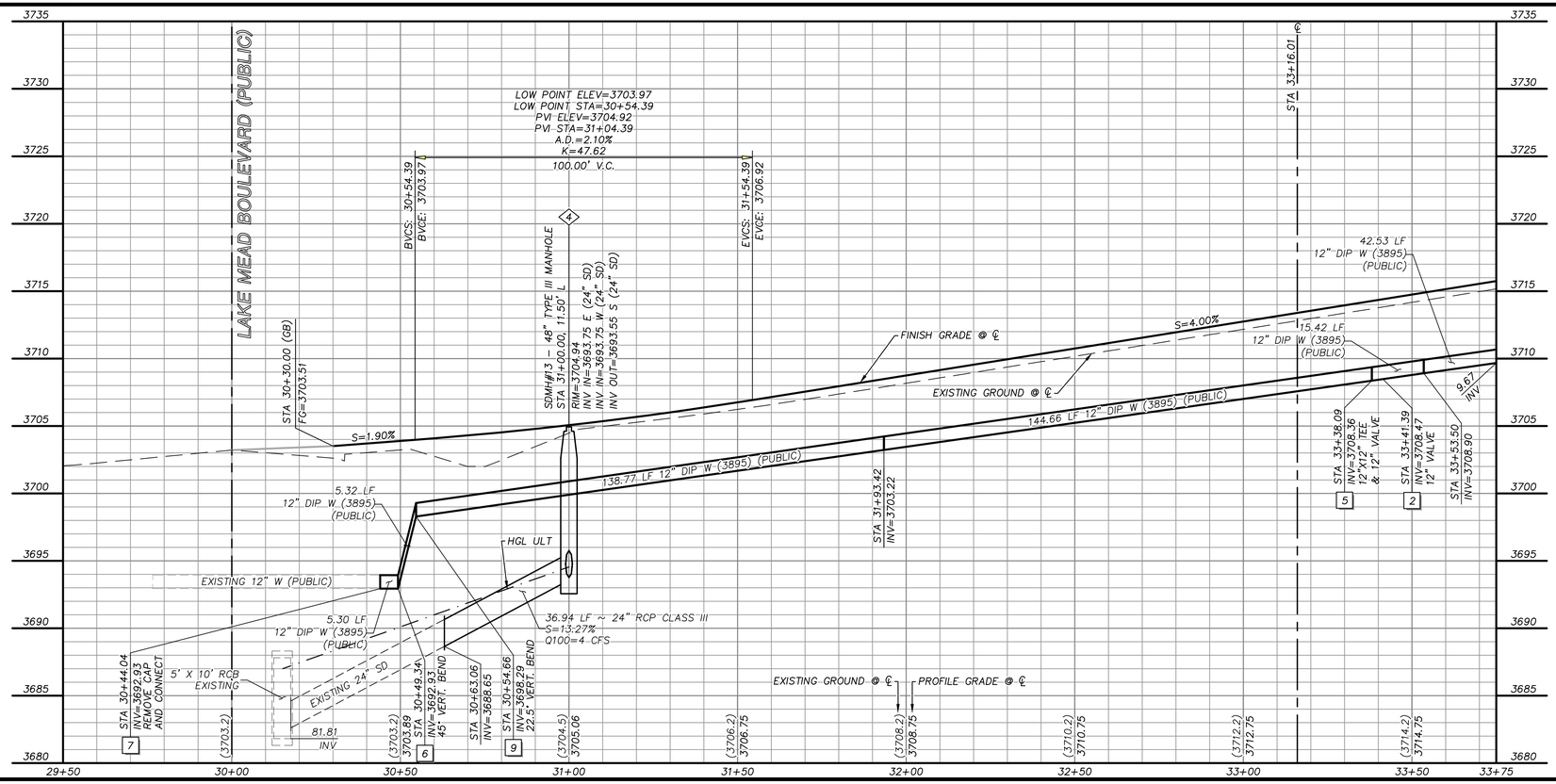

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5. INSTALL CORROSION PROTECTION PER 3.16.8

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2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
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2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
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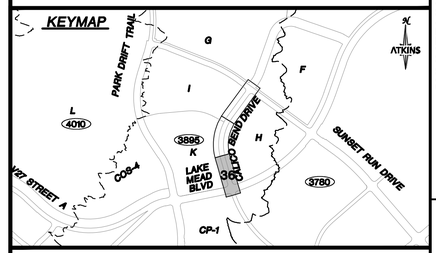
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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GRAPHIC SCALE

HORIZONTAL: 1"=20'

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REMOTELY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING THROUGH ANY UTILITY LINES, ITS QUICK! Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, ITS QUICK! CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY ORTIZ EXP. 12-31-23 CIVIL No. 18849

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	36/69
JOB NO.	1000694748

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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ROADWAY PLAN & PROFILE

CALICO BEND DRIVE - BEGIN TO STA 33+75

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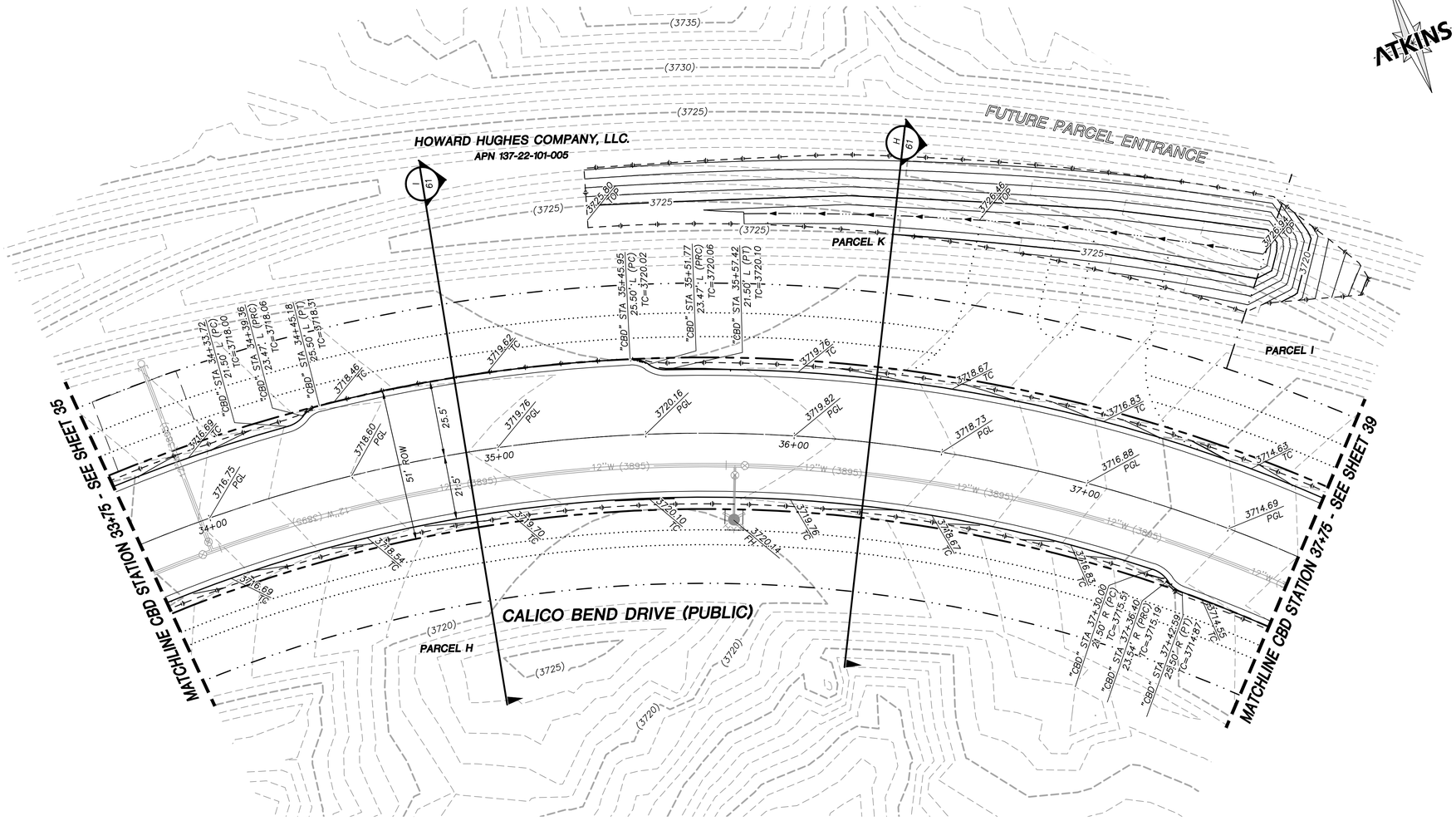

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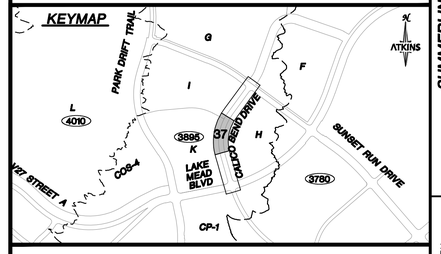

GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

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BENCHMARK

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 NEVADA AND ARIZONA SYSTEM OF TRANSMISSION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S THE LAW. CLARK COUNTY. Call 811 OR 1-800-642-2444

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NEVADA PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
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Telephone: +1.702.263.7275
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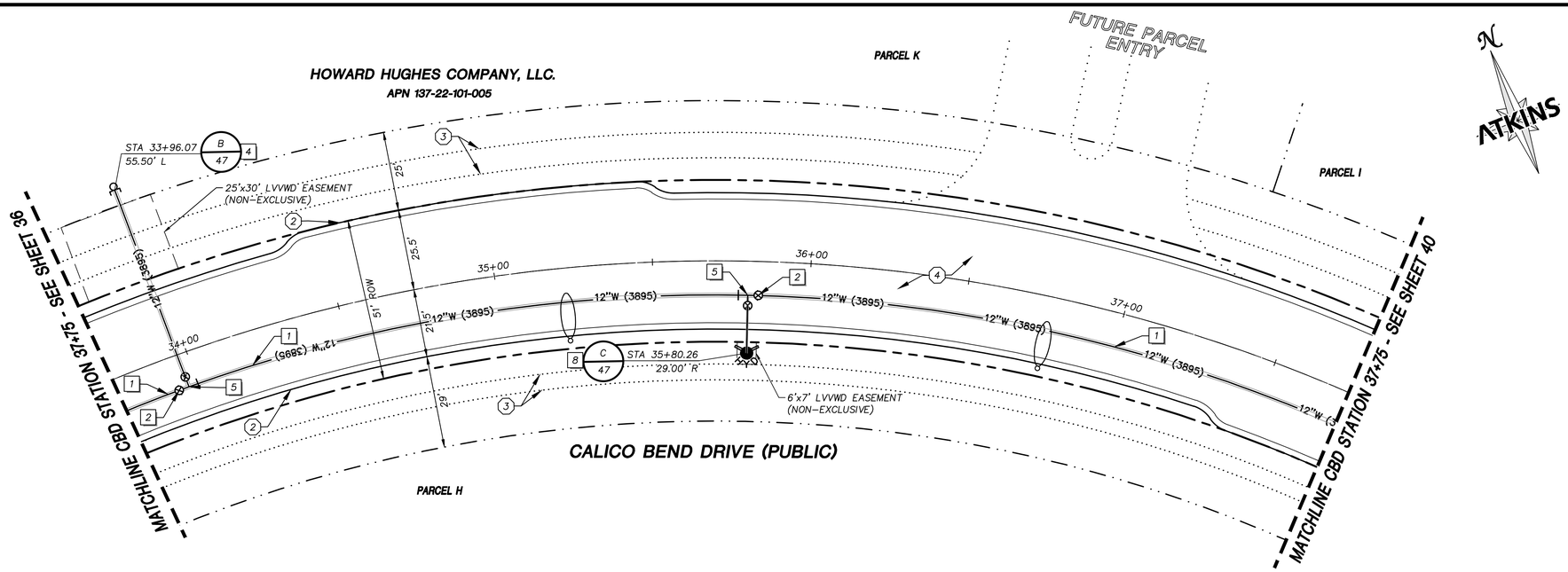
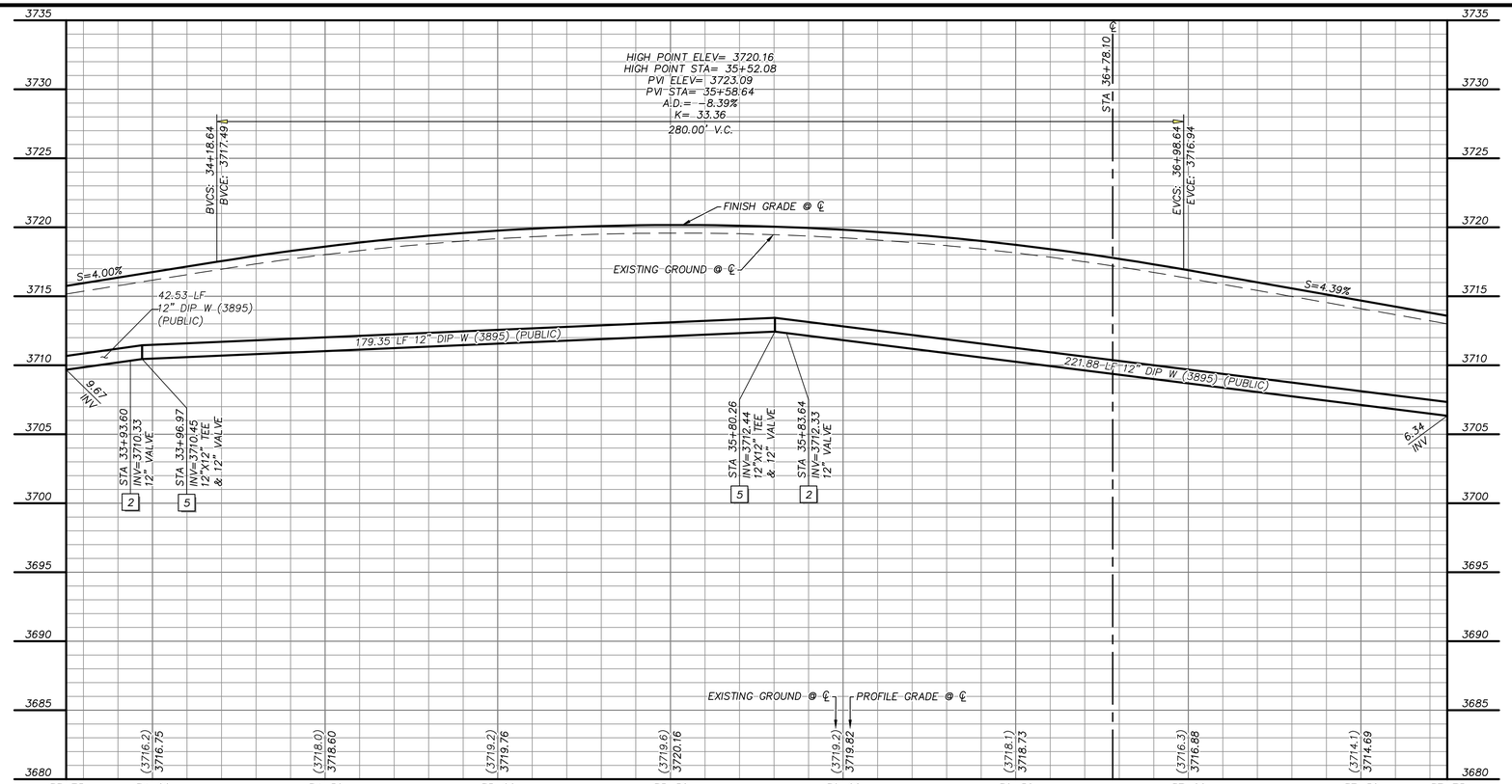
ROADWAY GRADING PLAN
CALICO BEND DRIVE - STA 33+75 TO STA 37+75

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 37/69	HORIZ.: 1"=20' VERT.:

JOB NO. 1000694748

C:\pw_work\atkinsn01\dms585371\694748-10-GRAD-03.dwg LAYOUT: 2 Sep 07, 2022 - 2:32PM





GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

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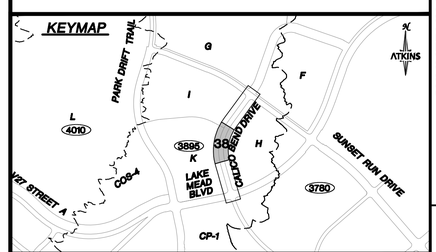

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REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

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Telephone: +1.702.263.7275
Fax: +1.702.263.7200

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DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	1"=4'
00000000	
L00-00000	
DATE	SEPTEMBER, 2022
DRAWING NO.	38/69
JOB NO.	100069474B

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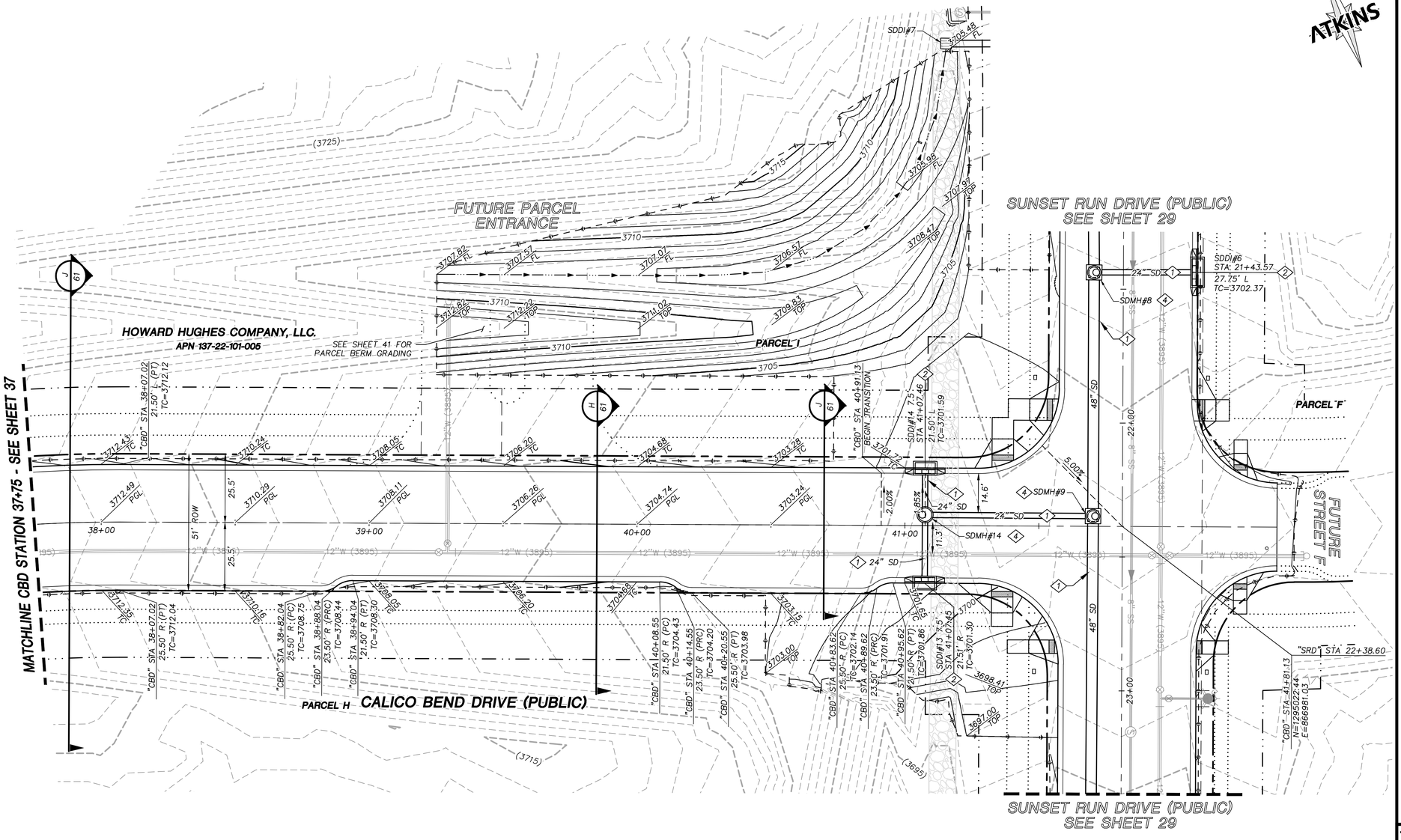
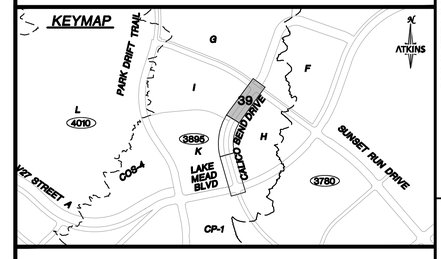


STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL



GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REGIONAL AND ARTERIAL SYSTEMS OF TRANSPORTATION

Call before you Dig AVOID CUTTING OR DISTURBING UTILITY LINES. BE SHORTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS SHORTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

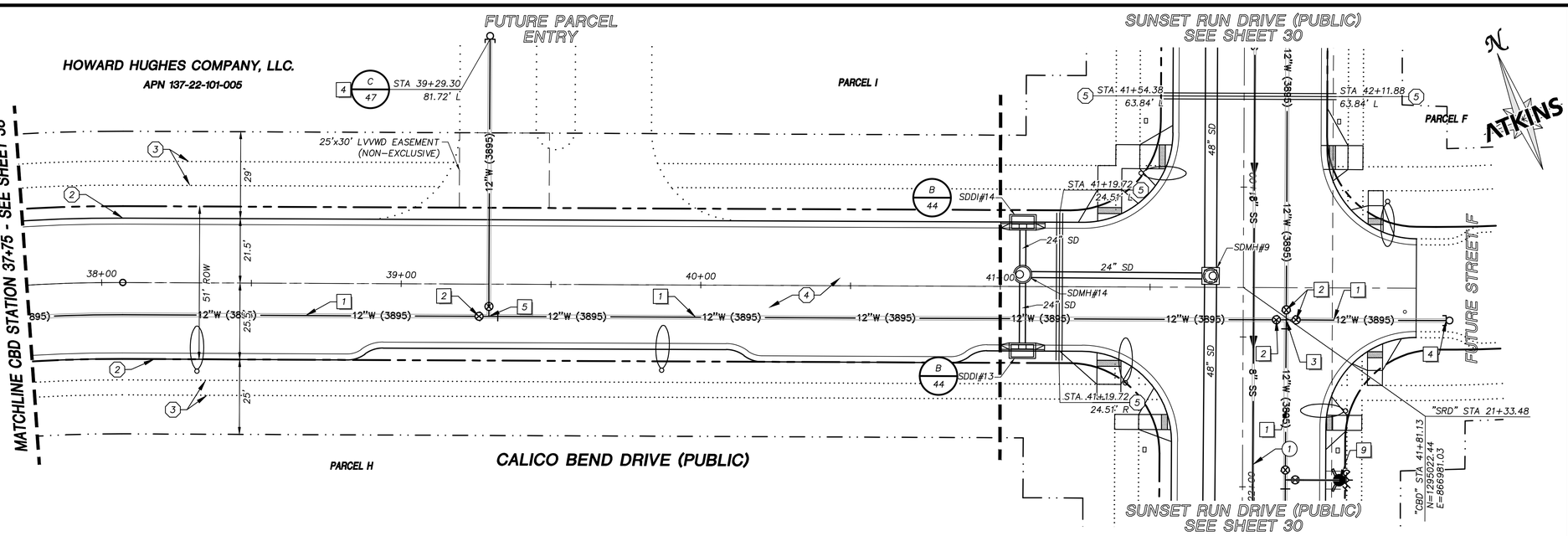
SUMMERLIN

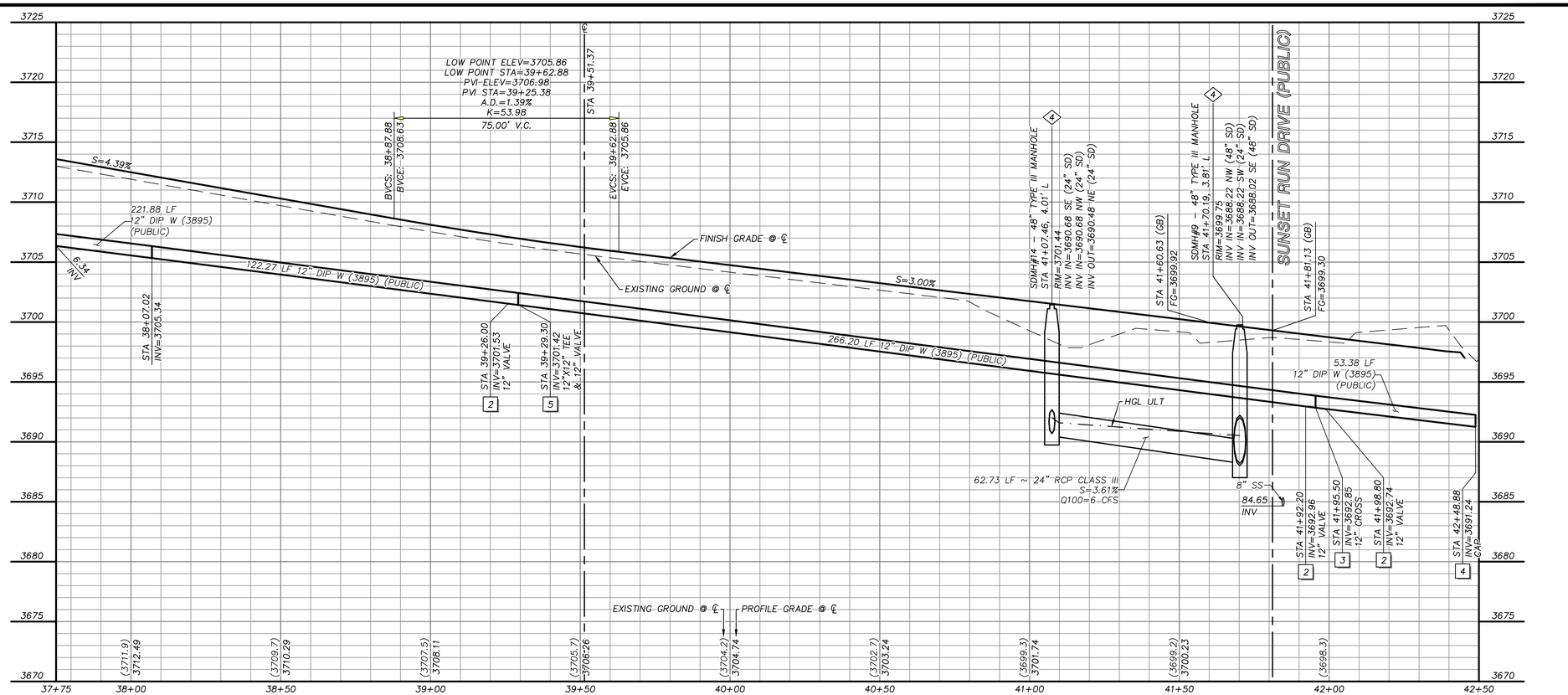
SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD) AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY GRADING PLAN
CALICO BEND DRIVE - STA 37+75 TO END

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	1"=20'
VERT.:	
00000000	
L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	39/69
JOB NO.	1000694748

C:\pw_work\atkinsn01\dms585371\694748-10-GRAD-G3.dwg LAYOUT: 3 Sep 07, 2022 - 2:32PM





GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

BASIS OF BEARING

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

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(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 TIMELY AND ACCURATE SYSTEM OF TRANSFORMATION

Call before you Dig AVOID OUTAGES, HITS/DAMAGES UTILITY LINES & COSTLY FINES. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, ITS COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

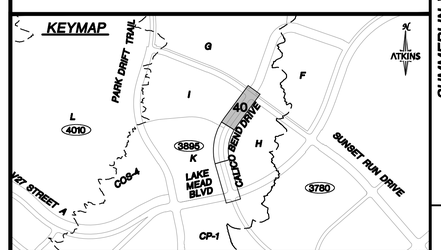
WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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NEVADA PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY LEE ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD) AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

ROADWAY PLAN & PROFILE

CALICO BEND DRIVE - STA 37+75 TO END

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 40/69	HORIZ.: 1"=20' VERT.: 1"=4'

JOB NO. 100069474B

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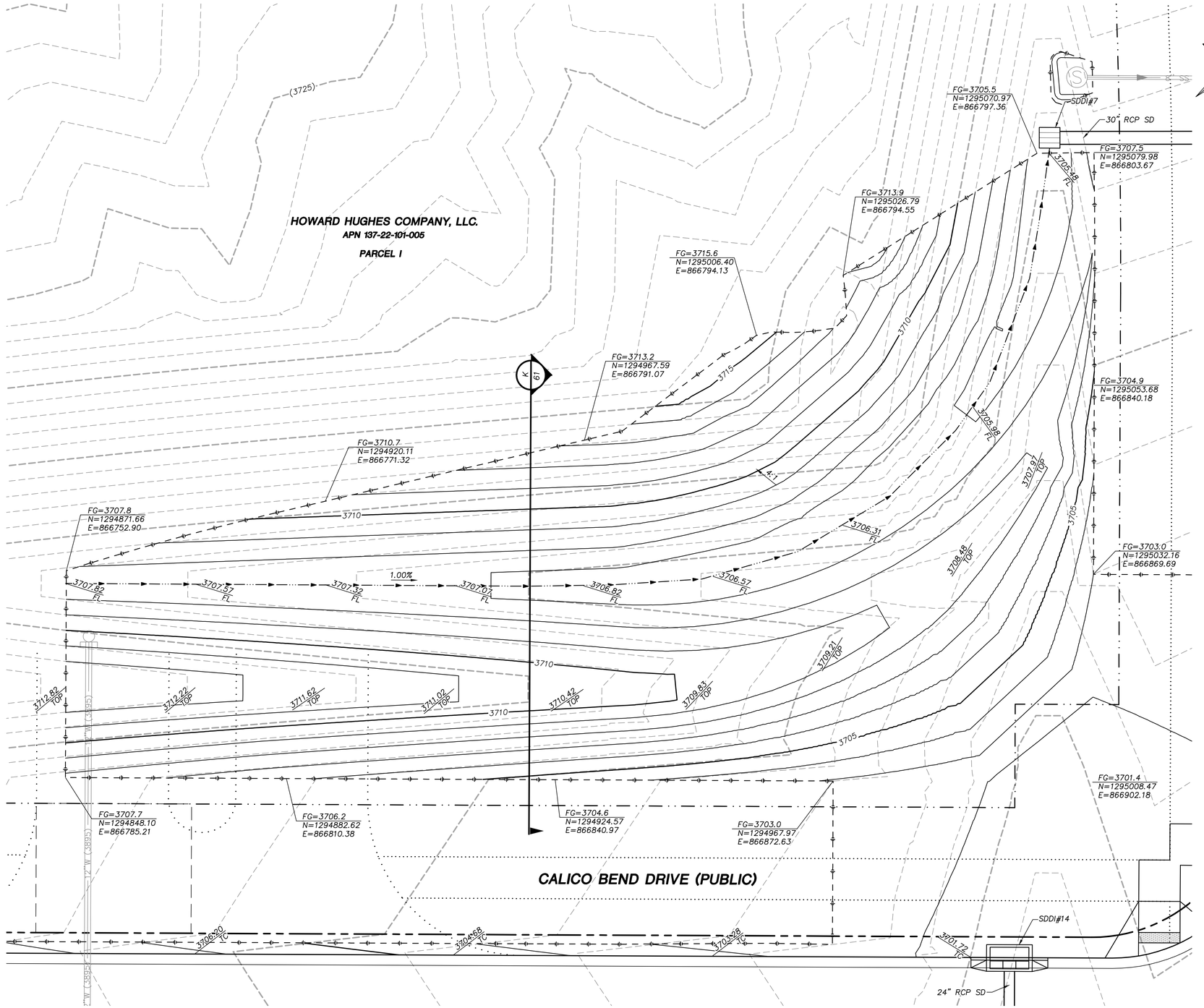

STORM DRAIN CONSTRUCTION NOTES

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8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

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T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REGIONAL NOTIFICATION SYSTEM OF UTILITY LOCATIONS

Call before you Dig AVOID CUTTING TELECOMMUNICATIONS AND UTILITY LINES. DIAL 811 OR Call 1-800-642-2444

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REVISIONS

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Henderson, Nevada 89074
Telephone: +1.702.263.7275
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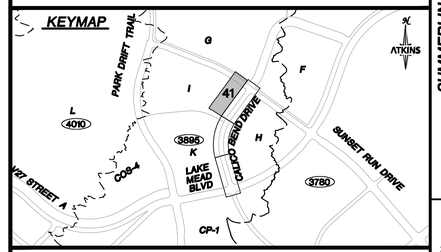
ROADWAY GRADING PLAN

KEYMAP



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NEVADA PROFESSIONAL ENGINEER — ANTHONY D. SMITH — EXP. 12-31-23 — CIVIL — No. 18849 — STATE OF NEVADA

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 41/69	HORIZ.: 1"=10'
	VERT.:

JOB NO. 100069474B

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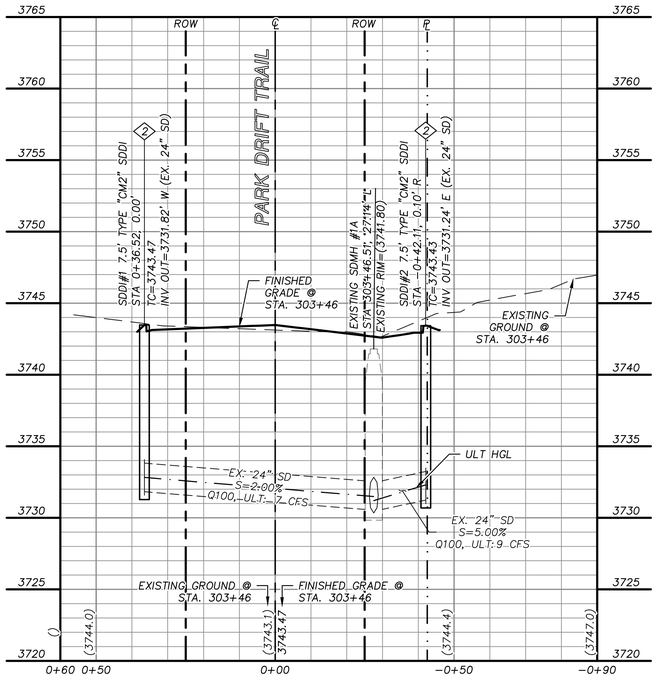
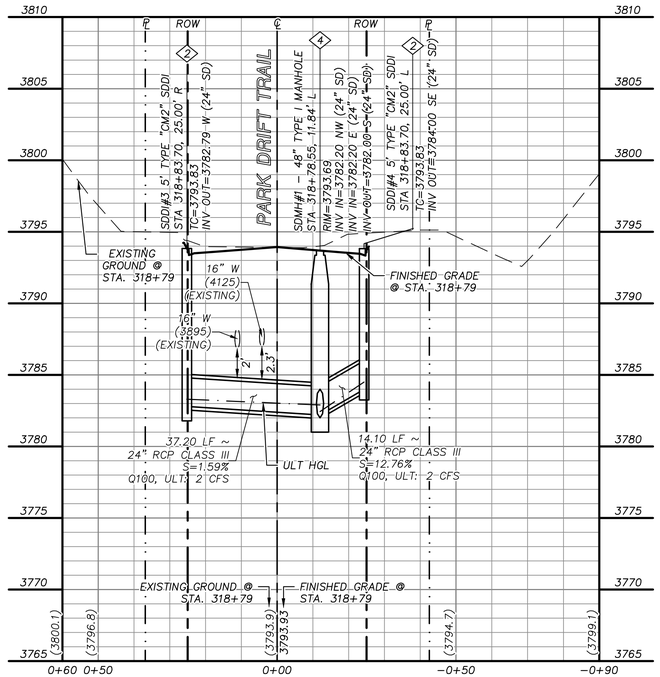


STORM DRAIN LATERAL 1

"PDT" STA. 303+46 SEE SHEET 16

A / 42



STORM DRAIN LATERAL 2

"PDT" STA. 318+79 SEE SHEET 24

B / 42

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT. DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
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NAVD88 ELEVATION: 989.574 METERS
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FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

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Call before you Dig 811 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S DEADLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

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WATERLINE CONSTRUCTION NOTES

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2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
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7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
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9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
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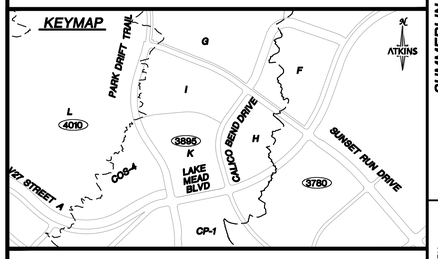
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTEGA EXP. 12-31-23 CIVIL No. 18849

REVISIONS			
REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD) AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

STORM DRAIN LATERAL PROFILES PARK DRIFT TRAIL

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 42/69	HORIZ.: NONE VERT.: NONE
JOB NO. 100069474B	

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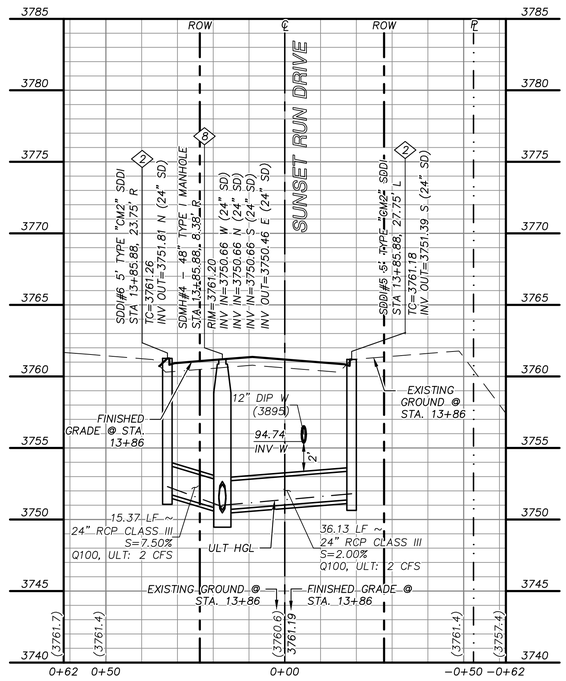
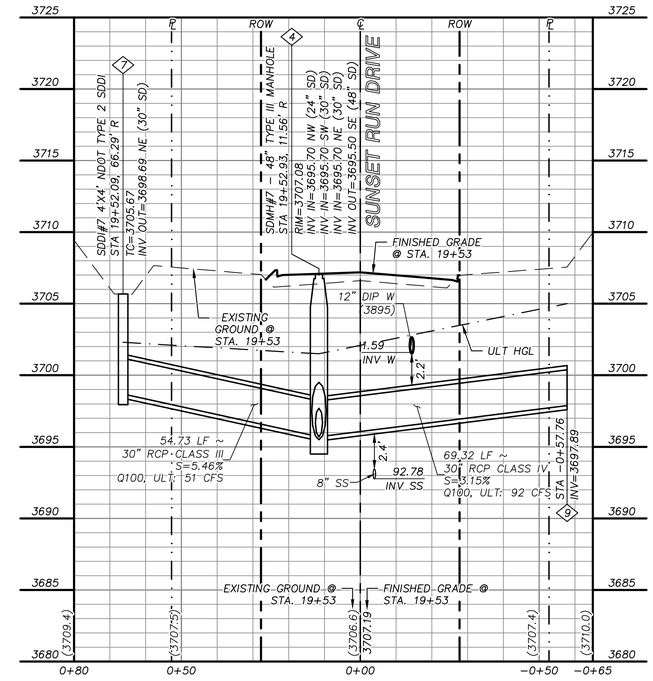


STORM DRAIN LATERAL 1

"SRD" STA. 13+86 SEE SHEET 28

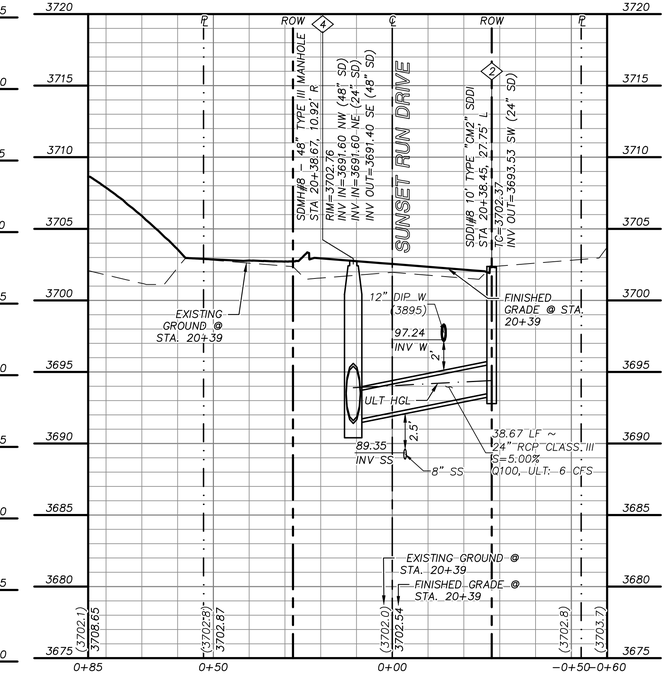
A 43



STORM DRAIN LATERAL 2

"SRD" STA. 19+53 SEE SHEET 30

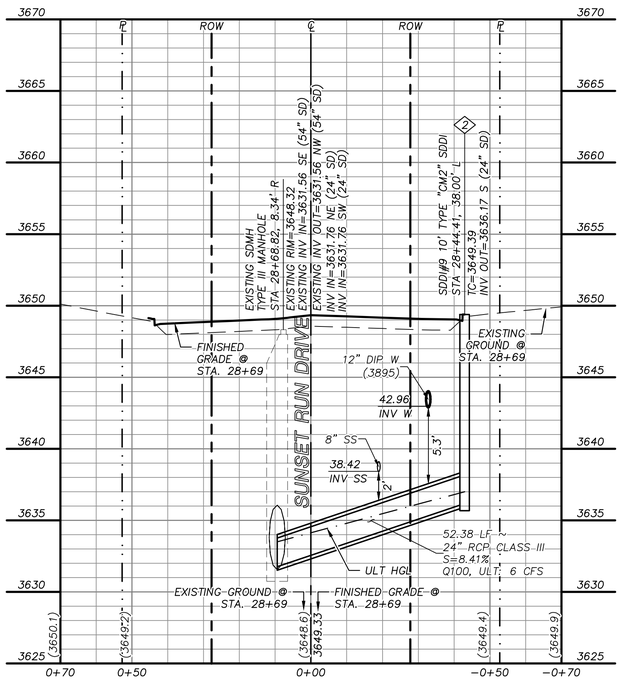
B 43



STORM DRAIN LATERAL 3

"SRD" STA. 20+39 SEE SHEET 30

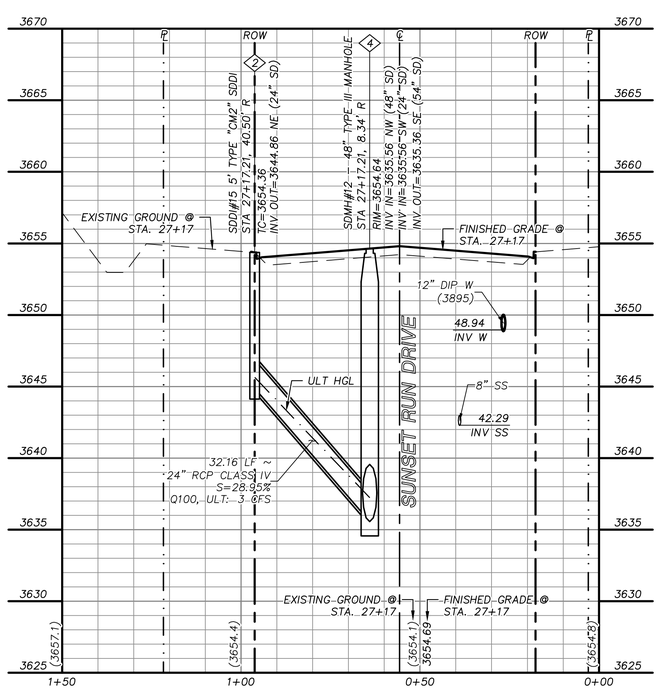
C 43



STORM DRAIN LATERAL 4

"SRD" STA. 28+69 SEE SHEET 34

D 43



STORM DRAIN LATERAL 5

"SRD" STA. 27+17 SEE SHEET 34

E 43

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

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

DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

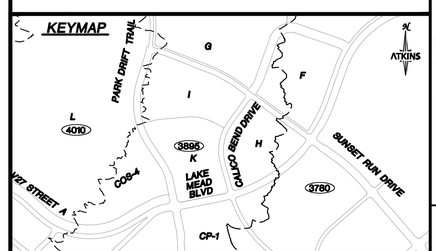
1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B (A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67



REV.	DESCRIPTION	BY	DATE	APPROVAL

REVISIONS

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

STORM DRAIN LATERAL PROFILES
SUNSET RUN DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

DATE: SEPTEMBER, 2022
DRAWING NO. 43/69

JOB NO. 1000694748

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

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L00-00000

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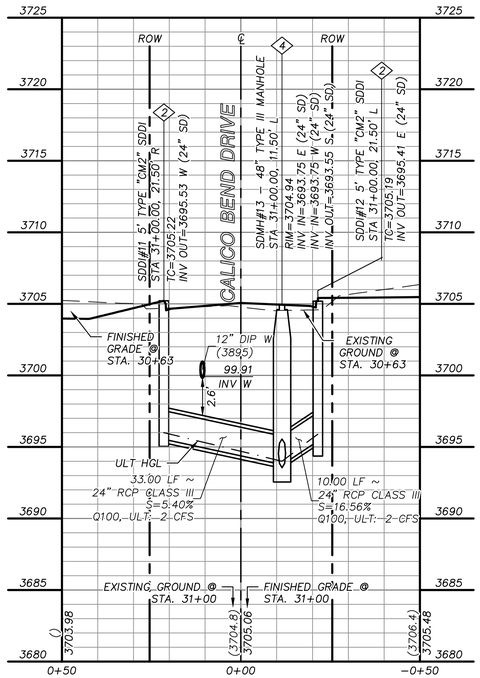
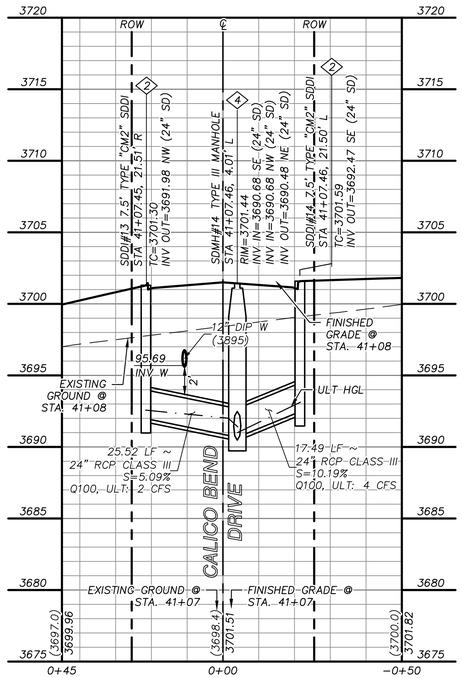


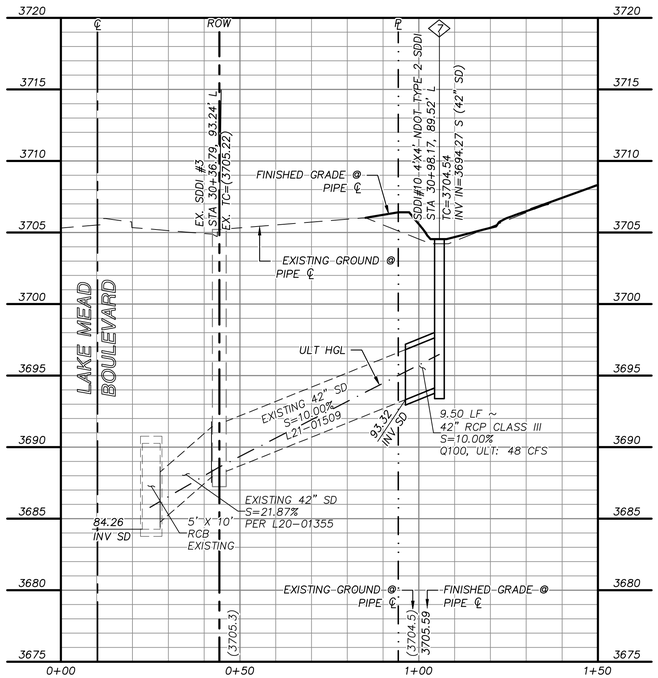
STORM DRAIN LATERAL 1

"CBD" STA. 31+00 SEE SHEET 36



STORM DRAIN LATERAL 2

"CBD" STA. 41+07 SEE SHEET 40



STORM DRAIN LATERAL 3

"CBD" STA. 30+98 SEE SHEET 35

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
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WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
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ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
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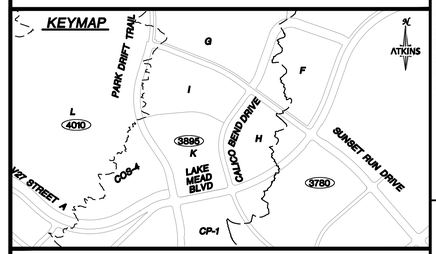
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT. DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 NEVADA811 AND AUTOMAT SYSTEM OF TRANSPORTATION

Call before you Dig 811 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTEGA EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD) AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

STORM DRAIN LATERAL PROFILES
CALICO BEND DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 44/69

JOB NO. 100069474B

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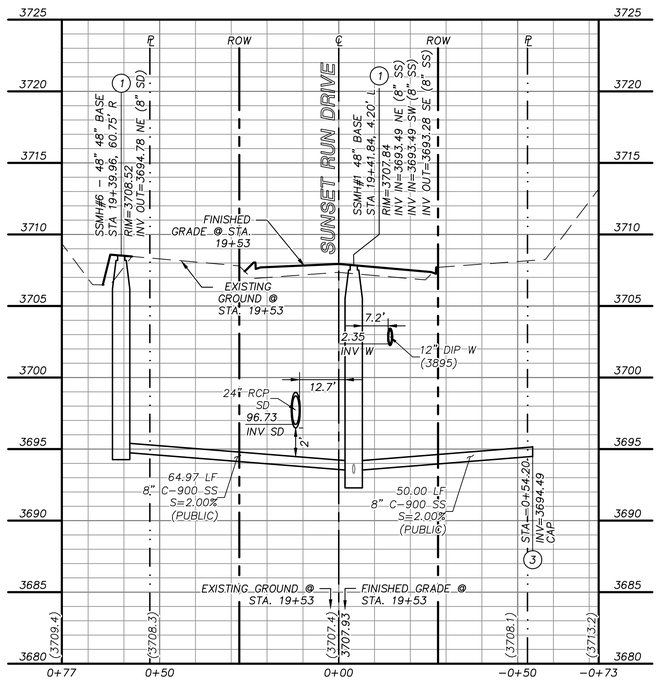

SEWER LATERAL 1

"SRD" STA. 19+53 SEE SHEET 30 (A/45)

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT. DS#0000

BASIS OF BEARING

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BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
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NAVD88 ELEVATION: 989.574 METERS
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FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 REMOTELY AND ACCURATELY LOCATES ALL UNDERGROUND UTILITY LINES ON CONTROL

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY D. ORTIZ EXP. 12-31-23 CIVIL No. 18849

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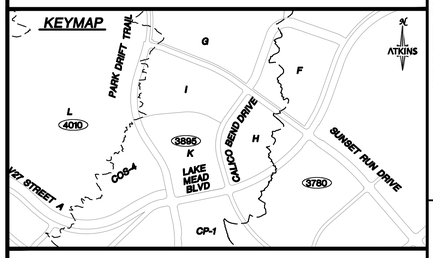
KEYMAP



REV.	DESCRIPTION	BY	DATE	APPROVAL

REVISIONS

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27

PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

SEWER LATERAL PROFILES SUNSET RUN DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

00000000
L00-00000

DATE: SEPTEMBER, 2022

DRAWING NO. 45/69

JOB NO. 100069474B

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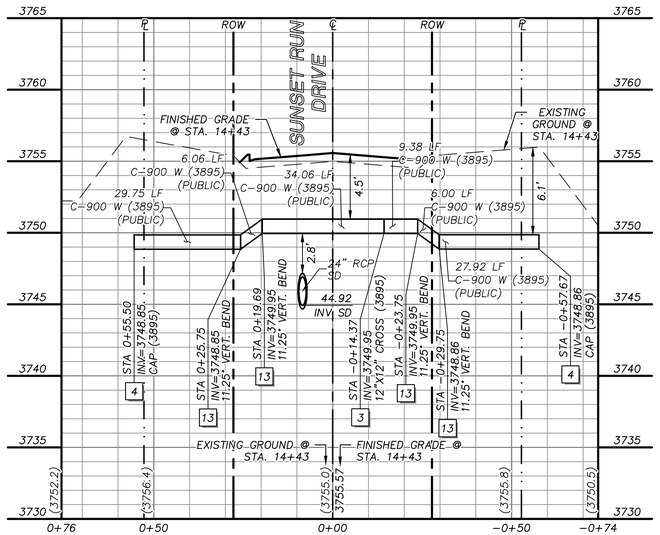
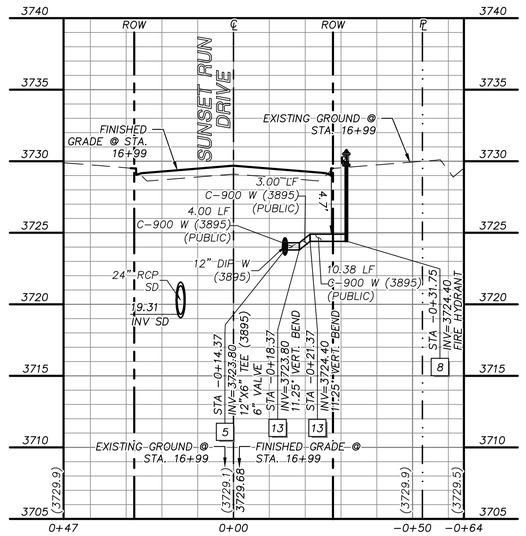
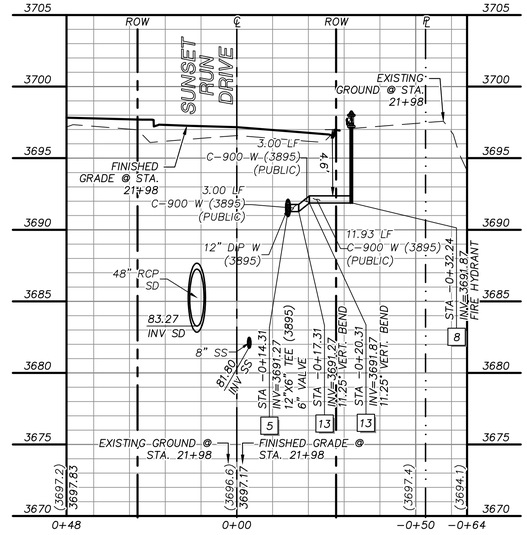


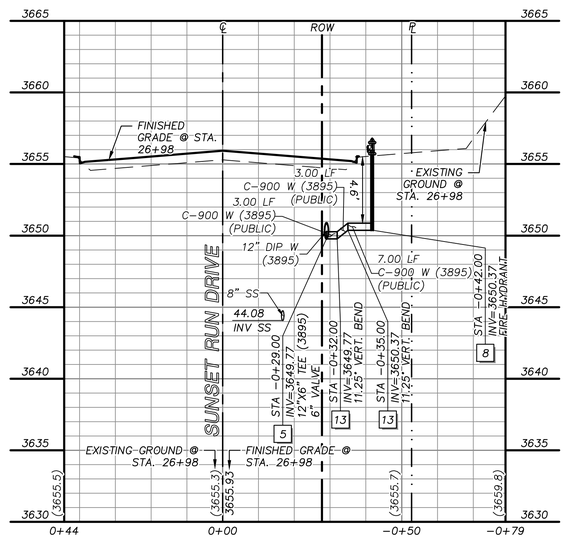
WATER LATERAL 1
"SRD" STA. 14+43 SEE SHEET 28 — A / 46



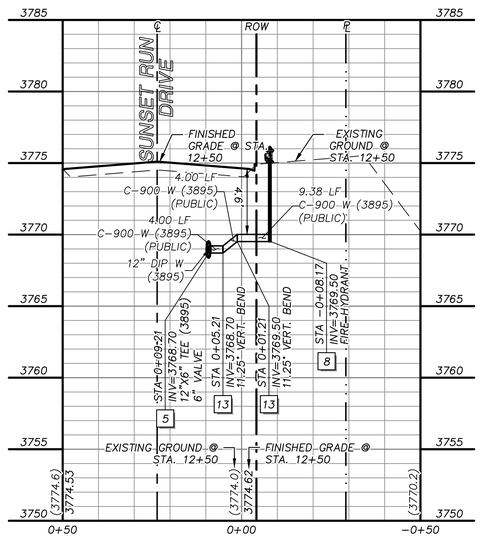
WATER LATERAL 2
"SRD" STA. 16+99 SEE SHEET 28 — B / 46



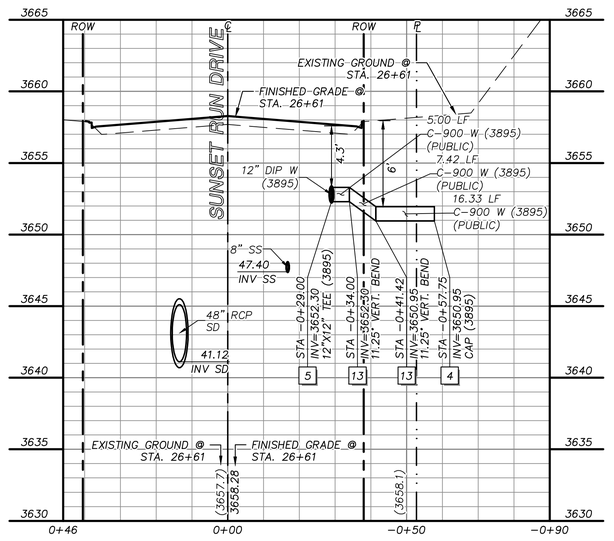
WATER LATERAL 3
"SRD" STA. 21+98 SEE SHEET 30 — C / 46



WATER LATERAL 4
"SRD" STA. 26+98 SEE SHEET 34 — D / 46



WATER LATERAL 5
"SRD" STA. 12+50 SEE SHEET 26 — E / 46



WATER LATERAL 6
"SRD" STA. 26+61 SEE SHEET 34 — F / 46

GRAPHIC SCALE
10 0 5 10 20
HORIZONTAL: 1"=20'
5 0 2.5 5 10
VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

GRADING PLAN CERTIFICATION

NICOLAS BARCOS PE#25673 DATE

CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT. DS#0000

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL STORM DRAIN. SEE ROADWAY PLAN AND PROFILE SHEETS FOR ADDITIONAL STORM DRAIN NOTES AND INFORMATION.
2. INSTALL TYPE "CM2" DROP INLET PER CCAUSD #412.1 & #421
3. INSTALL TYPE II SD MANHOLE PER CCAUSD #405
4. INSTALL TYPE III SD MANHOLE PER CCAUSD #406
5. REMOVE CAP AND CONNECT TO EXISTING STORM DRAIN STUB
6. INSTALL RIP-RAP (D50=8", THICKNESS=24")
7. INSTALL NDOT TYPE II DROP INLET PER NDOT DS-32
8. INSTALL TYPE I SD MANHOLE PER CCAUSD #403
9. STUB & PLUG STORM DRAIN FOR FUTURE CONNECTION PER MANUFACTURER'S PLUG, OR APPROVED EQUAL

SEWER CONSTRUCTION NOTES

1. INSTALL SEWER MANHOLE PER DCSWCS SD-1 AND SD-4
2. INSTALL SEWER MAIN PER DCSWCS SD-17
3. STUB AND CAP SEWER PIPE. PLACE 4"X4" POST, DOUGLAS FIR, OVER END OF PIPE AND INSTALL THRUST BLOCK (1 CUBIC FT. MINIMUM).
4. REMOVE CAP AND CONNECT TO EXISTING SEWER STUB
5. INSTALL CORROSION PROTECTION PER 3.16.8

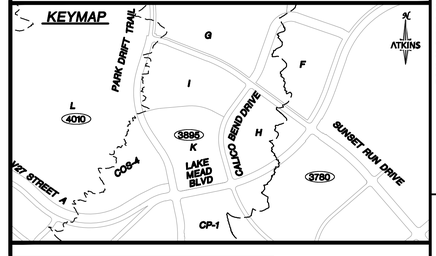
WATERLINE CONSTRUCTION NOTES

1. INSTALL WATER MAIN PER UDACS PLATES #17 AND PLATE #19
2. INSTALL GATE VALVE PER UDACS PLATES #30 AND #39
3. INSTALL CROSS PER UDACS PLATE #31
4. INSTALL CAP AND 2" MANUAL BLOWOFF ASSEMBLY PER UDACS PLATE #36
5. INSTALL TEE W/ VALVE AND LATERAL PER UDACS PLATES #17, #19, #30, #31 AND #39
6. INSTALL 45° VERTICAL BEND PER UDACS PLATE #31
7. REMOVE CAP AND 2" BLOWOFF AND CONNECT TO EXISTING WATERLINE STUB
8. INSTALL FIRE HYDRANT WITH APPURTENANCES (CONCRETE PAD, LATERAL, VALVE, AND TEE) PER UDACS PLATES #30, #31, #39, AND #40
9. INSTALL 22.5° VERTICAL BEND PER UDACS PLATE #31
10. INSTALL 1-1/2" IRRIGATION METER WITH 1-1/2" RPPA PER UDACS PLATES #4 AND #8 WITH CURB STOP PER DETAIL D ON SHEET 68
11. INSTALL 1-1/2" SERVICE SADDLE PER UDACS PLATE #4
12. INSTALL COMBINATION AIR VALVE ASSEMBLY WITH ALL APPURTENANCES PER UDACS PLATE #38
13. INSTALL 11.25° BEND PER UDACS SECTION 2.15

ROADWAY CONSTRUCTION NOTES

1. SAWCUT AND MATCH EXISTING
2. CONSTRUCT "L" TYPE CURB AND GUTTER PER CCAUSD #216
3. FUTURE SIDEWALK BY OTHERS
4. CONSTRUCT PLANTMIX BITUMINOUS SURFACE OVER TYPE II AGGREGATE BASE PER SOILS REPORT. SEE SHEETS 59, 60, AND 61 FOR TYPICAL PAVEMENT SECTIONS
5. INSTALL SCHEDULE 40 PVC IRRIGATION SLEEVES (2-4", 1-6") PER DETAIL C ON SHEET 68
6. CONSTRUCT CURB RAMP, TYPE A, PER NDOT STANDARD PLAN CS-3B ('A=B=6.5').
7. CONSTRUCT "A" TYPE ISLAND CURB PER CCAUSD #219
8. CONSTRUCT MODIFIED SPILLOUT CURB AND GUTTER PER CCAUSD #216 AND DETAIL F ON SHEET 67

KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA — ANTHONY L. ORTIZ — EXP. 12-31-25 — CIVIL — No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

WATER LATERAL PROFILES
SUNSET RUN DRIVE

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 46/69

JOB NO. 1000694748

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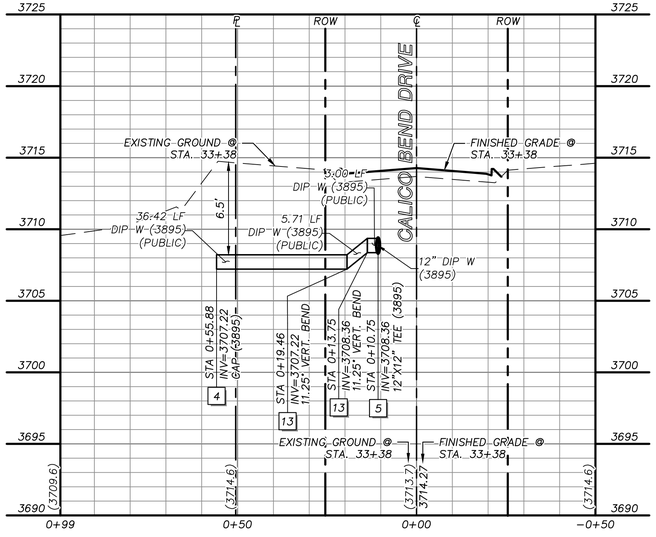
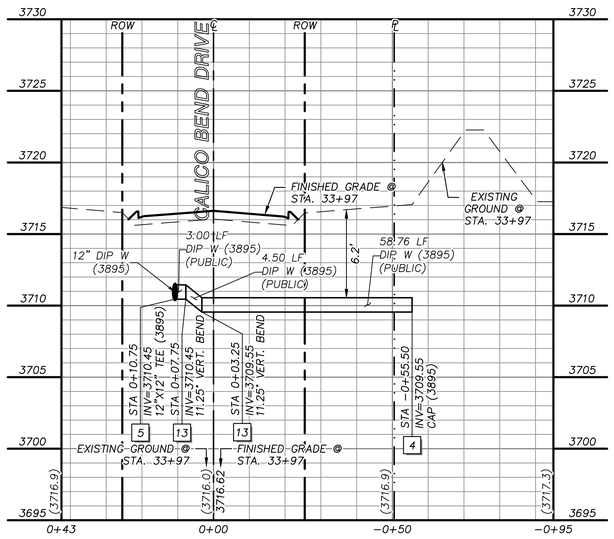


WATER LATERAL 1

"CBD" STA. 33+38 SEE SHEET 36

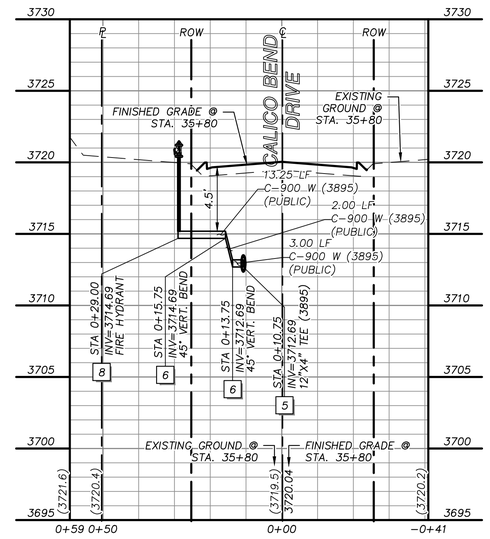
A 47



WATER LATERAL 2

"CBD" STA. 33+97 SEE SHEET 38

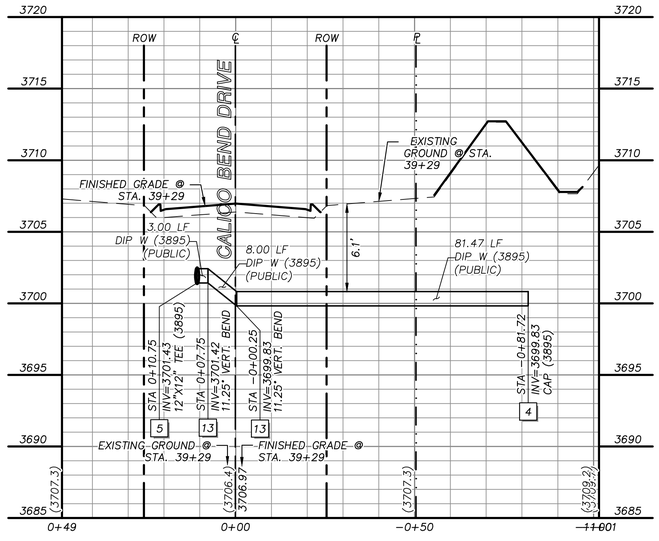
B 47



WATER LATERAL 3

"CBD" STA. 35+80 SEE SHEET 38

C 47



WATER LATERAL 3

"CBD" STA. 39+29 SEE SHEET 40

D 47

GRAPHIC SCALE

10 0 5 10 20

HORIZONTAL: 1"=20'

5 0 2.5 5 10

VERTICAL: 1"=5'

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT
PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVED DATE:_____

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NICOLAS BARCOS PE#25673 DATE

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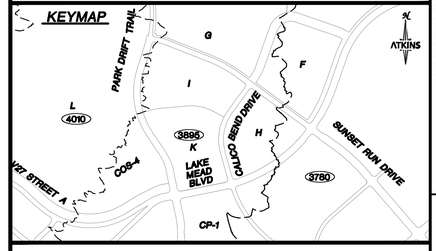
KEYMAP



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PROFESSIONAL ENGINEER STATE OF NEVADA — ANTHONY L. ORTIZ — EXP. 12-31-25 — CIVIL — No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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WATER LATERAL PROFILES
CALICO BEND DRIVE

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	NONE
VERT.:	NONE
00000000	L00−00000
DATE:	SEPTEMBER, 2022
DRAWING NO.	47/69

JOB NO. 1000694748

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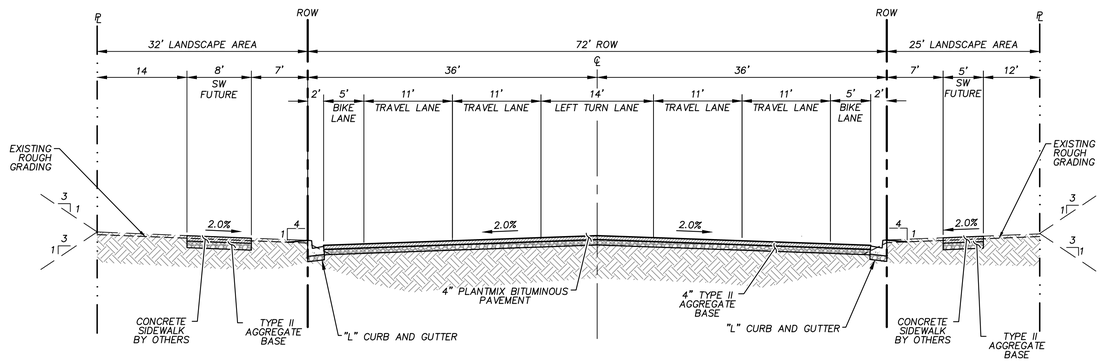
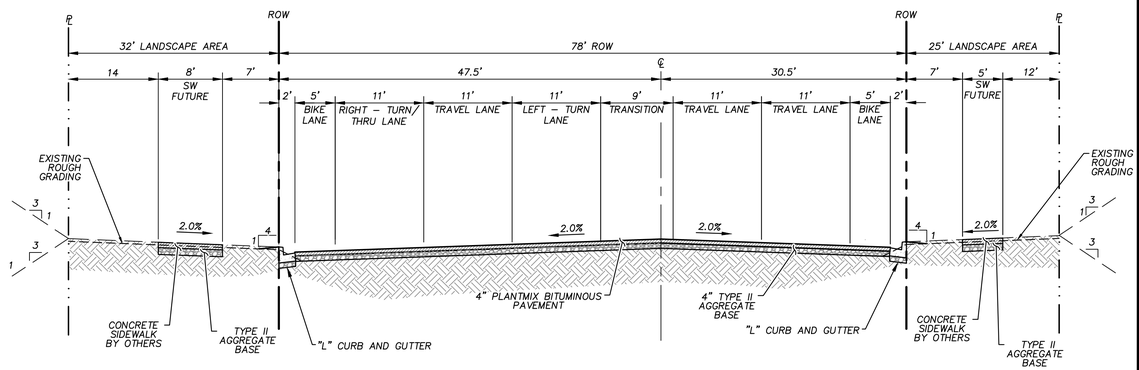


PARK DRIFT TRAIL - 72' ROW

N.T.S.

A
59



PARK DRIFT TRAIL - 78' ROW

N.T.S.

B
59

BASIS OF BEARING

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

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FAST Call before you UnderGround 1-702-432-5300 REMOTELY AND INTERNAL SYSTEM OF TRANSPORTATION

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY J. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

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TYPICAL SECTIONS

DESIGNED BY:	D. SMITH
DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	NONE
VERT.:	NONE
00000000 L00-00000	
DATE:	SEPTEMBER, 2022
DRAWING NO.	59/69
JOB NO.	1000694748

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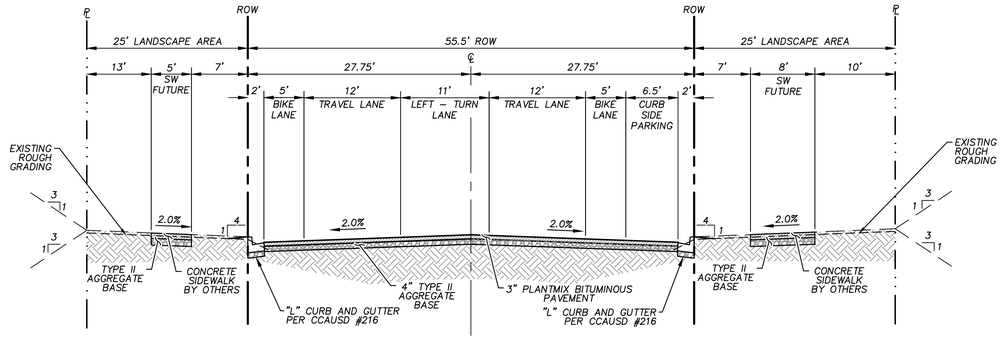
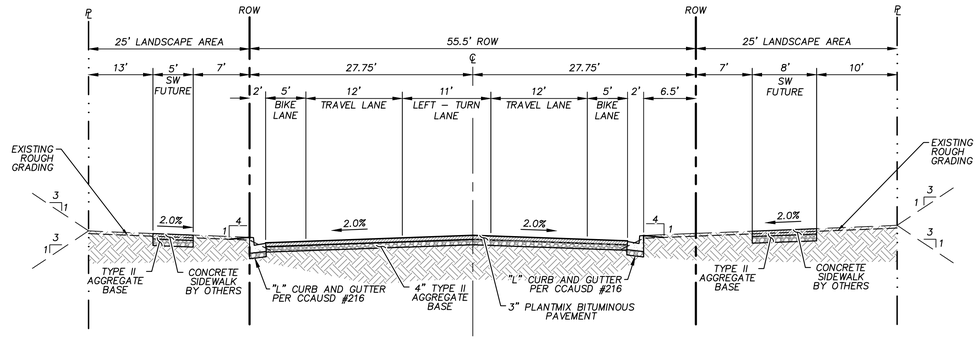


SUNSET RUN DRIVE - RIGHT CURB SIDE PARKING

N.T.S.

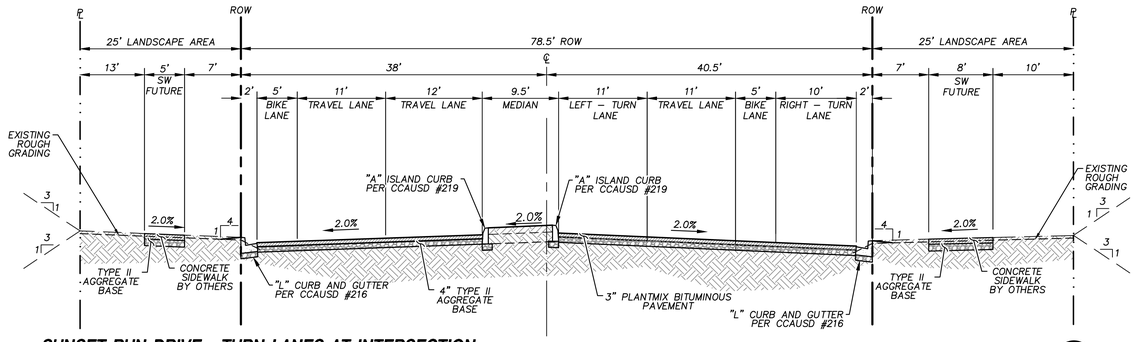
C 60



SUNSET RUN DRIVE - NO PARKING

N.T.S.

D 60



SUNSET RUN DRIVE - TURN LANES AT INTERSECTION

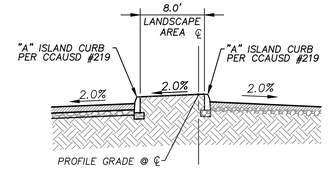
N.T.S.

E 60

SUNSET RUN DRIVE - LEFT CURB SIDE PARKING

N.T.S.

F 60



SUNSET RUN DRIVE - OFFSET MEDIAN DETAIL

N.T.S.

G 60

BASIS OF BEARING

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

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PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY L. ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

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DRAWN BY:	C. HONEY
CHECKED BY:	N. BARCOS
HORIZ.:	NONE
VERT.:	NONE
0000000	L00-00000
DATE	SEPTEMBER, 2022
DRAWING NO.	60/69
JOB NO.	1000694745

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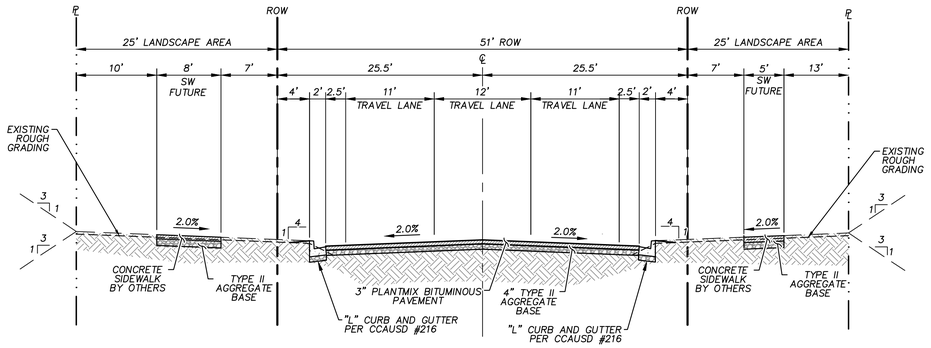
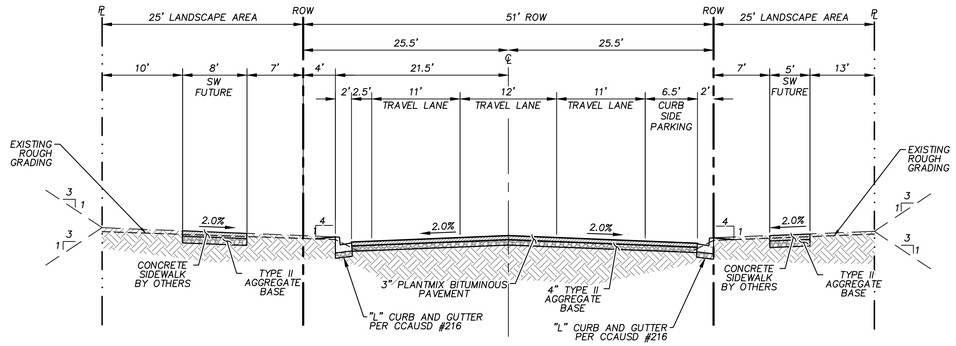


CALICO BEND DRIVE - NO PARKING

N.T.S.

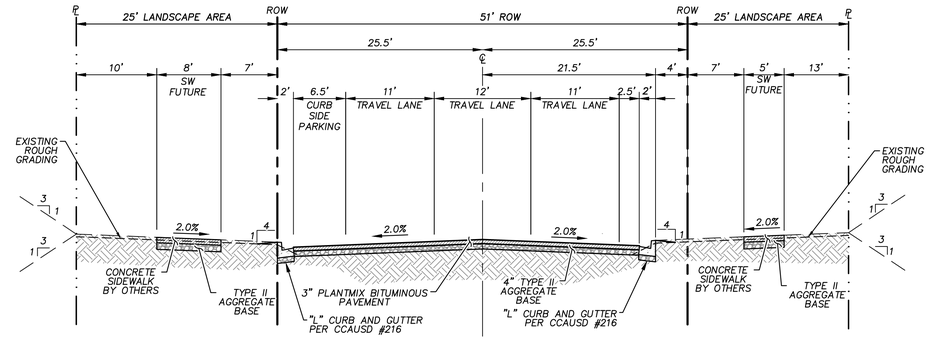
H
61



CALICO BEND DRIVE - LEFT CURB SIDE PARKING

N.T.S.

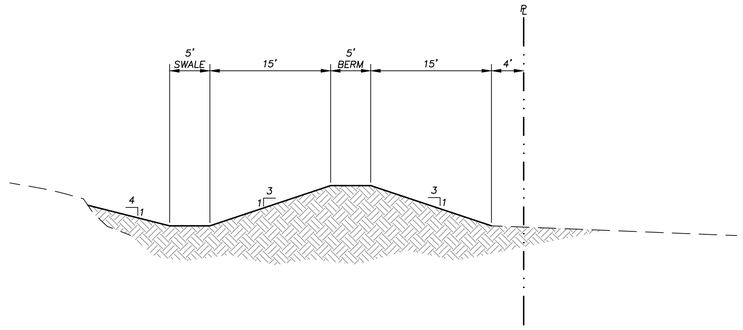
I
61



CALICO BEND DRIVE - RIGHT CURB SIDE PARKING

N.T.S.

J
61



CALICO BEND DRIVE - SWALE REGRADE

N.T.S.

K
61

BASIS OF BEARING

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: D368
(REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS
(3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FAST
Call before you UnderGround
1-702-432-5300
REGIONAL AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
AVOID CUTTING UNDERGROUND UTILITY LINES. ITS COSTLY.
Call 811
OR
1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES. ITS COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

PROFESSIONAL ENGINEER STATE OF NEVADA
ANTHONY L. ORTIZ
EXP. 12-31-23
CIVIL
No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

TYPICAL SECTIONS

00000000	DESIGNED BY: D. SMITH
L00-00000	DRAWN BY: C. HONEY
DATE: SEPTEMBER, 2022	CHECKED BY: N. BARCOS
DRAWING NO. 61/69	HORIZ.: NONE
JOB NO. 1000694748	VERT.: NONE

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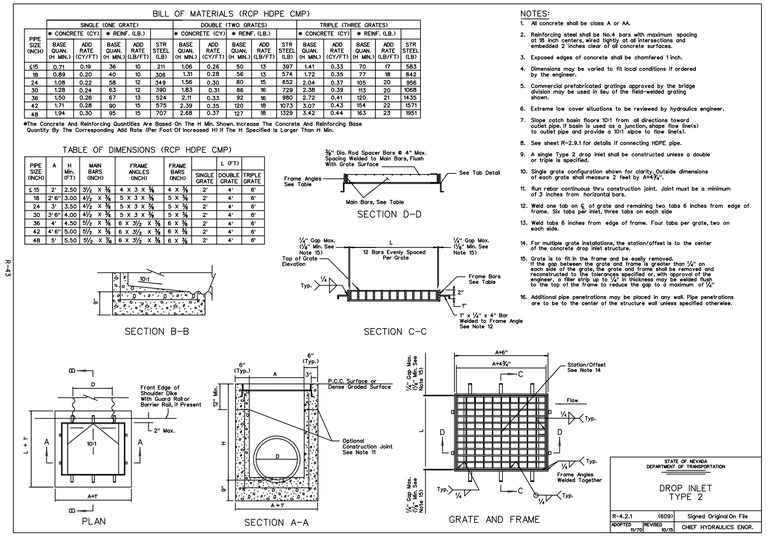
BILL OF MATERIALS (RCP HDPE CMP)

PIPE SIZE (INCH)	SINGLE (ONE GRATE) ✱ CONCRETE (CY) BASE QUAN. (In MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (In MIN.)	ADD RATE (LB/FT)	STR (TID) (LB)	DOUBLE (TWO GRATES) ✱ CONCRETE (CY) BASE QUAN. (In MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (In MIN.)	ADD RATE (LB/FT)	STR (TID) (LB)	TRIPLE (THREE GRATES) ✱ CONCRETE (CY) BASE QUAN. (In MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (In MIN.)	ADD RATE (LB/FT)	STR (TID) (LB)
≤15	0.71	0.19	36	10	211	1.06	0.28	50	13	397	1.41	0.33	70	17	583
18	0.89	0.20	40	10	306	1.31	0.28	56	13	574	1.72	0.35	77	18	842
24	1.08	0.22	58	12	549	1.56	0.30	80	15	652	2.04	0.37	105	20	956
30	1.28	0.24	63	12	390	1.83	0.31	86	16	729	2.38	0.39	113	20	1068
36	1.50	0.26	67	13	524	2.11	0.33	92	16	980	2.72	0.41	120	21	1435
42	1.71	0.28	90	15	575	2.39	0.35	120	18	1073	3.07	0.43	154	22	1571
48	1.94	0.30	95	15	707	2.68	0.37	127	18	1329	3.42	0.44	163	23	1951

✱The Concrete And Reinforcing Quantities Are Based On The H Min. Shown. Increase The Concrete And Reinforcing Base Quantity By The Corresponding Add Rate (Per Foot Of Increased H) If The H Specified Is Larger Than H Min.

TABLE OF DIMENSIONS (RCP HDPE CMP)

PIPE SIZE (INCH)	A	H Min. (FT)	MAIN BARS (INCH)	FRAME ANGLES (INCH)	FRAME BARS (INCH)	L (FT) SINGLE GRATE	L (FT) DOUBLE GRATE	L (FT) TRIPLE GRATE
≤ 15	2'	2.50	3½ x ⅜	4 X 3 X ⅜	4 X ⅜	2'	4'	6'
18	2'-6"	3.00	4½ x ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
24	3'	3.50	4½ X ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
30	3'-6"	4.00	4½ X ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
36	4'	4.50	5½ X ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
42	4'-6"	5.00	5½ X ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
48	5'	5.50	5½ X ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'



NOTES:
1. All concrete shall be class A or AA.
2. Reinforcing steel shall be No.4 bars with maximum spacing at 18 inch centers, wired tightly at all intersections and embedded 2 inches clear of all concrete surfaces.
3. Exposed edges of concrete shall be chamfered 1 inch.
4. Dimensions may be varied to fit local conditions if ordered by the engineer.
5. Commercial prefabricated gratings approved by the bridge engineer may be used in lieu of the field-welded grating shown.
6. Extreme low cover situations to be reviewed by hydraulics engineer.
7. Slope catch basin floors 10:1 from all directions toward outlet pipe. If basin is used as a junction, shape flow line(s) to outlet pipe and provide a 10:1 slope to flow line(s).
8. See sheet R-2.9.1 for details if connecting HDPE pipe.
9. A single Type 2 drop inlet shall be constructed unless a double or triple is specified.
10. Single grate configuration shown for clarity. Outside dimensions of each grate shall measure 2 feet by 4'-6".
11. Run rebar continuous thru construction joint. Joint must be a minimum of 3 inches from horizontal bars.
12. Weld one tab on ℄ of grate and remaining two tabs 6 inches from edge of frame. Six tabs per inlet, three tabs on each side.
13. Weld tabs 6 inches from edge of frame. Four tabs per grate, two on each side.
14. For multiple grate installations, the station/offset is to the center of the concrete drop inlet structure.
15. Grate is to fit in the frame and be easily removed. If the gap between the grate and frame is greater than ½" on each side of the grate, the grate and frame shall be removed and replaced at the Contractor's expense. If approved by the bridge engineer, a filler strip up to ½" in thickness may be welded from to the top of the frame to reduce the gap to a maximum of ½".
16. Additional pipe penetrations may be placed in any wall. Pipe penetrations are to be to the center of the structure wall unless specified otherwise.

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION

DROP INLET TYPE 2

R-4.2.1	6609	Signed Original On File
ADOPTED 11/20	REVISED 10/15	CHIEF HYDRAULICS ENGR.

DROP INLET TYPE 2 PER NDOT

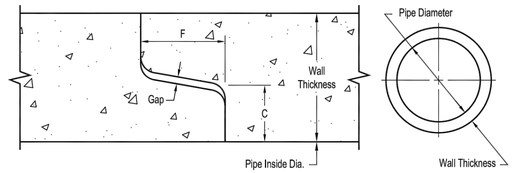
N.T.S.

A 67

Rinker MATERIALS™

Concrete Pipe Division

Reinforced Concrete Pipe Tongue & Groove Joint 12" - 96" Diameter



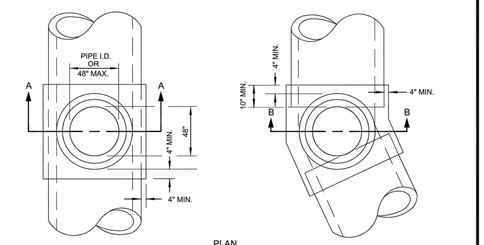
Section Thru Joint — Section Thru Barrel

Table of Dimensions and Weights						
Pipe Inside Diameter (Inches)	Wall Thickness (Inches)	C (Inches)	F (Inches)	Gap (Inches)	Length (Feet)	Weight (Lbs./Ft.)
12	2	7/8	2	1/4	6	92
15	2 1/4	1 1/16	2	1/4	6, 8	127
18	2 1/2	1 3/16	2	1/4	6, 8	168
21	2 3/4	1 1/4	2 1/4	1/4	6, 8	214
24	3	1 5/16	2 1/2	1/4	6, 8	265
30	3 1/2	1 1/2	2 3/4	9/32	6, 8	384
36	4	1 13/16	3	9/32	6, 8	524
42	4 1/2	1 7/8	3 1/4	3/8	6, 8	685
48	5	2	3 3/4	3/8	6, 8	867
54	5 1/2	2 1/4	4	3/8	6, 8	1071
60	6	2 1/2	4 1/4	1/2	6, 8	1296
66	6 1/2	2 3/4	4 1/2	1/2	6, 8	1542
72	7	3	4 1/2	1/2	6, 8	1810
78	7 1/2	3 1/4	4 1/2	1/2	6, 8	2098
84	8	3 1/2	4 1/2	1/2	6, 8	2410
90	8 1/2	3 3/8	5 1/2	1/2	6, 8	2740
96	9	3 5/8	5 1/2	1/2	6, 8	3095

Pipe dimensions may vary depending on equipment availability.

Notes:
1. Pipe manufactured to meet current ASTM specifications.
2. Contact a Concrete Pipe Division representative for details not listed on this sheet.

Rinker 001



NOTE:
1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.

AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

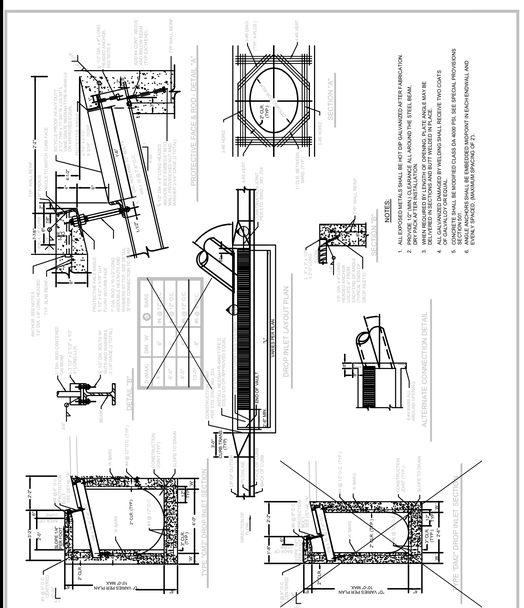
TYPE III MANHOLE

DATE | DWG. NO. 406

TYPE III MANHOLE

N.T.S.

E 67



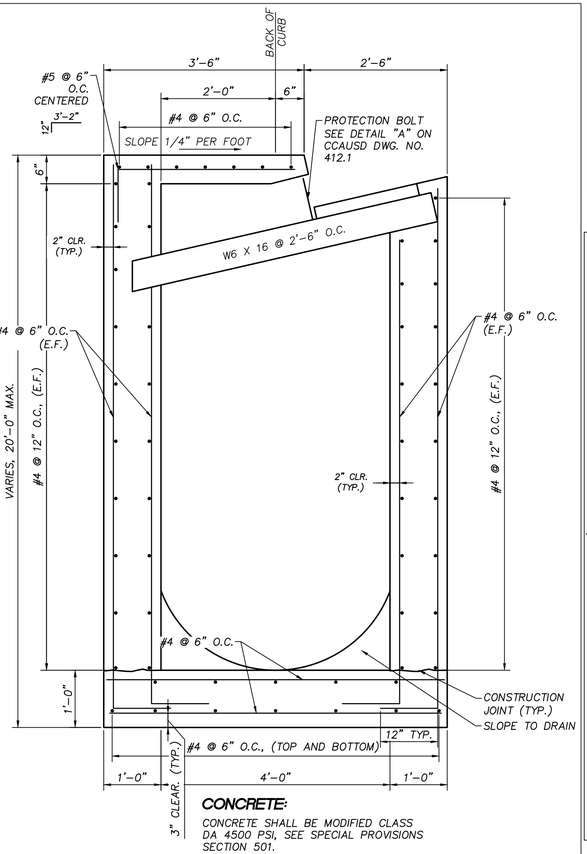
AGENCY APPROVED	B	C	H	L	M	N

SPECIFICATION REFERENCE	
501	CONCRETE
501	CONCRETE STRUCTURES
501	REINFORCING STEEL
501	STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE "C-D" MODIFIED DROP INLET

DATE 9-14-06 | DWG. NO. 412.1



CONCRETE:

CONCRETE SHALL BE MODIFIED CLASS DA 4500 PSI, SEE SPECIAL PROVISIONS SECTION 501.

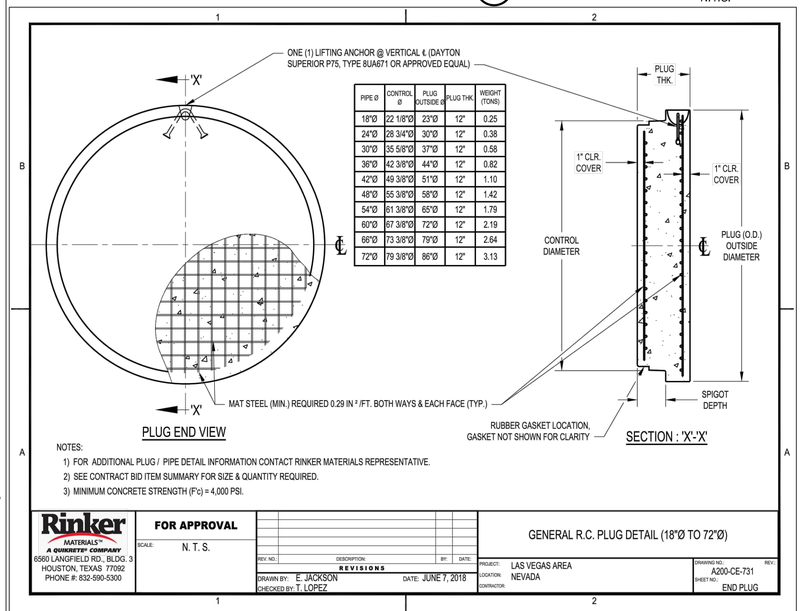
NOTE:

THIS DETAIL IS MEANT TO MODIFY THE TYPE "CM2" DROP INLET SECTION PER CCAUSD DWG. NO. 412.1 FOR STRUCTURES WITH DEPTHS GREATER THAN 10'. ALL OTHER INFORMATION OF THE STANDARD DRAWING STILL APPLY UNLESS OVERWRITTEN BY THIS DETAIL.

SUPPLEMENT TO "CM2" DROP INLET (D>10')

N.T.S.

C 67



PIPE Ø	CONTROL Ø	PLUG OUTSIDE Ø	PLUG THK.	WEIGHT (TONS)
18"Ø	22 1/8"Ø	23"Ø	12"	0.25
24"Ø	28 3/4"Ø	30"Ø	12"	0.38
30"Ø	35 5/8"Ø	37"Ø	12"	0.58
36"Ø	42 3/8"Ø	44"Ø	12"	0.82
42"Ø	49 3/8"Ø	51"Ø	12"	1.10
48"Ø	55 3/8"Ø	58"Ø	12"	1.42
54"Ø	61 3/8"Ø	65"Ø	12"	1.79
60"Ø	67 3/8"Ø	72"Ø	12"	2.19
66"Ø	73 3/8"Ø	79"Ø	12"	2.64
72"Ø	79 3/8"Ø	86"Ø	12"	3.13

NOTES:
1) FOR ADDITIONAL PLUG / PIPE DETAIL INFORMATION CONTACT RINKER MATERIALS REPRESENTATIVE.
2) SEE CONTRACT BID ITEM SUMMARY FOR SIZE & QUANTITY REQUIRED.
3) MINIMUM CONCRETE STRENGTH (F'c) = 4,000 PSI.

Rinker MATERIALS™ A QUIKRETE® COMPANY
6580 LANGFIELD RD., BLDG. 3
HOUSTON, TEXAS 77092
PHONE #: 832-590-5300

FOR APPROVAL

SCALE: N. T. S.

REVISIONS

DRAWN BY: E. JACKSON DATE: JUNE 7, 2018
CHECKED BY: T. LOPEZ

GENERAL R.C. PLUG DETAIL (18"Ø TO 72"Ø)

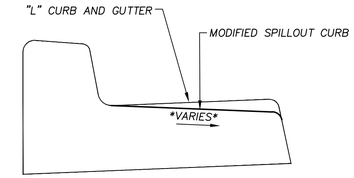
PROJECT: LAS VEGAS AREA
LOCATION: NEVADA
CONTRACTOR:

DRAWING NO: A200-CE-731
SHEET NO.: END PLUG
REV.:

TYPICAL STORM DRAIN CAP

N.T.S.

D 67



"L" CURB TO SPILLOUT CURB TRANSITION

N.T.S.

F 67

PROFESSIONAL ENGINEER-STATE OF NEVADA
A MOHOTTI ALAGIYAWANNA
EXP. 12-31-22
CIVIL
No. 026458

PROFESSIONAL ENGINEER STATE OF NEVADA
ANTHONY L. ORTIZ
EXP. 12-31-23
CIVIL
No. 18849

FAST Call before you UnderGround 1-702-432-5300 (FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION)

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY! Call 811 OR 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, IT'S COSTLY! CALL BEFORE YOU DIG OVERHEAD 1-702-227-2929

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD), AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

STORM DRAIN DETAILS

DESIGNED BY: D. SMITH	00000000
DRAWN BY: C. HONEY	L00-00000
CHECKED BY: N. BARCOS	DATE: SEPTEMBER, 2022
HORIZ.: NONE	DRAWING NO. 67/69
VERT.: NONE	

JOB NO. 1000694748

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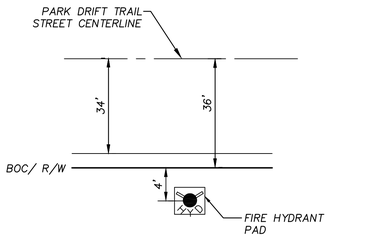
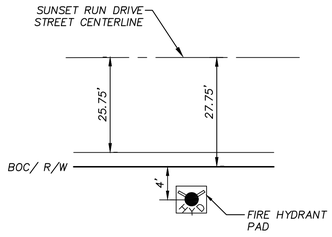
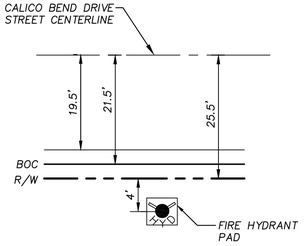


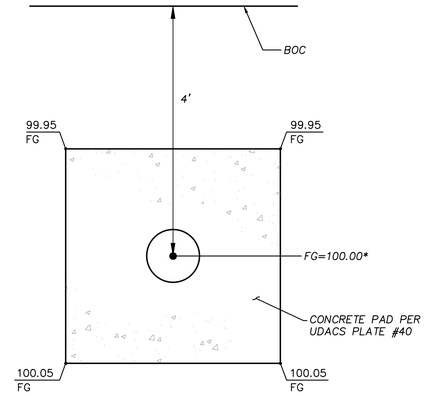
FIRE HYDRANT LOCATION DETAIL - PDT (A1/68)
N.T.S.



FIRE HYDRANT LOCATION DETAIL - SRD (A2/68)
N.T.S.



FIRE HYDRANT LOCATION DETAIL - CBD (A3/68)
N.T.S.



*NOTE: THE GRADES SHOWN IN THIS DETAIL ARE RELATIVE NOT ACTUAL, 100.00 IS THE REFERENCE GRADE FOR THE CENTER OF PAD ELEVATION. SEE P-SHEETS FOR ACTUAL FINISHED GRADE FOR CENTER OF PAD. CALCULATE THE CORNER GRADES PER SHEET 9 FINISHED GRADE.

FIRE HYDRANT PAD GRADING DETAIL (B/68)
N.T.S.

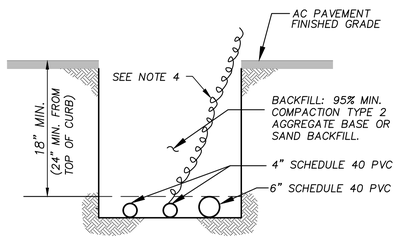
1 SLEEVES AND CONDUITS SHALL BE INSTALLED 18" BELOW FINISHED GRADE AND SHALL EXTEND 5' BEYOND BACK OF CURBS, WALLS AND PAVING.

2 CONTRACTOR SHALL RECORD LOCATIONS OF INSTALLED SLEEVES: A COPY OF THE FILED NOTES SHALL BE GIVEN TO SUMMERLIN'S ENGINEER FOLLOWING CONSTRUCTION.

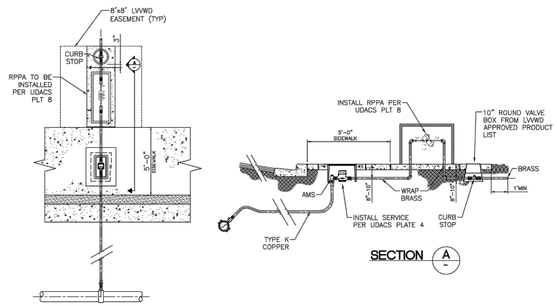
3 HORIZONTAL LOCATION OF SLEEVES SHOWN ON P-SHEETS.

4 THE CONTRACTOR TO PROVIDE A WIRE THROUGH THE SLEEVE TO GRADE LEVEL (FOR FUTURE SLEEVE LOCATION).

5 CONTRACTOR TO IDENTIFY SLEEVE LOCATION ON TOP OF CURB.



IRRIGATION SLEEVES DETAIL (C/68)
N.T.S.



IRRIGATION METER DETAIL (D/68)
N.T.S.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. ###### FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

FAST Call before you UnderGround 1-702-432-5300 (HIGHWAY AND ARTERIAL SYSTEM OF TRANSPORTATION)

Call before you Dig AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY. Call 811 or 1-800-642-2444

AVOID HITTING OVERHEAD POWER LINES, IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

PROFESSIONAL ENGINEER STATE OF NEVADA ANTHONY ORTIZ EXP. 12-31-23 CIVIL No. 18849

REVISIONS

REV.	DESCRIPTION	BY	DATE	APPROVAL

ATKINS
2270 Corporate Circle Suite 200
Henderson, Nevada 89074
Telephone: +1.702.263.7275
Fax: +1.702.263.7200

SUMMERLIN

SUMMERLIN WEST VILLAGE 27
PARK DRIFT TRAIL (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD), SUNSET RUN DRIVE (PARK DRIFT TRAIL TO LAKE MEAD BOULEVARD) AND CALICO BEND DRIVE (SUNSET RUN DRIVE TO LAKE MEAD BOULEVARD)

WATER DETAILS

DESIGNED BY: D. SMITH
DRAWN BY: C. HONEY
CHECKED BY: N. BARCOS
HORIZ.: NONE
VERT.: NONE

00000000
L00-00000
DATE: SEPTEMBER, 2022
DRAWING NO. 68/69
JOB NO. 1000694748

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